

2003 Evian Interim Compliance Report Information and Communication Technology

Commitment:

2003 – 69: “Developing close co-ordination of global observation strategies to minimise data gaps by improving world-wide reporting and archiving of the data on atmosphere, land, fresh water, oceans and ecosystems and build on existing work to produce reliable data by spring’s Tokyo ministerial conference”.

Background:

The G8 recognizes the need to foster sustainable development through the co-ordinated use of information and communication technology (ICT). The G8 believes that cooperation on global observation strategies offers the potential to better public health and the plight of developing countries. The fulfilment of this commitment would help achieve other objectives endorsed by the G8, namely the Millennium Development Goals (MDGs) as well as the objectives outlined at the World Summit on Sustainable Development (WSSD), through access to ICT and more reliable sources of information on environmental data.

Assessment:

Score	Lack of Compliance -1	Work in Progress 0	Full Compliance +1
Canada			+1
France			+1
Germany			+1
Italy			+1
Japan			+1
Russia			+1
United Kingdom			+1
United States			+1
Overall			1.00

Individual Country Compliance Breakdown:

1. Canada: +1

The Government of Canada stated that CDN\$2 billion will be spent over the next five years to help implement measures to support organizations and institutions that will improve the Canadian environment through the improvement of developmental technology and the furthering atmospheric sciences. The Canadian government has also planned an investment of CDN\$340 million over two years to improve air quality and address contaminated sites, better assess and manage toxic substances, and further protect Canada’s species at risk. It has also indicated that the government will contribute CDN\$600 million over a period of five years to upgrade, maintain and monitor water and waste water systems. Moreover, an additional CDN\$74 million over two years has been committed to by the government as an initial investment for the

establishment of five new national marine conservation areas and to restore the ecological health of existing parks.⁷⁴

The Canadian government stated its intended plans to allocate CDN\$154 million to the Natural Sciences and Engineering Research Council of Canada. The government strengthened its support for the development and demonstration of technology that relates to the atmosphere and clean air by investing an additional CDN\$250 million in 2003–04 in the Sustainable Development Technology Canada foundation. In addition, the government has committed to providing an additional CDN\$50 million in 2003–04 to increase climate and atmospheric research activities, with the aim of directing these funds to the Canadian Foundation for Climate and Atmospheric Sciences. The Government of Canada will provide CDN\$600 million over the next five years, including an initial investment of CDN\$200 million in the next two years, to upgrade, maintain and monitor water and wastewater systems.⁷⁵

Canada's Minister of the Environment, David Anderson, addressed the Earth Observation Summit in Washington D.C. on 31 July 2003. Anderson noted that the Summit was “an opportunity to bring ‘political will power’ to bear on what has been to date, on the most part, a technical discussion”.⁷⁶ Anderson assured the Summit participants that “Canada will bring its scientific and technical expertise to help bridge the gap between the challenges before us and their solutions”.⁷⁷ He further emphasized the need to fill the data gap in two areas: the Arctic and oceans. As a commitment to these initiatives, Environment Canada launched a website <<http://climate.weatheroffice.ec.gc.ca>> at the Summit that provides a portal to its national Climate Data Archive, dating back to 1840.⁷⁸

Minister of the Environment David Anderson addressed the World Climate Change Conference in Moscow on 29 September 2003, where he emphasized the need to intensify the collection of sound scientific data to refine our understanding of climate change.⁷⁹ Anderson noted Canada and Russia's close working relationship in this undertaking as fellow circumpolar countries. In his address, Anderson referred to the Earth Observation Summit in Washington, D.C. that reminded the globe of the “gaps in our capacity to observe the atmosphere, oceans and land. Inadequate coverage of the arctic was one of the most glaring of those gaps. We know too little about such a large and threatened region. Countries like Canada and Russia and our other circumpolar partners need to work together to ensure that measurement tools are in place to give us the data that will indeed allow for a clearer understanding of the work that we must do”.⁸⁰

Canada's partnership with Russia to work on Arctic issues was again emphasized through their cooperation in the Group on Earth Observations (GEO), the Arctic Council, and the Arctic and

⁷⁴ Department of Finance Canada. “2003 Budget” www.cbc.ca/budget2003/budget03/bp/bpc1e.htm

⁷⁵ Department of Finance Canada. “The Budget Plan 2003” www.cbc.ca/budget2003/budget03/pdf/bp2003e.pdf

⁷⁶ Environment Canada, “Country Statement, The Honourable David Anderson, M.P., P.C, Minister of the Environment, At the Earth Observation Summit,” 31 July 2003 www.ec.gc.ca/Press/2003/030731_s_e.htm

⁷⁷ Ibid.

