



NEW AND IMPROVED CIVIL WAR EXHIBIT AT THE NATIONAL CRYPTOLOGICAL MUSEUM

Since 1993 the National Cryptologic Museum (NCM) has possessed one of the nation's most unique exhibits on the Civil War. One of the intriguing artifacts contained in the display is a rare battle flag belonging to Second Lieutenant Frederick Wooster Owen of the 38th New York Infantry Regiment. The battle flags were used to send encrypted messages from unit to unit. During the war, the US Army Signal Corps issued these flags to signal officers who demonstrated bravery under fire. The points of the banner are inscribed with the names of battles in which its owner demonstrated exceptional bravery: Yorktown, West Point, Antietam, Fredericksburg and Po River. In addition to the battle flag, the exhibit also includes a wide range of other unique artifacts that do a marvelous job of imparting the key role that communications and cryptology played during the conflict.

Recently, due to the efforts of the National Cryptologic Museum Foundation (NCMF) acquisitions staff, the staff of the NCM and the NSA Graphics shop, the current exhibit can be said to be "new and improved." In 2010, the acquisition group obtained several significant Civil War artifacts that were recently added to the newly designed and upgraded display.

Specifically, the NCMF donated five Union intercepts of Confederate flag signaling from the Battle of Kennesaw Mountain; a letter from General Lee's assistant to Confederate Lt. General Jubal Early; and a mysterious encoded letter. The newly acquired items not only add to the NCM Civil War display, but also shed light on the story of early U.S. code making and code breaking, as well as military communications security.

The five Union intercepts now on display impart the story of the Union Signal Corps intercepting and deciphering Confederate flag signals at the Battle of Kennesaw Mountain. These intercepts are evidence of the Union Signal Corps at its finest and illustrate the role flag signaling played on the battlefield.

The Early letter on display was sent from Lt. Colonel Charles Marshall, personal assistant to General Lee, on 31 August 1864. In it, Marshall writes that he is enclosing the deciphered Union signal alphabet and passes along General Lee's warning that the North is also decoding the Confederates' messages. He suggests to Early that he put his signalmen on guard.

It is unknown when or how General Lee became aware that the Confederate cipher was broken. Evidence that this was indeed the case is found in the Confederate intercepts from Kennesaw Mountain which predate the letter by approximately two months.

The importance of the role the Signalmen and Telegraph Corps played in the Civil War cannot be overemphasized and truly foreshadows the work of the men and women who continue this mission today. Indeed, this is the true birth of signals intelligence in the United States. Further, the recent acquisitions emphasize the importance and challenges cryptology presented to both the Union and Confederate Armies during the Civil War.

*Patrick Weadon, Director
National Cryptologic Museum*



Inside this issue of THE LINK

**"NEW & IMPROVED"
CIVIL WAR EXHIBIT AT NCM**

**ATTACK ON THE LIBERTY:
A RETROSPECTIVE**

HISTORIAN'S CORNER

ATTACK ON THE LIBERTY: A RETROSPECTIVE

“At the trial the two sides produced their witnesses, with an array of evidence that was direct and complete, and the two versions of a plain tale flatly and unconditionally contradicted each other.

“That the [person] was guilty was no less clear than that he was innocent....

“The Byron case has in it an element of this same baffling opposition of simple statements. It is not a question of one piece of evidence being demonstrably false in the light of another, but of radically conflicting testimonies that even in the light of other retains every appearance of good faith and probability.”

(From John Drinkwater, **The Life of Byron**, New York, 1937)

The USS Liberty, a Sigint collection ship, was attacked on 8 June 1967 by Israeli aircraft and motor torpedo boats, resulting in the death of 34 of the crew, including one NSA employee. One hundred seventy one men were wounded, many severely. The attack took place during the Six Day War, which had started with a devastating Israeli preemptive strike on a belligerent Egypt.

