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## MPEC 2016-W88 : 2016 WL7

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M.P.E.C. 2016-W88

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MPC@CFA.HARVARD.EDU

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2016 WL7

Observations:

K16W07L*	C2016 11 24.14538 01 06 45.83 +18 37 56.5	18.1 VqEW088G96
K16W07L	C2016 11 24.15175 01 06 43.05 +18 35 57.8	17.8 VqEW088G96
K16W07L	C2016 11 24.15603 01 06 41.19 +18 34 37.9	17.9 VqEW088G96
K16W07L	C2016 11 24.16031 01 06 39.33 +18 33 18.1	18.0 VqEW088G96
K16W07L	C2016 11 24.18569401 06 27.29 +18 25 14.6	18.2 GUEW088H01
K16W07L	C2016 11 24.19530501 06 23.10 +18 22 13.1	17.9 GUEW088H01
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K16W07L	C2016 11 24.22457 01 06 11.15 +18 13 05.3	18.7 VqEW088I52
K16W07L	C2016 11 24.22477 01 06 11.05 +18 13 01.4	18.6 VqEW088I52
K16W07L	C2016 11 24.22496 01 06 10.98 +18 12 57.9	18.3 VqEW088I52
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K16W07L	KC2016 11 24.83764601 02 42.34 +14 51 19.2	qEW088J95
K16W07L	KC2016 11 24.84030501 02 41.21 +14 50 25.0	qEW088J95
K16W07L	KC2016 11 24.84292601 02 40.08 +14 49 31.5	18.6 RqEW088J95
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K16W07L	C2016 11 25.06599 01 01 27.68 +13 33 55.9	18.5 VqEW088I52
K16W07L	C2016 11 25.06629 01 01 27.55 +13 33 49.6	18.6 VqEW088I52
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K16W07L	KC2016 11 25.88256 00 56 17.09 +08 35 45.6	18.8 VqEW088Z80
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 K16W07L C2016 11 26.12378500 54 50.99 +07 04 22.5 18.0 GUEW088H01  
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 K16W07L C2016 11 26.13798 00 54 45.25 +06 58 58.8 17.8 VqEW088G96  
 K16W07L C2016 11 26.14230 00 54 43.19 +06 57 18.3 18.1 VqEW088G96

Observer details:

**300 Bisei Spaceguard Center--BATTeRS.** Observers S. Urakawa, T. Nimura. 1.0-m f/3.0 reflector + CCD.  
**926 Tenagra II Observatory.** Observers M. Schwartz, P. R. Holvorcem. Measurer M. Schwartz. 0.81-m f/7 Ritchey-Chretien + CCD.  
**958 Observatoire de Dax.** Observers P. Dupouy, J. B. de Vanssay. Measurer P. Dupouy. 0.43-m f/2.7 reflector + CCD.  
**996 Mt. Lemmon Survey.** Observer G. J. Leonard. Measurers E. J. Christensen, D. C. Fuls, A. R. Gibbs, A. D. Grauer, J. A. Johnson, R. A. Kowalski, S. M. Larson, G. J. Leonard, R. G. Matheny, R. L. Seaman, F. C. Shelly. 1.5-m reflector + 10K CCD.  
**H01 Magdalena Ridge Observatory, Socorro.** Observers W. H. Ryan, E. V. Ryan. Measurer W. H. Ryan. 2.4-m f/8.9 reflector + CCD.  
**152 Steward Observatory, Mt. Lemmon Station.** Observer J. A. Johnson. Measurers E. J. Christensen, D. C. Fuls, A. R. Gibbs, A. D. Grauer, J. A. Johnson, R. A. Kowalski, S. M. Larson, G. J. Leonard, R. G. Matheny, R. L. Seaman, F. C. Shelly. 1.0-m reflector + CCD.  
**167 Hartley Wintney.** Observer G. Thurston. 0.36-m f/6 Schmidt-Cassegrain + CCD.  
**J57 Centro Astronomico Alto Turia, Valencia.** Observers V. Mas, G. Fornas. Measurer A. Carreno. 0.40-m f/10 Schmidt-Cassegrain + CCD.  
**J95 Great Shefford.** Observer P. Birtwhistle. 0.40-m f/6.0 Schmidt-Cassegrain + CCD.  
**Q62 iTelescope Observatory, Siding Spring.** Observers L. Buzzi, P. Concari, S. Foglia, G. Galli, M. Tombelli. 0.15-m f/7 refractor + CCD.  
**Z80 Northolt Branch Observatory.** Observer G. Wells. Measurer D. Bamberger. 0.15-m f/10 reflector + CCD + f/6.3 focal reducer.

