

STAR GAZERS  
SG 1506 - 5 MINUTE  
FEBRUARY 9-15, 2015

"BRIGHTEST OF THE BRIGHT"

DEAN: HEY THERE STAR GAZERS. I'M DEAN REGAS, OUTREACH ASTRONOMER FOR THE CINCINNATI OBSERVATORY.

JAMES: AND I'M JAMES ALBURY, DIRECTOR OF THE KIKA SILVA PLA PLANETARIUM IN GAINESVILLE, FLORIDA. WE'RE HERE TO HELP YOU FIND YOUR WAY AROUND THE SKY TONIGHT. WITH SO MANY PLANETS, STARS, AND CONSTELLATIONS, WHERE DO YOU BEGIN?

DEAN: OUR TIP - START WITH THE REALLY BRIGHT STUFF FIRST. WE'VE PICKED THE FIVE BRIGHTEST NIGHTTIME OBJECTS THIS WINTER.

JAMES: VISIBLE EVEN FROM URBAN LOCATIONS, THESE FIVE CELESTIAL WONDERS ARE SURE TO CAPTURE YOUR IMAGINATION AND JUMPSTART YOUR RELATIONSHIP WITH THE UNIVERSE.

DEAN: LET'S SHOW YOU!

(STOP & DROP)

JAMES: OF COURSE, WE HAVE TO BEGIN WITH THE MOON - #1 BRIGHTEST NIGHTTIME OBJECT. HOW CAN YOU NOT BE AWED BY THE SIGHT OF A FULL MOON RISING ABOVE THE EASTERN HORIZON? OR A THIN, DELICATE CRESCENT CRADLING THE DARKENED ORB AFTER SUNSET?

DEAN: THIS WEEK THE MOON IS VISIBLE JUST BEFORE SUNRISE. IT'LL BE IN ITS WANING PHASES AND WILL SOON MOVE TOWARD NEW MOON ON FEBRUARY 18 WHEN IT WILL BE ALMOST DIRECTLY IN FRONT OF THE SUN.

JAMES: BUT NEXT WEEK, ON FEBRUARY 19TH YOU MIGHT, JUST MIGHT SEE THE SLIMMEST OF WAXING CRESCENTS RIGHT AFTER SUNSET, LOW IN THE WEST. AND EACH NIGHT AFTER THAT, THE MOON WILL APPEAR FULLER AND FULLER AND FARTHER FROM THE SUN. HERE IT IS ON FEBRUARY 20TH... THE 21ST... AND THE 22ND...

DEAN: WAIT A SECOND. HOLD UP. GO BACK TWO DAYS.

JAMES: TO THE 20TH?

DEAN: THERE...WHAT'S THAT BRIGHT THING JUST TO THE LEFT OF THE MOON?

JAMES: IS IT A BIRD?

DEAN: IS IT A PLANE?

JAMES: IS IT A UFO?

DEAN: NO, THAT'S THE SECOND BRIGHTEST NIGHTTIME OBJECT.

JAMES LET'S ZOOM IN ON THE DAZZLING PLANET VENUS.

(STOP) SKY CARS

JAMES: VENUS IS THE BRIGHTEST STAR-LIKE OBJECT IN THE NIGHT SKY, AND CAN NOW BE SEEN IN THE EVENING SKIES, LOW IN THE WEST.

**DEAN:** VENUS IS SO INCREDIBLY BRIGHT BECAUSE THE PLANET IS PERPETUALLY COVERED IN CLOUDS - AND THESE CLOUDS REFLECT SUNLIGHT MUCH BETTER THAN ANY OTHER PLANET. VENUS IS OVER 100 MILLION MILES AWAY RIGHT NOW, BUT WILL BE GETTING CLOSER EACH DAY, AND WILL BE BLAZING AWAY IN THE EVENING SKIES FOR MOST OF THE YEAR.

