

STAR GAZERS

SG 1907 - 5M

FEBRUARY 18-24, 2017

BRIGHTEST OF THE BRIGHT

DEAN:

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

JAMES:

AND I'M JAMES ALBURY, DIRECTOR OF THE KIKI SILVA PLA PLANETARIUM IN GAINESVILLE, FLORIDA. WE'RE HERE TO HELP YOU FIND YOUR WAY AROUND THE SKY.

WITH SO MANY PLANETS, STARS, AND CONSTELLATIONS, WHERE DO YOU BEGIN?

DEAN:

OUR TIP - START WITH THE REALLY BRIGHT STUFF. WE'VE PICKED FOR YOU 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:

READY TO HEAD TO STARS?  
LET'S GO!

(STOP & DROP)

JAMES:

IF WE'RE TALKING ABOUT BRIGHT STUFF, 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:

NEXT WEEK THE MOON IS BEST SEEN BEFORE SUNRISE.

IT'LL BE IN ITS WANING PHASES AND WILL SLOWLY MOVE TOWARD NEW MOON.

IF WE AD-VANCE TIME DAY BY DAY WE'LL SEE A THIRD QUARTER MOON ON FEBRUARY 25TH. THAT'S WHEN ONLY THE LEFT-HALF OF THE MOON IS LIT.

JAMES:

THE MOON WILL CONTINUE ON ITS PATH AROUND EARTH AND SHIFT EVERY DAY. HERE IT IS ON THE MORNING OF THE 26TH, AND 27TH.

DEAN:

WHOA! WHAT'S THAT BRIGHT THING NEXT TO THE MOON ON THE 27TH?

JAMES: IS IT A BIRD?

DEAN: IS IT A PLANE?

JAMES: IS IT A UFO?

DEAN:

NO, THAT'S THE THIRD BRIGHTEST NIGHTTIME OBJECT.

BUT LET'S NOT GET AHEAD OF OURSELVES. LET'S FIND THE SECOND BRIGHTEST THING FIRST.

(STOP)

DEAN:

NOW WE'VE SHIFTED OUR VIEW TO THE SOUTHEAST ON THE MORNING OF FEBRUARY 27TH. THE WANING MOON IS STILL NEXT TO OUR MYSTERY OBJECT.

JAMES:

OOH, THE MYSTERY IS KILLING ME!  
BUT I SEE SOMETHING EVEN BRIGHTER LOWER IN THE SOUTHEAST.  
THAT IS THE DAZZLING PLANET VENUS.

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 IT'S STILL WAY BRIGHTER THAN ANY STAR OR PLANET VISIBLE FROM EARTH.

JAMES:

THE MOON WILL GET CLOSER TO VENUS ON FEBRUARY 28TH.  
AND ON MARCH 1ST THE MOON WILL BE NEXT TO THE RINGED PLANET SATURN (WHICH DOESN'T CRACK THE TOP 5 BRIGHTEST OBJECTS, BUT IS STILL WAY-COOL!)

DEAN:

AND THEN JUST BEFORE SUNRISE ON MARCH 2ND, YOU CAN SEE THE TWO BRIGHTEST NIGHTTIME OBJECTS IN CONJUNCTION! THE MOON AND VENUS. SWEET!

(STOP)

JAMES:

NOW WE'RE GOING BACK TO THE NIGHT OF FEBRUARY 27TH TO REVEAL WHAT LARGE, GASEOUS PLANET, WITH A GREAT RED SPOT WILL BE NEXT TO THE MOON. OOPS, DID I GIVE AWAY TOO MANY HINTS?

DEAN:

I THINK YOU MAY HAVE FIGURED OUT, THIS THIRD-BRIGHTEST NIGHTTIME OBJECT, IS THE PLANET JUPITER.  
THERE IS NO MISTAKING JUPITER'S STEADY, CREAM-COLORED GLOW. WHEN YOU POINT A TELESCOPE AT IT, 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:

TO FIND #4 AND #5 ON OUR LIST, WE JUST NEED TO FACE SOUTH ANY NIGHT THIS WEEK AT AROUND 8PM. THAT REALLY BRIGHT AND TWINKLING STAR IS SIRIUS, AKA THE DOG STAR.

JAMES:

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.

DEAN:

IT'S CALLED THE DOG STAR BECAUSE 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 ON WINTER EVENINGS.  
IT'S THE PRIMARY STAR IN THE CONSTELLATION AURIGA THE CHARIOTEER.

DEAN:

WHEN YOU OBSERVE CAPELLA, YOU'RE REALLY LOOKING AT A COM-PLEX SYSTEM OF AT LEAST FOUR  
STARS ORBITING EACH OTHER IN TWO  
BI-NARY PAIRS.

IMAGINE HAVING FOUR SUNS IN OUR SKY!

(STOP) CLOSE-UP ENDING

JAMES:

THERE YOU HAVE IT,  
THE TOP FIVE BRIGHTEST NIGHTTIME OBJECTS. THE MOON, VENUS, JUPITER, SIRIUS, AND CAPELLA.

DEAN:

WAKE UP EARLY AND FIND THE MOON, VENUS, JUPITER, (AND SATURN, WHILE YOU'RE AT IT)

JAMES:

AND THE STARS SIRIUS, AND CAPELLA AFTER SUNSET.

DEAN:

AND THEN CHALLENGE YOURSELF TO IDENTIFY  
5, 10, OR 100 MORE CELESTIAL OBJECTS.  
THE WHOLE UNIVERSE IS THERE WHEN YOU...

BOTH: KEEP LOOKING UP!

\*\*\*\*\*