THE STUDY OF SOMALIA PIRACY FALSIFICATIONS 2013

Foreword

Frankly, I believed that with evaporating of the Somalia piracy we'll walk off the so-called "Studies on The Economic Cost of Somalia Piracy" (SECS further on), which were diligently concocted by "Oceans beyond Piracy (OBP)" Foundation, whatever this Foundation really is. I didn't expect any excuses or remorse from either OBP staff, or those who initiated and supported those Studies – IMO, BIMCO and a number of other institutions, which regretfully, represent the shipping in the eyes of general public.

I was wrong, of course. OBP is very much alive and as shamelessly as ever concocted a new Study, "The Economic Cost of Somali Piracy 2012".

Here's my analysis, my Study of this new falsification. I analyzed not all of the categories of the "cost" of the piracy, but only the most "heavy" ones, those which constitute the main bulk of the "losses" which unsuspicious of their mighty evil pirates still inflict upon the world economy. That's why, for example, I don't check the sum of the ransoms – it is vanishingly small in comparison with billions created by ingenious researches in other categories.

SECS is intentionally entangled, the purpose of it is explained in the Summary. The first SECS, SECS 2010, was 25 pages thick. Next one, SECS 2011, far outreached the naivety of the beginning, and was 62 pages thick. This newest one is again record-breaking, consisting of 80 pages. The less is the piracy, the more voluminous are the Studies.

Partially, I credit for the growing SECS volumes myself and those few who criticized the first two SECSs. OBP was obviously, ordered to be more careful and to make up something so complicated and dull that nobody would dare to dig into it. Sorry, but it didn't stop me. On the contrary, it made the whole process of exposure even more exciting.

From the SECS 12 Foreword:

"We have found that the report fully lives up to the high standards necessary to earn respect and credibility among all antipiracy stakeholders in Government and Shipping Industry alike, and for the report to constitute an informed and constructive contribution to the anti-piracy debate".
-- Michael Lund, Deputy Secretary General, BIMCO

With this appraisal in mind, let's begin.

Voytenko Mikhail

The No. of SECS pages I refer to in my Study, is the No. out of 80-pages Study as numbered by Acrobat Reader, not the No. printed below each page according to OBP numeration, because their numeration is too complicated – foreword is numerated differently from the main body.

Maritime Bulletin
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OBP Studies:
Economic Cost of Somali Piracy 2010 download http://www.odin.tc/files/secs10.pdf
Economic Cost of Somali Piracy 2011 download http://www.odin.tc/files/secs11.pdf
Economic Cost of Somali Piracy **2012** download http://www.odin.tc/files/secs12.pdf

Maritime Bulletin:
Study of Somali piracy falsifications 2010
http:/www.odin.tc/files/Study_of_Somali_piracy_falsifications10.pdf

Study of Somali piracy falsifications **2012**
http:/www.odin.tc/files/Study_of_Somali_piracy_falsifications12.pdf

The Summary

1.

The OBP researchers already made three Studies, for years 2010, 2011 and 2012. The backbone of the Somalia Piracy Economic Cost is the number of the transits through HRA (High Risk Area). That figure determines actual losses suffered by the shipping.

Each Study is based on absolutely different methodology for calculating the number of transits. The lesser was the piracy threat, the bigger was the number of transits.

2010: 27,775

2011: 42,450

2012: **66,612**

There are two basic known statistics to estimate the number of transits – Suez Canal statistics, and statistics of tanker traffic via Hormuz Strait. According to these statistics (some 25,000 transits, and that's the main bulk of HRA transits), plus rough estimation of other traffics, the total number can't be more than 36,000.

There is substantial traffic of other types of cargo vessels via Hormuz Strait, there is some traffic to/from port of East Africa, but those traffics can't, even theoretically, be equal to, not to mention bigger, than the main bulk of traffic through Suez and via Hormuz.

With all the resources and support they have, OBP researchers could easily get the lacking statistics on Hormuz Strait and East Africa traffic, but instead, they invented a new method, which simply can't be proved or contradicted, because it can not be checked. *All AIS messages sent from the HRA over a sixteen day period in both 2011 and 2012 were collected by ExactEarth's satellites and licensed to OBP for use in this report.* They claimed they processed some 1 million AIS signals. According to the data they use, there should be some 132,000 transits through HRA, more than all known traffic in all of Indian ocean, together with Malacca Strait States local traffic and fisheries! So much for the accuracy of the one million AIS messages method!

They made the final number as 66,612. How? It goes without explanations and illustrations of their "methodology". It goes on trust, so to say. They just said *…we made a fairly significant downward adjustment in the number of ships…*

According to OBP Study for year 2012, there are some unknown to shipping and humankind traffics in Indian ocean, which are equal in volume to the known ones. It just can't be explained by a mistake or by applying a wrong methodology. It can only be explained by an intentional falsification in order to achieve pre-ordered figure of the so-called Somalia Piracy Economic Cost. I, for my calculations, applied a figure of 36,000 transits, collecting every traffic I could think of, and making all possible stretches. The real figure should be less than the one I applied, but so be it. Just in case, you know.

(See II. The number of transits)

2.

In estimating the cost of Navy presence in Indian ocean, the OBP researchers didn't explain and didn't take into account the difference between the basic cost of Navy ships and aircrafts, and the cost of their employment in the mission. According to OBP methodology, the Navy don't cost anything at all when not involved in anti-piracy operation. Hence the cost of the Navy presence, estimated by OBP as some $1,02 billion, is a falsification. We can't calculate the real cost, because we don't know military budgets and spendings. But whatever that real cost is, it simply can't be $1,02 billion, claimed by OBP, because the Navies do cost something, employed in missions or not, sailing around or being docked in their bases. The real cost is the difference between regular annual cost of the ship, and the cost of its employment in the mission.

Also, OBP made, from research point of view, a very grave mistake by not estimating the effectiveness of Navy mission. The truth is, Navies utterly failed to protect shipping from piracy. Private security and some serious changes, which took place in Somalia, did the job, not Navies.

(See I. The Cost of Military Operations)

3.

In estimating the cost of the wire protection, OBP researchers excelled themselves in their findings. They didn't ask the suppliers of the barbed wire in Suez or Singapore, they didn't ask the ship owners, they found in Internet a company based in California, which sells wire and ornamented fence to luxury villas, and used the cost taken from that company's website price-list. OBP decided it wasn't enough, and used absolutely unexplained, or to be more exact, twisted, logic, to calculate the cost of one-transit wire protection. According to OBP, the cost of wire protection per vessel is $16,000. According to the information I gathered from ship owners, it falls within the range of $500 – $4,000. I estimated the cost of barbed wire as $28 -72 million, most probably it does not exceed $40 million, simply because I applied in all my calculations apparently exaggerated 36,000 number of transits. Hence the final figures: **$28 -72 million** against OBP's **$447,888,000**. OBP made the wire cost at lest 6 times more expensive than it really is. Mistake of the researchers? Or falsification again?

4.

There is one very important subject of War Risk Insurance Premiums. The gist of the subject is the understanding of those Premiums – are they paid because of the piracy threat, or because Lloyd's War Committee made them a must? The principal question in determining the cost in insurance is the character of war-risk insurance. As it stands, it's not a necessary and justified insurance to be bought by a sensible ship owner, it's to put it straight, an act of piracy in itself. Using Somalia piracy as a pretext, London-based insurers enforced on the shipping war-risk insurance, and enjoy tremendous profits for quite a number of years.
Predictably, OBP didn't raise this principal question in their 2012 Study, which actually, makes all their War Risk Premium Cost calculation meaningless. Nevertheless, I checked their calculations and expectedly, found some, to put it mild, exaggerations.
(See VII. The Cost of Piracy-Related Insurance)

5.

I meticulously studied other types of Costs presented in SECS, such as the Cost of Increased Speed, or Re-Routing, finding some of them quite amusing. For example, to prevent any outside check of their Cost of Increased Speed assessment, they illustrated their calculations by BIMCO's Curves, provided by BIMCO specially for the occasion. Those Curves are unreadable and make any check of the OBP methodology impossible. One has to find the graphics showing the correlation between fuel consumption and speed elsewhere. I found, and the results were very interesting.
There is rather simple and realistic approach to estimate the cost of all anti-piracy measures which could be taken by the ship owner. With the availability of armed guards and with safety they guarantee – the only guarantee ship owners actually want – all other measures can be estimated in comparison with the cost of armed guards, making all the OBP assessments just useless, unless they were made to achieve a pre-ordered figure of Somalia Piracy Economic Cost.
My estimation of the cost of all anti-piracy measures except guards:
$ 350,000,000
SECS:
$ 2,565,907,810
(See The Cost of all anti-piracy measures except armed guards)

6.

The Somalia piracy could have been done with at least three years ago. Be the safety of the shipping real concern of international community, Navies, politicians, the UN and maritime organizations, they could make shipping absolutely safe at a cost not exceeding **$ 500,000,000**. The army of private guards, employed by a horde of security agencies, in no time came up out of

nowhere, and provided protection for anyone willing to guarantee the safety of his vessel. The Navies could (should) do it, using the same tactics, long time ago, at a much less cost and with a privilege of absolute legality. With no other costs and losses, from ransoms to war risk premiums to re-routing etc.
(See XI. The real Cost of Somalia Piracy)

7.

