The largest solar flare in recorded history occurred on September 1, 1859. As the energy released from the sun hit the earth’s atmosphere, the skies erupted in a rainbow of colored auroras that were visible as far south as Jamaica and Hawaii. The most alarming consequences of this “Carrington Event” (named for solar astronomer Richard Carrington who witnessed it) were its effect on the telegraph system. Operators were shocked and telegraph paper caught fire.

No solar flares approaching the magnitude of the Carrington Event have occurred since, but the question must be asked – What if a similarly sized solar flare happened today?

NASA works to predict and monitor sun activity so that preventive actions can be taken to help minimize damage if a large solar flare occurs. For example, portions of the power grid could be shut down to help protect against overheating. Scientists continue to study the issue, working to improve predictions for sun flare activity and learn how to better protect technology from them.