NEWS DESK

HIGH ANXIETY: LSD IN THE COLD WAR

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For decades, the U.S. Army conducted secret clinical experiments with psychochemicals at Edgewood Arsenal. In the nineteen-sixties, Army Intelligence expanded the arsenal's work on LSD, testing the drug as an enhanced-interrogation technique in Europe and Asia. This companion piece to "Operation Delirium," which ran in the December 17th issue of The New Yorker, documents the people who were involved and what they did.

Dr. Van Murray Sim, the founder of Edgewood Arsenal's program of clinical research on psychochemicals, was a man of deep contradictions. He was a Navy veteran, but he worked at the Army post as a civilian. For the doctors who worked

with him, he was like Dr. Strangelove; he was a leader; he was the "Mengele of Edgewood"; he was a good old soul. Sim could be manipulative and vengeful, ethically shortsighted, incoherently rambling, rashly slipshod in his methods, but he was also fearless and ambitious and devoted to chemical-warfare research. He was gargantuan—his body exuded forcefulness, like an oversized rook on a chessboard—but he was willing to allow himself to be rendered helpless. In 1959, he was the first person to be given VX, a highly lethal nerve agent. As the drug began to take effect, Sim became irrational and started to thrash around. "I was having difficulty with vision, seeing—a distortion of vision, sweating, tremors, nausea, vomiting," he later recalled. His face grew pale. He eventually stopped talking and descended into a world of his own imaginings.

Not everything that Sim sampled was so deadly; he also kept unauthorized vials of Demerol, which he used habitually, in his travel case. He had taken LSD several times, and also Red Oil, a highly potent synthetic version of marijuana. The drugs were being tested at the arsenal for use in "psychochemical warfare"—a concept, developed at Edgewood in the nineteen-forties, that entailed a search for mentally incapacitating chemicals to replace guns and grenades on the battlefield. Sim once mixed a milligram of crystallized psilocybin—a drug found in hallucinogenic mushrooms—with water and drank it as if it were lemonade. He saw people nearby turn sickly green. "I feel very light, almost weightless," he pronounced. "And, for me, that's quite a trick."

These self-experiments—with their egocentricity and their daring—helped give Sim the status of a minor military legend. At the time, the clinical research at Edgewood was conducted on soldier volunteers, recruited from around the country. "He became a guinea pig," a general testified before Congress in 1959. "He got pushed around by the other doctors just as any other volunteer would. And once he entered that chain of events he was no longer the head of the laboratory. He was just a little boy in a cage."

The testimony was meant to underscore Sim's sacrifice. And yet, even as Sim was being heralded before Congress, he was running a series of remarkable LSD experiments, designed to administer drugs to people who had no idea that they were getting them. In this way, Sim helped guide the arsenal's clinical research into the murky world of intelligence, interrogation, even torture. The work was given a special code name, Material Testing Program EA 1729. It was carefully kept secret, even on the grounds of the arsenal.

Sim began to pursue the use of psychochemicals for intelligence purposes soon after he arrived at Edgewood, in 1956. That February, he travelled to New York, to meet with Sidney Malitz, the acting chief of psychiatric research at the New York State Psychiatric Institute. Edgewood periodically sent samples of drugs to the institute for testing on patients and volunteers, each chemical marked with an Edgewood Arsenal, or EA, code. In 1953, a catastrophic amount of EA 1298—a version of mescaline—had been injected into a patient named Harold Blauer, who had a violent reaction: shock, coma, and then death. Blauer, a professional tennis player, had been admitted to the institute for depression, and was never told that he was part of a military experiment. The researchers at the institute were scarcely better informed. One later confessed, "We didn't know whether it was dog piss or what it was we were giving him." At Edgewood, Blauer's death was treated as a case study in toxicity. "This lead will be pursued," an official at the arsenal noted.

Sim knew of the death—an account of the case was kept in a sealed file that only he had the authority to open—but he maintained a relationship with the institute. By the time he met with Malitz in New York, the Army was interested primarily in LSD—known as EA 1729. Malitz agreed to test LSD and similar drugs on volunteers or "selected patients," in order to determine how people would react during phony interrogations. He offered to use hypnosis to plant secrets in subjects'

minds. Then, he said, "one of the hallucinogens will be administered and an attempt made to see if the patient will reveal the information."

