

## **Introduction to 'Made in America: Death. Weapons for Indochina and World War III'**

The Vietnam War represented one of the most brutal and misguided examples of US foreign policy in the second half of the twentieth century. The French had already made their experiences in Indochina and left the country after a devastating defeat at Dien Bien Phu in 1954. Officially beginning in 1965, the USA had already begun training and equipping South Vietnamese forces and cooperating with Ngo Dinh Diem, an anti-Communist hardliner and Roman Catholic, who oppressed Buddhists in a mainly Buddhist country, for several years. In 1964 General Nguyen Khanh then rose to power in a coup in Saigon, which eventually led to Diem's execution.

The Gulf of Tonkin Incident on August 2, 1964 led to the Gulf of Tonkin Resolution, which allowed President Johnson to wage war against the communist North Vietnam without ever having officially declared war. However, it should be noted that the USAF began spraying defoliants, later infamously known as 'Agent Orange' in 1962. Operation 'Rolling Thunder' began in February 1965, it was the first bombing of North Vietnam. The last American combat troops left Vietnam in 1973 after the Paris Peace Accords were signed between Henry Kissinger and Le Duc Tho (Viet Minh diplomat). In April 1975 Saigon fell to the NVA and the remaining US military and diplomatic personnel evacuated the city.

What remains in the mind's eye of the Vietnam War? Burning jungles, children running down roads with flesh hanging in strips burned by napalm, *Rock n' Roll war*, Huey helicopter gunships, cluster bombs, B-52 bombers carpet bombing North Vietnam, the My Lai massacre, Agent Orange and so many other apocalyptic images.

Judging by recent statements by the Republic of Vietnam, one million combatants and two million civilians were killed during the Vietnam War.<sup>1</sup> Other estimates speak of up to four million deaths.<sup>2</sup> The US lost 58,000 young men in the course of the conflict. Nevertheless, it remains very hard to get exact numbers of the amount of civilian deaths. How many people

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<sup>1</sup> <http://www.nytimes.com/1995/04/23/world/20-years-after-victory-vietnamese-communists-ponder-how-to-celebrate.html?pagewanted=all&src=pm> NY Times, April 23, 1995.

<sup>2</sup> [http://www.vn-agentorange.org/edmaterials/cost\\_of\\_vn\\_war.html](http://www.vn-agentorange.org/edmaterials/cost_of_vn_war.html) The website gives a shocking overview of the Indochina war in numbers.

have suffered birth defects, cancer or have even died before birth as an effect of the massive herbicide campaigns remains to be answered. The US sprayed 11-12 million gallons of herbicide over South Vietnam from 1961 to 1971, leading to roughly 3 million Vietnamese nowadays seriously harmed as of their birth.<sup>3</sup> The US used twice as much ordnance (air, ground, sea) on South Vietnam as they did during World War II, namely about 12 million tons in South Vietnam. But not only the North and South Vietnamese suffered from an indiscriminate and ruthless campaign by the US. Cambodia, which was bombed as of March 18<sup>th</sup>, 1969, lost around 150,000 to 500,000 civilians during the next four years.<sup>4</sup> Then Laos was turned into the most heavily bombed place on Earth, killing around 350,000 people, mainly rice-growing farmers.

Laos, Cambodia, the Republic of Vietnam all have very serious problems due to *explosive remnants of war* or *unexploded ordnance*. Of the millions and millions of munitions dropped or fired, about 15-30% became duds, lying in the mud, rice fields, bamboo groves, forests or even near schools, liable to explode at the slightest touch or movement. The issue of undetonated mines looks like this in Vietnam: more than 38,000 people have been killed and 64,000 injured by landmines (and UXO) since 1975.<sup>5</sup>

What gives a country its ability to wage war? How can one country, even one as large as the US produce and expend *twice* as many munitions as during World War II? Very simply: through its industrial production complex. The war in Indochina saw many new and experimental weapon concepts and the proving ground was Vietnam and her neighbors. Without an extensive military-industrial complex like the one in Cold War America, this colossal amount of materiel could have never been furnished. And of course the enormous profits made by companies producing weapons could have never been reached in peacetime. In other words, war is good for business and business is good for war.

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<sup>3</sup> <http://www.fas.org/sgp/crs/row/RL34761.pdf> Vietnamese Victims of Agent Orange and US-Vietnamese Relations.

<sup>4</sup> <http://www.pbs.org/frontlineworld/stories/cambodia/tl02.html>

<sup>5</sup> Center for Defense Information. Vietnam's Deadly Legacy, May 4th, 2000. Rachel Stohl.

