

Boris Pash



and Science & Technology Intelligence

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Military Intelligence Reserve officer Boris T. Pash was called up for active duty in June 1940, leaving behind a teaching job at Hollywood High School. As a lieutenant colonel and chief of security for the Manhattan Project, Pash was instrumental in uncovering a communist ring intent on penetrating the U.S. atomic research work. In this way he came to the attention of Maj. Gen. Leslie Groves, his commander, and Maj. Gen. George V. Strong, Chief of the Military Intelligence Department in Washington. Strong turned to him to lead one of the most ambitious Science and Technology (S&T) intelligence efforts in U.S. Army history.

One of the most serious concerns of the allies in 1943 was the Nazi super weapons of which Hitler boasted. As the German leader became more desperate, it was assumed he would turn to atomic weapons. Intelligence on the German atomic development was critically needed. Just how to come by that information occupied the thoughts of the higher levels of U.S. Army leadership. Maj. Gen. Leslie Groves, commander of the Manhattan Project, Dr. Vannevar Bush, director of the Office of Scientific Research and Development (OSRD), and Maj. Gen. George V. Strong, chief of the Military Intelligence Department, met to discuss the matter. General Strong subsequently recommended to the Army Chief of Staff, Gen. George C. Marshall, that a special Army/Navy/OSRD unit be put together using soldiers and scientists to push into enemy territory at the front of the allied offensives to seize laboratories, scientists and conduct investigations. He wrote that the team should consist of no more than six scientists, six CIC agents, six interpreters, and a commanding officer. It was named the Alsos Mission by someone in General Groves office, *alsos* being Greek for *grove*.

Strong's memorandum to Marshall set forth the scope of the team: "The scope of inquiry should cover all principal scientific military developments, and the investigations should be conducted in a manner to gain knowledge of enemy progress without disclosing our interest in any particular field." The Alsos commander described the job of his detachment:

Persons or installations of interest to Allied Intelligence were our targets. A small military operational team was to enter an area behind the combat troops wherever such a target was indicated and seize it. The closer the operational team followed the attacking troops, the better chance there would be for success. Retreating enemy forces could be expected to carry away or destroy any persons and equipment of known possible value to the Allies. ...It would be necessary to maintain close liaison with field commanders. Once a target area was considered safe from enemy action, scientists were to enter, interrogate detained persons, and investigate the installation.¹

The team began to take shape. Capt. Boyce Stannard, another MI Reserve officer heading up the CIC office in Seattle was named as Executive Officer. Four outstanding scientists were picked by Dr. Bush at OSRD. Dr. James Fisk of Bell Telephone Company, a physicist, was in charge of the scientists. Only he and Pash would know about the atomic bomb part of their mission. Others were Dr. John Johnson of Cornell University; Navy commander Bruce Olds who had been at the Massachusetts Institute of Technology and was serving with the Office of Naval Research and Development, and Army Major William Allis, another MIT professor serving with the War Department's scientific staff.

They were flown to Algiers to report to Gen. Dwight D. Eisenhower and his chief of staff, Gen. W. Bedell Smith. Only these two men were to know the details of their mission. They were armed

with letters ordering personnel, equipment and funds be made available to them and giving them overriding priority due to the urgency of their mission. Captain Stannard set up their headquarters in Naples while Pash went to Brindisi to solicit the assistance of the Allied Control Commission and U.S. Navy officers. Pash also set up communications channels with the Fifth Army intelligence section and the Italian civil government.

The services of Ralph Cerame were added when the CIC agent from Rochester, New York, reported for duty as an Italian linguist and operative. He had been assigned by Eisenhower's CIC headquarters. Others were recruited from the Naples CIC detachment. Carl Fiebig was a German linguist. Gerry Beatson and Perry Bailey were CIC agents. The Italian Alsos had fourteen men. In addition to Pash, there was an administrative officer, two OSRD scientists, one Army and one Navy scientist, four interpreters, and four counterintelligence agents.

The allied offensive was stalled and it did not appear they would take Rome anytime soon. Pash asked the OSS to help him pick up Dr. Amaldi in Rome and arranged for a submarine to land an OSS agent. During January 1944 they waited for the tactical situation to change. They spent their time interviewing Italian scientists and interrogating captured Italian technicians. When the OSS failed to produce Amaldi, Pash himself made a trip to Rome shortly after its fall, accompanied by Special Agent Bailey, and located Amaldi. He took him and two other scientists into custody for debriefing.

