Unravelling a Cold War Mystery

The ALFA SSN: Challenging Paradigms, Finding New Truths, 1969–79

Gerhardt Thamm

Better is the enemy of good enough.

This Russian proverb incorporates a philosophy that is both wise and true to the Russian heart. Those who have learned to appreciate the Russian character will agree that most Russians instinctively adhere to and follow that philosophy. To build, to create things good enough to do what they are meant to do is wise; to make them better than necessary is a waste of energy and precious resources. The proverb reportedly was inscribed on a plaque in the office of Deputy Minister of Defense and Admiral of the Fleet of the Soviet Union Sergei Gorshkov, who had guided the development of his navy since 1956.

Those of us who watched the building of the Soviet Navy from its humble beginnings as a coastal defense force after World War II to a powerful bluewater navy noticed long ago that the old proverb was true, even when it came to building submarines.

We knew that the Soviets did not follow our practice in building submarines; they did not incorporate edge-of-technology items in series-production models. And we saw Soviets building double-hull submarines long after we had discovered that the modern single-hull design had many advantages over the double hull, among them an improved speed/horsepower ratio. While the US Navy leaped decades ahead in submarine design, the Soviets plodded along by improving tried technologies. Our submarines not only looked better, they were better.

Yet the Soviets seemed satisfied with evolutionary advances in submarine design. Many US intelligence analysts were sure that the Soviets were never going to "put all their eggs into one basket." Soviet society punishes failure; designing high-risk submarines does not enhance one's career.

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Phase One

This was the consensus of Western intelligence analysts, at least until one pleasant day in 1969 when strollers walking along the Neva River saw a modern-looking, small submarine tied up at the fitting-out quay at Leningrad's old Sudomekh Submarine Shipyard. It looked as if the submarine had just been launched from the old diesel submarine assembly shed. The assembly shed had seen little activity since the last Foxtrot-class diesel attack submarine had been launched there several years earlier. Naval analysts, following tradition and basing their analysis on previous launch histories, initially classified the submarine as a modern diesel-electric follow-on to a Foxtrot.

Further fitting-out activity, however, soon convinced at least one senior submarine analyst, Herb Lord, that this submarine was an SSN, a nuclear-powered attack submarine. It had a superbly streamlined hull and an overall length of about 79 meters.[1] Engineering calculations gave it a surfaced displacement of some 2,600 tons,[2] with a submerged displacement of about 3,700 tons.[3] Aside from the exceptionally streamlined hull form, this submarine had several other highly unusual features:

- In 1969, it was the world's smallest SSN.
- It had, a rather high reserve buoyancy—a safety factor—of nearly 30 percent, in contrast to 8 to 11 percent for US SSNs.

The submarine received the NATO classification ALFA Class SSN. Lord, an experienced photointerpreter, alerted others to concentrate their efforts on the ALFA's construction and fitting-out pattern. The analysts noticed something they had never seen before, a "highly reflective" pressure hull section near the ALFA assembly area.

Lord then requested that he be point of contact for all reports that mentioned "highly reflective" or unusually colored submarine parts. During some eight years of examining photos of Soviet submarine construction yards, analysts assembled a construction history of a magnitude never before accomplished.

Periodically, and with ever increasing frequency, Lord received reports of "highly reflective" pressure hull sections associated with the ALFA fitting out at Sudomekh. Later, he also received reports of highly reflective pieces of hull sections, similar to those of the Sudomekh ALFA, at the Severodvinsk Submarine Construction Yard, far to the north of Leningrad.[4] He noted that these two yards were connected by an inland waterway, and he wondered whether both yards could be building this rather unusual class of attack submarine.

Lord subsequently conducted what is generally known as "look-back" analysis. All reports of "highly reflective" submarine hull sections at the two construction sites were collated, reviewed, and once again evaluated. It was a formidable, time consuming task. There were reports of changes to the external appearance of the assembly halls; reports dealing with unusual submarine parts at storage sites near the halls; and reports on unusual railroad cars, tank cars, and increased production of titanium sponge. All were scrutinized. It took infinite patience to fit this miscellany into the ALFA submarine assessment. Although it was a most difficult challenge, it was a task in which most intelligence analysts excel.

[1] *Soviet Military Power*, Office of the Secretary of Defense, 1985.

[2] *Understanding Soviet Naval Developments* NAVSO P-3560 (Rev. 1/81), 86.

[3] *Soviet Military Power*, 1990.

[4] Norman Polmar, *Naval Institute Proceedings*, October 1991: 122.

After reviewing all the evidence and after long discussions with his fellow intelligence analysts, and with naval designers, engineers, and others in the Intelligence Community, Lord became even more convinced that the Soviets were indeed building a "special" type of super submarine, the first made of titanium alloy. Eventually, he concluded that he had to convince the US Navy that the Soviets were series-producing a highly modern, unusual SSN that, if fitted with advanced weapons, could seriously threaten US and allied naval operations.

Some analysts at CIA and the Defense Intelligence Agency (DIA) agreed. In fact. CIA had, as early as 1971, published analysis—*Use of Titanium by the Soviet Shipbuilding Industry*—that strongly supported the assessment that the otherwise conservative Soviets had conducted serious, long-time research on shaping and welding heavy titanium plates, and that they had in fact developed that capability.

