

Use of Plastic in Mines

Another protocol accompanying the 1981 UN Convention is the Protocol on Non-Detectable Fragments (Protocol I). It prohibits the use "of any weapon the primary effect of which is to injure by fragments which in the human body escape detection by X-rays." The use of plastic casing in mines, a common practice designed to make the mines non-detectable by metal detectors, is prohibited, because plastic shrapnel lodged in the human body when the mine detonates can not be located in radiographs.

III. TWO DECADES OF MINES

Mines have clearly been the weapon of choice of all parties in Cambodia since the Vietnamese invasion in 1979, but they were also used in the war at least a decade earlier. Cambodians are thus facing the task not just of clearing mines laid last year or the year before, but of finding and destroying mines laid regularly by different groups over the last 20 years. Many of those mines are now overgrown by vegetation, immersed in water or simply forgotten, but they may be no less lethal as a result.

The Vietnam War

The use of land mines in Cambodia dates back to the Vietnam War. In 1967, at the height of the war, the North Vietnamese opened a front on the Cambodian border and with the permission of their ruler Prince Norodom Sihanouk, established base camps in eastern Cambodia. To protect these installations, the Vietnamese placed land mines around their perimeters. In 1970, after the pro-American Prime Minister of Cambodia, Lon Nol, deposed Sihanouk in a coup, mine warfare moved into the interior of Cambodia as the Khmer Rouge and Vietnamese-backed Khmer resistance forces battled both the Lon Nol forces and each other. According to Cambodian doctor and writer Haing Ngor, Lon Nol troops "advancing toward huge, noisy enthusiastic Khmer Rouge meetings in the countryside would find only loudspeakers and a tape player -- and land mines buried around the tree that the sound equipment hung from."³⁸

South Vietnamese forces joined Lon Nol's troops in attacking Vietcong bases in 1970; the North Vietnamese and

³⁸Haing Ngor, *A Cambodian Odyssey* (New York: Warner Books, 1987), p.70.

Vietcong retaliated with attacks that reached beyond the eastern border to areas near Phnom Penh.³⁹ On April 30, 1970, without informing Lon Nol, the United States joined in with a massive bombing campaign aimed at destroying Vietcong sanctuaries in Cambodia.⁴⁰ Not only did the bombing fail to achieve that goal - it also marked the beginning of a boost in support for the Khmer Rouge in the countryside. More Vietnamese troops poured into Cambodia and by August 1970, North Vietnam controlled most of western Cambodia from Battambang southward to the sea and the province of Kompong Speu south to Kampot.

From 1970 to mid-1972, the two major warring parties in Cambodia were the North Vietnamese and Lon Nol's army which eventually went down to defeat. The Paris Peace Accords of 1973, which ended U.S. involvement in the Vietnam War, helped seal the fate of Lon Nol's government and dissolved the tactical alliance between the North Vietnamese and Khmer Rouge. (Relations were already poor because of a series of raids and massacres of Vietnamese nationals by Khmer Rouge cadre in the early 1970's.) Now on their own, Khmer Rouge leaders organized Cambodians in the countryside into self-contained agricultural cooperatives. These areas were sealed off from the outside world

³⁹Elizabeth Becker, *When the War Was Over: Cambodia's Revolution and the Voices of Its People* (New York: Simon and Schuster, 1986), p. 133.

⁴⁰Even today, over 20 years later, bomb craters, some the size of baseball diamonds, still mar the Cambodian countryside, and peasants continue to be killed or injured by unexploded munitions. A significant fraction of these high-explosive munitions failed to explode, or were designed not to explode, on their initial use. See E. S. Martin and M. Liebert, "Explosive Remnants of the Second Indochina War in Viet Nam and Laos," in A. H. Westing, *Explosive Remnants of War: Mitigating the Environmental Effects* (London: Taylor & Francis, 1985), pp. 39-49.

with boobytraps and patrolled around the clock, creating "miles-wide tracts of no-man's-land."⁴¹

From 1973 to 1974, the Khmer Rouge advanced toward the capital of Phnom Penh, mining areas they controlled along the Mekong River as they went. They finally reached Phnom Penh on April 17, 1975.

The Khmer Rouge

The break between the Khmer Rouge and Vietnamese led to tension along the Vietnamese-Cambodian border which broke out in fierce fighting by 1977. More fighting meant more mines. But by then, so many people were dying from other causes that mines seemed a minor factor. In the less than four years that the Khmer Rouge ruled, more than one million people died as a direct or indirect result of the government's policies. Records at Tuol Sleng, the former Phnom Penh secondary school turned interrogation center, indicate that more than 15,000 persons brought to the prison were executed, usually after being tortured. Only seven survived--prisoners whose technical skills were useful in running the death camp.

