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SUSTAINABILITY AS A REQUIREMENT TO ENSURE THE VIABILITY OF SPACE ACTIVITIES: CASE OF EMERGING COUNTRIES

WORKSHOP OF THE WORKING GROUP ON THE LONG-TERM SUSTAINABILITY OF OUTER SPACE ACITIVITIES
TUESDAY , 6 FEBRUARY 2024

Sixty-first session of the Scientific and Technical Subcommittee: 2024

GUIDELINE REFERENCE

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A. Policy and regulatory framework for space activities	
Guideline A.1	Adopt, revise and amend, as necessary, national regulatory frameworks for outer space activities
Guideline A.2	Consider a number of elements when developing, revising or amending, as necessary, national regulatory frameworks for outer space activities
Guideline A.3	Supervise national space activities
Guideline A.4	Ensure the equitable, rational and efficient use of the radio frequency spectrum and the various orbital regions used by satellites
Guideline A.5	Enhance the practice of registering space objects

APPROACH TO IMPLEMENTATION ((DECISION MAKERS)

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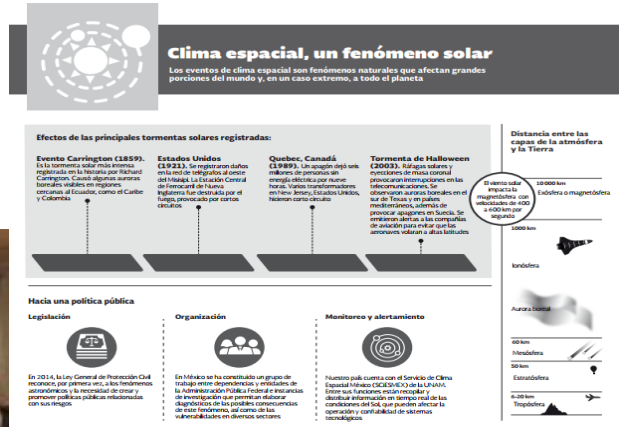
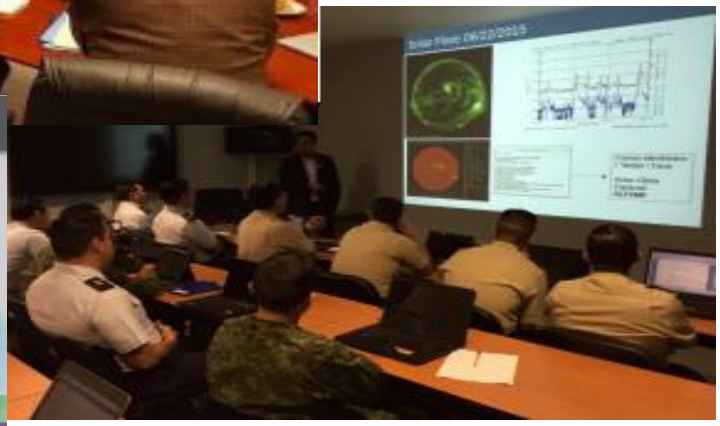
a) Group C: Space Weather
b) Safety of Space Operations-Guidelines (B.6 B.7)





AMMENDMENTS IN THE NATIONAL REGULATORY FRAMEWORK

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CÁMARA DE DIPUTADOS DEL H. CONGRESO DE LA UNIÓN
Secretaría General
Secretaría de Servicios Parlamentarios

Últimas Reformas DOF 03-06-2014

LEY GENERAL DE PROTECCIÓN CIVIL

Nueva Ley publicada en el Diario Oficial de la Federación el 6 de junio de 2012

TEXTO VIGENTE
Últimas reformas publicadas DOF 03-06-2014

LEGALLY BINDING ARTICLES

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Article 2.

“Disturbing Agents: Some of these phenomena affects the Earth, causing disturbances that can be harmful to the atmosphere and Earth's surface, these includes space weather and space debris.”

Article 20.

“In the case of the Disturbing Agents, the National Civil Protection Agency, the National Center for Disaster Prevention and the Mexican Space Agency, will work jointly within the framework of their mandate, to create and promote public policies related to prevention to disasters caused by objects from outer space."

