養浜による波高減衰効果について（第2報）

（養浜距離の影響について）

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EXPERIMENTAL STUDY OF THE EFFECT OF NOURISHED BEACHES ON DAMPING OF WAVE HEIGHT (2nd Report)

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Synopsis

In previous paper (1st report), the effect of nourished beaches on damping of wave height in the condition which a location of submerged breakwater is constant $h_1=1.5H_0$ (h_1: water depth at the location of submerged breakwater, H_0: wave height at deep water), have been evaluated with respect to the relations between the volume of nourishing sand, the damping rate of wave height and the height of a submerged breakwater.

In this paper, the changes of damping rate of wave height with the variation of location of submerged breakwater for the cases of wave steepnesses 0.01～0.04 are revealed in the condition that the ratio of water depth at location of submerged breakwater h_1 and water depth at the crown of submerged breakwater h_2 is constant $h_2/h_1=0.2$.

And the following experimental facts are cleared from the comparison with the rates of damping wave height at the same distance from a submerged breakwater in cases of variable locations of submerged breakwater, in order to do constant the effect of bottom friction.

(1) The location of submerged breakwater that the damping of wave height shows the most remarkable effect, differs with wave steepness.

(2) In cases of small steepness of wave, the damping of wave height shows the most conspicuous effect at $h_1/H_0=1.0$～1.2.

(3) In cases of large steepness of wave, it shows the most notable effect when submerged breakwaters are located at offshore zone from breaking point and near point of shoreline.

It is indicated that the change of wave height with the nourishment of beaches are influenced by the initial condition of incident wave at the location of submerged breakwater, travel distance of breaker and the changing of water depth from these experimental results.