MARINE CORPS SYSTEMS COMMAND

Col Wynndee Young, USMC

Program Manager

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WARGAMING CAPABILITY (WGC) PROGRAM OVERVIEW

PM WGC PROGRAM OVERVIEW

Use Cases

Primary
- Concept Development
- Capability Development
- Operational Decisions and Plans

Secondary
- Science and Technology
- Senior Leader Engagement
- Training and Education

Facility Project Description

- Largest 2 story secure facility within the National Capital Region
- First Floor- Auditorium (300 persons), Meeting Rooms, Server Room, Administrative Offices
- Second Floor- Wargaming Arenas, Executive Conference Rooms, Breakout Rooms
- Access to UNCLAS, SECRET, TS, SAP, CAP, STO
- Cloud and On-Premise Network Capability
- Graphics/Video Production
- Over 200 Permanent Staff

Project Schedule

- Building Construction
  - ✓ May 2021 – Mar 2024
- Building IT/AV Infrastructure Install
  - ✓ Nov 2023 – Mar 2025
- Building IT/AV Infrastructure Authorization
  - - Feb 2025 – Mar 2026
- Initial Operational Capability
  - – Jul 2027

The Neller Center provides senior leadership with a **state-of-the-art venue** to wargame within future operating environments at **multiple classification levels** to examine complex problems and support decision-making.

PM WGC PROGRAM OVERVIEW

General Robert B. Neller Center for Wargaming and Analysis
Requirement: CMC directed the development of a "world class" modernized and flexible wargaming facility
Mission: Provide a significant enhancement to the USMC wargaming capability by providing a comprehensive digital environment to conduct the full spectrum of data enabled wargames that lead to defensible positions based on insights and analytical findings

Neller Center Construction
- *NAVFAC led effort*
- *Awarded to Clark Construction*
- *FY21-FY24*

Neller Center AV/IT Infrastructure Hardware
- *NIWC-LANT led effort*
- *Awarded to Cambridge International Systems*

Wargaming System Software
- *MCSC led effort*
- *Awarded to BAE Systems*
- *Prototyping FY20-FY24*
- *Production FY24-FY28*
- *Sustainment FY28+*

Neller Center Future Owners
- *MCWL led effort*
- *OAD and MCIA supporting*
- *Security Oversight and Wargaming SMEs*
- *Intelligence and Analytic SMEs*

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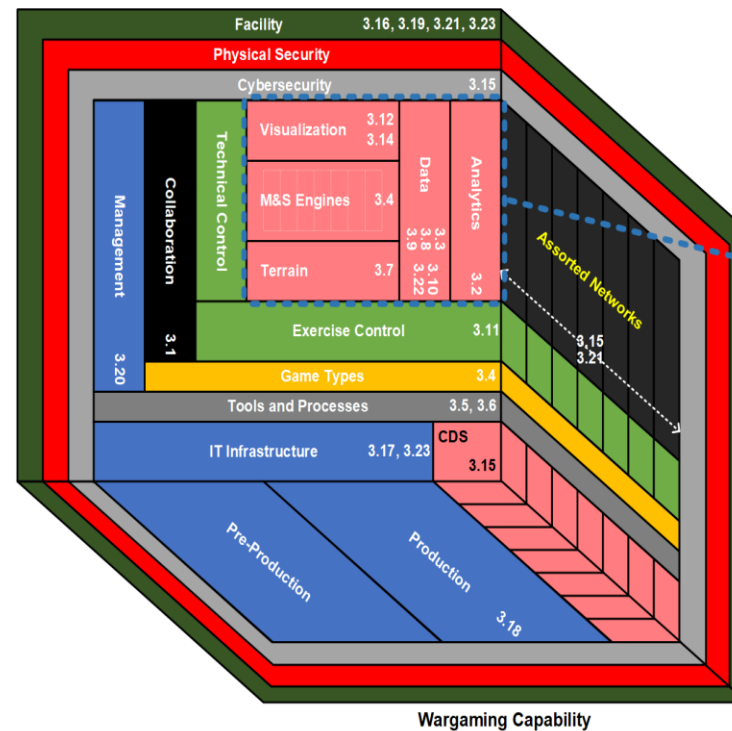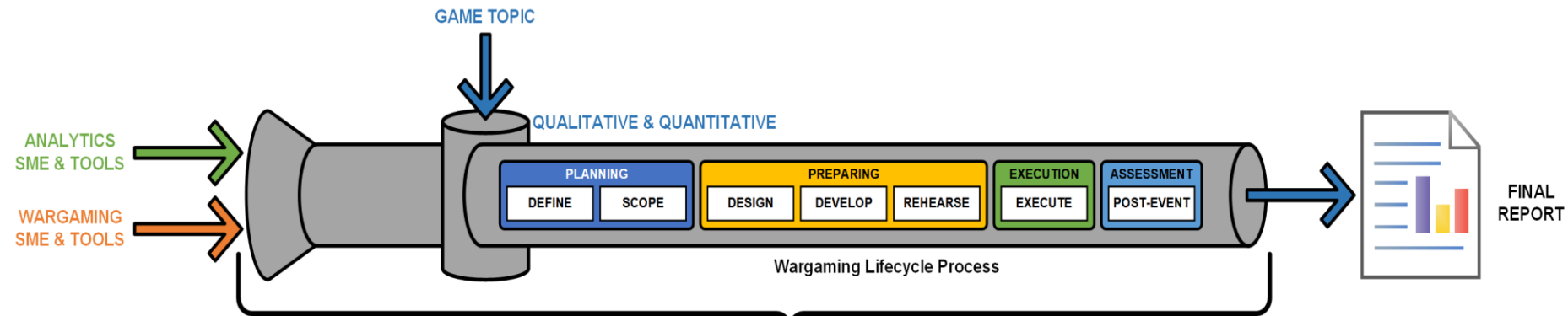
WARGAME SOFTWARE SOLUTION: PIONEER