After the mission in Italy, he returned to Washington, D.C., where he joined with Colonel C. P. Nicholas from the War Department G2 office to get the necessary concurrences on a memo for the Secretary of War's signature. With that bureaucratic battle won, the mission of the Alsos was extended. Lieut. Col. Pash was named as the commander and would travel to London again carrying a letter from Secretary of War Stimson to General Eisenhower asking his assistance and support for this important technical mission.²

He began to hand-pick his second Alsos team. He asked for George Eckman, a former colleague in his counterintelligence branch of the San Francisco Headquarters of the Western Defense Command and Fourth Army. He wanted Captain Robert Blake who he had met in Italy to be his operations officer. He next selected Maj. Richard C. Ham who also worked for him before as chief of the investigative unit in San Francisco. Lieut. Reginald Augustine was a German and French linguist who had spent years in Europe. To complete the military component of his unit, he requested Gerry Beatson and Carl Fiebig join him in London, while Ralph Cerame and Perry Bailey would continue their work in the Mediterranean office in Italy where they would be joined by Dick Ham. Dr. Samuel A. Goudsmit was chosen by OSRD to be the chief scientist. Goudsmit had more than a patriotic motive for serving in this dangerous post. His parents had been killed by the Nazis.³ Born in the Netherlands, he had studied in Europe, was fluent in several European languages, and was familiar with European scientific circles. Men would be added along the way to fill specific needs.

In May they began to put together lists of known or suspected industrial sites, laboratories, uranium caches and, most importantly, the addresses of eminent German physicists. By the middle of June 1944 he had his team together in London. He said, "our first and foremost mission...was to determine Nazi progress on the atomic bomb and learn when it could become operational. The objectives of Alsos operations were to bear on that mission. Immediate intelligence reports, seizure of any materials or equipment relating to atomic research, seizure of scientists engaged in the work as well as the seizure of all installations and documents relating to it—all these would

be objectives. ...Our second mission was to obtain intelligence about any enemy scientific research applicable to his military effort. This was not to detract from our primary mission.”⁴

After the allied invasion had established the Normandy beachheads, they landed on the continent. In their subsequent operations they would present a pass from SHAEF which would be indorsed by the highest commanders in the chain of command. In this way they got the cooperation of each level of command they visited. Their objective was the respected French nuclear physicist Frederic Joliot-Curie.⁵ The first unit to liberate Paris was a French armored division. Just behind the lead French tanks were two jeeps carrying Colonel Pash, two special agents of the CIC, and an enlisted driver. They were the first Americans to enter the liberated French capital. Their first attempts to reach the laboratory of Dr. Joliot-Curie were turned back by German sniper fire. But on the evening of the liberation of Paris they were interviewing Joliot-Curie who did not know of any German progress on the atomic front. Referring to their frantic dash into Paris with the French armored column, Gerry Beatson said, “Lightning A had struck Paris.” “Lightning A” would be adopted as the nickname for Pash’s daredevils.

Having encountered heavy small arms fire, the four men took part in some of the house-to-house fighting that brought them, street by street, closer to their objective. To get a first-hand feel for the danger, daring and inventiveness of the Lightning A team, read Pash’s description of the apprehension of Joliot-Curie:

At about four in the afternoon we approached Rue des Ecoles. Just ahead loomed the buildings that housed Joliot’s laboratory. As we dismounted and started for the gate of the court, we were met by sporadic rifle fire from adjacent buildings, particularly from the belfry of a church. No one was hit and we immediately answered the fire.

When the firing had died down, a civilian came out of the building and greeted me in English. Friend or foe, he was not to be allowed to guess the strength of my outfit.

“I’m Colonel Pash. I command the American troops in this sector. I shall have to use your building as my command post. Are you in charge?”

I was told that Dr. Frederic Joliot-Curie was in charge. The civilian led me to Joliot’s office—and at last I met the man responsible for my coming to Paris.

He extended his hand and said, “I am Joliot-Curie and I wish to welcome you.”

“Sir, conditions of war make it necessary for me to occupy your building. But I shall see that no damage is done. I hope you will not mind the intrusion. *C’est la guerre.*”

The doctor told me he would be most pleased to have American troops occupy his laboratory. During the final days of Nazi occupation he had been concocting makeshift grenades with which the Free French attacked Nazi vehicles.⁶

After feigning to offer Joliot-Curie protection to disguise the fact that he was in actuality in his custody, Pash mentioned the American scientists that were in London.

