

KIC 006301030

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
006301030-01	OBS	6027.01	11.991002	139.598244	357727.4	6.585	1710.3	1062.6	1.13	5988	71.32	153.56

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006301030-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_KIC_POS

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

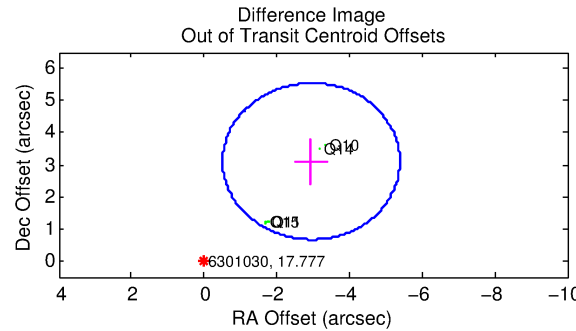
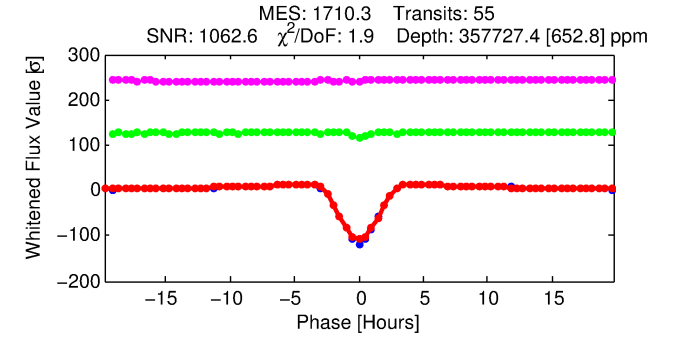
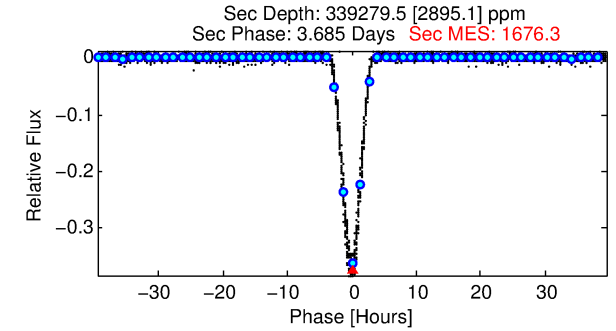
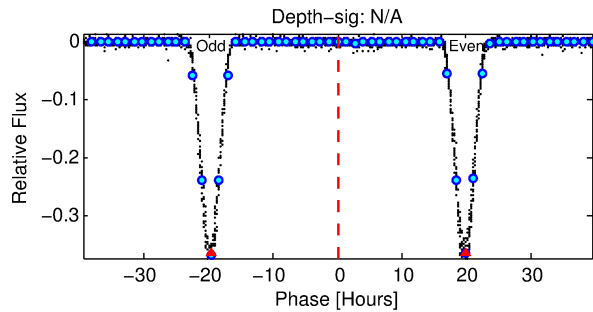
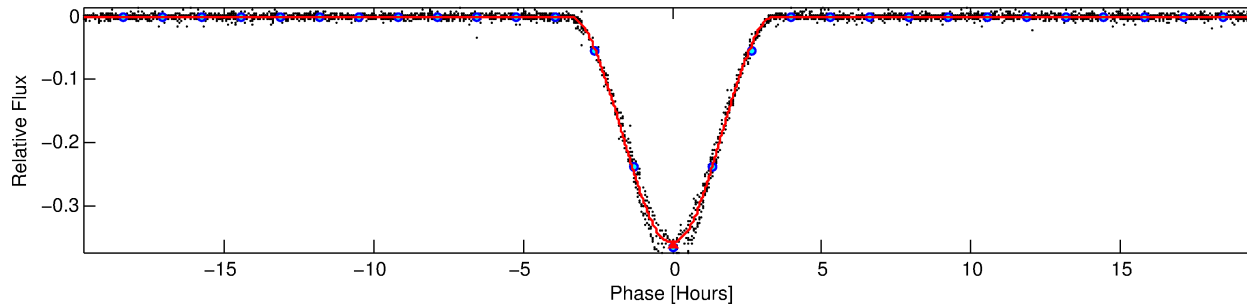
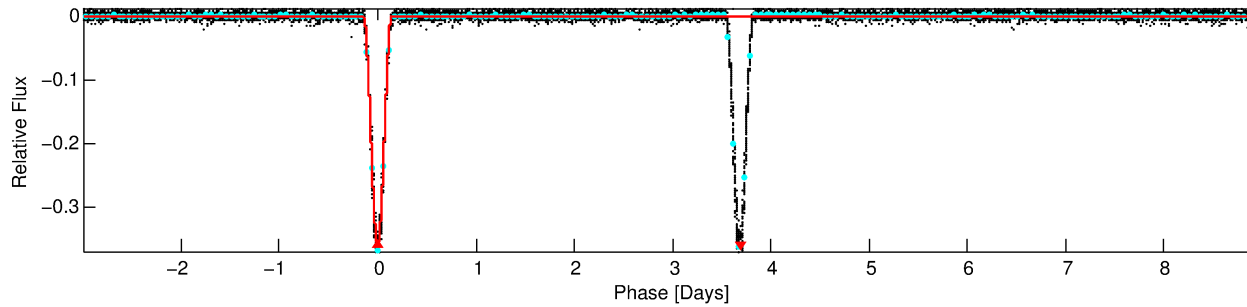
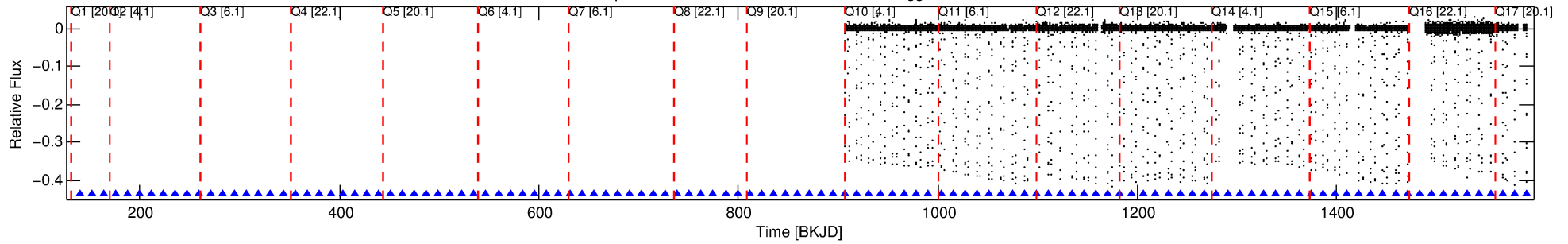
Ephemeris Match Information For 006301030-01

No Significant Match Found

DV One-Page Summary

KIC: 6301030 Candidate: 1 of 1 Period: 11.991 d
KOI: K06027.01 Corr: 0.995

Kp: 17.78 R*: 1.13 Rs Teff: 5988.0 K Logg: 4.27 Fe/H: -0.460



DV Fit Results:

Period = 11.99100 [0.00000] d
Epoch = 139.5982 [0.0003] BKJD
Rp/R* = 0.5784 [0.0017]
a/R* = 21.16 [0.03]
b = 0.43 [0.01]
Seff = 153.56 [64.02]
Teq = 898 [94] K
Rp = 71.32 [20.64] Re
a = 0.0979 [0.0253] AU
Ag = 351.51 [139.11] [2.52σ]
Teffp = 6009 [198] K [23.31σ]

