

Alidade MER, Inc.

Company Background & Philosophy



Alidade MER, Inc.
460 Tortoise View Cir
Satellite Beach, FL 32937

(321) 773-3356 office
(321) 961-4306 mobile

info@alidade-mer.com

www.alidade-mer.com



Contents

Alidade MER’s Company Background	3
Our Company	3
Our Founder	4
Our Culture	5
Business Model	5
Alidade MER’s Strategic View of Organizational Performance.....	7
Strategic Model.....	7
Maximizing Efficiency.....	8
Organizational Reliability Model.....	9
Control & Stability.....	9
Proactive Reliability.....	10
Standardized Process for Delivering Change	11
Assessment	11
Action Planning Workshop.....	11
Implementation	11
Sustainment	12
Engaging with Alidade MER	12



The name “Alidade” was selected based on our founder’s nautical history and the symbolic nature of the device.

An alidade is a precision instrument used in land surveying and shipboard navigation for determining current position and for setting out on a course of action.

Alidade MER’s Company Background

Our Company

The company was formed in August of 2004 as a Florida Sub-Chapter S corporation with the company name *Alidade Maintenance Engineering and Reliability, Inc.* (dba: Alidade MER). The company is a veteran owned small business (VOSB); we are in the federal governments Central Contractor’s Register:

- Dun & Bradstreet: 16-457-3425
- EIN: 20-1495579
- CAGE: 30YH6
- NAICS: 542330, 541611, 541618, 541990, 611430

Alidade MER provides insight, advice and support to organizations that manage physical assets and lead people. Our services include consulting in maintenance management, reliability engineering and leadership & management through facilitation, training and coaching services.

Our company has less than 10 full time employees and a network of term employees and independent subcontractors, collectively known as the Alidade Professional Associates. There are more than twenty Alidade Professional Associates that are routinely deployed on Alidade MER projects.

We have been working in the maintenance engineering and reliability field since the company was formed in 2004. We have offered services across the spectrum of facilities, utilities, manufacturing, mining and various industrial clients.

The principles and techniques of maintenance engineering and reliability concepts are the same across any sector; such as higher education, hospitals, aerospace, chemical manufacturing, refining, mining and government facilities. The functional application of the principles and techniques to each of these sectors requires adaptation, while not yielding core concepts.

Our Founder

Tom Moriarty, PE, CMRP, is a former Coast Guardsman having served as an enlisted Machinery Technician for nine years, then earning a commission through Officer Candidate School and completing a career as a naval engineer, responsible for facilities and vessel maintenance and reliability. Throughout Tom’s Coast Guard career the culture he was immersed in, and embraced, was one of exceptional regard for people and teamwork, and a work environment that demanded professionalism, preparation, anticipation and dedication.

During his final year of service Tom was selected as the U.S. Coast Guard’s Federal Engineer of the Year, an award sponsored by the National Society of Professional Engineers (NSPE). This was recognition for a three year program that drastically increased planned work. The program effectiveness was measured by a 31% improvement in labor utilization in the first year. This led to re-programming of internal resources to create and sustain a condition-based maintenance program, including implementation of predictive test and inspection technologies, that

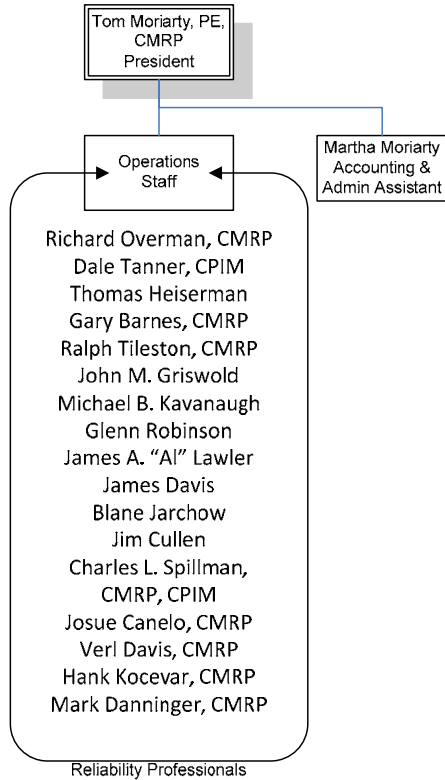


Figure 1 Alidade Organizational Chart

drastically improved availability for operations while lowering costs.

