Achievement-oriented
Teamwork
Integrity
Customer satisfaction
Continuous improvement
National Interest first





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### Minister of Defence's Statement

The vital accomplishment of Defence Technology Institute (Public Organization) of 2011 is the delivery of the DTI-1 prototype, Multiple Launch Rockets System to the Royal Thai Army. It is considered as an important milestone that may lead to be self reliance of military equipment of Ministry of Defence.

Readiness and advance of military equipment are pivotal factors of national interest, sovereignty and natural resources protection since an uptrend of military equipment and defence technology system costs might increase burden of national budget on imported procurement. Moreover, procuring arms and technology from foreign sources during conflict situations could be difficult because of export restricted policy of producers, thus being self-reliance capability of the Ministry of Defence is the objective of Defence Technology Institute (Public Organization) establishment.

I wish Defence Technology Institute (Public Organization) achieve goals as being the regional leader in defence technology, develop knowledge and innovation for the Ministry of Defence and the public, being development organization of personnel in the field of defence science and technology, a core of cooperative network as well as sustainability development organization.

Air Chief Marshal

(Sukampol Suwannathat)

Minister of Defence



### Chairman of the Board's Statement

The year of 2011 is considered as an important year of an achievement of the Defence Technology Institute (Public Organization) or DTI since it accomplished technology transferring from an alliance country, produced military equipment prototype and delivered to the Royal Thai Army. However, the achievement was also a result of policy supported by the Defence Minister, Chief of Commands of the Armed Forces as well as research and development cooperation of users, the Armed Forces.

Defence Technology guideline of DTI have been emphasized on intellectual cost creation and promote military equipment production of defence industry in order to deliver to the Armed Forces, creating Intellectual Property that eventually leads to actual self-reliance in defence. It specifies eight programmes for DTI Master Plan including Rocket and Missile technology, military Information Technology and Communication, Simulation and Virtual Reality technology, Unmanned Vehicle System technology, Counter-Terrorism and Unconventional Warfare technology, Fighting Vehicle and Weapon technology, Defence Energy technology and Anti-Weapon of Mass Destruction technology by developing cooperative network with government agencies of the Ministry of Defence and others, private sector as well as alliance countries. In the near future, DTI do aims for being self-reliance in defence.

I would like to take this opportunity to thank you the Board of Committee, Executives and officers for all your hard works as well as others agencies support extended to DTI over years.

Air Chief Marshal

(Thares Punsri)

Chairman of the Board



### **Director-General's Statement**

National Security could not be defined only by economic growth but also an advance of defence technology as international community have placed importance on develop defence technology and have tried to be self reliance.

The government had established Defence Technology Institute (Public Organization) – DTI in order to develop defence technology progression.

During the past year DTI had accomplished several projects such as delivery of DTI-1 prototype to the Royal Thai Army. We also have further developed other research and development projects like diversifying DTI-1 to guidance system so as to deliver to the Royal Thai Army as well as develop other technology knowledge continuously.

In 2012 DTI has endeavors on research and development Rockets and other Guided Weapons. Moreover, we proposed two master plans of Information Technology and Communication research and development and Simulation and Virtual Reality research and development as well as further develop related knowledge in order to achieve our strategies.

We promise that we will drive for national security in accordance with policies and guidelines of Defense Minister and Executive Committee.

Lieutenant General

9 Du

(Thitinant Thanyasiri, Ph.D.)

**Director General** 

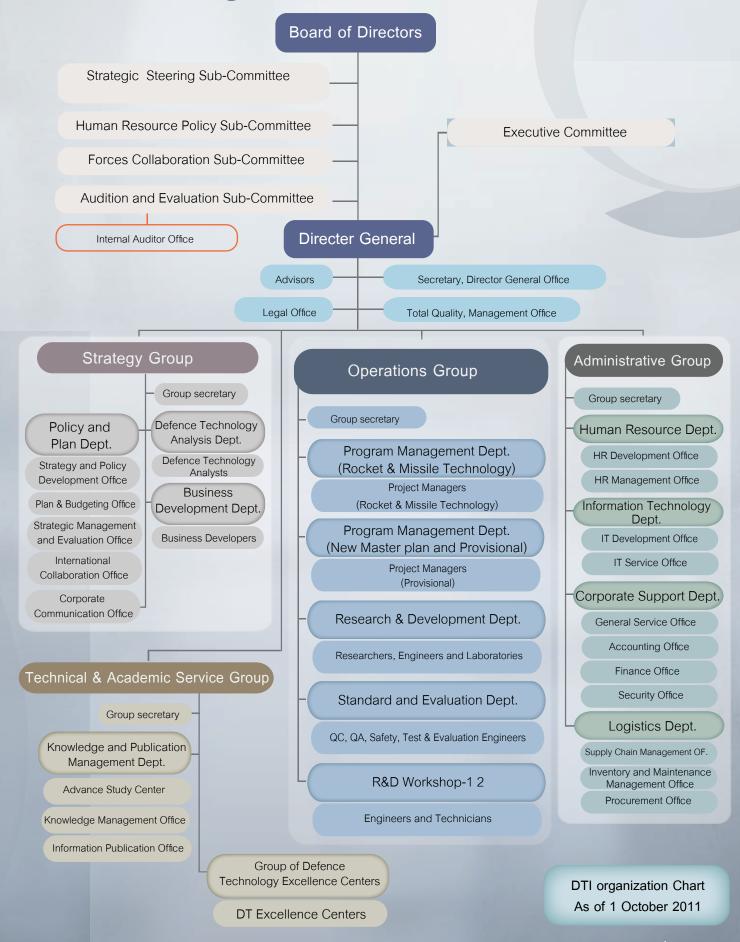
### Vision

To be the regional leader in selected defence technology offering solutions to the Royal Thai Armed Forces and ASEAN alliances

### Mission

- Research and develop large military equipment in accordance with the Master Plan and approval of Defence Council
- Defence technology research and development
- Be a defense technology knowledge center for Ministry of Defence's policies decision making of defence science and technology development
- Cooperate with public sector, academic institutions and private sector, both domestically and internationally in defence technology
- Promote defence technology research, training as well as related personnel developments
- Be a center to provide defence technology information and promote academic activities in order to publicize defence technology

### **Orgarnization Chart**



01 Air Chief Marshal Thares Punsri

Chairman of the Board (1 October 2010-1 November 2011)

02 General Kittipong Ketkowit

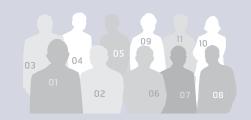
Permanent Secretary, Ministry of Defense/

Member of the Board

03 General Thanasak Patimaprakorn

Chief of Staff, Royal Thai Armed Forces /

Member of the Board



O4 General Dapong RatanasuwanChief of Staff, Royal Thai Army/ Member of the BoardO5 Admiral Thakerngsak Wangkeaw

Chief of Staff, Royal Thai Navy/ Member of the Board



06 Air Chief Marshal Prajin Jantong
Chief of Staff, Royal Thai Air Force/
Member of the Board
07 Admiral Weerawat Wongdontri, Ph.D.
Expert Member of the Board
08 Mr. Chatchawalit Saravari, Ph.D.
Expert Member of the Board

09 Mr. Eakaboon Wongsawatkun, Ph.D.
Expert Member of the Board
10 Lieutenant General Anchalee Mansakun, WRTA
Expert Member of the Board
(1 October 2010–1 November 2011)
11 Lieutenant General Thitinant Thanyasiri, Ph.D.
DTI Director — General



### Secretary and Member of the Board

### Sub Committee Strategic Operation Sub-Committee

1. Air Chief Marshal Thares Punsri	Chairman
2. Prof. Admiral Weerawat Wongdontri, Ph.D.	Member
3. Mr. Chatchawalit Saravari, Ph.D.	Member
4. Admiral Prawit Srisukwattana	Member
5. Major General Sompong Mukdasakun	Member
6. Assoc. Prof. Sujade Chantarang, Ph.D.	Member
7. Director-General of Defence Science and Technology Department	Member
8. Director-General of Defence Technology Institute	Member
9. Deputy Director-General of Defence Technology Institute (Administrative)	Member
10. Deputy Director-General of Defence Technology Institute (Operation)	Member
11. Deputy Director-General of Defence Technology Institute (Strategy)	Member
12. Director of Policy and Planning Department	Member
13. Head of Strategy Development Division	Member

### **Audit and Evaluation Sub-Committee**

1. Lieutenant General Anchalee Mansakun, WRTA	Chairman
2. Lieutenant General Pornsin Pongsuvan	Member
3. Major General Kitiya Chantaranima	Member
4. Mr. Suchai Youngprasitkun	Member
5. Mr. Nitipol Montrivade	Secretary
6. Ms. Pussadi Chuwit	Assistant Secretary

### **Human Resource Policy Sub-Committee**

1.	Mr. Chatchawalit Saravari, Ph.D.	Chairman
2.	Mr. Eakaboon Wongsawatkun, Ph.D.	Member
3.	Mr. Nontikorn Kanchanachitra	Member
4.	Mr. Boonyarak Duangrat	Member
5.	Director-General of Defence Technology Institute	Member
6.	Deputy Director General of Defence Technology Institute (Administrat	ive) Member
7.	Director of Human Resource Department	Secretary
8.	Head of Human Resource Management	Assistant Secretary
9.	Head of Human Resource Development	Assistant Secretary

## Sub-Committee of Military Information Technology and Communications Research and Development Master Plan

1. Prof. Admiral Weerawat Wongdontri, Ph.D.	Chairman
2. Mr. Chatchawalit Saravari, Ph.D.	Member
3. Director of Defence Information and Space Technology Department	Member
4. Director-General of Joint Communication	Member
5. Director of General of Strategic Operation, the Royal Thai Army	Member
6. Director of General of Strategic Operation, the Royal Thai Navy	Member
7. Director of General of Strategic Operation, the Royal Thai Air Force	Member
8. Captain Isara Rampaikun, Ph.D., RTN	Member
9. Captain Pichayean Tanprasert, RTN	Member and Secretary
10. Group Captain Thanapan Raicharoen Ph.D.	Member and Assistant Secretary

### **Executive Committee**

1. Director-General of Defence Technology Institute	Committee Chairman
2. Deputy Director-General of Defence Technology Institute (Strategy)	Deputy Chairman of Committee
3. Duputy Director-General of Defence Technology Institute (Operation)	Deputy Chairman of Committee
4. Deputy Director-General of Defence Technology Institute (Administrative)	Deputy Chairman of Committee
5. Director of Business Development Department	Committee
6. Director of Policy and Planning Department	Committee
7. Director of Defence Technology Analysis Department	Committee
8. Director of Research and Development	Committee
9. Director of Prototype and Development Department	Committee
10. Director of Project Management	Committee
11. Director of Provisional Project	Committee
12. Director of Defence Technology Excellent Center	Committee
13. Director of Human Resource Department	Committee
14. Director of Information Technology	Committee
15. Director of Administrative Department	Committee
16. Head of Internal- Auditor	Committee
17. Head of Strategic Development	Committee
18. Group Secretary (Strategy)	Committee

### **Executive Summary**

Since the establishment of Defence Technology Institute (Public Organization) on 1 January 2009 as the organization under the supervision of Defense Minister with the objective of large military equipment research and development, it delivered Multi Launch Rocket DTI-1 prototype to the Royal Thai Army at the beginning of 2011. DTI cooperated with the Office of Permanent Secretary for Defence to establish Defence Industry Association. DTI organized an event for the Prime Minister to give an address on "Research and Development of defence technology and creative economy: A new dimension for the next decade". The objective of the address is to comprehend stakeholders, researchers, producers as well as Royal Thai Armed Forces more about the importance of research and development connectivity of defense industry and economical national interest.

In 2011 DTI performed in accordance with Strategy by further constructing research and develop Operation Buildings which has been constructed since 2010 and would be completed in 2012. It would be the first research and development Operation Building of Rocket and Missile in South East Asia. In addition, we cooperated with the Royal Thai Navy to initiate the development project of Test Range so as to test research Prototype and guarantee accomplishment of all kind of

rockets development. We also cooperated with the Royal Thai Navy and private sector, Kasama Helicopter Company Limited and Serisapakit Comapany Limited to research and develop a Vertical Take-Off and Landing Unmanned Aerial Vehicle (VTOL-UAV) project. We cooperated with Thailand Research Fund and Field Artillery Division to research and develop Fixed Wing Unmanned Aerial Vehicle (Fixed Wing-UAV) project. It is recognized as the advance of research and development cooperation between public sector and private sector. Moreover, it deems as well prepare for Unmanned Vehicle Systems Master Plan in the near future. We also prepared for Simulation and Virtual Reality Master Plan and Information Technology and Communication research and development Master Plan which would be propose for Defence Council approval in 2012.

The achievement of research and development of 2011 is a result of visions and directions of the Executive Committee and Sub Committee, DTI Executives and officers' devotions as well as crucially cooperation among stakeholders, the Royal Armed Forces. We expected that the cooperation would be further developed in succession. Particularly upon the upcoming of ASEAN Community in 2015, it would be an opportunity for DTI to magnify our achievement.



# Accomplishments in 2011

# Accomplishments of 2011

Defence Technology Institute (Public Organization) had carried out mission in accordance with an annual action plan, an action plan of 2010-2013 and Defence Technology Roadmap 2010-2024 including four major strategies:

- Strategy 1 Research and development defence technology
- Strategy 2 Development of knowledge and innovation for the public
- Strategy 3 Development of cooperative network
- Strategy 4 Development of organization for sustainability

The accomplishment of DTI was a result of organization management which is in form of public organization equipped with flexibility, transparency, in additions, officers are able to utilize their potential and devotion utterly.

Implementation of
Strategy 1
Research and
development in
Defence technology

### DTI-1 Phase I

### Multiple Launch Rocket System Research and Development

It is a government to government (G to G) project in accordance with a policy of Ministry of Defence so as to receive technology transferring from alliance country. DTI signed Memorandum of Understanding (MOU) on Multiple Launch Rocket with the Royal Thai Army to deliver the output of the project to the Royal Thai Army as well as collaborate with them to further develop knowledge of Multi Launch Rocket.

During the past year DTI have proceeded according to the effective of MOU in 2008 by delivery DTI-1 prototype and powder magazine to the user of the Royal Thai Army, Field Artillery Division on 24 January 2011 as well as providing handle and maintenance of DTI-1 system training, manual and testing so as to military standardize and military usage development.



### DTI-1 Phase II A

### Rocket and Missile Workshop

Research and development Operation Building construction project equipped with apparatus and equipment for parts and propulsion construction so as to be able to research and develop numerous kinds of rocket prototype. Moreover, it recognized as knowledge extension of DTI-1 Multi Launch Rocket.

The construction project have kept in progress in 2011, it were equipped with public utilities. Unfortunately, technical problem and flood caused the construction completion extended. It was anticipated that machines and important equipments could be completely installed by 2013.

