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### **Targeting and contemporary aerial bombardment.**

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# TARGETING AND CONTEMPORARY AERIAL BOMBARDMENT

Marco Roscini\*

No place is safe – no place is at peace. There is no place where a woman and her daughter can hide and be at peace. The war comes through the air, bombs drop in the night. Quiet people go out in the morning, and see air-fleets passing overhead – dripping death – dripping death!<sup>1</sup>

## 1. THE INCREASING IMPORTANCE OF AIR WARFARE

As the most recent conflicts suggest, air warfare has known an exponential growth. This is caused by several factors: suffice it to mention the swiftness of the intervention, the possibility to strike remote targets (thanks to in-flight refuelling) and to minimize the attacker's casualties (thanks to the aircraft's limited vulnerability against an enemy with poor technology and to the use of unmanned aerial vehicles). This latter asset is nowadays of paramount importance, because of the scant bent of the public opinion for the participation to financially expensive and bloody conflicts.<sup>2</sup> On the other hand, air warfare has a high economic cost, due, inter alia, to the quick obsolescence of the weapons employed.

Notwithstanding this increasing recourse to military aerial operations, the law of air warfare has not been completely codified yet. The Rules drafted in 1923 by a Commission of experts on behalf of the Washington Conference on the limitation of armament (1921-1922) have never been converted into a treaty, even though some authors consider them as reflecting customary law.<sup>3</sup> Conventional rules can be found in

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<sup>1</sup> HG Wells *The War in the Air* (London George Bell and Sons 1908) 240.

<sup>2</sup> Media also have a deep impact on Western public opinions, especially when they report about civilian killings (the so called 'CNN factor').

<sup>3</sup> R Bierzanek 'Commentary to the 1923 Hague Rules for Aerial Warfare' in N Ronzitti (ed) *The Law of Naval Warfare. A Collection of Agreements and Documents with Commentaries* (Dordrecht-Boston-London Nijhoff Publishers 1988) 396 ff.

the 1899 (IV, 1) and 1907 (XIV) Hague Declarations prohibiting the discharge of projectiles and explosives from balloons (no longer in force<sup>4</sup>), in the Regulations annexed to the IV Hague Convention of 1907, in the 1949 II and III Geneva Conventions and in the 1977 Additional Protocol I, Article 49 (3) of which provides that Section I of Part IV of the Protocol applies to ‘any land, air or sea warfare which may affect the civilian population, individual civilians or civilian objects on land’ and ‘to all attacks from the sea or from the air against objectives on land’.<sup>5</sup> Taking these provisions into account, the present article explores how the concept of ‘military objective’ in air-to-ground bombardment has evolved during the most recent conflicts which involved the use of air power, namely Operation Desert Storm<sup>6</sup> and Operation Iraqi Freedom in Iraq,<sup>7</sup> Operation Allied Force in Kosovo,<sup>8</sup> and Operation Enduring Freedom in Afghanistan.<sup>9</sup> The article also focuses on the most recent military documents and manuals on air warfare, with particular regard to those of the United States: the inclusion of a rule in a State’s manual demonstrates with sufficient certainty that it regards it as binding and ‘[t]he impact of the practice of States such as the United States and its coalition partners on the formation of custom is considerable and cannot be overlooked’.<sup>10</sup>

## 2. NON-COMBATANT IMMUNITY ISSUES

The first reference to the principle of distinction with specific regard to air warfare is to be found in Article 24 (1) of the above mentioned 1923 Hague Rules, which states that ‘[a]erial bombardment is legitimate only when directed at a military objective’.<sup>11</sup> Article 48 of Additional Protocol I to the 1949 Geneva Conventions provides for the

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<sup>4</sup> N Ronzitti *Diritto internazionale dei conflitti armati* (Torino Giappichelli 2001) 259.

<sup>5</sup> Therefore, air-to-air and air-to-sea bombardments are not regulated by Protocol I.

<sup>6</sup> Iraq invaded Kuwait on 2 August 1990 and the air campaign started on 17 January 1991, going on for about six weeks. The Coalition was formed by 34 nations.

<sup>7</sup> The United States launched the attack on Iraq on 20 March 2003. On 1 May, President Bush declared that all major operations, which also involved the massive use of ground forces, to be at an end.

<sup>8</sup> NATO’s air campaign against the ethnic cleansing in Kosovo carried out by the Federal Republic of Yugoslavia started on 24 March 1999. There was no relevant use of ground forces by the Organization.

<sup>9</sup> In the aftermath of the events of 11 September 2001, the US-led campaign against the Taliban regime in Afghanistan started on 7 October 2001 with air strikes against Kabul, Kandahar and terrorist training camps near Jalalabad. Kabul fell on 13 November and a new interim government led by Hamid Karzai took office on 22 December.

<sup>10</sup> JG Gardam ‘Proportionality and Force in International Law’ 87 AJIL (1993) 410.

<sup>11</sup> The preamble of the 1868 St Petersburg Declaration generally states that ‘the only legitimate object which States should endeavour to accomplish during war is to weaken the military forces of the enemy’. Similarly, Article 25 of the Regulations annexed to the IV Hague Convention of 1907 respecting the Laws and Customs of War on Land and Article 1 of IX Hague Convention concerning Bombardment by Naval Forces in Time of War prohibit the bombardment of undefended localities.

obligation of States parties to distinguish between the civilian population and combatants and between civilian objects and military objectives and to direct operations only against the latter. If a person is a civilian under Article 50 (1) of Additional Protocol I,<sup>12</sup> he/she is not a military objective and cannot be intentionally attacked, not even by way of reprisals (Article 51 (2) and (6), and Article 52 (1)). If the attack is 'of a nature to strike military objectives and civilians or civilian objects without distinction', it would be indiscriminate and thus prohibited.<sup>13</sup> These obligations also apply to air bombardments, both massive and small-scale: in fact, Article 49 (1) of Protocol I broadly defines the term 'attacks' as 'acts of violence against the adversary, whether in offence or in defence', regardless of the means employed. The principle of distinction also appears in Article 13 (2) of Additional Protocol II, which deals with non-international armed conflicts, but only with regard to civilian individuals and not also to civilian objects.<sup>14</sup>

Notwithstanding the contrary practice during the Second World War,<sup>15</sup> the customary status of the principle of distinction as contained in Additional Protocol I is nowadays well established, and air bombardments are no exception to it.<sup>16</sup> No State has denied its binding character and it has been incorporated in virtually all military manuals and pamphlets, such as the 1992 German Joint Service Regulations<sup>17</sup>, the 1976

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<sup>12</sup> Under Art 50 (1) of Protocol I, a civilian is any person who does not belong to armed forces according to the definitions contained in Art 4 (a) (1), (2), (3) and (6) of the III Geneva Convention of 1949 and in Art 43 of the Protocol itself, ie all non-combatants. In case of doubt, the person must be considered to be civilian (Art 50 (1) of Additional Protocol I). The United States, however, does not consider this provision as reflecting customary law (see US Department of Defense *Conduct of the Persian Gulf War: Final Report to Congress* (1992) [hereinafter Dod Final Report to Congress] 31 ILM (1992) 627, and CJ Greenwood 'Customary Law and the First Geneva Protocol of 1977 in the Gulf Conflict' in PJ Rowe (ed) *The Gulf War 1990-91 in International and English Law* (London-New York Routledge 1993) 75). At the moment of ratification of the Protocol, the United Kingdom issued a declaration according to which Art 50 (1) applies 'only in cases of substantial doubt still remaining after the assessment referred to at paragraph (c) above has been made, and not as overriding a commander's duty to protect the safety of troops under his command or to preserve his military situation, in conformity with other provisions of the Protocol'.

<sup>13</sup> Art 51 (4).

<sup>14</sup> This means, for instance, that the Russian air force have to apply Additional Protocol II in the bombing of the Cetchen capital, Grozny.

<sup>15</sup> T Bruha 'Bombardment' in *Encyclopedia of Public International Law* vol 3 (1982) 54. More recently, during the Iran-Iraq war, the latter attacked some Iranian cities (1985-1987).

<sup>16</sup> R Cryer 'The Fine Art of Friendship: *Jus in Bello* in Afghanistan' 7 *Journal of Conflict and Security Law* (2002) 48; C Greenwood 'Customary Law Status of the 1977 Additional Protocols' in AJM Delissen and GJ Tanja (eds) *Humanitarian Law of Armed Conflict – Challenges Ahead* (Dordrecht-Boston-London Nijhoff Publishers 1991), 108; Y Dinstein *The Conduct of Hostilities under the Law of International Armed Conflict* (Cambridge Cambridge University Press 2004) 82. See also DoD Final Report to Congress 621-622.

<sup>17</sup> Joint Services Regulations 15/2 (ZDv), paras 401, 441, 454. The Regulations, promulgated for the *Bundeswehr* in August 1992, are reproduced (in English) in D Fleck (ed) *The Handbook of Humanitarian Law in Armed Conflict* (Oxford-New York Oxford University Press 1999).

USAF Pamphlet<sup>18</sup>, the 1998 USAF Intelligence Targeting Guide,<sup>19</sup> the 2002 US Joint Doctrine for Targeting,<sup>20</sup> and the 2004 UK Manual of the Law of Armed Conflict.<sup>21</sup> Similarly, Article 42 of the 1938 Italian Law of War (still in force) prohibits bombardments the only aim of which is to hit the civilian population or to destroy or damage to non-military related property.<sup>22</sup> On 19 December 1969, the UN General Assembly adopted resolution 2444 by unanimous vote, which expressly recognizes the principle of civilian immunity and its complementary principle requiring the warring parties to distinguish civilians from combatants at all times.<sup>23</sup> The United States acknowledged that the resolution, which does not distinguish between different kinds of warfare and therefore also applies to aerial bombardment, is declaratory of customary law.<sup>24</sup> During the 1991 Gulf War, Colin Powell, Chairman of the US Joint Chiefs of Staff, declared that the provisions of Protocol I had been applied since they constituted customary law and that the principle of distinction was respected by US armed forces.<sup>25</sup> During Operation Allied Force, the NATO spokesperson, Jamie Shea, in a briefing, affirmed that ‘[c]ustomary international law requires that combatants shall “at all times distinguish between the civilian population and combatants and shall direct their operations only against military objectives”’.<sup>26</sup> NATO’s Secretary General, Robertson, then declared that ‘our targets are military and do not involve civilian or urban targets’.<sup>27</sup> This view was upheld by the the Final Report of the Committee established by the Prosecutor of the International Criminal Tribunal for the former Yugoslavia (ICTY) to review the NATO bombing campaign against Serbia, which argued that,

<sup>18</sup> Department of the Air Force, IL *The Conduct of Armed Conflict and Air Operation* (19 November 1976) [hereinafter 1976 USAF Pamphlet] para 5-3. The Pamphlet is not directive in nature and does not promulgate official US Government policy, although it does refer to US, Department of Defense and Air Force policies (p. i).

<sup>19</sup> US Air Force *Intelligence Targeting Guide* Air Force Pamphlet 14-210 Intelligence (1 February 1998) [hereinafter 1998 USAF Intelligence Targeting Guide] <<http://www.fas.org/irp/doddir/usaf/afpam14-210/part17.htm>> paras A4.2.1. and A4.2.2.

<sup>20</sup> *Joint Doctrine for Targeting* Joint Publication 3-60 (17 January 2002) [hereinafter 2002 US Joint Doctrine for Targeting] <[http://www.dtic.mil/doctrine/jel/new\\_pubs/jp3\\_60.pdf](http://www.dtic.mil/doctrine/jel/new_pubs/jp3_60.pdf)> Appendix A, at A-2. However, the United States does not consider that the prohibition on reprisals reflects customary law (MJ Matheson 2 American University Journal of International Law and Policy (1987) 426). This is criticised by the ICTY in *Kupreškić et al*, Case No. IT-95-16-T, Trial Chamber II, 14 January 2000, para 527 *et seq.*

<sup>21</sup> UK Ministry of Defence *The Manual of the Law of Armed Conflict* (Oxford Oxford University Press 2004) [hereinafter 2004 UK Manual] 315-316.

<sup>22</sup> *Legge italiana di guerra*, approved by Royal Decree no. 1415 of 8 July 1938.

<sup>23</sup> The preamble to this resolution states that these fundamental humanitarian law principles apply ‘in all armed conflicts’, meaning both international and internal. The UN Security Council also declared that the deliberate targeting of civilians in armed conflict is a threat to international peace and security and triggers Council action (resolution 1296/2000).

<sup>24</sup> 1976 USAF Pamphlet 5-7.

<sup>25</sup> Dod Final Report to Congress 610.

<sup>26</sup> Amnesty International “*Collateral Damage*” or *Unlawful Killings? Violations of the Laws of War by NATO during Operation Allied Force* (June 2000) AI-Index EUR 70/18/00, 14-15.

