



# Lesson 3.1 Casualty Evacuation in the Field

# Review



# Learning Objectives



- CASEVAC – Authority, Command and Control (AC2)
- Risks



- Current CASEVAC Policy (2020)
- CASEVAC vs MEDEVAC

# CASEVAC (1)

- Evacuation of a casualty from the Point of Injury (POI) to closest Medical Treatment Facility (MTF)
- Use most effective means of transportation
- Continuum of care (resuscitation, evacuation & surgery as required)
- Planning and capability – CASEVAC policy / COE Manual



# CASEVAC (2)

- Mission CASEVAC system rests with HOM / managed by DMS and Chief Medical Officer
- CASEVAC system must be simple in structure, lean in management and easily understood
- CASEVAC takes priority over all Mission activities except actions to counter immediate threats to UN personnel



# CASEVAC (3)

- CASEVAC further prioritised based on category / # of patients
- Delay in treatment = increased death rate / disability
- Guidelines seek to trade-off clinical need and operational risk
- Metric used is the “10-1-2” Guideline



# CASEVAC – AC2 (1)

- Mission Air Operations Centre (MAOC) plans, coordinates and schedules aviation assets
- Aviation priorities- set by HOM
- Air might be only transport option during rainy season
- Aviation assets are scarce and standby capability difficult to maintain



# CASEVAC – AC2 (2)



- AC2 policy and mission structure = coordination across multiple components
- DMS approval to re-task aviation assets
- Host Nation constraints
- Uniformed planners must examine mission specific CASEVAC policy/constraints



# CASEVAC – Risks



- Misunderstood and lack of practice regarding SOPs
- Difficulty in launching a CASEVAC with short notice
- Prior tasking of asset, host nation restrictions and unit / staff unfamiliarity
- Planners must rehearse frequently

# Questions



# CASEVAC vs MEDEVAC

- CASEVAC – Evacuation from point of injury/illness to first appropriate medical facility
- MEDEVAC – Planned medical evacuation from one medical facility to another medical facility



# BACKGROUND



- HIPPO Report 2015
- Santos Cruz Report 2017
- Action for Peacekeeping (A4P)
- CASEVAC in the Field – Mar 18
- Stress Tests of five major high-risk missions
- *Casualty Evacuation in the Field* – revised policy Dec 19

Peacekeeping Deaths 2009-2019				
Malicious	Accident	Illness	Other	Total
319	361	504	135	1,319

# Missions Subject to Stress Test



- UNMISS - February 2019
- MINUSCA - March 2019
- MINUSMA - April 2019
- MONUSCO - July 2019
- Tabletop review of mission Health Support Plans and CASEVAC SOP
- Crisis Management Exercises

# Stress Test – Key Observations

- Low levels competence and confidence in first aid
- Individual and team first aid kits (quantity and quality)
- Insufficient advanced first aiders
- Knowledge of and confidence in “Alert Messaging” poor
- Delayed transmission of vital information



# Key Observations – Level 1 Care

- Medical staff lack training / experience trauma care
- Insufficient collective training as Trauma Team
- Facilities - not well set up to deliver resuscitative care
- Equipment dual use – primary care and external



# Key Observations – Aeromedical



- Aircraft availability for aeromedical evacuation (AME)
- Aircraft lack night/low visibility capability
- Aircraft not located to achieve best AME effect
- Dislocation of Aeromedical Evacuation Teams (AMET) and aircraft
- Assets not always re-located “forward” during high-risk ops



# Key Observations – Level II / III Care



- Individual skills satisfactory and care adequate
- Inconsistent application of Trauma Team approach
- Insufficient time allocated to collective training
- Suboptimal environmental control and lighting

# Key Observations – C2 & Comms



- SOPs poorly understood
- Process sequential and not concurrent
- Too many people involved in decision-making process
- Information blizzard
- Lack of single CASEVAC launch node/ops centre
- Ops centres - not focussed on 24-hour operations
- Staff – insufficiently trained