#### DTI-1 Phase II B

### Multiple Launch Rocket System Component Research and Development

DTI-1 rocket system knowledge project has cooperated with local Defence Industry Network to conduct reverse engineering of rocket parts and develop rockets parts and related systems so as to assure that Thailand has capacity to manufacture several kinds of rockets.

During the past year researchers implement R&D on rockets components such as rocket motor, propellant, warhead, rocket tube, tail section, rocket launcher, fire control system and positioning and navigation systems gist of which is as follows;

#### Propellant research and development

Researchers implement R&D by adjusting propellant to standard combustion ratio as well as manufacturing and testing samples of propellant, thermal insulation and internal coating of rocket tube in accordance with guidelines of transferred technologyat Research and Development Centre for Space and Aeronautical Science and technology, Royal Thai Air Force.

### Tail section and components research and development

Researchers developed and created component prototype such as thermal insulation of tail section in order to test heat aerodynamic resistant.









### Fire control system research and development

Researchers tested fire control system simulation with aerodynamic program which they developed and also further developed connecting system of Firing Table with rocket launching system.

### Positioning and navigation systems research and development

Researchers had studied technical characteristic and specific qualifications then, they had developed prototype of positioning and navigation systems.

#### Designing and simulation

Researchers analyzed strength of DTI-I components such as Heavy Wall Motor, Guided Knob and DTI-I rocket tube. They also analyzed Natural Frequency of DTI-I rocket tube as well as developed Firing table program from 6 DOF Model equation.

#### Rocket tube research and development

Researchers had researched and developed Engineering Drawing and components prototypes such as high resistance bolt binding the end of tube and rocket motor lid.

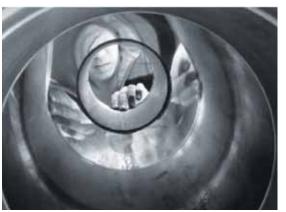
#### Warhead research and development

Researchers had studied prototype production process and developed warhead production equipments at Weapon Production Center, The Defence Industry and Energy Center.

### Wheeled chassis and truck chassis research and development

Researchers had developed specific technical characteristics as well as wheeled chassis production equipments. It over 50% keeps in progress.





### DTI-X Rocket System

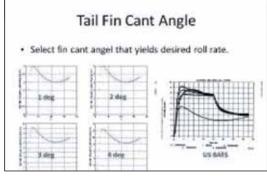
### Research and Development project

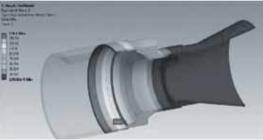
DTI-X Rocket system research and development project is the high capacity rocket. In the last year we started to research and develop guided multi launch rocket by adapting DTI-1propellant research and development plan to guided multi launch rocket, modeling and simulation engineering, equipment procurement and installation, standardize, quality control and inspection in order to meet component prototype standard. Moreover, we also tried to make and test rocket components such as Phenolic insulated nozzles, Pyrogen igniters.

### Design and Simulation Research and Development

Researchers used simulation program to design rocket components such as use Finite Element methodology to test strength of components, use computational Fluid Dynamics Simulation to study aerodynamic of the rocket in order to specify seize and form of tail fin as well as simulate guided multi launch rocket control with INS/GPS system. Moreover, Researchers developed mathematic simulation such as rocket dispersing simulation development with Monte Carlo Simulation so as to calculate attack target probability.

During the past year Guided and Control system had gathered knowledge for preparing Guided and Control system research and development such as assigned officers to attend Proportional Navigation training, decided and procured INS/GPS system in preparing for guided system by study radio controlled aircraft as a platform.







#### Test Range Development

Test Range development focused on infrastructure of more advanced test rage over the current of the Royal Thai Armed Forces. DTI would develop high technology and capability of equipments and apparatus so as to provide accuracy, reliable and economical upon request of military equipment test and evaluation of Armed Forces and DTI alliance as well as to further develop and prepare for being Testing Excellent Center.

During the past year there was an establishment of Working Committee to explore Test Ranges of the Royal Thai Armed Forces both in land and water Test Ranges with the cooperation of alliance countries to provide advices and knowledge sharing of technical management of equipment in particular safety and risk management of environment factors of Test Range in Thailand. To develop and expand knowledge of safety Test Range and Evaluation DTI has provided three Human Resource Development training courses which are Cine Theodolite Operator & Launch and Impact Monitoring course, Test Set up and Monitoring & Trajectory Measurement course and Test Range Safety Officer course. DTI coordinated with departments of the Armed Forces, the owner of property, to issue the direction of development and utilize the land by establishing working committee.

### Vertical Take-Off and Landing Unmanned Aerial Vehicle (VTOL-UAV) Research and Development Project

DTI coordinated with Royal Thai Navy, Kasama Helicopter Company Limited and Seri-sapakit Company Limited to research and developa Vertical Take-Off and Landing Unmanned Aerial Vehicle (VTOL-UAV) project by signing a Memorandum of Understanding on research and development cooperation on 21 July 2011. The objective is to promote Defence Technology network in form of integration among private sector and private sector (Public Private Partnership). When VTOL-UAV prototype research and development finish, it would be delivered to users.

## Fixed Wing Unmanned Aerial Vehicle (Fixed Wing-UAV) Research and Development project

DTI cooperated with Thailand Research Fund signed a Memorandum of Understanding on research and development of Fixed Wing



Unmanned Aerial Vehicle (Fixed Wing-UAV) project on 7 September 2011 and Field Artillery Division served as a working group and a user that could provide requirement, test and evaluate the Fixed Wing-UAV prototype. It is possible that other organizations would take the Fixed Wing-UAV to support their missions. DTI would further seek for other users to be alliance of research and development.







### Simulation and Virtual Reality Master Plan Development Project

It was a process of preparing research and development master plan document to be ready for propose to the Defence Council to get an approval of further research and development.

During the past year a working group which comprised of Simulation and Virtual Reality experts, military training and related military personnel of the Royal Armed Forces and DTI officers accumulated, analyzed information using theoretical and methodological framework. Moreover, they considered informative information and opinions of representatives of the Royal Thai Armed Forces both operational level and commander level, public sector and private sector by organized two seminars on Simulation and Virtual Reality so as to gain direction of Simulation and Virtual Reality research and development capability in accordance with requirements sustainably of Ministry of Defence and the Armed Forces as users and fortunately for "Better decisions Better training Better War Fighting" of the Armed Forces.

### Information and Communication Technology Research and Development Master Plan

It was a process of preparing research and development master plan document to be ready for propose to the Defence Council to get an approval of further research and development.

During the past year a working group which comprised of Simulation and Virtual Reality experts, military training and related military personnel of the Royal Armed Forces and DTI officers accumulated, analyzed information using theoretical and methodological framework. Moreover, they considered informative information and opinions of representatives of the Royal Thai Armed Forces operational level and commander level, public sector and private sector in order to gain direction of Simulation and Virtual Realit research and development capability in accordance with requirements sustainably of Ministry of Defence and the Armed Forces.

Implementation of
Strategy 2
Development of
Knowledge and
Innovation for
the Public

In 2011 DTI had gathered, analyzed and presented knowledge of defence technology, defence technology industry, defence strategy and Security by organizing military equipment and armaments database, writing articles and reviews and publicized in various forms such as books, internet like Maritime Technology and Security Trend: Driving Forces for Thailand's Sea Power Development, DTI's Weapon Systems Handbook Series UVS, Defence Technology and Security Monthly Report. In additions, DTI also organized national seminars by inviting national experts and international experts as guest speakers as well as Defence Technology Analysts. It is recognized as tools creation for problems analysis, strategic decision making, cooperative research and academic contribution to organizations of the Ministry of Defence.

DTI had established Network of Institutes for Defence and Security (NIDaS) gathering over thirty eight Strategic and Security centers for academic coordination and knowledge of security and defence technology and strategy integration. During the past year DTI had carried out defence technology academic activities in accordance with the objective of being the World-Class Defence Technology Think Tank, providing the output to meet requirements of organizations of the Ministry of Defence and general public, originating defence technology and security knowledge as well as connecting with related academic sectors and organizations.

#### Knowledge Development for DTI Officers

DTI developed technology and innovation knowledge center to be a center of providing service for general public by developing a library composing of defence technology books, articles and journals as well as providing information retrieving from various sources, organizing activities to share various kinds of knowledge and experiences, the gist of accomplishments are as follows;

- Organizing Monthly Experience and Technology Exchange Forum (METEF) such as a lecture of the Control and Communication Engineering Lab (LCC), Design and Simulation Laboratory (LDS).
- Organizing a lecture of special guest lecturers from various institutions such as KM for sustainable defence technology research and development and being self reliance of national security.
- experience in a small group or coffee talk such as Thai-Cambodia relations, the Middle East situations, How to save money and let money work for benefits, An experience of Secondment at DMTC, Australia, a field trip at England, International Procurement, Information Systems Security and so on.

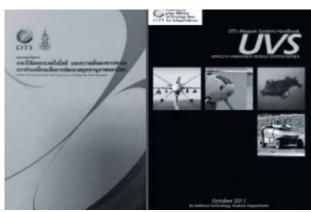


#### **Graduate Program**

During the past year DTI signed Memorandum Understanding of King Mongut's Institute of Technology Ladkrabang, Mahanakorn University Technology, Kasetsart University Graduate Program, Certificate courses, International Program, Science and Defence Technology Research Lab as well as joint research and development of Defence Technology knowledge. In this regard DTI has cooperated with King Mongut's Institute of Technology Ladkrabang on Master Degree of Defence Technology Engineering which would be started in the 2012 academic year. Moreover, DTI also has provided scholarship, research fund on Defence Technology for students and scholars in the counterpart Institutions.

#### Certificate Courses Project

DTI organized Information Systems Security course during 25-27 July 2011 at TK Palace Hotel to promote knowledge of Information Systems Security to the middle executive level (Major to Colonel) of the Office of the Permanent Secretary of Defence, Royal Thai Army, Royal Thai Navy, Royal Thai Air Force, Royal Thai Police, National Intelligence Agency and DTI Officers. Moreover, the objectives of this course are sharing best practices and experience as well as networking among attendants or equivalent who working on information technology of National Security.





### **Defence Technology Information Center**

During the past year Defence Technology Information Center has gathered Defence Technology information, Military equipments, armed forces capability and published quarterly journal of advance of defence technology, DTech, as well as developed the officers and knowledge. It had a systematic action plan, explored cooperation with experts, the Armed Forces, public sector and private sector.



# Implementation of Strategy 3 Development of Cooperative Network

### Defence Technolgy Cooperative Projects with ASEAN and Alliances

DTI has established relations and developed cooperative network with organizations of ASEAN and alliances countries in order to contribute to institutional research and development capacity building, scope of disciplines. During the past year DTI had four activities as follows:

#### 1. ASFAN Relations

DTI representative attended the ASEAN Defence Senior Officials' Meeting Working Group in Indonesia to consider defence technology cooperation of ASEAN and attended the consultative cooperation with the group of Deputy of Permanent Secretary of Defence in Malaysia.

#### 2. Asia alliance relations

DTI representative attended Joint Logistic Committee of Ministry of Defence of Thailand and Ministry of Defence of South Korea in the Republic of Korea. At a result of the sideline talk of the Meeting, DTI also agreed to sign a Memorandum of

Understanding (MOU) on Research and Development with Agency of Defence Development of South Korea.

#### 3. Alliance Countries relations

DTI delegations visited organizations in Sweden as well as enhance cooperation with organizations. Furthermore DTI delegations attended Thai - Sweden Industry Cooperation Working Group Conference and Joint Logistics Committee Meeting of Ministry of Defence of Thailand and Ministry of Defence of Sweden in Sweden. DTI delegations attended Joint Logistics Committee Meeting of Ministry of Defence of Thailand and Ministry of Defence of Australia in Australia for seeking joint training, education and capacity building on defence technology.

#### 4. Foreign delegations visited DTI

Delegations of organization of United States, Germany, France, Sweden, South Korea and China visited DTI and exchange views on bilateral relations, cooperation and other issues of mutual interest to both sides.

#### **DTI Public Relations Project**

DTI Public Relations Project publicized DTI research and development progresses via mass media to create a positive institution image as a national security and military organization and being sustainable self-reliance. During the past year DTI had carried out as follows;

#### 1. Public Relations

Publicized DTI research and development progresses and DTI mission in form of news and Executives interview via mass media and the Armed Forced medium such as radios, newspapers, defence technology articles and journals as well as publicized directly to Military personnel and Armed Forces students, Command and General Staff College in form of lectures and seminars of DTI research accomplishments, military weapons technology as well as exhibitions in various occasions.

#### 2. Special occasions and ceremonies

General Prawit Wongsuwan,
 Defence Minister was presided over the Multi Luanch Rocket
 DTI-1 prototype delivery ceremony.
 Air Chief Marshal Thares Punsri was the representative of DTI delivered DTI-1 prototype to General Prayut Chan-ocha,
 Commander in Chief, Royal Thai Army on 24 January 2011 at Field Artillery Division, Lopburi.





- On 4 March 2011 Prime Minister Abhisit Vejjajiva gave a keynote address "Research and development toward Defence Industry and an innovative economy" on the occasion of establishment anniversary of Defence Technology Institute (Public Organization). General Prawit Wongsuwan Minister of Defence, Air Chief Marshall Thares Punnasri, the Chairman of the Board of Defence Technology Institute together with High Ranking of military personnel of the Office of Permanent Secretary for Defence and the Royal Thai Armed Forces attended at the Royal Thai Navy Convention Hall.
- 3. Social Responsibility and environment activities

DTI conducted corporate social responsibility activities in accordance with good governance to communities nearby Operation Building in Phayuhakiri District, Nakornsawan as follows;

- Organized Scholarship Presentation ceremony to present thirty scholarships at the amount of 90,000 THB. to children of Military Explosive Factory officers held on 20 July 2011 Research and Development Operation Building, Nakornsawan.
- Defence Technology Institute organized a tree planting activity on 26 August 2011 in an area of the Military Explosives Factory, Nakornsawan.
- Defence Technology Institute donated six boats to flood victims and presented six boats and dried food to people and Payuhakiri Sub-District Administration Organization on 23 September 2011, during the flood in 2011.





#### Participation in Public and Private Sectors

In order to enhance relations among DTI and various organizations and further strengthen good relations during the past year DTI had carried out activities as follows;

Setting the target groups and prioritized to introduce and publicize DTI, moreover, DTI cooperated with Office of Defence Industry Promotion, Defence Industry and Energy Center established Thai Defence industry Association on 14 June 2011, comprising of over thirties members of public and privates organizations and companies. Lieutenant General Thitinant Thanyasiri Ph.D., Director-General of Defence Technology Institute serves as Chairman of the association. Members have ideas to exchange information and share experience of regional defence industry as well as strengthen relation among members of the association.