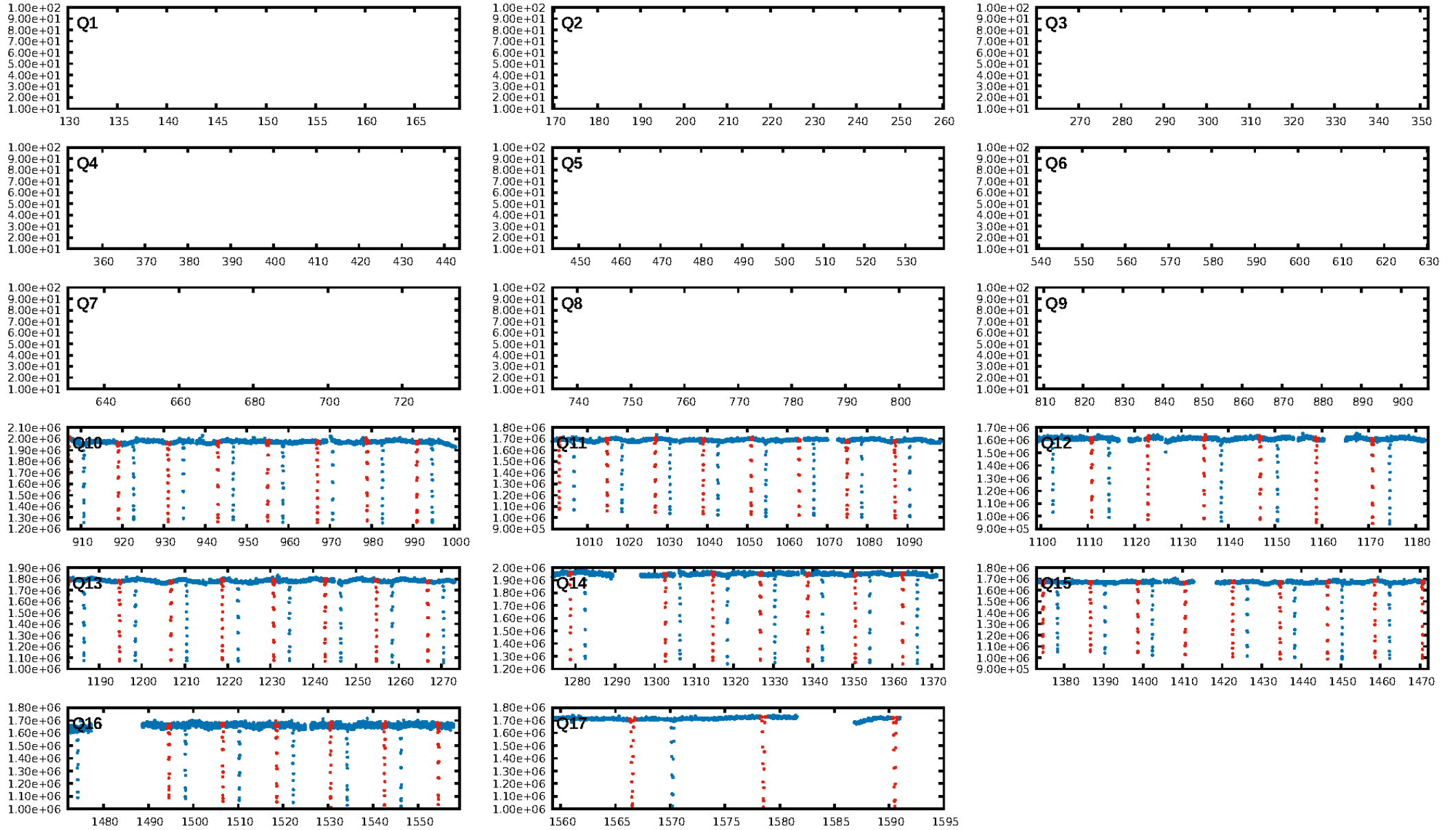
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 0.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [52/52]
GhostDiagnostic-chr: 2.825
Centroid-sig: 0.0%
Centroid-so: 2.515 arcsec [817.89σ]
OotOffset-rm: 4.278 arcsec [5.26σ]
KicOffset-rm: 0.285 arcsec [4.02σ]
OotOffset-st: 2/2/0/0 [4]
KicOffset-st: 2/2/2/2 [8]
DiffImageQuality-fgm: 1.00 [8/8]
DiffImageOverlap-fno: 1.00 [8/8]

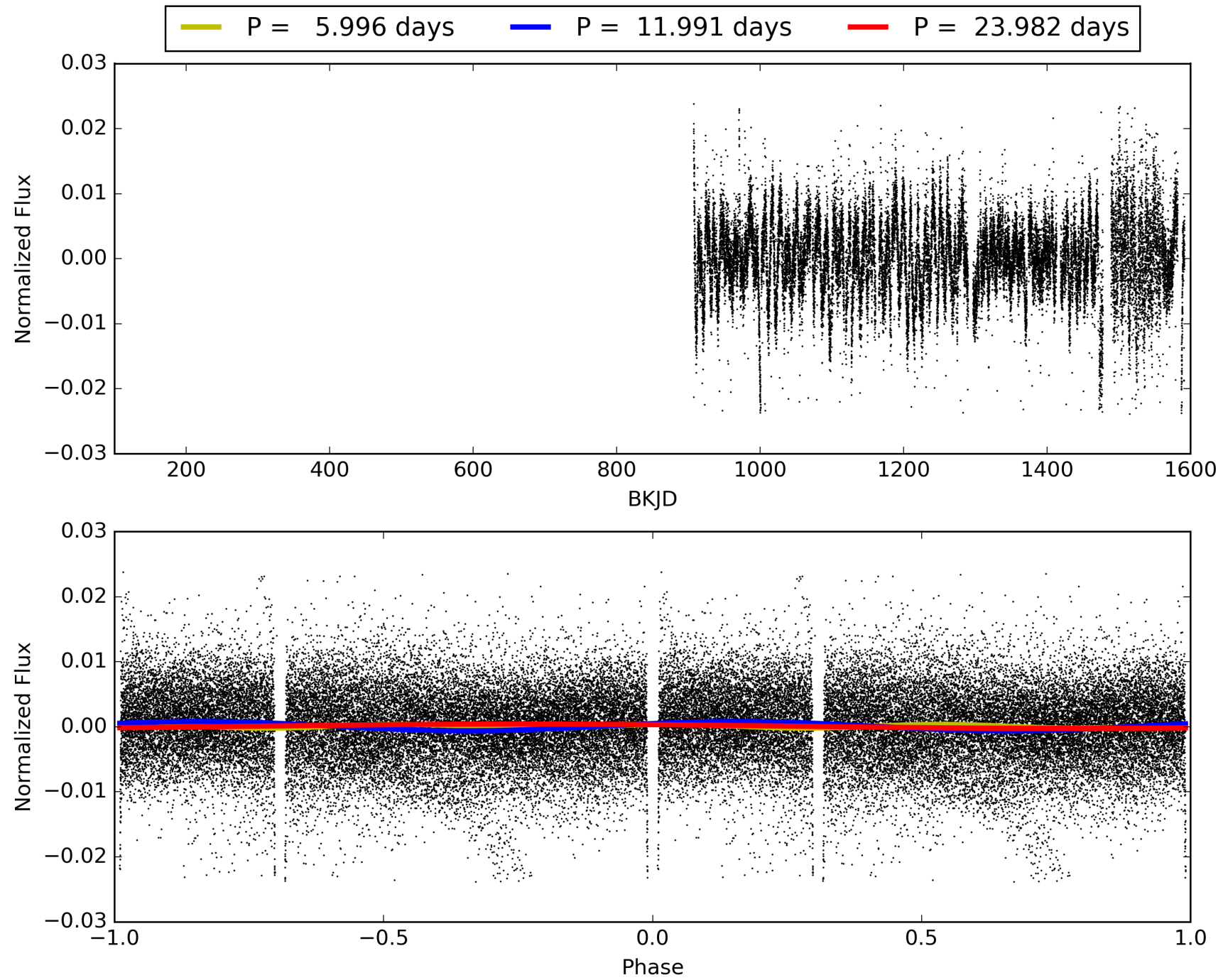
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 03-Feb-2016 07:53:48 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 006301030-01, PDC Light Curves

