

# समाचार पत्रों से चयित अंश Newspapers Clippings

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## Double delight for Army jawans

By Ajay Banerjee

The Ministry of Defence (MoD) has sorted out two long-standing issues impacting promotions of jawans and status of junior commissioned officers (JCO's) in the Army.

The ministry, on Wednesday, issued an order allowing the career progression scheme for jawans to be applicable from January 1, 2006, and not September 1, 2008. Under the modified assured career-progression scheme, a sepoy gets promoted as Naik after eight years of service; as Havildar after 16 years of service and Naib Subedar after 24 years of service.

This will mean faster promotions for those who were eligible as on that date. The move will also enhance pension for the beneficiaries. In another important step, the MoD has withdrawn its letter that did not permit "gazetted officer" status to JCOs.

There are around 64,000 personnel of the JCO or equivalent rank in the Air Force and the Navy. They are promoted from among the jawans and hold an important position in each battalion of the Army.

The MoD, in order last week, has withdrawn its letter dated June 14 that considered an Army headquarters request on the grant of status to JCO and non-productivity-linked bonus. It said, "There does not appear any specific order establishing the status of JCOs." The same has now been withdrawn.

### Career scheme

- The career progression scheme for jawans will be applicable from January 1, 2006, instead of September 1, 2008.
- The letter that did not permit "gazetted officer" status to junior commissioned officers has been withdrawn.

<https://www.tribuneindia.com/news/nation/double-delight-for-army-jawans/627422.html>

## Indian Army in commanding position on LoC now

*On Thursday, the Northern Army Commander Lt Gen Ranbir Singh explained a substantial improvement in infrastructure, including surveillance, night vision, fighting capabilities and modernisation since the Kargil war*

By Shaurya Karanbir Gurung

Line of Control (Dras): From adequate road infrastructure for movement of troops and supplies to new types of tunnel defences and a high technology surveillance apparatus, India has moved on from the Kargil war 19 years ago, even though intelligence inputs suggest that not much has changed on the Pakistani side of the Line of Control (LoC).

While basic facilities like regular water supply and electricity remain a problem, troops have access to more comfortable lodging and an adequate stocking of ration and medical equipment during winters so that even posts located at altitudes ranging from 12,000 feet to over 18,000 feet are not vacated in the winter season, which lasts for about six to seven months.

On the Pakistani side, sources said the infrastructure is much inferior with vulnerable radio communication lines and accommodation that is still made of stones, unlike the Indian army which mainly uses Fibre Reinforced Plastic (FRP) huts to ensure that its soldiers remain warm.

Lt Gen Amarnath Aul (retd), the then local Brigade commander in Dras and who had overseen operations for capturing Tololing and Tiger Hill, told ET that during that time the biggest problem he had faced was that he didn't have enough intelligence on the enemy's location and strength. "This was the biggest information I lacked before I could launch any operations. When we have arrived in Dras, most of the villagers had run away due to the enemy shelling. We had asked them about the enemy's strength. "This was the biggest information I lacked before I could launch any operations. When we have arrived in Dras, most of the villagers had run away due to the enemy shelling. We had asked them about the enemy's strength, but the information they gave was very bleak." Senior officers say that this has now been addressed with adequate usage of surveillance devices such as Hand Held Thermal Imagers, Unmanned Aerial Vehicles and even gets satellite imagery much more quickly than it did in the past.

On Thursday, the Northern Army Commander Lt Gen Ranbir Singh explained a substantial improvement in infrastructure, including surveillance, night vision, fighting capabilities and modernisation since the Kargil war. On road infrastructure, there has been slow improvement since 1999, with the 430 km long Srinagar-Leh highway called NH1 – believed to be the primary target of the Pakistani attack that sought to cut off Leh and Siachen from the rest of India – being converted into a double lane road last year.

The highway connects Srinagar to Sonamarg, Zojila pass, Drass, Kargil and Leh and features such as Tiger Hill and Tololing overlooking the highway were illegally occupied by the Pakistani armed forces personnel during the Kargil war, leading to constant surveillance of Indian troops movement and shelling of the road.