Others were skeptical. They thought that the shaping and welding of heavy titanium hull sections, especially in the generally "dirty" shipyard atmosphere, was impractical, if not impossible. This, too, was a totally reasonable assessment, because titanium cannot be welded when exposed to air; welds have to be shielded, usually by argon gas. The consensus was that the Soviets could weld small parts of titanium, such as those for aircraft or missiles, in hermetically sealed chambers, but that it was impossible to weld huge submarine pressure hull sections.

Lord tried to prove that the Soviets had moved from their usual submarine building methods, and that they had combined several advanced technologies in a single class of submarine.

Lord, however, could not be deterred. For nine years, he would be in the center of the battle over the "titanium submarine." During the early 1960s, little reliable, high-level scientific and technical information was available, and Lord had to rely heavily on photographic intelligence.

Lord remained certain that the collective evidence overwhelmingly supported his assessment of ALFA's titanium alloy pressure hull. He tried to convince the US Navy that the Soviets" research and development had advanced to such a degree that they were able to build submarines made of lightweight titanium alloy, and that their SSN would be able to dive deeper than any of our SSNs. In addition, a nonmagnetic titanium submarine would be most difficult to detect.

He tried to prove that the Soviets had moved from their usual submarine building methods, and that they had combined several advanced technologies in a single class of submarine:

- A highly advanced, and possibly risky, pressure hull material (titanium alloy).
- An as-yet unknown, high-density nuclear power plant (high power concentration in a small hull).
- Possible automation to reduce the size of the crew.

It was an entirely unbelievable story.

The assessment was critical for US ship, submarine, and underwater sensor and weapon designers. After almost eight years of debate with Navy decisionmakers, Lord retired. He died a few years later, his enormous research effort never properly recognized by Naval Intelligence.

Phase Two

In a functional reorganization in Naval Intelligence the analysis of foreign submarines was divided into ballistic and cruise missile submarines, and attack diesel and nuclear attack submarines. The attack submarines were my responsibility, and in 1978 I became the ALFA Project Officer.

I agreed completely with Lord's analysis. Now it became my mission to convince the US Navy that the Soviets were

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building high-threat submarines using advanced construction technology. Also in 1978, CIA sponsored a meeting of intelligence analysts, naval engineers, metallurgists, and submarine designers to discuss the "enigma" in Soviet submarine construction.

The great majority agreed that the "highly reflective" parts were submarine components. Most were certain that the components were not of conventional submarine steel. One expert presented several dozen formulae collected from published matter freely available to any serious researcher. He believed these open sources proved conclusively that titanium alloys dissolve in sea water. There were a few who suggested the whole "Sudomekh show" could have been a large-scale "disinformation" program, and that the highly reflective components were just parts covered with aluminum paint.

Many leading metallurgists still believed it probably was impossible for the Soviets to have developed the capability to bend, shape, and weld thick titanium plates in a shipyard environment. The US submarine community, "the Rickover people," was happy with this assessment. It could not accept any possibility that the Soviets could series-produce such a sophisticated submarine.

These expert opinions made the ALFA submarine assessment inconclusive. On the one hand, I had the expert naysayers; on the other, I had some admirals asking, "What the hell are the Russians doing?"

Lord had rejected aluminum, stainless steel, and glass fibers. There remained the HY80, HY 100, or possibly HY130 steels, and titanium. Except for stainless steel—steel turns a dark, almost black color when exposed to the elements for extended periods. I still agreed with Lord's analysis that a titanium alloy was the most logical material suitable for submarine pressure hulls.

As analysis continued, I perceived five essential problem areas, which I called "enigmas." These made life difficult because they challenged traditional beliefs about the very nature of Soviet submarine construction.

- ***First Enigma***: An apparent change in Soviet design and construction methodology.

  Advantage: Long-range gain.

  Disadvantage: Large investment of resources.

  Remarks: If successful, Soviet submarine designers and builders were making a quantum leap into modern technology.

- ***Second Enigma***: Use of titanium alloy in pressure hull construction.

  Advantage: Titanium is stronger and weighs 33 percent less than steel; the pressure hull can be stronger without increasing displacement; its use gives a submarine a stronger hull for greater diving depth and increases resistance to explosives at lesser depths; and the submarine is essentially nonmagnetic, thus decreasing the likelihood of magnetic anomaly detection (MAD).

  Disadvantage: Titanium is three to five times more expensive than steel; it needs a totally different manufacturing process; shipyard workers must be retrained; construction halls must be reconfigured; and bending and shaping of heavy plates of titanium alloy are far more difficult compared to steel.

  Remarks: Much evidence had been gathered that the Soviet Navy had ample research and development funds and that Soviet metallurgists had made remarkable advances in titanium manufacturing technology. Reports indicated that the Soviet Navy had conducted research in HY 100 steel, aluminum, glass fiber, and titanium alloys for use in

ship and submarine construction.

- ***Third Enigma***: Apparent use of liquid metal reactor coolants.

  Advantage: Better horsepower to weight/volume ratio for higher speed.

  Disadvantage: The US Navy believed that a reactor cooled by liquid metal is less safe than the pressurized water reactor (PWR) in use by the US Navy.

  Remarks: The US Navy's safety record supported the PWR approach.

- ***Fourth Enigma***: Seemingly large-scale use of automation and reduction of crew size.

  Advantage: Reduced the size of the boat and the size of its crew; lessened demand for electric power requirements; and relieved crew from mundane tasks, thus eliminating human errors caused by fatigue and boredom.