# Recommendations (1)



- 10-1-2 Metric remains relevant
- Enhance pre-deployment first aid training and equipment
- Develop Trauma Team philosophy
- 24-hour rotary wing op capability
- Improve Operational Health Support training

# Recommendations (2)



- Training & rehearsal
- Ownership at highest level, execution at lowest
- Designate a single existing Op Centre as CASEVAC coordinating node
- Develop concurrent CASEVAC tasking process
- Greater use of Temporary Tasking Authority to FC

**Changes in new CASEVAC and AC2 policies**

# Ownership / Execution

**Ownership at highest level, execution at lowest**

## **Ownership (Mission HQ)**

- ✓ DMS/CMS (or other senior official)
- ✓ Temporary OPCON by Force Comd

## **Execution (Designated Ops Centre)**

- Duty Operations Officer
- Duty Air Operations Officer
- Duty Evacuation Medical Officer

- Resources – Evacuation and Medical Assets
- System Laydown
- Quality/Clinical Standards

- Tasking
- Casualty Regulation
- Independent Launch Authority

# Concurrent Processes



Time After Injury

5-10

15

30

60

120

# Questions



# Plan for a CASEVAC

## Aim

- Properly plan and coordinate a CASEVAC

## Deliverable(s)

- Discuss, analyse and plan for a CASEVAC
- Answer all deliverables
- Backbrief the U3

## Time Allocation

**Discussion:** (Syndicate) 120 mins

**Presentation:** (Plenary) 30 mins

**Total:** 150 minutes

## Notes

### Given:

- Activity 3.1 Handout
- CARANA Map
- CARANA reference material





# Lesson 3.2 Logistics Estimate

# Why?

A logistics Staff Officer must possess the ability to develop flexible and effective support plans for upcoming missions or tasks within a field mission.

# Where do we fit in?

Strategic Guidance

NY – SRSG - Executive

Inter Agency or Integrated Planning

JOPG

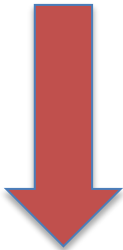


Operational Effects

FC – Police Comm, DMS

Integrated Planning or Element only

OPP



Tactical Effects

Sectors/Bdes/Formations

Integrated Planning or Element only

Estimate

# Review



# Learning Objectives



- 5D(R) Analysis
- Deductions
- Functional Considerations
- Risk Analysis Matrix
- Coordination and Interoperability
- Gender Considerations

# How do we Begin



- Task Order is issued
- Identify Assigned Tasks
- Implied Task
- Commence Logistic Estimate

# Logistics Estimate - General



- Who conducts the Logistic Estimate at the operational level?
  - U4, G4, MSC, etc...
- Desired outcome?
  - produce logistics Courses of Action (COA)
- Analyse data on sustainment
  - What source document?
- Once COA is selected?
  - Integrate data into plan

# The Estimate – Logistics Plan

- Principles of Logistics

- Key Considerations

- Factors (5DR framework)

- Deductions – SO WHAT!





# Principles of Logistics



- Responsibility
- Foresight
- Flexibility
- Economy
- Simplicity
- Cooperation
- Sufficiency
- Accountability
- Visibility
- Interoperability

# Considerations - Sustainment (1)

## Proper sustainment maintains freedom of action for the Commander



- Identify key sustainment tasks by function
- Identify Lines of Communications / Main Supply Routes
- Level Force protection required

# Considerations -Sustainment (2)



- Where do we get this?

- Determine what follow-up operations being considered.

Intent, mission statement...

- Determine sustainment priorities by unit.

Current disposition, MOU, COE Reports, liaising with CLO, G4...

# Mission Analysis – Logistics (1)



- Defines operational tasks and logistics requirements
- Identify specified and implied tasks
- These tasks are considered in relation to operational environment
- Conducted for each COA

# Analysis – Logistics



- Logistics planning factors – 5D(R)
- Logistics requirements
- Sources of logistics support
- Determine shortfalls

What document should the Logistician produce?

