



Level Monitoring System

ECHO™

Level Monitoring for Open Channel Flows

The ADS® **ECHO**™ is an all-new generation level monitor. It gives users up to 10X more monitoring range and uses machine learning software to predict overflows long before they occur.

Coupled with its wide range of uses and low cost, **ECHO** is the leading solution for level monitoring applications.

Collection Systems, Plants, Surface, and Storm Water Structures

Sanitary Sewers



Combined Sewers



Wastewater Treatment Plants



Lagoons and Ponds



Rivers and Streams



Canals

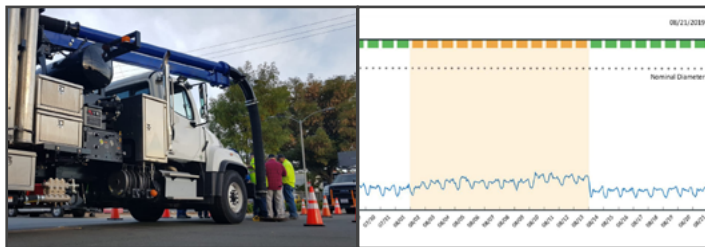


ADS
www.adsenv.com/echo

The Wide Range of ECHO Applications Gives You Flexibility

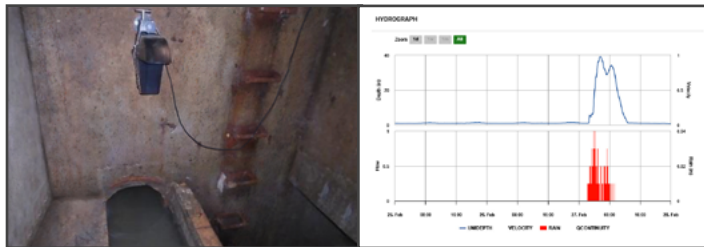
Operations, Engineering, Planning, Modeling, and Contractor Professionals

Efficient Cleaning Process



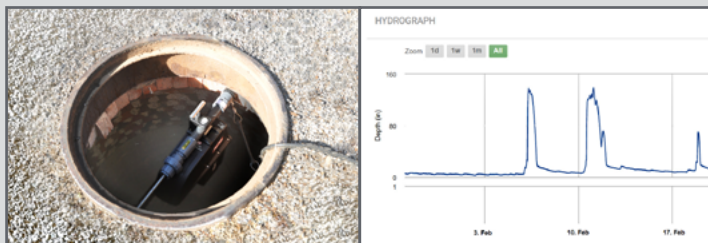
Reduce cleaning frequency and mitigate Sanitary Sewer Overflows (SSOs) with continuous monitoring and blockage prediction software.

CSO Data and Reporting



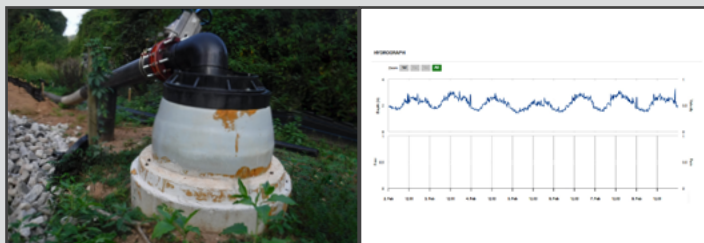
Monitor Combined Sewer Overflows (CSO) activation and de-activation in real-time. Calculate overflows, prepare reports.

Hydraulic Model Validation



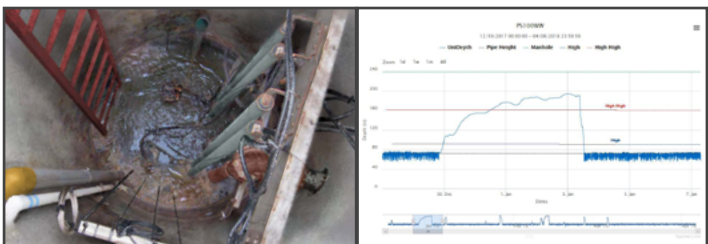
Acquire data for updating and validating hydraulic models. Low cost means higher sensor density.

Bypass Monitoring



Secure 24/7 protection from overflows with bypass monitoring.

Wastewater Pump Station Back-up



Avoid pump station overflows from power failures, partial pump blockages, or failed alarms with **ECHO** back-up.