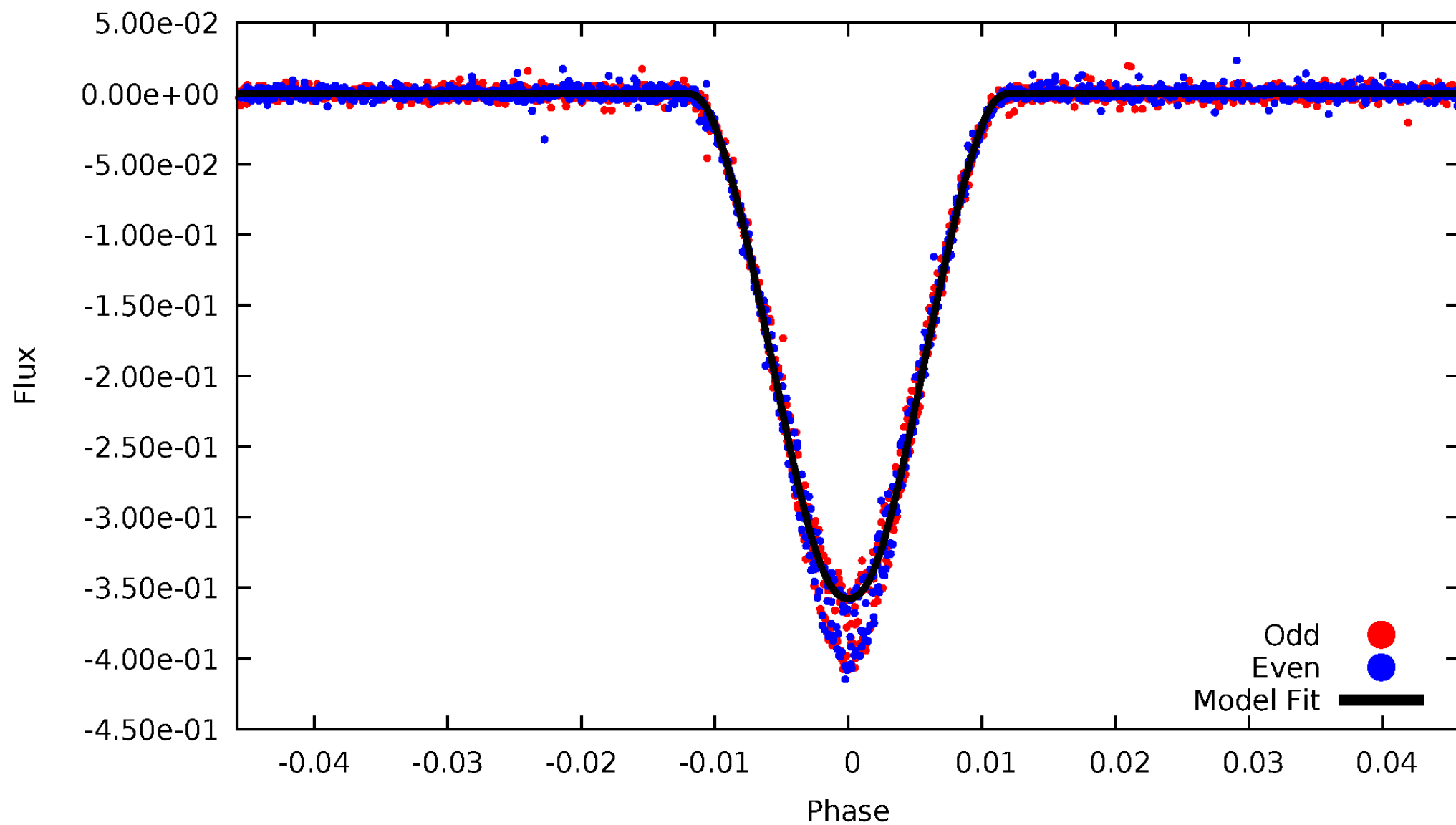


TCE 006301030-01



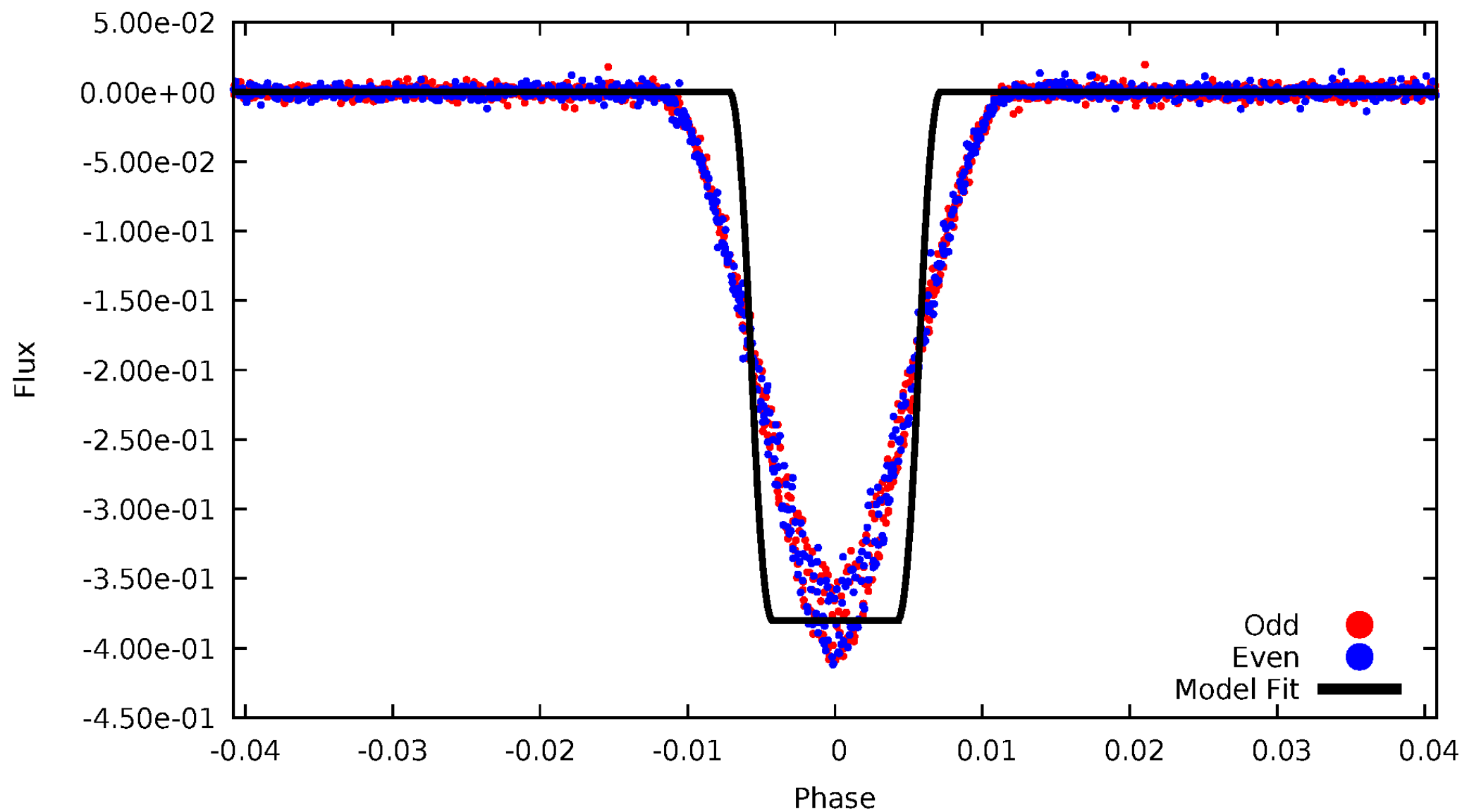
DV Odd/Even

TCE 006301030-01



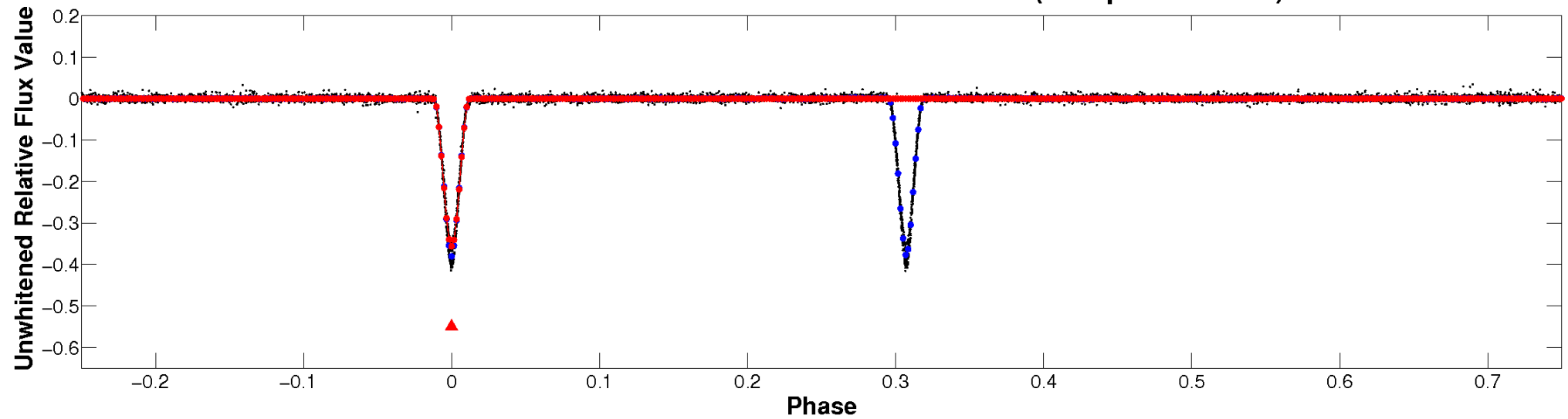
ALT Odd/Even

TCE 006301030-01

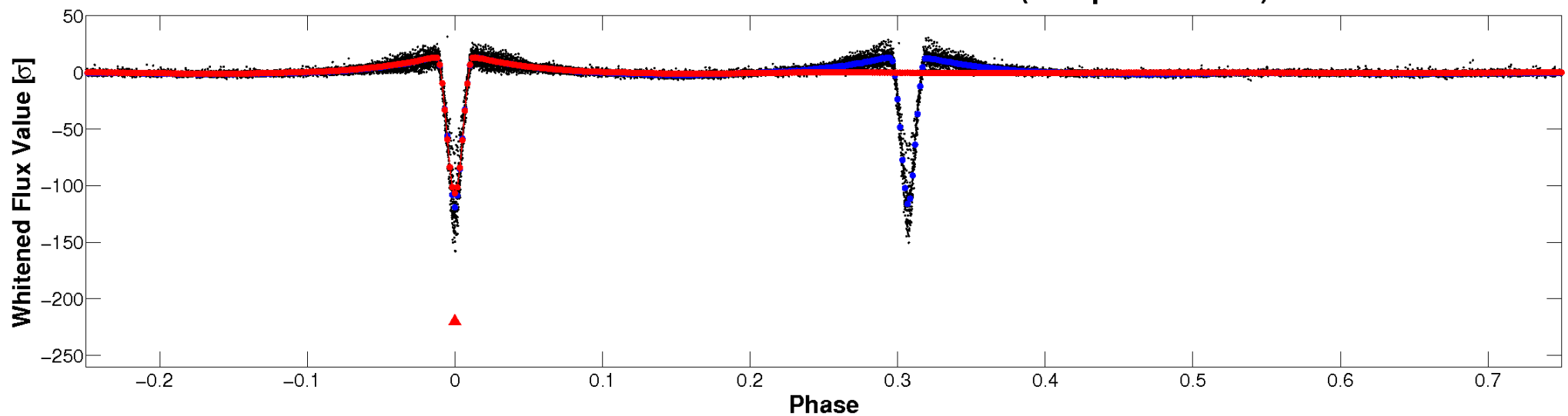


Non-Whitened Vs. Whitened Light Curve

