



**National
Transportation
Safety Board**

Survival Factors

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Overview

- Address lack of APV occupant protection
- Update the assumed average weight per person (AAWPP)
- Amend US Coast Guard NVIC 1-01

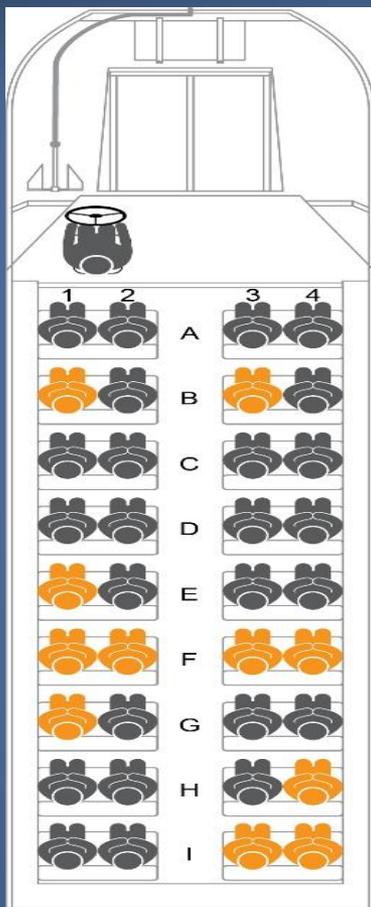
Lack of APV Occupant Protection



Source: Seattle PD



DUCK 6 Ejections



- Lap belt for the driver only
- 11 occupants ejected
- 7 ejected passengers sustained serious injuries
- Seat belts prevent ejections

DUCK 6 Seats

- Tubular metal floor post deformed
- Toggle clamps used
- High numbers of ejections and injuries



NHTSA Definitions

- Bus: motor vehicle designed for carrying >10 persons
- Non-over-the-road bus: body on frame bus $>10,000$ lbs.
- For $>26,000$ lbs., lap/shoulder belts at all passenger seats in new buses

Assumed Average Weight Per Person

- Accurate AAWPP is vital to vehicle safety

AAWPP	NHTSA – 150 lbs.	USCG – 185 lbs.
APV Weight	<26,000 lbs.	>26,000 lbs.
Lap/shoulder belts	Not Required	Required

Coast Guard Guidance

- Occupant protections necessary to highway operations affect APV safety in marine environment
- Safe and expeditious marine egress
- Amend NVIC 1-01

Summary

- APVs should provide occupant protection
- Adjusting NHTSA's AAWPP would provide for uniform application of federal safety requirements
- NVIC 1-01 guidance should be amended



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