

Care of UAS & Data Security

Micro-UAS Remote Pilot Course

Aim

Introduce activities that need to be carried out regarding care of equipment (UAS).

Agenda

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Overview

2

Introduction and Definitions

3

The Importance of Maintenance

4

Preflight Recommendations

5

Data Security

Why is this important for me!

- Safety
- Equipment and Data Security
- Information [Services/Systems]

Features are CIA (let's talk about this here)

Reference

- [AC 107-2 - Small Unmanned Aircraft Systems \(sUAS\)](#)
- Advisory Circular: CHAPTER 7
- sUAS MAINTENANCE AND INSPECTION



DJI_Mavic_3E_3T_In_the_Box.pdf



DJI_Mavic_3E_3T_Known_Issue_List_EN.pdf



DJI_Mavic_3E_3T_Quick_Start_Guide.pdf



DJI_Mavic_3E_3T_User_Manual-EN.pdf



DJI_Pilot_2_Data_Security_20230927.pdf



Overview

- Maintenance plan is not Regulation
- Comes from manufacturer or be developed by the operator

****The remote PIC must perform checks prior to each flight****

Introduction and Definition

Maintenance may consist of the following:

- Overhaul,
- Repair,
- Inspection,
- Modification,
- Replacement ,
- System Software upgrades

Requires

- Monitoring
- Maintain a record.

Document

- Logbook

DJI Maintenance Program

Keep Aircraft at Top Performance



Raise Efficiency

Complete aircraft tasks efficiently and continuously.



Ensure Safety

Ensure stable aircraft performance, reducing unnecessary expenses.



Improve Recordkeeping

Keep track of your aircraft status, and check maintenance records online.

Aircraft Maintenance Program

Designed for DJI Enterprise Aircraft

Basic Service

Through detailed inspection, deep cleaning, firmware updates and calibration, the impact of...

- ✓ Deep Clean
- ✓ Parts Inspection
- ✓ Update & Calibration

Standard Service

Apart from the detailed inspection, deep cleaning, firmware updates and calibration, the...

- ✓ Deep Clean
- ✓ Parts Inspection
- ✓ Update & Calibration
- ✓ Easily Worn Parts Replacement

Premium Service

In addition to the Standard Service, the Premium Service includes the core components...

- ✓ Deep Clean
- ✓ Parts Inspection
- ✓ Update & Calibration
- ✓ Easily Worn Parts Replacement
- ✓ Core Components Replacement

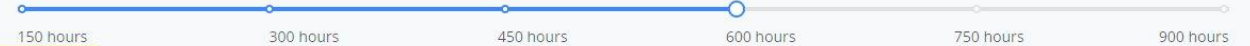
Maintenance Service Recommendation

Select aircraft model and flight time/time since activation:

Aircraft Model DJI Mavic 3 Enterprise Series

Flight Time/Time Since Activation Total Flight Time

Total Flight Time 600 hours



Basic

Standard

Basic

Premium

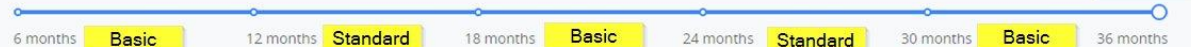
Maintenance Service Recommendation

Select aircraft model and flight time/time since activation:

Aircraft Model DJI Mavic 3 Enterprise Series

Flight Time/Time Since Activation Time Since Activation

Time Since Activation 36 months



Basic

Standard

Basic

Standard

Basic

Premium

Preflight Checks

Preflight inspection should include visual inspection and check of the following:

- Registration markings
- All flight control surfaces, and linkages
- Powerplants(s), propellers (s), rotor(s),
- Control Stations (CS) including antenna and controls.
- Camera and Obstacle Sensors

Pre-Flight Checks

Battery

- Aircraft
- Controller
- Display panel

Calibrate UAS compass as prescribed by the manufacturer;

1. If you see notification from the drone
2. If you travel for a certain distance

Pre-Flight Checks

Check that any equipment is securely attached.

