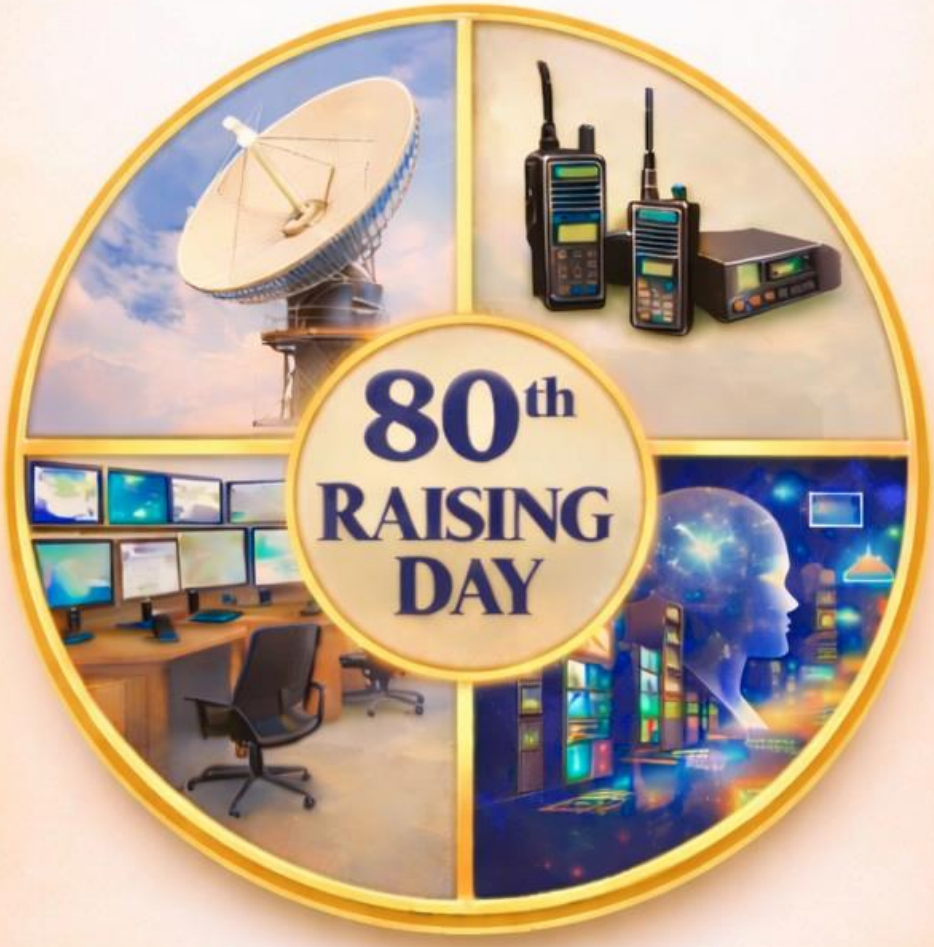
विशेषांक

Special Edition

संचार समन्वय

Sanchar Samanvay

'तकनीक, समन्वय और प्रतिबद्धता: सुरक्षित एवं सुदृढ़ भारत का संकल्प'



समन्वय निदेशालय पुलिस बेतार

Directorate of Coordination Police Wireless

गृह मंत्रालय

Ministry of Home Affairs

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Disclaimer: The views expressed in the articles published in this magazine are personal to the authors and does not necessarily reflect the views of the Department.

The Genesis of

Directorate of Coordination Police Wireless

This Department came into existence on 19.02.1946, initially as `Inspectorate of Wireless' and was later accorded the status of Directorate of Coordination (Police Wireless), a subordinate organization, under Ministry of Home Affairs in 1950. It was entrusted with the responsibility of coordinating for developing and establishing the Police Telecommunication Network in the country and also to advise MHA on all Police Telecommunication matters, predominant being round the clock communication between the Centre and State/UT capitals through a network of presently 31 Interstate Police Wireless Stations located in the State/UT capitals.

At the time of its inception, Wireless telegraphy starting with old Second World War equipment was the only mode available for communication and during the early 1970s, a teleprinter network using electro-mechanical devices was introduced. However, there was a vast change in the scenario during the next decade with the induction of sophisticated microprocessor based high speed data transmission systems i.e., Automatic Message Switching System, Burst Error Control System for Teleprinter transmission, Packet Radio, EPABX using PSTN Modems etc. Presently this Directorate has been entrusted with the responsibility of setting up of an Integrated Police Wireless Network in the country, known as POLNET with the aim of having direct "Police Station to any Police Station" communication and as back bone for on line Crime Criminal Information System of the country.

The Directorate also runs a Central Police Radio Training Institute which was initially started as a small training school for the in-service training requirements of DCPW personnel. This was later upgraded into a full fledged National Level Police Wireless Training Institute in 1971 to cater the needs of States/CPOs and other security organizations to improve the efficiency of their technical and operational manpower.

अमित शाह

सत्यमेव जयते

गृह मंत्री एवं सहकारिता मंत्री
भारत सरकार

दिनांक : 12 फरवरी 2026

संदेश

यह जानकर अत्यंत प्रसन्नता हो रही है कि **समन्वय निदेशालय पुलिस बेतार (डी.सी.पी.डब्ल्यू.)** अपने स्थापना के **गौरवशाली 80 वर्ष** पूर्ण कर रहा है। राज्य व केंद्रीय पुलिस बलों के बीच रेडियो संचार, स्पेक्ट्रम प्रबंधन और उपग्रह नेटवर्क के माध्यम से निर्बाध संचार सुनिश्चित करके राष्ट्रीय सुरक्षा में महत्वपूर्ण भूमिका निभाते हुए आठ दशक पूरे करने पर मैं विभाग के सभी अधिकारियों एवं कर्मचारियों को हार्दिक बधाई देता हूँ। स्थापना दिवस के इस विशेष अवसर पर विभाग द्वारा उल्लेखनीय उपलब्धियों, मुख्य गतिविधियों तथा संचार समन्वय के क्षेत्र में किये गए नवाचारों को प्रदर्शित करते हुए **'संचार समन्वय'** नामक एक पत्रिका का विमोचन किया जाना अत्यंत प्रशंसनीय पहल है।

माननीय प्रधानमंत्री श्री नरेंद्र मोदी जी के नेतृत्व में भारत सरकार ने राष्ट्रीय सुरक्षा को सर्वोच्च प्राथमिकता देते हुए पुलिस तंत्र को आधुनिक और सशक्त बनाने की दिशा में कई महत्वपूर्ण कदम उठाए हैं। इसी क्रम में समन्वय निदेशालय पुलिस बेतार (DCPW) के आधुनिकीकरण हेतु POLNET 2.0 की शुरुआत की गई, जिससे दूरदराज़ और दुर्गम क्षेत्रों में भी वीडियो कॉन्फ्रेंसिंग और डेटा साझाकरण की उन्नत सुविधाएँ उपलब्ध हो सकें। **'मेक इन इंडिया'** पहल के अंतर्गत पुलिस संचार उपकरणों के स्वदेशीकरण को विशेष प्रोत्साहन दिया गया है, वहीं साइबर सुरक्षा और AI जैसे उभरते क्षेत्रों में प्रशिक्षण सुविधाओं का भी व्यापक विस्तार किया गया है। भारतीय न्याय प्रणाली में ऐतिहासिक परिवर्तन करते हुए **भारतीय न्याय संहिता** (BNS), **भारतीय नागरिक सुरक्षा संहिता** (BNSS) और **भारतीय साक्ष्य अधिनियम** (BSA) को लागू किया गया है जिससे एक आधुनिक, जनोन्मुखी एवं न्यायकेन्द्रित व्यवस्था स्थापित हुई है।

इस वर्ष की थीम **'तकनीक, समन्वय और प्रतिबद्धता : सुरक्षित एवं सुदृढ़ भारत का संकल्प'** समन्वय निदेशालय पुलिस बेतार (डी.सी.पी.डब्ल्यू.) की प्राथमिकताओं, कार्य-प्रणाली और राष्ट्रीय महत्त्व को स्पष्ट रूप से परिभाषित करती है। मैं इस कार्यक्रम के सफल आयोजन हेतु विभाग के समस्त अधिकारियों तथा कर्मचारियों को पुनः अपनी शुभकामनाएँ प्रेषित करता हूँ और मुझे पूर्ण विश्वास है कि डी. सी. पी. डब्ल्यू. भविष्य में भी राष्ट्र की सुरक्षा व सुदृढ़ता में अपनी अग्रणी भूमिका निभाता रहेगा।

मंगलकामनाओं सहित,

आपका

(अमित शाह)

श्री संजय अग्रवाल
निदेशक - समन्वय निदेशालय पुलिस बेतार
ब्लाक नं-9, सी.जी.ओ. काम्प्लेक्स
लोधी रोड, नई दिल्ली – 110 003

नित्यानन्द राय
NITYANAND RAI

सत्यमेव जयते

गृह राज्य मंत्री
भारत सरकार
कर्तव्य भवन–3, नई दिल्ली – 110001
MINISTER OF STATE FOR
HOME AFFAIRS
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KARTAVYA BHAVAN-3,
NEW DELHI - 110001

संदेश

मुझे यह जानकर अत्यंत प्रसन्नता हो रही है कि समन्वय निदेशालय पुलिस बेतार (डी.सी.पी.डब्ल्यू.) के 80वें स्थापना दिवस के अवसर पर "संचार समन्वय" पत्रिका के विशेषांक का विमोचन किया जा रहा है। मैं इस प्रतिष्ठित संगठन के समस्त अधिकारियों एवं कर्मचारियों को हार्दिक बधाई एवं शुभकामनाएँ देता हूँ।

डी.सी.पी.डब्ल्यू. ने दशकों से पुलिस एवं अन्य सुरक्षा एजेंसियों के लिए सुरक्षित, समन्वित और विश्वसनीय संचार व्यवस्था सुनिश्चित कर देश की आंतरिक सुरक्षा संरचना को सुदृढ़ किया है। तकनीकी उन्नयन और अंतर-एजेंसी समन्वय के माध्यम से संगठन ने परिचालन दक्षता और त्वरित प्रतिक्रिया क्षमताओं को मजबूत किया है।

वर्तमान समय में, जब आंतरिक सुरक्षा से जुड़ी चुनौतियाँ अधिक जटिल होती जा रही हैं तब संचार प्रणालियों का सुरक्षित, लचीला और भविष्य उन्मुख होना अत्यंत आवश्यक है। डी.सी.पी.डब्ल्यू. द्वारा आधुनिक सूचना एवं संचार प्रौद्योगिकियों के प्रभावी उपयोग की दिशा में किए जा रहे प्रयास प्रशंसनीय हैं।

इस वर्ष की स्थापना दिवस थीम **"तकनीक, समन्वय और प्रतिबद्धताः सुरक्षित एवं सुदृढ़ भारत का संकल्प"** संगठन की दृष्टि और दायित्व को स्पष्ट रूप से प्रतिबिंबित करती है। 'संचार समन्वय' पत्रिका का विशेषांक डी.सी.पी.डब्ल्यू. की उपलब्धियों और अनुभवों का एक महत्वपूर्ण संकलन है।

मैं डी.सी.पी.डब्ल्यू. के उज्ज्वल भविष्य की कामना करता हूँ और सभी अधिकारियों एवं कर्मचारियों से इसी प्रतिबद्धता के साथ कार्य करते रहने का आह्वान करता हूँ।

(नित्यानन्द राय)

नई दिल्ली।
फरवरी, 2026

Office Tel. : 011-24010311, 24010312

बंडी संजय कुमार
BANDI SANJAY KUMAR

गृह राज्य मंत्री
भारत सरकार
MINISTER OF STATE FOR
HOME AFFAIRS
GOVERNMENT OF INDIA

International Year of Cooperatives
Cooperatives Build a Better World

सत्यमेव जयते

स्वच्छ भारत
एक कदम स्वच्छता की ओर

Message

On the occasion of the 80th Raising Day of the Directorate of Coordination Police Wireless (DCPW), I extend my warm greetings and best wishes to all officers and personnel of this esteemed organisation.

Over the years, DCPW has played a significant role in strengthening the internal security framework of the country by enabling secure, reliable, and coordinated communication systems for police and public safety agencies. Its sustained emphasis on inter-agency coordination and technological integration has enhanced operational preparedness and response capabilities across the nation.

In the present security environment, communication systems form the backbone of effective policing, disaster response, and crisis management. DCPW's efforts to align evolving technologies with operational requirements reflect a forward-looking and mission-oriented approach, fully aligned with national priorities.

The theme "Technology, Coordination and Commitment: A Resolve for a Secure and Resilient India" aptly captures the organisation's vision. I am pleased to note the publication of the special edition of Sanchar Samanvay, which documents DCPW's journey and contributions and serves as a valuable institutional resource.

I wish DCPW continued success in fulfilling its mandate and commend all officers and staff for their dedication and professionalism.

(Bandi Sanjay Kumar)

Office : Room No. 35044, Kartavya Bhawan-3, Janpath, New Delhi-110 001 Tel. : 24010331, 24010332

गोविंद मोहन, भा.प्र.से.
GOVIND MOHAN, IAS

सत्यमेव जयते

गृह सचिव
Home Secretary
भारत सरकार
Government of India
कर्तव्य भवन–3 / Kartavya Bhavan-3
नई दिल्ली / New Delhi

संदेश

समन्वय निदेशालय पुलिस बेतार (डी.सी.पी.डब्ल्यू.) के 80वें स्थापना दिवस के अवसर पर मैं संगठन के सभी अधिकारियों एवं कर्मचारियों को हार्दिक बधाई एवं शुभकामनाएँ देता हूँ।

2. गृह मंत्रालय के अधीन डी.सी.पी.डब्ल्यू. एक ऐसा विशिष्ट संस्थान है, जिसने दशकों से देश की आंतरिक सुरक्षा संरचना को सुदृढ़ करने में महत्वपूर्ण भूमिका निभाई है। प्रभावी शासन, कानून व्यवस्था तथा आपदा प्रबंधन के लिए सुरक्षित और समन्वित संचार व्यवस्था एक अनिवार्य आधार है, और डी.सी.पी.डब्ल्यू. ने इस दायित्व को संस्थागत क्षमता और निरंतर समन्वय के माध्यम से सफलतापूर्वक निभाया है।

3. डी.सी.पी.डब्ल्यू. की भूमिका समय के साथ विकसित हुई है और संगठन ने बदलते सुरक्षा परिदृश्य तथा तकनीकी परिवर्तनों के अनुरूप स्वयं को निरंतर अनुकूलित किया है। मंत्रालय के व्यापक उद्देश्यों के अनुरूप, डी.सी.पी.डब्ल्यू. ने केंद्रीय एवं राज्य एजेंसियों के बीच कार्यात्मक समन्वय, मानकीकरण और संस्थागत सहयोग को सुदृढ़ करने में महत्वपूर्ण योगदान दिया है।

4. इस वर्ष का स्थापना दिवस विषय — "तकनीक, समन्वय और प्रतिबद्धता: सुरक्षित एवं सुदृढ़ भारत का संकल्प" — इस तथ्य को रेखांकित करता है कि आधुनिक सुरक्षा व्यवस्था में तकनीक तभी प्रभावी होती है जब वह मजबूत संस्थागत समन्वय और प्रतिबद्धता से समर्थित हो। 'संचार समन्वय' पत्रिका का विशेषांक संगठन की यात्रा और उपलब्धियों का एक महत्वपूर्ण दस्तावेज है।

5. मुझे पूर्ण विश्वास है कि डी.सी.पी.डब्ल्यू. आगे भी मंत्रालय के उद्देश्यों के अनुरूप देश की आंतरिक सुरक्षा व्यवस्था को सुदृढ़ करने में प्रभावी भूमिका निभाता रहेगा।

(गोविंद मोहन)

स्थान – नई दिल्ली।
दिनांक – 13.02.2026

Room No. 35101, 5th Floor, Kartavya Bhavan-3, Janpath, New Delhi-110001
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प्रसन्ना. आर, आई. ए. एस.
संयुक्त सचिव
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Tel. : 011-24010051
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सत्यमेव जयते

स्वच्छ भारत
एक कदम स्वच्छता की ओर

भारत सरकार
गृह मंत्रालय
कर्तव्य भवन–III बिल्डिंग,
जनपथ, नई दिल्ली–110001
Government of India
Ministry of Home Affairs
Kartavya Bhavan-III Building,
Janpath, New Delhi-110001

MESSAGE

On the occasion of the 80th Raising Day of the Directorate of Coordination Police Wireless (DCPW), I extend my warm greetings and best wishes to all members of the DCPW fraternity. The completion of eight decades of dedicated service is a testament to the organisation's enduring role in strengthening India's internal security communication framework.

The theme adopted for this milestone year, "Technology, Coordination and Commitment: A Resolve for a Secure and Resilient India," is timely and forward- looking. It reflects the critical importance of secure, interoperable, and resilient communication systems as key enablers of effective policing, disaster response, and internal security operations in a rapidly evolving technological environment.

Under the visionary leadership of the Hon'ble Prime Minister, India is pursuing the goal of "Viksit Bharat @2047", encompassing empowered citizens, a robust and sustainable economy, technological leadership, and a strong global presence guided by the philosophy of *One Earth, One Family, One Future.* In this national journey, internal security communications constitute a foundational pillar, directly influencing governance, public safety, and national resilience.

With its rich legacy of 80 years, DCPW has been maintaining a nationwide 24x7 wireless and communication coordination ecosystem, enabling rapid, coordinated, and effective response during emergencies, disasters, and security operations. As the nodal technical and advisory authority to the Ministry of Home Affairs on police telecommunications, DCPW continues to play a unique and indispensable role. In alignment with national priorities, the Directorate is transforming itself into a modern, technology-driven organisation with focused initiatives in areas such as Jail Jammers, Disaster Management applications, Cyber Security, Radio Monitoring, Artificial Intelligence, and the integration of Drone and Counter-Drone systems with ICT infrastructure.

Contd/--2

I am pleased to note that a special edition of *Sanchar Samanvay* is being published on this occasion, capturing the activities, achievements, and technological advancements of the Directorate. This publication will serve as an important knowledge resource and a reflection of DCP W's evolving role in nation-building.

I wish DCPW continued success and call upon all officers and staff to remain steadfast in their commitment towards strengthening India's internal security communications.

R Prasana
JS(PM), MHA
New Delhi
11/02/2026

संजय अग्रवाल
निदेशक

सत्यमेव जयते

Directorate of Coordination Police Wireless
Ministry of Home Affairs
Phone : 011-24361561
E-mail : director.dcpw@gov.in

Date: 15 Feb, 2026

MESSAGE

The 80th Raising Day of the Directorate of Coordination Police Wireless is a moment of pride and reflection for the entire DCPW fraternity. Eight decades of service to the nation represent not merely the passage of time, but a sustained and evolving commitment to strengthening police and internal security communications across the country.

Since its inception in 1946, DCPW has served as the technical nodal organisation of the Ministry of Home Affairs in the field of police communications. Over the decades, the Directorate has expanded its mandate from coordination and standardisation of wireless systems to enabling secure, resilient, and technology-driven communication frameworks for States/UTs, Central Armed Police Forces, and other security agencies. In a country as vast and diverse as India, dependable and interoperable communication systems remain essential for operational preparedness and effective response.

Guided by the national vision of Viksit Bharat @2047, DCPW continues to strengthen the communication architecture that underpins India's internal security framework. The year gone by has witnessed focused progress across key areas of the Directorate's mandate. Successful integration testing of POLNET with Drones and Network-in-a-Box solutions has enhanced field responsiveness and operational flexibility. Advancement of the Public Protection and Disaster Relief (PPDR) framework, reinforcement of disaster recovery capabilities, and continued consultations with stakeholders on the All India Police Wireless Manual reflect our commitment to resilience, coordination, and modernisation.

Alongside these initiatives, DCPW is engaging with emerging technologies, including Artificial Intelligence and next-generation communication solutions, with the objective of improving operational efficiency and inter-agency coordination. Collaboration with Rashtriya Raksha University (RRU) and ongoing revision of training curricula further underscore the Directorate's emphasis on capacity building and future readiness.

On this occasion, we pay respectful tribute to our veterans whose dedication, professionalism, and technical expertise have shaped the growth of DCPW over the past eight decades. Their vision and sustained efforts laid the strong institutional foundation upon which the Directorate stands today.

The Special Edition of ***Sanchar Samanvay***, being released on this historic milestone, reflects the journey, achievements, and evolving responsibilities of DCPW within the national security framework. I appreciate the

contributions of officers and officials who have shared their knowledge and experience through this publication, and I encourage continued participation so that it remains a vibrant platform for professional exchange and collective learning.

The theme of this year's Raising Day — "तकनीक, समन्वय और प्रतिबद्धता : सुरक्षित एवं सुदृढ़ भारत का संकल्प" — encapsulates the core principles guiding the Directorate. Technology must reinforce coordination; coordination must strengthen confidence among agencies; and that confidence must translate into enhanced national security outcomes.

As we commemorate this 80th Raising Day, let us renew our collective resolve to perform our responsibilities with dedication, discipline, and technical excellence. I am confident that our continued and coordinated efforts will further strengthen India's internal security communication framework and contribute meaningfully towards building a सशक्त एवं सुरक्षित भारत.

I extend my warm greetings and best wishes to all officers, staff, and all stakeholders associated with the Directorate on this historic occasion.

(Sanjay Agrawal)

H.S. Srihari
Joint Director, DCPW

"Wired by History. Wireless by Choice."

The Raising of DCPW & The Legacy of Bharat's Police Wireless Excellence

Snapshots from Archives

As we mark the 80th Raising Day of DCPW on February 19, 2026, we honour the visionary legacy that led to our establishment. The story of DCPW is the story of police wireless in India itself. While technologies have evolved, our 1946 mandate remains as vital today as ever. It serves as our North Star, guiding us to re-dedicate ourselves to excellence as we embrace the next frontier of police communication. In the context of **Police Wireless**, history is the bridge from "vintage telegraphy" to "real-time digital intelligence." Understanding this history is vital because modern protocols, frequency allocations, and hardware standards are often direct descendants of systems established decades ago.

- **Evolution of Infrastructure:** Modern police wireless systems evolved from post-WWII surplus equipment and early wireless telegraphy established in the 1940s.
- **Operational Continuity:** History explains the shift from fixed "Signal Boxes" to VHF/HF mobile sets, which allows commanders today to maintain 24/7 contact with the remotest outposts.
- **Crisis Blueprinting:** Past successes & failures provide the procedural "Institutional Memory" needed for modern policing and disaster management.
- **Legacy Protocol:** Understanding why certain frequencies are reserved or why encryption became mandatory helps current officers navigate the transition to modern systems without compromising security

The history of police wireless in Bharat is a journey from the trumpeting of elephants to satellites to the high-speed data of 5G/LTE. It reflects a shift from simple voice messages to a complex, integrated digital highway for public safety.

Fun Fact: The Elephant Link

The first "mobile" units in Indian police history weren't vans, but **elephants** at the 1938 Haridwar Kumbh Mela. They carried heavy HF sets to provide a bird's-eye view of the crowd, proving that Indian policing has always been at the forefront of adaptive technology!

Key Architectural Shifts in Police Wireless Systems in Bharat

The architectural journey of Police Wireless in Bharat is a story of moving from isolated voice links to an integrated digital ecosystem. Each shift represents a leap in how information travels—not just faster, but with more intelligence and autonomy.

