

**What the Training and Simulations Senior Advisor is telling the
organization's leadership, and why
(Training and Simulations in the Middle East)**

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As the militaries and security agencies around the world face an ever-changing, complex, full spectrum of threats, they continue to search for ways to mitigate its impact and increase success and dominance through emerging technology and creative training. With the value of simulations now being recognized worldwide, many militaries and security agencies are turning to Training and Simulations Advisors for guidance, integration, training development and management because they may lack the manpower or expertise in simulations usage in training. When integrated properly, the Training and Simulations Advisor is a cost-effective multiplier that can greatly benefit an organization in many ways, and tend to be a key factor to a successful training and exercise program. Having lived in the Middle East for 13 years now, with 8 of those years serving as a Training and Simulations Senior Advisor, I have gained a greater understanding of the complexities of the Middle East and the challenges they face. To know what a Training and Simulations Senior Advisor in the Middle East is telling the organization's leadership, you must first understand what is a Training and Simulations Advisor, what is their role within the organization, what local and regional factors impact training development and simulations usage, and how they determine training and simulations requirements for the near-term, and future.

A Training and Simulations Advisor must have a baseline understanding in several areas in order to be successful. He should be broadly experienced (ex-military, law enforcement...), an expert trainer, comfortable with operations and unit tactics, familiar with doctrine, experienced with using simulations, knowledgeable in current and emerging simulations systems, an experienced training developer, have the disposition to work with senior leaders and able to adapt to different cultures and organizations. Advisors must understand the organization they will advise, to include its structure and mission. In the Middle East there may be multiple military organizations within each country, but each organization has different missions. Examples of this include Land forces who may focus on external and conventional threats, the National Guard which may focus on internal threats and critical infrastructure security, and the Amiri Guard who focus on the protection of royalty, leaders and their key infrastructure. Then there may also be the Navy, Air Force, Coast Guard and even para-military forces tasked to guard yet other key infrastructure. It is important to have an understanding of each

organization's roles and how they may inter-operate together due to potential joint operations training requirements.

The Advisor should understand the organization's individual and collective strengths and weaknesses. There must also be an understanding of the organization's strategic vision and plan; where will they be 10-15 years from now. Training and simulations requirements should be planned in parallel with their strategic plan. Because committees are often used in the procurement process, an advisor should be involved to allow input of training and simulations requirements for potentially new or upgraded capabilities and equipment. The advisor should be well versed in the organization's current and emerging doctrine and Standard Operating Procedures (SOP).

Analysis and understanding of the local and regional threats, potential enemy targets, weapons of choice and enemy Tactics, Techniques and Procedures (TTP) are also required. In the Middle East this can be quite complex and change rapidly. External threats range from conventional forces, terrorist groups/organizations to lone attacks from individuals. There is also concern of spill-over from regional events, cyber-attacks, and the use of social media to recruit, create destabilization, incite attacks, or even for command and control of threats from external locations. Internal threats may include terrorist organizations already operating in the country, "sleeper cells," extremist political groups, events or marginalized/disenfranchised members of the population causing protests and riots, "lone wolf" attackers, returning experienced fighters, and government instability to name a few. Environmental threats should also be considered, such as the impact from local or regional environmental/industrial accidents or attacks, epidemics and pandemics. In the Middle East, sand storms, flash floods, and oil spills are also major environmental concerns. Ongoing Middle Eastern geo-political issues, Syria and Yemen highlight the need for "traditional" conventional forces training, but in the more stable countries the threat continues to be smaller, decentralized attacks, many using niche technology such as car bombs, suicide vests and the latest threat of weaponized drones. Concern is also exacerbated by the potential proliferation of advanced weapons, chemicals and even radioactive materials. Terrorist attacks are usually conducted by individuals or squad-sized forces, but there remains a concern of "sleeper cells" with caches of arms and explosives

operating within some countries. Peaceful protests always run the risk of turning violent, and may be hijacked and manipulated to meet other objectives, such as creating destabilization and reducing trust and confidence in governments and governmental entities. All of these potential threats must be understood and used to drive training requirements.

