BUILDING BRIDGES OF FRIENDSHIP THROUGH TRAINING
It has been a matter of pride to lead ‘Team Dahra’ in its journey to achieve excellence on multiple fronts. Dahra Global has consistently set new benchmarks in its verticals viz. Training & Simulation, Equipment & Maintenance and Systems & Solutions as it strives to meet the growing requirements of customers in Qatar.

Our aim is to surpass expectations of our esteemed clients and be the market leader in the products and services that we provide to them. The strict compliance to quality and industry standards like ISO has been our focus area. Going forward, we shall continue to maintain the same tempo in achieving the desired standards in all our endeavour.

Khamis Al Ajmi
CEO
As we bring this edition of our magazine to you, half the year has passed us by. An eventful six months full of activities, it has added a few milestones in our journey to provide world class training to our esteemed clients.

On the ‘Equipment & Maintenance’ front, the Company has consolidated on repair and maintenance efforts, in addition to providing product support to existing clients. Our outlook for our clients includes effective maintenance management systems apart from long term preservation of equipment and systems.

We launched a new website (www.dahraglobal.com) in the month of January. This is a more comprehensive website which better captures the information and work being undertaken by the Company.

On the office front, we have grown by almost 50 percent in employee strength in the past six months with 26 employees joining us across the departments. To cater for the increased strength and expansion, we are shifting to our new building in Aug 19.

Cdr Purnendu Tiwary (Retd)
Managing Director
NAVAL TRAINING FOR THE FUTURE
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Professional training is one of the most niche and challenging aspects of a country’s Navy. One can buy the most advanced and sophisticated platforms and weapons available in the world today. However, as the saying goes, it is not the machine itself, but the man behind the machine that matters the most.

Competency building of a force is one of the main reasons for training. That being said, the one aspect of training that this article aims to highlight is that naval training can go much beyond the realm of competency building. If the training has an international element in terms of trainees or trainers, it has the potential to transform relationships between the countries. Lasting security partnerships can be forged on the basis of training interactions between the nations with similar security and geo-political interests.

International Precedence
The United States invites foreign military personnel to participate in courses under the International Military Education & Training (IMET) program. While the Department of Defence conducts the actual training and education, the Department of State oversees the program, which is an important diplomatic tool for fostering international partnerships and building people-to-people contacts with future military leaders that participate in the IMET program.

The IMET program has trained thousands of foreign military personnel at military training institutions and bases across the United States in a multitude of specialties, including medical training, disaster assistance and peacekeeping operations.

In the same manner, countries like Russia, China, Japan, France, India and a multiple of other countries have international military training programs built into their overall training curriculum. Some of the countries like the UK, France and India start this right at the cadet stage, wherein cadets from friendly countries are invited to train in their respective military and naval academies.

Training Standards
A qualitative improvement in training standards is an immediate spin off by having participants from different countries. The level of class participation and discussions change in their dimension as the trainees bring in the best practices they have experienced in their respective countries.

Simulator Training
One of the important aspects of training is Simulator Training for providing a realistic scenario. Trainees from different countries have an immense potential to learn from each other while exercising and war gaming different naval scenarios in these simulators. These exercises have a direct bearing in upscaling the training standards.
Strategic Strengths
Most countries today face a number of similar security dilemmas, from Piracy, Maritime Terrorism, Violent Insurgencies to Narcotics Trafficking. Shared knowledge and understanding between partner countries can make confronting these problems much easier.

Joint training with countries which share the same values facilitates the development of important professional and personal relationships between the participating officers. These officers are future defence leaders who often play a pivotal role in a country’s transition to strength and prosperity. It also helps develop a common understanding of shared international challenges and fosters the relationships necessary to meet shared security challenges today and for many years to come.

Cultural Aspects
In a setup with diversified cultural backgrounds, the trainees also learn from other cultures and develop mutual respect for each other’s cultures. This helps in fostering deep camaraderie and friendship.

Conclusion
Naval training involving friendly navies has the potential to become an important diplomatic and strategic tool for a country. It leads to better training and warfighting standards and can help forge deeper relationship with partner countries. Qatar Emiri Navy Forces has taken a step in the right direction by introducing this aspect to their training programs as it has the potential to pay rich dividends in times to come.

About the Author
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In the comprehensive maritime training management concept, shore-based training is the first enabling factor that looks at providing the basic knowledge towards cementing the foundation. This ‘knowledge building’ process is then taken further through a period of ‘sea training’ where the consolidation, correlation and application of theoretical knowledge is achieved. This is a phase that has been variably termed as ‘On Job Training’ (OJT). This would complete the process of various training that may be undertaken to prepare personnel for higher roles in a professional navy.

With ‘revolution’ in shore-based training through advancements in audio-visual content, and significantly - simulator based training, the relevance of OJT has been kind of ‘diluted’ and, in some places, undermined as well. There are a number of attributes of simulator-based training that make it particularly effective in training certain skills. These attributes include the ability to:

- Conduct process-oriented training
- Simulate adverse operating conditions safely
- Play back and repeat scenarios, and
- Permit and use mistakes/accidents for teaching

Because of competing demands on availability of ships and also the ‘pressing requirements’ of manpower, training activities such as emergency procedures, manoeuvring in company, ship handling and bridge team and bridge resource management are sometimes given cursory treatment, at best, aboard many ships. Simulator-based training could be superior to ‘on-the-job’ training in these areas.

