Defence Electronics, Computers, Systems and Models implementation into Private Army Battalions Marketing, Contracting and Auditing.

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Abstract: - Private Army Battalion concerns an independent army fighting unit, private ownership and three purposes: Training during peace, joining the army in war time and transforming to guerrilla force afterwards. The necessary funds come from the central state government. Certain technology is used for contracting, auditing and payments. The fighting capability of any army is a complex model. Our sensor based contracting technology supports 5 initial areas: Logistics, Sniper rifle shooting, Soldier fitness ergometry, combined laboratory test, full feature mission recording. Hundreds of millions of insignificant generated data are normalized with different mathematical models and finally a payment according to the signed contract is generated.

Key-Words: - Private Military Companies, Economic Deregulation, Defense, Regional development

1 Introduction to Private Military Companies

We remember Heraclitus with his famous saying "War is the father of everything" [1].

[>] -Πόλεμος πάντων μὲν πατήο ἐστι-πάντων δὲ Βασιλεύς-καὶ τοὺς μὲν θεοὺς ἔδειἑε τοὺς δὲ ἀνθρώπουςτοὺς μὲν δούλους ἐποίησε τοὺς δὲ ἐλευθέρους-

--War is the father of all, King of all,

It Distinguishes between Gods and humans, Some people make them free, other slaves.

Starting from life or death according Heraclitus famous axiom, we believe that scientific research could regain strategic or military value. This thesis applies to major armaments and systems but also to the humble idea to apply contracting technology to national defence structure. Today we have to adopt war once again, the dominated power of our times. Therefore we use the Department of Defence Dictionary in current version. [2] On the other side of the North Atlantic Ocean "DEFENCE STUDIES" scientific magazine recently adopted the private security company's concept as a key issue of its contribution to science. They did not dare to adopt missionaries so far. Nevertheless they approved our lonely voice of a private battle fighters company; not as a political substitute to amalgamate but as a profitable company. Apart of this initial militaristic fear, several researchers define the defence privatization with different name and concept:

- PSS, Private Security Services.
- PMS, Private Military Services [3].
- PMC, Private Military Contractors [4, 5].
- PMSC, Private Military and Security Contractors[23]
- Defence firm [6, 7, 10]
- PMC, Private Military Companies the most descriptive and widely use term [11, 12,13, 14, 15, 16]

All the above researchers analyze private military companies concept as a business unit. Scientific research seems that stopped four years now, possibly due to national defence confidentiality regulations. This is normal for military research; Defence scientific results are published a long after the real research occurs.

My institute, Macedonia Research Centre, works since 1992 in the field of Defence R&D and we faced a lot of problems on market deregulation and contracting. At 1998 we presented a custom made border net police integrated system. We faced unsuccessfully all the initial refuse of any new weapon system: innovation, funding schema and crew retraining. [17] A more scientific work to apply full sensors spectrum at a digital border line at Kuwait gained limited attention but gave us the necessary feedback to proceed at the next step of privatisation [18, 19, 20 and 21].

2 Market Deregulation & Defence

2.1 Market Deregulation

Market deregulation apostle in European Union is a former Greek R&D Minister and member of Hellenic parliament Dr Andrianopoulos Andreas. His deregulation approach conceals all the wide spectrum of Government activities, from non dogmatic Church cases to private taxes auditing mechanisms.

Worldwide defence business did not change after cold war epoch. On the one side of our common North Atlantic organization at USA, Defence Industry belongs 100% in private hands. On the other side in Europe, the same 100% belongs to State central government, through a Daedalian legislation of stockholder arrangements. This domination of public sector must be deregulated with certain political actions like:

- Co-funding deregulation actions.
- Advertise defence and production business opportunities.
- Promote subcontracting tactic.
- Integrate defence with civil activities.
- Allow pure defence activities to be privatized.

