

**UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF MASSACHUSETTS**

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U.S. DISTRICT COURT  
DISTRICT OF MASS.

_____	)	
MICHAEL S. SINGER,	)	
	)	
Plaintiff,	)	
	)	
v.	)	Civil Action No. _____
	)	
CITY OF NEWTON,	)	
	)	
Defendant	)	
_____	)	

**COMPLAINT FOR DECLARATORY JUDGMENT**

Plaintiff Michael S. Singer, *pro se*, brings this Complaint for declaratory judgment against Defendant City of Newton (“Newton”) and avers as follows:

**INTRODUCTION**

1. On December 19, 2016, Newton’s city council enacted Section 20-64 of the City of Newton Ordinances, entitled *Pilotless Aircraft Operation* (the “Ordinance”). The Ordinance relates to small unmanned aircraft and their use in the national airspace system.<sup>1</sup>

2. This is an action under 28 U.S.C. §2201 and 42 U.S.C. §1983 seeking declaratory judgment that the Ordinance is preempted by federal law, violates Plaintiff’s statutory rights of navigation, and violates Plaintiff’s rights under the First, Fifth, and Fourteenth Amendments and the Massachusetts Privacy Act, M.G.L. C. 214 §1B.

<sup>1</sup> The airspace principally affected by the Ordinance is FAA Class G and Class B airspace.

3. Powered flight, one of the defining achievements of modern times, is an endeavor that inherently transcends municipal boundaries. Aviation would be unsafe and impractical if separately regulated by the nation's ~90,000 local governments.<sup>2</sup>

4. Since the Air Commerce Act of 1926, the U.S. Government has exercised continual and exclusive sovereignty over U.S. airspace. *See* 49 U.S.C. §40103(a)(1).

5. The Federal Aviation Act of 1958 created the Federal Aviation Administration (FAA). The FAA has since exercised pervasive authority over U.S. airspace and aircraft. The FAA is responsible for prescribing regulations for “navigating, protecting, and identifying aircraft” and “protecting individuals and property on the ground.” 49 U.S.C. §40103(b)(2).

6. Pilots and aviation businesses, who must make substantial investments over periods of years or decades, rely on the nationally uniform regulation of U.S. airspace and aircraft by the Federal Government.

7. The public enjoys a statutory right of navigation through U.S. airspace. Federal law provides that “A citizen of the United States has a public right of transit through the navigable airspace.” 49 U.S.C. §40103(a)(2). Massachusetts law provides that “navigable airspace shall be subject to a public right of air navigation” and that “[f]light of aircraft over the lands and waters of this commonwealth ... shall be lawful *unless* at such a low altitude as to interfere with the then existing use ...” M.G.L. C. 90 §§35 and 46 (emphasis added).

8. The public right of navigation is firmly rooted in ancient and common law. Congress’s power to protect navigation derives from the Commerce Clause. The right of navigation protects the movement of a person’s ship, even if that person is not aboard.

9. Recently, the field of aviation has made rapid advances in unmanned aircraft.

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<sup>2</sup> *See* U.S. Census Bureau, 2012 Census of Governments, <https://www.census.gov/govs/cog>

10. With the FAA Modernization and Reform Act of 2012 (FMRA), Congress directed the FAA to “safely accelerate the integration of civil unmanned aircraft into the national airspace system.” See Section 332(a)(1). The FAA responded with regulations, *inter alia*, for small unmanned aircraft, including 14 CFR Part 107.

11. Small Unmanned Aircraft Systems (“sUAS”), sometimes imprecisely called “drones,” are unmanned aircraft weighing less than 55 pounds, and their associated systems. 14 CFR Part 107.

12. sUAS have enormous potential to do public good. They can deliver vital medicines, find a lost child, rush a flotation device to a drowning swimmer, monitor for Zika-infected mosquitoes, inspect buildings, survey land, and study wildlife. They enable hospice patients to (virtually) visit their favorite outdoor places before dying.

13. The media and public have lawful uses for sUAS to observe government acts.

14. sUAS can safely operate—and the FAA generally requires them to operate—at lower altitudes than conventional fixed-wing aircraft.

15. Because sUAS operate closer to the ground, municipal governments have legitimate concerns that sUAS, if misused, could cause a hazard, nuisance, or invasion of privacy.<sup>3</sup>

16. Newton’s Ordinance takes off from a reasonable premise—protecting people on the ground—but climbs to unconstitutional heights. By attempting to regulate airspace and aircraft, the Ordinance increases the risk of aviation hazards, runs contrary to the will of Congress, and constructively denies sUAS operators access to the very airspace that the FAA allocated for them to use.

