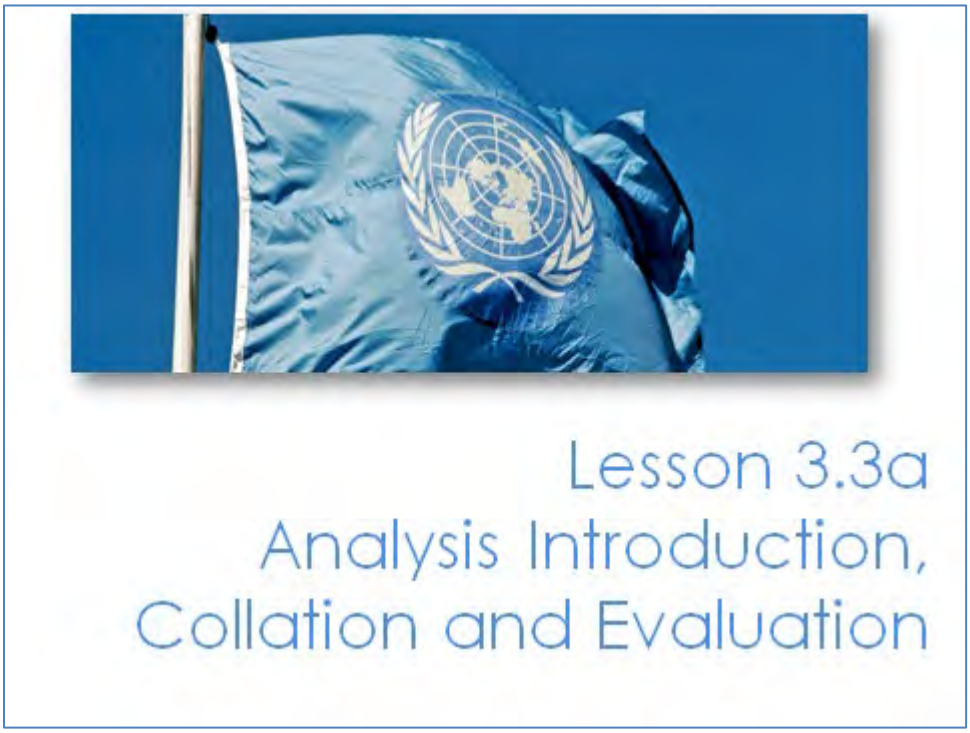
Lesson
3.3a

Analysis Introduction, Collation and Evaluation

The Lesson

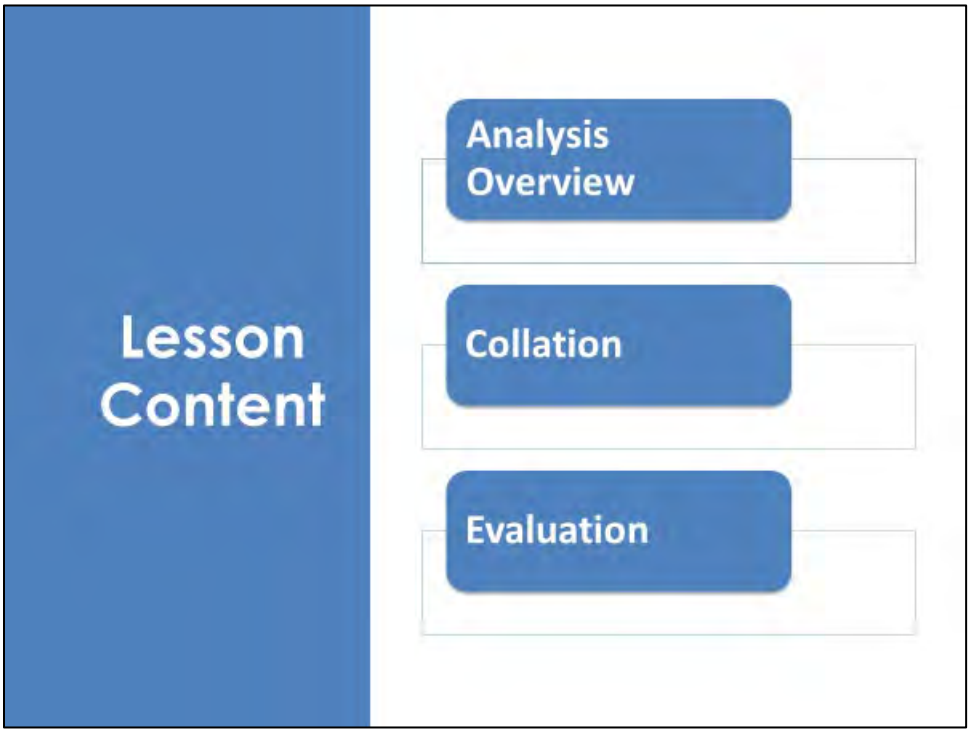
Starting the Lesson

Slide 1



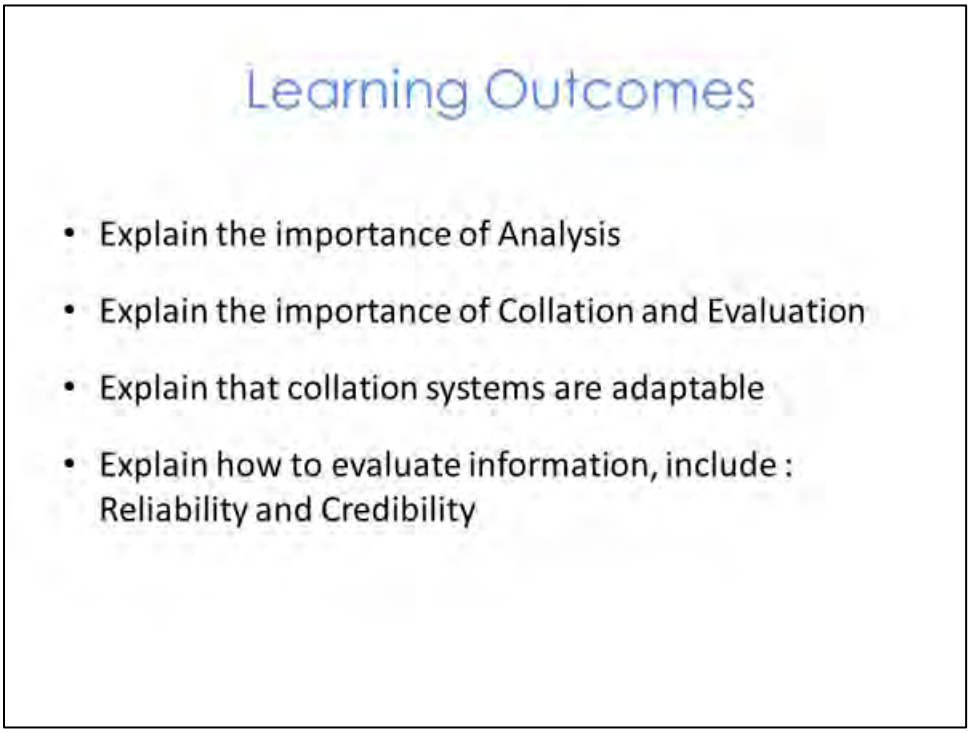
An essential component of a MPKIO work is to conduct ongoing analysis of threat situations within the UN mission area.

Slide 2



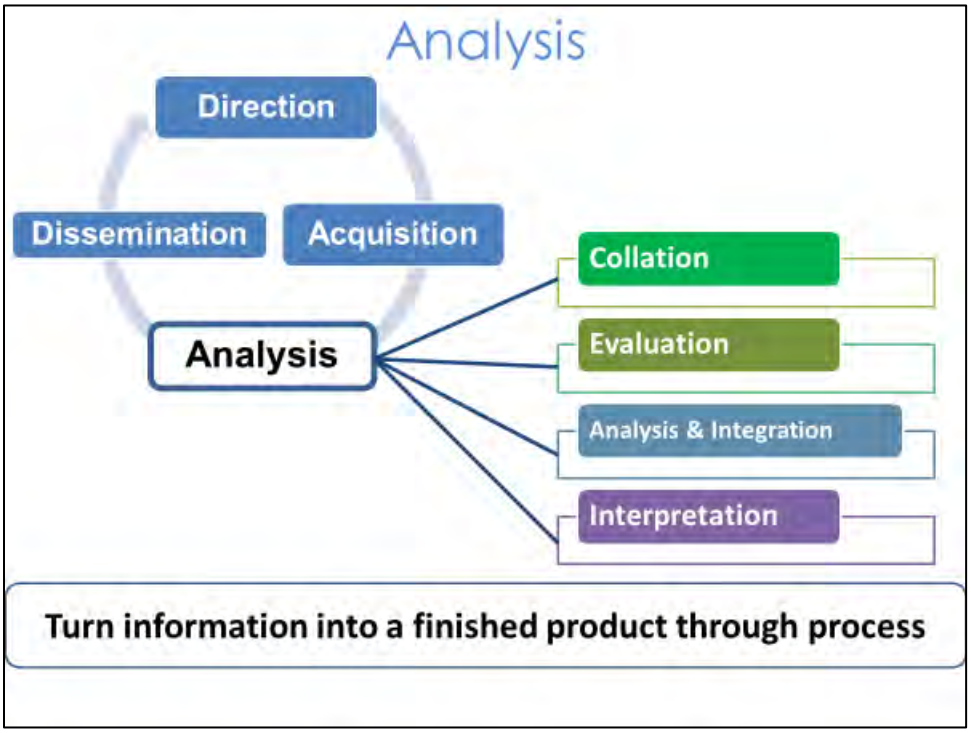
Here is the lesson content.

Slide 3



Upon completion of this lesson, participants will be able to accomplish these outcomes.

Slide 4



Key message: The Analysis phase answers the following questions: So What? Why is the information important?

To be useful, information must go through the analysis process before its dissemination. The analysis phase is broken down into four steps: Collation; Evaluation; Analysis and Integration; and Interpretation.

At this stage, you all know that the third phase of the MPKI cycle is Analysis. It is defined as the methodical breaking down of information into its component parts. The examination of each part to find interrelationships, and application of reasoning to determine the meaning of the parts and the whole is crucial.

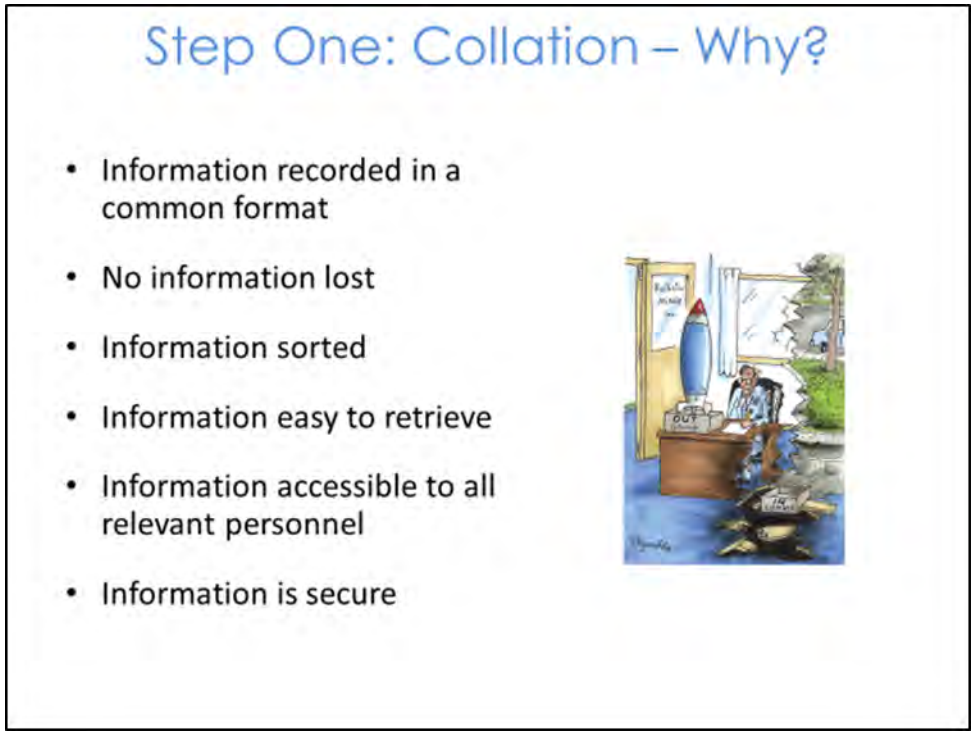
During this phase, the acquired information turns into a finished product that ideally gives meaning to the individual pieces of information and is, therefore, more than the sum of its parts.

Ultimately, you as MPKI analysts are required to provide predictive analysis and scenarios on the evolving tactical and operational situation that go beyond establishing capabilities of the threat and other actors to determine their intentions and probable actions and scenarios.

For analysis to be predictive, it should consider an event/incident, trend or a threat and establish why such a thing is occurring, what is likely to come next, and what the implications for the UN Mission are.

The analysis itself is broken down into four steps: the first two are collation and evaluation, which we will go through in this lesson. The third one is analysis and integration and then interpretation.

Slide 5



Key message: The primary objective of this step is to make sure that no information is lost and information is easy to retrieve. To do so, it is very important to ensure that all information is recorded and sorted in a common format.

Collation is the first step of the analysis phase. It is a set of procedures for receiving, recording, and grouping all information acquired. Well trained, efficient collators are vital to the effectiveness of peacekeeping intelligence cells.

The primary job of a collator is to ensure that no piece of information is lost. It is of high importance that every piece information is registered, sorted and recorded, and most importantly, can be retrieved by the analysts at will. Indeed, it is really of no use if you can identify vital information, but you cannot retrieve it promptly.

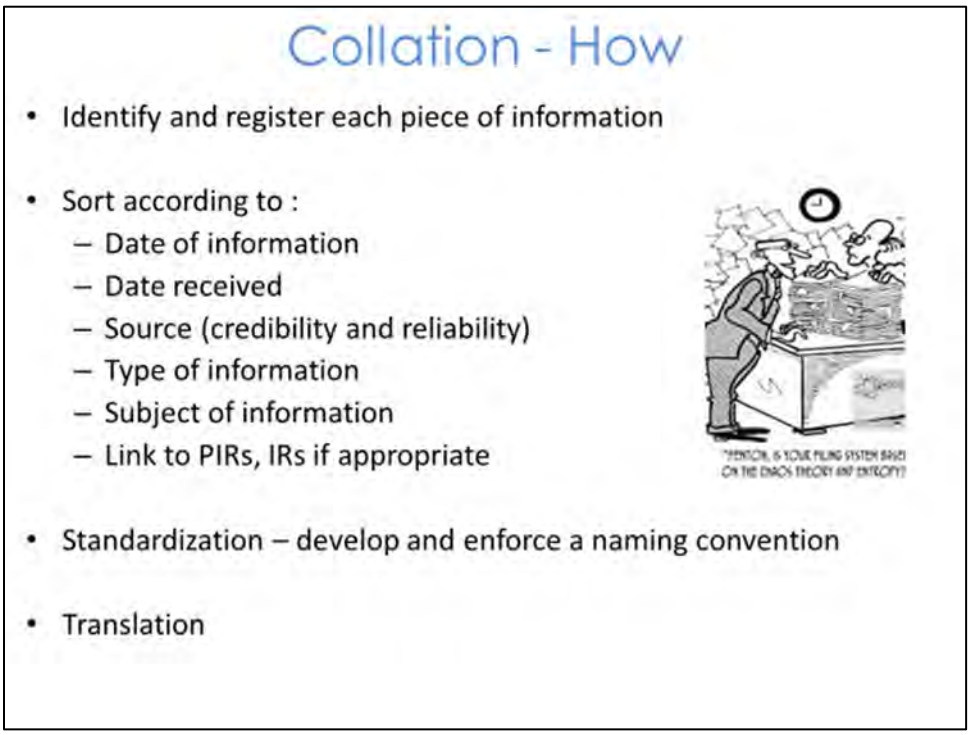
Collation consists of:

- Assimilation of a large volume of information
- Identifying and registering each piece of information without compromising source security. Often a human source will be given a nickname
- Recording the reliability of the source. We will see how to do this in a few minutes

- Categorise each piece of information in a way to retrieve it by knowing its date of acquisition or reception, its type, its source type and name, and its reliability and credibility

What is good about this step is that when you become familiar with the information you are collating and aware of the IRs, you will be able to provide, at your level, the first analysis as you receive the information.

Slide 6



Key message: Appropriate use of tags (date, source, subject, location, etc.) is essential in the collation mechanism and makes it easy to retrieve information.

Now that you have understood the importance and the principles of the peacekeeping-intelligence collation, we will see how it is done. It is very important to have an established collation format before the information flow starts. There is no specific agreed-upon format, but whatever format you choose to work with, it must allow you to sort the acquired information according to:

- **Date of information** which is the date that the event occurred on
- **Date of** the information **acquisition,** or that date that you received the information
- In the **Source** box, you indicate its nature and name (SIGINT, OSINT, IMINT, HUMINT…) if it is a HUMINT source, don't give your source's real name. A nickname is often used instead
- For the **source grading**, we will see how it is done in the evaluation lesson
- In the **Subject** of the information box, give a summary (a few words) or a title if suitable
- **Location** acquired in the location box – this is where you provide information on the location of the source at the time the information was

acquired. E.g. the elevation of an aircraft providing aerial imagery, the distance an OP was from the incident reported, etc.

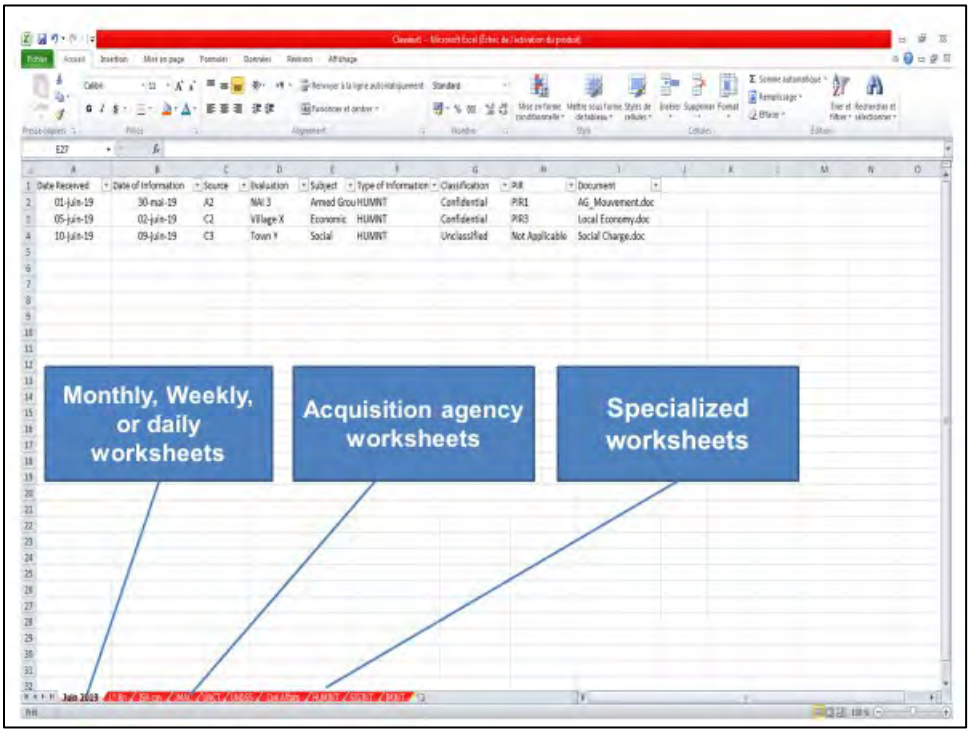
- And a link to given PIRs, IRs if appropriate
- In the last box, you put a **hyperlink** to the original document so that it can be located on the system

If information is received in a language other than the working language for your UN mission, ensure that it is translated, and the translation is attached to the original information so that it is usable when retrieved by other analysts.

In terms of personnel, only an experienced intelligence person can do this job. Ideally, a senior intelligence NCO would be chosen for this role.

The software that is most widely available for use in a collation database is Microsoft XL. An example is shown on the next slide.

Slide 7

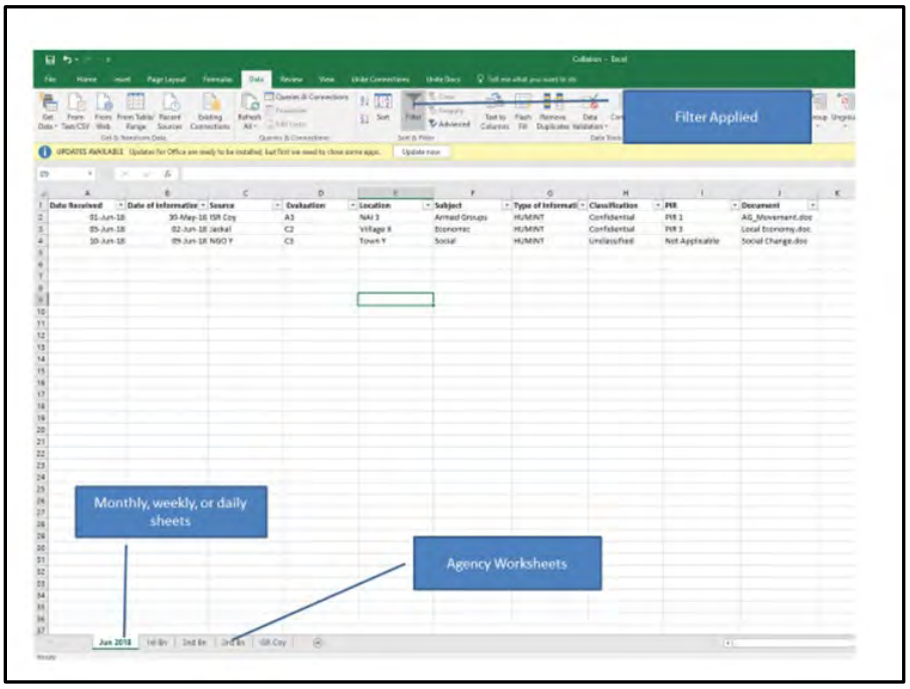


Key message: The use of Excel to create a collation log is highly recommended.

To Microsoft Excel is a common programme that offers an effective platform for peacekeeping collation. Excel is easy to populate with information and to search for content if it is set up well. You can run a single collation worksheet, or create specialised worksheets for specific time frames, sources, threat groups, incident types, etc. If you are not familiar with Excel, it is recommended that you learn how to use it.

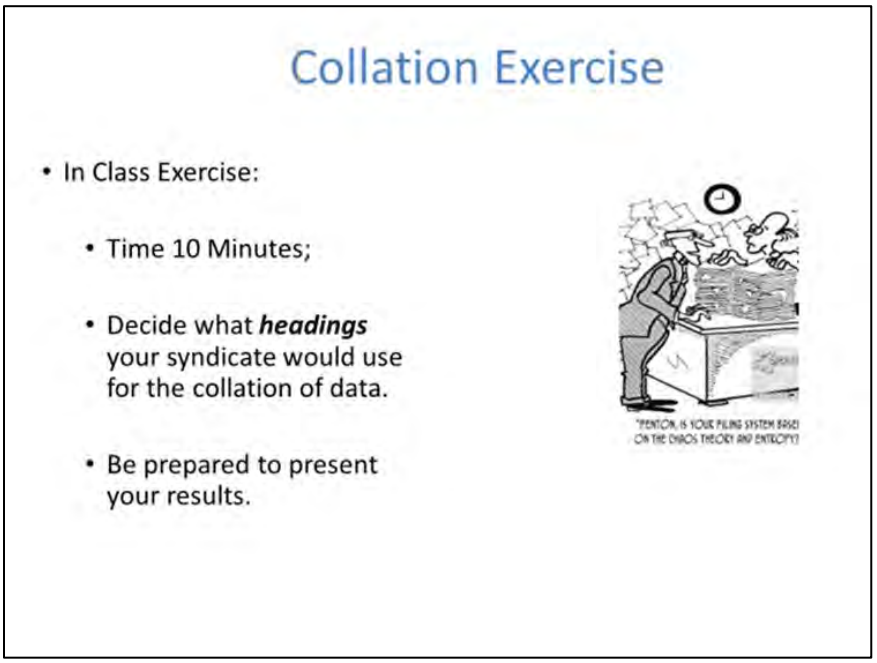
The key to a successful collation database is that information can easily be accessed and sorted. Central to this is the ability to quickly filter information. The location of the filter function is on the next slide.

Slide 8



This slide shows the filter on MS XL.

Slide 9

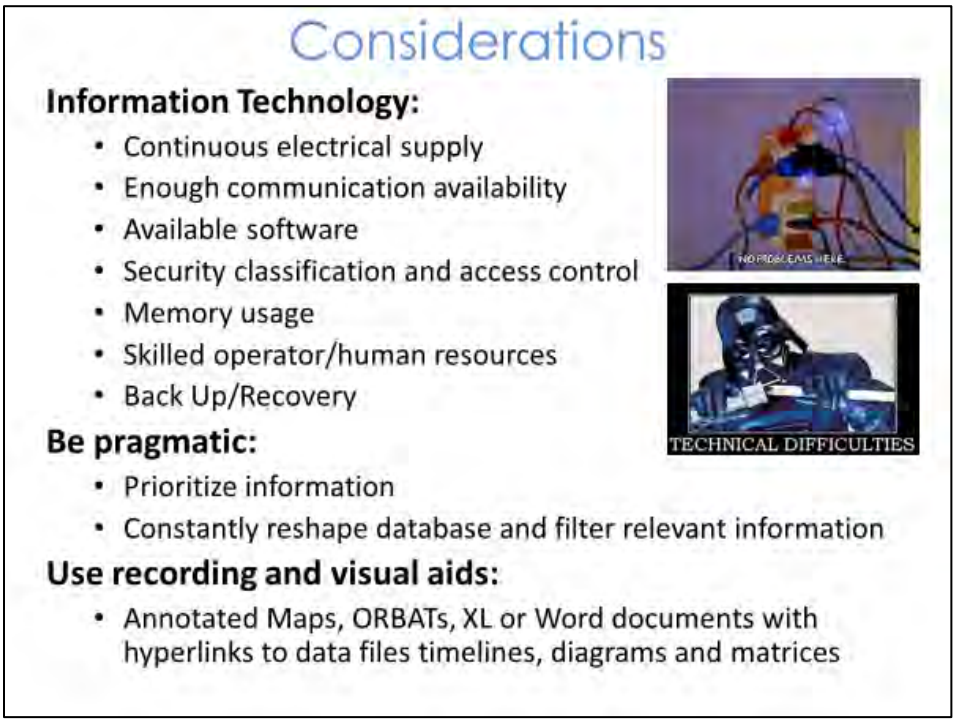


Interaction, The purpose of this exercise, is for the students to decide how they would collate incoming data. Prompt the students to begin a discussion within their syndicates as to how they would record information as it comes into their MPKI cell. Responses should include:

- Date of information acquisition
- Date information comes to MPKI cell
- Location information was acquired
- Type of information; the subject of the information
- Source; source grading
- Link to PIR, SIR, or EET

If possible, this should be placed on an XL file format, as outlined above.

Slide 10



Key message: An analyst needs to anticipate and prepare for physical problems be pragmatic in prioritising data and creative in using recording and visual aids.

You should always keep in mind the following considerations:
A collation system based on Information Technology is vulnerable to certain difficulties.

Interaction *What might those difficulties be? Get answers from the audience and comment on them briefly with "correct" or "not that much".*

To sum up, what you just said, the difficulties are related to:
Shortage of power, unavailability of software, insufficiency of communication, security clearance restrictions, system incompatibility, limited memory and lack of skilled operators.

As facilities are not generic in UN missions, you will need to consider whether these difficulties might impact your ability to collate information in your and think of how you might deal with the potential loss of IT.

Always ensure that your collation data is backed-up. If your power supply and/or computer systems are unreliable, keep updated hard copies of your collation sheet to ensure that collation data is not lost.

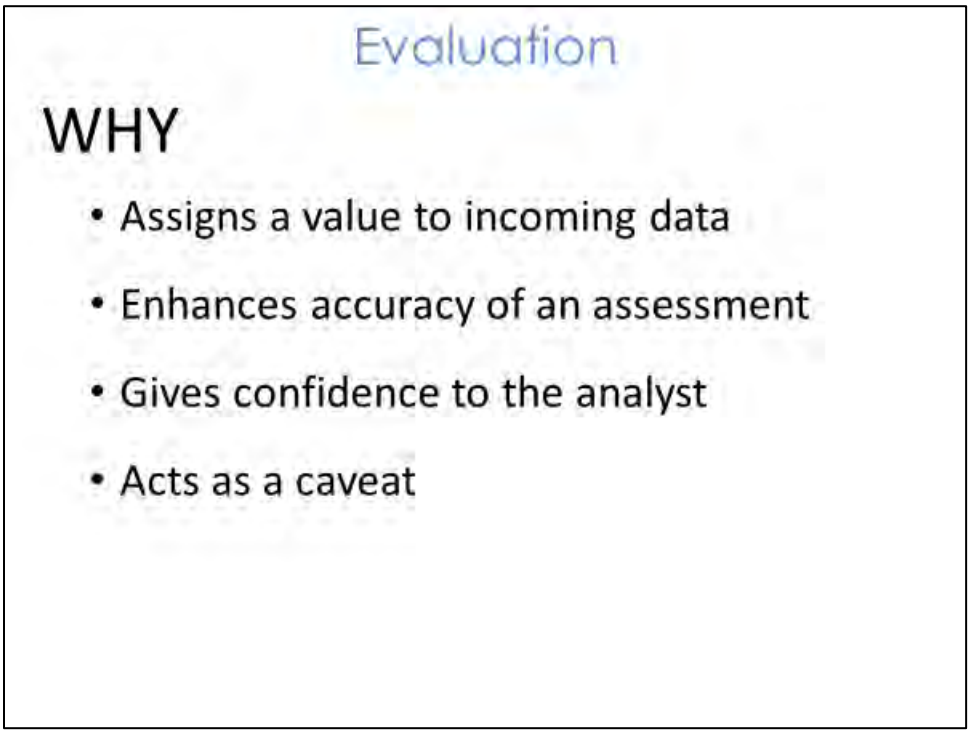
Also, be pragmatic. It is not possible to collate in detail every piece of information, and peacekeeping intelligence received. A compromise between what is desirable and what is possible is required, focusing on collating the most relevant information (i.e. information that best contributes to answering PIRs). Any information that is not immediately relevant can be retained for future review.

To prioritise information, collators must consider their relevance to PIRs and IRs.

Relevant recording and visual aids can be linked to the collation log so that analysts can quickly find them. They include, but are not limited to:

- Annotated Maps
- Incident maps
- Situation maps
- Order of battle (ORBATs) threat groups
- MS Excel or Word documents with hyperlinks to data files
- Timelines
- Diagrams
- Matrices

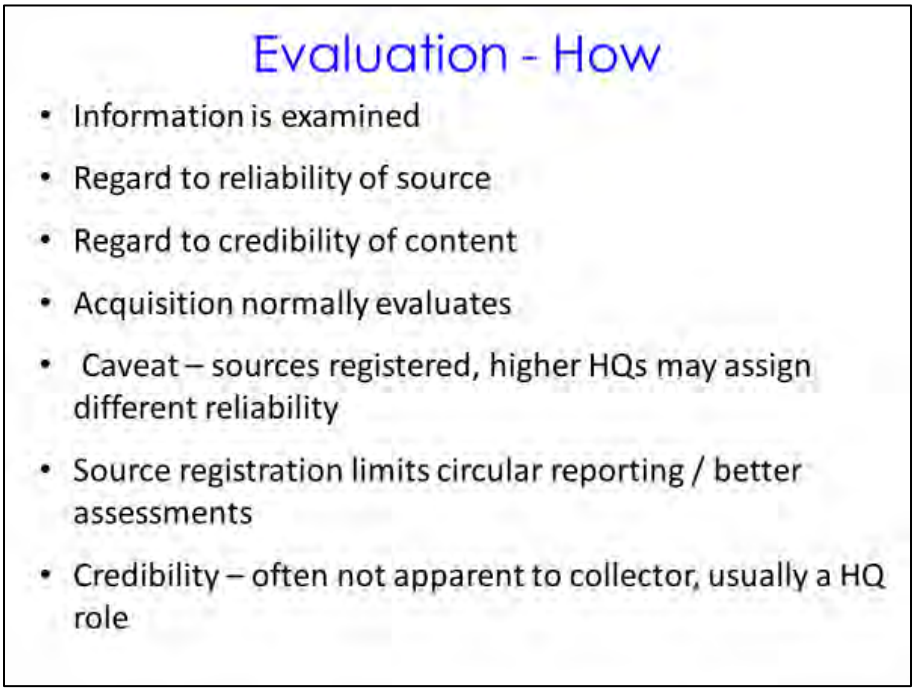
Slide 11



Key Message: Properly evaluated source reports increase the confidence of the analyst in his/her product and increase the confidence of the commander in the product.

If information is passed to the commander, particularly in single-source format, he/she needs to understand how reliable the source is and how credible the information is. This is so as the commander may base an operational decision based on this information.

Slide 12



Key message: Knowledge of the reliability of previous information and sources helps in verifying, comparing and therefore rating every piece of information or peacekeeping intelligence.

Evaluation is defined as the step of the analytical process where every item of information is examined regarding the reliability of its source and the credibility of its content.

Step 1 Assess the reliability of the source. Factors in this regard include carefully evaluating the reliability of the information that the source has provided in the past. If this information has been accurate, then the source will be judged as more reliable than a source that has provided less reliable information.

It is worth noting that the MPKI cell will normally accept the human source evaluation of the acquisition asset. However, it can change this evaluation if it has additional information about the source. For example, if the same source is reporting less reliable information to another acquisition agency, then his/her rating may be changed on that basis. A caveat to this is that sometimes a source may have excellent access to some types of information, and reduced access to other types of information. For example, a source 'Erik' could have excellent access to political information, but his access to military information may be limited. MPKI cells should refer to organic assets by unit, and to open source information as OSINT.

Step 2 – Evaluated the credibility of the information. This is accomplished by comparing the new information with information already on file.

Comparison is carried out by:

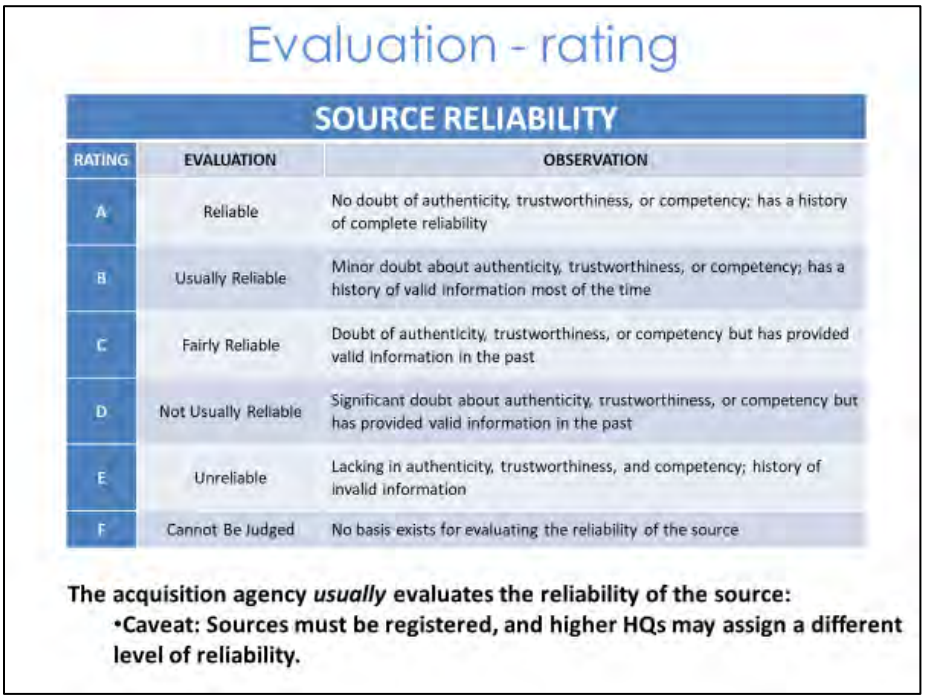
- Cross-checking the information to check if it is derived from multiple sources. The information has greater credibility if multiple sources support it, and especially if those sources are distinct and independent (e.g. two siblings reporting the same incident is less reliable than two strangers with no relationship reporting the same incident)
- Checking its coherence with previously processed data
- Assessing its conformity with previous knowledge about the operational environment, including the potential threats and risks

Remember that verification and comparison of information provides an indication of its credibility, but there is no guarantee that just because a piece of information cannot be verified or seems out of step with other known information that it is not reliable.

For example, threat groups are not always predictable. They might be innovative, and nonconformist, so consider this possibility and use verification and comparison as a guide.

Rating is a means of combining the reliability of the source with the credibility of the information to reflect the level of confidence in the material. We will discuss this in detail in the next three slides.

Slide 13



Key Message: Sources need to be evaluated for their reliability based on a scale from reliable to unreliable (A-E), with an option for showing that reliability cannot be judged (F).

When evaluating the reliability of a source, the closest HQ to the source is ordinarily, the best judge of its reliability. Keeping track of the source reliability is important and must be updated. A source might be upgraded or downgraded.

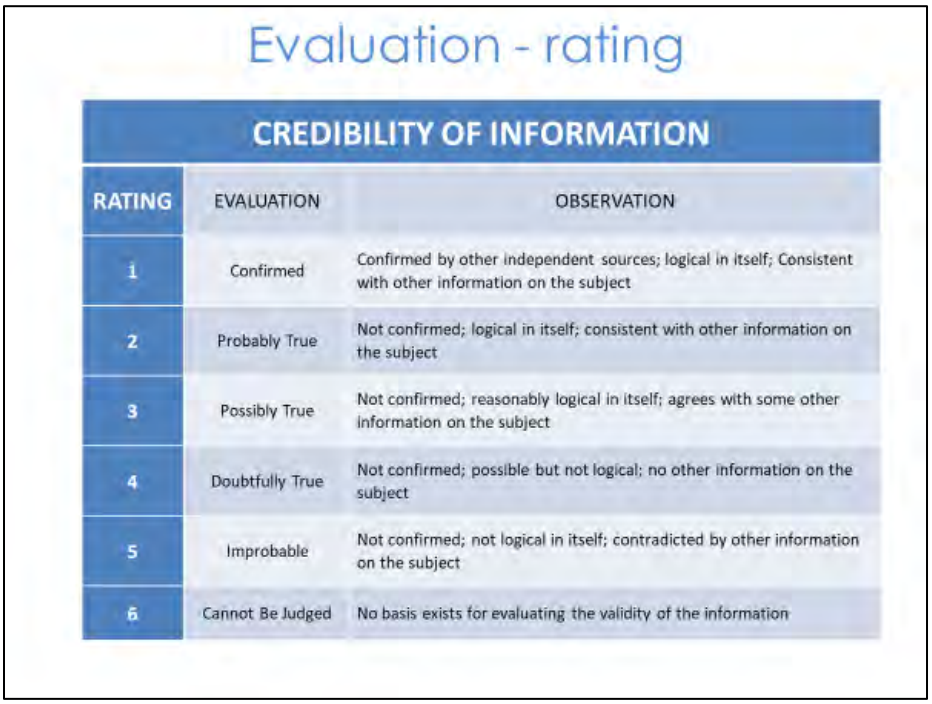
Information is rated in the form of an alphanumeric code whereby the Letter indicates the reliability of the source and the Figure indicates the credibility of the information. In this table, the letters go from A to F ranging from "reliable" to "cannot be judged".

- For "Reliable" there is No doubt of the authenticity, trustworthiness, or competency of the source as it has a history of complete reliability
- For "Usually Reliable" there is a Minor doubt about its authenticity, trustworthiness, or competency and it has a history of valid information most of the time
- For "Fairly Reliable" there is a doubt of its authenticity, trustworthiness, or competency but has provided valid information in the past
- For "Not Usually Reliable" the doubt is significant, but the source has provided valid information in the past
- For "Unreliable", the source lacks authenticity, trustworthiness, and competency and has a history of invalid information

- The letter "F" is attributed to the source when there is no basis that permits evaluating its reliability

Please note that the acquisition agency is the one that usually rates the source. The caveat to that is that the source must be registered, but higher HQ might assign a different level of reliability. When evaluating a source, you are letting analysts know how much you think this source can be relied upon. It is okay if different people have different opinions on the source's reliability, so long as you have offered a considered evaluation.

Slide 14



Key message: Evaluate credibility independently from source reliability to avoid mutual influence. Even the most reliable source can provide wrong information.

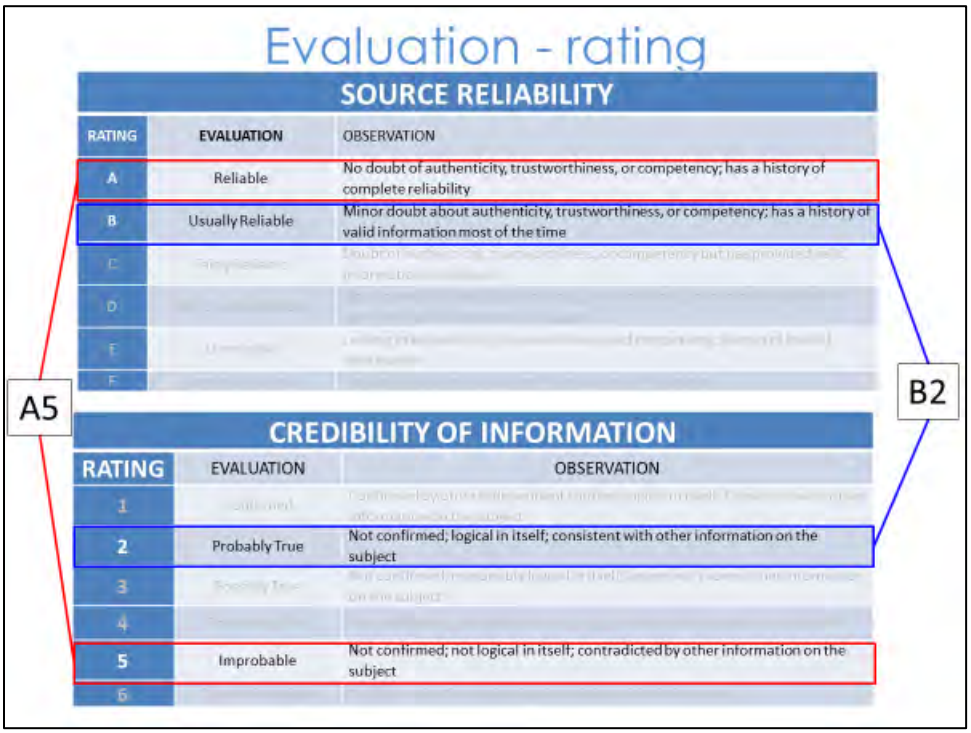
In this table, you can see that the Figures go from 1 to 6 ranging from “confirmed" to "cannot be judged “going through "probably true “, "possibly true “, "doubtfully true “and “improbable”.

A higher HQ normally accepts the reliability evaluation offered by a reporting headquarters. However, it might change its grading if incorrect grading cases were registered in the past; or when it has access to an overall source register.

If you are to serve in a U2 Branch, you will have the responsibility of maintaining the 'theatre source register’. Therefore it is very important to evaluate the credibility of the information with no regard to its source.

There is a natural tendency to take what is reported by a reliable source as confirmed or probably true. But keep in mind that even the most reliable source can provide wrong information.

Slide 15



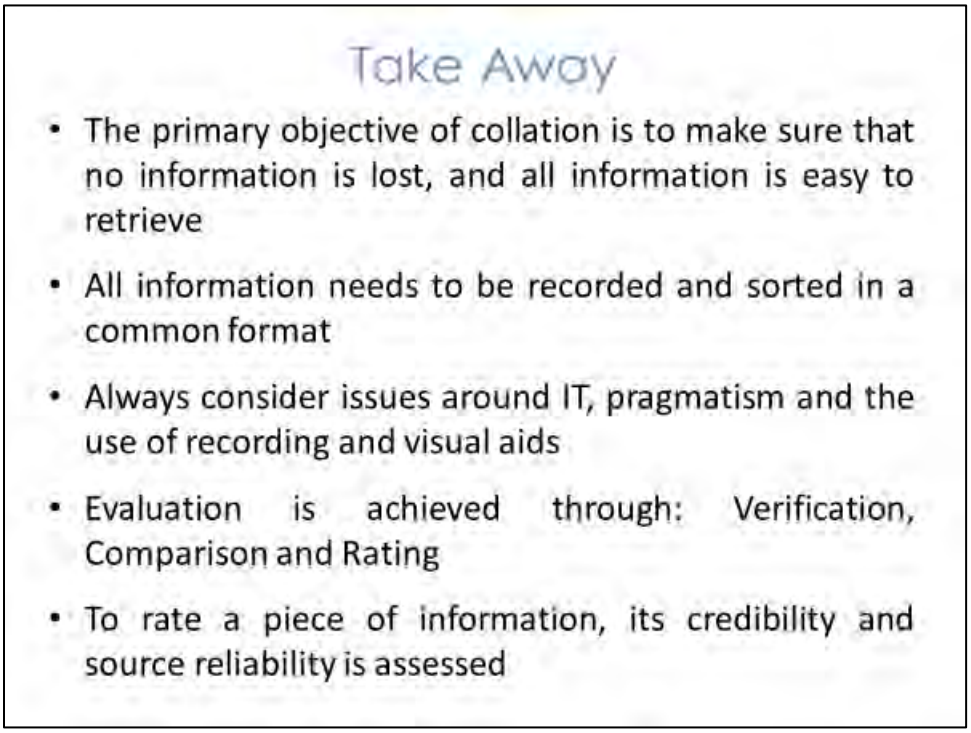
Key message: Rating is the combination of the source reliability and the information credibility grading; a letter and a number.

By combining the reliability of the source and the credibility of the information, we can attach a rating to a piece of information that is a combination of a letter and a number.

For example, information coming from a B-graded source (minor doubt about authenticity, trustworthiness, or competency; has a history of valid information most of the time) that has 'not been confirmed but is logical and consistent with other information on the subject, must be graded as B2

Please keep in mind that a reliable source can deliver improbable information in which case the rating would be A5. in such a case the figure is more important than the letter as it reflects the confidence level attributed to the information.

Slide 16



Summary

The aim of this lesson was to provide you with the necessary information to understand and apply the fundamentals of Collation and Evaluation.

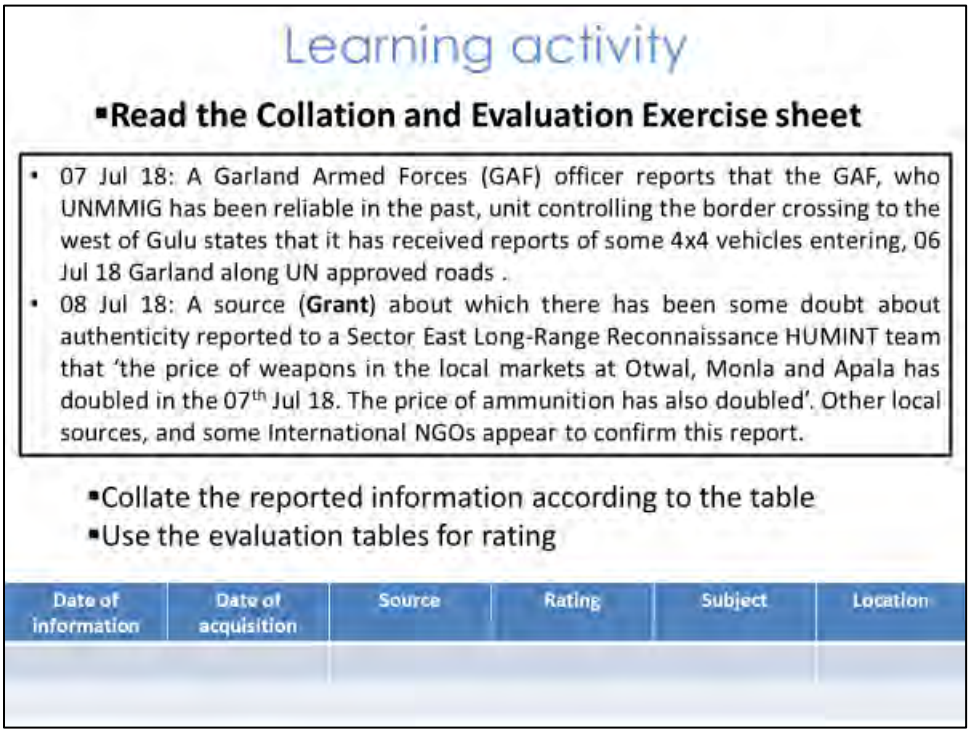
- The primary objective of collation is to make sure that no information is lost, and that all information is easy to retrieve
- All information needs to be recorded and sorted in a common format
- Always consider issues around IT, pragmatism and the use of recording and visual aids
- Evaluation is achieved through: Verification, Comparison and Rating
- To rate a piece of information, its credibility and source reliability is assessed.

Learning Activity

RESOURCES
Whiteboards, chalkboards or butcher/chart paper
Markers and chalk, computers or pens and papers.

Approx. TIME
15-20 minutes

Task:
Students have 10min to read these reports and collate them according to the projected format. See the slide below.



NOTE TO INSTRUCTORS:

Hide this slide below and use it as a tool to discuss the trainee's answers, eventually project it at the end of the discussion. Reinforce the learning outcomes and assess the knowledge of the group and individuals.

Learning activity possible answers

Serial number	Date of information	Date of acquisition	Source	Rating	Subject
1.1	06 Jul 18	07 Jul 18	A Garland Armed Forces (GAF) officer	A/2, A/3,A/4 Or B/2, B/3,B/4	4x4 vehicles entering Garland along un approved roads
1.2	07 Jul 18	08 Jul 18	Grant,	A/1, A/2 Or B/1, B/2 Or C/1, C/2,	the price of weapons and ammunition in the local markets has doubled

Lesson
3.3b

Introduction to Analysis and Integration

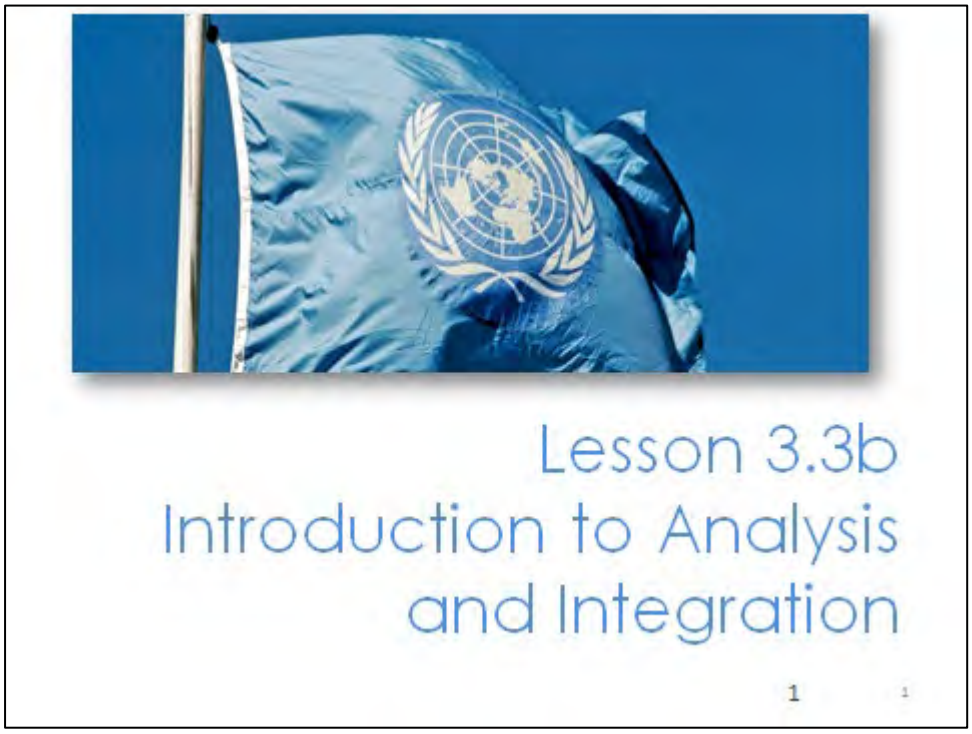
The Lesson

Starting the Lesson

Interaction. *Have the student break into a few groups. Assign each group a few of the questions below and have them address the class:*

- *Why does our analysis need to align with the commander's requirements?*
- *Why does our analysis need to follow the PKI process?*
- *What do we do to fill information gaps?*
- *Why do we need to deliver analysis on time?*
- *Why does our analysis need to be audible by another analyst?*
- *Why should we draw our analysis from multiple sources?*

Slide 1

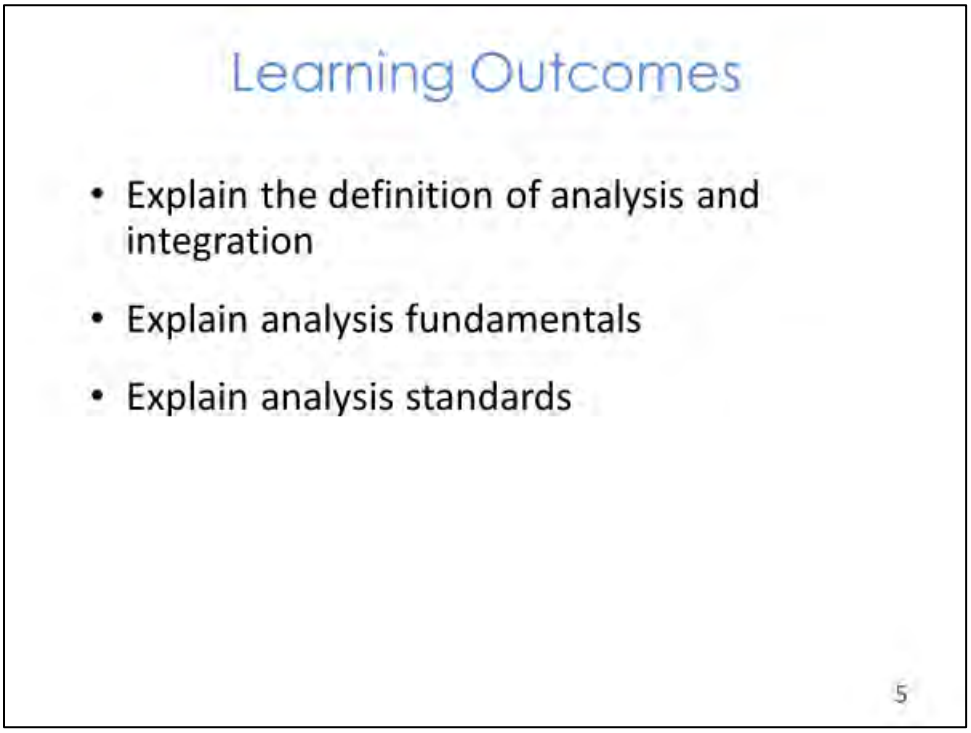


We are now going to cover an introduction to Analysis and Integration.

Slide 2

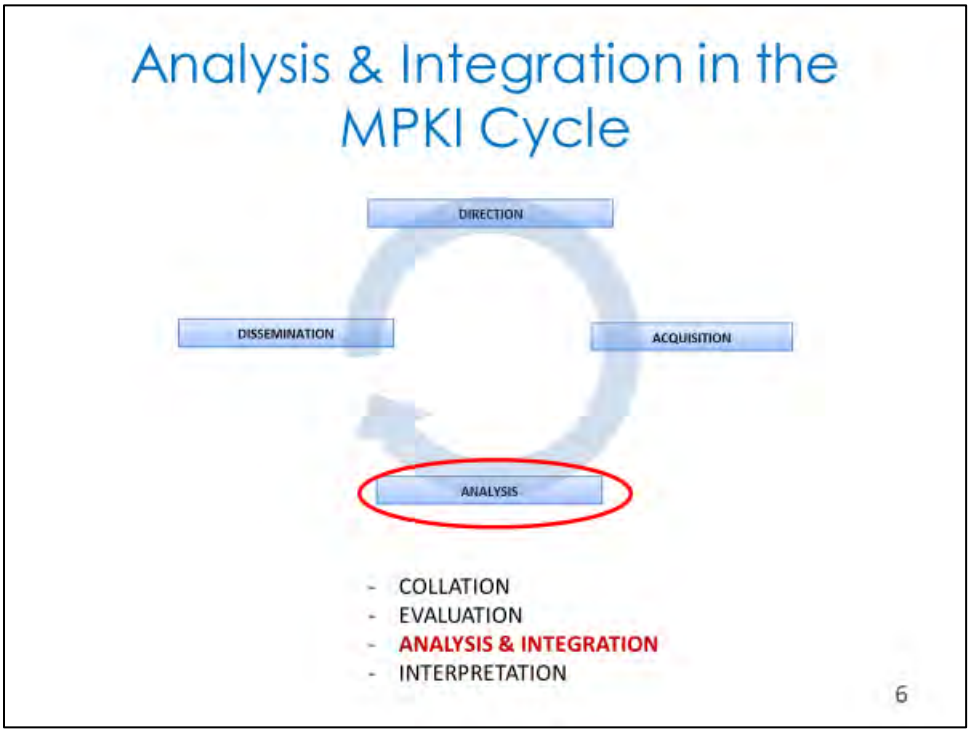
Here is the lesson content. These topics will provide MPKIO / peacekeepers with an understanding of the analysis fundamentals and standards.

Slide 3



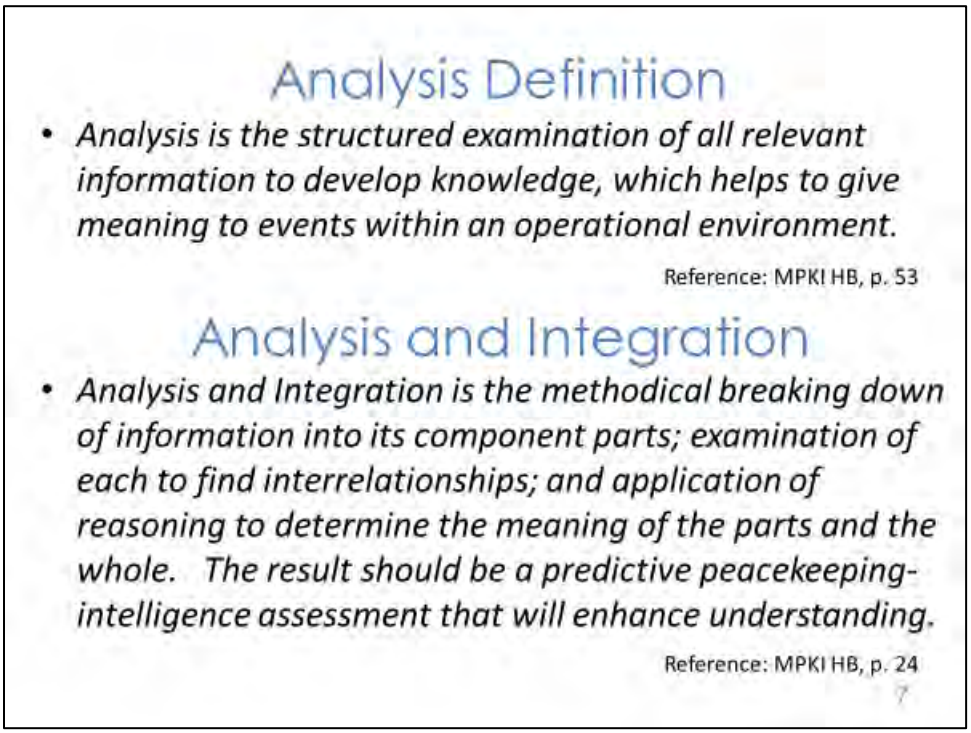
At the end of this lesson, you should be able to explain analysis and integration and explain the fundamentals and standards of analysis, as discussed in this lesson.

Slide 4



Analysis and Integration is the third step in the Analysis phase of the MPKI Cycle. Let us recap what we have already covered. We had lessons and learning activities on the direction and acquisition phases of the MPKI management cycle. We also covered the first two steps of the analysis portion of the management cycle. In this lesson, we will discuss and apply the 3rd step of the analysis phase, which is analysis and integration.

Slide 5



Key message: Analysis follows a deliberate, structured process or processes that integrate all that we learn intending to enhance our understanding of the operational environment meaningfully.

Analysis Definition:

There are two key elements of the definition of analysis:

- The analysis is structured; it is not intuitive. Analysts use a disciplined process to examine, break down, test and refine the information that leads to reliable assessments; they do not make things up based on gut feelings
- The analysis must develop understanding by revealing the meaning of events in the operational environment that the supported commander is responsible for. This meaning must be predictive, that is forward-looking. However, the PKI analysis needs to help decision-makers understand what events mean for the future, not just what they meant at the time they occurred

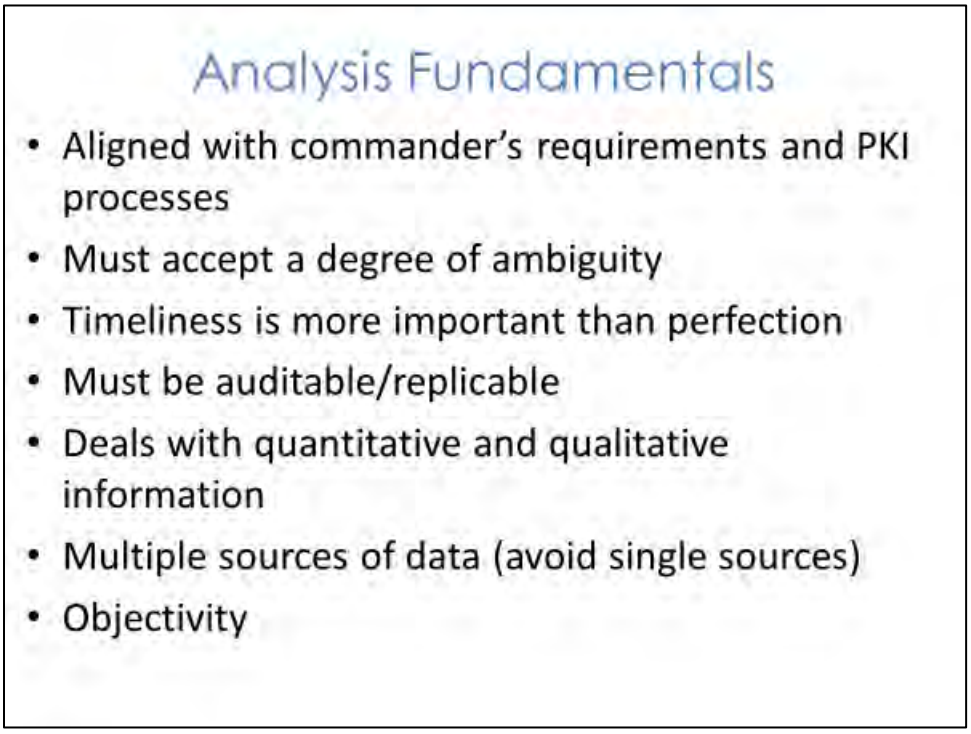
Analysis and Integration:

During the Analysis and Integration step of the MPKI Cycle, the methodical and structured breaking down of information into its parts to understand the meaning of events is not enough to support the mission or protect civilians.

An analyst must also consider all the analysed parts and fit them together (integrates them) in order to create an overall picture of what is happening and, more importantly, what is likely to happen in the future. Only then the analysis will be able to assist decision-makers in achieving the mission better and/or protect civilians.

Why are we so deliberate with our analysis and integration? It is because the peacekeeping environment is always going to have degrees of complexity, and we do not want to overlook important factors.

Slide 6



Key message: Applying fundamental analysis principles ensures that the quality and timeliness of PKI effectively aids the achievement of mission goals, particularly POC.

No matter how clever it might be, any analytical effort that does not align with achieving the commander's requirements is wasted, so an analyst must understand the commander's requirements before commencing the analysis process.

Also, PKI processes, as outlined in the MPKI HB, have been designed to deliver the best intelligence that supports the UN MDMP. These processes ensure that an analyst can pick up someone else's work and continue it – analysts should therefore follow proper PKI processes as much as possible.

An analyst must be able to accept some ambiguity because, ordinarily, no analyst can achieve complete clarity by removing all ambiguity. An analyst demonstrates their professional competency and courage by offering assessments based on imperfect understanding.

Timeliness is important, good analysis delivered too late can cost lives – it is much more important to meet decision deadlines with incomplete analysis than to withhold information from decision-makers.

It is important that your analysis can be audited and replicated. An analyst needs to be able to show what information they have drawn their analysis from so that other analysts can follow their reasoning and use it.

Analysts may deal with both qualitative and quantitative information, noting that quantitative information is primarily objective and easily measurable. In contrast, qualitative information is primarily subjective and difficult to measure but is necessary to support predictive analysis, so should not be avoided. For example, if we see a group of fighters we can easily count how many there are and how many weapons they have (quantitative), but we also need to make a qualitative assessment on how effective they might be as a fighting force to predict the level of threat they represent and to whom. For example, if they are all over 70 years old and have trouble walking, we can assess that they will not be very effective.

Single sources of data should be avoided due to the risk of being deceived by a threat source who wants us to believe something that is not true. By seeking to confirm data through multiple sources, we can gain improved confidence in our analysis, and expose potential deceptions.

While the information we deal with may be subjective (e.g. qualitative), analysts themselves need to remain as objective as possible. This requires a high level of self-awareness, especially understanding our biases. Everyone has biases that can affect how we interpret information. Still, if we are aware of what those biases might be (e.g. cultural or family inherited perspectives on ethnicity, gender, religion, social status, dress, courtesy, etc.), we can guard against allowing our biases to affect our analysis. One way to check ourselves is to regularly list and challenge any assumptions we might make (e.g. because of our cultural background we may assume that women are always subordinate to men, and as a result, we may misidentify a woman actor as being insignificant when she may, in fact, be a key decision-maker/influencer in her culture).

Slide 7

All UNPKI analytical product is expected to meet the identified standards to best support the UN MDMP.

- Analysis fundamentals are focused on the analyst, and analysis standards are focused on the product, so they naturally overlap
- The product needs to be objective in that it does not contain bias that will mislead decision-makers
- The product needs to be delivered in time to make a difference
- The product needs to be accurate so that it is reliable, including noting what we don't know (information gaps). Information gaps should then be added to the IAP or sent as RFIs to relevant units
- Products need to be relevant, and they should directly support the achievement of the commander's mission and/or support CPOC. The analysts need to be aware of the commander's requirements and any threats to civilians
- Analysis should be based on information derived from the maximum number of relevant sources that can be practically drawn from in the time available. As a

rule, the more sources that contribute to the analysis, the more confident we can be in the analytical product

- Appropriate. Analytical tools provide disciplined processes to analyse information in ways that force analysts to consider different perspectives and possibilities. Analysts should become familiar with a range of analytical tools (found in chapters 7 and 9 of the MPKI HB) so that they can select and use appropriate tools to test and refine information

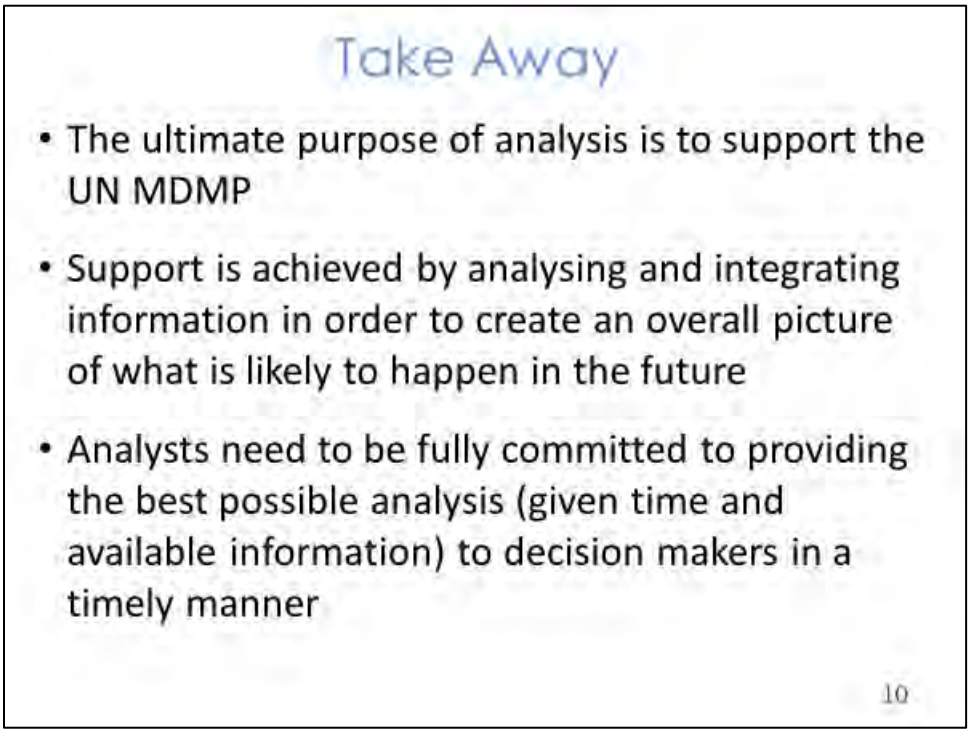
- Products need to be evaluated. While sources (persons) may not be named in the analytical product, source evaluations should be marked against sourced information (e.g. A man on a green bicycle rode through the crossroad at approximately 1025 Hs [Source: B:3]). What does B:3 tell us about the source and information? Usually reliable and or possibly true.

- Products need to be clear. Clarity is defined as clearly differentiating between fact and assessment – all product needs to be clear on what is known or reported as fact, and what is assessed by the analyst. For example, it was reported that a man on a green bicycle rode through the crossroad at approximately 1025 Hs. It is assessed that the man is likely to be John Smith, who owns a green bicycle. The product should include, where appropriate, explanations of any concerns about the reliability of the information, any reasons for confidence and/or any possible alternative explanations for what has been reported, e.g., Source is suspected of being colour blind, therefore it may also have been John Brown who owns a red bicycle

- The product should identify any changes in the analysis since the last time analysis was communicated. An analyst may be tempted to hide changes if new information arises, and their original assessment is proven to be false. However, a good analyst always seeks to provide the best possible analysis to decision-makers, so should always demonstrate professional courage by identifying changes to assessments, explaining why it has changed

- Lastly, perspectives can often differ between genders offering analysts a useful opportunity to gain a broader understanding of the operating environment. Hence analytical processes and product should always incorporate the perspectives of both genders. For example, during a riot, men will likely notice other men whom they consider to be a threat to themselves and their families and be focused on them, but women may also notice what is happening to other women and any children in the area and will generally remember supporting details with better clarity than men.

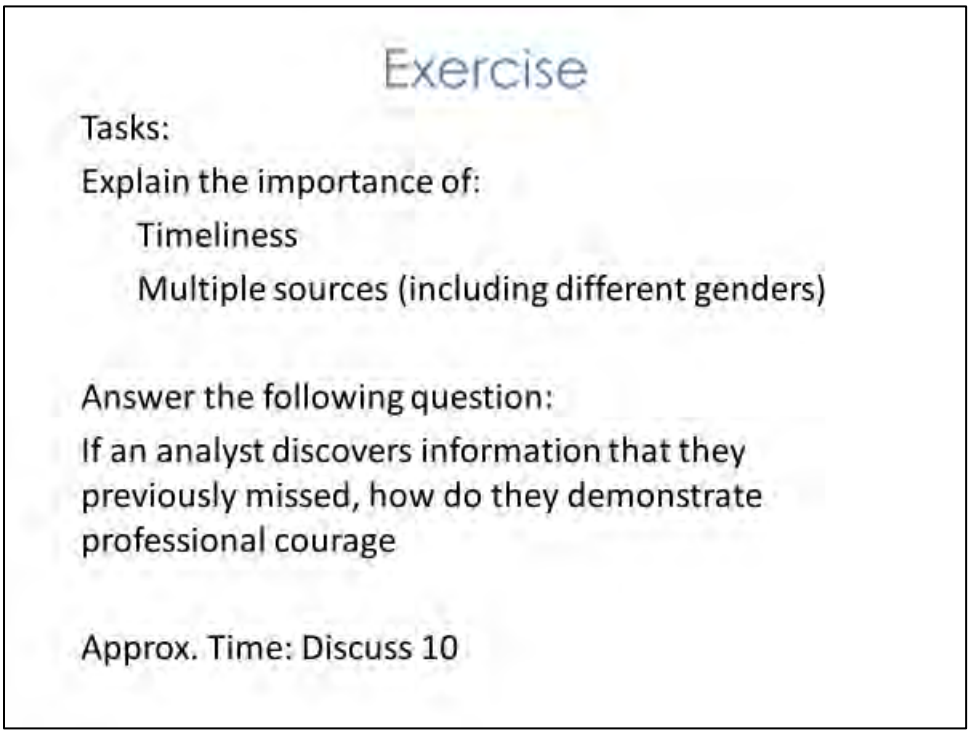
Slide 8



Summary

Analysis that does not support the UN MDMP and decision makers is of no value, therefore an analyst needs to keep in mind that their job is to provide the best possible assessments to decision makers in time to have a positive effect on the protection of civilians and mission personnel, and on the achievement of the mission.

Learning Activity



LEARNING ACTIVITY

RESOURCES
Pen and paper, UNPKI HB

TIME
Approx. 10-15 minutes

NOTE TO INSTRUCTOR:

Have the class break into a few smaller groups and have them discuss the above questions (5 minutes). Ask each group to answer one question for 1-2 minutes and if you think it will not cause disruption, encourage the other groups to challenge the answers given, testing their assumptions and logic (10 minutes).

Questions:

If you provide advice to a decision-maker too late for the advice to affect the plan, all your analytical effort is wasted. It is critical to delivering an analytical product with sufficient time for the decision-maker to consider it and integrate it into their decision making, even if the product is incomplete or you don't feel like you have a complete understanding (in fact, you should always expect to have an incomplete understanding). If you do have incomplete understanding, you provide any analytical insights that you have generated in the available time and identify the areas that you feel are incomplete, which will naturally lead to IRs.

2. Explain the importance of multiple sources (include gender).

An effective analyst will use every available source to add as many perspectives to their understanding as they can to create as complete an understanding as they can in the time available. An obvious, but sometimes overlooked perspective, is that of gender, so an effective analyst will always consider the perspectives of both gender, which means actively seeking both men and women as sources, if possible in all the represented groups (e.g. if refugees are providing information, be sure to seek information from both the men and women in the refugee group).