The study of the money wasted on pirates prosecution, on conferences and working groups of the UN, explains the roots of the OBP falsification.
Three-year cost of prosecuting: **$62,576,587**
Three year cost of organization: **$ 69,883,953**
Total: **$ 132,460,540**
It's too lucrative business to give it up easily which naturally, fathered the OBP Studies and researchers. They've been very well paid, too.
Report of the Secretary-General Ban Ki-moon pursuant to Security Council resolution 2020 (2011) http://www.securitycouncilreport.org/atf/cf/%7B65BFCF9B-6D27-4E9C-8CD3-CF6E4FF96FF9%7D/s_2012_783.pdf, presented on Oct 22 2012 during Security Council meeting, is a fantastic example of a world-scale lie. Mr. Ban Ki-moon praised for the sharp decrease of Somalia piracy international efforts, Naivies, Best Management Practice, and down the list he said, that *"The deployment of privately contracted armed security personnel on-board ships and of vessel protection detachments **may also** have contributed to deterring pirate attacks"*.
Mr. Ban Ki-moon praised the UN as the coordinator of anti-piracy campaign, he said many other amazing things, but to appreciate the real role the UN is playing in Somalia Piracy, we'd have to read the following article:
"How the UN saved the piracy" http://dangerousmagazine.com/project/hijacked-how-the-un-saved-piracy/
Article is written by a well-known US journalist and author, **Mr. Robert Young Pelton**, who ran for some time a news agency Somialia Report, but happened to be too honest journalist and socially responsible person to play into the UN hands.
Mr. Ban Ki-moon referred to, and mentioned among institutions which contribute most to piracy fighting success, a World Bank. World Bank issued its own Study on Somalia Piracy Economic Cost, estimating the Cost at some $18 billion. The World Bank Study deserves a special Study of course. I ran through it, and found it much more amusing than the OBP's. Maybe I'll study it, too, sometime.
For now, let me confine myself by saying that the World Bank has a direct interest in "fighting piracy roots", because some of the funds allocated to it are channeled via the World Bank, hence the riotous fantasies of the "researchers" hired by World Bank.
(See X. The Cost of Counter-Piracy Organizations)

8.

I ask anyone interested to check my Study, to check the Study prepared by OBP, and decide whose Study of the piracy costs is more plausible, mine or OBP's. If mine's more trustworthy, then, I invite you to appreciate the following figures:
OBP's budget expenditure was **$889,000** in 2011, which included $25,000 towards supporting an IMB initiative to develop reporting on the violence experienced by seafarers during piracy attacks.
(From the OBP Study "The Economic Cost of Somalia Piracy 2011")
In 2012, OBP spent **$775,000** on staff salaries, meeting costs, and other expenses related to furthering its mission.
(From the OBP Study "The Economic Cost of Somalia Piracy 2012")
2010 spendings are unknown, but surely they can't be less than **$500,000**.
In 3 years the OBP spent on its' Studies in total, **$ 2,139,000**.

It took me some 2 months to prepare this Study, I wasn't busy with it 8 hours / 7 days a week. Some 6-8 hours weekly, plus several phone calls.

Maritime Bulletin is kept afloat, presently, by a crewing agency. Actually, it means that I'm kept alive, it's the cost of my survival, nothing more. With the deduction of apartment cost and facilities costs, I'm left with some **$200 - $250 monthly** for all the rest, including food, clothes, medicine, fuel for my motorbike, books, etc. Compare the cost of me with the cost of OBP, some **$60,000 monthly** budget. Feel the difference.

The cost of my research is some **$500**.

The cost of OBP research is **$775,000.**

9.

A question arises, in light of the above. How to appreciate the doings of the UN (starting from Mr. Ban Ki-moon), of the IMO, BIMCO and many others, including of course, the OBP researchers? They were, either directly, or indirectly, involved in inventing the falsification for the purpose of profiting from it. They voice the falsification throughout the world, and using it as grounds for their demands, get by now, hundreds of millions of dollars, to fight falsified and inflated problem. They profit from these falsifications personally.

I am not a lawyer. I don't know, if the intentional creation of a falsified Study of a falsified problem, which paves the way for the waste (theft) of multi-million funds, is a criminal act, or some act of public offence. I guess though, that it's criminal.

If that's the case, who's to nail the falsifiers, is there any chance of brining them to justice? I don't think so.

Voytenko Mikhail
May – June 2013

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I. The Cost of Military Operations

Pages 20-25 of the SECS 2012

Total Cost of Military Operations 2012 is calculated to be of $1.09 billion.

…Military costs include the administrative budgets for the "big three" naval missions, the operating costs of surface vessels, their surveillance detachments, and UAVs, personnel costs associated with vessel protection detachments, and the cost of Shared Awareness and Deconfliction (SHADE) meetings…

I don't mind administrative budgets and the cost of SHADE meetings, I think they're more or less correct. I don't care much for VDP (the protection of the cargo vessels carrying humanitarian cargoes under the WFP and AMISOM programs) costs, too, and gladly believe that they cost the sums given in the SECS. What I am interested in, is the cost of the military presence – the cost of the ships, crews, armaments, etcetera.

Total Cost of Counter-Piracy Military Efforts	
Total Administrative Budgets	$22,800,000
Total Cost Military Vessel	**$1,026,945,046**
Total Cost of UAVs	$21,314,540
Total VDP Costs	$19,656,000
Total Cost for SHADE Meetings	$479,520
TOTAL	**$1,091,195,106**

As it is seen from the Table taken from SECS, the main contributor to the total cost is the cost of the ships. What does it consist of? Researches found out, that it consists of the costs of fuel and crew, Tables on Pages 22 and 23, summarizing costs of fuel and crew for different types of the ships and their totals.

Vessel Type	Average Number Deployed	Average Pre-Tax Fuel Price (per gallon)	Adjusted* Daily Fuel Consumption (gallons/day)	Total Annual Fuel Cost
Frigate	8	$3.97	21,641*	$206,191,189
Destroyer	7	$3.97	49,091*	$409,271,667
Auxilary	2	$3.97	12,360*	$29,441,520
Patrol/Reconnaissance Aircraft	6	$3.97	6,335**	$45,269,910
Helicopter	4	$3.97	190***	$905,160
TOTAL	27		89,617	$691,079,446

*24 hours/day, 300 days/year   **5 hours/day, 300 days/year   ***4 hours/day, 300 days/year

Vessel Type	Average Number Deployed	Sailors Aboard	Frigate Monthly Cost	Cost Adjustment	Annual Operating Cost
Frigate	8	230	$1,564,000	1.0000	$150,144,000
Destroyer	7	280	$1,564,000	1.2174	$159,936,000
Auxilary	2	121	$1,564,000	0.5261	$119,747,200
Aircraft	6	11	$1,564,000	0.0478	$5,385,600
Helicopter	4	2	$1,564,000	0.0087	$652,800
TOTAL	27				$335,865,600

They explained in a very scientific-like manner their ways of thinking:

To calculate daily operating costs, we began with an estimate – informed by discussions with individuals with intimate knowledge of naval operations – that the monthly operating cost of a frigate is $1,564,400 with an average of 230 sailors on board. From that calculation, we assumed that the operating cost of a vessel was roughly proportionate to the number of seafarers aboard and concluded that the total operating cost for all naval assets in 2012 was $335,865,600.

I'm not a researcher, maybe that's why I found myself at a loss, trying to embrace this masterpiece of science. You see, I believe that navy ships do cost something, whether they're part of antipiracy operation, or not. For all I know (and there's quite a lot I know, as a former merchant marine with navy submarine service experience), the ship costs something, whether she is docked in a base, or performing exercises, or taking part in mission. Even if the ship is under conservation, she still costs something. What should all those ships do if there is not any antipiracy mission around? Do they disappear somewhere, or are they operated under some routine annual programs of national Navies? If they stay operational, how much do they cost? If there is no mission around, surely they cost less, but they still move around, going to exercises, for example. Being on their routine ways, they're still to be manned, correct me if I'm wrong and they're just left in bases on their own. If they are manned and if they move from time to time, consuming some fuel, is it for free or not?

The SECS authors (wizards, to be exact) assumed, that all those ships whose cost they so meticulously calculated, emerged in Indian ocean out of nowhere. They didn't cost anything before the mission, ergo – they didn't exist. They came to life when the trumpet called, and fell a heavy burden on the budgets of the hitherto carefree governments. When the mission is over, they will disappear, together with crews, to the great relief of the States' treasurers.

The SECS magicians, should they be what they claim themselves they are, the researchers, should figure out the difference between the regular annual cost of the ship, and the cost of the ship deployed in a mission. And that will be the real cost of Military Operation. What we've got instead, is the basic cost of ships maintenance, to be spent mission or not, plus the cost of the deployment. The cost of military operation, calculated by OBP, is therefore, a falsification.

It's not all. Be the OBP "researchers" the real researchers, not the hired guns, they'd look into the effectiveness of Navies presence, and the reasons explaining pitiful results it brought, or to put it straight, the failure of the Navies to protect the shipping. Navies could secure safe passage for all the vessels in the risk zone already in year 2009, not by hanging around the risk zone and chasing suspicious dhows and skiffs, but by providing each passing vessel with military teams. The plan was voiced and proposed many times by different sources, but it was totally ignored and not even discussed. Private security agencies answered the challenge, springing to life out of nowhere, and in less than a year they built up a market where anyone willing was able to hire private armed guards. It was private security which made shipping safe, not navies.

I guess, the States which sent navies to the Indian ocean, are much more interested in signaling their presence near or in Persian Gulf, than in making shipping safe. Navies in their turn, don't mind the year-round exercises with a chance to shoot on living targets, plus of course, some extra budgets they receive.

The navies could make the shipping safe by guarding each vessel like security agencies do it, by that measure alone they'd finish off the pirates – if there's no prey, there are no predators. If they didn't do it, nor plan to do it, if instead, they are engaged in wasteful and meaningless "fighting piracy" activities, then, how can we accredit the cost of their presence to the pirates? It's political games, so I'd leave pirates alone here, and write the navies cost off, except maybe the costs of VDP and to some extent, administrative.

Summarizing:
1. The SECS authors didn't explain the difference between regular cost of navy ship maintenance, and the cost of sending the ship on a mission.

2. Total cost of the ship taking part in naval operations in GoA, consists of two parts – its' regular cost, plus the cost of the mission. Evidently, the cost of keeping vessel in the mission can't exceed or be equal to its' regular cost, because the mission we're talking about is not a war, with no danger of any damages of military nature. The mission cost is not small, but still, it's much less than the regular cost. We don't know exact figures, Navies keep them as a secret.

3. The SECS authors intentionally mixed it all up, and represented the total cost of a navy ship as a cost of a mission. In that case, it means that the ships don't cost anything at all, when they're not taking part in a mission.

