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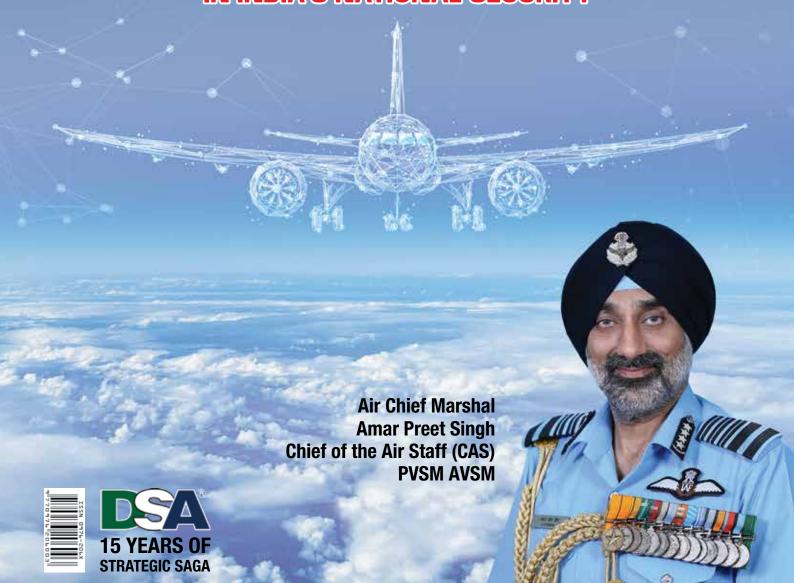
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## EFFECTIVENESS OF ARTIFICIAL INTELLIGENCE IN INDIA'S NATIONAL SECURITY





## The power of a King lies in his mighty arms...

Security of the citizens at peace time is very important because state is the only savior of the men and women who get affected only because of the negligence of the state.



#### EDITOR'S NOTE





Manvendra Singh Editor-in-Chief

The writer is the Founding Editor of Defence and Security Alert (DSA) magazine. He is a well known defence journalist and columnist. He was a member of Indian Parliament from 2004-2009 from one of the largest constituencies in Rajasthan.



This year promises to be a momentous one for India's military aviation. Even as the year began with the enormous Ex Vayu Shakti, the Indian Air Force has been conducting a series of exercises, within the country, and outside with a number of countries as well. The checklist of countries participating has been the most impressive, and a number of milestones seem to have been passed. Certainly, the most noteworthy being that IAF hosted its largest multinational exercise just this past month in September. The logistics of managing such a large gathering is extraordinary, and when it passed without a hitch, all appreciated.

The IAF has obviously been learning over the years in terms of participating and managing large scale exercises. In this calendar year, the IAF has sent its aircraft and personnel for exercises around the world with friendly nations. There was a contingent for Ex Pitch Black in Australia, another lot were at Ex Udara Shakti, and Ex Red Flag in Alaska, USA, also saw the participation of a multi-aircraft contingent by the IAF Which is very impressive. But all that pales in comparison with how the IAF managed to conduct a two-phase multinational exercise across India in two very diverse locations.

Ex Tarang Shakti witnessed the participation of 10 countries with another 18 attending as observers. Spread between Sulur in Tamil Nadu and Jodhpur in Rajasthan, the contingents saw the operational diversity of India, as well as its cultural riches. All of this enhances cooperation between friendly nations, as well as encourage interoperability across landscapes and varying scenarios. In the long run participation as well, hosting multinational exercises elevates operational knowledge exponentially. There is really no substitute to this education for this level of exposure cannot be replicated in any other way. The highest levels of textbooks all pale in comparison.

In its 15-year journey, Defence & Security Alert has been a privileged witness to the evolution of the IAF. There was a long period where the IAF described itself as a tactical force, and as the country evolved into a bigger global player, the IAF also remoulded, gradually evolving into a strategic asset for India. It has stamped its presence across the world as an avid participant, keen observer, and now increasingly so as an efficient host. It is again an impressive achievement, and something from which its sister services too will benefit. For such experiences only help create greater jointmanship.

