

KIC 007376500

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})
007376500-01	OBS	3535.01	5.877124	136.420490	368005.7	4.729	8609.0	4626.6	1.82	5702	119.37	915.50

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007376500-01	OBS	FP	0.00	0	1	0	0	MOD_SEC_DV—MOD_SEC_ALT—MOD_ODDEVEN_DV—MOD_ODDEVEN_ALT—DEEP_V_SHAPED—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.

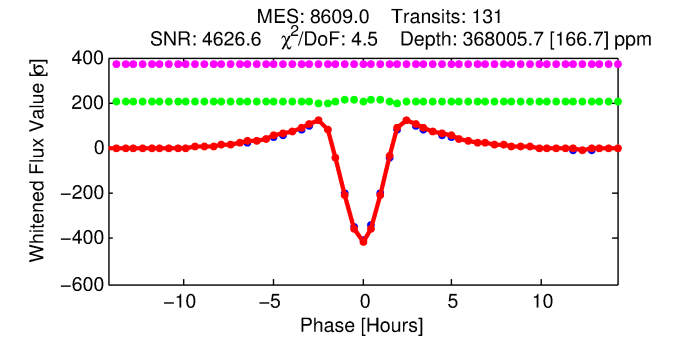
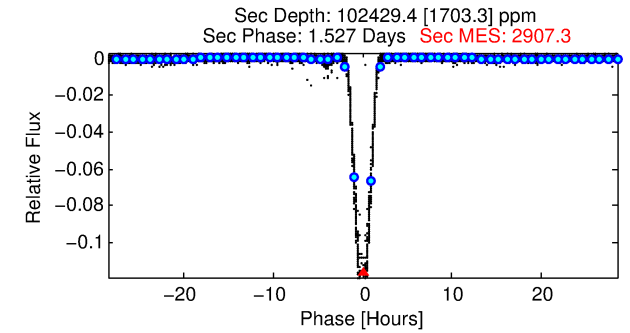
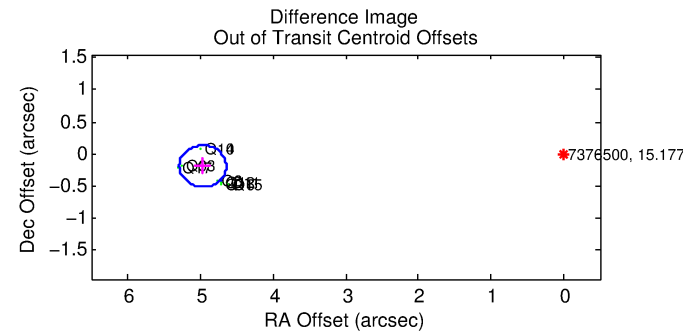
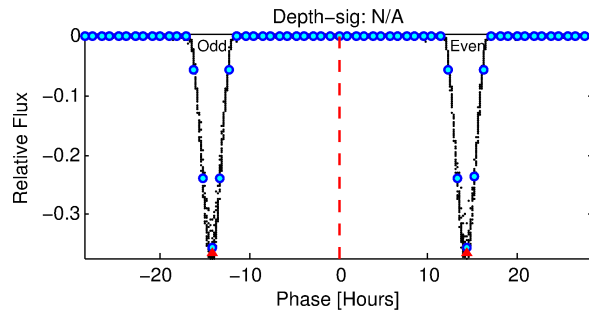
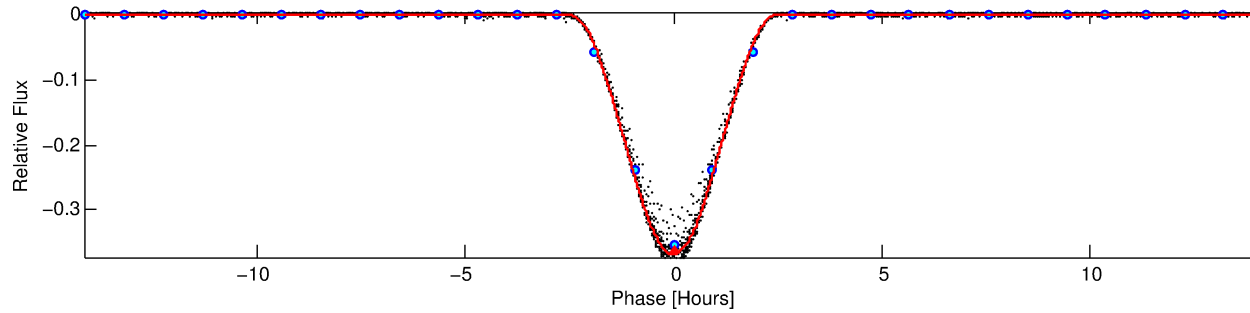
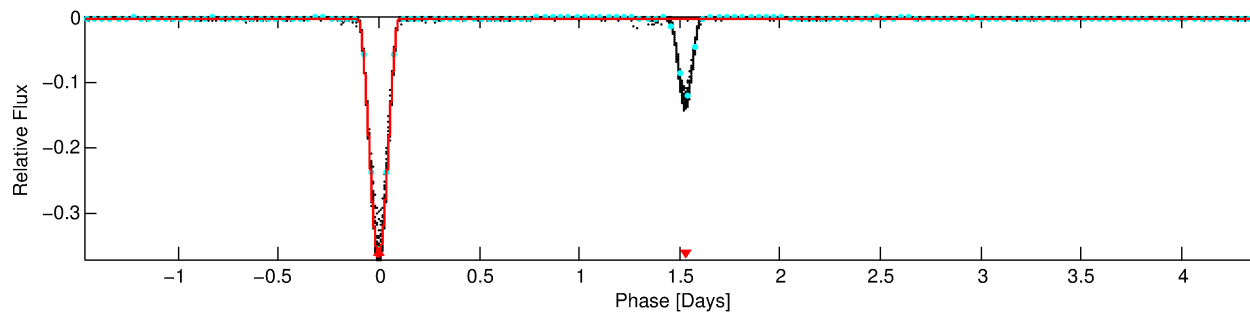
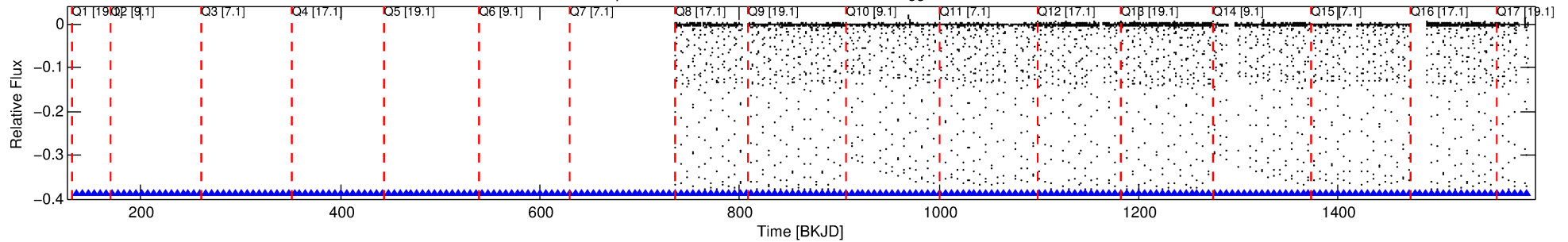
Ephemeris Match Information For 007376500-01

No Significant Match Found

DV One-Page Summary

KIC: 7376500 Candidate: 1 of 1 Period: 5.877 d
KOI: K03535.01 Corr: 0.999

Kp: 15.18 R*: 1.82 Rs Teff: 5702.0 K Logg: 3.81 Fe/H: -1.140



DV Fit Results:

Period = 5.87712 [0.00000] d
Epoch = 136.4205 [0.0000] BKJD
Rp/R* = 0.6007 [0.0014]
a/R* = 14.58 [0.00]
b = 0.46 [0.00]
Seff = 915.50 [1203.94]
Teq = 1403 [461] K
Rp = 119.37 [75.71] Re
a = 0.0586 [0.0439] AU
Ag = 13.57 [17.72] [0.71] σ
Teffp = 4162 [161] K [5.65] σ

