

US19720810 (Daylight Earth grazer)

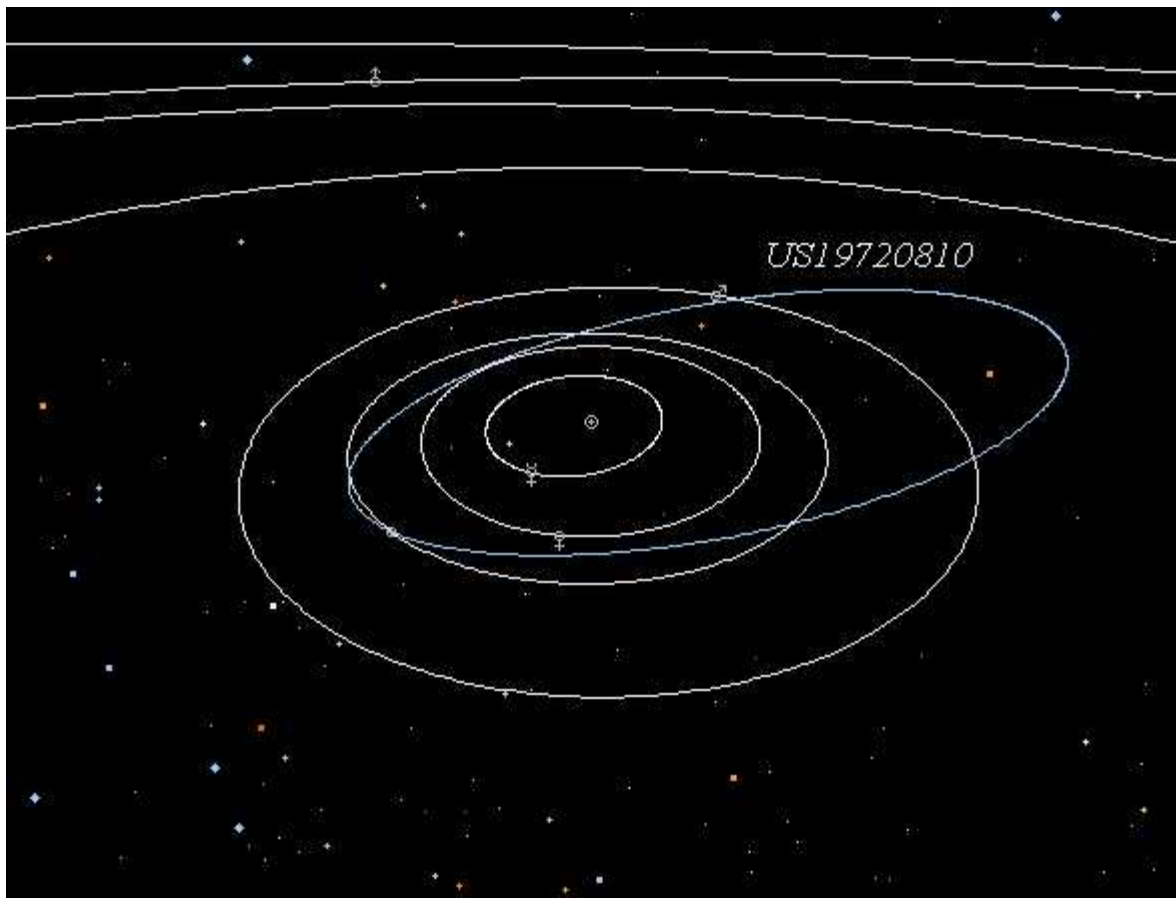
CHARACTERISTICS

BEST ORBIT (J1950.0)

Before encounter

Semimajor axis: 1.661 +- 0.004 AU
Eccentricity: 0.3904 +- 0.0016
Inclination: 15.22 +- 0.03 deg.
Longitude of the ascending node: 317.956 deg.
Argument of perihelion: 355.57 +- 0.08 deg.
Apparition time: 1972 08 10 20:29 UT

