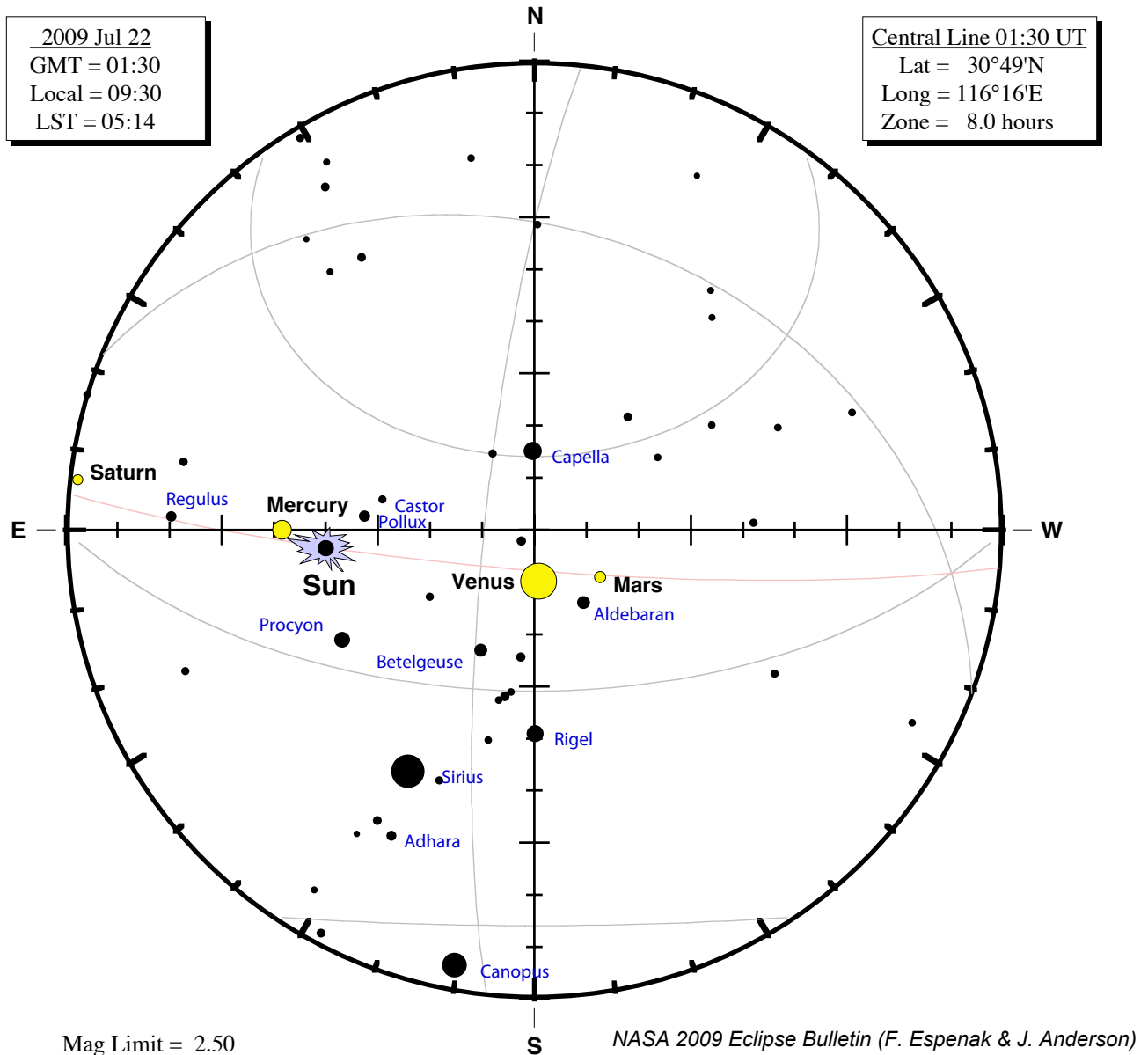


FIGURE 25 - SKY DURING TOTALITY AS SEEN FROM CENTRAL LINE AT 01:30 UT

Total Solar Eclipse of 2009 Jul 22



The sky during totality as seen from the central line in China at 01:30 UT. The brightest planets visible during the total eclipse will be Mercury ($m_v = -1.4$) and Venus ($m_v = -3.9$) located 9° east and 41° west of the Sun, respectively. Saturn ($m_v = +1.1$), and Mars ($m_v = +1.1$) will be more difficult to spot. Bright stars, which might also be visible, include Procyon ($m_v = +0.38$), Sirius ($m_v = -1.44$), Betelgeuse ($m_v = +0.5v$), Rigel ($m_v = +0.12$) and Capella ($m_v = +0.08$).

The geocentric ephemeris below (using Bretagnon and Simon, 1986) gives the apparent positions of the naked eye planets during the eclipse. *Delta* is the distance of the planet from Earth (A.U.'s), *App. Mag.* is the apparent visual magnitude of the planet, and *Solar Elong* gives the elongation or angle between the Sun and planet.

Ephemeris: 2009 Jul 22 01:30 UT

Equinox = Mean Date

Planet	RA	Declination	Delta	App. Mag.	Apparent Diameter <i>arc-sec</i>	Phase	Solar Elong $^\circ$
Sun	08h06m13s	+20°16'35"	1.01603	-26.7	1889.0	-	-
Moon	08h03m41s	+20°32'23"	0.00239	-	2005.4	-	-
Mercury	08h45m08s	+19°54'46"	1.31901	-1.4	5.1	0.95	9.1E
Venus	05h11m09s	+20°51'31"	1.06004	-3.9	15.7	0.70	40.9W
Mars	04h20m45s	+21°03'01"	1.80846	1.1	5.2	0.91	52.5W
Jupiter	21h50m24s	-14°09'22"	4.11192	-2.8	47.9	1.00	154.4W
Saturn	11h20m17s	+06°27'08"	10.06221	1.1	16.5	1.00	49.0E