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<sup>3</sup> This action does not dispute Newton’s traditional police powers to prohibit harmful acts.

### **JURISDICTION AND VENUE**

17. This court has jurisdiction over Plaintiff's federal and state claims pursuant to 28 U.S.C. §§1331, 1343, and 1367.

18. Plaintiff is entitled to declaratory and other relief deemed necessary and proper pursuant to 28 U.S.C. §§2201 and 2202, 42 U.S.C. §1331, and Fed. R. Civ. Proc. 57.

19. Venue is proper in this District pursuant to 28 U.S.C. §1391(b), because Defendant resides in this District and because a substantial part of the events or omissions giving rise to Plaintiff's claims occurred in this District.

### **PARTIES**

20. Plaintiff Michael S. Singer, M.D., Ph.D. ("Singer") is a U.S. citizen, FAA-certified small unmanned aircraft pilot, and licensed physician who resides, owns real property, and owns and operates one or more small unmanned aircraft in Newton, Massachusetts.

21. Defendant City of Newton ("Newton") is a corporate governmental body and a political subdivision of the Commonwealth of Massachusetts, established pursuant to the laws of Massachusetts.

### **FACTUAL BACKGROUND**

22. Singer is a physician and inventor evaluating the use of sUAS for delivery of medical services. He holds an M.D. and Ph.D. from Yale University, serves on the clinical faculty at Harvard Medical School, has co-founded several healthcare companies, and has been awarded about 50 patents that cover, *inter alia*, wireless medical devices. Singer earns his livelihood by inventing new technologies and building small businesses around them.

23. Singer is certified as a small unmanned aircraft pilot pursuant to 14 CFR Part 107. He owns at least two commercial-type sUAS, one purchased before enactment of the Ordinance,

another purchased thereafter. Singer tests his sUAS over public and private lands in Newton, Massachusetts in accordance with 14 CFR Part 107.

24. At times relevant to this action, Singer has been a member of the Newton Conservators, a local conservation group.

25. sUAS are aircraft under the authority of the FAA.

26. FAA rules require, *inter alia*, that a commercial sUAS operator register with the FAA, mark the sUAS with an FAA registration number, observe various safety rules, and operate the sUAS generally at or below an altitude of 400 feet Above Ground Level (AGL).

27. The FAA is empowered to assess civil and criminal penalties for unlawful operation of a sUAS, including at altitudes below 400 feet AGL.

28. The FAA has investigated and fined sUAS operators for hazardously operating a sUAS, including at altitudes below 400 feet AGL.

29. Class B airspace is a category of airspace expressly regulated by the FAA. It usually surrounds the nation's busiest airports.

30. Some airspace above Newton, Massachusetts from the surface to 400 feet AGL is Class B airspace. Such airspace can be found, for example, above Malia Terrace.

31. Class G airspace is a category of airspace expressly regulated by the FAA. It is the portion of airspace that has not been designated as Class A, B, C, D, or E.

32. Some airspace above Newton, Massachusetts and below 400 feet AGL is Class G airspace. Such airspace can be found over most of the city's surface.

33. The navigable airspace, as such term applies to a sUAS, includes at least some airspace below 400 feet AGL.

34. The text of the Ordinance is attached as Exhibit A.

35. The Ordinance defines a class of “pilotless aircraft” and provides, *inter alia*, that:
- a. “Owners of all pilotless aircraft shall register their aircraft with the City Clerk’s Office” and pay a fee;
  - b. “Registration shall include . . . A copy of the Owner’s Federal Aviation Administration Certificate of Registration for pilotless aircraft”;
  - c. “No pilotless aircraft shall be operated . . . over private property at an altitude below 400 feet without the express permission of the owner . . .”;
  - d. “No pilotless aircraft shall be operated . . . at a distance beyond the visual line of sight of the Operator . . .”; and
  - e. “No pilotless aircraft shall be operated . . . over any school, school grounds, or other City property . . . without prior permission from the City . . .”

36. Upon information and belief, Defendant’s decision to control sUAS operations *precisely* “below 400 feet” was in response to the FAA’s rule that sUAS “cannot be higher than 400 feet.” *Cf.* 14 CFR Part 107 §107.51.

37. Upon information and belief, Defendant’s written records up to December 19, 2016 do not cite any reason, except as alleged in the preceding paragraph, to impose restrictions on sUAS operations *precisely* “below 400 feet.”

