Second Draft

Recommendations for Seaplane Inspection and Decontamination for Aquatic Nuisance Species

Background:

For more than a decade now water resource managers throughout North America have been concerned about seaplane activity as a pathway for the spread of aquatic vegetation, dreissenid mussels and other aquatic nuisance species (ANS). In 1998 the Great Lakes Panel of the national Aquatic Nuisance Species Task Force (ANSTF) developed "generic" voluntary guidelines for seaplanes that were adopted by the ANSTF as national guidelines in April of 1999. Those guidelines still serve as the national standard even though some local jurisdictions have recently expanded on them, and in a couple of cases, made them mandatory.

While the primary focus of most water resource managers has been and will continue to be on the potential threat of ANS proliferation via the overland transport of watercraft and equipment, the seaplane pathway has been receiving more attention recently as significant progress is being made with other types of more traditional watercraft and equipment interdiction. As dreissenid mussels and invasive aquatic plant species continue to spread throughout North America, individual jurisdictions with relatively high seaplane use are beginning to consider, and in some cases, implement more aggressive regulation of this activity.

According to the National Seaplane Pilots Association (SPA) there are an estimated 35,000 seaplane rated pilots and about 1,500 new seaplane ratings issued each year in the United States. The Federal Aviation Administration (FAA) does not distinguish between airplanes with floats, wheels or skis so the exact number of seaplanes operating in the US is not known. The SPA estimates that there are between 5,000 and 10,000 seaplanes in current use in the United States. To get some idea (not necessarily the most accurate predictor of actual seaplane use by state) of relative seaplane use by state, please refer to the table listed below for the number registered seaplane bases in each of the top 25 states.

Number of Registered Seaplane Bases by State – Top 25	
State	*No. of Bases*
Alaska	*121*
Minnesota	*75*
Florida	*41*
Maine	*34*
New York	*20*
Massachusetts	*18*
Wisconsin	*17*

Louisiana	*16*
Washington	*15*
New Jersey	*13*
Indiana	*13*
California	*11*
Pennsylvania	*10*
West Virginia	*10*
New Hampshire	*8*
Michigan	*7*
Illinois	*7*
Maryland	*7*
Connecticut	*6*
Idaho	*6*
Virginia	*5*
Alabama	*4*
Missouri	*4*
Oregon	*3*
South Carolina	*2*
Vermont	*2*
Montana	*2*

(**SOURCE:** U.S. Department of Transportation, Federal Aviation Administration, Office of Airports, Airport Safety Data Branch, 2004)

The objective of this effort is to adopt a minimum standardized approach to reducing the likelihood of ANS transfer between waterbodies via seaplanes traveling between uninfested waters, by formalizing a set of guidelines for general seaplane operation based primarily on the 1999 ANSTF recommendations with the addition of a voluntary on-line training program that includes a new instructional video. The far more important and difficult task will be to adopt some protocols and standards for seaplanes utilizing those waters that are positive for dreissenid mussels or highly invasive aquatic plant species.

While we have deferred doing so here, because it exceeds the scope of this project and needs and deserves much more serious and comprehensive attention, addressing the need to inspect and decontaminate seaplanes in a manner similar to more traditional types of watercraft and equipment needs to be addressed soon in order to shore-up protection. It is unclear whether seaplanes are more or less likely than other types of watercraft to become vectors for the transfer of ANS. On one hand they are much more rapidly mobile, but on the other hand airspeed may accelerate the drying, desiccation and/or evacuation of attached mussels or vegetation. However, seaplanes as a group appear to be just as much of a risk for transferring mussels and plants as boats when using contaminated waters. Most of the water resource management jurisdictions in the west have developed comprehensive prevention programs that include rigorous protocols and standards for the inspection and decontamination of other types

of watercraft and equipment and seaplanes should probably be treated in the same way, especially if they are moving directly between a contaminated waterway to an uncontaminated one.

We have compiled the general aviation guidelines below from multiple sources (see references). At their core, all of these sources reflect the ANSTF guidelines which already have broad support from water resource managers and seaplane pilots as representing the best practical practices currently available for maintaining clean seaplanes moving between uninfested waters.

Proposed General Requirements for Seaplane Operation: (Safety takes priority when applying these guidelines)

Note: ***All seaplane pilots should be aware that some individual agencies or organizations responsible for establishing and/or administering access regulation to protect public or private resources have already implemented more stringent and water specific requirements established by law or regulation that supersede these guidelines. Pilots are responsible for being aware of these rules before accessing those waterways.***

1. *All seaplane pilots should view the seaplane inspection and cleaning video, complete the training course and carry a certificate available on-line at either the national Seaplane Pilots Association or 100th Meridian Initiative websites (see below).*

   http://www.seaplanes.org

   http://www.100thmeridian.org/certificate.asp

2. *Before entering the watercraft:*
   a. *Inspect and remove all aquatic plants or attached mussels, snails or other animals from all exterior surfaces of floats, wires, cables and rudders*
   b. *To the extent practical pump, remove or otherwise treat (6% Bleach solution) all water from floats, wheel wells and any other compartments or areas of the aircraft that can contain or maintain raw water before takeoff*

2. *Before takeoff:*
   a. *Taxi clear of any aquatic plants*
   b. *Re-inspect for any visual sign of aquatic vegetation*
   c. *Raise and lower rudders several times or otherwise remove any aquatic vegetation*
   d. *Make sure all floats remain as dry internally as possible during takeoff*

3. *After takeoff:*
   a. *Raise and lower rudders several times to free any remaining aquatic vegetation while over the departing waterbody or over dry land*

b. *If aquatic plants persist and are still visible on floats, cables or rudders, return to the same waterbody and manually remove them*

4. *Storage and mooring:*
   a. *Remove aircraft from the water whenever practical to better facilitate self inspection, drainage, removal, cleaning and drying*
   b. *Maintain pontoons, floats and hulls to make sure they remain water tight; including sealing seams, replacing gaskets on inspection covers and repairing any cracks*

5. *See online training website for demonstration of proper inspection and cleaning procedures*

References:

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