

工學碩士 學位論文

A Study on the investigation and analysis
of collisions at sea

指導教授 朴 鎮 洙

2000年 2月

韓國海洋大學校 大學院

海事輸送科學科

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本 論 文 金 相 秀 工 學 碩 士 學 位 論 文 認 准 .

主 審 鄭 泰 權 印

副 審 李 潤 哲 印

副 審 朴 鎮 洙 印

1999年 12月

韓國海洋大學校 大學院

海事輸送科學科 金 相 秀

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**A Study on the investigation and analysis
of collisions at sea**

by Kim, sang - soo

Department of Marine Transportation Science
The Graduate School of Korea Maritime University
Pusan, Korea

Abstract

The collisions at sea among marine casualties are not reduced as the tonnage and speed of ship's increase as well as the traffic quantity increase at sea, in spite of the improvement of nautical equipment, enforcement of crew's education and training as well as improvement of quality standard according to the implementation of ISM code.

The measures to prevent the collisions at sea are simple, and are composed of four stage.:

The first stage is that the officer on duty detect the target from his eye or radar information .

The second stage is determining the type and kind of target-ship.

The third stage is the target tracking; calculation of target speed, course, CPA and TCPA from radar information or visual check.

The fourth stage is determination of vessel in danger after calculation of third stage.

The fifth stage is the judgement of situation if own ship is stand-on or give way vessel according to the 1972 COLREG. The last stage is to carry out proper action according to 1972 COLREG under the circumstances

But by the case, the situations are so different under the different external conditions; for example, natural/navigational conditions, crew's human factors, ship's particular, rule or regulation, management system on board, the condition of watch keeping. Therefore the reasons and casualties are so complicated.

This study aims to investigate the collision casualty at sea which needs to clarify all these causal factors of afore-mentioned, and to

analyze the causes of problems so as to utilize them to establish the measures of preventing marine accidents.

This study described the concepts of causal factors into three groups; environmental factor, and company/on board management system and navigator's act. Also described how to investigate and analyze the casual factors.

Even though it was described in this paper how to detect the causal factors and reasons of collisions, and how to analyze the inter-relation of each causal factors, it is necessary to do further study how to analyze the relationship between the liability of concerned parties and the casual factors involved.

