

Surface Rescue Swimmer School

Disentanglement Procedures
Free Floater/Helicopter Aircrew
LT 3.5



Enabling Objectives

- List disentanglement procedures in both day and night conditions for survivors both with and without aircrew survival equipment.
- Demonstrate disentanglement procedures in both day and night conditions for survivors both with and without aircrew survival equipment.

DISENTANGLEMENT PROCEDURES FOR FREE FLOATER

WARNING

Inhalation of composite fibers resulting from aircraft fires and/or aircraft material damage may be harmful to rescue personnel. If smoke is present, the rescue swimmer shall be deployed up wind and will approach the aircraft in a manner as to avoid any smoke. Discard wet suit if it becomes impregnated with composite fibers.

DISENTANGLEMENT PROCEDURES FOR FREE FLOATER

NOTE

Equipment worn by the survivor determines the procedures to be used in parachute disentanglement.

DISENTANGLEMENT PROCEDURES FOR FREE FLOATER

- ASSESS the situation to determine if survivor (s) are conscious, unconscious, passive, or active. Assessing the situation begins before water entry. The situation may change at any moment.
- ESTABLISH communication to determine the condition of the survivor and make approach. Ask, “Are you OK”? The rescue swimmer shall continually evaluate the medical condition of a survivor during the entire course of rescue.

DISENTANGLEMENT PROCEDURES FOR FREE FLOATER

- Grasp survivor's harness between the shoulder blades and pull survivor into the wind and away from parachute. Obtain control of survivor "ICIC".

NOTE

Check for breathing. Give two breaths if required.

DISENTANGLEMENT PROCEDURES FOR FREE FLOATER

- CLEAR head, neck, and chest area. If survivor is conscious ask about any known injuries or conditions.
- CHECK FLOTATION, evaluate the condition of survivor's flotation.

DISENTANGLEMENT PROCEDURES FOR FREE FLOATER

NOTE

When the survivor has damaged or no flotation, the rescue swimmer may give up his/her SAR 1 vest. If the rescue swimmer chooses to give up flotation, he/she shall use appropriate conscious or unconscious survivor procedures as outlined in Lesson Topic 3.8 Combative Survivor Procedures.

DISENTANGLEMENT PROCEDURES FOR FREE FLOATER

- DISENTANGLMENT from head to toe
- SWEEP ARMS, ensure that the survivor's arms are completely clear of any debris. Once it has been verified that the survivor's arms are clear, cross the arms across the survivor's chest

DISENTANGLEMENT PROCEDURES FOR FREE FLOATER

- SPINAL HIGHWAY, using the spine as a reference, submerge and proceed hand-over-hand keeping one hand on the survivor at all times. Proceed down the back and remove any debris off of the survivor's legs. Submerge as many times as necessary to remove all possible entanglements.

DISENTANGLEMENT PROCEDURES FOR FREE FLOATER

WARNING

If survivor has a suspected back injury, use the side of the survivor as a reference. Proceed hand-over-hand along the side keeping one hand on the survivor at all times, and remove all possible entanglements.

DISENTANGLEMENT PROCEDURES FOR FREE FLOATER

- DISCARD RAFT, (if applicable).

NOTE

At the discretion of the rescue swimmer the raft may be punctured with a knife and sunk before, during, or after the survivor has been removed.

DISENTANGLEMENT PROCEDURES FOR FREE FLOATER

WARNING

Loss of ABC's is a serious life threatening condition requiring immediate medical treatment. This condition takes precedence and survivor should be recovered by the fastest means possible.

DISENTANGLEMENT PROCEDURES FOR FREE FLOATER

- Perform FINAL CHECK from head-to-toe, to ensure all shroud lines and parachute suspension lines are clear.
- SIGNAL rescue platform.
 - Day – Arm raised, thumb up.
 - Night – Arm raised, waving high intensity chemical light.

