



# *Sheetlines*

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“Defence College of Intelligence, Royal  
School of Military Survey”

*John Seeley*

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The Charles Close Society was founded in 1980 to bring together all those with an interest in the maps and history of the Ordnance Survey of Great Britain and its counterparts in the island of Ireland. The Society takes its name from Colonel Sir Charles Arden-Close, OS Director General from 1911 to 1922, and initiator of many of the maps now sought after by collectors.

The Society publishes a wide range of books and booklets on historic OS map series and its journal, *Sheetlines*, is recognised internationally for its specialist articles on Ordnance Survey-related topics.

## *Defence College of Intelligence, Royal School of Military Survey*

*John Seeley*

Thirteen members of the society, led by John Davies, attended RSMS, Denison Barracks, Hermitage on Thursday 14 February 2008. This visit was splendid, conducted with precision most affably by our host, the Training Coordinator, Major (Retd) Tony Keeley and his civilian/military colleagues. Although the approach to Denison Barracks through Hermitage village is now green-belt suburban (and likely to become more so), the RSMS campus remains intact and desirable. There are instruction and workshop blocks, messes and residences. Older large-scale maps show the site, which is large, as 'hutted camp' or barracks. In the near distance beyond the playing fields, the M4 thunders past, where once would have been the Ridgeway path network and the Didcot/Newbury GW branch railway.

### *A little history*

The history of RSMS goes back to the earliest years of Ordnance Survey when Roy began first to train and educate. There have been many changes since in location, in content and technology, and inevitably in organisation. An operations branch and the training of soldiers for appropriate trades went out, but then returned when 42 Survey (Engineer) Regiment came to share the site. Shortly all 'Geospatial Intelligence', including RSMS will be moved to Chicksands.

Colonel Colby, when ordered to survey Ireland, instituted (at Chatham) more formal training than then prevailed and wrote one of the earliest manuals. Post-Ireland, Sgt Spalding was made instructor there and wrote the first military manual of surveying. About the same time, the previous training by the OS of RE cadets in the practice of surveying was brought back to Chatham, with trigonometric survey and astronomy added, under Superintendent (later Instructor in Surveying) W J Denison. The course lengthened from six weeks to six months and finally included also cadastre, map production, geodesy, meteorology, chain/rod surveying, and (as military topography) sketching, reconnaissance and sectioning. Lithography, photography and chemistry were taught elsewhere. Chatham became designated the School of Military Engineering thereafter.

Following WW1, photogrammetry came in, and artillery survey went to the RA. When WW2 began there was urgent need for expanded training in survey, and some toing and froing took place between OS, GSGS, and Forts Southwick and Widley. Although all responsibility transferred to the War Office, the OS contribution in instructors and equipment was essential to the newly formed Survey Training Centre after the School of Military Engineering was closed. Very shortly the Centre was removed from the anti-invasion frontline to Ruabon (1941) and then to Longleat (1945). Map compilation and graphical air survey were becoming more important. There were four disciplines of instruction: geodesy with field survey; topography, cartography and photogrammetry; lithography; engineer survey/testing.

On further post-war removal to Hermitage, the previous nomadic existence ended and the STC became the SMS. When first opened both Longleat and Hermitage were hutted camps of the well-known 'American hospital' pattern: entirely adequate but never envisaged

for long-term occupation. Self-help improvements in buildings and Ministry of Works patching went on until 1955 when permanent instruction blocks were put up for each of the mentioned disciplines. Officers' and sergeants' messes (including accommodation) were also built. When National Service ended, reducing the number of soldiers requiring training but otherwise increasing the intelligence content of survey, the site was rebuilt, enlarged, and formally opened by HM Queen in 1980 as the new School of Military Survey.

Very rapidly the expanded site also began to train UK government civilians and Commonwealth/NATO and other international students. Most significantly, in 1985, it was possible to relocate the 'operational' 42 Survey Engineer Regiment at Hermitage so that the full gamut of education, training, operations and survey intelligence came together on the same site. In 1997 whilst celebrating 250 years of military survey HM Queen returned to Hermitage to accord the title of Royal School of Military Survey. By then the constituent Army Survey Course for Royal Engineer (Geographic) Officers, beginning in 1949, had trained a grand total of 711: 194 RE officers, 115 foreign/commonwealth military surveyors, 107 UK civilians and 295 foreign/commonwealth civilians.

Currently there are about 1200 home and international students in the school per annum, comprising 12% officers, 18% senior NCO, 51% junior NCO and 18% civilians.

