U.S. Department
of Transportation
**Federal Aviation
Administration**

800 Independence Ave., S.W.
Washington, D.C. 20591

May 5, 2015

Exemption No. 11494
Regulatory Docket No. FAA–2015–0304

Ms. Carol Gosain
Counsel for The Travelers Companies, Inc.
Steptoe & Johnson LLP
1330 Connecticut Avenue, NW
Washington, DC 20036

Dear Ms. Gosain:

This letter is to inform you that we have granted your request for exemption. It transmits our decision, explains its basis, and gives you the conditions and limitations of the exemption, including the date it ends.

By letter dated February 6, 2015, you petitioned the Federal Aviation Administration (FAA) on behalf of The Travelers Companies, Inc. (hereinafter petitioner or operator) for an exemption. The petitioner requested to operate an unmanned aircraft system (UAS) to conduct roof inspections, underwriting, risk assessment, risk control, accident reconstruction, and sUAS pilot training and development.

See Appendix A for the petition submitted to the FAA describing the proposed operations and the regulations that the petitioner seeks an exemption.

The FAA has determined that good cause exists for not publishing a summary of the petition in the Federal Register because the requested exemption would not set a precedent, and any delay in acting on this petition would be detrimental to the petitioner.

Airworthiness Certification

The UAS proposed by the petitioner are the 3DRobotics IRIS+ and DJI Phantom 2.

In accordance with the statutory criteria provided in Section 333 of Public Law 112−95 in reference to 49 U.S.C. § 44704, and in consideration of the size, weight, speed, and limited operating area associated with the aircraft and its operation, the Secretary of Transportation has determined that this aircraft meets the conditions of Section 333. Therefore, the FAA finds that the relief from 14 CFR part 21, *Certification procedures for products and parts, Subpart H—Airworthiness Certificates*, and any associated noise certification and testing requirements of part 36, is not necessary.

The Basis for Our Decision

You have requested to use a UAS for aerial data collection. The FAA has issued grants of exemption in circumstances similar in all material respects to those presented in your petition. In Grants of Exemption Nos. 11062 to Astraeus Aerial (*see* Docket No. FAA−2014−0352), 11109 to Clayco, Inc. (*see* Docket No. FAA−2014−0507), 11112 to VDOS Global, LLC (*see* Docket No. FAA−2014−0382), and 11213 to Aeryon Labs, Inc. (*see* Docket No. FAA−2014−0642), the FAA found that the enhanced safety achieved using an unmanned aircraft (UA) with the specifications described by the petitioner and carrying no passengers or crew, rather than a manned aircraft of significantly greater proportions, carrying crew in addition to flammable fuel, gives the FAA good cause to find that the UAS operation enabled by this exemption is in the public interest.

Having reviewed your reasons for requesting an exemption, I find that—

- They are similar in all material respects to relief previously requested in Grant of Exemption Nos. 11062, 11109, 11112, and 11213;
- The reasons stated by the FAA for granting Exemption Nos. 11062, 11109, 11112, and 11213 also apply to the situation you present; and
- A grant of exemption is in the public interest.

Our Decision

In consideration of the foregoing, I find that a grant of exemption is in the public interest. Therefore, pursuant to the authority contained in 49 U.S.C. 106(f), 40113, and 44701, delegated to me by the Administrator, The Travelers Companies, Inc. is granted an exemption from 14 CFR §§ 61.23(a) and (c), 61.101(e)(4) and (5), 61.113(a), 61.315(a), 91.7(a), 91.119(c), 91.121, 91.151(a)(1), 91.405(a), 91.407(a)(1), 91.409(a)(1) and (2), and 91.417(a) and (b), to the extent necessary to allow the petitioner to operate a UAS to perform aerial data collection. This exemption is subject to the conditions and limitations listed below.

Conditions and Limitations

In this grant of exemption, The Travelers Companies, Inc. is hereafter referred to as the operator.

Failure to comply with any of the conditions and limitations of this grant of exemption will be grounds for the immediate suspension or rescission of this exemption.

1. Operations authorized by this grant of exemption are limited to the 3DRobotics IRIS+ and DJI Phantom 2 when weighing less than 55 pounds including payload. Proposed operations of any other aircraft will require a new petition or a petition to amend this exemption.

2. Operations for the purpose of closed-set motion picture and television filming are not permitted.

3. The UA may not be operated at a speed exceeding 87 knots (100 miles per hour). The exemption holder may use either groundspeed or calibrated airspeed to determine compliance with the 87 knot speed restriction. In no case will the UA be operated at airspeeds greater than the maximum UA operating airspeed recommended by the aircraft manufacturer.

4. The UA must be operated at an altitude of no more than 400 feet above ground level (AGL). Altitude must be reported in feet AGL.

5. The UA must be operated within visual line of sight (VLOS) of the PIC at all times. This requires the PIC to be able to use human vision unaided by any device other than corrective lenses, as specified on the PIC's FAA-issued airman medical certificate or U.S. driver's license.

6. All operations must utilize a visual observer (VO). The UA must be operated within the visual line of sight (VLOS) of the PIC and VO at all times. The VO may be used to satisfy the VLOS requirement as long as the PIC always maintains VLOS capability. The VO and PIC must be able to communicate verbally at all times; electronic messaging or texting is not permitted during flight operations. The PIC must be designated before the flight and cannot transfer his or her designation for the duration of the flight. The PIC must ensure that the VO can perform the duties required of the VO.

7. This exemption and all documents needed to operate the UAS and conduct its operations in accordance with the conditions and limitations stated in this grant of exemption, are hereinafter referred to as the operating documents. The operating documents must be accessible during UAS operations and made available to the Administrator upon request. If a discrepancy exists between the conditions and limitations in this exemption and the procedures outlined in the operating documents, the conditions and limitations herein take precedence and must be followed. Otherwise, the operator must follow the procedures as outlined in its operating documents. The operator may update or revise its operating documents. It is the operator's responsibility to track such revisions and present updated and revised

documents to the Administrator or any law enforcement official upon request. The operator must also present updated and revised documents if it petitions for extension or amendment to this grant of exemption. If the operator determines that any update or revision would affect the basis upon which the FAA granted this exemption, then the operator must petition for an amendment to its grant of exemption. The FAA's UAS Integration Office (AFS−80) may be contacted if questions arise regarding updates or revisions to the operating documents.

8. Any UAS that has undergone maintenance or alterations that affect the UAS operation or flight characteristics, e.g., replacement of a flight critical component, must undergo a functional test flight prior to conducting further operations under this exemption. Functional test flights may only be conducted by a PIC with a VO and must remain at least 500 feet from other people. The functional test flight must be conducted in such a manner so as to not pose an undue hazard to persons and property.

