The Earth's Magnetosphere

https://www.nasa.gov/mission\_pages/sunearth/multimedia/magnetosphere.html

One of the most common questions about EMR is the possibility of harm to humans (many students will ask about the damage cell phone radiation can do, or whether it can cause cancers. This area has been extensively studied (article from ARRL).

In fact, radio operators are limited in the recommended exposure, and modern day suggestions suggest using the lowest power needed to operate. For that reason (and because QRP radios are usually lighter to carry into the field), low-power operations are a popular mode of operation.

https://www.arrl.org/rf-radiation-and-electromagnetic-field-safety

Fascinating article on EMR and radio waves, and how their properties differ from other types of waves.

https://www.drbakstmagnetics.com/do-radio-waves-bend-in-a-magnetic-field/

The physics of radio

https://wndw.net/pdf/wndw2-en/ch02-physics.pdf

Radio use in satellite phones

https://www.voipmechanic.com/satellite-

phone.htm#:~:text=How%20a%20satellite%20phone%20works.%20Satellite%20phones%20send,which %20has%20a%20connection%20to%20an%20Earth%20station.

Foundation of Radio for Scientists and Technologists, Christopher John Coleman - https://physicstoday.scitation.org/doi/full/10.1063/PT.3.4206

Free Space Path Loss

https://www.electronicdesign.com/technologies/wireless/article/21802810/wireless-101-basic-physics-of-radio

https://www.amazon.com/rejopfad-Computer-Protection-Anti-Tracking-

 $\underline{Assurance/dp/B0BJW39GF9/ref=sr\_1\_6?crid=2AU033NGJ1GEF\&keywords=emp+protection\&qid=16724\\21822\&sprefix=emp+p\%2Caps\%2C216\&sr=8-6$ 

**EMP Bags** 

https://www.amazon.com/rejopfad-Computer-Protection-Anti-Tracking-Assurance/dp/B0BJW39GF9/ref=sr\_1\_6?crid=2AU033NGJ1GEF&keywords=emp+protection&qid=16724 21822&sprefix=emp+p%2Caps%2C216&sr=8-6