プログラム名：タフ・ロボティクス・チャレンジ

PM 名：田所　諭

プロジェクト名：フィールド評価試験・安全・シミュレーション

委 託 研 究 開 発

実施状況報告書（成果）

平成２８年度

研究開発課題名：

ヒューマンファクターの評価

研究開発機関名：

Texas A&M University

研究開発責任者

Robin R. Murphy

Project Report
Performance Period: 11/1/2016 to 03/31/2017
Title of Project: *Analysis, Testing and Evaluation Methods for Improved Human Factors in Robot Systems*

1 Activities, Accomplishment and Findings

The TAMU team conducted a viewpoint-oriented cognitive work, usability, human factors, and perceptual, team, and resource demand analyses for the a) human-robot-canine system and b) construction robot system. The analyses for the human-robot-canine team were conducted via interviews and participation in the Nov 2016 exercise. The analyses for the construction robot were accomplished via examination of videos from the June 2017 exercise. Both set of analyses resulted in the following, which have been submitted directly to the project manager and relevant ImPACT researchers:

- formal report
- powerpoint slide presentation

The major findings were

- recommendations for improvements to, and creation of new, user interface for different categories of users for the human-robot-canine team
- summary of existing user interface design best practices that are relevant for robotics
- recommendations for improvements to the user interface and multiple display environment for the construction robot
- novel synthesis of user interface design best practices that are relevant for using multiple display environments to control a single robot with multiple viewpoints

2 Outreach, Events and Other Activities

The TAMU PI attended the November 2016 exercise in Japan.

Robin R. Murphy, Ph.D.
Professor Computer Science and Engineering
Texas A&M University
TEES Principal Investigator