

An Analysis on Maritime Education and Training in China's Maritime University

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Abstract: In recent years, with the rapid improvement and development of science technology and society, the global maritime industry has undergone profound changes. The social status of crews has declined gradually and the willingness of maritime career of young crews has generally weakened. This situation adversely affects China's Maritime Education and Training(MET) and brings a lot of challenges. As a very important part of Higher Education in China. How to meet these challenges and improve MET has been paid close attention to.

As students of nautical science of a maritime university, the authors have been impressed deeply by the problems of China's undergraduate MET. From a student's point view, this paper will analyze the features, situation and problems of China's undergraduate MET, compare the similarities and differences of MET in maritime universities at the present stage between China and foreign countries. By drawing lessons from the advanced cultivation concept of foreign maritime universities, the authors will put forward suggestions on tackling

the problems of China's undergraduate MET.

Keywords: Maritime Education and Training; undergraduate MET; maritime university

1 Introduction

In china, there are five leading bachelor degree awarding maritime universities :Dalian Maritime University, Shanghai Maritime University, Jimei University, Guangdong Ocean University and Wuhan University of Technology. In the United states there are seven maritime Academies that award bachelor degrees : United States Merchant Marine Academy, State University of New York Maritime College, California Maritime Academy, Maine Maritime Academy, Texas A&M University at Galveston, Massachusetts Maritime Academy (MMA), and Great Lakes Maritime Academies.

This paper reviews and compares the course of instruction at three university-level navigation officer maritime programs: Jimei University(JMU) and the United States' ,Texas A&M University' Texas Maritime Academy(TMA), and the United States Merchant Marine Academy(USMMA).

2 Comparison of MET between China and foreign countries

2.1 The orientation of education

The United States is an economically developed country, but also the world's shipping power. American shipping companies are all private enterprises, but it is interesting that its seven maritime institutions of higher learning are government-run public schools. Different from China's maritime education at all levels, the United States maritime education,

regardless of ordinary or vocational education, only undergraduate and above level of education. This monorail education and the US government will be the maritime industry as an important part of national economic security. At the same time, in the United States of higher education system, the maritime institutions of education is not large, and the funds to the main government funding. In the United States, maritime education is the implementation of the university, occupation, military education trinity model. The purpose of the educational nautical students is to serve the US Navy for the US Navy, and to receive a bachelor's degree, three (three-wheel), a naval reserve lieutenant or a second lieutenant of the Marine Corps. This type of education is ultimately designed to train students as senior officers, officers and landline shipping industry leaders.

2.2 Sea Training

While both TMA and USMMA are required to provide onboard training ,the experiences differ. Under US Law(46 CFR 310.3),TMA cadets (as well as other state maritime schools) must spend at least six months onboard a Training Ship in cruise status ,with a maximum of two months of training time spent onboard commercial vessels substituting for two months of the specified training ship cruise time. USMMA cadets are required to spend a total of 12 months on one or more merchant ships (46 CFR 310.59). The level of required onboard academic work varies between the two training systems, in part to the more independent nature of learning onboard merchant ships compared with training ships.

JMU students have two periods of sea going experience, the first occurring in the sophomore or junior year for a period of one month of observed practice. The objective of observation practice is for students to become familiar with the ship and shipboard routine in an environment that places an emphasis on guided learning. This period of seagoing experience happens on the JMU's training ship "YUDE" .

The second period of seagoing experience takes place after the last semester of senior year, lasting for 12 months. During this period, the student sails on a commercial shipping company to fulfill their practice to get their Third Mate certificate.

2.3 Curriculum

Each of these programs combine subjects generally regarded as required university courses, as well as the more technically oriented subjects. Each program provides a mechanism for introducing their students to the culture of the school and maritime industry. JMU provides a one month program focusing on military training prior to the start of classes.

Both US institutions also have some type of indoctrination. TAMUG-TMA has a week-long Orientation Week, designed to prepare students mentally and physically for life at Texas Maritime Academy. Students learn how to wear a uniform, basic military courtesies and customs, basic watch standing and seamanship, and TAMUG-TMA traditions. USMMA has a two week “Indoc” that subjects candidates to an intensive regimen of physical , moral ,and regimental training.

