1. Hurricane Zoë, somewhat later in its lifecycle than in Homeworks 1-3, is moving at 7 kt when it makes landfall. (a.) Using Kraft's equation R_{TOT} = 100/C, where is R_{TOT} the storm-total rainfall in inches and C is the storm's speed of motion in knots, what is the expected storm-total rainfall?

    b. If Zoë slows down to 3 kt just before landfall what will the storm-total rainfall be?

2. Earlier, when Zoë was 225 km away from the landfall point, the longest waves its winds generated were 400 m long and had a phase velocity of 90 km per hour. (a.) Recalling that the wave train moves with the group velocity and using the relationship between the group and phase velocities we discussed in class, how long will it take the waves that Zoë generated at this time to reach the landfall point?

    b. A kilometer is 1000 meters and there are 3600 seconds in an hour. What is the waves' phase velocity in meters per second?

    c. What is the period in seconds of these longest waves?

Due Friday 03NOV17