1   INTRODUCTION

TARKA-SYSTEMS is an innovative company specialized in the development and production of client-specific measurement and monitoring tools and (portable) data-acquisition systems (hardware and software). The company TARKA-SYSTEMS was founded after 15 years world-wide field experience and system development for one of the largest maritime research institute in the world (MARIN, The Netherlands).

Details about TARKA-SYSTEMS and the provided monitoring systems and data-acquisition solutions can be found on the website: www.tarka-systems.nl (new website available Q3-2015).

Core business of TARKA-SYSTEMS for the Marine, Offshore, Salvage and Civil branches.

1.1   Production and assembly
- To provide client-specific data-acquisition and monitoring solutions.
- To provide complete systems, hardware and software, and be a one-stop solution for the client.
- To translate client requirements into proven hardware units and easy-to-use software applications.
- To provide tailor size solutions: handheld, junction box, travel-case, flight-case, 19"rack or others.
- To provide tailor made portable data-acquisition solutions in travel cases.

1.2   Installation, maintenance, commissioning and support
- Installation, maintenance, commissioning of sensors and systems on-site.
- Integration of systems provide by TARKA-SYSTEMS with clients systems.
- Integration of clients systems to TARKA-SYSTEMS main measurement system.
- On-site assistance and handover of measurement systems.

1.3   Distributor and installation of IRIDIUM Track Trace units of GTT systems.
- IRIDIUM Track & Trace units with worldwide coverage. Stand-alone systems or systems with the option to add additional data. Special use for maritime applications.

1.4   Supplier of rugged transport cases (PELI & Explorer) and custom-made flight cases.
- All types of cases and inlays for client-specific solutions.
- Custom made flight cases.

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2   TYPE OF APPLICATIONS / SENSORS

Below a brief overview of applications and sensors.
When your application or sensor is not mentioned in the overview please contact TARKA-SYSTEMS to determine what would be the possibilities for your application or sensor.

2.1   Applications

A brief overview of possible applications:

- Motion monitoring
- Environmental monitoring
- Decision support systems
- Heavy lift
- IRIDIUM tracking
- Offshore installation
- Wind park installation
- Transport tracking
- Heavy transport
- Tow monitoring

- Fatigue monitoring
- Wreck removal
- Salvage monitoring
- Ship behaviour monitoring
- Float-on / Float-off monitoring
- Float-over monitoring
- Load-out monitoring
- Incline measurement
- Marine survey
- Deadweight measurement

2.2   Sensors and data visualisation/storage

A brief overview of possible sensors:

- Motion sensor (6DOF)
- Wind
- Wave
- Flow (Current ADP, ADCP)
- DGPS (RTK)
- Incline
- Acceleration
- Raw Electrical values
- Raw thermal values
- Raw mechanical values

- Strain gauges
- Wireless data link
- Data visualisation
- Remote login
- Remote data
- Integration of bus-systems
- Client specific software (GUI)
- Serial data (RS232/RS485)
- Ethernet data
- Web based presentation of data

3 PERSONAL

3.1 Experience

With the practical experience of 15 years system development and executing measurements on ships and oil-rigs worldwide TARKA-SYSTEMS has the knowledge and experience to develop a system which can cover the extreme demands of working in harsh environments under uncomfortable conditions.

- Assembly and configuration of hardware and software for mobile tools and measurement systems with integrated data gathering, visualization and power supply.
- Equipment selection (sensors, cabling, data collectors) for short term and long term monitoring campaigns for specific measurements (Maritime, Offshore, Salvage, Civil and others).
- Development and programming data-acquisition software (GUI/SCADA) for all kind of different measurements.
- Configuration hardware for monitoring campaigns and measurements.
- Preparation, instrumentation and commissioning of measurements and monitoring campaigns on projects (heavy transport/lift, offshore constructions and ships) for fatigue issues.
- Professional diving for several years (licence expired).

3.2 Areas of Expertise

- Sensor selection, configuration and integration into data-acquisition software for all kinds of measurement.
- On board hardware and software installation (trouble shoot and start up).
- Development of data-acquisition software, at office or direct development on-site.
- On site supervision of large instrumentation campaigns worldwide.
- Commissioning of on board data acquisition systems.
- Working independent, as site manager, or as member of a larger team.

4   REFERENCE

A small summary of the projects carried out by TARKA-SYSTEMS for MARINE, OFFSHORE, SALVAGE and CIVIL applications:

- **CHINA client,** development of complete float over measurement system.
- **RESOLVE MARINE,** complete motion monitoring system for wreck removal
- **CHINA client,** installation and setup of equipment for two float over installations
- **BARGE-MASTER**, development of portable Measurement System (T40)
- **HEEREMA**, complete monitoring system on largest barge of the world Barge H-851. Structural and float-over monitoring.
- **BARGE-MASTER**, development of Measurement Integration System (T700)
- **MAMMOET**, Salvage monitoring system for wreck-removal
- **HEEREMA**, motion monitoring system for tow-transport
- **BLUEWATER**, setup proposal for complete monitoring system for BLUETEC project
- **SMIT**, tender for complete sensor monitoring system for COSTA-CONCORDIA project
- **MAMMOET**, video monitoring of submerged objects
- **HONEYWELL**, portable server system
- **HEEREMA,** wireless motion monitoring on reel of AEGIR
- **RESOLVE MARINE,** wireless inclination system, portable and battery powered

Projects carried out as Lead Instrumentation Engineer at Maritime Research Institute Netherlands (MARIN). (Period 1998 -2011, average of 100 days a year abroad for installation en measurement activities)

- **US Coast Guard,** site manager and full installation of measurement system on Coast Guard cutter BERTHOLF. (USA)
- **BLUEWATER – FPSO GLASDOWR**, Installation and maintenance on fatigue life system.(Scotland, South Africa, Singapore)
- **ANADARKO – TLP MARCO-POLO**, motion monitoring system for tow-transport (Gulf of Mexico)
- **FSPO – USAN,** Installation of complete measurement system (Angola)
- **Cruise ship – MILLENNIUM,** installation of sensors and system for research project.

4.1   References from clients:

See new website for references. (Available Q3 2015)

Mammoet: http://www.tarka-systems.nl/upload/file/MAMMOET_Recommendation_TARKA.pdf
Barge Master: http://www.tarka-systems.nl/upload/file/quick/TarkaOffshore2013.pdf
United States Coast Guard: http://www.tarka-systems.nl/upload/file/quick/USCG_Wijgerse_ltr_02.pdf

Example of measurement system

Overview

Link to download above information: http://www.tarka-systems.nl/upload/file/quick/Tarka%20A4_BargeHR_v2.pdf

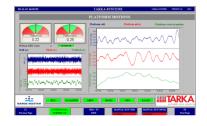TARKA-SYSTEMS 2015

Brief summary of projects and portable solutions: