

# Supplemental Material for “Blue Flashes as Counterparts to Narrow Bipolar Events: the Optical Signal of Shallow In-Cloud Discharges”

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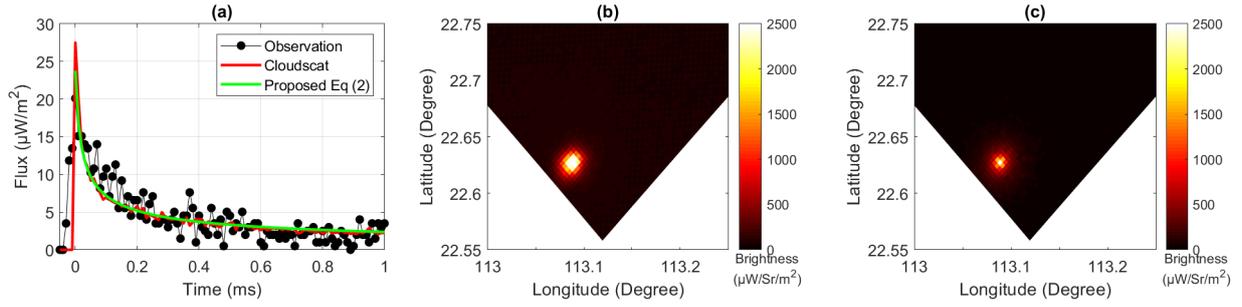
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## Contents of this file

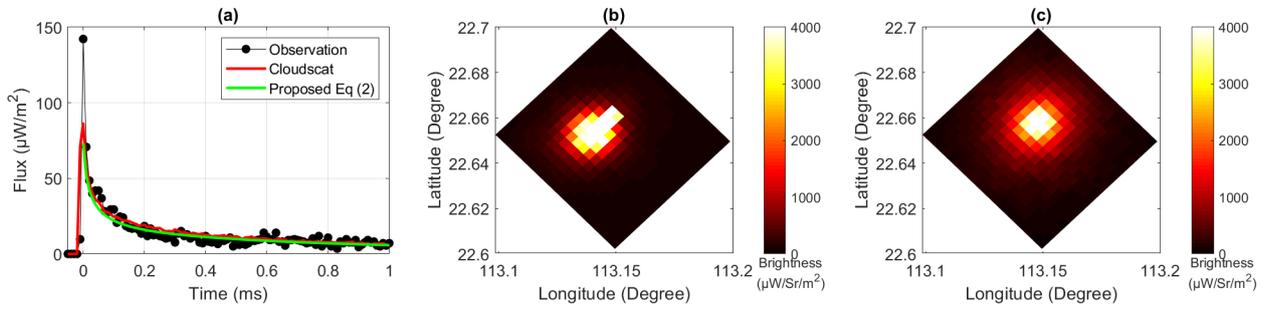
1. Figures S1 to S8

## Introduction

The comparison between modeling results and MMIA observations for event 1 to 8 (Figure S1 – S8) are given in the supplemental material.



**Figure S1.** Comparison between modeling results and MMIA observations for event 1. (a) The 337 nm photometer signal and the modeling results by using two mentioned methods: the proposed equation (2) in this study and CloudScat model, (b) the image detected by 337 nm filtered camera of MMIA and (c) the simulated image obtained from CloudScat model.



