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Dear Sir/Madam,

Response to consultation on 'Policy options for geographic information from Ordnance Survey'

Thank you for the opportunity to comment on options for the supply of Ordnance Survey geodata.

This is a personal response to the consultation from Richard Fairhurst. I am a developer for OpenStreetMap and long-standing advocate for open map data. In particular, I am the author of OpenStreetMap's online editing software and have a long-term involvement with the licensing aspects of the project.

I am also an experienced traditional cartographer whose maps have been published in national newspapers and several books, most recently to some acclaim in Terry Farrell's *Shaping London*; my ongoing railway atlas project is widely used across the rail industry.

I work as editor of *Waterways World*, a market-leading monthly magazine which makes heavy use of maps. Formerly I was editor of British Waterways' leisure website *Waterscape.com* where I developed their innovative mapping software, based on Ordnance Survey data.

Finally, I have a strong interest in mapping cycle routes and other forms of sustainable transport, and am an area ranger for Sustrans.

I greatly welcome the overall approach proposed by DCLG for 'Ordnance Survey Free'. Broadly speaking, I support Option 3 in the consultation document, and welcome the emphasis on the wider public task of OS rather than simply cost recovery.

I do, however, have several significant concerns, particularly over the products under consideration for release (Q5), and the choice of licence.

Market for geographic information (Q1)

The consultation paper gives a fair summary of the current geodata market.

It omits, however, the growing business around ‘crowdsourced’ (volunteer-generated) data. For geodata, this is principally led by the OpenStreetMap project though there are other projects (e.g. waze.com). Indeed, Tim Berners-Lee, who jointly led ‘Making Public Data Public’, is an active OpenStreetMap contributor.

This industry is strongest in the UK. OpenStreetMap was founded in the UK; so too were two of the leading companies using OpenStreetMap data, CloudMade and ITO World. The country is still the second most active in the project, after Germany.

A controlled release of certain Ordnance Survey data, which can then be used by projects such as OpenStreetMap, will boost this movement and the UK-based companies providing services around it.

Products under consideration for release (Q5)

a) Products proposed for release in the consultation document

I strongly support the release of Meridian 2, Boundary-Line, the 1:50k Gazetteer and Code-Point. (I have no particular views on Strategi.) Giving developers access to this data without restrictions on reuse will greatly encourage innovation for reasons that are well rehearsed.

However, I am strongly opposed to the release of 1:25k Colour Raster (aka ‘Explorer’) and 1:50k Colour Raster (aka ‘Landranger’).

The availability of raster cartography is not a barrier to innovation. Ordnance Survey’s OpenSpace service already provides this, though with some minor details that need addressing (e.g. tile limiting); so do many other map services, such as those from Google, Yahoo and Microsoft (Multimap/Bing).

7.8 recommends providing these products as a backdrop for overlay (‘mashup’)-type applications. This is misconceived. Even accepting that such a backdrop is required (which would be to discount the existing products from Google et al), the strongly-coloured, dense cartography of the 1:25k and 1:50k products is entirely unsuitable for superimposing information.

Moreover, the significant investment that OS has put into the cartography of these maps is not required for a backdrop map layer. It would be more appropriate to use a standard, ‘Google-style’ cartography generated from Meridian2 or a similar dataset. OS has the capability to do this with minimal effort, or it could be produced by a third party (for public use) using widely understood software such as Mapnik or Mapserver.

Furthermore, I believe that releasing the 1:25k and 1:50k raster products would have actively harmful effects.

It would unnecessarily remove a strong income stream for OS (£8.9m in 2008-09). If these raster map images were freely available, publishing companies would republish them for the most profitable areas, attempting to undercut OS on price (as 7.32 anticipates). OS's universal service obligation, which includes publishing maps of unprofitable areas (such as the far north of Scotland), would restrict its ability to compete on price.

Effectively, it would amount to an unnecessary Government subsidy for publishing companies. OS is already willing to license these raster products at a reasonable cost (for example, they are used in the CollinsBartholomew 'Nicholson' series of waterway guides) and has a much-appreciated programme allowing free or low-cost access, up to a certain limit, for publications. There is no clamour, and no need, to go any further.

Free release of the raster products would also harm public perceptions of Ordnance Survey. Although the majority of OS's income is from large-scale data, outside the geographic industry, it is best known for its paper maps – principally the Landranger series (1:50k, which replaced the iconic one-inch maps). Significant goodwill is associated with these maps. Disassociating the cartography from the company, as free release implies, would reduce the value of this good will.

Most importantly, it would actively restrict innovation using OS data. The public profile and cartographic quality of these maps is such that any alternative products are likely to be received unfavourably when compared to free 1:25k/1:50k mapping.

