



## PRESS RELEASE



### The International Institution for the History of Surveying and Measurement

-an Organisation within the International Federation of  
Surveyors (FIG) - is proud to announce that

on 28 January 2004 a dossier, together with a letter from the Finnish Minister of Culture, Mrs Tanja Karpela, was submitted to the World Heritage Committee of UNESCO for the possible inscription of selected surviving survey stations of the Struve Geodetic Arc as a World Heritage Monument. This was done by the Government of Finland on behalf of the Governments of the ten countries through which the meridian arc passes, i.e. the Governments of Norway, Sweden, Finland, Russia, Estonia, Latvia, Lithuania, Belarus, Moldova and the Ukraine representing their National Survey Departments.

The Struve Geodetic Arc was measured over the 40 years from 1816 to 1855 and stretches from Fuglenaes near North Cape in Norway (latitude 70° 40' 11" N) to near Izmail on the Black Sea (latitude 45° 20' 03" N). A distance of 2820 km or 25° 20' 08" of arc. In longitude the 265 stations lie between 22° 30' and 30° E.

Actually 34 of the surviving station marks have been selected for the present submission and these lie in ten different countries in today's geography (see above). The idea to seek a declaration to preserve a selection of the remaining Struve Arc points as a World Heritage site was originally presented by Aarne Veriö at a Scientific Conference in Tartu in 1993 where a Resolution was made. A corresponding Resolution proposed by Seppo Härmälä was then made at the FIG Congress in Melbourne in 1994 and the work to get all the necessary material together from these countries was initiated by Jan de Graeve and Jim Smith of the I.I.H.S.M. It gathered pace during the latter five years particularly with the help of Vitali Kaptjug from Russia. For the last 1½ years the Survey of Finland under Surveyor General Jarmo Ratia and his colleague Pekka Tätilä took over the task of assembling, collating, checking and reproducing all the documentation for the final submission document. However the whole project would not have been possible without the exceptional and unstinting support of the survey organisations and appropriate government departments in all the countries named above.

It is understood that it might be June 2005 before a decision is known but aside from that the project has graphically illustrated how surveyors and their political masters across ten countries can cooperate on a scheme of this sort. In fact it is the first such multi-country, cross border submission of a project and of a scientific nature which in itself meant that there was little by way of a precedent to follow.

As the first multi-country meridian arc it was a great step forward and it was not initially planned as one system. F G W Struve was working to the north whilst initially unbeknown to him a Russian military officer Carl F de Tenner was operating in a similar manner to the south. When it was decided to link up it was not a simple case of observing a common triangle as there were problems of reconciling two different units of measurement, the different instrumentation used and the political goodwill between the countries involved.

In the late 1800s David Gill in S Africa was starting out on a similar arc that would eventually go from Buffelsfontein near Port Elizabeth right through E Africa to near Cairo. He had the notion that this arc could be connected to that of Struve and produce one arc of 105° length or over 11 500 km. He was of the opinion that Struve's son Otto had already extended the Arc of his father and Tenner to Crete but to date only details of the reconnaissance can be found, nothing to say that the work was actually carried out.

The preservation of these selected points will assist future generations to monitor the evolution of the geoid on which we live.

**J R Smith**

#### **Contact addresses for further details of the arc measurement and the project as a whole**

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