

**SENSORS  
SYSTEMS  
SERVICES**

**3PS, Inc.**  
3 Point Solutions

# Load Moment Indicators Wire Monitoring Systems Winch Controls

UNOLS 2008 Research Vessel Operators' Meeting

**Presenters: Fred Campbell  
Dave Johnson**

April 23, 2008

# Sensors



# Services



# Systems



Load Moment Indicators

# Marine Cranes



Load Moment Indicators

# Military & Personnel Lifting



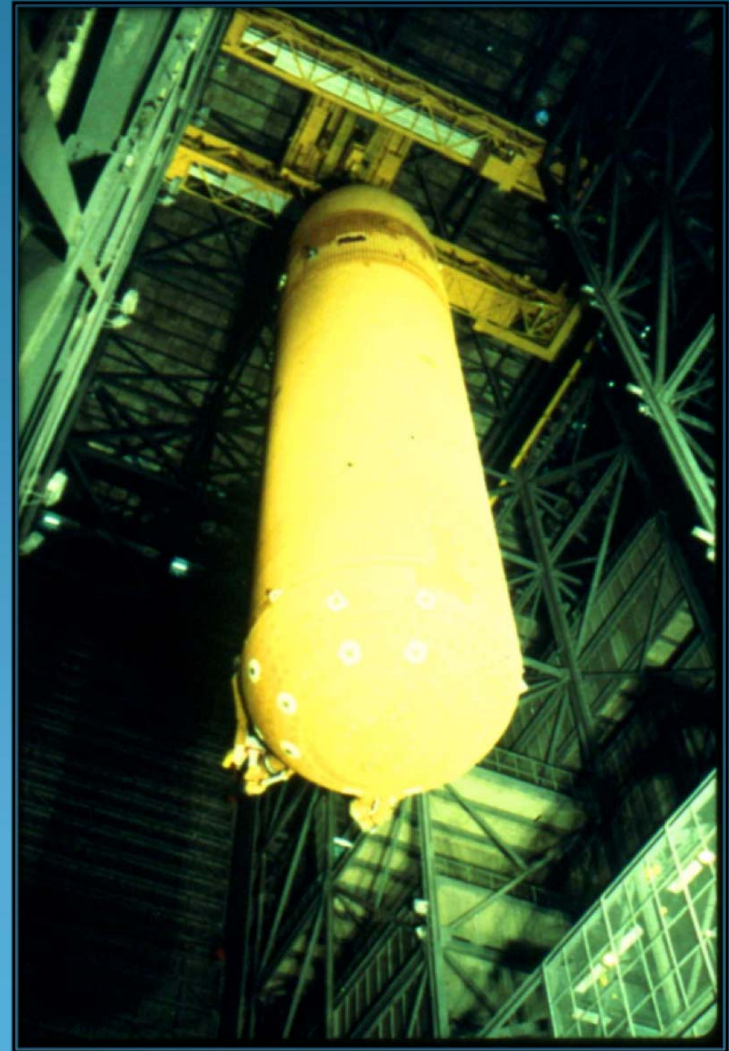
Load Moment Indicators

# High Volume Worldwide Installations



Load Moment Indicators