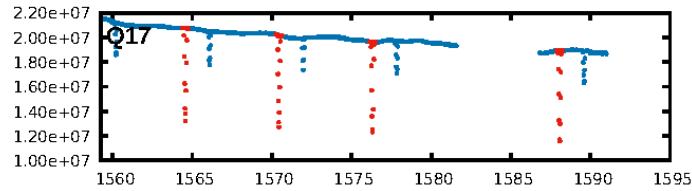
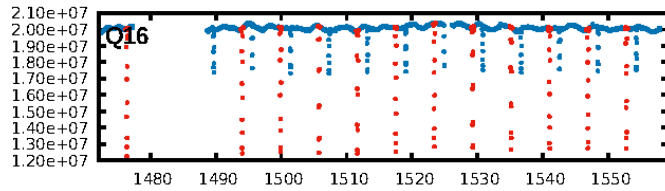
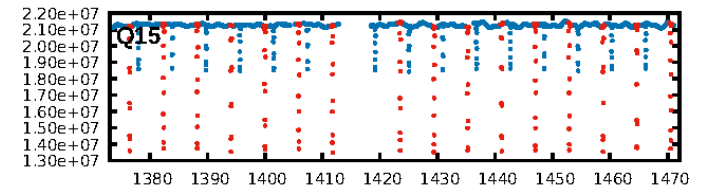
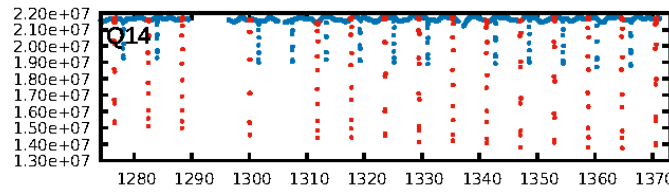
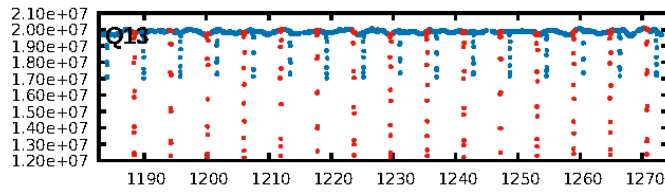
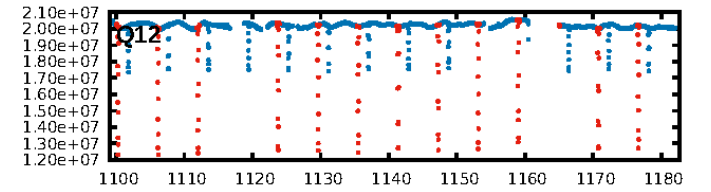
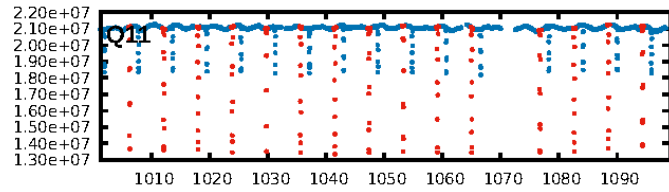
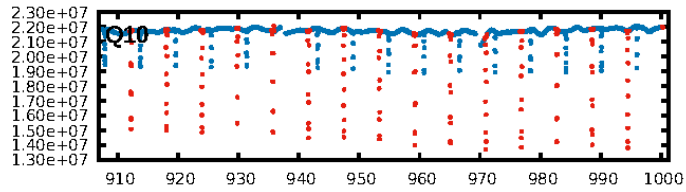
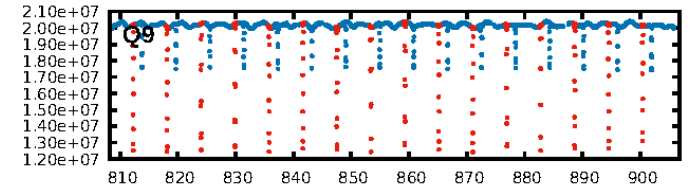
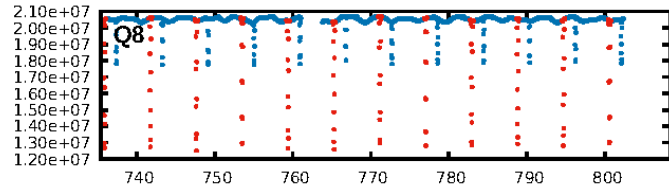
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 0.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [127/127]
GhostDiagnostic-chr: 1.639
Centroid-sig: N/A
Centroid-so: 3.196 arcsec [7561.52] σ
OotOffset-rm: 4.971 arcsec [46.00] σ
OotOffset-st: 2/2/3/3 [10]
KicOffset-rm: 0.203 arcsec [2.85] σ
KicOffset-st: 2/2/3/3 [10]
DiffImageQuality-fgm: 1.00 [10/10]
DiffImageOverlap-fno: 1.00 [10/10]

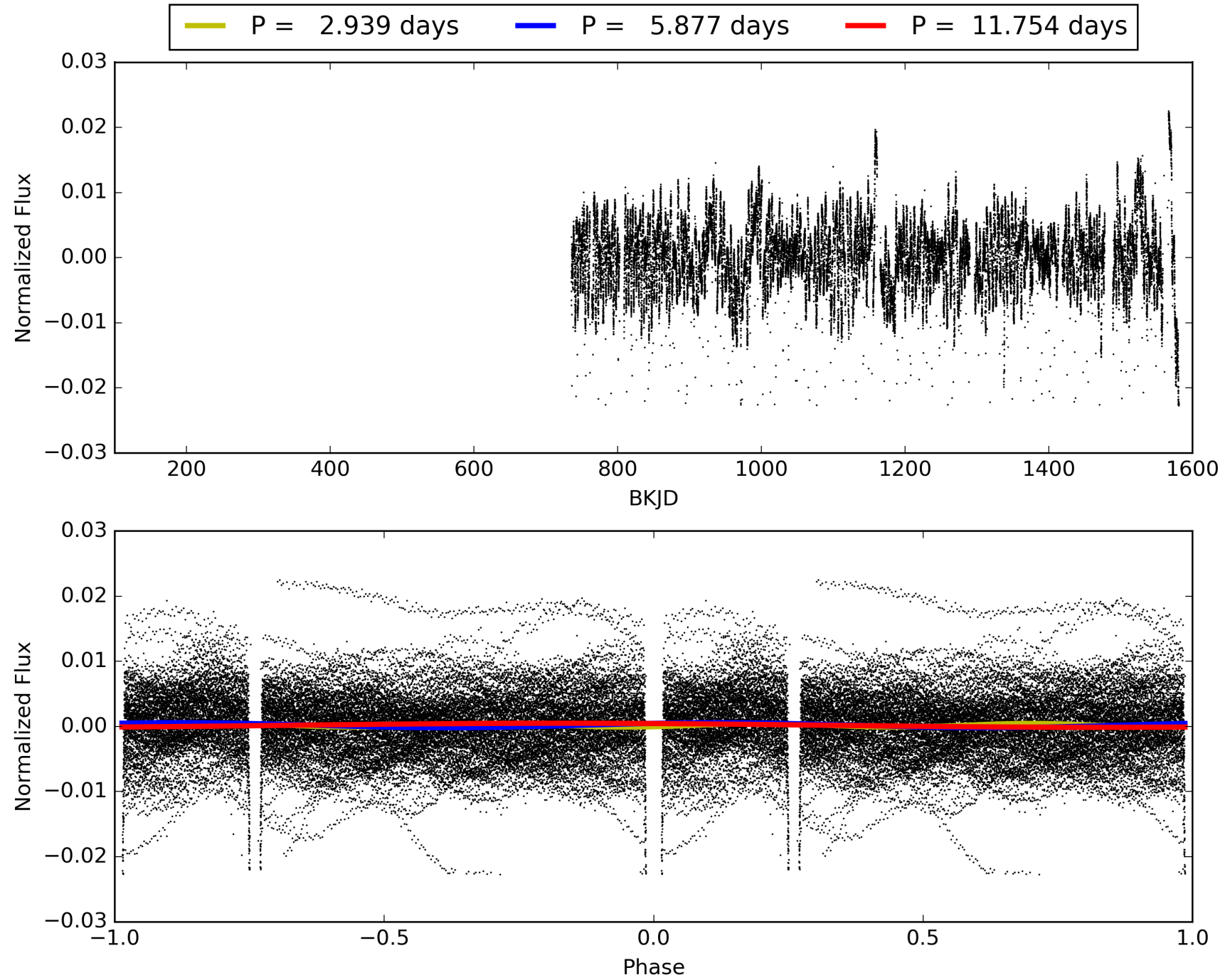
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 03-Feb-2016 08:51:53 Z

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

TCE 007376500-01, PDC Light Curves

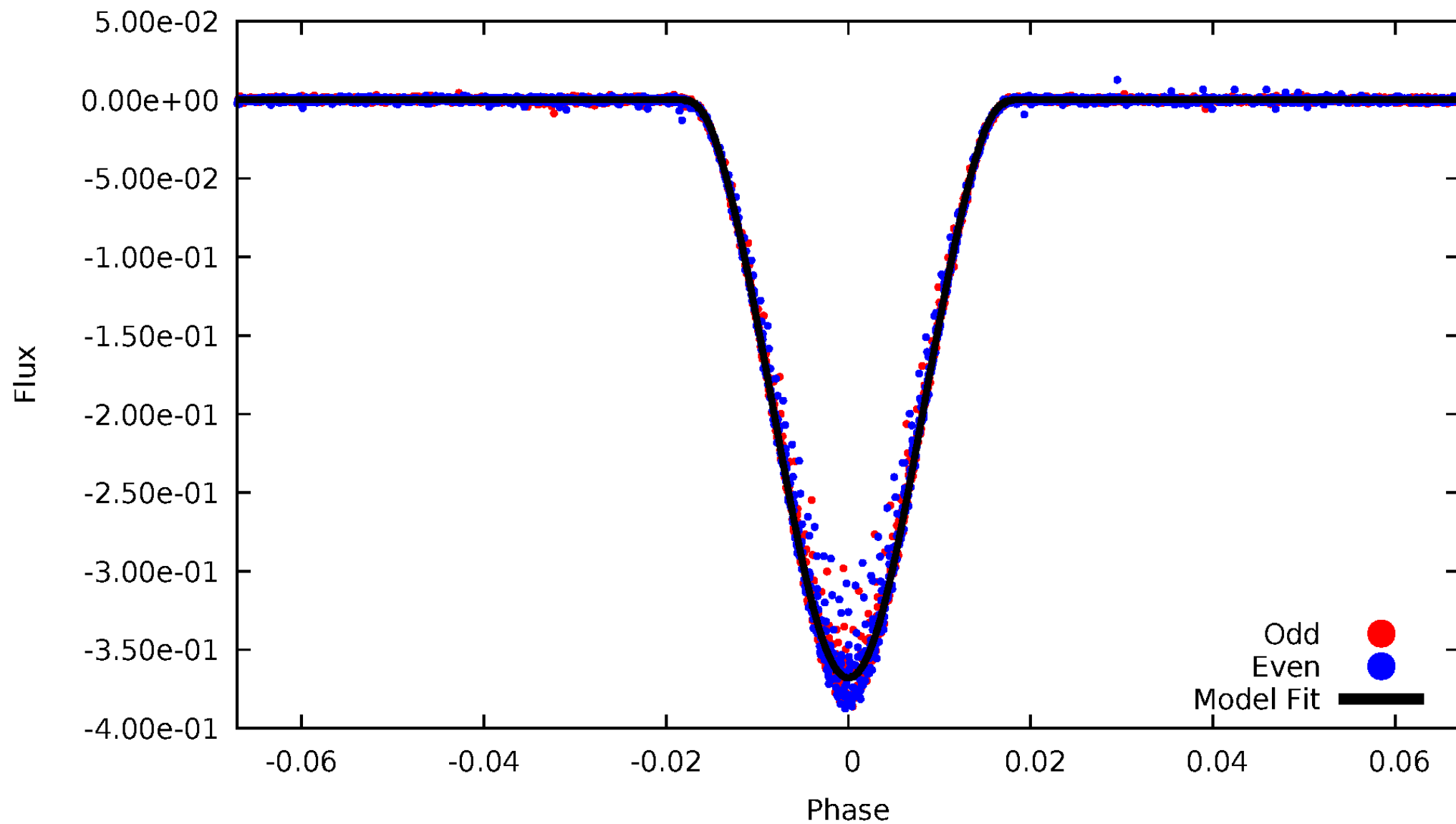


TCE 007376500-01



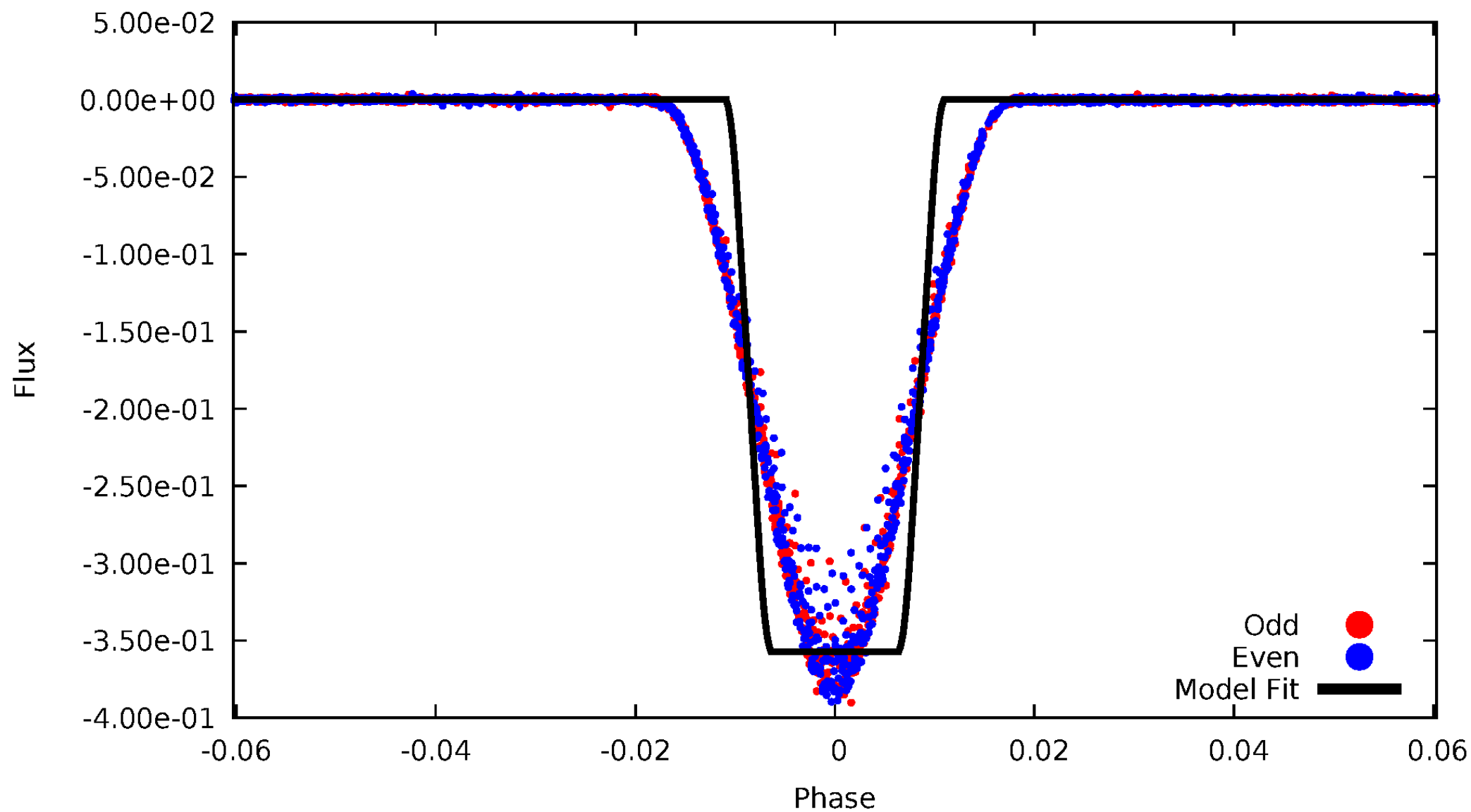
DV Odd/Even

TCE 007376500-01



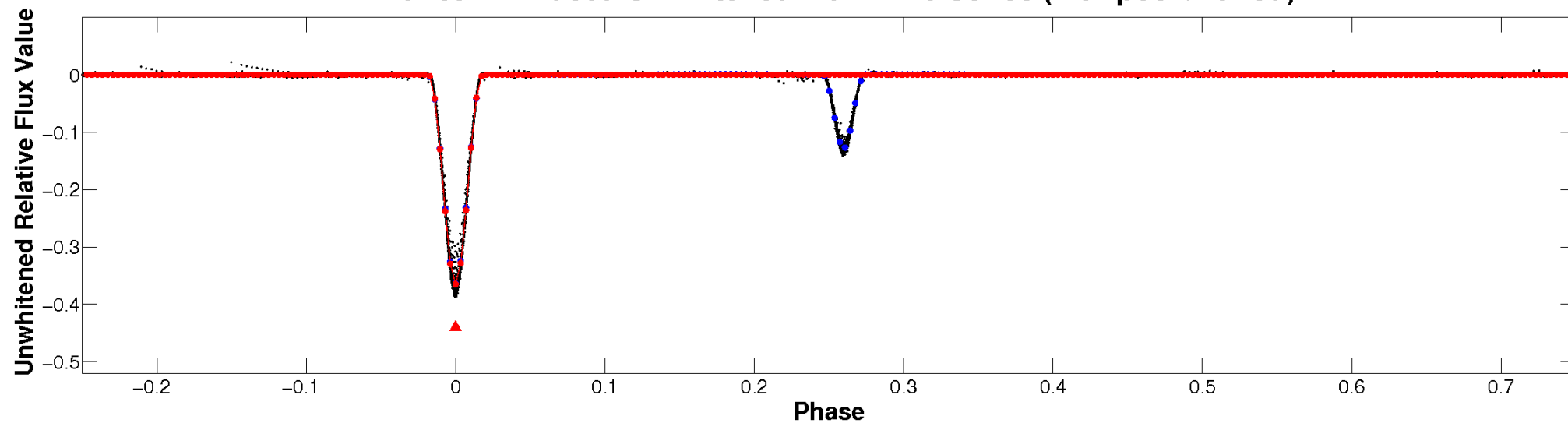
ALT Odd/Even

