

Minhchau H. Vu, B.S.

Chief Engineer/Production Manager

EXPERTISE

Chief design and integration engineer of MetOcean systems to collect Meteorological and Oceanographic data.

QUALIFICATION SUMMARY

- Designed the Solid State Recorder (SSR) by utilizing SRAMS chip set to replace the old style tape recorder of all Sea Data wave, tide and current gauges
- Redesigned Inverted Echo-Sounder (IES)
- Designed SeaPac product lines: SP2000 Current Meter; SP 2100 Directional Wave, Tide, and Current Meter; SP 2200 Wave and Tide Gauge, and SP 2300 Sediment Transport Autonomous Recording (STAR)
- Redesigned the Flash/SSR using Flashcard that replaced the old style SSR
- Computer language skills in Basic, Pascal and Turbo Pascal, C, C++ assembly
- Familiar with MS DOS, UNIX, OS/2, Windows and Win/NT operating systems
- Familiar with application software packages for analysis and display using MatLab and Visual Basics
- Familiar with software development systems using CA-Realizer
- Interfacing real-time data acquisition systems with telemetry including packet radio/ modem, spread-spectrum radios, cell and satellite phones
- Embedded micro-controllers skills in 6805, 8085, 8031, 8051 and 68000 family

WORK EXPERIENCE

1992-Present Woods Hole Group, Inc.
1990-1992 Pacer Systems, Inc.



Education

1992 – B.S.
Computer Engineering
Boston University

Licenses and Registrations

N/A

Professional Affiliations

-N/A

Publications & Presentations

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KEY PROJECTS

Nearshore Data Collection System, Stuart, FL, Martin County Board of County Commissioners - Design Engineer.

Designed real-time wave, tide, and current monitoring systems that were deployed in 30 ft of water in the Atlantic Ocean off Stuart Public Beach in Martin County, FL.

Directional Wave, Tide, and Current Measurement System, Taichung, Taiwan, Institute of Harbor and Marine Technology - Design Engineer.

Designed real-time wave, tide, and current monitoring systems that were deployed in offshore locations near the approaches to the harbors. Our systems consist of an elastic-moored spar buoy and a bottom mounted SeaPac 2160 directional wave and tide gauge with real-time telemetry outputs.

National Oceanic and Atmospheric Administration, National Ocean Service, Center for Operational-Oceanographic Products and Services (NOAA/NOS/COOPS), Physical Oceanographic Real-Time Systems (PORTS), Narragansett Bay, RI, - Field Technician

Responsible for the operation and maintenance of the Narragansett Bay PORTS. Duties included on-site service and maintenance, and reporting. Knowledgeable with PORTS measurement systems, including current meter, water level, and meteorological stations and data telemetry and management.

National Oceanic and Atmospheric Administration, National Ocean Service, Center for Operational-Oceanographic Products and Services (NOAA/NOS/COOPS), Physical Oceanographic Real-Time Systems (PORTS), Delaware River & Bay, DE – Field Technician

Serve as PORTS technical assistant to Local Operator, Ned Burger, and Delaware Field Office. Assist on an as-needed basis with technical support and reporting tasks, including field support for routine operation and maintenance activities and emergency service.

National Oceanic and Atmospheric Administration, National Ocean Service, Center for Operational-Oceanographic Products and Services (NOAA/NOS/COOPS), Physical Oceanographic Real-Time Systems (PORTS), Chesapeake Bay, MD – Field Technician

Serve as PORTS technical assistant to Local Operator, Ned Burger, and Delaware Field Office. Assist on an as-needed basis with technical support and reporting tasks, including field support for routine operation and maintenance activities and emergency service.

National Oceanic and Atmospheric Administration, National Ocean Service, Center for Operational-Oceanographic Products and Services (NOAA/NOS/COOPS), Physical Oceanographic Real-Time Systems (PORTS), New York/New Jersey Harbor – Field Technician

Serve as PORTS technical assistant to Local Operator, Carl Johnsen. Assist on an as-needed basis with technical support and reporting tasks, including field support for routine operation and maintenance activities and emergency service.