2.2 Non milspec technology

Military technology milspec (military specifications) systems are excellent but rather expensive. A possible solution always is Commercial Off-The-Shelf (COTS) approach [24]. Macedonia Research Centre presented a few years ago Border Control milspec technology [17, 19]. The system is today

under operational test from three border committees. We do not expect great success because the Mercedes GE was a very good scientific platform but also a commercial failure [17]. Therefore we returned back to our beloved COTS approach: Its inexpensive, has unlimited options, its here today!

2.3 Privatization

The first known organized private army at the beginning of our democratic civilization established in Athens and Spartan. Every rich businessman has the obligation to assembly, feed and train a regiment. The Athenian Democracy did not pay him directly; the assignment was a type of additional taxes for the very rich. Over the centuries we find the private army in many different forms. Recently Afghanistan private troops were funded from USA officers to attack Taliban's territory, a very complicated but very successful operation.

3 Private Army Battalion3.1 PRABA definition

The army structure today is primarily a matter of central government. It has specific strong hierarchy, unlimited money and support. From 2004 we study the newly introduced PRABA concept that stands for <u>Private Army Battalion</u>. This definition concerns an independent army fighting unit with advanced initial characteristics:

- Central Government funds the army unit through Minister of Defence through an appropriate contract.
- Legal form is Private SA, any type of non profit association of army veterans, EEIG (European Economic Interest Group) or any other.
- The fighting unit locally makes all the arrangements to prepare the soldiers for the tough times of war.
- An outside Public State Authority verifies the fighting capabilities and associated payments.

A case study will clarify the project. Grebena is a luxury resort in the high lands of Northern Greece. The Dorians invaded Macedonia 3000 years ago and we still live here. As a genuine generation of warriors, today's life is colourless for them. Then we want to found the 1st PRABA and life becomes once again a living thing. History and features are:

- A Cyprus private investor along with an overseas armament supplier establish a local company;
- They hire 120 local men and women for partial work;
- Investors and crew constitute a digital sniper troop with three assignments:
- Train during peace, join the army in war time and transform to guerrilla force afterwards.

- Equipped with milspec armaments and technology not necessary compatible to the rest of the national army and unknown to the enemy.
- Greek government gives an initial prepayment and signs a contract for
- Monthly payments according to the report of sensors and systems installed to calculate total efficiency;
- Either directly from DoD or through an external auditor.

The dilemma private or national has only benefits for both parts. The company makes money with a long term contract and the Government raises the defence capability at a lower cost. The scope of this research paper is limited in auditing technology to support the contract between Greek Army and a local investor.

3.2 The contracting

Business contracting represents a very difficult task especially for a start-up company. Usually military armament calls for offers contain specific terms like: number of weapons, support subsystems. compatibility with existing equipment, price tag and service period. All these are specific quantifiable items. The concept has served well the defence industry for centuries. A new idea for defence contracting is to replace weapons systems with the principle of functionality. The idea of functionality contracting generates into national defence numeral advantages:

- Private Investment attention, with access to unlimited funds.
- Elimination of armament trade corruption, a situation that cannot be solved today.
- A strategic benefit, being an unknown structure for the enemy.
- Recalling the fun of military strategic thinking to DoD officers.
- Boosting of COTS technology and modern high tech.
- Multiple Regional development benefits.

However major threats do arise, that need efficient manipulation:

- Psychologically, since private army reminds middle ages Feudalism.
- European Civilians and companies they don't have military conscience.
- PRABAs must be diversified geographically.
- The manipulation of sensors and associate models open unlimited new frontiers to corruption.
- Technology is not mature and COTS parts are not widely available.
- Ownership must be under the iron breath of three letter national agencies (CIA, KGB, KYP).

3.3 TECODIT

Auditing replenishes contracting by providing all the necessary technology to a legal entity. The interoperatability nature of both terms, led us to establish another new term: TECODIT, which stands for <u>TEchnology for COntracting and secure auditing</u>. The basic specifications are: inexpensive sensors, non milspec developments, unlimited availability, non patent covered, secure operation, faultless software.