- **HF (High Frequency):** Relied on "skywave" propagation to bounce signals off the ionosphere. Great for long distances but prone to atmospheric noise and "dead zones."
- **VHF/UHF:** Provided clearer, "ground-wave" communication. VHF became the standard for the classic "Walkie-Talkie" used by beat officers, while UHF allowed for more channels in dense urban environments.
- **POLNET:** Solved the problem of India's diverse geography (mountains, deserts, islands) where cables or towers couldn't reach, using dedicated satellite bandwidth.
- **PPDR (The Future):** Moving away from "Narrowband" (voice only) to "Broadband PPDR" (MCData, MCvideo, GPS, IoT integration). This is where **NIB (Network-in-a-Box)** fits in—providing a private, tactical LTE/5G bubble wherever the police go.

"Always Connected, Never Offline— Decades of Wireless Trust, Elevated by POLNET Satellite Strength and PPDR Precision— Bharat's Police Wireless is Now Broadband Bound.."

The "Nervous System" Architecture of Police Wireless in 2026

Today, the architecture is no longer a straight line; it is a **hybrid mesh**.

1. **Space Layer:** POLNET 2.0 provides the global link.
2. **Terrestrial Layer:** 5G/LTE PPDR provides the urban speed.
3. **Tactical Layer:** NIB and Flyaway terminals provide the "on-the-scene" bubble.

"Communication Seamless: Decades of Reliability, Seconds of Response."

Relevance of DCPW - *"Legacy of the Airwaves, Speed of the Future."*

Off late questions have been raised in several quarters about the relevance of DCPW in the current technological era. In this context *the "Chesterton's Fence" Principle* is worth remembering*: Before you tear down a "fence" within an organization, history compels you to understand why it was put up in the first place. If you don't know its original purpose, you can't be sure that removing it won't cause a disaster.*

DCPW's 1946 mandate was to "coordinate." In 2026, that coordination has evolved into Synchronization. Without DCPW, the Space Layer would be silent, the Terrestrial Layer would be a chaotic mix of incompatible signals, and the Tactical Layer would be a series of "blind" bubbles. In 2026, our relevance was about bridging distance. In 2026, our mission is about bridging both distance and intelligence. DCPW is no longer just about the airwaves; it is to manage a complete digital ecosystem—guaranteeing that from a drone's aerial view to a constable's tactical kit, the flow of information remains secure, instantaneous and uninterrupted.

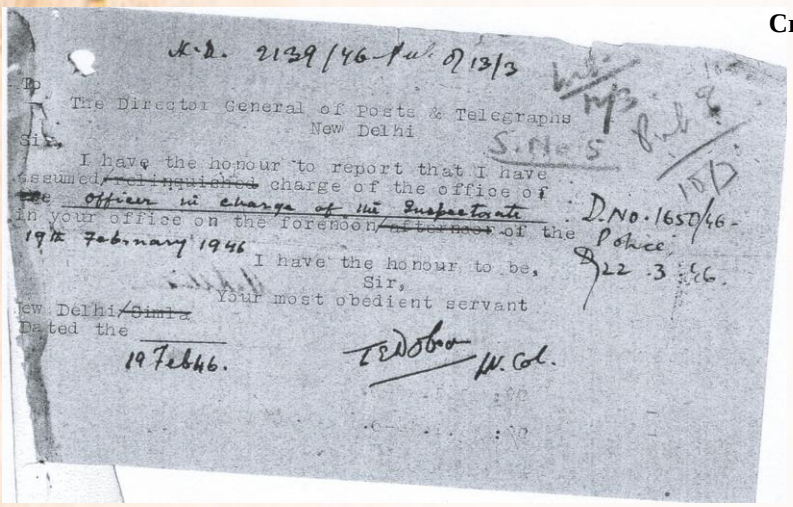
"From Radio Waves to Digital Intelligence: History in Every Byte."

The Raising of DCPW

An attempt has been made to collate details regarding circumstances leading to the constitution of Inspectorate of Police Wireless, the Establishment of Inter State Police Wireless (ISPW) Network across the country & evolution into Directorate of Coordination Police Wireless (DCPW) with data collected from National Archives. *All pictures are courtesy of National Archives of India.*

The constitution of Inspectorate of Police Wireless

The need for Central coordination and control of the country's Police Radio Communications was recognised the then Government and was emphasised various security conferences in the 1940s and with the active pursuance of Intelligence Bureau an office known as Wireless Inspectorate was established in 1946. Lt. Col. T E Dobson of the Royal Signals was appointed as Officer In Charge of the Inspectorate. He took over the charge on **19th February 1946**. The office was initially setup under Director General of Posts and Telegraphs on 50:50 cost sharing basis between DG P&T and Home Department with a nuclear staff.



K.D. 2139/46-Pol. of 13/3

The Director General of Posts & Telegraphs
New Delhi

Sir,

I have the honour to report that I have assumed ~~relinquished~~ charge of the office of ~~the Officer in charge of the Inspectorate~~ in your office on the forenoon ~~afternoon~~ of the 19th February 1946

I have the honour to be,
Sir,
Your most obedient servant

New Delhi ~~Simla~~
Dated the
19 Feb 46.

T E Dobson Lt. Col.

D.No. 1650/46-
Police
22.3.46.

Charge Taking over form of Lt. Col. T E Dobson of the Royal Signals

initially by the Director General, Posts & Telegraphs to the head "Pay of Officers" under a detailed head 'Officer-in Charge of the Inspectorate', to be opened for the purpose in Abstract Clause I-A, and half of it will be recovered by them from the Home Department.

(Syed Ahmed Ali)
Deputy Secretary to the Government of India.

To

The Posts & Air Department
(with 8 spare copies for transmission to the Director General, Posts & Telegraphs).

P.T.O.

No.100/1/45-Police.
Government of India,
Home Department.

S. No. 18

New Delhi-3; the 2nd. August, 1946.

OFFICE MEMORANDUM

Subject:- Fixation of the pay of Lt. Col. T.E. Dobson, officer incharge of the Wireless Inspectorate.

=====

With reference to the Home Department office memorandum no.100/1/45-Police, dated the 26th March 1946, the Governor General in Council has been pleased to fix, after final verification of the emoluments drawn by him in his previous post, the pay of Lt. Col. T.E. Dobson at Rs.2368/- p.m. plus a special pay of Rs.250/-/- p.m. for the period he remains employed in the Wireless Inspectorate.

(Syed Ahmed Ali)
Deputy Secretary to the Government of India.

To
The Posts and Air Department
(with 8 spare copies for transmission to the D.G., P.& T.).

No.100/1/45-Police.

New Delhi-3; the 2nd. August, 1946.

Copy, with one spare copy, forwarded to the Finance Department for communication to the Accountant General, Central Revenues. The concurrence of that Department has been obtained vide their u.o. dated the 25th July, 1946.

(Syed Ahmed Ali)
Deputy Secretary to the Government of India.

I.H.30(2.8.46)-D.

Pay fixation of the first Officer-In-Charge of Wireless Inspectorate by Home Department

Creation of initial post of Officer-in-Charge of Wireless Inspectorate

No.100/1/45-Police. -8-
Government of India,
Home Department.

New Delhi, the 26th March 1946.

S. No 4

OFFICE MEMORANDUM

Subject:- Creation of a temporary post of an officer in charge of the Wireless Inspectorate in the Posts & Telegraphs Directorate.

The Governor General in Council has been pleased to sanction the creation in the Posts& Telegraphs Directorate, New Delhi, of a temporary post of an officer-in-charge of the Inspectorate for the co-ordination and supervision of Provincial Wireless systems and the appointment thereto of Lt-Col. T.E. Dobson on a consolidated pay of Rs.2368/-p.m., subject to final verification of the emoluments drawn by him in his previous post, plus a special pay of Rs.250/-p.m. The post will be included in the Central Government Service, Class I, and will be for a period of six months from the 19th February 1946, subject to the proviso that if Lt. Col. Dobson reverts to his substantive military rank before the expiry of that period, (he will receive his substantive pay (not war substantive) plus special pay of Rs.250/- p.m.) The expenditure will be shared equally by the Posts & Telegraphs Department and the Home Department.

2. The expenditure involved will be debited .....initially

No.100/1/45-Police.
Government of India.
Home Department.

From
Khan Bahadur Syed Ahmad Ali,
Deputy Secretary to the Govt. of India.

To
Lt. Col. T.E. Dobson, Royal Signals.
C/o The Director-General of Posts and Telegraphs, New Delhi.

New Delhi, the 27th March, 1946.

Sir,

I am directed to enclose a directive showing the functions and duties of the "Inspectorate for the Co-ordination and Supervision of Provincial Wireless Systems", of which you have been appointed in charge.

2. It is important that you should get from the provinces at a very early date a statement of their requirements, and offer to visit them and advise them; and that you should frame a tour programme which will take you to all the Provincial headquarters in the most convenient itinerary compatible with the urgency of their requirements. The Government of India are addressing all Provincial Governments on the subject.

I have the honour to be,
Sir,
Your most obedient servant,

Sd/-. Syed Ahmad Ali.
Deputy Secy. to the Govt. of India.

Tasks assigned to Inspectorate

- Technical advice to State Governments on matters concerning Wireless Communication for Law and Order in States including technical operation of wireless communication systems, their maintenance and training of operators.
- Coordination of Inter-provincial communications required between State Police Wireless Organisations and
- Liaison and Coordination with Technical Communication Departments and Services including licensing, frequency allotment, procurement of equipment etc.

Brief Note on the Initial progress made by Wireless Inspectorate

Functions and duties of the Inspectorate for the co-ordination and supervision of Provincial Wireless Systems.

I

The Inspectorate will be attached to the office of the Director General of Posts and Telegraphs, with headquarters at New Delhi. For administrative purposes the officer in charge of the Inspectorate will work under the Director-General of Posts and Telegraphs, who in telegraph and wireless matters functions as the "Telegraph authority" under the Indian Telegraph Act. The officer in charge of the Inspectorate will perform the dual function of ensuring compliance with conditions of wireless licences prescribed by the Posts and Telegraphs Department and also of promoting the efficiency of wireless communications by advice to the Provinces. This arrangement will provide the means of dealing with all such questions relating to Provincial wireless communications as the issue of licences, the allotment of frequencies and matters concerning traffic operations, interference with other services, etc.

II.

The officer in charge of the Inspectorate will be available to advise Provinces on all technical matters relating to their wireless installations and on all matters in which the Director-General as the "Telegraph authority" is concerned. He will assist in procuring suitable apparatus for the Provinces and will be responsible for advising them regarding the layout of wireless communications systems and their technical operation, and the training of operators and standards of qualification and maintenance of equipment.

III.

The officer in charge of the Inspectorate will act as liaison officer between the Government of India (Home Department) the provincial police authorities and the Director General of Posts and Telegraphs, concerning such matters as licensing, frequency allotment, classification of operators, etc., and with the War Department for the procurement of wireless equipment

IV

The Inspectorate will co-ordinate such inter-Provincial communications as may be required.

V.

In performing the above functions the officer in charge of the Inspectorate -

(1) will visit the headquarters of all Provinces, where necessary, to discuss their communication requirements and any difficulties encountered in meeting them; and

(2) With the concurrence of the Provincial Governments concerned, will have access to the various Inspectors-General of Police, for such consultations as may be necessary, in connection with police wireless systems.

VI

The officer in charge of the Inspectorate will make a broad review of the wireless communication requirements in consultation with the Home Department and with the various Provincial Governments.

VII

The officer in charge will appoint his technical and non-technical staff in view of the volume of his work as directed by the Director General of Posts and Telegraphs.

NG/26.3

Brief note introducing a short account of progress made in establishing wireless communications for the Police in the Provinces.

From the 19th February 1946 Lt. Col. T.E. Dobson of the Royal Corps of Signals was appointed in charge of the Inspectorate for the Co-ordination and Supervision of Provincial Police Wireless Systems. The directive issued to him recited as the chief duties of the officer in charge -

(a) to advise the Provinces on technical matters concerning their police wireless systems;

(b) to procure necessary apparatus for them and to advise them on the general lay-out of their wireless systems and on the training of operators etc;

(c) to act as liaison officer between the Home Department and the D.G., P.&T., in matters concerning allotment of frequencies, licensing, etc., and with the War Department for the procurement of wireless equipment; and

(d) to tour Provinces to see their general wireless lay-outs and to give them the necessary advice.

2. By the middle of May Col. Dobson had toured intensively and had visited all Provincial headquarters as well as a number of other stations. A brief account prepared by Col. Dobson, at my request, is attached which shows the present position in respect of police wireless systems throughout India. His Excellency will be interested to observe that all Provinces now have, or are on the way to obtaining (very largely through the instrumentality of Col. Dobson) reasonably up to date radio communications for police purposes and that an inter-provincial grid has recently been opened and no difficulty is expected in making it work successfully.

3. I venture to place this before His Excellency,

first, because of the very keen interest which he has taken in this subject;

secondly, because the results achieved are far in advance of anything which I should have expected to result in the time, and Col. Dobson has, in my opinion, done a very good job of work during the short period that he has been engaged in his appointment; and

thirdly, because we are shortly to lose Col. Dobson who will be reverting to military duty and it is proposed to pursue the suggestion that a successor should be sought from the Army to carry on the work which still remains to be done.

Sd. A.E. Porter
2.8.46.

I am glad to have seen this, which represents some excellent work, for which Colonel Dobson deserves congratulation.

Sd. Wavell
3.8.46.

D.C. and Secy. would probably like to see the appreciation of Col. Dobson's services overpage. Paras 22-24 of the memo. attached may also be seen - this matter will be dealt with separately.

Sd. N.F. Fraser
5.8.46.

Lt. Col. Dobson's report is very interesting and it is gratifying that his work has been praised so warmly Home Department would no doubt have appreciation conveyed to him. We do not maintain his record.

Sd. K. Prasada
5.8.46.

H.M. should see this for information, before paras 22-24 of Col. Dobson's memo. are dealt with.

Sd. W. H. Shoobert
7.8.46.

H.M.

Seen, thanks, Col. Dobson seems to have done some very good work.

Sd. E-C-S (illegible)
8.8.46.

The status of Police Wireless in India just before Independence

Posts & Telegraph Department

1. The following is a review of the present situation which may be of assistance in deciding upon the future of the 'Inspectorate':---

2. (a) WORK DONE: All provincial headquarters have been visited and their technical, equipment and personnel problems discussed. Information has been given as to the various types of equipment available and recommendations made as to the most suitable. The release has been obtained of approximately one thousand sets of various types, free of charge, from Army and R.A.F. sources, and in addition, nine thousand crystals. Shortage of the latter item has been a complete stumbling-block on development up to date. These crystals are now stored in South Block and immediately available on demand from any province. The above items are apart from the very large quantity of standard Army equipment obtained on repayment.

3. Advice has been given on the police wireless lay-out in most provinces. This has varied from minor suggested alterations, to complete re-design of the whole proposed lay-out. Certain provinces have been advised on the use of VHF equipment in built-up areas in preference to wasting money on HF equipment which is unlikely to be suitable; and these provinces have been put in touch with the firm supplying VHF equipment.

4. Recruitment of trained operators and the training of new operators has been and is still being co-ordinated with the GHQ. Similarly, certain provinces who have not got a technical officer to run their police wireless have been advised to obtain such an officer and have been informed of the names of certain suitable officers who are available and desirous of such a job.

5. Information has been given to all provinces on the method of applying for licences, frequencies and call-signs, and assistance given in completing the technical portions of the forms where necessary. In addition, by liaison with the P & T. Department, provinces have been assisted in obtaining speedy allocation of frequencies, so preventing undue hold-up in the development of their schemes. In certain provinces, assistance has been given in establishing contact or improving liaison with the local Army Signal Units, who are generally in a position to give considerable technical assistance to the police. The Inter-provincial grid, as suggested at the conference of the Inspectors General of Police, opened on 29th July, 1946. Reports of results are not yet available, but experiments carried out so far have been very successful, and no great difficulty is expected.

6. In addition to the above, a steady stream of

minor ....

minor problems and queries is dealt with daily. Finally, a complete record, in the form of wireless diagrams, has been compiled to show the wireless lay-out of each province, and copies have been forwarded to Home Department and P. & T. Department.

(b) PRESENT SITUATION (Province by province):

7. SIND: A comprehensive scheme is to be developed over several years. Progress has been made on the initial stages. A competent wireless officer is available, and this province should shortly be technically self-supporting.

8. NWFP: Only a very limited organization exists owing to lack of funds. The attention of the Home Department has already been drawn to this. A very competent Signals Officer is in charge and they, again, are technically self-supporting.

9. PUNJAB: A moderately large wireless organization is already in existence, and is being expanded on a most comprehensive scale. A technical officer is already available, and it is understood that the services of a Royal Signals Officer are being obtained in addition. This province also will be technically self-supporting.

10. U.P.: A fairly comprehensive organization has been in existence for some years, and at the moment U.P. is probably the most advanced province. They have obtained a Signals Officer to replace the police officer who originated the scheme.

11. BIHAR: A limited wireless organization is already working and is at present being expanded on a fairly large scale. There is no post for a Signals Officer, and it is understood that the Government is not favourable to the creation of such a post. It is possible that a technical sergeant may be obtained in lieu, and therefore, this province may still require assistance for some time.

/technical

12. BENGAL: A vast wireless network is being developed now to cover the whole of the province, and in addition, Bengal Industrial Area and Calcutta city. The whole organization is in charge of the Special Officer, Wireless, Bengal Government, who has considerable technical knowledge and ability. In addition, the Bengal Police have the services of an officer of the Indian Signal Corps. This province is completely self-supporting, technically.

13 ....

- 3 -

13. ASSAM: Probably the most backward province. A very limited wireless organization is already working and no considerable expansion is proposed. There is no technical officer available, and it seems unlikely that the Government will sanction such a post; at present, no one seems to be particularly interested in wireless.

14. ORISSA: Excellent progress has been made in this province, although no technical officer has been available to organize development. In fact, the full projected network is already in operation. Considerable assistance has been obtained, in this development, from Army Signals. Government are being asked to sanction the creation of the post of Police Signals Officer, and the names of certain suitable officers who are available and desirous of such work have been sent to the Inspector General.

15. BOMBAY: A moderate wireless scheme is being developed slowly. There is no fully qualified technical Officer available, and the organization is being developed by a police officer with some knowledge of wireless. The Provincial Government is taking a very long time to authorize the necessary staff. This province is likely to require a certain amount of technical assistance in the future.

16. C.P.: A moderate wireless organization is already working and is being developed on a large scale. This province will eventually have one of the largest wireless organizations. A Major of Royal Signals is in charge, and it is unlikely that much technical assistance will be required by them.

17. MADRAS: A small scheme is now in operation and is being expanded on a large scale. A very competent technical officer is in charge, and it is unlikely that much technical assistance will be required.

18. Attached at Appendix A is a series of maps showing the present stage of development of the police wireless networks both inter and intra provincial.

(c) FUTURE:

19. All major equipment requirements have now been obtained or are on order, and little more should be required within the next two years. From (b) above, it will be seen that most provinces have a technical officer or are about to obtain one, and therefore, little further technical assistance is likely to be required.

20 ....

- 4 -

20. The Interprovincial grid has now been organized and, once the inevitable teething troubles have been overcome and the groups are working satisfactorily, very little central control will be required, the bulk of the control being exercised by the control station of each of the four groups.

21. The number of queries and enquiries from provinces has now decreased very considerably, and though correspondence is still heavy, it is concerned almost entirely with the organization of the Interprovincial grid and the issue of crystals. These two items should be cleared up within the next two weeks, and thereafter the correspondence should drop to a low level.

22. I consider that it is essential to maintain the Inspectorate, from the Home Department aspect, in some form or other, as some central technical co-ordinating authority will always be required. It would be a very great advantage if this authority is an Army Officer, in order to obtain the best possible liaison with GHQ over equipment and training, and liaison with local signal units Furthermore, such an officer would be able to keep provinces informed of the latest developments in Army equipment. I do not consider that this aspect of the duties of the Inspectorate should occupy more than about thirty per cent of the officer's time. I understand, from the Chief Engineer of the P. & T. Department, that that department is most desirous of utilizing the remaining seventy per cent of the officer's time on P. & T. duties concerned with the Inspectorate.

23. As regards the rank of the Officer, I consider that it has been advantageous to have a Lt. Colonel, since much of the work has been done, up to date, in direct correspondence or conference with Inspectors General of Police, and, even, in one case, with a provincial Governor. This would have been much more difficult had the officer been of the rank of a Major. In fact, the rank of a Colonel would have been preferable. I think that this most important aspect of the work was entirely overlooked when the appointment was first proposed, and comparison was made to the appointment of a Major of Royal Signals to the Railway Board. This stage is now nearly passed, and in future, the bulk of the correspondence will be between the Inspectorate and the police wireless officers; and for such, I think, a Major would be suitable.

24. It might be advisable, at this stage, to consult the P. & T. Department regarding their requirements for the Inspectorate.

Sd/- T.E. Dobson

Lt. Colonel,
Officer on Special Duty(Wireless)

Home Department
D.O., P. & T., (Lt. Col. T.E.Dobson) d/30.7.46.

After Independence – Evolution to DCPW

- After Independence , the Inspectorate fully became a part of the Home Department. The staff was gradually reinforced to cope with expanding activities in 1949 and further supplemented with the post sanctioned under ***Inter State Police Wireless (ISPW) Scheme in 1950*** comprising of Control Station at Delhi and outstation terminals at various state capitals.

- In April 1950, it was converted into a Directorate and named as Directorate of Coordination (Police Wireless), assigned the status of Subordinate Office and Director given the power of Head of Department.

- The Directorate as a coordinating body assisted states in securing wireless equipment and signal stores and aimed at uniformity and standardisation in equipment, maintenance, operating procedure and uniform standard of recruitment, training and testing of personnel.

- In addition it assisted States and Intelligence Bureau in matters connected with Radio Communications and was also responsible for installation, operation and maintenance of grids between State Capitals and Delhi for Inter State Wireless for Law and Order.

- It also advised the Commandant, Central Police Training College, Mt. Abu in the training of probationers in the use of radio for Police Services. It thus was an integral part of Police Forces.

Elements of Historical Legacy still being used.

- The Revenue Budget of DCPW is still issued under the budget heading - ***Inter State Police Wireless (ISPW) Scheme*** **–** legacy from 1950 onwards.
- A twin organisation – Directorate of Coordination (Police Computers) – DCPC existed which has now metamorphosised into current day NCRB. The budget heading nomenclature is still – *Wireless & Computers.*
- Radio Operating Procedure for Police Wireless Communications last standardised and published in 1985 is still in use. An adaptation of Military Wireless Procedure that existed since WW-II times.
- Training on Morse Code is still imparted due to its reliability of communication of last resort.

Importance of ISPW System under Allocation of Business Rules 1961

CABINET SECRETARIAT
मंत्रिमंडल सचिवालय

The Government of India (Allocation of Business) Rules, 1961
भारत सरकार (कार्य आबंटन) नियम, 1961

MINISTRY OF HOME AFFAIRS
(GRIH MANTRALAYA)

A. DEPARTMENT OF INTERNAL SECURITY
(ANTRIK SURAKSHA VIBHAG)

I. POLICE

1. Assam Rifles.
2. Border Security Forces.
3. Indo-Tibetan Border Police.
4. Special Services Bureau.
5. National Police Academy and Central Detective Training Schools.
6. National Crime Records Bureau.
7. Intelligence Bureau.
8. Central Forensic Science Laboratories and Government Examiners of Questioned Documents.
9. Central Industrial Security Force.
10. Central Reserve Police Force.
11. National Security Guard.
12. Matters relating to Indian Police Service.
13. Foreign training of IPS and officers of Para-military Forces including training programmes under bilateral cooperation.
14. All matters relating to training of Foreign Police Officers in India.
15. All matters relating to Civil Defence and Home Guards.[1]
16. Matters relating to Inter-State Police Wireless System.
17. Matters relating to Police Medals.