Orbital elements:

2016 WL7 Earth **MOID** = 0.0149 AU  
 Epoch 2017 Feb. 16.0 TT = JDT 2457800.5 MPC  
 M 8.96408 (2000.0) P Q  
 n 0.90698168 Peri. 266.03857 -0.84255581 -0.51587871  
 a 1.0569888 Node 242.84249 +0.53684529 -0.78111266  
 e 0.1855572 Incl. 10.02056 +0.04355278 -0.35175584  
 P 1.09 H 24.2 G 0.15 U 6

Residuals in seconds of arc

161124 G96 0.1+ 0.1+ 161124 300 0.4+ 0.0 161125 I67 0.2+ 0.1-  
 161124 G96 0.1+ 0.1+ 161124 J95 0.0 0.3- 161125 I67 0.5+ 0.1+  
 161124 G96 0.3+ 0.2+ 161124 J95 0.5+ 0.3+ 161125 I67 0.4+ 0.1-  
 161124 G96 0.4+ 0.4+ 161124 J95 0.5+ 0.1+ 161125 Z80 0.4+ 1.0+  
 161124 H01 0.3+ 0.1+ 161124 J95 0.3+ 0.1- 161125 958 0.4+ 1.0-  
 161124 H01 0.4+ 0.1+ 161124 J57 0.4+ 0.1+ 161125 Z80 0.2+ 0.6+  
 161124 H01 0.3+ 0.0 161124 J57 0.8+ 0.6+ 161125 958 0.2+ 1.0-  
 161124 H01 0.2+ 0.1+ 161124 J57 0.9+ 0.4+ 161125 958 0.5+ 0.1-  
 161124 I52 0.1+ 0.1- 161124 J57 1.0+ 0.5+ 161125 Z80 0.2+ 0.4+  
 161124 I52 0.1- 0.2- 161125 H01 0.2+ 0.0 161126 H01 0.4+ 0.1+  
 161124 I52 0.1+ 0.0 161125 H01 0.4+ 0.0 161126 I52 0.3- 0.2+  
 161124 I52 0.0 0.1+ 161125 I52 0.2+ 0.0 161126 I52 0.3- 0.2-  
 161124 I52 0.2+ 0.1+ 161125 I52 0.2+ 0.1- 161126 I52 0.2+ 0.1-  
 161124 I52 0.4+ 0.2+ 161125 I52 0.3+ 0.0 161126 H01 0.5+ 0.1+  
 161124 I52 0.4+ 0.1+ 161125 I52 0.1+ 0.1+ 161126 H01 0.4+ 0.1+  
 161124 I52 0.3+ 0.2+ 161125 H01 1.1+ 0.1+ 161126 H01 0.5+ 0.1+  
 161124 Q62 0.4+ 0.8+ 161125 H01 0.3+ 0.0 161126 G96 0.5+ 0.3+  
 161124 Q62 0.0 0.8+ 161125 926 0.2+ 0.3+ 161126 G96 0.4+ 0.3+  
 161124 300 0.7+ 0.2- 161125 926 0.1+ 0.2+ 161126 G96 0.5+ 0.2+  
 161124 300 0.6+ 0.1- 161125 926 0.1+ 0.2+ 161126 G96 0.4+ 0.2+

Ephemeris:

2016 WL7 a,e,i = 1.06, 0.19, 10 q = 0.8609  
 Date TT R. A. (2000) Decl. Delta r Elong. Phase V  
 2016 10 27 02 39 55.3 +56 00 16 0.1420 1.1008 136.3 38.6 21.7  
 ...  
 2016 11 11 02 04 41.6 +50 25 27 0.07922 1.0557 144.8 32.7 20.2  
 ...  
 2016 11 19 01 33 14.2 +37 53 29 0.05010 1.0307 147.2 31.3 19.1  
 ...  
 2016 11 25 01 01 42.3 +13 58 38 0.03381 1.0118 136.2 42.4 18.5  
 2016 11 26 00 55 35.0 +07 54 25 0.03210 1.0086 131.9 46.7 18.5  
 2016 11 27 00 49 09.8 +01 14 45 0.03081 1.0055 126.8 51.8 18.6  
 ...  
 2016 12 03 00 02 39.8 -40 25 53 0.03340 0.9867 90.6 87.4 19.9  
 ...  
 2016 12 11 22 26 53.0 -68 14 16 0.05491 0.9623 64.5 112.6 22.1  
 ...  
 2016 12 26 18 37 10.8 -74 57 48 0.1081 0.9203 51.7 123.1 24.3

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