The future of combat is quite clearly jointmanship, and this is a tried and tested formula which doesn't need repitition. All successful military operations have been the result of joint planning and operational management. There is clearly no option but to head in that direction, but like all structures this cannot be one that is a cut-paste job from international sources. An Indian jointmanship structure must be based on domestic military culture and experiences. Replicating someone else's model onto the Indian military milieu is the surest way to make it a non-starter. It's too important a requirement to be copied.



## PUBLISHER'S VIEW



Pawan Agrawal
Chief Executive Officer

The writer is a Publisher and CEO of Defence and Security Alert (DSA) magazine and has extensive experience in publishing and media.

## NO ONE CAN PREVENT US TO SECURE OUR NATION

Over the past 15 years, the pace and gravity of events, concerning national security have been far more intense than in the preceding five decades. One particularly tragic event, the 26/11 Mumbai attacks at the Taj Hotel in 2008 claimed the lives of more than 100 innocent people, including our brave police personnel. While India had faced many such attacks in the past, this one compelled the nation to question the direction of its security apparatus. The government's response drew widespread criticism with many nationalists shocked by the alarming gaps in decision-making and the casual approach taken during such a grave crisis. These events underscored the urgent need for informed discourse, which ultimately inspired the launch of DSA magazine, dedicated to providing in-depth research and analysis on defence and security matters. Over its 180 editions, DSA has covered a wide range of strategically vital subjects for India and the globe, consistently maintaining a world-class quality in both the contents and presentation's is also the sole magazine in its segment to be awarded the prestigious ISO 9001:2015 Certification, a testament to its dedication to excellence in defence and security reporting.

I recall today, how me and our Editor-in-Chief, Mr Manvendra Singh had long sittings and discussions in 2008, ended on the challenges and security dimensions, and as how we can bring a change in the mindsets of our policy and decision-makers responsible for the national security. Finally, after numerous sittings and extensive discussions, we decided to establish a defence and security-focused, monthly magazine. Thus, Defence and Security Alert (*DSA*) was conceptualised and its first edition was published in October 2009. The magazine had a clear vision and mission: to address concerns in this domain, initially focused on India, which later expanded to global perspective due to international developments over the next two years. *DSA* was founded with a goal of raising awareness among the policy and decision-makers as well as enlightening the people of India on issues related to defence, security and international affairs.

Starting as a new entrant in defence, security, and international affairs journalism, *DSA* faced initial challenges in gaining recognition among established subject matter experts. Although we were publishers without extensive experience in this specific field, our determination to curate relevant, high-quality content led to gradual acceptance. In just a few





months, *DSA* gained credibility within the circuit of defence, security and international affairs. The subject experts, who were initially hesitant to engage, soon recognised the value of our content and presentation, and they agreed to contribute articles. Many have continued their association with *DSA* to this day, helping it become one of the most widely read magazines in the domain. *DSA* is deeply grateful for their unwavering support, which remains the magazine's core strength.

DSA has published 180 editions in the past 15 years, covering almost every subject pertaining to India's national security. The first edition focused on the Naxal movement in India, examining its genesis and the threats it posed in various parts of the country at the time. This inaugural edition featured an article by the doyen of India's national security, Mr. K. Subramaniam. It also included an article by the current National Security Advisor, Mr. Ajit Doval, on Jammu and Kashmir—a piece that remains highly relevant today. DSA had the privilege and honor of publishing their articles in its very first edition.

