**Agreement to Hire The University of Western Australia**

**Remotely Piloted Aerial Sensing Platform Equipment**

The University of Western Australia (UWA)

and

xxxxxxxxxxx*(insert user name)* ("USER")

This Agreement is between The University of Western Australia and the USER, and specifies the terms and conditions for the hire and use of equipment from the Remotely Piloted Aerial Sensing Platform (RPASP) at UWA.

The University of Western Australia Remotely Piloted Aerial Sensing Platform Equipment has agreed to loan the USER, the following equipment:

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| --- | --- |
| Item | Qty or Duration |
| xxxxxxxxxxx |  |

For *xxxxx (insert date and time duration of hire agreement)*

During this time, the USER will undertake research work with the equipment, the USER has agreed to pay the The University of Western Australia Remotely Piloted Aerial Sensing Platform for the loan of this equipment as per below.

Internal charge structures cover costs of equipment software/hardware maintenance, licensing, (re)calibration, associate running costs and partial contribution towards end-of-life equipment replacement. External charge structures reflect equivalent commercial costs.

USER agrees to:

(1) keep the loaned equipment for a period no longer than the specified loan term without further agreement The University of Western Australia Remotely Piloted Aerial Sensing Platform. The USER agrees to pay extra charges applied at a pro-rata rate until the equipment is returned;

(2) accept responsibility to ensure that the equipment is fully insured for their full replacement cost for the entire rental period. Equipment insurance is the responsibility of the USER;

(3) to cover the full cost of replacement or costs of insurance excess in case of an insurance event. In agreeing to the terms, the USER agrees that this cost can be recovered from the specified PG Account by The University of Western Australia Remotely Piloted Aerial Sensing Platform;

(4) the USER has had appropriate experience, training and any licensing necessary to operate and to maintain the instruments according to the Manufacturer's Manual and where relevant The University of Western Australia Remotely Piloted Aerial Sensing Platform Standard Operating Procedures or Remote Operators Certificate (ReOC) Library and Manual during use (these documents are available on request);

(5) to inform The University of Western Australia Remotely Piloted Aerial Sensing Platform, manager (Nik Callow: nik.callow@uwa.edu.au / 0407 839 738) of any damage incurred during the loan period and as soon as is practical after the damage event;

(6) to cover full cost to repair any damage (other than fair wear and tear) replacement or costs of insurance excess in case of theft. In agreeing to the terms, the USER agrees that this cost can be recovered from the specified PG Account by The University of Western Australia Remotely Piloted Aerial Sensing Platform; and

(6) to pay The University of Western Australia Remotely Piloted Aerial Sensing Platform a total fee of:

*xxxxx (insert costs of hire – see charge schedule in Table 1)*

The USER agrees that payment and any additional costs for replacement due to theft or damages is to be made from:

BU: \_\_\_ \_\_\_ \_\_\_ \_\_\_ \_\_\_ PG: \_\_\_ \_\_\_ \_\_\_ \_\_\_ \_\_\_ \_\_\_ \_\_\_ \_\_\_

Payments will be made into The University of Western Australia Remotely Piloted Aerial Sensing Platform Operating Accounts:

BU 00705, PG 63002210 (drones and related equipment),

BU 00705, PG 63002011 (DTS and Fusion Splicer).

The parties agree to the terms and conditions herein.

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| **The USER:** |  | **“UWA Geography ReOC” Drone Operations Group** |
| Title and Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  | Assoc Nik Callow –Chief Remote Pilot |
| Signature: |  | Signature: |
| Date: \_\_\_\_ / \_\_\_\_ / \_\_\_\_ |  | Date: \_\_\_\_ / \_\_\_\_ / \_\_\_\_ |