Does simulator-based training replicate and equals on-the-job experience in terms of the development and reinforcement of the knowledge, skills and abilities needed to perform effectively? No doubt, the Simulators today ‘nearly’ replace the live scenario, but in no stretch of imagination can it ever fully replace the ‘feel’ of the onboard training.

Whilst the complexity, and hence the capability, of the simulators will continue to improve with time, it will always need a professionally trained and amply experienced instructor to design, execute, conduct and debrief exercises that will bring the value to the training. The avoidable indulgence of ‘playing around with the features’ need to be obviated to ensure optimal and realistic practical training is imparted. Another pitfall would be ‘overdoing’ the simulator training phase which could slowly result in passivity and casualness - brought in through trainee’s learned familiarity to system. The artificiality of the simulated environment cannot be wished away and needs to be factored in by the trainer and the system. This is true for both ‘Generic’ as also the ‘Type’ simulators.

It is important in the understanding of the responsibilities of a trainee undergoing a training course, that all desired tasks are understood by him during the curriculum. Whilst simulators-based training can help in addressing a number of these, it is not suitable for training every job skill needed on board a ship.

Thus, conducting professional training and ensuring effective transfer of knowledge goes beyond just providing the credible training
In acquiring requisite skills at sea, on-board experience has traditionally been required as a practical necessity for application of shore-based learning facilitated through theoretical and practical training. Even the International Standards for Training, Certification and Watchkeeping (STCW) guidelines has standardized the sea-service requirements for merchant naval deck officer. It requires a minimum period of service in the deck department with prerequisite service in bridge Watchkeeping duties, before a prospective deck officer can be certified as officer in charge of a navigational watch. The minimum period of on-board time, commonly referred to as ‘sea time’, is considered essential to ensure that personnel are exposed to actual operating conditions, over an adequate period of time, to prepare them for positions of increasing shipboard responsibility. The random, sometimes high-stress situations that can develop at sea are important for developing confidence, command presence, and interpersonal skills for learning about the ship’s, as well her system’s, peculiarity.

The structuring of sea training, post a professional course, needs to be carefully and meticulously conducted so as to ensure the completion of the training flow in its entirety. Inability to complete this loop will result in degradation of knowledge gained during the shore training phases. So what would ensure a comprehensive sea training phase? Broadly to begin with, it needs to be ingrained and accepted that ‘sea training’ is part of the process of Training Cycle. This could be executed in two distinct manner – firstly through short sea sorties during the shore based theoretical training phase and secondly on completion of shore training where the officers are deputed for a ‘defined period’ of training.

Short sea sorties during the shore-based training are critical and valuable in immediately providing the grounding of the concepts being taught providing an immediate reinforcement. This also ‘triggers’ the minds of trainees who then continue to engage better in the following sessions back in the classroom.

Planned sea training or OJT, post completion of the shore-based training, provides the opportunity and space for a trainee to experience the actuals in the desired environment. This training needs to be well planned out and executed in a time bound manner, providing enough opportunity for experiencing the activities. Under a mentor or a guide in the form of ‘Training Officer’, the whole process of OJT needs to be executed. During this period, it is essential not to task the officers with shipborne duties so that they have space and time to engage in learning. In addition, this period also allows the ship to provide meaningful and actionable feedback on the training curriculum being followed, thereby, making the training cycle more responsive and relevant to requirement of the sea going units.

This complete cycle of training now prepares an officer adequately to undertake assigned role which he has been trained for effectively at sea. Going forward, he is expected to build up skills and experience in the multiple assigned roles at sea. This can then logically prepare the officer for further training for specialised roles.

**Important Takeaways**
- Modern Simulators, despite complexity and realism, cannot replace the feel at sea.
- In the comprehensive training flow, sea training is an inescapable element.
- Sea Training needs to be systematically factored into the training cycle.

**About the Author**

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WAT IS COMPUTER-BASED TRAINING?

Computer-based training (CBT) is any course of instruction whose primary means of delivery is a computer. CBT is an interactive instructor-less educational process. A CBT course may be delivered via a software product installed on a single computer, through an educational intranet or over the Internet as Web-based training. Practically, learners interact with various types of learning material via computer. The basic steps that can be achieved by the training process are:-

- Delivering small chunks of information in a step-by-step manner.
- Prompting learners to respond to a lesson periodically, e.g. by taking brief tests.
- Providing learners with feedback on their responses or overall progress.
- Allowing learners to take courses at their own pace.
- Setting learning prerequisites for moving on to the next lesson.
CBT - Positives

CBT has many positive features and effects, many of which are particularly important.

- **CBT is cost effective**
  Initial costs of setting up a computer-based training centre can be expensive, particularly if you choose to create a customized system. Aside from those initial setup costs, computer-based training can provide your organisation with a 24-hour trainer that has virtually unlimited simultaneous student capacity. Combined, the overall training costs and training time needed per student can be significantly lowered.