Support Dependency Matrix

# Logistics Planning Factors



- Many countries incorporate logistics considerations in their doctrine
- 4 D's, the 5 D's, 4 DR
- We will use 5D(R)
- Used in Logistic Analysis in developing COAs

What is 5D(R)?

# Logistics Planning Factors – 5D(R)



- Destination
- Demand
- Distance ❖ Risk
- Duration
- Dependency

# Destination

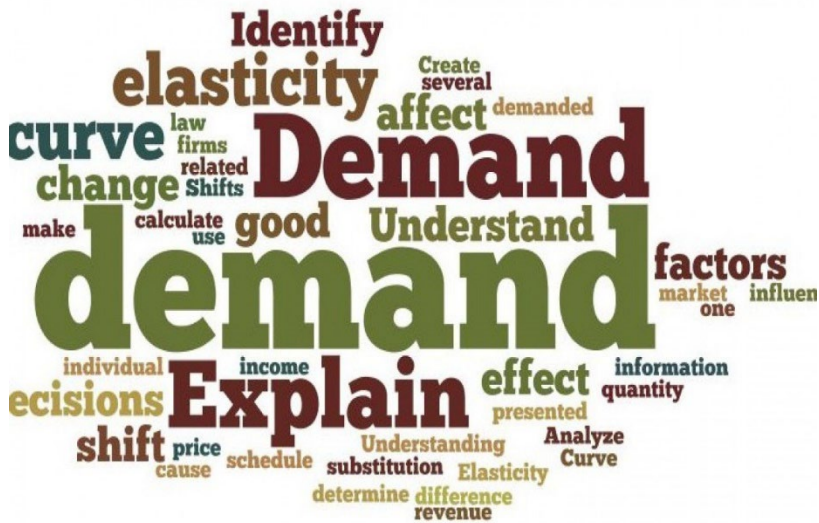


- Where - Area of Operations (AOR)
- Helps define LOC
- Influences transportation means, communications, logistics support
- AOR influences forecasting of demand and planning for contingencies



# Demand

- Magnitude of requirement
- Shape replenishment plan and self-sustainment levels
- Stems from Command's intent and op tempo
- Sum of steady state, cyclical and surge requirements
- How, when and what quantities to request



# Distance



**DISTANCE ?**

- Determines shape of LOC
- Movement of troops and supply of materiel require robust LOC
- Consider distance between nodes (ie. Field Office, Sector support areas)
- Determines volumes of resources committed and time in transit

# Duration



- Determines robustness and need for support in relation to time
- Impacts how complete support needs to be and volume
- Longer ops consume more support (funding, infrastructure, etc.)
- Consider viability periods (unit self-sufficiency)

# Dependency

- Understand type /quantity of units requiring support
- Significantly different in UN Missions (SUR, caveats, COE framework, etc)
- Must understand dependency equipment, personnel and operating characteristics

# Risk

- The 5D factors are all assessed against risk
- Determines level of Force Protection (ie. armed escorts)
- Considers threat actors and key stakeholders
- Theft, corruption, movement restrictions
- Sector/Component/Mission



# 5D(R) - Summary

- **Destination** - (nature of requirement)
- **Demand** - (magnitude of the requirement)
- **Distance** - (shapes lines of communication)
- **Duration** - (time required)
- **Dependency** – (type/quantity requiring support)
- **Risk** – (force protection requirement)



“Right support at the right place in the right time”

# Questions



# Deductions (1)



- Made whilst analysing the 5D(R) factors
- Made in relation to logistics functions (General, Supply, Medical, Maintenance, Engineering, Transport and Communications or **GSMMETC** construct)
- Plan = factors, considerations and deductions



# Deductions (2)



- **Factor** – circumstance, fact contributing to a result (ie. budget, weather)
- **Deduction** – Use intuition, training and experience to assess factors (ie. availability of logistics support)
- **Constraint** – Something you **MUST DO** (ie. use MSR X)
- **Restraint** – Something you **MUST NOT** do (ie. can't buy locally)