Planet 1 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

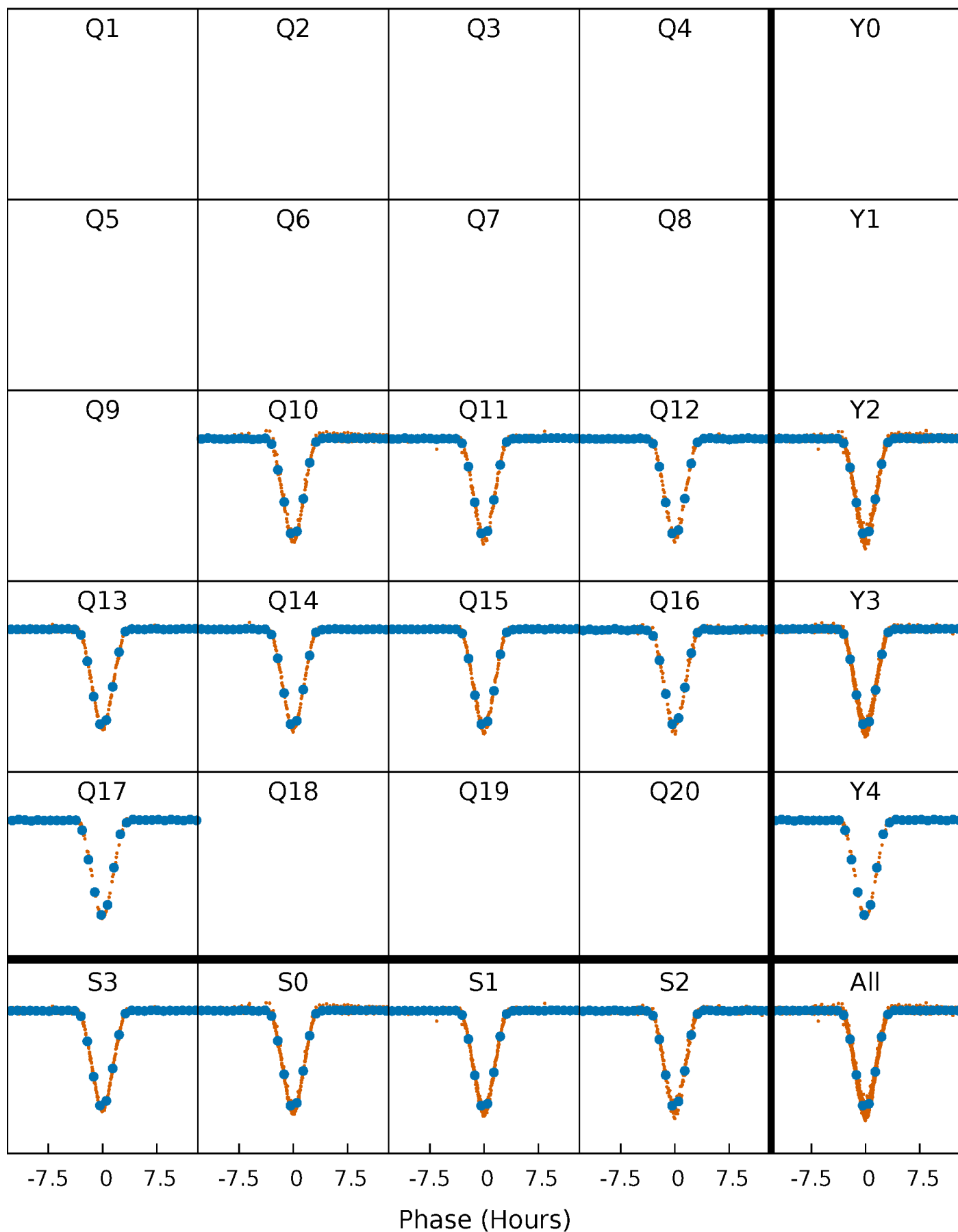


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



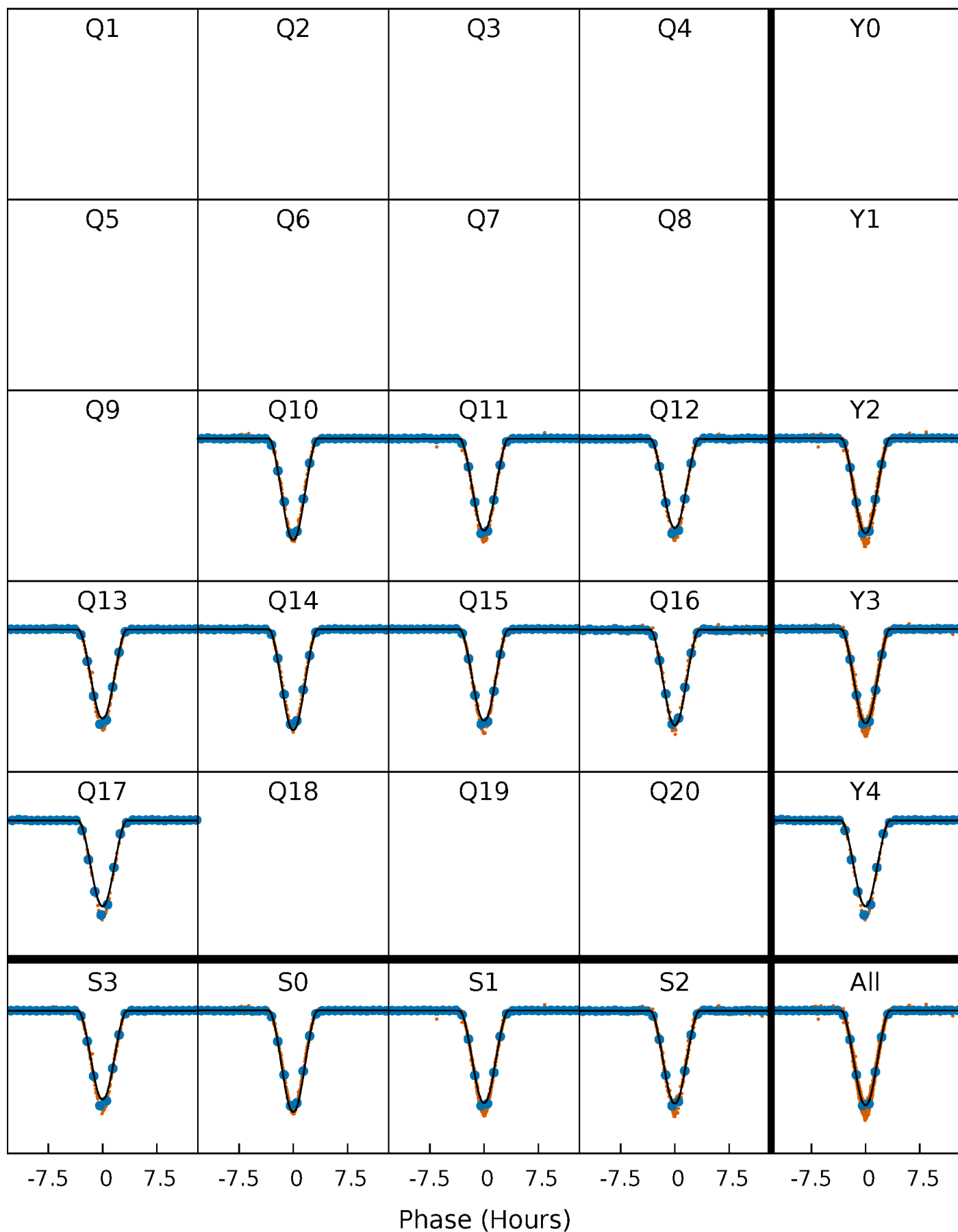
PDC Quarter-Phased Transit Curves

TCE 006301030-01 P= 11.991002 Days $T_0=139.598244$ (BKJD)



