

35TH INTERNATIONAL GEOLOGICAL CONGRESS

27 AUGUST - 4 SEPTEMBER 2016 | CAPE TOWN, SOUTH AFRICA



FIRST CIRCULAR March 2014

www.35igc.org











TABLE OF CONTENTS

| Letter of Invitation from the President and Secretary-General of the 34 TH IGC | Page 03 |
|---|---------|
| Letter of Invitation from the President of the International Union of Geological Sciences | Page 04 |
| Congress Participation and Visa Requirements | Page 04 |
| Sponsorship and Funding Support | Page 05 |
| Core Organising Committee | Page 06 |
| Important Dates | Page 06 |
| Proposed Overall Structure of the 35 [™] International Geological Congress | Page 06 |
| Registration | Page 07 |
| Draft Scientific Programme | Page 07 |
| Contributing to the Planning of the Scientific Programme | Page 08 |
| Pre- and Post-Congress Field Trips | Page 09 |
| Exhibition Information | Page 11 |
| The Destination | Page 12 |
| Travelling to South Africa | Page 13 |
| Visa | Page 15 |
| Accommodation and Tours | Page 15 |

General distribution of this and subsequent circulars for the 35[™] IGC will be via email. Please feel free to forward it to others who may be interested. If necessary, hard copies will be supplied in limited numbers on request through the website, at

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http://www.35igc.org, or by contacting:

The Secretariat | Danie Barnardo | **<u>barnardo@geoscience.org.za</u>**

or by mail at 35th IGC Foundation | Postnet Suite A11 | Private Bag 592 | Silverton 0127 | South Africa

The Second Circular is scheduled for electronic distribution in April 2015.



LETTER OF INVITATION FROM THE PRESIDENT AND SECRETARY-GENERAL OF THE 34TH IGC

The 35[™] International Geological Congress will be held in Cape Town, South Africa, between 28 August and 4 September 2016. We cordially invite you to this prestigious event, which is one of the largest international geological congresses and is presented by a different country every fourth year. In 2016 it is the turn of South Africa to present this exciting event on behalf of the African continent.

The event will be held in the acclaimed Cape Town International Convention Centre in South Africa's Mother City, one of the most popular tourist destinations in the world. With the famous Table Mountain, one of the New Seven Wonders of the World, as a backdrop, this magnificent city will stun you with its beautiful setting on the southern tip of Africa and the hospitality of its citizens.

The 35[™] IGC will showcase the region's geoscientific superlatives and world-famous geology and geoheritage and its geological and scenic wonders will be heavily discussed during the scientific debates provided for in an extremely diverse scientific programme of oral and poster presentations, workshops, short courses and business meetings. The geological wonders of the Southern African and the African continent will be highlighted through a large number of pre- and postcongress excursions and day trips, visiting many of the geological superlatives of Africa. These are being organised with the cooperation of several African countries. Further highlights of the 35[™] IGC will include a large exhibition and geoscience outreach programmes under the overarching theme: Geology in Society, the Economy and Science, encompassing all aspects of the geosciences. The main focus of these outreach programmes will be the promotion of geoheritage globally and especially in Africa and a special volume on the Geoheritage of Africa, which will highlight a number of the most spectacular geological highlights in Africa, is envisaged.

The important currently debated issues in the geosciences, from climate change, the global energy crisis, water resources and resourcing the future mineral needs of nations, to natural disaster mitigation, acid mine drainage and the protection and promotion of geoheritage, will be featured. The scientific programme remains open for comment and we invite your suggestions.

More than forty field trips are planned. These will be to destinations as diverse as the Witwatersrand Gold Field, the Bushveld Ingeous Complex, the Karoo sedimentary basin, the Central African Copperbelt, the West African Rift Valley, the Okavango Delta and the Great Dyke in Zimbabwe.

A GeoHost programme supporting attendance of delegates from developing nations in Africa, but also from other regions, is being planned around workshops, short courses and sessions during the scientific programme which are relevant to the needs of such developing nations. A number of sessions and workshops will also be devoted to the needs of young earth scientists through co-operation with the Young Earth Scientists Network. UNESCO granted its patronage to the 35TH IGC and this will add to the relevance of the congress to developing countries.

The 35[™] IGC will incorporate the 2016 meetings of the Commissions, Task Groups and Joint Programmes of the IUGS and a Young Earth Scientists (YES) Congress. We invite all geoscience groups to consider integrating their 2016 meetings into the 35[™] IGC, to benefit from the opportunities offered for synergies and networking.

The Local Organising Committee and the Geoscience Community of Africa invite you to attend the 35[™] IGC and extend the famous South African hospitality to all geoscientists globally.

It is time for Africa!

Prof Richard Viljoen, Co-President Mxolisi Kota, Co-President - Council For Geoscience Danie J. Barnardo, Secretary-General - 35[™] IGC Foundation





LETTER OF INVITATION FROM THE PRESIDENT OF THE INTERNATIONAL UNION OF GEOLOGICAL SCIENCES

Dear Colleagues,

I invite you to attend the 35[™] International Geological Congress in Cape Town, South Africa, in August 2016. Every four years the International Geological Congress (IGC) is held under the auspices of the International Union of Geological Sciences (IUGS) who sponsors this event. The IUGS, together with the IGC committee, seeks to make the congress a prime scientific event.

