A Celebration of 50 years of

The British Cartographic Society
As the British Cartographic Society marks its 50th anniversary, we are recognising the work of cartographers over the past half century by recounting the history of the Society and collating exemplary cartographic products that have been produced over the last 50 years to illustrate major news events.

From a personal point of view, I have thoroughly enjoyed being involved in this project. I was at primary school when the British Cartographic Society was founded in 1963 and even back then, my favourite book for ‘reading time’ was an atlas. I’m not sure that my teacher fully understood my love of maps, but it is certainly an interest that has stayed with me ever since. When I started my career 34 years ago, I said I would know it was time to try something different when I got tired of working with maps, and I’m still in the industry.

Whilst compiling this book we have realised time and again that as ‘a week is a long time in politics’, then 50 years is an age in cartography. It has been instructive to see the immense changes the industry has undergone over the last 50 years; moving from drawing pens and light-tables to high-end cartographic workstations and software. Yet the basic principles of good design have stayed the same and this is evident throughout the book, whether the graphics were produced back in the 1960s, or in any of the intervening decades up to the present.

In selecting the news stories represented here, some were easy to choose and had a clearly recognisable map, whilst others led us to scour collections far and wide in order to identify something suitable. Our assembled collection has resulted in an eclectic mix, as the mapping chosen also reflects the wide range of cartographic outputs that we are used to seeing.

To complement the collection we have included a history of the Society, showing how it has also changed over the years. Within this we have acknowledged some of the illustrious names that have been involved with the Society in many different capacities and the award winners, whose work has been recognised as something special within the discipline.

Today, in its 50th year, the Society continues to flourish as our membership increases and interest in maps is as great as ever. So whether yours is a personal or professional involvement and whether you’re a Society member or still to join us, the fact that you have this book means that you share that interest in cartography in its many and wonderful forms.

I hope that you enjoy the selection of maps chosen and appreciate the crucial role that mapping can play in telling a story, often explaining it far better than the written word.

Finally, my thanks must go to all those who have been involved in compiling the book. It has been a huge task, involving tracing map owners, scouring the collections, writing the accompanying text, researching the history of the Society, collating the images and designing the layout of the book. I thank you all for your contribution to illustrating our Society’s story.

Peter Jones OBE
President of the British Cartographic Society
London 2013
A Short History of the British Cartographic Society

1963–2013

Written by Seppe Cassettari with contributions from Chris Board and Ian Mumford and research by Ken Atherton

Introduction

This short history provides an overview of the development of the British Cartographic Society. It is the story of a Society that has weathered huge change in its area of expertise through the end of empire, the dawn of automation and the rise of the Internet, all of which have profoundly influenced the development of modern cartography.

Getting started – the first twenty years

Great Britain has a long tradition of mapping and charting through its national agencies, the Ordnance Survey and the Hydrographic Office. The country has also taken a prominent role in the development of cartography internationally. This included a lead role in the International Map of the World at 1:1,000,000 scale, the first global mapping initiative, which was supported by the British Government from 1909 until it was taken over by the United Nations in the early 1950s.

Good quality mapping was a prerequisite for post war regeneration and development which, together with the technical advances at the time, gave impetus to the setting up of learned societies specialising in cartography to share knowledge and drive the advancement of the subject. Particularly noteworthy events were the cartographic conference organised by the Swedish map organisation Esselte in 1956, and the Second International Cartographic Conference organised by Rand McNally in the United States in 1958. This latter event led directly to the setting up of the International Cartographic Association (ICA).

In some countries it was felt that cartography was best served by existing societies and organisations, such as the national geographical societies, where it was already an established area of interest. For some years this was the case in the United Kingdom, but as the difficulties in providing for the distinct interests of such a complex and technical subject became clearer, there was a growing feeling that there was a need for a separate society to ‘devote itself to promoting the development of cartography’.

The first moves towards the creation of the Society were made in September 1962 at an informal Cartographic Conference in Edinburgh when John Keates undertook to establish the potential support. The options were discussed again a year later at a second informal gathering at the University of Leicester organised by Professor Norman Pye. Finally, on the 28th September 1963 at a formal meeting chaired by Brigadier D.E.O. Thackwell, then Vice President of the ICA and lately of the Ordnance Survey of Great Britain, the formation of a Cartographic Society was proposed.

After contributions from John Keates and L. Hatch and A.G. Williams from the Institution of Professional Civil Servants, representing the 3,000 people employed in government cartographic establishments, there was general agreement on the aims of the new Society. The British Cartographic Society was born, and a Council of 22 members was elected for the first year. Brigadier Thackwell became the first President.

The inaugural meeting of the Council was held later the same day at which Executive, Editorial and Programme Committees were set up with the objectives of ‘formulating a constitution, publishing a high quality journal and organising a programme of technical meetings’.

Over the next two decades the Society grew and developed, successfully establishing its credibility and differentiating itself from the activities and purposes of sister societies, especially those of geography, photogrammetry, surveying and computer sciences.

By the time the BCS reached its 21st anniversary in 1984 it had forged an international reputation. The growth in membership to over 1,000 individuals and some 20 corporates, the establishment of a successful events programme centred around the annual Symposium and the growing international status of The Cartographic Journal were all causes for celebration. When Harold Fullard, a former President, gave the toast at the Society Dinner during the Leeds Symposium in 1984 he said ‘The achievements of the Society exceeded our first most optimistic hopes, and has made our Society into one of the most successful of its kind in the world.’

Changing times

As the Society entered its third decade, cartography was to experience profound changes. During the 1980s, government investment in mapping was in decline. The transition from British Empire to Commonwealth during the 1960s and 1970s had involved significant investment in mapping programmes through the Directorate of Overseas Surveys (DOS) as part of the economic development support provided to newly emerging countries. As the work of

DOS was scaled down and government investment in mapping both in the UK and abroad started to decline, so the support for the BCS from large centralised departments of the civil service was on the wane by the end of the 1980s.
At the same time the whole map-making process was being automated. The development of digital processes happened at a rapid pace but was then overtaken by the emergence of Geographical Information Systems (GIS). Initially GIS was held up as a panacea for creating and using maps of the future but the impact on the main cartographic institutions was initially negative. The BCS was impacted by the rise of new organisations with a more technical focus such as the Association of Geographic Information (AGI), as individuals who would have traditionally looked for a career in the cartographic profession turned their attention to GIS. The advent of GIS offered the chance to work in a much wider range of organisations as the technology introduced mapmaking skills into the geographic data user community. Outside the cartographic profession there was a view that traditional cartographic skills would soon be no longer required.

The Society itself recognised that it needed to change. The founder members were gradually withdrawing from the running of the Society, and the annual Symposium became the focus of much of its activity. Here new members mixed and learnt from the older members and the foundations of the ‘friendly society’ were established. The need to encourage new entrants to the profession meant that more senior members, many of whom had been instrumental in establishing the society, were keen to support the development of the next generation.

As part of this evolution it became clear the Society needed a new, more informal way of communicating with its members as the sheer variety and volume of news was too much for the journal editor to cope with. In November 1976, John H.C. Wilks produced the first newsletter which later evolved into *Maplines*.

**Digital revolution**

Even by the late 1970s it was evident that computing would have a dramatic impact on the cartographic process. The BCS was aware the revolution was coming but it is fair to say that for a long time it did not appreciate just how profound the effect would be.

In 1982, David Rhind (later to become Director-General of the Ordnance Survey) and Tim Adams edited a BCS Special Publication *Computers in Cartography*. The volume arose out of the the BCS Annual Symposium in September 1981 with two strands of particular importance – the first of mapmaking and the second on map data storage using computers. In his preface David Rhind comments that ‘it seems both likely and desirable that these two fields of effort will draw together over the next decade.’ If only we knew how things would evolve.

Several working groups and short-lived Special Interest Groups (SIG) were set up to focus on the impact of computers in cartography. As early as 1972–1974 there was an Automation in Cartography SIG led by E.P.J. Williams and in 1985 the Society’s Digital Group, under the leadership of Gary Robinson, held a workshop in Aberystwyth entitled ‘Going Digital: Pros and Cons’.

The House of Lords Science and Technology Committee looked at the potential for automation during this period under the chairmanship of Lord Chorley. Its report *Handling Geographic Information*, published in 1987, represented a landmark along the road to digital revolution in the UK. The umbrella term became GIS rather than digital cartography, and BCS was to change and adapt substantially in the following years.

**Responding to GIS**

The first impact was the establishment of a new learned society-cum-trade body to represent and promote the field of GIS – the Association for Geographic Information (AGI). The membership leaned more towards organisations and companies, in particular the software houses and large users of this emerging technology, rather than individuals. The setting up of the AGI came at a time where GIS and cartography seemed to move apart, with many exponents of GIS focusing more on the data conversion of existing maps than the compilation and design of new mapping based on digital databases. It also marked the start of a significant decline in BCS membership, particularly among the national mapping agency staff as they strived to embrace the GIS revolution.

In some respects the BCS did not, as an organisation, recognise the significance of the changes that were taking place at this time, even if individuals were aware of the potential impact. For many within the Society, GIS was
viewed as a different, if overlapping subject area, with a lack of emphasis on cartographic compilation and design issues.

There were early attempts to work with the AGI by the BCS and other societies who took over all aspects of mapping and professional bodies and the Survey & Mapping Alliance withered away.

In 1991, a one-day conference was held at the Royal Institute of Chartered Surveyors (RICS) on ‘Survey and Mapping Qualifications for the 1990s’ a topic that was to be a key concern of the Society all the way through the last decade of the twentieth century. The need to support cartographic training, which was coming under pressure from new GIS courses at all levels of higher education, became a major concern. It was an issue in which the BCS was to be unsuccessful, and by the end of 2010 there were no pure cartographic courses left running in the UK.

A GIS Special Interest Group was initially set up in 1990, chaired by Seppe Cassetari, which ran several sessions at various Symposia and also held hands-on workshops to introduce members to the emerging digital software solutions that were becoming available. The SIG was wound-up in 1994 when it was decided that GIS was becoming an integral part of all cartography and should therefore be seen as a core of the SIG’s aims of the Society.

By 1995 it was clear that a radical overhaul would be required if the society was to survive in its current form. This review would have to embrace all aspects of the society and consider its future. The key concerns were declining membership and income.

The then President, Roger Anson and the Vice President, Ben Hill, together with a small committee, set to work and within a couple of years a number of far-reaching changes were recommended and approved. Most important of these were an agreement with a commercial publisher, to publish The Cartographic Journal, and to use the increased income from the journal to appoint full-time administrative support for the society.

The Cartographic Journal was, and remains, the flagship publication of the Society but it was expensive to produce and advertising revenues were in decline. The result of the new agreement was a new income stream to the Society from subscriptions to academic libraries, which offset the cost of copies to members. The journal has since become a net contributor to society rather than a constant drain on resources. The agreement was a landmark change which many other societies and organisations in the sector have copied.

The Cartographic Journal has continued to flourish and remains an important cornerstone of the Society’s publishing activities.

The second major change was to use the monies that were employed in publishing The Cartographic Journal to appoint a consultant to act as an Administrator for the Society. The net effect of this change was to enable the Society to increase its range of activities, improve its overall professionalism and take away some of the more routine tasks from the volunteers, thereby allowing them to pursue some of the broader aims of the Society.

Education, training and professionalism

By 1968, the BCS had run a committee which was concerned with the rapidly changing cartographic education and training in the UK.

In the 1970s courses in various colleges, polytechnics and universities were expanding. This provided an important constituent of the BCS membership at the time, with academic staff from many of the universities actively involved with the Society. For many years there was an informal rotation of the post of President between government agency, commercial company and university.

With the start of the GIS revolution many institutions set up degree and postgraduate studies in GIS, often to the detriment of existing cartography courses. Some included cartography as a particular subject strand, such as those set up by Kingston Polytechnic in 1989. However many preferred to focus on the computing and analytical aspects of GIS and traditional cartographic themes were minimised, if not altogether removed. At the time the BCS was little involved in the development of these GIS courses and generally stood...
back as the education sector invested heavily in masters and degree-level courses in GIS.

Cartographic courses, with a few exceptions, retreated back to the colleges of further education where they were located close to government agencies with a high annual intake of new trainees. With changes to the way these agencies recruited from the 1990s these courses became more and more unsustainable. Despite a certain level of lobbying and involvement by the BCS with Business and Technology Education Council (BTEC), the organisation responsible for approving these courses, the UK still has no cartographic training below degree level.

Likewise, the degree and postgraduate courses predominantly concerned with cartography have all but disappeared. One of the key impacts on the BCS has been the reduction in the number of academics who have become members, and perhaps more importantly, been able to become active participants within the BCS Council. The last academic President was appointed in 2000.

In the late 1980s the Society was encouraged to support research into cartography, which was losing out to research into GIS. Mahes Visvalingam in particular was a strong supporter of independent researchers, arguing that the BCS needed to support research where national funding bodies did not want to provide grants. As a result, the Society set up a Research Fund, with donations from corporate sponsors and others. The fund was never large enough to provide grants bigger than a few hundred pounds in support of travel or very small scale research activities. As a consequence, little use was made of the fund and it stagnated, eventually being wound up in 2009.

To compensate for the lack of opportunity in the higher education sectors, the Society reviewed the options for a professional qualification as a way of providing the necessary underpinning and recognition to those wishing to develop a career in cartography. While the cost of running its own professional qualification would be prohibitive, the Society introduced a new membership category to denote a high level of achievement and professionalism. Individuals with the requisite experience or qualifications could, if approved, become a Fellow of the British Cartographic Society, which allowed them to refer to themselves as FBCartS. Since its introduction, many members have become Fellows and are using the title as evidence of knowledge of and skills in the principles of cartography.

A further review in 2008

A second review was undertaken in 2008 by Seppe Cassettari at the behest of President Bob Lilley. This looked into the structure and operation of the Society with a view to reducing the administrative demands and providing more resources to support the growing amount of outreach work the Society was doing.

An important change was to reduce the length of tenure of the President and Vice President and move to annual elections, as more people found it difficult to persuade employers to give the four years needed under the old system. At the same time, the Council and Committee structure was revised and the number of elected Council members was reduced. There were also proposals about the future of the newsletter and other publications. All these are currently bedding down as the Society adjusts to yet another challenge with the global economic downturn and banking crisis since 2008.

The challenge for the future

In the last decade, the BCS has had to grapple with the rise of the Internet and the changing way we communicate with maps. Yet again, the Society has had to re-discover its role within the new mapping world.

At the time of celebrating its 50th anniversary, there is a growing re-awareness of the importance of good cartographic practice. In particular the Society has managed to enrol many GIS companies as corporate members. The short term future for the BCS is very positive. The use of maps has never been greater and while it may be that there are fewer printed maps and atlases, the online world of mapping is vibrant and dynamic. Technological change has not altered the principles of good cartographic practice and the BCS has an important role in developing and maintaining these core skills for future mapmakers. Just as important is that the BCS is able to remain true to its origins in its attempt support its members, and the mapping world as a whole, by providing a forum for sharing knowledge and driving progress.

