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Issue Brief

75 Years Later, are Lessons from the Bari Incident still Relevant?

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Summary

The question of the possible use of chemical weapons by the US in Europe during the terminal phase of World War II remains a hypothetical one. But while planning and executing kinetic operations, it is essential to look at various facets of force application including the possibilities of accidents or surprise attacks by the adversary. In either case, a smooth flow of information about critical aspects to relevant personnel is essential to avoid or minimise losses.

Surprise invariably leads to success in war. On December 2, 1943, the Germans launched an air raid against the Allied naval installation at the Port of Bari, Italy. The raid destroyed nearly all the Allied ships in the port and became known as "The Little Pearl Harbour". The strike aircraft reached Bari at 7:25 pm just as it was getting dark and the raid lasted only 20 minutes. 17 vessels sank and seven more were damaged along with 31,000 tons of cargo and supplies. But realisation about the real disaster at Bari dawned only when almost 70 Allied seamen along with thousands of civilians were killed by mustard gas.¹

What Happened?

In September 1943, during the invasion of Italy, British paratroopers landed in the port city of Bari and captured it without a fight. The port became the nodal supply point for the Allies in the Balkans and North Italy. The port was under British jurisdiction and was the main supply base for General Bernard Law Montgomery's Eighth Army. In addition to the usual war *materiel*, ships moored at Bari carried aviation fuel for the bombers of the US Fifteenth Air Force headquarters – located about 75 miles away at the airfield at Foggia from November 1943.²

On December 2, 1943, 1st Lt. Werner Hahn of the *Luftwaffe* undertook a reconnaissance mission in his Messerschmitt Me-210, cruising at 23,000 feet over the port of Bari. The harbour was packed with at least 30 ships.³ Hahn's reconnaissance aircraft was not challenged. Based on Hahn's intelligence about the availability of a suitable interdiction target as well as the negligible level of resistance to the flight of his reconnaissance aircraft, General Wolfram von Richthofen of the *Luftwaffe* planned to strike with all available Junkers Ju-88 twin-engine bombers located in northern Italy and Yugoslavia. The plan was to muster 150 aircraft for the strike but, in the event, the force gathered totalled only 105.

To minimise the risk of interception, this force followed a tactically sound route to the east and then south for reaching Bari on a westerly course at low levels below the radar horizon. Additionally, to degrade the air defence radars, an initial wave dropped chaff *Duppel* (thin strips of tinfoil cut to various lengths so as to paint like aircraft on radar screens, producing scores of false targets thus masking the real aircraft). The surprise was complete. And an ideal target awaited in the form of a brightly lit and fully packed harbour. However, as part of a good plan to assist the terminal attack, a number of flares was also dropped to illuminate the general target area. This would have helped had the Allies resorted to a blackout. Explosions, fires and flames followed.

¹ Lenny Flank, "The Bari Air Raid: When The Allies Unintentionally Gassed Their Own Side," *Hidden History*, August 6, 2015, available at <https://lflank.wordpress.com/2015/08/06/the-bari-air-raid-when-the-allies-unintentionally-gassed-their-own-side/> accessed on October 15, 2018.

² Eric Niderost, "WWII Luftwaffe Raid On Bari Revealed US Mustard Gas Shipment," *WWI Magazine*, 11-1-1, February 2001, available at <https://renew.com/general16/WWIIluftwaffe.htm> accessed on November 2, 2018.

³ "Report World War II: German Raid on Bari," available at <http://www.historynet.com/world-war-ii-german-raid-on-bari.htm> accessed on November 2, 2018.

But the worst part of the raid was the result of a well-kept secret. Amidst the carnage of burning ships left in the wake of the bombing raid came a strange vapour with a garlicky smell. It slowly wafted over the harbour and was carried by the wind into Bari itself. Those exposed began to cough. By dawn, 628 men, women and children — and medical staff — were in a serious condition at the hospital.⁴ Within 24 hours, most of the victims began to develop large chemical burns on their skin: many were temporarily blinded by chemical irritation of their corneas. Over the next two weeks, 69 patients died from lung infection and fluid build-up caused when the inhaled poison gas corroded the lining of their lungs.

The first full-scale deployment of chemical warfare agents had occurred during World War I in 1915. A total of 50,965 tons of pulmonary, lachrymatory, and vesicant agents was deployed by both sides of the conflict, including chlorine, phosgene, and mustard gas. Official figures declare about 1,176,500 non-fatal casualties and 85,000 fatalities directly caused by chemical warfare agents during the course of the war.⁵ Mustard gas is a thick oily liquid dispersed by the shell's explosion and formed an aerial mist. This vapour caused severe chemical burns on the skin.