4. The actual cost of Navies employment is much less than the cost claimed by SECS, but how much less, we can't know, because we don't have any Navies budget data, except the Administrative costs, which seem to be true.

5. The SECS authors absolutely ignored such factor, as the effectiveness of Navies presence in comparison to the effectiveness of private armed guards. The very low effectiveness of Navies protection, in fact their failure, leads us to believe, that there must be some other reasons besides piracy to keep Navies in the region. Any sensible and honest research would take all those factors into consideration, to miss them totally means to falsify the whole Study.

II. The number of transits

The main bulk of the billions found by OBP in Somalia waters is directly related to the number of transits, i.e. the number of vessels which cross risk zone (HRA). This number is vital to the whole idea of their "Study", it's a backbone of their calculations, so it's very important to find out, what figures do they operate in order to calculate the losses. One may think that it's very simple, but it will only mean this person doesn't understand the ways of scientific minds, which seem to be very different from ours. OBP uses several figures, and different approach to estimate the number of transits in its' three Studies.

In their first Study 2010, some 30,000, or more exact, figure used in the calculation of deterrence cost was **27,775** transits. No explanations given to the methodology of calculating the number of transits.

In their second Study 2011 they claimed, that the number of transits was estimated on the base of statistics obtained by the Navies:

To estimate the number of vessels transiting this area, we have used information from UNAVFOR's Maritime Security Center Horn of Africa (MSC HOA). To be in compliance with Best Management Practices Version Four (BMP4), all ships transiting the HRA are required to register with MSC HOA. An October presentation by EUNAVFOR's Chief of Staff, Captain Keith Blount, showed the number of vessels registering with MSC HOA between January and August 2011. From these figures, we estimate the average number of vessels registering each month to be around 2,830, or 33,960 vessels registered in 2011.40 Since adherence to BMP (and registration of vessels) is estimated to be around 80% compliant, we presume 33,960 vessels represents approximately 80% of the total.41 Therefore, the total number of vessels transiting is likely to be around **42,450** *per year.*

I didn't find any public statistics of the vessels registered with MSC HOA, though surely such statistics exist, and why they're secret, is anyone's guess. Statistics should differentiate merchant ocean-going vessels, fishing vessels, local vessels and yachts, and the routes those registered vessels took. It's very simple. Still, all we're left with is EUNAVFOR's presentation made somewhere, without any required for any respectable Study detailing of the statistics.

In their Study 2012 OBP again, changed its' approach, using the most doubtful one.

In the beginning, in the Executive Summary, they said that:

…the analysis of Automatic Information System (AIS) data has caused us to revise our estimates of large-scale commercial shipping traffic in the Indian Ocean from 42,450 vessel transits to 66,612 transits per year

Where did SECS find 66,612 HRA transits? I think I know where. Let's visit page 16 of the SECS and read this:

The primary change in methodology is a fundamentally different approach taken to calculating the cost of rerouting and increased speeds. These changes have improved the accuracy of our methodology. The source of these improvements is over 1 million AIS messages collected by ExactEarth's satellites and provided to OBP for use in our research.

SECS found those 66,612 transits, using AIS data. I advise everyone interested check live AIS data along the western India coast, around Hormuz Strait and in any other coastal area near or in HRA. I found, quite expectedly, that there are hordes of AIS signals from tugs; vessels described as cargo but without IMO number; cargo vessels locally flagged of so small size, that they simply can't be anything else except dhows or coasters, definitely not in the category of ocean-going cargo vessels engaged in international trade.

SECS quoted curious figure on page 26:

...we made a fairly significant downward adjustment in the number of ships transiting the HRA each year, based on Catlin Group estimate that there are around 35,000 insurable ships in the Indian Ocean each year

That one looks to be true. The only problem with 35,000 insurable vessels is, it covers vessels in ALL of Indian ocean, and as such, can't be used for losses calculations. The word "insurable" is very important, because only insurable vessels can be counted and calculated in losses summing up. Because dhows or local coasters just can't be equaled to insurable ocean-going vessels – with cost of armed guards being equal or exceeding the costs of those local traders.

To appreciate the correctness of the method they used to calculate the number of transits, those AIS messages, we have to return to the very interesting remark quoted in the above:
...we made a fairly significant downward adjustment in the number of ships...
What exactly did the reduce, what number of transits they found to be too big?
The answer we'll find on pages 29-30 of the SECS:
All AIS messages sent from the HRA over a sixteen day period in both 2011 and 2012 were collected by ExactEarth's satellites and licensed to OBP for use in this report.

In the Section 5, The Cost of Increased Speeds, authors tried to figure out the number of vessels transiting HRA at increased speed, and they used those 1 million AIS messages they're so proud about. The Table (Page 30 of the SECS) below gives the number of transits of ONLY tankers, container ships and bulk carriers – or what the authors took for it, based on AIS data, during 16 days period:

	Tankers	Containers	Bulkers
Raw Number *(of transits – M.Voytenko)*	**909**	**1719**	**1719**
Raw Number (Fast)	520	720	1106
% Above Optimal	57.21%	41.88%	64.34%
Cost per Fast Ship	$25,895.92	$29,750.05	$63,247.25
Aggregate cost	$13,465,880.34	$21,420,035.38	$69,951,457.59

Next Table gives us the estimation of annual transits of ONLY tankers, container ships and bulk carriers, based on the method used by SECS authors – i.e. the processing of those famous one million messages:

	Tankers	Containers	Bulkers
Number *(of transits – M.Voytenko)*	**20736.5625**	**39214.6875**	**39214.6875**
# Above Optimal	11862.5	16425	25230.625
% Fast	57.21%	41.88%	64.34%
Cost per Fast Ship	$25,895.92	$29,750.05	$63,247.25
Aggregate cost	$307,190,395.33	$488,644,557.20	$1,595,767,626.22

I highlighted the resulting number of transits of ONLY tankers, container ships and bulk carriers – total number is 99 164, more than all known transits in Indian ocean, taken together! Suez transits – 17 255; Hormuz Strait – 11,000; Malacca Strait – 50,000-60,000. Total number of transits of all types of vessels should be then, according to SECS methodology, some 132,000 transits (including all other types except bulkers, tankers and boxships)! More than all known traffic in all of Indian ocean, together with Malacca Strait States local traffic and fisheries!

Even being the researchers in the OBP think-tank, the guys still felt such a number to be too much, or maybe they were advised by BIMCO experts (experts in lies, I'd add), and made the final number as 66,612. How? It goes without explanations and examples of their "methodology". It goes on trust, so to say. They just said ...*we made a fairly significant downward adjustment in the number of ships...*Is it a new kind of methodology, or is it a poorly disguised falsification?

How to figure out the most plausible number of transits through risk zone (HRA – high risk area, definition used by OBP). First of all, let's outline this HRA, it's not all of Indian ocean. It's roughly a polygon, situated between Bab el Mandeb Strait, Horn of Africa, Hormuza Strait, Sri Lanka and northern Madagascar. There are several traffics in this area:

Suez Canal Transits (known statistics) = Asia-Europe + Asia-Persian Gulf-Europe + Europe-Persian Gulf (incl Oil)

Persian Gulf Oil (known statistics) = Asia + Europe + Americas

Persian Gulf other cargoes (unknown statistics) = Asia + India

**East Africa** (unknown statistics) = Asia + Europe + Persian Gulf
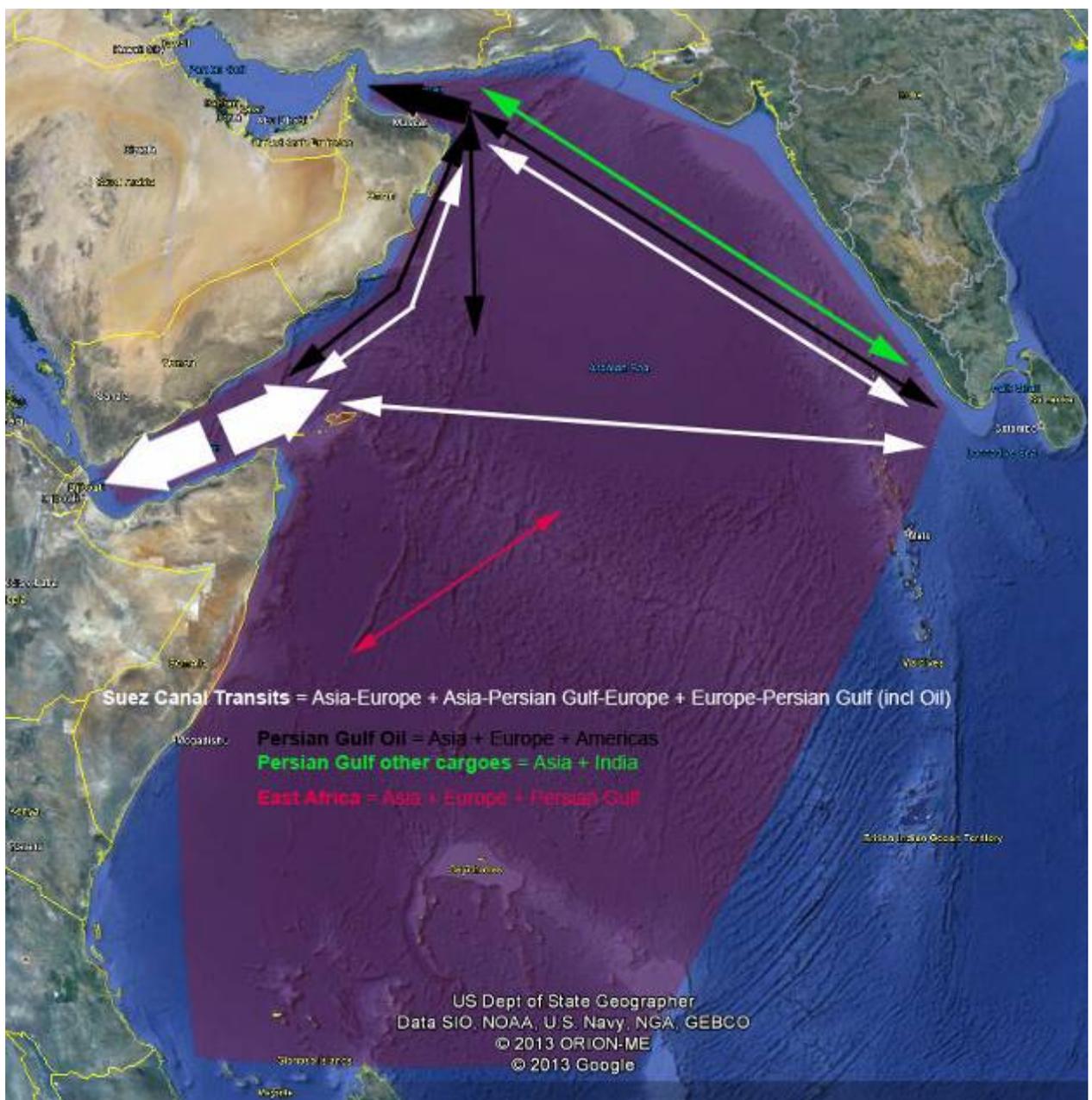
According to Suez Canal statistics, there were **17,255** transits in both directions in year 2012. According to many sources, starting from Wikipedia, some 28 tankers transit Hormuz Strait each day, some **10,000 annualy**. About 14 outbound crude oil tankers passed through the Hormuz Strait daily, with about 54 percent of the cargo destined for Asia and the Pacific, 24 percent for Europe, and 22 percent for North America. Annual total number of transits is 10,220, Europe-bound traffic is included in Suez Canal transits, the rest is 76%, or **7,800** HRA transits.