This history is a short version of that to be published in the 50th volume of The Cartographic Journal.
UK – Dr Beeching’s Report on the British Railway network

27 March 1963. In *The Reshaping of British Railways*, a far-reaching report by British Transport Commission chairman Dr Richard Beeching, it is concluded that fully half of Britain’s 18,000-mile railway network carries insufficient traffic to cover its operating costs; that nearly half of British Rail’s 7,000 railway stations generates just 2% of its rail traffic and that a quarter starts from just 34 stations. Britain’s railways, originally developed by competing private companies, are in many aspects over-complicated and inefficient. In a controversial appendix some 2,000 railway stations and 250 services have been identified for immediate axing, with the first closures due to take place in the autumn. Just eight years ago it was planned that the railway network would be in surplus by 1962. Now drastic truncation is proposed. Not everyone sees this as a proper preparation for the future. In some quarters the report’s recommendations are seen as a recipe for ‘reducing public transport to a lower level than in the horse age’.

*Map:* British Railways proposed withdrawal of passenger train services  
*Scale:* c1:2,000,000  
*Publisher:* Her Majesty’s Stationery Office  
*Date:* 1963
Overseas – The Assassination of President John F. Kennedy

22 November 1963. John F. Kennedy has been assassinated during a visit to Dallas, Texas. As the Presidential motorcade crossed Dealey Plaza at 11.20 am taking the party to a civic reception, the cheering crowds heard gunshots. The President, and Texas Governor Connally, who was in the same car, were both hit. The driver promptly accelerated away taking the mortally injured Kennedy to nearby Parkland Memorial Hospital, where the President was officially pronounced dead at 1.00 pm. Shortly after the assassination, Police Officer J.D. Tippit accosted, but was shot dead, by Lee Harvey Oswald. Later, Oswald took refuge in a local cinema, where he was arrested. Police rapidly found the site from which the shots were fired; the sixth floor of a book depository overlooking the Plaza. Vice President Lyndon Johnson was sworn in as President aboard Air Force One as it flew back to Washington. That same evening dramatic film of the assassination, taken by local businessman Abraham Zapruder, is shown on news broadcasts around the world.

The Map: Dallas street map Scale: 1:44,352
Publisher: Rand McNally Date: 1963
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UK – Labour wins general election

15 October. The Labour Party has been returned to office for the first time since 1949 with just over 44% of the vote. After fourteen years in office, and three Prime Ministers, the Conservative administration was beginning to look distinctly tired. With financial and other scandals such as the ‘Profumo affair’ beginning to take their toll there was little public enchantment left. Following a brutal cabinet reshuffle, the so-called ‘night of the long knives’ and the replacement of an ageing Harold Macmillan as Prime Minister less than a year ago by Sir Alec Douglas-Home, a man few regarded as in touch with the aspirations of ordinary people, the electorate decided it was time for a change.

With a margin of five seats, however, this is hardly a ringing endorsement of the new administration or the new Labour Prime Minister, Harold Wilson (right), who replaced Hugh Gaitskell after the latter’s unexpected death last year. Some are calling Gaitskell ‘the best Prime Minister Britain never had’.

The Map: The Times map of the General Election  Publisher: Times Newspapers  Date: 1964
Overseas – Nelson Mandela sentenced to life imprisonment on Robben Island

12 June. The ‘Rivonia’ trial has ended. It is less than a year since the South African police raid on Lilliesleaf Farm in the Johannesburg suburb of Rivonia revealed it to be an African National Congress (ANC) hideout. Nineteen people were arrested. Documents found during the raid indicated that the lawyer Nelson Mandela was involved in the formation of the ANC militant wing, Umkhonto we Sizwe. Under the 1962 Sabotage act, Mandela, serving a five-year sentence at Ford Prison, Johannesburg for inciting a 1961 workers’ strike, was charged with six others, on four counts of sabotage, charges that carry the death penalty. Mandela proved an eloquent defendant during the trial, voicing in an impressive speech his opposition to the Apartheid system. In the event, Mandela and seven other defendants were handed down life sentences. They will be served on Robben Island, the former leper colony off the coast near Cape Town.

The Map: Suid-Afrika/South Africa - Kaapstad/Cape Town (Map sheet 3318CD, 3rd ed.)

Scale: 1:50,000 Publisher: Government Printer, Pretoria
Date: 1967
UK – Death of Sir Winston Churchill

24 January. Sir Winston Churchill has died in his home at Hyde Park Gate, London, with his wife Clementine at his bedside, two weeks after a stroke. He was 90. As wartime Prime Minister from 1940-45, Winston Churchill’s place in history is assured. A state funeral will be held; the first since the death of Gladstone. Sir Winston’s body will lie in State for three days at Westminster Hall before the state funeral service at St Paul’s Cathedral. After the service, the coffin will be taken up the Thames on a barge and then by train and car to the family plot in the churchyard at Bladon, near Blenheim Palace. Churchill himself planned the ceremony under the code name Operation ‘Hope not’ and some original touches, the journey down the River Thames for example, are his. Thirty heads of state are expected to attend the funeral of the last of the ‘big three’ wartime leaders, Churchill, Roosevelt and Stalin.

The Map: Four extracts from adjoining provisional sheets of Bladon, Oxfordshire

Publisher: Ordnance Survey Date: 1965

Ordnance Survey mapping © Crown copyright 1965
Overseas – Rhodesia declares independence

11 November. Following the breakdown in negotiations with the UK over British preconditions for Rhodesian independence, which included black majority rule (something that the white minority government of Ian Smith was unable to tolerate) the Rhodesian Prime Minister and his Cabinet have signed a unilateral declaration of independence (UDI) from the United Kingdom.

On the following day, November 12th, the United Nations condemned the move and passed UN Resolution 216, which effectively called for the imposition of economic sanctions. While some countries will support the economic blockade, two important neighbours, South Africa and Portuguese-administered Mozambique, are unlikely to join it. Indeed, they will feel they have much to lose. Oil might be a pressure point as land-locked Rhodesia obtains its supplies through Mozambique. But to stop oil being shipped, a naval blockade would be necessary. Privately, the Joint Intelligence Committee (JIC) has concluded that sanctions alone are unlikely to bring about the downfall of the ‘Smith regime’.

The Map: Daily Telegraph ‘Map of Africa’
Scale: 1:12,000,000 Publisher: Geographia Date: 1964
UK – England win the FIFA World Cup

30 July. The English team under Bobby Moore have won the eighth FIFA World Cup, beating West Germany by four goals to two Wembley. After a gripping game in front of a capacity crowd of 98,000 which could have swung either way for the entire time, and during which Geoff Hurst scored a hat trick of goals, an unprecedented feat, it was Hurst who clinched the game in extra time. In the confusion of the final seconds as fans spilled onto the pitch, BBC commentator Kenneth Wolstenholme uttered the immortal words, ‘they think it’s all over’ and as Hurst slammed home the final goal, ‘it is now!’.

In the celebrations that followed one humble contributor was not forgotten; ‘Pickles’, the dog who found the Jules Rimet trophy which had been stolen and then dumped, wrapped in newspaper, on Wimbledon Common the previous Easter.

The Maps: Stadium locations and World map of participating nations Publisher: Wikipedia
The Map: World Cup 1966 London Stadiums Publisher: London Transport Date: 1966
Overseas – Indira Gandhi elected Prime Minister of India

19 January. The short tenure of office of interim Prime Minister Gulzarilal Nanda has ended with the election of Indira Gandhi as Prime Minister. With the unexpected death of Prime Minister Shastri, after only eighteen months in power and just one day after signing the Tashkent Agreement over Pakistan, the now-divided Congress party had to choose between either the daughter of Jawaharlal Nehru, or Morarji Desai, who was favoured by the right. The left have prevailed, and Desai is to be Deputy Prime Minister. Two years ago on the death of Nehru, Congress offered his daughter the premiership, but she preferred to take instead what has turned out to be a short-lived role as a cabinet minister under Shastri. These are difficult times for India: tensions remain between Pakistan and India over Kashmir and the Congress party is unlikely to remain intact. India’s first woman Prime Minister will need all of her legendary skills to make an enduring impact on the Indian political scene.

The Map: India Scale: 1:10,000,000
Publisher: Government of India Date: 1965
UK – Sir Francis Chichester sails home

27 August. Just before nine o’clock tonight crowds cheered a sixty-five-year-old man as he nosed his battered sailing boat *Gipsy Moth IV* across the finishing line in Plymouth harbour 226 days after leaving the same place. His homecoming was well-planned and a flotilla of boats escorted him the last few miles into harbour. With only one call, 119 days ago in Sydney, Australia, for supplies and minor repairs, Sir Francis is the first sailor to have raced solo round the world, a distance of some 28,400 miles. As his boat passed the Plymouth breakwater Sir Francis was joined aboard by his wife and son. Once ashore, Chichester was awarded the freedom of the city. Asked what he would most like to do now, Chichester replied ‘What I would like after four months of my own cooking is the best dinner from the best chef in the best surroundings and in the best company’.

**The Map:** Sir Francis Chichester’s chart of the Atlantic Ocean, with his own annotations

**Publisher:** UKHO  **Date:** 1967
Overseas – Arab-Israeli 6-day War

5 June. Growing refugee demands, rising Arab frustrations and air clashes with Syria over the Golan Heights in April 1967 have culminated in a second all-out war Israel has fought with her neighbours. In a series of precisely executed pre-emptive air attacks, the Israeli Air Force has eliminated the air forces of Egypt, Syria, Jordan and Iraq, destroying almost 400 aircraft. At the same time Israeli land forces seized the Gaza Strip, occupied East Jerusalem and seized much of the West Bank. Armoured units then advanced to the edge of the Suez Canal. Syria resists a UN Security Council call for a ceasefire on 7 June and its territory on the Golan Heights is also occupied. When the ceasefire eventually takes effect, Israel wins a resounding military victory, establishing itself as the region’s major military power and controlling three times the territory it owned at the end of the 1949 conflict.

The Map: IDF Routes of Advance Scale: 1:1,000,000
Publisher: DGC Date: 1967
1968. Britain’s first motorway, Motorway 1, has reached the outskirts of Leeds. When civilian road traffic increased rapidly after the First World War it became clear that a specialised road network was needed to handle high-speed traffic. A company was formed as early as 1923 with the purpose of creating a dedicated road between London and Birmingham, but in the event, dirigiste administrations on the European mainland were the first to force through plans for autostrada and autobahnen. It was not until 1949 in the UK that an Act of Parliament allowed the construction of roads for restricted vehicle traffic. Building began soon after, with the first stretch of motorway-grade road being built on the course of what is now the M6. The first dedicated motorway to be built was the M1. The two-stage construction project first linked Luton with Rugby, taking traffic from the Great North Road, and opened in 1959. The second stage extended the route from Rugby to Doncaster, with a final stretch linking it to Leeds, built 1965-68.

The Map: The map, which is not to scale, shows the UK motorway network as it existed at the end of 1968 and is part of a year-by-year set. Most of the pictures here, reproduced by courtesy of the Motorway Archive Trust, are of the M1 in the former West Riding of Yorkshire, which finally opened in that year. More information about the development of the whole of the UK motorway system can be found at www.ukmotorwayarchive.org.
Overseas – Russia Crushes ‘Prague Spring’

21 August. Warsaw Pact Army units have occupied Prague. Road, rail and air links to Czechoslovakia have been blocked, and an estimated 175,000 troops under Soviet control have entered the country. Under the pretext of a request for fraternal assistance, the reforms of Czech Prime Minister Dubček have been crushed and 2,000 tanks are on the streets. Elected as Prime Minister on January 5th 1968 Alexander Dubček (below left) quickly proved a reformist. Efforts to decentralise power and restore partial democracy to Czech citizens, including greater travel rights, were too much for the Supreme Soviet. Mindful of the situation which developed after the Hungarian revolt in 1956 the USSR tried to negotiate a compromise. But with other Warsaw Pact countries fearing ‘counter-revolution’ it was agreed among them on August 3rd that ‘fraternal assistance’, Russian-backed military force, will be offered. The ‘Prague Spring’ is over.

The Map: Soviet military plan of Prague  Scale: 1:10,000  Publisher: Military Topographic Directorate of the Soviet Union  Date: 1980
UK – Concorde maiden flight

2 March. The world's first supersonic airliner, the Anglo-French Concorde, has made its maiden flight from Toulouse. As befits an Anglo-French project the test pilots, Brian Trubshaw and André Turcat, are English and French. It was Turcat who took the controls for the first flight. The aircraft powered down the test runway and watching journalists, photographers and project staff alike burst into applause as the graceful aircraft took to the air. On landing at the same airport half an hour later, Turcat gave the thumbs up and pronounced the flight near ‘faultless’. It is hoped that Concorde will enter passenger service in 1973, when both National Carriers, Air France and British Airways, will fly them on the prestigious New York route, halving the time it takes to cross the Atlantic. While it is hoped that more airlines will purchase the aircraft, the development cost, some £300 million, means the enterprise is unlikely ever to become commercially profitable.

The Map: The background map shows typical subsonic routes across the Atlantic, Western Europe and North West Africa. By contrast, the Air France map for their supersonic Concorde flights is very much simpler as there were far fewer flights and at a much higher flight level. Publisher: Air France  Date: 1969
20 July. With the words "Tranquility base here, the Eagle has landed" humans have for the first time communicated with the Earth from another celestial body and the Apollo programme has triumphantly fulfilled the promise made in 1961 by President Kennedy that ‘before the decade was out’ it would be ‘landing a man on the moon and returning him safely to the Earth’. While the exact words Armstrong first uttered on the Moon are disputed, it later becomes clear that the landing was almost abandoned. Apollo XI was running into the last seconds of its fuel reserves and a navigational error within feet of the surface forced astronauts Neil Armstrong and Buzz Aldrin to take over and set down the lunar module manually. The landing, which was to be less than a day in duration, was watched by a world-wide television audience of some 600 million.

The Map: Mond/Moon/Lune  Scale: 1:1,400,000
Publisher: Falk-Verlag  Date: 1969
Overseas – Aswan High Dam completed
With little rainfall, Egypt’s agriculture depends almost entirely on the Nile. In 1902 the British designed and built a dam, the Low Dam, to provide much needed water for irrigation. Raised in height just ten years later and again in 1933, it soon became clear a second dam was needed further upstream. A goal since independence and the revolution in 1952, the 3.8 km long ‘High Dam’ would provide hydroelectric power, irrigation water and help control flooding. In 1958 the USSR provided funding which allowed the dam to go ahead. More problematic is the fact that the annual load of some 40 million tons of fertile silt (once washed to the delta and which fertilised farmlands and their valuable cotton crop) would substantially diminish and would have to be supplemented by fertilisers. The High Dam reservoir, Lake Nasser, will, when full, carry some 132 cubic kilometres of water.

The Maps: These three maps illustrate how the development of the dam was reflected in different editions of the Times Comprehensive Atlas of the World. All maps are at a scale of 1:5,000,000. 1956 The Times Atlas of the World, Mid-Century Edition, was published in 5 separate volumes between 1955 and 1958. This map is taken from Volume IV, Southern Europe and Africa, published in 1956. The 1968 and 1973 editions of the Times Comprehensive Atlas of the World were published as single volumes.

UK – First Glastonbury festival
19 September. Inspired by attending a festival at the Bath and West Showground earlier in the year, local farmer Michael Eavis decided to hold a ‘blues and folk’ festival at his own farm, Worthy Farm, Pilton, near Shepton Mallett. The festival was intended to be a single-day event, after haymaking, with tickets costing a pound each. Attractions included, among others, The Kinks, and Wayne Fontana and the Mindbenders. The Kinks pulled out, but the festival was saved from financial disaster by the appearance of Marc Bolan of T. Rex. With ‘Ride a White Swan’ then making its way up the pop charts Bolan proved an irresistible draw and at least 1,500 people attended. While Eavis, who had no festival experience, did not manage to pay off his mortgage as he had hoped, a second festival the following year proved better organised and set the scene for an event which also supports several charities and is still going strong. One of the 2013 headline acts will be the Rolling Stones.

