

Air Tactics of the Twilight War - 1

SAM-Bushes

“I was always planned that we would be used to deliver nuclear weapons in the event of the balloon going up. We were assigned 12 aircraft which could carry two bombs each. We were only allocated 18 bombs though. When we questioned this we were told that they expected us to lose 25-33% of our aircraft before we would be told to deliver the nukes. Not very inspiring. Also wrong, with it not going nuclear immediately we had lost 50% and had been put into reserve as a strategic resource (and had been there for some time). It was only years later I wondered why there were only enough bombs for one mission.... No wonder the Squadron motto was ‘with all speed to the stars!’”
Squadron Leader Alexander Smith
28 Squadron (RAF)
Quoted in “Five Past Midnight” by Samantha Sheffield. Ward and Grant (2025)

killed when their aircraft was hit by an unknown type of SAM. Those interested in learning more about this operation are recommended to watch the 2021 British film “Operation Warlock” which includes some excellent sequences recreating the mission.

As US, Canadian and Britain entered the war, a number of aircraft were tasked with attacking key targets behind Pact lines. These deep strike aircraft were a valuable resource as many were also intended to be used to deliver tactical nuclear strikes. The most publicised example of these raids was the strike by the Tornados of the RAF’s 28 Squadron on the railway command car of general Anton Pushkin, commander of the 21st Army on 23rd December 1996. Flying at tree top level through the Pact front line in Austria, two flights of two aircraft tore along the mountainous valleys before dropping two RBL755 cluster bombs each on the train. The resulting damage delayed the Soviet Army for the better part of two days while command and control was reorganised. During the exit run Flt Lts Harry Thorpe and Dan Hunter were



Illustration 1: Official painting of Flt Lts Thorpe and Hunter's Tornado on its final mission



Illustration 2: Dummy SS24 in a typical site that restricted the number of approach and exit routes. Sovphoto

After this and other raids the Soviets tried a new technique. NATO would be allowed to discover a headquarters or other high value target (such as a railway transported SS24 Scalpel missiles), often by what appeared to be careless camouflage or movement when a satellite would be overhead (it is speculated that the Soviets deliberately left a number of the non-geosynchronous KH11 and KH12 satellites intact as part of this and other deception plans). When the NATO strike was delivered at the dummy target, the attacking aircraft would find themselves flying into a huge concentration of anti-aircraft weapons.

Usually these would be arranged in layers around the target and would only light up radars when the dummy target was attacked. These SAM-bushes as they became known to NATO proved very effective, a raid in February 1997 resulted in the loss of 5 out of the 6 Tornados from the RAF's 17 Squadron involved in the raid. Two days later a similar strike by F15Es of the US 484th Fighter Squadron resulted in the loss of all four aircraft.

“On one raid in March ‘97 my F15E got illuminated by an ‘Snow-Drift’ radar, I was almost on fumes from the damage I had taken in a SAM-bush earlier so I couldn’t evade, all I could think of doing was calling ‘Magnum’ which was the code word for launching a HARM. As I was hoping they were listening in because the radar went off. How I got away with that I don’t know!”
Major Sara Hock
492nd Fighter Squadron
Quoted in “Eagles Over Europe”
by Harry Barnetti, Aviation Books (2022)

NATO responded by laying an anti-Sam-bush as it became known. Two strike aircraft would be fitted with ECM pods and would only turn these on as the ambush was sprung. The aircraft would follow a specific route out that was being targeted by F4G Wild Weasel aircraft firing AGM-88 HARM missiles at radar sites (along with a fighter escort). The first time this tactic was



Illustration 3: Damage to one of the F4Gs of the 497th (US Air Force)

tried it met with mixed success, one F15E of the 484th was lost as were two F4Gs of the 497th Fighter Squadron (two more were damaged, one of which was written off).

Support was provided by F16s of the 115th Fighter Squadron (Wisconsin Air National Guard), one of which suffered minor damage. Post raid analysis suggested that at least 8 radar sites were believed to have been destroyed or severely damaged.

In addition, NATO planners changed the targeting priorities, preserving more of their aircraft at the cost of missing some high priority targets. It has been suggested that it also contributed to the NATO decision to move to using single aircraft with nuclear weapons rather than multiple aircraft in a conventional deep strike role later in the war.