I wasn't able to figure out the number of other types of merchant ocean-going vessels transiting Hormuz Strait. Some of them are the vessels which transit Suez, some of them sail to/from East Africa ports, some of them sail to/from India and Malacca Strait.
I've been told by the security agency, that mostly, vessels transiting Hormuz Strait to/from eastern and southern directions, hire armed guards. But the security people expressively said, that the main body of the vessels hiring armed guards, consists of the vessels transiting HRA in East – West directions, i.e. the vessels which transit Suez. I've been checking AIS signals in Hormuz Strait randomly, the number of all other types of cargo vessels except tankers is less or roughly the same as the number of tankers. Simple logic says that the number of all other cargo vessels can't exceed the number of tankers, because there is about nothing else except oil to carry from Persian Gulf States, so the main bulk of cargoes is import, consumer goods and all the machinery required for oil and gas production.
At least third of those other types of cargo vessels is included in East – West statistics, leaving us with some **8,000** transits to be included in total number of transits, which is I feel, too generous assessment, but so be it.

As for East Africa traffic, let's look at the picture given in SECS (page 53), which is based on "satellite Automatic Information System (AIS) data provided by ExactEarth™ and licensed to OBP for use in this report" (page 10).
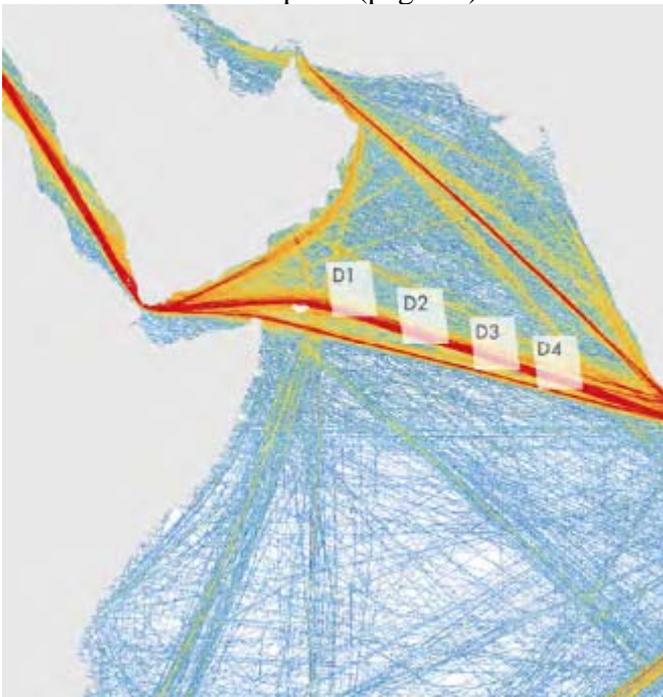
We can clearly see, that the East Africa traffic is incomparably lower than Suez and Hormuz traffics. I didn't find ships calls statistics for East Africa ports, but the biggest (except SAR) port Mombasa, judging by the cargo turnover and diversity of the cargoes, is to receive some 2,000 – 3,000 ships calls annually, with at least half of them going to/from Suez and Persian Gulf, i.e. already included in other statistics. So the total number of the transits on the East Africa routes can't be more than some **3,000** transits.

So the total number of the HRA transits, by my calculations, can't be more than **36,000** – I think it's too much, actually, but I'm not as pedantic and conservative, as my opponents, and besides, I didn't master the technique of *fairly significant downward adjustment.*

If there are some 36,000 HRA transits, where did the rest 30,000+ transits come from, if we're to trust the OBP figure of 66,612? From where do those vessels come, and where do they go? Is there in Indian ocean a route with a traffic, exceeding traffics of Suez and Hormuz, taken together? It's a miracle, then, requiring immediate research to be made by Discovery Channel teams. The only proof of the existence of such paranormal activity lies in one million of AIS messages, assumedly processed by the SECS authors.

The figure itself is curious, too. Why it is so exact - 66,612, while it's obvious, that the exact number just can't be figured out, it's physically, technologically impossible. Well, it may be possible in theory, but it will require enormous resources to be involved, like satellite 24/7/12 monitoring and checking, individually, each vessel and its' routes.

Summarizing:
1. According to reliable sources (such as Suez Canal and Hormuz Strait tanker statistics), the total number of HRA transits can't be more than some **36,000**.
2. The number of transits given by SECS, i.e. **66,612** transits, is based, initially, on a method of processing of one million AIS messages, which were collected by ExactEarth during the16-days period. Annualized 16-days data resulted in absolutely fantastic number of transits, more than one hundred thousand!
3. The authors "adjusted" that figure, not bothering to explain their criteria of "downward adjustment", and made the final figure 66,612, without any further explanations.
4. SECS ignored known statistics, and substituted them with mysterious million of AIS messages, and all the more mysterious processing of those messages. With all resources at their disposal, from financial to informative, with the support they receive from maritime tops and Navies, they could and should determine exact number of transits made by two mainstreams in HRA: East – West and to/from Persian Gulf.
5. 66,612 number of transits accepted as basic figure undermines all the following calculations performed by SECS.
6. Such a dramatic discrepancy between the figure confirmed by known statistical data, and figure given by the authors of SECS, can be explained either by a wrong approach in assessing the number of transits (based on million of AIS signals), or, which is much more probable, by intentional twisting of the data.
7. If the SECS "researchers" were tasked with given figure of losses, then, they worked on the reverse scheme – they weren't moving from initial available data to the results whatever they may be, but from the pre-ordered figure of losses (those $ 5.7 – 6.1 billion) to the data required to calculate those billions, whatever this data will be. This assumption is confirmed by the SECS calculation of the re-routing cost, in which the number of transits is based on Suez statistics.

III. The Cost of Security Equipment and Guards

Security Equipment (Razor Wire):
Table from Page 25 SECS:

Type of Equipment	Unit Cost per Ship	Units per Year	Rate of Use (Low)	Rate of Use (High)	Total Cost (Low)	Total Cost (High)
Razor Wire	$7,998.00	2.00	80%	80%	$447,888,000.00	$447,888,000.00
Water Cannons	$118,755.00	.20	.25%	.83%	$2,078,212.50	$6,927,375.00
Electrified Barriers	$39,585.00	.33	.75%	2.5%	$3,463,687.50	$11,545,625.00
Warning Signs	$4.50	1.00	80%	80%	$126,000.00	$126,000.00
Acoustic Devices	$21,000.00	.20	5%	15%	$7,350,000.00	$22,050,000.00
Sandbags	$1,424.16	1.00	80%	80%	$39,876,480.00	$39,876,480.00
TOTAL					$500,782,380.00	$528,413,480.00

Cost of razor wire is, according to SECS, a staggering figure of $447,888,000.00. What do the authors mean by the Column titled "Units per Year"? Vessels use one unit twice a year, or vessels use two units to make a two-layer protection?

What's the number of transits for figuring the total cost? Authors, to the best of their practice, don't clarify. Ok, let's figure it out. $7998+$7998=$15996. $447,888,000:$15996=28,000 – meaning the number of either vessels, or transits. It definitely can't be 80% of total number of transits, 66,612, taken by SECS as a basic figure. So what is it? It can be only 80% of 35,000 – the figure I wrote about in Section II. The number of transits.

Let's look at a Table on page 52, which is in
Appendix C:
Methodology for Calculating Cost of Security Equipment & Guards

Security Equipment	Unit Price	Unit Length	Units/Ship	Replacement Rate	Ships in HRA	Compliance Rate (Low)	Compliance Rate (High)	Ships w/ Product (Low)	Ships w/ Product (High)	Total Cost (Low)	Total Cost (Low)	Total Cost (High)
Razor Wire	$199.95	75	1500	40	2	42450	80%	80%	33960	33960	$543,224,160.00	$543,224,160.00

Where did this come from? Unit length is 75 feet, or 23 meters. What does "Units/ship" column mean? What's "Replacement rate" and what we're to do with it? How to understand it all and especially, final cost of $543,224,160 million? Here's
Methodology of Calculations:
• *Total Cost: unit price*units*replacement rate*ships with product*
• *Unit Cost per Ship: unit price*units*
According to the Table, unit cost for ship = unit price x units. Does it mean that we need 1500 units per vessel? 23 x 1500 = 34 500 meters. Even if SECS measures each vessel passing HRA at 400 meters length, with 34.5 kilometers of wire vessel may be shrouded in 43 layers of wire, which should seem to be a bit odd for anybody, even for SECS authors.

