

**U. S. MARINE CORPS
CIVIL INFORMATION MANAGEMENT**



**Marine Corps Civil-Military Operations School
(MCCMOS)**

U.S. Marine Corps

August 2019

This circular supports the academic curricula of all MCCMOS Civil Affairs and Civil-Military Operations Programs of Instruction

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Throughout this circular, masculine nouns and pronouns are used for the sake of simplicity. Except where otherwise noted, these nouns and pronouns apply to either gender

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To: Director, Marine Corps Civil-Military Operations School

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Quantico, Virginia 22134-5043

31 August 2019

FOREWORD

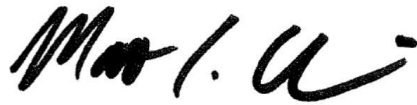
Marine Corps Civil-Military Operations School (MCCMOS) Circular 3.2b, *U. S. Marine Corps Civil Information Management*, is designed to clarify the Civil Information Management (CIM) process within the execution of Civil Affairs Operations (CAO), and in support of Civil-Military Operations (CMO), with regard to missions, employment, support requirements, capabilities, and limitations of the MAGTF, and to increase the situational understanding of how civil information enhances battlespace awareness and the success of operations.

The overall purpose of this circular is to support MCCMOS programs of instruction with a more complete reference until such time that an update to MCRP 3-03A.1 (CA TTPs) is approved by the Deputy Commandant for Combat Development and Integration.

Recommendations for improvements to this pamphlet are encouraged from commands and individuals. The enclosed User Suggestion Form can be reproduced and forwarded to:

Director, Marine Corps Civil-Military Operations School
(Attn: Doctrine)
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Reviewed and approved this date.



M. C. CHAMBLISS
Lieutenant Colonel, U.S. Marine Corps
Director, MCCMOS

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CHAPTER 1

“...the make-up of participants in military conflicts is broadening. Together with regular forces, the internal protest potential of the population is being used, as are terrorist and extremist formations...”

*-Valery Gerasimov, Chief of the General Staff of the Russian Federation
Armed Forces “Thoughts on Future Military Conflict” - March 2018*

1000. The Role of Civil Information Management

Civil Affairs (CA) forces conduct operations that support and are nested within the overall mission and commander’s operational approach. Civil information management (CIM) provides the commander with situational awareness on the civil component of the operational environment (OE). The CIM process is continuous, occurs across the competition continuum, and develops timely and accurate civil component information critical to the commander’s understanding and planning. CIM is conducted through six activities (plan, gather, consolidate, analyze, produce, share) to facilitate command and control. CIM procedures integrate civil information and technology with efficient processes to inform commander situational awareness and decisions at the tactical and operational levels of war. CIM links civil information with tactical units and unified action partners to facilitate planning and the successful conduct of military operations. Although it is listed as a separate Civil Affairs activity, at its core CIM is a CA planning consideration and the process whereby civil information is gathered, analyzed, and entered into a central database, fused with the supported MAGTF and joint intelligence organizations, other USG departments and agencies, interagency partners, international organizations (IOs), non-governmental organizations (NGO), and the private sector to ensure the timely availability of information for analysis, and the widest possible dissemination of the raw and analyzed civil information to military and nonmilitary partners throughout the battlespace.

Civil information management is an essential activity for all CA Marines in coordination with unit command staffs (i.e., S-2, S-3 or higher) and should be broadly organized to the supported unit’s intelligence and maneuver elements to enhance the common tactical/operational picture (CTP/COP) and facilitate the Joint Intelligence Preparation of the Operational Environment (JIPOE), Intelligence Preparation of the Battlespace (IPB), Civil Preparation of the Battlespace (CPB), and/or other information gathering processes. As an example, operations conducted in

foreign countries under Title 22, United States Code, are integrated and coordinated through the American Embassy in support of the HN's Internal Defense and Development (IDAD) plan. The data collected provides current civil component information for dissemination through the CIM process.

Moreover, CIM is not solely a task of a CA unit's CIM cell. Every CA element has a role within CIM. CA forces should also actively incorporate the supported unit's intelligence and maneuver elements into the civil information collection requirements to enhance the COP and the civil intelligence and intelligence preparation of the battlespace processes. While every CA Marine has the ability to conduct basic analysis of civil information, trained CMO Planners and Chiefs are further capable of providing an enhanced understanding of the civil environment and shaping civil conditions and integrating CMO into the decision-making process throughout the competition continuum.

1001. Situational Awareness and the Common Tactical/Operational Picture

Situational Awareness (SA). Situational awareness is the perception of environmental elements and events with respect to time or space, the comprehension of their meaning, and the projection of their future status. Managed at the tactical, operational, and strategic levels, Dr. Mica Endsley's model of SA encompasses three levels; perception, comprehension, and projection. Perception is the awareness of relevant elements or factors present in the environment, and involves the processes of monitoring, cue detection, and simple recognition, which lead to an awareness of multiple situational elements (objects, events, people, systems, environmental factors) and their current states (locations, conditions, modes, actions). Comprehension involves pattern recognition, interpretation, and evaluation and requires integrating this information to understand how it will impact upon goals and objectives. This includes developing a comprehensive picture of the battlespace, or of that portion of the battlespace of concern to the commander. Lastly, projection involves the ability to project the future actions of the elements in the environment. This is achieved through knowledge of the status and dynamics of the elements and comprehension of the situation (perception and comprehension), and then extrapolating this information forward in time to determine how it will affect future states of the operational environment. The use of SA and corresponding information allows the MAGTF

commander to obtain knowledge of the whole environment and the systems, links, and nodes that comprise the civil dimension that exists within the operational environment.

Common Tactical and Operational Picture (CTP/COP). JP 3-0, *Joint Operations* describes the Common Operational Picture (COP) as a single identical display of relevant information shared by more than one command that facilitates collaborative planning and assists all echelons to achieve situational awareness. Furthermore, the COP, through the principles of joint operations, underlines 10 Common Operating Precepts for successful operations. These precepts flow from broad challenges in the strategic environment to specific conditions, circumstances, and influences in an OE. CIM facilitates these 10 precepts by ensuring relevant civil information is available and fused into the COP by:

- Leveraging the benefits of operating indirectly through partners when tactical circumstances dictate or permit.
- Integrating CIM capabilities to be complementary rather than merely additive.
- Focusing on tactical information objectives whose achievement suggests the broadest and most enduring results.
- Ensuring freedom of action and information sharing opportunities.
- Planning for and managing tactical transitions over time and space.
- Avoiding combining capabilities where doing so adds complexity without compensating advantage.
- Informing domestic audiences and shaping the perceptions and attitudes of key foreign audiences as an explicit and continuous tactical requirement.
- Maintaining tactical and operational flexibility.