The international geological congress has an extremely long tradition starting in 1881 in Paris and ever since was one of the largest gatherings of geologists. In modern times the IGC became more and more interdisciplinary and the last IGC in Brisbane attracted more than 6 000 people despite other major annual geoscience congresses! It is a different blend and generally a unique occasion to get familiar with the geology of a continent through the excursions that make this congress so attractive. This congress will add to the IUGS endeavour in coordinating international scientific research programmes, international standards, earth science education and bringing people together. Since the IUGS tries to have a stronger focus on geohazards and especially on resourcing future generations (minerals, stones, energy, water and soil) with emphasis on Africa, the 35TH International Geological Congress is ideally located. The congress will feature all relevant geoscience topics and geological issues and Cape Town will make available facilities for all meetings of the IUGS Scientific Commissions, Task Groups, Initiatives, Joint Programmes and other groups under the IUGS umbrella.

The IUGS has agreed with the Local Organising Committee that the core programme for the 35[™] International Geological Congress will be held over one business week. Pre- and postcongress excursions will be held throughout the continent in cooperation with other African national organisations.

Following delegate registration and a welcoming reception on Sunday, 28 August, the Scientific Programme is scheduled from Monday, 29 August to Saturday, 3 September 2016.

I look forward to seeing you at the 35[™] IGC in Cape Town.

Roland Oberhänsli, President of the International Union of Geological Sciences



CONGRESS PARTICIPATION AND VISA REQUIREMENTS

All members of the global geoscience community are welcome to participate in the congress and are eagerly invited to attend. Membership of a national geoscience society or association is not a requirement, but will attract a discounted registration. All delegates are required to register online and pay the appropriate congress registration fee. Note that registrations will not be confirmed until payments reflect on the congress bank account. Delegates globally will need to obtain a visa to enter South Africa. The website of the South African Department of Home Affairs contains information about visa requirements and can be accessed at the South African Home Affairs website, here: http://www.home-affairs.gov.za/index.php/applying-for-sa-visa.

Official letters of invitation will be provided to delegates by the congress organisers once registration fee payment is confirmed. Congress fees will be payable in South African Rand (ZAR). Unfortunately no other currency will be accepted. Secure on-line credit card payment facilities will be available. Registration fees will be made available at a later date, but be assured that these will be kept as low as possible, to allow for an affordable congress.



SPONSORSHIP AND FUNDING SUPPORT

Sponsorship of the 35[™] IGC provides an ideal opportunity to showcase your company's involvement in the geoscience sector and highlight your achievements, specific interests and capabilities. The following congress and postcongress components have been identified as sponsorship opportunities:

- precongress funding
- congress venue and associated infrastructure
- congress events and functions such as the welcome function, congress dinner, the opening and closing ceremonies, various lunches, teas and delegate bags
- scientific sessions, key note speakers or specific presentations relevant to your organisation
- facilitation and/or funding of field trips and site visits
- publication of congress-specific material such as the congress programme, field trip guide books and the abstracts volume
- participation in the proposed 35[™] IGC Legacy Programme
- GeoHost programme which will enable geoscientists and geoscience students, particularly those from African and other developing countries, to attend the event
- Geoheritage programme which is of great benefit to tourism and sustainable development in Africa, such as:
 - A coffee table style book on the geoheritage of Africa incorporating its vast mining heritage
 - A special edition of the Episodes journal of the IUGS on the Major Mineral Fields of Africa
 - Booklets for a number of geotrails as well as pamphlets on specific geosites throughout Africa.
- Training and skills development.

The organisers will endeavour to provide a sponsorship package which best suits your organisation's corporate strategy and objectives. Proposals for sponsorship options not identified would be most welcome.

Apart from participating in a premier geological event, we have identified some of the strategic reasons for becoming a sponsor for the 35TH IGC;

- Access to technical talent
- Enhance and develop the African skills base in support of both local policy and the growing widely supported regional initiatives in economic empowerment
- Relationship building; both globally and in Africa, with young academics who are destined to become the decision makers of the future
- Be associated with the accelerating socio-economic advancement of Africa through science and technology
- Become involved with sustainable development and geoheritage initiatives in Africa
- Demonstrate good corporate citizenship to both a global and African audience
- Immediate and long-term brand benefits across the globe and specifically in Africa, within the technical and scientific disciplines

The organisers invite parties interested in participating in this unique array of sponsorship opportunities to contact: The Sponsorship Subcommittee Chair | Mike Wuth | <u>mikew@xbt.co.za</u>.