**Figure S2.** Similar to Figure S1, but for event 2.

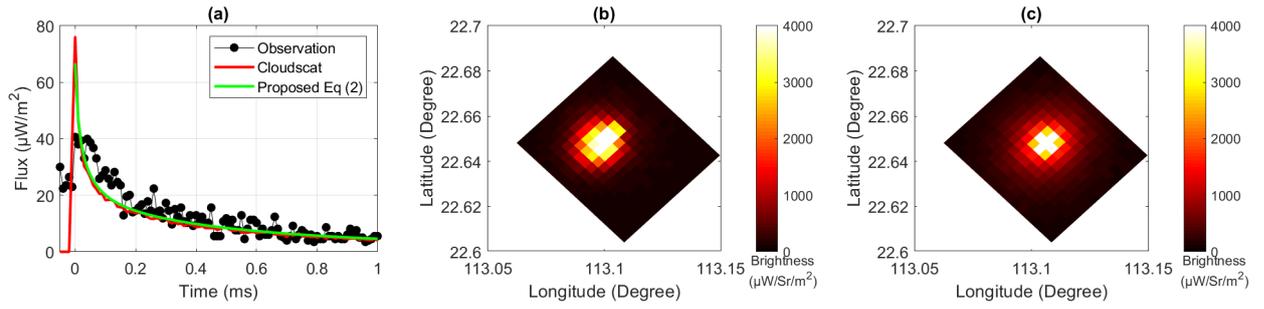


Figure S3. Similar to Figure S1, but for event 3.

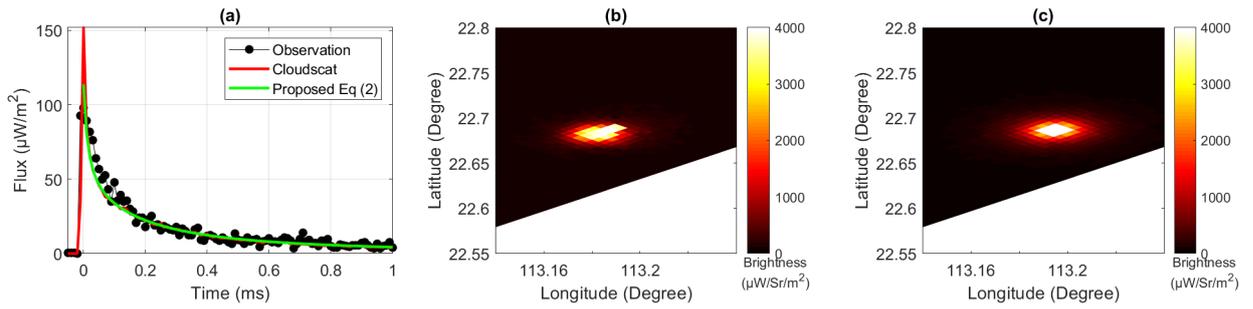


Figure S4. Similar to Figure S1, but for event 4.

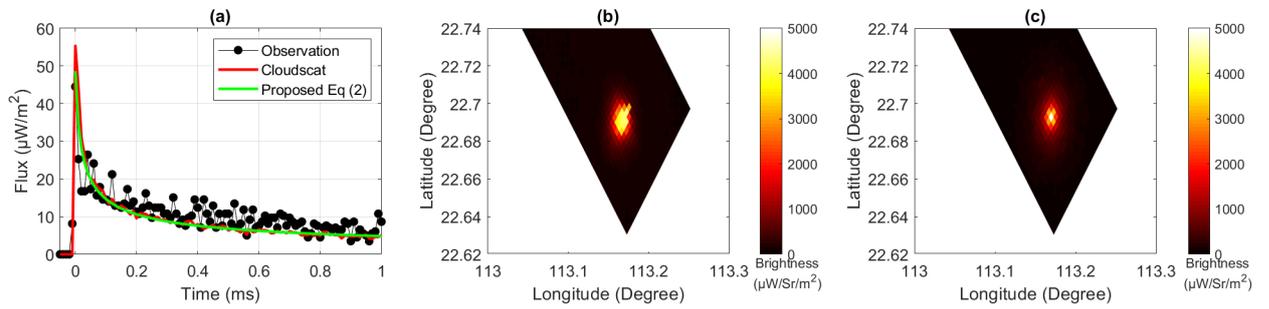


Figure S5. Similar to Figure S1, but for event 5.