Tom has presented papers at the Society of Maintenance and Reliability Professionals Annual Conference for seven consecutive years, and has also presented multiple times at the International Maintenance Conference, the Reliability Centered Maintenance Conference and he writes a monthly feature article in Plant Services Magazine on leadership and management. In addition, Tom is a board member of the Association of Maintenance Professionals, the

Pfizer Research & Development	Pfizer Aseptic Drug Manufacturing	Northrop Grumman Ship Systems
Gulfstream Aerospace	Rio Tinto Energy America	Pactiv, Prairie Packaging Div
Arkema Chemicals	City of Chattanooga, TN	U.S. Coast Guard
Tesoro Refining	Alcoa	MillerCoors Brewing
CPS Energy	University of Michigan	URS, EG&G Government Services Div

Table 1 Alidade Team Member’s Past and Current Customers

Propeller Club of Port Canaveral (membership director), and a past Chair of the American Society of Mechanical Engineers, Canaveral Section.

Our Culture

Alidade MER's culture is rooted in the Coast Guard core values of honor, respect and devotion to duty.

The definition of honor is "strong moral character, and adherence to ethical principles. Alidade MER's approach to maintaining honor is to always perform in ways that avoid any appearance of an impropriety. We attract outstanding people and put them in the best position to succeed. With our clients, and with our Alidade MER Professional Associates, we work to establish and increase trust.

We respect our clients by providing the correct level of professional services, by responsibly managing project expenses and by recognizing that our success comes from satisfying our client's staff and employees.

Devotion to duty for Alidade MER means that we expect our team members to constantly deliver high quality services; using experience, knowledge and skills to customize their services to best serve our customers. We expect them to add to their knowledge and skills. We further expect them to educate and train others in maintenance, engineering and reliability best practices. Our team members publish articles, deliver training workshops and contribute to the maintenance, engineering and reliability community's body of knowledge.

The most important aspects of a consulting team are not the logo on their business cards or the corporate history of who they currently work for. The most important aspects are the knowledge, skills and capabilities of the individual team members who make up the team, and their individual history of delivering results.

Business Model

Alidade MER was founded after Tom worked for other consulting firms where deficiencies were noted in the level of respect for clients and in the deficiency of teamwork among consultants and management within the consulting firm. As a customer for consulting services during past career positions Tom knew there was a better way.

Many maintenance and reliability consulting firms have substantial office spaces and significant full-time administrative and operational support staffs. As such, they are in a constant need of maximizing consultant utilization rates to cover costs. It's a good business practice to maximize revenues through utilization rates; however problems arise from doing so to excess.

In an effort to maintain or increase margins many consulting firms elevate rates, over-staff projects and keep their consultants on the road over 90% of the time. Higher rates aren't a guarantee of better quality. Over-staffing projects drives up cost to the client while not necessarily improving project results. Consultants can perform for a period of time at high deployment rates, but eventually home life

and morale will deteriorate and enthusiasm wanes resulting in burn-out and high consultant turnover. Each of these issues represents disrespect for clients because the consulting firm is essentially viewing their clients as cash cows to be milked.

Some consulting firms tout the fact that their consultants are all full time employees of their firm. The question that should be asked of these firms is not if the employees are full time, but what period of time have they been with the firm. These firms believe there is a benefit to their clients because their consultants have learned and applied the consulting firm's flagship service delivery model. That's true, if the turnover is not excessive and if the flagship service delivery model fits all the clients they serve – highly unlikely. It is very common to see the same consultant at multiple firms within any five year period. The skills of a talented reliability professional are highly portable.