TCE 007376500-01

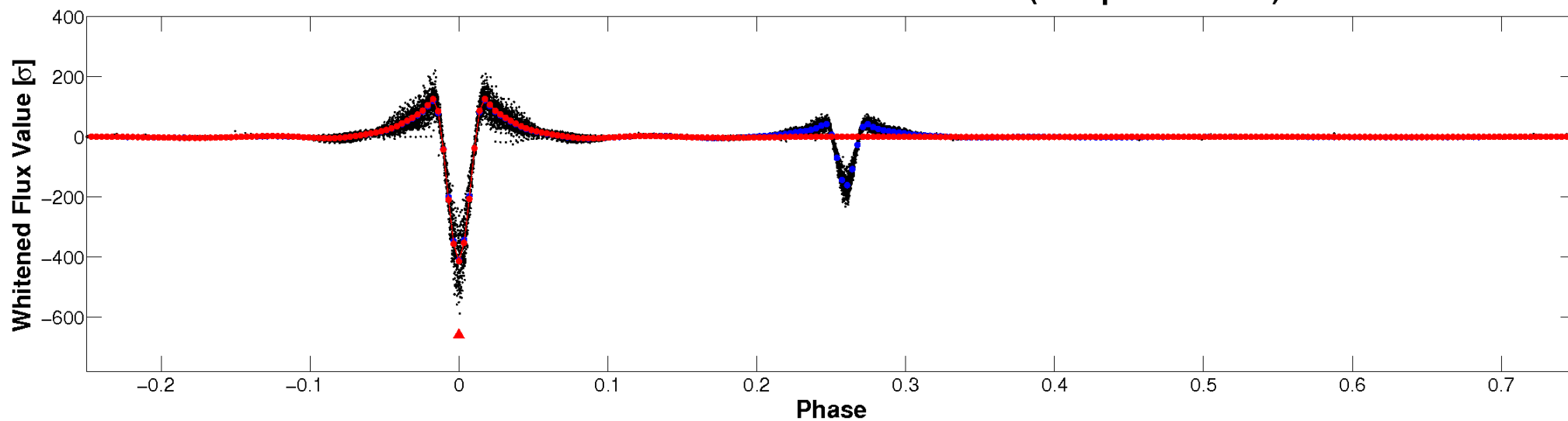


Non-Whitened Vs. Whitened Light Curve

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

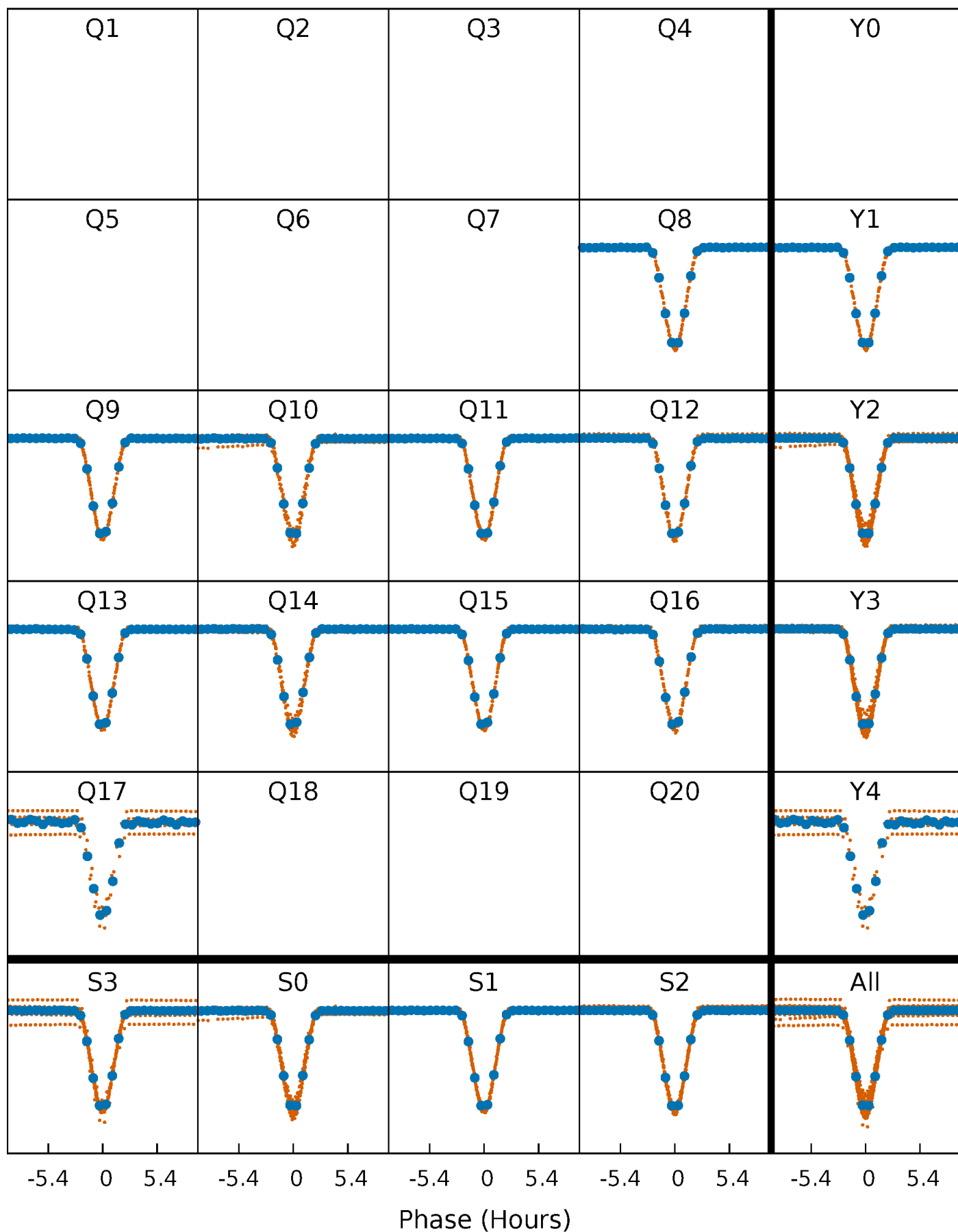


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



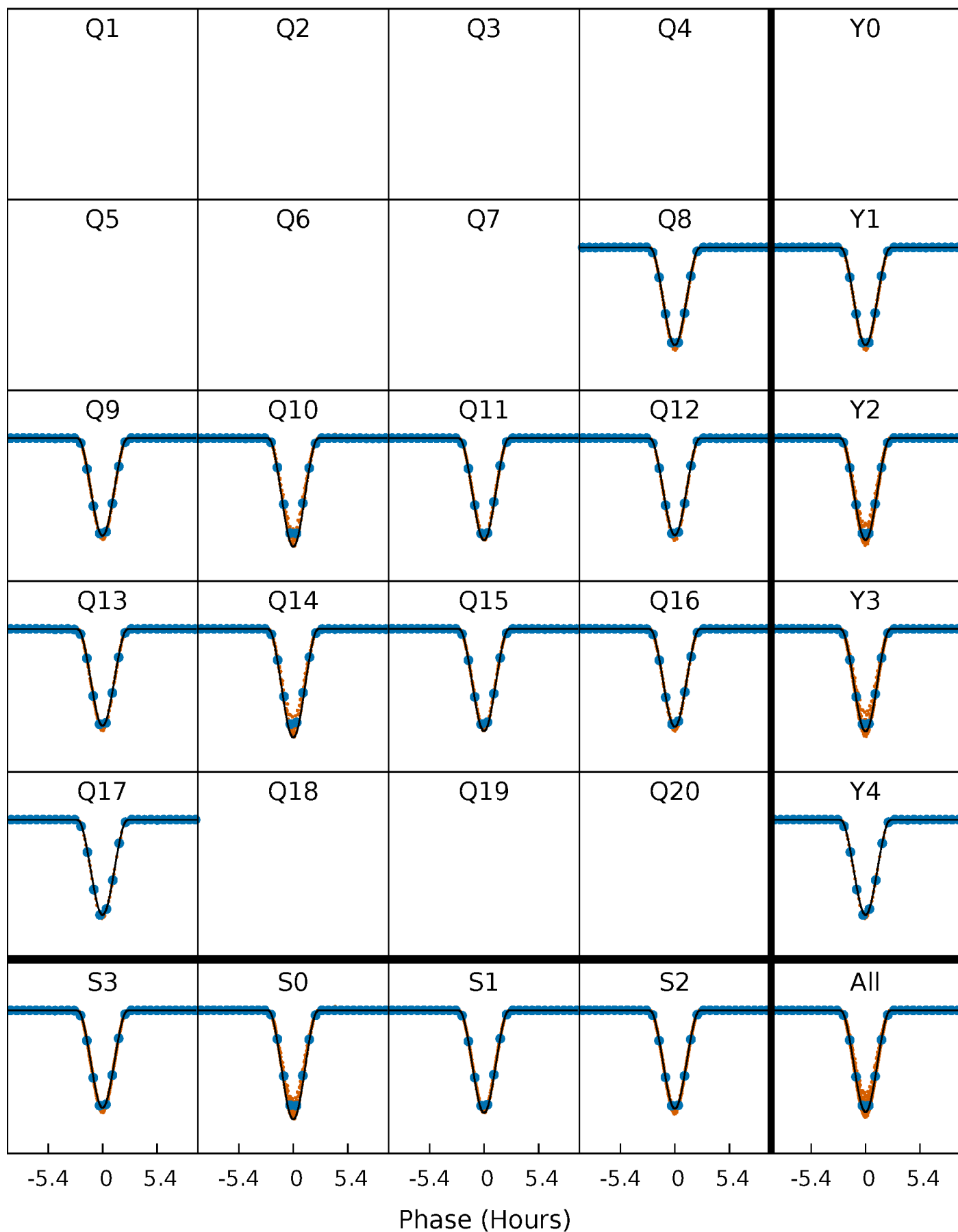
