ARMY KNOWLEDGE MANAGEMENT PROPONENT

Training Support Package (TSP)
For
Army Knowledge Management Representative Course (AKMRC)

Date revised: April 17, 2013

1. SCOPE

This twenty-four hour training focuses on the fundamentals of knowledge management (KM), and is an integral part of understanding how a knowledge management representative assists the commander in performing his or her mission command tasks. While many students are intuitively familiar with knowledge management products from their previous duty assignments, this lesson introduces them to the doctrinal terminology, conceptual information, techniques, and resources necessary to employ knowledge management correctly. The course begins with an understanding of what knowledge management is, and its relevance to mission command. By exploring the inherent linkage between this doctrinal material and the warfighting function of mission command, students will be able to understand how knowledge management gives commanders and their units a significant tactical advantage on the battlefield.

2. LEARNING OBJECTIVE

Terminal Learning Objective (TLO)
Action: Generalize about the employment of knowledge management (KM) in your unit
Condition: In a facilitated classroom environment, given an overview of knowledge management, FM 6-01.1, and access to the internet
Standard: Generalization includes:
1. Explaining the fundamentals of Knowledge Management
2. Giving examples of how people enable Knowledge Management
3. Illustrating how organizations enable Knowledge Management
4. Summarizing how processes enable Knowledge Management
5. Explaining how tools enable Knowledge Management

Learning Domain: Cognitive
Learning Level: Comprehension

3. ASSIGNED STUDENT READINGS: N/A

4. INSTRUCTOR ADDITIONAL READING(S)/MATERIAL:

Read:
FM 6-01.1
ADP 3-0
ADP 5-0
ADP 6-0
ADP 7-0
AR 11-33

5. TRAINING AIDS, REFERENCES, AND RESOURCES

a. Appendix A: Slides
b. Assessment: N/A
c. Videos: N/A
d. Computer and projection systems: for presenting PowerPoint slides; Computer must have LAN connectivity as well to access the various KM websites
e. **White Board** with dry erase markers and eraser, and/or butcher block paper and markers  

f. **Materials for practical exercise**: N/A

**Instructor Note:**  
Dry erase boards (or butcher-block pads) with markers are ideal to facilitate the learning activities. The class can be conducted in classrooms with LAN capability solely for the instructor. However, learning will be greatly enhanced in classrooms equipped with individual student workstations with LAN capability.

### 6. GENERALIZE NEW INFORMATION

<table>
<thead>
<tr>
<th>Slide 1 Army Knowledge Management Representative Course</th>
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| **Instructor Note:** Introduce the Knowledge Management Representative Course.  

So, What if a single Soldier had the knowledge of thousands? |

<table>
<thead>
<tr>
<th>Slide 2 Terminal Learning Objective</th>
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</thead>
</table>
| **Instructor Note:** Cover the terminal learning objective for this lesson with the students.  

So, let us begin. The 1st thing we need to cover is the learning objective for today’s lesson. The goodness here is that by the completion of this session you will be able to generalize about how to employ Knowledge Management in your unit. You will do this by:  

- Explaining the fundamentals of Knowledge Management  
- Giving examples of how people enable Knowledge Management  
- Illustrating how organizations enable Knowledge Management  
- Summarizing how a unit’s processes can enable Knowledge Management  
- Explaining how digital and non-digital tools can enable Knowledge Management |

ACTION: Generalize about the employment of Knowledge Management (KM) in your unit  

CONDITIONS: In a facilitated classroom environment, given an overview of knowledge management, FM 6-0/1, access to the internet, and the student’s specific level of command  

STANDARDS: Generalization includes:  

A. Explaining the fundamentals of Knowledge Management  
B. Giving examples of how people enable Knowledge Management  
C. Illustrating how organizations enable Knowledge Management  
D. Summarizing how processes can enable Knowledge Management  
E. Explaining how tools enable Knowledge Management |
Slide 3 Agenda

Instructor Note: This is a build slide. Each click will add a section of the course and highlight that section in the graphic.

This is the agenda for the course. We will cover the fundamentals of knowledge management, or KM as it is often referred to, during the introduction. Then we will move on to the four components of KM. The components are people, processes, tools, and organization.

Slide 4 Functional Courses

Instructor Note: Start at the bottom of the slide and work up.

Instructor Note: In addition to giving KMRs a 360 degree view of the course, providing KM professionals to the Army, this slide also serves to generate interest in attendance to many of the courses hosted at Leavenworth. With this thought in mind, point out the courses taught at Leavenworth.
Instructor Note: The intent of this slide is to orient the KMRs to some doctrinal terms that may not be familiar to them.

Instructor Note: Spend some time discussing explicit and tacit knowledge with them.

Now let’s further explore the concept of knowledge as it pertains to KM. Did you know that there are two different types of knowledge? (Rhetorical question)

There is explicit knowledge and tacit knowledge.

**Explicit knowledge:** Explicit knowledge is knowledge that has been codified into written or otherwise documented information. This type of knowledge can be organized, made available to users, and transferred through digital or non-digital means. Explicit knowledge lends itself to rules, limits, and precise meanings. Examples of explicit knowledge include computer files, dictionaries, textbooks, and Army and joint doctrinal publications.

**Tacit knowledge:** All individuals have a unique, personal store of knowledge gained from life experiences, training, and formal and informal networks of friends and professional acquaintances.

Instructor Note: Ask the students the following question. What is the difference between tacit and explicit knowledge?

Next ask the students to provide examples of each.

- **Explicit knowledge** exists in the form of manuals, technical manuals, tactics, techniques, and procedures, Department of the Army pamphlets, memorandums, and SOPs.
- **Tacit knowledge** includes learned nuances, subtleties, and work-arounds. Intuition, mental agility, effective responses to crises, and the ability to adapt are also forms of tacit knowledge. Leaders use tacit knowledge to solve complex problems and make decisions.

Ask the students what tacit knowledge they have acquired from being deployed to Afghanistan that someone who has not been there would not know. This item must be operationally relevant.