38. Defendant crafted the “below 400 feet” restriction as a precise counterpart to the FAA’s “higher than 400 feet” restriction, such that the two rules, concurrently applied, would presumptively prohibit sUAS over most of the land area of Newton, Massachusetts.

39. The Ordinance’s “below 400 feet” restriction frustrates Congress’s will to “safely accelerate the integration of civil unmanned aircraft systems into the national airspace system.” FMRA Section 332(a)(1).

40. 14 CFR Part 107 Subpart D provides that the FAA may grant waivers of certain operational restrictions, *e.g.* for line-of-sight requirements.

41. The Ordinance conflicts with Plaintiff's exercise of such waiver provisions.

42. 14 CFR Part 107 §107.31 *et seq.* allows Plaintiff to operate a sUAS within the visual line of sight of a visual observer who is separate from the remote pilot in command.

43. The Ordinance conflicts with 14 CFR Part 107 §107.31 *et seq.*

44. 14 CFR Part 107 §107.21 allows a remote pilot in command, *e.g.*, Plaintiff, to deviate from sUAS operational requirements due to an in-flight emergency.

45. The Ordinance make no allowance for emergency deviations.

46. 14 CFR Part 107 requires Plaintiff's sUAS to have a "pilot in command".

47. The Ordinance expressly treats Plaintiff's sUAS as a "pilotless aircraft".

48. The Ordinance empowers the chief of police to "prohibit the use or operation of pilotless aircraft where it is allowed, or allow the operation of pilotless aircraft where it is prohibited."

49. In effect, the Ordinance purports to empower the chief of police to issue a temporary flight restriction (TFR), issue an airspace authorization, or waive a requirement of 14 CFR Part 107. Such powers are reserved for the FAA and air traffic control. *See* 14 CFR Parts 91 and 99, and 14 CFR Part 107 §§107.41 and 107.200.

50. The provisions of the Ordinance set forth above sow confusion about aircraft rules and air traffic control and thereby increase the risk of aviation hazards.

51. The FAA has exempted from registration sUAS weighing less than 0.55 pounds.

52. The Ordinance requires registration of sUAS weighing less than 0.55 pounds and, as a prerequisite, requires registration with the FAA.

53. The DHD D1 Quadcopter (“D1 Quadcopter”) is an unmanned, powered aerial vehicle, weighing less than 55 pounds, that is operated without direct human contact from within or on the aircraft. The D1 Quadcopter is depicted in Exhibit B.

54. The D1 Quadcopter weighs about 0.02 pounds or 8 grams, which is less than two sheets of standard office paper. It measures 1.7 x 1.7 inches, similar to an OREO® cookie.

55. The Guillow’s Strato Streak balsa airplane (“Strato Streak”) is powered by the spring force of a twisted rubber band. It is an unmanned, powered aerial vehicle, weighing less than 55 pounds, that is operated without direct human contact from within or on the aircraft. The Strato Streak is depicted in Exhibit C.

56. The Strato Streak or a substantial equivalents thereof have been manufactured in and sold from Wakefield, Massachusetts for about 90 years.

57. Neither the D1 Quadcopter nor the Strato Streak is equipped with any audio- or video-recording apparatus.

58. The D1 Quadcopter and Strato Streak are each “pilotless aircraft” within the meaning of the Ordinance.

59. The Ordinance requires the owner of a D1 Quadcopter or Strato Streak to register such aircraft with the City Clerk and pay a fee. To register such aircraft with the City Clerk, the Ordinance first requires the owner to register with the FAA.

60. Plaintiff owns a D1 Quadcopter and a Strato Streak.

61. FAA registration rules do not require registering the make, model, or serial number of any sUAS.

62. The Ordinance requires sUAS owners generally, and Plaintiff particularly, to register the make, model, and serial number (if available) of every sUAS they own.

63. The Ordinance states that it is “to be read and interpreted in harmony with all relevant rules and regulations of the Federal Aviation Administration ...”

64. The public generally, and Plaintiff particularly, do not possess the legal expertise to interpret the Ordinance “in harmony with all relevant rules and regulations of the [FAA].”

65. Violation of the Ordinance is punishable by a fine.

66. A person cited for violating the Ordinance may suffer reputational damage.

67. Enforcement of the Ordinance may harm a business’s operations.

68. Newton owns and operates several dozen parks, *e.g.*, Nahanton Park.

69. During the past six years, the Newton Conservators has petitioned Newton to cease and desist from dumping snow and refuse on its park lands, *e.g.* Nahanton Park.