# Critical Lifts



Load Moment Indicators

# Heavy EMI Applications



Load Moment Indicators

# Extreme Temperature Applications



Load Moment Indicators



# Operator Displays & Controls



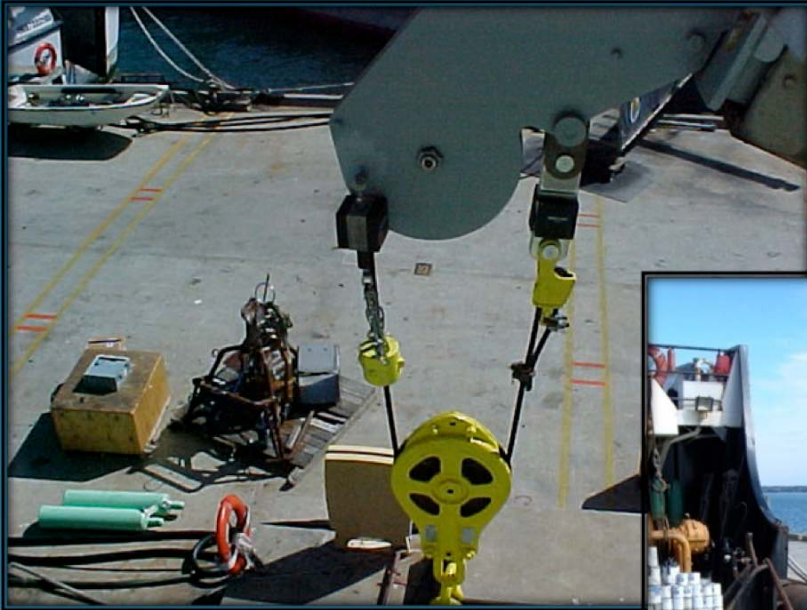
Load Moment Indicators

# Configure To Order Displays



Load Moment Indicators

# Wireless Anti 2 Block & Load



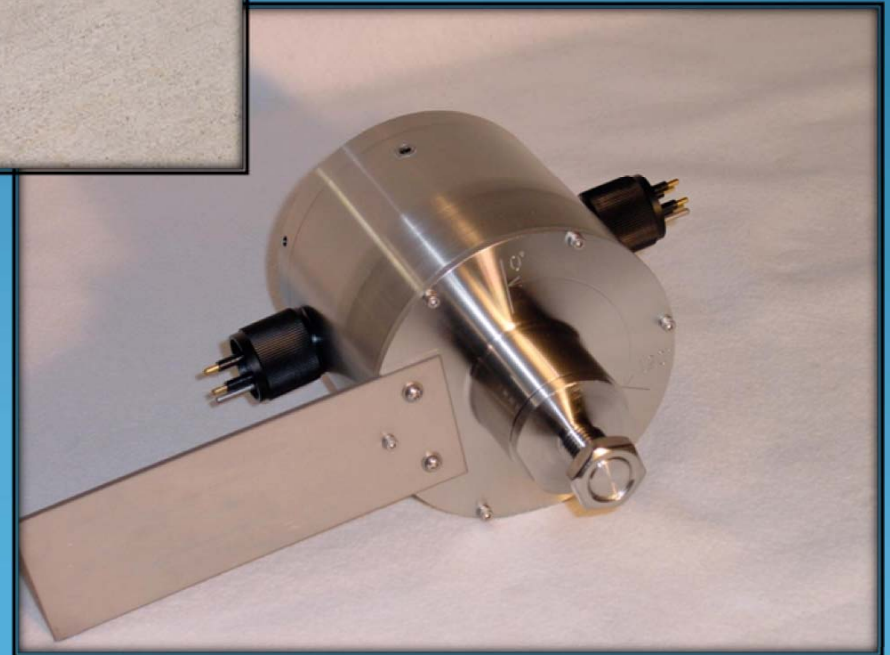
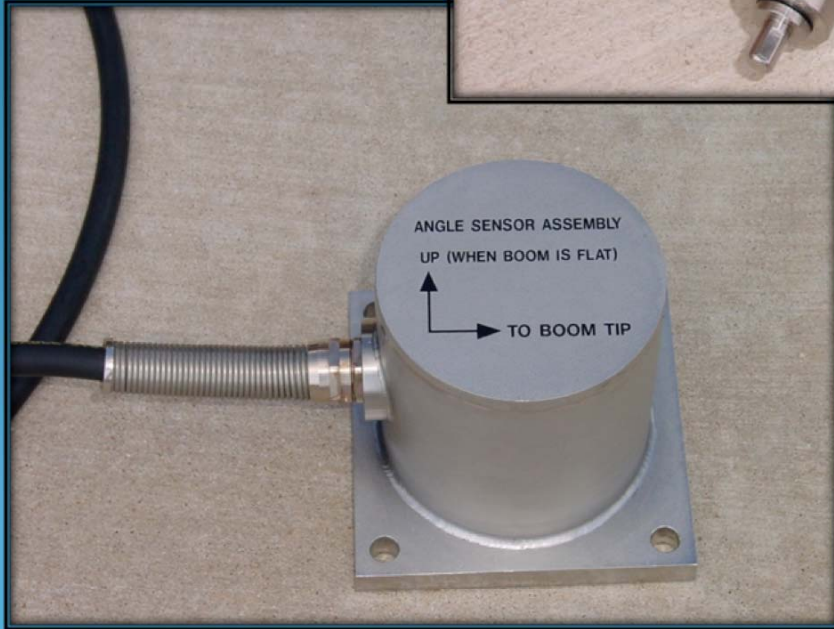
Load Moment Indicators