The most important aspects of a consulting team are not the logo on their business cards or the corporate history of who they currently work for. The most important aspects are the knowledge, skills and capabilities of the individual team members who make up the team, and their individual history of delivering results. A consulting firm with a thirty year history is not likely to have delivered all the projects in their project portfolio with the same consultant team members being proposed for any new project.

Selecting a team to provide expert guidance, a steady hand and compatible support to your staff and workforce should be based on the individual persons who will be interacting with your staff and workforce.

Alidade MER has developed a business model where a network of highly experienced maintenance and reliability professionals are organized to deliver the best services in a customized fashion to individual customer requirements. Our professional associates have held positions as tradesmen, supervisors, maintenance managers, reliability engineers, business unit directors and executives.

We assemble the team that fits with the type of services being requested in terms of the team member's work history, credentials, education and specific client requirements.

Alidade Professional Associates commit to developing the proposal as a team and to deliver the services, if we are selected, as the winning team. Over the past several years we have delivered strategic projects (assessment, change management, implementation and sustainment) and discrete projects (system analysis, FMECA, RCM or RCA workshops, reliability studies, etc.).

In December, 2009 Alidade MER submitted a proposal to the Government Services Administration (GSA) for a Professional Engineering Services contract. Contract award is pending; however as part of the proposal submission process we were required to be independently evaluated through the Dun & Bradstreet Open Ratings past performance evaluation service. ***Open Ratings management contacted Alidade MER to inform us that we were in the top quintile; receiving a score of 96 out of 100 possible points. Notable in their letter was that Alidade MER was among the highest scoring consulting firms ever evaluated by Open Ratings.***

Alidade MER's Strategic View of Organizational Performance

Whether an organization is a for-profit or a not-for-profit it has two elements that determine how well they are performing. For-profit organization success is determined by revenues and costs; the difference between the two determines the profit margin. Not-for-profit organization success is determined by quality of how well they perform their responsibilities and costs.

Each organization has objectives within its industry or sector, but they also have their own goals and objectives that are specific to their business model.

Strategic Model

When considering an organization and its potential to perform at the optimal level there are some basic concepts to reflect on. There is always an environment within which the organization is operating. The environment bounds how well the organization can possibly perform.

Within the possible performance boundary, how much of the potential that they achieve is a function of the tools that are available to the organization and how they are applied. Alidade MER refers to these two sub-elements as resources and execution. Resources are the hardware, human resources, support services, and other assets that are used to convert funding and raw materials into results. Resources have to be sufficient for the possibility to achieve optimal results. Execution refers to how the available assets are managed towards achieving optimal results; this is the way in which the organization executes its plan with the resources it has.

If either the resources or the execution are less than optimal, a gap develops between the actual performance and optimal performance. Targeted assessments and measurements are used to identify