The Maps: This selection of maps indicates how Glastonbury Festival has developed over forty years: The 1979 map appeared in the Glastonbury Fayre programme and is the earliest Glastonbury Festival map on record. The folksy 1990 map was the first to be computer generated by Richard Paul Jones and Nick Scholefield. The 2005 map was derived from aerial photography taken during the 2000 Festival by Simmons Aerofilms. Nick worked with the cartographer to produce very accurate and detailed site plans for the Glastonbury Festivals of the early 21st century.
Overseas – North Sea oil concessions sold

Following the 1958 Continental Shelf Convention, five countries, Norway, the United Kingdom, Denmark, Germany and the Netherlands, were granted exclusive economic zones in the North Sea. The existence of gas deposits drove prospection during the 1960s, but oil strikes on the western edge of the Norwegian sector, in what became the Ekofisk field, in December 1969 and the discovery later that month of the Montrose field by the American oil company Amoco has led to a scramble for prospection rights. Now the newly-formed Department of Trade and Industry (DTI) has sold licences for oil prospection in 12 by 10 minute blocks in the UK-allotted areas. In October 1970, British Petroleum (BP) announced that they had found oil in the Forties field, while this year (1971) Shell Expro announced a strike in what is to be called the Brent field.

The Map: Licences in the North Sea, Irish Sea & British coastal waters Scale: 1:2,650,000
Publisher: British Petroleum Date: 1971

UK – Spaghetti Junction opening delayed

With many motorway routes under construction in the UK, complex interchanges linking them to major arterial roads are being planned close to several major conurbations. Near Birmingham, the 12-hectare site, where the M6 meets the A38 and the A5157, is officially known as the Gravelly Hill interchange; but on seeing plans for the proposed junction, with its four kilometres of slip roads on five levels and seventeen kilometres of raised motorway, one Birmingham Mail reporter, Roy Smith, described it as ‘a cross between a plate of spaghetti and an unsuccessful attempt at a Staffordshire knot’. A sub-editor did the rest. While it is now completed, the junction will not be opened to traffic until sections built using the ‘box girder’ technique can be inspected following two accidents with bridges that were built in the same way.

The Map: Spaghetti Junction Publisher: Wikipedia/OpenStreetMap Date: 2010
Overseas – Idi Amin expells Ugandan Asians
4 August. Uganda’s President, Idi Amin Dada, who came to power last year following the coup which toppled Milton Obote, has signed a decree expelling the Asian community from the country. The first Asian migrants came to Uganda from Asia to help construct railways for the British in the 1890s and today the now 80,000-strong community has become a major force in the clothing and banking sectors of the economy. Amin’s unsubstantiated charge is that they have sabotaged the Ugandan economy and been hoarding goods. As some 50,000 are British passport holders, Amin has announced that he is summoning the British High Commissioner to expedite their removal. While India and the US may be destinations, it is thought that the majority will wish to settle in the UK. Plans are being made to accommodate the refugees in emergency centres such as Stradishall (see left) near Stansted Airport, where many are expected to arrive.

The Map: Map of Uganda showing current regions
Publisher: Ugandan Embassy, Moscow Date: 2012
The Maps: Sketch map of Lake Idi Amin, Sketch map of Stradishall Resettlement Camp
Publisher: Unknown Date: 1972
UK – British Library established

1 July. By Act of Parliament, a new institution, the British Library, has come into existence. Three years ago it was recommended that three principal institutions; the Library Department of the British Museum, originally founded in 1753, the National Central Library, founded in 1916 and the National Lending Library for Science and Technology, at Boston Spa near Wetherby in Yorkshire, should be merged to create a UK National Library.

The most pressing need, now the Reading Room at the British Museum is no longer available, is for physical accommodation in London. A proposed site close to the British Museum drew vociferous local opposition. Now a potential site has been chosen at a derelict former goods-yard to the west of St Pancras station. When finished, the new facility, designed by the architect Colin St John Wilson, will house fourteen million books, 920,000 journal titles, 58 million patents, and three million sound recordings.

The Map: Gerardus Mercator, ‘Tirol’ Date: c.1571
This manuscript map is among the British Library’s greatest treasures. It is one of only two known maps that were actually drawn by Gerardus Mercator (1512-94), arguably the best-known cartographer of all time. The map is a predecessor of the printed map that was eventually to appear, in updated form, in Mercator’s Atlas (1585-1595). With the other known autograph map by Mercator, it forms part of the so-called ‘Atlas of Europe’. By permission of the British Library Board.
Overseas – Britain joins the European Economic Community

1 January. With the accession of Great Britain, Denmark and Ireland, the European Economic Community (EEC) has expanded by 50% and the ‘six’ has just become the ‘nine’.

At midnight, outside the EEC Headquarters in Brussels, the Union Flag, the Dannebrog and the Irish Tricolour are unfurled and there are torch-lit celebrations. This is the third attempt by the UK to join the EEC. Both of the previous applications, in 1963 and 1967, were vetoed by the French under Charles de Gaulle. Prime Minister Edward Heath, who negotiated the successful application, hailed the achievement, stating it ‘would enable us to be more efficient and more competitive in gaining more markets not only in Europe but the rest of the world’. On entering, Britain will receive four votes in the Council, to be used on a wide variety of issues affecting Europe. ‘From the point of view of our everyday lives we will find… a great cross fertilisation of knowledge and information… in every… sphere’.

The Map: Regions and Administrative Units
Scale: 1:10,000,000
Publisher: European Union/I.B.F. Kormoss
Date: 1974
7 March. The first 1:50,000 maps have gone on sale in the UK. Three years ago, in the autumn of 1971, it was decided to phase out the Ordnance Survey Old Series ‘one inch to one mile’ maps, now in its seventh series and replace them with 1:50,000 scale mapping. The so-called Old Series is the map the public most commonly encounter. It was well established by the 1820s and covered most of the country by the mid 19th century. In order to prepare the public for the replacement of such a well-loved map edition, figures such as Johnny Morris are fronting an advertising campaign to promote the new magenta-coloured maps, which each of which cover an area of 40 by 40 km. Work has proceeded in two phases. Sheets 102-204, Southern Britain, have all been published. Sheets 1-101 for Northern Britain are currently in preparation and will be published as the second tranche in 1975.

The Map: First series Landranger® map  Scale: 1:50,000  Publisher: Ordnance Survey  Date: 1974

Ordnance Survey mapping © Crown copyright 1974
Overseas – Turkey invades Cyprus

20 June. Five days after army officers toppled Cypriot Archbishop Makarios with the connivance of the Greek Junta and replaced him with Nikos Sampson, Turkey has invaded Cyprus. With the island's unification with Greece a clear political goal for some, Turkey, fearing for the Cypriot population of Turkish origin, has carried out an invasion of the north part of the island. Just before dawn, Operation ‘Atilla’ landed elements of the Turkish army close to the port of Kyrenia on the north coast of the island. By 22 June, when a UN brokered ceasefire was agreed, the Turks did not hold much land, but when the Ioannides-led Greek Junta collapsed following the Cypriot debacle they rapidly expanded the area under occupation (see map). With the former Greek Prime Minister Constantine Karamanlis flown in from Paris to be sworn in as Prime Minister, once more the Cypriot coup seems doomed.

The Map: Kibris/Cyprus: Turkish Federated State tourist map Scale: 1:295,000 Publisher: Unknown Date: 1976
UK – Haston & Scott become the first Britons to climb Mount Everest

24 September. The celebrated coded telegram that Everest had been successfully climbed by a British expedition crowned the Coronation year for many but it was not until twenty-two years later that the feat was finally achieved by two Britons, Nottingham lecturer Dougal Scott and mountaineering instructor Doug Haston. The pair were part of an 18-strong expedition led by Chris Bonnington. Scott calls Doug Haston ‘one of the greats…very much like a sherpa’. The men reached the summit in windless conditions by way of the southwest face. Of the view from the summit, Scott said ‘you can actually see the curve of the earth in a 400 mile sweep… and we just took in this amazing sunset’. Lacking a tent, oxygen and sleeping bags, they spent the night in a snow cave at 28,750 feet. ‘It was bloody cold’ said Scott. After success came tragedy; another expedition member, Mick Burke, disappeared in a solo attempt, days later.

The Map: Mount Everest Region  Scale: 1:100,000  Publisher: Royal Geographical Society  Date: 1975
Overseas – Civil War in Lebanon

13 April. With its population of Maronite Christians, Shia and Sunni Muslim and Druze minorities, Lebanon, and in particular its ancient capital, Beirut, has long been a vibrant cultural and commercial centre. Part of the Ottoman Empire until its collapse at the end of the First World War, and governed by a French Mandate until achieving independence during the Second World War, Lebanon has had both a difficult political inheritance and suffered in recent years from the destabilising effects of the Cold War. Since gaining independence, Lebanon’s population has increased enormously; firstly from the influx of Palestinian refugees after the formation of Israel, and more recently after the expulsion of the Palestinian Liberation Organisation (PLO) from Jordan following the 1971 ‘Black September’ hijackings. These arrivals have also brought animosities into what had previously been a peaceful country. For much of early 1975 there have been low intensity clashes between Maronite and Palestinian militias but now this is growing into an all-out civil war.

The Map: War-torn city binds its wounds
Publisher: National Geographic
Date: 1983
UK – 150th Anniversary of the founding of Bartholomew Maps

Founded in 1826 by John Bartholomew (1805-61), the company was one of several Scottish firms which were involved with map publication. John Bartholomew’s son and particularly grandson, John George Bartholomew (1860-1920), saw the company grow and prosper, producing a widening range of maps and atlases for both amateur and scientific audiences. Under the grandson, a geographer and talented cartographer in his own right, the company began to publish its own work rather than acting as a publisher for others. He published street maps, but before his death he laid the foundations, carried forward by his son John Ian, for the publication of the great *Times Atlas* (1922), arguably one of the most successful ventures of its type in the world and its mid century and 1967 edition. Based, as they always have been, in Edinburgh, three fifth-generation members of the original Bartholomew family in senior management positions continue to steer the company.

**The Map:** These three examples of Bartholomew map products all date from 1976. *Everyone’s London Street Plan* covers approximately 11 x 15 km at 1:15,000. The *Road Atlas of Britain* covers the whole of GB at 1:300,000. The *Businessman’s London Map* covers central London and the City at approx 1:7,000 and includes an index to public offices and buildings, cultural and transport locations.
Overseas – Cod War with Iceland

Four years ago in 1972 Iceland declared a 200-mile ‘exclusive economic zone’ (EEZ), in which cod fishing will be banned to allow depleted fish stocks time to recover. There have been periodic clashes between Britain and Iceland over cod before now, the first in 1958. Behind these maritime clashes lie clashes of attitudes. For Iceland, its fish stocks are of vital economic importance. HM Government claims the EEZ is not legally ratified and has announced it will continue to fish in the area. In the fishing grounds matters are now getting serious, with HMS Andromeda going into action to prevent Icelandic fisheries protection vessels cutting fishing trawlers’ nets. While no lives have been lost, there have already been collisions between HMS Andromeda and the smaller Icelandic coastguard vessels Thor and Tyr. Are the stocks being over-fished, as the Icelanders contend? Or are these depletion rates acceptable? Finding an answer seems increasingly important.

The Map: Ísland  Scale: 1:2,500,000
Publisher: Icelandic Coastguard-Hydrographic Department  Date: 1975

The Map: Íslendingaðöflaug  Scale: 1:2,000,000
Publisher: Icelandic Coastguard-Hydrographic Department  Date: 2011
UK – Queen’s Silver Jubilee

On 2 June the Queen will celebrate having been on the throne for 25 years, the first Monarch to do so since Queen Victoria. The Silver Jubilee celebrations taking place during the summer months will include a number of street parties, fêtes and other events. On the evening of Monday, 6 June she will light a beacon in Windsor Great Park, which will inaugurate a series of smaller beacon chains to be fired across the country. On the following day she will be driven in the Gold State Coach to St Paul’s Cathedral for a service of thanksgiving. In all, the Monarch is expected to cover a distance of 56,000 miles in the UK and overseas during this Jubilee year. Her ceremonial procession was watched worldwide by an audience of 500 million people. At the Guildhall she renewed the vow she took on the occasion of her coronation, pledging her life to the service of the people. ‘I do not regret nor retract one word of it’ she said.

The Map: Review of the Fleet by Her Majesty Queen Elizabeth II to Commemorate the Silver Jubilee of Her Accession to the Throne. 28 June 1977  Scale: 1:20 000
Publisher: UKHO  Date: 1977

The Map: The London Silver Jubilee Walkway
Publisher: Silver Jubilee Walkway Trust  Date: 1979
Overseas – Last run of the Orient Express

19 May. One of the most romantic scheduled railway services in the world, the Orient Express, is running its last service this weekend. Originally started in 1883 and in its glory days when the Ottoman Empire still existed, the service ran from the Gare de l’Est in Paris to Istanbul via Vienna, Budapest, Bucharest to either Varna and thence by ferry to Istanbul, or overland via Sofia. The train was never as romantic or luxurious as depicted in popular literature, although its rolling stock was comparatively comfortable and in the half-century or so it ran before air travel it was the fastest way of traversing Europe. In truth, by 1977 the route only survived as a truncated run from Salzburg to Vienna. However, such is the enduring romance of the Orient Express that it is likely that the name, or parts of the route, will be resuscitated before long.

The Map: Route of the Orient Express from 1945 to 1962
Publisher: Wikipedia  Date: 2008
UK – Naomi James becomes the first woman to sail solo round the world

8 June. Dartmouth. After a non-stop voyage of 272 days Naomi James has steered her battered 53 foot yacht the Express Crusader back into the River Dart, beating by two days the record set by Sir Francis Chichester in 1968. The 29-year-old New Zealander was not brought up on the sea and only learned to swim in her twenties. Having come to Europe she learned to sail with her future husband, who skippered yachts with the racing yachtsman Chay Blyth and shortly after their marriage decided on the venture. Blyth helped with the boat and with fund-raising and Naomi took the east-bound ‘Clipper’ route which passes south of the three Capes, ‘teaching herself on the way’. Having begun and ended the voyage in the English Channel, James’ effort qualifies as a first under World Speed Record Sailing Council rules.

The Map: The Clipper Route   Publisher: NASA   Date: 2006
The Map: World wind patterns   Publisher: www.loveforlife.com.au   Date: 2009
Overseas – Argentina hosts and wins the World Cup

1-25 June. Estadio Monumental, Buenos Aires. Twenty teams have played thirty-eight matches and here at the ‘Hen House’, home of the Club Atlético River Plate, the world has seen some of the greatest football. For the first time since they were losing finalists at the first football World Cup 48 years ago, Argentina have won the world title and done so as host nation. In a brilliant finish, Mario Kempes scored two goals to defeat the Dutch side 2-1, allowing Luis Menotti to claim victory and push the Netherlands into the runners-up position for the second World Cup tournament in a row. Brazil, prevented from qualifying for the final round by Argentina, took the award for third place. As Albiceleste captain Daniel Passarella held the Jules Rimet trophy aloft he must have felt the wait was worthwhile.

