A Compendium of Wargaming Terms
(Updated 27 July 2016)

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Introduction

The Wargaming Community uses many terms that have multiple definitions or meanings, reflecting the variety of ways the art of wargaming is practiced.   Since there is no single agreed-upon set of wargaming terms, this compendium is an unofficial collection that attempts to gather and post as broad a variety of terms and definitions as possible. Its purpose is to inform gamers of the variety of terms and definitions rather than to impose a single set of definitions.

Additions, comments, corrections, and suggestions are requested and welcome. Please send to: WLSimpsonJr@verizon.net

This unofficial collection was originally assembled by Bill Simpson, a GS-13 Wargaming Specialist, with 22+ years of experience at Wargaming Division, Marine Corps Warfighting Laboratory prior to his retirement October 2015. It was first distributed at the Connections 2014 Wargaming Conference at Marine Corps Base, Quantico, Va.

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The opinions contained in this document are those of the compiler alone, they do not reflect official policy of the Wargaming Division MCWL, the USMC, or the U.S. Government.

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1½-sided game:
- A 1½-sided game also includes one player cell, with the opposition furnished by a control group, but with scenario injects developed during game execution, versus prescribed, to force the players to wrestle with specific decisions related to game objectives.[1]
- A 1½-sided game where the opposition is provided by an embedded Red player that plays the "Devil's Advocate" against Blue's plans.[2] (see Devil's Advocate)

Abstraction:
- Key concept in wargames whereby complex procedures in an historical event are much simplified in a wargame of the same event.[3]
- The process of selecting the essential aspects of a simulation to be represented in a model or simulation while excluding those aspects that are not relevant to the purpose of the model or simulation. The set of elements produced by this process.[4]

Action Officer: (note: also known as Game Director)
- The government representative assigned responsibility for the development and execution of a wargame.
- The wargamer assigned responsibility for the development and execution of a wargame.[5]

Adjudication: The act of determining the outcome of a game move.[6] This term also describes the procedure to resolve the outcome of interactions between sides in a wargame. A wargame controller or umpire acts as the impartial judge. The term assessment is often used interchangeably with adjudication.[7] There are four[8] kinds of adjudication:
- **Free adjudication:** The results of interactions are determined by the adjudicators in accordance with their professional judgment and experience.[9] Note: The opposing sides reaching a consensus on the likely outcome of a non-kinetic interaction or kinetic engagement is a useful adjudication method in an open or hybrid open/closed wargame format.
- **Rigid adjudication:** The results of interactions are determined according to predetermined rules, data, and procedures.[10] (See Combat Models and Combat Results Table)

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[1] Shawn Burns, ed., "ANNEX A: Glossary of War Gaming Terms," in *War Gamers' Handbook A Guide for Professional War Gamers*, U.S. Naval War College, Newport, R.I.

[2] William L. Simpson, Jr., GS-13, Wargame Specialist, Wargaming Division, Quantico, VA. Note: "Embedded Red" or "Devil's Advocate" was used frequently in the Culebra Wargame Series, Logistics Modernization Wargame Series, and Rapid Assessment Wargames.

[3] James Dunnigan, "The Technical Terms Used in Wargaming," in *The Complete Wargames Handbook 2nd Edition*, Accessed 6 March 2014, http://www.strategypage.com/wargames-handbook/chapter/2-c-term.aspx.

[4] DoD Modeling and Simulation Glossary, Accessed June 17, 2015, www.msco.mil/MSGLoassary.html.

[5] Wargaming Division, Marine Corps Warfighting Lab, *Standard Operating Procedures (SOP),* August 2005.

[6] CADRE, Air Force Wargaming Institute, *Glossary of AFWI Wargaming Terms,* Handbook for Wargame Controllers.

[7] **Note:** Adjudication is an alternative to the term Battle Damage Assessment (BDA) because BDA in wargaming has traditionally focused on the purely kinetic or physical damage aspects of warfare and ignores the non-kinetic factors dealing with knowledge, deception, situational awareness, information warfare, morale, public opinion, etc.

[8] "Adjudication," MORS Professional Gaming Workshop, "Background for the meeting in Fairfax, Virginia, 29 September to 1 October 2015" accessed, September 25, 2015, http://www.opanalytics.ca/MORS/adjudication.html. **Note:** This site gave McHugh's three types of adjudication and added "Consensus" as number four but without a definition.

[9] Francis J. McHugh, "APPENDIX C – A GLOSSARY OF WAR GAMING TERMS," in *Fundamentals of War Gaming*, 3rd Ed, March 1966.

[10] McHugh.

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- **Semi-free adjudication:** Interactions are evaluated by the rigid method, but the outcomes can be modified or overruled by the lead adjudicator.[11]
- **Consensus, Adjudication by:**
  o Collective opinion. [12]
  o Adjudication by Consensus usually means the opposing sides and the adjudicators work together reach a consensus.[13]

Administration Brief: The brief presenting important administrative details of the wargame. [14] The topics that an admin brief should consider are:[15]
- The wargame schedule
- Physical and information security policies
- Policies on personal electronic devices (e.g. Cameras, cell phones, PDA's, memory sticks, laptops etc.)
- Public Affairs
- Policies on attribution / nonattribution
- Social events
- Internet access
- Emergency contact procedures and personal message handling
- A map showing:
  o the player cell locations
  o admin and security offices
  o vending machines, eateries and rest rooms
  o Emergency evacuation information
  o Parking locations and regulations

Aggregated Force: A single symbol, model, or force which represents a real-world force composed of two or more units.[16]

Alpha Test: The proof of concept event that tests the validity of the game design against the objectives prior to expending significant effort to refine the design before development. This occurs during design phase.[17]

Alternative futures game: Another game approach presents players with an activity performed using several different scenarios. With different alternative futures proposed, the players try to discern key indicators that would identify which future might be developing. Results of players' responses are compared across scenarios.[18]

Analysis:
- The methodical investigation of an issue or problem through the detailed study of its parts.[19]
- Qualitative Analysis:

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[11] Ibid.
[12] *Webster's II New Riverside University Dictionary.* The Riverside Publishing Company, Boston 1994.
[13] William L. Simpson, Jr., GS-13 Wargaming Specialist, Marine Corps Wargaming Division.
[14] Burns.
[15] WGD SOP.
[16] Burns.
[17] Ibid.
[18] Ibid.
[19] *Marine Corps Order 3070, Marine Corps Wargaming Program*, DRAFT June 1991.

- o A subjective assessment of the value of decisions made or actions taken by the players.[20]
  - o Conclusions are derived by non-numerical analysis means.[21]
- The process of increasing understanding of complex subjects through a number of methods, principally by breaking a subject into constituent parts.[22] (See Adjudication, Assessment)
- The systematic, thoughtful, and rigorous employment of the scientific method to examine a problem, scenario, or issue in order to gain insights into relationships between constituent components, understand underlying principles, or answer a specific set of pre-identified questions.[23]
- A qualitative or quantitative examination of the data derived from a game. We [WG Newport] use analysis on data collected from a game to determine lessons, insights, and themes.[24]

Analytical Wargame:
- A wargame conducted for the purpose of deriving information which may be used to assist military commanders and executives in reaching decisions.[25]
- A game conducted for the purpose of deriving information that may be used to assist the sponsor in reaching decisions.[26]
- Analytical Wargaming is the act of competitive, contextualized decision-making within pre-defined constraints for the purpose of gaining insight into complex, adaptive, interactive, and cognitive systems.[27]

Archiving: The process that formally completes the game project by digitally filing the game team products created throughout the life cycle of the game.[28]

Areas of Interest: (also called Topics of Interest) Minor objectives concerning specific areas or issues the sponsor or stakeholders would like for players to deal with during wargame play. Accomplishing Areas of Interest are not critical to success of the wargame; however, Areas of Interest are included in the wargame design if practical. Areas of Interest should be reviewed by the CAP plan and if possible included in the questionnaire and offline cell discussion. [29]

Assessment:
- A qualitative judgment about something based on an understanding of the situation.[30]

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[20] William L. Simpson, Jr., GS-12 Wargaming Specialist, Marine Corps Wargaming Division.

[21] UX User Experience, *Definition and example to distinguish qualitative and quantitative research,* accessed July 16, 2015, http://ux.stackexchange.com/questions/45439/definition-and-example-to-distinguish-qualitative-and-quantitative-research.

[22] Matthew Caffrey, "Glossary/Definitions of Wargame Related Acronyms and Words." *Connections Wargaming.* Accessed 19 June 2015. http://www.kentaurus.com/www.connections-wargaming.com/Definitions.html.

[23] M&S Glossary.

[24] Burns.

[25] McHugh.

[26] Burns.

[27] Jon Compton, "Toward an Epistemology of Wargaming – A Drunkard's Walk" (PowerPoint Presentation, Military Operational Research Society, Wargaming Community of Practice Brown Bag Lecture Series), March 19, 2015.

[28] Burns.

[29] WGD SOP.

[30] Note: Wargaming Division, Quantico generally uses this term to describe the process of examining the data collected during the game to produce the game report. The term assessment is preferred over analysis because wargames are not scientific experiments that can be reproduced; therefore any numerical or quantitative results of the game must be considered valid only within the context of the game.

- To determine the importance, size, or value of a problem (Merriam-Webster, 2013). To make a judgement about the nature or quality of somebody/something (Oxford Advanced Learner's Dictionary). Determination of the effect of operations as they related to overall mission accomplishment. (The Naval Operations and Planning Smartbook, 2010)[31]

Assessment Wargame: A wargame conducted for the purpose of deriving information which may be used to assist the wargame sponsor, military commanders, and executives in reaching decisions.[32]

Assumptions:[33] The act of taking for granted or supposing that a thing is true.[34] (see Game Assumptions) **Note:** Assumptions can be stated or unstated (i.e. assumed). The unstated assumptions in both planning and gaming are usually the ones that cause the most trouble. A wargame for a plan, a concept, Concept of Operations (CONOPS), etc, should identify and determine the validity of their stated and unstated assumptions.

Assistant CAP Team Leader: The assistant to the CAP Team Leader. The Assistant's primary duty is to ensure that all relevant materials, briefs, and data are collected and preserved. Also performs other duties as directed by the CAP Team Leader.[35] (See Capture, Assessment and Production)

Basic Research: Experimental or theoretical work undertaken primarily to acquire new knowledge of the underlying foundations of phenomena and observable facts, without any particular application or use in view. (OECD Frascati Manual, sixth edition, 2002, para. 64, page 30). War games are a form of applied research, as contrasted with basic research.[36]

Battle Book: A multi-media wargame report on CDROM or DVD with a compilation of wargame related materials, including interviews, reference materials, briefings, reports, etc. The content will vary depending on the wargame objectives and audience.[37]

Battle Damage Assessment: The estimate of damage composed of physical and functional damage assessment, as well as target system assessment, resulting from the application of lethal or nonlethal military force. Also called **BDA.**[38] (See Adjudication)

Beta Test: The first full integration of the developed game in its entirety, including game people, processes and technology. The beta test occurs at the end of the testing phase.[39]

Black Swan:
- The black swan theory is a metaphor that describes an event that comes as a surprise, has a major effect, and is often inappropriately rationalized after the fact with the benefit of hindsight.[40]

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[31] Burns.
[32] William J. Lademan, Ph.D., Director Wargaming Division, Marine Corps Warfighting Laboratory.
[33] Note: To be appropriate, an assumption must be valid (i.e. most likely true).
[34] *Webster's Third New International Dictionary of the English Language Unabridged.* Merriam - Webster Inc. 1993.
[35] WGD SOP.
[36] Burns.
[37] WGD SOP.
[38] *Joint Publication 1-02 (JP 1-02,) Department of Defense Dictionary of Military and Associated Terms*, 8 November 2010 (As Amended Through 15 August 2014).
[39] Burns.
[40] "Black swan theory," *Wikipedia, The Free Encyclopedia*, accessed June 20, 2015, https://en.wikipedia.org/w/index.php?title=Black_swan_theory&oldid=667424368.

