

**3rd International ASSAM Islamic Union
Congresses
“ASRICA Common Defense Industry
Production”**



Abstract Book

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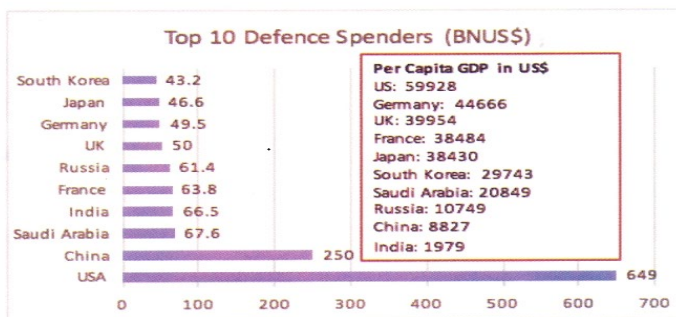
Defense Cooperation, Collaboration, Coherence & Commerce C +++ Plan

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Geostrategic environment particularly regional tensions, internal security, the state of the economy, the level of economic and technological development and the predilections and priorities of the people at the helm.

Public goods are further broken down into impure and pure. The former are non-excludable or non – rival but not both. A public park may be excludable if people have to pay to enter it. By the same token, a bridge may become unavailable for motorists down the line if it's choked with traffic. However national defense or security, like clean air, is a pure public good. This is because once a country's defense capability is developed, it benefits everyone (non – excludability) and that a typical individual is not made worse off if this benefit is extended to others (non – rivalry). If a product or service is a pure public good, the state can become oblivious of its responsibility to supply it only at the expense of public interest.



Source: SIPRI & World Bank

Even if national defense is a public good, skeptics may still enquire why defense spending should be undertaken at all. why should a country maintain a large military establishment and finance it out of public kitty? The answer is that defense spending is the cost of deterrence. War is red in tooth and claw, as it brings in its train a heavy, and at times colossal, loss of life. It's also enormously expensive and is often followed by a prolonged recession, hyperinflation or both. Not only that, it has tremendous opportunity cost as human and material resources consumed in a conflict could have been used elsewhere. Therefore, war must be given a wide berth at all costs.

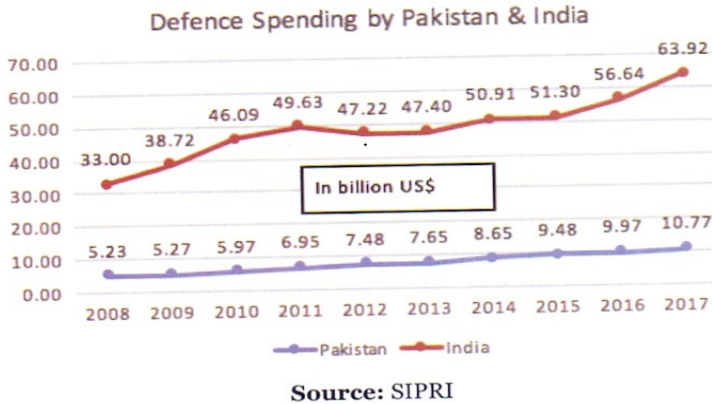
But the mere fact that war is the kiss of death doesn't extirpate it. from time to time, countries are caught up in conflict. In a world characterized by anarchy in the absence of an international government; a world which lacks a universally binding agreement to put an end to war; and where notwithstanding all pretensions of international law and niceties of diplomatic norms, power is the ultimate arbiter in the event of a cross-border show of strength, only effective deterrence can underwrite that a country having a chip on its shoulder would think twice before setting out on a costly adventure. In a word, power underpins inter- state relations and the only effective antidote to power is power.

In 2018 – the last year for which full year data are available - the world wide defense spending amounted to \$ 1.82 trillion, which made up 2.25 percent of the global economic output of \$ 80.93 trillion.

Deterrence credibility comprises two components:

One, to attain the minimum level for military capability to knock some sense into a would be aggressor and hold it back from flying at another country will be considered a fair game by its adversaries. Two, to send out the message to the potential invader that war can be costly for its as

well. Deterrence credibility may be pricy but, for sure, it's far less than going to war. (For example Pakistan VS India).



On the other hand, Japan which contributes 6 percent to global GDP and has per capita income exceeding \$ 38,000, accounts for only 2.56 percent of the world's defense spending. This is because since the end of the World War II, the pacific nation has been a free rider on military protection provide by the U.S. All the same, Japan is the world's 9th largest defense spender. Even South Korea, which is known to be a pacific country and whose security is also underwritten by Washington, has the 10th largest defense budget because of the threats emanating from the north. National defense is too vital a matter to be left to others – even if they happen to be the staunchest of allies.

This brings us to a fundamental question in defense economics: “How much defense is enough defense?”. It's difficult to answer the question in precise terms because a nation's defense capability can't be determined unilaterally; instead it's contingent upon the capability of another nation- the would –be aggressor- from which the former's security is at risk. The gap in military capabilities of two rival countries is called threat, which can be undergirded by such factors as an advanced weapon system or a greater stock of arms. As a rule, the

higher of threat, the greater is the probability of an attack and thus more pronounced is the need for effective deterrence or defense capability. It's also important to take into account the regional security situation and external and internal conflicts. A country placed in a testing geostrategic environment or facing grave internal threats to national security needs a proportionately higher defense budget. This is the demand side of defense economics. On supply side, the size of the defense expenditure is constrained by resource availability reflected by the size of the economy or per capita GDP.

A New Case in Cooperation of Defense Industries of Islamic Countries: Private Military Corporations as An Element Of “Service Industry Within Defense Industry”

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During the past 300 years approximately, Imperialist Christian Western countries and other Non-Muslim countries have made advances in science and arts, and at the same time, they have maintained their economic, social and cultural hegemony and suppression policies established on Islamic World by using their war industry power and potential.

They have reinforced and strengthened their potential military powers with the activities of private military corporations they founded in addition to the war industry. Capitalist economic system has also privatized war arts in a certain degree. Thus, private military corporations as an element of a service sector started to emerge in particularly large western countries by the middle of the 20th Century. In order to create new colonies and to hold on to their existing colonies in various regions of the world through bloody wars fought by using mass destruction weapons and by coups and invasions with bloodshed in low intensity asymmetric battles, imperialist countries, when forced to explain their personnel and material losses caused by their formal armies to their own people and to explain war crimes they committed to the entire world, have resorted to minimize their formal war spending, which had reached a

substantial amount within their gross national product (GNP), by steering private military corporations in the field. In short, they continued to support Islamic countries or dictators whom they enabled to come into power in those countries by their clandestine and explicit operations in the places which they invaded by means of private military corporations they established and administered.

It is an unavoidable requirement and absolute condition that Islamic Countries engage in Joint Defense Industry Cooperation in order to emerge as a power in the power arena of the countries in the world and to gain independence. This cooperation activity should not be restricted with the manufacturing and marketing of state of the art war weapons and tools as the necessities of the time but at the same time, in parallel to these activities, effective and competent companies must be established and operated to provide defense service support in other Islamic countries that are deprived of these means in order to resist imperialist invasions, economic suppression and violence in Islamic locations by means of private military corporations founded by retired military men who have superior knowledge and experience levels in the experienced and informed states of Islamic countries with deep and rooted military customs.

In this memorandum, in the scope of Joint Cooperation of Defense Industry of Islamic Countries, the term of defense service industry has been presented as an application of manufacturing of war weapons and tools as well as an application of service sector of military arts at ASRICA countries, and popularization of this activity in legal ground by visiting each Islamic country and studies conducted to include

legislations on this subject, if any, in the scope have been discussed, and the requirement to assign a catalyzer role to these corporations to develop an environment for the defense industry cooperation of Islamic Countries has been addressed.

Strategic Significance of Power in the Quran

Parlance: Vision of Improving War Potential in Islam

from the Perspective of a Verse

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In human history, there have been some fundamental concepts, shaping life styles of persons, substantially effecting the uniting or disintegration decisions of societies, directing international relations, drawing borders between the states, and setting the purposes, goals, tactics and policies. Power (strength) is the primary one among these concepts. Power has many types, including scientific, cultural, political, economic, industrial, technological, military, geographical, demographical, hard, and soft, and it differentiates based on applications, is renewed over time and changes its aspects in parallel to technological advances. Despite its definition is obscured somewhat by the scope of range of its meaning, abundance of its types and variability of its character, scientists and intellectuals, administrations and appliers of security mechanisms, religions and ideologies cannot remain indifferent to it and refer to it in any opportunity; hence, its features I have mentioned make this concept extremely important and indispensable.

The concept of power is mentioned many times in the Quran, the fundamental source of Islam, as relevant to both the Great Creator and human. In this study, the concept of power was concentrated on and analyzed as referred to in the Verse (Enfâl 8/60) “whatever you have as the types of power and warrior (coordinated) horses/cavalries in your capacity are against

them – with this [capacity] of yours, make them ready to intimidate the enemies of Allah, your own enemies and in addition to these, the others whom you don't know and Allah knows". To do this, we benefited from our old methods substantially, including Exegetics canon and the evidences of text, inscription, sign and necessity.

Based on our basic assumption, despite an armed power is implied in this Verse, and other types of power are allowed by using the wording of power ambiguously (nekra) as far as Arabic grammar is concerned, and advancing war industry and technology is motivated by mentioning horses, and it is pointed out that anything needed for coordination of war elements must be done by emphasizing the harmony and coordinated move of war horses and cavalries by mentioning horses, the most critical war tool of the pause period. The part of the Verse "make ready your potential" demands that Muslims should organize their powers, and develop effective strategies to frustrate, demoralize and deter their enemies, and in another wording, to add vitality and brisk to their potential powers and to use hard power, when necessary. Because communities who know how to conduct their power most efficiently maintain their existence in the stage of history. Whoever has the power rules the World

Studies on Defense Industry

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A strong and capable defense industry is essential to delivering modernized defense capabilities. Over the next decade and beyond, the demand will increase for workers around the world with trade, technical and science and technology skills to build and maintain fleets of new ships, submarines, armored vehicles, infrastructure and facilities, and contribute to intelligence, surveillance and reconnaissance, cyber and other electronic and information based capabilities.

The academicians at Department of Civil Engineering, Istanbul Technical University has been working on many international projects on the defense industry. One of the most important study among the projects is the design of portable modular buildings and blast range testing of these buildings. The buildings are designed to be resistant to explosions and are bullet proof. These modular structures are widely used in the world.

In addition, blast chamber design is also an important study regarding the defense industry. The blast chambers are to dispose explosives, or any luggage may contain an explosive without damaging the environment and harming the people in the vicinity.

Methodologies have been developed and many studies have been carried out on estimating the damage of the explosions to

the buildings and strengthening the buildings against the blast events. These studies include military structures as well as state buildings, nuclear facilities and industrial facilities.

In this paper, examples are given from the above-mentioned studies and detailed information is provided about these works.

War Law in Islam Necessity For A Joint Theoretic Groundwork

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A cooperation to be established between Islamic Countries requires establishment of a joint military standardization center to set standards in both the technical and theoretical fields. A joint military standardization center would help achieving a military association and building this association on a mutual ground in terms of both technical standards and intellectually. This is necessary to head towards the same goals with the same sentiments and thoughts and in a coordinated manner. Standardization to be set through consultations not only will ensure formation of a joint intellectual groundwork but also will help acting jointly. This standardization may be considered in two main headings to cover the technical and intellectual issues, namely war period and peace period. Peace period has a nature to achieve standardization by means of agreements and consultations and is the topic of another heading. In this report, standardization of war period was focused on.

War period standardization should be designed in terms of military technical matters as well as Islamic War Concept and Islam's War Law. Islam's War Theory implicates how war appears in Islam and how it should be understood in epistemological and semantic framework. Islam's War Law defines a legal framework which can be considered as pre-war, war and post war laws and sets the rules to be followed

according to Islam during the war. War must be defined in a mutual context at these aspects and a joint law must be established based on Islam. This means that a joint Islamic War Law must be introduced.

In this report, the necessity for a joint Islamic War Law and the theoretic groundwork of these standards were discussed. The way to approach to war in case of war and the codes to be followed in war were put forward.

A Joint Perfection Center of Islamic Countries: Necessity For A Joint Central Command

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Today, various national and international administration systems are developed under the title of “perfection center”. The main purpose of these centers is establishing and administering a technical and organizational groundwork appropriate to today’s conditions in the related area. At this juncture, it is aimed that both technological equipment and administrative coordination, in other words, command is arranged, and it is organized in the most ideal way in an orderly fashion.