3. If an analyst discovers information that they previously missed; how do they demonstrate professional courage?

An analyst should always seek to offer the best available truth to decision-makers. This means that if an analyst has previously assessed a likely threat course of action, but new information shows that this is no longer likely, they demonstrate professional courage by immediately amending their assessment and communicating what has changed to decision-makers.

Lesson
3.3c

3 Column Format

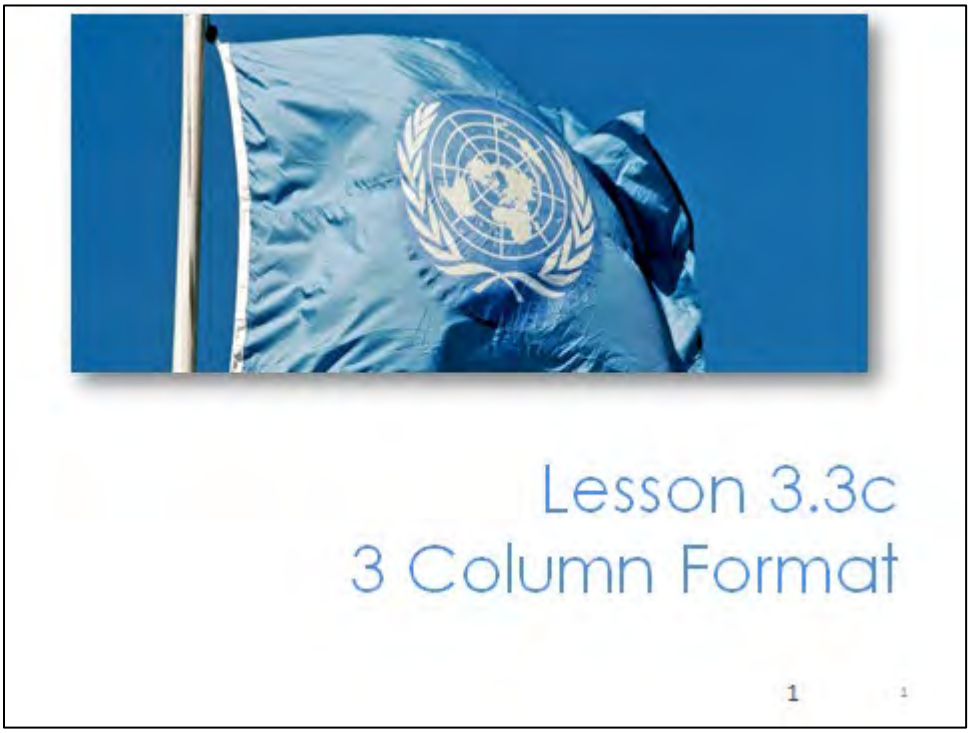
The Lesson

Starting the Lesson

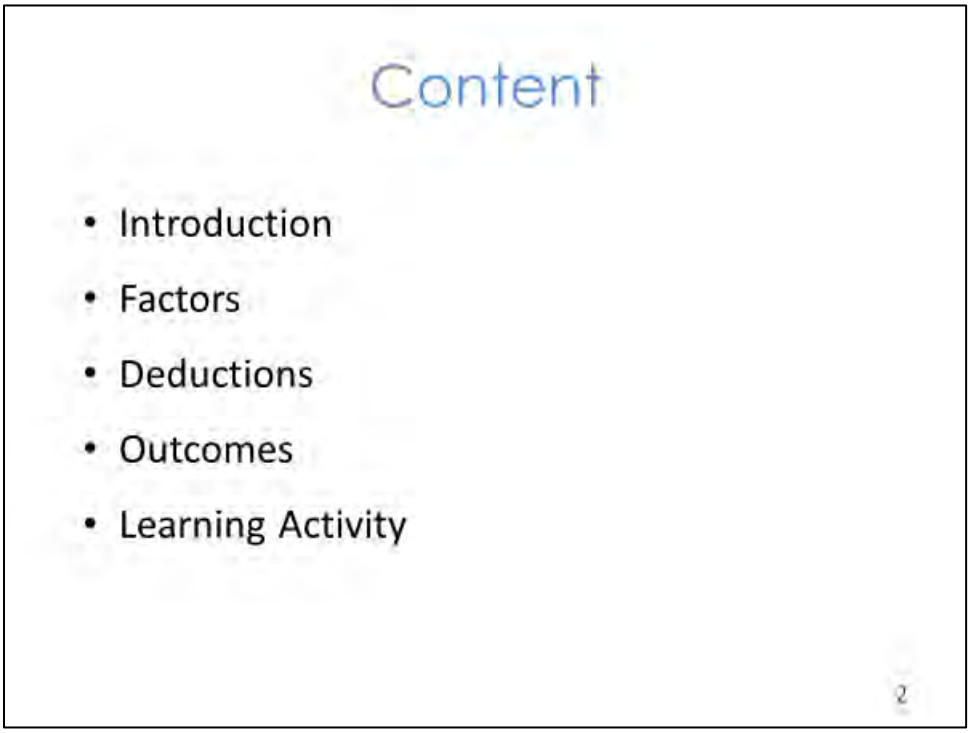
Interaction: *Break the students into small groups and assign the following questions. Have the students answer the questions and report to the class their answers.*

- *What is end state/ contribution of our tasks / products?*
- *Why do we call our products planning guidance?*

Slide 1

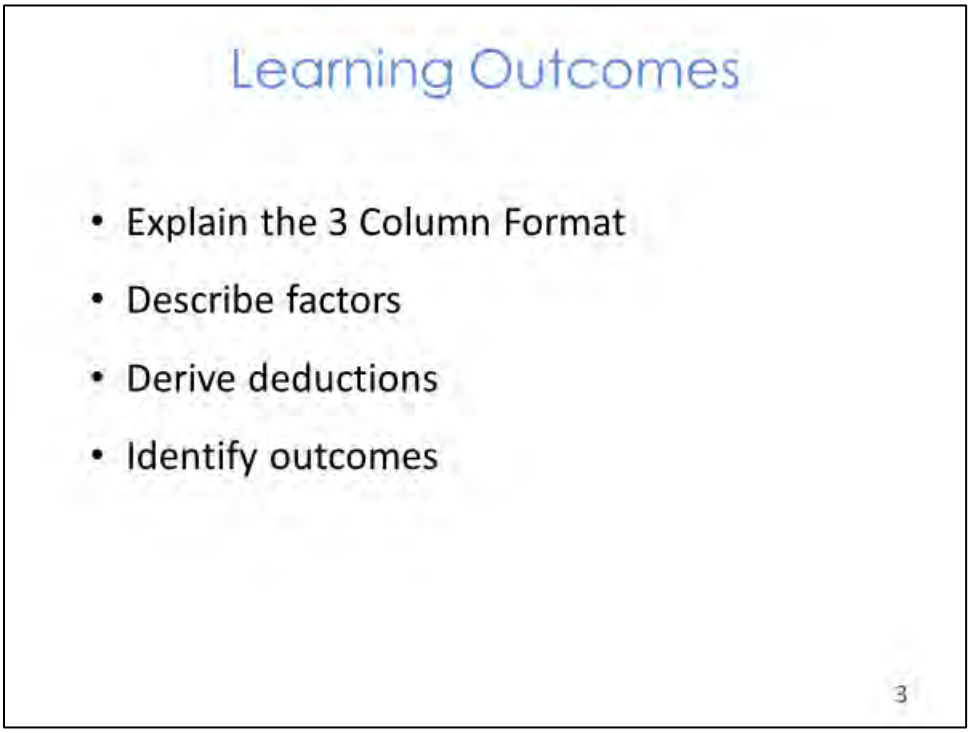


Slide 2



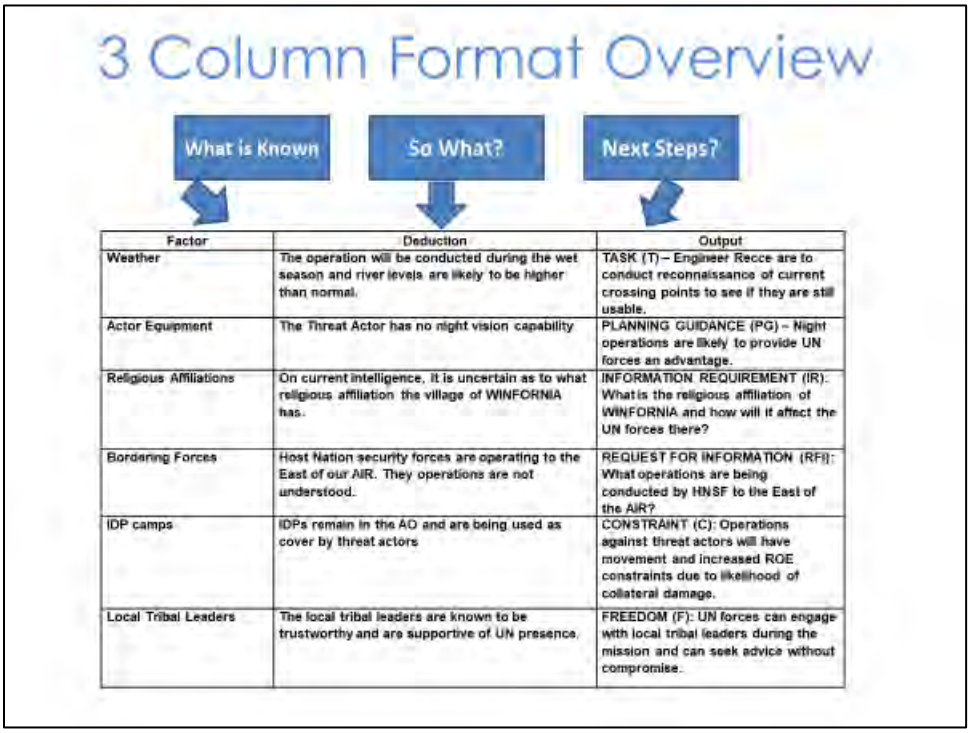
Here is the lesson content

Slide 3



On completion of this lesson, you will be able to explain the 3 Column Format and accurately derive, identify and fill in relevant factors, deductions and outcomes.

Slide 4



Factor	Deduction	Output
Weather	The operation will be conducted during the wet season and river levels are likely to be higher than normal.	TASK (T) – Engineer Recce are to conduct reconnaissance of current crossing points to see if they are still usable.
Actor Equipment	The Threat Actor has no night vision capability	PLANNING GUIDANCE (PG) – Night operations are likely to provide UN forces an advantage.
Religious Affiliations	On current intelligence, it is uncertain as to what religious affiliation the village of WINFORNIA has.	INFORMATION REQUIREMENT (IR): What is the religious affiliation of WINFORNIA and how will it affect the UN forces there?
Bordering Forces	Host Nation security forces are operating to the East of our AIR. They operations are not understood.	REQUEST FOR INFORMATION (RFI): What operations are being conducted by HNSF to the East of the AIR?
IDP camps	IDPs remain in the AO and are being used as cover by threat actors	CONSTRAINT (C): Operations against threat actors will have movement and increased ROE constraints due to likelihood of collateral damage.
Local Tribal Leaders	The local tribal leaders are known to be trustworthy and are supportive of UN presence.	FREEDOM (F): UN forces can engage with local tribal leaders during the mission and can seek advice without compromise.

Key message: The 3 Column Format is a simple analytical tool that all analysts need to be able to use to draw deductions and outcomes from factors.

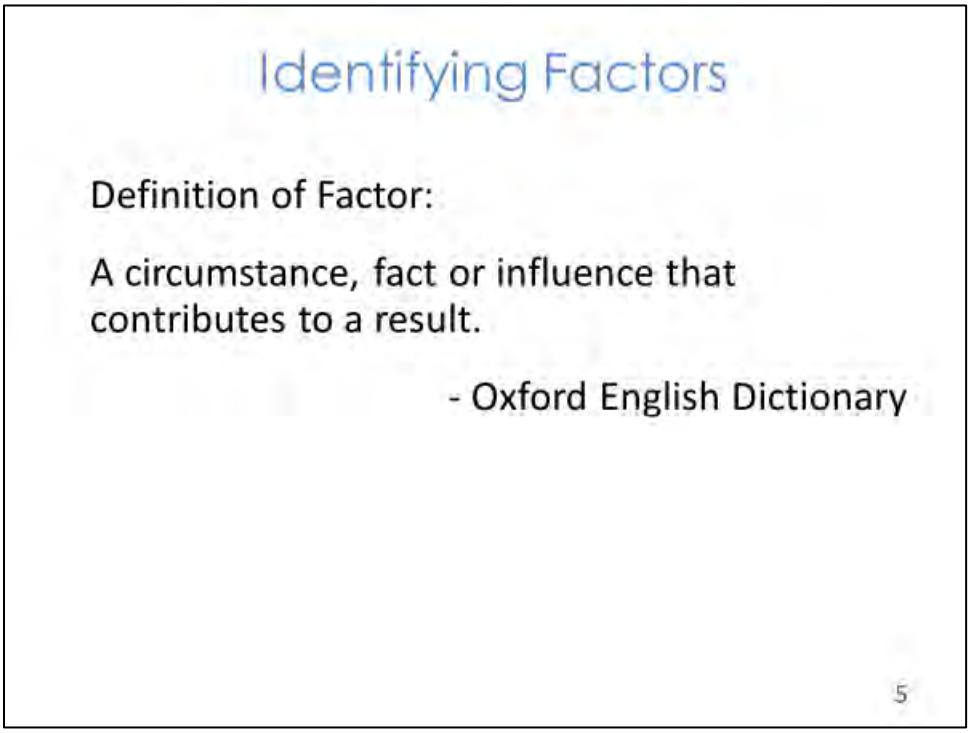
The 3-column format is the cornerstone of PKI analysis – you have already seen it as a tool to derive PIRs, and it is the basic building block of the Peacekeeping-Intelligence Estimate, so if you are not already familiar with it, you must understand it as you will get to use it again, many times.

In very simple terms, it takes what is known or reported as fact (noting that sources may report things that need to be tested and may not be fact) and asks so what, and what are the next steps, that is what we should do about this information and the deductions that we have drawn from it?

A 3-column format is a tool for making deductions and determining outcomes, but it also provides a useful logic trail that you and other analysts can use to test assessments. Most analysts have no problem identifying factors, but many struggles to fully deduce what it means and so can struggle to know what the outputs should be – in this lesson we will help you to avoid those challenges.

As is always the case, such analytical tools are more easily applied as one knows or learns more about the operating environment. It is not easy to make deductions about an operating environment that one is unfamiliar with.

Slide 5

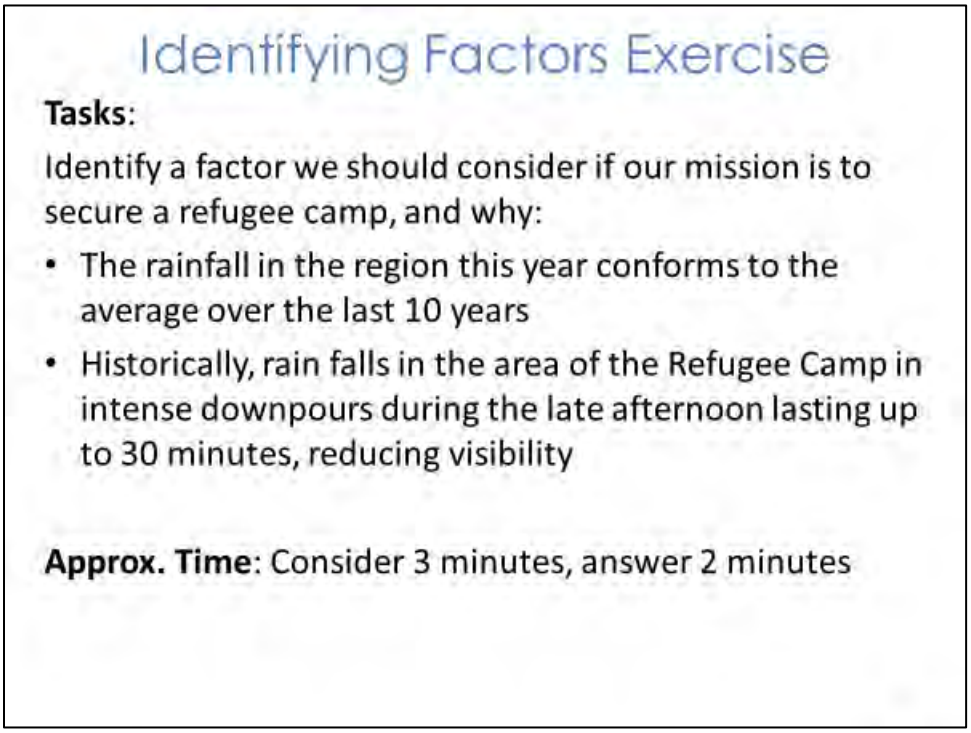


Key message : Factors lead to a relevant result or an output - if a circumstance, fact or influence has no bearing on our mission or the protection of civilians, we can discard it.

The Oxford English Dictionary provides a sound definition of a factor for us, noting that a factor must contribute to a result. Otherwise, it is just an interesting piece of information. Because our analysis must support the mission and/or the protection of civilians, the factors we consider must contribute to a result that supports the mission and/or the protection of civilians.

Example: If we note that next to a refugee camp, there is a historical building that is an excellent example of early architecture, that is interesting, but not a factor we should consider. If we note that that building is placed on the only high ground that overlooks the refugee camp, we should deduce immediately that its position offers a security advantage to whoever occupies it, and so it impacts on the protection of civilians and potentially our ability to achieve our mission, so it should be considered.

Slide 6



Working in syndicate groups have participants review the slide and then discuss. Then have syndicate groups report back brief the plenary. Below are a few areas to assist in facilitating the discussions.

- *Ask which groups identified factor 1 as needing to be considered, and which groups identified factor 2 as needing to be considered.*
- *Ask any group who identified fact 1 why they did so.*
- *Ask any group who answered the fact 2 why they did so.*

Possible solution sets to assist you in facilitation:

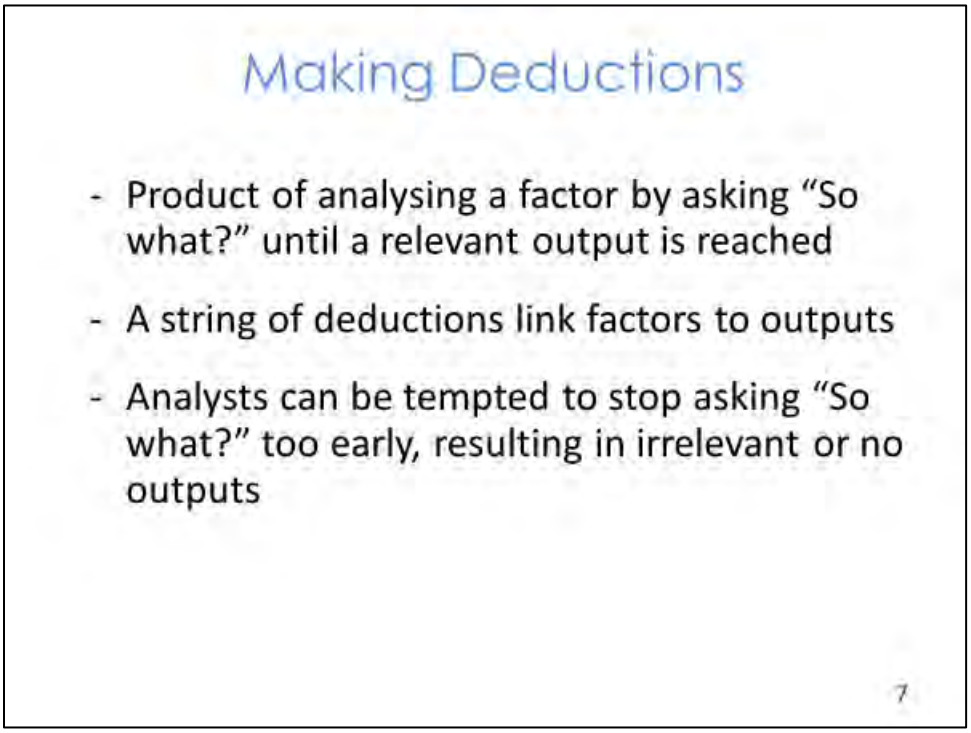
Fact 1 is an interesting piece of information, but it has no meaningful impact on the mission or protection of civilians so it does not need to be considered (though allow for some imaginative reasons why someone might include it for consideration) – it only suggests that it is business as usual in the area of the camp.

If the year had had lower than normal rainfall, you could consider whether or not there might be a shortage of water for the refugees, or if it was higher than normal, you could consider whether or not there was a risk of flooding and what impact that might have on living conditions, hygiene and/or waterborne

disease threats, but conforming to the average suggests that the ground is unlikely to be significantly affected.

Fact 2 should be considered as the type of rain reduces visibility for up to 30 minutes, which could provide cover for criminals such as human traffickers or smugglers to move in and out of the camp undetected. There may also be a risk of flooding if the presence of tents or stores blocks the drainage routes in the camp.

Slide 7

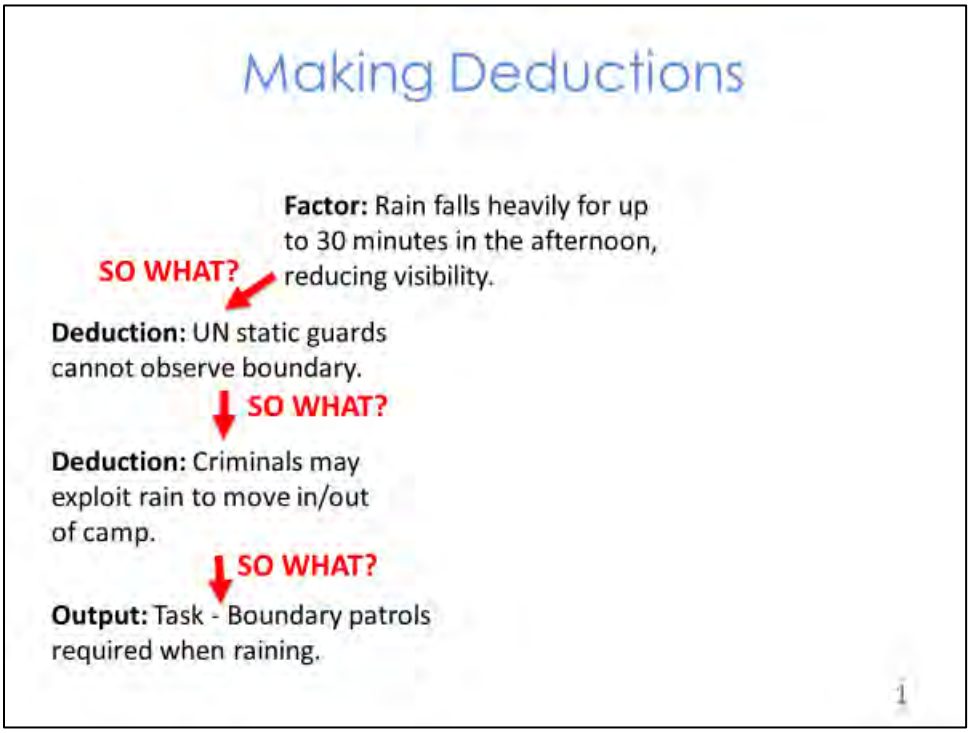


Key message: Deductions produce outputs from factors by repeatedly asking "So what?" until the output is reached.

A deduction is produced when we take a factor and pass it through an analytical process. In the case of the 3 Column Format, we use a very simple process where we repeatedly ask the question, "So what?", each time producing a deduction that leads us closer to output.

An analyst needs to keep asking "So what?" until the output is reached, and not give up too early resulting in a dead-end with no output or output that does not support the mission and/or protection of civilians.

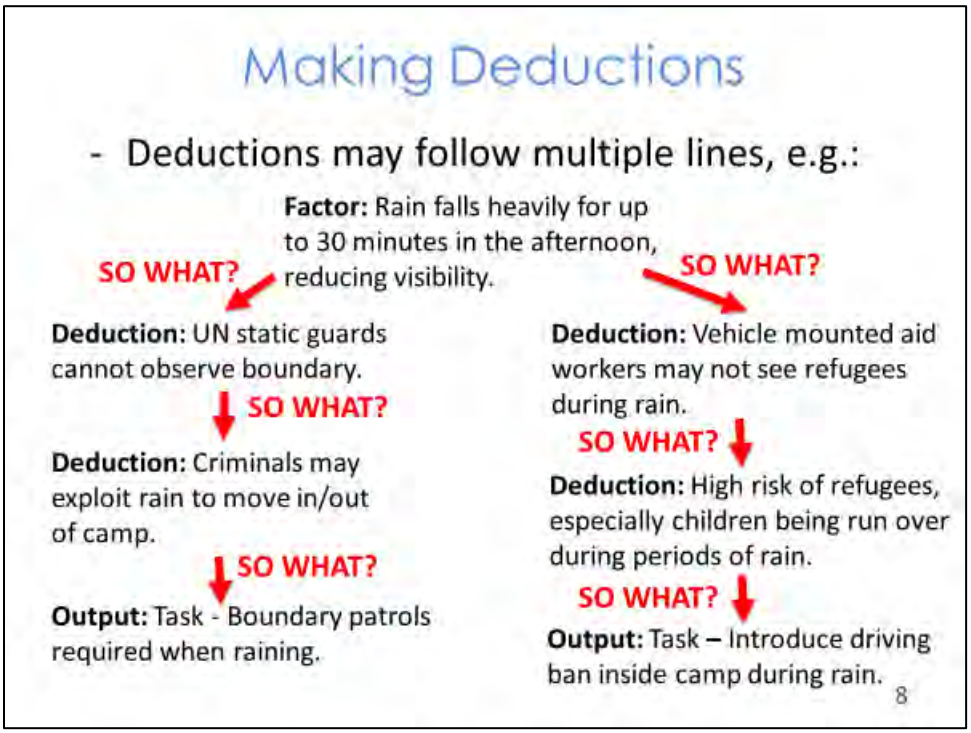
Slide 8a



On this slide let us visit an example of this line of deductions. If we start with the factor that rain falls heavily for 30 minutes most afternoons, which reduces visibility, we can ask the question, "So what?". Our deductions might then follow like this:

- Deduction 1 – UN forces may not be able to observe movement in and out of the camp for up to 30 minutes per day. So what?
- Deduction 2 – Criminal elements may exploit this 30-minute window to move in and out of the camp. So what?
- Output – Extensive boundary patrols need to be carried out during rainstorms in order to interdict/discourage potential criminal movement

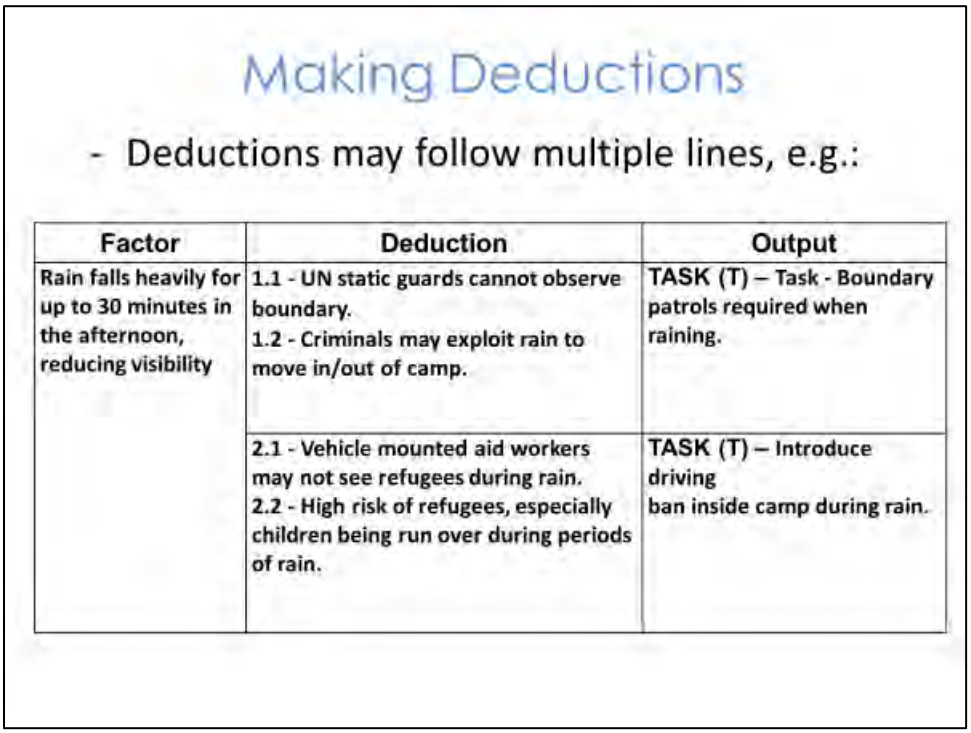
Slide 8b



Key message: Multiple lines of deductions and outputs may come from single factors.

Once we have considered a line of deductions that result in a relevant output, be sure to go back to the factor and consider whether or not other lines of reasoning might follow from the same factor, as in the example shown where poor visibility due to heavy rainfall may result in criminal activity AND may place refugees at risk.

Slide 9



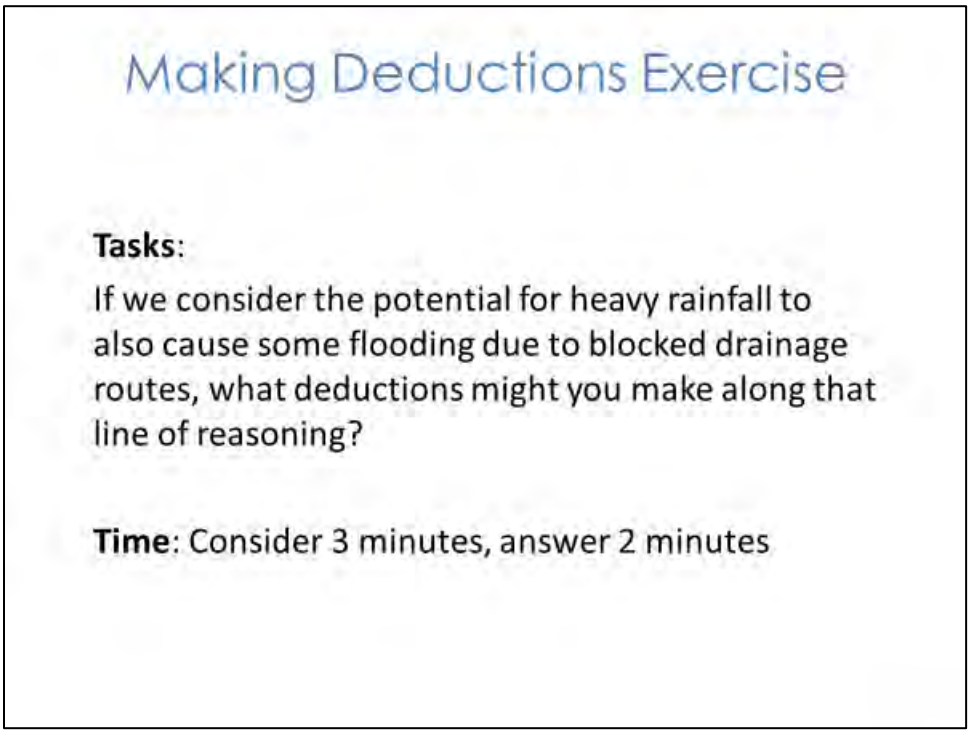
Making Deductions

- Deductions may follow multiple lines, e.g.:

Factor	Deduction	Output
Rain falls heavily for up to 30 minutes in the afternoon, reducing visibility	1.1 - UN static guards cannot observe boundary. 1.2 - Criminals may exploit rain to move in/out of camp.	TASK (T) – Task - Boundary patrols required when raining.
	2.1 - Vehicle mounted aid workers may not see refugees during rain. 2.2 - High risk of refugees, especially children being run over during periods of rain.	TASK (T) – Introduce driving ban inside camp during rain.

This is what those two lines of deductions might look like in the 3 Column Format.
From this slide, now we can see how this also provides a good way for other analysts to audit your analysis; that is, they can follow your reasoning so that they can test or build on your initial analysis.

Slide 10



Working in syndicate groups have participants review the slide and then discuss. Then have syndicate groups report back brief the plenary. Below are a few areas to assist in facilitating the discussions.

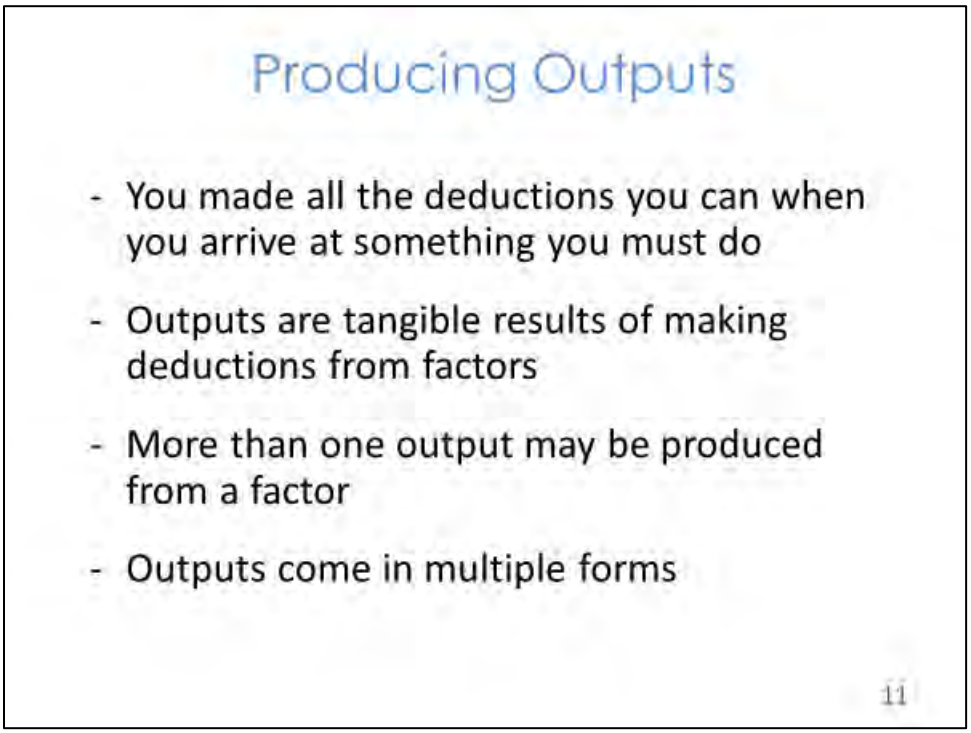
- *Ask two or three groups to explain their deductions*
- *If you can see their logic, complement them, if you can't see their logic, ask them to expand on their deduction*
- *Complement any imaginative deductions*
- *Complement anyone who also offers a relevant output*

Possible solution sets to assist you in facilitation:

- *Refugees may block drainage routes with rubbish. [Possible output: Task – Provide rubbish bins]*
- *Rubbish may spread through the camp and spread disease. [Possible output: Task - Clear drainage routes daily]*
- *Toilets may overflow and spread disease. [Possible output: Planning Guidance – Toilets to be constructed on the high ground]*

- *Children playing in the water will be exposed to diseases. [Possible output: Task – Impose a rain curfew]*
- *Standing water poses a drowning threat to small children. [Possible output: Task – Impose a rain curfew]*
- *Some accommodation may be flooded, causing dampening of bedding and a health risk. [Possible output: Planning Guidance – Plan to hold dry bedding in reserve]*
- *Family food stores may be flooded, causing food to rot and health risk when eaten. [Possible output: Planning Guidance – Consider a food swap option to exchange rotten food]*
- *Snakes may be flushed out of holes posing a threat to refugees, especially children. [Possible output: Task – Impose a rain curfew]*

Slide 11



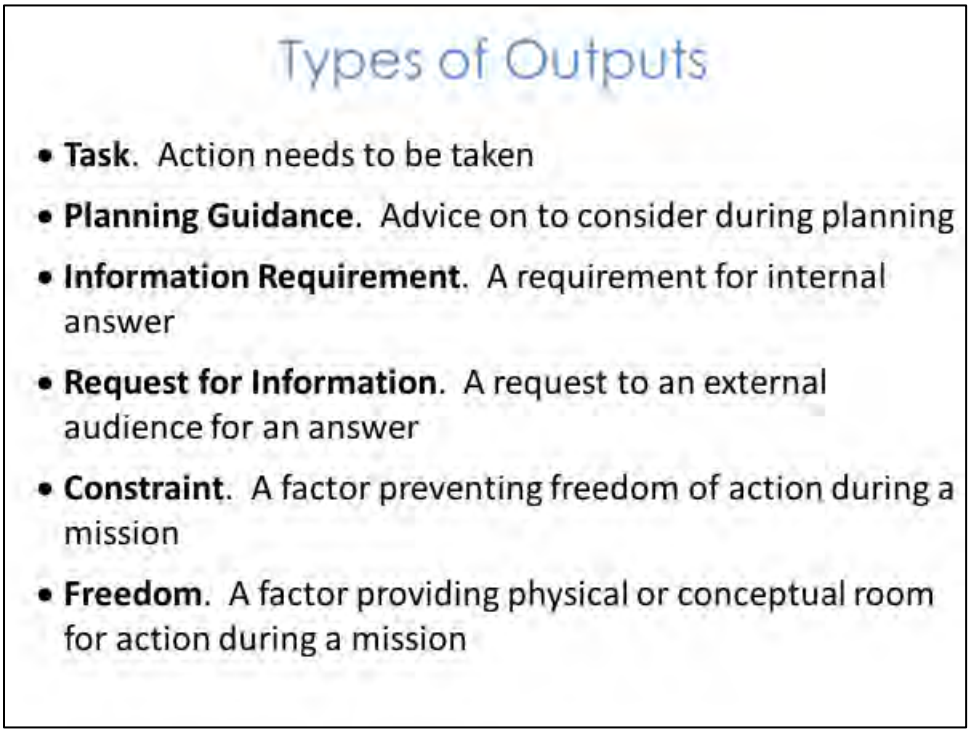
Key message: Outputs are the natural result of exhausting a string or line of deductions.

When you have exhausted a line of deductions, the natural product is output. You can recognise an output because it identifies something that must be done, rather than a deduction that is further information derived from a factor or a previous deduction but does not require you to do anything. Deductions build understanding, but outputs require an action to do something.

Multiple outputs can be derived from a single factor, for example, a series of deductions from the single factor that rain reduces visibility may produce a clear task (such as patrolling the refugee camp boundary during rain) and a Request For Information (such as "What routes do known criminal groups use to enter and exit the refugee camp?")

Outputs come in several forms, which we will discuss in more detail on the next slide.

Slide 12



Key message: Outputs take several forms, but each requires a tangible response.

Ask the students to explain these types of outputs. Use the narrative below to facilitate or explain.

The following are common outputs:

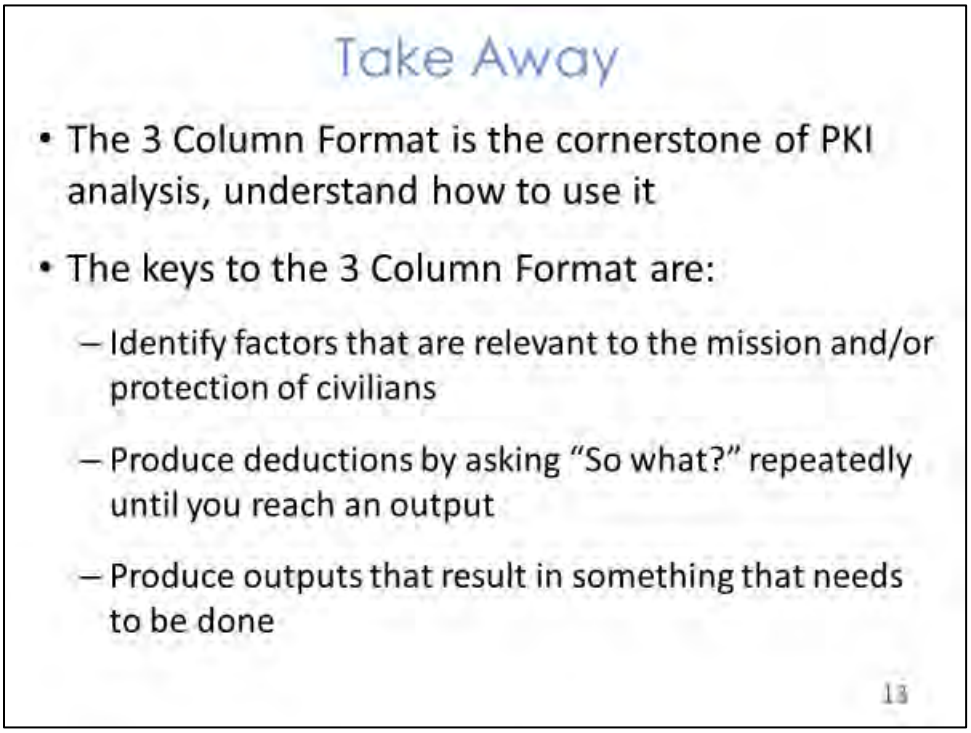
- Task – something that needs to be done in order to protect civilians or ensure the success of the mission
- Planning Guidance – something that decision-makers should consider including in their plans in order to protect civilians or ensure the success of the mission
- Information Requirement – A question that needs to be resolved by UN staff.
- Request for Information – A question that is asked of external sources (e.g. local police), the answer to which provides information that will help to answer an Information Requirement or that provides a new factor to analyse

- Constraint – a factor that reduces the UN's ability to protect civilians or complete their mission, which requires action to avoid or address [this output identifies things that slow down the UN's ability to act therefore should result in corrective adjustments to the plan]

- Freedom – a factor that creates an opportunity for the UN to act more freely in the protection of civilians and/or the completion of the mission [this output identifies things that speed up the UN's ability to act, therefore should result in additional or accelerated actions]

These are the standard types of outputs; however, an analyst can use their own judgment to identify an output that may not fit neatly into one of these headings but does help decision-makers to better protect civilians of achieving the mission. For example, an analyst may deduce that there is a significant risk to either civilians or UN personnel, and so could simply identify a risk that needs to be urgently considered as an output.

Slide 13



Summary

Given that the 3 Column Format is the cornerstone of PKI analysis, analysts need to ensure that they can use it. To do so they need to be able to identify factors and make relevant deductions that produce outputs that support the achievement of the UN mission and protection of civilians.

Learning Activity

RESOURCES:
Exercise Instructions (MPKIO.RTM LA 190918_20_Three_Column_Format_Exercise_TTT_UNUC.docx)
Threat Profile: ENLF (190828_06_Eyrian_Independent_Movement_Fighters_Threat profile_TTT_UNUC.docx)
Class notes
MPKI HB
Pen and paper

TIME:
Approx: 45 Minutes

TASKS:

- Practice using the 3 Column Format for analysis of the Eyrian Independent Movement Fighters.
- Produce draft 3 Column Format product.

Instructor Notes-

- Ensure that the students have the Exercise Instructions and Threat Profile
- Encourage the class to start at the beginning of the Threat Profile and draw out facts as they go and make deductions (tell them not to try to read and absorb the whole document before beginning to make deductions, this will take too much time).
- Emphasize that you are looking for identification of factors, good deductions and logical outputs – they should not rush through the document at the expense of the quality product.
- Look for students who are not writing and coach them to get them writing.
- After approximately 30 minutes, spend 10 minutes to:
    - Ask students what difficulties they had and help them to resolve them.

- Invite students to offer up key deductions and outputs – discuss the quality of those deductions and outputs and complement and/or suggest improvements.

- Inform students that they will have an opportunity to practice the format again as part of the lessons on Analysis of the Operating Environment (AOE)

3-column Format Exercise: Threat Evaluation EIMF

Task (20 minutes):
Use the Three-Column Format to analyse the EIMF using the Threat Profile below.

- **Focus on:**
  - Selecting relevant factors
  - Making deductions that lead to outputs
  - Producing outputs that require a response
- **Use the following process:**
  - Start at the beginning of the document
  - Identify a factor and record it in the first column
  - Draw out deductions and record them in the second column
  - Produce outputs and record them in the third column
  - Continue in the document, identify the next factor and repeat the steps above

Threat Profile - EIMF

Name		Eyrian Independent Movement Fighters (EIMF)
Classification		Ethnic-based Eastarian Separates
Bases of Operation		South Eri Province
Date formed		2012
Strength		1,500 – 3,000 (active and inactive) members
Organisation	Organisational Structure	While EIMF forces are likely following a traditional, hierarchical military structure, there is little further verifiable information about the group's specific order of battle. Platoon-sized units (30-40) operating under the leadership John Sparrow in the towns/villages of South Eri Province. Like the Eri National Liberation Front (ENLF), EIMF maintains a decentralised structure, as a means of both

		retaining operational security and avoid set-piece conventional warfare with the more powerful Garland Armed Forces (GAF). It is suspected that there is cross-membership between EIMF and ENLF members residing along the provincial borders along White Lake.
	Command & Control	Leader: John Sparrow. Like his ENLF counterpart, Le Pew, John Sparrow is a shadowy figure who is suspected of maintaining his HQ across the border in Eastland. Sub-unit commanders do NOT meet openly, and it is suspected that most do not even know who the other sub-unit commanders are. They communicate through Whatsapp and couriers.
	Financial sources	Information is limited, and EIMF is known to collect taxes in areas under its control, mainly South Eri Province and suspected to receive funding from the Government of Eastland and the Eastarian diaspora. The group also controls some artisanal mines in South Eri Province. EIMF maintains links to lower-level GAF commanders and uses these links to sell what it mines. It also trades with businessmen in Eastland.
	Assets	Vehicles mounted with light machine guns (LMG); AK-series assault rifles; Mounted anti-aircraft guns; Rocket-propelled grenades (RPG); 60mm Mortars; and Improvised Explosive Devices (IEDs)
Intention	Founding Philosophy	The EIMF (South Eri Province) separated from the ENLF in 2012 and operated independently. The group maintains an operational philosophy of defending the Eastarian mountain culture from Dotan and Sunka influence. In their view, the only means to defend the culture is to secede from Garland and form an autonomous nation-state, but with free trade with Eastland. To achieve this, they maintain the identical position as ENLF - bleeding the GAF through "death by a thousand cuts." They also see victory as a multi-generational goal and will "shame all who attempt to control them."
	Mission Stated	In November 2012, an unidentified EIMF spokesperson announced the formation of the group as the 'Eriyan Independent Movement Fighters.' Their mission is to restore the independent tribal lands confiscated during the War of One Hundred Moons (circa 1080-1100).
	Current Goals	The creation of an autonomous state of ERI, separate from both Eastland and Garland. It appears the EIMF is attempting to further their cause through

		political dialogue, having suspended military operations in 2016.
	Evolution of the Group	The group originally constituted the northern branch of the Eriyan fighters against GLA. When Garland gained independence in 1983, with the GLM becoming the ruling party in Garland, the remnants of the ENLF started a campaign to fight for Eastarian rights in Garland. During the Garland invasion of Eastland in 1988, the ENLF conducted guerrilla raids on GAF lines of communication and supply. Between 1990 and 1991, ENLF forces split geographically between North and South Eri Provinces, under the command of Joseph Le Pew and John Sparrow respectively. After the 2012 attempted coup, the EIMF (South Eri Province) separated from the ENLF. The majority of the ethnic-Eastarian officers who attempted the coup came from SOUTH ERI Province. To show solidarity, the EIMF was formed and officially separated from the ENLF on friendly terms. However, the two (2) groups have different political agendas (the ENLF wants to secede from Garland and join with Eastland, whereas the EIMF wants to establish an autonomous nation-state) and compete for resources in some areas, particularly along the border between North and South Eri Province.
Linkages	Allies/Support	ENLF
	Influence	South Eri Province
	Opposition group	GLM/GPF and GAF
Threat Assessment	TTPs	Small unit raids and ambushes. Known to kidnap foreigners supporting the government (usually released for ransom, seldom murdered).
	Capability	Co-ordinated military operations at the squad (8-12 fighters) platoon (20-40 fighters).
	Weakness	Little cohesiveness beyond village/town militia units. Influence limited to South Eri Province.
	Greatest strength	Cross-border safe havens in Eastland; mountainous terrain as inhibiting context, decentralised command and control; and access to resources at the artisanal level.
UN Operational Implications	Threat level	
	Benefit	UN Humanitarian Support for the people of South Eri Province. UN reports on human rights abuses by the GAF.

Related to EIMF	Harmful	UN reports on human rights abuses by the EIMF. UNODC surveys on black market smuggling operations. UN removal of illegal tax collection checkpoints. UN interruption of information trade across EIMF controlled border crossings.
	Assets Against the UN	Vehicles mounted with light machine guns (LMG) (Technicals); AK-series assault rifles; Mounted anti-aircraft guns; Rocket-propelled grenades; 60mm Mortars; Improvised Explosive Devices (IEDs)
	Vulnerability	Roadside IEDs; Collateral effects of GAF/EIMF operations
Operational History		**2012** EIMF separated from the ENLF and began operating independently in South Eri Province. **2013-2015** No reliable database exists on EIMF activities between 2013 and 2015. According to government sources, over 80 "acts of terror" occurred throughout the province of South Eri Province, with GAF suffering 20 killed and 18 injured in clashes with the group. The Government of Garland confirmed 11 hostage incidents within the Eri National Park, with all incidents successfully resolved. According to the independent think-tank South Eri Observatory for Human Rights (SEOHR), GAF has lost over 130 soldiers killed and 200+ injured. Seven (7) international mining offices were raided with 19 hostages (foreign nationals) held for ransom in the Eri National Park. SEOHR analysts reported widespread reprisals and detentions by GAF against the families of "identified" EIMF members, as well as surviving family members of those executed for planning and participating in the failed 2012 coup. **2016** While no attacks were attributed to the EIMF in 2016, the stall of the talks in Garville coincided with a few of attacks in the South Province adjacent to South Eri Province, with at least six (6) attacks taking place against military targets over the course of 2016. OHCHR reports that ERI villages along the border of South and South Eri Provinces were the targets of midnight raids by GAF in the search for weapons and evidence of EIMF involvement.

	2017 There were NO reports of EIMF activities throughout 2017. GAF released a statement saying, "the EIMF no longer poses a threat to the peaceful people of SOUTH ERI Province, who have endured untold hardships under their yoke." The Government of Garland asked the UN to conduct a DDR Programme **2018** As general election approaches, EIMF has stated that it continues to maintain the peace in South Eri Province, but that it expects talks on the establishment of an autonomous state to recommence in the short-term. EIMF welcomed the deployment of the 7CF and UNMMIG 01, and no clashes occurred. EIMF has stated that it will not enter the UN-led DDR program until its political goals are satisfied. EIMF clashed with the ENLF over control of border crossing points to Eastland. There have been reports that EIMF is recruiting fighters at Protection of Civilian (POC) sites along the border with North and South Eri Provinces. There have been reports that EIMF is short of resources to sustain operations. There have been reports of some EIMF violations of Human Rights at POC sites.

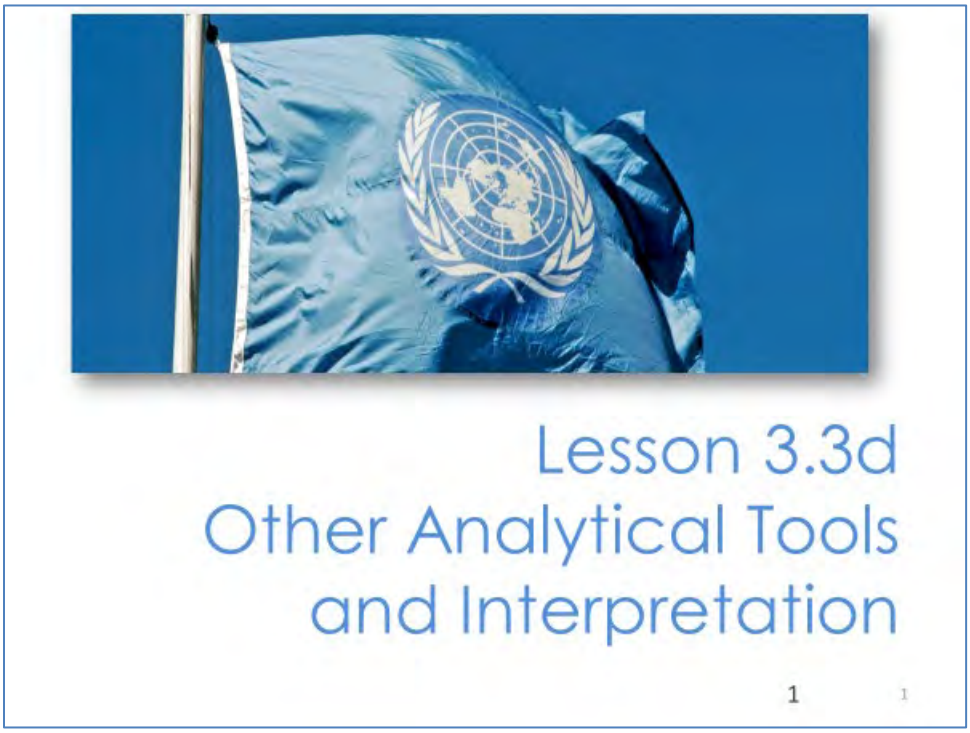
Lesson
3.3d

Other Analytical Tools

The Lesson

Starting the Lesson

Slide 1

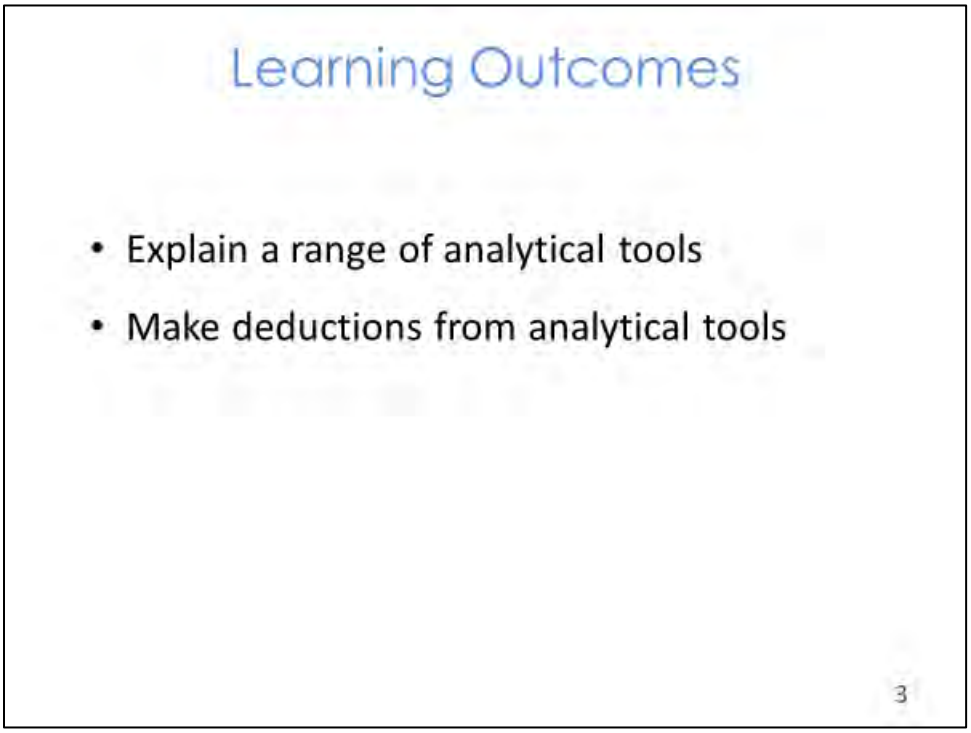


This lesson aims to provide MPKIOs with information on the principles and basic skills of other major analytical tools used in the MPKI framework.

Slide 2

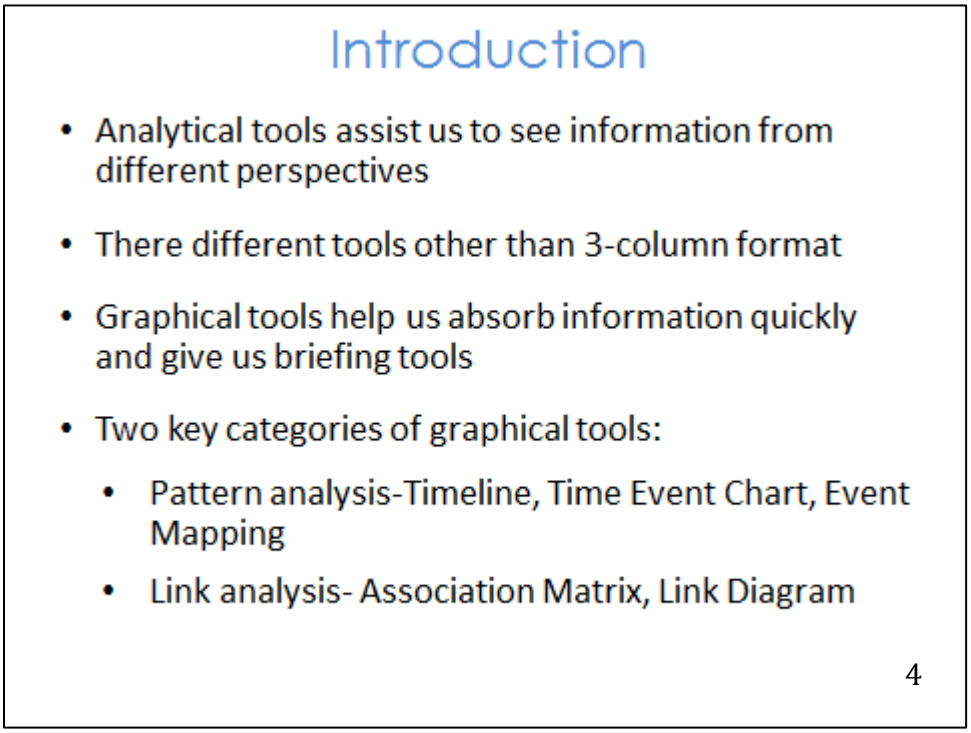
Here is the content of the lesson

Slide 3



At the end of this lesson, you should be able to perform the actions described on the slide. Please take a moment to read and understand the requirements This may help you to focus on the most relevant aspects of the lesson

Slide 4



Key Message: While the 3 Column Format will be the tool we will most commonly use, we need to be aware of other analytical tools that can enhance the quality of our analysis.

Tools other than the 3 Column Format need to be considered for use by analysts as they can offer different ways of looking at problems that help us to understand meaning better.

Tools that represent information graphically are particularly helpful for making sense of complex issues involving multiple factors, both for the analyst to be able to identify the meaning of events and information more quickly and to help brief information in a way that decision-makers can quickly integrate intelligence into their decision making.

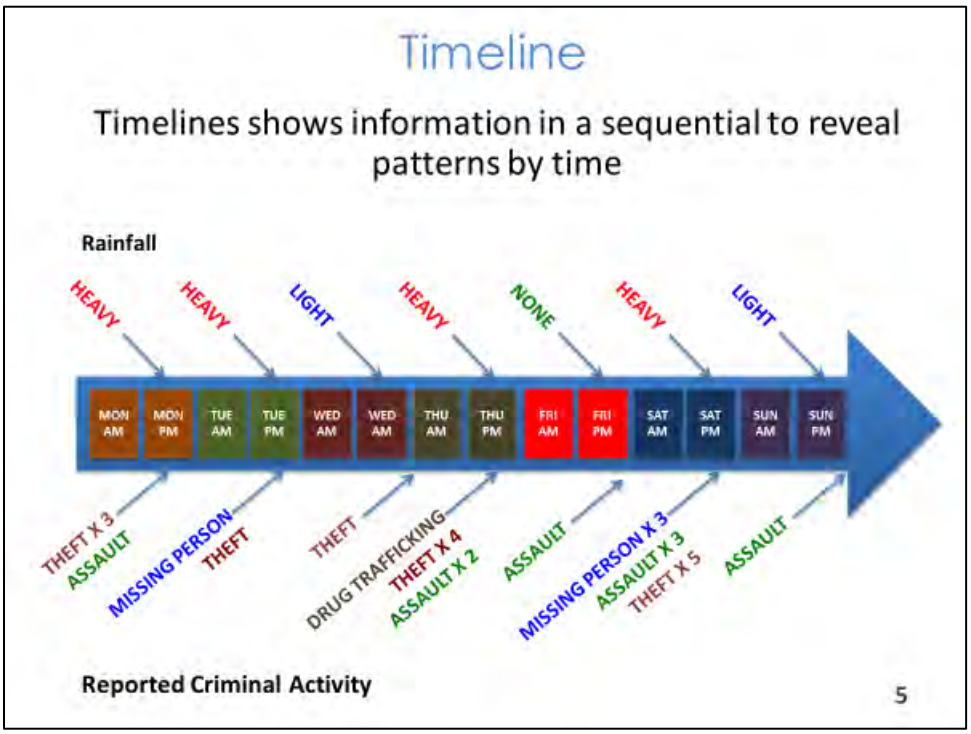
In this lesson, we will look at two key categories of graphical tools – Pattern analysis and Link analysis.

Pattern analysis uses graphical tools to display information that depict patterns in time, activity, location and any other information that can be graphically represented to reveal patterns. The key to pattern analysis is that its ultimate purpose is to reveal patterns that allow analysts to make predictions that assist decision-makers in achieving the mission and protect civilians. We will cover the timeline, time event chart and event mapping as basic pattern analysis tools.

Link analysis uses graphical tools to facilitate greater understanding of the relationships between entities (individuals and organisations) and activities or events (p.56). The key to link analysis is that its ultimate purpose is to reveal linkages that allow analysts to make predictions that assist decision-makers in achieving the mission and protecting civilians. We will cover the link diagram and association matrix as basic link analysis tools.

It is always important to remember that pattern analysis becomes far more difficult if the analyst does not have deep contextual knowledge of the operating environment. Such knowledge will help the analyst to make the necessary connections.

Slide 5



Key Message: Timelines order information in a meaningful way along a line.

Timelines are one of the simplest pattern analysis tools to use and can reveal meaning with minimal effort for the analyst.

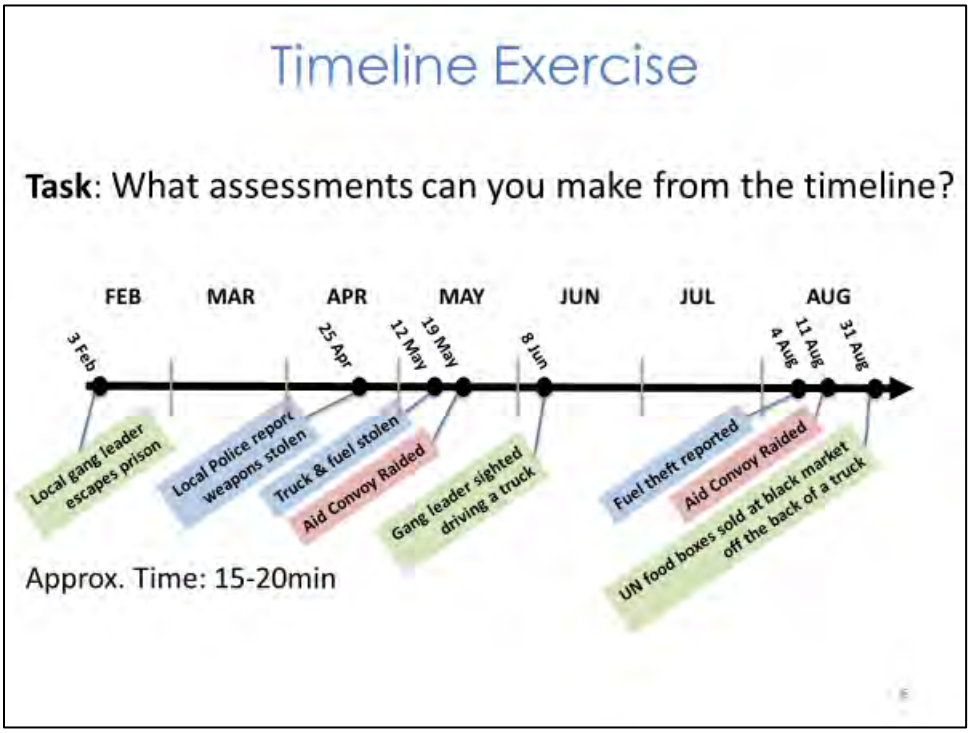
For example, this timeline shows the relationship between rainfall and reported criminal activity in a refugee camp that the UN is protecting. By simply ordering the events in line with the heaviness of the rain on the top and reports of criminal activity below, we can quickly see a pattern of the majority of criminal activities occurring during times of heavy rain, presumably due to the loss of visibility during heavy downpours and therefore opportunity to carry out activities of a criminal nature.

If you extend this out to cover several weeks, then the pattern would become clearer, or the analyst may discover that it is not a consistent pattern.

Note that by colour coding days and activities, the timeline further uses a visual representation to help absorb information.

Timelines can take many different forms, and cover any period an analyst chooses, so long as they order events over an identified period (e.g., week, month, year, or between set dates or times) and that they identify meaningful patterns that give meaning and assist in predicting future events.

Slide 6



Working in syndicate groups have participants review the slide and then discuss. Then have syndicate groups report back brief the plenary. Here are a few areas to assist in facilitating the discussions. Emphasise the pattern of fuel theft a week before convoy raids may help them to predict future criminal actions and when / how best to protect convoys.

Note to Instructor- Possible answers:

The gang leader is likely involved in the thefts and convoy raids if there were no raids before the gang leader escaping prison.

The stolen truck is likely the one the gang leader was seen driving and the one the assumed stolen UN food was sold from.

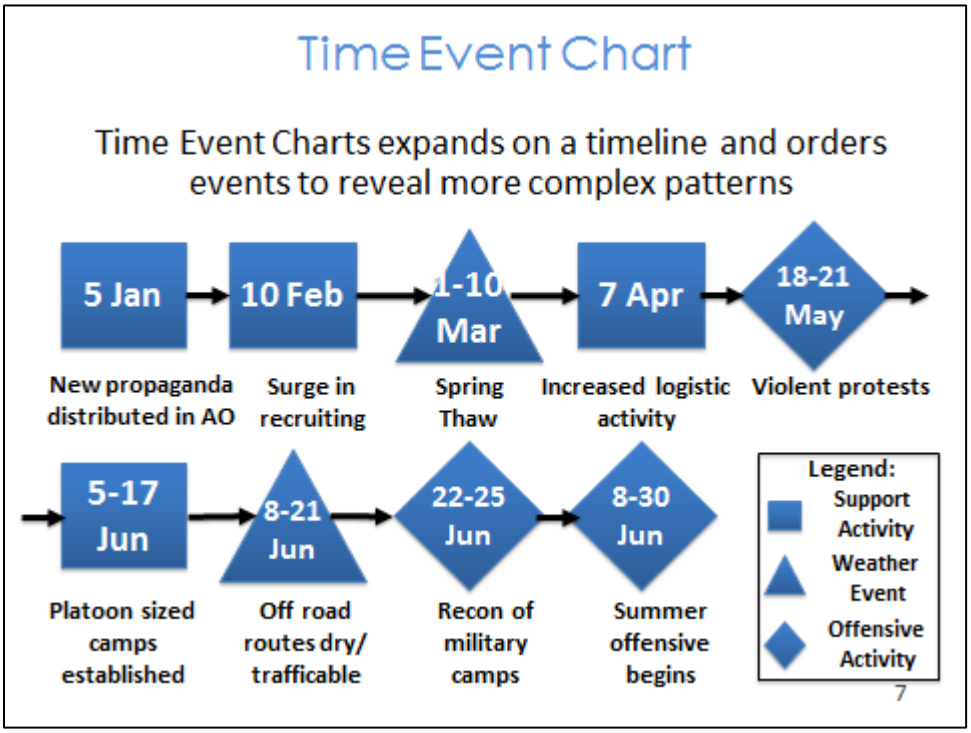
Fuel is stolen one week before the convoy raids, so the fuel was likely stolen to use in the truck to assist in the convoy raids.

When fuel is stolen in the future, additional security should be provided for convoys in anticipation of a raid.

The most likely meaning to these events is that the escaped gang leaders stole weapons and a truck to raid UN convoys to steal food for sale on the black market, potentially planning a raid every 11 weeks.

Interaction. Ask the student what other information would have helped them in their analysis. The responses should include additional data on previous criminal activity. This added context is essential to effective pattern analysis.

Slide 7



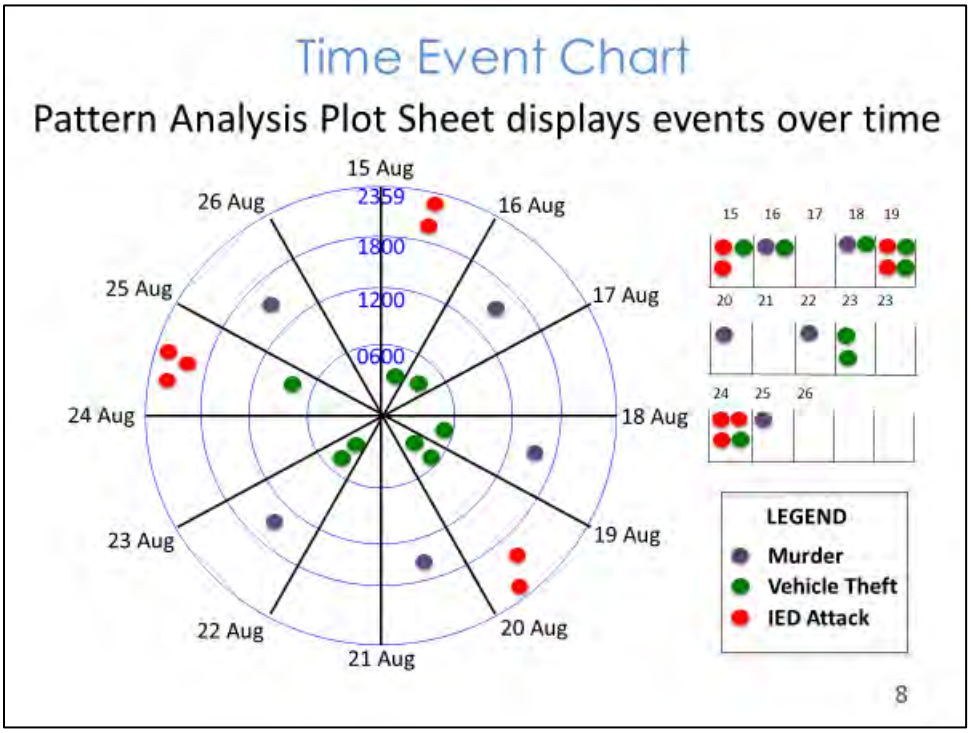
Key Message: Time Event charts order events by time, but using a chart and symbol format, they reveal patterns in activities and time from more complex data than would be practical in a simple timeline.

Time event charts take more effort than timelines but are well worth it to reveal patterns that timelines may not reveal clearly. A time event chart would be used when there is more data or more complex data than a timeline could usefully display.

For example, this is a simple time event chart showing an observed sequence of events that helps decision-makers to predict when a northern hemisphere insurgent group might start their summer offensive. Note that the symbols represent different types of information.

The Time Event Chart is read from left to right and top to bottom in a linear fashion over 6 months. Here it is displayed, and we can see and follow how the insurgent group prepared last year for their summer offensive, becoming more active as the weather improved. While it most likely not be the same this year, it provides a useful framework to make a predictive analysis.

Slide 8



Key Message: This circular type of Time Event Chart reveals patterns by displaying events by type, date and time, which hopefully reveals patterns that allow us to predict future events.

Narrative: This circular Time event chart is also called a Pattern Analysis Plot Sheet, a Pattern/Time Analysis Tool, or just a Time Event Chart. It displays events by type, date and time, which hopefully reveals patterns that allow us to predict future events.

This Pattern Analysis Plot Sheet has divided the circle into 12 segments representing the days from 15-26 August. The four concentric circles, each increasing in size from the centre out, divide up time blocks from 0000 to 0600, 0600-1200, 1200-1800 and 1800 to midnight.

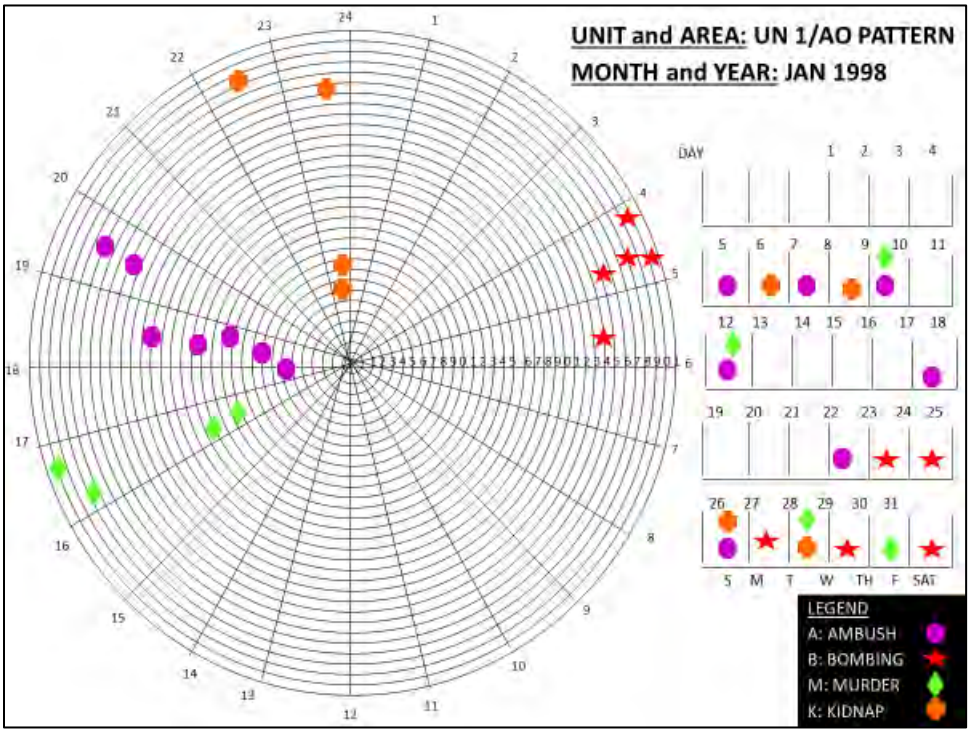
The events are colour coded by type (shown in the legend, bottom-right) and they are plotted in the date/time segments that the events occurred in, and in a calendar (top-right) for cross-checking. Footnotes may be added on the chart or attached to the chart for extra explanation.

In this example, the patterns that can be identified are:

- Murders happened at least every second day [do murders require a day of planning/movement between them?