- A "Black Swan" is an event that cannot be predicted not because it is rare, but because it is so mundane. It is not the event that matters, but the system state in which the event occurs. Risk is exponentially amplified by the complexity of the system. The more complex the system, the more likely it is that a perfectly mundane event will catastrophically collapse the system. What we fail to predict about a black swan is not the event, but rather the risk associated with the complexity of the system itself. This is a type of problem to which wargaming as a method is suited.[41]

Blue Cell: The team (or player) representing the "friendly" side in a wargame. They are opposed by the Red or Grey team. **Note**: Grey team is a term used at the Air Force Wargaming Institute when students are playing both sides.[42]

Board Game:
- A game played on a board such as chess.
- A manual naval war game also called Board *Maneuver* employing a game board to represent the area of operations.[43]

Boardgame Counters[sic]: are usually small cardboard squares moved around on the map of a wargame to represent armies, military units or individual military personnel.[44] (also called tokens)

Branches and Sequels: In planning (and especially in spelling out wargame moves) branches & sequels are the "If this, then that" or "after this, then that" steps of the plan (or move.)[45]

Break Points: The casualty levels at which units would cease to function or break and run.[46]

Briefs: Several types of briefs are presenting in the life cycle of a wargame.[47] [48]
- **Administration Brief:** The brief presenting important administrative details of the wargame.[49] The topics that an admin brief should include / consider are: [50] [51]
    o The overall game schedule (detailed daily schedule posted)
    o Physical and information security policies
    o Policies on personal electronic devices (e.g. Cameras, cell phones, PDA's, memory sticks, laptops etc.)
    o Public Affairs
    o Policies on attribution / nonattribution
    o Social events
    o Internet access
    o Emergency contact procedures and personal message handling
    o A facilities map showing:

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[41] Compton.
[42] AFWI Wargaming Terms.
[43] McHugh.
[44] Wikipedia contributors, "Counter (board wargames)," *Wikipedia, The Free Encyclopedia,*
https://en.wikipedia.org/w/index.php?title=Counter_(board_wargames)&oldid=642282338 (accessed July 20, 2015).
[45] AFWI Wargaming Terms.
[46] Caffrey.
[47] WGD SOP.
[48] Burns.
[49] Ibid.
[50] WGD SOP.
[51] Burns.

- the player cell locations
- admin and security offices
- vending machines, eateries and rest rooms
- Evacuation procedures, exit routes, and evacuation muster points
- Parking locations and regulations

- **Design Brief:** The brief on the objectives, structure, organization, schedule and procedures of the wargame. This brief is normally given at the end of the information briefs. The wargame brief may include the general situation brief. [52] [53]
- **Executive Brief:** A (post) game summary, often fifteen pages of PowerPoint slides, presented to a game sponsor, flag officer or senior government executive presenting results of the game relative to the game objectives. [54]
- **General Situation / Scenario Brief:** The brief on the situation at game start given to all players. It contains the "Road to War / Crisis" scene-setters, and scenarios as required to set the initial conditions for game play. Given at the end of the game brief but before the players break into their individual cells. [55] [56] The brief may follow the Five Paragraph Order format if appropriate. (SMEAC: Situation, Mission, Execution, Admin and Logistics, and Command and Communications.)
- **In-Briefs:** Briefings to the players at the beginning of a move, especially at wargame start.
- **In-Progress Review Brief (IPR):** The IPR is a game development status brief given to the Division Leadership as required. The brief includes, but is not limited to, a high level review of the plan to support the wargame. The IPR includes a discussion of the facilitation plan, the scenarios and injects, the wargame agenda, and the player materials. [57]
- **Information Brief:** Brief(s) to the wargame participants containing information needed for wargame play. [58].
- **Out-Briefs:**
  - The briefs presented by the players that discuss what they did and why during a move or the wargame. [59]
  - The briefs created and presented by the players at the end of a move or end of game play. [60]
- **Special Situation Brief or Cell Update Brief:** The brief given to the players on a specific side or in a specific cell. It contains the information representing the specific viewpoint and situation of that cell and the specific functions and tasks of that cell. Given at the beginning of a move or when circumstances dictate. [61] [62] Suggest following the Five Paragraph Order format (SMEAC: Situation, Mission, Execution, Administration and Logistics, Command and Signal).
- **Wargame Brief:** The brief on the objectives, structure, organization, schedule and procedures of the wargame. This brief is normally given at the end of the information briefs. The wargame brief may include the general situation brief. [63]

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[52] Ibid.
[53] WGD SOP.
[54] Burns.
[55] Ibid.
[56] WGD SOP.
[57] *Strategic Wargaming Series HANDBOOK* (Carlisle, PA: Strategic Wargaming Division. US Army War College. 1 July 2015.)
[58] Burns.
[59] Ibid.
[60] Ibid.
[61] Burns.
[62] WGD SOP.
[63] Ibid.

Campaign Analysis: The systematic, thoughtful, and rigorous employment of the scientific method to examine a historical campaign in order to gain insights into relationships between constituent components, understand underlying principles, and to discover operations and procedures which could have accomplished the campaign most efficiently.[64] [65]

Capture, Assessment, and Production Plan (CAP Plan): The plan describes the process, by which the desired data from the wargame is identified, captured, assessed, synthesized and published. [66]

Capture, Assessment, and Production Team (CAP Team): The team executing the CAP Plan.

CAP Team Observer / Recorder: A CAP Team member, who observes and records data from specific cells or activities in a wargame. (Also called "Note Taker" or "Rapporteur.") (See Rapporteur)

CAP Team Leader: The person assigned to supervise the CAP team and also normally responsible to the Action Officer for CAP Plan development and wargame report production.

Cell:
- A group of wargame participants organized to accomplish an assigned purpose.[67]
- The space to which the cell participants are assigned.[68]

Cell Leader: The senior player or a player specifically picked to lead the cell. The Cell Leader is responsible for ensuring that the cell completes the required tasks on time.[69] The Cell Leader determines who will give the cell out-briefs.[70] **Note**: Used when Facilitators are not used or unavailable. Using tasker slides and posting move mechanics in the cell help the Cell Leaders keep things on track without the training and orientation provided to Facilitators. (See Taskers and Game or Move Mechanics)

Cell Scribe: A designated player who prepares the required outputs. Preferably a "PowerPoint warrior.[71]

Chance Device: A device used to simulate an event which may or may not happen, but which has a known probability of happening. Common chance devices are regular dice, 20-sided (icosahedron) dice, and tables of random numbers.[72] (See Monte Carlo Technique)

Chart Game or Chart Maneuver: A manual naval war game implying a chart (or map) to represent the area of operations. Formerly, another name for a strategic naval war game.[73]

Closed Game:
- Wargames where the "fog of war" limits what the players know of the total situation depending on their "cell". In closed wargames Wargame Control determines what the players should

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[64] Joseph M. Saur, Senior Research Scientist and Wargaming Instructor, Georgia Tech, Quantico Field Office.
[65] Simpson
[66] Ibid.
[67] Burns.
[68] Ibid.
[69] WGD SOP.
[70] Ibid.
[71] Burns.
[72] McHugh.
[73] Ibid.

logically see and know about the real situation using the "Three Map" method. Poker is an example of a closed wargame.[74]

- A game in which players receive the accounts and kinds of information and intelligence of friendly and enemy forces that they would normally receive in a similar real-world situation. Most war games are closed games.[75]

Colors or Cell Identification: Opposing sides and their allies in a game are normally assigned specific colors to reduce confusion. Red and Blue are the two basic opposing sides in a two-sided game. Green usually represents a neutral third party, or an ally of Blue. Orange is normally an ally of Red. Other primary colors maybe assigned as necessary.[76] [77] (See Green, Gold, White, and Yellow Cells)

Combat Model: A description of the characteristics, behavior or structure of a combat situation from which a result can be computed.[78]

Combat Strength: A numerical rating of the unit's ability to attack and defend. This rating is expressed in terms of combat strength points. In some games a unit has one combat strength value to be used both for attacking and defending. In other games the units have two combat strengths, an attack strength for attacking and a defense strength for defending. These strengths are calculated on the basis of the raw fire-power of the units and modified by qualitative factors such as training, leadership, organizational effectiveness and experience. Calculating these combat strengths is one of the more interesting aspects of game research and design.[79]

Combat Results: Once the die is rolled and the CRT (Combat Results Table) consulted, the actual results of the combat will be quite specific.[80]

Combat Results Table (CRT): (See Adjudication: Rigid Adjudication) A Probability Table that shows the possible results of all combats allowed within a particular game. The greater the ratio of attacker to defender strength, the higher the chance of success. Because so many things can go wrong during the combat itself, a die or other random-number generator is used to determine the actual result. These tables are usually calculated based on what information is available on actual historical losses.[81]

Command Post Exercise (CPX): An exercise in which the forces are simulated, involving the commander, the staff, and communications within and between headquarters.[82] **Note**: In many respects a command post exercise may be seen as a form of seminar war game, particularly if the players (commanders and their staff) regularly use a "seminar style" discussion of issues and outcomes, e.g., in an after action review. A CPX that is more focused on training staffs on command post procedures (and

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[74] WGD SOP.
[75] McHugh.
[76] **Note:** Prussian Army Chief of Staff Helmut von Moltke the Elder originated the use of Blue as friendly and Red is hostile in wargaming. When Russia and China adopted modern wargaming they chose their national color of Red as friendly reversing the colors.
[77] Burns.
[78] Paul W Vebber, *Wargaming Compendium,* email, dated 8 July 2015.
[79] Dunnigan.
[80] Ibid.
[81] Ibid.
[82] JP 1-02.

specifically when focused on the mechanics of using automated C2 systems) should not generally be viewed as a seminar war game (since there is no "seminar" component) (see Role Play).[83]

Computer-Assisted Game: A war game that is played with the aid of a computer, as opposed to being played entirely on a computer (e.g., a combat simulation). Note, however that a specific combat simulation (say, OneSAF) could provide computer assistance for a seminar war game.[84]

Conflict Situation: One in which two or more individuals, organizations, nations, or allies are competing for the same goal or have opposing objectives.[85]

Control Cell: The person or group of persons designated to monitor and direct game execution to meet the game objectives also called game control. The Control Cell is directly responsible to the Game Director / Action Officer or Deputy Director. The Control Cell includes the Moderators, Facilitators and Umpires. (See White Cell and Controller / Observer).[86]

Controller: A member of the control cell, usually means a person or persons assisting the Game Director in directing and supervising the game.[87]

Counter: Another term often used for the playing pieces in the game.[88] (also called "Tokens" or "Units")[89]

Customer: The persons, agencies or organizations that should be informed of the game and its results and those who may have a use for the game products.[90]

Data: A representation of facts, concepts, or instructions in a formalized manner suitable for communication, interpretation, or processing by humans or by automatic means.[91]

Data Collection and Analysis Plan (DCAP): The plan describing the process, by which the desired data from the wargame is identified, captured, assessed, and published.[92] (See Capture Assessment and Production Plan)**:**

Data Collection and Analysis Team (DCAT Team): The team executing the DCAP Plan[93].

