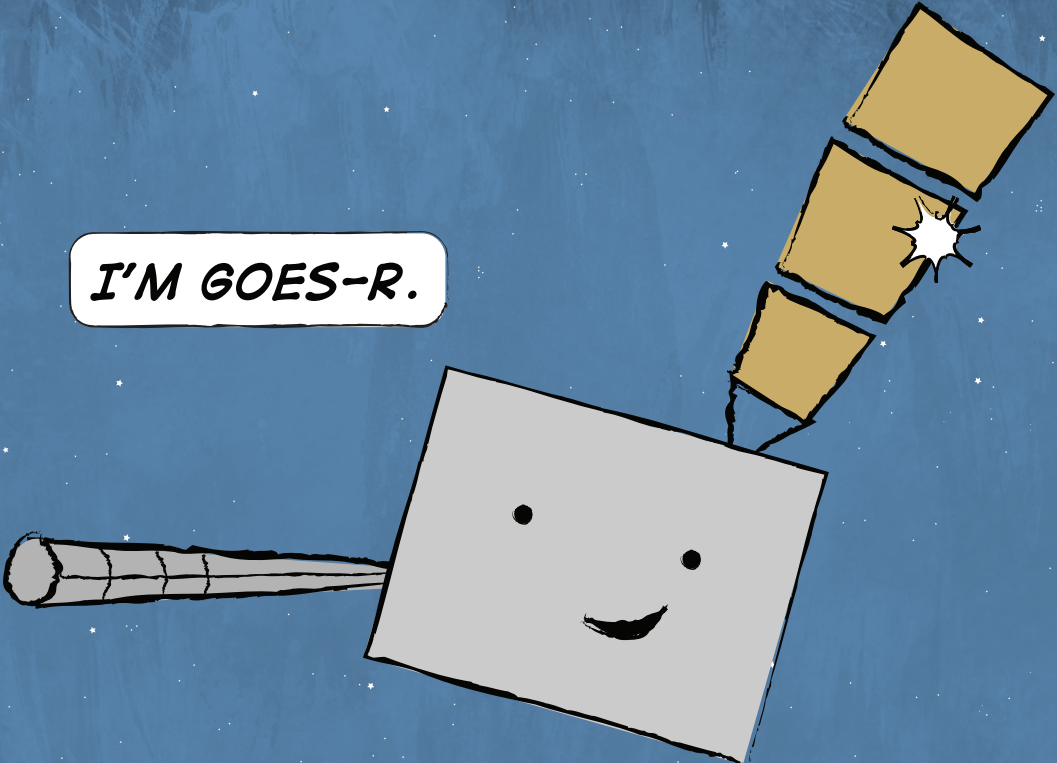
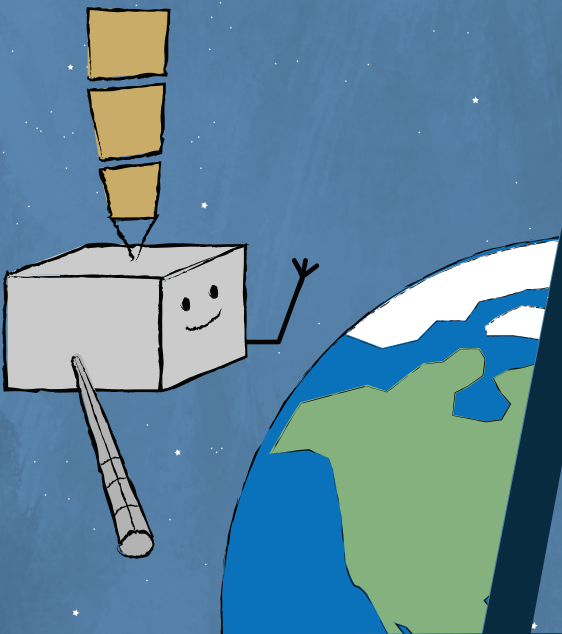


MEET THE  
GEOSTATIONARY OPERATIONAL  
ENVIRONMENTAL SATELLITE - R SERIES

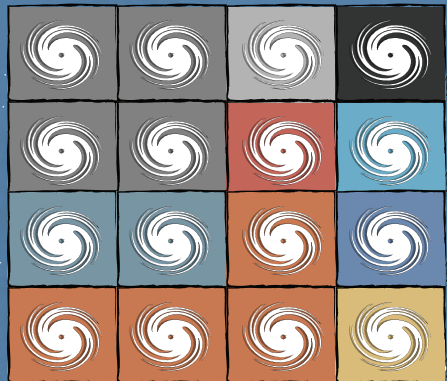
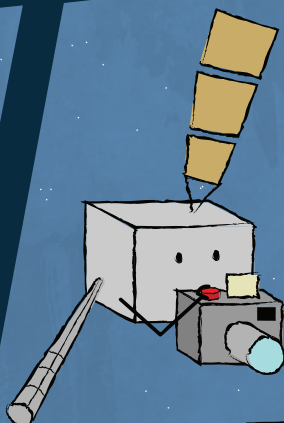
**I'M GOES-R.**




