

Inter-Division B-C Commission Protection of Existing and Potential Observatory Sites

Inter-Division B-C Commission WG Site Protection

CHAIR
CO-CHAIR

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TRIENNIAL REPORT 2018-2021

1. Highlight of the Working Group's effort in the past three years

During the past triennium, the main task of the Working Group on Site Protection was to serve as the vehicle for Commission C.B7 and the Executive Committee Working Group for Dark and Quiet Sky Protection to support the IAU commitment to the Dark and Quiet Skies Workshop. That workshop was co-sponsored by the IAU, the Instituto de Astrofísica de Canarias (IAC), and the United Nations Office of Outer Space Affairs (UNOOSA). The purpose was to develop a set of policy recommendations for consideration and approval by the UN Committee on the Peaceful Uses of Outer Space (COPUOS), first through its Scientific and Technical Committee, then by the full UN General Assembly. The opportunity was originated by former IAU General Secretary, Piero Benvenuti, in collaboration with Simonetta Di Pippo, Director of UNOOSA.

The Workshop Scientific Organizing Committee (SOC) was chaired by the Commission President / EC WG Chair, Constance Walker, with support from Simonetta Di Pippo. The original intention was to hold the workshop in person in Santa Cruz de La Palma, Spain, in early October, 2020, but because of travel and other restrictions from COVID-19, the conference was held virtually, with some 900 global registrants. A follow-up workshop is now being planned for October, 2021 in the same venue.

The outcome of the process was a technical document, *Dark and Quiet Skies for Science and Society* (<https://www.iau.org/static/publications/dqskies-book-29-12-20.pdf>), and a 'Conference Room Paper' (<https://www.iau.org/static/publications/uncopuos-stsc-crp-8jan2021.pdf>), the summarized recommendations formatted for consideration by UN COPUOS.

The process was managed by the SOC that coordinated the efforts of five Working Groups: Dark Sky Oases, Bio-Environment, Optical Astronomy, Satellite Constellations, and Radio Astronomy. The Working Groups met several times over the course of the spring and summer of 2020 in order to prepare draft reports for presentation and discussion at the Workshop in October. The input from the workshop participants was then taken into account in producing the versions of the technical document and conference room paper referenced above.

2. Commission and other IAU participation

The Working Group recommendations and documents represent a hard-won consensus, because membership included participants from lighting engineering and lighting manufacturing associations, as well as satellite constellation operators. Commission C.B7

members played very active roles in the research and development of the reports. (IAU officers and members of other commissions are listed in parentheses.)

SOC: Constance Walker (Chair), John Barentine, Zouhair Benkhaldoun, (Piero Benvenuti), Richard Green, (John Hearnshaw), Harvey Liszt, James Lowenthal, (Casiana Muñoz Tuñón), (José Miguel Rodríguez Espinosa), (Antonia M. Varela Perez).

Dark Sky Oases: (John Hearnshaw (Co-Chair)), (Antonia M. Varela Perez (Co-Chair)), John Barentine, Zouhair Benkhaldoun, (Casiana Muñoz Tuñón), (José Miguel Rodríguez Espinosa), Constance Walker.

Optical Astronomy: Richard Green (Co-Chair), (Casiana Muñoz Tuñón (Co-Chair)), John Barentine, Zouhair Benkhaldoun, (Chris Benn), (John Hearnshaw), (Sergio Ortolani), (José Miguel Rodríguez Espinosa), (Antonia M. Varela Perez), Constance Walker.

Bio-Environment: James Lowenthal (Co-Chair).

Satellite Constellations: (Lori Allen), (Michele Bannister), (Martin Barstow), (Cess Bassa), (Piero Benvenuti), (Roger Davies), (Daniel Devost), David Galadí-Enríquez, Richard Green, Olivier Hainaut, Harvey Liszt, James Lowenthal, (Sara Lucatello), (Robert Massey), (Jonathan McDowell), Angel Otarola, Meredith Rawls, (Rob Seaman), (Patrick Seitzer), (Rachel Street), Jeremy Tregloan-Reed, (Tony Tyson), (Eduardo Unda-Sanzana), Richard Wainscoat, Constance Walker, (Olga Zamora).

Radio Astronomy: Harvey Liszt (Chair), (Michael Lindqvist), (Masatoshi Ohishi), (Adrian Tiplady), (Tasso Tzioumis), (Bevin Ashley Zauderer).

3. Conclusion and future plans

Commission C.B7 and Workshop SOC members have been active along with the Presidents of IAU National Committees in engaging national COPUOS delegates to familiarize them with the contents of the Conference Room Paper and to encourage their endorsement. The late April, 2021, meeting of the COPUOS Scientific and Technical Committee will be the first to be held in virtual format, so the IAU presentation of the Dark and Quiet Sky protection recommendations is particularly challenging. The prospect of UN endorsement makes the substantial effort well worthwhile.

Richard F. Green
Chair of the Working Group