Finally, what knowledge is best managed via KM?
Now, let’s look at the four components that make up Knowledge Management.

**Slide 6 KM Components**

**Instructor Note:** The intent of this slide is to describe the alignment of People, Processes, Tools, and Organization. This is generally a good opportunity to begin stressing Process and to avoid a “tools/technology first, process second” mentality.

Take a look at the KM Components. They are the:

- **People:** Those who create, organize, apply, and transfer knowledge, and the leaders who act on that knowledge.
- **Processes:** The five-step KM process and its activities that are integrated into operations.
- **Tools:** Knowledge management tools are anything that is used to share and preserve knowledge. Various factors determine the tool or tools to be used; to include the mission, availability, and determination of the simplest and most effective tool to use for the required purpose. The tools can be non-digital, digital, or both used in combination. Non-digital tools include any means of transferring knowledge through manual, visual, or tactile means.
- **Organization:** The matrix in which people-processes-tools function to integrate individual learning, organizational learning strategies.

**Instructor Note:** Ask the students the following question: Which one of the four KM components, organization, people, processes, or tools is the most important? Then have them explain their answer. There answer should be something similar to this: Of the four components, people are the most vital for successful KM. Knowledge only has meaning in a human context. It moves between and benefits people, not machines. An estimated 80 to 90 percent of all knowledge exists as individuals’ experience, expertise, or insights.
Now let’s look at the KM principles.

**Slide 7 KM Principles**

**Instructor Note:** The intent of this slide is to discuss the KM principles.

These are the basic KM principles. They summarize the characteristics of successful KM efforts.

The KM Principles are:

- **Understand** - a good place to discuss moving from situational awareness to shared understanding.
- **Share** - acknowledge that it’s a little touchy-feely but that sharing knowledge has a multiplicative or even exponential effect.
- **Integrate** - good place to talk about stovepipes. Generally, Soldiers (of all ranks) have a difficult time articulating what a stovepipe is though they generally know that they are “bad”.
- **Connect** - mention networking and point out that the audience likely remains in touch with people from past assignments and schools. Also note that there is a reason why the KMRC is conducted with KMRs from different organizations i.e., that they are there to connect.
- **Learn** - Ask if anyone knows what a learning organization is. Highlight how an AAR can help an organization become a learning organization, especially if organizations utilize the lessons learned during the AAR.
- **Trust** - again, a somewhat touchy-feely concept but this is a good opportunity to discuss command climate and how KM facilitates the building of trust.
Now let’s look at the definition of knowledge management versus information management.

**Slide 8 Knowledge Management and Information Management**

**Instructor Note:** The intent of this slide is to remove any doubt that IM and KM are not the same.

Hidden within the definition of knowledge management is a purpose statement. The purpose of KM is to enable knowledge flow to enhance shared understanding, learning, and decisionmaking.

If this is the purpose of knowledge management, what do you believe is the purpose of information management?

Information management provides the timely and protected dissemination of relevant information to commanders and staffs.

With this information you are going to participate in a learning activity. You will differentiate between knowledge management and information management.

**Instructor Note:** Have the students differentiate between knowledge management and information management. Tell the students that in ADP 6-0 and ADPR 6-0 knowledge management is separate and distinct from information management. With this thought in mind, have each group go to a separate white board or if there are not enough, have them go to an easel with chart pack and annotate the differences between knowledge management and information management. Once they have completed this activity have the groups sit back down and have them discuss and justify their answers. Their answers should be similar to the following which were drawn from FM 6-01.1:

<table>
<thead>
<tr>
<th>Knowledge Management</th>
<th>Information Management</th>
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<tbody>
<tr>
<td>- Is an Art</td>
<td>- Is a science</td>
</tr>
<tr>
<td>- Concerned with the why of knowledge transfer</td>
<td>- Focused on the how</td>
</tr>
<tr>
<td>- Purpose is to create shared understanding through the alignment of people, processes, and tools within the organizational structure and culture in order to increase collaboration and interaction between leaders and subordinates.</td>
<td>- Uses procedures and information systems to:</td>
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<tr>
<td></td>
<td>- Collect;</td>
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<td></td>
<td>- Process;</td>
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<td></td>
<td>- Store;</td>
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<tr>
<td></td>
<td>- Display;</td>
</tr>
<tr>
<td></td>
<td>- Disseminate;</td>
</tr>
<tr>
<td></td>
<td>- And protect data and information.</td>
</tr>
</tbody>
</table>
Slide 9 Rotational Trends

Instructor Note: The intent of this slide is to note that we have a standing relationship with the CTCs/MCTP and that these are collected observations from Observer Controllers and Observer Trainers.

Note, some of these terms and systems may not sound familiar at this point, but that you will understand every part of this slide when the class is complete.

Instructor Note: Urge the students to return to this slide after completion of the course and note where your own organization may have some of the same challenges.

Slide 10 Course Terminal Learning Objective

We have completed the 1st enabling learning objective. You should now have a clear understanding of the fundamentals of knowledge management and be able to explain them.

Slide 11 Questions

This concludes our 1st session together. Do you have any questions?
Now, let’s consider the 1st component of knowledge management, **people**.

By the completion of this section of the course you will be able to provide examples of how people enable knowledge management.

So, why are people so key to the success of knowledge management?

Because people create, organize, apply, and transfer knowledge, the four task areas involved in the content management function.

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*Instructor Note:* Begin by making a joke of the quote by Gen Abrams.

**Ok, ok.** You are probably all asking yourselves why this quote. Well it satisfies my obligatory dead general quote.

*Instructor Note:* One you get the students laughing transition to talking about the importance of Soldiers to knowledge management.

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**Soldiers are not in the Army. Soldiers are the Army.**

- General C. Abrams

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*Instructor Note:* The intent of this slide is to inform the students about the material that will be covered in this section of the course.

*Instructor Note:* Ensure you provide a brief description of each of the roles seen on the slide. Finally, tell the students that this material is important to process as there will be a check on learning at the conclusion of the course.
Now let’s explore the knowledge management (KM) duties of a Soldier.

