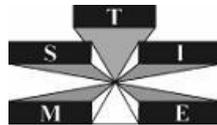


Graphic: NASA



THE INTERNATIONAL EMERGENCY MANAGEMENT SOCIETY - TIEMS

Invitation and Call for Posters

to

International Conference on

Space Weather and Challenges for Modern Society

Oslo, Norway, 22 – 24 October 2012

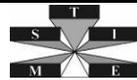
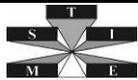
Sponsored & Supported by

Norwegian Water Resources and Energy Directorate
The Norwegian Space Centre
The Swedish Institute of Space Physics
Finnish Meteorological Institute

Statnett of Norway
Danish Meteorological Institute
Space Weather and Space Climate Journal
Polytechnic Society of Norway



Further Supporters, Exhibitors and Sponsors are Welcome!



BACKGROUND

2012 – 2013 is expected to be years with high solar activity. This can trigger larger solar storms which can generate disturbance on earth. Eruptions on the sun can trigger geomagnetic induced currents (GIC), enhanced UV and X-ray from solar flares can disturb our atmosphere, and high-energy particles can damage satellites. Thus, solar storms can affect the normal operations on specific industrial operations and critical infrastructure that our society depends on (e.g. power grids, oil industry, telecom, navigation systems, etc).

GIC can affect the normal operation of specific industrial operations and critical infrastructure (e.g power grids, telecom, navigation systems, etc). During space weather events, like solar storms, electric currents in the magnetosphere and ionosphere experience large variations, which manifest also in the earth's magnetic field. These variations induce currents (GIC) in conductors operated on the surface of the earth. Electric transmission grids and buried pipelines are common examples of such conductor systems. GIC can cause problems, such as increased corrosion of pipeline steel and may disturb and possibly damaged high-voltage power transformers and it can also have damaging effects on communication systems, navigation systems and oil and gas operations. Vulnerable industries are the oil and gas industry, railways, telecommunication industry, navigation industry and not at least the society, which is very vulnerable concerning short or long term interruption of critical infrastructure.

The conference will focus on increasing the general knowledge of solar storms, space weather, GIC, etc., and the possible consequences for different industries and critical infrastructure, and look into reasonable means of protection, and consider possible early warning solutions.

Conference Focus

The conference will focus on increasing the general knowledge of solar storms, space weather and GIC and the possible consequences for different industries and critical infrastructure, and look into reasonable means of protection, and consider possible early warning solutions.

The main topics which will be addressed at the conference are:

- *Solar Storms and Space Weather - History and Experiences*
- *Stormy Sun - our Current Knowledge*
- *Effects on Satellites, Navigation and Telecommunication*
- *Predictions of Solar Storms, Warnings, Preparedness Measures and Response*
- *Expectations and Effects on Electric Power Supply and Oil and Gas Exploration Activity*
- *Industries Preparedness and Protection Measures*
- *A Super Storm - What can happen and how to prepare for and handle it?*
- *Authorities Handling Strategies and Contentious Level*
- *Society's Ability to Withstand Short and Long Term Shut Down of Critical Infrastructure*
- *Future Developments and Expectations*
- *Other relevant topics related to Risk and Preparedness Measures*

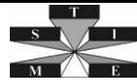
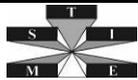
Who Should Attend

The topic is important for political and administrative decision makers, researchers in the field, risk management specialists, relevant vulnerable industry representatives, authorities, insurance industry and others who want to increase their general and specific knowledge on the subject.



Graphic: NASA

Space Weather Perspectives



Call for Posters

The best experts on space weather worldwide will be keynote speakers at the conference. The preliminary program and information on speakers, etc. can be viewed at: <http://www.tiems.info/about-tiems/oslo-conference-2012.html>. There is still room for more posters and we invite for submission of posters to be exposed at the three days conference on the above topics. There will be a poster session at the end of the conference, before the session on Future Development and Expectations, where all poster presenters will be given a few minutes to briefly present their posters. It will also be able to view the posters at all breaks during the conference.

Title and Abstract (less than 300 words) of posters to be submitted to TIEMS conference organizer, K. Harald Drager at khdrager@online.no before **31st August 2012**.

