

23rd SYMPOSIUM ON SPACE POLICY, REGULATIONS AND ECONOMICS (E3)  
Policy and economic aspects of space weather (2)

Author: Dr. Werner R. Balogh

United Nations Office for Outer Space Affairs, Austria, werner.balogh@unoosa.org

Dr. Larry Paxton

The John Hopkins University Applied Physics Laboratory, United States, larry.paxton@jhuapl.edu

Dr. Daniel N. Baker

Colorado Center for Astrodynamics Research, University of Colorado, United States,  
Daniel.Baker@lasp.colorado.edu

IAA STUDY GROUP ON INTERNATIONAL COOPERATION ON SPACE WEATHER

**Abstract**

The complex interaction of the Solar magnetic field, electromagnetic radiation and particles emitted by the Sun and of galactic radiation with the interplanetary magnetic field and planetary atmospheres causes events and effects that are commonly referred to as space weather. Space weather can adversely affect spacecraft, satellites, electronic components and power-plant facilities, radio communications and other infrastructure elements on which human society is increasingly dependent. Over the last few decades a wide range of scientific programmes and international initiatives have been conducted to study space weather. They have contributed to increase our understanding of space weather-related events and effects. In 2010 the Scientific Activities Committee of the International Academy of Astronautics (IAA) approved the creation of a new Study Group on International Cooperation on Space Weather. The purpose of this Study Group is to review – from an international, scientific, economic and policy perspective – our present knowledge of space weather and its (socioeconomic) effects on human society, past and ongoing programmes and initiatives, identify possible existing gaps and untapped opportunities, and make recommendations and propose ways forward that could contribute to increase human society's understanding of - and resilience to - space weather. The paper will report on progress achieved in the work of the Study Group.