Sim indicated that he would consider the offer. Three months later, he obtained permission to test psychochemicals at the arsenal itself. LSD's effects were still little understood; as Sim acknowledged, it was possible to become "smothered by the preponderance of conflicting reports." Within that morass, there was evidence that the drug posed genuine health risks. "The observations of certain British investigations on normal volunteers and reliable reports from their colleagues suggest that during acute LSD intoxication the subject is a potential danger to himself and to others," Sim wrote in an early report. "In some instances a delayed and exceptionally severe response may take place and be followed by serious after-effects lasting several days."

Researchers at Edgewood began by conducting basic studies. Joseph Bertino, who served as a Medical Corps officer at Edgewood from 1956 to 1958, joined three other researchers to explore LSD's effect at incrementally higher doses. Measuring the drug in micrograms per kilogram, or mcg/kg, they worked their way up to 16 mcg/kg—a huge amount, at which subjects could not even repeat a short sentence, exhibited signs of hypertension, and occasionally vomited or hyperventilated. One man saw "horrible green-eyed monsters" everywhere; another felt "a constant flow of electricity throughout his body." Bertino told me that careful psychological screening of subjects before these kinds of tests prevented serious reactions, but that there were instances at the arsenal of "subjects who were kind of slightly paranoid to start with who became psychotic."

The drug was unpredictable. "We could give exactly the same dose of a drug that was produced in the chem lab—so it was clean and absolutely the same—and we could see absolutely tremendous differences in the reactions of the volunteers," a former Edgewood staff member recalled. Even after the experiments, some subjects

demonstrated unusual behavior. Another former member of the Medical Corps, who used to bunk with the volunteers, told me that he woke up one night to find one of the men holding a hospital scale over his head. "He didn't have a clue," he recalled. By luck, he was not crushed. He calmed the soldier down and guided him back to his bunk.

In 1957, Sim began talking with the Army Intelligence Board about researching LSD in a series of "practical experiments." The goal of psychochemical warfare is simply to disable one's enemy. But to use a drug in interrogation one has to penetrate the individual mind—not shut it down but force it open—and an enemy who knew the effects of a drug might be better able to resist it. At Edgewood, it was deemed important to conduct LSD tests on people who were provided with no information about what the drug would do. In 1958, a soldier who had come to the arsenal thinking that he would be testing gas masks was dosed with LSD during an interview with a doctor, who casually sipped some water and encouraged him to do the same. Some soldiers reacted with confusion; one lunged at an officer, not knowing why.

Sim oversaw tests designed to gauge whether the drug could make deception more easily detectable by polygraph, believing that it would help reveal lies, but ultimately he was forced to concede that the experiments were inconclusive. A Medical Corps officer who was stationed at Edgewood in 1958 told me, "These were confabulations of military persons who thought that psychedelic drugs could loosen tongues and spill military secrets." Occasionally, the C.I.A. or senior military intelligence officers would send operatives to the arsenal to be given LSD and then questioned. Some of the tests were intended to see how soldiers would perform; some were designed to prepare them in the event that a Soviet operative secretly dosed them. In one experiment, intelligence specialists were blindfolded and placed in an isolation chamber. The men—some of whom had been told nothing about the drug's effects—became tense and anxious, and quickly became unable to bear the isolation. When

they emerged, they were subjected to hostile questioning. All agreed that the threat of return to isolation would constitute a very effective form of duress.

Sim viewed the experiments as promising. "You do lose your will," he testified in Congress. But some of the doctors at the arsenal were deeply troubled. Colonel Albert Dreisbach, the ranking Medical Corps officer in those early years, struggled with his conscience as he assisted Sim. Dreisbach's son, a minister, later explained, "Years after my father's death, I learned that he had sought psychiatric counsel to deal with the internal conflict resulting from his oath as an officer to follow orders versus his previous oath as a doctor of medicine."

Nevertheless, the testing continued. In 1958, Tony Manheim was working as a personnel clerk at Fort Holabird, an intelligence center in Maryland, when he signed up for a three-day drug trial at Edgewood. He and a dozen other men were bused to the arsenal, and, after a day of medical and psychological tests, they were invited to unwind at a cocktail party. Suddenly, one of the officers started making a disturbance. "He went berserk," Manheim told me. "He began yelling and screaming." Manheim began to notice something different in himself, too. "I was feeling isolated and paranoid," he told me. "I felt threatened." White-coated doctors were also at the party, and he realized that the drinks he and the others were given had been laced with a drug; years later, he learned that it was LSD. Manheim was separated from the other men and led to an interrogation room for questioning. Even though he was feeling fearful, he did not believe that he would be harmed. "I thought it was playacting; it was preposterous and silly," he recalled. "I didn't think it was going to get the military what it was looking for."

