



Tactical Decision Kit (TDK) System Overview

Marine Corps Rapid Capabilities Office

*In collaboration with the Office of Naval Research (ONR) and
2d Battalion, 6th Marines*



Why TDK?



Rapid decision-making

“The ability to think critically, innovate smartly, and adapt to complex environments and adaptive enemies has always been the key factor we rely on to win in any clime and place.”

Competition breeds tactics

“We will invigorate experimentation of new concepts and capabilities during scheduled training events in order to test, fail, adjust, learn, and advance our capabilities.” “We will continue efforts to decrease centralized proscribed training requirements to accomplish mission essential tasks (METs).”

Force-on-force: a thinking enemy

“We will emphasize and increase opportunities to conduct force-on-force evolutions and operations within degraded environments in our training in order to challenge our Marines against a “thinking enemy” and maximize realism.”

Training decisiveness in any environ

“While the means and methods we use to wage war will evolve, we must always be prepared for violence in combat.”

Immediate review & feedback

“We will continue striving to do what we do today better, but also be willing to consider how these same tasks might be done differently.”

Leveraging generational strengths

“Consist of a highly trained and educated force operating the most modern and technologically advanced equipment available...”

Create an environment where junior Marines can become Military Professionals, while enhancing decision-making and cohesion.



What the TDK System Does



Interactive TDG (ITDG)

The ITDG system allows the users to create and execute in-depth, customizable TDGs that show second and third order effects of decisions, as well as being capable of preparing AARs, debriefs, or digital Sand Table Exercises, among other uses.

Virtual Battlespace 3 (VBS 3)

A first person shooter that places the Marine in up to squad- and platoon-level force-on-force scenarios where he is forced to think tactically, make decisions and communicate to his subordinates as well as his adjacent unit in a complex, competitive environment utilizing a range of supporting assets.

Augmented reality

This system allows Marines to use live Indirect Fire (IDF) assets and real life Close Air Support (CAS) while maneuvering computer generated troops, enabling the user to physically see both real impacts on the deck with a maneuver element all in one picture. They are also capable of using a real life maneuver element with computer -generated CAS and IDF capabilities in order to create first

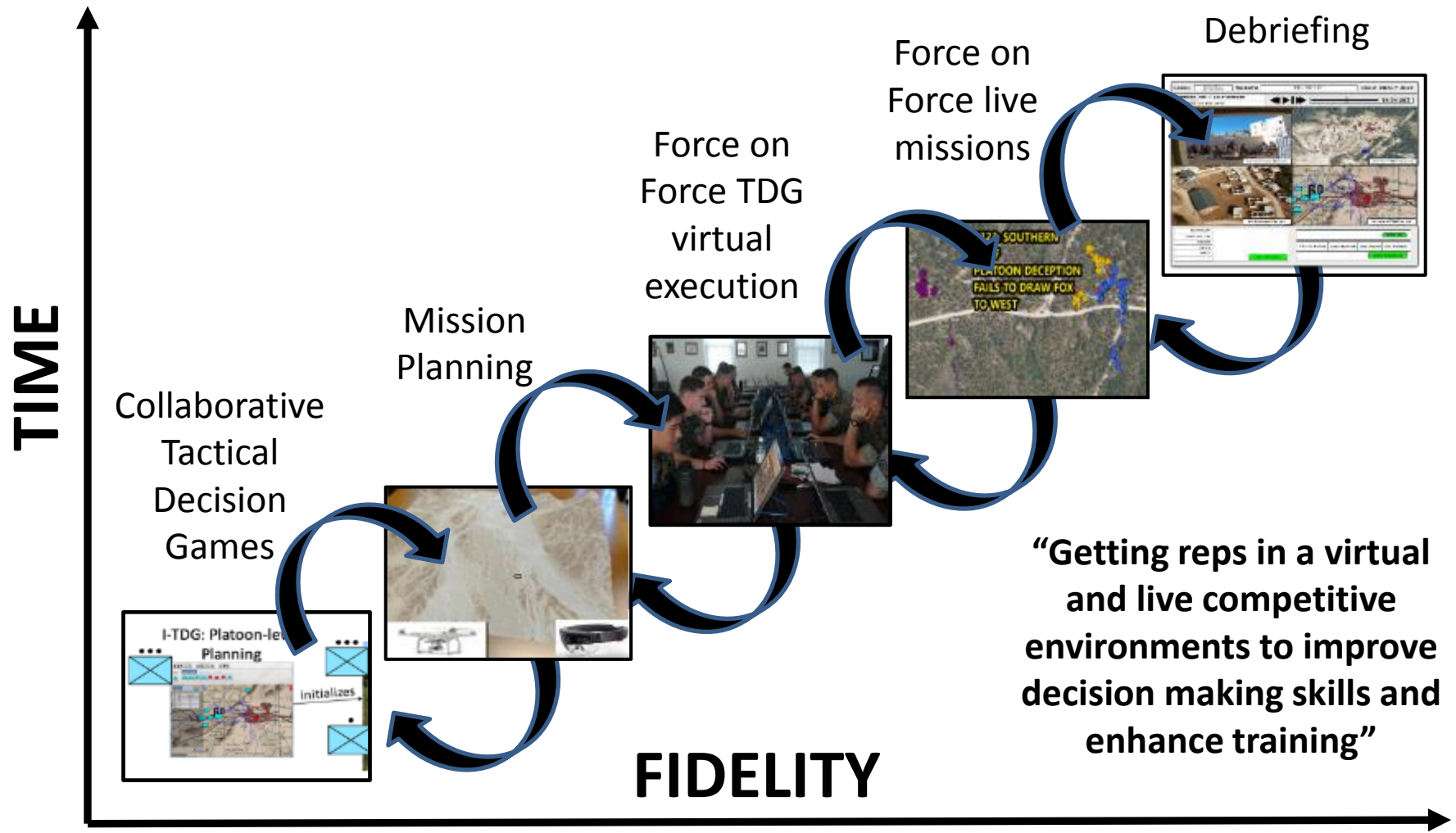
With less than 30% of time spent training in the field, TDK concentrates rapid decisions with immediate feedback in garrison.



