

**REPORT OF THE  
DEPARTMENT OF GAME  
AND INLAND FISHERIES**

**Study Of The  
Use Of Air Boats  
In The Commonwealth**

**TO THE GOVERNOR AND  
THE GENERAL ASSEMBLY OF VIRGINIA**



**SENATE DOCUMENT NO. 24**

**COMMONWEALTH OF VIRGINIA  
RICHMOND  
1990**



# COMMONWEALTH of VIRGINIA

## *Department of Game and Inland Fisheries*

4010 WEST BROAD STREET  
BOX 11104  
RICHMOND, VA 23230  
1-800-252-7717 (V/TDD)  
(804) 367-1000 (V/TDD)

January 16, 1990

TO:           The Honorable L. Douglas Wilder  
                  Governor of Virginia

and

The General Assembly of Virginia

The 1989 General Assembly, by Senate Joint Resolution 166, requested the Department of Game and Inland Fisheries to study the use of air boats in the Commonwealth.

Enclosed for your review and consideration is the report that has been prepared in response to this resolution.

Respectfully submitted,

Handwritten signature of Larry G. Hart in cursive script, with the word "(for)" written at the end.

James A. Remington, Director  
Department of Game and Inland Fisheries

**STUDY OF THE USE OF**

**AIR BOATS IN THE**

**COMMONWEALTH**

**As Requested By**

**Senate Joint Resolution No. 166**

**Of The**

**1989 Session Of The General Assembly**

**Prepared By**

**Virginia Department of Game and Inland Fisheries**

**In Cooperation With**

**Virginia Marine Resources Commission**

**And**

**Chesapeake Bay Local Assistance Department**

**January 1990**

## INTRODUCTION

Senate Joint Resolution No. 166 of the 1989 Session of the General Assembly resolved that the Department of Game and Inland Fisheries, in cooperation with the Virginia Marine Resources Commission and The Chesapeake Bay Local Assistance Department, study the use of air boats in the Commonwealth, including their effect on wildlife and vegetation in Virginia's sensitive areas, the safety of operation of these boats, and their impact on the quality of life of residents living along waterways on which they are used.

To respond to the critical questions proposed in the resolution, a Departmental committee representing the Fish, Wildlife, Law Enforcement and Education Divisions was established and a request for input was sent to the cooperating state agencies. Upon completion of an initial draft report, a public meeting to receive citizen comment was held on November 15, 1989 with thirty concerned citizens, five Departmental staff, VMRC representative Mr. Robert Grabb and State Senator R. Edward Houck in attendance. Subsequent to the public meeting, three letters of comment have been received.

## FINDINGS

### Status in Virginia

A statewide canvassing of Departmental Law Enforcement Officers indicates that currently there are 13 airboats and 2 hovercraft in the Commonwealth. These numbers were revised from boat registration data to include an additional 10 hovercraft, bringing the total to approximately a dozen for each type of craft.

### Other States Perspective

To foster a complete perspective on the issue, six states in the Southeast, with a historical identity to airboats, were queried. South Carolina has a State Law prohibiting the use of airboats in freshwater areas. Georgia has a Department Regulation which places a restriction on the noise level with 55 decibels as the maximum. Their Law Enforcement Division has encountered difficulty in the enforcement of this regulation since it is not clear whether the regulation refers to engine noise or propeller noise and they have had difficulty prosecuting cases in court. Mississippi has no restrictions and very few craft of this type. Alabama has an Agency Regulation under which it shall be unlawful for any person to use an airboat in public waters of the state that are subject to the ebb and flow of tide of at least two inches between November 15 of each year and the end of waterfowl season. The Regulation exempts use by law enforcement, biologists, aquatic weed crews and

oil/gas company personnel while performing official duties. Louisiana has no state law but approximately 90% plus of the parishes have local restrictions on the use of airboats at night. Otherwise, airboats are treated as any other boat from a law enforcement approach. Additionally, while there are not supportive studies, Louisiana contends that airboats are believed to be a trespass problem which leads to ready resource exploitation of furbearers (particularly muskrat and nutria), frogs, etc. Florida has no state laws restricting airboat use and most of the state wetlands are open to this craft. However, Everglades National Park is closed to airboats with the exception of law enforcement along its boundaries. Certain Wildlife Management Areas, National Wildlife Refuges and State Water Management Districts have site specific restrictions such as no nighttime use, daily permit requirements and hunting restrictions when using airboats (limiting the number on an area for example).

