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THE IMPACTS OF SATELLITE CONSTELLATIONS ON OPTICAL ASTRONOMY: THE GOOD,
THE BAD AND THE UGLY

Abstract

The launching of the first constellation of Starlink satellites by SpaceX in May 2019 set into motion an organized response by astronomers worldwide in terms of two workshops in 2020 (known as SATCON1 and Dark and Quiet Skies or D&QS) with a follow-up workshop and conference in 2021, respectively. The workshops in 2020 focused on the recommendations to mitigate the impact of the satellite constellations and the workshop and conference in 2021 focused on how to implement the mitigation strategies, as well as on policy. All meetings involved various stakeholders including participants from lighting engineering and lighting manufacturing associations, as well as satellite constellation operators. The final D&QS reports included attendees' feedback from the workshop in 2020 and has been published as a full workshop report (<https://www.iau.org/static/publications/dqskies-book-29-12-20.pdf>) and a Conference Report Paper (<https://www.iau.org/static/publications/uncopuos-stsc-crp8jan2021.pdf>). The CRP (along with a technical presentation) was presented at the United Nations Office of Outer Space Affairs (UNOOSA) Committee on the Peaceful Uses of Outer Space (COPUOS) Science and Technology Subcommittee (STSC) in April 2021. The outcomes of the STSC meeting as well as the SATCON2 workshop and the DQS conference in 2021 will be discussed.