TECODIT initial application target market is limited to private army forces. Such a market does not exist today but is strongly funding with 4 Billion Euros by European Union 7^{Th} Research and Development framework programme. However this technology could be applied for evaluation of existing army. The main influence to Greek army fighting capability is the possibility that, one day, at one place, somebody, will start to evaluate the actual fighting capability of army units. At that time, the heroic soldiers would love it and the talented officers will recall their lost dreams. Only the public servants will hate the great questioning for technology, because it exposes their inability to bring results.

4 Army Fighting Capability Model

The fighting capability of any army is a very complex model. At this stage we are unable to define a concrete measurement standard; therefore we only define an indicative subset to the following activities:

- Logistics.
- Sniper rifle shooting.
- Soldier fitness ergometry.
- Combined laboratory test.
- Full feature mission sensoring, recording and contracting.

4.1 Logistics

Logistics capability represents a crucial department of any modern army. Logistics is even more important for a non-depended isolated army unit. The technology used is rather simple: <u>(TECODIT</u> tech#1, supplies hygienic test)

- An IP camera inside all storage facilities reports contiguously the long term any type supplies availability.
- After a direct command from the supervisor authority, specific boxes of the supplies are send for nutrition and hygiene control. The packaging session is time stamped and recorded.

- The boxes arrive at the national food authority and subjected into all appropriate tests.
- Finally if the test are acceptable a prize of 30,000 € is cashed in while a failure to pass the test costs a 10,000 € penalty

For the guerrilla war stage of the private army battalion it is more complicated to evaluate the strategic supplies. An ammunition smelling sensor could be used to check expiration dates but today it represents a very expensive machine.

The main issue in a digital sniper brigade is the principal gun. From time to time the soldier cleans the rifle according to manufacturer's suggestions. Cleaning takes place inside a custom made mechanism with specifications: (TECODIT tech#2, rifle cleaning and corrosion test)

- A simple table to detach various gun components.
- At the center of the table there is a canister where all chemicals are irrigated.
- At the bottom of the canister sensors analyze the ingredients (primarily small metal parts and oxidized leftovers).
- An on table camera records the procedure and a RFid reader secure links the gun and the chemical analysis with the soldier.
- All data are time stamped and send to a secure recorder device, usually a dedicated PC or milspec ftp server.

The use is very simple. The soldier's gun preparation is associated with the chemical analysis. The procedure is evaluated automatically and finally funding is based on these calculations.

4.2 Sniper rifle shooting

In the early days of multimedia, DVI (digital Video Interactive) systems for soldier training appeared in the market. From these preliminary efforts nothing serves the army today. Such an early system, I recalled on duty after 15 years to tailor a contracting version of target shooting. The system has not milspec features; it only concerns heavy duty use, without any intervention with actual battle weapons and systems: (TECODIT tech#3, field shooting practice)

- The shooting subsystem is equipped with a synchronized camera showing the face and the gear of the sniper, a shooting sensor for matching with the bullet impact and an RFid reader for sniper rifle recognition. (TECODIT tech#4, IPAQ portable sniper DAV recorder)
- The target has impact sensors, still and 3dimensional electronically travelling. (TECODIT tech#5, 3D impact sensors)
- The monitoring subsystem encloses a data collection and processing unit, storage-backup

systems, weather station data and all basic associated fire data, all these accordingly time stamped.

The cost of such an entry level machine may exceed several few thousand Euros at the prototyping stage. Cost represents a crucial factor, since the private company investment must focus on battle armaments, not logistics and contracting. Every PRABA unit must acquire this basic system for everyday personnel training, although the primary use is payment calculation. Every month all data from the local system are transferred to Department of Defence (DoD). With these data we do not simply attempt to statistically estimate the fighting capability of the army unit but we could precisely predict various models for battle and derived payments:

- Exact battle mortality in various weather and engagement options.
- Truthful contract partial payment according to complicated mathematical models.

This monthly payment concerns only the rifle shooting test.