The Training and Simulations Advisor's roles are defined by the organization he works for and can be wide-ranging. They may include identifying simulations systems requirements and providing recommendations; conduct contract reviews and provide recommendations to the organization; support off-site testing, on-site acceptance and fielding; develop training courses and programs; and develop exercises on the simulations systems to support these courses. Training and certifying the trainers for these courses and systems is a key responsibility. Systems usage may require an advisor's support in promotion of availability and value to the organization. Advisors may be involved in scheduling and management support. They may also develop training pre-coordination requirements for each system. They can expect to be involved in maintenance, support and training deconfliction. They will support or develop tailored training for units, staffs and commands from basic to advanced levels of complexity, and develop reporting formats/tracking tools to monitor usage and evaluate training and maintenance. The advisor also provides recommendations for upgrades, modifications and future systems that may be required. The advisor must always be prepared to advise leaders, committees and procurement officials on these matters.

Report with the senior leadership is critical for the advisor and he must be dedicated to the organization he works for, and its success. As with any relationship, trust and communication is key. When providing recommendations for future simulations systems, the advisor should explain how it could be used and the impact it will have on the organization's training and capabilities. In many cases there may be a language barrier or misunderstanding of technical terminology that the advisor can help bridge, ensuring requirements to the provider accurately portray what the user wants. He may advise leaders and committees as the subject matter expert, allowing them to make informed decisions. As a westerner, I often found myself bridging the gap of understanding between the western companies providing the simulations systems, and the Middle Eastern organizations I worked for. This helped mitigate

misunderstanding, deconflict issues and streamline the procurement, fielding and integration process. A well-integrated advisor clearly benefits an organization in many ways, but can also prove quite beneficial to the providers as well.

The successful integration of new training and simulations into an organization is a process requiring thorough planning and hands-on involvement. "Selling" the systems and its benefits continues even after the sale. Resistance to new, complex systems that are not completely understood has caused many problems during the fielding and acceptance phases in the past. Also, leaders don't know what they don't know so time must be dedicated to show the organization's leaders the new simulations systems and how it will positively impact their units. An example is the tremendous benefit simulations has shown when integrated into a gunnery cycle. This can be a great opportunity to discuss their training requirements for tailored training as well. On several occasions, commanders did not realize how training can be tailored for their units on various types of simulations systems. This required regular training and schedule meetings to ensure commanders remained informed.

Many modern simulations systems have numerous types and levels of training that can be conducted on them. Today's Small Arms Trainers can train basic marksmanship, shoot/no-shoot scenarios and Computer-Generated Imagery (CGI) battles. When integrating new systems, start with training the fundamentals and build on them. Phase in the various types and levels of training once the fundamental programs have been implemented and are successful. This builds knowledge, experience and confidence in the trainers, and in those being trained on the systems. Success breeds success.

Train and certify your trainers on the system and the initial training programs developed, then build on them. Highly qualified, knowledgeable trainers are the key! Simulations are only as good as the trainers that use them. A technique I used was to train and certify the system trainers on the subjects to be trained (i.e. Marksmanship, vehicle gunnery, convoy operations), and on the simulations systems they will use for the training. I would then teach the first couple of iterations of the courses to visiting units with the newly certified instructors as my assistants,

then I would act as their assistant as they conducted the same training. I would repeat this process for the more advanced training programs later developed.

Pre-training coordination with visiting units also impacts overall success. With some training this can simply be done over the phone verifying the proper number of trainees and the subject to be trained. With other types of training, such as operations/staff training and battle group exercises, multiple iterations of pre-coordination and exercise development will be required. Standardized training pre-coordination checklists and rehearsals facilitate a successful training event.