This study in the form of a commentated table goes into great detail in order to answer the question 'who made what, and how much did that company get for it?' The issue of corporate responsibility and involvement became an especially boiling topic during the Vietnam War and has remained one ever since. Why is this? When something is manufactured, it serves a purpose. A company will invest time, money and effort to research and develop different items. A manufacturer will try to maximize profit and minimize production costs while at the same time making sure that products are of a certain standard. The companies mentioned in this report, however, invested time and money into the research and production of items that serve two purposes: to destroy and disfigure. These companies manufactured weapons, mainly of the antipersonnel type. According to the *United States Air Force Dictionary* antipersonnel (AP) means that the weapon is designed to destroy or obstruct personnel. Fact is that *any* weapon, be it a plastic land mine specifically designed to tear off somebody's foot but not kill them, or a heavy antitank mine placed on a road on which a school bus may drive over, is meant to in one way or another maim or kill humans. Of course there is a difference between *legitimate* military targets and civilians, but this is one of the key issues of the Indochina War... and this principle was deliberately neglected again and again by US and allied forces.

I have chosen the term Indochina because the US military did not just attack areas in North and South Vietnam, but waged war on Laos and Cambodia as well. Indochina is a geographical area in Southeast Asia consisting of the area between India and China. Most countries that constituted Indochina were under attack, with the exception of such Thailand or Burma. 'Weapons for World War III' refers to how US companies became involved in the production of nuclear, biological and chemical weapons in the course of the Cold War conflict between the Warsaw Pact and NATO. Contracts have been included from the late 1940s up until 1973, when the US pulled out of Vietnam. I have included this for good measure to show just how unscrupulous companies were (and still are) in producing weapons that could have lead to the destruction of all humanity. If the US would have decided to use chemical and biological or even nuclear weapons in Indochina, these corporations and companies would have made it possible. The issue of munitions contracts is the focus of this project, as these objects 'do' the actual killing or maiming. My original idea was a compensation lawsuit against these companies who have profited from the

destruction of humans and still do so in many cases, but apparently this is unrealistic, I was told by an expert.

However, the question must also be asked as to what extent the use of various herbicidal agents, which contained malevolent components such as arsenic or dioxin, did not constitute chemical warfare or ecocide-the destruction of a country's flora and fauna and crop. Remember that during World War I mustard gas and phosgene had an immediate effect on the soldiers in the trenches, but the various agents used in Vietnam also had the ability to change the genetic material of the people there, making it teratogenic, meaning that it will also cause developmental malformations.

It would have been possible for me to just focus on one company during my research. Naturally, I would have chosen one of the largest Department of Defense contractors that was involved in the production of weapons. However, this would have not taken into consideration the dozens of other manufacturers.

The rationale behind all of this is relatively simple. Of course there are many manufacturing corporations with a 'dark' past, a poor environmental record, poor employee health standards and so on. But there is still a vast moral difference between a manufacturer of sneakers who relies in part upon sweat shops and a manufacturer of napalm or plastic AP land mines that will detonate at around 16 kg. To manufacture weapons and munitions is a highly immoral business, yet these companies have been publicly traded on Wall Street, have been lauded for good technical support and products and have in many cases been diversified, extending deep into the daily lives of American consumers, many of which may have been unaware that the manufacturer of their car tires was the same corporation involved in developing AP weapons or chemical or biological warfare delivery systems.<sup>6</sup>

The issue of diversification is one striking issue within this report. As I have discovered, it was *not* impossible or declined by companies to manufacture toys and plastic land mines<sup>7</sup>, home appliances and flamethrowers<sup>8</sup>, Gretsch guitars and rocket components<sup>9</sup>, Harley-Davidson

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<sup>6</sup> General Tire and Rubber Company: see Aerojet-General in the study.

<sup>7</sup> Precision Plastics Co.: plastic M14 mines and Navy frogman toys.

<sup>8</sup> American Electric: M9-7 flamethrower tanks and hair dryers, deep fryers, etc.

<sup>9</sup> Baldwin Electronics: 2.75 inch rocket warheads and musical instruments.

motorcycles and fragmentation bombs<sup>10</sup>, medical supplies and incendiary rockets<sup>11</sup>, carry out construction and destruction<sup>12</sup> or manufacture pharmaceuticals and chemicals for high explosives.<sup>13</sup> These paradoxes may be applied to chemical, biological and nuclear arms as well and 'normal' consumer companies. Most people, unless somehow involved in the issue, do not know about the 'other side' of US consumer companies, many of which have gone out of business by now or merged. One major difference between the 1950s to 1970s defense industry and the modern one is that the diversification has become a lot less. Modern arms companies such Alliant Techsystems, which was spun off from Honeywell in 1990, focus almost entirely on DoD contracts, making a boycott for civilian customers much harder. There are of course exceptions to the rule.