# Wireless Multiple Transmitters



Load Moment Indicators

# Boom Angle



Load Moment Indicators

# Boom Length



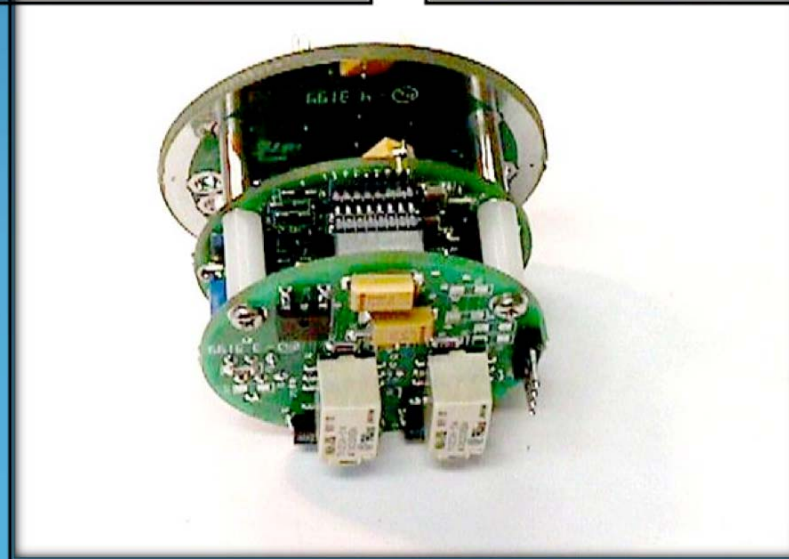
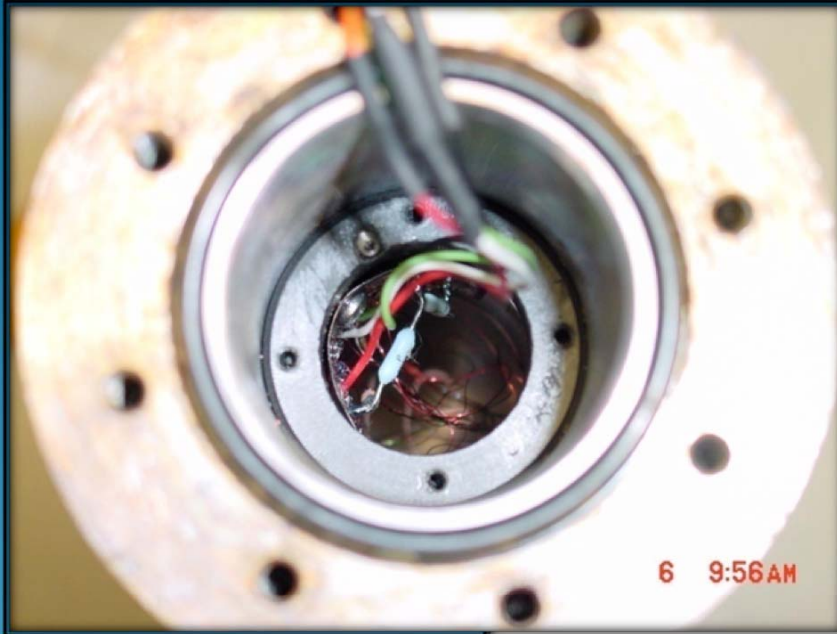
Load Moment Indicators

