

From Basic Alarming to Full SCADA Systems



Electronic keys track site visits.

Mission offers many graphing and report options.

Overview map shows all sites with current status. More details are simply a click away.

Simple, Reliable, and Unique: For Less Than You Thought Possible

Simply the Easiest: From Basic Alarming to Full SCADA Systems

How MISSION Is Fundamentally Different

Instead of paying for a custom designed system, MISSION offers the most important SCADA hardware and software features prepackaged into a turnkey setup. There is no programming – the whole system can be up and running within a few hours, and probably costs less than you thought possible. MISSION manages and continually upgrades the whole system, and our “Price Stability Guarantee” gives you a predictable cost of ownership. Spend more time working on your water system, instead of your SCADA system.

Single Point of Responsibility

Up and Running In a Few Hours

Simple – No Programming

Here's How We Deliver Value for You

- Standardized and expandable field RTUs with the features most operators want built in
- Operates on the data (not voice) side of most cellular systems for enhanced reliability
- No radio path studies, no unsightly antenna towers, no network maintenance required
- No plant investment in back end hardware, software, or maintenance of those systems (sharing the “backend” with over a thousand other customers dramatically reduces costs)
- Alarm notifications of any kind have unparalleled flexibility and tracking features
- Simultaneously access your data on the MISSION website, through our HMI, or feed it direct to your existing SCADA software using industry-standard OPC protocols



Instead of Building a Custom SCADA System For Each Customer, Our System is Different.

1 Standardized simple RTU's cost less to buy, install, and operate.

Our RTUs make continuous, real time connections and require no programming or custom installation hardware. They are simple enough to install yourself. Electronic keys track site visits. Digital and analog expansion boards are available. Training and installation costs are minimized.

Model 80

- Sealed In-Sewer Enclosure
- CSO/SSO Alarm System
 - 5+ year battery
 - In road antenna

Model 110

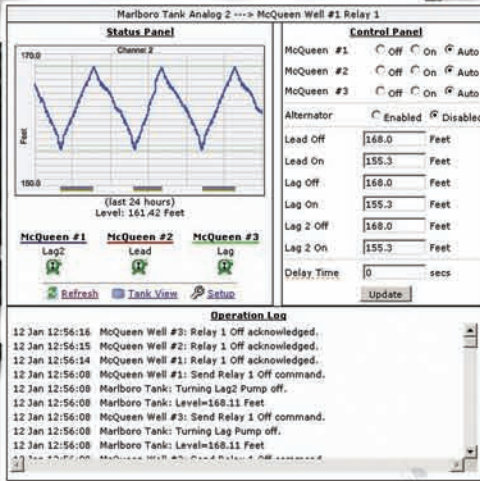
- NEMA 4X Enclosure Option
- Hourly updates
 - Real-time alarms
 - Manual control



Model 800

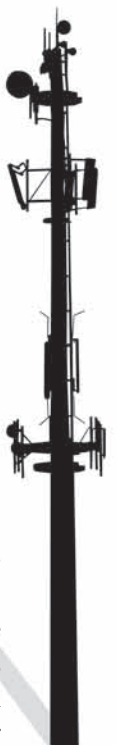
- FlatPak Enclosure Option
- Real-time updates
 - Full SCADA
 - Automated control

Electronic key reader on all enclosures except M-80 tracks site visits via included keys. Eliminate messy paper logs.



Tank and Well Package

With the MISSION Tank and Well package, customers have no radio networks, computers, or PLCs to maintain. MISSION manages the whole process.



2 National wireless networks are reliable and ready when you are.

MISSION has direct relationships with all cellular companies; we don't outsource data transportation to third parties. This uniquely allows us to have redundant, private gateways (signal paths) through the data side, not the voice side, of the cellular system. That redundancy and data side protocols are part of what allows MISSION to deliver end-to-end uptime reliability even better than traditional phone lines or private radio. It also increases coverage vs. what you have on your hip. We purchase data in "bulk" and pass the savings on to you.



Mission's main server center.

3 Spectacular features, security and redundancy you wouldn't build for yourself.

MISSION hosts and staff engineers manage redundant server banks housing our software and databases. This allows us to stay in control of performance standards and feature upgrades. One less thing for you to deal with.