Implementation of Strategy 4

Development of Organization for Sustainability

### Quality Management and Development Project

Quality Management and Development Project specified directions and promoted DTI performance standard to meet international standard quality system ISO 9001 and environmental management system ISO 14001. During the past year DTI organized basic Quality system ISO9001 and ISO14001 Environmental Management trainings for DTI officers about performance procedures, quality and environment policy making by publicizing on DTI website and various areas of DTI. In additions, DTI also organized ISO auditors training in order to audit, follow up and monitor ISO 9001 ISO14001 performance DTI and of thoroughly.

### Rules and Regulations Development Projects

During the past year DTI appointed Working group comprising of Legal Division, Total Quality Management Division, Internal Audit Division, Support Division and Legal Advisor to revise and improve rules and regulations of DTI in accordance with standard and suitable for DTI officers by having a weekly meeting.

#### Organization Culture and Core Value Project

During the past year DTI had carried out activities to communicate with the officers to recognize six organization core values by internal publicizing, Executive development on climate change and understanding organization culture and core value building.

#### Human Resources Development Project

During the past year DTI had carried out orientations for officers to understand working procedures of each position and regulations of DTI as well as Managerial skills. Moreover, it also organized training for executive program so as to educate the Board of Directors and the Executives for policy Directions, strategy issuing and monitoring DTI performance effectively.



# Action Plan of 2012

#### **Action Plan of Fiscal year 2012**

Defence Technology Institute (Public Organization) had a direction for action plan of 2012 in accordance with Institute Strategy and National security. In according an action plan of 2012 DTI specified four strategies as follows; Strategy 1 Research and development defence technology, Strategy 2 Development of knowledge and innovation for the public, Strategy 3 Development of cooperative network and Strategy 4 Development of organization for sustainability and has an action plan and implementation in form of projects as following;

## DTI-1 Phase I Multiple Launch Rocket System Research and Development

DTI has strengthened relations with alliance countries as the strategic alliance of Multiple Launch Rocket research and development project and promoting Rocket Science and technology to defence research and industry organizations receive technology transferring of Multiple Launch Rocket DTI1 (DTI-1 Phase I) from alliance countries and further develop (DTI-1 Phase II) and could be able to produce more prototypes and deliver to the Armed Forces.

An action plans of 2012 are further research and develop so as to be able to take Multiple Launch Rocket DTI-1 prototypes to get an approval of Military Equipment Standard Committee in accordance with the regulation of the Royal Thai Army and maintenance them as well as organize DTI-1 Maintenance training for The Armed Forces and Ministry of Defence personnel.

#### DTI-1 Phase II (A) Rocket and Missile Workshop

It is to create more capability of produce DTI-1 rocket by constructing the 1st Operation Building in Nakornsawan and renovate Weapon Centre in Lopburi for constructing the 2nd Operation Building so as to metal molding and produce rocket prototype and to be able to deliver to the Royal Thai Army later on as well as further research and develop Multiple Launch Rocket technology to be more complete.

An action plans of 2012 are constructing of more three Operation Building in Nakornsawan comprising of X-Ray Operation Building, Ignitor Operation Building, Temporary Warehouse and renovating building for metal molding in Lopburi, install testing equipments and tools of Multiple Launch Rocket System creation as well as manufacture five bullets system prototype and further research and develop all knowledge of DTI-1.

#### DTI-1 Phase II (B) Multiple Launch Rocket System Component Research and Development

It is the further research and development project that transferred technology continued from Phase 1 by producing in Thailand. An action plan of 2012 is tested DTI-1 prototype comprising of rocket launcher and missile launcher truck that could lead to manufacture as well as prototype knowledge.

#### **Test Range Development**

Long Range development in Thailand is the capability development of DTI in Test and Evaluation Capability Building to support military equipment research of DTI roadmap and national standard Short Range and Long Range for DTI-1 Multi Launch Rocket system Testing and evaluation and use them as research testing as well as weapons testing of the Armed Forces.

Action plans of 2012 are coordinating to get an approval of the Royal Thai Navy for test rage in the sea, testing equipment development, DTI officer and Military personnel knowledge development such as Instrumentation Training, Test and Evaluation Training and coordinating in Test and Evaluation Training of experts of alliance countries as well as coordinating to use Test Range in alliance country as reserved test range.

## DTI-1G Guided Multiple Launch Rocket System Research and Development Project

It is the further research and development of DTI-1 to be high efficient Guided Rocket and meet the Armed Forces requirement by received specific transferred technology from alliance countries to originate knowledge of and gather more experience of designing, prototype creating, usage, evaluation and maintenance of DTI-1G to DTI officers and military personnel. And develop Guided Rocket and Missiles Research Operation Building to be able to produce specific DTI-1G that could finish three systems and deliver to the Royal Thai Army.

Action plans of 2012 are joint action plan with the Royal Thai army development and singing a contract DTI-1G Technology transferring and training vital basic knowledge to DTI researchers before attending technology transferring from the alliance countries.

#### DTI-2 High Performance Multiple Launch Rocket System Research and Development Project

DTI-2 High Capacity Multi Launch Rocket Surface to Surface, a maximum firing range of 100 km. research and development Project is the prototype creating of DTI researchers by studying and development propellant system, tail section system, warhead system, Missile and guided system and firing control system. This project would be promote researchers learning and capacity building, network coordinating in Thailand and abroad as well as develop defence technology Industry capability of Thailand.

Action plans of 2012 are studying and analysis Conceptual Design of Multi Launch Rocket and further develop to Preliminary Design in the 2013-2014 fiscal year and detailed design in 2015-2016. The output of the 2012 are studying characteristics of Guided rocket systems, design basic Guided rocket systems and research material, raw material, propellant system, tail section system, warhead system, Missile and guided system, firing control system as well as analysis information for Rocket launchers prototype designing, firing control system prototype designing and rocket launcher trucks prototype designing.

## Applied Research and Development of DTI-1 project (Target Drone Demonstration Rocket and Training Rocket)

MANPADS Anti-Aircraft Target rocket research and Development project with hi-speed reasonable cost, easy usage and meet the requirements of the Armed Forces is self-reliance research by knowledge of DTI officers that promptly conducting with low budget and could linkage with national defence industry and benefit to national economy and industry.

Action plans of 2012 are analysis the requirement of users, design planning and develop target rocket prototype to support IGLA-S, MANPADS Anti-Aircraft Target rocket of Army Air Defence Command and static-dynamic testing and take the target rocket o get an approval of weapons standard by 2014.

### Simulation and Virtual Reality Infrastructure Research Project

Simulation and Virtual Reality technology research and development master plan (2012-2021) is comprises of four plans namely first action plan: Fundamental of DTI Training Systems research, second action plan: Live trainers research and development, Third Action plan: Virtual Simulators research and development and Fourth Action plan: Constructive Simulations research and development. In this regard, the First action plan has one project namely fundamental of DTI Training Systems research.

Action plans of 2012 are Conceptual design development in architecture framework, Simulation and Virtual Reality demonstration by DTI researchers coordinate with experts from outside.

### Unmanned Systems Master plan Development Project

Unmanned System technology is recognized as an important technology nowadays because it is military weapon that could be substitute Man Aerial Vehicle in various missions such as news seeking, targeting and weapons usage that could reduce cost and risk therefore, DTI originate this project and would seek to an approval of the Defence Council

Action plans of 2012 are Developing master plan in order to propose to the Defence Council for getting approval to DTI conducting research. By this end, DTI has to prepare master plan and study users requirements, theory analysis to conduct feasibility study and develop to Unmanned System master plan by organizing working group meeting, sub-committee, workshop and abroad visiting to catch up and seeking vertical information as well as preparing for master plan documents.

## Fixed Wing Unmanned Aerial Vehicle (Fixed Wing-UAV) Research and Development Project

DTI cooperated with Thailand Research Fund to research and develop Fixed Wing Unmanned Aerial Vehicle (Fixed Wing-UAV) project in accordance with user's requirement, Field Artillery Division. It could be used for patrol mission, spying and tracking.

Action plans of 2012 are creating Fixed Wing UAV prototype and a set of related equipment comprising of photo and information communication system, camera system, aviation control system, visual signal system, GPS tracking and parachute system.

#### Vertical Take-Off and Landing Unmanned Aerial Vehicle (VTOL-UAV) Research and Development Project

DTI coordinated with Royal Thai Navy and private sector to research and develop a Vertical Take-Off and Landing Unmanned Aerial Vehicle (VTOL-UAV) project that meet the requirement of the Royal Thai Navy and promote advance of Vertical Take-Off and Landing Unmanned Aerial Vehicle to research and defence industry of the Ministry of Defence by seeking an approval of Full scale joint research and develop to create prototype and deliver to the Royal Thai Navy.

Action plans of 2012 are creating one Half Scale of Vertical Take-Off and Landing Unmanned Aerial Vehicle prototype and one Full Scale of Vertical Take-Off and Landing Unmanned Aerial Vehicle prototype as well as a set of related equipment comprising of photo and information communication system, camera system, aviation control system, visual signal system, GPS tracking and testing.

#### Defence Science and Technology Internal Knowledge Management Project

Defence Science and Technology Internal Knowledge Management Project is to collect knowledge to information system and utilize as database of researches, develop defence technology library management, record personnel database and specialists of various field outside organization as well as study feasibility of Excellent Center in field of DTI be proficient.

Action plans of 2012 are knowledge of research and development information system management, personnel database record, specialists of various field outside organization record as well as publicizing knowledge to general public in form of various kinds of digital and multimedia.

## DST Database System Processing Project of Research and Development Group

Develop and manage Defence Technology database for researchers to utilize for further research and development rapidly, being more efficient and having more quality as well as serving a database for intelligence in the near future.

Action plans of 2012 are defence technology online database processing to support Research and Development Group officers to work and further develop online database continually.

## Database Development and Information Publication Project

Develop reliable and informative Management system, assessment system, exchange system, collecting system, distribution system and safety system of defence technology information security and strategy for DTI performance and planning as well as organizations of the Ministry of Defence.

Action plans of 2012 are database Management and publicize analytical information in internet network, preparing defence technology journals, triannual defence technology articles, quarterly and annual news summary and defence technology analytical news.

#### **DST Personnel Knowledge Development Project**

Develop Defence Science and Technology knowledge of personnel, action plans of 2012 are modern defence science and technology training in accordance with annual training plans.

#### **Academic Publications Project**

To publicize output of researches in form of academic publications, action plans of 2012 are twelve academic publications would be published internationally, ten publications would be published in nationally as well as eighteen articles are publicized in international academic conferences and eighteen articles are publicized in national conferences.

#### **Graduate Program**

DTI cooperates with national academic institutions on Defence Science and Technology Graduate Program. In this regard, DTI will provide scholarships, research funding program and also Dissertation Research Fellowship program.

Action plans of 2012 are signing the Memorandum of Understanding (MOU) on academic cooperation with national and international academic Institutions, Master Degree on Defence Technology with King Mongut's Institute of Technology Ladkrabang and provide Scholarships, research funding program and also Dissertation Research Fellowship program.

#### **Certificate Courses Project**

DTI organizes Defence Science and Technology certificate courses to provide informative knowledge on national defence industry to public and private sectors as well as academic institions.

Action plans of 2012 are organizing two certificates courses namely Risk Management: Change and Crisis Management and organization development, Information System Security.

#### **Journal Publication and Internet Project**

DTI publicizes defence technology information, news, and journal in DTech journal and www.dti.or.th in order to publicize knowledge of defence technology, Defence Industry, researches and developments of DTI to organizations of the Ministry of defence, Defence Industry entrepreneurs, researchers and general public. Action plan of 2012 is four DTech quarterly journals publishing.

## Strategy and Security of Defence Science and Technology Knowledge Seminars Project

DTI presents Academic articles and journals by organizing seminars to provide Strategy and Security of Defence Science and Technology knowledge and innovations to organizations of the Ministry of Defence.

Action plans of 2012 are organizing academic seminars or conducting cooperative researches, evaluation and situation analyses, Military situations report system, establishing a Network of Institutes for Defence and Security (NIDaS) with other organizations.

## Strengthening Relations with Organizations in the Ministry of Defence Project

Action plans of 2012 are to strengthen relations with policy and research organizations of the Ministry of Defence such as Office of Policy and Planning, Defence Industry and Energy Center, Defence Science and technology Department and Research, Development of the Armed Forces and users.

## Strengthening Relations with Public and Private Sectors Project

To strengthen relations with public and private sectors in carrying out activities in accordance with Master Plans of DTI as well as carrying out business development plan of output of DTI and meet the requirements of users.

Action plans of 2012 are to signing the Memorandum of Understanding (MOU) on research (four MOU per year), study feasibility of cooperative research, organizing roadshows and seminars.

## Strengthening Relations with ASEAN and Alliance Countries Projects

Strengthen relations with public and private sectors of ASEAN and Alliance countries so as to develop more defence technology research and development capability, scopes of disciplines and efficiency.

Action plans of 2012 are to attend Track II Network of ASEAN Defence and Security Institution (NADI) in Cambodia, attend ASEAN Defence Industries Collaboration (ADIC) in Malaysia, to visit South Korea, Germany and ASEAN countries discussing defence technology cooperation and singing the Memorandum of Understanding (MOU) on defence technology cooperation with ASEAN countries.

## Strengthening relations with the Armed Forces Project

To strengthen relations with the Armed Forces, users, in order to further develop cooperative research with the Armed Forces, users, as well as support their activities.

Action plans of 2012 are to seek for their military equipment requirements, to sign the Memorandum of Understanding (MOU) on research (four MOU per year) and enhance relations with public sectors and high ranking of the Armed Forces.

#### **Defence Industry Association Activity Project**

Action plans of 2012 are to establish and promote activities of Defence Industry Association, visit countries in the Asia-Pacific and develop personnel in order to strengthen relations among the members of the Association, fulfill research and diversify to industry system as well as empower regional defence industry.

#### **Public Relations Project**

Publicize information, progresses and activities of research and development Action plans of 2012 are to publicize information, progresses and activities of research and development via mass media such as radio, newspapers, television continually, organize activities in order to build DTI image and reputation like organizing of activity on an occasion of DTI anniversary.

#### **Corporate Social Responsibility Project**

DTI conducted corporate social responsibility activities in accordance with good governance to communities nearby the Operation Builing in Phayuhakiri District, Nakornsawan and stakeholders.

Action plans of 2012 are to organize standard of living development activities continually in accordance with their requirements particularly communities nearby the Operation Building in Phayuhakiri District, Nakornsawan such as Scholarship Presentation ceremony to children of Military Explosive Factory officers, a tree planting activity, sustainably occupational training for housewives, Scientific camp for youths and so on.

#### **Total Quality Management Project**

To develop working process efficiently by Lean and Six Sigma in order to promote ISO9001 standard of working process and ISO14001 environmental standard as well as the Work Safety and Bio-Hygiene Management TIS 18001. Action plans of 2012 are evaluating and accredited of ISO9001 and ISO14001 and applying the Safety and Bio-Hygiene Management.