PDC Quarter-Phased Transit Curves

TCE 007376500-01 P= 5.877124 Days $T_0=136.420490$ (BKJD)



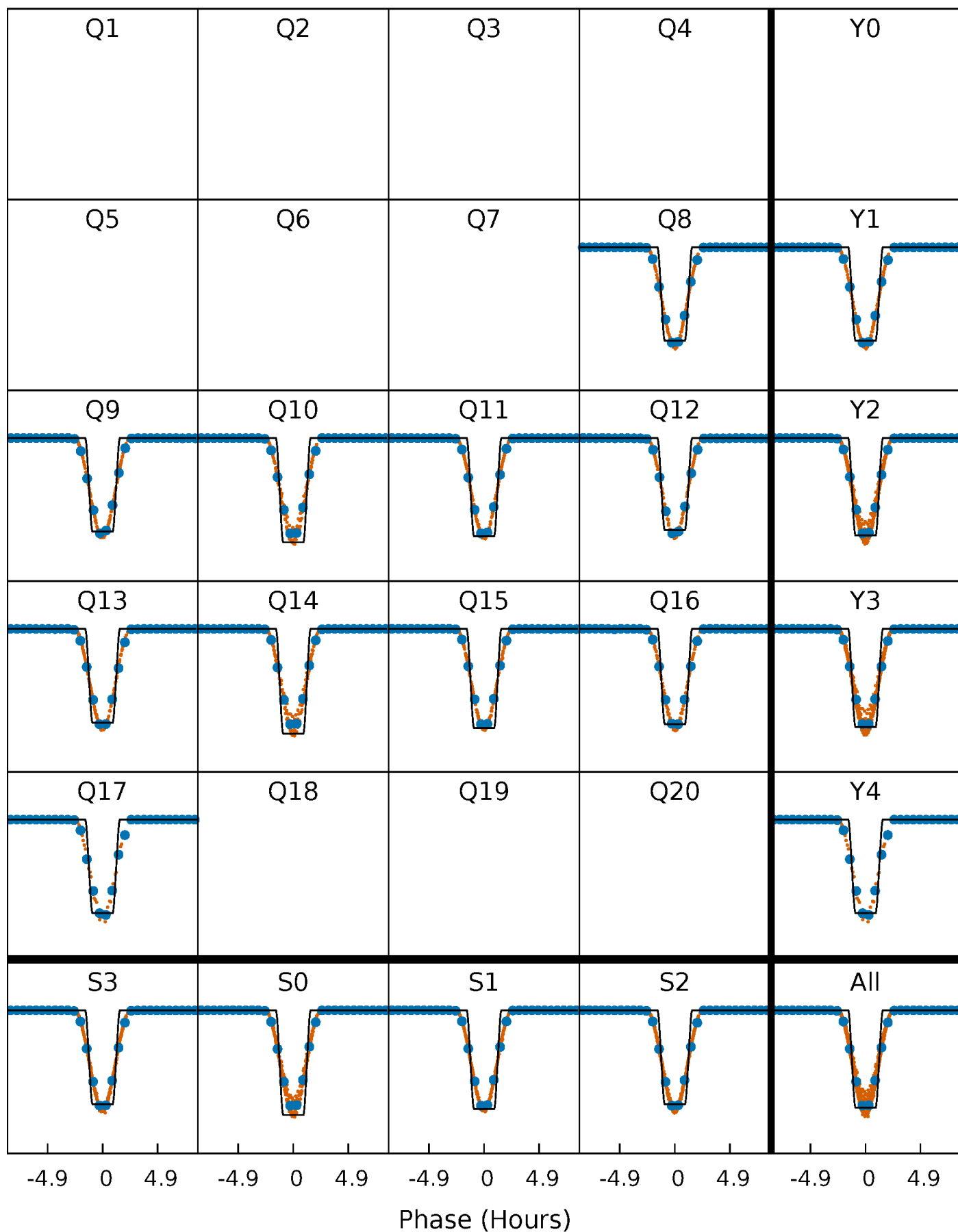
DV Quarter-Phased Transit Curves

TCE 007376500-01 P= 5.877124 Days $T_0=136.420490$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