A cooperation formed by Islamic Countries requires establishment of a joint perfection center to set both the technical and institutive organization standards. This structure, also called “Joint Perfection Center of Islamic Countries”, would help achieving military unity in addition to ensuring organizational coordination of this association in terms of both technical standards and organizational coordination. This is necessary to head towards the same goals in an orderly way. Standardization to be achieved by means of consultations would not only ensure generating a joint organizational groundwork but at the same time would help acting jointly. This standardization may be discussed in two main headings to cover the technical and intellectual issues, namely war period and peace period. Peace period standardization has a nature to achieve standardization by means of agreements and

consultations and requires peace period standardization in addition to establishment of a strong organizational groundwork and a joint action center.

In this report, the necessity for establishing a joint perfection center by Islamic Countries and fundamental standards were discussed. The subjects of using technological and technical equipment in an active and coordinated fashion, structure of the establishment, and the groundwork and operation of the command center and joint action were dwelled on.

A New Setup Type Under the Title Of Cyber Security For Islamic Countries: Artificial Intelligence Aided System Administrator

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In Islamic Countries, similar to any developed and developing countries, cyber security products and services are used against increased cyber threats in parallel to advanced technologies. Platforms taking part among cyber security products that are used in institutional scale are managed by people. These platforms have an active directory and access permits to e-mail and servers thanks to third party software and hardware. Therefore, third party software, used to prevent any possible risks, is managed by people similarly. Nevertheless, humans can make mistakes and may make selections prone to harm and crimes. This study was designed to discuss “technology of artificial intelligence aided system administrator” developed based on Islamic rules as a factor that eliminates human-induced risks.

Can Cooperation of Islamic Countries In Defense Industry Be A Solution?

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The need for meeting on a common ground for the Muslim countries, which disintegrated after the Ottoman Empire, is becoming more apparent each passing day in parallel to their administrative problems and ongoing social and economic turbulences. These countries have higher potential to support one another due to not only their common religious ground but also their common history, common borders and counter trade and political relations which improved since the 2000s.

Arab Awakening, which was triggered by a peddler setting himself on fire to protest the administration in December 2010 in Tunis in relation to the armed intervention of the USA conducted in the Middle East following September 11 incidents and dispersed rapidly to other countries, has led to the increase of domestic unrest as well as economic deterioration rather than ensuring establishment of a democratic order in these countries, contrary to expectations. Today, unfortunately, Muslim communities make up the majority of the countries going through social unrest and armed conflicts as well as climbing unemployment, income inequality and financial instability in addition to dropping production capacities.

This study aimed to benchmark the intercountry interaction in terms of the selected macroeconomic indexes in the context of the member countries of Organization of Islamic Cooperation, founded on September 25, 1969. Panel data analysis was used to find out whether there were statistically significant relations between defense sector and the indexes of unemployment, current account balance, foreign trade and growth, and the macroeconomic effects of developments in defense sector were put forward econometrically. The research data were assessed in the context of feasibility of cooperation among Muslim countries on the common ground of defense industry and defense spending in Islamic countries. We anticipate that this study will contribute to the literature to illustrate the importance of the need for cooperation in Muslim countries empirically.

Method Problems and Cooperation Principles In Defense Industry For Islamic Union

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Praise be to Allah; Said in the Holy Quran: “lay Prepare as many strengths and war horses as you can against them. With them, you will scare the enemy of Allah, your enemy, and other enemies that you do not know but Allah knows...” Then Salah and Salaam to the prophet of guidance and mercy Muhammad, sent for peace and security to the worlds, his family and his companions and his follow-up who are subjected to his sunna till the judgement day!

Cooperation is one of the necessities of life. Since human being is a civilized being by nature, he cannot be able to live alone and meet his sensual and spiritual needs without going into solidarity with others. In the face of the problems and dangers surrounding human beings in general, and in particular Muslims, this aid has many benefits for the individual and the society regarding economy, security and equally defense. A Muslim person can only achieve his religious and worldly goals in cooperation with other individuals.

Collaboration is the core and essential element in all achievements based on solid unity. Solidarity imbues people and society with a sense of happiness, encourages people to put forward all their power and strength, increases their energies and keeps them alive, and saves people from obeying the wishes of egoism and self. Moreover, sharing solidarity, burden and responsibilities and the opportunity to gain new skills is the source of welfare of nations in all fields as it means

benefiting from the experiences of the people they work with. When a person enters solidarity with someone else, he becomes a beloved one, as he will gain Allah's approval and love. Especially when the matter is always concerned to serving religion and the world, peace and unity, Allah said: "Help ye one another in righteousness and piety but help ye not one another in sin and rancour: fear Allah. for Allah is strict in punishment" (Surah Al – Maidah 5/2).

If anyone asks the reasons for its attainment of this power to the powerful Western civilization, which dominates most of the world's countries and consumes their wealth and resources to the last limit, the first answer would certainly be the existence of a serious cooperation between the governments at the top of the reasons for this power. As a second answer, the joint working group system among the Western countries will be considered as another reason for this power. Co-operation and institutional work are one of the reasons why the West is strong. Another is time management, self-planning before the others, respect for the manager and giving importance to the decisions of the authorities.

There is no doubt that the mentioned values of civilization and these strategies which give the West strength in the fields of economy and defense are among the fundamental principles of our righteous religion in Islam. Our duty in this respect is to give importance to these issues at the individual, social, defense and economic level for the salvation of our religion and our world despite the great problems hidden in this long journey.

When the enemies of the Islamic Ummah realized that our religion encouraged us for solidarity and unity in order to

remain as a powerful nation, after profoundly benefiting from Islamic culture they have added the struggle against this culture among their solidarity strategies and adopted the so-called “shred manage” policy. With this principle and the like, they broke our unity and separated us. They waged war between us to weaken us, usurp our wealth, and wear out our economic and structural strength. They aimed for the bright minds to emigrate to their own country, thus we have suffered a painful disintegration, a weakness that bends the necks.

It is certain that Allah (c.c) has warned us about the exposure to this fate, and he has ordered us to be united, solid brotherhood, solidarity and to believe in patience. For this he commands in his supreme book; “And hold fast, all together, by the rope which Allah (stretches out for you) and be not divided” (Surah Al – Imran 3/103).

Allah Ta’ala orders in 46th Verse of Surah Al – Anfal; “And obey Allah and His Messenger. and fall into no disputes, lest ye lose heart and your power depart; and be patient and persevering: For Allah is with those who patiently persevere”

From this point it is possible to list what we need to do as follows;

First: to find the appropriate ground to help us in the establishment of unity of hearts, unity of words and genuine cooperation.

Second: to ensure unity in authority, aim, will and means to achieve the desired objectives.

This can only be achieved or realized by the applicable proposals, the opinions reached through mutual understanding and the decisions which are to be realized.

**It Is Possible to List the Suggestions and Opinions
(As an Example Without Going into Detail) As Follows:**

One: To give priority to spreading the culture of peace among the members of the Ummah and instilling it into the hearts of present and future generations. Because the main thing the enemy uses to create obstacles in front of Muslims in order to prevent the establishment of common defense industries is to create fear and anxiety in people about the evil deeds of Muslims and to show them as bloodthirsty people.

In order to eliminate this major obstacle, it is necessary to adopt and spread the peace program and to ensure that is adopted by the members of the Ummah and to avoid hostility to others. In this regard, Mawla (c.c.) says: “Fight in the cause of Allah those who fight you, but do not transgress limits; for Allah loveth not transgressors” (Surah Al – Baqarah 2/190). Allah Tabarak Wa Ta'ala says to His servants in the Surah Al – Anfal: “But if the enemy incline towards peace, do thou (also) incline/ towards peace, and trust in Allah. for He is One that heareth and knoweth (all things)” (Surah Al – Anfal 8/61).

These notions need to take root again in the hearts of Muslims. At that time, Muslims can capture the appropriate ground to create an encompassing, unifying and common defense industry without the limitations and excuses that the enemy finds.

Two: Spreading exemplary values of Islam, to emphasize that, despite their unity and great power, enemies

are weaker than thought. No matter what the enemies do, they will not be stronger than the Muslims when they unite under the flag of Islam. Because their gathering, forming unity is worldly, affair based and completely material. When their interests' conflict, they dissolve quickly. Although it may seem like a power from the outside, it has a hidden vulnerability. Allah (c.c.) explains their situation in Verse; "They will not fight you (even) together, except in fortified townships, or from behind walls. Strong is their fighting (spirit) amongst themselves: thou wouldst think they were united, but their hearts are divided: that is because they are a people devoid of wisdom" (Surah Al – Hashr 59/14).

Their power is a power that will not continue, will not be permanent. Their unity will inevitably disappear.

Mawla (c.c) has emphasized this issue in his words as follows: "From those, too, who call themselves Christians, We did take a covenant, but they forgot a good part of the message that was sent them: so we estranged them, with enmity and hatred between the one and the other, to the day of judgment. And soon will Allah show them what it is they have done" (Surah Al – Maidah 5/14).

Three: To build high-tech, independent defense industry centers in order to provide early education to the citizens of the states that want to join the Islamic Defense Industry Union.

Four: Finding methods for human resource, developing, educating of resource and gaining competence with special attention. To make all necessary arrangements to facilitate the transfer of qualified civilian and military personnel working in the armed forces in the member states participating in the

cooperation, to give priority to issues such as establishing a common work environment related to intelligence that guarantees peace and reliable success.

However, We Believe That Obstacles Are Big and Important.

The problem is big and important. Because the enemy has turned Muslims, with their programmed intellectual struggle, into people who listen to clear Verses and true Hadiths and think as if these are impossible myths. If I say this, I am not exaggerating: the Islamic orders, which now call for becoming one, have become emblazoned with the dictionaries of impossible deeds in the Islamic field for Muslims. Because their present situation supports or explains implicitly the aforementioned claim.

How could it not be!!! Today, most of the economic power in the Islamic world, human resources and defense assets, except a few, are used to tear a limb from the limbs left over from the disappearing Ummah.

At this time, despite the importance of cooperation in the field of defense, there are few who call for solidarity and Islamic unity in any field. Those who made this conference (ASSAM) in these lands where the blessed Ottoman State was established, which provided the unity of Islam, are among these few. We hope that Muslims will see glory and light as the fruit of this conference, with the sincerity of the people of this country, where we ask Allah Ta'ala to increase their security and stability for them. This light is the light that will bring us out of the dark darkness that the Ummah is in because the majority of people and countries refrain from practicing

our true religion. Our religion teaches us peace, compassion, strength, unity, and saving all human beings.

Muslims! The problems are numerous and varied, and various solutions are needed to overcome them. Some of them can be listed as follows:

1. Returning to the Quran and Sunnah, accepting the ruling of the Qur'an and Sunnah for Muslims, following the leaders of Muslims and following their advice, not to disobey them by obeying the word of Allah Ta'ala: "O ye who believe! Obey Allah, and obey the Messenger, and those charged with authority among you. If ye differ in anything among yourselves, refer it to Allah and His Messenger, if ye do believe in Allah and the Last Day: That is best, and most suitable for final determination" (Surah Al – Nisa 4/59).
2. Ensuring genuine, honest cooperation, especially in the field of defense affairs. In matters such as production, placing on the market, making trade, preparing and making field applications, accepting the following order of Allah (c.c.): "Help ye one another in righteousness and piety but help ye not one another in sin and rancour: fear Allah. for Allah is strict in punishment" (Surah Al – Maidah 5/2).
3. To get away from the civil wars that grind the lands of Muslims, such as the millstone with the hands and property of the Muslims, and to end them strictly. So much so that these wars cause psychological, material, moral and values devastation. These demolitions are the master of the catastrophes in our heads, the main source of the great

problems that we face in all our plans, small and large. As a matter of fact, Allah (c.c.) has warned us as follows: “Fall into no disputes, lest ye lose heart and your power depart; and be patient and persevering: For Allah is with those who patiently persevere” (Surah Al Anfal 8/46).

It is Allah Who will succeed and will guide you on the right path.

Research, Sheikh Imam / Abu Bakr Kumbāverî

Leader of Islamic Religion in the Army and National Armed Forces.

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Establishment of Defense Industry Cooperation, Procedures and Principles for Islamic Union

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It is a matter of great pleasure and honour for me to participate in Third ASSAM Islamic Union Congress, which is deliberating on a very crucial issue, i.e. Establishment of Defense Industry Cooperation Procedures and Principles for Islamic Union.

It must be kept in mind that cooperation or collaboration at international, global or regional, level essentially falls in the domain of any country's or group of countries' foreign relations / foreign policy. All countries take such decision in their national interest at bilateral or multilateral levels. Impact and consequences of such cooperation, be in diplomatic arena or economic domain, i.e. commerce and trade, or in defence and security is directly contingent upon the quality, seriousness, and level of commitment of the political leadership of cooperating countries, followed by their economic strength, technological development and common interests, common perceptions, and common vision and objective.

