

Contemporary Challenges on Definition of Civilian in Hostilities in the face of New Technologies

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Abstract- The current war fronts are something different from the earlier battle field. Modernization of the world differentiates the strategies of wars, methods of wars and planning of achieving the military benefits. Therefore the earlier laws do not fit with the current war front. Therefore, the objectives of this research are analyzing the contemporary developments in the battle field, how do they all affect the definition of civilian and whether the earlier laws are sufficient for protecting and safeguarding the civilians during hostilities. Traditional method of war based on the progressive disappearance of the battlefield helped to define the direct participation based on the physical appearance in battle front. However, the modern war front is mostly technologically improved and computerized. Therefore the physical appearance is not an effective element under the modern battle field. Therefore defining civilians based on the direct participation and active participation is essential due to the changes in nature of the battle fronts. This paper has focused on the area where the contemporary challenges in defining the civilians and whether laws are sufficient to the developments on this area or not.

Throughout the research, the author finds that the combination of increased civilians in action and high tech methods of warfare has some challenges for the laws of armed conflicts and determination of category of combatant and civilian and these actions are beyond the level of direct participation in hostilities, amounting to the active participation. At the same time there are no adequate laws to protect the civilians, distinguish the combatants, civilians and military objectives in the modern battle space and balance the humanity and the military advancement. Finally, the author of the research suggests the suitable definition for civilian based on the term of active participation in hostilities and the law reforms in this area to meet the contemporary development in battle space.

Index Terms- Civilian, Direct-participation, active-participation, Hostilities, Geneva Convention

I. INTRODUCTION

According to law, the actions which gain the military purposes and advantages such as attacking or trying to capture members of the enemy's armed forces or their weapons, equipment or positions or laying mines or sabotaging lines of military communication are deemed to be the notion of 'direct participation'¹. On the flip side, activities which connect with civilians working in depots and canteens providing foods and clothing for the armed forces or in factories producing weapons cannot be considered as direct participation. These are the examples set aside by experts in international humanitarian law for defining direct participation. Nevertheless, the current war fronts are something different than the earlier battle field. Because of globalization and modernization of the world, strategies of wars, methods of wars and planning of achieving the military benefits can be different from earlier. Therefore it cannot be relied only the laws and examples which are suitable for earlier situations of war. Therefore analyzing the contemporary developments in the battle field and those how do they all affect the definition of civilian whether the earlier laws are sufficient for protecting and safeguarding the civilians from direct attack during hostilities.

The beginning of the twenty-first century has seen huge changes in the war fighting capacities of the modern military.² Traditional method of war based on the progressive disappearance of the battlefield helped to design the definition of direct participation. Alternatively, the modern war front is mostly based on the technologically improved and computerized, therefore physical appearance is not one effective element under the modern battle field. Therefore, defining civilians according to the direct participations and active participation is essential according to the contemporary necessities. This chapter has focused on the areas where the contemporary challenges in defining the civilians and whether laws are sufficient to the developments on this area or not.

II. THE NATURE OF MODERN COMBAT AND QUESTIONS ON NOTIONS OF DIRECT AND ACTIVE PARTICIPATION.

¹ www.casebook.icrc.org, ICRC Interpretive Guidance on the Notion of Direct Participation in Hostilities.

² Heather Harrison Dinniss, 'Cyber warfare and the laws of war' p.139

Modern battle field is different from the classical battle field. This battle field is transformed as battle spaces and two or even three dimensional warfare has been supplanted by virtual and four-dimensional armed conflict.³ Therefore the impact of the mode proximity is questionable element to decide directly participation in hostilities. In a forward edge of the battle area, when troops are engaging each other which makes great proximity and closer can be identified as direct participation. At the same time even an individual who does not engage in a combat in the immediate field but participates in the fray. In a battle spaces, the new technological advances that causes transparency, force mobility, command and control accuracy and range weaponry, therefore here proximity cannot be the *de jure* standard, useful, reliable and often dispositive evidence for direct participation. When in Iraqi front line when the US and British forces attacking on Iraq, in operation desert storm Allied forces and freedom strikes removed from the forward edge of the battle area (FEBA) had greater operational and strategic impact than military in immediate vicinity. Therefore here proximity is no longer helpful to decide whether such activities come under the direct participation or not. Therefore in modern conflicts, the proximity diminishes the scope of deciding the meaning of direct participation.

