

# ARMYNEWS

SPECIAL

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PULSE OF THE ARMY



# OUR 3RD GENERATION ARMY

TRANSFORMING OUR HARDWARE,  
SOFTWARE, AND HEARTWARE.



# OUR 3<sup>RD</sup> GENERATION ARMY

Our Army is a modern and sophisticated fighting force today that is fully networked and integrated on the battlefield.

To respond to new challenges and realise the full potential of our people, we have transformed the way we fight, organise, and think.

In this special edition of Army News, uncover our transformation journey into a 3rd Generation Army, and learn about the three key pillars of our overhaul – our hardware, software, and heartware.

## Why Transform?

When Singapore gained independence in 1965, our Army had to be built quickly from scratch. From only two infantry battalions, our Army has grown and developed into a force that inspires confidence in our people, and commands respect around the world. However, we cannot afford to rest on our laurels. In this uncertain security climate, our Army needs to continue to innovate and adapt to our changing environment, to stay relevant and capable.

Our transformation is driven by three key changes: a new geo-strategic situation, new technologies, and new resource considerations.

### New Geo-Strategic Situation

In the new security climate, our Army needs to deal with new threats on a day-to-day basis, and not just during wartime. We recognise the need to adapt to these challenges and remain effective, relevant, and ready. Our units and headquarters will have to reorganise, relearn and re-energise to remain competent and efficient, today and into the future.

### New Technologies

New technologies will spur new concepts of warfare. They will change the types of forces and units we build; our work processes, and how we assign assets and resources. They will also change the way we think, make decisions and act; and even in the way we lead. To stay ahead, our Army will have to harness these new technologies.

### New Resource Considerations

Our People remain our Army's most valuable assets. The challenge is to continue to improve our organisation, and bring out the best in our people. We want to continue to find ways to engage our people, to enrich them with new knowledge and meaningful experiences, and to empower them to make a difference.

## What is Our Transformation all About?

"Realising the 3rd Generation Army is more than developing hardware and systems, or constructing a force structure. **A real 3rd Generation capability will come about only with complementary 3rd Generation operational thinking, concepts and doctrine; and only if our people live their best** by having an open learning culture to explore advanced and innovative solutions, while keeping grounded and well-trained in the realities and fundamentals of soldiering and war-fighting."

*MG Desmond Kuek, Chief of Army*

In the 3rd Generation Army, there is a sea change to the way things are done, from incorporating new technologies and war-fighting concepts, to strengthening our peacetime structures and work processes, and developing our people to be the best they can be.

### Sharpening our Hardware

New technologies have enabled our 3rd Generation Army to be **fully networked and integrated** on the battlefield. With **precision warfare**, we can transform into a leaner and meaner force that leverages on networks and systems to enable our forces to act more swiftly, decisively, and precisely.

### Shaping our Software

In the 3rd Generation Army, we will operate, train and fight differently. To fully exploit the potential of the new concepts and technologies we employ, **our organisation and processes** – the "software" of our transformation – will be similarly transformed. Our efforts will also enable our Army to excel in the new security environment, raise our effectiveness and efficiency, enhance the quality of our training and administration, and create capacity for future changes.

### Strengthening our Heartware

Our **people** are key to our transformation efforts, and central to these changes. To adapt to new challenges, our **mindsets, culture and behaviours** must change. "Heartware" transformation will bring about a change in our culture and deliver a positive experience for our people, thereby strengthening our people's commitment.

## 3<sup>RD</sup> GENERATION ARMY: THE FULL SPECTRUM FORCE

Infantry Centric



1st Generation (1960s)

Combined Arms



2nd Generation (1990s)

Full Spectrum Force



3rd Generation (Present Onwards)

Our Army has grown from a 1st Generation infantry-centric force, to 2nd Generation Combined Arms Divisions, to a 3rd Generation Full Spectrum Force today. Our transformation is a journey that requires collective ownership, commitment, and sustained efforts.

As a Full Spectrum Force, our 3rd Generation Army has **organisational duality** in maintaining high operational readiness and in training and generating the full force potential. Our Army headquarters is also more network-enabled to handle complex and cross-functional operations.

To adapt to today's operational realities of troubled peace, and low-intensity conflict and operations other than war, we have a **High Readiness Core** of operationally-ready units to deal with contingencies round-the-clock. This core is **scalable**, with the flexibility to tap on units and assets from the rest of the Army when needed. This dynamic system helps our Army to manage our resources more effectively and efficiently.

