Simulator Safety Briefing

Coptersafety H145 FFS

Helsinki Airport

Finland

Rev 4 – Sep 4, 2018

COPTER SAFETY

ONE STEP AHEAD OF REALITY

Simulator Access

- The simulator is equipped with safety interlocks which prevent unsafe activation of the motion system.

- The following conditions must be fulfilled until the motion system can be activated.
  - Access door must be closed
  - Access ramp must be free of obstacles (pressure sensed)
  - Laser curtain between cockpit and operator station must be free of any objects
  - All the computer cabinets inside simulator need to be closed as they also have interlocks

- Both motion systems will disengage automatically if any of these conditions are violated during training
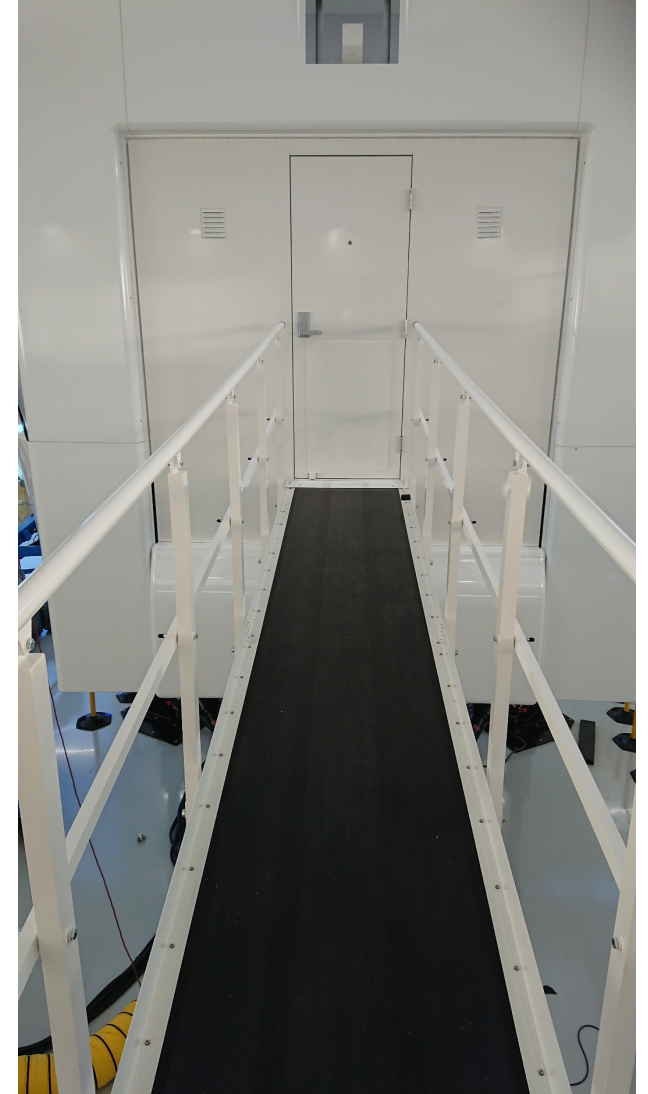
Laser curtain

- Simulator is equipped with laser curtain which is located over secondary motion ramp between cockpit and instructor operator station

- Tripping laser curtain:
  - Ɛls indicated with beeping sound and red light on scanner
  - Ɛwill settles both primary and secondary motion to neutral position if they are activated
  - Ɛprevents activation of the motion system if not already activated

- Laser curtain must be free of any objects before the motion system can be activated.