9. The operator is responsible for maintaining and inspecting the UAS to ensure that it is in a condition for safe operation.

10. Prior to each flight, the PIC must conduct a pre-flight inspection and determine the UAS is in a condition for safe flight. The pre-flight inspection must account for all potential discrepancies, e.g., inoperable components, items, or equipment. If the inspection reveals a condition that affects the safe operation of the UAS, the aircraft is prohibited from operating until the necessary maintenance has been performed and the UAS is found to be in a condition for safe flight.

11. The operator must follow the UAS manufacturer's maintenance, overhaul, replacement, inspection, and life limit requirements for the aircraft and aircraft components.

12. Each UAS operated under this exemption must comply with all manufacturer safety bulletins.

13. Under this grant of exemption, a PIC must hold either an airline transport, commercial, private, recreational, or sport pilot certificate. The PIC must also hold a current FAA airman medical certificate or a valid U.S. driver's license issued by a state, the District of Columbia, Puerto Rico, a territory, a possession, or the Federal government. The PIC must also meet the flight review requirements specified in 14 CFR § 61.56 in an aircraft in which the PIC is rated on his or her pilot certificate.

14. The operator may not permit any PIC to operate unless the PIC demonstrates the ability to safely operate the UAS in a manner consistent with how the UAS will be operated under this exemption, including evasive and emergency maneuvers and maintaining appropriate distances from persons, vessels, vehicles and structures. PIC qualification flight hours and currency must be logged in a manner consistent with

14 CFR § 61.51(b). Flights for the purposes of training the operator's PICs and VOs (training, proficiency, and experience-building) and determining the PIC's ability to safely operate the UAS in a manner consistent with how the UAS will be operated under this exemption are permitted under the terms of this exemption. However, training operations may only be conducted during dedicated training sessions. During training, proficiency, and experience-building flights, all persons not essential for flight operations are considered nonparticipants, and the PIC must operate the UA with appropriate distance from nonparticipants in accordance with 14 CFR § 91.119.

15. UAS operations may not be conducted during night, as defined in 14 CFR § 1.1. All operations must be conducted under visual meteorological conditions (VMC). Flights under special visual flight rules (SVFR) are not authorized.

16. The UA may not operate within 5 nautical miles of an airport reference point (ARP) as denoted in the current FAA Airport/Facility Directory (AFD) or for airports not denoted with an ARP, the center of the airport symbol as denoted on the current FAA-published aeronautical chart, unless a letter of agreement with that airport's management is obtained or otherwise permitted by a COA issued to the exemption holder. The letter of agreement with the airport management must be made available to the Administrator or any law enforcement official upon request.

17. The UA may not be operated less than 500 feet below or less than 2,000 feet horizontally from a cloud or when visibility is less than 3 statute miles from the PIC.

18. If the UAS loses communications or loses its GPS signal, the UA must return to a pre-determined location within the private or controlled-access property.

19. The PIC must abort the flight in the event of unpredicted obstacles or emergencies.

20. The PIC is prohibited from beginning a flight unless (considering wind and forecast weather conditions) there is enough available power for the UA to conduct the intended operation and to operate after that for at least five minutes or with the reserve power recommended by the manufacturer if greater.

21. Air Traffic Organization (ATO) Certificate of Waiver or Authorization (COA). All operations shall be conducted in accordance with an ATO-issued COA. The exemption holder may apply for a new or amended COA if it intends to conduct operations that cannot be conducted under the terms of the attached COA.

22. All aircraft operated in accordance with this exemption must be identified by serial number, registered in accordance with 14 CFR part 47, and have identification (N−Number) markings in accordance with 14 CFR part 45, Subpart C. Markings must be as large as practicable.

23. Documents used by the operator to ensure the safe operation and flight of the UAS and any documents required under 14 CFR §§ 91.9 and 91.203 must be available to the PIC at the Ground Control Station of the UAS any time the aircraft is operating. These documents must be made available to the Administrator or any law enforcement official upon request.

24. The UA must remain clear and give way to all manned aviation operations and activities at all times.

25. The UAS may not be operated by the PIC from any moving device or vehicle.

26. All Flight operations must be conducted at least 500 feet from all nonparticipating persons, vessels, vehicles, and structures unless:
    a. Barriers or structures are present that sufficiently protect nonparticipating persons from the UA and/or debris in the event of an accident. The operator must ensure that nonparticipating persons remain under such protection. If a situation arises where nonparticipating persons leave such protection and are within 500 feet of the UA, flight operations must cease immediately in a manner ensuring the safety of nonparticipating persons; and
    b. The owner/controller of any vessels, vehicles or structures has granted permission for operating closer to those objects and the PIC has made a safety assessment of the risk of operating closer to those objects and determined that it does not present an undue hazard.

    The PIC, VO, operator trainees or essential persons are not considered nonparticipating persons under this exemption.

27. All operations shall be conducted over private or controlled-access property with permission from the property owner/controller or authorized representative. Permission from property owner/controller or authorized representative will be obtained for each flight to be conducted.

28. Any incident, accident, or flight operation that transgresses the lateral or vertical boundaries of the operational area as defined by the applicable COA must be reported to the FAA's UAS Integration Office (AFS−80) within 24 hours. Accidents must be reported to the National Transportation Safety Board (NTSB) per instructions contained on the NTSB Web site: www.ntsb.gov.

If this exemption permits operations for the purpose of closed-set motion picture and television filming and production, the following additional conditions and limitations apply.

29. The operator must have a motion picture and television operations manual (MPTOM) as documented in this grant of exemption.

30. At least 3 days before aerial filming, the operator of the UAS affected by this exemption must submit a written Plan of Activities to the local Flight Standards District Office (FSDO) with jurisdiction over the area of proposed filming. The 3-day notification may be waived with the concurrence of the FSDO. The plan of activities must include at least the following:
    a. Dates and times for all flights;
    b. Name and phone number of the operator for the UAS aerial filming conducted under this grant of exemption;
    c. Name and phone number of the person responsible for the on-scene operation of the UAS;
    d. Make, model, and serial or N−Number of UAS to be used;
    e. Name and certificate number of UAS PICs involved in the aerial filming;
    f. A statement that the operator has obtained permission from property owners and/or local officials to conduct the filming production event; the list of those who gave permission must be made available to the inspector upon request;
    g. Signature of exemption holder or representative; and
    h. A description of the flight activity, including maps or diagrams of any area, city, town, county, and/or state over which filming will be conducted and the altitudes essential to accomplish the operation.