Unless there is commonality of perception and convergence of interests, all dream of mutual cooperation will remain a fantasy and would not see day of reality. History is full of many such ambitious illusionary attempts, which could never materialise as these were envisaged. Therefore, I being a realist, always remain cautious while evaluating all such suggestions for cooperation, which are not founded on solid edifice of

common perceptions and jointly envisioned objectives and time bound outcomes.

As regards 'Defence Industry Cooperation', its principles and procedures for Islamic Union, it be kept in mind that Islamic Union, in its political manifestation does not exists so far. Though, there is great potential for such political aspiration and connected cooperation in different field including Defence and Security.

While contemplating 'Principles and Procedures to Establish the Joint Military Standards Center for Islamic Countries', one has to comprehend and understand the purposes and benefits of such cooperation for cooperating member states, as Joint Military Standards per se have no dividends without their political objective. Yes, there may some economic advantages but these will also be governed by respective national policies, which essentially fall in domain of international and regional politics.

Joint Military Standards are basically adopted by those multinational military forces, which have common threat perception and plan to combat such threat through joint military operations. The most appropriate example would be current NATO member states or erstwhile WARSA Pact countries. Before attaining the goal of joint military standards, a group of like-minded countries, either establish a formal alliance (like NATO / WARSA), which aim at inter-operability and join operations over a long period of time or make temporary alliances / arrangements with limited objectives for a shorter duration. One such example could be Saudi led alliance, purportedly of various Muslim countries. Of course, joint military standards were not a major consideration in this

type of arrangement but a certain level of inter-operability was certainly required.

Joint defence standards are generally recruitment and training, acquisition of weapons and equipment, adoption of joint doctrines, operational strategies / planning, tactical implementations of operational plans, communication equipment and procedures, provisioning of logistic support and variety of other standard operation procedures, commonly known as SOPs.

Though, at present, no Joint Defence Forces of Muslim World are in the offing, however, considering a hypothetical proposition / presence of such alliance / arrangement, principles and procedure for joint standards would be required in various areas as already mentioned. In order to coordinate, liaise, facilitate and ensure correct implementation of such standards and to train focal representative of participating countries, a credible institution will be required. Therefore, the need for an agreement and consensus on the principles and procedure to establish such center in the Muslim World. This Center would evaluate the need, the procedures for attaining desired objectives, though a continuous process of Need Assessment prospects, possibilities and challenges. This is an uphill task, in view of highly competitive environment and divergent interest of various Muslim countries and their ruling political leadership.

Defence industry constitute a major part of global gross domestic products (GDP). Moreover, the high-tech defence industry, commonly known as Military Industrial Complex is located in and owned by only few developed countries. Unfortunately, most of the Muslim countries, due to various

reasons, are politically divided, educationally and technologically underdeveloped, economically poor and intellectually still slaves of their erstwhile colonial and imperial masters.

Though, the Muslims have enormous human and material resources and occupy a large portion of land and coastal areas in the world, they are yet fully aware of their potential capabilities. Out of total human population of around eight billion, Muslims population in the world is around 1.7 billion, almost 25 % but the Muslim countries' share of the global GDP is much lesser. Muslims occupy the most important landmass, a major part of Eurasia, they possess almost all important chokepoints in the world, which control the world trade through sea, land and air. Muslim countries own more than 50 % of Oil and Gas energy resources and production. However, the role of the Muslim countries in global affairs is only marginal. Most these countries have lived under colonial and imperial occupation of Western countries for many hundred years, which badly affected their human resources development and their aspirations and ability for sovereignty, freedom and independence. Most of the current boundaries of Muslim states are unnatural and artificial, without any regard for historical divisions, geography and ethnic considerations, which is major cause of many prevalent conflicts in the Muslim world. On top of that since abolishing the Khilafat (Caliphate), after WW I, Muslim world is perpetually in chaos and anarchy. Muslim world has experienced a prolonged oppressive rule by despotic ruler and self-acclaimed marches, who were imposed or facilitated by their colonial/imperialist masters, which resulted in lack of democracy, stagnation of political process and resultant

internal and external conflicts leading to untold destruction and perpetual instability and insecurity.

Now is time that Muslims, all around the world, should unite for protection and promotion of their common interest. This can only happen if leaders in all Muslim countries rise above their petty personal and family interests. They need to cooperate for political solidarity, defence and security cooperation and economic progress of Muslim Ummah. This process will lead them to real sovereignty and freedom. It will help all Muslim countries to attain socio-economic development, reestablish socio-political and socio-economic justice and promote harmony with in these countries and with their neighboring countries as well. Many Muslim countries are torn apart from within. Some are facing worst kind of foreign occupation and worst form of destruction caused by internal and proxy wars. Muslim Ummah immediately needs mutually accepted and mutually created 'conflict resolution mechanism / arrangement' before it is too late and destruction and devastation is beyond recovery.

Towards this end Muslim countries must cooperate with each other in the field of defence and security. One facet of such cooperation is in various areas of defence production. Muslim are spending enormous resources in buying weapons and equipment from the Western countries and unfortunately these weapons are use being used against each other or for fight internal wars. I fully understand the complexities of international arms deals. It involves large some of graft and kickbacks, which are mostly enjoyed by ruling elite or by the family royal members and corrupt mafias in these countries. Therefore, talking about such cooperation easier than actually

implemented. But having assumed that Muslim countries and their leadership have genuine desire, will and determination for cooperation in defence and security affairs following principles and procedures needs to be adopted.

Principles:

- a. Common perception of international environment.
- b. Common threat assessment.
- c. Determination of common goals and objectives.
- d. Convergence of national interest aim, national interest and national policies and at least a minimum common denomination in these aspects.
- e. Desire for cooperation and flexibility of adjusting / sacrificing individual country's interest for larger common interest of the global community / alliance.
- f. Creation of common / joint command structures, training institutions and doctrines leading to adoption of common / jointly agreed standards and procedures.
- e. Equitable sharing of financial and administrative responsibilities.
- f. Ability to contribute more, in order to share weaker partners' financial and administrative obligations.
- g. Strict application of equality and respect for divergent views while forging census based decision making.
- h. Gradual and smooth transition from existing rules, policies and procedures, in order to accommodate all members to follow changes demanding financial and organizational shift.

Procedures:

- a. Realistic evaluation of need for common / joint standards in organizational structures, requirement of weapons and equipment and logistic requirements.
- b. Cost beneficial decision making, allowing gradual shift in adopted joint standards and realist timelines / objectives.
- c. Prioritization of adoption of joint standards, ensuring interoperability, easy flow of communication and swift crisis management processes / procedures.
- d. Realist sharing of cost of standardization and generous contribution to R&D and innovation by more affluent member countries.
- e. Frequent joint exercises, exchange visits and joint sharing of experiences.
- f. Common marketing strategies for joint productions.
- g. Encouragement and legal bindings for purchase of defence equipment, which jointly produced by members of alliance / unity organization.
- h. Joint efforts for contribution at international arena, such as UN Peacekeeping Forces. A combination of Peacekeeping and contingent equipment from different countries, if required.

Conclusion:

Joint collaboration in defence and security is always preceded by political and diplomatic initiative. Muslim countries need to revitalize and reinvigorate the OIC. It needs to be equipped with much strong and robust charter, which allows it to play more effective role, through faster decision making by an executive council and supported by adequate financial resources and administrative arrangements. Muslim world must render enhanced cooperation to each other, in line with

true spirit of their religion, scarifying their petty interests in favour of greater benefit of the Ummah.

Establishment of Center for Joint Military Standers can be a valuable step towards attainment of a great objective of self-sufficiency and self-reliance in the field of defence and security and political freedom, sovereignty and independence for the Muslim world, which eventually may lead to establishment of Islamic Unity, a very strong political and economic block in the world.

To start with, this initiative may be taken up by seven to ten countries, who have large and strong military forces and also have robust military industry. Starting from making standardized small arms for all the Muslim countries, standardized joint production can be gradually increased to manufacturing of heavy weapons, including artillery guns, tanks, armored vehicle, and various types of military vehicles, communication equipment and all sort of ammunitions. In the next phase or simultaneously, joint production aircraft, radars, air defence weapons, including anti-air craft missile systems and ships for naval forces can also be started. The principle of comparative advantages, keeping in view of availability of raw material, technological knowhow and expertise and existence of production facilities, can help to determine terms and conditions of joint production, exchange of products and other rules to regulate and enhance the cooperation in the field of defence production.

In addition to joint defence production, the importance of developing joint operational doctrines, planning procedures and training standards cannot be over emphasized. This task can be assigned to the envisaged Center, which can be facilitated by

existing military academies, schools of instructions, command and staff colleges and national defence colleges / universities of Muslim countries.

Determination of Procedures and Principles for Islamic Union for Defense Industry Cooperation

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I attended your second congress of “Setting Procedures and Principals of Economic Cooperation for Islamic Union”, held in Istanbul in November 1-2, 2018, by the invitation of Mr. Adnan General

If allowed, I would like to discuss “independent supervision”, a topic requiring great attention and expertise in setting procedures and principles of defense industry cooperation for Islamic Union which you are organizing for the third time.

Independent supervisors have critical positions, performing independent international audits of defense industry corporations, which have very confidential, critical innovation projects in this field and play an active role in the defense of the country, manufacture weapons, equipment, tools and devices, perform administrative setups, construct production plants and storage areas, carry out purchases and sales of goods and services, and import and export weapons, equipment, tools and devices by means of their personnel and operations.

These supervisors are important as they are the persons entering cosmic rooms, with the military expression, accessing, seeing, receiving and reviewing any confidential documents, agreements, invoices and bank extracts about these and issuing reports subsequently, and their high level security

and whether they have international connections must be investigated carefully and they must be monitored.

In conclusion, I would like to present positions of independent supervisors performing independent audits of these defense industry corporations, which I think that are crucial for Turkey as well as other Islamic Countries and which manufacture or able to manufacture high innovation weapons, equipment, tools and devices, unmanned air vehicles, and unarmed and armed air vehicles to disrupt communication of aircraft carriers and to give superiority to those countries by means of new technologies by integrating laser or electromagnetic waves.

Considering Turkey, it is evident that it is highly important for Turkey's security that independent national and Turkish supervisors perform independent audits of our many leading defense industry corporations, including Aselsan Electronic Industry and Trade Co., Havelsan Technology Radar Industry and Trade Co., Roketsan Rocket Industry and Trade Co., Mechanical and Chemical Industry Corporation (MKE), and Turkish Aerospace Industries Incorporation (TUSAŞ).

With these sentiments and thoughts, I entreat for the Congress to lead to good deeds from my Great Allah and I would like to pay my deepest respects and regards to the valued attendants in this Congress.

Assessment of Operation Skills of Compound Helicopter

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Today, helicopters take part in our lives as indispensable tools in many military and civil areas. In military area, they take the role of the source of the most critical mobility skill and firepower in land, air and maritime assault operations. They have become an essential part of material and personnel transfer with an armed role in high threat environments.

Furthermore, heavy class helicopters are components ensuring rapid transfer of tactic forces from one location to another. Helicopters are used in civil field intensively in the roles of search and rescue and firefighting. They have effective skills in protection of human lives and natural resources.

In this study, analysis of the current compound helicopter operation skills of the armed forces and the ongoing projects and the levels they will reach in the near future were presented.

Defense Industry-Training Cooperation Model: Turkish Aerospace Case Study

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This paper deals with training models that are being implemented in collaboration with many universities, research centers, academia and industrial organizations to strengthen competencies development of technicians and engineers working at Turkish Aerospace (TUSAS). Qualification and certification trainings, technician training programs, training center applications, vocational high school collaborations and internship programs are implemented for improving technician competencies. On the other hand, engineering trainings, university degree programs, software trainings, engineering development programs are implemented for improving engineering competencies. The training cooperation models are developed in order to meet the requirements for the defense industries trainings. The models cover both technician trainings and engineering trainings. A case study is presented and training cooperation models are described in detail. The models are aimed to increase the technical competencies of existing technicians and engineers, as well as providing, the need of qualified personnel which is the bottleneck in defense industries. This study is aimed to be a reference guide for implementing the training cooperation model in similar defense industry sectors.