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| ***Service Level Agreement*** |
| **The University of Western Australia****Remotely Piloted Aerial Sensing Platform** **CASA Remote Operators Certificate: CASA.ReOC.0628** |  |
| Text, logo  Description automatically generated |
|  |
| Service provided / work performed:  |   |  |
| Hours / number of units:  |   |  |
| Cost per hour/unit:  |   |  |
| Total cost:  |   |  |
| BU/PG to be reimbursedfor service/work:  | ⃝ BU 00705, PG 63002210 (drones and related equipment),⃝ BU 00705, PG 63002011 (DTS and Fusion Splicer). |  |
| BU/PG to be charged:  | BU \_ \_ \_ \_ \_ , PG \_ \_ \_ \_ \_ \_ \_ \_  |  |
| PG Manager:  | Nik Callow |  |
| PG Manager approval(signature or email approval):  |   |  |

Table 1 List of standard charges for equipment loan - by “UWA Geography ReOC” Drone Operations Group. Note that by mutual agreement with the “UWA Geography ReOC” Drone Operations Group, variation to these standard chargers may be negotiated, such as through academic collaboration leading to co-publication of work.

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| **Equipment** | **Standard Internal (UWA) Charge Schedule** | **External / Commercial Rate** | **Notes on Equipment Use** | **Estimated Insurable / Replacement Cost\*1** |
| **Drones** |
| DJI M600 Pro RPA  | $200 per day (does not include sensors or pilot) | $500 per day (does not include sensors or pilot) | Requires valid RePL (<25kg Multirotor) and induction into UWA ReOC. All flights must be approved by the Chief Remote Pilot. | $7,999 AUD |
| DJI M600 Pro RPA #1 – Spectral/Thermal Drone  | $400 per day (does not include pilot) | $1,000 per day (does not include pilot) | see individual costs (drone plus sensors) |
| DJI M600 Pro RPA #2 –Photogrammetry Drone with Reach RTK | $400 per day (does not include pilot) | $1,000 per day (does not include pilot) |
| DJI Phantom 4 RTK, with DJI Base Station | $175 per day (does not include pilot) | $350 per day (does not include pilot) | Requires valid RePL (<2kg (or above) multirotor) and induction into UWA Geography ReOC, with all flights approved by the Chief Remote Pilot; or Faculty of Science approval for CASA Excluded Class Drone Operations. | $15,000 AUD |
| DJI Phantom 4 Advanced | $50 per day(does not include pilot) | $150 per day(does not include pilot) | $1,899 AUD |
| DJI Mavic 2 Pro | $50 per day(does not include pilot) | $150 per day(does not include pilot) | $2,299 AUD |
| DJI Phantom 4 Advanced with Sequoia/RedEdge MX | $150 per day(does not include pilot) | $400 per day(does not include pilot) | see individual costs (drone plus sensors) |
| **Sensors - drone and ground-based sensors** |
| Tetracam MCA Micro-6 Multispectral Camera | $200 per day | $400 per day | Requires RPA (e.g. DJI M600 Pro RPA) or external RPAS provider to fly camera. | $22,000 USD |
| RedEdge MX Multispectral Camera | $150 per day | $300 per day | $4,500 USD |
| TEaX Thermal Camera | $200 per day | $400 per day | $15,000 USD |
| ASD FieldSpec 4 | $300 per day | $600 per day  | USERs require training or experience with equipment prior to hire. Training can be provided by a Casual Field Assistant at an hourly rate as required.  | $124,000 AUD |
| **Other sensors and equipment** |
| Reach RS2 GNSS Survey Equipment | $75 per day | $150 per day | USERs require training or experience with equipment prior to hire. Training can be provided by casual at hourly rate as required. Access to Trimble Business Centre software for post-processing at no cost (subject to computer availability) | $10,000 AUD |
| Trimble R10 GNSS Survey Equipment  | $100 per day | $300 per day | $96,000 AUD |
| Canon 6D Optical DSLR Camera with Sigma hemispheric lens | $50 per day | $100 per day | Camera/Lens for vegetation cover photography | $4,000 AUD |
| Silixia XT Distributed Temperature Sensor (DTS) | $200 per day | $400 per day | Requires Optic Fibre Cable to be used in conjunction with equipment is at USERs expense. | $70,000 AUD |
| Fujikara 70S+ Core Alignment Fusion Splicer, with CT30A Precision Fiber Cleaver. | Free with DTS hire. User to pay for disposable cleaning items if no DTS hire. | $250 per day  | Fujikara 70S+ has on-board video tutorials, but training in optic fibre fusion splicing is recommended. Training can be provided by a Casual Field Assistant at an hourly rate as required. | $14,500 AUD |

