

WHO

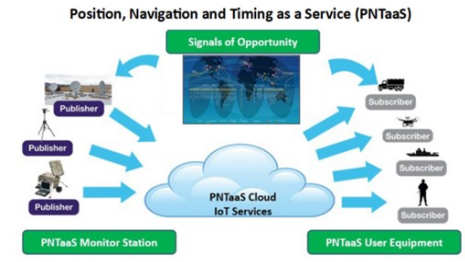
SYSCOM: NAVAIR

Sponsoring Program: CDR NAWCWD

Transition Target: Networked operations and platforms regarding an alternative Positioning, Navigation and Timing (PNT) solution in the absence of GPS

Other Transition Opportunities: Military and Commercial SATCOM terminals requiring precise timing for network acquisition, Precision guided weapons using ALTNV signals from COMSATCOM providers, Electronic Warfare (EW) Software Defined Radios (SDR) as embedded alternative PNT solution, Assured PNT devices (GPNTS, MAPS, DAPS) that require updates to maintain long term performance in absence of GPS

Notes: PNT as a Service (PNTaaS) enables use of commercial and military broadband SATCOM signals as a backup PNT solution in absence of GPS



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WHAT

Operational Need and Improvement: Conduct Operations in GPS Denied Environments

Specifications Required: Transition Platform Environmental, Interface, Logistics Support and APNT Related Functional Requirements

Technology Developed: Cloud based service that provides GPS quality PNT data using signals of opportunity providing a level of resiliency unobtainable from GPS alone

Warfighter Value: Able to complete the mission without access to GPS

WHEN

Contract Number: N68936-22-C-0001

Ending on: Aug 19, 2022

| Milestone | Risk Level | Measure of Success | Ending TRL | Date |
|-----------|------------|---|------------|--------------|
| PNTAX 21 | Low | Built and tested Prototype SOAP SDR Using COTS Components. Collected test data integrated with inertial and clock A-PNT devices. | 5 | 1st QTR FY22 |
| PNTAX 22 | Low | Demonstrated SOAP Capabilities and PNT performance. Mobile testing performed at PNTAX 22 to show GPS equivalent performance in denied environment. | 6 | 4th QTR FY22 |
| PNTAX 23 | Low | Demonstrated SOAP Capabilities and PNT performance. Integrated OneWeb terminal for network connectivity. Mobile testing performed at PNTAX 23 to show GPS equivalent performance in denied environment. | 6 | 4th QTR FY23 |

HOW

Projected Business Model: NAVSYS business strategy has been to establish strategic partnerships in order to scale and grow market share. We have established partnership relationships already with OneWeb, Viasat and Intelsat and are in the exploration phase with other broadband SATCOM providers. By leveraging their infrastructure, we can rapidly scale PNTaaS coverage to support global operations.

Company Objectives: Develop cutting edge PNT solutions and technologies. Form strategic partnerships to deploy our PNT solutions and technologies. Become a trusted source of APNT information to customers world-wide.

Potential Commercial Applications: With the wide-spread usage of GPS to provide precision timing and position services, our target market is very broad that includes financial institutions that rely on precise time to record financial transactions, utilities that need time to regulate the power-grid, as well as other users of precision positioning data in the trucking, rail and agriculture industries. In addition to the civilian usage of these services, there is a large and diverse market in the US Department of Defense and with our country's allies that rely on GPS to accomplish their missions. As discussed above, our initial engagements have been with providers of SATCOM services that rely on time stamping to manage and control their communication service infrastructure.