Inevitably, Sim recognized, research of this kind would hit an impermeable ceiling at the arsenal. Just about everyone at Edgewood knew that drugs were tested there, and

might be capable of figuring out what was happening if he suddenly felt strange. In recommendations to the Army Assistant Chief of Staff for Intelligence, Sim argued that if the LSD tests were moved off the arsenal this ceiling could be breached. The drug, he said, was ready for use "in real situations on an experimental basis."

Army intelligence officials began discussing the "desirability" of covertly dosing people with LSD during actual interrogations. Although Sim's staff had assured them that LSD produced no irreversible changes in normal people, none of the Edgewood subjects had been monitored long enough to make such an assessment. Moreover, how could one be sure that an unwitting subject was not latently schizophrenic, or suffering from some other significant medical problem? The intelligence officials expressed concern that in such cases LSD, coupled with the stress of a real interrogation, could cause "chemically induced psychosis in chronic form," or other permanent adverse effects. Here, too, Sim and his personnel assured them that the risk was slight. In the end, the intelligence command agreed to the interrogations—so long as the conditions were carefully controlled and the subjects were not American.

On December 7, 1960, Sim held a briefing with the Army Assistant Chief of Staff for Intelligence, in which he elaborated plans for overseas LSD trials, and it was agreed that they would be conducted in Europe, with the participation of European intelligence agencies. No one had illusions about the moral ambiguities of the program. The United States faced a ruthless adversary—one that "condones any kind of coercion or violence for intelligence purposes," an Army report noted—and extending the meticulous protections that Americans enjoyed to enemies, or even to suspected enemies, was regarded as an unaffordable luxury. The officers involved told themselves, "In intelligence, the stakes involved and the interests of national security may permit a more tolerant interpretation of moral-ethical values."

Insisting that the non-American subjects be given medical evaluations before

experiments were conducted, even if a ruse was needed, the Army intelligence command began to prepare for operational trials in Europe and, later, in the Far East. Sixteen unsuspecting people would be drugged, without ever being told that they were part of a test. Such were the rules of the Cold War.

The Army hurriedly assembled a secret three-man unit, which was named the Special Purpose Team: an officer from Army intelligence, a doctor from the Medical Corps, and an officer from Edgewood. Major Ernest Robert Clovis, a chemist and psychologist who had worked closely with Sim on much of the Army's LSD research, was chosen to represent Edgewood. Clovis was a cryptic presence at the arsenal; in fact, Clovis was not even his real name—he had changed it from Kolovos. He was taciturn and, some say, fiercely intelligent. His classic military bearing—he was of medium build, trim, with short hair that he kept greased and sharply parted—belied an idiosyncratic personality. He kept an apothecary's cabinet filled with jars and vials; one, labelled "Putrescence," contained a substance that smelled like rotting flesh, which he apparently thought could serve as a nonlethal weapon. A retired officer who knew him told me, "I think he was taking drugs like amphetamines and spinning around his quarters like a washing machine."

Clovis was interested in perception, and could philosophize at length on the meaning of the color brown, but mostly he was a Cold Warrior. He had served in Korea, and, in an atmosphere defined by doctors uninterested in military protocol, this set him apart. "He was very much concerned with the fact that people didn't appreciate what it was like to be in combat, what happened to his buddies," Ed Stearns, a psychologist who worked with him at Edgewood, recalled. "He had a chip on his shoulder. But he was a well-trained experimental psychologist, and he had all sorts of ideas for trying things. One vivid memory stayed with me all these years. Auditory scientists had been playing with what was called 'delayed auditory

feedback,' where you spoke into a microphone and you heard yourself on earphones some milliseconds after you spoke, and I remember Clovis with his earphones, shouting, trying to read a passage. It is a very difficult thing to do." He apparently hoped that the test could be used to learn if a soldier or official had been covertly drugged.