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| **Labour, including Training (some equipment may require training, cost in addition to hiring equipment)** |
| Casual Drone Research Assistant (UWA Level 5.1 casual).  | For rate refer to: [UWA General Salaries](http://www.hr.uwa.edu.au/policies/policies/pay/scales/general) – Level 5.1Note casual salary attracts 25% loading on base hourly rate. Calculate as Level 5.1 \* 1.25. | For rate refer to: [UWA General Salaries](http://www.hr.uwa.edu.au/policies/policies/pay/scales/general) – Level 5.1.Note external work attracts a 35% infrastructure charge to cover indirect costs\*2, plus 25% casual loading on base hourly rate. Calculate as Level 5.1 \* 1.25 \* 1.35. | Charges for tasks that may include (but not limited to):* deliver training
* fieldwork and surveying
* drone maintenance
* data processing
* travel
* RPAS observer
 | N/A |
| Casual CASA RePL trained Remote Pilot (UWA Level 8.1 casual) – applies to flying time only. | For rate refer to: [UWA General Salaries](http://www.hr.uwa.edu.au/policies/policies/pay/scales/general) – Level 8.1Note casual salary attracts 25% loading on base hourly rate. Calculate as Level 8.1 \* 1.25. | For rate refer to: [UWA General Salaries](http://www.hr.uwa.edu.au/policies/policies/pay/scales/general) – Level 8.1.Note external work attracts a 35% infrastructure charge to cover indirect costs\*2, plus 25% casual loading on base hourly rate. Calculate as Level 8.1 \* 1.25 \* 1.35. | “UWA Geography ReOC” Drone Research Group CASA-licensed Remote Pilot to operate RPA. Drone not included in price. Travel may be extra. | N/A |
| Annual maintenance inspection by Casual Drone Technician under supervision of UWA Maintenance Controller | Casual Rate by the hours as above, or $50 (<2kg) / $100 (2-25kg) per aircraft for annual inspection. | N/A | Costs for Casual Drone Technician authorised by the UWA Maintenance Controller to inspect and service drones. Significant repairs will incur additional labour charges per hour and parts will be charged at cost. | N/A |
| Expert Consulting – Assoc Prof Nik Callow, (Chief Remote Pilot) | Free for collaborate research | Current UWA Minimum Consulting Rate, or UWA “full costing” model ([current base salary](https://www.hr.uwa.edu.au/policies/policies/pay/scales/academic) \* 2.97) |  |  |
| **Travel** |
| Travel to field site | Current ATO travel rate per kilometre or cost recovery on UWA Vehicle Hire |
| Travel time | Travel time is charged at the lowest raet (i.e. Casual Pilot Travel (L8.1) is charged at the Casual Research Assistant rate (L5.1) |
| **Day Rates** |
| Remote Pilot with <2kg RPAS and sensor | $1,000 per field flying day | $2,000 per field flying day | Costed based on RPAS and sensor, calibration boards and survey equipment and setup; 3 hrs prior/post work, 7 hrs work plus travel (up to 500km) plus 1 hr flying.Excludes data processing costs (at casual rate). |  |
| Remote Pilot with 2-25kg RPAS and sensor payload, plus observer | $1,500 per field flying day | $3,000 per field flying day |  |
| Collect field spectra with ASD FieldSpec 4 | $1,000 per field analytical day | $2,000 per field analytical day | Cost based on 3hr prior/post work, 8 hrs travel (up to 500km) plus field sensing with ASD hire costs. |  |

\*1 Note that the “Estimated Insurable/Replacement Cost” is based on the purchase price of the equipment. The USER will be charged the full, actual new-for-old replacement cost. Prices are an indicative estimate only, provided for insurance purposes.

\*2 indirect costs include the cost of providing the infrastructure required to support the position, including power and lighting, accommodation, general laboratories, general technical and secretarial, service areas etc. This cost is calculated using a flat rate of 35%.