

BER4 · WP3 · DIGITAL SIMULATION TOOLKIT

International Technical & Simulation Leadership in Urban Disaster Response



Modular vehicles		Rescue equipment	Rope & vertical safety	ASR 1-5 ladder	Leadership & ethics
MAP1 Toolkit Map	MISSION1 Mission Profiles	LOAD1 Vehicle Load-Out	EQUIP1 Equipment Match	PPE1 Safety Layers	ROPE1 Rope Decisions
KNOT1 Knot Recognition	VERT1 Risk Gate	ASR1 ASR 1-5 Ladder	SECTOR1 Sector Command	SITREP1 SITREP Builder	ETHIC1 Ethics Cards
LEAD1 Leadership Compass	SIM1 Video Module	OBS1 Performance Dashboard	DEBRIEF1 Debrief Board	EV1 Final Evaluation	EXIT1 Leadership Passport
FAC Facilitator Guide					

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MAP1 · Toolkit Map & Resource Structure

The toolkit translates the module into visual, decision-based practice. Technical rope, confined-space, cutting, lifting, and rescue operations remain outside the desktop simulation unless delivered under qualified professional supervision.

Module Code & Title	Resource Objective & Operational Focus
MAP1 Toolkit Map	Overview of all printable and simulation resources.
MISSION1 Mission Profile Snapboard	Match an emergency profile to its operational priorities.
LOAD1 Modular Vehicle Load-Out	Choose K9/Search, Logistics/Technical, or Command/Support configurations.
EQUIP1 Equipment Function Match	Match search, technical, safety, and medical tools to mission needs.
PPE1 Safety Layer Cards	Build the minimum PPE set for several response environments.
ROPE1 Rope Use Decision Cards	Match static/dynamic rope uses without procedural rigging instruction.
KNOT1 Knot Recognition Deck	Connect figure eight, bowline, clove hitch, and prusik to stated functions.
VERT1 Vertical & Confined Risk Gate	Check atmospheric, structural, communication, edge, and extraction risks.
ASR1 ASR 1-5 Mission Ladder	Sequence assessment and search phases from ASR 1 to ASR 5.
SECTOR1 Sector Command Map	Divide an urban disaster area and assign priorities and resources.
SITREP1 60-Second SITREP Builder	Report progress, casualties, resources, hazards, and urgent needs.
ETHIC1 Ethics Under Pressure Cards	Resolve dignity, privacy, safety, accountability, and inclusion dilemmas.
LEAD1 Technical Leadership Compass	Balance planning, safety, communication, evaluation, and mentoring.
SIM1 Interactive Video Module	Collapsed Residential Building - Digital simulation video module.
OBS1 Simulation Performance Dashboard	Track safety, coordination, communication, technical judgment, and ethics.
DEBRIEF1 Operational Debrief Board	Capture successes, challenges, communication, safety, ethics, and lessons.
EV1 Final Evaluation Pack	Short written and team-evidence evaluation.
EXIT1 Leadership Transfer Passport	Individual leadership application plan and personal commitments.
FAC Facilitator Guide	Session delivery boundaries, safety rules, and debrief guidance.

MISSION1 · Mission Profile Snapboard

Match an emergency profile to its operational priorities.

Emergency Profile	Operational Priorities & Focus
Earthquake building collapse	Rapid assessment, hazards, sectorization, search support, reporting
Victim trapped in well	Confined-space hazards, atmosphere, communication, controlled extraction
Urban flood	Access, evacuation support, mapping, logistics, vulnerable groups
Night-time rescue	Lighting, navigation, team tracking, communication redundancy
Multi-casualty urban incident	Triage support, sector coordination, reporting, crowd control

LOAD1 · Modular Vehicle Load-Out Builder

Choose K9/Search, Logistics/Technical, or Command/Support configurations.

K9 & Search

Dog transport, detection technology, search cameras, scanners, mapping gear

Logistics & Technical

Heavy rescue tools, stabilization equipment, cutting/lifting assets, power

Command & Support

On-site coordination, communications relay, documentation, welfare, power

EQUIP1 · Equipment Function Match

Match search, technical, safety, and medical tools to mission needs.

Equipment Tool	Category	Operational Function
Thermal camera	Search / Detection	Locate heat signatures in low-visibility settings.
Acoustic listening device	Search / Detection	Support listening for trapped victims in voids.
Hydraulic spreader	Technical Rescue	Force / spreading task under trained operation.
Pneumatic lifting bag	Technical Rescue	Controlled lifting under competent supervision.
Helmet / gloves / eye protection	Safety	Essential responder impact and cut protection.
Respiratory protection	Safety	Reduce dust and inhalation toxic exposure.
Stretcher / trauma kit	Medical & Evacuation	Casualty stabilization and safe transport.
GPS / mapping tool	Search / Command	Location, sector, and escape route awareness.