**Slide 15 Soldier KM Duties**

Knowledge Management (KM) is an enabler that helps the unit/organization get the right information, in the right form, to the right person, at the right time, in the right place to make decisions. With this knowledge in mind, what do you believe are the KM Duties of a Soldier?

**Slide 16 Soldier (1)**

The Soldier is an integral component of a knowledge-sharing environment. Every Soldier must understand and practice knowledge management. This enables the Army and its subordinate commands at every level to be learning organizations. Soldiers perform knowledge management as part of daily business. Like safety, knowledge management is everyone’s responsibility.

**Instructor Note:** Make sure that the students understand these responsibilities and what they entail.

**Slide 17 Soldier (2)**

**Instructor Note:** Discuss with the students the difference between feedback and suggestions. Note that there are hierarchical difficulties associated with the two, but that good KM can facilitate each.
Now let’s consider the duties of the knowledge management representatives and then the members of the KM section.

Knowledge management representatives (KMRs) are staff section personnel officially designated as the agent of the staff principal to coordinate with the knowledge management staff section. They are usually the first responders to knowledge management issues and are well-versed in their organization’s collaborative processes. They should have technical skills or special training in knowledge management.

Seen here are the three main areas where KMRs can make important contributions to the successful implementation of knowledge management in their organizations—advocacy, support, and knowledge-brokering.
Now let’s investigate each of these areas in more detail.

**Slide 21 Knowledge Management Representative 2**

Advocacy is spreading the knowledge management message; educating and emphasizing the importance of sound knowledge management practices. For example, they demonstrate to co-workers how to share knowledge using available knowledge management tools. Ways KMRs advocate for knowledge management include:

- Transmitting communications from the knowledge management officer to their section.
- Encouraging and setting the example in knowledge-sharing and learning.
- Leading knowledge management awareness training at staff section professional development.
- Collecting and sharing feedback from the staff section to the knowledge management officer, section, and working group.

**Slide 22 Knowledge Management Representative 3**

In their support role, KMRs attend knowledge management meetings and seek out projects and processes to streamline and automate. In addition to representing knowledge management initiatives to their staff sections, they provide their own staff section’s perspective to the knowledge management section to enable them to better understand the needs of the organization. KMRs are internal staff section representatives for knowledge management initiatives. Specific ways KMRs provide support include:

- Acting as liaison between the knowledge management officer/section and their staff section.
- Planning, coordinating, and delegating specific knowledge management activities for their staff section.
- Providing feedback to staff section leaders on the impact of knowledge management initiatives.
- Providing suggestions for new knowledge management initiatives or improvements.
As knowledge broker, KMRs link their colleagues to knowledge and information sources outside their immediate context. Specific ways KMRs act as knowledge broker include:

- Facilitating knowledge sharing during meetings/activities/operations.
- Networking with other KMRs and building contacts with experts.
- Responding quickly to staff section requests for support, with timely push to the knowledge management officer/section.
- Identifying major knowledge and information needs in the staff section.

Note: One of the most important roles of a KMR is that of a member of the KM working group. KMRs must have the authority to implement the changes and improvements developed by the KMWG within their staff section or organization; with the energy to see the changes fully implemented.

Additionally, key attributes for a KMR include a willingness to learn, communication skills, and the ability to overcome resistance to change. KMRs must be able to influence others to be open to knowledge management initiatives and implement new processes and tools.
Now let’s look at the knowledge management officer and his/her duties.

**Slide 25 Knowledge Management Officer (KMO) 1**

The knowledge management officer (KMO) directs the knowledge management section. The KMO ensures the knowledge management process and procedures are understood within the unit. The KMO demonstrates how these processes and procedures can improve efficiency and shared understanding during training and enhance operational effectiveness during operations, especially in time-constrained environments.

**Instructor Note:** Briefly discuss requirements, capabilities, and gaps since “gap analysis” has doctrinal meanings and needs to be recognized as such. Additionally, mention that you will be discussing methods for bridging gaps later in the course.

**Slide 26 Knowledge Management Officer (KMO) 2**

**Instructor Note:** Discuss some of the difficulties associated with identifying KM trends thanks, primarily, to metrics development. Also, discuss the difference between formal and informal networks. Finally, cover the creation of knowledge: Data is observed and then transmitted to an entity that analyzes the data thereby turning it into information, information is shared, stored, and becomes knowledge.

**Slide 27 Knowledge Management Officer (KMO) 3**

Here are some other duties for which the KMO is responsible.
Now let’s consider the Mission Command Systems Integrator and his/her role as a member of the KM section.

**Slide 28 Mission Command Systems Integrator 1**

**Instructor Note:** Discuss with the students that most Mission Command Systems have a virtual right seat ride capability and then briefly describe that ability.

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**Slide 29 Mission Command Systems Integrator 2**

Later in the course we will further discuss bullet 4, metrics for effective KM.

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Next let’s move on to the Knowledge Management NCO and his duties.

**Slide 30 Knowledge Management NCO 1**

As the senior enlisted member of the knowledge management section, the knowledge management noncommissioned officer (KMNCO) advises the KMO on ways to facilitate knowledge-sharing within the staff; improving knowledge transfer, knowledge tools and processes; and other knowledge management matters. KMNCOs help integrate knowledge management training concepts into the unit’s individual and collective mission-essential tasks. They oversee knowledge management training certification programs.
The Knowledge Management NCO is also responsible for the following items seen on this slide.

Note, in addition to Standard Operating Procedures (SOPs), Commander’s guidance, and standard processes, there are statutory requirements concerning content management that must be followed.

Now consider the Content Management Specialist and his/her duties.

**Instructor Note:** Discuss with the students Observations, Insight and Lessons Learned (OIL) and how Tactics, Techniques, and Procedures (TTPs) are used to bridge gaps on doctrine (due, primarily, to the timeliness associated with doctrine) and that OILs tend to be used to bridge gaps in TTPs.
Slide 33 KM Responsibility/Role Quiz

Now, let’s see what you have learned. The following is a check on learning.