The technologically advanced militaries of the world can conduct offensive operations far awash from battle field and in a very secure areas hundreds even thousands of miles away. Thereby, it creates complicating view of opponent on deciding the fact of direct participation. In a case of air craft are maintained, loaded, launched and recovered in dangerous combat conditions. If a civilian engaged in that long and complicated process, then he is considered as active participation unambiguously. Because in strike air craft process, other than the air crews flying the missions have major role on that attack in hostilities. Therefore those civilians are no way a lesser part in hostilities. Thus proximity fails to assist to decide the definition of direct participation as modern technologies and strategies.

Contracts for the sale of arms before, during and after the armed conflict, a civilian is working as a seller. The question is arising on the status of the employees involved in that agreement. There are new developments on civilian employees of armed forces in positions vital to the success of combat operations. Earlier wars considered like civilian truck drivers, now modern war front expands the consideration on participation of civilian computer expert sitting in a place using remote and participating in a military operation. A functional approach to decide civilian category depends on types of activity undertaken by him.⁴ Even some criticized that it is difficult to distinguish an employee working under the weapon system and a cook providing food to the armed forces when all are wearing uniform.⁵

In the modern context, it is spread that the notion of computer network attack (CNA) which does not use the kinetic force. CNA is a part of the cyber warfare and cause injury, damage or destruction which is in sufficient intensity to construct a severe attack. The most computer operations are made by civilians. Therefore here the crucial question is that status of the civilian who operates the CNA Attacks. CNA participants must be considered as the direct participation.⁶ This is deeply discussed in following sub heading. These are the areas are developed in the battlefield from the traditional field. When the developments are occurred, the questions in laws and definition of Notion of direct and active participation also questionable. Categorizing civilians and combatants is difficult without any structural definition for these notions. Thus no constant practice for categorizing these two category of people in modern warfront.

III. CIVILIANIZATION OF THE MILITARY

Both 1907 Hague Regulation and the 1948 third Geneva Convention address civilians accompanying the armed forces⁷. After that civilians mingle with armed forces to get involve the hostilities.

3.1. Reasons for civilization.

There are three factors deciding the reasons for increasing civilianization of military. First is that civilians are cheap, because the armed forces invest far less time and money in the training and educational of civilians and the civilian work force. Additionally, the civilian workforce operates without supporting structure such as medical facilities to dining halls and barracks.⁸

Secondly the demand for Dow seizing military. This is motivated to save money. However the highly trained forces are better to the current threat environment. Militaries of Eastern Europe and the former Soviet Union are flared because of ineffective combat. Even the populations of these countries correctly contest the usefulness of the cold war legacy forces, and particularly given the vicious budgetary competition for government resources.⁹

Third is technology of warfare is out spacing the ability of most militaries to train and field operators and maintenance personnel. This technology intended command, control, communications, computers, intelligence, surveillance and reconnaissance. This a symmetrical advancements search superiority of intellectuals among civilians.

³ Michael N. Schmitt, "Direct Participation in Hostilities" and 21st Centaurus Armed Conflict. P.510

⁴ ICRC, Direct Participation in Hostilities under International Humanitarian Law, Report prepared by the International Committee of the Red Cross Geneva, September 2003, p.5

⁵ Ibid, p.6

⁶ Ibid.

⁷ Regulations Respecting the Laws and Customs of War on Land, annex to Convention (No IV). Respecting the Laws and Customs of War on land, Oct.18,1907,art 13,36 Stat.2277,1 Bevans 631; Geneva Convention III art 4A(4).

⁸ Michael N. Schmitt, "Direct Participation in Hostilities" and 21st Centaurus Armed Conflict. P.512

⁹ Michael N. Schmitt, "Direct Participation in Hostilities" and 21st Centaurus Armed Conflict. P.513

However, there are other reasons for using civilians in armed conflicts in western¹⁰ and southern Asian countries¹¹. Such are armed groups want to protect themselves from the enemy attack, trying to create an image of civilians are attacked by opposite military to international arena and trying to push opposite side into the violations of laws of armed conflicts, civilians have no combatant responsibility which should be followed in armed conflict and laws give more protection to civilian and nothing to combatant in battle field. These grounds increase the reliance on civilian and cause civilianization on military.