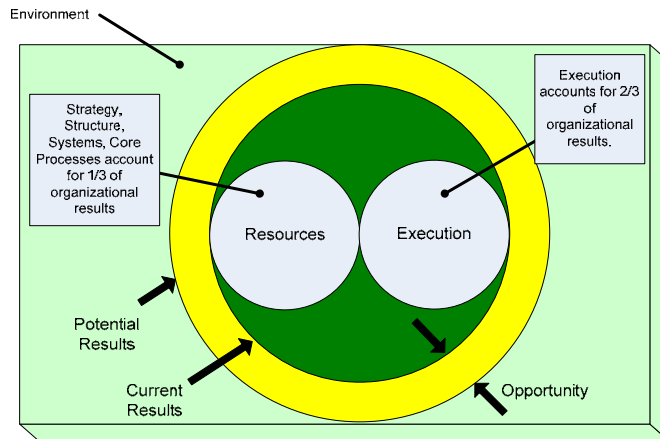


Figure 2 Strategic Model

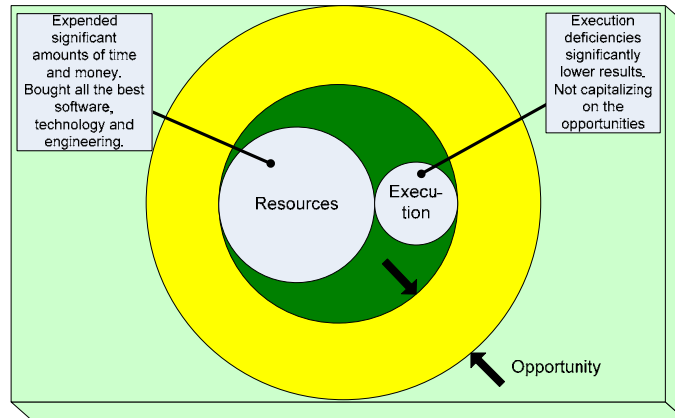


Figure 3 Strategic Model Weak Execution Example

the issues that cause sub-optimal performance. By identifying these areas we can then take action to close the gaps to improve performance. Figures 2 and 3 show these concepts graphically.

In Alidade MER's experience, most organizations have adequate resources; they mostly need to efficiently perform. More often than not, the difficulties come in the execution side.

A well designed and conducted assessment will surface specific areas where resources or execution gaps exist. In addition the assessment should provide a prioritization of which gaps are to be closed in which order.

Maximizing Efficiency

When it has been determined that an organization needs to improve performance the organization can move along one of two general paths. One school of thought is to add resources to push the organization to higher performance levels; i.e. buying "things" like new software or mobile technology to improve data collection.

The second school of thought is to hold the resource level constant and improve in the execution side. From a business perspective, before a savvy executive would ask for additional resources he/she would first want to get the most from the resources already available. This is because improving performance with a constant set of resources is a strong indicator of leadership and management excellence.

Refer to Figure 4 below. If an organization is determined to reach higher levels of performance the solid line allows the organization demonstrate leadership and management excellence while the dotted line indicates a management team that is inefficient, and depends on additional resources instead of improving leadership and management performance.

The journey along the solid line that passes from the lower left quadrant to the lower right quadrant is the path that indicates higher leadership and management acumen. In fact, this lower left quadrant to lower right quadrant transition is where the highest returns for invested effort are found. For example, if a work management program is initiated whereby increased attention is given to planning and scheduling work, we can drive major improvements with comparatively modest investments of time and funding.

As the organizations transitions from the lower left quadrant to the upper right quadrant higher levels of investment for lower returns on effort are achieved. For instances, if the maintenance and engineering functions are performing at high levels, the excessive use of predictive testing and

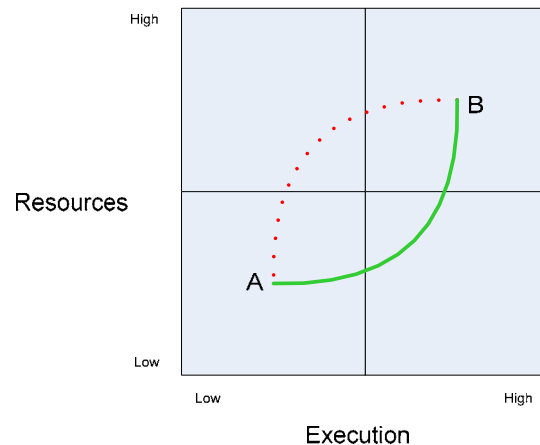


Figure 4 Reaching Higher Performance Levels

inspections may drive up costs with little practical benefit. Most organizations never reach their full potential in this area.

Organizational Reliability Model¹

Earlier we mentioned the importance of a well devised assessment protocol to identify specific gaps in resources and execution activities. Alidade MER has developed the Organizational Reliability Model on which our assessment tool is based. The Organizational Reliability Model provides a means to relate routine activities to continuous improvement activities.