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CORE ORGANISING COMMITTEE

| Co-Presidents: | Richard Viljoen | Emeritus Professor, University of the Witwatersrand |
|-----------------------------------|-------------------|---|
| | Mxolisi Kota | CEO of the Council for Geoscience |
| Secretary-General: | Danie Barnardo | Council for Geoscience |
| Financial Chair: | Craig Smith | Geological Society of South Africa |
| Sponsorship Chair: | Mike Wuth | Consultant |
| Scientific Chair: | Laurence Robb | Consultant |
| Field Trip Chair: | Chris Hatton | Council for Geoscience |
| Geohost Chair: | Jeanette McGill | Council for Scientific and Industrial Research |
| Legacy Chair: | Genevieve Pearson | Phoenix Geoconsulting |
| Volunteer Programme Chair: | Elna van Niekerk | University of South Africa |
| Secretariat: | Juanita van Wyk | Council for Geoscience |
| | Mpho Mokonyama | Council for Geoscience |
| Professional Congress Organisers: | Lesley Ferreira | Cebisa Conferences |
| | Crystal Kasselman | Centeq Events |

IMPORTANT DATES

Please take note of the following important congress planning deadlines:

| April 2015 | Abstract submissions open. | |
|------------------|--|--|
| August 2015 | Early registrations open (available until 30 April 2016). | |
| 17 February 2016 | Abstract submissions close. | |
| 30 April 2016 | Formal notification to authors of acceptance or otherwise of abstract submissions. | |
| 31 May 2016 | Close of registration and payment for presenters of papers (oral and poster) or be deleted from the Congress Programme. | |
| 30 April 2016 | Early Bird registration closes. The higher standard registration fee will apply to registrations received from 1 May to 1 July 2016. | |
| 1 July 2016 | Standard registrations close. The higher registration fee will apply to all registrations received after this date. No online registration will be accepted after this date. A higher onsite registration fee will apply to all registrations received onsite. | |

PROPOSED OVERALL STRUCTURE OF THE 35TH INTERNATIONAL GEOLOGICAL CONGRESS

| Precongress Field Trips: | 18 August to 26 August 2016 | |
|---|---|--|
| Young Earth-Scientists Field Trip and Reception: | 4 August 2012 | |
| Registration opens, Exhibition setup, some business meetings: | 27 August 2016 | |
| 35 [™] IGC Welcome Reception: | Evening, 27 August 2016 | |
| Opening Ceremony and First Session: | 28 August 2016 | |
| Scientific Programme: | 28 August to 3 September 2016 | |
| Business Meetings: | Evenings of 28 August to 3 September 2016 | |
| Mid-Congress Afternoon Field Trips: | 30 August 2016 | |
| Congress Dinner: | 1 September 2016 | |
| Closing Ceremony and Last Session: | 3 September 2016 | |
| Post Congress Field Trips: | 4 to 13 September 2016, 4 September 2016 – post congress one-day trips in Cape Town area 4 to 11 September 2016 – Cape Town – Victoria Falls | |



REGISTRATION

Congress registration fees will be announced in August 2015. Early registration will be available until 30 April 2016, after which the registration fees will progressively increase.

Registration fees will cover lunches, morning and afternoon refreshments, a ticket (one person) to the welcome reception and congress materials including a congress programme and abstracts (on CD-ROM). It is envisioned that we will provide the programme and abstracts on a MyIGC app, which will be downloadable for tablets and smartphones and will allow users to compile their own personalised programme. Wifi access will be available in the Convention Centre.

DRAFT SCIENTIFIC PROGRAMME

PROPOSED THEMES

The following Main Themes and Subthemes have been identified. The Coordinators are being assembled for the Themes and in general, each Subtheme will have one or more local and international Coordinators.

If you have any queries regarding the Scientific Programme, please contact:

- The Scientific Programme Chair | Prof Laurence Robb | laurencr@earth.ox.ac.uk
- The Secretary-General | Danie Barnardo | <u>barnardo@geoscience.org.za</u>

| MAIN THEME | SUBTHEMES | |
|------------------------|---|--|
| GEOLOGY IN SOCIETY | Geoscience Education | Alternative energy sources |
| | Geoscience benefitting low-income societies | Karst & Dolomite |
| | Climate Change | Geoheritage & Conservation |
| | Medical Geoscience | Groundwater |
| | Forensic Geoscience | Geohazards |
| | Environmental Geoscience | History of the Geosciences |
| | Geoscience Information | Geoethics |
| | Energy | |
| GEOLOGY IN THE ECONOMY | Mining, Deep Mining & Rock Mechanics | Mineral Deposits & Ore-forming Processes |
| | Geometallurgy & Process Metallurgy | Mineral Resources |
| | Mining-induced Hazards & Reclamation | Mineral Resources: Industrial Minerals |
| | Mining Heritage | Mineral Resources: Resourcing Future Generations |
| | Mineral Exploration | Fossil Fuels |
| GEOLOGY IN SCIENCE | Sedimentary Rocks | Biogeoscience |
| | Active Tectonics | Groundwater & Hydrogeology |
| | Quaternary Geology | Geomorphology & Soil Science |
| | Structural Geology, Tectonics & Continental Drift | Engineering Geology & Geomechanics |
| | Geochronology & Isotope Geology | Analytics |
| | Geochemistry | Geostandards |
| | Stratigraphy | Mathematical Geology |
| | Regional Geological Mapping | Seismology |
| | Planetary Sciences | Geophysics |
| | Magmatism | Mineralogy & Petrology |
| | Metamorphic Rocks & Processes | Palaeontology |
| | Marine Geosciences | Palaeoanthropology |
| | Antarctic & Arctic Geoscience | Alternative Concepts |



CONTRIBUTE TO THE PLANNING OF THE SCIENTIFIC PROGRAMME

The Scientific Programme is still in the early stages of planning. The Local Organising Committee invites your participation in planning the Scientific Programme. Visit the Call for Sessions, Short Courses and Workshops Webpage, at https://www.allevents.co.za/ei/getdemo. ei?id=222&s=_3F00S0JZ9, and indicate your interest in coordinating a Subtheme, Session, Workshop or Short Course for the Scientific Programme.