3.2 Practical issues in Civilianization

Narrow interpretations of the term direct participation legitimize the use of civilians in all but does not legalize direct application of force during hostilities. The civilians are employed by the military are hardly all desk works sitting in various ministries of defense. During operation Joint Endeavor Bosnia and Herzegovina, here, one on ten deployed personnel were civilian whereas during counter drug operations in Columbia, the ratio raised to one into five.¹² Civilianization can occur in one of two ways, through direct hiring and by contract.¹³ In United States follows these two methods to include civilians in military.¹⁴ Hiring the civilians is called as mercenaries which is prohibited under IHL.¹⁵

Many time contractors directly participate in combat operations. For example Halliburton as a huge defense contracting company, publicly advertises the services of facilities operations and maintenance, ownership and operation of defense facilities, construction of major military infrastructure, contingency worldwide deployment and support submarine and surface ship maintenance and support, aircraft and vehicle maintenance and support and logistics support at remote locations.¹⁶ Contractors have also been used to provide direct systems support to numerous other systems during hostilities including B-2, F-117, F-22, Global Hawk unmanned aerial vehicle and TOW anti-tank system.¹⁷

3.3.3. Civilianization Vs. laws under armed conflict.

Article 4 of Geneva Convention III defines prisoners of war, under that it is providing that who can be the legal combatant in hostilities. Such are members of armed forces, members of militias, civilian members in armed forces of military air craft crews, war correspondents, supply contractors, members of labour units or services...On the other hand Article 43 of Additional

Protocol I indicates members of armed forces or organized groups who shall be subject to an internal disciplinary system and shall comply with rules in IHL have the right to participate directly in hostilities.¹⁸ These hiring civilians and contractors to combat directly break the requirements of being members of armed group or force. Thus, they don't have right to combat. Therefore these civilians are considered as illegal combatants.¹⁹

Finally, hiring or contracting civilians to direct part in hostilities is called mercenaries is prohibited. Therefore they cannot be considered as lawful combatants. Because of non satisfaction of requirements as combatant, they can be considered as unlawful combatants. Due to the participation of these combatant original purpose of the war cannot be attained thus that activities are prohibited under IHL. Even such prohibition is there also, practically hiring civilians are happened in battle Field.

3.4 Armed Civilians and Human Shields

3.4.1 Involuntary Human Shields.

According to article 51(8) of Additional Protocol I of Geneva Convention law provides combatants shall not release the parties to the conflict from their legal obligation with respect to the civilian population and civilian. This denotes that involuntary human shields cannot be attacked directly and if attacked that would be considered under the proportionality principle and military necessity. Generally, involuntary human shields are used by States to protect the valid military objective. However, This does not render the individuals as direct participants in hostilities.²⁰

The approach in the United States Joint publication 3-60²¹ specifically provides that

Civilians may not be used as human shields in an attempt to protect, conceal or render military objects immune from military operations. It is apparent that they are not direct participants in hostilities. Therefore, involuntary human shields cannot be attacked directly like civilians.

3.4.2 Voluntary Human Shields.

Human Rights Watch has suggested that voluntary shields are similarly not directly participating in hostilities because "their actions do not pose a direct risk to opposing forces" and they are

¹⁰<http://www.aljazeera.com>, news/war and conflict, "Syria's civil war explained from the beginning" on 14, April, 2018.

¹¹ <http://www.humanrightwatch.org>, "War on the Displaced Sri Lankan Army and LTTE Abuses against civilians in the Vanni."

¹² Lis L. Turner & Lynn G. Norton, "Civilians at the Tip of the Spear", 51 Air Force Law Review 1, 4 (2001)

¹³ Michael N. Schmitt, "Direct Participation in Hostilities" and 21st Centaurus Armed Conflict. P.514

¹⁴ Michael N. Schmitt, "Direct Participation in Hostilities" and 21st Centaurus Armed Conflict. P.51

¹⁵ Article 47 of Additional Protocol I of Geneva Convention of 1949.

¹⁶ See generally, Halliburton website at <http://www.halliburton.com/> cited by Michael N. Schmitt,

"Direct Participation in Hostilities" and 21st Centaurus Armed Conflict. P.516.

