

## **QUALITY ASSURANCE**

### **COMPANY QUALITY POLICY**

Maritime Applied Physics Corporation is committed to the continual improvement of the value of products and services. Our goal is to deliver exceptional value, high quality, innovative products that meet or exceed customer requirements or expectations while always operating fairly and honestly with customers, suppliers and employees.

ISO 9000

Quality Objectives:

- Maximize customer satisfaction through innovative products and excellent service.
- Ensure cost-effective operations by lean manufacturing, improving productivity and reducing waste.
- Maintain systems to comply with statutory and regulatory requirements.
- Expand programs for effective training of employees to support team awareness and competence.
- Monitor and measure product and process characteristics to verify that requirements have been met.
- Maintain a safe and secure facility

To reach our objectives, we will continue to concentrate on quality with the extensive dedication, commitment and teamwork of all MAPC employees.

President: Mark S. Rice, PE

## **Facilities/Equipment**

Maritime Applied Physics Corporation's has a 37,000 square foot facility in Baltimore, Maryland. The facility includes engineering facilities, a modern machine / fabrication shop, an electronics shop, and specialized equipment for prototype system development. The company also has small field offices in Maine and Virginia.

MAPC uses a full line of engineering, analysis, and animation software including MultiSurf, Pro/E, SolidWorks, AutoCad, 3D Studio MAX, MATLAB/SIMULINK, and C++. Hydrostatics modeling is performed with General Hydrostatics Software (GHS) and the Ship Hull Characteristics Program (PC-SHCP). Seakeeping and dynamic stability predictions are performed using in-house models. MAPC uses ALGOR, Proteus, and NASTRAN finite element modeling and has a variety of software development packages to meet other specific engineering analysis, work processing, program tracking and cost tracking functions. All MAPC facilities meet existing environmental laws and comply with DOD requirements. MAPC undergoes an annual audit by the Defense Contract Audit Agency.

## **Quality Assurance Program**

MAPC embeds quality assurance within a traditional engineering services structure . Engineering projects are assigned to a senior level engineer who serves as an internal technology coordinator and mentor and as the external conduit between the company and sponsor. Programs are monitored at a tactical level in real time and also at a strategic level through a monthly senior management review that specifically addresses critical metrics such as schedule milestones, technology maturation, finance and manpower. Typically, QA for the engineering effort is implemented by taking the following actions:

- Developing a Quality Management Program Plan for the contract;
- Establishing and monitoring metrics for project objectives;
- Establishing quality management processes that include monitoring and assessing performance;
- Coordinating with the government stakeholders to establish quality objectives by deciding the scope and frequency of quality assessments and reporting policies;
- Coordinating with other contractors regarding quality management; and
- Conducting periodic and Quality Management Reviews.

If the development of hardware is a deliverable under the program, then the engineering QA effort is expanded to envelop an ISO equivalent production QA program developed in response to US Navy ship systems requirements. This specifically dictates adherence to the policies, procedures and requirements of the ISO 9001-2000 standard. This process includes inclusion of applicable systems references, definitions, documentation requirements, management responsibility, resource management product realization and measurement analysis and improvement. Graphically, this process is illustrated by the following diagram:

# Manufacturing Process flow