Conference proceedings will contain both papers and posters, and all poster presenters will also be able to submit a full paper of the poster to be included in the proceedings. Papers and Posters shall be no longer than 10 A4 pages. Instruction to Authors will be provided to the authors of approved papers and posters. Only papers and posters of authors registering for the conference before **9th September 2012** will be included in the Program and the Conference Proceedings.

All authors of papers and posters at the conference will also be invited to submit their paper for peer review and approval for inclusion in a special issue of Space Weather and Space Climate Journal, see <http://www.swsc-journal.org/>. The deadline for this submission will be three months after the conference or late January 2013.

Conference International Program Committee

The Conference International Program Committee members are:

- Pål Brekke, The Norwegian Space Centre, Norway, Chairman; paal.brekke@spacecentre.no
- Roger Steen, Norwegian Water Resources and Energy Directorate, Norway
- Risto Pirjola, Finnish Meteorological Institute, Finland
- Peter Wintoft, Swedish Institute of Space Physics, Sweden
- Peter Stauning, Danish Meteorological Institute, Denmark
- Alf Olaussen, Statnett, Norway
- K. Harald Drager, TIEMS President, Program Organizer and Committee Secretary; khdrager@online.no

The International Program Committee will review papers and posters and approve which ones will be presented at the conference, and included in the Final Conference Program.

Exhibitors

One of TIEMS goals with the conference is to establish a good dialogue between researchers, industry and authorities and "*close the gap between theory and practice*". We therefore welcome industry and others who like to expose their products, systems and solution within this field, to exhibit their solutions during the conference, and establish the necessary contacts to achieve practical results.

Conference Fee

The conference fee has to be paid prior to arrival at the conference. TIEMS web-site is open up for registration and payment, either by credit cards or bank transfer. The conference fee will include one year membership in TIEMS, and there will be a regular rate, a late rate and a rate during registration, as shown



below. The conference fee includes 1 copy of the proceedings and all social events. Conference fee depending on time of payment:

Time of Payment	Conference Fee
<i>Regular Rate – until 1st September 2012</i>	<i>Euro 450</i>
<i>Late Rate – After 1st September – 21st October 2012</i>	<i>Euro 500</i>
<i>Rate during Registration 22nd – 24th October 2012</i>	<i>4100 NOK (Euro 550)</i>
<i>Exhibition space (incl. table, chair and electricity)</i>	Contact khdrager@online.no

For cancellation of registration after 9th September 2012, there will be no refund.

Conference Program and Schedule

Monday October 22, 2012

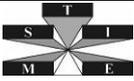
- 08:00 – 10:00 *Registration and Coffee*
- 10:00 - 10:45 *Opening and Welcome*
- 10:45 – 12:15 *Introduction to Space Weather*
- 12:15 - 13:30 *Lunch and Poster Viewing*
- 13:30 - 15:00 *Stormy Sun - our Current Knowledge*
- 15:00 - 15:30 *Coffee and Poster Viewing*
- 15:30 – 17:30 *Effects on Satellites, Navigation and Telecommunication*
- 18:00 - 20:00 *Reception at Oslo Town Hall by Oslo City Government*

Tuesday October 23, 2012

- 08:30 - 10:30 *Predictions of Solar Storms, Warnings, Preparedness Measures and Response*
- 10:30 - 11:00 *Coffee and Poster Viewing*
- 11:00 – 13:15 *Expectations and Effects on Electric Power Supply and Oil and Gas Exploration Activity*
- 13:15 - 14:30 *Lunch and Poster Viewing*
- 14:30 - 16:00 *Industries Preparedness and Protection Measures*
- 16:00 - 16:30 *Coffee and Poster Viewing*
- 16:30 - 18:00 *A Super Storm - What can happen and how to prepare for and handle it?*
- 18:00 - 18:30 *Reception with Poster Viewing*
- 18:30 – 20:00 *Reception continues with a Politician's reflections on Preparedness and a Popular Lecture on Northern Light Science*

Wednesday October 24, 2012

- 08:30 - 10:00 *Society's Ability to Withstand Short and Long Term Shut-Down of Critical Infrastructure*
- 10:00 - 10:30 *Coffee and Poster Viewing*
- 10:30 – 12:30 *Authorities Handling Strategies and Contentious Level*
- 12:30 – 14:00 *Lunch and Poster Viewing*
- 14:00 - 15:00 *Poster Presentations*
- 15:00 - 16:00 *Future Development and Expectations*
- 16:00 – 16:30 *Coffee and Poster Viewing*
- 16:30 - 17:00 *Summing Up and Conclusions*
- 17:00 *End of Conference*



Conference Venue



Photo: VisitOslo

The conference will take place in Oslo, Norway at Grand Hotel, www.grand.no, located in the centre of Oslo, with direct access to the main street, Carl Johan and opposite the Parliament building (Stortinget). Grand Hotel is amongst others famous for housing the Nobel Peace Prize Laureates during their stay in Oslo for the Nobel Peace Prize Ceremony.