**I'M A NEW, HIGH-TECH SATELLITE THAT WILL BE ORBITING 22,000 MILES ABOVE EARTH.**



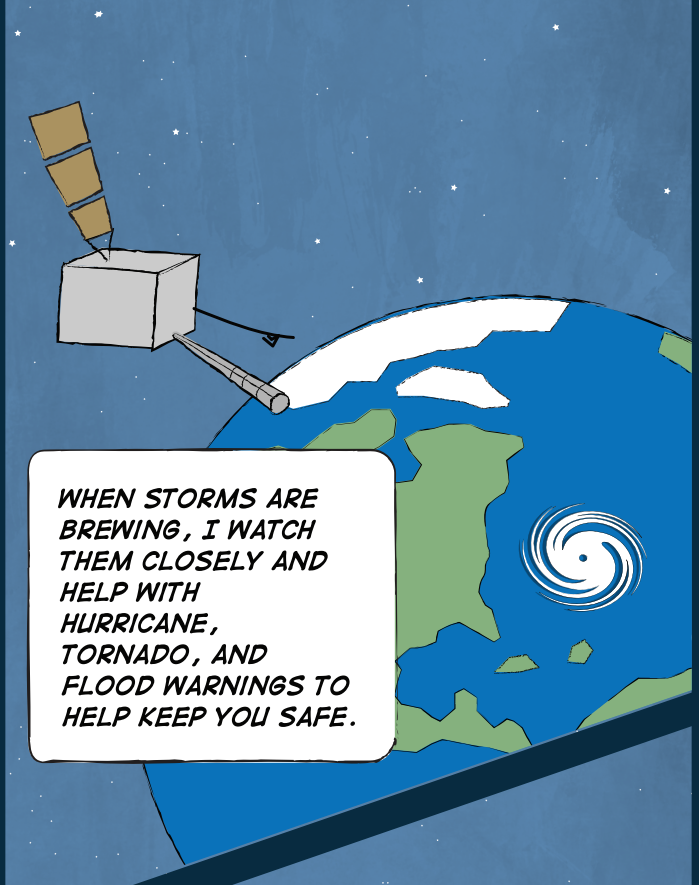
**I CAN SEE A LOT OF COOL STUFF FROM UP HERE, AND I TAKE PICTURES OF IT WITH MY SPIFFY CAMERA THAT HAS 16 DIFFERENT SETTINGS.**








*I HAVE SUCH GOOD EYESIGHT, I CAN SEE CLOUDS, SNOW, SMOKE, SMOG, AND ASH, SO I CAN WARN YOU ABOUT DANGEROUS CONDITIONS AND HELP YOU AVOID THEM.*



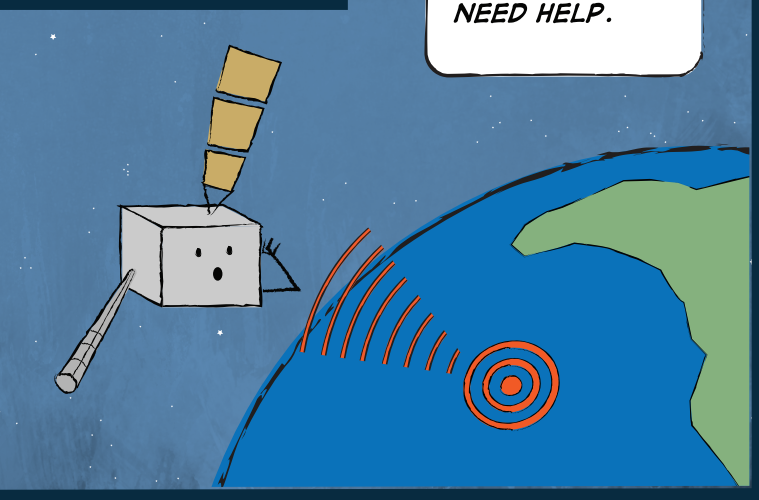
*WHEN STORMS ARE BREWING, I WATCH THEM CLOSELY AND HELP WITH HURRICANE, TORNADO, AND FLOOD WARNINGS TO HELP KEEP YOU SAFE.*



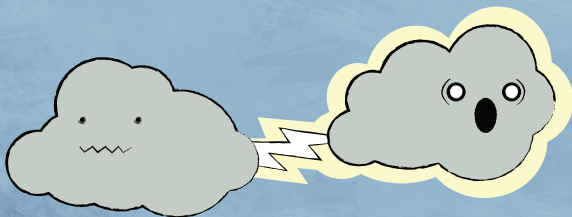
*AND MY NEW LIGHTNING MAPPER WILL TRACK LIGHTNING STRIKES WAY UP IN THE SKY, EVEN THROUGH DARK, DENSE CLOUDS.*



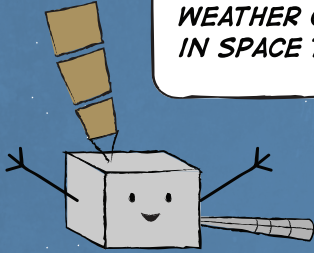
*I ALSO HELP WITH SEARCH AND RESCUE MISSIONS.*



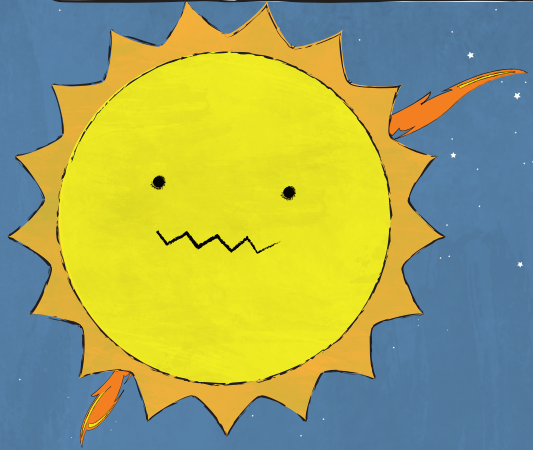
*I LISTEN FOR DISTRESS SIGNALS FROM EMERGENCY BEACONS AND TELL SEARCH AND RESCUE TEAMS JUST WHERE TO FIND PEOPLE WHO NEED HELP.*



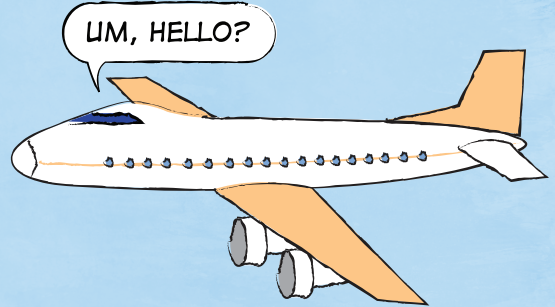
BUT EVEN WHEN I'M KEEPING A CLOSE EYE ON THE EARTH, I'M MONITORING WEATHER OUT HERE IN SPACE TOO.