We also recommend that you select the 'Add me to the mailing list' link when you visit the congress website, at <u>http://www.35igc.org</u>, and complete the 'Expression of Interest' form – you will then automatically receive updates and news.

SUBMISSION OF ABSTRACTS

Abstracts will be submitted through the congress website, at <u>http://www.35igc.org</u>, from April 2015. All abstract submissions must be received by the cutoff date – 17 February 2016.

Please note that individuals will be permitted to deliver only one oral presentation (unless they are a plenary or invited keynote speaker) but they may co-author multiple oral presentations and may give multiple poster presentations. Full details on abstract submissions will be available on the congress website in June 2014. Please also note that there will be a modest nonrefundable abstract submission fee.

WORKSHOPS

A range of expert workshops will be available at an additional cost. Information will be made available through the congress website as it becomes available. If you wish to deliver a workshop, or suggest a topic, this can be done via the congress website.

GEOHOST SUPPORT PROGRAMME

The Organising Committee is working hard to attract funds to support attendance of the congress by appropriate delegates from low-income countries. This support will be provided through the GeoHost programme. It will be necessary for those wishing to be considered for GeoHost support to complete an application process and agree to present a paper or poster during the 35TH IGC. It is anticipated that the application process for individuals seeking GeoHost programme support will be announced in the Second Circular, planned for April 2015. To ensure that you receive the Second Circular, please visit <u>http://www.35igc.org</u> to register your interest. Individuals from developing countries who do not wish to present papers or posters will not be eligible for the GeoHost programme. They should independently pursue other sources of funding from international agencies to support their attendance at the 35TH IGC. We have endeavoured to facilitate this by devoting a major theme of the 34TH IGC to the interests and needs of low-income nations and have received UNESCO patronage.

PRE- AND POST-CONGRESS FIELD TRIPS

A diverse and interesting array of Field Trips is being organised for delegates. Field Trips will be held in most of the Southern African Countries, Madagascar and Ethiopia. The Field Trips will run both prior to and after the 35TH IGC.

There will also be an interesting selection of day trips during the congress. Details of the Field Trips currently being planned are available for review on the website, at http://www.35igc.org, where you can express an interest in participating.



1. THE GREAT SOUTHERN AFRICAN GEO-SAFARI

Directly after the congress the luxury Shongololo Express will depart from Cape Town (South Africa) and will arrive at Victoria Falls (Zimbabwe) seven days later. En route there will be geological and general interest day excursions to a variety of sites, including the Swartberg Pass, Kimberley's Big Hole, Cradle of Humankind, Mapungubwe, Great Zimbabwe ruins and Matopas near Bulawayo. You will see the Victoria Falls, visit Livingstone (Zambia) and go on a river cruise in the Chobe Game Reserve (Botswana). This is a geological safari of a lifetime but only 70 passengers can be accommodated. See <u>www.jbtours.co.za</u> for full details.

2. SOUTH AFRICA:

- 2.1 **Craton traverse Kaapvaal to west coast:** A traverse from the Kaapvaal craton across the Palaeoproterozoic Kheis belt, the Mesoproterozoic Namaqua-Natal belt and onto the Neoproterozoic Gariep belt in the Richtersveld.
- 2.2 **Karoo traverse:** Basin development, environments and sedimentation of the Karoo Supergroup with superb three-dimensional exposures and extensive terrestrial vertebrate fossil and plant fossil assemblages, including the Permian/Triassic and the Triassic/Jurassic extinction events, and well documented therapsid and dinosaur trackways.
- 2.3 **Eastern Bushveld:** The eastern Bushveld Complex, its lithologies and mineral deposits, a visit to a platinum mine, deformation of the floor rocks in the contact metamorphic aureole and roof rocks recording the Bushveld oxidation event.
- 2.4 Vredefort: The products of a geological process that is, quite literally, out of this world!
- 2.5 Witwatersrand and Highveld highlights: On the 130th anniversary of the discovery of gold in the Witwatersrand, an excursion through the world's greatest gold deposit. The Cradle of Humankind the world's richest hominid site, home to around 40 per cent of the world's human ancestor fossils. The Cullinan Diamond Mine, where the largest diamond ever found was recovered in 1905, and 105 years later the \$35.3 million Cullinan Heritage. The 220 000 year old Tswaing meteorite crater, one the world's best preserved meteorite impact craters.
- 2.6 **Diamonds:** On the 150th anniversary of the discovery of diamonds near Kimberley, an excursion from the alluvial deposits of Lichtenburg and Bloemhof to the Big Hole in Kimberley.
- 2.7 **The Pongola Supergroup:** Earth's earliest stable continental margin.
- 2.8 Limpopo Belt: The entanglement of Archaean and Proterozoic tectonism and metamorphism.
- 2.9 Pilanesberg Alkaline Complex: Mesoproterozoic alkaline magmatism and volcanism in a 'Big 5' game reserve.
- 2.10 **Karoo magmatism & Continental breakup:** The record of sedimentation, volcanism and continental breakup in the Lebombo Mountains and the Kruger National Park where Karoo sediments and volcanics are beautifully exposed in river sections. These provide evidence of the earliest breakup of the Gondwana continent in the form of dyke swarms and faults. This field trip will require short walks to choice geosites in the company of an armed ranger and expert guides. The inextricable link between the abiotic and biotic (earth/life link) is better revealed in the Kruger than perhaps anywhere else in South Africa.
- 2.11 Barberton Mountain Land: The Barberton greenstone belt and its setting.
- 2.12 **The Ancient Gneiss Complex of Swaziland:** The oldest rock units on the African continent (3.66 Ga) recording the composition and evolution of the early Archaean continental crust.
- 2.13 Griqualand West: A classic carbonate platform with iron mines, the world's largest manganese deposits and a record of early Neoproterozoic Snowball Earth
- 2.14 **Cretaceous:** Post-Gondwana rift basins with spectacular conglomerates in the Algoa, Gamtoos and Oudtshoorn basins; ammonites and vertebrate fossils (including the meat-eating dinosaur 'Kirky').
- 2.15 Alkaline magmatism in the Northern Cape: Off-craton kimberlites, melilitites and carbonatites. A session on continental xenoliths and continental magmatism will be linked to this field trip.
- 2.16 Western and Southern Cape: Seismotectonics and hydrology of faults systems in the western and southern Cape. This field trip will be linked to IGC sessions on the Seismotectonic Map of Africa and on active faulting and recent earthquake activity in Africa.
- 2.17 **Cenozoic Geology & Geomorphology:** The coastal Cenozoic deposits along the western and southern coasts of South Africa, evidence for sea-level fluctuations, continental uplifts and climate change.
- 2.18 West Coast Geology: The Namaqua metamorphic belt, the Gariep complex and Nama Group, and a canoe traverse through the Richtersveld Mountains.
- 2.19 Cape Granites: A two-day excursion exploring the S-type granites, and associated culinary delights, in the Cape Peninsula and surrounds.
- 2.20 Underwater Geology: For scuba-qualified divers, the underwater geology of the east coast.