Work is also on to construct two tunnels- a tunnel in Sonamarg and the Zojila tunnel. The tunnel at Zojila- a pass located at about 14,000 feet and where Indian Army had used tanks against Pakistani soldiers in 1947-48- is of strategic importance for all weather connectivity and is likely to be constructed in the next five years.

In 1999, road infrastructure was bad, consisting of only rough tracks. Veterans who have served in the war also admitted that during the war sending supplies to troops were a major problem due to lack of good roads. These have now been replaced with paved roads for easy mobility.

The military has also spearheaded plans to have other routes leading to Leh and Kargil, given that the NH1 is vulnerable to enemy fire. Work is on to create a Darcha-Padam-Nimu road, which will connect Manali to Leh, for which a tunnel at Shinkhunla pass is being created.

Sources explain that the number of units and formations have increased as compared to the strength in 1999. They also said that in some sectors instructions have been passed to ensure that troops don't vacate the posts during winters. "We are not taking any chances. Most of the strategic peaks and passes on our side of the Line of Control are constantly occupied by us," explained an officer.

In the past, several posts which would be cut off due to snow during winters were vacated as sustaining troops here became very difficult. Now, the army is attempting to regularly clear the snow from the logistical lines to the posts to ensure longer sustenance of troops.

The Northern Army Commander also confirmed that routes to posts are being opened. "As far as infrastructure is concerned since the past couple of years a lot of work has been done. Today, we are trying to make roads till most of our forward posts. We are also trying to create a helipad on every post, so that in case of emergency we can bring down our troops by helicopters," he said.

But, this is an uphill task, explained sources. "Winters in this region witnesses about a couple of feet of snowfall everyday. Although machines to remove the snow are there, but it is not available everywhere, so jawans have to stomp on the snow regularly to create passages," explained sources.

<https://economictimes.indiatimes.com/news/defence/indian-army-in-commanding-position-on-loc-now/articleshow/65157197.cms>

*Fri, 27 July 2018*

## **India is ready for any contingency: Lt Gen Ranbir Singh**

Dras (Jammu and Kashmir) (ANI): General Officer Commanding-in-Chief (GOC) Northern Command, Lt Gen Ranbir Singh on Thursday said that the Indian Army is ready for any contingency.

On the occasion of the 19th anniversary of Kargil Vijay Diwas, Lt Gen Singh said, "Indian Army is ready for any contingency. Any kind of movement, misadventure which our adversaries try to undertake, they'll be given a befitting reply."

Expressing his gratitude to the soldiers who fought for the nation, Lt Gen Singh: "We applaud the magnificent efforts of all those gallant sons of the soil. We go ahead with gratitude for all those martyrs who sacrificed their lives in the service of the nation."

On transgressions along the Actual Line of Control, he further said, "On a number of occasions there have been reports that People's Liberation Army of China carried out transgressions in various areas along the Actual Line of Control but such transgressions took place in areas where we have different perception of the Actual Line of Control."

He emphasised that India and China have well-established mechanisms especially at the highest level where special representatives from both the countries discuss issues related to the resolution of the boundary dispute.

On Pakistan, Lt Gen Singh said: "As far as the internal situation in Pakistan is concerned, I think we will leave it to Pakistan authority and population to see how to handle the challenges inside their country. It hasn't affected our preparations."

Talking about the infrastructure, the GOC elaborated that there has been a lot of development since the past few years. "We are trying to connect all our forward posts with roads; we are also trying to make helipads in all the upcoming posts to bring back troops in case of any untoward situations. Soldiers can use ISAT telephones, DSPT, government lines etc wherever there is no mobile network," explained Singh.

Speaking on the situation in Jammu and Kashmir, he said, "A large majority of Jammu and Kashmir is peace-loving and want to support initiatives towards peace and restoration."

Lt Gen Singh also assured that the Army conducts operations in a professional manner while ensuring minimum collateral damage.

