Tutor Questions

- **Question:** What assumptions did you make about the motion of the hovercrafts?
- **Expected Answer:** That the runaway craft has a constant velocity, and the rescue craft starts from rest with a constant acceleration.

- **Question:** Are these velocities and accelerations calculated from the numbers given exact?
- **Expected Answer:** No, these are only average numbers, not instantaneous. In order to get more "exact" numbers, we would need more data.

- **Question:** Is the predicted position of the rescue craft a good one?
- **Expected Answer:** Not really, basing the trajectory off the first 20 seconds of data is probably not the best – but it is all we have to work with.

- **Question:** Can you draw a plot of position vs. time for both crafts? What are the important features of this graph?
- **Expected Answer:** The point where the two curves cross is when we should jump. One should be linear, the other quadratic.

- **Question:** Can you draw a plot of velocity vs. time for both crafts? What are the important features of this graph?
- **Expected Answer:** The acceleration is the slope of each curve (constant in both cases).