EXPERIENCES, CHALLENGES AND LESSONS LEARNT

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- Mexican Space Weather Service (SCiESMEX)

  a) Space weather monitoring.
  b) Alert service
  c) Bulletin Space weather
  d) Compilation, data dissemination

MEXICO´S NEW WARNING CENTER

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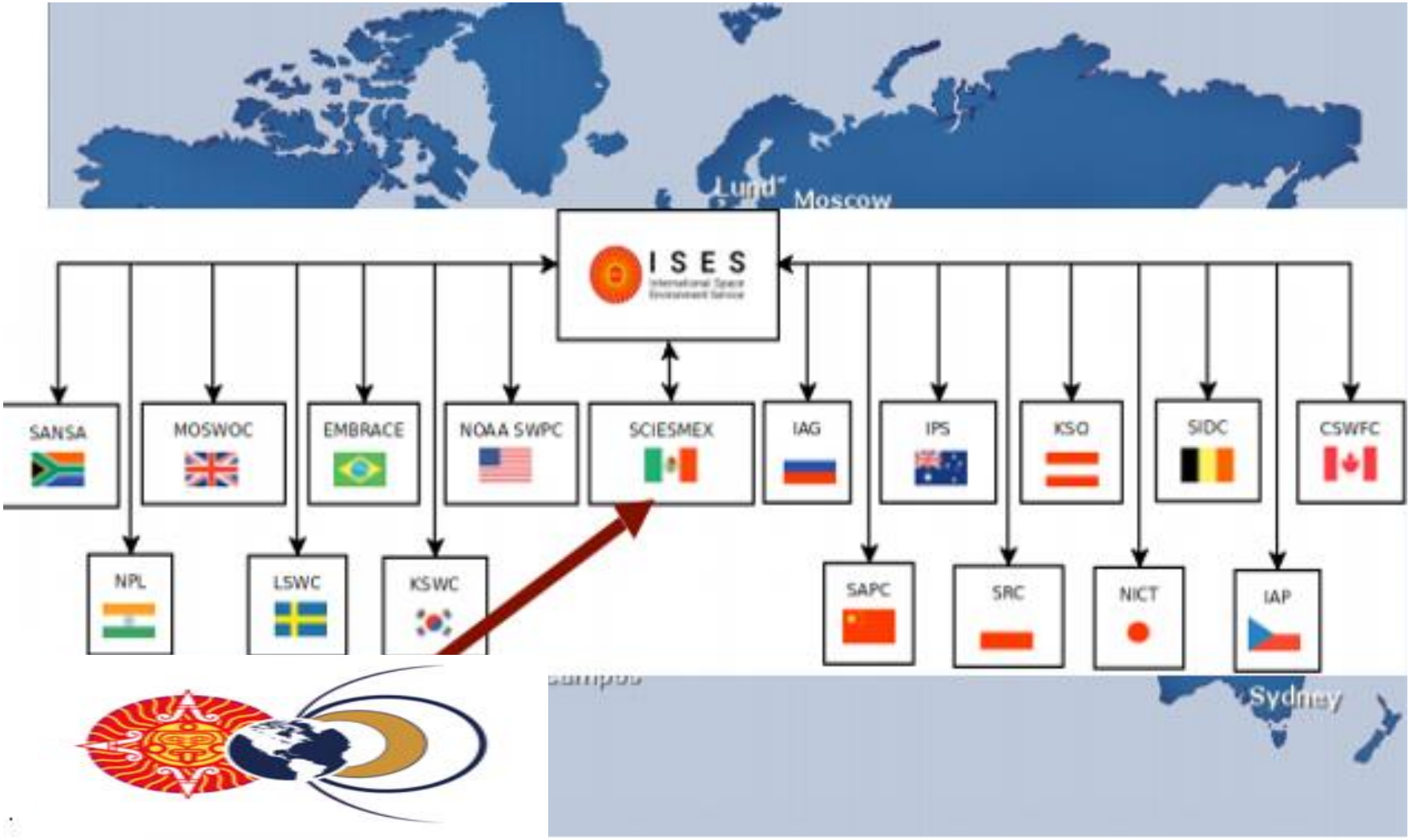