PIONEER is the **material solution** under development to meet the requirements stipulated in the wargaming capabilities development document. Pioneer employs integrated means of **data ingest, model federation, and in-stride analytics** which synthesize the computational (machine) and cognitive (human) analyses to produce a comprehensive assessment of wargame outcomes.

- Fully integrated wargaming/analytics process

- Cornerstone of PIONEER artificial intelligence architecture is the linguistic geometry language

- Simulation engines integrated for specific warfighting domains

- Land, air, surface, subsurface, space, cyber

- Unclassified, Secret, Top Secret, SAP, STO, and coalition

- Data ingestion from multiple authoritative sources

- Real-time adjudication; in-stride and post-game analytics

- Simulates millions of people and platforms in real-world conditions

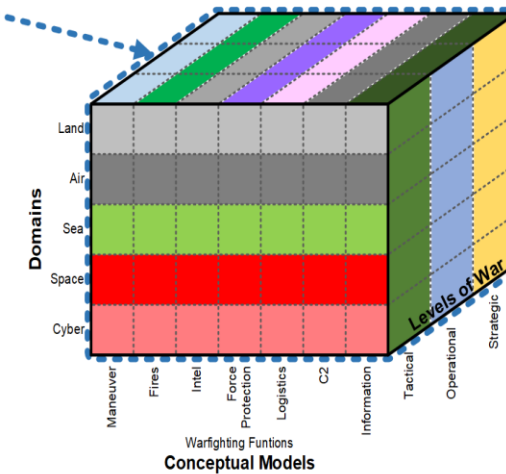- Defensible positions based on rigorous, deep quantitative analytics
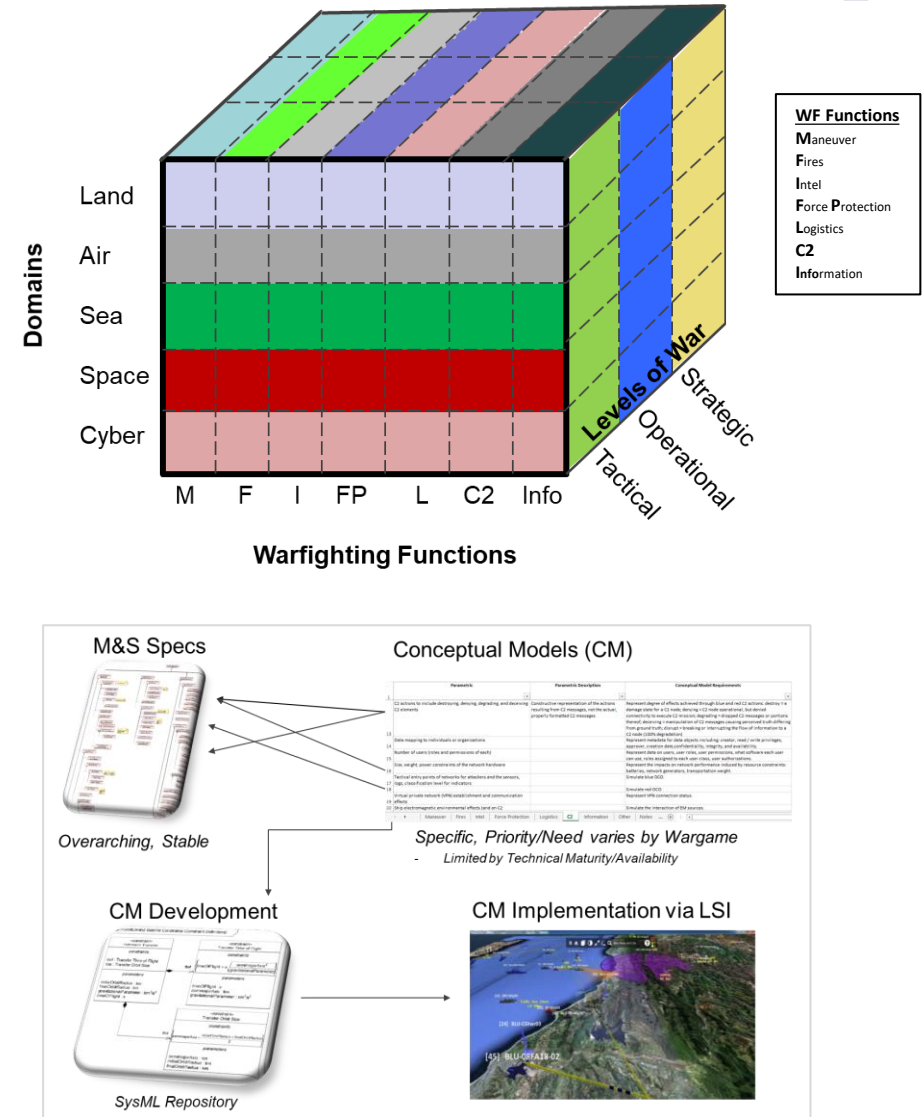
WARGAMING CAPABILITY / PROCESS

