

Exploring Explorer House



'SU373155' says the large bold signboard near the door. It may be SO16 0AS to the postman, but what more appropriate location identity than that recognised by generations of users of its products? And what more appropriate venue for the first expedition in the latest CCS series of visits? Explorer House, on the edge of Southampton is the prestigious new home to Ordnance Survey. On 12 February a group of members was welcomed by Head of Corporate Affairs Phil Watts and treated to a tour of the buildings and practical demonstrations of how a twenty-first century national mapping organisation thrives in a world of fast-moving technology, changing political imperatives and challenging financial constraints.

Some numbers to set the scene: OS is 221 years old, has 1150 staff and 28 field offices; turnover is about £141.8 million, only about 5% of which comes from the sale of paper maps (about two million of them a year). It is an Executive Agency with Trading Fund status, reporting to UK Parliament through the Department of Business, Innovation and Skills. It has to fund all costs and investment from revenue and has to achieve a specified return on capital employed (in other words, pay a dividend to Government). The prime activity is the collection of ever-changing real-world data to maintain the national geospatial database and to make this information available to the public, industry and the public sector through MasterMap and a (surprising) variety of other ways. The database holds some 460 million records, with over 5000 daily changes.

Building manager Greg Tumilty described some of the innovative features of the building, such as the ground-source heat-pump system that maintains a comfortable temperature throughout the year, the acoustic buffer of decorative red bricks screening traffic noise, computerised lighting, the sophisticated (but unobtrusive) security systems and the onsite nursery.

The two primary methods of data collection were demonstrated: ground survey and remote sensing. Surveyor Angus Hemmings showed how the latest

model of rugged portable laptop (the Toughbook) is used in conjunction with highly-accurate GPS equipment to identify precise locations on the ground and describe what is there. Jean Martin described the capture and interpretation of aerial imagery. Two leased Cessna planes based at East Midlands airport fly ten months of the year at about 6000 feet, taking some 50,000 high definition images (one pixel representing 4cm on the ground). Skilled analysts interpret the images to identify changes.

The cartographic department is responsible for using all this data plus more from external sources (such as tourist information) in designing and preparing paper maps. The process was described and demonstrated by Mike Robertson, Liz Grantham, Marc Mitchard and Robert Dodd. They showed how new and changed information is incorporated into existing Landranger and Explorer map sheets, emphasising such matters as the care that has to be taken at sheet edges to ensure the completeness and integrity of each individual sheet.

Two further presentations showed something of the activities of OS of which CCS members would be less aware. Edward Mannering showed typical examples of the benefits of the analysis of geographic data in predicting flooding, verifying insurance claims and optimising bin-collection routes or school bus routes. Mark Tabor described the vital role OS had performed in the London 2012 Olympic Games by providing large scale highly detailed plans and imagery for planning and operational purposes.

We extend our grateful thanks to all who made us welcome and who showed such pride and enthusiasm in the Survey, its activities and its new home.

John Davies



Opposite: the CCS group

above top: the red brick acoustic wall

middle: the grid reference of Explorer House and the four previous headquarters of Ordnance Survey

bottom: Gerry Zierler (left) thanks Phil Watts

[main photo by Michael Stacey, others by the author]