

# Remote Sensing Imagery and Maritime Security: Privacy Law and Legal Solutions

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Maritime security is nowadays seriously challenged by Piracy. Counter-piracy strategy and piracy prosecution lack the sufficient integration in order to be resolute. A centralized International Court and a well-structured framework of sea traffic and vessel tracking gave by Remote Sensing should be the correct answer. However, Earth Observation data would risk to infringe some measures of privacy and confidentiality. The Paper will analyze current provision, especially in the EU framework, arriving to state that there is sufficient field for a correct utilisation of Remote Sensing in Piracy prosecution, if sponsored by International law and coordinated by the supposed centralised Court for prosecuting Piracy. Impulse in using EO data has also arrived by commercial contract and maritime insurance market, that see in remote sensing the fastest and easiest way for reducing maritime threat.

## I International Law of the Sea and Maritime Security: The Piracy Threat

### International Law Framework

Contemporary maritime security has been seriously challenged since the beginning of XXI century by a harsh renewal of maritime piracy, above all localized on Eastern Africa Coast lines.

The United Nations and the most influential world players (such as United States and European Union) have been facing the hard struggle of modernizing piracy vocabulary and framework in order to create the useful conditions for fighting and defeating piracy together with the fundamental contribution of International Maritime Organization, the International Chamber in London, maritime industry and even maritime insurance companies.

Giving a general view on anti-piracy law system, its core element consists basically of customary international law: for instance, the United Nations

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Conference on the Law of the Sea (UNCLOS), signed in 1982, that authorizes universal jurisdiction in preventing piracy, but, lacking in efficiency, it does not require any obligation by the states to take action (UNCLOS, Art. 105)<sup>1</sup>. Even if UNCLOS is still the cornerstone both for the Law Of the Sea and for maritime counter-piracy, it had to be updated, eliminating those elements of the piracy definition in Article 101 that were a clear brake for counter-piracy activities, like the “private end clause”, the “two ships clause” and the exclusive definition of piracy as “maritime robbery in high seas”<sup>2</sup>. All these situations needed the elaboration of another Convention, closer to the modern necessities of maritime policy and business. The 1988 Convention for the Suppression of Unlawful Acts Against the Safety of Maritime navigation (SUA), for what concerns piracy has provided for parties to create criminal offenses, establishment jurisdiction and accept delivery of persons responsible for or suspected of seizing or exercising control over a ship by force or threat, something that UNCLOS provisions have thrown before into doubt by discussing the legality of transfers from outside capturing states to third state<sup>3</sup>. SUA in 1988 (planned after the “Achille Lauro” tragedy of 1985) and its renewal in 2005 gave a decisive contribution in eliminating UNCLOS impediments, even if reversal hot pursuit in territorial sea is still forbidden with the exception of Somalia due to UN Security Council Resolutions. Security Council has shown, to face the real dimension of the problem, as it has passed several Resolutions from 2008 to 2012 (above all Resolution 1851) in order to permit to naval forces patrolling the Horn of Africa, the Aden Gulf and Somali Coast (EU-NAVFOR, NATO Forces) to operate the vital reversal hot pursuit and chasing in this way pirates even beyond Somali territorial sea limits .

Other Resolutions, anyway, have great relevance. SC Resolution 1918, for example, adopted on April 2010, is a great impulse, as it called member states to criminalize piracy under their domestic law and to consider the prosecution and imprisonment of suspected pirates. However, the recall to domestic law as a point of view can raise some problems concerning law fragmentation.<sup>4</sup>

### **Lack of Coordination**

Even though continuous amelioration in UN Conventions and SC Resolution on Somalia have contributed to a general slow decrease in pirates’ attacks, with a well-established structure in reducing piracy phenomenon, however, there is still a strong iato between fighting and prosecuting pirates. It must be reminded that prosecution and pirates trial is not under international jurisdiction but under universal jurisdiction. This means that once pirates are taken and conduct

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1 UNCLOS, art. 105.