2.21 Several day excursions will be offered in the Cape Town area:

- 2.21.1 West Coast Fossil Park & Palaeoanthropology.
- 2.21.2 Robben Island, where Nelson Mandela spent 18 of the 27 years he was imprisoned before becoming South Africa's first democratically elected President.

NYPHICKS 19

- 2.21.3 Cape Point.
- 2.21.4 History of Geology, Sea Point contact.
- 2.21.5 Platteklip gorge-Camps Bay/cable car.
- 2.21.6 Maclears Beacon/cable car.
- 2.21.7 Vineyards.
- 2.21.8 Paarl Rock.

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- 2.21.9 Tulbagh-Ceres and southwestern Cape seismicity.
- 2.21.10 Building Stones of Cape Town.
- 2.21.11 Sevenwacht wine farm and Tin Mine.

3. BOTSWANA:

- 3.1 **Okavango:** The Kalahari basin and the impact of crustal depressions and climate change as reflected in the Kalahari sediments, the salt pans of Makgadikgadi and the unique Okavango delta.
- 3.2 Diamonds and nickel: The diamondiferous kimberlite pipes of Orapa and Jwaneng, the Tuli–Sabie shear belt of the Limpopo belt and the Pikwe–Selebi Ni deposits. Phoenix/Selkirk Ni/Cu deposit.

4. GHANA

- 4.1 Northwest Ghana. The multiple deformed and metamorphosed rocks of the Birimian Wa-Lawra and Bole-Nangodi belts. This area shows excellent outcrops of different metamorphic grades, associated with extensional, compressional and strike-slip deformation. Owing to climatic considerations this trip will run in February 2016, and will be associated with a Workshop on the Exploration Targeting and Tectonics in West Africa, linking to the 35TH IGC session on Exploration Targeting in Africa.
- 4.2 Gold deposits and structure of the West African shield.
- 4.3 Gold deposits including Tarkwa and Ashanti.

5. MOZAMBIQUE:

- 5.1 **Lurio belt:** The relationship between the Meso- and Neoproterozoic belts in northern Mozambique, including the Lurio belt, the Monapo klippe and the pegmatite-hosted mineral and gemstone deposits associated with post-tectonic granites.
- 5.2 **Tete province:** In the Tete and Manica provinces of Central Mozambique the relationships between the Archaean Zimbabwe craton and adjoining Meso- and Neoproterozoic mobile belts, the Tete anorthosite complex and its mineralisation and various alkaline intrusions and carbonatite complexes.
- 5.3 **Southern Mozambique:** The Karoo volcanics in the Lebombo Mountains, and the sedimentary sequences of Cretaceous, Tertiary and Quaternary age in the 'Limpopo delta', including some of the large heavy-mineral deposits.

6. NAMIBIA:

- 6.1 **Damara traverse:** A traverse across the Damara belt to investigate the depositional facies of this supergroup in relation to Snowball Earth, its mineral deposits, the various phases of deformation during continental convergence and the related intrusive events.
- 6.2 **Nama-Ediacaran:** A field trip specifically aimed at studying the environments of the first multicellular organism in sedimentary rocks of the Otavi Group, the more evolved life forms of the Ediacaran fauna in the Nama Group sediments [as well as animal and plant fossils in Karoo sediments in the Kaokoveld.]
- 6.3 **Uranium and Granite:** Uranium-enriched granites, primary mineralisation in alaskitic granite at Rössing, supergene enrichments in calcretes at Langer Heinrich and Trekkopje, environmental aspects of uranium mining.
- 6.4 **Diamonds:** Kimberlites and the mystery of the primary diamond source in Namibia, reworking of the displaced Orange River delta, Orange River terraces, alluvial diamonds and marine diamonds.
- 6.5 **Mineral Deposits:** In addition to diamonds and the deposits in the Damara belt, Namibia has a range of mineral resources which will be examined in this field trip.

