SUMMARY

Executive summary: This document is a proposal to include a new agenda item in the NAV Sub-Committee’s work programme to develop performance standards for shipborne Galileo receiver equipment as a future part of the World-Wide Radionavigation System. This will have no cost implications for IMO or the shipping industry.

Action to be taken: Paragraph 15

Related documents: MSC 78/11/5, resolutions A.915(22) and A.953(23) and NAV 51/19, annex 14

Scope of the proposal

1. Galileo is the European satellite navigation system. Galileo is designed as a wholly civil system, operated under public control which will provide two services of use for the maritime community – an Open Service providing positioning, navigation and timing services and a Safety of Life Service which additionally includes integrity information. The services are free of direct user charge. Service guarantees and authentication can additionally be made available at a charge.

2. The European Commission in document MSC 78/11/5 gave an update on the status of the Galileo programme and the Committee agreed to forward the document to NAV 50 for consideration. NAV 50 provided a preliminary assessment of the Galileo navigation service requirements and confirmed, from the analysis performed, that it would meet all the requirements for oceanic, coastal, port approach and restricted waters operation (resolution A.915(22)). NAV 50 further established a correspondence group to address a review of preliminary draft performance standards for receiver equipment and review plans to propose Galileo to the Organization as a component of the World-Wide Radionavigation System.

3. NAV 51 studied the report of the correspondence group and agreed to the draft performance standards which are given at annex 14 to document NAV 51/19.
4 The scope of this proposal is now to develop performance standards for Galileo satellite navigation system receiver equipment as a future part of the World-Wide Radionavigation System.

Compelling Need

5 A new work item is necessary to enable the Organization to prepare performance standards for Galileo receiver equipment. The Galileo system will be gradually deployed with initial operational capability in 2008. Similarly to GPS and GLONASS in the past, Galileo will be offered for the use of the international maritime community as an element of the World-Wide Radionavigation System. The capacity to use the system is therefore dependent upon the availability of IMO performance standards.

Analysis of the issues involved, having regard to the costs to the maritime industry and global legislative and administrative burdens

6 The purpose of this effort is to establish performance standards for Galileo receiver equipment based on the existing IMO performance standards for GPS and GLONASS receiver equipment which are of a similar nature (global navigation satellite systems). This will provide an additional option for the maritime community. The administrative burdens to the Organization and to Member States are anticipated to be minimal.

Benefits

7 The Galileo satellite navigation system will provide a global radio-navigation service meeting all the requirements for oceanic, coastal, port approach and restricted waters operations, as established by resolutions A.915(22) and A.953(23). This includes, when using the Galileo Safety of Life service, the real-time provision of integrity information that will issue timely warnings in case of system failure or excessive positioning error.

8 The service is provided in several frequency bands allocated by the ITU (RNSS allocations in ARNS bands) and offers a significantly improved robustness against on-board and ground interference. The services offered can be further improved by jointly using a combination of Galileo and the other existing global navigation satellite systems GPS and GLONASS.

Priority and target completion date

9 This issue should have a high priority since it would be desirable that Galileo receiving equipment can be available as soon as the service becomes operational in 2008. Performance standards will be needed in 2006 in order to allow industry sufficient time to develop equipment. Based on the work already performed by the NAV Sub-Committee on this issue it is expected that one session will be sufficient to address this matter.

Specific indication of the action required

10 In accordance with the scope above. Draft texts are given in annex 14 to document NAV 51/19.
Remarks on the criteria for general acceptance

11 Is the subject of the proposal within the scope of IMO’s objectives? Yes.

12 Do adequate industry standards exist? Not yet. Development of IMO performance standards proposed is a pre-requisite for the development of such industry standards.

13 Do the benefits justify the proposed action? Yes.

Identification of which subsidiary bodies are essential to complete the work

14 The work should be able to be accomplished by the Sub-Committee on Safety of Navigation exclusively.

Action requested of the Committee

15 The Committee is invited to add a new, high-priority item to the work programme of the NAV Sub-Committee and to call upon the Sub-Committee to start and to complete at its next session the development of performance standards for shipborne Galileo receiver equipment, in order to allow industry sufficient time to develop equipment prior to the entry into service of the Galileo system.