The background of the slide is a photograph of the aurora on Saturn, showing vibrant green and blue light streaks against a dark, starry sky. The aurora appears as vertical, shimmering columns of light, with some horizontal bands near the bottom. The overall color palette is dominated by deep blues, purples, and greens, with a bright yellowish-white glow at the very bottom edge, likely representing the planet's atmosphere or a bright light source.

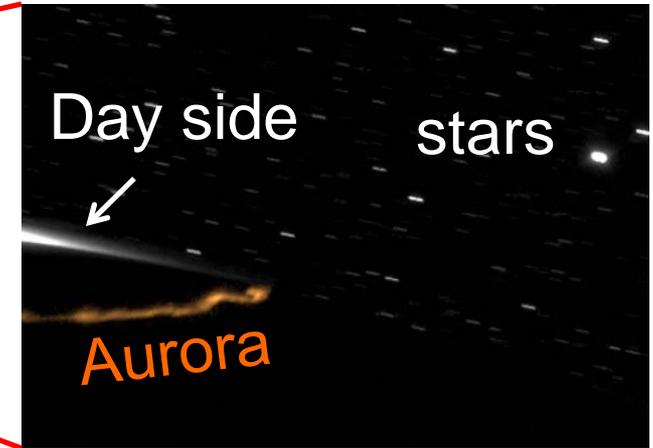
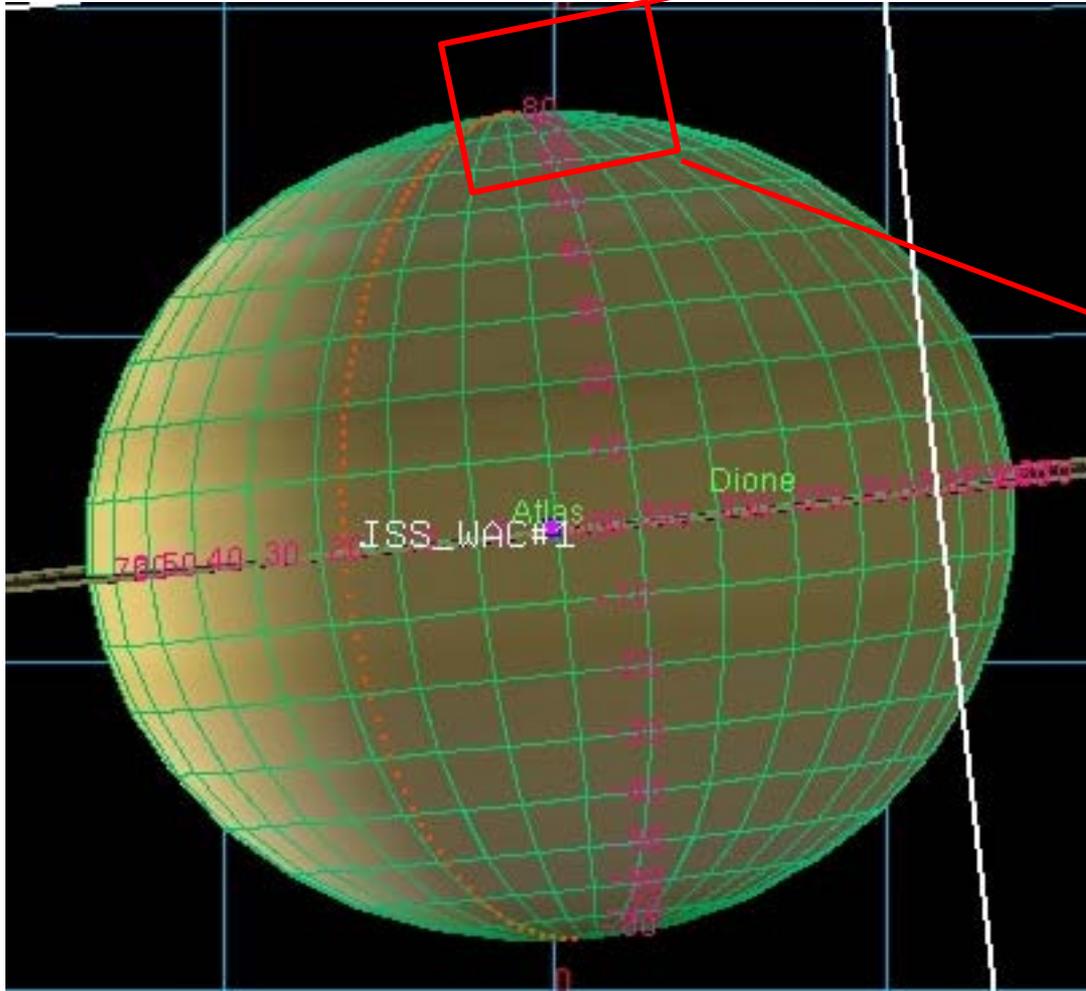
Cassini ISS

Visible aurora on Saturn.