Wargaming Lifecycle Process

GAME TOPIC

ANALYTICS SME & TOOLS

WARGAMING SME & TOOLS

QUALITATIVE & QUANTITATIVE

PLANNING		PREPARING			EXECUTION	ASSESSMENT
DEFINE	SCOPE	DESIGN	DEVELOP	REHEARSE	EXECUTE	POST-EVENT

FINAL REPORT

Wargaming Capability

Facility — 3.16, 3.19, 3.21, 3.23
Physical Security
Cybersecurity — 3.15
Visualization — 3.12, 3.14
M&S Engines — 3.4
Terrain — 3.7
Data — 3.3, 3.8, 3.10, 3.22, 3.9
Analytics — 3.2
Management — 3.20
Collaboration — 3.1
Technical Control
Exercise Control — 3.11
Game Types — 3.4
Tools and Processes — 3.5, 3.6
IT Infrastructure — 3.17, 3.23
CDS — 3.15
Assorted Networks — 3.15, 3.21
Pre-Production
Production — 3.18

Supporting Capabilities
- Cloud Services
- Data Governance / Plan
- Cross Domain Solution (CDS)
- Virtual Desktop Infrastructure (VDI)

Conceptual Models

Domains: Land, Air, Sea, Space, Cyber

Levels of War: Tactical, Operational, Strategic

Warfighting Funtions: Maneuver, Fires, Intel, Force Protection, Logistics, C2, Information

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- Conceptual Model Requirements (CMRs)
  - Provide the overall Modeling & Simulation scope for the Wargaming Capability.
  - Span the warfighting domains, warfighting functions, and levels of war.
  - Determine the "input dials" and output metrics, along with corresponding algorithms to connect inputs to outputs.
  - Examples (2 out of 456 total)
    - Easy: Calculate changes in direction, altitude, and velocity of air entities.
    - Hard: Simulate changes to daily civilian location based on anomalous circumstances.
  - Each CMR...
    - Implies its own set of required data sources.
    - Must stand up to potential external technical scrutiny.
- Identify adjacent services and/or industry partners to acquire Conceptual Models.

WF Functions
Maneuver
Fires
Intel
Force **P**rotection
Logistics
C2
Information

M&S Specs — *Overarching, Stable*

Conceptual Models (CM) — *Specific, Priority/Need varies by Wargame*
- *Limited by Technical Maturity/Availability*

CM Development — *SysML Repository*

CM Implementation via LSI

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PM WGC OPPORTUNITIES

Current efforts (success)

Title	Dates
Small Business Innovation Research (SBIR) Phase 2 efforts: Develop conceptual models for civilian pattern of life.	FY25-26

Future opportunities

Title	Planned RFP
Neller Center Contractor Support Services (Classified Contract)	4QFY25
Development and Evaluation Environment for Models (DEEM) Prize Challenge (Central Florida Tech Grove)	3QFY25
PM WGC recompete for program office contractor support services	3QFY25

EQUIPPING OUR

MARINES