Instructions: Match the Responsibilities from the left column with the correct Role on the right. All Responsibilities must match up to a Role on the Right.

Slide 34 Role Overview

Instructor Note: The intent of this slide is to help the students place each of the roles, just discussed, in a continuum starting with data entry and ending with the Commander making a decision.

Slide 35 Course Terminal Learning Objective

We have completed the 2nd enabling learning objective. You should now have a clear understanding of how people enable knowledge management and be able to provide examples.
Are there any question on the material we just discovered?

In this section we will look at the 2nd component of knowledge management, organization.

An organization is the matrix in which people-processes-tools function to integrate individual learning, and organizational learning strategies. KM capabilities contribute to a learning organization. Organizations such as staffs, squads, and larger groups bring their attitudes, feelings, values, and knowledge together, creating a system of processes facilitated by tools that will characterize that group. Collectively, these factors are its organizational culture. KM practitioners must consider this dynamic when advising and assisting organizations regarding KM solutions. Knowing an understanding the culture of any organization will provide their perspective by which information, goals and motivations can be viewed, allowing rapport, facilitation of knowledge sharing, and accurate interpretation for further understanding and acquiring a broad view of a situation.
Slide 38 Organization Agenda

Here is the agenda for this section of the course. During this block of instruction we will discuss KM section functions and organizational structure.

Slide 39 Flat vs. Linear

**Instructor Note:** Ensure you demonstrate the hierarchical nature of the Army using the line chart seen here. Then note the fact that the same organization exists in the chart on the left, but that data/information/knowledge may enter the organization at any level of the hierarchy so it is important to recognize that knowledge, more often than not, must flow throughout an organization rather than remaining stovepiped.

Slide 40 Organizational Structure 1
This is where we want to go. It is not the current structure.

The knowledge management section provides advice and recommendations to commanders regarding how knowledge management can improve shared understanding throughout the organization, to include that of other staff sections. Commanders, in turn, direct the implementation of knowledge management improvements per their priorities, considering the recommendations of the knowledge management officer, and with consultation from the staff.

Additionally, the knowledge management section members advise the unit’s staff on the knowledge management process and tools. These help the staff to better manage explicit and tacit knowledge. The section uses available tools to help the unit create and apply the knowledge management process. The knowledge management section also supports unit learning before, during, and after operations; assisting the staff in developing and disseminating techniques and activities that create or transfer knowledge gained from operations. The knowledge management section enhances mission command by helping organizations integrate information systems into the headquarters in a manner consistent with best knowledge management practices and operational requirements.

The knowledge management section must build and sustain a knowledge architecture.
that is social and interpersonal as well as technical. The network enables units to rapidly share tactics, techniques, and procedures; operational observations, insights, and lessons; and validated, explicit knowledge products. Knowledge network architectures use the technical network architecture established by the signal staff officer. It connects subject matter experts to enable individual and organizational learning. The knowledge management section’s responsibilities include:

Slide 44 Current Authorizations

Instructor Note: While this TAA is current, the FDU will change some of the slots so this TAA will probably change after the elections.

Slide 45 Current Authorizations

This concludes this session. We have completed the 3rd enabling learning objective. You should now have a clear understanding of how organizations enable knowledge management.

Course Terminal Learning Objective

- **ACTION**: Generate about the employment of Knowledge Management (KM) in your unit
- **CONDITIONS**: In a facilitated classroom environment, given an overview of knowledge management, PM 9-11.1, and access to the Internet
- **STANDARDS**: Generalization includes:
  1. Explaining the fundamentals of Knowledge Management
  2. Giving examples of how people enable Knowledge Management
  3. Illustrating how organizations enable Knowledge Management
  4. Summarizing how processes enable Knowledge Management
  5. Explaining how technology enables Knowledge Management
Slide 46 Questions
Do you have any questions concerning the material we just covered?

Slide 47 Knowledge Management Processes
In this section we will look at the 3rd component of knowledge management, processes.

Instructor Note: Highlight how important process is. For example, there are 132 slides in this presentation and Process is over half of them.

Slide 48 KM Process Agenda
Here is the agenda for this section of the course.

- KM Process
- SPOTREP-SIGACT
- Battle Rhythm and Working Groups
- Staff Integration
- 7 – Minute Drill
- Action Plan
- Content Management
- Knowledge Systems Integration
- Common Operational Picture
Example of a Process

Here we have an example of a process. Specifically, how a SPOTREP may turn into a SIGACT which will then initiate an operation. Note, the process is cyclical.

KM Process

Now let’s explore the flexible five-step process that the knowledge management section employs to help units leverage knowledge more effectively. The steps are:

- **Assess** - Start with a process first (Understand who needs what information, when, and what KM Tool we are using to get it there)
- **Design** - Processes to facilitate the capture and flow of knowledge
- **Develop** - SOP to manage the process and identify standards (Details / Hard work)
- **Pilot** - Test it with a rehearsal (Certify SOP) (Leadership)
- **Implement** - Commanders emphasis and unit discipline will drive implementation

The KM section employs this process to help units leverage knowledge more effectively.

Now you may be asking yourself why the ADDPI process is important to you. Well you may be called upon to assist the KM section in conducting portions of the KM process – most likely the assess, pilot, and implement steps.
The first step in the knowledge management process is the assess step. In the context of KM, assess entails analyzing the unit’s knowledge needs. The KM assessment process begins with a formal assessment of the four components of the KM environment, people, process, organization, and tools. Note: we will address these components later in this course.

**Instructor Note:** Discuss the difference between structured, semi-structured, and unstructured interviews.

During the assess step an analysis of the unit’s knowledge needs determines if the performance shortfalls require additional training, materiel, or knowledge solutions. Aligning solutions to shortfalls is key to solving the right problem.

Analysis activities under the assess step include, but are not limited to those seen here.

We will cover each of these in some detail in the next few slides.
Instructor Note: Ensure the students understand that standards should not be arbitrary.

