

## STAR GAZERS

SG 1619 – 5 MINUTE (MAY 9-15, 2016)

“THE GREAT MIDNIGHT TRIANGLE FEST!”

DEAN: WELCOME TO STAR GAZERS. I'M DEAN REGAS, ASTRONOMER FROM THE CINCINNATI OBSERVATORY.

JAMES: AND I'M JAMES ALBURY, DIRECTOR OF THE KIKA SILVA PLA PLANETARIUM IN GAINESVILLE FLORIDA. SUMMER IS ALMOST HERE AND OUR FAVORITE WINTER CONSTELLATIONS ARE ALMOST GONE, BUT DON'T DESPAIR! AFTER MIDNIGHT ANY NIGHT THIS WEEK, WE HAVE TWO NIFTY TRIANGLES THAT ARE GOING TO DAZZLE THE NIGHT SKY.

DEAN: THAT'S RIGHT, JAMES! ONE OF THE TRIANGLES YOU SEE EVERY SUMMER, BUT THE OTHER ONE IS FORMED BY A UNIQUE ARRANGEMENT OF THE PLANETS.

JAMES: PLUS, IF YOU GO OUTSIDE AT MIDNIGHT THE MORNINGS OF MAY 15<sup>TH</sup> AND 16<sup>TH</sup>, YOU'LL SEE YET ANOTHER TRIANGLE FORMED BY THE MOON, A PLANET AND A STAR! WONDERING WHAT WERE TALKING ABOUT? LET'S SHOW YOU!

(STOP)

DEAN: OK, WE HAVE OUR SKIES SET FOR MIDNIGHT, THE MORNING OF MAY 15<sup>TH</sup>. IF YOU LOOK TO THE WEST, YOU'LL SEE THE GIANT PLANET JUPITER AMONG THE STARS OF LEO THE LION. JUPITER WILL HAVE A CLOSE CONJUNCTION WITH THE MOON ON MAY 15<sup>TH</sup> AND 16<sup>TH</sup>. SO, IF YOU'RE INTO GEOMETRIC SHAPES LIKE WE ARE, YOU CAN FORM A TRIANGLE BETWEEN JUPITER, THE WAXING CRESCENT MOON AND THE STAR REGULUS ON MAY 15<sup>TH</sup> AND THEN USE LEO'S TAIL STAR DENEbola TO FORM A TRIANGLE WITH JUPITER AND THE MOON ON MAY 16<sup>TH</sup>.

JAMES: SINCE THE MOON MOVES PRETTY QUICKLY, TRIANGLES FORMED USING THE MOON ONLY LAST A FEW HOURS. SO, IF YOU WANT TO SEE MORE STABLE TRIANGLES ALL WEEK LONG, CHECK OUT THE SKY TOWARD THE SOUTHEAST, AND YOU CAN DO THAT ANY NIGHT THIS WEEK OR NEXT.

DEAN: THEREFORE, AT MIDNIGHT ANY NIGHT THIS WEEK, YOU'LL SPOT OUR NEXT TRIANGLE. THE NORTHERN-MOST POINT IN THIS TRIANGLE IS THE RED PLANET MARS AND IT'S RIGHT NEXT TO THE STAR DSCHUBBA, THE CENTER STAR OF THE THREE STARS MARKING THE FACE OF SCORPIUS THE SCORPION. MARS IS FAIRLY CLOSE TO US RIGHT NOW AND WAS NAMED AFTER THE ROMAN GOD OF WAR, BECAUSE THE RED COLOR OF THIS PLANET REMINDED MANY ANCIENT PEOPLE OF BLOOD AND VIOLENCE.

JAMES: THE SECOND PART OF OUR TRIANGLE IS FORMED BY THE RINGED PLANET, SATURN. SATURN IS IN AN EXCELLENT SPOT FOR VIEWING RIGHT NOW AND ITS RINGS ARE TIPPED TOWARD US IN SUCH A WAY THAT IF YOU HAVE A SMALL TELESCOPE, YOU'LL GET A PICTURE-PERFECT VIEW. SATURN REACHES OPPOSITION IN JUST A FEW WEEKS, SO IT'LL GET BIGGER AND BRIGHTER AS THE DAYS PASS, SO DEFINITELY GET OUTSIDE AND CHECK IT OUT.

DEAN: THE FINAL PART OF OUR TRIANGLE IS FORMED BY THE STAR, ANTARES. ANTARES MEANS "RIVAL OF MARS" AND IF YOU LOOK AT IT CLOSELY, IT HAS THE SAME REDDISH TINT AS MARS. HOWEVER, THIS RED CELESTIAL DAZZLER ISN'T RED FOR THE SAME REASON THAT MARS IS RED. ANTARES IS A RED SUPERGIANT STAR THAT'S NEARING THE END OF ITS LIFE. THIS STAR IS JUST OVER 550 LIGHT YEARS AWAY FROM US AND IT'S SO LARGE THAT YOU COULD EASILY FIT THE ORBITS OF MERCURY, VENUS, EARTH AND MARS INSIDE IT.

JAMES: ALRIGHTY, LET'S TAKE A LOOK AT OUR SECOND TRIANGLE OF OUR MIDNIGHT TRIANGLE-FEST.

(STOP)

JAMES: OK, WE STILL HAVE OUR SKIES SET TO MIDNIGHT AND IF YOU LOOK EAST YOU WILL SEE THE 3 BRILLIANT STARS OF THE SUMMER TRIANGLE. VEGA IS THE BRIGHTEST STAR OF LYRA THE HARP. DENEK IS THE BRIGHTEST STAR OF CYGNUS THE SWAN AND ALTAIR IS THE BRIGHTEST STAR OF AQUILA, THE EAGLE.

DEAN: THE BRIGHTEST STAR IN THE TRIANGLE IS VEGA AND IT'S ONLY 25 LIGHT YEARS FROM EARTH, AND IS ONE OF THE MOST LUMINOUS STARS IN OUR NEIGHBORHOOD.

JAMES: THE SECOND BRIGHTEST STAR IN THE SUMMER TRIANGLE IS ALTAIR AND IT IS ONLY 17 LIGHT YEARS FROM EARTH. OF ALL THE STARS NEAR US, ALTAIR SPINS THE FASTEST. AT ITS EQUATOR, ALTAIR CAN MAKE ONE COMPLETE ROTATION IN ONLY 9 HOURS! COMPARE THAT TO OUR SUN, WHICH TAKES 26 DAYS TO COMPLETE ONE ROTATION.

DEAN: THE LAST STAR OF THE SUMMER TRIANGLE IS THE BLUE-WHITE SUPERGIANT DENEK. DENEK JUST HAPPENS TO BE THE NORTH STAR ON MARS AND IS ALMOST 60,000 TIMES AS BRIGHT AS OUR SUN, HOWEVER, BECAUSE IT'S OVER 3,000 LIGHT YEARS AWAY FROM US, IT APPEARS MUCH FAINTER THAN VEGA AND ALTAIR.

JAMES: SO THERE YOU HAVE IT, TWO BRIGHT TRIANGLES TO LIGHT UP YOUR NIGHT SKY. MARS, SATURN AND ANTARES.

DEAN: AND THE EVER POPULAR AND LOVELY SUMMER TRIANGLE, VEGA, ALTAIR AND DENEK.

JAMES: AND IF YOU'RE OUTSIDE LATER THIS WEEK, JUPITER AND THE MOON  
MAKE A TRIANGLE WITH REGULUS ON MAY 15<sup>TH</sup> AND DENEbola ON MAY 16<sup>TH</sup>.

BOTH: KEEP LOOKING UP!