

Committed To Defence And Security Worldwide

# DEFENCE & SECURITY ALERT

MAY 2019 | VOLUME 10 | ISSUE 08 | ₹150

The First and Only ISO 9001:2015 Certified Defence and Security Magazine in India  
The Only Magazine Available On The Intranet Of Indian Air Force

www.dsalert.org  
info@dsalert.org



# HELICOPTERS

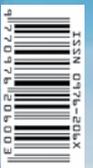
## INDIA'S IMMEDIATE REQUIREMENTS



**DSA**<sup>TM</sup>

THE FIRST CHOICE IN THE DOMAINS OF  
DEFENCE, SECURITY AND WORLD AFFAIRS  
**WORLDWIDE**

**9** YEARS OF  
EXCELLENCE





An ISO 9001:2015 Certified Magazine



**WHY ATTACK HELICOPTERS FOR THE ARMY**

LT GEN B S PAWAR  
PVSM, AVSM (RETD)

04



**DIGITAL DISRUPTORS**

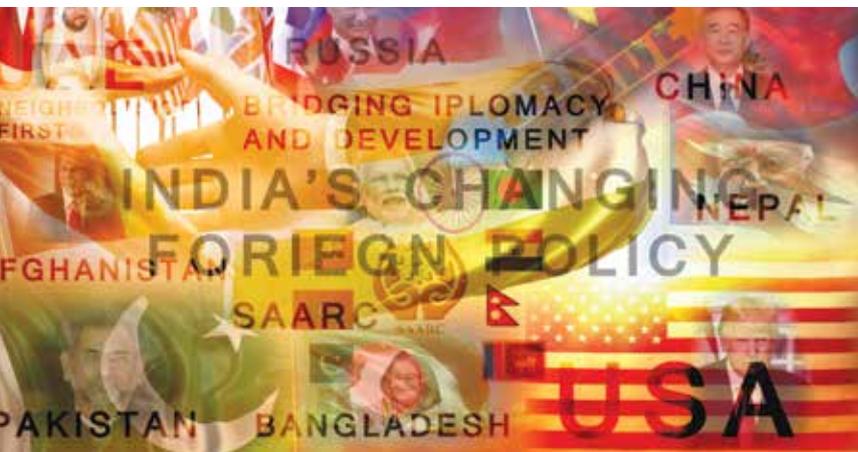
V. RAJENDRAN

10

**IRRITATING BIFURCATION OF OWNERSHIP**

AIR VICE MARSHAL  
MANMOHAN BHADUR (VM)

14



**PLAGUED BY DUPLICATION OF COMMAND**

GP CAPT AK SACHDEV (RETD)

18

**NEEDED BY THE HUNDRED**

CMDE (RETD) RANJIT B RAI

24

**INDIA'S CRITICAL REQUIREMENT**

MUKUND PURANIK

28

**NEED TO REVAMP INDIA'S FOREIGN POLICY**

PAWAN AGRAWAL

32

**MADRASSAS INGRAINED WORLDWIDE**

J.M. PHELPS AND PHILIP B. HANEY

36

**BUY MORE OF ALL TYPES**

PRIYA TYAGI

42

**TEMPLATE FOR MILITARY INDUSTRIAL COMPLEX**

DR KRZYSZTOF KUSKA

46



# TEMPLATE FOR MILITARY INDUSTRIAL COMPLEX

Sometimes a platform ready for operating in one environment will be an overkill to operate in another. If we buy a common system, there is also a danger of nationwide grounding. With a country as big as India, it might mean paralysing its defence capabilities. Putting all eggs into one basket when you are a global player is not the best idea. The voice of the users should also be taken into account because they are the ones who will use the equipment daily and have the expertise to define whether a common platform will be suitable for their job.

India is looking to buy many helicopters for various branches of its armed forces which raise potential problems connected with proceeding with the tenders most optimally.

There are many traps along the road, and in the end, the whole burden will be as always thrown on the shoulders of the taxpayers. The critical factor is to do it the right way in the first place and move on as India has a lot of areas in its

armed forces that need attention. In some areas, the popular saying could be even expanded into “do it once, do it right and do it quickly.”

### No One Right Way

There are many ways of going forward with large tenders, but it is hard to present a golden rule which will work in most cases. Each country has its military and industry conditioning's which tend to shape the local market. It is much easier

to put some light on inappropriate methods of handling critical projects like army tenders. Looking from a broader perspective, one of the essential factors is timing. Many tenders have started way too late and take too much time which in the end leads to further degradation of the force. Sometimes, it can happen the opposite way. Early start doesn't necessarily mean an effective ending. As trivial as it might sound, balance is as always the key.