In the decade from 1968 to the Vietnamese invasion of Cambodia in December 1978, there was no respite from war to clear mines or stop their being planted. In early 1979, when all of Cambodia was in chaos and the Khmer Rouge in retreat, Haing Ngor writes that he decided to try and reach Phnom Penh from the northwestern town of Phum Phnom. Along route 5 heading towards the capital were

mines, in holes next to the road and near the bridges. The rain had washed the layer of dirt from the metal detonating buttons, which were about the

⁴¹E. Becker, p. 164.

size of knecraps, so most of the mines were visible. Even so, an ox stepped on a mine, killing several people we had known from Phnum Ra and wounding others.⁴²

It was worse near the Thai border:

We walked cautiously around a bend and came upon the site of the [mine] explosion. It was a blood-spattered scene, an arm hanging from a tree branch, part of a leg caught in bamboo. Ten or more dead lay by the side of the path, and many more were wounded. I made a tourniquet, removed some large pieces of shrapnel from wound, tied makeshift bandages and advised the relatives on preventing infection. With no medical supplies there was little more to do. It was a terrible way to die, or to be maimed, after living through the Khmer Rouge and coming so close to freedom.

The mines appeared on either side of the path, sometimes in the middle. They had coin-size detonator buttons, white or rusted in color. From the detonator buttons, trip lines made of nearly invisible white nylon thread led to tying-off points such as trees or rocks nearby....Whether the Vietnamese or the Khmer Rouge planted the mines didn't matter much to us. All we knew was that we had to keep our eyes on the trail, searching for white threads.⁴³

⁴²II. Ngor, p. 352.

⁴³II. Ngor, p. 378.

As Vietnamese forces gained control of Cambodia and installed the People's Republic of Kampuchea (made up largely of former Khmer Rouge who had defected), the Khmer Rouge, together with the civilians they controlled, fled to Thailand. They were soon followed by people who were simply fleeing the fighting. Then, as 1979 progressed, famine forced tens of thousands of Cambodians to seek relief at the Thai border.⁴⁴ Thailand, fearing that it would be inundated by refugees, closed (and mined) its borders in March 1979. As a result, the refugees grouped together in a string of camps along the Cambodian side of the border.

In June 1979, the Royal Thai Army forced some 43,000 to 45,000 Cambodian refugees who had crossed into Thailand back into Cambodia. The refugees were rounded up from encampments in and around the Thai border town of Aranyaprathet and then transported by bus some 300 kilometers to a mountainous region on the northeastern border near the temple of Preah Vihear. From there they were forced to walk down the Dangrek escarpment, a mountainous and thickly forested ridge, back into Cambodia, without any directions on how to traverse the extensive minefield that lay at the foot of the escarpment. For days the operation went on. When a group of people tried to return, Thai soldiers opened fire on them.⁴⁵ Thousands of people died at Preah Vihear, mainly from dehydration, diarrhoea, and mines that both the Vietnamese and retreating Pol Pot troops had placed along the border.

⁴⁴Actual food production for the 1979-80 season was only 538,000 tons compared to a requirement of 1,692,000 tons. See E. Mysliwiek, "Punishing the Poor: The International Isolation of Kampuchea," a report for Oxfam, United Kingdom, 1988, p. 25.

⁴⁵See William Shawcross, *Quality of Mercy: Cambodia, Holocaust, and Modern Conscience* (New York: Simon and Schuster, 1984), pp 90-92.

Growth of the Resistance Forces

By late 1979, the international community, led by the United Nations Children's Fund (UNICEF) and the World Food Program (WFP), had set up a massive relief effort at the border, which, in turn, attracted more refugees. At the same time, various political and military groups had begun asserting control over the refugees. On the northern border, Ta Mok, a brutal Khmer Rouge commander responsible for the internal purges of 1976-78, and his army had taken control of several camps. Just south of Ta Mok's encampments, followers of Sihanouk had settled and formed the United Front for an Independent, Neutral, Peaceful and Cooperative Cambodia (FUNCINPEC). In the central border area, black marketeers and remnants of Lon Nol's government had established a lucrative trade in consumer goods from their encampments. Many of them would join forces in 1981 to form the non-Communist Khmer People's National Liberation Front (KPNLF) headed by former prime minister Son Sann. Further south, another Khmer Rouge commander, Son Sen, controlled a cluster of camps. And in the southern border area, adjacent to Thailand's Trat province, Pol Pot and several of his commanders were in charge.

All three factions maintained their own guerrilla armies. However, neither the Khmer Rouge nor the weaker KPNLF forces and the Sihanouk National Army (ANS), the military wing of FUNCINPEC commanded by Sihanouk's son, Prince Ranariddh, were a match for the Vietnamese, whose occupation army numbered 150,000 soldiers.