Much of the information I gathered was made available during the Indochina war. Without the superb work of Tom Riddell, Eric Prokosch, Arthur Kanegis and many others, whose original research was crucial, I could have never carried out this project. They worked tirelessly to inform people in the US and Europe about the war profiteering by companies such as Honeywell, Dow, Monsanto, Aerojet, FMC, etc. Having a world of information at my fingertips (the internet) also greatly helped me during the course of my research, although one can 'get lost' online and has to pay close attention in order to find good sources.

Courageous activists such as Marv Davidoff from Minnesota founded the 'Honeywell Project' in order to stop the company from producing weapons and get people to divest from Honeywell stock and boycott their products. To get an idea of the dimension of these contracts held by *one* company, think of the following equation: Honeywell, Inc. received about \$ 250,000,000 worth of contracts for antipersonnel and other weapons in the late 1960s. How many people can you kill with that? How many were killed or wounded? In another contract for 24,000,000 sets BLU-26 cluster bomblet parts, the USAF and US tax payers paid the company \$8,104,800 for this contract alone.<sup>14</sup>

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<sup>10</sup> AMF, Inc. (American Machine & Foundry): Harleys and bombs.

<sup>11</sup> Brunswick Corporation: 66mm XM74 incendiary rockets and medical supplies.

<sup>12</sup> Day and Zimmerman: civilian and military construction and operation of Army ammunition plants.

<sup>13</sup> Wilson Pharmaceutical: oleum for Army arsenal and medical products.

<sup>14</sup> Smits, Sara Elizabeth: Unclear Path, Explosive Remnants of War in Vietnam, Syracuse University 2007, p.49 .

The table shows just the facts and gives some comments either about the manufacturing company or the weapon itself. Much work has gone into this study and some of the information was quite a challenge to acquire.

I have decided on a 'part for the whole' approach, meaning that if a contractor delivered only components of a munition or weapon, he is just as responsible as a company making the entire item, which by the way was rather rare. One munition always consists of several components, for example the body, warhead, fuze, primer, explosive, etc. Is the company delivering *just* the fuze less responsible than the company filling an order for 4.5 billion steel balls for cluster bomblets or other items<sup>15</sup> ? Obviously not.

### **How to read the table.**

Generally, going from left to right should give the reader all the information he or she needs. Sometimes a bit of information may be somewhat off center, this is unfortunately due to issues with Microsoft Word. The FSC, or federal supply class gives information about which supply class the items were in. This is important to comprehend when working with the National Archives Records Administration (NARA). If for example the FSC says 'bombs', this usually does not mean that the whole bomb was delivered but that components were manufactured and delivered. It should not be assumed that one company made complete munitions. Sometimes in the NARA the 'system or equipment' will give more detailed information about which component was made. Click the NARA record file to find out more. Keeping a printed version of acronyms may help when looking at the table. Use the ctrl+f (search) to look for certain terms, for example Aerojet or Thiokol or mine, etc. Quotation marks are not necessary when using the search function. Where I have written that a company made, for example, bombs, rockets and rocket ammunition, land mines, etc., this will usually mean that that manufacturer delivered components for this federal supply class. Sometimes no further information is available in the NARA. However, weapons in parentheses, for example (Bomb GP M117 750 lbs) gives you information about the system equipment item which components were supplied for.

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<sup>15</sup> Ibid: p. 49. Superior Steel Ball Co. of New England held this contract for the steel balls.

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*I would like to dedicate this work to the people of Vietnam, Laos and Cambodia who have suffered greatly from the US war and atrocities committed there and to the people who still have to live with the dangers of unexploded ordnance or the long-term effects of 'Agent Orange'. This study is also dedicated to the courageous US citizens who stood up and said "no" in times of great peril, be they civilians or military. It is also dedicated to my father Michael, who made a choice not to go because he knew that it was wrong and to my mother, Ruth, for standing up for justice in those times. I am indebted to both of them for the sense of justice they have instilled in me. It is also dedicated to the young American men who lost their lives, were injured or suffered psychological damage in a senseless war that they were forced to fight in. I would also like to thank Tom Riddell, former Council on Economic Priorities researcher, who I have been in touch with and who has supported me whenever possible for his assistance and patience. Several years ago I came across the name Otfried Nassauer in connection with a project on exposing present-day German manufacturers of land mines. He became a great inspiration (and someone I still admire for his knowledge and determination) to me and showed me two things: that you **can** get all the answers you are looking for and that one **can** make a difference by researching and informing people. This study is also dedicated to the brave men and women who help to clear mines and unexploded ordnance not just in Southeast Asia but all over the Earth and make life a bit safer for people.*

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If you have any questions or comments, please feel free to contact me at:

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Leonard, December 24<sup>th</sup>, 2011.

