

STAR GAZERS  
SG 1746 5-MINUTE

"QUEEN CASSIOPEIA"

**JAMES:**

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

**DEAN:**

AND I'M DEAN REGAS ASTRONOMER FOR THE CINCINNATI  
OBSERVATORY, AND WE'RE HERE TO HELP YOU FIND YOUR WAY  
AROUND THE SKY.

**JAMES:**

IT'S THAT TIME OF YEAR AGAIN, WHEN OUR OLD FRIEND THE BIG  
DIPPER GIVES UP ITS ROLE AS  
AN EASY, EARLY-EVENING INDICATOR OF NORTH, BECAUSE IF YOU  
HAPPEN TO LIVE TOWARD THE SOUTH, THE BIG DIPPER  
IS BARELY VISIBLE ABOVE THE NORTHERN HORIZON IN EARLY  
EVENING.

**DEAN:**

BUT FEAR NOT MY FRIENDS! THE BIG DIPPER'S POSITION HIGH  
ABOVE THE NORTH STAR IS REPLACED BY A FASCINATING  
ANCIENT CONSTELLATION, CASSIOPEIA THE QUEEN; AND SHE HAS  
QUITE  
A STORY.  
LET'S SHOW YOU!

---(STOP & DROP)

**DEAN:**

OK, IF YOU GO OUT ANY NIGHT AROUND 9 P.M. YOU'LL SEE THE  
FIVE BRIGHT STARS OF CASSIOPEIA WHICH, IF WE CONNECT WITH  
IMAGINARY LINES, TRACE OUT  
THE LETTER 'M'.  
BUT, YOU MIGHT ASK YOURSELF, HOW COULD ANYONE IMAGINE  
SEEING A QUEEN IN THIS SIMPLE 'M' SHAPE?

**JAMES:**

WELL, AROUND TWO THOUSAND YEARS AGO, THE ANCIENT GREEKS HAD NO PROBLEM IDENTIFYING THIS MODERN 'M' AS THE QUEEN NAMED CASSIOPEIA.  
AND IF WE SPEED UP TIME A FEW HOURS, TO ABOUT 6 A.M., MAYBE YOU CAN IMAGINE A QUEEN, SITTING MAJESTICALLY ON HER THRONE.  
AND IF WE USE ONE EXTRA STAR IN THIS CONSTELLATION AND DRAW LINES BETWEEN IT AND THE MIDDLE STAR OF THE 'M', WE HAVE THE SEAT OF A THRONE.  
THE TWO STARS ABOVE IT MAKE UP THE BACK OF THE THRONE AND TWO ADDITIONAL LINES MAKE UP THE LEGS OF THE THRONE.  
AND ALL YOU HAVE TO DO IS IMAGINE SOMEONE LIKE A GREAT QUEEN SITTING IN IT.

**DEAN:**

BUT AS EVERYONE KNOWS, BECAUSE OUR EARTH ROTATES ON ITS AXIS EVERY 24 HOURS, THE STARS CHANGE THEIR POSITIONS IN THE SKY, CIRCLING ENDLESSLY AROUND THE NORTH STAR. AND AT 6 A.M. ANY MORNING THIS WEEK, QUEEN CASSIOPEIA SITS UPRIGHT, VERY NICELY ON HER THRONE.  
BUT AS THE HOURS GO BY, SHE SLOWLY WHEELS AROUND THE NORTH STAR, (EVEN AS THE EARTH TURNS DURING THE DAY), SO THAT BY EVENING TIME, ONCE AGAIN CASSIOPEIA WOULD HAVE TO BE WEARING AN EXTRA STRONG SEATBELT TO KEEP HER FROM FALLING OFF HER QUEENLY THRONE.