DISENTANGLEMENT PROCEDURES FOR FREE FLOATER

WARNING

- **Lack of respiratory function (breathing) is a life-threatening condition. If the survivor is not breathing, the rescue swimmer shall give two rescue breaths to the survivor, safely complete all applicable disentanglement/recovery procedures, and signal the rescue platform for immediate recovery of the survivor. After the completion of applicable disentanglement/recovery procedures, the rescue swimmer shall continue rescue breathing for the survivor every 15-20 seconds until recovery by the rescue platform.**

DISENTANGLEMENT PROCEDURES FOR FREE FLOATER

- As the rescue boat is approaching:
 - Ensure the area is clear.
 - Establish a left hand cross chest carry, grasping the survivor's gated "D" ring in left hand.
- If helicopter recovery, allow the rescue hook to touch water, discharging static electricity.
- Connect large end of rescue hook to survivor's gated "D" ring.

DISENTANGLEMENT PROCEDURES FOR FREE FLOATER

- Use appropriate procedures for rescue device selected.
- Perform SAFETY CHECK on rescue device, signal up hoist.

DISENTANGLEMENT PROCEDURES FOR AIRSAVE VEST WITH INTEGRATED BODY ARMOR (CMU-33/P22P-18 & PRU-60/P22-15) AND ASAIP VEST WITH INTEGRATED BODY ARMOR (CMU-30/P22P-15 & PRU-61)

When the survivor is wearing the AIRSAVE/ASAIP vest with body armor, the rescue swimmer shall:

- ASSESS the situation to determine if survivor(s) are conscious, unconscious, passive, or active. Assessing the situation begins before water entry. The situation may change at any moment.
- ESTABLISH communication to determine the condition of the survivor and make approach. Ask, “Are you OK”? The rescue swimmer shall continually evaluate the medical condition of a survivor during the entire course of a rescue.

DISENTANGLEMENT PROCEDURES FOR AIRSAVE VEST WITH INTEGRATED BODY ARMOR (CMU-33/P22P-18 & PRU-60/P22-15) AND ASAIP VEST WITH INTEGRATED BODY ARMOR (CMU-30/P22P-15 & PRU-61)

- Grasp survivor between the shoulder blades and pull survivor into the wind and away from parachute. Obtain control of survivor “ICIC”.

NOTE

Check for breathing. Give two breaths if required.

DISENTANGLEMENT PROCEDURES FOR AIRSAVE VEST WITH INTEGRATED BODY ARMOR (CMU-33/P22P-18 & PRU-60/P22-15) AND ASAIP VEST WITH INTEGRATED BODY ARMOR (CMU-30/P22P-15 & PRU-61)

- CLEAR head, neck, and chest area. If survivor is conscious ask about any known injuries or conditions.

NOTE

If survivor is wearing an HGU series helmet, the chin strap must be loosened prior to inflating survivor's flotation.

- CHECK FLOTATION, evaluate the condition of survivor's flotation.

DISENTANGLEMENT PROCEDURES FOR AIRSAVE VEST WITH INTEGRATED BODY ARMOR (CMU-33/P22P-18 & PRU-60/P22-15) AND ASAIP VEST WITH INTEGRATED BODY ARMOR (CMU-30/P22P-15 & PRU-61)

NOTE

When the survivor has damaged or no flotation, the rescue swimmer may give up his/her SAR-1 vest. If the rescue swimmer chooses to give up flotation, he/she shall use the appropriate conscious or unconscious survivor procedures as outlined in Lesson Topic 3.8, Combative Survivor Procedures.

DISENTANGLEMENT PROCEDURES FOR AIRSAVE VEST WITH INTEGRATED BODY ARMOR (CMU-33/P22P-18 & PRU-60/P22-15) AND ASAIP VEST WITH INTEGRATED BODY ARMOR (CMU-30/P22P-15 & PRU-61)

NOTE

The following flotation assemblies can be utilized with the ASAIP Vest; LPU-21/P, LPU-27/P, and LPU-35/P.