31. Flight operations may be conducted closer than 500 feet from participating persons consenting to be involved and necessary for the filming production, as specified in the exemption holder's MPTOM.

Unless otherwise specified in this grant of exemption, the UAS, the UAS PIC, and the UAS operations must comply with all applicable parts of 14 CFR including, but not limited to, parts 45, 47, 61, and 91.

This exemption terminates on May 31, 2017, unless sooner superseded or rescinded.

Sincerely,
/s/
John S. Duncan
Director, Flight Standards Service

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February 6, 2015

U.S. Department of Transportation
1200 New Jersey Avenue, S.E.
Room W12-140
Washington, D.C. 20590

Re: Travelers Request for Exemptions Pursuant to FMRA Section 333 and Part 11 of the FARs to Use Small Unmanned Aircraft Systems in the Property and Casualty Insurance Industry

Dear Sir or Madam:

Pursuant to Section 333 of the FAA Modernization and Reform Act of 2012 ("FMRA") and 14 C.F.R. Part 11, The Travelers Companies, Inc. ("Travelers")[1] hereby petitions for exemptions from the listed Federal Aviation Regulations ("FARs") and any other rules necessary to allow operation of small unmanned aircraft systems ("UAS") under the conditions set forth in this petition. FMRA Section 333 grants the FAA authority to allow the operation of certain UAS within the national airspace. Travelers requests authorization to conduct small UAS operations related to its insurance business, including (but not limited to) roof inspections, underwriting, risk assessment, risk control, accident reconstruction and small UAS pilot training and development. As explained below, operations under the requested exemptions will be conducted under strict operating requirements and conditions to ensure safety.

Travelers is one of the country's largest insurance companies, providing commercial and personal property and casualty insurance products to its customers. The company's diverse business lines offer its global customers a wide range of coverage sold primarily through independent agents and brokers. A component of the Dow Jones Industrial Average, Travelers has more than 30,000 employees and 13,000 independent agents. The company generated revenues of $26 billion in 2013. Founded in 1853, as one of the oldest insurance companies in

[1] Travelers is filing this petition on behalf of itself and all of its respective parents, subsidiaries, affiliates, predecessors, successors and assigns.

the United States, Travelers has continuously kept up with developing technologies in the insurance marketplace. Travelers is committed to keeping pace with the ever-changing needs of our customers, for instance by offering the first-ever space travel policy and hybrid car discount. The use of UAS will allow Travelers to further advance innovative technologies to benefit its policyholders and the general public.

I. Types of Operation

A. Request to Use UAS for Inspection of Private Property

Travelers requests an exemption to use UAS to inspect, photograph and assess the nature and extent of damage to policyholders' private property. Travelers would conduct these UAS operations only with the express written consent of the property owner. Travelers is specifically interested in studying how UAS can be used to obtain precise and detailed images of a policyholder's roofing system and any other portions of the property that would normally require utilization of a ladder to acquire such information. This experience will give Travelers the necessary information in order to determine how best to implement this innovative technology to more rapidly adjust claims, enhance customer experience, and further Travelers' overall goal of improving safety for its personnel, vendors and customers. This exemption will also provide Travelers pilots with real-world training and experience on UAS and will generate valuable data about the operation and safety of UAS that can be beneficial to the FAA with respect to the upcoming small UAS rulemaking and public comment on the proposed rule.

In addition to improving Travelers' customer experience and claim effectiveness, granting this petition would improve safety for our claim professionals and vendors and reduce the risk of damage to customer property by virtue of eliminating visual inspections by ladder. Travelers estimates that it conducts about 60,000 ladder assisted inspections per year. Generally, our claim practices require visual inspections of roof damage by ladder, which undeniably carries certain unavoidable risks. These inspections require that persons climb onto roofs from a ladder and traverse the roof, which is usually a downward pitched surface, in order to inspect and take pictures. The inherent risks associated with roof inspections include potential harm to the person carrying out the inspection if he or she fell; the potential harm to persons on the ground that may be impacted by a falling person or ladder; and the potential property damage that may be caused by a falling person or ladder. Travelers is an industry leader in ladder safety and we pride ourselves on our commitment to safety in what is an essential aspect of our business. By utilizing UAS technology, Travelers will be able to eliminate the need for thousands of ladder inspections. However, by comparison, the risks posed by the type of UAS roof inspections proposed in this petition are minimal due to the characteristics of the small UAS that Travelers will use, including their extremely small size and light weight, low operating altitude, and geo-fencing and other capabilities, and the operating parameters and comprehensive training that Travelers would require. Over the long term, granting this petition will undoubtedly save lives,

prevent serious injuries, and reduce collateral property damage that might have occurred utilizing even the strictest safety protocols.

In addition, Travelers believes that, with appropriate process refinement, inspection via UAS will not only be safer than ladder inspections, but will be quicker and will result in an enhanced customer experience. While the benefits of efficiency are self-evident, they bear mention in this petition to demonstrate the significant public interests associated with Travelers' proposed UAS integration. Frequently, roof inspections can take longer to coordinate than other types of inspections and, in many instances, do not take place during the first inspection of the property. As a result, the claim process takes longer, which means that it takes longer for repairs to take place and longer for customers' lives to return to normal. Under Travelers' proposed UAS model, more roof inspections would take place immediately and, in virtually every case, Travelers would be in a position to issue roof damage payments on site after inspection. As a result, our customers will be able to immediately effectuate repairs and more quickly return to their busy lives. When considered across Travelers' entire book of business and over the long haul, the benefits of UAS integration will positively impact the lives of millions of customers who will receive faster service, quicker payments, timelier repairs and have the opportunity to more quickly recover from losses. Further, when considered within the context and scale of catastrophic events such as hurricanes, tornados or earthquakes, these efficiencies will translate into quicker recoveries for our neighborhoods, communities, municipalities and beyond.

Travelers' UAS model poses no meaningful risk to the national airspace. In the materials supporting this petition, Travelers will present an operating model that will require UAS inspections take place within a very confined, tight footprint around and above an individual structure. The vast majority of UAS work will take place just ten to fifteen feet above the roof's surface. Since the UAS will be operated within close proximity of low lying structures, the UAS will pose no greater risk to the national airspace than essentially the buildings themselves. The only conceivable concern would be a "fly away" scenario; however, in light of the UAS Travelers has selected and the protocols it will put in place, there should no risk of this happening. Specifically, Travelers will employ lost-link and geo-fencing technology to best control against a fly away scenario.

Travelers is requesting permission to integrate UAS technology into its claim handling workflow by way of a three phased approach.