SSO Mitigation

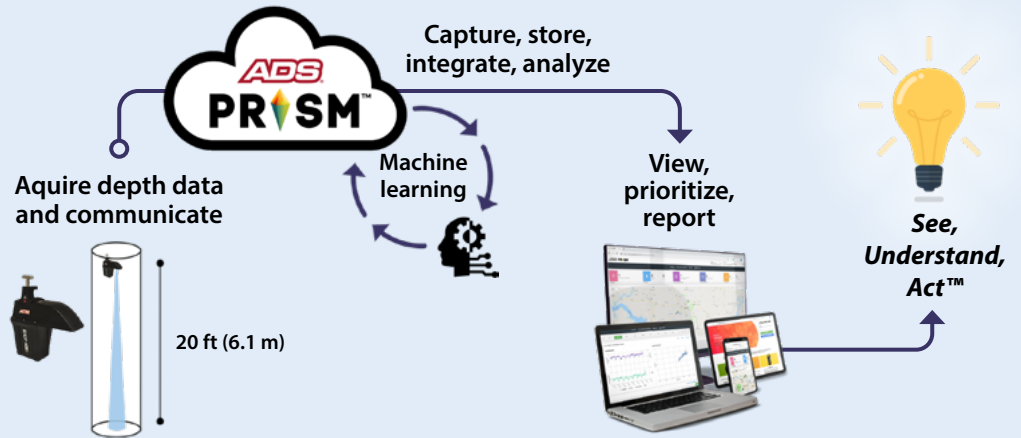


ECHO is the latest generation level monitor. This means you get:

- Predictive, early-stage notices of developing blockages
- Precise, long range ultrasonic measurements
- Multiple high and low flow alarms
- Fast, easy installation
- Stabilized mounting with integral sensor that avoids false alarms

Continuous Monitoring Drives Informed Actions

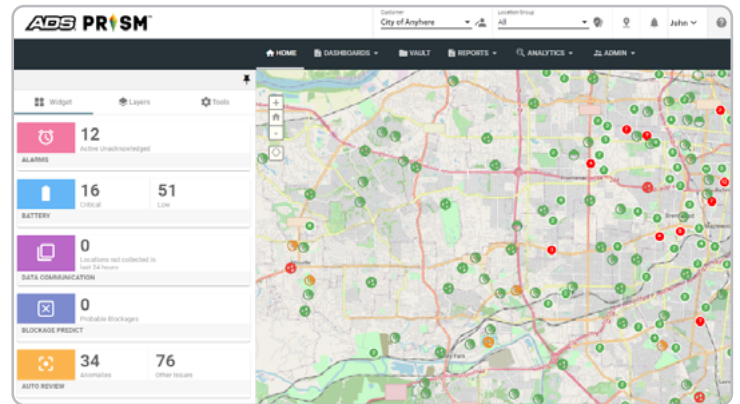
Real-time depth data is collected and communicated to the cloud-based **PRISM** software and analytics. With continuous user access, informed actions are enabled.



ADS PRISM™ Software Enhances Understanding

PRISM is a cloud-based, secure software system that acquires, stores and presents data with ongoing user access. Its home page (right) provides a map view and a dashboard for quick access to essential parameters. Individual site details, hydrographs and remote site system settings are all accessible. **PRISM** APIs enable third party data exchange.

PRISM's blockage PREDICT™ app (below) uses machine learning and will predictively detect blockages, with days' or weeks' worth of warning. When detected, blockages are presented in the dashboard.



Dashboard Reveals Prioritized List

2
Probable Blockages
BLOCKAGE PREDICT

blockage PREDICT lists prioritized, colored-coded symbols and access to details for sites of interest (below).

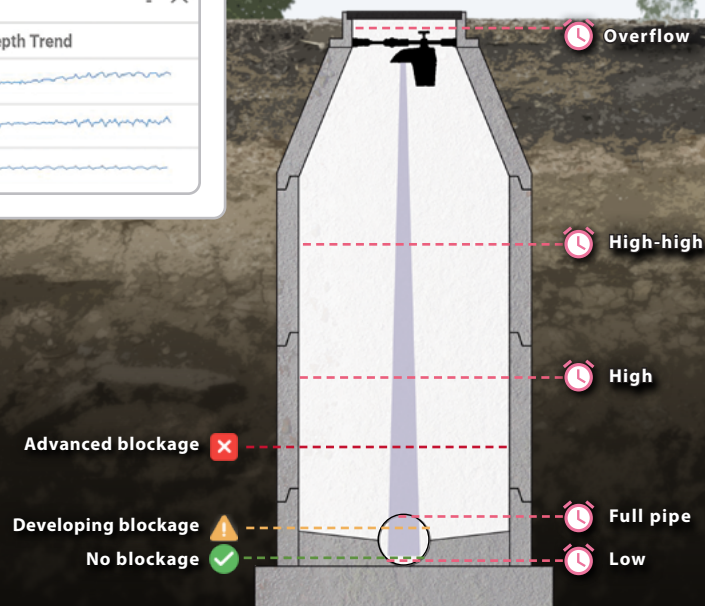
BLOCKAGE PREDICT

Location	Date	Status	Depth Trend
AN_204	09/16/2019	✖	
AN_110	09/16/2019	⚠	
AN_96	09/16/2019	✔	