4.3 Soldier ergometry

Every soldier twice per year must be checked up in a military hospital. We do not attempt to interfere into the procedure directly here, mainly because medical doctor is a much protected profession in the west world. Since ergometry is a crucial factor to any military violence action we developed technology that bypasses pure medical hospital tests. (TECODIT#9 below)

4.4 Sniper Combined Lab test

Real life is more complex than above mentioned laboratory simplified tests. An integrated combined ergometry and shooting test incorporate four simple tests: (TECODIT tech#6, Sniper Combined Lab test)

- Initially the soldier performs a full load 4 km running test on a corridor.
- Then is locked for 60 minutes inside a refrigerator with temperature -10 Celsius degrees.
- Afterwards the above mentioned rifle shooting test is performed.
- Finally a inhouse full ergometry test is performed. (TECODIT tech#9, watch based fitness gear)

The above emulation resembles reliably a typical sniper day. The interconnected machinery performs the tests without human intervention. Typical output record is:

- DAV primary data (Data, Audio, Video) for every moment of the test.
- Distance and time.
- temperature inside the refrigerator
- accuracy for every bullet fired

- Heart rate
- EPOC* (Excess Post Exercise Oxygen Consumption)
- Training effect (EPOC related to personal capacity)
- Ventilation volume
- Respiratory rate
- Oxygen consumption (VO2)
- Energy consumption

4.5 Technology list

A full technology list includes:

1-supplies test

2-rifle cleaning and corrosion test

3-field shooting practice

4-IPAQ portable sniper DAV recorder

- **5-**3D impact sensors
- **6-**Sniper Combined Lab test
- **7-**integrated mission holistic test
- **8-**Shortwave sideband emergency
- **9-**watch based fitness gear

10-RFID reader

- **11-**secure rifle identification
- **12-** weather-wearable sensors
- **13-**full range interference mission recorder

14-impact sensitive revolving target & monitoring system

15-transportable mission DAV recorder

From the above we alpha tested only three:

4-IPAQ portable sniper DAV recorder, for the need of our project "sniper using chemical ingredients delivered through micro cell technology", [22]

8-Shortwave sideband emergency: a widely used radio amateur technology.

9-watch based fitness gear, which recently appeared in the consumer fitness market.

The production unit cost, in small quantities from non industrial facilities including profit is estimated in the following table:

- supplies hygienic test = € 2,000
- rifle cleaning and corrosion test = \notin 12,000
- field shooting practice = $\notin 30,000$
- IPAQ portable sniper DAV recorder = € 1,800
- 3D impact sensors = \notin 20,000
- Sniper Combined Lab test = € 50,000
- integrated mission holistic test = \notin 300,000
- Shortwave sideband emergency = $\notin 200$
- watch based fitness gear = $\in 1,500$
- RFID reader = $\in 1,500$
- secure rifle identification = $\notin 1,500$

- weather-wearable sensors = $\in 800$
- full range interference mission recorder = € 20,000
- impact sensitive revolving target & monitoring system = € 300,000
- transportable mission DAV recorder = € 5,000

5 Research or Realization, Patents or Inventions

Private Army Battalion contracting technologies are not large scale innovations to mankind not a pure business opportunity. They are more close to the machinery of a car factory. The robots are made once initially and they serve the manufacturing procedure for years. Usually the machinery is dedicated to the firm or even the specific factory. An equivalent procedure is applied here. These parts of sensor and contracting technology have features like:

- They compose small inventions rather than breakthrough in science and progression of our technological civilization.
- There will be used in a very limited number of systems that is not enough to produce them in industrial scale.
- They do not have to obey in the strict rules of industrial production or military specifications.
- They are inexpensive systems with minimum hassle and calibration requirements.

In the above sense PRABA contracting technology is more close to alization than search, al starting from re. We have chosen realization instead of perpetual research primarily because our research team is constituted by engineers and bankers, not mathematicians and economists.