  Disadvantage: The US Navy believed automated controls to be less safe than hands-on control functions.

  Remarks: Only by automating many control functions could the Soviets reduce the size of the submarine. This increased the ALFA's survivability in combat, because it became a smaller active-sonar target. Furthermore, the low magnetic signature from a non-magnetic titanium hull made localization of target by MAD difficult. Having unmanned engineering spaces also reduced personnel casualties should the liquid metal reactor malfunction.

- ***Fifth Enigma***: Large rescue sphere in ALFA sail indicative of strong concern for crew survivability.

  Advantage: Provides safe exit for entire crew from maximum depth without external assistance. When the sphere is on the surface, it becomes a lifeboat; it protects the crew from the elements; and it has sufficient communications, emergency rations, and first aid on board.

  Disadvantage: Increases weight of the submarine.

  Remarks: The ALFA's high reserve buoyancy, as well as a sophisticated rescue system, implied Soviet Navy concern for crew survivability. There were other indicators: the Soviet Navy had one India class submarine rescue submarine each in Northern and Pacific fleet areas, had several "hard" compartments in submarines, and now had fitted a sophisticated survival system in the ALFA. This was another item that did not square with our view that the Soviets had little concern for human life.

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Turning to HUMINT

Since Lord's ALFA SSN approach had failed, I believed that different collection assets had to be activated to convince the US Navy of a serious threat to our submarines. Under the guidance of an able Navy captain, I used my extensive experience as a HUMINT collector to tap these new assets.

With continuing support from CIA analysts, as well as the Agency's collection managers and collectors, several thousand reports were screened for information about titanium. To keep that collection current, photointerpreters spent considerable time briefing their assets in the technique of precision photography. For three years, I followed the unfolding of this dramatic change in Soviet submarine construction.

A fair number of HUMINT reports dating from the time ALFA was under construction alluded to a new submarine with a small crew. Some reports cited a crew of 15, and others indicated a crew of 18 to 45. Admiral Rickover's team believed that it was impossible to operate a nuclear submarine with such a small crew, and that it was irresponsible to automate the many vital con-

CIA also provided increasing evidence that appeared to confirm key parts of the analysis.

trol functions of a submarine. As a result, this information was temporarily shelved.

But the subjects of small crew and automation would not die, partly because some Western navies had already automated their submarines with considerable success. With strong support from the CIA, I collected and assembled information that supported Lord's original assessment of ALFA's small crew.

Periodically, CIA reported that the Soviets maintained a high interest in automating submarine maneuvering, propulsion power train, weapons loading, and fire control functions. The goal: small crew, small boat. Eventually, the evidence that ALFA was extensively automated convinced even the most skeptical.

A Key Report

Evidence continued to confirm Soviet concern with crew survivability. By pure luck, in 1981 someone walking along the Neva River saw a sphere being lowered into the area where an ALFA was being fitted out. Based on the description, analysts determined that the sphere was lowered into the ALFA sail. The source was able to estimate the diameter of the sphere. With that information, and based on my familiarity with West German submarines, I concluded that the Soviets had copied a submarine crew rescue sphere designed by Dr. Ulrich Gabler, the distinguished West German submarine designer.

By extrapolation, our submarine structures engineer calculated that 37 to 39 husky Russians would just fit into the rescue sphere. Careful examination of the sail revealed a continuous breakaway seam in the rubber antisonar coating of the ALFA sail. The assessment: the sphere, using part of the sail as a stabilizer and buoyancy tank, could be released to rise to the surface as a lifeboat. This report contributed significantly to solving the enigmas of crew size, automation, and crew survivability.

Accumulating Evidence

CIA also provided me with increasing evidence that appeared to confirm that:

- The Soviets had diverged from their pragmatic submarine construction modus operandi by combining at least three edge-of-technology items into a production-model submarine.
- Large, heavy, titanium alloy plates were shaped and welded at the Sudomekh and Severodvinsk shipyards. Almost all reports alluded to the many difficulties encountered when welding titanium.
- Liquid metal coolant was used to increase the horsepower over weight/volume ratio and thus to increase speed.

In addition. CIA reported that the first ALFA had suffered a catastrophic failure during sea trials in the Barents Sea, when the liquid metal coolant spilled from the reactor containment vessel into the bilge. Indeed, as later reported in Jane's Defence Weekly, the "first ALFA suffered a reaction meltdown in 1970."[5] The submarine was towed to an isolated corner in Severodvinsk shipyard. Eventually, the bow and amidships sections appeared once again at Sudomekh. The pieces were left in open view on the quay for many years. Nevertheless, the ALFA prototype's trial run, even with its disastrous aftermath, must have produced some encouraging results because series construction continued.

Renewed Production

In mid-1974, one ALFA was launched from Sudomekh, and in early 1976 one was launched from Severodvinsk. The class was back in series production, and intelligence collection again went into high gear. After more than a year of collection, the

[5] *Jane's Defence Weekly*, 18 April 1987, 715.

results were assembled and examined. The reports confirmed the previous assessments that the Soviets had encountered seemingly insurmountable problems when welding titanium. The first boat of the class had been on the ways for about seven or eight years, instead of the normal one to two years. Fitting-out periods were also much longer than those of other SSNs.