For example, MCRP 1-10.2 *Marine Corps Supplement to DOD Dictionary of Military and Associated Terms* describes the Common Tactical Picture as (1) consisting of friendly position location information, known and suspected enemy locations, and graphical map overlays depicting information such as fire support coordination and tactical control measures. (2) The current depiction of the battlespace, including current, anticipated, or projected and planned disposition of hostile, neutral, and friendly forces. The CIM tactical picture would consist of (1) location information of protected civil targets, such as medical clinics/hospitals, primary/post-

secondary education facilities, community/religious centers, important cultural sites; and, graphical overlays of different social-economic and ethnic areas and/or political boundaries. (2) The depiction of current, anticipated, or projected and planned disposition of civil society responses to military operations as developed through the CPB process.

1002. Marine Corps Civil Information Management System (MARCIMS)

MARCIMS is a knowledge management data repository for CIM, which enables users to collect, organize, analyze, visualize, and share field-collected data to support CAO and CMO, and ultimately share civil information on an unclassified platform. Developed in 2009, MARCIMS is a program of record that provides Marines a tool to capture data and share civil information in support of the mission and is available on any public commercial internet worldwide. In 2015, MARCIMS was launched in its current Full Operating Capability (FOC). MARCIMS consists of two major components: MARCIMS Mobile and MARCIMS Portal.


MARCIMS Mobile is a mobile application (currently hosted on a Samsung Galaxy Note 9 and Samsung tablet S4) used for data collection in the field. Each device is pre-loaded with assessment forms that facilitate civil reconnaissance and civil engagements. A MARCIMS kit contains two MARCIMS mobile devices and one tablet.

MARCIMS Portal is an unclassified semantic media wiki knowledge-based portal (website) for automated information structuring and management operating on a Virtual Private Cloud (VPC). MARCIMS data collection does not require the MARCIMS mobile device as data collected can be inputted directly into the MARCIMS portal. Within the portal, users create queries and build pages to visualize results in order to share information more effectively.

Recently Visited: SpecialBadfile ... SpecialUserLogin ... Main Page ... Cobra Gold 2019

Cobra Gold 2019 [\[edit\]](#)

Information [\[edit\]](#)



- Currently in its 38th iteration, Exercise Cobra Gold 2019 (CG19) is an INDOCOM-Sponsored, multinational, joint, theater security cooperation exercise conducted annually in the Kingdom of Thailand.
- The primary objective of CG19 is to enhance the capabilities and interoperability of both the RTAF and the U.S. Armed Forces in conventional joint and combined arms operations.
- CG19 will encompass three major exercise events (FTX, STAFFEX, HCA). This MARCIMS page will only cover the Humanitarian Civic Assistance (HCA) portion of the exercise. These HCA projects will take place in the vicinity of RTAF Military Bases in Chachoensao, Phitsanulok, Tak, Rayong, Nakhon Sawan, and Chantaburi Provinces.

CG19 CJCMOTF FWD Rollup
CG19 CJCMOTF Main Rollup

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Figure 1-0, Example MARCIMS portal page

1003. CIM Challenges

CIM Challenges. Commanders employ activities to establish and maintain relations with civil authorities, the general population, and unified action partners. By definition, MCRP 1-0, *Marine Corps Operations* states the tactical task “Coordinate with Civil Authorities,” is to interact with, maintain communication, and harmonize friendly military activities with those of other interorganizational agencies and coalition partners to achieve unity of effort. Therefore, the CIM goal is the enhancement of situational awareness and understanding for all elements in the OE to assist decision making; however, CIM operational challenges include:

- No common language defining the civil domain
- No common reporting standards across interagency partners (MARCIMS is the program of record reporting system for the Marine Corps)
- No common graphic symbols
- No common data collection procedures
- No common data storage procedures and/or standards
- No interoperable systems for storing and transmitting civil information (classification of systems NIPR/SIPR/CENTRIX, .org, .gov, etc.)

1004. Terms and Definitions

Civil Engagement (CE): Civil engagement is a deliberate or spontaneous activity or interaction

between Marine forces and nonmilitary individuals or entities, designed to build relationships; reduce or eliminate civil interference and causes of instability; gather, confirm, or deny information; foster legitimacy, or promote cooperation and unified action.

Civil Information Management (CIM): A process whereby data relating to the civil component of the operational environment is gathered, collated, processed, analyzed, produced into information products, and disseminated.

Civil-Military Operations Center (CMOC): Tailored to the mission and employed whenever CMO planning, coordination, synchronization, and integration necessitates; an organization, normally comprised of Civil Affairs (CA) forces, established to plan and facilitate coordination of activities of the Armed Forces of the United States within indigenous, populations & institutions (IPI), the private sector, multinational forces, other government entities and international organizations. CMOCs can be used to plan, gather, consolidate, analyze, produce, and share civil information.

Civil Reconnaissance (CR): A targeted, planned, and coordinated observation and evaluation of specific civil aspects of the environment. CR focuses specifically on the civil component, the elements of which are best represented at the tactical level by using Areas, Structures, Capabilities, Organizations, People, and Events (ASCOPE). The observations and evaluations collected during CR are a driving factor in the second step (Gather) of the CIM process.

Commander's Critical Information Requirement (CCIR): An information requirement identified by the commander as being critical to facilitating timely decision-making. The two key elements are friendly force information requirements (FFIRs) and priority intelligence requirements (PIRs).

Information Management (IM): The function of managing an organization's information resources for the handling of data and information acquired by one or many different systems, individuals, and organizations in a way that optimizes access by all who have a share in that data or a right to that information. Without IM, all civil information produced will be difficult to integrate into the Common Operational Picture and to provide the commander with effective Situational Awareness.

CHAPTER 2

CIVIL INFORMATION MANAGEMENT PROCESS

The U.S. military operates mostly among people, and these people live in environments different from what Americans usually encounter.

-Operational Culture for the Warfighter

2000. SIX-STEP PROCESS

Regardless of mission or task organization, effective management of civil information is required. The CIM process is conducted in six steps that generate situational understanding through planning, gathering, consolidation, analysis, production, and sharing of information with all stakeholders. For example, CMO Planners supporting the MAGTF and/or Marine expeditionary Force's operational planning team (OPT) utilize Civil Preparation of the Battlespace (CPB) to build a civil environment model (see Figure 2-3, *Civil Environment Model*) and to enhance situational understanding, while providing relevant information to the commander as the mission dictates. Moreover, the establishment of, or participation in a CMOC, a humanitarian assistance coordination center (HACC), or other operational and tactical-level collaboration and information sharing organizations may develop a comprehensive understanding of the OE among those conducting CMO, which may influence the commander's decision process once "boots" are on the ground. See Figure 2-0, *CIM Six-step Process*.

