



Production crew safety and operations

Learning outcomes and key teaching points



About Rescue 3 Europe

Rescue 3 Europe develops state of the art technical rescue courses, providing internationally recognised accreditation for organisations and individuals operating in high risk environments.

As an international accrediting body, Rescue 3 provide up to date best practice guidance that is constantly evolving in line with new research and testing. All changes and developments of Rescue 3 courses go through a process of peer review and oversight by a steering committee made up of industry experts from all over the world.

Rescue 3 training providers deliver courses worldwide, in multiple disciplines, including: rope, water, boat, ice and confined space rescue. Our large suite of courses have been adopted by mountain rescue teams, wind turbine operators, fire and rescue services, ambulance teams, utilities providers, and military personnel.

Within each discipline, Rescue 3 accredited courses cover every level of operations, whether this is at an awareness level, avoiding risks and applying simple safe systems of work; or at more advanced levels where practitioners must acquire high levels of personal skills and understanding to access and navigate difficult environments.

For over four decades Rescue 3 has provided the standard for technical rescue training, offering guidance and support for maintaining best practice.





The course learning outcomes are provided as pre- and post-course reference for people involved in the delivery of Rescue 3 courses (eg Rescue 3 training providers, instructors and students). They are not to be used for any other purpose without the express written permission of Rescue 3 Europe.

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Lifejacket Use for Production Crew (LJUPC)

Course overview and target audience

The Lifejacket Use for Production Crew course is designed for production crew who wear lifejackets when working near water, but do not wish to complete a full Safe Working Near Water for Production Crew course. This is either because they already have a Water Awareness and Safety course or they only wish to know how to don and doff a lifejacket and care for it.

It is not intended that these production crew will enter the water as part of their work, and a manual- or auto-inflation lifejacket is issued as PPE for accidental water entry only, though the course will cover this possibility practically to ensure production crew are prepared for the event if it does happen

Production crew requiring a more comprehensive working near- or in-water capability can take the Rescue 3 Europe Safe Working Near Water for Production Crew or Safe Working In Water for Production Crew course.

Contact hours 3.5 hours (0.5 days)	Prerequisites Minimum age: 18
Qualification valid for 3 years	Accredited by Rescue 3 Europe

Taught by

- Safe Working in Water for Production Crew Instructor (SWIWPCI)

Assessment

The assessed elements of this course are:

- Foundation knowledge
- Pre- and post-use lifejacket checks
- Swimming and self-rescue in a lifejacket



Lifejacket Use for Production Crew (LJUPC) skill sheet contents

Theory
1. About Rescue 3
2. Training standards and legislation
3. Safe systems of work
4. Production crew working with safety advisors
5. Cold water considerations
6. Medical and decontamination considerations
7. Accidental immersion considerations
8. Lifejacket and PPE selection
9. Lifejacket maintenance, periodic inspection and transportation
10. Lifejacket firing mechanisms
11. Lifejacket accidental inflation risks
Practical
12. Pre- and post-use lifejacket checks
13. Lifejacket inflation and deflation - auto/manual
14. Swimming and self-rescue in a lifejacket
15. Receiving a throwbag
16. Exiting the water



Lifejacket Use for Production Crew (LJUPC) learning outcomes and key teaching points

	Skill sheet element		Learning outcome	Key teaching points
1	About Rescue 3	1.1	Recognise the role of Rescue 3 Europe as an accrediting body.	Rescue 3 as an accrediting body. Designing safety and rescue courses – not just ‘rescue’.
		1.2	Recognise the different industry training courses available within the Rescue 3 scheme	Courses for emergency services, whitewater professionals, construction workers, environment agency personnel, production crews etc.
		1.3	Recall the remit and role of people trained to LJUPC level	The Lifejacket Use for Production Crew course is designed for production crew who wear lifejackets when working near water, but do not wish to complete a full Safe Working Near Water for Production Crew course. This is either because they already have a Water Awareness and Safety course or they only wish to know how to don and doff a lifejacket and care for it. Recertification requirements.
2	Training standards and legislation	2.1	Recall local or national legislation that affects safe working near or in water.	Local or national safe working legislation and how it affects production crew at work.
3	Safe systems of work	3.1	Identify the elements of an effective safe system of work (method statement)	Hazard identification, risk assessment, method statement, rescue plan, permit to work, dynamic risk assessment, site/team briefing, operations, evaluation.



	Skill sheet element		Learning outcome	Key teaching points
4	Production crew working with safety advisors	4.1	Recall the role of a safety advisor to a production crew	Off-site safety advisor/pre-planner. On-site safety advisor. Ensuring safety of cast and production crew members in potentially hazardous environments.
		4.2	Be aware of appropriate training and qualifications that safety advisors should hold	Rescue 3 qualifications relevant to the areas that the safety advisors to production crew will be working in, such as water, rope, boat, confined space and ice qualifications
		4.3	Identify the duties that a production crew have when working with safety advisors	Adhering to safe systems of work including risk assessments. Following on-site instructions from safety advisors. Basic understanding of the capabilities and limitations of the safety team - eg is or isn't it possible to safely get the perfect shot?
5	Cold water considerations	5.1	Recall signs and symptoms of cold water shock	Cold water shock. Reduced capability.
		5.2	Recall coping strategies when faced with accidental immersion in cold water	1-10-1 rule.
6	Medical and decontamination considerations	6.1	Identify signs/symptoms and treatment for common medical issues found in a water environment.	Hypothermia (too cold), hyperthermia (too hot), drowning, infection (eg leptospirosis, hepatitis), trauma eg bank hazards (slips, trips, falls), cold water shock.
		6.2	Recall the importance of minimising exposure to the water and decontamination procedures post-exposure	Check, clean, dry. Hand wipes, face wipes, cover cuts etc.
		6.3	Identify bank hazards and suitable control measures to prevent slips trips and falls.	Wet, steep, slippery, muddy banks, overhanging branches, vegetation. Control measures: zoning, PPE and training.



	Skill sheet element		Learning outcome	Key teaching points
7	Accidental immersion considerations	7.1	Identify hazards and control measures of accidental immersion in water.	The LJUPC course is not designed for production crew who need to work in the water. However, if they do find themselves in water, they should understand about the effect of temperature and cold water shock.
		7.2	Recognise the importance of keeping feet up if swept away.	The LJUPC course is not designed for production crew who need to work in the water. However, if they do find themselves in water, they should understand about entrapment possibilities.
		7.3	Recall defensive swimming position and swimming techniques to attain safe eddy or bank.	The LJUPC course is not designed for production crew who need to work in the water. However, if they do find themselves in water, they should understand the safe swimming position and simple safe swim techniques enabling them to get to shore.



	Skill sheet element		Learning outcome	Key teaching points
8	Lifejacket and PPE selection	8.1	Identify differences between lifejackets and buoyancy aids and appropriate environments for their use.	Explain difference between lifejacket and buoyancy aid, different levels of buoyancy in lifejackets depending on task and environment, eg 150N or 275N. Impact protection. Don't have manual inflation lifejacket if lone working.
		8.2	Identify national and international lifejacket standards	Applicable standards, eg ISO 12402.
		8.3	Identify other appropriate PPE for use when working near water.	Appropriate clothing and footwear - thermal properties, capability in water. Weight of filming equipment and other equipment carried Considerations for waders, drysuit, wetsuit, whistle, lighting. Risks posed by combination of lifejacket and a helmet due to chin straps post inflation.
		8.4	Recall considerations when sourcing lifejackets and spares on location	On location supply considerations, eg sourcing spares in other countries and remote areas. Appropriate standards. Liability considerations.



	Skill sheet element		Learning outcome	Key teaching points
9	Lifejacket maintenance, periodic inspection and transportation	9.1	Recall manufacturer's recommendations for maintenance and inspection of lifejackets.	Manufacturer's recommendations for periodic inspection/servicing – eg returning to service centre/ manufacturer. Manufacturer's maintenance guidelines for chosen lifejacket
		9.2	Recall agency or organisation's recommendations for maintenance and inspection of lifejackets where different from manufacturer's.	Identifying where your organisation's recommendations may be stricter than manufacturer's requirements
		9.3	Compare the resilience to sharps of inflatable lifejackets vs closed cell life jackets or buoyancy aids.	Inflatable lifejackets vs closed-cell foam.
		9.4	Recall correct procedures for storage, transportation, and use of lifejackets to protect from sharps and contamination.	Transportation and storage considerations, including protection from sharps.
		9.5	Recall considerations for transporting lifejackets on aircraft.	IATA Dangerous Goods Regulations relating to lifejacket gas canisters. Packaging/shipping canisters. Sources of information.
10	Lifejacket firing mechanisms	10.1	Identify types of firing mechanism, their merits and limitations.	Different types, eg Halkey-Roberts, United Moulders (UML Mark 5), Hammar. Expiry dates. Automatic firing cartridge, firing block, gas cylinder.
11	Lifejacket accidental inflation risks	11.1	Identify hazards associated with accidental deployment in a variety of high risk areas and tasks and suitable control measures.	Wearing of lifejacket in correct environment. Don't wear below deck of boats. Don't wear in confined spaces. Don't wear in cabs/vehicles/ aircraft.
		11.2	Identify the hazards and merits of auto vs manual inflation in a variety of high risk areas and tasks.	Don't wear auto-inflating lifejackets under clothing or under bags (eg rucksacks).



	Skill sheet element		Learning outcome	Key teaching points
12	Pre- and post-use lifejacket checks	12.1	Demonstrate appropriate pre-use checks for the selected lifejacket.	Pre-use: Correct fitting of selected lifejacket. Safety checks. Check automatic capsule. CO2 cylinder seals. Corrosion. Air holding properties. Firing head test without CO2 cylinder and automatic capsule in place. Check oral inflation cap.
		12.2	Perform a buddy check of a colleague in a lifejacket	Buddy check of colleague in a lifejacket. Is it fit for purpose and fitted correctly?
		12.3	Demonstrate appropriate post-use checks for the selected lifejacket	Post-use: General condition. Abrasion. Punctures. Corrosion
13	Lifejacket inflation and deflation - auto/manual	13.1	Identify the hazards and merits of auto vs manual inflation	Differences between auto and manual. Manual: User deployment required. Unsuitable for lone workers. Will not inflate if user is unconscious. Auto: Speed of deployment. Risk of accidental deployment.
		13.2	Observe the auto-inflation of a lifejacket, and identify the associated hazards	Observation of auto-inflation of lifejacket.
		13.3	Demonstrate manual inflation of a lifejacket	Performing manual inflation of a lifejacket
14	Swimming and self-rescue in lifejackets	14.1	Demonstrate the defensive swimming position in a lifejacket	Importance of defensive swimming position. Difficulties of swimming in a lifejacket.
		14.2	Demonstrate setting correct angles in the current to defensively swim to the bank.	Practical session includes setting of correct body angle in defensive position, and swimming to the side, eg of lake, slow-moving water.
15	Receiving a throwbag	15.1	Identify conditional rescue options and the limitations of conditional rescues	Conditional rescues rely on participation of the person in the water. Conditional rescues to be performed by trained rescuers/ standby safety team.
		15.2	Demonstrate the correct method for receiving a throwbag following accidental immersion	Practical session, preferably in flat or slow moving grade 1 water, but can be delivered in a swimming pool.