Identification of National Occupational Standards and Vocational Qualifications in Aerospace Technologies Sector: Case of Turkish Aerospace

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An aerospace technology inherently has strong obligations to fulfill global requirements and hence international competition is fierce within the sector. Accordingly, organizations operating in the field of aerospace technologies make investments starting from pre-employment period in order to develop highly qualified human resources addressing their specific needs. Accurate analysis of requirements in terms of employee qualifications based on certain references is essential in developing the human resources for the sector. However, there is a lack of awareness on the subject and no current work is known that addresses the issue in Turkey. Therefore, Turkish Aerospace concentrated on national occupational standards and vocational qualifications for its sector. Consequently, a protocol between Vocational Qualifications Authority (VQA) and Turkish Aerospace was signed to initiate identification of national occupational standards and vocational qualifications for manufacturing operations in aerospace technologies. It is aimed at forming the definition of profession for the occupation determined by the protocol along with associated qualifications that complies with the European Qualifications Framework. The study will provide a reference frame that can be utilized in recruitment phase within the sector and also in efforts for revising curricula of higher education institutions with respect to the National Recruitment

Strategy document. Hence, expected outputs will set an example for similar studies aiming to form a basis for recruitment strategies and to strengthen the relationship between education and employment.

New Generation World, New Generation Threats and New (Regenerated) Defense Strategies/Devices and Weapons

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Based on the detection of great changes in today's world in global systematic scale in both the regional sublevel and local national axis, putting forward these changes was attempted first. Secondly, the reasons behind these changes were identified. Based on these, new security problems caused by these changes were dwelled on in the third section of this report. This report was concluded by discussing the possible scenarios involved in the solution of security flaws emerging in the new generation world.

A Virtual Enterprise Collaboration Model for Engineering and Professional Services to Create Talent Pool of Inter-Islamic Countries

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Traditional way of solving engineering and research problems in companies or government enterprises is to create desired competence in house or to tap into external services by hiring talents individually or from professional service providers. This has been changing in last three decades.

Companies tend to create high value-added core competence in house while outsourcing the rest of what they need. Relying heavily on in house competence comes with significant overhead due to the cost of sustainability. Professional services, on the other side, are predominantly in the form of recruiting resources through a referral or previous interaction, and then negotiate face to face on the details of the transaction from validation through delivery. This encourages organizations to stick with using resources that have been successful in the past. Pressure for low cost and quick turnaround has led large companies to outsource their services either by forming or by making partnership with professional services companies in the low-cost countries. Sometimes this works for large organizations with very deep pockets, but often is counterproductive for mid-sized and smaller companies.

As a new trend in a highly connected internet age, many engineers, researchers, and designers are now leaned to

work as freelancers through some online channels or e-enterprise portals, such as upworks, freelancer etc. Therefore, those channels are helping talent resource pool expands directly to individuals with no barriers hence challenging traditional way of conducting professional services. This new advancement of the interactive and online technologies with support for secure and fast transactions has been opening new opportunities for the professional service providers, consumers and high-tech companies. This new paradigm is the path where with a lot of industry is heading.

EBay Inc. has revolutionized this concept for retail goods many years ago. Other online retailers have also incorporated EBay's reach into their business practices by using the model to grow their business.

To accommodate professional engineering services into such a new environment, companies must redefine their outsourceable engineering works in terms of size and class. Typical engineering outsourcing considers big-size work packages, such as a hydraulics subsystem design of an aircraft. However, to get the benefit of new environment, engineering projects need to be broken down into small chunks of works such that it can be handled by one engineer or freelancer at a shorter time span. Each chunk of the work is self-defined with all necessary requirements, inputs, deliverables,

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Defense and Security Cooperation for Islamic Countries

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The efforts of the US, Russia and China to dominate or increase their influence in Islamic World particularly in the Middle East region pave the way for internal disorders, terrorist activities and regional wars. In order to end the activities of the terrorist organizations and counter imperialist policies of the Great Powers, all Islamic countries, particularly Turkey, Iran and Egypt as the major countries of the Middle East need to develop a new vision on security and defense. In this respect, Islamic countries should set aside sectarian policies and work for a new security system on the basis of their national assets and mutual common interests. The formation and success of a new security system is dependent on promoting and strengthening common values in Islamic world.

Establishment of a Common Modeling and Simulation Infrastructure

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Modeling and Simulation software are commonly used for engineering design and as the designs become more and more established the associated models also gets validated and become an invaluable source of knowledge based on real world experience. It is critical to protect this knowhow, institutionalize its ownership and make it available for use for all parties that can leverage it for common benefit. Some refer to these models as digital twins that is the digital equivalent of the real system in the form of a model. In recent years, it has been the objective of quite a few software companies to provide a model based simulation environment where digital twins of the real life systems could be built and made available to support product design and development. Mainly to help the companies cut costs on development and ensure that the planned design can satisfy all the requirements under all operating conditions. Especially in the defense industry the systems are quite costly and to achieve validated models require a lot testing with sensitive data. Institutionalizing this knowhow and make it available to those who are approved users that could leverage the information for future work is a must that should be undertaken as a priority. This paper aims to present a method to establish a common modeling and simulation infrastructure.

An Investigation of The Effect of Twist Barrels of Various Types and Features in Fired Arms on The Range

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In this study, barrel features of the present arm systems with large caliber and twist barrel were analyzed, including guns and howitzers. Parameters to be applied in twists that are made in barrels and the effects of twist making types, forms and scales were determined. Thus, positive and negative aspects of the present twist barrel systems were identified and energy losses occurring due to parameters of twists and twist making were explored. As a result of this study, a new barrel and ammunition were designed and manufactured by preparing the necessary technical drawings and making estimations in order to minimize energy losses caused by twist making.

A new type of barrel and ammunition was redesigned and manufactured by using these data and they were tested and experimented and then the collected data were used in the graphs and the necessary outcomes were received

Accelerator Systems and Laser Development by Using Superconductive Structures and Their Use in Defense Industry and Other Fields in Turkey

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Accelerator systems are the most critical systems forming and generating the groundwork of global technological progress in the past 20 years. Turkey attaches great importance to fundamental sciences and technology in its region and at the same time Turkey has great value and significance due to its geographical and technological interposition operations in the Middle East, Far East and Europe. Turkey's neighboring countries do not have accelerator systems and technological infrastructures added by these systems. Our studies are continuing in the scope of the projects in Turkey in recent years to develop accelerator systems and to use them in many areas, including fundamental sciences, defense industry, space and aviation, medicine, nuclear studies and food industry. We have intensified our studies on producing nano wave SASE laser by improving electron beams to 3.5 GeV of energy by using superconductive structures. It is thought that the laser to be produced will be used in many fields, including protein substructure studies, analysis of magnetic structures, specimen analysis of materials, and micro and nano chip production. Our studies have focused on the use of them in defense industry in the future years. This project and studies of ours in Turkey and our relations and member associations with European Research Center (CERN) are at a level to set an example and lead the way in fundamental sciences and technology in our

neighboring countries. CERN leads the global technology thanks to superconductive accelerator structures, manufactured robots, newly produced systems of technology product, and platform of data transfer capacity, etc. It is anticipated that Institute of Accelerator Technologies at Ankara University, where I am a staff member, will contribute to the region with the laser planned to be developed in defense industry, medicine, catalyzer development, food industry, nuclear systems and in many other areas. This contribution would lead to technological progress and economic and financial appeal in the region. In the presentation, our studies conducted on laser development, our contributions in Turkey in educational and technological fields, our CERN and accelerator studies, and the problems faced in our studies will be discussed

Procedures and Principles of Meeting ERP Software Needs in Joint Defense Industry Production of Islamic Countries

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Many parameters need to be in integration to develop a product whether in defense industry or in other sectors, including thought, design, raw material, product tree/prescription, fixed assets, production machinery, workers, finance, stocks, suppliers, customers, legal tax setups, etc. It is not easy to carry out these complex processes in terms of place and time and manually in the framework of specific codes. Therefore, software programs are needed in planning sources of the institutions. Otherwise, huge number of staff needs to be employed to do this planning and at the same time, the hit rate will be low and in turn, the cost will be high.

Today, software programs, called Enterprise Resource Planning, are developed to plan and manage these resources of the companies easily. These programs ensure planning of the mentioned resources with minimum cost, at the shortest and right time.

Production quality of the enterprises which use an effective ERP program improves and in addition, their production costs can be reduced substantially.

Today, data have become a strategic product with higher importance than oil. In 2018 Davos Summit, Prof. Dr. Yuval Noah Harari said that “data is the most saleable critical product of the 21st Century economy.” Administrators can sit at

the cockpit of an automobile and step on the breaks and shift gears by looking at the vehicle gauge thanks to data and they can reach accurate decisions at the right time by reviewing reports prepared by using ERP data of the company.

On the other hand, it is vital that functionality of this software is protected efficiently against the factors outside of the institution. Foreign services or competitors who access private data of the institution can learn any secrets of the production and develop their contrary precautions and lower product functionality and even eliminate it or they may act much more rapidly and produce competitor products. As far as the defense industry products are concerned, the significance of the issue increases even more. Competitors may produce and prepare preventive defense weapons in advance against the product you manufacture.

In this report, functions of ERP programs and the way they carry out these functions and when these programs are needed, the safety of this software and the importance of national and independent ERP software were scrutinized.

Educational Status of Military Schools in Islamic Countries and Aiming to Develop a Common Standard Plan

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Considering Islamic Countries in general, two countries emerge with the potential to become a military power. The first country is Turkey and the second one is Pakistan because Turkey is the country as the continuance of the Ottoman Empire whose nation has been always free. The country's military power and technology are superior. Pakistan, on the other hand, has a great number of soldiers and is the only Islamic state, possessing nuclear weapons.

Viewing the 57 Islamic countries in general, we see Turkey, Pakistan, Central Asia, Arabic countries, Africa and Far East. It is an Anglo-Saxon system excluding the Central Asian countries. Central Asian countries are under the influence of Russia. Hence, an Islamic joint military university needs to be established for us at least. Our youngsters need to speak a common military language. Our goal must be only Islam. We need to keep away from Sunni

Shiite and Wahhabi thoughts and we must only aim to protect Islamic Countries.

At this juncture, considering the educational status, both Kazakhstan and other Islamic Countries have established their own military systems and all of these systems were certainly taught us by foreign countries. For example, Turkey is the single Islamic Country as the member of NATO. Pakistan's

military system was derived from the English system. Kazakhstan, in Central Asia, took large part of its military system from Russia. Even our weapons are of origins of foreign countries.

First of all, we need to start with the common Islamic military ranks because military service is understood based on ranks. Someone who does not understand the ranks cannot be a soldier. Each Islamic Country must educate their youth not only in their own country but in different Islamic Countries. If we can succeed in these plans, we can find a common standard for ourselves.

As common universal concepts in Islamic education and religion are understood by anyone, we need to come up with specific, universal concepts in military education. Perhaps, this can be the start of the great Islamic Union. Whatever joint military drill we lack, we need to close that gap swiftly. Kazakhstan has not conducted a military drill in collaboration with Islamic Countries up until today however it has conducted these drills with the Russian Federation and People's Republic of China, who are distant to us in terms of religion, language and nation. What we are missing is that we do not have a joint military union.

Key Words: Islamic Countries, soldier, joint union, education, military schools

Best regards

Mindset of A Joint Defense Industry Cooperation for Economic Integration of Islamic Countries

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Based on the Hadiths of “move according to the pace of the weakest ones,” Islamic Realm must be freed from the unrealistic assumptions that are accepted as the truth and from the understanding of “the weakest link is removed” according to the evolutionary and materialistic principles and first of all, it must be freed from the mindset impurities in order to eliminate tendencies to be exploited in social life. Regional and domestic issues, including impoverishment, internal and external threats, instability, and mass immigration are caused in Islamic World because of primarily indexing to Western mindset principles and preferring to sit at the same table with the secular ideas for the ambition of material gains. It is not possible for Islamic Countries, which still have not managed to overstep the category of “developing countries” because of the “presumption of secular human development”, to control “common material threats” before hurdling the “mindset threat”.

Secular mindset of Europe has catalyzed positive nationalism – racism. Assaults against European Muslims and Christians have increased following migration waves from the Middle East. Turkey has been fighting with terrorisms for many years and the control of migration moves has become a sensitive criterion in the negotiations held with the European Union. Yemen, Syria, and Palestine endure great ordeals. Arakan Muslims suffer pain.

It is indicated in the Quran interpretation that “the greatest religious duty of today is Islamic Union”, and it is said in Islamic Realm Epistles of Light that “Islamic nation, who is the real, positive and holy and general true nation” – having a common goal, common values, common mindset, common culture and heritage, common history and desires the eternal happiness together, must act together for both the spiritual and material progress and for this world and for the afterlife and must facilitate activities. But, urgency of demonstrating decisiveness on this matter has come into question.

