December 31, 2014

U. S. Department of Transportation
Docket Management System
1200 New Jersey Ave., SE
Washington, DC 20590

Re: Exemption Request Section 333 of the FAA Reform Act and Part 11 of the Federal Aviation Regulations

Dear Sir or Madam:

Pursuant to Section 333 of the FAA Modernization and Reform Act of 2012 (the "Reform Act"), Terraplane, LLC (the "Applicant"), planned operator of an Unmanned Aircraft Systems ("UAS") seeks an exemption from Federal Aviation Regulations ("FARs") listed below and discussed in Appendix A. Attached, as Appendix C, is a summary of this request.

The requested exemption would allow the Applicant to safely, efficiently, and economically use commercial UAS in the National Airspace System (NAS), so long as such operations are conducted within and under the conditions outlined herein or as may be established by the FAA as required by Section 333.

As described more fully below, the requested exemption would authorize the Applicant to perform commercial operations with UAS that will provide the following benefits:

1. Commercial use of UAS to perform aerial acquisition and research in support of government entities, agriculture industry, utility companies, local infrastructure, scientific studies, wildlife monitoring, mining, surveying, forestry, and much more. All of which are critical to the well-being of the general public.
2. The use of UAS will decrease congestion in the NAS along with reducing the noise and air pollution generated during traditional manned aircraft flight operations.
3. When using UAS to complement field personnel, they reduce safety concerns when gathering data from inaccessible or unstable/unsafe areas and in extreme weather or terrain.
4. Operation of UAS will substantially reduce the risk to life and property in the air, and on the ground, which is commonly associated with traditional manned aircraft flight operations.
5. Similar to the current manned aircraft flight operations that have been conducted for many decades, UAS used for similar tasks will not generate any new privacy issues.

Approval of this exemption would thereby enhance safety and fulfill the Secretary of Transportation's (the FAA Administrator's) responsibilities under Section 333(c) of the Reform Act to "establish requirements for the safe operation of such aircraft systems in the national airspace system."

The name and address of the applicant are:

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The regulations from which the exemption is requested are as follows:
14 C.F.R. Part 21;
14 C.F.R. 45.23(b);
14 C.F.R. 61.113(a) & (b);
14 C.F.R. 61.133(a);
14 C.F.R. 91.7(a);
14 C.F.R. 91.9(b)(2) & (c);

14 C.F.R. 91.103;
14 C.F.R. 91.109(a);
14 C.F.R. 91.119;
14 C.F.R. 91.121;
14 C.F.R. 91.151(a);
14 C.F.R. 91.203(a) & (b);
14 C.F.R. 91.405(a);
14 C.F.R. 91.407(a)(1);
14 C.F.R. 91.409(a)(2);
14 C.F.R. 91.417(a)

Appendix A discusses each rule listed above and explains why exemptions pursuant to the proposal set forth in this letter are appropriate, provide an equivalent level of safety, and are in the public interest.

QUALIFICATION FOR APPROVAL UNDER SECTION 333 OF THE REFORM ACT

The proposed operations in this petition for exemption qualify for expedited approval under Section 333 of the Reform Act. Each of the statutory criteria and other potentially relevant factors are satisfied.

The proposed operations would permit the use of small and relatively inexpensive UAS under controlled conditions in airspace that is: (1) limited; (2) predetermined; (3) controlled as to access, and; (4) would provide an increased level of safety beyond that existing when fixed or rotor wing aircraft are used to accomplish the same purpose.

The UAS's planned to be operated are rotorcraft and fixed wing aircraft, each weighing typically less than 15 lbs., and always less than 55 lbs., including payload. They would operate, under normal conditions, at a speed of no more than 50 knots. The principal construction material of the UAS aircraft would typically be foam and/or plastic. Operations will be performed by a qualified UAS Pilot in Command (PIC), as outlined below, to insure that the UAS will "not create a hazard to users of the national airspace system or the public." Given the small size of the UAS involved and the pre-planned environment within which they will operate, the applicant believes that these operations fall squarely within that zone of safety (an equivalent level of safety) in which Congress envisioned that the FAA must, by exemption, allow commercial operations of UAS to commence immediately. Also, due to the size of the UAS and the pre-defined, restricted area in which the UAS will operate, approval of the application presents no national security issue. The operation of UAS by knowledgeable professionals will serve to enhance safety, add to the public benefit, and reduce environmental impacts related to current methods of manned aircraft flight operations.