2 UNCLOS, art. 101.

3 VENDA, P. “Maritime Piracy: how can International Law and Policy address this growing global menace?”, *Denver Journal of International Law and Policy*, vol 39, 2, 15/02/2011, pp. 181-182, 185.

4 ISANGA, Countering Contemporary Sea Piracy, *American University Law Review*, 17/06/2010, p. 1269.

for trial, they will be submitted to domestic legislation rather than to an international unique core of laws and norms facing piracy menace. That is why domestic law should turn into international.

There are cases, as the agreement signed by European Union and Kenya, in which the states accept the jurisdiction of a third country ( Kenya) for prosecuting supposed pirates, creating a situation that lacks the necessary jurisdiction coordination in counter-piracy policies. Proposals for achieving legal uniformity have been posed by encouraging a uniform comprehensive body of international piracy by way of a treaty. A more binding system would prevent the dualism between domestic and international law, as prosecuting pirates is facing several difficulties and states seem reluctant to apply their National anti piracy legislation . Not surprisingly, therefore, it came out the most of the anti-piracy missions turned to “catch-and-release” mission, with a very few of pirates prosecuted in direct forums or in third states. Countries simply look at the numerous concerning that afflict piracy-prosecution desire and decide that piracy prosecution, in the end, is worthless in certain cases. No real cohesion in facing pirates phenomenon is a real challenge, even more afflicted by the “non refolement” of pirates from certain European states who favor civil rights. Alimenting dis-homogeneity, commercial contractualframework tends to embrace all violent theft or attempted as piracy without taking into account where they have been captured, giving the fact that UNCLOS and international law are more restrictive in their definitions.<sup>5</sup>

These different approaches even in “piracy” definition, can not result into a coordinated strategy by military public sector and commercial one: simply, these sectors perceive different aims, or better, priorities: piracy elimination versus ship and navigation safety. Term such piracy for the commercial sector has to be constructed in accordance with the business and commercial meaning. Similar problems are faced in the insurance framework,where insurance companies detain conflictual position with shipping societies, that often don't denounce pirates' attacks, hoping in this way to reduce insurance risk primes. All what has been written, brings to the final statement that a well developed and free system of observation, useful for vessel tracking with the best technologies like remote sensing, would be a turning point, if it would cooperate with hypothetical equipment articles idea suggested by Professor E. Kontorovich ( in order to reduce evidence issues). It would create coordination between the need for motivations for prosecuting pirates and a clearer relation in insurance and commercial markets.<sup>6</sup>

A way must be found in order to reduce the growing scar between sea patrolling and maritime prosecuting in terms of efficiency. To create a real legal definition of piracy and judicial mechanisms for fighting piracy should become the principal guideline for International Community, and a second step would

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5 BENTO, M, Toward an international law of Piracy, in Berkeley Journal of International Law, vol 29, 2 06/02/2011, p. 413.

6 KONTOROVICH, E. Equipment Articles for the Prosecution of Maritime Piracy, Discussion Paper prepared for One Earth Future Foundation, May 2010, pp. 1-6.

be necessarily the creation of specialized regional judicial forums, forums that could become the first users of remote sensing images, intended as a real counter-piracy solution, for tracking and intelligence.

## II The Role of Remote Sensing in Prevention of Maritime Piracy Threat

Maritime domain is part of the so-called *global commons* (where no national jurisdiction can affirm sovereign rights), as well as outer space. Therefore, the possible relation between satellites utilization and high seas problems seems to be not so a fancy argument, as space applications can be valuable in finding pirate bases and in tracking pirate skiffs and ships attacked and hijacked by pirates.

For their structure, space surveillance systems can be a real strategic instrument in maritime piracy issue. Their global vision ( even beyond the Land covering systems on high seas), temporal continuity, due the permanent operative structure, data control and a certain degree of freedom granted to satellite system, all these features permit a worthy utilization of remote sensing in tracking vessel traffic and, in particular, pirates' ships. Databases of collected images are even a more useful tool for a valuable analysis of strategic events.

