

Terminal Second Level Engineering

Overview

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Terminal Second Level Engineering

- Provides second level hardware and software engineering support to NAS facilities 24 hours a day 7 days a week
- Systems Supported
 - Common ARTS (IE, IIE, IIIE)
 - STARS
 - STARS ELITE
 - STARS LITE
 - EFSTS
 - AEFS
 - ARMT
 - Count Ops



Terminal Second Level Engineering

- TSLE sustains, maintains, and implements new functionality into the systems it supports
- Provides emergency NAS restoration
- Supports life-cycle engineering
- Provides engineering support
- Performs system and site specific adaptations
- Plans and coordinates implementation of modifications
- Maintains configuration management for Terminal Automation
- Ensures successful integration of software and hardware updates



Terminal Second Level Engineering

- Serves as technical advisor to Terminal Facilities
- Ensures the availability and reliability of the systems supported
- Manages NAS baseline configuration
- Reviews/incorporates Program Technical Reports (PTRs) and approved National Change Proposals (NCPs)
- Performs Safety Risk Management (SRM) analysis on SW/HW modifications
- Maintains and releases all documentation in support of the systems TSLE maintains



Common ARTS

- Common Automation Radar Terminal System (CARTS) is one of two terminal air traffic control automation systems.
- CARTS system currently operational nationwide at Terminal Radar Approach Control (TRACON) Facilities and Air Traffic Control Towers (ATCT).
 - Referred to as Common ARTS or CARTS due to common national software
 - Two major types of Automated Radar Terminal System (ARTS) in use at FAA facilities, ARTS IIE and IIIE



Common ARTS

- ARTS IIIE is operational at nine major TRACONS (Dallas and Denver transitioned to STARS).
- ARTS IIE system at ninety plus sites (including Israel BGN), and the IE system at eight sites.
- TAMR Phase 3 Segment 1 will upgrade the 11 ARTS IIIE sites with a Standard Terminal Automation Replacement System (STARS).
- TAMR Phase 3 Segment 2 will replace up to 94 ARTS IIE systems with STARS ELITE.



STARS

- Standard Terminal Automation Replacement System (STARS) is a joint Department of Defense (DoD) and Federal Aviation Administration (FAA) program to modernize terminal air traffic control automation systems.
- STARS is a digital processing and display system that replaced the aging air traffic control equipment at Automated Radar Terminal System (ARTS) IIIA and other high activity Terminal Radar Approach Control (TRACON) facilities and airport traffic control towers.
- The STARS system is fully digital and capable of tracking all aircraft within the defined terminal airspace using available FAA or DOD surveillance.



STARS

- STARS ELITE is a full STARS system with a reduced footprint (i.e. fewer processors, same functionality). Used at large towers to smaller TRACONs.
- STARS LITE is a single processor version of the full STARS system. Used at stand-alone towers.



Count Ops

- CountOps is an FAA developed, internally supported, tool created using commercial-off-the-shelf (COTS) hardware and software that interfaces with terminal automation systems to effectively account for air traffic activities and services in the tower and terminal airspace.
- CountOps is the primary traffic counting and reporting automation feature for STARS and Common ARTS
- Using flight plan and radar data, CountOps (and its sub-component, Tower Ops) provides for the automation of required facility activity counts on a daily, weekly and monthly basis



Electronic Flight Strip Transfer System (EFSTS)

- EFSTS is an alternative method to hand-off flight strips from towers to TRACONS.
- The system was originally developed to replace conventional drop tube technology at non-collocated towers.
- This system provides an electronic data transfer functionality utilizing flight progress strips with a unique number encoded in bar code on each departure flight progress strip.
- The flight progress strip bar code is scanned by the Local Controller when the aircraft departs which causes the system to retrieve the referenced flight plan data from its internal database and print the flight progress strip at the departure radar controller position.



Airport Resource Management Tool (ARMT)

- ARMT is an FAA owned tactical management and administrative tool utilized to support terminal area operations.
- ARMT generates near “real time” arrival and departure traffic data, helping to facilitate data driven tactical traffic management decisions while also assisting in departure and runway load balancing



Advanced Electronic Flight Strip (AEFS)

- AEFS is a more robust flight strip transfer system.
- Will provide controllers with real time, secure, efficient and effective means of delivering flight strips electronically.
- AEFS will support multiple towers located at a single airport.
- The system will distribute and manage electronic flight strip operations within a single tower and between multiple towers without affecting ATC operations.



Opportunities for SBA Contracts

- There is a potential for new work with small business next year. All interested contractors should periodically check contract opportunities during the year.