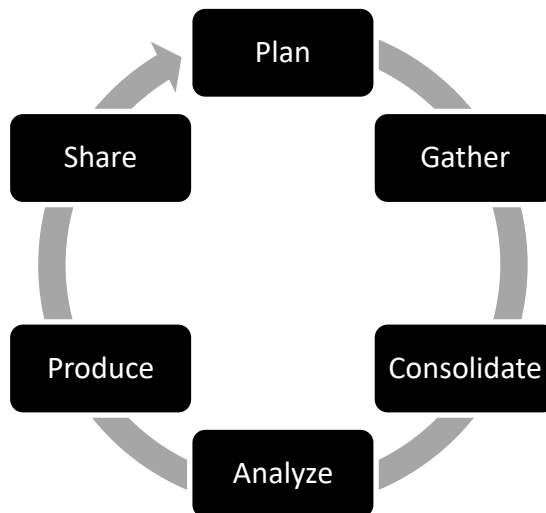
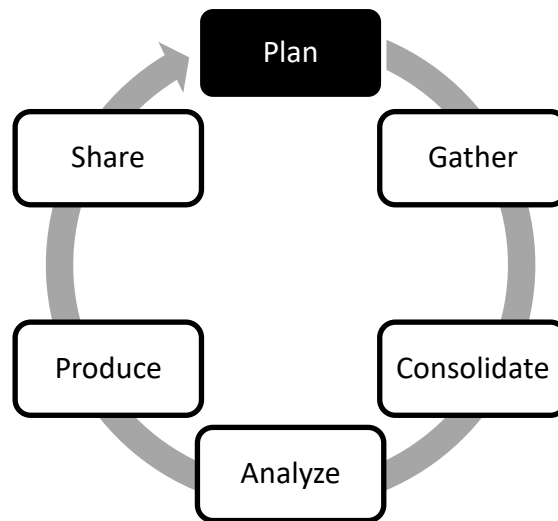


Figure 2-0, CIM Six-step Process

2001. PLANNING



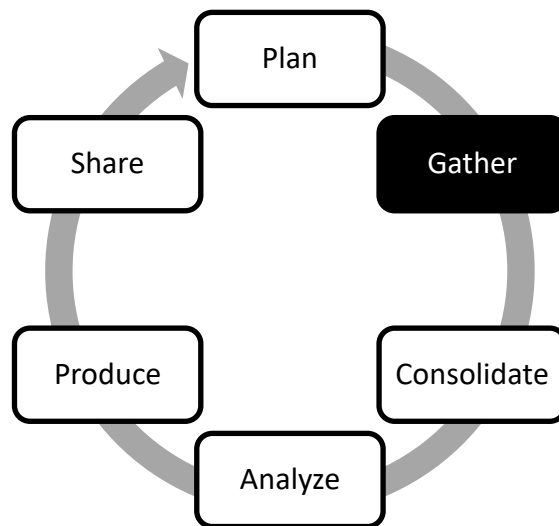
Planning is the first step in the CIM process and results in actions to collect, consolidate and share information. For example, planning for the collection of civil information considers what information and data is necessary to support the mission, how that information will be obtained, by whom, and through what means. Similarly, planning the consolidation of civil information informs how the collected data will be organized, while planning for sharing information identifies what to share, and with whom. CIM Planning considerations should not be based solely on the staff's analysis of DoD-sourced information. Readily available open source information often provides valuable insight into the civil dimension of the operating environment. Therefore, input from multiple sources, such as intelligence organizations, interagency partners, the host and/or partner nation, international organizations and NGOs is essential to developing a better understanding of the civil dimension. The CA staff leverages these external sources of information to provide a comprehensive understanding of the operating environment supporting MAGTF operations.

Importantly, CIM requires planners assess conditions in the operating area. The assessment process serves two important purposes. First, to provide the commander a better understanding of the situation, and second, support decision making by ascertaining progress toward accomplishing a task, creating an effect, achieving an objective, or attaining an end state. Where appropriate, the international community and national actors should discuss the scope and objectives of the CIM assessments to ensure they are suitable. A number of factors, including

the attitudes of key HN leaders, shape measures of performance and measures of effectiveness. Assessments provide an important opportunity to build trust between international organizations and the MAGTF to determine the effectiveness of the CIM programs.

Collaboration. As a coordinated effort focused on sharing data, collaboration increases overall operational efficiency by eliminating redundant collection efforts. Through collaboration, CA forces (with other staff sections) support the IPB process by conducting CPB, which results in the drafting of initial priority intelligence requirements (PIRs), and taskings to subordinate units. Additionally, collaboration entails close working relationships with intelligence personnel, planners supporting operations in the information environment, MEF Information Group personnel, etc.

2002. GATHER

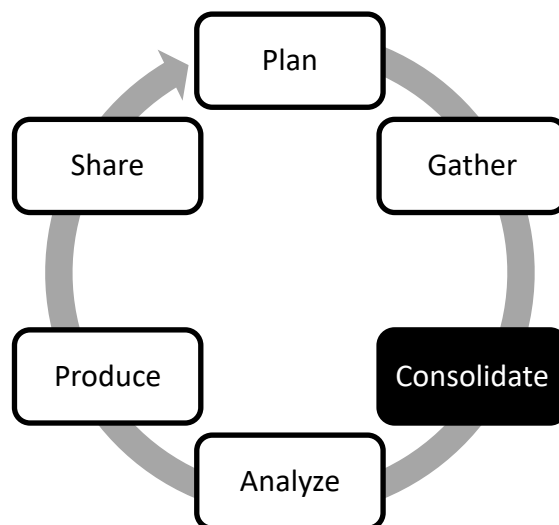


Information gathering is the second step of the CIM process. Information gathering refers to the gathering or collection of civil-related information and relevant data. This step is essential to other CA Marine processes such as the Marine Corps planning process (MCP) and operational assessment process. For instance, during planning, step one in CPB (Define the Civil Operating Environment) focuses on collection of civil information. Driven by the need to present a picture of the civil environment to the commander, the CCIRs, PIRs and FFIRs, and with the combination of and integrated into the intelligence, surveillance, and reconnaissance (ISR) plan, civil information collection occurs at all levels through civil reconnaissance, civil engagement,

data mining, and collaboration with IPI, international organizations, NGOs, and other government agencies. During execution, civil assessment information collection requirements are captured via normal battle rhythm events and reporting channels, and requirements such as CMOC activities, intelligence summaries, CA reports, as well as daily sitreps. The heart of information collection is the daily interaction among CA Marines and myriad civilians in the supported commander's AO. The MAGTF gathers civil information through the following means:

- **Civil Reconnaissance:** Conducted by CA or other forces, as required. The use of CR is to provide the supported commander access to the civil environment.
- **Civil Engagement:** To enhance the commander's understanding of the civil component and legitimize the MAGTF's mission.
- **Data Mining:** Data mining is the process of extracting patterns from raw data. Conducted by all Marines, data mining uses a combination of open and restricted-source materials for routine and continuous study and research. Data mining is focused by CCIRs and the civil information collection requirements and provides corroboration of other collected civil data.

