Teledyne Controls’ Ground Based ACMS Tool (GBAT™) is a PC-based solution for data acquisition and management that allows Boeing 737 operators to create customized ACMS applications. With GBAT, operators can specify what aircraft parameters to acquire, monitor and/or record. They can design their own display screens (MCDU), customize the content and format of their reports, and establish the conditions under which such reports, are generated. All is accomplished through a friendly Windows-based user interface.

The GBAT applications can be easily uploaded, therefore allowing the operators to maintain and modify their data management systems without having to remove the equipment from the aircraft, resulting in significant time and cost savings.

GBAT is the preferred tool to program the new Teledyne data acquisition and management unit which is certified on both the Next Generation 737 and 737 MAX aircraft.

**Traditional Uses of ACMS**
- Engine trend monitoring (take-off, cruise, etc.)
- Engine extremity monitoring (over speed, over temperature, vibrations, etc.)
- Airframe structural limitations monitoring (hard landing, etc.)
- Fuel monitoring
- Flight operations monitoring (FDM and FOQA)

**Benefits of ACMS**
- Improved aircraft operation
- Improved dispatch reliability of the aircraft
- Enhanced engine and aircraft systems maintenance, and early failure detection
- Ability to program uploaded applications and eliminate costly software modifications
- Capture of structural load parameters
User Programmability

GBAT Provides Five Primary Areas of Programmability:

Parameters: Through pre-designed menu lists, the user can easily select the parameters, the desired bus, and the specific bits to be acquired.

Displays: GBAT enables operators to create their own display screens (e.g. MCDU). Using the Display View mode, it’s easy to type and position the text, choose the size and color of the fonts, and insert the desired key actions from a drop down menu.

Reports: Users can create their own custom reports. The parameters can be quickly selected from a drop down menu, while the report layout can be arranged through a user-friendly graphical interface.

Triggers: To write their own triggers, users can rely on the traditional Aircraft Monitoring Trigger and Action Language (AMTAL) trigger logic.

Recording: Allocation of acquired parameters is made easy via the graphic representation of the data frame.

Additional GBAT Features

Integrated Programming Tester: Interface using Teledyne’s pre-defined or user-customized flight simulation scenarios.

Online Help: Provided for every function, the online help is indexed and offers a search capability. The AMTAL manual is available online, as well as all application notes.

Multiple Simultaneous Windows: The user can view several windows at a time, including multiple windows of the same type.

Transparent Networking: An operator can access an ACMS database from another PC over the network.