Testimony Before The Oregon State Senate Committee on Judiciary

Regarding Oregon Senate Bill SB 71/SB 71-4

March 20, 2013

Submitted By: Barbara Frederiksen-Cross 5631 S. Whiskey Hill Rd. Hubbard, Oregon 97032 Tel: 503-709-4407 barb@frederiksensoftware.com

54

Witness Background

Barbara Frederiksen-Cross, 5631 S. Whiskey Hill Rd, Hubbard, Oregon 97032. Phone: (503) 709-4407. barb@frederiksensoftware.com.

I am testifying today as a concerned citizen who is a recreational flier of model aircraft, including aircraft that would be classified as a "drone" under SB 71. I have aviation experience as a hang glider pilot, ultralight pilot, sky diver, and student pilot of fixed-wing aircraft.

Professionally I am a Forensic Software Analyst and Software Developer. My company is Frederiksen Software, Inc. which was founded here in Oregon in 1997.

Summary of Testimony

I am opposed in part to SB 71 as modified by SB 71-4. My primary concern is that the bill, as currently written, is incomplete, imprecise, and overbroad. I believe that a more thoughtful and mature bill is needed to protect public interests and public safety. My specific concerns and suggestions are summarized below. Except as noted below I support the remainder of SB 71.

Section 1. (1): Definition of "drone"

The definition proposed for "drone" is vague and overbroad. As currently defined, this term fails to distinguish between toy, model aircraft, and professional aircraft operated by persons or public bodies. Because of recent media events, this term also carries an unwelcome association with controversial military actions. A more accurate term would be "Unmanned Aircraft" or "Unmanned Airborne System." These terms ar both in current use with the Federal Aviation Authority ("FAA")

Section 1. (1): Focus on aircraft type, rather than purpose of flight, hinders the clarity of this bill

The focus of this bill seems to be on a particular type of aircraft, rather than specific unwanted behaviors. I believe that the clarity of this bill would be improved by redirecting the focus to the behaviors that are disallowed for operators of unmanned aircraft. As such, the focus should include unmanned aircraft with and without cameras.

Section 2. (3): Prohibited behaviors should include harassment and hunting of both game and non-game animals.

A clear definition of "harassment" should be provided to distinguish between benign activities such as terrain or species survey and aerial photography that are conducted without exciting the subject animals, and deliberate attempts to excite or harass the animals.

Additions to Section 2: Consideration should be given to legitimate uses of unmanned aircraft that may require flight over property that the owner does not own.

Examples of such use might include inspection of rail tracks, inspection of power lines, or agricultural uses such as a farmer's inspection of fence lines, crops, or herd conditions for animals that are leased from private individuals, corporations, or over public lands managed by and leased from the Bureau of Land Management ("BLM").

Because unmanned aircraft such as radio controlled airplanes, helicopters, and multi-bladed rotor aircraft are already used by hobbyists and are now entering the market as children's toys, there should also be consideration for recreational usage.

Addition to Section 2: Consideration should also be given for legitimate recreational, research, and educational purposes.

The bill should clearly articulate what State Lands can be over flown, and what restrictions are placed on flights over State Parks, Public Waterways, Public Beaches, and BLM land. If permits, licenses, or fees are required in order for children, hobbyists, or professional operators to fly in these are other designated hobby areas the body that provides such oversight should be identified.

Addition to Section 2: Consideration for Ecological studies, Species Habitat, Waterway Management, and Forest Management Research.

The Bill should identify special exceptions to the rules that benefit the public or our ability to manage forest resources and species recovery efforts. These exceptions should apply equally to research projects, citizen researchers, and State-chartered studies.

Section 4. (4): Use of a drone to collect evidence of traffic offenses

As a taxpayer, I fail to see why this exclusion is a part of the bill. Oregon already permits use of unmanned cameras to detect offenses such as running a red light. It is my understanding that Oregon also already permits use of aircraft over the State's highways to detect speeders and reckless drivers. Since unmanned aircraft can be obtained and operated at a cheaper cost to taxpayers that a piloted aircraft, this prohibition seems to place an unreasonable restriction on a possible cost saving measure.

Addition to Section (4): Consideration for Search and Rescue Efforts and Firefighters

The bill should provide specific exceptions for the use of unmanned aircraft in search and rescue efforts that require over flight of private or State managed lands. Similar provisions should also be made for firefighters and wildfire management operators.

Section (5): "Damages" is unclear

The bill should distinguish between intentional and unintentional actions, and provide a clearer definition of "Damages". Is a child's unintentional over flight of a neighbor's property a damage that should be punished by a \$5000 fine? What if the child's toy breaks a window? Clearly pilots of

unmanned aircraft should have responsibility for any damages they cause, but clearer language is required to define "damage" and to establish more realistic limits to pilot liability and resultant fines.

Section (7): the stated height restriction is impractical

A limit of 400 feet is impractical. Some children's toys and hobbyist aircraft cannot fly this high without exceeding the range of their radio controller. Further, the identification of whether an aircraft is above or below 400 feet will often require a subjective judgment on the part of the observer that will be difficult or impossible to verify in most instances. A better focus for this section would be the unwanted effect (noise, endangerment, animal harassment, invasion of privacy, etc.) that is caused by the aircraft, not its altitude.