NASA's Deep Impact Mission: Decision Making

Timing is Everything

BUILDING A SCENARIO GROUP SHEET

BACKGROUND INFORMATION

Use the Deep Impact Ephemeris Data Spreadsheet to create a line graph representation of the times that comet Tempel 1 will be at a viewable elevation from July 3-5, 2005 from various Earth-based telescopes as well as two of the Deep Space Network (DSN) sites. Use time in the x-axis and elevation in the y-axis.

Using this graph, find all of the times that the comet is viewable from both Madrid and Goldstone. This represents two DSN sites. Write the times below:

Peter West

If having two DSN sites is not a priority, what would be the possible observatories that could be used during Madrid only as the DSN site? Write the observatories and times below:

If having two DSN sites is not a priority, what would be the possible observatories that could be used during Goldstone only as the DSN site? Write the observatories and times below:

In the space below describe the time of impact, DSN site, and observatories your team would recommend for the mission planners of Deep Impact.

In the space below describe the benefits of your scenario. Describe how your scenario meets the science objectives and why you have chosen this method.

In the space below describe the drawbacks and risks of your plan. These are potential weaknesses. Describe how your team would recommend that these weaknesses should be addressed by mission planners and how risks might be minimized.