Counter-piracy is a real delicate and elaborate process, because of the imminency of the operative field. In addition, the distinction between maritime safety and maritime security could rise confusion. Complexity of maritime affairs requires a distinctive double approach, namely safety and security, that interested the European Parliament and the Council of European Union, as they have come to define them in a 2006 Green Paper on Maritime Policy. Maritime safety regards more the protection of navigation, life, property, including the environment, of ships, crew and passengers; on the contrary, maritime security deals with what reminds to counter-terrorism measures, adapted to anti-piracy actions. In this way, there is a sort of splitting of the physical protection of ship crew and navigation from the more comprehensive care of sea routes.

Counter-piracy, considered as the whole strategy, presents many integrated aspects that have to be fulfilled perfectly in order to achieve any result, as it has to face three different phases based on pirates' attack : pre-attack, during the attack and post attack. Remote sensing maritime surveillance could be relevant both for phase One and phase Two. Pre-attack strategy requires prediction and detection of supposed pirate vessels , in order to adopt preventive measures, while in case of attack, remote surveillance can provide alert while tracking the hijacked vessel and so making easier any rescue missions.

There are a plenty of space-based systems that can be used to obtain knowledge of shipping and ship traffic patterns beyond coastal range.

Satellites that can support counter piracy missions are already in place or are scheduled to be in very soon. For example, Canada uses Radarsat-2 with the AIS Information ( Automatic Identification System). The GMES ( Global Monitoring for Environment and Security) Space infrastructure ( from 2008, named

Kopernicus), coordinated by the European Space Agency and composed of dedicated satellites, developed by ESA (“Sentinel” class), is planned to be launched as from 2013. Anyway, GMES system is somehow already in action, as there are existing or planned missions at European, national and international level, so called “GMES Contributing Missions”(one of them is the Italian COSMO-SkyMed constellation).<sup>7</sup>

What makes this Euro framework so efficient in countering piracy is the base system. The techniques to rapidly locate and track ship in open waters have been developed and delivered by the MArISS (Maritime Security Service, that provides satellite-based maritime surveillance services.)

MarISS should be taken as operational example, because it uses rapid integration of satellite based vessel detection with conventional information streams to extended surveillance information. In this way, the combination can provide a relative specific and accurate data system.

Generally speaking, maritime surveillance through remote sensing satellites system can really sustain and ameliorate maritime awareness, the real base in countering piracy. The vital role of space remote sensing in a maritime surveillance mission can be expressed in three different actions that, if combined, would provide efficient help not only for counter-piracy, but also for piracy prosecution: imagery, the collection of signal and, finally, communication, and space dominant valour comes out in observing ( two highly considered positive points is a the regular and continuous control over a large zone), and in detecting a potential risky situation.<sup>8</sup>

### III Privacy Problems and Legal Solutions

#### Remote Sensing and State Sovereignty

In the first paragraph, it has been expressed the challenge counter-piracy strategy faces the challenging problem of a vigorous difference of efficiency in fighting pirates on the seas and in prosecuting Pirates. Prosecution is both costly and challenging and Regional Centers of Prosecution, with all the problematic relations between African governments and Pirates, could not give enough assurances of stability and efficiency. As an alternative to these impediments, amending the statutes of the International Criminal Court (ICC) or the International Tribunal for the Law of the Sea by an international treaty or to establish a specific ad hoc Piracy Tribunal following the example of the Special Court for Sierra Leone or the international criminal tribunals for the former Yugoslavia and Rwanda would centralize in a single, specific and expert court all the questions regarding prosecution and detention of suspected pirates.<sup>9</sup>

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7 REMUSS, A.L. Space Application as supporting Tool for countering Piracy-Outline for an European Approach, Report, 29, 10/10, European Space Policy Institute, p. 21.

8 id. p. 22.

