Figure 1. Uranus and its rings as seen from a topocentric observer at the midtime of the event. Also shown are the tracks of the star as seen from the IRTF and Lowell Observatory, with circles indicating the beginnings of the drawn tracks. The track for the IRTF is slightly north of the track for Lowell because Uranus's topocentric velocity had a significant northward motion during the event. The north rotational pole (NRP) is indicated; this is the same as the IAU south pole.

Figure 2. Overview of event, binned to 1-minute averages. Thick lines indicate the airmasses included in the fits for the airmass correction and baseline estimates. At this binning, the narrow rings are not visible.

Figure 3. Normalized stellar flux during immersion (lower) and emersion (upper, offset by 0.5) as a function of distance from the center of the occultation shadow, for the 1998 November 6 occultation observed from Lowell Observatory. The smooth, thick lines are the best-fit isothermal lightcurves, as described in the text and in Table II. The data are shown as thin lines. To aid the comparison of data and model, the data have been binned by a factor of 10 (2.5 s per plotted point). The fits were performed on the unbinned data. The increase in the residuals during the main drop is caused by scintillation spikes from small-scale density fluctuations in the Uranian atmosphere.

Figure 4. Isothermal fits to realistic atmospheres. Three representative non-isothermal atmospheres are plotted on the left-hand column. The middle panel (model B) is the "compromise" atmosphere of Herbert *et al*. (1987), while the pressures in models A and C have been arbitrarily divided or multiplied by a factor of 10. The synthetic occultation lightcurve for each atmosphere is plotted as a solid line on the right-hand column, with the best-fit isothermal lightcurve plotted as a dashed line. Notice the similarity of the two curves, especially for models A and B. On the left-hand plots, the thick line indicates the region corresponding to one scale height above half-light to 4 scale heights below. The plus marks

the equivalent isothermal temperature (T_{iso}) at the half-light pressure (p_h), while the diamond marks T_{iso} at 2.6 scale heights below half light. Note the close agreement of the lower point with the original atmospheric profile in all three cases.

Figure 5. (a) Equivalent isothermal temperature vs. date of observation, from Baron *et al.* (1989) and this work. The temperatures in Baron *et al.* (1989) have been adjusted to use the values of mean molecular weight and gravitational harmonic coefficients described in the text. Latitudes range from – 34° to +27° with most of the measurements falling within two narrow latitude bands: –20° to –15° (diamonds) and +4 ° to +9° (circles). All other latitudes are plotted as crosses. Baron *et al*. do not provide error bars for temperatures, but from their discussion of errors for half-light times and the scaling of French *et al*. (1978), we estimate these measurements have errors typically around 1-5 K. (b) Subsolar latitude (defined with the rotational North pole at +90) vs. date. (c) The solar f10.7 index vs. date.