The three southeastern states which have implemented laws or regulations relating to airboats were questioned as to the degree of study made prior to the passage of the laws or regulations and whether or not there has been an increase in the number of craft in the state. South Carolina indicated that very little study was done prior to passing legislation prohibiting the use of airboats in freshwater areas. In the last two years the registration of airboats has doubled and currently numbers 120 of these craft. Georgia conducted a brief study prior to enactment of a noise level regulation. Registration records do not place airboats into an identifiable category so it is unknown whether, the number is increasing. The usage regulation in Alabama evolved without much study and their records do not provide a mechanism to determine the number of these craft registered.

During the course of this study, correspondence was received from the Alaska Department of Fish and Game requesting information on current regulations or legislation concerning airboat use. Mr. John H. Westland, Wildlife Biologist with the Division of Wildlife Conservation states "We are attempting to gather information to assist in the development of draft regulations for airboat use on state waterbodies. We plan to develop regulations that retain opportunities for airboat use while minimizing resource damage and user group conflicts".

### Safety

Airboats travel at top speeds in the range of 40-50 mph and require greater skills to operate than would be needed for a conventional craft. They are generally used for observation, surveying, mapping, sampling and aquatic vegetation control. Extensive safety training of operators should be considered. Safety requirements for hovercraft are similar to airboats, except that they are not restricted to water only. Recreational hovercraft currently being marketed in Virginia advertise speeds up to 45 mph over water,

land, snow or ice on an eight-inch cushion of air. Departmental Law Enforcement personnel have witnessed a hovercraft operating upstream at about 40 mph through Class II whitewater rapids in the Rappahannock River near Kelly's Ford. After the boater had finished riding the river, he got a running start, hit the bank at about 20 mph, rode up the steep, muddy ten foot bank, and then maneuvered his craft around some very large rocks and out to the parking lot where he landed the boat onto a trailer. It was the officers' opinion that while these boats may have their proper place on open waters, they would seem to present a significant danger to their operators and/or occupants when operated in situations such as that described. This particular boat was properly registered with the Department of Game and Inland Fisheries and had the required personal flotation devices for its operator and two riders. As these boats increase in popularity, the number of reportable accidents may likewise increase.

### Noise

Due to the high number of rpms required to effectively operate an airboat, the noise level generally measures around 100-110 decibels when underway. This noise level generally makes conversation difficult. According to the Philadelphia EPA office, a lawn mower measures 90 decibels, motorcycles 95, chain saws 100 and amplified rock music 110. The average pleasure boat generally measures 40 decibels. All readings are taken at a distance of 50 feet. Airboat operators usually find it necessary to wear some type of hearing protection much the same as is used when range shooting. Everglades National Park personnel state that airboats are not longer used in the Park due to the noise disturbance to wildlife. Basically, the noise is loud but not painful and could be quite annoying, depending upon the proximity of the listener.

The state of Maryland specifically uses a noise limitation to address the use of airboats. Engines on all vessels operating on the waters of the State shall be so muffled as not to create objectionable noises constituting a nuisance. However, any boat or boats involved in a race, regatta, or exhibition approved by the United States Coast Guard or the Department shall be exempt from the provisions of this regulation. This regulation applies only to vessels required to be numbered and any vessel documented by the United States Coast Guard which is used principally upon the waters of the State. Vessels manufactured after July 1, 1982, may not exceed a noise level of 82db(A) measured under standard test procedures.

### Wildlife Habitat Effects

Airboats and hovercraft do not seem to cause any substantial impact on submerged aquatic vegetation. However, there does appear to be a high

potential for damage to emergent marsh vegetation with the degree of impact varying with the time of year, frequency of use and number of craft.

### Wildlife Effects

Airboat and hovercraft operation does have significant potential for impacting wildlife. This may occur due to actual collision or strikes of birds and mammals, destruction of nests and disruption of nesting activity from noise or harassment of birds near nesting sites. Undue harassment or disturbance of wintering waterfowl could result in extra energy expenditure and stress during severe weather conditions; intentional or unintentional "rallying" of waterfowl populations during the hunting season could result in increased harvest; and providing hunter access to otherwise inaccessible areas could reduce or eliminate the natural refuge areas available to waterfowl. Generally, the biological community feels that much more research should be initiated to address the impacts of craft disturbance on wintering/nesting waterfowl populations.