Deputy Game Director / Deputy Action Officer: Appointed in a Title Ten, major, or complex games. The Deputy Director is responsible to the Game Director for the supervision and execution of the game.[94]

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[83] MORS Special Meeting of Professional Gaming, www.opanalytics.ca/programs/Definitions.html, accessed 2 October 2015.
[84] MORS Special.
[85] McHugh.
[86] WGD SOP.
[87] Ibid.
[88] Dunnigan. 76 of 291.
[89] Vebber, Wargame Compendium email.
[90] WGD SOP.
[91] M&S Glossary.
[92] Burns.
[93] Burns.
[94] WGD SOP.

Deductive game: In contrast, deductive games begin with general game ideas to be tested, followed by observations collected during the game to support or refute the initial game hypothesis. This type of gaming is used later in the concept development process, after the concept is more fully developed. This is used during course of action (COA) analysis or to test a plan prior to execution. This approach may be used with other war game events noted in this section.[95]

Deterministic Model: A model in which the results are determined through known relationships among the states and events and in which a given input will always produce the same output; for example, a model depicting a known chemical reaction. Contrast with: Stochastic Model.[96]

Deterministic Combat Model: One based on a mathematical formula; once all the variables have been entered, there can only be one result. The Lanchester Linear and Squared Laws, first published in 1914, are the progenitors of most deterministic models in use today. [97]

Devil's Advocate: One who argues against a cause for the sake of argument or to determine the validity of the cause or position. (See 1 ½ Sided Game)[98]

Director:
- The individual responsible for a war game and its critique. Also known as the controller and in early Naval War College games, as the arbitrator.[99]
- The director is responsible for the planning, execution, and critique of the game.[100]

Discussion Question: The specific question(s) discussed in the wargame. The Research Questions are the source of the Discussion Questions. The CAP Team Leader drafts the Discussion Questions and finalizes them in coordination with the Game Designer, Action Officer and Game Sponsor. (See Research Questions)[101]

Educational Game: A game conducted to provide military commanders or executives with decision-making experience, and to familiarize them with the operations and problems involved.[102]

Executive Brief: A game summary, often fifteen pages of PowerPoint slides, presented to a game sponsor, flag officer or senior government executive presenting results of the game relative to the game objectives.[103]

Exercise: A military maneuver or simulated wartime operation involving planning, preparation, and execution. It is carried out for the purpose of training and evaluation.[104]

Experiment: A test under controlled conditions that is made to demonstrate a known truth, examine the validity of a hypothesis, or determine the efficacy of something previously untried.[105]

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[95] Burns.
[96] M&S Glossary.
[97] Saur.
[98] *The American Heritage College Dictionary*, 4th Ed. Houghton Mifflin Company, 2007.
[99] McHugh.
[100] Glossary of AFWI Wargaming Terms.
[101] Definition derived from an illustration of "CAP Plan Development" used by Wargaming Division, Quantico.
[102] McHugh.
[103] Burns.
[104] DoD Dictionary.
[105] A. H. Dictionary.

Facilitation Plan: The facilitation plan describes how the facilitator will set the conditions for the players' interactions. The facilitation plan sets the initial conditions for the game, which may include a short scenario, if not previously introduced. The facilitation plan includes the questions derived from the analytical plan that the facilitator will pose to the players in order to stimulate player interaction. In some cases the facilitation plan may include injects to drive player interaction toward certain areas of interest based on wargame objectives.   The facilitation plan, more so than the adjudication plan, focuses on how information will be revealed and recorded during game play. A facilitation plan includes estimated timelines for determining the necessary information and insights that the game is intended to reveal. Finally, the facilitation plan identifies what supplies, technologies, and equipment are needed to aid in capturing the desired information and insights.[106]

Facilitator:
- Works for the White Cell (Game Control), guides discussion in the cell, ensures that the cells accomplish their game objectives, provides and link between the cells and the White Cell, relaying guidance and questions, and ensuring that the cells stay on track, provides insights and assessment to the CAP Team.[107]
- Control team member who assists the moderator or cell leader and coordinates the necessary administrative and technical support for the cell. This term has caused confusion, since many people expect the facilitator to actually run the cell.[108]

Field exercise: An exercise conducted in the field under simulated war conditions in which troops and armament of one side are actually present, while those of the other side may be imaginary or in outline.[109]

Fog of War: The uncertainty of friendly, adversary and environmental conditions experienced by leaders in armed conflict.[110]

Friction: The propensity of unexpected delays to occur during armed conflicts.[111]

Front End: "that portion of a computer wargame seen by the student players." [112]

Gamable: Able to be gamed or worthy of a game.[113] *i.e.* A wargame proposal must be gamable.

Game or Cell Activities: The sequence of actions or steps taken by the players or sides to carry out their moves and how they interact with each other during the sequence.[114] (See Time & Move Convention, and Game or Cell Mechanics)

Game Assumptions: (See Wargame Limitations)
- An often unstated belief about some aspect of the wargame design, wargame results, conflict, the players, and/or the conditions under which the conflict occurs.[115]

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[106] Strategic Wargaming Handbook.
[107] Howard Key, "Expeditionary Warrior 2015 Wargame Facilitator Guide 150213", February 2015.
[108] Burns.
[109] JP 1-02.
[110] Caffrey. Connections Glossary.
[111] Ibid.
[112] **Note:** This term could apply to non-computer wargames where significant portions of the game are hidden from the players.
[113] A H Dictionary.
[114] Joey Linehan, "Expeditionary Advanced Based Operations (EABO) Wargame 2015 Design Brief 10 September 2015, Presented at EABO-15 Final Planning Conference, WGD, Quantico.

- Caveats that keep the game focused on game objectives, ideally to prevent a game from becoming distracted by tangential issues. For example, a game assumption could be that Country Green remains neutral during a conflict between Country Orange and Country Blue.[116]
- Specific things or issues (in the game design) that are fixed and will or will not be gamed. Used to keep the game focused on the objectives and when necessary to avoid known showstoppers.[117]
- Game Assumptions also clarify the game boundaries. Game Assumptions should not be confused with Planning Assumptions. For example:[118]
  o WMD will not be played but players must plan for its use.
  o There will be No Out-of-Theater play.

Game Board:
- A deck (floor) divided into squares and used to represent an area of operations in a manual naval war game. The squares facilitate the plotting and recording of the movements of naval units. The game board is also known as a maneuver board.[119]
- An array of squares or hexagons used to represent an area of operations, or employed as an overlay to a map of chart which depicts the area of operations.[120]

Game Brief: (See Wargame Brief)

Game Control: (See Control Cell)

Game Designer / Team: The person or team responsible for designing the game.

Game Director: The Wargamer responsible for supervising and executing the wargame.[121] [122] (See Director, Action Officer)

Game Facilities: Where the game will be played. The facilities limit the game size, complexity, classification, and schedule.[123] Note: Also called "Game Venue."

Game Layout: A diagram or map showing the game facilities, and physical location of the game cells, rooms and organizations. [124] [125]

Game or Move Mechanics: The sequence of actions or steps taken by the players or sides to carry out their moves and how they interact with each other during the sequence. (See Time & Move Convention, and Game or Cell Activities)

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[115] Joseph M. Saur, Senior Research Scientist, Georgia Tech, Quantico Field Office.
[116] Burns.
[117] WGD SOP.
[118] William L. Simpson, Jr., . "COP Illustrations of Game Design V1.pptx" Wargaming Division, Quantico, VA. 12 August 2014, Presented to MORS Wargaming Community of Practice and used for Profession Military Education.
[119] McHugh.
[120] Ibid.
[121] WGD SOP.
[122] Burns.
[123] WGD SOP.
[124] Burns.
[125] WGD SOP.

Game Path:
- A diagram of the game process from beginning to end.[126]
- A predetermined path, prescribed events, or a decision tree the players must follow.

Game Purpose: (See Purpose)
- A short paragraph clearly stating the reason for the game and what it intends to accomplish.[127]
- A declarative sentence that summarizes why the wargame is being conducted. The purpose statement provides the motivation behind the entire wargame planning process.[128]

Game Objectives:
- A short list of specified tasks that the game is expected to accomplish. The objectives are the measures of game success. They are the drivers of the game design, data collection and game execution.[129]
- A series of goals that support the wargame purpose. [130]
- A short list of specified tasks, approved by the sponsor, that the game is expected to accomplish.[131]

Game Scale: The relationship between how the elements of force, time, and space are represented. The higher the game scale, the larger the force each force unit represents, longer time each time unit represents, and greater the distanced each distance unit represents.[132]

Game Schedule: A day-by-day or hour-by-hour schedule of game events.[133] [134]

Game Structure:
- A wire diagram showing the game organization and the relationships between the cells.[135]
- Game Structure is designed to support: the purpose and objectives, the research questions, the analytical plan, and the wargame type. The design is based on a variety of options and considerations listed below:[136]
  - What is the number, purpose, and composition of both control and players cells?
  - If a Red Cell is used, will it be one of the control cells or will it be a player cell?
  - Will player cells all work on a common scenario or problem or will there be different but related problems for different cells?
  - Are adequate facilities and equipment available?
  - What method of adjudication or facilitation is required?
  - In turn based games, how much time will be represented by a turn?
  - How long will players have to complete a turn?
  - How many turns are necessary to address all research questions?
  - How will turn results be adjudicated?

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[126] Ibid.
[127] Ibid.
[128] Strategic Wargaming Handbook.
[129] WGD SOP.
[130] Strategic Wargaming Handbook.
[131] Burns.
[132] Vebber, Wargame Compendium email.
[133] Burns.
[134] WGD SOP.
[135] Ibid.
[136] Strategic Wargaming Handbook.

- o Is there a need for plenary sessions and what will be their purpose?
- o Should players or controllers be expected to out-brief specific stakeholders?
- o What level of scenario development is required? How many scenarios are needed?
- o Are injects required to drive player interactions? When and how will they be used?

Game Theory:
- A mathematical theory which, under certain conditions can be employed to determine the optimal strategy or course of action to pursue in a conflict situation.[137]
- The study of situations involving competing interests, modeled in terms of the strategies, probabilities, actions, gains, and losses of opposing players in a game.[138]

Game Validation: The final rehearsal and check of the game and game materials for consistency and playability.[139]

General Situation Brief: The brief on the situation at wargame start given to all players. It contains the "Road to War / Crisis" and the immediate circumstances at wargame start. Usually given at the end of the wargame brief but before the players break into their individual cells.[140][141] The brief generally follows the SMEAC format (Situation, Mission, Execution, Admin and Logistics, and Command and Signal). (See Special Situation Brief)

Geographic Requirements: The kinds of physical environments needed for the game. This includes the types of terrain, hydrography, weather, climate and season of year. More than any other element chosen in the game design; the geographic requirements set the boundaries of what can and cannot be gamed. This can be a real problem when a game customer insists on a pre-existing scenario or specific geographic location that is not compatible with game objectives, or the type of operation, or the size and type of forces. The action officer must be prepared to show the sponsor the conflicts and make recommendations changing/modifying the pre-existing scenario or modifying the game purpose and objectives.[142]

Green Cell:
- Green cell ensures environment and civilian aspects are applied against the friendly (Courses of Action) COAs. (Usually includes: civilians, Host Nation, intergovernmental organizations (IGOs), or nongovernmental organizations (NGOs). [143] (See Yellow Cell)
- The purpose of a green cell is to consider the population in order to promote a better understanding of the environment and the problem. At a minimum, the green cell provides for the independent will of the population. The green cell may also provide considerations for non-DOD entities, such as intergovernmental organizations (IGOs) or nongovernmental organizations (NGOs). Green cell membership can range from an individual to a task-organized group of (subject matter experts) SMEs that may include liaisons from the local populace and non-DOD agencies.[144] (See Yellow Cell)

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[137] McHugh.
[138] M&S Glossary.
[139] War Gaming Department, Naval War College, Newport, RI, *WAR GAMING DEPARTMENT INSTRUCTION 5400.1*, 1 Aug 1986.
[140] Burns.
[141] WGD SOP.
[142] Ibid.
[143] Marine Corps Warfighting Publication (MCWP) 5-1, *Marine Corps Planning Process*, 24 August 2010, pp 2-6, F-1.
[144] MCWP 5-1, p 2-6.

