Johannes Byle

9.8 (a) F_{ce} outward perpendicular to equator F_{co} west
(b) F_{ce} directly outward perpendicular to equator F_{co} same as centrifugal
(c) F_{ce} outward perpendicular to equator F_{co} zero

9.10

$$\left(\frac{d^2r}{dt^2}\right) = \left(\frac{d}{dt}\right)\left[\dot{r}+\Omega\times r\right]+\Omega\times\left[\dot{r}+\Omega\times r\right]$$

$$\left(\frac{d^2r}{dt^2}\right) = \ddot{r}+\dot{\Omega}\times r+\Omega\times\dot{r}+\Omega\times\left[\dot{r}+\Omega\times r\right]$$

$$\left(\frac{d^2r}{dt^2}\right) = \ddot{r}+2\Omega\times\dot{r}+\Omega\times(\Omega\times r)+\dot{\Omega}\times r$$