- Murders all happened on days that there were no IED Attacks [are murders and IED attacks carried out by the same groups and therefore cannot occur on the same day?
- Vehicle thefts occur in the early morning, generally before 0600 [is this when most vehicles are left unattended by their owners and hence are easier to steal]
- Vehicle thefts occur most days [are vehicles being used for activities only once and then discarded or are they being sold to raise funds?
- IED attacks occurred in the evening or late night [is this time chosen to target commuter traffic or to use the cover of night for attacks?

Slide 9



Key Message: You can adapt Pattern Analysis Plot Sheets to cover whichever timeframes are of value in your analysis.

Narrative: Pattern Analysis Plot Sheets can be adapted to suit your analytical needs.

For example, this Pattern Analysis Plot Sheet covers insurgency activity in AO Pattern across the month of January 1998.

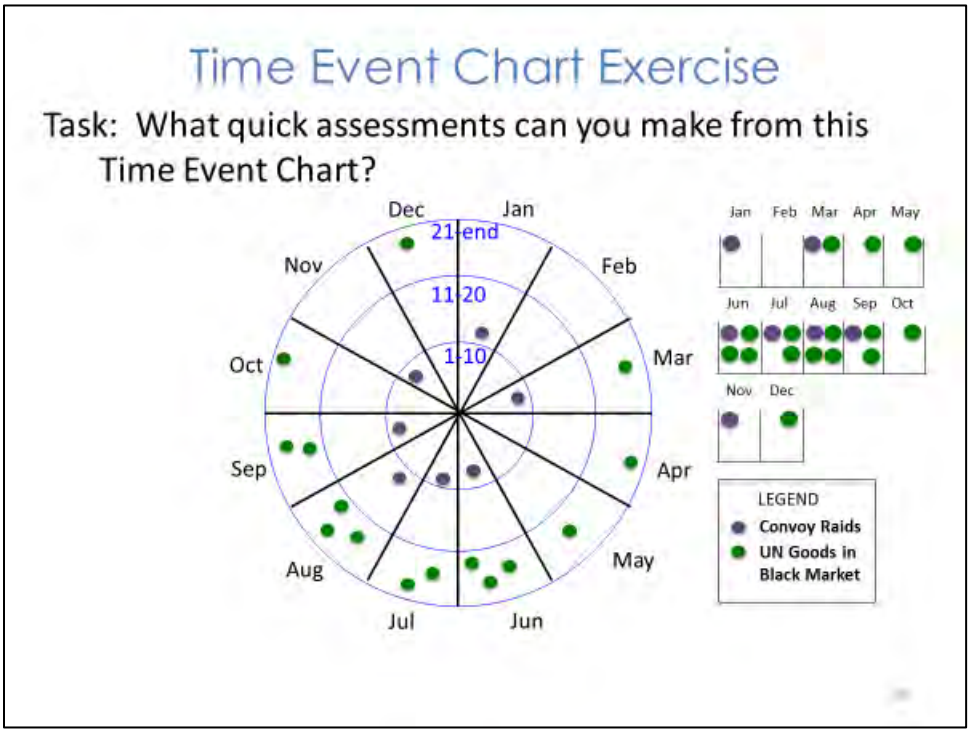
The analyst who constructed this chart decided to make the segments the hours in the day (1-24) and the concentric circles the dates (starting in the centre with 1 Jan, noting that to save space, they use the pattern 1-9, 0-9, 0-9, 0-1 to show the 31 days in January, this instead of using 1-9, 10-19, 20-29, 30-31).

This reveals the following patterns:

- All bombings occurred between 0400 and 0600 and after 23 Jan
- All murders occurred between 1600 and 1700
- All ambushes occurred between 1700 and 2000 with a minimum of 1 day between events
- All Kidnappings occurred between 2200 and midnight, two at the beginning of the month, two at the end of the month

You should play with the way you structure these charts to display events in a way that best reveals the patterns.

Slide 10



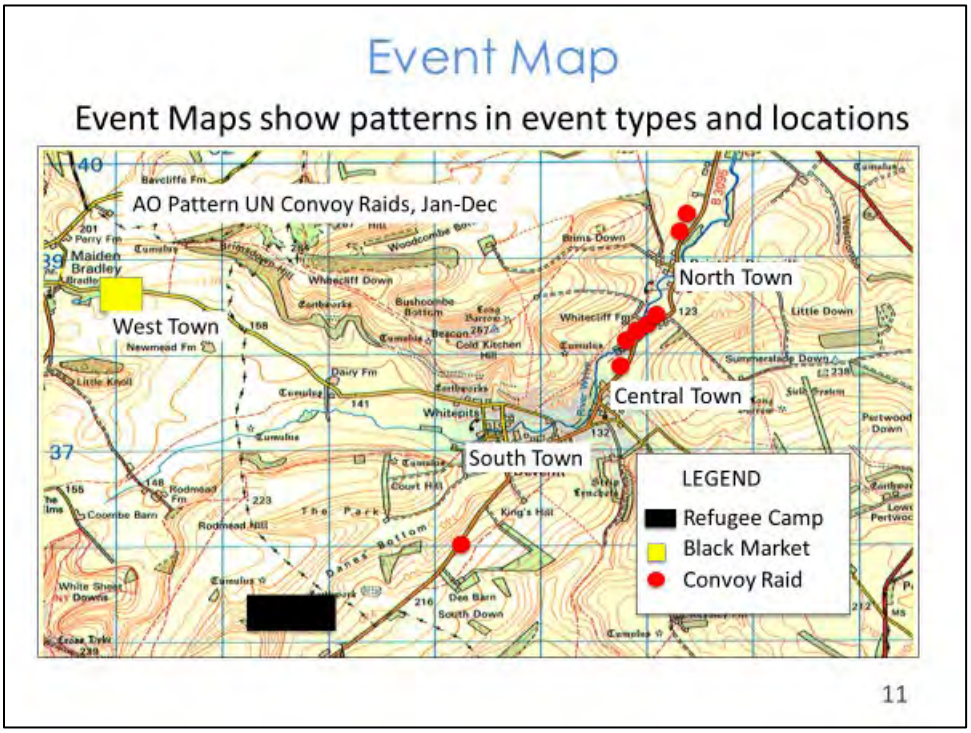
Working in syndicate groups have participants review the slide and then discuss. Then have syndicate groups report back brief the plenary. Here are a few areas to assist in facilitating the discussions. Total TIME 5-10 minutes.

Possible answers:

Convoy raids occur early in the month. UN goods are sold on the black market 10-20 days after raids [stolen goods are possibly hidden until police/UN give up looking for them].
Convoy raids are every month over the warmer months, every two months over cooler months [possibly due to difficulty moving goods over winter, or lower demand on the black market?]

Remember, it is important to note that drawing real meaning from such patterns is more difficult without having a deep understanding of the operational context. For example, we assume that the period from June to October is a summer period, but in the southern hemisphere, this might not be the case.

Slide 11



Key Message: An Event Map is simply events plotted on a map that reveals patterns in locations and event types.

Event maps are a common intelligence tool, so most of you are probably familiar with them in one form or another. We display events on a map in a way that reveals patterns and assists us in predicting future events.

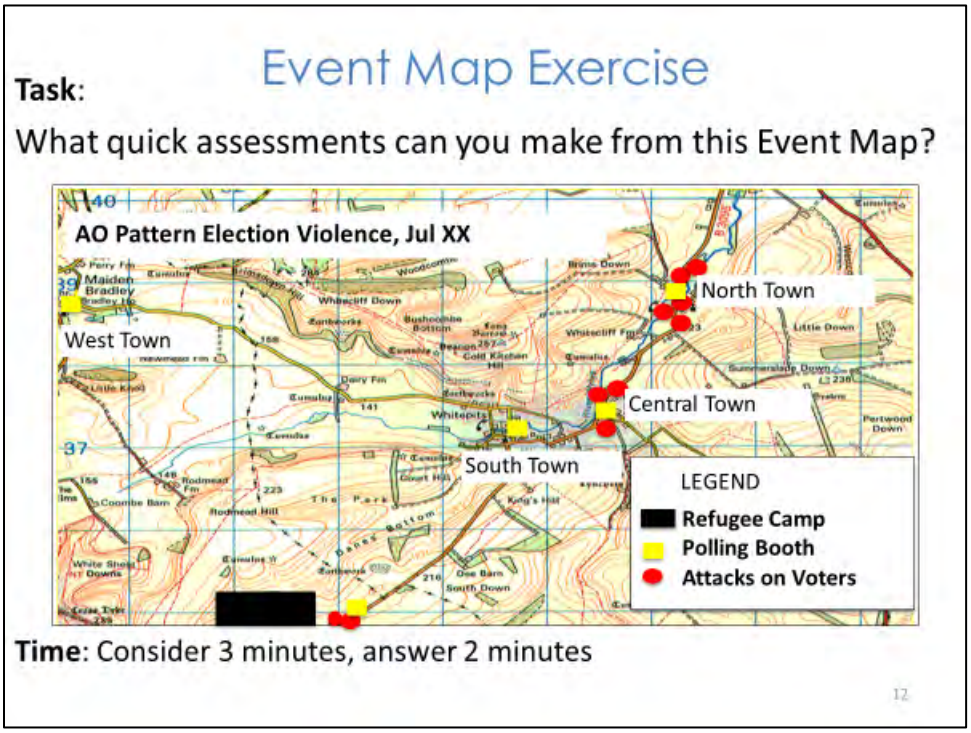
In this example that displays locations where raids by insurgents on UN convoys have occurred over 12 months concerning the black-market locations where UN goods have been seen for sale.

***Interaction**. What patterns can be identified here? Facilitate discussion using the following possible solution sets.*

- *Insurgents prefer the northern road to conduct their ambushes, primarily between North Town and Central Town [is this the best terrain for ambushes?]*
- *Insurgents avoid raid locations near South Town [stolen goods may be stored in South Town, and they wish to avoid Police attention there?]*

Event Maps are very useful for displaying graphical patterns from which predictions can be made, and, of course, they are also very useful briefing aids to help decision-makers absorb information. You can add notes and, potentially, dates and times to your Event Map if it does not become so cluttered that it becomes confusing. Of note, if the tool you are using makes things more complex and confusing, you should find a tool that gives more clarity and simplifies the analysis process.

Slide 12



Working in syndicate groups have participants review the slide and then discuss. Then have syndicate groups report back brief the plenary. Here are a few areas to assist in facilitating the discussions.

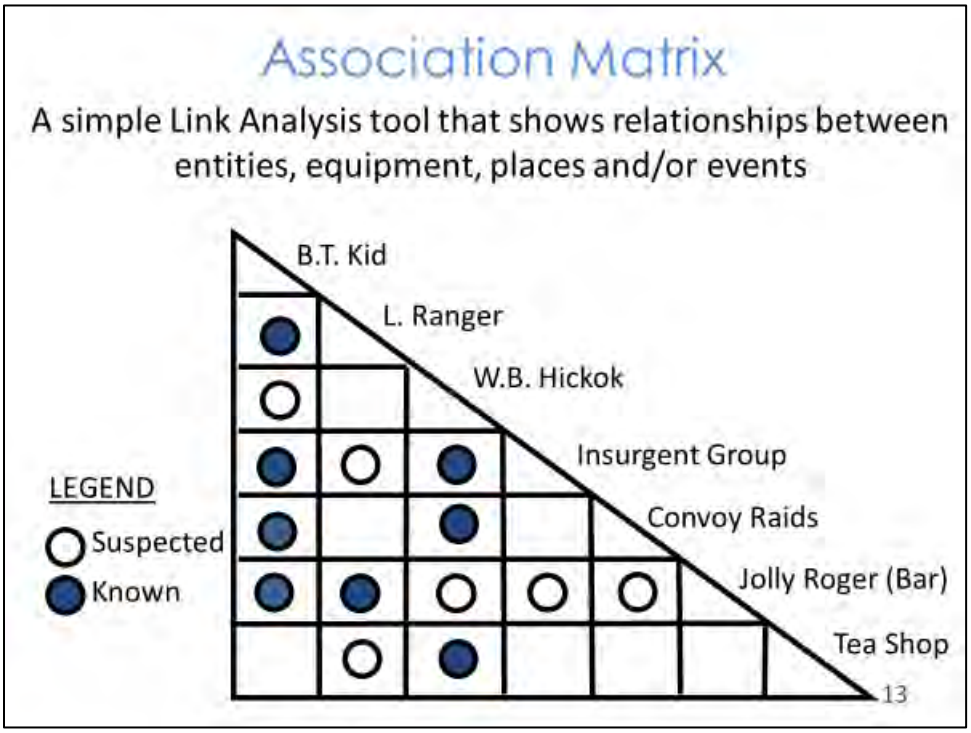
Note to Instructor-

Possible answers: (Complement imaginative observations):

- Anti-election violence was concentrated around North Town and Central Town [possible stronghold for insurgents?]
- West Town and South Town have no violent events [possibly to avoid compromising black-market insurgent activity in those two towns?]
- Some attempts to intimidate refugees [possible insurgent supporters in the refugee population?]
- Are we missing context here? What more would the students like to know? This **missing data should become RFIs/IRs**

This is the last of the three Pattern Analysis tools that we will look at, and now we will look at two Link Analysis tools.

Slide 13



Key Message: An Association Matrix (sometimes referred to as a Relational Matrix) is a simple Link Analysis tool that reveals linkages between entities and events.

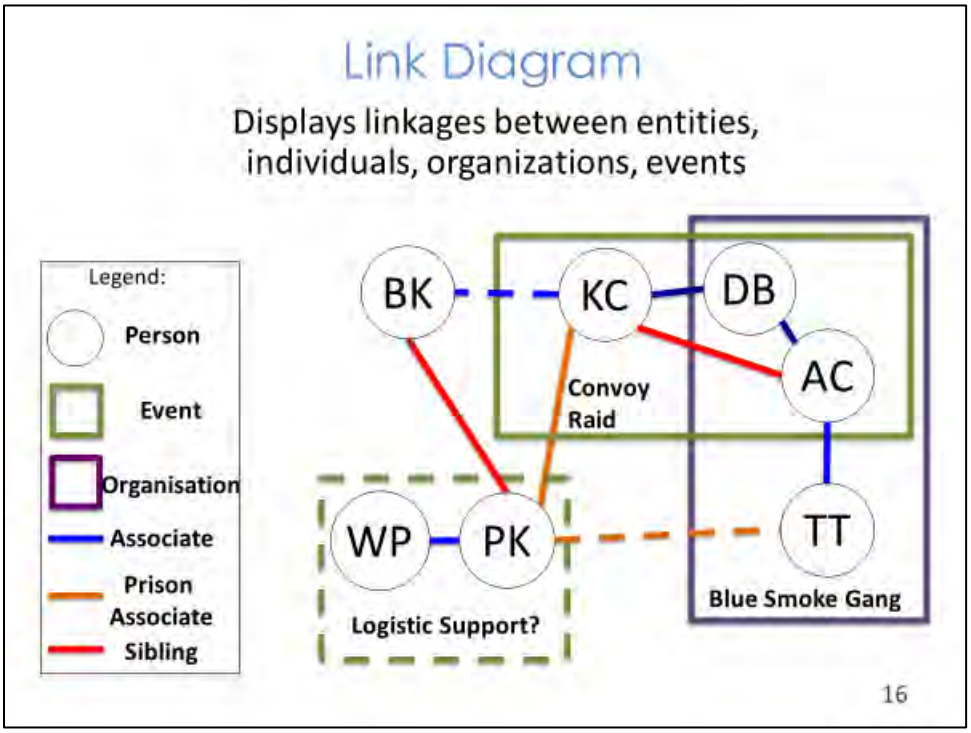
An Association Matrix is one of the simplest Link Analysis tools to use and help to make sense of relationships between entities, that is individuals or organisations, and events.

The circles on this Association Matrix show whether the association is known or only suspected, i.e. there has not been enough reporting to be sure of the association, but there is enough to be suspicious.

For example, this Association Matrix suggests the following:

- B.T. Kid is connected (or suspected to be connected) to everyone/thing else, except for the Tea Shop, and so may have a leadership role
- The Jolly Roger Bar is likely to be a meeting place for planning and preparation for insurgent activities such as the raids on UN convoys

Slide 14



Key Message: A Link Diagram (sometimes referred to as a Link Chart) is a more detailed Link Analysis tool (than the Association Matrix) that reveals linkages between entities and events, and can show types of entities, events and relationships.

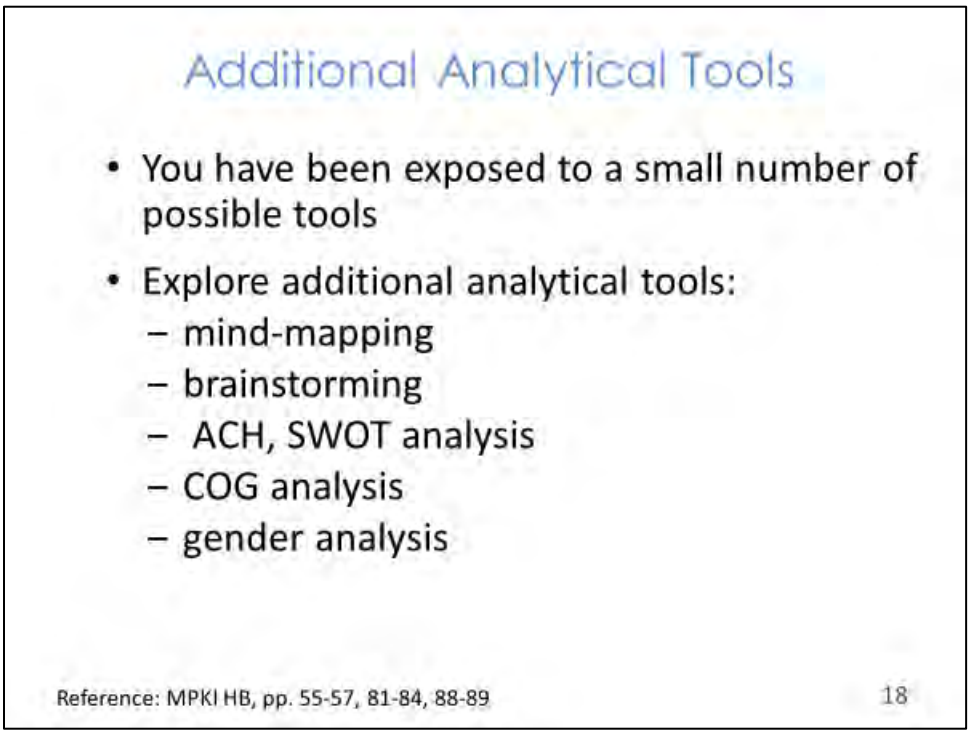
A Link Diagram is a Link Analysis tool that includes more detail in the relationships between entities and events than an Association Matrix allows. Symbols are used to denote the type of information displayed, and solid lines show confirmed linkages while dotted lines show suspected linkages. Symbols and lines can be colour-coded to display additional information such as the type of event or type of relationship.

For example, this Link Diagram shows who was identified as raiding a UN convoy, and the known members of a local insurgent group (the Blue Smoke Gang. What can we deduce from this? Here are a few suggested deductions:

- DB and AC are confirmed insurgent group members and involved in the raid
- KC and AC, being siblings strengthen the linkage between the gang and raids
- The person with more connections is KC, makes it possible that KC is a leader
- BK is yet unconnected to events, but they will be a person of interest due to their links to both KC and PK, even though the link to KC is not yet confirmed

The tool here is constructed by the analyst to assist in the understanding of complex relationships. The analyst continues to populate and adjust the diagram to help reveal linkages that have meaning.

Slide 15

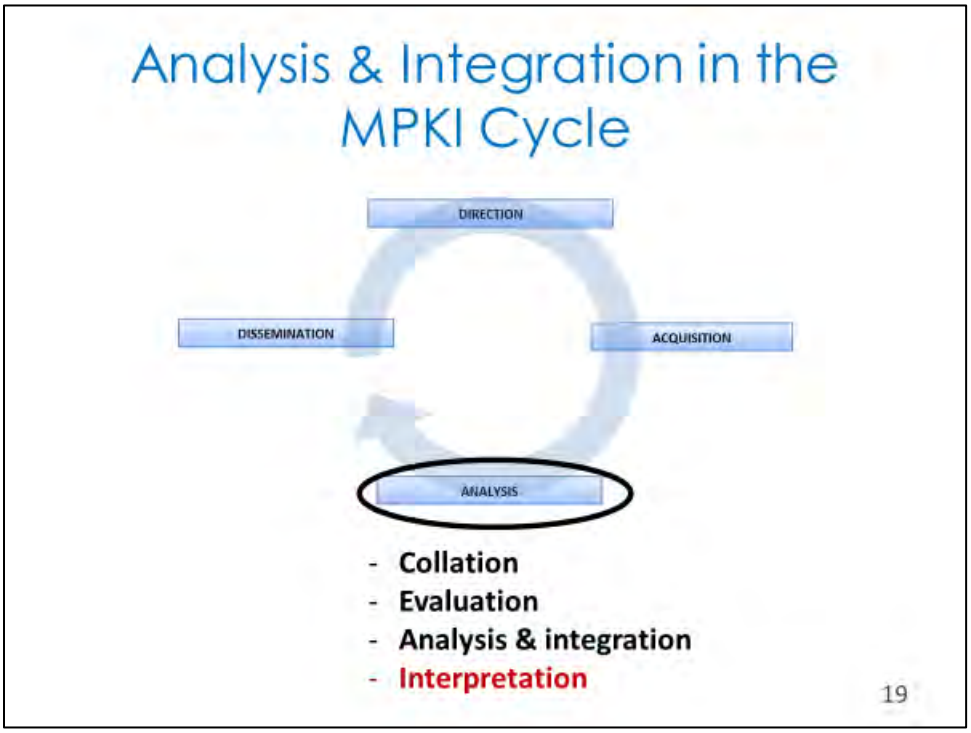


Key Message: As a part of their professional development, analysts should explore the use of additional analytical tools.

In this lesson, we only cover a few tools, but there are others in the UN MPKI Handbook, that you should review once you have mastered the basic tools.

Remember that each tool can help you discover different aspects of the operational environment. It is important to regularly step back and integrate all your analysis products and outputs to ensure that you are visualizing the whole picture, not just part of one or two analytical tools reveal.

Slide 16

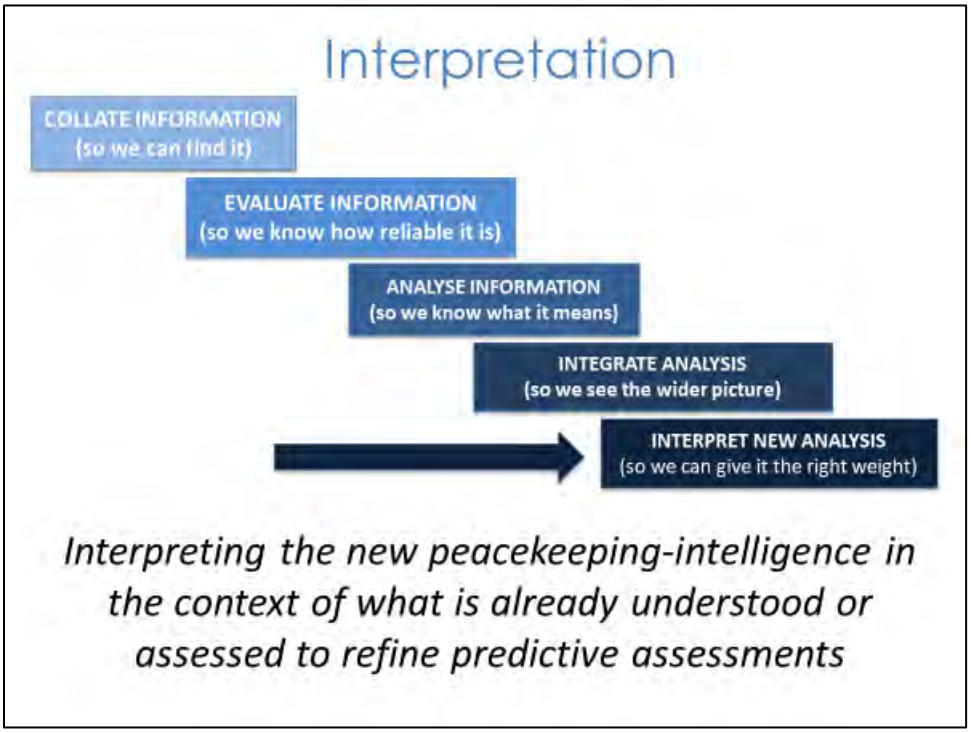


Key Message: Interpretation is the last step in the Analysis phase of the MPKI Cycle.

Before we practice using an analytical tool, let's quickly cover the final step in the Analysis Phase of the MPKI Cycle.

After collating and evaluating the information we have acquired, we then analyse and integrate this information using analytical tools, and then the last step in the Analysis phase of the MPKI Cycle is to interpret the new information, delivering peacekeeping-intelligence.

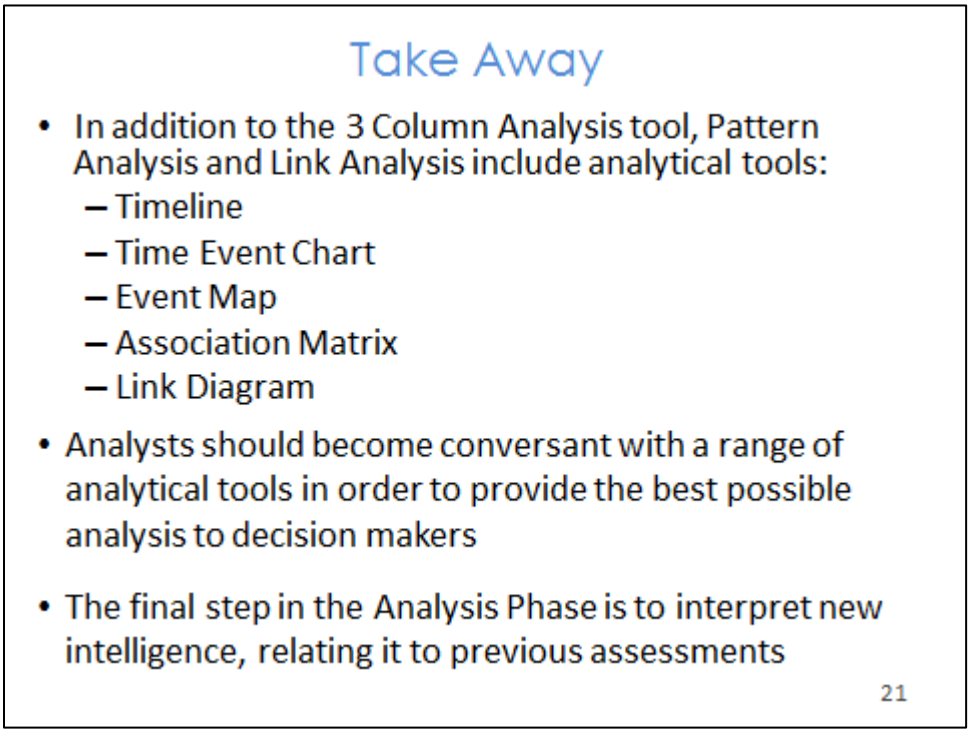
Slide 17



Interpretation is effectively a validation check to ensure that our analysis meets two criteria:

1. It contributes to the commander's priorities to achieve their mission, help contribute to a secure environment, and assist in CPOC planning
2. Predictive in nature to support the commander and staff in planning operations

Slide 18



Summary

Analysts should become conversant with a range of analytical tools in order to provide the best possible analysis to decision makers.

The final step in the Analysis Phase of the MPKI Cycle is to interpret the intelligence that has been collated, evaluated, analysed and integrated. This is done by critically considering its weight considering previous assessments. Of note, analytical tools do not produce analysis; instead, they assist the analyst in the process and helps them visualize the process.

Learning Activity 1

RESOURCES:
Exercise Instructions (MPKIO RTM TTX 190821_18_Pattern_Analysis_Exercise_TTT_UNUC.docx)
Class notes
MPKI HB
Pen and paper

TIME:
Approx. 1 hour

TASKS:

- Produce a Timeline
- Identify patterns
- Present conclusions
-

Instructor Notes-

- Ensure that the students have the Exercise Instructions.
- Instruct the students to begin with the Timeline, then work on the Association Matrix.
- Emphasise that they are looking for identification of patterns, so quickly place the information on the Timeline or in the Association Matrix, then spend time discussing in their syndicates what patterns they can see.
- You may need to suggest coach students construct a triangular Association Matrix and group
  - Produce Timeline
  - Discuss patterns, make notes
  - Produce Association Matrix
  - Discuss patterns, make notes
- After 45 minutes, spend 15 minutes to Ask students what difficulties they had and help them to resolve them.

- Invite students to offer up any patterns they discovered – complement their use of the tools and suggest improvements

Learning Activity 2 (optional if time permits)

RESOURCES:
Exercise Instructions (MPKIO.RTM TTX 191030_20_Link_Analysis_Exercise_TTT_UNUC v2.docx)
Class notes
MPKI HB
Pen and paper

TIME:
Approx. 1 hour

TASKS:

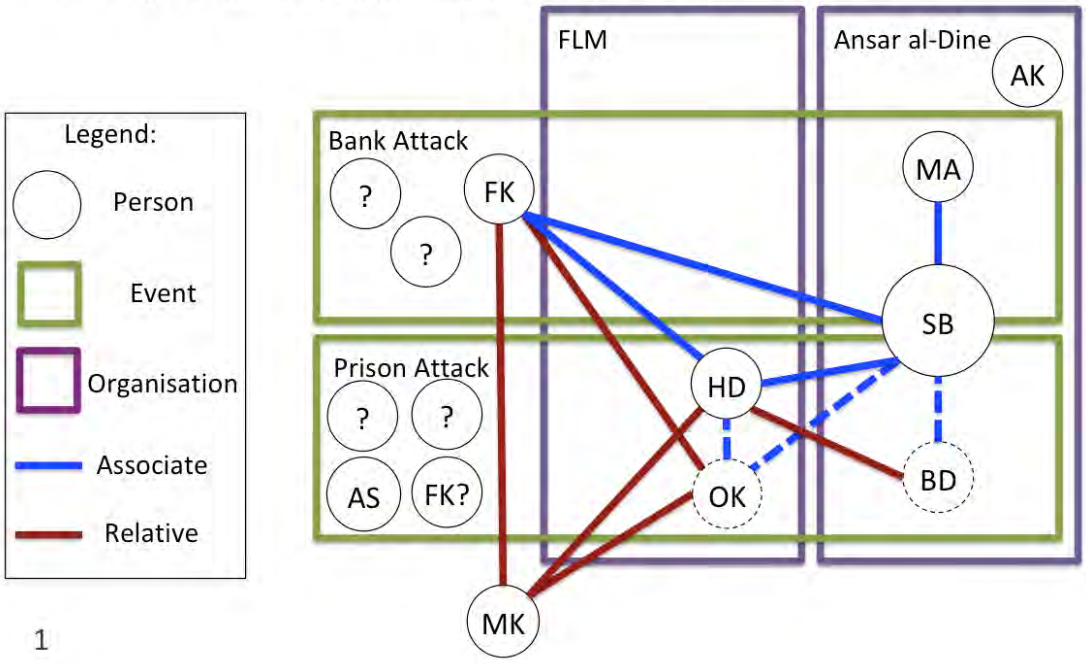
- Produce a Link Diagram
- Identify patterns
- Present conclusions

Instructor Notes-

- Ensure that the students have the Exercise Instructions.
- Instruct the students construct a link diagram.
- Emphasize that they are looking for identification of linkages between people, organisations and events, so work on rough drafts of the link diagram that best display the linkages, then spend time discussing in their syndicates what ties they can see.
- Time allocation is:
  - 10 minutes – produce draft link diagram
  - 25 minutes – refine and redraw the link diagram to best show linkages
  - 10 minutes – discuss linkages, make notes
  - After 45 minutes, spend 15 minutes to: ask students what difficulties they had and help them to resolve them; and invite students to offer up any patterns they discovered – complement their use of the tools and suggest improvements

- The diagram can look very different from the suggested possible answer if it does the following:
  - Shows the incidents
  - Shows the organisations
  - Identifies the relational links
  - Identifies the association links
  - Uses dotted lines to show suspected but unconfirmed links correctly
  - Possible link diagram

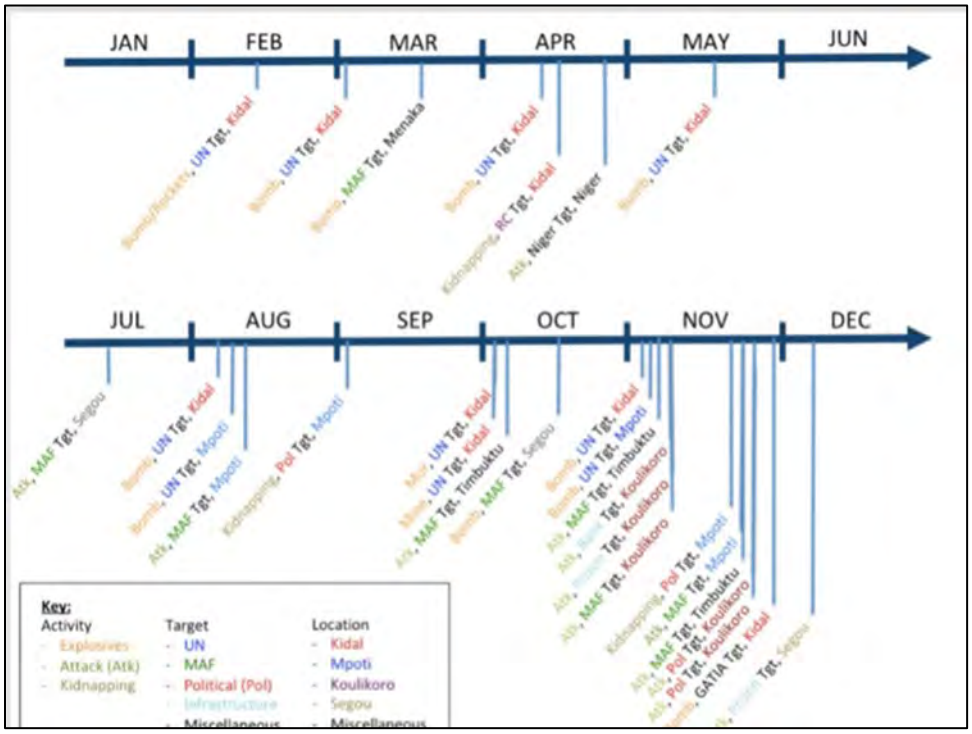
The syndicates may produce a diagram similar to this:



- Complement any syndicate that:
  - Shows AS (the missing correctional officer) but does not link them to anyone (we don't know why he is missing).
  - Shows FK as possibly the driver in the Prison Attack (there is no positive identification of her being there).
  - Notes that OK and BD are not positively identified, and therefore their associations are not confirmed
- Possible deductions from this link diagram:
  - HD and BD most likely facilitate the connection between Ansar al-Dine and the FLM

- FK is also likely to be the driver in the Prison Attack, given her strong links with HD and OK, and she is expected to have FLM allegiance if not a formal member
- MK is likely involved in supporting FLM given his criminal record and relational links to known members
- The Keita family is central to insurgent activity in this area (some effort should go into further investigating this family)
- Ansar al-Dine publicly claimed responsibility, but FLM has potentially provided the bulk of the support for the attacks
- Blood relationships appear to play a substantial role in tying the groups together

The students may produce a diagram similar to this one below:



----------Student Handout for Learning Activity 1----------

Pattern Analysis: 2016 Attacks by Ansar al Dine (MALI)

Instructions (Assume that all attacks were carried out by Ansar al Dine)

- **The attacks are already arranged in a sequence in MM/DD/YYYY format;**
- **Search for patterns:**
  - **By date (use a timeline over 12 months and look at a frequency related to each month);**
  - **By attack type (hint – use a relational matrix to sort the data by type);**
  - **By attack location (hint – use a relational matrix to sort the data by location);**
  - **By target set (use a relational matrix).**

- **What does this tell you about the group? What is the so what for your commander?**

INCIDENT SUMMARY:

12/06/2016: Assailants attacked a prison and freed 93 inmates in Niono, Segou, Mali. Two prison guards were injured in the attack. Ansar al-Dine (Mali) claimed responsibility for the incident, though sources also suspected the involvement of the Macina Liberation Front (FLM).

INCIDENT SUMMARY:

11/30/2016: An explosive device detonated targeting a Tuareg Imghad and Allied Self-Defense Group (GATIA) vehicle in Adjelal, Kidal, Mali. At least five GATIA members were killed in the blast. No group claimed responsibility for the incident; however, sources suspected that Ansar al-Dine (Mali) carried out the attack.

INCIDENT SUMMARY:

11/21/2016: Assailants raided the residence of the sub-prefect in Dilli, Koulikoro, Mali. This was one of three related attacks in Dilli on this date. One civilian was killed across the three events. No group claimed responsibility for the incidents; however, sources attributed the attacks to Ansar al-Dine (Mali).

INCIDENT SUMMARY:

11/21/2016: Assailants raided the city hall building in Dilli, Koulikoro, Mali. This was one of three related attacks in Dilli on this date. One civilian was killed across the three events. No group claimed responsibility for the incidents; however, sources attributed the attacks to Ansar al-Dine (Mali).

INCIDENT SUMMARY:

11/21/2016: Assailants raided the sub-prefecture building in Dilli, Koulikoro, Mali. This was one of three related attacks in Dilli on this date. One civilian was killed across the three events. No group claimed responsibility for the incidents; however, sources attributed the attacks to Ansar al-Dine (Mali).

INCIDENT SUMMARY:

11/20/2016: Assailants opened fire on an army convoy transporting ballot boxes in Timbuktu region, Mali. At least four soldiers were killed, and four soldiers were injured in the assault. This was one of two related attacks targeting electoral convoys on this date. No group claimed responsibility for the incidents; however, sources attributed the attacks to Ansar al-Dine (Mali).

INCIDENT SUMMARY:

11/20/2016: Assailants opened fire on an army convoy transporting ballot boxes between Bambara Maoude and Douentza, Mopti, Mali. At least five soldiers were killed, and an unknown number of soldiers were injured in the assault. This was one of two related attacks targeting electoral convoys on this date. No group claimed responsibility for the incidents; however, sources attributed the attacks to Ansar al-Dine (Mali).

INCIDENT SUMMARY:

11/19/2016: Assailants abducted Saibou Barry, a PRVM-FASAKO candidate, in Koro, Mopti, Mali. The outcome of the kidnapping is unknown. No group claimed responsibility for the incident; however, sources attributed the attack to Ansar al-Dine (Mali).

INCIDENT SUMMARY:

11/07/2016: Assailants attacked a National Guard camp in Banamba, Koulikoro, Mali. No casualties were reported in the attack. This was one of four related attacks in the area on this date. Ansar al-Dine (Mali) claimed responsibility for the incident; however, sources also attributed the attack to the Macina Liberation Front (FLM).

INCIDENT SUMMARY:

11/07/2016: Assailants attacked a prison in Banamba, Koulikoro, Mali. No casualties were reported in the attack; however, a prison guard was reported missing. This was one of four related attacks in the area on this date. Ansar al-Dine (Mali) claimed responsibility for the incident; however, sources also attributed the attack to the Macina Liberation Front (FLM).

INCIDENT SUMMARY:

11/07/2016: Assailants attacked the Mali Development Bank in Banamba, Koulikoro, Mali. No casualties were reported in the attack. This was one of four related attacks in the area on this date. Ansar al-Dine (Mali) claimed responsibility for the incident; however, sources also attributed the attack to the Macina Liberation Front.

INCIDENT SUMMARY:

11/06/2016: Assailants attacked a military camp in Gourma Rhaous, Timbuktu, Mali. No casualties were reported in the attack. Ansar al-Dine (Mali) claimed responsibility for the incident.

INCIDENT SUMMARY:

11/06/2016: An explosive device detonated, and assailants opened fire targeting a United Nations Multidimensional Integrated Stabilisation Mission in Mali (MINUSMA) convoy in Ngouma, Mopti, Mali. One Togolese peacekeeper and two Malian civilians were killed, and seven peacekeepers were injured in the attack. Ansar al-Dine (Mali) claimed responsibility for the incident.

INCIDENT SUMMARY:

11/04/2016: An explosive device detonated near a French Armed Forces convoy in Kidal region, Mali. At least one soldier was killed, and another was injured in the blast. Ansar al-Dine (Mali) claimed responsibility for the attack.

INCIDENT SUMMARY:

10/13/2016: Multiple explosive devices detonated near a Malian Army vehicle in N'Goma Coura, Segou, Mali. Following the blast, assailants then opened fire on the vehicle. At least four soldiers were killed, and seven others were wounded in the attack. Ansar al-Dine (Mali) claimed responsibility for the incident.

INCIDENT SUMMARY:

10/05/2016: An explosive device detonated near a Malian Armed Forces convoy near Bambara Maounde, Timbuktu, Mali. At least two soldiers were killed, and two others were injured in the blast. Ansar al-Dine (Mali) claimed responsibility for the attack.

INCIDENT SUMMARY:

10/03/2016: A landmine detonated targeting two United Nations Multidimensional Integrated Stabilization Mission in Mali (MINUSMA) vehicles in Aguelhoc, Kidal, Mali. This was one of two related attacks targeting MINUSMA personnel in Aguelhok on this date. At least two MINUSMA peacekeepers were killed, and seven others were injured across both attacks. Ansar al-Dine (Mali) claimed responsibility for the incidents.

INCIDENT SUMMARY:

10/03/2016: Assailants fired mortars at a United Nations Multidimensional Integrated Stabilisation Mission in Mali (MINUSMA) camp in Aguelhoc, Kidal, Mali. This was one of two related attacks targeting UN personnel in the area on this date. At least two MINUSMA peacekeepers were killed, and seven others were injured across both attacks. Ansar al-Dine (Mali) claimed responsibility for the incidents.

INCIDENT SUMMARY:

09/02/2016: Assailants raided Boni, Mopti, Mali. Several buildings were burned, and a deputy mayor was abducted in the assault; the outcome of the kidnapping is unknown. No group claimed responsibility; however, sources attributed the incident to the Macina

Liberation Front (FLM). Sources also suspected that Ansar al-Dine (Mali) might have carried out the attack.

INCIDENT SUMMARY:

08/08/2016: Assailants attacked a Malian military position between Tenenkour and Sevare in Mopti, Mali. An assailant was killed, and five soldiers were reported missing and were later found dead. Ansar al-Dine (Mali) claimed responsibility for the attack.

INCIDENT SUMMARY:

08/07/2016: An explosive device detonated near a United Nations Multidimensional Integrated Stabilisation Mission in Mali (MINUSMA) patrol outside Kidal town, Mali. There were no reported casualties in the blast. This was one of two attacks targeting MINUSMA peacekeepers in Kidal region on the same day. Ansar al-Dine (Mali) claimed responsibility for the incidents. Source also suspected that the attacks were carried out by Al-Qaida in the Islamic Maghreb (AQIM).

INCIDENT SUMMARY:

08/05/2016: An explosive device detonated targeting Chadian peacekeeper near Kidal, Mali. One peacekeeper was injured in the blast. Ansar al-Dine (Mali) claimed responsibility for the attack.

INCIDENT SUMMARY:

07/19/2016: Assailants opened fire on a Malian Army base in Nampala, Segou, Mali. At least 17 soldiers were killed, and 35 others were injured in the assault. Additionally, six soldiers were reported missing, and their whereabouts are unknown. Ansar al-Dine (Mali) claimed responsibility for the incident and stated that it was holding five soldier's hostage in a video posted on August 4, 2016. The National Alliance for the Protection of the Fulani Identity and the Restoration of Justice (ANSIPRJ) separately claimed responsibility for the incident. Sources also attributed the attack to the Macina Liberation Front (FLM).

INCIDENT SUMMARY:

07/09/2016: Assailants attacked a military checkpoint in Dinangorou, Mopti, Mali. At least two soldiers were killed in the attack. Al-Qaida in the Islamic Maghreb (AQIM) claimed responsibility for the attack. Additionally, sources suspected the involvement of Ansar al-Dine (Mali).

INCIDENT SUMMARY:

05/18/2016: Assailants detonated an explosive device and opened fire targeting a United Nations Multidimensional Integrated Stabilization Mission in Mali (MINUSMA) convoy in Aguelhoc, Kidal, Mali. Six Chadian peacekeepers were killed, and two peacekeepers were injured in the ambush. Ansar al-Dine (Mali) claimed responsibility for the incident.

INCIDENT SUMMARY:

04/28/2016: Assailants attacked a Niger Army vehicle in Tchin-Tabarade district, Tahoua, Niger. At least one soldier was killed, and another was injured in the incident. No group claimed responsibility; however, sources suspected that the attack was carried out by either the Movement for Oneness and Jihad in West Africa (MUJAO) or Ansar al-Dine (Mali).

INCIDENT SUMMARY:

04/16/2016: Assailants abducted four International Committee of the Red Cross (ICRC) employees near Abeibara, Kidal, Mali. One of the hostages was released on April 18, 2016, and the three remaining hostages were released on April 22, 2016. Ansar al-Dine (Mali) claimed responsibility for the incident and demanded the release of one of their members in exchange for the victims.

INCIDENT SUMMARY:

04/12/2016: An explosive device detonated near a French military convoy in Tessalit, Kidal, Mali. At least three French soldiers were killed, and two others were injured in the blast. Ansar al-Dine (Mali) claimed responsibility for the attack.

INCIDENT SUMMARY:

03/22/2016: An explosive device detonated near a Malian Armed Forces vehicle in Menaka, Gao, Mali. At least one soldier was injured in the blast. No group claimed responsibility for the attack.

INCIDENT SUMMARY:

03/01/2016: An explosive device detonated targeting a United Nations Multidimensional Integrated Stabilisation Mission in Mali (MINUSMA) vehicle on the road between Aguelhoc and Tessalit in Kidal, Mali. Six peacekeepers were injured in the blast. Ansar al-Dine (Mali) claimed responsibility for the attack.

INCIDENT SUMMARY:

02/12/2016: Two suicide bombers detonated an explosives-laden vehicle and assailants launched rockets at a United Nations Multidimensional Integrated Stabilization Mission in Mali (MINUSMA) base in Kidal town, Kidal region, Mali. In addition to the two bombers, seven Guinean peacekeepers were killed, and 29 others were wounded in the attack. Ansar al-Dine (Mali) claimed responsibility for the incident and sources also suspected that the attack might have been carried out by Al-Qaida in the Islamic Maghreb (AQIM).

----------Handout Learning Activity 2----------

Link Analysis: 2016 Attacks by Ansar al Dine (MALI)
Instructions (Assume that all attacks were carried out by Ansar al Dine)

- **You have been tasked to investigate three incidents in greater depth and determine what links the actors involved have with each other.**
- **Construct a Link Diagram and search for links:**
  - Between actors (include all the identified actors on your Link Diagram);
  - Between actors and known organisations (include the identified organisations on your Link Diagram);
  - Between actors and incidents (include the three incidents in your Link Diagram).

- What does this tell you about the links? What are the "so what" deductions for your commander?

INCIDENT SUMMARY:

11/07/2016, 0900: Assailants attacked the Mali Development Bank in Banamba, Koulikoro, Mali. No casualties were reported in the attack. Ansar al-Dine (Mali) claimed responsibility for the incident; however, sources also attributed the attack to the Macina Liberation Front (FLM).
Among the assailants, CCTV footage positively identified two known members of Ansar al-Dine, Moussa Arby (MA) and Seydou Bagayogo (SB). An eyewitness positively identified Fanta Kieta (FK) as the driver who drove the van transporting the assailants, a green Renault Master with no windows. Two other assailants remain unidentified.
Adama Kone (AK), the local Ansar al-Dine commander, claimed responsibility for the attack via a local radio station.

INCIDENT SUMMARY:

11/07/2016, 1320: Assailants attacked a prison in Banamba, Koulikoro, Mali. No casualties were reported in the attack; however, a prison guard, Amadou Sacko (AS), was reported missing. Ansar al-Dine (Mali) claimed responsibility for the incident; however, sources also attributed the attack to the Macina Liberation Front (FLM).
CCTV footage positively identified known member of Ansar al-Dine, Seydou Bagayogo (SB), and one assailant who is suspected to be Oumar Keita (OK), a known member of the Macina Liberation Front (FLM). Three other assailants were not identifiable on the CCTV footage.

A fairly reliable HUMINT source (C), provided a report that is probably true (2) from February 2016 reporting that Oumar Keita (OK) is brother to Fanta Kieta (FK) and that there is another brother, Moussa Keita (MK) who has a criminal record (violent robbery), but as yet has not been identified as active in any insurgent group.

An eyewitness identified a green, windowless van on the road outside the prison. The eyewitness believed that a woman was driving the van.

A prison guard positively identified Hawa Damba (HD) as an assailant. Damba is a known member of the Macina Liberation Front (MLF) and a known associate of Fanta Kieta (FK). The women attended high school together and were detained together in 2013 by Police on shoplifting charges.

A usually reliable HUMINT source (B), provided a report that is probably true (2) from July 2016 reporting that Hawa Damba (HD) married Moussa Keita (MK) in March 2019.

During the attack, one assailant was heard calling for help from someone called "Seydou". A man (assumed to be "Seydou") replied, "be quiet Boubacar".

Note: Boubacar Damba is a known member of Ansar al-Dine and cousin of Hawa Damba.

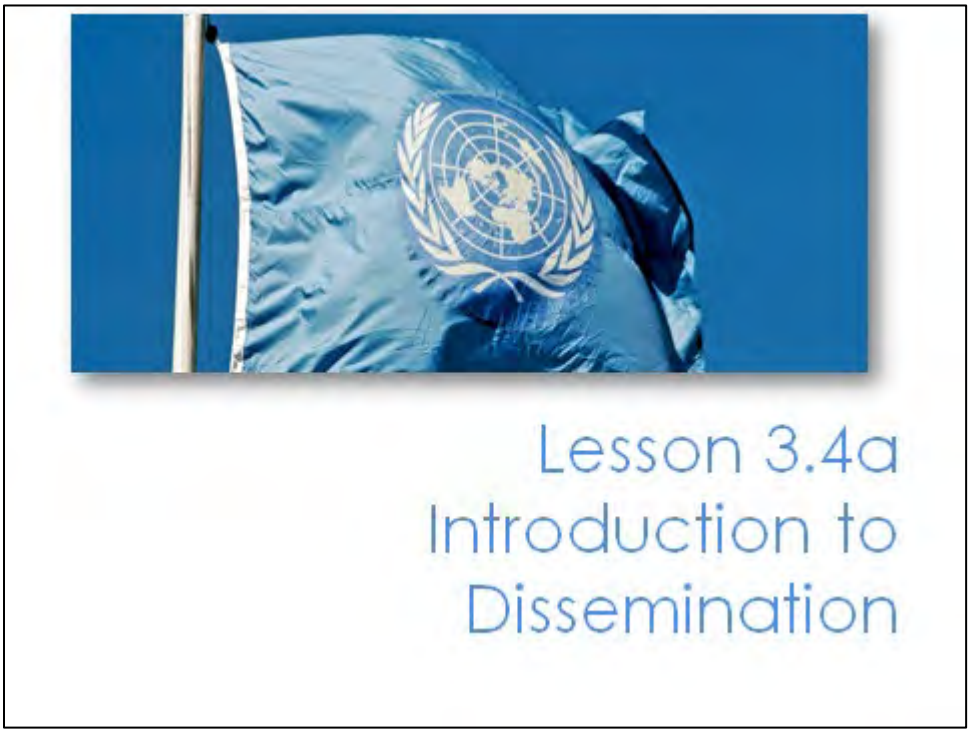
Lesson
3.4a

Introduction to Dissemination

The Lesson

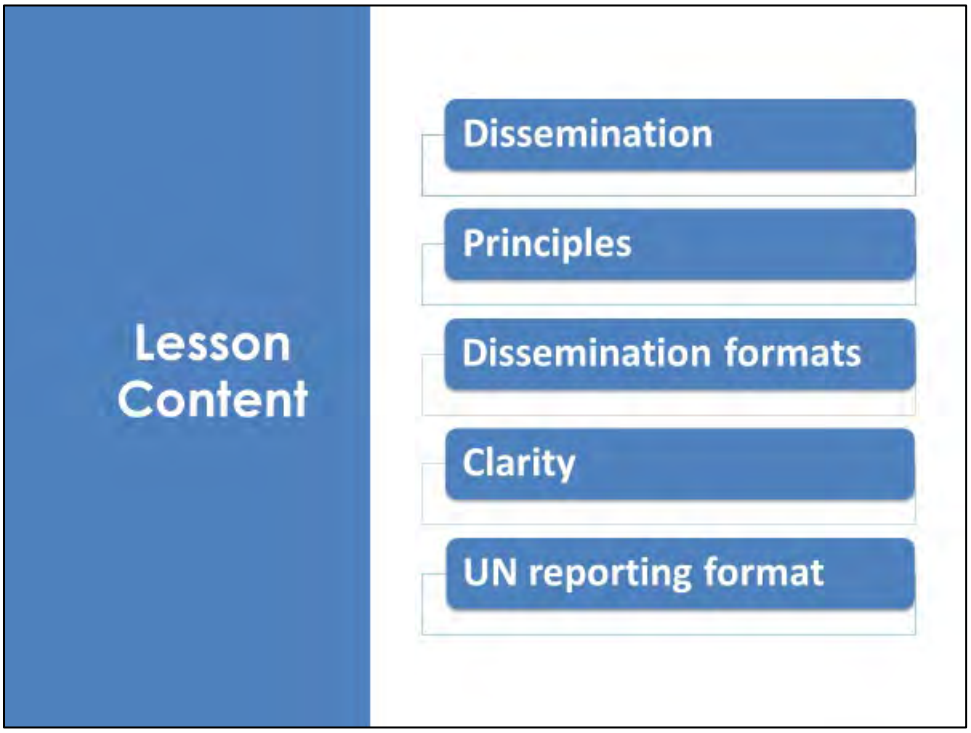
Starting the Lesson

Slide 1



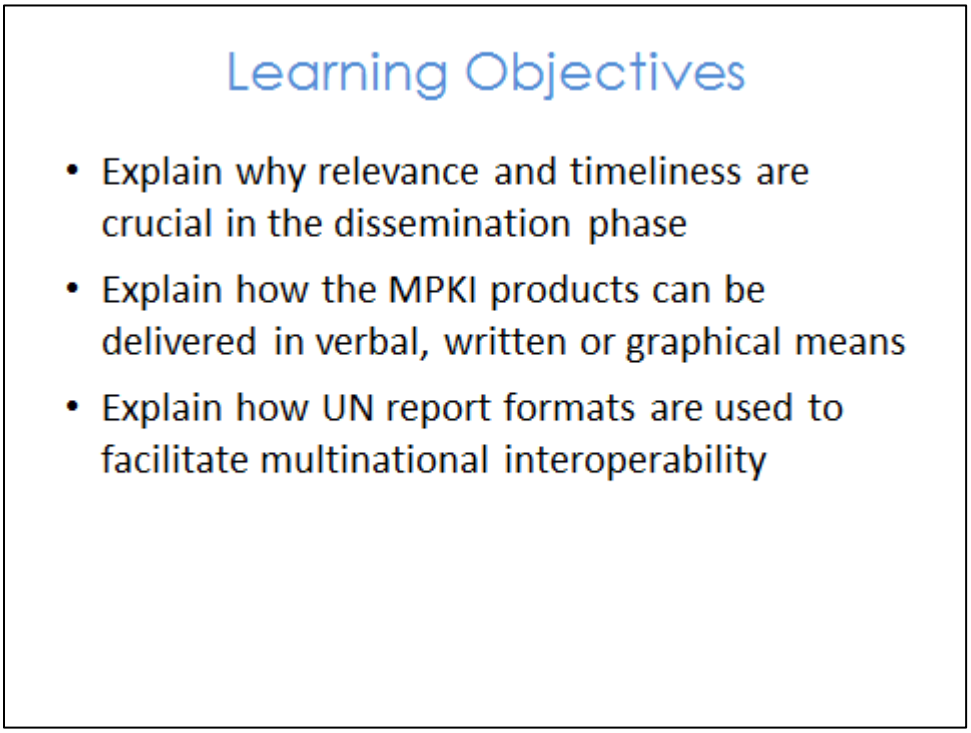
In this lesson, we will give you an introduction and overview of the MPKI dissemination function.

Slide 2



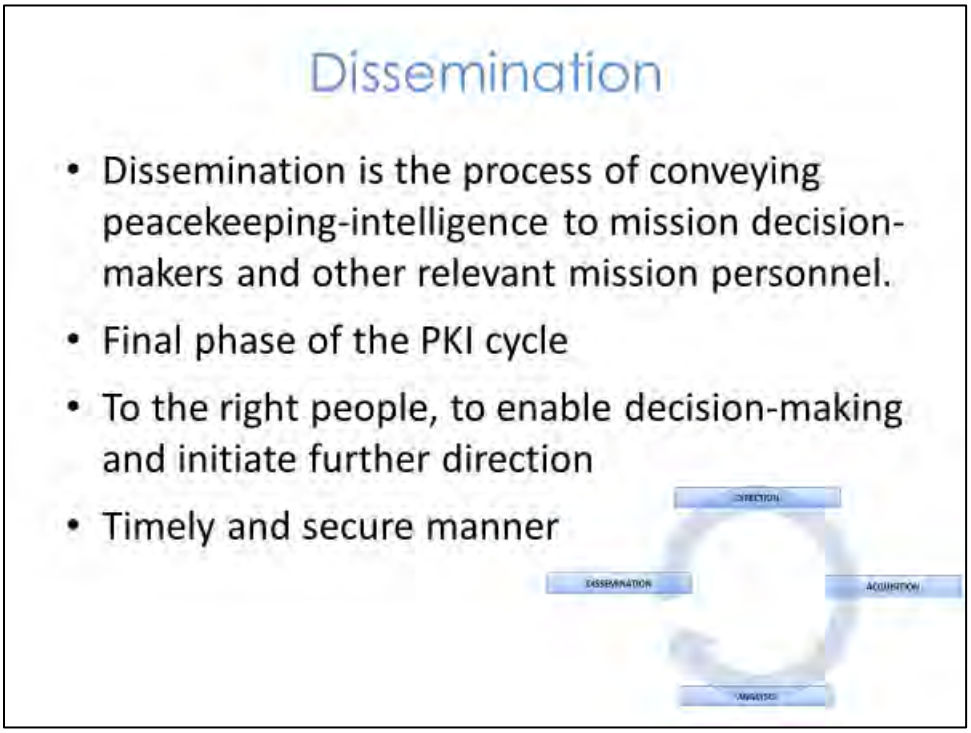
Here is the lesson content.

Slide 3



The learning objectives for this lecture is to give a high-level overview of the dissemination function in the MPKI Cycle, in order to gain an understanding of the overarching process that ties the Intelligence Functions together.

Slide 4



Dissemination is the process of conveying peacekeeping-intelligence to mission decision-makers and other relevant mission personnel.

Dissemination is the final phase of the Peacekeeping-Intelligence cycle. The Commander's information requirements are acquired, and the relevant information is analysed and integrated to produce peacekeeping-intelligence, which is then disseminated to the right people, to enable decision-making and initiate further direction.

Strong dissemination protocols must be in place to ensure that intelligence products reach leadership in a timely and secure manner.

Slide 5

The dissemination of peacekeeping-intelligence products shall follow the concepts as stipulated in either the Peacekeeping-Intelligence Support Plan and/or relevant SOPs. Mission level documents should be replicated at Force and below levels.

The ISP supports the Peacekeeping-intelligence production and dissemination providing regulation on:

- Details the positions responsible for ensuring generation and dissemination of products through various channels, including releasing authorities for the dissemination of products within and outside the mission.

- Details the media and information technology, management and communications systems through which peacekeeping-intelligence products are to be released.

The initial Intelligence Dialogue will determine methods, timeframes, and formats of products in terms of dissemination. So the initial Intelligence Dialogue is the starting point but needs to be continuously revisited as circumstances and requirements change.

The Production Plan (MPKI HB, 5.5) that can be part of a Mission or Force SOP ensures the direction to produce peacekeeping-intelligence products per the decision-makers' needs. The responsibility for developing the production plan is with the Chief of the peacekeeping-intelligence branch at a specific level. This plan lists:

- Regular products (daily, weekly, monthly), timings, formats and who has responsibility;
- Ad hoc products per situation, formats and who has responsibility;
- Release authority for different products (i.e., checking quality, content and relevance before dissemination)

Preferred dissemination (when, how and to whom). The production plan is a living, dynamic, situational, flexible and internal peacekeeping-intelligence production tool that normally is based on more static Reporting Directives and SOPs.

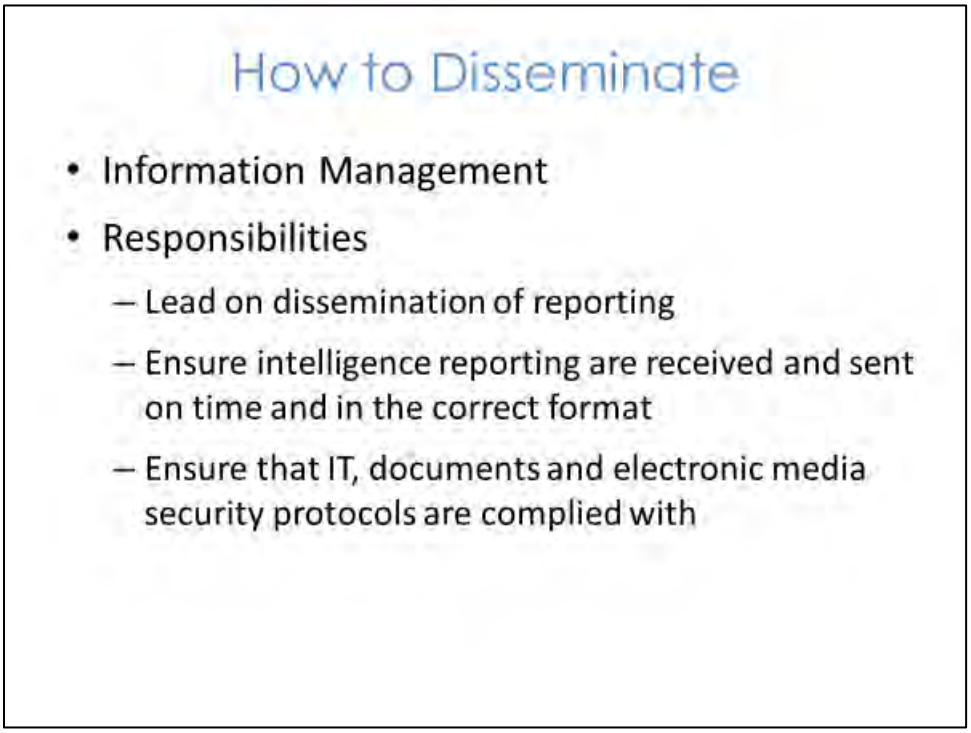
Slide 6

The dissemination of peacekeeping-intelligence products shall be done in compliance with the "need to know/need to share" concepts to minimize unauthorized disclosure, as well as the below organisational requirements for information classification, security, handling, ownership and sharing. An assessment of the risks associated with the disclosure thereof should be done.

The delegation of authority to disseminate peacekeeping-intelligence products shall be identified as part of the mission's Peacekeeping-Intelligence Support Plan and internal guidance for participating mission entities.

It should be noted that human rights and humanitarian law violations, including trafficking, combat-related sexual violence (CRSV) and crimes against children, have mandatory reporting requirements. Any information about these offences that are uncovered during the MPKI cycle must be reported through the appropriate channels.

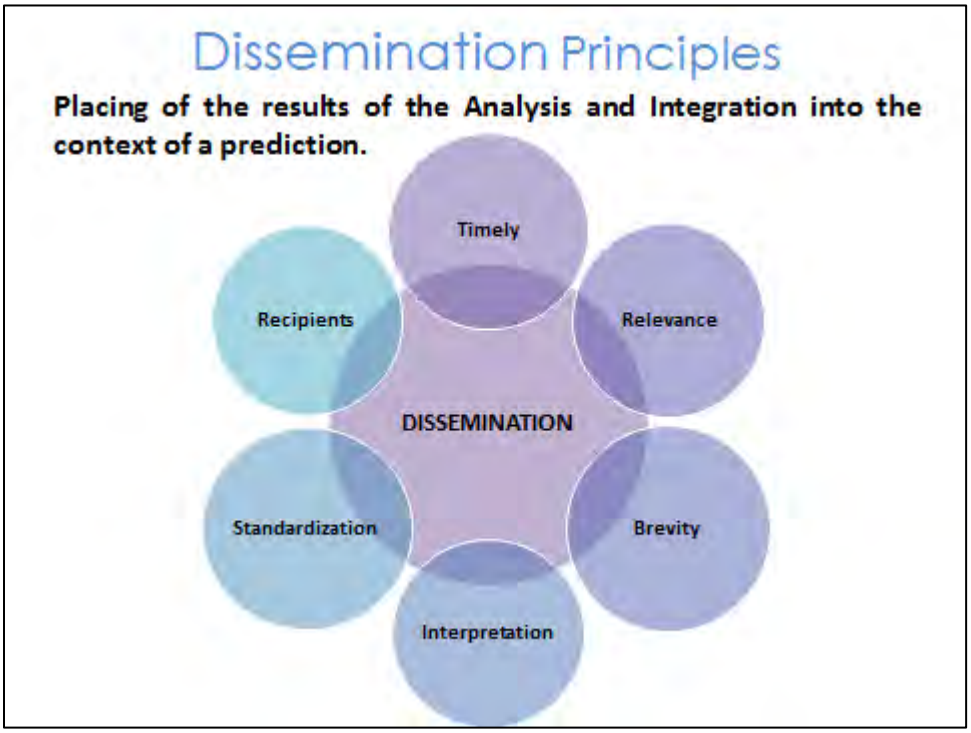
Slide 7



As seen in the Acquisition lesson, Information Management (IM) is a crucial element for effective intelligence delivery. One of the most important functions is to ensure that all relevant information is disseminated to the right organisations at the right time. Intelligence IM responsibilities include, among others:

- Lead on the dissemination of reporting
- Ensure intelligence reporting (Threat reporting, INTSUMs, INTREPs, PICINTSUMs etc.) are received and sent on time and in the correct format from subordinate units, where applicable
- Ensure that IT, documents and electronic media security protocols are complied with

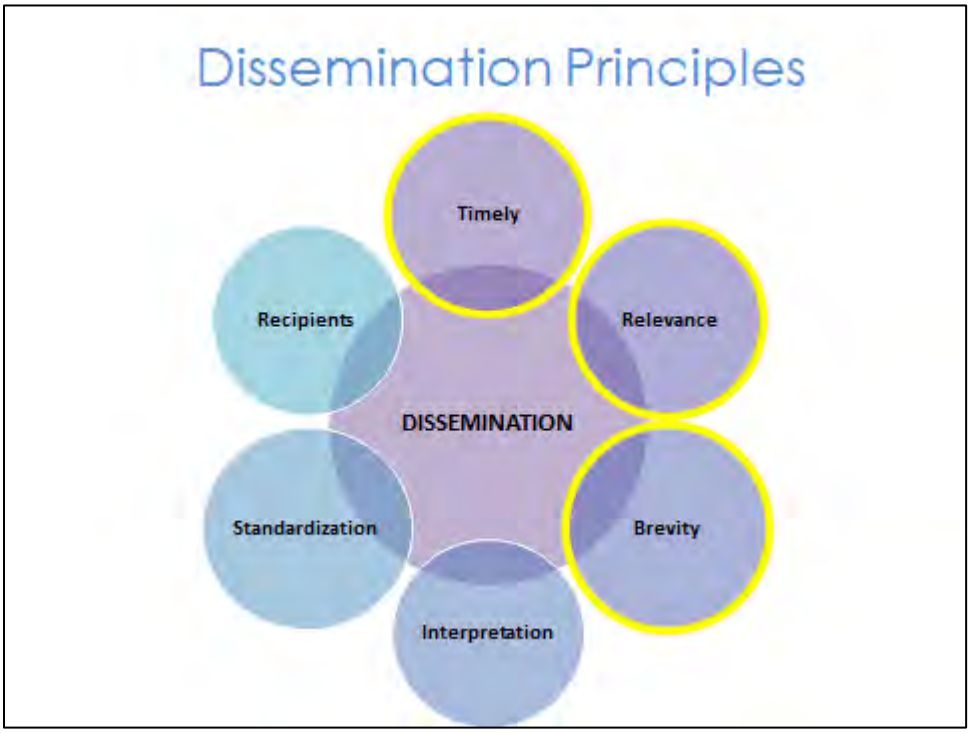
Slide 8



Peacekeeping-intelligence should be disseminated with relevancy, timeliness and in a standardized way. The final phase of the peacekeeping-intelligence cycle is dissemination. Your information has been analysed and turned into a finalized intelligence. If the previous steps in the MPKI Cycle have been followed correctly, this output will be relevant, and hopefully timely.

However, it has absolutely no value if it is not disseminated, is not understood or not delivered promptly. It also has no value if it is not delivered in the relevant quantity and quality to the right recipients.

Slide 9



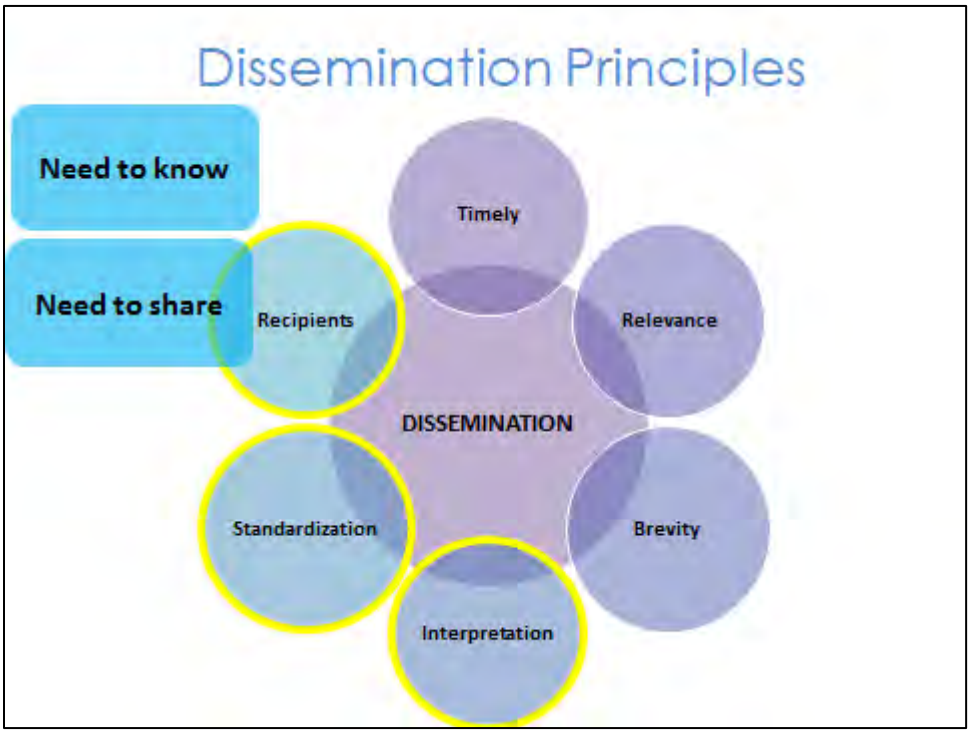
Key message: intelligence should be disseminated with timeliness, relevance and brevity.

Timeliness: Intelligence must be delivered timely so planners and decision-makers can act rather than react, thus keeping the initiative. Some acquisition assets can disseminate collected information on a real-time or near real-time basis, vastly increasing their timeliness. This sometimes conflicts with the quality of the decision support, as the direct input from acquisition assets should be processed, collated and evaluated to enhance the quality of the decision support.

Relevance: Is determined by the needs and objectives of the recipients as defined in the Direction phase of the Intelligence Cycle. If an element of intelligence does not answer a question in the IAP, it may not be necessary to report it. Remember that commanders and planners deal with large amounts of information and that they have already made it clear as to what they would like to know in the IAP.

Brevity: Reports must be kept as brief as possible, but at the same time include everything that the recipient needs to know. Commanders seldom have time to wade through long documents or listen to verbose oral briefings. Full use of traces, annexes, and facsimile processes should be made to cover additional detail. Always create a BLUF (Bottom Line Up Front) Paragraph or Executive Summary if you submit a lengthy product.

Slide 10



Key Message: After interpretation, intelligence should be standardized and disseminated to recipients.

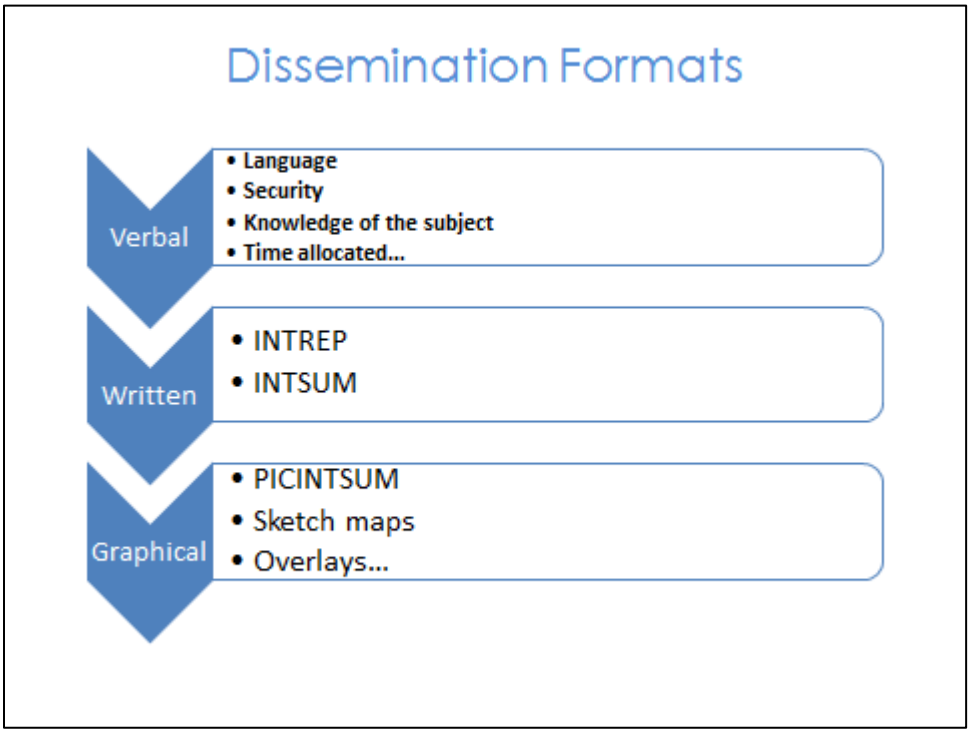
Interpretation: Wherever possible, all facts must be correctly evaluated, and their significance interpreted before dissemination. In all intelligence reports, whether oral or written, a clear distinction must be preserved between facts and the deductions, assumptions, and assessments made from them. In written reports and oral briefs, such interpretation must be made clear.