The subsequent editions of DSA in 2010 covered a wide array of critical topics, focusing on significant issues related to defence, security, and international affairs, with a strong emphasis on India. The January edition highlighted the Indian Navy's uncharted mission, alongside analyses of China's assertiveness, Indo-Pak détente, and terror campaigns. February offered intriguing insights into the mysteries of the 1971 War, while March featured a special on Afghanistan, discussing Indo-Afghan relations, foreign investments, and America's involvement in this region. April was dedicated to the defence budget and industry, followed by a special issue on Jammu & Kashmir in May. June shifted the focus to the North East, while July addressed internal security. The August edition tackled global security issues, and September explored nuclear topics. The excitement built up towards October, which marked the anniversary edition, celebrating a year of impactful journalism. November explored China's growing influence, and the year wrapped up with a USA special in December. Each edition featured strategic articles by various experts, and by the time

DSA reached its 12th edition in October 2010, it had firmly established itself as a leading magazine, confidently covering India's defence, security and international affairs with expertise.

With each edition, *DSA* added more value to its goodwill, eventually obtaining ISO certification—becoming the first and only ISO-certified magazine in this genre to date. Gradually, DSA began interviewing the senior most officials in the defence and security forces, including Chiefs of the Indian Army, Indian Navy, and Indian Air Force, as well as Director Generals of various Central Armed Police Forces such as the BSF, CISF, CRPF, SSB, and NSG, to name a few. All were highly impressed with the quality of content and its presentation.

Interviews of some of the eminent Ambassadors and High Commissioners of various countries with India were also published, and all these interviews added more projection and promotion of *DSA* among the concerned internationally. *DSA* is the only magazine which has published the interview of the NATO Chief Anders Fogh Rasmussen twice.

DSA was one of the most acceptable magazines from India at the international conferences and exhibitions as their official media partner. We are glad to share that DSA has been the media partner of more than 70 international conferences and exhibition on the globe. DSA has also been the official media partner of some of the important conferences and seminars in India.

A big leap was taken by *DSA* when it was shortlisted as the only magazine of the world which was placed on the intranet of Indian Air Force in the year 2015 and makes its presence on it for the past eight consecutive years. With this *DSA* took a lead in the genre of defence journalism in India.

The design, artwork and presentation of each article in every edition posed a significance for *DSA*. As a serious magazine, finding relevant images and placing them aesthetically alongside the respective article was initially difficult for the design team who had never worked on this type of content before. However, over time, they understood the nuances of the subject matter and were able to create compelling visuals for each article, including the cover page which makes any magazine to stand out. Designing for a specialised and serious domain was a challenge, but the team finally succeeded in delivering high quality artwork and presentation.

The distribution of DSA was one of the biggest challenges, as there were few magazines in this genre back in 2009. Most distributors across the country did not have clients for such magazines but we tried for first three years and then realised the need for a change in the system and decided to make DSA available through the subscription model in 2013. And for that, we had to work really hard to reach out to the interested subscribers and by mid-2014, we had built a strong subscriber base for the print edition, including Army, Navy and IAF units and bases to research scholars, libraries, universities, colleges and individuals. The online edition also became popular in the meantime and as the usage of internet surged from 2014 onwards, many new subscribers joined DSA online and today, we have a solid base of print subscriptions of 20,000 plus and 60,000+ online subscribers and all our subscribers are satisfied in all manners.

The presence of *DSA* on the social media was essential and a team was constituted for this and gradually *DSA* became popular on the social media and today we can say that that *DSA* makes an active and impressive presence. We are sure that it will enhance its presence more effectively in the coming weeks, months and years to come.

After 15 years, it's time for Team *DSA* to revamp the website and our team is working diligently to give an internationally classic look and features for viewers concerned with national security. New features will be unveiled by the end of this month. We are sure that the redesigned website will attract more traffic and enable *DSA* to grow in multiple dimensions.

It's the time to extend my gratitude to all my past associates in *DSA* who worked hard to shape up the magazine at that time and without their esteemed efforts, *DSA* could have not published 180 successful editions. Thanks to all of you.

Our contributors have always been our backbone and I must extend my gratitude and sincere thanks to each one of them who have been an integral part of this eventful journey of 15 years. *DSA* is always there in the hands of the experts who has a vision for the national security. We quote, "*DSA* is committed to raising awareness among the policy-makers and decision-makers and every Indian about the principle that no one can prevent us from securing our nation.

