

## When Germany sold Britain its Secrets by David Gray

It has always been believed by most people that the British were years ahead of the Germans in the development of radar. However, the Germans had radar in 1937, the British knew it because none other than Luftwaffe General, Erhard Milch (*left*), told them so in the officer's mess at Fighter Command Headquarters during a visit.

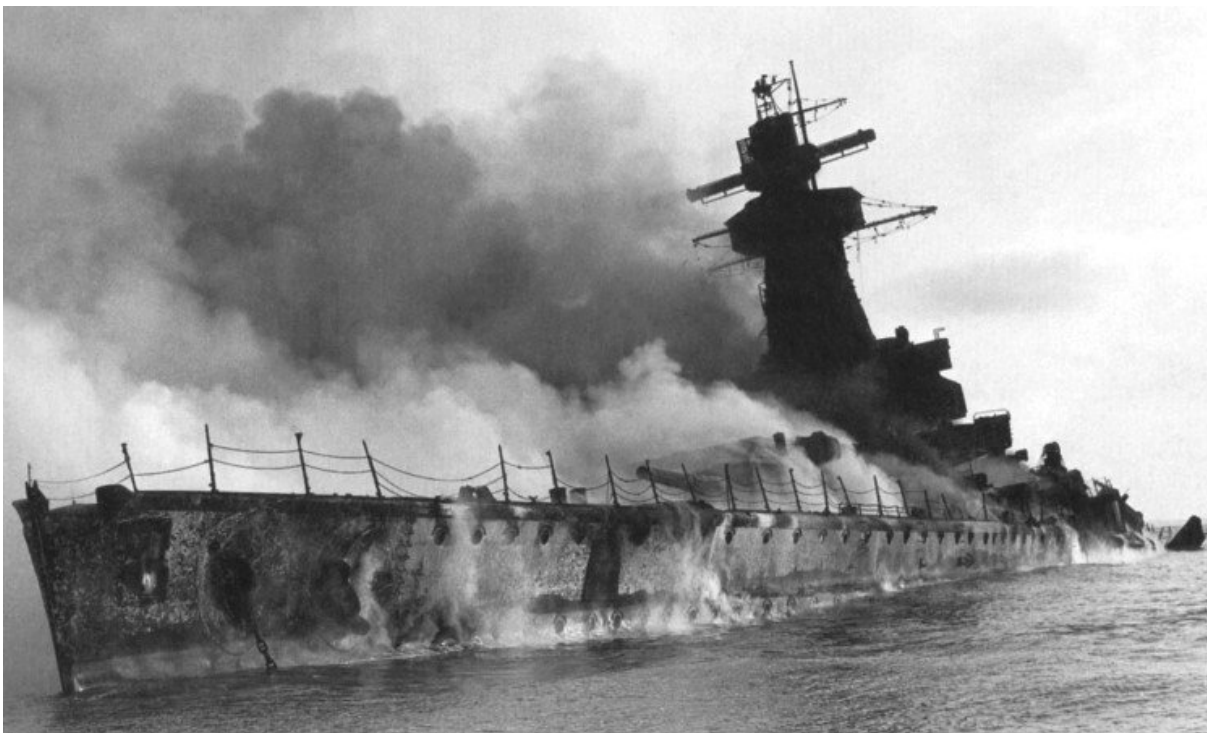


“How are you getting on with your experiments in the detection by radio of aircraft approaching your shores?” he asked. And continued, “We have known for some time you were developing a system of radio detection, and so are we, and we think we’re ahead of you!”