⁷⁸ Ibid.

⁷⁹ Environment Canada, “Speaking Notes for The Honourable David Anderson, P.C., M.P. Minister of the Environment to the World Climate Change Conference, Moscow,” 29 September 2003 www.ec.gc.ca/minister/speeches/2003/030929_s_e.htm.

⁸⁰ Ibid.

Antarctic Research Institute (AARI). Both polar nations aim to improve their understanding of sea ice and Arctic ocean circulation, in particular in their attempts to “close the Arctic gap”.⁸¹

Canada is a member of the Group on Earth Observations (GEO) and participated in the GEO-1 and GEO-2 meetings.⁸²

2. France: +1

France has recognized the importance of ICT and the benefits that can be gained from its coordinated use in monitoring the environment.

France has already completed the first phase of the World Summit of the Information Society held in Geneva from 10–12 December 2003. The French government’s goal was to create a plan of action to be completed by 2005 that aims to reduce the digital gap and to make ICT available to all. France was represented in Geneva by Prime Minister Jean-Pierre Raffarin along with Ms. Claudie Haignere, minister delegate for research and new technologies, and Mr. Pierre-Andre Wiltzer, minister delegate for cooperation and Francophony. France plans on continuing to play an active role along with the EU to increase international access to ICT.⁸³

France also takes an active role in the Global Monitoring for Environment and Security (GMES) project. The GMES is a joint initiative of the European Commission and the European Space Agency. The system uses Earth Observation satellites to provide vital information on global environment and security. The system should be in place and operational by 2008. It will enable France to better coordinate environmental policies and improve crisis management capabilities. The system will also create a dependable database of information.⁸⁴

France was present at the Earth Observation Summit on 31 July 2003 in Washington, D.C. France is also member of the Group on Earth Observations (GEO) and participated in the GEO-1 and GEO-2 meetings.⁸⁵

3. Germany: +1

Germany, along with the EU as a whole, has addressed the need to improve technological cooperation in this area while maintaining economic prosperity. Furthermore, Germany has supported the independent European Programme on Environment Monitoring and Observation, which would monitor environmental statistics and collect global environmental data. The project (GMES) is geared towards supporting a precautionary European environment policy, the prevention of disasters and the provision of disaster relief in crisis situations.

Margareta Wolf, Parliamentary State Secretary at the Environment Ministry stated that: “Global monitoring is a core element of international environment policy. We are establishing an

⁸¹ Environment Canada, “Canada-Russia Environmental Relations,” 1 October 2003
www.ec.gc.ca/press/2003/031001-3_b_e.htm

⁸² Group on Earth Observations, earthobservations.org/plenary_meetings.asp

⁸³ French Foreign Ministry, France, “Statement by French Foreign Ministry Spokesperson Paris, 9 December 2003,” 6 January 2004, www.france.diplomatie.fr.

⁸⁴ GMES, 6 January 2004, www.gmes.info/what_is/index.html

⁸⁵ Group on Earth Observations, earthobservations.org/plenary_meetings.asp

effective instrument to recognize threats early on and help prevent potential damage to the environment. Within the project we are setting up a European-wide warning system which provides us with information on risks such as maritime pollution, floods, and forest fires.” Under its 6th framework Programme for Research the European Commission will make approximately €100 million available for the establishment of GMES. Another €83 million was provided by the European Space Agency (ESA), approximately €19 million of which came from the German government. German industry is strongly involved in the establishment of GMES services in the framework of project consortia. After the Bonn GMES conference, landmark decisions are to be taken in the European Parliament in spring 2004 on the further development of this independent programme.⁸⁶

Germany also committed funds to developing countries. The European Union renewed its pledge at the UNFCCC COP-9 meetings in December 2003 to give US\$410 million annually to developing countries through the Special Climate Change Fund and the Least Developed Countries Fund. Both of these funds were established at the conference.⁸⁷ In addition, the European Union emphasized the importance of historical data sets at the UNFCCC COP-9 on 2 December 2003, providing reaffirmation of the goal of improving world-wide environmental archives and reporting systems⁸⁸.