<sup>27</sup> Quoted in A Roberts ‘NATO’s ‘Humanitarian War’ over Kosovo’ 41 (3) *Survival* (1999) 112.

although NATO had made some mistakes, it never intentionally targeted civilians.<sup>28</sup> Iraqi and Yugoslavian complaints about attacks on civilians by the United States and its allies also confirm the existence of an *opinio juris* on the binding character of the principle of distinction, although the two countries did not eventually respect such principle. Finally, the principle of distinction has also been firmly upheld by national and international courts: in particular, according to the 1996 International Court of Justice (ICJ)'s Advisory Opinion on the *legality of the threat or use of nuclear weapons*, the obligation to distinguish between combatants and non-combatants is one of the cardinal principles of humanitarian law and is to be observed by all States whether or not they have ratified the conventions that contain it.<sup>29</sup> According to the ICTY, 'it is now a universally recognised principle ... that deliberate attacks on civilians or civilian objects are absolutely prohibited by international humanitarian law'.<sup>30</sup>

Contemporary air warfare, however, has developed some features that the existing rules do not take expressly into account. To start with, doubts can be raised about the lawfulness of US aircraft flying at 15,000 feet to minimize risks of being shot down by the Serb anti-aircraft artillery during the Kosovo war:<sup>31</sup> at that height, pilots were unable to have visual confirmation of the nature of the target, or that civilians had not moved into the area.<sup>32</sup> At least some bombardments by American aircraft during Operation Enduring Freedom were carried out from above 30,000 feet where anti-aircraft artillery and Stinger missiles could not reach them.<sup>33</sup> In Afghanistan, the United States also employed an unmanned aerial vehicle, which was reported to have unintentionally hit people: however, the principle of distinction requires that '[t]here must be some human being, even if he is geographically removed from the target, who obtains information in

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<sup>28</sup> *Final Report by the Committee established to Review the NATO Bombing Campaign Against the Federal Republic of Yugoslavia* (8 June 2000) [hereinafter ICTY Final Report] para 90 (39 ILM (2000) 1257 ff).

<sup>29</sup> ICJ Reports (1996) para 78.

<sup>30</sup> *Kupreškić Judgment* above n 20 para 521.

<sup>31</sup> T Voon 'Pointing the Finger: Civilian Casualties of NATO Bombing in the Kosovo Conflict' 16 *American University International Law Review* (2001) 1104-1105. The same tactic was adopted by B-52 during the 1991 Gulf War (M Lippman 'Aerial Attacks on Civilians and the Humanitarian Law of War: Technology and Terror from World War I to Afghanistan' 33 *California Western International Law Journal* (2002) 46).

<sup>32</sup> This happened, for instance, in the case of the Grdelica Gorge bridge (12 April 1999), which was bombed while a civilian passenger train was transiting on it. The pilot was able to see the target only on a tiny screen. Again, a convoy of Albanian refugees was bombed on 14 April 1999 by NATO aircraft on the Djakovica-Prizren road, killing about 70-75 people (Amnesty International above n 26 at 37-40). The NATO aircraft was flying at 15,000 feet and, viewed with the naked eye, the vehicles seemed military. According to the ICTY Final Report, though, 'there is nothing inherently unlawful about flying above the height which can be reached by enemy air defences' and 'neither the aircrew nor the commanders displayed the degree of recklessness in failing to take precautionary measures which would sustain criminal charges' (paras 56, 70).

<sup>33</sup> Keesing's Contemporary Archives (2001) 44392.

real-time and decides whether or not the target is legitimate'.<sup>34</sup> The same can be said about night bombing, if this makes impossible for the pilot to comply with the principle of distinction and with Article 51 (4) (c) of Additional Protocol I, which reflects customary law.<sup>35</sup> Thus, in case of risks for civilians, the attack should be carried out in daylight, evaluating the dangers for pilots against the possible military advantage to be gained by the operation.<sup>36</sup> The US practice of prioritising the protection of its own combatants with respect to the enemy's civilians in order not to lose the support of the public opinion also erodes the principle of proportionality embodied in Article 51 (5) (b) and violates Article 57 (2) of Additional Protocol I, which provides for the attacker's obligation to take all reasonable precautions to avoid loss of civilians and damage to civilian property (this provision is considered customary by the United States<sup>37</sup> and by the ICTY<sup>38</sup>). The Europeans seem to have adopted a stricter, more correct position. According to the 1996 British defence doctrine, 'there may be occasions when a commander will have to accept a higher level of risk to his own forces in order to avoid or reduce collateral damage to the enemy's civil population',<sup>39</sup> while the German Joint Services Regulations forbid bombardments which cannot be directed at a specific military objective (para 455) and obliges military leaders to 'choose means and methods minimizing incidental injury and damage to civilian life and objects' (para 457). It is worth noting that, in the second half of Operation Allied Force, NATO changed its rules of engagement to allow planes fly as low as 6,000 feet and to require visual confirmation of the nature of the target,<sup>40</sup> and in Operation Enduring Freedom for the first time the United States employed special operation forces as ground spotters to determine the coordinates for emerging targets to be attacked with satellite-guided bombs.<sup>41</sup>

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<sup>34</sup> J Miller 'Comments on the Use of Force in Afghanistan' 35 Cornell International Law Journal (2002) 608-609.

<sup>35</sup> See WH Taft, IV 'The Law of Armed Conflict After 9/11: Some Salient Features' 28 Yale Journal of International Law (2003) 322. Art 51 (4) (c) qualifies as indiscriminate those attacks 'which employ methods or means of combat the effects of which cannot be limited as required by this Protocol'. The bombing of the village of Koriša (14 May 1999) seems to fall within the provision. Night bombing was also carried out in Operation Iraqi Freedom (Amnesty International *Iraq - Civilians Under Fire* (April 2003) AI Index MDE 14/071/2003, 4).

<sup>36</sup> The assessment, however, has to be made on a case-by-case basis. In some situations, night bombing could be less dangerous for civilians, for instance in working places.

<sup>37</sup> MJ Matheson 2 American University Journal of International Law and Policy (1987) 426-427. See also the 1976 USAF Pamphlet, at 5-9.

<sup>38</sup> *Kupreškić* Judgment above n 20 para 524.

<sup>39</sup> Quoted in APV Rogers 'Zero-Casualty Warfare' 82 International Review of the Red Cross (2000) 178.

<sup>40</sup> Amnesty International above n 26 at 19.

<sup>41</sup> V Loeb 'Brilliant Bombs' The Washington Post Magazine (15 December 2002) 25. This was because, unlike in Kosovo, in Afghanistan most targets were not fixed, with increasing difficulties in identifying them.

According to Article 50 (3) of Additional Protocol I, 'the presence within the civilian population of individuals who do not come within the definition of civilians does not deprive the population of its civilian character'. In Kosovo, NATO forces attacked a large convoy of vehicles southeast of Djakovica. After verifying the target again, it was established that there were civilian vehicles intermingled with the military ones, and the attack was immediately suspended.<sup>42</sup> On the contrary, the village of Koriša was bombed on 13 May 1999, causing 87 deaths among Albanian civilians, since it was believed that Serbian forces had established their headquarters there, in a block of residential apartments.<sup>43</sup> However, NATO insisted that an intended legitimate target had been hit and that there was no knowledge of the presence of civilians. One can also question the legitimacy of the US policy to target some residential areas in Afghanistan: according to the Pentagon, the targets were legitimate because they 'housed Taliban and al-Qaeda leadership'.<sup>44</sup> On 20 December 2001, the US bombed a convoy in the Paktia province because it was supposed to carry Taliban leaders and because a US aircraft had been fired upon by anti-aircraft missiles launched from it, but, according to other sources, the convoy was taking tribal elders to the inauguration of the new Karzai government. A village nearby was also bombed, because the convoy stopped in front of it, trying to leave the valley by another road. The Pentagon declared that the area was an active staging and coordinating base for Al-Qaeda activities and preparations for escape from Afghanistan,<sup>45</sup> and that there was absolute intelligence that the convoy hosted terrorists.<sup>46</sup> The death toll ranged from 15-65, all allegations being denied by US officials.

The presence of civilians close to military objectives may not be accidental. During Operation Desert Storm, Iraq placed military helicopters in residential areas and military supplies in mosques, schools and hospitals hoping to preserve them from the Coalition's attacks.<sup>47</sup> During the Kosovo war, the Yugoslav military often accompanied convoys of internally displaced persons with military material and personnel in order to shield them from possible attacks.<sup>48</sup> In 2003, the Iraqi authorities put anti-aircraft guns in civilian areas and military forces took over houses in residential districts, using

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<sup>42</sup> Amnesty International above n 26 at 42.

<sup>43</sup> Amnesty International above n 26 at 63-67.

<sup>44</sup> NJ Wheeler 'Dying for 'Enduring Freedom': Accepting Responsibility for Civilian Casualties in the War against Terrorism' 16 *International Relations* (2002) 213-214.

<sup>45</sup> MW Herold 'An Average Day' (29 December 2001) <<http://www.cursor.org/stories/ontarget.htm>>.

<sup>46</sup> K DeYoung 'More Bombing Casualties Alleged' *The Washington Post* (4 January 2002) A18.

<sup>47</sup> DoD Final Report to Congress 624.

<sup>48</sup> Human shields were probably also used in the Koriša village, attacked by NATO aircraft on 1 May 1999 (Amnesty International above n 26 at 63-67).



hospitals, schools and mosques to store military equipment.<sup>49</sup> However, the fact that the enemy intentionally moves his own civilians close to military objectives as human shields, breaching Article 52 (7) of Additional Protocol I, does not exempt the attacker from respecting the principle of distinction, even though, as far as customary law is concerned, the responsibility would fall upon the belligerent that puts the civilians at risk.<sup>50</sup> The most recent practice, though, shows that the presence, if forced, of civilians near military objectives does not discourage attacks against such objectives: the attacks are lawful providing that the principle of proportionality between the collateral damage and the gained military advantage is respected.<sup>51</sup> For instance, the Taliban used the village of Ishaq Suleiman to cover their tanks and artillery: according to the Pentagon spokesperson, despite being situated in villages, the trucks and equipment were still authorized military targets.<sup>52</sup> The case of the two Iraqi MiG-21 aircraft located near the ziggurat at Ur in February 1991 is well-known: the US declarations implied that the attack would have been lawful and that it was not carried out only because the aircraft, without servicing equipment and runway nearby, were unusable and their destruction would have been pointless.<sup>53</sup>

The immunity from attacks ends only if the civilians ‘take a direct part in hostilities’ (Article 51 (3) of Additional Protocol I<sup>54</sup>). The phrase ‘direct part’ is nowhere defined in the Protocol. Of course, this is the case of civilians taking guns and using them against the enemy’s military forces. This is also true for retreating soldiers. Both in Operation Desert Storm and Operation Iraqi Freedom, the Coalitions led by the United States attacked by air and decimated the retreating divisions of the Iraqi army, especially the notorious Republican Guard. Only hors de combat persons, such as prisoners of war, cannot be attacked, whilst retreating soldiers have neither surrendered nor are in the power of the enemy.<sup>55</sup> Indeed, they are capable of defending themselves and to take up arms again unless they clearly express the intention to give in, so they may be targeted. But, apart from the members of the armed forces, who takes direct part

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<sup>49</sup> Amnesty International above n 35 at 6; Human Rights Watch *Off Target. The Conduct of the War and Civilian Casualties in Iraq* (2003) 67-69, 72-78.

<sup>50</sup> Y Dinstein ‘The Laws of Air, Missile and Nuclear Warfare’ 27 *Israel Yearbook on Human Rights* (1997) 9.

<sup>51</sup> E David *Principes de droit des conflits armés* (Bruxelles Bruylant 1999) 241-242; S Oeter ‘Methods and Means of Combat’ in D Fleck (ed) above n 17 at 163. According to the 1976 USAF Pamphlet, ‘[a] party to a conflict which places its own citizens in positions of danger by failing to carry out the separation of military activities from civilian activities necessarily accepts, under international law, the results of otherwise lawful attacks upon valid military objectives in their territory’ (at 5-13).

<sup>52</sup> J Donnelly and A Shadid ‘Civilian Toll in US Raids Put at 1,000’ *Boston Globe* (17 February 2002) <<http://www.commondreams.org/headlines02/0217-03.htm>>.

<sup>53</sup> Dod Final Report to Congress, at 626.

<sup>54</sup> This provision is considered as reflecting customary law by the United States (MJ Matheson 2 *American University Journal of International Law and Policy* (1987) 426).