	Skill sheet element		Learning outcome	Key teaching points
16	Exiting the water	16.1	Identify the hazards and difficulties of exiting the water wearing a lifejacket	Ability to self-rescue, river bank hazards, sharps, slips, trips and falls





Safe Working Near Water for Production Crew (SWNWPC)

Course overview and target audience

The Safe Working Near Water for Production Crew course is designed for production crew who work near water in a lifejacket, but will not be expected to intentionally enter the water, eg TV, film and other media crew or presenters.

Contact hours 6 hours (1 day)	Prerequisites Minimum age: 18
Qualification valid for 3 years	Accredited by Rescue 3 Europe

Taught by

- Safe Working in Water for Production Crew Instructor (SWIWPCI)

Assessment

The assessed elements of this course are:

- Foundation knowledge
- Pre- and post-use lifejacket checks
- Conditional rescue of swimmer in lifejacket



Safe Working Near Water for Production Crew (SWNWPC) skill sheet contents

Theory
1. About Rescue 3
2. Training standards and legislation
3. Safe systems of work
4. Production crew working with safety advisors
5. Risk assessments
6. Pre-planning for emergencies
7. Location scouting and management
8. Water hazards
9. Cold water considerations
10. Mud, ice and coastal considerations
11. Biosecurity and environmental considerations
12. Medical and decontamination considerations
13. Lifejacket and PPE selection
14. Lifejacket maintenance, periodic inspection and transportation
15. Lifejacket firing mechanisms
16. Lifejacket accidental inflation risks
17. Effect of weather and forecasting
18. Communications
Practical
19. Pre- and post-use lifejacket checks
20. Lifejacket inflation and deflation - auto/manual
21. Swimming and self-rescue in lifejackets
22. Throwbags and other conditional rescues
23. Exiting the water



Safe Working Near Water for Production Crew (SWNWPC) learning outcomes and key teaching points

	Skill sheet element		Learning outcome	Key teaching points
1	About Rescue 3	1.1	Recognise the role of Rescue 3 Europe as an accrediting body.	Rescue 3 as an accrediting body. Designing safety and rescue courses – not just ‘rescue’.
		1.2	Recognise the different industry training courses available within the Rescue 3 scheme	Courses for emergency services, whitewater professionals, construction workers, environment agency personnel, production crews etc.
		1.3	Recall the remit and role of people trained to SWNWPC level	The Safe Working Near Water for Production Crew course is designed for production crew who work near water in a lifejacket, but will not be expected to intentionally enter the water, eg TV, film and other media crew or presenters. Recertification requirements.
2	Training standards and legislation	2.1	Recall local or national legislation that affects safe working near or in water.	Local or national safe working legislation and how it affects production crew at work.
3	Safe systems of work	3.1	Identify the elements of an effective safe system of work (method statement)	Hazard identification, risk assessment, method statement, rescue plan, permit to work, dynamic risk assessment, site/team briefing, operations, evaluation.



	Skill sheet element		Learning outcome	Key teaching points
4	Production crew working with safety advisors	4.1	Recall the role of a safety advisor to a production crew	Off-site safety advisor/pre-planner. On-site safety advisor. Ensuring safety of cast and production crew members in potentially hazardous environments.
		4.2	Be aware of appropriate training and qualifications that safety advisors should hold	Rescue 3 qualifications relevant to the areas that the safety advisors to production crew will be working in, such as water, rope, boat, confined space and ice qualifications
		4.3	Identify the duties that a production crew have when working with safety advisors	Adhering to safe systems of work including risk assessments. Following on-site instructions from safety advisors. Basic understanding of the capabilities and limitations of the safety team - eg is or isn't it possible to safely get the perfect shot?
5	Risk assessments	5.1	Identify the elements of an effective generic or site-specific risk assessment	Awareness of generic and site-specific risk assessment (5 stages).
		5.2	Identify the elements of an effective dynamic risk assessment	Real-time process ensuring actual situational risks are identified, evaluated and managed, that may not be covered by written risk assessment process.
		5.3	Perform a dynamic risk assessment of a work site.	Real-time process ensuring actual situational risks are identified, evaluated and managed, that may not be covered by written risk assessment process.



	Skill sheet element		Learning outcome	Key teaching points
6	Pre-planning for emergencies	6.1	Recall what information a crew-member will need to know when pre-planning for emergencies when working near water.	What'll happen if I fall in? Downstream hazards, downstream exit. Who's going to rescue me? Alerting emergency services. Lone worker considerations. Cold water immersion considerations – packaging eg survival bag, change of clothes.
		6.2	Recall control measures to avoid accidents and emergencies near a water environment	Training, PPE, on-site briefing, colleague rescue capability, including training, pre-positioning and access to rescue tools.
7	Location scouting and management	7.1	Recall the importance of scouting a location near water prior to a shoot	Identify environmental norms and changes (eg low and high tide, low and high water). Effect of more/less rain on rivers? Helps plan additional safety expertise and needs.
		7.2	Recall the importance of location management during a shoot	Where to position production team members when filming near water? Appropriate safety cover. Appropriate training and PPE for everyone. Use of spotters to assist/hold on to camera person/sound crew.
		7.3	Recall the role of a spotter	Back-up role to support crew working near water, eg camera person or sound crew. A dedicated person to assist/hold on to them via their lifejacket/PFD as they work. (Production-specific term. Not to be confused with an 'upstream spotter' from a rescue team).
		7.4	Recall the role of local fixers	Fixer's role in area/country of operation. Use of locals for information such as locations, tides and weather patterns.



	Skill sheet element		Learning outcome	Key teaching points
8	Water hazards	8.1	Identify water hazards in a basic water environment	Flat water hazards, entrapment hazards, muddy bottoms to lakes and canals.
		8.2	Identify water hazards in a moving water environment	Fast current. Bends in the river. Undercuts. Strainers. Siphons. Stoppers. Weirs. Structures, eg scaffolding, bridge pillars etc. Identifying and understanding current vector.
		8.3	Recall importance of avoidance and control measures	The focus on this course (compared to SWIWPC) is for people who will not be tasked to intentionally enter the water.
9	Cold water considerations	9.1	Recall signs and symptoms of cold water shock	Cold water shock. Reduced capability.
		9.2	Recall coping strategies when faced with accidental immersion in cold water	1-10-1 rule.
10	Mud, ice and coastal considerations	10.1	Recall hazards associated with mud, ice and coastal environments and suitable control measures.	Mud: Awareness, avoidance. What to do if you accidentally find yourself in mud eg spread weight, avoid standing. Estuaries, canals, dams, sediment etc. Cleaning/ decontamination issues. Ice: Awareness, avoidance. What to do if you find yourself on/in ice, eg 1-10-1, spreading weight, keeping low, getting out the same way you come in Coastal: Tides, changes in water level, loss of access/egress, change of flow direction. Estuary mud flats.
11	Biosecurity and environmental considerations	11.1	Identify filming locations where cross contamination, or introduction of invasive species may be possible and suitable control measures.	Check, clean, dry. Cross-contamination. Decontamination. Consideration of invasive species. Pollution. Damage to flora and fauna. Reporting.



	Skill sheet element		Learning outcome	Key teaching points
12	Medical and decontamination considerations	12.1	Identify signs/symptoms and treatment for common medical issues found in a water environment.	Hypothermia (too cold), hyperthermia (too hot), drowning, infection (eg leptospirosis, hepatitis), trauma eg bank hazards (slips, trips, falls), cold water shock.
		12.2	Recall the importance of minimising exposure to the water and decontamination procedures post-exposure	Check, clean, dry. Hand wipes, face wipes, cover cuts etc.
		12.3	Identify bank hazards and suitable control measures to prevent slips trips and falls.	Wet, steep, slippery, muddy banks, overhanging branches, vegetation. Control measures: zoning, PPE and training.
13	Lifjacket and PPE selection	13.1	Identify differences between lifjackets and buoyancy aids and appropriate environments for their use.	Explain difference between lifjacket and buoyancy aid, different levels of buoyancy in lifjackets depending on task and environment, eg 150N or 275N. Impact protection. Don't have manual inflation lifjacket if lone working.
		13.2	Identify national and international lifjacket standards	Applicable standards, eg ISO 12402.
		13.3	Identify other appropriate PPE for use when working near water.	Appropriate clothing and footwear - thermal properties, capability in water. Weight of equipment carried Considerations for waders, drysuit, wetsuit, whistle, lighting. Risks posed by combination of lifjacket and a helmet due to chin straps post inflation.
		13.4	Recall considerations when sourcing lifjackets and spares on location	On location supply considerations, eg sourcing spares in other countries and remote areas. Appropriate standards. Liability considerations.



	Skill sheet element		Learning outcome	Key teaching points
14	Lifejacket maintenance, periodic inspection and transportation	14.1	Recall manufacturer's recommendations for maintenance and inspection of lifejackets.	Manufacturer's recommendations for periodic inspection/servicing – eg returning to service centre/ manufacturer. Manufacturer's maintenance guidelines for chosen lifejacket
		14.2	Recall company or organisation's recommendations for maintenance and inspection of lifejackets where different from manufacturer's.	Identifying where your organisation's recommendations may be stricter than manufacturer's requirements
		14.3	Compare the resilience to sharps of inflatable lifejackets vs closed cell life jackets or buoyancy aids.	Inflatable lifejackets vs closed-cell foam.
		14.4	Recall correct procedures for storage, transportation, and use of lifejackets to protect from sharps and contamination.	Transportation and storage considerations, including protection from sharps.
		14.5	Recall considerations for transporting lifejackets on aircraft.	IATA Dangerous Goods Regulations relating to lifejacket gas canisters. Packaging/shipping canisters. Sources of information.
15	Lifejacket firing mechanisms	15.1	Identify types of firing mechanism, their merits and limitations.	Different types, eg Halkey-Roberts, United Moulders (UML Mark 5), Hammar. Expiry dates. Automatic firing cartridge, firing block, gas cylinder.
16	Lifejacket accidental inflation risks	16.1	Identify hazards associated with accidental deployment in a variety of high risk areas and tasks and suitable control measures.	Wearing of lifejacket in correct environment. Don't wear below deck of boats. Don't wear in confined spaces. Don't wear in cabs/vehicles/ aircraft.
		16.2	Identify the hazards and merits of auto vs manual inflation in a variety of high risk areas and tasks.	Don't wear auto-inflating lifejackets under clothing or under bags (eg rucksacks).



