

PUBLIC ORDER MANAGEMENT

Air Support Awareness



Background

Helicopters are used in many UN Missions, as the large areas that are covered require a form of transport that will not be restricted to the roads, which are often poor and affected by extremes of weather.

FPU's can be deployed by helicopter when there is the need for a rapid response, or the distances involved or the destination make the use of their vehicles impractical.

The use of helicopters offers mobility to the FPU; it allows avoiding ground obstacles and reduces the time to reach the area of operation. It may be particularly useful in case of barricades (example of MINUSTAH during presidential elections, when all roads in the city were barricaded).

This module is a basic awareness session in case the officers are deployed by this means.

Aim

To familiarize FPU members with the safety procedures when deploying with UN Helicopters

Learning outcomes

At the end of this module the FPU members will be able to:

- Define the general safety information
- Embark and disembark safely

Training sequence

The material of this module is designed to be delivered over 90 minutes classroom based theory lessons followed by 5 hours of practice, which should include at least one hour for assessment. This is on the assumption that the students have received no previous training on this subject.

Duration

Minimum Session time	Lecture/Presentation	Question/Assessment	Session Activities
2 hours	1 hour	0 mins	1 hours
Additional Options	Mission Specific	Optional film	Optional activity

Methodology

This module contains one PowerPoint theory presentation to explain and show the various techniques. However, the majority of this module should be taught in a practical manner using the format:

- Explanation by the instructor
- Demonstration by the instructor
- Imitation by the students (with instructor correcting where necessary)
- Practice by the students until the technique is perfected

At the end of the final stage the instructor will be able to assess if the student is competent in the technique having carried out continuous assessment throughout the preceding lessons.

The instructor should inform participants of the content, format and timing. Knowing what to expect, participants can improve their ability to focus on the subject and benefit better from the session.

- Theory of Air Support Awareness (1 hour classroom lesson)
- Practice (1 hours of practical lesson)

The practice should be carried out over a number of days and the instructors should be aware that the physically demanding nature of deploying the FPU in Public Order Management techniques must be carefully managed so that the students do not get fatigued as this is likely to lead to injury.

A number of the practical periods should be conducted in the form of exercises, which should be carried out in as realistic situation as possible with the use of other officers acting at 'Mob crowd'

When training a full FPU it is recommended that this module is taught not more than one platoon and then additional practice time is given to bring the whole FPU together for co-ordinated training.

Instructors are encouraged to add practical examples and mission specific information related to the specific deployment of participants, if known.

Instructor Profile

This module is best presented by an instructor who has practical experience in Public Order Management in peacekeeping operations and who could share his/her experience with the group. He must be practiced and skilled to be able to demonstrate the technique correctly. If there is more than one instructor, at least one of them should have practical experience as Public Order Management trainer in either domestic policing or a peacekeeping mission.

Instructor Preparations

Required Readings

- DPKO Policy on Formed Police Units in United Nations Peacekeeping Operations
- FPU Training Handbook
- Basic Principles on the Use of Force and Firearms by Law Enforcement Officials
- FPU Policy and SOPs

General Preparations

Equipment:

1. Computer and PowerPoint slides for lesson 1
2. Projector and Screen for lesson 1
3. Airfield and helicopter (simulation)
4. Vehicles and APCs
5. Crowd control equipment
6. For the practice of the techniques, a mock crowd should be used in order to bring in realism, intensity, and evolving constraints (if necessary).

Training Area:

The initial lesson should be carried out in the classroom. Once the students have grasped the basic tactics, the FPU will need to practice their tactics in a more realistic and operational situation. For this purpose a spacious field is ideal, where the FPU command staff will order/simulate the embarking and disembarking of a helicopter in normal and tensed situations.

Session notes

Lesson 1 – Air Support Awareness (theory)

Contents:

CONTENTS
<ul style="list-style-type: none">• Aim• Learning outcomes• Tactical considerations• General safety information• Embarking / Disembarking• Summary

Slide 2

AIM
<p>To familiarize the FPU with the safety procedures when deploying with UN Helicopters</p>

Slide 3

LEARNING OUTCOMES

On completion of this module the participants will be able to:

- Define the general safety information
- Embark and disembark safely

Slide 4

Tactical considerations

- Nature of the mission
- Unit requesting
- Opposing forces (if applicable)
- Equipment of the unit transported/needed
- Boarding point
- Date, Time
- Deadline for intervention

Slide 5

Passenger transportation is an air movement of passengers from one location to another, using UN aviation assets. It differs from the air support operation which is the movement by helicopter of elements ready to engage after landing. This operation requires careful planning.