# GSMMETC Construct

Factors

Deductions

5DR Framework

Demand

Distance

Destination

Duration

Dependency

Risk

GSMMETC

General

Supply

Medical

Maintenance

Engineering

Transport

Communications

# Deductions - General



- Availability/unavailability of services among a Contingent, Host Nation and Contracts
- Support arrangements need to be identified by task and be flexible
- Weather – impacts on equipment, infrastructure and capability

# Deductions - Supply

- Availability of classes of supply (1,3 and %)
- Reserve
- Distribution methods
- Emergency resupply
- Reporting
- Most critical
- Operational tempo
- Dangerous goods



# Deductions - Medical



- # of personnel
- Priorities
- Concept of operations
- Facilities
- Evacuation procedures
- Mortuary affairs
- Refugees / IDPs
- Financial Reimbursement
- Most likely causes of illness / injury

# Deductions - Maintenance



- Vehicle types
- Unserviceability rates
- Repair and recovery capability and priority
- Eqpt Cannibalisation policy
- Spare parts availability
- Essential equipment
- Equipment reliability

# Deductions - Transportation



- Heavy and Light lift requirements
- Movement Control
- Route use and priority
- Traffic Control
- Alternate modes
- Security of LOC
- Routes – restrictions, weather
- Sufficient assets

# Deductions - Engineering



Who has Tasking  
Authority usually for  
Engrs?

- Minor vs Major
- Status of MSR
- Mines
- IED and EOD  
capability
- Security escort
- Supplies
- Defensive stores
- Infrastructure – types  
and power



# Deductions - Communications



Who has Tasking Authority usually for Mission Comms i.e.: Long Distance Patrols?

- Support well-defined in MOU/SUR
- Radio
- Landline
- Bandwidth
- Radio Rebroadcast
- Internet
- Command Post locations
- Spare parts