### **Threat Of Dependence**

The second threat of a tender is the fact that if a nation doesn't have a robust domestic industry, each selection will be connected with a sometimes 20 or even 30 years-long relationship with a foreign government. This, in turn, puts the buyer in a somehow inferior position as its future will be dependent on those relationships. It also sets the nation into the sphere of influence and possibly might be a way of pulling into an alliance that might not be the best solution. These are sometimes small steps not visible at first glance, but with time the ties become so tight that we might end in a corner. India has an enormous asset at hand that is not available to other nations. Its sheer size, the magnitude of yearly growth, population and geography give India leverage which can be used to overcome the above mentioned threats. India is becoming a global power and should be aware of that fact and use it for its benefits. Each acquisition agreement can be so arranged that it will secure the nation's interests in the long term.

Those threats influence the strategy and connect it with the tactics and tasks that will be then executed by the troops which will be equipped with specific tools accompanied by appropriate training. This is a chain which cannot be broken as each piece depends on every other of its links. When preparing for a tender, we have to take into account our strategy and tactics used to accomplish our goals as this shows us the tools which will be needed. Here comes the tricky part. If we prepare the whole process from top to bottom, the voice of the users might be not strong enough or even omitted as not heard. Soldiers are soldiers. They are supposed to accomplish the given task with the equipment at hand, but we have to ask ourselves if they could do the job faster or better if they would have other equipment? One can compare it to buying tools for a craftsman by a committee equipped only with theoretical, outdated or biased knowledge. It is clear that the whole process should be based on two paths which at some point should align and be connected and



**DR KRZYSZTOF KUSKA**

The writer is editor and analyst in the field of military aviation, defence, modern warfare and security, military historian.

The most **optimal path** would be to buy a base solution and pack it with locally made and **tailored additional equipment**

This tendency is already clearly visible in the fighter procurement and propositions made by various bidders. One should further expand this trend and gain as much as possible based on the mentioned assets India has at hand.

### **Users And Capabilities**

When a country shapes its defence strategy, the first step is to identify the threats that it will have to deal with in the near and long term.

that the soldiers should have a loud voice in the entire process because, in the end, they will have to use the tools which the taxpayer will provide them. Multi-national exercises allow the soldiers to have a close look at the equipment used by partners, compare it with their systems and thanks to those invaluable talks with foreign partners to gain information unreachable for the decision-makers.

### **Quantity Vs. Quality**

We live in a world that is speeding up each day. It means that the equipment is getting more and more sophisticated. This, in turn, leads to multi-role capabilities that effectively allow us to cut costs as we can obtain a smaller number of weapons to do the same job as the previous generation had done with much more significant numbers. This is a very tempting trend especially when we are dealing with inferior enemies who have only basic armament. However, what happens if we will have to face a near-peer competitor? Will the small number of weapons be able to accomplish the task in the long term? What with the normal attrition which always happens in prolonged combat? How long can a small but very sophisticated force continue to fight? Will we be able to sustain it in top-notch condition during war campaigns? Will the nation be ready to do it without foreign assistance? We have to remember that today's tenders end up with large packages of maintenance and logistics services. Can we be sure that those will be



*The first two Indian Air Force Mirage 2000s to be upgraded were handled by the Dassault Flight Centre at Istres air base in France.*

honoured during a full-scale war? Even if they will, can we be confident that there will always be a smooth path to obtain that help or maybe the enemy will try to influence those lines or obstruct them to gain some advantage? These are just a few of the questions that need to be answered before making crucial decisions.

### **Sometimes Old Is Gold**

Sometimes it is better to have an older platform that will not be as packed with electronics as the latest models, but in a critical situation, a handy technician will be able to fix it on the spot with the tools available

onboard. This doesn't mean that we should buy outdated solutions. The practical path would be to use robust and proven machines that we know can sustain in the long term in all conditions and pack them with modern additional equipment. If the electronics fails, we still have our robust basic platform which can fulfill some of the tasks. The whole situation can be somehow compared to cars. If our old but trusty car brakes, we can fix an easy thing on the side road or even ignore the warning and move on. For instance, if an EGR valve is stuck, it won't break down the car, and we will still drive to our destination. In

a modern, packed with electronics machine, the onboard computer will tell us to pull aside, or even it will switch off the engine as the EGR is not working. This simple example, maybe not perfect, might illustrate how the modern military equipment works. When you land a modern fighter aircraft, it also shows errors that should be fixed and sometimes to sustain a high mission rate, it is better not to shut the engine down and turn the computers off and instead do a hot turnaround and start another mission immediately. To sum this paragraph up, technology is helpful, but as always the right balance is crucial.

### Capabilities Vs. Finances

If we buy military equipment, we obtain specific capabilities which will allow us to accomplish certain tasks. Sometimes some of those capabilities can cost much money and might not be decisive to the overall projected war effort. They might be useful in some rare case scenarios which can be very important but are not very likely to happen. It might be very tempting to secure the nation for most of the threats, and this is probably the idea that the marketing teams will try to sell to the buyer. It would be wise to take into account that instead of buying a “Swiss knife”, it might sometimes be more cost-effective and long-term sustainable to purchase machines with maybe a bit smaller capabilities but perhaps in greater quantity or with a possible upgrade path. Again, there has to be some balance which will allow us to get the job done. In the end, it’s all that counts.