9 BENTO, cit. p. 431.

However, problems in prosecution are not only found in lack of credibility in regional supposed courts, but also, and more, in the difficult task of providing the guilty of suspected piracy. As pointed out, a well-structured system of evidence based on high resolution remote sensing imagery would provide prosecutors of quite certain tools for clarifying whether a pirate attack has been attempted or not. Therefore, admissibility of remote sensing imagery as specific evidence must be determined and, secondly, it must be faced the issue whether possible transparency questions as well as possible privacy infringement due to space remote sensing would disqualify Earth Observation data as a specific evidence for piracy prosecution and, therefore, undermine all counter-piracy system, as remote sensing imagery would explicate its importance not only in reporting high seas situation (where no one can claim exclusive sovereignty) but also in underlying general evolution of coast pirates' building and pirates movements from coastline bases (but this could raise problems as these events occur in territorial waters).

In analyzing any possible restriction in remote sensing, it must be understood that two key general principles of space law underpin the current framework: mankind has a common interest in the progress of the exploration and use of outer space for peaceful purposes and such exploration and use should be carried out for the benefit of all peoples. Those principles should grant, in theory, a certain freedom in using outer space, and, of course, remote sensing.<sup>10</sup>

However, the international rules do impose certain obligations and constraints on the sensing States as well as specific protection is also afforded to the sensed State.

The 1967 Outer Space Treaty provides the basic framework. The 1967 Treaty is based on the recognition of the common interest of all mankind in the progress of exploration and use of outer space for peaceful purposes. Under the Treaty it is provided that the exploration and use of outer space shall be carried out for the benefit and in the interests of all countries, irrespective of their degree of economic and scientific development and "shall be the province of all mankind." Article II underlines the key rule that outer space is not subject to national appropriation. A certain of control on remote sensing is given under the provision of Article XI, in which State Parties conducting activities in outer space agree to inform the Secretary General as well as the public and international scientific community about their activities.<sup>11</sup>

Due to the general consensus and the long use, it could be not unusual to think that some commentators take the view that parts of the 1967 Treaty can constitute customary international law, including the principle of freedom of exploration and use of outer space by all States and the prohibition on national appropriation of outer space.

Even more important than 1967 Outer Space Treaty results the 1986 UN General Assembly (mainly by COPUOS and its Legal Subcommittee), that produced

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10 1986 UN General Assembly 15 Principles.

11 Articles II and XI 1967 Outer Space Treaty.

15 Principles relating to remote sensing, specifying the real dimension in which remote sensing can operate.

For the purpose of this study, Principle IV and Principle XII must be cited. The first expresses the commitment for a full and permanent sovereignty of all States and peoples over their own wealth and natural resources and it is perfectly integrated by Principle XI, where the sensed State is to have access to both primary and processed data concerning the territory under its jurisdiction as soon as they are produced. Such access is to be on a non-discriminatory basis and on reasonable cost terms. Nonetheless, some problems still remain when sensitive data are taken by third nations that could be hostile for sensed States.<sup>12</sup>

In any case, having understood that in theory sovereignty problems are not found in the legal discipline concerning remote sensing imagery, possible issues of privacy must be faced in order to claim the admissibility of EO data and images as evidence in pirates prosecuting, as vessel tracking and maritime monitoring traffic maps could inevitably discover private vessels as well as commercial ships.

Until recently, the relatively low resolution available from most remote sensing meant that the problem was more theoretical than practical. However, contemporary improvements in the resolution of EO data now make the issue more relevant and the linked problem of privacy more evident.

### **Privacy and Confidentiality Issues**

Generally speaking, in international law the right of privacy finds a great protection in the International Covenant of Civil and Political Rights (ICCPR) of 1966. Article 17 of the ICCPR, in its two paragraphs, states some key bases elements on privacy protection: “(1) No one shall be subjected to arbitrary or unlawful interference with his privacy, home or correspondence, nor to unlawful attacks on his honor and reputation”. “(2) Everyone has the right to the protection of the law against such interferences or attacks. such interference is unlawful unless authorized by a domestic law which itself complies with the provisions, aims and objections of the Covenant.” It comes immediately to attention the question of arbitrary interference and the relevant influence of domestic law in changing some unlawful acts into authorized and so legitimated measures.<sup>13</sup>

Something about privacy seems to have been expressed recently in Common law, usually reticent in defining general provisions. The traditional position has been for long time that there was no general right to privacy as such in English statute and common law. Nowadays, there is a system of specific civil, and rarely criminal remedies for specific wrong This position seems to be seriously challenged by the influence of Article 8 of the European Convention of Human Rights. Article 8 does not provide for a right to privacy but protects a right to respect privacy.