**JAMES:**

BUT WHY, YOU MIGHT ASK, WOULD OUR ANCESTORS WANT TO SEE A FAVORITE QUEEN OF THEIRS, WHO WAS SAID TO BE THE MOST BEAUTIFUL WOMAN OF HER TIME, IN SUCH A PRECARIOUS POSITION? WELL, IT IS PRECISELY BECAUSE OF THIS EVER CHANGING POSITION OF CASSIOPEIA'S THRONE THAT SHE WAS

PLACED  
IN THE SKY IN THE  
FIRST PLACE.  
YOU SEE, CASSIOPEIA WAS PLACED IN THE HEAVENS AS AN  
OBJECT LESSON AGAINST PERSONAL VANITY.

---(STOP & DROP)

**DEAN:**

20 CENTURIES AGO,  
THE STORY WAS TOLD THAT CASSIOPEIA WAS NOT ONLY  
EXCEPTIONALLY BEAUTIFUL, BUT EXCEPTIONALLY VAIN,  
AND THAT ONE DAY  
SHE MADE THE DREADFUL MISTAKE OF BOASTING THAT SHE WAS  
EVEN MORE BEAUTIFUL THAN THE NEREIDS,  
THE SEA NYMPHS, WHO WERE CONSIDERED TO BE THE HOTTEST  
STUFF  
OF THEIR TIME.  
WELL, THEY COMPLAINED TO THEIR FATHER, POSEIDON, THE GOD  
OF THE SEA, AND HE CONDEMNED QUEEN CASSIOPEIA TO RIDE  
ENDLESSLY AROUND  
THE NORTH STAR ON HER THRONE; SOMETIMES COMFORTABLY  
RIGHTSIDE-UP  
AND THEN LATER ON, UNCOMFORTABLY  
UPSIDE-DOWN, WHERE SHE'D HAVE TO HANG ON FOR DEAR LIFE.

**JAMES:**

THIS PRECARIOUS POSITION WAS DESIGNED AS A PUNISHMENT  
FOR CASSIOPEIA.  
AND EVER SINCE, MERE MORTALS HAVE KNOWN THAT PHYSICAL  
BEAUTY ALWAYS COMES WITH  
A PRICE.  
SOMETHING THAT DEAN AND I KNOW ALL TOO WELL, RIGHT DEAN?

**DEAN:**

THATS RIGHT, JAMES.  
NOW OF COURSE,  
WE WOULDN'T WANT CASSIOPEIA TO THINK THIS SHOW WAS ALL  
ABOUT HER, BUT LETS ZOOM IN FOR A CLOSER LOOK  
AT HER STARS.

---(STOP & DROP) (NEW SECTION ON SKY CARS)

**JAMES:**

AT NIGHT, CASSIOPEIA STANDS REALLY HIGH IN THE NORTHERN SKY. HER FIVE SEMI-BRIGHT STARS MAKE A NOTICEABLE M-SHAPE PATTERN.

**DEAN:**

THE THREE BRIGHTEST STARS MAKE A NEAT TRIANGLE. AND SOMETIMES IF YOU'RE VIEWING FROM A CITY YOU MAY HAVE A TOUGH TIME SEEING MORE THAN THESE THREE STARS. THEIR NAMES ARE CAPH, SCHEDAR, AND TSIH. THEY ARE ALL ABOUT AS BRIGHT AS THE NORTH STAR WHICH IS NOT TOO FAR AWAY.

**JAMES:**

THE FAINTER STARS IN THE M-SHAPE OF CASSIOPEIA ARE CALLED RUCHBAH AND SEGIN. YOU MAY HAVE TO SQUINT A BIT TO SEE SEGIN BUT IF YOU CAN SEE ALL FIVE STARS YOU'LL KNOW FOR SURE YOU'VE FOUND HER. SO GET OUTSIDE AND LOOK FOR THE VAIN QUEEN CASSIOPEIA...

**DEAN:**

AND HER OUTLINE OF FIVE STARS MAKING AN M-SHAPE IN THE NIGHT SKY. SHE'S UP THERE IF YOU...

**BOTH:**

KEEP LOOKING UP!

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