1. Phase 1 - Agribusiness

Travelers requests an exemption to use UAS to conduct private property inspections in connection with claims arising out of its Agribusiness Program. Travelers is one of the largest countrywide writers of farm and ranch business coverage in the U.S. The properties insured

under this program are large farms and ranches that are situated in remote, sparsely populated areas. Use of UAS in this setting would provide Travelers and the FAA with a unique opportunity to partner in experimenting with UAS in sparsely populated areas without risk to neighboring persons or property. When combined with Travelers' operational "tight footprint," i.e., small UAS (under 5.5 lbs.), low operating altitude of 100 feet or less, lost-link, geo-fencing and additional safety protocols, Travelers' operations would pose no threat to national airspace or neighboring persons or property.

Use of UAS in this setting would further the goal of improving overall safety. Under current protocols, each such inspection would be conducted by individuals on ladders. As discussed above, while Travelers takes ladder safety seriously, there are always inherent risks to persons and property associated with roof inspections and those risks could be completely eliminated by use of UAS.

Travelers proposes to fly UAS on 50 Agribusiness claim inspections before moving on to Phase 2 operations. Travelers would be using the UAS to inspect damage or loss above ground level and/or to make a visual inspection and take measurements of policyholder private property.

2. Phase 2 - One Acre or More

Travelers requests an exemption to use UAS to conduct private property inspections in connection with Personal and Business insurance claims arising on properties located on one acre of land or more. Operations conducted on properties one acre or larger would enhance safety and would pose little to no threat to neighboring persons or property. Similar to operations on Agribusiness claims, roof inspections of these properties would normally be conducted by persons on ladders. Use of UAS on these claims, which make up a more voluminous amount of Travelers work, would further the overall goal of eliminating the inherent risks of ladder assisted inspections. When combined with Travelers' "tight footprint," i.e., small UAS (under 5.5 lbs.), low operating altitude of 100 feet or less, lost-link, geo-fencing and additional safety protocols, Travelers' operations would pose no threat to national airspace or neighboring persons or property. Further, Travelers would partner with the FAA to gain more valuable UAS experience while improving the overall safety of its operations by eliminating the risks inherent in ladder assisted inspections.

Travelers proposes to fly UAS on 50 Personal and Business insurance claims on properties located on at least one acre of land before moving on to Phase 3 operations. Travelers would be using the UAS to inspect damage or loss above ground level and/or to make a visual inspection and take measurements of policyholder private property.

3. Phase 3 - Non Metropolitan Areas

Travelers requests an exemption to use UAS to conduct private property inspections in connection with Personal and Business insurance claims arising on properties located in non-metropolitan areas. Once Travelers has demonstrated to the FAA's satisfaction that it has mastered safe UAS operations under Phases 1 and 2, Travelers would like to partner with the FAA to take the next step and conduct UAS inspections that could potentially reach the majority of its claim inventory. Travelers expects to establish a strong safety record in Phases 1 and 2 and will carry over the learnings and improvements from those UAS operations to Phase 3. These operations would encompass by far the largest volume of Travelers' roof inspections and, accordingly, would have the largest impact on safety by eliminating the majority of Travelers' ladder assisted roof inspections.

When combined with Travelers' "tight footprint," i.e., small UAS (under 5.5 lbs.), low operating altitude of 100 feet or less, lost-link, geo-fencing and additional safety protocols, Travelers' operations would pose no threat to national airspace or neighboring persons or property. Further, Travelers would partner with the FAA to gain more valuable UAS experience while improving the overall safety of its operations by eliminating the risks inherent in ladder assisted inspections.

Travelers would be using the UAS to inspect damage or loss above ground level and/or to make a visual inspection and take measurements of policyholder private property.

B. Request to Use UAS for R&D, Training and Certification Development at Sites Owned or Controlled by Travelers

Travelers also requests an exemption to use UAS to perform R&D, training and develop pilot certification at Travelers' own facilities on property it either owns or leases. As discussed in more detail below, Travelers would like to partner with the FAA to develop a pilot certification program that focuses on the skills, knowledge and expertise required to operate small UAS of the type Travelers intends to operate, i.e., 5.5 lbs. or less, at low altitudes (i.e., 100 feet or less). Travelers would dedicate its Claim University facility, located at 99 Lamberton Rd., Windsor, CT 06095, for the purposes of developing and implementing a pilot certification program. Our Claim University facility is located in a sparsely populated area on 50 acres of land that is completely controlled by Travelers. The testing facility will not be open to the public and access will be restricted to Travelers employees or consultants engaged in test or test-related work. The test site may at times contain structures, which will enable Travelers to test how UAS will operate and capture images over various types of buildings. Since the test site is located within 5 nautical miles of Bradley International Airport (BDL), Travelers will obtain a letter of

agreement with the airport's management and will conduct its operations in accordance with a NOTAM as required by any applicable COA. When combined with Travelers' operational "tight footprint," i.e., small UAS (under 5.5 lbs.), low operating altitude of 100 feet or less, lost-link, geo-fencing and additional safety protocols, Travelers' operations on secure property in a sparsely populated area would pose no threat to national airspace or neighboring persons or property.

C. Request to Use UAS for Risk Assessment, Risk Control, Accident Reconstruction, Underwriting and Other Business Related Activities

Travelers also requests an exemption to use UAS to perform risk assessment, risk control, accident reconstruction, and underwriting evaluations for its Business and Personal insurance property policyholders. In particular, Travelers anticipates that UAS could be used to carry out inspections and evaluations of elevated portions of structures including roofs that provide unique challenges and risks. In the risk control context, these inspections are currently conducted by persons on ladders with the attendant risks associated with such work. Other potential beneficial uses for UAS could include, but would not be limited to, inspection of loss sites that are otherwise unsafe for human entry and accident reconstruction. In general, use of UAS for these purposes would significantly enhance safety as well as improve overall risk control and underwriting efficiency and accuracy to the benefit of our policyholders.

II. Pilot Requirements

Travelers would like to partner with the FAA to design a pilot certification program that focuses on the skills, knowledge and expertise required to operate small UAS of the type Travelers intends to operate, i.e., 5.5 lbs. or less. Travelers intends to work with an on-staff commercially licensed pilot to design and implement a practical, hands–on training program focused on operation of small lightweight UAS. While there may be some overlap in knowledge and skill associated with traditional private or commercial certification requirements, Travelers believes that its pilots and the public would be better served by a training regimen that is specifically designed to certify the safe operation of small UAS. Further, Travelers believes that there is a significant difference between small UAS of the type it plans to operate, i.e., under 5.5 pounds, and heavier unmanned aircraft still considered "small" by the FAA, i.e., up to 55 pounds. The program Travelers intends to design will be tailored to address the safety concerns specific to very lightweight UAS, which -- at 4.4 or 5.4 lbs. -- pose little to no risk to the national airspace and neighboring persons or property.