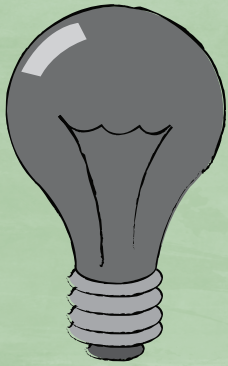
I WATCH THE SUN FOR BIG BURSTS OF ENERGY, WHICH SEND WAVES OF RADIATION TOWARD EARTH THAT CAN...



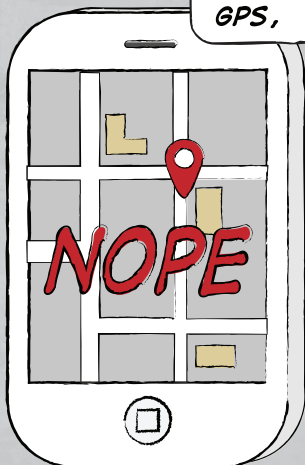
BLOCK COMMUNICATION WITH PLANES,



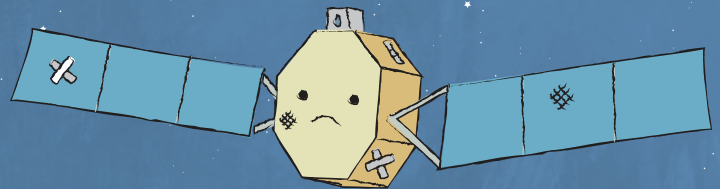
AFFECT POWER GRIDS,



CAUSE ERRORS IN GPS,

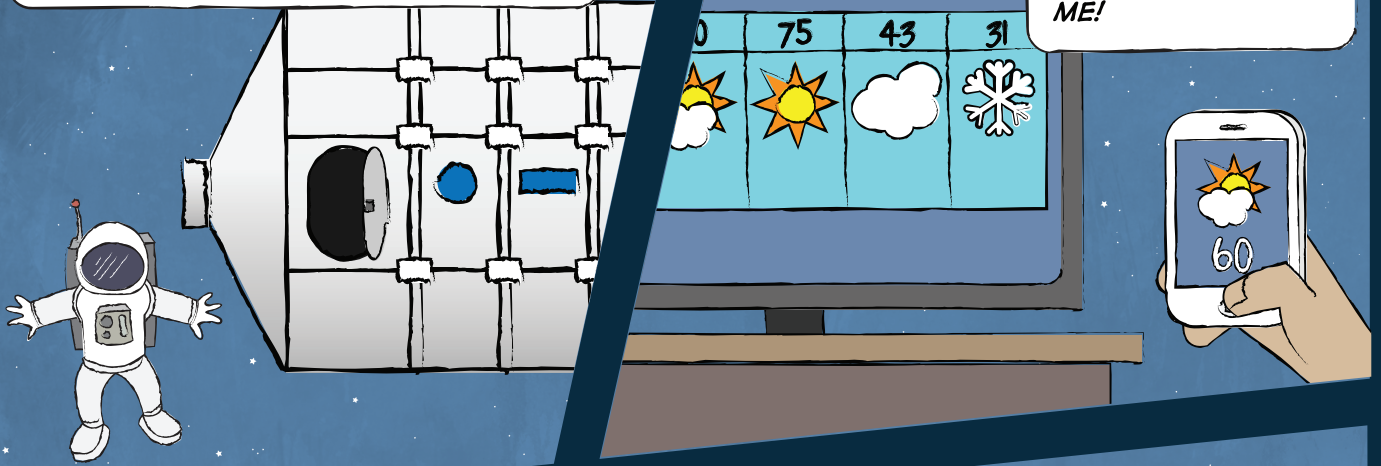


AND DAMAGE SATELLITES.



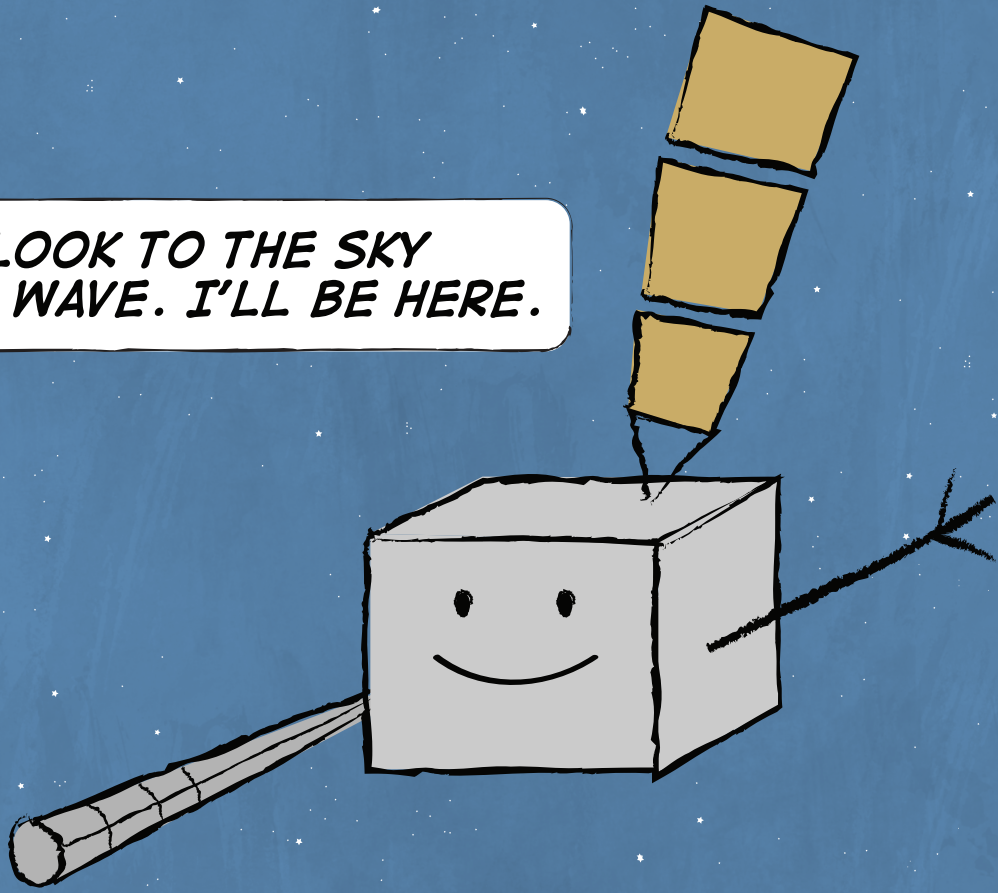


*SPACE WEATHER IS ALSO VERY DANGEROUS FOR ASTRONAUTS WORKING OUTSIDE THE INTERNATIONAL SPACE STATION. I WARN THEM SO THEY CAN GET INSIDE WHERE THEY'LL BE SAFE.*