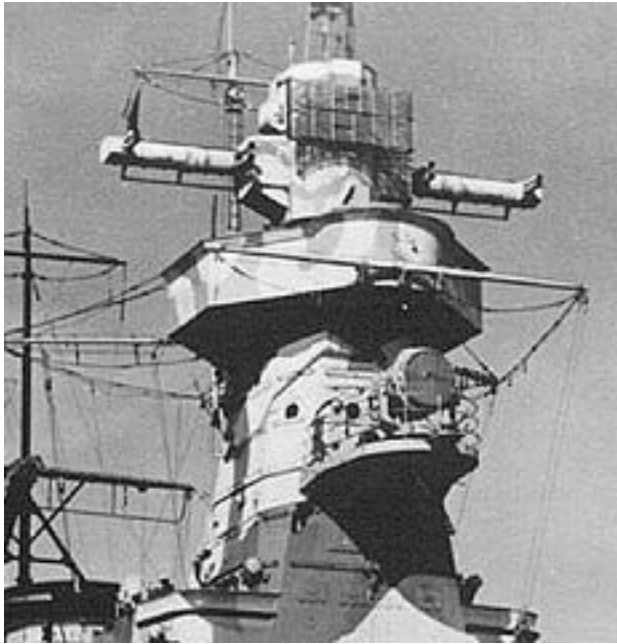
It shouldn't have been a surprise therefore, when war broke out, that the Germans had radar. Short of having Milch hand over the blueprints, the *Graf Spee* was the next best thing.

By 1936 the GEMA company had provided an 8Kw radar set operating on 1.8 metres which detected an aircraft at 28km. This led to the pocket battleship Admiral Graf Spee being equipped with a gun ranging radar known as **Seetakt** during a refit in 1938.

The German "pocket battleship" *Admiral Graf Spee* was scuttled by her crew on December 17, 1939, in the River Plate estuary off Montevideo, Uruguay (*below*), following damage from the Battle of the River Plate. Captain Hans Langsdorff ordered the ship destroyed to avoid capture by British forces after being misled about the strength of pursuing ships.



The British Minister to Uruguay, Eugen Millington-Drake, noticed the **Seetakt** radar on *Graf Spee* when she entered Montevideo. Although he didn't understand its true significance at the time, he knew it



was important. After the scuttling, most of the wreck, including the radar, was still visible. (*The radar array is the rectangular metal grid at the top of the mast, left*).

Millington-Drake was acquainted with a Uruguayan businessman and British Intelligence, using this as a 'front company', purchased the scrap metal rights to the wreck from the Germans for £14,000.

After an analyst checked press photographs in January 1940 and confirmed the presence of wires and aerials, a British radar scientist at the Air Ministry, Labouchère Hillyer Bainbridge-Bell, was sent to Paris, where the Deuxieme Bureau, the French Secret Service, had some better pictures. From there, he was sufficiently intrigued to make the journey to Uruguay. He took with him a recently published book entitled *I Was Graf Spee's Prisoner*, written by Captain Patrick Dove who had been captured and imprisoned on the ship. In the book Captain Dove described a turret at the top of the ship that rotated and was manned day and night. It never stopped, he said.

Labouchère Hillyer Bainbridge-Bell was sent to Montevideo, posing as a scrap metal dealer, to inspect the radar and to bring parts of it back to the UK for detailed analysis. This he was able to do by rowing out to the wreck, although souvenir hunters had gutted the lower decks and Nazi sympathisers had stolen other items of equipment.



After only a few hours spent on the wreck he was able to produce a report in meticulous detail, piecing together the intricacies of the radar system. He found part of a cathode ray tube (*left*), that told him it had a display, and scraps of electronics, gears and aerial showed him how it worked.

The radar cathode ray tube, which was until recently on display at the museum at the British naval base *HMS Collingwood*, provided invaluable and unique intelligence on German radar capability and development at that time. Articles from the Heritage Collection are now in the hands of the National Museum of the Royal Navy.

While this acquisition was a clandestine intelligence operation, it was technically a legal commercial transaction conducted under a false identity.

### **Significance of the Find**

Britain was largely unaware that Germany even possessed such technology. Analysis of the Seetakt components showed that while German radar was technologically advanced (even superior in some technical specs), they lacked the integrated command-and-control system that Britain was developing for air defence. The findings *eventually*, influenced British radar development and countermeasures. I say *eventually*, because after being received back in England the report was filed and then forgotten, seen by some officials, understood by fewer, and then left in the archives at Whitehall. Britain continued for at least a year to believe that it, alone, had mastered this new wonder weapon of radar.

**Sources:**

- Facebook
- IEEE Aerospace and Electronic Systems Society
- 'The Battle of the Beams', by Tom Whipple (Penguin 2024).