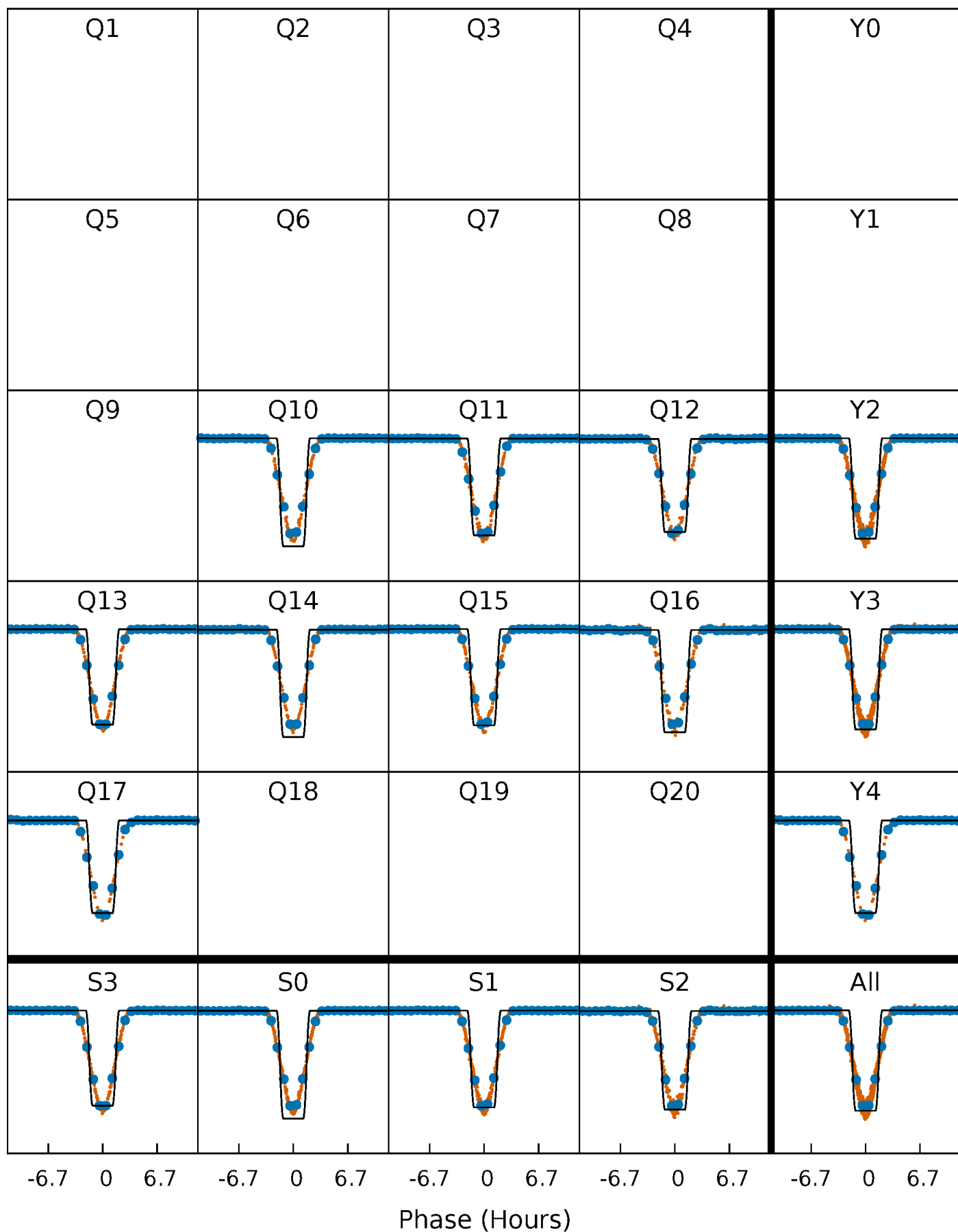
DV Quarter-Phased Transit Curves

TCE 006301030-01 P= 11.991002 Days $T_0=139.598244$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

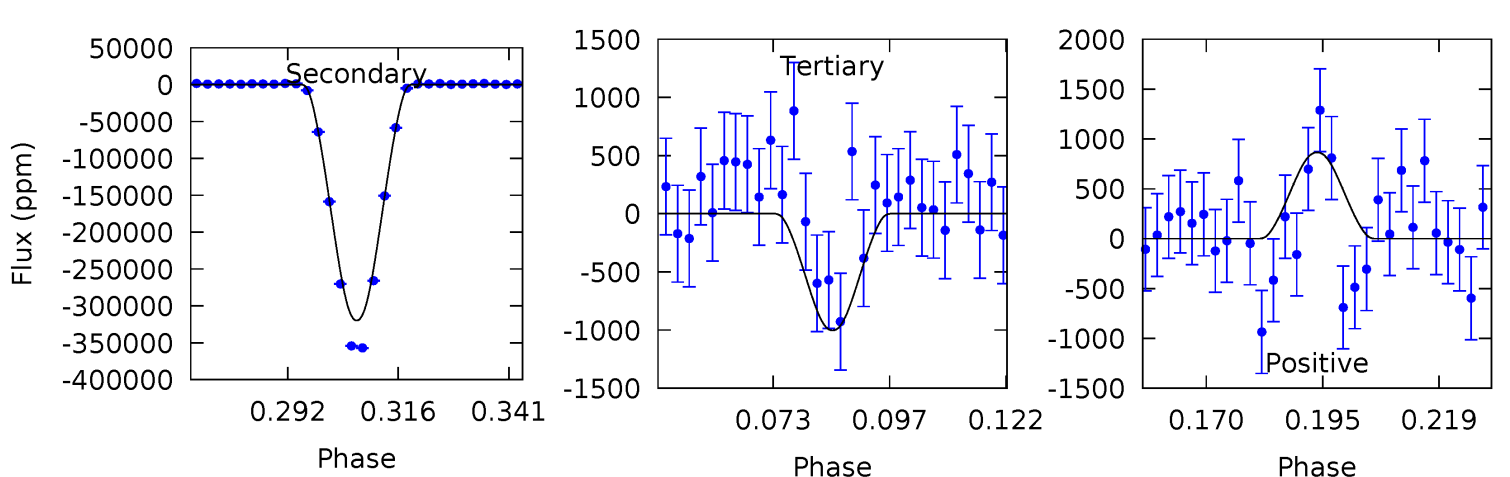
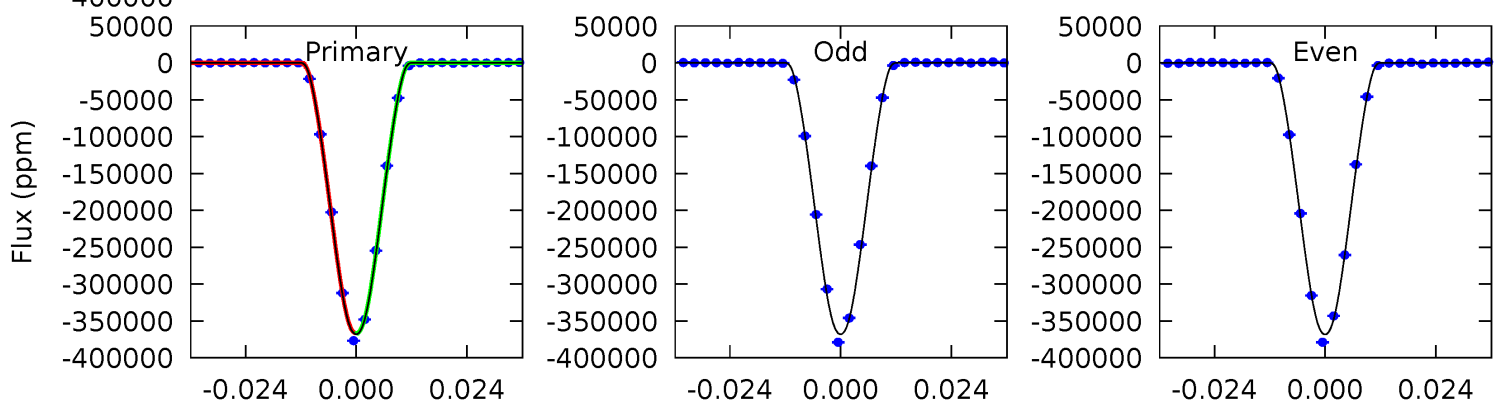
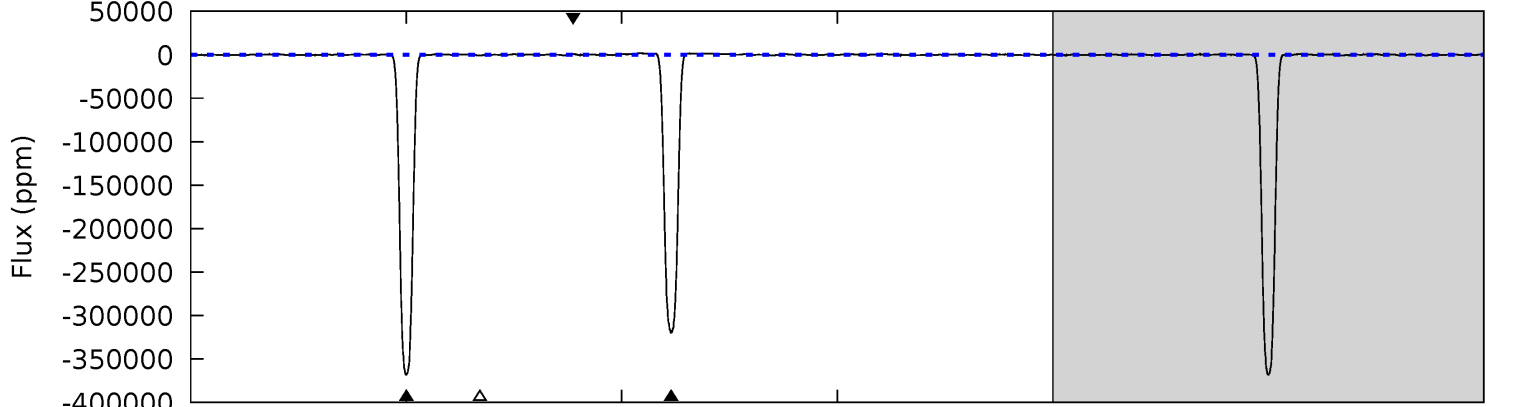
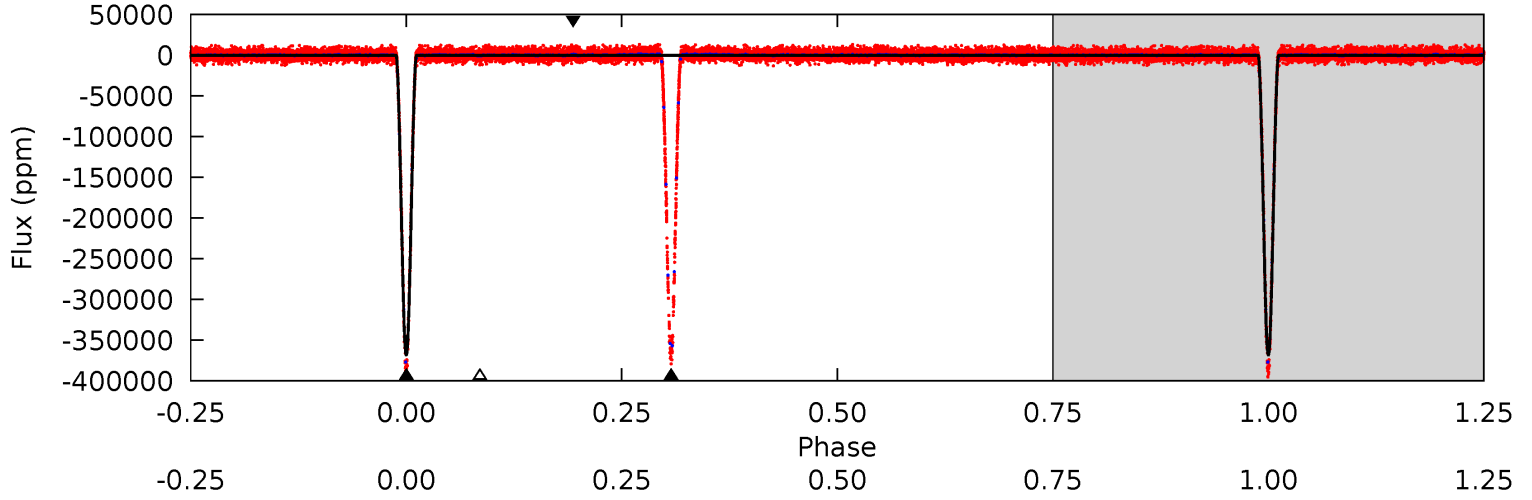
TCE 006301030-01 P= 11.990965 Days $T_0=139.601522$ (BKJD)



