INTRODUCTION: The Lightning Imaging Sensor (LIS) was designed for the Tropical Rainfall Measuring Mission (TRMM). The TRMM LIS collected lightning data from space from 1998-2015 onboard the TRMM satellite. During August 2001 the TRMM satellite was boosted from 350 to 402.5 km altitude. In 2017 another LIS (built as a backup to the TRMM LIS) was launched into orbit and located on the International Space Station (ISS). The ISS LIS has been observing lightning from space since February 2017 from an orbital altitude of about 410 km. This study compares ISS LIS lightning observations with those obtained from post-boost TRMM LIS.

In addition, initial annual and seasonal maps of lightning flash rate climatology are shown using the ISS LIS observations. These ISS LIS lightning climatological maps compare favorably with those previously obtained from TRMM LIS and Optical Transient Detector (OTD) observations.