Democratic Kampuchea, the government of the Khmer Rouge, retained Cambodia's seat at the United Nations until 1982. During that time, the humanitarian aid provided to the border population permitted the Khmer Rouge to survive and rebuild.

Military aid was also provided, primarily by China, and from 1980 to 1986 by the United States.⁴⁶

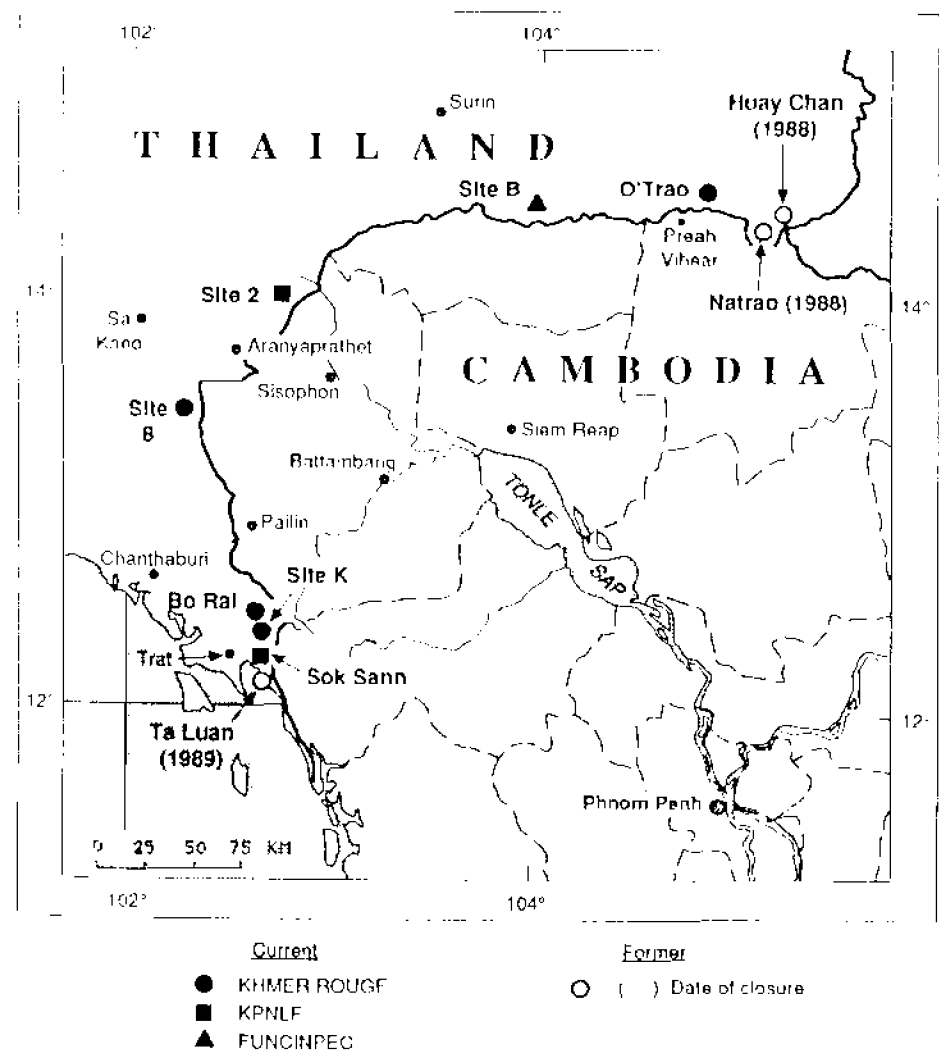
On June 22, 1982, in a meeting in Kuala Lumpur, Malaysia, Sihanouk signed an agreement with Son San and the Khmer Rouge leader Khieu Samphan to form the Coalition Government of Democratic Kampuchea (CGDK). Shortly thereafter, this tripartite coalition cobbled together -- with U.S. support -- by China and the Association of Southeast Asian Nations (ASEAN), took over Cambodia's seat in the United Nations. The CGDK was a tactical, if uneasy, alliance, a diplomatic fiction useful for opposing the Vietnamese installed People's Republic of Kampuchea (PRK). As a coalition, it neither exercised governmental authority inside Cambodia, nor did it have a headquarters or a common constitution. Sihanouk said of his partnership with his old foes, the Khmer Rouge: "We have to choose between letting the Vietnamese colonize Cambodia or working with the Khmer Rouge."