- **CBT works with an adult population**
  The trainee feels in control. The computer is non-judgmental and non-threatening. It provides a privacy factor that reduces learners’ embarrassment about taking the ‘remedial’ classes or making mistakes while answering questions in the training materials.

- **CBT is self-paced, flexible, and individualized**
  Trainees work at their own pace. CBT can sequence training to match the trainee’s needs. CBT can reach trainees outside the traditional classroom, providing instruction on the job or at home. CBT provides immediate feedback to trainees on their progress.

- **CBT is tireless**
  CBT never needs a break. It is always there. It can train greater numbers of students in a given time frame compared to other methods. It meets the need for round-the-clock training.

- **CBT gives trainers increased control over training activities**
  CBT provides training management systems for tracking trainees’ progress and location. It provides consistency of training in terms of quality and information presented.

- **CBT can reduce resource requirements**
  You can have a higher trainee-to-trainer ratio, where the instructor serves as facilitator, assisting trainees as needed. There is less need for a centralized training facility.

- **CBT can improve job performance**
  CBT trains people in specific skills for specific performance. It provides increased access to information tools for decision making.

- **CBT can be a change agent**
  CBT may be the catalyst for a paradigm shift to new training approaches within an organisation. Organisations might begin to look beyond traditional classroom instruction to meet their training needs.

- **CBT is standardized and consistent**
  In traditional training programs, the same courses are often delivered differently to various learners as instructors can be inconsistent or simply change regularly. Computer-based learning programs deliver courses in the exact same manner. The courses consist of the same content, complete with the same preliminary tests, self-check questions, and post-lesson quizzes. As a result, all students interact with the same learning material and progress simultaneously, even if they have to go back and retake a course.

**Computer Based Training Techniques**

CBT does not solely rely on a unique method or technique, but rather uses a combination of the undermentioned approaches. These techniques are more often fused together in
order to provide the best possible learning experience for the users.

- **Tutorial**
The purpose of the tutorial is to introduce new concepts and information in a sequential form. The students benefit from using tutorials since it helps them easily assimilate rules, understand simple discrimination and factual information.

- **Simulation**
Probably one of the biggest advantages of Computer Based Training is the simulation technique. This is extremely valuable and frequently employed, when practicing a newly acquired skill could be either dangerous or costly. Simulation enables students to test their skill, experiment with their techniques and further learn through trial and error. By using relevant and realistic examples, simulations manage to better prepare students for real life events, completely removing the risk of damaging equipment or endangering expensive machinery.

- **Problem solving**
Computer Based Training stresses logical thinking, which is why problem solving plays a big part in the instruction process. This technique aims to enable students to practice and develop their skills of following instructions and solving issues in a logical manner. The problem-solving method has the added benefit of promoting thinking skills, encouraging taking action to fix problems.

Computer Based Training represents an investment that can bring varied benefits to an organisation over the course of several years. However, an important aspect that should be taken into consideration is the release of new titles by the developer that will further help students and teachers alike.

**CBT Development at Dahra Global**
At Dahra Global, we have realised the potential of CBTs and the value that CBTs add to training & learning. We have set out to create CBTs on subjects of interest. Two CBTs titled below are ready for usage and distribution:
- Knots, Bends & Hitches
- Whipping, Seizing & Splicing

**About the Author**
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The point paper you sent out for Chop two months ago just came back. All twelve flags initialed it. Make some changes and send it around again. I gotta answer some emails.
"The battle of Waterloo was won on the playing fields of Eton". This quote recorded two centuries earlier, underlines the importance of training academies in the growth of military leadership from the young adolescents to the nation builders.

What does the naval academy contribute to? The mission of a typical Naval Academy is to develop morally, mentally and physically strong naval officers, who would imbibe the highest ideals of duty, honour and integrity towards the nation and selfless service to the people.

So, what goes on behind in building such institutions into cradles of future leadership? Some of the contributing factors are:

• Vision and commitment of the highest level of national leadership and governance
• A robust educational, disciplinary and physical curriculum to achieve the objectives
• Availability of experienced and committed teachers and trainers
• Deep selection of the trainees for their physical, educational, mental and emotional suitability for military life
• State of the art infrastructure

Curriculum

Knowledge
Take a look at the motto of the two well developed Naval Academies. The Indian Naval Academy motto “Be Immortal through Knowledge” and the US Naval Academy motto “Through Knowledge, Sea power” both emphasize knowledge. The underlying thrust on knowledge is evident. The passion to gain knowledge as well as the penchant towards inquisitiveness needs to be inculcated in the trainees as an essential trait for successful leadership.

Discipline
While discipline is inherent to military life, the Naval Academy should imbibe the strengths of self-discipline in its trainees. The self-discipline of mind, involving morals, ethics, behaviours and conduct, is what separates the leadership from the led. The roots of this self-discipline need to be anchored at the Naval Academy training.

Physical Strength
Physical strength is an essential attribute of a military man. However, it is not the physical strength alone, but the realisation of own physical abilities to sustain oneself in adversity, is what prepares the leaders of tomorrow for challenges. The Naval Academy must be able to appraise a trainee of his own physical capabilities to stretch, when situations would demand.