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12 1986 UN General Assembly 15 Principles IV and XII.

13 International Covenant of Civil and Political Rights, (ICCPR), article 17.

Even the European Court of Human Rights has produced little case law regarding the direct application in this context. Relevant could be the effect of using satellite imagery is its impact on the right to a private life. Satellite monitoring could infringe privacy rights in relation to activities that take place within the home and activities that take place in public, such as the activities of vessels whose flag State result signer of the European Convention and therefore subjected to Article 8. Yet, it is unclear how far is Article 8 range of protection. Under the Convention, it is for the individual applicant to establish the fact of interference and how it has threatened. Could a sea traffic mapping risk to breach Article 8?<sup>14</sup>

The answer should be: quite difficultly, as authorization of domestic law can transform privacy interferences into lawful acts if there is any specific motivation, connected with National Security or Public Order, as bases for the internal law decision. Anyway, as privacy can be “bypassed” for certain reasons, transparency and confidentiality in data diffusion result even more important.

On that nondiscriminatory basis recalled above, data is to be as openly available as much as possible and data denial for sensed States is the exception, not the rule. Regarding high-resolution data, however, higher is the resolution, higher is the number of exceptions to the nondiscriminatory access policy, especially in Europe (Germany, France, and Italy), Canada, Israel, India and United States. In the United States, infringement of privacy by some evidences have found some discipline in the U.S. Constitution (IVth Amendment), the Federal Rules of Evidence (‘FRE’) and the jurisprudence. Among the strict limits within which the prosecutor has to establish the evidence of the facts, the respect of privacy certainly constitutes a major requirement. The notion of search, as provided for by the IV Amendment of the U.S. Constitution, had to be clearly defined with regard to the new possibilities offered by technology to observe, the details.<sup>15</sup>

Current legislation demonstrate that national security interests are being made a priority over general data access. Controlled access instead of a restrictive access is the path chosen by Governments in any case affecting the U.N. Principles Relating to Remote Sensing of the Earth from Outer Space more narrowly. The “shutter control”, the Government-authorized mechanisms to interrupt, withhold, or prevent data access is finding place in national legislation and policy.

Nonetheless, no Nation or data supplier wants to appear to denounce the non-discriminatory access policy and the U.N. Principles. A provider that promotes “secrecy” in marketing its system and data, will publicly claim he is following the principle of nondiscriminatory access. The growing demand of national funding authorities and legislatures to demonstrate the economic or social value of the satellites is driving a shift from the need or desire to “commercialize” satellites to the need and desire to increase the use of data, an aspect that International Maritime Authorities and actors should take into account.

Confidentiality has fundamental importance in the process of processing Remote sense data. The processing of personal data needs to be legitimate. The

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14 European Convention Human Rights, article 8.

15 US Constitution, IV amendment.



European Union, with the Data Processing Directive and Regulation, defines the grounds for such legitimacy, including if the processing is in the public interest or in the exercise of official authority. 'purpose-limitation' is one of the cornerstones of data protection law: personal data can only be processed for specified, explicit and legitimate purposes, and therefore a description of the purposes of the data processing is of crucial importance. It needs to be clearly defined who is the data controller, the person responsible for the processing.