Travelers will be submitting a training program designed by an on-staff commercially certificated pilot that has an extensive security background as well as considerable experience

with UAS, rotary winged and fixed winged aircraft.[2] Travelers would like to partner with the FAA to improve and refine the training to fully address all necessary skill and safety requirements that make sense for piloting small, lightweight UAS. While the program is still under development, Travelers will require each pilot to: (a) successfully complete training that combines the aspects of private pilot ground school that are relevant to small UAS with hands-on small UAS training; (b) pass a certification examination designed for small UAS operators; (c) have accumulated and logged at least 10 hours total time as a UAS pilot, including at least 5 hours logged as a UAS pilot operating the make and model of UAS to be utilized for operations under this exemption; (d) certify that he or she has no medical defect that would make him or her unable to pilot a small UAS in a safe manner;[3] and (e) clear a criminal background check and drug test. All pilot certification training will take place under the direct supervision and control of a person holding an FAA commercial or private pilot certificate.[4]

III. Public Interest Benefits

Approval of Travelers' request to use UAS to inspect policyholders' private property is in the public interest. Granting this petition advances Congress' goal of integrating civil UAS into the national airspace safely and expeditiously. Allowing Travelers to conduct the inspections proposed herein is a necessary step toward realizing the consumer benefits of using UAS in the insurance industry. Travelers would like to partner with the FAA in the design and

[2] Travelers is submitting the resume of its on-staff commercially certificated pilot to FAA confidentially with a request for confidential treatment. The resume contains confidential personal information that has not been made available to the public and that is protected under the Freedom of Information Act, 5 U.S.C. § 552, *et seq.*

[3] FAR 61.23 permits piloting of gliders and balloons without a medical certificate. Travelers' operations would pose less threat to national airspace or neighboring persons or property than gliders and balloons, which are heavier and operated at higher altitudes.

[4] Travelers recognizes that the FAA has concluded that it does not have the authority to grant an exemption from the statutory requirement in 49 U.S.C. § 44711 that a pilot must hold an airman certificate. Travelers' proposal does not require an exemption since it contemplates that the FAA, partnering with Travelers, would develop a pilot certificate applicable specifically to operators of very small, lightweight unmanned aircraft. Moreover, Travelers respectfully submits that FAA does in fact have the authority to exempt persons from the airman certificate requirement and requests that FAA reconsider its decision in this regard. Section 44701(f) authorizes FAA to grant exemptions from "a requirement of a regulation prescribed under subsection (a) or (b) of this section or any of sections 44702–44716 of this title if the Administrator finds the exemption is in the public interest." Section 44711 is included within the sections from which FAA may grant an exemption.

implementation of a small UAS pilot certification program that is specifically tailored to maximize safe operations of small UAS, i.e., under 5.5 pounds. This partnership would benefit the FAA and the public at large in designing an appropriate, safe, economically sensible certification program that could serve as the model for FAA's small UAS rulemaking.

Further, Travelers' petition seeks to implement UAS inspections in a gradual, stair-stepped process so that we can work with the FAA to develop and refine our operations, under strictly controlled conditions, that will lead to continuously improving flight protocols. Travelers will share its experience, data and process enhancements with the FAA, which will benefit the public with respect to FAA rulemaking and comment on small UAS. Travelers should be in a position to provide a considerable amount of meaningful knowledge and data within a relatively short period of time.

In addition to improving UAS operational safety, granting this petition would improve safety for our claim professionals and vendors as well as reduce the risk of damage to customer property by eliminating the need for many ladder assisted roof inspections. As mentioned, Travelers conducts over 60,000 ladder assisted inspections per year. By utilizing small UAS and the "tight footprint" described above, Travelers will be able to eliminate the risks associated with ladder inspections and improve overall safety to persons and property. As an added benefit, Travelers believes that inspection via UAS will not only be safer than ladder inspections, but may also be quicker and more accurate. Travelers also believes that these benefits will carry over to other areas of the company such as risk control and underwriting and that these benefits will positively impact our customers.

IV. Operating Parameters, Operations, Inspection and Maintenance Manual

A. Operating Parameters

The proposed operating limitations describe how Travelers' UAS operations will be safely conducted to minimize risk to the national airspace or to persons and property on the ground:

1. The operations will be conducted using a 3DR IRIS+ aircraft and a DJI Phantom 2,[5] which are small UAS weighing approximately 4.4 pounds and 5.4, respectively, with payload.

2. Flights will be operated at all times within visual line of sight of a pilot unaided by any device other than corrective lenses.

[5] FAA is familiar with the DJI Phantom 2 aircraft and has previously granted exemptions approving use of the DJI Phantom 2 aircraft for commercial operations. *See* Exemption Nos. 11138, 11153 and 11157.

3. The UAS will not carry persons, explosive materials or flammable liquid fuels.

4. The UAS will not be flown at ground speeds exceeding 15 knots.

5. Flights will be terminated at 25% battery power reserve.

6. Flights will be operated at an altitude of no more than 100 feet AGL.

7. Prior to each flight, the pilot must inspect the UAS to ensure that it is in a condition for safe flight. If the inspection reveals a condition that affects the safe operation of the UAS, the aircraft is prohibited from operating until the necessary maintenance has been performed, and the UAS is found to be in a condition for safe flight. The ground control station must be included in the preflight inspection. All maintenance and alterations must be properly documented in the aircraft records.

8. Any UAS that has undergone maintenance or alterations that affect the UAS operation or flight characteristics, e.g., replacement of a flight critical component, must undergo a functional test flight in accordance with Travelers' Manual.[6] The pilot who conducts the functional test flight must make an entry in the UAS aircraft records of the flight.

9. The preflight inspection section in the Manual includes the requirement that the preflight inspection must account for all discrepancies, i.e., inoperable components, items or equipment, etc.

10. The operator must follow the UAS manufacturer's aircraft/component, maintenance, overhaul, replacement, inspection and life limit requirements.

11. The operator must carry out its maintenance, inspections and recordkeeping requirements in accordance with the Manual. Maintenance, inspection and alterations must be noted in the aircraft records, including total flight hours, description of work accomplished and the signature of the authorized person returning the UAS to service.