For Thailand, the CGDK and its resistance armies provided a convenient buffer against the Vietnamese. For the Chinese, support of the Khmer Rouge and, to a lesser extent, Sihanouk, was simply a continuation of its long-standing hostility towards its military enemy Vietnam and, by extension, the Soviet Union. For its part, the United States viewed its support of the CGDK as a means of isolating Vietnam and preventing recognition of the Phnom Penh government.

⁴⁶ From October 1986 to June 1991, the U.S. provided \$20.3 million in non-lethal military assistance to the non-communist resistance groups under the International Security and Development Cooperation Act of 1985. See "Cambodia: AID's Management of Humanitarian Assistance Programs," United States General Accounting Office Report to Congressional Requesters, Washington, D.C., September 1991.

Until 1984, the war in Cambodia followed a seasonal pattern. During the rainy season, when heavy military equipment was, for the most part, useless, guerrillas from the border camps were able to infiltrate throughout Cambodia, spreading their propaganda, recruiting new fighters, and engaging in sabotage. During the dry season, Vietnamese troops, with help from the fledgling army of the People's Republic of Kampuchea, would push the guerrillas back to the border.

FIGURE 3.5
LOCATION OF UNBRO ASSISTED BORDER CAMPS
1985 - PRESENT



Map courtesy of John Rogge and the Intertext Institute

In late 1984, as the northeast winds ushered in the dry season, the Vietnamese launched a major offensive against the guerrillas and their encampments on the Cambodian side of the border. For five months, they pounded the border with artillery fire, sending some 220,000 civilians and combatants fleeing into Thailand. The refugees gathered in 14 camps along the 700-kilometer border from Ubon in the north to Trat in the south. The Thai authorities agreed to grant them temporary asylum as "displaced persons," but only until security conditions permitted their return to Cambodia.

Nearly all the camps and their military appendages were located close to the border, partly to reinforce their temporary nature and partly to maintain their "buffer" function. With the guerrillas pushed into Thai territory, the Vietnamese effectively sealed off the border by laying extensive minefields. Similarly, the Thais and resistance forces, fearing a Vietnamese invasion, heavily mined key positions just over the border.

So dangerous was the trip across the minefields, few civilian refugees--no more than a few hundred, according to one source⁴⁷--ventured back to Cambodia between 1985 and 1988. The mines also temporarily stopped the trans-border black market trade. However, for those willing to take the risk, there were "guides" who charged up to Thai Baht 200 (US\$ 8) per person--an expensive proposition for most camp residents--to escort refugees through the minefields.

By late 1985, a year after the Vietnamese dry-season offensive, the refugee population inside Thailand had stabilized at about 300,000 persons, settling into several camps along the border (see Appendix B). Mines were reportedly placed around the camps to prevent Vietnamese incursions -- or to control the movement of refugees. Under the control of different resistance

⁴⁷See John R. Rogge, "Return to Cambodia," p. 97-98.

factions, the refugees were periodically forced back across to border to carry ammunition or supplies needed by the guerrilla armies.

After the withdrawal of Vietnamese forces in September 1989, the movement across the border intensified, as each faction sought to establish a presence in the areas they had occupied. The Vietnamese withdrawal also gave the Khmer Rouge, by far the strongest of the three factions, a new lease on life, and led to intensified fighting between Phnom Penh government forces and Khmer Rouge guerrillas. Fear that the Khmer Rouge might return to power, combined with the changing international environment of the "post Cold War era", injected a dynamism into the peace process that produced the Perm 5 framework of September 1990.

Toward Peace

The first glimmer of hope that the end to the fighting might be in sight came on April 26, 1991, when representatives of the Phnom Penh government and the three resistance groups agreed to a cease-fire as of May 1. Two months later, in the Thai town of Pattaya, they agreed further to a moratorium on arms imports and to allow the 12-member Supreme National Council (SNC)⁴⁸, a transitional body formed in 1990 under a United Nation peace plan, to set up headquarters in Phnom Penh by the end of 1991.

In July 1991, at a meeting in Beijing, the factions further agreed that Cambodia's seat in the United Nations will be occupied by an SNC delegation led by Prince Norodom Sihanouk,

⁴⁸Six of the 12 members of the Supreme National Council are representatives of the Phnom Penh government; each of the resistance groups has two representatives.

the exiled Cambodian leader.⁴⁹ They also announced an agreement to call for a special United Nations team to visit Cambodia and back up the cease-fire already in place and evaluate how to enforce the ban on outside military aid. Finally, in August 1991, in another round of meetings in Pattaya, the Phnom Penh government and three resistance factions agreed to reduce their military forces by 70 percent.

Under the provisions of the UN plan, until elections are held, the United Nations Transition Authority in Cambodia (UNTAC), will oversee key existing government ministries to ensure their political neutrality, and the Supreme National Council (SNC) will be both the institutional embodiment of Cambodian sovereignty and an advisory body to UNTAC, with some decision-making powers. The plan fixes no date for elections and makes only the abstract commitment to hold them after a long-term U.N. rule.