2003. CONSOLIDATION



Consolidation is the third step in the CIM process. Consolidation is the ordering of the data into groupings, such as cataloging, categorizing, staff estimates, or databasing. The tools and

methods for this step vary, and most are still developing. Available computer-based software programs can accomplish this step (such as MARCIMS). Within these database structures, civil information is normally collated by date, type, location, organization, activity, and meta-tagged by supported goals and objectives (e.g., program elements, lines of operation, etc., depending on the specific mission and supported/supporting relationships). The two elements of consolidate are collation and processing.

Collation. Collation is storing and meta-tagging data (through MARCIMS or other means) to organize and standardize it into relevant groups for identification or further processing. A civil information database is capable of cataloging vast amounts of data with attached files and photos and rapidly retrieving this data for follow-on processing, analysis, production, and sharing. Within these database structures, civil information is normally collated by date, type, location, organization, activity, and meta-tagged by supported objectives.

Processing. Processing is reduction and conversion of collated data into specific formats. Processing reduces data size by removing obsolete, irrelevant, inaccurate, or incomplete data, and collapsing overlapping (similar or repetitious) data according to meta-tags and analysis needs. One challenge is ensuring that information meets the seven characteristics of quality information. Quality information adds value to the decision-making process. In the face of uncertainty, information managers must consider the information quality characteristics outlined below:

- ACCURACY Information that conveys the true situation
- RELEVANCE..... Information that applies to the mission, task, or situation at hand
- TIMELINESS Information that is available in time to make decisions
- USABILITY Information that is in common, easily understood format and displays
- COMPLETENESS..... All necessary information required by the decision maker
- BREVITY Information that has only the level of detail required
- SECURITY Information that has been afforded adequate protection where required

Processing also converts data into formats used for assessment and sensemaking (sensible, reasonable, and practicable). Figure 2-1, *ASCOPE/PMESII Matrix* provides an example of processing.

	P Political	M Military	E Economic	S Social	I Information	I Infrastructure
A Areas	Areas - Political (District Boundary, Party affiliation areas)	Areas - Military (Coalition / LN bases, historic ambush/IED sites)	Areas - Economic (bazaars, shops, markets)	Areas - Social (parks and other meeting areas)	Areas - Information (Radio/TV/newspapers /where people gather for word-of-mouth)	Areas - Infrastructure (Irrigation networks, water tables, medical coverage)
S Structures	Structures - Political (town halls, government offices)	Structures - Military / Police (police HQ, Military HHQ locations)	Structures - Economic (banks, markets, storage facilities)	Structures - Social (Churches, restaurants, bars, etc.)	Structures - Information (Cell / Radio / TV towers, print shops)	Structures - Infrastructure (roads, bridges, power lines, walls, dams)
C Capabilities	Capabilities - Political (Dispute resolution, Insurgent capabilities)	Capabilities - Military (security posture, strengths and weaknesses)	Capabilities - Economic (access to banks, ability to withstand natural disasters)	Capabilities - Social (Strength of local & national ties)	Capabilities - Info (Literacy rate, availability of media / phone service)	Capabilities - Infrastructure (Ability to build / maintain roads, walls, dams)
O Organizations	Organizations - Political (Political parties and other power brokers, UN,)	Organizations - Military (What units of military, police, insurgent are present)	Organizations - Economic (Banks, large land holders, big businesses)	Organizations - Social (tribes, clans, families, youth groups, NGOs / IGOs)	Organizations - Info (NEWS groups, influential people who pass word)	Organizations - Infrastructure (Government ministries, construction companies)
P People	People - Political (Governors, councils, elders)	People - Military (Leaders from coalition, LN and insurgent forces)	People - Economic (Bankers, landholders, merchants)	People - Social (Religious leaders, influential families)	People - Info (Media owners, mullahs, heads of powerful families)	People - Infrastructure (Builders, contractors, development councils)
E Events	Events - Political (elections, council meetings)	Events - Military (lethal/nonlethal events, loss of leadership, operations, anniversaries)	Events - Economic (drought, harvest, business open/close)	Events - Social (holidays, weddings, religious days)	Events - Info (IO campaigns, project openings, CIVCAS events)	Events - Infrastructure (road / bridge construction, well digging, scheduled maintenance)

Figure 2-1, ASCOPE/PMESII Matrix

Filtering. Basic filtering criteria should be set by the senior CA Marine / CMO planner or CIM manager. There are a variety of considerations that can be used to determine filtering criteria (e.g., quality characteristics listed above), some examples include:

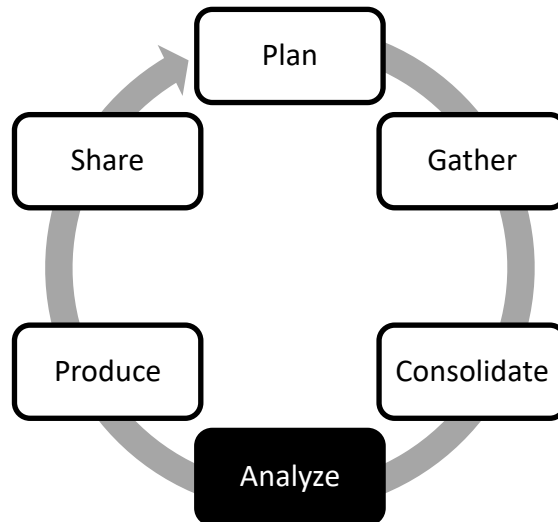
- Subject Matter. Information related to the civil environment, etc.
- Location. Information related to the MAGTF's Area of Operations.
- Time. Time of Occurrence - has the information been superseded already by other reporting/processes?
- Redundancy. Are multiple reports related to the same data/event? Can the information be used to confirm or deny, or does it possess additional significant data?