There are numerous tragedies to this story and it is not without enduring controversy. Was the Israeli attack on the Liberty, a defenseless ship, an intentional attack on what was known to be an American ship or was it an accident of war, a mistake by the Israelis who believed it was an Egyptian ship? Should the calamity be categorized as “fog of war,” or was it something more sinister?

On the American side, NSA, the JCS, Naval Command Europe and 6th Fleet all sent messages ordering the Liberty to move 100 miles offshore of Egypt and Israel because of the danger of being caught up, as happened, in the intense conflict then in progress in the Sinai and Egypt. None of the messages, and there were at least six, reached the Liberty. The foul-up by the US defense communications system fairly defies belief. Without excusing the attack, it is fair to say that there were incredible mistakes on both sides.

Thus, the quotation above from the Drinkwater book seems apt for this essay that explores the baffling contradiction of simple accounts, the foul-ups, and the denouement achieved through Israel and United

States hearings on the incident. The controversy that remains -- in part because of the accounts of eyewitness survivors, some of whom take a radical, conspiratorial view -- is based on their conviction that “no one could be that stupid!”

The author’s own view is to the contrary. As Churchill once said, “War is a series of blunders,” and the Liberty incident, while in competition for the worst, is in fact among too many incidents in which the fog of war produces unbelievable error.

CHRONOLOGY OF EVENTS LEADING UP TO THE ATTACK ON THE LIBERTY

On 2 May 1967, USS Liberty, a signal intelligence collector whose collection mission was under direction of NSA left Norfolk for deployment off the west coast of Africa under the command of William McGonagle. At that time tensions were rising in the Middle East through a combination of aggressive acts against Israel by Yasir Arafat’s PLO/al-Fatah, Egyptian President Nasser’s increasing bellicosity and the Israeli reactions.

On 13 May, the Soviets told the Syrians that Israeli forces were massing against them. This was a deception. During mid-May Egypt closed the Strait of Tiran in the Gulf of Aqaba, hindering Israeli navigation, and Egypt ordered the UN Emergency Force -- peacekeepers -- out of Gaza and Sinai. Egyptian forces crossed the Suez Canal and moved across Sinai (which was part of Egypt). Israel began to mobilize. NSA reacted by declaring Sigint Readiness Bravo, the highest alert short of the US being in combat. On 29 May, Nasser told his parliament “we are ready to confront Israel” and he later told the press that his objective was to return to pre-1948 conditions -- before the creation of Israel. Egypt was not in a position militarily to carry out such threats.

On 23 May, NSA decided to move the Liberty into the eastern Mediterranean to monitor the crisis. Two days earlier the Soviets, overtly, began to move warships out of the Black Sea into the Mediterranean via the Bosphorus and Dardanelles. These included combatants and intelligence collectors.

On 24 May the Liberty left the Ivory Coast and sailed to Rota, Spain, arriving there on 1 June. Arabic and Russian linguists were taken aboard. The Liberty left

Rota on 2 June en route to a patrol area about 13 miles off Sinai and 38 miles west of Israel.*

On 5 June Israel launched a massive air attack on Egyptian airbases, destroying the Egyptian air force, mainly on the ground. By the end of 6 June Israeli forces had destroyed Egyptian armor and infantry in Sinai, captured much of the West Bank and East Jerusalem and were already moving forces to the Syrian frontier.

THE ATTACK

The Attack Occurs. At 0310 Sinai time, 8 June 1967, the JCS ordered Liberty, in a message via the naval chain of command (Liberty was now under the 6th Fleet) to move 100 miles off the coast. This and other warning messages did not reach the Liberty. **

At 0558 Sinai time an Israeli reconnaissance plane spotted the Liberty. After discussion back at headquarters, the Israeli navy identified the ship as probably the USS Liberty and noted the hull marking GTR-5. (Arab ships have Arabic hull markings).

Sometime after 0700 the Israeli naval plotting board was updated with a colored marker that showed Liberty as a neutral ship – that is, definitely not as hostile. Later, there was a shift change, and an Israeli naval officer took the marker off the board, reasoning that the ship must have moved to an unknown position.