Photo: Grand Hotel



The International Emergency Management Society - TIEMS

TIEMS was founded in 1993 in Washington, USA, and is today registered as an international, independent, non-profit NGO in Belgium. TIEMS is an International Network of Users, Planners, Researchers, Industry, Managers, Response Personnel, Practitioners, Social Scientists, and other Interested Parties and individuals concerned with Emergency and Disaster Management.

TIEMS stimulates the exchange of information regarding the use of innovative methods and technologies within emergency and disaster management to improve society's ability to avoid, mitigate, respond to, and speedily recover from natural and technological disasters. TIEMS is building a network of experts through local TIEMS Chapters all over the world, with the aim of "think globally and act locally".

TIEMS believes in a global dialogue to learn from exchange of expert information and experience. This year TIEMS plans to arrange 13 conferences and workshops around the world. The planned locations are: Norway, Japan, Italy, Nepal, Russia, Tunisia, Indonesia, Romania, Finland, Korea, China, France and BeNeLux. TIEMS also initiates and takes part in research & development projects which aim at developing and/or improving methods and technologies within emergency and disaster management.

TIEMS also is developing an International Education Training and Certification Program in Emergency and Disaster Management. The International Education Program comprises TIEMS Chapter Training and TIEMS QIEM (Qualifications in International Emergency and Disaster Management) Certification. More details are found on TIEMS web-site: www.tiems.org.

Hotel Registration

The conference hotel will be Grand Hotel, where rooms are booked for conference delegates and accompanying persons. In addition it is booked rooms at Rica Hotel adjacent to Grand Hotel. The reserved hotel rooms will be available for booking at special conference rates up to the given dates below for each hotel. After those dates, the conference organizer cannot guarantee availability and the special rates. The conference delegates are responsible for their own booking and payment of hotel, see registration forms in the following for both hotels.

Grand Hotel



(Availability and Special Rates available until 21st July 2012)

Room reservations made through Grand Hotel's homepage: www.grand.no

In order to get the special rate for this event: **TIEMS Conference**, log on to www.grand.no and choose from the following:

- Room reservation (– select dates)
- choose : "Select accounts"
- Under "Select Accounts":
- Account Code : **wwoslgr3**
- Promotional Code: ***g3k** (star + g3k)

The agreed rates for this event will then appear, please continue your reservation as normal.



Rica Victoria Hotel

RICA VICTORIA HOTEL REGISTRATION

Tiems

22. – 24. October 2012

Reference #11262780

Please return this form by 10. September, 2012, to RICA VICTORIA HOTEL

Fax: 47 24 14 70 01/booking.victoria@rica.no

Name: _____

Address: _____

Tel: _____ Fax: _____ e-mail: _____

I wish to reserve for: Arrival date: _____ Departure date: _____

Please select room category;

Standard room 1 pax NOK 1285,-

Standard room 1 pax NOK 1535,-

It is also possible to make reservation for higher room categories, please contact the hotel for the best available rates.

Above rates are per room per night, including buffet breakfast, taxes and access to our wireless internet system. Reservation and rooms allocation will be default on a first-com first-served basis. Rooms are available for check-in from 3 pm on date of arrival, and departure time is noon.

Request for accommodation received 10. September 2012, will be subject to the availability at the hotel.

I guarantee my arrival with the following credit card:

Card Holder name: _____

Card type: _____ Card No: _____ Exp: _____

Signature: _____ Date: _____

Please be advised that your reservation can only be processed if the credit card details are provided. You can cancel your reservation in writing without charge 24 hours before arrival at the latest. After this date, the hotel will charge you for the first night of the reservation.

In the case of no-show the hotel will charge you for the entire stay and release the remainder of your reservation. Thank you for choosing Rica Victoria Hotel for your stay in Oslo.