Standardisation: Reports are understood more quickly if they are laid out in a logical sequence under convenient standard headings, using the same language of probability. The format should be covered in standing operating procedures. This also enables all producers and users of intelligence to recognize the product and to more quickly extract what is most relevant to them in the product.

Recipients: Distribution is based on a thorough knowledge of the Intelligence requirements of units, planners and decision-makers. This knowledge is based on the Intelligence Acquisition Plan (IAP) and Requests for Information (RFI). Remember, if it's not relevant to the recipient, it can add to the confusion and ambiguity for understanding the operational environment.

Access to classified intelligence should be strictly limited to those who have a need-to-know to carry out their duties. Intelligence can be shared within the UN and with non-UN entities in accordance with the Mission policy. The source of information might be protected, and the intelligence itself might be sanitized to protect the source from sharing information with others.

Slide 11



Key Message: Dissemination can be verbal, written or graphical.

How you disseminate the peacekeeping intelligence depends on both « push » and « pull » concepts. The push concepts being the high command pushing the peacekeeping intelligence to a lower level of command.

The pull factor involves direct electronic access to web pages, databases, peacekeeping intelligence files, or other repositories (where applicable).
With, peacekeeping intelligence must be delivered in a format that the recipient readily understands and is readily usable. It can be:

Verbal: Verbal briefings are useful for timeliness and for providing an opportunity to emphasize significant issues, as well as providing the briefer with immediate feedback and the potential for further direction. A Verbal presentation can be organized and supported by a PICINTSUM. When preparing a verbal presentation, should be considered the language, the level of security clearance and the level of knowledge the recipients have. Time allocated, use of visual aids and IT capabilities in the briefing room should also be considered.

Written: Written dissemination encompasses Intelligence Reports, Intelligence Summaries and Thematic Reports. Intelligence summaries should be disseminated at

regular intervals relevant to the situation. Time-sensitive material is disseminated using INTREP.

Dissemination can also be Graphical like PICINTSUM, sketch maps, physical, human, and information overlays, link charts. Please remember that maximum use of graphical dissemination is highly recommended in peacekeeping-intelligence.

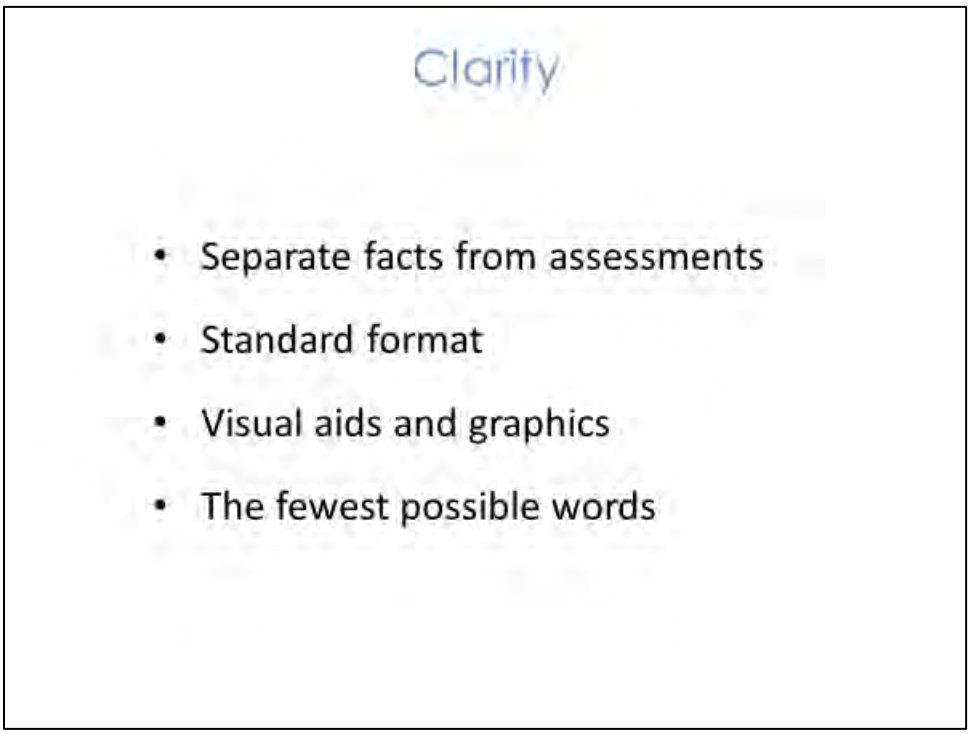
In any case, keep in mind that Intelligence indicating an imminent assessed threat to life must be conveyed immediately. The source and any classified information may be left out / protected as required, but the threat to life must be passed on by the fastest means.

Interaction *Ask the students which other products not in the slide that was delivered during the course and can be disseminated and by which format. Answers should point to SPIE and Phase 1 Brief. RFI and IAP can also be mentioned.*

Narrative: As identified in its specific lesson, the SPIE is a method of disseminating the AOE in written and graphical form using the same logical process as the AOE and ends with detailed assessments of the ACOAs. SPIE is more easily disseminated.

The initial IAP is disseminated at the early stages of the mission or after its completion. As the IAP is a living document and should be managed in all levels (Mission, Force, Sector and Unit), new IRs, SIRs and EEI can be disseminated as part of intelligence annexes of FRAGOs, WARNOs and other documents. Also, as explained in the Acquisition lesson, the Information Acquisition List should be distributed to subordinate assets. It is a combination of the EEIs, RFIs and I&W, which have become IRs in the acquisition process and have been prioritized accordingly.

Slide 12



Key Message: Avoid ambiguity and separate facts from assessments while disseminating peacekeeping intelligence.

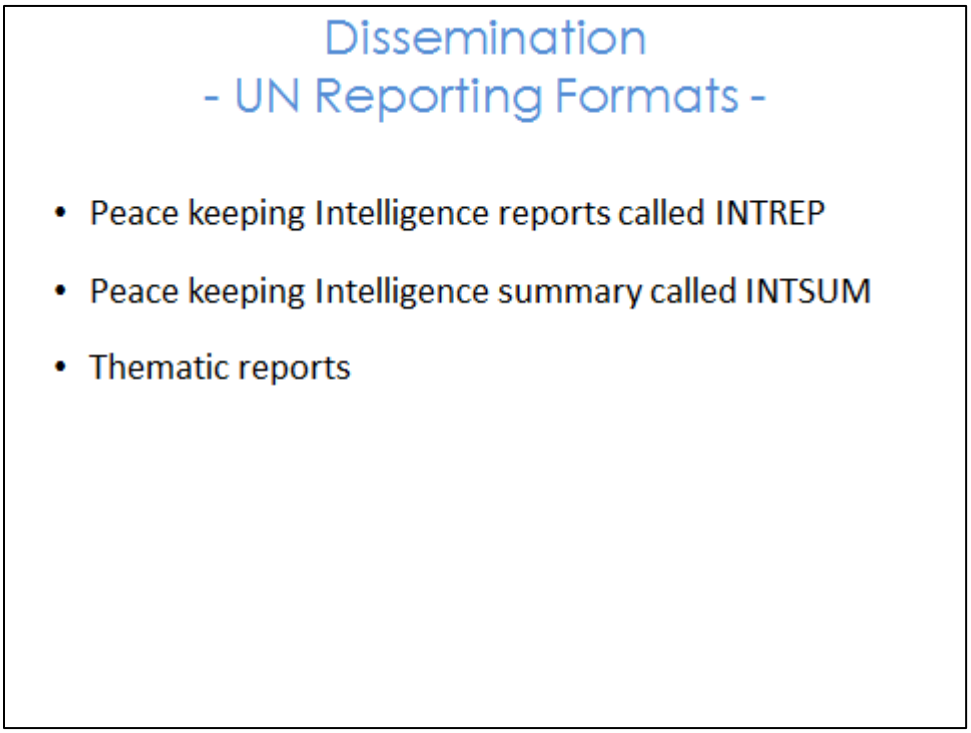
Both briefings and reports should be characterized by clarity and brevity. Intelligence should be presented unambiguously – clearly separating facts from assessments.

The originator must ensure that he has focused his thoughts before briefing or writing. Always rehearse briefings. The briefings and reports should follow a standard format and sequence of slides. The use of visual aids, maps, drawings and diagrams will enhance the verbal briefing and clarify the intelligence being discussed. To be brief and precise is the key to the successful dissemination of intelligence. The good presentation – verbal or written - is the one which contains the most information in the fewest possible words.

Disseminating intelligence through known reporting formats also enhances clarity. Always assure that you do not place elements of reports in the wrong place in the format. The release authority will normally conduct a final quality assurance check of a report before it's distributed.

☞***Instructor note***: *If possible, draw examples from your experience as an intelligence officer on how clarity can be achieved when conveying intelligence products.*

Slide 13



Key Message: Always use a UN format in Peacekeeping Intelligence cells.
The UN uses standard report formats in order to guarantee multinational interoperability.

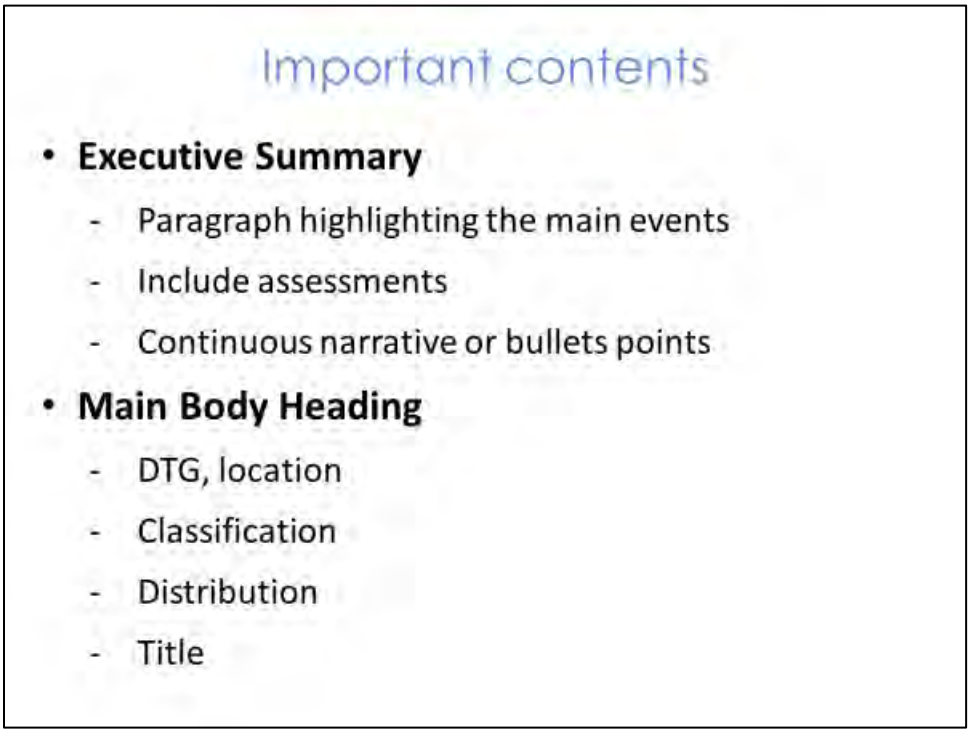
Here are a few examples of reporting formats:

Peace Keeping Intelligence Reports or INTREP: The INTREP will be covered in a subsequent lecture. It is in short, a way of conveying intelligence of immediate importance that cannot wait for the regularly published products.

Peacekeeping-Intelligence Summary also called INTSUM: The INTSUM will be covered in a subsequent lecture. It is in short, a collection of the intelligence reporting received over a period defined. An INTSUM may be written in prose or with graphics, called Picture Peacekeeping-Intelligence Summary (PICINTSUM)

Thematic reports: Thematic reports are created as required, often as an answer to a Request for Information (RFI). The Thematic Report is always useful when providing a deeper understanding of a specific topic and draws on all intelligence gained until the time it is released.

Slide 14



Key Message: The following points should be considered for all dissemination products.

To attend the brevity principle, an executive summary can be required. The executive summary is a summary paragraph highlighting the main events or reporting themes. This will also include the main deductive and predictive assessments. Should be written in continuous narrative or in bullet points to provide the customer with a concise summary of what has happened, why, and what will occur next.

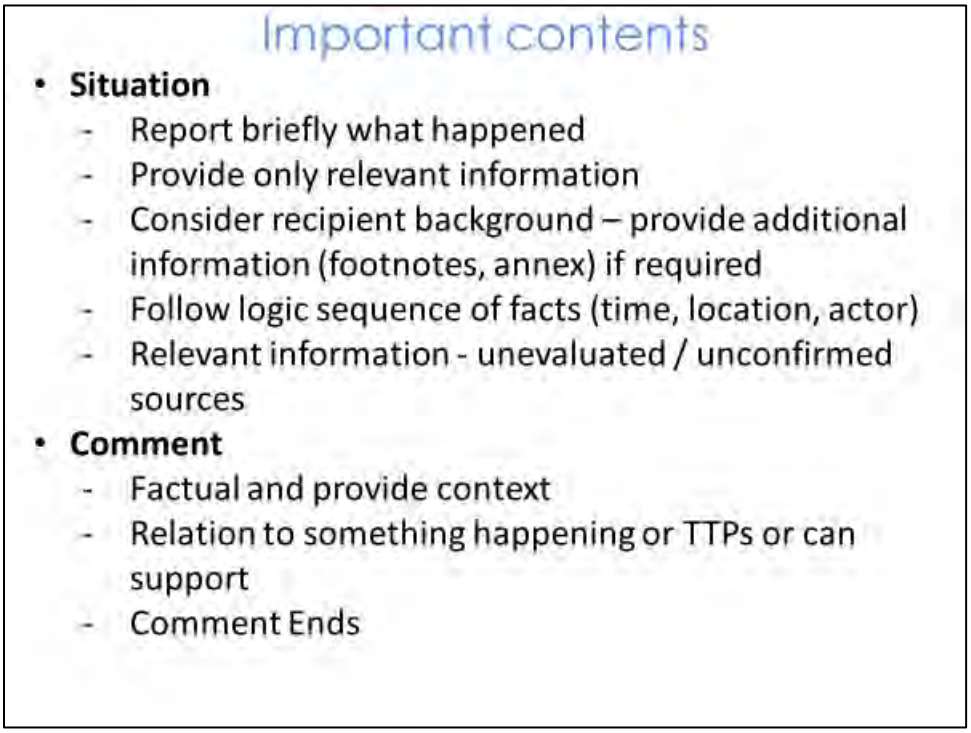
The critical factual detail is taken from the reporting usually comprising Date-Time-Group (DTG), location, and what occurred.

The classification should follow UN regulations and Mission SOPs.

The distribution will be done following ISP, SOP and need to know and need to share principles.

When required, a title should cover the main topic/issue covered by the document.

Slide 15



The situation must provide the critical facts of the situation and the required background. Focus on reporting facts briefly relating to the main topic covered. Consider audience background, what they already know/understand about situation/topic covered.

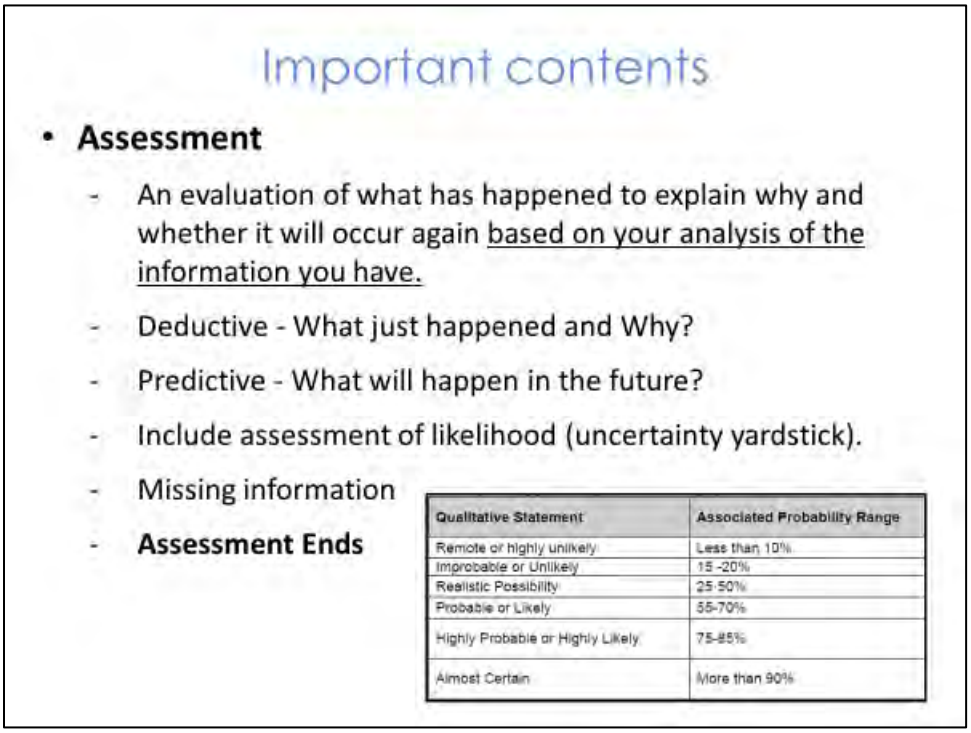
References with a footnote and or an annexe so the customer can go direct for further information. Facts should be presented following a logical sequence that can be a timeline or grouped by areas/sectors or relevant actor involved. Check inconsistencies and understanding.

Relevant information from unevaluated facts or unconfirmed sources will be disseminated but requires the highest care to state its nature. Although the information is not confirmed, can bring attention to leadership and planner about a change of trends or TTPs, per instance. The instructor should provide examples.

Comment on implications of the situation, draw linkages. Alternatively, this section can provide additional background to the situation, or a deep dive into particular issues raised.
A comment must be factual and provide context. This could include previous reporting, your knowledge, data or reference material.

At the end of the comments should be written to make clear to the recipients.

Slide 16



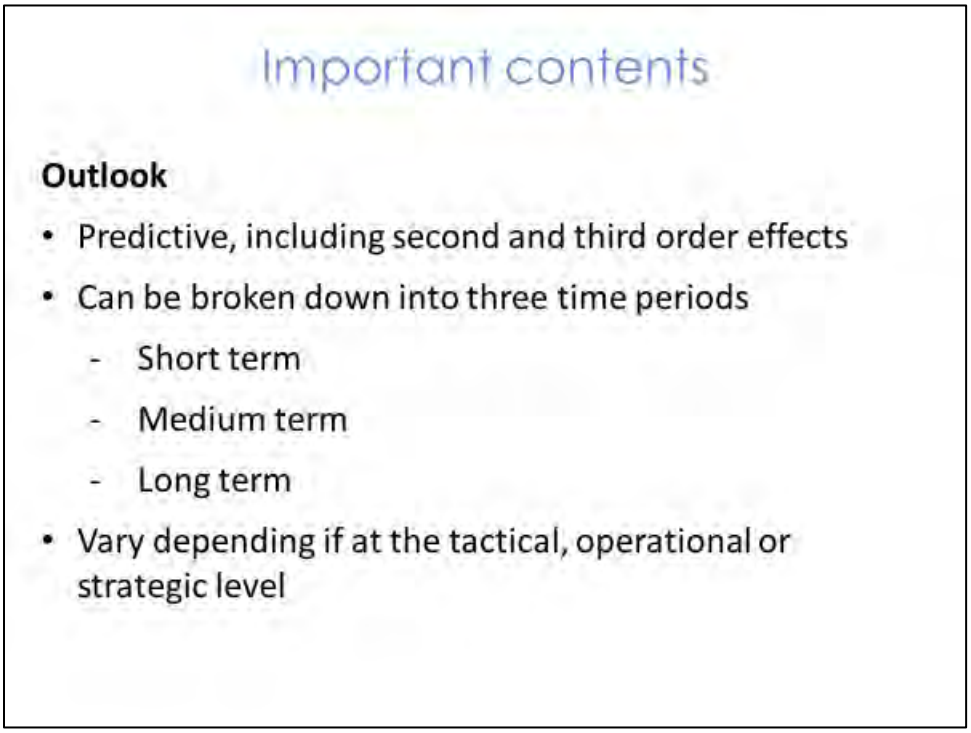
An evaluation of what has happened to explain why and whether it will occur again based on your analysis of the information you have.

Should include both deductive and predictive assessment. Deductive - What just happened and Why? Predictive - What will happen in the future? Include an assessment of likelihood (uncertainty yardstick), usually at the end of the document.

Assessment should also tell the commander/audience what information is still missing. This will again move the cycle and provide new IRs.
The instructor can provide examples (e.g. "no group has yet claimed responsibility for this attack. However, it is consistent with known Al-Shabaab TTPs…" or "the number of displaced has not been confirmed at this time, however, given the scale of fighting is likely to have been significant…").

The assessment should use predictive language, including an assessment of its likelihood. The uncertainty yardstick supports the audience's better understanding of the level of confidence for each portion of your assessment. Best practices show that including the uncertainty yardstick enhance the comprehension in commanders. A summary of threat levels seen in Actor Evaluation lesson can also be used in threat assessments.

Slide 17



The outlook is a result of predictive analysis of a situation visualized in the future for a specific period. An outlook can be included in the assessment part of an intelligence product. The assessment is predictive, looking to a point in the future and might consist of second and third-order effects.

Interaction *Present the following situation and ask which are the second and third-order effects:*

Situation- A farmer killed a Fulani herder because Fulan cattle destroyed the farmer's crops. Comment: during the transhumance season there's a historical increase of ethnic violence involving local self-defence militias and armed Fulanis.

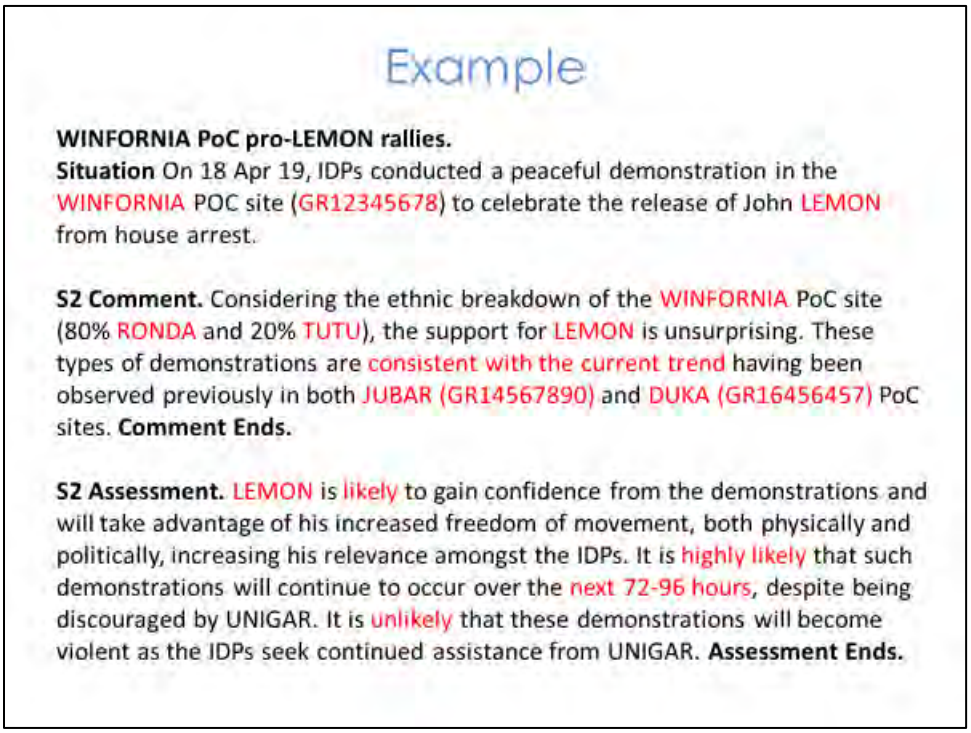
Answers should vary Second-order: revenge acts against farmers, crops destruction. Third-order: robbery/killing of Fulanis or cattle, resumption of ethnic clashes

The outlook can be broken down into three time periods. These periods will vary depending on if at the tactical, operational or strategic level.
Tactical example:
Short term - Immediate threats, typically looking at the next 24hours / reporting period.
Medium-term - Typically looking at the following 24-96hrs.

Long Term - Horizon scanning, 96hrs plus.

The strategic level can vary from Short term – few months to Long Term – some years ahead.

Slide 18



Interaction: *In this interaction, have the students read the report and, in a group, highlight the main points covered.*

Situation – brief report of the fact.

Comment – explanation of the ethnic background and referring to the previous observation of similar facts.

Assessment – likelihood per each specific idea/inference, not overall. Predictive for a particular period.

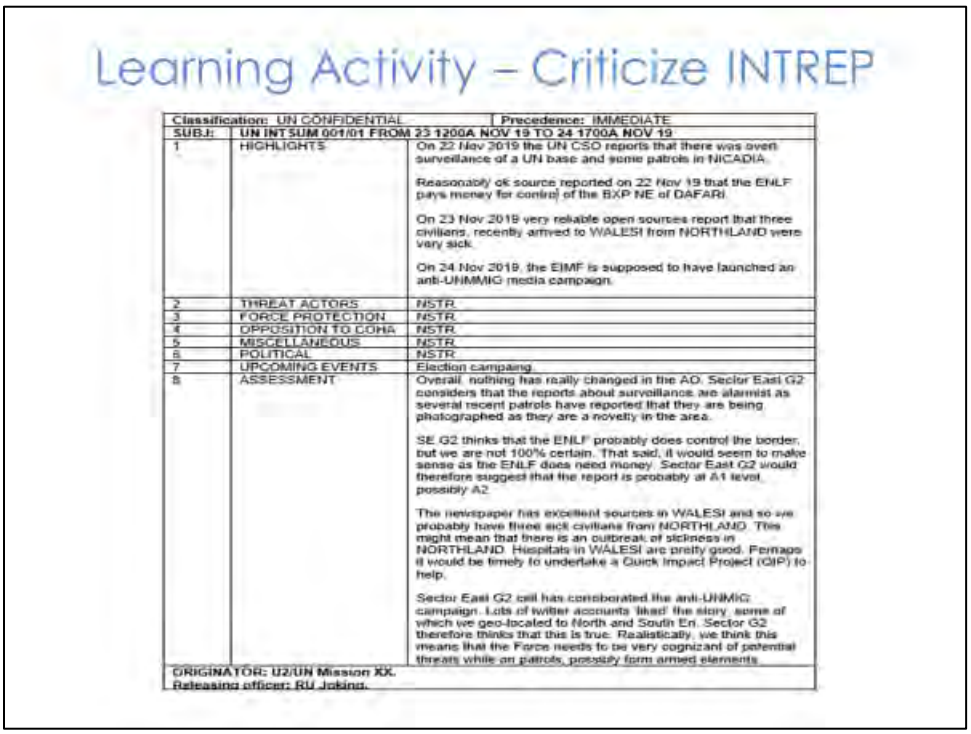
Second-order effects – gaining confidence, demonstrations continuing

So What? How this relates to the UN

Logic narrative assessment first that demonstrations can continue and then about the use of violence during the rallies.

Student can be asked about the need for an Executive Summary, and the answer should be no, as the assessment is clear and concise.

Slide 19

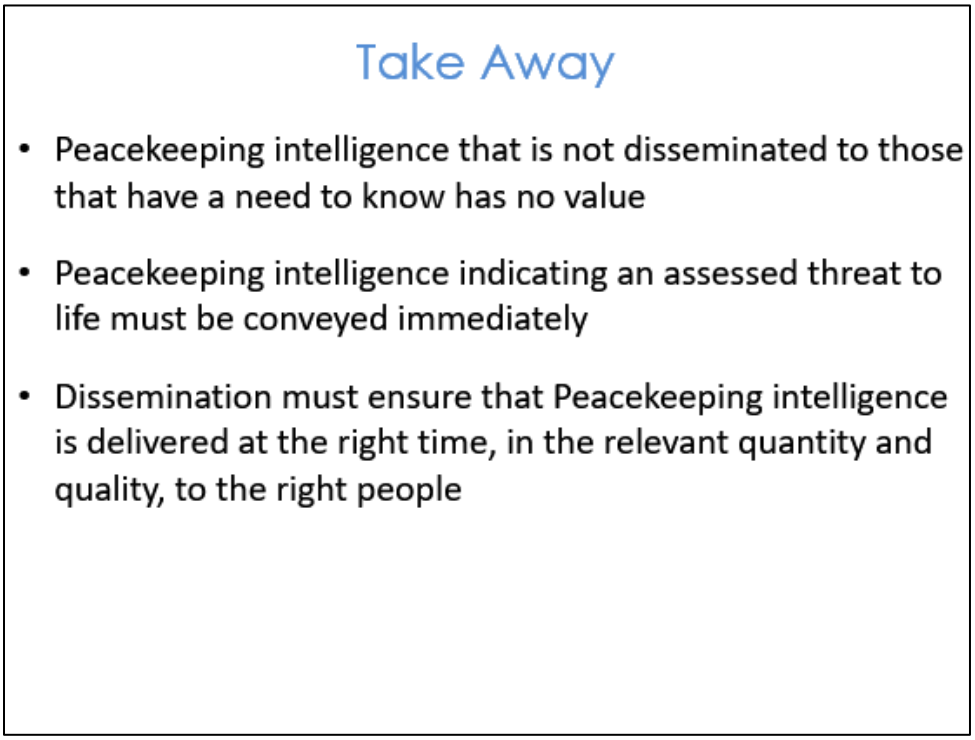


Interaction. *Have the students read the following INTREP (provide a hard copy). Then discuss it for five minutes.*

Ask them to comment on where this report does not adhere to the principles of dissemination. Time: Approx. 15 minutes

Expected outcome:
The students should be able to recognize where a report deviates from the dissemination principles to be able to self-correct when creating intelligence products.

Slide 20



Summary

Remember that:

- Peacekeeping intelligence that is not disseminated to those that have a need to know has no value
- Peacekeeping intelligence indicating an assessed threat to life must be conveyed immediately
- Dissemination must ensure that peacekeeping intelligence is delivered at the right time, in the relevant quantity and quality, to the right people

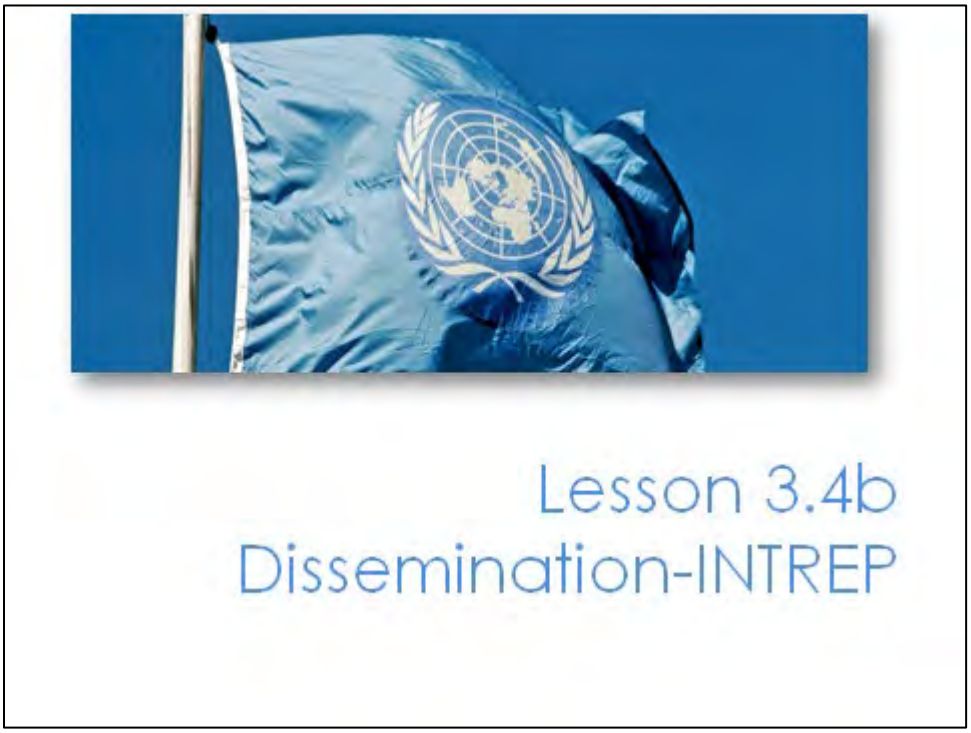
Lesson
3.4b

Dissemination-INTREP

The Lesson

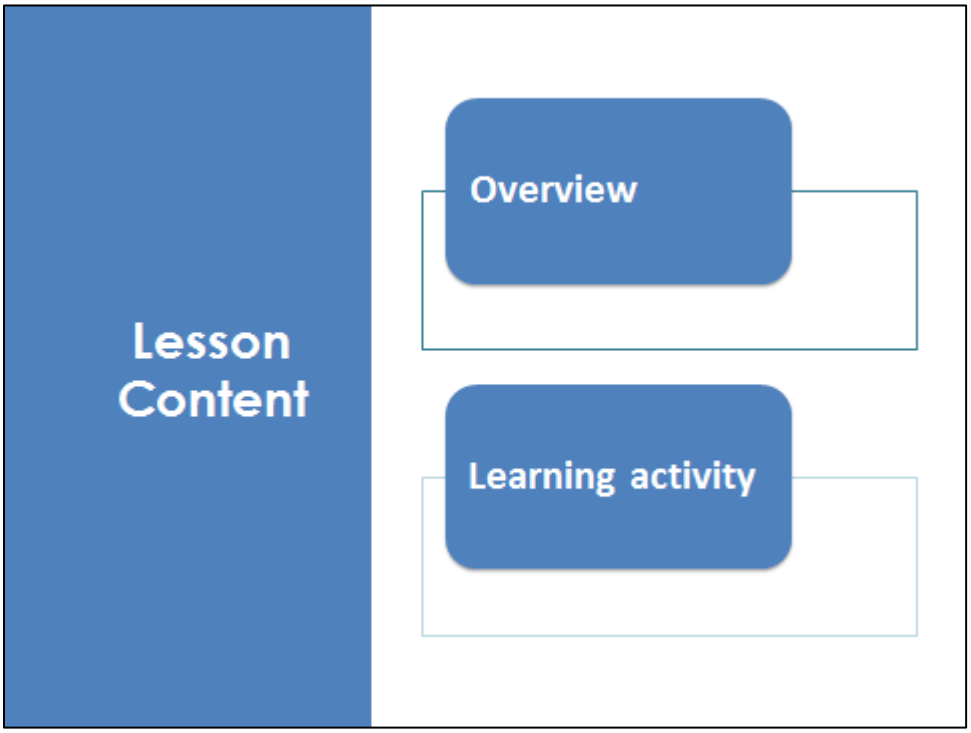
Starting the Lesson

Slide 1



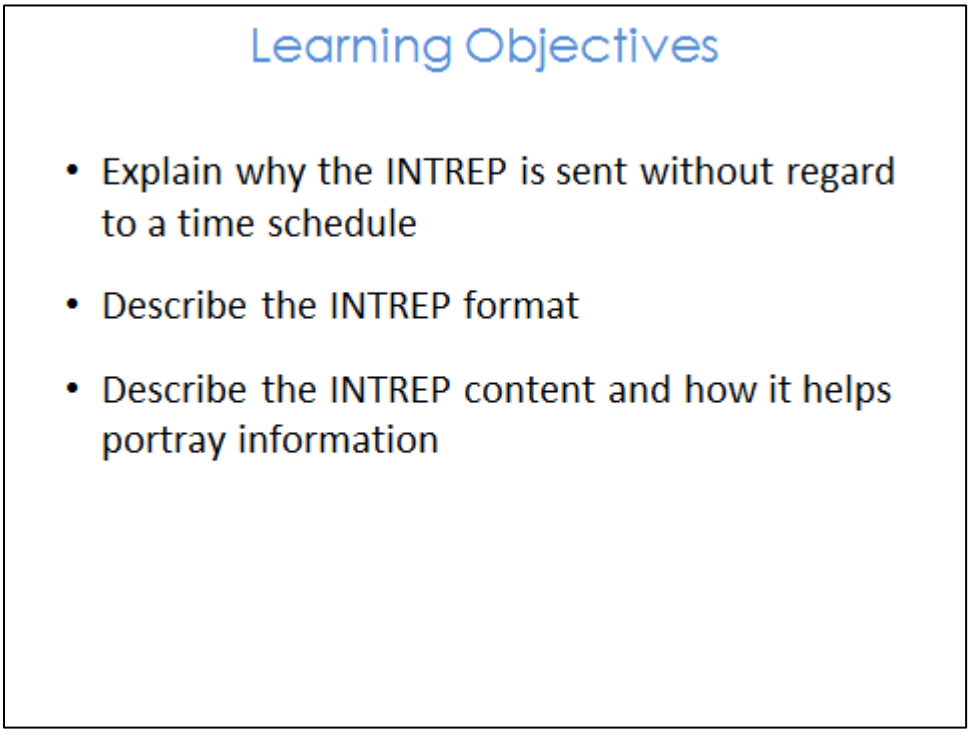
In this lesson, we will give you an overview of the INTREP used for MPKI dissemination.

Slide 2



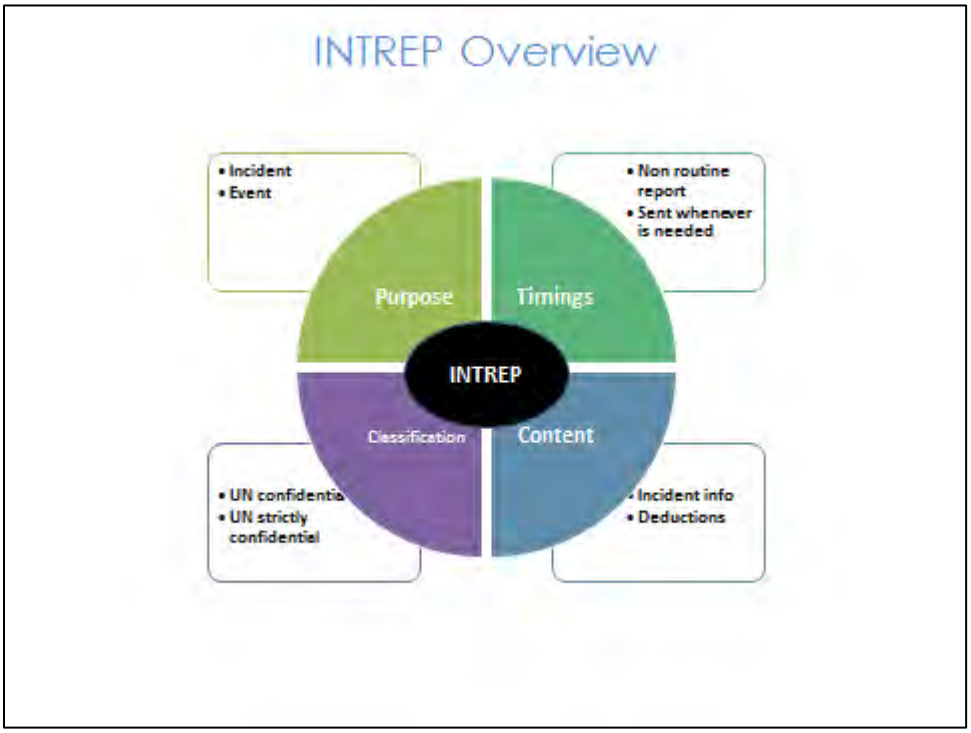
Here is the lesson content. This lesson will give an overview of what an INTREP is in the UN-context. The format contains the elements recognizable from most national military equivalent products. There will be a short learning activity to allow the syndicates to create an INTREP based on information provided.

Slide 3



Here are the learning objectives for this lesson. After this lesson, you should be able to do these objectives.

Slide 4



Key Message: The INTREP is one of the core products of intelligence staffs supporting current operations.

A peacekeeping intelligence report, commonly called INTREP is a document that can be originated at any level of command and is a non-routine report; it is sent as required.

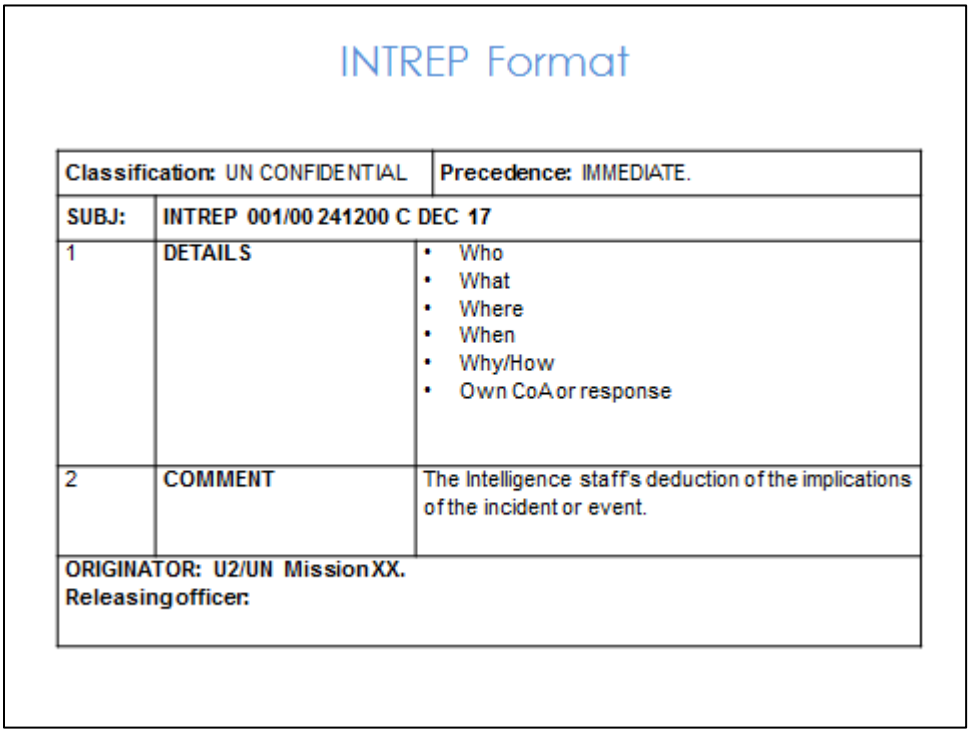
The INTREP is used to report essential elements of intelligence information. The INTREP provides timely information regarding incidents/events that could influence current or pending operations.

An INTREP is sent without regard to a specific time schedule, and whenever the information it contains is considered likely to require the urgent attention of the receiving commander or his staff.

An INTREP relates incidents/events issued as soon as possible after their occurrence, allowing for the time it takes to process the information correctly. It can be quite challenging to strike a balance between the quality of the report and the urgency of communicating the information.

It should include any information that may be relevant to the information/intelligence requirements of any commander to whom it is disseminated. It should consist of the issuing Intelligence staff's deduction of the significance of the information. The INTRERPs you will produce shall be classified per content, either UN CONFIDENTIAL or UN STRICTLY CONFIDENTIAL.

Slide 5



Key message: The INTREP is created in a fixed format so that it will be recognizable and comprehensive. It may not be complete according to format, especially if the information provided does not cover all the 5WH in the "DETAILS" box.

Line The report should include as a minimum:

1. **DETAILS** (The "Improved and Quality Assured Incident Report")

This is where you go through the Incident Report to deliver the best possible description of the incident. Remember that the Incident Report very often consists of individuals' perception of what transpired or that person's subjective take on events. There should be some effort made to get more information and clarification from the originator before issuing the INTREP if time allows.

On the slide is an example of how to put these questions into an INTREP format. You can see that it contains classification and a level of precedence. These are important for both procedural and operational reasons. For instance, the priority tells the transmitter of the report where it should be placed in the transmission queue, based on the time-sensitivity of the information. This, in turn, can be essential when forming our response.

The questions what, where, when, why, how and own CoA or response if applicable are answered in the details box

Who: which actors were involved, name of individuals, groups and factions that are associated with the INTREP

What: what happened and the sequence of events. Form a timeline to list the events chronologically

Where: the location (s) where the incident took place; Use map-references, if available, at very least give the location name(S).

When: DTG of the incident, if possible specify when the incident started and when it ended

Why/How: Report what has instigated or triggered the incident, and what was the desired end-state of the instigator of the incident.

Own COA or response: What were own forces actions in response to the incident, which actions have been initiated, and that may still be ongoing?

2. COMMENT:

In the comment box, you place any relevant deductions made in the time available, or all pertinent context (previous applicable reporting or known TTP).

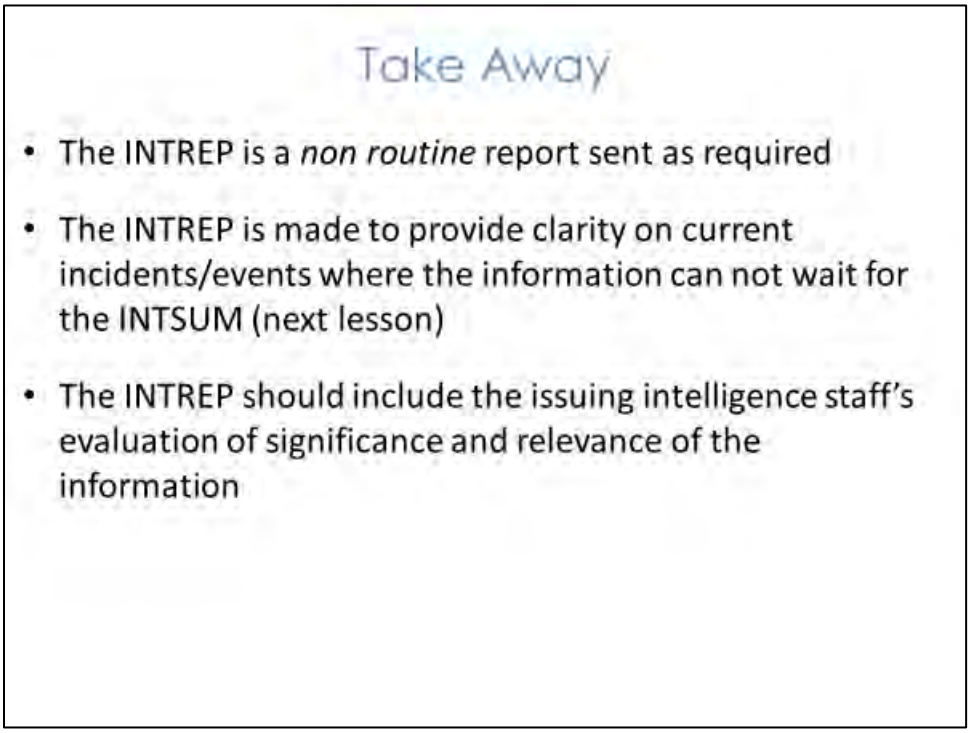
An INTREP is usually issued without assessment, due to the time constraints, but if you have a CoA analysis, you can refer to it here; Example: "This information/incident is consistent with the actor adhering to the MOST LIKELY COA".

3. ORIGINATOR:

The Originator/Releasing Officer box is essential as it enables the recipient to ask follow-up questions and to provide feedback on the INTREP.

☞ ***Instructor note:*** *The template is a guide. You can diverge from it, as required to meet the commander's requirements.*

Slide 6



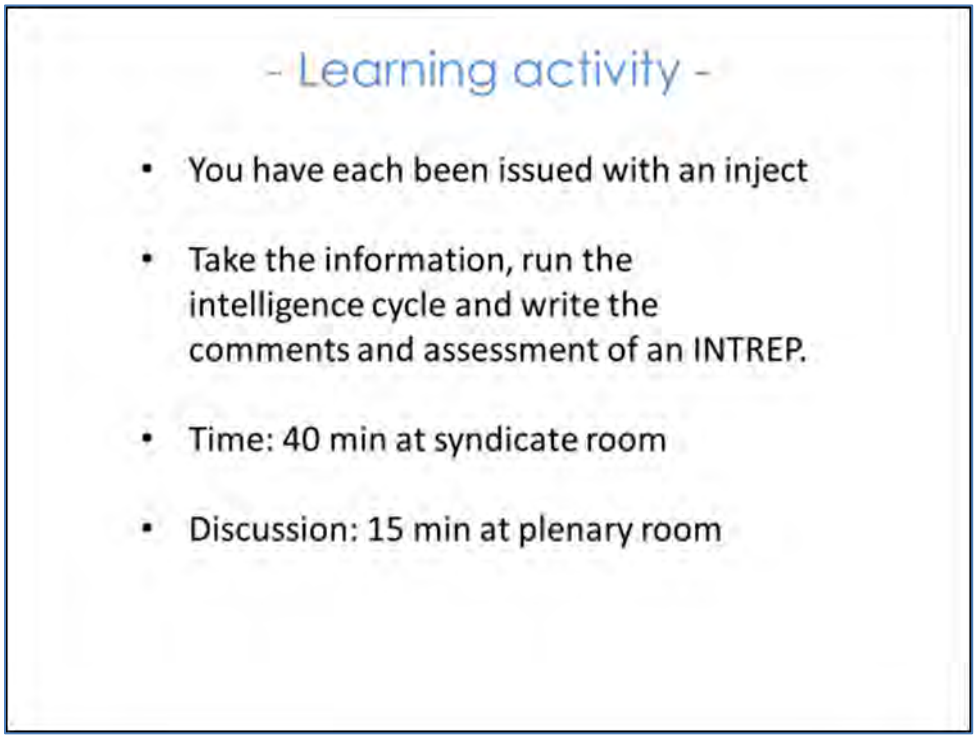
Summary

Remember:

- Peace keeping intelligence Report is a non-routine report sent whenever is needed
- Peace keeping intelligence Report about incidents/events assessed to influence current or pending operations must be conveyed immediately
- Peace keeping intelligence Report should include the issuing Intelligence staff's deduction of the significance of the information

Learning Activity

Slide 7



Task:
Create an INTREP based on the inject provided to the Syndicate

Resources:
A computer with a blank INTREP format (.doc-file); Additionally, a flip-chart paper can be used.

Approx. Time:
55 minutes

Learning activity:
The activity is conducted in two stages:

- 40 minutes: each student works individually to produce comments and assessment of an INTREP from the information his/her syndicate has been given, mainly the comments and assessment parts.
- 20 minutes: students will provide their INTREPs to the discussion group.

Students will receive 3 BATT INTREP 296/18, printed and digital copy.

Expected outcome:
Students are to produce an INTREP containing the 5W&H, including a short assessment (optional).

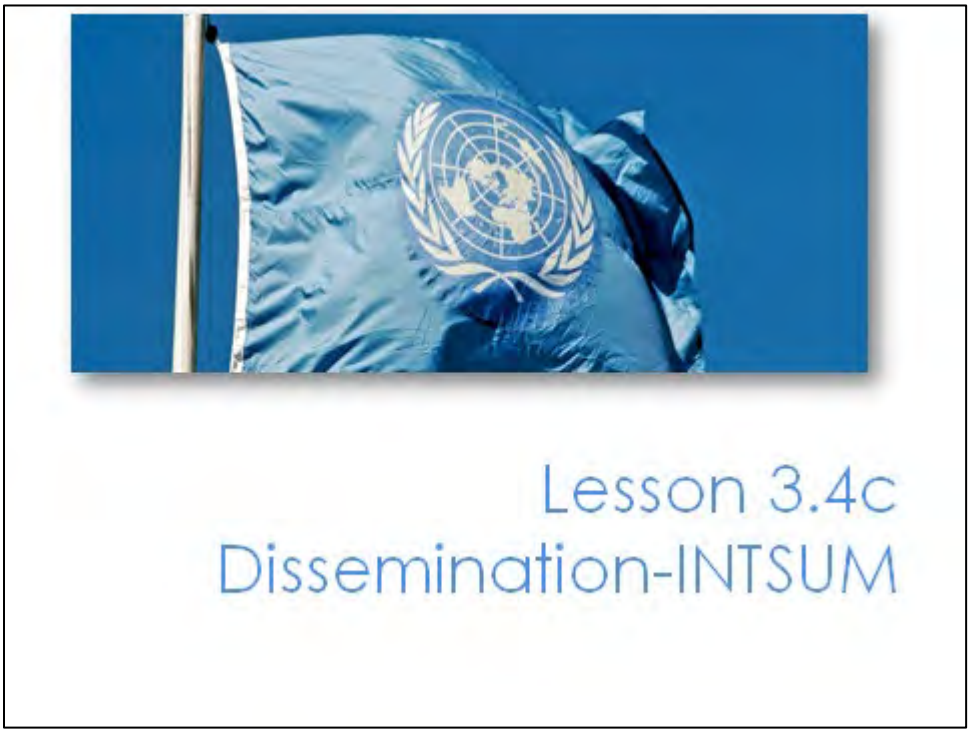
Lesson
3.4c

Dissemination-INTSUM

The Lesson

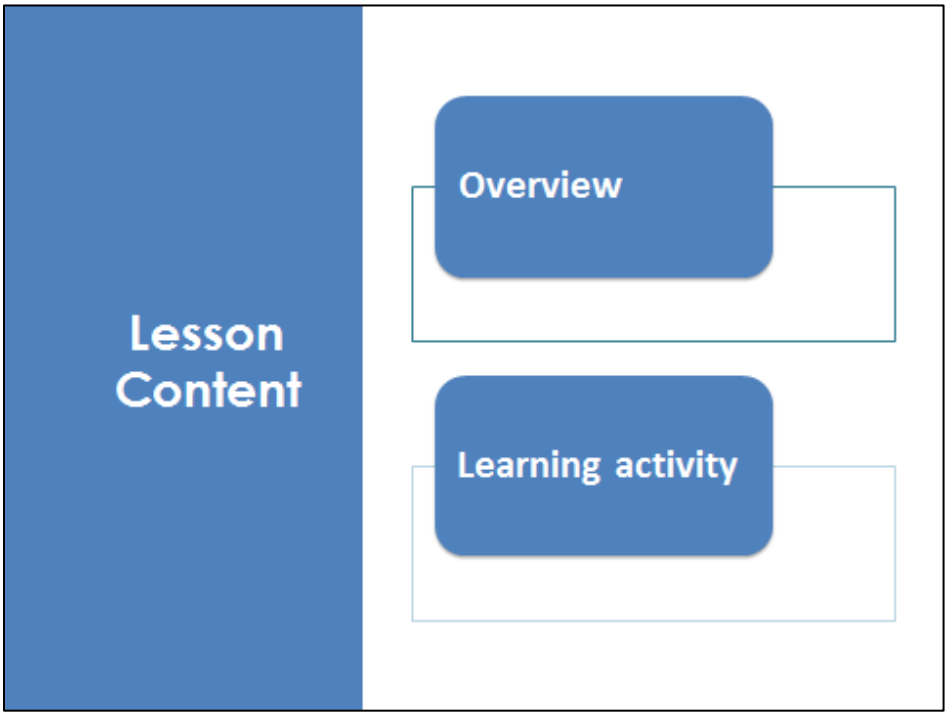
Starting the Lesson

Slide 1



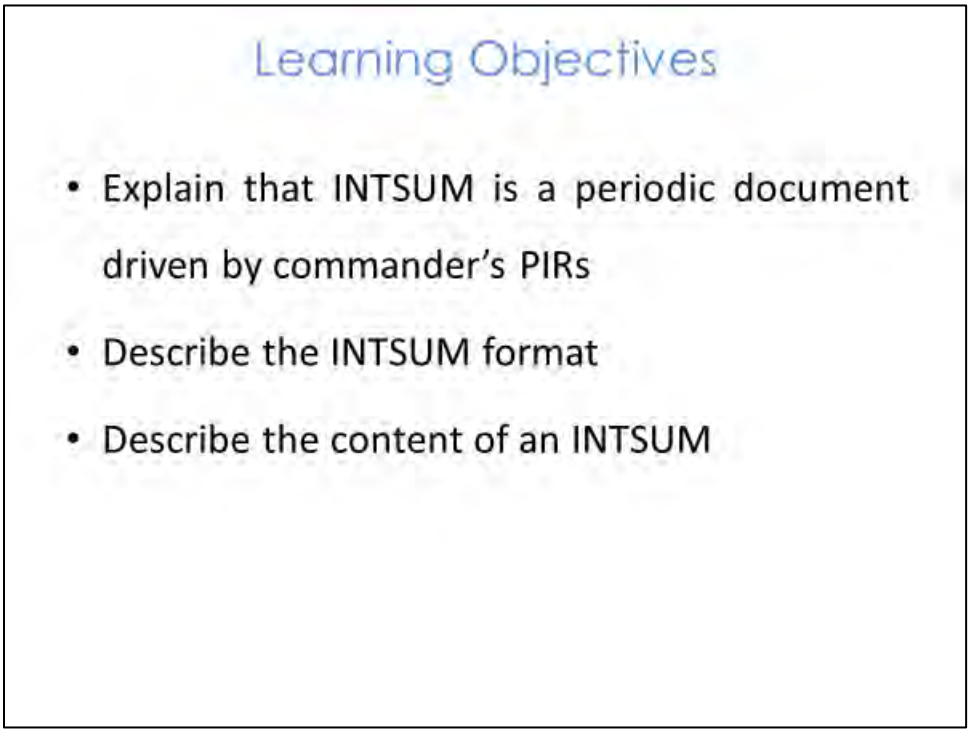
In this lesson, we will give you an overview of the INTSUM used for MPKI dissemination.

Slide 2



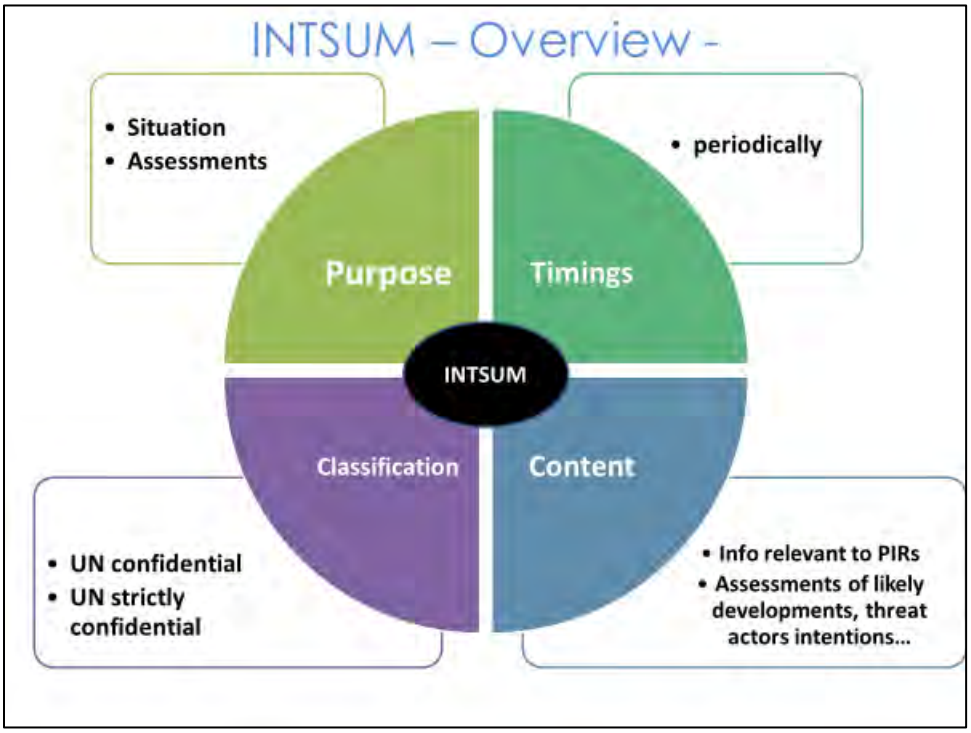
Here is the lesson content. This lesson will cover an introduction and overview of the ITSUM as a key output from an intelligence staff section. There will be a brief learning activity, where information in the form of INTREPs will be integrated into an INTSUM.

Slide 3



Here are the learning objectives for this lesson. After this lesson, you should be able to do these objectives.

Slide 4



Key Message: The INTSUM is the main product of an intelligence staff section and the product that will maintain the common understanding of the situation at all command levels. This is very often the only product that will be read regularly by those with a need or interest in staying informed about the situation.

A peacekeeping intelligence summary, INTSUM for short, is a periodic summary of peacekeeping intelligence on the current situation within a commander's AII. It is designed to update the current peace-keeping intelligence assessments and highlight important developments during the reporting period. The reporting period is usually 24 hrs, but there are also weekly and monthly INTSUMS. The longer the reporting period, the longer the outlook and assessment forecast should be.

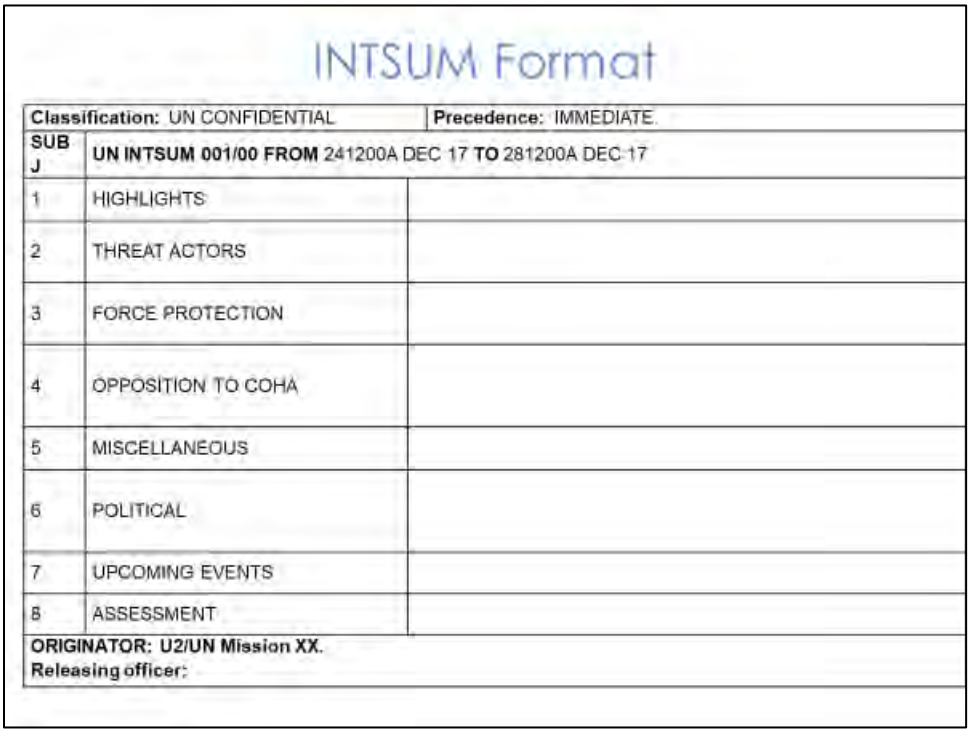
The length of the forecasting period depends on several factors, such as the tactical situation, the accuracy with which it's possible to make a forecast, and the timescale of the operation. Its distribution should include all those whose responsibility and interest. Remember the Need to Share!

An INTSUM may be produced in several different formats, i.e. written or through graphical representation, or a combination of the two. In this lecture, we will focus on the written format, and specifically on the elements contained in the written format.

An INTSUM It should include any information that may be relevant to the intelligence requirements of any commander to whom it is disseminated. It should include an assessment of likely developments and/or threat actors' intentions.

INTSUMs shall be classified based on content as either UN CONFIDENTIAL or UN STRICTLY CONFIDENTIAL.

Slide 5



INTSUM Format

Classification: UN CONFIDENTIAL		**Precedence:** IMMEDIATE
SUB J	**UN INTSUM 001/00 FROM** 241200A DEC 17 **TO** 281200A DEC 17	
1	HIGHLIGHTS	
2	THREAT ACTORS	
3	FORCE PROTECTION	
4	OPPOSITION TO COHA	
5	MISCELLANEOUS	
6	POLITICAL	
7	UPCOMING EVENTS	
8	ASSESSMENT	
ORIGINATOR: U2/UN Mission XX. **Releasing officer:**		

Key message: An INTSUM must contain several elements. The elements are there for reasons of quality and consistency, and to provide traceability and accountability.

The INTSUM format, as exemplified in the MPKI Handbook, is shown in the slide, but there are several formats used by the respective missions. The INTSUM covers a period usually determined by the intelligence staff section in coordination with the chief of staff/commander. The core principles of writing an INTSUM are:

BLUF (Bottom Line Up Front) A short summary of the situation and a high-level assessment/outlook: This is an amalgamation of the information points given in the subsequent INTSUM paragraphs. It can be written as prose, displayed as graphics/maps, or both.

Information points with comments and assessments. This is where you put the information received during the reporting period, often derived from INTREPS or Incident Reports. The value-added should be:

- Putting the information in context (COMMENTS)
- Making assessments/forecasts based on the information (ASSESSMENTS)

The information can be organized in several ways:

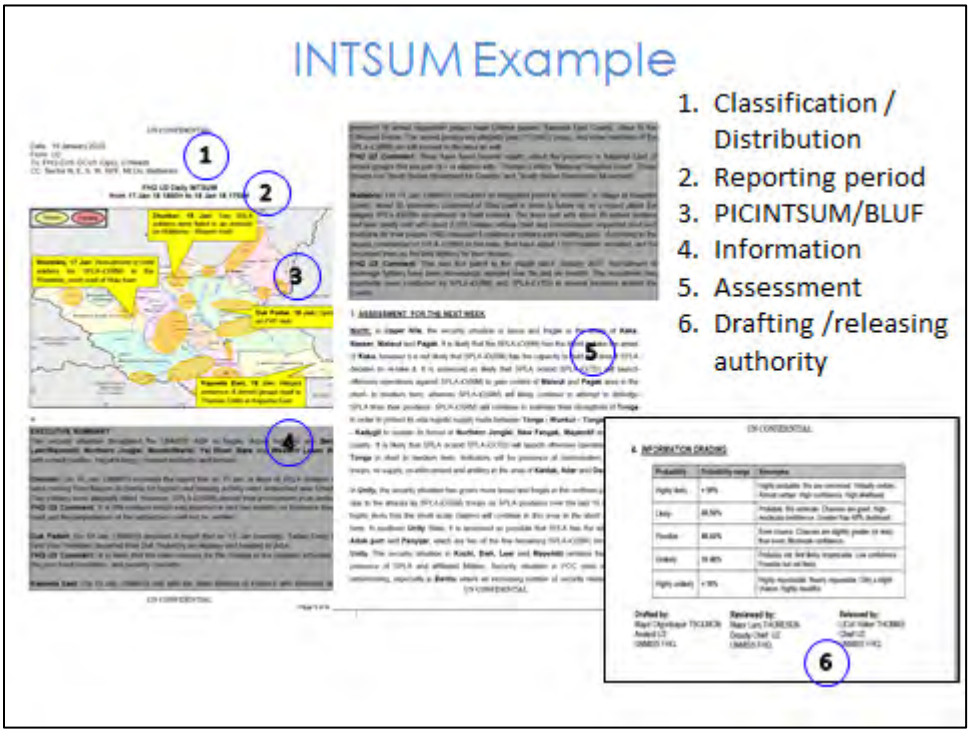
- Topically (as shown in the format)

- Geographically (usually along unit/sector boundaries)
- By threat actor
- According to the IAP

The most important thing is that the information is organized in a way that is useful and accessible to the "customer" (Commanders and planners on all levels). The most common way to organize an INTSUM is, according to AORs (Battalion or Sector). This enables commanders at all levels to quickly extract intelligence from the INTSUM that is particularly interesting to relevant to them.

☞**Instructor note:** The template provides guidance. You can diverge from it, as required to meet the commander's requirements.

Slide 6

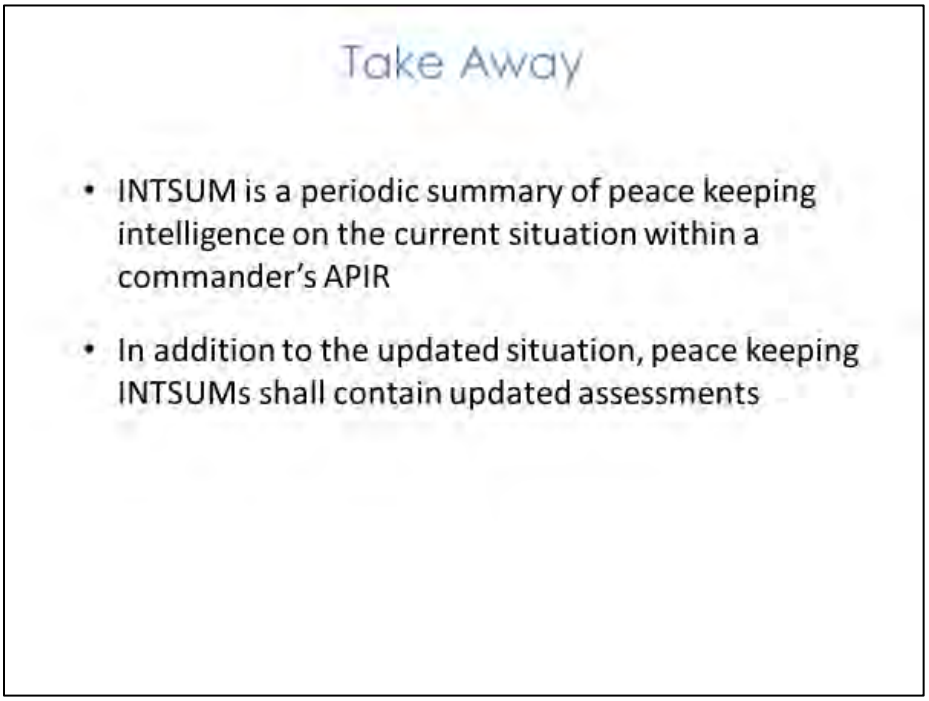


Key message: An INTSUM may come in many shapes and forms, but common to all INTSUMs is that they contain the core elements given in the format.

In this example, you will find all the elements from the INTSUM format as laid out in the legend on the right. You will find that the format, in this case, is chosen to support the commanders and planners at Sector and Force level.

The format used in a UN Mission should be determined by ISP or reporting SOP, at the Mission or Force level. The final product can be tailored by the needs of the Commanders and Planners.

Slide 7



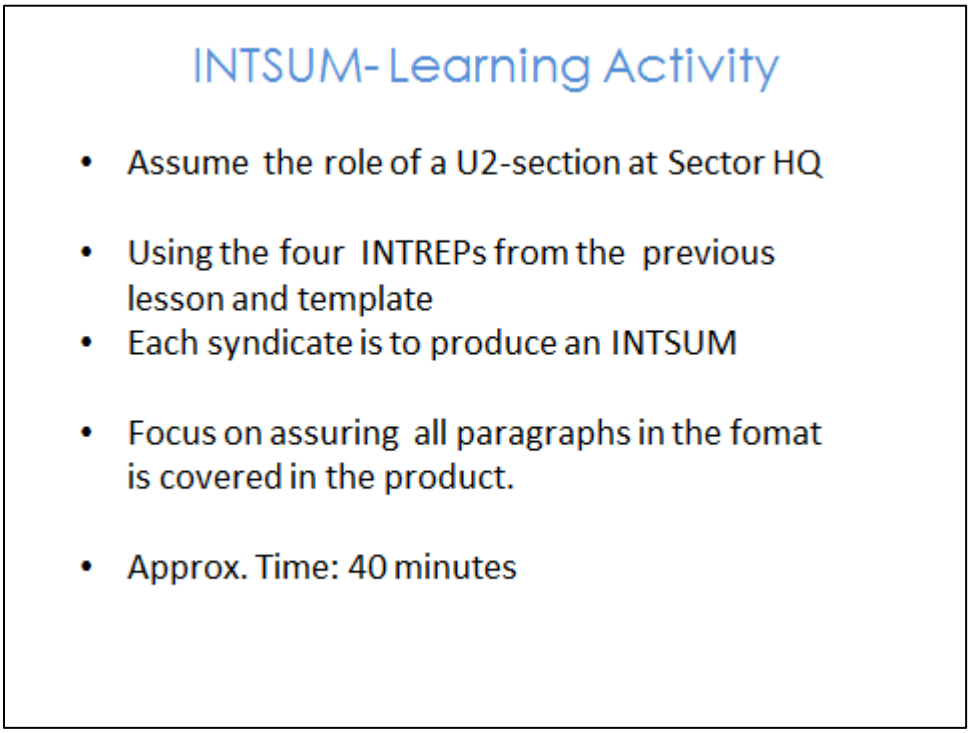
Summary

Remember:

- An INTSUM is a periodic summary of peace keeping intelligence on the current situation within a commander's APIR
- In addition to the updated situation, a peacekeeping INTSUM shall contain updated assessments

Learning Activity

Slide 8



Task:
Create an INTSUM based on the INTREPs received from instructors.

Resources:
A computer with a blank INTSUM format (.doc-file) will be required. The INTSUM may be produced in various forms if it contains all the elements found in the Intelligence Handbook.

Approx. Time:
40 minutes

Learning activity:
Assuming the role of a U2-section at a sector HQ, the syndicate should collate the four INTREPs produced earlier.

Learning activity:
Assuming the role of a U2-section at a sector HQ, the syndicate should collate the four INTREPs received earlier:

3 BATT INTREP 074/18
UNHCR Report
3 BATT SITREP 293/18
UNHCR Report
3 BATT SITREP 294/18
3 BATT INTREP 075/18
3 BATT SITREP 296/18

Expected outcome:
The students are to produce an INTSUM based on the INTREPS received.