France was present at the Earth Observation Summit on 31 July 2003 in Washington, D.C. Germany is a member of the Group on Earth Observations (GEO) and participated in the GEO-1 and GEO-2 meetings.⁸⁹

4. Italy: +1

Mr. Altero Matteoli, Minister for the Environment and Territory of the Republic of Italy, is currently acting as President of the Environment Council of the European Union. Italy has supported the independent European Programme on Environment Monitoring and Observation (GMES), which proposes to monitor environmental statistics and collect global environmental data. Italy hosted a recent United Nations conference on climate change, in which twenty industrialized countries (including the members of the EU) confirmed their intention to give US\$410 million a year starting in the year 2005 in order to help developing nations fight climate change and its repercussions through increased technological networks to facilitate monitoring efforts.⁹⁰ Out of these funds, US\$80 million is to come from Italy. At the second Asia Europe (ASEM) Environment Ministers’ Meeting in Lecce in October 2003, ministers stressed the

⁸⁶ Federal Ministry for the Environment, Nature Conservation and Nuclear Safety. Press Release, “German Government supports independent European Programme on Environment Monitoring and Observation,” available at www.bmu.de/en/800/js/news/pressrelease031119/

⁸⁷ “Summary of the Ninth Conference of the Parties to the UN Framework Convention on Climate Change: 1-12 December 2003” Vol.12, No.231. Monday, December 15, 2003. www.iisd.ca/vol12/enbl22311.html

⁸⁸ “Science And Technology for Sustainable Development: A G8 Action Plan”. www.g8.fr/evian/english/navigation/2003_g8_summit/summit_documents/science_and_technology_for_sustainable_development-a_g8_action_plan.html 1.2: Build on existing work to produce reliable data products on atmosphere, land, fresh water, oceans and ecosystems; 1.3: Improve the world-wide reporting and archiving of these data and fill observational gaps of coverage in existing systems. From: Evian Conference.

⁸⁹ Group on Earth Observations, earthobservations.org/plenary_meetings.asp

⁹⁰ Associated Foreign Press, “Severa; industrial countries will give 337 million Euros a year to poor nations to combat climate change,” available at civitas.barcelona2004.org/news/newsdetail.cfm?NewsID=26243

importance of the development of communication networks bearing in mind the Bonn guidelines of an international regime to promote and safeguard the fair and equitable sharing of benefits arising out of the utilization of genetic resources, and should endeavour to promote technology transfer and cooperation as a follow up to the World Summit on Sustainable Development which took place in Johannesburg in 2002.⁹¹

Italy was present at the Earth Observation Summit on 31 July 2003 in Washington, D.C.

Italy, acting as President of the EU, was a co-chair of the Group on Earth Observations (GEO) in 2003, and actively participated in GEO-1, 1–2 August 2003 Washington, D.C., and hosted GEO-2, 28–29 November 2003 in Baveno, Italy.⁹²

5. Japan: +1

The Ministry of Education, Culture, Sports, Science and Technology (MEXT) website outlines Japan science and technology policies for the past and upcoming months. The promotion of research and development in Ocean Science, Earth Science and Environmental Science figures prominently. MEXT “promotes research and development of integrated modeling based on the understanding of the interaction among the geosphere, atmosphere, hydrosphere, biosphere and human sphere (process research) and research using the world’s fastest computer ‘Earth Simulator.’”⁹³ Other projects include the Frontier Research System for Global Change, the Project for Sustainable Coexistence of Human, Nature and Earth Project, and several oceanographic and atmospheric observation projects, particularly in the Polar Regions.⁹⁴

Japanese Senior Vice Minister of Education, Culture, Sports, Science and Technology, Kisaburo Tokai, addressed the Earth Observation Summit in Washington, D.C. on 31 July 2003.⁹⁵ Tokai noted that Japan places a high priority on Earth observation to solve global environmental issues and that the Japanese government has “endeavoured in developing the Integrated Global Observation Strategy (IGOS)”.⁹⁶ Tokai outlined Japan’s recent major efforts in Earth observation. He noted the joint Japan-US Tropical Rainfall Measuring Mission (TRMM) produced the first ever global three-dimensional space based observations of precipitation. Tokai also remarked on the recent launch of the Midori II (ADEOS-II) advanced Earth observation satellite; the future development of a new satellite (GOSAT) to observe greenhouse gases; future plans for the marine Earth research vessel Mirai to collect data on approximately 500 locations in the southern hemisphere; the launch of the Advanced Land Observing Satellite next year; and, Japan’s intention to join the International Charter on Space and Major Disasters were also mentioned.⁹⁷ Finally, Tokai emphasized that the “fastest super-computer in the world”, the Earth