The Map: Republica Argentina
Publisher: División Propaganda del Departamento de Turismo de la Administración General de Parques Nacionales y Turismo Date: 1950

The Map: La radiofonia al servicio de la enseñanza
Publisher: Control de Estado de la Presidencia de la Nación Date: 1948

The Map: Argentina Publisher: Revista Argentina Date: 1949
3 May. Margaret Thatcher, Conservative MP for Finchley, has become the first female Prime Minister in Britain’s history. Having taken over from Edward Heath whilst in opposition, Margaret Thatcher confronted an increasingly discredited Labour Government under Premier Jim Callaghan.

With Labour holding power in 1977-8 with the help of the Liberal Party (the Lib-Lab Pact) and the economy faltering the 1979 electoral campaign was fought along sharply divided political lines, with the Conservatives controversially using a new advertising agency, Saatchi and Saatchi, to mount a slick political campaign, which included dole queues with the headline ‘Labour isn’t working’. In the event the election saw a 5.2% swing, the largest since 1945, to the Conservatives, who were elected with a majority of 62 seats. Britain is the first Western European democracy to have a woman premier, something even Margaret Thatcher thought was not possible.

**The Map:** Extract from the 1972 Ordnance Survey 1:2,500 scale sheet map of SK9036/9136 featuring Grantham the location of the family grocery shop. **Scale:** 1:2,500

**Publisher:** Ordnance Survey **Date:** 1972

Ordnance Survey mapping © Crown copyright 1972
Overseas – Sandinistas take control of Nicaragua

19 July. After 44 years the Somoza regime has been toppled and the disgraced former Nicaraguan President Anastasio Somoza is in flight to Miami with his family. Somoza’s authoritarian regime, which had ruled the country in various forms since 1936, was increasingly kept in charge by his inept and thuggish National Guard. In the past few years manifest Government corruption, especially in the wake of the Managua earthquake of 1972, has simply stoked civil unrest. While opposition remained divided the regime was able to keep in power, but in the past two years, competing factions united under the banner of the Frente Sandinista de Liberación Nacional and rapidly gained the upper hand. Now a provisional National Government in exile, a five-man Junta of National Reconstruction, is pledged to work for a non-aligned country with a mixed economy. Their inheritance after years of war is dire.


Scale: 1:5,500,000 Publisher: Bartholomews Date: 1980
1980

UK – Britain & Spain reach agreement on opening Gibraltar border

10 April. Britain and Spain have reached an agreement on ‘the Gibraltar problem’. Captured by an Anglo-Dutch fleet in the War of the Spanish Succession in 1704 and administered thereafter by Britain, Gibraltar has remained an intermittent stumbling block in Anglo-Spanish relations ever since. In 1969 General Franco of Spain ordered the border to be blocked and until his death in 1975 little changed. The main route to the outside world for Gibraltarians was via the UK or via Morocco, to Spain. The Lisbon agreement, signed by Lord Carrington and Spanish Foreign Minister Marcelino Oreja, indicate the keenness of the two Governments to ‘strengthen their bilateral relations and thus to contribute to Western solidarity. Both Governments intend, in accordance with the relevant United Nations Resolutions, to solve, in a spirit of friendship, the Gibraltar problem’. This means that the land frontier will once more be open.

The Map: Gibraltar Scale: c.1:9,600
Publisher: Gibraltar Information Centre Date: 1981
Overseas – Mount St Helens eruption

19 May. After several days of preliminary warnings, Mount St Helens volcano in Washington State has come to life with an explosive eruption which has blown away a substantial part of the northern part of the mountain, flattened some 150 square miles of forest and ejected a plume of ash to a height of 15 km. The blast, which measured 5.2 on the Richter scale, is the most powerful volcanic explosion to have been recorded on the North American landmass for centuries. The loss of human life has been very low, the area is sparsely populated and most people heeded evacuation warnings, which came after United States Geographical Survey (USGS) installed monitoring equipment on the mountainside and detected a bulge as the magma chamber swelled. The estimated 540 million tonnes of ash ejected have been blown by winds over an area estimated at 22,000 square miles and light ash falls have hit all of the Rockies states.

The Map: Mount St Helens eruption Publisher: National Geographic Date: 2000
UK – Humber bridge opens, the longest single span bridge in the world

24 June. The Queen has officially opened the Humber Bridge. For over a century there have been proposals to build a bridge over the Humber, or a tunnel beneath it, to improve access to two remote areas of the UK and to eliminate either the ferry crossing at New Holland, or a lengthy road detour. The last plans drawn up for a bridge, in the 1920s, were killed off during the recession, but thirty years later in 1959 the idea of a suspension bridge was approved. This type of bridge was chosen because the shifting bed of the Humber meant that shipping could more easily navigate a river without obstructions. Finally, in 1973 construction work on the new bridge began and at times of peak activity over one thousand people were working on the 1,400 m-span structure. The project took eight years to complete and between 1981 and 1998 the elegant Humber bridge became the longest single-span bridge in the world.

The Map: Extract from an Ordnance Survey 1:25,000 scale map prior to the construction of the Humber Bridge and the 1985 Ordnance Survey Pathfinder sheet 696 at the same scale following construction. Scale: 1:25,000
Publisher: Ordnance Survey Date: 1970 and 1985
Ordnance Survey mapping © Crown copyright 1970 and 1985
Overseas – New plague identified as AIDS

5 June. The US Center for Disease Control (CDC) and prevention has identified a new syndrome in the United States. The first cases developed Pneumocystis carinii pneumonia (PCP), suggestive of a very impaired immune system. This was followed soon afterwards by a number of cases of the previously vanishingly rare Kaposi’s sarcoma. As more PCP clusters and cases developed an atmosphere of moral panic developed and a CDC task force was created to monitor outbreaks. Initially the new phenomenon had a variety of names but the following year these were replaced by the term ‘AIDS’ (Acquired Immune Deficiency Syndrome).

By 1983, two medical groups, under the leadership of Robert Gallo and Louis Montagnier identified a novel virus Group, HTLV III, and LAV. Both viruses were subsequently proved to be the same and renamed the Human Immunodeficiency Virus (HIV). Further work proved that the virus was closely related to the Simian Immunodeficiency Virus (SIV).

The Map: AIDS Cartogram  Publisher: National Geographic  Date: 2002
UK – Opening of Kielder Water, largest man made lake in Britain

26 May, Northumberland. The Queen has formally opened England's largest artificial lake. Constructed in a large flat-bottomed valley between 1975 and 1981 by AMEC Balfour Beatty, the lake, fronted by its 50 m high, 1.2 km wide dam, now contains 200 billion litres of water. The lake, which took two years to fill, is planned to satisfy the rising demand for water required for the projected population and industrial expansion in the northeast, particularly for the Teeside oil and chemical industries. Surrounding the lake with its 43 km shoreline is the Kielder forest, predominantly planted with Sitka, Norway Spruce and Lodgepole pine. It is claimed to be the largest woodland plantation in Europe, and replaces the 1.5 million trees estimated to have been felled to make way for the lake. In the end, the industrial demand failed to materialise, but the droughts in the mid-1970s revealed the value of improving the UK's water storage capabilities.

Overseas – The Falklands War

14 June. Port Stanley. Ten weeks after Rex Hunt took down the Union Flag from Government House it is again flying over the Falkland Islands’ capital of Port Stanley. The Falklands crisis came after the Argentinian Junta’s misinterpretation of the significance of the withdrawal, on grounds of cost, of the fisheries protection vessel HMS Endurance. A landing by Argentinean ‘scrap metal dealers’ at Grytviken in South Georgia was followed on April 5th by a full-scale invasion at Port Stanley. In a short time the British Government assembled a task force of 127 ships which set sail between 4-12 April. Despite frantic efforts to seek a diplomatic way out of the impasse, the sinking of the Argentinian battleship General Belgrano made war inevitable. Despite air attacks which caused considerable damage and loss of life, British forces put Port Stanley air strip temporarily out of action, landed at Goose Green and after an old-style yomp across the islands relieved Port Stanley and took the surrender of the Argentinian forces. Shortly afterwards General Galtieri ceded power.

The Map: Operation Corporate Scale: 1:100,000
Publisher: GSGS 5465A Date: 1982

The Map: Territorio Nacional de la Tierra del Fuego, Antártida e Islas del Atlántico Sur Scale: 1:5,000,000
Publisher: IGM, Argentina Date: 1989
1983. London's docks, half a century ago among the largest in the world, have suffered a long decline since the Second World War but with the coming of containerisation, traffic has largely switched away from the capital downstream either to Tilbury or to coastal ports such as Felixstowe and Dover, leaving the Capital's docks with little but crumbling infrastructure. In an area where other employment was scarce, 80,000 jobs were lost between 1961 and 1971. While London's inner city population dropped 10%, in the East London boroughs of Tower Hamlets and Southwark it was over 15%. The proximity to the City of so much potential space has led to the establishment of the London Docklands Development Corporation. With sweeping planning powers the Corporation hopes to transform the area into a vibrant part of London centering on Canary Wharf.

**The Maps:** London Docklands Redevelopment scheme maps

**Publisher:** Builder Magazine, created by ML Design
Overseas – Korean airliner shot down
1 September. Korean Air Lines flight KAL 007 flying from New York to Seoul via Anchorage in Alaska has crashed into the Sea of Japan just off the island of Moneron, killing 243 passengers and 23 crew. What seemed to be an accident rapidly turned into a critical event of the Cold War when US President Ronald Reagan, using transcripts obtained from the Wakkani listening station, accused the USSR of having used a MiG interceptor to deliberately shoot the airliner down. Radar data later makes it clear that the airliner strayed off course and overflew first Kamchatka and then the Sakhalin Peninsula, one of the most sensitive military areas in the USSR. Transcripts indicate the Soviets thought this might have been a spying mission and it later emerges that there had been an American electronic intelligence (ELINT) flight taking place from Shemya Island at about the same time the Korean airliner strayed off course. The incident helps persuade the US military to make GPS technology more widely available.

The Map: The route of Flight KAL 007  Publisher: CIA
The Map: Moneron Island  Publisher: Google Maps
UK – IRA bombers strike conservative conference in Brighton
12 October. Grand Hotel, Brighton. At 0254 an IRA bomb, estimated to be around 20-30 lbs, exploded under the bath of the suite attached to room 629 of the Grand Hotel, which is housing the Conservative Party Conference in Brighton. The blast partly collapsed the hotel’s façade but the Victorian structure remained standing, which averted greater numbers of casualties. Five people were killed: Sir Anthony Berry MP, Roberta Wakeham, Muriel Maclean, Jeanne Shattock and Eric Taylor. Thirty-four people were injured, including Norman Tebbit, Trade and Industry Secretary and Chief Whip John Wakeham. The Prime Minister, Margaret Thatcher, was unhurt. That morning the Conference opened on schedule at 0930 with the Prime Minister declaring ‘the attack has failed. All attempts to destroy democracy by terrorism will fail’. The Queen expressed her shock at the bombing and Opposition Leader Neil Kinnock, ‘horror and outrage’.

The Map: Brighton Cityscape Scale: 1:2,500
Publisher: Cityscapes Date: 1984
Overseas – Bopal disaster
3 December. Overnight a leak of 42 tonnes of methyl isocyanate gas at the Union Carbide plant at Bhopal, Madhya Pradesh, in India, has exposed many thousands of people living in the town surrounding the chemical works to toxic fumes. The death toll is contested, but it is likely that at least 2,259 people died almost immediately from asphyxiation as the heavier-than-air gas overcame large numbers of people who were lying asleep. Investigations at the plant after the accident revealed there had been a lax control of the environment at the plant, with many minor leaks. Shortly before the accident Union Carbide engineers at the site warned of the possibility of an accident, identical to the one which occurred in early December. Twenty years later it was estimated that as many as half a million people could be casualties, of which some 3,900 suffered ‘severe and permanent disabilities’.

The Map: Central India & Gwalior, sheet 55 E/SW
Scale: 1:126,720 Publisher: Survey of India Date: 1931
The Map: Bhopal gas spread Publisher: BBC Date: 2010
UK – 150th Anniversary of the formation of the British Geological Survey

This year the British Geological Survey celebrates its 150th anniversary. Now based at Keyworth, near Nottingham, the venerable institution, the oldest of its type in the world, was founded in 1835 following Ordnance Survey support of a geological survey of Devon undertaken by Henry Thomas De la Beche, Vice President of the Geological Society. With De la Beche its first director, the new organisation, the Ordnance Geological Survey, became rapidly indispensable, founding a mining record office where vital mining data was held. In 1841 it opened a Museum of Economic Geology in Whitehall. Its legal framework was fixed in 1845 by the Geological Survey Act, which provided for the creation of a geological survey of Great Britain and Ireland. Administered in the 19th century by a number of Government departments, the Geological Survey was in 1919 brought under the Department of Industrial and Scientific research and in 1965, under the Natural Environment Research Council (NERC).

The Map: Anglesey (Ynys Mon): A landscape carved by ice
Scale: 1:50,000  Publisher: BGS  Date: 2012
The Anglesey map shows a range of glacial landform features and Quaternary deposits overlain on a colour gradient elevation and hill shading effect. This allows the user to relate these landform features to the present surface topography. It also provides further detail and annotated photographs for selected significant glacial features examining the evidence that past glaciation left on the landscape after the ice melted away.

The Map: Bedrock Geology of the UK
Scale: 1:625 000  Publisher: BGS  Date: 2007
This is the fifth edition of the Bedrock Geology of the UK map. Providing a general understanding of the geology of the UK, it is divided into north and south sheets, both supplied with an accompanying guide book explaining what the map shows.
Overseas – Wreck of the Titanic found

1 September. Using the remotely controlled submersible ‘Argo’ from the Research Vessel ‘Knorr’, a Franco-American expedition led by Dr Bob Ballard of the Woods Hole Oceanographic Institute has finally located and photographed the White Star Liner ‘Titanic’ after a search lasting eight weeks. Any notion that the wreck, which lies at a depth of 2.5 miles is intact, or could be recovered in the manner of the film ‘Raise the Titanic’, has been dispelled by the expedition. The submersible has photographed a boiler, which indicates that the ship broke into parts on its way to the sea floor and it was by following the debris field the main hull was found. ‘It is like a scrap yard down there’ said one team member. As over fifteen hundred passengers and crew died, living relatives view the wreck site of the ill-fated liner, which sank on its maiden voyage, as a grave and are keen that nothing is disturbed.

The Map: The wreck of the Titanic
Publisher: National Geographic, Forum Date: 2001

The Map: Movements of the Titanic, the Olympic and the Carpathia Created by: ML Design Date: 2011

The Map: Marconi Telegraph Coms Chart, April 1912
Publisher: Marconi International Marine Communication Company Ltd Date: 1912
UK – Richard Branson beats the Atlantic speed record

29 June. In three days and eight hours, the 72-foot Virgin Atlantic Challenger has beaten the previous west-to-east Atlantic crossing holder, the SS United States, by more than two hours. Branson’s boat reached Bishop Rock, traditional finishing point for the contest, just after 1930 BST. Problems with the Challenger’s fuel system could have cost Branson the race, but in its final stages the boat was reaching speeds of up to 50 knots. It is all so different from last year when Branson’s challenge nearly ended in disaster; the boat struck wreckage and an RAF Nimrod (pictured) from Kinloss had to coordinate a rescue mission.