Due to some unavoidable reasons, team DSA had to combine the October (15th Anniversary Edition) and November 2024 edition.

We hope this combination will be well accepted by our contributors, readers and Subscribers!

Team *DSA* is thankful to all its contributors, readers, advertisers and all the policy and decision-makers who have made *DSA* as the most read magazine in this genre.

JAI HIND!

Pawan Agrawal CEO - DSA





An ISO 9001:2015 Certified Magazine

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## DSA >> MAGAZINE

**Overview:** *DSA* was initially established with an onus on the Indian defence, security and international affairs. However, due to rapid global threats and challenges in these domains, *DSA* expanded its horizons internationally. The magazine has consistently published insightful articles by renowned subject experts from India and abroad, exploring the challenges, threats and potential solutions for creating a safe, secure and peaceful world.

**Vision:** After the Mumbai attack (2008) intrigue us to envision Defence and Security Alert (*DSA*) magazine to be a trusted and leading platform in defence, security and international affairs, providing expert analysis and insights that shape strategic thinking and decision-making. *DSA* is committed to address evolving global threats and challenges, fostering awareness and promoting a safe, secure and peaceful world.

**Mission:** Our mission is to publish insightful and strategic perspectives from subject matter experts to raise awareness among decision and policymakers. We also strive to highlight emerging and cutting-edge technologies in the domain, to achieve the vision of *DSA*.



## Celebrating



#### Years of

Excellence in defence, security and international affairs,

DSA specialises in strategic journalism and in-depth

analysis on critical global issues.

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# 92° RAISING DAY Indian Air Force Special





Dassault Rafale









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AIR CHIEF MARSHAL AP SINGH (CAS)
PVSM AVSM

Air Chief Marshal AP Singh PVSM AVSM was commissioned into the fighter stream of the Indian Air Force on 21 December 1984. He is an alumnus of National Defence Academy, Defence Services Staff College, Wellington and National Defence College. He is a Qualified Flying Instructor and an Experimental Test Pilot with more than 5000 hours of service flying on a variety of fixed wing and rotary wing aircraft. Prior to taking over as Chief of the Air Staff on 30 September 2024, he held the appointment of Vice Chief of the Air Staff. We, the Team DSA, congratulate him for his new appointment. Under his guidance and experience, the Indian Air Force looks forward to scaling new heights.



## EFFECTIVENESS OF ARTIFICIAL INTELLIGENCE IN INDIA'S NATIONAL SECURITY



#### EDITOR'S NOTE





There is a common saying that the ubiquitous Power Point Presentation (PPT) has now been made redundant by the emergence of Artificial Intelligence over the last few years. The rapid appearance of this software has changed the technology sphere to an unimaginable degree. From school going children to full-fledged authors, millions across the world are leaning on AI to complete essential daily tasks. What was unthinkable just a decade ago is now rampant across the creative side of the economy. So much so that what was once regarded as a permanent feature of office life, PPT, is now terminally ill.

#### Manvendra Singh Editor-in-Chief

Almost all of the emerging technologies over the decades have been spawned by the brilliance of research and development sections of the military industrial complex. There is an endless array of technologies that are being imagined, created and tested in the R&D laboratories by these creative companies. The simple Email was one such creation made for the military that slipped seamlessly into the civilian domain and is now virtually indestructible owing to its importance. That importance has only grown over the decades and forms a permanent aspect of technology and software which will always remain relevant and practically irreplaceable.

The writer is the Founding Editor of Defence and Security Alert (DSA) magazine. He is a well known defence journalist and columnist. He was a member of Indian Parliament from 2004-2009 from one of the largest constituencies in Rajasthan.