¹⁷ Michael N. Schmitt, "Direct Participation in Hostilities" and 21st Centaurus Armed Conflict. P.516

¹⁸ Article 43(2) of Additional Protocol I of Geneva Convention of 1949.

¹⁹ Shoo you Zachary, "Between the Geneva Conventions: Where Does the Unlawful Combatant Belong?" <http://doi.org/10.1017/s002122370002772>

²⁰ Michael N. Schmitt, "Direct Participation in Hostilities" and 21st Centaurus Armed Conflict. P.521

²¹ Joint publication 3-60, Joint Targeting, 31 Jan 2013. <http://justsecurity.org>.

not 'directly engaged in hostilities'.²² Any how this interpretation of direct participation is narrow.²³ Most importantly, the standard is participation in hostilities not engagement. Here the human shields are attempting to preserve a valid military objective from enemy combatants. In essence they are not different from point air defenses which are employed more to protect the target than the destroy attacking aircraft.²⁴

The participation of voluntary human shield is affecting on the achievement of military necessity which is one of the underlying purpose of the IHL. In the circumstances of participation of voluntary human shield would affect the balance of military necessity and protection of civilians. Therefore, they can be considered as directly participants in hostilities. Thus voluntary human shield would loose their protection under the definition of civilian. Then their death and injury need not to be considered with the proportionality calculation for voluntary participants.

3.4.3 Exceptional Considerations

Children who act as voluntary shields would be an exception to the above mentioned rule, because they have lack of mental capacity to form the intent to voluntarily shield military objectives.²⁵ At the same time, in the voluntary human shield and involuntary human shield can be categorized based on the intention to shield the military objects. Here the question is arising how to identify the intention and differentiated. Any how the intention is material therefore it should be identified then only it can be decided as, voluntary human shield are deemed as direct participants and other category is not considered as direct participants in hostilities.

3.5 Computer Network Attack (CNA)

3.5.1 What is CNA?

Department of Defense Dictionary of Military and Associated Terms defines computer network attack as, "operations to disrupt, deny, degrade, or destroy information resident in computers and computer networks, or the computers and networks or the computers and networks themselves".²⁶ Information operation is called as computer network attack. Information operations are "actions taken to affect adversary information and

information systems while defending one's own information and information systems."²⁷

3.5.2 CNA attackers and the direct participation.

CNA may involve new ways of fighting for example hacker activities, viruses, Trojan horses and worms. Attacks could be conducted from a distance through radio waves or international communications networks without physical intrusion beyond beyond enemy borders and without immediate physical damage.²⁸ CNA raises several questions on direct participation. CNA does not involve with launching of kinetic force because this attack will be occurred outside the context of traditional hostilities. However this non-kinetic attacks cause severe results than using traditional weaponry. Since computer network attack can cause actual injury, death, damage or destruction to enemy forces, those who conducting operations are unquestionably considered as direct participants.²⁹ Direct participation reasonably encompasses with CNA directed against the enemy's immediate war fighting capabilities. For instance, involvement in a computer network attack directed against enemy command and control facilities, surface to air missile systems and combat communications nets would constitute direct participation in hostilities.³⁰ Because of diminishing the military capabilities of opposition individuals who are conducting CNA have to be considered as direct participants. Therefore civilians and contractors to conduct CNA who involves many information in warfare activities are likely to engage in during armed conflict will amount to direct participation.

3.6 National references for civilian

3.6.1 United States

According to the US Department of Defense dictionary of military terms³¹, CNA is included under weapons system.³² Therefore in the modern era, technology decides everything about the powerful military.³³ Therefore those attacks and their operators are considered as direct participants in hostilities because of its causing severe harm.

when considering contractors in hostilities, Some limited service Guidance directs that permits contractors to wear military uniforms and equipment for safety or security in cold Weather

²² Human Rights Watch, International Humanitarian Law Issues in a Potential War with Iraq (20 feb 2003), available at <http://www.hrw.org/background/arms/iraq02020003.htm>.

²³ Michael N. Schmitt, "Direct Participation in Hostilities" and 21st Centaurus Armed Conflict. P.521-522.

²⁴ Michael N. Schmitt, "Direct Participation in Hostilities" and 21st Centaurus Armed Conflict. P.521

²⁵ Michael N. Schmitt, "Direct Participation in Hostilities" and 21st Centaurus Armed Conflict. P.522.