After World War I, most nations signed the Geneva Protocol of 1925, outlawing the use of poison gas in warfare. Although the United States had signed the protocol that year, it came around to ratifying the protocol only 50 years later. Nevertheless, when America entered the Second World War in December 1941, President Roosevelt had announced that the US would not use chemical weapons unless the Axis nations used them first. Adolf Hitler, himself a victim of gas attack in World War I, never ordered its use in combat.⁶ Yet Bari had the irrefutable signature of the presence chemical weapons.

The details of the chemical weapon release at Bari were not declassified and made public until 1967.⁷ Actually, during the joint Allied landings in North Africa, Sicily and Italy, the US had taken along a supply of chemical weapons. These were in the form of artillery shells and bombs filled with sulphur mustard (commonly known as mustard gas). The Liberty ship USS John Harvey was loaded with 2,000 M47A1 poison-gas bombs, each holding around 65 pounds of sulphur mustard. This information was not known to anyone on board the USS John Harvey, except for a seven-member team in charge of the consignment. During the Bari air raid, conventional munitions on board the USS John Harvey exploded. The M47A1 shells were thrown in all directions. The heat generated by the explosions caused the sulphur mustard to vaporize. It covered the port area and settled down on the water as well. The vapour cloud affected all personnel in the area. All members of the chemical warfare team on board the USS John Harvey were killed in the explosion.

⁴ Thomas Van Har, "Deadly Mystery at Bari," *Historic Wings*, December 2, 2012, available at <http://fly.historicwings.com/2012/12/deadly-mystery-at-bari/> accessed on November 2, 2018.

⁵ Linda A. McCauley, 'Epidemiology of Chemical Warfare Agents', in Ramesh C. Gupta (ed), *Handbook of Toxicology of Chemical Warfare Agents*, Academic Press, 2009, pp. 33-39.

⁶ "Poison Gas Tragedy at Bari," *The Daily Chronicle World War II*, available at <https://ww2days.com/poison-gas-tragedy-in-bari-harbor-3.html> accessed on November 2, 2018.

⁷ "Mustard Gas Disaster in Bari," *World War II Today*, available at <http://ww2today.com/2nd-december-1943-mustard-gas-disaster-in-bari-harbour> accessed on November 2, 2018.

No one present there knew the reason for the deadly vapour cloud. By the time specialist medical personnel diagnosed and identified the reason for the fatalities, it was too late.

Why bring Chemical Weapons to the war theatre?

Even 75 years later, the Bari disaster raises certain questions. The stated US policy at that time was not to use chemical weapons unless the Axis nations used them first. Then why did the US bring chemical weapons to the war zone in Italy? An unconvincing answer would be to contend that the US wanted to be ready for immediate retaliation. However, even in 1943, adequate logistical arrangements were available to shift a certain amount of highly specialised chemical weapons at short notice from mainland America on priority. This is clearly brought out in the final report of the Army Service Forces titled *Logistics in World War II* submitted to the Under Secretary of War by the Director of the Service, Supply, and Procurement Division, War Department General Staff under the aegis of the Center of Military History, United States Army in 1993.⁸

Was the consignment of chemical weapons on board the USS John Harvey the first or the only one to land in Europe? Would the US have used chemical weapons had they not been destroyed in the Bari raid? Answers to these hypothetical questions are difficult to assess. Bringing chemical weapons to the war zone was most probably with the intent of using them in retaliatory mode. However, the relatively low effectiveness of chemical weapons to help achieve military objectives would have been a key criteria in the final decision matrix. The decision of bringing such weapons into the battle zone needs to be taken only in case the gains in response time even with low probability of their usage far outweighs the risk of accidental explosion or surprise enemy strike.

Lessons on Force Application

The operational environment has transformed in the last 75 years since the Bari raid. But the basic tenets of force application demonstrated by that successful air raid are still relevant.

One, understanding the operational imperatives of force application and the peculiarities of kinetic elements is rewarding. The *Luftwaffe* understood that although surface forces move linearly and their force application location can be predicted reasonably well, the same is not true for air power. Air power can be applied in-depth, bypassing intermediate target systems. Thus, Foggia airbase hosting the US Fifteenth Air Force was bypassed as a primary target and instead Bari was selected. Bari was a more lucrative target and had lower resistance. Intelligence played a major role in target selection with key inputs coming from aerial

⁸ United States Army, *Logistics in World War II*, available at https://history.army.mil/html/books/070/70-29/CMH_Pub_70-29.pdf accessed on November 2, 2018.

reconnaissance. Given the hybrid character of contemporary conflict, it is all the more important to understand the strengths and limitations of multiple tools of kinetic and non-kinetic means to achieve objectives. The application of air power was relatively new in 1943. While that dimension is well understood today, the application of assets in the electronic, space and cyber space domains has created a virtual dimension to war. Understanding and mastering these new tools and domains define information dominance and thereafter conflict outcomes.

