

---

# The XS Celestial (8 GHz) Reference Frame: current status and plans

David Gordon<sup>1</sup> and Christopher S. Jacobs\*<sup>2</sup>

<sup>1</sup>US Naval Observatory – United States

<sup>2</sup>Jet Propulsion Laboratory, California Institute of Technology – United States

## Abstract

The current XS-band (8 GHz) celestial reference frame (CRF) consists of about 5700 sources constructed from more than 17 million observations. The distribution of sources north of -45 degrees declination is fairly uniform with some over-density neath ecliptic plane in order to provide for spacecraft navigation. The observations in this part of the sky are dominated by observations with the VLBA. South of -45 degrees declination the density of sources is lower due to fewer station and fewer observations in the far south. Overall the median precision of the XS-band CRF is 108 microarcsec in right ascension and 189 microarcsec in declination. The median number of sessions per source is 5. We will discuss future plans to improve the XS frame.

---

\*Speaker