

First Meeting of ISCGM

The first meeting of ISCGM is held on February 14, 1996 in Tsukuba, Japan.

Chairperson's Address by Dr. John Estes at the 1st meeting of ISCGM on February 14, 1996 in Tsukuba, Japan

Ladies and gentlemen.

Thank you for asking me to chair the first meeting of the Intentional Steering Committee for Global Mapping. I believe that this is a truly historic occasion. The coming together of representatives of national mapping, and other concerned, organizations to try to complete and improve the quality of global maps at a scale of 1 : 1 million or 1 : 1 kilometer.

It has been said that all of us live in a global village. What one does in a village can, and often does, impact his or her neighbor. In a village individuals need to work closely together to insure that the land is well kept and that it's carrying capacity is not diminished. That the water supply is good quality and safe; and, that the air remains fresh and clean. Nations, like people in a village, are coming to understand that what they do individually can impact people in all the nations of the world. Impact, often in subtle, but in other times, very direct ways. The growing concern for the state of our environmental and the need to understand the complex interactions of our planetary life support system are real and immediate. We here should all remember that the Earth is the only known closed life support system that has shown itself capable of supporting life for more than decades.

History shows that people have always sought to understand more about the world in which they live. In the early days of exploration, Nations, some represented here, sailed the seas to complete the outlines of continents. Today many people appear to believe that because the outlines of the continents have been completed that the information that mapmakers put inside the outlines of the continents is therefore correct as well. All of us here understand the problem with this perception. We need to work hard to stop perpetuating the myth that accurate, up-to-date, global scale maps exist of feature important to an understanding of the health of our global life support system. The system that peoples in all nations are becoming more concerned about.

Some of this concern began because of a book a very gentle lady wrote in the early 1960's. The book is called "Silent Spring". The author was Rachel Carlson. The book talked about the problems of nature in our world and what Ms. Carlson felt were very disturbing trends in the quality of our environment. With the publication of her work many concerned individuals began to see the importance of understanding our environment as a system. Space and advanced geospatial data acquisition, processing and data/information production technologies have also helped increase awareness and understanding. In 1992, the German astronaut Ulf Merbold flew on the space shuttle (flight STS-42). After his voyage in space, he commented that: "For the first time I saw the horizon as a curved line. It was accentuated by a thin dark seam of light. our atmosphere. Obviously, this was not the ocean of air I had been told so many times it was. I was terrified by its fragile appearance." Just how fragile is the

Earth? We do not really know. But, we also don't fully understand how robust it is either. Just how many chances are we willing to take with it?

Coming back to the interconnections of our environmental life support system. A number of years ago, Waldo Tobler, a Geographer at my home institution the University of California, Santa Barbara, proposed the first law of geography. The first law of geography can be expressed as: "Everything is related to everything else. but near things are more related to each other". The great American conservationist John Muller is reported to have said essentially the same thing in a different way when talking about the Earth when he said. 'When we pick out anything by itself, we find it hitched everything else in the universe. The concept is probably best expressed, as this meeting is being hosted in Japan, by the mystic poet Francis Thompson. In his poem, The Mistress of Version, Thompson wrote : "All things by a mortal power near or far, hiddenly to each other linked are, that thou canst not stir a flower without the troubling of a star". It is almost, but not quite, a Haiku.

We are all linked together Our nations are linked. Important components of our life support system are finite. We need to come to an improved understanding of the current state. and rates of changes occurring in this system. Accurate, up-to-date maps are central to achieving this improved understanding. We here are all aware that, as I mentioned in the panel discussion yesterday, mapping is not easy. and it is expensive. But the production of improved global scale maps is a task that. I believe, nations must come together to undertake; and, an expense that nations, and regional and international organizations must understand that they should bare.

Having said this, I believe our work, to begin here today, is important. I believe what the committee can do will make a difference. I hope this committee will grow, in numbers of countries represented, and in stature. I am deeply grateful to Ministry of Construction; and, too the Geographical Survey Institute for beginning this effort. I thank you all coming; and I look forward to a positive and productive session.

Thank you.

Resolution of the First Meeting of International Steering Committee for Global Mapping

Recognizing the lack of global geographic data for understanding global environmental problems, mitigating natural disasters and realizing economic growth within the context of sustainable development, and further recognizing a number of different existing projects for global geographic data development with little coordination and/or harmonization, the First Meeting of the International Steering Committee for Global Mapping (here-in-after referred to as "the Committee") discussed specific measures that national, regional and international organizations should take to develop Global Map, truly global geographic data sets of known and verified quality. The heads and experts from national mapping and related organizations of 10 countries, three international organizations and one international academic society met hosted by the Geographical Survey Institute of the Ministry of Construction of Japan on February 14, 1996 in Tsukuba, Japan. To facilitate comments GSI provided the Committee a draft background paper on global mapping issues. Based on discussions at the Meeting, and

conscious of the issues of existing and ongoing activities for global geographic data development and recommendations of international workshops, symposia, and conferences, the Meeting resolves that:

- a) recognizing the necessity of clarifying the availability of global data sets, the Committee should conduct a survey to identify requirements for and the current status of key global data sets.
- b) the Committee and appropriate organizations should encourage governments and industries to make existing data sets, especially those whose spatial resolution is approximately 1 km on the ground, openly available and easily accessible through international organizations such as UNEP and other organizations. Information on newly available data sets should also be reported to the Committee.
- c) national mapping and related organizations should assist in the development non-existing or missing global data sets, keeping their efforts harmonized with other existing data development projects. The Committee and appropriate organizations should encourage governments and international development agencies to assist in the funding of data development activities.
- d) when involved in data development projects relevant to Global Mapping, organizations should avoid unnecessary duplication of efforts through communicating and exchanging information, including data on future projects. The Secretariat of the Committee will act on behalf of the Committee as a clearinghouse for this information.
- e) national mapping organizations should take positive steps to release geographic data sets of their countries at scales relevant to Global Mapping which are considered necessary and useful for the global data development. When doing so, national mapping organizations should take care to use a data specification compatible with the requirements of Global Map. The Committee should conduct a survey of detailed specifications that provide the best possible compatibility.
- f) given that the United Nations will hold a Special Session of the General Assembly in 1997 on the Follow-up to Agenda 21, the relationship between the Agenda 21 follow-up efforts and the activities of national mapping and related organizations in global data development should be well defined at the national level and reported to the Special Session. In addition the Committee should endeavor to get international recognition for the Global Mapping efforts as one of the positive activities toward addressing global concerns.
- g) the Secretariat working with the Committee should begin to draft a strategic plan.



Second Meeting of ISCGM

The second meeting of ISCGM is held on November 16, 1996 in Santa Barbara, California, USA.

Resolution of the Second Meeting of International Steering Committee for Global Mapping

The Second Meeting of the International Steering Committee for Global Mapping (here-in-after referred to as "the Committee") convened following discussions at the Interregional Seminar on Global Mapping for the Implementation of Multinational Environmental Agreements. The Seminar was held during the period November 13-16, 1996 in Santa Barbara, California, USA. In addition to a series of presentations, a major activity of the Seminar was the drafting and adoption of the Santa Barbara Statement (SBS). A principal topic before the Committee was a discussion of specific measures that national, regional and international organizations should take to implement SBS. The Committee met on the afternoon of November 16, 1996, immediately after the conclusion of the Seminar. Based on discussions by the participants at the meeting, the Committee resolves that:

- a. As participants at the Interregional Seminar on Global Mapping for the Implementation of Multinational Environmental Agreements, the Committee members present endorse and adopt the SBS.
- b. The Committee Secretariat should develop a plan of action directed at the implementation of relevant recommendations contained in the SBS. As part of the development of this action plan participants recommended that several working groups be established. A variety of topics were discussed which the working groups would address and it was recommended that two working groups be established:
 1. Working group on the development of strategic plan (Chair: Mr. Francois Faucher, Geomatics Canada). Topics to be addressed include:
 - Specifications of Global Mapping;
 - Prioritization of the Committee activities;
 - Completion of Survey of Global Mapping Activities;
 - Development of ways to promote Global Mapping;
 - Designation of points of contact in National Mapping Organizations who are knowledgeable in the area of Global Mapping;
 - Harmonization of procedures and activities associated with Global Mapping; and,
 - Development of criteria for the Committee adoption/endorsement of future projects (e.g. AFRICOVER)
 2. Working group on report to UN special session (Chair: Dr. K. Eric Anderson, USGS/NMD). Topics to be addressed include:
 - Development and submission of the report embodying SBS to the UN;
 - Design of a forum; and,

- Definition of a Global Spatial Data Infrastructure (GSDI), framework and links to global mapping.

Result of the discussions of, and actions taken by, the working groups should be reported to the next Committee meeting.

Participants at the meeting felt that some of the activities of the working groups should be carried out within the context of the development of a strategic plan for the Committee. This strategic planning effort would be coordinated by the Secretariat. Strategic plan development was also a topic of discussion at the first meeting of the Committee. Committee members continued to feel that the development of such a plan is very important and needs to be addressed in an expeditious fashion. If at all possible a draft plan should be available before the next Committee meeting.

- c. National Mapping Organizations (NMOs) should take positive actions to get recognition for the concepts, principles and specific activities enunciated and called for in the SBS in their respective countries. This should be accomplished so that the relationship between the Agenda 21 follow-up efforts and the activities of National Mapping and related organizations associated with and involved in global data development can be well defined at the national level.
- d. The committee endorses the concept of the AFRICOVER Pilot Study as presented by the representative of IGN. The Committee looks at this project as a mechanism for testing the GSDI concept. The Committee encourages development of a more detailed proposal and will follow progress on this proposed activity with great interest in the future. The Committee encourages the drafters of this proposal to work closely with other Committee members and African NMOs in the development of this effort. The Committee authorizes the Secretariat to draft a letter of endorsement for this concept.
- e. Recognizing the necessity of further working on items contained in the resolution of the First Meeting of the Committee, especially items b) through e) and g), the Secretariat, and national mapping and related organizations are encouraged to continue activities directed at implementing these items.



Third Meeting of ISCGM



The Third ISCGM Meeting was held on November 15, 1997 at Special Conference Room of the Gifu Prefectural Library, Gifu City, Japan. Prof. John E. Estes, UCSB, USA was elected as Chairperson of the committee again, and Dato' Majid was appointed as Vice Chairperson, Mr. N. Nagai as Secretary General, Dr. H. Murakami as Assistant Secretary General and Mr. Mahaman Laminou of Institut Geographique National du Niger was approved to be a member as the successor of Mr. Waziri Maman. Mr. Abbas Rajabifard of National Cartographic Center of Iran was approved to be a new member.

The committee discussed specifications of the Global Map and action program for the implementation of Global Mapping. Global Mapping related activities are introduced by the members concerned. The committee adopted the resolution.

Resolution of the Third Meeting of the Secretariat of International Steering Committee for Global Mapping

The concept of Global Mapping is becoming more widely accepted in the world community as reflected in the report of the Special Session of the UN General Assembly on the Implementation of Agenda 21 (A/S.19/1, June 1997) through the efforts of the International Steering Committee for Global Mapping (here-in-after referred to as "the Committee") and related organizations. Further, the Committee recognizes urgent actions should be taken to ensure the development of Global Map by the year 2000. These globally consistent, digital thematic maps are essential for the implementation of multilateral environmental agreements and for addressing sustainable development issues. The Third Meeting of the Committee discussed specific measures to facilitate the implementation of Global Map. The committee, especially, focused discussions on specifications of Global Map and an action program for the production of Global Map. Based on discussions by the participants at the meeting, the Committee resolves that:

1. Building upon the resolutions of the First and the Second Meeting of the Committee and the Action Program, the Committee and national mapping and related organizations should continue the efforts towards our goal of the development of Global Map by the year 2000.
2. The Committee adopts the draft Technical Specifications defined in this meeting and appoints a working group to continue to evolve these specifications in accord with the efforts of ISO/TC211 in order to ensure that Global Map is useful for many applications by using the appropriate standards for geographic data.