On April 28, 1961, Clovis and the two other team members flew to Europe for ninety days. Their mission, called Operation THIRD CHANCE, was to dose unwitting people with LSD and measure the results. In preparation, the team reviewed dossiers on foreign intelligence assets who were suspected of espionage or of filing questionable reports. The medical officer, Lieutenant Colonel David MacQuigg, evaluated the physical health of the candidates, to the extent that it had been documented; Clovis met with their American handlers to build psychological profiles; and the Army intelligence officer, Lieutenant Colonel William Jacobson, looked for tools to use in interrogation, such as discrepancies in previous testimony, evidence of dissembling, and weaknesses, or "soft spots," where the assets could be emotionally worn down or broken by harassment.

In each country, the team joined with local operatives and methodically rehearsed scenarios to lure subjects to a spot where they could be given the LSD and interrogated. As Jacobson later noted, the team even memorized scripts for "verbal gambits" that would steer the interrogation in a preferred direction. He recalled that "a variety of devices for stressing the subject" were prepared, although he did not say what those were. And since the team did not want to alienate an asset who might turn out to be valuable, the members rehearsed a "reconciliation pitch" to assuage any resentment that the test caused.

No two experiments were the same, but there were commonalities. Typically, the Special Purpose Team sought out a safe house—an accommodation that was unknown to Soviet operatives, or had no other intelligence value. Once the subject

arrived, agents would initiate casual banter in the living room, where, hours earlier, Clovis had prepared the drug. He had brought over from Edgewood powdered LSD, which he would use to dust a drinking glass— leaving upon it "an imperceptible dry residue." Once the test subject was made comfortable, a member of the Special Purpose Team would offer everyone refreshments. When subjects were dosed in soda or juice, the team member made a show of pouring the drinks from the same bottle. If alcohol was served, LSD was slipped into a cocktail after several rounds, while the interrogators sipped "cold tea"—presumably passed off as whiskey—or slowly nursed their drinks.

The officers watched and waited for the drug to take effect, and then employed a verbal gambit to direct the test subject into a room with a polygraph. Using the years of LSD research that Van Sim had helped orchestrate at Edgewood, the response time of the drug could be charted with reasonable accuracy. As the LSD achieved its peak effect, the interrogators' techniques grew increasingly harsh, to cause maximum anxiety and fear. Jacobson noted that there would be "verbal degradation and bodily discomfort," and threats against the subject's life. In two cases, the team suggested to subjects that their "mental condition had been induced and would be a permanent state unless they coöperated." The questioning would last as long as the drug was effective: eight hours, or possibly more.

The members of the Special Purpose Team chose ten subjects, in various European countries. Clovis maintained the posture of a scientist, charting the many variables, tinkering with doses, and making psychological observations. He carefully documented the reactions, which ranged from the expected ("frightened, dependent") to severe ("defeated, hopeless"). Some of the men appeared to be innocent of any wrongdoing. An intelligence asset in Germany who had access to sensitive documents had presented some difficulties to his handlers, and so was

nominated for a test. The LSD-enhanced interrogation "gained admissions from the subject which explained most of his handling difficulties," but the man insisted that he was not a spy.

There were also some unexplained reactions, affirming LSD's capacity to trigger infinite behavioral variation. One subject seemed to be immune to the drug—an "object lesson in humility," Jacobson observed. The team began to fear that someone had given the man a warning, or that he had been trained in countermeasures to LSD, suggesting that the whole operation was somehow "compromised to the opposition." Several weeks later, the team found a pretext to covertly slip him LSD again, this time at more than twice the first dose. The reaction was similar: scarcely any effect.

In France, the team abandoned the decision to test only foreigners, and surreptitiously gave LSD to Private James Thornwell, a soldier from South Carolina who worked as a clerk at an American military-communications station in Orléans. Thornwell, the only African-American soldier at the station, had a contentious relationship with his superior and had recently been demoted; for these reasons, it appears, he was suspected of stealing a hundred and seventy-two classified documents that had gone missing. For ninety-nine days, members of the Army Counter-Intelligence Corps had interrogated Thornwell continuously. Thornwell later recalled being confined to a small room, where he was kept awake for long stretches and forbidden access to food, water, or a toilet; interrogators told him, "If you talk, you get your physical needs taken care of." He was beaten, and attacked with racial epithets; but he was also told that his interrogators were there to protect him from white soldiers trying to hunt him down, or from assassins working for French intelligence. Thornwell was convinced that he was fighting a war for his own mind. When he could not hold himself any longer, he defecated on an interrogator's desk. To withstand the isolation, he played imaginary chess on a wall, and dictated an improvised novel, just to hear a human voice. But as the days went by he was

pulled deeper into a psychological void. According to a report drafted by a psychiatrist Thornwell saw years later, "He became unsure of who he was, where he was, and why all of this was happening."