<sup>55</sup> See the requirements provided for in Art 41 of Protocol I.

in hostilities in contemporary warfare? In Operation Iraqi Freedom some civilians, such as security personnel, Fedayeen, Ba'ath Party members and police also acted as combatants.<sup>56</sup> The 'militia' character of the Taliban armed forces entailed targeting residences among other sites and, thus, some residential areas. Nonetheless, according to the ICTY, if the participation is purely voluntary and there is no disciplinary sanction for those who fail to comply with their duties, their combatant status can be questioned.<sup>57</sup> On the other hand, if a civilian fills a traditionally military position, whether or not he wears a uniform, it is this author's opinion that he/she takes direct part in the hostilities: it is his function, not his clothes, that must be taken into account.<sup>58</sup>

There is a growing trend to let civilian perform military functions and to employ them in the theatre of operations. Examples are technicians and embedded journalists, whose role is more and more important because of the higher technological level of today's warfare and the importance of the media.<sup>59</sup> Since they are not forced to do so, they cannot be considered human shields. However, in air operations, it would be almost impossible for the pilot or the commander to establish before or during the attack if such personnel is civilian or military and to distinguish the ones from the others. This raises the problem of whether civilians performing military or military-related functions should be considered and to what amount in evaluating the excessiveness of collateral damage in the light of the principle of proportionality. As to the so-called quasi-combatants (eg, people working in ammunitions factories), they do not lose their civilian status, since they do not take direct part in the hostilities: the war can be won simply by overcoming the enemy's combatants, notwithstanding the zeal of its armament producers.<sup>60</sup> Therefore, it is legitimate to target the ammunition factory where and when civilians are working (provided that this complies with the principle of proportionality),<sup>61</sup> but the workers cannot be bombed when they are home just because they participate indirectly in the enemy's war efforts.

Heads of State have been considered legitimate targets in the most recent conflicts. On 21 April 1999, NATO bombed the official residence of President Milošević in Belgrade: officials declared that the building was a legitimate target,

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<sup>56</sup> T Garden 'Iraq: The Military Campaign' 79 *International Affairs* (2003) 712.

<sup>57</sup> *The Prosecutor v Tihomir Blaškić* Case No. IT-95-14-T, Trial Chamber I, 3 March 2000, para 407.

<sup>58</sup> A person who takes direct part in hostilities is not necessarily a lawful combatant: the Fedayeen militia forces were probably not (APV Rogers *Law on the Battlefield* (Manchester Manchester University Press 2004) 33).

<sup>59</sup> Journalists engaged in professional missions in areas of armed conflict are considered civilians under Art 79 (1) of Additional Protocol I.

<sup>60</sup> H Meyrowitz 'Le bombardement stratégique d'après le Protocol additionnel I aux Conventions de Genève' 41 *ZaöRV* (1981) 22-23.

<sup>61</sup> See para 445 of the German Joint Services Regulations, according to which 'the presence of civilian workers in an arms production plant ... will not prevent opposing forces from attacking this military objective'.

although they denied that the aircraft was trying to kill the President himself.<sup>62</sup> In 2001, the Coalition also bombed homes where Mullah Omar and Osama bin Laden might have sought refuge during Operation Enduring Freedom.<sup>63</sup> Saddam Hussein and his sons and collaborators were a declared target of the 2003 air campaign: indeed, the war started on 20 March 2003 by a US air attack aimed at killing the President and his entourage and went on targeting many presidential palaces and government buildings (the so-called ‘decapitation strikes’).<sup>64</sup> However, under the customary principle of distinction, attacks on heads of State would be legitimate only if they directed military operations, otherwise such assassinations would probably amount to extrajudicial executions.<sup>65</sup> The same can be said about other political leaders: those who take strategic decisions can be considered to take a direct part in the hostilities, but not, say, a Minister for Education.<sup>66</sup> However, during the Kosovo war, NATO listed all government ministries among the legitimate military objectives, regardless of their contribution to military operations.<sup>67</sup> Political leaders were also extensively attacked during Operation Iraqi Freedom.<sup>68</sup> If political leaders and military chiefs may be targeted wherever they are, it is likely that even their family members and other civilians will die. For instance, the Iraqi Al Firdos bunker was bombed by the Allied forces on 13 February 1991 as it was thought to be the headquarters of the Ba’ath Party’s secret police: unfortunately, also their wives and children were there and 200-300 civilians died in the attack.<sup>69</sup> The village of Qalaye Niazi (Niazi Kala), in the Afghani Paktia province, was reported to be a Taliban stronghold by a regional warlord and it was bombed by a B-52 and two B-1B on 29 December 2001: at least 52 civilians died, among which 25 children, according to UN sources.<sup>70</sup> According to Major Bill Harrison of the US Central Command, it was a legitimate military target, since there were Al-Qaeda and/or Taliban leaders living in the village.<sup>71</sup> Even in this case, the

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<sup>62</sup> House of Commons *Kosovo: Operation “Allied Force”* Research paper 99/48 (29 April 1999) <<http://www.parliament.uk/commons/lib/research/rp99/rp99-048.pdf>> 24.

<sup>63</sup> Human Rights Watch above n 49 at 21-22.

<sup>64</sup> Keesing’s Contemporary Archives (2003) 45315; Human Rights Watch above n 49 at 50-54.

<sup>65</sup> Dinstein therefore concludes that the White House would be a legitimate military objective, while Buckingham Palace would not (‘Legitimate Military Objectives Under the Current *jus in bello*’ 31 *Israel Yearbook on Human Rights* (2002) 19).

<sup>66</sup> WJ Fenrick ‘The Law Applicable to Targeting and Proportionality after Operation Allied Force: A View from the Outside’ 3 *Yearbook of International Humanitarian Law* (2000) 58.

<sup>67</sup> G Robertson ‘Kosovo One Year on Achievement and Challenge’ (21 March 2000) <<http://www.nato.int/kosovo/repo2000/index.htm>>.

<sup>68</sup> See the case studies reported in Human Rights Watch above n 49 at 27-38.

<sup>69</sup> MW Lewis ‘The Law of Aerial Bombardment in the 1991 Gulf War’ 97 *AJIL* (2003) 502-504.

<sup>70</sup> I Traynor ‘Afghans are still dying as air strikes go on. But no one is counting’ *The Guardian* (12 February 2002).

<sup>71</sup> MW Herold ‘Over 200 Civilians are Killed to 1.5 Taliban Leaders’ (6 January 2002) <<http://www.cursor.org/stories/paktia.htm>>.

problem must be solved in the light of the principle of proportionality, balancing the military advantage and the collateral damage to civilians. Moreover, the attacker must adopt all precautions to avoid or minimize damage to civilians and civilian property. This does not appear to have happened during the ‘decapitation strikes’ in Operation Iraqi Freedom, which were very rapidly planned and executed due to time constraints, only relying on imprecise coordinates obtained from satellite phones and faulty intelligence and thus causing dozens of civilian casualties.<sup>72</sup>

### 3. OLD LAW, NEW TARGETS?

The first definition of ‘military objective’ as far as air warfare is concerned is contained in the 1923 Hague Rules: ‘an objective whereof the total or partial destruction would constitute an obvious military advantage for the belligerent’.<sup>73</sup> To clarify the definition, the Rules provide an illustrative list of military objectives.<sup>74</sup> No definition appears in the 1949 Geneva Conventions, although the term ‘military objective’ is often employed.<sup>75</sup> According to Article 52 (2) of the 1977 Additional Protocol I, in so far as objects are concerned, military objectives are ‘those objects which by their nature, location, purpose or use make an effective contribution to military action *and* whose total and partial destruction, capture or neutralization, in the circumstances ruling at the time, offers a definite military advantage’.<sup>76</sup> There is no doubt that this definition applies to air bombardments, since - as noted above - Section I of Part IV of Additional Protocol I also deals with attacks from the air against objectives on land (Article 49 (3) of the Protocol). The definition incorporated in Article 52 (2) of Additional Protocol I,

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<sup>72</sup> Human Rights Watch above n 49 at 21-27.

<sup>73</sup> Art 24 (1).

<sup>74</sup> Art 24 (2). The list covers military forces; military works; military establishments or depots; factories constituting important and well-known centres engaged in the manufacture of arms, ammunition or distinctively military supplies; lines of communication or transportation used for military purposes. It is doubtful whether the list is exhaustive (APV Rogers above n 58 at 60).

<sup>75</sup> The 1956 New Delhi Draft Rules for the Limitation of the Dangers incurred by the Civilian Population in Time of War, drafted by the ICRC, proposed a list of military objectives, to be reviewed at intervals of not more than ten years by a group of experts; however, even if an object had belonged to one of the listed categories, it would not have been a military objective if its total or partial destruction, in the circumstances ruling at the time, had offered no military advantage (Art 7). Another attempt to define the concept of ‘military objective’ was made by the Institute of International Law in 1969 (Annuaire de l’Institut de droit international (1969-II) 359).

<sup>76</sup> Emphasis added. Art 48 of Protocol I gives civilian objects the same protection accorded to civilian persons (H Parks ‘Air War and the Law of War’ 32 The Air Force Law Review (1990) 147). If the object is normally dedicated to civilian purposes, it shall be presumed not to be used to make an effective contribution to military action (Art 51 (3)). There is no definition of ‘military objective’ in Additional Protocol II.

which according to the ICTY Final Report reflects customary law,<sup>77</sup> also appears in the military manuals of Germany,<sup>78</sup> Australia,<sup>79</sup> Canada,<sup>80</sup> United Kingdom.<sup>81</sup>

The United States position is somehow contradictory. While the 1976 USAF Pamphlet and the 1998 USAF Intelligence Targeting Guide have accepted the Protocol's definition to the letter and although the United States acknowledged that the definition contained in Protocol I is declaratory of customary international law,<sup>82</sup> the 2002 US Joint Doctrine for Targeting requires that the destruction, capture or neutralization of the object offer a military advantage, without this being qualified as 'definite'.<sup>83</sup> The adjective 'definite' rules out potential or not precisely determined advantages, thus prohibiting air attacks the only aim of which is to undermine the morale of the population.<sup>84</sup> This means that, in the light of the 2002 document, bombardments the goal of which is to exasperate the population to make them rouse against the government are not unlawful. It has also to be recalled that the United States' definition of 'military objective' with regard to naval warfare is also wider than that contained in Additional Protocol I, since it covers all objects which 'effectively contribute to the enemy's war-fighting or war sustaining capability':<sup>85</sup> this definition, which has recently been reaffirmed in the instructions issued by the Department of Defense for the military commissions responsible for trying al-Qaeda suspects,<sup>86</sup> is considered by the *Annotated Supplement to the Commander's Handbook on the Law of Naval Operations* 'as declarative of the customary rule', although little evidence is

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<sup>77</sup> Para 42.

<sup>78</sup> Para 442.

<sup>79</sup> Royal Australian Air Force *Operations Law for RAAF Commanders* DI (AF) AAP 1003 (1994) para 8-4, 8-5.

<sup>80</sup> *Canadian Forces Law of Armed Conflict Manual* (Second draft) para 516.

<sup>81</sup> 2004 UK Manual 315.

<sup>82</sup> JE Parkenson 'United States Compliance with Humanitarian Law Respecting Civilians During Operation Just Cause' 133 *Military Law Review* (1991) 58; WH Taft, IV above n 35 at 322.

<sup>83</sup> 1976 USAF Pamphlet 5-8; 1998 USAF Intelligence Targeting Guide para A4.2.2; 2002 US Joint Doctrine for Targeting Appendix A, A-3.

<sup>84</sup> The prohibition of acts or threat of violence (such as proclamations) the *primary* purpose of which is to spread terror among the civilian population is specifically contained in Art 51 (2) of Additional Protocol I and in Art 13 (3) of Protocol II, and it is also included in several military manuals (see, eg, para 451 of the German Joint Services Regulations): according to the United Kingdom and the United States, the provision constitutes 'a valuable reaffirmation of existing customary rules of international law designed to protect civilians' (quoted in A Cassese 'The Geneva Protocols of 1977 on the Humanitarian Law of Armed Conflict and Customary International Law' 3 *UCLA Pacific Basin Law Journal* (1984) 87, note 154; MJ Matheson 2 *American University Journal of International Law and Policy* (1987) 426). It goes without saying that there is no prohibition to undermine civilian morale through non-violent means, such as dropping propaganda leaflets or broadcasting radio messages, as happened, inter alia, in Operation Iraqi Freedom, where Iraqi commanders also received mobile phone text messages inviting them to surrender ('What went right?' *Jane's Defence Weekly* (30 April 2003) 21).

<sup>85</sup> AR Thomas and JC Duncan (eds) *Annotated Supplement to the Commander's Handbook on the Law of Naval Operations, International Law Studies* vol. 73 (Newport, Rhode Island Naval War College 1999) para 8.1.1.