The curriculum of the Naval Academy, therefore, must be tailored to ensure that the trainees are trained to develop enquiring minds, imbibe self-discipline, gain physical strength and importantly, become aware of their potential.

Trainers and Teachers
A curriculum can be only as effectively implemented as experienced and committed the trainers would be. The trainers and teachers leave the most indelible impression on the trainees. It is here in the Naval Academies that the trainees would observe and decide whether the military conduct is a serious business or sham. The impressions from the academy benchmark the attitudes of many a trainee. There lies the difference between growth of average officers or committed future leadership. The trainers have to be professional and competent in their responsibilities. Additionally, they have to be involved and committed to the growth and development of young military leaders. The availability of this breed of trainers is a challenge that a visionary leadership would need to address.
Infrastructure
The design and structure of the training courses and the infrastructure required to support it must be aligned to ensure seamless conduct of training. A state of the art, modern and contemporary infrastructure instils a sense of pride and pursuit towards excellence in the trainees. This desire helps in developing ‘excellence’ as a habit in the trainees, which contributes to development of superior leadership skills.

Customs, Traditions and Culture
The emotional foundation of trainees developing modern knowledge and techniques, must be laid on the bedrock of strong customs and traditions of self-pride, selfless service, duty towards nation and personal sacrifices in the line of duty. Nothing would inspire the trainees more than the live examples of these. All opportunities must be utilised where such personalities are demonstrated to the trainees. It takes years to build such a culture and every opportunity should be grabbed towards such exposures to trainees.
Conclusion
The visionary leadership develops an idea and creates opportunities. Once the establishments like training academies are created, these require ingenuity and perspiration of trainers to synthesize into a cradle of leadership that would produce a brand to lead the Navy to excel in all its spheres, as well as towards national interests.

About the Author
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Oceans and seas of the world where seafarers venture out could be the most unforgiving place on earth. It is, therefore, not only essential but a necessity that seafarers must undergo sea survival training and equip themselves with the latest knowledge, skills and techniques of sea survival which will save their lives in emergency.

Sea Survival training is also a mandatory requirement as per the International Convention on Standards of Training, Certification and Watch-keeping for Seafarers (STCW) of the IMO. It is, therefore, all the more necessary for the naval forces personnel whose work involves risks and hazards of the seas to undergo this training.

Many a disaster have occurred and many lives have been lost in the harsh and hostile conditions at high seas. If the crew members had been properly trained, many of them could have been saved. Often crew members have to spend days in a life raft and unless they are trained properly, they will not survive.

In order to provide a realistic sea survival training, it is essential to provide an environment where the harsh conditions of the sea could be simulated. Dahra Global is undertaking a state of art project, where such conditions like sea waves, turbulence, thunderstorm, rain, lightening and strong winds would be artificially created and trainees would experience a realistic environment for training.

In order to provide participants with the knowledge, skills and confidence to be able to react and survive a sea survival situation, the training programme would consist of both classroom and practical sea survival training sessions in a survival pool.
The practical training will provide an opportunity to put theory into practice. The trainees would have to swim to the capsized life raft and get inside it under the simulated worst-case scenario, battling sea waves, strong winds, rain and thunderstorm. The complete training would be conducted under expert guidance of experienced trainers ensuring adherence to the highest safety standards.

All the simulated environmental conditions would be strictly controlled and monitored by trainers in order to provide a safe and exciting learning experience.
The waves would be created by a wave ball. Winds would be generated by high capacity blowers and artificial rains by strategically placed showers. Thunder-storm would be simulated by a combination of surround sound system and lighting effects. The aim is to make the training as realistic as possible and also enjoyable.

About the Author

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The timely completion of any maintenance activity like dry docking, major repairs of an equipment / ship is to a large extent dependent on the effective use of right project management tools as the refit is akin to a project. A project as defined by R L Martino is :-

“Any task which has a definable beginning and definable end and requires the expenditure of one or more resources in each of the separate but interrelated and interdependent activities which must be completed to achieve the objectives for which the task or project was instituted.”

One such project management tool which can be applied for effective maintenance schedule monitoring and execution is Critical Chain Project Management (CCPM), which is a systems approach to managing projects. CCPM has human and process improvement elements which enables it to improve the organisational efficiency in meeting their goals.
The various human elements involved in handling projects / refits are:-

**Time Estimation**
People that are experienced at making job estimates will typically make their estimate at a 90% success rate. It is important to understand that this is not done consciously, but sub-consciously. In other words, they are sub-consciously ensuring that they are on time the majority of the time.

**Student Syndrome**
People have a tendency to procrastinate and majority of the managers inadvertently follow this approach. For example, a worker is given 3 days to complete an assignment that takes 4 hours. Most workers will wait until the middle or late in the morning of the day that the project is due before they even start the task. Further, time estimates go wrong due to Parkinson's Law i.e. Work tends to expand until the actual project length fits that estimated project length.

