Table 2: Angular Distances for 5 Selected Angles			
latitude (θ)°	cos θ	circumference = $2\pi R \cos\theta$	circumference/360 (km/1^o)
23.5^o	0.917	36,750	102.1
32.2^o	0.846	33,910	94.2
45^o	0.707	28,330	78.7
50^o	0.643	25,760	71.5
66.5°	0.400	15,980	44.4

Table 3: Longitude Differences and Distances		
Factors: Tucson Lat. ~ 32.2 ^{o}N; Long. ~ 111.2 ^{o}W; km/1^o = 94.2		
location	long. difference	distance in km
Prime Meridian longitude = 0^0	111.2^0	10,475
International Date Line longitude~ 180^0	68.8^0	6,481
Furthest away point longitude = 68.8^0 E country = Afghanistan	180^0	16,956

Table 4: Speed and Estimated Day of Arrival				
Factors: Assume latitude = 50^o N; London longitude = 0^0				
day	reference clock (GMT)	difference	longitude	speed in degrees/day
0	16:00	16-12 = 4 hrs	4.0 x 15 = 60 W	-
5	15:03	3:03	3.05 x 15 = 45.75	14.25/5 = 2.85
10	13:57	1:57	1.95 x 15 = 29.25	16.5/5 = 3.3
arrival day: 10+9.5 = 19.5	12:00	0	0	average: 3.07 days left: 29.25/3.07=9.5

5. A clock that loses 4 sec/day for 40 days will lose 160 sec or more than 2 minutes. At most, the clock could only lose 3 sec/day for 40 days or 120 sec = 2 minutes.