The purpose behind standards analysis is to help a unit determine the degree to which it follows standard KM practices and what needs improvement. It analyzes Commander’s guidance, policy letters, and standard operating procedures to ensure they establish KM standard practices and enforce adherence to said practices.

Instructor Note: Discuss the fact that, on average, CONUS units report Command and Staff (C&S) meetings taking in excess of 2 hours. However, downrange, the same meeting only takes 30-45 minutes. Furthermore, the same units that figure out how to get C&S down to half an hour somehow go back to doing 2 hour C&S meetings when they return home. Ask the students why they think that happens.

The purpose of meeting analysis is to help the unit determine the efficiency of the meetings conducted from the perspective of effective use of time and whether the meetings serve the intended purpose. Its outcome is to enable organizations to manage meetings effectively. One way to ensure this occurs is to apply the 7 minute drill to any lesson. We will cover the concept of the 7 minute drill later in this course.

Instructor Note: Highlight the third bullet and mention again where appropriate… many units have lost sight of this key fact.
The purpose of **report analysis** is to examine how reports are created, organized, and transferred. It identifies who used the information reports contain and how to make that information available to the most people, consistent with security requirements.

The purpose of a **technical systems analysis** is to provide operational and functional analysis of the technical systems supporting KM. The KM section uses the results of this analysis to prepare customized digital status charts often called digital dashboards.

The purpose behind **content management analysis** is to determine how data is managed throughout its life cycle. It also looks at how the visibility and accessibility of digital and non-digital knowledge products within and outside the organization effect mission accomplishment.
Slide 60  Staff Product Considerations (NTC Example) 1

This is an actual check sheet that OTs use at NTC to determine whether a product is “good.”

Slide 61 Staff Product Considerations (NTC Example) 2

Which of these considerations do you believe to be the most important, and why?

Instructor Note: There are no “correct” answers here; you as the instructor just want the students to begin thinking of these concepts in the context of their units.

Slide 62 KM Process: Design

In the context of the knowledge management process, design is identifying tailored KM products or services that effectively and efficiently answer information requirements and meet the objectives established in the assessment step. The KM products or services could be refinements of an existing process or a new solution identified after the assessment.

Instructor Note: Discuss each of the collaborative forums, and how they promote collaboration, in detail.

Instructor Note: Students often have difficulty understanding the difference between design and develop. Give an example here of each as a segway to the next slide that highlights the develop step.
### Slide 63 KM Process: Develop

The develop step of the knowledge management (KM) process actually builds the solutions derived from the assessment and design steps. The knowledge management officer (KMO) communicates regularly with the chief of staff/executive officer to verify if the solutions as designed are on the right track to fill the knowledge and performance gaps. Continuous assessment also serves to reveal if any changes are necessary before actual development begins. Development is a detailed, step-by-step building process that should result in a completed solution, ready to be tested and validated in the pilot step. It typically requires close collaboration between the knowledge management working group (KMWG), the signal staff, and information management personnel.

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<table>
<thead>
<tr>
<th>KM Process: Develop</th>
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<tbody>
<tr>
<td>- In this step, the solution derived from the assessment and design steps is actually built.</td>
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<tr>
<td>- Knowledge managers and staff collaborate to establish the social framework for virtual communities.</td>
</tr>
<tr>
<td>- KMRs provide insight from their organizations.</td>
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<tr>
<td>- Once the framework is developed, signal staff personnel (usually portal administrators/designers) assist in connecting them to existing networks.</td>
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### Slide 64 KM Process: Pilot

The pilot step entails deploying the KM solution and testing it with the unit to validate it. This aspect is an incremental test of a modification to an existing process or procedure. Important considerations of the pilot step include communicating the proposed KM solution to the commander and staff and ensuring acceptance or discussing alternatives as needed. The KM section must be prepared to train and coach unit personnel as needed in order to successfully deploy and test the solution. Key activities of the pilot step are collaborative assistance and teammate assistance.

**Instructor Note:** Mention that everything Soldiers eat, drive, shoot, talk on, and wear has been piloted. Recent examples include the ACU and PFU.

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<table>
<thead>
<tr>
<th>KM Process: Pilot</th>
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<tbody>
<tr>
<td>- In this step, the KM solution is actually deployed in order to validate it.</td>
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<tr>
<td>- Important considerations include:</td>
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<tr>
<td>- Communicating the proposed solution to the commander and staff.</td>
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<tr>
<td>- Ensuring acceptance or discussing alternative.</td>
</tr>
<tr>
<td>- KM personnel must be prepared to train and coach personnel as needed in order to ensure successful deployment.</td>
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</tbody>
</table>
The fifth step is implementing. The implement step entails executing the validated KM solution and integrating it into the unit information systems that support mission command components and operations within any phase of the operations process. Training and coaching personnel on their specific roles and tasks continues as needed. Knowledge managers monitor the initial implementation of the KM solution and make any adjustments needed. Once the KM solution is fully implemented and integrated into the operations process, knowledge managers continue to monitor and assess results.

When do you think learning activities are best captured? Is it usually after operations cease?

Instructor Note: Describe storytelling and how important it is to listen to user’s stories during the implement phase.

SIGACT Process Elements

Instructor Note: This is a build slide.

For Shared Understanding

The Army used to employ the doctrinal terminology, Boards, Bureaus, Cells, Centers, and Working Groups (B2C2WG)

B2C2WG is still a valid Joint doctrinal term

Doctrinally, the Army now refers to B2C2WG as meetings, composed of boards, working groups and meetings
**Slide 68 Working Groups**

A working group is a grouping of predetermined staff representatives who meet to provide analysis, coordinate, and provide recommendations for a particular purpose or function.

**Slide 69 Boards**

A board is a grouping of predetermined staff representatives with delegated decision authority for a particular purpose or function. Boards are similar to working groups. However, commanders appoint boards with the purpose to arrive at a decision.

**Instructor Note:** Ask an NCO in the class who was present for their first NCO board and then ask them who actually promoted them. Answer should be: Sergeant Major and First Sergeants for the board and then (typically) the Commander who actually promoted them. This is a good example of delegated decision authority for most.