These limitations and conditions to which the operator, or its employees, acting as UAS PIC agrees to be bound when conducting commercial operations under an FAA issued exemption:

1. Safety will be the first and foremost consideration in any UAS operation.
2. The UAS pilot will be considered Pilot in Command (PIC), whether flying or supervising, and will be responsible for safe operation of the flight.
3. Flights will be operated within line of sight of the PIC and/or an observer, which will be at a distance of less than one (1) mile.
4. The UAS will weigh typically less than 15 lbs., and always less than 55 lbs.
5. The UAS will operate at a maximum speed of no greater than 50 knots.
6. Flights will be operated in Class G airspace whenever possible. If operation in other airspace is required, the relevant controlling agency will be notified at least 24 hours prior to the operation and, if required, any necessary permission obtained.
7. Aircraft shall not be operated within 3 miles of an airport without prior approval of, and establishing a line of communication for the duration of the flight operation with, the controlling authority of that airport.
8. Aircraft shall avoid areas where manned aircraft can be expected to be descending through 400ft.
9. Aircraft shall maintain a minimum horizontal separation of no less than one (1) mile from all other manned or unmanned airborne aircraft unless that other aircraft is maintaining level flight or climbing at an altitude above 8000ft AGL.
10. If at any time the operator see or hears another aircraft and it appears that aircraft may come within one (1) mile of the operator’s system, or it is questionable whether or not it will do so, the operator shall immediately descend the system to 100 ft. AGL or less and direct the system on a heading toward it’s designated landing area, or alternate landing area if necessary, until the system has landed or it is determined the other aircraft has maintained a separation of one (1) mile.
11. Flights will be operated under visibility and cloud clearance requirements equivalent

to Visual Flight Rules (VFR).

12. The UAS will at all times give way to any aircraft carrying persons.
13. Minimum crew for each operation will consist of the UAS PIC. An observer will be utilized if the Risk Assessment, as detailed in Section 5.5 of the General Operations Manual, determines the need. The observer and PIC will at all times be able to communicate by voice.
14. Prior to a UAS flight, an area of operation will be established. This area of operation will include a defined lateral and vertical area, where the UAS will operate. Safety procedures will be established for persons, property and applicable airspace within the area of operation.
15. The UAS shall operate from on-site takoff/landing locations directly next to the PIC and/or Observer.
16. Flight planning will include flight completion with at least 20% battery power remaining as measured by the UAS or appropriate timing.
17. The UAS will be equipped with an autopilot system which will be equivalent to or better than a Pixhawk, Mikrokopter, WooKong, Sensefly, or Gatewing system. For example, the UAS will utilize GPS navigation, failsafe's, return-to-home (RTH), and flight abort safety features, among other built-in safety features.
18. A Ground Station will be connected, by radio communication, to the UAS during the entire flight, which will give the PIC flight information such as GPS Position, Altitude, Battery Remaining, and other telemetry information.
19. A briefing will be conducted in regard to the planned UAS operations prior to operation at each new location. All personnel who will be performing duties within the boundaries of the area of operation will be present for this briefing.
20. All required permissions and permits will be obtained from appropriate state, county or city jurisdictions, including local law enforcement, fire, or other appropriate governmental agencies.
21. Written, to include electronic, and/or oral permission from the relevant property owners will be obtained prior to an operation.
22. The UAS pilot will be trained in advance for the safe operation of the UAS to be operated. This will include operation of the UAS both in normal and emergency modes of operation, and will include familiarization with the operation manual (or similar) if published by the UAS manufacturer. Training will also include types of maneuvers to be performed and the safe operation in relation to persons, property and applicable airspace.

It is the applicant's belief that the size, weight, speed, operating environment, and operating capabilities provide an "equivalent level of safety" or better when operating a UAS for the public interest as outlined in Section 333 of the Reform Act. It is requested that the FAA issue an exemption to permit safe, legal, commercial UAS operation by the applicant as soon as possible.