Gold Cell: The Command Cell which provided guidance and cell coordination in the Title Ten Expeditionary Warrior Wargame in February 2015.[145]

Good Idea Cutoff Date: The date beyond which major changes to the game design will no longer be made.[146]

Ground Truth:
- The actual status of units played in a game. In an open game all players are given the ground truth. In a closed game the Control Cell maintains ground truth and communicates a limited and possibly distorted view of ground truth to the different sides playing in the game.[147] (See Three Map Problem)
- The actual facts of a situation, without errors introduced by sensors or human perceptions and judgement.[148]

Hex: A single hexagon in a hexagonal grid.[149]

Hex Grid: The hexagonal pattern laid over a map to facilitate unit movement, measuring distance, and providing location of units.[150]

Hex Side: One of the six sides of the hexagon. Sometimes rivers, ridge lines, fortifications or some other feature run along the hex side. This means the gamer must pay attention to the differences in types of hex sides as well as different hexes.[151]

Hex Number: In many games, a four-digit number that describes the row the hex is in (first two digits) and the hex in that row (second two digits). It is printed in the hex. It was developed by Arnold Hendricks (while he was working for wargame publisher SPI in the early 1970s) and later released to the public domain for any game publisher who wanted to use it (many do). A variant of the older letter-number hex identification system.[152]

Higher Authority: Designated Controllers, who act as commands and organizations outside of game play and they make decisions and provide policy guidance to the players as required to maintain game play and keep the game focused on the objectives. Higher Authority is normally part of Control and is used by the Game Director to direct game play; however, some games may require the cell to be part of the game play instead of game control. (Also called Higher Headquarters (HHQ), National Command Authority, etc.)[153]

Hotwash: "the act of reviewing any operations (in particular, a wargame). A hotwash is so named because it occurs as quickly as possible after the conclusion of the move or game (while it's still "hot").[154]
Note: In large or complex games, the Game Director and game staff, often conduct a hotwash each day.

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[145] Howard Key.
[146] Simpson.
[147] WGD SOP.
[148] M&S Glossary.
[149] Dunnigan.
[150] Ibid.
[151] Ibid.
[152] Ibid.
[153] Simpson.
[154] Glossary of AFWI Wargaming Terms.

Hybrid or Mixed Format Game: A game that has both open and closed components.[155] (See Open Game, Closed Game, and Three Map Problem)

In-Briefs: Briefings to the players at the start of the wargame and the beginning of a move.[156]

Inductive game: Inductive games begin without a pregame concept. With inductive games, the concept is discerned after analyzing game data for patterns. This type of gaming is used early in the concept development process, and makes use of open-ended brainstorming styles during the event.[157]

Information Briefs: Briefs to the wargame participants containing information needed for wargame play.[158]

Information Requirements: These requirements represent the type and format of the information that must be presented to the players so they can make informed decisions. This information can be: Read-aheads, Warning Orders, Operation Orders, Information Briefs, Situation Briefs, Status Boards, Scripts, MSEL (Master Scenario Event List) and relevant open source information provided by the media and the internet, etc.[159]

Initiative:
- As in real life, this is the ability of one side to act first. Usually each side has a probability of moving first (or second, if that is preferable) and this probability often changes with success and failure on the battlefield. An initiative rule (in manual games) often gets quite complex, as one would expect from as complex an item as initiative.[160]
- The ability of any player or side to make the first decision to act or wait in a move, turn, or step. For example, Blue has already planned and decided to close with and attack Red.   Red now has the initiative to decide how and when to react. If Blue decides not to change the attack plan, Red retains the initiative. This is a variation on the Action, Reaction Counter-Action steps in a turn of Course of Action Wargaming where Blue usually takes the initial action step.[161]

Initiative Rolls: A system of dice rolls and associated results tables, or cards used to force behaviors that are historically plausible.[162]

Injects: See MSEL's

Intel Play: Those portions of a game concerning intelligence. Typically handled by a Request for Information (RFI) Cell. Some games may also have an NRO (National Reconnaissance Office) Cell or controller.[163]

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[155] WGD SOP.
[156] WGD SOP.
[157] Burns.
[158] Ibid.
[159] Illustrations of Game Design.
[160] Dunnigan.
[161] Note: used at various Navy Global, USMC Urban Warrior, and USMC Culebra Wargame Series.
[162] Saur.
[163] Glossary of AFWI Wargaming Terms.

Kriegsspiel (Kriegspiel) :
- German for wargame. As modern wargames originated in Prussia early wargames used around the world were often called Kriegspiels.[164]
- War play or war game.[165]

Level of Abstraction: The level of detail presented in the scenario, order of battle, game play, and the size and scale of the maps. This must match up with the Level of Conflict.

Level(s) of Conflict: The range of the echelons of military [and civilian] command which are represented by the players in a war game. The "level" also determines the lowest echelon of command which is represented by players.[166]

Note: Grand Strategy and Skirmish levels are not recognized by doctrine, however; these two levels are widely used in wargaming and have their own unique game design considerations.

- **Grand Strategy:**
  - Strategy at the level of movement and use of an entire state or empire's resources, with the focus being on a war (or series of wars) usually over a long period of time. Individual units, even armies, may not be represented; instead, attention is given to theaters of operation. All of the resources of the nations involved may be mobilized as part of a long-term struggle.[167]
  - This level of simulation almost always involves political, economic, and military conflict. At the most extreme end of this is the branch of strategy games in which the player assumes the role of an entire nation-state's government where *not* conducting war is a possibility. *Axis and Allies*, *Risk*, and *Empires in Arms* are examples of this type of wargame.[168]
- **Strategic:**
  - The level of war at which a nation, often as a member of a group of nations, determines national or multinational (alliance or coalition) strategic security objectives and guidance, then develops and uses national resources to achieve those objectives.[169]
  - Military units are typically division, corps, or army-sized, rated by raw strength. At this scale, economic production and diplomacy are significant. This subgenre will often make use of all branches with the whole force of the engaging nations, covering entire wars or long campaigns.[170]
- **Operational:**
  - The level of war at which campaigns and major operations are planned, conducted, and sustained to achieve strategic objectives within theaters or other operational areas.[171]
  - Common units are battalion to divisional size, carrying a value based on their overall strengths and weaknesses. Weather and logistics are significant factors, although a single army is the largest player-controlled element in most cases. Other branches of military force are more or less abstracted, having a mere campaign generally span the session of play.[172]

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[164] Caffrey Connections Glossary.
[165] McHugh.
[166] Ibid.
[167] Wikipedia contributors, "Wargaming," *Wikipedia, The Free Encyclopedia,* Accessed April 8, 2015. http://en.wikipedia.org/w/index.php?title=Wargaming&oldid=654844437.
[168] Wikipedia contributors, "Wargaming."
[169] JP 3-02.
[170] "Wargaming," *Wikipedia.*
[171] JP 3-02.
[172] "Wargaming," *Wikipedia.,*

- **Tactical:**
  - The level of war at which battles and engagements are planned and executed to achieve military objectives assigned to tactical units or task forces.[173]
  - Units range from individual vehicles and squads to platoons or companies, and are measured by the types and ranges of individual weaponry. A solitary force, others occasionally intervening, will usually cover the single battle or part of a large battle to be simulated. Examples of this kind of game are Memoir '44, and Dust Warfare.[174]
- **Skirmish:** Represented by individual soldiers, units may have tracked wounding and ammunition count. A game is composed of a small firefight, introducing the "man-to-man" scale; the first of this type in the modern era of board wargames include *Patrol* and *Sniper!* Early role-playing games were derived from skirmish wargames, and many are still played as such.[175]

Live Simulation: A simulation involving real people operating real systems.[176]

Live Wargame: A wargame that involves the actual maneuver of forces, i.e. Red Flag.[177]

Live-Virtual-Constructive Wargame: One in which mixes live players with either constructive (computer generated by a game engine such as OneSAF) or virtual (live players in computerized trainers), or both, in such a way that the live players, when looking at their C2 systems, are unable to distinguish between player types.[178]

Main Event: The term applied to the primary wargame to avoid confusion with other smaller wargames or wargaming workshops in the design and development cycle leading up to the primary wargame.[179]

Management Game: A simulation game in which participants seek to achieve a specified management objective given pre-established resources and constraints; for example, a simulation in which participants make decisions designed to maximize profit in a given business situation and a computer determines the results of those decisions.[180]

Manual Games: (also known as board, table-top, or miniatures games)
- Games where physical objects represent the units and the environment and the players manually move the game pieces.[181] (See Combat Results Table, Hex Grid)
- A game in which the forces are represented by models, pins, pieces or symbols, and the participants move them about by hand on a chart, map, board or terrain model which represents the area of operations.[182]

Mechanistic Combat Model: One that involves the mechanical removal of forces on a one-for-one basis until some pre-determined level or ratio is reached. Used by H.G. Wells in his 1914 book, "Little Wars".[183]

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[173] JP 3-02
[174] "Wargaming," *Wikipedia.,*
[175] Ibid.
[176] M&S Glossary.
[177] Caffrey Connections Glossary.
[178] Ibid.
[179] Term routinely used at Wargaming Division, Quantico.
[180] M&S Glossary.
[181] Dunnigan.
[182] McHugh.

Miniatures Wargame: Type of wargame played on a 3d model of terrain with 3d representations of the engaged forces.[184]

Model:
- Proportional representation of reality.[185]
- A physical, mathematical, or otherwise logical representation of a system, entity, phenomenon, or process.[186]
- A description of characteristics, behavior or structure.[187]

Modeling and Simulation (M&S):
- The discipline that comprises the development and/or use of models and simulations.[188]
- The use of models, including emulators, prototypes, simulators, and stimulators, either statically or over time, to develop data as a basis for making managerial or technical decisions.[189]

Moderator: Control team member in a player cell who keeps the players on task.[190] (See Facilitator or Cell Leader)

Monte Carlo Technique: The use of a chance device to determine the outcomes of chance events, or to approximate a probability distribution that is difficult or impossible to compute.[191]

Morale: In manual or recreational gaming, the tendency to "fight to the last man" is countered by morale rules. For board games, a two-sided token may be used: one side indicates the combat power of the unit when at full-strength, while the flip side indicates a "shaken" or "reduced strength" status. For miniatures games, most rules include either percentages of remaining troops, or specific events that would trigger a "morale roll." As with other dice-based adjudication applications, the table of effects is (theoretically) based on an analysis of actual results from the conflict in question.[192]

Move 0 (Zero): A game move used to train or familiarize the game staff and players with new or complex procedures or concepts or both. When used Move 0 is always the first move. [193]

Move-Step: A design consideration where predetermined time periods are selected for game play, following which game time is advance to another predetermined time period. Move-steps permit time jumps to focus on specific aspects of an unfolding scenario related to game objectives.[194]

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[183] Saur.
[184] Caffrey Connections Glossary.
[185] Ibid.
[186] M&S Glossary.
[187] Vebber, Wargame Compendium email.
[188] M&S Glossary.
[189] Ibid.
[190] WGD SOP.
[191] McHugh.
[192] Dunnigan.
[193] William L. Simpson, Jr., GS-12, Game Designer, "Sea Viking Wargame 2008" Wargaming Division, Quantico, VA. Note: term commonly used by several wargaming organizations.
[194] Burns.