12. Each UAS operated under the exemption must comply with all manufacturer safety bulletins.

[6] Travelers is submitting its Unmanned Aircraft System Operating Procedures, Safety Code and Training Syllabus ("Manual") to FAA confidentially with a request for confidential treatment pursuant to 14 CFR Section 11.35(b). The Manual contains confidential, proprietary and commercially sensitive information that has not been made available to the public and that is protected under the Freedom of Information Act, 5 U.S.C. § 552, *et seq.*

13. The operator's maintenance personnel must make a record entry in the UAS logbook or equivalent document of the corrective action taken against discrepancies discovered between inspections.

14. Each flight will be operated by a pilot that has: (a) successfully completed training that combines the aspects of private pilot ground school that are relevant to small UAS with hands-on small UAS training; (b) passed a certification examination designed for small UAS operators; (c) accumulated and logged at least 10 hours total time as a UAS pilot, including at least 5 hours logged as a UAS pilot operating the make and model of UAS to be utilized for operations under this exemption; (d) certified that he or she has no medical defect that would make him or her unable to pilot a small UAS in a safe manner;[7] and (e) cleared a criminal background check and drug test.

15. Each pilot will successfully complete a small UAS pilot certification program designed and overseen by an FAA-certificated pilot and approved by FAA. The program will focus on the skills, knowledge and expertise required to operate small UAS of the type Travelers intends to operate, i.e., under 5.5 lbs. Prior to any operations for a commercial purpose, the PIC must have accumulated and logged 10 hours total time as a UAS pilot, including at least 5 hours logged as a UAS pilot operating the make and model of UAS to be utilized for operations under this exemption. The pilot must also have accomplished three takeoffs and landings in the preceding 90 days.

16. All operations shall be conducted over private or controlled-access property with permission from the land owner/controller or authorized representative. Permission from the land owner/controller or authorized representative will be obtained for each flight to be conducted.

17. Flight operations will be conducted at least 50 feet from all nonparticipating persons, vessels, vehicles, and structures unless:

> a. Barriers or structures are present that sufficiently protect nonparticipating persons from the UA and/or debris in the event of an accident. The operator will ensure that nonparticipating persons remain under such protection. If a situation arises where nonparticipating persons leave such protection and are within 50 feet of the UA, flight operations must cease immediately; and/or
>
> b. The aircraft is operated near vessels, vehicles or structures where the owner/controller of such vessels, vehicles or structures has granted permission and the pilot has made a

[7] FAR 61.23 permits piloting of gliders and balloons without a medical certificate. Travelers operations would pose less threat to national airspace or neighboring persons or property than gliders and balloons, which are heavier and operated at higher altitudes.

safety assessment of the risk of operating closer to those objects and determined that it does not present an undue hazard; and

c. Operations nearer to the pilot, operator trainees or essential persons do not present an undue hazard to those persons per § 91.119(a).

18. A geo-fencing perimeter will be established at a maximum ceiling of 100 feet AGL, within the confines of the property being inspected.

19. The pilot will designate a landing zone from which the UAS will take off and land.

20. The pilot will abort the flight in the event of any unpredicted obstacles or emergencies as detailed in the Manual.

21. If the communications link or GPS signal is lost, the UAS will return to a pre-programmed location, within the restricted area of operations, and land or be recovered in accordance with the Manual.

22. Before conducting operations, a qualified UAS pilot will demonstrate and log in a manner consistent with 14 CFR 61.51(b) the ability to safely operate the UAS in a manner consistent with how the UAS will be operated under the exemption, including evasive and emergency maneuvers and maintaining appropriate distances from people, vessels, vehicles and structures.

23. All operations must be conducted under visual meteorological conditions (VMC) and during daylight hours.

24. Before operations begin under the exemption, the radio frequency spectrum used for operation and control of the UAS will comply with Federal Communications Commission requirements.

25. The UAS may not be operated less than 500 feet below or less than 2,000 feet horizontally from a cloud or when visibility is less than 3 statute miles from the pilot.

26. The flight operations will occur in Class G airspace except to the extent that FAA has approved operations in Class B, C, D or E airspace. The UAS may not operate within 5 nautical miles of the geographic center of an airport as denoted on a current FAA-published aeronautical chart unless an agreement with that airport's management is obtained, and the operation is conducted in accordance with a NOTAM. The letter of agreement with the airport management will be made available to FAA upon request.

27. All aircraft operated in accordance with the exemption will be identified by serial number, registered in accordance with 14 CFR Part 47, and have identification (N-Number)

markings in accordance with 14 CFR Part 45, Subpart C. Markings will be made as large as practicable.

28. The documents required under 14 CFR 91.9 and 91.203 will be available to the pilot at the ground control station of the UAS during flight operations. These documents must be made available to the Administrator or any law enforcement official upon request.

29. The UAS must remain clear and yield the right of way to all other manned operations and activities.

30. The UAS may not be operated by the pilot from any moving device or vehicle.

31. In the event a Certificate of Authorization (COA) is required, any incident, accident, or flight operation that transgresses the boundaries of the operating area as defined by the applicable COA must be reported to the FAA's UAS Integration Office within 24 hours. Accidents must be reported to the National Transportation Safety Board (NTSB) in accordance with federal regulations.

32. The operator will comply with the operating, inspection, maintenance and recordkeeping procedures set forth in the Manual.

B. Operations and Training Manuals

Travelers will follow the operating procedures set forth in the Manual that is submitted in support of this petition. The Manual will be maintained and will be made available to FAA upon request. Travelers also anticipates partnering with the FAA to design and implement an acceptable small UAS pilot training curriculum, which will supplement this petition.

C. Inspection and Maintenance

Travelers will follow the procedures set forth in the Inspection and Maintenance sections of the Manual that is submitted in support of this petition. The Manual will be maintained and will be made available to FAA upon request.

V. The Aircraft

Travelers proposes to conduct UAS operations using the 3DR IRIS+ and DJI Phantom 2. Without payload, the 3 DR IRIS+ has a weight of 1,282 grams (2.8 pounds) and a range of 300 meters. Its maximum flight time is 22 minutes. Without payload, the DJI Phantom has a weight of 1,160 grams (2.56 pounds) and a range of 300 meters. Its maximum flight time is 25 minutes.

Specifications include:

	3 DR IRIS+	**DJI Phantom 2**
Length x Width x Height	24.5" x 19.5" x 12"	17" x 8.1" x 12.5"
Weight w/o camera	1,282 grams (2.8 pounds)	1,160 grams (2.56 pounds)
Weight with camera	1,996 grams (4.4 pounds)	2,460 grams (5.4 pounds)

Any UAS used by Travelers will include, at a minimum: geo-fencing at a maximum ceiling of 100 feet AGL and within the boundaries of the designed operating areas, flight programming capabilities, and a flight termination system. If the UAS loses communications or its GPS signal, it will return to a pre-determined location within the planned operating area and land or be recovered in accordance with the Manual. The UAS will carry a camera and will weigh approximately 4.4 or 5.4 pounds, depending on type, and will operate at speeds of no more than 15 knots. Operations will occur only during daylight hours. The UAS will have markings identifying the serial number and identification number (N-number) as large as practicable. UAS operations will comply with the manufacturer's manual and safety bulletins.