<sup>86</sup> Military Commission Instruction no 2 (30 April 2003) 3 (available on line at <<http://www.nimj.org>>).

provided to uphold this view. If ‘war fighting’ can be considered as equivalent of ‘military action’, ‘war sustaining’ is much broader, since it includes activities not directly connected to the hostilities, and the use of this expression, which was rejected by the San Remo Round Table,<sup>87</sup> entails the possibility to attack political and financial targets in order to ‘persuade’ the enemy to stop fighting. In a previous edition of the Commander’s Handbook, though, it was stated that ‘[t]his variation of the definition contained in Additional Protocol I, Article 52 (2) is not intended to alter its meaning, and is accepted by the United States as declarative of the customary rule’.<sup>88</sup> It is also worth noting that, as far as criminal responsibility is concerned, the definition contained in Article 8 (2) (b) (iv) of the Rome Statute establishing an International Criminal Court (ICC) replaces the narrow expression ‘concrete and direct military advantage’ with the more expansive ‘concrete and direct overall military advantage’ and requires the collateral damage to be *clearly* excessive. At the Rome Conference, however, the International Committee of the Red Cross (ICRC) expressed the view that if ‘overall’ indicates ‘that a particular target can have an important military advantage that can be felt over a lengthy period of time and affect military action in areas other than the vicinity of the target itself’, then ‘this meaning is included in the existing wording of Additional Protocol I’ and ‘the inclusion of the word “overall” is redundant’.<sup>89</sup>

However that may be, for States parties to Additional Protocol I, in order that an object may be considered a military objective and therefore be attacked without violating the principle of distinction, two cumulative elements must be present at the same time: it must effectively contribute to the military operations, or, at least, be about to do it, *and* it must offer a definite military advantage. In fact, there may be objectives which are lawful *per se*, but the destruction of which does not offer a military advantage.<sup>90</sup> Article 52 (2) provides for the criteria to evaluate whether the object complies with the first requirement: in particular, one has to take into account its nature, location, purpose or use (in this case, the concurrence is alternative).<sup>91</sup> As to the second

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<sup>87</sup> L Doswald-Beck ‘The San Remo Manual on International Law Applicable to Armed Conflict at Sea’ 89 AJIL (1995) 199.

<sup>88</sup> Department of the Navy *Annotated Supplement to the Commander’s Handbook on the Law of Naval Operations* (1989) NWP 9 (Rev. A)/FMFM 1-10 para 8.1.1 footnote 9.

<sup>89</sup> UN Doc A/CONF.183/INF/10 (13 July 1998).

<sup>90</sup> DeSaussure quotes the examples of the 1972 Christmas bombing of Hanoi or the never implemented bombing of a depot in the heart of Argentina during the Falklands war, which would have not helped the British reoccupy the Islands (‘The Sixth Annual American Red Cross – Washington College of Law Conference on International Humanitarian Law: A Workshop on Customary International Law and the 1977 Protocols Additional to the 1949 Geneva Conventions’ 2 *American University Journal of International Law and Policy* (1987) 513).

<sup>91</sup> According to the 1976 USAF Pamphlet, the ‘inherent nature of the object is not controlling since even a traditionally civilian object, such as a civilian house, can be a military objective when it is occupied and used by military forces during an armed engagement’ (at 5-9). The Pamphlet qualifies as undisputed military objectives the enemy’s encampments, military aircraft, tanks, antiaircraft emplacements and

requirement, a point which is not expressly addressed by the Protocol is *who* has to gain the definite military advantage deriving from the destruction, capture or neutralization of the objective.<sup>92</sup> This is particularly important in coalition wars, such as the most recent conflicts. However, it seems a reasonable interpretation of Article 52 (2) that the military advantage is to be referred to the attacker considered as a 'team', even when it is an alliance formed by contingents of different nationalities, providing that they fight for the same goal, ie their operations are coordinated and there is some kind of military integration. This seems the view upheld by the 2002 US Joint Doctrine for Targeting, according to which "military advantage" is not restricted to tactical gains but is linked to the full context of a war strategy'.<sup>93</sup> The so-called 'deception targets' are therefore legitimate when used to divert the attention of enemy troops to some location other than the eventual target of the allies' principal attack.

Apart from defining the notion of military objective, the Protocol puts some objects under special protection, namely works and installations containing dangerous forces (dams, dykes and nuclear electrical generating stations), the natural environment, objects indispensable to the survival of the civilian population, cultural objects and places of worship. The following pages will examine other targets which are not expressly dealt with by the Protocol but which have been frequently attacked in the most recent conflicts involving the use of air power.

*Broadcasting facilities.* Communication nodes have been a high priority in all recent armed conflicts. Media and broadcasting systems were included in the target list both in Operation Desert Storm and in Operation Allied Force.<sup>94</sup> On 23 April 1999, NATO aircraft intentionally bombed the headquarters of the RTS in Belgrade, killing between 10 and 17 civilians.<sup>95</sup> According to the Organization, it was a lawful target, since the station was used for military purposes, as part of the control mechanism and of the propaganda machinery.<sup>96</sup> The fact that the station was reactivated after a few hours and was not reattacked could be a sign that there was no military advantage gained from its destruction. The ICTY Final Report, however, concluded that the building was a

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troops in the field. According to the German Joint Services Regulations, military objectives by nature are particularly armed forces, military aircraft and warships, buildings and objects for combat service support and commercial objects, which make an effective contribution to military action (para 443).

<sup>92</sup> The evaluation has to be made 'in the circumstances ruling at the time', thus ruling out any potential future advantage. However, this also implies that an objective which could not be normally considered as military such as a school may become such if it is used in direct support of the hostilities (for instance, hosting soldiers): see the case of the Basra college of literature, mentioned in APV Rogers above n 58 at 82.

<sup>93</sup> At A-2.

<sup>94</sup> WJ Fenrick above n 66 at 70.

<sup>95</sup> See GH Aldrich 'Yugoslavia's Television Studios as Military Objectives' 1 International Law Forum (1999) 149-150.

<sup>96</sup> Amnesty International above n 26 at 47.

legitimate military objective, because it was aimed mainly at disabling the Serbian military command and control system and at destroying the apparatus that kept Milošević in power.<sup>97</sup> In any case, regardless of any consideration on the lawfulness of the target, the respect of the principle of proportionality can be seriously questioned. On 12 November 2001, the Kabul office of Al-Jazeera news television was hit by a guided bomb,<sup>98</sup> and other radio/television stations were attacked because they were used as means of propaganda by the Taliban.<sup>99</sup> In Operation Iraqi Freedom, the United States bombed the Ministry of Information, the Baghdad Television Studio and Broadcast Facility and the Abu Ghraib Television Antennae Broadcast Facility.<sup>100</sup> US military officials had previously asserted that Iraqi television was a legitimate target, since cutting communications links between Saddam Hussein and its people was an important goal of the campaign.<sup>101</sup> The fact that the Iraqi television had showed images of dead and captured US soldiers thus breaching the letter and the spirit of the III Geneva Convention raised suspicions that the attack was motivated to stop propaganda against the Coalition. However, the British Secretary for defence Geoff Hoon appeared more cautious, saying that '[t]elevision stations are not directly targeted in that sense, [but because] they are part of the military command and control structures'.<sup>102</sup>

In providing that a limited number of refugees intended to shelter movable cultural property in the event of armed conflict and of centres containing monuments and other immovable cultural property of very great importance may be placed under special protection if they are situated at an adequate distance from an important military objective such as, inter alia, a broadcasting station, Article 8 (1) of the 1954 Hague Convention for the Protection of Cultural Property in the Event of Armed Conflict suggests that this kind of facilities may be attacked.<sup>103</sup> Additional Protocol I does not expressly mention broadcasting facilities, but from the general definition contained in Article 52 (2), it might be implied that they can be military objectives if they contribute effectively to military action and if their total or partial destruction, capture or neutralization offers a definite military advantage in the circumstances ruling at the time. This means that the bombing of a station that broadcasts civilian programming

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<sup>97</sup> Para 76. This conclusion is criticised by P Benvenuti 'The ICTY Prosecutor and the Review of the NATO Bombing Campaign against the Federal Republic of Yugoslavia' 12 EJIL (2001) 522-524.

<sup>98</sup> MW Herold 'A Dossier on Civilian Victims of United States' Aerial Bombing of Afghanistan: A Comprehensive Accounting' (March 2002) <[http://www.cursor.org/stories/civilian\\_deaths.htm](http://www.cursor.org/stories/civilian_deaths.htm)>.

<sup>99</sup> R Cryer above n 16 at 55.

<sup>100</sup> Human Rights Watch above n 49 at 46-49.

<sup>101</sup> See the declaration of a senior CENTCOM official quoted in Human Rights Watch above n 49 at 48-49.

<sup>102</sup> M Tempest 'Hoon: TV stations can be targets' *The Guardian* (26 March 2003) <<http://politics.guardian.co.uk/iraq/story/0,12956,922285,00.html>>.

<sup>103</sup> Paragraph 7 of the 1956 ICRC Draft Rules includes in the list of military objectives broadcasting stations 'of fundamental military importance'.



only would be unlawful: in fact, its destruction to undermine civilian morale or to psychologically harass the population would not offer a definite military advantage and it would not contribute effectively to the war efforts (even if this would weaken the political support to the government).<sup>104</sup> On the contrary, if the station is part of the military communication system (the so-called C<sup>3</sup>: Command, Control and Communication), it would obviously be a military objective.<sup>105</sup> Even in this case, though, the requirement of the definite military advantage should be met: this means that the bombing of one radio or TV broadcasting site would probably be unlawful if there were dozens of them around the country. Further, there would be no reason to destroy an urban broadcasting facility, as happened in Belgrade, if the same advantage can be gained by destroying transmitters.

It has been suggested that a broadcasting station might also constitute a military objective when it is employed to incite the population to commit war crimes or crimes against humanity as in the case of Radio Mille Collines in Rwanda in 1994, or acts of violence against the forces that supply humanitarian assistance with the authorization of the United Nations,<sup>106</sup> and, finally, when the station ‘is the nerve system that keeps a warmonger in power and thus perpetrates the war effort’.<sup>107</sup> The latter case seems to refer to countries where there is no freedom of the press and the control on the media allows a dictator to dominate the population. On the contrary, it is doubtful whether the propaganda function only could turn a civilian target into a military one, since there would be no effective contribution to military action from their destruction and the military advantage would not be ‘definite’.<sup>108</sup> However, consistently with the 2002 Joint Doctrine for Targeting, which does not require the military advantage to be ‘definite’, for the United States a broadcasting station is a lawful military objective even when it is used only for propaganda purposes, while for the Europeans it can be attacked only when it is part of the military communication system. In the above mentioned case of the NATO attack on the RTS in Belgrade, there seemed to be disagreement between the United States, France and Italy about the legitimacy of the target, which caused the

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<sup>104</sup> ICTY Final Report para 55.

<sup>105</sup> See the 2002 US Joint Doctrine for Targeting, according to which radio and television transmitters ‘may be a legitimate target if used by their government to support military operations’ (A-3). See also N Ronzitti ‘Is the Non Liqueur of the Final Report by the Committee established to Review the NATO Bombing Campaign Against the Federal Republic of Yugoslavia Acceptable?’ 82 *International Review of the Red Cross* (2000) 1023, and P Pustorino ‘Responsabilità degli Stati parti della Convenzione europea dei diritti dell’uomo per il bombardamento NATO alla Radio Televisione serba: il caso *Bankovic*’ 57 *La Comunità internazionale* (2002) 697 ff.

<sup>106</sup> The two events are expressly recalled as cases where the attack against civilian media would be lawful in the Air Force Advocate General School *The Military Commander and the Law* (2002) <<http://milcom.jag.af.mil/index.htm>> 547.

<sup>107</sup> ICTY Final Report para 55.

<sup>108</sup> This is also the conclusion of the ICTY Final Report para 47.

postponement of the action.<sup>109</sup> Even the United Kingdom refused to take part in the attack, which was carried out by the US air force only.<sup>110</sup> The same disagreement seems to have existed between the US and the UK with regard to the attacks on the Iraqi television.<sup>111</sup> However, it can be difficult to draw the line between military communication and propaganda, especially when the station is used to exhort soldiers and population to resist and fight the enemy.

*Economic targets.* The strategic bombardment of economic targets was first theorized by the Allied in Casablanca in January 1943 in order to progressively destroy the German economic and industrial infrastructures, exasperate the population and consequently prejudice the enemy's military operations.<sup>112</sup> During the Second World War, in fact, all industries of the belligerents were converted to sustain the military effort and almost every activity and adult individual was connected with military purposes.<sup>113</sup> Additional Protocol I does not expressly mention economic targets, but the ICRC Commentary reminds that the 1956 list included among military objectives only the '[i]ndustries of fundamental importance for the conduct of the war'.<sup>114</sup> Likewise, according to the German Joint Services Regulations, only economic objectives that make an effective contribution to military action can be considered lawful targets,<sup>115</sup> and the same view is contained in the 1998 USAF Intelligence Targeting Guide.<sup>116</sup> It is thus clear that industries which produce weapons or material to support the military effort may be attacked,<sup>117</sup> while installations which carry out industrial activities of scant importance for the conduct of war may not: a tobacco factory or a warehouse which contains stationery material do not contribute effectively to military action and their destruction, capture or neutralization does not offer a definite military advantage. The same can be said about attacks on stock exchanges and banking systems,<sup>118</sup> while this conclusion is controversial with regard to the supply industry of armaments production and subcontractors of the defence industry.<sup>119</sup> As far as refineries are

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<sup>109</sup> Amnesty International above n 26 at 54. Read the declaration of Italy's Minister for foreign affairs, Mr Dini, in E Greco 'La politica italiana durante il conflitto del Kosovo' in R Aliboni F Bruni A Colombo E Greco (eds) *L'Italia e la politica internazionale* (Milano Il Mulino 2000) 150-151.

<sup>110</sup> N Quenivet 'Report of the Prosecutor of the ICTY Concerning NATO Bombing Against the FRY: A Comment' 41 *Indian Journal of International Law* (2001) 484.

<sup>111</sup> See above, note 102 and accompanying text.

<sup>112</sup> C Rousseau *Le droit des conflits armés* (Paris A Pedone 1983) 366.

<sup>113</sup> See, for instance, the British bombing of the Ruhr.

<sup>114</sup> C Pilloud et al *Commentary on the Additional Protocols of 8 June 1977 to the Geneva Conventions of 12 August 1949* (Geneva ICRC Nijhoff Publishers 1987) [hereinafter ICRC Commentary] para 2002 note 3.

<sup>115</sup> Para 443.

<sup>116</sup> Para A4.2.2.1.

<sup>117</sup> See the 2002 US Joint Doctrine for Targeting at A-3.

<sup>118</sup> Air Force Advocate General School above n 106 at 547.

<sup>119</sup> D Fleck (ed) above n 17 at 161.

concerned, they are usually considered military objectives.<sup>120</sup> NATO aircraft bombed many refineries in 1999 during Operation Allied Force,<sup>121</sup> the most famous case being the bombing of the Pančevo petrochemical plant, 16 km from Belgrade: according to NATO officials, despite being a civilian facility, the complex produced gasoline and other products for the Yugoslavian army and was considered ‘a very, very important refinery and strategic target, as important as tactical targets inside Kosovo’.<sup>122</sup> In 1987 and 1988, Iranian offshore oil installations in the Persian Gulf were also considered by the US legitimate military targets and attacked, but, in its Judgment of 6 November 2003, the ICJ did not deal with this specific topic and centred its attention on the *jus ad bellum* aspects of the case.<sup>123</sup> In any case, the destruction of refineries and oil platforms must not cause environmental damage as provided by Article 55 of Additional Protocol I.<sup>124</sup>

What about export goods which are the principal financial source of a country’s continuation of war effort? According to the British-American Claims Commission, the destruction of plantations by the federal forces during the American civil war was lawful, since the sale of cotton supplied funds to the Confederate States to buy weapons and munitions.<sup>125</sup> Nonetheless, the San Remo Manual Explanation states that ‘the connection between the exports and military action would be too remote’.<sup>126</sup> During Operation Desert Storm, Jordanian oil tankers that travelled in the Amman-Baghdad highway were attacked by the Coalition.<sup>127</sup> Apart from being owned by citizens of a non-belligerent State (Jordan), there was no evidence that the transported fuel was directed to sustain Iraq’s military effort. Furthermore, Iraq did not gain any financial advantage from the export of such goods, since the oil was taken by Jordan as a repayment for loans: there was therefore no definite military advantage to be gained by the destruction of the tankers.<sup>128</sup>

According to the 2002 US Joint Doctrine for Targeting, lawful targets also include economic facilities that ‘*indirectly but effectively* support and sustain the enemy’s

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<sup>120</sup> See the ICTY Final Report, para 55.

<sup>121</sup> See the list reported by E David ‘Respect for the Principle of Distinction in the Kosovo War’ 3 Yearbook of International Humanitarian Law (2000) 94.

<sup>122</sup> Quotation from an unknown NATO spokesperson reported in UNEP/UNCHS *The Kosovo Conflict: Consequences for the Environment and Human Settlements* (1999) 33.

<sup>123</sup> Case concerning *oil platforms (Islamic Republic of Iran v United States of America)* (6 November 2003) para 67, available on the ICJ website (<<http://www.icj-cij.org/icjwww/idecisions.htm>>).

<sup>124</sup> See Section V of this article. Oil production installations and storage facilities for oil products are not installations containing dangerous forces, as stressed in the ICRC Commentary para 2150.

<sup>125</sup> *Cotton Claims* (1871), in JB Moore *International Arbitrations* vol. 4 (1894) 3679.

<sup>126</sup> L Doswald-Beck (ed) *San Remo Manual on International Law Applicable to Armed Conflict at Sea “Explanation”* (Cambridge et al Cambridge University Press 1995) para 67.27.

<sup>127</sup> Middle East Watch *Needless Deaths in the Gulf War. Civilian Casualties During the Air Campaign and Violations of the Law of War* (1991) 213.

<sup>128</sup> Middle East Watch above n 127 at 224-227.

warfighting capability’.<sup>129</sup> This is coherent with the broader definition of ‘military objective’ contained in the document and highlighted above, and implies, inter alia, that exports and even food industries which produce fare to feed soldiers to the front might be attacked. This view, however, is not consistent with the definition of ‘military objective’ contained in Additional Protocol I, which is generally thought to reflect customary law, even by the Unites States itself.<sup>130</sup>

*Electric generating stations.* The status of the electric generating stations is a particularly moot point. Additional Protocol I deals expressly only with nuclear generating stations because of the great risk their destruction might pose (Article 56). Of course, a power plant which provides electricity for the production of arms is a legitimate target. More often, the plants also have a civilian function, eg they allow hospitals to function and they provide electricity to purify and distribute water. As observed, ‘[e]lectricity is the life’s blood of modern-day state, especially in the core urban centers’ and ‘[c]ivil support has become so dependent upon electricity that even temporary interruption can wreak havoc upon the most advanced and redundant power grids’.<sup>131</sup> In the most recent conflicts, however, electric generating stations have been considered military objectives.<sup>132</sup> During the Gulf War, attacks on electrical generation facilities were particularly heavy and caused the shut-down of water distribution and purification and of sewage treatment plants, with consequent lack of potable water, which allowed the Iraqi Government to accuse the coalition of attempted genocide.<sup>133</sup> If – as it was suggested<sup>134</sup> – this had been implemented to cause political turmoil and lead to the overthrow of the Saddam Hussein’s regime (and not to degradate the enemy’s air-defence system), then the attacks would have been unlawful, since there would have been no definite military advantage gained from the destruction of the facilities.<sup>135</sup>

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<sup>129</sup> At A-3.

<sup>130</sup> WH Taft, IV above n 35 at 322. See also the ICTY Final Report para 42.

<sup>131</sup> JW Crawford ‘The Law of Noncombatant Immunity and the Targeting of National Electrical Power System’ 21 *The Fletcher Forum of World Affairs* (1997) 111.

<sup>132</sup> The targeting of electricity was also carried out in the two World Wars, in North Korea and Vietnam.

<sup>133</sup> The US statements are contradictory on this topic. According to a Pentagon source, ‘it was impossible ... to destroy the electrical power supply for Iraqi command and control facilities or chemical weapons factories, yet leave untouched that portion of the electricity supplied to the general populace’ (quoted in CJ Greenwood above n 12 at 74). However, General Schwarzkopf declared: ‘[b]ecause of our interests in making sure that civilians did not suffer unduly, we felt we had to leave some of the electrical power in effect, and we’ve done that’ (quoted in JW Crawford above n 131 at 118).

<sup>134</sup> JW Crawford above n 131 at 108-109.

<sup>135</sup> According to MW Lewis, such attacks were due to a lack of communication between the leadership, who wanted to minimize long-term damage to the Iraqi infrastructure, and the weapons officers, who followed their targeting handbook and thus targeted generator halls instead of transformers and switching yards (above n 69 at 505-506). However, Art 86 (2) of Additional Protocol I, Art 6 of the 1996 Draft Code of Crimes against the Peace and Security of Mankind, Art 7 (3) of the Statute of the ICTY, Art 6 (3) of the Statute of the International Criminal Tribunal for Rwanda (ICTR) and Art 28 of the ICC Statute all provide for the responsibility of commanders and superiors for the conduct of their subordinates, if they

However, applying the 2002 US Joint Doctrine for Targeting, which does not require the military advantage to be 'definite', one would come to the opposite conclusion. In Afghanistan, the electrical grids in Kandahar and near the Kajakai dam were destroyed in late October 2001 by the Coalition led by the United States, leaving the cities of Kandahar and Lashkargah without all power supplies.<sup>136</sup> In Operation Iraqi Freedom, attacks were directed at power distribution facilities instead of generation facilities, and they were carried out with carbon fiber bombs.<sup>137</sup> Electricity and water supplies in Basra and al-Nasiriyya were cut off by US/UK attacks.<sup>138</sup> Power and water supplies were also interrupted in Baghdad, because of - according to some allegations - a 'black-out bomb', although the Coalition denied responsibility.<sup>139</sup> However, the electricity network was largely left undamaged, probably in order to facilitate the post-war reconstruction.

If the electric power plant is located at or in the vicinity of an installation containing dangerous forces such a dam or a dyke, States parties to Additional Protocol I should also apply Article 56. Therefore, the plant could be bombed only if it is used in regular, significant and direct support of military operations and the attack is the only feasible way to terminate such support, or if the action does not cause the release of dangerous forces and consequent severe losses among the civilian population.

*Lines of communication (railroads, highways, bridges, airports, navigable rivers and canals, tunnels).* The 1976 USAF Pamphlet admits that controversy exists over whether, and the circumstances under which, lines of communication can be military objectives.<sup>140</sup> Supply routes, bridges and other lines of communication were included in the list of intentionally attacked targets by the Coalition in the 1991 Gulf War and by NATO in Yugoslavia.<sup>141</sup> The airports of the main Afghani cities (Kabul, Herat, Kandahar, Zaranj, Mazar-i-Sharif) were also attacked by the Coalition during the US-led campaign, and lines of communication were disrupted.<sup>142</sup> The Saddam International

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knew or should have known that such subordinates were committing or going to commit a breach of the relevant international humanitarian law obligations.

<sup>136</sup> APV Rogers above n 58 at 80.

<sup>137</sup> Human Rights Watch above n 49 at 42.

<sup>138</sup> Keesing's Contemporary Archives (2003) 45313; Amnesty International above n 35 at 5; Human Rights Watch above n 49 at 43-44.

<sup>139</sup> House of Commons *The Conflict in Iraq* Research paper 03/50 (23 May 2003) <<http://www.parliament.uk/commons/lib/research/rp2003/rp03-050.pdf>> 41-42.

<sup>140</sup> At 5-9. Bridges and airfield are also included in the list of military objectives contained in the Commander's Handbook on the Law of Naval Operations para 8.1.1.

<sup>141</sup> In particular, the bridges on the Euphrate and the Danube rivers were attacked. According to the Pentagon Final Report, bridges on the former were destroyed because they contained the multiple-fiber optic links that provided Saddam Hussein with secure communications to his southern group of forces (C Greenwood above n 12 at 74). In Yugoslavia, more than 20 road and rail bridges were damaged or destroyed and some roads and all railway lines to Kosovo were interrupted, in order to hinder the movement of Serb forces (House of Commons above n 62 at 26).

<sup>142</sup> House of Commons *Operation Enduring Freedom and the Conflict in Afghanistan* Research paper 01/81 (31 October 2001) <<http://www.parliament.uk/commons/lib/research/rp2001/rp01-081.pdf>> 18.

Airport was repeatedly bombed during the 2003 war against Iraq and a US missile targeted a bridge on the Iraqi side of the Syrian border, accidentally hitting a bus and killing 23 Syrian workers.<sup>143</sup> Applying the customary definition of ‘military objective’ contained in Article 52 (2) of Additional Protocol I, to be lawful targets, the bridge, airport, route or canal has to contribute effectively to military action and its total or partial destruction, capture or neutralization has to offer a definite military advantage in the circumstances ruling at the time. A bridge which is too narrow to accommodate large military vehicles would probably not be a legitimate military objective, and neither would a bridge which is broad enough to allow the transit of tanks if no military operations are occurring or likely to occur on the other side of the river. Besides - as it has been noted - ‘only the destruction of all forms of certain types of dual purpose object would make an effective contribution to military action and offer a definite military advantage’. This means that ‘[i]f there are ... two bridges across a strategically significant river, the destruction of one only may give no military advantage; only the destruction of both would achieve this objective’.<sup>144</sup> The destruction of a bridge which has just a symbolic significance (as was the case - according to Human Rights Watch – of the bridge over the Danube in Novi Sad<sup>145</sup>) is unlawful, since it does not offer a definite military advantage.<sup>146</sup>

Only the main lines of communication, which have a significant strategic importance, constitute military objectives, and not every city street.<sup>147</sup> This opinion has been upheld by the ICRC<sup>148</sup> and is suggested by Article 8 of the 1954 Cultural Convention, according to which refuges for cultural property must be located at an adequate distance from, inter alia, ‘a port or railway station of *relative importance* or a *main line* of communication’.<sup>149</sup> In the Pentagon’s target list in Operation Desert Storm, not every railroads and bridges were included, but only those connecting Iraqi military forces with logistical support centres,<sup>150</sup> and in Operation Iraqi Freedom air sorties concentrated on major communication nodes.<sup>151</sup> During the Kosovo conflict, the

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<sup>143</sup> Keesing’s Contemporary Archives (2003) 45318.