MSEL (Master Scenario Event Lists):
- A MSEL contains actions to be taken to stimulate exercise staff groups or functions that are not capable of being modeled in a simulation. A MSEL "inject" is the introduction of actions from the list by a control group into the scenario.[195]
- Chronological listing of scripted events that generate activity in specific functional areas in support of exercise or wargame objectives. In a functional exercise or a one sided wargame, the MSEL drive the play. In a full-scale exercise or two or more sided wargame, the MESL supplements and influences the direction of play when necessary. MESL's come in two formats:
  - Short MSEL – lists the inject, delivery time, short description, responsible controller, and receiving player.
  - Long MSEL – detailed description, exact quotes and formats for inject, and description of expected action.
- MSEL injects require careful planning and coordination and should not be made up on the spot without consulting the game designers and then only when absolutely necessary.[196]
- A chronological list that supplements the exercise scenario with event synopses; expected participant responses; capabilities, tasks, and objectives to be addressed; and responsible personnel. It includes specific scenario events (or injects) that prompt players to implement the plans, policies, and procedures that require testing during the exercise, as identified in the capabilities-based planning process. It also records the methods that will be used to provide the injects. (i.e., phone call, facsimile, radio call, e-mail).[197]

Multisided game: Games may be designed with several competing cells. These games are referred to as multisided, or by the actual number of sides (e.g., "three-sided").[198]

Nature of the Conflict: What is the kind of, and the reason for the conflict in the game. It may be military, diplomatic, commercial, legal, religious, or a combination there of.[199]

Nature of the Opposition: The type and nature of the opposition is determined by the overall context of the game. The opposition can be from the challenges of time, distance, terrain, disaster and resources vs. the mission or from recalcitrant humans or a combination there of. The intensity of the opposition can range from the passive resistance of a difficult environment or population to a fully hostile engagement with equipped and trained diplomats, advocates, and soldiers.[200]

Nongovernmental Organization (NGO): A private, self-governing, not-for-profit organization dedicated to alleviating human suffering; and/or promoting education, health care, economic development, environmental protection, human rights, and conflict resolution; and/or encouraging the establishment of democratic institutions and civil society.[201]

Number of Cells: The number of cells needed in a game is determined by how many separate groups of players and staff need separate spaces or cells.

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[195] ABCA Program Office, "ABCA Analysis Handbook, Operational Assessment of ABCA Exercises and Experiments, Rosslyn, VA, 07 Sept 2004, 8-A.
[196] LtCol Mark Stanovich, USMC, Wargaming Division Reservist / Professional Civilian Wargamer.
[197] M&S Glossary.
[198] Burns.
[199] Illustrations of Game Design.
[200] Simpson.
[201] JP 1-02.

Number of Sides: The number of sides in a game is determined by the nature of the conflict and the nature of the opposition being gamed and the number of independent entities who can make decisions and take independent action that influence the direction of the game. Games can have 1 side, 1 ½ sides, 2 sides or more. The number of sides does not always equal the number of cells.[202]

- A one sided game is like solitaire:
    - The opposition is provided by the situation, the MESL injects, or the results of a pre-gamed operation. The purpose and objectives of the game do not require a live, thinking opponent.[203]
    - A one-sided game is structured with players grouped into one or more cells with each cell gaming, generally, one perspective on an issue. A control group (typically called the White Cell) provides the "opposition" and uses pre-scripted scenario injects that change the base conditions or situation of the wargame causing the players to reexamine their thoughts, perspective or decisions related to the issue being gamed. A variation of the one-sided game (sometimes called a **1 ½-sided game)** involves using scenario injects that are created as the game progresses (as opposed to pre-scripted) based on the issues with which the players are wrestling.[204]
- A one and a half sided game has an embedded "Red" player or team. Red plays the "Devil's Advocate" presenting arguments or obstacles to Blue's plans. This method represents a situation where Red's ability to oppose Blue is limited or it is less that the opposition presented by the other factors such as time, distance or terrain.
- Two sided games are the basic Red vs. Blue setup. In a two-sided game, players are divided into opposing cells (typically called the Blue Cell and Red Cell.) Each cell responds to the actions and decisions of the other cell based on pre-established rules of conduct. A control cell adjudicates the interaction of the actions and decisions of the cells. The outcome of the interaction informs subsequent game play. A control group may also use scenario injects to alter the general scenario during cell activities in this type of wargame.[205]
- A multi-sided game, involves more than two sides and is generally conducted in the same way as a two sided game. The rules of conduct for multi-sided games can be significantly more complex than in a two-sided game due to the number of possible interactions between the various player cells.[206]
- Each side is normally assigned a color. (See colors) In games with many sides it is easier to give the cells names instead of colors.

Objective: The purpose for which an activity is to be conducted.[207] (See game objectives)

Observer: A non-player, who is allowed to observe, but not play in the game.[208]

Open Game: A game in which all players receive or have access to all information and intelligence of the actions of all friendly and enemy forces. Usually played in one room and on a single map or chart.[209]

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[202] Simpson.
[203] Ibid.
[204] Strategic Wargame Handbook
[205] Ibid.
[206] Ibid.
[207] Caffrey Connections Glossary.
[208] Simpson.
[209] McHugh.

Operational Gaming: "The application of gaming techniques to non-military situation. Also used to describe the simulation of both military and non-military operations." This is a term developed and used at the Navy War College Wargaming Division in Newport, RI.[210]

Orange Cell: Orange is normally an ally of Red[211], or a 2nd independent opposition element.

Order of Battle: The make-up of a player's forces in terms of types of units and the number of each type available.[212]

Order of Battle Sheets: (Board or Manual Games) A printed form with the game units displayed along with boxes to check off the declining strength of the units as they suffer combat (or non-combat) losses.[213]

Out-Briefs:
- The briefs presented by the players that discuss what they did and why during a move or the wargame.[214]
- The briefs created and presented by the players at the end of a move or end of game play.[215]

Parameter: A value such as a hit probability, a detection range, an ammunition allowance, etc., that remains constant for the play of a game, but that may be varied from play to play as desired.[216]

Participant: Anyone who is participating in the game includes players, administrative, support and control personnel.[217]

Policy Wargame: Wargames played typically at the strategic level that are designed not to gain insight into a specific situation but to help explore broad policies.[218]

Player:
- Those participants specifically appointed to play the game.[219]
- A participant in a war game who is not a member of the control group, and who plays the role of a real-world commander of a staff officer of a military unit or units.[220]
- A participant in a war game who is not a member of the control group.[221]

Playability: The relative ease with which a wargame can be conducted. Wargames with low playability take a relatively long time to learn how to use and are cumbersome in execution. Wargames with good playability are quick and easy to learn and have initiatively obvious and convenient methods of execution.[222]

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[210] McHugh.
[211] WGD SOP.
[212] Dunnigan.
[213] Ibid.
[214] Burns.
[215] Ibid.
[216] McHugh.
[217] Burns.
[218] Caffrey Connections Glossary.
[219] WGD SOP.
[220] McHugh.
[221] Burns.
[222] Caffrey Connections Glossary.

Player Requirements:
- The rank, knowledge or experience required of the players and other game participants. This is determined by the type and level of operation and the degree of role-playing.[223]
- The number of players required and the knowledge, experience, and perspectives each player will bring to the game.[224]

Plenary:
- Fully attended by all qualified members.[225]
- The plenary session is a meeting attended or viewed by all game participants.

Probability: The probability of the occurrence of an event is the ratio of the number of equally likely ways in which the event can happen to the total number of equally likely ways in which the event can and cannot happen.[226]

Problem Statement:
- A concise description of the issues that need to be addressed by the Wargame Design Team and the wargame.[227]
- A clear description of the issue to be addressed by the wargame. The problem statement will directly affect the determination of the purpose, objectives and research questions that drive the design, development, and execution of the wargame.[228]

Professional Military Judgement (PMJ): The sum total of the training, education, experience, and associated knowledge accumulated over a person's career. (See Umpiring, Free) [229]

Purpose:
- The overarching reason, for which the game is planned, played and designed to answer the sponsor's problem statement.[230] (See Game Purpose.)
- A declarative sentence that summarizes why the wargame is being conducted. The purpose statement provides the motivation behind the entire wargame planning process.[231]

Rapid Assessment Wargame: The Rapid Assessment War Game (RA) is a style of seminar war game designed to provide a quick turn-around for simple problems that do not require extensive game design and development. It is designed to support the early stages of concept development or experimental planning with minimal disruption.[232]

Rapporteur:
- A person appointed by an organization to report on the proceedings of its meetings.[233]

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[223] WGD SOP.
[224] Strategic Wargaming Handbook.
[225] A.H. College Dictionary.
[226] McHugh.
[227] Simpson.
[228] Strategic Wargaming Handbook.
[229] Vebber, Wargame Compendium email.
[230] Burns.
[231] Strategic Wargaming Handbook.
[232] Simpson, William L., Jr., Game Designer, Sea Viking 2008.
[233] *Oxford Dictionaries*, s.v. "rapporteur." accessed June 21, 2015,
http://www.oxforddictionaries.com/us/definition/american_english/rapporteur.

- A member of the CAP team, who collects and assesses the data and helps prepare the game reports.

Realism: The degree to which a model, simulation or wargame matches the real world entity of interest. A one foot square map of the world can be realistic as long as all elements are correct/in scale.[234]

Real-Time: A real time wargame is one in which one minute of game time takes place during one minute of actual time. Flight simulators/air combat wargames typically run in real time. The term is also sometimes applied to any wargame that runs continually even if one minute of game time represents one century of real time.[235]

Red Cell / Players / Team:
- The cell, team, or players acting as the opposition or hostile forces.
- The team (or players) representing the "enemy." In some games (notably the USAF ACES-Pegasus Canada) student players play both sides of the game: in this case, one side is usually referred to as "grey" vice "red."[236]

Research Question: (See Discussion Question)
- An answerable inquiry into a specific concern or issue.[237]
- Questions derived from the game objectives and Wargame Sponsor that are used to focus wargame design and development.[238]
- The research questions are drawn directly from the wargame objectives. The research questions are intended to identify the facts or information needed to accomplish the wargame objectives. The research questions directly influence the development of the wargame design, in particular the analytical and facilitation plans.[239]

RFI (Request for Information): A player generated question of an intelligence nature.[240]

RFI Cell: A cell or team composed of subject matter experts, the scenario writers, intelligence officers and game control personnel to address RFI's.[241]

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[234] Caffrey Connections Glossary.
[235] Ibid.
[236] Glossary of AFWI Wargaming Terms.
[237] *Writing Research Questions: Purpose & Examples* accessed July 16, 2015, http://study.com/academy/lesson/writing-research-questions-purpose-examples.html.
[238] Simpson.
[239] Strategic Wargaming Handbook.
[240] Glossary of AFWI Wargaming Terms.
[241] Notes:
- The scenario writer or an expert in the scenario must be a part of the RFI cell to avoid conflicts between real world facts and the artificialities developed as part of the scenario. If a separate RFI cell is not practical, Game Control performs this function.
- WGD Quantico has occasionally used the RFI cell to pass "open source information" or "warnings & indicators" between sides during the planning phases of closed games to prevent accidental engagements that never should have happened or missed engagements that should have happened. This either involves RFI umpires going between opposing cells or the umpires in a cell determining and passing on to Control and the RFI cell those early actions taken that would be seen by other cells.