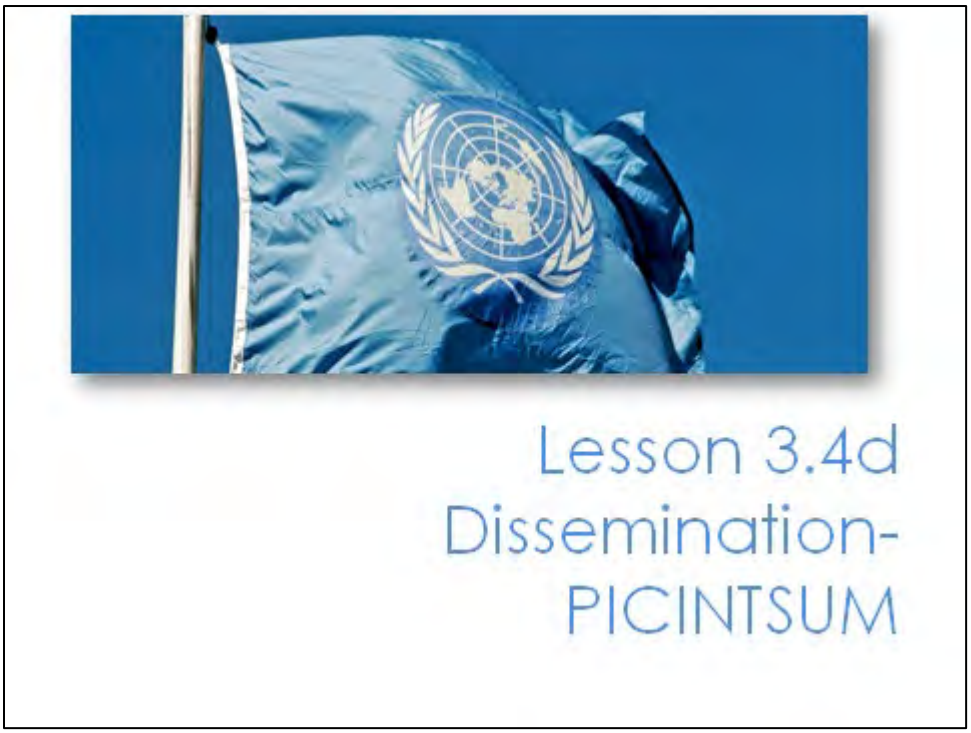
Lesson
3.4d

Dissemination-PICINTSUM

The Lesson

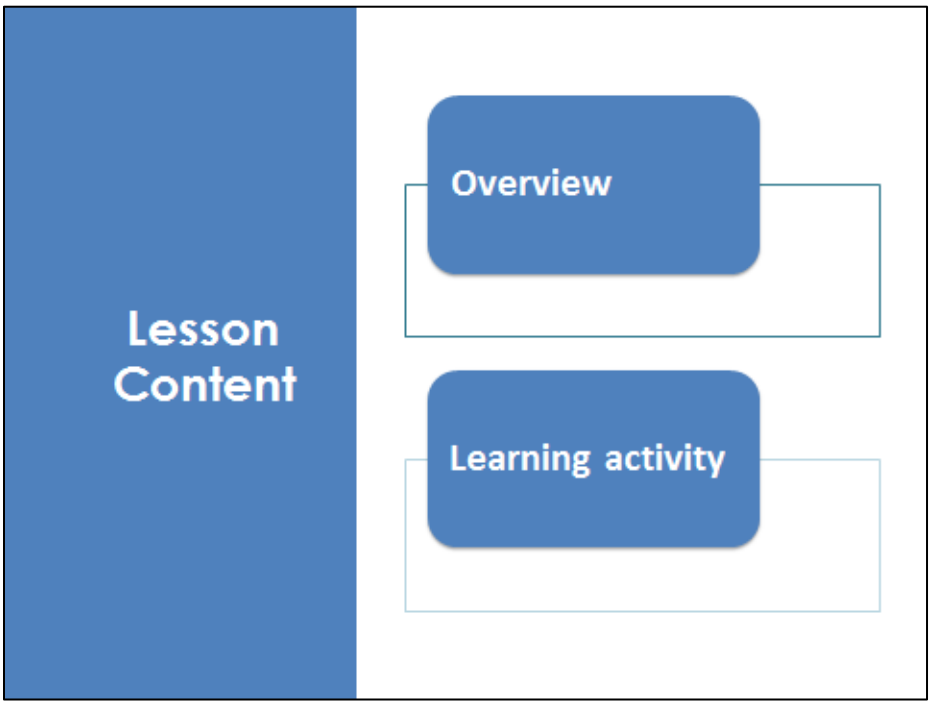
Starting the Lesson

Slide 1



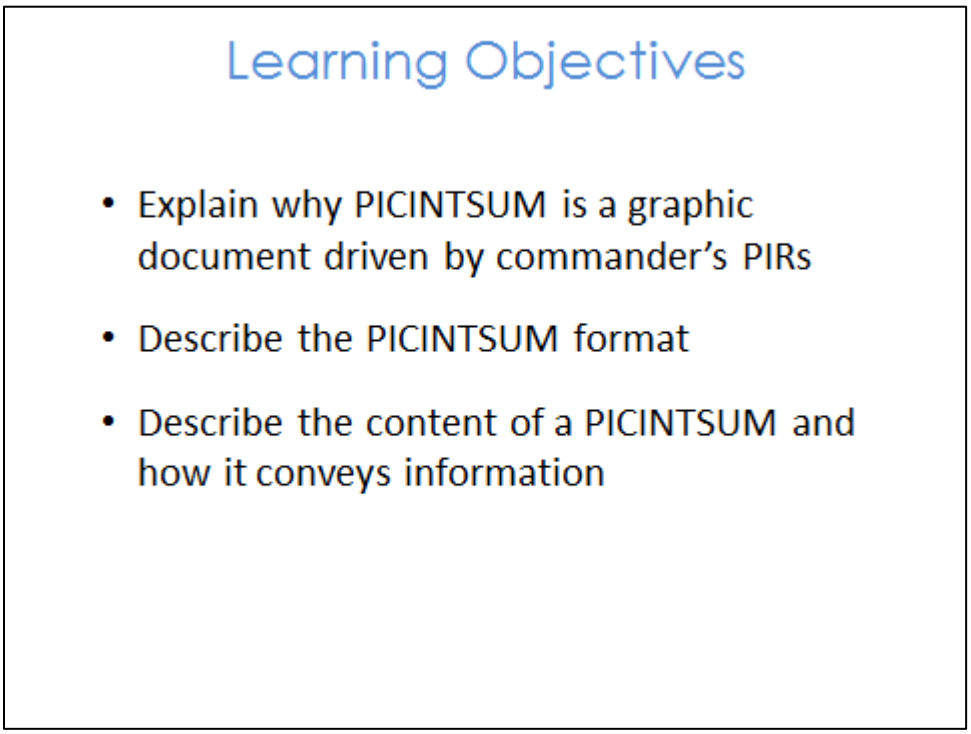
In this lesson, we will give you an overview of the PICINTSUM used for MPKI dissemination.

Slide 2



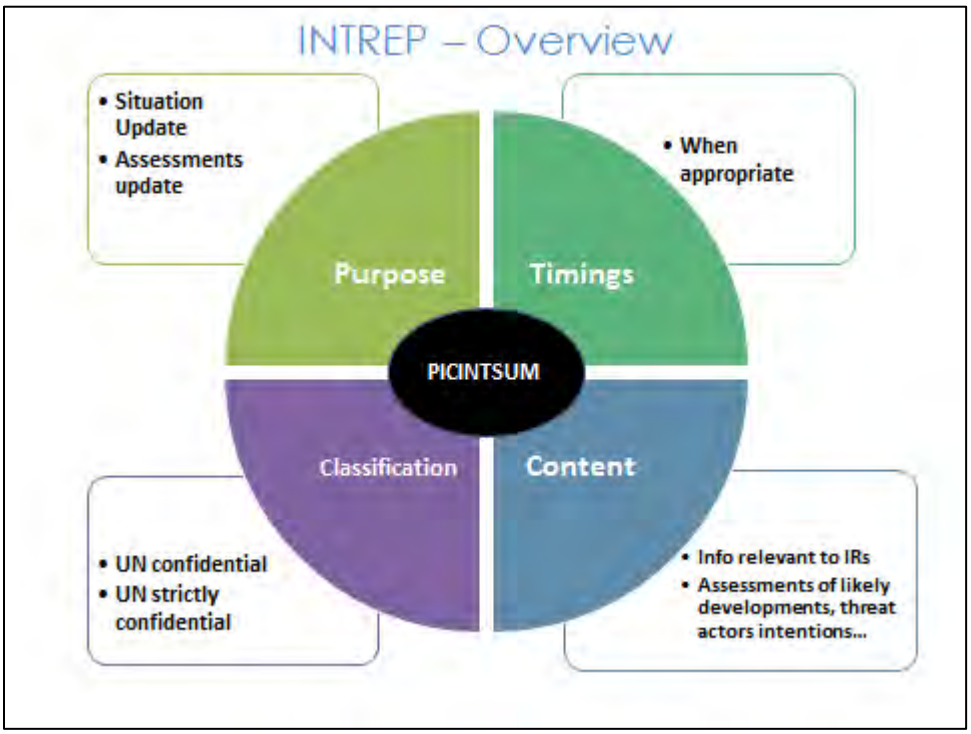
Here is the lesson content. The students will first be taken through an overview of creating a PICINTSUM and its components. They will then create a PICINTSUM as a learning activity.

Slide 3



Here are the learning objectives for this lesson. After this lesson, you should be able to do these objectives.

Slide 4



Key Message: It is a picture intelligence summary; PICINTSUM is a graphical representation of the written INTSUM.

As the information on the INTSUM, the PICINTSUM covers is a summary of peacekeeping intelligence on the current situation for a given period and within a commander's APIRs.

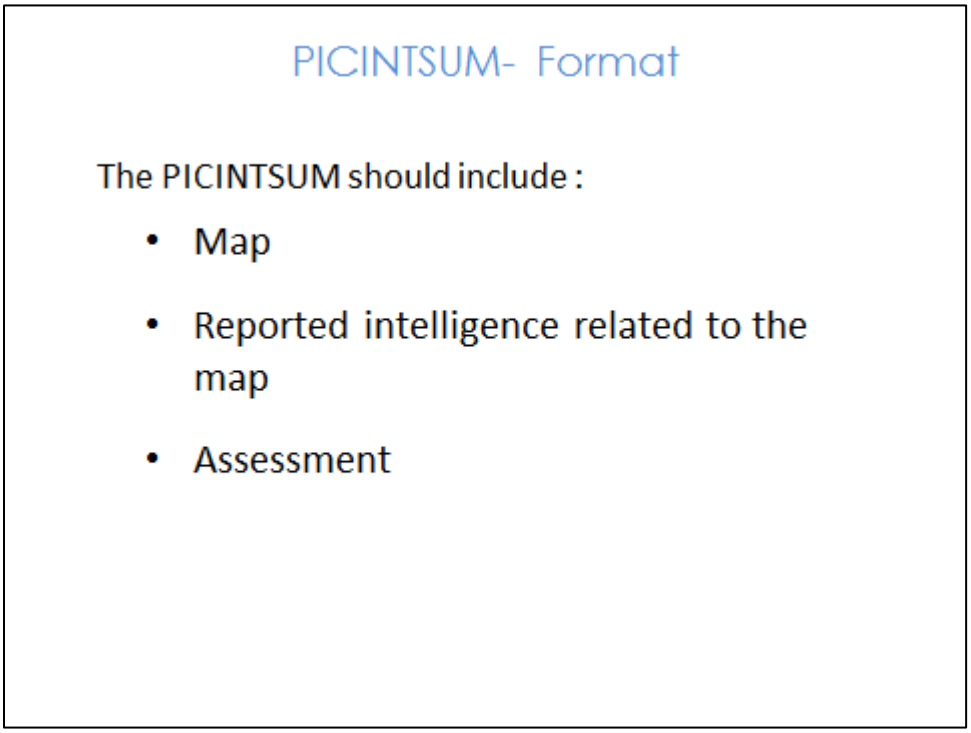
Its purpose is to – briefly - report essential elements of intelligence information. The PICINTSUM provides timely information regarding incidents/events that could influence current or pending operations.

A verbal presentation of a PICINTSUM is used without regard to a specific time schedule, whenever the information it contains is considered likely to require the urgent attention of the receiving commander or his/her staff.

A PICINTSUM is a presentation of incidents/events issued as soon as possible after their occurrence. It should include any information that may be relevant to the information/intelligence requirements of any commander to whom it is presented. It should include the issuing Intelligence staff's deduction of the significance of the information.

PICINTSUMs shall be classified based on content as either "UN CONFIDENTIAL" or "UN STRICTLY CONFIDENTIAL".

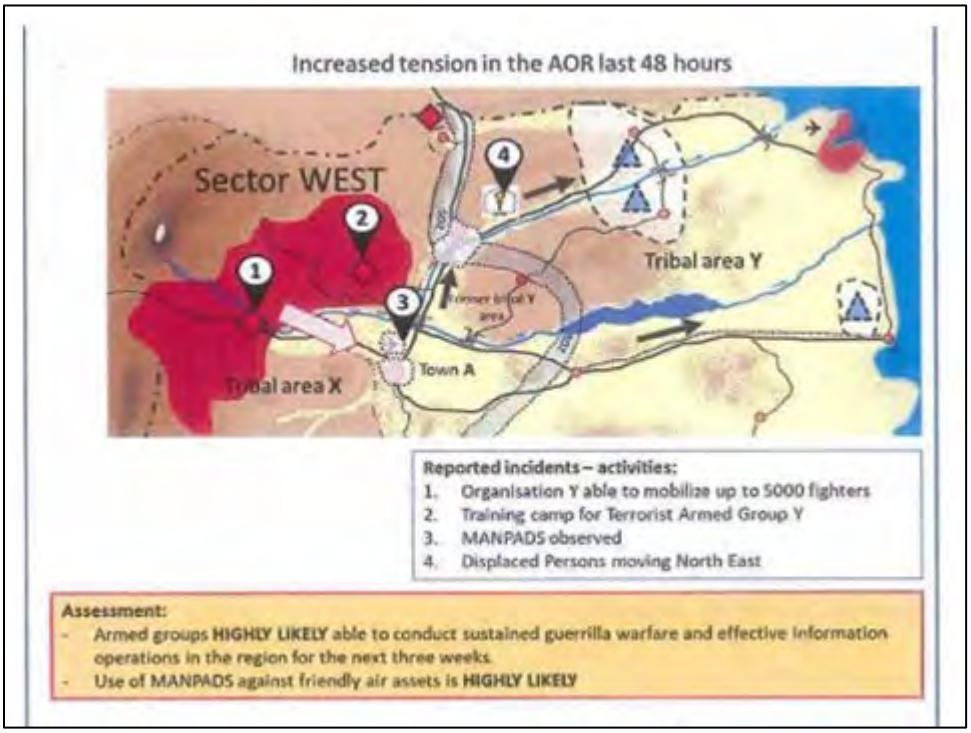
Slide 5



The PICINTSUM covers a period usually determined by the authority. It contains essentially three parts:

- A map that shows the area of responsibility as a whole or the area of the reported incidents or events.
- The significant peacekeeping intelligence should be reported on the map. In this regard, I encourage you to refer to the UN military symbols handbook to know how to depict incidents or activities on the map. If you're not familiar with the UN military symbols or there is no time to consult the handbook, use your common sense to create a legend. Blue is for water, red for the enemy, a plane for the airport.
- In the assessment part, put the summary of the analysis work with regards to impact on civilians, friendly ongoing or future operations/activities.

Slide 6

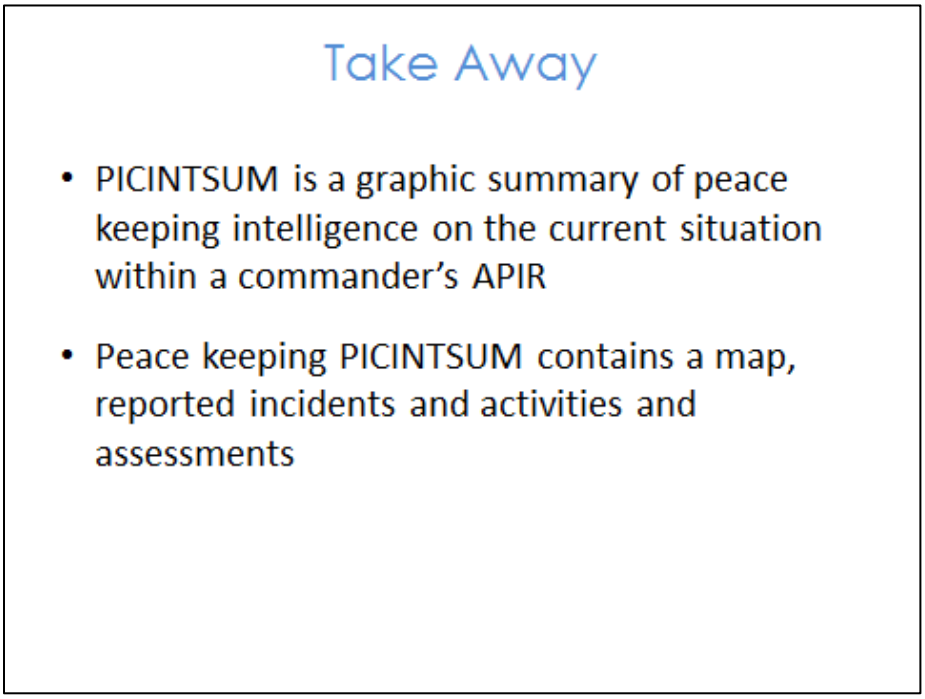


Here is an example of PICINTSUM. It contains the three parts we mentioned before:

- The map represents the area where the incidents or activities took place. You will notice that the reported incidents can be referred to by numbers, by conventional symbols or both.
- It is the case of incident number 4 (displaced persons) which is represented a number and the UN military symbol in the map. Specific details are put in the reported incidents box.
- the last box contains a summary of the assessment with regards to the impact of the reported incidents on civilians, friendly ongoing or future operations/activities, PoC

Use the uncertainty yardstick to avoid misinterpretation and misrepresentation. In this example, the first assessment is that armed groups are highly likely able to conduct sustained guerilla warfare and effective information operations in the region for the next three weeks.

Slide 7



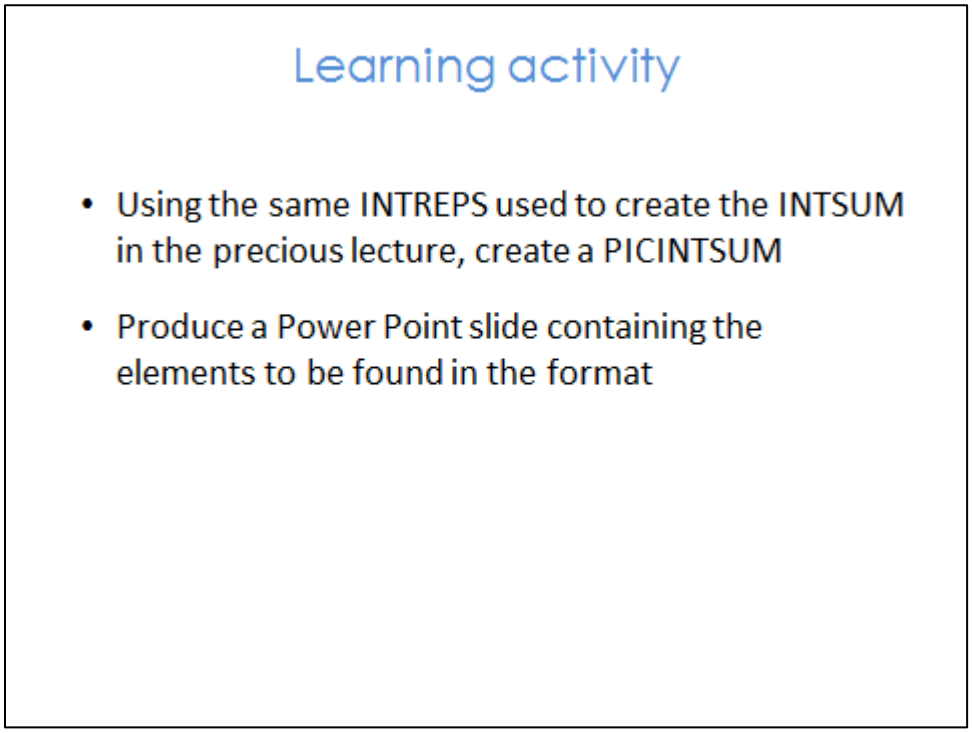
Summary

Remember that:

- PICINTSUM is a graphic summary of peace keeping intelligence on the current situation within a commander's APIR
- Peace keeping PICINTSUM contains a map, reported incidents and activities and assessments

Learning Activity

Slide 8



Task:
Create a PICINTSUM based on the INTREPS used to create the INTSUM in the previous lesson.

Approx. Time:
25 minutes

Learning activity:
Syndicate groups will go to their syndicate rooms and create one PICINTSUM per syndicate.

Expected outcome:
Each syndicate group will show their product on the main screen in the classroom. As this is to compare results, the students will not brief the product, but rather comment on each other's PICINTSUMs.

Lesson
3.5a

AOE- Introduction to Analysis of the Operating

The Lesson

Starting the Lesson

Introduction

AOE is a UN MPKI concept, which – even though it has many similarities with conventional military intelligence analysis concepts (example, IPB or IPOE, if mentioning this is relevant to the training audience) – is specifically designed to analyze the operating environment in UN military peacekeeping operations.

UN peacekeeping operations are affected by many factors – not only the physical terrain (often known as the "battlespace" in conventional military terms) and adversary/threat/enemy forces.

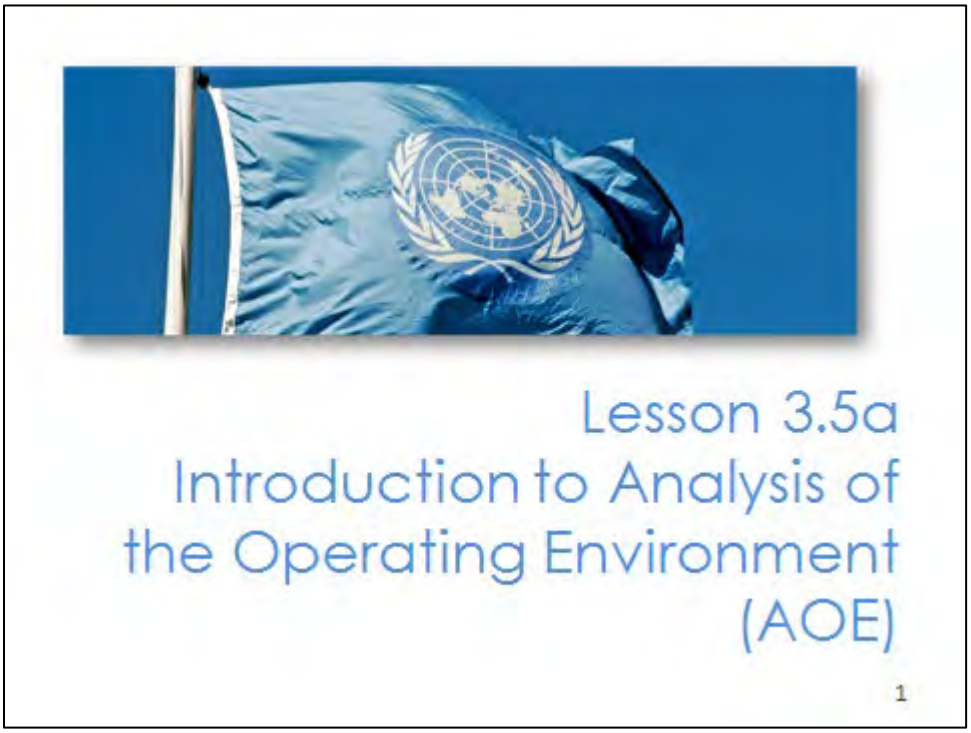
"Human Terrain" is probably the most important factor in the UN operating environment. Moreover, in today's hyper connected world, the information terrain governing how people communicate and how they are influenced is also important. These non-military factors must also be analyzed in order to conduct effective UN operations.

It is vitally important that the student considers these three factors in conjunction with each other, appreciating that they interact with and impact each other, rather than considering them as distinct entities.

Aim

The aim of this serial lesson is to provide you with the background for the lessons/serials in this table and give you an overview of the important parts of the course of instruction in this table. In other words, this lesson will "frame" the suite of analysis lessons

Slide 1

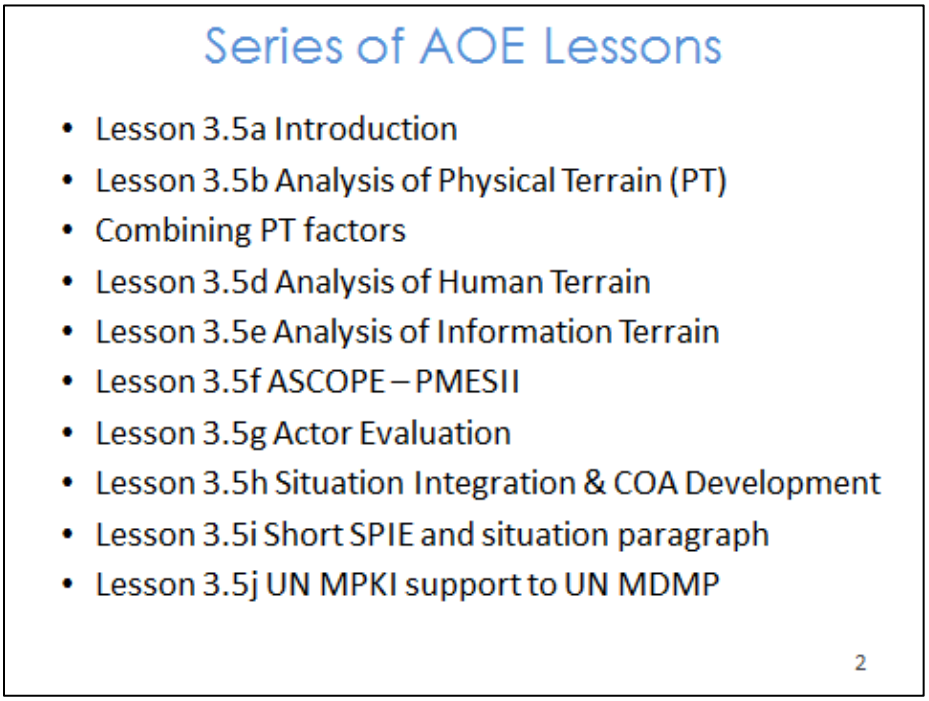


The following lessons aim to introduce students to the three phases of the AOE process, the products produced during each phase, and their subsequent use in support of the UN Military decision-making process, and planning information/intelligence collection.

AOE is where UN intelligence staff need to excel. AOE provides the basis for all operational activities – kinetic as well as non-kinetic. Therefore; it is essential that you fully understand the AOE process and can conduct it for the following reasons:

- Analysis of the Operating Environment (AOE) is the analysis used by UN MPKI staff to produce intelligence assessments, estimates and other intelligence products in support of the UN Commander's military decision-making process (MDMP)
- The AOE process helps you identify information/intelligence gaps and shortfalls, thus cueing additional acquisition through the intelligence acquisition plan and requests for information to higher and adjacent headquarters
- The AOE process provides a holistic view of the operating environment. The better you and the UN Forces understand the operating environment, the more effective operations will be in support of the mandate to protect civilians, and the more secure your Force will be from threats

Slide 2



Here is the content of all the AOE lesson series. In the first lesson 3.3a, we will introduce and explain the significance of AOE and why it is important to MPKIO and decision-makers

Next, we will present the analysis of the physical terrain as it is central to conventional Intelligence Preparation of the Battlefield (IPB).

To gain an appreciation of the operating environment, it is necessary to study the human terrain (the actors that live and operate in the physical terrain), and the information terrain (the way these actors communicate with each other). This gives a holistic 'systems' type evaluation of the operating environment.

It is necessary to consider these different types of terrain as a system. A systems approach means that you understand that a change to the physical terrain or weather will have an impact on the information and human terrain. Indeed, a change to any of these terrains will have an impact on the others.

For example, consider a change to the weather such as heavy rainfall. This will impact the physical terrain in that rivers could become less easy to cross, easy-going terrain could become impassable, and the health and sanitary conditions of the local population could also be affected.

As the MPKIO, it will be your role to recognize these first and second-order consequences of any change to any of the three different types of terrain. This takes time and practice.

We will also consider how the Human Terrain, particularly the actors that populate it, including armed and unarmed, interact with the physical, human, and information terrain. This Actor Evaluation process will not just focus on armed groups but also on all relevant actors, including political and socioeconomic.

Next, we will consider ASCOPE and PMESII. This is a system designed to make you think about the operating environment, and it will help you identify the variety of factors affecting and informing the evaluation of each of the three types of terrain, being particularly important to the Human Terrain.

We will also conduct an exhaustive Actor Evaluation. This phase will be recognizable to experienced intelligence officers as 'Threat Evaluation'. However, in a UN operating environment, the focus is on evaluating all relevant actors. Any actor, armed or unarmed that can have an impact, *positive or negative*, on the operating environment.

Finally, we will examine how the relevant actors interact with the three different types of terrain. This situation integration process, the second last lesson on the list, will help the MPKI cell to understand how these relevant actors are likely to behave; these are the Courses of Action that we will develop. Experienced intelligence analysts will recognize Situation Integration as conventional Threat Integration.

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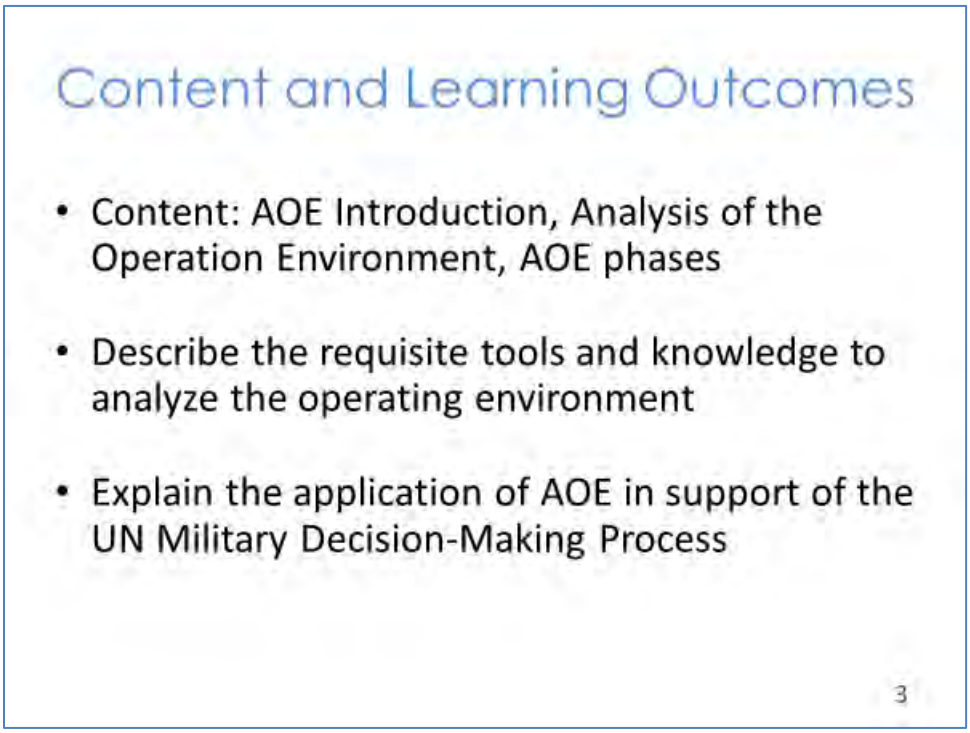
Slide 3



As a good training practice, let's review the content and learning outcomes of this lesson: At the end of this lesson, you should be able to perform the actions described on the slide. Please take a moment to read and understand the requirements. This may help you to focus on the most relevant aspects of this introduction to AOE.

Slide 4

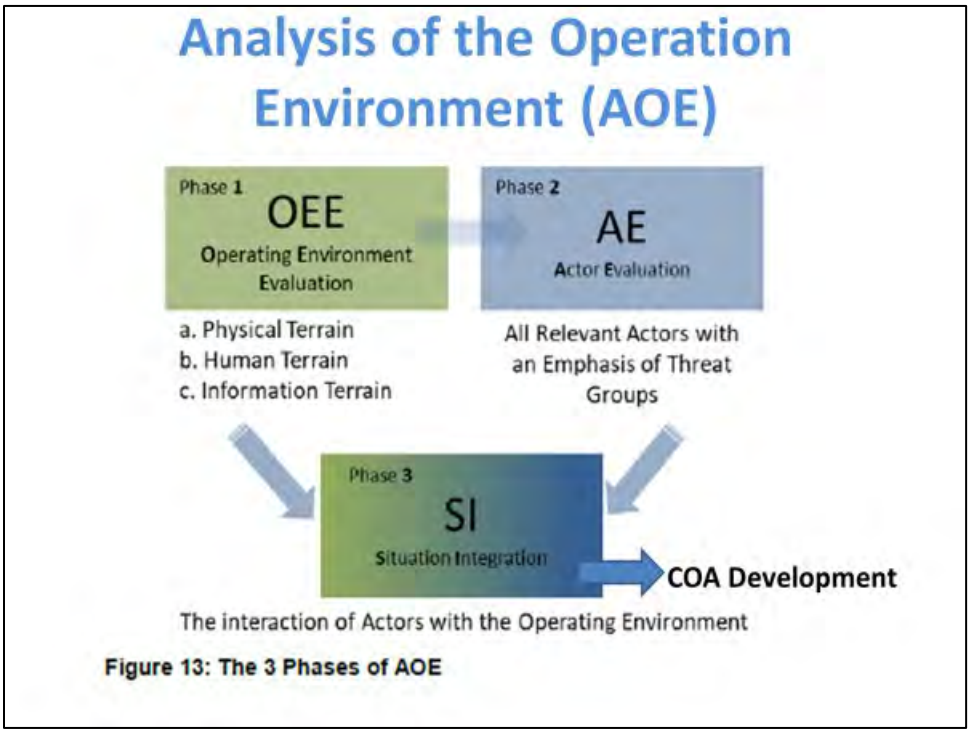


Figure 13: The 3 Phases of AOE

The AOE is a UN MPKI concept that is specifically designed to analyse the operating environment in UN military peacekeeping operations AOE consists of three phases:

- Operating Environment Evaluation, which analyses the three terrains: physical, human and information
- Actor Evaluation, which evaluates the intentions and capabilities of all relevant actors
- Situation Integration and course-of-action (COA) development designed to envisage how relevant actors will probably behave and react in the context of their operating environment

It is important to understand that AOE is a UN MPKI concept that is specifically designed to analyse the operating environment in UN military peacekeeping operations UN peacekeeping operations are affected by many factors – not only the physical terrain (often known as the "battlespace" in conventional military terms) and adversary/threat/enemy forces, which are the focus of conventional military intelligence.

Remember that the human terrain (people and groups) live in the physical terrain (the UN AO), and communicate and propagandize using the information terrain A change

to any of these types of terrain can cause a change or changes in the others, or the behaviour of actors.

This diagram is taken from the UN MPKI Handbook and shows the AOE process, which consists of the following three phases:

- Phase 1: Operating Environment Evaluation (OEE). The Operating Environment consists of three terrains (or dimensions): physical terrain, human terrain and information terrain. These terrains are interrelated, and they interact with each other.

- Phase 2: Actor Evaluation (AE)- In the AE phase of the AOE process, all relevant actors are evaluated with an emphasis on actors that can influence and threaten UN peacekeeping operations. It is important to note that the Actor does not operate in a vacuum. For example, a threat group lives within, can threaten, and often relies on the support of the human terrain. It must also adapt its capabilities to the physical terrain, and it communicates and interact using the information terrain to develop courses of action we must have a detailed understanding of both the terrain and the actor being evaluated

- Phase 3: Situation Integration (SI) - Based on the detailed results (products) of the evaluation of the OE (Phase 1) and the actors within the OE (Phase 2), the MPKI staff produce an informed, predictive assessment of how the actors can affect the achievement of the UN Force Commander's mission

This assessment is presented in the form of possible Actor Courses of Action (ACOAs), which then inform the UN Military Decision-Making Process These courses of action are determined based on how you assess the actor, based on its capabilities and intent, will interact with the Operating Environment

Interaction. *Prompt a discussion of how a threat might affect a group of IDPs. How will the physical, information, and human terrain shape their likely courses of action in the face of a threat? Naturally, IDPs will flee from danger, along routes that are passable, attempting to maintain contact with loved ones and those that can protect them, ideally towards a sympathetic population. In this case, a knowledge of the operating environment can help the MPKI cell predict where these IDPs might reasonably be expected to go.*

This is the critical part of the UN MPKI section's job It is here that you can shape your commander's decision-making process If you know the UN commander's intent, you can access how armed groups or other relevant actors are likely to react to various UN concept of operations designed to accomplish the mission.

Ideally, you will develop Courses of Action for both armed and unarmed groups These courses of action, when presented to operations personnel/your commander, will allow

them to mitigate the impact of adversary operations against UN forces or the potentially negative impact of UN forces on unarmed groups, or the local population

☞ ***Note to Instructor:*** *If some of your students have previous military intelligence training and experience, they may remark that AOE consists of three steps or phases, which are similar to the steps of the Intelligence Preparation of the Battlespace (IPB) or the Intelligence Preparation of the Operating Environment (IPOE) process, which is used in conventional military operations. However, do not use a comparison of AOE with IPB/IPOE to introduce this part of the lesson, as it may confuse students without a military intelligence background*

If the question of IPB/IPOE versus AOE should arise, you may explain the following:

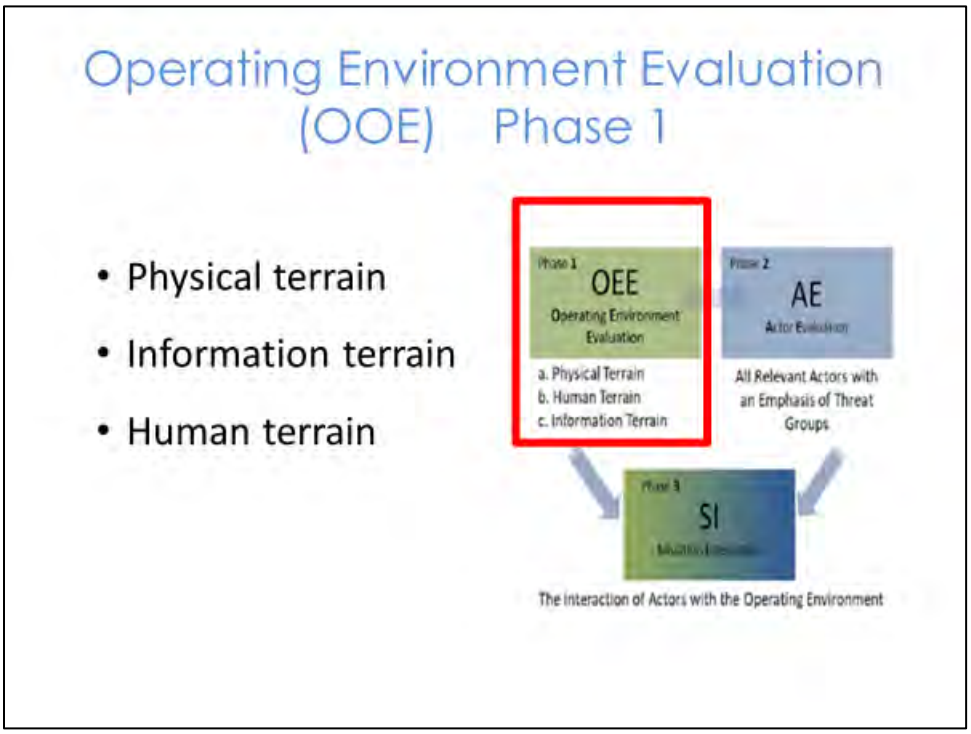
- *The IPB/IPOE process is in several respects similar to the UN AOE process, as the IPB/IPOE process also consists of three steps or phases (IPB/IPOE consists of the following steps: 1 Battlefield area evaluation; 2 Threat evaluation; 3 Threat integration.*

- Just as AOE supports the UN MDMP, IPB an analytical tool used by military intelligence to support the conventional Military Decision-Making Process However, in UN peacekeeping operations non-military ("civil") factors – especially human factors and factors impacting on human life and activities – are the focus when UN peacekeeping forces plan and conduct their operations.

- In conventional military operations, the focus is on the terrain and enemy forces, which are the primary military factors relevant to kinetic operations against identified adversaries/enemy forces There may be armed threats to UN Forces that have to be mitigated, but UN Forces do not conduct military operations to attack and destroy actors.

☞ ***Note to Instructor:*** *Please note the use the term "Actor", the word "Enemy" is not used by the UN Peacekeeping; adversary, spoilers, or opposition forces/actors against the mandate are appropriate terms.*

Slide 5



Phase 1 of the AOE is the Operating Environment Evaluation, which analyses three separate, but interlinked "terrains". The physical, the human, and the information terrain, each of which function as part of the UN operating environment's holistic ecosystem.

Perhaps a useful way to consider this is that although the process calls for us to analyse each type of terrain separately. Our overall evaluation must incorporate all three terrains. Again, it cannot be overstated how important it is to recognize that a significant change to one of the terrains will affect the other two

Interaction: *Ask the students to consider the impact of a major terrain change on the human and information terrain. Suggest that a large area of what has previously been farmland has been flooded by heavy rains and that it has become a marsh. Ask them as a group how such a change will affect the physical, human, and information terrain.*

Response: What we seek to know in this case is that the flood will undermine food production, could induce the local population to migrate and resettle, and could overload road systems and other lines of communication.

Physical Terrain:

The analysis of the physical terrain is based on mapping, satellite imagery etc. Engineers are qualified to assist in the analysis of the physical terrain, including the effects of weather conditions on the physical terrain, including mobility and use of critical physical infrastructure The analysis of the physical terrain includes identification of natural and humanmade obstacles that can disrupt, fix, turn or block the movement of a force based on the degree to which the terrain in various areas restrict the movement of UN Forces or actor groups, mobility corridors can be identified areas of cover, physical infrastructure, key terrain, vital ground, etc. are also identified as part of the analysis of the physical terrain

Human Terrain:

Human Terrain Analysis, uses human terrain mapping to produce overlays showing the areas inhabited by the various tribes, ethnic groups, religious groups, and political factions in the Area of Intelligence Interest. Other overlays used in Human Terrain analysis show the reach and influence of various leadership structures (political, military, religious, social, etc.), population density, income distribution, and the locations of IDP (internally displaced persons) and refugee camps. Separate overlays are produced showing positions of host nation military and law enforcement units and entities, as well as the positions and areas occupied by threat actors etc.

Human Terrain analysis employs link analysis to show the relationships between persons, events, organisations etc.

Through Human Terrain mapping and link analysis, key actors are identified, and an Items of High Importance List is produced. The Items of High Importance List includes individuals, equipment, infrastructure, etc. which are required by both threat actors and UN Forces to achieve their objectives.

Human Terrain analysis also encompasses gender analysis, which assesses the impact of the physical terrain, the information terrain and the various actors on the lives of women in the Area of Intelligence Interest.

Information Terrain:

The Information Terrain includes various means of communication and information exchange. These means of communication may be person-to-person communications or mass communications. Person-to-person communication means include:

- Voice communications such as telephones, two-way radios and voice messaging systems (such as Skype, Messenger, WhatsApp)
- Social media (such as Facebook)
- Email

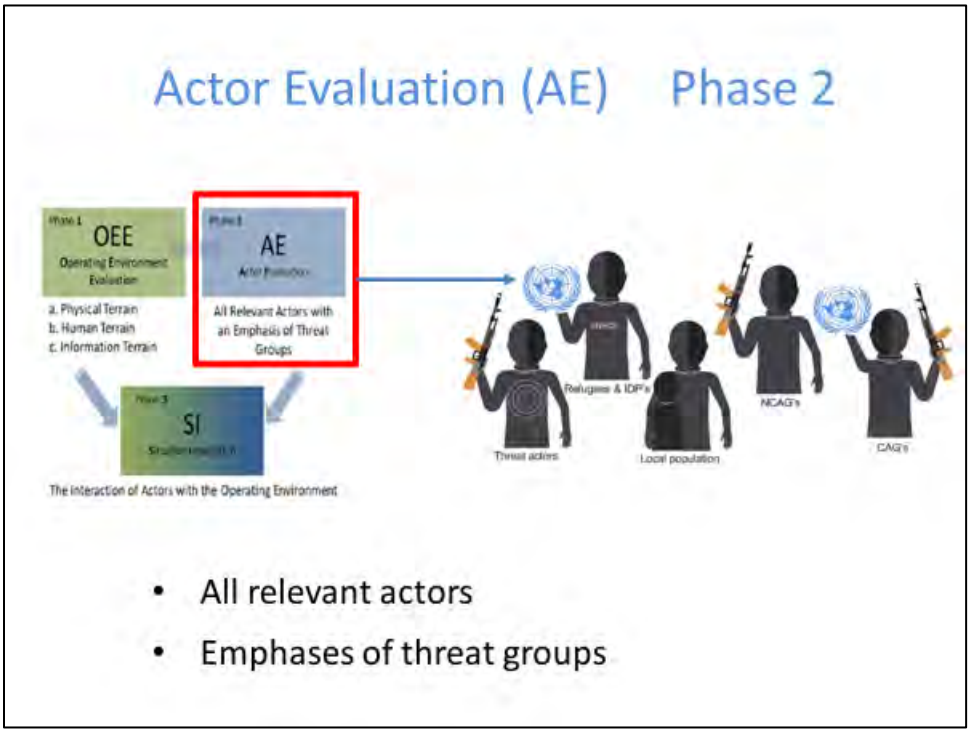
Mass communication means include:

- Mass media (such as print media (newspapers and magazines), radio, television)
- Web-based media (online newspapers, journals, blogs etc.)
- Social media (Twitter, Instagram, Facebook)
- Video and audio sharing platforms (for example, YouTube)

Note that there are a close interrelationship and interaction between the "terrains". Each "terrain" impacts on the other "terrains". For example, the Information Terrain is shaped by the physical terrain (e.g. location of mobile/wireless telecommunication masts and internet coverage) and the Human Terrain (the producers and consumers of information with access to the communications infrastructure).

Note to the Instructor. The students must appreciate that simply identifying factors related to the physical, information, and human terrain, together with those related to relevant actors is not enough. This is simply stating known facts. The students must instead make deductions, which lead to specific outputs using the three-column format. This is a technique that will be taught later in this course.

Slide 6



AE is the second phase of the AOE process. It analyses actors/groups that can have an impact on UN operations and the OE. The results of AE will be integrated with the results of the OEE in the third phase of the AOE process, which is Situation Integration.

Actors are individual humans or human collectives and structures (families, clans, tribes, ethnic groups, religious communities, organisations, interest groups, government authorities, security forces, armed groups, etc.) that are likely to influence (positively or negatively) or threaten - UN Forces and operations as well as influence/affect other aspects ("terrains") of the Operating Environment.

It is important to stress at this point that the UN approach differs from that of conventional military forces in that the UN does not just evaluate armed actors. Rather, it also evaluates and analyses all relevant actors that can influence the UN Force's operating environment.

These actors are identified in Phase 1 – primarily in the analysis of the Human Terrain. Often ASCOPE-PMESII also supports the identification of relevant actors.

AE has the following purposes:

- Analyse in further detail those actors/groups that are likely to have a significant impact on UN operations and on the OE

- Analyse the capabilities, including organisation, patterns of operation, tactics, techniques and procedures, and the actor's current situation
- Analyse intent, including desired end state, ideology, and motivation
- Evaluate an actor's strengths, weaknesses, opportunities and threats, and centre of gravity
- The product of which will be used in Phase 3, System Integration, to develop actor COAs

During Phase 2, further analysis is conducted of the actors identified in the HT analysis As part of the AE, the ways – broadly speaking – in which these actors could carry out activities in order achieve their assessed aims/desired end state is identified The AE includes the categorisation of each actor/group (for example, an armed terrorist group (TAG)) as well as its primary ethnicity, area of operations/responsibility, objective(s), assessed end state, the centre of gravity, critical requirements (i.e. critical to preserving its centre of gravity in order to achieve its end state), critical capabilities and critical vulnerabilities

It should be noted that threats can also be non-kinetic (for example, non-violent civil disobedience or epidemics). Actors can demonstrate a threatening intent – or have a friendly/neutral stance, which could provide opportunities for influencing them.

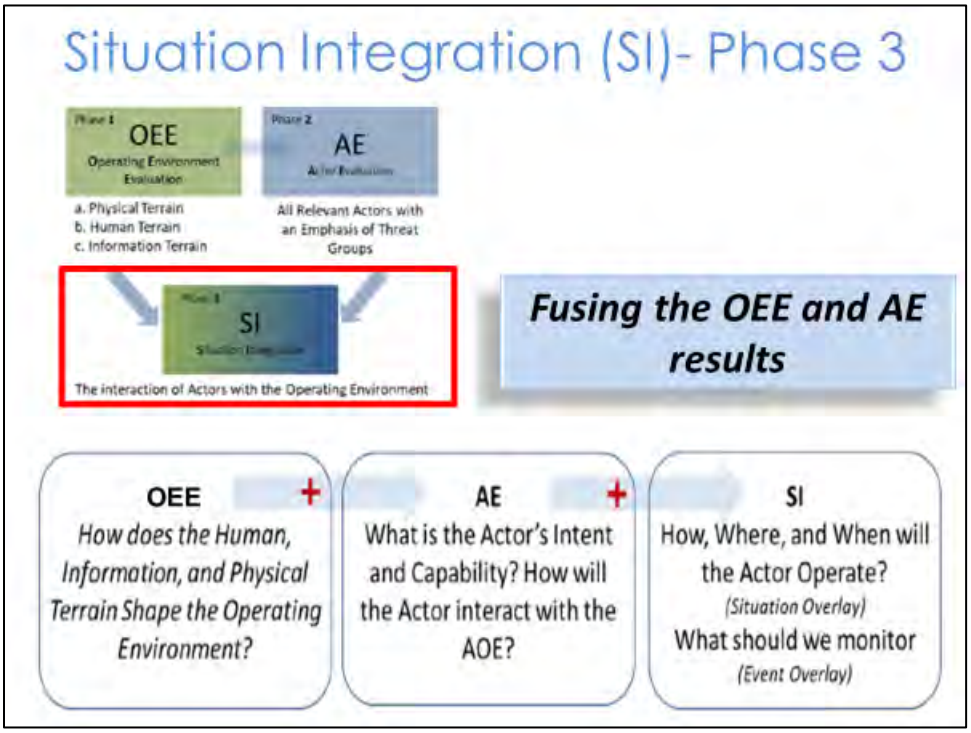
☞ **Note to Instructor.** Abbreviations

IDPs: Internally displaced persons

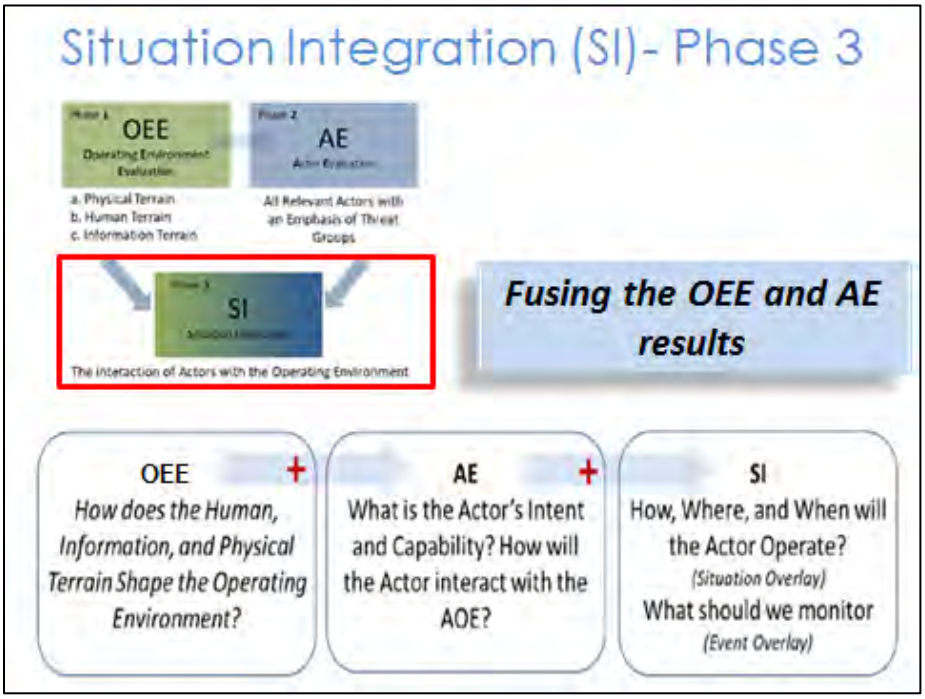
NCAGs: Non-compliant armed groups (groups not complying with UN resolutions and other agreements)

CAGs: Compliant armed groups

Slide 7


Situation Integration (SI)- Phase 3
OEE
Operating Environment Evaluation
AE
a. Physical Terrain
b. Human Terrain
c. Information Terrain
All Relevant Actors with an Emphasis of Threat Groups
SI
The interaction of Actors with the Operating Environment
Fusing the OEE and AE results
OEE
How does the Human, Information, and Physical Terrain Shape the Operating Environment?
AE
What is the Actor's Intent and Capability? How will the Actor interact with the AOE?
SI
How, Where, and When will the Actor Operate?
(Situation Overlay)
What should we monitor
(Event Overlay)

Slide 8



Situation Integration (SI), the third phase of the AOE process, fuses the results of Phase 1, the OEE, with the results of Phase 2, AE, in order to identify how actors, groups or threats can conduct operations and actions within the constraints and restraints of the Operating Environment as well as based on each actor/group/threat's capabilities and following its known doctrine (tactics, techniques and procedures).

SI is the third phase of the AOE process. This figure broadly illustrates the process in which the results of the OEE are fused with the results of the AE to provide the input to SI.

The results of Phase 1, the Operating Environment Evaluation, which answer how Physical Terrain, the Human Terrain and the Information Terrain shape the Operating Environment are combined with the results of Phase 2, which answer how the actor will interact within the restraints and constraints of the Operating Environment based on its intent and capabilities (means of achieving desired goals based on intent).

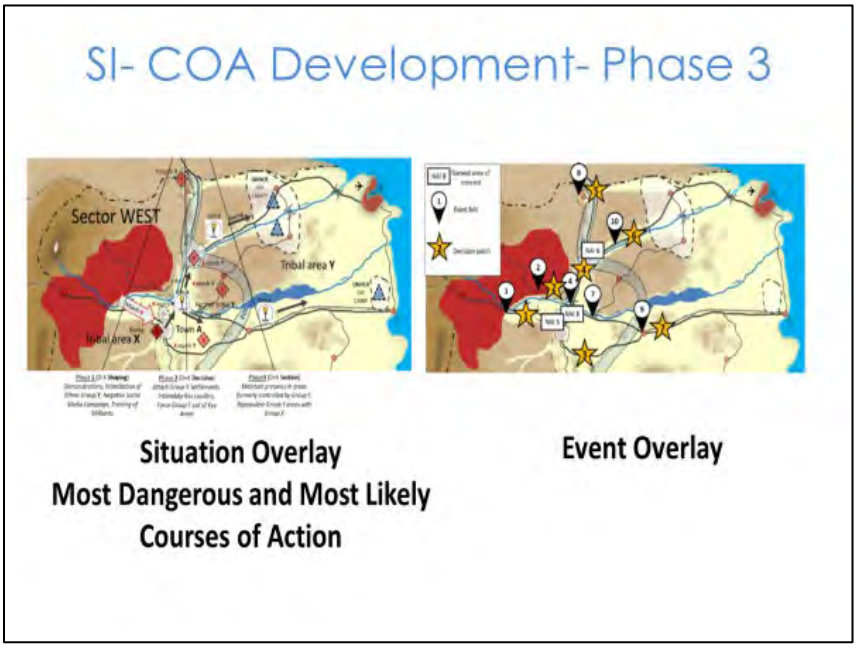
Combining the results of Phases 1 and 2 provide the basis for assessing how, when and where an actor can operate in each of several possible courses of action, shown in the form of a situation overlay for each Actor Course of Action (COA).

These assessments are also used to determine what and where we should monitor and acquire intelligence, as shown on an event overlay and included in the intelligence acquisition plan (IAP).

These are among the most important products that an MPKI cell will produce and will be used as the foundation to produce the short peacekeeping intelligence

estimate, the situation paragraph, and all other products used to support the UN MDMP.

Slide 9



On this slide, we show how SI, the third phase of the AOE process, results in the identification of the Most Likely Actor COA (MLACOA) and the Most Dangerous Actor COA (MDACOA), each shown in the form of a Situation Overlay.

The situation overlays are combined with the results of the evaluation of the operating environment to identify Named Areas of Interest (NAIs) which are monitored as part of the information acquisition effort in order to determine an actor/group/threat's intent to pursue one or another COA and Target Areas of Interest (TAIs), where we, the UN Force, can take action to force or influence an actor to choose an ACOA that is favourable to us.

SI produces informed, predictive assessments of possible Actor Courses of Action (ACOAs) that will likely affect the UN mission and the Military Commander's operations and tasks

Actors may include tribal groups or factions within the population. For the planning and execution of every UN operation, whatever its size, the MPKI cell must, at a minimum, identify the ACOA most likely to be pursued by each actor/group/threat (MLCOA) and the most dangerous COA (MDCOA) that can be pursued by each hostile or potentially hostile actor (or threat).

Each ACOA is presented in the form of situation overlay showing how the actor would carry out its operation or activity, taking into consideration the restraints and constraints imposed by the Operating Environment. An example of a situation overlay is shown on the left of the slide.

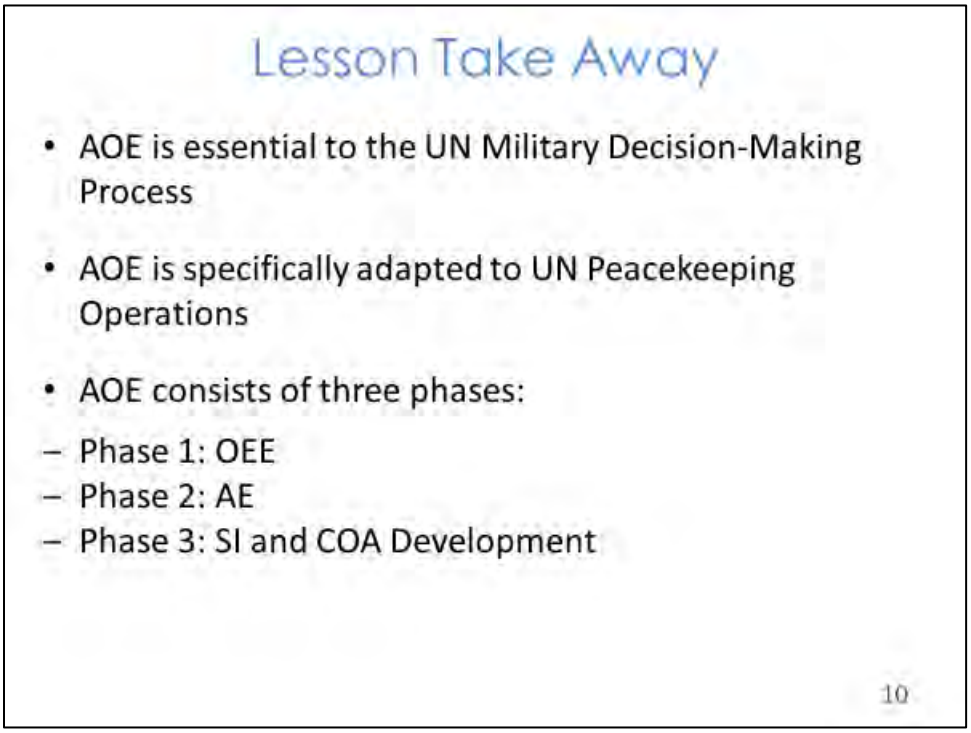
The situation overlays are combined, to produce an Event Overlay, which shows Named Areas of Interest (NAIs) which are monitored as part of the information acquisition activities in order to confirm an actor/group/threat's intent to pursue one or another ACOA. The Event Overlay also shows Target Areas of Interest (TAIs), where we, the UN Force, can take action to force or influence an actor to choose an ACOA that is favourable to us.

In addition to the Situation Overlays, each ACOA is accompanied by an ACOA statement that states what action the actor will take when the action takes place, where it will take place, and how it will be carried out in the format of a Scheme of Manoeuvre or Concept of Operations – depending on the sophistication of the actor and the required level of detail. Each ACOA must be feasible (realistic), acceptable (regarding losses), complete (taking all operational considerations such as logistics into account), exclusive (essentially different from other ACOAs), and suitable (for achieving the actor's objectives).

These ACOAs support the Military Decision-Making Process by enabling the Commander and his/her staff to develop the most effective own COA to achieve the mission of the UN Force, and to mitigate any action that an adversary intends to take against UN Forces.

Situation Integration and ACOA Development will be covered in much greater detail in a five-hour lesson later in this Table.

Slide 10



It is important to understand the main points of this lesson. This is a recap of the main points of this presentation:

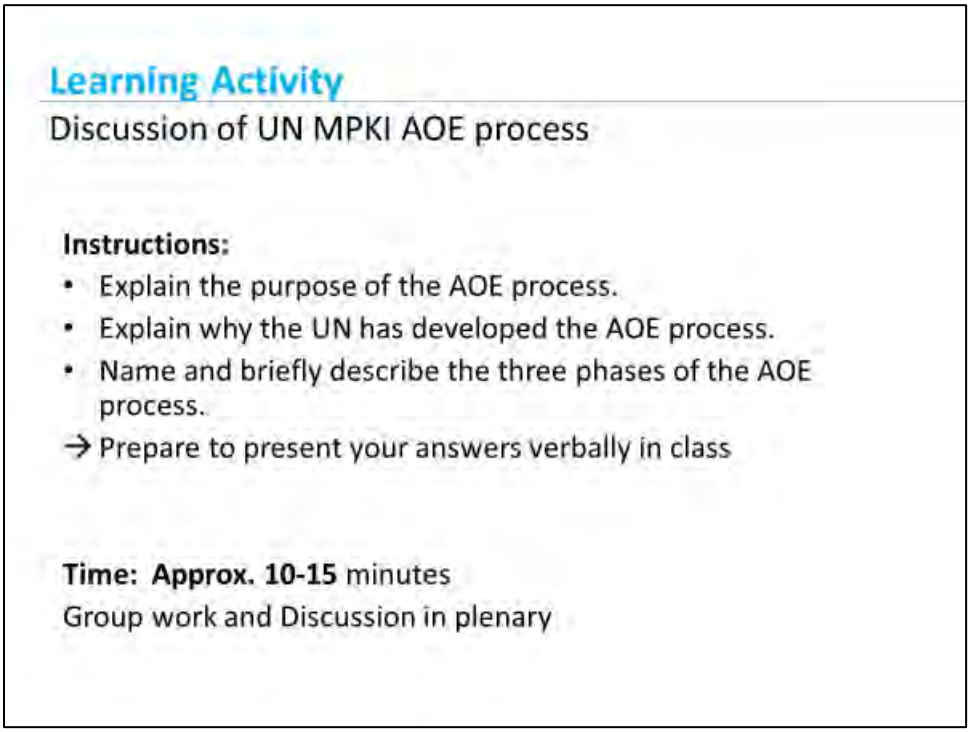
- AOE is essential to the UN Military Decision-Making Process because it provides intelligence products that are vital to effectively conducting the process
- AOE is specifically adapted to UN Peacekeeping Operations It focuses on the many aspects of the operating environment that can impact UN peacekeeping operations within an area of operations

AOE consists of three phases:

- Phase 1: OEE – Operating Environment Evaluation
- Phase 2: AE – Actor Evaluation
- Phase 3: SI – Situation Integration and course-of-action development

Learning Activity **33a**

Slide



RESOURCES
Chalkboard, whiteboard or flipchart paper and markers.

TIME
Approximate-15 minutes

NOTE TO INSTRUCTORS
Break the class into two groups. Have the participants address the discussion points on the slide.

- Do the participants understand why the UN uses the term AOE?
- Can the participants name the three phases of the AOE process and briefly explain what each phase covers?
- If not, why? Try to identify possible causes and explain and briefly provide answers to the discussion points.

Possible discussion points:

- AOE is essential to the UN Military Decision-Making Process because it provides intelligence products that are vital to effectively conducting the process
- AOE is specifically adapted to UN Peacekeeping Operations It focuses on the many aspects of the operating environment that can impact UN peacekeeping operations within an area of operations
- AOE consists of three phases:
- Phase 1: OEE – Operating Environment Evaluation
- Phase 2: AE – Actor Evaluation
- Phase 3: SI – Situation Integration and Course-of-Action Development

Lesson
3.5b

AOE- Analysis of the Physical Terrain (PT)

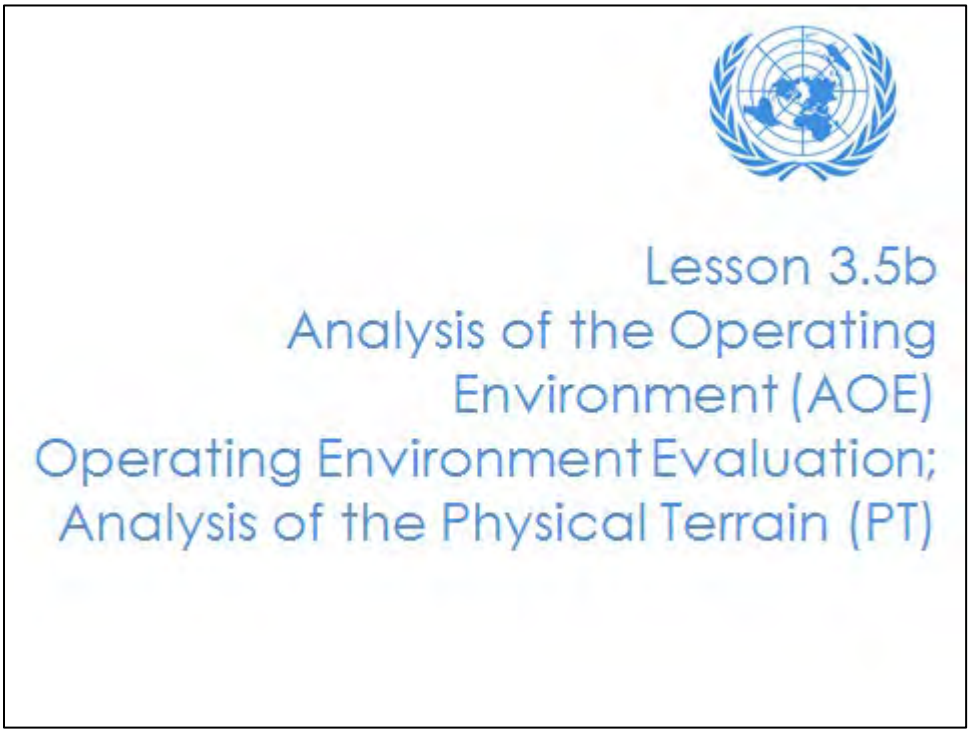
The Lesson

Starting the Lesson

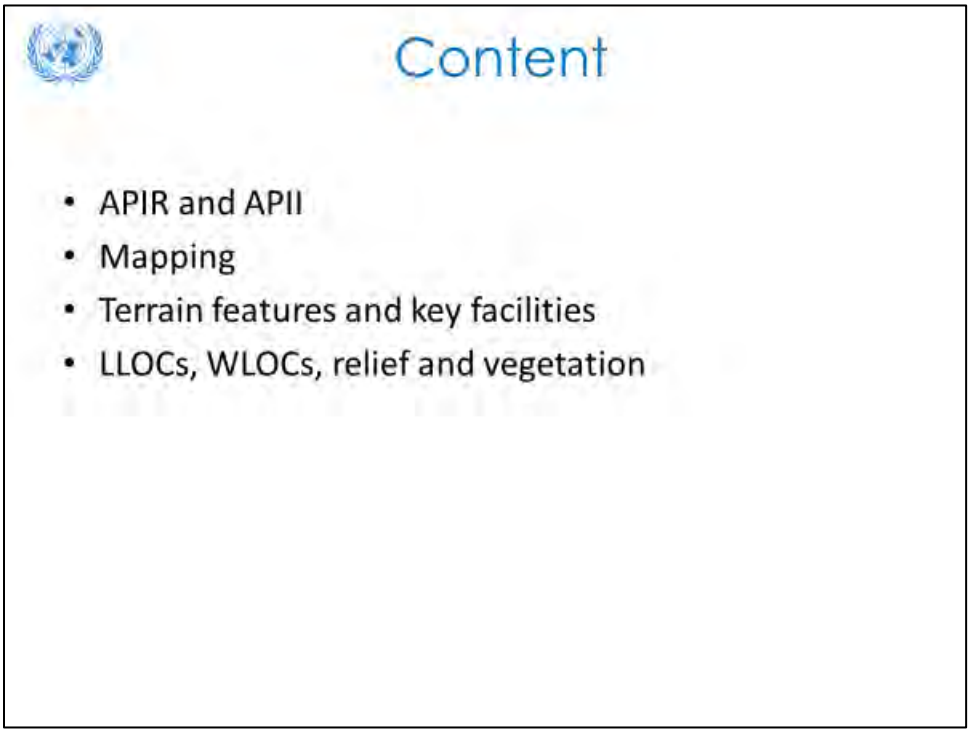
For an interactive start to this Lesson, have the participants explain the three phases of the AOE (the OEE, AE and SI, including ACOA development). As this is the first lesson of the OEE phase of the AOE, have the participants state the three terrains that are analyzed in the OEE phase (i.e. the Physical Terrain, which is the topic of this lesson, and the Human and Information terrains, which will be covered later).

Note to Instructor: *You may want to emphasize that the Human Terrain and the Information Terrain exist within the Physical Terrain. The Physical Terrain is the real, physical (as opposed to the virtual) environment in which all actors live, move by various means of transportation, make a living on and off the land, plant IEDs, conduct ambushes, communicate, exchange and broadcast information, etc.*

Slide 1


Lesson 3.5b
Analysis of the Operating Environment (AOE)
Operating Environment Evaluation;
Analysis of the Physical Terrain (PT)

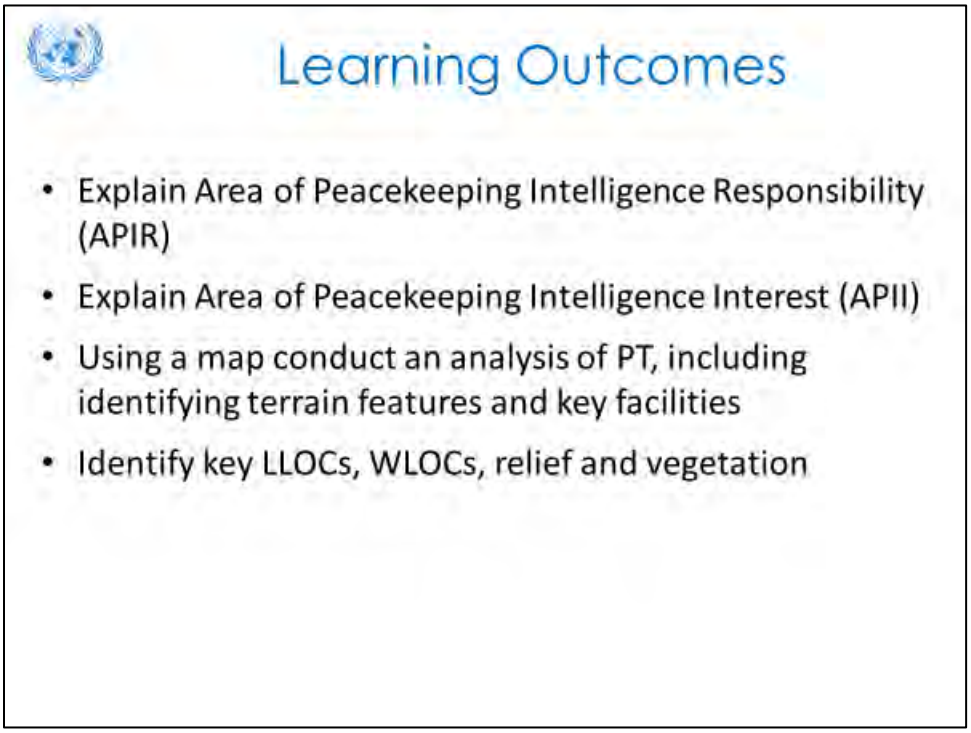
Slide 2



This lesson will cover the following topics:

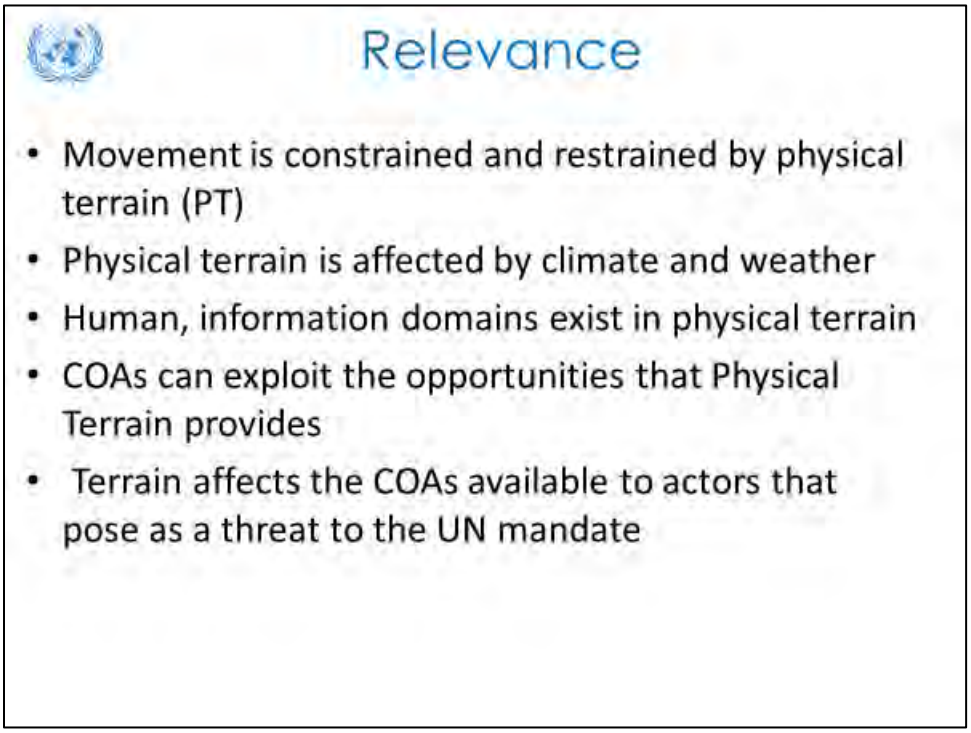
- Definition and explanation of the Area of Peacekeeping Intelligence Responsibility (APIR) and the Area of Peacekeeping Intelligence Interest (APII)
- Mapping, which is the primary basis for analyzing the Physical Terrain
- Terrain features and key facilities
- Landlines of communication, water lines of communication, relief and vegetation

Slide 3



At the end of this lesson, you should be able to perform the actions described on the slide. Take a moment to read and understand the requirements. This may help you to focus on the most relevant aspects.