	Skill sheet element		Learning outcome	Key teaching points
17	Effect of weather and forecasting	17.1	Choose appropriate weather forecasts from sources	Knowledge and understanding of weather sources, eg Met Office, Windfinder
		17.2	Interpret a weather forecast	Basic understanding of wind, rain, and timescale of weather.
18	Communications	18.1	Recognise hand signals that can be used in a water environment.	Hand signals – OK, help, stop, direction, medical assistance.
		18.2	Recognise whistle signals that can be used in a water environment.	Whistle signals – stop, upstream, downstream, emergency.
		18.3	Identify other methods of communication and their limitations.	Other methods of communication – radios, mobile phones. Benefits and limitations of each method, eg battery life, water resistance, signal strength.
19	Pre- and post-use lifejacket checks	19.1	Demonstrate appropriate pre-use checks for the selected lifejacket.	Pre-use: Correct fitting of selected lifejacket. Safety checks. Check automatic capsule. CO2 cylinder seals. Corrosion. Air holding properties. Firing head test without CO2 cylinder and automatic capsule in place. Check oral inflation cap.
		19.2	Perform a buddy check of a colleague in a lifejacket	Buddy check of colleague in a lifejacket. Is it fit for purpose and fitted correctly?
		19.3	Demonstrate appropriate post-use checks for the selected lifejacket	Post-use: General condition. Abrasion. Punctures. Corrosion
20	Lifejacket inflation and deflation - auto/manual	20.1	Identify the hazards and merits of auto vs manual inflation	Differences between auto and manual. Manual: User deployment required. Unsuitable for lone workers. Will not inflate if user is unconscious. Auto: Speed of deployment. Risk of accidental deployment.
		20.2	Observe the auto-inflation of a lifejacket, and identify the associated hazards	Observation of auto-inflation of a lifejacket.
		20.3	Demonstrate manual inflation of a lifejacket	Performing manual inflation of a lifejacket



	Skill sheet element		Learning outcome	Key teaching points
21	Swimming and self-rescue in lifejackets	21.1	Demonstrate the defensive swimming position in a lifejacket	Importance of defensive swimming position. Difficulties of swimming in a lifejacket.
		21.2	Demonstrate setting correct angles in the current to defensively swim to the bank.	Practical session includes setting of correct body angle in defensive position, and swimming to the side, eg of lake, slow-moving water.
22	Throwbags and other conditional rescues	22.1	Identify conditional rescue options and the limitations of conditional rescues	Conditional rescues rely on participation of the person in the water.
		22.2	Identify, check and prepare suitable equipment for performing a conditional rescue	Use of a reach pole or other reaching tools, eg paddle/branches etc. Use of throwbags, deployment.
		22.3	Identify appropriate sites where conditional rescues can be performed	Position for throw (safety of thrower, place to bring crew-member into safe area and onto dry land, avoiding trees and other overhead objects),
		22.4	Demonstrate the correct method for receiving a throwbag following accidental immersion	Practical session in flat or slow moving grade 1 water.
		22.5	Perform a variety of conditional rescues	Practical session in flat or slow moving grade 1 water. Conditional rescues rely on participation of the person in the water. This session should include talking or encouraging the victim to swim to shore. Use of a reach pole or other reaching tools, eg paddle/branches etc. Use of throwbags, deployment. Type of throw (overhand, underhand).



	Skill sheet element		Learning outcome	Key teaching points
23	Exiting the water	23.1	Identify hazards that affect a swimmer trying to exit a river	Difficulties to self-rescue when wearing a lifejacket. Where to get out – steepness of bank, and river bank strainers, depth and flow rate of river etc. Slips, trips and falls. Sharp objects near river bank.
		23.2	Demonstrate safe exit from river at an appropriate site	Practical session exiting flat or slow-moving grade 1 water.





Safe Working In Water for Production Crew (SWIWPC)

Course overview and target audience

The SWIWPC course provides the knowledge and techniques for production crew who need to work in or near water. It covers appropriate PPE and simple rescue techniques to allow safe rescue from water, both basic and moving, and gives simple rescue techniques that can be used to rescue colleagues.

The target audience is TV, film and other media crew or presenters.

This course offers a higher level rescue capability than the Safe Working Near Water for Production Crew (SWNWPC) course.

Contact hours 12 hours (2 days)	Prerequisites Minimum age: 18 Able to swim
Qualification valid for 3 years	Accredited by Rescue 3 Europe

Taught by

- Safe Working in Water for Production Crew Instructor (SWIWPCI)

Assessment

The assessed elements of this course are:

- Foundation knowledge
- Shallow water techniques
- Swimming and self-rescue in buoyancy aids and lifejackets
- Throwbags and other conditional rescues



Safe Working In Water for Production Crew (SWIWPC)

skill sheet contents

Theory
1. About Rescue 3
2. Training standards and legislation
3. Safe systems of work
4. Production crew working with safety advisors
5. Risk assessments
6. Pre-planning for emergencies and rescue
7. Location scouting and management
8. Hydrology and water hazards
9. Cold water considerations
10. Mud, ice and coastal considerations
11. Biosecurity and environmental considerations
12. Medical and decontamination considerations
13. Lifejackets vs buoyancy aids
14. Buoyancy aid and lifejacket maintenance, periodic inspection and transportation
15. Lifejacket firing mechanisms
16. Lifejacket accidental inflation risks
17. Personal and team equipment
18. Considerations for night/poor visibility working
19. Effect of weather and forecasting
20. Communications
Practical
21. Pre- and post-use lifejacket checks
22. Lifejacket inflation and deflation - auto/manual
23. Swimming and self-rescue in lifejackets
24. Swimming and self-rescue in buoyancy aids
25. Throwbags and other conditional rescues
26. Shallow water techniques
27. Tethered shallow water techniques
28. Strainer swim
29. People and equipment entrapments



Safe Working In Water for Production Crew (SWIWPC)

learning outcomes and key teaching points

	Skill sheet element		Learning outcome	Key teaching points
1	About Rescue 3	1.1	Recognise the role of Rescue 3 Europe as an accrediting body.	Rescue 3 as an accrediting body. Designing safety and rescue courses – not just ‘rescue’.
		1.2	Recognise the different industry training courses available within the Rescue 3 scheme	Courses for emergency services, whitewater professionals, construction workers, environment agency personnel, production crews etc.
		1.3	Recall the remit and role of people trained to SWIWPC level	The SWIWPC course provides the knowledge and techniques for production crew who need to work in or near water. It covers appropriate PPE and simple rescue techniques to allow safe rescue from water, both basic and moving, and gives simple rescue techniques that can be used to rescue colleagues. The target audience is TV, film and other media crew or presenters. This course offers a higher level rescue capability than the Safe Working Near Water for Production Crew (SWNWPC) course. Recertification requirements.
2	Training standards and legislation	2.1	Recall local or national legislation that affects safe working near or in water.	Local or national safe working legislation and how it affects production crew at work.
3	Safe systems of work	3.1	Identify the elements of an effective safe system of work (method statement)	Hazard identification, risk assessment, method statement, rescue plan, permit to work, dynamic risk assessment, site/team briefing, operations, evaluation.



	Skill sheet element		Learning outcome	Key teaching points
4	Production crew working with safety advisors	4.1	Recall the role of a safety advisor to a production crew	Off-site safety advisor/pre-planner. On-site safety advisor. Ensuring safety of cast and production crew members in potentially hazardous environments.
		4.2	Be aware of appropriate training and qualifications that safety advisors should hold	Rescue 3 qualifications relevant to the areas that the safety advisors to production crew will be working in, such as water, rope, boat, confined space and ice qualifications
		4.3	Identify the duties that a production crew have when working with safety advisors	Adhering to safe systems of work including risk assessments. Following on-site instructions from safety advisors. Basic understanding of the capabilities and limitations of the safety team - eg is or isn't it possible to safely get the perfect shot?
5	Risk assessments	5.1	Identify the elements of an effective generic or site-specific risk assessment	Awareness of generic and site-specific risk assessment (5 stages).
		5.2	Identify the elements of an effective dynamic risk assessment	Real-time process ensuring actual situational risks are identified, evaluated and managed, that may not be covered by written risk assessment process.
		5.3	Perform a dynamic risk assessment of a work site.	Real-time process ensuring actual situational risks are identified, evaluated and managed, that may not be covered by written risk assessment process.



	Skill sheet element		Learning outcome	Key teaching points
6	Pre-planning for emergencies and rescues	6.1	Recall what information a crew member will need to know when pre-planning for emergencies and rescues when working near water.	What'll happen if a crew member falls in? Downstream hazards, downstream exit. Who's going to rescue them/me? Alerting emergency services. Lone worker considerations. Colleague rescue capability, including training, pre-positioning and access to rescue tools. Cold water immersion considerations – packaging eg survival bag, change of clothes.
		6.2	Recall control measures to avoid accidents and emergencies in a water environment	Training, PPE, on-site briefing, colleague rescue capability, including training, pre-positioning and access to rescue tools.
7	Location scouting and management	7.1	Recall the importance of scouting a location near/in water prior to a shoot	Identify environmental norms and changes (eg low and high tide, low and high water). Effect of more/less rain on rivers? Helps plan additional safety expertise and needs.
		7.2	Recall the importance of location management during a shoot	Where to position production team members when filming near/in water? Appropriate safety cover. Appropriate training and PPE for everyone. Use of spotters to assist/hold on to camera person/sound crew.
		7.3	Recall the role of a spotter	Back-up role to support crew working near water, eg camera person or sound crew. A dedicated person to assist/hold on to them via their lifejacket/PFD as they work. (Production-specific term. Not to be confused with an 'upstream spotter' from a rescue team).
		7.4	Recall the role of local fixers	Fixer's role in area/country of operation. Use of locals for information such as locations, tides and weather patterns.



	Skill sheet element		Learning outcome	Key teaching points
8	Hydrology and water hazards	8.1	Recall the definitions of basic water, moving water, coastal water, swiftwater and whitewater.	Basic: typically still, flat water, eg lakes, ponds and canals. Moving: flowing down a gradient, eg streams, rivers and drainage channels. Coastal: coastal sea, ocean, estuaries. Swiftwater: fast moving, steeper gradient, eg steep rivers, drainage channels, flash flood conditions. Whitewater: fast moving, steeper gradient, used for kayaking, rafting.
		8.2	Identify the effect that volume, gradient and obstacles have on water.	Volume - increase in energy. Gradient - increase in speed. Obstacles - creation of retentive water features, impact risk, siphon/strainer risk
		8.3	Identify water features.	River hydrology including speed, depth and width. Current vectors. Waves. Stoppers. Eddies. Eddy lines. Downstream Vs.
		8.4	Describe the impact water features would have on individuals in water.	Force of water, impact risk, retentive features, entrapments.
		8.5	Identify water hazards in a basic water environment	Flat water hazards, entrapment hazards, muddy bottoms to lakes and canals.
		8.6	Identify water hazards in a moving water environment	Fast current. Bends in the river. Undercuts. Strainers. Siphons. Stoppers. Weirs. Structures, eg scaffolding, bridge pillars etc. Identifying and understanding current vector.
		8.7	Recall importance of avoidance and control measures	The focus on this course (compared to SWNWPC) is for people who will intentionally enter the water.
9	Cold water considerations	9.1	Recall signs and symptoms of cold water shock	Cold water shock. Reduced capability.
		9.2	Recall coping strategies when faced with accidental immersion in cold water	1-10-1 rule. Appropriate PPE when working in water, eg drysuits with thermal layers, wetsuits.