Nineteenth in a line of United Nations peace-keeping forces and missions dating back to 1948, UNTAC would have an unprecedented administrative role in Cambodia. It would also be the largest and most expensive peace-keeping force in the history of the United Nations. The agency would be comprised of both military and civilian personnel, numbering in the tens of thousands. With the SNC as an adviser, UNTAC would supervise Cambodia's ministries of foreign affairs, interior, finance, defense, and information. Its military forces would be responsible for monitoring the cease-fire and the cessation of the flow of foreign arms supplies to all factions, and supervising the partial cantonment and disarmament of all armed forces.

⁴⁹The delegation would also include two delegates, Hun Sen and Hor Nam Hong, from the Phnom Penh government, as well as Khieu Samphan, a leader of the Khmer Rouge. See S. WuDunn, "Cambodian Factions Agree to Share Seat at U.N.," *New York Times*, July 18, 1991, p. A7.

That plan may be implemented some time in the future. But the menacing presence of hundreds of thousands of land mines is a very real problem for Cambodia now. In May 1991, a U.N. fact-finding mission that travelled to "liberated zones" held by the KPNLF and ANS in northwest Cambodia found:

There was a heavy concentration of mines around military bases, water sources and abandoned villages. No mapping or recording of mines or mine incidents had been done. Villagers were aware of mines, but villagers continued to be killed or injured by them.⁵⁰

Mines in Cambodia's interior and especially along its 700-kilometer border with Thailand are so widespread, they now rank, along with malaria and tuberculosis, as one of the country's three most serious public health hazards. Those at greatest risk from mines are returning refugees, the internally displaced, and all Cambodians living near the border.

⁵⁰See "Report of UN Fact-Finding Mission to KPNLF and FUNCINPEC Areas of Cambodia (18-22 May 1991)," Office of the Special Representative of the Secretary-General for Co-ordination of Cambodian Humanitarian Assistance Programmes, June 3, 1991, p. 7.

IV. MINE WARFARE TODAY

For all parties to the Cambodian conflict, the main purpose of laying land mines has been to limit military operations by enemy forces: to deny the opposite side access to bridges, roads or strategic installations or to protect one's own forces from attack. The Phnom Penh government and the resistance groups have also used mines as offensive weapons. Government troops have placed mines around the perimeters of enemy villages and then bombarded them with artillery fire so that the "enemy" is forced to flee into minefields. The Khmer Rouge has used mines to channel and control the movement of people in the areas they control. Thai and Khmer black marketeers, often with the blessing of resistance forces, have used mines to secure their trade routes. Whatever the intended target, it is the sheer number of land mines and their indiscriminate use by all sides in the conflict which has resulted in tens of thousands of civilian deaths and injuries since the war began.

The Phnom Penh Government

The Phnom Penh government and, prior to their withdrawal, the Vietnamese forces, have used a two-pronged strategy: (1) the mass dissemination of mines, primarily to secure Cambodia's borders from incursions by resistance forces; and (2) the selective defense of key military and civilian installations and strong points. Because of where and how these mines are placed, even though for military purposes, they have posed an unacceptably high risk to the civilian population.

The Vietnamese laid mines in Cambodia in mid-1979, as they pushed the fleeing Khmer Rouge across the border into Thailand. It appears, however, that no attempt was ever made to

record the location of these minefields, and Phnom Penh military sources claim that no maps have been handed over to the government by the Vietnamese Army. One key strategy used by the Vietnamese forces was to saturate the roads, trails and ground surrounding their bases and forward posts with mines. Anti-personnel mines were also used to channel and slow down resistance forces, often using inter-linked tripwire devices such as the POMZ-2, a Soviet-made anti-personnel mine. But the most damaging strategy introduced by the Vietnamese was the use of mines to isolate insurgents from their supporters in the villages by mining rice paddies and the margins of forests. The Phnom Penh forces have continued to use these strategies since the Vietnamese withdrawal in 1989.

Although there are no reliable records on the perimeters of minefields and their contents along Cambodia's border with Thailand, both the incidence and geographic spread of land mine casualties would suggest that there are hundreds of thousands of mines in the area. As of 1991, both government and resistance forces were still establishing new minefields, often overlaying existing ones. Even the term "minefield" has no real relevance in the border areas because it indicates a formality that does not exist.

The high density of mines along the border can be inferred from the reported numbers of mines removed in the Thmar Puok area by clearance teams funded by the U.S. Agency for International Development. They said in an interview with our delegation in April 1991 that teams had dealt with 6,000 anti-personnel devices in a one-kilometer stretch of ground close to an old Vietnamese military post and 3,800 mines in another two-kilometer section.