The old and new supporting evidence was presented to another panel of [outside] experts convened by CIA to assess whether the Soviets could weld heavy plates of titanium alloy in a shipyard atmosphere. Again, most of the experts opined that the Soviets most likely could not series-produce titanium pressure hulls for SSNs. But this time, Naval Intelligence, with support from CIA analysts, disagreed with the experts. The mutually supportive evidence from all assets had convinced the technical director of the Naval Intelligence Support Center that the Soviets had made a quantum leap in submarine technology by combining several high-risk options in one class of submarine.

Consequently, it was critical for US Navy decisionmakers to learn that:

- The Soviets were building submarines with hulls made of lightweight, nonmagnetic titanium.
- The most streamlined hull shape ever produced by the Soviets was designed for speeds over 40 knots.[6]
- These high-technology submarines could dive below the effective range of US antisubmarine weapons.
- These units, probably fitted with advanced weapons, posed a serious threat to US and allied naval forces.

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The Director of Naval Intelligence, confident that his analysts had made the correct assessment in the face of aggressive opposition, invited me to present the assessment to the Vice Chief of Naval Operations. The evidence convinced him, and he decided that the information had to be disseminated to the Navy as soon as possible. Naval Intelligence published the ALFA assessment in record time.

Postscript

In March 1979, technical assets detected the second ALFA making trial runs in the Barents Sea. An analysis of the data indicated that the ALFA had exceeded 40 knots while submerged in moderately deep water. In 1978,[7] after two decades of effort, the ALFA class had reached initial operational capability and was in series production. (In 1985, the Soviets had at least six operational ALFAs.)

On 19 January 1979, the commander of the US Naval Sea Systems Command wrote Naval Intelligence that CIA'S extraordinary collection and Naval Intelligence's timely analysis of the ALFA Class SSN threat had saved the Navy $325 million in new torpedo designs. It was the first time in history that this type of intelligence collection and analysis had ever been officially credited with saving such a large sum of money.

Tenacity Pays Off

The R&D and manufacturing efforts for the ALFA SSN are difficult to estimate. Two construction sites were tied up for excessively long times with this project. The first sea trials far exceeded Moscow's expectations. Then, even with a catastrophic failure in the engineering spaces, the Soviets continued the ALFA project with tenacity unmatched by Western navies.

There is little doubt that the Soviets have incorporated these technological gains in follow-on nuclear powered submarines. After all, the Soviet R&D com-

[6] *Soviet Military Power*, 1983.
[7] *Soviet Military Power*, 1985.

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munity, submarine designers, and builders had, at almost prohibitive cost, accomplished what their Western counterparts thought impossible: the production of a titanium submarine that surpassed all others in speed and diving depth.

There was at least one commonalty between the Soviet ALFA construction program and the US Navy's intelligence effort against the submarine: in tenacity the Soviet Navy had been matched by that of one senior US Naval Intelligence analyst, Herb Lord. We had learned once again that nothing can be taken for granted. Most important, we learned that the Soviet Navy did not always follow old Russian proverbs. We also learned that US intelligence was "right on the money," and that the Soviets had indeed built a submarine that was "better than good enough."

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Historical Intelligence Vignette

The Youngest Operative: A Tale of Initiative Behind Enemy Lines During WW II

Bob Bergin

Pridi Panomyong, the leader of World War II's anti-Japanese Free Thai Movement once said that the Free Thai were not only those formally inducted into the movement, but all Thai who helped in the effort against the Japanese occupiers. This is the story of one such Free Thai, perhaps the youngest of them all. Orachun Tanaphong was a 12-year old in 1944 when he became a courier and carried medicines and messages to Allied POWs held in a temple compound in Northern Thailand. This story of his adventures is based on his recollections of those events.

By mid-1943, Allied aircraft bombed targets in Thailand with regularity, striking at concentrations of Japanese troops. The city of Chiang Mai became a primary target. It was close to Burma, and the city's railroad station was the northern terminus of Thailand's railroad system that extended out from Bangkok and its port. The railroad became the primary means for the Japanese to move troops, weapons and supplies around Thailand, and most importantly, north to Chiang Mai to support the Japanese Army's campaign in Burma.

On 21 December 1943, Allied bombers hit Chiang Mai's railway station in a massive raid. The station and the neighborhoods around it were destroyed. More than 300 Thai civilians were killed. Among the dead and injured were Orachun's relatives. The city's hospitals were crowded with the injured, and Buddhist temples were used to treat the overflow. More bombings followed, and Orachun's father decided to move the family into the countryside, where they could live in relative safety until the situation improved.

It was almost a year before Orachun's family returned to Chiang Mai. They found their house damaged, its roof holed by strafing fighters. They also found that a neighboring building, a motor vehicle repair shop known as the best in town, was now regularly servicing Japanese Army vehicles.

When the Japanese appeared at the shop, they often brought with them POWs they used as drivers and mechanics. Most of the POWs were British, but there were also Dutch and Australians. From the start there was a communications problem. Neither the Japanese nor the POWs spoke much Thai, while the shop personnel spoke only Thai. Someone remembered that Orachun's father spoke English. He was a graduate of Prince Royal College, an American missionary

school. His father was pressed to serve as an interpreter between the POWs and the shop mechanics. Every time his father was called next door to the repair shop, Orachun went along.

As the interpreter, his father's job was to help the workers in the shop understand the problems of a particular truck. At first, when he spoke with the POWs, the Japanese soldiers watched closely, but after awhile—as they understood no English and little Thai—they became bored and paid little attention. As his father worked with the POWs and got to know them, he started sliding in questions about their situation and their treatment by the Japanese.