At some point, Thornwell admitted to taking some of the classified documents—an admission that he later said he made up in order to end his suffering. But what he said did not add up: once, he claimed to have burned some of the classified documents; another time, he said that he tossed them all into the Loire. (More than fifty of the documents had been discovered on the riverbank.) He agreed to be questioned under sodium pentothal, saying that he had nothing to hide; the officers found the results inconclusive. He agreed to hypnosis, and was told that if he lied he would feel pinpricks across his body. When he withheld some information about his life, he felt millions of pins tearing into his skin and in his brain, and screamed in agony. But he said nothing more conclusive about the documents.

At last, after three months of trauma, Thornwell was released, but the Army wasn't done with him. An evaluation by a military psychiatrist found—unsurprisingly, after his ordeal—that Thornwell exhibited an "antisocial personality" with "paranoid trends." Yet, even though the psychiatrist didn't believe that Thornwell had "voluntarily compromised government secret information," he recommended that the experimental interrogations continue. Hypnosis would not work on such a man, he wrote, but "the tension method," in combination with "tension-producing drugs," would be successful. This is where the Special Purpose Team came in.

Shortly after Thornwell was let go—maybe even that same day—he met a man who called himself Fusfield. After introducing himself as a lawyer, Fusfield told Thornwell that he was in grave danger, and that he could help. Thornwell could never recall precisely what happened after his lengthy confinement, but he remembered that the two men had lunch, and then Fusfield drove him to a remote mill house in the wooded French countryside. Along the way, a car began to pursue

them. Fusfield told Thornwell that assassins working for the French government had tracked them down. By the time they reached the house—a lone rustic structure by a river—Thornwell's sense of reality had begun to warp. The house's interior appeared to be covered with spiderwebs, and he found himself seated at a desk, facing a small man with pallid green skin. The man, keeping his hands under the table, explained that he and Fusfield had taken tremendous risks to help him, but, before they could take any more, they needed to be able to trust him—they needed to know what had happened to the documents.

Thornwell, weakened by his relentless isolation, knew that he was not himself. "My head was full of the universe," he later told his psychiatrist. "Meteorites were burning inside my head, stars shooting off." He started feeling intense pain and confusion. Time and space tore apart. One moment, it seemed, he was seated at the desk; at another moment, his body had been thrown across the room, and he was being violently crushed against a wall. Suddenly again, he was back in his chair, facing the ashen, alien-like man across the desk, as if he had never left. Thornwell didn't understand LSD, or even that he had been drugged; he had no framework for comprehending what was happening to him. His nerves felt as though electric current were coursing through them, and he became convinced that a magnet was keeping him locked in the chair—that he was being electrocuted through it. He struggled to get up, but the man at the desk told him to sit, and he found that he could not disobey: he had lost any sense that the chair was separate from his body. Thornwell passed out. When he awoke, the following morning, he was in Fusfield's car again, heading back to Orléans. He looked at Fusfield, and he saw the same ghoulish skin that the man behind the desk had. Fusfield handed him a piece of fruit. Then he let him go.

Throughout Thornwell's interrogation, the members of the Special Purpose Team drew his attention to the changes in his perception, and indicated that they had the power to make him permanently insane. After he was let go, he forever had to

question whether he had been fundamentally altered. “I felt like my mind was being erased,” he said later. Back in the United States, Thornwell could not speak of his experience without descending into hysterical fits of tears—and, even if he could, who would believe him? He drifted in and out of jobs and relationships. Depressed, and deeply suspicious of the people around him, he went for long periods without speaking—until he feared that he would lose the ability altogether—and once refused to see anyone but his doctor for nearly six months. “The irony is that the Army interrogation techniques forced upon him a tortuous state of isolation,” his psychiatrist noted. “And the legacy of this is that he now imposes this upon himself.” In 1980, two senators from South Carolina, moved by Thornwell’s story, succeeded in obtaining a private congressional bill for him. Thornwell was awarded six hundred and twenty-five thousand dollars. “But he still struggled,” his lawyer, Harvey Kletz, told me. “His behavior was still aberrant, and I don’t think the money in any way changed what burdened him.” Four years later, Thornwell’s body was found in a swimming pool. His wife speculated that he had died of a seizure, although he had never had one before. He was forty-six years old.