During the pre-alpha test we face another dilemma: to proceed to production or to apply for the necessary patents. We respect the international patent system but our extensive experience in Russian and NATO armaments leads us to choose production, rather than patentability. For this choice we have strong reasoning:

- The cost to apply for international patents is prohibited in absolute amount of money for the procedure and the fees.
- Investment in a patent is never profitable, due to small quantities and confidential nature of defence related developments.
- The competitors very easily could bypass even the most innovative patent and they embosom all our benefits.
- Defence technology does not obey to the international law. If our contracting technology is

vital for the national defence of any country, nobody is not in position to prevent the extensive use.

As a conclusion we prefer to continuously improve our products instead of paten applying, juridical adventures and three letter services pursuit.

6 Integrated PRABA Defence Payments

To avoid legal cases and to distribute equally the business risk, a combined model of payment must be adopted. We present here three methods:

- Mission Holistic evaluation.
- Simple on site measurements.
- Additional Comparative payments.

A synthesis of the above could bring better results. A preliminary description of these three measurements and payment formulas is given beneath.

7 Mission Holistic evaluation

The company-army contracting schema incorporates different new payment options. The private army central idea is defined as absolute calculating efficiency. According to this partial payments are not based on speculations about the future fighting capability, but over concrete data with two options:

- A Randomly selected soldier inside the lab takes all the tests; these <u>statistical data</u> are fending automatically into mathematical model and final a derived down-payment is proposed. This methodology already described in the previous chapter.
- Actual real life long scale assignments in front of the enemy; Full Data from the various sensors represent a reliable fighting capability measurement. Using another more complex mathematical model, we get a more accurate payment. This more complicated technology we present below.

For the needs of our "sensors & systems for military contracting" we describe a future Grebena 1st Battalion incident. The scenario is a part of the private army payment contract with many similar assignments under evaluation.

7.1 Timeframe: 1, day 1, 02:45

The initial assignment commandment arrives from the Department of Defence contracting authority to officer in duty according to normal internal reservist procedures.

The introduced technology is a custom made independent internal early warning system. Such a system must be able to operate after a total telecom failure. (TECODIT tech#8, shortwave sideband emergency)

7.2 Timeframe: 2, day 1, 03:4

Battalion raises up to DefCon Yellow (define condition, according to early warning reservists' signals). All available men gather at one of predefined concentration points, they prepare the guns, they are informed about the mission and finally they proceed to action.

Every soldier wears a watch with foot sensor and other biometric sensors from different vendors. (<u>TECODIT tech#9, watch based fitness gear</u>). Every Soldier is weighted with full load and internally identified with biometric or RFID sensors. (<u>TECODIT tech#10, RFID reader</u>). Especially the sniper rifle has embedded electronics to denote proper use and occupation during peace period. Technology principles vary from passive RFid to active RF encoded bursting. (<u>TECODIT tech#11,</u> secure rifle identification)

7.3 Timeframe: 3, day 1, 03:45

All the 120 men embark into brigade vehicles and they travel 920 km to the destination point a shooting filed of the local army 70 km outside Sofia. They do not follow primary national highways and finally they walk fully armed to the battle area.

Along with their primary guns and ammunition, they carry complicated auditing equipment like Portable weather station reports Temperature, Humidity, Elevation, etc. All soldier data are collected from inuniform system. (<u>TECODIT tech#12, weather-wearable sensors</u>)

7.4 Timeframe: 4, day 2, 21:00

They camp in 3 different places of their selection. Any type of traceable noise is prohibited: acoustic, radio, ultra red, visible, violet, etc.

Along with portable weather station a mission sensor box is carried along. It gathers full spectrum data with sensors for all electromagnetic and light emissions. (<u>TECODIT tech#13, full range</u> interference mission recorder)

7.5 Timeframe: 5, day 2, 05:45

All fully armed soldiers proceed to battle position, they cover their positions, prepare escape routes and wait to finalize the battle.

Every sniper gun has camera inside the range finder and on-off sensor inside the trigger. They both send data to a simple hand held computer (Compaq IPAQ). This technology has been adopted, but not implemented, for ATHENS 2004 Olympics. The IPAQ computer except fire data supports a variety of wearable soldier sensors. (<u>TECODIT</u> tech#4, IPAQ portable sniper DAV recorder)

7.6 Timeframe: 6, day 3, 02:15

In the middle of the night the enemy finally appears. Realistic target replicas are moving around. Snipers have 5 minutes to fire against all different type of targets: armed vehicle drivers, brigade chiefs, light armoured vehicles, and sniper similar targets.