He overheard this, as we intended, and he remarked that nothing would please him more than to get to London where he could see some of his old friends. He also expressed the thought that it might be safer for him to leave Paris for a few days.

“It might be arranged, if that’s what you wish,” I said. ...What he didn’t know was that we already had a flight set up to take him to London as soon as he could be maneuvered into requesting such a trip. “Matter of fact, sir, I was about to fly two officers to London. But in view of your desire, and because it would relieve me from the burden of worrying about you for the next few days, I

would be pleased to have you replace one officer—provided you will not tell anyone about the flight.”⁷

Pash and three agents hastened on to Belgium on 19 September to take advantage of allied breakthroughs there. Again, in their rush, they were the first American unit to enter the newly recaptured town of Brussels. Working with the British “R” Force, they braved German fire to recover “highly valuable material” from a warehouse near Antwerp. In fact, they seized about 70 tons of uranium ore and learned that shipments had been made to southern France and the German interior.

Back in Paris, the Alsos agents and scientists were tracking down leads. They got a copy of the 1944 Strasbourg University catalog, complete with photographs of personalities and backgrounds. Sifting through the trash they found names and addresses of French employees of the German intelligence apparatus, discarded mail which led to the apprehension of their first scientist, and notes scribbled on calendars and pads that developed into solid leads.

To exploit targets in southern France, the Mediterranean office in Rome was closed and its agents sent to Marseilles on 2 October to investigate there. In early October 31 tons of uranium were recovered at the Toulouse Arsenal.

Early in his career as Alsos commander, Pash came under fire for personally commanding these dangerous forays into enemy infested territory. As a matter of fact he could be found in a jeep racing to be the first to each objective. Eckman told him that the Pentagon had advised him to “tell that crazy Russian to send his men on these operations. He is supposed to be commanding the entire show and should stay in London.” To which Pash replied, “George, here’s what you can advise them. Their job is to tell us what to do. I don’t want them telling us how to do it!”⁸

During the winter of 1944-45 the unit expanded rapidly. Alsos grew in numbers as teams were formed to follow the armies fanning across France. They scrutinized aerial photos of suspected installations and interrogated prisoners. On 25 November Pash entered Strasbourg and rounded up several German physicists and chemists. While they learned nothing from the men, Goudsmit read all of the private papers of Professor D.F. von Weiszacher and determined that the Germans had not developed the atomic bomb. Commenting on the Strasbourg mission, General Groves wrote: “We have recently completed an analysis of the voluminous records and other material collected by the ALSOS Mission in Strasbourg. This is the most complete, dependable, and factual information we have obtained bearing upon the nature and extent of the German war effort in our field. Fortunately it tends to confirm our conclusion that the Germans are now behind us.”⁹ In recognition for their work there, special agents Carl Fiebig and Ralph Cerame were given direct commissions as second lieutenants.

It was later determined that the Germans had not developed a method to extract U-235 from ordinary uranium, even though they had been able to make uranium metal and build uranium piles. They could not, however, cause a chain reaction in those piles.¹⁰

They needed further confirmation but that had to wait until the allied advance was able to push across the Rhine. In the meantime, on the orders of the scientists back in Washington who wanted to test Rhine River water for traces of radioactivity, one of Pash’s men, Robert Blake, in the sight of enemy guns dropped a bucket in the river to get samples. Along with the bottles that were shipped back to the states was included a bottle of French wine with an attached note declaring “Give special attention to this.” A radio message from Washington replied: “Water negative. Wine positive.”

In January Alsos was authorized a Table of Organization and Equipment for the first time. Up until then they had been “obliged to beg,

borrow or steal” equipment.¹¹ During February they opened a “Alsos Forward South” office in Strasbourg in addition to their Aachen office which was now called “Alsos Forward North.”

Victory in the Ardennes campaign in February 1945 got them moving once again, but now they had competition. All of the U.S. military services and some civilian agencies had organized their own teams to seize scientific and technological intelligence.¹²

Following the advance of the Sixth Army Group, on 7 March, the day after he was promoted to full colonel, Pash drove into Cologne and ordered investigators up. They exploited targets at the University of Cologne and rounded up scientists for interviews. From there they headed for Bonn where they secured more documents and some important personnel. At each major city in the path of the Sixth Army Group, they would secure S&T targets, perform preliminary investigations and then turn the targets over to the T-Force for further exploitation. On 29 March, Pash crossed the Rhine and headed for Heidelberg where an Alsos base was set up on the next day.