- Camera
- Strobe light
- Speaker
- Spotlights

Verify communication with the UAS

Verify UAS has acquired GPS location

Pre-Flight Checks

Check that control link correct functionality

- Check for signal
- Check for camera feed

Check Flight Termination system

- Hover
- Return to Home
- Climb
- Land
- Continue mission*

Check for correct movement using the CS

Data Security and Reporting

Data Security

Data Classification

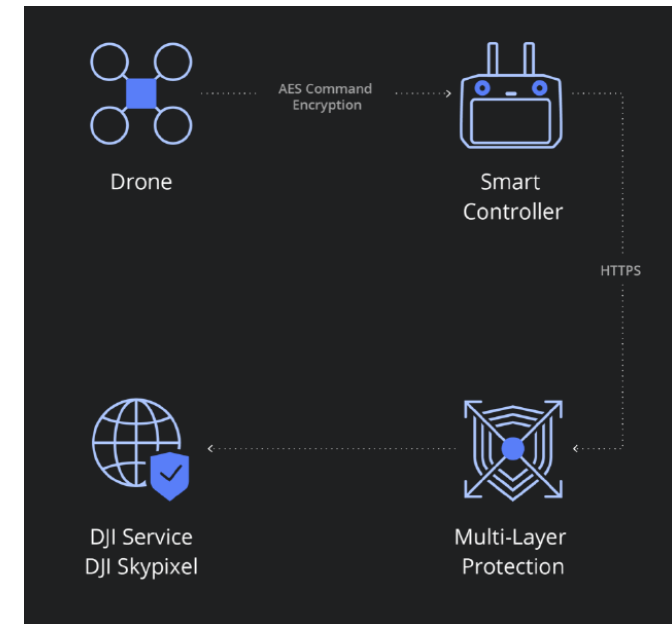
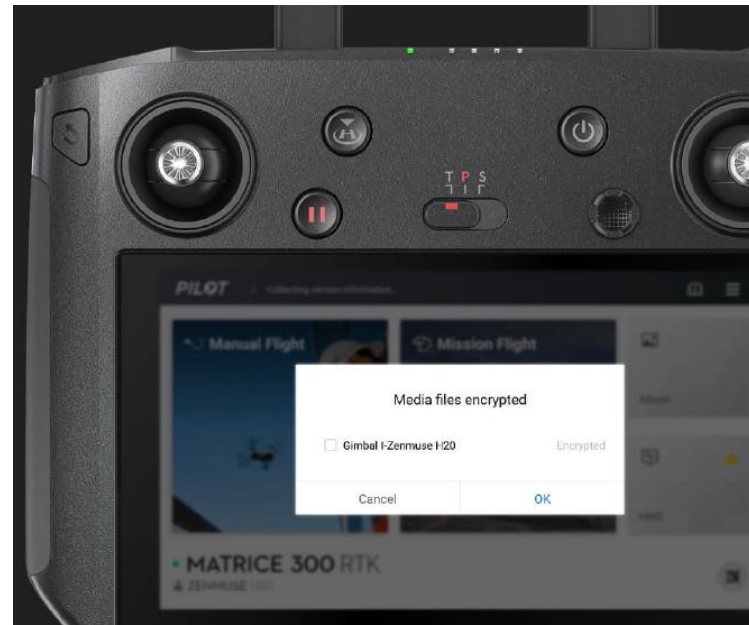
- Personal identifiable information
- Confidential
- Company internal
- Public