<sup>144</sup> P Rowe ‘Kosovo 1999: The Air Campaign – Have the Provisions of Additional Protocol I Withstood the Test?’ 82 International Review of the Red Cross (2000) 152.

<sup>145</sup> Human Rights Watch *Civilian Deaths in the NATO Air Campaign* (7 February 2000) <<http://www.hrw.org/reports/2000/nato>>.

<sup>146</sup> This would not be true in the light of the 2002 US Joint Doctrine for Targeting.

<sup>147</sup> Y Dinstein above n 50 at 57.

<sup>148</sup> The 1956 list include only ‘[t]hose of the lines and means of communication (railway lines, roads, bridges, tunnels and canals) which are of fundamental military importance’. See also the ICRC Commentary to Art 52 (2) of Additional Protocol I para 2021.

<sup>149</sup> Emphasis added. However, aerodromes are considered military objectives by the Convention regardless of their ‘relative importance’.

<sup>150</sup> C Greenwood above n 12 at 72.

<sup>151</sup> US Department of Defense *News briefing* (28 March 2003) <[http://www.defenselink.mil/news/Mar2003/t03282003\\_t0328sd.html](http://www.defenselink.mil/news/Mar2003/t03282003_t0328sd.html)>.

railroad bridge at Grdelica Gorge was attacked by the Coalition because it was ‘part of the integrated communications supply in Serbia’.<sup>152</sup> In this case, even Amnesty International and Human Rights Watch acknowledged that the military use made the bridge a legitimate target. The same happened to the Luzane bridge, which was on the main re-supply route between the two main cities of Kosovo, Niš and Priština. On the other hand, France refused to attack the bridges on the Danube, since ‘they [the Americans] read the Geneva Conventions [in a different way] and they were prepared to go and Europeans were not’:<sup>153</sup> it seemed that seven of the bridges attacked had no military functions at the time and could not thus be considered as military targets.

More limitations apply if the bridge is a historical monument, such as Mostar Bridge, which was destroyed by the Croatian guns during the Bosnian conflict. Another limitation derives from the principle of proportionality: if the roads, bridges etc are the only feasible way to provide humanitarian relief to the civilian population, or to allow the population to move to safer areas, their destruction would probably be disproportionate with respect to the military advantage gained. On the other hand, if the destruction of a bridge is of fundamental importance for the occupation of a strategic zone, it is legitimate that some houses may be hit. Moreover, before attacking a bridge or road which is used both by civilians and the military, the attacker should determine whether there are alternative targets the destruction of which offers a similar military advantage but less risk to civilians, or whether there is a time of the day that would reduce potential harm (see, eg, the NATO attack on the Grdelica Gorge railroad bridge, which took place in the middle of the day, when a civilian passenger train was crossing it, or on the Luzane bridge, which was regularly used by civilian traffic but yet attacked during the day, or again on the Varvarin bridge, which was attacked during a religious holiday, when the streets were busier than usual<sup>154</sup>).

*Commercial means of transport.* This is another example of dual-use objects. As mentioned above, during Operation Desert Storm, coalition aircraft bombed civilian vehicles carrying Iraqi oil to Jordan. In the light of Additional Protocol I, the attack was unlawful, since the tankers did not make any contribution to Iraq’s military efforts (they were carrying fuel to Jordan to be used in that country), nor their destruction offered a definite military advantage (Iraq did not earn any money from the trade).<sup>155</sup> The US’s view is however less strict. According to the 1998 USAF Intelligence Targeting Guide,

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<sup>152</sup> Quoted in ICTY Final Report, para 59.

<sup>153</sup> Quoted in N Quenivet above n 110 at 484.

<sup>154</sup> Amnesty International above n 26 at 35-37, 54-56, 68-70. After the attack on the Varvarin bridge, NATO changed its Rules of engagement, stopping all attacks on bridges when civilians were supposed to be nearby (WJ Fenrick ‘Targeting and Proportionality during the NATO Bombing Campaign against Yugoslavia, 12 European Journal of International Law (2001) 501).

<sup>155</sup> Middle East Watch above n 127 at 224-227. See also the German Joint Services Regulations, para 443.

‘[m]odern transportation and communications systems are deemed military objectives because they are used heavily for military purposes in intense conflicts’.<sup>156</sup> This opinion is shared by Rogers, according to whom ‘[c]ivilian oil tankers, lorries and railway wagons are not normally military objectives, but it is submitted that if intelligence reports suggest that the enemy *plan* to use such vehicles for military purposes, they can be attacked to prevent them being used for those purposes’.<sup>157</sup> Therefore, a hypothetical future military use (and not their present destination, as required by Protocol I) would be sufficient to turn these objects into military objectives. In the Iraqi vehicles case, however, the Pentagon stated that they had been attacked by mistake, since they were thought to be mobile Scud launchers.<sup>158</sup>

*Animals.* International humanitarian law has always focused on the protection of persons. It does not provide for specific rules protecting animals as such in times of armed conflict. Of course, if they are used for military purposes (eg, cavalry horses, or the dolphins employed to clear mines from the Iraqi port of Umm Qasr during Operation Iraqi Freedom<sup>159</sup>), they can be targeted and killed, but what happens if they do not participate in the military effort? Obviously, they neither fall within the definition of ‘civilian person’ under Article 50 (1) of Additional Protocol I, nor within the definition of ‘civilian object’ under Article 52 (2), which appears to encompass only inanimate things: hence, they do not enjoy the general protection provided in Articles 51 and 52.<sup>160</sup> This legal vacuum is only partially filled by Article 54 (if the animals are indispensable for the survival of the civilian population, namely livestock animals like cows, sheep, chickens, etc), and by Articles 35 and 55 (if the damage to the fauna is widespread, long-term and severe: see discussion in Section V of this article) of Protocol I.<sup>161</sup> In any case, the protection of animals would be linked to that of a humanitarian/ecological interest of prominent importance. The 1972 World Cultural and Heritage Convention could also come into consideration, since it provides that parties must refrain from any deliberate measure which might damage directly or indirectly the natural heritage as defined in Articles 1 and 2.<sup>162</sup> The Convention, however, is not

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<sup>156</sup> Para A4.2.2.2. See also the 2002 US Joint Doctrine for Targeting, at A-3.

<sup>157</sup> APV Rogers above n 58 at 63 (emphasis added).

<sup>158</sup> APV Rogers above n 58 at 76.

<sup>159</sup> M Woods ‘Flipper goes to war’ (27 March 2003) <<http://www.postgazette.com/healthscience/20030327dolphinscip2.asp>>. Dolphins and other marine mammals (sea lions, pilot and killer whales) can also carry cameras and hunt for enemy scuba divers. Operation Desert Storm was the first major war in which the military made an effort to keep animals from harm and help alleviate their suffering after the end of the hostilities.

<sup>160</sup> Nor are members of the veterinary service covered by the definition of ‘medical personnel’ (W Rabus ‘Protection of the Wounded, Sick, and Shipwrecked’ in D Fleck (ed) above 17 at 625).

<sup>161</sup> Animals are mentioned in the ICRC Commentary of Art 35 (3) (para 1443).

<sup>162</sup> Art 6 (3). Natural heritage means ‘natural features consisting of physical and biological formations or groups of such formations, which are of outstanding universal value from the aesthetic or scientific point



expressly applicable in time of armed conflict. Some protection might also derive from the 1993 Chemical Weapons Convention, which forbids, inter alia, the use of toxic chemicals, namely ‘any chemical which through its chemical action on life processes can cause death, temporary incapacitation or permanent harm to human or animals’.<sup>163</sup>

#### 4. COLLATERAL DAMAGE AND PROPORTIONALITY IN CONTEMPORARY AERIAL BOMBARDMENT

Civilian population and property may be incidentally hit, as the collateral result of an attack directed against military objectives, even if the attacker was aware of such possibility: according to the 1998 USAF Intelligence Targeting Guide, ‘such incidental casualties are inevitable during armed conflict’.<sup>164</sup> In this case, the principle of proportionality has to be taken into account. The most recent armed conflicts have showed a growing attention towards the need to avoid civilian casualties, mostly because of the fear of a public relation disaster. This eagerness to avoid high levels of civilian casualties was a key feature of all major war operations conducted by the United States since the 1991 Gulf War, and was particularly emphasized in Kosovo, Afghanistan and Operation Iraqi Freedom.<sup>165</sup> In Operation Iraqi Freedom, lawyers constantly advised the UK and US military and political leaders on which targets could be hit, identifying legitimate target throughout the enemy’s territory and evaluating the risk of collateral damage: when the risk was too high, the targets were set aside or mitigated.<sup>166</sup>

Under Article 51 (5) (b) of Additional Protocol I, a military objective cannot be attacked if such attack ‘may be expected to cause incidental loss of civilian life, injury to civilians, damage to civilian objects, or a combination thereof, which would be excessive in relation to the concrete and direct military advantage anticipated’.<sup>167</sup> This provision is also contained in para 456 of the German Joint Services Regulations, in the 1996 British defence doctrine, in the US 1976 Air Force Pamphlet (5-10) and in the

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of view; geological and physiographical formations and precisely delineated areas which constitute the habitat of threatened species of animals and plants of outstanding universal value from the point of view of science or conservation; natural sites or precisely delineated natural areas of outstanding universal value from the point of view of science, conservation or natural beauty’ (Art 2).

<sup>163</sup> Art II. Animals are also explicitly taken into account in Part XI of the Convention (‘Investigations in cases of alleged uses of chemical weapons’).

<sup>164</sup> Para A4.3.1.2.

<sup>165</sup> This has been acknowledged by the US Department of State’s Legal Adviser, WH Taft, IV above n 35 at 322.

<sup>166</sup> Human Rights Watch above n 49 at 20.

<sup>167</sup> The principle of proportionality is also contained in Art 24 (4) of the 1923 Hague Draft Rules on Air Warfare.

2002 Joint Doctrine for Targeting (at A-1).<sup>168</sup> The customary status of the principle of proportionality as expressed by Additional Protocol I has also been acknowledged by the ICTY in the above mentioned *Kupreškić* judgment.<sup>169</sup> If the status of the principle of proportionality is undisputed, its application to concrete situations is problematic, especially in air warfare, where the armed forces of the attacker could return home with zero casualties, while the attacked belligerent with less advanced technology could sustain heavy losses (as happened in Kosovo). As noted, '[t]he intellectual process of balancing the various elements is so complicated, needs to take into account such a huge amount of data and so many factors, that any attempt to design a formula which is both comprehensive and precise would be ridiculous'.<sup>170</sup> This is because the two elements to be balanced against each other (the military advantage and the civilian losses) are heterogeneous. The evaluation has to be made on a case-by-case basis, taking the context into account under an honest and reasonable *bona fide* appraisal of the information available to the responsible person at the relevant time, and not on the basis of the hindsight.<sup>171</sup> For instance, the principle of proportionality would tolerate a higher level of collateral damage if the attack concerned civilians working in a weapon factory, while it should be interpreted strictly if among the civilians at risk there were women and children,<sup>172</sup> or if the targets were objects mainly used by the civilian population in an urban area.<sup>173</sup>

In the *Kupreškić* judgment, the ICTY argued that 'in case of repeated attacks, all or most of them falling within the grey area between indisputable legality and unlawfulness, it might be warranted to conclude that the cumulative effect of such acts entails that they may not be in keeping with international law. Indeed, this pattern of military conduct may turn out to jeopardise excessively the lives and assets of civilians, contrary to the demands of humanity'.<sup>174</sup> According to the ICTY Final Report, however,

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<sup>168</sup> The United States acknowledges that Art 51 of Additional Protocol I reflects customary law (MJ Matheson 2 American University Journal of International Law and Policy (1987) 426). However, the 1998 USAF Intelligence Targeting Guide (para A4.3) does not qualify the military advantage as 'concrete' or 'direct'.

<sup>169</sup> Above n 20 para 524.