# Questions



# Risk - Severity

Amount of damage hazard could create on a 4-point scale

**Catastrophic - 4**    Death / major system loss

**Critical - 3**        Severe injury or illness / major system damage

**Marginal - 2**        Minor injury or illness / minor system damage

**Negligible - 1**      No injury or illness / system damage

# Risk - Probability

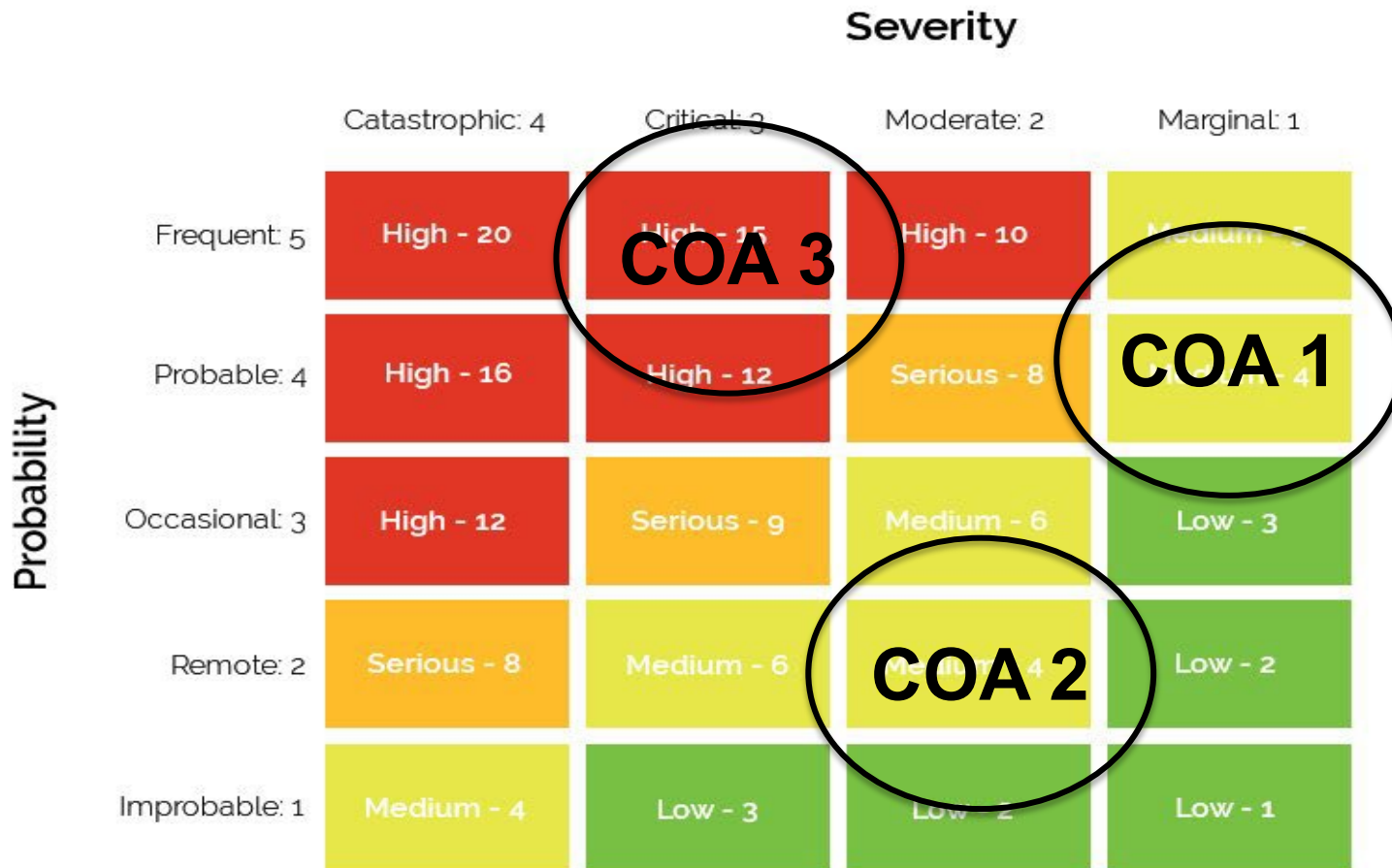
Likelihood of hazard occurring on a 5-point scale

<b>Frequent - 5</b>	Likely to occur often
<b>Probable - 4</b>	Will occur several times
<b>Occasional - 3</b>	Likely to occur some time
<b>Remote - 2</b>	Unlikely but possible to occur
<b>Improbable - 1</b>	So unlikely, assumed will not occur

# Risk Analysis Matrix

		Severity			
		Catastrophic: 4	Critical: 3	Moderate: 2	Marginal: 1
Probability	Frequent: 5	High - 20	High - 15	High - 10	Medium - 5
	Probable: 4	High - 16	High - 12	Serious - 8	Medium - 4
	Occasional: 3	High - 12	Serious - 9	Medium - 6	Low - 3
	Remote: 2	Serious - 8	Medium - 6	Medium - 4	Low - 2
	Improbable: 1	Medium - 4	Low - 3	Low - 2	Low - 1

# Risk Analysis Matrix



# 10-Minute Exercise

1. A Convoy is scheduled to use Main Supply Route ‘HEART’ that traverses through some rough areas of road that was recently damaged by heavy rain. Total distance of travel is 100km return. Roads are assessed as passable/no more rain is expected.
2. A MILOB team site located in a remote part of Sector 2 has indicated that all 10 members of the section have fallen ill with vomiting and diarrhea. It was ascertained that the team had all eaten some chicken purchased from a local village. *Médecins Sans Frontières* recently stated that areas around this same village have experienced health issues related to unhealthy water.
3. Mission Support Division has identified that 50% of their aviation assets are grounded as a result ongoing maintenance issues. This has not been the norm and the aviation fleet is expected to be fully operational in 3 days.
4. A Sector 1 FOB has been shelled by hostile fire 4 times over the past 2 days. There has been no injury or loss of life but two trucks have been destroyed. Intelligence reports that hostile fire is expected to continue frequently over the next week with injuries and damage expected to UN personnel and equipment located in the FOB.

