



# VR-MOTION 200.

## Pilot Winch Operations Training System.

Rescue missions, military operations or industrial installation tasks very often require support by Helicopter Winch Operations. Typically they have to be executed in limited time and under stressful conditions, causing high risks for the aircrew and everyone in the winch operations area. A well-trained aircrew is essential for the success and safety of such winch operations. The pilot and his ability to assess the situation, to follow procedures precisely and to master the hovering aircraft perfectly are key to operational success.

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### Problem addressed

Rescue missions, military operations or industrial installation tasks very often require support by Helicopter Winch Operations. Typically they have to be executed in limited time and under stressful conditions, causing high risks for the aircrew and everyone in the winch operation area. Especially the huge difference in the operational environment, the high impact of the unexpected and the fact that many actors and systems on ground involved are not prepared for the situation at all add significant risks to the maneuver.

A well-trained aircrew is essential for the success and safety of such winch operations. The pilot and his ability to assess the situation, to follow procedures precisely and to master the hovering aircraft perfectly are key to the operational success. On top, a systematic and clear internal and external communication is a mandatory, as well as a permanent observation for unexpected situation changes requiring abort of the maneuver.

### Use-Case

Helicopter Winch Operation put the highest demands on a pilot's mission readiness and operational awareness. Both, readiness and awareness result from systematic and compressive training sessions in a multitude of changing scenarios.

Therefore, pilots need to be trained for their winch operation missions by a powerful training solution minimizing the need to utilize the real aircraft for such training, plus reducing cost and risks involved.

### Solution Provided

The BRUNNER VM-Motion 200 Pilot Winch Operations Training System creates an immersive Virtual Training Environment which embeds the pilot into realistic winch operation scenarios and guides him through a tactical and procedural training process. Also, it provides him the necessary internal and external communications and all expected and unexpended natural and man-made effects and interaction that put highest training effect to the pilot. The fully immersive mission environment is based on Bohemia Interactive Simulations VBS Blue IG and VBS3.

All mission relevant information will be provided via the virtual reality helmet carried by the trainee on the dynamic motion platform. Supported by real or virtual instructor guidance, the trainee gets introduced into the various mission phases and performs the training exercise individually or as part of a crew exercise.

