

The history of Roke Manor Research

The first known reference to a settlement at Roke comes from the 'Feet of Fines' papers from Southampton. Dated 1256, a mention is made of 'Ok', lying approximately 2¼ miles from the historical centre of 'Rumseye' (Romsey).

It is thought that 'Ok' had close links with neighbouring Stanbridge Earls, which is reputed to have been the home of Ethelwulf (806-858AD), father of Alfred the Great. Indeed, it is believed that King Ethelwulf was buried there before his bones were moved to Winchester Cathedral.





Roke Manor lies in ornamental parkland, about 175 feet above sea level.

The actual meaning of the name 'Roke' has been the subject of much discussion, yet still remains something of a mystery. Several ideas have been put forward, including a variation of 'Rook', meaning a castle or rocky outcrop. This seems unlikely, however, as Roke Manor stands on gravel. A more plausible explanation is that the name derives from the old English 'Atte Oke', pronounced like "Atter Oak", which means literally 'at the oak', and that this was corrupted in speech to 'at Roke'.

It is possible that the name does not refer to a particular oak tree, but to a family name. A Norman name encountered locally is 'De Quercu' – the French equivalent of 'Atte Oke'. After the Normans invaded in 1066, it is possible that sons or grandsons adopted anglicised versions of their French names, as 'Roke' is encountered as a surname in various parts of Britain.



Historical milestones

1256

First known reference to a settlement at Roke in the 'Feet of Fines' papers of Southampton.

1347

There is thought to be a document of this date that mentions properties at 'Oke' and 'Stanbrygge', bequeathed by the Duke of Gloucester to his daughter.

1443

Roke Manor is believed to have formed part of the possessions of the Dean and Canons of St George's Chapel, Windsor. It is known that a John Greenfield was in residence at this time; the assumption being that he leased the property from the Dean and Canons.

1481

Having been in the possession of the Greenfield family until this time, Roke was sold to Sir William Hasting.

1545

During the reign of Henry VIII, Roke Manor was mentioned in a lay subsidiary roll as having six taxpayers in residence.

1558

John Kirkby of Stanbridge Earls left Roke in his will to his son, Thomas. Roke was later passed to Thomas's son Gerard, and thereafter to his son, Thomas. Thomas was only a year old at the time, and the site was seized from him in 1652.

1650

The first mention was made of a house on the Roke site. This was the first and last mention for many years. Certainly it was not featured on a map created in 1680. It is believed that the house was destroyed during the civil war and rebuilt at the end of the 17th century.

1709

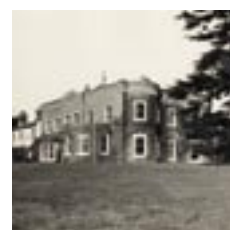
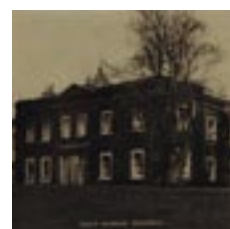
The estate was passed to a John Fifield and remained in the possession of his family until 1858. During this time a great many improvements were made to the house and grounds, and the house was renamed 'The Park'.

1858

The Manor House and its grounds were sold to a Thomas Winsgate-Henderson. During his residence, Mr Henderson added the tower, or cupola, and several large reception rooms. This resulted in the look the house retains to this day.

1895

The house and its 270 acres of grounds were put up for auction and sold on 14th July to John Derby Allcroft, former MP for Worcester. The estate is believed to have cost him £11,000.



1935

The estate was bought by the Ansell family – a Birmingham-based brewery firm. Some of the Ansell racing cars were maintained at Roke until the 1950's.



1942

Stanbridge Earls became the first site in the UK set up for the rest and recuperation of United States Army Air Force (USAAF) bomber crew officers. Army Air Force Station 503, run by the American Red Cross, was expanded to include Roke Manor in April 1944. Before this, Roke Manor was used by the USAAF as a clearing house and training site for newly arrived personnel or for personnel awaiting reassignment. The Ansell's moved into the gardener's cottage for the duration.



1950

The father and racing-driver son of the Ansell family died in quick succession, leading to the Manor and its estate being sold off. The brewery eventually closed in 1981.

1956

The house and 22 acres of the estate were bought for £13,000 by the Plessey Company and named Plessey Research Roke Manor Limited. The laboratories opened in June, staffed initially by a group of 28 engineers and scientists. The majority of work carried out was performed by the Radio Research group into Electronic Warfare, which was so highly regarded that it did not take long for the company to establish itself as a leader in its field.



1970

A typical Graduate's salary reached £1,350 pa.

1983

Following the merger with the Electronic Systems Research (ESR) centre at Southleigh Park, staff transferred to Roke, bringing new expertise in optics and sensors. The successful integration of the Southleigh business led to the formation of Roke Manor Research Ltd, an independent research business within Plessey.



1990

The site was passed to GEC-Siemens in a joint take-over.

1991

GEC sold its 50% shareholding in Roke Manor Research to Siemens Plessey Electronic Systems and became wholly owned by Siemens AG.

2001

Roke Manor Research completed a £10 million investment in new facilities to keep pace with the growth of the business. The investment included the provision of a 4000m² purpose-built laboratory, which was opened by UK Science Minister, Lord Sainsbury in September 2000.