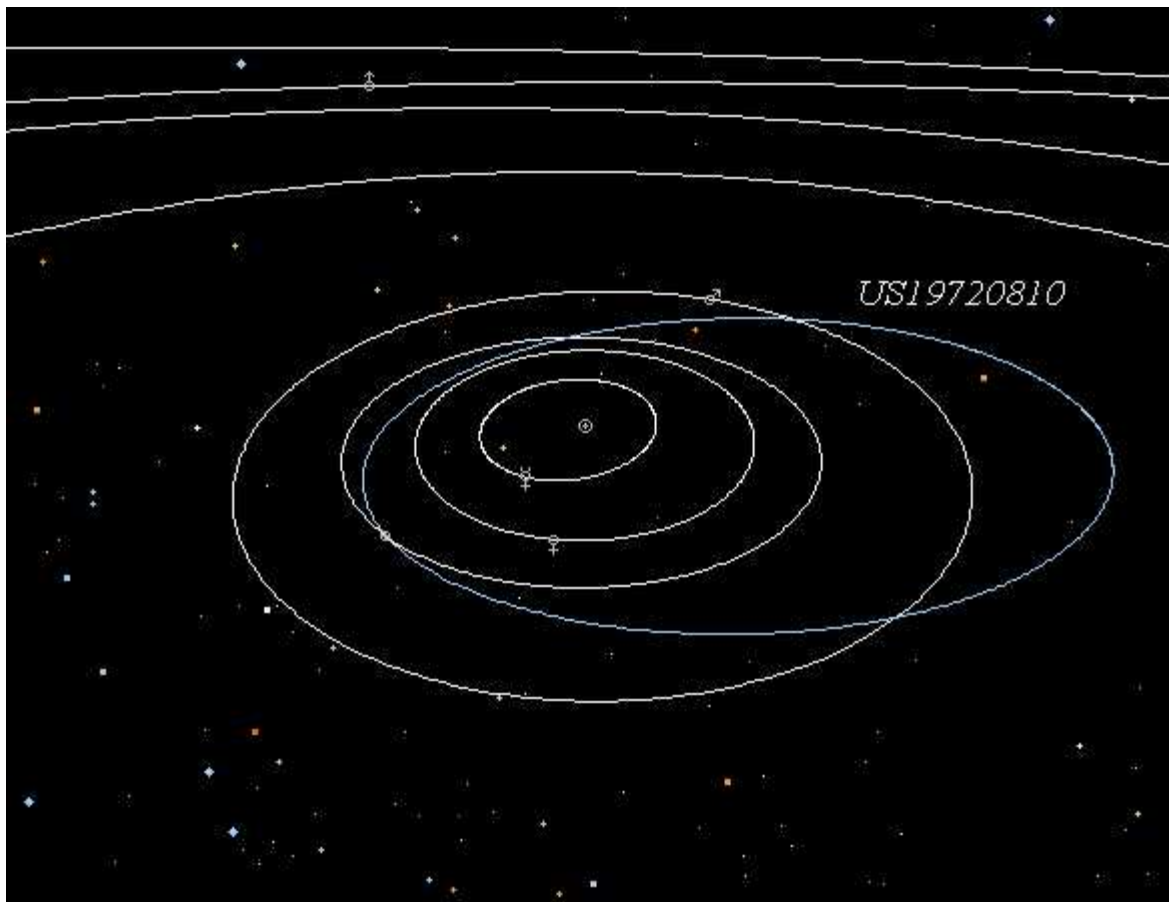
Image of the orbit



After encounter

Semimajor axis: 1.4715 ± 0.0009 AU
Eccentricity: 0.3633 ± 0.0004
Inclination: 6.928 ± 0.012 deg.
Longitude of the ascending node: 317.949 deg.
Argument of perihelion: 315.76 ± 0.02 deg.
Apparition time: 1972 08 10 20:29 UT

Image of the orbit



BEST TRAJECTORY IN THE ATMOSPHERE

Before encounter

Latitude of perigee point: 44.386 deg. N
 Longitude of perigee point: 247.007 deg. E
 Height of perigee point: 57.85 km

Geocentric Radiant:

- Right Ascension: 159.00 +- 0.02 deg.
- Declination: -67.48 +- 0.08 deg.

Speed: 15.083 +- 0.019 km/s

Released energy: kton

Absolute Visual magnitude: -15 to -19

After encounter

Geocentric Radiant:

- Right Ascension: 155.538 +- 0.007 deg.
- Declination: -19.05 +- 0.03 deg.

Speed: 14.208 +- 0.005 km/s

Released energy: kton

Absolute Visual magnitude: -15 to -19

PHYSICAL PARAMETERS

Mass: 1E+5 to 1E+6 kg

Size: 5 to 10 m

Classification: II (most probable)

REFERENCES

- Ceplecha Z.: Earth-grazing daylight fireball of August 10, 1972. *Astronomy and Astrophysics* **283**,

(1994), 287-288.

- Ceplecha Z.: Impacts of meteoroids larger than 1 m into Earth's atmosphere. *Astronomy and Astrophysics* **286**, (1994), 967-970.

Last update: 13/10/2000