*The Liberty neared its planned operating area on late 7 June and on 8 June at 1358 local time Israeli aircraft and then motor torpedo boats began attacking the Liberty after a series of shocking errors by the Israeli forces as well as by the US. How and why did this happen? the ship's crew saw and heard explosions on land at El Arish. Israeli ground forces reported being under fire from the sea, presumably from an Egyptian ship(s).

**In 1971, the House Armed Services Committee looked into Defense Department communications with much attention to the Liberty incident. Their report noted that a standoff message sent to the Liberty was routed from the JCS to Europe to the Philippines to Ethiopia and never reached the Liberty. Congressman Edward Hall of Missouri asked General Klocko, head of Defense Communications, if he could guarantee there would never again be a communications failure such as with the Liberty. Klocko replied, "No sir, I couldn't guarantee that." Four years after the Liberty, the Committee concluded that DoD communications were wretched.

At about 0849 the Liberty began its Sigint collection patrol at Point Alpha, 13 miles northeast of El Arish, Sinai. Liberty was to sail westward to Point Charlie, northeast of Port Said, and then reverse its course.

As the Liberty reached Point Bravo, an intermediate location in the reconnaissance route (at about 1130), the ship's crew saw and heard explosions on land at El Arish. Israeli ground forces reported being under fire from the sea, presumably from an Egyptian ship(s).

An airborne, two-plane Flight of Israeli fighter bombers (Mystere III) armed with 30mm cannons and air-to-air missiles was diverted to attack the attacking ship.

The air attack on the Liberty began at approximately 1358: cannon strafing runs. A second Israeli two-plane air force Flight then attacked and dropped napalm canisters which probably missed. Gasoline tanks on the deck of the Liberty exploded, as did fuel on a life boat which was also on the deck. Nine members of the Liberty's crew were killed and dozens injured.

Three Israeli navy motor torpedo boats (MTBs) had also been dispatched to attack and they observed the air assaults.

Israeli air crew concluded they might have attacked a ship other than an Egyptian vessel and misreported the hull marking as CTR-5, rather than GTR-5. The flight leader concluded it was a U.S. ship. The MTBs signaled the Liberty by lamp: "what ship?" The Liberty's main signal lamp and the smaller U.S. flag above the ship had been shot out. The Liberty may have signaled back with a hand-held Aldus lamp, but this is doubtful, and in any case the Liberty did not and probably could not identify itself. However, a larger U.S. flag had been run up. The visibility of both flags remains a central point of contention.

On the MTBs, officers consulted a handbook of Arab ships and concluded they were dealing with the Egyptian freighter, El Quseir. At least one junior officer, a cadet, thought the identity improbable and that the ship was American – a merchant ship or naval auxiliary. Meanwhile, the Liberty, armed with two twin .50 caliber machine guns, fired at the MTBs. There were no hits; some MTBs were unaware of the feeble firing.

The MTBs each carried two German-made torpedoes. They launched 5 torpedoes at the Liberty: the first four missed, but the fifth hit the Liberty, killing 25 men and wounding many more. The Sigint compartment was destroyed.

Before the attack, Israeli naval headquarters, based on air force reports, had cautioned the MTBs that there was doubt about the identity of the ship about to be attacked.

In total, 34 men had been killed and 171, including Captain McConagle, wounded.

After The Attack. The Liberty was without communications for a time but soon got a message to the 6th Fleet about the torpedo attack. Admiral Martin, commander of the 6th Fleet, ordered carrier aircraft to go to the defense of the Liberty. These planes were soon recalled when it was learned, from Commander Castle, naval attaché in Tel Aviv, that Israel had carried out a mistaken attack. Much controversy still surrounds the rescue launch and seemingly slow arrival of other aid. In fact, the fleet was 450 miles away, and relief ships reached the Liberty as fast as possible. But, other assistance, such as air drops of medical supplies, might have been possible.

