

International Map Year

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ABSTRACT:

The United Nations (UN) has the custom to announce specific topics to be highlighted during a specific year. ICA should be instrumental in getting the UN to announce an **International Map Year** in the near future. The main purpose of the International Map Year should be to expose the importance of maps and geographic information for society. Our ever more complex society would be lost without maps. Topographic and geological maps as well as aerial photo products are used in physical planning, in the defense forces and for public use. Socio-economic maps are used to provide better insight in themes ranging from sustainability to the spread of diseases, and help us to mitigate the global differences in the population's access to resources. It is therefore most important that everyone has access to maps and to geographic information, and that they can be easily retrieved and used. The paper will list possible activities that could be included in the International Map Year and will indicate how the ICA with its commissions, national member organizations and affiliate members can support the proposed International Map Year.

KEYWORDS:

Cartography, geographic information, outreach, map days.

Introduction

The Swedish Cartographic Society proposed with a motion to the General Assembly in Paris 2011 that the ICA should organize an International Map Year probably during the year of 2015. The Assembly decided in accordance with the motion and the Executive Committee of ICA formed a working group. The terms of reference for the working group can be found at the homepage of ICA and more information about the working group can be found at www.bengtrystedt.se.

Some examples of proposed activities are:

- Highlighting the nation's achievements in the field of (national) mapping by showing its products and history;
- Use of maps and map-based navigation systems for more efficient navigation and transport (including tourism, orienteering and by GPS);
- Demonstrations of collecting geographic information, map production and map use;
- Showing atlas production as a means of making different information resources comparable;
- Use of census mapping to show whether the population of a country has equal access to its resources;
- Showing application of maps in agriculture and forestry for a better use of natural resources;
- Standardization of geographical names for finding places;
- Showing the need for cartography and geo-information courses at all levels of higher education.

The first steps have been taken by the working group to prepare necessary documents.

First of all a textbook will be produced and presented at the International Cartographic Conference in Dresden, 2013. A list of activities for the National Member Organizations and the ICA Commissions will also be distributed in Dresden where also a poster will be found to broadly announce the International Map Year. National postal authorities could be approached by the National Members of ICA for issuing stamps with maps.

The second step would be for the EC to contact the UN with the request to establish the International Map Year. The proposal to the UN would be hopefully accepted and a year designated as the International Map Year. Another task is to engage the ICA sister organizations.

Step 3 would consist of the actual effectuation and realization of all the plans, and the final step 4 would be the follow-up, focusing on the lasting results of the increased visibility and awareness engendered during the International Map Year.

The Goal

The ICA was established at a meeting in Bern in 1959 and held its first General Assembly in Paris in 1961. During these 50 years the ICA has been committed to explore the science and the technology of cartography and the use of maps. But until now, ICA activities have been directed mainly to specialists in cartography. The aim of the International Map Year is to broaden its activities and also involve the general public by showing how cartography and geographic information can help individuals in their daily activities and the development of society. The more specific goals for the proposed International Map Year may be to make the general public and school children more aware of how maps and map-based products can be used in the society.

For cartographers in general and for the ICA the benefits of an International Map Year would be:

- Increased visibility of cartography and geographic information science in society;
- Increased numbers of students enrolled in cartographic education as well as in geographic information science.

In order to maintain the International Map Year the working group should:

1. Establish a connection to the UN for an accept of the International Map Year;
2. Create a text book that describes cartography and geographic information to the general public and public schools;
3. Create a publication with guidelines for national members of the ICA on how to perform national activities within the framework of the International Map Year;
4. Involve ICA commissions and working groups in the organization of these activities;
5. Involve ICA affiliate members in organization of these activities as well;
6. At a later stage involve sister organizations;
7. Establish a working plan;
8. Produce a final report.

It should be possible to make 2015 as the International Map Year, depending on the time needed for UN to establish such 'international years' and for the working group to prepare all plans.

Details on the activities

Approaching the UN

Approaching the UN officially would be the task of national members and the ICA Executive Committee. Lantmäteriet (the National Land Survey of Sweden) has produced a draft for Swedish Government for an application to the UN for permission to establish an International Map Year. However, the responsible minister refused to send it by referring to the European Union request on higher performance of the UN and that costs for UN years could be high. Anyhow, the draft is known by the GGIM (Global Geospatial Information Management) that might proceed in some way.

The UN also holds regional cartographic conferences. There is a plan to present a paper of the International Map Year to the next regional cartographic conference for Asia and the Pacific in Bangkok in the end of October 2012. A resolution will also be prepared, where the conference asks the ICA to organize the international map year together with other organizations. Such a resolution is enough for the ICA to establish the International Map Year.

The textbook

The text book for the general public should give a rather simple description of the whole field of cartography from geodesy and data collection to the creation and use of maps. The book should be understandable for ordinary people and suitable for use as a text book for pupils at public schools. The chapter on geodesy should explain the shape of the Earth and how GPS/GNSS can be used for finding outdoor locations. It should also explain how the surface of the earth can be represented at a plane paper and at a screen. Data collection of geographic information should cover both topographic and thematic information and explain how topographic data are collected from satellites, aero-planes and by terrestrial measurements.

