

MODULE 5 – LESSON 1

UAV Maintenance Documentation and Inventory Management

LESSON PLAN

GENERAL INFORMATION

LEARNING ACQUISITIONS

At the end of the lesson, students will be able to:

- ☐ Explain the purpose and documentation of repair and maintenance documentation.
- ☐ Plan the UAV repair and maintenance process
- ☐ Report the UAV repair and maintenance process
- ☐ Explain the UAV repair and maintenance reporting process
- ☐ List the inventory record keeping process in the UAV warehouse
- ☐ Explain the property inventory creation process

TIME

1 lesson hour

METHODS AND TECHNIQUES

Video-Based Learning

RESOURCES, TOOLS, AND EQUIPMENT

Presentation

Computer or tablet

Video projector or TV-set

Video Tutorials

IMPLEMENTATION OF THE LESSON

INTRODUCTION

GAINING ATTENTION AND MOTIVATION

The lesson focuses on documenting activities related to the maintenance, repair, and storage of unmanned aerial vehicles (UAVs). It consists of two main thematic sections and six instructional films, which step by step present the most important aspects of working with documentation. The first section is devoted to UAV repair and maintenance documentation. Within this part, the following topics are covered: the purpose of maintenance and repair documentation (Film no. 1), planning repair and maintenance activities (Film no. 2), execution documentation of repair and maintenance tasks (Film no. 3) and reporting and keeping records of repair and maintenance (Film no. 4).

The second section addresses property inventory and storage conditions. Students learn about: documentation of UAV storage conditions (Film no. 5) and documentation of property inventory (Film no. 6).

The overall goal of the lesson is to highlight the importance of accurate documentation in UAV technical operations. Through the films, students not only gain theoretical knowledge but also see practical examples of creating and using documentation in technical practice.

DEVELOPMENT

IMPLEMENTATION OF THE LESSON CORE

- Students watch Video 1 and understand the purpose of maintenance repair documentation.
(Resource 1)
- Students watch Video 2 and learn about planning documentation of repairs and maintenance.
(Resource 2)
- Students watch Video 3 and explore execution documentation of repairs and maintenance.
(Resource 3)
- Students watch Video 4 and review repair and maintenance reporting documentation. (Resource 4)
- Students watch Video 5 and examine stock documentation. (Resource 5)
- Students watch Video 6 and analyze property inventory. (Resource 6)

CONCLUSION

SUMMARISING

At the end of the lesson, the trainer will summarise the key points, emphasise the purpose and method of keeping repair and maintenance records. They will make the participants aware of the importance of keeping accurate repair and maintenance records and how this affects flight efficiency and safety, as well as the analysis of malfunctions or incidents. He will emphasise the importance of the inventory process in the unmanned aerial vehicle (UAV) warehouse and the importance of the asset inventory process, the availability of which has a significant impact on the efficiency of equipment and its availability for tasks.

ASSIGNMENT

As part of homework, students will familiarise themselves with materials related to documenting repairs and maintenance. They will be able to describe how the repair and maintenance process for unmanned aerial vehicles (UAVs) is planned, as well as explain the essence of reporting for repair and maintenance. They will review the process of recording inventory in an unmanned aerial vehicle (UAV) warehouse and the process of creating an inventory of assets, and will then be able to discuss these processes.

EVALUATION OR TESTING

- Trainer evaluates the student's guide to the purpose and documentation of repair and maintenance processes.
- Trainer assesses the plan developed by the student for the UAV repair and maintenance process.
- Trainer reviews the report prepared by the student on the UAV repair and maintenance process.
- Trainer evaluates the guide to UAV repair and maintenance reporting created by the student.
- Trainer analyses the checklist for inventory record-keeping in the UAV warehouse designed by the student.
- Trainer assesses the guide to property inventory creation developed by the student.