**JAMES:** THE OTHER STAR-LIKE OBJECT NEXT TO THE MOON AND VENUS IS THE RED PLANET MARS. MARS CAN BE AMONG THE TOP 5 BRIGHTEST OBJECTS IN THE SKY, BUT RIGHT NOW IT'S VERY FAR FROM EARTH AND PRETTY DIM.

**DEAN:** BUT DON'T MISS THIS AWESOME CONJUNCTION ON THE 20TH. THE MOON, VENUS, AND MARS!

**(STOP)**

**JAMES:** NOW WE'RE FACING EAST AT 8PM. HIGH UP IN THE SKY YOU'LL FIND THE THIRD BRIGHTEST NIGHTTIME OBJECT - THE GIANT PLANET JUPITER. YOU'VE PROBABLY SEEN THE KING OF THE PLANETS ALL MONTH.

**DEAN:** THERE IS NO MISTAKING JUPITER'S STEADY, CREAM-COLORED GLOW. WITH EVEN A SMALL TELESCOPE, JUPITER REVEALS A HIDDEN SYSTEM OF FOUR MOONS, IO, EUROPA, GANYMEDE, AND CALLISTO. THE CLOUD BANDS AND GREAT RED SPOT CAN ALSO BE SEEN WITH A LARGER SCOPE.

**(STOP)**

**DEAN:** NEXT UP LET'S LOOK TO THE SOUTHEAST FOR SIRIUS, AKA THE DOG STAR. SIRIUS IS SERIOUSLY BRIGHT - MAKING IT THE FOURTH BRIGHTEST NIGHTTIME OBJECT. THE NAME SIRIUS COMES FROM A GREEK WORD MEANING SEARING OR SCORCHING. AND IT LIVES UP TO ITS NAME, SINCE IT'S TWICE AS BRIGHT AS ANY OTHER STAR IN THE SKY.

**JAMES:** SIRIUS APPEARS SO BRIGHT BECAUSE IT IS SO CLOSE - RELATIVELY SPEAKING. AT ONLY 8.5 LIGHT YEARS AWAY, THE DOG STAR IS ONE OF THE CLOSEST STARS TO US. LOOK FOR SIRIUS RISING IN THE SOUTHEAST AFTER DARK. THE STAR MARKS THE NOSE OF THE CONSTELLATION CANIS MAJOR, THE BIG DOG.

**(STOP)**

**JAMES:** NUMBER 5 ON OUR LIST IS A YELLOW STAR NAMED CAPELLA.

**DEAN:** AAAH, CAPELLA...

**JAMES:** CAPELLA CAN BE FOUND ALMOST DIRECTLY OVERHEAD IN THE EVENINGS. IT'S THE PRIMARY STAR IN THE CONSTELLATION AURIGA THE CHARIOTEER. AURIGA LOOKS MORE LIKE A FLATTENED PENTAGON THAN A MAN RIDING A CHARIOT NEAR THE ZENITH.

**DEAN:** WHEN YOU OBSERVE CAPELLA, YOU ARE REALLY LOOKING AT A COMPLEX SYSTEM OF AT LEAST FOUR STARS ORBITING EACH OTHER IN TWO BINARY PAIRS. IMAGINE HAVING FOUR SUNS IN OUR SKY!

**(STOP) CLOSE-UP ENDING?**

**JAMES:** THERE YOU HAVE IT, THE TOP FIVE BRIGHTEST NIGHTTIME OBJECTS.

**DEAN:** GET OUT THERE AND FIND THE MOON, VENUS, JUPITER, SIRIUS, AND CAPELLA TONIGHT. THE MOON WILL BE RIGHT NEXT TO VENUS AND MARS ON THE 20TH.

**JAMES:** AND YOU CAN FIND JUPITER HIGH IN THE EASTERN SKY EVERY NIGHT.

**DEAN:** AND THEN LOOK FOR SPARKLING SIRIUS IN THE SOUTHEAST AND LIE BACK IN THE GRASS (OR SNOW) TO SEE YELLOW-WHITE CAPELLA HIGH OVERHEAD. IT'S ALL THERE WHEN YOU...

**BOTH:** KEEP LOOKING UP!