Some of the largest militaries and organizations in the world have large staffs and commands dedicated to identifying training and simulations requirements, but most security forces have very small staffs and, in many cases, the senior leaders tend to provide their training guidance. Some organizations invest in advisors to help facilitate this important task. As an advisor, a technique of determining training and simulations requirements is;

- Identify the organization's key missions and tasks.
- Identify the individual and collective strengths and weaknesses in being able to conduct these missions and tasks.
- Consider local and regional threats and TTP's (use of Improvised Explosive Devices, ambushes...).
- Prioritize individual and collective training requirements to overcome their weaknesses, focusing on the fundamentals first (shoot, move and communicate as an individual and team).
- Identify simulations systems that support the identified training requirements.
- Identify simulations systems that support senior leader development and staff functions (crisis management, organization command and control/information flow, multi-echelon tactical command and control).
- Identify simulations systems that support specialty skill sets, such as snipers and medical training.

- Identify training and simulation requirements for future systems and capabilities the organization is considering such as a new type of weapons, vehicles, aircraft, drones and other capabilities.
- Identify future organizational structure and planned manpower to determine number of systems required based on through-put capability. Examples include how many vehicles make up a section, platoon or company for gunnery and maneuver trainers, or how many Small Arms Trainers are needed to meet intended through-put annually for marksmanship training.

A technique to rapidly identify emerging training requirements and, in turn, potential simulations requirements is to work closely with the intelligence sections to develop an incident collection cell. It can capture vignettes of the incidents that occur locally, and in the region; identify the organization's strengths and weaknesses in responding to a similar situation; and then build from there. An example would be a vignette showing a supply convoy lead vehicle's personnel identifying an IED but failing to react to it properly and it then destroys a vehicle to the rear of the convoy. Some immediate questions arise, to include are your convoy security and logistics personnel trained in IED identification? Are there battle drills (reactive procedures) in place once an IED is identified? Are there battle drills in place if a vehicle is struck by an IED? Are there standards in place to properly plan for a convoy operation? As weaknesses are identified, doctrine and SOPs are modified and training conducted to improve the outcome. Much of this training can be conducted on multiple types of simulations systems as well, some examples include command and control and staff systems, driver's trainers, convoy trainers, medical mannequins and Military Integrated Laser Engagements Systems (MILES) Improvised Explosive Device (IED) simulations.

The Kuwait National Guard (KNG) developed a world-class Simulations Center with a wide range of simulations systems and capabilities in a relatively short period of time. This was only possible because of visionaries like Sheikh Mishaal Al Ahmed Al Jaber Al Sabah, the Deputy Chairman of the KNG, and Lieutenant General Hashem Al Rafie, the Undersecretary of the KNG. Their guidance and support allowed for rapid fielding and integration into the organization's unit training programs, and can also be credited with the greater movement toward simulations

by several other countries in the region. Command emphasis on simulations systems integration and use will always be vital for success in any simulation program. There will always be resistance to something new and different. I remember as a young soldier, the US Army leadership had to place large emphasis in the use of MILES due to resistance. One of my first experiences in the US Army was at the National Training Center (NTC) using MILES in large force on force battles. The realism and intensity for a young soldier was so significant that weeks afterward I would wake up from a dead sleep yelling grid coordinates for indirect fire missions.

Standards for simulations usage and a tracking/reporting mechanism should be established. Commands should show senior leaders the units' simulations usage as part of their training plan. In many of the smaller organizations, simulations systems are consolidated and/or under a Simulations Command. Training and simulations leaders' success should be measured by system usage, relevance of training and the impact it has on overall organizational improvement. Some of these simulations organization will have a staff of simulations "operators" who focus only on turning the system on and off, as well as maintenance. It is my opinion that this staff should also include the trainers for these systems. Many of the units being trained do not understand how to maximize the systems for training and are exposed to them for very short periods of time. Many of the larger militaries and organizations have now contracted out the role of operator/trainer on some systems to maximize experienced trainers and minimize the personnel impact on their organizations. In many cases the overhead required with contracted trainers is much smaller than using their own soldiers and leaders, and preserves the organizations capabilities.

