

## 7.5: Lightning

### Lightning



A very bright yet short duration lightning strike near New Boston, Texas. [” Staccato Lightning ” byGriffinstorm , licensed under [CC BY-SA 4.0](https://creativecommons.org/licenses/by-sa/4.0/) ]

Lightning is the discharge that usually occurs during a thunderstorm. This electrostatic discharge occurs between a cloud and the ground, between two clouds, or within a cloud.

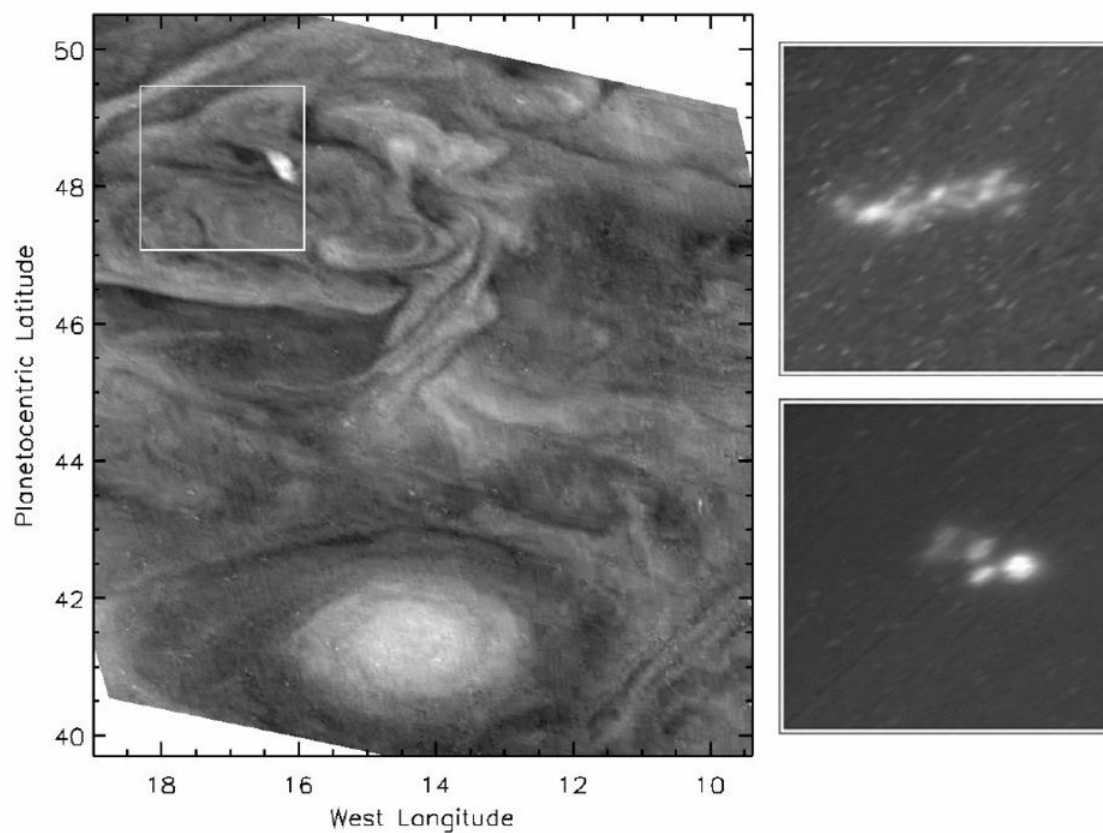
- First, the air becomes ionized — a plasma — and this acts as the conductor for the lightning.
- Next, jagged bolts — step leaders — provide the lightning’s conductive path.
- Electric current flow, heat, and a shock wave — what we hear as thunder — result.
- Sound thus thunder travels roughly 1 mile every 4.5 second

You may have heard that Florida is the lightning capital of the world. More accurately, Florida is the lightning capital of the United States. According to meteorologists, that distinction of lightning capital of the world belongs to the Democratic Republic of the Congo village of Kifuka.



Lightning strike, Ponte Vedra Beach, Florida. [” LightningFL ” by VictorianMutant licensed under [CC BY 2.0](https://creativecommons.org/licenses/by/2.0/)]

It should be no surprise that lightning has been recorded on other planets. Jupiter and Saturn exhibit lightning, whereas astronomers believe that have detected lightning in the thick atmosphere of Venus.



These NASA Galileo spacecraft images show thunderstorms during the daytime [left] and nighttime views of the same thunderstorm area on the right; lightning discharges. [” Jovian Lightning and the Daytime Storm ” by NASA/JPL, in the [Public Domain](#) ]

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