Again, accepting common mindset principles must be the prerequisite for determining a common defense industry strategy, determining sectoral production capacities of Islamic Countries according to their economic structures, and the development strategies and developing a common security system and models and for sustainability of servicing all of these to a common goal. Identifying and applying procedures and principles of defense industry cooperation for Islamic Countries may accelerate establishment of an economic cooperation by causing the Islamic common market to gain momentum, causing elimination of technological deficiencies more effectively, enabling remigration of the qualified young people, improvement of research and development level of the personnel, and progress in many similar areas.

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Assessment of Private Military Corporations in Terms of Work Ethics

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Ethical issues are indispensable parts of business life and daily life. Work ethics are concerned with fundamental personal, organizational and social behavioral patterns. Codes are set up to cadence behaviors of individuals who make up the society and to designate rights and liabilities and each individual has to follow those rules. Right to life mandates restriction of behaviors. Operations in business life have become complex in parallel to industrialization and therefore, violations of rights occur at times. It is possible to prevent violations of rights by addressing consciousness and moral worlds of people in addition to laws. Hence, ethics, business ethics and the effect of business ethics on business life become important greatly. Company scandals and crises experienced in the framework of globalization influence international markets beyond the national borders. Enterprises which want to continue their operations in the market adapt administrative corporate principles of their partners and show how reliable they are. There is more trust put in enterprises which attach more importance to their partners in the framework of corporate administration and which share their financial knowledge with the public in the framework of compassion principle. Private military corporations are one of the novel phenomena of the globalization process. Number of private military corporations in the engagement zones has increased starting from the 1990s.

Many countries operating in international crisis regions transfer some of their security duties to private companies with the agreements they enter into in order to lower reactions of national and international public opinions in problematic regions. These new actors, who were called mercenary soldiers, legionaries, etc. in the past but who name themselves today private military company or private military contractors, have reached an annual capital of 100 billion dollars and personnel over hundreds of thousands. Private military industry, which has been shaped with the effect of political, military, economic and ideology conditions developed after the Cold War, has become a determinant actor in engagement zones. But, the ambiguity of the status and liabilities of private military corporations and company personnel in armed conflicts brings along many legal and moral issues. This study aimed to scrutinize operations of private military corporations in terms of business ethics and emphasized the necessity for taking the “human centered thought system” as the basis.

Defense Spending and Defense Industry Capacities of Islamic Countries

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One of the main reasons behind colonization of Islamic Countries by western imperialist powers is the failure of these countries to develop their own national industries. In the framework of the new world order established following the Second World War, political and economic hegemonies of the developed western imperialist powers on Islamic Countries are continuing.

Despite oil and natural gas reserves of Islamic Countries provide substantial material and economic resources to these countries potentially, these resources cannot be used for the interests of Islamic societies because of continuous interventions of the western powers, and the establishment of national industries becomes impossible. Oil-rich Saudi Arabia and other Islamic States meet their defense and security needs from primarily the USA and western countries through purchasing.

In this study, defense spending of Islamic Countries and their foreign-source dependency in arm provision were examined and common policies to be followed and the cooperation to improve defense and security capacities of Islamic Countries in the future were discussed

Importance of Joint Defense Policies Among Islamic Countries in The Context of Realist Theory in International Relations in the 21st Century

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In the international relations discipline, realism is continuing to be the most commonly used theory in interdisciplinary academic studies today despite the criticisms of post positivist, constructivist and normative theories following the Cold War. History of realism, the most rooted approach in literature, goes back to Pelopones Battle, fought between Sparta and Athens in 413 B.C. and narrated by Thukydides. Furthermore, works of the classical writers Machiavelli and Hobbes are regarded as the fundamental resources. In addition, Hans MORGENTHAU, E. Hallet CARR, and Kenneth WALTZ, who discussed realism in its theory aspect based on discipline and conducted academic studies, are viewed as the leading academicians.

Main emphasis of realism in international relations has been power. A powerful state can have a say in international relations absolutely. This emphasis has evolved from the thought, where the state was accepted as the single actor depending on the period and the military power was the purpose, towards the thought, where the state shares it authority with multinational companies and the economic power as well as the military power is a critical purpose. With the concept of power balance used in literature, a single

hegemon power is attempted to be prevented from having the absolute voice in international relations.

Hypothesis of the study was to prove that thanks to the joint defense and cooperation policies established between the Middle Eastern and Islamic Countries, these countries could become more powerful in military sense and economically, and they could gain high action skills and the opportunity to apply effective policies in the international arena in the face of incoming threats and sanctions thanks to more independent policies against the thought, where zero-sum international policies are applied in the context of realist theory that is still effective in interstate relations in the 21st Century and where it is accepted as legitimate that a powerful state increases its power and exerts its power on a powerless state.

Common Defense Industry Production

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Most of the Muslim countries are the one suffering of the problem of security with many threats of the terrorist attacks which results millions of dies. With the given information the Islamic geography of 60 countries, having 60 of 193 member states of the United Nations Organization (31% of the member states), 1.6 billion of the world's population of 7,145 billion (22.5% of the world's population), 19 million km² of the world's land of 150 million km² (12.8% of the world's land). This is a great asset for these nations to create a Common Defense Industry Production and also a common security system.

A security cooperation is necessary among Muslim states, which is possible with militarily powerful nations such as Turkey, the world 9th military power and member of NATO since 1952, Egypt 12th, Iran 14th, Pakistan 15th, Indonesia, 16th, Saudi Arabia 25th, Algeria 27th etc, according to the global fire power index. This can help in term of global combating terrorism and defense industry production cooperation for the economic reasons.

This contribution will be a force to fight against terrorism in the Middle East and Africa and improve the stability in order to gain in the economy and development. Here we can cite an example of G5 Sahel a joined force of five Muslims majority countries in sub Saharan Africa (Chad, Niger, Burkina, Mali, and Mauritania) for Security and Development.

There is a possibility for Muslim countries to make a Common Defense Industry Production for their own economy, stability, peace and development.

İslam Ülkeleri Arasında Savunma Sanayii İş Birliği Stratejileri

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Asya ve Afrika düzleminde özellikle Ortadoğu olarak nitelenen İslam ülkelerine savunma sanayi ihracatını yapan ülkelerin başında ABD gelmektedir. İngiltere ise bu bölgede ikinci paya sahip ülkedir. İngiltere'yi Rusya ve diğer Avrupa ülkeleri takip etmektedir. Ortadoğu ve özellikle Körfez ülkelerindeki hareketlilik savunma sanayi harcamalarında sürekli bir artış olacağını göstermiştir. Ülkelerin ekonomik ve siyasal güçlerini belirlemede etkin rolü düşünüldüğünde savunma sanayisine bölgesel anlamda yönelmenin önemi daha iyi anlaşılmıştır.

Bugüne kadar savunma sanayinde söz sahibi olan ABD, Rusya, İngiltere, Almanya ve Fransa gibi ülkelerle aynı arenada rekabet edecek seviyeye gelen Türkiye'nin coğrafi konum üstünlüğünü kullanarak bu ülkeler arasından sıyrılıp savunma sanayiinde söz sahibi olmaya başlamasıyla İslam ülkeleriyle ortak savunma sanayii üretiminin mümkün olabileceği düşünülmeye başlanmıştır.

İslam coğrafyası sürekli karışıklıklara hedef olmuş ve birbirleriyle ortak pazar oluşturmaları engellenmiştir. Petrol ve doğalgaz gelirlerinin oluşturduğu enerji gelirleri savunma harcamaları karşılığında ABD ve Avrupa ülkelerine aktarılmaktadır. Müslümanlar kendi elleri ile ellerindeki zenginliği ABD ve Avrupalılara peşkeş çekmektedir. Müslüman devletlerin izleyeceği yerinde stratejiler bu bölgedeki savunma sanayi ibresinin bölgemize çevrilmesini mümkün kılacaktır.

İslam ülkeleri teknolojik mühendislik ve ara elaman yetiştirilmesi için ortak bir model geliştirerek savunma sanayi

alanına mahsus teknik okullar kurulmalıdır. Beyin göçünü önleyici araştırma ve geliştirme faaliyetlerini hız verilmelidir. Savunma harp silah ve araçlarının öncelikle kendi aralarında tedarik ve revizyonu, birbirlerinde üretilen ürünler yerine farklı üretim sahalarının devreye alınması ve böylece birbirini tamamlayıcı üretim sahaları geliştirilerek mali kaynakların bölge dışı emperyalist ülkelere çıkmasını önlemeye gayret etmelidir. Bunun için İslam Ülkeleri arasında “***ASRİKA Ortak Savunma Sanayii Üretim Koordinasyon Merkezi***” adında bir merkez kurulmalıdır.

China's Rising Arms Trade with Islamic World

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Along with its economic development, China's global arms trade has risen dramatically as well. Today, China stands as the fifth biggest arms exporter in the world. According to the reports of the Stockholm International Peace Research Institute (SIPRI), we see that the main clients of China in the arms trade are Muslim-majority countries. In 2018, nearly 80 percent of the export in arms trade conducted with Muslim-majority countries. Pakistan, Bangladesh, Indonesia, and Iran are the main buyers where only Pakistan's share in the total exports of China is around 43 percent. China is expanding its exports in Muslim-majority African countries as its main trade partners in the continent are Algeria, Morocco, Nigeria, and Sudan.

Starting from 600s, Islam spread around China by Muslim traders and according to the official reports, there are more than 23 million Muslims in the country, although the actual number is expected to be more than this number, according to the different sources. Trade is a significant factor in international relations as we can see how the tension between the USA and China in terms of trade has effects globally. The cooperation and collective action power of the Islamic World is critical to shaping the rising power of China's domestic and foreign policies to the benefit of the Islamic World

BUSINESS MODEL RECOMMENDATIONS FOR JOINT DEVELOPMENT/PRODUCTION PROGRAMS IN THE HELICOPTER SECTOR OF ISLAMIC COUNTRIES

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ABSTRACT: In early 2000s Turkish Aerospace decided to develop an attack helicopter customized according to the needs of Turkish Armed Forces. The program was called T129, Atak and Leonardo Helicopter Division (named Agusta Westland at the time) was selected as the partner company for the program. Through technology transfer, significant know-how has been gained in areas such as avionics systems, communication, navigation, operations management and weapon systems design, integration and production. Later, another program called the Multi-purpose Helicopter Program, T70, provided complete production of the Sikorsky S-70i model under license and in Turkey. This program aims at meeting the needs of the Turkish Armed Forces using customized avionics systems. Furthermore, TUSAŞ has demonstrated its ability to perform activities in the country of the customer with the “AH-1 Cobra Helicopter Modernization Program” and successfully completed the project.

Through Atak Program, significant earnings have been achieved in many areas such as technical knowledge, human resources, respectability, self-confidence, opportunities and capabilities, facilities, investment, maintenance, operation, sales and marketing. The young engineers who were involved in the Atak Helicopter Program used that experience in implementing the indigenous light utility helicopter development program, T625 Gökbeý. In addition to the design capabilities gained from Atak and Gökbeý programs,

important and complicated components like gear boxes, blades and many other systems are being produced with local and national resources.

As a result, due to its growing helicopter industry infrastructure, Turkey has reached the maturity to lead joint production, development and modernization programs, in the helicopter sector of Islamic Cooperation countries. Turkey's joint venture operations will provide important contributions in helicopter industry of Islamic Cooperation countries. In this study, various business models for multiple joint helicopter development, production and modification programs for meeting the needs of Islamic Cooperation countries, will be examined in different aspects.

Manufacture of Steel-Reinforced Composite Armor Materials with Laminated Structure and Studying Their Ballistic Performances

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Great specific density of materials with superior ballistic performance creates many disadvantages caused by density in practice. In this study, a steel ball-reinforced composite sheet with A1 matrix and a hardened surface was produced and its ballistic performance was analyzed. ETIAL 170 was used as the matrix material and 4 mm diameter of steel balls with hardness of 55 HR was used as reinforcement. Steel balls were positioned as tangential, not to leave any space between them, by means of a perforated sheet. The composite sheet of 18 mm of thickness was produced by using the open casting method and A1203 was poured on the front side of this composite sheet and the crushing procedure was performed by using a kit developed specifically. The produced composite sheet was shot by $7.62 \times M80$ of ammunition and its ballistic performance was studied. As a result of the shot test, it was seen that steel balls in the matrix structure contributed to the change in bullet direction and there was a difference between the entry point of the bullet in the material and the exit point in terms of angle. The composite armor material displayed a ductile behavior and absorbed a high ratio of bullet strike energy.