WARNING

Depending on flotation assembly installed, the rescue swimmer must use the appropriate inflation procedures.

DISENTANGLEMENT PROCEDURES FOR AIRSAVE VEST WITH INTEGRATED BODY ARMOR (CMU-33/P22P-18 & PRU-60/P22-15) AND ASAIP VEST WITH INTEGRATED BODY ARMOR (CMU-30/P22P-15 & PRU-61)

- DISENTANGLEMENT from head-to-toe.
- SWEEP ARMS, ensure that the survivor's arms are completely clear of any debris. Once it has been verified that the survivor's arms are clear, cross the arms across the survivor's chest

DISENTANGLEMENT PROCEDURES FOR AIRSAVE VEST WITH INTEGRATED BODY ARMOR (CMU-33/P22P-18 & PRU-60/P22-15) AND ASAIP VEST WITH INTEGRATED BODY ARMOR (CMU-30/P22P-15 & PRU-61)

- SPINAL HIGHWAY, using the spine as a reference, submerge and proceed hand-over-hand keeping one hand on the survivor at all times. Proceed down the back and remove any debris off of the survivor's legs. Submerge as many times as necessary to remove all possible entanglements.

DISENTANGLEMENT PROCEDURES FOR AIRSAVE VEST WITH INTEGRATED BODY ARMOR (CMU-33/P22P-18 & PRU-60/P22-15) AND ASAIP VEST WITH INTEGRATED BODY ARMOR (CMU-30/P22P-15 & PRU-61)

WARNING

If survivor has a suspected back injury, use the side of the survivor as a reference. Proceed hand-over-hand along the side keeping one hand on the survivor at all times, and remove all possible entanglements.

DISENTANGLEMENT PROCEDURES FOR AIRSAVE VEST WITH INTEGRATED BODY ARMOR (CMU-33/P22P-18 & PRU-60/P22-15) AND ASAIP VEST WITH INTEGRATED BODY ARMOR (CMU-30/P22P-15 & PRU-61)

- DISCARD RAFT (if applicable).

NOTE

At the discretion of the rescue swimmer the raft may be punctured with a knife and sunk before, during, or after the survivor has been removed.

DISENTANGLEMENT PROCEDURES FOR AIRSAVE VEST WITH INTEGRATED BODY ARMOR (CMU-33/P22P-18 & PRU-60/P22-15) AND ASAIP VEST WITH INTEGRATED BODY ARMOR (CMU-30/P22P-15 & PRU-61)

- Perform FINAL CHECK head-to-toe to ensure all shroud lines and parachute suspension lines are clear.
- SIGNAL rescue platform.
 - Day – Arm raised, thumb up.
 - Night – Arm raised, waving high intensity chemlight.

DISENTANGLEMENT PROCEDURES FOR AIRSAVE VEST WITH INTEGRATED BODY ARMOR (CMU-33/P22P-18 & PRU-60/P22-15) AND ASAIP VEST WITH INTEGRATED BODY ARMOR (CMU-30/P22P-15 & PRU-61)

WARNING

- **Lack of respiratory function (breathing) is a life-threatening condition. If the survivor is not breathing, the rescue swimmer shall give two rescue breaths to the survivor, safely complete all applicable disentanglement/recovery procedures, and signal the rescue platform for immediate recovery of the survivor. After the completion of applicable disentanglement/recovery procedures, the rescue swimmer shall continue rescue breathing for the survivor every 15-20 seconds until recovery by the rescue platform.**

DISENTANGLEMENT PROCEDURES FOR AIRSAVE VEST WITH INTEGRATED BODY ARMOR (CMU-33/P22P-18 & PRU-60/P22-15) AND ASAIP VEST WITH INTEGRATED BODY ARMOR (CMU-30/P22P-15 & PRU-61)

As the rescue boat is approaching:

Ensure AREA IS CLEAR.

NOTE

Survivor's lifting device is located on the right side of the vest. Lifting device could be covered by a nylon restraining flap.