**Slide 70 Battle Rhythm**

Now let’s investigate the concept of a battle rhythm. A battle rhythm is a deliberate daily cycle of command, staff and unit activities intended to synchronize current and future operations (JP 3-33)

The unit’s battle rhythm sequences the actions and events within a headquarters that are regulated by the flow and sharing of information that supports decisionmaking (ADRP 5-0, para 1-65)

Battle rhythm provides a structure for managing our most valuable resource—the time of the commander and staff personnel.
The CoS (XO) Oversees the battle rhythm.

Note, that we use time management analysis to identify issues with an organization’s battle rhythm and then work with the staff to fix it.

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**Slide 71 Staff Integration Defined**

Effective Staff Integration is achieved when functional expertise from across the staff and from external stakeholders is brought together in direct support of the commander’s decision cycle.

The use of Boards and Working Groups makes staff coordination more routine and facilitates assessment and planning.

Virtual collaboration tools help facilitate inclusiveness at these venues.

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**Slide 72 KM Working Group (KMWG)**

Working groups are common battle rhythm meetings. A working group is a grouping of pre-determined staff representatives who meet to provide analysis, coordinate, and provide recommendations for a particular purpose or function (ADP 5-0). Working groups will integrate members from across the staff to help break down stovepipes and synchronize information. For knowledge management professionals this is an excellent means to assess gaps and implement solutions.

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**Slide 73 KMWG Agenda Items**

This is a sample agenda from an actual KMWG.
The KM section can employ the "7 minute drill" to conduct meeting analysis. The drill can be used to vet meetings and working groups.

The 7 minute drill is a means by which the staff proponent summarizes the purpose of the meeting and / working group, its linkage to other meetings and working groups, and its support to decision-making requirements. By going through this process, the KMO and staff can quickly identify duplicative meetings, identify knowledge and process gaps, and ensure an efficient and hierarchical structure of meetings that provide the commander accurate and timely information on which to base decisions.

This is an example of a 7 minute drill quad chart.
Slide 77 “7 Minute Drill” Example 2

This is an example of a 7 minute drill quad chart.

Slide 78 KM Strategy (POA&M)

KM Strategy (POA&M)

- Similar to an Operations Order
- A Plan of Action and Milestones (POA&M) is necessary to get everyone on the same page and moving forward
- Includes:
  - actions
  - actors
  - timeframe
  - resources
  - measures of effectiveness
  - key performance indicators

Slide 79 Garage in Disarray

Now let’s take a look at this garage which is in total disarray. Can you find the snow blower?

Instructor Note: It helps to stand on the right side and “play dumb” a little when students try to point out the snow blower. Assure the students that the snow blower is definitely in the picture and that you can see it.
Now that the items in the garage have been put in some semblance of order, can you find the snow blower?

Now liken the lack of content management to a garage in disarray. Once content management is applied, you can find the things you need in your garage. You can find your snow blower.

Content management focuses on how content—in both digital and non-digital media—is managed throughout the five knowledge management process steps (assess, design, develop, pilot and implement). It differs from similar information management activities in that it concerns knowledge products rather than data or information. Effective content management provides users with immediate and secure access to trusted, relevant knowledge products.

Instructor Note: Discuss the difference between structured and unstructured.

Note the terms most often associated with content management.
- **Metadata** is generally defined as “data about data.” In content management, it is “information about objects.” (Object types include documents, images, and other information or knowledge products.) If no metadata capability is available, users can still share the information. The information can be placed in folders, or there can be a plan for how to share the information.
- **Taxonomy** is a system of describing, categorizing, and naming data, and placing it in categories to allow retrieval by users. It is a guiding structure or framework that organizes knowledge into meaningful groups while establishing
context-sensible relationships between them. The most common methods of arranging the data are by subject or format. A taxonomy may be thought of as a table of contents.

- **A metric** is a parameter or measure for quantitative and periodic assessment of a process. Assessments can be either direct or indirect. Direct assessments measure the actual metrics. Indirect assessments measure indicators. The most important characteristic of a KM metric is whether it can tell how effectively the knowledge is contributing to understanding and decisionmaking. A secondary one is whether knowledge is being shared or used.

- A **P.A.C.E. plan** is a communications plan.
  - The **P** stands for primary means of communication.
  - The **A** stands for alternate means of communication.
  - The **C** stands for contingency means of communication.
  - The **E** stands for emergency means of communication.

In the P.A.C.E. plan you identify which modes of communication will work best as the primary means of communication, the alternate means of communication, etc. You do this based upon the following facts:

- Available Mission Command Information Systems
- The information you are wishing to communicate
- The classification level of the information you are wishing to communicate
- The priority level of the information
- The echelon at which you are located
- The echelon at which the receiver of the information is located
Slide 83 Patrol Lifecycle
You have seen this image before when we discussed the KM process. This particular image has an addition, content management considerations.

Slide 84 Army Recordkeeping Requirements
An attempt at managing content is made with ARIMS or the Army’s Record Information Management System, but it is not enough. It is limited in its application.

Slide 85 Visible – but can you find what you need?
Consider the following picture. Can you pick out a particular individual without the names being annotated on the picture?

What if you had a taxonomy in place?
Slide 86 Taxonomy Example

Remember that a taxonomy is a system of describing, categorizing, and naming data, and placing it in categories to allow retrieval by users.

This then is an example of a taxonomy using the Army as an example. In the next slide, you will demonstrate how a KM professional would use taxonomy.

Slide 87 Unit Taxonomy Example

In this example, the taxonomy describes the file structure within the First Division’s shared drive. The idea is to demonstrate that a content manager could find the PERSTAT for any of the brigades because their file structures all look the same by design.

Slide 88 Metadata

Would we be able to identify a particular soldier in the photo we saw earlier if we had put metadata on the picture?

Remember that earlier we discussed metadata and that it is generally defined as “data about data.” Furthermore, in content management, it is “information about objects.”
Where is my metadata?