Why there are two tables, each estimating razor wire cost, each table doing it in its' own manner, goes unexplained. I guess, the SECS authors firmly believe nobody would be able to read the SECS that far.

I calculated the number of 75-foot units SECS took as average and used in calculations. The number is 40, or 920 meters, meaning the vessel may be surrounded with two layers of wire. The price $199.95 per 23 meters was taken from a website of a Californian company (see SECS page 52):

"fencegateandbeyond.com is a direct seller of home and garden decoration iron products located in Southern California" – that's the description of the company taken from its' website: http://www.fencegateandbeyond.com/18-concertina-razor-wire-galvanized-steel-1-box-5-rolls-cwgg18r5.html

I decided to find out the actual costs in good old non-scientific way of asking those, who supply the wire and who use it. I called a shipowner, acquaintance of mine, whose vessels regularly cross the HRA, and asked him about the razor wire cost. He operates 8,000 ton MPP vessels, of 130-meter length. Each installment of the wire (in Suez) costs him … $400-600. Nowhere near the fantastic figure of $7, 998, let alone 2x$7, 998. The shipowner I've been talking to said he protects vessel with only one layer.

I called the security agency, acquaintance of mine, and was surprised to find out, that many shipowners who hire armed guards also protect vessels with wire, though security finds it absolutely needless. But he assured me, that shipowners who hire armed guards, though still clinging to wire, at least don't use two layers, finding one layer quite satisfactory.

In Suez local ship suppliers offer barbed and razor at prices ranging from $100 per 70-meter coil to $100 per 200-meter coil depending on wire type. http://www.seabird-marine.com/New%20Tricks%20Against%20The%20Somali%20Pirates.htm

Let's assume an average vessel's length is 170 meters. It will need then, 3 vessel's lengths of a wire, to protect boards and some ladders and accesses in superstructure. Some vessels may use two layers along boards, not one. Let's agree on a 600-meter wire length as an average.

A typical 170-meter vessel's wire protection may cost $500-700, but let's be not as conservative as SECS authors, who're constantly reminding the reader, throughout all the SECS, that:

ECoP is not written to inflate the cost of piracy in the minds of the international community. It is meant to be a sober reflection upon costs incurred by the relevant stakeholders, and its conservative cost estimates reflect that aim. (Page 16)

So I'd assume the cost of a wire protection per transit as $1,000. I use my estimations of the total number of transits, the figure of 36,000, which is more than the figure used by SECS. 80% of 25,000 is 28,800. 28,800 x 1,000 = $28,800,000.00 – the total cost of wire used by shipping for protection in HRA.

Some vessels of some companies, I was told (but I wasn't told by the initial source), use 3-layer wire protection, which is costing them, depending on vessel's length, some $3,000 – 4,000. Ok, let's accept average cost as $2,500, total cost is then, $2,500x28,800=$72,000,000, still a far cry from whooping $447,888,000.

Summarizing:

1. The authors of SECS made two Tables to explain their calculations, contradictory to each other.

2. In one Table they used the annual number of insurable vessels, assumedly present in Indian ocean, to calculate total wire cost. In another they used the number of transits. For final SECS figures, they calculated the total cost basing on a number of vessels, not transits.

3. They didn't bother to explain why did they compile two Tables, and why one is used for final calculations, while another one is given in Appendix as a Methodology.

4. In both Tables they used inflated cost of razor wire, found in Internet, and used that cost just because it was the biggest figure they could find.

4. With all the resources at their disposal, they didn't do seemingly obvious research into the matter – they didn't contact the shipowners and the suppliers.

5. The cost of a wire protection they give is an outrageous sum of $15,996, while the real cost, based on shiowners evidence and Suez price list, ranges $400-600 and $3,000-4,000. Even if assume the cost of wire per transit to be $2,500, it's still 6.5 times less than the cost claimed by SECS.

6. The total cost of razor wire given by SECS, $447,888,000, is at the very least 6 times more than the actual cost. It can't be a mistake of negligence or miscalculation. It can only be an intentional lie.

Total cost:

My estimation:

Low: $28,800,000.00

High: $72,000,000

SECS:

$447,888,000

Guards:

The cost of private guards according to SECS, Table on page 27:

Total Transits	Rate of PCASP	Ships w/ PCASP	Cost per Transit (3 guard average)	Cost per Transit (4 guard average)	TOTAL (low)	TOTAL (high)
66,612	50%	33306	$34,500.00	$46,000.00	$ 1,149,057,000.00	$ 1,532,076,000.00

An average cost of the private guards team may be accepted as $45,000 per a transit, the percentage of the vessels protected by private guards, to my knowledge, is no less than 70%, not 50%. I assume the average cost of the team to be $45,000; I assume the percentage of the guards use even higher than the one SECS applied, but alas, I find the number of transits SECS used as totally falsified. I repeat again, while my estimation of the number of transits is based on known data, SECS estimation is given without any proof.

Hence the difference:

My estimation of total cost:

70% of 36,000 is 25,200 transits. 25,200x45,000=**$1,134,000,000**.

SECS figures:

Low: **$1,149,057,000.00**

High: **$1,532,076,000.00**

Summarizing:

The cost of guards is determined by two components – the cost of a team and the number of transits with guards on board. The cost of the team used by SECS is realistic, the percentage of the vessels using guards is even less than I use, 50 against my 70, but the total number of transits, accepted by SECS as basic, beats them all, making total cost calculated by SECS bigger.

My estimation of total cost:

High: **$1,134,000,000**.

SECS figures:

Low: **$1,149,057,000.00**

High: **$1,532,076,000.00**

IV. The Cost of Re-Routing

Two Tables below represent SECS estimation of the cost of re-routing (page 28 of SECS Study):

Vessel Type	Vessel Class	Additional distance from re-routing (nm)	Additional time from re-routing (days)	Number of vessels through the Suez Canal	Proportion of vessels re-routing
Tanker	Handysize	760.045	2.64	1819.5	49.61%
Tanker	Aframax	760.045	2.64	1819.5	49.61%
Bulker	Handymax	760.045	2.64	1468	49.61%
Bulker	Panamax	760.045	2.64	1468	49.61%

Vessel Type	Vessel Class	Additional Charter Cost (per voyage)	Additional Fuel Cost (per voyage)	Total Annual Charter Cost	Total Annual Fuel Cost
Tanker	Handysize	$33,779.78	$46,651.56	$30,491,449.84	$42,110,216.80
Tanker	Aframax	$44,335.96	$79,200.00	$40,020,027.92	$71,490,192.84
Bulker	Handymax	$25,070.93	$44,000.91	$18,258,525.67	$32,044,750.41
Bulker	Panamax	$25,070.93	$51,952.88	$18,258,525.67	$37,835,970.36
					$ 290,509,659.51

Two interesting aspects in SECS re-routing estimation:
1. Suddenly authors decided to use in calculations not the total number of transits they accepted as basic, 66, 612, but the number of transits via Suez Canal, 17,255. But in estimating the percentage of the vessels which presumably, take re-routing, SECS authors again, turn to their AIS million messages. How did they figure, that the percentage of re-routing vessels is 49.61%, goes unexplained. In their explanation of the Tables and figures they said (page 28):
…rather than using industry estimates to arrive at the percentage of ships re-routing along the Indian coast, we used AIS data provided by ExactEarth…
How come? They use industry statistics (Suez Canal stats) to get a figure of total number of transits, but they use their own statistics, to get a percentage of re-routing vessels?
They applied those percentages to the figures taken from Suez stats, implying that ALL the bulk carriers and tankers transiting Suez are handy and aframax/panamax types, which seems to be too wide generalization.
2. There is a logical question to the whole idea of re-routing, judging from the costs given by SECS. The cost of aframax re-routing, according to SECS, is $123,535. The cost of the guards team, even most expensive, is some $50,000. What's the use of re-routing? In year 2012, pivotal year in protecting shipping from pirates, private security turned into available for all service, so why suffer the cost of re-routing, two and a half times bigger than the cost of armed guards? Besides, re-routing doesn't guarantee a safe passage, while armed guards guarantee just that – a safe passage.

Summarizing:
The methodology, if it may be called that, of calculating re-routing cost is absolutely unsatisfactory and far-fetched. To prove their figures, SECS authors should interview several ship owners and get the facts from them. What we see instead, are bare speculations, shrouded in SECS basic mystery of million of AIS messages.
Quite a number of vessels may take a re-route, but the question is, why? To provide a safe passage, or to use piracy threat as a pretext to elongate the route in order to provide longer employment in these hard, crisis days of merchant shipping?

The cost of the re-routing, if there is any such cost at all, remains unknown. The total figure of the cost $ 290,509,659.51 may be ignored as unreliable.

V. The Cost of Increased Speeds

The main Table with total figures from Page 30 of the SECS:

Ship Type	Proportion in Suez	Number of Transits in HRA	Proportion Steaming Faster than Optimal	Number Steaming Faster than Optimal	Average Cost per Fast-Steaming Ship	Subtotal
Tanker	27.59%	16539.6	57.21%	9461.64837	$25,895.92	$245,018,124.62
Container	37.76%	22635.4	41.88%	9480.80252	$29,750.05	$282,054,340.94
Bulker	34.66%	20776.1	64.34%	13367.316	$63,247.25	$845,445,964.25
TOTALS		59951.25		32309.7669		$ 1,372,518,429.81

The discrepancies and absolutely unexplained calculations are nowhere as dense as this Section. For example, let's look at figures in first two columns, Proportion in Suez and Number of Transits HRA. Total number of HRA transits of tankers, container ships and bulkers is 59951. That's 90% of all the transits, according to SECS 66,612 total number of HRA transits. But according to Suez statistics, tankers, container ships and bulkers taken together constitute 75% of all the Suez traffic. The rest are the vessels of other types – 25%. According to SECS total number of transits, and proportions in Suez, total number of HRA transits of tankers, containers and bulkers shouldn't be more than 50,000.