Air support operation aims at protecting vulnerable groups, supporting legitimate security forces, securing areas not yet fully secured and directly engaging hostile elements, such as demonstrators.

The advantages of the air support operation are mainly the capacity to intervene quickly and to avoid ground obstacles.

The disadvantages are the availability of the aircraft, the interoperability of

communication devices and the fact that the unit will only be able to act on foot after landing. The practicability of the helicopters can also be affected by darkness, (night, fog) harsh weather conditions, the need for a large enough area to land.

Helicopters are also vulnerable to attacks (stones, smoke, any type of projectile...) and are easy targets. This has to be factored in before deciding to use helicopters when it seems difficult to secure an area for landing. Intelligence gathering is important in order to determine in advance which level of resistance the helicopter may face while landing. In any case, contacts with the crowd need to be avoided and the landing zone will be chosen in function of security criteria. Information on where the demonstration or hostile situation is taking place, on the intent, number, attitude, position of the demonstrators and on the terrain must be shared with the aviation unit and with the pilot and its crew. Constant communication liaison has to ensure that the deployment, the landing and take-off will be realized without any risk for the helicopter and the occupants.

Details on the correct use of FPU equipment and weapons will be provided in Slides 9 and 10.

Transportation of Dangerous Goods

Dangerous Goods (DGs) are any articles and substances having properties that, if uncontrolled, could adversely affect the safety of the passengers, crew or aircraft on which they are carried. The IATA regulation is issued in order to provide procedures for the shipper of dangerous goods, and guidelines for the operator of UN military aircraft that facilitate the safe transportation of dangerous items. While DGs may be transported in military aircraft in accordance with national regulations, UN aircraft operators must adhere to IATA and International Civil Aviation Organization (ICAO) procedures, national and UN procedures (**whichever are more stringent**) regarding the movement of dangerous goods in military aircraft.

In the mission area, some pilots may be very reluctant to transport dangerous goods. Pre-briefings and meetings should be held with the military and civilian aviation unit in order to discuss in advance administrative and technical modalities prior to any request for air support operation.

Any request for an air movement should be given in line with the guidance for the individual UN PKO Mission. However, it will include the basic information as stated on the slide, namely boarding point, date and time.

Planning considerations

- Helicopter capabilities
- Detailed briefings and coordination on air support with concerned units
- Coordination required between different types of helicopters (civilian or military)
- Area of operations
- Security situation/threat analysis
- Weather conditions
- Terrain, obstacles and safety altitude
- Host nation clearance
- Coordination with ground security forces
- Directives on Use of Force

Slide 6

The prime responsibility of the air operations staff is to assign tasks to military/civilian aviation unit best suited for a particular operation.

Slide 6 lists planning considerations for task assignment before any deployment of FPU by helicopter.

Helicopter capabilities

Basic questions should be raised such as:

- Is the helicopter designed and equipped to perform the mission or intended task
- Is the helicopter designed and equipped to perform air support tasks
- Is required specialized equipment available
- Has the helicopter some operational/technical limitations
- Is the helicopter communications system compatible with ground troops
- Has the helicopter self-protection capacity and VIP seating configuration
- Is the helicopter equipped with medical specialized equipment
- Is the helicopter equipped for visual/electronic surveillance

Detailed briefing and coordination

As soon as the unit has been tasked by the FPU Coordination Office, coordination should be made with the aviation unit and the captain of the helicopter. Briefing will focus on the planning and aims at informing/refreshing the FPU Commander about security during the embarking and disembarking phases, the authorised equipment to be loaded on the helicopter and all related details about the air movement. The briefing will also deal with the number of police officers to be transported. The captain of the helicopter is the only authorized person to assess the maximum capacity on board. The FPU Commander and the captain will plan how many rotations to be made if the whole unit needs to be deployed. Based on the authorised capacity, the unit will be split in platoons, sections or even teams. The

most common helicopters used in UN mission are MA28 with a maximum capacity of 20 (two sections) passengers. In case of several rotations, the FPU Commander (or his officer in charge) will be part of the first rotation, while for the following ones, only one of the two section commanders will be designated to liaise with the pilot. Even in emergency situations, the Passengers' manifest will be provided to the aviation unit, MOVCON and the pilot, as per UN rules.