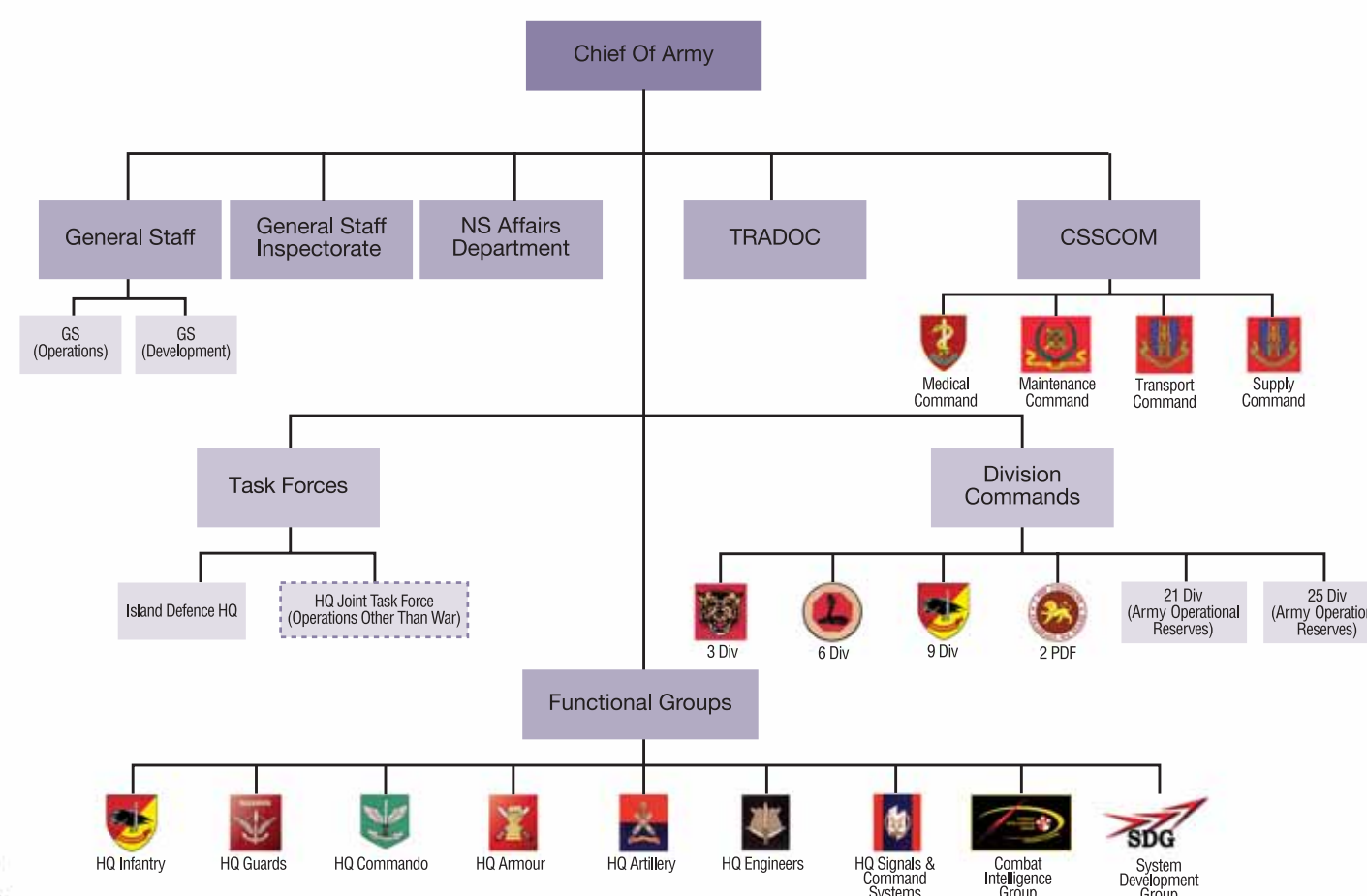
Task forces can be assembled for a whole spectrum of operations, from humanitarian aid and disaster relief, to peace support operations, and assistance in civil emergencies.

Contingency operations can also be put together quickly, such as maintaining the security of high-profile national events.

The **Training and Generation Core** raises, trains, and sustains our Army to maintain its full operational capabilities as well as realise new war-fighting concepts.

Units will be grown through the continuum of 2 years of full-time service, through 10 years of operationally-ready national service to achieve a high level of operational currency and competency.