For William Jacobson, the intelligence officer on the Special Purpose Team, Thornwell’s interrogation was a success. In a classified report that he filed with Van Sim and a small roster of Army officials, he argued that key admissions had been extracted from him, and from the other test subjects. In Thornwell’s case, these included “variations of the subject’s previous account,” and “satisfactory evidence of subject’s claim of innocence in regard to espionage intent.” Jacobson observed that Thornwell’s interrogation indicated a “need for preplanned precautions against extreme paranoid reaction,” but he argued for further tests with “real subjects of actual crimes for research and operational purposes.”

David MacQuigg, the Medical Corps doctor assigned to the team, also filed a report, in which he expressed naked contempt for the men he had experimented on. Describing them as “money-mad” con artists and liars, he wrote, “These people have

no morals and live by their wits." Like Jacobson, he saw the need for additional tests, and even for the construction of an "interrogation laboratory" where LSD might be tested in combination with radical alterations in room temperature, or a barrage of "supra-sonic waves." Rather than arguing for reduced amounts of LSD, MacQuigg wrote, "I am of the opinion that a heavier dosage is indicated," even though this would inevitably cause disabling mental breakdowns. "While it is true that there will be subjects overdosed, and become too upset to interrogate at peak, there is a big gain," he explained.

Clovis, who no doubt had the most intimate experience with LSD, appeared to have the greatest reservation about how it had been used. It frustrated him that there was little meaningful science to be gained from the interrogations; trying to isolate the effect of the drug amid the chaos that the team manufactured was nearly impossible. The tests offered no definitive conclusions about anything the Army had been trying to learn, he argued, and noted wryly that "in most cases, the gain was considerably less than that." He thought the attempt to combine the peak LSD experience with harsh interrogation, to create maximum terror, was nearsighted. "I most emphatically do not think that subjects, with the dosages we used, are 'recovered' at six hours, nor at seven, nor even at ten," he argued. His only argument in favor of continuing the research was that the Soviet Union was undoubtedly pursuing similar work, and so "time is of the very essence here."

Clovis envisioned a more careful, more nuanced study of the drug; he even seemed to be wondering whether a return to a laboratory setting would be a better way to proceed. But the Army intelligence command had a different set of research questions in mind: it wanted to investigate "if the Oriental reaction to LSD was different from the Caucasian reaction." A series of covert tests were planned in the Far East, and in 1962 a group of military intelligence officers travelled to Hawaii,

where the U.S. Pacific Command was headquartered, and to Korea and Japan, to lay the groundwork for the new experiments. In briefings with the Pacific Command, the officers made a pitch: any admissions made during interrogations, they said, would be "a collateral advantage"—information that could be shared. The Pacific Command welcomed the proposal, and agreed to open up its dossiers on foreign intelligence operatives "to provide Orientals of various nationalities for use in LSD experiments," an Army report later noted.

Clovis joined two other officers to reconstitute the Special Purpose Team. Within the Army, officers had become terrified that James Thornwell's story would leak, and in August, 1962, just before the team departed for Hawaii, to begin the operation, the Army intelligence command at Fort Holabird issued a stern warning: "You are hereby instructed that under no circumstances will you use or allow to be used EA 1729 on U.S. citizens."

The LSD experiments in the Far East—the precise countries where they occurred remain secret—seem to have been more brutal than those in Europe. The team chose half a dozen subjects, who appear to have been either suspected smugglers, narco-traffickers, or alleged spies working for hostile intelligence agencies. In interrogations, the team used significantly larger doses than it had in Europe.

As before, LSD demonstrated its unpredictable nature. The first man, a "boat engineer" whom the Pacific Command suspected of transporting enemy spies, was given twice the amount that the team had given Thornwell, but did not appear to suffer from much disequilibrium. Generally speaking, though, the covert application of LSD at high doses, combined with harsh interrogation, had a devastating effect. Subjects experienced obvious emotional trauma. Some became catatonic or ataxic, or suffered anxiety and discomfort at levels that can only be called torture.

