Question #78

The bottle in the photograph below is filled with blue water from near the shores of Florida. The water continues to squirt out of a nipple near the bottom of the bottle as air enters the bottle via a capillary tube mounted air tight through a rubber stopper.

The question involves the range of the water jet - that is, how far away from the bottle the jet shoots by the time it reaches the horizontal level of the top of the container into which the water is squirting. Exactly how does the range of the water jet change as the water level in the jar goes down from the tapered part of the jar to just above the lower end of the capillary tube, where the air is leaving the tube and entering the bottle.

As the water level in the jar becomes lower, the range of the water jet:

- (a) increases.
- (b) decreases.
- (c) remains the same.

Click here for Answer #78 after August 20, 2001.