**Instructor Note:** Talk through the importance of file properties.

If someone had placed the proper metadata on this photo prior to uploading it to a particular shared site, perhaps we would be able to identify the soldiers in the picture.

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File Naming Conventions

**Instructor Note:** Discuss the elements that can be included in a naming convention.

Now let’s look at the various elements that can be included in naming conventions.

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What’s the Difference?

What is the difference between the naming conventions you see here?

What impact will these naming conventions have on the user’s ability to find the material for which they are looking?
Slide 92 Importance of Naming Conventions

Instructor Note: The intent of this slide is to show how keeping naming conventions consistent is important.

Looking at the slide, which document in the Portal would describe the event circled in TIGR and CPOF?

Before moving on to the next slide, “Tell me what is the difference between a taxonomy, metadata, and a naming convention?”

Slide 93 Security (1)

Now who can tell me what versioning is?

What is spillage?

Why is this important?

Slide 94 Security (2)

Control access to data based on classification metadata. Examples:

- Role based access (Commander)
- Permissions based access (Administrator)
- Classification based access (Secret)

Regulations: AR 25.1, AR 25.2, AR 380.5
Note, the next few slides are all digital TTPs that we have collected from units. Some of these your units may already have in place or you may wish to recommend that they be implemented.

Which ones have you implemented in your organization?

Digital TTPs

- Understand & enforce operational processes at your level (Co, Bn, Bde, Div, Corps, ASCC)
- Illustrate KM related battle drills (e.g. posting SIGACTS to TIGR/CPOF/CIDNE)
- Establish Primary, Alternate, Contingency, Emergency (PACE) for KM systems and processes
- Highlight CPOF permissions at various levels to ensure data accessibility

Digital TTPs

- Establish analog systems for information tracking when digital systems go down (map boards, status charts, etc.)
- Establish and enforce naming conventions
- Apply file structure to organize content
- Educate and enforce meta-tagging
- Enforce physical/information/operations security
- Establish process for management of documents to SharePoint

Digital TTP Example

Rule: RACE, for SIGACT reporting will be P/FM. A Outlook C/TOR E: Hand-carry hard copy
Rule: PATROL pre-print template found in TOR will be primary means to capture all patrol information
Rule: Sections will provide detailed patrol training to all members within 30 days of arrival
Rule: Metadata will be included on all reports sent to higher HQ
Rule: Portals will be used for storing attachments when sharing data
Rule: One click rule will apply to accessing all priority information (SR, CCR, etc)

Practices: File size limitations will be established to decrease latency on systems
Practice: Naming conventions will be standardized across TIGR, CPOF, CIDNE to greatest extent possible
Practice: MAP boards, status charts will be used to replicate C/G related information in all TOCs
What integration enablers does your unit (section) use? How successful are they? Explain.
Note: The COP management actions are:
- Collect
- Process
- Store
- Display
- Disseminate

According to ADRP 6–0, Mission Command, the COP is a single display of relevant information within a commander’s area of interest tailored to the user’s requirements and based on common data and information shared by more than one command.

Additionally, ADRP 5-0, The Operations Process, states that, “The primary tools for assessing progress of the operation include the operation order, the common operational picture, personal observations, running estimates, and the assessment plan.”

Now, let’s look at the definition of CCIR.

According to ADRP 5-0, A commander’s critical information requirement is an information requirement identified by the commander as being critical to facilitating timely decisionmaking.
Slide 104 Commander’s Critical Information Requirements (CCIR) (2)

Note the following criteria for CCIR:
• Directly affect decision making
• Limited to a useable number
• CCIR support decision points
• Fewer = better
• Includes:
  – PIR – “How I (commander) see the enemy”
  – FFIR – “How I (commander) see myself”

Slide 105 Key Players in Building the COP

The key players in building the COP are seen here.

Must the COP always be digital? When might it be otherwise? Provide examples.

Remember, the finished COP is a Tool. Building the COP is a process.

Slide 106 Terminal Learning Objective

This concludes this session. We have completed the 4th enabling learning objective. You should be able to summarize how processes enable knowledge management.
Slide 107 Questions
Do you have any questions concerning the material we just covered?

Slide 108 Knowledge Management Tools
In this section we will look at the 4th component of knowledge management, **tools**. It will highlight both digital and non-digital tools.

Slide 109 Tools Agenda
Here is the agenda for this section of the course.

- Non-digital Tools
- Digital tools
- Mission Command Information Systems
It would be very difficult if someone handed you a sniper rifle and said “Here, plan a mission around this” but, if your commander said “I need you to interdict targets at ranges between 300m and 800m, go and choose the appropriate weapon,” most Soldiers would choose a sniper rifle. So what is my point here? It is crucial to choose the right tool for the job.

Now we are going to look at a list of non-digital tools, but before we do let me ask you, “What tools have you used before that have nothing to do with technology?” If it helps, an example of a non-digital tool is TOC status boards.

Take a look at the non-digital tools listed on this slide. Do you know what each of these is? Explain.

Instructor Note: If no one offers to answer the question, pick one of the older NCOs and ask him/her what mapboards/wingboards are or what is a strip map and what is its purpose?

Now let’s look at digital tools.

Here is some key information concerning digital tools.
Slide 113 Digital Tools (2)

This is just a continuation of the last slide.

**Instructor Note:** You may wish to ask the students if they can provide examples of any of these tools. This would make the session more interactive.

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<table>
<thead>
<tr>
<th>Digital Tools</th>
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<tbody>
<tr>
<td><strong>Data analysis tools:</strong> These tools support data synthesis that identifies patterns and establishes relationships among data elements.</td>
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<tr>
<td><strong>Search and discovery tools:</strong> These tools include search engines that look for topics, recommend similar topics or authors, and show relationships to other topics.</td>
</tr>
<tr>
<td><strong>Expertise development tools:</strong> These tools use simulations and experiential learning to support developing expertise, judgment.</td>
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Slide 114 Tools (1)

In determining what tool to use, you need to consider the following information.

