**GEOTAIL EPIC KP**

Dec 12, 2004 (347)

**EPI K0 Data: V01 (V 0)**

**ORB DEF Data: V01**

Plotting S/W Version: 3.81

Plotted: Wed Dec 29 10:56 2004

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**UT**

<table>
<thead>
<tr>
<th>UT</th>
<th>$X_{GSM}$</th>
<th>$Y_{GSM(GSE)}$</th>
<th>$Z_{GSM(GSE)}$</th>
</tr>
</thead>
<tbody>
<tr>
<td>1200</td>
<td>21.6</td>
<td>19.8(-21.1)</td>
<td>7.9(2.7)</td>
</tr>
<tr>
<td>1400</td>
<td>22.4</td>
<td>-19.7(-20.5)</td>
<td>6.3(2.5)</td>
</tr>
<tr>
<td>1600</td>
<td>23.2</td>
<td>-19.5(-19.8)</td>
<td>4.2(2.2)</td>
</tr>
<tr>
<td>1800</td>
<td>23.9</td>
<td>-19.1(-19.1)</td>
<td>2.0(1.9)</td>
</tr>
<tr>
<td>2000</td>
<td>24.5</td>
<td>-18.4(-18.3)</td>
<td>0.2(1.6)</td>
</tr>
<tr>
<td>2200</td>
<td>25.1</td>
<td>-17.5(-17.5)</td>
<td>-0.8(1.4)</td>
</tr>
<tr>
<td>2400</td>
<td>25.5</td>
<td>-16.8(-16.8)</td>
<td>-1.1(1.1)</td>
</tr>
</tbody>
</table>

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**Orbit Definition Data: V01**

**Plotting Software Version: 3.81**

**Plotted: Wed Dec 29 10:56 2004**

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**Figure Description:**

The figure shows time-dependent data for $67$ keV and $129$ keV protons as a function of UT (Universal Time) ranging from 1200 to 2400. The data are plotted for different sectors including Sun, Dusk, Tail, Dawn, Sun/Tail, Tail/Sun, Dusk/Dawn, Tail/Dusk, and Sun/Dawn.

**Legend:**

- **Plus symbol (+):** Data for $67$ keV protons.
- **Circle (O):** Data for $129$ keV protons.

**Axes:**

- X-axis: UT (Universal Time) from 1200 to 2400.
- Y-axis: Averaged counts per second for different energy levels.

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**Additional Observations:**

- The data show a consistent trend of lower counts at higher UT values, indicating a possible decrease in proton activity.
- There is a significant drop in proton counts during the dusk sector, particularly at higher UT values.
- The tail sectors exhibit higher variability in proton counts compared to the sun and dawn sectors.

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**Conclusion:**

The observed trend suggests increased proton activity during dawn and dusk sectors, with a notable decrease at higher UT values. Further analysis is required to understand the underlying physical processes.