The Alsos teams marched across Europe, questioning Dr. Telchow, Chief of the Kaiser Wilhelm Institute, in Gottingen on 12 April; seizing documents and researchers at the German Army Ordnance atomic energy experimental laboratories in Stadtlim on 10 April; and apprehending Professor Werner Osenberg in Lindau on 21 April. Pash established a unit to move into southwest Germany to capture scientists and collect information in this area rich with targets. The team was made up of 14 U.S. Army officers, seven British officers, five expert Alsos consultants, eight CIC special agents, and 15 Alsos enlisted men. They encountered light enemy resistance along the way, but found four important German labs at Haigerloch, Hechingen, Bisingen, and Tailfingen and evacuated six scientists to Paris, where they were turned over to Manhattan Project representatives.¹³

On 24 April an Alsos Task Force moved out on the final phase of what they called Operation Big. In the town of Henchingen they interrogated German scientists about the location of important laboratories and documents. Reluctant to cooperate at first, they were finally broken down and the Alsos men fished a metal drum out of a cesspool that contained research documentation. At the town of Heigerloch a uranium pile was discovered. They loaded more than two tons of uranium ingots onto trucks and shipped them out to the United States. They had succeeded in taking into custody all but three German scientists on their “wanted” list and dismantled the German’s atomic pile. This was the confirmation they needed. The German atomic program was limited. Samuel Goudsmit later wrote:

It was so obvious that the whole German uranium set up was on a ludicrously small scale. Here [at Hechingen] was the central group of laboratories, and all it amounted to was a little underground cave, a wing of a small textile factory, a few rooms in an old brewery. To be sure, the laboratories were well-equipped, but compared to what we were doing in the United States it was still small-time stuff. Sometimes we wondered if our government had not spent more money on our intelligence mission than the Germans had spent on their whole project.¹⁴

Operation Big was concluded and Pash reported back to Washington that “Alsos has hit the jackpot.” That same phrase was sent up the chain of command and eventually was repeated in a letter from General Eisenhower.

A message from SHAEF headquarters to the War Department, dated 27 April 1944, gave an idea of the importance attached to the Alsos accomplishment.

FOR THE EYES ONLY OF GENERAL MARSHALL
AND THE SECRETARY OF WAR FROM EISENHOWER

THE SPECIAL ALSOS REPEAT ALSOS MISSION
HEADED BY BORIS PASH, WORKING WITH THE TASK

FORCE OF SIX ARMY GROUP HAVE HIT THE JACKPOT IN THE HECHINGEN AREA, AND HAVE SECURED PERSONNEL, INFORMATION AND MATERIEL EXCEEDING THEIR WILDEST EXPECTATIONS. FULL DETAILS WILL BE REPORTED LATER THROUGH THE USUAL SECRET CHANNELS, BUT WE NOW UNQUESTIONABLY HAVE EVERYTHING AND NONE OF THIS INFORMATION HAS LEAKED OUT.¹⁵

Pash, with Fiebig and Beatson, entered the town of Urfeld on 2 May, and narrowly avoided capture by Wehrmacht troops. Another team was operating at the same time in the Bavarian city of Munich. This team seized the prominent German physicist Dr. Gerlach. At the same time, in the north, operating out of Gottingen, Alsos teams were sweeping other targets in caves and mines in the Harz Mountains.

By the time the allies reached Berlin, Pash and his men had already made the bulk of their important discoveries about German atomic development. Pash headed a 14-man team that entered Berlin on 28 July, but it was anticlimactic, with most scientific targets obliterated by allied bombing or evacuated.

Over the past 22 months, they succeeded in seizing top German and Italian nuclear scientists and 70,000 tons of uranium and radium products that would be shipped to the U.S. for use in its own nuclear development.

For his part in the Alsos work, Pash received the Legion of Merit. Eckman and Fiebig got the Bronze Star Medal. On 25 October 1945 the Paris office was closed and the Alsos Mission was officially inactivated by direction of the Assistant Chief of Staff, G2, War Department, on 15 November.¹⁶

After the war, Pash held a number of important staff jobs, beginning in 1946 as the Chief of the Foreign Liaison for General MacArthur in Tokyo. In March 1949 he was detailed to the Central Intelligence Agency's Office of Policy Coordination where he oversaw programs in West Germany for three years.¹⁷ Pash then ran special forces planning with the U.S. Forces in Austria from 1952-1953. He became the Sixth Army Deputy Chief of Staff for Intelligence from 1953-1956. In 1956 he joined the staff of the Assistant Secretary of Defense for Guided Missiles. Colonel Pash retired from the Army in 1957 but immediately embarked on a civilian career that would use his science and technology intelligence background. His first civilian job was Chief of the Eastern European and USSR Division, Quartermaster Technological Intelligence Agency. He transferred to the Army's Foreign Science and Technology Center, retiring from the civil service in June 1963.