	Skill sheet element		Learning outcome	Key teaching points
10	Mud, ice and coastal considerations	10.1	Recall hazards associated with mud, ice and coastal environments and suitable control measures.	Mud: Awareness, avoidance. What to do if you accidentally find yourself in mud eg spread weight, avoid standing. Estuaries, canals, dams, sediment etc. Cleaning/decontamination issues. Ice: Awareness, avoidance. What to do if you find yourself on/in ice, eg 1-10-1, spreading weight, keeping low, getting out the same way you come in Coastal: Tides, changes in water level, loss of access/egress, change of flow direction. Estuary mud flats.
11	Biosecurity and environmental considerations	11.1	Identify filming areas where cross contamination, or introduction of invasive species may be possible and suitable control measures.	Check, clean, dry. Cross-contamination. Decontamination. Consideration of invasive species. Pollution. Damage to flora and fauna. Reporting.
12	Medical and decontamination considerations	12.1	Identify signs/symptoms and treatment for common medical issues found in a water environment.	Hypothermia (too cold), hyperthermia (too hot), drowning, infection (eg leptospirosis, hepatitis), trauma eg bank hazards (slips, trips, falls), cold water shock.
		12.2	Recall the importance of minimising exposure to the water and decontamination procedures post-exposure	Check, clean, dry. Hand wipes, face wipes, cover cuts etc.
		12.3	Identify bank hazards and suitable control measures to prevent slips trips and falls.	Wet, steep, slippery, muddy banks, overhanging branches, vegetation. Control measures: zoning, PPE and training.



	Skill sheet element		Learning outcome	Key teaching points
13	Lifejackets vs buoyancy aids	13.1	Identify differences between lifejackets and buoyancy aids.	Explain difference between lifejacket and buoyancy aid. Buoyancy aid for planned entry to the water. Lifejacket for unplanned entry (ie crew member falling in). Buoyancy aid doesn't roll an unconscious casualty. A lifejacket is designed to ensure that the wearer is floating in the correct position with their mouth and nose clear of the surface of the water. Different levels of buoyancy in lifejackets depending on task and environment, eg 150N or 275N.
		13.2	Identify national and international lifejacket and buoyancy aid standards.	Applicable standards, eg ISO 12402.
		13.3	Identify in which environments and for which tasks lifejackets and buoyancy aids are appropriate and their pros and cons.	Buoyancy aid for planned entry to the water. Lifejacket for unplanned entry (ie crew member falling in). Consequence of accidentally entering the water, ie water, speed, obstacles, depth may need additional impact protection of a buoyancy aid. Ease of swimming in buoyancy aid, compared to difficulties in a lifejacket. No danger of accidental inflation in buoyancy aid. Buoyancy aid is less susceptible to sharps. Lifejackets unsuitable for an in-water colleague rescue response.



	Skill sheet element		Learning outcome	Key teaching points
14	Buoyancy aid and lifejacket maintenance, periodic inspection and transportation	14.1	Recall manufacturer's recommendations for maintenance and inspection of lifejackets and buoyancy aids.	Manufacturer's recommendations for periodic inspection/servicing of lifejackets– eg returning to service centre/manufacturer. Manufacturer's maintenance guidelines. Periodic float testing of buoyancy aids. Bulkier to store and transport.
		14.2	Recall company or organisation's recommendations for maintenance and inspection of lifejackets and buoyancy aids where different from manufacturer's.	Identifying where your organisation's recommendations may be stricter than manufacturer's requirements
		14.3	Compare the resilience to sharps of inflatable lifejackets vs closed cell life jackets or buoyancy aids.	Inflatable lifejackets vs closed-cell foam.
		14.4	Recall correct procedures for storage, transportation, and use of lifejackets and buoyancy aids to protect from sharps, exposure to chemicals and contamination.	Transportation and storage considerations, including protection from sharps. Avoid exposure to chemicals. Check, clean, dry.
		14.5	Recall considerations for transporting lifejackets on aircraft.	IATA Dangerous Goods Regulations relating to lifejacket gas canisters. Packaging/shipping canisters. Sources of information.
15	Lifejacket firing mechanisms	15.1	Identify types of firing mechanism, their merits and limitations.	Different types, eg Halkey-Roberts, United Moulders (UML Mark 5), Hammar. Expiry dates. Automatic firing cartridge, firing block, gas cylinder.



	Skill sheet element		Learning outcome	Key teaching points
16	Lifejacket accidental inflation risks	16.1	Identify hazards associated with accidental deployment in a variety of high risk areas and tasks and suitable control measures.	Wearing of lifejacket in correct environment. Don't wear below deck of boats. Don't wear in confined spaces. Don't wear in cabs/vehicles/ aircraft.
		16.2	Identify the hazards and merits of auto vs manual inflation in a variety of high risk areas and tasks.	Don't wear auto-inflating lifejackets under clothing or under bags (eg rucksacks). Risks posed by combination of lifejacket and a helmet due to chin straps post inflation.
17	Personal and team equipment	17.1	Identify personal protective equipment (PPE) for working in water.	Likely equipment supplied by organisation. Personal equipment: Drysuit and thermal layers or wetsuit, footwear, helmets, knives, throwbags, buoyancy aid/lifejacket, whistle, gloves, sunglasses/eye protection.
		17.2	Select appropriate PPE for working in and performing rescues in water.	Personal equipment: Drysuit and thermal layers or wetsuit, footwear, helmets, knives, throwbags, buoyancy aid/lifejacket, whistle, gloves, sunglasses/eye protection.
		17.3	Perform a buddy check.	Buddy check of colleague..
		17.4	Identify technical and team equipment for working near and performing rescues in water.	Team/other equipment: Throwbags, reach poles, floating aids, survival bags, group shelters, welfare packs, spare change of clothes, lighting.
		17.5	Recall post-use care and inspection procedures for technical and team equipment.	Check, clean, dry. Check hardware for cracks, burrs, damage, corrosion etc. Inspect textiles for fraying, cuts, exposure to chemicals, contamination.
		17.6	Recall considerations when sourcing PPE and spares on location	On location supply considerations, eg sourcing spares in other countries and remote areas. Appropriate standards. Liability considerations.



	Skill sheet element		Learning outcome	Key teaching points
18	Considerations for night/poor visibility working	18.1	Identify hazards associated with night/poor visibility operations and suitable control measures.	Considerations for working at night. Hazards, visibility and communication difficulties, affecting timescales, tracking of equipment and crew members. Lighting eg spotlights for the work site, personal lights/ headtorches/ Cyalume/ snaplights for crew members and equipment. Buddy system. Increased use of audible communication. Safety lighting requirements vs filming lighting requirements.
		18.2	Identify types of lighting used within night operations.	Spotlights for the work site, personal lights, headtorches, Cyalume/ snaplights for crew members and equipment.
19	Effect of weather and forecasting	19.1	Choose appropriate weather forecasts from sources	Knowledge and understanding of weather sources, eg Met Office, Windfinder
		19.2	Interpret a weather forecast	Basic understanding of wind, rain, and timescale of weather.
20	Communications	20.1	Recognise hand signals that can be used in a water environment.	Hand signals – OK, help, stop, direction, medical assistance.
		20.2	Recognise whistle signals that can be used in a water environment.	Whistle signals – stop, upstream, downstream, emergency.
		20.3	Identify other methods of communication and their limitations.	Other methods of communication – radios, mobile phones. Benefits and limitations of each method, eg battery life, water resistance, signal strength.
21	Pre- and post-use lifejacket checks	21.1	Demonstrate appropriate pre-use checks for the selected lifejacket.	Pre-use: Correct fitting of selected lifejacket. Safety checks. Check automatic capsule. CO2 cylinder seals. Corrosion. Air holding properties. Firing head test without CO2 cylinder and automatic capsule in place. Check oral inflation cap.
		21.2	Demonstrate appropriate post-use checks for the selected lifejacket	Post-use: General condition. Abrasion. Punctures. Corrosion



	Skill sheet element		Learning outcome	Key teaching points
22	Lifejacket inflation and deflation - auto/manual	22.1	Identify the hazards and merits of auto vs manual inflation	Differences between auto and manual. Manual: User deployment required. Unsuitable for lone workers. Will not inflate if user is unconscious. Auto: Speed of deployment. Risk of accidental deployment.
		22.2	Observe the auto-inflation of a lifejacket, and identify the associated hazards	Observation of lifejacket auto-inflation.
		22.3	Demonstrate manual inflation of a lifejacket	Performing manual inflation of a lifejacket
23	Swimming and self-rescue in lifejackets	23.1	Demonstrate the defensive swimming position in a lifejacket	Importance of defensive swimming position. Difficulties of swimming in a lifejacket.
		23.2	Demonstrate setting correct angles in the current to defensively swim to the bank.	Practical session includes setting of correct body angle in defensive position, and swimming to the side, eg of lake, slow-moving water.
24	Swimming and self-rescue in buoyancy aids	24.1	Demonstrate the defensive swimming position.	Defensive swimming. Practical session in swiftwater environment, progressing to minimum grade 2 water.
		24.2	Demonstrate the aggressive swimming position.	Aggressive swimming. Practical session in swiftwater environment, progressing to minimum grade 2 water.
		24.3	Transition between the defensive and aggressive swimming positions.	Transitioning between defensive and aggressive swimming. When and where you would use each to self-rescue.
		24.4	Adjust body angle relative to the current vector.	In the defensive and aggressive swimming positions.
		24.5	Apply swimming techniques, angle control and momentum to perform a variety of tasks.	Practical session in swiftwater environment, progressing to minimum grade 2 water.



	Skill sheet element		Learning outcome	Key teaching points
25	Throwbags and other conditional rescues	25.1	Identify conditional rescue options and the limitations of conditional rescues	Conditional rescues rely on participation of the person in the water.
		25.2	Identify, check and prepare suitable equipment for performing a conditional rescue	Use of a reach pole or other reaching tools, eg paddle/branches etc. Use of throwbags, deployment.
		25.3	Identify appropriate sites where conditional rescues can be performed	Position for throw (safety of thrower, place to bring crew member into safe area and onto dry land, avoiding trees and other overhead objects).
		25.4	Demonstrate the correct method for receiving a throwbag.	Practical session in swiftwater environment, progressing to minimum grade 2 water.
		25.5	Perform a variety of conditional rescues	Practical session in swiftwater environment, progressing to minimum grade 2 water. Conditional rescues rely on participation of the person in the water. This session should include talking or encouraging the victim to swim to shore. Use of a reach pole or other reaching tools, eg paddle/branches etc. Use of throwbags, deployment. Type of throw (overhand, underhand).
		25.6	Identify methods of managing force directed on a rescuer and victim as water speed increases.	Rescuer/belayer moving downstream, or creating strong belay position. Paying out line. Appropriate site choice. Appropriate eddies for recovery.