### Fisheries Effects

Impacts to the Commonwealth's fisheries resources from airboats usage will generally center around providing access to otherwise inaccessible areas and potentially result in increased harvest. Any disruption to submerged or emergent aquatic vegetation could directly impact fisheries production since these areas serve as critical nursery grounds for fish reproduction.

### Sensitive Areas

The compatibility of airboating or use of hovercraft with other reasonable and permissible activities is something which may require individual evaluation, depending on the area of projected use. Certain areas, because of their environmental sensitivity, may require that craft usage be prohibited during certain key seasons of the year or times of the day.

### Accidents and Complaints

Department of Game and Inland Fisheries boating accident reports have been researched and indicate no reports of hovercraft or airboat accidents in the Commonwealth over the past five years. These craft are required to be registered by the Department as are other motor driven vessels and must carry the same safety equipment as other boats. Complaints received by the Department's Law Enforcement Division on airboats involve loud noise, trespassing on tidal marshes and operators being inconsiderate of other boats.

## Relation to Current Statutes

There appears to be no existing statute that would prohibit or regulate the use of airboats over wetlands of the Commonwealth. According to Colonel Gerald Simmons, Chief of the Law Enforcement Division of the Game Department, and with concurrence from Assistant Attorney General Mr. John Butcher, in all of Virginia's tidewater, boats may go into any creek or inlet from a navigable river without any violation of the trespass laws, as long as the boat does not touch or cross any land. Above tidewater the situation can be different, but generally the same rule applies and, therefore, is enforced in the same manner.

House Bill 1241, enacted by the 1989 General Assembly Session and effective on July 1, 1989, may however have some impact. Previously, non-commercial outdoor recreational boating activities were permitted on wetlands under an exemption provided in Section 62.1-13.5(3)(c) of the Code of Virginia. HB 1241, however, added section (k) which now provides localities the ability to regulate those outdoor recreational activities that either impair the natural functions of the wetlands or alter their contours. Accordingly, if it can be demonstrated that airboats or hovercraft do indeed result in such a use or damage, they would be subject to regulation under the provisions of the Wetlands Act. It is premature to estimate what standards might be applied during the decision-making process and, presumably, it would involve a site specific evaluation. Any permits issued under a wetlands zoning ordinance, however, are specific to that locality and would not grant state-wide authorization to use and operate airboats over wetlands. House Bill 1241 could possibly serve as a major deterrent to the use of not only airboats and hovercraft, but also other types of recreational boating craft in wetland areas.

## The Study Public Meeting

In order to incorporate citizen, industry and governmental perspective into the study, a public meeting was held at Courtland High School in Spotsylvania County on November 15, 1989. Not only was this meeting announced through the legal advertisement process, a letter was sent to all who had specifically made contact with the office of Senator Houck or Delegate Ackerman as having an interest in the study.

Senator Houck addressed the reason for the study which was in support of citizens along the Rappahannock who were concerned about airboats being used along the river and surrounding marshes. Of primary concern was the damage these craft could possibly cause to wetlands.



Comments in favor of some regulation in the use of these craft identified the following areas of concern:

- 1) noise level
- 2) disturbance of waterfowl
- 3) disturbance of other wildlife
- 4) use of the craft to trespass
- 5) disturbance of marsh habitat

Comments in opposition to regulation of use cited the following:

- 1) the issue is one of improper use
- 2) these craft are widely used in various rescue operations
- 3) hovercraft and airboats should not be considered together since hovercraft do not travel well over marsh grass as do airboats
- 4) Ducks Unlimited has been using airboats since 1950 for surveys during low water periods and no permanent damage to marshlands has been reported.
- 5) Outboard motors have more potential to incur damage than do airboats
- 6) airboats have not been involved in any accidents in Virginia
- 7) airboats deposit no residue or oils in the water as do other boats
- 8) new technology is becoming available to greatly reduce the noise level of airboats.

A petition of 155 signatures, of which 129 were registered voters, was presented at the public meeting indicating there are citizens in favor of the right to own and operate airboats in the Commonwealth of Virginia.

#### Conclusions

1. The potential does exist for airboats and hovercraft, due to the additional accessibility afforded these craft in marsh type environments, to be disruptive to waterfowl populations and to create a disturbance to these wetland areas.
2. Airboats and hovercraft should both be considered within any proposed legislation due to the similarities of these craft in providing access into heretofore inaccessible environments.
3. Airboats and hovercraft do have the potential to produce a significant level of noise, generally in the range of two and one-half times that of the average pleasure boat. New technology is becoming available, however, to greatly reduce the noise level.
4. Safety could be a factor, particularly if operation occurs in areas of other watercraft congestion or if the operator does not possess the level of skill required for safe operation of these special use craft. In the

absence of any reportable accidents involving airboats or hovercraft, this does not appear to be significant.