Müslüman Ülkeler Arasında Entegre Bir Enerji Güvenliğı Modelinin Geliştirilmesinin Önemi

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Energy is one of the most important security issues for all countries. Even such that, from the beginning of 20th century, nearly all the global powers have never hesitated to horn in other smaller countries' interior balances. And in the concept of this intermeddling course, they might have gone too far as organizing coups, chaos, riots, terrorist attacks, conflicts and wars. All these unethical and tyrannous acts have done due to a realistic and hoggish approach on energy security issues. In addition, unfortunately, nearly all the due brutal and cruel moves that have been done in the Islamic geography, because of Muslim world's weakness and owning more than %50 of the world's energy resources.

Unfortunately, while Energy can be used as a development argument for the Islamic world, it has become an element of confusion and destruction due to the selfish Western mind. Undoubtedly it is the duty of Muslim countries to change this fact or at least to work with this aim.

In this context, it is highly necessary to get out of the conflicting issues and to put aside the ethnic and religiously sectarian fragilities, to develop cooperation and to establish multi-faceted unions. Energy is undoubtedly crucial to such a model of cooperation. Because a significant portion of the countries in the Islamic world come to the fore with their energy resources.

Previously, some joint ventures have been made and some acts have been taken in order to ensure integration in the energy area. However, the results were severe for the entrepreneurs concerned. Nevertheless, at least it is possible to regain awareness by regrouping.

In this study, first of all, the importance of creating integration and unity in the field of energy for the Islamic world will be mentioned with emphasis on historical examples. Afterwards, what the common energy security approach means and how it will be strategically constructed will be explained.

Understanding the importance of energy and energy resources in the region, where Turkey have gotten heavy responsibilities either militarily or economically will re-open up new Turkish era over Muslim world. History of Turkish influenced regions lights up how high importances of Turks have over the Islamic world. By any means, Turkey must use its reputation within Turkish Civilization Geography or wherever can be accepted as being of Turkish heritage.

Knowing that almost half of the world's hydrocarbon reserves are situated in Turkish Civilization Geography, Turkey's most important game changer has to be "Energy" indeed. Turks have to achieve certain goals to become a supreme power in energy world. Uniting Turkic and Islamic world under the roof of energy is to bring success. It is important to analyse Turkey's energy related capabilities and create a well-designed path by great energy strategies along with its military activities in the Middle East and soon to be in the regions of Turkish heritage.

The potential of the defense industry of the Republic of Kazakhstan and its role in the Islamic world

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Kazakhstan, with an area of 2 million 725 thousand square kilometers, occupies 9th place in the world. The total length of the state border is more than 13 thousand km. There are huge reserves of minerals. Moreover, the country's population does not exceed 18.5 million people. In this regard, although the Military Doctrine of our country is exclusively defensive in nature, and the leadership of Kazakhstan always demonstrates a commitment to peace and a multi-vector policy, our state is ready to defend national interests with the help of both diplomacy and the Armed Forces.

As a result, despite the fact that the military budget is only 2.43 billion US dollars (over the past 4 years, spending has increased by a third), Kazakhstan currently occupies 50th place out of 136 in the list of the strongest military organizations on the planet. This was influenced by the fact that in a short time a mobile and well-equipped army was created (75 thousand military personnel). There are 4 regional commands that geographically cover the whole of Kazakhstan and are promptly responsible for the timely resolution of military tasks (headquarters are located in the cities of Karaganda, Semipalatinsk, Atyrau and Taraz). By some estimates, Kazakhstan's acquisition of new weapons and military equipment in the coming years will reach 5 billion dollars.

In addition, there is a clear understanding that Kazakhstan borders on such powerful and nuclear powers as Russia and China and is relatively close to Afghanistan. A certain influence on the Eurasian continent is exerted by the crisis of relations between India and Pakistan.

In turn, the military-political situation is also influenced by the growing confrontation of world leading countries, the militarization of the region, the growing terrorist threat and the emergence of new centers of destabilization.

At the same time, according to SIPRI, in 2018, the cost of military spending in the world exceeded 1.7 trillion. dollars. According to experts, there are now more than 25 “hot spots” of different levels of intensity on the planet. Moreover, their number will only grow.

The situation in the defense industry of Kazakhstan

Meanwhile, modern challenges require the same timely and adequate work of the defense industry. For these purposes, the Ministry of Industry and Infrastructure Development operates in Kazakhstan. Its departments responsible for providing the Armed Forces of the Republic of Kazakhstan with domestic products are the Department of State Defense Order and the Department of Development of the Defense Industrial Complex.

Optimistic prospects are associated with the work of Kazakhstani defense enterprises, which in a short time mastered the production of a wide range of products. These more than 40 enterprises provide over 8 thousand jobs. The core of the entire defense-industrial complex is the national company Kazakhstan Engineering, established in 2003. It unites more than 20 engineering enterprises, including JSC

Tynys, Kirov Machine-building Plant, Kazakhstan Paramount Engineering LLP, Kazakhstan Aselsan Engineering.

So, in 2017, labor productivity of the defense industry amounted to 52.6 thousand dollars and increased by 60% compared with 2016 (32.8 thousand dollars). This is 2.4 times higher than the national average in the field of engineering.

In the framework of the planned modernization in JSC Petropavlovsk Heavy Engineering Plant and Kirov Machine-building Plant will be updated 40% of production assets. Following the results of the projects, it is planned to create more than 100 new jobs, about 1 billion tenge in the form of tax deductions will be allocated annually to the budget, and the productivity of enterprises will increase by 1.5 times. Further loading of factories, both defense and civilian products will make it possible to increase production by 40% by 2021.

The key importance of Kazakhstan in the framework of international cooperation in the space industry is noteworthy. For example, with the assistance of Kazakhstan, the development of space activities of the United Arab Emirates is taking place. The Emirates authorities are interested in a project to create a space rocket complex at the Baikonur Cosmodrome by modernizing the Soyuz launch complex at site No. 1 (Gagarinsky Start) and the Soyuz-2 medium-class launch vehicle, which has demand in the global launch services market. The project partners, along with Kazakhstan and the Emirates, are also the Russian Federation. In addition, with the assistance of Kazakhstan, on September 25, the first emirate cosmonaut, Khazaa al-Mansuri, flew from the Baikonur Cosmodrome.

Along with this, it is planned that the domestic company Kazakhstan Karysh Sapary (aerospace agency) in the near

future will be able to independently design, create and operate competitive space systems and provide quality services that are in demand in the regional and world markets. To this end, the company is currently implementing a number of projects, including the creation of the National Space Center, the Center for the Space System of Remote Sensing of the Earth, a high-precision satellite navigation system and the assembly and testing complex of spacecraft.

International cooperation of Kazakhstan in the defense industry

A great contribution to the development of the industry is made by international military-technical cooperation with Turkey, Belarus, France, Spain, the USA, South Africa, China, Italy and Israel.

In Nur-Sultan, based on Kazakhstan Aselsan Engineering, together with Turkish partners, production was launched for the production of remotely controlled SARP combat modules. They are installed on the Arlan combat-wheeled vehicles. There is also a center for the production of electron-optical devices. The night vision devices that the company produces are fully equipped with the army and law enforcement agencies, and last year they began to send them for export.

Production of Arlan machines is carried out at the facilities of Kazakhstan Paramount Engineering. The project was implemented jointly with the Israeli company Plasan.

Since 2017, for the overhaul of S-300 air defense systems in Almaty, a service center was launched based on SKTB Granit. The production of three-coordinate radar stations was also organized there.

Is a proprietary JSC PZTM modernized anti-aircraft installation ZU-23–2. It increases the efficiency of combat and operational characteristics and provides round-the-clock combat work (it strikes air targets at a distance of up to 6000 m and altitude up to 3500 m).

A cluster for repair, modernization and technical support of armored vehicles (T-72, BMP, BTR) is being created on the basis of the Semey Engineering enterprise.

At the Ural plant Metalist they still produce the NSV machine gun - one of the best in the world. Work is underway to develop promising small arms (anti-sniper rifle). The possibility of organizing the production of light small arms and the modernization of machine guns in service is being determined.

Some success is shown by the Eurocopter Kazakhstan Engineering enterprise, which carries out large-site assembly, painting and packaging of EU-145 helicopters with special equipment. The plant entered the regional level for servicing helicopters and training flight technical personnel.

The KADEX industry exhibition is regularly held, where Kazakhstani manufacturers present their developments and military and dual-use products. A professional holiday for an employee of the defense industry was established, first celebrated in the country in 2018.

The role of the defense industry of Kazakhstan in the issue interactions of the countries of the Islamic world

In general, the defense industry of our country is trying to develop on new principles - the creation of a production and service base in Kazakhstan. Thus, any purchase of weapons

and military equipment abroad includes the option of technology transfer and the establishment of service at the country's enterprises.

Taking into account the traditional partnership, and with individual countries of the Islamic world strategic relations, the defense industry of Kazakhstan has the potential to consistently equip the Armed Forces of foreign countries with modern weapons and equipment. This will make it possible to jointly strengthen and develop the scientific and technical base of the military-industrial complex, increase the share of defense industry products in the GDP of our countries, and increase the export of military products.

According to Kazakhstani experts in the defense industry, priority should be given to means of the radio engineering air defense forces, high-precision weapons, automotive and armored vehicles, communications and automated control systems, hardware and software for cyber security, personal protective equipment for military personnel, unmanned aerial vehicles, and certain types of ammunition.

Prospects for cooperation between Kazakhstan and Turkey in the military industry

If we evaluate the potential of the military-industrial complex of the Republic of Turkey, it is important to note that since 2004 the share of providing the sector with its own products has increased from 20 to 70%. In addition, over the past two years there has been a tendency to reorient from the import of military products to their exports. In this regard, it is predicted that in the next five years, Turkey can become a leader in the region in the production of military products that meets the highest world standards. It will also give impetus to the

country's economic development and strengthen Ankara's position in foreign policy.

It is noteworthy that Turkey provides domestic military equipment and weapons, including Altay tanks, Firtina howitzers, armored personnel carriers, ATAK helicopters, Bayraktar and Anka unmanned aerial vehicles, Milgem ships, Atmaca anti-ship missiles, aerospace equipment, and firearms systems and electronic systems, radars and electronic warfare.

With this in mind, taking into account the friendly relations between Kazakhstan and Turkey, it is logical to develop bilateral mutually beneficial cooperation in the military-industrial sphere. As a result, Kazakhstan is open to Turkish partners and is ready to expand the joint production of the most modern and effective weapons.

CBRN Threat and Security in Our Geography

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CBRN weapons are chemical, biological, radiological and nuclear agents used in both military operations and terrorist activities in order to kill and injure the living populations and dysfunction the organisms. These food stocks leading ineffective use and reducing the mobility via protective equipment requirement. These are indirectly forwarding the military forces to the untargeted directions.

It is a fact confirmed by various sources that our country has neighboring countries and terrorist groups which possess the CBRN weapons and have the potential to use them at any time. Although prohibited by international conventions, these elements continue their efforts to improve their existing facilities and capabilities in the means of producing CBRN weapons. It is understood that these efforts pose a potential threat to Turkey. Furthermore, the possibility that these weapons can be used by terrorist groups on the civilian population is another fact that should always be considered. In the face of such a possible mass-casualty chemical incidents, it is necessary to put forward the necessary measures and activities against such attacks throughout the country. Because of this understanding a National CBRN Defense System should be established and this system should be implemented when necessary.

This study will focus on how such a system can be realized in the field of health, administrative organization and civil

defense, and how the organization and coordination between these units can be established.

Through this subject, CBRN teams are established for the first aid and treatment system and with these teams general organization and coordination is realized. In addition, it is aimed to perform the training on the subject and to evaluate the intelligence resources and data. Especially decontamination units, CBRN first aid and treatment units, CBRN diagnosis and analysis laboratory and related scientific research opportunities will be examined. Moreover, necessary coordination and planning between the units will be standardized and systematized with a central organization that should be established in case of a possible CBRN attack in our big cities. It also aims to determine the application conditions of this system.

This type of CBRN system should be transformed into practice with various CBRN attack scenarios and this should be updated and implemented in our country. In the existing duties and responsibilities of possible institutions and organizations involved in such an attack, the participation of the functions that should be undertaken against such an attack necessitates their establishment on a legal basis. As a result, a specific National CBRN Defense System to our country should be established and relevant institutions should be informed and acted on. Thus, it is thought that the CBRN system to be formed in a possible mass-casualty chemical incidents will be accelerated to be implemented and some sample units will be established such as laboratory, first aid teams and decontamination units.

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Military Bases and Balance of Power in The Islamic World

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Since the United States won the Second World War, the conflict between two poles, America and the Soviet Union, has become an arming conflict and a cold war between them but very hot in the Muslim world, which was occupied by European countries and inherited by the United States. The goal is to further divide it. It resulted: The successive wars between the Arabs and the Zionist occupation of Palestine, War between Iraq and Iran and other wars in the region, Dividing Sudan into North and South, The unresolved conflict between India and Pakistan over Kashmir, which India recently annexed by force, is in contravention of UN resolutions, which called for a referendum to establish an independent state for the Muslim-majority population or join Pakistan.