# Wireless Load Torque 3 Axes of Acceleration & Internal Data Logger



Load Moment Indicators

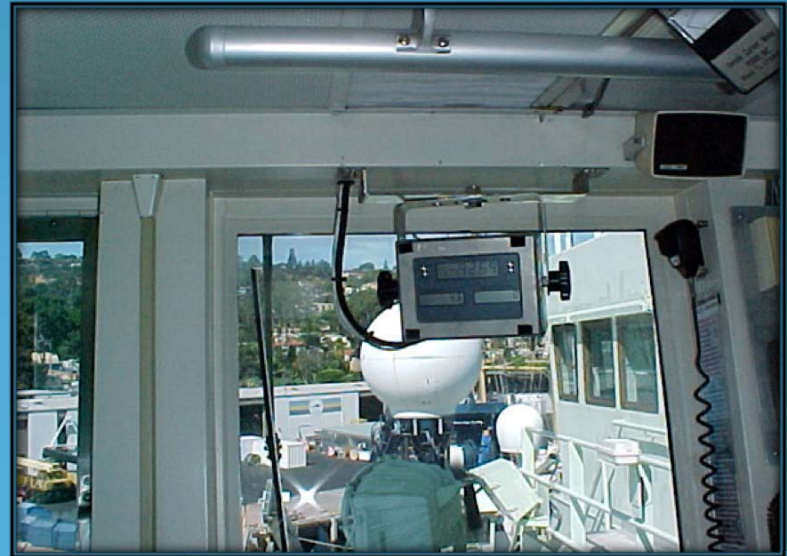
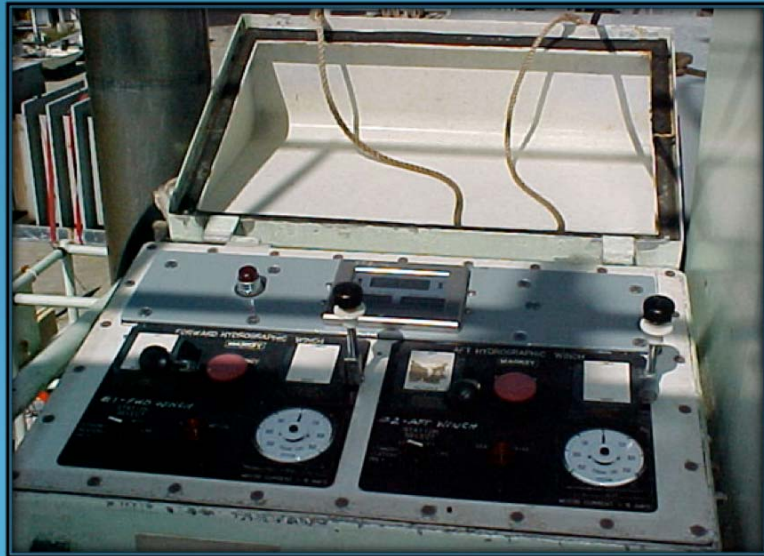
# Sensor Reliability