Way Forward for DCPW - Strategic Objectives for Viksit Bharat

"Rooted in Heritage, Powered by Broadband: Advancing India's Police Wireless for a Viksit Bharat."

1. Architecting the Unified Public Safety Network

Evolving from managing individual wireless links to overseeing a **Unified Network**. DCPW to act as the single point of convergence for:

- **Integration of IT and Public Safety Communications:** Converge & Integrate multi-modal communication technologies technologies like LTE, Mesh Radio, IP Radio, Digital HF Communication, Communications through Satellite Phones on C, S, Ku Bands and Radio Trunking Systems on a common robust & secure platform.

- **Broadband Backbone:** Standardizing the transition from Narrowband (Voice) to Broadband (Data/Video).

- **Same Digital Heartbeat**: Centralized Hub & Decentralized Edge Nodes which continues to function independently, till link with hub is restored.

2. Tactical Autonomy & Edge Intelligence

Spearhead the deployment of **NIB (Network-in-a-Box)** & **Flyaway Terminals**.

- **Goal:** Every incident commander should have a "Personal Cloud" on-scene for Real-Time Analytics and Low Latency Decision Making in tactical operations.

- **Self-Sustaining Networks**: Vehicle-mounted or man-portable NIBs to create a localized 4G/5G bubble for all police devices (body cams, tablets, handhelds) with full broadband connectivity.

- **The Mandate:** Ensuring these "tactical bubbles" are secure, interoperable, and instantly linkable to the National Command Center.

3. Sovereign Encryption & Cyber Resilience

Protecting the Police Wireless Nervous System from electronic warfare.

- **Quantum-Ready Security:** Rolling out advanced cryptographic protocols for all police communication hardware.

- **Spectrum Policing:** Safeguarding the dedicated Public Safety spectrum from interference.

- **Sovereign Hardware Security Modules**: "Make in India" Security using Bharat-made chips and secure elements within police handsets to ensure there are no "backdoors" in the hardware

4. Human-Centric Capacity Building

The technology is only as good as its operator.

- **Training Transformation: Transitioning the training institutes into a**

"Global Center of Excellence" for Public Safety Communication."

- Curriculum: Training "Wireless-Cyber Warriors" who can manage 5G, SATCOM, and SDR (Software Defined Radio) simultaneously.

- Certification Standards: Implementing a national "Wireless Proficiency Framework" to ensure that a wireless operator in any State or CAPF meets the same high-standard benchmarks.

5. National Reserve & Emergency Resilience

Maintaining a "Tactical Insurance Policy" for the nation through the **National Reserve Stock (NRS).**

- **Rapid Deployment Kits**: Ensuring a state-of-the-art inventory of NIB (Network-in-a-Box), Flyaway SATCOM terminals, and SDRs are ready for instant dispatch for "Plug-and-Play" deployment during disasters or internal security crises.

- Logistical Continuity: Acting as the central "Equipment Bank" to ensure that communication never fails, even if local state infrastructure is decimated.

- Technological Parity: Ensuring that a state with limited resources can instantly access the same high-end tech as the most advanced metropolitan forces.

"Our anchoring in 1946 was to connect the dots across a new nation. Our 2026 manifestation is architects of a Synchronized Digital Bharat—where every signal acts as a shield and every byte delivers an insight. Our mission remains: Every officer connected, every mission supported, never offline. Our journey towards Viksit Bharat @ 2047 is defined by a commitment to technological sovereignty and operational excellence"

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DCPW Wins Gold Trophy at India International Security Expo 2022

The Directorate of Coordination Police Wireless (DCPW), under the Ministry of Home Affairs (MHA), participated in the 23rd India International Security Expo 2022 organized by Indian Trade Promotion Organization from September 8–10, 2022 at Pragati Maidan, New Delhi. The DCPW stall was inaugurated by Secretary (F, PM & CIC)/RGI, MHA, in the presence of senior MHA officials. DCPW showcased advanced radio and satellite communication systems, conducted live demonstrations, and provided on-site training with e-certification to 108 participants. Senior police and CAPF officers appreciated the initiatives. DCPW received a Gold Trophy for Excellence in Display in the Government Sector category.

Workshop on Police Communication Training Requirements

A comprehensive Workshop on Police Communication Training Requirements of States, Union Territories (UTs), Central Armed Police Forces (CAPFs), and Central Police Organizations (CPOs) organized by the Directorate of Coordination Police Wireless (DCPW) under the Ministry of Home Affairs (MHA), Government of India

The workshop emphasized the urgent need for structured, standardized, and future-ready training in police communications across States, UTs, CAPFs, and CPOs under the coordination of the Directorate of Coordination Police Wireless and the Ministry of Home Affairs.

FOUNDATION STONE LAYING CEREMONY - RPWTI Bengaluru
4th January, 2025

Chief Guest, Hon'ble Minister of State for Home Affairs, Shri Bandi Sanjay Kumar & Guest of Honour, Hon'ble Member of Parliament, Bengaluru South, Shri L. S. Tejasvi Surya being welcomed by senior officers of DCPW at the foundation Stone Laying Ceremony on 4th January, 2025.

Speech by Guest of Honour
Hon'ble MP, Bengaluru South Shri L.S. Tejasvi Surya

FOUNDATION STONE LAYING CEREMONY OF NEW HOSTEL BLOCK
RPWTI, BENGALURU
Date :30.12.2024

Hon'ble Minister of State for Home Affairs Shri Bandi Sanjay Kumar ji, Director, Directorate of Coordination Police Wireless, Senior Officers from Ministry of Home Affairs, Senior Officers from Government of Karnataka, Senior Officers from Karnataka Police, Central Armed Police Forces and other Departments, Friends from the Media, Distinguished Guests, brothers and sisters.

I am delighted to be amongst all of you as part of the Foundation Stone Laying Ceremony of New Hostel Block of Regional Police Wireless Training Institute, Bengaluru.

I am happy to note that Directorate of Coordination Police Wireless (DCPW) under Ministry of Home Affairs is advising State & Central Police Organisations, other security & disaster relief organizations of the country on Communication matters since 1946 in a very systematic, coordinated and modern manner. I am also happy to note that DCPW operates a 24X7 Inter State Police Wireless(ISPW) Network connecting all State/UT capitals for transmission of Wireless Messages pertaining to Law & Order Messages, VIP / VVIP Movement, Elections, Courts etc.

I am delighted to note that DCPW is operating a Satellite based Communication Network – POLNET since 20 years and has recently upgraded it to POLNET 2.0 with latest Technologies to provide Data, Voice & Video Conferencing services to State & Central Police organizations from Ladakh to Lakshadweep. These POLNET Terminals are operational in all parts of the country no matter how remote including Ladakh, Lahaul Spiti, Arunachal Pradesh, Jammu& Kashmir, Lakshadweep, deep jungles of naxal affected areas of Chhattisgarh to name a few.
I am happy to note that DCPW is also working on the arrangement of 'National Level Broad Band PPDR Communication System' 'One Nation One Broadband PPDR Network', which will provide unprecedented communication capabilities to public safety and disaster relief organizations at the national level. I wish all the best to the entire team of DCPW for this.

In order to effectively utilize these State of the Art Technologies, enhancing the skills and capacity building, imparting practical training to Police Personnel is of utmost importance.
I commend DCPW for opening Regional Police Wireless Training Institutes in different parts of the country and for having selected India's Silicon Valley "Bengaluru" for catering to the Training Needs of Southern States including Karnataka, Tamil Nadu, Andhra Pradesh, Kerala, Telangana, Andaman & Nicobar Islands & Lakshadweep.

Bengaluru being IT Hub with its vast presence of domestic & international technology companies and its cool climate provides a conducive atmosphere for learning & training activities.
Every year, India adds more than a million engineers to its talent pool, and the best of the bunch come to Bengaluru to work on a whirlwind of transformative technologies like the Internet of Things, AI, and Machine Learning — all of which add to the city's deep pool of technical versatility.
Bengaluru which houses more than 400 R&D Centres of national & international technology companies. Bengaluru is also home to several Defence R&D Labs, ISRO Space Stations and eminent educational institutes of repute like Indian Institute of Science, National Aerospace Laboratories Raman Research Institute, Jawaharlal Nehru Centre for Advanced Scientific Research and several engineering colleges of repute.

Police Operations in the current security scenario is characterized by asymmetric warfare. Police now fight an enemy who is everywhere and nowhere at the same time. A robustly networked police force improves information sharing and collaboration which enhances the quality of information and shared situational awareness. Shared situational awareness enables self-synchronization of multiple police agencies which in turn, dramatically increase mission effectiveness.

The emergence of Network Centric Warfare with Command Control Computers, Communications and Intelligence (C4I) systems for Intelligence, Surveillance and Reconnaissance (ISR) have undergone a sea change with the ever-advancing communication network and power for information processing. Artificial Intelligence (AI), Machine Learning (ML), Big Data, cloud computing, Augmented Reality (AR), Quantum Computing, Cognitive Computing (CC) and Internet of Things (IoT) are gathering momentum. and finding use in supporting ISR operations . These operations are highly complex and Technology driven and India has to be self-reliant in these areas.

I am sure that RPWTI Bengaluru will utilize the technical expertise available in Bengaluru and offer specialized training programs in Police Communications incorporating aspects of latest Network Centered Police Communication Technologies and also explore possibilities of conducting training in collaboration with reputed institutions of Bengaluru to enhance technical skills and capacity building of Police personnel .

I would also like that RPWTI Bengaluru should meet the National Standards for Civil Service Training Institutes i.e Mission Karmayogi in line with the vision of Hon'ble Prime Minister of India of creating a developed India - Viksit Bharat by 2047.

With these words, I hope that the construction of the new hostel block of RPWTI Bengaluru will be completed as per schedule and wish the entire team of DCPW and Ministry of Home Affairs all the success in their future endeavors.

…… Jai Hind! ……

Meeting with Foreign Delegates for PPDR

A conference was held with Foreign Delegates of Ericsson on PPDR, 5G and 5G-Advanced for Police Radio Communication and Disaster Management

A high-level meeting with foreign delegates from Ericsson was held to discuss future-ready communication solutions for Public Protection and Disaster Relief (PPDR), with a special focus on the integration of 5G and 5G-Advanced (5G-A) tech in the police communication ecosystem of India. The interaction aimed at exploring the approaches to strengthen mission-critical communications, enhance disaster preparedness, & ensure uninterrupted connectivity for first responders during large scale operations and emergencies.

The interaction focused on exploring future-ready communication solutions for Public Protection and Disaster Relief (PPDR), with special emphasis on the integration of 5G and 5G-Advanced (5G-A) technologies into India's police communication ecosystem. Discussions highlighted how next-generation broadband technologies can significantly enhance mission-critical voice, data, and video communications

International Experience Sharing Conclave on BB-PPDR

The International Experience Sharing Conclave on Broadband Public Protection and Disaster Relief (PPDR) was held on 13th March 2024 at Vigyan Bhawan, New Delhi.

The conclave brought together policymakers, security agencies, technical experts, and international delegates to exchange global best practices and experiences in the use of broadband communication technologies for public safety and disaster management.

The conclave underlined the need for India to adopt and strengthen indigenous and globally aligned PPDR broadband frameworks, supported by capacity building and training of personnel. Overall, the event served as an important platform for learning experience from policymakers, security agencies, technical experts, and international delegates .

The event focused on strengthening inter-agency coordination, enhancing emergency response capabilities, and adopting globally aligned PPDR frameworks to support mission-critical communications for police, disaster response agencies, and first responders. The conclave also emphasized the importance of capacity building, technological innovation, and international collaboration in developing resilient and future-ready communication systems for effective disaster preparedness and response.

International Conference on Disaster Resilient Infrastructure

The Sixth International Conference on Disaster Resilient Infrastructure (ICDRI 2024), held in New Delhi on April 24–25, 2024, focused on Investing Today for a More Resilient Tomorrow, organized by Coalition for Disaster Resilient Infrastructure,

The conference brought together heads of governments, senior policymakers, infrastructure planners, financial institutions, multilateral organizations, private sector leaders, and technical experts from across the world. Through a series of plenary sessions, ministerial roundtables, technical discussions, and thematic panels, participants exchanged global best practices and policy perspectives on integrating resilience into the planning, financing, construction, and operation of infrastructure assets. Key deliberations focused on risk-informed infrastructure planning, climate-resilient governance frameworks, innovative financing mechanisms, and the use of advanced technologies to enhance the durability and adaptability of infrastructure. Special emphasis was placed on addressing service disruptions, which were highlighted as often causing greater economic and social losses than physical damage itself, particularly in sectors such as transportation, energy, water, telecommunications, and public services.

Outcomes of ICDRI 2024 contributed to shaping global resilience initiatives, including programs on mountain resilience, heat resilience in public transport systems, and climate risk assessment frameworks, aligned with broader international climate and disaster risk reduction agendas.

The 2020 Heads of PPDR conference

The 2020 Heads of PPDR (Public Protection and Disaster Relief) conference, held on January 20-21 at Vigyan Bhawan, New Delhi, was organized by the Directorate of Coordination Police Wireless (DCPW).

The conference focused on advancing India's police communications through the launch of POLNET 2.0, adoption of Broadband PPDR (BB-PPDR) networks based on 3GPP standards, enhanced security of radio & satellite communication equipment & promotion of "Make in India" initiatives for the development of India's indigenous gear for radio communication for the CAPF's & other Central & State police organizations in the country.

22nd India International Security Expo 2019

The 22nd India International Security Expo (IISE) 2019 was held from 3–5 October 2019 at Pragati Maidan, New Delhi. DCPW participated with a stall in Hall 12-A.

It focused on POLNET 2.0, discussing its features, implementation challenges, & its role in enabling secure, resilient, & future-ready nationwide police communication, reinforcing the collective goal of strengthening India's emergency response & disaster management capabilities.

The opening sessions focused on the global and national transition towards Broadband Public Protection and Disaster Relief (PPDR) networks based on 3GPP standards, highlighting their ability to support mission-critical voice, high-speed data, video transmission, and real-time situational awareness for first responders.

Detailed discussions followed on the need for a National Communication Standard, addressing issues such as spectrum allocation, encryption standards, inspection and certification mechanisms, and seamless integration of heterogeneous communication systems used by different agencies.

Conference on Emerging Trends in Police Communication
September 30, 2025

Conference on Emerging Trends in Police Communication and Technical Exhibition was held at Polnet Hub, Samanvay Sadan, attended by officers from Central Armed Police Forces (CAPF) and various other police organizations, showcasing advancements in communication technologies for modern policing.

The conference served as an important platform for deliberations on modern communication challenges and future technological trends in policing. The event showcased advanced communication technologies and innovative solutions relevant to contemporary law enforcement, including secure radio systems, satellite-based networks, broadband PPDR solutions, and emerging digital communication tools. Through technical sessions and live demonstrations, participants gained insights into how these technologies can enhance operational efficiency, interoperability, situational awareness, and mission-critical communications, thereby supporting effective policing and internal security operations in an increasingly complex security environment.

National Space Day

National Space Day 2024 was organised by the Directorate of Coordination Police Wireless (DCPW) at Samanvay Sadan with the objective of inspiring and sensitizing young students about India's achievements in space science and technology. The program served as an engaging educational platform where students were introduced to the role of space-based technologies in communication, navigation, disaster management, and national development.

Inauguration of newly renovated Communication Center

The Communication Center of the Directorate of Coordination Police Wireless (DCPW) acts as the central coordination and monitoring hub for police communications across the country and is seamlessly integrated with the 31 Inter State Police Wireless (ISPW) stations. Through POLNET 2.0 & VSAT-based satellite, Communication Centre ensures uninterrupted, secure, & real-time connectivity among States & Union Territories

Conference - Training Requirements of Police Communication
15th March 2019

The One Day Conference on Training Requirements of Police Communication was organized by the Directorate of Coordination Police Wireless (DCPW) through its training arm, the Central Police Radio Training Institute (CPRTI).

The conference focused on reviewing the existing training ecosystem & identifying future requirements for police communication personnel across States, UTs, Central Armed Police Forces. It emphasized the need for standardized & updated training curricula, greater hands-on exposure to modern digital, broadband, satellite, and radio communication systems.

The conference reinforced the critical role of CPRTI, under the guidance of DCPW, in developing a competent, future-ready communication cadre to ensure seamless, secure, and resilient police communications in support of internal security, law enforcement, and disaster management operations.

All India Heads of Police Communication Conference
19th November 2018

The All India Heads of Police Communication Conference was convened by the Directorate of Coordination Police Wireless (DCPW) on 19th and 20th November 2018 at Vigyan Bhawan, New Delhi.

Organised under the theme "Modernization of Police Communication and Challenges thereof", the conference brought together senior police officers, policymakers & technical experts.

The conference was inaugurated on 19th November 2018 by Manoj Sinha, Hon'ble Minister of State (Independent Charge) for Communications and Minister of State for Railways.

The conference also provided an important interface for industry, startups, and "Make in India" initiatives to showcase indigenous solutions.

"AI for Policing" Training

The two-day "AI for Policing" training program conducted by Rashtriya Raksha University (RRU) marked an important step toward strengthening the organization's technological and analytical capabilities in line with emerging internal security challenges.

The program directly supported DCPW's mandate of modernizing police communications and enhancing operational effectiveness by equipping officers with practical exposure to AI-driven tools for digital forensics, cybercrime detection, surveillance analytics, and secure information management.

Joint Director, Directorate of Coordination Police Wireless, highlighted the significance of sustained collaboration between DCPW and Rashtriya Raksha University. He emphasized the need to move beyond standalone training programs toward long-term collaborative projects, including joint research initiatives, applied technology pilots, and customized capacity-building modules aligned with operational requirements of DCPW.

A key highlight of the program was the exposure visit to Mahasagar Simulator Lab, which reinforced the importance of unified training and inter-agency coordination for port, coastal, and maritime security. Participants received exposure to maritime surveillance technologies, climate and sea-level risk assessment, and integrated security response frameworks.

The technical sessions covered advanced applications of Artificial Intelligence in policing, including AI-enabled digital forensics, evidence acquisition from disk, memory, and mobile devices, AI-assisted log analysis, facial and voice recognition, deepfake detection, and image and video analytics. The program also addressed social media analytics, OSINT integration, computer vision, and AI-driven cybercrime detection, with practical demonstrations addressing phishing, fraud, malware, and misuse of generative AI.

DCPW and its works

The Directorate came into existence on February 19, 1946 initially as “Inspectorate of Wireless” and was later accorded the status of Directorate of Coordination (Police Wireless), a subordinate Organization, under Ministry of Home Affairs in 1950. It is entrusted with the responsibility of coordinating for developing and establishing the Police Telecommunication network in the country and also to advise MHA on all Police Telecommunication matters.

Since the first Inter-State Police Radio Control Station was established in New Delhi in the year 1949, the DCPW has many landmarks to its credit.

- First use of Closed Circuit Television (CCTV) for `Crowd Control' was done in the year 1974, during the Kumbh Mela at Haridwar.
- In the same year, the first use of ground-to-air communications for Police work with BSF aircraft.
- First facsimile (FAX) transmission for Police use in Tamil Nadu was also done by DCPW.
- Work on implementation of `Pilot Project' relating to the National Police Telecommunication Network Plan was initiated by DCPW in 1990.
- In 2003, a DCPW Team visited Afghanistan for restoring their communication under the directions of the Ministry of External Affairs.
- During the 2004 Asian tsunami, telecommunication link was restored in the ravaged Andaman & Nicobar Islands by an expert team of DCPW using POLNET VSATs terminals.
- In the SAARC Conference-2008 held in Islamabad, DCPW presented Concept of Networking SAARC Police Heads for exchange of Information.

Srinagar floods *(6th September 2014)*

The catastrophic flood of Srinagar on the night of 6th September 2014 began rising the floodwaters, which in turn submerged major parts of Srinagar, cutting off all the communication lines/links. The Directorate of Coordination Police Wireless (DCPW) played a critical role in re-establishing communication when conventional networks collapsed.

Directorate immediately intervened in the situation considering it as a part of the role and responsibility in maintaining emergency communication during natural calamities as similar role was undertaken in the 2004 Andaman & Nicobar tsunami.

DCPW and its works

An emergency team of the Directorate comprising of officers and officials was dispatched from the DCPW, New Delhi to Srinagar to restore wireless communication with New Delhi immediately after the floods crippled telecommunication infrastructure.
Team of the Directorate with its dedicated/technical efforts successfully restored High Frequency (HF) wireless links, enabling critical communication between the marooned Srinagar Valley and central authorities at New Delhi.
Directorate ensured HF communication till restoration of other communication links as the communication lines in Kashmir were down for several weeks, as the floods were the worst in over a century, destroying mobile, internet, and landline services (including 50% of BSNL network).

Kathmandu, Nepal Earthquake (*25 April 2015)*

The 2015 Nepal Earthquake *(Gorkha earthquake)* caused widespread destruction of telecommunication infrastructure, severely hindering initial search and rescue efforts, but also triggered innovative, rapid responses using mobile technology and social media. The magnitude of 7.8 earthquake on April 25, 2015, and its subsequent aftershocks, crippled electricity, mobile networks, and internet services, particularly in remote mountainous districts.

Directorate of Coordination, Police Wireless (DCPW), New Delhi immediately deployed specialized technical team of Officers & officials, the team was immediately rushed to Kathmandu, Nepal, to restore vital wireless communication between the Indian Embassy in Kathmandu and New Delhi.
Deputed team of the Directorate ensured establishment of VHF/HF Network and successfully established Very High Frequency (VHF) and High Frequency (HF) communication networks, which were crucial for coordinating relief and rescue operations.
The DCPW expert team not only restored the communication but also supported the National Disaster Response Force (NDRF) team in their rescue and relief missions by providing reliable, dedicated, and secure communication channels.
This intervention of the Directorate was part of the broader Indian assistance effort, enabling effective communication when local communication infrastructure failed.

Next Generation Mission Critical Broadband Public Protection and Disaster Relief (BB-PPDR) Network

Communication plays an important role in rescue and relief operations during emergency or disaster situations, especially in a country like India which is highly prone to natural disasters like floods, earthquakes, coastal cyclones and also manmade disasters like accidents, terrorist attacks etc.

The effectiveness and efficiency of public protection and law enforcement also pivots on robust and reliable communication networks. Public Protection and Disaster Relief (PPDR) agencies — including police departments, fire departments, emergency medical professionals, para-military forces and many others — need resilient communication networks for their day-to-day, emergency, critical mission and disaster relief operations.

Limitations of Existing Communication Networks

- Interoperability: Networks of agencies work in silos
- Need for multiple handsets: Analogue Non-Trunking, DMR, Analogue Trunk and Digital Trunk radios
- No video / limited data
- Inefficient use of spectrum
- Obsolete technology and proprietary equipment
- Higher upgradation and maintenance cost
- Operational issues during disasters in dedicated networks like DMR and satellite phones
- DR network not integrated with first responders (Police / Fire / Medical)
- Lack of coordination among agencies during disasters.

TRAI Recommendations for PPDR Network

The Telecom Regulatory Authority of India (TRAI) has given recommendations (dated 04.06.2018) on "Next Generation Public Protection and Disaster Relief (PPDR) communication networks."