Bridging the gap of training requirements and the systems technical capabilities can be challenging and requires a thorough understanding of both. As an advisor I found myself bridging this gap both ways, often serving as the middleman, though never forgetting I serve the best interests and desires of the organization I work for. Having a clear understanding of what the user is expecting and how they intend to train with it prevents issues during acceptance. In some cases, this information must be pulled out of the user from the very beginning, otherwise they may expect it to perform beyond what it was designed for. Tailoring systems to users begins with clear communications from both the user and provider.

Perception can be reality in the Middle East unless clearly addressed otherwise. Though contract verbiage can be very specific, regular demonstrations during development for validation greatly helps the fielding process. With the special effects on tv and in movies, and the high level of resolution and details found in video games, there is always the potential for expecting more than what the system is capable of providing. I also found that users are sensitive to visuals as well, they want them to reflect their environment, equipment and people, where applicable. Many now want geo-specific, 3D databases accurately reflecting their towns, cities, key infrastructure and critical sites.

In the Middle East, there are some unique training and simulations considerations. The integration of simulations has already proven not only a cost effective, realistic form of training, but it maximizes training time and greatly reduces the environmental impact of the sometimes-harsh conditions found there. Units can maintain a level of proficiency during the very hot summers, for instance. This success will likely only increase Middle Eastern countries' desire to expand this capability.

Another obvious regional consideration is the language barrier. Plan for Interpreters whenever interacting with the organization. Many in the Middle East are actually proficient in the English language but not necessarily in the terminology used when describing systems and functions. Organizations may request their manuals and systems text to be in Arabic. Understand that there are various dialects of Arabic, usually by country. There are many differences between western and Middle Eastern mentality as well. Westerners tend to get straight to the point when conducting meetings, Middle Eastern culture usually requires they greet you, offer tea or Arabic coffee, then get to know you a bit first. Establishing rapport and developing a relationship is paramount to doing any business or training in the Middle East. Customer satisfaction is also critical for long-term success. They say "everyone knows everyone" and your reputation will spread across borders quickly. When providing training and simulations systems to an organization, it would be a good idea to have someone on the ground throughout the process to sustain this rapport and constant communication.

Procurement can be a long, drawn-out process. Budgets often have to be developed for projects, once they are identified. There may be multiple committees that are required to review and approve future purchases. Each country has their own registration and bonding requirements as well. Companies like mine often serve as local agents, partners or distributors for companies from all over the world to introduce products to the right people, and navigate through the before mentioned procedures and requirements. Scheduling can also be a challenge. Which days the weekend falls on varies by country, their work hours may not be 9-5 and prayer times must always be considered. Arabic holidays, the holy month of Ramadan and summer months can also significantly impact schedules.

When looking at the Middle East as a whole, the size of military forces and civilian agencies continue to grow, along with their country's populous. They continue to integrate cutting edge technology and capabilities from around the world. Regional instability and potential local threats continue to drive the need for well trained, well equipped forces and first responders. Many countries are currently modernizing and expanding their training capabilities, developing new training sites, city fighting villages and ranges. They are also establishing or expanding their simulations capabilities, and will continue to do so for some time to come.

Near-term and future requirements for simulations and training range greatly. First responders such as law enforcement and fire are increasingly being targeted by attackers and in need of training and simulations beyond their traditional norms. Militarily, training in conventional offensive and defensive operations integrating land, air and sea powers will be required, but this lethality will continue to be avoided by a decentralized force drawing the conflicts into the complex terrain of cities and towns using the population for shielding and eroding popular support, and using niche technology to exploit weakness and create fear. As current terrorist groups loose sanctuary, they will further decentralize, yet simultaneously attempt to reestablish footholds in new areas and build on their current areas of operation as seen throughout Africa today. They will continue to exploit those that follow them through the web and social media, motivating home-grown attacks requiring minimal logistical support. Historical precedence suggests the potential for increased numbers and lethality of isolated terrorist attacks in stable and semi-stable countries in order for terrorist groups to remain