DV Model-Shift Uniqueness Test

006301030-01, P = 11.991002 Days, E = 139.598244 Days

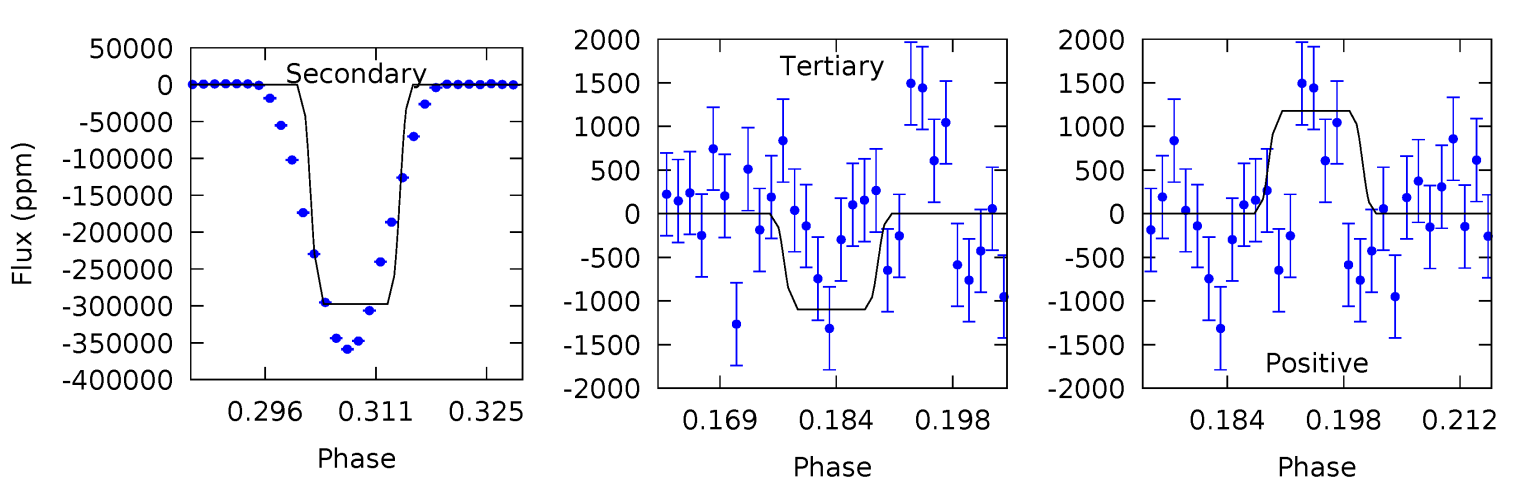
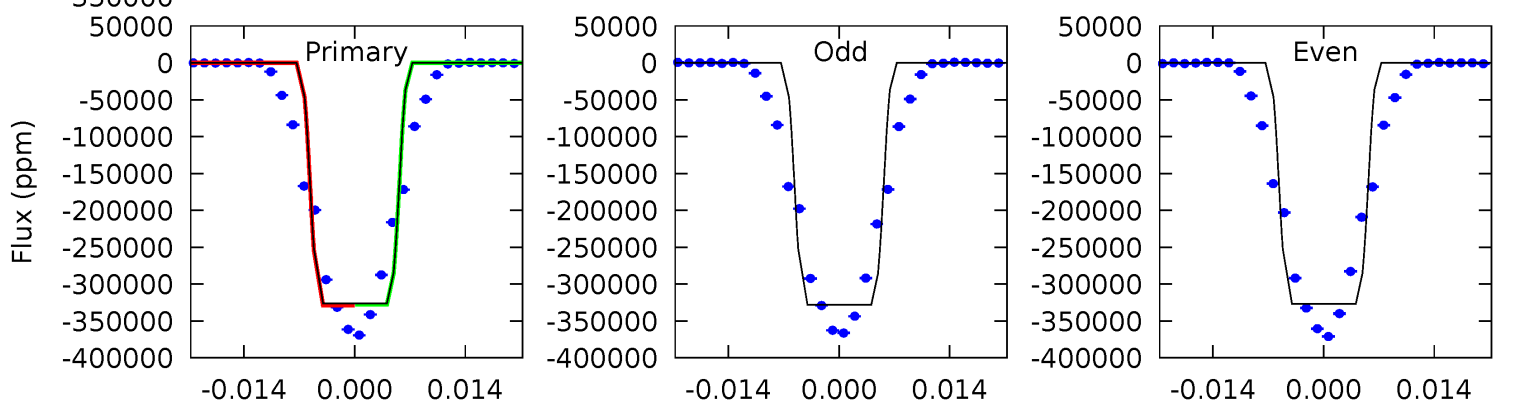
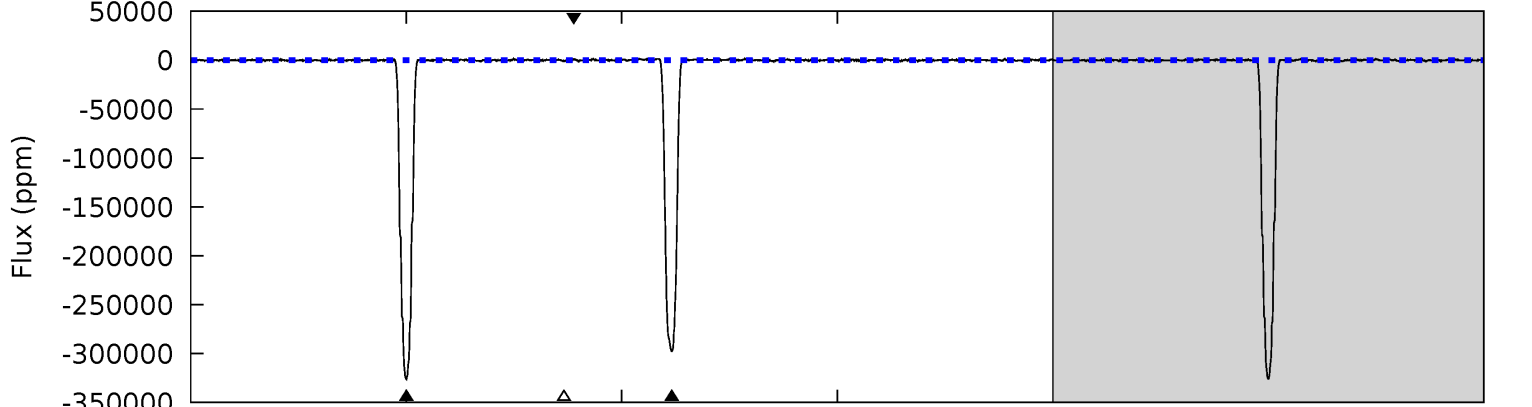
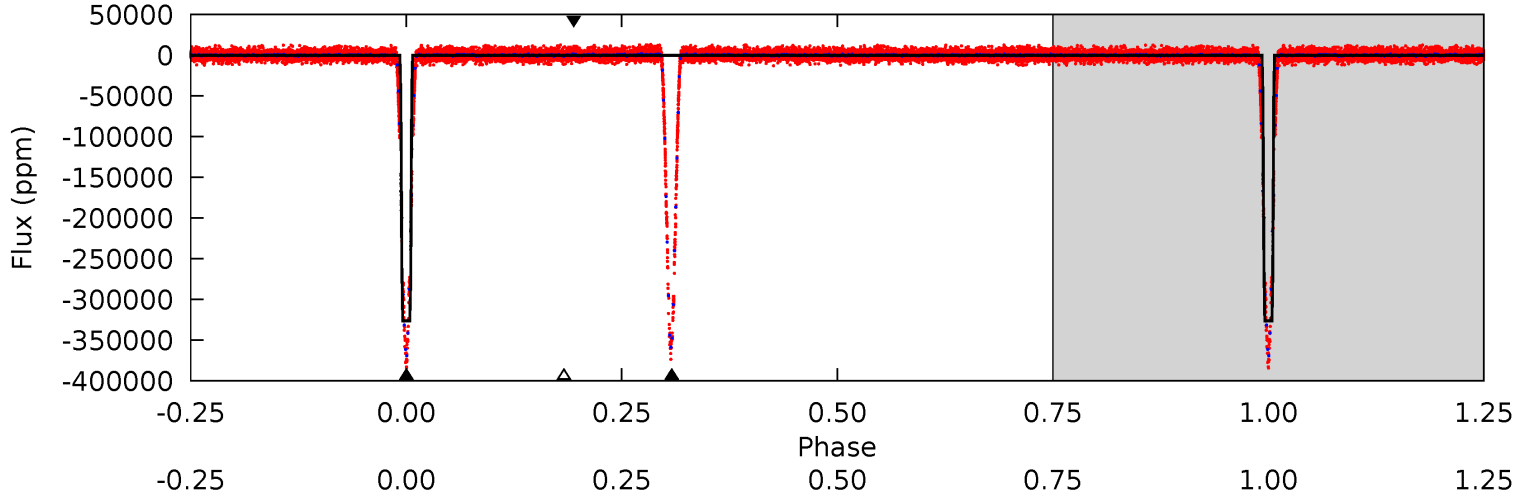
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2643	2296	7.20	6.21	4.85	2.25	3.18	2635	2636	2289	2290	0.75	0.99	0.00	0



