

This student text contains some “Facts about the Deep Impact Spacecraft”.

The Deep Impact spacecraft was built as two spacecrafts in one.

When launched, the spacecraft contained both the flyby spacecraft and the impactor spacecraft. These two spacecrafts separated before impact.

The flyby spacecraft was about the size of a Volkswagen Bug. It carried both high resolution and low resolution instruments for optical imaging, infrared spectroscopy, and optical navigation.

The impactor was made mostly of copper and aluminum.

It measured one meter by one meter, about the size of a desk.

It weighed three hundred seventy kilograms, which is about six hundred twenty pounds.

The entire spacecraft weighed about nine hundred six kilograms, or about one ton.

The impactor was programmed so that it would collide with the approaching comet. Both objects were moving when they collided.

The closing speed of the comet relative to that of the impactor was thirty-six thousand, eight hundred kilometers per hour. This is ten times faster than a speeding bullet.

The impactor was expected to form a crater with a diameter somewhere between that of a house to that of a football field and to be several stories deep.

The impact did not knock the comet out of its orbit. The force of the collision between the impactor and comet was less than a moving truck hitting a pebble.

So it did not measurably affect the comet's speed or direction to any noticeable degree.

