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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 12763.5-2007

Replacing GB/T 12763.5-1991

**Specifications for oceanographic survey - Part 5: Survey of
acoustical and optical parameters in the sea**

海洋调查规范 第5部分: 海洋声、光要素调查

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Foreword

GB/T 12763 "oceanographic survey" is divided into 11 parts.

--- Part 1. General;

- Part 2. oceanographic observations;
- Part 3. Marine meteorological observations;
- Part 4. Marine Chemistry Elements investigation;
- Part 5. Ocean Sound, light elements investigation;
- Part 6. Marine Biological Survey;
- Part 7. Marine survey data exchange;
- Part 8. Marine Geological Geophysical Survey;
- Part 9. Marine Ecological Survey Guidelines;
- Part 10. seabed topography survey;
- Part 11. Marine Engineering Geological Survey. Wherein Section 9, Section 10 and Section 11 corresponds to GB/T 12763-1991 is a new section. This is Part 5 GB/T 12763, and instead of GB/T 12763.5-1991 "oceanographic survey - Marine sound, light modulation elements check". This part of GB/T 12763 Part 1 and GB/T 12763 Part 7 supporting the use. This section compared with the GB/T 12763.5-1991, the main changes are as follows:
 - Part of the optical elements borrowed from NASA (NASA) 2002 edition of "Ocean Optics specification for satellite ocean water Color sensor test (OceanOpticsProtocolsforSateliteOceanColourSensorValidation, 2002) ", And combined with the specific situation of China II water, we made a comprehensive revision. In addition to keeping the existing sea illumination observation, the remaining weight The new compilation. It adds radiance observations in the optical elements. To collectively irradiance "apparent volume optical observation" and radiance measurements. Based on these two Being a observables derived from sea water is important radiance, remote sensing reflectance, irradiance reflectance, diffuse attenuation coefficient in the data processing Yang optical parameters. The original specification "sea visible light transmittance observation" was changed to "the amount of inherent optical observation." Observational elements in the optical portion of the measurement requirements, technical indicators, measuring methods, equipment and data processing have heavy Major changes in the respective sections are detailed provisions and requirements.
 - Combined with acoustic elements of the current development of underwater acoustic observation instruments, technical requirements and methods of measurement parameters and data compilation for Modified. This section in Appendix A, Appendix B, Appendix C, Appendix D and Appendix E is an informative annex. This part by the State Oceanic Administration. This part is administered by the National Oceanic Standards and Metrology Center. This part of the State responsible for drafting the First Institute of Oceanography, National Satellite Oceanic Application Center, the National Oceanic third marine research The National Ocean Technology Center participated in the drafting. The main drafters of this

section. Dingyong Yao, Tangjun Wu, Songqing Jun, Yang Yanming, Wang Yanfeng, Ma Yi, Wang Xiang Nan, Julien students. This part of the standard replaces the previous version of the case.

1 Scope

GB/T 12763.5-2007 is the Chinese national standard on specifications for oceanographic survey - part 5: survey of acoustical and optical parameters in the sea, in the field of natural and applied sciences. The /T suffix marks it as a recommended standard: it is not compulsory by itself, but it becomes binding as soon as a contract, a tender or a customer specification calls it up - which in practice is how most foreign buyers meet it. It was issued on 13 August 2007 by the General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China; Standardization Administration of China, and has been in force since 1 February 2008. Classification: ICS 07.060, CCS A45. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

GB/T 12763 provisions of this part of the ocean of sound, light elements investigate technical indicators, measurement methods, data recording and finishing. This section applies to the ocean sound, light elements of the investigation, also apply to rivers, lakes and the sound, the light element measurement.

2 Normative references

The following documents contain provisions which, through

GB/T 12763 reference in this text, constitute provisions of this part. For dated reference documents Member, all subsequent amendments (not including errata content) or revisions do not apply to this standard. However, according to this standard are encouraged to reach Whether the agreement parties, study the latest versions of these documents. For undated reference documents, the latest versions apply to this standard.

GB 3102.6-1993 Quantities and units of light and related electromagnetic radiation

GB/T 3241 octave and fractional octave filters

GB/T 3785 sound level meter electric, acoustic performance and test methods

GB/T 4128 standard acoustic hydrophone

GB/T 12763.1 specification for oceanographic survey - Part 1. General

GB/T 12763.2 specification for oceanographic survey - Part 2. Marine hydrographic observations

GB/T 12763.3 specification for oceanographic survey - Part 3. Marine meteorological observations

GB/T 12763.6 specification for oceanographic survey - Part 6. Marine Biological Survey

GB/T 12763.7 specification for oceanographic survey - Part 7. Marine survey data exchange

GB/T 12763.8 specification for oceanographic survey - Part 8. Marine Geology Geophysical Survey

3 Terms and Definitions

The following terms and definitions apply GB/T 12763 in this section.

3.1 Acoustic wave propagation velocity in seawater.

Note. The speed of sound is expressed by seawater m/s.

3.2 G_{Ba} The rate of speed of sound in seawater changes with depth or horizontal direction.

Note. The sound velocity gradient unit represented by s^{-1} .

3.3 The aqueous layer sound velocity with depth dramatic changes.