Major recommendations include:

- Setting up a pan-India integrated Broadband PPDR (BB-PPDR) communication network based on 3GPP PS-LTE technology
- Recognition of the role of DCPW as coordinator of PPDR agencies
- Allocation of 2×10 MHz dedicated spectrum on no-cost basis for LTE-based broadband PPDR networks
- Broad Features of BB-PPDR Network
- MCX Communication – Voice, Video, Data, Live location
- Group Calling – MCX PTT calls, videos, photos and location sharing
- Nationwide seamless connectivity
- End-to-end encryption and secure communications
- Designed for extreme events
- Disaster redundancy – operates during cyclones and earthquakes
- Interoperability with legacy networks
- Body-cam integration with BB-PPDR network
- Facilitates commando operations

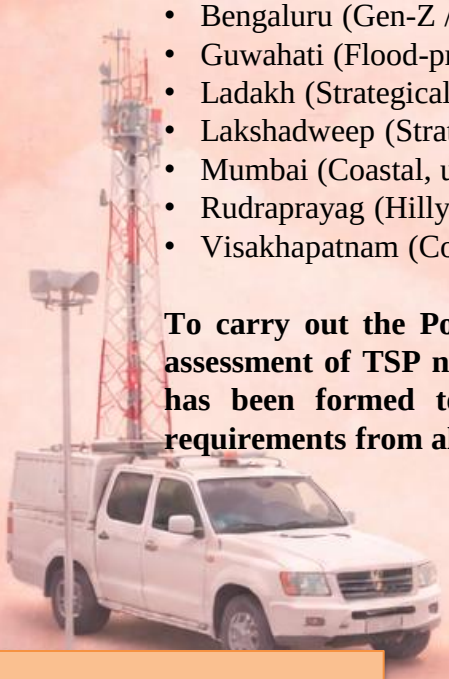
Current Status of the Project

Hon'ble Union Home Minister has directed to carry out Proof of Concept (PoC) / Pilot at 10 locations across the country based on geography, metro, border area, disaster vulnerability and security considerations.

Pilot Locations:

- Amritsar (Border area)
- Andaman & Nicobar Islands (Strategically important)
- Bastar (Naxalite / LWE affected)
- Bengaluru (Gen-Z / Metro)
- Guwahati (Flood-prone / Capital city)
- Ladakh (Strategically important)
- Lakshadweep (Strategically important)
- Mumbai (Coastal, urban, densely populated metro)
- Rudraprayag (Hilly area)
- Visakhapatnam (Coastal cyclone-affected)

To carry out the PoC with Telecom Service Providers (TSPs) before the pilot project, assessment of TSP network capabilities is underway. A High Powered Committee (HPC) has been formed to decide technical specifications and network architecture. User requirements from all stakeholders are being examined



Present Usage & features of POLNET 2.0

1. The following Services are being provided from Polnet Network

Voice @ 16 Kbps or suitable rate 150 concurrent users simultaneously with call setup time 03 seconds.

40 Simultaneous video conferencing call selectable from 512 Kbps to 2 Mbps.

Messaging services @ 16 Kbps or better at Lan Port.

Messaging application server.

FTP services from VSAT up to 2 Mbps.

2. Highly Secured Satellite Based Network.
3. All India Presence for Video/Audio Conferencing
4. Highly Reliable Network
5. One Time Investment – No Additional Operating Expenses
6. Centralized Operations
7. Guaranteed Spectrum Bandwidth
8. One Time Investment for Star Terminal site
9. Communication across the state Borders
10. Latest Technology for Network Security
11. Speech Security by Encryption
12. Features of lawful recording/ interceptions
13. Easy to Implement Star Terminal sites and can be expanded in future easily
14. Quickly deployable Fly Away Terminals for Disaster management
15. Network is capable to provide communication to Technically Non Feasible (TNF) sites declared by NCRB in their CCTNS project.
16. Network is tested and capable to provide PSTN connectivity with additional hardware.
17. Network coverage includes far flung areas like Andaman and Nicobar, Lakshadweep, Ladakh, North East and Naxalite areas like Chhattisgarh (Sukma) etc.
18. Compatible with LTE Network-in-a-Box (NiB) units at two different locations. These NiBs will be interconnected through POLNET, using VSAT as the satellite backhaul for seamless voice and video call connectivity between the two sites for the benefit of CAPFs.

Radio Monitoring Units

Background

The Directorate of Coordination Police Wireless (DCPW) has got a mandate on January, 2026 from Ministry of Home Affairs (MHA) to establish a Radio Monitoring System for detection and monitoring of breaches of Radio Communication Security in High Frequency (HF) bands used by Police Radio Networks. There exists a potential risk that anti-social and anti-national elements may unlawfully intercept Police Radio communications to gain access to sensitive operational information. Such interception may compromise operational secrecy and pose a threat to national security. Accordingly, monitoring of Police Radio Networks of State Police, Union Territories (UTs) and Central Armed Police Forces (CAPFs) is essential to ensure compliance with Government of India guidelines and to maintain integrity of Radio communication procedures.

Objective of the Project:

The primary objective of this project is to enable systematic, automatic and secure monitoring in High Frequency (HF) bands used by Police Radio Networks to:
Detect breaches of Radio Communication Security
Ensure adherence to Government of India guidelines on Radio Communication Security
Strengthen the integrity and confidentiality of Police wireless Communications across HF band.

Systems to be deployed recently:

To achieve above objectives, Radio Monitoring Units (RMUs) at existing 6 field establishments of DCPW (i.e. ISPW Stations) at Chandigarh, Bhubaneswar, Agartala, Gandhinagar, Bengaluru & Polnet Hub, New Delhi with a centralized Monitoring Server at Polnet Hub, New Delhi is to be deployed.

संचार अनुभाग

निदेशालय द्वारा राज्य/संघ राज्य क्षेत्र की राजधानियों में स्थापित आधुनिक सैटेलाइट नेटवर्क एवं डिजिटल एच.एफ(HF) नेटवर्क पर आधारित इंटर-स्टेट पुलिस वायरलेस (ISPW) ग्रिड का संचालन किया जाता है, जिसके माध्यम से कानून-व्यवस्था, वीवीआईपी/वीआईपी आवागमन तथा अन्य संबंधित विषयों पर चौबीसों घंटे संदेशों का आदान-प्रदान किया जाता है। वर्तमान में राज्य/संघ राज्य क्षेत्र की राजधानियों में कुल 31 ISPW स्टेशन कार्यरत हैं। वर्ष 2025 के दौरान ISPW नेटवर्क एवं डीसीपीडब्ल्यू मुख्यालय स्थित संचार केंद्र के माध्यम से लगभग 12 लाख संदेशों का निपटान किया गया।

सभी ISPW स्टेशनों की संचार सुविधाओं का उपयोग प्राकृतिक आपदाओं एवं अन्य आपात परिस्थितियों के दौरान आपात संदेशों के संप्रेषण हेतु भी प्रभावी रूप से किया जा रहा है।

वर्ष 2025 की उपलब्धियाँ

डीसीपीडब्ल्यू मुख्यालय स्थित संचार केंद्र का नवीनीकरण एवं विस्तार किया गया है, जिससे सभी उपकरणों के रख-रखाव एवं अधिकारियों के लिए बेहतर कार्य वातावरण उपलब्ध कराया गया है।

संसद भवन ऐनेक्स संचार केंद्र, दिल्ली में कार्यालय स्थान प्राप्त किया गया है तथा नवीनीकरण के उपरांत संसद भवन में दैनिक कार्यालय कार्य प्रारंभ करने हेतु संचार व्यवस्था स्थापित की गई है जिससे संसद संचार केंद्र से ही संसद के तात्कालिक/अत्यावश्यक संदेशों का प्रेषण और वितरण किया जा सके।

इसके अतिरिक्त, नॉर्थ ब्लॉक संचार केंद्र को सेंट्रल विस्टा पुनर्विकास योजना के तहत नए कार्तव्य भवन परिसर में स्थानांतरित किया गया है।

प्रशासन अनुभाग

प्रशासन अनुभाग निदेशालय के समग्र प्रशासनिक तंत्र का मुख्य आधार है, जो सभी प्रशासनिक एवं कार्मिक संबंधी कार्यों का सुचारु, पारदर्शी और नियमबद्ध संचालन सुनिश्चित करता है। यह अनुभाग अधिकारियों एवं कर्मचारियों से संबंधित सेवा, स्थापना, वेतन, पदोन्नति, भर्ती, पेंशन, आरक्षण, अनुशासन, एपीएआर, आरटीआई तथा न्यायालयीन मामलों का समन्वित एवं समयबद्ध निष्पादन करता है। इसका उद्देश्य प्रशासनिक दक्षता बढ़ाना तथा संगठनात्मक प्रक्रियाओं को अधिक प्रभावी और उत्तरदायी बनाना है।

अनुशासनात्मक एवं सतर्कता संबंधी कार्यों के अंतर्गत अधिकारियों एवं कर्मचारियों के विरुद्ध प्राप्त प्रकरणों की जांच, निपटान एवं लंबित मामलों की नियमित समीक्षा की जाती है। मासिक प्रतिवेदन तैयार कर उच्चाधिकारियों को भेजे जाते हैं। POSH अधिनियम के अंतर्गत प्राप्त शिकायतों की कार्यवाही तथा त्रैमासिक रिपोर्टिंग सुनिश्चित की जाती है। भ्रष्टाचार संबंधी शिकायतों/फीडबैक पर आवश्यक कार्रवाई कर समयबद्ध प्रतिवेदन प्रस्तुत किया जाता है।

पेंशन एवं सेवानिवृत्ति प्रबंधन प्रशासन अनुभाग की एक महत्वपूर्ण जिम्मेदारी है। सेवानिवृत्त होने वाले कार्मिकों के पेंशन प्रकरणों हेतु आवश्यक दस्तावेजों का समय पर संकलन एवं प्रेषण किया जाता है। अस्थायी एवं अंतिम पेंशन आदेश जारी किए जाते हैं। CGEGIS-1980, GPF फ्री-रसीदें, प्रपत्र-7/8 के माध्यम से पेंशन गणना, अवकाश नकदीकरण तथा स्वैच्छिक सेवानिवृत्ति (VRS) से संबंधित कार्य संपादित किए जाते हैं। FR 56(j) के अंतर्गत प्रदर्शन समीक्षा भी इसी अनुभाग द्वारा की जाती है।

सेवा पुस्तिका एवं वेतन संबंधी कार्यों में सेवा पुस्तिकाओं का अद्यतन, 18/25 वर्ष की अर्हकारी सेवा का सत्यापन, उच्च शैक्षणिक योग्यता का अभिलेखीकरण तथा पदोन्नति या एमएसीपी के पश्चात वेतन निर्धारण शामिल है। वेतन विसंगतियों का समाधान, वार्षिक वेतनवृद्धि आदेश जारी करना, अवकाश पात्रता का निर्धारण तथा नाम, परिवार विवरण एवं जाति प्रमाण-पत्र जैसे व्यक्तिगत अभिलेखों का सत्यापन भी इसी अनुभाग की जिम्मेदारी है।

पदोन्नति, डीपीसी एवं आरक्षण प्रबंधन के अंतर्गत समूह 'क', 'ख' एवं 'ग' पदों की पदोन्नति प्रक्रिया संचालित की जाती है। विभागीय पदोन्नति समिति (DPC) का गठन, बैठक आयोजन एवं कार्यवाही अभिलेख तैयार किए जाते हैं। एससी/एसटी एवं दिव्यांगजन (PwBD) रिक्तियों का प्रमाणीकरण तथा आरक्षण रोस्टर का संधारण किया जाता है। राजपत्र/ई-राजपत्र अधिसूचनाएँ जारी करने तथा संसदीय प्रश्नों का निपटान भी प्रशासन अनुभाग द्वारा किया जाता है।

स्थापना, एपीएआर एवं भर्ती संबंधी कार्यों में रिक्तियों की मासिक रिपोर्टिंग, बैकलॉग रिक्तियों की निगरानी, एपीएआर का संधारण एवं ग्रेडिंग, भर्ती नियमों का निर्माण/संशोधन तथा प्रतिनियुक्ति या आत्मसात के माध्यम से पदों की पूर्ति शामिल है। वरिष्ठता सूची का संधारण एवं स्थानांतरण/पदस्थापन संबंधी कार्य भी इसी अनुभाग द्वारा किए जाते हैं।

कार्यालय प्रबंधन एवं न्यायालयीन कार्यों के अंतर्गत स्टेशनरी, मुहर, नाम-पट्टिका, पार्किंग स्टिकर एवं अन्य प्रशासनिक व्यवस्थाएँ सुनिश्चित की जाती हैं। आरटीआई आवेदनों एवं अपीलों का निस्तारण तथा मासिक/त्रैमासिक रिपोर्टों का प्रेषण किया जाता है। न्यायालयीन मामलों से संबंधित अभिलेखों का संधारण एवं आवश्यक प्रतिवेदन प्रेषित किए जाते हैं।

नई पहलों के अंतर्गत e-HRMS 2.0 के माध्यम से सेवा अभिलेखों का डिजिटलीकरण एवं ऑनलाइन प्रबंधन लागू किया गया है। वर्ष 2026 से एपीएआर को e-SPARROW पोर्टल के माध्यम से पूर्णतः डिजिटल रूप में संचालित करने की प्रक्रिया प्रगति पर है। साथ ही, मिशन मोड भर्ती कार्यक्रम के अंतर्गत रिक्त पदों की समयबद्ध पूर्ति की जा रही है। इन पहलों से प्रशासनिक पारदर्शिता, दक्षता एवं संगठनात्मक क्षमता में उल्लेखनीय वृद्धि हो रही है।

समन्वय अनुभाग

i. समन्वय अनुभाग राज्यों/संघ राज्य क्षेत्रों की पुलिस तथा केंद्रीय सशस्त्र पुलिस बल (सीएपीएफ) के रेडियो संचार नेटवर्कों हेतु रेडियो फ्रीक्वेंसी स्पेक्ट्रम आवश्यकताओं से संबंधित मामलो के समाधान के लिए संचार मंत्रालय के वायरलेस प्लानिंग एवं कोऑर्डिनेशन (WPC) विंग के साथ कार्य किया तथा राष्ट्रीय फ्रीक्वेंसी आबंटन योजना (NFAP) के निर्माण/संशोधन में सक्रिय रूप से सहयोग प्रदान किया।

ii. 05 सीएपीएफ, 02 राज्यों तथा 01 संघ राज्य क्षेत्र द्वारा उपयोग खरीद किए जा रहे 67 संचार एवं तकनीकी उपकरणों के लिए गुणात्मक आवश्यकताओं (QRs) तथा परीक्षण निर्देशों (TDs) के निर्माण के दौरान महत्वपूर्ण परामर्शदायी भूमिका निभाई। इसके अतिरिक्त, 05 राज्यों, 01 संघ राज्य क्षेत्र तथा 01 सीएपीएफ से प्राप्त 160 संचार उपकरणों के तकनीकी प्रस्तावों की जांच कर उपयुक्त अनुशंसाएं प्रदान की गईं।

iii. राज्यों/सीएपीएफ/सीपीओ से प्राप्त टिप्पणियों को संकलित करने के पश्चात अखिल भारतीय पुलिस वायरलेस मैनुअल (AIPWM)-2025 के मसौदे को अंतिम रूप दिया गया है।

iv. तकनीकी मानक समिति (TSC) रिपोर्ट-2025 के अद्यतन हेतु मसौदा तैयार करने का कार्य प्रक्रियाधीन है।

v. डीसीपीडब्ल्यू तथा राज्य/संघ राज्य क्षेत्र पुलिस का स्व-मूल्यांकन डेटा WPC विंग को अग्रेषित किया गया है।

vi. समन्वय अनुभाग द्वारा वर्ष 2023 के दौरान पूर्व-प्रोग्रामित HF/VHF/UHF रेडियो सेटों के खो जाने/क्षतिग्रस्त होने/चोरी होने से संबंधित मामलों से निपटने हेतु एक मानक संचालन प्रक्रिया (SOP) जारी की गई।

vii. डीसीपीडब्ल्यू से संबंधित संसदीय प्रश्नों के उत्तर गृह मंत्रालय को अग्रेषित किए गए।

viii. डीसीपीडब्ल्यू विभिन्न राज्यों में डिजिटल UHF ट्रंकिंग सिस्टम के कार्यान्वयन हेतु तकनीकी बोली मूल्यांकन/प्रूफ ऑफ कॉन्सेप्ट (POC) में सम्मिलित रहा है।

ix. डीसीपीडब्ल्यू द्वारा अंडमान एवं निकोबार पुलिस रेडियो संगठन को अंडमान एवं निकोबार द्वीप समूह में विद्यमान एनालॉग VHF/HF संचार प्रणाली के डिजिटलीकरण/आधुनिकीकरण हेतु आवश्यक तकनीकी सहायता एवं मार्गदर्शन प्रदान किया गया।

x. पुलिस एवं आंतरिक सुरक्षा अभियानों से संबंधित सूचना एवं संचार प्रौद्योगिकी (ICT) आधारित परियोजनाओं, एआई-सक्षम समाधानों तथा अन्य उन्नत संचार प्रौद्योगिकियों से संबंधित परामर्श (Advisory) दिनांक 09.01.2026 जारी की गई।

xi. पुलिस बलों के आधुनिकीकरण हेतु राज्यों/संघ राज्य क्षेत्रों को प्रदान की जाने वाली सहायता (ASUMP) योजना के अंतर्गत संचार एवं सूचना-संचार प्रौद्योगिकी (ICT) से संबंधित उपकरणों की खरीद के लिए राज्यों/संघ राज्य क्षेत्रों से प्राप्त प्रस्तावों की सक्रिय रूप से जांच कर उपयुक्त अनुशंसाएं प्रदान की गई।

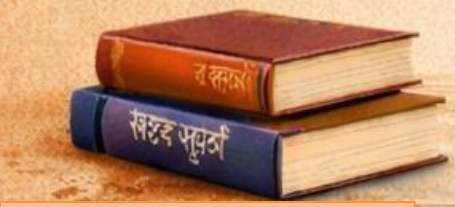
राजभाषा अनुभाग

हिन्दी अनुभाग द्वारा किए जाने वाले प्रमुख कार्य

- अंग्रेजी से हिंदी तथा हिंदी से अंग्रेजी अनुवाद का कार्य एवं अनूदित सामग्री की वैटिंग करना।
- अधिकारियों एवं कर्मचारियों को राजभाषा अधिनियम, नियमों, हिंदी प्रशिक्षण तथा राजभाषा संबंधी आदेशों की जानकारी देना और उनके कार्यान्वयन में सहयोग करना।
- मुख्यालय, अधीनस्थ कार्यालयों, अनुभागों एवं प्रशिक्षण संस्थानों में राजभाषा अधिनियम एवं नियमों का यथोचित अनुपालन सुनिश्चित करना।
- राजभाषा हिंदी के प्रयोग की प्रगति की समीक्षा हेतु मुख्यालय एवं बाह्य स्टेशनों में राजभाषा कार्यान्वयन समिति का गठन करना, त्रैमासिक बैठकें आयोजित करना तथा कार्यसूची, कार्यवृत्त एवं अनुवर्ती कार्रवाई सुनिश्चित करना।
- हिंदी के प्रगामी प्रयोग को बढ़ावा देने के लिए समय-समय पर सुझाव देना तथा राजभाषा विभाग से समन्वय स्थापित करना।
- हिंदी प्रशिक्षण, कार्यशालाओं, प्रतियोगिताओं, सहायक एवं संदर्भ साहित्य की व्यवस्था करना तथा अधिकारियों एवं कर्मचारियों को सरकारी कार्य-व्यवहार में हिंदी के प्रयोग हेतु प्रोत्साहित करना।

भविष्य के कार्य

- कार्यालयों में हिंदी के उत्कृष्ट प्रयोग को प्रोत्साहित करने हेतु राजभाषा शील्ड योजना को प्रभावी रूप से लागू करना।
- अधिकारियों एवं कर्मचारियों की रचनात्मक अभिव्यक्ति को मंच प्रदान करने के लिए हिंदी पत्रिका का नियमित प्रकाशन एवं उसके ई-संस्करण का विकास करना।
- ई-ऑफिस, आईटी प्रणालियों एवं डिजिटल प्लेटफॉर्म पर हिंदी के उपयोग को और अधिक सुदृढ़ करना।
- राजभाषा के प्रचार-प्रसार हेतु नवाचार आधारित गतिविधियाँ, विशेष अभियान एवं जागरूकता कार्यक्रम आयोजित करना।



प्रशिक्षण संस्थान

समन्वय निदेशालय पुलिस बेतार (डी.सी.पी.डब्ल्यू.), गृह मंत्रालय के अधीन केंद्रीय पुलिस रेडियो प्रशिक्षण संस्थान (सी.पी.आर.टी.आई.), नई दिल्ली तथा क्षेत्रीय पुलिस बेतार प्रशिक्षण संस्थानों (आर.पी.डब्ल्यू.टी.आई.) — चंडीगढ़, कोलकाता एवं बेंगलुरु के माध्यम से राज्यों/संघ शासित प्रदेशों, केन्द्रीय सशस्त्र पुलिस बलों, केन्द्रीय पुलिस संगठनों एवं नेपाल, मॉरीशस, स्वाज़ीलैंड (एस्वातिनी), भूटान एवं अफगानिस्तान जैसे मित्र राष्ट्रों के पुलिस संचार कार्मिकों को प्रशिक्षण प्रदान करने मे अग्रणी भूमिका निभाता है। प्रशिक्षण कार्यक्रम में संचार, तकनीकी, परिचालन तथा बीजलेख (साइफर) संवर्गों से संबंधित पाठ्यक्रम सम्मिलित हैं।

वर्ष 2025 के दौरान सी.पी.आर.टी.आई. एवं आर.पी.डब्ल्यू.टी.आई. — चंडीगढ़, कोलकाता एवं बेंगलुरु में विभिन्न दक्षता पाठ्यक्रम, लघु अवधि विशेष प्रशिक्षण, पदोन्नति से संबंधित पाठ्यक्रम तथा अधिकारियों हेतु विशेष प्रशिक्षण कार्यक्रम आयोजित किए गए। इन संस्थाओं में एचएफ/ वीएचएफ/ यूएचएफ संचार, उपग्रह संचार/ पोलनेट -2.0, साइबर सुरक्षा, डिजिटल रेडियो प्रणाली, ड्रोन प्रणाली, इत्यादि से संबंधित विषयों मे प्रशिक्षण प्रदान किया गया । इन प्रशिक्षण संस्थानों में वर्ष 2024-25 में कुल 1172 प्रशिक्षुओं को प्रशिक्षण दिया गया । वर्तमान वित्तीय वर्ष 2025–26 में 31 दिसंबर 2025 तक कुल 1525 प्रशिक्षुओं को प्रशिक्षण दिया जा चुका है एवं आगामी तीन माहों के प्रशिक्षण के बाद यह संख्या, पिछले वर्षों की तुलना मे और अधिक हो जाएगी ।

सी.पी.आर.टी.आई. एवं अन्य सभी संस्थानों में 21 जून 2025 को अंतर्राष्ट्रीय योग दिवस का आयोजन उत्साहपूर्वक किया गया। सी.पी.आर.टी.आई. मे भारत सरकार (गृह मंत्रालय) के अतिरिक्त सचिव (पुलिस आधुनिकीकरण) की गरिमामयी उपस्थिति मे योग दिवस का कार्यक्रम सम्पन्न हुआ । इस अवसर पर डी.सी.पी.डब्ल्यू. के वरिष्ठ अधिकारियों सहित अन्य कर्मचारियों ने सहभागिता की तथा सी.पी.आर.टी.आई. के प्रशिक्षुओं ने भी बड़ी संख्या में योग अभ्यास में भाग लिया । अतिरिक्त सचिव (पुलिस आधुनिकीकरण) ने योग के महत्व पर प्रकाश डालते हुए सभी को इसे दैनिक जीवन में अपनाने के लिए प्रेरित किया।