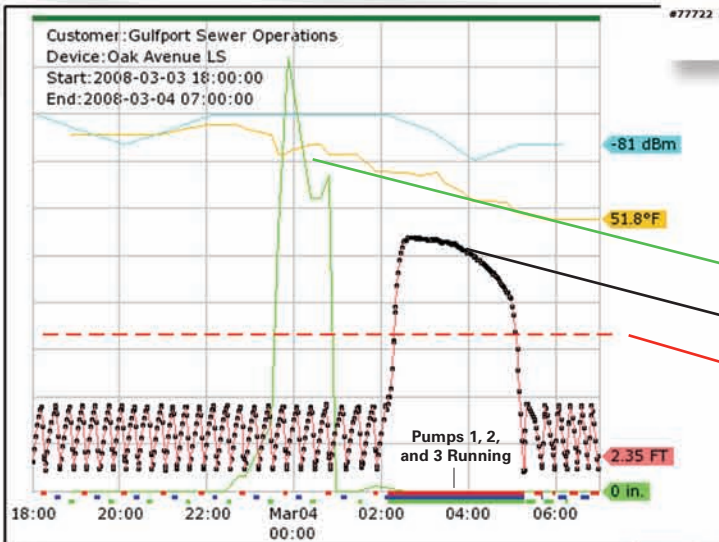


4 An alarm system with functionality you've never seen before.

Alarms go to cell phones, fax machines, any pager, email, and/or to your HMI. Our separate diagnostic alert system catches problems and notifies you before they become alarms. This helps you reduce electricity usage, pump wear, and overtime. Every alarm attempt to contact you is logged and recorded.

Dispatch History		
Eco Utilities - Green County USA		
(Lift Station 11) 10/3/2008 7:05:34 AM	High Wet Well	Acknowledged By: Aced by User: Ronald Reagan - Red Phone Acknowledgment Time: 10/3/2008 7:19:13 AM
Emergency Call Out List		
#77686 Attempt #1	Ed Norton - Cell by Voice	Notification Failure 10/3/2008 7:07:03 AM, Call Timeout Voice # 770-685-7912 (Short Form)
#77688 Attempt #1	Lou Grant Email by E-Mail	Notification Success 10/3/2008 7:05:43 AM, Sent Addr: LouG@ecoutilities.com, Type: HTML
#77690 Attempt #1	Lee Jacoca - Email by E-Mail	Notification Success 10/3/2008 7:05:43 AM, Sent Addr: LJacoca@ecoutilities.com, Type: HTML
#77692 Attempt #2	Ed Norton - Home by Voice	Notification Failure 10/3/2008 7:09:01 AM, Call Busy Voice # 678-969-0541 (Standard)
#77694 Attempt #3	Dwayne Schneider - cell by Voice	Notification Success 10/3/2008 7:11:02 AM, Line Dropped Voice # 678-969-0021 (Short Form)
#77704 Attempt #4	Andy Dufresne - cell by Voice	Notification Success 10/3/2008 7:13:36 AM, Line Dropped Voice # 466-337-1173 (Short Form)
#77710 Attempt #5	Irwin M. Fletcher - cell by Voice	Notification Success 10/3/2008 7:17:36 AM, User Entry Timeout Voice # 678-656-6219 (Short Form)
#77722 Attempt #6	Ronald Reagan - Red Phone by Voice	Notification Success 10/3/2008 7:19:13 AM, User Aced Message Voice # 770-313-5695 (Short Form)

High Level Alarm
MISSION records every alarm. Listen to alarm phone calls from any computer



▲ A log of every attempt to send you an alarm and its outcome eliminates wondering about what happened in an alarm callout.

◀ One of many graph options. SuperGraph allows you to simply click on and graph all monitored parameters.

- Rainfall
- Wet Well Level
- Alarm Threshold



5 Simple and secure access to your information anywhere—even in the field.

MISSION creates two web sites out of the data from your MISSION units, one for full size computers and one for web enabled cell phones and PDAs. Now you can access your system and data anytime and anywhere, securely through the web.



SPECIFICATIONS

MODELS

Remote Terminal Units (RTU)

M-80 in-sewer CSO/SSO tracking and alarm system, 5+ year battery powered submersible.

M-110 hourly check-in with pump reports, analog values, and real time alarm system.

M-800 real-time, always on SCADA and automated control system.

Enclosures

M-80 enclosure is waterproof to a depth of 10 feet

NEMA 1 aluminum enclosure with battery inside

NEMA 1 FlatPak in panel enclosure with battery outside

NEMA 4X water resistant, fiberglass outdoor enclosure

ELECTRICAL

Digital Inputs: 8 dry contact inputs plus 4 built-in alarms on M-110, and M-800 series support alarms, status, or accumulating runtimes/starts. The M-8 has AC fault and high level alarms and 2 pump run inputs. The M-80 in-sewer RTU has 2 digital inputs that are typically used with floats to sense surcharge and high sewer level.

Key Reader Input: The included key reader allows on-site personnel to log a site visit and suspend alarms while service is performed at the station. Management can track the key entries for productivity and regulatory reporting purposes.

Analog Inputs: 2 analog inputs to report pressure, level or any 4-20mA or 1-5V input from a transducer. The M-800 and M-110 can be expanded to 6 analog inputs. All analog inputs support 4 threshold alarms settings that can be remotely configured.

Pulse Inputs: 2 pulse inputs can be used to report data such as flow, water meter or rainfall totals. If no rainfall data is monitored at the site, MISSION's web site presents data from the closest National Weather Service reporting station.