*SO THE NEXT TIME YOU WATCH A WEATHER REPORT OR CHECK YOUR PHONE FOR THE FORECAST, REMEMBER THAT'S ME!*

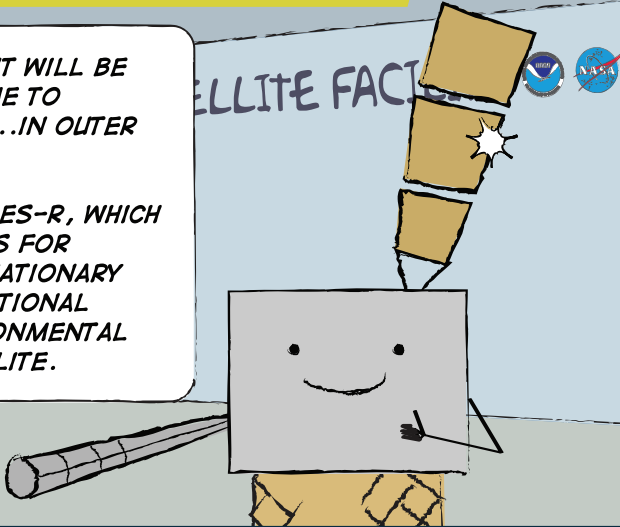
*SO LOOK TO THE SKY AND WAVE. I'LL BE HERE.*



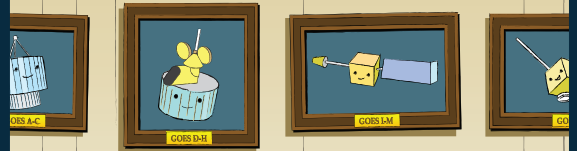
ON EARTH A FEW MONTHS EARLIER...

SOON IT WILL BE MY TIME TO SHINE...IN OUTER SPACE!

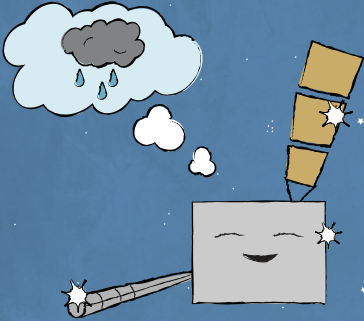
I'M GOES-R, WHICH STANDS FOR  
**G**EOSTATIONARY  
**O**PERATIONAL  
**E**NVIRONMENTAL  
**S**ATELLITE.



THE "R" STANDS FOR MY ORDER IN THE SERIES OF WEATHER SATELLITES.



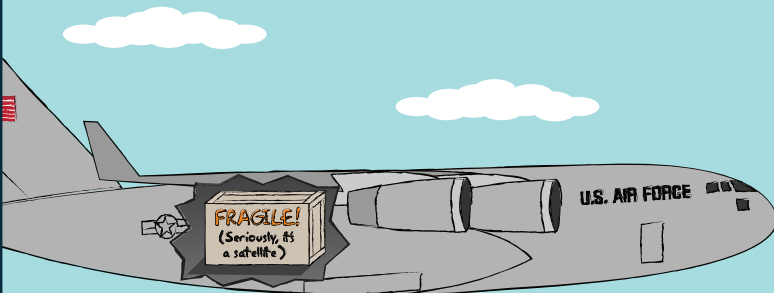
LIKE MY SIBLINGS BEFORE ME, I'LL DO A LOT FOR WATCHING WEATHER, BUT I'M PRETTY SPECIAL BECAUSE I HAVE A LOT OF NEW GADGETS.



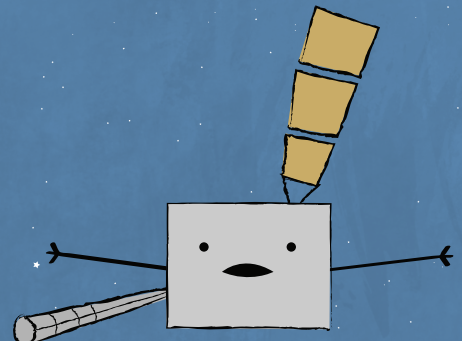
I'M ORIGINALLY FROM COLORADO, BUT MY JOURNEY TO SPACE HAS A FEW STOPS ALONG THE WAY.



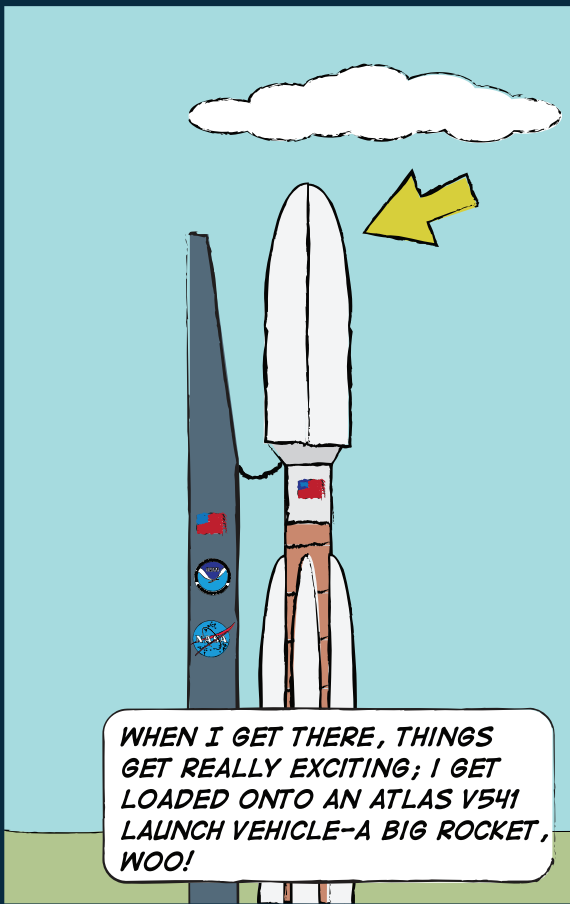
I'LL BE SHIPPED IN A VERY SPECIAL SATELLITE SHIPPING CONTAINER TO KENNEDY SPACE CENTER.



