

103<sup>D</sup> CONGRESS  
1<sup>ST</sup> SESSION

# H. R. 805

To direct the Secretary of Transportation to issue rules which require vessels operating in harbors in the United States to use state-of-the-art maritime vessel traffic control equipment, and for other purposes.

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## IN THE HOUSE OF REPRESENTATIVES

FEBRUARY 3, 1993

Mr. TORRICELLI (for himself and Mr. ROHRABACHER) introduced the following bill; which was referred jointly to the Committees on Merchant Marine and Fisheries and Science, Space, and Technology

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## A BILL

To direct the Secretary of Transportation to issue rules which require vessels operating in harbors in the United States to use state-of-the-art maritime vessel traffic control equipment, and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*  
2 *tives of the United States of America in Congress assembled,*

3 **SECTION 1. SHORT TITLE.**

4 This Act may be cited as the “Maritime Navigation  
5 Technology and Research Act of 1993”.

6 **SEC. 2. FINDINGS.**

7 The Congress finds the following:

1           (1) The United States should have as a goal the  
2           establishment of a vessel traffic control system that  
3           is as effective as the United States air traffic control  
4           system.

5           (2) The technology exists to display, in real  
6           time electronic charts on board a vessel, the position  
7           of any vessel in the immediate area, based on global  
8           positioning system satellites.

9           (3) The global positioning system has an accu-  
10          racy of less than 100 meters and 3 to 10 meters in  
11          a differential mode which could be used to signifi-  
12          cantly improve the accuracy and reliability of vessel  
13          navigation in both harbors and in open water.

14          (4) Laser navigation technology could be used  
15          to enhance harbor safety by improving the accuracy  
16          of early warnings to vessels of the clearances needed  
17          when approaching various fixed structures.

18          (5) Existing vessel traffic control systems are  
19          often little more than informational services.

20          (6) Improved vessel traffic control and collision  
21          avoidance systems are needed in United States har-  
22          bors to improve the safety of vessel traffic and pro-  
23          tect the marine environment.

1           (7) Technology for real time tidal and current  
2           measurements, if combined with vessel traffic control  
3           systems, could improve navigation safety.

4 **SEC. 3. RULES REQUIRING STATE-OF-THE-ART VESSEL**  
5 **TRAFFIC CONTROL EQUIPMENT.**

6           (a) ISSUANCE OF RULES.—Not later than 180 days  
7           after the date of the enactment of this Act, the Secretary  
8           of Transportation shall issue rules which require vessels  
9           which operate in harbors in the United States to have  
10          operational state-of-the-art navigation, communication,  
11          and collision avoidance equipment that is compatible with  
12          Coast Guard vessel traffic systems.

13          (b) REQUIREMENTS FOR CERTAIN VESSELS.—Rules  
14          issued under this section shall require the use, by any ves-  
15          sel of a class to be determined by the Secretary and speci-  
16          fied in the rules, of vessel traffic control and collision  
17          avoidance equipment that meets performance standards  
18          established in the rules for—

19                (1) determining vessel position with an accuracy  
20                that is at least 5 to 10 meters;

21                (2) an onboard visual display, to be updated in  
22                real time, showing the location, speed, track, and  
23                projected course of both the parent vessel and other  
24                vessels within a radius of 40 kilometers; and

1           (3) an onboard collision avoidance alarm system  
2       capable of—

3           (A) computing the potential for collision  
4           and alerting the pilot of impending collision;  
5           and

6           (B) displaying the best alternatives for  
7           evasive action.

8       (c) REQUIREMENTS FOR OTHER VESSELS.—Rules is-  
9       sued under this section shall require the use, by a vessel  
10      that is not included in the class specified pursuant to sub-  
11      section (b), of a transponder capable of transmitting data  
12      regarding—

13           (1) the position, speed, and direction of the ves-  
14      sel; and

15           (2) other pertinent information.

16      (d) UPGRADE OF COAST GUARD SYSTEMS.—The  
17      Secretary of Transportation shall upgrade all vessel traffic  
18      control systems as necessary to make them compatible  
19      with technologies required under rules issued under this  
20      section.

21      **SEC. 4. RESEARCH AND DEVELOPMENT.**

22           (a) IN GENERAL.—

23           (1) REQUIREMENT.—The Secretary of Trans-  
24      portation shall conduct or provide for the conduct of

1 research and development of technologies for vessel  
2 navigation.

3 (2) REQUIRED RESEARCH.—Research under  
4 this subsection shall include—

5 (A) programs in the maritime applications  
6 of the advanced global positioning satellite sys-  
7 tems and equivalent or better technology, elec-  
8 tronic charting and information display, com-  
9 puterized vessel tracking, vessel transponders,  
10 collision avoidance, and computerized alarm  
11 systems; and

12 (B) a program to better understand the re-  
13 lationship between human factors and vessel ac-  
14 cidents and between human factors and mari-  
15 time safety, to develop a human factors analysis  
16 of the hazards associated with new technologies  
17 to be used in maritime traffic control.

18 (b) RESEARCH PLAN.—

19 (1) IN GENERAL.—Not later than 1 year after  
20 the date of the enactment of this Act, the Secretary  
21 of Transportation shall submit to the Congress and  
22 begin implementing a national research plan for re-  
23 search in vessel navigation technology.

24 (2) CONTENTS.—The national research plan  
25 shall describe research and development which will

1 be carried out by the Secretary over a 5-year period  
2 to ensure continued advancement in navigation tech-  
3 nology that will provide the highest degree of safety.

4 **SEC. 5. RESEARCH ADVISORY COMMITTEE.**

5 (a) ESTABLISHMENT AND FUNCTIONS.—Not later  
6 than 180 days after the date of the enactment of this Act,  
7 the Secretary of Transportation shall establish and ap-  
8 point the members of an advisory committee which shall  
9 be known as the “Maritime Navigation Research Advisory  
10 Committee”. The advisory committee shall—

11 (1) provide advice and recommendations to the  
12 Secretary regarding needs, objectives, plans, ap-  
13 proaches, content, and accomplishments with respect  
14 to the research plan under section 4(b) and the mar-  
15 itime research program carried out by the Depart-  
16 ment of Transportation; and

17 (2) assist the Secretary in assuring that re-  
18 search under that program is coordinated with simi-  
19 lar research being conducted by persons outside of  
20 the Department of Transportation.

21 (b) MEMBERSHIP.—The advisory committee—

22 (1) shall consist of not more than 20 members  
23 appointed by the Secretary from among individuals  
24 who are not employees of the Department of Trans-  
25 portation and who are specially qualified to serve on

1 the advisory committee by reason of their education,  
2 training, or experience; and

3 (2) shall include representatives of schools, uni-  
4 versities, public port authorities, corporations, asso-  
5 ciations, labor unions, consumers, and other Federal,  
6 State, and local government agencies.

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