## Stakeholders Satisfaction Improvement Project

Action plans of 2012 are to conduct a questionnaire survey of clients and stakeholders to realize and evaluate satisfying, obstacles and suggestions so as to improve DTI operating efficiently and having new ideas or innovations.

#### **Information Technology System Development**

Action plans of 2012 are to develop reliable Information technology system by improving and expanding network, integrating all system as well as procuring security system for Information technology.

### Human Resource Management Development Project

Action plans of 2012 are to procure reliable and standard Human Resource management software which support officers working, payroll management, evaluation system, online self assessment, career path planning, high proficiency and important positions report, HRM consultant service so as to standardize Competency Modeling and Career path/Promotion System and Succession Planning.

## Financial System, Accounting System and Capital System Development Project

Action plans of 2012 are to develop financial system, accounting system and capital system responding to working system adjustment in accordance with organization Structure, man power and strategy expansion, develop electronics financial and accounting systems in accordance with users of capital account system, money transferring, cheque issuing, evaluation and financial reports and accounting records and so on.

#### **Inventory System Development Project**

Action plans of 2012 are to develop Inventory system to be in accordance with projects and enquiries of each department by procuring procurement database server to reserve information and reduce risks, systematize procurement and inventory systems.

## Risk Management and Evaluation System Development Project

Action plans of 2012 are to develop risk management and evaluation system efficiently and suitably in accordance with Risk management of the Office of the Public Sector Development, regulations of the Office of the auditor General of Thailand and Royal Decree on Criteria and Procedures for Good Governance B.E. 2545.

#### **Organizational Culture Project**

Action plans of 2012 are to develop six values recognition of officers and adjust attitude by organizing "Building DTI Core Value" seminars.

#### **Internal Communication Development Project**

In order to develop internal communication for organization information and policies recognitions rapidly and consecutively and unity of the organisation, action plans of 2012 are to publish twelve monthly DTIYes! A4 size, twenty pages distributing to the Executive Committee and DTI Officers in form of electronics journal and organize internal communication courses for executives to develop communication capability.

#### **Human Resources Development Project**

Action plans of 2012 are to develop qualitatively and quantitatively Human Resource Management and Human Resource Development by organizing three level of personnel development courses namely high level, middle level and operational level, conducting Training Needs survey and organizing Implement Training Program.

## Office Buildings and Operation Facilities Construction Project

Action plans of 2012 are to seek for a location, design and quest for a construction consultant of Office and Operation Office Buildings.



# Financial Reports of 2011

## Audit and Evaluation Committee Report Defence Technology Institute (Public Organization) For the Fiscal Year of 2011

The Executive Committee of the Defence Technology Institute (Public Organization) has appointed the Audit and Evaluation Committee on 24 August 2011 consisting of Finance, Accounting, Budget, Audit and Risk management experts as a Chairman of the Board of Sub-Committee and three persons as Sub-Committees in order to support the Executive Committee of the Defence Technology Institute monitoring the good governance, internal monitoring systems, risk management and appropriately audit in accordance with transparency and reliability of financial reporting.

In the fiscal year of 2011 the Audit and Evaluation Sub-Committee had audited and evaluated annual budget report of Defence Technology Institute (Public Organization) with ten meetings and the resolutions is as follows;

- 1. Auditing Good Governance of management by considering, providing observation and recommendation of accounting principles and policies as well as accounting recording.
- 2. Auditing adequacy of internal audit system by auditing internal audit report of 2010 which executed by internal auditor in accordance with State Audit Commission Rule on B.E. 2544 (2001).
- 3. Controlling Internal Audit performance to be in accordance with internal audit standard by encouraging Human Resource development as well as providing recommendation about report and comprehensive internal auditing.
- 4. Proposing audit policy, Terms of Reference, auditing audit plan and audit report of Internal Auditor by considering and approving audit plan of 2012 fiscal year before proposing to the Executive Committee for approval. Moreover, The Audit and Evaluation Sub-Committee also approved Audit Plan comprising of procurement, finance and accounting, inventory, budget as well as auditing audit performance of 2011 fiscal year.

5. Auditing and evaluating audit output of internal audit, recommendations of internal

auditors and auditors as well as Executives in order to provide recommendations for the executives

to adjust the organization performance by

5.1 Auditing the output of internal audit on procurement, finance and accounting,

inventory, budget.

5.2. Auditing Budget draft of 2010 before forward to external auditor as well as

auditing and evaluating audit output of external auditors and recommendations of external auditors.

6. Considering and comment on internal auditors evaluation.

The Audit and Evaluation Committee has performed the duties independently in accordance with good governance, internal monitoring systems, risk management and appropriately audit in

accordance with transparency and reliability of financial reporting. Moreover, the Audit and

Evaluation Sub-Committee has to cooperate with related departments in conforming to the rules,

adjusting to the recommendations as well as supporting internal auditing by specify structure,

personnel, and resources so as to perform efficiently and effectively.

(Mrs. Puntip Suratin)

Dely

Chairman of Audit and Evaluation Sub-Committee

**April 2012** 

Office of the Auditor General



#### **Report of Auditor**

To: The Executive Committee of Defense Technology Institute (Public Organization)

The Office of Auditor General have audited financial statements as of 30 September 2010 and 30 September 2011, which are the financial statement of and cash flow of the year ending on September 30, 2010 of Defense Technology Institute (Public Organization), of which the executives of DTI is responsible for accuracy and completeness of the information in these financial statements whereas the Office of the Auditor general has responsibility of comment on a result of documents examination. The financial statement of Defence Technology Institute (Public Organization) as of 30 September 2010 audited by other auditors was unconditioned as reported on 15 March 2011.

Office of the Auditor General had audited in accordance with an audit standard which specifies office of the Auditor General has to plan and inspect whether the financial statement contrast to facts, inspect necessary evidence in form of amount of money or budget reveal, assess appropriate accountancy method of Defence Technology Institute (Public Organization) and estimate significant financial data composed by the executives as well as the evaluation of financial lists. Office of the Auditor General affirms that the audit is appropriate.

Office of the Auditor General considered that the statement of financial position as of 30 September 2010 and 30 September 2011, the financial performance and the statement of cash flow of the year ending in each year of Defence Technology Institute (Public Organization) were correct as accounting principles of the Ministry of Finance.

PIN PSEN

(Miss Lawan Sirikatemaneerat)

Director of the2nd Auditor Office

811

(Mrs. Kanchana Jitjai)
Group Director

Office of the Auditor General

8 May 2012

## Defence Technology Institute (Public Organization) Financial Statement

As of 30 September 2010 and 30 September 2011

		Note	2011	(Amount: THB) 2010	
Assets					
Current Assets					
Cash and cash	n Equivalents	4	416,108,642.33	658,562,474.90	
Receivable		5	25,341,387.08	-	
Account intere	st Receivables		4,908,627.03	1,205,674.51	
Revenue Rece	ivables		23,393,819.15	3,211,784.67	
Temporary inve	estment	6	600,000,000.00	-	
Work-in-Proces	SS	7	345,803,153.10	365,063,603.99	
Inventories			974,130.95	2,207,001.39	
Cash Advance	S	8	75,401,635.39	38,675,999.28	
Other Current	Assets	9	7,890,404.27	1,978,930.31	
Total Current A	Assets		1,499,821,799.30	1,070,905,469.05	
Non-Current Assets	8				
Work under co	nstruction	10	134,241,950.68	36,052,770.71	
Office renovati	on (Net)	11	18,087,557.98	-	
Fixed Assets (I	Net)	12	137,957.700.74	15,707,904.49	
Intangible Ass	ets (Net)	13	162,591,296.34	10,437,095.50	
Other Non-Cur	rent Assets	14	25,608,299.06	-	
Total Non-Curi	ent Assets		478,486,804.80	62,197,770.70	
Total Assets			1,978,308,604.10	1,133,103,239.75	d
					-

(Footnotes to financial statement is a part of this financial statement)



### Defence Technology Institute (Public Organization) Financial Statement

As of 30 September 2010 and 30 September 2011

			(Amount: THB)
	Note	2011	2010
Liabilities			
Current Liabilities			
Account Payables		19,706,846.07	21,010,466.85
Accrued Expenses	15	10,481,311.81	3,873,893.78
Other Current Liabilities	16	5,815,868.91	909,119.01
<b>Total Current Liabilities</b>		36,004,026.79	25,793,479.64
Non-Current Liabilities			
Deferred Income from Dona	tions	458,835.61	651,335.61
Total Non-Current Liabilities		458,835.61	651,335.61
Total Liabilities		36,462,862.40	26,444,815.25
Net Assets		1,941,845,741.70	1,106,658,424.50
Net Assets			
Capital		499,060,766.45	499,060,766.45
Retained Earnings	17	1,442,784,975.25	607,597,658.05
Total Net Assets		1,941,845,741.70	1,106,658,424.50

(Footnotes to financial statement is a part of this financial statement)

W ADW

(Lieutenant General Thitinant Thanyasiri, Ph.D.)

Director – General

P Nisamph

(Mr. Pornthep Nisamaneephong, Ph.D.)

Deputy Director-General

(Administrative Group)

## Defence Technology Institute (Public Organization) Income Statement

As of 30 September 2010 and 30 September 2011

			(Amount: THB)
	Note	2011	2010
Cash flow from Operations			
Revenue from Government			
Government Subsidy	18	1,012,343,000.00	617,647,000.00
Total Revenue from Gove	ernment	1,012,343,000.00	617,647,000.00
Revenue from other sources			
Interest		25,240,444.96	5,392,579.50
Revenue from application	fee	228,783.96	323,736.78
Revenue from Donations		195,500.00	213,664.39
Revenue from other source	es	2,276,020.91	306,642.16
Total Revenue from other	sources	27,937,749.83	6,236,622.83
Total revenue from Operations	1	1,040,280,749.83	623,883,622.83
Operating Expenses			
Project expenses	(Appendix 1)	42,141,629.89	-
Subsidy expenses	(Appendix 2)	363,300.00	702,544.00
Employee expenses	(Appendix 3)	94,143,721.66	53,415,946.60
Other Operating expenses	(Appendix 4)	55,567,176.172	5,843,191.95
Depreciation and Amortization	(Appendix 5)	14,402,712.85	7,258,034.50
Total Operating Expenses		206,618,540.54	87,219,717.05
Net Income		833,662,209.26	536,663,905.78
Non-Operating Income/ Expenses			
Gain (loss) from exchange rate	,	1,525,107.94	-
Total Non-Operating Income/ E	Expenses	1,525,107.94	-
Total Income	19	835,187,317.20	536,663,905.78

(Footnotes to financial statement is a part of this financial statement)

## Defence Technology Institute (Public Organization) Statement of Cash Flow as of 30 September 2010 and 30 September 2011

	2011	(Amount: THB) 2010
Cash Flow from Operations		
Net Income	835,187,317.20	536,663,905.78
Adjusted to cash flow from operations		
Depreciation and Amortization	23,506,697.39	7,258,034.50
Income from Donations of Durable Articles	(192,500.00)	(118,664.39)
Write up (write down) Payable	(2,079,916.98)	20,558,721.95
Write up of Accrued Expense	6,462,321.05	3,050,532.90
Write up of Accrued other Current Liabilities	4,906,749.90	790,113.62
(Write up) Receivable	(14,473,602.41)	-
(Write up) Accrued Revenue debtor	(23,393,819.15)	(2,482,532.82)
(Write up) Inventory	(38,191,233.86)	-
(Write up) Implementing	-	(363,658,001.70)
(Write up) Accrued Interest	(3,702,952.52)	(933,733.49)
(Write up) write down of supply Inventory	1,325,922.44	(2,051,498.39)
(Write up) write down of advance payment	18,816,142.09	
Write up of Current Assets	(8,572,930.84)	(1,923,783.07)
Net Cash Flow from Operations	799,598,194.31	197,153,094.89
Cash Flow from investing activities		
Paid Cash:		
From temporary capital	(600,000,000.00)	-
From under construction projects	(100,450,186.30)	(17,277,085.24)
From Building construction	(5,224,299.06)	(5,107,148.29)
From Building renovation	(20,754,241.29)	-
From durable goods purchasing	(131,102,769.29)	-
From Fixed assets	(184,520,530.94)	(3,440,523.59)
Net paid Cash Flow from investing activities	(1,042,052,026.88)	(25,824,757.12)
Cash flow from make money activities		
Cash (earned):		
Budget (transferred from Science & Technology D	Department, MOD) -	-
Cash flow used for activities		-
Cash and cash equivalent	(242,453,832.57)	171,328,337.77
Cash and cash equivalent (Brought forward)	658,562,474.90	487,234,137.13
Cash and cash equivalent as of year-end	416,108,642.33	658,562,474.90

(Footnotes to financial statement is a part of this financial statement)

(Appendix1)

## Defence Technology Institute (Public Organization) Statement of Project Expenses as of 30 September 2010 and 30 September 2011

		(Amount: THB)
	2011	2010
Project expenses		
Military movement expenses	365,100.00	-
DTI-1 Phase I prototype research and development cost	39,390,680.64	-
DTI-1 Phase II prototype research and development cost	1,231,913.74	-
Research and development master plan project cost	370,000.00	-
Guided and control operation office projects cost	370,800.00	-
DTI-2 (2B) prototype research and development cost	182,500.00	-
Joint research and development projects	230,635.51	-
Cost Total	42,141,629.89	-
		(Appendix2)
Defence Technology Institute (Publ	ic Organisation)	
Statement of Subsidy Exp	pense	
as of 30 September 2010 and 30 S	September 2011	
		(Amount: THB)
	2011	2010
Subsidy Expense		
Subsidy for Research and Development Centre for Space a	and	

Aeronautical Science and Technology, RTAF Research Fund

Subsidy Total

702,544.00

702,544.00

363,300.00

363,300.00

(Appendix3)

## Defence Technology Institute (Public Organization) Statement of Personnel Expenses as of 30 September 2010 and 30 September 2011

	2011	(Amount: THB) 2010
Personnel Expenses		
Salary and wage		
Salary	85,887,991.47	47,579,976.78
Wages	100,500.00	96,000.00
Total	85,988,491.47	47,675,976.78
Welfare		
Compensation for Dismissal	-	57,500.00
Medical treatment expense	4,802,185.84	2,603,670.66
Financial Contributions to Provident Fund	2,314,567.71	1,922,117.42
Educational Grant for Personnel's Children	772,269.45	467,269.46
Group Accident Insurance Fee	93,351.94	51,977.60
Financial support for Funeral	31,863.09	10,000.00
Financial support for Wedding Reception	2,000.00	4,000.00
Financial support for personnel's children	6,345.24	8,666.68
Uniform expenses	114,241.92	292,538.00
Other personnel expenses	18,405.00	322,230.00
Total	8,155,230.19	5,739,969.82
Total Personnel Expenses	94,143,721.66	53,415,946.60

(Appendix4)