Databases. The purpose of the CIM database is to enhance the commander's situational understanding by offering insight to past and present conditions within the civil component of the OE. Emerging technology and additional web tools designed for cataloging vast amounts of data continue to emerge. This technology can be used to create a knowledge portal for CIM that enables users to collect, organize, tag, search, browse, visualize, and share structured CIM knowledge. For example, Semantic Wiki systems (i.e., MARCIMS Portal) provide automatic

categorization of collected data and makes information more accessible. The benefits of leveraging semantic wiki technology for civil-military operations include:

- Provides timely and accurate reporting and situation awareness.
- Prevents duplication of effort.
- Facilitates assessments and CMO mission planning.
- Supports CMO staff reporting functions through custom export of civil information products in the form of Excel spreadsheets, PowerPoint Charts, maps, etc.
- Fosters collaboration through hashtag and mention features; can import and export data into/from other analytic applications.

2004. ANALYZE



Analysis is the fourth step in the CIM process. Analysis is the process of evaluating and integrating collected information to produce usable products. Analysis breaks complex topics into simpler elements to study the nature, function, or meaning of the parts and their relationship. When applied to operations, analysis is the sifting of civil information for patterns and indicators of past behaviors or ideas that might possess predictive value and application. More than restating facts, analysis is a process where complicated issues are simplified by separating the data into the basic components of cause and effect. Analysis is fundamental to understanding and decision making; therefore, different analytical methods may conclude contradictory understanding. Analysis provides the “so what” to civil information gathered. It is important CIM applies a systematic process to analysis to ensure the appropriate and relevant medium is

presented to the decisions-makers. The analyze step of CIM is complimentary to step 2 of CPB (Analyze the Civil Environment) and can utilize several methods to determine relationships. Though not an all-inclusive list, analysis of civil information may use the following analytical methods:

Civil Considerations Analysis: Civil considerations analysis is the process by which civil information is evaluated to determine the impact of the civil environment on operations, as well as the impact of operations on the civil component. Based on the ASCOPE/PMESII data, civil considerations analysis is critical to mission success.

Stakeholder Analysis: The process of assessing a system and potential changes to it as they relate to relevant and interested parties (stakeholders). Stakeholder Analysis identifies stakeholders who have a vested interest in the operational environment and examines their needs. Stakeholder analysis assesses the impacts of all stakeholders (primary - those who have a direct interest in the operating environment, and secondary - those who have an indirect interest in the operating environment), sometimes utilizing a stakeholder's matrix to develop mitigation/enhancement measures and implementation plans to facilitate goals and objectives of stakeholders.

Systems Analysis: Systems analysis is a process of collecting and interpreting facts, identifying the problems, and decomposition of a system into its components. Systems analysis identifies civil vulnerabilities within the civil component by determining both the cause and the effect. Based on ASCOPE and focused on PMESII data, systems analysis supports Center of Gravity (COG) and enhances situational understanding. Systems analysis is conducted based on operational necessity and the products reflect a single moment in time.

Root Cause Analysis: Root cause analysis is an empirical-based analytical tool used to perform a comprehensive review of events, issues, problems, and the causes within. The cause may be a natural or man-made disaster that arose from conflict or changes in the status quo. Root cause analysis can form a critical element of CMO, by directing operations at the causes of instability and/or obstacles to mission objectives. CA Marines utilize CPB and Stability Assessment Framework (SAF), amongst others processes to analyze instability.

Nodal Analysis: Nodal analysis reveals the interrelationship between people, organizations, entities, and locations. The individual nodes represent complex relationships between a person,

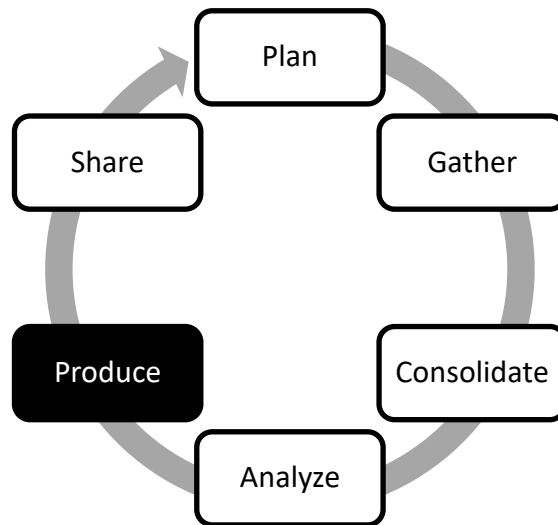
place, or physical thing that are a fundamental component of a system and link the behavioral, physical, or functional relationships between the nodes.

Link Analysis: Link analysis is the process of identifying and analyzing relationships between personnel, contacts, associations, events, activities, organizations, and networks to determine key or significant links. CIM analysts use link analysis to determine who is involved with whom and how they are involved. Link analysis tools include association matrices, activity matrices, and link diagrams.

Geospatial Analysis: Geospatial analysis refers to analyzing imagery and geospatial information to describe, assess, and visually depict physical features and geographically referenced activities that are of interest to the support commander. Step 2 of CPB uses physical environment and infrastructure analysis, whereby both natural and manmade factors in the environment will have a significant influence on friendly operations, and analysis informs those key influences.

Assessment Measures: Accurate analysis seeks to identify trends and changes that significantly impact the OE and the operation. During the conduct of operations well devised evaluation measures can help the commander, subordinate commanders, and staffs understand the relationship between task accomplishment and desired effects. Measure of Effectiveness (MOE) are criteria used to assess changes in system behavior, capability, or operational environment that are tied to measuring the attainment of an end state, achievement of an objective, or creation of an effect. MOEs can be based on quantitative measures to reflect a trend or progress toward a measurable threshold, attainment of end state, achievement of objectives, or creation of effects but often qualitative measures better reflect MOEs. Measures of Performance (MOP) are criteria used to assess friendly actions that are tied to measuring task accomplishment. MOPs can be used in support of functional assessments, since specific standards, quantitative data, or direct observation of criteria can be linked to measuring task accomplishments.