3. The Committee adopts the draft Action Program presented by Working Group 1 and developed by the Secretariat. The Working Group should continue to refine this program in accordance with the discussions held at the meeting in order to take advantage of institutional, technological and scientific advances that can facilitate all countries joining in the development of Global Map.
4. The Committee will facilitate the ability of all countries to join in efforts to evaluate existing global geographic data, such as GTOPO30, VMAP Level 0 and the Global Land Cover Characterization Database, and assist in finding ways to improve the quality of these data and enhance their potential use in the creation of Global Map.
5. The Committee should coordinate with SCAR-GGI in order to ensure data development of Global Map in Antarctica.
6. The Committee should actively work together with organizations interested in promoting the development of improved spatial data; national, regional and global spatial data infrastructures (SDIs); that can enhance the development of, access to, use of, and quality of Global Map. In addition, the Committee should establish liaison status with ISO/TC211.
7. The Committee will hold its next meeting in Sioux Falls, South Dakota, USA, hosted by the US Geological Survey, EROS Data Center, during the week of June 15-19, 1998.
8. The Committee extends sincere thanks to the Geographical Survey Institute, the UN Centre for Regional Development, the Science and Technology Agency, the UN Department of Economic and Social Affairs, the Japan Map Center, the Gifu Prefecture, the Gifu Prefectural Library and the ISCGM Secretariat for organizing, hosting, and managing a very successful Global Mapping Forum '97 and the Third Meeting of the ISCGM in Gifu, Japan.



Fourth Meeting of ISCGM



The Fourth ISCGM Meeting was held on June 18, 1998 at Executive Meeting Room of the EROS Data Center. Prof. John E. Estes, UCSB, USA was reelected Chairperson of the Committee, and Dato' Abdul Majid was appointed as Vice Chairperson, Mr. N. Nagai as Secretary General and Dr. H. Murakami as Assistant Secretary General. Twenty six persons including nine members of ISCGM participated in the Committee, where evolution of Global Map Specifications and invitations to the Global Mapping Project for national mapping organizations in the world were discussed as main topics. As a result, the Committee adopted the following resolutions:

Resolution of the Fourth Meeting of the Secretariat of International Steering Committee for Global Mapping

The Fourth Meeting of the International Steering Committee for Global Mapping (here-in-after referred to as "the Committee") convened on June 18, 1998. Based on the draft Technical Specifications and Action Program adopted at the last meeting, the Committee furthered the discussion of the development of the Global Map by the year 2000 and resolved that:

1. Building upon the resolutions of the previous Meetings of the Committee and the revised Action Program and Technical Specifications, the Committee and national mapping and related organizations should take concrete actions as soon as possible towards our goal of the development of Global Map by the year 2000 thus providing a foundation data set for the Global Spatial Data Infrastructure (GSDI).
2. The Committee should ask national mapping and related organizations to participate in the Global Mapping Project in cooperation with the United Nations, by sending the invitation documents to be adopted by the Committee.
3. The Committee should cooperate with space agencies to maximize the usefulness of remotely sensed data.
4. The Committee should begin to draft a strategic plan on the maintenance of the Global Map after the year 2000 directed towards establishing a specified organizational arrangement for maintaining the Global Map.

5. Participants in the Global Mapping project should be encouraged to support capacity building efforts to promote the participation of developing countries in this effort.
6. In relation to technical specifications:
 - a. That draft Global Map Specifications Version 2 be adopted;
 - b. That Version 2 of the draft Specifications be referenced from the Global Mapping Internet Home Page;
 - c. That the Working Group continues to develop the Specifications, particularly in the following areas:
 - i. Describing the principles that are guiding the development of the Global Map and the specification;
 - ii. Describing the intended uses of the dataset;
 - iii. Addressing outstanding issues between the Specification adopted at the Third Meeting of the ISCGM (here-in-after referred to as Version 1 of the Specifications) and Version 2 of the Specifications;
 - iv. Respond to feedback from ISCGM members, the broader mapping community, and on developments in ISO/TC211.
 - d. That ISCGM members actively assess the core data sets (VMAP0, GTOPO30, and Global Land Cover Characteristics Database) in parallel with their implementation of the Specifications. Specific actions in support of this activity include:
 - i. The Working Group preparing guidelines on undertaking the assessment;
 - ii. The Secretariat facilitating support for members requiring assistance in undertaking the assessment;
 - iii. Members with the capacity to do so fast-tracking data supply.
7. A new Working Group be established to address:
 - a. Development of a policy framework for access to the Global Map product;
 - b. Determination of potential users and uses of the dataset. This might include sponsorship of application case studies;
 - c. Development of guidelines for provision of datasets by national mapping organizations, and arrangements for assembly and distribution of the Global Map product.
8. The Committee will hold its next meeting in Canberra, Australia, hosted by the Australian Surveying and Land Information Group on 20 November 1998.
9. The Committee extends sincere thanks to the United States Geological Survey, EROS Data Center for hosting a very successful Global Mapping Forum '98 and the Fourth Meeting of the ISCGM in Sioux Falls, USA.



Fifth Meeting of ISCGM



The Fifth ISCGM Meeting was held on November 20, 1998 at Griffins Lounge, Hyatt Hotel, Canberra, Australia. Prof. John E. Estes, UCSB, USA was elected as Chairperson of the committee again, and Dato' Majid was appointed as Vice Chairperson, Mr. N. Nagai as Secretary General, Dr. H. Murakami as Assistant Secretary General. Replacements of Mr. Francois Faucher by Dr. Robert O'Neil of Canada Centre for Remote Sensing, and Prof. David Rhind by Dr. Geoffrey Robinson of Ordnance Survey were announced. Mr. Drew Clarke, Chairman of SCAR-GGI, and Mr. Claude Luzet, Executive Director of MEGRIN were approved to be a new member. Dr. Tositomo Kanakubo was resigned from the advisor and Prof. Michael Wood, President of ICA was appointed as a new advisor.

The committee discussed specifications of the Global Map, invitation letters from UN to national mapping organizations in the world, and reviewed action program for the implementation of Global Mapping. As a result, the committee adopted the resolution.

Resolution of the Fifth Meeting of International Steering Committee for Global Mapping

The Fifth Meeting of the International Steering Committee for Global Mapping (here-in-after referred to as "the Committee") convened on November 20, 1998. Based on the draft Specifications and Action Program having been developed at the previous meetings, the Committee furthered the discussion on the development of the Global Map by the year 2000 and resolved that:

1. To develop and maintain the Global Map is one of the significant activities, complying with Agenda 21, for protecting the global environment, attaining the sustainable development, and securing the base of human existence, and is an important responsibility of countries in the 21st century.

2. Development of the Global Map should be a core activity of national mapping organizations. NMOs should work with other agencies, institutions, and organizations, as appropriate, in the construction of the Global Map.
3. The Committee urges the governments of respective countries to provide financial and institutional support to national mapping organizations sufficient for the development of the Global Map.
4. Appreciating the support of the United Nations in calling countries around the world to participate in the Global Mapping Project, the Committee will make every effort to encourage countries to participate in this project.
5. The committee recognizes and appreciates the efforts of participants in the Global Spatial Data Infrastructure Activity. We applaud their moves to facilitate the development of a robust geospatial data framework for the globe. Continued close cooperation, communication and collaboration with those efforts will be valuable in ensuring access to and efficient use of the Global Map.
6. The Committee endorses efforts to improve coordination with the developing GSDI and its working group activities. Therefore we recommend that the heads of each ISCGM working group or their delegates become a member of the appropriate corresponding GSDI working group.
7. The Committee adopts version 3 of the draft Global Map Specifications, developed by the Working Group 2, as Global Map Specifications version 1.0. The Working Group should maintain these specifications in accordance with technological and scientific advances in related fields such as ISO/TC211.
8. The Committee appreciates the presentation by the CEOS representative at this meeting. The Committee will specifically work with CEOS to encourage space agencies to cooperate with the Global Mapping Project and to provide remotely sensed data at nominal charge to national mapping organizations participating in this project.
9. The Committee will hold its next meeting in Cambridge, United Kingdom, hosted by Ordnance Survey on 24 July 1999.
10. The Committee extends sincere thanks to the Australian Surveying and Land Information Group, for very successfully hosting and managing the Fifth Meeting of the ISCGM in Canberra, Australia.



Sixth Meeting of ISCGM



The Sixth Meeting of the International Steering Committee for Global Mapping (ISCGM) was hosted by the Ordnance Survey and held on 24 July 1999 at St. John's College, Cambridge, United Kingdom following the Cambridge Conference.

By taking advantage of the Cambridge Conference where many top leaders of the national mapping organizations in the world gathered, ISCGM invited as many participants as possible and it resulted in the participation of more than sixty people in the meeting.

Prof. John E. Estes, UCSB, USA was reelected as Chairperson. Dato' Abdul Majid Bin Mohamed was appointed as Vice-Chairperson, Mr. M. Akiyama as Secretary General, and Dr. H. Murakami as Assistant Secretary General. Dr. Michael Wood of the ICA and Mr. Daniel Claasen of UNEP were introduced as advisors. It was the first meeting since official registration of participation in the Global Mapping project had started with the UN recommendation letter. The Chairperson addressed the importance of Global Map at the beginning of the meeting especially for the sake of newly participated and anticipated countries' representatives. Then, activities of secretariat and working groups were reported. Number of participating countries in Global Mapping was reported as 66 and 36 countries were under consideration as of the day. Four other countries announced their participation during the meeting. It was announced that participation of European countries would be discussed at the CERCO General Assembly in September.

Despite the importance of Data Policy in Global Mapping, Working Group 3 had not been active. It was commented that CERCO could lead and activate this working group.

Regarding matching between level A and C countries, it was noted that there is a rich history of certain countries assisting others. Therefore, it is expected that level C countries would inform the Secretariat if they have any preference of working with a specific level A country.

Other topics discussed at the meeting were: procedure of reporting and monitoring of the Global Mapping project implementation; strategy for phase 2 of Global Mapping project; collaboration with industry and others.

The next meeting will be held in Cape Town on 16 March 2000 immediately after the GSDI meeting.

Findings for the Sixth Meeting of the ISCGM

The International Steering Committee for Global Mapping (ISCGM) at its sixth meeting, held in Cambridge, England, July 24, 1999, finds that:

There has been an increase in countries participating in ISCGM; and a marked increase in participation in the Global Mapping within the past year.

There is still a need to continue to extend opportunities to National Mapping Organizations (NMOs) and other interested contributing organizations to participate in ISCGM activities.

More emphasis must be placed on understanding user needs and on outreach to and appropriate engagement of the scientific community (e.g., IGBP) and academia. ISCGM should work to expand and strengthen its ties to other sectors of the geospatial community, particularly the remote sensing community. ISCGM appreciates the decision of the Committee on Earth Observation Satellites (CEOS) decision to coordinate and encourage the provision of satellite data for Global Map development. More emphasis must be placed on outreach to and appropriate engagement of the private sector.

Effort should be directed toward the development of promotional materials that can assist Global Map participants as they seek to justify participation in this activity, and other regional and global geospatial data initiatives.

The Global Map session was successful in providing expanded participation in the Global Map Project and the sixth ISGCM meeting. That this session and other sessions at the Cambridge Conference highlighted the benefits of cooperation and collaboration between ISCGM, the Global Spatial Data Infrastructure (GSDI) initiative, and other regional activities.

The Secretariat should adjust its strategy to accomplish Global Map Project phase 1 objectives.

Progress should be reported at regular intervals.

Coordination and collaboration between level A and level C countries should be initiated.

Where level A and level B countries wish to start with existing available global data held by the Secretariat, the Secretariat should begin to deliver Global Map compiled national level data sets to level A and level B countries as soon as practical.

Procedures for validation, refinement and distribution of Global Map Version 1.0 should be clarified.

Phase 2 planning should begin including addition of other global data sets.

The Secretariat should develop a mechanism to track the use and confirm the value of Version 1 data.

It was agreed by ISCGM members present that:

The next ISCGM meeting will take place in Cape Town, South Africa on 16 March 2000 hosted by the South African Department of Land Affairs.

That the Secretariat should consider holding a Global Mapping Forum in the year 2000 as a means of promoting the availability of Global Map Version 1.0.

The ISCGM is strongly considering holding its meeting in 2001 in connection with 5th GSDI conference in Bogota, Columbia.

The Committee extends sincere thanks to Ordnance Survey for very successfully hosting and managing the Sixth ISCGM Meeting in Cambridge, United Kingdom.

The Secretariat should proceed to re-establish Working Group 3 on Data Policy and prepare materials in advance of the meeting in South Africa. A representative or representatives from geospatial industries should be invited to discuss the value of their participation in the Global Map Project at our meeting in South Africa.

