City Light Pollution Affects Air Pollution

Harald Stark*, [a], S.S. Brown, W.P. Dubé [a], N. Wagner [a], T.B. Ryerson, I.B. Pollack [a], C.D. Elvidge, D. Ziskin, D.D. Parrish
* harald.stark@noaa.gov, Phone: 303-497-5426
National Oceanic and Atmospheric Administration, Earth System Research Laboratory, 325 Broadway, Boulder, CO 80305, USA
[a] Also associated with Cooperative Institute for Research in Environmental Sciences, University of Colorado, Boulder, CO 80309, USA

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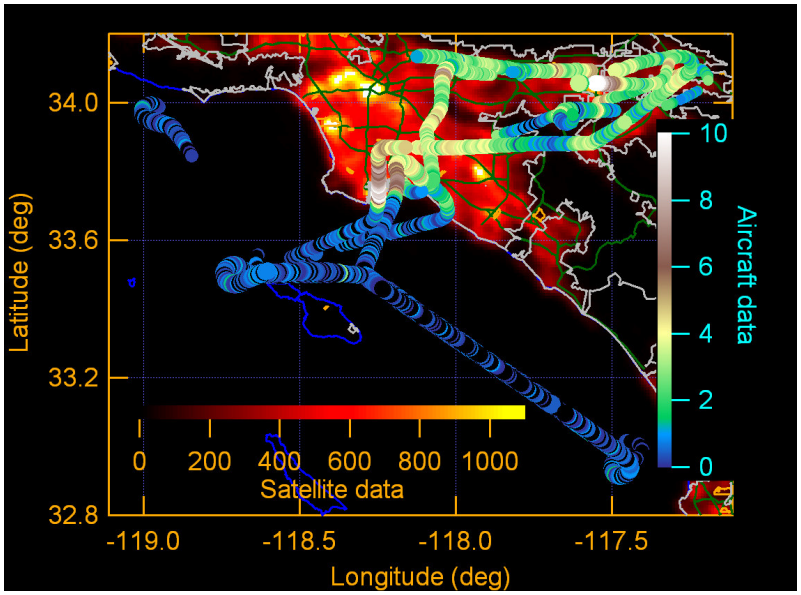
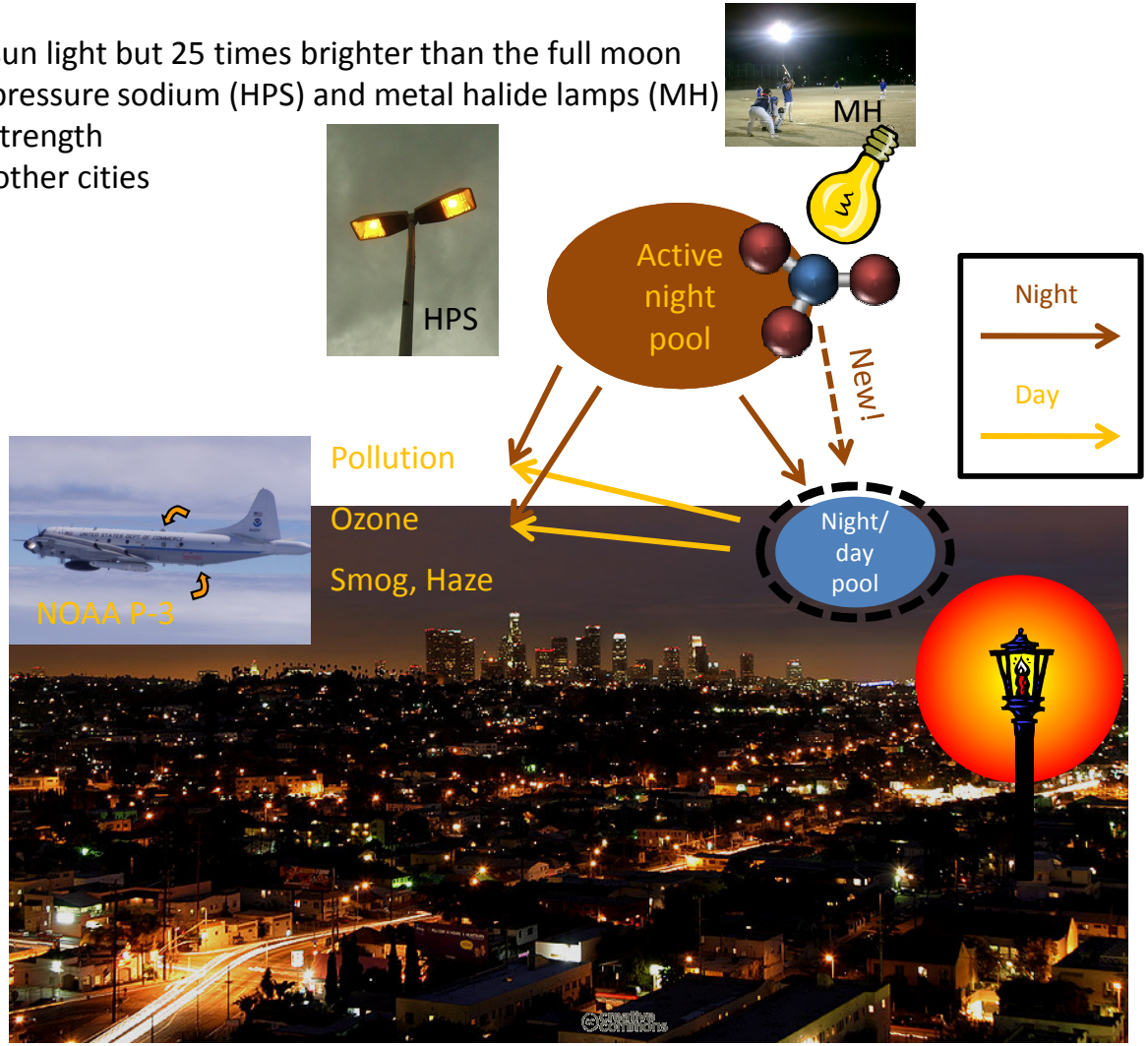
Location: Moscone South
Tuesday, December 14th
8am-12pm

First airborne measurements of city lights intensities

- City lights over Los Angeles are 10,000 times dimmer than sun light but 25 times brighter than the full moon
- Two street light types identified by color fingerprints: high-pressure sodium (HPS) and metal halide lamps (MH)
- Light intensities were converted into chemical destruction strength
- Satellite data can be used to estimate light intensities over other cities
- City lights can
  - Destroy nighttime cleansing chemicals
  - Slow down night time cleansing of pollution
  - Lead to more starting chemicals for the next day
  - Affect ozone levels after sunrise



Aircraft data calibrates satellite



Los Angeles at night: City lights and chemistry, viewed from the air