

# 4 Wheel Drive SMM-OSCE





# AGENDA

## Theoretical Part:

- basics
- vehicle inspection
- tools and equipment
- convoy rules
- map-basics

## Practical Part:

- familiarize with vehicle
- vehicle inspection
- tool and equipment check
- off-road driving (moderate)
- navigate with map

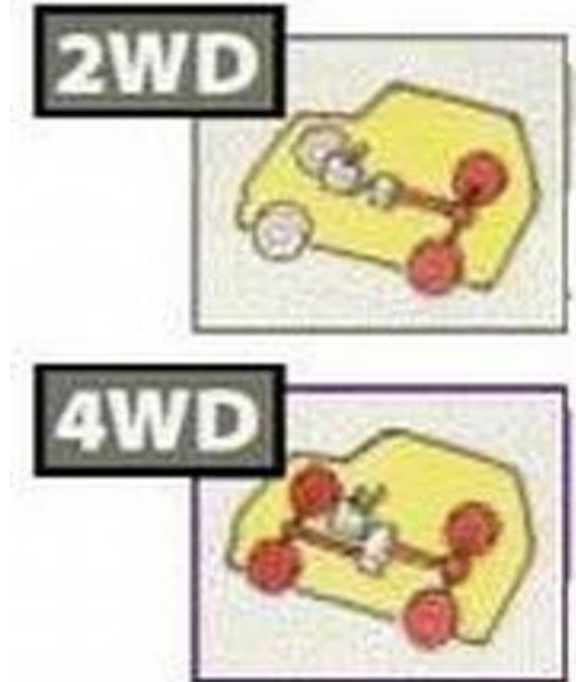
FWD Front Wheel Drive

RWD Rear Wheel Drive

Full Time 4WD: permanent

Standby 4WD: usually 2WD –  
4WD automatically if necessary

Part-time 4WD: usually 2WD –  
driver has to engage 4WD



**2 WD 'H2' ('high two')** dry, hard surfaced roads – most economic, quiet ride, the least wear.

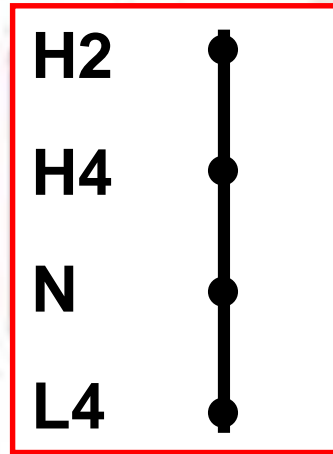
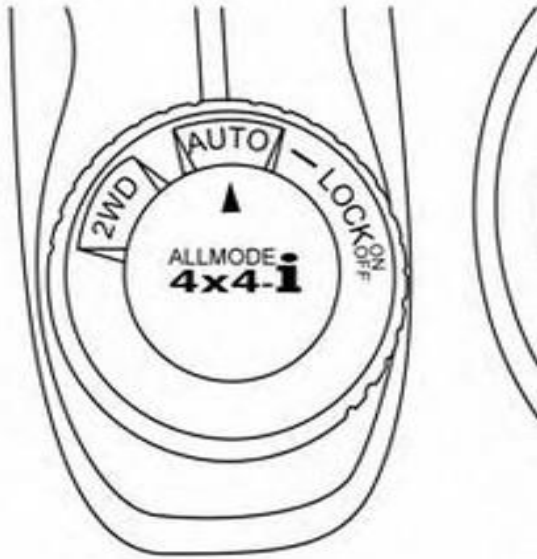
**4 WD 'H4' ('high four')** wet, icy, snow covered roads – muddy, slippery conditions – better traction than 2WD.

**4WD 'L4' ('Low four')** use for climbing/descending steep hills, off-road driving, sand, mud, deep snow and pulling of heavy loads (e.g. stuck vehicle) – maximum power and traction.