2005. PRODUCE



Production is the fifth step of the CIM process. Production is the packaging of civil information into easily disseminated reports, presentations, forms, and updates. The production phase of the CIM process ensures products and services are relevant, accurate, timely, and useable by commanders and the decision-making body. Examples of civil information products include:

- (1) Layered geospatial information
- (2) Civil layers (ASCOPE) for the COP (see Figure 2-2, *ASCOPE Estimate*)

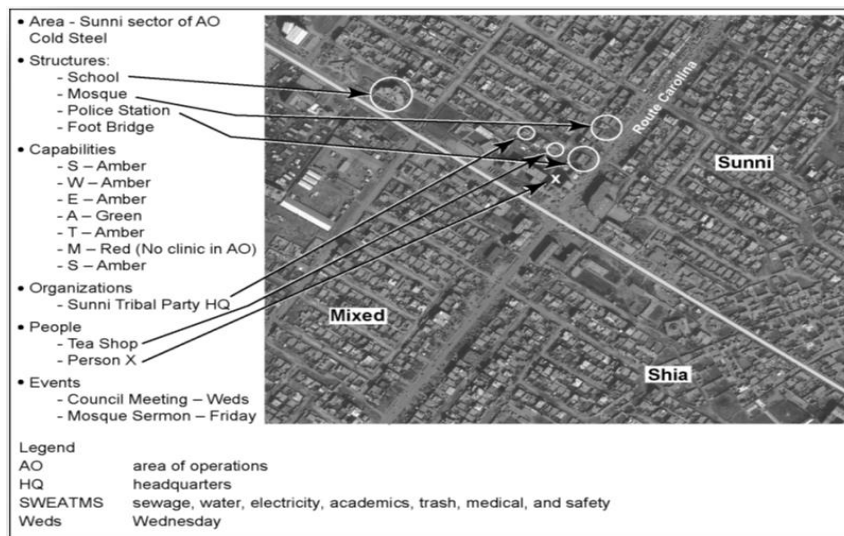


Figure 2-2, ASCOPE Estimate

- (3) Centers of Gravity
- (4) Key influences and relevant factors products (see Figure 2-3, *Civil Environment Model*)

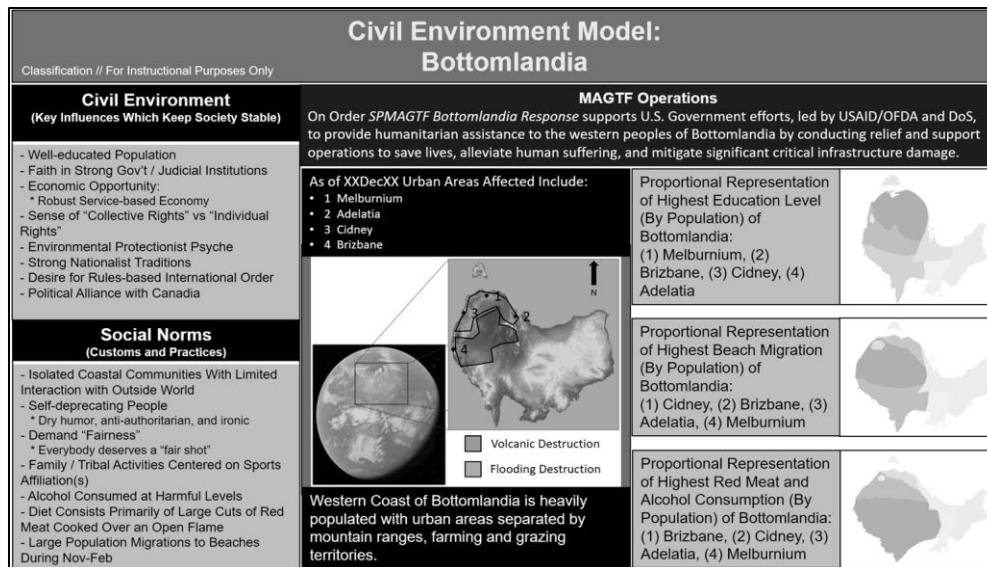


Figure 2-3, *Civil Environment Model*

- (5) Answers to requests for information (RFIs)
- (6) Reported priority civil information requirements
- (7) Information papers, such as area studies, executive summaries (EXSUMs), after action reports (AARs), Civil Engagement reports, talking points, and/or project closeout reports
- (8) Updates to ongoing staff estimates (see Figure 2-4, *Civil Most Likely/Disruptive COA*)

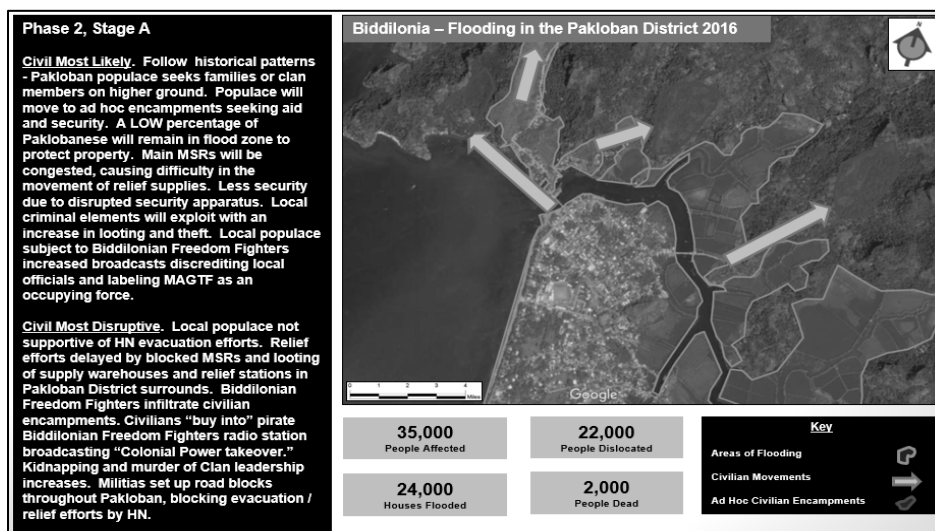


Figure 2-4, *Civil Most Likely/Disruptive COA*

- (9) Updates to assessments (see Figure 2-5, Overall Stability)