भविष्य में प्रस्तावित योजनाएँ / कार्यक्रम

सी.पी.आर.टी.आई., नई दिल्ली तथा आर.पी.डब्ल्यू.टी.आई. — चंडीगढ़, कोलकाता एवं बेंगलुरु में विभिन्न प्रशिक्षण पाठ्यक्रमों में सीटों की लगातार बढ़ती मांग और सी.पी.आर.टी.आई. में मौजूदा बुनियादी ढांचे के सीमित विस्तार की संभावना को देखते हुए, गांधीनगर में एक नए क्षेत्रीय पुलिस वायरलेस प्रशिक्षण संस्थान (आर.पी.डब्ल्यू.टी.आई.) की स्थापना की आवश्यकता महसूस की गई है । यह संस्थान देश के पश्चिमी और मध्य भाग जैसे छत्तीसगढ़, दमन, गोवा, गुजरात, मध्य प्रदेश, महाराष्ट्र और राजस्थान में स्थित राज्यों, केंद्र शासित प्रदेशों और इन क्षेत्रों मे तैनात केन्द्रीय सशस्त्र पुलिस बलों एवं केन्द्रीय पुलिस संगठनों की प्रशिक्षण आवश्यकताओं को पूरा करेगा। इसके अतिरिक्त, गांधीनगर में आर.पी.डब्ल्यू.टी.आई. अन्य क्षेत्रीय प्रशिक्षण संस्थानों जैसे आर.आर.यू (राष्ट्रीय रक्षा विश्वविद्यालय), जी.पी.ए. (गुजरात पुलिस अकादमी), एन.एफ.एस.यू. (राष्ट्रीय फॉरेंसिक विज्ञान विश्वविद्यालय) आदि के साथ क्रॉस-ट्रेनिंग का मंच प्रदान करेगा। यह सहमति भी बनी है कि प्रस्तावित आर.पी.डब्ल्यू.टी.आई. गांधीनगर परिसर को भविष्य में आर.आर.यू और अन्य क्षेत्रीय संस्थानों के साथ सहयोगात्मक प्रशिक्षण और अनुसंधान कार्यक्रमों के लिए अनुकूल तरीके से विकसित किया जाएगा । इसके लिए प्रस्ताव गृह मंत्रालय को भेज गया है ।

नवीन पहल

इसके अतिरिक्त, वर्ष 2026-27 के प्रस्तावित प्रशिक्षण कैलंडर में डी.सी.पी.डब्ल्यू. के प्रशिक्षण संस्थानों में कई नई विषयों जैसे पुलिसिंग में कृत्रिम बुद्धिमत्ता (AI in Policing), पुलिस संचार साइबर सुरक्षा (Cyber Shield), ड्रोन एवं रिपीटर आधारित पुलिस संचार, AI-सक्षम CCTV द्वारा स्मार्ट निगरानी, CCTV प्रणालियों की स्थापना एवं अनुरक्षण, अगली पीढ़ी की पुलिस संचार प्रणाली (LTE/5G एवं मिशन-क्रिटिकल सिस्टम), IoT आधारित स्मार्ट पुलिसिंग जैसे नए पाठ्यक्रम सम्मिलित किए गए हैं । इसके अतिरिक्त, सी.पी.आर.टी.आई., नई दिल्ली में प्रशिक्षण क्षमताओं को और सुदृढ़ करने हेतु ड्रोन प्रयोगशाला (Drone Lab), CCTV प्रयोगशाला (CCTV Lab) एवं अन्य अत्याधुनिक प्रयोगशालाओं की स्थापना किए जाने का प्रस्ताव है । साथ ही सी.पी.आर.टी.आई., नई दिल्ली में स्थित कार्यालय भवनों एवं हॉस्टल का उन्नयनिकरण किए जाने के लिए, गृह मंत्रालय की सैद्धांतिक स्वीकृति प्राप्त करने के उपरांत, वित्तीय स्वीकृति हेतु प्रस्ताव प्रेषित किया जा रहा है ।

आईटी अनुभाग

आईटी अनुभाग वर्तमान में विभिन्न प्रकार के कार्यों में संलग्न है, जिनमें डीसीपीडब्ल्यू मुख्यालय, नई दिल्ली में आईसीटी अवसंरचना की योजना, कार्यान्वयन, अनुरक्षण एवं तकनीकी सहायता से संबंधित कार्य सम्मिलित हैं। आईटी अनुभाग द्वारा किए जा रहे प्रमुख कार्य निम्नलिखित हैं:

1. डीसीपीडब्ल्यू मुख्यालय, नई दिल्ली में विद्यमान सीसीटीवी प्रणाली का उन्नयन ।
2. डीसीपीडब्ल्यू मुख्यालय में मौजूदा व्यवस्था के उन्नयन द्वारा लैन नेटवर्क की स्थापना एवं कमीशनिंग।
3. डीसीपीडब्ल्यू मुख्यालय, 7वीं मंज़िल स्थित सम्मेलन कक्ष हेतु नए पीए सिस्टम की खरीद।
4. डीसीपीडब्ल्यू में ई-स्पैरो (e-SPARROW) प्रणाली का कार्यान्वयन।
5. एनआईसीएसआई के माध्यम से डीसीपीडब्ल्यू की नई वेबसाइट का विकास।
6. नेटवर्क कनेक्टिविटी की सतत निगरानी।
7. ई-ऑफिस का प्रबंधन, जिसमें नए उपयोगकर्ता खाते बनाना शामिल है।
8. जीईएम (GeM) यूज़र आईडी का निर्माण एवं अद्यतन।
9. एनआईसी ई-मेल आईडी का निर्माण, प्रोफाइल एवं पंजीकृत मोबाइल नंबर का अद्यतन।
10. बिल्डिंग ऑटोमेशन सिस्टम (BAS) का अनुरक्षण एवं निगरानी।
11. विभिन्न सतत आवश्यकताओं हेतु आईटी उपकरणों की खरीद।
12. आईसीटी उपकरणों से संबंधित सभी खरीद मामलों की पहल एवं प्रक्रिया।
13. डीसीपीडब्ल्यू वेबसाइट का अद्यतन एवं अनुरक्षण, जिसमें कार्यालय आदेश, परिपत्र, फोटो आदि अपलोड करना शामिल है।
14. ऑनलाइन बैठकों / वीडियो कॉन्फ्रेंस के दौरान तकनीकी सहायता प्रदान करना।
15. डीसीपीडब्ल्यू के सभी अधिकारियों/कर्मचारियों को आईटी संबंधी तकनीकी सहायता प्रदान करना।
16. डीसीपीडब्ल्यू मुख्यालय में स्थापित सीसीटीवी नेटवर्क का अनुरक्षण एवं निगरानी।

उपरोक्त के अतिरिक्त, आईटी अनुभाग द्वारा निम्नलिखित प्रस्तावित आईटी कार्यों को भी किया जाना प्रस्तावित है:

क) एनआईसीएसआई के माध्यम से डीसीपीडब्ल्यू की उन्नत नई वेबसाइट का विकास।
ख) एनआईसीएसआई एवं रेलटेल के माध्यम से नए ई-स्पैरो पोर्टल का कार्यान्वयन।
ग) भविष्य की आवश्यकताओं के अनुसार प्रिंटर, पीसी एवं अन्य आईटी हार्डवेयर की खरीद।
घ) समय-समय पर आवश्यक उन्नत आईसीटी परियोजनाओं एवं तकनीकी उन्नयन से संबंधित कार्य।

दृष्टिबाधित कर्मचारियों के लिए डिजिटल समावेशन की सशक्त पहल

डीसीपीडब्ल्यू के आईटी अनुभाग द्वारा दृष्टिबाधित कर्मचारियों की सुविधा हेतु JAWS (जॉब एक्सेस विद स्पीच) सॉफ्टवेयर उपलब्ध कराया गया है। यह सॉफ्टवेयर कंप्यूटर स्क्रीन पर उपलब्ध सामग्री को ध्वनि के माध्यम से सुलभ बनाता है, जिससे कर्मचारी अपने आधिकारिक कार्य स्वतंत्र रूप से कर सकें।

भूमि एव भवन अनुभाग

वर्ष 2025 में भूमि एवं भवन अनुभाग के अंतर्गत नवा रायपुर में कार्यालय एवं आवासीय भवनों तथा RPWTI, कोलकाता के भवन का निर्माण कार्य प्रगति पर रहा। इसी वर्ष RPWTI, बेंगलुरु के हॉस्टल/कैंटीन भवन का शिलान्यास माननीय गृह राज्य मंत्री द्वारा किया गया तथा स्पेशल कैंपेन 5.0 के तहत निदेशालय एवं ISPW केंद्रों पर स्वच्छता अभियान चलाया गया। वर्ष 2026 में नवा रायपुर, कोलकाता एवं बेंगलुरु की नई भवन परियोजनाओं के उद्घाटन, अगरतला में नए कार्यालय भवन एवं कोलकाता में हॉस्टल भवन के शिलान्यास, CPRTI के नवीनीकरण तथा लेह एवं अमरावती में 2 नए अंतर-राज्यीय पुलिस बेतार केंद्र खोले जा रहे हैं।।

बेंगलुरु में आपदा प्रबंधन को सुदृढ़ करने के उद्देश्य से डिज़ास्टर हब का शिलान्यास 2026 में किया जाएगा। यह हब आपातकालीन स्थितियों में त्वरित प्रतिक्रिया, बेहतर समन्वय और आधुनिक तकनीकों के उपयोग को बढ़ावा देगा, जिससे भविष्य में राहत एवं बचाव कार्यों की क्षमता में उल्लेखनीय सुधार होगा।

लेखा अनुभाग

समन्वय निदेशालय पुलिस बेतार (डीसीपीडब्ल्यू) का लेखा अनुभाग वर्ष 2025-26 के दौरान वित्तीय प्रबंधन, बजट नियंत्रण, वेतन एवं बिल निस्तारण तथा वित्तीय नियमों के अनुपालन हेतु सक्रिय रहा। इस अवधि में ई-बिल प्रणाली (GeM एवं वेतन बिल) लागू कर कागज़रहित, पारदर्शी एवं त्वरित प्रक्रिया सुनिश्चित की गई।

प्रशासनिक दक्षता बढ़ाने हेतु नोटिंग-ड्राफ्टिंग कार्यशाला आयोजित की गई तथा तीन अधिकारियों ने आईएसटीएम का कैश एवं लेखा प्रशिक्षण प्राप्त किया। कर्मचारियों की सुविधा के लिए द्विभाषी प्रपत्रों की पहल की गई। साथ ही बजट तैयारी, व्यय निगरानी, लेखा परीक्षण अनुपालन एवं वित्तीय नियमों के पालन पर विशेष बल दिया गया।

बीजलेख अनुभाग

बीजलेख अनुभाग, राष्ट्रीय राजधानी और राज्य / केंद्र शासित प्रदेशों की राजधानियों के मध्य उपग्रह संचार प्रणाली अर्थात पोलनेट 2.0 के माध्यम से गोपनीय एवं सुरक्षित संदेशों (वार्ता) के आदान-प्रदान की सुविधा प्रदान करता है | समन्वय निदेशालय (पुलिस बेतार), सभी राज्यों / केंद्र शासित प्रदेशों की राजधानियों में स्थित अपने अंतरराज्यीय पुलिस बेतार केंद्र (आई०एस०पी०डब्ल्यू०) स्टेशनों में कार्यरत बीजलेख केन्द्रों के माध्यम से अंतरराज्यीय / अंतः राज्यीय गोपनीय एवं सुरक्षित संचार का भी कार्य करता है | समन्वय निदेशालय (पुलिस बेतार) मुख्यालय , संसद भवन एवं सभी राज्य / केंद्र शासित राज्यों में स्थित 31 अंतरराज्यीय पुलिस बेतार केंद्रों के बीजलेख केन्द्रों के माध्यम से समन्वय निदेशालय (पुलिस बेतार) गोपनीय संदेशों के लिए बीजलेख सुरक्षा प्रदान करता है | बीजलेख अनुभाग, समन्वय निदेशालय द्वारा सभी राज्यों / केंद्र शासित प्रदेशों, केंद्रीय सशस्त्र पुलिस बल (सी०ए०पी०एफ०) एवं निदेशालय में कार्यरत कर्मियों / अधिकारियों को विभिन्न बीजलेख कोर्स एवं पाठ्यक्रम के माध्यम से बीजलेख प्रशिक्षण भी दिया जाता | चूंकि समन्वय निदेशालय (पुलिस बेतार), सभी राज्य एवं केंद्र शासित प्रदेशों की पुलिस की केंद्रीय वितरण प्राधिकरण (सी०डी०ए०) है अतः निदेशालय सभी राज्य एवं केंद्र शासित प्रदेशों को बीजलेख दस्तावेज एवं उपकरण वितरित करने का क्रय भी करता है |

वर्ष 2025 में किये गए कार्यों का विवरण

वर्ष 2025 में कुल 16 विभिन्न कोर्स के माध्यम से राज्यों / केंद्र शासित प्रदेशों, केंद्रीय सशस्त्र पुलिस बल (सी०ए०पी०एफ०) एवं निदेशालय में कार्यरत कर्मियों / अधिकारियों 266 कर्मी / अधिकारियों को केंद्रीय पुलिस रेडियो प्रशिक्षण संस्थान, नई दिल्ली में बीजलेख प्रशिक्षण दिया गया |

भविष्य में प्रस्तावित योजनायें

भविष्य में गोपनीय संदेशों की तीव्र निकासी हेतु हम पारंपरिक (मैन्युअल) तकनीक के बजाये रक्षा अनुसन्धान एवं विकास संगठन द्वारा निर्मित सुरक्षित एवं आधुनिक स्वचालित तकनीक एवं उपकरणों के माध्यम से बीजलेख सुरक्षा को ध्यान में रखते हुए अधिक से अधिक बीजलेख कार्यों का डिजिटलीकरण करने के लिए प्रयासरत हैं | सभी बीजलेख दस्तावेजों को सुरक्षित नेटवर्क के माध्यम से प्राप्त करने एवं वितरण हेतु नई तकनीक जो कि रक्षा अनुसन्धान एवं विकास संगठन द्वारा विकसित की जा रही है, जिससे कि मानव सम्बन्धी हस्तक्षेप को कम किया जा सके, का भी भविष्य में इस्तेमाल करने हेतु हम अग्रसर हैं |

केंद्रीय कार्यशाला

1. निदेशालय की "केंद्रीय रेडियो कार्यशाला" अत्याधुनिक परीक्षण उपकरणों [Latest state of the Art based Technology] से सुसज्जित कार्यशाला है|

2. केंद्रीय कार्यशाला को गृह मंत्रालय द्वारा "मानक तकनीकी मूल्यांकन बोर्ड" की नोडल संस्था के रूप में अधिकृत किया गया है, जो कि विभिन्न राज्यों की पुलिस एवं केंद्रीय सैन्य पुलिस बल द्वारा GeM पोर्टल के माध्यम से क्रय किए जाने वाले संचार उपकरणों (HF/VHF/UHF/DMR एवं Repeater) तथा संबंधित सहायक उपकरणों (Mic, Batteries, Antenna, Cable etc.)के सभी तकनीकी मापदंडों का गहन मूल्यांकन एवं क्षेत्र परीक्षण (Field Trial) करती है | इस संबंध में गृह मंत्रालय द्वारा अधिकृत आदेश के अनुसार, इंडेंटर द्वारा घोषित सफल वेंडरों से तकनीकी मूल्यांकन / क्षेत्र परीक्षण के लिए शुल्क के रूप में दो हजार रुपये प्रतिदिन/प्रति वेंडरदेय है। विगत वर्षों में कार्यशाला द्वारा सशस्त्र सीमा बल(SSB), राष्ट्रीय आपदा मोचन बल(NDRF), राष्ट्रीय पुलिस अकादमी(NPA) हैदराबाद, भारत तिब्बत सीमा पुलिस (ITBP), केंद्रीय औद्योगिक सुरक्षा बल(CISF), उड़ीसा पुलिस के लिए तकनीकी मूल्यांकन एवं क्षेत्र परीक्षण किया गया है तथा कुल रू.1,26,050/- (रुपये एक लाख छब्बीस हजार पचास मात्र) का राजस्व भी राजकोष में जमा किया गया है ।

3. उपर्युक्त के साथ ही , केंद्रीय कार्यशाला को गृह मंत्रालय, आंतरिक सुरक्षा प्रभाग द्वारा "जेल जैमर" से संबन्धित समाधानो की दक्षता एवं उनके तकनीकी मूल्यांकन हेतु भी नामित किया गया है । इसी कड़ी में, कार्यशाला की गठित समिति द्वारा विभिन्न राज्यों/केंद्र शासित प्रदेशों जैसे पंजाब राज्य के पटियाला,भटिंडा और नाभा जेल एवं नई दिल्ली के रोहिणी जेल में विभिन्न वेंडरों के "जेल जैमर उपकरणों "का तकनीकी मूल्यांकन किया गया है।

4. कार्यशाला को गृह मंत्रालय द्वारा नोडल संस्था के रूप में आरक्षित भंडार (Reserve Stock) रखने और आवश्यकता अनुसार समय-समय पर विभिन्न राज्यों की पुलिस एवं केंद्रीय सैन्य बलों की आकस्मिक मांग पर ऋण के रूप में उपलब्ध कराने हेतु अधिकृत किया गया है । इस संबंध में केन्द्रीय कार्यशाला एक निश्चित समय पर सभी उपकरणों की तकनीकी दक्षता की जांच करता है, जो यह सुनिश्चित करता है कि, उक्त संचार उपकरण प्रयोग में लाने कि स्थिति में हैं अथवा नहीं ।

Central Store Section

Provide wireless equipments for various events

Amarnath Yatra – 2025

To ensure uninterrupted and secure communication during the annual Amarnath Yatra, wireless communication sets were issued to Indo-Tibetan Border Police (ITBP) and Central Industrial Security Force (CISF) units in 2025.The deployment supported round-the-clock coordination across difficult mountainous terrain. Wireless sets facilitated communication for thousands of security personnel involved in route security, crowd management, and emergency response.

Operation Sindhoor

During Operation Sindhoor, wireless communication sets were issued to security forces operating in Jammu & Kashmir. The equipment enabled real-time operational coordination in sensitive and high-risk areas. This support strengthened command, control, and intelligence sharing among field units.

Independence Day Celebrations – 2025

For the Independence Day celebrations in 2025, wireless sets were issued to Delhi Police. The communication support covered parade routes, public gathering areas, and high-security zones. It enhanced inter-agency coordination during one of the largest national security deployments of the year.

Panchayat Elections & T-20 World Cup Matches

Wireless communication sets were provided to Kolkata Police for the conduct of Panchayat Elections and T-20 World Cup cricket matches. The equipment supported election security, crowd control, and traffic management. During international sporting events, the wireless network ensured swift coordination among ground staff, control rooms, and emergency services.

Support During Major Events and Disaster Situations

Communication equipment was deployed to support major national and regional events and disaster response operations, including:

- General and State Elections
- Disaster response and relief operations
- Durga Puja celebrations
- Dussehra Melas and large religious gatherings

These deployments ensured seamless communication, rapid response, and effective coordination among multiple agencies during high-footfall events and emergencies.

देवी

By
R.K. Verma
Additional Director, DCPW

हे कुटिल बुद्धि कपटी मानव, तुम इतना क्यों गिर जाते हो
जिससे जीवन तुमने पाया, उसको ही आग लगाते हो।
ये मां है ममता की मूरत, जिसने ढाली तेरी सूरत
तन से निकला स्तन जकड़ा, उंगली छोड़ी आंचल पकड़ा
ये अटल सत्य है हम सब का , क्यों इससे आंख चुराते हो।
हे कुटिल बुद्धि.....

जब बहन बनी बांधा धागा, रक्षा का मांगा एक वादा
अपना हिस्सा तुमको देकर, फिर देखा नहीं पीछे मुड़कर
उसने चाहा तुम बनो कृष्ण, तुम कंस क्यों बन जाते हो
हे कुटिल बुद्धि.....

फिर साथ हुयी पत्नी बनकर, तुमको चाहा खुद से बढ़कर
तन दे डाला मन दे डाला, भगवान का दर्जा दे डाला
अब और चाहिए तुझको क्या, क्यों इसको आंख दिखाते हो
हे कुटिल बुद्धि.....

बेटी बनकर जब घर आई, घर की लक्ष्मी ये कहलाई
अनचाहा तुमने कहा इसे, फिर भी ये चाहत ले आई
जिसने तुमको अभिमान दिया उसको अपमान बताते हो
हे कुटिल बुद्धि.....

Naresh Kumar
Joint Director, DCPW

Induction of next generation Software Defined-Radio(SDR) for different application in Police

1. Introduction

The twentieth century has seen significant scientific and technological developments, of which wireless communication is in many ways unique and one of the most important. According to industry reports traffic from mobile and wireless devices will exceed that from personal computers (PCs) in near future and predicted billions of devices will be wirelessly connected to the internet of things (IoT); a network of physical entities or things embedded with electronics, software and sensors capable of providing automation, enhanced connectivity and services. This paradigm shift towards mobile platforms has serious implications for radio hardware platforms, physical layer technologies, wireless protocols and standards.

With the exponential growth in data communications,voice communications, video communications, broadcast messaging, command and control communications, emergency response communications, etc. - modifying radio devices easily and cost-effectively has become business critical. Software defined radio (SDR) technology brings the flexibility, cost efficiency and power to drive communications forward with wide-reaching benefits to end users.

2. Concept of SDR

SDR defines a collection of hardware and software technologies where some or all of the radio's operating functions (also referred to as physical layer processing) are implemented through modifiable software or firmware operating on programmable processing technologies that include field programmable gate arrays (FPGA), digital signal processors (DSP), general purpose processors (GPP), programmable System on Chip (SoC) or other application specific programmable processors. The use of these technologies allows new wireless features and capabilities to be added to existing radio systems without requiring new hardware.

3. Software Defined Radio - Related Technologies

i) Software Controlled Radio -Radio in which some or all of the physical layer functions are controlled by Software.

ii) Software Defined Radio –Radio in which some or all of the physical layer functions are Software Defined.

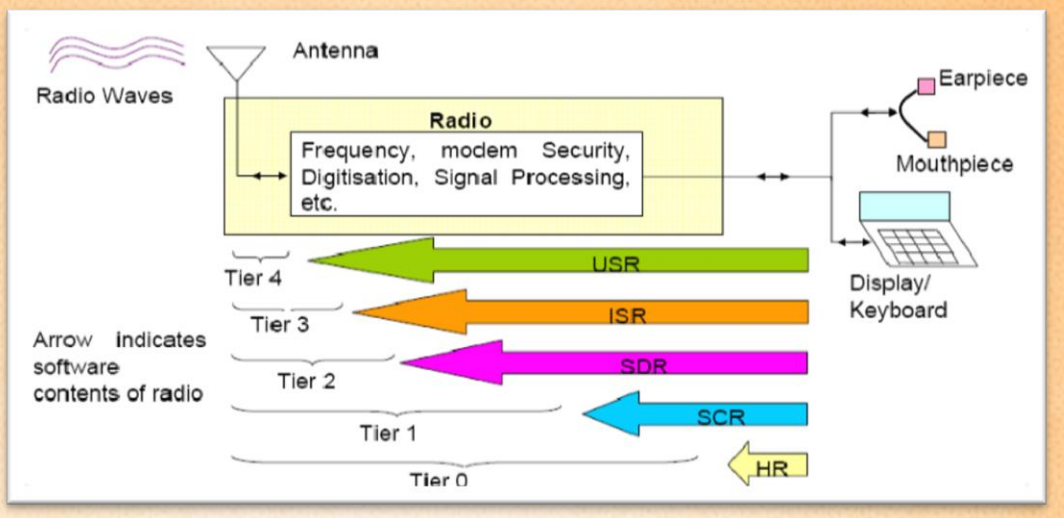
iii) Adaptive Radio-Systems that monitor their own performance and adapt to improve their performance

iv) Cognitive Radio-Radio that is aware of its environment and internal state and can make informed decisions.

v) Intelligent Radio-Cognitive radio capable of machine learning.