	Skill sheet element		Learning outcome	Key teaching points
26	Shallow water techniques	26.1	Identify the variables and hazards that will directly affect shallow water techniques.	Identifying safe areas where shallow water techniques can be used: Depth, water speed, river bed morphology.
		26.2	Perform single and team-based shallow water techniques.	Single with wading pole, line astern, wedge. Foot placement and use of wading poles to scout for entrapment hazards
		26.3	Explain how the addition of a casualty would affect shallow water techniques.	Casualty transportation: Able to assist in their own rescue, middle person in line astern or wedge. Unable to assist or injured: use of stretcher, protection of casualty from the flow.
27	Tethered shallow water techniques	27.1	Explain the application of tethered shallow water techniques.	Use of tethered systems whilst working in water to negate the need for a conditional rescue if crew members fall whilst wading in water.
		27.2	Demonstrate attachment to quick release harness.	Releasable systems, and attachment methods.
		27.3	Perform an in-water release of a quick release harness.	Practical session in swiftwater environment.
		27.4	Perform a tethered wade in shallow water.	Practical session in shallow water.
		27.5	Operate a safe belay system for tethered wader(s).	Belay techniques, dynamic or static. Location of belayer(s) appropriate eddies to field colleagues back to shore/position of safety Crew member in water: body position, on back, feet up and in front of them.



	Skill sheet element		Learning outcome	Key teaching points
28	Strainers	28.1	Identify strainers and the hazards they pose to rescuers and casualties.	Different types of strainers that can be encountered and likely locations, eg bank side or mid-river River bank trees and roots, fallen trees, in water fences, river debris.
		28.2	Understand that strainers should be avoided.	Importance of avoidance.
		28.3	Understand the consequences of going underneath a strainer.	Entrapment, drowning, impact injury.
		28.4	Identify rescue options for a casualty in a strainer.	Considerations based on training of rescuers, eg tethered wade at SWIWPC level. Considerations for calling rescue team with higher capability.
		28.5	Using a strainer simulator, demonstrate and compare aggressive and defensive approaches to the simulator.	Use of strainer simulator to compare defensive and aggressive techniques for getting around or over a strainer. Defensive: Fend off with feet, stabilise and work towards the end of the strainer. Potential to be swept underneath, and need to protect face if this happens. Possible to slow speed of approach with a back paddling action, reducing possibility of injury. Aggressive: Turn into aggressive position early, increase speed to push body up and over strainer. Possibility of injury due to increased speed, though more likely to get over strainer as long as there is a reasonably clean area to push over. This session can be used to highlight many aspects of water safety as well as just avoiding or getting around or over a strainer simulator. Examples include speed of shallow water, how easy it is to be swept away, force of the water when pushed against a strainer simulator etc.



	Skill sheet element		Learning outcome	Key teaching points
29	People and equipment entrapments	29.1	Identify the hazards and consequences of foot and body entrapments, and control measures to reduce likelihood.	How do entrapments happen and how can they be avoided. River bed morphology, snag hazards avoid by use of defensive swimming position, training, avoiding putting feet down.
		29.2	Identify extrication methods of an entrapped casualty.	Rescue methods: Shallow water techniques to access casualty and hands on rescue techniques. Two bank access methods and single bank access methods. Stabilisation lines, and line crossing methods.
		29.3	Identify risks to the rescuers of an entrapped casualty.	Entrapment in same hazard as victim. General water hazards.
		29.4	On dry land, demonstrate use of a stabilisation line from one and two banks.	This session can be completed practically on dry land or in water as venues dictates.



Safe Operating in Boats for Production Crew (SOBPC)

Course overview and target audience

The Safe Operating in Boats for Production Crew course is suitable for production crews with little or no powerboat experience, who wish to gain confidence as a passenger on flat or moving water.

People wishing to handle powerboats, rather than safely operate in them as a passenger, should take the Rescue 3 RBO or SFRBO course.

Contact hours 6 hours (1 day)	Prerequisites Must be a confident swimmer Minimum age: 18
Qualification valid for 3 years	Accredited by Rescue 3 Europe

Taught by

- Safe Operating in Boats for Production Crew Instructor (SOBPCI)

Assessment

The assessed elements of this course are:

- Foundation knowledge
- Team/personal recovery
- Safe crew management in moving boat operations



Safe Operating in Boats for Production Crew (SOBPC) skill sheet contents

Theory
1. Rescue 3 philosophy
2. Training standards
3. Production crew working with safety advisors
4. Personal equipment
5. Effect of weather and forecasting
6. Environmental considerations
7. Risk assessments
8. Pre-planning
9. Medical and decontamination considerations
10. Communications
11. Rescue boat equipment
12. Introduction to boat designs
13. Hazards of operating in boats
14. Crew roles and responsibilities
15. Understanding the helm's and boat's capabilities
16. Accidental immersion considerations
Practical
17. Getting in and out of boats
18. Boat trim and movement of personnel in boats
19. Operating as production crew in boats at low speed
20. Operating as production crew in boats at high speed
21. Holding station and friction locks (as passenger)
22. Team/personal recovery
23. Receiving reach aids/throwlines to aid recovery
24. Open water survival techniques



Safe Operating in Boats for Production Crew (SOBPC) learning outcomes and key teaching points

	Skill sheet element		Learning outcome	Key teaching points
1	Rescue 3 philosophy	1.1	Explain the order of priorities at a water rescue scene	Self > team > victim
		1.2	Recall the steps required in order to develop judgement	Training. Practice. Experience. Judgement
		1.3	Apply best practice guidelines to powerboat operations, in order to produce safe working practice	Always have a backup plan: downstream exit for engine failure
2	Training standards	2.1	Recognise the different levels of training with the Rescue 3 scheme	Production crew courses. Comparison of remit to, eg, boat handling courses (RBO, FRBO, SFRBO)
		2.2	Recall the remit and role of an individual trained to this level.	Safe Operating in Boats for Production Crew (SOBPC) remit and role. Production crew who wish to safely operate as a passenger in a boat. Candidates wishing to gain a boat-handling capability should take a Rescue 3 RBO or SFRBO course.
		2.3	State how the Rescue 3 scheme fits within national and international standards	Rescue 3 standards, eg NFPA, DEFRA



	Skill sheet element		Learning outcome	Key teaching points
3	Production crew working with safety advisors	3.1	Recall the role of a safety advisor to a production crew	Off-site safety advisor/pre-planner. On-site safety advisor. Ensuring safety of cast and production crew members in potentially hazardous environments.
		3.2	Be aware of appropriate training and qualifications that safety advisors should hold	Rescue 3 qualifications relevant to the areas that the safety advisors to production crew will be working in, such as water, rope, boat, confined space and ice qualifications
		3.3	Identify the duties that a production crew have when working with safety advisors	Adhering to safe systems of work including risk assessments. Following on-site instructions from safety advisors. Basic understanding of the capabilities and limitations of the safety team - eg is or isn't it possible to safely get the perfect shot?
4	Personal equipment	4.1	Identify PPE used by production crew members under the direction of rescue boat operators	PPE: Personal flotation device (PFD) eg buoyancy aid or lifejacket, helmet, eye protection, throwbag, drysuit, immersion suit, boots, gloves, thermal layers. Suitable outdoor clothing for possible weather conditions before/ after boat operations. Production kit: lanyards.
		4.2	Select appropriate PPE for a rescue boat passenger, dress and perform buddy checks	PPE list, buddy checks
5	Effect of weather and forecasting	5.1	Choose appropriate weather forecasts from sources	Knowledge and understanding of weather sources, eg Met Office, Windfinder
		5.2	Interpret a weather forecast	Basic understanding of wind, rain, and timescale of weather.
6	Environmental considerations	6.1	Identify environmental considerations for production crew operating in powerboats	Tide, flow, swell



	Skill sheet element		Learning outcome	Key teaching points
7	Risk assessments	7.1	Identify the elements of an effective generic or site-specific risk assessment	Awareness of generic and site-specific risk assessment (5 stages).
		7.2	Identify the elements of an effective dynamic risk assessment	Real time process ensuring actual situational risks are identified, evaluated and managed that may not be covered by written risk assessment process. Constantly re-evaluated.
		7.3	Perform a dynamic risk assessment of a work site.	Real time process ensuring actual situational risks are identified, evaluated and managed that may not be covered by written risk assessment process. Constantly re-evaluated.
8	Pre-planning	8.1	Identify sources of information useful for pre-planning powerboat operations	River guides (online and books), tide tables (online and booklet), online river gauges.
		8.2	Describe key information that should be included within a pre-plan specific to powerboat	Slipway access/egress, alternative access/egress if no slipway. Access to water level information. Task specific kit list. Emergency RV. Considerations for training, competency and equipment standards when hiring boat, boat crew and equipment, eg for shoot abroad.
9	Medical and decontamination considerations	9.1	Identify priorities when dealing with casualties from both mid-water and a dry location	Temperature and major trauma
		9.2	Apply techniques which minimise exposure to the water and decontamination procedures	Remain in the boat to minimise exposure to HAZMAT. Gels, wipes and sprays post-exposure



	Skill sheet element		Learning outcome	Key teaching points
10	Communications	10.1	Be able to communicate boat-to-boat and boat-to-shore using hand and whistle signals	Hand signals: Ok, distress, point positive, medical, hold station. Whistle: attention, upstream, downstream, distress
		10.2	Apply simple commands in order to centralise command within the boat	Commands for changing trim, tying or untying the boat, exiting or entering the boat should all come from the helm
11	Rescue boat equipment	11.1	Have a basic understanding of what equipment is carried in a rescue boat and why	Boat kit: Engine, prop guard. 2 separate fuel bladders. Keys, kill cord and spares. Paddles. Navigation equipment, eg maps, charts, sat nav, GPS. Fire extinguisher. First aid kit. Comms. Lighting for boat. Bowline. Pump. Tools, repair kit and spares. Towing kit. Anchor. Inshore flare pack. Boat hooks, throwlines. Technical rescue equipment: semi-static floating line, slings/tapes, karabiners, rope grabs, pulleys. Welfare pack. Short throwbag. Task specific: Stretcher, ladder, additional long lines, O2, defib
12	Introduction to boat design	12.1	Identify different types of boats, and the implications for production crew operating in them	Suitable boats for varied applications (research/camera/sound etc). RIBs/ solid boats. Types of propulsion, including risks of propellers.
13	Hazards of operating in boats	13.1	Identify hazards and control measures of production crew operating in boats	Drowning, hypothermia, trauma (eg impact with propeller). Control measures include pre-planning, PPE, training, following instructions of trained helm.
14	Crew operational roles	14.1	Explain the primary roles within a boat, and their duties	Helm: overall control, clear comms. Bowman: directions (points positive) and information for the helm. Rescuer (if applicable): hands on casualty, enters the water if required. Passengers (eg production crew): completing intended task (eg filming) whilst following all safety instructions from trained helm.
		14.2	Apply crew roles when performing a variety of tasks	Clear communication and allocation of roles



	Skill sheet element		Learning outcome	Key teaching points
15	Understanding the helm's and boat's capabilities	15.1	Be aware of the capabilities and limitations of a helm and their boat	Considerations for what a helm can and can't do with a boat, in relation to what a production crew might want them to be able to do. Eg, manoeuvring or holding station in certain locations or environments.
16	Accidental immersion considerations	16.1	Identify hazards and control measures of accidental immersion in water	Temperature, entrapment possibilities, PPE failure, injury.
		16.2	Recognise the importance of keeping feet up if swept away in moving water	Entrapment risk, impact injury, line of sight, ability to receive a throwline
17	Getting in and out of boats	17.1	Get in and out of boats, using a variety of methods	Coming alongside, friction locks, nose on, beach launch or shallow water
18	Boat trim and movement of personnel in boats	18.1	Recall the importance of trim when in displacement and planing mode	Weight shift forward of backward. Balance side to side.
		18.2	As a passenger/production crew, follow a helm's instructions to trim a powerboat	Following the instructions of a trained helm (eg instructor)
19	Operating as production crew in boats at low speed	19.1	Recall key considerations when operating as production crew in boats at low speed	Slips/trips, person/equipment overboard. Consideration of whether to tether or not tether production crew in boat as work restraint - attachment points, releasability, consequences of flip if tethered.
		19.2	Simulate typical production crew operations in a boat at low speed	Following instructions of helm.
20	Operating as production crew in boats at high speed	20.1	Recall key considerations when operating as production crew in boats at high speed	Slips/trips, person/equipment overboard. Comparison of what is possible at low speed with what is possible at high speed.
		20.2	Simulate typical production crew operations in a boat at high speed	Following instructions of helm.