END

The trainer will conclude the lesson by emphasizing that accurate repair and maintenance record-keeping has a significant impact on flight efficiency and safety and is essential when analyzing malfunctions or incidents. He will note that in order to maintain continuous efficiency and readiness to perform tasks, it is necessary to properly record the inventory of the unmanned aerial vehicle (UAV) warehouse and to conduct an inventory of assets.

Finally, the trainer will introduce the next lesson, explaining that Lesson 2 will cover three topics and four instructional videos that present the types of technical documentation, the rules for recording flights and reporting incidents, and safety regulations and compliance requirements.

MODULE 5 – LESSON 2

Flight Records, Incident Reporting, and Safety Regulations

LESSON PLAN

GENERAL INFORMATION

LEARNING ACQUISITIONS

At the end of the lesson, students will be able to:

- Explain the UAV technical documents types
- Explain the rules for documenting flights performed
- Explain the recorded data of the flights performed
- Explain the rules of incident reporting
- Explain the safety rules and compliance requirements

TIME

1 lesson hour

METHODS AND TECHNIQUES

Video-Based Learning

RESOURCES, TOOLS, AND EQUIPMENT

Presentation

Computer or tablet

Video projector or TV-set

Video Tutorials

IMPLEMENTATION OF THE LESSON

INTRODUCTION

GAINING ATTENTION AND MOTIVATION

The lesson focuses on UAV technical documentation, flight records and incident reporting, as well as safety regulations and compliance requirements. It consists of three sections and four instructional films that provide a practical perspective on the topics covered.

The first section introduces the types of essential UAV documentation. Students learn which documents are necessary for the proper operation and technical maintenance of unmanned aerial vehicles (Film no. 7).

The second section deals with records of completed flights and incident reporting. It includes two films: one presents the rules for documenting completed flights (Film no. 8), and the other explains how to properly prepare incident and occurrence reports (Film no. 9).

The third section focuses on safety regulations and compliance requirements. Students become familiar with the rules that ensure safe UAV operation in accordance with applicable standards and legal frameworks (Film no. 10).

The overall goal of the lesson is to emphasize the importance of documentation in ensuring safe UAV operations and responsible drone use. The instructional films bridge theory with practice, showing how knowledge is applied in real-life scenarios.

DEVELOPMENT

IMPLEMENTATION OF THE LESSON CORE

- Students watch video 7 and analyze the types of UAV documentation (Resource 7-8-9-10-11)

- Students watch video 8 and review documentation of flights performed (Resource 12).

- Students watch video 9 and analyze reporting incidents (Resource 13).

- Students watch video 10 and study safety regulations and review compliance requirements (Resource 14-15).

SUMMARISING

At the end of the lesson, the trainer will summarise the key points: emphasising the importance of knowing the rules for documenting flights, recording flight data, incident reporting rules, and knowledge of safety rules and compliance requirements. They will discuss how important these elements are when assessing the technical condition of unmanned aircraft and when conducting investigations during incidents.

ASSIGNMENT

As part of their homework, students will familiarise themselves with materials concerning the rules for documenting completed flights, the rules for recording flight data, the rules for reporting incidents, and the rules for safety and compliance requirements, and will then be able to discuss these rules.

EVALUATION OR TESTING

- Trainer evaluates the guide outlining the types of UAV technical documents created by the student.
- Trainer assesses the guide detailing the rules for documenting completed flights prepared by the student.
- Trainer analyzes the overview of recorded data from completed flights provided by the student.
- Trainer reviews the guide on incident reporting rules compiled by the student.
- Trainer evaluates the guide on safety rules and compliance standards developed by the student.

END

The trainer will conclude the lesson by emphasising that accurate flight documentation, flight data recording, proper incident reporting, and knowledge of safety rules and compliance requirements have a significant impact on flight efficiency and safety and are essential when analysing malfunctions or incidents.

Finally, the trainer will introduce the next lesson, explaining that Lesson 3 will cover two topics and four instructional videos that present the purpose and scope of standard operating procedures (SOPs), the scope and methodology of work orders (WOs), the purpose and scope of drone status reporting and recommended maintenance work, and the elements of effective professional communication.

