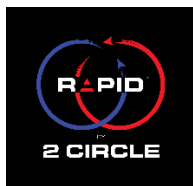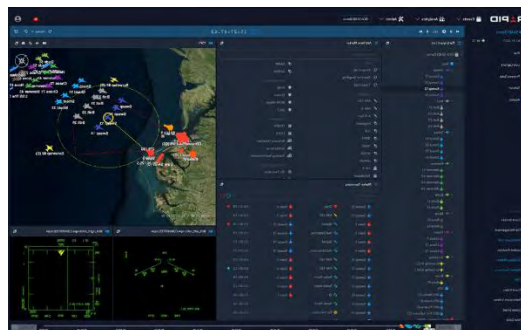# Reconstruction and Assessment of Proficiency in an Integrated Debrief (RAPID)

2 Circle, Inc.
Arlington, VA
www.2circleinc.com

THE CHALLENGE

The DoD lacks empirical data on warfighter proficiency traceable to desired combat outcomes, making it impossible to move from reactive to proactive (data-driven) decision-making. The current state of readiness assessment relies heavily on subjective, self-reported data, which is hampered by manpower-intensive and time-consuming processes.

Contact:

Brad Gilroy
Senior Vice President of Software Solutions
2 Circle, Inc.
bgilroy@2circleinc.com

Topic Number: N181-026
SYSCOM: Naval Air Systems Command (NAVAIR) | *www.navair.navy.mil*

Program Sponsor: Naval Aviation Training Systems and Ranges Program Office (PMA-205)

Other Potential Programs: Strike Planning and Execution Systems (PMA-281)

Current TRL: 6
Projected TRL: 7 / Q4 2024

Keywords: AI/ML-Enhanced Software, Combined Human and Systems Reliability, Integrated Effects Chain Analysis, Automated Readiness Assessment, Data-Driven Performance Standards, Performance-Based Training, Predictive and Prescriptive Analytics, Individual and Unit-Level Proficiency Analysis

THE INNOVATION

RAPID is an AI/ML-enhanced software application that integrates multiple disparate sources of data and assesses the impact of human performance and systems health on mission outcomes. The software automates mundane tasks associated with data gathering, event reconstruction, skill assessment, and results reporting. Collected data is then analyzed and reported by RAPID to identify the optimal way to man, train, and equip the forces to meet combat objectives. Initially developed in support of Naval Aviation, the software is scalable to all platforms, missions, and training environments.

THE NAVY BENEFIT

Leveraging advances in data science, RAPID provides all the tools required to increase accuracy and reduce the workload associated with conducting individual and unit readiness assessments. The software serves as a single, common solution for all platforms, capable of supporting the most complex training scenarios. RAPID's integrated effects chain visualizations provide immediate feedback to warfighters on their performance and the optimal way to remediate errors. RAPID's relational database and suite of analytical tools provide the means to identify trends, predict the ROI for every training/resourcing decision, and prescribe the optimal course of action (i.e., maximum warfighting effectiveness at the lowest cost).

RAPID has been continuously deployed in support of various Carrier Air Wing training exercises since 2021, collecting data and analyzing performance, while iterative improvements are made to the software to continually meet the warfighter needs.