- Motion system will recover back to operational state approximately in five seconds after laser curtain is free from obstacles
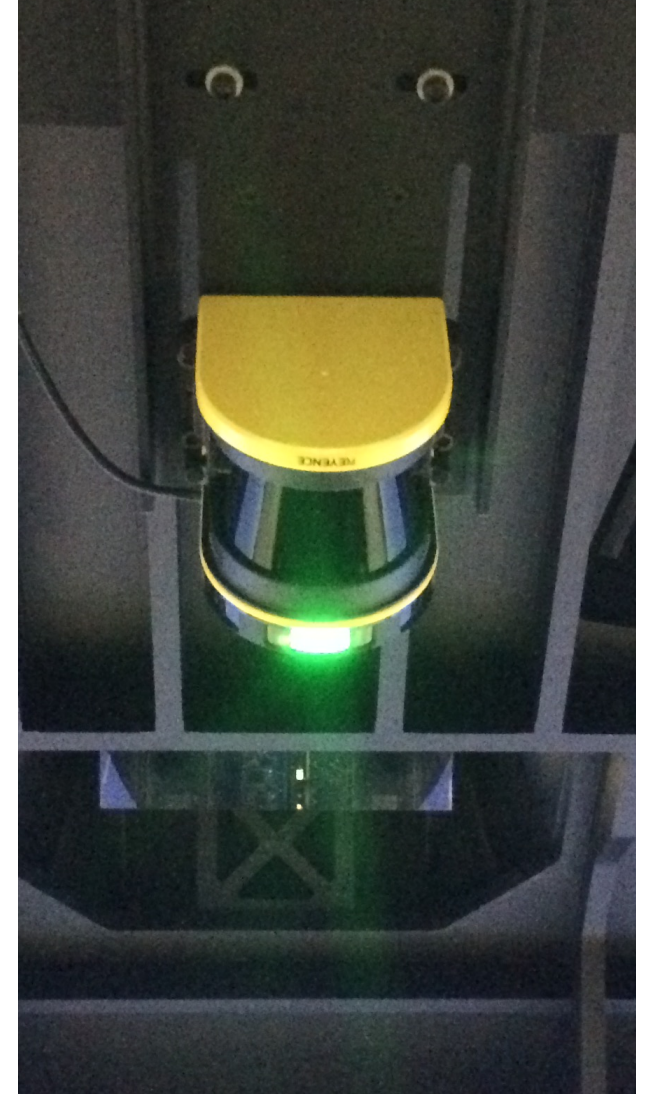
Cockpit Entrance

- Both seats must be in AFT POSITION before crew can enter into the cockpit

- The cockpit has to be entered across the pedestal. Cockpit doors are not functional

- Installed handrails can be used to ease the access

- Do not lean or step on the pedestal

- For safety reasons seat belts must be worn by all occupants whenever motion system is active

- Be careful when unbuckling the seatbelts as they can damage the pedestal
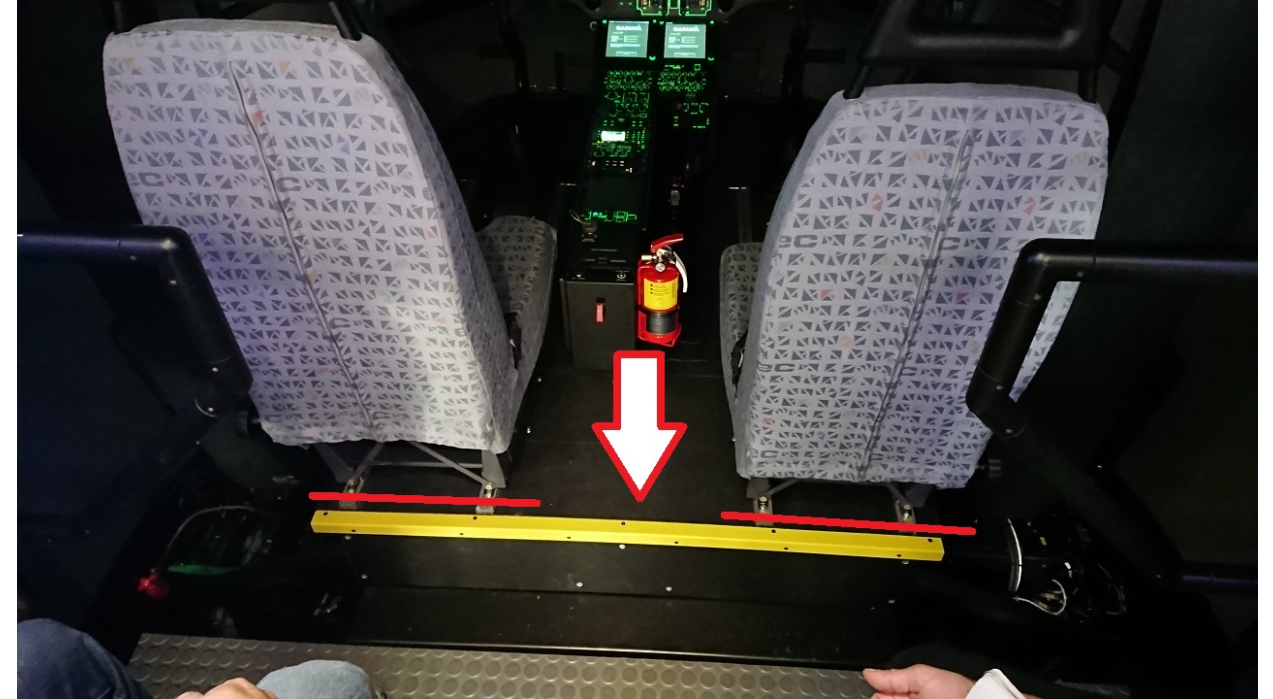
Cockpit Seat Adjustment