**Multi-tasking**
The sudden projection of critical defects like urgent operational requirements, results in diversion of resources to these priority areas. Thus, resources or Shipyards efforts are diverted to ships/ jobs which are considered critical on a day to day basis. This results in critical resources being moved from one crisis to the next, often before each task presently being worked on is completed.

The various process elements involved in a major maintenance project are:-

**Resource Level Loading**
The PERT chart prepared by Project managers/ shipyards for monitoring of maintenance activity is rarely loaded. The problem occurs when a particular team is assigned multiple tasks simultaneously, the same team will be handling critical operational defects, urgent repairs one day and without completion of the above, would also work on the main maintenance project jobs. It is, therefore, essential that project managers/ Dedicated Maintenance Project monitoring teams ensure that the concerned shipyards utilise the resource level loading function of the Project Management software. Poor coordination and late task completion inevitably result in the overall project time and cost overruns.

**Project Prioritization Process**
Maintenance Project Management teams, as discussed in the human element, respond to subjective inputs as a mode for prioritising tasks. Most of the times decisions are taken to focus on a particular activity which is getting delayed without analysing whether the same is on critical path or not, has slack/ float available. This lack of a disciplined, objective process for prioritising work results in less critical tasks receiving resources first or the shifting of resources before a task is complete.

**Critical Chain Project Management (CCPM) at the Shipyard**
Majority of the human and process elements listed above would be existing in the Private Shipyards / Contractors undertaking repairs of Ships. The following CCPM based process improvements, which if implemented could greatly improve the Repair/ Maintenance schedules and overall Shipyard performance in terms of timely completion of assigned tasks:-

- **Scheduling Backwards**
  Project managers need to make a mental shift and determine the desired completion date of a repair / maintenance project. The project work sequencing network can then be built backward from this point.
• **Schedule Tasks as late as possible**
  This may sound illogical to most of the readers as the goal is always to complete work ahead of schedule. However, the advantage of scheduling tasks as late as possible has several benefits. First, it prevents the project manager from expending resources early in the repair project that will not contribute to early repair project completion. Second, it lowers costs by preventing the unnecessary early expenditure of resources. Third, as a repair work progresses, the project members gain experience and get more efficient. Therefore, scheduling as late as possible will lower costs and save time.

• **Task Estimating**
  The repair project package is broken down into tasks with lengths of 5 days or less. All tasks should be estimated with a 50% probability of completion (down from the normal 90%). This can be accomplished by simply cutting the time estimate in half and then giving the new estimate a subjective reality check. Changing from 90 to 50% probability of completion tasks does result in removal of excess built in time in project schedule or safety factor.

• **Identifying the Critical Chain**
  It is only after both task and resource relationships have been determined that the critical chain can be identified. The sequence of project plans below provides a simple demonstration of task relationships, resource level loading and identification of the critical chain in a project. Fig 1 illustrates when there is sufficient availability of resources and thus defines a Critical Path (CP) having activities A and C with total project time as 22 days.

However, during actual execution of repair / maintenance project activities, we realise that there is scarcity of resources and if two activities say A and B require the same exclusive resource, the total project duration becomes 32 days more than the one indicated in a critical path (As illustrated in Fig 2).

• **Critical Chain and Buffers**
  Thus, the longest path in a network is the one on which both time (precedence) & resource constraints are met. The time taken to complete the Project is the time taken to complete the Critical Chain (CC). Any delay in the Critical Chain delays the Project completion.
Summary
Although this article attempts to provide an overview of the benefits of CCPM in a repair / maintenance project management, however, it would require further detailed training on all aspects of CCPM. The benefits likely to accrue to QEN Ships/ Shipyards / Private Contractors with implementation of CCPM are as given below:-

• The Shipyard / Contractor can accomplish more work within a given period of time and thereby can obviate time and cost overruns.

• As CCPM would ensure timely completion of critical jobs/ maintenance schedules, it can result in higher number of operational platforms with lesser downtime for repairs.

• Higher morale of Shipyard management and workers as CCPM ensures work is performed in more organised and effective manner.

Implementing CCPM may not be a simple task because it requires significant changes to organisational culture in both processes and human behavioural areas. However, if the organisation operates in a project environment, CCPM is a commitment well worth making.

About the Author
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Introduction
Obsolescence is the loss or impending loss of original manufacturers (OEMs) of items, suppliers of components or raw materials. To tackle this technical menace in today’s scenario requires companies and organisations to be proactive.

Reacting to obsolescence, without a proper plan will result in increasing budgets.

In particular, most organizations are concerned primarily with electrical and electronic part obsolescence. The military community generally refers to this problem as: Diminishing Manufacturing Sources and Material Shortages (DMSMS).

Understanding the Problem
Why it is a distress call for Military organisations:

- Example Products include electrical as well as electronic avionics, military (army navy & Airforce), medical electronics, telecom infrastructure, large networks.

- Products are manufactured and have to be supported for long periods of time (20+ years).

- Products are often subject to stringent qualification, certification and configuration control requirements making even the most minor design change prohibitively expensive.

- DMSMS type obsolescence occurs because these products have no control over the supply chain for key components due to their low production volumes.