After the Soviet invasion of Afghanistan, the war ended with the defeat and collapse of the Soviet Union. America led the world alone, occupying Afghanistan and Iraq, dividing Sudan and planting the Muslim world with military bases

- Military bases in Central Asian countries to prevent Russia from regaining control of those countries
- Naval and air bases in the Red and Mediterranean Sea and the Arabian Gulf to control the most important shipping lines in the world

- In addition to other military bases in most Arab countries, including Qatar, Bahrain, UAE, Saudi Arabia, Oman and Djibouti

How can there be a balance of power in the Arab region in the presence of all these foreign military bases in exchange for some Turkish military bases in some countries.

To prevent war against Muslims and achieve the required balance, can Turkey, in cooperation with other Islamic countries such as Malaysia, Indonesia and Pakistan, establish military bases in other regions, especially with the killing, arrest and displacement of Muslims in Burma, East Turkistan, Kashmir, Iraq, Syria, Yemen, Libya, Sudan and others?

Are the Islamic countries seeking this balance of power now to prevent a war that is about to occur between two nuclear states, India and Pakistan?

Role of Domestic Production in Winning A War

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Considering war history of the world, it is seen that battles were won by means of domestic and national production technology. Technology that moved the Turkish army to the front of Vienna was developed completely by the national and domestic shipbuilding technique and the techniques of artillery pieces, domestic rifles, military engineering and mining. As long as the technology and domestic production fall behind their competitors, and the defense needs are met from outside, a war is won and the enemy is forced to accept the victory based on the interests and with the initiatives of the aiding countries. A national war doctrine cannot be developed unless there is domestic production. It is not possible to attack and assault enemy and conclusive results cannot be achieved by using surprising weapons. Winning the war in these conditions becomes dependent on the attitudes of the parties who stage cockfighting.

In case production is not domestic and national, the passwords, technical details and superior and weak features of weapons may be delivered to the other side by the producing countries and even the weapons may be locked and information may be leaked to the enemy by means of the back door method. Thus, Argentina lost the Falkland War as the technical details of the missiles Argentina were using were given to the United Kingdom by France. Furthermore, Israel won the 1973 Arab-Israel War after Israel acquired the technical details of SAM-6 missiles used in anti-aircraft defense.

Countries which cannot produce their war weapons and devices cannot take a creative role in the international system, cannot achieve land annexation, cannot procure acceptance of the status quo changes and cannot defend their rights effectively. They cannot raise their voices if their enemies violate treaties, the status quo is established as they design and international legitimacy becomes subject to their permission. Today, this is the situation appearing in front of us in Cypress exactly.

Arm producing countries (play and system makers) designate the borders, lands, regimes and international codes arbitrarily. They don't allow any success which they don't approve to become permanent. The decisions of the system-making countries turn into the Creator's commands. As long as the defense industry is not domestic and national, the owned arms cannot ensure protection and their power ends when the supply stops and large countries decide who will win the war. Conflict zones and the parties to engage in conflicts are determined by outsiders. War, conflict and battle turn into the children's game decided by others. You cannot step out of the system and they reinforce their own plans and violate the treaties they signed before and push you behind your current status. You cannot raise your voice because you don't have power, just like the Peace Accord of the Century they attempt to promulgate in Palestine these days. There must be a specific production infrastructure in place to succeed in a war. If there is adequate amount of infrastructure, the pressure and the motives of risk elimination and protection promote finding solutions and cause development of creative technologies. They open areas for surprising technology development. There must be adequate level of industrial technology in order to make surprises in war

and tough times. You must have sufficient number of engineers to achieve this. Great number of competent engineers must be educated in universities in the areas, including the industrial branches, heading towards the future (more than 50% of the general education must be directed to the engineering fields).

Space researches must be started and you must get ahead in the technology wars in the space in order to take a playmaker role in the international arena. Space research means overcoming tough conditions. If you have a place in space, you can produce surprising technologies and can earn international respect, for example you can annex Kashmir just like India has done today.

One of the key factors in the global political environment today is nuclear weapons and nuclear threats. Nuclear weapons being the mass destruction tools and a limited number of countries being the monopolies of the warheads and shooting devices of these weapons improve the leverages of these countries extraordinarily. When we say that monopolies of nuclear weapon owning countries determine the international system, diplomacy, treaties, promises and undertakings lose their meaning completely. Israel having the monopoly of the nuclear weapons in the Middle East makes it to defeat Israel in a war impossible. The current conditions have made Islamic Countries prone to threats. Islamic Countries must join their forces and establish the United Islamic States just like the United States of America and must gain the enforcement power to win wars and win diplomacy, and in this way, their enemies would follow the treaties and keep their promises. Domestic and national war technologies must be developed urgently to reach adequate war power. Diplomacy power of a country lacking enforcement power is only a chattering.

A Defense Industry Strategy for Islamic Countries and The Rising Powers

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The world in the 21st Century is going through a change in any area. One of these areas is the rapidly advancing defense industry. The West has achieved great progress in defense industry. The rising powers (China, India, Russia, and Brazil) are developing rapidly. It is an area waiting to be discovered for Islamic Countries. Islamic Countries are highly dependent on foreign sources in defense industry. The western block forms almost the entirety of this dependence. This process, which started with the Arab-Israel Wars, increased the dependency to the West further following the Arab Awakening however the Islamic locations have 1.6 billion of people of the world population living in 60 Islamic Countries and have a very crucial position. Islamic Countries were given no respite by means of the Western invasions for many years, and they endured the invasions of the West in defense industry just like in many other sectors.

The 21st Century has brought along many opportunities for Islamic Countries. As heading towards a multi-centered world, emergence of rising powers, including China, India, Russia and Brazil has created a new world-order appropriate to improve variation in defense industry. Great opportunities have appeared within Islamic Countries and the rising powers for joint production in defense industry area and for research and development studies. Islamic locations with the rooted

civilizations of the world should achieve economic integration at the highest level primarily within themselves. Subsequently, a common vision would be generated in defense industry. Long term defense strategies must be developed in defense industry with the actors outside of the west in order to attain this union swiftly. An economic and political structure like the European Union and a defense pact like NATO are no longer a dream for the rapidly developing Islamic World. Islamic Countries are able to put forward a new vision in the leadership of powerful actors, including Turkey, Saudi Arabia, Iran and Egypt despite numerous interventions of the West. Therefore, general outlines of the defense industry strategy needs to be identified for Islamic Countries primarily. An Islamic Union, Defense Industry Coordination must be established. Uniting of Islamic World would contribute greatly to both the world's prosperity and world peace. Islamic World has the required historical references.

An Example of Armored Vehicle Production in Establishing A Defense Industry in Islamic Countries

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Turkey has achieved many important successes in defense industry area particularly in 2010-2019. Turkey has become one of the most advanced countries in the world in the subject of unmanned air vehicles (UAV). Success has been attained in this field despite of obstructions of large arm manufacturing countries.

Turkey has succeeded in production of other defense vehicles in addition to UVAs, and even aircraft carriers are built in the own shipyards of Turkey, as seen in only a few countries in the world. The domestic production rate has reached 70% in the supply of the weapons needed by the ground, air and naval elements.

“Altay” tanks which are started to be manufactured by the private sector and state cooperation are a good example of the cooperation among Islamic Countries. Hence, the joint production agreements made between Turkey and Qatar are very important.

Armored vehicles produced by Turkey are used in many countries in the world successfully. It is seen that the direction of war has changed with the delivery of the armored vehicle called “Kirpi” (hedgehog). Similarly, a critical stage has been reached in defense industry, and weapons that Islamic Countries need desperately can be procured with more

appropriate cost and as better in technical terms than their competitors.

In case a produced weapon cannot be sold in international market, this situation has no value and meaning in arm industry. Therefore, serial production and sale of Turkish armored vehicles by clearing difficult hurdles is a topic to be dwelled on.

In this study, joint arm production studies in Islamic Countries were assessed. Difficult processes faced until reaching this stage need to be analyzed and the gained experiences must be discussed. It is thought that clearing possible hurdles in the planned joint production studies would be easier

The Role of The Waqf and Charitable Organizations in The Development of Defense Industries in The Islamic World

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The endowment (waqf) system in Islam is one of the important systems that played a great role in people's lives on an individual and communal level. Guaranteeing one's individual necessities, such as food, clothing and medicine is of great significance to the waqf system, and it is just as important on a communal level.

The primary goal of this paper is to present the role of charitable waqf in developing the cooperation between the various defense industries in the Islamic world. In the first part, the meaning and roles of waqf in the Islamic Sharia, its role in sustaining and securing the life of Muslims in the Islamic world, and the role of waqf in the social economic and educational life, are presented. The second section will give a summary of the practices of defense industries in the Islamic world, what lines we need to focus on in order for them to develop, and how the waqf system can contribute to the development of the defense industry. The third and final section will address roots of the waqf for defense industries in accordance with Islamic sharia, and later the foundation, financing, ways of spending and investment.

KEYWORDS: waqf, sharia, defense industries, Islamic world, founding, financing, zakat, investment

The Place of Defense Industry Theme in Turkish Higher Education

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In higher education institutions in Turkey, the development of the defense industry, nationalization and civilized the issue has been one of the issues that are often ignored. However, the level of education given in the defense industry, how much of the training is reviewed and found application area, whether it is supported in associate degree, undergraduate and graduate programs or how much space is included in these programs should be among the most important issues. Therefore, from the perspective of political economy, the authorities and organizations that shape the defense industry should be investigated, which ones actually exist and what their ties with educational institutions are. In this study, it is aimed to reveal the sub-headings of the defense industry in our country and the profile of academicians and their studies. In this profile analysis, which includes the instructor staff in higher education, it will be tried to show which steps are the main steps in the joint defense industry projects with the private sector and public institutions. Especially, the role undertaken by the techno-parks and technology centers and education curriculums and the topics which already exist in other countries, though don't exist in Turkey should be determined herein. Furthermore, it is tried to reveal whether the educational opportunities for project production have been missed. In this context, the views of 100 higher education students about the defense industry and its functioning are

analyzed and some suggestions will be made for an education model that can be demanded by students through inferences.

Keywords: Defense Industry Education, Defense in Higher Education, Defense Industry Perception

Significance of Russian Military Technical Complex for Islamic World

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Arrival of Russian-made S-400 air defense systems to Turkey despite of the tension experienced between Turkey and the USA is a historical step. Decisive stand of Turkey will lead to numerous outcomes in international arena. This situation has shown that Turkey is no longer obliged to the USA and has cracked the door for Islamic Countries to step into the global political stage. We can say that importance of Russian military industry for Turkey and Islamic World originates from this exactly.

Considering it in historical terms, we can say that the economic factors in the relations of Russia/Soviet Union and the Middle East have remained in the shadow of the strategic factors. The Middle East was the major purchaser of the Soviet arm transfers. Syria, Iraq and Libya had continued to remain as the leading purchasers of Moscow's arms in the region until the Soviet Union disintegrated. Purchases of these three countries corresponded to three fourths of the entire arm transfers of the Soviet Union to the Middle East [1]. Egypt was one of the most critical purchasers of the Soviet arms. One third of the people coming to the Soviets and Eastern Europe for military education were from the Middle Eastern countries [2]. There were 80,000 thousands of Soviet military experts and advisors appointed in the Middle East during 1950-1990.

Moreover, 55,000 military officers coming from the region received training in the Soviet Union [3].

Russian Federation has given weight to the West in its foreign policy after the disintegration of the Soviet Union and this situation has affected the military and technical cooperation of Russia with the Middle Eastern countries negatively. The provision of struggling with the West, which was presented as a condition to the purchasing countries in the sale of defense technologies during the Soviet Union era, has now changed. Russia started to sell arms even to the allies of the USA in the 1990s. In this context, the determinative factor was the paying ability of the customer. Thus, traditional Soviet customers in this period were no longer seen among the leading purchasers of Russian arms.

The military and technical cooperation of Russian Federation with the Middle Eastern countries was not completely halted despite of substantial drop. As there was a high conflict potential in the region and due to the ongoing mistrust to the USA in some countries in the region, Arab countries continued to have interest in Russian weapons. Furthermore, appointment of Primakov in 1996 as the Minister of Foreign Affairs had provided the appropriate conditions for reviving of the military and technical cooperation between Russia and Arab countries once again [4]. Moreover, Russian military strategy was revised when Vladimir Putin came into power in the year 2000 and initiated a reform in the defense sector of the country. Many private and state defense corporations were united as Rosoboron export, which is a giant of the state, responsible for arm export. Defense industry of the country was put into service of foreign policy once again with this step. As an

outcome of this new policy, the Middle Eastern region had turned into the largest market for Russian arms between 2006 and 2009. Iran and Algeria took place as the major customers in this market [5].