Targets are specially made with impact sensors. They simply count the enemy fire and report these to a database over time and space. (<u>TECODIT</u> tech#14, impact sensitive revolving target & <u>monitoring system</u>). A traditional mission recorder computer integrates a non milspec computer with the necessary electronics to gather all various field data. (<u>TECODIT</u> tech# 15, transportable mission DAV recorder)

7.7 End of Mission

Return to their starting point, assembly the equipment and finally END OF MISSION.

At a later stage, back to the homeland, mission data are fed into the central Army computer. The payment is derived from an operational research model that calculates:

- Accuracy against the enemy (hits per minute, total number of hits, calculated fatality)
- Initial transportation operational velocity from embarkation to battle field arrival.
- Medium attacking velocity of the troop, minimum and maximum at personal level for every soldier.
- Fitness data: Pulse rate, pressure, glucose, oxygen consumption.
- Noise generated as a whole troop and for every individual soldier, recorded in time and space.
- Effect of other conditions like temperature, humidity, time of the day, etc.
- Efficiency as a deviation from the best similar group of the Hellenic army.

All these hundreds of millions of insignificant generated data are normalized and with different mathematical models finally one serious number is printed: The DoD must pay a certain amount of several hundreds thousands Euros to PRABA enterprise as semester payment.

8 Simple on site measurements

In the Battalion headquarter area simple measurements take place every minute, day and night all around the year. According to the technology used and analysis there are five different payment sources:

Logistics: A back-delivery of selected supplies is performed every week and 1360 times per year a soldier cleans his rifle.

Sniper rifle shooting: A platoon of 10 men practice with 100 bullets each once per week, the whole battalion once per month and annually.

Soldier fitness ergometry: personnel hospital physical condition test per year.

Combined laboratory test: 3 platoon per week walk, deep fridge and fire 200 bullet each soldier.

Mission Sensoring and Recording: One realistic mission per year brings to the PRABA the profit, while all the above cover marginal expenses.

Logistics partial test is assembled by:

- supplies hygienic test
- rifle cleaning and corrosion test
- Sniper rifle shooting
- field shooting practice
- IPAQ portable sniper DAV recorder
- 3D impact sensors

Soldier fitness ergometry only is performed I a public hospital.

Combined laboratory test uses:

• Sniper Combined Lab test

Mission Sensoring and Recording technologies use technologies like:

- integrated mission holistic test
- Shortwave sideband emergency
- watch based fitness gear
- RFID reader
- secure rifle identification
- weather-wearable sensors
- full range interference mission recorder
- impact sensitive revolving target & monitoring system
- transportable mission DAV recorder

With simple calculations an annual gross income of 20 hundreds thousands Euro is generated.

9 Additional Comparative payments

Comparative payment guidelines are confusing and contradictory. This payment figures must obey to the 12 PRABA commandments:

- 1. The total future cost of the PRABA operation is lower than the normal army.
- 2. The strategic benefits from this unexpected operation are cheaper than a similar action.
- 3. Regional and unemployment money drawn from Government money must be taken into account for average calculated PRABA efficiency.
- 4. The same technology must be used for sensoring.

- 6. No human intervention is possible or desirable, the calculation line must be clear, although not simple.
- 7. The PRABA company is a free company, no specifications are set.
- 8. PRABA is a service paid business unit.
- 9. NATO security classification schema must be followed with advanced auditing activities and technology (technology to watch other technology).
- 10. Every worker on a PRABA company is a soldier in time of war. On top of this he must sign a statement of refusal of the personal life rights in defcon yellow and above.
- 11. All persons evolved must congregate the most strict limitations of loyalty, ethics and nationalism.
- 12. Governing law of the PRABA soldier is the local country, NATO and UN regulations.

