

Summary Report for Individual Task
052-247-1332
Construct a Load Distributing Anchor System
Status: Approved

Distribution Restriction: Approved for public release; distribution is unlimited.

Destruction Notice: None

Foreign Disclosure: FD5 - This product/publication has been reviewed by the product developers in coordination with the Ft Leonard Wood MO/MSCOE foreign disclosure authority. This product is releasable to students from all requesting foreign countries without restrictions.

Condition: You are a member of an Urban Search and Rescue (US&R) team given one inch webbing, carabiners and multiple anchor points. This task should not be trained in MOPP 4.

Standard: Construct a load distributing anchor system by ensuring the anchor system fits the needs of the given incident, the system meets or exceeds the expected load, critical angle of 90 degrees is not exceeded between anchor points, and the load is equally distributed between the multiple anchors.

Special Condition: None

Safety Risk: Low

MOPP 4: Never

Task Statements

Cue: None

DANGER
None

WARNING
None

CAUTION
None

Remarks: None

Notes: All required references and technical manuals will be provided by the local US&R Command.

Performance Steps

1. Calculate the system safety factor (SSF) for the fixed rope system.

Note: A System Safety Factor (SSF) ratio of 10:1 is the minimum acceptable ratio for the load.

a. Determine the minimum breaking strength (MBS) of the rope system's weakest component.

b. Calculate the weight of the load that will be on the system.

c. Divide the MBS of the weakest component by the load weight to determine the SSF.

Note: If the minimum SSF is not obtained, replace or increase the capacity of the weakest component and re-calculate.

2. Construct the anchor system.

a. Establish two separate single point anchors.

b. Tie a wrap 3-pull 2 anchor around each anchor. (See task 031-627-2148)

c. Tie a single six-foot piece of webbing into a loop using a water knot.

CAUTION

Never use a piece of webbing longer than six-foot to tie the sliding X. If a failure should occur, longer lengths will place higher forces on the anchor.

Do not use the sling-X webbing to extend the anchor. Extend the anchor first, and then use a six-foot piece of webbing to the sliding X.

d. Cross the legs of the webbing forming an X.

e. Clip a carabiner into the X.

f. Attach the web loop to each wrap 3-pull 2 anchor using carabiners.

Note: Ensure the load is equally distributed between all selected anchors.

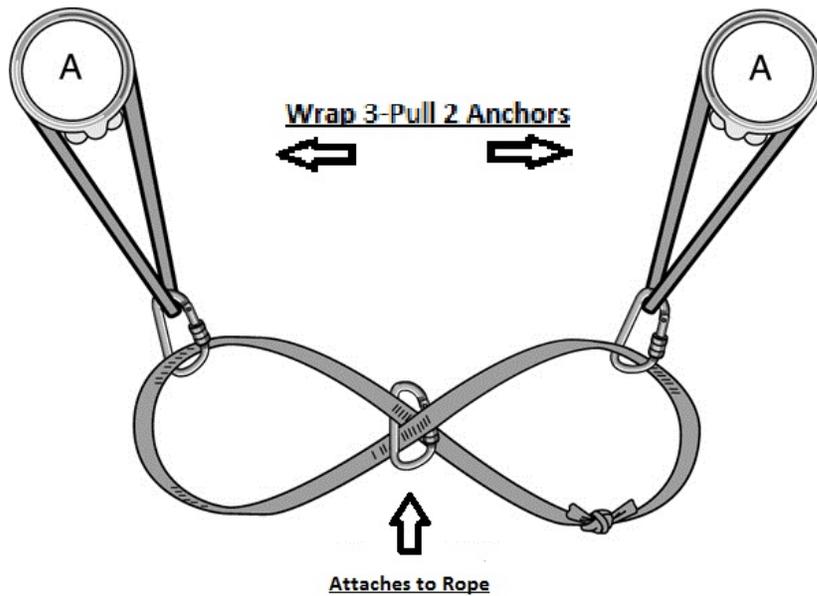


Figure 052-247-1332-1
Load Distributing Anchor System

CAUTION

The critical angle should never be more than 90 degrees in rigging applications. An angle greater than 90 degrees can result in anchor failure.

3. Conduct a system safety check. (See task 031-627-2152)

(Asterisks indicates a leader performance step.)

Evaluation Guidance: Score the Soldier GO if all measures are passed (P). Score the Soldier NO-GO if any measure is failed (F). If the Soldier fails any measure, show him how to do it correctly.

Evaluation Preparation: Setup: Provide the Soldier with all the items listed in the conditions.

Brief Soldier: Tell the Soldier to Construct a Load Distributing Anchor System.

PERFORMANCE MEASURES	GO	NO-GO	N/A
1. Calculated the system safety factor (SSF) for the fixed rope system.			
2. Constructed the anchor system.			
3. Conducted a system safety check. (See task 031-627-2152)			

Supporting Reference(s):

Step Number	Reference ID	Reference Name	Required	Primary
	CS&SRR	Confined Space and Structural Rope Rescue, Mosby - 1998, Tom Vines, Michael Roop, Richard Wright	No	No
	IFSTA - 1st Edition	IFSTA Technical Rescue for Structural Collapse, 1st Edition	No	No
	ISBN 13: 9781428320567	Technical Rescuer-Rope Levels 1 and 2	No	No
	ISBN-10: 1428324100 ISBN-13: 9781428324107	High Angle Rescue Techniques, 3d Edition 1st Edition George J. Browne, Gus Crist	No	No
	NFPA 1006	Standard for Rescue Technician Professional Qualifications	Yes	Yes

Environment: Environmental protection is not just the law but the right thing to do. It is a continual process and starts with deliberate planning. Always be alert to ways to protect our environment during training and missions. In doing so, you will contribute to the sustainment of our training resources while protecting people and the environment from harmful effects. Refer to FM 3-34.5 Environmental Considerations and GTA 05-08-002 ENVIRONMENTAL-RELATED RISK ASSESSMENT.

Safety: In a training environment, leaders must perform a risk assessment in accordance with FM 5-19, Risk Management. Leaders will complete a DA Form 7566 COMPOSITE RISK MANAGEMENT WORKSHEET during the planning and completion of each task and sub-task by assessing mission, enemy, terrain and weather, troops and support available-time available and civil considerations, (METT-TC). Note: During MOPP training, leaders must ensure personnel are monitored for potential heat injury. Local policies and procedures must be followed during times of increased heat category in order to avoid heat related injury. Consider the MOPP work/rest cycles and water replacement guidelines IAW FM 3-11.4, Multiservice Tactics, Techniques, and Procedures for Nuclear, Biological, and Chemical (NBC) Protection, FM 3-11.5, Multiservice Tactics, Techniques, and Procedures for Chemical, Biological, Radiological, and Nuclear Decontamination.

Prerequisite Individual Tasks : None

Supporting Individual Tasks : None

Supported Individual Tasks : None

Supported Collective Tasks : None