MOVING ME AROUND IS NOT EASY. I'M OVER 18 FEET WIDE AND WEIGH SIX THOUSAND POUNDS!

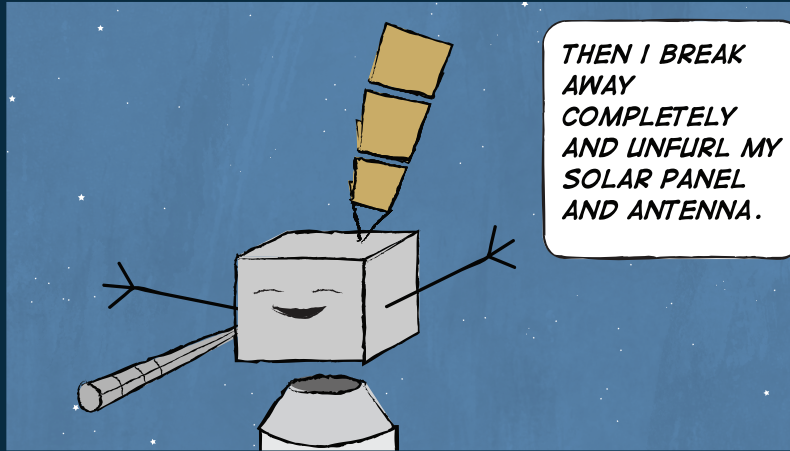
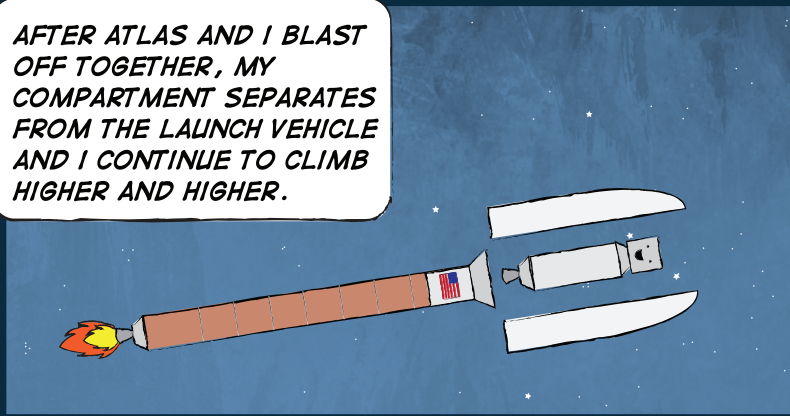




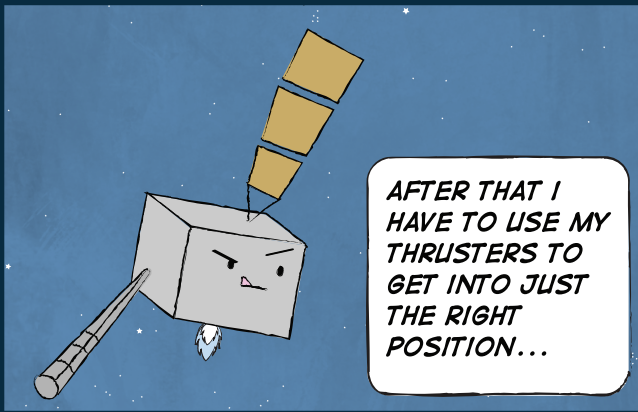


WHEN I GET THERE, THINGS GET REALLY EXCITING; I GET LOADED ONTO AN ATLAS V541 LAUNCH VEHICLE—A BIG ROCKET, WOO!

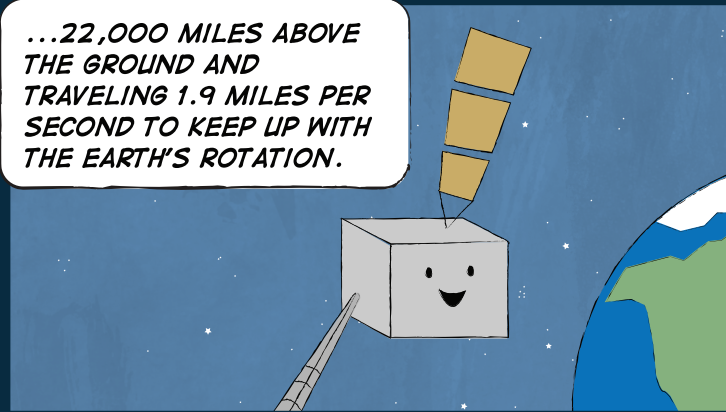
AFTER ATLAS AND I BLAST OFF TOGETHER, MY COMPARTMENT SEPARATES FROM THE LAUNCH VEHICLE AND I CONTINUE TO CLIMB HIGHER AND HIGHER.



THEN I BREAK AWAY COMPLETELY AND UNFURL MY SOLAR PANEL AND ANTENNA.



AFTER THAT I HAVE TO USE MY THRUSTERS TO GET INTO JUST THE RIGHT POSITION...



...22,000 MILES ABOVE THE GROUND AND TRAVELING 1.9 MILES PER SECOND TO KEEP UP WITH THE EARTH'S ROTATION.