Ulyana Dyudina, A. P. Ingersoll, S. P. Ewald

CHARM telecon, January 26, 2010

October 2009 ISS observation



- 472 frames
- 81 hour
- 2 - 3 minute exposures
- Broadband visible wavelengths, no color information
- Orange aurora is a false color

October 2009 movie (472 frames, 81 hours)

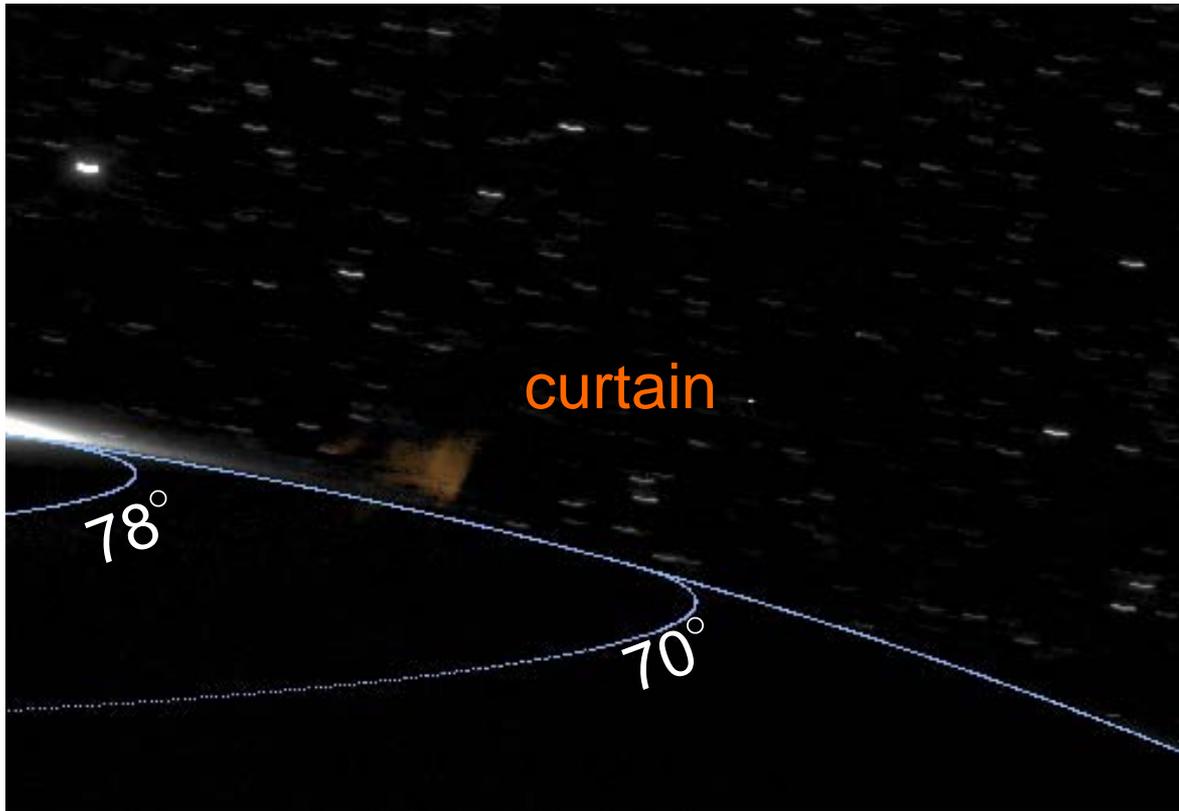


Timing



- Length of and order of 10 minutes for bright features like "Snake"
- "Snake"-like features appear just twice in 81 hours.
- Curtains reappear on consecutive Saturn days

Heights and location



- Image scale is 32 km (20 miles) per pixel
- Curtain height is 1,200 kilometers (746 miles) above the planet's limb.
- Latitude of aurora is about 74° and changes with time by several degrees.

Color

- Not measured in this movie
- Cassini images from 2006 show emission from hydrogen – aurora is probably multicolored as on Earth.
- On Earth colors may be red, green, blue, purple, orange, produced by nitrogen, oxygen and other gases.

Future ISS observations

- More movies.
- Movies in color
- Better time resolution of the future movies
- We cross fingers for the bright aurora during our planned observations