<sup>170</sup> S Oeter above n 51 at 173. Accordingly, the balance could hardly be made by a court: see *R. v Secretary of State, ex p Thring*, Court of Appeal (Civil Division), 20 July 2000 (the text can be read at <<http://www.icrc.org/ihl-nat>>).

<sup>171</sup> See the interpretative declarations issued by Germany, Belgium, Italy, the Netherlands and Spain. The ICTY Final Report suggests that the balance between the military advantage and the collateral damage must be made according to the standards of the 'reasonable military commander' (para 50).

<sup>172</sup> According to resolution 3318 (XXIX) adopted by the UN General Assembly on 14 December 1974, '[a]ttacks and bombings on the civilian population, inflicting incalculable suffering, especially on women and children, who are the most vulnerable members of the population, shall be prohibited, and such acts shall be condemned' (emphasis added).

<sup>173</sup> 1998 USAF Intelligence Targeting Guide para A4.3.1.2.

<sup>174</sup> *Kupreškić* Judgment above n 20 para 526. According to the Tribunal, this interpretation follows from the application of the Martens clause codified in Art 1 (2) of Additional Protocol I.

this statement must be interpreted as referring to ‘an *overall* assessment of the totality of civilian victims as against the goals of the military campaign’, since ‘the mere *cumulation* of such instances, all of which are deemed to have been lawful, cannot *ipso facto* be said to amount to a crime’ (para 52). This interpretation is consistent with the reservations issued, inter alia, by Italy, Australia, New Zealand, Belgium, Canada, Spain, Germany, the Netherlands and the United Kingdom when signing and/or ratifying the Protocol, according to which the military advantage has to be estimated with regard to the operation as a whole, and not to the single action itself or to the entire war.<sup>175</sup>

The principle of proportionality has also to be interpreted in the light of the evolving military, political and technological situation. In the following pages, this article will examine some recent trends which might transform the notion of how much collateral damage is proportional. To begin with, in the 1991 Gulf War, long-term civilian casualties resulting from starvation and diseases or damage to the living environment were not taken into account as part of the proportionality equation.<sup>176</sup> This practice seems to have changed. In the Kosovo conflict, transformer and distribution facilities were specifically targeted so as to avoid long-term impact on the civilian population. For the first time, the US employed graphite bombs to cut off Serbia electric power system without destroying infrastructures.<sup>177</sup> Operation Iraqi Freedom was designed as a war of maximum effect and minimum destruction (also because the US aimed at ejecting Saddam Hussein from Iraq and then remaining on), by threatening Saddam to ‘shock and awe’ but only delivering this if necessary. As a retired Israeli general observed, ‘[i]f the U.S. were to rely on bombing civilian infrastructures like refineries or electrical grids, they would be shooting themselves in the foot’.<sup>178</sup> The most powerful weapon was therefore psychological.

A contemporary concept of the principle of proportionality should also protect not only civilians and civilian property, but the natural environment as well. This opinion has been enhanced by the ICJ in its 1996 Advisory Opinion on the *legality of the threat or use of weapons*: ‘States must take environmental considerations into account when assessing what is necessary and proportionate in the pursuit of legitimate military objectives. Respect for the environment is one of the elements that go to assessing

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<sup>175</sup> See also para 444 of the German Joint Services Regulations and the 2002 US Joint Doctrine for Targeting (at A-2).

<sup>176</sup> According to a report of the United Nations Under Secretary-General for Administration and Management, the Gulf War had ‘near-apocalyptic results upon the economic infrastructure’ and relegated Iraq ‘to a pre-industrial age’ (quoted in M Lippman above n 31 at 42).

<sup>177</sup> WJ Fenrick above n 66 at 74.

<sup>178</sup> Quoted in CB Glick ‘Archeological Shields, Saddam holds Iraq’s antiquities hostage’ *Wall Street Journal* (27 March 2002) <<http://www.opinionjournal.com/la?id=110003253>>.

whether an action is in conformity with the principles of necessity and proportionality'.<sup>179</sup> Another recent trend is to interpret the principle of proportionality differently according to the intensity and the scope or the aim of the conflict. When the goal of the operation is not the enemy's defeat but is more limited, the concept of 'military advantage' loses much of its meaning. This happens for the so-called 'humanitarian interventions' or 'peace-enforcement operations', which do not always fit into the 'classic' types of armed conflicts envisaged by the framers of Additional Protocol I. For instance, the political aim of Operation Allied Force was 'to stop the killing in Kosovo and the brutal destruction of human lives and properties; to put an end to the appalling humanitarian situation that is now unfolding in Kosovo and create the conditions for refugees to be able to return; to create the conditions for a political solution to the crisis in Kosovo based upon the Rambouillet agreement', while the military goal was 'to attack, degrade, disrupt and further diminish the capacity of the Serb war machine to perpetrate these atrocities against its own people'.<sup>180</sup> The UK Secretary of State for defence stated that '[t]his is not a war, it is an operation designed to prevent what everybody recognises is about to be a humanitarian catastrophe: ethnic cleansing, savagery (...). That is what we are in there to prevent, that is not war, it is a humanitarian objective very clearly defined as such'.<sup>181</sup> It has been suggested that in interventions carried out with humanitarian purposes, the principle of proportionality has to be interpreted strictly, attaching more importance to collateral damage and less to military advantage, and thus tolerating fewer civilian casualties.<sup>182</sup> Moreover, only 'pure' military objectives could be attacked, but not dual-use facilities, ie those which are used for both military and civilian purposes.<sup>183</sup> This position, appealing as it may look, cannot be shared. Humanitarian interventions, peace enforcement operations and 'wars on terrorism' are *armed conflicts*, notwithstanding their limited goals. It is true that, as acknowledged by the ICTY Final Report, '[t]he precise linkage between jus ad bellum and jus in bellum is not completely resolved',<sup>184</sup> but humanitarian law treaties do not distinguish between different kinds of intervention according to their purposes. The preamble of Additional Protocol I states that its provisions apply 'in all circumstances to all persons who are protected by those instruments, without any

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<sup>179</sup> ICJ Reports (1996), para 30.

<sup>180</sup> Quotations from, respectively, NATO Secretary General and General Wesley Clarke, NATO Press Conference, 11 April 1999 (reported in P Rowe above n 144 at 147-148).

<sup>181</sup> Quoted in MH Hoffman 'Peace-Enforcement Actions and Humanitarian Law: Emerging Rules for Interventional Armed Conflict' 82 *International Review of the Red Cross* (2000) 195.

<sup>182</sup> M Bothe 'Legal Restraints on Targeting: Protection of Civilian Population and the Changing Faces of Modern Conflicts' 31 *Israel Yearbook on Human Rights* (2001) 43, 48-49; H DeSaussure above n 90 at 514; A Roberts 'The Laws of War after Kosovo' 31 *Israel Yearbook on Human Rights* (2001) 91.

<sup>183</sup> M Bothe above n 182 at 43.

<sup>184</sup> ICTY Final Report para 32.

adverse distinction based on the nature or origin of the armed conflict or on the causes espoused by or attributed to the Parties to the conflict'. This position is confirmed in the 2002 US Joint Doctrine for Targeting, according to which 'the armed forces of the United States will comply with the LOAC [Law of Armed Conflicts] during all armed conflicts, *however such conflicts are characterized*'.<sup>185</sup> With regard to Kosovo, NATO declarations themselves expressed the Organization's intention to abide to the laws of war rules on targeting.<sup>186</sup> The German Joint Service Regulations expressly states that 'the rules of international humanitarian law shall also be observed in peace-keeping operations and other military operations of the United Nations'.<sup>187</sup> The principle of the equality of the belligerents is a well-established one: the application of humanitarian law cannot be different for the good and for the bad guys.<sup>188</sup> If it was stricter for the former, this could backfire and lead to paradoxical results: for instance, saying that NATO would have had to comply with stricter rules because it was carrying out a humanitarian intervention would have left more freedom of action to the Serbs to kill Kosovars and would have postponed Milošević's surrender.

## 5. ENVIRONMENTAL CONSIDERATIONS IN THE SELECTION OF TARGETS

Environmental considerations can have a double relevance in target selection. First of all, the natural environment might be targeted as such, although this has not frequently happened in recent armed conflicts. A well-known example is the defoliation and killing by the Americans of inland and mangrove in South Vietnam in order to deny cover to Vietkong (1962-1971). More recently, the Yugoslavian authorities denounced air strikes against protected areas, such as the Fruška Gora, Kopaonik national parks in Serbia and the Skadar Lake in Montenegro. Second, damage to the environment could be the collateral consequence of attacks aimed at other targets. During the Kosovo war, NATO aircraft targeted the Pančevo fertilizer, oil refinery and petrochemical complex, which was thought to be used to supply gasoline and other material to the Serbian army.<sup>189</sup> However, considerable quantities of toxic materials reached the Danube River and, through it, Romania, Ukraine and Bulgaria, and the chemicals contaminated food

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<sup>185</sup> At A-1 (emphasis added).

<sup>186</sup> See, for instance, NATO Press Conference (26 March 1999) <<http://www.nato.int/kosovo/press/p990326a.htm>>.

<sup>187</sup> Para 208.

<sup>188</sup> Y Dinstein above n 16 at 4.

<sup>189</sup> UNEP/UNCHS above n 122 at 33.

crops and fish stocks. The same can be said of the bombing of the Zastava industrial complex in Kragujevac, which produced extensive pollution to the natural environment, including the Morava River.<sup>190</sup> It has also to be recalled that the Western powers made large use of depleted uranium munitions in all recent conflicts, even though it is debatable that today's international law prohibits such weapons.<sup>191</sup>

Only indirectly are some provisions of the 1949 Geneva Conventions applicable to the targeting of the environment.<sup>192</sup> It is the case of Article 53 of the IV Convention, which forbids the destruction of real and personal property by the Occupying Power. Nonetheless, the word 'property' leaves room for ambiguity as to whether it can encompass natural goods. In Additional Protocol I some provisions might indirectly protect the environment from attacks, eg Article 48 (principle of distinction between civilians and combatants), Article 52 (protection of civilian property), Article 54 (2) (prohibition to destroy objects indispensable to the survival of the civilian population, such as agricultural areas), Article 56 (protection of works and installations containing dangerous forces). However, under the emotional spur caused by the systematic destruction of forests by the Americans during the Vietnam war, the 1974-1977 Geneva diplomatic Conference decided to insert in the future Additional Protocol I two specific provisions protecting the environment in time of war: Article 35 (3)<sup>193</sup> and Article 55 (1).<sup>194</sup> While the former aims at protecting the environment as such, the goal of the

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<sup>190</sup> UNEP/UNCHS above n 122 at 39-40.

<sup>191</sup> UNEP/UNCHS above n 122 at 62-64. The ICTY Final Report has argued that there are no conventional provisions prohibiting the use of depleted uranium munitions (para 26).

<sup>192</sup> Other relevant provisions may be found in the 1980 Convention on Prohibitions or Restrictions on the Use of Certain Conventional Weapons Which May be Deemed to be Excessively Injurious or to Have Indiscriminate Effects and its Protocol III on the use of incendiary weapons, which forbid the use of such weapons on forests and other kinds of plant cover with the exception of military necessity ('except when such natural elements are used to cover, conceal or camouflage combatants or other military objectives, or are themselves military objectives': Art 2 (4)). As far as international watercourses are concerned, it has to be recalled the Convention adopted by the UN General Assembly in 1997, Art 29 of which states: 'International watercourses and related installations, facilities and other works shall enjoy the protection accorded by principles and rules of international law applicable in international and non-international armed conflict and shall not be used in violation of those principles and rules' (see A Tanzi and M Arcari *The United Nations Convention on the Law of International Watercourses* (London-The Hague-Boston Kluwer Law International 2001) 68-73). Finally, protection to the natural environment in time of armed conflict is also provided in some soft law instruments, such as the 1972 Stockholm Declaration (Principle 26), the World Charter for Nature (para 5), the 1992 Rio Declaration on Environment and Development (Principle 24), the Agenda 21 (para 39.6 (a)), General Assembly resolutions 47/37 of 25 November 1992 and 49/50 of 9 December 1994. The 1976 Geneva Convention on the Prohibition of Military or Any Hostile Use of Environmental Modification Techniques, entered into force on 5 October 1978, is more aimed at the possible future achievements of military technology such as the control over earthquakes and hurricanes, than to environmental damages caused by bombardments with existing weapons, and therefore will not be examined here.

<sup>193</sup> Art 35 (3): 'It is prohibited to employ methods or means of warfare which are intended, or may be expected, to cause widespread, long-term and severe damage to the natural environment'.