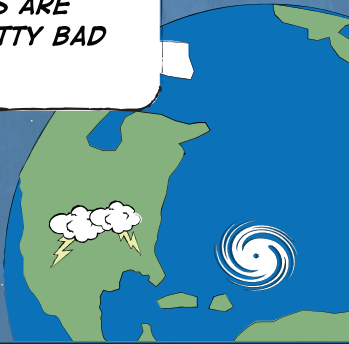
THEN I CAN OFFICIALLY START MY JOB ALONG WITH MY FELLOW GOES SISTERS! I WILL TAKE ADVANCED PICTURES FOR MORE ACCURATE WEATHER FORECASTS, MAP LIGHTNING IN REAL TIME, AND IMPROVE THE MONITORING OF THE SUN'S ACTIVITY.



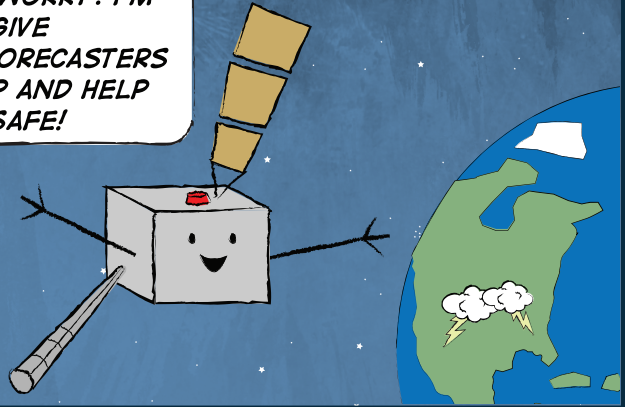
IT'S GOING TO BE SO AWESOME. I CAN'T WAIT!

LATER, ON GOES-R'S FIRST DAY AT WORK...

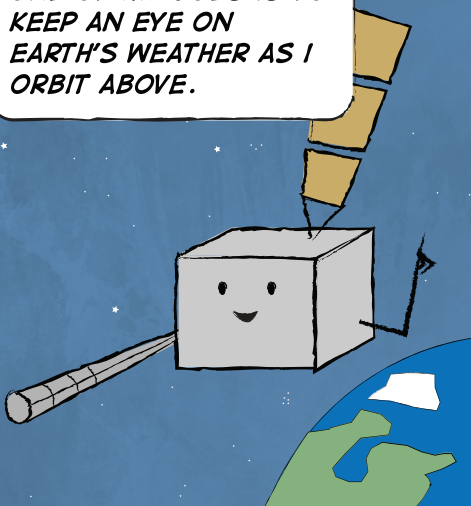
WHOA! THINGS ARE LOOKING PRETTY BAD DOWN THERE.



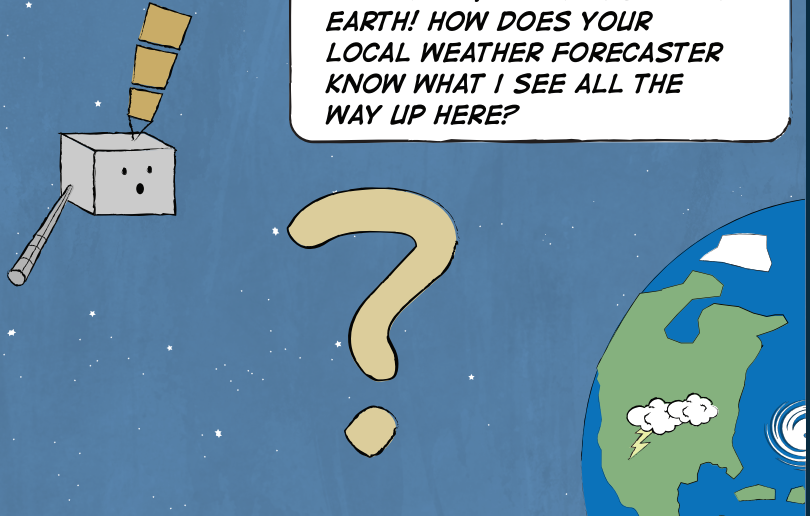
BUT DON'T WORRY. I'M GOING TO GIVE WEATHER FORECASTERS A HEADS UP AND HELP YOU STAY SAFE!



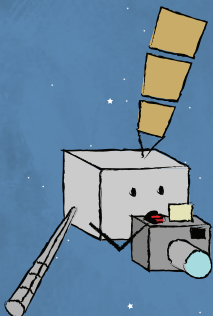
ONE OF MY JOBS IS TO KEEP AN EYE ON EARTH'S WEATHER AS I ORBIT ABOVE.



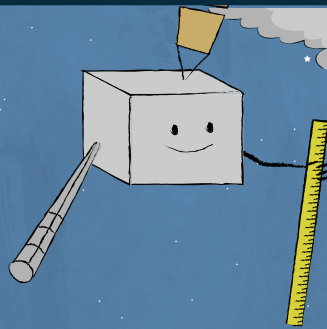
BUT I'M 22,000 MILES ABOVE EARTH! HOW DOES YOUR LOCAL WEATHER FORECASTER KNOW WHAT I SEE ALL THE WAY UP HERE?



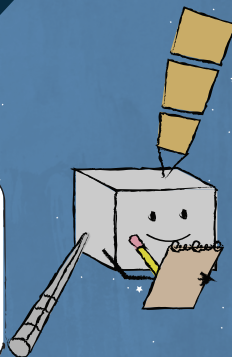
FIRST I HAVE TO FIGURE OUT WHAT'S GOING ON. I POINT MY SPECIAL CAMERA AT THE EARTH AND TAKE PICTURES OF THE CLOUDS I SEE BELOW.



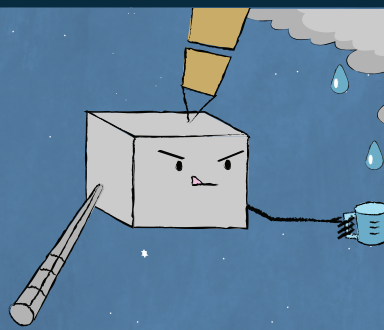
FOR EXAMPLE, HOW HIGH THEY REACH INTO THE ATMOSPHERE.