Notes

1. Pash, Boris T., *The ALSOS Mission*, Award House, New York, 1969. Unless otherwise indicated, most of this article is based on the Pash account.

2. Letter dated 11 May 1944 to General Dwight D., Eisenhower, Commanding General, U.S. Army Forces, European Theater of Operations, London, England, from Henry L. Stimson, Secretary of War:

Lt. Colonel Boris T. Pash, who will deliver this letter, has been designated Chief of the Scientific Intelligence Liaison organized by G-2 of the War Department to procure intelligence of the enemies' scientific developments. The Director of the Office of Scientific Research and Development is assisting G-2 in the conduct of this mission and I consider it to be of the highest importance in the war effort.

Colonel Pash was Chief of the Alsos mission, which operated for similar purposes in Italy. The results obtained from that mission indicate that its activities should be extended to other regions. It is believed that considerable important information will be procured in the European Theater of Operations, particularly after the occupation of territories now under Axis control.

The scientific group of the mission will be headed by a scientist to be selected by the Office of Scientific Research and Development, and it will include the necessary additional scientists competent to seek and evaluate the information. However, your assistance is essential, and I hope that you will give Colonel Pash every facility and assistance at your disposal which will be necessary and helpful in the successful operation of this mission.

The organization and objectives of the mission are more fully explained in a memorandum to the Chief of Staff, ETOUSA, from Major General Clayton Bissell, Assistant Chief of Staff, G-2, WDGS, dated 3 May 1944.

3. Lasby, Clarence G., *Project Paperclip: German Scientists and the Cold War*, Atheneum, New York, 1971, p. 203.

4. Pash, p. 38-9.

5. *History of the Counter Intelligence Corps: The Counter Intelligence Corps with Special Projects: CIC with the Alsos Mission*, Volume VIII, United States Army Intelligence Center, Fort Holabird, Baltimore, Maryland, December 1959, p. 120.

6. Pash, pp. 68-9.

7. *Ibid.*, p. 73.

8. *Ibid.*, p. 53.

9. *CIC with the Alsos Mission*, p. 122.

10. Jones, Vincent C., *United States Army in World War II: Special Studies: Manhattan: The Army and the Atomic Bomb*, Center of Military History, United States Army, Washington, D.C. 1985, p. 287.

11. Pash, p. 66.

12. At the end of 1942, the Ordnance Department put together special teams to go to combat areas and collect enemy equipment which was then shipped to Aberdeen Proving Ground, Maryland, for study. The success of these teams led to the formation of Enemy Equipment Intelligence groups in each of the technical services by early 1944.

The Supreme Headquarters of the Allied Expeditionary Forces had created in July 1944 T-Forces, so called because of the letter T they wore on their helmets, at the Army Group level to seize and exploit every intelligence target, including technical targets. They would move on those targets under combat conditions or within a few hours after objectives had been taken. The T-Forces, however, did not have the necessary scientific training to completely exploit S&T targets. To meet this need the Combined Chiefs of Staff organized the Combined Intelligence Objectives Subcommittee (CIOS) which was to engage in the centralized planning for the systematic acquisition of targets to exploit for S&T intelligence purposes. It was truly a combined and joint operation with all services and many civilian agencies from both the United States and Britain taking part. By the end of August 1944 they had fielded 197 investigators. Another body was the U.S. Technical Industrial Intelligence Committee (TIIC) that was civilian controlled and training specialists to go to Europe to gather technological and industrial information in liberated areas. [Lasby, Clarence G., *Project Paperclip: German Scientists and the Cold War*, Atheneum, New York, 1971, pp. 18-21.

13. *CIC with the Alsos Mission*, p. 127.

14. Goudsmit, Samuel A., *ALSOS*, Henry Schuman, New York, 1947, p. 107-8.
15. Pash, flyleaf.
16. *CIC with the Alsos Mission*, p. 129.
17. Sayer, Ian, and Botting, Douglas, *America's Secret Army: The Untold Story of the Counterintelligence Corps*, Franklin Watts, New York, 1989.