- Pilot / Co-Pilot seat and seat rails are based on real H/C seat rails

- Position and Height are adjusted as in the real H/C

- Please seat buckle on the seat when finished

    - This prevents potential jamming of the seat when the next customer moves it.
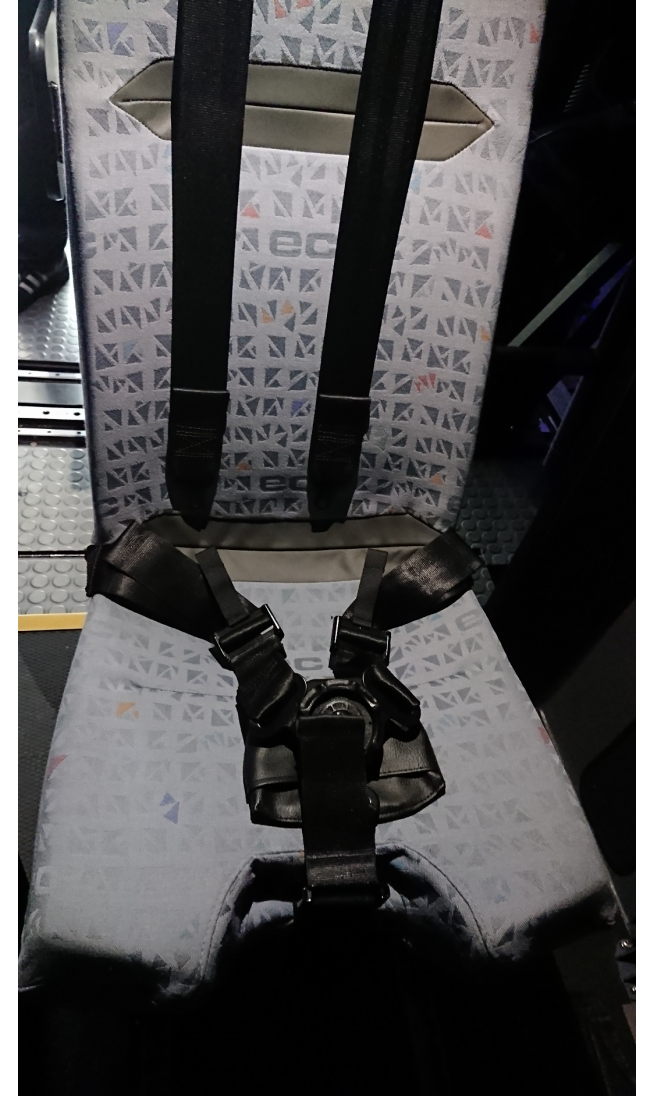
Motion System

- Orange warning light on the bottom of the simulator will illuminate when motion system is active

- Yellow line has been used to mark the danger area.

- Access to floor level is strictly prohibited
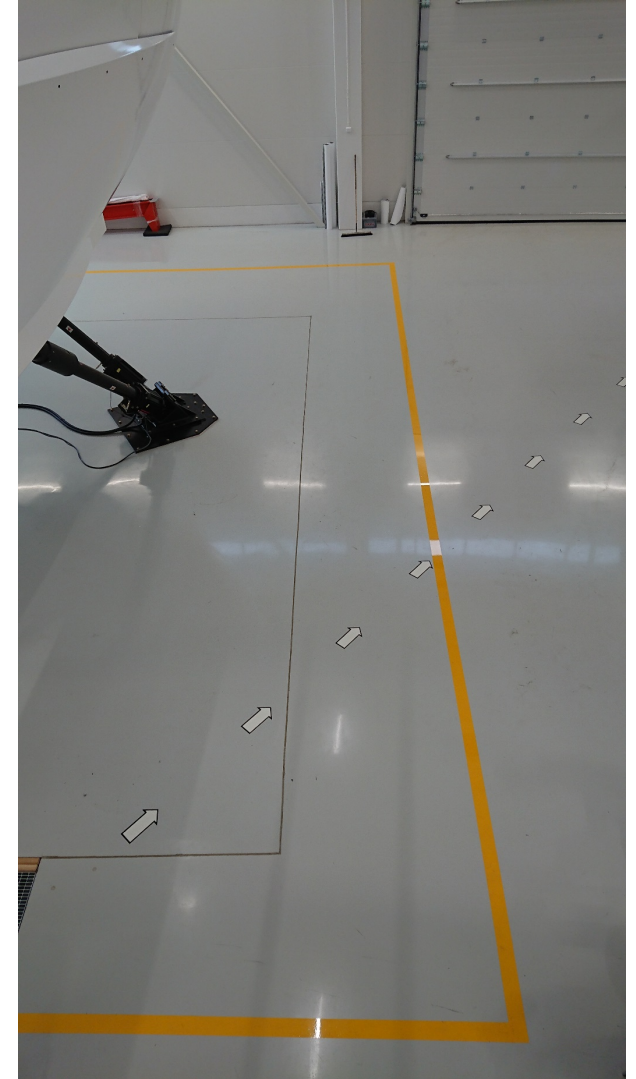
Emergency Shutdown Switches