Let's turn to the BIMCO CURVES, which explain to us the methodology of SECS calculations. Here are the container cost curves (Page 56):
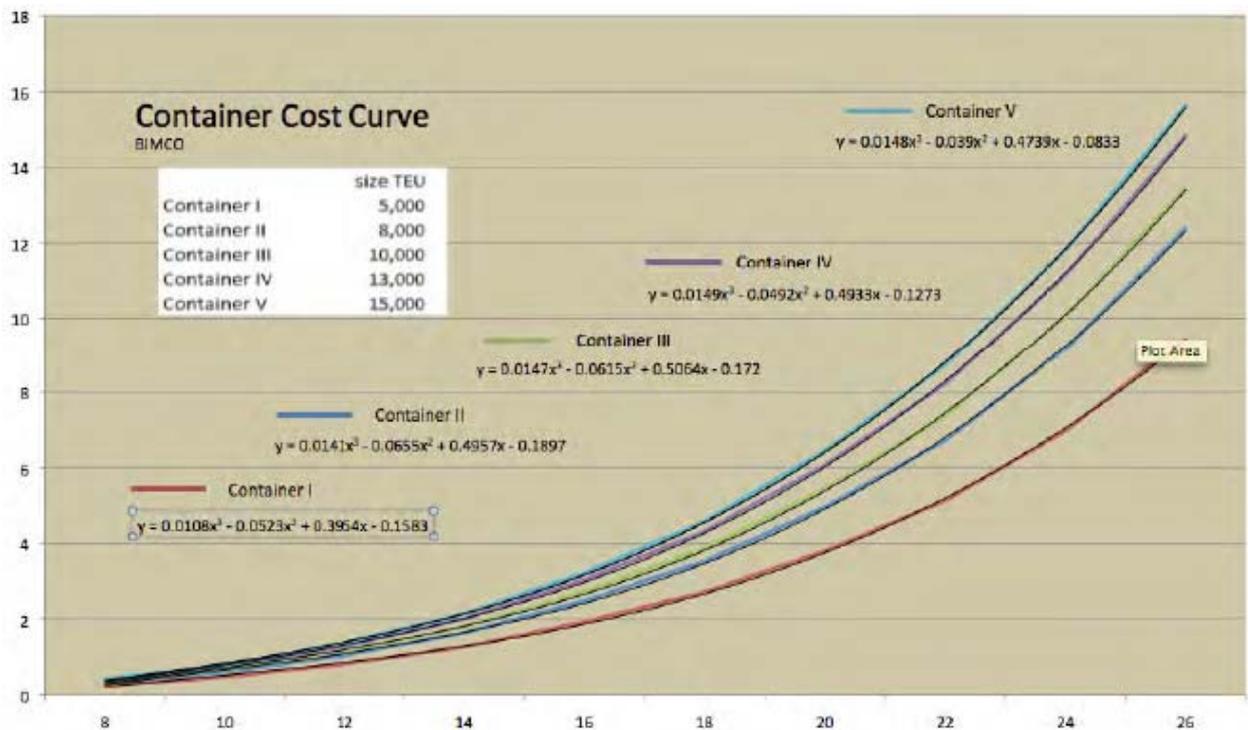
The curves are called to illustrate the relation between speed and fuel consumption. What's x-axis and what's y-axis, what do they show? I guessed that x-axis gives the speed, but what about y-axis? BIMCO's curves are accompanied with some mystic quotations, whose sole role is to convince us how very scientific is the whole business. Maybe there's some other meaning, but I don't see it. Here are the curves easily found in Internet, which vividly demonstrate the relation between speed and consumption, without unnecessary quotations (http://people.hofstra.edu/geotrans/eng/ch8en/conc8en/fuel_consumption_containerships.html):
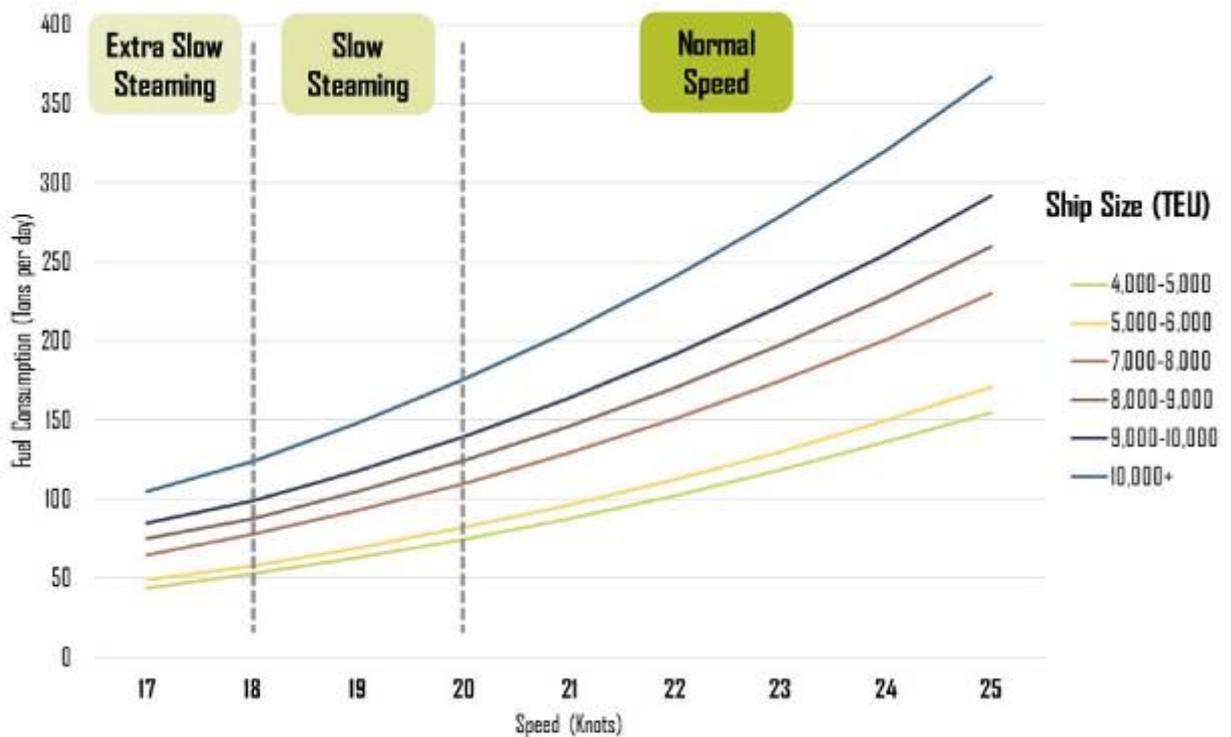
We must ask ourselves then, what is the reason behind those BIMCO's Specials, BIMCO's Curves, why SECS authors had to disguise obvious things in as unclear exposure as possible? Well, one reason is obvious – to demonstrate the scientific approach and to distract readers as much as possible, in order to convince them, that the SECS is actually, a very thorough research. Is there any other reason?

Let's assume boxships reduced speed is 17 knots, then to make themselves safe, they have to increase speed up to 20 knots. That's what SECS says, too. Now, let's figure the average growth of fuel consumption for boxships of 7,000 – 10,000 TEU capacity, the main type of vessels used on Far East – Europe route. It will be some 60 tons of extra fuel per day. 60x$600=$36,000 per day extra cost. Something more or less close to the figure given by SECS - $29,750, is not? No, it isn't. On average, vessels have to cross some 2,000 nautical miles of HRA, it's 4 days of sailing at 20 knots speed. Total cost should be then, $36,000x4=$144,000. Even if we use the lower figure of SECS, it's still $29,750x4=$119,000.

If that's the case, then, according to the number of transits used by SECS, total cost should be whooping $1,128,120,000 – and that's only container ships. They found it to be too much, and decided to reduce the totaling figure by applying one-day cost, which is nonsense, from any scientific, or just common sense, point of view.

$120,000 extra cost of increased speed makes actually, increased speed as protective measure absolutely senseless – for $120k ship owner can hire a battalion of armed guards, and hold the fort against all Somalia pirates, taken together.

As for bulk carriers and tankers, it's such a speculation in itself, that SECS calculations simply can't be taken seriously even for scrutinizing. SECS authors assume, that the bulk carriers in general, have a cruise speed of 18 knots, when in fact, it's 12-15 knots. SECS authors took the percentage of vessels which proceed at increased speed out of nowhere, without any proof or fact given. Liner ocean-going container ships proceed nowadays mostly at reduced speed, it's a fact. But tankers and bulk carriers, though in crisis, have a life of their own – each voyage is unique in its' own way. Vessel may proceed at reduced speed, may proceed at cruise speed, it depends on terms of a voyage. Cruise speed may be equal to full speed or less down to 20 percent, it's individual, so to say. There is no exaggeration in stating that there is no way to find out how many tankers and bulkers proceed at increased speed, relying on AIS signals only. There is only one way to find out the approximate figures, by interviewing as many ship owners as possible. SCES authors didn't interview any, because they knew the answers won't suit them.

That's what SECS authors should do, be they in quest for the truth, not for the falsified figures they were ordered to obtain – they should interview as many ship owners, as possible, and build up the research on their evidence. Instead, authors are dazzling us with BIMCO's Curves and a million of AIS messages.

Summarizing:
1. Authors again based their calculations on again, false number of HRA transits.
2. Authors illustrated their calculations of fuel cost by BIMCO's Curves, made in such a way that it's simply impossible to check their calculations.
3. When checked, SECS higher fuel cost found to be the cost of just one day of sailing at increased speed, which is absurd.
4. The methodology of figuring out the number of tankers and bulkers, crossing HRA at increased speed, as explained by the authors, is far-fetched and unrealistic.
5. To prove their calculations, authors should interview the ship owners, but there are no examples, and presumably, there were no interviews, i.e. there is no factual data to confirm the calculations.
6. **The cost of increased speed, if there is any such cost at all, remains unknown. The total figure of the cost $ 1,372,518,429.81 may be ignored as unreliable.**

VI. The Cost of Labor

Nothing seems to be wrong with the calculation of the Labor Cost, except one component in a simple quotation – except the number of HRA transits.