²⁶ Chairman, Joint Chiefs of Staff 1994,98

²⁷ Joint Chiefs to staff, Joint Publication 1-02, Department of Defense Dictionary of Military and Associated Terms(12 April 2001) at 203. Operations that might constitute information operations include operations security, psychological operations, military deception, electronic warfare, physical attack, and computer network attack. See Joint Chiefs of Staff, Joint

Publication 3-13, Joint Docyrine for Information Operations.(9 oct 1998)at1-9.

²⁸ Knut Dormann, Computer network attack and international humanitarian law. Paragraph2

²⁹ Michael N. Schmitt, "Direct Participation in Hostilities" and 21st Centaurus Armed Conflict. P.526.

³⁰ Ibid, P.527

³¹ US Department of Defense, Dictionary of Military and Associated Terms(as Amended through 20 march 2006)(Washington DC,2001)

³² For a contradicting view see Gregory F Introccia and Joe Wesley Moore'communications Technology, Warfare and the Law:Is the Network a Weapons system?(2006)479.

³³ Singer, 'Outsourcing War', P.W.Singer, CorporateWarriors: The Rise of the Privtized Military Industry (Cornell University Press, Ithaca, 2003).

Operations.³⁴ The United States took a remedial step in 2000 when congress passed the Military Extraterritorial Jurisdiction Act.³⁵ The acts subjects those persons employed by the US armed forces abroad including contractors to federal criminal prosecution. However the act did not cover fully. Therefore, they cannot be governed under the military jurisdiction and the commander may not enforce his orders on them". Therefore it is questionable that whether they are considered as direct participants or not. Even those should be considered as direct participants and illegal combatants according to IHL.

A US Army Judge Advocate General School guide states that "the contract technical adviser that spends each day working with members of an armed force to make a weapon system more effective is integrated with force and taking active role in hostilities and therefore may be targeted"³⁶. However there is no uniform guidance exists regarding the services of civilians who involved in hostilities in gathering and transmitting military intelligence, serving as a member of a weapon system crew or on a military air craft and conducting search and rescue. As Mr. Jays Parks noted that "the work of some civilians has become so critical to military success that those individuals are civilians in name and garb only".³⁷

Military manuals characterize civilians who engage in traditional intelligence gathering as direct participants. These modern civilian intelligence officers are more essential to the application of force than their more traditional counter parts. Nevertheless, there is no state practice even weight of scholarly opinion, that would treat them as direct participants, and there is no any serious suggestions for characterizing them in USA.

According this analysis, in USA, both active participants and the direct participants can be targetable. Their military manuals and national acts do not indicate that active participants are civilians and can be protected.

3.7 Does the law correspond to reality?

3.7.1 Issue 01

The existence of revolution in military affairs has been happened through the technological developments. Under that Information operations and computer network attacks have raised many challenges on laws of armed conflict.

One of the most pressing problem on the laws of armed conflict can be the status of personnel armed with CPUs and keyboards sitting at a desk a continent away,³⁸ The law of armed

conflict establishes a fundamental distinction between combatants and civilians.³⁹ All military objects are required to mark distinctive signs of the belligerent part.⁴⁰ There is a impossibility to distinguish a particular computer from which the attack is launched. One method of achieving such markings is that any computer network emanates from a designated military IP address.⁴¹ A form of electronic marking is already used for medical transports on radar or IFF technology intending to protect the object.⁴² In the age of computer net work attack range and visibility are no longer requirements for targeting and only the requirement is that computer to be marked as a military computer. When the internet is being searched by millions of software bots then it can be found easily whether that is connected with military network or not with IP address.⁴³

In 1992, US Department of Defenses and military computers came under attack from intruders an estimated 53 times.⁴⁴ By 1997 the annual number of attacks had risen to 780, that number had risen to alimony 40,000 times in 2002 through the computer network attack.⁴⁵ Therefore this is the example how does the computer networks attacks helps to attain the military advantages and targets. Therefore these must be legalized, at the same time the adequate laws must be there for regulating such attacks and distinguishing the civilians and combatants too. On the other hand, the high tech battle space there is no practical need for distinguishes.⁴⁶