MY PICTURES SHOW WHERE THE CLOUDS ARE, BUT I ALSO TAKE LOTS OF OTHER NOTES ABOUT THE CLOUDS.



AND HOW MUCH RAIN THEY MIGHT CAUSE.

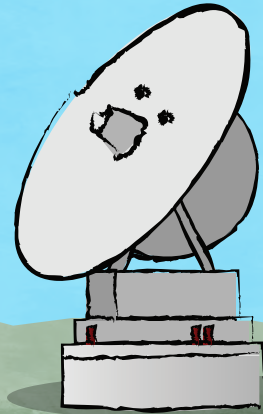




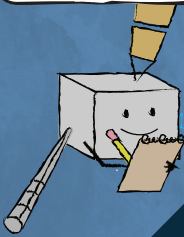
**BUT I CAN'T KEEP ALL THIS INFORMATION TO MYSELF — I HAVE TO SHARE IT WITH WEATHER FORECASTERS DOWN ON EARTH!**



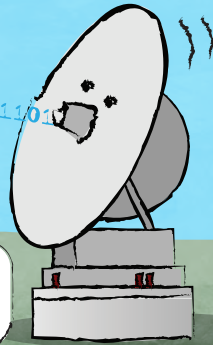
**A BIG ANTENNA IS WAITING FOR MY CALL.**



**SINCE I'M A SATELLITE, I SEND MY PICTURES AND NOTES IN A COMPUTER LANGUAGE OF ONES AND ZEROS.**



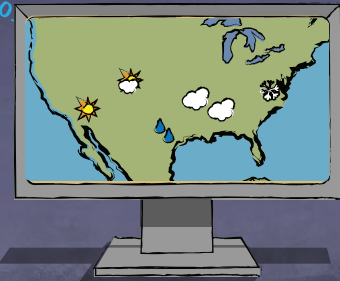
00:10100100101101101010



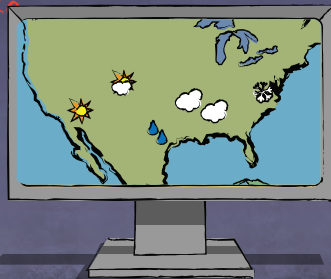
**LUCKILY, THE ANTENNA SPEAKS MY LANGUAGE.**

**COMPUTERS CONNECTED TO THE ANTENNA ORGANIZE MY NOTES AND AND COMBINE ALL OF THE PICTURES AND CLOUD INFORMATION AND TRANSLATE THEM INTO WEATHER MAPS.**

00:1010110

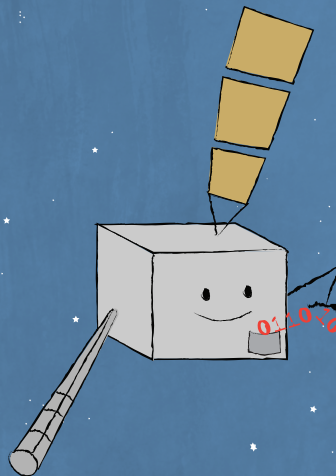


**THEY SEND A VERSION OF THE MAPS BACK UP TO ME.**



00:1010110

**I'LL HOLD ONTO THESE FOR LATER.**

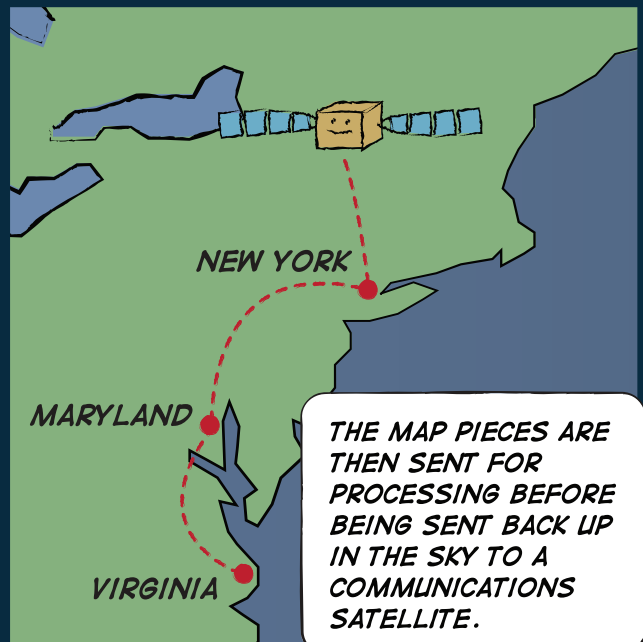


00:10100100101101101010

ANOTHER COPY OF THE MAPS IS SPLIT INTO SMALLER PIECES. THIS HELPS THE MAPS MOVE FASTER FROM ONE PLACE TO ANOTHER.

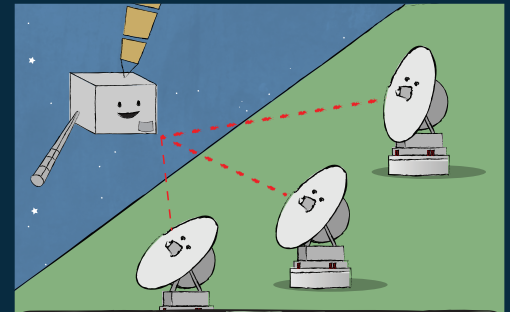
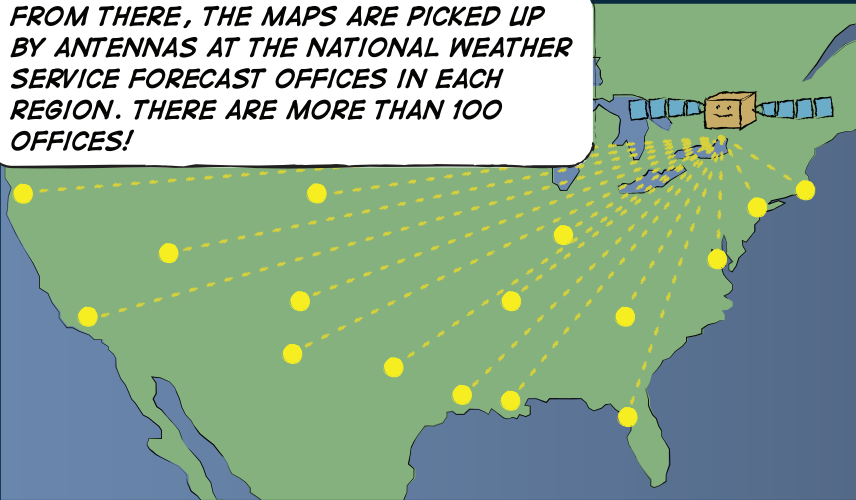


101101010001



THE MAP PIECES ARE THEN SENT FOR PROCESSING BEFORE BEING SENT BACK UP IN THE SKY TO A COMMUNICATIONS SATELLITE.