Slide 4



Key Message: The analysis of the Physical Terrain is crucial to the OEE as it forms the basis for the analysis of the Human and Information Terrains. Climate and weather are variables which affect the Physical Terrain and thus the two other terrains (or domains), the Human Terrain and the Information Terrain. The Physical Terrain thus determines the Courses of Action (COAs) open to UN Forces as well as other actors in the Area of Operations.

Within the Area of Operations, all movement of UN Forces and other actors, including groups hostile to the UN presence (i.e. threats), is constrained and restrained by the Physical Terrain as it is affected by climate and weather. Terrain determines which types of movement are possible, for example, whether is it possible for tracked or wheeled vehicles to operate in an area or along a particular route.

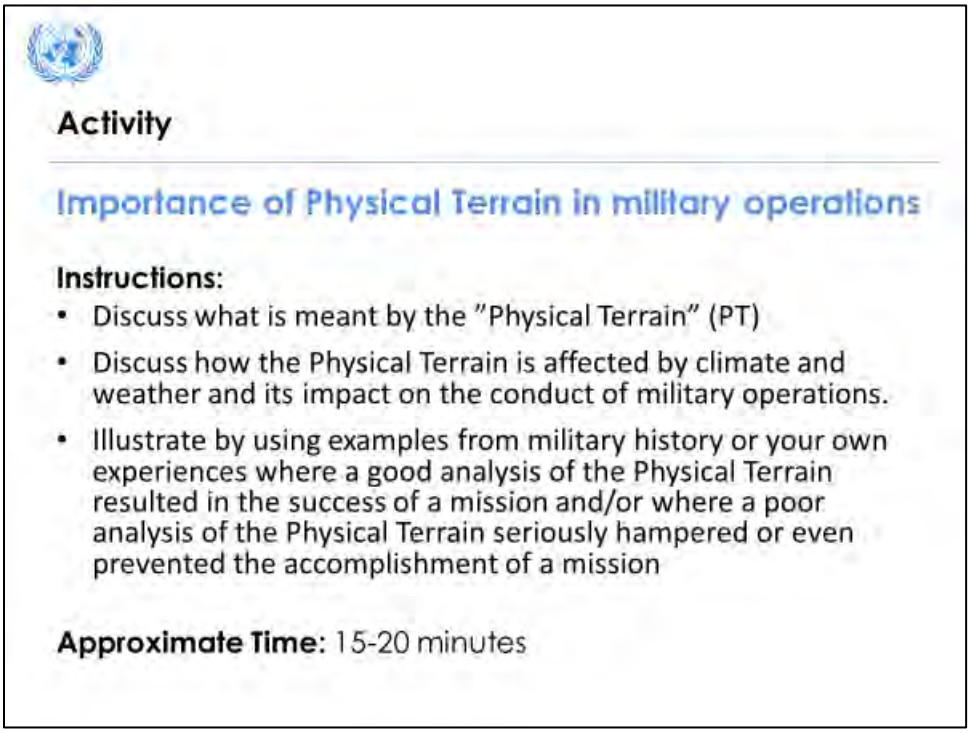
UN Peacekeeping Operations are, to a large extent, shaped by the Physical Terrain as it is affected by climate and weather. Weather and climate conditions (for example, heavy rains that cause flooding or snow in the winter) can change the physical characteristics of the terrain and impact the movement by vehicles and on flight conditions for UN aircraft.

The human and information domains exist within the Physical Terrain and are formed and influenced by it. Climate and weather also have a significant impact on the Human Terrain and the Information Terrain. Certain types of terrain (land) are favourable for human habitation – others are not. Different types of agriculture require favourable soil and climate conditions. Oranges cannot grow naturally in Northern

Norway but thrive in a Mediterranean climate. Radio communications are affected by terrain as well as weather conditions.

Analysis of the Physical Terrain and how it is affected by climate and weather are the means to determine which UN Courses of Action (COAs) can best exploit the opportunities the Physical Terrain provides and how the terrain affects the COAs available to the other actors in the Area of Operations including, actors that pose a threat to the UN Forces. Without a thorough analysis and understanding of the Physical Terrain, successful operational planning is not possible. Military history is full of examples of faulty appreciation of the terrain.

Slide 5



The Physical Terrain encompasses the land and ground environment – and if relevant, the maritime environment (oceans, seas, lakes, waterways, etc.) and airspace. It is the basis for the actions of all actors in the Area of Operations.

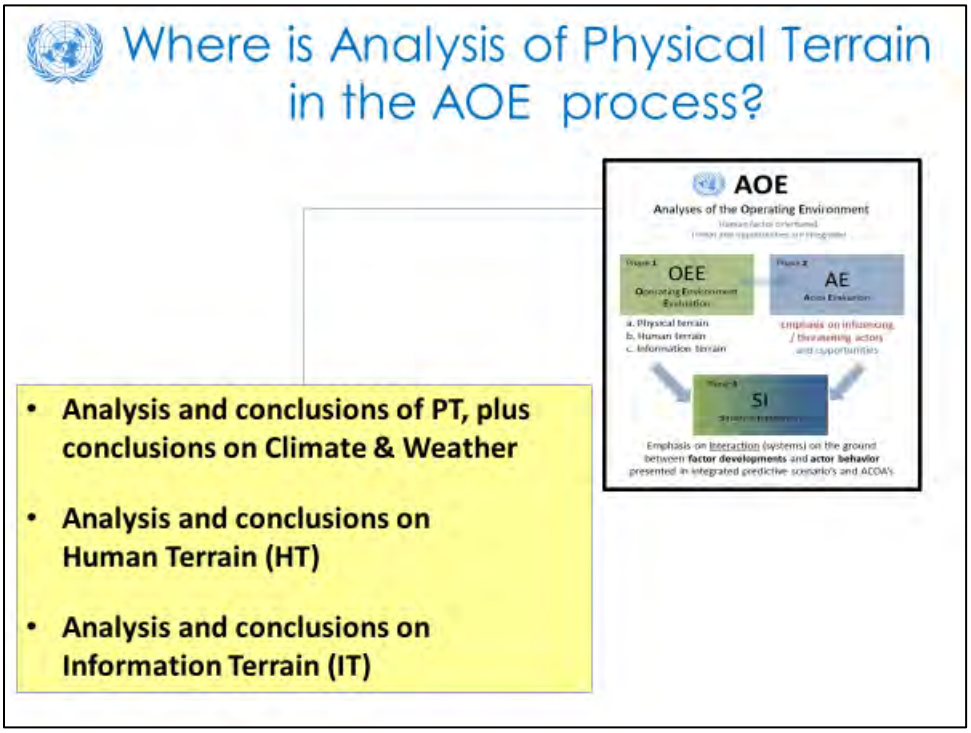
The physical terrain consists of open areas (routes, corridors) that provide good mobility; obstacles that impede mobility; areas that provide cover and concealment for own (e.g. UN) forces as well as other actors including hostile actors; infrastructure (typically humanmade structures); key terrain (that gives an advantage to UN Forces or other actors) and vital ground (the control of which is vital to the success of an actor's mission.)

There are many examples of how the Physical Terrain and weather/climate conditions have affected military operations:

- Napoleon's (or Hitler's) invasion of Russia hampered by "General Mud" (during the spring thaws and autumn rains) and "General Winter" (snow and ice with extremely cold temperatures)
- Monsoon season in Southeast Asia (Burma Campaign during World War 2, Vietnam War)
- The German Ardennes Offensive in December 1944 ("Battle of the Bulge"), where German Armor (tanks) attacked through the Ardennes Forest in Belgium, achieving surprise over the American forces of the 12th Army Group

and posing a potential threat to Allied logistics coming through the important harbour of Antwerp.

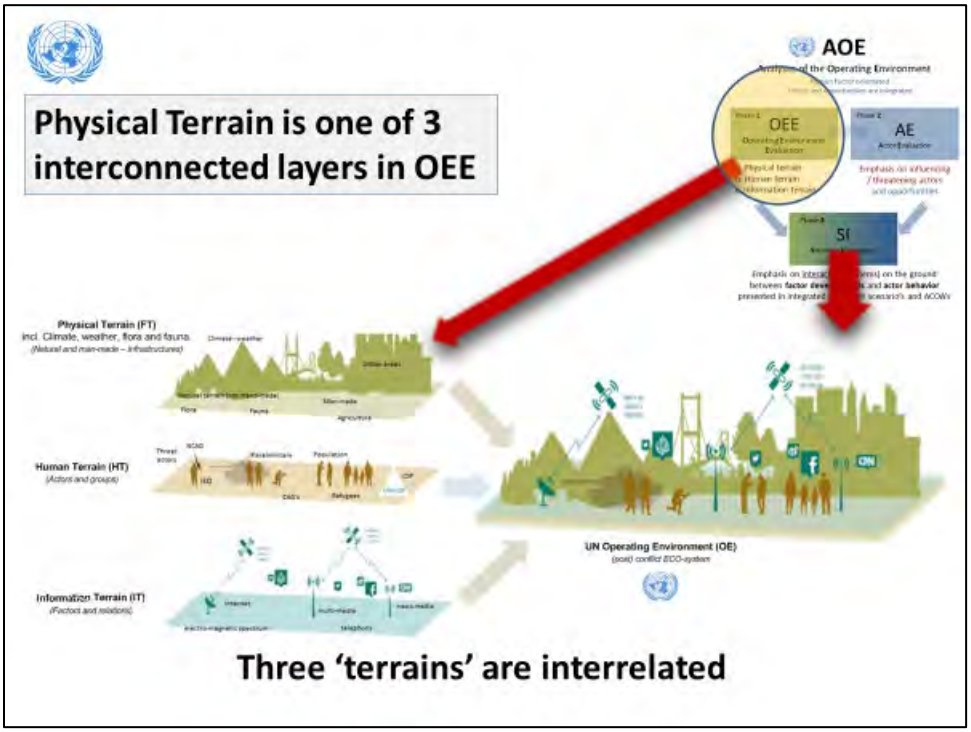
Slide 6



The analysis of the Physical Terrain is part of the Operational Environment Evaluation, which is the first phase of the AOE Process, together with the analysis of the Human Terrain and the Information Terrain.

Together with the next phase of the AOE process, Actor Evaluation, the OEE is essential to the conduct of the final phase of the AOE Process, Situation Integration and the development of Courses of Action (COAs).

Slide 7



Key Message: The Physical, Human and Information Terrains are interrelated; they interact and "weave" among each other.

The Physical Terrain, or the" ground", is one of the interconnected terrains or layers that are analysed in the OEE.

As shown on the slide, these three terrains are interrelated; they interact and" flow" amongst each other.

The figure to the right illustrates how they meld together and form the Operating Environment. The drawing shows different types of terrain, such as urban terrain, which is humanmade, and humanmade infrastructure such as a bridge; as well as natural mountains. Vegetation (flora) and animal life (fauna) are also parts of the Physical Terrain.

The population as a whole" populates" the Physical Terrain. The physical terrain dictates where these population groups would operate.

The Human Terrain specifically consists of the various actors and groups in the Operating Environment. They can be threat groups (such as terrorist armed groups), non-compliant armed groups (armed groups that are not complying with UN Security

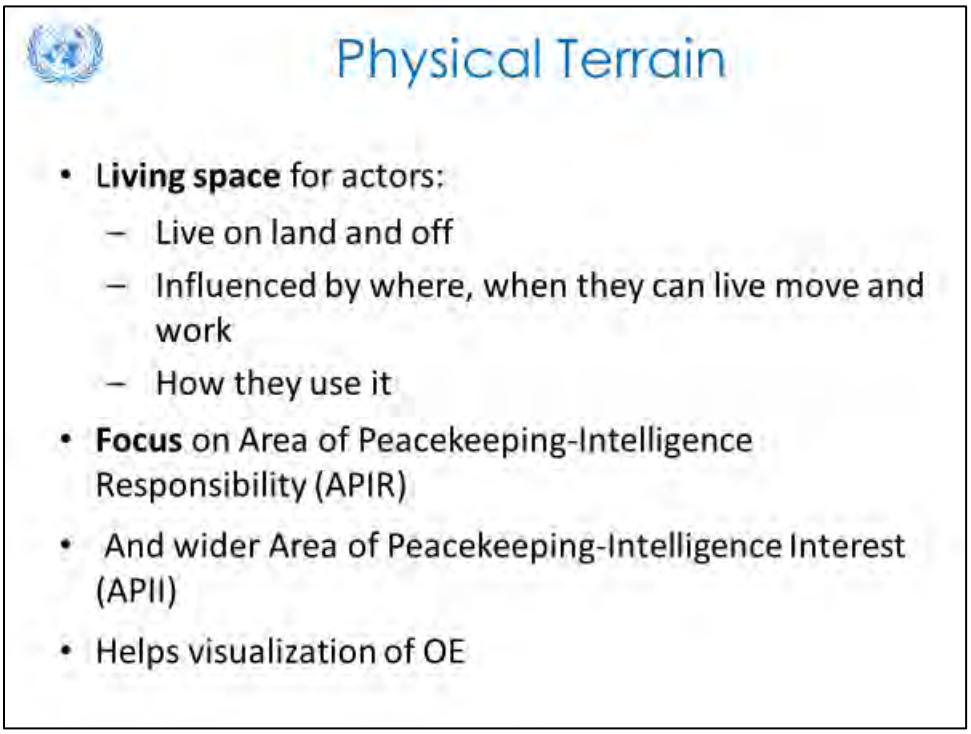
Council Resolutions or agreements between the parties to the conflict), compliant armed groups (that are complying with UN SC Resolutions and agreements between the factions); military and paramilitary forces, refugees and internally displaced persons (IDPs). The UN High Commissioner for Refugees as an organisation dealing with IDPs and refugees is also part of the Human Terrain. The Physical Terrain, as well as weather and climate conditions, affect the population in general and the various individual actors and groups in their activities and actions.

***Interaction**. Ask the class how they think the physical terrain would influence where a local population group would choose to live. The instructor should lead the debate. Responses would include close to a water source, in an accessible area, in an area not affected by flooding, close to arable land. The list goes on and on. This should last no more than 5 minutes.*

The Information Terrain, of course, includes print media such as newspapers, magazines and books. Today the electromagnetic spectrum (EMS) is of greater importance as the carrier of TV and radio broadcasts as well as mobile telephony. The internet is the platform for social media (SOME) such as Facebook, Twitter, Instagram etc. which reaches wide audiences inside as well as outside the Area of Operations. Here the Physical Terrain, including weather conditions, affects connectivity. The distribution and circulation of information in physical (paper) form can be hampered by difficult terrain and unfavourable weather and climate conditions. Electronic communications can be affected by adverse weather and climate conditions as well as physical barriers to signals transmission such as mountains.

***Interaction.** Ask the class how they think the physical terrain affects how an actor communicates. The instructor should lead the debate. Responses would include mountains can undermine the EMS, such as mobile phone signal, internet penetration. This should last no more than 5 minutes.*

Slide 8



Key Message: The Physical Terrain is analysed within the context of the Area of Peacekeeping-Intelligence Responsibility and the Area of Peacekeeping-Intelligence Interest because it is the habitat for all actors. Other factors relate negatively directly or indirectly to the Physical Terrain.

Human actors and groups must have a physical space (habitat) in which to live, work and function; therefore, it is important to understand the Physical Terrain in which they live and function. The Physical Terrain is the habitat ("living space") for all actors

- They live from and on it - shelter, housing, food etc.
- They are influenced by it, as it determines where and when they can live, move and work, and
- How they use it

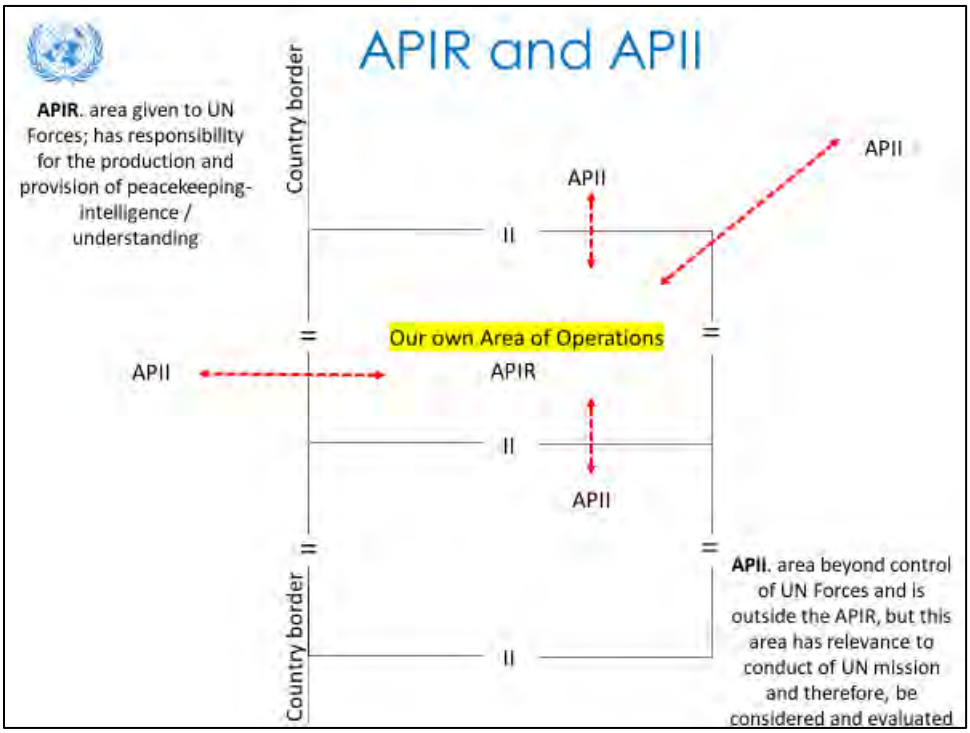
When analysing the Physical Terrain, focus on the defined Area of Peacekeeping-Intelligence Responsibility (APIR) and the wider Area of Peacekeeping-Intelligence Interest (APII), as these areas have direct importance to the UN Force's planning and conduct of operations (APIR and APII will be explained in the next slide).

Note to Instructor- At this point, it is vital to stress that the key concept of 'so what' concerning physical terrain is how it informs the Courses of Action of individuals or groups of individuals.

Interaction. *Ask the students how the physical terrain could shape a threat actor's course of action. Responses here could include that the physical terrain will force the threat actor to use certain Movement Corridors. Therefore, a good knowledge of the physical terrain will ensure that the MPKI cell can predict which Movement Corridors will be used.*

Many factors like weather, unrest, famine, mobility, communications are often directly and indirectly affected by the Physical Terrain and the conditions on the Physical Terrain ("ground"). Weather and climate, as mentioned before, can change the nature of the Physical Terrain (rains cause flooding and winter close mountain pass, thus affecting mobility). Unrest can cause – and be caused by – famines. Infrastructure can be destroyed or built/repaired by actors in the Area of Operations, thus impeding or promoting mobility, or increasing or diminishing the reach of communications.

Slide 9



Key Message: A prerequisite for analysing the Physical Terrain is defining the APIR and the APII in order to focus the Analysis of Operating Environment.

Before conducting the analysis of the Physical Terrain, it is necessary to define the Area of Peacekeeping-Intelligence Responsibility (APIR) and the Area of Peacekeeping-Intelligence Interest. This enables us to focus our analysis of the Physical Terrain as well as the Human and Information Terrains to a defined, relevant area.

The APIR is defined as the area given to a UN Force for which it (i.e. the Commander) has the responsibility for the production and provision of peacekeeping-intelligence / understanding. In other words, the UN Force Commander is responsible for knowing everything about Operating Environment and the actors within the UN Force's APIR. It is, therefore, important that the UN Force has the necessary acquisition assets to adequately cover its entire APIR.

The APII is an area beyond the control of the UN Force (i.e. the Commander), and thus outside of the APIR, but the APII has relevance to the conduct of the UN Force's mission and must, therefore, be considered and evaluated. Events, actions and factors in the APII may affect the Operating Environment within the APIR and must, therefore, be taken into consideration. Information and intelligence about the APII will usually have to be collected by acquisition assets that are not controlled by the UN Force Commander.

This information and intelligence will usually have to be acquired through UN agencies or non-UN agencies.

Interaction.

A couple of examples are shown in the drawing: An armed actor is using country C as a haven and staging area for operations in country A, which is the UN Force's APIR. It is, important that the UN Force has adequate knowledge/understanding of what is happening in country C. Another example could be that violence in country A is causing people to flee to the neighbouring country B, which may affect the UN Force's operations in country A, its APIR. Therefore, countries B and C become the UN Force's APII.

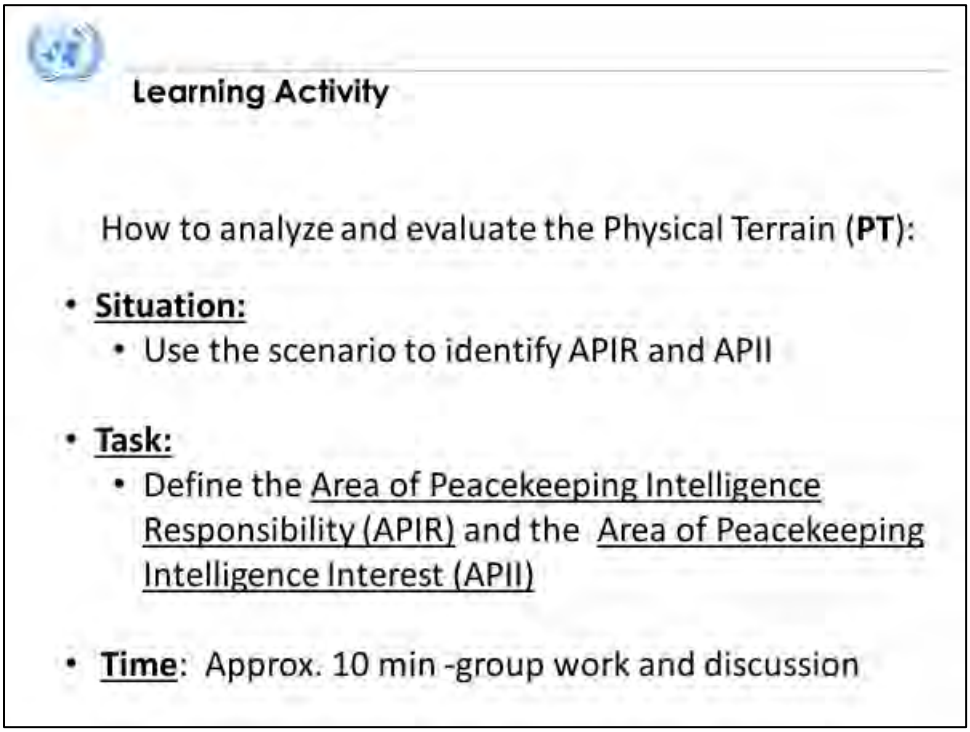
As the Instructor, ask the students to define what their APIR and APII in a UN Area of Operations are.

For example, in Mali at the Sector level, the APIR would be the Sector AOR, but clearly, most Malian actors do not conform to the UN concept of an AOR. These actors will move freely between sector AOs, and some actors will even move between countries. Therefore, events in other sectors are clearly of interest to the MPKI cell.

Other Examples you can give:

- *MINUSMA: Actors use the border region between Mali and Niger to their advantage*
- *MONUSCO: Actors use the border region between DRC, Uganda and Rwanda to their advantage*
- *The LRA (Lord's Resistance Army) operates in the larger border area between CAR, SS, DRC, Uganda*

Slide 10



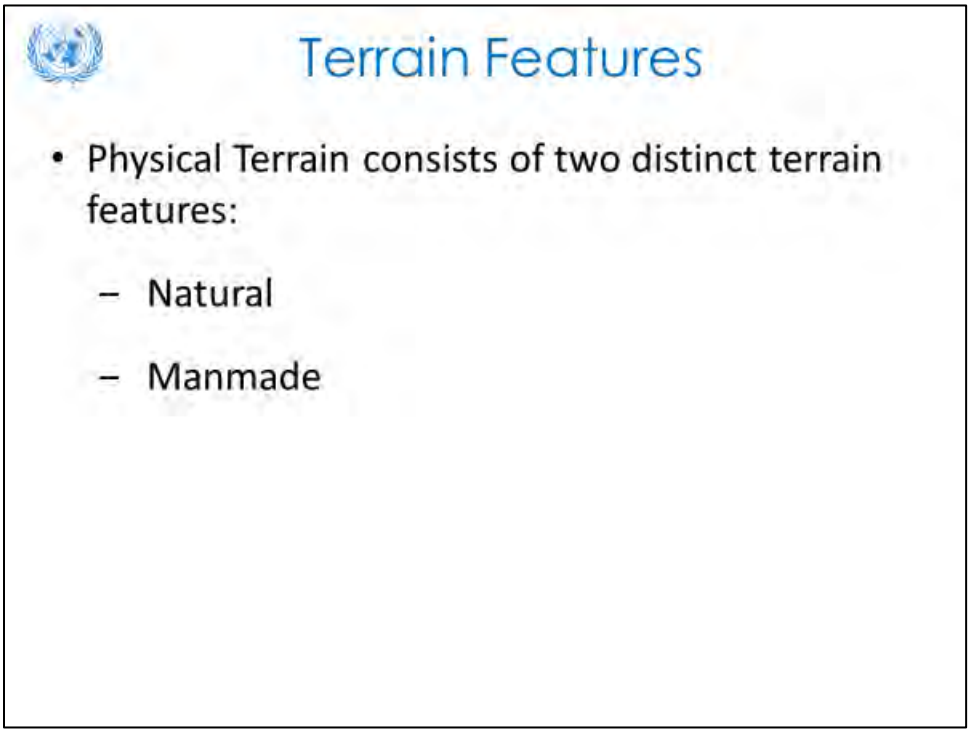
Key Message: Analysis of the Physical Terrain requires the definition of the APIR and the APII. Mapping is used to produce the" Golden Products" needed for MPKI understanding and for supporting the UN MDMP. Integrate the results of the analysis of the Physical Terrain. Remember that AOE is a continuous, cyclic process.

We use maps because they are depictions of the physical terrain and provide a common reference or base for the products (overlays) we will produce. Maps can be printed (on paper), or they can be electronic (computer-generated in Geographic Information Systems (GIS)) – depending on which type of Command Control Information System (C2IS) the UN Force HQ uses. Maps are low-tech but reliable. However, overlays and other map-based products must be reproduced in hard copy for distribution. C2IS require technical skills and may be subject to various problems (technical and human); however, products can easily be distributed throughout the UN Force – provided all headquarters and units are connected to the system.

In order to analyse and evaluate the Physical Terrain, we need to:
Define the Area of Peacekeeping-Intelligence Responsibility (APIR) and the Area of Peacekeeping-Intelligence Interest (APII), which was explained in the previous slide, as we need to determine which geographic area or areas we are to focus our analysis on. The group will be broken down into syndicates. Each

syndicate will represent a sector G2 branch and will have an officer in command (G2 Chief). Each Syndicate will have an instructor assigned to guide them through the process; each syndicate needs a sector map, a series of overlays, and semi-permanent markers of various colours (Blue, Brown, Black, Red, and one other colour at a minimum).

Slide 11



Key Message: Terrain features may be divided into natural terrain features and human-made terrain features.

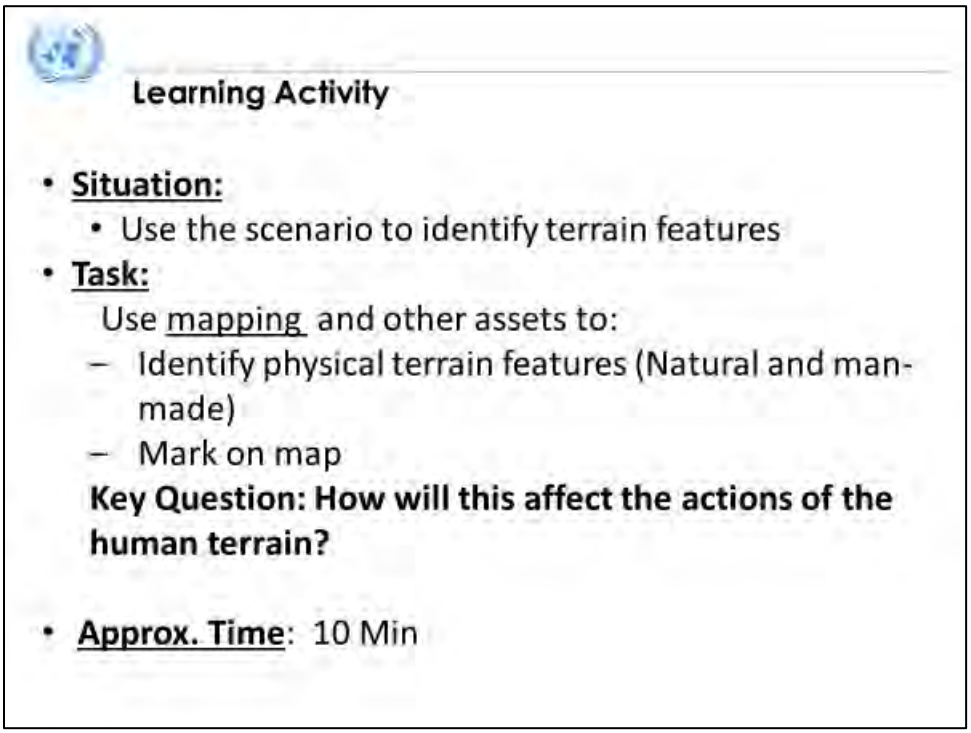
There are two types of terrain features: naturally occurring terrain features and terrain features made/created/built by humans (i.e. "manmade").

This slide gives some examples of natural and human-made terrain features. Please have a quick look at each of the two categories and see if there are some natural or manmade features that are missing.

All such features must be identified, based on a combination of patrols and map recce.

Interaction. *Ask the class what resources a UN MPKI cell has at its disposal to identify and confirm the physical terrain features, both natural and humanmade. Examples would include Map recce, use of aerial photos, GIS, use of ISR assets such as UAS to confirm, for example, the trafficability of roads/bridges, the deployment of patrols.*

Slide 12



Key Message: Identification of the terrain features is an important part of the process. Integrate the results of the analysis of the Physical Terrain. Remember that AOE is a continuous, cyclic process.

AOE is a continuous, cyclic process! It doesn't stop; all products (overlays, etc.) must be continuously updated as new information/intelligence is made available.

Required minimum outputs, often referred to as the 'golden products' (due to their importance in support of peacekeeping intelligence understanding and informing decision-makers). To analyse and evaluate the Physical Terrain, we need to:

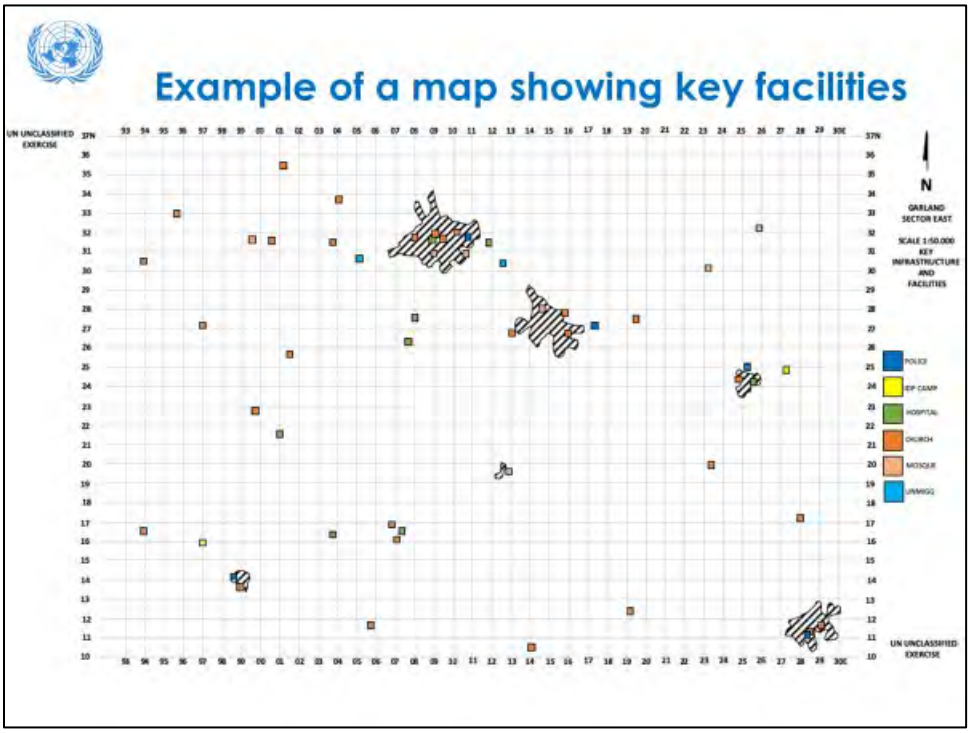
- Use mapping and other assets to identify natural and human-made terrain features
- Mark key features on the map, using overlays. Overlays must be of enough quality to allow all staff to deepen their understanding of the physical terrain environment

Working in syndicate groups have participants review the slide and then discuss. Have syndicate groups report back and brief the plenary. Each syndicate represents a sector G2 branch. What are essential and desirable for the overlay.

Note to Instructor-

We use maps because they are depictions of the physical terrain and provide a common reference or base for the products (overlays) we will produce. Maps can be printed (on paper), or they can be electronic (computer-generated in Geographic Information Systems (GIS)) – depending on which type of Command Control Information System (C2IS) the UN Force HQ uses. Maps are low-tech but reliable. However, overlays and other map-based products must be reproduced in hard copy for distribution. C2IS require technical skills and may be subject to various problems (technical and human); however, products can easily be distributed throughout the UN Force – provided all headquarters and units are connected to the system.

Slide 13



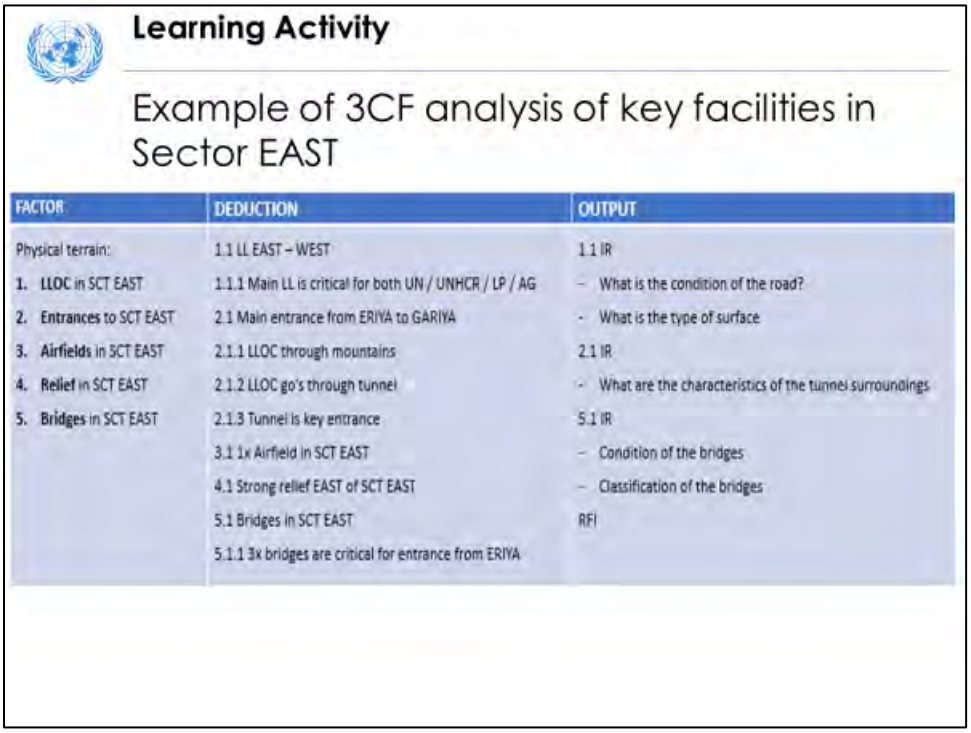
Key Message: Maps (or overlays) showing key facilities are one of the products of the analysis of the Physical Terrain.

Interaction. *This example is taken from the main scenario and is a map showing key facilities. Ask the students which key facilities are shown on the map? Advise the students to move from east to west; and north to south. Having identified key facilities, the students would then clearly mark the map (the map becomes the 'key facilities overlay' and move these factors to the 3-column format for further evaluation. This is the process that is to be followed for each step of the physical terrain evaluation. Here are areas to be identified:*

- *Religious areas (POC)*
- *Hospitals (POC)*
- *Schools (POC)*
- *Markets (POC)*
- *Tunnel*
- *Border crossing stations*
- *Roads*
- *Bridges*
- *Refugee and IDP camps*

- *Proposed oil pipeline*
- *Provincial and regional / provincial capitals*
- *An airfield in the provincial capital*
- *High-tension power line*
- *Provincial capital (EMBE)*
- *Dam with hydroelectric power plant*
- *Ferry across lake*
- *Zirconium mine*
- *UN bases, UN regional offices*
- *Facilities and areas designated by the SRSG*

Slide 14



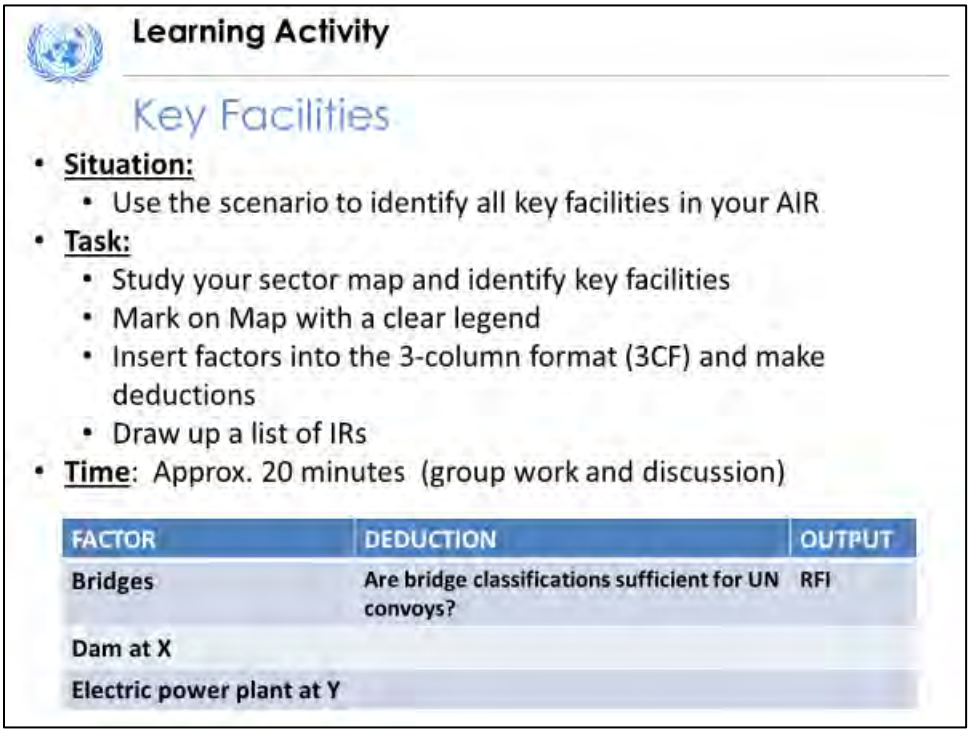
Learning Activity

Example of 3CF analysis of key facilities in Sector EAST

FACTOR	DEDUCTION	OUTPUT
Physical terrain:	1.1 LL EAST – WEST	1.1 IR
1. **LLOC** in SCT EAST	1.1.1 Main LL is critical for both UN / UNHCR / LP / AG	- What is the condition of the road?
2. **Entrances** to SCT EAST	2.1 Main entrance from ERIYA to GARIYA	- What is the type of surface
3. **Airfields** in SCT EAST	2.1.1 LLOC through mountains	2.1 IR
4. **Relief** in SCT EAST	2.1.2 LLOC go's through tunnel	- What are the characteristics of the tunnel surroundings
5. **Bridges** in SCT EAST	2.1.3 Tunnel is key entrance	5.1 IR
	3.1 1x Airfield in SCT EAST	- Condition of the bridges
	4.1 Strong relief EAST of SCT EAST	- Classification of the bridges
	5.1 Bridges in SCT EAST	RFI
	5.1.1 3x bridges are critical for entrance from ERIYA	

This is an example of a key facility analysis. Do not forget to identify areas that are linked to the protection of civilians and facilities designated by the SRSG.

Slide 15



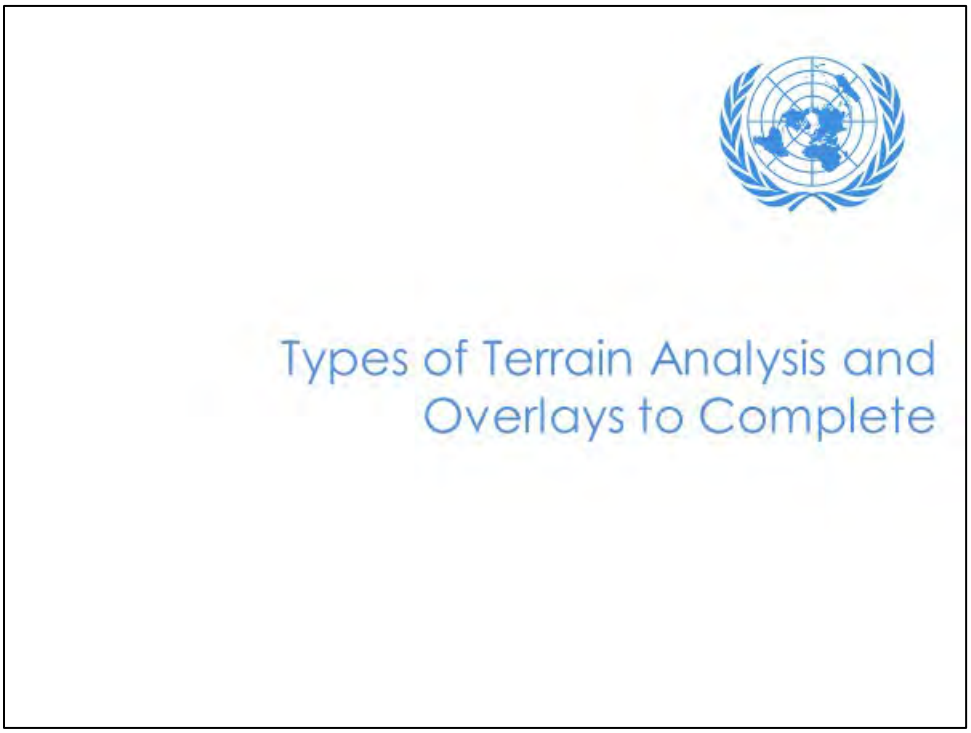
Working in syndicate groups have participants review the slide and then discuss. Have syndicate groups report back brief the plenary.

Show students the process. It will not be conducted at each stage of this lecture set. Rather, at the end of the lecture, students will be asked to apply this process to all aspects of the physical terrain. It is, therefore, less important that the students finish this exercise and more important that they understand the process.

Ask them to use their sector information and mapping to identify key facilities.
Mark all key facilities on the map. This is the key facilities overlay for the sector.
Transfer the factors to the 3 Column format and make deductions.
As an output, the instructor should ask students to identify RFIs that patrols or other sources of information can be tasked to confirm.

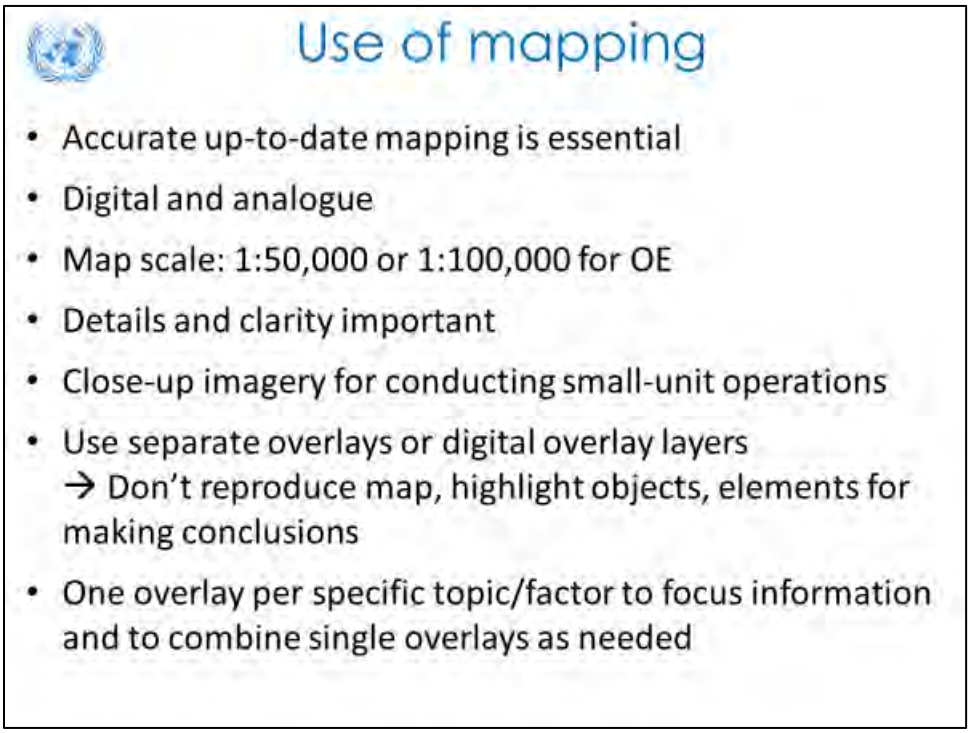
***Note to Instructor**- Emphasize to students that they need to follow this process for every aspect of terrain outlined in these lessons. This will be confirmed at the end of the AOE lessons and the TTX, which is designed to ensure that each syndicate has already completed a full physical terrain analysis prior to the final exercise.*

Slide 16



We are now going to look at some of our PT overlay products.

Slide 17



Key Message: It is essential to have accurate and up-to-date mapping. One overlay should be produced for each topic/factor to be analysed; avoid combining several topics/factors on one overlay. Details and clarity are important.

Always make sure that you have the best available mapping; it should be accurate and up to date. Old mapping can be misleading, since it may be based on outdated information and old topographical surveys – perhaps dating back to colonial times. Modern mapping is based on satellite imagery and telemetry and is therefore accurate and updated to the time the satellite imagery was produced.

Sometimes either digital mapping or analogy (printed) mapping may not be immediately available. In that case, MPKI staff, together with Operations and the Geographic Information Section, will need to acquire the necessary mapping in the required formats as quickly as possible.

Map scales should be 1:50,000 or 1:100,000 when evaluating the whole Operating Area. However, when conducting the AOE for a specific, small-unit operation, details and clarity are important. In such a case, detailed close-up imagery of the objective or target area may be necessary. Also, symbols must be clear and readable. If greater detail and clarity is required, use callout boxes to provide additional information, for example, as a text insert or even as an inserted photograph.

Overlays should be drawn separately according to the topic on clear sheets of plastic (or semi-transparent overlay paper (sometimes known as onion skin paper)) – and not directly on the printed map. Digital overlays should be produced on separate digital layers that can be added to and removed from the base map – and not drawn directly on the digital map.

Also, don't redraw map features on the overlay. Just highlight the objects and elements that are relevant to the topic of the overlay and that are necessary to make the necessary conclusions regarding that part of the analysis of the Physical Terrain.
A separate overlay should be produced for each specific topic/factor in order to focus on information and provide flexibility when different topical overlays need to be compared or combined.

Don't cover up the map! You must be able to see the map through the overlay.

Slide 18

Key Message: Always include a legend on overlays, so the reader/user is not in doubt as to what the symbols mean.

Always include a legend on overlays, so the reader/user is not in doubt as to what the symbols mean. Also, strive to have uniform symbology within the UN Force, thus avoiding that each staff section, unit etc. has its own overlay symbols that may even vary from task to task and from staff member to staff member.

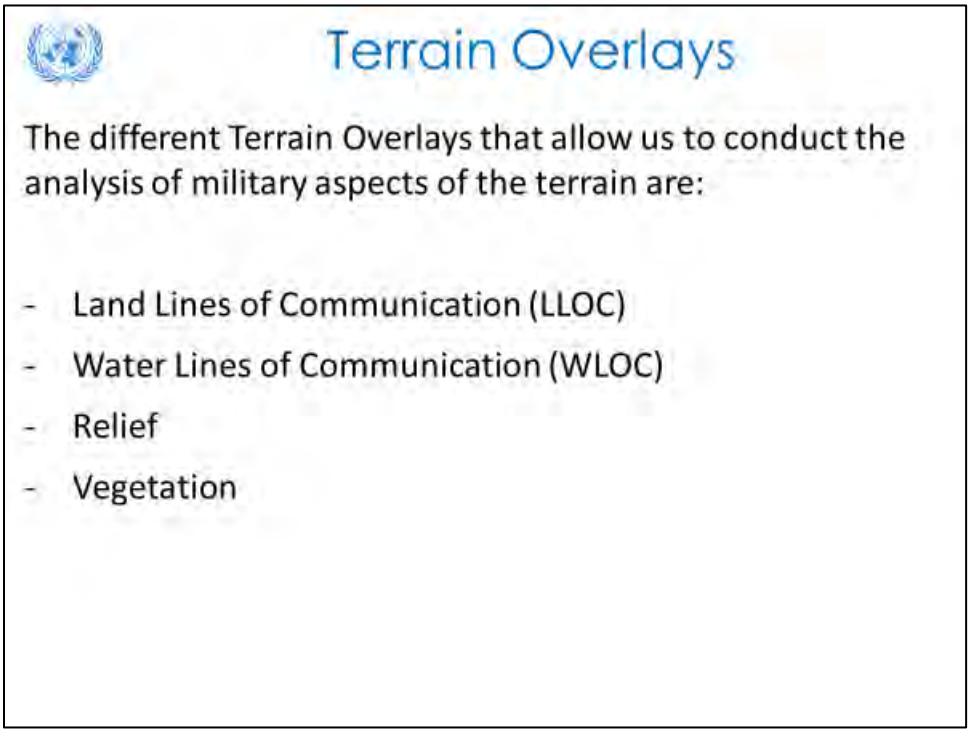
Keep in mind that symbols should be readable/understandable whether an "analogy" (printed/drawn) overlay is reproduced/copied in colour or black and white.

Furthermore, include glossary or list of abbreviations used in the overlay – especially when abbreviations are not commonly used.

This slide shows some of the symbols used on physical terrain overlays during this course.

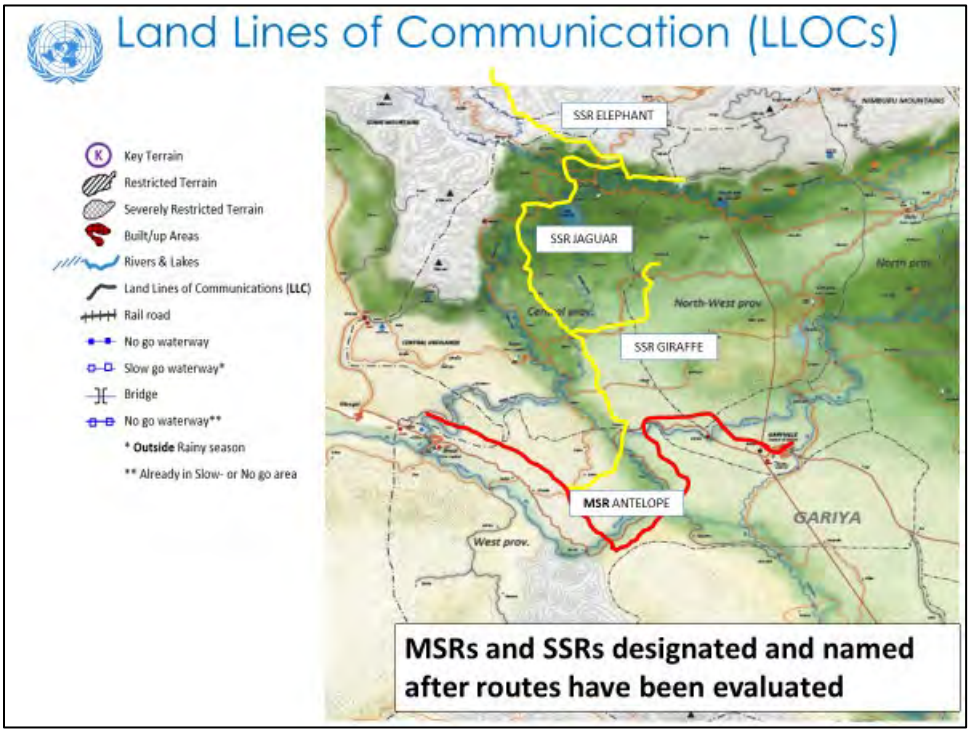
Note the symbology for the "going" of different types of terrain (restricted and severely restricted). Water bodies and watercourses are usually indicated in blue.

Slide 19



There are certain aspects of basic terrain evaluation that must be completed before analysis can take place. The basic evaluation layers are the following: key facilities; land and water lines of communication; elevation; and vegetation. We can then bring the results of these evaluation stages forward for deeper analysis.

Slide 20



Key Message: The LLOC Overlay shows the land routes within the area of operations that may be used for vehicular and other traffic.

This slide shows an overlay of the Land Lines of Communication within Sector West and identifies all routes throughout the operating environment, including roads, tracks and likely transit routes that may be used by UN Forces and other actors.

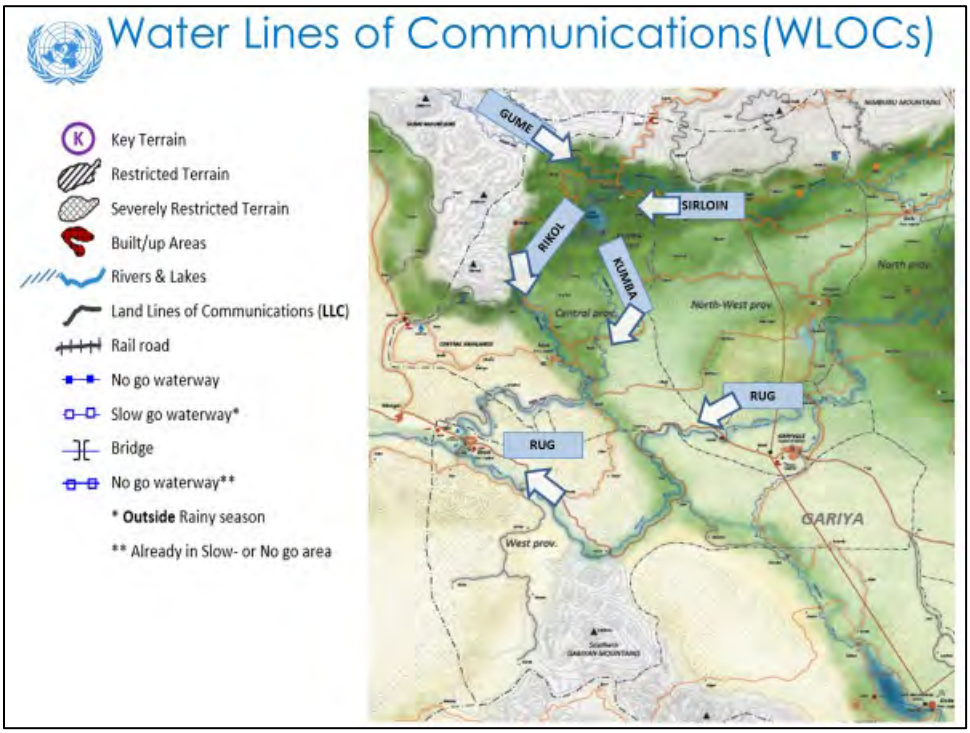
Also evaluates all the routes for movement by different types of transportation such as motor vehicles (tracked as well as wheeled (two-wheel drive and all-wheel drive vehicles), pack animals and movement on foot.

Routes may permit only one type of movement (for example, on foot) or several types of movement (vehicles or pack animals). Weather conditions and seasonal climate conditions may also impact on the various routes. For example, the rainy season may turn unpaved roads into mud that cannot be used by motor vehicles.

Once more, MPKI cells are to mark the known LLOC factors on the map and to conduct a further evaluation using the three-column format.

Interaction. *Ask the students how LLOCs influence both an unarmed actor and a threat actor's course of action?*

Slide 21



Key Message: The WLOC Overlay shows the water routes within the area of operations that may be used for waterborne traffic (different types of watercraft).

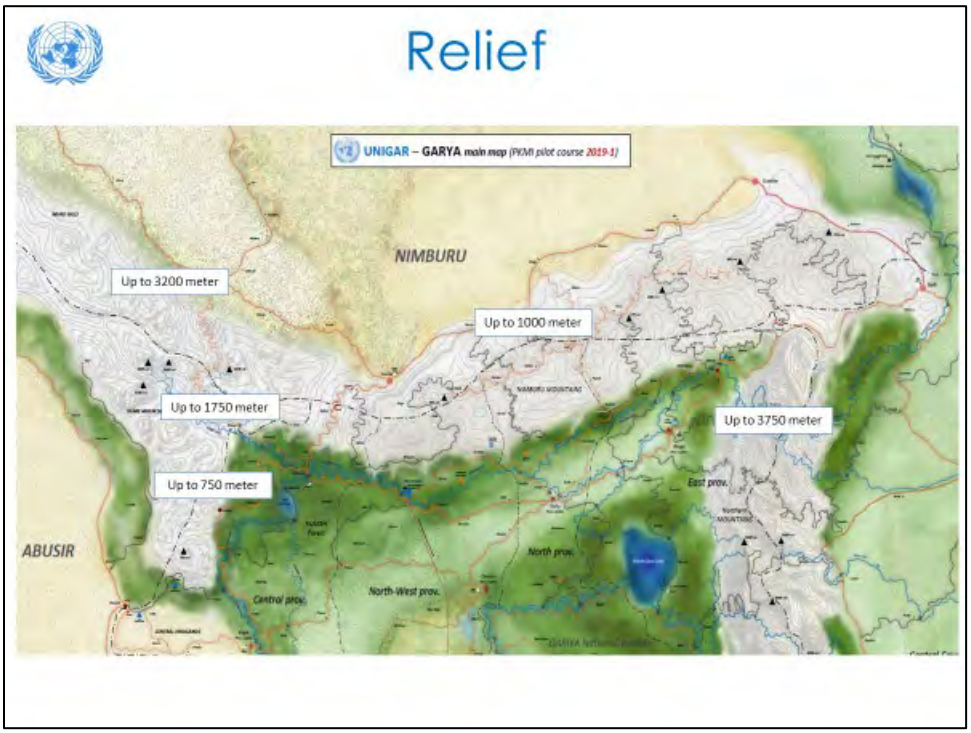
This second slide shows an overlay of Water Lines of Communication within Sector West. Identifying all waterways throughout the operating environment, including rivers, lakes, canals, channels etc. that may be used by UN Forces and other actors.

Evaluating all the waterways for movement by different types of relevant watercraft as well as places where these waterways may be crossed. Weather conditions and seasonal climate conditions may also impact on the possibility ("going") of the various waterways. For example, during the dry season rivers may dry out to such an extent that larger boats cannot navigate on them.

Note that the labels show the names of the waterways and the arrows indicate the direction of their flow. MPKI cells are to mark the known WLOC factors on the map and to conduct a further evaluation using the three-column format.

Interaction. *Ask the students how WLOCs influences both an unarmed actor and a threat actor's course of action?*

Slide 22



Key Message: This overlay shows the relief of the terrain.

This third slide shows an overlay of the terrain relief. The terrain relief is the physical shape, configuration or general unevenness of a part of the Earth's surface, considered with reference to variations of height and slope or to irregularities of the land surface.

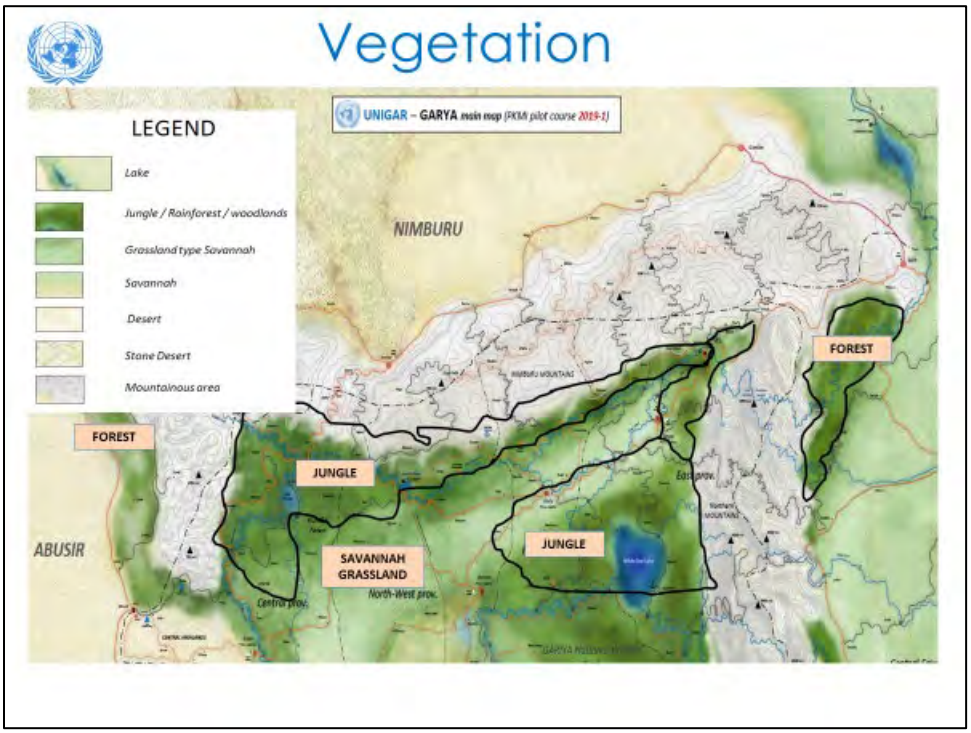
It is determined by the elevation or difference in elevation, considered collectively, of a land surface. In plain terms, terrain relief is how "rugged", "bumpy", "rough" – or how "flat", "gentle" – the terrain is.

Relief determines to what degree the terrain restricts movement, what the terrain can be used for (agriculture or grazing, for example), and what other types of human activity that can take place in that terrain. Relief also determines points of observation as well as fields of observation and fire.

MPKI cells mark the known relief factors on the map, and to conduct a further evaluation using the three-column format

Interaction. *Ask the students how relief influences both an unarmed actor and a threat actor's course of action?*

Slide 23



Key Message: This overlay shows the types of vegetation within an area.

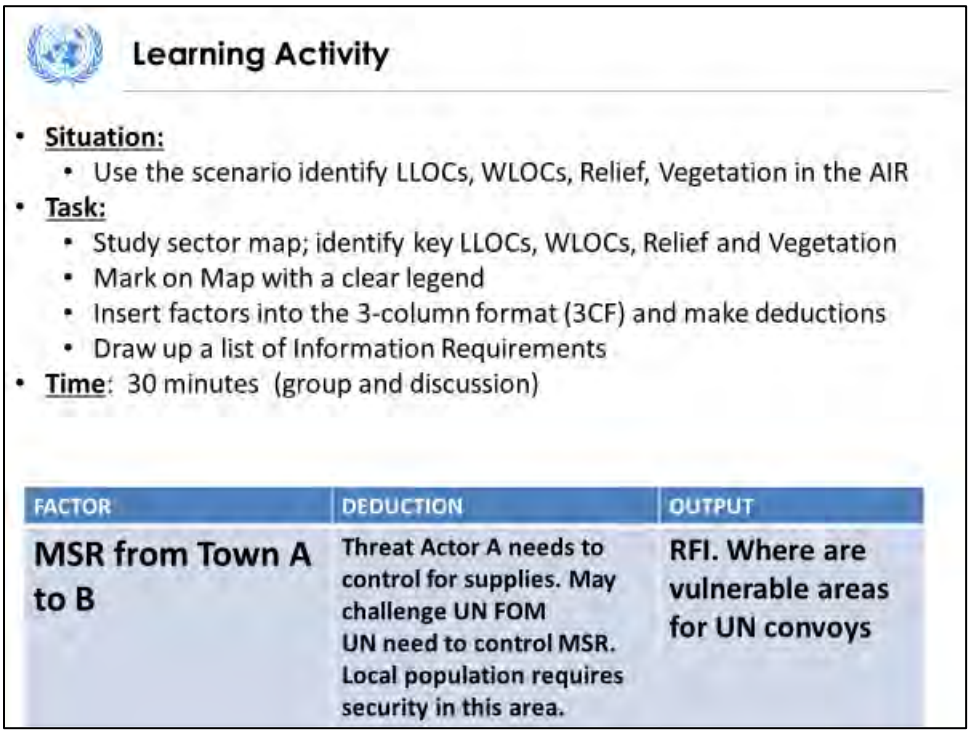
This fourth slide shows an example of a vegetation overlay. Vegetation is the plant life found within a certain area. Vegetation impacts on movement. (Dense jungles, for example, severely restrict all types of movement, whereas there are usually few restrictions on movement in open grasslands.)

Vegetation can provide opportunities for an economic activity such as agriculture, including grazing, logging, and other types of human activity. Vegetation also impacts on points of observation as well as fields of observation and fire. Weather conditions and seasons also have an impact on vegetation. In the fall, trees may lose their leaves, making an observation in forests easier.

Once more, MPKI cells are to mark the known vegetation factors on the map and to conduct a further evaluation using the three-column format

Interaction. *Ask the students how vegetation might influence both an unarmed actor and a threat actor's course of action?*

Slide 24

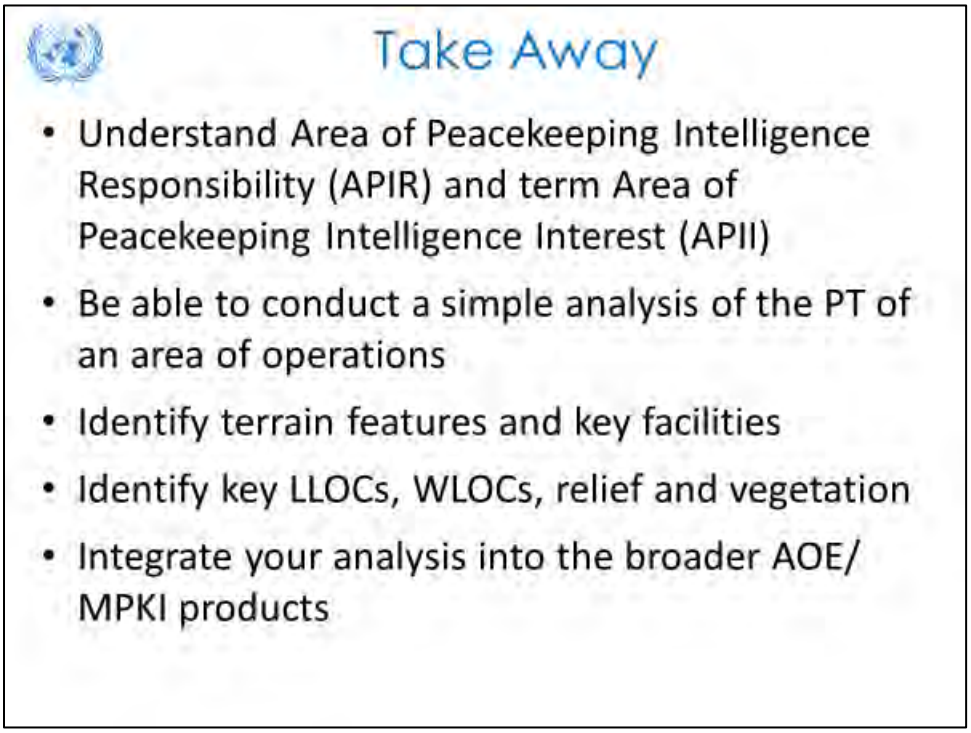


Working in syndicate groups have participants review the slide and then discuss. Have syndicate groups report back brief the plenary. This is the basic terrain overlay for the sector. Ask them to use their sector information and mapping:

- *To identify WLOC, LLOC, Relief, and Vegetation*
- *Mark on the map*
- *Transfer the factors to the 3 Column format and make deductions*
- *To identify RFIs that patrols or other sources of information can be tasked to confirm*

Note to Instructor. *Emphasize to students that they need to follow this process for every aspect of terrain outlined in this lecture set. This will be confirmed at the end of the lectures with an exercise, which is designed to ensure that each syndicate has already completed a full physical terrain analysis prior to the final exercise.*

Slide 24



Summary

This lesson has provided some basic concepts and skills for Terrain Analysis. Here are the take-away key messages from this lesson.

Lesson
3.5c

AOE-Combined Physical Terrain Factors

The Lesson

Starting the Lesson

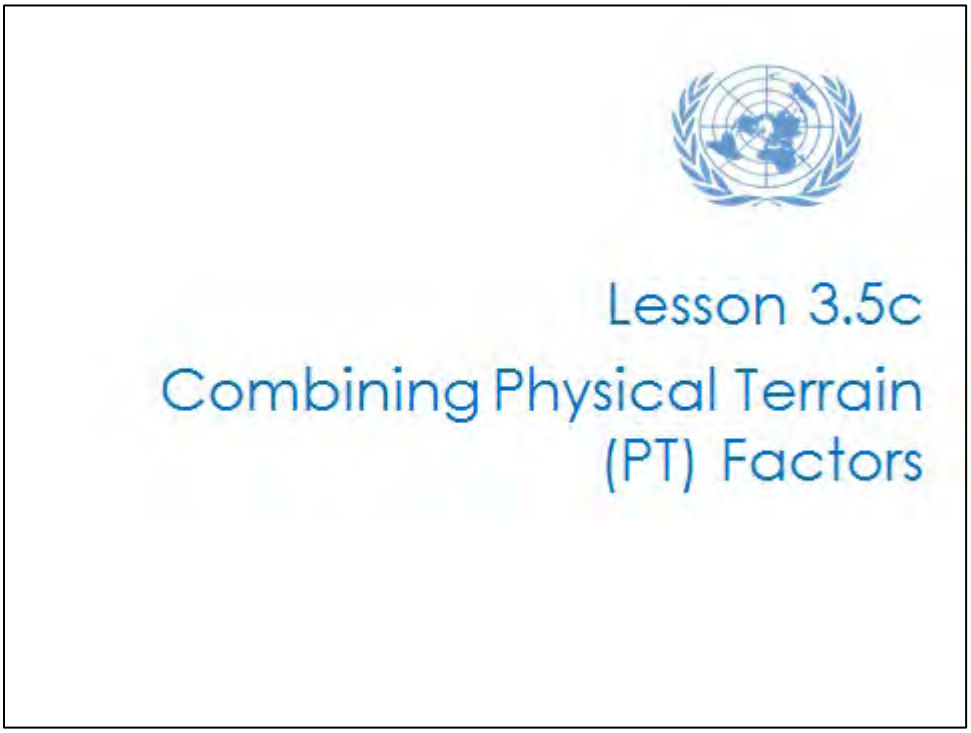
There may not be enough time for the students to produce a Combined Obstacle Overlay and a Mobility Corridor Overlay. Therefore, prepare "school solutions" of the overlays to be provided to the syndicates, thus refocusing the learning activities pertaining to the overlays so that the students analyse the prepared overlays (i.e. extract the "so what" from these overlays) and present their results in plenary.

Briefly review the content covered in the previous lesson on the analysis of the Physical Terrain – either by asking the students to explain the content of the previous lesson or by quickly highlighting the following:

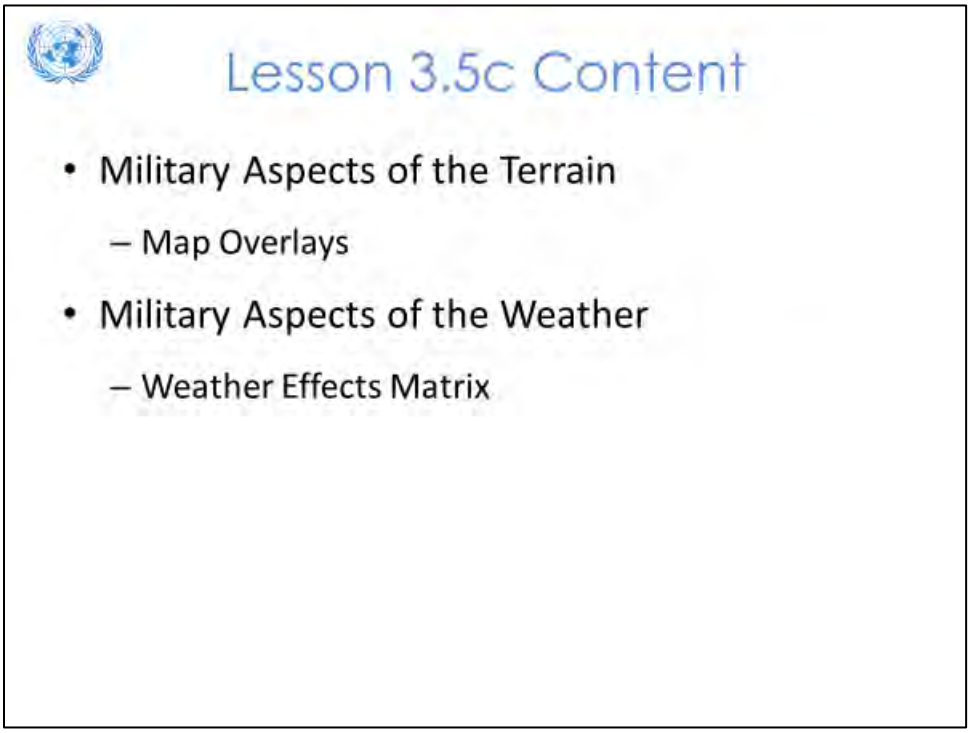
- What is the Area of Peacekeeping Intelligence Responsibility (APIR)?
- What is the Area of Peacekeeping Intelligence Interest (APII)?
- What are some important terrain features?
- What are land lines of communication (LLOCs) and water lines of communication (WLOCs) and why they are important?
- What is relief (Give examples)
- What is vegetation? (Give examples.)

This sets the stage for combining the physical terrain factors in order to determine how the physical terrain and weather conditions affect the courses of action of the actors in the UN Force's area of responsibility/operations.