	Skill sheet element		Learning outcome	Key teaching points
21	Holding station and friction locks (as passenger)	21.1	Simulate typical production crew operations in a boat holding station in the flow	Following instructions of helm
		21.2	Simulate typical production crew operations in a boat that is friction locked	Following instructions of helm
22	Team/personal recovery	22.1	Identify reasoning behind team/self-rescue ability	Recovery from rescue or malfunction. Reduces task loading on other crew members
		22.2	Perform team-based rescue (or self-rescue) over sponson whilst in deep water	Boat set up: handles, safety line, size of sponsons
23	Receiving reach aids/throwlines to aid recovery	23.1	Recall the correct method to receive a throwline	Stay on back, make target/body as large as possible, keep line of sight with rescuer, listen to instructions. When being pulled in, don't wrap rope around body, rope over shoulder, stay on back when being recovered. Don't let go of rope until safe.
		23.2	As a casualty, receive a reach aid/throwline to aid recovery into the boat.	Stay on back, make target/body as large as possible, keep line of sight with rescuer, listen to instructions. When being pulled in, don't wrap rope around body, rope over shoulder, stay on back when being recovered. Don't let go of rope until safe.
24	Open water survival techniques	24.1	Demonstrate group methods for surviving in open water.	Stay together. Link up as a snake or ring



Safe Operating in Boats for Production Crew (SOBPC)

training site and equipment list

Training site

The training site should be an inland flat or moving water environment, such as a lake or river.

SOBPC instructors who also hold the Rescue 3 Coastal Module (CM) qualification may deliver appropriate elements of the course in coastal environments up to Beaufort force 3 conditions (13-19kph, with probable mean wave height of 0.6m).

The training site should be such that there is no risk of damage to boat and equipment, or injury to crew, if there is a loss of motor propulsion.

Team equipment

The training provider must provide the following for each working group:

- Suitably equipped rescue boat
- Appropriate vehicle, trailer or launching trolley
- Fuel, tools and spare parts for emergency repairs
- First aid, crew welfare and emergency shelter kit
- Whiteboard and marker pens
- Emergency distress kit
- Radio/communication ability

Personal equipment

The students must bring (if not provided by the training provider)

- Drysuit or suitable waterproof protective clothing
- PFD
- Thermal undersuit
- Protective footwear
- Marine water safety helmet - PAS 028:2002¹
- Gloves
- Eye protection
- Knife

¹ Whilst there is no established inland powerboat helmet standard, the marine safety helmet standard PAS 028:2002 is the most appropriate for inland powerboat use.





Outdoor Risk Management for Production Crew (ORMPC)

Course overview and target audience

The Outdoor Risk Management for Production Crew (ORMPC) course is for people working as production crew in remote areas, coastal areas, upland terrain and/or unfamiliar terrain. It enables them to identify associated hazards and to give them basic skills to work safely and deal with any incidents in these environments.

Contact hours 12 hours (2 days)	Prerequisites Minimum age: 18
Qualification valid for 3 years	Accredited by Rescue 3 Europe

Taught by

- Outdoor Risk Management Instructor (ORMI)

Assessment

The assessed elements of this course are:

- Foundation knowledge
- Navigation



Outdoor Risk Management for Production Crew (ORMPC) skill sheet contents

Theory
1. Rescue 3 philosophy
2. Training standards
3. Production crew working with safety advisors
4. Considerations of varied conditions/climates
5. Weather for remote areas
6. Personal kit for use in remote areas
7. Location scouting and management
8. Logistics planning
9. Considerations for operating around mud, ice and unstable areas
10. Considerations for night/poor visibility operations
11. Communications
12. Helicopter considerations
Practical
13. Navigation
14. Risk assessments
15. Hazard recognition
16. Emergency situations



Outdoor Risk Management for Production Crew (ORMPC) learning outcomes and key teaching points

	Skill sheet element		Learning outcome	Key teaching points
1	Rescue 3 philosophy	1.1	Recall the steps required in order to develop judgement	Training. Practice. Experience. Judgement
		1.2	Explain the order of priorities at a rescue scene	Self > team > victim
2	Training standards	2.1	Recognise the different training courses within the Rescue 3 scheme	Risk management courses. Industry-level courses. Water rescue courses. Boat rescue courses. Rope rescue courses. Confined space rescue courses
		2.2	Recall the remit and role of an individual trained to this level	ORMPC remit and role
		2.3	State how the Rescue 3 scheme fits within national and international standards	Rescue 3 scheme, NFPA, applicable local standards
		2.4	State how the Rescue 3 scheme fits within agency policy and agency standard operating guidelines	Agency policy and agency standard operating guidelines
3	Production crew working with safety advisors	3.1	Recall the role of a safety advisor to a production crew	Off-site safety advisor/pre-planner. On-site safety advisor. Ensuring safety of cast and production crew members in potentially hazardous environments.
		3.2	Be aware of appropriate training and qualifications that safety advisors should hold	Rescue 3 qualifications relevant to the areas that the safety advisors to production crew will be working in, such as water, rope, boat, confined space and ice qualifications
		3.3	Identify the duties that a production crew have when working with safety advisors	Adhering to safe systems of work including risk assessments. Following on-site instructions from safety advisors. Basic understanding of the capabilities and limitations of the safety team - eg is or isn't it possible to safely get the perfect shot?



	Skill sheet element		Learning outcome	Key teaching points
4	Considerations of varied conditions/ climates	4.1	Identify environments and climates that may be encountered, their hazards and control measures	Hot/cold environments. Altitude. Inland or coastal regions. Pre-planning. PPE and group equipment. Training.
5	Weather for remote areas	5.1	Choose appropriate weather forecasts from sources	Knowledge and understanding of weather sources, eg Met Office, Windfinder
		5.2	Interpret a weather forecast	Basic understanding of wind, rain, altitude and timescale of weather.
		5.3	Relate weather forecast to upland/coastal environment	Wind, rain, altitude and timescale of weather in relation to upland/coastal environment
6	Personal kit for use in remote areas	6.1	Identify personal kit for use in remote areas, its benefits and limitations	Rucksack - size of rucksack. Map - appropriate scale, eg 1:50,000 and 1:25,000. Compass - type of compass. Considerations for electronic GPS and phone navigation apps
		6.2	Choose appropriate waterproofs, clothing and footwear for the environment you're working in	Practical demonstration of rucksack type and size. 45 litre is ideal. Advantages of waterproof breathable clothing, eg Gore-Tex. Use of appropriate thermal layering. Appropriate footwear for the terrain
		6.3	Select appropriate group equipment for the environment	Eg, group shelter, first aid kit, spare thermal clothing and a torch. Concept of having shelter from the elements. Hypothermia basics, eg core temperature and the effects of wind and rain on core body temperature. Show suitable types of head torch and suitable spare clothing
		6.4	Demonstrate use of group shelter and blizzard bag	When and how to use group shelter and blizzard bag



	Skill sheet element		Learning outcome	Key teaching points
7	Location scouting and management	7.1	Recall the importance of scouting a location prior to a shoot	Identify environmental norms and changes (eg low and high tide, low and high water). Effect of more/less rain on locations? Helps plan additional safety expertise and needs.
		7.2	Recall the importance of location management during a shoot	Where to position production team members when filming in outdoor environments? Appropriate safety cover. Appropriate training and PPE for everyone. Use of spotters to assist/hold on to camera person/sound crew where necessary.
		7.3	Recall the role of a spotter	Back-up role to support crew working in outdoor environments, eg camera person or sound crew. A dedicated person to assist/hold on to them. (Production-specific term. Not to be confused with an 'upstream spotter' from a rescue team).
		7.4	Recall the role of local fixers	Fixer's role in area/country of operation. Use of locals for information such as locations, tides and weather patterns.
8	Logistics planning	8.1	Recall the key components of a logistics plan	Information gathered from fixers, local knowledge, mapping etc. Record and share with colleagues/other departments.
9	Considerations for operating around mud, ice and unstable areas	9.1	Recall hazards and control measures associated with operating around mud, sand and ice	Entrapment, contamination, specialised rescue equipment, ice quality/strength/thickness, temperature, access issues.
10	Considerations for night/poor visibility	10.1	Identify hazards associated with night/poor visibility operations and suitable control measures	Hazards: visibility and communication difficulties, affecting timescales, tracking of equipment and personnel. Control measures: lighting, increased use of audible communication.



	Skill sheet element		Learning outcome	Key teaching points
11	Communications	11.1	Recall communication methods, how to use them, their benefits and limitations	VHF - mobile, base options and repeaters. Short range radios. Satellite phones GPS communicators (eg Garmin inReach). Mobile internet systems
		11.2	Recall key information to be included in a communications plan	Local emergency numbers. Chain of command in production team (overseas and in home country, if applicable). Considerations for local medics. Nearest hospitals. Helicopter landing sites.
12	Helicopter considerations	12.1	Recall key considerations for working safely around helicopters	Downdraft. Loose objects. Approach as directed by the crew. Required areas for landing. Direction of wind. Wildlife. Further helicopter familiarisation training is recommended if working regularly with helicopters.
13	Navigation	13.1	Identify the key features of a map used for navigation	Digital or paper/laminated. 1:50,000 and 1:25,000 maps. Show scale, contours, feature differences.
		13.2	Demonstrate use of electronic navigational aid (eg GPS) to navigate to a feature/marker	Phone navigation apps. Waterproofing your phone. Limitations
		13.3	Correlate local features and mapped features to identify your location	Map features, eg contour lines, valleys, ridges etc. Matching map to actual geography
		13.4	Use strategies to navigate successfully	Simple strategies to navigate, eg handrails, attack points, overshoots and contour interpretation
		13.5	Choose an appropriate route, taking into account ground conditions	Relation of appropriate ground to route choice
		13.6	Recall key features of mapping/GPS apps for a production crew	Notes. Pin drops. Tracks from location scouts. Adding pictures and notes. Plan times. Plan routes. Calculate distances to given locations. Sharing information with production team.