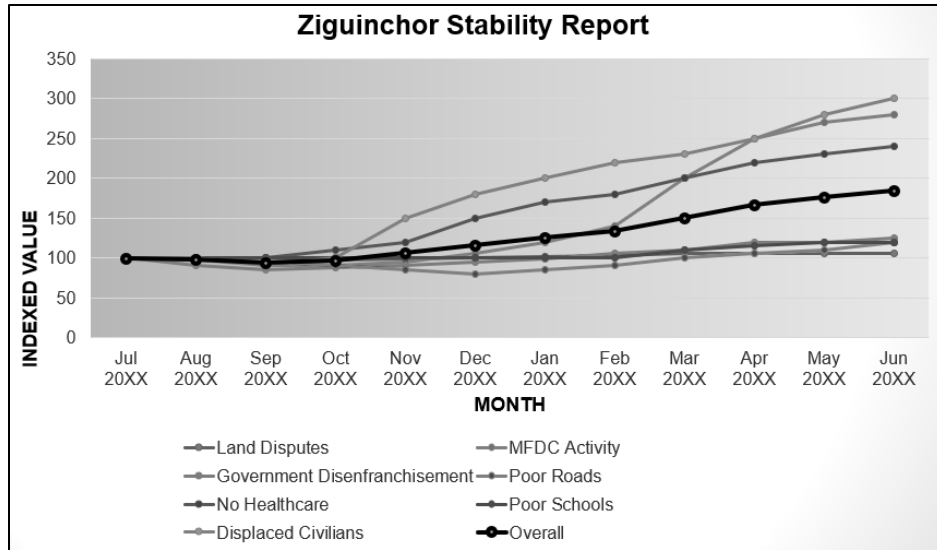
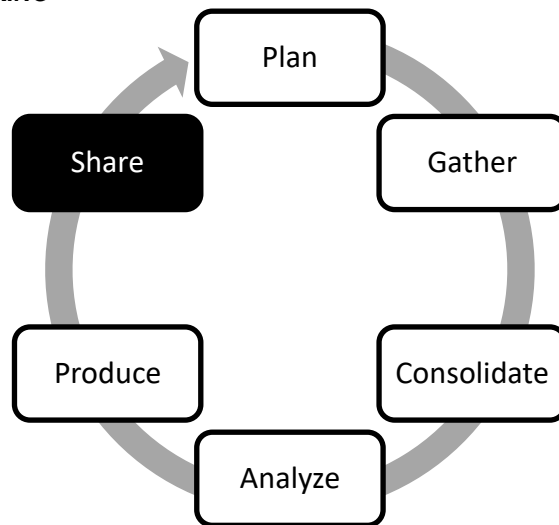


Figure 2-5, Overall Stability

When developing CIM products, it is important to first determine the format the COP manager will use to brief the supported commander. Understanding who the product is for; its intended purpose; and, when is it needed will determine how to develop CIM products that are harmonized with the supported unit’s operations process. The products, reports, and graphics should exercise brevity, so as not to saturate the planning staff with too much information that is unnecessary, redundant, or irrelevant to the mission. Apply expert judgement when producing products and reduce duplication by synchronizing and harmonizing products with other organizations and agencies.

2006. INFORMATION SHARING



Information sharing is the sixth and final step in the CIM process. Conducting military operations among the populace is complex. It is essential when an operation is planned and executed to gain an enhanced understanding of the OE to aid in decision making. CA Marines / CMO Planners support the commander's operational approach and command and control through the CIM process. Civil information sharing is the cornerstone of CIM and is also the hallmark of interorganizational cooperation. Information sharing involves more than an active pushing of products to specific consumers and the passive posting of products on web portals. Information sharing is a dedicated, cyclic process, integrated into the decision-making process, to ensure all parties involved in establishing an agreed-upon end state are working from a shared understanding of the operation. CA Marines/CMO Planners have a key role in managing the integration of civil information products into one central database and this is accomplished by the following:

- Push: Push is the active process of disseminating civil information to the MAGTF commander, staff, and other unified action partners in order to meet specific civil information requirements.
- Pull: Pull is actively retrieving civil information from other sources (outside DoD sourced information), referenced in step 2 of CIM, while enabling other organizations the capabilities to pull relevant civil information from CIM production.
- Production: Production involves incorporating civil information in the format for the intended audience and into the CTP/COP.

The MAGTF CTP/COP depicts six recognized pictures (Air, Ground, Environmental, Logistics, Intelligence, and Civil). The recognized Civil picture focuses on and depicts the political, military, economic, social, information, and infrastructure (PMESII) data relevant to the civil areas, structures, capabilities, organizations, people, and events (ASCOPE) in an Area of Operations. The current MAGTF recognized civil picture contains the following civil information requirements:

- What are the locations of significant institutions in the local area?
- International (UN/Foreign Government/NGO)
- National (Governmental and Non-governmental)
- Overall Population (Number of persons)

- Urban Centers
- Describe the significant of urban centers
- Capitals (Regional, Provincial, District)
- Borders/Boundaries (International, Regional, Provincial, Districts, Cities)
- Vital Infrastructure (Food Storage Depots, Water Reservoirs, Electric Power Plants, etc.)
- Political/Governmental System (Authoritarian, Democratic, Dictator, Theocratic, Republic, Kingdom, ...)
- Political leadership at national, district or province level (Events likely to cause significant loss of confidence in national, district and provincial officials and events likely to destabilize the district or province. Reports or instances of corruption of national, district or province level government officials.
- Successful anti-corruption activity by municipal, district, province or national leadership; and, civil society actions, economic actions against corruption (ENEMY VS. CRIMINAL)
- Plans or actions by International Organizations to reduce or withdraw their resources from or take actions that impact or effect operations, including introduction of significant new programs or actors
- Opponent Leadership, Insurgent Groups, or Key Leaders expressing willingness to reintegrate with Host Nation Leadership
- Economy (General situation, Inflation, Unemployment, Banking System, Resources, Infrastructure, Sectors, Industry, Trade, Labor Pool...)
- Agriculture
- Ethnicities
- Religion
- Social (Languages, Education, Emigration, Immigration, Demographics, Human Rights...)
- Jurisdiction (Legal System, Rule of Law...)
- Significant changes in any part of the judicial national, district or provincial system
- Host Nation Event likely to attract significant media attention or exploitable for gain
- Membership to International Organizations

- Diplomatic Seats (Embassies, Consulates)
- Any significant change to foreign diplomatic status or any significant diplomatic event
- Locations and Mission/Functions of International Organizations, Governmental Organizations, Non-Governmental Organizations
- Locations and status of Civilian Airports/Airfields (Status and Airport Facilities/Infrastructure: Buildings, Runways, Parking Areas)
- Locations and status of Civilian Ports/Harbors (Status and Port Facilities/Infrastructure)
- Locations and status of Civilian Helicopter Landing Zones
- Locations and status of Civilian Communications and Information Systems Infrastructure (Availability and Status)
- Schools/Universities
- Cultural/Historical Sites
- Religious Sites and Shrines
- Roads (Motorways, Primary and Secondary Roads) (Existing, Under construction, Planned), Roads Conditions/Status
- Railroad Infrastructure (Existing, Under-construction, Planned); Railroads and Rail Heads locations Conditions/Status
- Inland Waterways Infrastructure (Rivers, Canals, Locks, etc.)
- Bridges and Culverts Conditions/Status
- Overall Traffic Density (Land, Air, Maritime)
- Location of Civil-Military Cooperation Capabilities, Holdings, Projects, etc.
- Displaced Persons and Refugees (DPRE)/Internal Displaced Persons (IDP) (Camps, Movements)
- Humanitarian Aid Routes
- Location of vital and essential civilian infrastructure / assets (dams, diamond mines, oil fields and refineries, power plants, etc.)...
- Significant related CIMIC events
- Significant event or change of status involving a Private Security Company (PSC)
- Significant issues relating to the Military Technical Agreement
- Significant status or capability change of key essential services (sewer, water, electric,

etc.)