Government troops have used mines to protect key installations, especially bridges, from sabotage. There are hundreds of bridges over seven meters on the roads of Cambodia,

all of which are prime targets for resistance forces. Foreign relief workers told us that government forces post skull-and-crossbones warnings and sometimes the type of mine on bridges. However, we saw no such warnings on bridges along the 315-kilometer highway that connects Mongkol Borei in the northwest of the country to Phnom Penh, nor did we see warnings on bridges on the two 60-kilometer highways connecting the capital to Takeo in the south. Instead, government soldiers or militia were posted at most bridges, and the perimeters of mined areas were delineated by wooden poles and barbed wire entanglements which, when the bridge is over a river or watercourse, continues above and below the water surface.⁵¹ The use of mines in this manner is, by nature and intent, responsible and does not constitute an unacceptable threat to non-combatants. The mines can be cleared with minimal risk to the surrounding civilian population.

According to soldiers we interviewed, troops lay mines along some roads at dusk and remove them at daylight. This tactic is often used on sections of road that government troops do not control at night. Although troops may not mine road surfaces, they heavily mine road verges and surrounding land up to ten meters on either side of the road. Anti-tank mines and directional devices such as the MON-100 are often used on verges and areas adjacent to the road. It is standard government practice to booby-trap anti-tank mines, usually by linking them to anti-personnel devices or grenades.

Government troops also use mines to limit contact between insurgents and villagers. This objective is usually achieved through the random deployment of anti-personnel devices, such as the

⁵¹Government forces employ similar defenses in the vicinity of railway bridges. Although hospital casualties indicate that some random use of mines on rail embankments may occur, there is no conclusive evidence that suggests which combatant faction is responsible for these incidents.

PMN-2 and POMZ-2, on the edges of forests close to towns and villages and in other areas where clandestine meetings may be likely to take place. Strong points under siege or threat of attack are also heavily mined, leaving only key access routes clear (these are routinely mined during hours of darkness and re-opened during daylight). These mine concentrations make agricultural and other land in the vicinity totally inaccessible.

In Svay Chek, for example, a village near Cambodia's border with Thailand, mines have virtually replaced crops in the surrounding fields and rice paddies. Svay Chek is situated in a key tactical position on the Sisophon-Thmar Puok road close to the Cheng (or Svay Chek) River. In December 1989, KPRLF forces took control of Svay Chek, which, at the time, had 15,000 inhabitants. During the siege and occupation of the village, KPRLF fighters were kept well supplied from their "liberated zones" less than 25 kilometers away.⁵²

In February 1990, government troops shelled the village, after surrounding its perimeter with land mines. In the ensuing battle, hundreds of civilians were killed or wounded. By March, Svay Chek was back under government control. Since then, government troops have been able to keep their soldiers well-supplied from Sisophon and have considerable firepower within the village. But the government's greatest deterrence, according to KPRLF forces, is the wide belt of mines that surrounds the village.⁵³

⁵²U.S. support of the liberated zones and its funding of road construction operations has strengthened the KPRLF's logistic support chain to their forces at Svay Chek, as well as enabling them to rotate personnel on a regular basis.

⁵³Government forces have deployed MON-100 and MON-50 directional mines along routes into Svay Chek. They have also laid several types of mines, including PMN, PMN-2, MBV 78/A2, POMZ-2,

By all accounts, neither the Phnom Penh government nor the resistance forces have kept systematic records of mined areas. A Red Cross worker in Battambang, Cambodia, put it this way:

The problem with mines here in Cambodia, in comparison to other areas, is that they are the most important weapon. They are used as offensive weapons, as aggressive weapons....Here there is not a lot of direct confrontation. What you have is a concentration of soldiers in one place, the resistance will circle the area with mines then retreat and shell the area so the soldiers flee through the mined area....There are no maps because mines are given to soldiers like bullets.⁵⁴

In a food stall in the bustling Battambang market, a group of government soldiers, dressed in uniform, spoke to our delegation about what they thought about the use of mines.⁵⁵ As one of the soldiers translated for the others, they responded to our questions as follows:

Q: Do you use mines?

A: Everybody uses mines. Most of us are farmers, and we know that we are causing a problem that makes the land

and grenades (the latter two are sometimes deployed with tripwires), around the village. KPRLF forces have placed anti-personnel mines--M14, Type 69 bounding mines, PMN-2, and some anti-tank mines--in front of their positions.

⁵⁴Interview, Battambang, Cambodia, April 11, 1991.

