

Environmental Wargaming and Strategic Planning



“We are integrating environmental breakdown / climate change considerations into our plans, operations, and training across the Department so that we can manage associated risks. We are considering the impacts ...in our war games and defense planning scenarios, and are working with our Combatant Commands to address impacts in their areas of responsibility.”

– Secretary of Defense



Marstel-Day Environmental Wargaming (EW) is an interactive simulation of events, strategies, policies, positions, and attitudes following a scenario played out by key stakeholders. Nations, states, military and civilian leaders, government organizations, NGOs and local populations interact in a globalized, interconnected world where rapid, often disruptive change is the norm. Marstel-Day Environmental Wargaming enables clients to envision a wide range of alternative futures in order to adapt to change, withstand shocks, endure disruption, and continue to prosper.

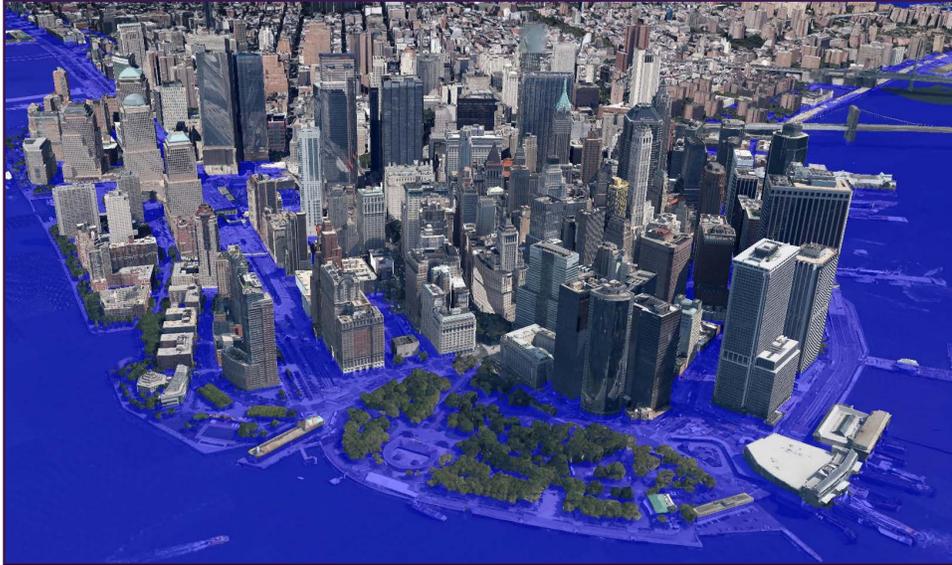
Environmental Dynamics

Environmental dynamics are pervasive, impacting every aspect of operations, especially in remote environments and where personnel are working in unfamiliar conditions and surroundings. Sudden and/or developing environmental conditions cannot be addressed adequately through traditional trend-type analyses and linear strategy development. Marstel-Day’s approach to environmental wargaming puts natural factors and climate effects at the center of strategic planning, transforming these considerations from features of a scenario to a dynamic force, incorporating continuous environmental interaction into the engagement. These scalable interactions can include planning on short-term tactical timescales to long-term strategic considerations, from infrastructure to mission planning over several decades. Wargaming can be employed to explore the dynamics, possibilities and limitations of forward operating areas where the interaction between unique factors such as demand for dwindling resources, extreme weather events, or population movements require a new perspective on traditional wargaming that fully integrates natural factors and climate effects.

Strategic Planning

Marstel-Day develops strategic table-top exercises that support client needs in sustainment planning from an integrated perspective. Our unique ability to combine mission-focused requirements and environmental planning and sustainability assessments is brought to bear in a creative, structured simulation of full mission lifecycles, from expeditionary basing to long-term support and infrastructure planning. The application of an integrated assessment methodology links mission requirements to installation attributes and highlights inefficiencies, incompatibilities, and sustainment challenges. The “gaming” technique allows teams to work through elements of strategic planning, including:

- ⚙ *What is required to execute the core mission or produce the readiness tasked to an installation?*
- ⚙ *Which core mission or readiness requirement(s) are best aligned with an installation’s attributes (which include infrastructure, airspace, spectrum availability, geography, and proximity to non-military community activities)?*
- ⚙ *What is the ultimate life-cycle cost to accomplish the mission(s) tasked to an installation?*



Sandy Storm Surge - Lower Manhattan Inundation

Sources: Google, Landsat, Marstel-Day

Scenario Facilitation

Marstel-Day can undertake an Environmental Wargaming simulation on your behalf. We field a team of strategists, analysts and environmental experts who work with your planning team to research and develop scenarios that encapsulate potential dynamics and actors that will impact the operational environment. Marstel-Day's extensive experience with facilitation and planning support the unique wargaming environment. Unlike tradition assessments, the wargaming scenarios involve stakeholders in dynamic planning processes from the beginning, with planning, resource allocation, exercise deployment, and after-action summaries all tailored specifically to client needs. Marstel-Day provides a complete, immersive experience, providing support and simulation expertise where stakeholders are required to participate and lend particular strategic guidance with dynamic environmental and natural factor conditions.

Flexible Solutions

Marstel-Day has a wide variety of technology support capabilities that we leverage as part of climate environmental wargaming, including the following:

- *GIS – Marstel-Day has a team of skilled geographers dedicated to providing assistance to projects, a key capability in supporting strategic environmental planning.*
- *Common Operating Picture Systems – Our teams develop and deploy customized software application environments that support your scenario planning needs, allowing teams to interact not only with each other, but with simulated conditions in the scenario in a realistic environment.*
- *Distributed gaming – Our software platforms can also be deployed to large, scalable audiences, evaluating iterated or distributed scenarios that provide insights into stability and path dependence in scenario outcomes.*



Photo Courtesy of the U.S. Coast Guard

Climate Change and Strategic Planning

“76% of executives see bottom line risks from direct impacts of climate change”

– The Carbon Trust

Marstel-Day: A Trusted Solution

“The relationships, processes and culture Marstel-Day has helped to foster... will be a game-changer...”

– US DOD Senior Official

Contact us to build a sustainable future for your organization.

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