Each of the universities in this paper also requires students to declare their major upon entry. While TMA go right into deck courses ,JMU’s first year ,and USMMA’s first term, provide a universal course of study, to allow students to make changes in their declared major if they find their interests have changed as they learn about the work of the seafarer and post-graduation opportunities (2011-2012 Catalog,2011).

Throughout their course of instruction, each program combines both general academic course and professional courses (2011-2012 Catalog, 2011; Catalog 134, 2011-2012, 2011).The professional courses are introduced in an order that allows the students to build upon prior knowledge. These early professional courses, such as basic safety training and lifeboatman, also prepare students to participate in practical sea training. These courses culminate in a series of courses, such as Bridge Resource Management (BRM), in the final 12-18 months that allow students to integrate prior knowledge and engage in critical thinking and decision-making in a variety of scenarios.

While both TMA and USMMA have a course of instruction that meets or exceeds the requirements of obtaining the operational level navigation license, the schools also set the stage for students to advance their license and pursue graduate level business degrees, through

such courses as accounting, marketing and economics. As with most US undergraduate university programs of study, developing critical thinking and decision-making competencies, and preparing students for life long-learning is de rigueur .

A unique element at JMU, but not present at the US institution , is the STCW requirement for seafarers to be proficient in Maritime English. JMU's strategy to improve students Maritime English competency is accomplished by having the professional courses conducted in English, as well courses in English Composition and Maritime English. This places an additional learning burden on the students as they must not only learn the basic knowledge required by STCW, but learn it in a foreign language. The pay-off is that students gain a working knowledge of Maritime English.

3 Suggestions on China's undergraduate MET

As one of the above, maritime education and training(MET), as a multi-level and multi-type education, should use different goals to show the characteristics of each level. Low-level maritime training class should be positioned as vocational education, should be with the good operation of the shipping industry for the purpose. High-level maritime education should be more aware of the completion of the training class of education, the more on the management of the shipping industry and a higher level of research above. In the development of institutional training programs, to reflect the characteristics of different levels of maritime education. Such as vocational education should be based on short-term training, purposefully taught skills and operational skills, as soon as possible to master the practical ability, into the maritime career. But also to take into account some of the higher level of the crew need to master the skills of familiarity and understanding for its future to continue to lay the foundation for learning. Finally, general education should be based on the training of senior officers as the goal, on this basis, elective management courses, training management level officers and even the shipping industry leader, or the future of university teachers.

Besides,China's maritime institutions should reduce the number of repetitive theoretical courses to reduce the time spent on the sea internship. However, due to China's hardware equipment is still relatively backward in the developed countries, all should strive to develop

a more reasonable program to achieve the combination of practice and theory to ensure that all students have enough internship time. For example, in the case of less resources, the students will be divided into several batches of teaching. In the case of shortage of internships, to strengthen cooperation between institutions and enterprises. In addition, in order to cope with the possible phenomenon of school-enterprise cooperation, nautical institutions can learn the way of education in the UK, so that students and enterprises in the case of employment agreement signed, and then sent to the internship, in order to get better Of the internship effect. In addition to the cooperation between schools and enterprises, our government should also increase the support and funding of navigational education practice, making the characteristics and advantages of nautical education in practice.

4 Conclusion

Although here are some differences on the curriculum, arrangement of practical course, and seagoing experience, all the systems carry out a plan according to the STCW policies and their national characteristics. While JMU concentrate on teaching theory based quantitative methods, it reflects the cultural needs of preparing students to continue their academic careers through master and doctoral degree programs. In the United States, the maritime education contains significantly less quantitative theory but more a more practical education, based in part on the belief that the students are being prepared for careers at sea and to become leaders in the industry.

While both Chinese and American system deserve some adjustment to provide a better equilibrium of theoretical and practical training, the expectations of the students must be kept in mind, as well as the safety of ships. While the experience gained through practical training schemes is invaluable and assists in better decision-making at sea, the theoretical areas of nautical education cannot be ignored in developing the theory needed later in their careers to develop theories based on their experiences to improve safety, efficiency and effectiveness.

References

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