GROUND INSTRUMENTAL NETWORK

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- MEXART IPS radiotelescope (Michoacán)
- Geomagnetic observatory (Edo. de México)
- Comic ray's observatory (Mexico City)
- Muon detector (Puebla)
- TEC analysis/GNSS receivers' network (SSN-TLALOCNet)
- Callisto system (MEXART site)
- Schumann resonance (MEXART site)


TLALOCNet Core
TLALOCNet Contribuidos (PBO, NASA, CalTech, Cenib-IGEF, NSF)
SSN-TLALOCNet
SSN-TLALOCNet y SSN-TLALOCNet-SCiESMEX Instalación 2017
COCONet-México


OSE del SSN
SSN-TalocNet
Leyenda
Con GPS
Sin GPS
observatorios
ionosondas
magnetómetros
MÉXICO
SSN
SERVICIO SISMOLÓGICO NACIONAL
SSN-TLALOCNET
LANCE
Golfo de México
Mexico
Guatemala
Belice
Honduras
Isla de Cozumel
Misisipi
Alabama
Luisiana
NSIG
GUIG
HMIG
SRIG
BCIG
MGIG
CSIG
HPIG
TSIG
SSIG
PDIG
LPIG
MAIG
ZAIG
AGUG
GTIG
RPIG
CTUV
ANIG
IGIC
JRQG
DHIG
CXUV
CJIG
ACIG
LVIG
JAUV
PPIG
SCIG
YAIG
PMUV
MMIG
ARIG
PLIG
TUIC
MEIG
TOIG
ZIIG
TLIG
NEUV
UXUV
CAIG
DAIG
MGIG
TXIG
YOIG
CXIG
CMIG
TGIG
CRIG
PNIG
CCIG
PEIG
PCIG
THIG
MYIG
TEIG

PRODUCTS

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- Impact to to the national grid.
- Network of magnetometers to measure geomagnetic disturbances.
- To monitor ionospheric disturbances.
- To strengthen international collaborations in space weather.

RISK MANAGEMENT : SPACE WEATHER HANDBOOK

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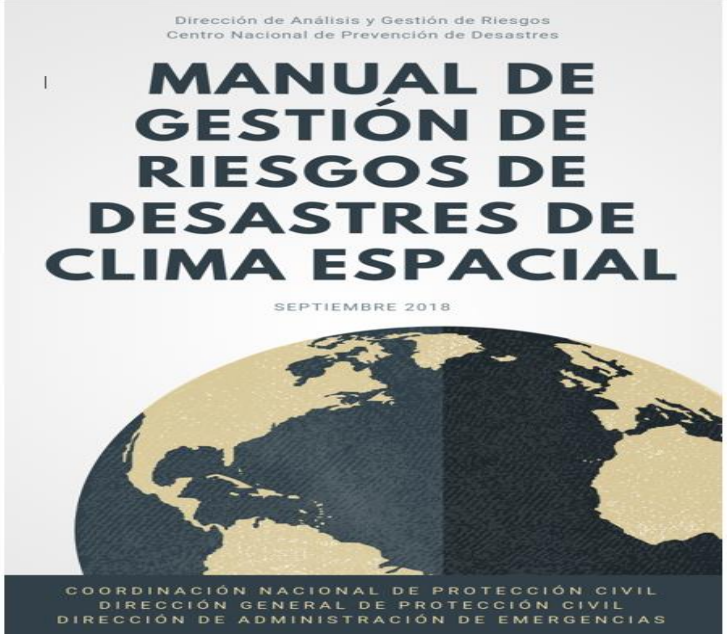
- Aims to alert and coping with space weather event.•
- Determine action protocols and alerting levels.



Color de Semáforo	Nivel y Descripción
Amarillo 2	**Precaución** Detección de evento intenso, sin afectaciones significativas en México.
Amarillo 3	**Alerta** Evento intenso con afectaciones en México.
Rojo	**Grave** Posible evento catastrófico (Carrington).

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¡ THANK YOU FOR YOUR ATENTION!

Jesús Roberto Romero Ruiz
Deputy Director of Space Security
Mexican Space Agency
romero.jesus@aem.gob.mx

COMUNICACIONES
SECRETARÍA DE INFRAESTRUCTURA, COMUNICACIONES Y TRANSPORTES

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