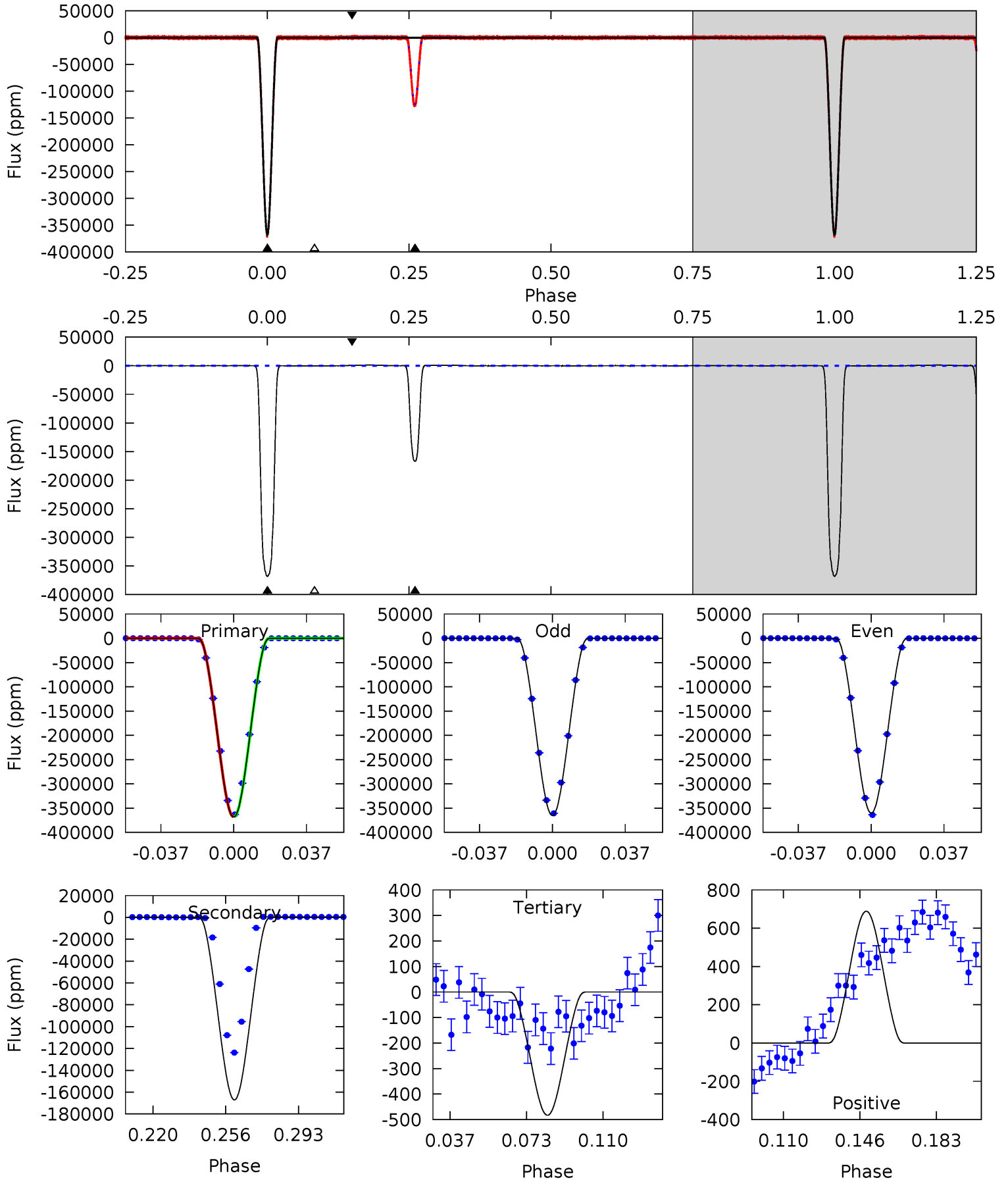
TCE 007376500-01 P= 5.877113 Days $T_0=136.422397$ (BKJD)



DV Model-Shift Uniqueness Test

007376500-01, P = 5.877124 Days, E = 136.420490 Days

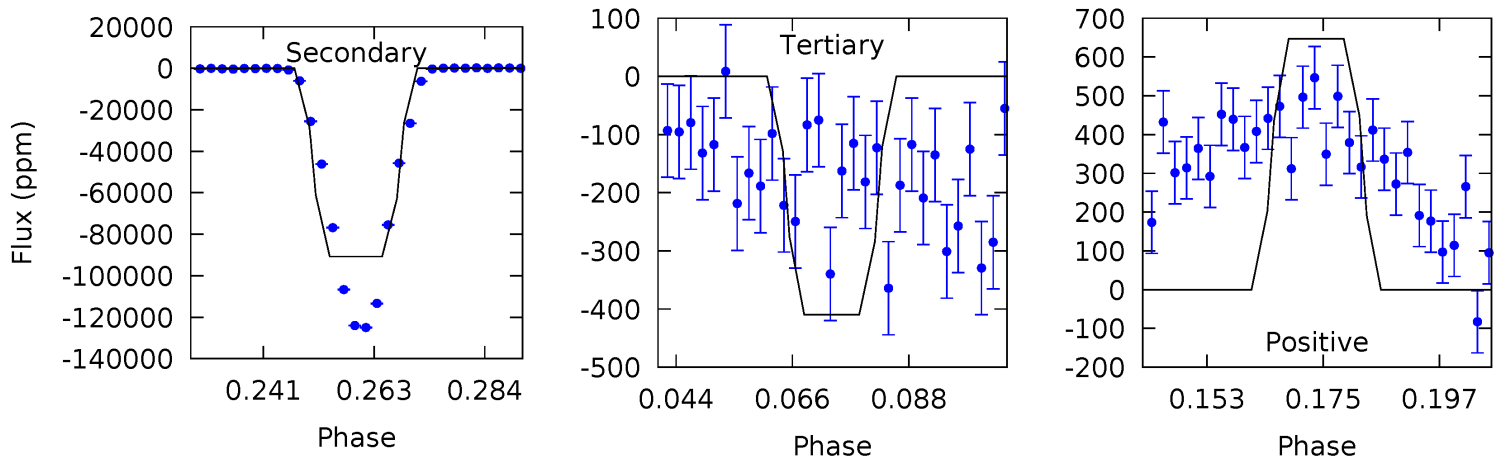
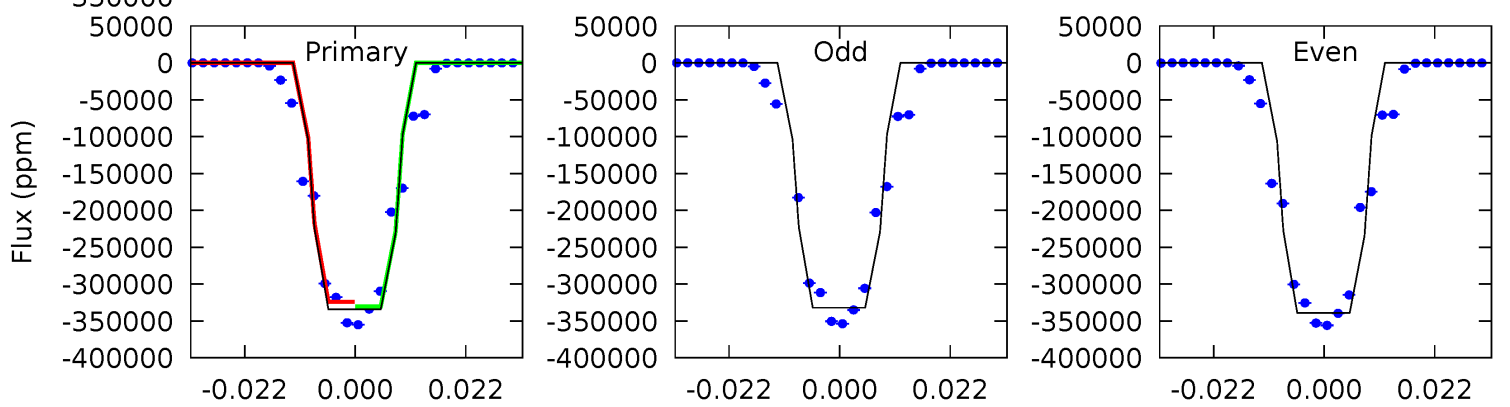
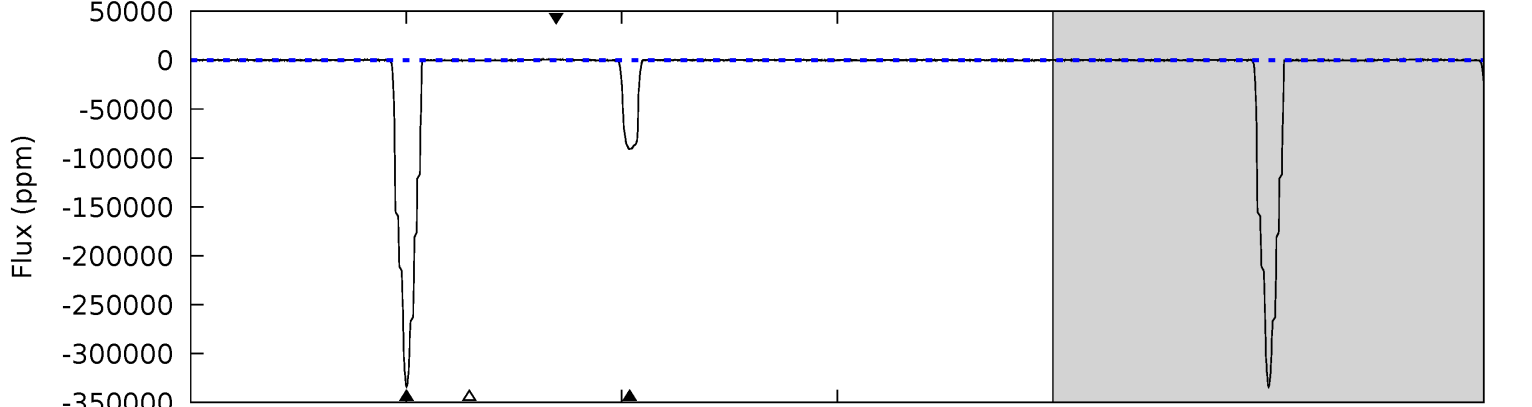
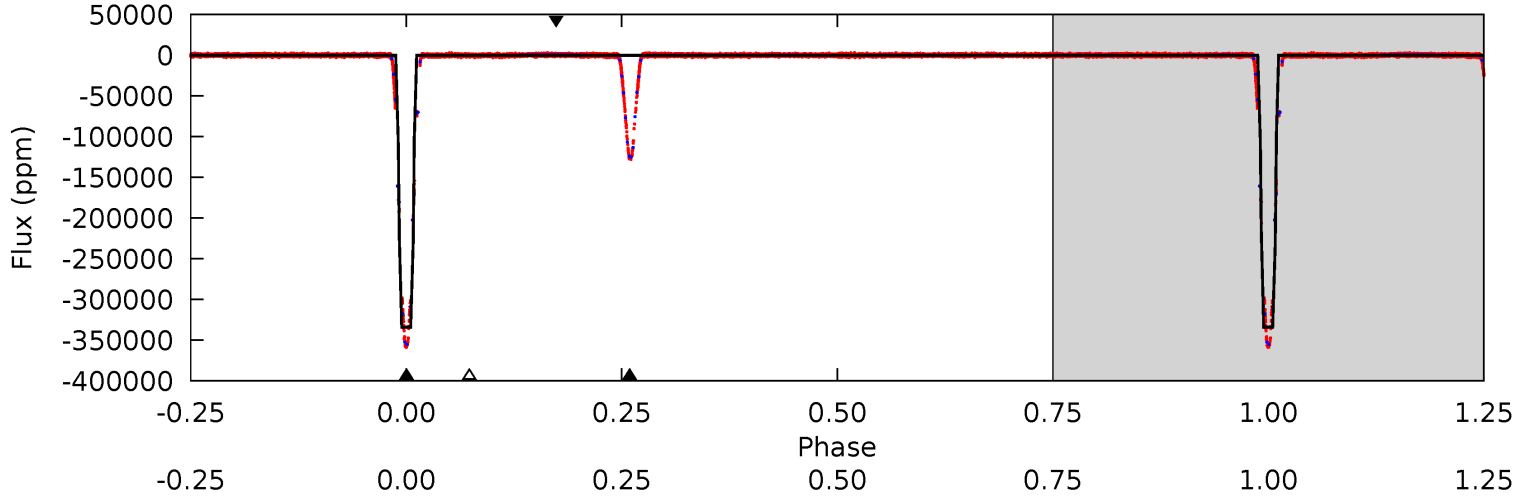
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11988	5439	15.7	22.4	4.77	2.09	10.2	11972	11965	5423	5416	84.0	0.99	0.00	0



