Description of Trajectory Fits Data

This document goes along with the data file that is an ASCII (text) file listing the fit coefficients to six quantities. Applicable to standard TRAJxxxxx.DAT files.

TRAJ file format:

Header line with T-0 (year, day, hour, minute, second in U.T.)
6 sets of fit parameters for the following quantities:
> Altitude
> Latitude
> Longitude
> Velocity East-West
> Velocity North-South
> Velocity Up-Down

For any given quantity, the fit would be:

$$Quantity = A0 + A1*time + A2*time^2 + A3*time^3$$

where,
> *A0* through *A3* are the 4 fit coefficients in the same order as in the file (top to bottom),
> time is flight time in seconds. Each set of fit coefficients is preceded by 4, indicating the number of coefficients.

Using the given fit coefficients, the following units result for each *Quantity*:
> Altitude -- km
> Latitude -- degrees
> Longitude -- degrees
> Velocity East-West -- m/s
> Velocity North-South -- m/s
> Velocity Up-Down -- m/s

Sign Conventions:
> positive velocities are measured eastward, northward, and upward.