# Department of the Navy SBIR/STTR Transition Program
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Topic # N204-A02
Digital Logistics
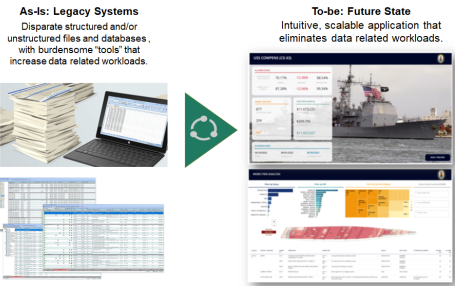Colvin Run Networks, Inc.

## WHO

**SYSCOM:** ONR

**Sponsoring Program:** Office of Naval Research (ONR)

**Transition Target:** Director for Surface Ship Maintenance, Modernization and Sustainment (NAVSEA21), Commander Navy Regional Maintenance Centers (CNRMC)

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**Other Transition Opportunities:** Public shipyards, NAVAIR PMO's (e.g. PMA 275 V-22 Osprey, PMA 290 P-8A Poseidon), any DOD Maintenance/Logistics/Sustainment Engineering Organizations

**Notes:** The Secure Hyper-Intelligent Predictive Maintenance Analytics with Technical Enhancement (SHIPMATE) Project Management Decision Aide (PMDA) was developed with multiple RMCs and dozens of active project managers and ship-building specialists. The SBIR prototype was built on the MicroStrategy Business Intelligence (BI) platform, rated #1 for Enterprise Analytics by Gartner in May 2022. That same month, Colvin Run was named the MicroStrategy Federal Partner of the Year for our work in taking BI to CI - Curated Intelligence. Colvin Run is actively developing a potential SBIR Phase III on the success of this work with the Navy and Air Force, in some cases leveraging existing Agency technology investments. Colvin Run was named a Top 10 Startup by the US Air Force, and has used the SBIR program to spin out a new IoT cybersecurity product, currently raising private capital and in several commercial pilots.



As-Is: Legacy Systems
Disparate structured and/or unstructured files and databases , with burdensome "tools" that increase data related workloads.

To-be: Future State
Intuitive, scalable application that eliminates data related workloads.

Colvin Run Networks

## WHAT

**Operational Need and Improvement:** The US Navy is actively investing in ways to improve ship availability from its fleet maintenance and modernization initiatives. The Government Accountability Office (GAO) released a paper in May 2022 stating that overall reporting transparency could address the $1.8 Billion Navy Maintenance Backlog. Data-driven Workflow bottlenecks create unnecessary downtime, waiting, and uncertainty, with opaque data and document issues. The SHIPMATE PMDA supports the Navy maintenance mission to maintain ships and systems reliably, on schedule, and under budget with an affordable, agile software solution built on leading commercial technology. The PMDA empowers PM's to ensure a balance of resources with anticipated workload, focusing on oversight rather than manual data mining, effectively providing situational awareness while eliminating burdensome and repetitive Excel and PowerPoint re-work.

**Specifications Required:** Software platform deployable to cloud or on-premise IT networks. Per customer discovery interviews and user-centered design work, Project Management maintenance oversight processes include time-intensive manual information supply chains, spending lots of time on manual data preparation and manipulation. SHIPMATE provides data analytics capability to effectively eliminate most if not all data manipulation for the purpose of enhancing the decision-making process for ship availability oversight.

**Technology Developed:** Colvin Run developed a series of applications, delivered through interactive browser-based dashboards, that answer critical questions PMs need to understand based on ship location and contractual work item information. The data framework enables integration of different data sources and curates them – e.g. varying contractor data formats, maintenance vs. modernization projects in the same ship, and more – such that the PM can address conflicts and have visibility into decisions impacting cost and schedule. SHIPMATE was built on MicroStrategy software, #1 for Enterprise Analytics per Garner, so it can be rapidly deployed with existing Authority to Operate (ATO).

**Warfighter Value:** Ship availability (AVAIL) delays cost the Navy approximately $300K/day per ship, directly impacting both operations and contingency preparedness. RMC stakeholders estimated they could increase on-time AVAIL completion and significantly reduce Days of Maintenance Delay (DMD), potentially saving the U.S Navy an estimated $264M+ annually across all RMCs.

## WHEN

**Contract Number:** N68335-21-C-0283  **Ending on:** Sep 26, 2022

| Milestone | Risk Level | Measure of Success | Ending TRL | Date |
|---|---|---|---|---|
| Colvin Run engages with Southwest Regional Maintenance Centers after meeting at FMMS | Low | Customer engagement | 4 | 4th QTR FY22 |
| Initial SHIPMATE Prototype Delivered | Low | Demonstration | 5 | 1st QTR FY23 |
| SHIPMATE Prototype Iteration | Low | Incorporate Navy data sets | 6 | 2nd QTR FY23 |
| SHIPMATE Prototype developed and delivered with Navy-provided data in a secure cloud environment. | Low | SBIR Phase III Transition underway via SEA21D | 7 | 3rd QTR FY23 |

## HOW

**Projected Business Model:** For Navy transition, Colvin Run targets direct SBIR Phase III engagement with Navy in a bundled software and services contract. The solution would ideally include the SHIPMATE MicroStrategy embedded software solution, or can be delivered on the software of chouce depending on Program requirements. Colvin Run seeks opportunities for continued use case development and data engineering services support to evolving NAVSEA systems & requirements. We can also license the software to prime contractors if needed. While this is initially a highly tailored build for the Government, the components and IP developed will have applications to many agencies and companies for deployed Decision Aid solutions.

**Company Objectives:** We will continue to identify avenues to deploy SHIPMATE into later stage developments beyond Phase II, targeting Phase III transition to Navy Programs of Record such as the Ship Maintenance Data Improvement Initiative (SMDII). SHIPMATE has broad Decision Aid applications for Curated Intelligence that are critical in the global trade and commercial shipping security, maintenance, and compliance contexts.

**Potential Commercial Applications:** SHIPMATE Decision Aides support limitless Use Cases: Ground vehicles, Aerial vehicles, Submarines, Commercial or residential buildings, Manufacturing facilities, Oil and gas wells, Green energy assets, Financial assets, and more. SHIPMATE has applicability anywhere leaders, managers, and their stakeholders seek to modernize Information Technology across the enterprise, contracting, initiative implementation, or advance their business processes.

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