- DMSMS is involuntary obsolescence – products are forced to change to remain manufacturable and supportable even though the manufacturer and customer do not want to change.

Electrical and electronic systems and equipment onboard ships are meant to last for the life time; when it comes to the operation and controls; Obsolescence play a major role wrt components, diminished spares and non-compatibility with new versions, in down time of these systems. Further, it may will add manhours in technical as well as budget analysis, sustainability, repair and modifications.

Procurement Life Shrinkage
Procurement life is the length of time the part is available from its original manufacturer. This status quo is entirely different today when compared with the 90s and early 2000s. Recent data analysis revealed that the parts availability from the OEM for systems manufactured in 2016 may be available for next 3 to 5 years and its shrinking with speeding technology advancement. Matter to consider is that the System Life Cycles are also Increasing.

As reliability or maintainability decreases (and therefore also availability) due to obsolescence problems, it becomes necessary to purchase more spares or systems or to implement corrective actions. This often requires the involvement of more maintenance personnel enriched with years of experience in handling the vintage equipment to minimise the equipment’s down time, or more engineering personnel to implement engineering design modifications. This affects both acquisition and operating costs.
From the above, it is evident that equipment and component obsolescence problems are causing serious risks to the availability of systems and equipment during operations or product support phases. Pressure on Defence budgets across the world, as well as other market and political influences, impact to a large extent on the way that a product or system is supported. Typical problems experienced. The spare and repair support should be adequately managed to ensure combat-worthy platforms.

Ways to Resolve the Menace
The overall objective is to improve the operational availability of ships and systems and reduce future operating and support costs by minimizing the impact of spares obsolescence. Two approaches support this overall objective: -

• Proactive obsolescence management to avoid obsolescence risks.

• Case management of emergent obsolescence issues, to identify and select appropriate alternatives to address known obsolescence issues.

Approach & Activities - Managing the DMSMS Obsolescence Problem
Prepare: Establish a DMSMS management program infrastructure.
Identify: Monitor for DMSMS problems.
Assess: Determine DMSMS problem impact.
Analyse: Find the best resolution.
Implement: Implement the resolution.

Role of Dahra Global in Obsolescence Management
To address emergent issues associated with obsolescence of the ships, Dahra Global has proactively participated in ongoing projects and evolutions, and provided timely and effective resolutions as issues emerged. Dahra Global had provided research and analysis on vintage as well as failed equipment to identify the correct replacements for numerous obsolete equipment and components.

Statistics to Consider
Over 70% of the electronic parts are obsolete before the first system is installed!!
In the Electronic Industry, part obsolescence turnaround is so alarming that, 377,502 electronic parts went obsolete in 2013-14 alone!!

“If I knew I was going to live this long, I’d have taken better care of myself.”

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ISO enabled Training Enhancements

DAHRA GLOBAL TECHNOLOGIES & CONSULTANCY SERVICES WLL is a ISO 9001-2015 Quality Management System (QMS) certified company. The Naval Operations and Warfare Training Center (NWOTC) managed by Dahra Global, in addition, is ISO 29990–2010 ‘Learning Services for Non-Formal Education and Training’ certified.

ISO has long been accepted as a standard that helps an organisation benchmark itself to quality processes with continual improvement. The present standards among other specifics talk about ‘Opportunities for Improvement' (OFIs) with constant endeavour to improve upon the existing system/processes. The OFIs are areas that are identified periodically during the ISO audit and certification process, which ‘provides and pushes’ for organisation to pursue the same.

Two of the OFIs that have been identified and implemented include ‘Process for Induction of new Faculty’ and the ‘Conduct of Practical Training’.

Induction of New Faculty
Faculty are the most important cog in the entire training cycle which finally controls the effectiveness of a training system. The Faculty joining Dahra Global are identified and selected following a rigorous selection process. Additionally, in order to ensure that the Faculty smoothly settle in the training environment, the process to ensure an optimum induction process is followed, was identified as an OFI. The issue was deliberated and a time based process for induction was formulated and implemented wef 01 Apr 2019. The process principally includes the following:-

- Training incoming briefing by Senior Training Staff.
- Familiarisation with the Training Processes and Documentation.
- Visit to training facilities and acquaintance.
- Assignment and allotment of training role.
- Attending classes conducted by other Faculties in requisite stream who have been assessed as meeting the laid down requirement.
- Double banking with Faculty to acquaint with course specific activities.
- Conduct of demonstration classes to Senior Training Management for identifying suitability as also aligning to requirements by addressing shortcomings.
- Rendering of report of suitability of Faculty by Director Training & Simulation.
- Clearance by Management for undertaking instructions.

The above process is a time bound activity which is being planned to be completed with two weeks but could be extended depending on the progress of the process.

The process allows a deliberate attempt at ensuring that a new Faculty is put through steps that will ensure preparedness through processes that include familiarisation, acquaintance, alignment, evaluation, correction and validation.
With continued emphasis on quality management of its products, services and processes, Dahra Global scheduled an Internal Auditors Course for its employees. The two days Internal Auditors Course was conducted on 28 and 30 April 19 by Mr Ajay Gopal, Lead Auditor and Trainer from SGS Qatar (Société Générale de Surveillance). Twelve consultants and managers from various departments of Dahra Global attended the course. A larger base of ISO trained employees would ensure availability of qualified representatives in each department to develop the systems, processes, internal controls and risk assessment, aligned with the QMS.

