**The Sun: Magnetic Fields**

**:60 spot #4**

September 2017

Video Audio

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| Science Trek spot open (:05) | (music and animation)  60 SECONDS WITH SCIENCE TREK |
| Graphic (:04) | (THE SUN) |
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| NASA animation of particles hitting the Earth’s magnetic field  Shots of earth from space  Shots of the aurora borealis  Shots of the sun  Film of Apollo Astronauts planting American flag (animation of flag turning white) | THE SUN SENDS OUT PARTICLES THAT DISTURBS THE EARTH’S PROTECTIVE MAGNETIC FIELD.  THOSE PARTICLES CAN INTERFER WITH SATELLITES IN ORBIT AND ELECTRONICS INCLUDING THE POWER GRID ON EARTH.  BUT THAT DISRUPTION ALSO PRODUCES THE SHIMMERING WAVES OF COLOR AND BRILLANCE KNOWN AS THE AURORA BOREALIS OR THE NORTHERN LIGHTS.  THOUGH IN THE SOUTHERN HEMISPHERE, THEY’RE CALLED THE AURORA AUSTRALIS.  THE AMOUNT OF ENERGY PRODUCED BY THE SUN IN A TWO-WEEK PERIOD EQUALS THE COMBINED STORED ENERGY OF ALL THE KNOWN COAL, IRON AND NATURAL GAS RESERVES ON OUR PLANET.  THE SUN’S RADIATION IS SO STRONG THAT THE FLAGS LEFT ON THE MOON BY APOLLO ASTRONAUTS HAVE TURNED WHITE. |
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| Animation with Science Trek’s URL and logos of funders for the series.  (:10) | CHECK OUT THE SCIENCE TREK WEBSITE FOR MORE INFORMATION ABOUT THIS AND ALL OUR SCIENCE TOPICS FOR KIDS.  YOU’LL FIND IT AT IDAHOPTV.ORG/SCIENCE TREK |