	Skill sheet element		Learning outcome	Key teaching points
14	Risk assessments	14.1	Identify the elements of an effective generic or site-specific risk assessment	Identify the hazards, decide who might be harmed and how, evaluate the risks and decide on precaution, record your findings and implement them, review your assessment and update if necessary
		14.2	Identify the elements of an effective dynamic risk assessment	Real time process ensuring actual situational risks are identified, evaluated and managed that may not be covered by written risk assessment process. Constantly re-evaluated.
		14.3	Perform a dynamic risk assessment of an outdoor site	Real time process ensuring actual situational risks are identified, evaluated and managed that may not be covered by written risk assessment process. Constantly re-evaluated.
15	Hazard recognition	15.1	Identify hazards in an outdoor environment, and their control measures	Weather status. Wet ground Slippery rocks. Temperature decrease at height. Effects of hypothermia. Distance from vehicle. Available daylight. Available communications. Reporting whereabouts. Implications for a lone worker
		15.2	Relate outdoor hazards to route choice	Visual observations to help with good route planning
		15.3	Recall considerations for extreme and remote locations	Eg ice/cold, heat, altitude, coastal/oceans, remote regions, near/in water, at height. Working with trained safety teams and/or additional training for production crew.
16	Emergency situations	16.1	Identify how and when to contact the emergency services in the event of an incident	Emergency service contact details, 112 Europe-wide emergency number, rescue capability of relevant bodies, phone access, mobile signal, radios. Information to pass on
		16.2	Identify key information to pass on to the emergency services in the event of an incident	Including location, grid references, nature of incident. Understanding of rescue operations



Outdoor Risk Management for Production Crew (ORMPC) training site and equipment list

Training site

Upland, moorland, coastal and/or unfamiliar terrain, away from roads. Proper mountain or winter terrain is beyond the remit of this course.

Equipment

- Waterproof clothing
- Hat
- Gloves
- Suitable footwear
- Thermal layers
- Compass, eg Silva type 4 or equivalent
- 1:50,000 and 1:25:000 maps of area
- Group shelter
- Survival bag, eg Blizzard bag or equivalent
- Head torch
- Spare clothing
- GPS - phone app or handheld GPS
- Mobile phone in waterproof container
- Food and drink



Safe Working at Height for Production Crew (SWAHPC)

Course overview and target audience

The Safe Working at Height for Production Crew (SWAHPC) course gives production crew members the knowledge and skills required to recognise height-related risks and apply appropriate safe systems of work. During this course students will learn how to apply a wide range of control measures including PPE, work restraint, and fall arrest systems in order to safely move, work, and operate in exposed environments.

Contact hours 6 hours (1 day)	Prerequisites Minimum age: 18
Qualification valid for 3 years	Accredited by Rescue 3 Europe

Taught by

- Safe Working at Height for Production Crew Instructor (SWAHPCI)

Assessment

The assessed elements of this course are:

- Foundation knowledge
- Use of work restraint
- Anchors
- Emergency descending



Safe Working at Height for Production Crew (SWAHPC) skill sheet contents

Theory
1. About Rescue 3
2. Training standards and legislation
3. Medical considerations
4. Personal equipment
5. Safe systems of work
6. Production crew working with safety advisors
7. Risk assessments
8. Site control
9. Loads and forces
10. Safety checks
11. Communications
Practical
12. Knots
13. Anchor systems
14. Rope protection
15. Work restraint
16. Fall arrest
17. Safe movement on steep terrain, including positioning and use of handrails
18. Safe vertical movement using lanyards and devices on handrails
19. Safe movement on exposed areas using fixed lines and mechanical devices/Prusiks and lanyards



Safe Working at Height for Production Crew (SWAHPC) learning outcomes and key teaching points

	Skill sheet element		Learning outcome	Key teaching points
1	Rescue 3 philosophy	1.1	Recall the steps required in order to develop judgement	Training. Practice. Experience. Judgement
		1.2	Explain the order of priorities when working at height	Self > team > victim
2	Training standards and legislation	2.1	Recognise the different training courses within the Rescue 3 scheme	Rope rescue courses. Confined space rescue courses. Water rescue courses. Boat rescue courses. Industry level courses
		2.2	Recall the remit and role of an individual trained to this level	SWAHPC remit and role
		2.3	State how the Rescue 3 scheme fits within national and international standards	Rescue 3 scheme, NFPA, applicable local standards
3	Medical considerations	3.1	Identify signs/symptoms and treatment for common medical issues found in a vertical environment	Suspension-induced syncope, trauma
		3.2	Identify individuals at risk for common medical issues found in a vertical environment, and control measures to minimise these	Casualty, rescuers, bystanders. Control measures: PPE, training, site zoning



	Skill sheet element		Learning outcome	Key teaching points
4	Personal equipment	4.1	Identify personal protective equipment (PPE) for working at height	Anchor point, connection and harness. Types of connections including fall arrest kit, lanyard, fall arrest lanyard, lanyard for work positioning or restraint, fall arrest blocks, karabiners, maillons, hooks, rope, backup devices. Other equipment including helmet, tool lanyards, foot loops, rescue harness, gloves, eye protection, rope protection.
		4.2	Recall national and international standards for PPE	EN standards, applicable local standards
		4.3	Select appropriate PPE for working at height, perform pre-use checks, donning and buddy checks	EN standards, PPE inspection, buddy checks
		4.4	Recall post-use care and inspection procedures for personal equipment	PPE inspection, storage and care
5	Safe systems of work	5.1	Recall the common components of a safe system of work	Hazard assessment, risk assessment, method statement, rescue plan, dynamic risk assessment, site briefing, review
		5.2	List the four components of a generic pre-plan	Management, personnel, training, equipment
		5.3	Identify sources of information useful for generic and task-/location-specific safe systems of work	Weather forecasts, mapping, other relevant agencies, location of rescue and first aid equipment, post-rescue documentation
		5.4	Describe key information that an agency would include in a safe system of work	Site-specific risk assessment, general risk assessment, access or egress to site, topography, response plan



	Skill sheet element		Learning outcome	Key teaching points
6	Production crew working with safety advisors	6.1	Recall the role of a safety advisor to a production crew	Off-site safety advisor/pre-planner. On-site safety advisor. Ensuring safety of cast and production crew members in potentially hazardous environments.
		6.2	Be aware of appropriate training and qualifications that safety advisors should hold	Rescue 3 qualifications relevant to the areas that the safety advisors to production crew will be working in, such as water, rope, boat, confined space and ice qualifications
		6.3	Identify the duties that a production crew have when working with safety advisors	Adhering to safe systems of work including risk assessments. Following on-site instructions from safety advisors. Basic understanding of the capabilities and limitations of the safety team - eg is or isn't it possible to safely get the perfect shot?
7	Risk assessments	7.1	Identify the elements of an effective generic and site-specific risk assessment	Identify the hazards, decide who might be harmed and how, evaluate the risks and decide on precaution, record your findings and implement them, review your assessment and update if necessary
		7.2	Identify the elements of an effective dynamic risk assessment	Real time process ensuring actual situational risks are identified, evaluated and managed that may not be covered by written risk assessment process. Constantly re-evaluated.
		7.3	Perform a dynamic risk assessment of a working area at height	Real time process ensuring actual situational risks are identified, evaluated and managed that may not be covered by written risk assessment process. Constantly re-evaluated.



	Skill sheet element		Learning outcome	Key teaching points
8	Site control	8.1	Based on hazard recognition, apply appropriate control measures to protect personnel and bystanders	Site zoning, chain of command, team roles
		8.2	Install and mark site zones	Methods of marking site zones
		8.3	Identify how and when to contact the emergency services in the event of an incident	Emergency service contact details, 112 Europe-wide emergency number, rescue capability of relevant bodies, phone access, mobile signal, radios
9	Loads and forces	9.1	Differentiate between mass and force	Force = mass x acceleration
		9.2	Identify SI base units and derived units used in rope rescue	Metre (length), second (time), kilogram (mass), Newton (force), metre per second per second (acceleration)
		9.3	Describe the differences between static and dynamic forces	Static = non-moving, eg being held in space. Dynamic = moving, eg an uncontrolled event
		9.4	Recall the maximum arrest force applicable by legislation	Eg 6kN within the European Union and 8kN within North America
10	Safety checks	10.1	Identify the components of a safety check	Correct equipment, compatible, condition, age, records and traceability, fastened correctly, PPE fit, anchors, ground clearance, site.
		10.2	Perform a safety check	Correct equipment, compatible, condition, age, records and traceability, fastened correctly, PPE fit, anchors, ground clearance, site.
11	Communications	11.1	Recall potential communications when working at height	Wind, distance, clothing
		11.2	Recall basic communication options when working at height, including being able to raise alarm in the event of an emergency	Whistle and air horns, radios, mobile phones



	Skill sheet element		Learning outcome	Key teaching points
12	Knots	12.1	Identify, tie and check appropriate knots for working at height	Eg sewn termination, overhand on a bight, figure of 8 on a bight, rethreaded figure of 8, clove hitch
		12.2	Recall factors affecting knot choice for working at height	Ability to release under load. Ease of tying. Appropriate for task. Ease of checking.
13	Anchor systems	13.1	Identify use of anchor systems when working at height	Load sharing (compared to load distributing). Unquestionably sound anchors (aka bombproof). Strength requirements.
		13.2	Select an appropriate single anchor point	Rated and tested or unquestionably sound anchor (aka bombproof anchor). Use of appropriate rope/webbing/strop and rope protection
		13.3	Select and create an appropriate 2-point load-sharing anchor	Internal angle, alignment
		13.4	Identify agency use or non-use of artificial anchor points (if used by agency)	Agency policy and standard operating guidelines
		13.5	Identify, install and check temporary artificial anchor points, (if used by agency)	Artificial door traverse anchors, artificial beam clamp anchors
14	Rope protection	14.1	Select, install and check appropriate rope protection	Comparison of commercially-available products, and improvised products (eg canvas, fire hose etc)
15	Work restraint	15.1	Identify when work restraint equipment is used, its merits and limitations	Prevents an operative from reaching an edge
		15.2	Select, install and check appropriate horizontal work restraint equipment	Consider peninsulas. Anchor/edge alignment. Suitability of anchor
16	Fall arrest	16.1	Identify when fall arrest equipment is used, its merits and limitations	Where work restraint isn't appropriate (eg when climbing a structure), and where there is likelihood of a fall
		16.2	Demonstrate use of a fall arrest system	Eg use of scaffold hooks with shock absorbing lanyard or self-retracting lifeline/fall arrest block. Maximum arrest force as defined in legislation.



	Skill sheet element		Learning outcome	Key teaching points
17	Safe movement on steep terrain, including positioning and use of handrails	17.1	Demonstrate safe movement on steep terrain	Positioning. Use of handrail
18	Safe vertical movement using lanyards and devices on handrails	18.1	Demonstrate safe movement in a vertical environment	Lanyards, devices on handrails
19	Safe movement on exposed areas using fixed lines and mechanical devices/Prusiks and lanyards	19.1	Demonstrate safe movement on exposed areas	Fixed lines, mechanical devices/ Prusiks and lanyards



Safe Working on Ice for Production Crew (SWIPC)

Course overview and target audience

The SWIPC course trains production crew who work or travel on ice over lakes, ponds, and reservoirs, or rivers that are completely frozen over. The curriculum includes the formation of ice and the factors that influence its decay, how to determine ice thickness, the identification of hazards, travelling on ice, self-rescue and simple techniques for rescuing a colleague. The curriculum also includes the medical complications posed by cold water immersion and hypothermia, and the significant implications for rescue and transport.