70. Plaintiff considers Newton’s acts of dumping to be controversial and unlawful.

71. Plaintiff regularly visits Nahanton Park to monitor for evidence of further dumping by the City. Plaintiff uses a sUAS to view the park for such evidence.

72. Upon information and belief, during the seven-year period ending on December 19, 2016, Newton’s police had only recorded one (1) incident related to an airborne sUAS, *i.e.*, Incident #15007758. The sUAS of that incident was owned by Defendant and was operated by one of Defendant’s employee.

## COUNT 1

### **Preemption; 49 U.S.C. §40103 *et seq.*; 42 U.S.C. §1983**

73. Plaintiff realleges and incorporates herein by reference the allegations contained in each of the foregoing paragraphs.

74. Plaintiff is a member of a class for whose especial benefit 49 U.S.C. §40103 *et seq.* and the FMRA were enacted.

75. 49 U.S.C. §40103, the FMRA, other federal law, 14 CFR Part 107, and other FAA regulations create express and implied rights in Plaintiff's favor.

76. The Ordinance violates Plaintiff's rights; is preempted by federal law; violates the Supremacy Clause of the United States Constitution; and is void at least because:

- a. federal regulation of aircraft and airspace is pervasive and occupies the entire field of law;
- b. Congress has expressly empowered the FAA to regulate civil unmanned aircraft;
- c. Congress has expressly instructed the FAA to integrate civil unmanned aircraft into the national airspace system;
- d. the Ordinance's restrictions precisely "below 400 feet" AGL frustrate the will of Congress;
- e. the FAA has a statutory mandate to prescribe air traffic regulations for navigating and identifying aircraft and protecting individuals and property on the ground;
- f. the FAA exercises authority over sUAS and their operation;
- g. the FAA exercises authority over at least some portion of airspace over Newton that is below 400 feet AGL;
- h. the Ordinance conflicts with FAA control of Class B and Class G airspace;
- i. the Ordinance violates Plaintiff's federal right of navigation;
- j. the Ordinance renders punishable Plaintiff's lawful operation of a sUAS under 14 CFR Part 107;
- k. the Ordinance conflicts with the FAA's power to grant, or Plaintiff's freedom to exercise, waivers under 14 CFR Part 107 Subpart D;

- l. the Ordinance conflicts with the emergency provisions of 14 CFR Part 107 §107.21;
- m. the Ordinance conflicts with the visual observer provisions of 14 CFR Part 107 §107.31;
- n. the Ordinance empowers the chief of police to “prohibit the use or operation of pilotless aircraft where it is allowed, or allow the operation of pilotless aircraft where it is prohibited”;
- o. the Ordinance conflicts with or surpasses FAA rules, as it requires the owner of a sUAS weighing less than 0.55 pounds, or a D1 Quadcopter, or a Strato Streak, to present the City Clerk with a certificate of FAA registration, even though the FAA has exempted such aircraft from registration; and
- p. the Ordinance conflicts with or surpasses FAA rules, as it imposes a sUAS registration requirement that is redundant and substantially more onerous than the FAA’s national registration regime.

77. Plaintiff has immediate and prospective economic interests that rely upon the consistent application of federal law and regulations, and which the Ordinance now harms and is further poised to harm.

## **COUNT 2**

### **Right of Navigation; 49 U.S.C. §40103; 42 U.S.C. §1983**

78. Plaintiff realleges and incorporates herein by reference the allegations contained in each of the foregoing paragraphs.

79. 49 U.S.C. §40103 affords Plaintiff a right of transit.

80. Plaintiff’s right of transit applies to the navigation of his aircraft.

81. The Ordinance violates Plaintiff's right of transit and thereby causes him immediate economic harm and other current and prospective harms.

**COUNT 3**

**Right of Navigation; M.G.L. C. 90 §§35 and 46; 28 U.S.C. §1367**

82. Plaintiff realleges and incorporates herein by reference the allegations contained in each of the foregoing paragraphs.

83. M.G.L. C. 90 §§35 and 46 afford Plaintiff a right of navigation.

84. Plaintiff's right of transit applies to the navigation of his aircraft.

85. The Ordinance violates Plaintiff's right of transit and thereby causes him immediate economic harm and other current and prospective harms.

**COUNT 4**

**First Amendment; 42 U.S.C. §1983**

86. Plaintiff realleges and incorporates herein by reference the allegations contained in each of the foregoing paragraphs.

87. Plaintiff uses a sUAS to observe for controversial or unlawful acts by Newton.

88. The Ordinance places a prior restraint on Plaintiff's freedom to observe such acts.

89. The restraint placed by the Ordinance is overbroad, unreasonable, or indefinite.

90. The Ordinance violates the First Amendment to the United States Constitution, as applied to Defendant by the Fourteenth Amendment.