Resolution of the Sixth Meeting of International Steering Committee for Global Mapping

ISCGM members understand the significance of the vision of the United Nations to reduce the worlds poverty by half before the year 2015. We also recognize that the availability of fundamental geospatial data is vital for the development of options to address the challenge of sustainable development at local, national, transnational (regional), and global levels.

Geospatial data are also critical as we seek to improve the social and economic well being of all citizens. As such ISCGM resolves to work to encourage the funding of and to promote relevant geospatial education, training, capacity building and appropriate technology transfer activities. We, the members, within our capacity, will continue the collection, preparation, distribution of geospatial data at local, national, regional and global levels. We will also continue to work to improve the quality of geospatial data products and to advance their exploitation for the benefit of all peoples.



Seventh Meeting of ISCGM

The Seventh Meeting of the International Steering Committee for Global Mapping (ISCGM-7) was held on 16 March 2000, just after the Fourth GSDI Conference, at Hotel President, Cape Town, South Africa. The meeting was hosted by the Department of Lands and Surveys, South Africa.

In order to encourage more countries to participate in Global Mapping project, the meeting was set open to out of ISCGM members. Fifty-six persons from 29 countries participated in the meeting.

At the beginning of the meeting, Prof. John E. Estes was reelected as Chairperson of the Committee. Mr. Peter Holland of AUSLIG, Australia was appointed as Vice Chairperson replacing Dato' Majid of Malaysia who will retire from Governmental service in coming May. Mr. M. Akiyama and Dr. H. Murakami were reappointed as Secretary General and Assistant Secretary General respectively. Dr. Milan Konecny, Vice President of the International Cartographic Association, was introduced as a new advisor replacing Prof. Michael Wood. New members introduced were Mr. Haggai Nyapola of Kenya who replaced Mr. A. K. Njuki, and Mr. Derek Clarke of South Africa who was hosting the meeting. New observers introduced were Mr. David McKeller, Canada, National Defense, and Mr. Mike Clarke representing CEOS.

The year 2000 is considered as the target year of Phase I of Global Mapping program. It was reported that Global Map version 1.0 was likely to be developed by November 2000 and commemorative Forum was planned to be held from 28-30 November 2000 in Hiroshima, Japan. Urgency of decision-making on data policy issue and phase II strategy were recognized. In this regard, current working groups were reorganized for more practical and active execution. Working group 1 on strategic plan headed by Dr. Bob O'Neil of Canada was asked to work on the strategic plan for Phase II and expected to report either at the Global Mapping Forum in Hiroshima in November 2000 or at the 8th meeting in May 2001. The member was also reviewed and reorganized. Activity of working group 2 on specification headed by Mr. Alan Swift of Australia was suspended and an expert group responsible for maintenance of the specifications will be formed mainly comprising of current WG members. Working group 3 on data policy headed by Mr. Claude Luzet of MEGRIN was asked to work on legal standing for commercial use of Global Map version 1.0. Members were reorganized to comprise regional representatives. Besides, an industry working group in advisory capacity comprising of industry representatives as ex officio manner was suggested to be formed while formal decision will be made at the 8th meeting. The group is expected to input industrial requirement on data policy, specifications, etc., which can be reflected in Global Map framework.

New collaboration with UN Cartographic Section and its UN Geographic Database Project was established to avoid duplication of efforts and to exchange information.

The 8th meeting will be held in Cartagena, Colombia on 25 May 2001 in conjunction with the 5th GSDI meeting hosted by IGAC Colombia.

Resolution of the Seventh Meeting of International Steering Committee for Global Mapping

Findings for the Seventh Meeting of the ISCGM

The International Steering Committee for Global Mapping (ISCGM) at its seventh meeting, held in Cape Town, South Africa, March 16, 2000, finds that:

- There continues to be an increase in the number of countries (14 countries and two international consortia; 7 advisors and 36 observers) participating in ISCGM and in the Global Map Project (77 countries as of March 16, 2000)
- Phase 1 of the Global Map (GM) Project is drawing to a close with the production of GM Version 1.0 which will be formally released at the Global Mapping Forum 2000 in Hiroshima, Japan in November 2000. Planning should now begin in Working Group 1 (Strategic Planning) to finalize the draft Phase 2 strategy plan presented at this meeting.
- ISCGM will, for the time being, proceed under the original data policies laid out at the 5th ISCGM meeting in Canberra, Australia. Working Group 3 (Data Policy) should move quickly to review, revise, and finalize the materials on data policy presented at this 7th ISCGM meeting. A draft final policy should be in place for discussion and approval at the 8th ISCGM meeting in Cartagena, Colombia.
- In the past year, the activities associated with Working Group 2 (Specifications) have been minimal. This working group should be reconstituted and its members designated as expert consultants to be called upon for advice on an as needed basis. This expert group could include participation not only from ISCGM members, advisors, or observers, but others from industry, academia, and other organizations with relevant experience. The point of contact for this activity will remain with AUSLIG.
- There is still a need to continue to extend opportunities to National Mapping Organizations (NMOs) and other interested contributing organizations to participate in ISCGM activities.
- Continued emphasis must be placed on understanding user needs and on outreach to and appropriate engagement of the scientific community (e.g., IGBP), academia, and the private sector.
- ISCGM encourages industry to form a small advisory group. Initially this group would serve in an advisory capacity to the Secretariat. Members of this group would be requested to serve in an ex-officio capacity on ISCGM Working Groups. Over the next six months, this group should work with the Secretariat to develop a draft plan for ISCGM

– industry cooperation and collaboration. This plan would be provided to members in advance of the 8th ISCGM meeting and discussed at that time.

- ISCGM should maintain close contact with the United Nations Cartographic Section as it works toward the development of a UN Geographic Database to be used system wide. We note that contacts between the UN and ISCGM Secretariat are already underway. To the extent practical, ISCGM should work to ensure that Global Map framework data layers, technical specifications, and other foundation concepts are represented or adopted in the UN database scheme. We should also work closely with this UN effort to exchange information on user needs. We ask that Mr. Santiago Borrero and Mr. Claude Luzet represent ISCGM at the upcoming meeting on the UN Geographic Database effort in New York at the end of March.
- ISCGM has worked to both expand and strengthen its ties to other sectors of the geospatial community, particularly the remote sensing community. ISCGM is working with the Committee on Earth Observation Satellites (CEOS) to coordinate and encourage the provision of satellite data for Global Map development. Here, the Secretariat should, in particular, work with the United States National Aeronautics and Space Administration (NASA) with respect to the data products from the Moderate Resolution Imaging Spectrometer (MODIS) for land cover, the Shuttle Radar Topographic Mission (SRTM) for elevation data, and the European Commission SPOT-4 Vegetation data being employed by the Joint Research Centre in Ispra, Italy to construct a land cover/vegetation product as a part of their Millenium Map project. In addition, the Strategic Planning Working Group should examine the potential of these data sets to contribute information in Phase 2 of the Global Map Project.
- More emphasis must be placed on outreach to and appropriate engagement of the private sector.
- ISCGM encourages member nations to work with their donor agencies to help broaden the participation of organizations from developing nations in ISCGM meetings and activities.
- Continued efforts should be directed toward the development of promotional materials that can assist Global Map participants as they seek to justify participation in this activity, and other regional and global geospatial data initiatives. ISCGM members should, where possible, contribute promotional materials to the website being maintained by the Secretariat through the University of California Santa Barbara (<http://grouchy.geog.ucsb.edu>).
- The Secretariat has adjusted its strategy to accomplish Global Map Project phase I objectives; but more can still be done
 - Progress should continue to be reported at regular intervals

- Coordination and collaboration between Level A and Level C countries should be more vigorously pursued
- Where Level A and Level B countries wish to start with existing available global data held by the Secretariat, the Secretariat should begin to deliver Global Map compiled national level data sets to Level A and Level B countries as soon as practical
- Procedures for validation, refinement and distribution of Global Map Version 1.0 should be clarified within the context of the Phase II strategy
- Phase 2 planning has begun and a draft plan prepared for Working Group I.
- The Secretariat should continue development of a mechanism to track the use and confirm the value of Version 1.0 data

It was agreed by ISCGM members present that:

- A Global Mapping Forum should be held in Hiroshima, Japan, 28-30 November 2000 as a means of promoting the availability of Global Map Version 1.0. That all ISCGM members and nations participating in Global Map be encouraged to participate and attend this meeting. This Global Mapping Forum will be an excellent opportunity to report on how Global Mapping can facilitate sustainable development in advance of the UN Meeting on Sustainable Development in April 2001. Material presented could be forwarded through government channels to the UN.
- The next ISCGM meeting will take place in Cartagena, Colombia in May 2001 hosted by the National Geographic Institute of Colombia (IGAC) and in connection with the 5th GSDI meeting.
- The Committee extends sincere thanks to the Chief Directorate of Surveys and Mapping of the Department of Land Affairs of South Africa for very successfully hosting and managing this Seventh Meeting of the ISCGM in Cape Town, South Africa.

ISCGM Resolution

The first truly global collaborative effort to create framework data layers, the International Map of the World (also known as the *Carte Internationale du Monde au Millionième*) was initially proposed by Albrecht Penck at the 5th International Geographical Congress in 1891. This project was never completed and officially ended in 1986. Today, as we enter a new millenium, National Mapping Agencies/Organizations and other organizations interested in improved global framework geospatial data stand on the verge of completing the task laid out over 100 years ago. This task of creating globally consistent framework data at 1:1 million scale (1 km resolution) has been completed by ISCGM members and associated organizations in less than half a decade. Global Map Version 1.0 will be formally presented at Global Mapping Forum 2000 in Hiroshima, Japan, November 28-30, 2000. ISCGM takes this opportunity to restate the commitment of its members to the creation, maintenance, and

distribution of spatial data products and to education and capacity building as enunciated at the 6th ISCGM meeting in Cambridge, England. Our resolution from that meeting reads as follows:

ISCGM members understand the significance of the vision of the United Nations to reduce the world's poverty by half before the year 2015. We also recognize that the availability of fundamental geospatial data is vital for the development of options to address the challenge of sustainable development at local, national, transnational (regional), and global levels. Geospatial data are also critical as we seek to improve the social and economic well being of all citizens. As such, ISCGM resolves to work to encourage the funding of and to promote relevant geospatial education, training, capacity building and appropriate technology transfer activities. We, the members, within our capacity, will continue the collection, preparation, distribution of geospatial data at local, national, regional, and global levels. We will also continue to work to improve the quality of geospatial data products and to advance their exploitation for the benefit of all peoples.



Eighth Meeting of ISCGM

The Eighth Meeting of ISCGM is held on May 25, 2001 in Cartagena, Colombia.

