

STAR GAZERS
SG 1511 - 5 MINUTE
MARCH 16 - 22, 2015

"LEO THE LION CHASES ORION"

JAMES: HEY THERE STAR GAZERS. I'M JAMES ALBURY, DIRECTOR OF THE KIKA SILVA PLA PLANETARIUM IN GAINESVILLE, FLORIDA. IT'S THAT TIME OF YEAR AGAIN WHEN THE NIGHT SKIES ALMOST SHOUT, "SPRING IS HERE"

DEAN: AND, I'M DEAN REGAS, ASTRONOMER FOR THE CINCINNATI OBSERVATORY. THE SKIES SAY "SPRING IS HERE" BECAUSE SPRINGTIME'S LEO THE LION IS CHASING WINTER'S ORION AND REPLACING HIM AS THE MAJOR CONSTELLATION FOR EARLY EVENING VIEWERS.

JAMES: LET'S SHOW YOU.

(STOP & DROP)

JAMES: NOW MOST OF YOU KNOW THAT ORION THE HUNTER IS WINTER'S MOST FAMOUS STAR PATTERN. IF YOU GO OUTSIDE IN EARLY EVENING IN DECEMBER YOU'LL SEE ORION CLIMBING UP THE EASTERN SKIES AS A CELESTIAL ANNOUNCEMENT OF THE IMMINENT ARRIVAL OF WINTER.

DEAN: AND IN THE DEPTHS OF WINTER, IN JANUARY AND FEBRUARY, ORION REACHES HIS HIGHEST POINT IN THE HEAVENS IN EARLY EVENING, ALMOST BRAGGING THAT HE IS MASTER OF THE SEASON.

JAMES: BUT THEN AS MARCH BEGINS, THINGS START TO CHANGE. BECAUSE ALL THROUGHOUT MARCH ORION SLOWLY RELINQUISHES HIS HIGH FLYING POSITION IN EARLY EVENING. BY THE BEGINNING OF APRIL, ORION IS TIPPED OVER ON HIS SIDE IN THE SOUTHWEST, ALMOST HANGING ON TO THE SKY FOR DEAR LIFE, AS IF HE KNOWS THAT IN JUST A FEW WEEKS, HE WILL BE GONE FROM EVENING SKIES UNTIL NEXT WINTER.

DEAN: AND IT'S THIS POSITION OF ORION IN THE SOUTHWESTERN HEAVENS IN EARLY EVENING THAT ALWAYS TELLS US THAT WINTER IS COMING TO AN END.

(STOP) SKY BOARD

JAMES: AND ALTHOUGH I AM ALWAYS SAD TO SEE ORION'S BRIGHT STARS GO, NEVERTHELESS I'M HAPPY TO SEE A MUCH BIGGER, ALTHOUGH LESS BRIGHT, CONSTELLATION TAKE HIS PLACE ALMOST OVERHEAD IN EARLY EVENING, LEO THE LION, ROARING THAT HE IS MASTER NOW AND THAT HE WILL DOMINATE SPRING SKIES.

(STOP)

DEAN: IN FACT IF YOU GO OUT ANY NIGHT IN LATE MARCH OR APRIL IN EARLY EVENING YOU'LL SEE LEO CASUALLY RECLINING ALMOST OVERHEAD JUST AS THE ANCIENT EGYPTIANS DEPICTED HIM IN A REGAL SPHINX LIKE POSITION, VERY SELF ASSURED THAT WINTER AND ORION WILL SOON BE HISTORY.

JAMES: HIS HEAD AND FOREQUARTERS ARE INDICATED BY A BACKWARD QUESTION MARK WITH THE BRIGHT BLUE WHITE STAR REGULUS MARKING HIS HEART. HIS REAR IS MARKED BY A TRIANGLE OF STARS WITH LEO'S SECOND BRIGHTEST STAR DENEbola MARKING HIS TAIL.

(STOP) SKY BOARDS BOTH

DEAN: NOW IN ANCIENT TIMES LIONS WERE OFTEN ASSOCIATED WITH ROYALTY. AND IN FACT LEO'S BRIGHTEST STAR REGULUS MEANS "THE LITTLE KING". BUT LITTLE IT IS NOT. SOME LATEST MEASUREMENTS INDICATE THAT IT IS MORE THAN ONE AND A HALF TIMES THE DIAMETER OF OUR ALMOST ONE MILLION MILE WIDE SUN. BUT BECAUSE IT IS A MUCH HOTTER STAR IT IS ACTUALLY 140 TIMES BRIGHTER. AND BECAUSE IT IS A WHOPPING 80 LIGHT YEARS AWAY THIS MEANS THAT WHEN WE LOOK UP AT REGULUS THIS SPRING WE SEE THE LIGHT THAT LEFT IT 80 YEARS AGO.

JAMES: FLY IN - CURIOSLY, HOWEVER, EVEN THOUGH DENEBOA IS HALF AS FAR, ONLY 40 LIGHT YEARS AWAY, AND EVEN THOUGH IT IS MUCH BIGGER THAN REGULUS, IT NEVERTHELESS APPEARS DIMMER THAN REGULUS. WHY? BECAUSE IT IS MUCH COOLER, ONLY 20 TIMES BRIGHTER THAN OUR SUN. EVEN SO, IF WE MOVED EITHER DENEBOA OR REGULUS AS CLOSE TO EARTH AS OUR SUN IS, WE'D ALL BE CRISPY CRITTERS.

(STOP & DROP) HORIZON

JAMES: AND THIS YEAR, LEO HAS A BRIGHT VISITOR WHO COMES AROUND EVERY TWELVE YEARS, THE KING OF THE PLANETS JUPITER. JUPITER IS ABOVE REGULUS. AND IF YOU REALLY WANT TO GET PICKY ABOUT IT.....

DEAN: OH, LET'S GET PICKY.

(STOP & FLY)

JAMES: O.K. JUPITER IS ACTUALLY IN THE CONSTELLATION CANCER THE CRAB. IT WAS IN LEO EARLIER THIS YEAR BUT JUPITER HAS BEEN BACKING UP ALONG THE ECLIPTIC

DEAN: RETROGRADE MOTION

JAMES: AND LEFT LEO AT THE END OF JANUARY AND RE-ENTERED CANCER. IT WILL STAY IN CANCER THROUGH EARLY JUNE BUT THEN SOMETHING REALLY COOL IS GONNA HAPPEN.

DEAN: YEAH. WHAT'S THAT BRIGHT THING COMING INTO THE PICTURE?

JAMES: THAT'S VENUS AND AT THE END OF JUNE VENUS AND JUPITER ARE GOING TO PASS SUPER CLOSE.

DEAN: DON'T TELL ME. WE'RE GOING TO BE TREATED TO ANOTHER ALBURY CONJUNCTION. I KNOW HOW MUCH YOU OBSESS ABOUT THEM.

JAMES: I DO NOT OBSESS, CONJUNCTIONS BETWEEN VENUS-JUPITER ARE REALLY SPECIAL CELESTIAL EVENTS AND I CAN'T WAIT.

(STOP & DROP)

DEAN: SO WELCOME IN SPRING THE COSMIC WAY. SIMPLY GO OUTSIDE IN EARLY EVENING ANY NIGHT IN LATE MARCH AND APRIL LOOK TOWARD THE SOUTHWEST AND

JAMES: YOU'LL SEE ORION THE MASTER OF WINTER ON HIS WAY OUT AND ALMOST OVERHEAD, LEO THE LION, THE KING OF SPRING.

BOTH: KEEP LOOKING UP!