Within the Organizational Reliability Model routine or day to day activities are defined within the Control & Stability Realm and continuous improvement activities are defined within the Proactive Reliability Realm.

Figure 5 is a representation of the Organizational Reliability Model.

Control & Stability

The major elements within the Control & Stability Realm are Foundation, Process and Focus & Execution. Each of these elements is broken down in to twelve to twenty sub-elements which have detailed parameters which can be assessed and scored.

Foundation sub-elements refer to the basic structure, resources and assets needed for the organization to perform its assigned tasking. The sub-elements that make up this area include an organizational strategic plan, business plan, policies, organizational structure, proper staffing levels, operating budget, sufficient facilities, tools and software, etc.

Process sub-elements refer to the processes people need in order to know what needs to be done, and how to determine if those tasks are being done properly. The sub-elements that make up this area include things like work request development, planning and scheduling of work orders, work permit attainment, inventory

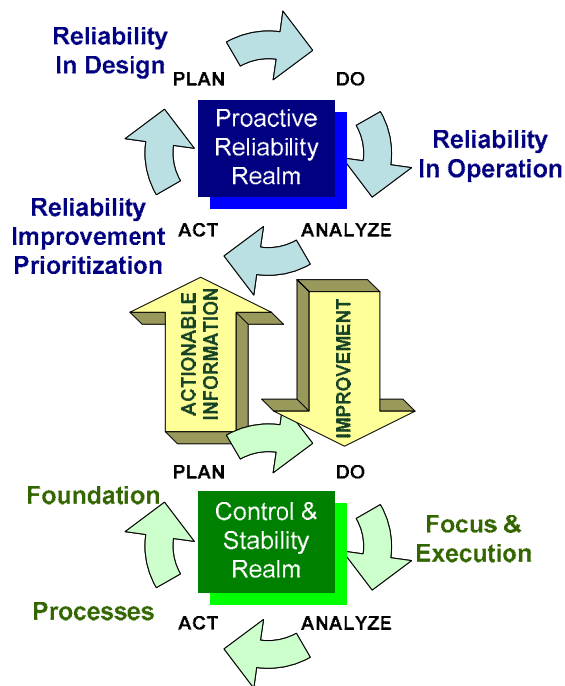


Figure 5 Alidade's Organizational Reliability Model

¹ Organizational Reliability Model – the model and the assessment process associated with the model are copyrighted materials owned by Alidade.

management, parts issuing, etc.

Focus & Execution sub-elements refer to the leadership and management aspects of running the organization. The sub-elements that make up this area include items such as climate and job satisfaction surveys, supervisor leadership training, setting team goals, conflict resolution, giving and receiving performance feedback, performance evaluations, process discipline and related measures.

Alidade MER's assessment and performance sustainment is predicated on first building up Control & Stability performance before leveraging more complex techniques in the Proactive Reliability Realm. Attaining control & stability is the path described above in moving from the lower left quadrant of Figure 4 to the lower right quadrant. We don't expect perfection in Control & Stability because there is a constant need to lead and manage day to day activities. Without attention, all process performance will decay over time. We need a strong culture of control and stability to establish and sustain performance.

We strive to reach and sustain Control & Stability performance above the 85% level. It is important to reach and sustain the 85% level because doing so provides consistency in how the organization performs. Consistent performance will enable the organization to collect data in a repeatable manner. Consistent data can be analyzed. Analyzing data is the primary path to continuous improvement.

Proactive Reliability

As the Control & Stability Realm generates data there is an opportunity to convert the data into actionable information. This is done in the Proactive Reliability Realm.

A basic principle presumed here is that no one should be blamed or penalized for performance that he cannot govern.

W. Edwards Deming

The major elements in the Proactive Reliability Realm are Reliability Improvement Prioritization (RIP), Reliability in Design (RID), and Reliability in Operation (RIO). As with Control & Stability Realm elements there are twelve to twenty sub-elements under each of these three elements.

