### GPM Global Precipitation Measurement

#### Launch Schedule

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015-10-28</td>
<td>Launch</td>
</tr>
</tbody>
</table>

#### GPM Constellation Sampling & Coverage

![Earth coverage map]

#### GPM Mission Capabilities
- Advanced radar-radiometer system on the Core Observatory to unify and refine precipitation measurements from constellation satellites.
- Global coverage with mean sampling intervals of 2-3 hours.
- Next-generation inter-calibrated global precipitation products.
- Near-real-time data for immediate societal applications.

#### GPM Observatory Geometry

**Combined Radar-Radiometer Cloud Database**
- GPM and GMI imagery provide greater cloud top height solutions on improved regional accuracy.
- Improved radar-radiometer data for operational real-time precipitation products.

**GPM Microwave Imager (GMI)**: 10-100 GHz
- Precise microphysical radar-radiometer with enhanced resolution.
- 5-scale examination and retrieval of precipitation and hydrometeor properties.
- High spatial resolution.
- Leveraged measurements for improved accuracy.
- Improved rainfall and hydrometeor information.

**Dual Precipitation Radar (DPR)**: Ku/Ka band
- DPR performs in NASA, Ku/Ka mode for DPRD.
- Provides three-dimensional measurements of cloud properties, propagation pattern, and distribution (PCP) of precipitation in situ and atmospheric conditions.
- Improves accuracy by 11 dB to height and volume detection.

---

**GPM (2015)**: <3 hours revisit time over 91% of globe.