

Subject :
Survey and certification regarding Positioning
Accuracy of Global Positioning System(GPS
Receiver Equipment) relating regulations prescribed
by The Agency of Natural Resources and Energy,
Ministry of Economy, Trade and Industry
(ex-Ministry of International Trade and Industry),
Japan

NKTECHNICAL INFORMATION

No. : 392

Date : 22 January, 2001

To: All shipowners and shipbuilders concerned

The Society has offered a service of survey and certification regarding Positioning Accuracy of Global Positioning System(GPS Receiver Equipment)(hereafter refer to as "System") relating regulations prescribed by the Agency of Natural Resources and Energy, Ministry of Economy, Trade and Industry (ex-Ministry of International Trade and Industry), Japan.

The Society now revised the procedures of survey and certification regarding Positioning Accuracy of System based on the revision of relating regulations prescribed by the Agency.

The revised procedures are outlined below for your information and reference.

[The procedures of survey and certification regarding Positioning Accuracy of System]

1. The service will be carried out at the request of the party concerned based on the application submitted to branch office or Marine and Industrial Service Department (MID) of ClassNK.
2. The following inspections shall be carried out by a surveyor in charge of the Society:
 - 2.1 Manufacturer, type, serial No. and year and month of manufacture of the System (including units of antennas, processing and display) and printers, etc. shall be confirmed.
 - 2.2 The data of a clearly known position (Positional data of the antenna of the System read off from the chart) shall be obtained from the ship.
 - 2.3 The Positioning data shall be obtained from the System in accordance with Sampling conditions of positioning data stated in Table 1.
3. Positioning accuracy shall be verified by branch office by using the data of item 2 mentioned above.
4. A certificate shall be issued to the applicant as the result of complying with the Criteria for positioning accuracy stated in Table 1 by the Society.

Table 1

Sampling conditions of positioning data	Criteria for positioning accuracy
1) At a clearly known position, 100 or more are to be sampled between five(5) to twenty(20) minutes, however data with *HDOP>4, or *PDOP>6 shall be discarded. 2) When, however the results of 1) above exceed the criteria for positioning accuracy, data of additional 100 or more shall be taken. (*HDOP: Horizontal dilution of precision) (*PDOP: Position dilution of precision)	Error(at a provability of 95%): within 100m. (in the case of *D.GPS: within 10m.) (*D. GPS: Phase GPS)

5. As a result of the above revision, you are kindly requested to take care to read the information concerning the position of the ship's antenna as accurately and precisely as possible with respect to "at a clearly known position" stated item 1 in the Table 1.

Please feel free to contact the Marine and Industrial Service Department at the Head Office of ClassNK in Tokyo at: Tel: +81-3-5226-2041, Fax: +81-3-5226-2039, E-mail: mid@classnk.or.jp, should you have any questions or need further information.

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