The participants immensely gained an understanding of the requirements of ISO 9001-2015 and its implementation process. With this training, Dahra Global resolves its thrust to have a highly qualified and experienced Team, which can deliver the best in training and solutions.

All the participants were trained on the structure of ISO 9001-2015 QMS requirements and its application, auditing QMS, principles of auditing and the audit process. The lecture included explanations of audit objectives, audit scope and audit criteria, while four practical exercises were conducted to prepare audit plan, audit checklist, audit findings and preparing an audit report.

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*About the Author*

Cdr BK Verma (Retd) is Deputy Director (Training and Simulation) at Dahra Global. He is a specialist in Navigation and Direction and brings immense experience in implementing training methodologies.
The Managing Director of Dahra Global, Cdr Purnendu Tiwary (Retd) was awarded the Pravasi Bhartiya Samman by the President of India, Shri Ram Nath Kovind on 23 Jan 19. This award is the highest honour conferred by the Govt of India to Non-Resident Indians and Persons of Indian Origin. He is the first Indian Armed Forces veteran to be conferred with this award.

Cdr Purnendu Tiwary (Retd) served in the Indian Navy from 1982 to 2002, having done various Operations, Staff and Instructional tenures. He also commanded two ships, INS Kozhikode and INS Magar during his service in the Indian Navy.

As Managing Director of the company, Cdr Purnendu Tiwary (Retd) has been instrumental in setting up world class training infrastructure and conducting training for the Qatar Emiri Navy officers.
Qatar and the US signed an MoU on defence activities at the Al Udeid Air Base during the second Qatar-US Strategic Dialogue held in Doha in Jan 2019. The MoU will help promote interoperability, support regional stability and reaffirm the Qatar - US defence relationship.

Deputy Prime Minister and Minister of Foreign Affairs HE Sheikh Mohammed Bin Abdulrahman Al Thani and US Secretary of State HE Mike Pompeo co-chaired the event. The two countries agreed to deepen their strategic ties and expressed desire to develop cooperation to serve the common interests of the two sides.
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TAIS
Turkey’s TAIS group has won a contract to build 5 support ships for the Indian Navy. According to the contract, TAIS will manufacture the ships in a local shipyard, reportedly India’s state-owned Hindustan Shipyard Limited (HSL). TAIS will be responsible for the modernization of the local shipyard, the design of the ships, engineering services, planning and management of production, preparation of shipbuilding material specifications and main materials.

Anadolu Shipyard, the lead member of TAIS with more than 30 years of experience in shipbuilding, will offer support to HSL for designing and building the Fleet Support Ships.

Each ship will have a displacement capacity of 45,000 DWT (Dead Weight Tonnage). As part of the deal, the ‘know-how and know-why’ will be transferred to HSL.

The contract with the Indian Navy will be officially signed by Anadolu Shipyard (ADiK), a subsidiary of TAIS. The construction of the first vessel is scheduled to begin by the end of 2020, with the first vessel expected to be delivered to the Navy in 2024. The remaining four vessels will be completed in 10-month intervals.
The year 2019 has been announced as Qatar-India Year of Culture. The Year of Culture programme is now in its 8th edition worldwide and has continuously met with great success both in Qatar and partner countries such as Russia (2018), Germany (2017), China (2016), Turkey (2015), Brazil (2014), United Kingdom (2013) and Japan (2012).

The carefully curated programme for Qatar-India Year of Culture is specially designed to promote mutual understanding, recognition and appreciation between the sovereign nations of India and Qatar. This event is providing an opportunity to audiences in Qatar and India to explore their cultural similarities.

**Opening Ceremony**
Qatar Museums officially launched the Qatar-India 2019 Year of Culture with a stunning show 'Ticket to Bollywood' on 04 February 2019 at Katara Opera House. The opening performance was attended by Mr. Ahmad Al Namla, Acting CEO at Qatar Museums, HE Mr. P. Kumaran, the Indian Ambassador to Qatar, other ambassadors and VIP guests. The event started an exciting array of programmes comprising exhibitions, festivals, competitions and events in both countries.
**Qatar Philharmonic Orchestra**
A flautist, music composer Mr. Naveen Kumar with his team of artists performed on 08 February 2019 at Qatar National Convention Centre, Doha. He is the inventor of many unique wind instruments, the most renowned being The Naveen Flute, which combines the flute tone with the vibration of strings.

**AR Rahman - Concert**
Grammy and Oscar-winning musician, composer, singer-songwriter, music producer, musician, multi-instrumentalist and philanthropist, Mr. A.R. Rahman enthralled Qatar for the very first time on 22 March 2019 at Khalifa International Stadium.
Odissi Dance - Rina Jana Group
The famous Rina Jana Group performed Odissi dance performances, one of India’s classical dance style form from Odisha, a state in Eastern India. The event was organized by the Embassy of India, Doha on 21 March 2019 at Al Majlis Hall, Sheraton Hotel Doha.

