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The survey and design of proposed harbor of coastal shipping system in Taiwan coastal zones

Ho-Shong Hou[1], James Tseng[2], Mei-Shai Lin[2], Wei-Chu Wang[3] and Yi Siang Syu[3]
[1]I-Shou University, Taiwan
[2]Ministry of Transportation and Communications, Taiwan
[3]National Taiwan Institute of Technology, Taiwan

Taiwan coastal zones have a lot of functions, especially offshore eastern Orchid Island and Green Island of rich marine ecological life-deep sea fishing, hot spring spa around island coastal zones and beautiful ecological biology; they belong to non-polluted sea area. Passengers of visiting and touring offshore islands become more and urgent. Demand of except transportation ships for people 500-1000 each trip is necessary instead of aircraft of 12 seats or 19 seats. MOTC need to pan for more passengers and more luggage even transportation vehicle for carrying to offshore islands using. Therefore, marine traffic ship is currently necessary. The design of the proposed port and wharf area are then chosen for Survey and design. Taitung port (Fu-Gang), Lanyu Island (Kai-Yen port) and Green Island (Nan Liaw port) are tentatively pointed for field survey and preliminary planning and design. Owing to the mutual influence of shipping operation, industry distribution and government policy, the local long-distance container transport has become a serious problem of highway transportation system. After the forthcoming opening of container terminal of Taipei port, the container mainline will be connected to Taipei port. The development of coastal container shipping will transfer part of the container flow from road transportation to sea borne transportation. The congestion of highway will hence reduce and improve our living quality. The escalation of the port service quality in the northern port of Taiwan will be a positive impact to the operation of the coastal container shipping industry. Except improvement of the port service quality of northern Taiwan, the oceanographic condition of northern port heavily affected the coastal container shipping quality. Therefore, the northern port is selected as the field survey and design of proposed harbor of coastal shipping system. Winds (The whole year Wind Rose Analytical Diagram) wave measurement. Boring of foundation earth condition (soil test) and design of proposed harbor breakwaters and wharves are presented in this paper. The coastal shipping for cargoes (involve container) and passengers (involve luggage) transportation for offshore islands are well planned.

Biography

Ho-Shong Hou has worked for three years as a Hydraulic Laboratory Director and Chief Research Engineer with the Taichung Harbor Project on the West Coast of Taiwan. He has received his PhD in Civil and Coastal Engineering at the University of Florida. He has then worked as the Director of the Graduate Institute of Harbor and Ocean Engineering at the National Taiwan Ocean University and as an Adjunct Professor of the Institute of Naval Architecture at National Taiwan University. He has subsequently become the Deputy Director of the Harbor Research Institute in Taichung for the following five years, whilst maintaining his two Professorships. He was later promoted to Director-General of Department of Railways and Highways within the MOTC. He is a Registered Civil and Hydraulic Engineer and an active Member of American Society of Civil Engineers. He is currently a Professor of I-Shou University and President of Kaohsiung Southern Taiwan Industry Technology Association.

hshou.tw@gmail.com

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