He further said that all the martyrs and war veterans have received their monuments, incentives as promised to them. (ANI)

<https://www.aninews.in/news/national/general-news/india-is-ready-for-any-contingency-lt-gen-ranbir-singh201807261455010001/>



*Fri, 27 July 2018*

## **China's defence minister to visit India by year-end**

Beijing: China's defence minister, Wei Fenghe, will visit India by the end of this year, following an invitation from the South Asian nation, defence ministry spokesman Ren Guoqiang told a monthly news briefing on Thursday.

China and India almost came to blows last year at the Doklam plateau near the borders of India, its ally Bhutan, and China, in the most serious and prolonged standoff in decades along the disputed Himalayan border.

They subsequently withdrew their troops and have worked hard to mend ties, through meetings between Chinese President Xi and Indian Prime Minister Narendra Modi, among other steps but remain deeply suspicious of each other.

<https://economictimes.indiatimes.com/news/defence/chinas-defence-minister-to-visit-india-by-year-end/articleshow/65147417.cms>



*Fri, 27 July 2018*

## **IISc's rare feat in test for superconductivity**

*By R. Prasad*

For the first time, researchers from the Indian Institute of Science (IISc) Bengaluru have been able to achieve superconductivity at ambient temperature and pressure. A large number of materials have been found to undergo normal to superconducting transitions. But such transitions require extremely low temperature and/or extremely high pressure. Achieving this transition at ambient temperature and pressure therefore gains great significance. The pre-print findings are reported in ArXiv.

A material is said to exhibit superconductivity when it is able to conduct electric current with practically zero resistance. So unlike the conventionally used materials such as copper and steel, a superconductor can carry a current indefinitely without losing any energy.

### **Surprising result**

A team, led by Professor Anshu Pandey from the Solid State and Structural Chemistry Unit at IISc, observed superconductivity in nano-sized films and pellets made of silver nanoparticles embedded in a gold matrix. Superconductivity was observed at minus 37 degree Celsius. The resistance observed is very low — 10<sup>-4</sup> ohms — but not zero.

“The results look robust and interesting. At the same time, it is a surprising result as a mixture of two metals — silver and gold — shows superconductivity,” said Professor Pratap Raychaudhuri from the Superconductivity Lab at Tata Institute of Fundamental Research, Mumbai. It’s a remarkable achievement. To me, it is a pleasant surprise but not a shock,” said Dr. Ganapathy Baskaran from Chennai’s Institute of Mathematical Sciences who has been working in the field of superconductivity for nearly 30 years. “They didn’t observe zero resistance but the resistance seen is very low, much lower than any metal.”

### **Meissner effect**

Professor Pandey’s team did observe the Meissner effect though the effect is relatively low. Meissner effect is where the magnetic fields are completely expelled by the superconducting state and is a crucial evidence for superconductivity.

“Though they didn’t observe perfect Meissner effect, they did observe samples becoming strongly diamagnetic, which is consistent with superconductivity,” said Dr. Baskaran, a SERB Fellow. A diamagnetic material is repelled by magnetic field and is consistent with superconductivity.

Though the diamagnetism is not complete, it is strong enough. “There may be several reasons why they didn’t observe complete diamagnetism. For instance, it is difficult to observe complete diamagnetism in the material that they have used,” said Professor Raychaudhuri.

<https://www.thehindu.com/todays-paper/tp-life/iiscs-rare-feat-in-test-for-superconductivity/article24525973>

## Innovation: Making desalination sustainable, feasible

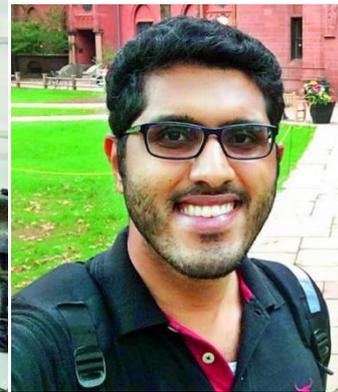
*Chemical engineering graduates Apoorva Goel and Gautam Sabhahit have evolved a model for desalination of water and simultaneous generation of electricity, which has made it to the final five of a worldwide contest*

*By B.R. Srikanth*

Bacteria are not always a bane, and could be beneficial too. Two chemical engineers, Apoorva Goel and Gautam Sabhahit, who graduated from the National Institute of Technology, Karnataka, will, without doubt, endorse the importance of bacteria, which played a stellar role in a novel method they invented for desalination of water.