	2011	(Amount: THB) 2010
Other operations expenses		
Remuneration		
Executive Committee and		
Sub Committee Meetings allowance	3,046,000.00	3,296,000.00
Over Time paymen	137,486.60	67,178.84
Advisors and experts payment	3,267,760.00	1,710,716.67
Total	6,451,246.60	5,073,895.51
Meeting expenses		
Venue services	-	21,600.00
Food and Beverages	716,298.05	507,570.40
Guest Speakers	46,700.00	9,800.00
Accommodations	-	48,600.00
Other expenses	37,359.00	119,253.62
Total	864,802.05	747,586.02
Temporary onsite working expenses		
Allowance	266,149.66	135,100.00
Accommodations	328,698.72	138,600.00
Transportations	615,644.63	209,927.04
Registration fee	36,253.00	16,757.00
Other expenses	48,000.00	-
Total	1,294,746.01	500,384.04
Temporary oversea working expenses		
Allowance	1,926,450.00	1,294,350.00
Accommodations	1,416,001.21	1,000,355.99
Transportations	5,017,793.10	2,885,572.46
Clothing allowance	237,000.00	465,000.00
Receptions expenses	270,789.17	159,094.90
Other expenses	290,864.57	558,505.75
Registration fee	1,186,361.14	
Total	10,345,259.14	6,362,879.10

		(Amount: THB)
	2011	2010
Training Expenses		
Venue Services	106,726.22	-
Food and Beverages	1,733,215.03	49,020.00
Guest Speakers	1,540,485.00	254,400.00
Allowances	6,996.00	2,500.00
Accommodations	491,319.64	208,990.00
Transportations	137,916.00	41,978.00
Other expenses	88,164.46	393,379.11
On-site training	1,673,780.98	1,438,045.50
Total	5,778,603.33	2,388,312.61
Leisure Activities Expenses		
Venue Services	-	500.00
Food and Beverages	404,898.50	59,590.00
Transportations	11,300.00	80.00
Other expenses	331,044.50	49,175.39
Total	747,243.00	109,345.39
Ceremonial Proceedings Expenses		
Venue Services	-	8,264.50
Protocol	21,246.00	26,620.00
Food and Beverages	64,733.50	137,757.00
Transportations	28,788.20	11,105.10
other expenses	71,546.75	130,852.86
Total	186,314.45	314,599.46



	0044	(Amount: THB)
Service Expenses	2011	2010
Cleaning service	574,260.00	59,590.00
Guard service	861,764.00	-
Transportation service	1,910,154.84	1,000,366.61
Photocopier service	169,201.18	140,039.22
Binding service	120,181.03	92,106.36
Research expenses	98,500.00	52,100.50
Conditioned expenses	2,557,988.30	825,678.21
Maintenance service	895,873.76	-
Total	7,187,923.11	2,277,511.20
Other services		
Electric system service	91,588.79	_
Air condition system service	49,200.00	291,503.60
Communication system service	85,864.50	7,430.00
Human Resource system service	2,137,989.63	989,557.64
System testing service	-	32,100.00
Accounting plan and system service	341,000.00	300,000.00
Quality and Environment Management service	48,000.00	-
Total	2,753,642.92	1,620,591.24
Other expenses		
Maintenance expenses	115,088.13	105,291.33
Bank fee	37,936.61	3,375.00
Audit expenses	150,000.00	160,000.00
Administration expenses	183,003.16	287,665.50
Donation and charity	180,000.00	36,000.00
Journal	37,204.00	23,364.00
Postal service	62,629.00	15,681.38
Receptions	908,288.07	286,083.26
Public relations	2,850,533.23	602,009.80
Total	4,524,322.20	1,519,470.27
rotal		

(Appendix4)

		(Amount: THB)
	2011	2010
Material expenses		
Office material	689,598.83	537,656.33
Computers	574,737.00	87,606.59
Operation office material	-	26,560.00
Electronic and radio appliance	145,106.00	41,980.00
Advertisement and broadcasting	2,855,037.39	196,086.94
Journal and books	43,814.70	29,920.42
Scientific material	-	15,900.00
Fuel	3,290.00	-
Total	4,311,583.92	935,710.28
Inferior equipment expenses		
Office equipment	1,987,996.14	115,103.60
Electronic and radio equipment	1,440,770.89	8,244.67
Scientific equipment	-	12,993.75
Operation office equipment	58,805.00	-
Computers equipment	59,310.00	34,581.16
Educational equipment	126,500.00	188,480.90
Household equipment	86,903.00	42,488.00
Total	3,760,285.03	401,892.08

(Appendix4)

	2011	(Amount: THB) 2010
Public utility expenses		
Electricity	600,484.26	475,338.35
Water supply	108,211.43	71,328.57
Telephone	632,604.75	26,560.00
Information and Communication	815,489.17	190,991.71
Building rental	2,208,080.00	-
Building management service	817,476.00	-
Water supply meter installation	80,000.00	-
Insurance fee of rental Building	55,845.00	2,142.00
Public utility of rental Building	325,192.00	-
Electricity of rental Building	1,192,009.74	-
Water supply of rental Building	13,950.00	-
Telephone system installation	35,000.00	-
Business Development expenses	476,862.01	-
Total	7,361,204.36	887,028.53
Loss on exchange rate		
Loss on currency exchange rate	-	2,703,986.22
Total	-	2,703,986.22
Other expenses total	55,567,176.17	25,843,191.95

#### (Appendix5)

## Defence Technology Institute (Public Organization) Statement of Depreciation and Amortization as of 30 September 2010 and 30 September 2011

		(Amount: THB)
	2011	2010
Depreciation and Amortization		
Depreciation		
Depreciation of Office Building renovation	2,666,683.31	-
Depreciation of Office equipment	551,863.32	438,043.24
Depreciation of Electronic and radio equipment	449,956.89	178,840.92
Depreciation of Advertisement and broadcasting	28,000.00	25,545.21
Depreciation of Operation office equipment	12,939.57	47.67
Depreciation of Construction equipment	25,233.65	-
Depreciation of Scientific equipment	1,670,353.58	457,881.86
Depreciation of Computers equipment	4,314,647.61	2,667,191.27
Depreciation of Educational equipment	99,570.58	47,978.30
Depreciation of Household equipment	9,176.71	-
Amortization		
Amortization of Computer programs	4,574,287.63	3,442,506.03
Total of Depreciation and Amortization	14,402,712.85	7,258,034.50

# Defense Technology Institute (Public Organization) Notes of Financial Statement as of 30 September 2011

#### Remark No. 1 Background, establishment and objective

Defence Technology Institute (Public Organization) or DTI is a juristic person established on 1 January 2009. The institution was established under the provision of the Royal Decree regarding the establishment of Defence Technology Institute (Public Organization) authorized by the Article 187 of the Constitution of the Kingdom of Thailand and Article 5 of the Public Organisation Act of 1999. Defence Technology Institute is considered as the first public organisation under the supervision of Ministry of Defence with the following objectives:

- 1. Research and develop large-scale military equipment and defence technology
- 2. Be the defense technology center for the Ministry of Defence to provide defence science and technology information so as to formulate defence policies
- 3. Collaborate in defence science and technology with public and private sectors, educational institutions domestically and internationally
- 4. Promote and support the defence science and technology training, research, and human resource development
- 5. Be a center of providing information on defence science and technology to the public, and promoting academic activities in order to publicize defence science and technology knowledge

On 6 May 2010, the Cabinet had a resolution to transfer entities, assets, rights, liability and budget of Defense Science and Technology Office related to the Missiles Research and Development for National Security Master Plan (2007-2016) including Long-Range Missile Research and Development project, and Missile Research and Development for National Security project to DTI as stated in the Secretariat of the Cabinet document No. 0505/7715 on 7 May 2009 in accordance with the provision of Article 9 of Public Organization Act of 1999.

#### Remark No. 2 General information

- 2.1 Locations of Defense Technology Institute (Public Organization)
- 2.1.1 Office of Permanent Secretary for Defence Building 4th Floor 47/433 Changwattana Road, Pakkred, Nonthaburi 11120
  - 2.1.2 Operation Office Yanmatsri, Payuhakiri, Nakornsawan
  - 2.1.3 9th Floor, Kaitak Building, Changwattana Road, Pakkred, Nonthaburi

#### Remark No. 3 Accounting Policy

- 3.1 Financial statement of accrual basis in accordance with principles of accounting policies for government agencies No. 2 of 6 January 2003
- 3.2 Accounting period of DTI is in form of a fiscal year starting from 1 October to 30 September of the following year. .
- 3.3 Equipment inventory is recorded at purchasing prices and is calculated by first-in-first-out method.
- 3.4 Inventory is recorded at cost prices or net value depending lower price. The cost prices are calculated using first-in-first-out method. The cost includes price and other related such as tax, freight as well as trade discount. Inventory is raw material, in progress project and models.
- 3.5 Foreign currency related items are calculated to Thai Baht at exchange rate as of occurring date of Krung Thai Bank. The outstanding record of foreign currency related assets or liabilities in Thai Baht according to the bank exchange rate in the day of the financial statement presentation. Profits or losses of the exchange rate is recorded as income or expenses immediately.

- 3.6 Durable article inventory recorded at cost prices after deducting depreciation and amortization value as well as it values less than THB. 5,000 per unit or per set it will be recorded as expenditure of the occupied year, and are recorded in the Durable Article Registration that every item is lower than the requirement.
- 3.7 Intangible assets, such as computer programs, computer systems and knowledge of DTI-1 project.
- 3.8 Depreciation and amortization are calculated based on its useful life in accordance with regulation of the Ministry of Finance as follows;

Type of Assets	Useful Life	Rate per year
	(Year)	(Per cent)
Renovated Rental Office	3	33.33
Office Equipment	10	10
Radio and Electronic equipment	5	20
Scientific equipment	5	20
Operation Office equipment	5	20
Construction equipment	10	10
Computer-related equipment	4	25
Educational equipment	2	50
Household equipment	5	20
Computer Software	4	25
Knowledge of DTI-1 Phase1	15	6.67

Amortization-knowledge of projects are rationed to each project in time of occurrence



## Remark No. 4 Cash and Cash Equivalents consists of:

		Amount: Baht
	2011	2010
Petty cash	200,000.00	200,000.00
Bank Deposit		
Saving account	415,908,642.33	658,362,474.90
Total	416,108,642.33	658,562,474.90
Remark No. 5 Receivable		
		Amount: Baht
	2011	2010
Deposit	24,539,397.20	-
Loan receivable	801,989.88	-
Total	25,341,387.08	
Remark No. 6 Temporary Investment		
		Amount: Baht
	2011	2010
Bank Deposit- 3 Month Fixed-Deposit	600,000,000.00	
Total	600,000,000.00	

## Remark No. 7 Inventory

	Amount: Baht
2011	2010
187,555,700.88	-
85,744,682.35	365,063,603.99
72,502,769.87	-
345,803,153.10	365,063,603.99
2011	2010
-	344,026,269.27
21,212,290.50	-
5,728,659.25	-
7,583,937.07	7,154,761.21
5,337,454.49	-
652,261.91	-
9,250,422.69	-
3,147,458.94	3,147,458.94
32,832,197.50	10,735,114.57
85,744,682.35	365,063,603.99
	187,555,700.88 85,744,682.35 72,502,769.87 345,803,153.10 2011 - 21,212,290.50 5,728,659.25 7,583,937.07 5,337,454.49 652,261.91 9,250,422.69 3,147,458.94 32,832,197.50

#### Remark No. 8 Cash Advances consist of:

	Amount: Baht
1. Advanced cash at the amount of 762,915.00 euro is 15% of purchase of	
SKD equipments and rocket components from CPMIEC total amount 5,086,100.00	
euro or 226.70 million baht in accordance with an agreement 52-54/0026 on 25	
June 2010	32,309,450.25
2. 15% advanced cash of 67.40 million baht of purchase of metal pipe stretch-	
ing machine, technical document and manual as well as maintenance fee in	
accordance with an agreement 54/CTP0012 on 11 March 2011 at the amount	
of	9,448,598.13
3.15% advanced cash of 98.20 million baht of purchase of propellant pro-	
ducing machine in accordance with an agreement 54/CTP0016 on 5 April 2011 at	
the amount of	13,766,355.14
4. 15% advanced cash of 6.30 million baht of purchase of magnetic verifying	
machine in accordance with an agreement 54/CTP0016 on 5 April 2011 at the	
amount of	883,177.57
5.15% advanced cash of 17.80 million baht of purchase of CNC horizontal	
lathing machine in accordance with an agreement 54/CTP0019 on 12 May 2011	
at the amount of	2,495,327.10
6.15% advanced cash of 7.90 million baht of purchase of metal convection	
oven and galvanized oil pan in accordance with an agreement 54/CTP0019 on 23	
May 2011 at the amount of	1,107,476.64
7.15% advanced cash of 28.78 million baht of purchase of chemical mill in	
accordance with an agreement 54/CTP0020 on 9 May 2011 at the amount of	4,316,355.14
8. 15% advanced cash of 1.80 million baht of purchase of Mandrel for Heavy	
Wall Mortor for DTI-1 Phase 2B in accordance with an agreement 54/CTP0023 on	
27 June 2011 at the amount of	252,185.05
9. 15% advanced cash of 9.90 million baht of purchase of Mandrel for aerator	
for DTI-1 Phase 2A in accordance with an agreement 54/CTP0028 on 13 July 2011	
at the amount of	1,387,850.47
10.15% advanced cash of 17.51 million baht of purchase of Propellant tank	
in accordance with an agreement 54/CTP0020 on 10 June 2011 at the amount of	2,454,953.27



11.15% advanced cash of 13.36 million baht of purchase of Crane Scale	
electric equipment in accordance with an agreement 54/CTP0017 on 29 April	
2011 at the amount of	2,004,672.90
12. 15% advanced cash of 5.20 million baht of purchase of mobile Overhead	
Crane (6 directions of electronic control) in accordance with an agreement 54/	
CTP0031 on 15 August 2011 at the amount of	728,971.96
13.15% advanced cash of 4 million baht of purchase of High Precision In-	
ertia Navigation Sensor (Kearfott- K-4072A) including its installing in accordance	
with an agreement 54/CTP0031 on 15 August 2011 at the amount of	560,747.66
14.15% advanced cash of 1.49 million baht of purchase of statistic Rocket	
Testing Base in accordance with an agreement 54/CTP0039 on at the amount of	208,878.60
15. 15% advanced cash of 3.80 million baht of purchase of 19 electric scales	
and equipments in accordance with an agreement 54/CTP0024 on 28 June	
2011at the amount of	532,710.28
16. 15% advanced cash of 7 million baht of purchase of vertical CNC Milling	
machine in accordance with an agreement 54/CTP0013 on 23 March 2011at the	
amount of	981,308.41
17.15% Advanced cash of 14 million baht of purchase of Boring Machine	
including installing in accordance with an agreement 54/CTP0014 on 23 March	
2011 at the amount of	1,962,616.82
Total	75,401,635.39

