

Wow...

What an unbelievably beautiful aurora!!

# Singing Melodies from Outer-space

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What is  
Humanosphere?

① Nanuk: "Coco, you know how an aurora is formed?"  
 ② Girl: "Lights! They umm.. fall from the sky to make auroras!"  
 ③ Nanuk: "Hmm... What should I explain first?"  
 ④ Boy: "Our universe is actually filled with gaseous matter, ionized into positive ions and negative electrons. I thought it was empty..."

⑤ "The sun's 'solar wind' comprised of magnetic field and plasma flows through our solar system."  
 ⑥ "These changed particles encounter the Earth."  
 ⑦ "and when they collide with molecules and atoms of the atmosphere, they release light. spark! spark! Like this? Yep, just like that."

⑧ "Aurora is also related to birds singing from space."  
 ⑨ "Birds singing...? chirp chirp..."  
 ⑩ "Let me tell you about chorus first."  
**Chorus**  
 Sounds (radio waves) from space

⑪ "Radio waves that come from the Sun and planets are made by taking energy from plasma particles. They can be received and heard as sounds on the Earth."  
 ⑫ "There are 3 kinds of these radio waves depending on what they sound like. What's known as 'dawn chorus' that sounds like birds singing is one of them too."  
 ⑬ "I've never heard it... Me neither. How can we hear it?"

⑭ "Dawn chorus can be heard around dawn when the Earth's magnetic field is disturbed."  
 ⑮ "A pattern of rising frequencies repeats itself rapidly within a second."  
 ⑯ "...and when you plug that into an audio amp...! click"  
 "chirp chirp... Whoa! Amazing, it sounds just like a bird singing!"

⑰ "These chorus waves also exist at other planets with magnetic fields such as Jupiter and Saturn, but none with the clear sound like we hear on Earth! ahem"  
 ⑱ "Wow, what a special planet we live on! Amazing! Yep, it's true."  
 "These chorus waves are attracting new interest recently because of their role in forming auroras, and also the radiation belts that are obstacle to our making use of space."

⑳ "50 to 100 years from now, we may be able to create artificial chorus, or even control the environment around the radiation belt. click click"  
 "Nanuk! The Sun is rising!"  
 "Feels like we can hear the chorus right now."