Respectfully submitted,

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Appendix A

EXEMPTION REQUESTS AND EQUIVALENT LEVEL OF SAFETY

The applicant requests an exemption from the following regulations as well as any additional regulations that may technically apply to the operation of UAS's:

14 CFR Part 21, Subpart H: Airworthiness Certificates
14 CFR § 91.203(a)(1)

Section 91.203(a)(1) requires all civil aircraft to have a certificate of airworthiness. Part 21, Subpart H, entitled Airworthiness Certificates, establishes the procedural requirements for the issuance of airworthiness certificates as required by FAR § 91.203(a)(1). Given the size of the aircraft (typically less than 15 lbs., and always less than 55 lbs.) and the limited operating area associated with its utilization, it is unnecessary to go through the certificate of airworthiness process under Part 21 Subpart H to achieve or exceed current safety levels.

Such an exemption meets the requirements of an equivalent level of safety under Part 11 and Section 333 of the Reform Act. The Federal Aviation Act and Section 333 of the Reform Act both authorize the FAA to exempt aircraft from the requirement for an airworthiness certificate, upon consideration of the size, weight, speed, operational capability, and proximity to airports and populated areas of the UAS involved.

In this case, an analysis of these criteria demonstrates that the UAS operated without an airworthiness certificate, under the conditions proposed herein, will be at least as safe, or safer, than a conventional aircraft (fixed wing or rotorcraft) with an airworthiness certificate. The UAS weighs typically less than 15 lbs., and always less than 55 lbs. fully loaded. It will not carry a pilot or passenger, will not carry flammable fuel, and will operate exclusively within an area pre-disclosed and in compliance with conditions set forth herein. Operations under this exemption will be tightly controlled and monitored by both the operator, pursuant to the conditions set forth above, and by local public safety requirements. The FAA will have advance notice of all operations through the filing of NOTAMs. Receipt of the prior permission of the land owner, the size of the aircraft, the lack of flammable fuel, and the fact that the aircraft is carried to the location and not flown there all establish the equivalent level of safety. The UAS provides at least an equivalent, and most likely exceeds, level of safety to that of such operations being conducted with conventional aircraft that would be orders-of-magnitude larger and would be carrying passengers, cargo, and flammable fuel.

14 CFR. § 45.23 & 91.9(c): Marking of the Aircraft

Regulation 45.23 provides:

> (a) Each operator of an aircraft must display on that aircraft marks consisting of the Roman capital letter "N" (denoting United States registration) followed by the registration number of the aircraft. Each suffix letter used in the marks displayed must also be a Roman capital letter.
> (b) When marks include only the Roman capital letter "N" and the registration number is displayed on limited, restricted or light-sport category aircraft or experimental or provisionally certificated aircraft, the operator must also display on that aircraft near each entrance to the cabin, cockpit, or pilot station, in letters not less than 2 inches nor more than 6 inches high, the words "limited," "restricted," "light-sport," "experimental," or "provisional," as applicable.

Regulation 91.9(c) provides:

> No person may operate a U.S.-registered civil aircraft unless that aircraft is identified in accordance with part 45 of this chapter.

The UAS has no entrance to the cabin, cockpit, or pilot station on which the markings can be placed. Given the size of the UAS, two-inch lettering will be impossible. Official marking systems for UAS have not yet been established for operations inside the NAS. The applicant is prepared to mark the UAS with the name of the organization and location or origin and fulfill any other request by the FAA to this topic in accordance to § 45.29(f) where the pilot, observer, and others working with the UAS will see the identification of the UAS.

The FAA has issued the following exemptions to this regulation; see *Exemption Nos. 8738, 10167, 10167A and 10700.*

14 CFR § 61.113(a) & (b); 61.133(a): Private Pilot Privileges and Limitations; Pilot in Command; Commercial Pilot Privileges and Limitations.

Section 61.113(a) & (b) limit private pilots to non-commercial operations. Unlike a conventional aircraft that carries a pilot, passengers, and cargo, the UAS in this case is remotely controlled with no passengers or property of others on board. 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. The applicant respectfully proposes that operator requirements should take into account the characteristics of the particular UAS. Most UAS autopilot's have a high degree of pre-programmed control and various built-in technical capabilities that strictly limit the potential for operation outside of the operating conditions set forth in the exemption application. Hands-on experience with the UAS are a far more effective guarantee of flight safety than a commercial pilot certificate would be, until the FAA Pilot Certificate requirements catch up to the UAS technology.

The UAS autopilots have an all-digital software platform with advanced features previously restricted to full size unmanned aircraft. Automated features and advanced fly-safe controls enable safe, reliable operation, as well as advanced networking capabilities and system extensibility.