### *The Charles Close Society visit*

First on the day's timetable was a brief on the Joint Aeronautical and Geospatial Organisation and RSMS by the Principal, John Knight, covering the 250 years of history and, in twenty-five vu-graphs, a description of the intensive reorganisation, now supposedly complete, which places RSMS in the fully integrated Defence College of Intelligence with a lateral relation (via 42 Regiment) to the Joint Aeronautical and Geospatial Organisation: all ultimately responsible to the Director General Intelligence Collection (UK). The RSMS will leave Hermitage and relocate to the Defence College of Intelligence, Chicksands, in 2011 so as to complete the integration of all UK geospatial intelligence: its own special combination of image, electronics and signals intelligence as well as the military operations connection. Mr Knight (who was the first civilian Principal of the RSMS when appointed in 2006), with twenty-nine military and twenty-two civilian staff, is maintaining the current five education/training wings whilst moulding these into the three required for the DCI: image intelligence, geospatial information management and geospatial exploitation.

Of particular interest to the Charles Close Society was to hear that the army survey course will continue. There will be more imagery but less field survey: geospatial information management will become paramount. There is no current printing, and so litho is to die; the Internet is being resisted (slightly) and cartographic skills are to be boosted. In fact, although the teaching of cartographic skills is becoming ever rarer elsewhere, RSMS may well become a last bastion.<sup>1</sup>

Whereas soldiers can attain a foundation degree of Sheffield Hallam University, the ASC officers' course has long been accredited as an MSc of Cranfield University, and confers certain exemptions from the written examinations of the Royal Institution of Chartered Surveyors. Indeed, early on the ASC was linked to the formation of some RICS activity and MRICS was mandatory for RE officers posted to OS and DOS. Now it is intended that a Geographic Officer (RE) from Hermitage shall support the wider international defence

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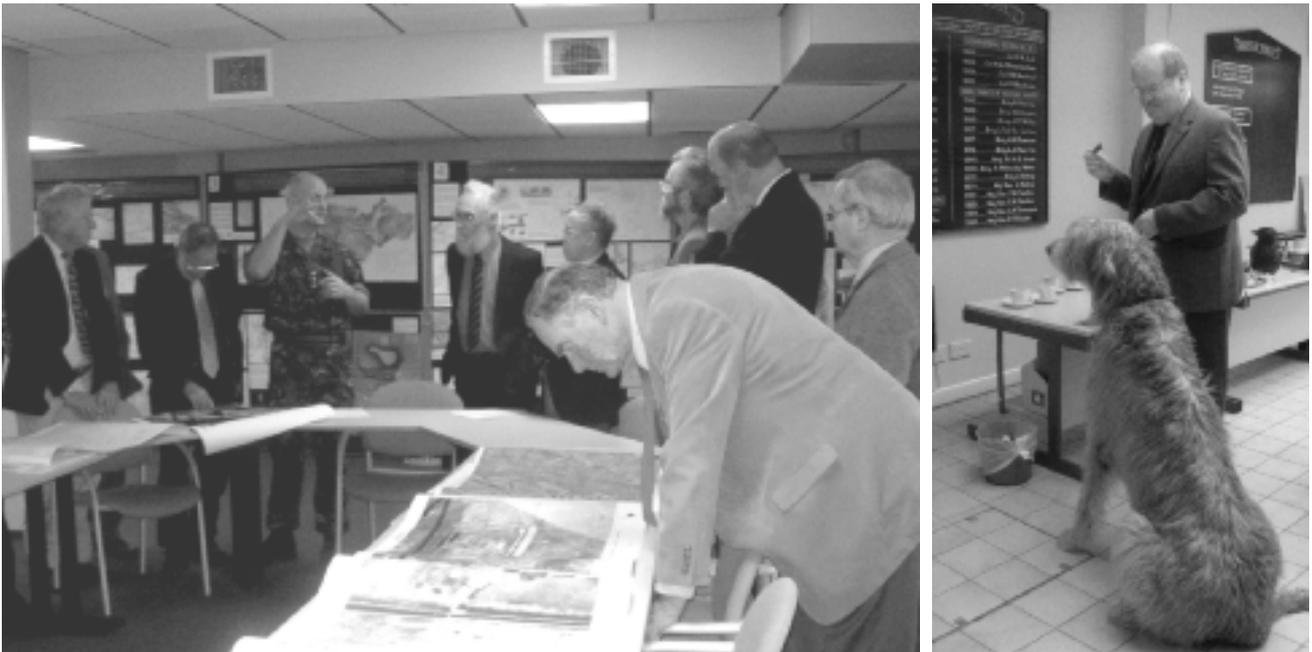
<sup>1</sup> They have recently appointed a civilian lecturer from academe and the British Cartographic Society.

community in all matters of geospatial intelligence. Correspondingly there will in future be a single trade for soldiers, viz that of Royal Engineer (Geo), to which the various trades of the current Military Engineer (Geo) will defer. The RE (Geo) can be identified as a soldier able to present cartographic data to commanders and senior officers on the battlefield and (presumably) in real time.