VI. FAA Has Authority Under FMRA Section 333 to Grant the Requested Exemptions

Grant of this request for exemptions will promote Congress' goal in enacting Section 333 of the FMRA. Section 333 directs the Secretary of Transportation to consider whether certain UAS may operate safely in the national airspace before completion of the rulemaking required under Section 332 of the FMRA. The Secretary is required to determine the kinds of UAS operations that do not create a hazard to users of the national airspace or the public or pose a threat to national security in light of the UAS' size, weight, speed, operational capability and areas of operation and whether the operations will occur within the visual line of sight of the operator.[8] Section 333 reflects Congressional intent that FAA will grant exemptions to allow small UAS operations under conditions that ensure safety, like those proposed in this petition.

In addition, the Federal Aviation Act expressly grants the FAA the authority to issue exemptions. This statutory authority by its terms includes exempting civil aircraft (as that term is defined under § 40101 of the Act, which includes UAS) from the requirement that all such aircraft must have a current airworthiness certificate and granting exemptions from the pilot certification requirements. The Administrator may grant an exemption from a requirement of a

[8] FAA Modernization and Reform Act of 2012, Pub. L. No. 112-95, 126 Stat. 75-76 (codified as a Note to 49 U.S.C § 40101).

regulation prescribed under§§ 44701(a) or (b) or in §§ 44702-44716 of the Act if the Administrator finds the exemption in the public interest.[9]

VII. Application Information

A. Applicant Information

The name and address of the applicant are:

The Travelers Companies, Inc.
Patrick C. Gee
Senior Vice President Personal Insurance Claim
One Tower Square
Hartford, CT 06183
pgee@travelers.com
(860) 277-7660

B. List of Regulations from Which Exemption is Requested

14 C.F.R. §§ 61.113(a) and (b); 61.133(a)
14 C.F.R. §91.7(a)
14 C.F.R. §91.119(b) and (c);
14 C.F.R. §91.121;
14 C.F.R. §91.151(a);
14 C.F.R. §91.405(a);
14 C.F.R. §91.407(a)(1);
14 C.F.R. §§91.409(a)(1) and (2);
14 C.F.R. §§ 91.417(a) and (b).

C. Federal Register Summary

Petitioner: The Travelers Companies, Inc.

Affected regulations: 14 C.F.R. §§ 61.113(a) and (b); 14 C.F.R. § 61.133(a); 14 C.F.R. §91.7(a); 14 C.F.R. § 91.119(b) and (c); 14 C.F.R. § 91.121; 14 C.F.R. § 91.151(a); 14 C.F.R. § 91.405(a); 14 C.F.R. § 91.407(a)(l); 14 C.F.R. §§ 91.409(a)(l) and (2); 14 C.F.R. §§ 91.417(a) and (b).

Description: Petitioner seeks an exemption from the requirements of 14 C.F.R. §§ 61.113(a) and (b); 14 C.F.R. § 61.133(a); 14 C.F.R. §91.7(a); 14 C.F.R. § 91.119(b) and (c); 14 C.F.R. §

[9] 49 U.S.C. § 44701(f); *see also* 49 U.S.C. § 44711(a); 49 U.S.C. § 44704; 14 C.F.R. § 91.203(a)(l).

91.121; 14 C.F.R. § 91.151(a); 14 C.F.R. § 91.405(a); 14 C.F.R. § 91.407(a)(l); 14 C.F.R. §§ 91.409(a)(l) and (2); 14 C.F.R. §§ 91.417(a) and (b) to use small unmanned aircraft systems (UAS) in order to conduct small UAS operations related to its insurance business, including (but not limited to) roof inspections, underwriting, risk assessment, risk control, accident reconstruction, catastrophe response and small UAS pilot training and development.

VIII. Exemptions Sought by Petitioner

Travelers requests exemptions from the following regulations to the extent necessary to enable the requested UAS operations for the reasons detailed below.

A. 14 C.F.R. §§ 61.113(a) and (b): Private pilot privileges and limitations; 14 C.F.R. § 61.133(a): Commercial pilot privileges and limitations

Sections 61.113 (a) and (b) limit private pilots to non-commercial operations. Section 61.133(a) requires an individual with a commercial pilot's license to be pilot in command of an aircraft for compensation or hire. FAA has already determined that it is appropriate to exempt small UAS pilots from the commercial pilot's license requirement in section 61.133(a) in situations analogous to those presented by this petition. *See, e.g.*, Exemption Nos. 11109, 11110, 11136 and 11138. However, to date, FAA has required such operators to have a private pilot's license.

Travelers respectfully submits that, given the characteristics of the 3DR IRIS+ and DJI Phantom 2 aircraft, the operating restrictions proposed in this petition, and Travelers' proposal to team with FAA to develop a license applicable specifically to small UAS operators, an equivalent level of safety will be achieved without requiring Travelers' pilots to hold a private pilot's certificate or a commercial pilot's certificate.

The 3DR IRIS+ and DJI Phantom 2 aircraft are exceedingly small and lightweight -- 4.4 pounds and 5.4 pounds, respectively, with payload. They are advertised as "personal" UAS and are already widely flown by hobbyists and other recreational flyers. They operate both autonomously and manually. They have pre-programmable geofencing, lost-link, and lost-GPS capabilities. In the event of a loss of the communications link or GPS, the aircraft automatically returns to a preprogrammed location. They also have an emergency flight termination system that allows the pilot to cut off power to the aircraft, at which time it will land. The UAS will not carry a pilot, passengers or any flammable or explosive materials. The operating area is controlled and restricted, and all flights are planned and coordinated in advance as set forth in the Manual. Travelers respectfully submits that the proposed operations can achieve an equivalent level of safety by requiring the pilot of these small, lightweight, low-altitude, low-speed, limited range of operations UAS to be trained in a UAS-specific certification program approved by FAA and designed and overseen by an FAA-certificated pilot. The level of safety provided by the

requirements included in the Manual exceeds that provided by an individual holding a commercial pilot's certificate and operating a conventional aircraft. The risks associated with the operation of these small UAS are lower than the level of risks associated with commercial operations contemplated by Part 61; allowing operation of the UAS as requested therefore exceeds the level of safety achieved by 14 C.F.R. §§ 61.113(a) and (b).

