

Teledyne Odom Hydrographic

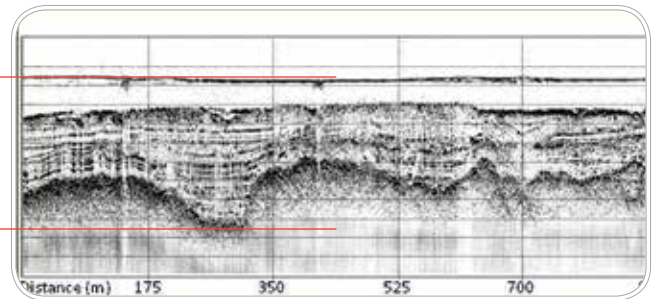
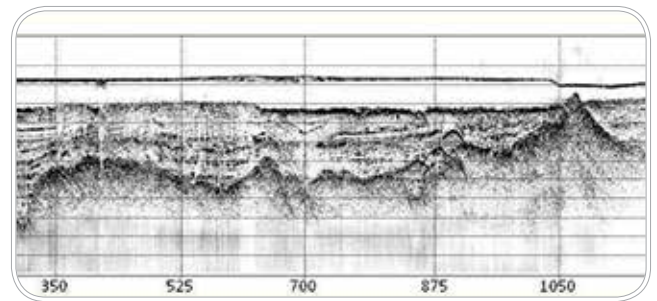
# Chirp III

Sub-Bottom Profiler

## High-Resolution Chirp Sub-Bottom Profiler System

Teledyne Marine is a pioneer in Chirp technology and was the first to bring a commercial Chirp sub-bottom profiling system to the market. Teledyne Odom continues that advancement with the Chirp III sub-bottom profiling system.

Portable and affordable, the Chirp III is a low cost system ideally suited for many applications. Its versatile system configuration provides the user with various styles of tow vehicles and hull mounted arrays.



40m penetration



Above: Chirp III Transceiver.

Left: Digital Acquisition Computer with Monitor.

### PRODUCT FEATURES

#### System configurations include:

- TTV-170 Series Towfish
- AUV configuration
- Hull mount configuration with Echosounder Mode

#### Applications

- Offshore hazard surveys
- Pipeline and small object surveys
- Bridge piling scour and environmental surveys
- Mining and dredging
- Wind farm site survey (see data above)



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Sub-Bottom Profiler



## TECHNICAL SPECIFICATIONS

<b>Main Processor</b>	PC based sonar work station	
<b>Signal Resolution</b>	16 bit	
<b>Data Storage</b>	Stores raw data in SEG-Y format	
<b>Operator Software</b>	Windows™ environment	
<b>Display</b>	High-resolution LED display	
<b>Ping Rate</b>	15 pings/second maximum	
<b>Pulse Length</b>	User selectable from 5 msec. to 60 msec. Pulse waveforms stored in memory	
<b>Output Power</b>	4 KW each channel max	
<b>Transducers</b>	AT-471, Chirp bands 2 to 7 kHz AT-12D7, Chirp bands 10 to 20 kHz	
<b>Beam Angle</b>	TTV-170 Hull Mount (4x4) Array	100° Conical 25°
<b>Cable</b>	Kevlar electrical umbilical cable	
<b>Operating Depth</b>	TTV-170: Shallow water/small vehicle (200m)	
<b>Navigation/Annotation</b>	NMEA 0183 interface, event/fix marks, external interrupt	
<b>Hard Copy Recorder</b>	Grey scale graphic recorder (optional), can be used with Echosounder Mode	
<b>Operator Controls</b>	HW gain (dual channel) 0-42dB/channel; two stage TVG; bottom tracking (dual channel); smoothing; horizontal/vertical zoom; display gain control; repetition rate control; custom FM waveform design	
<b>Operator Displays</b>	Bathymetry display; reflectivity and hardness display; signal to noise ratio display; voltage display; custom color palette selection; color rotation; navigation map display	
<b>Tow Vehicle Dimensions and Weight</b>	TTV 170: 18 in O.D. x 24 in long; weight in air: 98 lbs., weight in water: 80 lbs	

## CHIRP III FEATURES

### Hardware:

- Simultaneous dual frequency operation allows for a choice of Chirp FM sweeps from 2 kHz to 20 kHz
- Flexible Chirp III acquisition/processing work station allows for versatile configurations including shallow water vehicles, diverse hull mount arrays, and AUV's
- Ethernet output
- High power output -- up to 4KW each

### Software:

- Windows operating system
- User defined ping rate
- Automatic bottom tracking
- Interactive horizon picking
- Switch on the fly Chirp/CW pulse
- Simultaneous dual channel Chirp
- Hull mounted Echosounder Mode