5. The underlying question does not appear to be one of use, but one of improper use. Correcting the improper usage of airboats and hovercraft should be the focus of any legislative action.

## Recommendations

It is the recommendation of this study that the 1990 Session of the Virginia General Assembly enact legislation to regulate the use of airboats and hovercraft in the Commonwealth. The specifics within that legislation should concentrate on the concerns addressed for disturbance to waterfowl and/or wetland areas for this is where improper usage becomes of paramount importance. Within this context, it would be appropriate to eliminate all airboat and hovercraft use during the period of October 1 through the last day of February in public waters of the state which are subject to the ebb and flow of tide. This legislation should specifically exempt use of these craft by State or Federal government personnel while performing search and rescue efforts, official law enforcement activities, wildlife inventories or other resource protection and enhancement efforts. Use of these craft by nongovernmental entities involved in official scientific research may be permitted by the Director of the Department of Game and Inland Fisheries.

The closure period of October 1 through the last day of February recognizes the presence of waterfowl in the Commonwealth for longer than just the migratory waterfowl hunting season. Additionally, should the waterfowl season dates change from year to year, this closure period provides for that change and yet retains a definitive timeframe to eliminate public confusion.

It is further recommended that concerns with safety and noise not be legislatively addressed within the context of this study. In the absence of any reportable accidents, it would appear that existing craft are being operated in a reasonable manner. Should this change, safe operation instruction for airboats and hovercraft can easily be implemented into the Department of Game and Inland Fisheries statewide boating safety education program. Relative to noise, technology is advancing noise reduction for the subject craft and should evolve a vehicle which is more compatible to both users and non-users. Should this not occur, the question of noise abatement for airboats and hovercraft becomes an integral part of broader based legislation to address noise in general.

# 1989 SESSION

LD9162141

## SENATE JOINT RESOLUTION NO. 166

Offered January 23, 1989

*Requesting the Department of Game and Inland Fisheries to study the use of air boats in the Commonwealth.*

Patrons—Houck; Delegates: Ackerman, DeBoer, Croshaw and Howell

Referred to the Committee on Rules

WHEREAS, more than ever before the Commonwealth and its citizens have begun to focus attention on the protection and preservation of our natural resources; and

WHEREAS, particular attention has been given to the environmentally sensitive areas of the Chesapeake Bay and its tributaries; and

WHEREAS, many of these areas provide important habitat to many forms of wildlife and vegetation, including endangered species of wildlife and rare plants; and

WHEREAS, it is recognized that these sensitive areas are easily altered, and in some cases, irreparably damaged by certain activities; and

WHEREAS, there is a growing concern over the effects of the use of air boats in disturbing the natural equilibrium in these sensitive areas; and

WHEREAS, air boats are designed to traverse land and water, and are specifically for use in marshes and other wetlands with shallow water and grassy vegetation; and

WHEREAS, these boats are often equipped with a grass rake or other mechanism on their bow which removes vegetation from the boat's path; and

WHEREAS, these boats take a great deal of energy to move forward and, when stopping and traveling in short bursts of speed, destroy the natural contour of the land underneath them as well as vegetation on the land; and

WHEREAS, the operation of these boats generate a significant amount of noise, which may disorient and possibly drive wildlife from certain areas; and

WHEREAS, the noise from these air boats, especially when they are used after sunset, can be a source of concern to residents living along a body of water; and

WHEREAS, these boats often travel in speeds in excess of forty miles per hour; and

WHEREAS, these boats are often operated in tall grasses, providing limited visibility for boat operators; now, therefore, be it

RESOLVED by the Senate, the House of Delegates concurring, That the Department of Game and Inland Fisheries, in cooperation with the Virginia Marine Resources Commission and the Chesapeake Bay Local Assistance Department, study the use of air boats in the Commonwealth, including their effect on wildlife and vegetation in Virginia's sensitive areas, the safety of operation of these boats, and their impact on the quality of life of residents living along waterways on which they are used.

The Department shall complete its work in time to submit its findings and recommendations to the Governor and the 1990 Session of the General Assembly as provided in the procedures of the Division of Legislative Automated Systems for processing legislative documents.