RIP includes the tools and techniques used to organize data into actionable information. The sub-elements that make up RIP include tools such as Pareto Analysis, Criticality Analysis, Risk Prioritization, some LEAN and Six Sigma Tools, and Life-Cycle Cost Analysis. RIP gives us the means to organize and select targets for continuous improvement activities.

RID includes the tools and techniques used to take the improvement opportunities from the RIP process and actually study the issues, develop the best alternatives for solutions and to define what those solutions are. The sub-elements that make us RID include tools such as Reliability Centered Maintenance (RCM), Root Cause Analysis (RCA), Failure Modes and Effects Analysis (FMEA), Weibull Analysis, statistical methods, Failed Parts Analysis, Ishikawa Diagrams, Logic Tree Analysis and other LEAN tools. These tools and techniques allow the organization to use engineered approaches to solve the key problems. Some of these tools may be used to initially establish a planned maintenance program as the organization is beginning to establish control & stability.

RIO includes the programmatic standards and performance expectations for issues related to how the solutions will be fed back into the Control & Stability Realm. The sub-elements under this category include service level agreements within and among sub-organizations, technical library of standards for how predictive maintenance technologies are to be trained and deployed, measures of effectiveness library, lubrication audit and specifications and subject matter expert information. This forms the standardized approaches to how new requirements will be deployed and a set of references so that managers, supervisors and the workforce can have an anchor upon which they can depend.

Standardized Process for Delivering Change

In a standard engagement Alidade MER is often called upon to conduct an assessment of maintenance and reliability organization. The question becomes, how does an organization convert the assessment recommendations into action? Alidade MER's process for delivering change is systematic:

Assessment

- Comprehensive; covers Control & Stability and Proactive Reliability
- Six major elements, several sub-elements per major element, approximately 15 scored items per sub-element; resulting in over 600 individually scored items
- Assessment report identifies performance gaps that are prioritized

Action Planning Workshop

- Senior leadership change management workshop to ensure senior leadership understands their role in change management project
- Assessment gaps are reviewed/prioritized; generally speaking Control & Stability improvements are recommended before Proactive Reliability
- Identify resources and scheduling pace of the gap closure opportunities; this ensures the organization optimizes progress; what the client needs at a pace they can accept
- Project team members are selected and project team charters are developed

Implementation

- Senior leadership team provides overt support of project teams
- Project teams are provided with Project Team Skills Training based on LEAN concepts (flow charting, RASI, Process Guide, training development, scheduling training, roll out, performance measures, etc.)
- Project teams are provided with Subject Matter Expert Training (SME)
- Project teams apply their training and develop projects to close the gaps, with coaching
- Behavior and Process measures are put in place, Alidade MER coaches while the project team drives the change



Sustainment

- Measures provide the means for supervisors and managers to be cognizant of performance
- Alidade MER coaching helps supervisors and managers address performance gaps

Regardless of whether the facility's purpose is higher education, manufacturing, office buildings or utilities the Organizational Reliability Model is an excellent foundation for visualizing areas of importance, prioritizing actions to close gaps and monitoring sustainment.

Engaging with Alidade MER

The typical engagement process is to contact Alidade MER and to set up an initial discussion. The Alidade MER person you speak with will be on a mission to listen intently to your situation; what you need to accomplish, how you'd like to accomplish it, and how you will determine that the project was a success.

Alidade MER then develops a draft scope of work, or if the prospective client has a scope of work Alidade MER will develop a proposal based on the scope. We work with our prospective clients to ensure the services we are proposing meet the client's requirements.

Pricing is based on a standard rate schedule that aligns with the types of professionals, consultants and technicians required for the job.

The entire process is designed to be interactive and collaborative in order to get started from a basis of open communication and trust between the client and Alidade MER staff and associates.

Our people are passionate about maintenance and reliability and we derive great job satisfaction from being a part of our client's success. We look forward to working with you.