Input Wiring Supervision: All digital input wires use End Of Line resistors for wiring supervision similar to fire alarm panels. Wiring supervision detects if alarm circuit wires become broken or disconnected and thus unable to respond to alarm conditions.

Digital Outputs: The M-110, and M-800 series support 3 relay outputs that can be remotely controlled. These can be used for any purpose including turning on an emergency pump, or security light. Multiple M-800s can be linked so an event at one station causes a relay change at another. MISSION's tank and well control software relies on this feature. The M-8 supports 1 relay output.

Wet Well Module Plug: The model 110, and 800 have a quick connect plug for the MISSION wet well module. The wet well module conveniently packages 2 voltage sensing pump running circuits with a patented high level float circuit that "T" taps into the existing high float. This greatly reduces installation time and provides for a battery backed up high float alarm. Now you can get high-level alarms even when there is no AC power.

Power and Backup Power: The M-110, and M-800 RTU's operate safely on 12V via the supplied transformer. They include a 5 amp hour battery with charging circuit that powers the units for 30-35 hours during a power failure. There is an automatic alarm for external power failure and low battery condition. The included 120VAC to 12VAC transformer typically mounts separate from the RTU to protect the main board and radio from voltage spikes. A solar panel option is available for remote locations. The M-80 unit includes a sealed 5+ year life battery so no external power source is required.

PHYSICAL

Enclosures

NEMA 1 Regular: 11" w x 11" h x 3.5" d

NEMA 1 FlatPak: 7.75" w x 10.5" h x 1.5" d

NEMA 4X: 13.25" w x 13.75" h x 5.5" d

NEMA 4X enclosures have sunshades on the front and top to moderate internal high temperatures thus prolonging electronics and battery life.

Antennas

Standard dual band, 3db gain, omni-directional, pole mount, weatherproof antenna.

Optional low profile, attack resistant, 3db gain antenna and 8-11db high gain, directional antennas.

All RTU's, come standard with 11' of antenna cable and remote, aluminum antenna mounting bracket for the best possible performance.

ENVIRONMENTAL

Operating Temperature: -20F to +140F

COMMUNICATIONS

MISSION provides wireless communications through the data transmission services of all cellular providers in the US. MISSION employs redundant, private, fire-walled gateways through the cellular system to redundant servers. Except for the M-80, all RTU's make real-time, continuous and secure socket connections through the cellular systems to our servers resulting in virtually instantaneous data transmissions. All alarms and data are end-to-end acknowledged (from the RTU to the servers and back...except the M-80).

INITIAL SYSTEM SETUP

All RTU and software screen setup is done quickly and accurately through MISSION's web pages. MISSION makes it very simple for customers to bring a new unit on-line. Simply fill out a 1-page setup form, fax it to us and we'll complete the setup for you. Some more sophisticated system options are also setup for you by MISSION; as always, everything is included in the flat Annual Service Fee.

ALARM AND SYSTEM MESSAGES

MISSION's alarm system has virtually unlimited flexibility. Have one call out group during the weekdays and another on nights and weekends. Different categories of alarms can notify different alarm callout groups. Simultaneously have the on-call person get a call on their cell and their pager while also emailing the boss and sending a fax to the plant. For every alarm, you also get a full log of every call, page, email and fax with what happened in each notification attempt; we even record each alarm phone call. Customers can listen to the alarm call on any web capable computer with speakers.

OPERATOR INTERFACE

MISSION's SCADA screens and reports are delivered securely via the web. All screens and data exchanges use SSL (Secure Socket Layer) security. The screens are point and click simple. The main screen is a map of the customers' service area with their sites. The map is animated to indicate when pumps are running. Touch a site icon and the most current information for the site is displayed in a small "popup" box. Site icons change color to indicated alarms, service mode, disabled alarms and more. Reports and graphs have "fly over" data point value display and many have zoom and print functions.

WARRANTY

One year parts and labor warranty; FOB Atlanta, GA. Additionally, MISSION offers low, fixed RTU board and radio replacement costs for the life of the RTU. Board or radio replacement is very simple and takes a few minutes.

FIELD UPGRADES

The MISSION RTU firmware upgrades are free with chip exchange.

Why MISSION?

Experience. Reliability. Vision.

MISSION's management had an integral role in developing data cellular transport technologies with Bell South in 1996. In late 1999, we used that experience to create MISSION. MISSION was the first to bring the technology to the water/wastewater industry, first to transport data on the digital cellular system, first to stream data continuously on it, and first to offer service on all cellular systems. In all these areas, MISSION was the first and is still the best. Nobody has near the experience, volume of field units, or numbers of satisfied customers.

When it's critical, trust MISSION.

So why don't you get started today? Our SCADA experts are waiting to hear from you. Contact a MISSION representative at **1-877-993-1911** to learn how we can deploy the right solution to fit your needs, at a fraction of the cost of building a customized SCADA platform. Discover more about the MISSION approach yourself by visiting our web site: www.123mc.com.

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