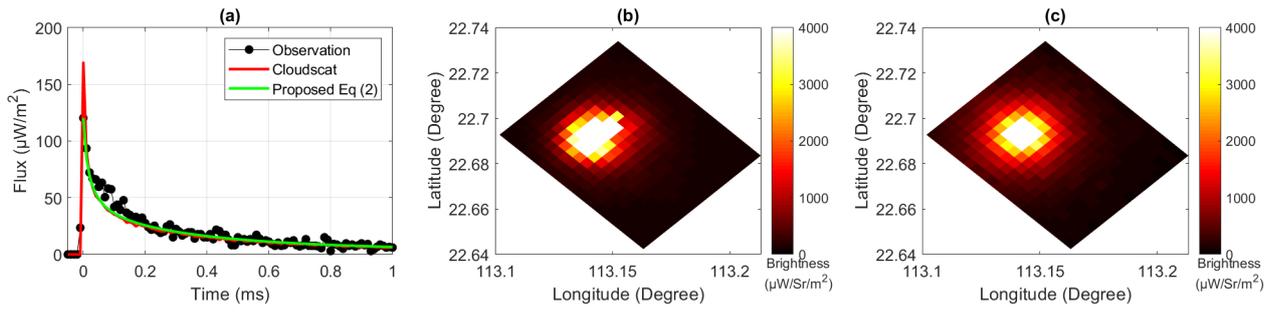


Figure S6. Similar to Figure S1, but for event 6.

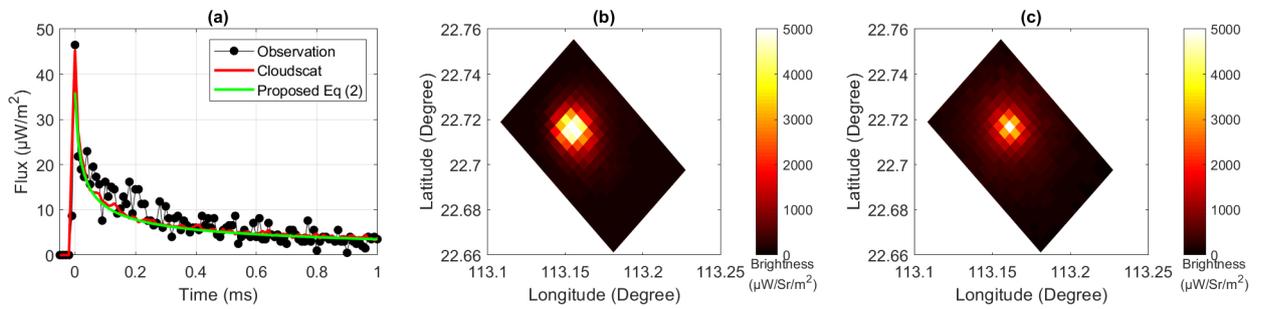


Figure S7. Similar to Figure S1, but for event 7.

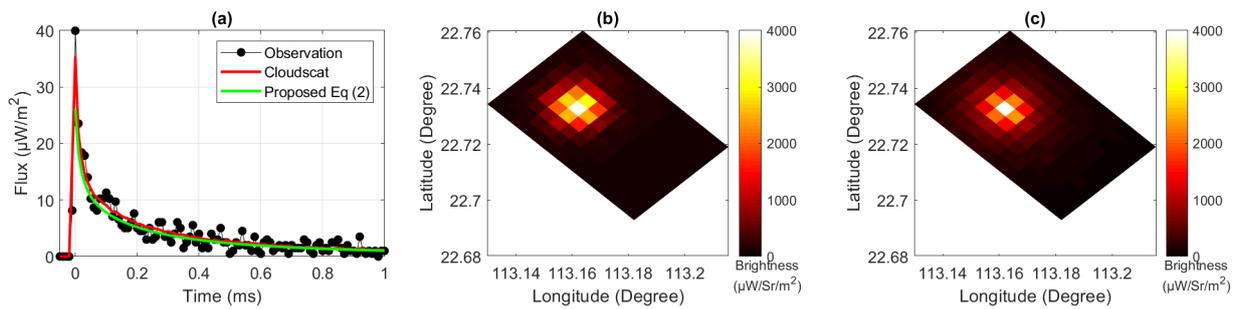


Figure S8. Similar to Figure S1, but event 8.