

PRDP DRONE PILOT ELIGIBILITY GUIDE

I. Rationale

The utilization of unmanned aerial vehicles (UAVs) or drones in conjunction with Applied Geotagging Technology (AGT) significantly enhances the transparency and monitoring capabilities of projects. The UAVs offer a unique and valuable aerial perspective that complements the ground-level data collected through the AGT.

When implementing a project, the UAV is flown along the entire stretch or coverage of the subproject area. This allows it to capture high-resolution aerial views of various elements, including the condition of the project site, the layout of production areas, and the surrounding communities. These aerial images provide valuable visual information that can be used for validation, monitoring, and assessment purposes.

During the validation and actual implementation stages of a subproject, the UAV can capture real-time imagery that showcases the progress being made. This enables stakeholders to remotely monitor the development and track the changes that are taking place. By visually documenting the subproject's evolution, the UAV helps stakeholders gain a comprehensive understanding of the project's impact and identify any potential challenges or areas for improvement.

Furthermore, the UAV's aerial perspective is not limited to the present. It can also provide a preview of the subproject's future operations once it is completed and becomes operational. By capturing imagery that showcases the intended functionality and utilization of the subproject, stakeholders can gain insights into its long-term benefits and potential impact on the surrounding areas.

Overall, the combination of AGT and UAV technologies revolutionizes project monitoring and assessment. It provides stakeholders with a comprehensive and dynamic understanding of the project's progress, impact, and potential. By leveraging the aerial perspective offered by UAVs and the capabilities of the AGT, projects can be monitored and evaluated more effectively, leading to enhanced transparency, accountability, and informed decision-making.

Lastly, To ensure the clarity of drone usage and define who can use drones, it is important to establish eligibility guidelines. These guidelines will help determine the individuals or entities that are qualified to operate drones in the context of the project.

- II. Step-by-step guidelines to become an eligible Drone Pilot for the Philippine Rural Development Project (PRDP)- Geomapping and Governance Unit (GGU):

Option 1: Acquire a CAAP RPA Controller's Certificate.

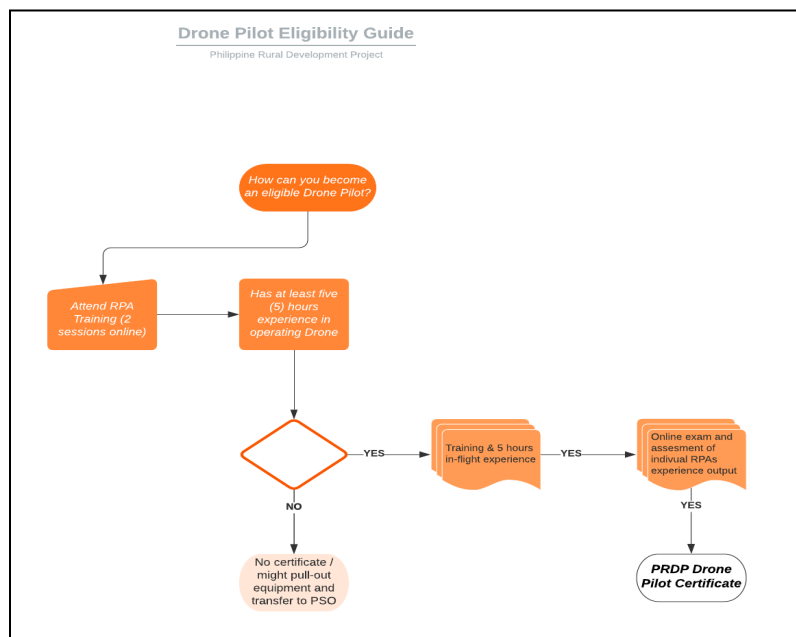
Obtain a CAAP RPA Controller's Certificate, which must be active at the time of submission to the PRDP-NPCO GGU.

Option 2: Or complete the RPAs training course conducted by the PRDP-GGU

Enroll in the RPAs training course conducted by the Geomapping and Governance Unit of the Philippine Rural Development Project.

- A. Attend the two sessions of online or face-to-face training, covering the following topics:
 - a. Drone 101: Know your drone and Theoretical Training (Rationale, CAAP guidelines, PRDP Application)
 - b. Drone in Mapping: Flight Plan, Image Processing, point cloud and analysis, and World Bank: Managing the risks of unmanned aircraft operations in development projects
 - c. Individual on-site assignment RPA in-flight exercises
- B. Gain experience in operating RPAs inside controlled airspace for drone operators
 - a. Accumulate at least five (5) hours of experience in operating RPAs inside controlled airspace for drone operators
 - b. Ensure that the five (5) hours of experience include:
 - i. At least 4 hours from the 5 in-flight exercises.
 - ii. At least 1 hour of practical experience and on-site drone operation.
 - iii. Provide verification through the recorded flight from DJI Go App (screenshot), photos and video taken performing the 5 in-flight exercises, and sample/actual output from the site visit.
- C. Pass the PRDP-Drone Pilot Exam
 - a. Take and pass the PRDP-Drone Pilot Exam, which includes online assessments on Drones and PRDP Guidelines.
 - b. The exam will also assess individual RPAs output from the 5 hours of experience
- D. Obtain the PRDP-NPCO GGU Certificate:
 - a. After completing the RPA online training conducted by the NPCO and accumulating 5 hours of RPAs experience, a PRDP-NPCO GGU Certificate will be issued to the pilot.