- Host nation event likely to attract significant media attention or exploitable for International Organizations' gain

Civil Information sharing is critical to the efficient pursuit of common goals and objectives. Although challenged by cultural and political differences, a collaborative environment facilitates information sharing between many different groups and authorities that can work in parallel. Therefore, the security classification associated with civil information and/or intelligence products is determined by regulations regarding the safeguarding of technical collection methods and the systems used, as well as those for specific operations. As an example, the CMOC is not only a means to collect civil information but to share civil information as well. However, CA Marines must be careful to avoid the impression that stakeholder organizations are being used for intelligence collecting. Simply put, the intent of CIM is to keep a majority of its information and products releasable and unclassified. At a minimum civil information should be shared with the intelligence section, operations, the operations in the information environment planner and other information related capabilities. A commander's collaborative environment facilitates information sharing through the following:

- Overcoming barriers to effective collaboration and communication
- Determining information sharing requirements and provide appropriate disclosure guidance, classifications, and caveats
- Enabling mission partners to the maximum extent allowed by U.S. laws and DoD policy

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APPENDIX A

MARCIMS CAPABILITIES TO CIM

MARCIMS AND THE CIM PROCESS

PLAN

1. View pages for past data collected (historical CIM)
 - (a) Country Studies
 - (b) Operation Pages
 - (c) Unit Dashboards
2. Viewing feeds from external sources
 - (a) Social Media
 - (b) RSS feeds
 - (c) Map Services (WMS, WFS, GeoRSS, KML)
 - (d) Google Places

GATHER

1. Allows for data collection on a mobile app
 - (a) Taking notes in the field
 - (b) Taking photos
 - (c) Recording audio
 - (d) Recording video
2. Putting data on a page (i.e. test pages)
3. Adding URLs to feed manager, test pages and other pages
4. Upload files
5. Accepting external feeds - determining if feed is readable

6. Retrieving data from a data feed
7. Putting data in forms (as a means of data collection) on portal and mobile
8. Pulling form data into portal

CONSOLIDATE

1. Collation

- (a) Tagging/organizing data retrieved from a data feed
- (b) Automatically put data on pages through “tagging”
- (c) Geotag content related to civil affairs operations
- (d) Existence of a structured forms for data collection
- (e) Putting data in forms (as a means of data organization) on portal and mobile
- (f) Data received in form structure
- (g) Edit forms so info can be updated
- (h) List of available forms
- (i) Pages serving as a place for collating and organizing data and information (i.e.

Country/Topic study)

- (j) Data is organized
 - (1) By properties
 - (2) Categories, properties, values, “forms”
 - (3) Groups/categories by operation
- (k) Aggregation
 - (1) ASCOPE/PMESII matrix
 - (2) Aggregate and log field collected data

2. Processing

- (a) Stores

- (1) Historical data
 - (2) Pictures submitted into the portal
 - (3) Information in an online database
 - (4) CIM content
 - (5) Data about exercises/events
 - (6) Files from users (docs)
 - (7) Data about key leaders
 - (8) Data about infrastructure
- (b) Allow for QA/QC unit validation process (internal review)
- (1) User logs
 - (2) User contributions
 - (3) Completeness review
 - (4) Reliability review
 - (6) Page history
- (c) Collated data is brought together through processing
- (1) By properties
 - (2) Categories, properties, values, “forms”
 - (3) Groups/Categories by operation
- (d) [Pre-] Processing data for analysis/production/dissemination (i.e. export/process data to csv)
- (e) Accepting external feeds - processing feeds
- (f) Submitted data goes into a wiki (semantic media database)
- (g) Edited form data is updated in semantic media database
- (h) Automatically put data on pages through “tagging”

ANALYZE

1. Create/make/display

- (a) Tables
- (b) Charts
- (c) Graphs
- (d) Statistics from quantitative data
- (e) Tag cloud (word cloud)
- (f) Timeline
- (g) Event calendar
- (h) List using list widget
- (i) Monthly calendar

2. Query information

- (a) Filter data with location queries
- (b) Search data based on specific criteria

3. Display/show/visualize

- (a) WFS and WMS feeds
- (b) Twitter data
- (c) RSS feeds
- (d) Map
- (e) Fields of collected information as a chart
- (f) Items in a timeline format
- (g) External geo feeds on a map
- (h) Display data on a map
- (i) Google places

- (j) Data with attributes
 - (k) Photos with form collected data
 - (l) KML feeds
 - (m) Points of interest for an area
 - (n) Geographic coordinates on a map of collected data
 - (o) Local assessments yelp style (by scrolling through a map)
 - (p) Historical knowledge of previous years' info
 - (q) Worldwide CIM data
4. Synthesize and aggregate organized data
 5. Dashboard creation for analysis
 6. Search function

PRODUCE

1. Store links to files on pages for easy information management
2. Aggregate data based on prior knowledge of operational environment
3. Page creation
 - (a) Country studies
 - (b) Operation pages; show all data collected for an operation on one page
 - (c) IO information
4. Building wiki pages
5. Formatting wiki pages; apply heading and context in a country page
6. Allows for independent unit processes
7. Creating ppt; maps; excel/csv for another person to look at
8. Embedded pages
9. Data products

- (a) Tag cloud (word cloud)
- (b) Timeline
- (c) Event calendar
- (d) Lists with list widget
- (e) Monthly calendar

SHARE

1. Accessible on public commercial internet
2. Share MARCIMS API with UN and DW
3. Share operations in the information environment data
4. Export
 - (a) Civil Information Management Data Processing System (CIMDPS)
 - (b) CSV
 - (c) GeoJSON
 - (d) GeoRSS
 - (e) JSON
 - (f) KML
 - (g) PowerPoint
 - (h) PowerPoint bar chart
 - (i) PowerPoint pie chart
 - (j) RDF
 - (k) Shapefile
5. Allows for messages to be sent between users

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