The ultimate radio system is intelligent radio, which can fully adapt itself for new frequencies,modulation schemes and access technologies .

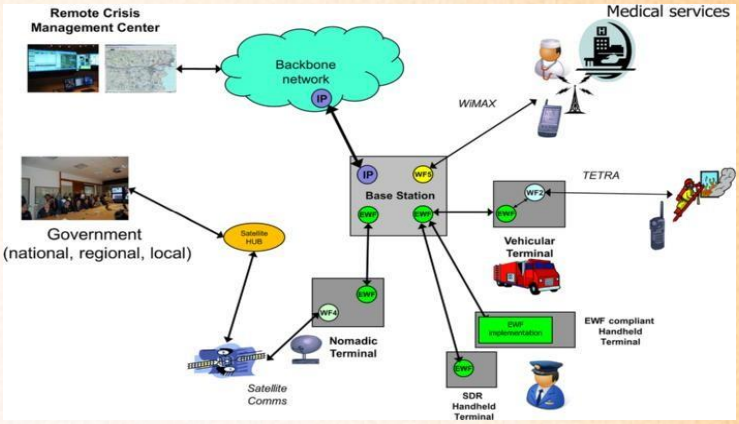
Different categories defined in Tier 0 to 4 by SDR forum areas under:



4. Public Protection And Disaster Relief (PPDR) Agencies Requirements :

PPDR systems have special functional and operational requirements, including their need for high reliability, interoperability, and availability in harsh operational environments.

The PPDR agencies requirement could be met by the induction of SDR based new PPDR communication systems. It is important that authorities and organizations around the world collaborate in the development of these standards for PPDR communications and that they share information on emerging technologies and services.



5. Next generation SDR technology

The adoption of the LTE standard for broadband public safety use in several countries is an encouraging development. ITU Resolution 646 (Rev.WRC-12) was adopted to promote harmonization of spectrum for PPDR applications. Efforts are under way to develop harmonized standards for some of these bandsto address the existing problem of incompatible communication equipment used by public safety agencies.

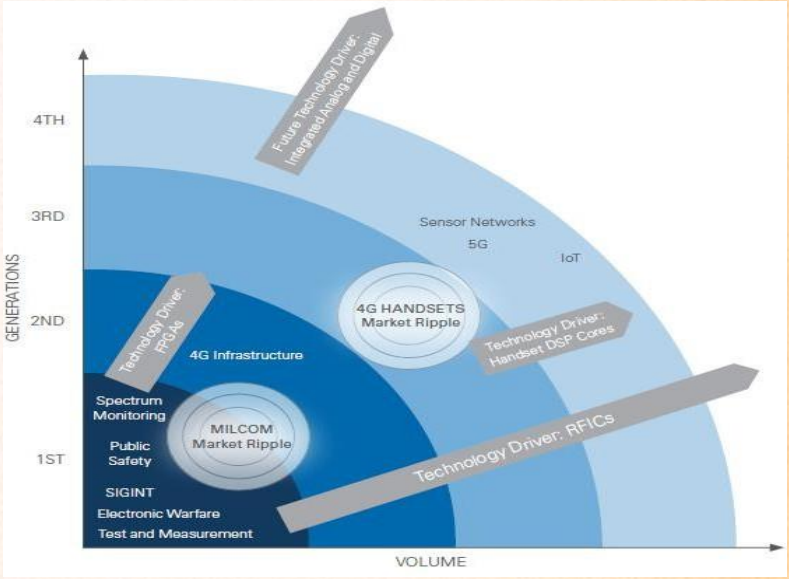


Figure above shows the progress of SDR adoption over the last 30 years.

Wideband and broadband communication services that support PPDR applications will benefit from the use of state-of-the-art, spectrum-efficient technologies, such as advanced antenna techniques, adaptive coding and modulation techniques and support advanced automatic networking features like self-organization and self- configuration (SON).

5. Next generation SDR technology

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6. Challenges in induction of SDR technology

i) Interworking - Intercommunicate (i.e. interwork) with different kinds of radio systems used by multi-agency and multi-jurisdiction in emergency situations. Using SDR technology, public safety agencies could effectively achieve interworking communications across a broad range of systems, operating in different frequency bands and with different technologies.

ii) Interoperability - Interoperability is the ability of equipment made by different vendors to work interchangeably with each other, which is important for PPDR applications. SDR-based radio would be easier to build to multiple standards and modify whenever a change be required.

iii) Enhanced functionality -Enhanced functionality to generate its operating parameters, particularly those involving waveforms and signal processing through computer software.

iv) Remote control -SDR systems could be remotely controlled and may be compatible with new products and backward-compatible with legacy systems and ability to share waveform software between radios, even radios in different physical domains.

v) Security -Area of growing importance is that of SDR security. Radio systems will need to ensure the transmissions remain secure and when using a software defined radio there is another element of security that of ensuring that the software within the radio is securely upgraded. This presents an opportunity for malicious software to be delivered that could modify the operation of the radio or prevent its operation altogether.

7. Conclusion

The area of software defined radios is multi-disciplinary. The successful integration of SDRs requires knowledge about antennas, RF hardware design, reconfigurable computing, algorithm development and design methods that provides an efficient design. It has also been described that there are many challenges left, and a significant amount of research is to be done. However, the technology is mature enough to start employing software radio technology in existing products. Later, cognitive radio is expected to be the key application that requires SDR. Cognitive radio has also attracted focus from the SDR Forum as well as the European Telecommunications Standards Institute (ETSI). The SDR platforms have to be flexible and allow dynamicity in the PPDR operational scenarios, because resources can be dynamically allocated depending on the contextbecause PPDR agencies in the field must face unexpected events and traffic demands, which are difficult to predict a priority.

Ashim Sen
Joint Director, DCPW

Emergency Communication Systems in Disaster Management: Emerging Role of DCPW

Abstract

Communication systems form the backbone of Disaster Management. Their resilience determines whether early warnings reach vulnerable populations and whether relief operations are coordinated effectively. The global frameworks such as the Sendai Framework for Disaster Risk Reduction (2015–2030) and the Sustainable Development Goals (SDGs) emphasise on a resilient communication system for Disaster Management. This article analyzes case studies from disasters in India, evaluates vulnerabilities in communication networks, and explores the integration of emerging technologies into emergency communication systems, with particular attention to Priority Call Routing (PCR), the Common Alerting Protocol (CAP), POLNET 2.0 Satellite Terminals and the transition to AI-powered drones, and Network in a Box (NIB) solutions to be integrated with POLNET and Broadband Public Protection and Disaster Relief (BB-PPDR).

Introduction

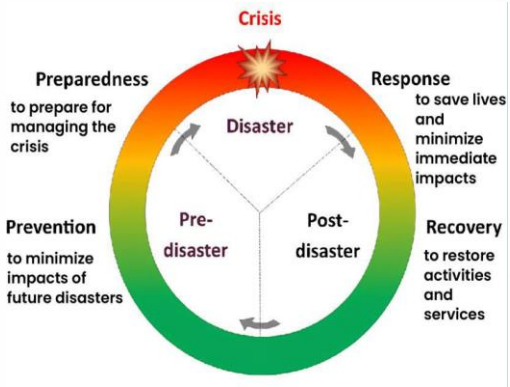
Disasters are not only physical events but also information crisis events. When communication networks collapse, the ability to warn, coordinate, and respond is severely compromised. The Disaster Management Act of 2005 institutionalized India's commitment to building robust communication systems, while the National Disaster Management Plan (NDMP) emphasized ICT-enabled resilience. Globally, the SENDAI Framework calls for multi-hazard, people-centered communication mechanisms. India's initiatives must be understood within this global context, where communication is increasingly recognized as a critical infrastructure on par with transport, energy, and healthcare.

Communication across the Disaster Cycle:

Before, During, and After

Communication is a continuous process that underpins preparedness, response, and recovery. **Before a disaster strikes**, communication enables early warning and preparedness. For example, the **Indian Meteorological Department (IMD)** issues cyclone alerts that are disseminated through CAP-based cell broadcasting, television, and radio. In Odisha, during **Cyclone Fani (2019)**, timely communication of warnings allowed authorities to evacuate nearly 1.2 million people, significantly reducing casualties compared to earlier cyclones.

During a disaster, communication ensures coordination among responders and provides life- saving information to affected populations. In the **Kerala floods of 2018**, ham radio operators and satellite phones became critical when mobile networks collapsed. Their communication links allowed rescue teams to identify stranded communities and direct boats and helicopters to those locations. In the **Chennai floods of 2015**, social media platforms and WhatsApp groups were used by citizens and volunteers to share real-time updates on safe routes, shelter availability, and medical needs, complementing official communication channels.



After a disaster, rapid restoration of communication networks supports recovery, rehabilitation, and rebuilding trust. Following the **Gujarat earthquake of 2001**, electronic communication systems were used to coordinate reconstruction projects, track resource allocation, and maintain transparency in relief distribution. In Jammu & Kashmir after the **2014 floods**, communication between government agencies and NGOs helped streamline rehabilitation efforts, ensuring that aid reached the most affected families. Post-disaster communication plays a significant psychological role in reassuring communities and restoring confidence in institutions.

A **resilient communication network** is defined as an "essential lifeline" that must remain operational when traditional infrastructure fails. Organizations such as the **United Nations (UN)**, the International Telecommunication Union (ITU), and the **Coalition for Disaster Resilient Infrastructure (CDRI)** emphasize that network resilience is the backbone of all disaster management phases. The ITU's National Emergency Telecommunication Plans (NETP) stress that resilient networks are required to deliver alerts via cell broadcast and satellite, ensuring messages reach the "last mile" even if local grids are down. Thus, communication transforms warnings into action before disasters, enables coordination during crisis, and sustains recovery afterward.

Vulnerabilities in Commercial Telecommunication Networks

Commercial telecommunication networks, though extensive, are highly vulnerable during disasters. Physical destruction of towers and cables, damage to equipment and installations, and disruption of line connectivity often occur when floods, earthquakes, or cyclones strike. Supporting infrastructure such as power supply and fuel chains may also collapse, further crippling communication. Waterlogging can damage underground cables, while congestion and jamming overwhelm networks as affected people attempt to contact family and friends and emergency personnel try to coordinate relief. The surge in voice and data traffic—where "everyone wants to speak to everyone"—creates systemic paralysis seen as recent as the heavy rains and landslides in J&K, Himachal Pradesh, Uttarakhand etc. These vulnerabilities highlight the need for dedicated, disaster-resilient communication systems that can function independently of commercial networks.

Features of Communication Systems Required for Effective Disaster Management

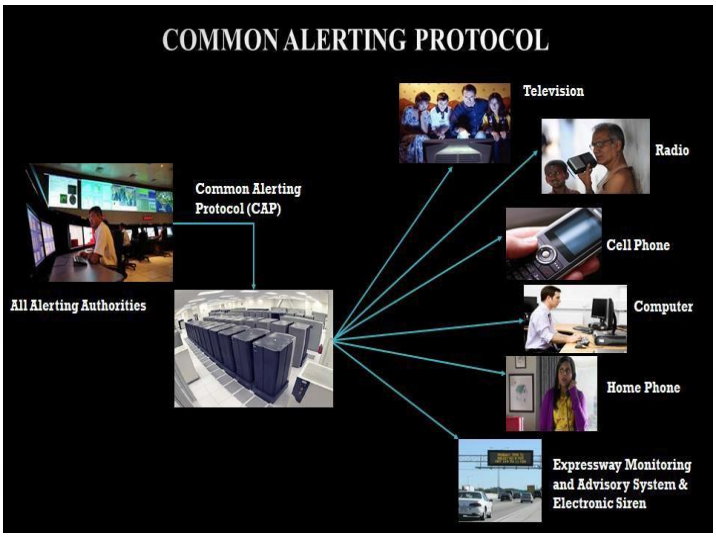
To overcome these vulnerabilities, disaster communication systems must possess specific features. They must provide a **reliable platform** for emergency communications, supporting broadband applications such as text, voice, video, and the sharing of maps and non-spatial data. Systems must be **robust enough to integrate all available communication means** in an affected area, bypassing damaged or overloaded networks. They should be able to **extend their reach quickly to any location**, ensuring that even remote or inaccessible communities are connected. Portability and ease of deployment are essential, allowing rapid installation in field conditions. Finally, cost-effectiveness ensures scalability across states and districts, making such systems practical for nationwide adoption.

Priority Call Routing (PCR)

Priority Call Routing was introduced in India to ensure that calls made by disaster management professionals, police, medical teams, and government officials were given precedence during network congestion. PCR allowed telecom networks to identify authorized numbers and route their calls ahead of general public traffic, sometimes dropping or queuing lower-priority calls. This mechanism was essential in the era when commercial telecom networks were the primary communication backbone during disasters. However, PCR is fundamentally reactive: it manages congestion but does not eliminate the underlying vulnerability of relying on public networks that are prone to overload and physical damage.

Common Alerting Protocol (CAP)

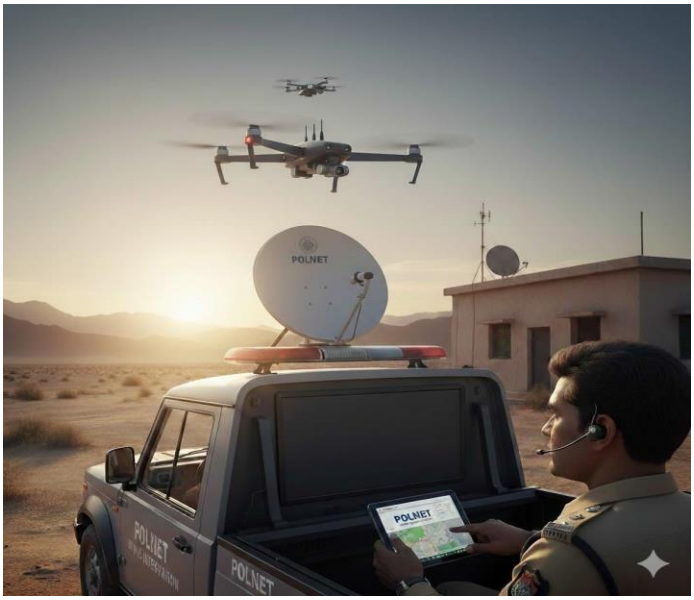
The Common Alerting Protocol (CAP) is a standardized format developed by the International Telecommunication Union (ITU) to enable the dissemination of emergency alerts across multiple communication channels simultaneously. India has adopted CAP through platforms such as **SACHET** and the **indigenous Cell Broadcasting system developed by C-DOT**, now operational nationwide. Alerts are issued in more than 19 Indian languages, ensuring inclusivity across India's diverse linguistic landscape. CAP is geo- intelligent, allowing alerts to be targeted to specific districts or polygons, thereby preventing unnecessary panic in unaffected regions.



POLNET 2.0, AI-Powered Drones, and Network in a Box (NIB) Integration

The most transformative element of India's disaster communication strategy is the integration of **POLNET 2.0 Satellite Terminals**, **AI-powered drones**, **Flyaway terminals**, and **Network in a Box (NIB)** solutions.

POLNET 2.0 is a VSAT-based satellite network using DVB-S2 and MFTDMA technology, operating over a dedicated GSAT C-band transponder. It provides all-weather connectivity with high throughput, enhanced security, and modern network management systems. With capacity for up to 3,000 VSATs nationwide, POLNET 2.0 ensures connectivity in remote, inaccessible, and disaster-prone regions where terrestrial networks fail. It supports video conferencing, secure data transfer, and real-time coordination between district-level police, CAPFs, and disaster management agencies. Further, **Flyaway terminals**, the portable satellite units of POLNET 2.0 can be rapidly deployed at disaster sites to establish a temporary communication network.



When combined with **AI-powered drones**, POLNET 2.0 becomes a force multiplier. Drones equipped with cameras and sensors can provide live aerial imagery, thermal scans, and damage assessments. AI algorithms can analyze drone feeds to detect stranded populations, blocked roads, or emerging hazards. These insights can be transmitted via POLNET 2.0 terminals to Emergency Operation Centers, enabling rapid decision-making.

The **Network in a Box (NIB)** further enhances this ecosystem by providing a portable, self- contained cellular network that can be deployed instantly in disaster zones. NIB creates localized coverage where commercial networks are destroyed or unavailable, allowing responders and affected populations to connect to communication services.

When integrated with POLNET 2.0, NIB ensures that even isolated communities can be reached, while drone reconnaissance provides situational awareness. Together, they form a **layered communication architecture**: satellite for backbone connectivity, NIB for local coverage, and drones for intelligence gathering.

This triad—POLNET 2.0, AI-powered drones, and NIB—represents India's next-generation disaster response mechanism. The integration of resilient communication systems—ranging from CAP-based early warning dissemination to POLNET 2.0 satellite connectivity, Flyaway terminals, AI-powered drones, & portable Network in a Box (NIB) solutions— represents more than just disaster preparedness. It is a cornerstone of India's developmental vision.

Broadband Public Protection and Disaster Relief (BB-PPDR) Network

Broadband Public Protection and Disaster Relief (BB-PPDR), now being piloted by DCPW, represents a strategic transformation. Unlike PCR, which operates within commercial frameworks, BB-PPDR is a dedicated, mission-critical broadband ecosystem designed specifically for emergency services. Built on **3GPP standards**, BB-PPDR provides secure, resilient, and high-capacity communication channels insulated from public traffic. It supports advanced applications such as real-time video streaming from disaster sites, geospatial data transmission, drone reconnaissance, and AI-enabled analytics.

While PCR may continue to function as a fallback mechanism during the transition period, BB-PPDR's dedicated channels will eliminate congestion by design. Instead of prioritizing calls within overloaded networks, BB-PPDR ensures that emergency responders always have access to secure, congestion-free communication.

India's transition mirrors global modernization trends. Globally, several countries have already deployed or are in the process of implementing PPDR networks. The United States, Qatar, South Korea, the United Kingdom, and Finland have fully deployed nationwide PPDR systems. Countries such as Japan, Australia, Canada, Kenya, France, and Pakistan have partially deployed networks and are moving toward full implementation. Brazil, Thailand, Hong Kong, Mexico, and Norway have initiated implementation projects. China is undertaking a phase-wise implementation in the 1.4 GHz band. These global efforts highlight the growing recognition of PPDR networks as essential infrastructure for public safety, disaster resilience, and national security. India's initiative places it within this international movement, ensuring that its public safety agencies are equipped with modern, interoperable, and disaster-resilient communication systems.

Importance of PPDR Network

The Public Protection and Disaster Relief (PPDR) network is vital for India's internal security and disaster management. It unifies communication across state police forces, central police organizations, disaster response units, fire services, medical services, and the National Disaster Management Authority. Existing systems are fragmented, relying on analogue radios, digital trunking, satellite phones, and commercial mobile networks, which often fail during emergencies. The PPDR network addresses these shortcomings by providing a secure, interoperable, and resilient communication backbone that ensures uninterrupted connectivity even when commercial networks collapse during disasters such as floods, cyclones, or earthquakes. Inspired by the United States' FirstNet initiative after the 9/11 attacks, India's BB-PPDR network represents a strategic modernization effort that aligns with global best practices and strengthens national preparedness for both natural and man-made crises.

The BB-PPDR network is based on 3GPP PS-LTE standards and enables mission-critical services such as voice, video, data, and live location sharing in real time. It supports group calling functions that allow push-to-talk communication, multimedia sharing, and location updates among teams, which is essential for coordinated disaster response and law enforcement operations. The network ensures nationwide seamless coverage, including remote and vulnerable regions. Security is a cornerstone, with end-to-end encryption safeguarding sensitive communications. Its capacity is designed to withstand extreme events, preventing congestion during emergencies. Disaster redundancy ensures that the system continues to function when conventional networks fail, while interoperability allows integration with legacy systems like HF, VHF, and POLNET. The network also supports advanced applications such as body-camera integration, enabling live video feeds for monitoring and evidence collection, and it facilitates commando operations by providing secure, multimedia-enabled tactical communication.

Implementation in India

India is implementing the BB-PPDR network in a phased manner. A proof of concept has been initiated with all telecom service providers, followed by pilot projects in ten diverse locations selected on the basis of geographical, security, and disaster vulnerability considerations. These include Amritsar, Bastar, Bengaluru, Guwahati, Mumbai, Visakhapatnam, Rudraprayag, Andaman and Nicobar, Lakshadweep, and Ladakh. This pilot phase will test the adaptability of the network across border areas, metros, coastal regions, hilly terrains, and islands. Once successful, the project will be rolled out across the country, creating a comprehensive pan-India communication infrastructure for public safety and disaster relief.

Conclusion

While through POLNET 2.0, integrated with NIB and Drones can provide Satellite based connectivity, the PPDR provides dedicated, congestion-free, and secure Terrestrial communication channels for emergency responders. These systems ensure seamless coordination among police and disaster management professionals, even when commercial networks collapse. By embedding PPDR into India's communication backbone, the nation is not only modernizing its disaster response but also aligning with global best practices in public safety.

By enabling **mitigation and prevention of disasters through robust and fail-safe communication networks**, India can significantly reduce human casualties, protect critical infrastructure, and minimize economic losses. Every avoided disruption translates into preserved livelihoods, sustained growth, and strengthened national confidence.

Such investments directly contribute to our Hon'ble Prime Minister's goal of **Viksit Bharat @ 2047**. A developed India must be resilient, adaptive, and capable of maintaining continuity of governance and services under extreme conditions. Modern communication systems, reinforced by PPDR, embody this resilience, ensuring that disaster management is proactive, technologically advanced, and inclusive. By embedding innovation, redundancy, and interoperability into its communication architecture, India is laying the foundation for a secure, confident, and future-ready nation—one that can achieve the vision of becoming a fully developed country by 2047.

H.S. Srihari
Joint Director, DCPW

Emergency Communication Systems in Disaster Management: Emerging Role of DCP4G / 5G Network-in-a-Box (NIB) Solution as a Force Multiplier for Police and Disaster Management Communications in Bharat

A NIB is essentially a portable, self-contained cellular network that can be rapidly deployed in the field.

1. Background

India's police and disaster management agencies face recurring communication challenges during:

- Internal security challenges (Naxal insurgency, border patrols)
- Large public gatherings (Kumbh Mela, political rallies, cricket matches)
- Natural disasters (floods, cyclones, earthquakes)

Current systems rely heavily on **VHF/UHF wireless networks**, which are limited in range, bandwidth and interoperability. A **Network-in-a-Box (NIB)** can provide a modern, secure, and scalable augmentation with data, voice and video facility for field deployment. Defence is already undertaking similar large scale deployments for tactical use.