3.7.2 Issue 02

During a computer network attack against military assists, the originator is either a lawful combatant or a civilian directly participating in hostilities, and he may be legitimately targeted.⁴⁷ Where a combatant engaged in a computer network attack where there is no physical proximity to opposing forces, thus the chance for mistakenly affect the civilians, therefore the requirement to wear a uniform and other distinctive marks should be there. If no chance for the misunderstanding, then no need to wear a distinguishing emblem is irrelevant.⁴⁸

3.7.3 Issue 03

The Sabotage by computer network attack utilized on a daily basis by civilian virus writers around the world. An attacker sends an email to the recipient which incorporates a virus or other malicious code, the code activities upon opening the email and damages information resident on the recipient's computer

³⁴ Department of Army, Regulation 715-9(29 oct 1999), at par 3-3e.

³⁵ Military Extraterritorial Jurisdiction Act, 10 U.S.C.3261(22nov 2000).

³⁶ Protecting Human Rights During Military Operations, 48TH Graduate Course Deskbook(International & Operational Law Department, The Judge Advocate General's School, United States Army, 2000) at 15-3, cited in Turner and Norton (cut. footnote 18) at 31.

³⁷ Parks (op.cot. footnote 7) at 132.

³⁸ Kenneth Watkins, *combatants, unprivileged Belligerents and conflicts in the 21st Centaurus.* (HPCR, Campridge, MA, 2003)

³⁹ See Nuclear Weapon case, p.257.

⁴⁰ Diendtein, Conduct of Hostilities(2nd edn) 45

⁴¹ Heather Harrison Dinniss, 'Cyber warfare and the laws of war' p.146

⁴² Additional Protocoll, Annex 1, art 8.

⁴³ Boys are used legitimately to create search engines, mailing lists, indexes etc.

⁴⁴ Schmitt, 'Normative Franework', 885 fn.25.

⁴⁵ James F Dunnigan, *The Next War Zone: Confronting the Global Threat of Cyber Terrorism*, 85.

⁴⁶ Heather Harrison Dinniss, 'Cyber warfare and the laws of war' p.147

⁴⁷ Heather Harrison Dinniss, 'Cyber warfare and the laws of war', p.148

⁴⁸ Mark R. Shulman, 'Discrimination in the Laws of Information Earfare'(1999) 37 ?

networks.⁴⁹ This would amount to a lawful rule of war and helping attain the military advancement. Here the computer system is used as a delivery device and cause directly damage which is caused by a civilian. However whether the individual considered as combatant or civilian is question under the IHL. Because there is a question on deciding whether the actor being physically present in the territory is a fundamental element of sabotage or not.

Tiramusu Dinstein argued that the combatant must be physically located in an area controlled by the enemy.⁵⁰ Even there are more recent domestic cases indicates the computer intrusions are sufficient to prosecute on a civilian as a combatant.⁵¹ At the same time Baxter points out the purpose of destruction establishes the combatant status.⁵² Therefore in that civilian is considered as direct participation. And deemed as combatant no longer being civilian. Therefore, there are so many contradiction between experts in IHL because of inadequacy of law. Mere direct participation is given in treaty without any definition for such norm. Therefore no constant practice is there in its application.

3.7.4 Issue 04

The damages are caused by the reason of computer manipulation rather conventional arms. The ICRC Interpretive Guidance emphasizes 'electronic interference with military computer networks....whether through computer network attacks(CNA) or computer network exploitation (CNE)' as an example for direct participation and noted that during the expert meetings computer network attacks causing military harm to the adversary is regarded as part of hostilities'.⁵³ Thus the establishment and exercise of control by electronic means over military personnel and objects or over computer networks used by a majority of experts involves in the process.⁵⁴ Likewise the assistance of civilian contractors in the design and execution of computer network attacks, whether as coders or systems specialists would also constitute as direct participation or not is a question under IHL.⁵⁵

Knut Ipsen has argued on direct participation which includes use of weapons system in an indispensable function 'although he gives no guidance as to which functions should be considered indispensable.⁵⁶ Under that two questions are arising 1st is whether a system used for launching computer network attack is a weapons

system and 2nd is whether maintenance and support of that network constitute an indispensable function which amount to direct participation.⁵⁷ Under Ipsen's analysis, maintenance of a weapons system would be seemed as an act which has direct causal relationship with the harm done to the enemy and armed forces.⁵⁸ Schmitt argues that immediate maintenance and support nature and not to a routine may be seemed as direct participation.

