placed in this office to coordinate with overall boating programs.

State boating programs have also been increased and, over a 5-year period, some States have doubled expenditures. Most States have indicated the need for assistance by Federal funds. Almost half the boats operate in waters under State jurisdiction.

Despite the increases in Coast Guard and State boating safety programs, the rapid growth of boating makes new programs and expanded current programs necessary to prevent boating safety from getting out of hand.

IV. Recommendations.

- A. Based on our evaluation of the recreational boating accident data and existing safety authority and programs, the Safety Board recommends that:
 - 1. The Department of Transportation (Coast Guard) continue to urge enactment of recreational boating safety legislation, such as H.R. 15223 or a similar bill, which would provide for:
 - a. Consolidation of the Motorboat Act of 1940 and them-69-29 Federal Boating Act of 1958 into the new act.
 - b. The numbering of all motorboats. (69-14-30)
 - c. The carrying of approved lifesaving devices on all watercraft.
 - d. Authority for officials to stop boaters from proceeding into adverse weather or sea conditions, or
 operating boats manifestly unsuitable for specific

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conditions, when it can be reasonably anticipated that an accident will result. ($\frac{1}{m-69-32}$

- e. Approval of State boating safety programs which meet prescribed Federal requirements to include: safety patrols; enforcement agreements; boating safety education; licensing as a permissive program, at the discretion of individual States; uniform accident investigation and reporting; uniform safety equipment; operating zones, speed, and traffic controls in congested areas; and a uniform aids to navigation system.
- f. Making grants-in-aid to those States that conform with prescribed Federal boating program standards.
- the manufacture of recreational boats and associated equipment with provisions for testing, and inspection by designated organizations and agencies.

Based on our analysis of Coast Guard boating accident reports, ty standards which are promulgated under authority of such new slation, should include requirements for:

- (1) Capacity plates on all boats which show the maximum safe load the boat can carry, and the maximum power for the boat.
- (2) Permanent identification of boats indicating compliance with Federal safety standards, and

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including manufacturer's name, date of construction, and a serial number.

- (3) Minimum reserve buoyancy criteria for all boats in flooded conditions.
- (4) Minimum stability criteria for all motorboats of Class "A" and "l".
- (5) Grabrails, handholds for use by boaters to cling to an upturned boat.
- (6) Design and construction of fuel tanks, fuel piping, carburetor backfire arrestors, and ventilation of engine and fuel tank spaces.
- h. Electrical wiring and equipment in closed spaces 49-47 containing flammable liquids or vapors.
- i. Minimum visibility requirements from the operator's μ location.
- legislation, Coast Guard and State boating officials should give increased program emphasis to: boating education (including expansion of the Coast Guard Auxiliary); dissemination of boating safety information; boating law enforcement; and development of more practical and attractive lifesaving devices.

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- 3. State boating administrators consider expansion of zoning restrictions, speed and traffic controls in congested waters. (M-69-45)
 - 4. Boat manufacturers and dealers consider selling a boat and the minimum required safety equipment as a unit. (M-69-46)
 - dent report form which would include: information on hours of operation of the boat; recommendations to prevent similar future accidents; statement as to whether weather information was available, sought, received, and considered; information on engine or other material failure; and whether intoxication or other physical impairment were involved.
 - 6. Investigations of boating accidents by the Coast Guard and States be thorough, uniform, and provide information vital to the prevention of similar casualties. Human or behavioral factors should be included, which are of value in analysis and in seeking remedial action. (M-69-48)
 - 7. The Coast Guard and States stress law enforcement under existing authority, with emphasis on reckless and negligent operation of boats. (M-69-49)
- 8. The Environmental Science Services Administration, the Coast Guard, and local boating organizations widely publicize the availability of local weather forecasts, to make them available to boaters from outside the area. (M-69-50)

- 9. Within available resources, Coast Guard Boating Safety Centers be established on a permanent basis in major boating areas. States and local boating communities should consider establishing Boating Safety Centers, with services similar to those the Coast Guard centers furnish boaters. (M-64-51)
- 10. Marine insurance companies study the feasibility of reduced rates for boaters who complete accredited boating safety courses, and whose accident records warrant such special consideration. $(M-69-5^{\circ}2)$