Orachun's father learned that life had become very spartan for the POWs. Each man had a single pair of shorts and a pair of sandals; none had shirts. He noted that one POW, an Englishman named Tom, had numerous small pits in the skin on his back. Asked about that, Tom said that he had been working in the POW camp's kitchen cooking rice, when he got in a quarrel with one of the Japanese. The Japanese settled the argument by pouring the boiling rice over his back. Many months later his skin was scarred like someone who had had small pox.

When some of the POWs who had regularly visited the shop dropped out of sight, Orachun's father learned that they were sick and were left behind in the camp. Malaria was rife in Chiang Mai at that time. It could be controlled with quinine, but the POWS were getting nothing to keep them healthy. Orachun's father decided to try to get medicine, some fruit, and even some cigarettes into the camp. It would have to be done secretly. The obvious choice of a courier was the 12-year-old Orachun.

It was known that the POW camp was located in a temple compound on the other side of town. There were actually two temples, down a small road from one another. One was used as the POW camp, the other continued to be used as a temple. The Japanese frequently used Thai schools and temples to house their installations, knowing that American aircraft would not target them. The area was a long way from Orachun's home. He would have to ride his bicycle almost an hour to get there.

Orachun's mother prepared a small basket-like container. Inside was medicine, some fruit, and cigarettes hand-rolled by Orachun's father. There was already a basket fixed to the handlebars of Orachun's bicycle, and the container for the POWs was placed inside that. His father could not describe how the POW compound was laid out. Orachun would have to improvise once he got there.

Temples in Thailand are public places, and Orachun thought that once he got there, he would simply sneak into the area in which the POWs were kept. When he saw the temple camp, he realized that was not going to work. Japanese soldiers stood at the entrance and all along its perimeter. They seemed to be everywhere, and they all carried guns.

Orachun found a place to sit where he would be inconspicuous while he watched for a while. He could see the POWs easily enough, and among them he recognized visitors to the repair shop. When they noticed Orachun, it was evident to him that they knew who he was, and that seeing him there, they suspected he was up to something. That made it a bit easier. He could not get close enough to talk with them,

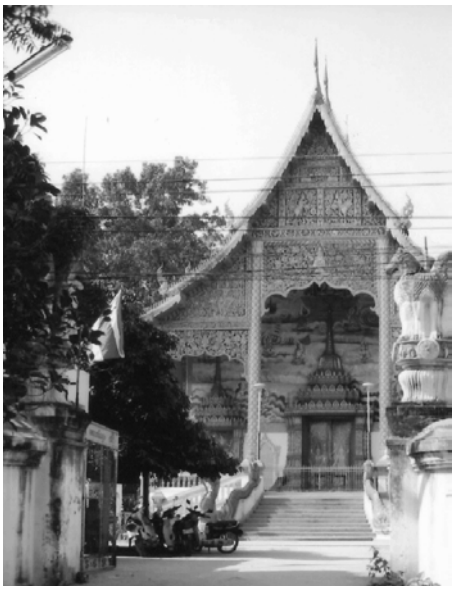
but he gestured, to let them know that he recognized them. Then he continued to watch.

Soon, an opportunity materialized. He saw one of the POWs, apparently a designated water carrier, set off on a task. There was no water in the POW compound, but there was a well in the other temple down the street. As water carrier, this POW's job was to walk from the POW compound to the second temple, draw water from the well and carry it back to camp. It was a totally routine job that he had obviously been doing for some time. The guards watched as he walked from one temple to the other, but they were so used to his comings and goings that they did not watch very closely.

The water carrier had two cutoff gasoline cans suspended from the ends of a pole slung over his shoulder. When Orachun understood how the water carrier's job worked, he strolled into the second temple and placed his little container near the well. There, it remained hidden but close to where the water carrier would have to pass. As the water carrier approached him, he made little signs to make sure the man would notice the container. The POW then casually filled just one of his cans with water, leaving the other empty for Orachun's container, which he slipped in. He carried his load out through the temple gate and back to the POW compound, right past the Japanese guards, who noticed nothing amiss.

Orachun's mission was accomplished! He was elated. He mounted his bicycle and took off like he was piloting an airplane. When he reached home he felt like he had flown there. He had been afraid. He knew—as everyone did—how bad-tempered the Japanese could be, and what they did to people for even minor offenses. If they caught anyone stealing rice or sugar or gasoline, they would make him drink the gasoline or cram the sugar or rice in his mouth until he choked. Orachun knew that if he was going to do this again, he would not only have to be very careful, but work out a system that would keep him safe.

On the many visits that followed, Orachun refined the way he did things. He continued to ride his bicycle to the temples and kept the container in the basket on the handlebars. When he got to the two temples, he would take the bike into the one with the well and park it where it would not be noticed. He feared that sooner or later a Japanese soldier would wonder who he was and what he was doing here. But Orachun had found a way to disappear. There was usually a gang of local children who played in the area between the two temples, and Orachun would join them. If they did not let him join directly in their games, he could just hang around and watch. To any Japanese soldier he was just another kid, not worth any attention.



As seen today, the entrance to the temple grounds with the well from which the POWs drew their water and received Orachun's hidden messages.

Orachun knew that the POW water carrier tried to keep to a schedule and visit the well at the same time every day. So that his own arrival did not coincide with that, he would come early and hang around in front of the temple, watching the other children play. At times he would have to spend two or three hours there. His little basket-like container was so common an item that no one ever displayed the least bit of curiosity about it. Nor did the Japanese guards ever show the least bit of interest in what might be in the basket mounted on the bicycle's handlebars.