Road to War / Crisis: (also called Backstory[242])
- The created history that transitions from a real point in history to the start point of the game scenario. This "history" provides context, essential details and plausibility to the scenario. This is the first part of the scenario presented, but it is usually the last part of the scenario finished.[243]
- This is a narrative of the events from current time to game start. The purpose of the "Road to War" is to transport the players from the real world into the game world and minimize players fighting the scenario. As always the scenario MUST support the achievement of the game objectives.[244]

Role Playing:
- The degree of role-playing required of the players, if any. Role-playing is whether or not the players are restricted to perform the duties of assigned game billets or are they free to participate according to their experience and knowledge.[245] Training wargames and games examining the functioning of staffs, HQ's, or teams usually require strict role playing or role play. (See Command Post Exercise)
- Players are assigned the duties of a specific game billet; e.g., President, Chief of Staff. This is contrasted with player role performance based upon one's experience and knowledge.[246]
- In historical miniatures gaming, the thickness of the ruleset often reflects the intention of the rule writer to restrict the players, and to limit their actions to those that the writer feels would have been appropriate to the time and place of the conflict.[247]

Scale:
- As the size of the force represented by the token or counter gets larger, the map and time scales of the game change as well, so that a one-hex move by a company will cover, say, 500 yards, and take 15 minutes, whereas the same move by an army might cover 100 miles, and take a week. In miniatures gaming, there is a similar tendency to use the same formation (usually between 16-36 figures) to represent anything from an infantry company to a division, again with a corresponding adjustment to the map and time scales. (See Game Scale, Hex Grid)[248]
- The relationship between how the elements of force, time and space are represented. The higher the game scale the larger the force each force unit represents, the longer each time unit represents and the greater the distance each distance unit represents.[249]
- The size of each hexagon and the real time represented by each game turn. The size of the hexagon is measured from side to side and varies from a few meters upwards to many light years (in science fiction games).[250]

Scenario:[251]
- The imaginary world in which the game is played.[252]

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[243] Simpson.
[244] WGD SOP.
[245] Ibid.
[246] Burns.
[247] Saur.
[248] Saur.
[249] Vebber, Wargame Compendium email.
[250] Dunnigan.
[251] **Note:** The scenario must be plausible, reasonable and support the wargame purpose and objectives. It sets the boundaries of the game and determines what can and cannot be played.
[252] WGD SOP.

- A chronological listing of pre-planned situations, events, messages, etc., to be generated by the control group in order to confront the players with situations requiring decision during the play of a one-sided game.[253]
- A description of the conflict situation. Also known as the general situation.[254]
- An identification of the major systems/players that must be represented by the simulation, a conceptual description of the capabilities, behavior, and relationships (interactions) between these major system/player over time, and a specification of relevant environmental conditions (e.g., terrain, atmospherics). Initial and termination conditions are also provided.[255]
- An account or synopsis of a projected course of action or events, with a focus on the strategic level of warfare. Scenarios include information such as threat and friendly politico-military contexts and backgrounds, assumptions, constraints, limitations, strategic objectives, and other planning considerations. A scenario is intended to represent a plausible challenge and may not reflect the most likely events.[256]
- A narrative description of the setting in which the strategic, military, political, economic and social environment is established and the physical geography is set forth. It may be hypothetical, real or a combination of both.[257]
- A complete description of the event (battle) to be simulated in the game. Often, a number of scenarios are represented in a single game. Some are historical, allowing the player to deal with only portions of the battle or campaign, while others are "what if" or hypothetical situations. The scenario will detail the units to be used, where they are to be placed, or when they will arrive as reinforcements. Finally the victory conditions and any scenario specific rules are given.[258]
- A scenario is a plausible description that sets the scene for player interaction. The scenario is sufficiently well developed to allow players to suspend their disbelief of the plausibility of the situation described in the scenario. The scenario developer creates the scenario in support of the wargame objectives. The scenario postulates a particular situation using the minimal essential information to inform players of the initial conditions under which game play will proceed. Wargame sponsors may dictate the general scenario based on their objective for the wargame.[259]

Scenario based game: A scenario based wargame presents players with a specific scenario, which is used to guide the course of the wargame while the players examine a particular strategic problem or issue. Scenario based games, starting with present-day conditions, can be used to "take an intellectual walk into the future." Based on a sponsor's requirements, the wargame may be based on a specified scenario.[260]

Scenario planning game: Another war gaming technique involves gathering players to explore a problem in the context of a specific scenario.[261]

Seminar: A meeting for the exchange of ideas, a conference.[262]

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[253] McHugh.
[254] Ibid.
[255] M&S Glossary.
[256] Department of Defense Directive 8260.05, Support for Strategic Analysis (SSA), 7 July 2011.
[257] Marine Corps Order 3070.
[258] Dunnigan.
[259] Strategic Wargaming Handbook.
[260] Ibid.
[261] Burns.
[262] A.H. College Dictionary.

Seminar Wargame:
- A wargame using the seminar format in the majority of its game cells.[263]
- Opposing players discuss the sequence of moves and countermoves likely to be made in a given situation and agree on interactions likely to occur. The control team adjudicates the results of those interactions and reports back to the players. The process is repeated for each of the "moves" in the game. Seminar games often use moves of various lengths of periods of the war at different levels of detail.[264]
- …are often used in situations where complex, incompletely understood interactions are being evaluated.[265]

Senior Mentor: Generally a retired flag or general officer, ambassador, senior government official, etc. who has the requisite experience relevant to the game. This person provides critical analysis, assessment, mentoring or guidance as required for the game.[266]

Showstopper: An unexpected situation where one side or the other cannot continue the game to its designed conclusion. A showstopper may result from unexpected game play or may indicate a systemic problem and must be investigated. The Senior Controller and the CAP Team Leader must be notified immediately. The details and circumstances of the showstopper are fully recorded. If game play must continue, all sides agree upon a reasonable alternative to the showstopper and game play is resumed. Showstoppers are important findings in any wargame. They must be carefully studied. Arbitrary dismissal or glossing over of showstoppers can threaten the integrity of the game; result in bad press; or worse lead to major military defeats in the real world.[267] (See Black Swan)

Sides of a Game: See "Number of Sides"

Simulation:
- Model acted on over time.[268]
- A method for implementing a model over time.[269]
- A framework for the dynamic interaction of models over time.[270]

Single-sided game: A single- or one-sided game includes one player cell, with the opposition furnished by a control group that presents scripted scenario injects.[271]

Situation:
- The part of the scenario addressed by the players at the beginning of a move or turn.[272]
- The results of the players' actions will produce a new situation. [273]

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[263] Simpson.
[264] Marine Corps Order 3070.
[265] David O Ross, Investigating the Fundaments of the Third Generation Wargame: Wargaming, a Course for Future Development." Agency # AFRL-RI-RS-TR-2008-68 AFRL/RISB, 525 Brooks Rd., Rome NY 13441.
[266] WGD SOP.
[267] Ibid.
[268] Caffrey.
[269] M&S Glossary.
[270] Vebber, Wargame Compendium email.
[271] Burns.
[272] Douglas Ducharme, Associate Professor US Naval War College.
[273] Ibid.

- The situations change, the scenario does not.[274]

Size and Type of Entities required: An entity represents a group, organization, or force [and associated equipment] whose decisions that can influence the direction of the game and are needed in the game to support achieving the objectives. This is closely related to the number of sides played in a game.[275]

Space Play: Those portions of a wargame concerning space operations & maintenance (moving a satellite, launching new or backup satellites, re-rolling satellites), or anti-satellite operations (shooting down satellites, jamming up- or down-links, destroying ground stations).[276]

Socialize: To make ready or suitable or equip in advance for a particular purpose or for some use, event, etc.[277] Example: A wargame can be used to socialize both the idea or concept being gamed and its operators / users for its intended purpose.

Special Situation Brief or Cell update brief: The in-brief given to the players on a specific side or in a specific cell. It contains the information representing the specific viewpoint and situation of that cell and the specific functions and tasks of that cell. Given at the beginning of a move or when circumstances dictate.[278] [279] Suggest following the five paragraph order format (SMEAC: Situation, Mission, Execution, Administration and Logistics, Command and Signal).

Sponsor:
- The senior officer or official under whose authority the game is being conducted. The Sponsor is the ultimate authority on major game designs and decisions.[280]
- The senior officer or official of the command / organization who has requested the game. Normally the sponsor is the approval authority on major game purpose, objectives, research questions, and design.[281]
- Proposes issues for wargaming. Approves the Problem Statement, Purpose, Objectives, and Research Questions. Assists with identifying qualified wargame participants.

Sponsor's Representative: The action officer representing the sponsor in discussions with the WGD game team. [The representative must be] able to approve routine decisions concerning game objectives, design, development, and execution.[282]

Stakeholder:
- One who has a share or interest (in the wargame).[283]
- Stakeholders include all those individuals and organizations that may affect or be affected by the findings or outcome of the wargame. Stakeholders are characterized by their level of

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[274] Ibid.
[275] Illustrations of Game Design.
[276] Glossary of AFWI Wargaming Terms.
[277] *Thesaurus,* www.thefreedictionary.com/socialize. Accessed 23 September 2015
[278] Burns.
[279] WGD SOP.
[280] WGD SOP.
[281] Burns.
[282] Ibid.
[283] A.H. Dictionary.

interest in the wargame and its outcomes and their ability to impact planning and execution of the wargame.[284]

Stochastic Model: A model in which the results are determined by using one or more random variables to represent uncertainty about a process or in which a given input will produce an output according to some statistical distribution. Contrast with: Deterministic Model.[285]

Stochastic Combat Model:
- One based on the use of random variables to represent uncertainty in the attrition process, or where a given input will produce an output according to some statistical distribution. Typically results are a graph representing the range and probability of all possible results. [286]
- A description of the characteristics, behavior, or structure of a combat situation from which the computation of the results includes stochastic variables, with a stochastic variable defined as a variable represented not by a single value, but a statistical distribution.[287]

Strategic Issues Cell (SIC): A seminar group composed of high ranking players and experts selected to address issues from the CAP plan and issues raised in the game that will not be addressed by game play. The SIC works for the Control Cell. It is different from the **Higher Authority (HA) Cell** because it does not directly influence game play.[288] Also called **Senior Advisory Cell (SAC)**

Strategic Wargame: A strategic wargame is a structured, facilitated interaction between experts on a topic that will inform and assist in future strategic decision making by improving understanding of the pertinent issues. Results from a wargame can provide insights and options on the employment and appropriate application of the instruments of national power.[289]

Sub-Objective: Subordinate Objectives are those things that must be accomplished to meet a Wargame Objective.[290]

Subject Matter Experts: Participants who are experts on subjects related to the wargame.[291]

Support Cell/Team: Security, technical and administrative personnel needed to support the wargame.[292]

Support Cell/Team Leader: The person responsible to the Action Officer for the development and execution of the wargame support plan.[293]

Table Top Exercise:
- Simulation wargames depicting an armed conflict.[294]

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[284] Strategic Wargaming Handbook
[285] M&S Glossary.
[286] Saur.
[287] Vebber, Wargame Compendium email.
[288] WGD SOP.
[289] Strategic Wargaming Handbook.
[290] Howard Key.
[291] WGD SOP.
[292] Ibid.
[293] WGD SOP.
[294] Caffrey, Note: this definition is used to distinguish it from the field exercise wargame.

- A table-top exercise is a discussion-based wargame where players sit at tables and interact with one another to address the key issues of the wargame. While not specifically structured as a turn based game, facilitators will often cause players to consider issues in a particular order, to determine the relationship between specific decisions or actions.[295]

Taskers: Used in seminar wargames instead of detailed move sheets, also used when trained facilitators are not available to guide the players. For each move, the players are given a set of "taskers," usually in the form of preformatted briefing slides or specific questions. An example of a tasker in a medical wargame follows:[296]

<div align="center">Move Three</div>

- **Taskers:** (Answer each tasker on a separate slide that includes the Move # and your cell #)
- Given the results of Move Two:
  - What Changes are you going to make to your Medical CONOPS?
  - What resources must be shifted, and who will decide?
  - What are the Locations of Medical Support Ashore?
    - Who controls them, Security, CSS, and Crowd Control?
  - Casualty Transport: Who does it, How, and to Where?
  - SEP Manning, Corpsman, litter carriers, and escorts?