#### Remark No. 9 Other Current Assets consists of:

		Amount: Baht
	2011	2010
Undue Purchasing Tax	248,574.17	1,171,576.88
Accounts Receivables	-	613,500.00
Advanced Payment of Insurance Premium	109,550.39	165,395.39
Other Advance Expenses	405,270.67	12,665.64
Instalment	6,550,169.68	-
Input Tax	576,839.36	11,200.00
Other Receivables		4,592.40
Total	7,890,404.27	1,978,930.31
Remark No. 10 In progress constructions consists of:		
		Amount: Baht
	2011	2010
Research and Development Operation Office	110,416,072.22	29,699,925.82
(Nakornsawan)		
Infrastructure construction	23,825,878.46	6,352,844.89
(Electricity and water supply systems)		
Total	134,241,950.68	36,052,770.71

#### Remark No. 11 Net renovation expense consists of:

			Amount: Baht	
	Current Cost	Depreciation	Net amount	
Renovated rental Office	18,511,250.63	2,328,694.42	16,182,552.21	
Renovated Operation Office	2,242,990.66	337,984.89	1,905,005.77	
(Patumthani)				
Total	20,754,241.29	2,666,683.31	18,087,557.98	L
				1

#### Remark No. 12 Durable Articles -Net consists of:

				Amount: Baht
	Costs of	Accumulated		Net Assets Value
	Assets	Depreciation	2011	2010
Office equipment	7,383,596.35	(1,314,971.48)	6,068,624.87	3,735,636.88
Electronics and Radio	3,987,540.29	(796,138.81)	3,191,401.48	1,022,140.75
Advertising and Broadc	ast 140,000.00	(53,545.21)	86,454.79	114,454.79
Operation equipment	24,686,081.03	(413,246.50)	24,272,834.53	86,952.33
Construction equipment	420,560.75	(25,233.65)	395,327.10	-
Scientific equipment	20,656,971.36	(3,816,455.85)	16,840,515.51	3,239,568.60
Computer equipment	22,798,336.96	(8,768,060.46)	14,030,276.50	7,362,820.48
Educational equipment	447,628.90	(184,832.22)	262,796.68	146,330.66
Household equipment	115,500.00	(9,176.71)	106,323.29	-
Operation (installing)	72,703,145.99		72,703,145.99	
Total	153,339,361.63	(15,381,660.89)	137,957,700.74	15,707,904.49

Costs and depreciation of assets movement of the year ended September 30, 2011 is as follows;



				Amount:Baht
	Brought Forward	Value during Fi	scal Year	Carry Forward
	1 October 2010	Added:	Less:	30 September 2011
Costs				
Office equipment	4,498,754.04	2,884,851.31	-	7,383,596.35
Electronics and Radio	1,368,322.67	2,619,217.62	-	3,987,540.29
Advertising and Broadcast	140,000.00	-	-	140,000.00
Operation equipment	87,000.00	24,599,081.03	-	24,686,081.03
Construction equipment	420,560.75	-	-	420,560.75
Scientific equipment	4,089,923.64	16,576,038.72	-	20,656,971.36
Computer equipment	11,816,233.33	10,982,103.63	-	22,798,336.96
Educational equipment	231,592.30	216,036.60	-	447,628.90
Household equipment	-	115,500.00	-	115,500.00
Operation (installing)	-	72,703,145.99	-	72,703,145.99
Total	22,231,825.98	131,107,535.65	-	153,339,361.63
Accumulated Depreciation				
Office equipment	763,108.16	551,863.32	-	1,314,971.48
Electronics and Radio	346,181.92	449,956.89	-	796,138.81
Advertising and Broadcast	25,545.21	28,000.00	-	53,545.21
Operation equipment	47.67	413,198.83	-	413,246.50
Construction equipment	-	25,233.65	-	25,233.65
Scientific equipment	850,364.04	2,966,091.81	-	3,816,455.85
Computer equipment	4,453,412.85	4,314,674.61	-	8,768,060.46
Educational equipment	85,261.64	99,570.58	-	184,832.22
Household equipment	-	9,176.71	-	9,176.71
Operation (installing)	-	-	-	-
Total equipment	6,523,921.49	8,857,739.40	-	15,381,660.89
Equipment Net	15,707,904.49			137,957,700.74
Year Depreciation				
Ο	peration Expense	7,16	61,741.91	
	In progress work	1,69	95,997.49	
	Total	8,85	57,739.40	LÀ

## Remark No. 13 Intangible Assets consist of:

					Amount: Baht
	Current (	Cost	Depre	eciation	Net amount
Computer Program	19,445,88	39.53	11,036	,321.72	8,409,576.81
Knowledge of DTI Phase I	161,589,99	90.66	337	,984.89	1,905,005.77
Total	181,035,60	60.53	18,444	,364.19	162,591,296.34
					Amount: Baht
	Brought Forward	Va	ılue in Fi	iscal Year	Carry Forward
	1 October 2010	A	Adds:	Less:	30 September 2011
Costs					
Computer Programs	16,899,129.59	2,546,75	59.94	-	19,445,889.54
Knowledge of DTI Phase I		161,589,77	71.00		161,589,771.00
Total Intangible Assets	16,899,129.59	164,136,53	30.94	-	181,035,660.53
Accumulated Depreciation					
Computer Programs	6,462,034.09	4,574,28	37.63	-	11,036,321.72
Knowledge of DTI Phase I		7,408,04	12.47		7,408,042.47
Total	6,462,034.09	11,982,33	30.10		18,444,634.19
Intangible Assets Net	10,437,095.50				162,591,296.34

## Remark No. 14 Other Intangible Assets consists of:

		Amount: Baht
	2011	2010
UAV Development project cost	20,000,000.00	-
Conveying Building	5,224,299.06	-
Deposit of electricity meter	384,000.00	_
Total	25,608,299.06	
	<del></del>	/

#### Remark No. 15 Deferred Expenses consist of:

	Amount: Baht
2011	2010
-	3,065,979.66
-	232,700.00
-	15,000.00
-	1,500.00
272,036.91	119,567.84
-	279,146.28
150,000.00	160,000.00
10,059,274.90	
10,481,311.81	3,873,893.78
	- - 272,036.91 - 150,000.00 10,059,274.90

#### Remark No. 16 Other Current Liabilities consist of:

	Amount: Baht	
	2011	2010
Contract Retention Money	4,933,634.34	511,051.43
Withholding Tax Payable	882,234.57	398,067.58
Total	5,815,868.91	909,119.01
	<del></del>	

#### Remark No. 17 Accumulated Incomes consist of:

		Amount: Baht
	2011	2010
Brought Forward Accumulated income	607,597,658.05	70,933,752.27
Added income	835,187,317.20	536,663,905.78
Total	1,442,784,975.25	1,106,658,424.50

## Remark No. 18 Budget from the Government consists of:

		Amount: Baht
	2011	2010
Personnel expenses	142,210,900.00	105,208,000.00
Operation expenses	37,442,800.00	255,760,000.00
Investment expenses	17,449,300.00	256,679,000.00
Project expenses	815,240,000.00	-
Total	1,012,343,000.00	617,647,000.00



#### Remark No. 19 Accomplishment

	Amount: Million Baht			
	2011	2010	Increase	Percent
Operational Income	1,040.28	623.88	416.40	66.74
Operational Expenses	206.62	87.22	119.40	136.90
	833.66	536.66	297.00	55.34
Other income	1.53		1.53	100.00
Total	835.19	536.66	298.53	55.63

In 2010 DTI had more income than expenses of 416.40 million baht because it got more budget from the Government to carrying out various projects and it has expenses only 206.62 million baht due to incomplete projects and continued carrying out in the following fiscal year.

Remark No. 20 Obligations of contracts consist of:

#### 20.1 Obligations According to L/C 8581IL 10006214

Contract No. 53-54-0026 on 25 June 2010 purchasing Non-Standard apparatus and four SKD (Semi-Knock Down) rocket components at the amount of Euro 5,086,100.00 from China National Precision Machinery Import And Export Corp., People Republic of China, the delivery date is 15 July 2011 and it was extended to 31 January 2012 with outstanding obligation payment at the amount of Euro 1,017,220.00 as of 30 September 2011

#### 20.2. Obligations According to rental contract

Defense Technology Institute (Public Organization) has a rental contract on 16 September 2009 to rent Office Building of the 9th Floor of Kaitak Building with Nakorn Luang Thai Bank for three years from 15 September 2010 to 16 September 2013. DTI has to pay the related expenses as follows;

#### 1. Rent

- Rent of the first year at the amount of THB. 252,352.00 a month from 16 September 2010 to 15 September 2011
- Rent of the second year at the amount of THB. 378,528.00 a month from 16 September 2011 to 15 September 2012
- Rent of the third year at the amount of THB. 504,704.00 a month from 16 September 2012 to 15 September 2013
- 2. Fire Insurance Premium to Siam City Insurance Company Limited for three years from 16 September 2010 to 16 September 2013 at the amount of THB. 167,537.39 and benefit of Insurance at the amount of THB. 60,564,480.00.
  - 3. Maintenance fee for eight unites at the amount of THB. 103,596.00 a month.

#### Remark No. 21

According to the severe flood in Thailand, it had caused damage to both public and private sectors, DTI had an order, document no. 52/2554, to appoint the Flood Affected Evaluation Committee evaluating damage from flooding during October to December 2011. The Committee evaluated that 271 items of materials and equipments of DTI situated in Maintenance Service Center, Ordnance Department, Royal Thai Army in Bangpoon, Patumthani and Research and Development Centre for Space and Aeronautical Science and technology, Royal Thai Air Force were damaged at the amount of 9,151,127.03 baht.

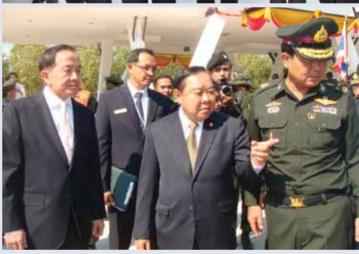














# The first step of security

# Delivery of DTI-1 Multiple Launch Rocket System Prototype

On 24 January 2011 at Field Artillery Division, Lopburi, General Prawit Wongsuwan, Defence Minister was presided over the Multi Luanch Rocket DTI-1 prototype delivery ceremony. Air Chief Marshal Thares Punsri was the representative of DTI delivered DTI-1 prototype to General Prayut Chan-ocha, Commander in Chief, Royal Thai Army. The Defence Minister was accompanied by General Kittipong Ketkowit, Permanent Secretary, Ministry of Defense and Lieutenant General Tithinant Thanyasiri, Director-General of DTI and Major General Sukit Nuang-jamnong, Commander of Field Artillery Division.

# **Key Events**



The Royal Thai Army also transferred DTI-1 prototype to Field Artillery Division, a user. The delivery of Multi Launched Rocket DTI-1 to the Royal Thai Army of Defence Technology Institute (Public Organization) is regarded as the first step of being self-reliance in defence of Thailand. In addition, it is recognized as a starting point of military equipment research and development by researchers of the Armed Forces. Furthermore, being the "owner" of defence technology helps promote economy since the country does not have to import technology, but, in turn, may benefit from selling technology as well.





# Prime Minister addressed on the occasion of the 2<sup>nd</sup> anniversary of Defence Technology Institute

On 4 March 2011 General Prawit Wongsuwan Minister of Defence, Air Chief Marshall Thares Punnasri, the Chairman of the Board of Defence Technology Institute together with High Ranking of military personnel of the Office of Permanent Secretary for Defence and the Royal Thai Armed Forces welcomed the Prime Minister at the Royal Thai Navy Convention Hall.

On this occasion, Prime Minister Abhisit Vejjajiva gave a keynote address "Research and development toward Defence Industry...an innovative economy" on the occasion of establisment anniversary of Defence Technology Institute (Public Organization). He mentioned about policy and direction of technology research driving force toward defence industry which would benefit to Thai economy in accordance with creative economic development policy of the government applying that resource and knowledge of Thai. The address was followed



by a discussion of "Direction of technology research toward defenceindustry...sustainable creation" by Prof. Dr.Sitthichai Phokai-udom, former Minister of Information Technology and Communication, General Phahol Sa-nganet Ph.D., Deputy Permanent Secretary, Ministry of Defence, Mr.Thanit Sorath Vice Chaiman of the FederationofThaiIndustries, Lieutenant General Thitinant Thanyasiri Ph.D. and Lieutenant General Pheeraphong Manakit served

as a moderator. They discussed about the necessary of technology research and defence industry development. As Thailand has advantages of infrastructure, government direction and government policy to research and develop defence industry and collectively endeavor of government sector to push forward for defence industry would promote military capacity of the country.





## **Events**

## A groundbreaking ceremony

On 26 December 2010 Air Chief Marshall Thares Punnasri, the Chairman of the Board of Defence Technology Institute was presided over a groundbreaking ceremony. He was accompanied by Lieutenant General Thitinant Thanyasiri Ph.D., Director-General of Defence Technology Institute and officers. The groundbreaking ceremony was held in Nakornsawan to celebrate the start of an operation office construction.







# The opening ceremony of Rocket and Missile Workshop Operation Office

On 20July 2011 Air Chief Marshall Thares Punnasri, the Chairman of the Board of Defence Technology Institute was presided over opening ceremony of Rocket and Missile Workshop Operation Office in Nakornsawan, together with Mr. Chairot Meedang, Governor of Nakornsawan, Mr. Sitha Thamamnuaisuk, Chief District Officer of Phayuhakiri, Major General Sorrasak Khawkrajang, Director of Military Explosives Factory, Executive Committee, Admiral Weerawat Wongdontri, Ph.D., Lieutenant General Thitinant Thanyasiri Ph.D., Director-General of Defence Technology Institute and DTI officers attended the ceremony. In this occasion, there was also a merit making.







# The 2<sup>nd</sup> Anniversary of Defence Technology Institute Technology Establishment

On 17 February 2011 Lieutenant General Thitinant Thanyasiri Ph.D., Director-General of Defence Technology Institute was presided over the 2<sup>nd</sup> anniversary of the establishment of Defence Technology Institute and merit making ceremony, and on this occasion, it also expanded new location of office to 9<sup>th</sup> Floor of Kaitak Building, Muang Thong Thani.





# MOU signing ceremonies

## Further Strengthening R & D

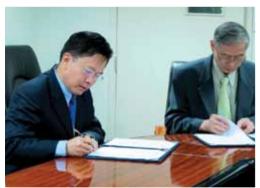
On 18 March 2011 Lieutenant General Thitinant Thanyasiri Ph.D., Director-General of Defence Technology Institute signed a Memorandum of Understanding on Science and Technology research and development with Mr. Sonchai Jongvisan, Chaiman of the Board of Marsun Company Limited at DTI meeting room, Office of Permanent Secretary for Defence Building, Changwattana.







