Apply Tethered Aerostat Radar System to Oceanic and Offshore Management

Yan-Duan Ning, Bai-Hong Chen, CW Chen*

National Kaohsiung University of Science and Technology, Taiwan.

Abstract

In recent years, the territory has become one of the blue national attentions to the sovereignty of the project. Maritime law enforcement has become a marine management in a ring. This is an important indicator of the national territory of the substance control. Taiwan Strait and South China Sea is an important international maritime transport routes (sea lines of communication, SLOCs). The geographical location of Taiwan and Taiping Island is location in this brief. In recent years, there are increasing events in illegal acts of maritime terrorism, piracy, smuggling, human trafficking, trafficking in narcotic drugs, illegal weapons and transport of radioactive material, the growing incidence of marine pollution. The purpose of this article is to discuss how countries with limited law enforcement resources in the majority of marine territory under good management of marine monitoring and prevention of crime. It is the first national marine policy issues facing. Firstly, we review ocean policy and explore our history, and then by the appeal of the literature we illustrate the status of marine science and technology equipment management application departure. Due to the geographical environment is similar to Singapore, and therefore we tend to learn from its model, apply (Tethered Aerostat Radar System) to the China Sea, and study the feasibility of coastal management. We provide a new method of government management of the oceans, and finally to analyze legal point of view, description of the new system builds and whether human rights would constitute an infringement, do explore the whole of applicable law. Looking forward to (Tethered Aerostat Radar System) capable for the China Sea, coastal management technology policy to make recommendations and contributions.


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Correspondence to: Chen CW, National Kaohsiung University of Science and Technology, Taiwan. Email: chengwu@mail.nkmu.edu.tw

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1. Introduction

For a long time, Taiwan’s responsibilities for ocean affairs have always been decentralized and are the responsibility of various departments. The advantage is that the problems can be dealt with in stages, and the departments can solve them within the scope of their industry management. Pre-stage is a viable practice. For example, the Environmental Protection Department, the Fisheries Department and the Marine Police Department are typical examples. However, the shortcomings of decentralized management are that they are independent and lack of integration, resulting in poor administrative efficiency. Regardless of the decentralized or centralized approach to ocean affairs management, it is essential that the activities and conditions of the sea areas and coastal areas are fully grasped in order to implement ocean management [1-2]. After the establishment of the China Coast Guard Agency in 2000, the range is to manage economic waters of 200 miles. However, we lack the ability of air patrol power, that is, high elevation ships is desperately needed for watching and monitoring around for the security.

It is not difficult to know from the above analysis that in order to do a good job in marine management, the first priority is to be able to grasp all kinds of maritime activities in the 200 nautical miles of water from the low tide line on the coast. In view of the current budget reduction of government departments in China, the ocean information obtained under the division of various departments is mostly one-sided and cannot be managed as a whole. Therefore, it is imperative for China to establish a low-cost and high-performance marine monitoring system. After the research, it is found that the integrated high-altitude tethered traction monitoring system can provide China with more management in the marine land, and it is urgent to be the motivation of this research.

2. Experimental

The integrated air traction monitoring system is a monitoring operation platform on which an unmanned airship is equipped with radar and photoelectric monitoring equipment and is fixed on the ground by one or more ropes. The integrated air tethered traction monitoring system can be used for a variety of surveillance tasks, a low-cost, long-term and high-altitude monitoring platform. The integrated air-retaining traction monitoring system monitors the ground, air and water surface for a long time without any interval in a high-angle view. Because the working platform is at a high altitude, radar waves are irradiated on the ground and the sea surface in a high angle of view, so the integration the airborne tethered traction monitoring system has neither the traditional radar’s shortcomings due to the geographical environment and the influence of the blind zone. Due to the high-altitude projection radar wave, it is limited by the curvature of the earth, and its radar wave radiation range can reach 200 nautical miles depending on the power. The overall performance greatly exceeds the traditional ground radar system. In addition, the photoelectric system and the engraving positioning system can be set on the airship. The target can be measured in time, and the conventional radar is incapable in terms of timeliness [3-5].

In all integrated aerial tethered traction monitoring systems, in addition to maintaining the proper position of the airship, the mainline cable additionally provides the power required on the airship and the observed data is networked and grounded. The car is transmitted. The airship main envelope on the integrated aerial tethered
traction monitoring system is filled with helium and can be raised to a height of 15,000 feet (4,600 meters) by a main cable. With a maximum load of 1000 kg, the airship can provide various monitoring tasks under the airship when it is raised to a predetermined height [6-8].

3. Results and Discussion

In Taiwan, the possibility to use the high tech air traction monitoring system will be two government organizations, namely, Coast Guard and Defense Ministry. We put the laws and regulations below to show the merits and shortcuts of the proposed systems.

3.1. Crime Prevention

The purpose of the integrated air-tolerance traction monitoring system is to reinforce the necessary means for law enforcement personnel to prevent and stop immediately before the hazard has occurred. Whether it is a hazard to an individual's life, body, property, public interest or homeland security, it must be prevented before the crime occurs.

3.2. Deterring Crimes

In order to avoid being seized by the line or on the monitor, it is possible to record the characteristics of the prisoner. So it can effectively deter the crime, which will cause psychological damage to the perpetrator.

3.3. Evidence Collection

The integrated air tethered traction monitoring system can be used as a tool to assist in the detection of crimes, such as an integrated air tethered traction monitoring system when a ship collision case occurs at sea, oil at sea or illegal waste at sea. View radar trails and whether or not to capture relevant images as evidence of tracing crimes. For example, Taiwan's Taipei District Court's 93rd Annual Interpretation No. 202 Criminal Judgment: "...To prevent crime, many homes, communities, and shops have set up video recorders to monitor the dynamics of each time period. The content of the video is taken by mechanical force. No man-made operation, no subjective opinion, and evidence ability."

3.4. Search and Rescue Function

In order to enhance the maritime search and rescue function and provide instant and effective search and rescue information, the integrated air tethered traction monitoring system responds to the searched rescuers in the first time when the people encounter shipwrecks, air crashes or other unexpected disasters. The location of the geographical coordinates must be marked and locked, providing sufficient information for the search and rescue personnel to achieve the purpose of disaster relief for the sea and air, effectively exerting the overall national ambulance power, and effectively helping the rescued.

4. Conclusions and Future Study

The integrated air-retaining traction monitoring system is used for investigating crimes. If the legislation does not express its role, the radar scans the ship's track dynamics and the surveillance video does not pick people, and when it is not picked, all the videos are stored. I fear the privacy of the people. The following is a discussion of privacy, portrait rights, and how surveillance data infringes on privacy and the interpretation of the judge.
5. Conflicts of Interest
The author(s) report(s) no conflict(s) of interest(s). The author along are responsible for the content and writing of the paper.

6. Acknowledgments
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7. References