Contact hours 12 hours (2 days)	Prerequisites Must be a confident swimmer. Minimum age: 18
Qualification valid for 3 years	Accredited by Rescue 3 Europe

Taught by

- Safe Working on Ice for Production Crew Instructor (SWIPC)

Assessment

The assessed elements of this course are:

- Foundation knowledge
- Conditional rescues
- Foundation ropework
- Ice testing procedures
- Self-rescue from ice



Safe Working on Ice for Production Crew (SWIPC) skill sheet contents

Theory
1. About Rescue 3
2. Training standards and legislation
3. Safe systems of work
4. Production crew working with safety advisors
5. Risk assessments
6. Pre-planning for emergencies and rescue
7. Ice properties, formations and types
8. Ice hazards
9. Effects of swiftwater hydrology on ice formation
10. Cold water considerations
11. Medical and decontamination considerations
12. Personal and team equipment
13. Communications
Practical
14. Ice testing procedures
15. Walking on ice
16. Self-rescue from ice
17. Throwbags and other conditional rescues



Safe Working On Ice for Production Crew (SWIPC) learning outcomes and key teaching points

	Skill sheet element		Learning outcome	Key teaching points
1	About Rescue 3	1.1	Recognise the role of Rescue 3 Europe as an accrediting body.	Rescue 3 as an accrediting body. Designing safety and rescue courses – not just ‘rescue’.
		1.2	Recognise the different industry training courses available within the Rescue 3 scheme	Courses for emergency services, whitewater professionals, construction workers, environment agency personnel, production crews etc.
		1.3	Recall the remit and role of people trained to SWIPC level	The SWIPC course trains production crew who work or travel on ice over lakes, ponds, and reservoirs, or rivers that are completely frozen over. Recertification requirements.
2	Training standards and legislation	2.1	Recall local or national legislation that affects safe working near or in water.	Local or national safe working legislation and how it affects production crew at work.
3	Safe systems of work	3.1	Identify the elements of an effective safe system of work (method statement)	Hazard identification, risk assessment, method statement, rescue plan, permit to work, dynamic risk assessment, site/team briefing, operations, evaluation.

SWIPC



	Skill sheet element		Learning outcome	Key teaching points
4	Production crew working with safety advisors	4.1	Recall the role of a safety advisor to a production crew	Off-site safety advisor/pre-planner. On-site safety advisor. Ensuring safety of cast and production crew members in potentially hazardous environments.
		4.2	Be aware of appropriate training and qualifications that safety advisors should hold	Rescue 3 qualifications relevant to the areas that the safety advisors to production crew will be working in, such as water, rope, boat, confined space and ice qualifications
		4.3	Identify the duties that a production crew have when working with safety advisors	Adhering to safe systems of work including risk assessments. Following on-site instructions from safety advisors. Basic understanding of the capabilities and limitations of the safety team - eg is or isn't it possible to safely get the perfect shot?
5	Risk assessments	5.1	Identify the elements of an effective generic or site-specific risk assessment	Awareness of generic and site-specific risk assessment (5 stages).
		5.2	Identify the elements of an effective dynamic risk assessment	Real-time process ensuring actual situational risks are identified, evaluated and managed, that may not be covered by written risk assessment process.
		5.3	Perform a dynamic risk assessment of a work site.	Real-time process ensuring actual situational risks are identified, evaluated and managed, that may not be covered by written risk assessment process.



	Skill sheet element		Learning outcome	Key teaching points
6	Pre-planning for emergencies and rescues	6.1	Recall what information a crew member will need to know when pre-planning for emergencies and rescues when working on ice.	What'll happen if a crew member falls in? Who's going to rescue them/me? Alerting emergency services. Lone worker considerations. Colleague rescue capability, including training, pre-positioning and access to rescue tools. Cold water immersion considerations – packaging eg survival bag, change of clothes.
		6.2	Recall control measures to avoid accidents and emergencies working on ice environment	Training, PPE, on-site briefing, colleague rescue capability, including training, pre-positioning and access to rescue tools.
7	Ice properties, formations and types	7.1	Recall the factors that affect ice formation and strength.	• Factors affecting ice formation • River ice vs lake ice • Ice types • Factors affecting ice strength • Ice thickness minimums
		7.2	Recognise the various types of ice and recall their corresponding properties.	
8	Ice hazards	8.1	Recognize ice specific hazards that may affect the safety of production crew.	• Fluctuating water levels, • Thermal constriction and expansion • Cracking • Radiant heating • Overflow • Dynamic ice • Floating ice • Anchor ice
9	Effects of swiftwater hydrology on ice formation	9.1	Identify water features, hazards and suitable control measures.	River hydrology including speed, depth and width. Current vectors. Waves. Stoppers. Eddies. Eddy lines. Downstream Vs.
		9.2	Describe how hydrology will affect the formation of ice.	Relate how basic river features and hydrology will effect the formation of ice and assist in size-up of an operation and risk benefit analysis
10	Cold water considerations	10.1	Recall signs and symptoms of cold water shock	Cold water shock. Reduced capability.
		10.2	Recall coping strategies when faced with accidental immersion in cold water	1-10-1 rule. Appropriate PPE when working in water, eg drysuits with thermal layers, wetsuits.



	Skill sheet element		Learning outcome	Key teaching points
11	Medical and decontamination considerations	11.1	Identify the affects of cold water immersion on the body.	Define cold water as anything less than 21C. Define cold shock, cold incapacitation, acute hypothermia and circum-rescue collapse. Cold water gasp reflex, shell to core shunting of blood. Autonomic conflict.
		11.2	Identify signs, symptoms and treatments for mild/severe hypothermia and drowning.	Hypothermia symptoms and treatments. Submersion injuries and drowning.
		11.3	Identify personnel at risk to the previous medical conditions and control measures put in place to minimize this.	Production crew. Training. Safety cover. PPE. 1-10-1 rule as it applies to static water ice submersion. Mild and severe hypothermia Submersion injury. Resuscitation recommendations. Decontamination procedures.
		11.4	Apply decontamination procedures post-exposure.	Check, clean, dry. Hand wipes, face wipes, cover cuts etc.
12	Personal and team equipment	12.1	Identify personal protective equipment (PPE) for working on ice.	Likely equipment supplied by organisation. Personal equipment, eg ice rescue suit, or drysuit and thermal layer plus buoyancy aid.. Footwear, knives, throwbags, gloves, sunglasses/eye protection.
		12.2	Perform a buddy check.	Buddy check of colleague..
		12.3	Identify technical and team equipment for working on ice and performing colleague rescues.	Team/other equipment: Throwbags, reach poles, floating aids, survival bags, group shelters, welfare packs, spare change of clothes. Ice screws, ice rescue tether kits - commercial and improvised, ice rescue reels, cold water rescue slings.
		12.4	Recall post-use care and inspection procedures for technical and team equipment.	Check, clean, dry. Check hardware for cracks, burrs, damage, corrosion etc. Inspect textiles for fraying, cuts, exposure to chemicals, contamination.



	Skill sheet element		Learning outcome	Key teaching points
13	Communications	13.1	Recognise hand signals that can be used in a water/ice environment.	Hand signals – OK, help, stop, direction, medical assistance.
		13.2	Recognise whistle signals that can be used in an water/ice environment.	Whistle signals – stop, upstream, downstream, emergency.
		13.3	Identify other methods of communication and their limitations.	Other methods of communication – radios, mobile phones. Benefits and limitations of each method, eg battery life, water resistance, signal strength.
14	Ice testing procedures	14.1	Perform an assessment of the ice to determine its thickness and relative strength.	Using an ice screw, the type and depth of ice can be determined through feel as the screw moves downward. While this is fairly conservative, 10cm of clear ice is considered safe ice. Therefore 20cm inches of white ice is also safe.
		14.2	Perform a basic belay technique for a lead ice tester.	Keep it simple - Have single line body belay (or just hold the rope) while a second person advances onto the ice. Once on the ice, the leader should test the ice by placing an ice screw. Assuming the ice test reveals safe ice. The belayer can then advance across the same path as the leader and reset the belay at the test hole. Repeat as needed. Frequency of test holes will depend on how consistent the data is and what the consequences of falling though are.



	Skill sheet element		Learning outcome	Key teaching points
15	Walking on ice	15.1	Demonstrate weak ice procedures.	Students should be taught to test the ice if they are unsure or unprepared to fall through. At any point if the ice begins to crack or pop the should gently lower their weight until they are crawling or sliding on their belly. Don't run or drop down to the ice. If walking in a group the group should spread out and get low.
		15.2	Demonstrate how to retreat back to safe ice.	Retreat to safe ice by sliding or crawling back towards the shoreline following the same path you came from.
		15.3	Demonstrate how to minimize risks associated with walking on ice.	Getting low not only distributes your weight better but it also decreases the consequences of breaking though. You will be less likely to injure yourself and will likely be able to keep your head above water lessening the cold water gasp reflex.
		15.4	Determine when ice is safe to walk on.	Ice testing procedures.
16	Self-rescue from ice	16.1	Demonstrate the ability to self rescue from a fall through the ice into water.	With and without ice picks. Get as much of your upper body on the ice as possible. Get your elbows out in front of your body and on the ice mantle. Put your head down on your arms or the ice. Float your feet up, then kick your feet Start to crawl with your arms while keeping your head down and kicking Get a knee up on the ice Continue to belly slide/crawl or roll away from the weak ice. Students will have the tendency to try to use strength and get out the same way they would in a pool. Often this will work during courses if we have a solid ice mantle. Remind them that if they fell through they would likely have a weaker mantle. Try the same process again with ice picks. You will notice that some students who got out without picks can't get out with picks. If this is the case it is likely because they are no longer using good technique and are trying to muscle out!



	Skill sheet element		Learning outcome	Key teaching points
17	Conditional rescues	17.1	Identify rescue options and the limitations of conditional rescues.	Talk, reach pole, throwbag. Requires victim to be able to help in their rescue.
		17.2	Identify, check and prepare suitable equipment for performing a conditional rescue.	Reach pole, throwbag.
		17.3	Perform conditional rescues in a variety of locations including talk reach and throw.	Emphasise the importance of good coaching. If we can talk them through a self rescue that is likely the best bet. For a reach rescue to work the subject still needs to have a decent amount of strength. Try to pick a system where by the subject does not rely on grip strength alone. Throw rescues are often more practical because you can often reach the subject at a further distance and they can wrap the rope around their arms to minimize the need for grip strength. Unlike in water rescues, in ice rescues, it is ok to ask the subject to wrap the rope around their arm a number of times. Throwing or pushing out a rescue sling would be ideal as it can be placed around their body and it floats. Teach standard underarm throws and basic coiling techniques.
		17.4	Assess subject and environment in order to perform conditional rescues.	First evaluate the subject's condition to determine which tactic to employ. If the subject is not wearing a PFD the first step will be to get them something that floats. This can be thrown or pushed to them. Remember this course is surface water rescue..... not dive rescue. If they have flotation on and are not in a moving water environment there is no need to rush. Take the time to get things organised before proceeding.





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