However, despite the speed of the crossing it is unlikely that the Virgin team can claim the Blue Riband, which is traditionally awarded for the fastest average crossing for a commercial craft and the Virgin Atlantic Challenger cannot be regarded as a commercial passenger vessel. The Blue Riband trophy, which dates back to 1935, has been in New York since 1952 when the SS United States last won it with a crossing taking three days, 10 hours and 40 minutes.

The Map: Great Circle Chart of the North Atlantic Ocean
Publisher: C.S. Hammond & Co., N.Y. Date: Unknown
Overseas – Chernobyl nuclear accident

26 April. A nuclear power station has suffered a meltdown in the Soviet Union. The West first learned of the Chernobyl disaster when radiation alarms went off at Försmark nuclear power station in Sweden. It was quickly established that this was no local accident. A scheduled experiment to test shut-down procedures in the No.4 reactor at Chernobyl, Ukraine, critically lowered cooling-water levels, exposing the reactor core and setting off a meltdown. The resulting explosion blew the roof off the containment building. Emergency teams made heroic efforts to put out the fire, bombarding the exposed reactor with boron and shovelling highly radioactive material off the roof by hand. Even so, a fallout plume blew the length and breadth of Europe and depending on the vagaries of wind and rainfall, areas as far distant as Wales received radioactive loads. The accident revealed, yet again, the addiction to secrecy at the heart of the Soviet Union and the need for openness in its dealings with the world.

The Map: Distribution of surface ground contamination by Strontium-90 released in the Chernobyl accident and deposited in the Byelorussian SSR, the Russian SFSR and the Ukrainian SSR (December 1989) Scale: 1:1,000,000 Publisher: International Atomic Energy Agency Date: 1991

The Map: Chernobyl radiation map Publisher: CIA Factbook Date: 1996
UK – Docklands Light Railway opened

30 July. Today Queen Elizabeth has declared the new Docklands Light Railway to be officially open. However, passenger services proper will only begin at the end of August. For the old docklands to be regenerated successfully the London Docklands Development Corporation had to ensure that there were good links with the city of London and the new railway served the entire redeveloped area. There is a new ‘hub’ station at Tower Gateway and the newly built lines link the existing station of Stratford in the north with Island Gardens and eventually with Lewisham on the south side of the river. It will also link to the Central Line station of Bank in the City of London and connect Woolwich Arsenal and City Airport to the north east. GEC Mowlem built the system in its initial form in 1984-7 at a cost of 77 million pounds.

The Map: Docklands  Scale: 1:10,000
Publisher: Unknown  Date: 1987
Overseas – First Intefada

9 December. Twenty years after Israel captured the Gaza Strip from Egypt in the Six-Day War, the Palestinian people have risen in revolt against the Israeli administration. The immediate cause was when an army vehicle struck and killed four Palestinians in the Jabalia refugee camp, but there were many other causes, economic, social and political. The revolt, which spread throughout Gaza, the West Bank and even Jerusalem, took the form of civil disobedience, and an economic boycott of Israeli goods, services and enterprises. The young especially were involved, slinging stones and throwing molotov cocktails. The Israeli crackdown was brutal, the IDF using tear gas, and beating and shooting at demonstrators. By the time the Intefada ended in 1991 more than one thousand Palestinians had been killed, with 160 Israeli deaths. The local community was also polarised, with over eight hundred Palestinians who were suspected of collaborating with the Israelis being murdered.

The Map: Palestine  Scale: 1:250,000  Publisher: Royal Jordanian Geographic Center  Date: 1987
UK – Piper Alpha drilling rig disaster
6 July. One of the largest and oldest drilling platforms in the North Sea has been destroyed. At about 2230 hrs on the evening of the 6 July, explosions and then a fire, were reported on the Piper Alpha rig, which lies about 120 miles off the north east coast of Scotland. Helicopters and boats were immediately despatched to the scene and on approach reported an inferno, with the rig itself largely destroyed. A gas leak from a compressor pump caused the initial explosion, which destroyed the control room. Some 20 minutes later a gas riser failure caused a second explosion, followed nearly an hour later by a third. The raging fires were for a time fed by oil from pipes routed from two platforms in the Claymore and Tartan fields. Of the 226 people aboard the rig, 167 were killed.

The Map: UK Continental Shelf   Scale: 1:4,000,000  
Publisher: Unknown   Date: 1986
Overseas – The Soviet Union begins their withdrawal from Afghanistan

14 April. The Soviet Union, together with the United States and Pakistan, have signed the Geneva Accords, a timetable for the departure of Soviet forces from the region which will see the last troops leave Afghanistan on 11 February 1989. Current Soviet involvement in Afghanistan began in very different times in December 1978 when, with Soviet assistance, the Afghan Revolutionary Central Committee replaced Prime Minister Hafizullah Amin with his former deputy, Babrak Karmal. Soviet attempts to prop up Karmal’s regime were ineffective and ten years later Premier Gorbachev viewed the continued presence of Soviet forces in Afghanistan as both a drain on the Soviet economy and a stumbling block to improving relations with other countries in the region. Whether Karmal’s successor, Mohammad Najibullah, will be able to effectively implement his policy of reconciliation with the various warring factions, Shah Massoud in the Panjshir Valley and the Western-backed Mujahideen, remains to be seen.

The Map: Afghanistan  Scale: 1:2,000,000  Publisher: GUGK (General Staff of the USSR)  Date: 1989
UK – Hillsborough disaster, Sheffield

15 April. Sheffield. Poor crowd-control measures at Hillsborough stadium on this day saw a disaster when Liverpool fans at the FA Cup semi-final with Nottingham Forest were crushed against a pitch-side barrier at the Leppings Lane end of the stadium soon after the three o’clock kick-off. The game was abandoned and fans were brought onto the pitch, but ninety-six people died.

A Yorkshire Police press leak led to highly contentious media reportage of the causes of the crush and the widespread vilification of Liverpool fans. The Sun newspaper’s coverage of the event, in particular, resulted in a boycott on Merseyside which endures to this day. A subsequent inquiry concluded that poor Police crowd-control led to the crush and that there are strong grounds for suspecting that nearly half of the dead might have been revived had the emergency services dealt more effectively with the situation. A new inquest will be held in 2014.

The Map: A-Z Premier street map of Sheffield
Scale: 1:18,103
Publisher: Geographers’ A-Z Map Company Ltd
Date: 1988
Overseas – Berlin Wall comes down

9 November. With the announcement that the East German authorities will allow its citizens to visit West Germany directly, Egon Krenz’s SED Partei was bowing to the inevitable. All evening, crowds have been gathering close to the Berlin Wall and at midnight, the checkpoints in the Berlin sector of the wall will be thrown open by East German border guards. Pressure had been building up since the previous summer when Warsaw Pact member Hungary broke ranks and opened its borders to Austria, in effect granting East Germans indirect access to West Germany. Then the Czech Republic announced that it, too, was opening its borders. While the hard-line premier Erich Honecker remained in power it looked as though East Germany might have its own Tiananmen Square, perhaps in Leipzig, but now that he and his cabinet have been swept away, replaced by the more moderate Egon Krenz, this danger has passed.

The Map: Stadtplan Berlin  Scale: 1:25,000
Publisher: VEB Tourist Verlag  Date: 1987
UK – Glasgow, European City of Culture

1 January. Glasgow has been awarded the title ‘European City of Culture’. Now in its eighth year, the designation, which aims to ‘highlight the richness and diversity of European cultures’ has been awarded to a UK city for the first time. Having bid for the accolade in 1983, Glasgow City Council now takes on the mantle from last year’s winner, Paris. Perhaps better known as an industrial than a cultural capital, Glasgow will seize the opportunity to place itself on the European cultural map. The accolade will have a beneficial impact; during the year a series of cultural events with a European dimension will be held and the town’s cultural destinations, such as the Hunterian Museum and the Burrell Collection will surely see a rise in visitor numbers. At the end of the year 61% of people polled stated that it had made the town ‘a better place’ to live in; gallery, theatre and museum visits had increased by 40%.

The Map: Glasgow Master Street Plan
Scale: 1:15,840  Publisher: Geographia  Date: 1990
7 February. The Communist Party of the Soviet Union has accepted that it should give up its monopoly grip on power, something it has exercised since 1917. A political process developed by Lenin and consolidated under Stalin has now given way to political pluralism of a sort. In the past few years, under General Secretary Gorbachev, the last of the old guard, such as former Foreign Secretary Andrei Gromyko has been swept away. Gorbachev, with the First Secretary of the Moscow Communist Party, Boris Yeltsin, have been the major architects of change. The 1988 elections to the Congress of People’s Deputies could include independents such as former dissident scientist Andrei Sakharov and Leningrad mayor Anatoly Sobchak. Now fifteen USSR republics have held competitive elections and three Baltic states, Estonia, Latvia and Lithuania, have elected non-communist governments, as have Moldova and Georgia and Armenia in the Caucasus. Long-repressed changes are in the air and not all of them will be welcome.

Overseas – Collapse of the Soviet Union

The Map: The Baltic States-The break-up of the Soviet Union   Publisher: National Geographic   Date: 1993
UK – 200th Anniversary of Ordnance Survey

Following the French Revolution of 1789 Britain feared invasion and as part of its preparations the Board of Ordnance ordered the survey of the south coast defences. Thus began the Ordnance Survey, which on 21 June 1791 made its first purchase, a three-foot theodolite commissioned from instrument maker Jesse Ramsden by the OS Master. From then on the Ordnance Survey, as it was then and still is known, has progressed to map the United Kingdom in its entirety at various scales, ranging from the old one inch to the mile sheets to plans at scales up to 1:1,250. It has produced some of the most impressive mapping ever made anywhere. Today, while it is known to the public for its paper maps, particularly the 1:50,000 series of Landranger maps, the Southampton-based organisation’s major digital asset, MasterMap™, can rightly be regarded as its ‘jewel in the crown’.

Overseas – Gulf War I, Operation Desert Storm/Granby

17 January. Since Saddam Hussein’s occupation of Kuwait on 2 August 1990 the Coalition of military forces now ranged against him is truly impressive: thirty-four nations. At 2330 hrs on 17 January 1991 Coalition air forces went into action as operation ‘Desert Storm’ got under way under the command of US General Norman Schwarzkopf. The air attacks rapidly wore down the Iraqi telecommunications infrastructure and when ground forces crossed into Kuwait on 24 February 1991, Iraqi forces, having fired the oil wells, began a headlong retreat to the border. Within 100 hours of the ground campaign starting it was over. Combat casualties were an estimated 20-22,000 on the Iraqi side with additional civilian casualties, while Coalition casualties numbered only 358. Rarely has technical superiority over a force equipped with largely Soviet-era equipment been displayed so effectively, or in the case of the troops caught on the road to Baghdad near Al Jahra, so openly.

It is 60 years since the British Workers Sports Federation appealed for ramblers to assemble for a mass trespass on Kinder Edge, land owned as a grouse moor by the Duke of Devonshire in the Derbyshire Peak District and worked for less than two weeks a year. The much-publicised action, on 23 April 1932, was attended by two groups some 400 people in pursuit of the ‘right to roam’ and led to clashes between bailiffs, the Derbyshire Constabulary and ramblers themselves. Five people were jailed for between two and six months for ‘riotous assembly’. Within weeks of the original action further demonstrations took place and the Kinder Scout clash, which took place on what is now part of the Pennine Way, is credited with making possible much of the current legislation giving access to the countryside and the whole National Parks system. Ironically untrammelled access is now creating a different problem – erosion.

**The Map**

The Dark Peak, Supernwalker

**Scale:** 1:25,000

**Publisher:** HARVEY Map Services Ltd

**Date:** First published 1999, latest edition 2008
Overseas – Maastricht Treaty signed

7 February. An important milestone towards the integration of Europe, the Maastricht Treaty, has been signed in Brussels. The European Economic Community (EEC) will shortly deal with far more than just economic issues and become the European Community (EC) envisaged by its founders. Now areas not hitherto covered will be incorporated into the so-called ‘Pillar’ administrative system. Foreign policy and military issues will now come under the Common Foreign and Security Policy Pillar, while UK and other national criminal justice issues will now come under the Justice and Home Affairs Pillar, which are all to be incorporated into the new bureaucracy. There have, however, been some compromises to tackle the misgivings of some member states, such as the UK, who feel that too much power may be being ceded to Brussels in this journey towards ‘ever closer union’. The Treaty will come into effect on 1 November 1993.

The Map: This map, designed by Lovell Johns, shows the 12 EC member states in 1992. Since then 16 new member states have joined the EC. Lovell Johns are proud to be involved with the creation and update of the official EC member state maps. www.lovelljohns.com
UK – 40th Anniversary of the founding of AIDU

Founded in 1953, the No 1 AIDU (Aeronautical Information Documents Unit) has been at the forefront of the Air Cartographic World for half a century. After four years at RAF Ruislip the Unit moved to Northolt where it has remained ever since, moving into a new purpose built building in 1995. The Unit is now part of the Joint Forces Intelligence Group, as one of the four Foundation Geo Int providers along with the Defence Geographic Centre, UK Hydrographic Office and UK Meteorological Office. No 1 AIDU’s principal task is the provision of all aeronautical cartographic data, moving map imagery, arrival/departure and in-flight data, military flying charts, en-route and terminal charts, the majority of which are now available through its website www.MilFLIP.com. Since 1999 the Unit has held a certificate of excellence from the British Standards Institute with EN ISO 9001 and was awarded a certificate of European Directive 76 compliance in 2008.

The Map: This En Route Low Altitude Chart is drawn on the Oblique Mercator projection using the WGS84 Spheroid at a scale of 1:1,000,000. The vertex of the false equator occurs at N562204 E0123115. Where no upper airspace is defined, the vertical limit of the aeronautical information shown on this chart is Flight Level 245. The chart is amended in accordance with the International Civil Aviation Organisation 28 day Aeronautical Information Regulation and Control Cycle, with a new version created every 3 months.
Overseas – Czechoslovakia splits into the Czech Republic and Slovakia

January. Created after the collapse of the Austro-Hungarian Empire in 1918, Czechoslovakia was formed from two distinct areas and regions; the Czech Republic and Slovakia, to the east. It was first agreed in 1917 between Jan Masaryk and other Czech and Slovak representatives in the American town of Pittsburgh that the two peoples would form a single state. Under Premier Beneš a single nation was forged, with Prague as its capital. After the Nazi occupation, however, the country fell into the Soviet sphere of influence, only gaining real independence in 1991 after the so-called ‘Velvet Revolution’. In the post-communist era, however, political leaders argued for either looser integration, or greater federation. In the end this was not enough and on 17 July, the Slovak Parliament adopted a declaration of independence. The most prominent political casualty of this separation was Czech President Václav Havel, who opposed the dissolution and resigned.

The Map: Czechs and Slovaks
Publisher: National Geographic  Date: 1993
UK – Channel Tunnel completed

6 May. A dream which the French mining engineer Albert Mathieu-Favier planned as early as 1802 is now reality. Since the work began on the tunnel, a major engineering challenge, in 1988, the France-Manche SA/Channel Tunnel Group Ltd, working on both sides of the English Channel with a total of eleven boring machines have created two 50.5 km-long railway tunnels and a central service tunnel. The two sides met under the English Channel on December 1st 1990. Today in a ceremony held in Calais the Queen’s train from London passed beneath the Channel and drew up nose-to-nose with the train ferrying the French President Mitterrand, from Paris. In London, the current terminus for the line is Waterloo International Railway Station, south of the river, but it is to be replaced in 2007 by St Pancras International Railway Station.