- **Emergency motion & C/L OFF**

  - Disengages motion, Secondary motion, and Control loading systems

  - Motion system emergency shutdown will activate (controlled gravity return to home position)

  - Drawbridge will lower automatically

- **Switch locations:**

  - AFT pedestal

  - RH side of the AFT pedestal

  - IOS station

Emergency Shutdown Switches

- **Emergency power OFF switches**

  - Complete power shutdown including the computer system

  - Emergency lighting will activate

  - Motion system emergency shutdown will activate (controlled return to home position with gravity)

  - Drawbridge will lower automatically

- **Switch locations:**

  - IOS station

Maintenance Call

- **Simulator maintenance personnel can be called by using the maintenance phone**
  - Phone is on the LH side of the IOS screens
  - To call maintenance:
    - Press and hold A or B
- **If you want to use your phone dial:**
  - +358 40 8255141 (for Maint A)
  - +358 40 7573179 (for Maint B)
- **Please don't hesitate to ask anything**

Flashlights and Emergency Lightning

- Cockpit flashlight
  - Locations:
    - LH and RH cockpit doors (NVG filters installed)
- Nonsimulated area flashlights
  - Locations:
    - LH side of the IOS screen
- Emergency Lightning
  - White roof lights in the nonsimulated area
  - Turns on if:
    - Simulator power is lost
    - Fire detection is triggered

Fire Extinguisher & First Aid Kit

- **Fire extinguisher**
  - CO2 operated
  - Locations:
    - Rh side on the nonsimulated area of the simulator
    - Next to Computer complex
  - Powder-based
  - Locations:
    - Mezzanine
    - Simulator Hall
    - Office side
- **First aid kit**
  - Also contains relief for simulator sickness
  - Locations:
    - Simulator Mezzanine
- **Motion sickness bags**
  - Cockpit doors LH, RH
- **Defibrillator (AED)**
  - Location:
    - Lobby
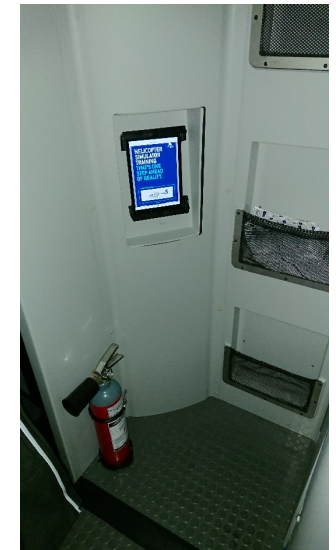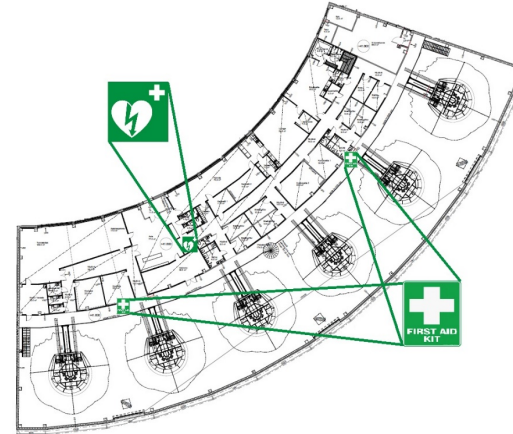
Smoke and Fire Detection

- There are two independent fire and smoke detection systems that are linked together
  - Internal (simulator)
  - External (facility)
- If the inner fire loop is triggered, it will also cause the facility fire alarm
- If the internal or external fire detection system detects fire:
  - Motion returns to home position (gravity)
  - Drawbridge goes down
  - Red warning light in the nonsimulated area activates (with external alarm only)
  - Emergency lightning activates
  - All power will be disconnected from the simulator
  - There will be audible alarm on the whole facility

