

## Rotary Club of Romsey Test - Breakfast Meeting 10 May 2023

A very select group of 10 “early risers” led by SVP Ed Holmes, enjoyed our usual breakfast at Youth in Romsey. We were then enlightened by Bill Gidley on the topic of proximity fuses for anti-aircraft munitions.

Bill had become interested in this topic when Roke Manor came under the ownership of Chemring and were asked to undertake a study on the feasibility of updating the electronics of proximity fuses then being manufactured in Italy. When fired, the shells accelerate to 3x speed of sound in 2.5 metres, experiencing an acceleration of 15,000g and a rotation rate of 20,000 rpm. The project was abandoned due to cost but a spinoff was the use of the Roke design of the radar altimeter on the Beagle probe to Mars where it worked successfully.

Bill went on to review the crucial role of proximity fuses in WWII. On the Tizard mission ([https://en.wikipedia.org/wiki/Tizard\\_Mission](https://en.wikipedia.org/wiki/Tizard_Mission)) to the USA in 1940 their strategic importance was seen as being on a par with the atom bomb, radar, submarine ASDIC and the jet engine.

By 1942 there was a working prototype and by 1944 they were in full production. Their deployment greatly improved the AA kill rate against the V1 doodlebugs and they later played a decisive role in the Pacific war.

Ed thanked Bill for his talk and we left the meeting well informed and well fed.

John Gould  
(Scribe of the day)