Confidentiality of certain data can be a potential barrier to its exchange. For what interests this Paper, some juridic regulations (Example of confidentiality in maritime sector legal instrument such Article 14(2) of VMS Reg., art. 37 Control reg. And art. 24 VTM directive) can be found in European maritime legal framework regarding VMS (Vessel Monitoring System), that contain references to the confidentiality of VMS data, the requirements for such data to be 'treated in a confidential manner' and statements to the effect that such data are covered by 'professional secrecy'. Considering that, in general terms, data may not be disclosed to third parties not specifically mentioned within the relevant legal framework, the legal structure can not be a real obstacle.<sup>16</sup>

Similar provisions are found in the VTM Directive (Vessel Traffic Monitoring and Information System Directive), as well as in Port Security Regulation, with the effect that while data must be exchanged between relevant Member State authorities in accordance with the requirements of the directive, all recipients are themselves under a duty to keep the data confidential and thus they may not share such data with non-designated authorities. The unauthorized third actor is, in the end, the most serious preoccupation.

Can Privacy measures and Confidentiality attention, as expressed above, undermined the relevance of remote sensing data as efficient evidence in trials against supposed pirates? Considering that privacy is not the only problem some concerns about different data interpretation could raise on the scientific use of EO. In this case, a great importance seems to acquire the figure of EO data expert in Court, where he is usually called to present the validation of EO images, their quality standards as well as confirming or not its juridic interpretation. He plays a critical role in providing an interpretation of the data and drawing conclusions from it. The standards applicable vary according to context, because experts giving evidence before international courts or arbitration panels are generally subject to fewer explicit rules than those appearing in national courts.

Giving some examples, international relevant courts (ICC and the specific International Tribunal For the Law of the Sea, ITLOS) appoint a permanent or ad-hoc expert (as provided for in Article 50 of the Statute to the ICJ and Articles 62-68 of the Rules; similar provisions are contained in Articles 77-83 of the Rules of ITLOS) to give evidence in the proceedings or to assist the Court as it deems necessary. In any case, some certification requirements for authenticity of image must be presented in court, giving the importance that the image interpretation could bring to the final conclusion of a trial, as legal evidence.<sup>17</sup>

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16 Article 14(2) of VMS Reg, art. 37 Control reg. and art 24 VTM directive.

17 ICJ Statute, Art. 50 and art. 62-68 Rules; ITLOS Rules, art. 77-83.

In Maritime field, a cornerstone is the Convention for the Control of Marine Pollution from Vessels (MARPOL) 1973/78, with Resolution IMO A 152 of 17 November 1983 provides the authority for the use of satellite images as evidence in enforcement actions. Annex 2 of this Resolution provides that all satellite observations, photographs and documentation must be supported by a sign certificate guaranteeing their authenticity. Establishing the reliability of the evidence is subject to the domestic legislation requirements of the enforcing State concerned. MARPOL could therefore become a leading example, a sort of best practice to be followed, if only image control be subjected to international legislation.<sup>18</sup>

Clearly, satellite images will be used more and more before the International Court of Justice, together with some wariness in their presentation, which must be accompanied by careful guidance. In due course there may need to be some international standard for methods of production of the images. However, the lawyers and judges seem to accept a satellite image as a given and avoid any technical understanding of how it came into being, but the possible motivation could be the still relative medium resolution of average images.

In sum, even if some obvious measures have to be undertaken in order to safely preserve privacy of persons and confidentiality and transparency in processing, and even some countries seem to pay more attention in order to preserve EO data and the carefully control of their diffusion, remote sensing imagery can find a central place in trials, as court experts and quality certificate acquire credibility. What seems, however, to lack in this case, as in every field of analysis when there is a discussion on piracy prosecution, is a centralized system not only for the diffusion and process of data, but also for coordinating and establishing a real core of measures that would globally preserved privacy of sensed natural persons, objects of remote sensing.

What could be the role of an effective evidence reporting maritime traffic information, for counter-piracy? First of all, easier vessel position vessel and their admissibility not only in supposed pirates prosecution, but also in intra ship companies trials and between maritime insurance companies and ship companies, would prevent the attempts of misreporting or even not reporting vessel traffic, elements that create a serious prejudice to anti-piracy battle.