From Page 33 SECS:
…we conclude that at least 70% of seafarers transiting the east African HRA are entitled to receive hazard pay…
…hazard pay costs ranging from $3,000 to $19,000 per transit, with an average cost of around $10,000…

Hazard Pay in 2012	
Hazard pay per transit through the HRA	$10,000
Transits per year through the HRA	66,612
Percentage of vessels disbursing hazard pay	70%
Hazard pay in 2012 due to E. African HRA	$466,284,000

When changing SECS' 66,612 figure with 36,000, we'll get a total sum of Labor Cost as $252,000,000, not a small sum, too, but still, much less, than claimed $466,284,000.

Summarizing:
My estimation of Labor Cost: **$252,000,000**
SECS estimation: **$466,284,000**

VII. The Cost of Piracy-Related Insurance

There is one thing related to the piracy-related insurance, which should be clarified and understood. What's is the character of the war-risk insurance in relation with Somalia piracy, or any piracy at all? Just what it is the insurance covers? What risk and what damages? Pirates don't pose any war risk, vessels are not in danger of being bombed, shelled, torpedoed or mined. There are no damages even remotely resembling the war damages, except bullets marks on the superstructure and broken windows. During the last 12 months, there was no vessel reported to suffer even those, from pirates AK-47 fire.

What is it the ship owners pay for, with those premiums? They understand it for what it is – it's an insurers' racket, no more and no less. The War Committee declared half of the Indian ocean a War Zone, and insurers started to collect their loot. Paying war-risk premium is not an act of a free-will, it's an obligation, a must. K&R insurance is an insurance in true meaning of it – it's not compulsory, it's up to ship owner, he may buy it, he may not. But since armed guards entered the game, K&R insurances lost all its' attraction.

The principal question in determining the cost in insurance is the character of war-risk insurance. As it stands, it's not a necessary and justified insurance to be bought by a sensible ship owner, it's to put it straight, an act of piracy in itself. Using Somalia piracy as a pretext, London-based insurers enforced on the shipping war-risk insurance, and enjoy tremendous profits for quite a number of years. The insurers more or less account for their losses and their gains in other kinds of insurance, but not in this one. Costly maritime accidents during the year raise complains from insurers about the falling profits. Why don't they tell us, how much do they lose in "covering" war risks in Indian ocean? How many vessels were blown up and burned by pirates? What were the insurances paid to ship owners, what losses did they cover?

Any Study of piracy-related economy losses which is attributing war-risk insurance to pirates, is a falsification. There is no war risk, there are greed and impunity of London insurers, thriving on total lack of industry's resistance to questionable practices.

With all the above in mind, one can't but wonder, once again, at the SECS calculations. The number of insurable transits was determined to be 42450. Again, though using their own estimation of number of transits, to calculate the cost of the insurances for all types of the vessels, they used the proportions taken from Suez Statistics.

Table with calculations of the total cost of war-risk insurance, according to SECS (Page 40):

| Ship Type | Group 1 | | Group 2 | | Group 3 | | Group 4 | |
| | 25% of Ships | | 25% of Ships | | 25% of Ships | | 25% of Ships | |
	# of Ships	Rate per Ship	# of Ships	Rate per Ship	# of Ships	Rate per Ship	# of Ships	Rate per Ship
Tanker	2293	$20,500.00	2293	$10,250.00	2293	$12,300.00	2293	$6,150.00
LNG	504	$13,000.00	504	$6,500.00	504	$7,800.00	504	$3,900.00
Bulker	1860	$15,166.67	1860	$7,583.33	1860	$9,100.00	1860	$4,550.00
General Cargo	849	$11,833.33	849	$5,916.67	849	$7,100.00	849	$3,550.00
Container Ships	3827	$11,833.33	3827	$5,916.67	3827	$7,100.00	3827	$3,550.00
RO/RO Ships	172	$11,833.33	172	$5,916.67	172	$7,100.00	172	$3,550.00
Car Carriers	631	$11,833.33	631	$5,916.67	631	$7,100.00	631	$3,550.00
Passenger Ships	54	$11,833.33	54	$5,916.67	54	$7,100.00	54	$3,550.00
Other	425	$11,833.33	425	$5,916.67	425	$7,100.00	425	$3,550.00
Total	$365,499,212.53							

Group 1 – full cost of insurance
Group 2 – lower because of having K&R insurance
Group 3 – lower because of having hired armed guards

Group 4 – lower because of having both K&R and armed guards

Buying both K&R and armed guards is a nonsense – armed guards are hired for just one purpose, to guarantee a safe passage, and that's exactly what private armed guards manage yet to do, without any failure. Why should anyone in sound mind both buy K&R and hire armed guards, is something beyond comprehension of anyone, except SECS authors and their sponsors.
We don't know the number of K&R insurances bought in 2012, but they were bought less and less throughout the year, as more and more ship owners preferred armed guards to any other kind of protection. I assume the total cost of K&R insurances was so small it may simply be ignored. Therefore, I'll count only full cost column and column with decreased cost for vessels with armed guards on board.

The above Table of SECS, and previous to it Table on Page 39, showing the hull costs of different types of the vessels, are dubious in other aspects too, but I'll leave it as it is with regards to the cost of insurance. Using the percentage of the types of the vessels based on Suez transits, and number of insured transits in HRA as 22,300 (using the SECS proportions of total number of transits and number of insured transits), and using SECS insurance costs for different types of vessels, I summarized it all as follow:

| Ship Type | Number of insured HRA transits per ship type | | Full cost | | Decreased cost (armed guards on board) | |
| | | | 50% of Ships | | 50% of Ships | |
	%	Number	# of Ships	Rate per Ship	# of Ships	Rate per Ship
Tanker	21	4760	2380	$20,500.00	2380	$12,300.00
LNG	4.6	1043	521	$13,000.00	521	$7,800.00
Bulker	17	3855	1928	$15,166.67	1928	$9,100.00
General Cargo	8	1814	907	$11,833.33	907	$7,100.00
Container Ships	36	8164	4082	$11,833.33	4082	$7,100.00
RO/RO Ships	1.6	362	181	$11,833.33	181	$7,100.00
Car Carriers	6	1360	680	$11,833.33	680	$7,100.00
Passenger Ships	0.5	113	56	$11,833.33	56	$7,100.00
Other	3.9	885	443	$11,833.33	443	$7,100.00
Total in groups			$159,930,765		$95,960,500	
Total			$255,891,265			

We don't know the exact figures, nor will we know them in future, because insurers industry is a black box, all the more so with regards to Somalia piracy, just because the legitimacy of this war-risk insurance is highly questionable.

Summarizing:
The SECS authors made two basic mistakes in calculating the cost of insurance:
1. They didn't question the character of the war-risk insurance – is it inspired by piracy threat, or is the piracy threat, actually, an excuse for insurers to racket the shipping, to force them to buy absolutely meaningless insurance, which simply doesn't cover any losses in case the vessel is hijacked.
2. They used, once again, falsified, unrealistic number of transits in HRA.
Basing on the SECS estimation of the costs of insurances, and on realistic number of transits, the cost of war-risk insurances is some $255,891,265, against $365,499,212.53 claimed by SECS.

Available information says the ship owners just don't buy the K&R insurance for already quite time, as absolutely unnecessary in times, when armed guards are available for hire, being the only one protection measure which is guarantying a safe passage. So the other figure in SECS insurance costs calculations, the total cost of K&R insurances, seems highly doubtful. I believe the K&R cost may be just ignored by now, presuming of course, that the ship owners are not idiots, however hard SECS authors are trying to prove them to be otherwise.
3. Total figures are **$255,891,265** of my estimations against **$582,483,883** million found by SECS ($365,499,212.53 war-risk + $216,984,671.53 K&R).

For the purpose of general estimation of the losses incurred by piracy threat, there is one much more simple, and I believe, realistic approach, which will be described in the next Section of this Study.

VIII. The Cost of all anti-piracy measures except armed guards

There is rather simple and realistic, I suppose, approach to estimate the cost of all anti-piracy measures which could be taken by the ship owner. With the availability of armed guards and with safety they guarantee – the only guarantee ship owners actually want – all other measures can be estimated in comparison with the cost of armed guards. Unlike the SECS authors, I've been consulting with ship owners, not with BIMCO, and vice-versa, they've been consulting with me and still consult, when their vessels are to transit HRA. Their priority is the safe passage, not correspondence to BMP4 guidelines or attempts to save some several thousand dollars by risking millions.

All other measures – such as re-routing, increasing speed, sticking to BMP4, installation of different types of non-lethal defence devices, buying K&R, etc. – can't guarantee one thing, the safe passage. Maybe in years 2009 or 2010 armed guards weren't easily available, but starting from year 2011, they became available to anyone willing. Most important thing is the effectiveness of the guards. So, why ship owner should pay more, equal, or even a bit less, for the measures, which don't guarantee anything?

Assuming the ship owners are not idiots, they'd choose either something substantially cheaper than armed guards (or nothing at all), or armed guards, if the cost of any other measure is equal or close to the cost of armed guards.

In other words, the cost of anti-piracy measures, other than armed guards, can't be higher than the cost of armed guards, because otherwise, it's simply waste of money without any guarantee. If we accept, that the number of transits protected by guards is 70% of the total number of some 36,000 transits, it leaves us with some 10,800 transits protected either by any other measure (by all of them, if you like), or unprotected at all. The average cost of a transit protected by armed guards is $45,000, the cost of other measures, if preferred by a ship owner in order to save money, should be hardly more than $30,000. Quite a number of ship owners, starting from the end of year 2012, prefer to economize, inspired by the sharp decline in number of pirates attacks (with no hijacks at all during last 12 months), and restrict themselves with barbed wire only. But let's assume, nevertheless, that the price of other measures shouldn't be less than 30,000. The total cost of all other measures, then, will be 10,800x$30,000=$324,000,000. Let it be $350,000,000, to make it nice looking, it's still a far cry from figures presented in SECS:

$528,413,480.00 – security equipment;

$290,509,659.51 – re-routing;

$1,530,000,000 (wow!) – increased speed;

$216,984,671.53 – K&R insurance.