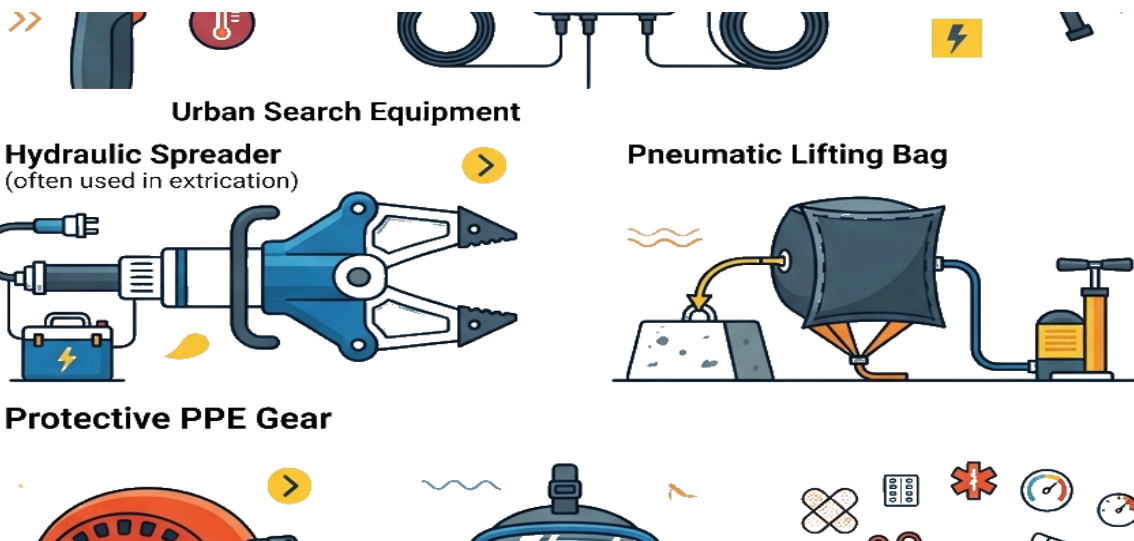
BeR4 - WP3 Digital Simulation Toolkit | Project Reference: 101246424

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PPE1 · Safety Layer Cards

Build the minimum PPE set for several response environments.

Dusty collapse zone Helmet · gloves · eye protection · respiratory protection · boots	Night operation Helmet · gloves · eye protection · boots · high-vis lighting
Confined-space support Helmet · gloves · eye protection · respiratory protection · comms	Flood support Helmet · gloves · boots · visibility / lighting · water-safety controls



ROPE1 · Rope Use Decision Cards

Match static/dynamic rope uses without procedural rigging instruction.

Static rope Lowering, hauling, anchoring, technical rescue systems (low stretch)	Dynamic rope Fall protection, lead climbing, shock absorption (high stretch)
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KNOT1 · Knot Recognition Deck

Connect figure eight, bowline, clove hitch, and prusik to stated functions.

Figure Eight Anchoring, rope attachment, rescue systems ☐ MATCHED	Bowline Secure loops, victim attachment, rescue access ☐ MATCHED
Clove Hitch Temporary anchoring, equipment attachment, stabilization ☐ MATCHED	Prusik Ascending systems, backups, friction rope control ☐ MATCHED

VERT1 · Vertical & Confined-Space Risk Gate

Check atmospheric, structural, communication, edge, and extraction risks.



ASR1 · ASR 1-5 Mission Ladder

Sequence assessment and search phases from ASR 1 to ASR 5.

Level	ASR Phase Title	Phase Scope & Objective
ASR 1	Wide Area Assessment	Initial aerial/sector survey and damage overview
ASR 2	Sector Assessment	Detailed structural assessment of specific assigned sectors
ASR 3	Rapid Search & Rescue	Hasty search for visible/accessible live casualties
ASR 4	Full Search & Rescue	Technical void entry, breaching, shoring, and extrication
ASR 5	Total Coverage & Recovery	Systematic clearance of entire site and deceased recovery

SECTOR1 · Sector Command Map

Divide an urban disaster area and assign priorities and resources.

SECTOR A Assign team & sector grid	SECTOR B Assign team & sector grid	SECTOR C Assign team & sector grid	COMMAND Assign team & sector grid
MEDICAL Assign team & sector grid	LOGISTICS Assign team & sector grid	ACCESS Assign team & sector grid	CROWD CONTROL Assign team & sector grid

SITREP1 · 60-Second SITREP Builder

Report progress, casualties, resources, hazards, and urgent needs.

Operational Progress Summary notes: _____	Casualties Status Summary notes: _____
Resource Status Summary notes: _____	Hazards & Risks Summary notes: _____
Urgent Needs / Actions Summary notes: _____	Next Reporting Time Summary notes: _____

ETHIC1 · Ethics Under Pressure Cards

Resolve dignity, privacy, safety, accountability, and inclusion dilemmas.