Slide 1



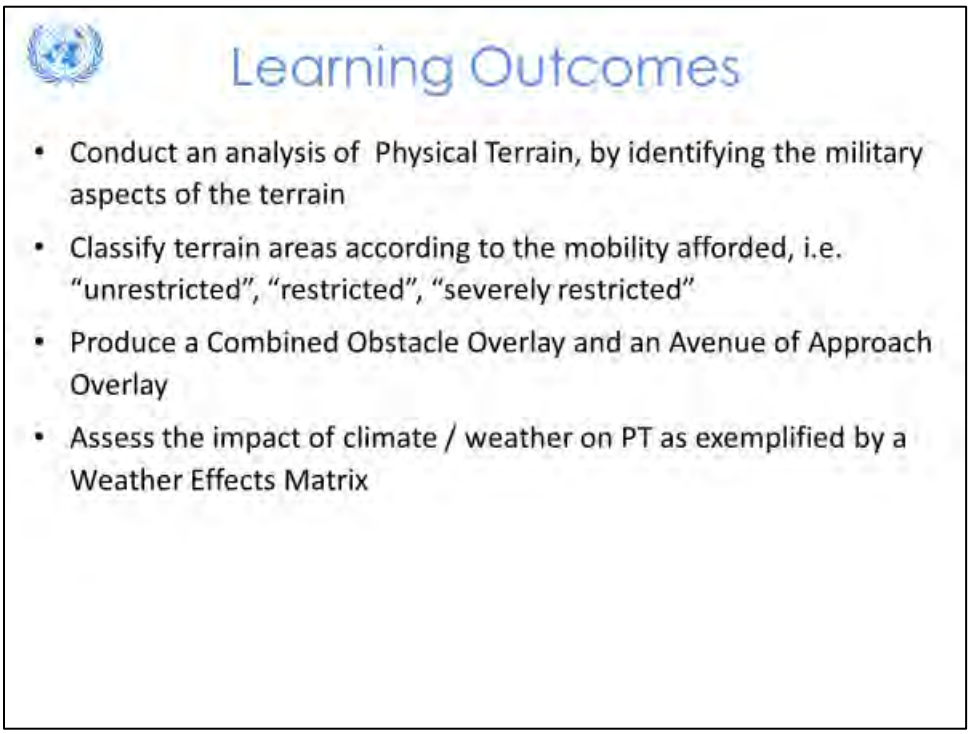
Slide 2



This lesson will cover the following topics:

- Terrain mobility, which is essentially the trafficability of the terrain by various means of transportation, for example by foot, beast of burden, different types of vehicles
- Cover and concealment, which is how the terrain can provide cover from the effects of different types of weapons, and concealment, which is how the terrain can hide personnel, weapons, facilities etc. from observation
- Key terrain and vital ground, which are important to the accomplishment of the UN Force's objectives as well as the objectives of various actors, especially hostile actors
- How to produce overlays
- The effects of weather and climate on the physical terrain

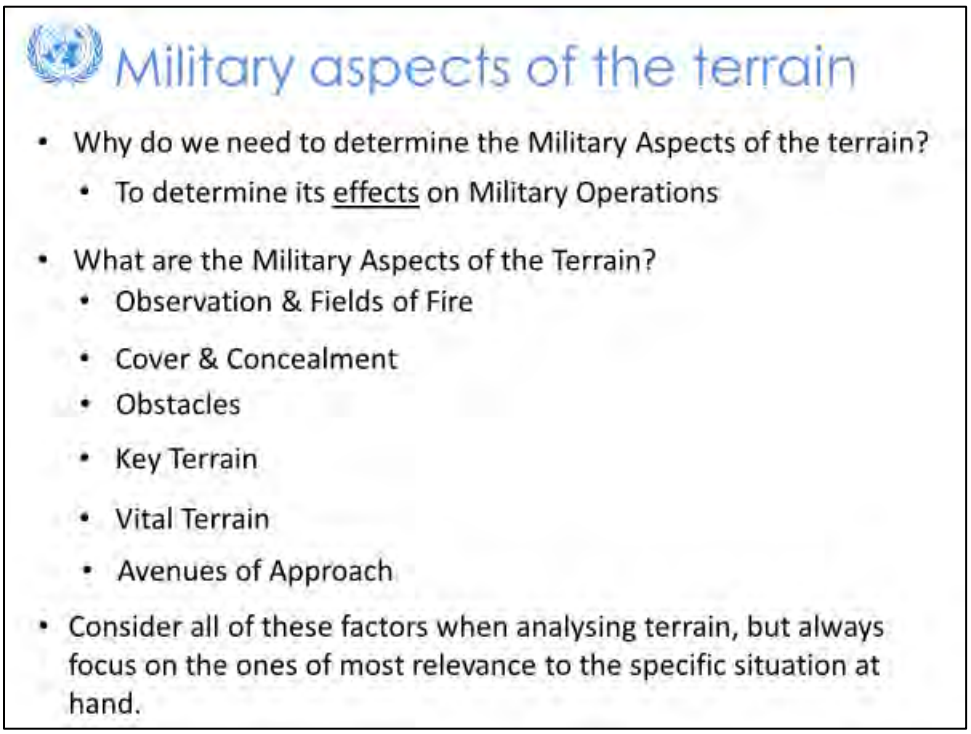
Slide 3



At the end of this lesson, you should be able to perform the actions described on the slide. Please take a moment to read and understand the requirements This may help you to focus on the most relevant aspects of the lesson

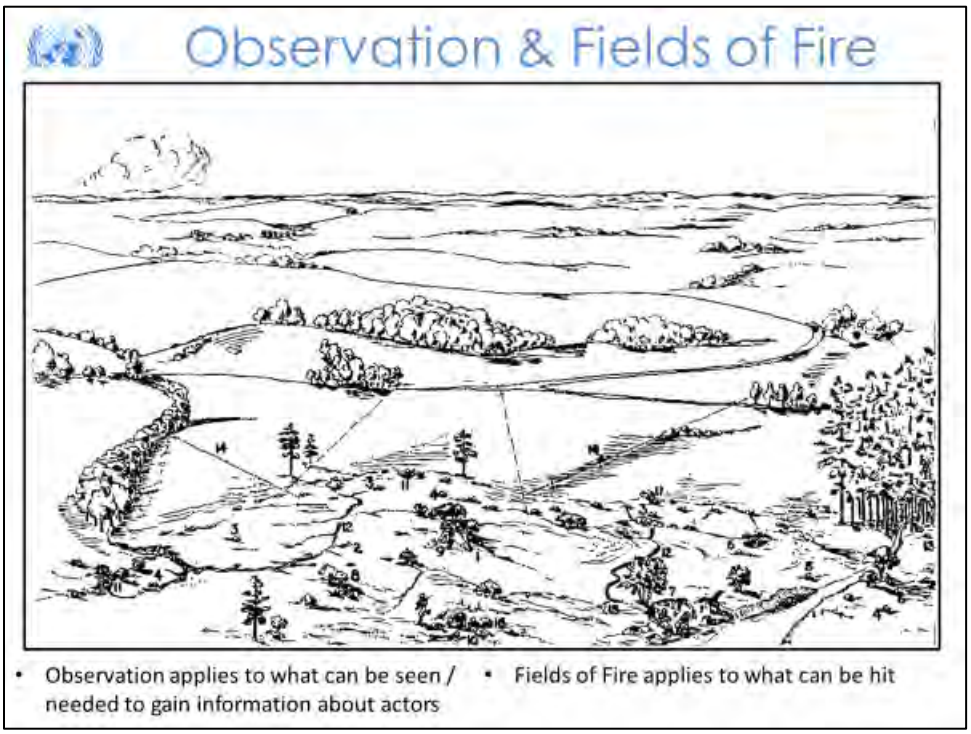
Of note, all these tools help us apply AOE products in support of the UN Military Decision-Making Process. Later, we will practice and apply these learning outcomes during the scenario-based exercise or table-top exercise (TTX) by using best-practice approaches in accordance with UN Military Peacekeeping Intelligence Doctrine.

Slide 4



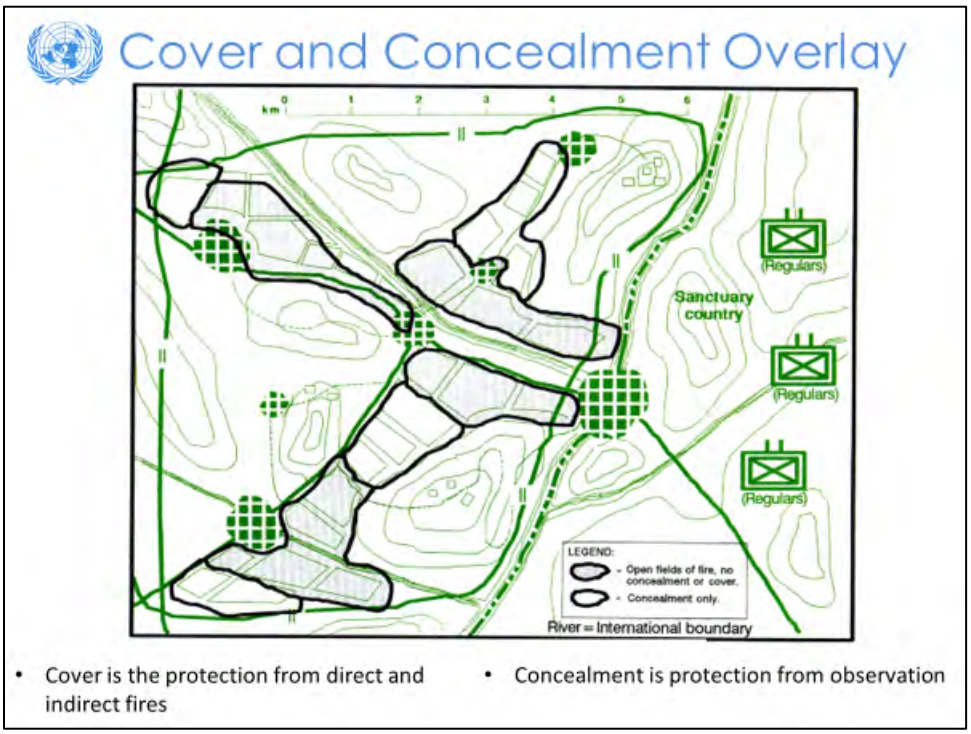
Aspects of the terrain is an integral part of the intelligence. PT plays a key role in any peacekeeping operation. PT provides a base for all intelligence operations, tactical and tactical operations. This slide lists the aspects of the terrain. We will cover these in more detail.

Slide 5



Observation is the ability to see over an area and is terrain dependent. More often, the best observation is gained from the highest terrain in an area. Fields of Fire is an area a weapon can effectively be used at its full potential from a given location.

Slide 6



Key Message: The cover and concealment overlay identify areas where UN Forces and (threat) actors can use the terrain for protection from observation or surveillance and from the effects of fires.

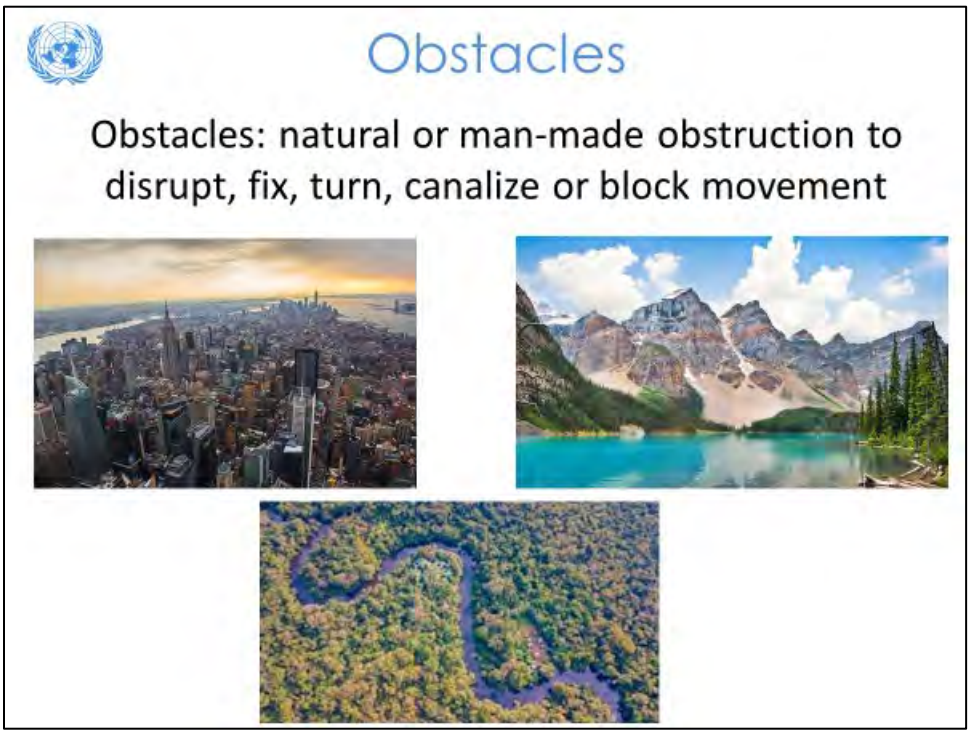
The cover and concealment overlays are used to identify areas where UN Forces and (threat) actors can use the terrain to remain concealed and thus protected from observation or surveillance and/or areas where the terrain provides protection from the effects of direct-fire and indirect fire weapon systems.

This is particularly useful when identifying likely routes (avenues of approach/mobility corridors), locations for observation posts/reconnaissance positions, or likely firing positions – depending, of course, on the situation (the type of mission/task and the direction of movement) and the purpose of the likely operation.

Cover and concealment overlays are a critical part of establishing a new Forward Operating Base (FOB).

Interaction. *Ask students why a cover and concealment overlay would be important to establishing a FOB? Responses should include the following: areas offering good cover could be used as Threat Actor fire positions, and areas offering good concealment could be used as form up areas or avenues of approach to a UN FOB.*

Slide 7



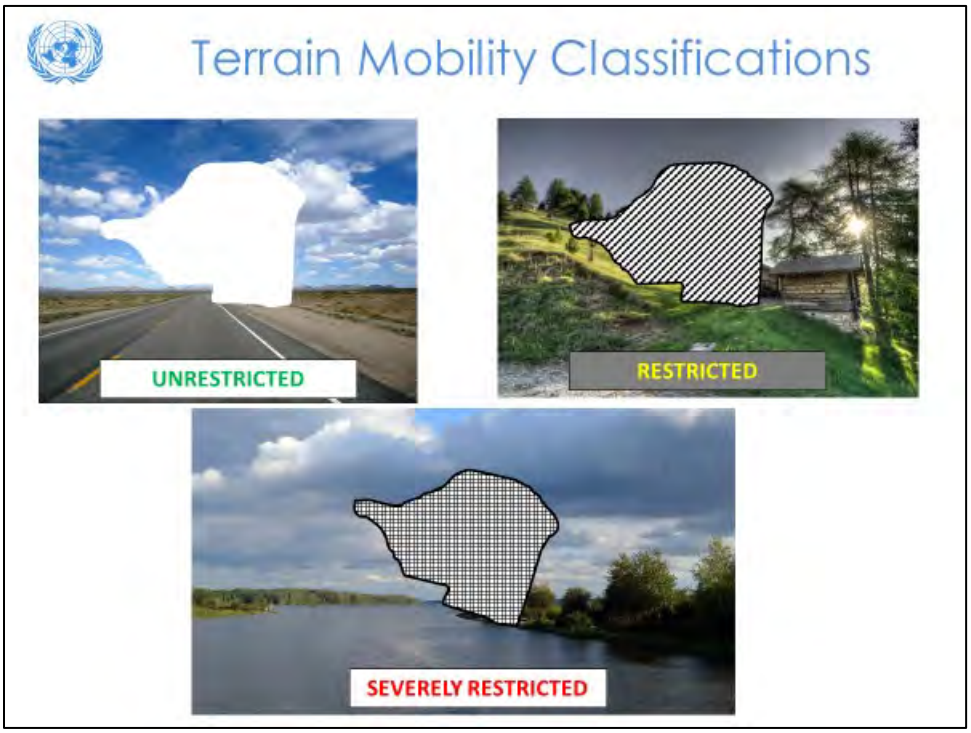
Key Message: An obstacle is any natural or man-made obstruction to disrupt, fix, turn, canalize or block the movement of a group.

An obstacle is any natural or man-made obstruction to disrupt, fix, turn, canalize or block the movement of a UN Force or (opposing) group.

Therefore, the G3 (operations) and G5 (planning) staffs should be supported with information on obstacles within the OE that can impact on own operations and actions. All obstacles hinder movement and, as such, should be represented on a map.

Interaction. *Ask the students to list obstacles to a movement that they can think of. Responses include mountains, cliffs, deep rivers and lakes, dense forests, urban areas etc.*

Slide 8



Key Message: Terrain may be classified according to the mobility it offers as having unrestricted, restricted or severely restricted mobility. This is often how obstacles to movement are depicted.

When analysing terrain factors and obstacles together, the mobility offered in terrain can be classified as:

UNRESTRICTED: Terrain over which movements of UN Forces or actor groups (like opposing armed groups or refugees) is not affected by the ground, vegetation, natural and man-made obstacles. Unrestricted terrain is not marked on overlays. – If it's clear on an obstacle overlay, then it's unrestricted terrain.

RESTRICTED: Terrain over which movements of UN Forces or actor groups is only possible at reduced speed, is canalized, or will be possible only with the assistance of additional non-organic assets like improvised bridges. E.g. steep ground, swamps / riverbeds etc. Hatching (without crossed lines) indicates restricted terrain on overlays.

SEVERELY RESTRICTED: Terrain over which movements of UN Forces or actor groups being assessed as impractical, for example, rivers that cannot be crossed/forded, known minefields. Cross-hatching is used to indicate severely restricted terrain on overlays.

Students should remember that the hatching shown will be blue for water obstacles. Remember that terrain that is restricted or severely restricted for motor vehicles may be unrestricted for personnel on foot (infantry).

Slide 9

Key Message: Key terrain is any locality, or area, that gives an advantage to either UN Forces or forces in opposition to or hostile to UN Forces.

In natural terrain characterized by terrain features that restrict mobility, the high ground can be key terrain because it provides good fields of observation (positioning of spotters and forward observers) and fields of fire and can be used to establish and maintain communications. The painting depicts the high ground at Little Round Top, which was key terrain during the Battle of Gettysburg in the American Civil War in 1863.

Key Terrain is denoted as a circled K on a map. In this case, we use the colour purple.

Interaction. *Ask students what they think key terrain features are? Responses could include:*

- *Hilltops could dominate avenues of approach with observation and fire*
- *In an open or arid environment, a draw – as shown in the photograph to the right – or a wadi can be key terrain because it offers good cover and concealment*

- *In urban environments, infrastructure (such as bridges, medical facilities, choke points, intersections, industrial complexes) can be considered key terrain*

Slide 10

Key Message: Vital Ground is terrain of such importance that it must be retained or controlled for the success of the mission.

The vital ground is a terrain feature of such importance that it must be occupied and held to ensure it is free of hostile occupation or use. Control of vital ground is essential to the success of the mission or operation.

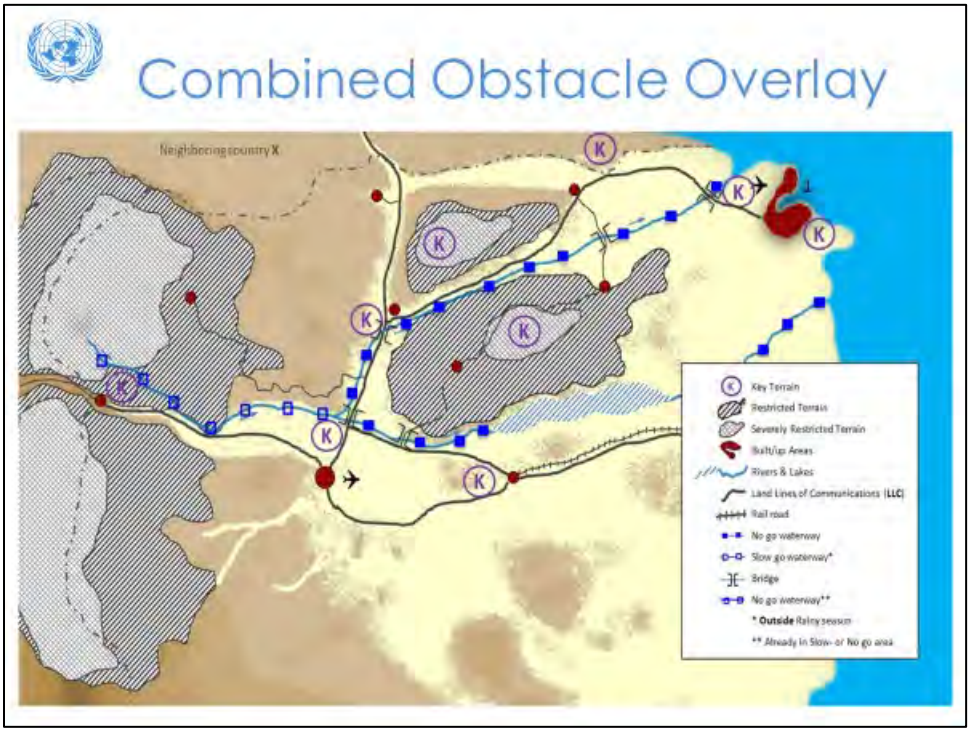
The vital ground is denoted using a circled V, as shown. In this case, we use red to highlight it as a vital ground.

Interaction. *Ask students what vital ground could be? Responses could include:*

- *An area or piece of terrain illustrated by the painting from the Battle of Gettysburg. If the Confederate Army (the army of the Southern states) had captured/seized Little Round Top, the Union forces would almost surely have lost the battle*
- *An urbanized area or facility as shown by the soldier on patrol in a village*

- *In arid, hot environments, water sources and oases could even be considered as 'vital ground',*

Slide 11



Key Message: The initial result of the terrain analysis is the Combined Obstacle Overlay, which amalgamates the Lines of Communication overlays, vegetation overlay, relief overlay, key terrain overlay, obstacle overlay etc.

The initial result of the terrain analysis is the Combined Obstacle Overlay, which integrates all impediments to mobility, such as built-up areas, slope, soils, vegetation, and hydrology into one overlay. This overlay also allows the UN staff to visualize impediments to mobility for both UN and hostile/threat forces. The overlay depicts areas that impede mobility (severely restricted and restricted areas) and areas where friendly and threat forces can move unimpeded (unrestricted areas).

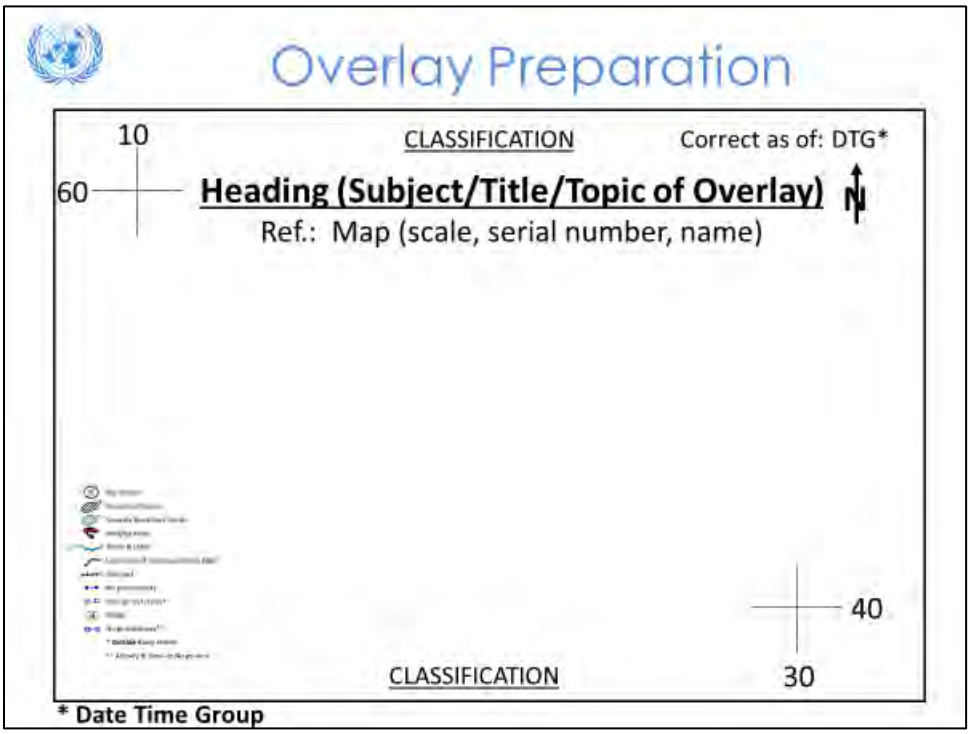
The combined obstacle overlay provides a basis for identifying ground avenues of approach (AAs) and mobility corridors (MCs), which are shown on the Mobility Corridor Overlay.

The Combined Obstacle Overlay on the slide shows:

- Key facilities.
- Landlines of communication.
- Water lines of communication.
- Obstacles to movement, which incorporates relief, vegetation, and other natural and manmade obstacles. Terrain areas where mobility is restricted or severely restricted.
- Key terrain.
- Vital ground.

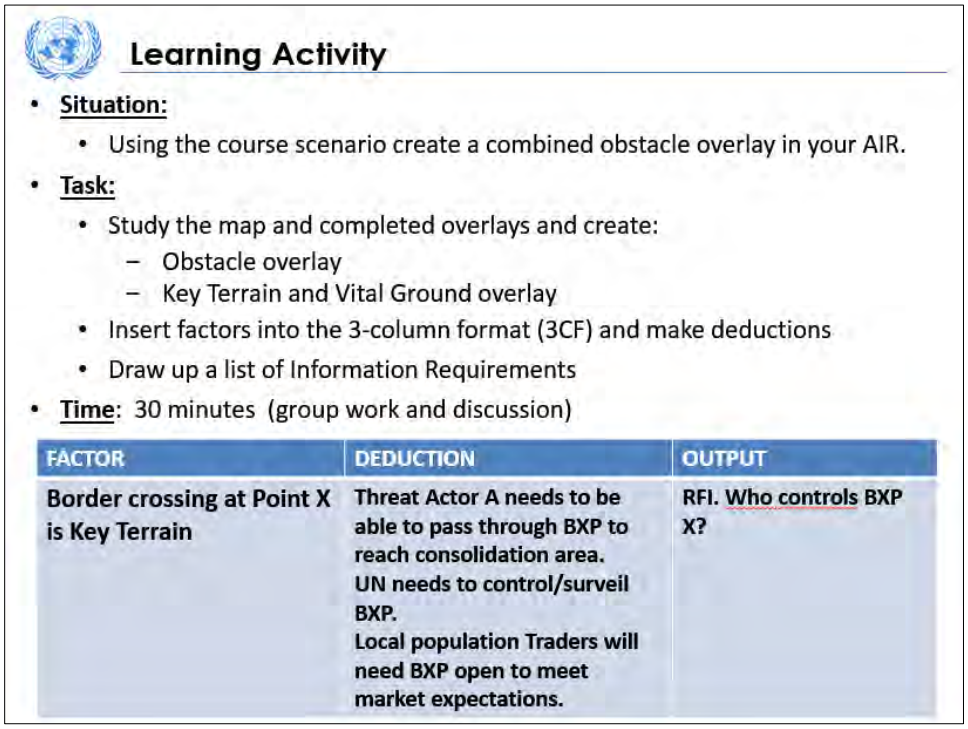
Cover and concealment maps are not generally used on such a large-scale map and are better suited to tactical operations in smaller, better-defined AORs, for example during FOB occupation of a defensive/offensive operation.

Slide 12



This slide is an example of an overlay and some key areas for preparation.

Slide 13



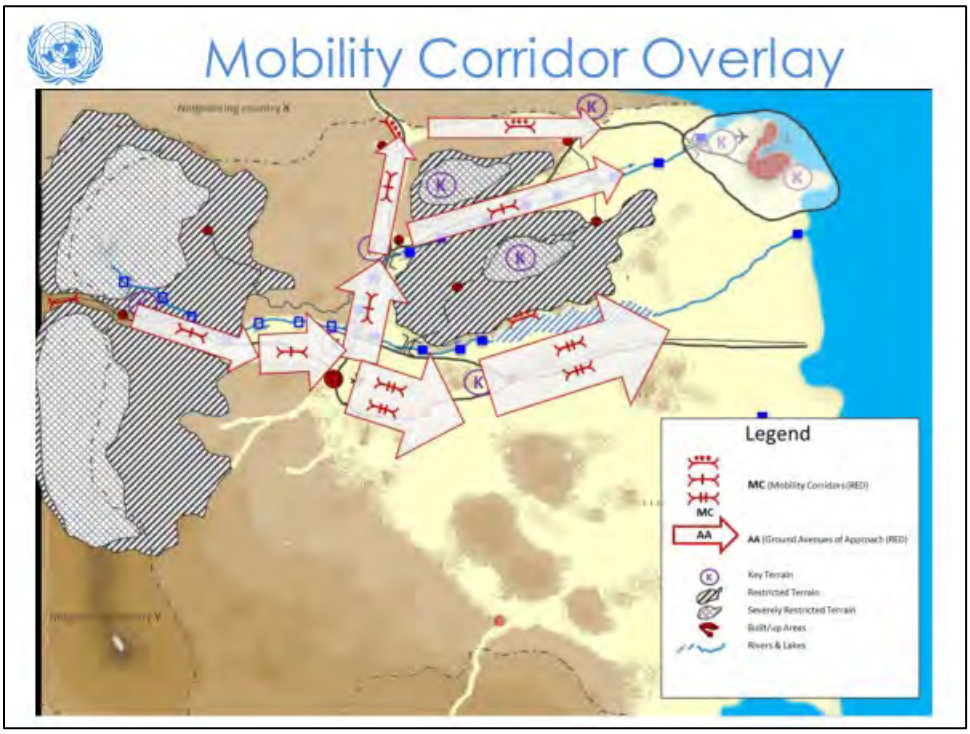
Working in syndicate groups have participants review the slide and then discuss. Have syndicate groups brief the results of their discussions in plenary. Have them use their sector information and mapping to identify obstacles, including key terrain and vital ground.

Create a combined obstacle overlay, paying attention to severely restricted, restricted and unrestricted terrain and mark key terrain and vital ground on an overlay.

On a different overlay, mark areas of cover and concealment on map. Transfer the factors to the 3-column format and make deductions.

***Note to Instructor**- The emphasis should be on creating the above products. Students may not have enough time to complete the next phase. As part of the output, the instructor should ask students to identify RFIs that patrols or other sources of information can be tasked to confirm.*

Slide 14



Key Message: The Mobility Corridor Overlay is produced after an analysis of the information contained in the Combined Obstacle Overlay. It is an AOE product used to depict the militarily significant aspects of the OE and identify mobility corridors

Mobility corridors are areas where a force will be canalized due to terrain restrictions. They allow military forces to exploit the principles of mass and speed and are therefore relatively free of obstacles.

The Mobility Corridor Overlay is an AOE product used to depict the militarily significant aspects of the operational environment, such as obstacles restricting military movement, key geography, and military objectives. The Mobility Corridor Overlay is tailored to the mission and is a collaborative effort involving input from the entire UN Force staff.

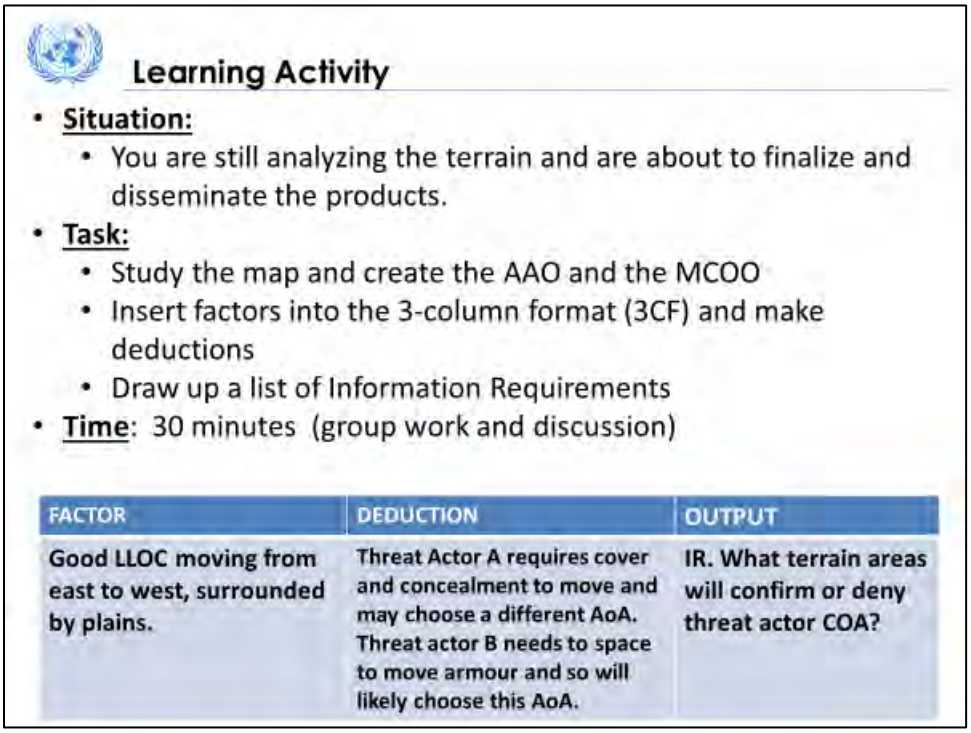
The staff uses its functional expertise to determine how the terrain will impact on that function. For example, the Communications Officer (S-6) provides input on how the terrain may affect line-of-sight communications for friendly and threat forces.

Specific aspects of the Mobility Corridor Overlay include but are not limited to avenues of approach, key terrain, mobility corridors, natural and man-made obstacles, and terrain mobility classifications. The Mobility Corridor Overlay depicts the terrain according to the mobility classifications, which are severely restricted, restricted, and unrestricted as previously explained. This makes it possible to identify mobility corridors and avenues of approach, as shown on this slide.

As you can see from the legend, in this case, we have created Movement Corridors of platoon, company and battalion size. The type and size of unit designations will depend on the threat actor. For example, if we are dealing with a terrorist actor, they may choose to infiltrate using non-conventional means. This is where the Actor Evaluation, taught later on this course will inform this part of the process.

Interaction. *Ask students to point out where a full battalion can move according to this MC overlay and ask why they think this is the case. The response is the southern approach route as it the easiest terrain for a conventional force to move through.*

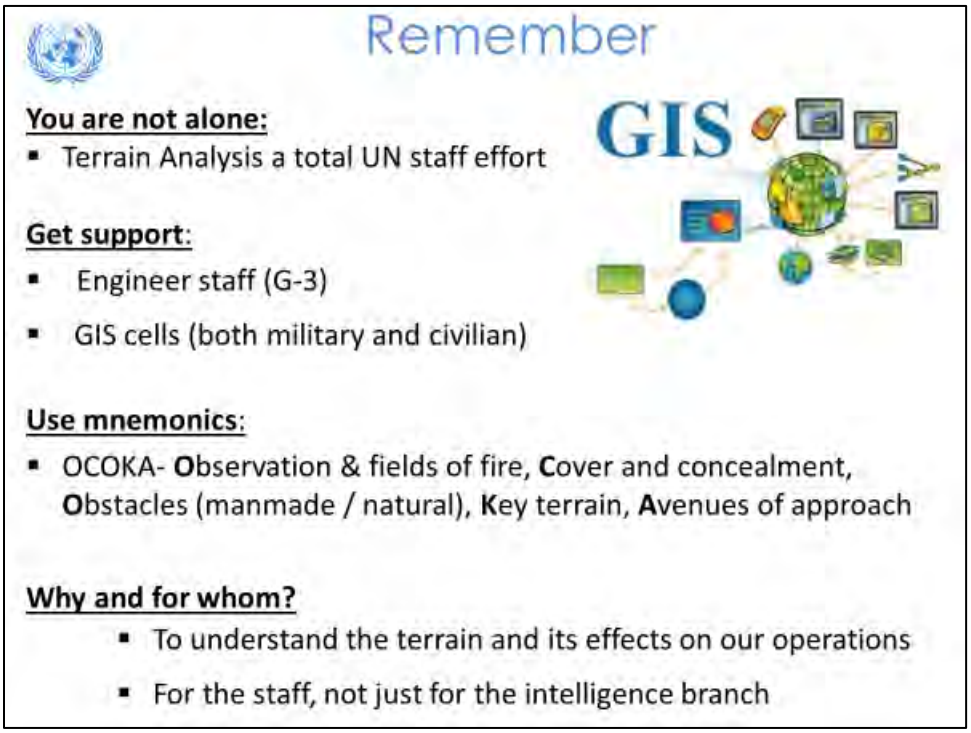
Slide 15



Working in syndicate groups have participants review the slide and then discuss. Have syndicate groups brief in plenary. Have them use their sector information and mapping to create a Mobility Corridor Overlay. Advise students to use a separate overlay to the Combined Obstacle Overlay. If students, ask why this is the case it is because an MPKI cell will have to use an MC overlay for specific actors in their AO. For example, IDPs may not care about key terrain, vital ground, or covered approaches that are tactically sound, but an adversary would.
Transfer the factors to the 3-column format and make deductions. Have students identified RFIs that patrols or other sources of information can be tasked to confirm.

***Note to Instructor**- The emphasis should be on creating the above products. Students may not have enough time to complete the next phase. As an output, the instructor should coach the students to help them identify Named Areas of Interest which are terrain areas that should be monitored to confirm or deny a COA.*

Slide 16



Key Message: Draw on expertise from engineers and from the GIS (geographic information systems) cells. Use the mnemonics ROBOT and OCOKA to ensure that the main physical terrain factors are covered in the analysis.

You are not alone! (Terrain Analysis is not solely a UN MPKI staff responsibility and effort.) Get support from:

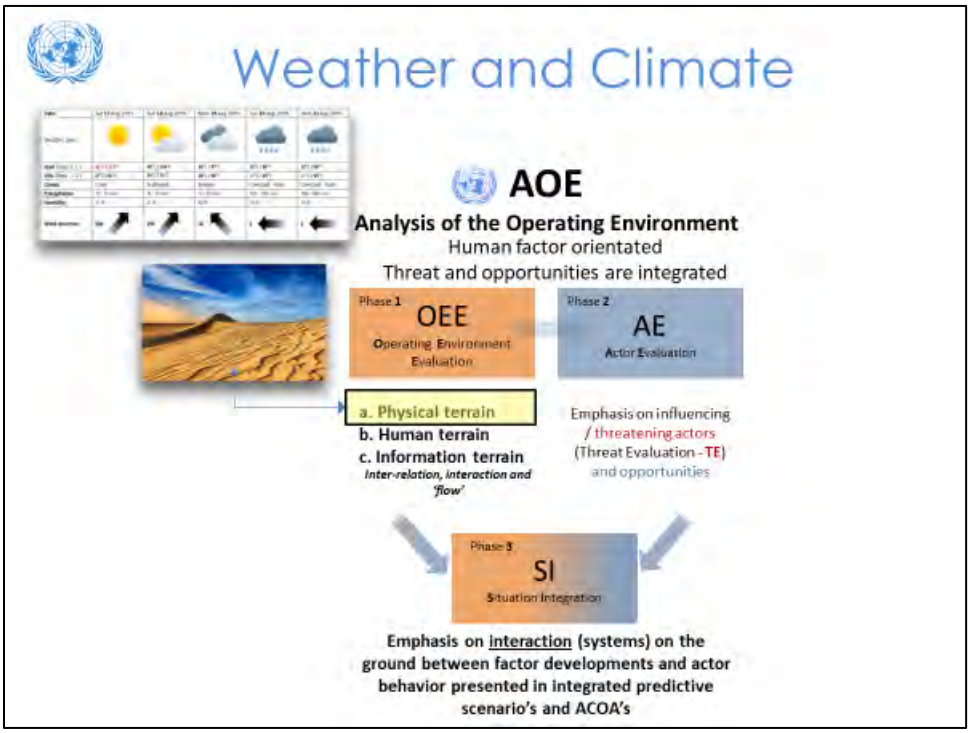
- Engineer staff (G-3); They are experts on bridges, roads, terrain mobility etc.
- GIS cells (both military and civilian) can provide you with mapping (analogue (printed) and/or digital)

For the inventory of the terrain using the mnemonics:

- ROBOT (Routes, Obstacles, Boundaries, Timings)
- OCOKA (Observation and fields of fire, Cover and concealment, Obstacles (manmade and natural), Key terrain and Avenues of approach)

On completion of your overall terrain analysis, these mnemonics can be used to analyse the terrain for a specific mission. This should ensure that you have covered the most important factors in the physical terrain analysis for a specific mission. For example, if you are asked to locate an FOB at a place, consider the terrain in detail using OCOKA. This will ensure you cover the pertinent points for such an operation.

Slide 17



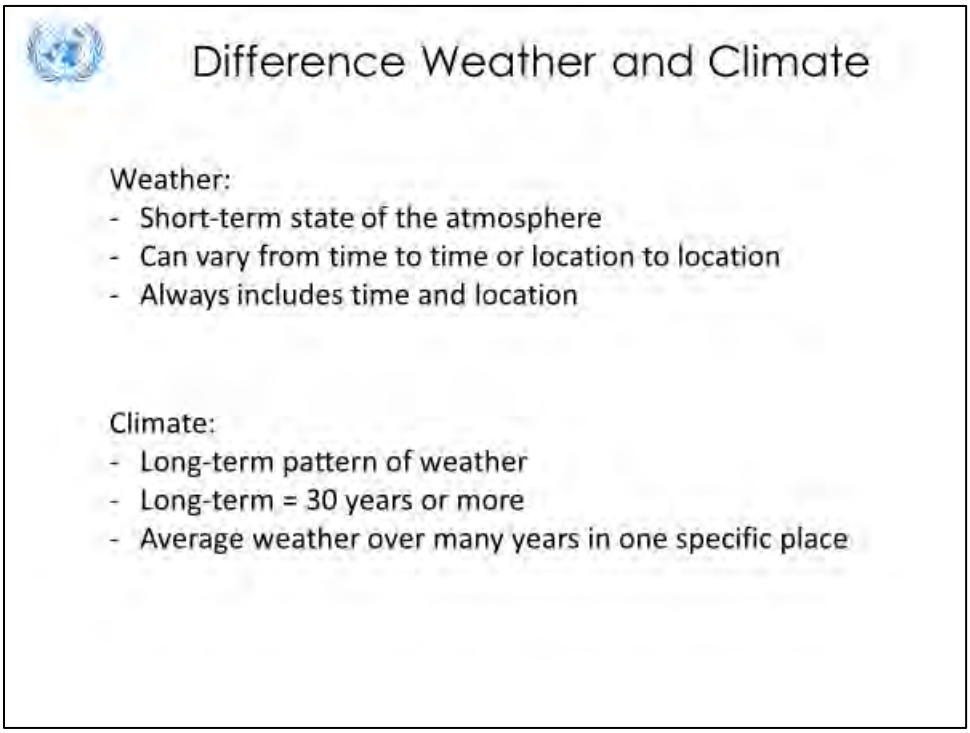
Key Message: Weather and climate affect the physical environment and must, therefore, be considered when evaluating the Operating Environment.

Slide Narrative:

Weather and climate affect the physical environment and must be considered when evaluating the Operating Environment. Therefore, no analysis of the Physical Terrain is complete without analyzing the effects of weather and climate on the various physical terrain factors.

The weather matrix is one of the "Golden Products" that must continuously be updated and assessed based on the most recent weather forecasts during the planning and conduct of UN operations.

Slide 18



Key Message: The difference between weather and climate: Weather is short term; the climate is general with long term characteristics and short-term changes.

Ask the students what the difference between weather and climate? Responses are below:

- *Weather is the way the atmosphere is behaving, mainly with respect to its effects upon the actors and factors in the terrain*
- *Weather is about the short-term (minutes to weeks) changes in the atmosphere (temperature, humidity, precipitation, cloudiness, brightness (sunshine), visibility, wind, and atmospheric pressure (high- and low-pressure areas), etc.*
- *Climate is the average of weather over time and space, the long-term pattern of weather in a geographical area*

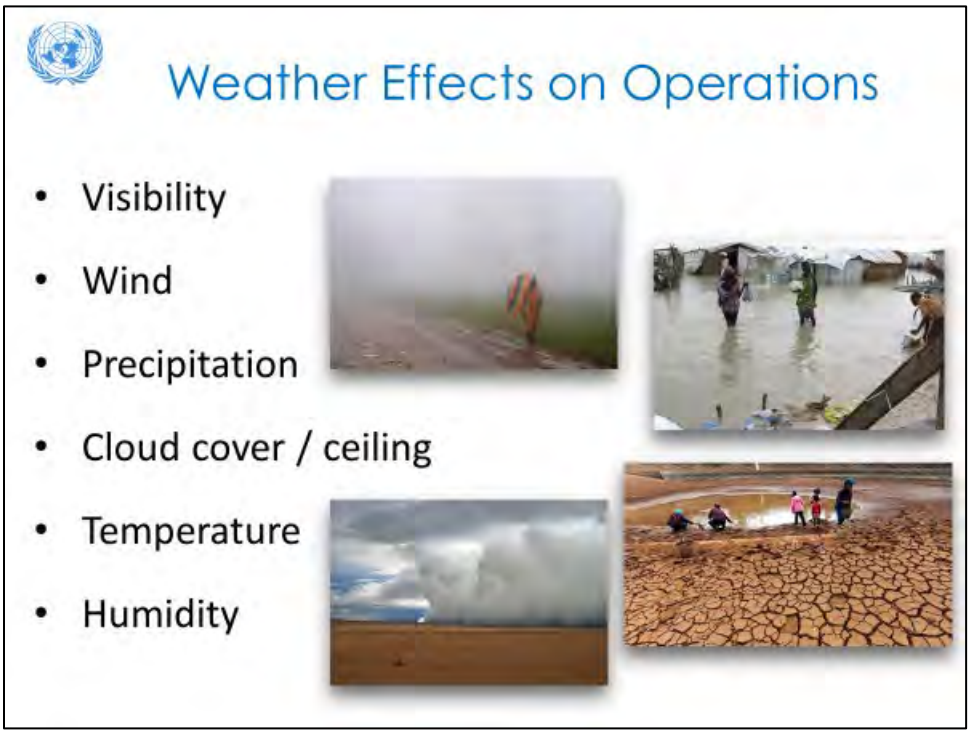
- *An easy way to remember the difference is that climate is what you expect, like a very hot summer, and the weather is what you get, like a hot day with pop-up (pulse) thunderstorms*

- *There are long-term climate changes due to the increase in carbon dioxide levels in the atmosphere, and short-term climate changes due to phenomena like El Niño, volcanic eruptions or other environmental changes in the physical Operating Environment within the Area of Operations or to the Earth's atmosphere, landmasses and oceans.*

- *Both climate and weather should be analysed by the MPKI section.*

- *El Niño is the warm phase of the El Niño – Southern Oscillation (ENSO), which is the cycle of warm and cold sea surface temperatures of the tropical central and eastern Pacific Ocean. It can result in intense storms in some places and droughts in other places.*

Slide 19



Key Message: Weather affects military operations in a number of areas: visibility, wind, precipitation, cloud cover/ceiling, temperature, humidity etc.

Visibility:
A major factor in evaluating visibility is the amount of available light based on weather conditions and illumination (time and amount of sunlight and moonlight).
Other factors affect visibility, too: clouds, temperature, precipitation, sandstorms. Negative effects of poor visibility are the reduced range of sight (both human and sensors) that also complicates command and control, reconnaissance, patrolling and acquisition of information by technical and human means. However, reduced visibility also provides UN Forces – as well as armed groups – with the opportunity of surprise.

Wind:
Wind of enough speed from any direction can reduce operational effectiveness Strong winds limit airborne, rotary-wing, medical evacuation (MEDEVAC) and other aviation activities including unmanned aerial system (UAS) flights. Strong wind can affect the movement or stability of materiel (arms, vehicles, equipment). Blowing sand, dust, rain, or snow can reduce the effectiveness or stability of radars, antennas, communications and other electronic devices.

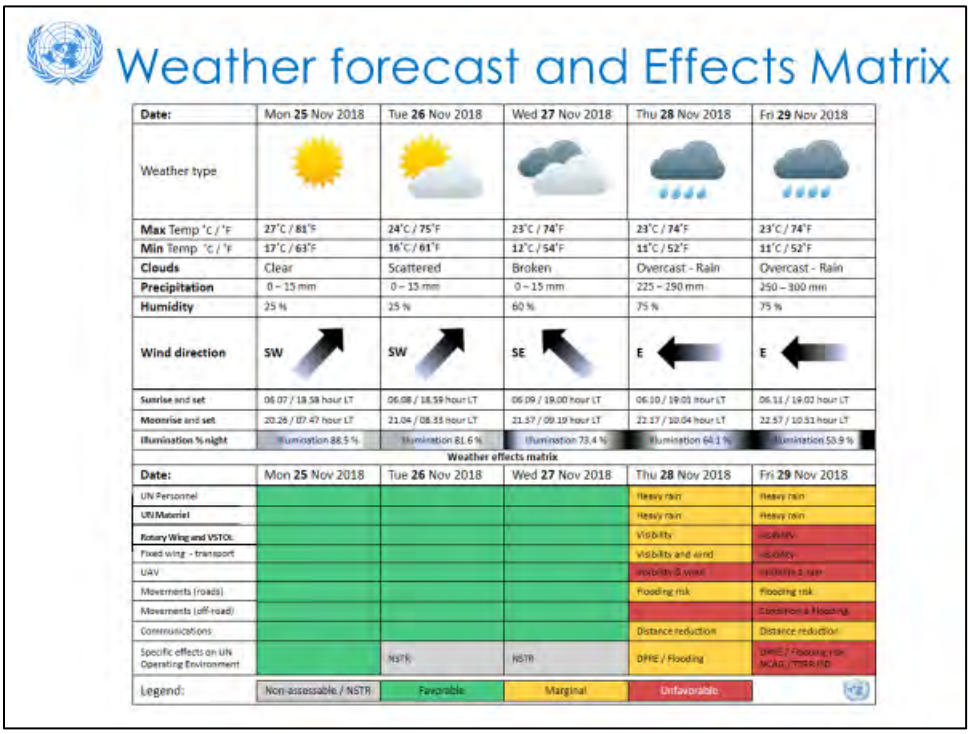
Precipitation:
Precipitation is any moisture falling from a cloud in frozen or liquid form. Rain, snow, hail, drizzle, sleet, and freezing rain are common types of precipitation. Precipitation affects soil trafficability, visibility, and the functioning of many electro-optical systems. Heavy precipitation can have an effect on sustainment, communications, personnel, military operations, and many civilian activities. Long-lasting precipitation can lead to unwanted and uncontrollable flooding.

Cloud cover and fog:
Cloud cover affects ground operations by limiting illumination and could affect the thermal signature of targets. Heavy cloud cover can degrade many intelligence sensors and target acquisition systems and general aviation operations. Local visibility restrictions, such as fog can have an effect on observation for both UN Forces and other actors, including terrorist armed groups and hostile groups. It may limit or restrict safe aviation operations.

Temperature:
Temperature extremes can reduce the effectiveness of troops and equipment. It can affect the population's living conditions and even survival. Temperatures may affect the timing of operations. For example, extremely high temperatures in a desert environment may require dismounted troops to operate at night or restrict them to operate for a limited period. High temperatures can also affect the lift capability of medium rotary-wing aircraft in high altitudes and elevations. High temperatures also can increase fuel consumption in vehicles, cause overheating, and lower electrical output. Drought can cause famine and lack of drinking water, and thus threaten the survival of vulnerable civilian population groups.

Hot, dry weather might force friendly, population and opponent forces to consider water sources as key terrain. UN operations and mandated tasks (core business and support to Peacebuilding activities, support roles and cross-cutting thematic tasks) are highly influenced by weather and climate in positive or negative ways.

Slide 20



Weather forecast and Effects Matrix

Date:	Mon 25 Nov 2018	Tue 26 Nov 2018	Wed 27 Nov 2018	Thu 28 Nov 2018	Fri 29 Nov 2018
Weather type					
Max Temp °C / °F	27°C / 81°F	24°C / 75°F	23°C / 74°F	23°C / 74°F	23°C / 74°F
Min Temp °C / °F	17°C / 63°F	16°C / 61°F	12°C / 54°F	11°C / 52°F	11°C / 52°F
Clouds	Clear	Scattered	Broken	Overcast - Rain	Overcast - Rain
Precipitation	0 – 15 mm	0 – 15 mm	0 – 15 mm	225 – 250 mm	250 – 300 mm
Humidity	25 %	25 %	60 %	75 %	75 %
Wind direction	SW	SW	SE	E	E
Sunrise and set	06:07 / 18:58 hour LT	06:08 / 18:59 hour LT	06:09 / 19:00 hour LT	06:10 / 19:01 hour LT	06:11 / 19:02 hour LT
Moonrise and set	20:26 / 07:47 hour LT	21:04 / 08:33 hour LT	21:37 / 09:19 hour LT	22:17 / 10:04 hour LT	22:57 / 10:51 hour LT
Illumination % night	Illumination 88.5 %	Illumination 81.6 %	Illumination 73.4 %	Illumination 64.1 %	Illumination 53.9 %

Weather effects matrix

Date:	Mon 25 Nov 2018	Tue 26 Nov 2018	Wed 27 Nov 2018	Thu 28 Nov 2018	Fri 29 Nov 2018
UN Personnel				Heavy rain	Heavy rain
UN Materiel				Heavy rain	Heavy rain
Rotary Wing and VSTOL				Visibility	Visibility
Fixed wing - transport				Visibility and wind	Visibility
UAV				Visibility & wind	Visibility & rain
Movements (roads)				Flooding risk	Flooding risk
Movements (off-road)					Extensive Flooding
Communications				Distance reduction	Distance reduction
Specific effects on UN Operating Environment		NSTR	NSTR	DPRE / Flooding	DPRE / Flooding risk MCAD / TSSR IED
Legend:	Non-assessable / NSTR	Favorable	Marginal	Unfavorable	

Key Message: The Weather Effects Matrix is one of the "Golden Products".

The Weather Effects Matrix is one of the "Golden Products", as the information contained in it has a direct impact on operations.

It is constructed by placing the date and weather forecast across the top. All pertinent detail should be included: rainfall, temperature, cloud cover, sunrise, sunset, moonrise, illumination at night, and humidity at a minimum.

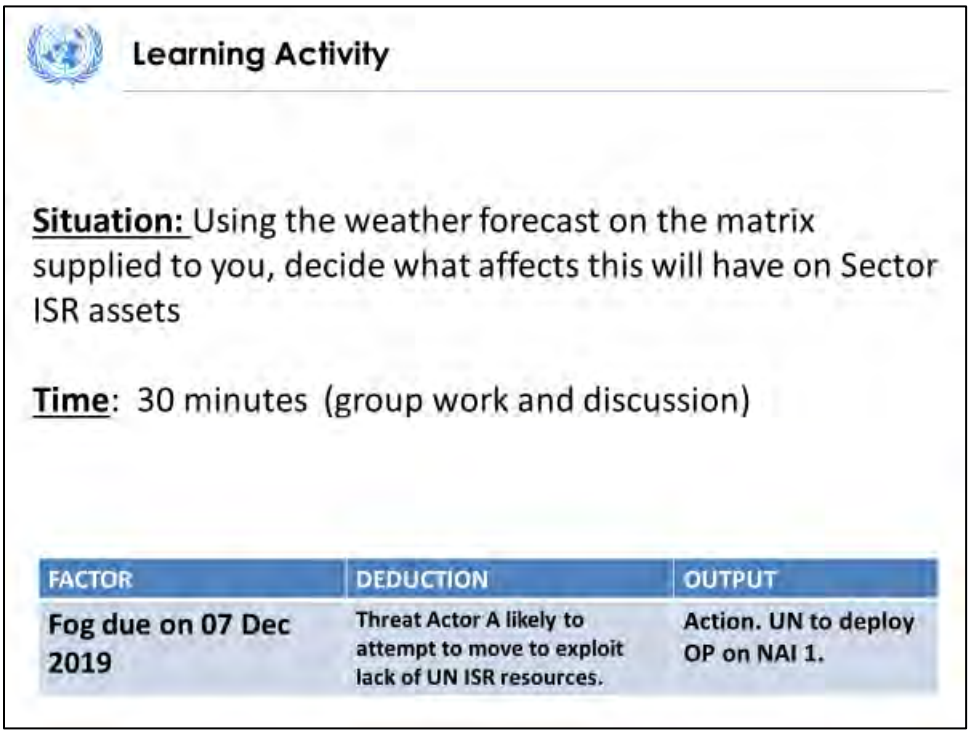
The side is a close-up of the Weather Effects Matrix. Effects can be weighed against any factor. In this case, we have chosen personnel, material, unmanned aerial (or aircraft) systems (UAS), air transport (fixed and rotary wing), movement, communications etc.

The colour-coding used is:

- Grey = non-assessable or nothing special to report (NSTR)
- Green = favorable
- Yellow (amber) = marginal (some impact, which is described in the box)
- Red = unfavourable (adverse impact, which is described in the box)

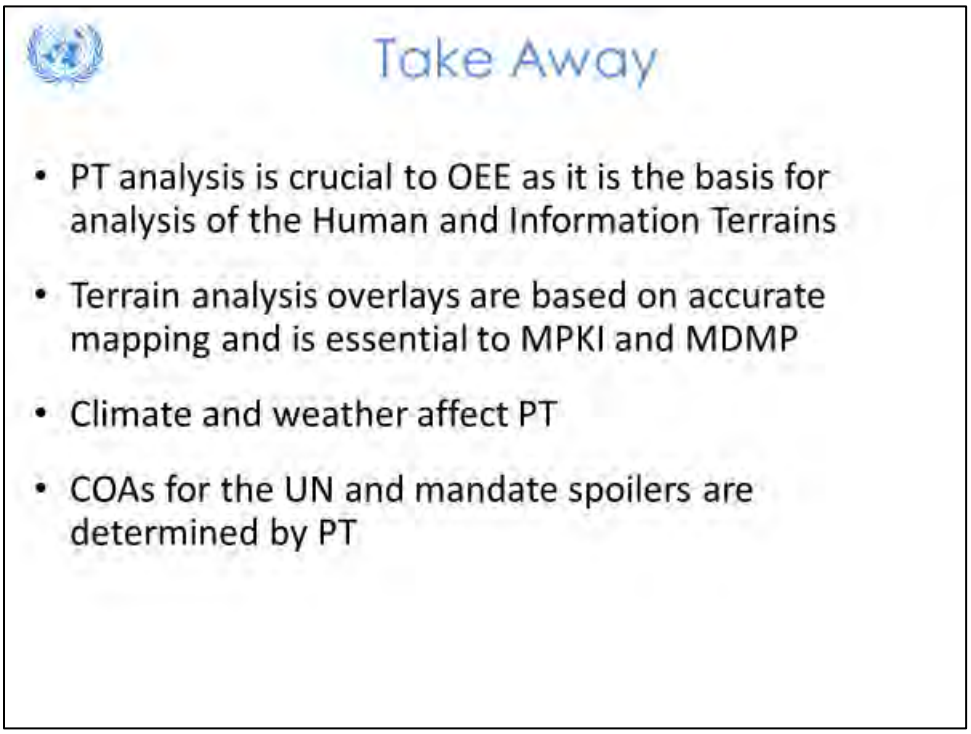
***Interactive**. Ask the class how the weather could impact a UAS, radio communications, movement. Then ask students how the effects of the weather might have a consequence for threat actor COA selection? Responses here include that the threat actor may choose to wait until 28 and 29 Nov to act, considering UN visibility will be degraded.*

Slide 21



Divide students into syndicate groups. Ask them to use the weather matrix supplied to define the impact on UN forces. Ensure students use the 3-column format to define so what from a threat actor perspective. Hand out a weather matric with varying weather for 5 days. If laptops are available, this can be given to them electronically.

Slide 22



Summary

It is important that you understand these take away messages in this lesson.

- PT analysis is crucial to OEE as it is the basis for analysis of the Human and Information Terrains
- Terrain analysis overlays are based on accurate mapping and it is essential to MPKI and the UN MDMP
- Climate and weather affect PT
- COAs for the UN and mandate spoilers are determined by PT

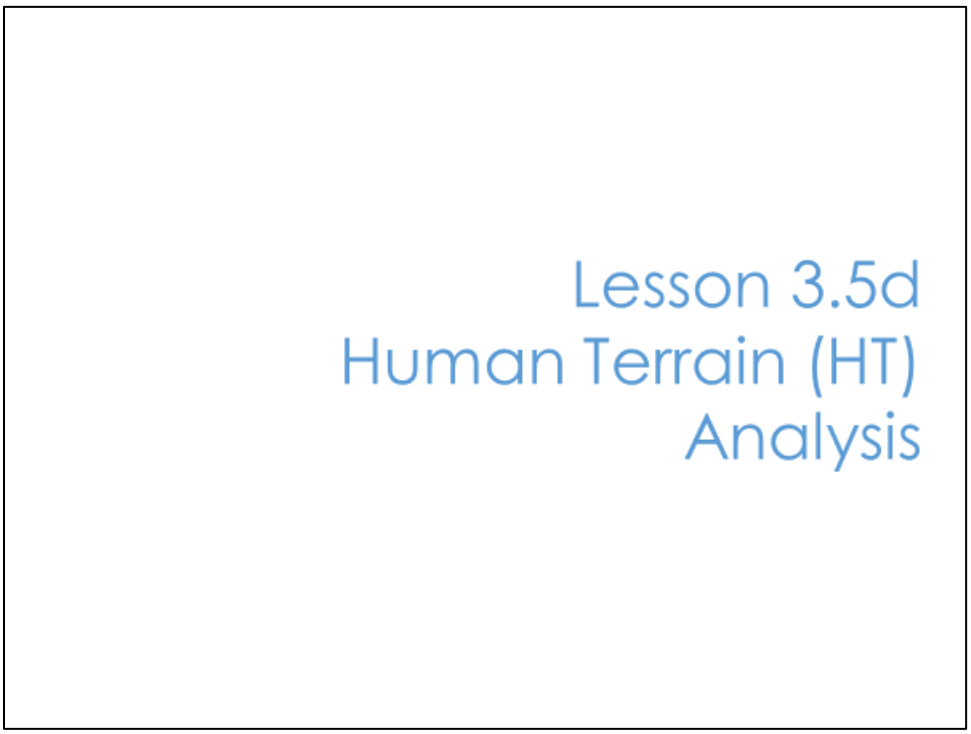
Lesson
3.5d

AOE- Human Terrain (HT) Analysis

The Lesson

Starting the Lesson

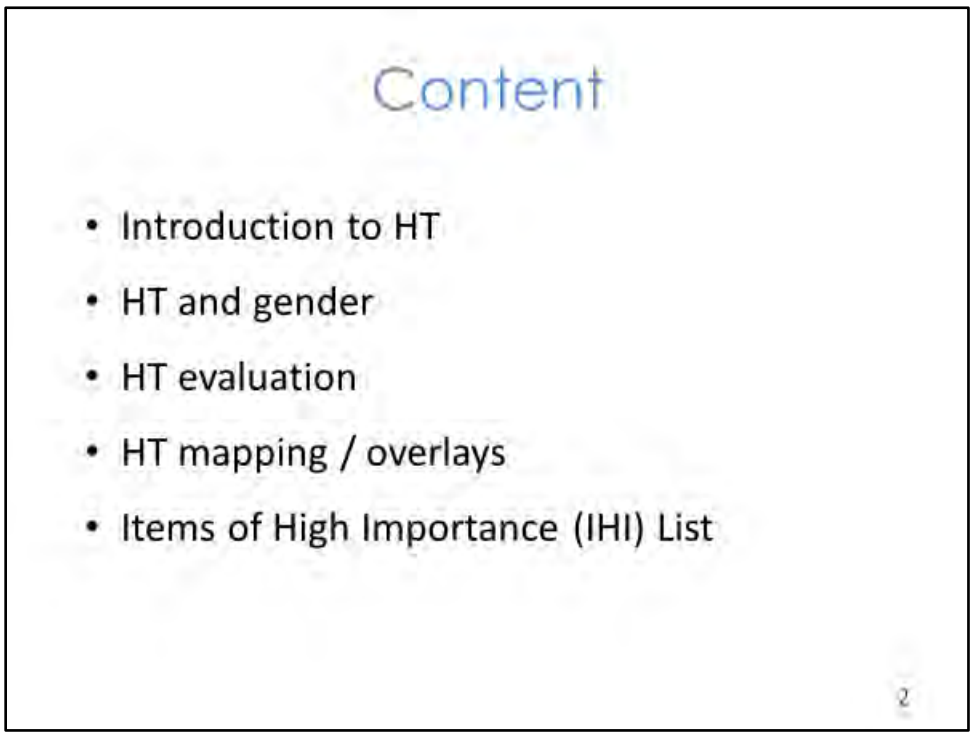
Slide 1



Human Terrain analysis is a vital component of the Analysis of the Operating Environment.

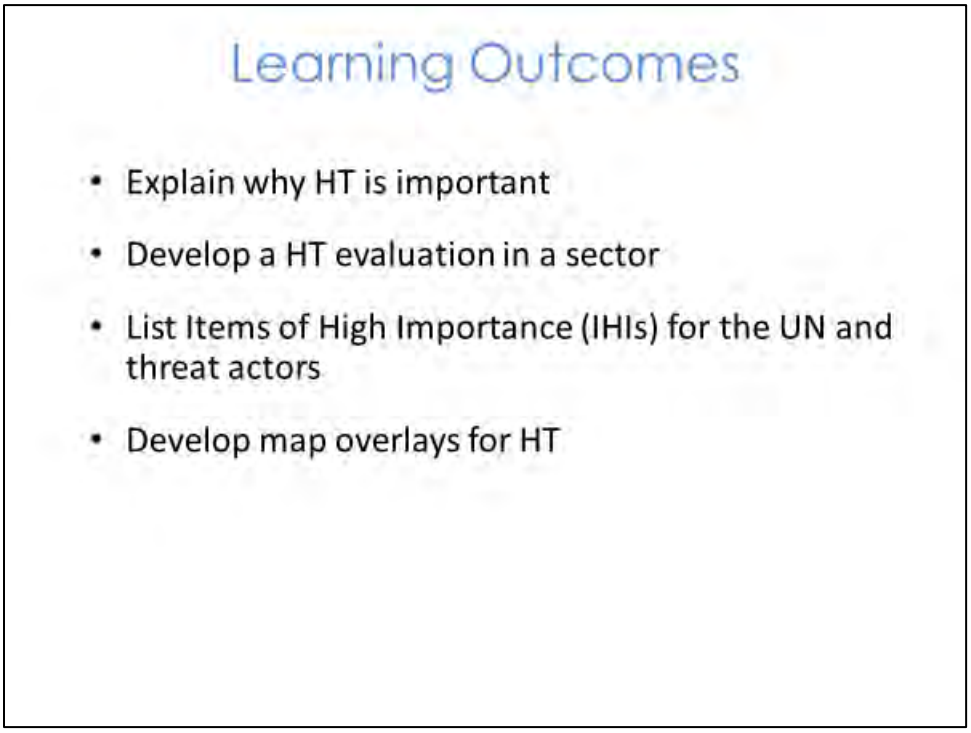
It is the point at which understanding is developed about the local population in the Area of Operations, and how the population interacts with and is affected by the characteristics of the physical and information terrain.

Slide 2



These are the topics we will cover during this lesson

Slide 3



Let's review the learning outcomes for the lesson. By the end of this lesson, you will be able to conduct these learning outcomes.

Slide 4

The Human Terrain encompasses all elements of the population living or operating in the Area of Peacekeeping Intelligence Responsibility. The Intelligence officer must understand the role and presence of different population groups within the APIR and how they may affect and be affected by UN operations.

Interaction. *Ask the class to volunteer the various categories of human terrain that the Intelligence officer should consider. The types of responses that are sought are as follows:*

- *Threat groups*
- *Local political groups*
- *Religious groups*
- *Vulnerable sections of the population such as women, children, disabled, ethnic minorities*
- *Refugees and IDPs*
- *Tribal groups*
- *Ethnic groups*
- *Sections of the population that are pro- or anti-UN*
- *Compliant armed groups*

- *Host nation security forces*
- *Non-compliant armed groups*
- *Key leaders or influencers (formal or informal) of all the above*

Slide 5

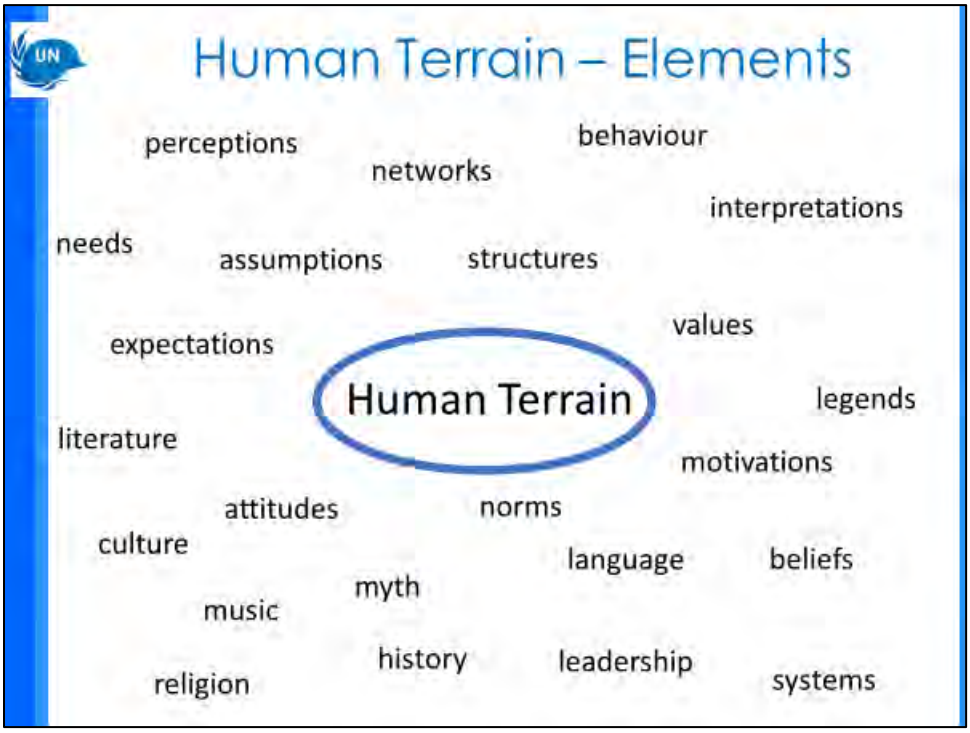
Key Message. The human terrain is central to UN mission mandates as humans represent both the causes of the conflict and the victims of the conflict.

The human terrain is always central to threat actor activity as it forms the membership of the threat actors, it offers the threat actor support or facilitates its actions, or it resists the presence of the threat actors. Similarly, sectors of the human terrain are often the target of threat actor activity.

Interaction. *Ask the students for an example of an area where they have worked in the past or that they have studied where one section of the population have been supportive or members of a threat group, and another section of the population was targeted by that group. Potential examples you could offer are:*

- *Serbian armed groups targeting Muslims, and vice versa, in Bosnia during the Balkan wars*
- *Selaka groups targeting non-Muslim groups in CAR*
- *Anti Belaka groups targeting Muslims in CAR*
- *Ethnically motivated violence in central Mali (Fulani versus Dogo)*

Slide 6



Key Message: Human Terrain is complex and involves many variables, both tangible and intangible, that contribute to our understanding of the Operating Environment.

Human Terrain is critical as a conflict is essentially a human endeavour. Understanding the human dimensions of conflict involves understanding the motivations, aspirations, grievances, perceptions and behaviours of the local population.

The slide shows some of the factors we should look at when analysing the Human Terrain. Some of these are visible, such as behaviours, but to make comprehensive and predictive assessments, we must look beyond the visible to understand factors such as the values and assumptions that drive visible behaviours.

Interaction. *Ask the class whether these factors can be collected as part of the acquisition plan. What might be some sources of this data? Within the Mission / outside the Mission?*

UN personnel are usually already at a disadvantage compared to hostile actors when it comes to an understanding of the Human Terrain, as these actors tend to come from and live within the local population. They may speak the same language or come from the same ethnic background, and therefore may be more effective in understanding local dynamics, communicating a message, and influencing the population.

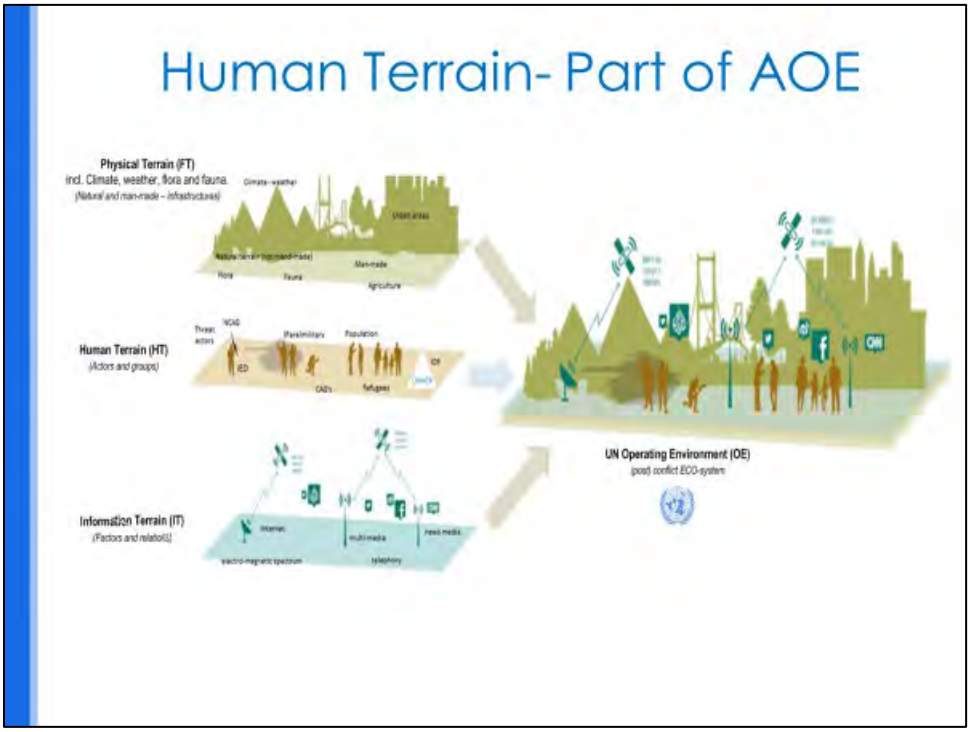
In order to conduct Human Terrain analysis, MPKI staff must continue to examine their own biases about how the local society is structured – it may be very different from their own.