Alt Model-Shift Uniqueness Test

007376500-01, P = 5.877113 Days, E = 136.422397 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4555	1237	5.58	8.82	4.87	2.29	2.04	4549	4546	1232	1229	49.5	0.99	0.00	0



Stellar Parameters For KIC 007376500

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5702^{+219}_{-199}	$3.807^{+0.805}_{-0.345}$	$-1.140^{+0.350}_{-0.300}$	$1.821^{+1.155}_{-1.039}$	$0.774^{+0.126}_{-0.092}$	$0.181^{+2.897}_{-0.122}$
	+4%/-3%	+21%/-9%	+31%/-26%	+63%/-57%	+16%/-12%	+1603%/-67%
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 007376500-01 / KOI 3535.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-166977 ± 31	$118.47^{+37.18}_{-41.12}$	1942^{+293}_{-369}	4993^{+170}_{-164}	27^{+36}_{-12}
Alt.	-90778 ± 73	$113.95^{+37.62}_{-34.60}$	1916^{+301}_{-311}	4335^{+132}_{-130}	15^{+15}_{-6}

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 $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

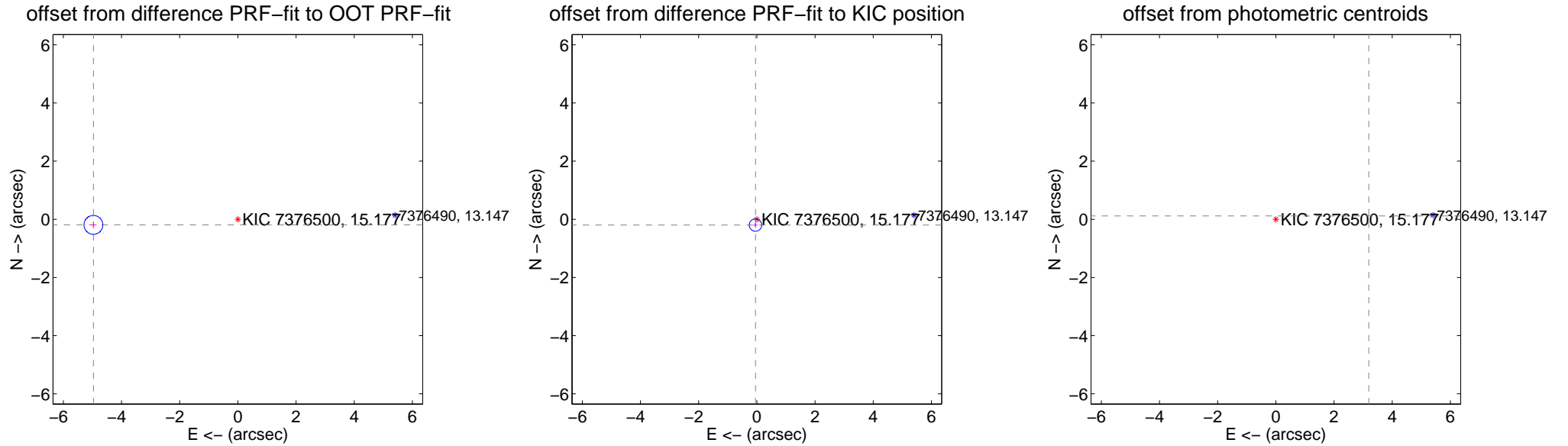
DV Centroid Data

Supplemental centroid analysis for 007376500-01. Kepler magnitude: 15.18. Transit SNR 4626.60

There are 10 quarters with good PRF difference image offsets

The OOT PRF centroid is offset from the target star catalog position by about 5.20 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	4.971 ± 0.108	46.00	4.967 ± 0.108	-0.191 ± 0.112
PRF-fit source offset from KIC position	0.203 ± 0.071	2.85	0.047 ± 0.069	-0.198 ± 0.071
photometric centroid source offset	3.20 ± 0.00	7561.52	-3.19 ± 0.00	0.12 ± 0.00