relevant, and to influence. Regional and global powers will continue to fight proxy wars in destabilized areas for self-interests and gain. The geopolitical landscape has changed in the Middle East as well. Iraq is no longer the buffer it once was between the Persian and Arab worlds and new alliances continue to threaten further expansion and influence. There are those that also continue to try and stoke the flames of sectarianism through rhetoric and targeted attacks. The threat of attacks using advanced munitions, chemicals and radioactive material gained through proliferation continues to be of concern. Precedence for the use of these already existing with the ballistic missiles fired from Yemen, multiple chemical attacks in Syria, and even a drone weaponized with traces of radioactive material flown onto the Japanese Prime Minister's residence. A prolific attack is also always on the forefront of a terrorist organization's agenda. Though it all sounds like doom and gloom, it is the defense and security organization's responsibility to be prepared for the worst-case scenario and the potential future threats they may have to face. With this being said, the Middle East continues to take steps toward greater modernization and stability. They continue to take a more active role in eliminating threats that emerge from their region and seek ways to infuse a more progressive ideology to move forward. Though this will continue to cause strife in the region in the near-term until balance and stability is found, the impacts of a global economy, reduced oil dependence, the influence of global media and social networks, and generations of Middle Easterners being educated and traveling regularly abroad will continue to spur progression. Governments continue to look for ways to become less economically dependent on oil, drawing revenue from other sectors such as business and tourism. The success and grandeur of the once small, coastal city of Dubai in a relatively short period of time has had a significant impact on the Middle East in many ways as well.

In the near-term, training the fundamentals will always be a requirement for any force, especially a growing force. Individual and collective training focused on the ability to shoot, move, communicate and work as a team will also never go away. Training and simulations will be required for newly integrated equipment and technology. The impact the new capabilities will have on how they function will bleed over to existing systems as well, requiring upgrades and modernization to both training and simulations systems. As an adaptive threat continues to

find new ways to mitigate their inferiority, so too will changes in training and training tools be required. The challenge will continue to be the rapid identification of these changes, and implementation of updated training and training tools.

There tends to be a risk aversion found in some organizations, and in some leaders. Simulations is a great tool to exercise tactics or joint responses to disasters or large terrorist attacks that they would normally be averse to doing.

As stated earlier, many future conflicts will continue to be decentralized, hit and run type fighting against superior forces. This requires adaptive junior leaders in security and defense forces. Scenario based, rapid decision-making development in junior leaders' training is paramount. Emerging simulations systems such as the dismounted squad trainer are steps in the right direction. Similar systems are also needed by first responders, tailored to their missions. Emerging simulations systems should also build on joint ministry or agency training requirements. Response to incidents of attacks on military-protected infrastructure by civil first responders is one example why this is required. Operational tools may also be required in the training world. A good example of this is crisis management software. These tools can be interoperable as well, allowing data sharing for more realistic training scenarios. Geo-specific, 3D databases of their areas of operations, towns and cities are needed, allowing them to train in the same environment they may have to fight in. These common databases will then allow for interoperable simulations systems for more realistic joint, multi-echelon training. An example of this would be a mounted convoy training system allowing vehicles to move to, and conducting a cordon of an objective. Then, dismounted teams on a dismount squad trainer move in to clear the buildings within the same objective. The vehicle crews see the dismounts, and vice versa. They can both see the same civilians and threat forces, and engage with weapons systems or mutually support each-other. These local databases can also be used for validating defense plans, contingency plans, and real-world operational planning and rehearsals.

I also anticipate the future capability of interactive simulations integrated into future vehicles and systems. There could be simulated crew, section and platoon gunnery from inside

your actual tank. MILES-like systems could be organically part of vehicles, aircraft, and ships with these systems capable of being networked together for exercises and battle tracking. Advanced data collection tools and software for real-time playback and After-Action Reviews (AARs) integrated as well.