In order to move forward, *Police will have to adopt NIB in a large way, for addressing various internal security challenges, tactical operations & disaster management, where reliable & resilient high bandwidth communication backbone at field level to support data, voice & video communications with Command and Control Centre is required.*

2. Existing VHF/UHF Wireless Networks: Overview & Shortcomings

Overview

- **VHF (Very High Frequency)**: 30–300 MHz; used for long-range analog voice communication.
- **UHF (Ultra High Frequency)**: 300–800 MHz; used for urban environments with better penetration.
- Widely used by Indian police for walkie-talkie communication, especially in field operations

Shortcomings

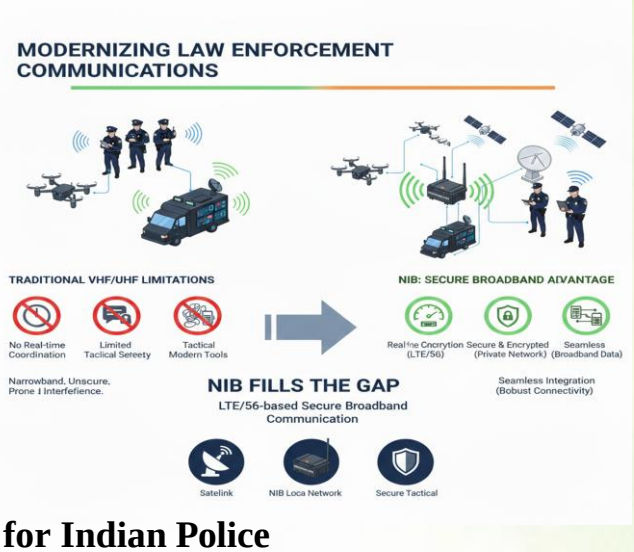
Limitation	Impact
Voice-only, analog systems	No support for data, video, or digital encryption
Limited range (~5–15 km)	Poor coverage in remote, forested, or mountainous areas
No interoperability	Cannot connect with smartphones, drones, or surveillance systems
Congestion during emergencies	Channels get overloaded during disasters or mass events
Security vulnerabilities	Susceptible to interception and jamming
No integration with digital platforms	Cannot link with CCTNS, NATGRID, or Police databases

Strategic Gap

The limitations enumerated above hinder real-time coordination, tactical secrecy, and integration with modern policing tools. NIB fills this gap by offering LTE/5G-based secure broadband communication.

3. Objectives for deployment of 4G / 5G Network-in-a-Box (NIB) solution

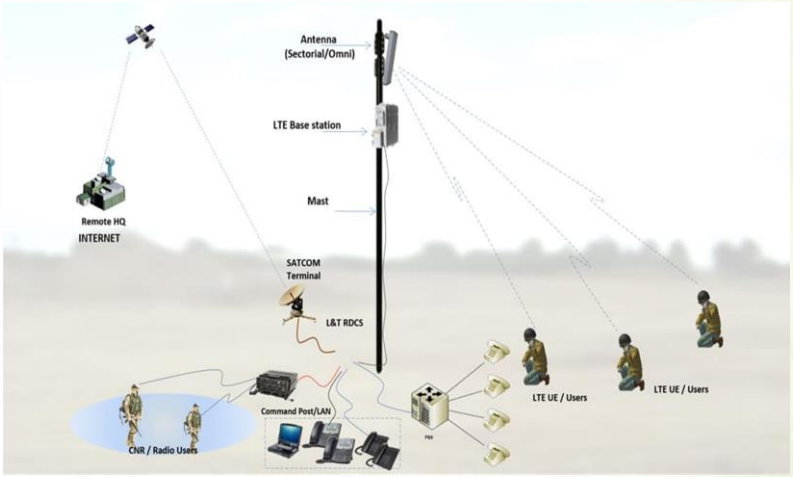
- Ensure resilient communication for day to day policing.
- Enable secure, encrypted tactical networks for counter-terror & insurgency ops.
- Integrate with CCTV, drones, IoT sensors.
- Quick setup of Emergency Communications for disaster response.
- Build pathway toward BB-PPDR nationwide safety network.



4. Strategic Use Cases for Indian Police

i. Smart Policing & Surveillance Integration

- **Challenge:** Cities are rolling out CCTV networks, drone surveillance, and IoT sensors, but connectivity gaps remain.
- **NIB Role:** Act as a secure backbone for real-time video feeds and AI analytics.
- **Example:** In Delhi, NIB could support drone surveillance during Republic Day parades, ensuring uninterrupted feeds to control rooms.



ii. Urban Counter-Terrorism & Crime Control

- **Challenge:** Cities like Delhi, Mumbai, and Hyderabad face risks of terror attacks and organized crime.
- **NIB Role:** Deploy private, encrypted networks during raids, hostage situations, or bomb threats.
- **Example:** During a Mumbai counter-terror operation, NIB can connect police bodycams, drones, and command centres without relying on public telecom.

i. Crowd Control at Mega Events

- **Challenge:** Kumbh Mela (Uttar Pradesh), Ganesh Chaturthi (Maharashtra), Durga Puja (West Bengal), and cricket matches often overwhelm networks.
- **NIB Role:** Dedicated police-only cellular network for managing crowd movement, issuing emergency alerts, and coordinating with medical teams.
- **Example:** At Kumbh Mela, NIB ensures police can communicate even when millions of pilgrims overload public networks.

iv. Operations in Naxal-Affected Areas

- **Challenge:** Chhattisgarh, Jharkhand, Odisha, and Maharashtra have dense forests with poor connectivity, where Maoist insurgents operate.
- **NIB Role:** Establish secure tactical networks for police and CRPF units during anti-insurgency patrols.
- **Example:** NIB enables encrypted communication between ground forces and drones providing aerial surveillance in Bastar region.

iv. Disaster Response in Vulnerable States

- **Challenge:** India faces frequent floods (Assam, Bihar), cyclones (Odisha, West Bengal), and earthquakes (Himalayan belt). Public telecom networks collapse quickly.
- **NIB Role:** Rapid deployment of secure police communication networks for coordination with NDRF, SDRF, and local authorities.
- **Example:** During Assam floods, NIB could provide instant connectivity for rescue boats and relief camps.

iv. Border Security & Remote Patrols

- **Challenge:** Borders with Pakistan (Punjab, J&K), China (Ladakh, Arunachal Pradesh), and Bangladesh (Assam, West Bengal) often lack reliable telecom infrastructure.
- **NIB Role:** Portable networks for CAPFs and police units to coordinate patrols, detect infiltration, and share intelligence.
- **Example:** In Ladakh, NIB can support communication between forward posts and district HQs where satellite phones are limited.

v. Temporary Command Centers in Rural & Tribal Areas

- **Challenge:** Police often set up mobile stations during elections, protests, or tribal conflicts in remote areas.
- **NIB Role:** Provide instant connectivity for laptops, tablets, and biometric devices used for voter security or law enforcement.
- **Example:** During elections in Jharkhand's tribal belt, NIB ensures police can access voter rolls and coordinate security.

iv. Training & Simulation Exercises

- **Challenge:** Police academies and training centers need realistic communication environments.
- **NIB Role:** NIB can simulate network conditions for drills, disaster management exercises, or cyber-security training.
- **Example:** Improves preparedness and familiarizes officers with field-deployable communication systems.

5. Phased Rollout Strategy

Phase	Timeline	Focus	Outcome
Critical areas	Immediate	NIB in Security sensitive areas, Naxal zones, disaster prone areas, metros, border areas with Standardization, interoperability	Immediate resilience
Expansion	1–3 yrs	Thana level deployment with interconnection communication backbone	State-level secure networks
National Integration	3–5 yrs	Integration into BB-PPDR Network	Unified backbone

6. Cost-Benefit Analysis

- CAPEX: ₹50-70 Lakhs per NIB, ₹20-30K per handset, ₹40-50K per ruggedized handset
- OPEX: Spectrum Charges – as per WPC norms, Transportation & Field deployment costs
- Satellite backhaul: Portable VSAT Terminals like POLNET 2.0 can be used for connecting NIB in field with Command centre for live connectivity and access to Police Databases enabling better situational awareness
- Benefits: Faster response, secure ops, reduced casualties, public trust
- Strategic ROI: Immediate tactical wins → medium-term state capacity → long-term national resilience.

7. Technical Requirements for NIB Deployment in Bharat

i. Spectrum & Licensing

- **Requirement:**
  - Operate in licensed spectrum bands (e.g., 700 MHz, 800 MHz, 1800 MHz, 2300 MHz) depending on DoT allocation.
  - Following bands have been identified for PPDR in NFAP 2025 –
    - 380-387.5 MHz / 390-397.5 MHz
    - 410-417.5 MHz / 420-427.5 MHz
    - Part of 440-450 MHz
    - 806-811 MHz / 851-856 MHz
    - 814-824 MHz / 859-869 MHz
  - Support unlicensed bands for rapid deployment.
- **Police Context:**
  - Dedicated spectrum for NIB Deployments by Police Organisations could be considered.
  - Temporary additional spectrum allocation during emergencies or mega-events.

ii. Technical Compliance to TEC Standards

- **Requirement:**
  - Compliance to TEC, DoT Standards
    - TEC 23070:2022 - Compact LTE Mobile System OR
    - TEC 23090:2023 - Compact 5G Mobile System.
- **Police Context:**
  - Provides standardization of equipment & interoperability across multiple OEMs.
  - Integration of NIBs of multiple OEMs for emergency field deployments.

iii. Encryption & Security

- **Requirement:**
  - End-to-end encryption for voice, data, and video.
  - Support for secure SIM provisioning (police-only SIM cards).
  - Integration with India's cybersecurity standards (CERT-In guidelines).
- **Police Context:**
  - Prevents interception during counter-terrorism or Naxal operations.
  - Ensures tactical secrecy in urban raids.

ii. Interoperability with Existing Systems

- **Requirement:**
  - Seamless integration with police VHF/UHF radios (walkie-talkies).
  - Gateway support for legacy communication systems.
  - Compatibility with national emergency communication platforms.
- **Police Context:**
  - Officers can use both traditional radios and smartphones connected to NIB.
  - Smooth transition without retraining entire forces.

iii.Portability & Ruggedization

- **Requirement:**
  - Compact, battery/solar-powered units.
  - Rugged design for extreme weather (dust, heat, rain).
  - Quick setup (<30 minutes).
  - Vehicle mounted NIBs for quick deployment
- **Police Context:**
  - Useful in flood-hit Assam, desert Rajasthan, or Himalayan border posts.
  - Can be mounted on vehicles for mobile command centers.

vi. Capacity & Scalability

- **Requirement:**
  - Support for 100–500 concurrent users per unit (scalable clusters for larger events).
  - LTE/5G capability for high-bandwidth applications (video surveillance, drones).
- **Police Context:**
  - Crowd control at Kumbh Mela or cricket stadiums.
  - Drone video feeds during border patrols.

vii. Integration with Surveillance & IoT

- **Requirement:**
  - Support for CCTV, drones, bodycams, and IoT sensors.
  - Support for Edge computing for real-time analytics (facial recognition, crowd density).
  - Support for integration with CCTNS, NATGRID & such similar Police Databases.
- **Police Context:**
  - Smart policing in Metros like Delhi, Mumbai, Bengaluru.
  - Real-time monitoring during Republic Day or Independence Day parades or similar high profile events.
  - Real-time identification of offenders / suspects from Police Databases.

viii. Command & Control Features

- **Requirement:**
  - Centralized dashboard for monitoring network health, user activity, and alerts.
  - Ability to push emergency notifications to connected devices.
- **Police Context:**
  - District HQs can monitor field units.
  - Quick broadcast of instructions during riots or disasters.

ix. Resilience & Backup

- **Requirement:**
  - Satellite backhaul option when terrestrial networks fail.
  - Redundant power supply (generator + solar + battery).
- **Police Context:**
  - Ensures connectivity in remote Ladakh or cyclone-hit Odisha and other such disaster prone and remote areas.
  - Critical for disaster recovery operations.

8. Conclusion

There is a pressing need for Bharat's legacy VHF/UHF systems to be augmented for modern policing and disaster response. NIB offers immediate tactical resilience and a scalable path for future integration into BB-PPDR. This approach balances cost, speed, and strategic vision, of providing resilient public safety communications across Bharat.

Ankit Adjariya
Assistant Director, DCPW

आध्यात्मिकता और कार्य के बीच संबंध
एक विद्यार्थी का दृष्टिकोण

हिंदू धर्म का अनन्य अनुयायी होने के नाते, मैं कभी-कभी आध्यात्मिकता और कार्य के बीच संबंध की खोज करने का प्रयास करता हूँ। मेरियम-वेबस्टर कोश के अनुसार, आध्यात्मिकता को धार्मिक मूल्यों के प्रति संवेदनशीलता या अनुलग्नकता, अथवा आध्यात्मिक, चर्चीय या धार्मिक प्रकृति की वस्तुओं से लगाव के रूप में परिभाषित किया गया है। दूसरी ओर, मेरीम-वेबस्टर के अनुसार कार्य की परिभाषा किसी उद्देश्य को प्राप्त करने के लिए बाधाओं पर काबू पाने हेतु निरंतर शारीरिक या मानसिक प्रयास से संबंधित कोई भी क्रिया, अथवा नियमित वेतन के लिए किया जाने वाला कार्य है। आध्यात्मिकता और कार्य एक गहन साझेदारी का रूप धारण करते हैं, जहाँ आंतरिक सार सार्थक प्रयास से मिलकर संतुलित एवं पूर्णतः सुखद जीवन की सृष्टि करता है।

इस संबंध की खोज हेतु पाइथागोरस प्रमेय को रूपकात्मक ढांचे के रूप में उपयोग किया जा सकता है, जो पाइथागोरस के दर्शन से प्रेरित है जिसमें गणित ब्रह्मांडीय सामंजस्य को प्रकट करता है।

पाइथागोरस आधार

पाइथागोरस ने संख्याओं एवं ज्यामिति को ब्रह्मांड को नियंत्रित करने वाले दैवीय सिद्धांतों के रूप में देखा, जिसमें प्रमेय (a2+b2=c2) विपरीत तत्वों के बीच संतुलन का प्रतीक है जो स्थिर समग्रता का निर्माण करता है। यहाँ "a" एवं "b" (भुजाएँ) क्रमशः आध्यात्मिकता (वेबस्टर के अनुसार आंतरिक सार, अमूर्त) एवं कार्य (मेरीम-वेबस्टर के अनुसार शारीरिक/मानसिक प्रयास) का प्रतिनिधित्व करते हैं, जिनकी वर्गीकृत ऊर्जाएँ—बिना हस्तक्षेप के—मिलकर "c" (कर्ण) उत्पन्न करती हैं, जो पूर्ण जीवन है।

रूपकात्मक अनुप्रयोग

भुजाओं के रूप में द्वैत शक्तियाँ: आध्यात्मिकता ऊर्ध्वाधर आकांक्षा प्रदान करती है (आत्मा की खोज), जबकि कार्य क्षैतिज क्रिया (उद्देश्यों की ओर परिश्रम); न कोई प्रधान होता है, न हीन, अपितु उनकी लंबवत एकीकरण कर्ण-लंबाई वाली प्रगति उत्पन्न करता है, जो पाइथागोरस के अनुसार आत्म-शुद्धिकरण को अनुशासित प्रयास से दर्शाता है।

सामंजस्य समीकरण: असंतुलन (उदाहरणस्वरूप, आध्यात्म रहित कार्य) मार्ग को छोटा कर देता है; पूर्ण समीकरण समग्रता सुनिश्चित करता है, ठीक वैसे ही जैसे कर्मयोग में निष्काम श्रम आध्यात्मिक वृद्धि को वर्गीकृत करता है।

ब्रह्मांडीय मापन: जैसे त्रिभुजों का आकार बढ़ता है, वैसे ही एकीकृत जीवन बढ़ता है—दैनिक छोटे प्रयास परलोकिक उद्देश्य की ओर विस्तारित होते हैं, जिससे अलगाव से बचा जा सकता है।

व्यावहारिक दृष्टि

व्यावसायिक जीवन में यह रूपक कर्तव्यों को गहन मूल्यों से संरेखित करने की प्रेरणा देता है, जिससे संलग्नता एवं उद्देश्य में वृद्धि होती है बिना एक के दूसरे पर हावी हुए। दैनिक प्रयास परलोकिक प्रभाव की ओर विस्तारित होते हैं, जो परिवहन सेवा जैसी भूमिकाओं के लिए आदर्श है जहाँ परिश्रम एवं उच्च आह्वान दोनों की मांग होती है।

Piyush Goyal
Assistant Director, DCPW

Concept Note Title:
AI-Based Simulation Tool for Network Robustness & Shadow Zone Detection During Disasters

1. Background

Disasters such as floods, earthquakes, cyclones, and landslides disrupt communication networks, leaving populations isolated and hampering emergency response. Identifying network shadow zones and areas of poor connectivity is critical for planning resilient communication infrastructure.

With the increasing availability of GPS data, digital maps, and AI/ML tools, it is now possible to simulate network performance under disaster conditions and pre-emptively identify vulnerable areas. This tool can also be applied during normal operations to optimize network coverage and reduce operational costs.

This concept is proposed as an original idea to integrate Al-based simulations with disaster preparedness and telecom planning, ensuring that India's network infrastructure is both robust and cost-efficient.

2. Objective

The project aims to develop an Al-powered simulation tool that can:

1. Evaluate the robustness of communication networks during disasters.
2. Identify network shadow zones using GPS, signal data, and terrain/topology maps.
3. Provide decision support for emergency communication planning, including deployment of drones, portable base stations, or satellite relays.
4. Optimize network coverage during normal operations, reducing operational and maintenance costs.
5. Serve as a tool that can be pitched for PPDR (Public Protection and Disaster Relief) implementation, supporting emergency communication and public safety initiatives.

3. Methodology / Approach

3.1 Data Collection

GPS logs from mobile and loT devices

Telecom signal data (RSRP, RSRQ, RSSI) from towers

Digital Elevation Models (DEM) and terrain data

Infrastructure maps including towers, fiber routes, and satellite coverage

3.2 Simulation & Modeling

Signal propagation modeling using ray tracing or path-loss algorithms

Disaster scenario simulation for floods, earthquakes, cyclones, and landslides

AI/ML models to predict network failures, optimize base station placement, and identify shadow zones during normal operations

3.3 Visualization

Shadow zones and coverage maps displayed on GIS platforms such as Mapples, QGIS, Mapbox, and Google Earth

Multi-layered dashboards for emergency planners and telecom operators

3.4 Decision Support

Highlight high-risk areas and limited coverage zones

Recommend portable towers, drones, or satellite relays

Provide real-time insights to NDMA, SDMAs, and telecom operators

Enable cost-effective planning and prioritization of network upgrades

4. Expected Outcomes

Comprehensive digital maps of vulnerable areas under disaster and normal conditions
Predictive models for network performance during emergencies
Decision-support dashboards for authorities to plan emergency communications
Integration with national disaster management frameworks and ITU standards (FG-AI4NDM, Y.3172)
Potential for adoption in PPDR projects to strengthen emergency communication networks

5. Benefits / Impact

Enhanced resilience of communication networks in disaster-prone areas
Faster, better-informed emergency response
Improved coordination between telecom operators, NDMA, and local authorities
Reduced operational costs through better network planning and optimization
Supports PPDR implementation, improving public safety and emergency communications
Strengthens India's position in Al-driven disaster management and digital infrastructure planning

6. Potential Collaborators

Government/Agencies: DCPW, NDMA, DOT, NIC, State Disaster Management Authorities
Research / Academia: IITs, ISRO, IISC, TERI
Industry / Private Sector: BSNL, Airtel, MapmyIndia, Google Maps, Al startups

7. Resources / Tools

GIS platforms: Mapples, QGIS, Mapbox, Google Earth Engine
AI/ML frameworks: Python, TensorFlow/PyTorch, GeoPandas, Folium
Network simulation: ns-3, OMNET++
Data sources: GPS, satellite imagery, telecom logs, DEM

8. Conclusion

This concept represents an original initiative to leverage Al and simulation technologies for communication resilience. By detecting network vulnerabilities during both disaster and normal conditions, it will reduce operational costs, strengthen emergency response, and support PPDR implementation.
Adopting this tool will enable India to achieve robust, cost-effective, and Al-driven disaster preparedness, fully aligned with ITU standards and FG-AI4NDM frameworks.
Submitted as an idea for presenting at Global Initiative on Resilience to Natural Hazards through Al Solutions in next meeting.

Prabhat Pandey
Joint Assistant Director, DCPW

मानव रहित उड़ान: ड्रोन तकनीक का सफर

ड्रोन (UAV): अवधारणा और विकास

मानव रहित विमानों को ड्रोन कहा जाता है। तकनीकी भाषा में इन्हें UAV (Unmanned Aerial Vehicle) कहा जाता है। यह ऐसा विमान होता है जिसे या तो दूर से नियंत्रित किया जाता है अथवा जो पूर्व-निर्धारित निर्देशों के अनुसार स्वायत्त रूप से उड़ान भरता है। सही अर्थों में ड्रोन एक ऐसा यंत्र है जिसमें उड़ान के दौरान किसी पायलट की प्रत्यक्ष उपस्थिति नहीं होती।

ड्रोन शब्द का अर्थ नर मधुमक्खी से लिया गया है। जिस प्रकार मधुमक्खी उड़ान भरते हुए एक स्थान पर स्थिर रह सकती है, उसी प्रकार ड्रोन भी हवा में मंडराने की क्षमता रखता है। यही विशेषता इसे निगरानी, निरीक्षण और सूचना संकलन जैसे कार्यों के लिए अत्यंत उपयोगी बनाती है।

ड्रोन तकनीक की अवधारणा बीसवीं शताब्दी के आरंभ में सामने आई, हालांकि मानव रहित उड़ान के प्रयोग इससे पहले भी किए जा चुके थे। वर्ष 1849 में ऑस्ट्रिया द्वारा मानव रहित गुब्बारों का प्रयोग किया गया था। प्रथम विश्व युद्ध के आसपास संयुक्त राज्य अमेरिका सहित कुछ देशों की सेनाओं ने मानव रहित विमानों को हवाई लक्ष्य अभ्यास के लिए विकसित करना प्रारंभ किया। वर्ष 1918 में अमेरिकी सेना द्वारा प्रथम मानव रहित विमान विकसित किया गया, हालांकि उस समय तकनीकी सीमाओं के कारण इसका व्यापक उपयोग संभव नहीं हो पाया।

मानव रहित विमानों पर प्रयोग इसके बाद भी लगातार जारी रहे। वर्ष 1935 में ब्रिटेन की रॉयल एयरफोर्स ने रेडियो तरंगों से नियंत्रित एक मानव रहित विमान विकसित किया, जिसके लिए पहली बार "ड्रोन" शब्द का प्रयोग किया गया। यह आधुनिक ड्रोन तकनीक की दिशा में एक महत्वपूर्ण कदम माना जाता है। इसके पश्चात 1940 के दशक में संयुक्त राज्य अमेरिका की सेना ने प्रशिक्षण और लक्ष्य अभ्यास के लिए ड्रोन का उपयोग प्रारंभ किया। द्वितीय विश्व युद्ध के दौरान और उसके बाद ड्रोन तकनीक में निरंतर सुधार होता गया और मानव रहित विमानों ने सफल उड़ानें भरनी शुरू कीं।

1960 के दशक के बाद निगरानी और खुफिया उद्देश्यों के लिए ड्रोन का उपयोग तेजी से बढ़ा। वियतनाम युद्ध के दौरान अमेरिका ने बड़ी संख्या में मानव रहित विमानों को निगरानी और खुफिया जानकारी एकत्र करने के लिए तैनात किया। कुछ मामलों में इनका उपयोग सीमित आक्रामक भूमिकाओं में भी किया गया, जिससे ड्रोन की सैन्य उपयोगिता और अधिक स्पष्ट हुई।

इक्कीसवीं सदी के प्रारंभ में ड्रोन तकनीक एक नए चरण में प्रवेश कर गई। वर्ष 2000 के बाद सशस्त्र ड्रोन विकसित किए गए, जिनका उपयोग लक्षित हमलों और आतंकवाद-रोधी अभियानों में किया जाने लगा। इसी कालखंड में इजरायल, ईरान तथा अन्य देशों द्वारा भी निगरानी और खुफिया उद्देश्यों के लिए ड्रोन का व्यापक प्रयोग प्रारंभ किया गया।