⁵⁵The soldiers also identified several mines (TM46, PMN, PMN-2, MD82B, M14, T-69, and POMZ-2) from photographs and drawings.

dangerous. In the future (laughs) the war will go, but the war will stay.

Q: Is that a Khmer saying?

A: It is our saying--a farmer's saying. When we fight mines are good weapons, unless, of course, I am blown up or my friends are blown up. But they are bad weapons, too. Bad for farmers and our families.

Q: Would you agree with a program to get rid of the mines? Would you see that as a good thing for Cambodia?

A: Yes, but who would be so crazy? Who would do a job like that?

Q: Would you help?

A: Maybe, but it will be more dangerous than the fighting. Anyway, who would pay us?

Q: Where do you lay most of the mines?

A: We put them around Pol Potist⁵⁶ (resistance) positions at night, and they do the same to us. We also use them in the forests and in places where we think the enemy will go. Also, when we find their (resistance forces) minefields, we sometimes put our mines among them, which gives them problems if they try to pick up their mines to use in other places.

Q: Do you mark the mines you place?

⁵⁶Soldiers and civilian supporters of the Phnom Penh government often refer to all three guerrilla armies as "Pol Pot."

A: We use a death (skull and crossbones) sign at bridges and other important places. Sometimes we put one of the mines on show...other times we don't mark. Why should we? Then the enemy would know about the mines and would avoid them.

Resistance Forces

The Phnom Penh government, as well as the three resistance forces, have all been heavily influenced by foreign military training. Khmer Rouge mine strategy tends to mirror Chinese doctrine, while the strategy of the KPRLF and ANS--the two non-communist resistance forces--reflects British special forces training. Chinese training of the Khmer Rouge and the British/Thai Junior Commander Course attended by KPRLF and ANS officers until 1989 have devoted considerable sections of the curriculum to the use of improvised explosive devices and booby-traps. Classes range from improvised use of conventional munitions such as mines, through use of in-service and locally fabricated switches as initiators of explosive traps on to the use of commercial products to manufacture explosives.

These Junior Commander courses, each lasting six months, were conducted from 1986 to 1989 at a Thai military facility believed to be near the Burmese border. At least six courses are known to have taken place. Instruction was carried out by a uniformed British Army team drawn from the Special Air Service(SAS)⁵⁷ and the Royal Thai Army. Each course consisted

⁵⁷ The British Government consistently denied allegations that the British Forces were involved in training the Cambodian resistance. For instance, in October 1990, then Prime Minister, Margaret Thatcher said, "There is no British Government involvement of any kind in training, equipping or co-operating with the Khmer Rouge forces or those allied to them." Then, on June 27, in a written parliamentary answer, the Armed Forces Minister, Archie Hamilton, admitted that British Forces "provided training to the armed forces of the Cambodian non-communist

of 50 students, 25 each from the ANS and KPRLF, who were selected on the basis of their physical fitness and weapons knowledge.

In April 1991, our delegation interviewed several resistance fighters who had attended the courses. We also examined their course notes and other documents pertaining to the courses. According to these informants, the training was conducted in strict secrecy: students were not told where they were being taken to and were only allowed outside the camp during training exercises. Thai soldiers taught them unarmed combat and physical training, while seven British instructors⁵⁸ taught them about tactics, mine warfare, demolition, weapons, navigation, first aid, video, radio, and communications.

Our informants said that the overall objective of the course was to produce effective field commanders who could operate independently in enemy territory, with emphasis on the destruction of the military and civilian infrastructure. The students were taught practical command skills required in anti-insurgency operations, including the use of minefields as a planned and hasty defence. For three months during the course, the students split into two groups: one specializing in tactics, the other in demolition. Our informants had specialized in the latter and thus were unable to provide information about the tactics training.

Students in the demolition group were taught to be expert in the use of all explosives and, when no regular explosives were

resistance from 1983 to 1989."

⁵⁸According to our informants, the British instructors wore uniforms and carried sidearms. The informants drew the "winged dagger," the SAS cloth badge, and correctly described the fawn-colored beret worn by SAS troopers.

available, how to manufacture them. They were taught all the major fuses, switches, and detonators used worldwide, as well as those used for industrial purposes. Detailed instruction was given in standard demolition procedures and peripheral subjects, such as the use of conventional ordnance as emergency demolition charges. Students were trained to calculate and design the charges necessary to destroy both military and civilian targets. These included aircraft, railways, trains, bridges, power stations, office buildings, armored vehicles, artillery, missiles, and other key targets.

Our informants said that a considerable amount of time was spent on the use of improvised explosive devices, booby traps, and the manufacture and use of time-delay fuses. They said a British instructor taught their class how to draw a map of a minefield but explained that "such maps are rarely drawn and it's hardly practical to bother with them."