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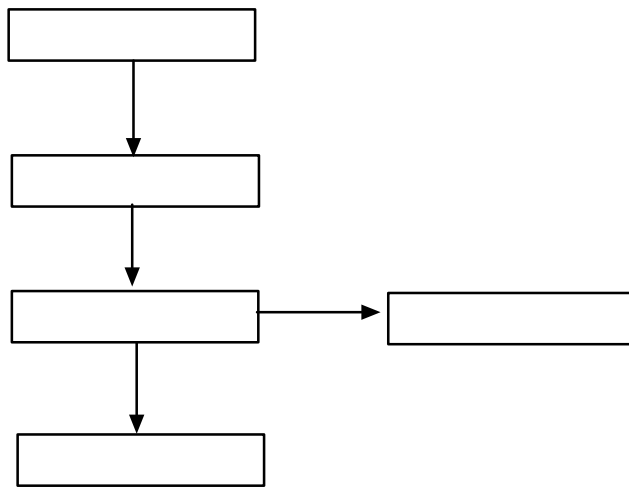
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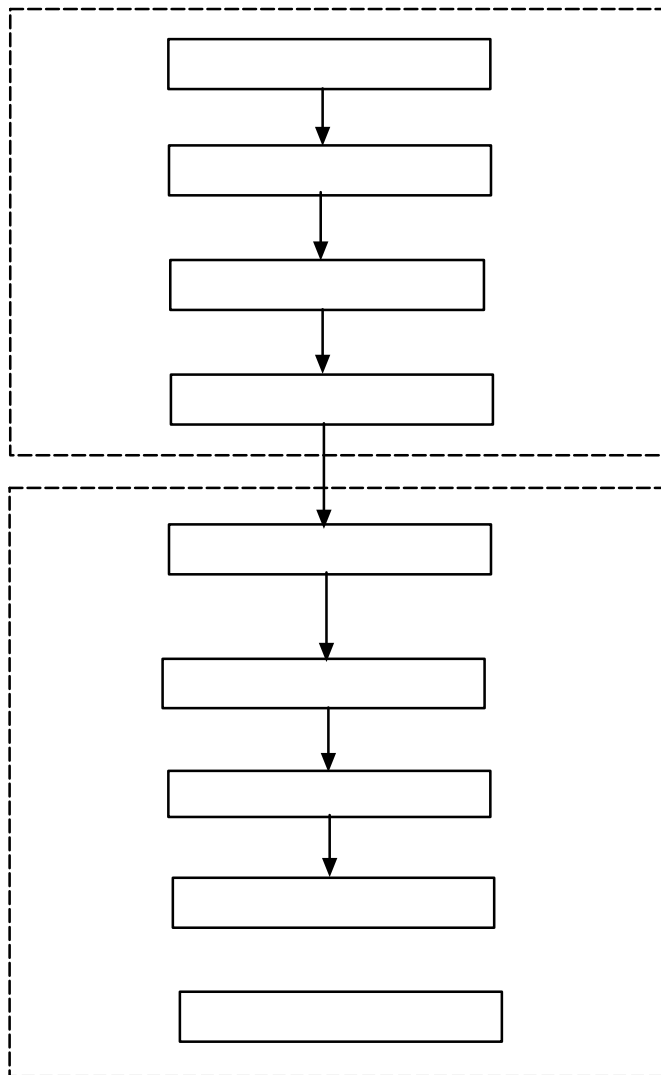
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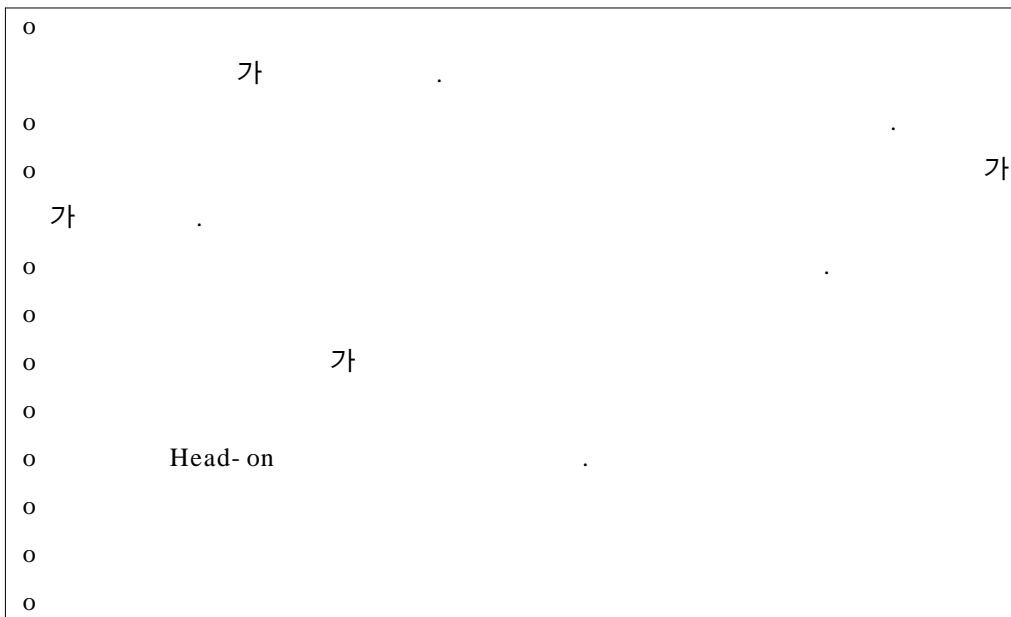