The Map: Carte topographique de l’État-Major / Carte géologique détaillée – Sheet 1 : Calais

Scale: 1:80,000  Publisher: Dépôt de la Guerre

Date: 1832

The Map: Folkestone terminal plan

Publisher: Mott Macdonald Environmental  Date: 1994
Overseas – First multiracial elections in South Africa

27 April. In the past five years, President F.W. de Klerk has lifted the ban on the African National Congress, halted executions and released Nelson Mandela from Robben Island. Then Mandela and de Klerk together commenced dismantling the Apartheid system and set in train the creation of a multiracial government, an effort for which they were awarded the 1993 Nobel Peace Prize. This year, under the eye of the Independent Electoral Commission (IEC), nineteen political parties took part in elections for the National Assembly. The National Party under F.W. de Klerk won 82 seats (20% of the vote), and the Inkatha Freedom Party, under Chief Buthelezi, 43 seats (10% of the vote), but the ANC gained 252 seats. There is therefore an ANC Government and Nelson Mandela has been elected President. It is expected the ANC will do equally well in Local Government elections to be held in 1995.

The Map: South Africa: proposed new provinces

Scale: c1:6,200,000

Publisher: Foreign and Commonwealth Office

Date: 1994
UK – 200th Anniversary of UKHO
11-14 July. The 200th anniversary of the UK Hydrographic Office has been marked by celebrations in London’s West India Docks, where Hydrographic Survey vessels HMS Beagle, HMS Herald and HMS Hecla are currently berthed. In the eighteenth century the British Admiralty needed good charts for its ships. To that end it appointed its first Hydrographer in 1795 and its first chart, produced in 1800, was of Quiberon Bay, in Brittany. While its first charts were intended for the Royal Navy, demand came from all quarters and led to charts being put on sale to the public. By the mid-19th century over 2,000 charts had been published of areas all over the globe.

Alongside charts, many other types of publication proliferated, such as Sailing Directions, ‘Pilot’ studies, tide tables, and Notices to Mariners. Today, the approximately 1,000-strong UK Hydrographic Office is based at Taunton in Somerset.

The Maps: Five maps showing the development of Hydrographic charting for the approaches to Portsmouth Harbour. The final chart, 2012, is a contemporary on-screen chart

Publisher: UK Hydrographic Office
Overseas – Dayton Agreement

November. Using some of the lessons learned at the 1978 Camp David Accords, leaders of the warring factions of the former Yugoslavia, Slobodan Milošević (representing Bosnian Serb interests), Croatia’s President Tudjman and Bosnia & Herzegovina’s President Alija Izetbegović, have been able to come to some form of agreement at Dayton, Ohio. The main purpose of the meeting, chaired by US Secretary of State Warren Christopher and held out of the eye of the press at the Wright Patterson air base in Dayton, is to ‘promote peace and stability’ in Bosnia & Herzegovina. It is proposed that Bosnia & Herzegovina is a complete state, with a central government and a central bank and with a rotating presidency. Formal signing of the Agreement will take place in Paris on December 14th and the first free elections, under the aegis of the Organisation for Security and Co-Operation in Europe, are planned for 1996.

The Map: Dayton Agreement and ceasefire lines

Scale: 1:1,200,000
Publisher: Director General of Military Survey
Date: 1996
UK – Start of National Bike Week and a celebration of Cycle mapping

Bike Week was first started in the UK in 1923. Today, it is a global event, traditionally held in the UK each June. A nationwide programme of events is held with the intention of encouraging everyone who does not cycle regularly to ‘dig out their bikes… and fall in love with cycling all over again’. Behind it all is the wish, through the promotion of cycling, to educate planners and motorists about the many benefits of leaving the car at home and getting on a bicycle. The number of journeys, particularly short ones, which can be made by bicycle or on foot, rather than in a car, can only promote long-term health benefits in the population at large and financial ones as well. In connection with these events large numbers of original maps have been designed to get people cycling. Cambridge, one of the most bike-friendly cities, TfL, some London Boroughs and in particular the London Cycle Network have all produced maps showing cycle routes in their areas.

The Map: Cambridge Cycling Campaign Photomap which is derived from OpenCycleMap, part of OpenStreetMap
Publisher: Cambridge Cycling Campaign  Date: Since 2006

The Map: Cycling in Lambeth  Scale: 1:17,544
Publisher: ML Design/Lambeth Transport  Date: 2002


Overseas – The Siege of Sarajevo

30 August. For much of the Bosnian war of 1992-6, Sarajevo, the capital of Boznia & Herzegovina, was under siege. For three and a half years, longer than the siege of Leningrad, Bosnian Serbs controlled high ground surrounding the town and prevented access to it except for an area to the SW controlled by UN troops (see map). Supplies could only be brought in by air and latterly, through a tunnel. For much of this time the inhabitants were shelled and sniped at, with the outside world seldom interfering, save for when a particularly grievous atrocity took place: such as the mortaring of an open-air market in February 1994. A mortar strike on the same market in August 1995 proved the final straw. NATO air strikes pummelled Bosnian Serb positions and facilities round the city, a Rapid Reaction Force then broke the siege and within two months a peace treaty had been signed. Tragically, ten thousand Sarajevans were killed in the siege.

The Map: Survival Map 1992-1996 (The Siege of Sarajevo)
Author: Suada Kapić  Publisher: FAMA International within the beseiged Sarajevo  Date: 1996
UK military mapping celebrates its 250th anniversary this year. Military Survey is the provider of all defence geographic requirements and support to the Armed Forces, the MOD and other government departments. During the 19th and 20th centuries this organisation and other precursor bodies provided mapping and other plan data of most conflict areas of the world. During the 1914-18 war and the 1939-45 war, military mapmakers created and supplied cartography on a truly Herculean scale and have continued to do so in UK, Commonwealth and NATO contexts ever since. This is a demanding and challenging role which continues. Based at Feltham in Middlesex, Tolworth in Surrey and Hermitage in Berkshire, Military Survey has continued to uphold the high standards of its predecessors. This year, its work has been recognised by the award of a medal from the Royal Geographical Society.

The Map: Part of sheet 16 of the Military Survey of Scotland. Scale 1:36,000. Under the leadership of William Roy and drawn by the watercolour artist Paul Sandby RA, this was the first large scale map of an entire country produced for a solely military purpose; that of subjugating the Jacobite inhabitants of the Highlands.
Overseas – Montserrat volcano erupts destroying capital, Plymouth

December 1997. In a series of eruptions characterised by sudden pyroclastic flows which have killed some 20 people, the Soufrière Hills volcano has rendered the southern part of the Leeward Island of Montserrat uninhabitable. After two years of rumblings it was only in the past few months that the Soufrière Hills volcano, which had lain dormant for centuries, finally came back to life. The capital, Plymouth, was buried under almost 12 metres of volcanic mud in August, port facilities have been put out of action and the only airport on the west side of the mountain is now closed. Of the population of 12,000 people, only about 3,000 now remain in the northern half of the island in St Antony’s parish. HMS Liverpool and other naval units, are standing by at Little Bay, ready to evacuate inhabitants, initially to Antigua. Eight years ago, in 1989, Hurricane Hugo destroyed much of the island causing damage estimated at over 100 million US dollars. This will be more costly still.

The Map: Tourist Map of Montserrat (DOS 359)  Scale: 1:25,000  Publisher: Directorate of Overseas Survey  Date: 1983
The Map: Montserrat: the eruption of 1997  Scale: 1:101,112  Publisher: Created by ML Design for Methuen Publishers  Date: 2002
UK – Good Friday Agreement signed

10 April. Today historic agreements were signed between the Governments of Ireland and Britain and Northern Ireland political parties. The Good Friday Agreement, a vital part of the Northern Ireland Peace Process comprises two documents. The first is an agreement signed by the parties of Northern Ireland and the second, an agreement between the British and Irish Governments. In outline, the agreement includes provisions for the future governance of Northern Ireland and the relationship between institutions in all three areas. Perhaps most importantly, it includes provision for the decommissioning of arms, the ‘putting beyond use’ of weapons held by the various Republican and Loyalist paramilitary groups and the release from prison of gaoled paramilitaries. The Agreement will come into force on 2 December 1999. On this and subsequent agreements will depend the Northern Ireland devolved system of Government.

The Map: Park View  Scale: 1:2,500
Publisher: UK Military Survey  Date: 1998
Overseas – New Hong Kong International Airport at Chek Lap Kok opens

6 July. Since 1925, Kai Tak was the airport by which air travellers arrived in Hong Kong. But in recent years high-rise developments and the awkward approach airliners had to make, to land on a runway built on reclaimed land jutting into Kowloon Bay, made the airport far from ideal. With Hong Kong a vital hub for air travel in the Asian region a new, better-sited airport was needed as a matter of urgency. Now such a facility has been constructed on land created between Lantau Island and Chep Lap Kok. Aircraft approach, and take off, over the sea. Built in six years at a cost of c.20 billion US dollars, the two-runway airport will operate as an enormous freight hub and its passenger terminal, one of the largest in the world, can be operated 24 hours a day. There is space for the construction of a third runway when needed.

The Map: Lantau Island
Publisher: Wikipedia

The Maps: Hong Kong International Airport
Publisher: Wikipedia, Joho Maps
UK – Welsh Assembly opens in Cardiff; Scottish Parliament opens

Westminster is devolving real powers to two of the partners in the United Kingdom. On 26 May in Cardiff, two years after the Welsh voted for a National Assembly for Wales and the passing of the Government of Wales Act 1998, the Queen and the Prince of Wales have taken part in the opening of the Welsh Assembly. With no tax raising and limited legislative powers, the creation of the sixty-member-strong Senedd is nevertheless a significant step in the direction of Welsh self-government. In Scotland, following the devolution referendum of 1997, the Scottish electorate, on a turnout of a little over 60%, approved a Scottish Parliament with tax varying powers by 74% and 63% respectively. The next year the Scotland Act 1998 created a Scottish Parliament and Executive which on 1 July 1999 will have powers devolved to it from Westminster.

The Map: Scottish Parliament constituency map
Publisher: Wikipedia  Date: 2008

The Map: Welsh Assembly constituency map
Publisher: Wikipedia  Date: 2011
Overseas – Czech Republic, Hungary and Poland join NATO

With the ending of the Cold War and the collapse of the Warsaw Pact in 1990 new alliances are being forged both east and west. Formed in the Cold War, the North Atlantic Treaty Organisation (NATO), has itself had to change its role and purpose and as its 50th anniversary approaches may be presumed to have done so. Formerly pledged to render mutual aid when one or more of its members was attacked, NATO should now be ready to face ‘an aggressive regime, a rampaging faction, or a terrorist group’. Now three European states, Poland, the Czech Republic and Hungary are returning, in the words of Hungarian Foreign Minister János Martonyi ‘to their natural habitat’. With other Warsaw Pact states likely to apply for membership, some sure-footed diplomatic manoeuvring is required to soothe Russian fears. Russian President Boris Yeltsin has said that Russia ‘could live with NATO’. For the moment matters are calm.

The Map: Selb  Scale: 1:50,000  Publisher: Generál Stáb Armády České Republiky  Date: 2008
By the end of January 2000, it should be possible to view, and to download to order, an aerial photomap of the entire UK, an electronic Domesday of the UK landscape.

Getmapping PLC are preparing to launch the ‘Millennium Map’ which has been in preparation since last spring when four pilots began an ambitious flying programme to cover the whole country in not much more than a single flying season. The 3 million pound cost of the project has been raised from shareholders including the project’s patron, H.M. the Queen. Tristram Cary, CEO of Getmapping, is hopeful that this project will be completed soon.

Mapping Britain this way is a formidable challenge. In the UK the period when light and shadow angles permit the highest quality surveys is short and cloud-free days are comparatively rare. While Cary has said that there have been no restrictions on where his aircraft could fly and take photographs, anxiety has been expressed about letting some sites be viewed in unprecedented detail.

The Map: Map showing Greenwich Peninsula and part of the Isle of Dogs, London
Publisher: Wikipedia  Date: c.1872

The Map: Greenwhich and Docklands area
Publisher: Google Maps  Date: 2013
Overseas – The New Millennium

At the United Nations Summit in 2000 all 193 UN Member states have agreed to achieve the following ‘Millennium Development Goals’ (MDGs) within the next fifteen years: ‘To eradicate extreme poverty and hunger, to achieve universal primary education, to promote gender equality and to empower women, to reduce rates of child mortality, to improve maternal health, to combat HIV/AIDS, malaria and other diseases, to ensure environmental sustainability and to develop a global partnership for development’.

While these goals may be pious hopes, there is little doubt that much can be done to improve the lot of very large sections of the world’s population. International Monetary Fund (IMF) figures, for example, show that between 1980 and 2000 the proportion of the world’s population living in extreme poverty fell from over 40% to less than 30%. If each country devoted its energies to some of the MDG’s aims, comparable gains could surely be achieved in other areas.

The Map: Disneyland Paris Millennium map  Publisher: Disneyland Paris  Date: 1999
November 2001. Ordnance Survey is launching what is to be its digital ‘jewel in the crown’ – OS MasterMap – a seamless digital map of the entire country. The database incorporates every fixed identifiable feature into a single themed map. The data is presented in themed layers, for example roads and buildings and every mapped feature has its own unique topographic identifier or ‘toid’. The Ordnance Survey hopes that a programme of continuous revision will ensure that no single part of the map is more than six months out of date. Currently the entire database comprises some 440 million toids, or about 600 gigabytes of data.

Customers can licence areas, themes or layers, giving them great flexibility. It is hoped that clients using the Ordnance Survey’s current digital product, Land-Line®, will migrate to the new system. Ordnance Survey hopes to create annual snapshots of the new data, which will be deposited with the legal deposit libraries.

The Map: Ordnance Survey’s OS MasterMap Topography Layer of Tovil, Maidstone, Kent – comparable inset an extract of the 1801 map of Kent, the first map published by Ordnance Survey.

Scale: 1:1,250 Publisher: Ordnance Survey Date: 2012

Ordnance Survey mapping © Crown copyright 2012
Overseas – September 11th attacks

11 September. In a series of coordinated hijackings of internal flights, nineteen hijackers seized four airliners on domestic flights from airports on the US eastern seaboard. Two aircraft were then deliberately crashed into the Twin Towers of the World Trade Centre on the tip of Manhattan island while a third crashed into the Pentagon in Washington, D.C.

It is thought that a fourth airliner, Flight 293, was intended to be crashed into either the White House or the Capitol building, but it was brought down in Virginia by its passengers who had become aware of what had happened to the other aircraft. In total 2,731 people in the buildings are killed, as well as 246 passengers and crew on the aircraft and the 19 hijackers. The shock of this long–planned attack was immense and compared to the 1941 attack on Pearl Harbour. Suspicion focuses immediately on Al Quaeda, under the leadership of Osama Bin Laden.