- The system can autonomously fly a programmed flight path or fly in manual mode
- Flight time and battery minutes are displayed at all times. The system will return home and land automatically if user-configurable limits are reached.

Flight safety is a priority, no matter the operating environment or project. UAS offer superior safety over manned aircraft by removing the need for people to be onboard in potentially dangerous situations. With multiple built-in safety features, UAS platforms lead manned operations with respect to safety.

- The UAS automatically detects potential issues - with configurable automated response behavior such as a return-home-and-land routine
- The UAS self-calibrate all of their sensors and perform required failsafe pre-flight tests prior to takeoff to check for errors
- The UAS have the ability to set up visual no-fly zones or create a virtual fence so the UAS can't fly horizontally or vertically beyond the pre-planned flight area
- The UAS have battery minutes and flight time displayed at all times. The system will return home and land automatically if user-configurable limits are reached
- The UAS auto detect a lost GPS, warns the pilot and initiates an immediate landing.
- Low battery on the UAS triggers a Non- Fatal Warning alarm to return home, land and replace the battery
- If UAS detect a lost-link to the Ground Station the vehicle will perform its pre-defined Non-Fatal Condition Response.

Given these safety features, the applicant proposes that operators of UAS with these features should not be required to hold a commercial or private pilot certification. Instead,

operators should be required to:

- have successfully completed, at a minimum, FAA private pilot ground instruction and passed the FAA Private Pilot written examination or FAA-recognized equivalents including ICAO issued commercial, private license and ground school; operators will therefore receive instruction in aeronautical navigation, meteorology, and aviation regulations prior to conducting commercial UAS operations.
- have completed a training program for operation of the UAS, if available.
- have completed 4 hours (25 flights) of training on the UAS and/or simulator before commencing commercial operations.

The applicant notes that the FAA has found that safety factors permitted operation of UASs by operators with these qualifications in the case of operations pursuant to public COAs where the mandatory operating conditions specified above are present. *See Federal Aviation Administration, Notice N-8900.227*, Unmanned Aircraft Systems (UAS) Operational Approval, at 20-21 (July 30, 2013). The FAA has the statutory authority, granted at 49 U.S.C.§44701(f) to waive the pilot requirements for commercial operations.

The applicant notes that the FAA has required a private pilot's certificate on prior Section 333 exemptions due to the statutory requirement to hold an airman certificate as prescribed in 49 U.S.C.§44711. The applicant feels that if a private pilot's certificate is requested, the FAA should consider a student pilot's certificate as an alternative. The only difference between the two is that a private pilot's certificate requires flying hours in a manned aircraft. The FAA and the applicant both agree that hours in a manned aircraft add no benefit to the safe operation of a UAS.

The applicant notes that the FAA has mentioned that a pilot certificate subjects the pilot to a security screening by the Department of Homeland Security. To satisfy this requirement, while not obtaining a pilot certificate, the applicant will require all UAS pilots to undergo an equivalent or better security screening by the Department of Homeland Security at the pilot's expense.

Given these conditions and restrictions, an equivalent level of safety will be provided by allowing operation of the UAS without a private pilot's certificate or a commercial pilot's certificate, under the conditions set forth herein.

The risks associated with the operation of the UAS (given its size, speed, operational capabilities, and lack of combustible fuel) are so diminished from the level of risk associated with private pilot operations or commercial operations contemplated by Part 61 with conventional aircraft (fixed wing or rotorcraft), that allowing operations of the UAS as set forth above meets or exceeds the present level of safety provided under 14 C.F.R. § 61.113(a) & (b) and does not rise to the level of requiring a commercial pilot to operate the aircraft under § 61.133(a).

14 CFR § 91.7(a): Civil aircraft airworthiness.

This regulation requires that no person may operate a civil aircraft unless it is in airworthy condition. Should the exemption be granted allowing commercial operation of UAS without an airworthiness certificate, no standard will exist for airworthiness of the UAS. Given the size of the UAS and the previous COAs issued for similar UAS, an equivalent level of safety will be achieved by ensuring compliance with the given UAS manuals and use of safety checklists prior to each flight.

14 CFR § 91.9(b)(2): Civil Aircraft Flight Manual in the Aircraft.

The regulation provides:

> No person may operate a U.S.-registered civil aircraft …

(2) For which an Airplane or Rotorcraft Flight Manual is not required by §21.5 of this chapter, unless there is available in the aircraft a current approved airplane or Rotorcraft Flight Manual, approved manual material, markings, and placards, or any combination thereof.

