

TABLE E.3 Received Ephemeris Information for Sample Satellite

Parameter	Value [†]	Units
t_{sv}	4.03272930e+05	s
w_n	910	GPS week number
t_{ow}	403230	Seconds of GPS week
t_{gd}	2.3283e-09	s (group delay)
aodc	409	(clock data issue)
t_{oc}	410400	s
a_2	0.00000e+00	s/(s s)
a_1	1.819e-12	s/s
a_0	3.2977667e-05	s
AODE	153	(orbit data issue)
Δ_n	4.3123e-09	rad/s
M_0	2.24295542	rad
e	4.27323824e-03	
$A^{1/2}$	5.15353571e+03	\sqrt{m}
t_{oe}	410400	s
C_{ic}	9.8720193e-08	rad
C_{rc}	282.28125	m
C_{is}	-3.9115548e-08	rad
C_{rs}	-132.71875	m
C_{uc}	-6.60121440e-06	rad
C_{us}	5.31412661e-06	rad
$\Delta\Omega_0$	2.29116688	rad
ω	-.88396725	rad
i_0	.97477102	rad
$\Delta\dot{\Omega}$	-8.025691e-09	rad/s
$\Delta\dot{i}$	-4.23946e-10	rad/s

[†]The use of e() is shorthand notation for expressing powers. For example, 1.819e-12 means 1.819×10^{-12} .

operating in differential mode. Dual-frequency users should refer to Sec. 5.6. Differential operation requires consideration of the DGPS protocol and base-to-user distance. If the RTCM 104 standard is being used, then the corrections should include a atmospheric error correction.

The Klobuchar model was defined under the constraints of using only eight coefficients and approximately one daily model update to provide a worldwide correction for approximately 50% of the ionospheric delay at midlatitudes. The selected form of the model was a bias plus half-cosine:

$$t_{ion} = F \left[b + \text{AMP} * \cos \left(\frac{2\pi(t - \zeta)}{\text{PER}} \right) \right] \quad (\text{E.6})$$