There will continue to be a need for organizations to do their own scenario generation for their systems. This allows them to tailor scenarios to their needs and conduct relevant training. A soldier who has done multiple types of shoot/no-shoot scenarios on a Small Arms Trainer that was developed and recorded on-site to actually reflect the checkpoint he will work on, is much better prepared to react properly if a situation occurs.

Cloud based capability is clearly a solution to modernization and adaptability. The problem from the field is the rapid obsolescence of hardware and software once a system is fielded. A potential solution for this is to define the anticipated lifecycle of a system, then the maintenance package includes refurbishment and upgrade of the system mid-life. Another concern is security, some systems host sensitive information such as an organization's structure and capability. Another digital solution to modernization and adaptability is external, company based teams remotely connected to the simulations systems to provide exercise development support, database management, updating and near real-time integration of new threat TTPs and integrating an organization's new equipment and capabilities. This team will also serve as the conduit to the company for on-site maintenance personnel. An online shared library of exercises for simulations systems would be a great benefit. The same site could show creative ways to use systems to allow others to maximize their capability as well.

As an advisor that supported the development of a simulations training program from the ground, up for a military, there were many lessons learned along the way. Many of these lessons are addressed in this paper. Though an advisor may make a significant impact in establishing a program, there are many others that deserve credit for its successful implementation. First are the visionaries. Those leaders that see what the future program could do for their organization, drive its inception, and empower its potential for success by selecting the right people to be involved and supporting them. A dedicated, customer oriented systems

provider focused not only on the sale and installation, but on the organization's successful use and integration into training is key as well. The organization's senior leadership have a tremendous impact by pushing simulations usage and helping overcome resistance. The maintenance team that supports installation and tirelessly sustains and updates the systems. And the systems operators and trainers that take ownership of the systems and use them to provide the highest quality training that positively affect their whole organization.

As a new advisor in the Middle East, the first thing I had to do was establish rapport and develop a relationship with those in the organization I would be working for, and with. They had to know I was knowledgeable, adaptable to their culture and needs, and dedicated to their success... not mine. As an advisor your recommendations will not always be taken, and that is okay. Your job is still to support their success no matter which way they choose to go. The most important thing is to continue to move forward, not how big of a step forward you can take. Changes to training and the implementation of never before seen simulations can be a daunting task to some. When the opportunity presents itself, always credit someone in the organization that deserves it.

When building a simulations program from the ground up, plan the overall infrastructure requirements first. This requires a clear understanding of the long-term vision and systems they plan to implement. Each system has different infrastructure requirements such as sub-floors, power, space and so on. If the systems will mainly be co-located in a single structure, this takes a lot of planning and input from the provider. In many cases the various types of systems will be phased in. The order they are phased in may be impacted by several factors to include budget, development time and needs.

Continue to sell the systems and their benefits to all units and leaders in the organization even after they are fielded. Sometimes commanders do not know how they can benefit their organization. Demonstrate the systems' capabilities and how training on them can be tailored to meet their needs. Quantify success by usage and improvement in the organization's capabilities.

Systems are only as good as the training conducted with them. Develop quality trainers and training programs that are relevant, and show them why.

As an advisor, be prepared to support every aspect of the program. It may include reviewing verbiage in contracts, recommending organizational structure and manpower requirements, deconflicting misunderstandings and technical issues, educating leaders, developing trainers, building training programs, recommending future systems and so much more. The advisor must become an expert on every system and how to train with them.

The role of an advisor in developing a simulations program for an organization can be all-encompassing and challenging to say the least, but the impact you can have on an organization is immeasurable. The future of the Middle East will likely continue to be turbulent for some time to come but there are clear signs of a desire for stability, future progression and growth. Strong defense and security forces will be needed to achieve this, in turn, requiring continued investment into training and simulations for the near-term, and future.