### Revised Organisational Structure Of The Army



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# SHARPENING OUR HARDWARE

## A System of Systems

“While we maintain our operational readiness, we are also looking ahead and developing capabilities to **enable the SAF to stay ahead in the next decade and beyond...** The advantage in the battlefield of the future lies with the force that can **harness technology** to make maximum use of these transformational capabilities. Platforms, manned and unmanned, weapons and sensors that are **fully networked** into such a fighting system will have their **combat power magnified many times.**”



Mr Teo Chee Hean  
Minister for Defence

Our 3rd Generation Army has transformed from a fighting force centred on platform and force superiority, to one built on a system of systems. Our fully networked and integrated Army gives our soldiers a comprehensive awareness of the battlefield. Using precision warfare, we can strike swiftly and precisely, over a larger area, to give us the decisive edge.

## Key Capability Shifts

### Highly Networked

By developing an Integrated Knowledge-based Command and Control (IKC2) system, we will allow our soldiers to be more closely connected and integrated on the battlefield. As part of a networked system, we can call on information, firepower and forces from different parts of the network to deliver the desired effects.



### Lethal and Precise

Our Army's operational concept is created on Precision Warfare, which is characterised by a dynamic interplay of precision in fires, manoeuvres, and information, to enable the precise application of force.



### Greater Survivability



Our soldiers are equipped with the best equipment to enhance their personal safety. Latest additions such as the Bionix II and Leopard tanks improve our armour capabilities, while personal equipment with new body armour give our soldiers better protection.



### Agile and Mobile

New technologies and advancements have greatly enhanced our Army's mobility and fluidity. For example, the PRIMUS Singapore Self-Propelled Howitzer (SSPH) is ready to fire in an instant, doing away with the need for complicated and time-consuming assembly. The New Generation float bridge also improves our mobility capabilities, allowing for a swifter deployment of our troops.



### Urban Capable

A key area in our development is in our ability to operate in complex urban environments with enhanced capabilities in networking, precision weaponry, mobility and survivability. New urban force structures and technologies including remote sensors, the Battlefield Management System (BMS), and precision weapons will be fielded as they are operationalised.



## Spiral Development

With technology advancing at an increasingly fast pace, our Army will adopt a spiral development approach to avoid being obsolete. New equipment is designed and fielded in stages to take advantage of technologies as they mature.

Such an approach ensures our technology is continually renewed, and our defence budget is spent prudently and cost-effectively.



