# The Atmosphere

## Layers of the Atmosphere

<table>
<thead>
<tr>
<th>Layer</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exosphere</td>
<td>0-100 km / 0-65,000 mi above sea level, impact on climate, weather, and climate change.</td>
</tr>
<tr>
<td>Thermosphere</td>
<td>100-800 km / 65,000-500,000 mi above sea level, impact on climate change.</td>
</tr>
<tr>
<td>Mesosphere</td>
<td>800-6,000 km / 500,000-3,750,000 mi above sea level, impact on climate change.</td>
</tr>
<tr>
<td>Stratosphere</td>
<td>6,000-50,000 km / 3,750,000-30,000,000 mi above sea level, impact on climate change.</td>
</tr>
<tr>
<td>Troposphere</td>
<td>0-6,000 km / 0-4,000 mi above sea level, impact on climate change.</td>
</tr>
</tbody>
</table>

## You Are Here

- **Sea Level**
  - Stratosphere
  - Troposphere
  - Mesosphere
  - Thermosphere
  - Exosphere

## Pollution

- **Airborne Particles**
  - Dust, pollen, bacteria, and other tiny particles that can affect human health.
- **Ozone Depletion**
  - The thinning of the ozone layer, which protects Earth from harmful ultraviolet (UV) radiation.
- **Acid Rain**
  - The corrosion of buildings and infrastructure caused by the reaction of pollutants with water.
- **Harmful Substances**
  - Chemicals like lead, mercury, and arsenic that can contaminate air, water, and soil.

## Spatial Politics

- **Boundary Disputes**
  - Conflicts over territories and resources within the atmosphere.
- **Harmonization of Policies**
  - Efforts to regulate air pollution and protect the environment at international levels.
- **Space Security**
  - The protection of space assets from threats and vulnerabilities.

## Remote Sensing

- **Satellites**
  - Imaging and monitoring the atmosphere from space.
- **Drones**
  - Used for aerial surveys and monitoring environmental changes.
- **Lidar**
  - Laser-based imaging for detailed atmospheric measurements.

## Climate Change

- **Greenhouse Gases**
  - C02, methane, and other gases that trap heat in the atmosphere.
- **Warming Trends**
  - Increase in global temperatures leading to various environmental changes.
- **Sea Level Rise**
  - Expansion of oceans due to melting ice caps and glaciers.

## Airspace

- **Air Traffic Management**
  - Coordination and control of aircraft in the sky.
- **Space Traffic Management**
  - Managing the movement of satellites and other space objects.
- **International Agreements**
  - Regulations and treaties to govern space activities.

## Electromagnetic Spectrum

- **Radio Waves**
  - Used for communication and broadcasting.
- **Microwaves**
  - Used for high-speed data transmission.
- **Infrared Waves**
  - Used for imaging and thermal sensing.
- **Visible Light**
  - Used for photography and vision.
- **Ultraviolet Waves**
  - Used for disinfection and atmospheric chemistry.

## Sources & Credits

- **Images and Information**
  - Credit to various sources, including NASA, NOAA, and international organizations.
- **Contributors**
  - Scientists, researchers, and experts in atmospheric science.

## Acknowledgments

- Special thanks to the contributors and partners for their efforts in creating and maintaining this resource.

- This page is a collaborative effort to provide accurate and up-to-date information about the atmosphere, its layers, and related topics.