Orachun watched the kids play, and when everything was just right, he would stroll past the well, and leave the container concealed somewhere near it. He varied the places where he put it, so as not to establish a detectable pattern. Then he would go back and wait some more, until he saw the water carrier approaching. With small gestures he would guide the man until he knew where the container was. While doing this, Orachun often was afraid. Several times he was sure he would get caught, but it never happened.

As time went on and Orachun and his father became more confident about his ability to pass things to the POWs without being detected, they started putting messages in the basket. Most related to the development of the war, of which the POWs were kept in complete ignorance. Orachun had a Harvard-educated cousin who was surreptitiously listening to Allied radio broadcasts from outside the country. Summaries of these broadcasts were written on paper and placed in the container with the medicine, fruit and cigarettes.

Photo courtesy of the author.

Orachun's last visit to the temples was the most interesting of all. The container he delivered had the news that war was ending. After he saw the water carrier pick up the container, he waited until he was inside the POW camp. It did not take long before the camp erupted with shouts and cheers and happy people jumping up and down. The Japanese guards were completely taken aback. The POWs had news that their guards had not yet heard: the Japanese had lost the war.

A year after the war, Orachun's family was awarded a plaque by the British government. (In the picture to the right, the young Orachun is standing over his father's left shoulder, with his brother next to him.) Orachun finished his studies in Bangkok and won a scholarship to study in Madrid. He returned to Thailand, joined the Ministry of Foreign Affairs and went on to a distinguished career as a diplomat. He served as Thailand's ambassador to the People's Republic of China, North Korea, Portugal, Mexico, and Central America. Today he is an associate judge at the Central Intellectual Property and International Trade Court in Bangkok.

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Hostile Intent: U.S. Covert Operations in Chile, 1964-1974

Kristian Gustafson. Washington, DC: Potomac Books, 2007. 317 pages, notes, bibliography, and index.

Reviewed by David Robarge

CIA's operation to attempt to affect a national election in Chile in 1970 and its consequences have engendered more persistent controversy, and more polemic and scholarship, than any of the more than one dozen covert actions with which the Agency has acknowledged involvement. Although some cost more and lasted longer (Tibet, Laos), entailed intervening in the domestic affairs of European allies (France, Italy), had greater long-term geopolitical impact (Iran, Afghanistan 1979–87), or were more acutely embarrassing in their execution and outcome (the Bay of Pigs), CIA's presidentially mandated effort to prevent Salvadore Allende de Gossens from becoming the first elected socialist president of a Western Hemispheric nation soon cast a shadow on the Agency's reputation that lingers nearly four decades later. A few years ago, then-Secretary of State Colin Powell spoke for many critics of US policy toward Chile when he said "It is not a part of American history that we're proud of."[1]

This stigma on CIA has endured largely because of the interplay of ideological romanticism, political disillusionment, and institutional energy on the part of detractors of the anti-Allende covert action, who have dominated the historiography on the subject. According to Peter Kornbluh, director of the Chile declassification project at the National Security Archive,

> *The* Via Chilena*—peaceful road to socialist reform—captured the imagination of progressive forces around the globe.... The sharp contrast between the peaceful nature of Allende's program for change, and the violent coup that left him dead and Chile's long-standing democratic institutions destroyed, truly shocked the world.... In the United States, Chile joined Vietnam on the front line of the national conflict over the corruption of American values in the making and exercise of US foreign policy.*[2]

There it has remained, principally because of to the efforts of a community of human rights activists, left-wing scholars and intellectuals, and antisecrecy advocates that emerged in the early 1970s while the Cold War consensus inside the United States was fracturing. The members of this subculture—the bound-

[1] "Chile Cheers Powell Remarks on 1973 Coup," Reuters, a1147, 22 February 2003.
[2] Peter Kornbluh, *The Pinochet File: A Declassified Dossier on Atrocity and Accountability* (New York: The New Press, 2003), xiii, xiv.

All statements of fact, opinion, or analysis expressed in this article are those of the author. Nothing in the article should be construed as asserting or implying US government endorsement of an article's factual statements and interpretations.

aries between them are often porous—are dedicated to uncovering evidence about the police-state tactics of Gen. Augusto Pinochet Ugarte, who succeeded Allende after a military coup in 1973, and to seeking justice for the victims of his often brutal 17-year dictatorship. The National Security Archive, for example, is up front about its motive for aggressively using the Freedom of Information Act and civil lawsuits to extract thousands of pages of documents from CIA and other US government agencies to "force more of the still-buried record into the public domain—providing evidence for future judicial and historical accountability."[3]

The Chilean operation galvanized CIA's congressional critics at the same time. In 1973, a Senate subcommittee on multinational corporations, led by Sen. Frank Church, investigated contacts between the Agency and the International Telephone and Telegraph Company, a prime target for nationalization under Allende. It was the first public hearing ever held on covert action and resulted in a critical report that provided the first official account of one aspect of the coup. Two years later, Church's select investigatory committee conducted more public hearings and produced another (unfavorable) survey of CIA's operations in Chile.[4]

Then in 1976, Chilean intelligence operatives murdered Allende's foreign minister, Orlando Letelier, and an associate in Washington, DC. To Pinochet's opponents, that brazen action demonstrated the bankruptcy of US policy toward Chile that CIA had helped implement. How could the United States support a regime so ruthless that it would commit terrorism in its largest patron's capital? More than ever in the minds of writers on this subject, the Agency became identified with the regime's origins and hence charged with some responsibility for its actions, including the deaths or "disappearances" of thousands of people in Chile and, through the notorious Condor program, in other Latin American countries.[5] The notion that CIA was at least partly to blame for whatever happened after its failed attempt to keep Allende out of power became a leitmotif of most historical treatments of US intelligence activities in the region.