<sup>194</sup> Art 55 (1): 'Care shall be taken in warfare to protect the natural environment against widespread, long-term and severe damage. This protection includes a prohibition of the use of methods or means of warfare

latter is to protect the civilian population against the effects of hostilities.<sup>195</sup> There is no reference to military necessity: the articles apply regardless of any advantage the operation might provide to the attacker. Not any method or means of warfare which produces damage to the environment is forbidden, but only those which cause, intentionally or not (providing that it was foreseeable),<sup>196</sup> ‘widespread, long-term and severe damage’ to the ecosystem.<sup>197</sup> The very same wording is employed by the preamble of the 1980 Convention on Prohibitions or Restrictions on the Use of Certain Conventional Weapons Which May be Deemed to be Excessively Injurious or to Have Indiscriminate Effects, and by Article 8 (2) (b) (iv) of the ICC Statute, while Article 1 (1) of the 1976 Convention on the Prohibition of Military or Any Hostile Use of Environmental Modification Techniques (En-Mod Convention) requires the methods and means to be ‘widespread, long-lasting or severe’:<sup>198</sup> as far as Protocol I is concerned, therefore, all three requirements must be met, while in the 1976 Convention one of them is sufficient. As to the meaning of the three adjectives, neither the Protocol is of help, nor the En-Mod Convention, since its Rapport explicatif makes clear that the Convention ‘is not intended to prejudice the interpretation of the same or similar terms if used in connection with any other international agreement’.<sup>199</sup> It is generally thought, however, that, as far as the Protocol is concerned, ‘long-term’ refers to years or even decades,<sup>200</sup> and this has pushed some authors to exclude that the provisions in question might apply to operations (such an air bombardment) in a conventional war.<sup>201</sup> This interpretation cannot be shared: widespread, long-term and severe damages might be the consequence of the use of depleted uranium munitions, or of the bombing and subsequent destruction of oil rigs in enclosed or semi-enclosed sea, as happened during

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which are intended or may be expected to cause such damage to the natural environment and thereby to prejudice the health or survival of the population’.

<sup>195</sup> There are no provisions specifically protecting the environment in Additional Protocol II. The only protection comes indirectly from Art 14 (which protects the objects indispensable to the survival of the civilian population) and from Art 15 (prohibition to attack works and installations containing dangerous forces).

<sup>196</sup> Unlike Art 8 (2) (b) (iv) of the ICC Statute, which requires that the attack be intentional.

<sup>197</sup> Emphasis added. Unlike Art 35, Art 55 adds the further requirement of the prejudice to the health or survival of the population. ‘Health’ is used in a broad sense and the connection with ‘survival’ means that temporary, short terms and not serious effects are not contemplated within the provision (M Bothe KJ Partsch WA Solf *New Rules for Victims of Armed Conflicts: Commentary to the Two 1977 Protocols Additional to the Geneva Conventions of 1949* (The Hague-Boston Nijhoff Publishers 1982) 346-347).

<sup>198</sup> Emphasis added.

<sup>199</sup> Rapport explicatif of the En-Mod Convention (understanding to Art I). According to the German Joint Services Regulations “widespread”, “long-term”, and “severe” damage to the natural environment is a major interference with human life or natural resources which considerably exceeds the battlefield damage to be regularly expected in a war’ (paras 401, 403).

<sup>200</sup> ICRC Commentary, para 1454. See also, as far as naval warfare is concerned, N Ronzitti ‘Le droit humanitaire applicable aux conflits armés en mer’ *Recueil des cours de l’Académie de droit international de La Haye* (1993-V) 109-110.

<sup>201</sup> M Bothe KJ Partsch WA Solf above n 197 at 348; S Oeter above n 51 at 118.

the Iran-Iraq war.<sup>202</sup> An area might also be rendered useless for decades because of live shells (eg, the unexploded bomblets of cluster bombs<sup>203</sup>). As to the above mentioned bombing by NATO of the Pančevo and Zastava industrial complexes, the harmful consequences on the Danube and Morava Rivers and the surrounding environment could surely be ‘severe’ and ‘widespread’, but probably not ‘long-term’, if this requirement implies decades. This is also the conclusion of the ICTY Final Report, according to which the environmental damage caused during the bombardments did not reach the Additional Protocol I threshold.<sup>204</sup>

In any case - as noted by a commentator - the implementation of the environmental provisions of Protocol I might lead to paradoxical results. For instance, if a nuclear facility which is located in an uninhabited region were producing nuclear weapons to be used against the enemy, this could bomb and destroy it without breaching the principle of proportionality. However, the attack would probably violate Articles 35 (3) and 55 (1), although it would save thousands of lives (those potentially killed by the nuclear weapons produced in the facility).<sup>205</sup>

According to the ICTY Final Report, Article 55 of Protocol I ‘may ... reflect current customary law’.<sup>206</sup> The ICJ’s view is not clear: in its 1996 Advisory Opinion of the *legality of the threat or use of nuclear weapons*, the Court first states that Articles 35 and 55 ‘embody a general obligation to protect the natural environment against widespread, long-term and severe environmental damage’, and then concedes that these provisions are ‘powerful constraints’ only for the States having subscribed to them.<sup>207</sup> The customary status of Articles 35 and 55 of Additional Protocol I is however debatable. The United States is still objecting to the provisions in question, because they are ‘too broad and ambiguous’.<sup>208</sup> In Washington’s opinion, only the destruction of the environment not necessitated by military necessity and carried out wantonly is prohibited: damage to the environment is thus only limited by the principles of distinction and proportionality and must be balanced against the military advantage expected from the operation.<sup>209</sup> The same view is contained in the 2004 UK Manual.<sup>210</sup>

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<sup>202</sup> E David above n 51 at 266.

<sup>203</sup> However, the ICTY Final Report concluded that ‘[t]here is no specific treaty provision which prohibits or restricts the use of cluster bombs although, of course, cluster bombs must be used in compliance with the general principles applicable to the use of all weapons’ (para 27).

<sup>204</sup> Para 17.

<sup>205</sup> MN Schmitt ‘War and the Environment: Fault Lines in the Prescriptive Landscape’ 37 *Archiv des Völkerrecht* (1999) 127.

<sup>206</sup> Para 15. See also A Cassese above n 84 at 54.

<sup>207</sup> ICJ Reports (1996) para 31.

<sup>208</sup> Remarks of MJ Matheson 2 *American University Journal of International Law and Policy* (1987) 424.

<sup>209</sup> 2002 US Joint Doctrine for Targeting A-6; The Commander’s Handbook on the Law of Naval Operations para 8.1.3. No specific environmental considerations appear in the 1976 USAF Pamphlet.

<sup>210</sup> 2004 UK Manual 315.



Further, according to Article 9 (1) of the Agreement between the European Union and the Former Yugoslav Republic of Macedonia on the status of the European-led forces (Operation Concordia), the Force must respect international conventions regarding the protection of the environment, but only 'subject to the requirements of the operation', which might refer to military necessity.<sup>211</sup>

## 6. CONCLUSION: A LEGAL FRAMEWORK UNDER STRESS

In the most recent conflicts involving the use of air power, the basic rules of the law of targeting (the principles of distinction and proportionality) have generally been respected. Indeed, the impact on civilians of aerial operations in Operation Allied Force, Operation Enduring Freedom and Operation Iraqi Freedom was less severe than in Operation Desert Storm.<sup>212</sup> New and improved technologies are of course of great help: for instance, the development of a satellite system which determines the accurate position of the target so that the weapon can be dropped in all weather conditions even without seeing the ground, and the increasing use of precision-guided weapons have marked a far cry from the 1990-1991 Gulf War.<sup>213</sup> Paradoxically, though, the overwhelming military supremacy of one power (the United States) could undermine the principle of distinction, since the enemy, having nothing to lose and facing total defeat, might be led to desperately use all available methods and means, unlawful ones included. The principle of distinction is also weakened by some methods of warfare often employed in recent conflicts, such as night bombing and flying at high altitude, and by the use of civilians performing military or military related functions throughout the operations.

As far as the principle of proportionality is concerned, the balance between collateral damage and military advantage gained from the operation should nowadays also take into account the long-term casualties of the attack (ie, those deriving from starvation or diseases or from unexploded weapons such as cluster bombs) and the damage to the natural environment. On the other hand, it is not possible to share the opinion that applies a stricter standard in the proportionality equation in case of the so-called humanitarian wars, peace-enforcement operations or 'wars on terrorism'. No international humanitarian law instrument draws a distinction between different types of

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<sup>211</sup> Council decision 2003/222/CFSP of 21 March 2003.

<sup>212</sup> In any case, in the most recent conflicts the precise number of civilian casualties has proved impossible to establish, due to difficulties in obtaining independent verification.

<sup>213</sup> Human Rights Watch above n 49 at 16.

armed conflict according to the aim pursued by the attacker.<sup>214</sup> Further, recent practice shows that the traditional humanitarian rules have been applied even in operations of limited scope, such as Operation Allied Force.

There are some targets which are not expressly addressed by the existing rules, ie dual-use facilities (broadcasting stations, economic installations, electric generating facilities, lines of communication, commercial means of transport, etc) and animals. As to the former, it is increasingly difficult to determine the relation of a potential target to the military effort. Civilian activities are more and more militarized, while the military ones are more and more civilianized. Article 52 (2) of Additional Protocol I pays no attention to the civilian function performed by the facility, which is not an element to take into account when establishing whether the object is a military objective. All one could say is that the contribution of the dual-use installation to civilian needs must be carefully considered in the proportionality calculus in order to verify if the damage to the population is excessive or not.<sup>215</sup> An important role might also be played by Article 57 (3) of Additional Protocol I (which is generally considered as reflecting customary law), according to which '[w]hen a choice is possible between several military objectives for obtaining a similar military advantage, the objective to be selected shall be that the attack on which may be expected to cause the least danger to civilian lives and to civilian objects'. Moreover, according to the ICTY, when a rule of humanitarian law is vague, it has to be interpreted in the light of the Martens clause, and therefore 'so as to construe as narrowly as possible the discretionary power to attack belligerents and, by the same token, so as to expand the protection accorded to civilians'.<sup>216</sup>

However that may be, the Europeans have generally applied the definition of 'military objective' contained in Article 52 (2) of Additional Protocol I, and have therefore considered lawful only attacks on those dual-use targets which make an effective contribution to military action and whose total or partial destruction, capture or neutralization offers a definite military advantage in the circumstances ruling at the time. On the contrary, according to the 2002 US Joint Doctrine for Targeting, the military advantage does not have necessarily to be 'definite'. Accordingly, the United States considers lawful the bombing of a broadcasting station even if it is just used for

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<sup>214</sup> The only exception is the 1977 Additional Protocol I, Art 1 (4) of which takes into account 'armed conflicts which peoples are fighting against colonial domination and alien occupation and against racist regimes in the exercise of their right of self-determination, as enshrined in the Charter of the United Nations and the Declaration on Principles of International Law concerning Friendly Relations and Co-operation among States in accordance with the Charter of the United Nations'. The Protocol, however, does not provide for specific rules for this kind of conflicts, but submit them to the same provisions as those for international ones.

<sup>215</sup> See, eg, the 2002 US Joint Doctrine for Targeting at A-4.

<sup>216</sup> *Kupreškić* Judgment above n 20 para 525.

propaganda purposes, regardless of its being part of the military communication system, and also admits the attack on economic facilities which indirectly but effectively support the enemy's warfighting capabilities. Such provisions are not consistent with customary international humanitarian law and represent the *ius in bello* counterpart of President Bush's unorthodox approach to *jus ad bellum*.

The most recent armed conflicts also show a trend towards a new concept, the so-called 'effects-based warfare', according to which not all military objectives need to be destroyed. The very definition contained in Article 52 (2) of Additional Protocol I considers not only the destruction of the objective, but also its neutralization, ie 'denying the use of an object to the enemy without necessarily destroying it'.<sup>217</sup> For instance, while the integrated Iraqi electric grid, used both by the military and by civilians, was treated as a military target by the Coalition strategic planners during Operation Desert Storm causing widespread criticism, the US aircraft attacked electric generating installations in Kosovo in such a way as to cause only temporary incapacitation through the use of graphite bombs. As far as we know, in Afghanistan the Coalition did not attack economic objectives (but it has to be recalled that the industrial infrastructure of that country was virtually non-existent), and in Operation Iraqi Freedom the destruction of economic and electric power facilities was limited to the minimum extent possible.<sup>218</sup> Nevertheless, the new, more cautious approach, far from demonstrating a change in the *opinio juris*, can be explained in the light of the new American military strategy, aimed at causing maximum impact but minimum damage, in order to preserve infrastructures and so facilitate the reconstruction of the post-war occupied enemies.<sup>219</sup>

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<sup>217</sup> M Bothe KJ Partsch WA Solf above n 197 at 325.

<sup>218</sup> See the Rules of Engagement distributed to the US Military Forces in Iraq, according to which attacks at the enemy infrastructure, lines of communication and economic objects must be aimed at disabling and disrupting, avoiding destruction if possible (reported in Human Rights Watch above n 49 at 138-139).

<sup>219</sup> T Garden above n 56 at 709-710.