International Ship and Offshore Structure Congress 2006 (ISSC 2006)

Meeting period: August 20 to 25, 2006

Meeting venue: University of Southampton, UK

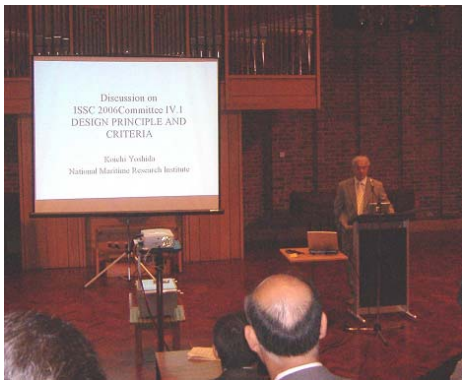
Attendances from NMRI

YOSHIDA Mr. (Director of Centre for International Cooperation)

TOZAWA Dr. (Deputy Director of Structure and Materials Department)

TANAKA Mr. (Head of Ship Structural Analysis Research Group)

TOMITA Dr. (Senior Researcher of Project Team for Ship Performance Evaluation in Actual Seas)



Mr. Yoshida;
During presentation in ISSC 2006

Contributions to this meeting

Mr. Yoshida presented an official discussion for Committee IV.1 on Design principle and criteria of ISSC 2006. He discussed a balance on cost and benefit including social benefit and cost for averting loss of life and environmental protection. He extended his discussion to IMO Goal-based standards (GBS) and the need of safety level approach for GBS, by which a rational set-up of goal and functional requirements is possible. He suggested that overall view of setting-up goals and functional requirements for safety and environmental protection using GBS, FSA (Formal Safety Assessment) and design and proof of ships and offshore structures. He, finally, suggested a way for time-based consideration on design principle and criteria for ships and offshore structure taking account of the stage of decommissioning and recycling of the structures.

Dr. Tozawa attended the Congress as an observer. He presented a floor discussion for Committee VI.1 on Reliability Based Structural Design and Code Development. He suggested that human error quantification should be very important in reliability based design and the concept of Total Quality Control (TQC) should be introduced in order to challenge the problem of human factors. Moreover, he pointed out that the failure probabilities were notional and not true values and the target safety level could be different among ship types or structures.

Mr. Tanaka contributed to make the report of Technical Committee II.1 (Quasi-static Response) as a member. The Committee mandate is mainly to connect loads and strength assessments (Ultimate Limit State, Fatigue Limit State, etc.) through stress analyses of structures. Unfortunately, comparative studies of stress analyses were not involved in the report. However, practical research database (keywords: strength assessment approach, calculation procedures, ship structures and offshore structures) could be constructed by extensive literature reviews. Four oral discussions to the committee report were made besides an official discussion. In addition, Tanaka was continuously chosen as a member of Technical Committee II .1.

Dr. Tomita took part in the general assembly as a member of the Technical Committee I .1 (Environment). The committee report was presented by the chairman of the committee. The contents were the theory, statistics, in-situ observation and remote sensing of wind, wave and current in the ocean with their engineering applications. In particular, some new topics concerning the Rogue Waves, Marine Growth and Tsunamis were investigated in detail. The official discusser suggested the necessity of wave spectrum of f^{-4} tail in its high frequency range (Toba model). As to the Rogue Wave, the criteria by Tomita & Kawamura (2000) were referred to and explained. The importance of the study of occurrence probability was discussed from the floor.

Next Meeting Schedule

ISSC 2009 Conference will be held in Republic of Korea in 2009.