The Reagan administration—partly because of the influence of UN Ambassador Jeanne Kirkpatrick's arguments about the reformability of authoritarian states—took a more benign view of the Pinochet regime and further inspired its critics to seek a full accounting of Agency involvement in Chile. They received a huge boon from the Clinton administration, which, having already authorized sizable releases of secret material on Central America and under pressure from Congress and the anti-Pinochet lobby, undertook the Chile Declassification

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[3] Kornbluh, National Security Archive Electronic Briefing Book No. 8, "Chile and the United States: Declassified Documents Relating to the Military Coup, September 11, 1973," on National Security Archive Web site at <http://www2.gwu.edu/~nsarchiv/NSAEBB/NSAEBB8/nsaebb8i.htm>.

[4] L. Britt Snider, *The Agency and the Hill: CIA's Relationship with Congress, 1946-2004* (Washington, DC: CIA Center for the Study of Intelligence, 2008), 271–73; US Senate Committee on Foreign Relations, Subcommittee on Multinational Corporations, 93rd Congress, 1st Session, *The International Telephone and Telegraph Company and Chile, 1970–1971* (Washington, DC: Government Printing Office, 1973); *Hearings before the Select Committee to Study Governmental Operations with Respect to Intelligence Activities of the United States Senate, 94th Congress, 1st Session, Volume 7, Covert Action* (Washington, DC: Government Printing Office, 1976).

[5] On Condor—a Pinochet-initiated collaboration with neighboring governments' intelligence services to quell radical subversion throughout the region, often through violent means and occasionally abroad—see John Dinges, *The Condor Years: How Pinochet and His Allies Brought Terrorism to Three Continents* (New York: The New Press, 2004).

Project that eventually yielded around 24,000 never-before-seen documents from CIA, the White House and National Security Council, the Defense and State Departments, and the FBI.[6] In response to a congressional requirement in the Intelligence Authorization Act of 1999, CIA issued a white paper in September 2000 entitled *CIA Activities in Chile*.[7] The report concluded that the Agency was not involved in Allende's death during the 1973 coup, that it supported the military junta afterward but did not help Pinochet assume the presidency, and that it reported information about human rights abuses and admonished its Chilean assets against such behavior according to the guidance in effect at the time.

That scarcely settled the matter. The issue of US-Chilean relations and the legacy of CIA's intervention stayed prominent during the next several years through a succession of events that included the Chilean government's efforts to get Pinochet (then living in Europe) extradited and put on trial; the uncovering of his secret multi-million-dollar accounts in a Washington, DC, bank; a Chilean legislature investigation of CIA's role in the coup; huge lawsuits filed by Chilean citizens against Henry Kissinger (national security adviser and later secretary of state during 1969-77) and the US government for damages in connection with deaths and human rights abuses by the Pinochet regime; and a contretemps over Kissinger allegedly pressuring the Council on Foreign Relations to squelch a CFR fellow who wrote a favorable review of Kornbluh's book *The Pinochet File* in *Foreign Affairs*.[8]

Pinochet's death in December 2006 brought no closure to the long debate over CIA intervention in Chile and its legacy. The discussion essentially remains polarized between left and right,[9] and for some time an objective narrative of the facts and a fair-minded analysis of the critical and apologetic perspectives have been sorely missed. Such is the landmark contribution of Kristian Gustafson's *Hostile Intent: U.S. Covert Operations in Chile, 1964–1974*, which must be considered the indispensable study in the large bibliography on that seemingly intractable subject. A former student of Professor Christopher Andrew's at Cambridge University and now a lecturer at Brunel University in England, Gustafson previewed some of his findings in this journal in 2003.[10] In *Hostile Intent*, he demonstrates in an orderly and comprehensive way, with a good grasp of Chilean politics and full facility with the now substantial documentary record, how US administrations carried out their Chilean policy founded on the concern

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[6] *Pinochet File*, xvi–xvii.

[7] Available on the Agency's public Web site at <https://www.cia.gov/library/reports/general-reports-1/chile/index.html>.

[8] "Pinochet Indicted on Human Rights Charges," <http://www.cnn.com/2004/WORLD/americas/12/13/chile.pinochet.ap.index.html>, 13 December 2004; Terence O'Hara, "The General and His Banker," *Washington Post*, 21 March 2005: E1, 9; "CIA Activities in Chile to Be Investigated," Associated Press story on <http://www.nytimes.com>, 7 October 2004; Kenneth Maxwell, "The Other 9/11: The United States and Chile, 1973," *Foreign Affairs* 82:6 (Nov.–Dec. 2003): 147; Lynne Duke, "A Plot Thickens," *Washington Post*, 27 February 2005: D1, 6–7.

[9] At the other end of the spectrum from Kornbluh's *Pinochet File* are Mark Falcoff, *Modern Chile, 1970–1989: A Critical History* (London: Transaction Publishers, 1989) and idem, "Kissinger & Chile: The Myth That Will Not Die," *Commentary* 116:4 (Nov. 2003): 41–49.