91. The Ordinance's registration requirement creates a chilling effect that inhibits the exercise of constitutionally protected information gathering by Plaintiff and others.

**COUNT 5**

**Void for Vagueness; Fifth and Fourteenth Amendments; 42 U.S.C. §1983**

92. Plaintiff realleges and incorporates herein by reference the allegations contained in each of the foregoing paragraphs.

93. Plaintiff has invested substantial money and effort in property and an enterprise that the Ordinance purports to control.

94. Plaintiff is entitled to know what conduct the Ordinance requires and prohibits.

95. The Ordinance is void for vagueness at least because:

- a. it requires Plaintiff to read and interpret the Ordinance “in harmony” with rules and regulations of the FAA;
- b. certain provisions of the Ordinance are facially inconsistent with FAA regulations;
- c. certain provisions of the Ordinance are preempted by FAA regulations;
- d. a reasonable person cannot discern what conduct is required or prohibited by the Ordinance “in harmony with” FAA regulations; and
- e. Plaintiff may imminently suffer a fine, reputational damage, and economic harms if Defendant deems that he has violated the Ordinance.

**COUNT 6**

**Substantive Due Process; Fifth and Fourteenth Amendments; 42 U.S.C. §1983**

96. Plaintiff realleges and incorporates herein by reference the allegations contained in each of the foregoing paragraphs.

97. The Ordinance violates the Plaintiff’s substantive due process under the Fifth and Fourteenth Amendments to the United States Constitution at least because:

- a. A D1 Quadcopter, a Strato Streak, a sUAS weighing under 0.55 pounds, or a sUAS belongs to a category of chattels that Plaintiff is entitled to own without undue intrusion by Defendant;
- b. the Ordinance requires Plaintiff to register with the City Clerk, pay a fee, and divulge substantial personal information merely for owning a D1 Quadcopter, a Strato Streak, a sUAS weighing under 0.55 pounds, or a sUAS;
- c. Defendant's regulation of ownership of a D1 Quadcopter, a Strato Streak, a sUAS weighing under 0.55 pounds, or a sUAS is arbitrary and capricious; and
- d. the Ordinance violates Plaintiff's fundamental privacy and property rights.

#### **COUNT 7**

##### **Violation of Massachusetts Privacy Act; 28 U.S.C. §1367**

98. Plaintiff realleges and incorporates herein by reference the allegations contained in each of the foregoing paragraphs.

99. A D1 Quadcopter, a Strato Streak, a sUAS weighing under 0.55 pounds, or a sUAS belongs to a category of chattels that Plaintiff is entitled to own free from unreasonable government interference with his privacy.

100. The Ordinance violates Plaintiff's rights under M.G.L. C. 214 §1B at least because:

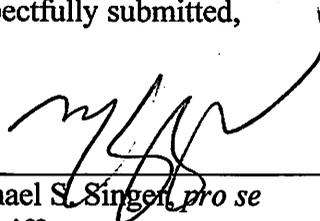
- a. it requires Plaintiff to register with the City Clerk and divulge substantial personal information merely for owning a D1 Quadcopter, a Strato Streak, a sUAS weighing under 0.55 pounds, or a sUAS; and
- b. such requirement is an unreasonable interference with Plaintiff's privacy.

**PRAYER FOR RELIEF**

Plaintiff prays that the Court enter judgment against Defendant and grant the following relief:

- a. declare that Section 20-64 of the City of Newton Ordinances is void and preempted by federal law;
- b. declare that Section 20-64 of the City of Newton Ordinances violates Plaintiff's right of navigation under 49 U.S.C. §40103;
- c. declare that Section 20-64 of the City of Newton Ordinances violates Plaintiff's right of navigation under M.G.L. C. 90 §§35 and 46;
- d. declare that Defendant lacks the authority to extend private property rights to include airspace up to 400 feet AGL or lacks the authority to presumptively exclude sUAS from the airspace over private property up to 400 feet AGL;
- e. declare that Section 20-64 of the City of Newton Ordinances violates the First Amendment;
- f. declare that Section 20-64 of the City of Newton Ordinances violates the Due Process Clauses of the Fifth and Fourteenth Amendments;
- g. declare that Section 20-64 of the City of Newton Ordinances is void for vagueness;
- h. declare that Section 20-64 of the City of Newton Ordinances violates M.G.L. C. 214 §1B; and
- i. grant such additional relief as justice may require.

Respectfully submitted,



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