First Airborne Elint Collection?

(b)(3)-P.L. 86-36

Anyone coming into our business thinking that Signals Intelligence began the day before yesterday soon learns that some aspects of it can be traced far back into history. What he learns, of course, has to do with Communications Intelligence. He may go on thinking, though, as do many people, that Electronic Intelligence, Elint, is a product of the very recent past—much more recent than, in fact, it is.

The history of Elint probably parallels the history of radar itself, which predates World War II. More surprising, perhaps, is that one of our "modern" collection techniques goes back just as far—the technique of airborne collection.

Those of you who think that airborne collection of Elint is one of the more recent techniques may enjoy this account of what, I think, may have been the first airborne platform used for the express purpose of Elint collection against a potential enemy target.

In the spring of 1939, the British were busy erecting 350-foot latticed towers all along the channel coast. German intelligence had observed this construction and had, for the most part, written it off as part of a new communications set-up. General Wolfgang Martini, the Head of the Luftwaffe Signals Service, was not convinced by this evaluation, however. He suspected that the towers might be part of radar facilities.

Germany was, at this time, developing its rather crude Freya and Wurtzburg radars and General Martini felt that the British might be engaged in a similar development but, possibly, using different wavelengths.

Because of the possibility of war with the English in the not so distant future, knowledge of the capabilities and limitations of the British effort was vital.

At a meeting with the Luftwaffe Chiefs, Goring and Milch, General Martini suggested that an exploratory reconnaissance be mounted in an attempt to confirm or deny his suspicions. He further made the startling suggestion that a zeppelin be used for this purpose. When Goring suggested a more conventional aircraft, Martini pointed out that only an airship could remain stationary long enough to record a series of signals. Convinced, Goring ordered one of Germany's two remaining zeppelins reactivated and configured for electronic surveillance.

One night in May 1939 the 776-foot-long LZ-127 lifted off from its base at Frankfurt and headed for the Suffolk coast of England. Aboard were General Martini and a staff of technicians, while below the gondola were slung the aerials designed to collect the signals. As the LZ-127 approached the area off the Bawdsey Research Station at Ordness, she was detected by British Radar and her mission devined. During the entire course of the flight, all General Martini and his technicians picked up was an unidentified crackling; they returned to Frankfurt as ignorant of British radar development as they were when they left.

A second attempt, using the LZ-127, was made on 2 August 1939, less than a month before the outbreak of World War II. Again the airship headed for England with orders to remain 15 miles from the coast. The technicians, headed this time by General Martini's deputy, Lt. Col. Gosewisch, were under instructions to record the wavelengths, strength, and direction of all high-frequency signals intercepted. Although the LZ-127 cruised as far north as the British Naval base at Scapa Flow, she failed to collect the desired signals and her party returned to Frankfurt still in the dark about radar development.

This was the end of Germany's zeppelin reconnaissance program. With the outbreak of hostilities on 1 September it became too risky to attempt again. General Martini was doomed to remain in ignorance until the fall of France in the Summer of 1940. With the acquisition of territory opposite the English coast, he was able to mount a ground-based collection and analysis effort that finally showed him that, indeed, the British were ahead of the Germans in radar development.

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