Information Risk Management Process

- Scope
- Identification
- Evaluation / assessment
- Controls
- Monitoring

Secure Communication

- Ensure you have enabled security (password Protection) Secure Media

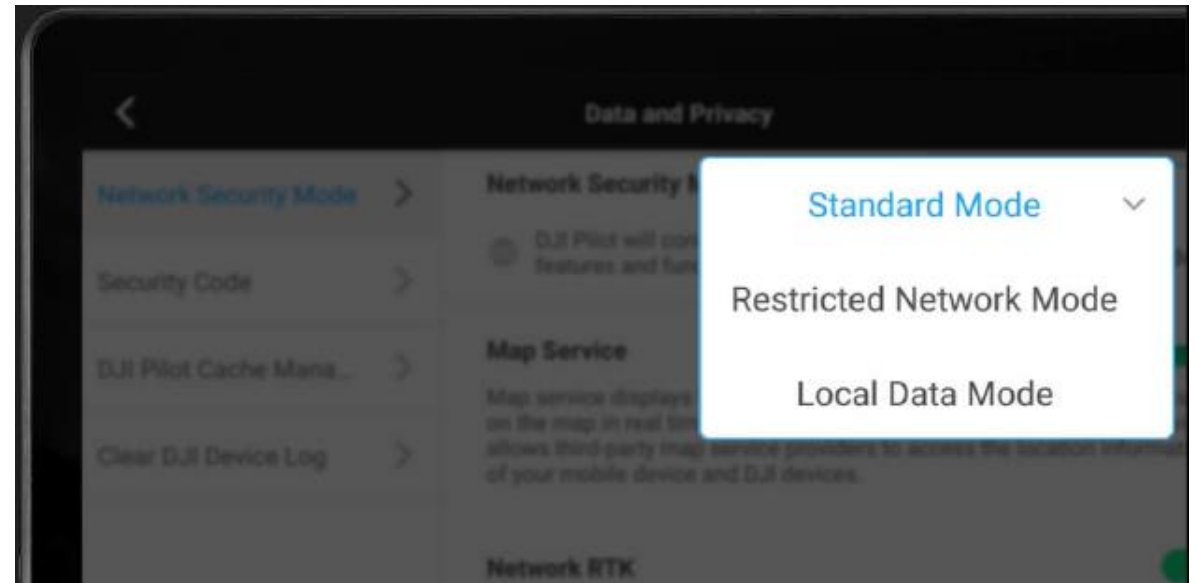


Data Security and Reporting - Encryption

- Ensure you have enabled security (password Protection)
- Security code
 - Set on memory
 - Required to access media
 - Memory card formatted when security is disabled
- Enable Local Mode (if Needed)

Network Security Mode

- Standard
- Restricted Network
- Local Data
- Network Sec Mode Encryption
- Restart Needed



DJI Device Log

- Aircraft log
- Gimble Log
- Remote controller log
 - Remote controllers' logs
 - Flight records
 - App logs
 - Local media data
 - Flight route files

Clearing Data

- Do not clear data of operational aircraft
- Do not clear data if aircraft is involved in accident → Can't locate cause of error / accident
- The device will restart after clearing. do not power on / start propeller / flight and other function are disabled
- Backup media files , flight routes and other data in the remote controller
- Clear data only on disposal of equipments

Firmware Update

- New Functionality
- Bug Fix
- Security Patches
- Use the controller or DJI Assistant Software to perform Software Update.

Data Security and Reporting

Know what you need to do in case of fly-away

- Reporting Requirement
- Flying in a controlled airspace.

Emergency Procedure

- PIC should Plan for emergency situations
- PIC should brief all involved about this procedures
- You can deviate from the applicable rules to respond to emergencies to the extent necessary.

Lithium Battery

- Lithium and lithium-ion batteries are capable of ignition and explosion due to overheating and eventually thermal runaway
- Extinguish fire with water / halon
- Cool the remaining cells with water , do not use ice.
- Do not pick up smoking or burning batteries
- Inspect batteries before flight for bloating, damage

Regulation

- Regulation prohibits spare lithium batteries from check baggage on a commercial flights.
- Spare batteries in carry-on baggage must be protected from short circuit and from contacting with metal objects.

Questions?

The End