Thematic information becomes geographic information when it is connected to topographic information and given a mathematic location so it can be included in calculations and depicted on a map. The main part of the text book should deal with cartography, map making and map use. One part should explain how geographic information can be obtained from different web resources and how different tools that can be downloaded for preparing maps. Another part will describe open source and open street programs that might be of interest for younger people. It would be possible to get sponsorship for producing the text book. More information about the textbook can be found at the homepage of the working group.

The instruction to national members of the ICA must show how to get involved with activities directed to ordinary people. In non-member countries the national mapping organization or a university may take the lead. Official maps shall be listed and it should be explained how they may be accessed. Restrictions in use must also be noticed.

Geographical names are also important. One action might be to organize a geographical name committee with commitment to check the national spelling and propose how the geographic names should be spelled in Roman letters. It is a matter of each country to

decide how the geographical names should be spelled in Roman letters.

ICA commissions and working groups may also be involved. The commissions on maps and society, user issues, education and training, and national and regional atlases may be the most obvious ones. The International Map Year may be the start in every country of the establishment of both national and school atlas projects with impetus from the ICA. By supporting school education and higher education it will be easier to find competent persons in the field of cartography and geographic information in the future.

Comments on the national activities

There are big differences in the national attitudes towards maps between the different countries. That may be described in a history of the national map production based on the wide description given in the intended text book. A national list should be given by all countries with information on how the official map series are updated, how they are made available and if there are any restrictions.

Each country should manifest the International Map Year with a special Map Day. When Sweden organized the Map Year in 2008 the Map Days were organized in about 60 different municipalities, where national and local maps were displayed together with lectures and demonstrations on how maps are produced and used. In Sweden we found that historical maps have a great interest and in many municipalities exhibitions with historical maps were organized. Other interesting things are land development maps and maps for risk management. Earthquakes, land-slides and high water are risks that may be exposed in maps. Recently we have seen heavy rainfall and land-slides. El-Nino and La-Nina as well as the expected raise of sea water can be explored by using maps.



The figure shows the organizers of the Swedish Map Day 2008 in Karlstad, Sweden around an aerial photo over the city.

Each country should have a set of national atlases. A school atlas should also be available. The text book will give examples where school atlases in different languages can be found. Atlas maps tell where resources are located and can be used with different motivations both by politicians and by citizens. Census results can be explained through maps as a complement to the statistical tables. However, maps must be studied with common sense since it is easy to lie with maps (Monmonier, 1996).

Map use is also important in daily life. In countries where public access to maps is limited, ordinary people are not proficient in map reading and do not understand how maps can improve their life. The use of Google maps and GPS for private and professional use in navigation and transportation are good examples on possible improvements. Nowadays, more maps than ever are produced via web applications to find the location of objects and an explanation how to reach them.

Geographic names are also important and all maps must have geographical names. The most common map criticisms from ordinary people concern the names used on the maps. Each country has to decide on the national spelling in its own language but also propose a spelling in Roman letters in line with the guidelines from the UN group of experts on geographical names (UNGEGN). It should be investigated if the UN is willing to support a task group for training in toponymy in order to improve the standardization of geographic names. If so ICA should help to set up such a group.

Education and training in how to build geographical databases and to produce maps and atlases must also be covered in a modern way. The intended text book can be used in schools. University programs must be available for the education of technicians, engineers and masters. All these must be taught in geomatic engineering courses or applied geography courses. Geomatic includes geodesy, photogrammetry, remote sensing and cartography as well as how to use adequate software including GIS. Some countries need support in getting teachers in these fields. The European Union has many programs at master level that can be used to support the provision of teachers, but that needs initiatives from member state universities. In many countries there is a great need of technicians. The International Map Year should include initiatives to enroll students in geomatic engineering. In that field the Joint Board of Geospatial Information Society (JBGIS) has an ad-hoc group in training and special tasks for supporting African countries. ICA brought up co-operation with JBGIS members at a meeting of JBGIS in late August 2012.

Finding National Contacts

ICA has about 80 member countries. In order to reach non-member countries as well we can ask the help of other organizations. The UN has regional permanent committees in which cartography and geographic information are included for the Americas, and for Asia and the Pacific. In Africa EIS-Africa have contact addresses to all African states in the field of cartography and geographic information. In Europe the national mapping organizations work together in Eurogeographics. Through these organizations addresses can be found so invitation letters and other information can be sent.

Concluding Remarks

This paper only gives some ideas for an International Map Year. The main idea for an International Map Year is to broaden the interest in maps and geographic information in society. In the performance of the International Map Year the ICA has to co-operate with many other international associations, create more co-operations with national organizations, both professional and idealistic ones. The working group has just started its work. Critical issues are to find sponsors and members willing to produce parts of the text book.

The intention is to celebrate the International Map Year in 2015 and that many countries as possible will organize several Map Days that year. All together the International Map Year will make the ICA, maps and geographic information better known in society all over the world.

References

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