The Map: New York City  Publisher: Google Maps  Date: 2013
UK – Canal mapping – The Falkirk Wheel, Forth & Clyde and Union Canals

In Britain, architecture, particularly functional architecture, is seldom celebrated for its aesthetics but the recently completed boatlift called the Falkirk Wheel is a wonderful exception. From initial designs by Nicoll Russell Studios and RMJM architect Tony Kettle and realised by Butterley Engineering of Ripley, Derbyshire, the UK Canal network has received a stunning landmark construction.

Locks slowly raising boats up to higher levels are the traditional means of negotiating steep slopes, but lifts are sometimes used, such as the Victorian one at Anderton, Cheshire. The unique Falkirk design, an amazing 35 metre diameter wheel, operates like a gigantic cantilever, taking up to eight boats at a time in two opposing balanced tank-like sections and rotating them 180 degrees in under six minutes. The wheel connects the Forth and Clyde Canal with the Union Canal and is mainly used for recreational rather than commercial traffic.

The Maps: Forth & Clyde and Union Canals  Scale: 1:60,000 approx.  Publisher: GEOprojects (UK) Ltd  Date: 2001
Overseas – The Euro established

1 January. Having been a virtual currency for the past four years, ‘Euro’ notes and coins are today a reality and in circulation in all European Union countries with the exception of the United Kingdom and Denmark. Both countries have opted for the time being to retain their own currencies. To achieve true economic union, exchange rate volatility had first to be diminished which was attempted by the so called fiscal ‘snake’ and then eliminated. First step towards European Monetary Union involved fixed exchange rates, with an accounting currency, the European Currency Unit (ECU). Now the single currency is a reality. Behind the colourful new note and coin designs, reflecting the historical figures and cultural landmarks of the seventeen different countries which make up the Euro Zone, lie hopes that a major milestone of the European project has been reached. Whether or not Britain’s fortunes will be damaged by remaining out of this brave new world remains to be seen.

The Maps: 2002 Introduction of the Euro   Publisher: Lovell Johns Ltd  Date: 2002
UK – London Congestion Charging
Zone established
17 February. Following his mayoral manifesto pledge in 2000 to introduce a congestion charge, London’s mayor, Ken Livingstone, has seen the pledge into reality, eight years after the London Congestion Research Programme concluded the city would benefit from such a charge. The areas covered comprise the approximate area of the Inner Ring road. An extra 300 buses were planned for the day but in the event, buses and tubes were little busier than usual. In the first 24 hours, 190,000 vehicles entered the charging zones, 75% of normal traffic. Of this total, just over half, some 100,000, had paid the fare personally. In the first few weeks the scheme was in operation motor traffic was reduced by around 15-20%. After six months a Transport for London (TfL) report indicated journey times had been shortened by 14%. That year Scientific American magazine listed Ken Livingstone as one of 50 visionaries who were ‘building a better world’.

The Maps: London Congestion Zone
Publisher: Created by ML Design for Transport for London
Date: 2003
Overseas – Three Gorges Dam, China

One of the largest engineering projects in the world has been completed in the Chinese province of Hubei. Begun in December 1994, the Three Gorges dam is 2,335 m long and 185 m high. The dam has been built in order to provide hydroelectric power to an area of central China and also to diminish the risk, through water storage, of flooding by the Yangtze River. The reservoir is enormous. Some 560 km in length and up to 135 metres deep, it will contain nearly thirty nine cubic kilometres of water when full. The first stage of the filling has been completed and the second stage will take another six years. Worries have been expressed that the dam cannot withstand the pressure – cracks have appeared in the structure during the process of filling the reservoir. Floods, earthquakes and landslides will be major future tests for the dam. The human cost is also enormous – the project has displaced some 700,000 people from their homes.

The Maps: The map on the left is an extract from plate 23 (China South 1:5,000,000) taken from the 10th [Millennium] Edition of The Times Comprehensive Atlas of the World. The map on the right is taken from the 11th edition published in 2003. In this edition, due to repagination, the South China map is plate 24.
UK – Boscastle Flood

16 August. Cornwall. Eight hours of continuous rain have produced flash floods which have seriously damaged the Cornish villages of Boscastle and Crackington Haven. Six buildings and over 70 cars were washed into the sea. Remarkably no serious injuries were reported and no lives have been lost. An Environment Agency report has concluded that these floods were among the most extreme ever experienced in England, with a peak flow of c.140 cubic metres per second. Boscastle was flooded eight years ago when rains were attributed to the after effects of Hurricane Lili. It is difficult to draw conclusions about the causes of these extreme weather events, but evidence suggests that occasional locking and changes in the flow of the Jet Stream produces runs of low pressure systems and thus, greater quantities of rain in short periods. Paving over of large areas in towns also results in increased runoff and more frequent flash flooding.

The Map: Boscastle village  Publisher: OpenStreetMap
Date: 2013
Overseas – Boxing Day Tsunami

26 December. One of the largest undersea earthquakes ever recorded on a seismograph has been logged off the west coast of Sumatra, Indonesia. The resultant tsunami created by the earthquake, brought widespread coastal destruction and affected fourteen countries. Indonesia, where the tsunami was in places up to 30m high, was hardest hit, but Sri Lanka and India were also severely damaged and numerous coastal communities were completely wiped out. The death toll is estimated at around 230,000. Such was the power of the tsunami that it was apparent in Somalia, Ethiopia and Kenya, on the western side of the Indian Ocean. Partly because westerners were affected and were able to describe it at first hand, the response to the crisis has been high, with some 14 billion US dollars being collected in humanitarian aid. As a result of this disaster the United Nations is planning an Indian Ocean Tsunami Early Warning System.

The Maps:
- **Dynamic World**
  - Publisher: Global Mapping/XYZ Maps
  - Date: 2013

- **Indian Ocean**
  - Publisher: US Geological Survey
  - Date: 2005

- **Plate boundary**
  - Publisher: UK Hydrological Survey
  - Date: 2005

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**Plate Boundary**

*Evidence of slope failure*

*Accretionary wedge Plate Boundary*

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UK – 200th Anniversary of the Battle of Trafalgar

Celebrations are being held around the United Kingdom to mark the 200th anniversary of the Battle of Trafalgar, when a British fleet led by Admiral Nelson, defeated a Franco-Spanish fleet during the Napoleonic Wars. During the year a number of events were held in the UK. On June 28th an International Fleet Review, attended by vessels from thirty nations, was held in the Solent at the end of which a fireworks display was staged to simulate a mock sea battle between ‘Red’ and ‘Blue’ forces. On October 21st, the day itself, the Queen has accepted an invitation from the First Sea Lord to dine on board HMS Victory having lit the first of a chain of beacons which will then be ignited across the country. Nelson never lived to enjoy his triumph. A French sniper fatally wounded him during the battle.

The Map: Trafalgar Commemorative chart
Publisher: UK Hydrographic Office
Date: 2005

The Map: The British attack at Trafalgar, about noon, 21 October 1805
Publisher: ML Design for Bodley Head Publishers
Date: 2012
Overseas – Hurricane Katrina

The storm season is again producing hurricanes in the Gulf of Mexico and one is causing exceptional anxiety: Hurricane Katrina. Having developed as a storm over the Bahamas and crossed Florida, it picked up strength in the Bay of Mexico, increasing from a Category 3 to a Category 5 hurricane in 9 hours. With the realisation that New Orleans might lie in its path, City Mayor Ray Nagin enacted plans for evacuating the city. Coming ashore as a Category 3 Hurricane the storm had a major impact, breaching the levee systems in the New Orleans area in 53 places and causing the flooding of most of the city. The gale-force winds badly affected the evacuation and when it had blown itself out some 1,800 people had been killed, making the storm one of the costliest in US history.

The Map: Hurricane Katrina flooding, estimated depth and extent, 31 August 2005
Publisher: NOAA
Date: 2005

The Map: City of New Orleans ground elevations
Publisher: Wikipedia
Date: 2009
UK – UK migration at all time high

5 October. With the Office of National Statistics (ONS) publishing perhaps the most comprehensive set of figures on the number of migrant workers in the UK it concludes that last year there were some 1.5 million foreign workers in the UK, making about 1 in 19 workers a foreign national. In a study conducted by University College London, it was concluded that as many as 400,000 foreign workers came to the UK in 2005.

Under the Maastricht Treaty to which the UK is a signatory, EU nationals have the right to move to each country for work and Britain, with its comparatively open-door policies, has attracted a substantial number of migrants from the newly-acceded central European countries. In the past, official UK estimates of the number likely to come to the UK were put in the low tens of thousands.

The Maps: UK immigration maps
Publisher: BBC News website:
www.bbc.co.uk/news
Date: 2013
Overseas – East Timor Crisis

April 2006. Tension has been rising between different army units in East Timor with charges of discrimination, poor organisation and official misappropriation of oil funds being levelled. Demonstrations in the capital, Dili, in support of disaffected soldiers who have been declared ‘deserters’ have turned into rioting in which five have died and thousands have been made homeless. These have developed into more serious fighting between pro-government and Falintil army factions. International offers of help have been accepted by Prime Minister Mari Alkatiri and Australia, New Zealand, Malaysia and Portugal have all despatched forces to assist in quelling the disorder which has been called a ‘coup’. Fretilin party members are clamouring for the resignation of Alkatiri and the President, Xanana Gusmão, is likely to ask him to step down. Civil war is becoming a real possibility.

The Maps: Dili, Timor-Leste  Publisher: Universidade Técnica de Lisboa, Cartografia Department  Date: 2013

UK – 300 year anniversary of the Act of Union with Scotland

16 January. This year marks the 300th anniversary of the Union of England and Scotland. The Union came into effect on 1 May 1707. The Act, which was partly entered into by Scotland to aid it in recovering from the economic consequences of the disastrous South American Darien expedition and by England’s fear that an independent Scotland, under a different king than James VI could prove an enemy. While the Union resulted in Scottish affairs being governed from Westminster in London, the Church of Scotland was to remain its established church. There were a number of mutual benefits. It created the largest 18th century free trade area in Europe, which, arguably, paved the way for the Industrial Revolution. Whether the Act of Union will celebrate a fourth centenary remains to be seen.

The Map: A new map of Great Britain, according to the newest and most exact observations. By Herman Moll

Scale: c1:1,100,000
Publisher: T. Bowles, J, Bowles, J. King
Date: 1710
Overseas – The Internet

7 January. Since computer-based inter-networking expanded out of the laboratory and became the worldwide tool known as the Internet, users have grappled with ways of depicting the myriad networks of computers that it joins together, either symbolically, mathematically, or "realistically" using mapping conventions to a greater or lesser degree. Some of the early results were published in *Wired* magazine. Now from both an informatics and from an aesthetic point of view, several successful maps of the Internet have been created. Among the most interesting were those generated as part of the so-called OPTE project (a play on the word Optical), which was founded by Barrett Lyon in 2003 and included a rendering of how the Internet appeared in 1995. More recent versions have been created with realistic map bases.

**The Map:** World Internet users  
**Publisher:** National Geographic  
**Date:** 2007

**The Map:** OPTE Project visualisation of a portion of the internet  
**Publisher:** OPTE Project, Wikipedia  
**Date:** 2007
Overseas – Georgia/South Ossetia War

August. Since the break up of the Soviet Union a number of former republics have themselves been subject to breakaway movements. Georgia was one of them, with two provinces, South Ossetia and Abkhazia, wishing to secede. With South Ossetia partly under the control of a Russian-backed regime, it was inevitable that when Georgia launched an attempt to reclaim the territory Russia would become involved. Russia quickly put troops on the ground in Ossetia and mounted air attacks against military targets in Georgia. After five days the unequal contest was over and Russian forces occupied such strategic Georgian towns as Poti, Gori, and Senaki. A French-brokered ceasefire ensued on August 12th, followed on the 15th with a ceasefire which was signed in Moscow. Russian troops established buffer zones round Abkhazia and South Ossetia and maintain a military presence in these two now self-governing areas.

The Map: Satellite damage assessment for Tskhinvali, South Ossetia, Georgia
Publisher: UNOSAT
Date: 2008

UK – The Financial Crisis

A year has now elapsed since UK savers withdrew some 24 billion pounds sterling, approximately half of its assets, from Northern Rock, causing the first run on a UK bank in a century. The banking crisis, however, is showing no signs of going away. Since last year the Royal Bank of Scotland and many other banks have been drawn into the worsening global crisis, the roots of which go back to the bursting of the US housing bubble in 2006. With American house values subsequently going into free-fall, banks have all but ceased to lend, either to clients, or to each other. This worldwide freeze of liquidity has left banks such as BNP Paribas unable to carry out their most basic functions. Critics of the free market nostrums of the past quarter-century point to the repeal of the Glass-Steagall Act in 1999, which removed the divide between investment and deposit banking. This led to ever more inventive ways of making money and paved the way to the current crisis.

The Map: Mapping the UK recession
Publisher: The Guardian/DueDil
Date: 2008
UK – England win the Ashes

23 August. England has won the ashes once more. Kept at the MCC is a small urn in which – tradition has it – are the ashes of a cricket ball presented in 1882 to English Captain Ivo Bligh after the 9th test match between England and Australia. This sly gift from a group of Melbourne women commemorated the half-humorous death notice to English cricket posted in the Sporting Times when the Australian cricket team first beat the English at the Oval. Since then the ‘Ashes’ series has been a regular tournament between England and its former colony for what is, in effect, the ‘soul’ of cricket. After a period when Australia held the ashes, England won them back in 2005 then lost them again. Now they have them back. With Australia having won 31 times, and England 30 times, it seems unlikely that this sporting rivalry will ever end.

The Map: Political ‘Upside Down’ World Map
Scale: 1:40,000,000
Publisher: Global Mapping  Date: 2009

Conventional wisdom says this map is ‘upside down’ but which way is truly up? Living in the Southern Hemisphere you would argue that you were upright. So who’s to say this alternative view of the World isn’t correct? Maybe we should adopt this map whenever Australia hold the Ashes?!
Overseas – Venice flooding

December. Venice and its citizens are used to flooding. The city’s squares and thoroughfares are inundated by what is termed the ‘acqua alta’ – the high waters, but which are really only exceptional tides, perhaps as often as ten times a year. However from time to time the water levels can rise even above these high tides. In the past thirty or so years exceptional high waters have been recorded, for example in 1966, when around 5,000 people were made homeless, in 1986 and more recently in 2008, when waters reached 1.56 m above average sea level.

But these floods may soon become a thing of the past with the start, six years ago, of the MOSE (Modulo Sperimentale Elettromeccanico) project. A series of flood barriers will create four gates across the Venice Lagoon when exceptional tides are predicted, but it is not expected to be operational before 2014.

**The Map:** Venice floods  **Publisher:** National Geographic  **Date:** 2009

**The Map:** Venice  **Publisher:** ML Design for Heinemann Publishers  **Date:** 2012
UK – Heavy snow blankets Britain

In recent years the trend towards generally milder and wetter winters in Britain led to such things as snow chains and winter tyres being relegated to sheds and regarded as curiosities of a bygone age. But colder winters may be making a comeback.

On November 25th a North Easterly airstream began drawing bitterly cold air from Europe and Siberia across the UK. Scotland and NE England bore the brunt as moisture picked up as the air stream crossed the North Sea and fell as up to half a metre of snow. As the wind direction changed snow was brought to the south and then to the south east, with the Isle of Wight, Lands End, and even the Scilly Isles receiving some snow cover.

For the second time in less than a year the entire country was blanketed in snow. A particularly photogenic satellite image of January’s fall was published on the front page of almost every Newspaper (see picture).

