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## **GG 140 - The Atmosphere, the Ocean and Environmental Change with Professor Ronald B. Smith**

### **Lecture 15 – Convective Storms**

#### **Storms slide deck**

1. Severe Thunderstorm. Image credit: M. Pidwirny. <http://www.physicalgeography.net/fundamentals/7t.html> (Accessed Oct. 5, 2011)
4. Airmass Thunderstorms. Image credit: NOAA, Adapted from Byers and Braham. <http://www.wrh.noaa.gov/fgz/science/svrwx.php?wfo=fgz> (Accessed Oct. 5, 2011)
5. Squall Line Thunderstorm. Image credit: University of Illinois. <http://ww2010.atmos.uiuc.edu/%28G1%29/guides/mtr/svr/modl/line/squall.rxml> (Accessed Oct. 5, 2011)
6. Severe Thunderstorm. Image credit: M. Pidwirny. <http://www.physicalgeography.net/fundamentals/7t.html> (Accessed Oct. 5, 2011)
7. Tornado condensation funnel and debris funnel. Image credit: weatherquestions.com [http://www.weatherquestions.com/What\\_causes\\_tornadoes.htm](http://www.weatherquestions.com/What_causes_tornadoes.htm) (Accessed Oct. 5, 2011)
8. Tornado. Image credit: Daria Lopez-Alegria. <http://www.spacebridges.com/S3-blog-English/?Tag=Math> (Accessed Oct. 5, 2011)
9. Lightning. Image credit: Luxorion. <http://www.astrosurf.com/luxorion/Decors/logo-lightning.jpg> (Accessed Oct. 5, 2011)
10. Hail stones. Image credit: NWS Flagstaff. <http://www.wrh.noaa.gov/fgz/science/svrwx.php?wfo=fgz> (Accessed Oct. 5, 2011)
11. Thunderstorm Frequency. Image credit: John P. Stimac. <http://www.ux1.eiu.edu/~cfjps/1400/tstorms.html> (Accessed Oct. 5, 2011)
12. Summer Thunderstorm Time of Day. Image credit: Yanping Li and Ron Smith
13. Tornado Frequency. Image credit: John P. Stimac. <http://www.ux1.eiu.edu/~cfjps/1400/tstorms.html> (Accessed Oct. 5, 2011)

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14. Greensburg, KS May 2007. Image credit: John Sinteur. <http://weblog.sinteur.com/index.php/2007/05/06/aerials-of-greensburg-tornado-damage/> (Accessed Oct. 5, 2011)

KAKE Greensburg Tornado - May 4, 2007 (Solo 1). Video credit: KAKE-TV Wichita, Kansas. [http://www.youtube.com/watch?v=ZHbqqgFZJMw&feature=results\\_main&playnext=1&list=PL2788582A8752C860](http://www.youtube.com/watch?v=ZHbqqgFZJMw&feature=results_main&playnext=1&list=PL2788582A8752C860) (Accessed Oct. 5, 2011)

16. Hurricane Regions. Image credit: Wikipedia user Nilfanion. [http://en.wikipedia.org/wiki/File:Global\\_tropical\\_cyclone\\_tracks-edit2.jpg](http://en.wikipedia.org/wiki/File:Global_tropical_cyclone_tracks-edit2.jpg) (Accessed Oct. 5, 2011)

18. Hurricane Isabel: 2003. Image credit: University of Wisconsin-Madison, Space Science Engineering Center (CIMSS) [http://tropic.ssec.wisc.edu/storm\\_archive/2003/storms/isabel/ISABEL1A.GIF](http://tropic.ssec.wisc.edu/storm_archive/2003/storms/isabel/ISABEL1A.GIF) (Accessed Oct. 5, 2011)

19. Hurricane graphic. Image credit: NWS Corpus Christi, TX. <http://www.srh.noaa.gov/crp/?n=education-hurricanes> (Accessed Oct. 5, 2011)

21. Long Island Express: 1938. Image credit: Wikipedia user Cyclonebiskit. [http://en.wikipedia.org/wiki/File:1938\\_New\\_England\\_hurricane\\_track.png](http://en.wikipedia.org/wiki/File:1938_New_England_hurricane_track.png) (Accessed Oct. 5, 2011)

22. Hurricane Irene: 2011. Image credit: Wikipedia user Cyclonebiskit. [http://en.wikipedia.org/wiki/File:Irene\\_2011\\_track.png](http://en.wikipedia.org/wiki/File:Irene_2011_track.png) (Accessed Oct. 5, 2011)

23. Hurricane Katrina. Image credit: Wikipedia user Nilfanion. [http://en.wikipedia.org/wiki/File:Katrina\\_2005\\_track.png](http://en.wikipedia.org/wiki/File:Katrina_2005_track.png) (Accessed Oct. 5, 2011)

24. Hurricane Katrina. Image credit: NOAA. <http://www.katrina.noaa.gov/> (Accessed Oct. 5, 2011)

25. Hurricane frequency. Image credit: Shaun Marker <http://www.propertyinsurancecoveragelaw.com/tags/hurricane-prediction/> (Accessed Oct. 5, 2011)

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27. Frontal Cyclone. Image credit: Canadian Meteorological and Oceanographic Society.  
[http://www.cmos.ca/ProjectAtmosphere/module1\\_hazardous\\_weather\\_e.html](http://www.cmos.ca/ProjectAtmosphere/module1_hazardous_weather_e.html) (Accessed Oct. 5, 2011)