Smoke and Fire Detection

- There are no automated fire suppression system in the simulator

- Smoke detectors are deactivated automatically during cockpit smoke training. Re-activates automatically once smoke has cleared

- No aural warning inside of the simulator

- Evacuate the simulator and facility immediately

- The interface between Facility and Simulator Fire detection system is still under installation and not functional. However, these systems work independently

Manual Facility Fire Alarm

- Facility fire alarm can also be activated manually

- Fire alarm activation buttons are located all over the facility

- You can identify the fire buttons from the following signs

In Case of Emergency

- Evacuation must be directed and controlled by the instructor

- If no immediate danger exists the instructor should contact simulator maintenance

- In case of urgent threat, the instructor shall coordinate the evacuation of the simulator and will advise the crew when to leave their seats and the simulator

- In case of fire or other danger requiring evacuation of the building the students will follow the instructions from their instructor or CS personnel if available

- Emergency Exit Maps can be found in the facility and the simulator.

- Study these maps carefully and familiarize yourself with the nearest emergency exits

- In case of building evacuation, everyone should gather at the meeting point on the upper parking slot

Emergency Escape Door and Ladders

- **In emergency, if the door is jammed**
  - Kick the escape door open
  - Or open the access door from lever on the ladder box
  - Be aware that if the drawbridge is up you need to use the emergency ladders

- **In emergency, if the drawbridge is not going down**
  - Open the emergency ladder box on the floor
  - Turn the handrails towards each other
  - Open the door by pulling the release handle and push the door open from its handle
 - Lower the ladders and evacuate
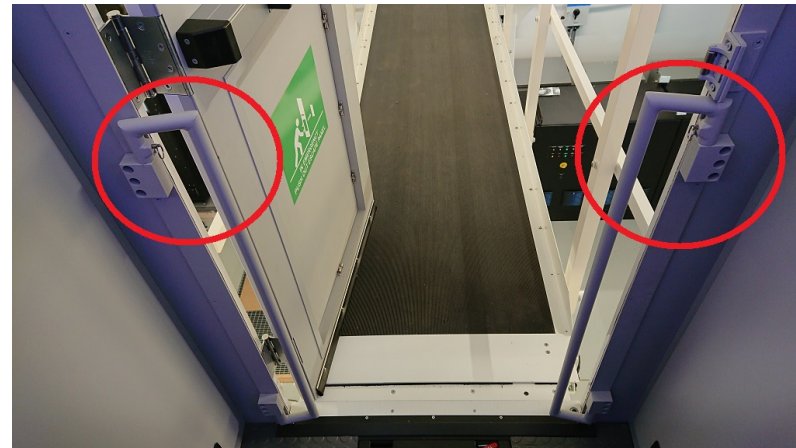
Building Evacuation

- Emergency Exit signs over Emergency exits and on the hallways to guide to the nearest exit

- Afterglow type arrows point the escape route from the simulator in case of emergency ladder evacuation

- Emergency exits on both sides of the building
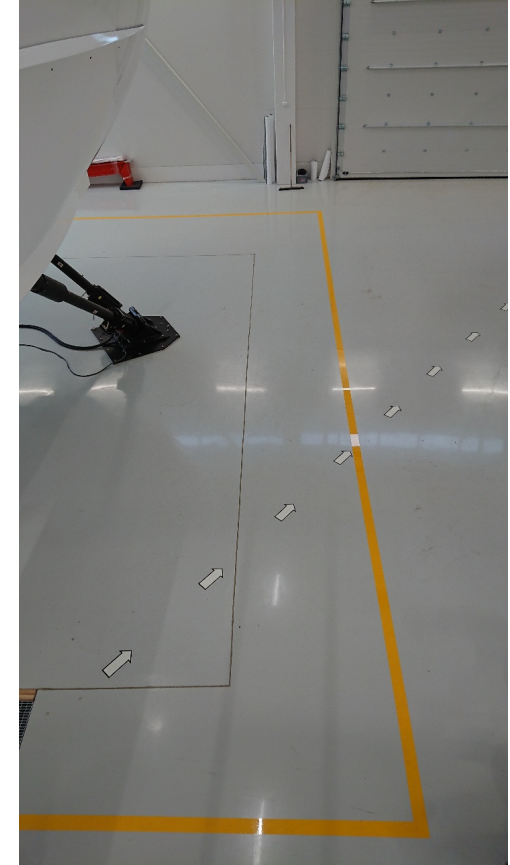
Evacuation Meeting Point