The same is virtually certain for Al's effectiveness in national security matters across the globe. India is also part of the zone where this technology is certain to play an effective role. There is no escaping its existence and prevalence in the country, and it's a matter of time before it begins to make an impact even at the operational level. Israel's brutal military campaign in Gaza is probably the world's first operation where Al has played an active role in unthinkable or unimaginable scenarios. End result being that Israel has depended on Al from target selection to actual combat.

This has not been success by any means for Israel since a number of individuals have been killed on the basis of AI developed profiles which suggest targeting on the basis of set parameters which would make someone a threat to the Zionist country. The AI developed parameters have cost the lives of scores of innocents. Which is something India cannot afford to carry as baggage since the essential civilisational ethos is vastly different from the prevailing Judeo-Christian values that determine western war fighting principles. India must retain its humanism and conscience that doesn't encourage the needless killing of innocents.

Al is not discerning enough to determine the difference between innocents and guilty in a war zone, so its induction into the national security apparatus must be carefully modulated. Al could not become a tool on which the operator becomes so dependent that such vital decisions are taken by a remotely operating software, rather than a superbly trained soldier. There are domains, however, where Al must be inducted so as to make the military a more efficient fighting machine. Military logistics is one such sector that could certainly benefit from such systems as Al. But human supervision must still dominate.

Tamadrast.

Owing to circumstances beyond our control, DSA has had to merge the October and November 2024 issues.

## PUBLISHER'S VIEW



Pawan Agrawal
Chief Executive Officer

The writer is a Publisher and CEO of Defence and Security Alert (DSA) magazine and has extensive experience in publishing and media.

## EFFECTIVENESS OF AI IN INDIA'S NATIONAL SECURITY

Technology has played a vital role in all the sphere of mankind which has made life quite easy, become integral to all spheres of human life, simplifying tasks and accelerating operations. Processes once managed manually are now seamlessly executed with the aid of technologies developed over recent decades. Today, almost every field is intertwined with technological advancements. However, as technology progresses, it also introduces new threats and challenges globally. To safeguard humanity is the supreme fundamental principal on the Globe. All the states are committed to safeguard the humanity in whatever manner it has to be.

One of the most transformative recent advancements is Artificial Intelligence (AI). All has quickly established itself as a critical technology, playing an influential role in research and development across numerous fields that impact society. From healthcare to finance, and from education to environmental conservation, AI is reshaping the way we solve complex problems. Its integration into military operations has also grown, influencing the defence and security forces of many nations.

India, bordered by countries like Pakistan and China, must remain especially vigilant regarding national security. With China extensively employing AI in its military operations and supporting Pakistan's military; India is further driven to enhance its own preparedness. Although India has always been ready to counter external threats, the widespread use of AI by neighbouring states underscores the need for India to develop its AI capabilities. Investing in AI not only strengthens our defence but also propels technological innovation across various sectors within the country.

The Indian Army, Air Force and Navy have already begun integrating AI technologies into their infantry, artillery, communications, logistics, fighter aircraft and warships, equipping various units and formations to effectively counter potential challenges. Alpowered surveillance systems, autonomous vehicles, and advanced data analytics are becoming integral components of our defence strategy. While AI is still an emerging field, we at DSA are confident that our research and development team will continue to provide the necessary support for AI applications in defence. Collaboration with academic institutions and industry leaders is fostering an ecosystem that accelerates innovation and ensures that our armed forces remain at the forefront of technological advancements.

This November 2024 edition is dedicated to exploring Artificial Intelligence and its contributions to India's national security. We delve into how AI is transforming defence strategies, enhancing decision-making processes and enabling predictive analytics for proactive threat management. I am certain that you will find this edition both informative and engaging.

Due to some unavoidable reasons, team DSA had to combine the October (15th Anniversary Edition) and November 2024 edition.

We hope this combination will be well accepted by our contributors, readers and Subscribers!

As we celebrate 15th years of dedication to defence and security analysis, we reaffirm our commitment to providing insightful perspectives on the evolving landscape of national security. Your continued support inspires us to strive for excellence in every edition.

JAI HIND!

Pawan Agrawal CEO - DSA