Given the size of UAS, they have no ability or place to carry such a flight manual on the aircraft, not only because there is no pilot on board, but because there is no room or capacity to carry such an item on the aircraft.

The equivalent level of safety will be achieved by keeping the flight manual at the ground control point where the pilot flying the UAS will have immediate access to it. The FAA has issued to others the following exemptions to this regulation: *Exemption Nos. 8607, 8737, 8738, 9299, 9299A, 9565, 9565B, 10167, 10167A, 10602, 32827, and 10700.*

14 CFR § 91.103: Preflight action

This regulation requires each pilot in command to take certain actions before flight to insure the safety of flight. As FAA approved rotorcraft flight manuals will not be provided for the aircraft an exemption will be needed. An equivalent level of safety will be provided by following a comprehensive preflight checklist. The PIC will take all actions including reviewing weather, flight battery requirements, landing and takeoff distances and aircraft performance data before initiation of flight.

14 CFR § 91.109(a) & 91.319(a)(1): Flight Instruction

These regulations provide that no person may operate a civil aircraft (except a manned free balloon) that is being used for flight instruction unless that aircraft has fully functioning dual controls.

The UAS are remotely piloted aircraft and by design, do not have fully functional dual controls. Flight control is accomplished through the use of a control box that communicates with the aircraft via radio communications. The flight plan is either manually controlled through point-and-click navigation or preprogrammed as way points into the auto pilot before or during flight and only in unusual circumstances will the pilot input control functions to alter the pre-programmed flight. Given the size and speed of the UAS, an equivalent level of safe training can still be performed without dual controls because no pilot or passengers are aboard the UAS, and all persons will be a safe distance away should the UAS experience any difficulties during flight instruction. The FAA has approved exemptions for flight training without fully functional dual controls for a number of aircraft and for flight instruction in experimental aircraft. *See Exemption Nos. 5778K & 9862A.*

14 CFR § 91.119: Minimum Safe Altitudes

Section 91.119 establishes safe altitudes for operation of civil aircraft. Specifically, 91.119(c) limits aircraft flying over areas other than congested areas to 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.

Because aerial survey, mapping and inspection work must be accomplished at relatively low altitudes and at altitudes less than 500 feet AGL, an exemption from Section 91.119(c) is needed.

The equivalent level of safety will be achieved given the size, weight, speed, and material with which UAS are built. Also, no flight will be taken without the permission of the land owner or those who control the land. Because of the advance notice to the landowner, all affected individuals will be aware of the flights. Compared to aerial survey operations conducted with aircraft or rotorcraft weighing far more than 55 lbs. and carrying flammable fuel, any risk

associated with these operations will be far less than those currently allowed with conventional aircraft operating at or below 500 feet AGL. Indeed, the low-altitude operations of the UAS will maintain separation between these UAS operations and the operations of conventional aircraft that must comply with Section 91.119.

14 CFR § 91.121: Altimeter Settings

Section 91.121 requires a person operating an aircraft to maintain cruising altitude or flight level by reference to an altimeter that is set to the elevation of the departure airport or barometric pressure. Some UAS have a barometric pressure sensor, while others only use GPS for elevation or altitude. When a barometric pressure sensor is on the UAS, it is typically "zeroed" at the point of take-off; this is right next to the PIC and not at a departure airport. The altitude reading will be relative to that point (on the ground) and not a known elevation.

The equivalent level of safety will be achieved by the PIC confirming the elevation or altitude of the launch site. The altitude of the UAS will also be displayed via telemetry on the Ground Station and will be constantly monitored by the PIC during the entire flight operation.

14 CFR § 91.151(a): Fuel Requirements for Flight in VFR Conditions

This regulation 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; or (2) At night, to fly after that for at least 45 minutes."

The different UAS batteries provide a variety of powered flight times. An exemption from § 14 CFR 91.151 is therefore required.

The applicant believes that an exemption from 14 CFR § 91.151(a) is safe and within the scope of a prior exemption. *See Exemption 10673* (allowing Lockheed Martin Corporation to operate without compliance with 91.151(a)). Operating the UAS, without 30 minutes of reserve fuel does not engender the type of risks that Section 91.151(a) was meant to prevent given the size and speed at which the UAS operates. The fact that it carries no pilot, passenger, or cargo also enhances its safety. In the unlikely event that the UAS should run out of fuel, it would simply land. Given its weight and construction material, the risks are less than contemplated by the current regulation.

