



# The Australian Unmanned Systems Academy Dual Qualification Training Program

## Revision Exercise 5 - Human Factors

### Instructions:-

Each question is to be answered in written form in fluent English. Using the attached answer document, clearly indicate the question number you are answering, and then record your answer.

Ensure you have put your name on the answer sheet, and the date on which you completed the Revision Exercise.

Question 1. You are the Pilot in Command of an RPAS mission being undertaken by your employer. Normally your company operates Brand A aircraft, however for this mission you have been requested to fly a Brand B aircraft. You have been approved by your company to fly the Brand B aircraft, and you have a current active status as a pilot.

Describe the procedure you might adopt in adapting to differences in aircraft type in order to successfully complete the mission.

Question 2 Describe how you might apply effective listening techniques when managing human factors in remote pilot aircraft systems (RPAS) operations

Question 3 Describe the benefit of applying questioning techniques to obtain information and clarify information while communicating with others

Question 4 During normal RPAS operations a hazard has been identified. As the Pilot in Command, describe your actions on learning of this hazard.

Question 5 Discuss the statement, 'It is the responsibility of the Pilot in Charge to apply relevant air safety practices and regulations.

Question 6 During an RAPS operation, with whom does the responsibility for communicating effectively with other team members rest?

Question 7 Why is it crucial for all RPAS crew members to identify symptoms of deterioration in their own physiological condition

Question 8 Describe the necessity of identifying symptoms of deterioration in your own psychological condition that might endanger safety of RPAS

Question 9 Discuss the statement - 'It is the duty of the pilot to identify and rectify any undesired RPAS state'.

Question 10 What possible effect could an incorrect RPAS configuration have on the safety of a mission?

Question 11 Describe the possible consequences of inappropriate RPAS flight mode awareness and selection on an RPAS mission.

Question 12 What human factors might lead to the misapplication of flight controls?

- Question 13 What is meant by ‘pilot induced aircraft position’.
- Question 14 What is meant by ‘pilot induced speed deviation’.
- Question 15 During an RPAS mission who is responsible for implementing contingency plans?
- Question 16 Discuss the statement – ‘It is the responsibility of all crew to interpret and follow operational instructions and prioritise work’.
- Question 17 Why are there regulations for an RPAS pilot to maintain compliance with relevant regulatory requirements, including avoiding alcohol and drugs before and when conducting RPAS operations
- Question 18 Why is it necessary to manage and control stress before and when conducting RPAS operations?
- Question 19 Why is it necessary to manage those aspects of lifestyle that may impact on personal performance during RPAS operations?
- Question 20 Why is it necessary to manage and monitor your own physical performance during RPAS operations?
- Question 21 Why is it necessary to manage and monitor your psychological performance?
- Question 22 The pilot is responsible for modifying activities depending on workplace contingencies, situations and environments. Discuss this statement.
- Question 23 How can human factors impact on monitoring and anticipating operational problems and hazards and taking appropriate action?
- Question 24 Discuss the significance of the statement ‘ The pilot must monitor work activities in terms of planned schedule’.
- Question 25 Discuss the requirement for the RPAS crew to operate electronic communications equipment to required protocol
- Question 26 Discuss the need for a pilot to be able to read, interpret and follow relevant instructions, regulations, procedures, information and signs
- Question 27 How might human factors impact on the ability of the pilot to recognise and respond to both actual and potential RPAS threats and errors
- Question 28 Recognising signs of fatigue and applying appropriate fatigue management techniques is an important aspect for any crew member in an RPAS operation. Why?
- Question 29 What requirements exist for the pilot on the event of an undesired aircraft incident?
- Question 30 Discuss the need for an RPAS crew member to respond appropriately to cultural differences in the workplace.
- Question 31 In an RPAS mission situation who is responsible for setting priorities and managing workload to ensure safe task completion in available time.
- Question 32 Why is it crucial for the RPAS crew member to work collaboratively with others?
- Question 33 Describe the basic goals of an RPAS crew member.

## **End of Revision Exercise 4**