Coordination between different types of helicopter (civilian or military)

UN mission have both civilian and military aviation assets. The capabilities of rotary and fixed wing aviation are examined in terms of their employment concept, tasks, organization and support requirements.

The Chief of Service Delivery reports to the Director or Chief of Mission Support (DMS/CMS) and centrally manages and exercises tasking authority on behalf of the DMS/CMS over all assigned uniformed logistics personnel and enabling units, including UN military aviation assets (with the exception of those aviation assets in direct support of military operations), along with signals, engineers, transportation, medical and explosive ordnance disposal. In UN peacekeeping operations, military and civilian aviation assets have distinct, complementary and sometimes overlapping roles. Notwithstanding these overlapping roles, military aviation assets remain under the formal operational control of the commander.

When the operation relies on helicopters being under the authority of the DMS, planning is carried out with the relevant civilian sections/units. During the course of an operation, in case of emergency and of availability of both civilian and military helicopters under the force commander authority, planning and coordination must be carried out with both the civilian and the military authorities. The helicopter capacity will always have to be taken in consideration and, in case of several rotations, priority will be given to the helicopter with the highest capacity in order to reduce time of movement.

Area of operations

In case of planned operation, a recce of the area of operations will be carried out by the pilots in order to collect information of the terrain, take pictures, identify potential obstacles that could impede the landing and take-off.

Information on the characteristics of the terrain, the area, the potential hostilities and/or any other information about the potential risk for the passengers will have to be collected.

Security situations/threat analysis

Each aviation activity is subject to an assessment defining the requirements and conditions for the activities to be accomplished. The risk assessment should

comprise the following steps:

- Hazard identification – analysis of the conditions for the activity to be accomplished;
- Evaluation of risk – risk assessment as the application of quantitative and qualitative measures to determine the level of risk;
- Analysis of risk reduction options – the purpose is here to investigate specific strategies and tools that reduce, mitigate or eliminate the risk;
- Risk decision – choice of risk mitigation measures;
- Implementation of risk mitigation measures;
- Supervision and feedback.

Weather conditions

Weather conditions – heavy rain, storms and sand storms - may impede the use of helicopters.

Terrain, obstacles and safety altitude

The size of Landing Zone (LZ) for a helicopter is in the region of 30 metres by 30 metres, although the pilot will be able to give the precise measurements which will be dependent on the size and type of helicopter being used.

Due to the movement of the rotor blades, there are certain restrictions on the slope of the ground therefore the following are important parameters when selecting a LZ:

- Front incline no greater than 6°
- Rear incline no greater than 10°
- Side incline no greater than 8°

The LZ itself should be clear of all obstacles and as flat as possible, there should be no obstacles greater 10 meters within 200 m of landing axis in case the helicopter is blown off course by side winds. It is as well important to check that nothing on the ground may blow off and hamper the rotor blades.

A firm surface is required and a physical inspection of the LZ should always be carried out to ensure this. In certain climates, grass growing over swamp can make the ground surface appear flat and solid when in fact it is comprised of clumps of grass in boggy ground.

Host nation clearance

All authorizations related to air movements will have to be submitted to the local authorities.

Coordination with ground security forces

The landing and take-off zones must be secured by ground security forces. Therefore communication between the helicopter and the ground security forces must be continued.

Directive on the Use of Force

Upon arrival on the area of operations, force may be used in order to protect the unit's disembarking. Force is used according to the principle defined in the Directive on the Use of Force and the FPU Policy.

Safety procedures

The safety procedures are divided in 5 steps:





- Before embarking
- While embarking
- On board
- While disembarking
- Flight by night

The FPU has to be trained on the 4 first steps by night and during the day.

Slide 7

Slide 7 introduces the different safety procedures to be adopted in the different steps of air movement by helicopter. Details will be provided in the following slides.