On September 10th, a subject was slipped LSD shortly before 11:30 A.M., and by 12:25 P.M. he began to exhibit severe reactions. "He broke out into a sweat and

collapsed over the table," a medical report noted. "He was carried to a bed with imperceptible pulse, obviously in shock; corneal and lid reflexes were imperceptible." After remaining unconscious for an hour, the man gradually became more alert, but he was still addled. "He was propped up in an interrogation chair by team members and interrogation attempted no relevant answers," the report explained. Every fifteen seconds or so, "with little regard of pain," the subject would allow his head to collapse onto the table. Hours later, he began to babble to one of the Special Purpose Team members, who responded only by humming cryptically. The report noted that after six hours the subject began to speak, and "begged to be spared the torture he was receiving. In this confused state, he even asked to be killed in order to alleviate his suffering."

Following the remorseless logic of the experiment, Clovis and the other members of the Special Purpose Team decided to substantially increase the dose—by fifty per cent—with the next subject, who promptly fell into a complete stupor. "Questions appeared not to register at all," his medical report noted. "The rare times he answered, he did by slow head nod. Occasionally, he looked suspiciously at interrogators. Frequently his eyes would close and his head would roll back or to the side." The subject remained mute. Eight hours after he was given the drug, he had begun speaking, and was attached to a polygraph, but he collapsed his the chair and turned pale and cold. The report noted, "He was moved to a bed and attempted to vomit."

The Americans again became infected with their own case of paranoia. At the end of October, an officer with the Pacific Command who was providing Clovis and the others with support became afraid that he had been covertly slipped LSD, and was hospitalized. In an attempt to verify his suspicions, the team decided to actually give him LSD, to compare reactions. Reportedly, he consented. Everyone later agreed that he had merely had too much to drink.

By November, the team was in Tokyo, preparing to return to the United States, when word arrived that Robert McNamara, the Secretary of Defense, wanted everyone to go to Saigon for two additional months, to continue the tests on unwitting Vietcong who had been taken prisoner by the South Vietnamese. The order—which, in effect, asked the team to commit a war crime—was kept highly secret; even the Chairman of the Joint Chiefs of Staff and the Secretary of the Army were not informed.

In January, 1963, Victor (Brute) Krulak, a Marine general with close ties to the C.I.A. who was serving as the military's Special Assistant for Counter Insurgency and Special Activities, wrote to McNamara expressing his enthusiasm for "the special interrogation project." After a trip to Vietnam, he concluded that the use of LSD promised timely tactical intelligence and little risk of publicity. The senior Army officials granted access to McNamara's directive discussed how to proceed. The Army's Chief of Staff argued that the LSD had to be kept secret from the South Vietnamese, and used only with high-value prisoners, at a facility in Saigon. Krulak disagreed. "This largely forecloses the program," he told McNamara. "There simply are not enough prisoners of this type."

While Krulak was in Vietnam, he met with a member of the Special Purpose Team —most likely William Jacobson, the intelligence officer—who made the argument for LSD's use in remote parts of the country, with low-level prisoners. "A case in point is Plei Mrong, a Montagnard training center set up by U.S. Army Special Forces in pure Vietcong territory, twenty-five miles from the Cambodian border," Krulak told McNamara, referring to an indigenous people living in a remote part of the country. "The center sustained, and repulsed after many casualties, an attack by a force of several hundred hard-core Vietcong. Several prisoners were taken and were vigorously interrogated by our people. A few broke down and disclosed valuable information." He said that the Special Purpose Team officer concurred that "on-the-spot" use of LSD in field questioning "would have broadened greatly this valuable

intelligence breakthrough, and on a most secure basis, since the subjects were too simple, too ignorant, to have any idea what was going on."

It is hard to know if these experiments ever occurred. The Army later investigated the matter, and sworn testimony from two people involved "indicated that the Special Purpose Team did not administer, assist in the administration, or observe the administration of LSD to anyone in South Vietnam." But senior Army officials could never figure out why not; each person offered a different explanation.

By any objective measure, the Special Purpose Team's tests were disastrous, offering little or no useful intelligence, and risking untold psychological damage to the subjects. After the team returned from Asia, the program's supporters advocated for more trials, but to no avail. In September, 1963, a meeting was held with Van Sim, Clovis, and several senior Army officials. A memo later explained, "A determination was made to suspend the program and any further activity pending a more profitable