KEY PROJECTS (CONTINUED)

Wave Measurement Program, Little Bay, Monserrat, Mouchel Consulting, Inc. - Design Engineer

Designed real-time oceanographic data acquisition system to monitor waves, tide, and currents in Little Bay, located on the northwest coast of the Caribbean island of Monserrat. The system consists of a SeaPac 2100 wave, tide, and current meter deployed in 15 meters water depth about 1 km offshore.

Real-Time Monitoring System, Port of Curacao, Curacao Port Authority - Design Engineer

Designed a WHISL SeaPac 2100 directional wave and tide sensor, which also measures currents, and a WHISL SeaPac 2000 current meter.

Real-Time Current Monitoring System Channel Approaches, Long Beach, CA, Jacobsen Pilot Services, Inc. - Design Engineer

Designed a real-time system to monitor currents in the approaches to the main shipping channel at Long Beach Harbor.

Deep Water Rig Instrumentation System, Makassar Strait, Indonesia, Unocal Corporation - Design Engineer

Designed, built, and tested, a real-time environmental monitoring systems for the Sedco 601 and Sedco 602 anchored drill rigs, operating in the Makassar Strait region, east of Borneo, Indonesia. Each of two identical systems consist of a downward-looking 75 kHz Broadband Acoustic Doppler Current Profiler suspended below the surface, together with an upward-looking RDInstruments Workhorse 300 kHz ADCP and a non-directional wave gauge. A meteorological system measuring wind, speed and direction, air temperature, and barometric temperature is also included in each system.

Real-Time Data Acquisition and Telemetry System, Oahu, HI, Tesoro Hawaii - Design Engineer

Designed a real-time current and wind monitoring system that consists of a real-time data acquisition and telemetry system, which is located on the Single-Point Mooring (SPM) offshore of Tesoro Hawaii, a Base Station display and archiving system, which is located in Tesoro's office in Honolulu, and a Mooring Master display unit that is contained in a waterproof portable case and is used by the pilots.

Physical Oceanographic Real-Time System (PORTS), Tampa, FL, University of South Florida - Design Engineer

Designed and built a real-time system to collect directional wave, current, tide height, and meteorological data from multiple sites for the NOAA PORTS program. We provided four Acoustic Doppler Current Profilers (ADCPs) that are bottom-mounted near shipping lanes and cabled to Remote System Managers (RSMs) located on shore-based or offshore towers at Old Port Tampa, Manatee Channel, Sunshine Skyway Bridge and Egmont Key, FL. Several of these stations are also equipped with meteorological systems and visibility sensors.

Lake Current Monitoring System, Darlington and Pickering, Ontario, Canada, Ontario-Hydro - Design Engineer

Designed, built, and tested, a pair of identical real-time lake current monitoring systems for the Canadian Nuclear Utility Company Ontario-Hydro.

KEY PROJECTS (CONTINUED)

Meteorological and Oceanographic Monitoring System, Seoul, Korea, Seoul National University - Design Engineer

Designed and built a meteorological and oceanographic monitoring system that provides real-time monitoring of wind speed and direction, air and water temperature, air pressure, tides, and current profiles. The system consists of a surface meteorological buoy, a subsurface Acoustic Doppler Current Profiler (ADCP), and a tide station.

Tide Measurement System, Naval Oceanographic Office - Design Engineer

Designed and constructed 5 portable tide measurement systems (TMS) for real-time water level measurements for use by the Navy in coastal surveys worldwide.

Texas Automated Buoy System (TABS), Real-Time Environmental Data Buoy, Gulf of Mexico, Geophysical and Environmental Research Group (GERG), Texas A&M University - Design Engineer

Designed a real-time data acquisition and telemetry system that provides near-surface current, meteorological, and other environmental information on the continental shelf.