MODULE 5 – LESSON 3

Standard Operating Procedures, Work Orders, and Professional Communication

LESSON PLAN

GENERAL INFORMATION

LEARNING ACQUISITIONS

At the end of the lesson, students will be able to:

- ☐ Explain the purpose and scope of standard operating procedures (SOP)
- ☐ Explain the scope and implementation of work orders (WO)
- ☐ Explain the purpose and scope of reporting UAV status and recommended maintenance
- ☐ Explain the components and necessities of professional communication

TIME

1 lesson hour

METHODS AND TECHNIQUES

Video-Based Learning

RESOURCES, TOOLS, AND EQUIPMENT

Presentation

Computer or tablet

Video projector or TV-set

Video Tutorials

IMPLEMENTATION OF THE LESSON

INTRODUCTION

GAINING ATTENTION AND MOTIVATION

The lesson covers topics related to operating procedures, UAV condition reporting, and professional communication in drone operations. It consists of three sections and four instructional films that provide practical insight into the subjects.

The first section focuses on Standard Operating Procedures (SOP) and Work Orders (WO). Students learn about the purpose and scope of standard operating procedures (Film no. 11) and gain knowledge on how to define and implement work orders (Film no. 12).

The second section addresses reporting the condition of drones and recommending maintenance. Film no. 13 explains the purpose and scope of UAV status reporting as well as the recommendations for maintenance actions required to keep the drones operational.

The third section deals with professional communication. Students are introduced to the components of effective professional communication and its importance in UAV-related work (Film no. 14).

The overall goal of the lesson is to highlight the importance of procedures, documentation, and communication in everyday drone operations. The instructional films help students connect theory with practice and build professional responsibility.

DEVELOPMENT

IMPLEMENTATION OF THE LESSON CORE

- Students watch video 11 to analyse the purpose and scope of standard operating procedures (SOP) (Resource 16)
- Students watch video 12 and review the scope and methodology of work orders (WO) (Resource 17)
- Students watch video 13 to study the aim and scope of reporting the condition of drones and recommended maintenance (Resource 18)
- Students watch video 14 to review the components of effective professional communication (Resource 19-20)

SUMMARISING

At the end of the lesson, the trainer will summarise the key points: the role of standard operating procedures (SOPs) in ensuring consistency and efficiency; how to complete work orders (WOs), the importance of documenting the status of unmanned aerial vehicles (UAVs) and recommending timely maintenance, and the key elements of professional communication that support safe and effective teamwork.

The trainer will emphasise that procedures, documentation, and communication are not optional tasks, but fundamental practices of professional UAV technicians. The trainer will make students aware that consistent adherence to SOPs, WOs, and communication skills will ensure the reliability, safety, and efficiency of UAV operations.

ASSIGNMENT

As part of their homework, students will familiarise themselves with materials concerning standard operating procedures (SOPs), work orders (WOs), documenting the status of UAVs and recommending timely maintenance, as well as the principles of professional communication. After reviewing and repeating the materials, students will be able to present information related to the subject matter.

EVALUATION OR TESTING

- Trainer evaluates the purpose and scope of standard operating procedures (SOP) guide created by the student.
- Trainer assesses the Work Order (WO) implementation and scope guide developed by the student.
- Trainer reviews the UAV status reporting and recommended maintenance guide created by the student.
- Trainer evaluates the components and best practices for professional communication guide created by the student.
- Trainer assesses the components and necessities of effective professional communication guide developed by the student.

END

The trainer will conclude the lesson by emphasising that strict adherence to standard operating procedures (SOPs), the ability to develop work orders (WOs), as well as reporting the status of drones and the ability to order maintenance work are key elements in maintaining the high efficiency and airworthiness of unmanned aerial vehicles. An important element in communication and information flow is the ability to communicate effectively in a professional manner. The trainer will emphasise that all the issues covered in the last three lessons are very important for the safe operation and repair of drones.