At Israeli headquarters there was panic because of the fear that their forces had attacked a Soviet naval vessel, and there was much relief when it was found to be a U.S. vessel! Helicopters were dispatched to reconnoiter the damaged ship and Commander Castle was aboard one of these. Liberty waved off the helicopters.

Meanwhile NSA headquarters sent an immediate message to all relevant Sigint assets to “examine all communications for possible reactions/reflections and report according(ly).” NSA had airborne and land-based assets and possible Naval Security Group elements afloat the 6th Fleet.

Sigint reported some of the communications of the Israeli helicopters. The communicants were confused. When the helicopter spotted the MTBs and the Liberty, Israeli base station radioed:

“Pay attention! If they [survivors in the water?] speak Arabic, Egyptians, take them to El Arish. If they speak English, non-Egyptians, you’re taking them to Lod. Is that clear?”

And later:

“Did you clearly identify an American flag?”

“[Hq] request that you make another pass and

check again whether it is really an American flag.”

“What about the flag?”

These are just a few excerpts of interest. Much of the released Sigint is redacted, but what is redacted is perhaps primarily technical data.***

The Liberty, with damage control and medical aid from the 6th Fleet, reached Malta on 14 June.

INVESTIGATIONS, HEARINGS AND CONTROVERSY

Inquiries into Events. A picture of mistakes and contradictions. And the investigations and hearings brought neither exoneration nor complete clarity.

At the White House, Department of Defense, and in the intelligence community, news of the attacks on the Liberty was met with outrage and disbelief. President Johnson, NSC staff and Secretary of State Dean Rusk saw a sinister force at work – or at least irresponsible behavior of a criminal nature. Rusk would characterize the attack as made “in wanton disregard of human life,” which at the time was one of the definitions of murder. NSA Director Marshall Carter and his deputy, Dr. Louis Tordella, believed this had been a knowing, intentional attack on a U.S. ship. Other senior NSA officials shared this view, as did the Director of Central Intelligence and other senior leaders. Even Clark Clifford, a great friend of Israel, had very strong doubts about Israeli statements that the attack on the American ship had been unintentional. Surviving crew of the Liberty – some at the time and almost all upon reflection – concluded the attack was not a mistake by the Israelis.

On the Israeli side, initially, accusations were made that Americans had never notified Israel that the Liberty would be operating in its waters. Apology was later made, given the seriousness of Israel’s attack.

***In July 2003, when NSA declassified, with redactions, its Sigint regarding the Liberty attack, historian A.J. Cristol (see sources and further reading below) said, according to an AP article in the New York Times of 9 July 2003, that Cristol had told the Israeli paper Haaretz that “the Sigint transcripts were the last classified intelligence about the Liberty.” This is probably not so, though it is likely that all NSA Sigint directly relating to the attack has been released. However, what of CIA, the naval attaché, the State

Department, and others? There are questions to ask, which probably cannot even be asked in the unclassified LINK.

Israel conducted two inquiries. The first on 12-16 June, 1967, was probably too hasty and inadequate. The investigating officer concluded that the attack was a mistake that happened because of the incorrect assessment of the explosions at El Arish, the gross error by MTB radar assessments that the Liberty was moving at 28-30 knots and thus a combatant (the Liberty was cruising at 5 knots), and misidentification of the Liberty as the El Quseir.

A more thorough hearing followed under the auspices of Israel's Office of the Judge Advocate. The findings were somewhat the same – it was a mistake, there were gross Israeli errors and at least one Israeli officer might be subject to court-martial (an action which the judge decided against.) During the hearings, one junior Israeli officer said under oath that before the air strike, while on duty at operational headquarters, he had said that he believed the ship about to be attacked was an American ship. He said he did not press this view and deferred to senior officers who thought otherwise. One must note that the military in all countries has high expectations and demands on officers, however junior; this officer might have done better.