General safety considerations

- Wait away from the helicopter path, the wind should be coming from your back. 
- Stay in a position where the downwash will not be blown towards you.
- If blinded by swirling dust, STOP. Crouch lower, or sit down and await for assistance. 
- Carry tools, large weapons, etc, horizontally below waist level – never upright or on the shoulder.
- Never reach or chase after hat or other articles that blow away. 
- Protect your eyes against blown dust and particles
- Do not approach or leave the helicopter when the engine and rotors are running down or starting up. 

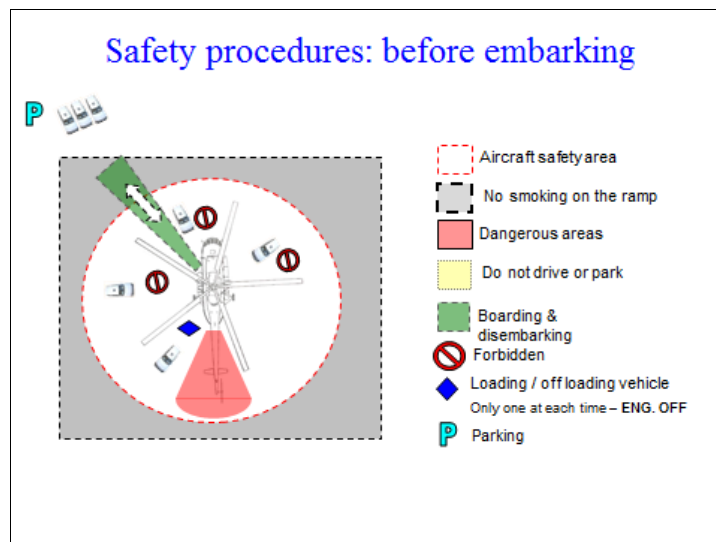
Slide 8

More than half the UN fleet comprises helicopters and over 50% of the fixed wing aircraft are propeller driven. Passengers need to remain well clear of propellers and helicopter rotors even when they are not rotating. The tail rotor of the helicopter is especially dangerous as it does not enjoy much clearance from the ground. The golden rule is to respect the procedures that are in force at the Mission's level.

Slide 8 lists some of the most important safety measures to comply with while approaching the helicopter. Running engines produce jet and propeller blast that is a large mass of air propelled rearwards at high speed. Being in the 'blast area' can be very destabilizing for personnel and material. While this blast can be lethal when the aircraft is at full power, it could cause sufficient damage even when big engines are running at idle power. You need to stay well away from the areas that are likely to be affected by the blast.

Safety procedures: before embarking

- Objective:
 - Secure positioning while waiting for the helicopter or flight
 - 15 meters minimum away from the landing zone
- Considerations:
 - No movement within the landing zone (LZ)
 - Helicopters always land into wind
 - Position visible by the pilot and co-pilot
 - Do not approach the aircraft from the rear
 - Equipment fixed on body (helmets, batons, shields...)
 - Teams adopt kneeling position when the aircraft is approaching (slide nr 10)



Slide 9 and 10

An imaginary circle around an aircraft as seen on the screen is not to be violated unless you have specific business close to the aircraft. Vehicles are to remain well outside this circle and parked in a manner such that they are facing away. Do keep in mind that boarding in most cases is done from the left side of the aircraft. The red areas around the engine are 'dangerous areas' and you should keep well clear of them. Observe the no smoking limits and do not walk or stand on the areas marked on the screen in yellow.

Precautions to be observed around the helicopter are similar to those around a fixed wing. However, do keep in mind that the rear of the helicopter is the most dangerous area. Never infringe this area near the tail rotor, marked in red on your screen. Also, when approaching the helicopter, stay within view of the pilot. Under normal circumstances it is forbidden to board or disembark a helicopter with the rotors running. However, if you have to do so on any occasion, make sure that you

follow crew instructions and remain in the area marked in green.

Safety recommendations before embarking are listed in Slide 9.

Officers must ensure that they adjust their equipment properly and securely. Avoid all moving parts. Fatal injury can occur if officers walk into danger areas, (these are normally the rotor blades and the exhaust outlets, normally located around the rear of the aircraft). Never approach helicopters from the rear.

Officers should have prepared their equipment prior to the arrival of the helicopter and secured weapons and crowd control equipment. Sticks and weapons must be firmly held in the hand, shields kept close to the body, gloves on, visors down, no caps or berets on the head. Everything must be secured so that it will not be blown off. This is especially true for shields which may deteriorate the rotor blade or injure other officers. Officers must keep the kneeling position during the approach of the helicopter in case of emergency (please refer to Slide 12).