⁹¹ Second ASEM Environment Ministers’ Meeting, Lecce, Italy, October 11-13, 2003 – Chairman’s Summary, available at www.iias.nl/asem/asem2003/ASEMEnMM2Chairmans_Summary.pdf

⁹² Group on Earth Observations, “Public Documents,” earthobservations.org/documents.asp?sec=geo1

⁹³ Ministry of Education, Culture, Sports, Science and Technology, “Science and Technology: Promotion of Research and Development,” www.mext.go.jp/english/org/science/37.htm

⁹⁴ Ibid.

⁹⁵ Earth Observation Summit, “Strengthening International Cooperation on Earth Observation, Address by Kisaburo Tokai, Senior Vice Minister, Ministry of Education, Culture, Sports, Science and Technology, Japan,” 31 July 2003 www.earthobservationsummit.gov/statement_japan.pdf

⁹⁶ Ibid.

⁹⁷ Ibid.

Simulator, will strengthen international cooperation on Earth observation, particularly through capacity-building and data-sharing in developing countries.⁹⁸

The Japanese Ministry of the Environment released a draft interim report entitled “Climate Regime Beyond 2012: Basic Considerations” in December 2003.⁹⁹ This report emphasizes the continued need to transfer technologies for environmental analysis to developing countries. Japan tends to focus on improves partnerships with Asian countries.

Japan is a co-chair of the Group on Earth Observations (GEO), and actively participated in GEO-1, 1–2 August 2003 Washington, D.C., and GEO-2, 28–29 November 2003 Baveno, Italy.¹⁰⁰ Plans are under way to host GEO-4 in Tokyo on 22–23 April 2004¹⁰¹ and the Earth Observation Summit II in Tokyo on 25 April 2004.¹⁰²

6. Russia: +1

The Russian Federation has made public its intention to observe the standards and requirements of international environmental accords. The government stated that Russia’s participation in international environmental activities must be based upon the implementation of independent environmental policy. Furthermore, the government of the Russian Federation stated that the country’s outstanding natural resource and ecosystem potential creates a favourable starting point for the country in terms of developing new approaches to international cooperation on environmental issues. The government believes that its actions and policies are influenced by foreign countries and organizations. It also believes that it is vital for the global economy to implement strategies and programs geared towards sustaining the environment as a whole. The government also acknowledges the need to focus on ecosystems. Ecosystems that are still unaffected by economic activity and development in the country occupy 65 percent of Russian territory. Ecosystems have contributed to the maintenance of the balance of the global ecosystem and its importance may result in becoming a key factor in international and economic relations. Also, ecosystems are acknowledged to be of great importance in terms of natural resources and such environmental issues are becoming the basis of Russia’s efforts to integrate into the modern global economy.¹⁰³

Russia is working, with Canada among others, to close the “Arctic gap”.¹⁰⁴ Approximately half of the Arctic is within Russia’s borders. Russia’s active participation in the Arctic Council

⁹⁸ Ibid.

⁹⁹ Ministry of the Environment, Japan, “Climate Regime Beyond 2012: Basic Considerations,” December 2003 www.env.go.jp/en/topic/cc/031126.pdf.

¹⁰⁰ Group on Earth Observations, “Public Documents,” earthobservations.org/documents.asp?sec=geo1

¹⁰¹ Group on Earth Observations, earthobservations.org/plenary_meetings.asp

¹⁰² Group on Earth Observations, “Earth Observation Summit 2,” earthobservations.org/docs/geo-2/10%20-%20tokyo%20eos%20ii%20summit.ppt.