Examples include projects such as OpenCycleMap, which has been produced from free data (in this case, OpenStreetMap) to well-deserved acclaim. Although OCM is a much more suitable product for cyclists than a 'red line on 1:50k backdrop' would be, it would have been unlikely to gain traction if the latter were freely available.

In particular, it would be a blow to the cartography industry. The industry has struggled in recent years, as shown for example by the decline in university cartography courses. The release of countrywide, good-quality data would be a welcome boost to cartographers.

Conversely, if 1:25k and 1:50k maps were released, this could destroy much of the industry. Though custom cartography is the right answer for many applications, it will find it difficult to compete with the free, universally-recognised cartography of the OS.

Therefore I encourage the Government not to require the release of existing 1:25k and 1:50k cartography, but to require the release of an alternative map set at comparable scales – produced economically from a dataset such as Meridian2.

(The MiniScale and 1:250k raster products are of trivial import and I would not oppose their release. The StreetView raster, at 1:10k, is broadly comparable to the same scale on other Internet maps – Google, Yahoo, Microsoft – and so there is less of an argument against release.)

b) Additional products for consideration

In addition, I encourage the Government to require OS to provide free 'browsing' and API access to aerial photography, retaining the copyright on the images, but with no restrictions on derived data.

Aerial photography is a key part of Ordnance Survey's approach to data gathering. Most of its update work is achieved with the aid of aerial imagery.

But beyond OS, wider access to aerial imagery greatly encourages innovation. The vast number of Internet projects centering on Google's aerial imagery and, in particular, Google Earth is testament to this. So are the excellent results achieved by OpenStreetMap volunteers in those limited areas where (courtesy of Yahoo) they have access to high-quality aerial imagery.

Aerial imagery is *accessible innovation*. Comparatively few people have the programming skills to create innovative products with free vector data, though they certainly will benefit from the innovation of others. But as Google Earth and OpenStreetMap demonstrate, with good quality aerial imagery, anyone can become a surveyor.

Crucially, the datasets which individuals and small organisations produce by deriving from aerial imagery are creative by nature. They are not generally datasets available from existing providers. Rather, they reflect the users' own ideas and preoccupations. (For example, I have found aerial imagery particularly valuable in researching potential cycle routes in my work as a Sustrans area ranger.)

In other words, they will survey the features that OS surveyors do not. This is the same point made in 7.9 – enabling citizens and local communities to develop specific applications – but broadening access beyond developers to a much wider community of web users.

There is, of course, already a considerable industry in the UK around the supply of aerial imagery. Requiring free release of OS's imagery would cause grave financial damage to these companies (Getmapping, Blue Sky etc.) and OS itself. Consequently I would not recommend that the imagery itself is released without restriction.

I would, however, recommend two changes.

Firstly, that OS is required to provide free online viewing of its aerial imagery (perhaps up to a certain scale), in a manner which can be embedded in other websites. This could be achieved through an API such as its existing OpenSpace service, though it would be desirable to provide the API in more forms than the JavaScript-only one currently offered (e.g. Flash).

Secondly, that OS renounces all intellectual property claims on data produced by reference to its aerial imagery.

It is reasonably well established in law that such derived data is not in fact an infringement of copyright. (See: *Bauman v Fussell*; *Antiquesportfolio.com v Rodney Fitch & Company*; *Ets-Hokin v Skyy Spirits*. This point is expanded on at <http://www.systemed.net/blog/?p=100> .)

However, aerial imagery providers such as OS can and do restrict such derivation by contractual terms. OS must not impose such terms on the imagery it provides through a free online service.

Licence chosen for free release (Q7)

I believe the consultation paper is mistaken in its recommendation of the Creative Commons Attribution licence.

Creative Commons licences address copyright only. They are expressly intended for 'creative works'.

Geodata is not simply protected by copyright. The European Union *sui generis* database right also applies. Indeed, Ordnance Survey 'copyright' statements expressly mention that the Crown holds database right in OS products.

Creative Commons has taken a strong stand against including database right in its principal licences. It believes that data should be released unencumbered by any restriction, even that of attribution, and has developed a 'CC0' declaration for this.

Consequently, I recommend that Government either follows this approach of no restrictions, often known as 'public domain' (in the US usage of the term); or that it releases the data under an attribution licence which covers database rights, such as that offered by Open Data Commons.

Methods of release (Q7)

I welcome the decision to provide both a download centre and an API. The provision of downloads, as well as the more standard API, has been a key factor in the success of OpenStreetMap.

Impact on the market (Q8)

I have already explained the damaging effect that releasing 1:25k and 1:50k raster products would have on the market, and that releasing these products is not necessary for the purposes intended.

I hope you find these comments of use and look forward to the development of the options. Please do not hesitate to get in touch should you have any queries.

Yours faithfully,

Richard Fairhurst