Over the years, the U.S. conducted some eleven examinations/hearings regarding the attack. The first was a Navy Court of Inquiry which went to work in London late on 10 June 1967, two days after the attack. Admiral John McCain Jr. ordered the inquiry and Rear Admiral Isaac Kidd Jr. presided. On 12 June 1967 the court flew to the Mediterranean and interviewed crew survivors. On 18 June the Court presented its findings. It was a good report, but obviously too hurried, with much attention paid to how the ship was handled and the crew's performance. Some of the findings about the attack included:

--A case of mistaken identity, not an intentional attack against a U.S. ship.

--Low wind and slow ship speed "may well have made the American flag difficult to identify."

All subsequent U.S. reports found the attack to have been a mistake. There was no lack of criticism, however, of Israel (or of the U.S.). It should be noted, however, that the heroic efforts of Captain Mcgonagle and the crew met and exceeded the best tradition of the U.S. Naval Service.

The Continuing Controversy. It is perhaps because of the way survivors view the contradictions and remaining questions about the Liberty that the controversy may never end. Survivors thought the attacks lasted several hours (the air attack lasted about 14 minutes; the MTB attack, 10 minutes). They are sure the American flags, both the smaller and larger, were visible to the attackers. They believed the Israeli air reconnaissance overflights were continuous. The survivors and indeed many analysts have concluded that the Israeli forces had more than ample time to identify the Liberty as an American ship, as not being a combatant, essentially unarmed, slow moving, flag flying, hull numbers in large visible letters. As pointed out earlier, the issues may come down to an assertion that "no one can be so stupid." And survivors, high U.S. government officials and various historians seem to agree that Israel had shown it had a perfect military machine that could not make such a "stupid" mistake. This being the case, survivors believe that the attack on the Liberty was intentional.

It is a commonplace to assert that eye-witness reports are usually unreliable. It should also be a commonplace to assert the opposite: eye-witness reports are usually reliable. But if this was an intentional attack on an American ship, the question is, Why?

Here there are no reasonable answers so far based on our knowledge of events. There are, however, conspiratorial claims that Israel wanted to sink a U.S. ship and kill the crew to prevent intelligence collection concerning: Israeli atrocities in Sinai, Israeli plans to attack Syria, Israeli military successes. The most damning statement against Israel is that their navy, lacking any achievements since its founding in 1948, needed to do something – anything. Common sense went by the wayside as the navy hoped it could sink a real enemy target and join in the triumphalism of the Israeli air force and army.

ON THE ONE HAND, ON THE OTHER HAND, OR IN THE FOG OF WAR

In his official multivolume history of U.S. cryptology, 1945-1995, Tom Johnson concluded his section on the Liberty attack with these hard words:

"The attack on the Liberty should not be viewed as a bizarre, or even an especially unusual, identification error."

He cites examples: the USN shutdown of an Iranian Airliner, the Soviet shutdown of KAL 007, the USAF

shootdown of two well-marked U.S. helicopters in Iraq.

The author can cite others. For example, in an incident that may win the competition for disbelief, on 24 July 1944, Allied forces in Western Europe launched Operation Cobra. General Omar Bradley directed his air commander to begin a massive assault on German lines in a certain direction. His air commanders decided to attack differently, resulting in a friendly fire fiasco in which 25 American soldiers were killed and 131 wounded. Bradley was furious. The next day the Air Force repeated the attack, again countermanding General Bradley's instructions, and again following the wrong route to bomb U.S. Army troops, this time killing 101 men and wounding nearly 500. Compounding the tragedy, shortly before this second attack, two U.S. soldiers had jumped into the same foxhole and accidentally bayoneted each other. General Leslie McNair had gone forward to look into this strange foxhole incident and was among the dead after the second attack. There were no court martials: operation Cobra overall was a great success, and so triumphalism trumped all.

