# Department of the Navy SBIR/STTR Transition Program

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Topic # N202-098

Voice Recognition to Support Assessment of Cross Platform Situational Awareness and Decision Making

Knowledge Based Systems, Inc.

## **WHO**

SYSCOM: NAVAIR

**Sponsoring Program:** Naval Air Warfare Center Training Systems Division (NAWCTSD)

**Transition Target:** Next Generation Threat System Analysis and Reporting Tool (NGTS ART)

**TPOC**: (407) 380-8130

Other Transition Opportunities: KBSI's Maestro

Application
Air Force Advanced Training Systems Center

Trainer to Justice State State

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**Notes:** KBSI is currently working with the Navy's Maritime ISR cell to improve after action reviews and student brevity course activities with the ReVoice technoloy.

#### WHAT

**Operational Need and Improvement:** Inefficient use of voice data for training performance measurement Lack of contextual understanding for voice and text

Cognitive overload for Training Instructors

Limited support for persistent data capture, reach-back, and re-use Increasing training life cycle costs

**Specifications Required:** Seamless integration into existing Naval training systems Improved after action report capability

**Technology Developed:** Noise-robust speech recognition with voice profiling Natural language processing engine with advanced semantic analysis Context-specific performance measurement with integrated voice data 'Instructor in a box' solution for BREVITY term training and assessment

Intuitive AAR / Debrief visualization

Open architecture based implementation for affordable integration with NGTS ART and other Navy training systems

**Warfighter Value:** Improved Air Defense Integrated training effectiveness through the use of efficient methods in performance measurement through exploiting information in voice data Significant reduction in instructor workload through automated analysis and objective assessment of voice data

Enhanced diagnostic feedback by correlating voice data and tactical execution data in near real-time Significant reduction on time to prepare AAR debrief Reduced training life cycle costs

Contextual understanding for military audio files

## WHEN Contract Number: N68335-21-C-0709 Ending on: Aug 31, 2023

Milestone	Risk Level	Measure of Success	Ending TRL	Date
Initial prototype demo	Medium	Sponsor Review	4	1st QTR FY23
Updated prototype demo	Medium	End User Review	5	3rd QTR FY23
Hardened prototype demo	Low	End User Evaluation and Review	5	1st QTR FY24
Validated prototype demo	Low	End User Provisional Acceptance	6	3rd QTR FY24

## HOW

**Projected Business Model:** KBSI is currently pursuing a Software as a Service or SAAS business model for the ReVoice technology.

**Company Objectives:** KBSI's company objective is to make the ReVoice service available to the greater public as well as additional government entities who might have interest in audio to text conversion.

**Potential Commercial Applications:** Commercial aviation communication translation services Enhance commercial aviation training systems after action reports and documentation

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