

Improved Environmental Control Unit (IECU)

INVESTMENT COMPONENT

Modernization

Recapitalization

Maintenance



MISSION

Provides standardized environmental control capabilities to the DoD in accordance with DoDD 4120.11.

DESCRIPTION

The Improved Environmental Control Unit (IECU) program consists of three standard shelter-mounted systems in the following sizes: 9,000 BTUH (British thermal units per hour); 18,000 BTUH; 36,000 BTUH; and one skid-mounted unit of 60,000 BTUH. The IECU systems provide critical cooling to vital military electronic and support systems and equipment for the U.S. Army and the wider DoD. IECU Characteristics:

- Form, fit, and function replacement of military standard (MIL-STD) ECUs
- Ruggedized for military environments
- Increased reliability over current MIL-STD ECUs
- Reduced power consumption (results in overall fuel savings)
- Reduced weight, 10% lighter than current MIL-STD
- Fully operable up to 125 degrees Fahrenheit

- R-410A refrigerant, a commercial industry standard (compliant with all environmental legislative requirements)
- Soft start, limited inrush current (no voltage drop or breaker trip due to compressor startup)
- Electromagnetic Interference (EI) and nuclear, biological and chemical (NBC) protected
- Remote control capability; automatic safety controls
- Organically supportable

The IECU systems provide quality cooling, heating, and dehumidification for command posts; command, control, communications, computers, intelligence, surveillance, and reconnaissance (C4ISR) systems; weapon systems; and other battlefield operating systems while using a non-ozone-depleting refrigerant.

Additional improvements to the warfighter in theater are the IECUs soft start feature which limits inrush current; NBC & EI protected interface; fully embedded diagnostics; automatic safety

controls; and remote control capability for operations that require users to be out of the direct area.

SYSTEM INTERDEPENDENCIES

None

PROGRAM STATUS

- 1QFY12-4QFY12: 60k IECU Full-rate production (FRP)
- 1QFY12-4QFY12: 9/18/36k IECU Engineering and Manufacturing Development (EMD) Phase II

PROJECTED ACTIVITIES

- 1QFY13-3QFY15: Continue 60k IECU Full-rate production (FRP)
- 1QFY13-2QFY14: 9/18/36k IECU Engineering and Manufacturing Development (EMD) Phase II
- 4QFY13: 120k IECU Milestone B Enter Engineering and Manufacturing Development (EMD)
- 3QFY14: 9/18/36k IECU Milestone C Enter Production and Deployment
- 4QFY14-2QFY15: 9/18/36 IECU Low-rate initial production
- 1QFY14-4QFY16: 120K IECU Engineering and Manufacturing Development (EMD)

ACQUISITION PHASE

Technology Development	Engineering & Manufacturing Development	Production & Deployment	Operations & Support
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Improved Environmental Control Unit (IECU)

FOREIGN MILITARY SALES

None

CONTRACTORS

9,000, 18,000, 36,000 BTUH IECU:

Mainstream Engineering (Rockledge, FL)

60,000 BTUH IECU:

DRS-ES (Florence, KY)