Interaction. *Ask the class what kind of bias can affect assessments about local actors. Possible Answer to facilitate discussions:*

- *Cultural bias, which involves a misunderstanding or lack of comprehension of why another culture conducts itself in the manner it does can be a factor. As a result, analysis in some fields can be hampered simply by a lack of relevant knowledge or experience. To overcome cultural bias, the analyst should try to develop an understanding or empathy with the cultural group being assessed.*

- *'Mirror-imaging' bias should also be considered as part of human terrain evaluation. This occurs where the analyst projects their assumptions and behaviours onto a local actor if the local actor responds to a situation in the same way the analyst would.?*

Slide 7



Human Terrain analysis is an essential component of the Operating Environment Evaluation (OEE). This is phase one of the Analysis of the Operating Environment (AOE).

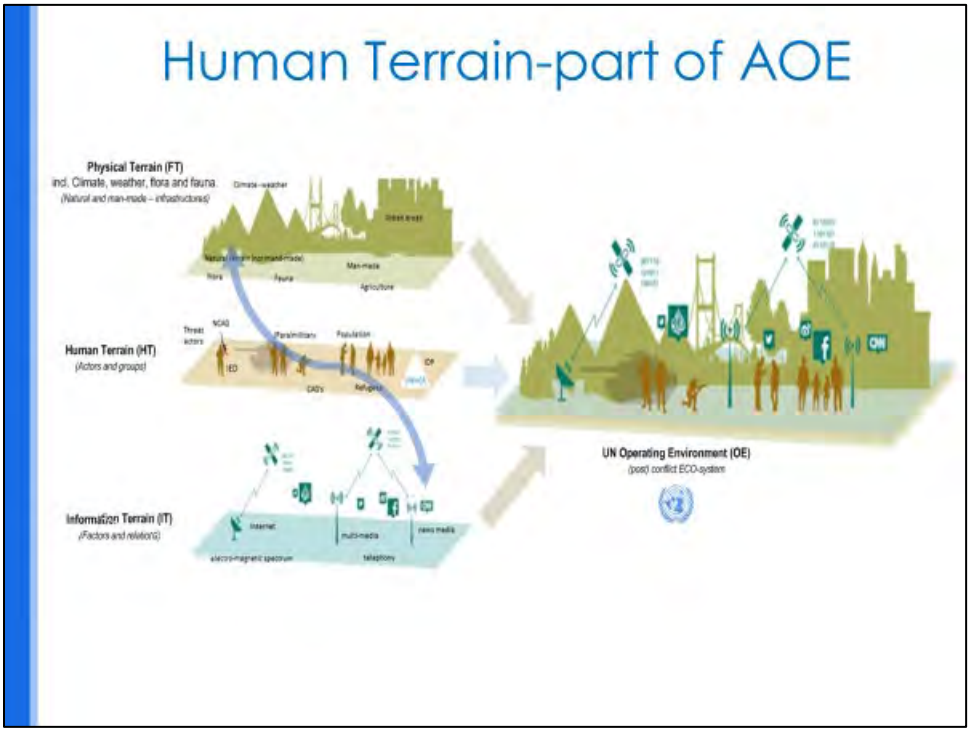
It is important to consider the physical, human, information terrain, and the interaction of these elements with each other as part of a wider system.

If any part of this system changes, all other elements are also likely to be subject to change. It is the role of an intelligence officer to understand this and to be able to alter assessments accordingly.

For example, if we consider a refugee camp location, it interacts with the physical terrain in that it may be located close to an urban area, water source, or far from the axis of advance of an armed group.

The physical terrain area, therefore, informs where the refugee camp is located. This type of awareness can only be generated by combining our understanding of the physical and human terrain. Similarly, the weather also has significant impacts on the human terrain. In the first instance, adverse weather affects the physical terrain by, for example, raising the water level of rivers, which can make them less easy to cross for UN forces and for threat groups.

Slide 8



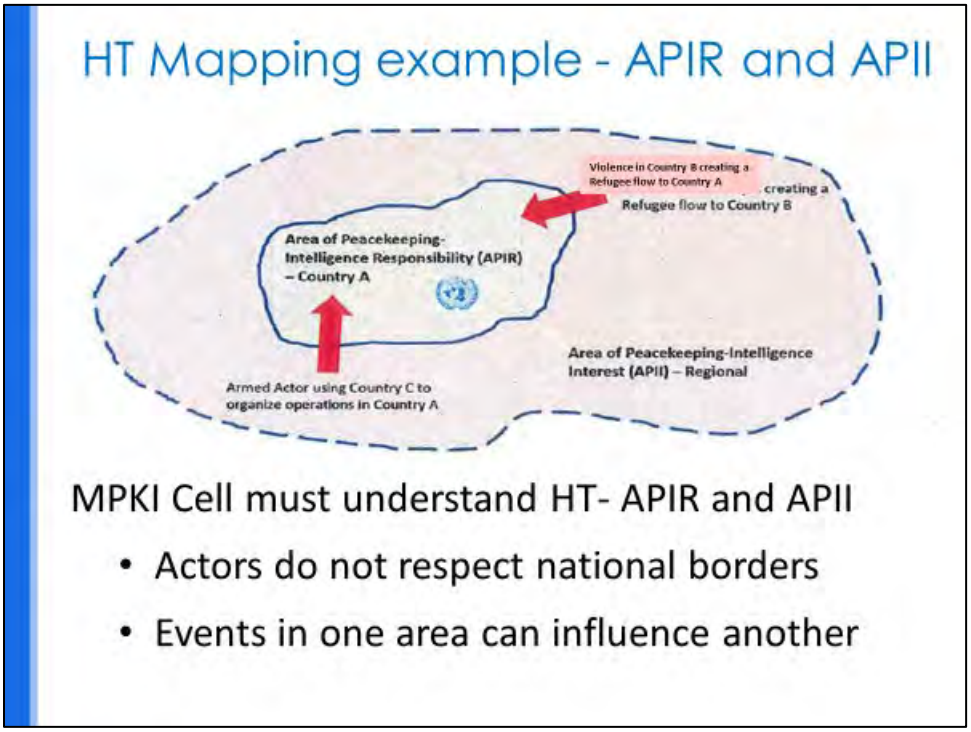
Key Message. Human terrain analysis is central to the evaluation of the operating environment.

This slide aims to capture the relationships between the three types of terrain. The Physical terrain influences where the human terrain lives and the information terrain influences how the human terrain communicates and interacts. Therefore, from a UN perspective, the human terrain is central to Step One of the Analysis of the Operating Environment. It is important that you understand that the human terrain is affected by every change to the physical and information terrain, and weather.

Interaction. *Ask the class what physical and information terrain factors would influence where farmers would choose to locate, and what this means for the UN. The responses we are looking for include the following:*

- *Close to arable land*
- *Away from obstacles to farming such as mountains, marshes, and very difficult physical terrain*
- *Close to water sources*
- *Close to lines of communication such as roads*
- *Areas with easy access to markets*
- *Close to urban centres*
- *The potential list is endless*

Slide 9



Key message: It is important that the Intelligence section is aware of the Human Terrain in its Area of Peacekeeping-Intelligence Interest as well as in its Area of Peacekeeping-Intelligence Responsibility. This will likely require significant liaison with other sectors, Battalions or with the Force Intelligence sections. If you ignore the human terrain in your APII, then you ignore key information that is relevant to your intelligence section.

This map demonstrates the impact that the human terrain in the APII can have on the human terrain in the APIR. For example, if there is violence against an ethnic group in the APII, it is likely that the civilian population will move towards areas where their ethnic group lives, far away from the violence. This could result in refugee or IDP flows to your AOR. It is therefore vitally important to understand the tribal, ethnic and religious breakdown of your APII. Such patterns of migration have been visible throughout history.

Another example would be the extent of support an armed actor enjoys in your APII. This could have an impact on its capabilities in your APIR. If your intelligence cell knows that armed group A has the support of the population in country C. This knowledge will enhance your understanding of armed group A's military capability. It may reorganize and consolidate in country C, and it may have its leadership there, it may raise money, recruit fighters and train there. Therefore, even though the area in which it operates in your APIR may not be supportive of the group, this may not matter if the group has support close at hand.

Slide 10

Key Message. Human Terrain Analysis is the most important component in the Evaluation of the Operating Environment.

It is important for the following reasons:

- Understanding the Human Terrain means understanding the risks and threats associated with it
- Sections of the Human Terrain are central to the activity of threat actors
- Sections of the Human Terrain form vulnerable communities for POC tasks. This is critical for UN mandate implementation
- Understanding the human terrain can lead to the identification of Items of High Importance. For example, we can identify key leaders and things (resources and assets) that are important to groups
- We can identify inter-ethnic/religious boundaries which can help identify potential violence hotspots
- It is critical for understanding the capability, intent, and opportunities of threat or other armed actors. For example, the human terrain will form the membership of threat actors, it will support the threat actor with resources (financial, logistics, human), and will often be the operational centres of gravity of such groups, supplying these threat actors with the moral and physical will to fight on. If the UN is to defeat or deter such groups from acting understanding the supportive human terrain is vital

The actor Evaluation methodology will be delivered later in the lecture series.

Slide 11

Key message: Gender factors are an important part of human terrain, and MPKI staff must understand the different roles that women and men, girls and boys play in the host nation society.

Interaction.

Start with the example below to get the students thinking about the different roles women play in conflict (not just victims but supporters, facilitators, perpetrators). How an analyst's biases may affect their assessments and how gender factors could have significant security outcomes (lack of screening, use of women to evade security).

Ask the class if anybody knows who the woman in the picture is. Can we make any initial judgments about her? The instructor may prompt that the picture is taken in Somalia, does that provide any additional information?

It is likely that the students will talk about women requiring protection, perhaps mentioning religious factors (attire), presence of young girls, or the fact that the women appear to be sight-impaired.

You should then explain that the woman was known as Basira Abdi Mohamed and that on 24 July 2019 she entered a meeting in Mogadishu and detonated a suicide IED, killing 8 people including the Mayor of Mogadishu. Her accomplice

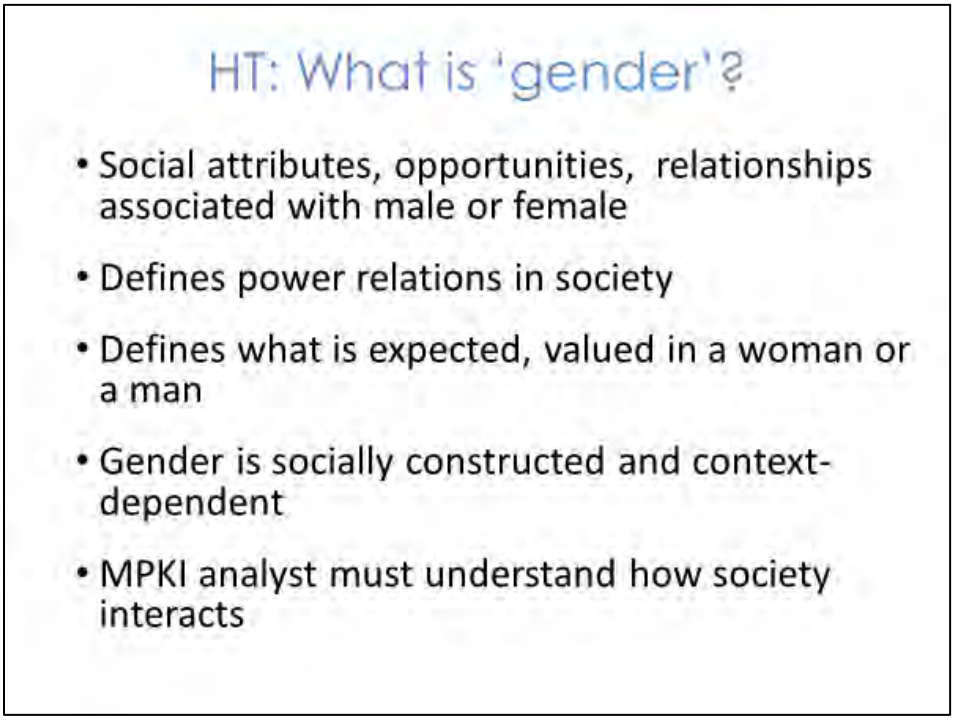
was also a female, and they had evaded security as there was reportedly no female staff present to screen them at the compound.

Al-Shabaab claimed the attack and alleged that the target was the Special Representative of the Secretary-General (SRSG) of the UN Mission in Somalia (UNSOM), who had been at the compound several hours earlier for a meeting. What are the implications for the UN?

Show this article at some point to reinforce your learning objective.

https://www.voanews.com/africa/mogadishu-mayor-targeted-female-bomber

Slide 12



Key Message: Students understand the definition of gender, how it varies between cultures and contexts, and how it is a vital part of the Human Terrain.

In order to look at gender as a part of the Human Terrain, we must first understand what it is. The UN definition of "gender" refers to the social attributes, opportunities and relationships associated with being male or female. It defines power relations in society and determines what is expected, allowed and valued in a woman or a man in each context. Gender is socially-constructed and is learned – this means it can change based on different contexts and different times. What was standard in your area of operations five or ten years ago may no longer be valid.

Conflict itself can change how a country views gender – for example, as the conflict drags on armed groups may be more willing to recruit females into their ranks; or conflict can drastically increase the number of female-led households, which impacts on the local society and economy.

Slide 13

Conflict affects different parts of society in different ways. The conflict has different impacts on women and men. For example, women more likely to be subjected to conflict-related sexual violence - But men and boys are also victims, as occurred in Libya where male rape was used as a tactic of domination and humiliation. More boys are recruited as child soldiers - but girls are also recruited (for example, in South Sudan); more males die or are injured by landmines; more girls become child brides.

References:

https://assets.publishing.service.gov.uk/media/59844e0c40f0b61e4b00005c/149-the-impact-of-mines-and-explosive-remnants-of-war-on-gender-groups_1_.pdf)

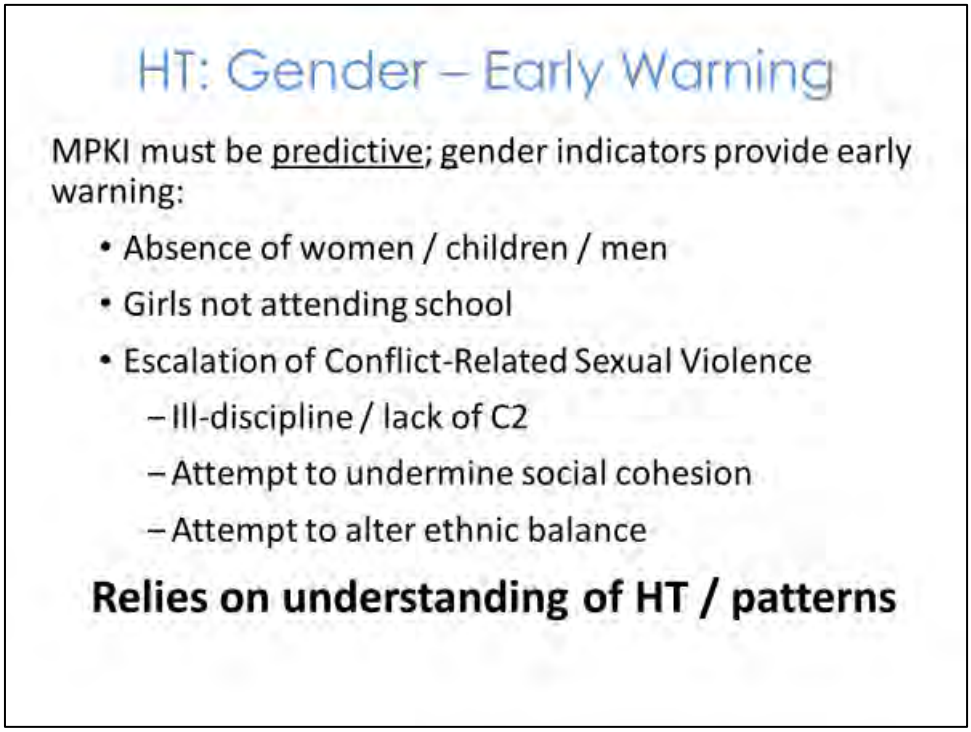
https://data.unicef.org/topic/child-protection/child-marriage

https://www.theguardian.com/world/2017/nov/03/revealed-male-used-systematically-in-libya-as-instrument-of-war

Slide 14

The Santos Cruz report identified that one of the keys to preventing casualties was better tactical intelligence, gained through human sources. The female members of the population may have access to different kinds of information than the male population, so it is essential that the UN is leveraging that resource. In order to do so, the use of female peacekeepers and mixed-gender teams may be beneficial in reaching a larger proportion of the community.

Slide 15



Key Message: We know that one of the requirements of MPKI is to be predictive, and we spoke about how important it is to define and monitor indicators to identify changes in the operational environment. Gender indicators can be a good source of information about changes happening in the local population. They can provide early warning to identify the presence of an armed group, identify vulnerable social groups and identify high-risk areas.

The absence of women and children in a town may be an indicator of a perceived threat to that population, or on the other hand, as has been seen in South Sudan, the absence of men can indicate a threat as they hide to avoid being killed or forcefully recruited.

An escalation of conflict-related sexual violence (CRSV) is another key indicator, particularly if perpetrated by members of a government security force or government-affiliated militia. This can be an indicator of ill-discipline or lack of C2 within these forces, be part of an attempt to undermine social cohesion within the local population or be aimed at subjugating certain ethnic groups or altering the ethnic balance. UN Women has published a set of CRSV Early Warning Indicators, which are published in the MPKI Handbook and are available in the student syndicate folders.

It is important to note that gender factors cannot be considered in isolation and must be informed by the broader analysis of the Human Terrain. The analyst must have a thorough understanding of the pattern of life, or what is normal behaviour for women and men, in the host community.

Slide 16

Key message: There are some key questions that can help ensure gender issues are captured as part of the Human Terrain analysis.

For every question, an intelligence analyst asks about the human terrain, ask a follow-up question on gender. If the broader question is: does ethnic group A supports the peace process, the follow-up question is "do the females of ethnic group A support the peace process? This method ensures the analyst is capturing the views and attitudes of different segments of society.

Similarly, the analyst should ask what role women play as part of armed groups. Do they play a role in recruitment, facilitation, radicalization or deradicalization? For example, one study showed that in an online social network of Islamic State supporters, not only were around 40% of participants women, but the women in the group were better connected.

Analysts should consider whether women perform leadership roles within the community, noting that their influence may be through formal or informal positions.

Analysts should also ask whether women have equal access to customary conflict-resolution mechanisms – critical in many UN environments to resolving issues over land, animal rustling, petty crime etc. – and whether women have access to humanitarian assistance or development opportunities. For example, if women don't have access to

the formal economy, then they may represent a particularly vulnerable segment of the population.

Another example is where women are required to walk long distances to collect water or firewood. If there are threat actors in the area, the Force may be involved in providing escort to the women. This is the case in the United Nations Mission in South Sudan, where military forces are involved in patrols to protect women from IDP camps who travel to collect firewood.

All these questions will allow the MPKI analyst to develop a better understanding of the Human Terrain – not just half of it.

Note to Instructor:

You may wish to refer to an earlier lecture on Link Analysis during which connectedness within a group was discussed.

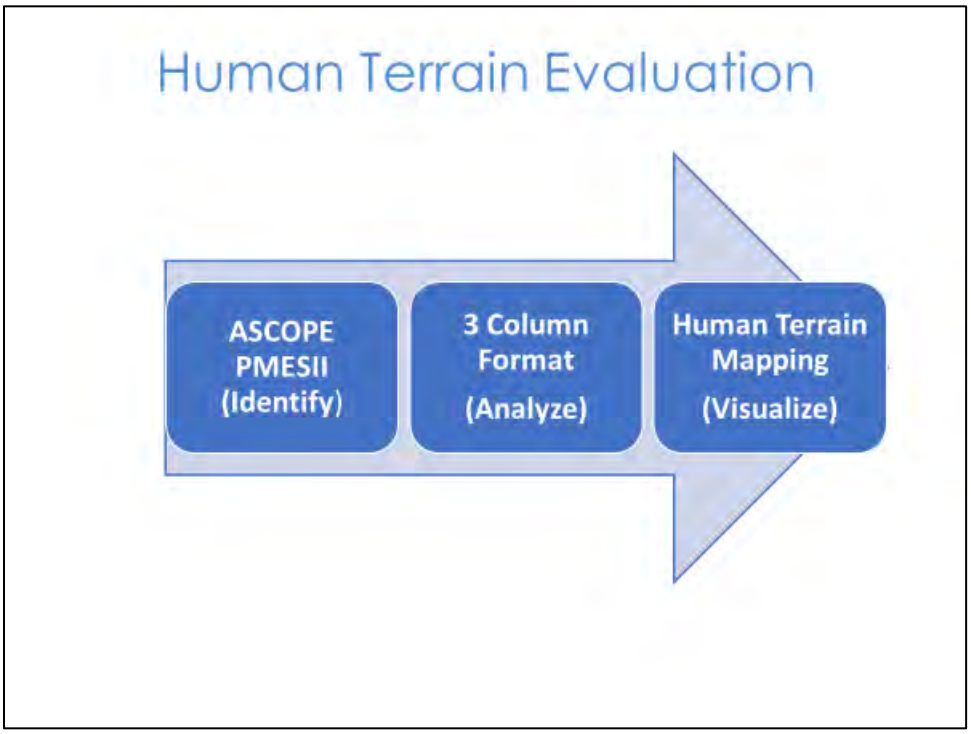
[Reference: https://theconversation.com/womens-key-role-in-islamic-state-networks-explained-62090] women-key-role-in-Islamic-state-networks-explained-62090

Slide 17

There are several ways to ensure gender factors are considered as part of acquisition and analysis.

- The Gender Adviser or Gender Focal Point should be included in the MPKI support to operational planning
- Wherever possible the MPKI cell should encourage mixed-gender teams, and task engagement platoons if they exist in the Mission
- MPKI staff should ensure specific gender questions are included in the patrol briefing and debriefing formats, and that gender-disaggregated data is acquired
- You should be aware of what is 'normal' for gender relations in your operating environment – define indicators of change and report on them
- As much as possible, share information with gender advisers, JMACs, Human Rights, Women and Child Protection Advisers etc. These cells can all have valuable information about issues such as CRSV, forced recruitment, female community leaders etc.

Slide 18



Key Message. These are the three methodologies we use to identify and analyse factors and actors. These three methodologies are ASCOPE-PMESII, the three-column format, and Human Terrain Mapping. We should understand that this is a process, not a menu from which to choose and that this is the structure and order they must associate with the process: ASCOPE-PMESI (identify); 3 column format (analyse); and mapping (visualize).

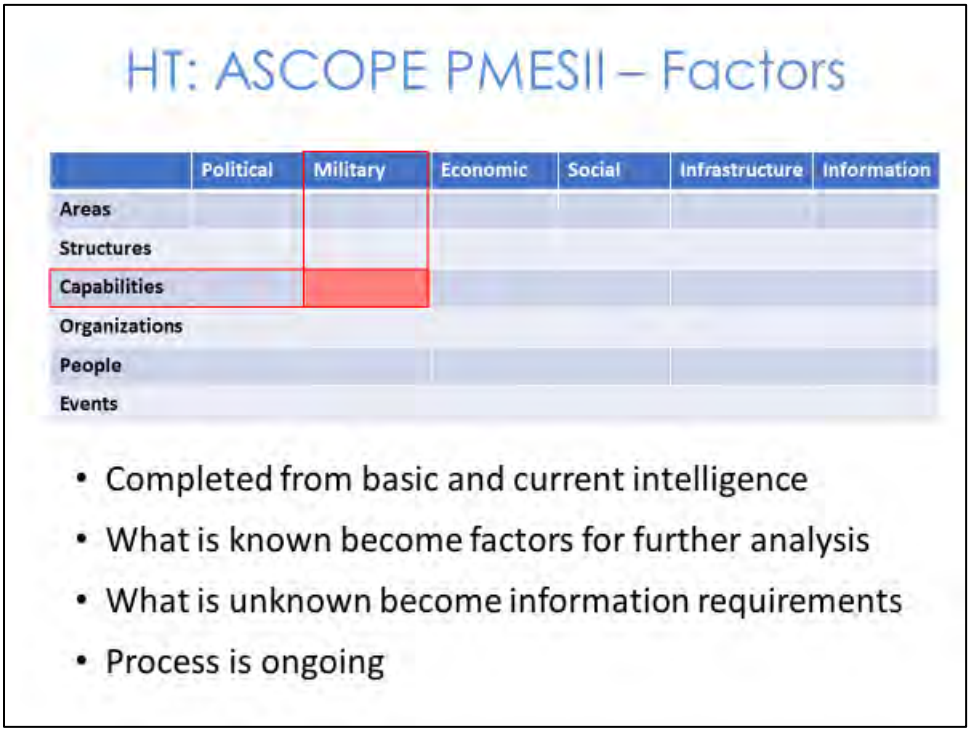
It is advisable to commence your evaluation of the Human Terrain with ASCOPE PMESII. This will ensure that you identify all known relevant factors and actors in the human terrain landscape. ASCOPE PMESII will also highlight what you do NOT know, thereby adding to your Information Acquisition Plan. ASCOPE PMESII was subject in a previous lecture [NOTE or future lecture].

Next, it is important to engage in the three-column format. This will allow you to make deductions for each identified factor and actor. This comprises the value-add or so-what.

Finally, it is important to recognize that the human brain does not deal well with pages and pages of information, no matter how well it is stored. It is much better to depict it visually on maps. We will do this using a series of overlays, taking what is known, combined with what is analyse d and situating it on a map.

We will move through these processes in the next few slides.

Slide 19



Key Message. ASCOPE-PMESII identifies the various known factors and actors. This process will also identify where the UN has information or intelligence gaps. This part of the process is the identification component, and the first step of the process.

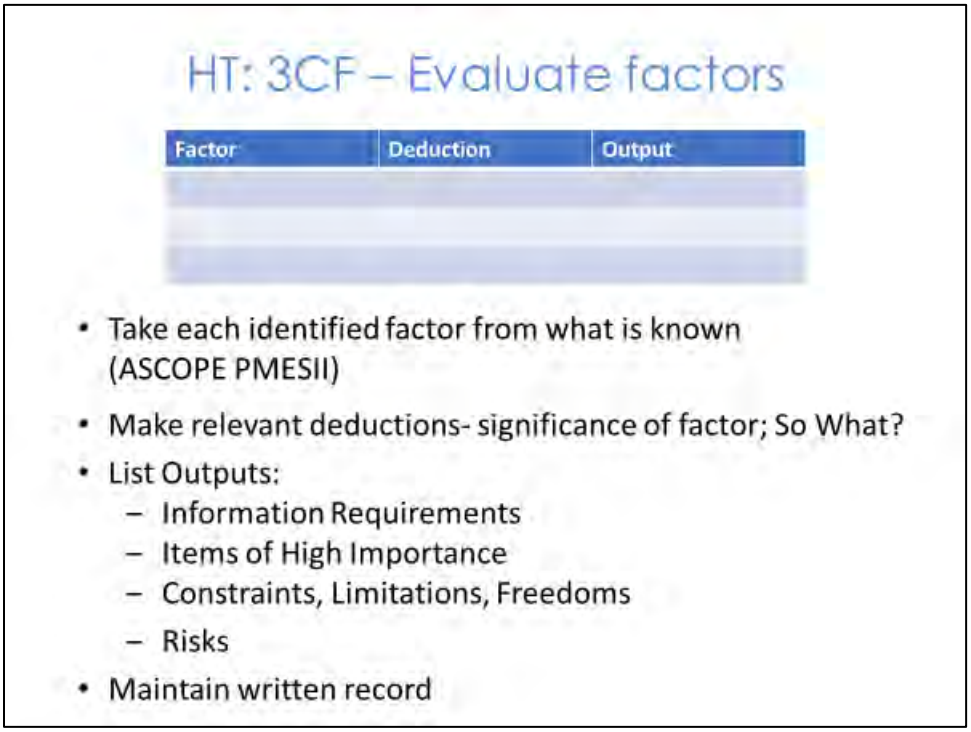
Interaction. *Ask students to demonstrate how the matrix comes together to identify a political area, a social area, and a military capability. Have them give examples of a military area, a social area, and a communications capability. Ask what happens if we have too little information on an area. The response, in this case, is that it becomes an Information Condition. For example, if we do not know what Political personalities live in your area of intelligence responsibility, it is necessary to find out where key leaders live. The same is true for economic, military, and social key leaders.*

We complete the ASCOPE PMESII table using the basic and current intelligence available to the intelligence section. Any gaps are identified and become information requirements. What is known become factors in the case of things and actors in the case of persons or groups? These factors and actors are listed and brought forward to the next step for analysis.

However, it is important to note that the ASCOPE PMESII process is ongoing and does not cease just because we have moved on to the analysis part of the process.

Ideally, your information requirements manager and acquisition manager will ensure that the ASCOPE PMESII table continues to grow and continues to inform the analytical process throughout the duration of the intelligence cell's deployment period.

Slide 20



Key Message. The factors and actors identified during the ASCOPE PMESII process are then evaluated using the three-column format.

Interaction. *Ask students to confirm knowledge of the three-column analytical framework:*

- *What is an actor? The response we are seeking is that any living person in the case of a key leader (political, economic, military etc.), or any group of persons bound by similar ideological, religious, political views, or tribal, ethnic affiliation in the case of a group. Relevant actors are also economic actors*
- *What is a factor? Any non-living thing that is closely related to the human terrain. There is spillover to the physical terrain in this case. Examples could include political, military, police HQs, marketplaces, areas of importance to the local population such as churches, graveyards etc.*
- *Should we just consider armed actors? The answer here is no. The UN Intel section needs to evaluate all elements of society, including those that are unarmed*

- *What is a deduction? The answer here that we are looking for is that it is the so-what? It is what makes the actor or factor relevant to the UN*
- *What is the output? The answer here is that outputs guide further action. An output could be an Information Requirement, a tasking, a risk, a constraint, a limitation, planning guidance, or Items of High Importance (this will be discussed in greater detail later in this lecture)*

Ask the student what action they would take in the event of creating an IR. The required response is that it would be added to the Acquisition Plan or sent to partners in the form of an RFI.

Taking each factor or actor commencing with the P of PMESII before moving on through the acronym, we list the key actors and factors. For each actor of factor listed, we must make as many relevant deductions as relating to the UN mission mandate.

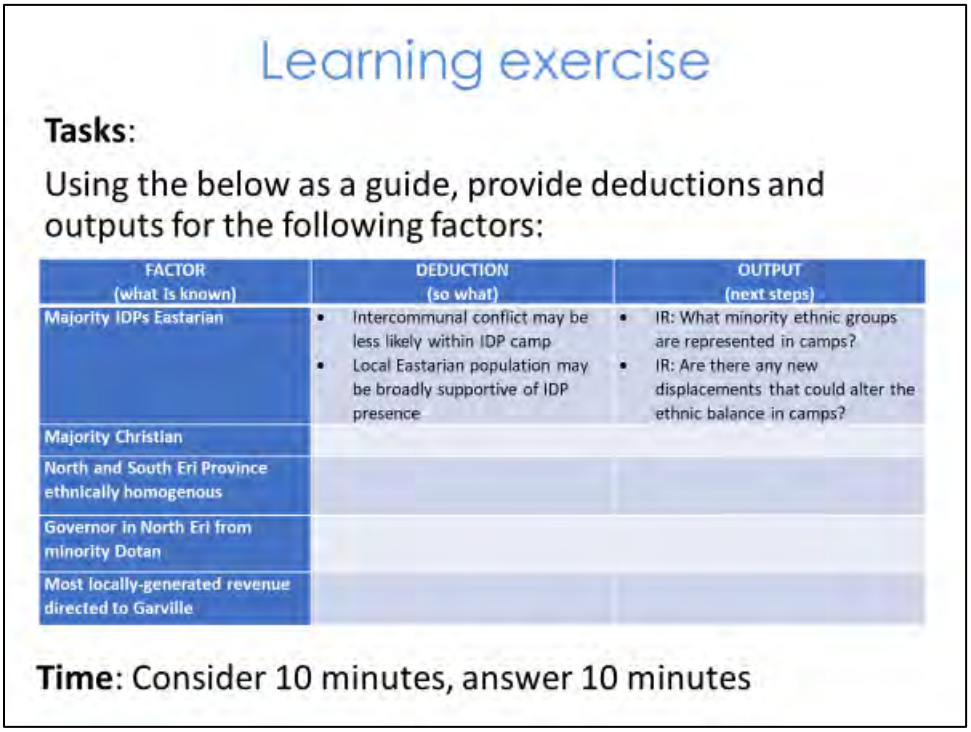
For example, if we choose a political leader of political party A as an actor in the first column, we could make the following deductions: the area where the political actor lives may be an area supportive of political party A, though this will have to be confirmed and could become an Information Requirement in the output (third) column; if political party A is pro-government then the area could be permissive for UN operations. Again, this will have to be confirmed and could be another IR as an output.

Another example could be that tribal area B meets tribal area C in one area. A deduction here could be that this could be an inter-ethnic hotspot if there is a history of violence between the two tribes, or one area could be pro-UN, and anther could be anti-UN. An output could be risk mitigation measures are required in the anti-UN area.

Or for example, if group Z was in Area A, then a reasonable deduction could be that they have recruited, raised funds or they have supporters in that area. Outputs might include the following information requirements: How does group Z raise money? Does it own businesses in the area? What sections of the population area are supportive of it? Where does it recruit and train? Again, the list of information requirements arising could be very long.

When this process is complete, the intelligence section will have completed a short intelligence estimate as it relates to the human terrain. It is then important to record, collate and list everything listed in the second and third columns. These observations will inform further analysis, further information acquisition, planning guidance and, together with the operations section, the tasking of information acquisition assets.

Slide 21



Learning exercise

Tasks:

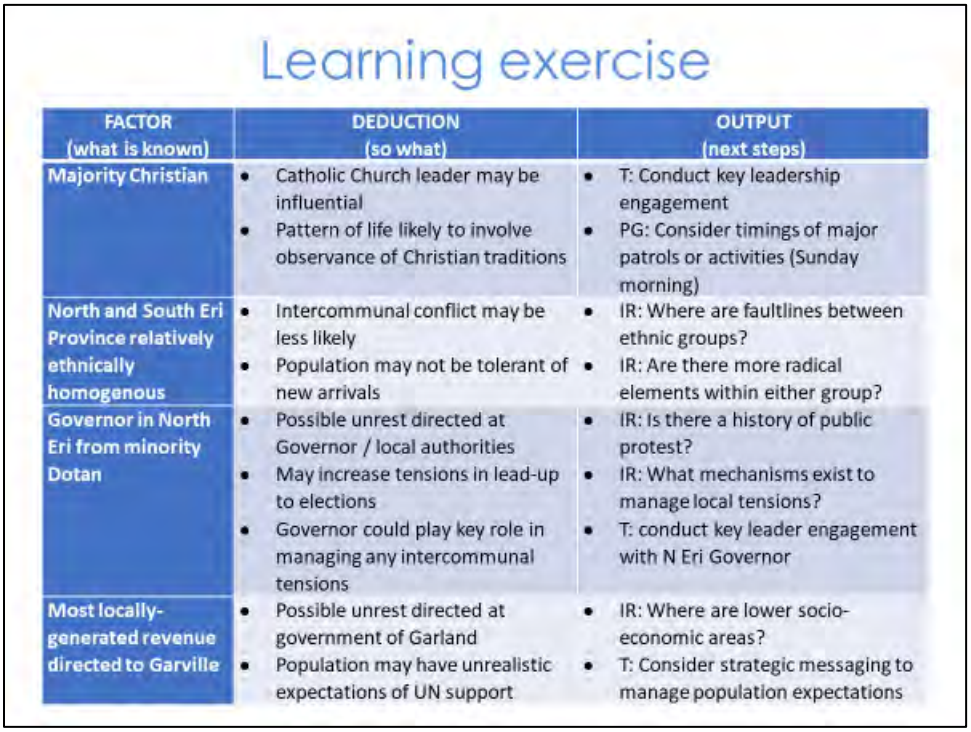
Using the below as a guide, provide deductions and outputs for the following factors:

FACTOR (what is known)	DEDUCTION (so what)	OUTPUT (next steps)
Majority IDPs Eastarian	• Intercommunal conflict may be less likely within IDP camp • Local Eastarian population may be broadly supportive of IDP presence	• IR: What minority ethnic groups are represented in camps? • IR: Are there any new displacements that could alter the ethnic balance in camps?
Majority Christian		
North and South Eri Province ethnically homogenous		
Governor in North Eri from minority Dotan		
Most locally-generated revenue directed to Garville		

Time: Consider 10 minutes, answer 10 minutes

Interaction. *This in-class exercise is designed to reinforce student understanding of how to use the 3 Column Format to analyse factors/actors in the Human Terrain. Break the students into 4 groups and assign each of them a factor (left-hand column). Students should spend 10 minutes completing their deductions and outputs before briefing the class.*

Slide 22

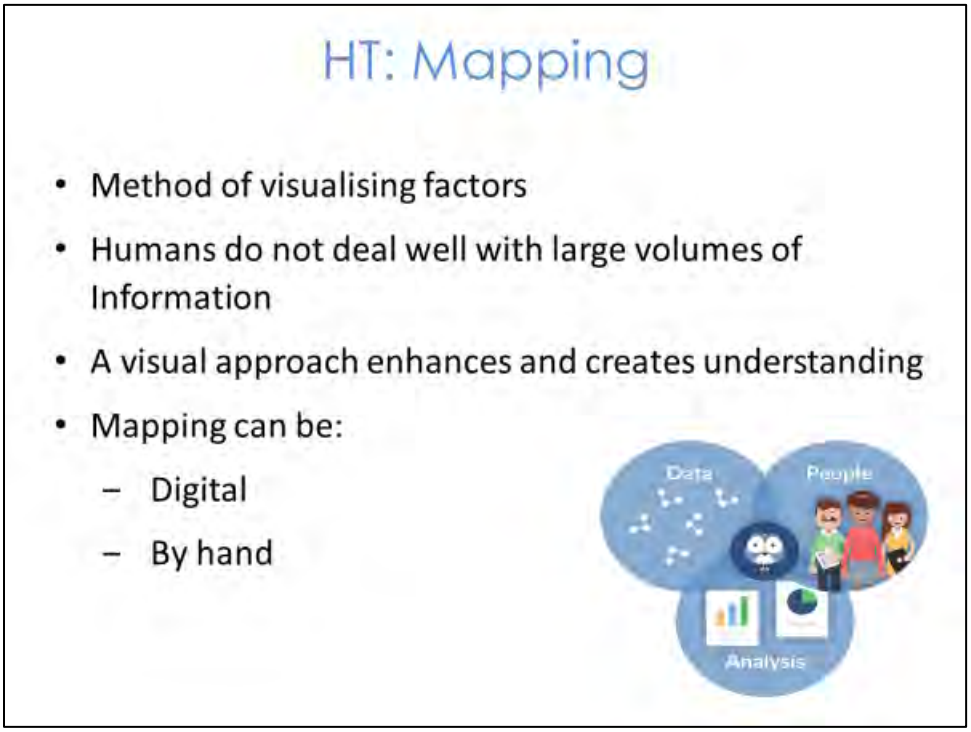


Learning exercise

FACTOR (what is known)	DEDUCTION (so what)	OUTPUT (next steps)
Majority Christian	• Catholic Church leader may be influential • Pattern of life likely to involve observance of Christian traditions	• T: Conduct key leadership engagement • PG: Consider timings of major patrols or activities (Sunday morning)
North and South Eri Province relatively ethnically homogenous	• Intercommunal conflict may be less likely • Population may not be tolerant of new arrivals	• IR: Where are faultlines between ethnic groups? • IR: Are there more radical elements within either group?
Governor in North Eri from minority Dotan	• Possible unrest directed at Governor / local authorities • May increase tensions in lead-up to elections • Governor could play key role in managing any intercommunal tensions	• IR: Is there a history of public protest? • IR: What mechanisms exist to manage local tensions? • T: conduct key leader engagement with N Eri Governor
Most locally-generated revenue directed to Garville	• Possible unrest directed at government of Garland • Population may have unrealistic expectations of UN support	• IR: Where are lower socio-economic areas? • T: Consider strategic messaging to manage population expectations

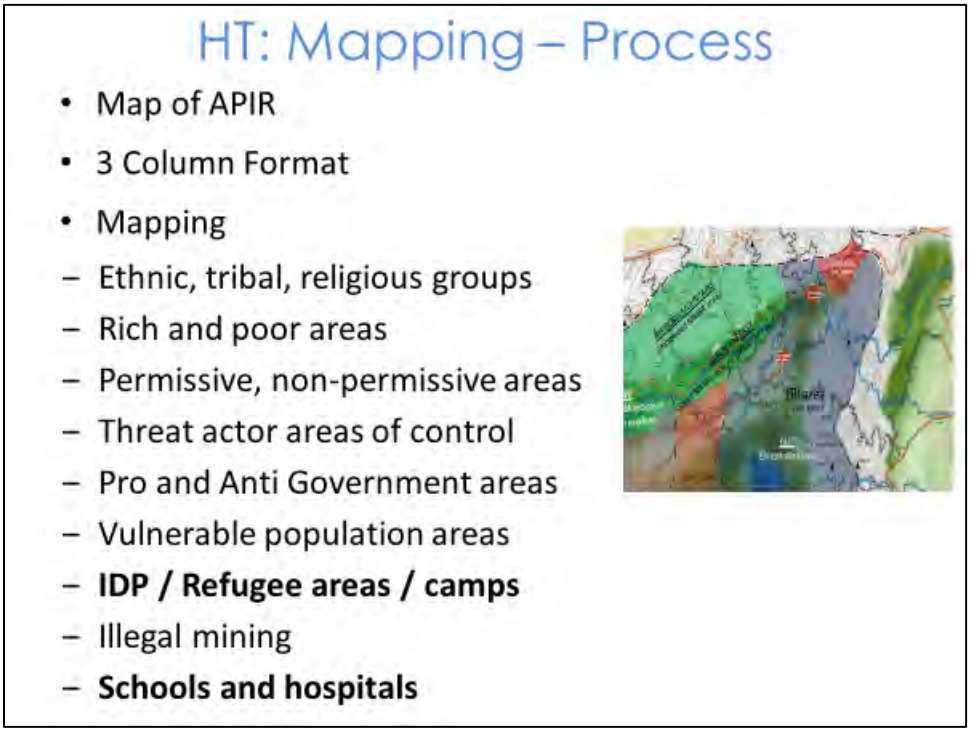
This slide is a partial 'instructor solution' to display while students brief their results, to trigger additional discussion and/or to assist where students haven't grasped the concept.

Slide 23



Our brains do not deal well with large volumes of information that is held on databases. If such information is not presented in a visual fashion, then some of its meaning will be lost. Therefore, it is necessary to map the human terrain in the same way as we map physical terrain, using overlays. This can be done digitally or by hand, but ideally, it will be done using both approaches.

Slide 24



Key Message. Our brains do not deal well with large volumes of information that is held on databases. If such information is not presented in a visual fashion, then some of its meaning will be lost. Therefore, it is necessary to map the human terrain in the same way as we map physical terrain, using overlays. This can be done digitally or by hand, but ideally, it will be done using both approaches.

Human terrain mapping is not complicated; however, the key is ensuring that relevant data is available. The steps involved are as follows:

- Take a map of our Area of Peacekeeping-Intelligence Responsibility
- Using the information on our three-column format process, and from the ASCOPE PMESII document and map it onto several different overlays
- The information should be shown with a clear legend, and different layers must stand out to ensure that it is intuitive

Interaction. *Ask students / the class how they might represent an area inhabited by ethnic group A and ethnic group B, or religious group C and religious group D. The ideal response would be that these areas would be represented by different colours or different patterns.*

We must remember that whatever we use to represent human groups, areas, or key leaders must be distinct and simple to recognize, or there is no point in taking the time.

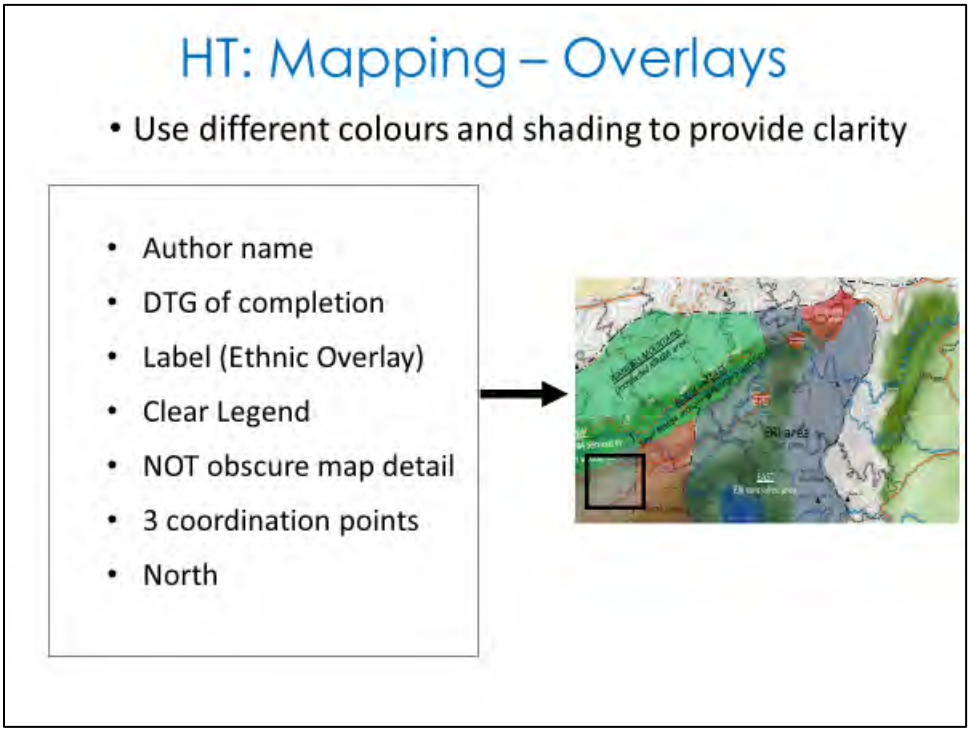
The concept here is that the information jumps out at the intelligence officer and helps to bridge the cognitive gap between what you can read and what you can see.

There are many types of overlays, and the UN Intelligence section can use as many as are helpful and relevant to the intelligence process, including:

- Ethnic laydown
- Tribal laydown
- Areas in which armed groups predominate
- Areas that are permissive or non-permissive for UN operations
- Areas that are loyal to a political party and political affiliation
- Religious laydown
- Demographic laydown
- Rich areas and poor areas
- Pro-government and anti-government areas
- Host nation force lay down
- Areas of high and low employment
- Vulnerable population group areas such as refugee and IDP camps
- Schools and hospitals are key to POC; armed groups often target these areas for recruiting or leveraging medical care
- Areas of Mining (often illegal and criminal)

Patterns will be noted. For example, anti-government areas might coincide with areas that are not permissive to the UN, or areas where threat groups predominate. This is all useful for planning.

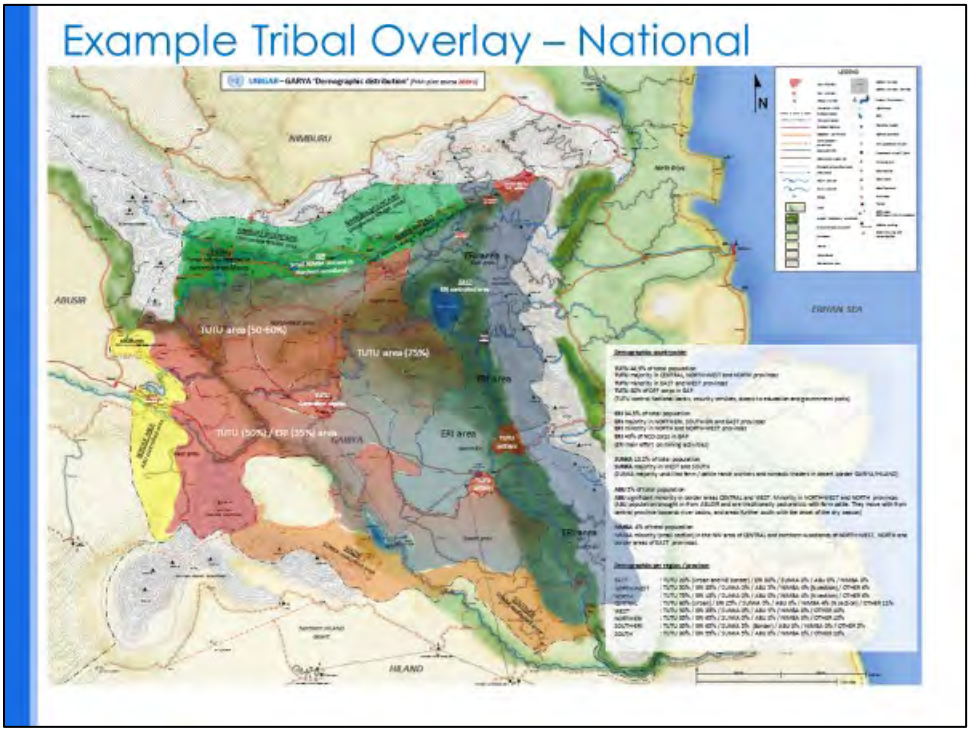
Slide 25



Overlays should be developed for maximum clarity. The detail should jump out at the observer for it to add any value. Overlays should use different colours to achieve clarity and distinction. For example, different ethnic groups should be represented using different colours. The only limit is your imagination and what works. However, every overlay must have:

- The name of the author so that observers can clarify detail with him/her, as required
- The DTG of when the overlay was drafted. This will allow observers to understand how current or up to date the overlay is
- At least 3 co-ord points. This will allow anyone to place the overlay over the map in the correct place
- The direction of North
- The overlay must be labelled to show what it is designed to show
- It must have a very simple and clear legend
- And it must NOT obscure map detail

Slide 26



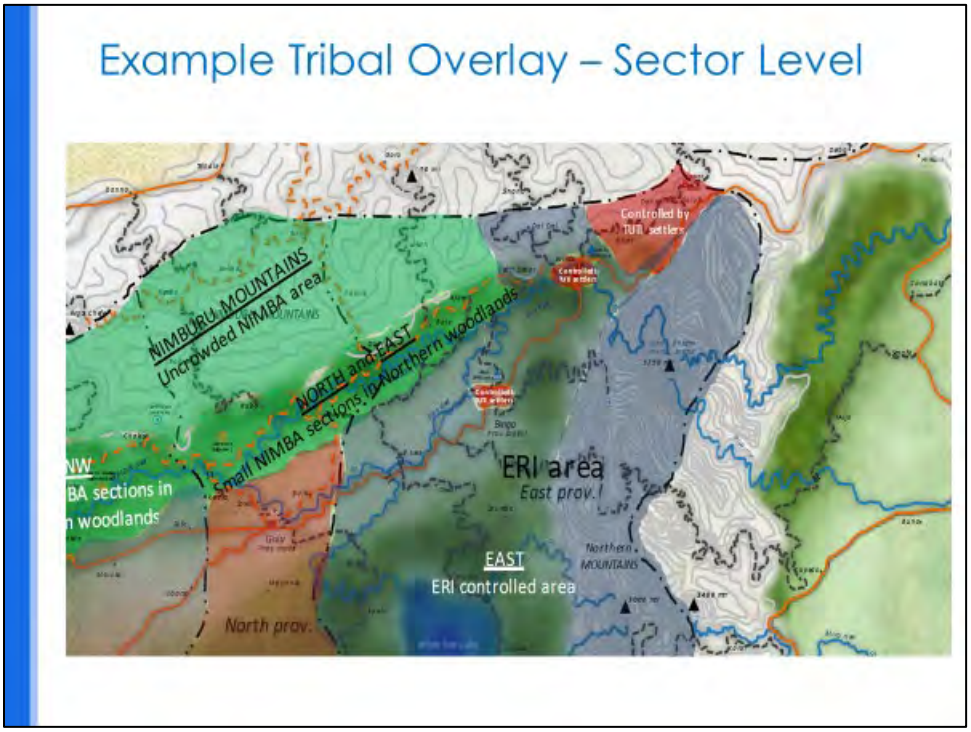
This is an example of a country-wide representation of tribal areas. It is important to note that at this scale, there will rarely be areas that are 100% populated by one specific ethnic group. It will be far more nuanced than this.

In this case, rather than labelling an area Ethnic group A and representing this with a red colour, one might assign different shades of red for areas with higher and lower concentrations of Ethnic group A.

Such an approach can be seen on the map where the colour red is assigned to the Tutu ethnic group. The areas of clearer red have a higher proportion of Tutus, and areas on its periphery are darker and are sometimes mixed with other colours.

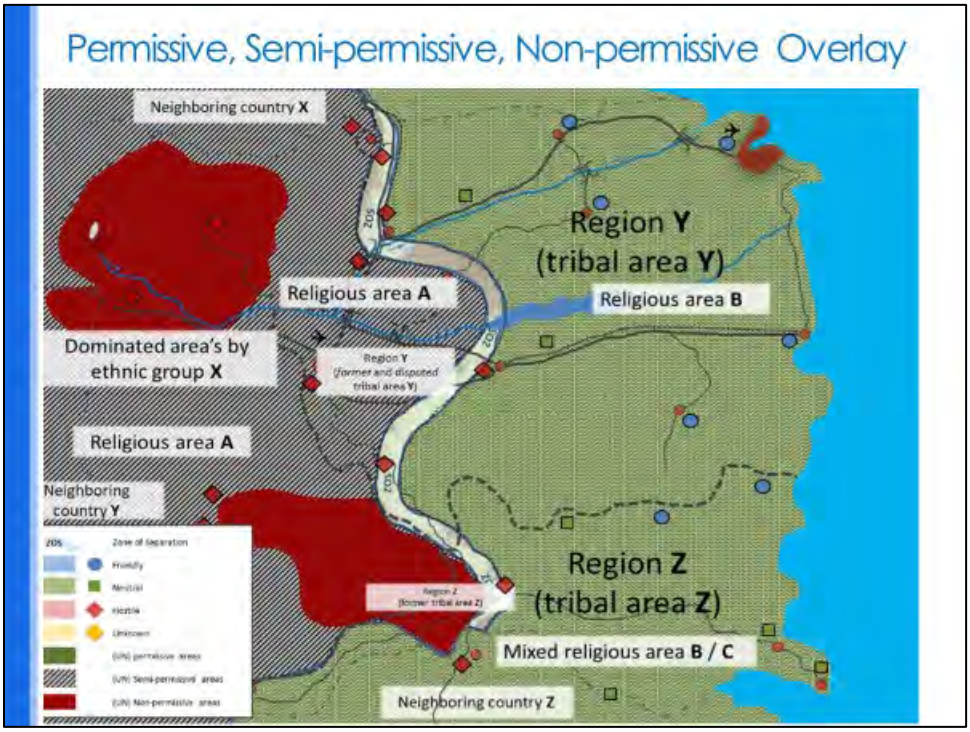
This is not a science, particularly at this scale. However, at Sector level and lower, such things must be represented in a more granular fashion. Again, the key points here are that a tribal overlay or those like it are vital as it develops understanding.

Slide 27



This is an example of a Sector-level overlay. This needs to be more detailed, and it can be used as an aid to military planning. For example, if it is known that the Nimba-inhabited area to the north (shown in green) is pro-UN then it may be permissive and lower risk than would be the case in red shaded areas, if it was known that Tutu areas were anti-UN. Again, this is just a quick visual representation on the information drawn from the ASCOPE-PMESII process.

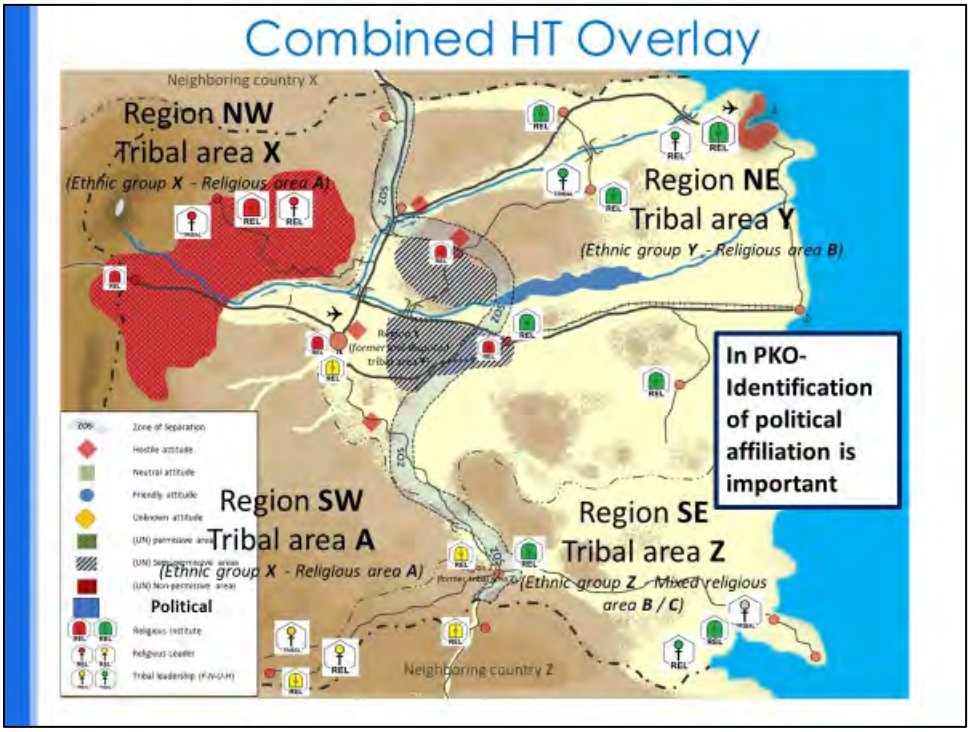
Slide 28



This is another map overlaid with permissive, semi-permissive, and neutral areas for the UN. At all times, the overlays must have a purpose. Areas of people that have more than 6 children could be shown on the map if the intelligence section had access to such data, but it would not be useful for operational planning.

Interaction. *Ask the students how they would read this map. What are the areas that the UN is likely to be at the highest and lowest risk of attack? What would the students expect to see in areas shaded red? Is it likely that there is a government presence in these areas? Is tribe Z likely to be pro or anti-UN? Is ethnic group X likely to be pro or anti-UN?*

Slide 29



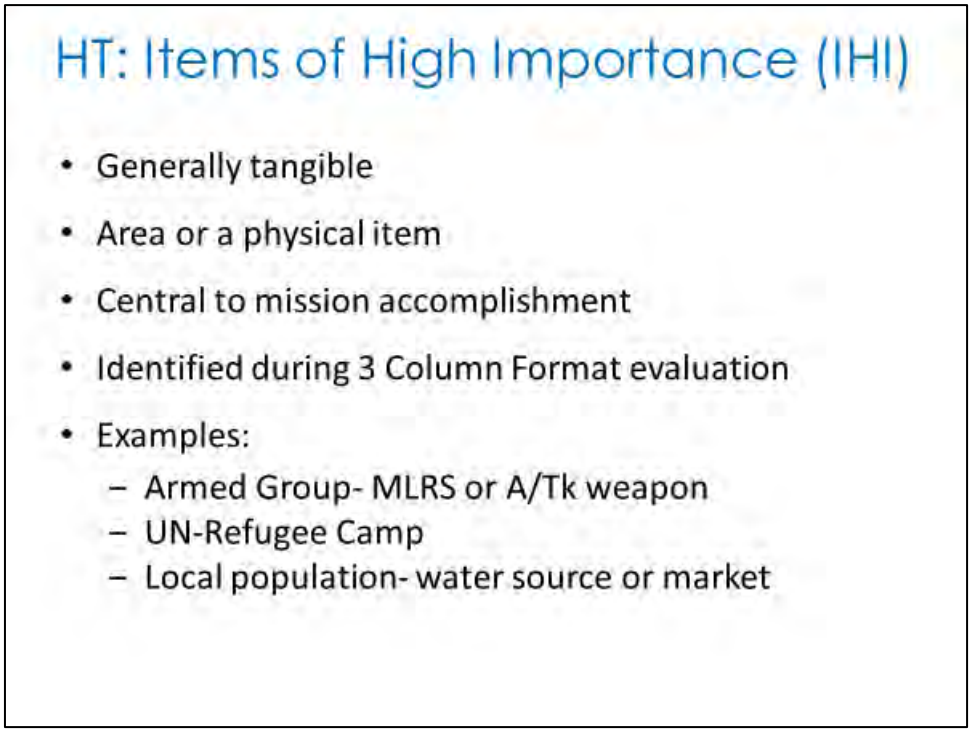
Human terrain cannot be evaluated separately to physical terrain as it is the space where the human terrain interacts with the environment. The human terrain overlays will always be laid across the physical terrain overlays. Combining overlays of different factors also allows the intelligence staff to see new relationships and draw new deductions. Remember that it is important in a PKO to identify the political component of HT.

This slide shows the physical terrain overlaid with another type of human terrain, this time semi and non-permissive areas for UN activity. This visual representation would be useful to intelligence staff involved in planning a UN resupply convoy in the area. It could highlight vulnerable areas. For example, the road through the red area could be an area where the UN convoy would be canalized and vulnerable to attack.

This slide also shows the locations of key structures such as religious institutes or structures, and where key leaders live.

The main point here is that the information must be represented in an easy to read manner that allows the key factors to be visualized by the intelligence staff, operations staff and commander.

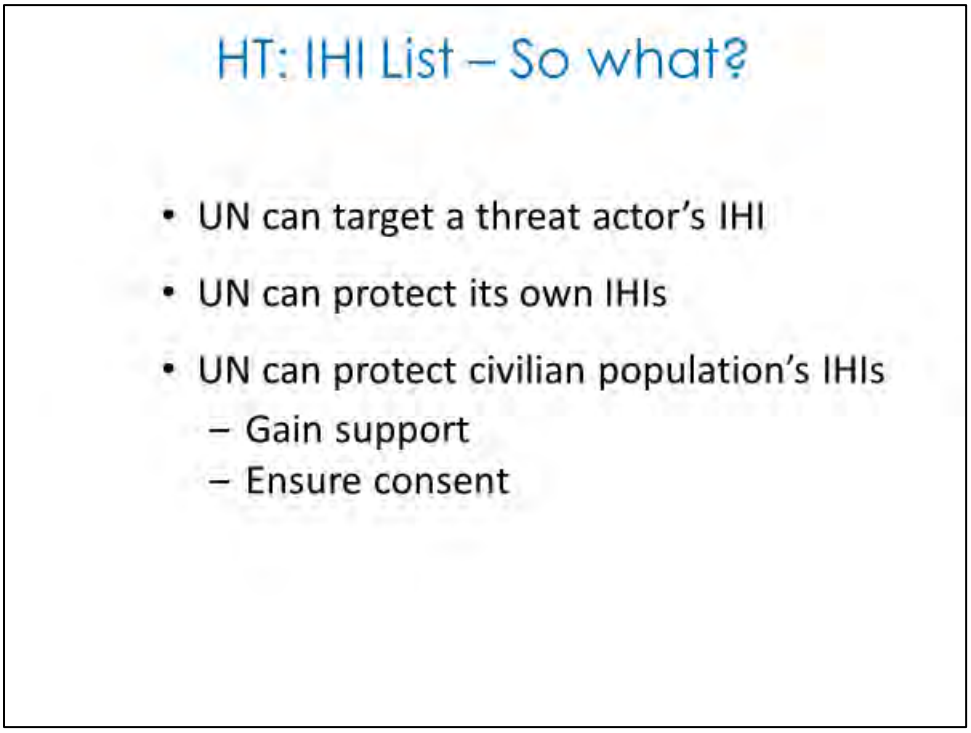
Slide 30



Key message. An IHI is a generally a tangible physical item such as a key piece of hardware or location that is central to mission accomplishment for the UN or a threat actor, or to survival/normal life for other actors such as vulnerable population groups.

For a threat actor, an IHI might be anti-tank rockets or a border crossing it controls that give it financial strength. For the UN, an IHI might be an IDP or Refugee camp where it protects civilians. For a local town, an IHI might be a water source. IHIs are, therefore a matter of perspective. It is the role of the UN Intelligence section to prepare a list of such items.

Slide 31



Key Message: It is important to operationalize your IHI list. It must be useful, relevant, and must inform mission planning.

Their significance could be as follows. If the UN wishes to undermine a threat group, it could take control of a border crossing that group is operating, thereby denying it access to funds, or to a safe consolidation zone. However, if the UN takes such an action then because it is an IHI, it is almost certain to face resistance. This can inform planning as a tool for CPOC and can add exceptional value. For example, if denying armed actor access to funds is in line with the commander's intent, then the risk of conflict can be accepted. Still, if this is not the commander's intent, then the intelligence cell can advise the commander that the border crossing point is an IHI to an armed actor. The commander may then wish to avoid this risk, particularly if it is not in line with his/her original intent.

Similarly, for a UN deployment, an IHI is something that is an essential asset to mission implementation such as armoured vehicles, or something that is essential to mandate completion such as refugee or IDP camps.

An IHI does not have to be critically important to a mission. An IHI for a village might be the local market or water source. Again, the intelligence cell should highlight this to the commanding officer so that, for example, patrols are not planned in a village on market day, which could negatively affect the local economy, thereby potentially

undermining local support for the UN. On the other hand, market days are timings were an attack could result in lots of civilian casualties.

Interaction. *Ask the class to list potential IHls for:*

- *An armed group*
- *The UN*
- *The civilian population living in a town*

Explain to the class that it is not enough to identify an IHl. Ask the class how they could operationalise the list they have. Each student should be asked to outline with an item on their IHl, and what it means for the UN mission mandate.

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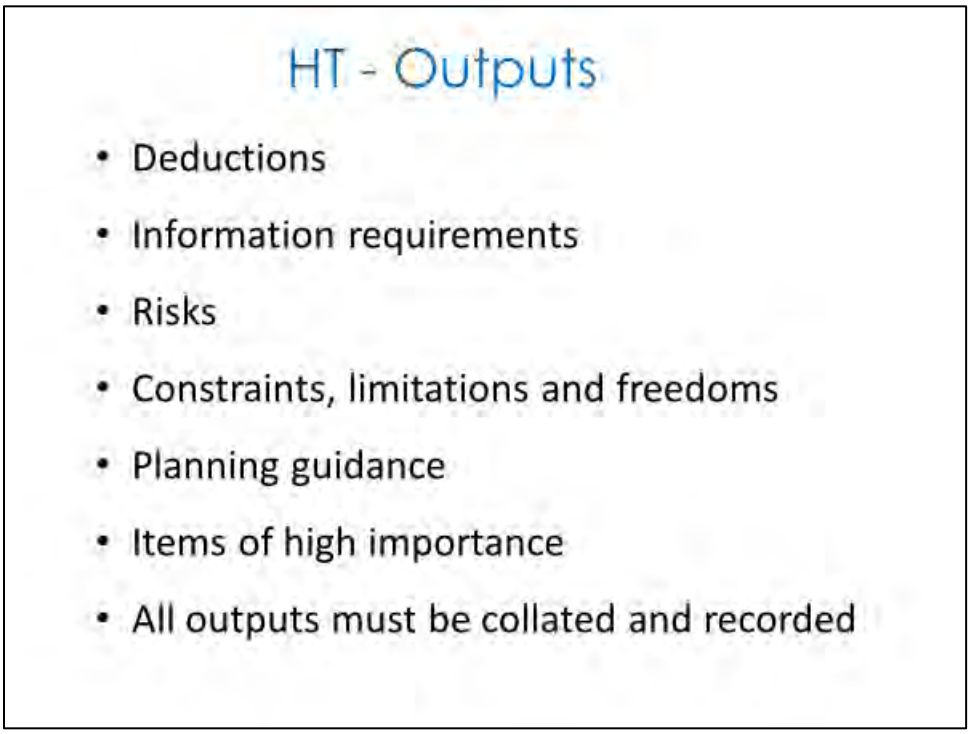
Slide 32



Key Message: While it is tempting for inexperienced personnel to focus on mapping products, this is not the most important output from human terrain analysis. The key output is the meaning or significance of the identified factor and/or actor. This is the deduction or the 'so what?

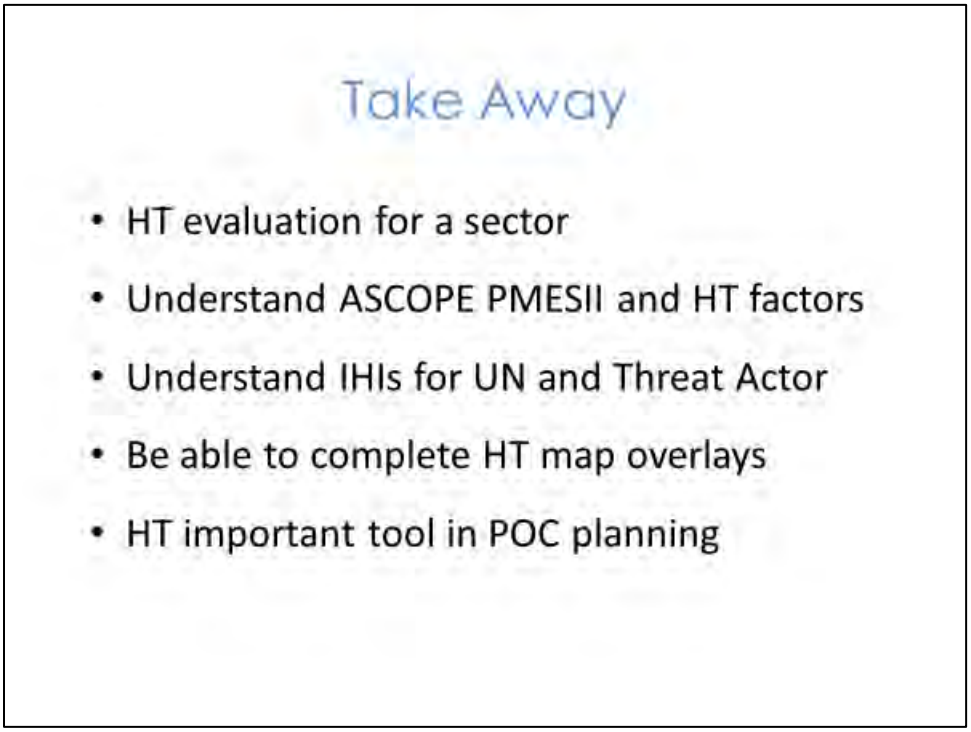
Other outputs, all of which should be recorded and collated, include:

- Information Requirements are drawn from the information gaps highlighted throughout the process. These IRs must either be added to the Information Acquisition Plan (IAP), which is the central document for tasking acquisition assets or sent out as Requests for Information
- Other outputs such as planning guidance, constraints, limitations, risks identified, which should all be shared with operational planners; and items of the high importance list
- The Items of High Importance (IHI) list equates to what many of you, the students, may recognize as High-Value Targets. In conventional, non-UN environments there are often targeted to deny them to armed groups, or protected to maintain them for friendly forces, in a UN context they are known as IHIs
- An IHI is 'a compiled list of identified items (including individuals, equipment and infrastructure) which are assessed as being of significant importance to both

threat and non-threat actors and UN forces, which are required for the completion of their respective mission(s) within the context of the mandate

- An IHI can be identified throughout the human terrain analysis process, but are generally highlighted during the three-column analysis
- All outputs should be marked and recorded

Slide 33

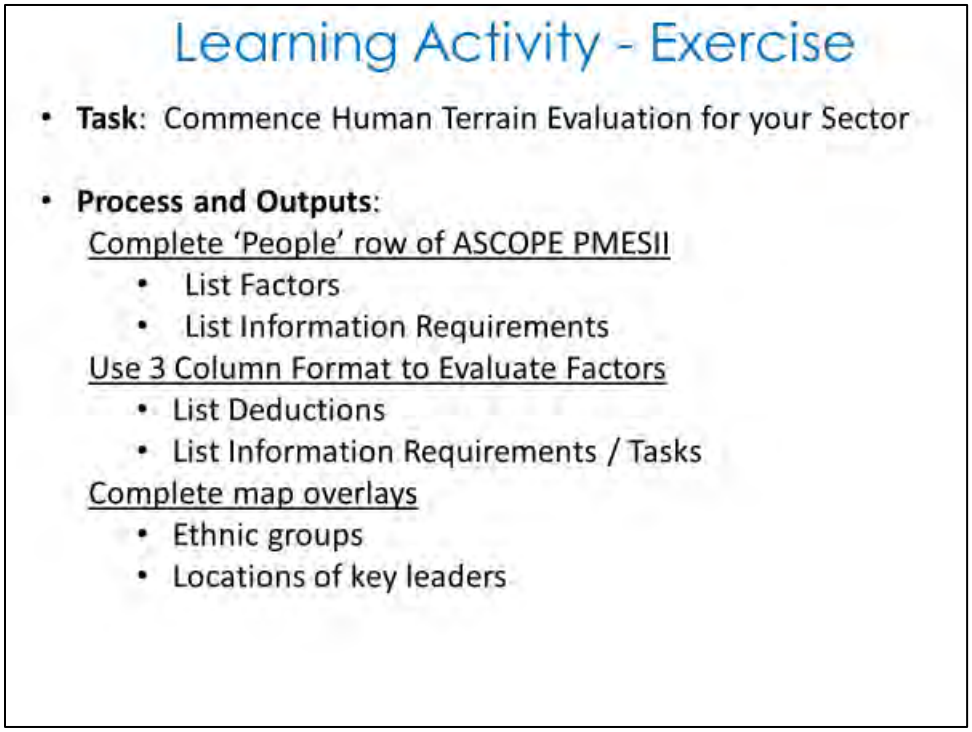


Summary

At the end of this lesson you should be able to:

- Conduct a HT evaluation for a sector
- Understand ASCOPE PMESII and HT factors that are key to an analysis
- Understand that there are two IHIs analysis one for UN and one for Threat Actor as both are relevant to your analysis
- Be able to develop and complete HT map overlay
- Because most of the UN mandates include the POC it is important that HT evaluation is conducted and we better understand actors who are predators and vulnerable populations; this is an important tool in POC planning

Learning Activity



TASK: Complete a Human Terrain analysis

RESOURCES: Each Syndicate will have an instructor assigned to guide them through the process, a sector map, a series of overlays, and semi-permanent markers of various colours (Blue, Brown, Black, Red, and one other colour at a minimum), a whiteboard and flip chart.

APPROX. TIME: 2 hours

NOTE TO INSTRUCTORS:

- The group will be broken down into syndicates of no more than 5.
- Each syndicate will have an officer in command.
- Each syndicate will have to conduct a full human terrain evaluation for their sector area.
- The process they will follow will be ASCOPE PMESII; 3-column format for analysis; and human terrain mapping (visual representation).