### Creating Available Solutions

Sometimes the global players can’t provide off the shelf solutions needed by the buyer. This means costly integration efforts as was observed with the

league. Source code availability and special clearances can and should be negotiated if there is a quick path for locally made integration of valuable assets that will boost the capabilities of the equipment. Furthermore,

India should do what it takes to **jump-start its industry** based on the transfer of technology and knowledge obtained in the **current biddings**

Rafale for India project. Looking from a broader perspective, the most optimal path would be to buy a base solution and pack it with locally made and tailored additional equipment. This path might not be available for small countries, but as mentioned earlier India plays in the major

India should look ahead and try to obtain an allowance for future selling of those packages and their integration. This part might be especially tricky as it cuts a huge chunk of the producers’ cake but in more and more competitive market, companies tend to agree for more.



A French Navy Rafale on a modification line at Bordeaux. Dassault is preparing to adjust the production rate at this site, once India confirms a contract for 36 aircraft to be built there.



*'Indian' Dhruv Advanced Light Helicopter gets Italian makeover.*

The popular saying could be even expanded into **“do it once, do it right and do it quickly.”**

### **Difficult Self-defence**

If we think about helicopters, we have to take into account that they might be worth millions of dollars and can be easily destroyed with a single ground-to-air missile carried by a single soldier and shot from a hidden location. This was possible in non-linear conflicts with partisan forces and will be probably even more possible in full-scale engagements. These types of threats will, of course, be only an addition to full-blown air defence systems that a near-peer competitor will have at his hand. This makes helicopters very hard to be safeguarded on the modern battlefield. Due to the geography of India, they play a vital role in sustaining control of various parts of the country. Therefore,

providing enough high-quality self-defence systems for the helicopters should be a critical factor in assessing the potential offers.

### **Analytics Needed**

We have to take into account that currently used platforms are probably in its last iterations. There is only a certain amount of refinements that can be put into a 40 or 50-year-old project. There are already ongoing trials of new types of helicopters, and this factor should also be taken into account. Is it worth to buy a fading platform in vast quantities or maybe one should consider a gradual process which could take into account a future change to a newer system? This is a complicated question, but it might

be easier to answer if we look closely at the region and take into account what the possible adversaries are planning to do. Adding them to the equation allows us to make a more balanced decision which will allow for a more flexible and possibly more effective force. It might be easy to start an arms race, but one has to answer itself if the nation can handle it. Furthermore, we have to think about the possible reaction of the adversary who knows that he is losing the equipment race? Will he agree to drop his position or attack in the last feasible moment?

### **Military Industrial Complex**

The currently ongoing tenders should be viewed not as another modernisation programme but as the last and also as the first step. India should do what it takes to jump-start its industry based on the transfer of technology and knowledge obtained in the current biddings. This, in turn, should allow in a time frame of 20 or 30 years



*Helicopters Assembly Lines.*

to build own industries capable of producing at least some of the assets that currently are bought from foreign partners. With its missile systems and the recent achievement of destroying a satellite, India has shown that it can develop very sophisticated solutions based on the capabilities and knowledge of its scientists and industry. This trend should be widened and integrated into other departments of the defence industry including the helicopters.

### **Branches-wide Integration**

The one size fits all trend is very tempting but as the F-35 example shows us it might not be the best solution. Of course, it allows significant cuts in training costs, sustainment, parts, additional equipment and so on but there are specific tasks that need more

specialised equipment, and the common platform might not be suitable. No matter what some analyst will say and how loud they will shout, an F-35 will never appropriately take over the job of an A-10 and the ground troops will always prefer the “Warthog” coming to the rescue. We also have to take into account that sometimes a platform ready for operating in one environment will be an overkill to operate in another. If we buy a common system, there is also a danger of nationwide grounding. With a country as big as India, it might mean paralysing its defence capabilities. Putting all eggs into one basket when you are a global player is not the best idea no matter what the salesman will say about the reliability of the offered platform. Going back to one of the previous paragraphs, the voice of the users

should also be taken into account because they are the ones who will use the equipment daily and have the expertise to define whether a common platform will be suitable for their job.

India is at a critical stage of its development. The decisions, currently made, will shape the future of the country, and armament acquisitions might help to accelerate the whole process or slow it down. We may not like it but the path is clear, and in many cases, the technology and knowledge obtained in military contracts penetrate the civilian market boosting its growth. Therefore, the current tenders should not be treated only as modernisation effort for the army and burden for the taxpayer but should also be used to push India forward. 