The next turning point in the military and technical relations of Russia with the Middle East was Arab Awakening. As Russian weapons have proven their reliability in war field in Syrian War, we can say that this has revived the Russian arm exports. In addition, mistrust to the USA has started to arouse among the classical allies of the USA because Washington acted passively in the matter of Syria, signed a nuclear treaty with Iran, condoned ousting of Mubarek in Egypt, and supported PYD/YPG. The said situation has led the regional allies of the USA to vary their own foreign policies. This, in turn, increased the interest of the Middle Eastern countries including the Gulf monarchies, which had traditionally resorted to the Western arm manufacturers, to Russian arms [6].

We can see that Russia has increased its arm transfers to the Middle East in the recent years. The leading importer of Russian arms in the Middle East is Algeria. Algeria imported 59% of its arms from Russia during 2013-2017. Moreover, Russia in the recent years started to strengthen its military and technical cooperation with Egypt and Iraq, which are the customary purchasers of the Soviets. Today, transfers coming from Russia make up 22% of arm imports of Iraq and 21% of arm imports of Egypt [7]. In 2012, Moscow and Iraq signed an arm treaty (4.5 billion Dollars), which is the greatest treaty signed by Russia in the Middle East ever since 1991.

The Situation of Defense Industry and The Associated Production Possibility and Capability of Defense Products at The Department of Civil Engineering in Istanbul Technical University

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In addition to military building structures such as outposts and bases, various types of structures including all kinds of operations and attack vehicles, tools and equipment are among the subjects studied in the field of scientific and R & D at the Department of Civil Engineering of Istanbul Technical University. In this scope, the department conduct advanced researches on pioneering topics such as characterization and development of innovative, lightweight and high strength structural materials; analysis and design of structures exposed to high temperature change; safety of buried members like pipes; the design of new composite materials resistant to bullet and shock wave; the wave energy; the multipurpose offshore platforms; soil mechanics and dynamics. Analytical and numerical models are successfully used in the analysis and design. In addition, the experimental models are developed and analyzed in the scaled models if it is not possible to experimental analyze real structures or members.

Methods of Realization of Covert Channels on The Internet for Transfer of Confidential Information

Prof. Dr. Vagif Gasimov

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As we know, national security means protecting national interests of the country from threats. National security plays the role of a shield in protecting national interests of individual, society and state from internal and external threats, ensuring the sustainable development of the country.

Developing and strengthening national information systems and information infrastructure as well as national information resources are vital for any country in order to maintain its national security in the field of information.

However, it is not a secret that modern scientific and technological progress in the field of information technology, unfortunately, has led to the emergence of a number of serious problems in the field of information security. Such problems include hazardous manifestations of computers, computer systems and networks, such as illegal interference, theft, misappropriation, secret acquisition, transmission (leakage) of computer information.

Nowadays, Internet is widely used around the world as a tool of sharing information and communication services. Yet, the dark side of Internet is its usage in info wars and cybercrimes. Internet provides equal opportunities for all people and organizations, including criminal and terrorist groups. Telecommunication systems, computers and information networks (incl. Internet) became an integral part of the daily

life of politicians, businessmen, government agencies, private and religious organizations, terrorist groups as well as intelligence services of the rival (enemy) countries.

In this article technologies of creation of covert channels for hidden information transfer using Internet are considered. The factors influencing the creation and usage of these technologies are specified, the methods of a computer steganographic and possibility of their application to Internet are studied. In addition, the methods of creation of covert (steganographic) channels for hidden information transfer based on information services of Internet (e.g. E-mail, Web, chat, social networks, cloudy technologies and network protocols) are researched.

Military Standardization and Metrology Centers – An Example of Implementation

SADAT A.Ş. Ynt Krl Bşk ve ASSAM Bşk Yrd

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Muslims, making up more than one fifth of the world population, are not able to reach even one tenth of total global production in terms of gross domestic product, the greatest power index, based on 2017 data. [¹]

Islamic locations, harboring 61 states out of 193 states that are the members of the United Nations Organization (31% of the world population), 1.6 billion of the 7,145 billion of the world population (22.5% of the world population), and 19 million km² of 150 million km² of the world land (12.8% of the world land), do not unfortunately take place among the power blocks that direct the world policy with the block they form, ignoring the borders among them.

Institute of Strategic Studies of Justice Defenders – ASSAM conducts studies to produce solution suggestions for the uniting of Islamic Countries to generate common administrative, economic, legal, national and foreign security policy mechanisms.

ASSAM organized two congresses with the topics of Islamic Unity legislation and Common Economic System solutions in 2017 and 2018.

¹ <https://www.setav.org/yeni-soguk-savasa-dogru-islam-dunyasi/> -
Final Review 08.12.2019

This year, the international congress of “ASRIKA Joint Defense Industry Production” is being convened with the purpose of developing policies to pave the way to remove obstacles in front of joint defense industry production.

ASSAM also owns a defense industry corporation, putting the strategies formed in the areas of national security, defense and defense industry into practice. SADAT, an international defense advisory company, offers the strategies developed by ASSAM to the use of Police Services and Armed Forces of Islamic Countries.

I would like to outline one of the many projects generated and applied by SADAT based on the strategies of ASSAM.

SADAT designed the project of **Military Standardization and Metrology Centers** in 2015 and offered it to the utilization of the armed forces of the countries it serves.

What are the Reasons for Military Standardization and Metrology Center?

Each one of the nearly 60 Islamic Countries has tanks, aircrafts, helicopters, and warships. These technologic systems are not the products of their own but they are purchased from dominant powers. Briefly, based on the data of 2019 statistics, 45 Islamic Countries own a total of 10,767 fighter aircrafts (20.40%), 28,935 tanks (25.42%), and 2,607 warships (28.11%). [²]

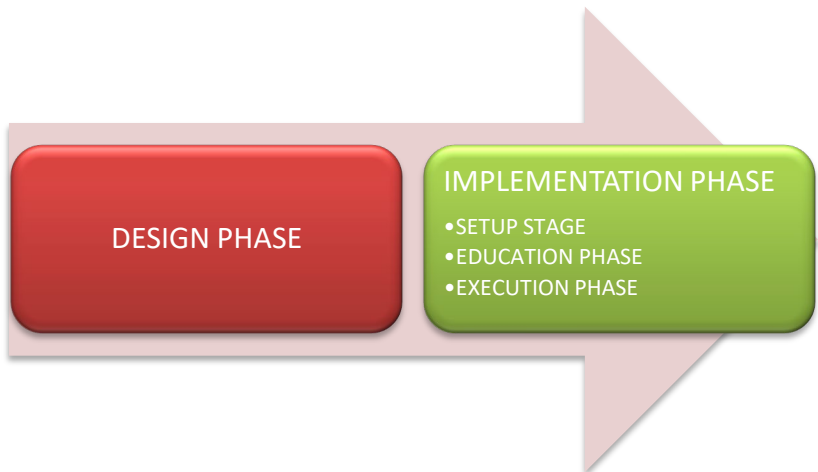
² Data are retrieved from the website of <https://www.globalfirepower.com/> – Final Review 10.12.2019

As Islamic countries deviated to manufacture these defense products with their own means, due to the fact that “whoever produces lays down the rules”, the need for initiating activities of technology development, technical standard setting, etc. has emerged.

How?

The project is run in 2 main phases in the concerned countries.

- 1) **The Design Phase**, shaped in the project based on the active means and requirements of the country is carried out first.
- 2) Subsequently, **the Implementation Phase** is proceeded into.



Design Phase

The needs analysis is made in the design phase. Active resources are evaluated, the organization scheme of the center is generated, staff structure is designed, duty definitions are formed, and personnel competencies are defined.

Outcomes of the design phase are as follows;

- ☐ Legislation draft
- ☐ Staff
- ☐ Curriculum and list of materials
- ☐ Need list of data processing software and hardware

Implementation Phase

When the implementation phase is proceeded into, the center is established starting from zero in some countries and it is founded by transforming the present organization by means of modernization in some other countries.

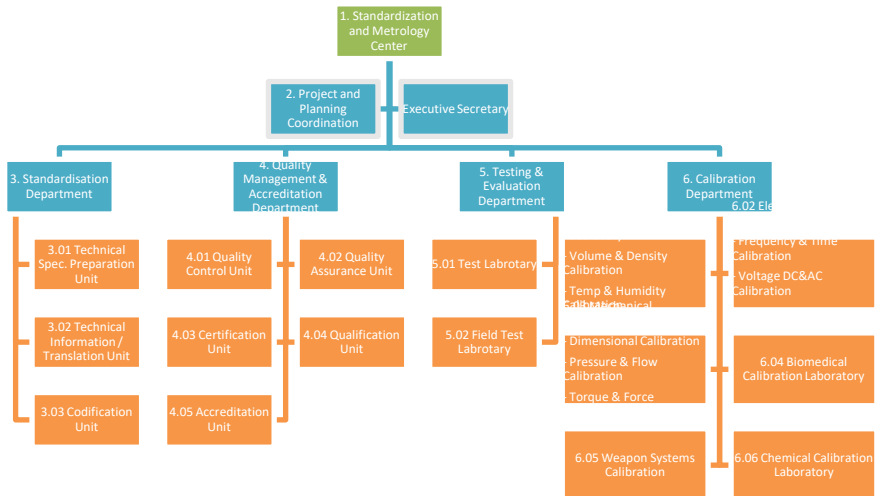
In the modernization selection, the existing personnel are placed in the relevant appointments in the organization scheme based on their competencies and positions. New personnel are hired for the vacant positions.

Subsequently, theoretical, application and on-the-job trainings are offered for the personnel to acquire the desired competencies. On-the-job trainings are the case-based and scenario-based educations.

In the final phase, the organization with an established legislation and designed personnel starts its activities.

What does the Military Standardization and Metrology do?

We can see what the military standardization and metrology does if we take a look at its scheme.



3.1. Standardization Department

3.2. Technical Specification Preparation Unit

3.3. Technical Information / Translation Unit

3.4. Codification / Coding Unit

4. Quality Management and Accreditation Department

4.1. Quality Control Unit

4.2. Quality Assurance Unit

- 4.3. Certification Unit
- 4.4. Qualification Unit
- 4.5. Accreditation Unit
- 5. Testing and Evaluation Department
 - 5.1. Test Laboratories
 - 5.2. Field Test Laboratories
- 6. Calibration Department
 - 6.1. Physical Calibration Laboratory
 - Volume and Density Calibration
 - Temperature and Humidity Calibration
 - Optic Calibration
 - 6.2. Electrical Calibration
 - Frequency and Time Calibration
 - DC&AC Voltage Calibration
 - Capacitor, Inductor and Resistor Calibration
 - 6.3. Mechanical Calibration
 - Dimension Calibration
 - Pressure and Flow Calibration
 - Torque and Force Calibration
 - Mass Calibration
 - 6.4. Biomedical Calibration Laboratory

6.5. Weapon Systems Calibration

6.6. Chemical Calibration Laboratory

Conclusion

The strategies of ASSAM developed in the fields of national security, defense and defense industry have been shaped out by SADAT International Defense Advisory Company and are turning into milestones in the way of Union of Islamic Countries.

We have discussed only one example here. SADAT is in a position to design projects for nearly 20 countries today.

The most striking point of the declaration issued at the end of the first congress titled “Joint Administration Forms” and convened by ASSAM in 2017 was the emphasis made on the need to establish the department of Islam Union in the parliament of each Islamic country. It was declared that these departments would establish Islamic Union Parliament and hence, Islamic Countries Union (ASRIKA) of a confederative form would be founded.

The important subjects that took place in my mind were the “designing an alternative of the SWIFT system” and “generation of a digital payment instrument, such as Islamic Dinar”, included in the declaration that was issued following the second congress of ASSAM titled “common economic system” in 2018.

A common part coding system, standards, technical specifications, quality assurance processes, certification

systems, and test methods are needed for the production, sale, supply, maintenance, repair, use and circulation of any type of product between countries that are used by armed forces, primarily products with military purposes.

The way for Islamic countries to engage in common defense industry production is establishing military standardization and metrology centers and operating these centers as connected to a common supreme organization and generating a common database for the purpose of codification.

I am confident that in the congress we are convening this year ASSAM will come up with ideas to produce very original, strategic and practical yet applicable solutions directed to difficulties.

I wish that the international congress with the topic of **“ASRIKA Common Defense Industry Generation”** will conduce to good deeds.