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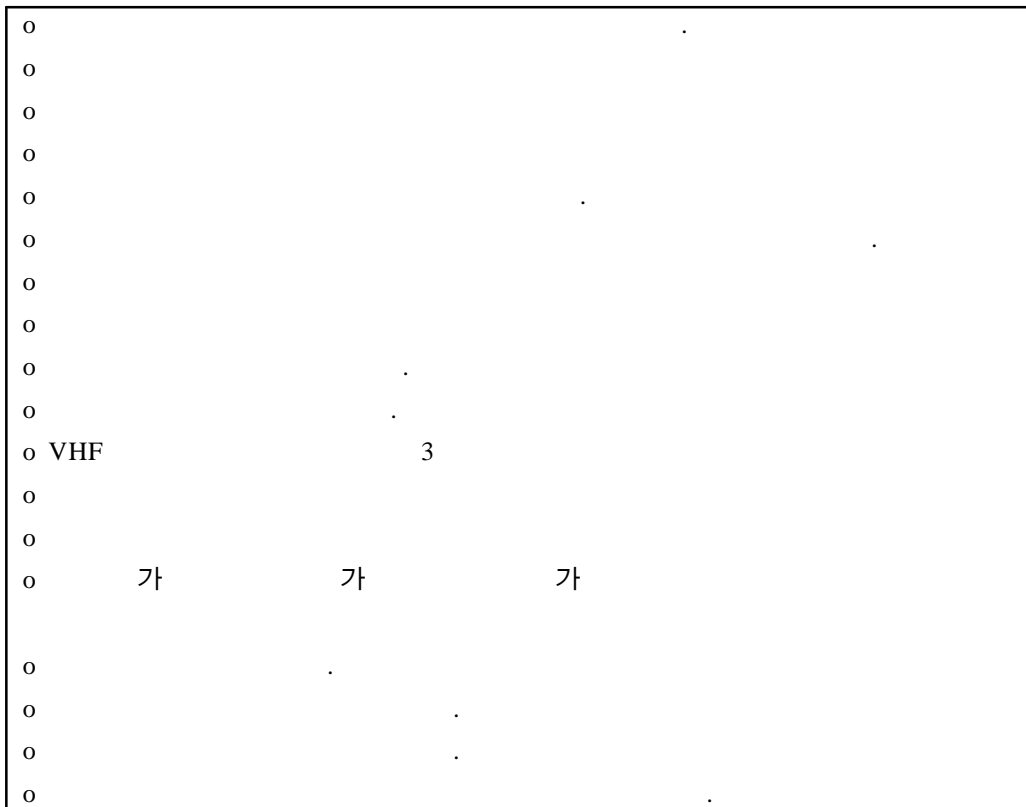
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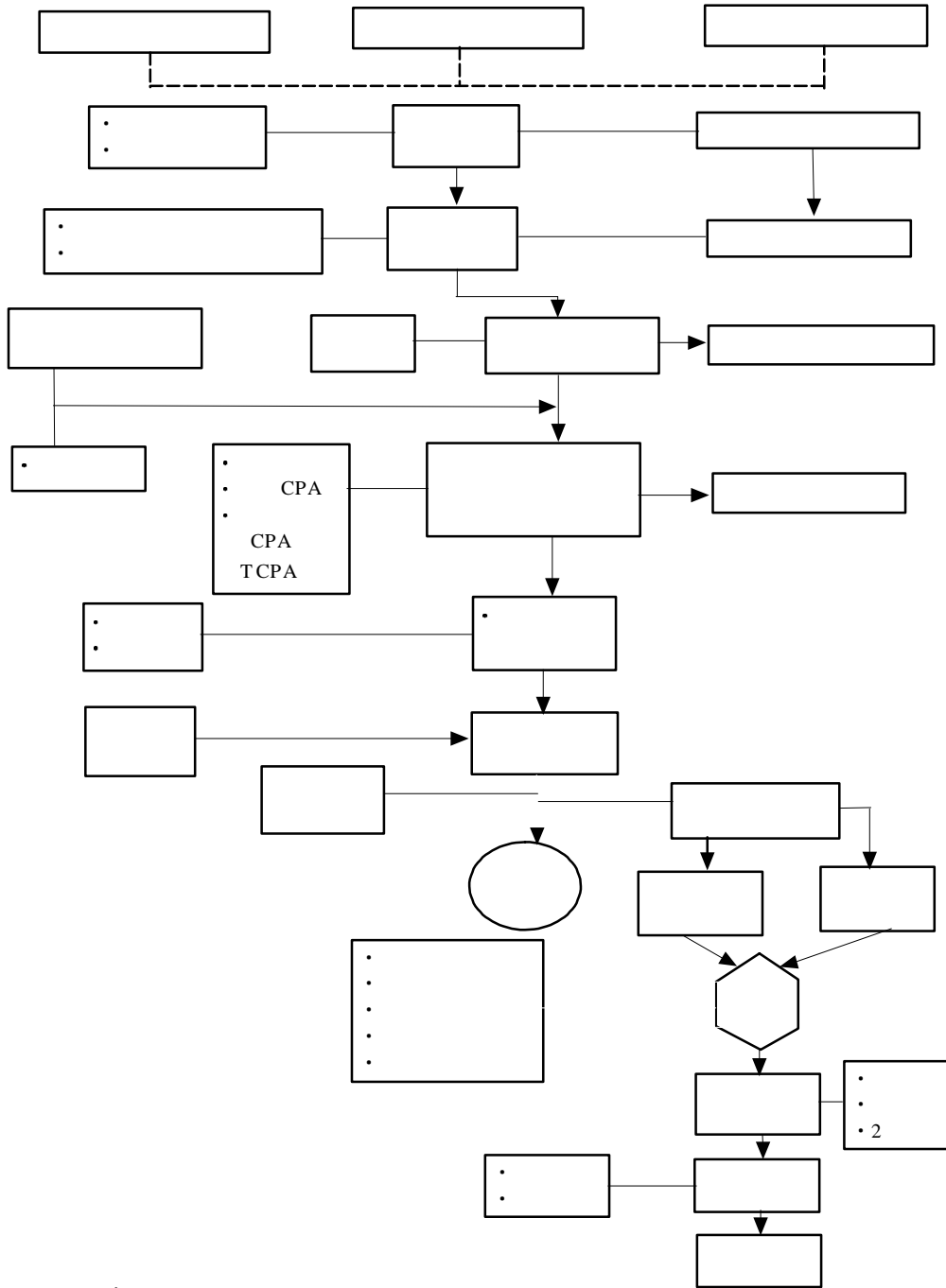
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