



**The panoramic E.R.S.C.**

**Location :** South pole in Antarctica from where the earth rotates axially in a clockwise direction and all the longitudinal hour indicators radiate to meet again at the north pole.

**Size of the E.R.S.C. clock-face :** The radius of the face is 10 metres and it is placed centrally on the surface of the south pole. Its prime longitudinal hour indicator (0°) indicating the G.M.T. of global time reference is aligned along longitude 0° of Antarctica and it moves in unison with the earth's axial rotation.

**Circular time-band indicating the G.M.T.s of the clock-face :** It is a band 70 cms. wide surrounding the face while leaving a gap 3 cms. wide in between. The G.M.T.s are clearly indicated on it. Each hour interval is subdivided into 60 minute intervals for determining time.

**Satellite suspending the circular G.M.T. time-band :** The satellite hovers at a convenient height directly above the south pole and suspends the circular time-band coaxially just 3 cms. above the face of the E.R.S.C. by using four cables. Thus the G.M.T. time-band indicator is suspended in space and is independent of the clock-face rotating with the earth below it.

**Initiating the operation of the panoramic E.R.S.C. :** The satellite has to position the circular time-band at G.M.T. 12 hrs. London time so that the G.M.T. 12 hr. indicator on the band points to the sun and thus aligns the sun, the G.M.T. 12 hr. indicator and the point of the south pole along the straight line of longitude 0°. Once this alignment of the circular time-band is set correctly the satellite has to keep maintaining the alignment constantly even as the earth rotates along its axis while orbiting the sun. The panoramic E.R.S.C. is now operational to tell global time.

However it is functional only from September 21 to March 22 - the 6-monthly period when the south pole is in perpetual sunlight and the sun is visible. Refer to "The Celestial Clock" for an enhanced perspective.

**Reason why there is no minute or seconds hand :** This is because both the hands are redundant as they are mechanically contrived equipment that helps to keep track of time which is actually set by the earth's axial rotation. The times in minutes past the hour for any place can be read off through the relative longitudinal indicator of the place pointing to the graduated minutes of the hour along the G.M.T. time-band.

**Reading of global times as shown in the diagram :** It is G.M.T. 12 hrs. in London which is also the time of reference globally for the moment, indicated by longitude 0°. The times of the other places are given by their respective longitudinal hour indicators. After an hour the earth (and the E.R.S.C. clock-face) would have rotated 15° (clockwise and eastwards) to show G.M.T. 13 hrs. in London. The times of all the other places would have advanced an hour accordingly. Note that even after an hour the positions of the sun, the G.M.T. 12 hr. indicator and the south pole should still be aligned along a straight line and it would be midday in Cape Verde then. The panoramic E.R.S.C. is indeed capable of telling the time of any place on earth through reference to the table mentioned earlier.

I am confident that with our modern technology it is possible to actually set up the panoramic E.R.S.C. Even other alternative methods involving laser technology could be used to maintain the alignment of the sun, the G.M.T. 12 hr. indicator of the circular time-band, and the south pole, all along a straight line.

■ circular G.M.T. time-band suspended just above the E.R.S.C.

**Notes Bene**

The E.R.S.C. placed on top of the south pole in Antarctica is not drawn to scale for obvious reasons. But the positions of the tips of South America, Australia and New Zealand are true to scale. The distance between Punta Arenas and the south pole (Amundsen-Scott) is 4094.03 kms.



New Zealand