

## STAR GAZERS

SG 1541 – 5 MINUTE (OCTOBER 12-18, 2015)

“SOLAR SYSTEM SAMBA!”

JAMES: WELCOME TO STAR GAZERS. I'M JAMES ALBURY, DIRECTOR OF THE KIKA SILVA PLA PLANETARIUM IN GAINESVILLE FLORIDA.

DEAN: I'M DEAN REGAS, ASTRONOMER FROM THE CINCINNATI OBSERVATORY.

JAMES: IF YOU'VE BEEN WAKING UP EARLY OVER THE PAST WEEK, YOU'VE PROBABLY NOTICED THERE'S QUITE A BIT OF ACTIVITY IN THE EASTERN SKY JUST BEFORE SUNRISE.

DEAN: THAT'S RIGHT, JAMES. WE'RE IN THE MIDDLE OF A MULTI-PLANET CONJUNCTION, OR AS WE LIKE TO CALL IT ON STAR GAZERS, A PLANET CLUMP.

JAMES: AS THE MONTH OF OCTOBER CONTINUES INTO NOVEMBER, THIS PLANET CLUMP TAKES ON SOME STRANGE PATTERNS AS THE PLANETS MOVE PAST ONE ANOTHER.

DEAN: WHAT ARE WE TALKING ABOUT? LET'S SHOW YOU!

(STOP & DROP)

DEAN: OK, WE HAVE OUR SKIES SET FOR JUST BEFORE SUNRISE AT THE BEGINNING OF THIS WEEK. THE DATE IS MONDAY, OCTOBER 12, AND AS THE WEEK PASSES, WE'D LIKE YOU TO WATCH THE PLANETS DO WHAT THEY DO BEST.

JAMES: YOU MEAN WANDER?

DEAN: EXACTLY! IN THE EARLY PART OF THIS WEEK, YOU'LL SEE FOUR RELATIVELY BRIGHT OBJECTS. THE ONE HIGHEST ABOVE THE HORIZON IS REGULUS, THE STAR MARKING THE HEART OF LEO THE LION.

JAMES: THE NEXT ONE DOWN IS VENUS, NAMED AFTER THE ROMAN GODDESS OF BEAUTY AND LOVE. IF YOU LOOK AT VENUS THROUGH A TELESCOPE, IT WILL APPEAR NEAR THE END OF ITS WAXING CRESCENT PHASE; SHOWING US JUST A LITTLE MORE OF ITS NIGHTTIME SIDE THAN ITS DAYTIME SIDE.

DEAN: THE NEXT OBJECT YOU'LL SEE IS THE RED PLANET MARS, NAMED AFTER THE ROMAN GOD OF WAR. MARS IS OVER 200 MILLION MILES AWAY FROM EARTH, SO IT WILL APPEAR QUITE DIM COMPARED TO THE NEXT PLANET IN OUR CONJUNCTION.

JAMES: THAT'S RIGHT, DEAN. THE 4<sup>TH</sup> BRIGHT OBJECT IN THIS PART OF THE SKY HAPPENS TO BE THE GIANT PLANET JUPITER. THIS IS AN EXCITING TIME FOR PLANET WATCHING, BECAUSE FROM OUR POSITION IN THE SOLAR SYSTEM, BOTH MARS AND VENUS WILL CROSS OUR LINE OF SIGHT WITH JUPITER.

DEAN: PUT ANOTHER WAY, WE WILL SEE MARS AND VENUS DO A SOLAR SYSTEM SAMBA WITH JUPITER BETWEEN NOW AND THE BEGINNING OF NOVEMBER.

(STOP)

DEAN: SO LET'S TAKE A LOOK. HERE'S WHAT THE SKY WILL LOOK LIKE IN THE PRE-DAWN HOURS ON OCTOBER 13<sup>TH</sup>, THEN 14<sup>TH</sup>... THE 15<sup>TH</sup>... AND THE 16<sup>TH</sup>.

JAMES: WHOA! CHECK OUT HOW CLOSE MARS AND JUPITER ARE GETTING!