Technology Game: Wargame designed not to gain insight into a specific situation but to help explore a spectrum of technology options. For example, in a Technology Wargame one Blue team may be equipped with stealthy aircraft while a second Blue team is equipped with advanced electronic warfare capabilities.[297]

Terrain: (In board or hex map wargames) The wargame map may look like a normal map in many cases, but in all cases it is actually a collection of hexagon-shaped cells, each hexagon containing a precise type of terrain. Each hex has a dominant physical characteristic which has a precise effect; upon movement and/or combat of the units entering it. These kinds of terrain are more specific in tactical wargames and more general in strategic wargames. For example, in a tactical wargame you would have hexes representing woods, swamp, sand or clear (open) areas. Operational level wargames (10-50 kilometers per hex) would have rough terrain and forest and mixed (rough ground and forest) terrain. Strategic wargames (50 plus kilometers per hex) would have two or three kinds of rough terrain and impassable terrain, etc. Rivers and streams usually run along the hexsides to make it unambiguous as to which side of the river a unit is on.[298]

Terrain Effects Chart: This is an important element of any (Board or Hex Map) wargame, which shows the effect on movement and combat for units entering the different types of terrain in the wargame. Movement is usually affected by a variable number of movement points required to enter the different kinds of terrain. Combat is usually affected through increasing difficulty for the attacker attacking the defender in more favorable (for the defender) terrain. That is, the defender might be able to double his strength in certain types of terrain or even triple or quadruple it or, conversely, he might simply be able to shift on the Combat Results Table from a 3 to 1 to a 2 to 1.[299]

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[295] Strategic Wargaming Handbook.
[296] WGD SOP.
[297] Caffrey Connections Glossary.
[298] Dunnigan.
[299] Ibid.

Three Map Problem: In a closed wargame, Wargame Control must maintain three maps; the Ground Truth, the Red Situation Map and the Blue Situation Map. The Ground Truth Map shows all forces in their actual position and actual status. The Red and Blue Situation Maps, show the situational awareness of each side as determined by Control, which replicates the "Fog of War."[300]

Timeframe and Duration: The year or years in which the scenario is played and how much time is covered during the scenario.[301]

Time & Move Convention: How time is handled in the wargame and what are the conventions and procedures followed in each move. Time is handled: continuously, in steps, by phases, or by events.[302] Usually all sides move at the same time, but they can also take turns, or the side with the initiative keeps moving until the initiative is lost.

Title X (Ten) Wargames: Title X wargames are a series of major service sponsored wargames that address future capabilities in the context of Title X responsibilities to organize, train, and equip its forces to carry out its roles and functions as a component of national military capability.[303]

Token: (also called "Counters" or "Units") In recreational gaming, forces are represented by tokens: for board wargames, the convention is to use ½" cardboard squares, appropriately colored and labeled, to represent anything from a single soldier to complete armies. (See Scale) Tokens contain several pieces of information: graphic or picture representing the unit, its title, and two or more numbers representing offense, defense and movement factors.[304] (See Boardgame Counters)

Toolboxes or Toolkits: Hard copy or electronic notebooks containing one-page descriptions of systems and major end items used in the wargame.[305]

Topics of Interest: (also called Areas of Interest) Minor objectives concerning specific areas or issues the sponsor or stakeholders would like for players to deal with during wargame play. Accomplishing Topics of Interest are not critical to success of wargame; however; Topics of Interest are included in the wargame design if practical. Topics of Interest should be reviewed by the CAP plan and if possible included in the questionnaire and offline cell discussion.[306]

Trusted Agents:
- Players who have privileged information provided by Control that is to be revealed only under specific circumstances.[307]
- Players who have privileged information that is necessary to advance game play and objectives.[308]

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[300] WGD SOP.

[301] Ibid.

[302] Ibid.

[303] *USMC Title X (Ten) and External Wargame Management and Coordination* CG MCCDC message dtg 131300Z Mar 01.

[304] Saur.

[305] WGD SOP.

[306] Ibid.

[307] Ibid.

[308] Burns.

Turn-based Wargame: A turn based wargame is one in which Blue and Red can only effect the progress of the wargame at discreet times. Ideally a wargame should allow player turns at the same interval as real world decision cycles. Strategic and operational wargames are typically turn-based.[309]

Two-sided game: As contrasted with a 1½-sided game, two-sided games involve two separate, competing player cells. The two sides play by rules that vary from restrictive to entirely free play. Player decisions from each cell are adjudicated, with results presented to the players and used to inform subsequent game play.[310]

Type(s) of Operation: The type or types of operations to be wargamed. Is the operation an amphibious operation, a non-combatant evacuation, disaster relief [operation], diplomatic negotiations, stability operations, etc.? More than one type of operation maybe required.[311]

Umpire:
- A member of the control group who performs one or more of the following duties: monitors player actions, evaluates interactions, [and] provides intelligence to players.[312]
- One having authority to arbitrate and make a final decision.[313]

Umpiring, Free: The results of interactions are determined by the umpires in accordance with their professional judgement and experience.[314] (See Professional Military Judgement)

Umpiring, Rigid: The results of interactions are determined by umpires, simulation equipment, or computers in accordance with predetermined rules, data and procedures.[315]

Umpiring, Semi-Rigid: Interactions are evaluated by the rigid method, but the outcomes can be modified or overruled by the umpires.(using professional military judgement) The term is also used when certain specified interactions are evaluated by rigid umpiring; other interactions, by free umpiring. Also called free-rigid.[316]

Unit: A common term (along with the term "counter") for a playing piece (or graphic symbol) that represents a military organization. Military units on the ground come in the following sizes:
Ground Units / Levels of Play[317]
- Single soldier
- *Fire team* of three to six men
- *Squad* of eight to 16 men (there are usually two [three] fire teams per squad)
- *Platoon* of 30 to 60 men (three squads)
- *Company* of three or four platoons (100 to 300 men)
- *Battalion* of three or four companies (400 to 1,200 men)

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[309] Caffrey Connections Glossary.
[310] Burns.
[311] Illustrations of Game Design.
[312] McHugh.
[313] Webster's.
[314] McHugh.
[315] Ibid.
[316] Ibid.
[317] Dunnigan.

- *Regiment or brigade* of three or four battalions (1,200 to 5,000 men). The main difference between a regiment and a brigade is that a brigade is often a bit larger than a regiment and capable of operating independently, while a regiment is normally part of a division
- *Division.* Three or four regiments or brigades comprise a division (6,000 to 20,000 men)
- *Corps.* Two to four or more divisions are a corps of 20,000 to 70,000 men
- *Army.* Two or more corps constitute an army (50,000 to 250,000 men)
- *Army Group.* Two or more armies are an army group

Naval Units / Levels of Play[318]
- Fleet
- Task Force, Task Group
- Warfare Coordinator
- Ship CO

Vignette: A brief descriptive sketch of a situation. A mini-scenario confined to a very specific and limited situation. A vignette can be a subset of a larger scenario.[319]

Wargame: This term has many different definitions and uses, and is spelled three different ways; wargame, war game, and war-game.
- War game. *n* 1. A simulation of a military operation. 2 A simulation of a proposed plan of action or strategy to test its validity. – war-game *v.* [320]
- War game *n* [trans. Of G *kriegspiel*] 1: A simulated battle or campaign designed to test concepts rather than the skill of forces or fitness of troops or equipment and usually conducted in conferences by officers acting as the opposing staffs. 2: A two-sided umpired training maneuver with actual elements of the armed forces participating.[321]
- A wargame is a model or simulation of war conducted without maneuvering actual forces and with a sequence of events that affects and is affected by-decisions of the players.[322]
- War game - A simulation, by whatever means, of a military operation involving two or more opposing forces using rules, data, and procedures designed to depict an actual or assumed real life situation. [323]
- Adversarial by nature, wargaming is a representation of military activities, using rules, data, and procedures, not involving actual military forces, and in which the flow of events is affected by, and in turn affects, decisions made during the course of those events by players acting for all actors, factions, factors and frictions relevant to those military activities.[324]
- Adversarial by nature, wargaming is a <u>virtual</u> representation of <u>hostile</u> activities, using rules, data, and procedures, not involving actual hostile forces, and in which the flow of events is affected by, and in turn affects, decisions made during the course of those events by players acting for all

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[318] WGD Instruction 5400.1.
[319] WGD SOP.
[320] A.H. College Dictionary.
[321] Webster's.
[322] Peter P. Perla, *The Art of Wargaming*,.Annapolis, Maryland 1990.
[323] *DoD Dictionary JP 1-02* (term no longer included in edition amended through 10 Aug 2014)) Note: This now deleted definition was broad enough to cover field exercises, experiments, wargames etc., was not very useful from the viewpoint of wargame design, and greatly contributed to the ongoing confusion resulting from field exercises, experiments and wargames all defined as wargames.
[324] Peter Perla, in a comment to Graham-Longley Brown's, "That old can of worms – what is a wargame?" posted by Paul Vebber in Wargaming Connection, June 9, 2015, https://wargamingcommunity.wordpress.com/2015/06/09/that-old-can-of-worms-what-is-a-wargame/ r.

actors, factions, factors and frictions relevant to those <u>hostile</u> activities. **Note:** The underlined words expand this definition from the previous definition to include non-military forces and actions.[325]

- A simulated battle or campaign to test military concept or use. Conducted in conference by officers acting as opposing staffs.[326]
- A two-sided umpired training maneuver with actual elements of armed forces participating.[327]
- War game- simulation, in accordance with predetermined rules, data, and procedures, of selected aspects of a conflict situation.[328]
- Wargame: Method wherein the human intellect uses a synthetic construct that replicates a conflict and requires decisions for resolution in order to consider a real problem.[329]
- A game is a simulation of operations that often involves two or more teams, usually in a competitive environment, using rules, data, and procedures designed to depict an actual or posited real-life situation.[330]
- A game is "any contest (play) among adversaries (players) operating under constraints (rules) for an objective (winning, victory or pay-off)[331]

Comment: Is it wargame, war game, or war-game? By strict interpretation: *war game* is a noun, *war-game* is a verb and *wargame* is both a noun and a verb. However, in practice *wargame* and *war game* are used as nouns and verbs, while *war-game* is rarely used at all. Which word is used and how, is up to the individual command / organization.