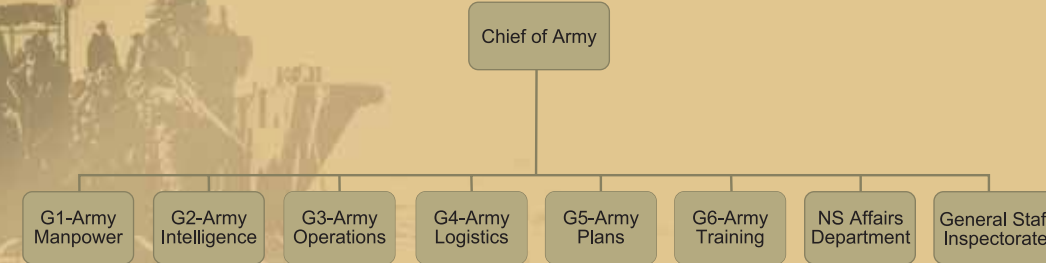


# SHAPING OUR

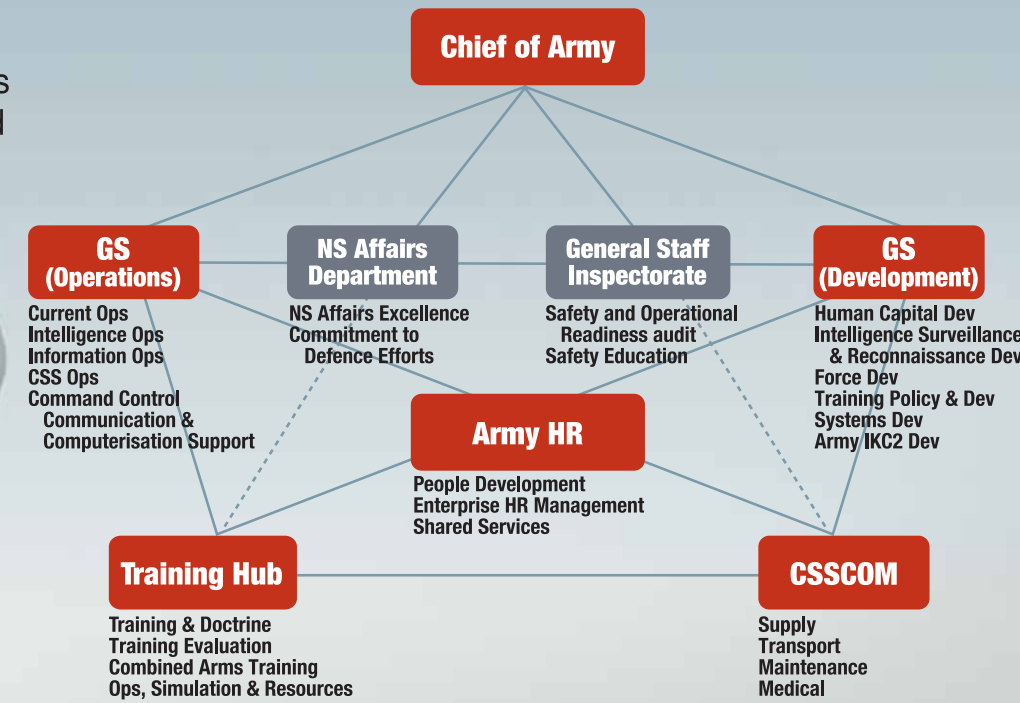
## Core Businesses of the 3rd Generation Army

The “software” of our transformation involves our organisational design and processes. Our 3rd Generation Army has seen a sharper focus on identifying and achieving our desired outcomes, in the five core businesses of Operations, Capability Development, Training, Combat Service Support, and Human Resources.

The linear and functional organisation of our Army's General Staff (GS) Headquarters has served us well since 1976.



To better meet the challenges ahead, our Army corporate headquarters has been reorganised into networked hubs designed to strengthen command and control of operations, while creating concurrent capacities for capability development and governance.



### Operations

The Operations Hub provides immediate response for a wide range of operations on a sustained 24/7 basis. It ties integral operational functions in the General Staff together, including Current Operations and Intelligence, Communications Support, Information Operations, and Combat Service Support (CSS).

Task forces can be assembled for a whole spectrum of operations, with recent examples such as Operation Flying Eagle for the Tsunami Relief Operations, and security operations for the International Monetary Fund / World Bank meetings in Singapore.



### Capability Development

The Development Hub is the architect for the future force of our Army. Through exploiting cost-effective advanced technologies, and incorporating lessons learnt from experimentation, it develops and delivers new weapon systems, networked capabilities, and soldier equipment for the 3rd Generation Army.

To realise these new capabilities on the ground, the Development Hub also oversees the necessary front-end training policy and human capital development. It is also networked with the Army Formations to integrate their functional expertise towards developing the task-integrated 3rd Generation Fighting Force, as a system of systems.

# SOFTWARE

### Integrated training via Battlefield Instrumentation System (BFI)

The BFI system leverages on leading-edge technologies such as the laser-based Tactical Engagement System (TES), data communications, Global Positioning System (GPS) and computer simulation technologies, to provide a more realistic setting for the training and evaluation of SAF units.



### Training

The Training Hub oversees training systems, plans and developments. Recognising that training is the critical touch point for all National Servicemen, it seeks to deliver an enriching and positive Army experience by influencing the quality, realism, and safety of active and NS training.

It will also drive training simulation development efforts, provide integrated combined-arms training and evaluation, and forge deeper expertise in simulation development and management.

To give our servicemen the ability and confidence to fight, survive and win should they ever have to go to battle, training has to be rigorous and realistic, yet meet strict safety regulations. As part of the Training Transformation, several initiatives to deliver the best training to our soldiers were introduced and enhanced.

### NS Training by Outcomes

The NS Training System (NSTS) was reviewed in 2006 to provide effective and efficient training for our NSmen. As a result, the 13 years NS training cycle was reduced to 10 years with effect from 1 April 2006. In-Camp Trainings are now determined by desired training outcomes and the attainment of performance standards, with clear performance standards and incentives.

### IPPT Preparatory Training (IPT)

IPT is a voluntary programme which aims to help NSmen train and pass their IPPT. The programme targets specific areas in physical training to help NSmen overcome specific challenges, and also provides useful tips in maintaining a healthy lifestyle.



### Harnessing Simulation

In view of the increasing complexity of future operations, the need for us to fight in a networked environment, and the increasing cost and space limitations of local live firings, our Army is also employing the latest simulation technologies to augment our training requirements.