Alt Model-Shift Uniqueness Test

006301030-01, P = 11.990965 Days, E = 139.601522 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1214	1107	4.08	4.38	4.96	2.45	1.35	1210	1210	1103	1103	1.84	1.00	0.00	1.98



Stellar Parameters For KIC 006301030

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5988^{+197}_{-197}	$4.271^{+0.225}_{-0.184}$	$-0.460^{+0.300}_{-0.300}$	$1.130^{+0.327}_{-0.267}$	$0.869^{+0.130}_{-0.080}$	$0.849^{+1.018}_{-0.400}$
	+3%/-3%	+5%/-4%	+65%/-65%	+29%/-24%	+15%/-9%	+120%/-47%
Source	KIC0	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 006301030-01 / KOI 6027.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-319734 ± 139	$71.29^{+11.67}_{-9.96}$	1245^{+102}_{-92}	6522^{+233}_{-243}	491^{+170}_{-120}
Alt.	-297596 ± 269	$76.37^{+12.41}_{-10.79}$	1253^{+100}_{-103}	6158^{+200}_{-206}	386^{+145}_{-95}

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

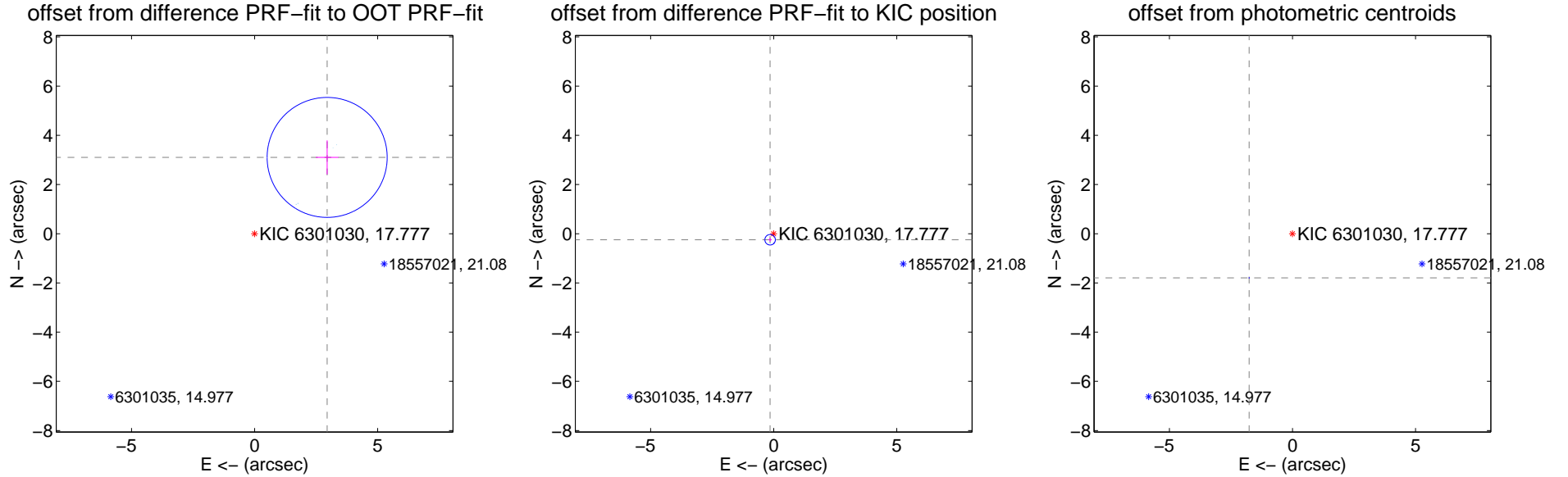
DV Centroid Data

Supplemental centroid analysis for 006301030-01. Kepler magnitude: 17.78. Transit SNR 1062.61

There are 8 quarters with good PRF difference image offsets

The OOT PRF centroid is offset from the target star catalog position by about 2.40 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	4.278 ± 0.813	5.26	-2.947 ± 0.458	3.102 ± 0.690
PRF-fit source offset from KIC position	0.285 ± 0.071	4.02	0.145 ± 0.067	-0.245 ± 0.072
photometric centroid source offset	2.52 ± 0.00	817.89	1.76 ± 0.00	-1.80 ± 0.00



Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

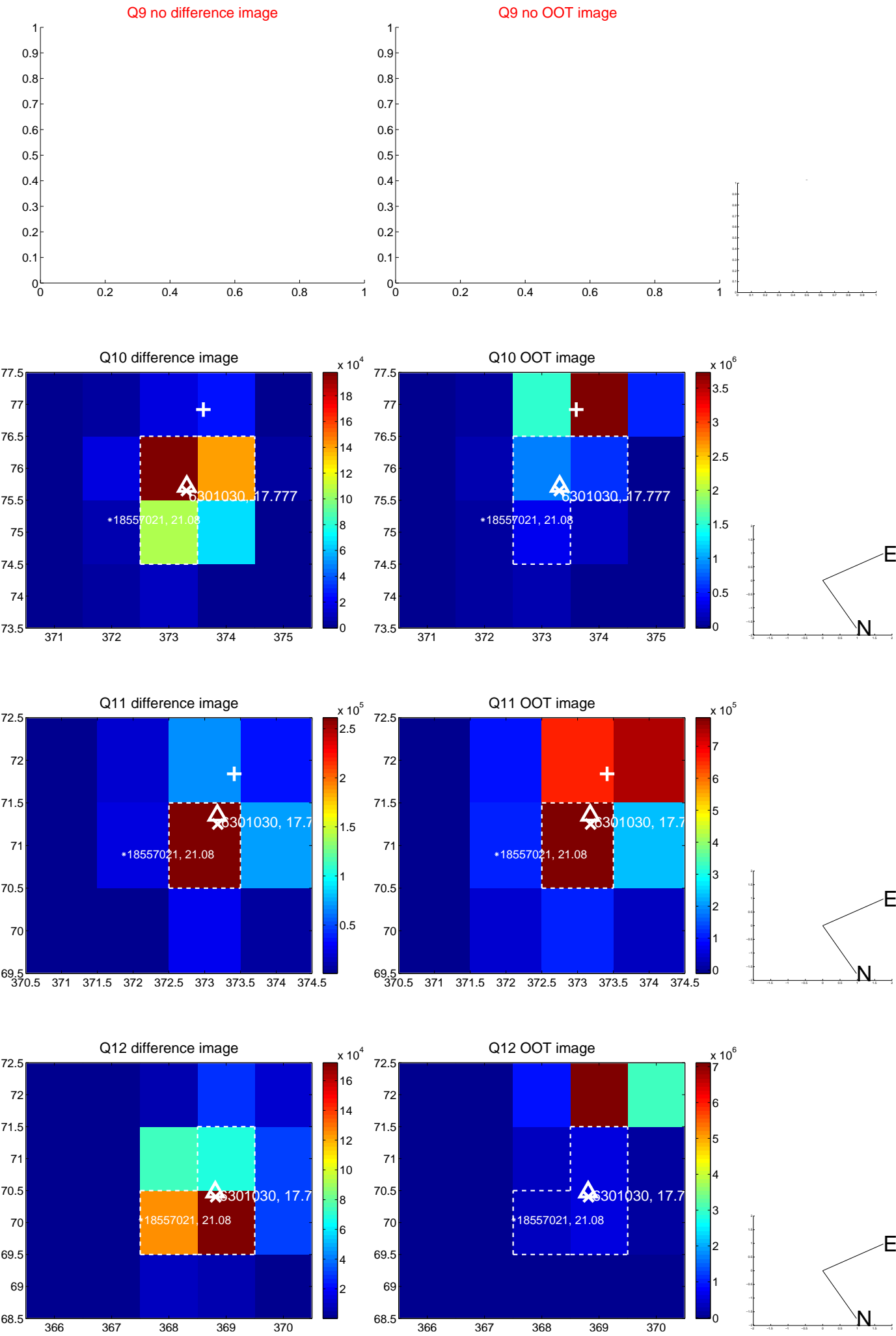
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