Driving slowly  
when using L4



# BASICS



**General rule:**

**STOP car before shifting into  
4WD Low !!  
Transmission can be damaged!!**



# BASICS



Locking hubs, also known as free wheeling hubs



# VEHICLE INSPECTION



**AUSTRIAN ARMED  
FORCES**  
AUTINT

## WHAT SHOULD I CHECK BEFORE OPERATING THE VEHICLE?

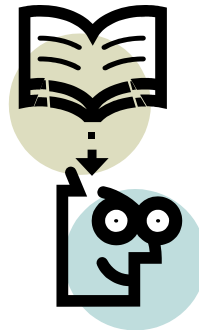
**P**etrol

**O**ils

**W**ater

**E**lectric

**R**ubbers



# VEHICLE INSPECTION



- General body and chassis condition (dents, scratches, etc.)
- Tyre tread and tyre pressure
- Windows, doors and locks are operational
- Brake-fluid level
- Fan belt wear and tension (alternator, power steering)
- Oil level



# VEHICLE INSPECTION



- Power-steering fluid level
- Radiator water level
- Windscreen-fluid level and wiper blades
- Fuel level
- Lights: headlights, tail lights, brake lights, indicators, reverse lights;



# TOOLS AND EQUIPMENT



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AUTINT

- First Aid Kit
- Basic tool kit
- Car jack & wrench
- Spare wheel
- Tow rope & winch
- Communication Systems



# TOOLS AND EQUIPMENT



**AUSTRIAN ARMED  
FORCES**  
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- Drinking water & grab bag
- Emergency reflector triangle
- Fire extinguisher
- Torch and extra batteries, spare bulbs
- Jumper cable/leads
- Compressor (tires)



# CONVOY RULES



**AUSTRIAN ARMED  
FORCES**  
AUTINT

- keep visual contact with the vehicle in front and backwards >> lights on! (distance between cars ... security/safety)
- stop every two hours to check vehicles and rest
- keep original order!
  - No vehicle will pass any other
  - If any vehicle stops, all will stop
- arrival at destination >> report to base!
- (abort operation if required due to the security situation)



# Off Road driving



- As slow as possible, as fast as necessary
- Use “Low Range” (or lowest gear available)
- On steep descents, use “Low Range” (use engine break)
- Reduce tyre pressure (mud, sand, snow)
- Don't be afraid to turn around
- Scratches are “not” avoidable



Receiver Copy		
Asset Management Copy		
Filing Copy		OSCE SMMU
<b>HANDOVER DOCUMENT</b>		

Handover From: Section: Asset Management Handover Date: 28-Oct-2015

Recipients: Section: Handover Location: Kyiv, Ukraine

Line No.	Item (incl. Manufacturer and Model)	Qty.	Tag Number	Serial Number	Remarks
1	ARMoured VEHICLE TOYOTA	1			OSCE
2	SAT. DOCKING STATION	1			
3	VHF Radio	1			
4	FUEL CARD	1			
5	TRACKING SYSTEM	1			
6	SPARE KEY	1			
7	GPS	1			
8	SATELLITE TELEPHONE	1			
9	SIM	1			

Name & Signature of Person handing over

Recipient Signature

- This document can only be authorized by Issuing Office (FAU). The hand-over document registers the recipient as the responsible custodian for this equipment.

- A direct hand over of equipment from one staff member to another is not permitted. The equipment should be returned to the issuing office, should the staff member no longer require it.

- In case of loss or damage, the custodian should inform the Issuing Office immediately.

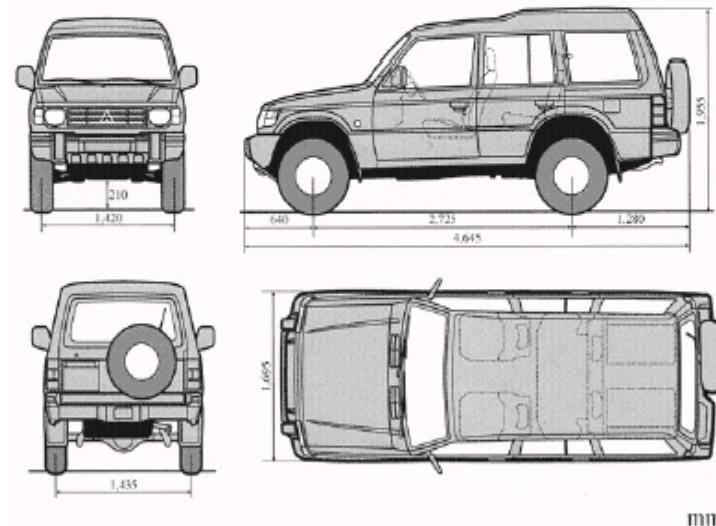
- Costs associated with loss or damage of the OSCE property in custody of the individual will be decided by the FMIC.

## VEHICLE HAND OVER FORM

On the basis of attached correspondence

### Vehicle Hand Over Form

Plate Number	Type:	Mileage:
OSCE 145 MU	Toyota LC-200	11,164
	Fuel type: Diesel	



Scratch: S	Damage: D	Broken: B
Remarks:		

# DOCUMENTS



- Emergency contact information
- (Operational) area maps
- Owner's manual
- Vehicle insurance and registration papers
- Vehicle trip ticket
- Fuel card
- According to regulation of SMM – copies of agreements



# TRAFFIC ACCIDENTS



## Report (by radio to NCS)

- **Who** ... Patrol LIMA ...
- **Where** ... between RP E17 and E18, at grid XX-XX ...
- **What** ... traffic accident of 2nd Patrol vehicle,  
no personal injured ...
- **When** ... at 1530 hrs ...
- **How** ... vehicle slipped off the tarmac road ...
- **(Why)** .....
  
- *What kind of assistance is required?!*

# TRAFFIC ACCIDENTS



## Actions at the spot:

- Assess possible hazards (traffic, leaking lubricants, etc.)
- Secure incident site (hazard triangle, hazard lights, etc.)
- Apply first aid
- Third party involved: local traffic police – accident form:  
NO commitments/signatures before  
clearance of own field office





# Impressions





# TOYOTA Land Cruiser



<b>Armoring Specifications</b>
<b>Ballistic Specifications</b>
Vertical Areas: minimum standard VPAM BRV 2009 VR7 level of protection
Transparent (vertical) areas: minimum standard VPAM BRV 2009 VR7 level of protection
Roof: protection from projectiles specified in above standard at impact of less than 30 degrees
Floor: protection against anti-personnel mines or detonation of two anti-personnel hand grenades per sqm detonated simultaneously (type DM51 or RGD5)
Glass: All original OEM glass to be replaced with ballistic glass (tested and certified in accordance with the standard VPAM BRV 2009 VR7 level of protection)
Body: Full armoring of the vehicle passenger compartment
Fuel tank: Protection from detonation of 2 hand grenades (DM51 or RGD5 type) per sqm under the vehicle, projectiles and splinters
Ballistic tests shall be performed to certify withstanding the following projectiles:
7.62x39mm, 57-N-231, bullet PS (AKM)
5.45x39mm, 7N6, bullet PS (AK-74)
7.62x51mm, NATO M80, lead core bullet (Enfield SLR L1A1)
7.62x54mm, 57-N-323S, bullet LPS (Dragunov SVD)
5.45x39mm, 7N10, bullet PP (AK-74)
5.56x45mm, M855 or SS109 NATO (Colt M 16A2)
7.62x39mm, 57-N-231, bullet TUS (AKM)



# QUESTIONS ?







# Convoy briefing map







# Convoy briefing map



# Part 2



## Experiences

Teamwise Präsentation of 5 min's

Preparation time 10 min's

LL/LI ?

What was good/bad?

Car check?