DISENTANGLEMENT PROCEDURES FOR AIRSAVE VEST WITH INTEGRATED BODY ARMOR (CMU-33/P22P-18 & PRU-60/P22-15) AND ASAIP VEST WITH INTEGRATED BODY ARMOR (CMU-30/P22P-15 & PRU-61)

- Use appropriate procedures for rescue device selected.
- Perform SAFETY CHECK on rescue device, signal “ready for pick-up”.

ARMOR PLATE REMOVAL PROCEDURES

NOTE

The following procedures for armor plate removal will happen during step 6 (disentanglement head-to-toe), immediately following the check inflation step.

WARNING

The rescue swimmer must decide if performing armor plate removal procedures could cause further injury to survivor.

ARMOR PLATE REMOVAL PROCEDURES

NOTE

If vest is zippered fully, armor release beaded pull handle will not detach normally. Armor release beaded pull handle will have to be detached at snaps to remove back plate.

WARNING

Failure of armor release beaded pull handle to completely come away from survivor could cause a choking hazard to survivor. If this occurs, the rescue swimmer must detach snaps to allow back plate to fall away.

ARMOR PLATE REMOVAL PROCEDURES

- Grasp armor release beaded pull handle located on front of vest, and pull out and away (approximately 18 inches) to release back plate. If back plate does not fall away, pull free from hook/pile tape located on rear of vest and discard.

NOTE

Vest could be fully zipped which would cover access to chest plate. Unzip vest to expose chest plate.

ARMOR PLATE REMOVAL PROCEDURES

- Grasp nylon web handle on front plate, located on center of chest inside vest. Pull free from hook/pile tape and discard.
- Continue disentanglement using appropriate procedures.

RAFT EXTRACTION PROCEDURES

WARNING

Life raft must be discarded prior to final check.

NOTE

The point at which disentanglement in the life raft becomes unfeasible is the point at which the rescue swimmer should extract the survivor from the raft. Once the survivor is in the water, the rescue swimmer resumes disentanglement procedures from where he/she left off.

RAFT EXTRACTION PROCEDURES

The three effective methods of removing the survivor from the raft are as follows:

WARNING

Do not use this method if the survivor has a possible back injury.

RAFT EXTRACTION PROCEDURES

METHOD A

- The rescue swimmer gets behind the survivor, places his/her knees against the edge of the life raft, and grasp the survivors harness/flight suit (DO NOT GRAB FLOTATION) between the shoulder blades.
- Simultaneously, the rescue swimmer pulls the survivor up and over the raft lobe, and pushes down and away with knees against the raft.
- Once the survivor is in the water, continue disentanglement procedures.

RAFT EXTRACTION PROCEDURES

WARNING

Do not use this method if the survivor has a possible back injury.

METHOD B

- The rescue swimmer gets behind the survivor, and grasps the harness/flight suit between the shoulder blades (DO NOT GRAB FLOTATION).
- The rescue swimmer will roll the survivor and raft either to the right or left. Inform survivor if practical. Normally, in order to gain momentum, the rescue swimmer will rock the survivor/raft twice to the side and prepare to roll the survivor out of the raft. On the third time, roll the survivor into the water immediately righting the survivor by rolling him/her onto their back.
- Once the survivor is in the water, continue disentanglement procedures.

RAFT EXTRACTION PROCEDURES

WARNING

Use the following method if the survivor has a possible back injury.