## 10-Minute Exercise- Solutions (1)

A Convoy is scheduled to use Main Supply Route ‘HEART’ that traverses through some rough areas of road that was recently damaged by heavy rain. Total distance of travel is 100km return. Roads are assessed as passable/no more rain is expected.



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## 10-Minute Exercise – Solutions (2)

A MILOB team site located in a remote part of Sector 2 has indicated that all 10 members of the section have fallen ill with vomiting and diarrhea. It was ascertained that the team had all eaten some chicken purchased from a local village. *Médecins Sans Frontières* recently stated that areas around this same village have experienced health issues related to unhealthy water.

# Risk Analysis Matrix

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## 10-Minute Exercise – Solutions (3)

Mission Support Division has identified that 50% of their aviation assets are grounded as a result ongoing maintenance issues. This has not been the norm and the aviation fleet is expected to be fully operational in 3 days.

# Risk Analysis Matrix

		Severity			
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	Improbable: 1	Medium - 4	Low - 3	Low - 2	Low - 1

## 10-Minute Exercise – Solutions (4)

A Sector 1 FOB has been shelled by hostile fire 4 times over the past 2 days. There has been no injury or loss of life but two trucks have been destroyed. Intelligence reports that hostile fire is expected to continue frequently over the next week with injuries and damage expected to UN personnel and equipment located in the FOB.

# Risk Analysis Matrix

		Severity			
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	Remote: 2	Serious - 8	Medium - 6	Medium - 4	Low - 2
	Improbable: 1	Medium - 4	Low - 3	Low - 2	Low - 1

# Questions





# Coordination



## Coordination

If everyone is moving forward together then the success takes care of itself.

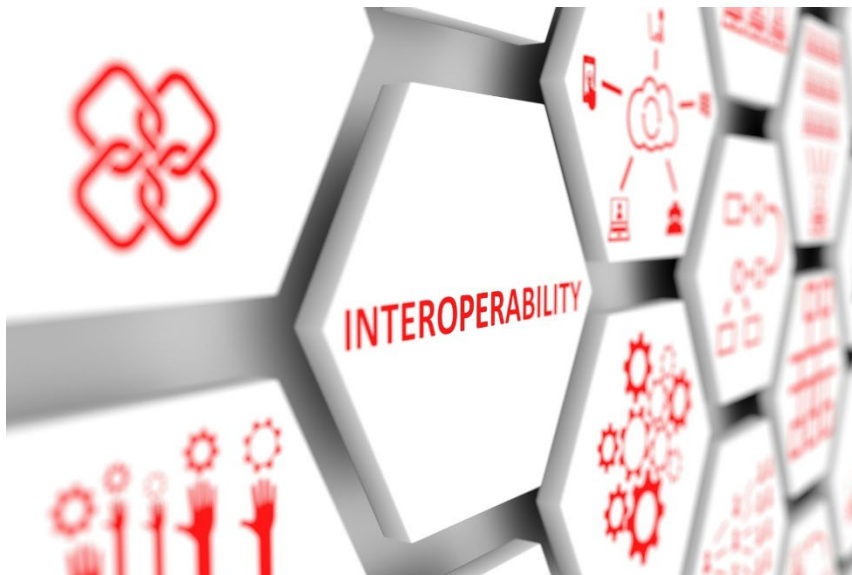
- When conducting a logistics estimate, coordination is vital
- Regardless of level (sector, component, mission)
- Take place as soon as possible
- Continuous process
- Issues resolved at lowest level
- MSC involved if MSD resources required

# Interoperability - General

- Lends to success
- Must be prepared to work/perform alongside national contingents and different components
- Challenged by national caveats, SOPs and language



# Interoperability - Contingents



- National bias
- SUR variations
- Commanders and planners must engage to understand capabilities
- COE reimbursement framework
- T/PCC internal accounting and controls

# Interoperability – HQ



- Vital among the various HQ
- UN uses integration as a tool to improve interoperability
- Issues - embedded personnel under utilised or ignored
- Staff Officer – experience and technical required

# Gender - Mainstreaming

- Integrating gender equality perspective at all stages & levels of policies, programmes and projects



- Logistics Planning no different
- UN desires more uniformed personnel so best practice

What is the challenge for uniformed organizations?