### San Yong Kong Field Camp

The San Yong Kong Field Camp provides a realistic training environment for our soldiers, and enables prolonged training in the field. Honing the fighting skills and spirit of our soldiers, it enhances the essential qualities of soldiering amidst our transformation.



### Combat Service Support (CSS)

The CSS Hub integrates the core elements of Maintenance & Engineering, Supply, Transport and Medicine. This gives our Army an integrated and holistic medical and logistics support across its full spectrum of missions.

By employing the latest technologies in asset tracking, personnel identification, systems engineering and supply chain management, and by strengthening the linkages with our strategic industry partners, CSSCOM will widen its edge as our Army's combat multiplier and pillar of confidence.

### Integrated Motor Transport Line (IMTL)

Under the IMTL system, our Army's MT Lines are organised into 3 major integrated bodies, allowing for greater professionalism in optimising our resource allocation, to better fulfill our Army's transport needs.

### Enterprise System (ES)

ES is an integrated logistics and finance management system that integrates various databases, and streamlines work processes.

### Human Resources (HR)

Our People are a key pillar of our Army's strength, and remain core to realising the 3rd Generation Army. Army HR aims to deliver a professional, peak-performing and engaged force for our Army.

The HR Hub is organised for greater effectiveness in HR services delivery, via Camp Administration Centres (CACs) and NS HR Centres (NSHRCs). Our integrated career management system also provides a synchronised and effective platform to develop and manage our people.

### Enterprise Human Resources System

The Enterprise HR System will be integrating 52 services to provide a one-stop centre for planning and management of organisation-wide information on Human Resources. This will encourage servicemen self-service and increase efficiency in daily administration.

### e-Initiatives

Our Army has introduced several e-initiatives to achieve a positive experience for our NSmen and give them greater convenience.

**My Call-up (MCU)** informs NSmen about their forthcoming NS call-ups and activities via email, sms and pager. The **NS Portal** provides e-services such as Overseas Notification, IPPT Booking and mobile-reminder, ICT schedule, and the electronic NS Booklet.

### Improved IPPT Administration

The **Electronic IPPT Scoring System (ELISS II)** is a fully-automated IPPT system that provides seamless administration, automated capturing of test results, and prompt payment of monetary incentives.



# STRENGTHENING OUR HEARTWARE



“No change in structure or process can bring about significant organisational value if there is no accompanying change in **culture and mindset.**”

*MG Desmond Kuek, Chief of Army*

Our people are the key to our Army's 3rd Generation transformation efforts, and at the heart of all these changes. To address the “heartware” aspect in the Army, we have embarked on the Army Culture and Experience (ACE) Movement. The 4 thrusts of L.I.V.E provide the rallying call and focus to bring out the best in our people: Leadership & Learning, Image & Identity, Values, and a positive Army Experience. These thrusts will ultimately drive high performance and strong commitment in our people.

## Our 3rd Generation Soldier: Leader, Thinker, Warrior



### Every Soldier a Leader

Independent Soldiers who take the initiative whenever required.



### Every Leader a Thinker

Thinking Leaders who sense what is happening in the environment, and make sense of what they see.



### Every Thinker a Warrior

Thinking Warriors with an indomitable fighting spirit, who overcome any threats and challenges they face.

# L.I.V.E TO BE YOUR BEST

## Leadership & Learning

Strong and effective leadership is key to delivering a positive army experience, and to inspire performance. Commanders need to go beyond simply telling our people what to do. Instead, they must inspire our people to believe in what they do, why they do it, and to lead by example in striving for excellence.

To better position for the future, our Army advocates a strong and open learning culture where ideas flourish, and knowledge is retained and shared.

## Image & Identity

The image of our Army is shaped by the way our soldiers conduct themselves and what they stand for.

The aim is to create a sense of belonging and build a strong identity, to win the hearts and minds of our soldiers. A soldier who feels good, proud and passionate about our Army will be committed to

the defence of Singapore. To strengthen our identity, the Army Museum of Singapore (ARMS) will be launched in 2007 to encapsulate the history and human spirit of our Army.

The right image and identity will turn our Army from simply being an employer, to being a family.

## Values

Our Army is guided by the 7 SAF Core Values, which are Loyalty to Country, Leadership, Discipline, Professionalism, Fighting Spirit, Ethics, and Care for Soldiers. Our Values guide our actions and decisions, and define who we are.

## A Positive Army Experience

A positive experience is crucial to winning the hearts and minds of our soldiers. This will contribute to a committed and engaged force operating at peak performance. A Positive Army Experience is built through 5 key thrusts:

