SER No	CONTENT

LESSON PLAN

LESSON PLAN : ADV 2

SLITHERING

Period - Two
Type - Lecture Demo
Code - ADV 2
Term - I (SD/SW)

Training Aids

1. Computer Slides, Charts, Pointer, Black board & Chalk.

Time Plan

2. (a) Introduction - 05 Min
(b) General information - 10 Min
(c) Slithering equipment - 10 Min
(d) Uses and techniques of slithering - 10 Min
(e) Conclusion - 05 Min

INTRODUCTION

3. The literal definition of the word slithering is to slide or glide, like a reptile. This can be better explained as descending from a height, most of the times a bridge, slowly at a controlled pace and touch the surface underneath. the thrill in this sport is to see the ground coming closer and closer as you descend down and feel the wind in your hair and with no support besides a rope, which one is tied with.

4. **It is also known as fast roping. Fast-roping**, also known as **Fast Rope Insertion Extraction System** (**FRIES**), is a technique for descending a thick rope. It is useful for deploying troops from a helicopter in places where the helicopter itself cannot touch down. First developed by the British with UK rope manufacturer Marlow Ropes, its first combat use was during the Falkland War . The original rope was a thick nylon that could be used in a manner akin to a Firepole. The special ropes used today are braided (plaited), which results in pattern on the outer circumference that is not smooth and so is easier to grip. Originally, each person would hold the rope for the next person; however this has been phased out.

AIM

5. To acquaint NCC cadets with Slithering as an adventure activity.

PREVIEW

6. The lecture will be conducted in following parts:-

(a) Part I - General Information.

(b) Part II - Slithering Equipment.

(c) Part III - Equipment Usage and Slithering Techniques. 290

(a) **PART I : GENERAL INFORMATION**

7. Slithering is quicker than abseiling (rappelling), although more dangerous, particularly if the person is carrying a heavy load, because the rope is not attached to them with a descender . The person holds onto the rope with his gloved hands and feet and slides down it. The British method advises not to use the feet as this can make the descent for following personnel more dangerous because boot polish or the leather of the boot can make the rope extremely slippery. Several people can slide down the same rope simultaneously, provided that there is a gap of approximately 3 meters (9.8 ft) between them, so that each one has time to get out of the way when they reach the ground. The rope must be thick, typically 40 millimeters (1.6 in) diameter, to prevent it from being wildly jerked about from the rotor blast of the helicopter. It is essential to wear gloves , as sliding down a rope generates great heat from friction.

8. Fast roping onto a ship can take approximately 30 seconds, and is used when a rapid build up of boarding forces is required.

9. What can go wrong? Three things:

(a) You can see in the first video that people who are fast-roping are vulnerable to small arms fire, both as they exit the helicopter and as they descend the rope.

(b) People who are new to fast-roping can misjudge their speed and land hard. This can also happen if the backpack weighs a hundred pounds or the gloves are too thin (the following 17-second video may contain one expletive at the end, but contains an excellent example of a fast-roping error).

(b) **PART II : SLITHERING EQUIPMENT**

10. **Equipment.**

(a) **Rope**. The rope has to be that thick for two reasons. Firstly if it is too thin it is hard to grip and causes too much friction (even with gloves). Secondly if it is too thin, all the wind from the props down wash will whip it around. Worst case scenario is that a thin rope somehow whips into the main rotor or the tail rotor. The rope should meet the following specifications:-

(i) The rope should be made of polyester armide.

(ii) The diameter of the rope should be 12mm.

(iii) The rope should have a working load of minimum 700 Kgs.

(iv) The rope should have a tenacity of minimum 700 K.

(b) **Gloves**. Each member of the team must wear proper fast rope gloves when sliding down the rope. The gloves need some thought as well. Braking your descent with your hands means friction and therefore heat. Too much heat can be a real problem, so thick or padded gloves are preferred. You do not want to fast-rope with a pair of thin gloves or bare hands.

(c) **Boots**. They must also wear a reliable pair of boots to provide support both in the slide and the landing.

(d) **Helmet and Knee Pads**. It is advisable that protection such as a helmet and knee pads be worn to protect the soldier in the event of a rough landing.

(c)

PART III : USES AND TECHNIQUES OF SLITHERING

12. **Uses**. Slithering is most commonly used in three situations which make landing a helicopter a potential safety hazard which are as follows :-

(a) When ground is soft or uneven making for a dangerous landing situation.

(b) Deployment into an urban setting with low building rooftops can be completed using a fast rope without having to find a large clearing to set down the helicopter.

(c) A slithering deployment can be used when there is risk of fire from the opposition as fast roping shortens the time required to get the soldiers down and on to the ground, then the helicopter moved is out of danger.

13. **Techniques**. Proper technique for the sliders is essential in ensuring that an individual on the line does not deploy too fast, risking injury on landing or falling off the line altogether. Going too slowly can cause a logjam, forcing a longer deployment time. To fast rope, the soldier grabs onto the rope with both hands then steps out of the helicopter. Using both feet the soldier pinches the rope between their boots and then increases the pressure on the rope to regulate their speed.

CONCLUSION

14. Fast roping is an insertion technique used by Special Forces in the military to deploy into a location rapidly. Whether the helicopter carrying the soldiers cannot land because of the terrain or because of fire on the helicopter from enemy forces on the ground, dropping fast ropes allows the soldiers to disembark safely and the helicopter to leave the dangerous area. Although fast roping has many benefits, it is not without its risks to the soldiers deploying. While the helicopter is deploying the troops it is a sitting duck, a situation which led to the famous "Black Hawk Down" encounter in Somalia in which helicopters deploying US Special Forces troops were shot down. Additionally, if the helicopter is forced to perform evasive maneuvers it can endanger soldiers on the rope or near the exit to the helicopter, as can a loss of grip as a soldier is sliding down the rope.