The Map: White Britain satellite picture Publisher: NASA Date: 2010
The Map: UK Snow Depths Publisher: Met Office Date: 2010
Overseas – Eyjafjallajökull eruption

10-25 April. After a preliminary bout of activity the Icelandic Volcano Eyjafjallajökull has entered a second eruption phase which created a dense ash cloud, estimated at some 250 million cubic metres. As the cloud entered the jetstream it was promptly spread over some twenty countries, reaching as far away as north east Canada and as far east as eastern Siberia. The silica content of the ash cloud was judged to be extremely hazardous to aircraft engines and it was this risk and that to aircraft windows, which forced the shut-down of much west European and North Atlantic air space between the 15 and 20 of April. European, Irish and UK airspace were again closed in early and mid-May as the cloud passed through it once more. By the time the ash ejection phase had ended the International Air Transport Association (IATA) had estimated that it had cost airlines some 1.7 billion US dollars of lost revenue.

The Map: Extent of glacial flooding due to the summit eruption of Eyjafjallajökull volcano
Publisher: Icelandic Met Office Date: 2010

The Map: Volcano cross sections
Publisher: Wikipedia Date: 2010

The Map: Volcanic system of Iceland
Publisher: Wikipedia Date: 2010
UK – Walking with the Wounded

Set up in 2010 by Simon Daglish and Edward Parker, both themselves army veterans, and with HRH Prince Harry as its patron, Walking with the Wounded aims to assist those injured while in service with the military and uses media savvy methods to raise awareness of the difficulties facing injured veterans in civilian life. The approach is to undertake inspirational expeditions and events. The first of these was an eight-strong expedition to the North Pole, which includes four wounded veterans, Martin Hewett, Steve Young, Guy Disney and Jaco van Gass. After a 13-day trek, accompanied by Prince Harry for four days, they reached the pole on 16 April. Further expeditions are planned, the next being an assault on Mount Everest and in 2013, an Allied South Pole Challenge to mark the centenary of the 1912 Scott Polar expedition.

The Maps: Published by Esri UK, the Arctic Explorer is an interactive, multi-scale, web application. During the expedition users could track progress to the Pole and use the locations on the map to click through to the team’s daily blog. The application also contains expedition mapping from the Royal Geographical Society’s archive, providing rich historical context alongside contemporary cartographic design. To view the interactive map visit: http://walkingwiththewounded.esriuk.com/ArcticExplorer/
Overseas – Japanese Tsunami

11 March. One of the most powerful earthquakes to be recorded since 1900, has struck Japan. With an epicentre approximately 70 km east of the Oshika Peninsula in North Eastern Japan, the plate shift triggered a massive tsunami which reached heights approaching 40 metres. NE Japan suffered severe structural damage, roads, railways and buildings were all affected. The waves overtopped the sea defences with some ease and at Sendai reached as far as 10 km inland. Nuclear reactors located on the coast were badly hit, with three meltdowns occurring at the TEPCO’s Fukushima 1 Daiichi Nuclear Power Plant complex after their seawater cooling systems failed. A 20 Km evacuation zone round the Daiichi plant was enforced. The estimated cost of the disaster, in which some 18,500 people have died, is put at some $235 billion US dollars, making it one of the costliest earthquakes to date.

The Map: Fukushima Fallout
Publisher: National Geographic  Date: 2011

The Map: Tsunami wave travel times  Publisher: NOAA  Date: 2011
UK – Royal Jubilee

On the 6 February, the date of her accession to the throne in 1952, the Queen celebrates 60 years as Monarch, the only sovereign to do so since Victoria’s Diamond Jubilee held in 1897. Many events have been planned for the year but the jewel in the crown of these, as it were, will be during the weekend of 2-5 June when a summer river pageant will be held on the Thames, during which the Queen will progress down the river in the Royal Barge accompanied by a flotilla of some six hundred boats. As ever with open-air events in London, the weather is the one unpredictable element, and while the day proved to be extremely wet the pageant passed off with much warmth and good humour. Other events included a chain of beacons and less formally, there was a concert at Buckingham Palace where the pop group Madness briefly made the imposing building theirs.

The Maps: The Queen’s Jubilee Pageant Official Boat Spotter’s Guide
Publisher: Sunday Times Date: 2012
Overseas – Mercator Anniversary

5 March 1512. The man with perhaps the best claim to be called the ‘father of modern map making’ was born Gerard de Kremer (1512-94), in the town of Rupelmonde in Belgium. Adopted by an uncle, Gerard graduated from Louvain University in 1532. He made a living teaching, but had always been interested in Geography. A commission for a globe from Charles V, allowed him to hone his skills in that direction and he quickly progressed in his chosen field.

Among his cartographic productions were a map of Palestine, a map of the world and a map of Flanders. In 1552 he moved to Duisberg where a University was planned and there opened a map shop. Here he prospered, becoming the leading globe-maker of his age. A map of Europe gained him financial security and in 1564 he was appointed cosmographer to the Duke of Jülich, during which time he perfected his ‘Mercator projection’.

The Map: World map
Publisher: Edward Wright  Date: 1599

The Map: World map
Publisher: Edward Wright  Date: 1610
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## BCS Founding Members*  

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<th>NAME</th>
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<td>Mr E. N. Quenet FBCart.S</td>
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<td>Mr B. M. Willett</td>
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*and are still members
Timeline of Cartography

The history of maps, charts, and data production begins...
# BCS Award Winners

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<th>Year</th>
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<td>Ocean Futures, ERA, UnParalled &amp; NHO of Norway</td>
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# BCS Medal Winners

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Images from the past decade
Contributors

No. 1 AIDU (Aeronautical Information Documents Unit)

The Map: En Route Low Altitude Chart
Year: 1993 Page No: 66
Founded in 1953, the No 1 AIDU has been at the forefront of the Air Cartographic World for half a century. After four years at RAF Ruislip the Unit moved to Northolt where it has remained ever since, moving into a new purpose-built building in 1996. The Unit is now part of the Joint Forces Intelligence Group, as one of the four Foundation Geo Int providers along with the Defence Geographic Centre, UK Hydrographic Office and UK Meteorological Office. No 1 AIDU’s principal task is the provision of all aeronautical cartographic data, moving map imagery, arrival/departure and in-flight data, en-route and terminal charts, the majority of which are now available through its website www.MilFLIP.com. Since 1999 the Unit has held a certificate of excellence from the British Standards Institute with EN ISO 9001 and was awarded a certificate of European Directive 76 compliance in 2008.

British Geological Survey

The Maps: Anglesey and UK Geological maps
Year: 1985 Page No: 50
The British Geological Survey is the world’s oldest national geological survey. It owes its origins to Thomas F. Colby, Superintendent of the Ordnance Survey, who recognised the practical value of a geological examination of the country and, in 1832, supported Henry Thomas De la Beche to undertake a geological survey of Devon. The success of this work led to establishment of the Ordnance Geological Survey in 1835; De la Beche became its first Director.
The Survey has changed name several times, eventually becoming part of the Natural Environment Research Council as a result of the 1965 Science and Technology Act. The Geological Survey and Museum was combined with the Overseas Geological Surveys in the following year and renamed the Institute of Geological Sciences.
The organisation resumed the title of British Geological Survey in 1984 and the following year, its 150th anniversary, the headquarters moved from the Geological Museum in South Kensington to Keyworth, near Nottingham.

Cambridge University Library Map Department

The Map: Airline routes over the Atlantic
Year: 1969 Page No: 18
The Map Department of Cambridge University Library contains more than 1.2 million map sheets, over 42,000 atlases and books. The collection is global in scope and comprises printed and manuscript maps, charts and topographic views, atlases and gazetteers from the 16th century to the present. As maps are covered by legal deposit, Cambridge University Library, as one of the six legal deposit libraries, is able to claim a copy of every map published in the United Kingdom and Ireland. As a consequence and because superseded editions are never disposed of, its historic collections of British mapping are particularly strong. However, we are also proud of our collection of current and historic mapping of all parts of the world, all of which provide a record of the changing landscape.

Collins Bartholomew, HarperCollins Publishers

The Maps: Aswan High Dam completed, 50th Anniversary of the Times Atlas, 150th Anniversary of Bartholomew Maps, Three Gorges Dam (China)
Part of HarperCollins Publishers, Collins Bartholomew has been in the business of map production for nearly 200 years. We are the creators and publishers of the Times World Atlas, and a digital mapping and solutions provider serving private and public sector organisations across the globe. We pride ourselves on delivering authoritative and up-to-date content that has been researched and verified by our team of geographic experts; this has built our reputation as a reliable and trusted source for a wide range of map-based products and services.

Esri Inc

The Maps: Walking with the Wounded mapping, The Esri Time-line
Jack and Laura Dangermond founded Esri in 1969 as a small research group focused on land-use planning. The company’s early mission was to organise and analyse geographic information to help land planners and land resource managers make well-informed environmental decisions.
Esri is an exciting company doing important work. Now our technology enables organisations to create responsible and sustainable solutions to problems at local and global scales.
At Esri, we believe that geography is at the heart of a more resilient and sustainable future. Governments, industry leaders, academics, and nongovernmental organisations (NGOs) trust us to connect them with the analytic knowledge they need to make these critical decisions that shape the planet.

FAMA International

The Map: The Siege of Sarajevo
Year: 1996 Page No: 73
The capital of Bosnia and Herzegovina, Sarajevo, was attacked on 5 April 1992 – 260 tanks, 120 mortars and a great number of smaller calibre weapons were pointed towards the city. The Yugoslav National Army, backed by local terrorists, encircled the city and began to tighten the noose around its 500,000 inhabitants. Every day the city was hit with 4,000 rounds whose targets included hospitals, museums, mosques, churches, schools, synagogues, libraries, the city maternity hospital, and queues for bread and water. The siege lasted from 2 May 1992 to 26 February 1996, or 1,395 days – it was the longest siege in history. One red line around the city once and for all explained what ‘a town under siege’ meant.

Global Mapping

The Maps: Dynamic World map, Political ‘Upside Down’ Map of the World
Years: 2004, 2009 Page No: 89, 98
Global Mapping are publishers of a range of Wall Maps including The World, Europe, Africa, China, USA, Middle East and British Isles and SkyView Posters, a range of aerial views.

**Lovell Johns**

*Years*: 1992, 2002  
*Page Nos*: 65, 85  

Lovell Johns is a UK based mapping services company and is part of the South African Media Group, Times Media Group Ltd. The company was founded in 1965 and is recognised for producing high quality maps for use in print publishing, online applications and Geographic Information Systems. Lovell Johns is an accredited Ordnance Survey Partner and an ESRI (UK) Partner. Alongside the mapping services Lovell Johns offer, they also run the successful online map shops www.mapsinternational.co.uk (UK & Europe) and www.maps-international.com (USA) where you can buy a range of wall maps for businesses, the home or as gifts.

**National Geographic Maps**

*The Maps*: Miscellaneous maps published in the National Geographic magazine  
*Page Nos*: 31, 41, 43, 51, 61, 67, 95, 99, 103  

The National Geographic Society has been inspiring people to care about the planet since 1888. It is one of the largest nonprofit scientific and educational institutions in the world. Its interests include geography, archaeology and natural science, and the promotion of environmental and historical conservation. Founded in 1915 as the Map Department of the National Geographic Society, National Geographic Maps is responsible for illustrating the world around us through the art and science of mapmaking. Today, National Geographic Maps continues this mission by creating the world’s best wall maps, outdoor recreation maps, travel maps, atlases and globes that inspire people to care about and explore their world. All proceeds from the sale of National Geographic maps go to support the Society’s vital exploration, conservation, research and education programs. For more information, visit www.natgeomaps.com.

**NOAA (National Oceanic and Atmospheric Administration)**

*The Maps*: Hurricane Katrina flooding in New Orleans, Hurricane Katrina satellite image, Tsunami Travel Times  
*Years*: 2005, 2011  
*Page Nos*: 91, 103  

NOAA is an agency that enriches life through science. Our reach goes from the surface of the sun to the depths of the ocean floor as we work to keep citizens informed of the changing environment around them. From daily weather forecasts, severe storm warnings and climate monitoring to fisheries management, coastal restoration and supporting marine commerce, NOAA’s products and services support economic vitality and affect more than one-third of America’s gross domestic product. NOAA’s dedicated scientists use cutting-edge research and high-tech instrumentation to provide citizens, planners, emergency managers and other decision makers with reliable information they need when they need it.

NOAA’s roots date back to 1807, when the USA’s first scientific agency, the Survey of the Coast, was established. Since then, NOAA has evolved to meet the needs of a changing country. NOAA maintains a presence in every US state and has emerged as an international leader on scientific and environmental matters.

**OpenStreetMap**

*The Maps*: Gravelly Hill interchange map, Boscastle Village  
*Years*: 1971, 2004  
*Page Nos*: 22, 88  

OpenStreetMap is an initiative to create and provide free geographic data, such as street maps, to anyone. The OpenStreetMap Foundation is an international not-for-profit organisation supporting, but not controlling, the OpenStreetMap Project. It is dedicated to encouraging the growth, development and distribution of free geospatial data and to providing geospatial data for anyone to use and share.

**Ordnance Survey**

*The Maps*: Woodstock, First Landranger maps, Grantham map, Kingston upon Hull, 200th Anniversary of the OS, MasterMap launch  
*Page Nos*: 10, 28, 38, 42, 62, 82  

Back in 1791, whilst planning defences to repel any invasion, the Government realised the South Coast of England needed to be comprehensively and accurately mapped. So it instructed its Board of Ordnance, the defence ministry of the day, to carry out the necessary survey work. That led to the mapping of the whole country and is also the source of the name ‘Ordnance Survey’. Today Ordnance Survey is a civilian organisation. We’re at the forefront of the digital economy, producing both digital and paper maps for business, leisure, administration and education.

**UKHO (UK Hydrographic Office)**

*The Maps*: Hydrographic charts of the Solent over time, Plate boundary graphic, Trafalgar commemorative chart  
*Years*: 1995, 2004, 2005  
*Page Nos*: 70-71, 89, 90  

In 1795, King George III appointed Alexander Dalrymple FRS as the first Hydrographer to the Admiralty. Dalrymple set to work reviewing the ‘difficulties and dangers to His Majesty’s fleet in the navigation of ships’. The first Admiralty Chart (of Quiberon Bay in Brittany) appeared in 1800.

Now we produce a global range of electronic and paper nautical charts, publications and services for the Royal Navy and international mariners. We are a government Trading Fund and part of the UK Ministry of Defence.
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The British Cartographic Society (BCS) is extending its Outreach Programme to schools by running FREE to attend workshops for Year 10 secondary school students on mapping to support disaster response activities.

SUPPORTS EDEXEL & AQA MODULES

- Earthquakes occur at constructive, destructive and conservative plate margins
- Features of earthquakes – epicentre, focus, shock waves
- The effects of earthquakes and responses to them
- Primary and secondary effects; immediate and long term responses
- Tsunamis are a specific secondary effect and can have devastating effects in coastal areas
- A case study of a tsunami – its cause, effects and responses

Volunteers assisting at a RESTLESS EARTH workshop will be eligible to receive up to five Continuing Professional Development (CPD) points that can be used towards achieving and maintaining Chartered Geographer (CG) status.

For more information and to register interest visit: http://www.cartography.org.uk

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