# Gender – SCR 2438

- Increase participation of women in field missions
- Ensure safe, enabling and gender-sensitive working environment
- Provide adequate and appropriate infrastructure
- Implications for commanders and planners

What level is the UN inferring? Who is responsible for this?

# Gender – Considerations (1)



- Protective equipment sizes and models
- Medical support
- Welfare, health and personal supplies
- Accommodations

# Gender – Considerations (2)



- Ablutions appropriate in all locations
- Nations will have different norms
- Actively seek and rectify issues
- *Ensure female peacekeepers are employed appropriately*



# Gender – Considerations (3)

- Negotiate ambiguity where UN policies have not yet been amended



- Easier to plan but takes time to implement (ie. infrastructure changes)
- All peacekeepers deserve respect, dignity and safety

# Questions



# Conduct a Logistics Estimate

## Aim

- Conduct a formal Logistics Estimate

## Deliverable(s)

- Discuss, analyse and produce a logistics estimate for Op BLUE HAMMER
- Answer all deliverables
- Backbrief the FC

## Time Allocation

**Discussion:** (Syndicate) 170 mins

**Presentation:** (Plenary) 30 mins

**Total:** 200 minutes

## Notes

### Given:

- Activity 3.2 Handout
- CARANA Map
- CARANA reference material



# Lesson 3.3 Logistics Reconnaissance

# Review



# Learning Objectives



- Peacekeeping-Intelligence
- Logistics intelligence / logistics preparation of the mission area (LMPA)
- Logistics reconnaissance
- Checklists
- Pre-reconnaissance information gathering

# Peacekeeping-Intelligence



- Non-clandestine acquisition and processing of information by a mission
- Purpose – support a common operating picture to support and plan for operations
- Strict rules
- JMAC, Force and Police involved in process

# Peacekeeping-Intelligence – Policy & Guidance



- 2019 Military Peacekeeping Intelligence Handbook
- 2020 Peacekeeping Intelligence, Surveillance and Reconnaissance Handbook
- Log Planner will have specific requirements
- Information valuable to HQ and units





# Key Definitions



- Commander's Critical Information Requirements (CCIR)
- Priority Peacekeeping-Intelligence Requirement (PIR)
- Specific Peacekeeping-Intelligence Requirement (SIR)
- Essential Elements of Information (EEI)
- Request For Information (RFI)

# Logistics Intelligence

- Referred to Logistics Preparation of the Mission Area (LPMA)
- Conducted at the same time a HQ is conducting “Intelligence Preparation”
- Actions taken by logistics personnel to optimise the means of providing support



# LPMA Actions



- Identify and prepare depots and FOBs
- Select and improve LOC
- Forecast and position stocks forward
- Identify available resources in Mission
- Ensure access to resources
- ❖ Refines Logistics Estimate
- ❖ Achieved through a recce

# Logistics Intelligence



- Assists logistics organisations in making support plans
- Information gathering at all levels
- Pose questions such as:
  - ✓ State of Infrastructure?
  - ✓ Terrain conditions?
  - ✓ Utilities?
  - ✓ Health issues?

# Logistics Intelligence - Process



- Logistics planners must identify RFIs they need resolved
- RFIs will take time to action
- Need to specify critical due dates, boundaries and context

# Logistics RFI (1)



- Condition of critical routes
- Condition of bridges
- Hostile threats on route
- Restricted areas
- Population Density
- Threats in area to be supported
- Local population activities, perceptions and behaviours
- Other UN activities in area

# Logistics RFI (2)



- Shared resources and impact
  - Flood risk
  - Points and methods for in-loading personnel & materiel
  - Existing infrastructure
  - Water sources
  - Transportation means & sources
  - Medical risks
  - Real-estate availability
- ❖ Not limited to Logistics application