B. 14 C.F.R. § 91.7(a): Civil aircraft airworthiness

Section 91.7(a) requires that no person may operate a civil aircraft unless it is in airworthy condition. Given the characteristics of the UAS (including their extremely small size, weight and payload capacity, very low operating altitude, and exceedingly short flight time capability) and the stringent operating restrictions and conditions proposed in this petition, an equivalent level of safety will be achieved by compliance with the Manual. Travelers therefore requests FAA to grant an exemption from Section 91.7(a) and find that the operator may ensure that the UAS are in an airworthy condition by complying with the Manual and the proposed operating restrictions and conditions. FAA has granted similar exemptions in Exemption Nos. 11136 and 11138.

C. 14 C.F.R. § 91.119(b) and (c): Minimum safe altitudes

Section 91.119(b) and (c) establish certain minimum altitudes for operation of civil aircraft. Section 91.119 provides, in pertinent part, that: "except when necessary for takeoff or landing, no person may operate an aircraft below the following altitudes: … (b) Over congested areas. Over any congested area of a city, town, or settlement, or over any open air assembly of persons, an altitude of 1,000 feet above the highest obstacle within a horizontal radius of 2,000 feet of the aircraft. (c) Over other than congested areas. An altitude of 500 feet above the surface, except over open water or sparsely populated areas. In those cases, the aircraft may not be operated closer than 500 feet to any person, vessel, vehicle, or structure."

Travelers requests relief from this section since the UAS flights will operate at altitudes no higher than 100 feet AGL. Given the small size, light weight, low speeds and limited range of the UAS, and the fact that they carry no persons or explosive or flammable materials, the UAS flights may be safely operated at much lower altitudes than conventional aircraft. Travelers intends to restrict all of its operations to an altitude of 100 feet and will utilize geo-fencing technology to prevent deviation. Relief from this rule is warranted because the operations will be conducted with the safeguards and under the operating conditions outlined herein and in the Manual. The FAA issued an exemption from Section 91.119(c) in Exemption Nos. 11136 and 11138.

D. 14 C.F.R. § 91.121: Altimeter settings

Section 91.121 requires each person operating an aircraft to maintain cruising altitude by reference to an altimeter that is set "to the elevation of the departure airport or an appropriate altimeter setting available before departure." An exemption may be needed because the UAS do not have a barometric altimeter, but instead have a GPS altitude read-out. An equivalent level of safety will be achieved by the operator, pursuant to the Manual, confirming the altitude of the launch site shown on the GPS altitude indicator before flight. The FAA issued an exemption to this regulation for UAS operations in Exemption Nos. 11136 and 11138.

E. 14 C.F.R. § 91.151(a): Fuel requirements for flight in VFR conditions

Section 91.151(a) prohibits an individual from beginning "a flight in an airplane under VFR conditions unless (considering wind and forecast weather conditions) there is enough fuel to fly to the first point of intended landing, and, assuming normal cruising speed – (1) During the day, to fly after that for at least 30 minutes…."

An exemption is needed because the UAS have a maximum flight time of less than 30 minutes and thus cannot meet the 30-minute reserve requirement. Given the characteristics of the UAS including their small size, low weight and speed, limited range, ability to land very quickly, operation within visual line of sight, restricted operating area, and the fact that they do not carry persons or any explosive or flammable materials, grant of the exemption is justified. An equivalent level of safety can be achieved by terminating flights at 25% battery power reserve, which will occur before the 22 minute flight duration. The FAA issued an exemption to this regulation for UAS operations in Exemption Nos. 11062, 10673, 11136 and 11138.

F. 14 C.F.R. § 91.405(a): Maintenance required
14 C.F.R. § 91.407(a)(l): Operation after maintenance, preventive maintenance, rebuilding or alteration
14 C.F.R. §§ 91.409(a)(l) and (2): Inspections
14 C.F.R. §§ 91.417(a) and (b): Maintenance records

These regulations require that an aircraft operator or owner (i) "shall have that aircraft inspected as prescribed in subpart E of this part and shall between required inspections, except as provided in paragraph (c) of this section, have discrepancies repaired as prescribed in part 43 of this chapter…" and (ii) shall inspect or maintain the aircraft in compliance with Part 43. Because these sections and Part 43 apply only to aircraft with an airworthiness certificate, these sections will not apply to the petitioner. Maintenance will be accomplished by the operator pursuant to the manufacturer's manual and the Manual. An equivalent level of safety will be achieved because these UAS are very small in size and weight, will carry a tiny payload and operate only in restricted areas for short periods of time. If mechanical issues arise, the UAS can

land immediately and will be operating from no higher than 100 feet AGL. As provided in the Manual, the operator will ensure that the UAS is in working order prior to initiating flight, perform required maintenance, and keep a log of any maintenance performed. Moreover, the operator is the person most familiar with the aircraft and best suited to maintain the aircraft in an airworthy condition to provide an equivalent level of safety. The FAA issued an exemption to these regulations in Exemption Nos. 11062, 11136 and 11138.

G. Such other relief as the FAA deems appropriate to enable the requested operations

Travelers also requests exemption from such other FARs as the FAA deems appropriate to enable the requested operations. If, during the effective dates of the exemption issued pursuant to this petition, the FAA issues interim or final rules for small UAS, Travelers requests that it be relieved of the requirements of any conditions and limitations of the exemption and allowed to comply with any less burdensome applicable regulations that may have become effective.

IX. Privacy

The petition raises no privacy issues because all flights will occur over private or controlled-access property with the property owner's (or controller's) prior knowledge and consent. Additionally, Travelers' strict privacy policies would apply to all UAS operations.

X. National Security

No national security issue is presented by grant of this exemption. Given that the UAS are exceedingly small and lightweight, have lost-link and geo-fencing capabilities, will operate at very low speeds, have an extremely low payload capacity and carry no flammable, explosive or otherwise dangerous materials, the operations pose no threat to national security.

XI. Conclusion

For the reasons stated above, Travelers' proposed use of UAS satisfies the criteria in FMRA Section 333 regarding size, weight, speed, operating capabilities, operating areas, operation within visual line of sight, and national security. Petitioner's proposed safety measures and operating parameters provide more than adequate justification for the grant of the requested exemptions allowing operation of UAS. Travelers therefore respectfully asks the FAA to grant the requested exemptions, either separately or in the same grant. Please do not hesitate to contact petitioner's outside counsel, Carol Gosain, with any questions about this filing.

Sincerely,

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Attachments: Manual and additional supporting materials.