

## JSpOC EPHEMERIS EXAMPLE

Current as of 10 April 2014

The JSpOC requires Mean of Equator/Mean of Equinox (MEME) J2000 ephemeris

There are two timestamps that can be accepted (yydddhmmss.sss -or- yyyy/mm/dd hh:mm:ss.sss). The timestamp is followed by X, Y, Z, X-dot, Y-dot, Z-dot data in kilometers and kilometers/second:

```
yydddhmmss.sss X Y Z X-dot Y-dot Z-dot
13330004000.000 -480.1176402 5955.16030 3795.929528 0.944927778 4.06526634 -6.238453102
13330004100.000 -422.4896106 6186.87481 3414.182384 0.975359584 3.65594115 -6.482155631
13330004200.000 -363.1533239 6393.57693 3018.596065 1.001850248 3.231802863 -6.699601147
13330004300.000 -302.3485821 6574.42937 2610.773305 1.024291404 2.79457763 -6.889897538
13330004400.000 -240.3211902 6728.70012 2192.367011 1.042591391 2.34604782 -7.052265267
13330004500.000 -177.3219396 6855.76560 1765.073392 1.056675751 1.888043598 -7.186040973
```

----OR-----

UTC	ECI Pos.x km	ECI Pos.y km	ECI Pos.z km	ECI Vel.x km/sec	ECI Vel.y km/sec	ECI Vel.z km/sec
2014/04/07 11:30:00.000	33131.29943788	24744.91351124	-700.58238868022	-1.803533409024	2.489564758203	0.058660137248
2014/04/07 11:45:00.000	33435.79912959	26930.63751447	-646.31716965768	-1.962892242634	2.365856245973	0.061885964271
2014/04/07 12:00:00.000	32600.62981255	29000.39851718	-589.26757957871	-2.113797588988	2.231961743110	0.064845407677
2014/04/07 12:15:00.000	29633.69479855	30945.28545969	-529.67918525147	-2.255599815718	2.088457981340	0.067525726540
2014/04/07 12:30:00.000	27543.46462444	32756.92514409	-467.80848351844	-2.387688507102	1.935963047882	0.069915381517
2014/04/07 12:45:00.000	25338.94056263	34427.51826863	-403.92179714103	-2.509495089262	1.775133722336	0.072004084390
2014/04/07 13:00:00.000	21029.61584932	35949.87298978	-338.29412850079	-2.620495275239	1.606662647470	0.073782842234
2014/04/07 13:15:00.000	19625.43479703	36317.43586771	-271.20797604408	-2.720211319486	1.431275346002	0.075243996014
2014/04/07 13:30:00.000	18136.74996753	38524.32006232	-202.95211855567	-2.808214072143	1.249727096190	0.076381253449

**Notes:**

- J2000 coordinate system and units of km and km/s
- Columns are limited to 15 numerical characters
- Columns may be space delimited or tab delimited
- LEO ephemeris time intervals should be 1 minute time steps for objects that are not maneuvering
  - Shorter intervals are preferred if station keeps or maneuvers are included (10 seconds or less)
- GEO ephemeris time intervals should be 15 minute time steps for objects that are not maneuvering
  - Shorter intervals are preferred if station keeps or maneuvers are included (10 minutes or less)
- Variable formatted ephemeris is preferred to allow small timestamp intervals during station keeps/maneuvers and larger intervals throughout the remainder of the file.
- **Submit ephemeris in a Word, WordPad, or Notepad document. Excel documents require the crew to reformat the data which substantially delays results.**

**Questions?** Phone: 1-805-605-3533 • Email: [jspocspacecorrespondence@us.af.mil](mailto:jspocspacecorrespondence@us.af.mil)