

Journal Paper Review--Due Lesson 28

Teams of up to three students or individual students should prepare a short review of one of the ***Space Weather*** papers listed below. This assignment is intended to introduce you to some of the “readable” literature on space weather and space weather effects

Please determine your team members and selected paper by the lesson prior to spring break

For Full Credit, the write-up is to have the following features:

- 1-paragraph intro/tutorial with diagram if appropriate
- 3-5-paragraph review with images and short captions from the paper
- 1-paragraph on mission or engineering relevance

Your Simplified Title of Paper Reviewed

By **student(s)** reviewer name(s), Date: **April ?? 2014**

Key Words Provide some

Title: Actual Paper Title

Authors: Names, Names etc

First Author's Institution: Department of XYZ, University of ABC, City, State/Province, Country

See write-up example by Mack Jones or similar types of write-ups for the astronomy world at <http://astrobites.com/>

If you want to review a ***Space Weather*** paper not listed here please discuss with me

CATEGORIES AND TOPICS

Beyond class/course discussions of space weather/environment

Forbes, K. F., and O. C. St. Cyr (2004), Space weather and the electricity market: An initial assessment, Space Weather, 2, S10003, doi:[10.1029/2003SW000005](https://doi.org/10.1029/2003SW000005).

Forbes, K. F., and O. C. St. Cyr (2010), An anatomy of space weather's electricity market impact: Case of the PJM power grid and the performance of its 500 kV transformers, Space Weather, 8, S09004, doi:[10.1029/2009SW000498](https://doi.org/10.1029/2009SW000498).

Mendillo, M., S. Smith, A. Coster, P. Erickson, J. Baumgardner, and C. Martinis (2008), Man-made space weather, Space Weather, 6, S09001, doi:[10.1029/2008SW000406](https://doi.org/10.1029/2008SW000406).

Cerruti, A. P., P. M. Kintner, D. E. Gary, L. J. Lanzerotti, E. R. de Paula, and H. B. Vo (2006), Observed solar radio burst effects on GPS/Wide Area Augmentation System carrier-to-noise ratio, Space Weather, 4, S10006, doi:[10.1029/2006SW000254](https://doi.org/10.1029/2006SW000254).

Cerruti, A. P., P. M. Kintner Jr., D. E. Gary, A. J. Mannucci, R. F. Meyer, P. Doherty,

and A. J. Coster (2008), *Effect of intense December 2006 solar radio bursts on GPS receivers*, *Space Weather*, 6, S10D07, doi:[10.1029/2007SW000375](https://doi.org/10.1029/2007SW000375).

Associated with class/course discussions of space weather environment

Solar

Acebal, A. O., and J. J. Sojka (2011), *A flare sensitive 3 h solar flux radio index for space weather applications*, *Space Weather*, 9, S07004, doi:[10.1029/2010SW000585](https://doi.org/10.1029/2010SW000585).

Henney, C. J., W. A. Toussaint, S. M. White, and C. N. Arge (2012), *Forecasting $F_{10.7}$ with solar magnetic flux transport modeling*, *Space Weather*, 10, S02011, doi:[10.1029/2011SW000748](https://doi.org/10.1029/2011SW000748).

Solar Wind

Davis, C. J., J. A. Davies, M. J. Owens, and M. Lockwood (2012), *Predicting the arrival of high-speed solar wind streams at Earth using the STEREO Heliospheric Imagers*, *Space Weather*, 10, S02003, doi:[10.1029/2011SW000737](https://doi.org/10.1029/2011SW000737).

Paulson, K. W., D. K. Taylor, C. W. Smith, B. J. Vasquez, and Q. Hu (2012), *Advance warning of high-speed ejecta based on real-time shock analyses: When fast-moving ejecta appear to be overtaking slow-moving shocks*, *Space Weather*, 10, S12002, doi:[10.1029/2012SW000855](https://doi.org/10.1029/2012SW000855).

Magnetosphere

Thomsen, M. F. (2004), *Why Kp is such a good measure of magnetospheric convection*, *Space Weather*, 2, S11004, doi:[10.1029/2004SW000089](https://doi.org/10.1029/2004SW000089).

Nosé, M., et al. (2012), *Wp index: A new substorm index derived from high-resolution geomagnetic field data at low latitude*, *Space Weather*, 10, S08002, doi:[10.1029/2012SW000785](https://doi.org/10.1029/2012SW000785).

Ionosphere

Steenburgh, R. A., C. G. Smith, and K. M. Groves (2008), *Ionospheric scintillation effects on single frequency GPS*, *Space Weather*, 6, S04D02, doi:[10.1029/2007SW000340](https://doi.org/10.1029/2007SW000340).

Thermosphere

Zhang, Y., L. J. Paxton, and D. Morrison (2010), *Auroral and thermospheric response to the 9 day periodic variations in the dayside reconnection rate in 2005*, *Space Weather*, 8, S07001, doi:[10.1029/2009SW000559](https://doi.org/10.1029/2009SW000559).

Storms

Riley, P. (2012), *On the probability of occurrence of extreme space weather events*, *Space Weather*, 10, S02012, doi:[10.1029/2011SW000734](https://doi.org/10.1029/2011SW000734).

Baker, D. N., X. Li, A. Pulkkinen, C. M. Ngwira, M. L. Mays, A. B. Galvin, and K. D. C. Simunac (2013), *A major solar eruptive event in July 2012: Defining extreme space weather scenarios*, *Space Weather*, 11, 585–591, doi:[10.1002/swe.20097](https://doi.org/10.1002/swe.20097).

Associated with class/course discussions of space weather impacts

Radiation Effects

Lohmeyer, W. Q., and K. Cahoy (2013), *Space weather radiation effects on geostationary satellite solid-state power amplifiers*, *Space Weather*, 11, 476–488, doi:[10.1002/swe.20071](https://doi.org/10.1002/swe.20071).

Mertens, C. J., M. M. Meier, S. Brown, R. B. Norman, and X. Xu (2013), *NAIRAS aircraft radiation model development, dose climatology, and initial validation*, *Space Weather*, 11, 603–635, doi:[10.1002/swe.20100](https://doi.org/10.1002/swe.20100).

Horne, R. B., S. A. Glauert, N. P. Meredith, D. Boscher, V. Maget, D. Heynderickx, and D. Pitchford (2013), *Space weather impacts on satellites and forecasting the Earth's electron radiation belts with SPACECAST*, *Space Weather*, 11, 169–186, doi:[10.1002/swe.20023](https://doi.org/10.1002/swe.20023).

Low Earth Orbit/Satellite Drag

Leonard, J. M., J. M. Forbes, and G. H. Born (2012), *Impact of tidal density variability on orbital and reentry predictions*, *Space Weather*, 10, S12003, doi:[10.1029/2012SW000842](https://doi.org/10.1029/2012SW000842).