Mr Knight further described the evolution of the five current Hermitage wings into the three suitable for integration at Chicksands, including IMINT, with air cartography training coming largely from the RAF.

Captain Dick Barton (in full combat uniform) then briefed us on a display of current operational mapping he had brought, and its use. These were principally operational paper maps and photo-images from the present involvement in Afghanistan. He expounded on the IMINT by which these were obtained, the terrain and other analysis (TERA) they contained (including geologic) and something of their tactical use in the field. The mapping was of a uniform excellence in cartographic design, reproduction quality, fitness for purpose, and facility for printing whatever blend of data fields were required. Colour was used very prominently and daringly and photoprints were needle sharp, all obtained from digital plotters operated in situ. This reporter considers such RSMS display of operational maps to be the best that may be possible, and the best he has seen. So good in fact that we asked Capt Barton about the RSMS provision for archiving their operational material, whether electronically or as paper, irrespective of security. In fact what we saw was the last operational material RSMS will archive, the first Iraq campaign (Desert Storm) being already archived. The present Iraq campaign and anything further will not be archived. Some informal discussion then took place about archiving (What not to? In what form and how to? Where will RSMS archive material be deposited at Chicksands? etc).

We then toured the site with Tony guiding us. Of particular interest were the wall posters along the corridors: these are case histories of various operations, including the most recent, and very educational. For students and civilian visitors here were full descriptions of how to



*Captain Dick Barton was not the only one to find an attentive audience*

do it, past and present, from survey to image processing to operational plan and (mostly) battlefield success: immediacy was the principal feature. There are about thirty of these posters at Hermitage, and in a more philosophical vein twelve permanent display boards of the history of military mapping in the reception area. These latter were prepared for the 250th anniversary celebrations in 1997. The subjects range from William Roy to Empire mapping 1825-1885, the Middle East and Africa, WW1 and WW2, inter- and post-war, and Cold War.

No longer on view is the RSMS unrivalled collection of survey instrumentation, but we went into the print room. Moribund now, and with a distinct feel of the Marie Celeste. Still extant are the Crabtree and Heidelberg presses and ancillary equipment, and wall posters telling exactly how to ink and de-ink, and other mysteries of paper maps: all very evocative but not to survive much longer. As we passed along we saw teaching rooms mostly filled with computers, workstations and some photogrammetry. There were few student soldiers (perhaps that day was between courses) and we were not invited to look over any soldiers' shoulders. Lunch, a buffet, was in the dining room of the Officers' Mess (correct dress essential). There we could stand underneath a splendid lifesize portrait of General M N MacLeod whilst goggling at the model in silver of a Crabtree press presented to RSMS to celebrate the various anniversaries. On penetrating the open bar area there was an even grander picture: life-size, in full Victorian grandeur was a scarlet-coated survey officer defending his wounded colleague with flailing rifle butt on an Afghanistan crag against hand-to-hand attack by tribesmen. Nothing changes you might think, except the scarlet, the surveying tools and the nature (but not the occurrence) of the combat, Not so however, this is a modern painting not more than five years old and commissioned by the Officers' Mess at Hermitage with partial funding from the Corps of Royal Engineers.

Outside there was no TACIPRINT mobile printing lorry to view (the few remaining are always fully deployed elsewhere). In comparison, on a previous visit by this reporter under different auspices in 2003, we then clambered over a TACIPRINT thick with Iraq dust from the first deployment. Although security was tight and the corridor posters were covered over, plenty of soldiers were being trained, and many workstations were switched on, but again no peeping! The print room was distinctly busy, and an air of professional dedication and determination was very apparent at Hermitage that day.

To take away with us when saying goodbye were several paper maps, some printed on fine cartridge for the 250th anniversary. For those, and a spiffing visit, thank you, Royal School of Military Survey.

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We have been helped in preparing this report by John Knight's vu-graphs and these other sources:

Royal School of Military Survey, *Celebrating fifty years of the Army Survey Course*, containing a history of the RSMS by John Knight and a review of the ASC by Lt Col J P Prain.

Yolande Hodson and Alan Gordon, *An Illustrated History of 250 Years of Military Survey*, London: Military Survey Defence Agency, 1997.

Tony Keeley, 'Army survey course reflections', *The Ranger*, Journal of the Defence Surveyors Association, volume 2 number 16 (Winter 2007). As well as other fascinating snippets, this journal (and the wall posters mentioned) have pictures of Tony as a young officer and several CCS members in an earlier existence.