# Logistics RFI – Words of Wisdom

**Always ensure that Logistic RFIs are specifically requested within the Force or Police intelligence acquisition process with the specific context, location and timeframe needed for logistic support – do not assume that the operational planner has understood the logistic implications.**



# Questions



# Reconnaissance (Recce) - General



- Operations prepared to the last detail including logistics support
- Reconnaissance (recce) conducted as part of the estimate process
- Answer/confirm Who, What, Where, When and Why
- Steps: Pre, Conduct and Post

# Pre-Recce

- Gather known information from SITREPs, Intelligence Reports, maps, open source, technical surveys
- Prepare a relevant but detailed recce checklist



# Recce Checklist - Supply



Gather known information on:

- General
- Disposal / Hazardous waste
- Local Procurement / Labour
- Fuel
- Rations / Water
- Repair parts
- Defensive stores
- Tentage
- Storage / Material Handling

# Recce Checklist - Transport

Gather known information on:

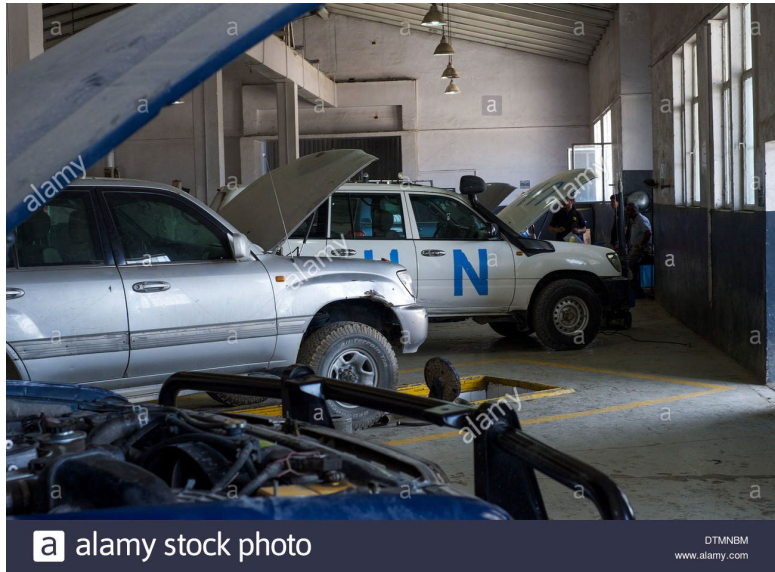


- Equipment / Support available
- Resources
- Availability of personnel (labour)
- Routes

# Recce Checklist - Maintenance

Gather known information on:

- General
- Security
- Command and Control
- Facility capabilities
- Equipment and Tools
- Workshops
- Spare parts
- Vehicles
- Local supply



# Recce Checklist - Engineers

Gather known information on:



- Status of MSR
- Security / Escort
- Electricity
- Accommodations
- Water Supply
- Sewage / Garbage
- Defensive stores
- Vehicles / Equipment

# Recce Checklist - Medical

Gather known information on:

- Facilities
- Personnel
- Hospitals
- Ambulance
- Supplies
- Disease / Venomous animals
- Aero MEDEVAC





# Recce Checklist - Communications

Gather known information on:



- Telephones
- Internet
- Radios
- General

# Recce - Conduct



- Normally logistics planners will be included on a recce with operational planners
- Detailed itinerary will be followed
- A proper recce will answer or confirm the logistics concerns on the checklist
- Leads to a recce report and contributes to support plan

# Post Recce



- Recce report will include suitability of logistics capabilities
- Include unresolved issues
- Assist in continued planning and development of concept of support / plan

# Questions



# Plan a Log Recce

## Aim

- Plan a Logistics Reconnaissance

## Deliverable(s)

- Discuss, analyse and plan for a log recce
- Answer all deliverables
- Backbrief the RAO

## Time Allocation

**Discussion:** (Syndicate) 120 mins

**Presentation:** (Plenary) 30 mins

**Total:** 150 minutes

## Notes

### Given:

- Activity 3.3 Handout
- CARANA Map
- CARANA reference material