Fishermen's Energy - Meteorological Buoy Systems - Design Engineer

Designed and installed Meteorological Buoys with real-time data acquisition and telemetry that provides near-shore current data, meteorological, and other environmental information offshore of Atlantic City for Atlantic City Windfarm.

Capewind - Meteorological Systems - Design Engineer

Designed and installed Meteorological system with real-time data acquisition and telemetry that provides near-shore current, meteorological, and other environmental information offshore of Nantucket Sound for Capewind.

ANDRILL – Ross Ice Shelf Observatory 2011 – Design Engineer

Designed a First moored system with real-time data acquisition and telemetry that provides real-time velocity and water property data from under the Ross Ice Shelf (RIS) at the Coulman High site in Antarctica for WHOI

NMFS – Survey Sensor Packages – Design Engineer

Designed and installed Survey Sensor Packages for a Clam Dredge system for NMFS/Northeast Fisheries Science Center which provides near real-time depth and other environmental information for each tow of the Clam Dredge.

BP – Mad Dog Spar Real-Time data system – Design Engineer

Designed and installed a MetOcean real-time buoy system which provides off-shore current, meteorological, and other environmental information mooring near the Mad Dog Spar for BP in the Gulf of Mexico. The system consist of a pair of UWM3000 LinkQuest Acoustic modems, an Axys directional wave sensor package, 2 meteorological systems measuring wind, speed and direction, a Teledyne RDI Workhorse 300 kHz ADCP on the surface buoy and 2 - 75 kHz Broadband Acoustic Doppler Current Profilers in a sub-surface mooring at 500m with one downward-looking and the other upward-looking to cover the top 1000m of water column and a single point Nortek AQD near the bottom of 2500m water depth.

KEY PROJECTS (CONTINUED)

EcoPetrol – MetOcean Real-Time data system – Design Engineer

Designed and installed a MetOcean real-time buoy system which provides off-shore current, meteorological, and other environmental information mooring in Colombia. The system consist of a Axys directional wave sensor package, 2 meteorological systems measuring wind, speed and direction, a Teledyne RDI Workhorse 300 kHz ADCP on the surface buoy.

Chevron – MetOcean Real-Time data system – Design Engineer

Designed and installed a MetOcean real-time buoy system which provides off-shore current, meteorological, and other environmental information mooring in Rio de Janeiro, Brazil. The system consist of a Axys directional wave sensor package, 2 meteorological systems measuring wind, speed and direction, a Nortek Signature 55, a Nortek 600 kHz ZCell on the surface buoy together with another Single-point Nortek current meters AQD in mid-water column and 4 Sea Bird CTDs.

Philadelphia Water Department (PWD) – MetOcean Real-Time data system – Design Engineer

Designed and installed 3 MetOcean real-time buoy systems which provides current, meteorological, and other environmental information mooring in Philadelphia River. The system consist of a 2 meteorological systems measuring wind, speed and direction, barometric pressure and air temperature, a Teledyne RDI Workhorse 300 kHz ADCP, a Nortek 600 kHz ZCell on the surface buoy.

Port Authority of Altamira - Buoy Systems - Design Engineer

Designed and installed a surface buoy with real-time data acquisition and telemetry that provides near-shore Wave and current data for the Port Authority of Altamira. The system consist of a surface buoy with data logger to collect the wave and current data via a pair of LinkQuest UWM1000 acoustic modems from the Nortek AWAC ADCP in a TRBM on the sea floor then send them to the port in near real-time.