[10] "CIA Machinations in Chile in 1970," *Studies in Intelligence* 47 no. 3 (2002): 35–49. The article received the Walter L. Pforzheimer Award given for the best undergraduate or graduate paper on an intelligence-related subject submitted to *Studies* during 2002.

stated as early as 1958 by the senior State Department official responsible for Latin America that "were Allende to win we would be faced with a pro-Soviet, anti-U.S. administration in one of the most important countries in the hemisphere."[11]

One of the strengths of Gustafson's book is that in the course of recounting the often-told story of how Washington tried to prevent that from happening, he takes on prevailing misconceptions and provides details that add meaning to familiar material.

- Instead of reflexively supporting the right wing as it had elsewhere in Latin America during the latter 1960s and well into 1970, Washington had CIA channel assistance to an increasingly marginalized group of centrists at a time when Chilean politics was growing more polarized—a development that US analysts missed.

- Notwithstanding recurrent rhetoric about Chile being a cornerstone of US policy in the region, White House oversight of covert action planning was strikingly haphazard, and CIA and the State Department went about their business operating under inconsistent premises, sometimes supporting the same parties and politicians, sometimes not, for different reasons.

- Besides State having previously opposed intervening in the 1970 election, another important reason why Richard Nixon kept the US ambassador, Edward M. Korry, out of the loop on the coup plotting in September and October 1970 (also known as Track II) was that he distrusted Korry's politics. The ambassador was a Kennedy Democrat and supporter of Chilean politicians who had benefited from the Kennedy administration's Alliance for Progress.

- Despite Kissinger's ominous admonition to Nixon in November 1970 that "your decision as to what to do about it [Allende's election] may be the most historic and difficult foreign affairs decision you will have to make this year," and the enunciation by the National Security Council of a "publicly cool and correct posture toward Chile,"[12] the administration's guidance on both covert and overt activities was slow and erratic during the next two years even as the Allende government fell deeper into economic and political trouble and became increasingly unstable.

- After the September 1973 coup that ousted Allende—in which CIA had no role and about which it knew little beforehand—Washington let the Agency continue supporting the center-left Christian Democratic Party, and the Agency's head of Latin American operations argued against the cutoff that went into effect at the end of the year. He and other CIA officers contended that the subsidy was needed to counter the left if the junta relinquished power and to

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[11] Roy Richard Rubottum, assistant secretary of state for inter-American affairs, quoted in *Hostile Intent* on page 19. Prof. Andrew (with Vasily Mitrokhin) has described the KGB's relationship with Allende and its involvement in Chile during the 1960s and 1970s in *The World Was Going Our Way: The KGB and the Battle for the Third World* (New York: Basic Books, 2005), 69–88.

[12] Kissinger memorandum to Nixon, 6 November 1970, and National Security Decision Memorandum 93, 9 November 1970, quoted in *Hostile Intent*, 139, 145.

> "maintain our capability for influencing the junta and molding public opinion" if it did not.[13]

Gustafson's study makes a crucial point about covert action that policymakers and intelligence practitioners would do well to learn: for political operations to succeed, they must have time to work and must be coordinated with the overt aspects of policy and all elements of the country team. Those conditions existed in the 1960s, and the Agency helped accomplish Washington's objective of keeping Chile in what it perceived as safe, center-right hands. In contrast, throughout most of 1970 "the United States was perpetually one move behind the political evolutions in Santiago."[14] By the time the Nixon administration suddenly took notice of events in Chile after the first round of elections in September and then went into panic mode, CIA had few resources and less time to stem the tide moving in the socialists' favor. Nixon and Kissinger ordered it to undertake a back-channel coup plot that failed disastrously and assured Allende's victory. As Gustafson concludes:

> *Rather than operating on their own, covert actions in 1964 were used to bolster overt plans such as the Alliance for Progress. Thus they acted as a force multiplier for U.S. foreign policy goals. In October 1970, covert action was separated from any strategic thinking and uselessly sent charging into the brick wall of immovable Chilean public opinion.*[15]

Thus another lesson from the Chilean covert action is that political operations will most likely work when they reinforce trends and do not try to create them or shift them in other directions.

Hostile Intent is marred by some minor errors of style and fact. Occasionally Gustafson's prose takes on a slightly turgid, dissertationesque quality; he misuses some words (disinterested for uninterested, reticent for reluctant); credits Rep. Otis Pike with the "rogue elephant" charge instead of Senator Church; mentions the Senate Select Committee on Intelligence several years before it was created; overlooks the fact that the 1980 Intelligence Oversight Act superseded the 1974 Hughes-Ryan Amendment's requirements for reporting covert actions to Congress; and misidentifies the State Department official in the first photograph of the insert section. More substantively, Gustafson uses material acquired from the KGB archives in the early 1990s in a way that suggests it was available to US officials at the time. But these small problems should not distract readers from realizing Gustafson's achievement after entering such a politically and emotionally charged environment. If it is true, as Kornbluh claims, that "after so many years, Chile remains the ultimate case study of morality—the lack of it—in the making of US foreign policy,"[16] then a scholarly and dispassionate contribution to the literature such as *Hostile Intent* is all the more to be valued.

[13] Ibid., 233.
[14] Ibid., 111.
[15] Ibid., 133–34.
[16] *Pinochet File,* xv.

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