Rhythmic Expressions
Kathak’ is one of the eight classical dance forms of India. “Rhythmic Expressions” - a Kathak dance performance by Rani Khanam & Group, was organized by the Embassy of India, Doha, in partnership with Katara Cultural Village and Qatar Museums at Katara Cultural Village Complex on 14 March 2019. The event was an amalgamation of several dance productions, paying tribute to the rich Indian cultural diversity and also contributing to the celebrations of the deep cultural relations between India and Qatar.

The Qatar - India Year of Culture 2019 will treat expatriates in Qatar to a wide-ranging portfolio of exhibitions, competitions and events – all designed to promote mutual understanding, recognition and appreciation between the two nations.

About the Author
Cdr Anish Thakur (Retd) is Asst. Manager (HR & Administration) in the company. He is a specialist in Logistics and Administration and has worked in these roles in the Indian Navy.
Dahra Global celebrated the National Sports Day by having a Company Outing on 12 February 2019 with the main objective of promoting a healthy lifestyle among its employees and to raise awareness about the importance of playing sports for all ages. The outing facilitated conversations between employees and families across various departments and throughout the company hierarchy, which helped to create a happy and stronger team. The day gave everyone a chance to relax, unwind and have fun.

The news of celebrating ‘National Sports Day’ by having Company Outing at Sealine Beach Resort at Mesaieed was conveyed to the employees amidst their hectic schedule of work. The message was, therefore, received with boundless enthusiasm by one and all. The euphoria that characterised the preparation was a scene to behold as people started googling Sealine Beach’s location, climate and other interesting facts.
ACTIVITIES AT THE 'SEALINE BEACH RESORT'

Team Divisions
All fitness enthusiasts of Dahra Global were divided into five teams namely Mansoura Aces, Umm Ghawailina Hot Shots, Al-Thumama Warriors, Al Ruwais Dragon Flies and Doha Jadeed Asians. The excitement started building up from the time teams made to form up. Everyone had a hearty laugh after knowing their team names for the first time. Kudos to our game masters for giving such fabulous team names, which will be there every year.

• **Tug of War**
The celebration began with a power packed event – Tug of War, which tested the skills, teamwork and never give up attitude of the participants. It was in this event that spirit of sportsmanship and the will to excel was seen. The echoes of aggressive cheering by teams, created a lot of interest amongst all, including other guests at the resort. Participation of young local boys was the testimony for the same.

• **Pass the Ball**
Pass the ball (Mind you! not Buck) was the theme of next game. The activity was aimed at building a strong team in which each member carried equal importance. The activity met its aim of bringing all employees and their families together and to let the participants loosen themselves after the Tug of War. The team ‘Mansoura Aces’ was able to make a fine balance between speed and accuracy and was crowned as winner.

• **Keep the Balloon**
The next game was conducted with an aim to explore skills such as smart thinking and patience. The strong wind played a crucial role and three teams got disqualified due to popping out of balloon. ‘Al-Thumama Warriors’ perseverance to fight out all odds paid off well and they zipped through the finish line to a hands down victory.
• **Pass the ‘Freaky’ Hula Hoop.**
  ‘Doha Jadeed Asians’ team won this event.

• **Lady Warriors – Tug of War**
  A special event which witnessed huge cheering from all employees and grabbed the attention of the spectators was the Ladies Tug of War. Two teams namely Souq Wakif Hunters and Lazy Lulu Grabbers fought for the title. Though Souq Wakif Hunters got lots of cheering from the crowd but the strategy of Lazy Lulu Grabbers paid dividends and helped them to emerge as a winner.

• **Beach Volleyball**
  Heavy lunch and tired sinews, nothing could stop ‘Dahra Global’ workforce to sweat out and enjoy each moment. Few enthusiasts quickly jumped into the volleyball court and played tough and competitive matches. The competition generated lot of interest and enthusiasm amongst the participants, which was quite visible from their quest to win the match.

**‘Sealine Bites’ - Healthy Lunch**
To diffuse the war like situation between fully charged up teams, the Bugle was sounded to retreat and everyone called up for parley, to bond together over a healthy and sumptuous lunch.
Prizes Distribution
The josh and excitement of all employees were extraordinary throughout the day. Now it was time to reward their teamwork, desire to excel and never give up attitude. Mr Khamis Al Ajmi, Group CEO happily gave away prizes to all the winning teams amongst cheering of all employees and families. The CEO also gave away gift hampers to young boys and girls to encourage and acknowledge their participation.

The promise to Come Together and Celebrate Again.
Company employees and families had a great time at this lovely place. There can be no better day other than National Sports day to have such gathering and promote the message of importance of healthy lifestyle and physical fitness. The participants shared a sense of accomplishment. The group photography was carried out to frame this moment and cherish it for years to come. The day culminated at a high note with a speech by Mr Khamis Al Ajmi, Group CEO, to celebrate the National Sports Day with same josh and enthusiasm in times to come.
DAHRA GLOBAL TEAM
DEDICATED & DETERMINED