3.7.5 Issue 05

The use of civilians is participation in hostilities by government intelligence agencies, such as CIA, DIA, NSA and National Reconnaissance Office. Some intelligence operatives are clearly participating directly in hostilities. The great example on using of Predator unmanned aerial vehicles armed with Hellfire missiles. In December 2001, The predator tracked fleeing Taliban vehicles and destroyed them with its own Hellfire missiles, before the victims realized that they were being followed.⁵⁹ In another attack in February 2002, a Predator with Hellfire was used to target Osama bin Laden at an area suspected of being an Al-Qaeda tunnel complex.⁶⁰ Therefore in these examples participation is there, but they are beyond the direct participation attacks were proceeded. According these circumstances there is no adequacy in laws like these advanced situations in modern battle field.

3.8 Conclusion

The combination of increased civilian inaction and high tech methods of warfare has some challenges for the laws of armed conflicts and determination of combatant and civilian. The chapter has been analyzed with some major areas which connect with civilians participations. The nature of modern battle space consists the technologically advanced military and computerized attacks. Thus the proximity cannot be the de jure factor to decide the direct participation in hostilities. Computer Network Attacks which connect with computer operations and are mostly made by civilians are sufficient to construct severe attacks. Therefore those cannot be considered as civilians and they have to be considered as direct participants in hostilities. Even there is no clear identification on every act which is performing by information technology support staff will amount to direct participation in hostilities and most would not meet the test of direct causation in the ICRC Interpretive Guidance, those activities cause severe

⁴⁹ Heather Harrison Dinniss, 'Cyber warfare and the laws of war', p.153.

⁵⁰ See section 2.2 below, Dinstein, *Conduct of Hostilities*(1st edn)209.

⁵¹ See generally Antonio Cassese, *International Criminal Law*(Oxford university press, 2003)277 citing *Rivard v. United States*(1967) 375 F 2d 882.

⁵² Baxter, 'unprivileged Belligerency', 336, citing *United States v. List et al*(1046) *Trials of War Criminals*, XI(1950),1245, *War Crimes Reports*, VIII(1949)56.

⁵³ ICRC, *Interpretive Guidance*, 48.

⁵⁴ ICRC, *Third Expert Meeting in the Notion of Direct Participation in Hostilities summary report*(ICRC, Geneva, 2005),13.

⁵⁵ Heather Harrison Dinniss, 'Cyber warfare and the laws of war' p.168.

⁵⁶ Ipsen, 'Combatants and Non-combatants' 67.

⁵⁷ Heather Harrison Dinniss, 'Cyber warfare and the laws of war' p.168.

⁵⁸ Note that is not a universal view. Although disagreeing with the merits of it Parks does not consider that the maintenance of the Swiss Air Force by civilian engineers would constitute direct participation under the terms of Additional Protocol I: Parks, 'air war and the law of war' fn.397, but Schmitt, 'Direct Participation', 508.

⁵⁹ Joseph Fitchett, "high tech weapons change the Dynamics and the Scope of Battle; war in the Computer Age," *International Herald Tribune*, 28 Dec.2001, at 1.

⁶⁰ Michael N. Schmitt, "Direct Participation in Hostilities" and 21st *Centaurus Armed Conflict*, P.519.

damages through the modern technologies. Therefore those acts should be deemed as active participations. In Civilianization of battle civilians are involving directly by way of context and hiring which are prohibiting under IHL. However, these methods are considered as direct participation and they are illegal combatants. There is question arising regarding the human shield in hostilities that whether they are considered as direct participants or active participants. It is concluded that because of intention of voluntary human shield, they can be considered as direct participation and involuntary human shields are not direct participants in hostilities for balancing military necessity and protection of civilians. When analyzing the contemporary challenges in defining civilians, there are so many questions are arising on distinguishing the technical military objectives and participations of civilians are beyond the level of directly part in hostilities. In those circumstances there are no adequate laws to protect the civilians and distinguish the

combatants, civilians and military objectives in the modern battle front. The developments should be there in battle front, at the same time directions and regulations should be given by adequate laws. Then only humanity and the military advancement can be balanced in war. Thus this chapter finally finds that there is no adequate laws to protect the civilians in armed conflicts.

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