Figure 1: Eligibility Requirement for Remotely Piloted Aircraft System (RPAS) Pilot



Additionally, here are some general requirements and guidelines for RPA operations following CAAP (MC 29-15) and DA-PRDP guidelines:

Civil Aviation Authority of the Philippines (CAAP) MC 29-15 ([click to view full copy](#))

Excerpt from the Guidelines	Screenshot Link
<p>11.11.2 General RPA Operations</p> <p>(a) A person must not operate an RPA over a populous area at a height less than the height from which, if any of its components fails, it would be able to clear the area.</p> <p>(b) Subject to sub-regulations (c) and (d), a person operating a powered RPA must ensure that, while the RPA is in flight, or is landing or taking off, it stays at least 30 meters away from anyone not directly associated with the operation of the RPA.</p> <p>(c) Sub-regulation (b) is not contravened if a person stands behind the RPA while it is taking off.</p>	<p>https://photos.app.goo.gl/xyc3VoHUnHTgeWqy5</p>
<p>11.11.3 RPA Restricted Areas of Operation</p> <p>(a) No person may operate RPA within the following envelope unless prior approval has been granted by the Authority:</p> <p>(i) 400 ft Above Ground Level (AGL);</p> <p>(ii) 10 km radius from the Aerodrome Reference Point (ARP);</p> <p>(c) No person may operate an RPA in a controlled or prohibited airspace unless authorized by the Authority</p>	<p>https://photos.app.goo.gl/qRt31nbK19dmcbXt8</p>
<p>Definitions:</p> <ul style="list-style-type: none"> ● Large RPA means with a gross weight of 7kgs and above. ● Small RPA means with a gross weight of below 7kgs. 	<p>https://photos.app.goo.gl/RiFi49VMrE5b2FXb8</p>
<p>11. 11. 5 Requirement for Certificate of Registration and Special Certificate of Airworthiness</p> <p>(a) All RPAs used for commercial operations are required to be registered with the Authority regardless of weight</p> <p>(b) Non-commercial Large RPA shall be duly registered with the Authority</p>	<p>https://photos.app.goo.gl/vz6tHyWtNyR9K6Au8</p>

Geomapping and Governance Unit - General Remotely Piloted Aircraft (RPA) Guidelines Basis

User Manual DJI Inspire 2 ([click to view full copy](#))

Excerpt from the Users Manual	Screenshot Link
<p>1. Know Your Drone: Before Flight</p> <ol style="list-style-type: none"> 1. In the Box 2. Safety Guidelines and Disclaimer 	<p>https://photos.app.goo.gl/yP86gAvDEajLyUqe9</p>

<ol style="list-style-type: none"> 3. Quick Start Guide 4. Intelligent Flight Battery Safety Guidelines 5. User Manual 	
<p>2. Failsafe Return-to-Home Function</p> <p>Failsafe RTH will be automatically activated if the remote controller signal is lost for more than three seconds. The aircraft will plan its return route and retrace its original flight route home. The aircraft will hover for 10 seconds at its current location. When it regains signal connection it will wait for pilot commands. The Return-to-Home process may be interrupted and the pilot given control of the aircraft if the remote controller signal connection is re-established.</p>	https://photos.app.goo.gl/7rsK1MjibN5Ef8dE6
<p>3. Preflight Checklist</p> <ol style="list-style-type: none"> 1. Remote controller, intelligent Flight Battery, and mobile device are fully charged. 2. Propellers are mounted correctly and firmly. 3. Micro SD card has been inserted if necessary 4. Gimbal is functioning normally 5. Motors can start and are functioning normally. 6. The DJI Go 4 app is successfully connected to the aircraft 7. Ensure that the sensors for the Obstacle Sensing System are clean. <p><i>Additional requirements (emphasized during PRDP UAV Trainings)</i></p> <ol style="list-style-type: none"> 8. Check for Firmware and Software Updates 9. Virtually visit the subproject site and plan your route and sections that you intend to collect aerial documentation 	https://photos.app.goo.gl/SMEn4JKbeq8d4sJJ9
<p>4. Flight Environment Requirements</p> <ol style="list-style-type: none"> 1. Do not use the aircraft in severe weather conditions. These include wind speeds exceeding 10 m/s, snow, rain, and fog. 2. Only fly in open areas. Tall structures and large metal structures may affect the accuracy of the on-board compass and GPS system. 3. Avoid obstacles, crowds, high-voltage power lines, trees, and bodies of water. 4. Minimize interference by avoiding areas with high levels of electromagnetism, including base stations and radios transmission towers. 5. Aircraft and battery performance is subject to environmental factors such as air density and temperature. Be very careful when flying at high altitudes, as the performance of the battery and aircraft may be affected. 	https://photos.app.goo.gl/SEmgroyAv5Jq4ZUy6
<p><i>Additional requirements (emphasized during PRDP UAV Training)</i></p> <ol style="list-style-type: none"> 6. Always coordinate with partner LGU 7. Know Local Laws for Flying 	