Wargame / Design Brief: The brief on the objectives, structure, organization, schedule and procedures of the wargame. This brief is normally given at the end of the information briefs. The wargame brief may include the general situation brief. [332] [333]

Wargame Limitations: Wargame limitations are: assumptions, constraints, restraints, and limiting factors (See Game Assumptions):[334]

- **Assumption:** A supposition on the current situation or a presupposition on the course of future events. Assumptions typically come into play in the development of scenarios that deal with the future.[335]
- **Constraint:** A requirement placed on the project team, for the design, development, and conduct of a wargame by a higher headquarters, especially a wargame sponsor that dictates a certain requirement. Typical constraints may include the necessity of conducting the wargame at a particular level of classification or being directed to use specific facilities for the wargame.[336]
- **Restraint:** A requirement placed on the wargaming division, for the design, development or conduct of a wargame by a higher headquarters or wargame sponsor that prohibits a certain

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[325] Mike Nagel, in a comment to, *That old can or worms—what is a wargame?* June 9, 2015.
[326] Caffrey Connections Glossary.
[327] Ibid.
[328] McHugh.
[329] Lademan..
[330] Scott D. Simpkins, "A Gaming Taxonomy.pptx." October 10, 2006.
[331] Clark Abt, "Games for Learning" (1968), quoted in Henry Ellington, Eric Addinall, & Fred Percival: *A Handbook of Game Design* (London: Kagan Page Limited, 1986), 9.
[332] WGD SOP.
[333] Burns.
[334] Strategic Wargaming Handbook.
[335] Ibid.
[336] Ibid.

action. A typical restraint might include the necessity to limit scenario development to a narrowly defined aspect of a particular wargame topic or to only involve players from a specific organization or institution.[337]

- **Limiting Factors:** Any restriction on the freedom of action of the project team to plan or conduct the wargame. Typical limiting factors would include the availability and capacity of facilities or wargaming personnel that might limit how the wargame will be executed.[338]

Wargaming:
- A step-by-step process of action, reaction, and counteraction for visualizing the execution of each friendly course of action in relation to adversary courses of action and reactions. It explores the possible branches and sequels to the primary plan resulting in a final plan and decision points for critical actions.[339]
- A process which replicates a situation of competition or conflict in which the opposing players make decisions based on knowledge of their own situation and intentions, as well as information (usually incomplete) regarding their opponent's situation, intentions, and prior decisions. It involves human participation throughout, the interaction of two or move opposing forces, and is guided by predetermined rules, data, and procedures.[340]
- War gaming is a tool for exploring decision-making possibilities in an environment with incomplete and imperfect information.[341]
- Wargaming is the artificial replication of a situation of competition or conflict. It involves human participation throughout, and revolves around the interaction of two or more opposing forces guided by predetermined objectives, rules, data, and procedures designed to depict an actual or assumed real world situation.[342]
- Wargaming – simulated operation involving people, rules, data, and procedures to depict an actual or hypothetical situation.[343]

White Cell: This term has many different definitions and uses.[344]
- An Exercise Control Cell.
- A Wargame Control Cell.
- Typically the assessment/adjudication team, but may play higher HQs or management[345]
- The group of people running the technical side of the wargame.[346]
- The wargame staff representing key entities unable to participate, but whose input is critical to wargame play.[347] **Note**: Commonly used by Home Land Security in their exercises and wargames.
- An aggregate of several cells including the Control Cell, the CAP Team, the Subject Matter Experts, and the Support Cell. Allows wargame staffers to wear multiple hats when space and

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[337] Ibid.
[338] Ibid.
[339] MCRP 5-12C US Marine Corps Marine Corps Supplement to the Department of Defense Dictionary of Military and Associated Terms.
[340] Marine Corps Order 3070.
[341] Lademan.
[342] *Command Brief,* USMC Wargaming and Assessment Center, 1990.
[343] Marine Corps Wargaming and Analysis Center (MCWAC), *Organizational and Informational Briefing,* September 1993.
[344] Note: If you see a "White Cell" find out what it is!
[345] Caffrey Connections Glossary.
[346] Glossary of AFWI Wargaming Terms.
[347] LtCol Mark Stanovich USMC, Wargaming Division Reservist / Professional Civilian Wargamer.

people are limited.[348] Note: in the Ground Warrior 2015 Wargame at Quantico, in September 2015, a large number of Subject Matter Experts were required. So many in fact that they were separated from the Control Cell into their own "White" Cell.
- A permanent standing section of joint and training commands that plans and directs exercises and wargames.
- A group led by the Exercise or Experiment Director, and having oversight for the event and responsible for ensuring training and analytical requirements are achieved. The White Cell establishes the exercise/experiment environment and sets tactical conditions to be trained or investigated (i.e. per the Army Universal Task List (AUTL) or Joint Task List (JTT)), and ensures the exercise/experiment events support the analysis Data Collections and Management Plan. Acts as the adjudicator for issues between blue and red forces, and oversees and controls introduction of scenario events (via MSELS injects) that cannot be provided by the simulation. In an exercise the functions of a White Cell and Exercise Control may be combined or separated. In an experiment they are distinctly separate groups.[349]

Workshop:
- Workshops involve subject matter experts (SMEs) gathered to discuss a problem. Workshops have a narrow, discrete focus, and often serve as an input to follow-on WGD events. [350]
- A workshop involves a group of subject matter experts discussing a particular problem or issue. Workshops are typically narrowly focused and are intended to produce a discrete product such as a model or framework for further examination by the workshop sponsor. A workshop may also result in a greater understanding of a particular issue that can then be examined later in another wargame.[351]

Yellow Cell: The cell containing intergovernmental organizations (IGOs) or nongovernmental organizations (NGOs)[352] This term is used by United Kingdom and European wargamers. (Dividing the IGO's, NGO's, civilian population and host nation between the Yellow and Green Cells may give the wargame designer a lot more flexibility and reduces the possibility of confusion with so many entities labeled "Green.") (See Green Cell)

Zone of Control:
- The six hexes surrounding a unit (playing on a hex grid map.)[353]
- The area of effect surrounding a unit. Usually defined as the six immediately adjacent hexes. In theory, the exact character of a Zone of Control in a given game-system may be delineated by the use of a combination of adjectives, taking one from each of the following groups:[354] [355]
  - **Effect on Movement:**

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[348] Simpson.
[349] ABCA Analysis Handbook, 9-A.
[350] Burns .
[351] Strategic Wargaming Handbook.
[352] WGD SOP, **Note**: The original definition listed NGO's and PVO's (Private Volunteer Organizations). Under current definitions (JP 3-08, "Interorganizational Coordination During Joint Operations", 24 June 2011), the PVO's are now part of the NGO's and in MCWP 5-1 IGO's have joined NGO's in the Green Cell. Therefore; IGO's and NGO's have replaced NGO's and PVO's.
[353] Dunnigan, 85 of 291
[354] *Introduction to Wargaming,* Simulations Publications Inc., New York, N.Y. 10010, 1977, http://www.thewargamer.com/grognard/spiintro.pdf, 23.
[355] Aaron Danis, "Your Excellent Wargame Glossary," Email, July 31, 2015

- **Locking.** Units must stop upon entering and Enemy controlled hex and may leave only as a result of combat.
- **Rigid.** Units must stope upon entering an Enemy controlled hex and may leave only at the beginning of a Movement Phase.
- **Elastic.** Units may enter and leave Enemy Zones of Control by paying an additional cost in Movement Point.
- **Open.** Zones of Control have no effect on Movement.
- **Effect on Combat:**
  - **Active.** Requires that every Enemy unit in a Friendly Zone of Control be attacked in the Combat Phase.
  - **Inactive.** Makes no requirement for attack.
- **Effect on Supply Line and Retreat.**
  - **Interdicting.** Prohibits the path of retreat or supply from being traced through an Enemy Controlled hex regardless of the presence of Friendly Units.
  - **Suppressive.** Does not in any way affect the path of supply or retreat in any way.
- **Example:** A Rigid, Active Suppressive Zone of Control. Note that if units have an Open, Inactive, Permissive Zone of Control, they in fact have no Zone of Control.

UNOFFICIAL ACRONYMS, AND TERMS
Useful for Grognards (See Grognards)

BOGSAT: "A Bunch Of Guys/Gals Sitting Around a Table" [356]
- A disparaging term used to describe seminar style gaming, implying that nothing worthwhile can be accomplished.
- "unstructured 'BOGSATs' that the sponsors insist are wargames"[357]
- An apt description of poorly organized gatherings, run by amateurs, claiming to be Seminar Wargames.

GIGO:
- Garbage In Garbage Out
- Garbage In Gospel Out (Because the computer said so!)[358]

Grognard: Not a technical term as such, but a term you'll hear in wargaming. It refers to experienced or dedicated wargamers. The term was originally used as a nickname for members of Napoleons Old Guard. The term is French and means, literally, "grumbler." It reflects the attitude of the veteran troops who knew what was really going on but couldn't do much about it. So they grumbled, and so do most wargame grognards.[359]

MEGO: My eyes glaze over. Indications and warnings from the audience that the presentation is boring![360]

IGOUGO: When players alternate taking turns.[361]

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[356] *Acronym Finder* S.v. "BOGSAT" Retrieved July 21 2015 from http//www.acronymfinder.com/Military and Government/BOGSAT.html.
[357] Graham Longley-Brown, in a comment to, *That old can or worms—what is a wargame?*
[358] Saur.
[359] Dunnigan.
[360] Simpson.
[361] Joseph M. Saur, Email, 30 June 2015.

QUOTES ON WAR AND WARGAMING

"[War is a] game of chess where the board has a million squares and the pieces consist of a dozen Kings and Queens, a thousand Knights, and so many pawns that no one can exactly count them."
Sir Ian Hamilton: The Soul and Body of an Army, xi 1921[362]

"The conduct of war resembles the workings of an intricate machine with tremendous frictions, so that combinations which are easily planned on paper can be executed only with effort."
Clausewitz: Principles of War, 1812[363]

"A tedious war game is the grave of interest"
General Albert Karl Friedrich Wilhelm von Boguslawski (1834-1905)[364]

"Objectives first; scenario last!"[365]
Mr. Frank Jordan, Director, Marine Corps Wargaming Division

"Blue must not be guaranteed victory!"[366]
Col Gary Anderson USMC, Director, Marine Corps Warfighting Laboratory

"…wargames depict men as if they were blocks of wood, they are not blocks of wood but human beings who are seized by fear and sustained by leadership." William Tecumseh Sherman, US Army Chief of Staff"[367] [368]

"…'wargaming' is a verb - an activity."[369]
Paul Vebber

"If my career were ahead instead of behind me, I should endeavor to the extent of my ability, and at the earliest opportunity, to acquire as thorough a knowledge of the principles of the art of war as possible, and should neglect no opportunity to train myself in their application by playing competitive war games." – Adm. William Sims, 1919[370]

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[362] Heinl.
[363] Ibid.
[364] Milan Vego, "German War Gaming." Naval War College Review, Autumn 2012, Vol 65, No. 4.
[365] Guidance given to game designers that the scenario was not to be completed until after the objectives and associated game design were finished, insuring that the scenario(s) supported the wargame objectives.
[366] Guidance given to Bill Simpson in creating the Culebra 98 Scenario, as a result several different Blue Teams lost when wargaming this scenario. This forced them to reexamine their plans before starting over. Their failures produced many important findings and issues.
[367] LT COL Matthew Caffrey, Jr., USAFR, "History of Wargames: Toward a History Based Doctrine for Wargaming." *Aerospace Power Journal – Fall 2000,* Dated 6 January 2000. 33-56
[368] **Note**: Sherman was objecting to the Rigid Kriegsspiel type wargame being proposed by Maj W. R. Livermore depicting only attrition based warfare where units always fought to the last man. This quote is usually condensed to: "Men are not blocks of wood!"
[369] Paul W Vebber, RE: SECNAV Memo on "virtual enviroments,[SIC]" email, dated 8 July 2015.
[370] Adm. William Sims, quoted in LCDR Benjamin Armstrong, USN, "Opinion: The Navy Needs a Wider Look at Wargaming," March 18, 2015, http://news.usni.org/2015/03/18/opinion-the-navy-needs-a-wider-look-at-wargaming#more-11673.

"The object of the naval war game is to afford a practice field for the acquirement of skill and experience in the conduct or direction of war, and an experimental and trial ground for the testing of strategic and tactical plans." Captain William McCarty Little, U.S. Navy[371]

"Don't design serendipity out of your wargame!"[372]

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[371] Captain W. McCarty Little, U.S. Navy, "The Strategic Naval War Game or Chart Maneuver." *United States Naval Institute Proceedings, Vol, 38, No. 4, Whole No. 144.* Annapolis. Reprint, 1912. 1218-1219
[372] Simpson, Note: Serendipity is, according to Webster's, "The facility of making fortunate discoveries by accident." If the wargame is to: innovate; examine new ideas and concepts; to solve problems; look for alternatives; and so forth; then the game design must allow the players room to explore and discover.

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