Resolution of the Eighth Meeting of International Steering Committee for Global Mapping

Resolutions of the 8th ISCGM Meeting Cartagena, Colombia 25 May 2001

1. The ISCGM expresses deep regret and sadness at the death of Prof. John (Jack) E. Estes, Chairperson of ISCGM, in March 2001. While the selection process for a new chair is underway, the goals and activities of ISCGM will continue under the leadership of the Interim Chair, Mr. Peter Holland.
2. When the new Chairperson has been elected, a review of the rules of the ISCGM will be conducted and revised as necessary.
3. The ISCGM gratefully acknowledges the offer made in the memory of Prof. Estes by Mr. Jack Dangermond of ESRI and welcomes the support of the GSDI during its implementation. The ISCGM resolves to provide advice to ESRI on the criteria for selection of appropriate recipient agencies and to ensure the continuation of data development and management enabled by this offer. To this end, it is agreed that a small group be formed from ISCGM and GSDI to communicate with ESRI appropriately.
4. While there has been an increase in the number of countries participating in ISCGM and the Global Map project, non participating countries should continue to be encouraged to participate.
5. While Global Map Version 1.0 was formally released in November 2000 at the Global Mapping Forum in Hiroshima, Japan, those participating countries that have not yet begun preparing their contribution should be strongly encouraged to do so.
6. ISCGM accepts the recommendations of Working Group 1 as follows:
 - Working Group 1 members prepare recommended answers to the questions raised in the draft discussion paper, Draft Global Mapping Phase 2 plan and the November working group report and circulate them prior to the next meeting of the ISCGM. The answers should be discussed and turned into resolutions as appropriate.
 - Working Group 1 conduct and/or coordinate with other interested organizations an inventory of the existing global and regional data sets, both extant and emerging, effectively updating the previously conducted survey.
 - Working Group 1 will identify the research needs required and identify coordinating bodies, funding agencies, National Mapping agencies, or

- organizations who can potentially conduct the research required to advance the principles and needs of the Global Map and communicate this information to them.
- That an ad hoc meeting of Working Group 1 be held in conjunction with the ICA meeting in Beijing, China, in August 2001.
7. ISCGM accepts the recommendations of Working Group 3 as follows:
 - Free distribution of Global Map data for non commercial use via the Internet, and acknowledgement of copyright, as the default and recommended option for Global Map version 1.
 - Mechanisms be established to record and report the use of Global Map data and report any improper use of Global Map.
 - Assess possible delivery procedures by media other than the Internet.
 - Working Group 3 assess options and make proposals regarding the market potential of Global Map, a global survey of national mapping agencies' positions on data policy issues and options, a data policy model for Global Map version 2, issues of sensitivity, and evaluate the effectiveness of the data policy for Global Map version 1.
 - ISCGM to request participation in Working Group 3 activities by UNGIWG, the industry group, GSDI, regional coordinating bodies, and other interested parties, such as national organizations.
 8. The ISCGM recognizes the importance of the upcoming Rio+10 (World Summit on Sustainable Development) meeting scheduled for September 2002 in Johannesburg, South Africa, and encourages members and national mapping organizations generally to brief their government agencies responsible for Rio 10 on the importance of Global Map to the objectives of the conference.
 9. The ISCGM gratefully acknowledges the EuroGeographics initiative to create the seamless European contribution to the Global Map project, thus illustrating the invaluable role of regional organizations and seamless database coverages.
 10. The ISCGM gratefully acknowledges the activities of the PCGIAP and the PC-IDEA to encourage their members to contribute to the Global Map project. The ISCGM recognizes the important roles these and other similar regional organizations play in the development of regional and global datasets, and continues to support these organizations.
 11. The ISCGM recognizes the importance of the UN CODI meeting in bringing together African nations and organizations. The ISCGM requests that its African members represent the ISCGM at the upcoming UN CODI meeting that will be held 4-7 September 2001 in Addis Ababa, Ethiopia.
 12. The ISCGM acknowledges the efforts of the United Nations Geographic Information Working Group (UNGIWG) in facilitating the drafting of a resolution to be submitted to the United Nations General Assembly on the necessity of geographic information and would welcome the opportunity to comment on the draft resolution.

13. The ISCGM continues to recognize the value of industry participation in the ISCGM and the Global Map project, and encourages the formation of an industry advisory group, which can act as a channel between the ISCGM and commercial organizations.
14. The ISCGM acknowledges the offer made by ISO/TC211 to offer a metadata workshop to be held in conjunction with an upcoming ISCGM meeting or future Global Mapping Forum. ISCGM members are also reminded of the benefits of Class A Liaison status in ISO/TC211, including full access to the ISO/TC211 documents and website and the ability to participate in ISO/TC211 activities.
15. The ISCGM resolves that participating members will encourage their national governments to work through appropriate channels to identify and cooperate in methods to ensure the continuity of medium resolution data, for example, Landsat and ALOS, with low-cost and full and open access to those data.
16. The ISCGM gratefully acknowledges the support of the Instituto Geografico Agustin Codazzi (IGAC) for their hosting and support of the 8th ISCGM meeting in Cartagena, Colombia.
17. The ISCGM also gratefully acknowledges the offer by the Ministry of Agriculture and Regional Development, Department of Lands and Mapping, Hungary, and EUROGI to hold the next meeting of the ISCGM in conjunction with the 6th GSDI conference, scheduled for the week of 16 September 2002 in Budapest, Hungary.



Ninth Meeting of ISCGM

The Ninth Meeting of ISCGM is held on Sep 20, 2002 in Budapest, Hungary

Resolution of the Ninth Meeting of International Steering Committee for Global Mapping

- 1) Chairperson
 - a) The ISCGM welcomes the new Chairperson, Dr. D.R.F. Taylor of Carleton University, Ottawa, Canada, who was elected on 16 May 2002 by the Chair Selection Committee and reelected to the position for a 3-year term by acclamation at this meeting.
 - b) The ISCGM acknowledges the service of Mr. Peter Holland as the Interim Chair of the ISCGM during the search for a new chair.
- 2) WSSD
 - a) The ISCGM acknowledges the significant actions made by the ISCGM Secretariat and the Government of Japan throughout the preparation process up to WSSD for promoting the importance of Global Mapping and GIS for sustainable development. This significant achievement gives a new opportunity to further enhance the Global Mapping initiative.
 - b) Further acknowledging the ISCGM Secretariat contribution to the WSSD and the establishment of Global Map as a Type II initiative (and the obligation on ISCGM to complete global coverage of Version 1 data by 2007), the ISCGM resolves to exploit this status in the search for funding, establishment of liaison relationships with appropriate organizations, and persuasion of participation in and contribution to the Global Map project.
- 3) Global Map/GSDI grant
 - a) The ISCGM continues to gratefully acknowledge the establishment of the Global Map/GSDI grant made in memory of Prof. Estes by Mr. Jack Dangermond of ESRI during the GSDI 5 meeting at Cartagena, Colombia, 2001.
 - b) The ISCGM appreciates the impact of this grant, which is a significant contribution towards building capacity and encouraging non-participating countries to participate in the Global Mapping project.
 - c) The ISCGM resolves to continue to provide advice to ESRI on the criteria for selection of appropriate recipient agencies and to ensure the continuation of data development and management enabled by this offer. To this end, a small advisory group formed from ISCGM and GSDI will continue to communicate with ESRI appropriately.
- 4) Participation in and contributions to Global Map
 - a) The ISCGM acknowledges the decision made by EuroGeographics to participate in Global Mapping through the EuroGlobalMap project and to submit a seamless European data set.
 - b) While there has been a significant increase in the number of countries participating in Global Mapping since the eighth ISCGM meeting, non-participating countries should continue to be encouraged to participate.

- c) While there has been sound progress in developing Global Map version 1.0 since the eighth ISCGM meeting, those participating countries that have not yet begun preparing their contribution should be strongly encouraged to do so.
- 5) Phase 2 plans
 - a) The ISCGM acknowledges the strong need to have a final Phase 2 plans.
 - b) The ISCGM agrees to establish Working Group 4 for implementing raster layer development in collaboration with other similar initiatives.
 - c) Phase 2 plans will be thoroughly reviewed prior to the next ISCGM meeting and voted upon at that time.
- 6) Specifications

The ISCGM agrees to reactivate Working Group 2 to reconsider the specifications of Global Map to incorporate recent progress in ISO/TC211 and to meet user requirements and their needs for interoperability.
- 7) Data policy for commercial use

The ISCGM agrees upon the data policy for commercial use of Global Map as follows:

 - a) ISCGM will accept each country's data policy and each country's intention.
 - b) Copyright issues shall be handled by the copyright holders.
 - c) The Secretariat shall clearly indicate the name and point of contact of the copyright holder on the data download site for each component of Global Map data.
- 8) Amendments to Rules
 - a) The Chairperson's term shall be for three years, until the Committee meeting three years following, at which point, the Chair may be re-elected.
 - b) Further review of the Rules of ISCGM such as modification of member status shall be discussed prior to the next meeting, and suggested changes will be voted upon then.
- 9) Future meetings and activities
 - a) The ISCGM accepts the offer by the Secretariat to hold the Global Mapping Forum 2003 in Okinawa on 12 and 13 July 2003 prior to the 16th UNRCCAP Conference, scheduled for the week of 14 July 2003 in Okinawa, Japan.
*(The Forum is rescheduled for 12 - 14 July 2003.)
 - b) The ISCGM also gratefully acknowledges the offer by the Ordnance Survey of UK to hold the Tenth ISCGM meeting in conjunction with the Cambridge Conference, scheduled for the week of 21 July 2003 in Cambridge, UK.
*(It was rescheduled for 11 July 2003 in Okinawa, Japan.)
 - c) The ISCGM further acknowledges the offer by the Survey of India to hold the Eleventh ISCGM meeting in conjunction with the Seventh GSDI conference, scheduled for the week of 2 February 2004.
- 10) Vote of thanks

The ISCGM gratefully acknowledges the support of the Department of Lands and Mapping, Ministry of Agriculture and Rural Development, Hungary, HUNAGI, and EUROGI for their hosting of the Ninth ISCGM meeting in Budapest, Hungary.

Note: Two * marks indicate changes made after the meeting and not parts of the body text.

Tenth Meeting of ISCGM

The Tenth Meeting of ISCGM is held on Jul 11, 2003 in Ginowan, Okinawa, Japan

Resolution of the Tenth Meeting of International Steering Committee for Global Mapping

1. Global Map data release and participation
 - a. The ISCGM acknowledges the effort of the Secretariat and the six participating nations that have completed their Global Map data and made them available to the world through the Internet on the occasion of the Global Mapping Forum 2003 in Okinawa.
 - b. The ISCGM agrees to release Global Map data that are not fully compliant with the Global Map specifications or that do not have all the data layers, with appropriate metadata so as to enhance data availability as soon as possible.
 - c. While there has been significant progress in developing Global Map version 1.0 since the Ninth ISCGM meeting, those participating countries that have not yet completed their contribution are strongly encouraged to do so.
 - d. While there has been a steady increase in the number of countries participating in Global Mapping since the Ninth ISCGM meeting, further efforts should be made to encourage nations not yet participating to join.
2. World Summit on Sustainable Development (WSSD)
 - a. The ISCGM acknowledges the significant actions made by the ISCGM Secretariat, ISCGM members, and the Government of Japan during the preparation process leading up to the WSSD in promoting the importance of Global Mapping and geographic information processing for sustainable development.
 - b. ISCGM, as an implementation agency under the Type II Partnership/Initiative, resolves to utilize this status to search for funding, to establish partnerships with the appropriate organizations, and to encourage participation in, and contribution to the Global Mapping project.
 - c. Recognizing the continued opportunities provided by being a WSSD implementing agency, the ISCGM resolves to continue participation in WSSD follow-up activities, such as CEOS and other appropriate activities as identified by the Secretariat.
3. Data provision by web-mapping
 - a. The ISCGM agrees to make the Global Map data available by web mapping technology in order to enhance the accessibility and usability of Global Map data.
 - b. The ISCGM agrees that the use of Global Map through web-mapping technology is considered to be for non-commercial use and therefore user authentication is not required, considering the fact that the data sent to client computer is only a subset of the contents of Global Map data.

- c. The Secretariat is encouraged to examine methods of implementing web mapping through the creation of a portal, including consideration of the offer by ESRI to assist in this respect as an extension of the existing grant program.

4. Data policy for commercial use

The ISCGM acknowledges the modification of the Global Map data download page maintained by the Secretariat which restates the data policy for commercial use agreed upon at the Ninth ISCGM meeting.

5. Amendment to Rules

The ISCGM agrees to the amendment to Rules on member/advisor status, which was reviewed and newly classified as 1) member, 2) representative of a liaison organization, 3) advisor and 4) working group chair. Members are the chairperson and the representatives of national mapping organizations or international organizations that are responsible for specific regions. Only members have the right to vote while others may attend Committee meetings and participate in discussion.

6. Specifications

The ISCGM agrees to the reactivation of Working Group 2 with India as the Chair to revise the specifications of Global Map, noting the issues discussed at this meeting about Global Map specifications. WG4 will take the lead in developing specifications for raster data within the overall framework for the specifications developed for Global Map.

7. Global raster data development

The ISCGM acknowledges the work done by Dr. Ryutaro Tateishi, Chair of Working Group 4, for recruiting members and formulating an action plan of the working group.

8. Phase 2 plans

While the importance of 1:1,000,000 data for the completion of Global Map Version 1.0 is recognized, the ISCGM supports those countries that may wish to submit larger scale data where appropriate. Those countries that wish to prepare their own raster data are encouraged to do so.