Two, air assets from different areas can be brought to bear on a single target rather easily to achieve concentration of force. This aspect was demonstrated by the *Luftwaffe* when the Bari strike was planned with assets based in Italy and Yugoslavia. The Port of Bari took almost three months to regain its functional capacity after the attack. Had the *Luftwaffe* followed it up immediately with another strike, the Allied offensive in Italy would have been stalled for a longer duration. But the *Luftwaffe's* focus soon shifted back to support the surface forces that were under direct pressure and retreating. Additionally, with the surprise factor lost, it would not have been possible for the numerically inferior *Luftwaffe* to repeat this feat.

Air power has evolved since those early years. With aerial refuelling and the longer range of air launched weapons, it is now possible to target a port like Bari in a coordinated manner with assets located on different continents. While overall force levels in combat aviation have drastically reduced, their effectiveness has increased due to greater accuracy, longer ranges and higher speeds. This has complicated the planning for defence and tilted the balance in favour of planners with an offensive intent.

Three, surprise is rewarding but detailed planning is required to achieve that. Tactical routeing and terminal attack from an unexpected direction along with the use of the *Doppel* ensured complete surprise and resultant success. While surprise at the tactical level remains relevant even today, with the increase in the dimensions of the battle space, detailed planning is required to achieve operational and strategic surprises. Further, surprise with respect to time, location, quantum and methodology of kinetic force application needs to be combined with non-kinetic means to outwit the adversary. Simultaneous force application in multiple domains compresses the timeline and margin of error for both sides.

Four, the success of combat aviation is dependent on the availability of a suitable target system. Air power has played a crucial role in most subsequent wars. The success of air power has invariably been linked to the availability of a very high concentration of assets as a target system, like in Iraq during Gulf Wars I and II. But the same level of effectiveness could not be achieved in Vietnam, Afghanistan, and Lebanon (2006) because of the lack of a high concentration of combat or combat support assets as a target system. In the case of Bari, keeping ships in the high seas and scheduling their arrival to ensure minimal concentration at the port at any given time would have resulted in minimising losses. The USS John Harvey was in port for the sixth day waiting to offload when it was struck. A smaller number of ships at Bari may not have attracted the attention of the reconnaissance pilot or of the chief planner to choose Bari over Foggia. A disaster could have been averted altogether.

With the changing character of warfare, the application of airpower needs to evolve. In a conflict against a dispersed and diffused opponent, concepts developed to tackle a conventional threat are of little use. In hybrid warfare, air power needs to be changed from an overtly offensive arm to a supporting, precise, intelligent and restrained component, so as to avoid collateral damage and yet assist in achieving the laid-out objectives. Such an approach requires an extraordinary amount of time and resources, backed by a clearly thought-out strategy.⁹

Five, the security of own combat and combat supporting assets cannot be ignored even when gaining ground. While the Allied forces were gaining ground in North Africa and Italy, a sense of complacency had set in. No fighters were deployed in the sector for protection against air raids. In fact, responding to rumblings about lax security measures, British Air Vice Marshal Sir Arthur Coningham had held a press conference on the afternoon of December 2, 1943, the day before the German air raid on Bari, and assured reporters that the *Luftwaffe* has been defeated in Italy. He was confident that the Germans would never attack Bari, stating 'I would regard it as a personal affront and insult if the *Luftwaffe* would attempt any significant action in this area.' He was proven wrong within a mere 12 hours. A simple step like blackout may have reduced the effectiveness of the air raid.

In the current environment marked by small teams and a large number of non-state actors, the security of assets assumes even greater significance. Owing to the inherent dependency on communication tools and information, security parameters now have to cover both the physical and virtual domains.

Six, weapons require careful handling and certain weapons need special handling. Unintentional and accidental weapon explosions can be disastrous. But with timely information flow, corrective actions can be initiated to mitigate the losses and consequences. Neither the wounded nor the medical staff and not even the port authorities were aware of the presence of chemical weapons on board the American ship at Bari. Many of the lives lost might have been saved if this information had been available and corrective treatment had followed. This dimension of the lesson learnt in Bari remains relevant in exactly the same form even today.

Gestalt

The question of the possible use of chemical weapons by the US in Europe during the terminal phase of World War II remains a hypothetical one. But while planning and executing kinetic operations, it is essential to look at various facets of force application including the possibilities of accidents or surprise attacks by the adversary. In either case, a smooth flow of information about critical aspects to relevant personnel is essential to avoid or minimise losses.

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