7. TANZANIA:

- 7.1 **Palaeontology in Tanzania:** For the sedimentologist/palaeontologist, Oldupai gorge, the fossil-rich Cretaceous rocks of the Rovuma basin in the Lindi area, the Karoo sediments and their fossils and coal deposits.
- 7.2 **Gold, nickel and tanzanite:** A field trip to the Archaean craton, the Usagaran and Ubendian belts and their gold and nickel deposits, the unique tanzanite deposits and the Pan-African event.
- 7.3 **Rift Valley:** For the volcanologist, the East African Rift and associated volcanic activity in northeastern Tanzania, Lake Manyara, Ngorongoro crater, Oldupai Gorge, Oldoinyo Lengai volcano, Lake Natron and the Serengeti Plain.
- 7.4 Lake Victoria Gold Field: World-Class Archaean greenstone-hosted lode gold deposits, Geita Mine, Bulyanhulu Mine.

8. ZAMBIA:

- 8.1 **Irumide belt:** The relationship between the Mesoproterozoic rocks of the Irumide belt with those of the adjoining Bangweulu block, and the impact of the Pan-African event as reflected in the Mozambique and Zambezi belts.
- 8.2 **Copperbelt:** The world-class sediment-hosted stratiform Cu–Co deposits of the Katanga Supergroup in Zambia and their host rocks which include the glacial (Snowball Earth) diamictites and uranium deposits in the pre-Katangan basement domes.

9. ZIMBABWE:

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- 9.1 **Central Zimbabwe:** Basement gneisses and migmatites, the Archaean Belingwe greenstone belt and the Mashaba complex with its extremely high-grade chromite deposits, Kambalda-type Ni deposits and the Great Dyke.
- 9.2 **Craton margins:** The Limpopo mobile belt, the impact of the Pan-African event as reflected in the Mozambique and Zambezi belts, Zimbabwe ruins, Eastern Highlands, Umkondo Group, Frontier Formation, Mozambique belt and Manica.

NIPIGICRIS 19

If you have any queries regarding the Field Trips, please contact:

The Field Trip Chair | Dr Chris Hatton | c/o Council for Geoscience | chatton@geoscience.org.za or via post at Private Bag X112 | Pretoria 0001 | South Africa



EXHIBITION

The Organising Committee of the 35TH International Geological Congress would like to extend to you an invitation to participate in exhibiting at the congress.

We will support our exhibitors to ensure they receive maximum return on their investment and receive the exposure to which we agreed upon.

RATES IN ZAR

The exhibition will be on the entire lower level of the CTICC, spanning all the Exhibition Halls, Foyers, Conservatories and Restaurants with two hundred and eighty stands of 3x3 m². Exhibition space will be hired out as 'floor space only' without prefabricated walls, installations, furniture, carpets, electricity or any other technical supplies. All stand fees include one stand staff registration which will give access to the exhibition (but NOT to the scientific programme), teas, lunches and attendance of the Welcome Function.

| FLOOR SPACE ONLY – VAT EXCLUSIVE | | |
|----------------------------------|------------------------------------|--|
| 3x3 m | ZAR 35 000 before 31 December 2014 | |
| 3x3 m | ZAR 40 000 before 31 December 2015 | |
| 3x3 m | ZAR 45 000 before 30 June 2016 | |
| SHELL SCHEME – VAT EXCLUSIVE | | |
| 3x3 m | ZAR 2 635 | |

Companies exhibiting will be entitled to a maximum of one free badge per 9 m² booked. Any exhibitor badges additional to those already allocated for exhibition staff will need to be booked online at a cost of ZAR 5 000 per exhibitor badge which will provide access to the exhibition (but NOT to the scientific programme), teas, lunches and attendance of the Welcome Function. All staff, whether company staff or local stewards/hostesses, will need to wear an exhibitor badge.

During the exhibition AND during non-show hours, individuals without an exhibitor badge will not be admitted into the halls. To allow their staff to participate in the scientific programme, companies will need to register their staff at the congress delegate registration rate.

PROVISIONAL TIMING

Below is a provisional overview of the exhibition build-up and dismantling schedule. Exhibitors will be informed of the final dates and time schedules through the exhibitor manual (to be available online by January 2016).

2)16

| 26 August 2016 | 08.00 - 22.00 | Build-up |
|------------------------------|---------------|---------------|
| 27 August 2016 | 08.00 - 22.00 | Build-up |
| 28 August – 3 September 2016 | 09.00 - 17.00 | Opening hours |
| 4 September 2016 | 08.00 - 22.00 | Break-down |

CONTACT

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|-------------------|---|--|--|
| Exhibition Secret | Exhibition Secretariat | | |
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To download our Exhibition Brochure, click here.