As another example: In 1968, the USN ship Pueblo, a Sigint collector, was boarded and captured by the North Koreans in (barely) international waters off the coast of North Korea. The Pueblo was sailing alone, unarmed, unsupported. Surely no one could have been so stupid as thus to have placed the Pueblos in harm's way. Were there any lessons learned from the Liberty? Perhaps none, other than that when the fog of war is lifted, it is easier to see the mistakes that were compounded in the cloud.

Lou Benson, Editor

SOURCES AND FURTHER READING

The Liberty Incident by A. Jay Cristol (Brassey's, Inc., 1962) and **Attack on the Liberty** by James Scott (Simon & Schuster, 2009) were important sources for this article, as was Thomas R. Johnson's **American Cryptology During the Cold War, Book II: Centralization Wins** (1960-72) (Center for Cryptologic History, NSA, 1995.) See also **Sigint** and warning messages reproduced on various Internet sites. I'd also like to thank my wife, Naomi, for her help with this article.

Although well outside the subject of the Liberty, I also

recommend Benny Morris's **1948: A History of the First Arab-Israeli War** (Yale University Press, 2008) for a superb and important account of the establishment of Israel, its 1948 War of Independence and the foundation of the Israeli armed forces. **Six Days of War** by Michael B. Oren (Oxford, 2002) gives a full account of that war and a succinct account of the Liberty incident.

FUTURE ISSUES OF THE LINK

The next issue will deal with counterintelligence using the remarkable collection held by the NCM library.

We welcome reader comments on this and future issues of **THE LINK**. Please direct comments to: **CryptMF@aol.com**.

ATTENTION!



THE NATIONAL CRYPTOLOGIC MUSEUM NEEDS YOU!

*The NCM is
currently seeking
volunteers to
serve as docents and
receptionists.*

The National Cryptologic Museum (NCM) is the nation's repository for cryptologic history. Through the presentation of its many fascinating artifacts and exhibits, the facility seeks to inform and educate the greater world on the critical role that the making and breaking of codes has had on human history.

Docents at the Cryptologic Museum provide the majority of our guided tours for a wide variety of groups and organizations. Applicants for the docent position should be current or retired NSA Blue Badge employees, be willing to undergo a training program, and enjoy imparting cryptologic history to Agency personnel and the general public.

Receptionist applicants should have some connection to the National Security Agency, (e.g. retiree, former employee or contractor or close relative of an Agency employee) have an interest in cryptologic history, and enjoy working with the general public. Job duties include greeting visitors, stocking publications, providing general information on the NCM and distributing the "Crypto-Kids Challenge" to young visitors to the facility.

Interested parties should contact the NCM Curator, Patrick D. Weapon via e-mail at pdweado@nsa.gov or the museum office by phone at 301-688-5849

HISTORIAN'S CORNER

Staff members from the Center for Cryptologic History (CCH) are frequently asked why NSA – and other intelligence agencies – maintains history offices.

These offices exist because they have provided value in support of the important missions of NSA and the other agencies. This value is in two important areas – in the professional education of the work force and in building good morale.

The CCH seeks to imbue NSA personnel with an appreciation for our heritage right from the start. All newly hired employees report to the National Cryptologic Museum on their first day. Immediately after they have taken their oath, CCH historians give them a short tour of the museum to show the critical importance of NSA's basic missions, both SIGINT and Information Assurance. Later in their first week, an historian meets with the group for a classified briefing on NSA/CSS history and heritage.

Twice a year the CCH offers a basic course on U.S. cryptologic history. We supplement this with aperiodic seminars, talks, and special presentations. We also present modules in classes run by other departments.

It is absolutely wrong to say that history repeats itself. However, critical issues recur and the forces that shaped our profession and institution in the past often remain powerful over generations. Our classes emphasize these issues and forces, helping students consider them and their implications prior to a time when they will have to make decisions or promote change, often without the time or data they would want.

The CCH further promotes knowledge of our heritage through a vigorous publications program. This will be the subject of a future article in **The Link**.

David Hatch, NSA Historian

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