COMBAT SERVICE SUPPORT VERY SMALL APERTURE TERMINAL (CSS VSAT)

Information Brief
CSS VSAT: Allows sustainers to complete supply transactions and receive real-time status updates with critical logistics systems

Legacy CSS VSAT has …

- Originally fielded in 2004, CSS VSAT is nearing the end of its life cycle
- Expeditionary operations are cumbersome: nearly 500 lbs packed into 5 cases
- Highly susceptible to jamming due to single-frequency band
- Auto-acquire pedestal easily breaks, requiring lengthy repairs and impacting readiness
  - Production ends FY19 making replacement difficult

But the improved CSS VSAT is…

- Over 300 lbs lighter and less than half the physical storage make CSS VSAT more portable and expeditionary
- Use of military X and Ka bands gives operators more flexibility in addition to decreasing signal-jamming threats
- An upconverter six times more powerful, reduces wind interference, improving system reliability
- When properly anchored, the Inflatable Satellite Antenna (ISA) can operate in winds up to 45 mph
- A variable-power fan ensures the ISA remains inflated even when punctured

Easy to Set Up

- Setup is reduced to under 30 mins from more than 45 minutes on the legacy system
- Acquiring a satellite is simple – find azimuth, point, and adjust
- Eliminates the risk of failure-prone and heavy auto-acquire pedestal
- Help is always available through unit Sustainment Automation Support Management Office personnel and CECOM field support

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Mission Challenges

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FIELDING: NEAR-TERM

**LEGACY CSS VSAT**
- Single-band antenna (Ku)
- 5 cases – approx. 500 lbs
- 4W block upconverter
- Setup time = 45 mins
- Auto satellite acquire

**IMPROVED CSS VSAT**
- Tri-band antenna (Ku, Ka, X)
- 2 cases – approx. 150 lbs
- 25W Ku block upconverter
- Setup time < 30 mins
- Manual satellite acquire

**End-of-Life Design**
- **Product Sustainability**

**Timeline:**
- JAN 2019: Korea First Unit Equipped
- MAR 2019: Last Unit Equipped
- MAY 2019: First FRU Equipped
- JUL 2019: Korea FOC
- AUG 2019: Setup time < 30 mins
- SEP 2019: Manual satellite acquire
- OCT 2019: Gateway
- NOV 2019: Regional Hub Nodes
- DEC 2019: Improved CSS VSAT
- JAN 2020: ONS FOC
- FEB 2020: Last FRU Equipped

**Korea FOC**
UNCLASSIFIED

TRAINING AND SUPPORTABILITY

THREE LEVELS OF TRAINING

- **General User**
  - Setup and basic configuration focusing on Ku band
  - Military Occupational Specialty immaterial

- **Maintainer**
  - Troubleshooting and configuration of all frequency bands
  - Sustainment Automation Support Management Office (SASMO) or general-purpose user

- **CECOM FSR**
  - Deep dive on system repair
  - Logistics Assistance Representatives (LARs)/Field Support Representatives (FSRs)

SUPPORTABILITY:

Commonality and modular design provides field-level component replacement by unit SASMOs or FSRs

Units fielded with system and initial spares

All components are provisioned in the Army supply system (as of May 2019)
Please visit our website at:
cecom.army.mil

INOC Help Desk:
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