

## User Controlled Message Signals and Signs

IST International's UCMS product line provides users with the ability to remotely control and evaluate multiple locations from a single operational point. Using advanced network communications, these systems help to inform the public or other personnel of important conditions in a clear and concise manner. Operators are provided with safe and effective means of controlling equipment and situations and receiving important feedback from the environment. Hardware and software configurations can allow 100's of control points spread over miles of terrain.



Remote restricted areas can be controlled and monitored. This UCTL system keeps vehicles clear of the flight line when aircraft are landing. Wireless control is from the tower, 2 miles away.

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IST International Ltd.

## Wireless Networked Control and Monitoring Systems

User Controlled Message Signal (UCMS)  
User Controlled Traffic Lights (UCTL)



*Leaders in Intelligent Signal Technologies*

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# IST's User Controlled Message Signals Put Operators In More Than One Place At A Time.

The User Controlled Message Signal provides two-way radio control of remote devices. To accomplish this, there is a central controller, remote signal heads and PC based or embedded control software. Each of



Dual Direction, Single Digit Display used for informing personnel of conditions before entering an area

these sections has many different options that may be selected to provide the best solution for your mission. While this brochure will help to identify some of the more common options, you will need to work with

your IST representative for a solution that best meets your needs.

## Flexible Network Architectures

UCMS systems can be operated in many configurations including Point-to-Point pairs, Multi-Client Single Server, Multi-point Peer-to-Peer networks, Repeater and Multi Grouped sub networks. Each of these two-way networks provides secure, reliable realtime data and control. Advanced protocols and algorithms ensure that the correct data gets to the right device in a timely fashion. Self contained repeater functions can also extend the range of the entire system, as well as increasing basic network reliability. While IST typically recommends the FCC license free ISM 900 MHz band (using 1/2 to 1 Watt frequency hopping spread spectrum), specific frequencies and protocols can be adapted to fit the systems. IST can provide wideband or narrowband radios, with transmit power ranging from 1/2 Watt to 5 Watts, or more if required. Distances of over 20 miles line of sight can be achieved with the correct selection of radios and antennas.



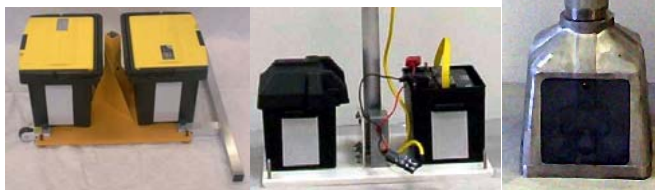
Networked UCMS systems can be customized for specific applications, like this MOPP level sign.

## Configuring the Signal Head

The User Controlled Message Signal can provide personnel with a variety of simple, clear message indicators, including status lights, traffic lights, text displays and audible alarms. Signals can be devised to provide directionally specific information using multiple face signals, or point information with beacon style displays. Since the signal head is based upon an embedded microprocessor design, additional feature can be included, such as manual override, local download/programming, or additional sensors and outputs.

## Physical Support

While IST specializes in ultra-portable devices, some installations may require more robust or permanent mounting. IST offers a variety of mounting options including the standard "Partner" base and self wiring poles, the "Econo" base and treaded pipe, Standard DOT 4" Frangible Base with 1.5"NPT Adaptor, FAA 2" Airfield Frangible base with 1.5"NPT Adaptor, or other custom mountings.



## Power Options

UCMS controllers operate on 12V DC, which is convenient for portable applications. Since the UCMS can run anywhere from 24 to 48 hours on a single charge, you may want to consider some of the power options IST has to offer. The options include Batteries, AC to DC power Supplies, Solar Panel Chargers, AC Chargers and Generators, and DC to AC Power inverters. These options help to extend mission times and aid in equipment maintenance and management.



## Controller Options

Controlling the UCMS system vary from simple switch and indicator panels to fully integrated database driven command centers. Since the control is based on two way digital communications, IST developed both embedded controllers and PC programs to provide a link back to the operator. Selection is based on amount of control needed, environmental conditions, personnel experience and cost considerations.

## Installation Options

Networks may be entirely mobile, partially mobile or permanently installed. IST can help select, install and test the appropriate support hardware, such as mobile and base station antennas, cables and towers. We also offer on-site evaluation, training and support.



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