Ammunition and in particular grenades of any type must be secured, preferably in a bag or inside the officers tactical jacket. It is usually prohibited to embark with detonators assembled on the grenades and no ammunition on the weapons. The situation may require acting differently but in such a case, specific orders or waivers will be granted by the mission leadership.



Slide 11

Unlike fixed wing aircraft, when helicopters come to land their engines are running at very high power. Consequently, the rotor down wash below the helicopter is very strong. This strong downwash is capable of flattening weak structures that lie just short of the landing site. Also personnel in that area could be affected quite adversely, especially if it is a big helicopter like the Mi-26. As helicopters always

land into wind, the safest place to wait is upwind and away from the helicopter path. While waiting, you are well advised to face away during the takeoff and landing.

Safety procedures: before embarking

- *Kneeling position during the approach of the helicopter if emergency situation*



Slide 12

Safety procedures: while embarking

- Objective:
 - Safe embarking upon order of the crew team members or pilot
- Considerations:
 - Movement towards the cabin from the left side of the helicopter except if instructed differently
 - Mobile phones switched off
 - Door is opened by the crew
 - Do not rush
 - Individual sidearm is in the holster (see general considerations)
 - Rifle are held with the sling
 - Gas/smoke canisters should be transported separately
 - Do not throw object outside or inside the helicopter

Slide 13

Slide 13 outlines the safety recommendations while embarking.

Safety procedures: while embarking

- Use handle if necessary and present
- Watch over your head for any device which can hurt you



Slide 14

The crew will show the route to follow. Use the handle while embarking.

Safety procedures: on board

- Objective:
 - To position the members inside the helicopter, seated and seat belt fasten
- Considerations:
 - Sitting position during the take off, flight and landing
 - Respect the positioning
 - No radio communications inside the cabin
 - Equipment is secured/attached in the middle of the cabin
 - Avoid all moving parts
 - Permanent visual contact with the crew or the pilot
 - Do not bend on the lateral doors
 - Seat belt are removed upon order of the crew or pilot

Slide 15

Slide 15 lists the safety recommendations to be respected on board.

Safety procedures: on board




- *Secure equipment with tripping hazard (net)*
- *Position inside the cabin according to the teams composition and to the attribution of seats*
- *Free access to the emergency exit*

Slide 16

Slide 16 gives an indication of how the seating arrangements should be taken in the helicopter, although the internal layout will vary between different types of helicopters. It is preferable to keep long barrel weapons pointed to the ground in the helicopters, avoiding the risk of people being hit by the barrels during movements or turbulences. It also limits the risks of accidental weapon discharge which would damage the rotor blade during the flight (even though, there should be no ammunitions in the weapons).

Safety procedures: while disembarking

- **Objective:**
 - Safe disembarking upon order of the crew team members or pilot
- **Considerations:**
 - Remove seat belt upon order of the crew or pilot
 - Disembarking on the left side under supervision of the crew
 - Use steps to get out of the helicopter or jump in case of emergency
 - If direct jump, use your right hand to help



Slide 17

Slide 17 lists the safety procedures while disembarking.

Safety procedures: by night

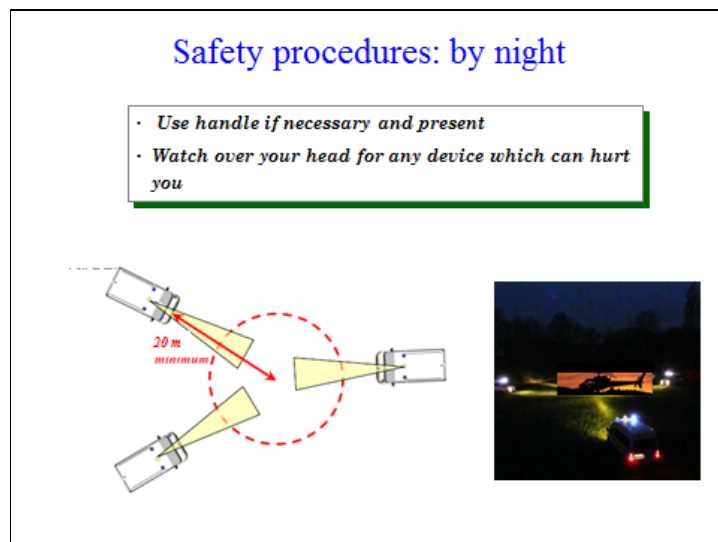
- Objective:
 - Safe approach to the helicopter
- Considerations:
 - Lack of light will increase the timing for landing, taking off and ensuring rotation of the FPU members
 - Landing zone should be cleared of any object
 - Landing zone should be lighted by vehicles if no other means
 - At least 3 vehicles, lights on