*Apoorva Goel with the desalination plant*



*Gautam Sabhahit*

The two from India were among the top five teams in a worldwide contest held by Shell Plc. Apoorva moved to the American University of Sharjah in UAE for a Master's in chemical engineering, while Gautam is studying financial risk management at the University of Connecticut, USA, but they continued working on their concept christened 'BioDesal', which has the potential to improve the desalination process by converting seawater into solid salt and treated water.

Their model eliminates waste brine and generates electricity to support the equipment albeit with the help of bacteria. "We joined (the competition) casually. We got inspired to do something real. I am doing my Master's on the same topic. So joining this competition helped set an interesting goal," says Apoorva Goel, adding that her teammate Gautam Sabhahit turned it into a business model which could be sold at the competition.

Water scarcity is practically a worldwide phenomenon, but Apoorva and Gautam had first-hand experience of it having spent their childhoods in the desert like environs of the UAE. They knew how expensive drinking water was because it was piped from desalination plants.

"Some of us are aware that decades of desalination have polluted the Arabian Gulf because of generation of waste brine. This waste brine has increased salinity of the Arabian Gulf by 30 per cent. This increase in salinity means desalination plants have to use even more energy for desalination through the years. The Arabian Gulf is the perfect example of lack of sustainability of current desalination technologies," says Apoorva.

With an impending water crisis which will grip the world by 2050, it is of paramount importance to make desalination sustainable and feasible in the long term, she says. "During my Master's course, my research project was on Microbial Desalination cells. These cells use bacteria to generate electricity. Therefore, our aim with this project was to propose a system that had the potential to eliminate waste brine and at the same time be independent of high energy requirement.

Gautam and I want to strongly encourage people to invest in research in water infrastructure and aim to free it from energy dependence and waste generation.

Only then can we survive the consequences of our problems — climate change, population explosion and water pollution, all of which play a major role in creating water scarcity in communities,” Apoorva adds.

While they wait to hear the announcement of the winners of the ‘Shell Ideas 360’ contest, they are working on perfecting their invention. “The challenge we face currently is that the efficiency is low. So we are still doing research on how to improve its efficiency even as we pursue further studies. If we are able to make it feasible, we can look for seed funding and participate in other competitions,” says Gautam Sabhahit.

The other alternative, according to Apoorva Goel, would be to sign up for collaboration with Shell Plc in case this model makes it to the winner’s slot.

Experts point out that desalination would be the ideal way forward to combat shortage of water as two-thirds of the world could face scarcity by 2025. The Niti Aayog’s latest report too paints a dismal picture: 21 Indian cities will run out of groundwater by 2020. With nearly 600 million facing high-to-extreme water stress-where more than 40 per cent of the annually available surface water is used every year-and about 200,000 people dying every year due to inadequate access to safe water, the situation is likely to worsen as the demand for water will exceed the supply by 2050.

<http://www.asianage.com/decaf/270718/innovation-making-desalination-sustainable-feasible.html>



*Fri, 27 July 2018*

## **Einstein was right: astronomers confirm key theory of relativity – LIFE**

A consortium of astronomers said on Thursday they had for the first time confirmed a prediction of Albert Einstein’s theory of general relativity by observing the gravitational effects of a super massive black hole on a star zipping by it. The German-born theoretical physicist had posited that large gravitational forces could stretch light, much like the compression and stretching of sound waves we perceive with the change of pitch of a passing train. Researchers from the GRAVITY consortium led by the Max Planck Institute for Extraterrestrial Physics realised that they had a “perfect laboratory” to test Einstein’s theory with the black hole, Sagittarius A\*, in the centre of the Milky Way.