BP – LARS Real-Time data systems – Design Engineer

Designed and installed LARS MetOcean real-time systems which provides off-shore current profiles down to 1000m which installed on WEST CAPRICORN, WEST VELA, WEST AURIGA, DS3 and DS4 for BP in the Gulf of Mexico. The systems consist of an upward-looking Teledyne RDI Workhorse 300 kHz ADCP and a downward-looking 38 kHz OCEAN OBSERVER on a sled which lowering down to 35m to cover the top 1000m of water in the Gulf of Mexico

BP Trinidad – Real-Time MetOcean systems – Design Engineer

Designed and installed a MetOcean real-time systems consist of a meteorological systems measuring wind, speed and direction, barometric pressure and air temperature, an upward-looking Nortek AWAC-AST and a downward-looking Nortek 600 kHz AWAC on a carriage which lowering down to 35m to cover the whole water column of 100m water depth off-shore in Trinidad on the Cassia A platform.

KEY PROJECTS (CONTINUED)

Total – MetOcean systems – Design Engineer

Designed and installed MetOcean systems in Caspian Sea, Azerbaijan. The system consist of:

- Moorings 1 & 2: Wave measurements and Current profiles from the near bottom to near surface in 15 m and 23 m water depths. Near sea bed water temperature will also be recorded
- Moorings 3 & 4: Current profiles from the near bottom to near surface or as far up into the water column that a 75 kHz ADCP will measure. Water depths are 212 and 629 m. Near sea bed water temperature will also be recorded at the ADCP location.
- Mooring 5A: Wave measurements and Current profiles from approximately 30 m below the surface to near surface in 495 m water depth. C-T-D data will also be recorded at 30 m below the surface. Nine (9) additional C-T-D instruments at 50 m interval from -50 to -450 m will also be deployed. Current profiles from the 30 m depth position to as far down into the water column that a 75 kHz ADCP will measure.
- A meteorological station will be installed on land to record wind speed and direction, air temperature & relative humidity, barometric pressure, and rainfall.

HELIX – LARS Real-Time data systems – Design Engineer

Designed and installed LARS MetOcean real-time system which provides off-shore current profiles down to 1000m which installed on the Q5000 for Helix in the Gulf of Mexico. The systems consist of an upward-looking Teledyne RDI Workhorse 300 kHz ADCP and a downward-looking 38 kHz OCEAN OBSERVER on a sled which lowering down to 35m to cover the top 1000m of water in the Gulf of Mexico

Equinor – MetOcean Real-Time data system – Design Engineer

Designed and installed a MetOcean real-time buoy system C1 mooring which provides off-shore current, meteorological, and other environmental information mooring in Santos Basin, Brazil. The system consist of a Axys directional wave sensor package, Teledyne RDI Workhorse 300 kHz ADCP on the surface buoy, a Nortek 600 kHz ZCell, a Seabird CTD on the surface buoy. In addition with 8 CTDs and 6 single point current meter and 2 TRDI 75 kHz ADCP Long rangers on this C1 mooring. Also there is another redundancy mooring C2 which is the same as C1 with the exception of the surface buoy and its components and a series of 6 other moorings with just 2 CTDs and 2 AQD.

Tullow Oil – LARS Real-Time data systems – Design Engineer

Designed a LARS real-time system which provides off-shore current profiles down to 1000m which installed on the Noble Bob Douglas platform. The systems consist of a pair of UWM4000 Acoustic modems, an upward-looking Teledyne RDI Workhorse 300 kHz ADCP and a downward-looking 75 kHz long ranger on a sled which lowering down to 35m to cover the top 500m of water in addition with another 75 kHz long ranger on a frame moored on the seafloor at about 1000m water depth in Suriname.

KEY PROJECTS (CONTINUED)

Exxon-Mobile – LARS Real-Time data systems – Design Engineer

Designed a LARS real-time system which provides off-shore current profiles down to 1000m which installed on the Noble Bob Douglas platform. The systems consist of a pair of UWM4000 Acoustic modems, an upward-looking Teledyne RDI Workhorse 300 kHz ADCP and a downward-looking 75 kHz long ranger on a sled which lowering down to 35m to cover the top 500m of water in addition with another 75 kHz long ranger on a frame moored on the seafloor in the Gulf of Mexico at about 500m water depth.