VENUE

The 35[™] IGC will be held at the Cape Town International Convention Centre (CTICC), one of South Africa's largest purpose-built convention centres. A multipurpose conference and exhibition centre in the hub of Cape Town's business and entertainment centre, the Cape Town International Convention Centre (CTICC) combines the impassioned dedication of its capable personnel with an extensive range of premium venues, services and facilities. We create captivating experiences that see hosts and their guests returning year after year.

Website:http://www.cticc.co.zaPhysical Address:Convention Square 1 | Lower Long Street | Cape Town 8001 | South AfricaPostal Address:P.O. Box 8120 Roggebaai Cape Town 8120 South AfricaGPS Co-ordinates:-33.915141, 18.425657

DESTINATION

TRAVELLING TO SOUTH AFRICA

Safeguarded by one of the world's most progressive constitutions, an independent judiciary, a free press and a robust multiparty political system.

ADVENTURE EXPERIENCES

Whatever your adventure craving, South Africa can satisfy it. We have world-class climbing, surfing, diving, hiking, horseback safaris, mountain biking, river rafting and a host of other adventures supported by dedicated operators.

CULTURAL EXPERIENCES

From modern art galleries to rock art centres, state-of-the-art museums to remote cultural villages, city jazz clubs to open air festivals ... just some of the ways in which you can experience our rich culture and heritage for yourself.

CITY EXPERIENCES

Our cities are an exciting mix of first- and third-world influences. From happening Cape Town – one of the most beautiful cities in the world – to busy, bustling Johannesburg, each has its own unique attractions.

FOOD AND WINE

It's a cultural melting pot! South African food celebrates our rich heritage and natural bounty of seafood, meat, game and plants. Our wine has been earning rave reviews internationally for 300 years. Check out the menu – and find out where to eat tonight!

SUN AND SURF

From the West Coast's wild stretches of sand to the subtropical shores of Maputaland, there's a beach for every reason. Watch the sun rise over the Atlantic or Indian Oceans, work up that perfect tan or get active with some of the world's best surfing, windsurfing and diving. And then there's the golf.

WILDLIFE AND WILDERNESS

There's much more to South Africa than the lion, leopard, elephant, rhino and buffalo. Hundreds of species of birds and small animals such as the cute bush baby and the curious meerkat abound. Supporting all of these is our unparalleled botanical richness.

CURRENCY

The Rand (sign: R; code: ZAR) is the currency of South Africa. The rand has the symbol 'R' and is subdivided into 100 cents, symbol 'c'.

| ELECTRICITY | | |
|-------------|--------------|------------|
| | South Africa | 220/230 V* |

50 Hz

SOUTH AFRICA TIME ZONE GMT/UTC+02:00



TRAVELLING TO CAPE TOWN http://www.tourismcapetown.co.za

There is nowhere like Cape Town. Perched between the ocean and the mountain, with a national park as its heart, it's a place to renew and reconnect.

Cape Town, the 'Mother City', is the oldest city in our country and has a cultural heritage spanning more than 300 years. It also has the top five national attractions in South Africa that should appear on every visitor's itinerary all year round.

Don't miss a visit up Table Mountain; the V&A Waterfront, a unique shopping and holiday experience on a scenic working harbour; Robben Island, the former home of Nelson Mandela; the Cape Town Wine Routes, where some of the world's best wines are produced and Kirstenbosch Botanical Gardens, internationally acclaimed as one of the great botanical gardens of the world.

The unique topography of the region makes it easy to orientate yourself as long as you remember that with Table Mountain behind you and Robben Island before you, you are facing north, looking across Table Bay and up the west coast of Africa.

To help you find your way around the Cape Town region, the area is divided into four tourism areas - Cape Town Central, Cape Town North, Cape Town South and Cape Town East. These areas are defined by their geographical location and within each area there are a number of suburbs. Please visit the Cape Town Tourism website, at http://tourismcapetown.co.za/destination-marketing, for more detail.

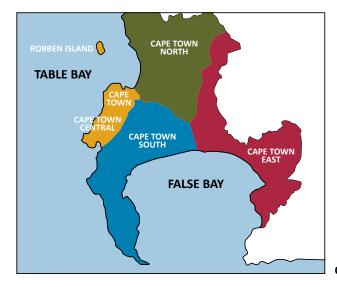
CAPE TOWN IS ONE OF THE MOST POPULAR LONG HAUL DESTINATIONS IN THE WORLD

It is in Cape Town that the Rainbow Nation really covers the spectrum. Between beautiful Cape Dutch homesteads, traditional dancers with painted faces performing in the streets, the smell of spicy Malay cooking and the taste of a well-made wine, this city will fill your senses.

You will never be bored in Cape Town. Table Mountain offers some of the best climbing in the world, and it's right here in the city. The surfing is fantastic; the diving is cold but good. You could go mountain biking or go sea kayaking – you may see whales or penguins. If the wind is right, you could fly off Lion's Head with a qualified tandem paraglider pilot, and land on the beach in time for sundowners. You'll never be bored.

If all this sounds too gung ho for you, don't worry. You can shop till you drop at Cavendish, Canal Walk or the Waterfront. There is lots of live music, art exhibitions, museums, plays and even opera, ballet or symphony concerts on all year round.

You will see from the map below that the Cape Town region stretches along a vast area of coastline.