Black holes are so dense that their gravitational pull can trap even light and the super massive Sagittarius A\* has mass four million times that of our sun, making it the biggest in our galaxy. Astronomers followed the S2 star as it passed close to the black hole on May 19 at a speed in excess of 25 million km per hour. They then calculated its velocity and position using a number of instruments and compared it with predictions made by Einstein that the light would be stretched by the gravity, in an effect called gravitational red shift. Newtonian physics doesn’t allow for a red shift.

### **First observation**

“The results are perfectly in line with the theory of general relativity” and are “a major breakthrough towards better understanding the effects of intense gravitational fields,” said the research team, whose findings are published in Friday’s issue of *Astronomy & Astrophysics*.

This is the first time observers have been able to measure such an effect.

The European Southern Observatory, whose Very Large Telescope in Chile was used to make the observations, had watched S2 pass by Sagittarius A\* in 2016 but the instruments it was using then were not sensitive enough to detect the gravitational red shift. “More than 100 years after he published his paper setting out the equations of general relativity, Einstein has been proved right once more — in a much more extreme laboratory than he could have possibly imagined,” said the ESO in a statement.

### **Practical utility**

Astronomers already use another effect predicted by Einstein's theory of general relativity — that a black hole can bend passing light. Called gravitational lensing, researchers have used it to peer behind black holes.

Astronomers hope they can make practical use of the latest confirmation of Einstein's theory to track shifts in S2's trajectory due to gravity, which could yield information on mass distribution around the black hole.

"I am blown away by Einstein's predictions, by the power of his reasoning which yielded this theory and which has never been faulted," French astrophysicist Guy Perrin, a member of the consortium, said.

## **Business Standard**

*Fri, 27 July 2018*

# **Sonam Wangchuk and Bharat Vatwani among 2 Indians to get Magsaysay award**

*The awards will be presented on August 31 at Main Theater, Cultural Center  
of the Philippines*

Two Indian nationals, Bharat Vatwani and Sonam Wangchuk, are among the six personalities named for this year's Ramon Magsaysay award.

The Ramon Magsaysay award, widely known as Asia's premier prize, is now in its 60th year of "honouring greatness of spirit and transformative leadership in selfless service to the peoples of Asia."

The other recipients of the annual honour include Cambodia's Youk Chhang, who has been honoured for "preserving historical memory for healing and justice"; Maria de Lourdes Martins Cruz from East Timor for "building a caring society brick by brick"; Howard Dee of the Philippines for "Championing the human face of peace, justice and economic growth"; Vietnam's Vo Thi Hoang Yen for "claiming opportunities for the differently abled".

In electing Vatwani, the board of trustees recognised "his tremendous courage and healing compassion in embracing India's mentally-afflicted destitute, and his steadfast and magnanimous dedication to the work of restoring and affirming the human dignity of even the most ostracized in our midst."

Since its inception, over 330 individuals and organisations have joined the distinguished community of Ramon Magsaysay Awardees. Wangchuk, the inspiration behind the hugely popular bollywood movie "Three Idiots", has been recognised for "his uniquely systematic, collaborative and community-driven reform of learning systems in remote northern India, thus improving the life opportunities of Ladakhi youth, and his constructive engagement of all sectors in local society to harness science and culture creatively for economic progress, thus setting an example for minority peoples in the world".

The prestigious award is given to persons -- regardless of race, nationality, creed or gender -- who address issues of human development in Asia with courage and creativity, and in doing so have made contributions which have transformed their societies for the better.

The awards will be presented on August 31 at Main Theater, Cultural Center of the Philippines.

[https://www.business-standard.com/article/current-affairs/sonam-wangchuk-and-bharat-vatwani-among-2-indians-to-get-magsaysay-award-118072600987\\_1.html](https://www.business-standard.com/article/current-affairs/sonam-wangchuk-and-bharat-vatwani-among-2-indians-to-get-magsaysay-award-118072600987_1.html)