Slide 18

Day Marking can be indicated by smoke (although not red), cones or a large 'H' marked in white tape surrounded by a circle.

Night marking should be by means of an illuminated "T". This can be formed by Reflector sticks, the lights of 4 vehicles or fire in barrels as illustrated in slide 19.

The landing zone should be clear from any cables.



Slide 19

Positioning of vehicles is illustrated in Slide 19. Vigilance must be increased when moving around the helicopter by night. Some helicopter may be equipped with projectors in order to ease their landing manoeuvres. If additional lighting system is

available on the FPU vehicles it must be used to lighten the landing zone.

Embarking

- Objective:
 - Safely embark upon order of the pilot or crew
- Considerations:
 - Boarding capacity
 - Equipment preparation
 - Standby position (standing or kneeling if rotor is in function)
 - Movement towards the helicopter upon order of the crew or pilot
 - Embarking on the left side, door opened by the crew
 - Embarking by teams, starting with the team leader, followed by the buddy teams, starting with the baton holder and then the shield holder

Slide 20

Slide 20 lists the tactical considerations while embarking.

Embarking

- *Order for embarking:*
 - *Team leader (n#1)*
 - *1st baton holder (n#2)*
 - *1st shield holder (n#3)*
 - *2nd baton holder (n#4)*
 - *2nd shield holder (n#5)*
- *Tactical positioning*

Slide 21

Lining is the normal method for embarking onto a helicopter; the unit forms a line of officers with a person in charge of each individual 'line'. They are situated on either side of the helicopter ready to embark when instructed; each 'line' works independently on the instructions of the pilot or crew of the helicopter.

The number in each 'line' will depend on the capacity of the helicopter which will normally be in the region of 20 passengers, dependant on type, so each line would normally be half that number.

The team leader or section commander will lead the line. Please note that the

embarking order to the helicopter is the opposite of the standard emergency disembarking from a vehicle. The embarking procedure keeps the buddy spirit.

Tactical positioning refers to the position of the shield holder; while embarking and in case of aggression, he will be at the back so to be able to protect the team. His tactical positioning will be also applied in the disembarking phase; the shield holder will be the first to disembark in order to face the potential threats.

Disembarking

- Objective:
 - Safely disembark upon order of the pilot or crew
- Considerations:
 - Upon order of the crew, release the seat belt
 - Disembarking upon order of the crew or the pilot
 - Disembarking on the left side, door opened by the crew in teams, starting with the 1st buddy team, 1 shield holder and 1 baton holder, followed by the 2nd buddy team and then by team leader
 - Movement upon order of the team leader
 - Reform the team (see next slides 2 options)

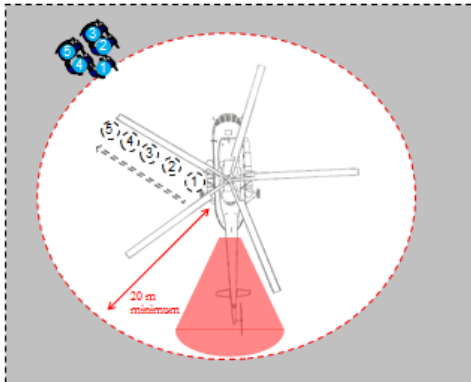
Slide 22

Slide 22 lists the tactical recommendations while disembarking. The order of disembarking will be the opposite of the one described when embarking Slide 21.