CAPE TOWN REGIONS





GETTING AROUND CAPE TOWN

From The Airport

Cape Town International Airport is approximately 20 km from Cape Town's city centre. From the airport, you can hire a car, take a metered taxi or catch the MyCiti shuttle bus into the city centre.

Travel By Car

You can arrange to hire a car from Cape Town International Airport before you arrive. A range of car hire companies operate within the Cape Town city centre. The road infrastructure is excellent and road signs are of the highest international standards.

One drives on the left-hand side of the road, and the cars – rental cars included – are right-hand drive vehicles. All distances, speed limits (and speedometers) are in kilometres. Wearing of seat belts is required by law, while using hand-held phones while driving is against the law.

The general speed limit on major routes is 120 km/h (75 mph), on secondary roads it is 100 km/h (60 mph) and in built-up areas it is usually 60 km/h (35 mph) unless otherwise indicated.

Any valid driver's license is accepted, provided it bears the photograph and signature of the holder and is printed in English.

Travel By Bus

To commute around the city centre and out to Table View, Blaauwberg and Parklands, you can catch the MyCiti bus from various points. Please note that you will need to purchase a 'myconnect' bus card from the main station at the Civic Centre in Hertzog Boulevard or participating retailers in the area. For more information about the MyCiti bus routes, contact MyCiti on +27 860 103 089 or visit the MyCiti website at http://www.myciti.org.za/en/home/.

Travel By Train

The railway system in Cape Town is mainly focused on commuter transport, Train travel does not always run on schedule, so it's important to bear this in mind when planning a day out. As with train travel in most parts of the world, it is also important to be aware of potential pickpockets. For more information about train travel in Cape Town, visit the Metrorail website at http://www.capemetrorail.co.za/.

GREENER TRAVEL TIPS

Home

- Power down your house before you leave.
- Take documents needed for the meeting on your devices (laptop, smartphone), not paper (or at least print double sided).
- Pack light.
- Use rechargeable batteries for your devices.

Transit

- Fly coach/economy (more seats per plane).
- Daytime flights have less than half the environmental impact of red-eye flights; fly nonstop rather than connect.
- If you rent a car, get the smallest practical model, or a hybrid one.
- Car/van pool if driving (or otherwise try to choose greener methods of transit).
- Donate to carbon offset funds to offset your trip's carbon footprint.

Hotel

- Choose a hotel close to the venue, restaurants and public transit, so you can choose greener on the transportation scale.
- Don't buy travel-sized toiletries (at least reuse them); don't use the hotel-supplied amenities (unless the hotel only replaces them when low, and donates unused items to charitable organisations). Use your own small reusable containers for toiletries, or save small remaining amounts in regular size ones for travel and then recycle those empty containers before you come home. Keep soap in your own container so it's not replaced every day.

• Don't have your room cleaned every day; participate in the hotel's linen and towel reuse programme.



- Don't use room service because it uses more resources (and things such as one-use condiments, etc.).
- Turn off lights, unplug device chargers, and re-set HVAC when not in use and when leaving the room.
- Conserve water (as you do at home).
- Recycle materials in appropriate bins.
- Give feedback to the hotel about their green practices (or lack thereof) to create consumer-driven demand for better green practices.
- If your hotel room has a fridge, stock up at local store or farmers' markets for breakfast and snacks (instead of room service), and save money, too.

On Site

- Don't take paper and plastic from takeout (use the items you brought with you).
- Buy a water bottle filter and drink tap water, or buy larger size bottled water instead to use during your stay.
- Read newspapers online.
- Exchange contact information electronically (email, QR Code, or card sharing app)
- Recycle your badge, programme and all other materials before leaving the meeting.

VISA

The entry formalities and vaccination requirements for South Africa vary according to the country of origin. For specific information, you may contact your local travel agent or the South African Consulate in your home country or visit the SouthAfrica.info website at http://www.southafrica.info/travel/documents/visas.htm#.UrBWmOKn42w.

Letter Of Invitation

The congress organisers will be pleased to send a formal letter of invitation to delegates requesting an invitation letter for visa purposes. It is understood that such an invitation is intended to help potential delegates to raise funds or to obtain a visa. This does not imply a commitment from the organisers to provide any financial support. Letters of invitation may be requested from the congress secretariat. The letters will be sent via email.

ACCOMMODATION & TOURS

Please keep your eyes on the 35[™] IGC website, at <u>http://www.35igc.org</u>, for information on:

- List of accommodation establishments with rates
- Accommodation map
- FAQ
- T&Cs
- Tours tab



Invited parties interested in participating in this unique array of sponsorship opportunities, please contact Mike Wuth on <u>mikew@xbt.co.za</u> | phone +27 (0)11 486 1822 | mobile +27 (0)82 784 4161 For general enquiries, please contact Danie Barnardo on <u>barnardo@geoscience.org.za</u> | phone +27 (0)12 841 1072 | mobile +27 (0)84 588 6668 For exhibition enquiries, please contact Lesley Ferreira on <u>lesley@cebisaconferences.co.za</u> | phone +27 (0) 21 671 7670 | mobile +27 (0) 082 494 5475 For registration enquiries, please contact 35TH IGC Registration Team on <u>35IGC@allevents.co.za</u> | phone +27 (0) 21 948 9549

www.35igc.org