DEAN: YES INDEED. NEAR THE END OF THIS WEEK, ON OCTOBER 17<sup>TH</sup>, MARS AND JUPITER WILL APPEAR AT THEIR CLOSEST, LESS THAN A FULL MOON WIDTH APART.

JAMES: BUT THAT'S NOT THE END! AS WE MOVE INTO NEXT WEEK, MARS HANDS JUPITER OFF TO ANOTHER DANCE PARTNER, THE PLANET VENUS. HERE'S HOW THE PLANETS TRANSITION. HERE'S THE SKY ON OCTOBER 18<sup>TH</sup>... 19<sup>TH</sup>... 20<sup>TH</sup>... 21<sup>ST</sup>... 22<sup>ND</sup>... AND 23<sup>RD</sup>.

DEAN: AT THIS POINT, JUPITER APPEARS HALF WAY BETWEEN MARS AND VENUS. IT'S AS IF YOU WERE TAKING A PICTURE OF VENUS AND JUPITER AND MARS WERE PHOTO BOMBING THE PICTURE BY STANDING IN THE BACKGROUND.

(STOP)

JAMES: OK, LET'S CONTINUE ON. HERE'S THE PRE-DAWN SKY ON OCTOBER 23<sup>RD</sup>... 24<sup>TH</sup>... 25<sup>TH</sup>... AND ON THE 26<sup>TH</sup> OF OCTOBER, JUPITER PASSES VENUS BY LESS THAN A FULL-MOON WIDTH. VENUS AND JUPITER ALSO FORM A VERY NICE TRIANGLE WITH MARS ON OCTOBER 26<sup>TH</sup>.

DEAN: LET'S ADVANCE TIME EVEN FURTHER. HERE'S THE SKY ON OCTOBER 27<sup>TH</sup>... 28<sup>TH</sup>... AND THEN ON THE 29<sup>TH</sup>... WE'RE TREATED TO ANOTHER LINE UP, BUT THIS TIME VENUS APPEARS HALF WAY BETWEEN MARS AND JUPITER.

JAMES: THE HIGH POINT OF THE ENCOUNTER HAPPENS ON THE MORNING OF NOVEMBER 3<sup>RD</sup>. MARS, THE GOD OF WAR AND VENUS, THE GODDESS OF LOVE ONCE AGAIN HAVE A CLOSE ENCOUNTER. THE LAST TIME THESE TWO PLANETS WERE THIS CLOSE WAS BACK IN FEBRUARY OF THIS YEAR.

(STOP)

JAMES: AND IF THAT WASN'T ENOUGH, WE HAVE ONE LAST SUPER CLOSE VENUS PLANET SCOOTCHIE FOR YOU, BUT IT'S NOT UNTIL JANUARY OF NEXT YEAR.

DEAN: THAT'S RIGHT, JAMES. MARK YOUR CALENDARS FOR THE MORNING OF JANUARY 9<sup>TH</sup>, 2016. AS VENUS HEADS BACK TOWARD THE HORIZON, IT'S GOING TO PAY A SUPER CLOSE VISIT TO SATURN AMONG THE STARS OF SCORPIUS THE SCORPION. EVEN THE MOON WILL JOIN THE FUN A FEW DAYS EARLIER ON JANUARY 7<sup>TH</sup>, 2016.

JAMES: SO THERE YOU HAVE IT. A DELECTABLE DANCE OF THE PLANETS THAT RIVALS THE MOVES OF FRED ASTAIRE AND GINGER ROGERS. FACE EAST AND WATCH THE PRE-DAWN SKY THIS WEEK BETWEEN OCTOBER 12 – 18...

DEAN: AND THEN WATCH THE PLANETARY PARTNERS TRADE OFF THROUGH OUT THE END OF OCTOBER...

JAMES: AND BEHOLD AS THE DANCE REACHES ITS FRENZIED FINALE DURING THE FIRST WEEK OF NOVEMBER.

DEAN: IT'S ALL THERE FOR YOU TO SEE IF YOU REMEMBER TO...

BOTH: KEEP LOOKING UP!