Real-Time Alarms

8
Active Unacknowledged
ALARMS

Dashboard summarizes Alarms and gives access details. Five redundant SSO alarms (below) guard against fast developing events.



The ECHO Difference Means New Standards in Performance:



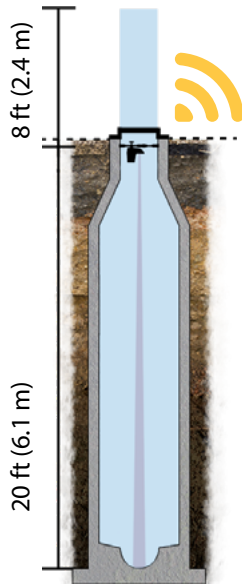
New LTE-M communications

LTE-M communications provide improved reliability often allowing the antenna to be installed in the manhole, eliminating drilling. Set-up is fast and easy, taking just minutes.

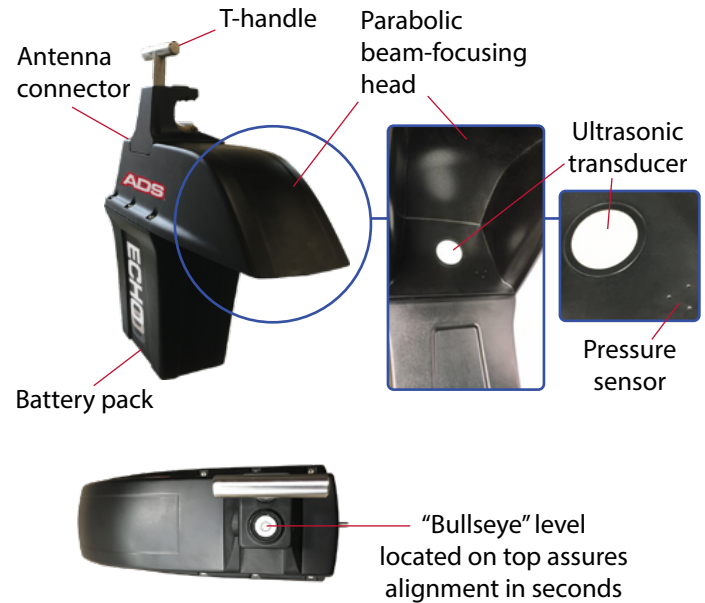


Total manhole visibility

ECHO's unique narrow beam technology provides up to a 20 ft (6.1 m) range and its pressure sensor can read up to 8 ft (2.4 m) above the **ECHO**.



ECHO System Components:



Installation Options:

The ADS **ECHO** installs quickly making it easy to move from one location to another.



ECHO with tension bar installation



PVC wall mount bracket



Stainless steel wall mount bracket



Adjustable tension bar

SPECIFICATIONS

System	Dual-measurement sensor (ultrasonic and pressure), tilt alarm for sensor alignment, battery powered, wireless communication
Software	PRISM , cloud-based with data storage, dashboard, analytics, and reports
Communications	Third-party, FCC/IC/EC- and carrier-approved wireless modem Compatible with all 4G LTE-M networks worldwide with 2G fallback Automatically detects installed SIM upon boot up to determine correct network Modem FCCID: R17ME910C1WW
Battery Life	Up to 2 years depending on operating temperature, modem power management, and frequency/type of communications
Submersible	Meets IP68
Manufacturing Standard	ISO-9001
Intrinsically Safe	CSA, ATEX, and ICEEX certifications Multiple intrinsic safety certifications set the ADS ECHO apart with an intense focus on safety

Tailored, Affordable Purchase Programs

Purchase

The ADS **ECHO** can be purchased bundled with communications and software.

D-Site Turn-Key Service

ADS takes care of your monitoring network including equipment, software, and onsite maintenance through one low monthly fee.



2 Year Warranty

Our two-year warranty gives you added assurance of its quality and reliability.



Learn more about ECHO:

www.adsenv.com/echo



Access PRISM:

<https://www.adsprism.com>



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