## Glossary

AAP- Army Ammunition Plant

AP- antipersonnel

AV- antivehicle

AT- antitank

AF- Air Force, also seen as F on contracts

AFSC- American Friends Service Committee

ASW- anti-ship warfare

ASTIA- Armed Services Technical Information Agency

ATSDR- Agency for Toxic Substances and Disease Registry

BW- biological warfare or biological weapon

BLU- bomb live unit

BZ- 3-quinuclidinyl benzilate (psychoactive agent)

CBU- cluster bomb unit

CBD- Commerce Business Daily

CBW- chemical biological weapon

Co.- company

CML- in DA contracts this means that Edgewood Arsenal gave the contract and it has to do with CB items

COCO- contractor owned contractor operated facility

CW- chemical warfare or chemical weapon

CEP- *Council on Economic Priorities* (peace group)

DA- Department of the Army, also seen as DAAA on contracts

Div.- division, for example a subsidiary of a company

DMS- McGraw Hill Defense Market Intelligence Reports

DoD- Department of Defense

DSA- Defense Supply Agency



DTIC- Defense Technical Information Center

EA- Edgewood Arsenal, US CBW arsenal

EID- The book *Efficiency in Death* by the Council on Economic Priorities

FSC- (when searching the NARA) federal supply class of ordnance

Frag- fragmentation, often used in combination with HE

GAO- Government Accountability Office

GP- general purpose, usually refers to HE bombs

GCD- Government Contracts Directory

GA- Phosphoramidocyanidic acid or Tabun (nerve agent)

GB- *O*-isopropyl methylphosphonofluoridate or Sarin (nerve agent)

GOCO- government owned, contractor operated facility, applied/s to many US AAPs

GOGO- government owned government operated facility, e.g. McAlester AAP

Hathi- Hathi Digital Library

HE- high explosive

Inc.- incorporated

Ibid- Latin for the same, refers to title of book

Ibid loc. cit. – the information was taken from the same page in the same book

ICBM- intercontinental ballistic missile

LAP- the process of loading, assembling and packing munitions

M- standard US military designation, for example M16 rifle or M1 Abrams tank

Mk- Navy designation for munitions/weapons

Mfr.- manufacture/manufacturer

Mfrd.- manufactured

Mfg.- manufacturing

NA- not available, not applicable: this may also mean that I did not write the exact number of the contract, but it can be found in the NARA.

NARA- National Archives Record Administration

NARMIC- National Action/ Research on the Military Industrial Complex (peace group from the AFSC)

NASM- National Air and Space Museum Archives

NATO- North Atlantic Treaty Organization

ORD- contracts from the 1950s to mid 60s for ordnance

OSTI- Office of Scientific and Technical Information

Ordnance- includes any kind of military materiel such as weapons, ammunition, vehicles, equipment, etc. In this study it refers mainly to ammunition.

PD- point detonating (fuze)

PETN- Pentaerythritoltetranitrate, a HE

proj.- projectile

R&D- research and development

RDX- Cyclotrimethylenetrinitramine, a HE

R,D,T&E- research, development, testing and evaluation

SEA- Southeast Asia

Sipri- Stockholm International Peace Research Institute

SUU- suspension underwing unit

TAB- Technical Abstract Bulletin- US gov. abstract of R&D and production contracts

TNT- trinitrotoluene, a HE

TSAM- the book *The Simple Art of Murder, Antipersonnel Weapons and Their Developers*

USPTO- United States Patent and Trademark Office

USPTO TESS- USPTO Trademark Electronic Search System

Vietnam TTU- The Vietnam Center and Archive Texas Tech University

VX- *O*-ethyl *S*-[2-(diisopropylamino)ethyl] methylphosphonothioate, most toxic nerve agent

WWW- World Wide Web

WFC- the book *Weapons for Counterinsurgency*

WP- white phosphorus (incendiary and smoke chemical, can be toxic)

XM- experimental