Maritime Insurance is the easiest example, as for sure piracy has have a great impact on maritime insurance market. Many companies have opted to include piracy threat into the "war risk", with the result that a war risk also introduces a mechanism where insurers can charge an additional premium if a ship trades in pirate infested seas. Kidnapping and Ransom (K&R) Policies are nowadays columns of maritime insurance, giving the fact that ship companies prefer to preserve their vessels and therefore pay pirates in order to have their properties back. Underwriters accept that payment of ransom to secure the release of a ship seized by pirates is justified as a general average (GA) expense. General average can usually only be declared where parties other than the owner of the ship, such as cargo owner or charterer, have a financial interest in the safe

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18 MARPOL Conv.73/78, IMO res. 152, nov. 83.

conclusion of the voyage. Therefore it might not be possible to declare GA if the ship was seized while unchartered and on a ballast voyage.<sup>19</sup>

What acquires importance for the paper purpose is the fact that the requirement to reimburse ransom payments follows legal liability and it is unlikely that the ship owner will have a legal liability to pay a ransom. In addition, K&R policies include a requirement that they are kept confidential. If a ship is seized by pirates the best outcome will only be achieved if all parties with an interest in the ship are able to work together. The K&R insurer's requirement for confidentiality will inevitably prevent this, so it is therefore important that the requirement is waived to the extent necessary to achieve full cooperation.

It has been expressed that war risks insurers will often reduce rates for voyages through the listed areas if they are satisfied with the piracy prevention measures in place and / or if K&R cover is purchased with an appropriate limit. This fact gives the extent of how a correctly leaded counter-piracy

The employment of an armed security team on board throughout the at-risk voyage can secure a reduction from war risks underwriters? The premium charged for marine K&R depends upon a variety of factors. The underwriter will need to know the route and date of voyage (for individual voyages) or the anticipated number of voyages through high risk waters (for annual cover), the name, speed, size, type and freeboard of the ship, the cargo on board and crew numbers. Underwriters will also ask for details of the security measures in place. All aspects that can find an easy verifying instrument in remote sensing imagery. As international Maritime Organisation has claimed, piracy incidents happen to be under-reported, because the subsequent increase in insurance premiums and the time-consuming procedure of reporting a pirate-attack that could lead to a significant delay. Compared to the actual sunk costs of an idle ship, it is some times cheaper not to report the incident; something that anyway is unacceptable for counter-piracy.

Reporting requirements before arrival in port, the introducing of the ISPS code to ensure the identification of stolen vessels are all measures valuable and efficient but that, in the end, recall the importance of EO data, importance that must be amplified and not undermined by International Penal Law. Centralisation of Piracy Prevention, both with military and intelligence (also through Remote Sensing) are the relatively easy steps that International Community and Maritime Framework should undertake from the elaboration of information till the last regulation norm for prosecuting pirates.

As written above, a large number of satellite constellations are already operating in maritime remote sensing. Considering it and the well-established system proposed by international law and universal prosecution of piracy (batter would be if it were international prosecution), the leading problems, as pointed out, still remains evidences issues, amplified by a lack of centralisation both regarding domestic piracy law and international homogenous regulation of remote sensing data as evidences free of privacy and confidentiality issues. Given the fact that Nations often cite evidence concerns to explain the inefficient prosecution of capture suspects, this issue must come to an end.

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19 THOMAS, D.R. Insuring The Risk of Maritime Piracy, 10 J. Int'l. Mar. L. 355, 371 (2004).

After unifying pirate definition not only in domestic law, but also in broader field such as international law and insurance and commercial contract framework, the next step should bring to a larger use of EO data, even regarding coast. Free space utilisation and free elaboration of data should not fall into the trap of privacy restrictions or confidentiality measures seeking to reduce data flows. Maybe, ad hoc UN Resolutions (on the model of UN Res. On Somalia) regarding the free possibility of data of certain areas to whoever is fighting piracy ( such as Somalia, Gulf of Aden and Indian Ocean) would provide the necessary instrument for establishing a centralised control of EO data, preferably under the supervision of a proposed central court of Piracy prosecution.<sup>20</sup> At that point, remote sensing imagery could really turn to be the linking point between piracy prevention and piracy prosecution, opening space even to commercial and insurance sectors necessities, regarding maritime security.

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20 KONTOROVICH, E. cit.