9. Capacity building

- a. Recognizing the significant importance of capacity building in enhancing the development of Global Map, the ISCGM gratefully acknowledges the contribution of the Global Mapping Seminars in Nairobi, Kenya, organized by the Global Mapping Partnership Program of the Japanese government. The involvement of the Global Map/Global Spatial Data Infrastructure grant program in the Nairobi seminar is also acknowledged.
- b. The ISCGM acknowledges the role of the JICA group training course on Global Mapping held annually since 1994 and strongly requests the continuation of the course with revisions as necessary to enable further contributions to Global Map.

Recognizing the valued contributions of the recipients of JICA training sessions to the development of a completed Global Map, the ISCGM resolves to support the Secretariat in their pursuit of funding to continue the JICA group training course.

10. Partnerships

- a. The ISCGM welcomes the promotion of partnerships with related organizations and initiatives.
- b. The ISCGM greatly appreciates the efforts to raise awareness of Global Mapping in various international conferences by ISCGM members and the ISCGM Secretariat on behalf of ISCGM, and continues to encourage the promotion of Global Mapping at every opportunity.

11. Global Map/GSDI Grant

The ISCGM continues to gratefully acknowledge the establishment of the Global Map/GSDI grant made in memory of Prof. John E. “Jack” Estes by Mr. Jack Dangermond of ESRI.

12. Earth Observation Summit

Recognizing the development of an implementation plan for global observation advocated at the G8 Summit in June 2003, and recognizing the value of earth observation data and related activities, the ISCGM resolves to encourage its members to communicate with their national delegations to the upcoming Earth Observation Summit to be held 31 July 2003 on the value of Global Map as an implementation mechanism for earth observation data collection and distribution.

13. ALOS/NASDA

The ISCGM restates its desire to use remotely sensed data, in particular, data from the ALOS satellite for Global Mapping purposes and strongly supports GSI in its discussions with NASDA to achieve this outcome.

14. Future meetings

The ISCGM acknowledges the offer by the Survey of India to hold the Eleventh ISCGM Meeting on 7 February 2004 in Bangalore, India in conjunction with the Seventh GSDI Conference.

15. Vote of thanks

The ISCGM gratefully acknowledges the support of the Geographical Survey Institute for hosting the Tenth ISCGM Meeting in Ginowan City, Okinawa, Japan. We also acknowledge the kind support of the Okinawa Convention Center.



Eleventh Meeting of ISCGM

The Eleventh Meeting of ISCGM is held on Feb 7, 2004 in Bangalore, India

Resolution of the Eleventh Meeting of International Steering Committee for Global Mapping

1. Global Map data release and participation:
 - a. The ISCGM acknowledges the continuous efforts of the participating organizations and the assistance of the Secretariat to develop the Global Map data.
 - b. The ISCGM encourages the Secretariat to accelerate its action for releasing Global Map data that are not fully compliant with the Global Map specifications or that do not have all the data layers, with appropriate metadata so as to enhance data availability as soon as possible.
 - c. While there has been significant progress in developing Global Map version 1.0 since the Tenth ISCGM Meeting, those participating countries that have not yet completed their contribution are strongly encouraged to do so.
 - d. While there has been a steady increase in the number of countries participating in Global Mapping since the Tenth ISCGM Meeting, further efforts should be made to encourage nations not yet participating to join. In this respect, an approach from Members, Advisors, Liaison organizations and other related organizations are encouraged.
2. World Summit on Sustainable Development (WSSD)
 - a. ISCGM, as an implementation agency under the Type II Partnership/Initiative of WSSD, resolves to utilize this status to search for funding, to establish partnerships with the appropriate organizations, and to encourage participation in, and contribution to, the Global Map project.
 - b. Recognizing the continued opportunities provided by being a WSSD implementing agency, the ISCGM resolves to continue participating in WSSD follow-up activities, such as the Commission on Sustainable Development (CSD) and other appropriate activities as identified by the Secretariat.
3. Global Mapping portal development
 - a. The ISCGM resolves that Global Map data shall be made available via web mapping technology in order to enhance the accessibility and usability of Global Map data.
 - b. The ISCGM gratefully acknowledges the offer by ESRI to assist in implementing web mapping through the creation of a portal as an extension of the existing grant program.

4. Specifications

- a. The ISCGM gratefully acknowledges the work done to date by Working Group 2 chaired by India, and continues to encourage WG 2 to continue the discussion on the revision of the Global Map specifications. The ISCGM encourages WG2 to include in future discussions those issues raised during this meeting.
- b. The ISCGM also resolves that WG 4, raster data development, will take the lead in developing the specifications for raster data within the overall framework of the Global Map specifications determined by WG 2.

5. Global raster data development

The ISCGM gratefully acknowledges to work completed to date by Working Group 4 chaired by Prof. Ryutaro Tateishi of Chiba University and continues to support the WG4 activities on the development of raster data.

6. Capacity building

- a. Recognizing the significant importance of capacity building in enhancing the development of Global Map, the ISCGM gratefully acknowledges the contribution of the organizers and the supporters of Global Mapping Seminars in Nairobi, Kenya, including the Global Mapping Partnership Program of the Japanese government, the Regional Centre for Mapping of Resources for Development (RCMRD), the Japan International Cooperation Agency (JICA), the Survey of Kenya and the Kenya Institute of Surveying and Mapping. The ISCGM also acknowledges the contribution of ESRI and RCMRD for implementing a training program in Nairobi under the Global Map/Global Spatial Data Infrastructure grant program.
- b. The ISCGM continues to gratefully acknowledge the implementation of the Global Map/GSDI grant made in the memory of Prof. John E. “Jack” Estes by Mr. Jack Dangermond of ESRI.
- c. ISCGM will continue to engage in capacity building activities with the appropriate partners.

7. JICA Support

The ISCGM acknowledges the role of the JICA group training course on Global Mapping held in Japan annually since 1994. In this respect, the ISCGM greatly appreciates the decision of the Japanese Government and JICA to continue funding these courses to enable further contributions to Global Map.

8. Cooperation with the UN Geographic Database

The ISCGM encourages the Secretariat to discuss the potential for using the 1:1M UN Geographic Database as an alternative for those countries or regions that have not participated in Global Map.

9. Partnerships

- a. The ISCGM welcomes the promotion of partnerships with related organizations and initiatives.
- b. The ISCGM acknowledges the action by the Secretariat and the Government of Japan to seek opportunity to strengthen the relationship with the Integrated Global Observation Strategy Partnerships (IGOS-P), and encourages its members to communicate with their national focal points.

10. Promotion of Global Map

- a. The ISCGM greatly appreciates the efforts to raise awareness of Global Map in various international conferences by ISCGM members and the ISCGM Secretariat on behalf of the ISCGM, including a poster exhibition and a workshop held at the United Nations University, Tokyo.
- b. The ISCGM also continues to encourage the promotion of Global Map at every opportunity.

11. Earth Observation Summit

Recognizing the development of an implementation plan for global observation advocated at the G8 Summit in June 2003, and recognizing the value of earth observation data and related activities, the ISCGM resolves to encourage its members to communicate with their national members of the Group on Earth Observation, especially the national delegations to the Second Earth Summit to be held in April 2004 on the value of Global Map as an implementation mechanism for earth observation data collection and distribution.

12. Cooperation in the utilization of remotely sensed data

a. ALOS/JAXA

The ISCGM reiterates its desire to use remotely sensed data, in particular, data from the ALOS satellite, for Global Mapping purposes, and strongly supports the GSI and the Secretariat in their discussions with JAXA (formerly known as NASDA) to achieve this outcome.

b. ISRO/IRS

The ISCGM will open a dialogue with ISRO in relation to accessing IRS data.

13. Future Meetings

The ISCGM resolves to hold its Twelfth meeting in conjunction with the FIG/GSDI meetings in Cairo, Egypt, 16-21 April 2005. In the event that Cairo is not an option, a second option is to hold the meeting in conjunction with the ICC meeting at La Coruña, Spain.

14. Vote of Thanks

The ISCGM gratefully acknowledges the support of the Survey of India for this meeting.

Twelfth Meeting of ISCGM

The Twelfth Meeting of ISCGM is held on Apr 17, 2005 in Cairo, Egypt

Resolution of the Twelfth Meeting of International Steering Committee for Global Mapping

1. Global Map data release and participation:
 - a. The ISCGM acknowledges the continuous efforts of the participating organizations and the assistance of the Secretariat to develop the Global Map data.
 - b. The ISCGM encourages the Secretariat to accelerate its action for releasing Global Map data that are not fully compliant with the Global Map specifications or that do not have all the data layers, with appropriate metadata so as to enhance data availability as soon as possible.
 - c. While there has been significant progress in developing Global Map version 1.0 since the Eleventh ISCGM Meeting, those participating countries that have not yet completed their contribution are strongly encouraged to do so.
 - d. While there has been a steady increase in the number of countries participating in Global Mapping since the Eleventh ISCGM Meeting, further efforts should be made to encourage nations not yet participating to join. In this respect, an approach from Members, Advisors, Liaison organizations and other related organizations are encouraged.
2. World Summit on Sustainable Development (WSSD)
 - a. ISCGM, as an implementation agency under the Type II Partnership/Initiative of WSSD and an organization with Roster consultative status granted by ECOSOC, UN, resolves to utilize this status to search for funding, to establish partnerships with the appropriate organizations, and to encourage participation in, and contribution to, the Global Map project.
 - b. Recognizing the continued opportunities provided by being a WSSD implementing agency and an organization with Roster consultative status of ECOSOC, the ISCGM resolves to continue participating in WSSD follow-up activities, such as the Commission on Sustainable Development (CSD) and other appropriate activities as identified by the Secretariat.
3. Global Mapping portal development
 - a. The ISCGM resolves to promote the use of web mapping portals to facilitate the use of Global Map and other data sets together to address issues of sustainable development, urgent disaster recovery, among other applications. The ISCGM will begin the process of identifying data sets that work in conjunction with the Global Map data to address global and regional environmental issues.

- b. The ISCGM gratefully acknowledges the assistance by ESRI in implementing web mapping through the creation of a portal as an extension of the existing grant program.
- 4. Specifications
 - a. The ISCGM gratefully acknowledges the completion of basic principles for the revision of the Global Map specifications by Working Group 2 chaired by India, and continues to encourage WG 2 to start detailed discussions on the revision work.
- 5. Commercial use
 - a. The ISCGM gratefully acknowledge the work of extending use of Global Map to commercial one, and continue to encourage Working Group 3 chaired by EuroGeographics to work on the remaining issues such as license agreement.
- 6. Global raster data development
 - a. The ISCGM gratefully acknowledges the completion of Global raster data development plan by Working Group 4 chaired by Prof. Ryutaro Tateishi of Chiba University and continues to support the WG4 activities on the development of raster data.
 - b. The ISCGM encourages participating organizations in the Global Mapping project to cooperate with the implementation of Global raster data development plan, especially in identification of ground truth data and validation of developed data.
- 7. Capacity building
 - a. Recognizing the significant importance of capacity building in enhancing the development of Global Map, the ISCGM gratefully acknowledges the contribution of the organizers and the supporters of Global Mapping Seminars in Nairobi, Kenya, including the Global Mapping Partnership Program of the Japanese government, the Regional Centre for Mapping of Resources for Development (RCMRD), the Japan International Cooperation Agency (JICA), the Survey of Kenya and the Kenya Institute of Surveying and Mapping.
 - b. The ISCGM continues to gratefully acknowledge the implementation of the Global Map/GSDI grant made in the memory of Prof. John E. “Jack” Estes by Mr. Jack Dangermond of ESRI.
 - c. The ISCGM gratefully acknowledges a new capacity building grant from INTERGRAPH through President Preetha Pulusani and looks forward to its implementation.
 - d. The ISCGM gratefully acknowledges the role of the JICA group training course on Global Mapping held in Japan annually since 1994.

- e. ISCGM will continue to engage in capacity building activities with the appropriate partners.
8. Promotion of Global Map
- a. The ISCGM greatly appreciates the efforts to raise awareness of Global Map in various international conferences by ISCGM members and the ISCGM Secretariat on behalf of the ISCGM, including a workshop held on the occasion of GEO-4 meeting in Tokyo.
 - b. The ISCGM also continues to encourage the promotion of Global Map at every opportunity.
9. Earth Observation Summit
- Recognizing the adoption of GEOSS 10-Year Implementation Plan at the Third Earth Observation Summit held in Brussels, Belgium, in February 2005, and also acknowledging the activities of ISCGM as a participating organization in Group on Earth Observation (GEO), and recognizing the value of earth observation data and related activities, the ISCGM resolves to encourage its members to actively participate in GEO activities, especially as a representative of ISCGM at GEO-I meeting to be held in May 2005 focusing on the value of Global Map as a basis of integration of both earth observation data and socio-economic data.
10. Cooperation in the utilization of remotely sensed data
- The ISCGM reiterates its desire to use remotely sensed data, in particular, data from the ALOS satellite, for Global Mapping purposes, and strongly supports the GSI and the Secretariat in their discussions with JAXA to achieve this outcome.
11. Vote of Thanks
- The ISCGM gratefully acknowledges the support of the Egyptian Survey Authority for this meeting.



