

# **Defence.Capital**

BUSINESS AND POLITICS OF ARMING INDIA

AND

**Forum for Integrated  
National Security**



## **ARMING INDIA: SOLDIER AS A SYSTEM**

**“Indian Army's Combat Training Gaps and Scope of  
Plugging Them with Modern Training Solutions”**

**Takeaways and Report**

**January 2021**

Contact Us

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## **Introduction**

New Delhi-based Defence.Capital, a leading military and strategic affairs publication, in association with the Mumbai-headquartered Forum for Integrated National Security (FINS), organised a webinar on the above theme.

Several domain experts with decades of experience and expertise brain-stormed the theme in detail and presented their views.

## **Issues Discussed**

In order to keep the discussion focused and structured, the deliberation was confined to these four main points:

1. What are the apparent gaps in training and their possible impact on military operations?
2. Why are there gaps or inadequacies in training?
3. How can modern training solutions help improve the training or narrow the gaps?
4. How to adopt modern training solutions?

## **SALIENT POINTS OF DISCUSSION**

The salient points that emerged from the discussion on the above points are enumerated:

### **1. Lack of Simulator Culture**

There is a conspicuous absence of 'simulator culture' both in thought and in implementation in the armed forces and this has resulted in the following:

- a. Very sporadic and thin population of simulators across the three Services
- b. General reluctance (read resistance) at the level of decision makers to prioritise and approve cases related to procurement of simulators, per se.
- c. Simulators are the first casualty when it comes to cost adjustment in a procurement decision.

### **2. Low Priority and Lack of Clarity in the TPCR Document**

Owing to the above culture deficit, simulators find a negligible mention in the all-important Technology Perspective and Capability Roadmap (TPCR) document of the Ministry of Defence.

Not only the priority is low, but there is also a total lack of clarity and specificity when it comes to stating the requirement of simulators, either by quantum requirement, or by way of technologies required.

### **3. Integrated Approach is the Key**

While simulators can do a lot, these are not the panacea for all the training ills of the armed forces. In fact, an integrated approach involving a combination of simulator training coupled with practical field training and live firing is the approach for a holistic training solution.

That said, there is no denial that simulators can greatly help in addressing the following training challenges that are reality today in the Services:

- a. Lack of adequate manpower.
- b. Lack of continuity in availability of same manpower for a reasonable time.
- c. Drastic cuts in training scales of ammunition leading to training deficits and a false notion of completed training.
- d. Requirement of unlimited live firing with read 'feel-of-fire' effect.
- e. Addressing such other constraints such as finite operational hours and mileage, lack of realism in training, lack of opposed training, et al.
- f. Most importantly, the requirement of QUANTIFIED ASSESSMENT of training.

### **4. A Glaring Disconnect**

There is a glaring disconnect between the simulator industry, users, and the decision-makers; each with their own blinkers that prevents them to cross-look and cross-communicate. The following merry-go-round of disconnect explains the point.

- a. The simulator industry has not been able to communicate their cumulative worth in terms of niche technologies harnessed and their translation into possible specific products for the users.
- b. The users have really not been able to demand simulators with clarity on technology, products and quantum and push their cases forcefully and convincingly.
- c. Resultantly, the decision-makers have not been able to accord the right kind of priority and approve the cases being less than half-baked at the user end.

## **5. Budgetary Matters**

While allocating budgets, simulators, as a rule, figure at the lowest rung of the priority ladder. While carrying out capital procurement, there is a tendency to cut the corners and the axe, invariably, falls on the simulators, cutting them out from the priority list.

## **6. Attitude on Priority**

In line with the above thought, it has been the experience that when it comes to procuring the simulators, it tends to receive a lower priority in the minds of the decision makers.

## **7. High Upfront Cost**

Another hindrance in getting the complete suite of training equipment and simulators in one-go is the high up-front cost of the complete set.

## **CHALLENGES TO THE CONDUCT OF TRAINING**

The experts also brought out that there are huge challenges being faced by the Indian Army. Following were identified as major challenges:

### **1. Manpower**

In the first place, there is a huge constraint in finding the manpower for training in a consistent manner. Given the tight unit routines and diverse back-to-back commitments round-the-year, not only mustering adequate manpower for the day-to-day training is an issue, ensuring the continued availability of the same soldier for a consistent period of time is also exceedingly difficult.

### **2. Man-Hours**

Another connected issue related to manpower is the sheer man-hours required to conduct training events. Say for example, the conduct of a live tactical exercise at unit/formation level. The requirement of manpower commitment in such training events is so huge that it is exceedingly difficult to be put together.

### **3. Ammunition**

It is a fact that the cost of ammunition, across the board, has increased manifold, which includes small arms as well as larger calibre battalion support weapons. Due to this, the allotment of such ammunition for training has reduced over the years, fait accompli. Driven by limited actual availability on ground, even out of the reduced training scales, the number of rounds that actually get allotted at the cutting edge is even lower than scales. This impacts the training adversely. In fact, there is a tendency to erroneously derive a feeling of completed training and acquiring requisite skills upon firing much lower quantum than even the reduced training scales.