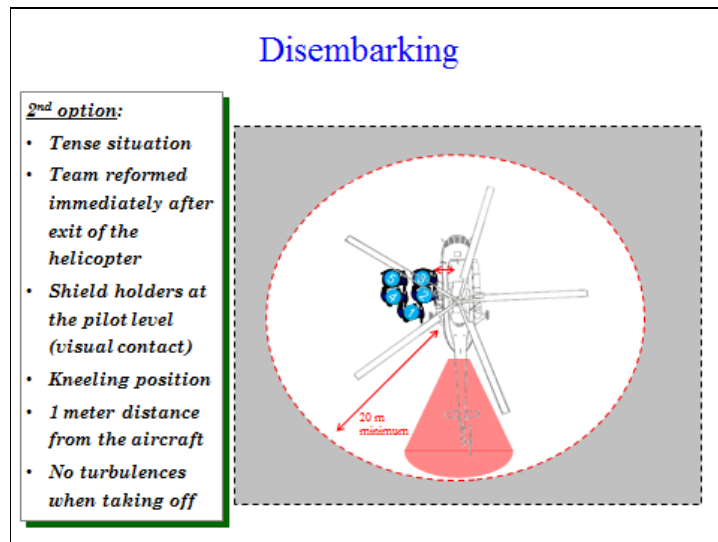
Disembarking

1st option:

- *Tactical positioning respected*
- *Normal situation*

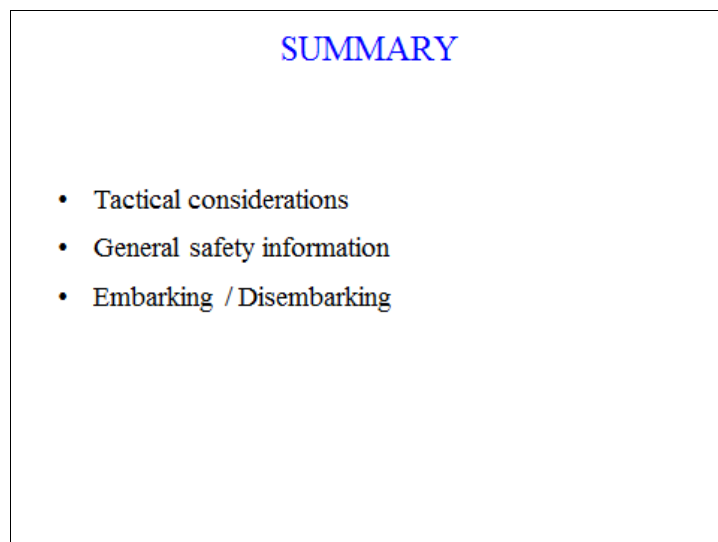


Slide 23



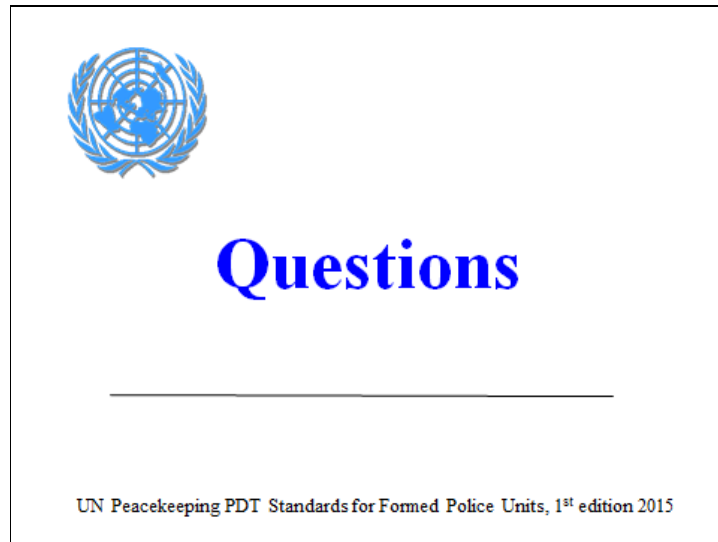
Slide 24

In case of immediate aggression, the sections will stay in teams, under the wings, at the level of the pilot, in kneeling position, in order not to be subject to turbulences if the helicopter is taking off. This option will only apply to the last team disembarking.



Slide 25

The officers should be given a summary of the key points of the lesson before being asked if they have any questions.



Slide 26

Lesson 2 – Air Support Awareness (practice)

There is one hour of practice recommended for this subject which should be carried out at the discretion of the instructor. The practice should be as realistic as possible due to the fact that helicopters should not be made available for training purpose.

In UN missions, the request has to go through the DMS/CMS for approval. The APCs must be made available to practice the manoeuvres.