

Experiment evaluation – answered by test participant's

Statements

- 1) I felt myself capable to execute the operations without the AR information.
- 2) I felt myself capable to execute the operations with the AR information presented.
- 3) The AR information was relevant for solving the tasks.
- 4) The AR-system was convenient to use.
- 5) I am satisfied with the performance of the non-AR-system.
- 6) I am satisfied with the AR-system.
- 7) Using the AR-system, I felt confident in properly executing the operations.
- 8) The AR-system felt safe and robust.
- 9) The AR-system was easy to learn and understand.
- 10) I did get familiar with the AR content quickly.
- 11) I did at all time have great field of view to execute the operation.
- 12) Navigating the tool was easy due to the help from the AR information.
- 13) The AR information provided me with necessary information to complete the operation.
- 14) The system worked as I assumed or better based on the information given before the execution.
- 15) I think that the AR-system supported me when decisions had to be made during operation 1
- 16) I think that the AR-system supported me when decisions had to be made during operation 2
- 17) I think that the AR-system supported me when decisions had to be made during operation 3
- 18) I think that the operations were temporal demanding with the AR-system, i.e., stressful because of time pressure

AR components

To what degree do you consider the

Path

- To be helpful? Weight (1-5)
- To be intuitive
- To be necessary
- To be relevant
- To have suitable size and location
- To have suitable colors and contrast
- Make it easier to navigate in a 3D environment through a 2D screen

Coordinate system

- To be helpful? Weight (1-5)
- To be intuitive
- To be necessary
- To be relevant
- To have suitable size and location
- To have suitable colors and contrast
- Make it easier to navigate in a 3D environment through a 2D screen

The depth bar

- To be helpful? Weight (1-5)
- To be intuitive
- To be necessary
- To be relevant
- To have suitable size and location
- To have suitable colors and contrast
- Make it easier to navigate in a 3D environment through a 2D screen

AR components in operation 1 other than the depth tools (Maze profile)

- To be helpful? Weight (1-5)
- To be intuitive
- To be necessary
- To be relevant
- To have suitable size and location

AR components in operation 2 other than the depth tools (Indicator and clean info)

- To be helpful? Weight (0-5)
- To be intuitive
- To be necessary
- To be relevant
- To have suitable size and location

AR components in operation 3 other than the depth tools (the valves, operation list and button sequence)

- To be helpful? Weight (0-5)
- To be intuitive
- To be necessary
- To be relevant
- To have suitable size and location

General UI (the green bars in the operator interface)

- To be helpful? Weight (0-5)
- To be intuitive
- To be necessary
- To be relevant
- To have suitable size and location

Do you have any recommendations to improve the AR system? That might be any AR information that potentially could enhance the experience or something you felt missing.

Anything you found particularly good about the system?

Depth of field information

What depth of field component did you use the most when maneuvering the tool?

- Depth bar
- Kord sys
- Path

Statements (AR vs traditional) (These were presented alternating in the actual survey)

- 1) The operations were easier completed with the help of the AR-system compared to the non-AR-system.
- 2) The operations were more efficiently solved using the AR-system compared to the non-AR-system.
- 3) The depth of field AR information made it easier to complete the operations, compared to the non-AR-system.
- 4) I felt a greater overview of the operation using the AR-system, compared to the non-AR-system.
- 5) The AR-system was more satisfying using than the non-AR-system.
- 6) The AR-system was more helpful in completing the operations than the non-AR-system.
- 7) The AR-system improved my productivity compared to the non-AR-system.
- 8) The AR-system improved the overall user experience compared to the non-AR-system.
- 9) I felt less discomfort and stress using the AR-system, compared to the non-AR-system.
- 10) The operations were less demanding, mentally and physically using the AR-system, compared to the non-AR-system.

SUS

- 1) I think that I would like to use this system frequently
- 2) I found the system unnecessarily complex
- 3) I thought the system was easy to use
- 4) I think that I would need the support of a technical person to be able to use this system
- 5) I found the various functions in this system were well integrated
- 6) I thought there was too much inconsistency in this system
- 7) I would imagine that most people would learn to use this system very quickly
- 8) I found the system very cumbersome to use
- 9) I felt very confident using the system
- 10) I needed to learn a lot of things before I could get going with this system

Questions

Compared to the traditional system, did the AR system provide

- Faster understanding of the operation
- Better access to relevant information
- Support when making decisions during operation

Do you think an AR system like this could save time compared to a non-AR-system?

Do you believe this kind of AR system could help operators make the correct decisions during operations?

If you were to complete some task when operate a drone through a 2D display, would you consider using an AR system instead of a traditional system?

Do you have other comments or suggestions?