¹⁰³ State Council Presidium. Speech by President of the Russian Federation V.V.Putin. www.rusrec.ru/homepage/projects/global/analitic/ecosyst_en.doc

¹⁰⁴ Environment Canada, “Canada-Russia Environmental Relations,” 1 October 2003 www.ec.gc.ca/press/2003/031001-3_b_e.htm

reflects its involvement in initiatives like the Arctic Monitoring and Assessment Program (AMAP).¹⁰⁵

Russia hosted the World Climate Change Conference, 29 September to 3 October 2003.¹⁰⁶ President Vladimir Putin addressed the Conference participants and emphasized the importance of cooperative scientific efforts in “the exchange of information and the conduct of joint research and participation in multilateral ecological and climatic programs”.¹⁰⁷ Putin also noted that Russia has “considerable intellectual potential in the field of climatology...achievements of our schools of science and the services of Russian scientists are recognized by the international community”.¹⁰⁸

Despite problems faced by Russian officials in obtaining visas to attend the Earth Observation Summit in Washington D.C.,¹⁰⁹ Russia continues to participate in Earth observation initiatives through its membership in the Group on Earth Observations (GEO). Russia participated in both the GEO-1 and GEO-2 meetings.¹¹⁰

7. United Kingdom: +1

The UK participated in the Earth Observation Summit in Washington, D.C. in July 2003. Professor Howard Dalton, Chief Advisor to the UK Department for Environment, Food and Rural Affairs presented a paper entitled “UK Views On a Coordinated Approach to Global Environmental Observations” that outlined the UK’s commitment to improving global observation networks.¹¹¹ Dalton notes several national UK initiatives, including the 300 year records of the Central England Temperature, and England and Wales Precipitation, and the UK’s participation in international initiatives like “the WMO World Weather Watch Programme, the ARGO oceans project, and satellite programmes such as the AATSR instrument and Jason-2 mission”.¹¹² Dalton emphasizes the need to aid developing country networks to fill in significant data gaps and notes that the UK provides support to the WMO Voluntary Contribution Programme. Dalton also emphasizes that urgent action is needed in order to meet the timeframe of spring 2004. Dalton urges the Group to establish a process to work out technical aspects of the project, such as barriers to data sharing and assimilation, and points towards the achievements made in Europe through the Global Monitoring for Environment and Security (GMES) initiative.¹¹³

¹⁰⁵ Arctic Council, “Arctic Monitoring and Assessment Program,” www.arctic-council.org/activities.html

¹⁰⁶ UN Framework Convention on Climate Change, “World Climate Change Conference, Moscow,” unfccc.int/sessions/othermt/moscow03/

¹⁰⁷ Ministry of Foreign Affairs of the Russian Federation, “Speech by President of the Russian Federation Vladimir Putin at World Climate Change Conference, Moscow,” 29 September 2003 www.in.mid.ru/bl.nsf/0/9857817a0c3d100a43256db1002fc782?OpenDocument.

¹⁰⁸ Ibid.

¹⁰⁹ Ministry of Foreign Affairs of the Russian Federation, “The Russians Aren’t Coming,” 17 August 2003 www.in.mid.ru/Bl.nsf/Arh/CCEE93976494A29143256D890032BA0A?OpenDocument

¹¹⁰ Group on Earth Observations, “GEO Plenary Meetings,” earthobservations.org/plenary_meetings.asp

¹¹¹ Earth Observation Summit, “UK Views On a Coordinated Approach to Global Environmental Observations,” July 2003 www.earthobservationsummit.gov/statement_unitedkingdom.pdf

¹¹² Ibid.

¹¹³ Ibid.

The UK is a member of the Group on Earth Observations (GEO) and participated in the GEO-1 and GEO-2 meetings.¹¹⁴

8. United States: +1

The U.S. has increased their co-ordination on global observation strategies and the sharing of information in order to support more sustainable development in this area.

Through the Partnership for Science-based Decisionmaking, the EPA (Environmental Protection Agency) has provided US\$260,000 and the ACC (American Chemistry Council) has provided US\$65,000 towards a series of “science in decision-making workshops” held on key issues such as water and sanitation and how information systems, monitoring and data processing can aid in these matters.¹¹⁵ Another initiative launched by the US in this regard was the The Biologica Centrali-Americana whose objective is to strengthen the international museum community’s computer-based management of large-scale data on the biodiversity of Central America.¹¹⁶

The US government has established the Bureau of Oceans and International Environmental and Scientific Affairs headed by Assistant Secretary John F. Turner. The U.S recognizes that science and technology are at the centre of our society and is thus cooperating with other nations such as Italy and Bangladesh in the exchange of information.¹¹⁷

The United States Environmental Protection Agency has set up The Environmental Technology Opportunities Portal (ETOP) which promotes programs that foster development of new cost-effective environmental technologies and relays existing EPA environmental technology information, such as best available technologies for air, water and waste treatment and control.¹¹⁸