It is important to choose the correct knowledge management tool. In order to do this you need to know who your audience is. Then you must know what tools they use to share knowledge. Finally, you must determine which tools you will use to interact or collaborate with your audience.

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<table>
<thead>
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<th>Tools</th>
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<tbody>
<tr>
<td><strong>Who is your user audience?</strong></td>
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<tr>
<td>- Internal, Higher, Subordinate, Later, Joint, Intergovernmental, International, Multi-National, Non-Governmental, Academic, Public, etc.</td>
</tr>
<tr>
<td><strong>What different tools do these audiences use to share knowledge?</strong></td>
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<tr>
<td><strong>What tools do you need to interact/collaborate with them?</strong></td>
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</table>

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Slide 115 Tools (2)

This is a continuation of the last slide.

**Instructor Note:** Ask your audience what experience they have had with forums, blogs, or social networks.

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<th>Tools</th>
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<tbody>
<tr>
<td>- Forums</td>
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<td>- Chat</td>
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<td>- Blogs</td>
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<td>- Social Networks</td>
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<td>- rickracing.com</td>
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<tr>
<td>- Conferencing Systems</td>
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<tr>
<td>- Video Sharing Websites</td>
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</tbody>
</table>
Now, let’s look at Mission Command Information Systems.

During the presentation of the next few slides we will cover the following Mission Command Information Systems. Note the fact that the name for CPOF will be changing to Mission Command Workstation.

This is merely a continuation of the last slide. Note: we will cover each of these systems in much greater detail in follow-on slides.
Slide 119 Mission Command Systems Integration

The Battle Command Server (BCS) makes Mission Command Systems integration possible. Furthermore, BCS hosts several applications such as the Publish and Subscribe Service (PASS) that allow Mission Command Systems to exchange critical information. PASS is an information routing system that delivers data from publishers to subscribers. The PASS is nothing more than a sequel database that takes data in one format and rearranges it so that other systems can understand it.

Slide 120 CPOF

The Command Post of the Future (CPOF) is the Army’s primary Command and Control (C2) system that allows commanders and their staff the ability to achieve enhanced operational effectiveness by enabling broad human collaboration. CPOF provides a wide array of real-time situational awareness tools to support decision-making, planning, rehearsal, and execution management. This includes map-centric collaboration, which allows users to share their workspaces, map displays, and data with others equipped with CPOF.

Slide 121 FBCB2

FBCB2 provides an “on-the-halt”, an “on-the-move” and an over the horizon capability. Operational graphics need to be loaded, not like our example seen here. It is assumed that the operator understands graphic symbology and standardization across platforms. Fortunately, you can pre-load all of your graphics.
Slide 122 DCGS-A
This is an “on-the-halt” system. It has a laptop capability. It also has a redundant capability to store information and it has a web-based function. Note: it runs of TROJAN and not JTEN (tactical).

Note, **DCGS-A** is the ABCS intelligence fusion system which provides a timely, accurate, and relevant picture of the enemy situation to commanders at conventional battalion level, SOF groups, light units, airborne units and SASO.

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Slide 123 AFATDS
**AFATDS** is an automated FSC2 system that processes, analyzes, and exchanges combat information among the U.S. Army, U.S. Marine Corps (USMC) and other Joint architectures.

Note: All field artillery operators are trained on AFATDS at every echelon.

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Slide 124 AMDWS
**AMDWS** provides air defense planning, monitoring, and control capabilities, by combining air defense fire units, sensors, and C2 centers into an integrated system for defeating a low altitude aerial threat.

Level of Digital Terrain Elevation Data (DTED) is high in order to allow for elevation and visibility estimates.
Slide 125 TAIS

**TAIS** is a digitized, integrated battlefield management and decision support system at the BCT and higher level to support the ground commander’s need to manage airspace. TAIS supports warfighters by automating airspace command and control (AC2) planning and operations and air traffic services (ATS). Together with AMDWS and AFATDS it provides the user with a comprehensive air picture.

Slide 126 MCS3

**MCS3** provides unit commanders with the ability to see all unit and sustainment movement, asset visibility both static and in transit, and the ability to see organizational health through an automated, bottoms-up logistics reporting tool.

The advantage to using MCS3 is that it can tie into all the logistics systems. The disadvantage is that this is a higher level experience. It requires a lot of bottom-up input. Additionally, end user requirements are high, but there are not many SOPS out there to assist them.

Slide 127 JADOCS

**JADOCS** represents a true Joint and Coalition tool that provides an accurate and detailed operational environment view critical for planning, coordinating, and executing time-sensitive targets.

JADOCS is found at Corps and above. JTACs use JADOCS; therefore, if your Division/Brigade Combat Team has a JTAC, this system will be available to your leaders. This system is fed by GCCS – J.
CIDNE is a system providing process-oriented data collection and correlation tools for Intelligence and Operations information.

CIDNE is only available in the CENTCOM theater. It is web-based and can use it on any SIPRNET. It is a very powerful network analysis tool. Note: such things as different naming conventions can cause issues with CIDNE. Note: the systems administrator resides at Division and above.

TiGR is an information management system designed for the lowest tactical level leader…supporting small unit mission planning, rehearsal, execution, Intelligence Preparation of the Battlefield (IPB), and after-action-review.

TiGR is an “on-the-halt” system. It is the only digital tool available at the company level. An advantage of this system/tool is that it does not require a lot of training. Additionally, it does not require a lot of bandwidth and can use cell phone towers for transmission. Unfortunately, it is underutilized at the BCT and above to conduct staff analysis and data mining.

All of the systems together feed into MCS3 to create a common operational picture.
You have completed the terminal learning objective for this course. With that in mind, you should understand the fundamentals of KM and how the four components of KM, people, organization, processes, and tools, all enable knowledge management.

This concludes the Knowledge Management Representative Course. Do you have any questions?

Should you determine later that you do have question, please contact any of the following personnel from the Army Operational Knowledge Management Proponent.
Appendix A (Slides)

Note: Double click on the slide located below to open the slide presentation.

Army Operational Knowledge Management Representative Course

What if a single Soldier had the knowledge of thousands?