भारत में भी स्वदेशी ड्रोन विकास की दिशा में प्रयास तेज हुए और विभिन्न श्रेणियों के UAV विकसित किए जाने लगे। आज ड्रोन को रिमोट अथवा विशेष कंट्रोलर के माध्यम से संचालित किया जाता है और इनका उपयोग ऐसे दुर्गम और संवेदनशील क्षेत्रों में किया जा रहा है जहाँ मनुष्य का पहुँचना कठिन होता है। वर्तमान समय में ड्रोन सुरक्षा, निगरानी और आंतरिक व्यवस्था के क्षेत्र में एक महत्वपूर्ण तकनीकी साधन बन चुके हैं।

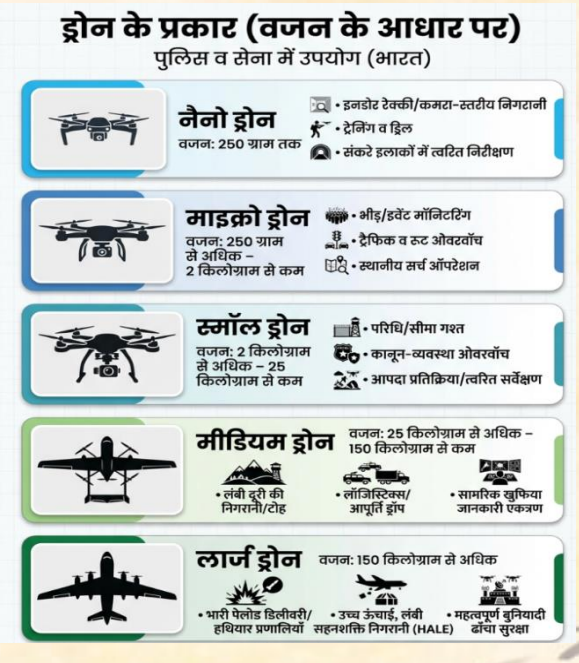
प्राचीन ग्रंथों में स्वायत्त यंत्रों की अवधारणा

यद्यपि ड्रोन एक आधुनिक तकनीकी आविष्कार है, फिर भी प्राचीन भारतीय ज्ञान-परंपरा में स्वतः संचालित यंत्रों की अवधारणा का उल्लेख मिलता है, जिनमें मानव द्वारा प्रत्यक्ष संचालन की आवश्यकता नहीं थी। पौराणिक ग्रंथों और विज्ञान-संबंधी वर्णनों में ऐसे यंत्रों का उल्लेख है जो नियमों के अनुसार स्वयं कार्य करते थे। "यन्त्राणि नियमैः प्रोक्ता

स्वयमेव प्रवर्तन्ते" (समरांगण सूत्रधार – राजा भोज), अर्थात यंत्र अपने निर्धारित नियमों के अनुसार स्वयं कार्य करते हैं। यह विचार आधुनिक स्वायत्त UAV प्रणालियों से वैचारिक रूप से मेल खाता है।

ड्रोन के प्रकार

ड्रोन कई प्रकार के होते हैं और उनका उपयोग उनके आकार, क्षमता तथा मिशन के अनुसार किया जाता है। नैनो ड्रोन ऐसे छोटे UAV होते हैं जिनका वजन सामान्यतः 250 ग्राम तक होता है। माइक्रो ड्रोन वह होते हैं जिनका वजन 250 ग्राम से अधिक और 2 किलोग्राम से कम रहता है। स्मॉल ड्रोन 2 किलोग्राम से अधिक और 25 किलोग्राम से कम होते हैं। मीडियम ड्रोन 25 किलोग्राम से 150 किलोग्राम तक के होते हैं और बड़े ड्रोन जिनका वजन 150 किलोग्राम से अधिक होता है, वे लंबी उड़ान और विशिष्ट मिशन के लिए प्रयुक्त होते हैं।



ड्रोन की उपयोगिता

सैन्य एवं आधुनिक युद्धों में ड्रोन का प्रयोग

ड्रोन तकनीक का सबसे अधिक उपयोग सैन्य और सुरक्षा क्षेत्रों में किया गया है। हाल के वर्षों में रूस–यूक्रेन युद्ध से यह स्पष्ट हुआ है कि छोटे और कम लागत वाले UAV भी युद्ध में बहुत प्रभावी हो सकते हैं। इस युद्ध में ड्रोन का उपयोग टैंकों, सैन्य ठिकानों, गोला-बारूद के भंडार और कमांड पोस्ट की निगरानी के साथ-साथ उन पर सटीक हमलों के लिए किया गया। इसके अलावा, दोनों देशों द्वारा ड्रोन के माध्यम से जासूसी, संकेतों में बाधा डालने और लक्ष्य पहचान जैसे कार्य किए गए, जिससे आधुनिक युद्ध की प्रकृति में बड़ा बदलाव देखने को मिला।

ड्रोन का उपयोग आतंकवाद-रोधी अभियानों में भी महत्वपूर्ण रहा है। अमेरिकी सेना ने पाकिस्तान के सीमावर्ती क्षेत्रों में आतंकवादियों की पहचान और निगरानी के लिए ड्रोन का प्रयोग किया। भारत जैसे देश में, जहाँ लगातार आतंकवाद और अन्य असममित खतरों का सामना करना पड़ता है, ड्रोन तकनीक सुरक्षा बलों के लिए अत्यंत उपयोगी सिद्ध हो रही है। वर्तमान में भारतीय सेना और अन्य सुरक्षा बल बड़ी संख्या में ड्रोन का उपयोग सीमा निगरानी, इलाके की जानकारी जुटाने और खुफिया सूचनाओं के लिए कर रहे हैं।

राहत एवं बचाव कार्य में ड्रोन का उपयोग

वर्तमान समय में विभिन्न प्राकृतिक आपदाओं जैसे बाढ़, भूकंप, चक्रवात, भूस्खलन और जंगल की आग के दौरान राहत एवं बचाव कार्यों में ड्रोन का व्यापक उपयोग किया जा रहा है। ड्रोन के माध्यम से प्रभावित क्षेत्रों की वास्तविक स्थिति का त्वरित आकलन किया जाता है, जिससे राहत एजेंसियों को सही स्थान पर संसाधन पहुँचाने में सहायता मिलती है। हाल के वर्षों में प्राकृतिक आपदाओं के दौरान राहत एवं बचाव कार्यों में ड्रोन का उपयोग लगातार बढ़ा है। इसके साथ ही कोविड-19 महामारी के समय भारत में ड्रोन का सीमित लेकिन उपयोगी प्रयोग निगरानी, सार्वजनिक घोषणाओं और आवश्यक सेवाओं के सहयोग के लिए किया गया। इसके अतिरिक्त सीमावर्ती और संवेदनशील क्षेत्रों की निगरानी में भी ड्रोन एक प्रभावी साधन के रूप में उभरे हैं।

कृषि क्षेत्र में ड्रोन की उपयोगिता

विश्व के कई देशों में किसान ड्रोन के माध्यम से फसलों की निगरानी से लेकर दवा के छिड़काव तक कर रहे हैं। कृषि कार्यों में ड्रोन ने फसल स्वास्थ्य की पहचान, भूमि की मैपिंग, कीटनाशक छिड़काव जैसी सुविधाएँ प्रदान की हैं। इस प्रकार कृषि क्षेत्र में भी ड्रोन ने क्रांतिकारी उपयोग आरंभ किया है।

असामाजिक तत्वों को नियंत्रित करने में ड्रोन का उपयोग

वर्तमान समय में ड्रोन का उपयोग कानून एवं व्यवस्था बनाए रखने के लिए भी सबसे अधिक हो रहा है। बड़े-बड़े महानगरों में पुलिस द्वारा छतों की तलाशी, बड़ी भीड़ पर नजर रखने और संवेदनशील क्षेत्रों की निगरानी के लिए ड्रोन का प्रयोग किया जा रहा है। केंद्रीय सशस्त्र पुलिस बलों (CAPFs) और विभिन्न राज्य तथा केंद्र शासित प्रदेशों की पुलिस ने ड्रोन तकनीक को अपनी कार्यप्रणाली में शामिल कर लिया है। नक्सल प्रभावित राज्यों में CAPFs द्वारा ड्रोन का उपयोग reconnaissance, क्षेत्रीय सर्वेक्षण, अभियान पूर्व योजना तथा सूचना संकलन के लिए किया जा रहा है। सीमा सुरक्षा बल (BSF) द्वारा ड्रोन का प्रयोग सीमा के पास तस्करी गतिविधियों पर नजर रखने, ड्रोन आधारित रडार सहायता तथा night-vision surveillance के लिए किया जा रहा है। केंद्रीय औद्योगिक सुरक्षा बल (CISF) भी संवेदनशील प्रतिष्ठानों पर UAV आधारित निगरानी तकनीकों का उपयोग कर रहा है। राज्य पुलिस बलों जैसे दिल्ली पुलिस, महाराष्ट्र पुलिस, उत्तर प्रदेश पुलिस आदि ने बड़े आयोजनों, भीड़ नियंत्रण और law enforcement मिशनों में ड्रोन निगरानी को अपनाया है।

ड्रोन का दुरुपयोग और एंटी-ड्रोन की आवश्यकता

- हर नई तकनीक की तरह ड्रोन भी दुरुपयोग के जोखिम से मुक्त नहीं हैं। असामाजिक तत्व ड्रोन का उपयोग जासूसी, तस्करी, अवैध सामग्री गिराने और सुरक्षा बलों पर हमले जैसे कार्यों के लिए कर सकते हैं।

- सीमावर्ती क्षेत्रों में ड्रोन के माध्यम से हथियार, नशीले पदार्थ और अन्य प्रतिबंधित वस्तुओं की तस्करी की घटनाएँ सामने आई हैं, जिससे आंतरिक सुरक्षा को गंभीर चुनौती उत्पन्न हुई है।

- संवेदनशील हवाई क्षेत्रों, रक्षा प्रतिष्ठानों, परमाणु संयंत्रों, हवाई अड्डों और बड़े सार्वजनिक आयोजनों के ऊपर अनधिकृत ड्रोन उड़ानें वायु सुरक्षा और जन-सुरक्षा के लिए खतरा बन सकती हैं।

- इन खतरों को देखते हुए एंटी-ड्रोन तकनीक का विकास किया गया है, जिसमें ड्रोन की पहचान, उसकी लोकेशन ट्रैक करना, संचार सिग्नल को बाधित करना और आवश्यकता पड़ने पर उसे निष्क्रिय करना शामिल है।

- भारत में हाल के वर्षों में महत्वपूर्ण सरकारी भवनों, अंतरराष्ट्रीय सीमाओं और बड़े आयोजनों की सुरक्षा के लिए एंटी-ड्रोन प्रणालियों का उपयोग बढ़ाया गया है।

- नागरिक उड्डयन महानिदेशालय (DGCA) द्वारा ड्रोन संचालन को नियंत्रित करने के लिए नियम बनाए गए हैं, जिनमें ड्रोन पंजीकरण, जियो-फेंसिंग, नो-ड्रोन ज़ोन और ऑपरेटर की अनुमति जैसी व्यवस्थाएँ शामिल हैं। इन नियमों का उद्देश्य ड्रोन के सुरक्षित और जिम्मेदार उपयोग को सुनिश्चित करना है।

- सुरक्षा एजेंसियों, पुलिस और CAPFs द्वारा एंटी-ड्रोन उपायों को अपनी कार्यप्रणाली में शामिल किया जा रहा है ताकि उभरते ड्रोन खतरों से प्रभावी ढंग से निपटा जा सके।

समग्र परिप्रेक्ष्य

ड्रोन या UAV तकनीक अब केवल सेना तक सीमित नहीं रही है, बल्कि पुलिस, आंतरिक सुरक्षा, आपदा प्रबंधन और प्रशासन के कामों में भी इसका उपयोग बढ़ रहा है। इसके साथ ही सुरक्षित संचार, सही नियम, प्रशिक्षण और विभिन्न एजेंसियों के बीच बेहतर तालमेल की आवश्यकता भी बढ़ी है। इस दिशा में DCPW की भूमिका महत्वपूर्ण है, जो केवल संचार व्यवस्था ही नहीं बल्कि आंतरिक सुरक्षा से जुड़ी तकनीकों पर सलाह देने, ICT आधारित समाधान विकसित करने और केंद्र तथा राज्यों की सुरक्षा एजेंसियों के बीच तकनीकी समन्वय का कार्य करती है। ड्रोन और एंटी-ड्रोन प्रणालियों का सही और सुरक्षित उपयोग भविष्य में देश की सुरक्षा व्यवस्था को अधिक मजबूत, स्मार्ट और प्रभावी बनाने में सहायक होगा।

गोपाल सिंह खत्री,
संयुक्त सहायक निदेशक

जैसे संगत वैसे रंगत

सेठ मानसुख और उनकी पत्नी सुखनी देवी जूनागढ़ के प्रतिष्ठित व्यापारी थे। कपास के व्यापार में उनकी ख्याति दूर-दूर तक फैली हुई थी। धन, वैभव और प्रतिष्ठा—सब कुछ उनके पास था, पर सेठजी के स्वभाव में एक कठोर अहं भी बसता था। सुखनी देवी इसके विपरीत, शांत, विचारशील और मानवीय मूल्यों में गहरी आस्था रखने वाली स्त्री थीं।

एक बार व्यापार की थकान मिटाने के लिए दोनों बंगाल की खाड़ी के एक निर्जन द्वीप पर अवकाश मनाने गए। चारों ओर अथाह समुद्र, नारियल के वृक्ष और एक छोटा-सा मीठे पानी का तालाब था। उसी तालाब के किनारे उन्होंने एक दृश्य देखा—एक बालक भेड़ों के साथ उसी तालाब से पानी पी रहा था।

सेठजी ने भौंहें चढ़ाईं, आगे बढ़कर उपहास भरी हँसी हँसे, (हाथ झटकते हुए) और व्यंग्य में बोले — " *तुख़्म तासीर!* " मानो यह कहना चाह रहे हों कि संगति का असर देखो—मनुष्य पशुओं जैसा हो गया है।

सुखनी देवी ठिठक गईं। उन्होंने गंभीर स्वर में उत्तर दिया— "*सौहबत-ए-असर।*"

फिर शांत किंतु दृढ़ शब्दों में बोलीं, "*सेठजी, मनुष्य जन्म से नहीं, संगति से बनता-बिगड़ता है।*" यहीं से दोनों के बीच तीखा वाद-विवाद छिड़ गया। सेठजी का अहं आहत हुआ। (क्रोध में मुट्ठी भींचते हुए) उन्होंने चुनौती दी— "*यदि तुम्हें इतना ही विश्वास है, तो इसी बालक को सभ्य बनाकर दिखाओ!*" यह कहकर (निष्ठुरता से पीठ फेरते हुए) सेठजी द्वीप छोड़कर चले गए और सुखनी देवी को वहीं अकेला छोड़ दिया।

सुखनी देवी ने उस बालक से स्नेहपूर्वक बात की। उसका नाम था मानुष। वह अनपढ़ था, असभ्य नहीं—बस अवसर से वंचित था। सुखनी देवी ने उसे स्वच्छता, शिष्टाचार, भाषा और व्यवहार सिखाया। धैर्य और प्रेम से उसे पढ़ना-लिखना सिखाया। वर्षों की साधना और संस्कारों से मानुष एक सुसंस्कृत, विचारशील और शिक्षित युवक बन गया।

एक दिन मानुष उन्हें द्वीप के भीतर एक स्थान पर ले गया। वहाँ पत्थरों का एक विशाल ढेर था। मानुष बोला, "*माँ, ये पत्थर मुझे सुंदर लगते हैं। पास के तट पर कुछ दिव्य हंस आते हैं और इन्हें छोड़ जाते हैं।*" सुखनी देवी ने ध्यान से देखा और मुस्कराईं। उनकी आँखों में आश्चर्य चमक उठा। उन्होंने कहा, "*बेटा, ये साधारण पत्थर नहीं—ये मोती हैं।*"

मानुष चकित रह गया। उसे पहली बार ज्ञात हुआ कि जिन पत्थरों को वह यूँ ही सुंदर समझता था, वे अमूल्य थे। सुखनी देवी ने मानुष के साथ मिलकर उन मोतियों का विवेकपूर्ण उपयोग किया। धीरे-धीरे उसी से उन्होंने एक विशाल अंतरिक्ष एवं विमानन उद्योग की नींव रखी—ज्ञान, परिश्रम और नैतिकता के साथ।

दस वर्ष बीत गए।

एक दिन सेठजी मानसुख पुनः उसी द्वीप पर पहुँचे। (आश्चर्य से चारों ओर देखते हुए) उन्होंने एक भव्य परिसर, आधुनिक संरचनाएँ और आत्मविश्वास से भरे लोगों को देखा। एक सुसंस्कृत युवक और गरिमामयी स्त्री उनके सामने आए, पर सेठजी पहचान न सके।

तभी सुखनी देवी ने उनकी ओर देखा, (मृदु मुस्कान के साथ) और बोलीं, "*सेठजी, यह वही बालक है—मानुष—जिसे आपने कभी तुच्छ समझा था।*" सेठजी स्तब्ध रह गए। (नज़रें झुकाते हुए) उन्हें अपने शब्द, अपना अहं और अपनी चुनौती याद आ गई। सुखनी देवी ने शांत स्वर में कहा, "*मैंने तब भी यही कहा था—संगति का असर होता है।*" सेठजी ने लज्जित होकर सुखनी देवी से लौट चलने का अनुरोध किया। पर सुखनी देवी ने दृढ़ता से उत्तर दिया, "*मैंने इस बालक को अपने पुत्र की तरह पाला है। आपने मुझे अपने अहं के कारण छोड़ दिया था। मैं उसे नहीं छोड़ सकती और उसके साथ ही अपना पूरा जीवन व्यतीत किया।*"

National Sports Day August 29, 2025

International Yoga Day - 21st June 2025

हिन्दी पखवाड़ा 14 सितंबर से 28 सितंबर 2025

International Women's Day, 8th March 2025

Vigilance Awareness Week October 27 - November 2, 2025

The Karmayogi Training Program

GeM Training

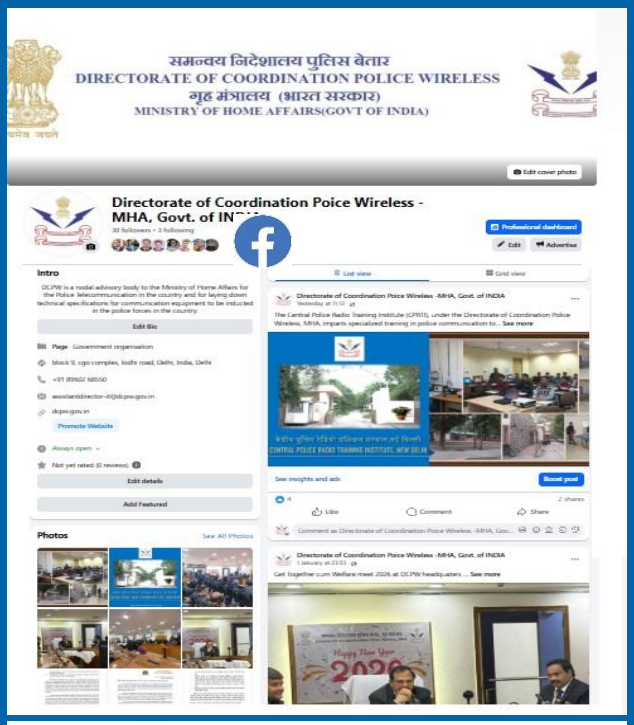
GLIMPSES OF ONGOING PROJECTS

Newly constructed building at RPWTI Kolkata.

Newly constructed office quarters at Raipur.

Under construction office building at ISPW Raipur.

Under construction hostel at RPWTI Bengaluru.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गृह मंत्रालय (भारत सरकार)
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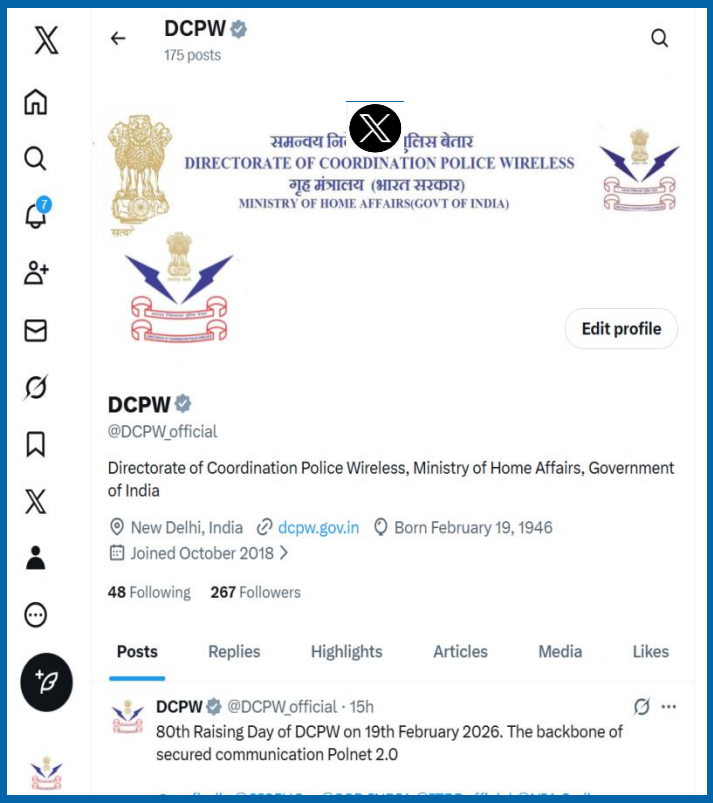
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Directorate of Coordination Police Wireless, Ministry of Home Affairs, Government of India
New Delhi, India dcpw.gov.in Born February 19, 1946
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80th Raising Day of DCPW on 19th February 2026. The backbone of secured communication Polnet 2.0

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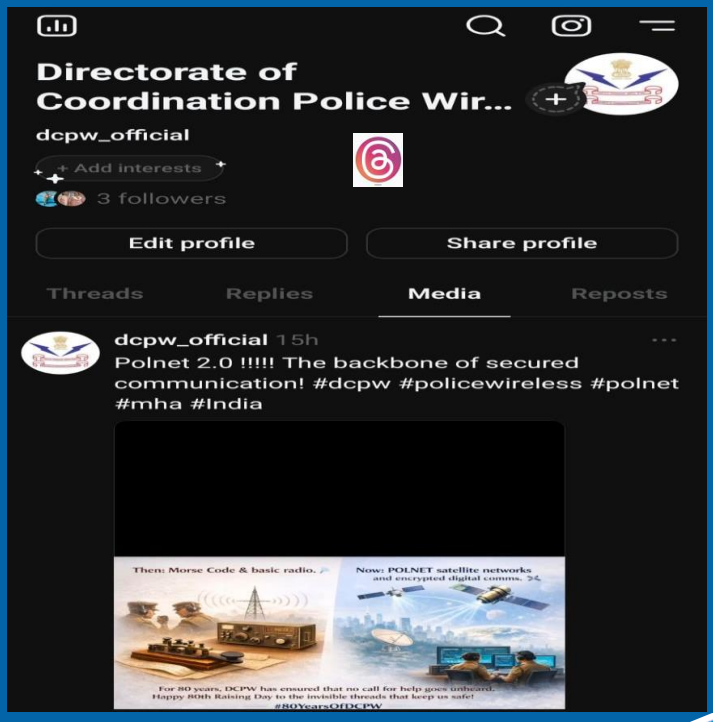
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Polnet 2.0 !!!!! The backbone of secured communication! #dcpw #policewireless #polnet #mha #India
Then: Morse Code & basic radio.
Now: POLNET satellite networks and encrypted digital comms.
For 80 years, DCPW has ensured that no call for help goes unheard.
Happy 80th Raising Day to the invisible threads that keep us safe!
#80YearsOfDCPW

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Block 9, CGO Complex, New Delhi -110003

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