On 18 May 2011 Air Chief Marshall Thares Punnasri, the Chairman of the Board of Defence Technology Institute was presided over the signing ceremony of Memorandum of Understanding on Technical cooperation, knowledge research and development as well as defence science and technology personnel provision between Defence Technology Institute and Mahanakorn University of Technology at a DTI Meeting room, Kaitak Building.

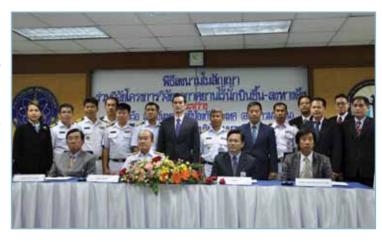




On 7 September 2011 at DTI Meeting room, the Office of Permanent Secretary for Defence Building, Changwattana Lieutenant General Thitinant Thanyasiri Ph.D., Director-General of Defence Technology Institute and Prof. Dr. Sawat Tantrakoon, Director of the Thailand Research Fund signed a Memorandum of Understanding on cooperation of Vertical Take-off and Landing research and Development

### **Cooperation Development**

On 21 July 2011 Lieutenant General Thitinant Thanyasiri Ph.D., Director-General of Defence Technology Institute signed a Memorandum of Understanding on research and development cooperation of Vertical Take-off and Landing-Unmanned Aerial Vehicle (VTOL-UAV) among the Royal Thai Navy, Seri-Sapkit Company Limited, Kasama Company Limited at Naval Research and Development Office.





On 25 August 2011 at a DTI Meeting room, the Office of Permanent Secretary for Defence Building Lieutenant General Thitinant Thanyasiri Ph.D., Director-General of Defence Technology Institute and Mr. Eakchai Puchaneeyakul, Managing Director of Preechatavorn of Industry Company Limited signed a Memorandum of Understanding on capability development cooperation, Science and Technology Developm research and development integration as well as personnel and resources exchange program between DTI and Preechatavorn Industry Company Limited.



# Congratulations

On 2 February 2011 at Impact, Muang Thong Thani on the occasion of Inventor Day Mr. Aphisit Vejjajiva, Prime Minister awarded a good invention of 2011 to Admiral Weerawat Wongdontri, Ph.D., Board of Directors for a research of Unmanned Undersea Vehicle for Anti Submarine Warfare training.







## Insignia Awarded

On 8 July 2011 H.E. Lennart Linner, Swendish Ambassador to Thailand presented Royal Order of the Polar Star (Commander First class) King Carl XVI Gustaf of Sweden Insignia award to Air Chief Marshall Thares Punnasri, the Chairman of the Board of Defence Technology Institute as a friendship between Sweden and Thailand promoter.

# **Seminars and Meetings**





# Seminar on Military Simulation and Virtual Reality

On 3 May 2011 at Rama Garden Hotel Defence Technology Institute organized seminar on "Military Simulation and Virtual Reality" to provide information for research master plan to military personnel of the office of Permanent Secretary for Defence, Royal Thai Armed Forces Headquarters, Royal Thai Army, Royal Thai Navy and Royal Thai Air Force.





#### **Maritime Security**

On 24 May 2011 at Miracle Grand Hotel Defence Technology Institute and Naval Strategic Studies Center, Royal Thai Navy organized "Maritime Security and Technology Trend-driving force for Thai maritime power development". Prof. Geoffrey Till, King's College London was invited as a guest speaker.





## Military Simulation and Virtual Reality Workshop

On 1 July 2011 at Rama Garden Hotel Lieutenant General Thitinant Thanyasiri Ph.D., Director-General of Defence Technology Institute was presided over a Military Simulation and Virtual Reality Workshop.



#### **NIDaS Seminar**

On 2 September 2011 at Rama Garden Hotel Defence Technology Institute organized the 1<sup>st</sup> Network of Institutes for Defence and Security-NIDaS seminar on "sustainable defence and securityresource cooperation". Prof. Dr. Chai-anan Samuttavanit was invited as a guest speaker on "Network of Institutes in Globalization".





## **Academic Papers**

On 26 July 2011 Defence Technology Institute organized seminar on "Maritime Security and Technology trend-a driving force for Thai maritime power" as well as presented related academic papers at Queen Sirikit National Convention Center. On this occasion, there were Maritime Security and Technology exhibition by government sector and private sector as well.



## **Training**

During 25-27 July 2011 Defence Technology Institute organized "Information System Security training" at Rajawadee Conference room, T.K Palace Hotel. On this occasion, Lieutenant General Thitinant Thanyasiri Ph.D., Director-General of Defence Technology Institute was presided over the training and presented certificates to middle level executive (Major-Senior Colonel) of Information Technology.



## Meeting

On 18 April 2011 at a DTI Meeting room, the Office of Permanent Secretary for Defence Building, Changwattana Lieutenant General ThitinantThanyasiri Ph.D., Director-General of Defence Technology Institute together with Executives of DTI met with representatives of Defence Agency for Technology and Quality, Republic of Korea.



# International visits

#### Sweden

Air Chief Marshall Thares Punnasri, the Chairman of the Board of Defence Technology Institute together with Board of Committee and DTI officers visited Swedish Defence Research Agency-FOI and Swedish Defence Material Administration- FMV, Sweden during 21-27 November 2010.





#### Republic of Korea

During 24-29 April 2011 Lieutenant General Thitinant Thanyasiri Ph.D., Director-General of Defence Technology Institute together with DTI Executives participated in 16<sup>th</sup> Joint Thai-South Korean Logistics Committee Meeting in Seoul, Republic of Korea under a Memorandum of Understanding on Joint Thai-South Korean Logistics Cooperation. On this occasion, He was also visited Agency for Defence Development-ADD and paid a courtesy call on the President of ADD.

#### **Australia**

Mr. Pornthep Nisamaneephong Ph.D., Deputy Director-General of Defence Technology Institute together with DTI officers visited University of Sydney (USYD) and University of Wollongong (UOW), Australia to discuss cooperation on twining program of Postgraduate as well as feasibility of signing Memorandum of Understanding on technical cooperation during 12-16 September 2011.





## People's Republic of China

On 13 September 2011 Director of Defence Technology Analysis Department together with officers visited China Institute of International Studies (CIIS) to discuss academic cooperation between CIIS and DTI in Beijing, People's Republic of China.

# **Courtesy Calls**

On 21 October 2011 Executives of Aerospace Long-march International Trade, China paid a courtesy call on Air Chief Marshall Thares Punnasri, the Chairman of the Board of Defence Technology Institute and Executives of Defence Technology Institute at DTI Meeting room, Office of Permanent Secretary for Defence Building.





On 17 April 2011 Lieutenant General Thitinant Thanyasiri Ph.D., Director-General of Defence Technology Institute met with H.E. Mr. Chung Hae-Moon Korean Ambassador to Thailand and Representative of Defence Agency for Technology and Quality to discuss about development of research cooperation between Republic of Korea and Thailand at Swissotel Le Concorde. On this occasion, there was a reception at Swissotel Le Concorde as well.







ติการวิจั**ยแล** 

Air Chief Marshall Thares Punnasri, the Chairman of the Board of Defence Technology Institute and Mr. Chairot Meedang, Nakornsawan Governor presented thirty scholarships at the amount of 90,000 THB. to children of Military Explosive Factory officers held on 20 July 2011 at Meeting Room, Research and Development Operation Building, Nakornsawan.



# Corporate Social Responsibility

#### **Generosity**

On 2 November 2010 Defence Technology Institute and DTI officers donated money for four fiberglass boats buying to Modern Nine TV in order to help flood victims.

#### **Boats donation**

Defence Technology Institute, DTI officers donated money for six boats buying to help flood victims and presented three boats to Mr. Sutha Thamamnuaisuk Chief District Officer of Payuhakiri District and presented other three boats and dried food to Payuhakiri Subdistrict Administration Organization on 23 September 2011.







#### **Tree Planting**

Defence Technology Institute organized a tree planting activity on occasion of Her Majesty the Queen Birthday 12 August. Rear Admiral Savettanun Prayoonrat Ph.D., Deputy Director-General of Defence Technology Institute together with DTI officers joined Colonel Akkadej Suwannabhumi Deputy Director of Military Explosive Factory and personnel of Military Explosives Factory for trees planting on 26 August 2011 in an area of the Military Explosives Factory, Nakornsawan.



# **Public Relations**

# **Organization Introduction**

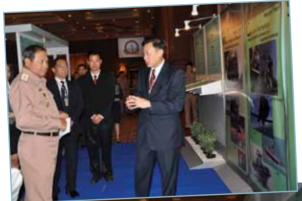
On 7 April 2011 Defence Technology Institute exhibited and publicized information on DTI mission so as to strengthen relations with Naval Science Department and Naval Research and Development Office.



On 11 April 2011 Defence Technology Institute publicized DTI mission on research and development at Command and General Staff College.



On 12 May 2011 Air Vice Marshal Kasem Laojindapun Deputy Director-General of DTI gave a lecture on necessary of technology research and development of Thailand by being self-reliance of defence to students of Air Command and Staff College.



#### Naval Research

On 6 September 2011 Defence Technology Institute exhibited "Naval research toward new dimension of defence and development at Royal Thai Navy Convention Hall.



## Thai warior Intellect Day

On 15 September 2011 Defence Technology Institute exhibited research and development of military equipments on Intellect of Thai warrior day at Thai Army Club Viphavadi. On this occasion, Lieutenant General Thitinant Thanyasiri Ph.D., Director-General of Defence Technology Institute was a guest speaker on military research and development revolution.





# **Internal Activities**

#### **Team Work**

Defence Technology Institute organized Team building activity so as to strengthen relations between executives and officers during 31 January-2 February 2011 at Royal Hill Golf Resort and Spa Nakornnayok.













# **Sports Day**

Defence Technology Institute organized Sport Day on 24 June 2011. Officers took part in competitive sporting activity to strengthen relation among officers at Sport center of Armed Forces Development Command, Royal Thai Armed Forces Headquarters.



#### **Risk Management**

On 29 July 2011Defence Technology Institute organized workshop on "Risk Management and Strategic Management" for DTI officers by Mr. Chareoansin Lertmahakit as a guest speaker at DTI Meeting room, Kaitak Building.



## **Defence Industry Club**

Defence Technology Institute coordinated with Defence Industry Club to organize seminar to exchange information and share experience of regional defence industry as well as strengthen relation among members of the Club. Lieutenant General Thitinant Thanyasiri Ph.D., Director-General of Defence Technology Institute serves as Chairman of the Club together with Club committee and members of the Club who are entrepreneurs partook in the seminar held in the Star Chao-Phraya Cruise on 31 August 2011.



### **Profile of Board of Committee**

#### Air Chief Marshal Thares Punsri

#### Age: 64

#### Education:

- Saint Gabriel's College
- Armed Forces Academies Preparatory School (Batch 6)
- Bachelor of Science, Aerospace Engineering, Royal Thai Air Force Academy (Batch 13)
- Squadron Officer School (Batch 39)
- Air War College (Batch 25)
- British Air Force Command and Staff College (1982)
- National Defense College (Batch 40)

#### Work Experiences:

- Deputy Chief of Staff, Directorate of Air Operation Control (1994)
- Chief of Staff, Directorate of Air Operation Control, Royal
   Thai Air Force (1996)
- Director of Directorate of Operation, Royal Thai Air Force (1997)
- Air Force Assistant Chief of Staff (Operation) (1998)
- Air Force Deputy Chief of Staff (1999)
- Air Force Chief of Staff (2001)
- Deputy Permanent Secretary of Defense (2005)
- Member of the National Legislative Assembly of Thailand (2006)

#### Other Positions:

- Supervision of Information and Communication Technology (ICT) for the Royal Thai Air Force while served as the Air
- Force Chief of Staff, as the Chief Information Officer (CIO) of the Thai Royal Air Force (2001-2005)
- President of development project for F16 Fighting Falcon of the Thai Royal Air Force from (1998-2005)
- Supervision of Defense Industry and Defence Energy, Science and Information Technology and Communications
  Research and Development as well as Defence Information
  and Space Technology while served as the Deputy Permanent Secretary, Ministry of Defense (2001-2005)
- Chief Information Officer (CIO) of Ministry of Defense (2006-2008)

#### General Kittipong Ketkowit

#### Age: 61

#### Education:

- Assumption College Lampang
- Armed Forces Academies Preparatory School, (Batch 8) (1965)
- Chulachomklao Royal Military Academy (Batch 8) (1967)
- Command and General Staff College (Batch 61)
- Infantry Officer Basic Course (Batch 43) (1971)
- Infantry Officer Advance Course (Batch 32) (1978)
- Infantry Officer Advance Course, U.S.A., 1/80 (1979)
- Command and General Staff College (Batch 60) (1981)
- Master of Arts (Public Administration), NIDA (1995)
- National Defense College (Batch 47) (2004)

- The 2<sup>nd</sup> Infantry Regiment Chief of Staff, Royal Guard (1990)
- The 2<sup>nd</sup> Infantry Regiment Executive Officer, Royal Guard (1994)
- Cadet Regiment King's Guard Commanding Officer,
   Chulachomklao Royal Military Academy (1998)
- Deputy Commanding General, the 1<sup>st</sup> Division Royal Guard (1999)
- The 15<sup>th</sup> Infantry Division Commanding General (2000)
- The 4<sup>th</sup> Army Area Deputy Commander (2004)
- Assistant Chief of Staff for Operations (2004)
- Deputy Chief of Staff, Royal Thai Army (2005)
- Special Advisor of Office of the Permanent Secretary for Defence (2007)
- Chief of Staff Officers to the Minister of Defense (2009)
- Deputy Supreme Commander (2009)

#### General Tanasak Patimapragorn

#### Age: 58

#### Education:

- Armed Forces Academies Preparatory School (1969)
- Chulachomklao Royal Military Academy (1976)
- Command and General Staff College (1986)
- National Defense College, (Batch 48)
- Master of Arts (Public Administration), Burapha University (2008)

#### Work Experience:

- Small Arms Platoon Leader
- Platoon Leader of Reconnaissance the 1<sup>st</sup> Division, Royal Guard
- Commander of Reconnaissance Company, the 1<sup>st</sup> Division, Royal Guard
- Special Warfare Company Emergency 90 Commanding Officer
- Assistant Chief of Intelligence, Special Warfare Command
- Deputy Director of Operations
- Assistant Defence Attaché, the Royal Thai Embassy of the United Kingdom, London
- Specialist for Supreme Commander
- Chief of Staff Officers to the Minister of Defense
- Commanding General of Anti-Terrorism
- Special Advisory, Royal Thai Armed Forces Headquarters
- Chairman of Advisory Board, Royal Thai Armed Forces Headquarters
- Chief of Staff, Royal Thai Army

#### Other Positions

- A member of Counter Terrorism Committee (2006-2008)
- Director of Royal Development Project and Security Coordination Center (2008-2012)
- Military Supreme Court since May 6, 2010

#### General Dapong Ratanasuwan

#### Age: 58

#### Education:

- Srinakharinwirot University Prasarnmit Demonstration School
- Armed Forces Academies Preparatory School (1970)
- Chulachomklao Royal Military Academy (1975)
- Command and General Staff College (Residency) (Batch 63)
   (1985)
- Royal Thai Army War College (Batch 13) (1997)
- National Defense College, National Defense Studies Institute (1991)
- Infantry Major Course (Infantry School of New Zealand Army)

- The 3<sup>rd</sup> Infantry Battalion, the 11<sup>st</sup> Infantry Regiment Royal Guard Commander, (1990)
- The 11<sup>st</sup> Infantry Regiment, Royal Guard Executive Officer (1994)
- The 11<sup>st</sup> Infantry Regiment, Royal Guard Commanding Officer (1999)
- The 1<sup>st</sup> Division Royal Guard Deputy Commanding General (2002)
- Military District Commanding Officer of Phetchaburi (2005)
- The 1<sup>st</sup> Division Royal Guard Commanding General (2006)
- The 1<sup>st</sup> Army Area Deputy Commander (2007)
- Assistant Chief of Staff, Royal Thai Army (2008)
- Deputy Chief of Staff, Royal Thai Army (2009)

#### Admiral Thakerngsak Wangkaew

#### Age: 60

#### Education:

- Wat Nuannoradis School
- Armed Forces Academies Preparatory School
- Royal Thai Navy Academy
- Line Officers School
- Army psychological Operations Course
- Royal Thai Naval Staff College
- Naval War College
- National Defense College, National Defense Studies Institute
   Amphibious Planning Senior Officer International, USA.
- CEC Officer Basic USA.