- Primary evacuation meeting point is on the north-west corner of the facility

- Secondary evacuation meeting point is on the south-east corner of the facility
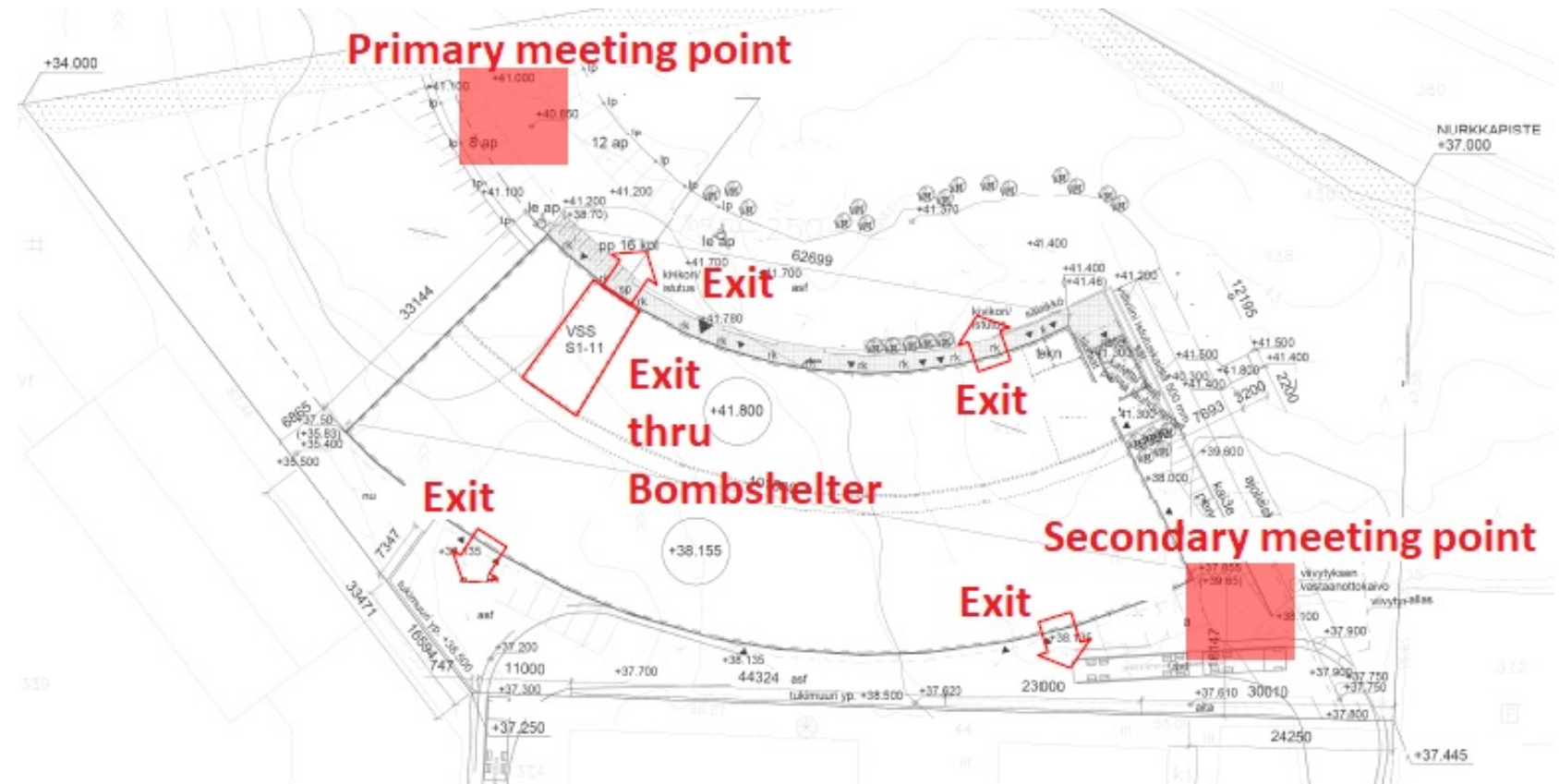
Other

- No food into the simulator!

- No drinks into the simulator!

- Simulator smoke fluid is water based

- Only maintenance staff is alowed to enter visual deck!

  - If you drop something to bottom of simulator, call for maintenace!

Questions?