Special Resolution on Indian Ocean Disaster on 26th December 2005

We, the participants at the Twelfth Meeting of the ISCGM, 17 April, 2005, Cairo, Egypt:

Express our sincere and deepest sympathy to the people and countries affected by the Indian Ocean Disaster caused by earthquake and tsunami on 26 December 2004;

Recognize the necessity of geo-information for rescuing people, recovery and reconstruction from this kind of disaster, and importance of the role of NMOs which deal with geo-information;

Note that ISCGM has an established global network of NMOs with the mitigation of natural disasters as one reason for the development of Global Map;

Resolve that the ISCGM should take the following actions in close cooperation with NMOs and other related organizations:

- To discuss what NMOs can contribute to recovery from large scale disasters like the Indian Ocean Disaster in December 2004, including provision of topographic maps, aerial photography and mapping of affected areas,
- To ask participating organizations in the Global Mapping project to take necessary actions not only immediately when large scale disasters take place but also in establishing early warning systems,
- To enhance capacity building in disaster mitigating management to NMOs including preparation of good examples contributing to disaster mitigation by NMOs, and
- To enhance the use of Global Map by disaster mitigation related organizations as well as ISCGM itself.



Thirteenth Meeting of ISCGM

The Thirteenth Meeting of ISCGM is held on Nov 11, 2006 in Santiago, Chile

Resolution of the Thirteenth Meeting of International Steering Committee for Global Mapping

1. Participation and data release

- a) ISCGM acknowledges the continuing efforts of participating NMOs and the assistance of the Secretariat in developing Global Map data.
- b) While there has been an encouraging steady increase in the number of countries participating in the Global Mapping Project since the Twelfth ISCGM Meeting, further efforts should be made to encourage those countries not yet participating to become involved. In this respect, encouragements to these countries by Members, Advisors, Liaison organizations and other related organizations are suggested.
- c) While there has been significant progress in developing Global Map data version 1 since the Twelfth ISCGM Meeting, those participating countries that have not yet completed their contribution are strongly encouraged to submit these to the Secretariat by June, 2007 at the latest.
- d) ISCGM encourages the Secretariat to accelerate its efforts to release Global Map data. Remembering the resolution of the Tenth ISCGM meeting, to assist in this process ISCGM will accept and release data even though they do not fully comply with Global Map specifications as long as information is available on datum, spheroid, location (latitude and longitude), f-code, necessary attribute items and metadata. These data will be considered as non-official Global Map data. ISCGM shall encourage the concerned NMOs to produce official GM data without delay.

2. Strategic Plan

- a) ISCGM acknowledges the continuing efforts of WG1.
- b) ISCGM agrees the proposal on Acceleration Plan of Global Map Version 1 Data Development and strategy of Global Mapping Project Phase 3 from WG1.
- c) ISCGM encourages Members to support WG1 Activities.

3. Specification

- a) ISCGM acknowledges the continuing efforts of WG2.
- b) ISCGM accepts the revised Global Map Data Specifications (version 1.2.1) which is proposed from WG2.
- c) ISCGM encourages Members to support WG2 Activities.

4. Global raster data

- a) ISCGM celebrates the significant progress of global land cover data and global percent tree cover data development by WG4.

- b) ISCGM supports the work arrangements proposed by WG4 in its report towards the completion of Global Map version 1 data development.
- c) ISCGM encourages Members to support WG4 Activities.

5. Capacity building

- a) Recognizing the significant importance of capacity building in enhancing the development of Global Map, ISCGM gratefully acknowledges the contribution of the organizers and supporters of the Global Mapping Seminars in Dakar, Senegal, including the Global Mapping Partnership Program of the Japanese Government, the Japan International Cooperation Agency (JICA) and Direction des Travaux Geographiques et Cartographiques (DTGC) in Senegal.
- b) ISCGM gratefully acknowledges the role of the JICA group training course on Global Mapping which has been held in Japan annually since 1994.
- c) ISCGM continues to gratefully acknowledge the Global Map/GSDI grant program by ESRI and the capacity building grant program by INTERGRAPH.
- d) ISCGM encourages Members to contribute positively to capacity building activities.

6. User outreach

ISCGM acknowledges the outreach activities of Japan and encourages Members to actively engage in the outreach activities in order to accelerate the use of Global Map.

7. ISCGM web site

- a) ISCGM thanks the Secretariat for its continuing efforts in publicity and dissemination activities through the ISCGM website.
- b) ISCGM encourages the Secretariat to develop a multilingual website and encourages Member to support these activities.

8. Partnership with related organizations

ISCGM commends the efforts of the countries in Asia & the Pacific, Africa, and the Americas regions in establishing their regional framework database on Global Map data, and encourages Members in these regions to strengthen their collaboration with these regional initiatives in order to enhance the sustainability of the Global Mapping Project.

9. Disaster

ISCGM encourages WG1 to prepare for the establishment of a new working group on data preparedness for disaster mitigation, management and prevention.

10. GEO

- a) Recognizing the importance of geo-information in the establishment of GEOSS, ISCGM encourages Members, Advisors, Liaison organizations and other related organizations to strengthen their involvement in activities related to the intergovernmental organization of earth observations (GEO).

- b) ISCGM encourages NMOs to participate in the Global Mapping Project to contribute to the survey on fundamental geographic data being conducted as one of the ISCGM activities in GEO.

11. Next meeting

ISCGM gratefully acknowledges the proposal from the Ordnance Survey to host the next meeting in Cambridge and resolves to hold the next meeting on July 14th, 2007 at Cambridge.

12. Vote of Thanks

The ISCGM gratefully acknowledges the Military Geographic Institute of Chile for hosting and supporting this meeting.



Fourteenth Meeting of ISCGM



The Fourteenth Meeting of ISCGM is held on Jul 14, 2007 in Cambridge, United Kingdom

Resolutions of the Fourteenth Meeting of the ISCGM

1. Participation and Data Development

- a) Recognizing that more than one third of global land becomes covered by Global Map Version 1, ISCGM acknowledges the continuing efforts of participating organizations and the assistance of the Secretariat in developing Global Map data.
- b) While there has been an encouraging steady increase in the number of countries participating in the Global Mapping Project since the Thirteenth ISCGM Meeting, further efforts should be made to encourage those countries not yet participating to become involved. In this respect, encouragements to these countries by Members, Advisors, Liaison organizations and other related organizations are suggested.
- c) While there has been significant progress in developing Global Map data version 1 since the Thirteenth ISCGM Meeting, those participating countries that have not yet completed their contribution are strongly encouraged to submit these to the Secretariat by December, 2007 at the latest.
- d) ISCGM encourages the participating organizations of which Global Map data is under verification and the Secretariat to accelerate their verification process and increase the areas covered by Global Map version 1 as much as possible by December 2007.
- e) ISCGM encourages the Secretariat to accelerate its efforts to release Global Map data. Remembering the resolution of the Tenth ISCGM Meeting, to assist in this process ISCGM will accept and release data even though they do not fully comply with Global Map specifications. These data considered as non-official Global Map will be released in 2008.

2. Release of Global Map

- a) ISCGM resolves to release Global Map Version 1 with global coverage at appropriate dates in 2008.
- b) ISCGM encourages members, participating organizations and the Secretariat to actively publicize Global Map. ISCGM acknowledges the significance and needs of participating organizations on releasing their Global Map data from their websites

and recommends that participating organizations interested and the Secretariat jointly examine releasing Global Map data from the participating organizations.

- c) ISCGM resolves to release Global Map with user friendly formats in addition to the officially formatted Global Map.

3. Global Map Outreach Activities

- a) ISCGM acknowledges the outreach activities of Japan and encourages Members to actively engage in the outreach activities in order to accelerate the use of Global Map.
- b) ISCGM anticipates that the above-mentioned outreach activities will lead to a broad and effective use of Global Map for research and policy formulation for environmental protection, mitigation of natural disasters and the achievement of sustainable development.
- c) ISCGM encourages the Secretariat and participating organizations to take actions for disaster mitigation, management and prevention and encourages the Members to support these activities.

4. Strategic Plan

- a) ISCGM acknowledges the continuing efforts of WG1.
- b) ISCGM agrees the amended strategy of Global Mapping Project Phase 3 from WG1.
- c) ISCGM encourages Members to support WG1 Activities.

5. Specification

- a) ISCGM acknowledges the continuing efforts of WG2.
- b) ISCGM endorses the revised Global Map Data Specifications (version 1.3) which is proposed from WG4 through WG2.
- c) ISCGM acknowledges the activities of core members on specifications and formats for Global Map Version 2 and encourages them to complete the work.
- d) ISCGM encourages Members to support WG2 Activities.

6. Global raster data

- a) ISCGM celebrates the significant progress of global land cover data and global percent tree cover data development by WG4.
- b) ISCGM supports the work arrangements proposed by WG4 in its report towards the completion of Global Map version 1 data development.
- c) ISCGM calls for the participating organizations to actively respond to intermediate validation to be conducted by WG4 from August 2007 to October 2007.
- d) ISCGM encourages Members to support WG4 Activities.

7. Capacity building

- a) Recognizing the significant importance of capacity building in enhancing the development of Global Map, ISCGM gratefully acknowledges the contribution of the

organizers and supporters of the Global Mapping Seminars in Dakar, Senegal, including the Global Mapping Partnership Program of the Japanese Government, the Japan International Cooperation Agency (JICA) and Direction des Travaux Geographiques et Cartographiques (DTGC) of Senegal.

- b) ISCGM gratefully acknowledges the role of the JICA group training course on Global Mapping which has been held in Japan annually since 1994.
- c) ISCGM continues to gratefully acknowledge the Global Map/GSDI grant program by ESRI and the capacity building grant program by INTERGRAPH.
- d) ISCGM encourages Members to contribute positively to capacity building activities.

8. Partnership with related organizations

- a) ISCGM commends the efforts of the countries in Asia & the Pacific, Africa, and the Americas regions in establishing their regional framework database on Global Map data, and encourages Members in these regions to strengthen their collaboration with these regional initiatives in order to enhance the sustainability of the Global Mapping Project.
- b) ISCGM welcomes the establishment of cooperation with OneGeology project and encourages the Secretariat to continue necessary communication to strengthen such cooperative activities.
- c) ISCGM will continue to cooperate with ICA and JBGIS in supporting initiatives that support disaster management.
- d) ISCGM welcomes the United Nations Spatial Data Infrastructure (UNSDI) of initiative of the UN Geographic Information Working Group (UNGIWG) which seeks to enhance interoperability and data-sharing practices among UN entities, partner organizations and member states.

9. GEO

Recognizing the importance of geo-information in the establishment of GEOSS, ISCGM encourages Members, Advisors, Liaison organizations and other related organizations to strengthen their involvement in activities related to the intergovernmental organization of earth observations (GEO).

10. Next meeting

ISCGM encourages the Members and the Secretariat to cooperate in the establishment of a date and venue of the next ISCGM meeting as early as possible.

11. Vote of Thanks

The ISCGM gratefully acknowledges Ordnance Survey for hosting and supporting this meeting.