10 PRABAs benefits and opposition

All three of the above sensor based payments are preliminary variations of our final fighting capability model of our Hellenic National Army with normal and private co-operating fighting units. At this pilot stage we found a number of collateral benefits. By definition battle represents a rural area operation. Private army battalions could facilitate every nation regional development effort with a variety of settlements:

- Reduces unemployment on rural areas.
- Establish a decentralised military concept that could elevate to new heights all other regional development attempts.
- Integrate agriculture "green weapon" with rural based military private concept and actions.
- Minimize soldiers and officer's immigration away from their families, a very serious problem in technology based armies (Hellenic).

Apart from all benefits, serious threats do exist from private owned, heavily armed and well trained fighting units. The opposition is both:

• Psychology driven; People are very unaware of anything new that could interrupt their relaxed easy life.

• Pragmatic; PRABA could awake European worst enemies like chauvinism, fascism, nepotism, cleptocracy and all other, forgotten by history, mankind nightmares.

Indicative society and nation threats of the private army battalion adoption are:

- Overpower retraction.
- National conscience elimination.
- Technology failure

10.1 Overpower retraction

Every small army could evolve in mafia but fully armed and capable of any operation. Local police could not reduce the power of such a private army (and not battalion anymore). For this major problem there are technological, political and social solutions.

With the same technology used to finance the PRABAs we can minimize this danger. For example an offline mission recorder could become online after a simple command of the central official national army. Other technology based PRABAs control actions are:

- To investigate the supplies, expense invoices and generally the logistics of the company.
- To locate the RFID tags PRABA weapons and systems.
- To adopt the corporate governance rules for management.
- To interrelate payments with inside company good governance rules.
- Immediate company liquidation and auction; a procedure where international or local law is not applicable.

10.2 National conscience elimination

All around the world young soldiers try to avoid National army joining during peace periods. The private army concept effects this joining with the following artifacts:

- Establishing the conviction, that money could buy everything.
- Accepting missionaries into the civilized society.
- Deactivating energetic citizen.
- Promoting eudemonism in all aspects of public life.

As a general result non professional army is eliminated, reservists are not well trained and national defence structure needs entire reconsideration. In one word we are going to demolish our national defence structure.

10.3 Technology failure

In my early days as an engineer, I faced a lot of technology failures from uucp in the early Internet

days (1983) to DVI and CDI (1990), until today in my defence systems CENTAUR Border Control Vehicle [17] and Olympics 2004 sniper [22]. Technology systems need serious analysis and integration into a working fault tolerant solution. In the case of defence sensor contracting the failure list is unlimited:

- Telecommunication accidentally or intentionally discontinuation.
- System or application software errors or hacking.
- System and sensors initial calibration superficiality.
- Discrepancies in legal and electronic version of contracting.
- Algorithmic and operational research disregards.
- Interrupt the maintenance supply chain (15 years zip for milspec).
- Bypass system use check list.
- New intrusion software technology appearance.

11 Defence Europeanization

European Union has decided to proceed as United States of Europe until the target year 2012. One of the key issues for undeveloped countries like Greece is privatization and market deregulation. It is also crucial for European Union national defence, security and foreign policy. The proposed contracting technology is ideal for a number of realistic and psychology reasons:

- Frogs leap is occurred, according to this we ignore the current generation of technology and status. Instead we jump directly to the next.
- Bypass a whole world of Eurosceptics, corrupted military funds politicians and officers, public opinion makers and most of all Media annoyance.
- Generate a new business opportunity and the card dealer regains domination position.

Of course a number of difficulties are arising like the control of private military companies, public opinion persuasion and governmental operation. We are convinced that contracting technology could facilitate the society to solve this second generation of problems.

The presentation of the subject was not in a poor scientific way for reasons like defence regulations, technology patents and concept complexity. However it does not represent an action movie but a mature technology and business opportunity. A significant number of serious military weapon systems started as fiction: submarines, frequency hopping radio, satellite broadcasting and a lot others. References:

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