OBJECTIVES

The primary objectives of this Phase I project were: (1) develop and deliver the COMprehensive Environment for TM Training by Simulation (COMETTS) Concept of Operations (Con OPS), (2) identify required capabilities, (3) complete a benefits assessment, (4) develop a TFM training simulation prototype.

ACCOMPLISHMENTS

NOTABLE DELIVERABLES PROVIDED

The COMETTS team conducted a TMC Training Shortfalls Analysis, including improvements that COMETTS will provide. The COMETTS Con OPS was then developed, which included use cases, an analysis of simulation and SMART NAS networking, and a literature review of experiential learning effectiveness. The team was able to quantify how COMETTS training will result in improved TMU performance by conducting a COMETTS Benefits Assessment using a GDP inefficiency analysis approach. The TFM Training Simulation Prototype was then developed. The team gave a demonstration and were able to verify that under-deliver and unrecoverable delay could be avoided using a simulation-based training approach.

KEY MILESTONES MET

1. TMC Training Shortfalls Analysis
2. Developed/delivered COMETTS Con OPS
3. Interim Demonstration Report 09/09/16
4. Conducted a literature review of experiential learning effectiveness
5. Completed COMETTS Benefits Assessment (GDP example)
6. Developed and demonstrated the TFM Training Simulation Prototype 12/07/16
7. Final Report 12/09/16

FUTURE PLANNED DEVELOPMENTS

PLANNED POST-PHASE II PARTNERS

After meeting the technical objectives of Phase II, our partners are expected to be Minneapolis ARTCC (ZMP), who have agreed to participate as a COMETTS test bed, and the ATCSCC Training Department, to help develop curriculum. We also intend to develop a CDM networked training platform for multiple facilities, including airlines, to participate in large-scale COMETTS training exercises.

PLANNED/POSSIBLE MISSION INFUSION

Upon successfully completion of Phase II, our team plans to work with the NASA and the FAA to facilitate a successful technology transfer. The goal through this collaboration is to have COMETTS ultimately be a part of daily TMU training in the NAS.

PLANNED/POSSIBLE COMMERCIALIZATION

The work performed supports the development of a NAS-wide networked training capability that could become a contributor to NextGen operational improvements. Commercialization activities will involve development of COMETTS toward technology transfer to the FAA. While ZMP is the most likely candidate for an operational version of COMETTS, the concept can easily be transferred to other facilities.

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