Fifteenth Meeting of ISCGM



The Fifteenth Meeting of ISCGM is held on 4 June, 2008 in Tokyo, Japan

Resolutions of the Fifteenth Meeting of the ISCGM

1. Participation and Data Development

- a) Recognizing that approximately 60% of the terrestrial surface of the earth (with the exception of two layers) has been covered by Global Map Version 1, ISCGM acknowledges the continuing efforts of participating organizations and the assistance of the Secretariat in developing Global Map data.
- b) Recognizing that Version 1 of Global Land Cover and Global Percent Tree Cover (Vegetation) have been completed, ISCGM acknowledges the efforts of Working Group 4 (Raster Data) and the National Mapping Organizations of 41 countries which have contributed to providing ground truth data and intermediate validation results.
- c) While there has been an encouragingly steady increase in the number of countries participating in the Global Mapping project since the Fourteenth ISCGM Meeting, further efforts should be made to encourage those countries not yet participating to become involved. In this respect, Members, Advisors, Liaison Organizations and other related organizations should encourage increased participation.
- d) While there has been significant progress in development of Global Map Version 1 since the Fourteenth ISCGM Meeting, those participating countries that have not yet completed their contribution are strongly encouraged to submit these to the Secretariat by December 2008 at the latest.
- e) ISCGM encourages the participating organizations whose Global Map data is under verification and the Secretariat to accelerate the verification process and increase the areas covered by Global Map Version 1 as much as possible by December 2008.

2. Release of Global Map

- a) ISCGM resolves to release Global Land Cover (GLCNMO) and Global Percent Tree Cover (Vegetation) as layers of Global Map Version 1 on 5 June 2008.
- b) Recalling the resolution of the Fourteenth ISCGM Meeting, ISCGM agrees with the release of non-official Global Map created using existing data from Global Map Version 0 by the Secretariat and not authorized by concerned countries or regions on 5 June 2008.
- c) ISCGM encourages Members, Advisors, Liaison Organizations, and other participating organizations and the Secretariat to continue to publicize Global Map.

3. Global Map Outreach Activities

- a) ISCGM acknowledges the outreach activities of Japan such as holding a symposium on Global Map by the Ministry of Land, Infrastructure, Transport, and Tourism and encourages Members to actively engage in similar outreach activities in order to accelerate the use of Global Map.
- b) ISCGM anticipates that the above-mentioned outreach activities will lead to a broad and effective use of Global Map for research and policy formulation for environmental protection, mitigation of natural disasters and the achievement of sustainable development and for education and other purposes.
- c) ISCGM encourages the Secretariat and participating organizations to take action to make a list of contact points which could be used for collecting opinions on Global Map.

4. Strategic Plan

ISCGM encourages Working Group 1 (Strategic Plan) to create a detailed strategic plan for Phase 3 in accordance with the draft document on revised Global Map Data Specifications (version 1.3) by Working Group 2 (Specifications).

5. Specifications

- a) ISCGM acknowledges the continuing efforts of Working Group 2 (Specifications) and its core members and encourages them to complete the revision of the specifications as soon as practical.
- b) ISCGM encourages Members to support Working Group 2 (Specifications) activities.

6. Capacity Building

- a) Recognizing the significant importance of capacity building in enhancing the development of Global Map, ISCGM gratefully acknowledges the activities of the Joint Board of Geospatial Information Societies (JBGIS) in capacity building in Africa and the contribution of the organizers and supporters of the Global Mapping Seminars in Dakar, Senegal, including the Global Mapping Partnership Program of the Japanese Government, the Japan International Cooperation Agency (JICA), and

Direction des Travaux Geographiques et Cartographiques (DTGC) of Senegal.

- b) Recognizing that the Kenya Institute of Surveying and Mapping was established with the support of the Japanese government through the Japanese International Cooperation Agency (JICA) and the Government of Kenya through the Director of Surveys, the Institute has been and can continue to be, with JICA support, utilized for capacity building in the region.
 - c) ISCGM gratefully acknowledges the cooperation of the Pan-American Institute for Geography and History (PAIGH) in coordinating and assisting in the development of Global Map of Americas.
 - d) ISCGM gratefully acknowledges the role of the Japan International Cooperating Agency (JICA) group training course on Global Mapping which has been held in Japan annually since 1994.
 - e) ISCGM continues to gratefully acknowledge the Global Map/GSDI grant program by ESRI and the capacity building grant program by Intergraph.
 - f) ISCGM encourages Members to contribute positively to capacity building activities.
7. Partnership with Related Organizations
- a) ISCGM will continue to cooperate with the International Cartographic Association (ICA) and the Joint Board of Geospatial Information Societies (JBGIS) in supporting initiatives that support disaster management and capacity building in Africa.
 - b) ISCGM will continue to cooperate with the OneGeology project.
8. Group on Earth Observations (GEO)
- Recognizing the importance of geo-information in the establishment of the Global Earth Observation System of Systems (GEOSS), ISCGM encourages Members, Advisors, Liaison Organizations and other related organizations to strengthen their involvement in activities related to the intergovernmental Group on Earth Observations (GEO).
9. Next Meeting
- ISCGM encourages the Members and the Secretariat to cooperate in the establishment of a date and venue for the Sixteenth ISCGM Meeting as soon as possible.
10. Vote of Thanks
- The ISCGM gratefully acknowledges the Geographical Survey Institute for hosting and supporting this meeting. The Committee also gratefully acknowledges the extraordinary efforts of the ISCGM Secretariat in preparing and hosting this meeting; in organizing and conducting the Global Mapping Forum 2008; and in providing expert technical support to all participating nations.



Sixteenth Meeting of ISCGM



The Sixteenth Meeting of ISCGM is held on 25 October, 2009 in Bangkok, Thailand

Resolutions of the Fifteenth Meeting of the ISCGM

1. Strategic Plan

ISCGM welcomes the efforts related to a new framework under the leadership of the United Nations. Strengthening the cooperation with the United Nations is of great importance for ISCGM.

2. Participation and Data Development

- a) ISCGM appreciates the ongoing efforts of the NMOs participating in the preparation of Global Map.
- b) Data preparation and provision by the countries participating in Global Map have progressed steadily since ISCGM15. Participating countries, advisers, liaison organizations and related organizations should continue this support so that both data preparation and data provision will be accelerated.

3. Specifications and their applications

- a) ISCGM appreciates the input of many NMOs to the revision of Global Map Specifications.
- b) ISCGM adopts the Specification Version 2 submitted in response to the result of the “International Workshop on the Revision of Specifications for Global Map Version 2” held 8 to 10 September, Tsukuba, Japan.
- c) The preparation of manuals supporting the new specifications will be provided in consultation with Working Group 2. The importance of personnel training, quality evaluation, and management must be recognized, and data maintenance should be started in conformity with the adopted specifications.

4. Release of Global Map

ISCGM now offers data in user friendly format as well as in standard format. It is proposed that a similar approach be used for Version 2.

5. Global Map outreach Activities

ISCGM supports the expansion of the use of Global Map in each country, for example the Framework Convention on Climate Change meeting.

6. Next Meeting

Possible venues for the next ISCGM meeting scheduled for 2010 were discussed, including GSDI 12 in Singapore and FIG in Sydney, and the Secretariat would take this under consideration once the budget has been established.

7. Vote of Thanks

Thank the Secretariat for the organization of this meeting, and commend the ongoing efforts of the Secretariat in the production of Global



Seventeenth Meeting of ISCGM



The Seventeenth Meeting of ISCGM is held on 17 October, 2010 in Singapore

Resolutions of the Seventeenth Meeting of the ISCGM

1 . Participation and Data Development

- a) ISCGM acknowledges the efforts of the participating NMOs which are continuing Global Map development.
- b) ISCGM encourages the participating NMOs to develop Global Map Version 2 and to share their experiences. To further accelerate Global Map Version 2 development and release, support from participating NMOs, advisers, liaison organizations and related organizations are important.
- c) ISCGM acknowledges the efforts of the ISCGM secretariat and Working Group 2 for the preparation of the “Manual for Development and Revision of Global Map Based on Global Map Specifications Version 2”.
- d) Recognizing the importance of working closely with regional organizations to encourage NMOs to actively participate in Global Map, ISCGM members are encouraged to participate in regional organization (i.e., PCGIAP, PCIDEA) activities and to actively participate in these.

2. Strategic Plan

- a) The Secretariat will prepare a data viewer for Global Map Version 2.
- b) The Secretariat will study the feasibility of web mapping service including collection of information from private companies and construction of test sites jointly with the participating NMOs interested.
- c) The Secretariat will investigate the necessity and feasibility of developing Global Map coverage at larger scales. The Secretariat and Working Group 2 will discuss the specifications.

3. Response to GGIM

ISCGM welcomes the new framework on Global Geospatial Information Management under the leadership of the United Nations. ISCGM will actively participate in the framework to promote the use of Global Map for addressing global issues.

4. Global Map outreach Activities

ISCGM supports the activities for expanding users of Global Map at international conferences such as the Framework Convention on Climate Change, the Convention on Biological Diversity, Group of Earth Observations, ICC, and ISPRS.

5. Next Meeting

Possible venues for the next ISCGM meeting scheduled for 2011 were discussed, including Cambridge Conference in Southampton, UK, and the Secretariat will take this under consideration once the budget has been established.

6. Vote of Thanks

A vote of thanks was given to the Secretariat for the organization of this meeting, and a commendation for their ongoing efforts in the production of Global Map.



The Eighteenth Meeting of the ISCGM



The Eighteenth Meeting of the ISCGM was held on 25 June 2011 in Winchester, U.K.

Resolutions of the Eighteenth Meeting of the ISCGM

1. Data Development

- a) ISCGM acknowledges the efforts of the participating NMOs toward the development of Global Map Version 2.
- b) ISCGM encourages the participating NMOs to develop and release Global Map Version 2, and to submit their data even if they do not have all the layers. The ISCGM decided that data at a scale of 1:1,000,000 is standard and that data at scales of 1:250,000 or larger using existing specifications is optional and acceptable.
- c) To further accelerate Global Map Version 2 data development and release, the ISCGM decided to strengthen cooperation with regional bodies such as PCGIAP, PCIDEA and PAIGH to encourage the data submission from NMOs of respective regions.
- d) ISCGM encourages the participating NMOs to submit training data and validation data for Global Land Cover (GLCNMO) Version 2 and Global Percent Tree Cover Version 2 which are being developed by WG4 and the Secretariat.
- e) ISCGM acknowledges the efforts of the ISCGM Secretariat for the preparation of the “Global Map Metadata Editor” and “Global Map Data Check Software” for Global Map Version 2.

2. Specifications

- a) ISCGM welcomes adoption of the Specifications Version 2.1 in June 2011.
- b) ISCGM encourages WG2 in consultation with WG4 to draft Global Map Specifications Version 2.2 with inclusion of a higher resolution of raster data.

3. Development of a larger-scale Global Map for the Phase 4 (2013-)
 - a) ISCGM requests the Secretariat and Working Group 2 to further study specifications for the data development at 1:250,000 scale based on the result of questionnaire survey to NMOs and users.
 - b) ISCGM requests the Secretariat to prepare technical aspects for the data development at 1:250,000 scale. It is expected that such changes in existing specifications will be minimum.
4. Promotion of data use
 - a) ISCGM encourages the Secretariat to further investigate the user needs through the questionnaire surveys to users, etc.
 - b) ISCGM acknowledges that the Secretariat will develop a test conversion of Global Map data into Geospatial PDF and investigate the user needs.
 - c) ISCGM encourages all NMOs to respond to the Secretariat's requests in these respects.
5. Global Map Outreach Activities

ISCGM supports the activities for expanding users of Global Map at international conferences such as the Conference of the Parties of the Framework Convention on Climate Change, Group of Earth Observations, World Water Forum, Rio+20, ICC, ISPRS and UNGGIM.
6. Next Meeting

Possible venues for the next ISCGM Meeting scheduled for 2012 were discussed, including the Nineteenth UN Regional Cartographic Conference for Asia and the Pacific or UNGGIM, and the Secretariat will take this into consideration once the budget has been established.
7. Vote of Thanks

ISCGM expresses its sincere appreciation to the Ordnance Survey and the Secretariat for the organization of this meeting, and also appreciates the ongoing efforts of the Secretariat in the production of Global Map.



The Nineteenth Meeting of the ISCGM



The Nineteenth Meeting of the ISCGM was held on 12 August 2012 in New York, USA.