Total: $ 2,565,907,810

The funny thing is, even if we accept the number of transits as SECS's 66,612, with 50% transits protected by armed guards, the cost still will be 2.5 times less:

33306 x $30,000=$999,180,000

If we're to believe the figures, or just proportions, given in SECS, we're to believe then, that the ship owners paid twice more for the anti-piracy measures which don't guarantee safe passage, preferring them to the only one which guarantee it. SECS authors are claiming, by their Study, that the ship owners, at least half of them, are just imbeciles.

Summarizing:
My estimation of the cost of all anti-piracy measures except guards:
$ 350,000,000
SECS:
$ 2,565,907,810

IX. The Cost of Prosecution and Imprisonment

I won't go into figures here, this cost being one of the two I trust SECS wholly. I believe that the cost they came up with, is the real cost of pirates prosecution and imprisonment, the only thing I don't believe is the meaning of it.

It's simple. In all countries of all nations in times of civil war, lawlessness and chaos force a great proportion of ordinary people, law-abiding under normal circumstances, to criminal activities in order to survive and to feed themselves and those depending on them. When the order restores, one of the first things new rulers do is the general amnesty granted to all those who were engaged in criminal activities, with the exception of suspects in atrocities and mass murders. Or else the new government was risking a continuation of civil war, or losing a big part of country's population, who'd have to be imprisoned, with all the expenses and other negative consequences such a justice would imply.

That's exactly the case with Somalia pirates, who in most part, in overwhelming part actually, are ordinary people pushed into piracy by dire destitution and their general way of life, when one doesn't know in the morning if he survives the day. To understand this, one has to experience some hard, real hard times in his life – not the difficult times of say, unemployment or loss of property, but the times when his mere life is insecure, when he's undernourished for months and years, when he doesn't care if he dies, because the life is unbearable. Or at least, to know history. There were many cases when navies let go detained pirates, if they weren't caught red-hand, of course after confiscating all arms and other tools of their jolly profession. That was the most sensible way to do, unless of course, some of those detained weren't recognized as well-known pirates, suspected in cruelty and atrocities.

The money spent on prosecuting all and everyone suspected in piracy are wasted money, to put it short. To prosecute each and every suspect in piracy, except proven leaders and criminals guilty of cruelty, murders and torturing, is to prosecute actually, essential part of population. It may go on for decades to come, until coastal areas will be depopulated.

Prosecution as projected by the UN turned into one more reason for locals to become a pirate, with a good chance of being caught and thus, making their way to developed countries. We know, that many or all pirates sentenced in Europe, already said they're going to file for residency after the release.

Those who were insisting on prosecuting and imprisoning all the pirates navies could manage to detain, who unleashed this prosecution campaign, are not stupid people. Quite on the contrary. They profit from it.

Yearly costs of prosecution, taken from OBP Studies:

2010: $31,289,199
2011: $16,400,000
2012: $14,887,388
Total: $62,576,587

Not bad, yeah? Let's not forget, that a godly share of the money went through UN. We can only guess, how much money did they pocket.

X. The Cost of Counter-Piracy Organizations

This Section, together with the previous, are most interesting as explaining the UN keen interest in Somalia piracy, to an extent of direct frauds and attempts to block any effective anti-piracy measure.

The Cost of Counter-Piracy Organizations as presented in Table of SECS, Page 46:

Organization	2012 Donations
Trust Fund	$ 5,830,000.00
UNODC	**$ 6,740,000.00**
CGPCS	$ 765,242.00
DCoC	$ 312,800.00
UNDP	**$ 4,960,000.00**
EUCAP NESTOR	$ 2,982,012.00
RAPPICC	$ 1,273,000
PiraT	$ 445,899.00
OBP	**$ 775,000.00**
TOTAL	**$ 24,083,953.00**

Lion's share belongs to UN. Let's sum up those organizational costs for years 2010, 2011 and 2012, given in this and previous Studies of the OBP:

2010: $ 24,500,000
2011: $ 21,300,000
2012: $ 24,083,953
Total: $ 69,883,953

What did they do for all those millions? How did it affect piracy, and improved shipping safety? The effect is nil, absolute zero or below zero. The money was shamelessly and hopelessly wasted. The conferences they held, the measures they accepted or recommended, came to nothing. Shipping secured itself with the help of private armed guards – a measure, strongly opposed by the UN and all the conferences devoted to piracy problem, let's not forget it. It's not all, though.

The UN openly blocked an effective step in curbing piracy by establishing Puntland's marine police of forces.
One well-known US journalist and author, **Mr. Robert Young Pelton**, established a news agency Somalia Report, and actually, monopolized all the piracy info coming from Somalia and Kenya. I was criticizing him, thinking of him as one more gun hired by UN and other interested parties. Thankfully, I was wrong. In the beginning, he obviously was sticking to general opinion, that the only way to tackle piracy is the way advertised by the UN, Navies and politicians. But he happened to be a honest journalist and socially responsible person – from a supporter of the UN he turned into one of its' most stern critics. Finally, he slated the UN as a supporter of the Somalia piracy. The UN in short, cut off marine police funding when the police became so effective that it threatened the mere survival of the pirates. Read his article **"How the UN saved the piracy"** http://dangerousmagazine.com/project/hijacked-how-the-un-saved-piracy/

That same Mr. Pelton belied another falsified (or to be more exact, simply concocted) figure of the cost of Somalia piracy:

The case study assessments of the cost to regional economies, too, are far from thorough. The damage to Kenya's $800 million a year tourism industry seems to be based on little more than a

finger in the air. "Between $129 and $795 million lost in tourism revenue, and 3% and 20% of tourism jobs lost." The truth is that tourism revenue to Kenya "soared" 32% in 2011. Oops. A grade school teacher would have sent this paper back for fibbing.
Using the creative methodology of making things up and roping in every available cost the authors could have found some argument to include the entire cost of the Kenyan invasion (estimated at KSH200 million, or $2.5 million per month); some might say this was partly due to those kidnappings on Kenyan soil, some of which have been subsequently linked with pirate gangs.

Those regional costs were a year later used by a World Bank in its' Study of the losses incurred by Somalia piracy, which Study caused quite a stir in media. Well, the World Bank Study was coordinated with OBP Study, making obvious the interest World Bank shares in the fraud called "fighting piracy roots" – some of the money, allocated to this task, will pass, or already pass, through World Bank. World Bank says that, because of its scale, geographic scope, and violence that have created considerable public anxiety throughout the world, piracy costs the global economy roughly US$18 billion a year, and included in its' Study the Kenya tourism "losses".

Summarizing the costs of prosecution and organization:
Three-year cost of prosecuting: **$62,576,587**
Three year cost of organization: **$ 69,883,953**
Total: **$ 132,460,540**
What was the effect of those spendings? How did they help to make shipping safer? Three years they've been wasting money on prosecution and conferences, until private guards emerged, and made Indian ocean safe. ALL the conferences and recommendations worked out by anti-piracy organizations were and still are, strongly opposed to private armed guards, to armed protection of each vessel. What are those spendings then, of what use to real safety, and who profited from them?

XI. The real Cost of Somalia Piracy

The real cost of Somalia Piracy **can not** exceed the sum of **$ 1,620,000,000.**
This is the cost of armed guards protection for each and every transit through HRA ($45,000x36,000) – i.e. the cost of making shipping **absolutely safe** from pirates.
In fact, the cost should be much less than that, less than $500,000,000.
The army of private guards, employed by a horde of security agencies, in no time came up out of nowhere, and provided protection for anyone willing to guarantee the safety of his vessel. The Navies could (should) do it, using the same tactics, long time ago, at much less cost and with a privilege of absolute legality.
Let's imagine international community, or UN, or whatever else, will ripe for the new strategy of protecting shipping, not fighting the pirates. Let's imagine they'll establish multinational force and facilities, with the main and only task of providing each vessel with team of armed military personnel (AMP).
Let's assume there are 100 vessels transiting HRA any giving day (roughly 36,000 HRA yearly transits). Average HRA transit time is 7 days. Let's assume the transit cycle is 10 days (7 days actual transit plus 3 days rest, training, etc). One 4-men team then, provides 36 transits per year.
For 36,000 transits, we'll need 1,000 4-men teams, or 4,000 troops. We'll have to employ no more than some 5,000 troops, with some 6-8 flotels (each with 200-300 personnel capacity) as their base.
An average daily charter rate for a rather luxury flotel (of the type exploited in offshore) is anything between $30,000 - 50,000. The cost of flotels then, will be some $90 million annually, at the most.
Let's assume military average monthly wage is $3,000 per person, that makes some $ 180,000,000 for the whole year.
There are other expenses of course, like munitions, logistics, etc., let them be $50, or 100, or 200 million, I just don't know, but in general, I doubt they'll add up to more than $100 million. Never mind though, let them be $200 million, that will burden us with, in total, some $470 million annually. And no other costs and expenses! $500 million annually will make the shipping absolutely safe, and all other expenditures unnecessary.
Let's calculate our savings. No need in war risk premiums shipping is paying to insurers for something nobody can explain, because war risk insurance doesn't cover hijack losses. No need in private armed guards. No losses incurred by piracy itself. No spends on security equipment, on double salary to crew, etc.
With such a big gap between real and possible costs, international community, or UN, could charter for military luxury cruise liners, and still save billions.
If the international community can't afford the cost of military personnel, it should provide all private guards with flotels, legal status and centralized command. Again, it will be much cheaper than present costs.

Summarizing:
Be the safety of the shipping real concern of international community, Navies, politicians, the UN and maritime organizations, they could make shipping absolutely safe at least three years ago, at a cost not exceeding **$ 500,000,000**.

List of personalities and organizations, which make up, contribute to, or support three-year long falsification, called "The Economic Cost of Somalia Piracy"

Ban Ki-moon, UN Secretary-General
Marcel Arsenault, founder of One Earth Future Foundation OEF (with Ocean Beyond Piracy as one of the projects)
Efthimios Mitropoulos, former IMO Secretary- General
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Michael Frodl, C-Level Maritime Risks

Organizations:
IMO
BIMCO
International Chamber of Shipping
International Shipping Federation
INTERCARGO
INTERTANKO
ITF