FROM THERE, THE MAPS ARE PICKED UP BY ANTENNAS AT THE NATIONAL WEATHER SERVICE FORECAST OFFICES IN EACH REGION. THERE ARE MORE THAN 100 OFFICES!

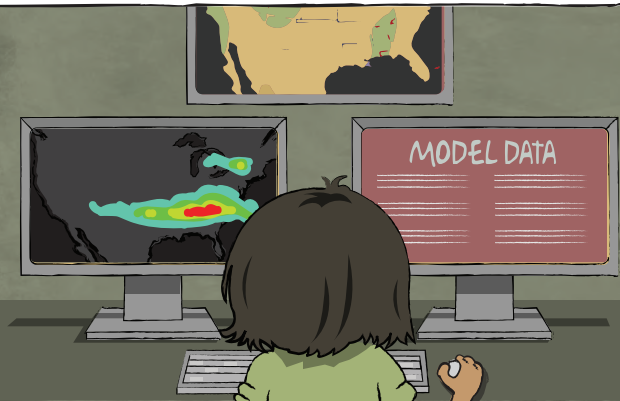


I ALSO TAKE THE MAPS THAT I RECEIVED AND SEND THEM OUT TO COMPANIES THAT SPECIALIZE IN MAKING THE MAPS MORE COLORFUL AND BETTER FOR VIEWING ON TVS AND COMPUTERS.



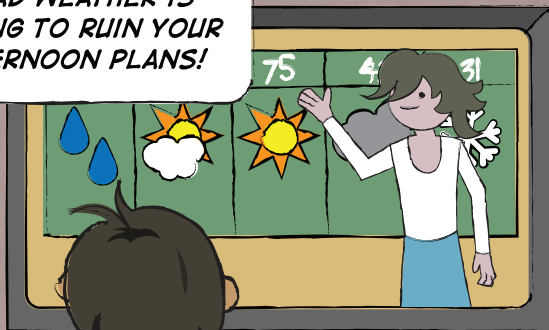
THE COLORFUL MAPS—AND THE MAPS FROM THE FORECAST OFFICES—THEN GO TO YOUR LOCAL WEATHER FORECASTER.

THE FORECASTER COMBINES THE INFORMATION FROM THESE MAPS WITH LOTS OF OTHER INFORMATION LIKE MODEL FORECAST DATA AND RADAR DATA TO MAKE PREDICTIONS ABOUT THE UPCOMING WEATHER IN YOUR AREA.

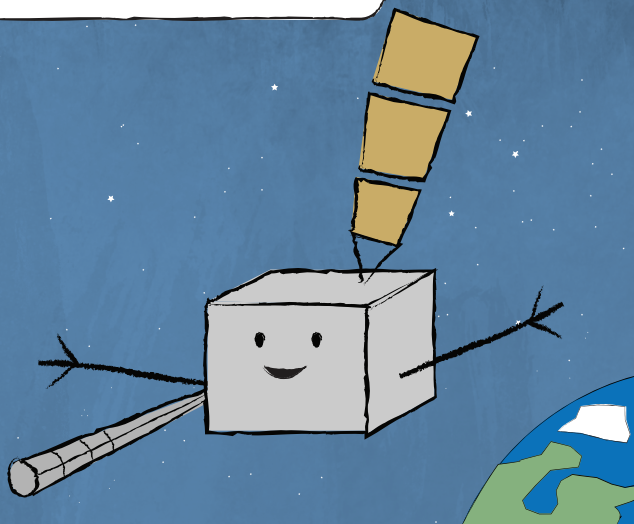




AND THAT'S HOW I  
HELP YOU FIND OUT  
IF BAD WEATHER IS  
GOING TO RUIN YOUR  
AFTERNOON PLANS!



YOU'RE WELCOME!



**FOLLOW GOES-R ON ALL OF HER ADVENTURES!**

**MEET  
GOES-R**



**FOR THE COMPLETE VIDEO SERIES AND MORE, VISIT:  
[WWW.SCIJINKS.GOV/GOES-R](http://WWW.SCIJINKS.GOV/GOES-R)**



*FOR MORE INFORMATION, VISIT THE GOES-R WEBSITE AT [WWW.GOES-R.GOV](http://WWW.GOES-R.GOV).*

*FOR INFORMATION FOR STUDENTS, VISIT THE NOAA SCIJINKS WEBSITE AT [SCIJINKS.GOV](http://SCIJINKS.GOV).*



*GOES-R FACEBOOK: [WWW.FACEBOOK.COM/GOESRSATELLITE](http://WWW.FACEBOOK.COM/GOESRSATELLITE)*



*NOAA SATELLITES FACEBOOK: [WWW.FACEBOOK.COM/NOAANESDIS](http://WWW.FACEBOOK.COM/NOAANESDIS)*



*NOAA SATELLITES TWITTER: [WWW.TWITTER.COM/NOAASATELLITES](http://WWW.TWITTER.COM/NOAASATELLITES)*



*NOAA SATELLITES YOUTUBE: [WWW.YOUTUBE.COM/USER/NOAASATELLITES](http://WWW.YOUTUBE.COM/USER/NOAASATELLITES)*



*NOAA SATELLITES FLICKR: [WWW.FLICKR.COM/NOAASATELLITES](http://WWW.FLICKR.COM/NOAASATELLITES)*



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