Ethical Principle	Operational Requirement & Action
Human dignity	Respect victims and preserve privacy during extrication and filming.
Safety responsibility	Prioritize personal, team, and victim safety over speed.
Accountability	Report accurately and act transparently with authorities.
Cultural sensitivity	Respect local norms and communicate respectfully with communities.
Inclusive response	Consider women, children, older persons, and persons with disabilities.

LEAD1 · Technical Leadership Compass

Balance planning, safety, communication, evaluation, and mentoring.



SIM1 · Collapsed Residential Building - Interactive Video Simulation

UPGRADE NOTICE: The 5-round tabletop decision text (SIM1-R through SIM1-5) has been upgraded into an interactive digital video simulation. Click the video frame below or use the button to launch the simulation directly from the server.

Scenario Overview: A six-storey residential building partially collapses after an earthquake in a densely populated urban area. Access is limited, infrastructure is damaged, communication is unstable, and multiple casualty reports arrive. Participants operate as a youth/NGO emergency support team under official international USAR coordination.



■ [CLICK HERE TO WATCH THE SIM1 VIDEO SIMULATION](http://disastersimulation.beready4life.com/video/BeR4_International_Technical_Simulation_Leadership_Toolkit_EN.mp4)

Direct Video Link: http://disastersimulation.beready4life.com/video/BeR4_International_Technical_Simulation_Leadership_Toolkit_EN.mp4

OBS1 · Simulation Performance Dashboard

Track safety, coordination, communication, technical judgment, ethics, and reporting.

Safety awareness & hazard checks ☐ EXCELLENT ☐ SATISFACTORY ☐ NEEDS IMPROVEMENT	Team coordination & leadership ☐ EXCELLENT ☐ SATISFACTORY ☐ NEEDS IMPROVEMENT	Communication clarity & protocol ☐ EXCELLENT ☐ SATISFACTORY ☐ NEEDS IMPROVEMENT
Technical judgment & limits ☐ EXCELLENT ☐ SATISFACTORY ☐ NEEDS IMPROVEMENT	Ethical conduct & dignity protection ☐ EXCELLENT ☐ SATISFACTORY ☐ NEEDS IMPROVEMENT	Accurate SITREP reporting ☐ EXCELLENT ☐ SATISFACTORY ☐ NEEDS IMPROVEMENT
Appropriate resource choice ☐ EXCELLENT ☐ SATISFACTORY ☐ NEEDS IMPROVEMENT	Sector discipline & control ☐ EXCELLENT ☐ SATISFACTORY ☐ NEEDS IMPROVEMENT	Volunteer role boundaries respected ☐ EXCELLENT ☐ SATISFACTORY ☐ NEEDS IMPROVEMENT

DEBRIEF1 · Operational Debrief Board

Capture successes, challenges, communication, safety, ethics, and lessons.

1. What worked well during the technical response simulation? Notes: _____
2. What operational challenge had the greatest effect on team performance? Notes: _____
3. What communication breakdown appeared and how was it resolved? Notes: _____
4. What safety lesson emerged during the scenario? Notes: _____
5. What ethical issue arose and how was dignity protected? Notes: _____
6. What should change in the next simulation or field exercise? Notes: _____

EV1 · Final Evaluation Pack

Short written and team-evidence evaluation.



1. Define USAR in one sentence. Answer: _____	2. Name the three modular vehicle configurations used in the module. Answer: _____
3. State two functions of static rope and two functions of dynamic rope. Answer: _____	4. List the five ASR phases in order. Answer: _____
5. Name three hazards relevant to confined-space rescue. Answer: _____	6. What five categories belong in a basic SITREP? Answer: _____
7. Give two roles youth organizations can perform during urban response. Answer: _____	8. State one ethical principle and one example action. Answer: _____
9. What should a leader do if unexpected risk exceeds team capability? Answer: _____	10. Name one lesson you would transfer to your own organization. Answer: _____

EXIT1 · Leadership Transfer Passport

Individual leadership application plan.

1. One leadership habit I will use in future emergency exercises:

2. One technical boundary I will respect and enforce:

3. One reporting improvement I will apply in my SITREPs:

4. One safety cue I will watch for during vertical/confined operations:

5. One simulation idea I can implement locally:

FAC · Facilitator Guide

Session delivery guidance and safety boundaries.

1. Use mission, load-out, and equipment cards before the fixed simulation.
2. Keep technical rope and confined-space work at recognition/decision level unless qualified instructors run practical training.
3. Keep the core simulation injects and sequence unchanged across groups.
4. Require a SITREP after major scenario changes.
5. Use the final debrief to connect technical decisions with leadership and ethical responsibility.



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