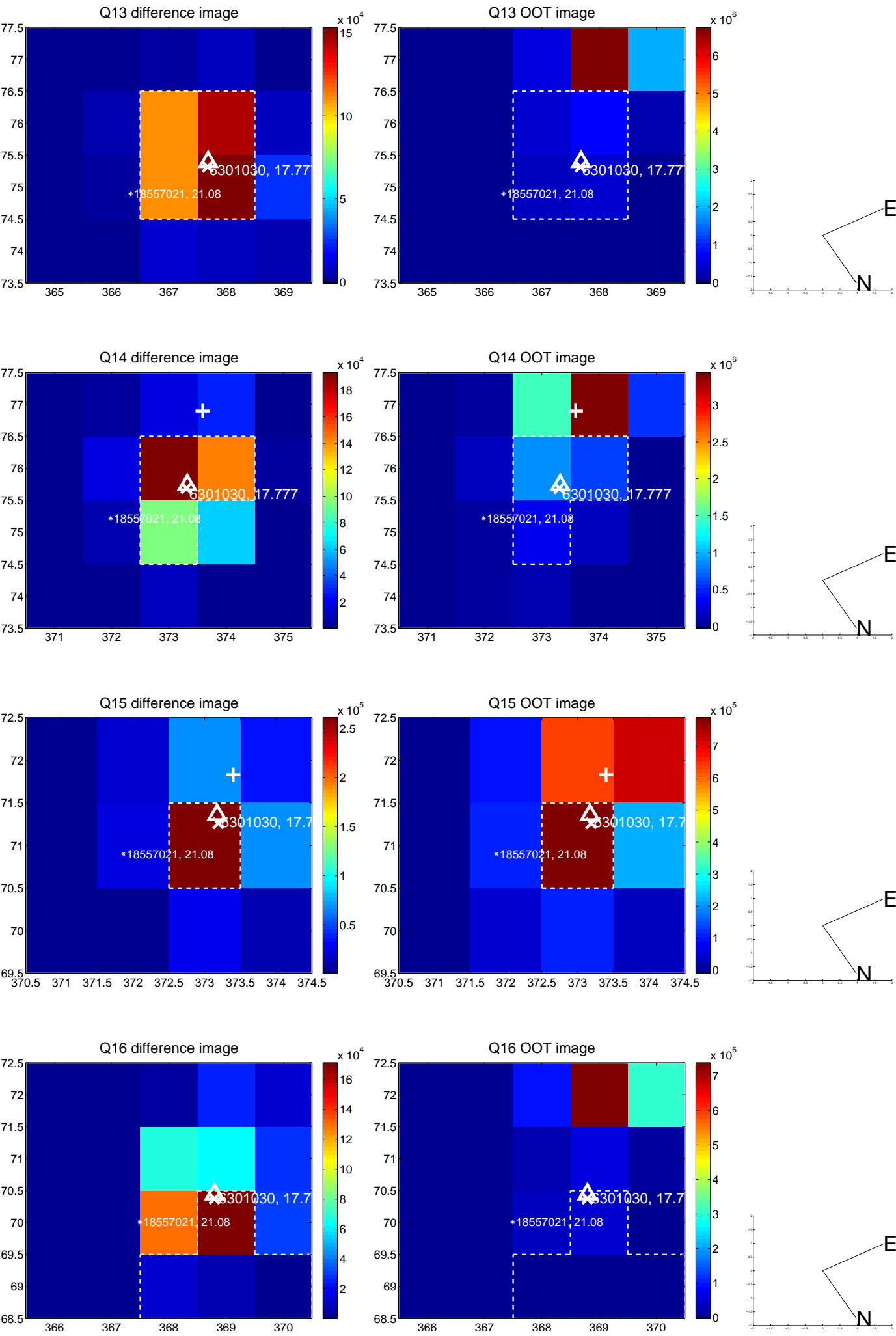
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



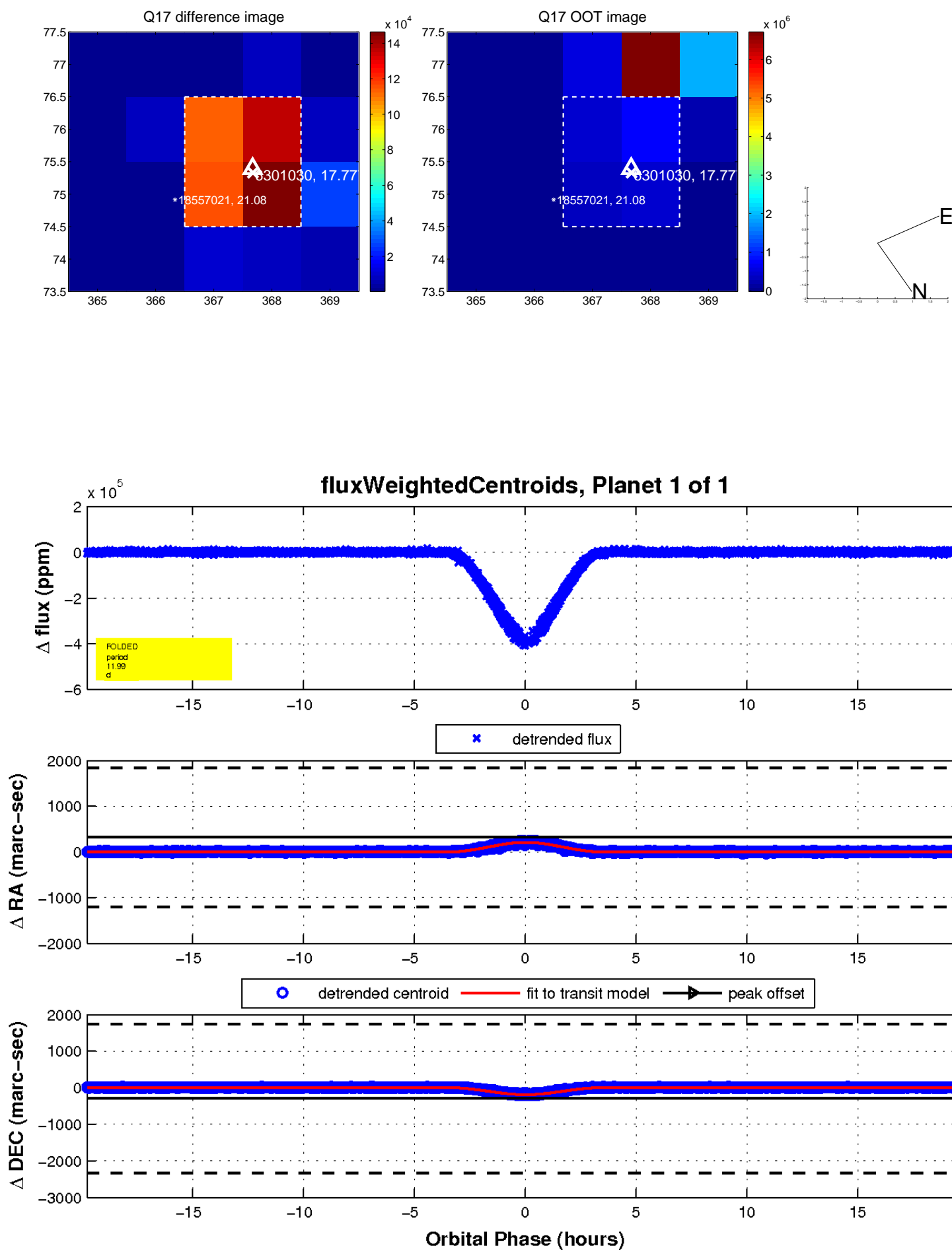
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