The US hosted the Earth Observation Summit in Washington, D.C. on 31 July 2003.¹¹⁹ The Statement by President George W. Bush addressing the Summit noted that by working together, “our nations will develop and link observation technologies for tracking weather and climate changes in every corner of the world, which will allow us to make more informed decisions affecting our environment and economies”.¹²⁰

Secretary of State Colin Powell’s Summit remarks emphasized the contributions that a coordinated earth observation system could have towards the development of the world’s

¹¹⁴ Group on Earth Observations, earthobservations.org/default.asp

¹¹⁵ U.S. Department of State, United States, “Partnership for Science-based Decisionmaking,” 5 January 2004, www.state.gov/g/oes/rls/fs/2003/19906.htm

¹¹⁶ U.S. Department of State, United States, “The Biologica Centrali-Americana,” 5 January 2004, www.state.gov/g/oes/rls/fs/2003/19756.htm

¹¹⁷ U.S. Department of State, United States, 5 January 2004, state.gov/g/oes/sat/rm/

¹¹⁸ U.S. Environmental Protection Agency, United States, 5 January 2004, www.epa.gov/etop/about_etop

¹¹⁹ Earth Observation Summit, www.earthobservationsummit.gov/

¹²⁰ The White House, “President’s Statement on Earth Observation Summit,” 31 July 2003 www.whitehouse.gov/news/releases/2003/07/20030731-1.html

peoples, and the need for an increase in public-private partnerships to further government efforts.¹²¹

Secretary of Energy, Spencer Abraham, noted in his Summit remarks that as co-chair of the Committee on Climate Change, Science and Technology Integration, he shares “the responsibility for overseeing the development and the application of technology that comes with every increase in our scientific understanding of climate change”.¹²²

Commerce Secretary Donald Evans also noted in his Summit remarks that the US spends US\$4.5 billion per year on global climate change science and technology, and that “President Bush has reallocated US\$103 million to the high priority of a global observation system”.¹²³

Summit remarks made by the Secretary of the Interior, Gale Norton, advocated a “full, open and timely exchange of data”.¹²⁴ Norton noted that for the past 30 years, the US “ Landsat system, now managed by our Geological Survey, has been the only source for an extended record of moderate-resolution space-based observations of the landmass of our planet”.¹²⁵ Norton elaborated on an international partnership between the nine Sahel countries of Africa, USAID, UNEP, the World Bank, the Departments of Commerce and the Interior, NASA, and the Institut du Sahel that allowed partners to compare and contrast trends in land cover change.¹²⁶ Norton emphasized full global access to data and noted the US government’s subscription to a ‘public domain’ policy.

A US NASA Administrator noted that NASA, at the time of the Summit, had “a constellation of 18 active research satellites carrying 80 sensors that deliver observations of key geophysical parameters that characterize the Earth system”.¹²⁷ NASA outlined four features of its potential contribution to a Comprehensive Coordinated Earth Observation System: studying the Earth as a system; designing and implementing a systematic approach to posing and answering Earth science questions; fostering partnerships; and, innovation.¹²⁸

Newly appointed head of the US Environmental Protection Agency Marianne Lamont Horinko emphasized in her Summit remarks that the this project would foster public understanding, public trust, and public support through the collection, dissemination, and broad access of information.¹²⁹

¹²¹ Earth Observation Summit, “Secretary Powell Delivers Remarks at Earth Observation Summit,” 31 July 2003 www.earthobservationsummit.gov/statement_powell_abraham_evans.pdf

¹²² Ibid.

¹²³ Ibid.

¹²⁴ Earth Observations Summit, “Exchange of Data in a Full, Open, and Timely Manner,” 31 July 2003 www.earthobservationsummit.gov/statement_norton.pdf

¹²⁵ Ibid.

¹²⁶ Ibid.

¹²⁷ Earth Observation Summit, “NASA Perspective on a Comprehensive Coordinated Earth Observation System,” 31 July 2003 www.earthobservationsummit.gov/statement_okeefe.pdf

¹²⁸ Ibid.

¹²⁹ Earth Observation Summit, “Remarks by Marianne Lamont Horinko,” 31 July 2003 www.earthobservationsummit.gov/statement_horinko.pdf

The US is a co-chair of the Group on Earth Observations (GEO), and actively participated in GEO-1, by hosting the 1–2 August 2003 meeting in Washington, D.C., and GEO-2 on 28–29 November 2003.

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