Resolutions of the Nineteenth Meeting of the ISCGM

1. Data Development
 - a) ISCGM acknowledges the continuing effort of the participating NMOs toward the development of Global Map Version 2.
 - b) ISCGM encourages the participating NMOs to develop and release Global Map Version 2 by December 2012.
 - c) ISCGM acknowledges the effort of WG4 in developing Global Land Cover (GLCNMO) Version 2 and Global Percent Tree Cover Version 2 and encourages the participating NMOs to cooperate in the validation work.
 - d) ISCGM acknowledges the effort of the ISCGM Secretariat for the preparation of the “Global Map Data Check Software version 2” with the manual in English, French, Spanish, and Russian.
 - e) ISCGM recommends the participating NMOs to describe source data information in metadata.
 - f) ISCGM encourages the Secretariat to conduct a pilot study to improve positional accuracy of Global Map data around international borders.
2. Specifications
 - a) ISCGM adopts the Specifications Version 2.2 for higher resolutions of raster data.
 - b) ISCGM encourages WG2 to draft Specifications Version 3.
 - c) ISCGM encourages the Secretariat to further study the standardization of the Specifications to ISO.
3. Rio+20
 - a) ISCGM acknowledges the significant efforts of the Government of Japan, United Kingdom and Brazil to promote the awareness of the importance of Global Map in Rio+20.
 - b) ISCGM encourages the NMOs to further actively participate in the Global Mapping Project for realizing sustainable development.

4. Response to UNGGIM
 - a) ISCGM believes in the importance of global mapping for sustainable development, and will support the development of “a Global Map for Sustainable Development.”
 - b) NMOs should have a significant role in the development of “a Global Map for Sustainable Development.”
5. Global Map Outreach Activities
 - a) ISCGM supports the activities for expanding users of Global Map at international conferences such as the Conference of the Parties of the Framework Convention on Climate Change, Group of Earth Observations, ICC and ISPRS.
 - b) ISCGM acknowledges the effort of Ministry of Land, Infrastructure, Transport and Tourism of Japan for the preparation of the “Print-ready Global Map” in Geospatial PDF format.
6. Next Meeting

Possible venues for the next ISCGM Meeting scheduled for 2013 were discussed, including the tenth UN Regional Cartographic Conference for Americas or UNGGIM, and the Secretariat will take this into consideration once the budget has been established.
7. Vote of Thanks

ISCGM expresses its sincere appreciation to the Secretariat for the organization of this meeting, and also appreciates the ongoing efforts of the Secretariat in the production of Global Map.



The Twentieth Meeting of the ISCGM



The Twentieth Meeting of the ISCGM was held on 20 July 2013 in Cambridge, U.K.

Resolutions of the Twentieth Meeting of the ISCGM

1. Replacement of Chair
 - a) ISCGM received an announcement from Professor D. R. Fraser Taylor that he will step down from Chairperson of ISCGM.
 - b) ISCGM appointed Dr. Paul Cheung of National University of Singapore who was recommended by the Chair Selection Committee as the new chair of ISCGM with approval from the meeting.
2. Promotion of participation
 - a) In order to drive forward the Global Mapping Project around the world, ISCGM encourages those countries which have not yet participated, to do so.
 - b) For this purpose, ISCGM Members and the Secretariat make every effort to encourage countries to participate by pointing out the advantages of so doing.
3. Data Development
 - a) ISCGM encourages those countries which have not completed the development and release of Global Map Version 2 data to continue their activities and complete them within one year.
 - b) ISCGM welcomes the development of GLCNMO and Global Percent Tree Cover as part of Global Map Version 2 and appreciate the efforts of WG4 led by Professor Ryutaro Tateishi and those from the participating countries through data verification.
 - c) ISCGM should continue discussions to start the development of Global Land Cover and Vegetation data for Global Map Version 3. WG4 is in charge of these discussions, and ISCGM requests the Secretariat to support WG4.

- d) ISCGM initiates the development of global elevation data in 15 arc second resolution which is the same resolution as GLCNMO and Percent Tree Cover data in version 2 by converting existing global elevation data. ISCGM Secretariat will develop and release the data upon completion.

4. Data Policy

In order to promote the use of Global Map data, it is suggested that ISCGM begin discussions to simplify the expressions of data policy of member states.

5. Response to UN-GGIM

- a) ISCGM appreciates the ongoing efforts of participating organizations for their verification of the accuracy of Global Map.
- b) ISCGM believes in the importance of the activities of UN-GGIM and GM4SD, and will support their activities.
- c) ISCGM encourages participating countries to continue to make an active contribution to any activities which ISCGM is asked to engage in by UN-GGIM.

6. Next Meeting

Possible venues for the next ISCGM Meeting scheduled for 2014 were discussed, including the Fourth Session of UN-GGIM and the Secretariat will take this into consideration once the budget has been established.

7. Vote of Thanks

- a) Professor Taylor has contributed to the Global Mapping Project over eleven years by increasing the number of the project participating countries, and having started the provision of GLCNMO, among other achievements. Taking the occasion of his retirement from the chair, ISCGM expresses its deep appreciation to him, and his able leadership.
- b) ISCGM also expresses its sincere gratitude to Ordnance Survey and the Secretariat for the organization of this meeting.



The Twenty-first Meeting of the ISCGM



The Twenty-first Meeting of the ISCGM was held on 5 August 2014 in New York, USA.

Resolutions of the Twenty-first Meeting of the ISCGM

1. Strategic consideration on the future direction of global mapping activities by ISCGM:

- a) The participants of the 21st ISCGM meeting reaffirmed that the original purpose and objectives of the Committee written about 20 years ago in its Constitution, which aims to foster the development of Global Map with known and verified quality with consistent specifications and open to the public to facilitate sustainable development, are still relevant today. The participants also acknowledged that there is high expectation in the work of the Committee in continuing its efforts on global mapping to address sustainable development agenda as entrusted by UN-GGIM.
- b) On the other hand, the participants shared their views on the current circumstances of ISCGM that the last few years saw a growing number of global maps of varying quality through many global mapping efforts by governments, private companies, and NGOs, causing confusion among the users, while the global maps prepared so far through the ISCGM initiative may not have been well used by sustainable development community including diplomats at the UN for their decision-making.
- c) Based on this understanding, the participants strongly suggested that ISCGM should work closely not only with member states, but also NGOs, industry and regional/international organizations to develop a coordinating mechanism among these bodies and initiatives by enhancing interoperability and consistency to ensure that global map products through ISCGM will be authoritative and accurate, have known and verified quality with consistent specifications, and be open to the public, so that they will be able to underpin local, national and regional initiatives as well as supporting informal sources. It was further suggested that ISCGM should be proactive to respond to global users and bring together geospatial information to solve problems in the context of the sustainable development agenda in the UN by changing directions in terms of data scale, by adding new layers, linking with marine and other data sets, and enhancing the capacity building, while continuing its ongoing efforts including global land cover data development toward 2015.

2. ISCGM's new activities

- a) ISCGM welcomed the new initiatives proposed by the Secretariat, the Catalogue Service and the Web Platform for Urban Hazard Maps, for promoting the application of geospatial information, and agreed that the Secretariat continues to work on these two initiatives. ISCGM encouraged the participating members of the 1:1 million scale Global Mapping Project to provide continued support needed for these initiatives including the provision of information.
- b) It was agreed that the Third World Conference on Disaster Risk Reduction (WCDRR) to be held in Sendai, Japan in March 2015 will be a good opportunity to introduce the two new initiatives as Web-based operational services.

3. Enhancing the cooperation with UN-GGIM and its regional bodies

- a) In order to enhance the cooperation between ISCGM and those of respective regions, and to coordinate with the activities of the United Nations, heads of respective regional bodies of the UN-GGIM were invited to serve as vice chairpersons of ISCGM.
- b) ISCGM made an amendment to rules necessary for this procedure.

4. Data management policy

ISCGM requested the Secretariat to continue to refine the proposed data management policy through further consultation with member states and report the result back to the Committee at the next meeting.

5. Next meeting

The holding of the next meeting will be considered at the Secretariat taking the future session of the UNCE-GGIM into account as the priority option.

6. Vote of thanks

ISCGM expressed its sincere gratitude to the United Nations Statistics Division and the Secretariat for the organization of this meeting.

The Twenty-second Meeting of the ISCGM



The International Steering Committee for Global Mapping (ISCGM) convened its 22nd meeting on 4 August 2015 in New York in conjunction with the fifth session of the Committee of Experts on Global Geospatial Information Management (UN-GGIM). A total of 67 members and observers from 22 countries, 9 international organizations and 5 private companies attended the meeting, and discussed the importance of geospatial information for disaster risk reduction, and the critical issues on Global Mapping as well as the future activities of conventional global mapping.

Resolutions of the Twenty-second Meeting of the ISCGM

1. Importance of Geospatial Information for Disaster Risk Reduction

Based on the presentations by the representatives from Indonesia, Japan, Mexico, Norway and the World Bank on geospatial applications for disaster management, the participants of the 22nd ISCGM meeting:

- a) Expressed appreciation for the efforts made by the ISCGM Secretariat in actively participating in the Third World Conference on Disaster Risk Reduction in Sendai, Japan in March 2015 by organizing a side event and other advocacy activities, and contributing to the Sendai Framework 2015-2030 in addressing the important role of geospatial information in disaster risk reduction.
- b) Reaffirmed the usefulness of providing timely geospatial information including aerial and satellite images in case of emergency.
- c) Stressed the importance of strengthening the cooperative relationship between ISCGM and the countries in collecting the best practices on hazard map applications, and sharing them through the web portal.
- d) Urged the ISCGM Secretariat to make continued effort in improving and updating the Urban Hazard Maps Web Portal as a knowledge base on urban hazard maps.
- e) Agreed on the crucial role of the international agencies, especially the World Bank, in helping the developing countries increase their capabilities of preparing urban hazard maps.

2. Critical issues on Global Mapping

Based on the presentations by the representatives from ESRI, DigitalGlobe and Leibniz University Hannover, the participants of the 22nd ISCGM meeting:

- a) Agreed on the importance of the following activities.
 - i) New classification of global land surface such as Ecological Land Unit (ELU):
For developing a standard, robust and practical global ecosystems classification for the planet's terrestrial, freshwater and marine ecosystems, using various land classes in each land theme (Bioclimate, Landform, Lithology, Land cover) can make detailed ELUs to utilize in various environmental applications.
 - ii) Acquisition of multi-time, multi-temporal and multi-spectral high resolution satellite images:
Location-time-context based new mapping paradigm is becoming important due to earth observation by various satellites with multiple times, scales and bands. Also the technology evolution in geospatial information area made new cartography paradigm such as 3D mapping. To meet the demand based on these new paradigms, earth observation is becoming growingly important.
 - iii) Research on the global status of topographic mapping:
There has been a significant progress on the topographic map coverage in many countries since 1986. Since there still exist no coverage areas, and in light of importance of topographic maps for a variety of applications, however, this research should be regularly conducted.
- b) Encouraged the ISCGM Secretariat to consider how ISCGM can contribute to the above activities and to report back in the 23rd meeting of the ISCGM.

3. Global Map Data Development

Based on the presentations by ISCGM secretariat, the participants of the 22nd ISCGM meeting:

- a) Encouraged the participating members of Global Mapping Project to provide updated data and continued support.
- b) Welcomed the report that the development of Global Land Cover by National Mapping Organizations (GLCMNO) 2013 will be completed in 2016 and appreciated the effort of WG4.
- c) Took note of the need for validation of GLCMNO 2013 with the cooperation of NGIAs, and encouraged the ISCGM Secretariat to organize a validation project with WG4.

4. Next meeting

The convening of the next ISCGM meeting will be considered in conjunction with a future session of UN-GGIM as the priority option.

5. Vote of thanks

The participants expressed its sincere gratitude to the United Nation Statistics Division and the ISCGM Secretariat for the successful organization of the meeting.

The Twenty-third Meeting of the ISCGM



The Twenty-third Meeting of the ISCGM was held on 2 August 2016 in New York, USA.

Resolutions of the Twenty-third Meeting of the ISCGM

1. Under the understanding that the Global Mapping project is going to conclude in the end of March 2017, ISCGM agrees not to gather anymore after the 23rd meeting.
2. ISCGM acknowledges the Global Map transfer Plan and instructs the secretariat to conduct it.
3. ISCGM instructs the secretariat to register the contents of the Urban Hazard Maps Web Portal to the Knowledge Base of UNCE-GGIM.

ISCGM Secretariat will keep its minimum function until Mar. 2017 for carrying out the Global Map transfer Plan, not continuing the following.

- a) Update of the Internet site except the matters related to the report of the 23rd meeting.
- b) Administrating works related to the participation to the project, developing and updating Global Map data, and so on.

Urban Hazard Maps Web Portal will be closed after completion of registering to Knowledge Base.