#### **4. Operational Hours**

Today, most combat equipment has very finite operational hours. These cannot be frittered away in repeated equipment exploitation by the trainees. Such a training will not only make the 'to go-to-war' equipment "life-expired" in a much shorter timeframe, but also will greatly enhance their wear and tear over time, pushing maintenance costs northwards.

#### **5. Subjective Assessment**

Most of the existing assessment systems are analogue in nature, which only leads to a subjective assessment of a trainee's performance. The challenge is to produce a quantified assessment score which precisely defines where the trainee stands and where he needs to be taken to.

#### **6. Opposed Training**

Most training is one-sided training. It lacks the "challenge of the adversary". It is only against an opposed scenario and a hostile battle environment, where the skill levels of soldiers actually get tested realistically.

#### **7. Procurement of Training Equipment Through Fast Track Procedure**

While fast track procedure is being adopted for operational equipment, adequately trained manpower to operate the equipment are not available. Therefore, training equipment may be procured through Fast Track Procedure whenever operational needs are anticipated.

## WAY FORWARD

The experts opined that most of the above challenges can be addressed by conduct of training through innovative use of enabling modern training solutions. The good news is that in the country today, credible domain expertise and technological prowess are available that produce training solutions that can address all the challenges stated above.

Simulators can provide the following:

1. Unlimited opportunity for live firing practice with zero expenditure of ammunition.
2. Real “feel of fire” effect in terms of recoil, shock, jerk, platform vibration and more.
3. Depiction of realistic battlefield condition in terms of terrain, weather, and environment.
4. Opportunity for opposed training with a worthwhile enemy capability.
5. Quantified assessment of training performance.
6. Facility for a detailed After-Action Review.

Not only that, without spending upfront cost, Indian vendors can provide the complete simulator suites and also provide the Training as a Service (TaaS) through ‘Build, Operate and Maintain’ model with suitable payment modes and methodology as mutually agreed.

Not only the Indian Army, but a similar need for simulators is felt by the para-military forces as well.

## RECOMMENDATIONS AND TAKEAWAYS

The webinar yielded a lot of takeaways that are enumerated:

1. There is a lack of 'Simulator Culture' in the Services, both in thought and implementation. This needs to be addressed.
2. Simulators find a low priority and lack of clarity in the TPCR document of the MoD. These must be included.
3. Simulators alone are not enough; an integrated training solution combining the best of simulator training with practical field training is the key.
4. There is a glaring disconnect between the simulator industry, users, and decision-makers.
5. The way to address this disconnect is to bring the above three stakeholders on one platform.
6. There is no overarching policy governing multiple aspects related to simulators. Such a policy is an urgent requirement.
7. Simulators should be procured from the training budgets/grants instead of the capital procurement route.
8. 'Training as a Service' is the way forward to make simulators available to the Services in a holistic manner.
9. There is a need for an attitudinal change when it comes to giving priority to simulator procurement cases and approving them.
10. Fast Track Procurement of training simulators and equipment to ensure competent use of operational equipment.

## CONCLUSION

Simulation technology can complement existing conventional training systems by plugging the gaps that exist today in terms of resources, time, and number of soldiers to be made available for training. Simulation technology provides certain advantages that can help conserve ammunition, overcome shortage of Firing Ranges, cut down on the time needed for training, and can easily enhance the outcome expected from training. That is, to prepare a soldier for warfare.

Simulator-based training can also cater to the needs for leadership training, apart from training the soldier for equipment and weapons use. One issue that needs the attention of simulation industry is to bring in realism in the simulated training modules and for that the Indian Army needs to do the handholding and enable the industry to understand the realistic needs of training, such as the robustness and ruggedness of the simulators.

There are challenges regarding the initial cost of simulators, but the savings that the Indian Army would make and the outcomes it would achieve will provide the value for the money spent initially to buy and install simulators for training the officers and the soldiers at their places of deployment. The cost and savings can be in the ratio of 1:50 or even more, based on intelligent use of simulation technologies in training.

Many modern armed forces around the world use latest technologies and systems for training through smart ranges or laser-based opposed training. But they do so under a policy directive.

If there are any institutional resistance to adoption of technologies for training, that needs to be consciously overcome. That is the only way to ensure the Indian Army officers and troopers get enough training for facing the challenges like the one that they are facing either along the Line of Actual Control or the Line of Control.

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## ARMING INDIA: SOLDIER AS A SYSTEM

**Closed Door Round Table on  
Indian Army's Combat Training Gaps and Scope of  
Plugging Them with Modern Training Solutions**

Date: July 15, 2020 Wednesday | Time: 10:30AM to 1:30PM IST

**(On Invitation Only Event)**