The applicant believes that an equivalent level of safety can be achieved by maintaining 20% of reserve fuel (or battery), which would be more than adequate to return the UAS to its planned landing zone from anywhere in its operating area.

The FAA has granted similar exemptions to others, including *Exemptions 2689F, 5745, 10673 and 10808.*

14 CFR § 91.203 (a) & (b): Carrying Civil Aircraft Certification and Registration

This regulation provides as follows:

> (a) … no person may operate a civil aircraft unless it has … an appropriate and current airworthiness certificate.
> (b) No person may operate a civil aircraft unless the airworthiness certificate required by paragraph (a) of this section or a special flight authorization issued under §91.715 is displayed at the cabin or cockpit entrance so that it is legible to passengers or crew.

The UAS fully loaded weigh typically less than 15 lbs., and always less than 55 lbs. As such, there is no ability or place to carry certification and registration documents or to display them

on the UAS. In addition, there is no pilot on board the aircraft.

An equivalent level of safety will be achieved by keeping these documents at the ground control point where the pilot flying the UAS will have immediate access to them. The FAA has issued numerous exemptions to this regulation. A representative sample of other exceptions includes *Exemption Nos. 9565, 9665, 9789, 9789A, 9797, 9797A, 9816A, and 10700.*

14 CFR § 91.405(a); 407(a)(1); 409(a)(2); 417(a): Maintenance Inspections

Section 91.405(a) requires that an aircraft operator or owner "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 ..." Section 91.407 similarly makes reference to requirements in Part 43; Section 91.409(a)(2) requires an annual inspection for the issuance of an air worthiness certificate. Section 91.417(a) requires the owner or operator to keep records showing certain maintenance work that has been accomplished by certificated mechanics, under Part 43, or licensed pilots and records of approval of the aircraft for return to service.

The UAS are nearly maintenance free, they perform automatic pre-flight checks and the failure of any check will prevent take-off. Checks which cannot be done by the system will be performed by a qualified person prior to each flight and at predefined intervals as part of a maintenance schedule.

Pre-flight checklist includes:

1. Visual inspection of the airframe
2. Visual inspections of rotor integrity
3. Check charge of all batteries (aerial vehicle, command station, radio repeater station)

An equivalent level of safety will be achieved because the UAS is small in size, will carry no external payload, will operate only in restricted predetermined areas and is not a complex mechanical devise. The operator of aUAS will ensure that it is in working order prior to initiating flight, perform required maintenance, and keep a log of any maintenance that is performed. Moreover, the operator is the person most familiar with the aircraft and is best suited to maintain the aircraft in an airworthy condition and to ensure an equivalent level of safety.

If mechanical issues arise, the UAS can land immediately due to the pre-determined area of operation. Moreover, the UAS's small size, carrying capacity, and the fact that flight operations will only take place in restricted areas for limited periods of time, create less risk than the same factors associated with conventional fixed-wing aircraft and rotorcraft performing the same operation.

APPENDIX C

SUMMARY OF SECTION 333 EXEMPTION REQUEST

Terraplane, LLC hereby provides pursuant to Part 11 a summary of its exemption application to allow commercial operation of UAS for aerial acquisition and research in support of government entities, agriculture industry, utility companies, local infrastructure, scientific studies, wildlife monitoring, mining, surveying, forestry, and much more. All of which are critical to the well-being of the general public. An exemption is requested from the following regulations:

14 C.F.R. Part 21;
14 C.F.R. 45.23(b);
14 C.F.R. 61.113(a) & (b);
14 C.F.R. 61.133(a);
14 C.F.R. 91.7(a);
14 C.F.R. 91.9(b)(2) & (c);
14 C.F.R. 91.103;
14 C.F.R. 91.109(a);
14 C.F.R. 91.119;
14 C.F.R. 91.121;
14 C.F.R. 91.151(a);
14 C.F.R. 91.203(a) & (b);
14 C.F.R. 91.405(a);
14 C.F.R. 91.407(a)(1);
14 C.F.R. 91.409(a)(2);
14 C.F.R. 91.417(a).