The Chinese provide training to all the resistance factions but, as would be expected, given their political stance, the most comprehensive instruction is reserved for Khmer Rouge forces. Our delegation obtained a Chinese military manual used in the training of both KPRLF and Khmer Rouge fighters. The manual emphasizes the use of improvised booby-traps, often employing "over-kill" quantities of explosives for maximum physical and anti-morale effect. Sections in the manual relating to the demolition of infrastructures, particularly railroads and bridges, show that the training is of a technically sophisticated nature.

Several resistance fighters told us that in many parts of the border belt, their own mines were as great a threat to them as those left by the enemy. Ung Samuth, an amputee and former Khmer Rouge fighter, said no one in his unit ever kept records of where they had placed mines. "Now, all these years later, it will be difficult to locate the mines," he said, "because many of the men who laid them are dead."

In Site II, a KPRLF soldier described how he came to the realization that he and his fellow soldiers were laying mines in their own minefields:

Nobody likes mines but everyone uses them. On my first active duty we had a leader who kept a notebook about where we put mines, all the experienced fighters laughed at that and asked "Who will read such a book?" I thought it was a good idea but only if others did the same thing and, of course they don't. Last year, we were ordered to put mines near a path. As we were doing this I had a feeling--you know--when you think you know a place, that you have been in the place before. Anyway, my attention was distracted because one of the others was blown up, then the man on my right shouted that we were in a minefield and started to walk back to the path and he stood on a mine. I was the only one who got out without being killed or injured. I moved slowly and carefully, using a stick to check the ground. I knew then why I knew the place, why I remembered it--I had put mines there only three months before. We were putting mines in our own minefield--it was crazy, killing our own fighters.

Resistance fighters also told us that they often bombard villages with mortars or artillery shells until the occupying troops or civilians retreat into the forest. The resistance fighters then advance into the village and lay mines before withdrawing. Several resistance fighters and noncombatants told us that water sources, access routes, and surrounding farmland are heavily mined (this is supported by evidence of casualties who have tried to return to villages). They also said that all sides booby-trapped dwellings and common buildings.

The Khmer Rouge seem to use mines in a somewhat more sophisticated manner, but no less indiscriminately, than the KPNLF and ANS. The Khmer Rouge often use mines to channel and control population movements. This suggests that they may have kept some records of minefields. However, there is also evidence that the Khmer Rouge randomly deploy mines in the same way as other factions in areas not under their control; this is particularly evident in Kampong Speu province.

The placement of larger, anti-tank mines along roads and railways is also attributed to the Khmer Rouge. Trains operating along the single functioning railway in Cambodia (from Kampot, via Phnom Penh, to Battambang) are preceded by two flat cars piled with timber in an attempt to trigger mines before damage is done to the locomotive. Most passengers ride in cars behind the locomotive. But for those who wish to risk their lives for a free ticket, there is always *gratis* seating on the front two cars.

During our visit in April 1991, we watched from Highway 5, which runs parallel to the railway line just north of Pursat, as a train passed. Indeed, there were passengers riding on the logs on the cars in front of the locomotive and, from the top of the car behind it, several government soldiers fired bursts from their automatic weapons to keep resistance fighters away.

All resistance factions convert grenades into mines by a simple tripwire device. They are used in jungle areas and close to river banks, normally hung from, or fastened to, tree branches several feet from the ground. They are initiated by tripwire at ground level.

One standard improvisation used by all factions is the multiple stacking of mines. This is done to hinder their removal by enemy forces or to increase the explosive effect and range of the mines. In its most extreme form, a tactic employed by Phnom Penh, an anti-tank mine called the TM-46 is placed above a

standard pressure mine called the PMN with a Type 69 bounding mine at the bottom of the stack. The combination can be initiated in three ways. First, it can be detonated by a tank or heavy vehicle. Second, a person, exerting .23kg of pressure (the operating force required to detonate the PMN), can detonate the stack. At that pressure even a child can easily initiate the combination. This turns the TM-46 into an anti-personnel mine with an explosive content of more than five kilograms of TNT. Finally, the Type 69 mine can be detonated by a buried pull-wire attached to a hidden firing position. Thus, the combination can be remotely detonated, the PMN and TM-46 having first been projected upwards by the Type 69 device. A government soldier who had witnessed such an explosion told our delegation, "some of the [enemy] patrol simply disappeared."

Resistance forces, we found, routinely booby-trap mines to prevent their removal by placing a pressure-release device below the primary mine or linking it to another device, often a hand-grenade, by a hidden tripwire. The Khmer Rouge rely heavily on booby traps and their training programs place considerable emphasis on fairly complex traps, often adaptable to use with large quantities of explosive.