Load Moment Indicators



# 3PS-Installed Wire Monitor Systems



Wire Monitor Systems

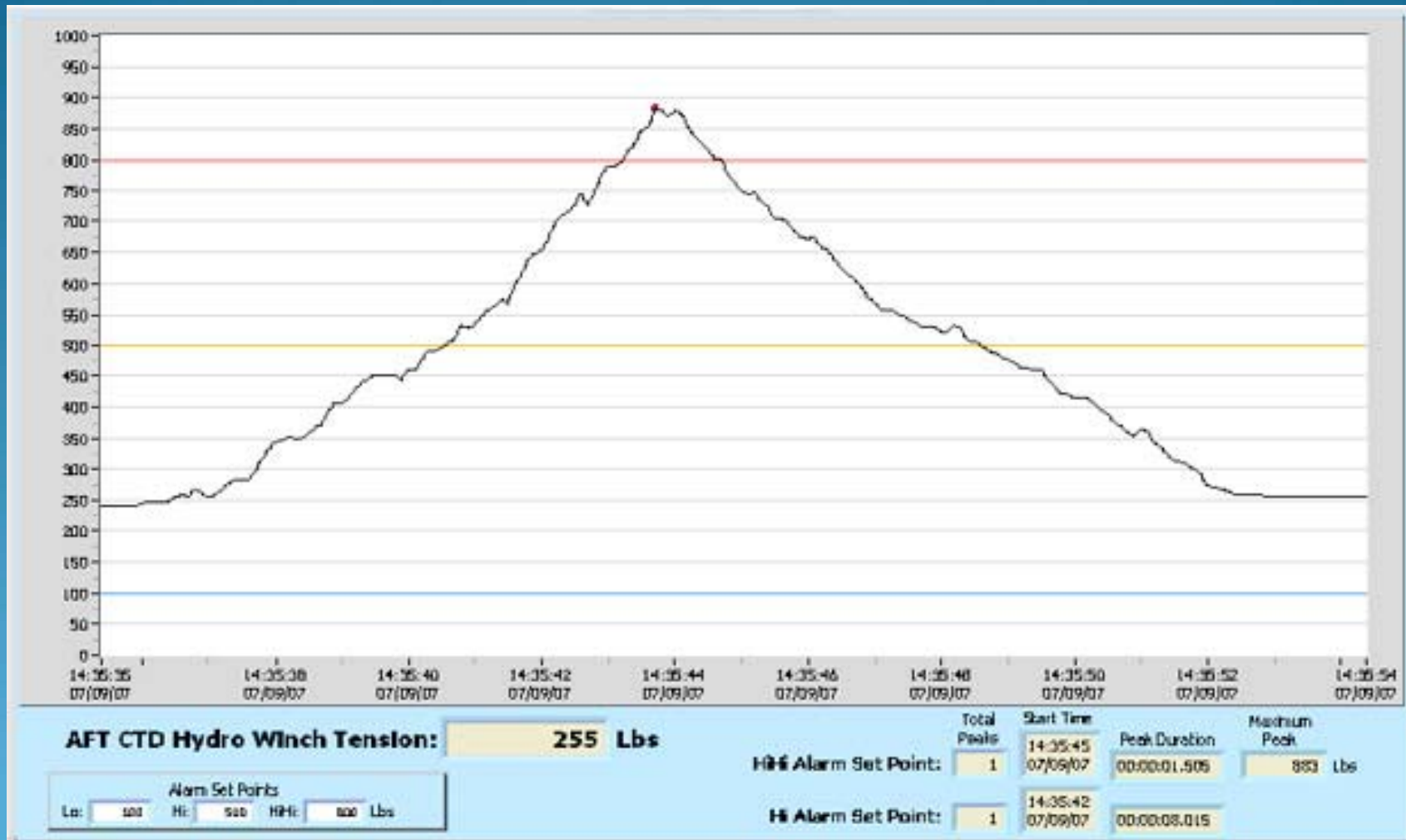
# Slack Line & Peak Detection System

- Uses Common Computers (Desktop/Laptop)
- Logs Data at up to 50Hz Rate (20 msec)
- Data Logging to Common Spreadsheets
- Programming & Display are Customized
- Sensors may be Wired or Wireless
- Add to Existing Equipment
- Please Ask for Hands-On Demonstration

