

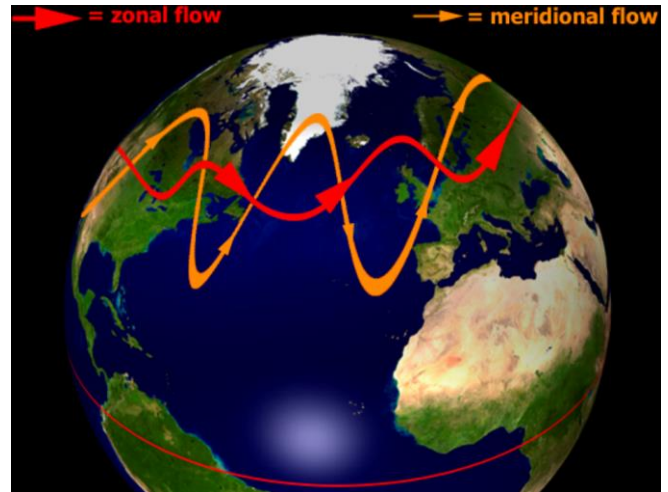
Flowing Rivers of Air

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Air surrounds the earth and air masses create pressure systems, leading to cold and snowy or sunny and dry weather. In the upper level air (6-9 miles above sea level), there are flowing rivers of air, i.e. Jet Stream. They move weather systems, change storm tracks, and help developing extreme weather events (heat wave and snowstorm).



(Figure source: <https://www.skepticalscience.com/jetstream-guide.html>)

Objectives:

1. Learn how to read weather maps and forecast weather
2. Understand what jet stream is and how it affects regional weather

Instructions:

1. Log in Earth Nullschool (<https://earth.nullschool.net/>)
2. Check current air flow (wind) and temperature (Temp)
3. Check mean sea level pressure (MSLP) and surface wind on 2017/03/14/1800Z/. Also check the wind at 250 hPa level.
4. Play a Disney game, Planes - Jet Stream Racers (<http://lol.disney.com/games/planes-jet-stream-racers>)

Questions:

- Why does air flow?
- What is jet stream? Why is it important?
- With global warming, how have jet streams changed?