2006

Roke Manor Research celebrated its 50th anniversary with the launch of a new identity and logo. HRH The Duke of York officially opened a technology event to celebrate the anniversary.

Our development milestones

1960

A successful programme against strong competition resulted in working prototype memory systems being developed for the then super-computer, 'ATLAS'.

1961

Won a contract to work on a revolutionary new communications concept for the UK army known as the 'Hobart Plan'.

1966

Part of the computer group transferred to Dorset. They were later responsible for the PP250 computer, which was selected against strong competition as the controller for the crucial Ptarmigan switch.

1967

The Hobart Plan re-emerged in the form of a joint UK, US and Canadian project called Mallard, the first mobile digital communications system in the world. Plessey formed a major part of the UK consortium and its contingent was drawn largely from Roke staff. Its work received major international acclaim.

1969

Designed the novel transmitting system for the airborne jammer unit, Skyshadow, which subsequently entered service with the RAF.

1970

Work commenced on adaptive antenna arrays, an area which rapidly led to a wide variety of schemes, generically termed ICE (Interference Cancellation Equipment). Work also started on sonar techniques which defined the airborne processing and display systems for modern equipment used by the RAF.

1973

Plessey appointed as prime contractor for project Ptarmigan. Following successful trials, the Ptarmigan project entered service with the British Army in 1985.

1975

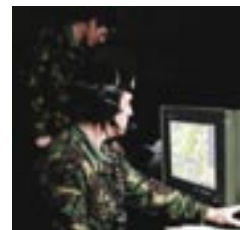
Designed and demonstrated the world's first monolithic Gallium Arsenide microwave circuit.

1979

Won a prestigious award for 'Groundsat', a novel system which permits simultaneous radio reception and transmission on the same frequency – a feat previously thought to be impossible.

1985

Saw the development of a system called DROID which formed part of two autonomous vehicle programmes. Early civil communications work also started this year. Roke, working for the DTI, evaluated a number of candidate systems for what finally became the GSM telecommunications standard which is in global use today. Since then, Roke has played a pivotal role in the development of cellular communications systems, including GPRS and UMTS.



1986

The Telecommunications Systems department was founded and Roke moved successfully into a new market.

1987

Handset development activities commenced on the UK Cordless and Telepoint standard (CT2).

1989

Development began on a model-based system, RAPID. Still in use today, its features include aircraft photogrammetry, runway tracking and vehicle convoying.

1990

Significant work was carried out for the first handset of the Digital European Cordless Standard.

1992

Work began on a major telecommunications project called MONET. The work was carried out for the European-commission sponsored RACE mobile consortium.

1995

Saw the start of work on HALO, an acoustic locator of guns and mortars, designed initially to detect cease-fire violations in Yugoslavia. HALO is now acknowledged as the world's leading acoustic system for this purpose and is in use with the British and overseas Armies.

1998

Developed 'Goldcard', one of the most advanced Digital Audio Broadcast (DAB) receivers in the world.

1999

Saw Siemens and NEC create Mobisphere – a joint venture to develop UMTS products and services. In 2000, Roke developed a testbed to stimulate interest among telecommunications operators and achieved a major milestone when it sent video data across the test system, signifying the world's first video broadcast over UMTS.

2001

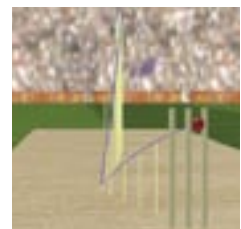
Handed over two Height Monitoring systems to Eurocontrol, the organisation in charge of air navigation in Europe. Data collected from the two systems was used to support the introduction of the reduced vertical separation minima and enable aircraft to fly closer together throughout European air space.

2001

Roke's Hawk-Eye system which accurately tracks the flight of a cricket ball, won a Royal Television Society Award for its role in revolutionising the television coverage of test Cricket.

2001

Roke's revolutionary self-powered mine detector scooped the Worldaware Award for Innovation. It was chosen due to its potential to address the humanitarian landmine problem in countries like Angola, Somalia and Cambodia.



2003

Roke launched its Video Motion Anomaly Detector; a unique image processing technique designed to improve the efficiency of close circuit television by learning abnormal behaviour.



2004

Invested £200,000 in the UK's first mobile antenna testing facility capable meeting the Cellular Telecommunications and Internet Association (CTIA) testing requirements.

2005

For the first time in 15 years manufacturers were able to access Roke's cellular design and development capability. Until this time, Roke had an exclusive agreement with Siemens, but this ended with the sale of Siemens' Mobile division to BenQ.

2006

Roke's system Vigilance™, became the first multilateration solution to be used to monitor noise in the UK. It generates critical surveillance data which can be used by airport authorities to respond to enquiries from local stakeholders about aircraft operations, which is not possible with the traditional radar-based approach.



Today, Roke Manor Research is recognised as a worldwide centre of excellence for contract research and development and pioneers innovative solutions for a diverse customer base including Siemens companies, government departments and commercial clients. Still wholly owned by Siemens, Roke employs 420 people, of whom 330 are professional engineers and scientists, and has a turnover of over £35 million.

As well as contract research and development, Roke provides a comprehensive range of services including systems engineering, product development and independent technology advice.





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