# Peak Detection – Normal Mode



# Peak Detection – Alarm Mode



# Peak Detection Configurations

Laptop/Receiver



Analog Transmitter



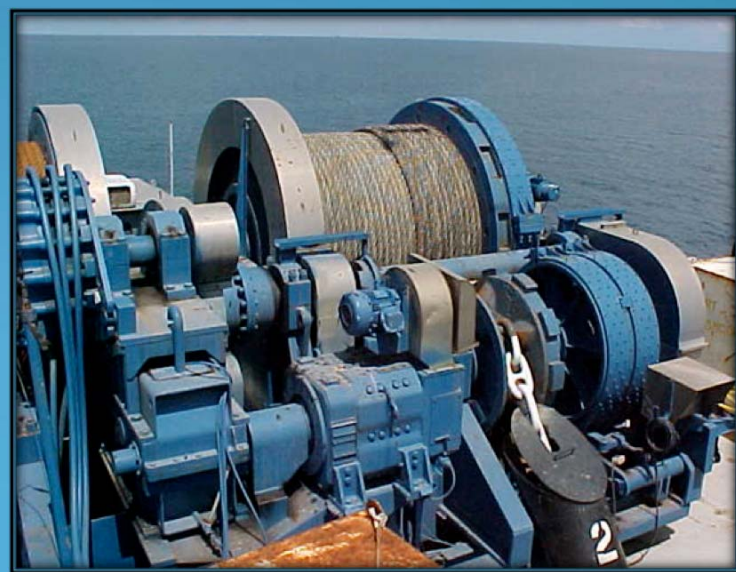
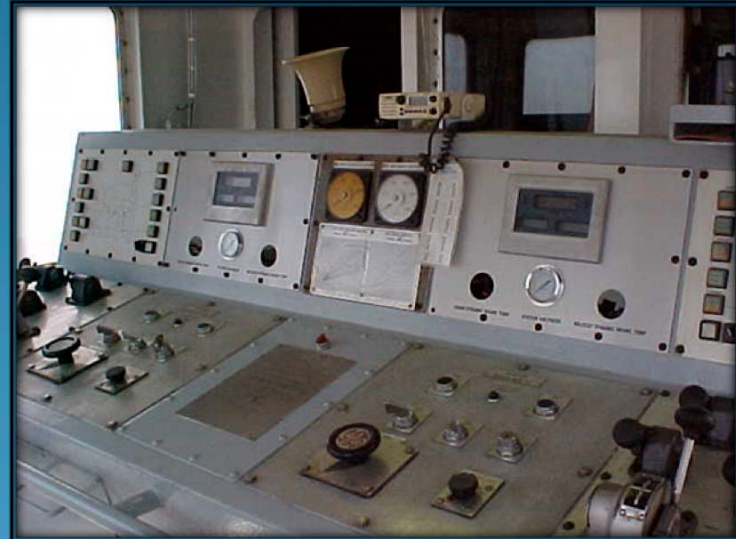
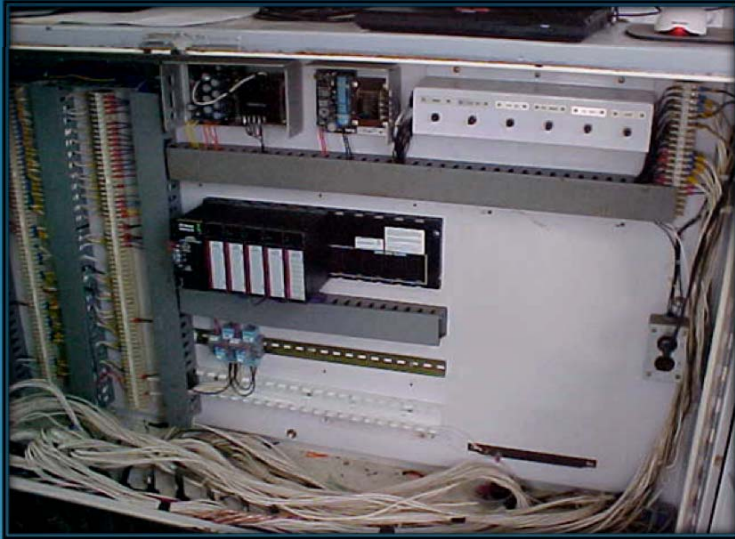
Instrumented Shackle



# 3PS-Installed Winch Control Systems

- 3PS Manufactures Sensors but also Provides Custom Systems
- Touch Screen Alarm & Monitoring
- May Integrate with Existing Systems
- PLC-Controlled Systems may be Modified In-Field
- Software Upgrades or Changes may be Uploaded In-Field with Minimal Skill & Training
- Technical Training is Available
- Customer Owns the Program
- 3PS, Inc. Addresses the Need for Reliable Sensors & PLC-Controlled Systems

# 3PS-Installed Winch Control Systems



Winch Control Systems