#### Work Experience:

- Director of Project and Planning, Naval Transportation Department
- Chief of Staff, Amphibious Directorate, Royal Thai Fleet
- Deputy Commanding General of Amphibious Directorate,
   Royal Thai Fleet
- Assistant Chief of Staff (Intelligence) Royal Thai Navy
- Commanding General of Amphibious Directorate, Royal Thai
   Fleet
- Deputy Director-General, Office of Financial Operations, Royal Thai Navy
- Director-General, Directorate of Joint Logistics, Royal Thai Armed Forces Headquarters
- Director-General, Office of Financial Operations, Royal Thai Navy
- Chief of Staff, Royal Thai Navy

#### Other Positions:

Commander of Royal Thai Navy Joint Task Force 972
 Thai-East Timor

#### Air Chief Marshal Prajin Jantong

#### Age: 57

#### Education:

- Armed Forces Academies Preparatory School (Batch 13)
- Royal Thai Air Force Academy (Batch 20)
- Squadron Officer School, Thailand (Batch 55) (1986)
- Air Command and Staff College (Batch 34) (1990)
- Air War College (Batch 32) (1998)
- National Defense College (Batch 48) (2006)
- Bachelor of Political Science, Rangsit University (2003)

- Commander of Fleet 103, Wing 1
- Chief of Air Staff of Wing 1
- Deputy Director of Policy and Planning Division, Directorate of Air Operations
- Director of Policy and Planning Division, Directorate of Air Operations
- Commanding General of Wing 1
- Defence Attaché of Thailand to Germany, Berlin and Defence Attaché of Thailand to Italy, Rome
- Deputy Director of Air Operations
- Chief of Staff, Director of Air Operations Control, Air Combat Command Division
- Director of Intelligence, Royal Thai Air Force
- Director of Operations, Royal Thai Air Force
- Assistant Chief of the Air Staff (Operation)
- Deputy Chief of the Air Staff
- Chief of the Air Staff

#### Admiral Weerawat Wongdontri, Ph.D.

#### Age: 63

#### Education:

- Bachelor of Marine Engineering, Royal Thai Navy Academy (1965 – 1970)
- Master of Mechanical Engineering, Northwestern University, Illinois, U.S.A., (1972-1973)
- Doctor of Philosophy in Structural Engineering,
   Northwestern University, Illinois, U.S.A. (1975-1979)
- Royal Thai Naval Staff College (1981-1982)
- Naval War College (1991-1992)
- National Defense College (2001-2002)

#### Work Experience:

- Director-General, Naval Dockyard Department
- Deputy Commander of Royal Thai Fleet
- Deputy Commander of Institute of Advanced Naval Studies
- Director of Office of Military Research and Development,
   Royal Thai Navy
- Professor of Royal Thai Navy Academy

#### Other Positions:

- Board of National Policy for Science, Technology and
- Innovation (June 2008 to present)
- Scholar for the Committee on Education, House of Senate (August 2008 to present)

#### Mr. Chatchawalit Saravari, Ph.D.

#### Age: 56

#### Education:

- Saint Gabriel's College (1973)
- Bachelor of Electrical Engineering, Kasetsart University, Bangkok (1977)
- Master of Engineering (Information Processing),
   Tokyo Institute of Technology, Tokyo, Japan
   (Japanese Government's Scholarship: MONBUSHO) (1981)
- Doctor of Engineering (Information Processing),
   Tokyo Institute of Technology, Tokyo, Japan
   (Japanese Government's Scholarship: MONBUSHO) (1984)
- HayGroup's Management & Consulting Training ) (1999-2004)

- Final test Engineer, Signetics Thailand Co., Ltd. (1977)
   Intern researcher, Mitsubishi Corporation, Fujisawa, Japan (1984)
- IBM Thailand Company Limited, Bangkok, Thailand (1985-1996)
- Vice President, Business Development, Jasmin International
- Public Company Limited, Bangkok, Thailand, (1996-1998)
- General Manager, Dell Computer Asia (1998-1999)
- Regional Director, Hay Group Limited Thailand (1999-2004)
- President, Stamford International University, Cha-am, Thailand (2004-2005)
- Human Resource Management Consultant Company (2005 to present)

#### Dr. Eakaboon Wongsawatgul, JD.

#### Age: 51

#### Education:

- Bachelor of Laws, Thammasat University (1982)
- Thai Barrister (1984)
- Master of Laws (Public Laws), Thammasat University (1992)
- Master of Laws (Public Laws), Toulouse 1 University, France (1997)
- Juris Doctor of Laws (Public Laws), Toulouse 1 University, France (2002)

#### Work Experience:

- Director of Graduate School, Faculty of Law, Thammasat University and Lecturer of Public Law, Faculty of Law, Thammasat University
- Deputy Dean of Research and educational Quality,
   Faculty of Law, Thammasat University, 2007-2010
- Deputy Rector of Finance, Thammasat University (2006-2007)
- Deputy Dean for Rangsit Campus, Faculty of Law,
   Thammasat University (2002-2004)
- Deputy Dean of Student Affairs, Faculty of Law, Thammasat
- University (1994-1995)

#### Other Important Position:

- Former Member of General Committee for the Constituent Assembly Affairs (2007)
- Former Member of Committee for Drafting the Constitution (2007)
- Former Member of Committee for the Committee of the Legal Administration of Designated Areas for Tourism.
- Board of Committee in the Committee for Consideration of Bills for the Ministry of Interior Affairs
- Board of Power Decentralization for Local Agencies

#### Lieutenant General Anchalee Mansakul, WRTA

#### Age: 65

#### Education:

- Satriwitthaya School (1963)
- Bachelor of Accountancy, Chulalongkorn University (1967)
- Internship in Account Audit at Chaiyotsombat Office of Audit, founded by Faculty of Commerce and Accountancy, Chulalongkorn University (1967-1969)
- Certificate of Ministry Internal Audit, collaborated between
   Thailand and Japan, (1999)

#### Work Experience:

- Government Pensioner, Office of the Permanent Secretary of Defense (2005)
- Special Expert of Office of the Permanent Secretary of Defense (2001)
- Senior Advisor of Office of the Permanent Secretary of Defense (2000)
- Assistant Director of Office of Defense Audit (1999)
- Staff of Office of Defense Audit (1993)
- Director of Technical and Working System Division (1992)
- Deputy Director of Finance Division, Defense Finance
   Department (1991)
- Accountant of Finance Division, Defense Finance Department (1989)
- Head of Military Personnel, General Affairs Division (1988)
- Defense Finance Department
- Head of Budget Officers, General Affairs Division, Defense
   Finance Department (1986)
- Staff of Report and Monthly Budget of Account Division,
   Finance Department (1974)
- Assistant Financial officer, Ordinance Department, Royal Thai Army (1972)
- Staff of Finance Department, Royal Thai Army (1971)

#### Other Positions:

- Member of Organizing Committee for OPSD Co-op Co., Ltd, and Head of Credit Department, OPSD Co-op Co., Ltd. 1988-1993
- Assistant Treasury for Student Club, National Defense College1986-1989

#### Lieutenant General Thitinant Thanyasiri, Ph.D.

#### Age: 55

#### Education:

- Armed Forces Academies Preparatory School (Batch 15)
- Chulachomklao Royal Military Academy (Batch 26)
- Bachelor of Chemistry, Virginia Military Institute, Lexington, U.S.A. (1979)
- Master of Chemistry (Inorganic Chemistry-Physics),
   University of Virginia, Charlottesville, U.S.A. (1980)
- Doctor of Philosophy in Chemistry (Inorganic Chemistry-Physics), University of Virginia, Charlottesville, U.S.A., (1987)
- Command and General Staff College (Batch 67) (1989)
- Master of Strategic Studies, Australian National University, Canberra (1995)
- Royal Thai Army War College (Batch 42) (1997)
- Military Operations and Defense, Australian Defense College, Canberra (2003)

#### Work Experience:

- Assistant Professor of Chulachomklao Royal Military Academy
- Instructor of Command and General Staff College
- Director of Plans and Organization Division, Office of Defense
   Policy and Planning, Ministry of Defence
- Assistant Director of Office of Defense Research and Development, Ministry of Defence
- Deputy Director of Office of Defense Science and Technology,
   Ministry of Defence
- Director of Defense Research and Development
- Advisor to Office of the Permanent Secretary of Defense
- Director-General of Defense Technology Institute, according to the specific articles of the Royal Decree of institution establishment (1 January-29Jun e 2009)

#### Other Positions:

- Judge of Central Military Court (28 September 2005- 8 September 2009)
- Special Unit Military Officer, Division of Royal Thai Aide-De-Camp Cadets, Chulachomklao Royal Military Academy (14 July 2005)
- Bodyguard of Royal Thai Aide-De-Camp Department (15 September 2004-8 September 2009)

# Statistics of the Board of Directors Meeting Attendance of the 2011 Fiscal Year

Position	Name of Board of Directors	15 Oct.	17 Nov	22 Dec	19 Jan	16 Feb	
Chairman of the Board	Air Chief Marshal Thares Punsri	1	1	1	1	1	
Permanent Secretary	General Kittipong Ketkowit	1	1	1	1	1	
Chief of Staff, Royal Thai Armed Forces	General Thanasak Patimaprakorn	1	1	1	1	1	
Chief of Staff, Royal Thai Armed Forces	General Dapong Ratanasuwan	1	1	1	1	1	
Chief of Staff, Royal Thai Navy	Admiral Thakerngsak Wangkeaw	1	1	1	1	1	
Chief of Staff, Royal Thai Air Forces	Air Chief Marshal Prajin Jantong	1	1	1	1	1	
Expert Member of the Board	Admiral Weerawat Wongdontri, Ph.D.	1	1	1	1	1	
Expert Member of the Board	Mr. Chatchawalit Saravari, Ph.D.	1	1	1	1	1	
Expert Member of the Board	Mr. Eakaboon Wongsawatkun, Ph.D.	1	1	1	1	-	
Expert Member of the Board	Lieutenant General Anchalee Mansakun, WRTA	1	-	-	-	-	
Secretary and Member of the Board	Lieutenant General Thitinant Thanyasiri, Ph.D.	1	1	1	1	1	
Total of Attendance			10	10	10	9	

23 Mar	22 Apr	24 May	22 Jun	27 Jul	24 Aug.	20 Sep	Total	Percent of attendances	Attendance fee
1	1	1	1	1	1	-	11	91.67	220,000.00
1	1	1	1	1	1	1	12	100.00	192,000.00
1	1	1	1	1	1	1	12	100.00	192,000.00
1	1	1	1	1	1	1	12	100.00	192,000.00
1	1	1	1	1	1	1	12	100.00	192,000.00
1	1	1	1	1	1	1	12	100.00	192,000.00
1	1	1	1	1	-	1	11	91.67	176,000.00
1	1	1	1	1	1	1	12	100.00	192,000.00
1	1	1	1	1	1	ì	10	83.33	160,000.00
-	-	-	-	-	-	-	1	8.33	16,000.00
1	1	1	1	1	1	1	12	100.00	No
10	10	10	10	10	9	8	Total Attendance fee		1,724,000.00

### Address:

# Defence Technology Institute (Public Organization) Ministry of Defence, The Kingdom of Thailand

47/433, 4 th Floor-Office of the Permanent Secretary of Defence Building, Changwattana Road, Tambol Banmai, Pakkred, Nonthaburi 11120 Tel: 0 2980 6688 Fax: 0 2980 6688 Ext. 300

# Defence Technology Institute (Public Organization) Ministry of Defence, The Kingdom of Thailand

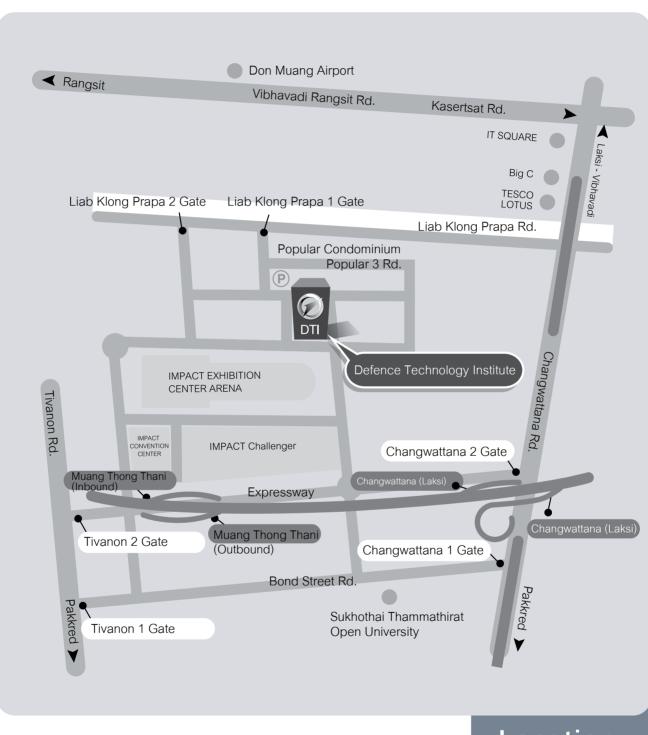
Research and Development Department

47/345-352, 9<sup>th</sup> Floor-Kaitak Building

(Opposite Office of the Permanent Secretary of Defense Building) Changwattana Road, Tambol Banmai, Pakkred, Nonthaburi 11120

Tel: 0 2980 6198-207

www.dti.or.th



Location

