Launch Vehicles: Current & Future Use

Tracy Johnson
SLS Assistant Program Manager, NASA

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# SLS Payload Accommodations

## 3 Key Game Changers

- **Volume**
- **Mass**
- **Energy**

<table>
<thead>
<tr>
<th>Fairing Size</th>
<th>Volume (m³)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5m fairing w/ science payload</td>
<td>250m³</td>
</tr>
<tr>
<td>Science Missions</td>
<td>400m³</td>
</tr>
<tr>
<td>Orion with short-duration hab module</td>
<td>400m³</td>
</tr>
<tr>
<td>8m fairing with large aperture telescope</td>
<td>1200m³</td>
</tr>
<tr>
<td>10m fairing w/notional Mars payload</td>
<td>1800m³</td>
</tr>
</tbody>
</table>

**Total Mission Volume:** ~250m³ + 400m³ + 400m³ + 1200m³ + 1800m³
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CORE STAGE MANUFACTURING
SOLID ROCKET BOOSTER
EXPLORATION UPPER STAGE
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