What TDK is...



Mission Debriefing



FIDELITY

"Getting reps in a virtual and live competitive environments to improve decision making skills and enhance training"



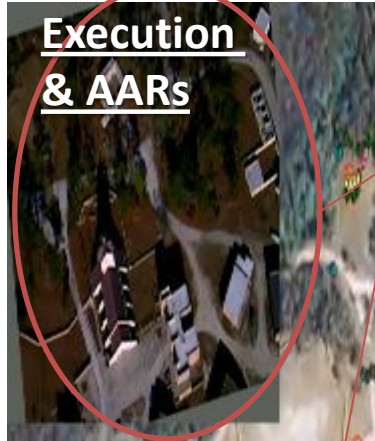
Practical Example



Preparation
Marines compete tactically at Bn level Competition



Planning
S-2 gives brief via HoloLens (3D) to staff



Execution & AARs
ITESS II Captures the location of each Marine and fire missions for AARs. Can be integrated with Friendly UAS to critique collection plan

Tools

- TDK LAPTOPS (ITDG & VBS)
 - Create and execute, customizable TDGs that can be executed
 - Show effects of decisions
 - Prepare AARs, debriefs, or digital Sand Table Exercises, among other uses
- ITESS II & SUAS
 - Record and track events in real time, display 3D graphics in planning and incorporate the effects of CAS and IDF
 - Evaluate real impacts on the deck with a maneuver element in one picture
- HoloLens
 - View and discuss objective areas prior to execution in 3D

Purpose

• All assets increase rapid decision-making, breed tactics through competition, drive decisiveness in any environment, give immediate review and feedback . . . All within in hands reach of the LCpl.



Enemy UAV gives us an option to develop C-UAS TTP and allows us to capture video for AARs



Mission Debriefing



LABEL **SEARCH** **USER:** 2NDLT JURY

EXERCISE FEX II: GOLF DEFENSE **DATE** 12 DEC 2016

Navigation: [Left Arrow] [Right Arrow] [Progress Bar] **14:34.28Z**



PARTICIPANTS	
SIMULATION TYPE	
ECHELON	
TERRAIN	
ASSETS	
...	

[SAVE METADATA](#)

[CREATE TAG](#)

FOX COMPANY	2ND PLATOON	3RD SQUAD	CPL MORRIS
-------------	-------------	-----------	------------

[CREATE ASSESSMENT](#)