Response to Extreme Space Weather Events in China and the world

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Outline

1. Emergency management
2. Standardization in scaling space weather events
3. International space weather communication
4. Conclusion

1. Emergency management

National response to disasters is divided into 4 levels according to damages and casualties in the mainland of China. The first level is the highest.

But we need to make an evaluation of the damage caused by space weather events to determine a response level. An international standard for the evaluation is helpful.

Since modern society has never experienced an extreme space weather event like Carington superstorm, how to conduct a national /international response is a big challenge. Sometime a proposal for the response like a screenplay of disaster film.

We believe that an enhanced study for this issue is necessary in the field of space weather.

2. Standardization in scaling space weather events

(1) solar eruptions

Extreme solar eruptions might be closely related to abnormal phenomena in the solar atmosphere

(2) geomagnetostorms

Severe geomagnetorms are related to solar eruptions effecting on the Earth.

The keypoint is how to determine dangerous solar eruptions to the Earth in our standardized scales, which gives us enough time to do something before solar storm arraval.

3. International space weather information communication

We should share all of information in the following fields:

(1) monitoring and forecating technology

(2) observational data

(3) scaling law

(4) forecasting operations

China has a large scale ground based monitoring system, but a small one in space. This situation will be changed in the future.

We are sharing observational and forecating data with our domestic and international colleagues.

4. Conclusion

It is a big challenge to conduct a national /international response to extreme space weather events. We can make our contributions to the fight against space disasters.

Thanks !