METHOD C

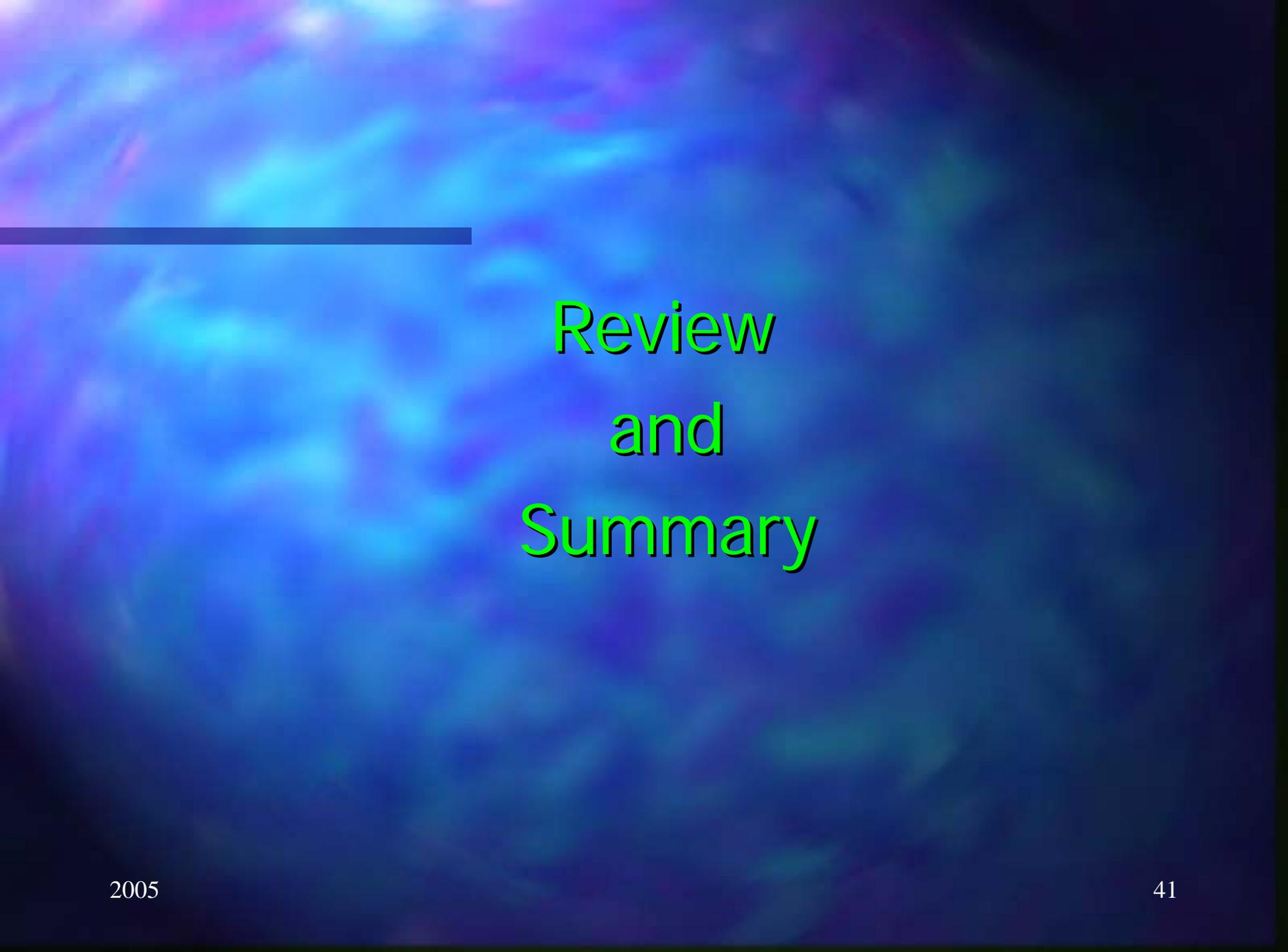
- The rescue swimmer gets behind the survivor and grasps the harness/flight suit between the shoulder blades.
- With one hand, the rescue swimmer removes his/her scabbard knife while maintaining control of this survivor with the other hand. The rescue swimmer then uses the knife to puncture the raft and deflate it.

RAFT EXTRACTION PROCEDURES

WARNING

This is done **well clear** of the survivor ensuring not to injure the survivor or swimmer.

- While the raft is deflating, the rescue swimmer may stow the knife if practical.
- Once the survivor is in the water, continue disentanglement procedures.



Review and Summary