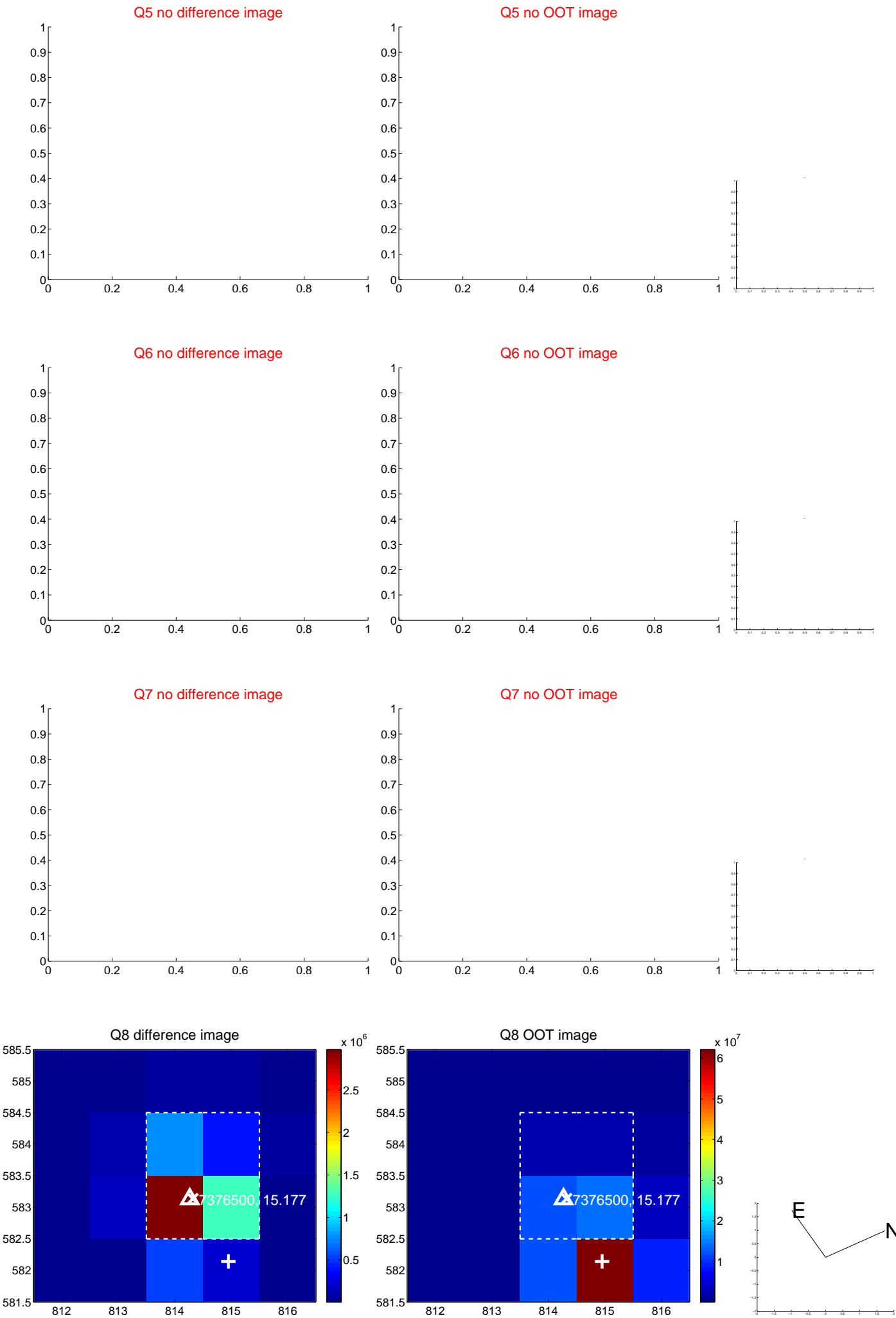


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . 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.

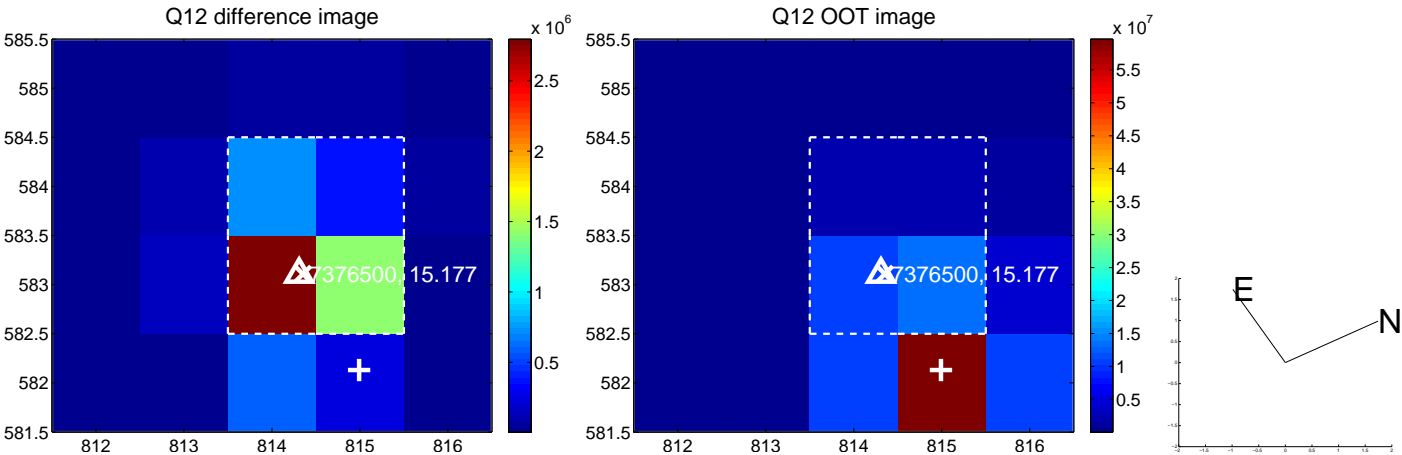
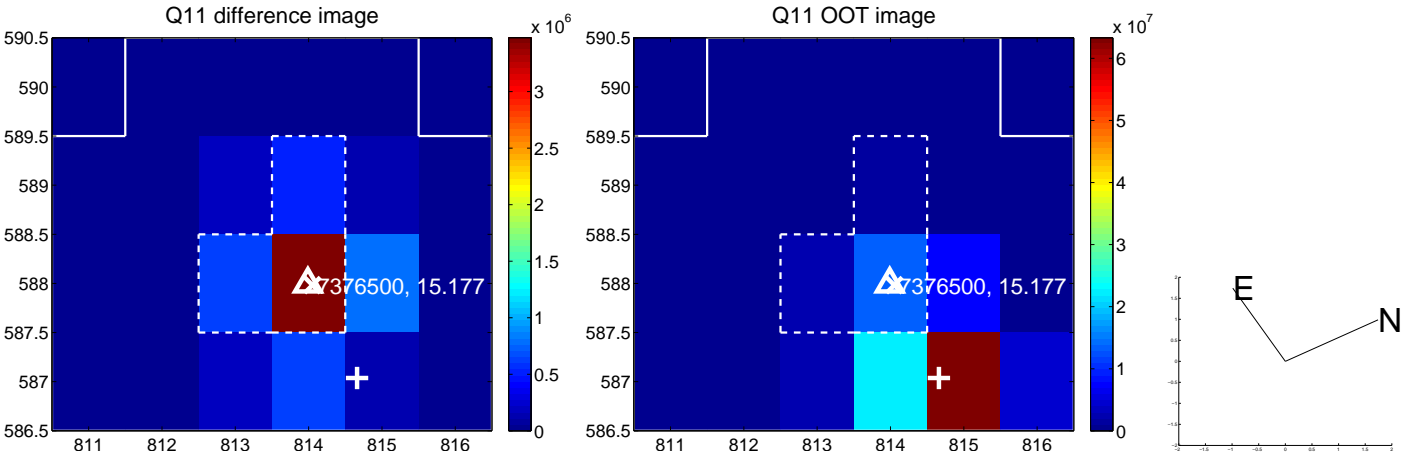
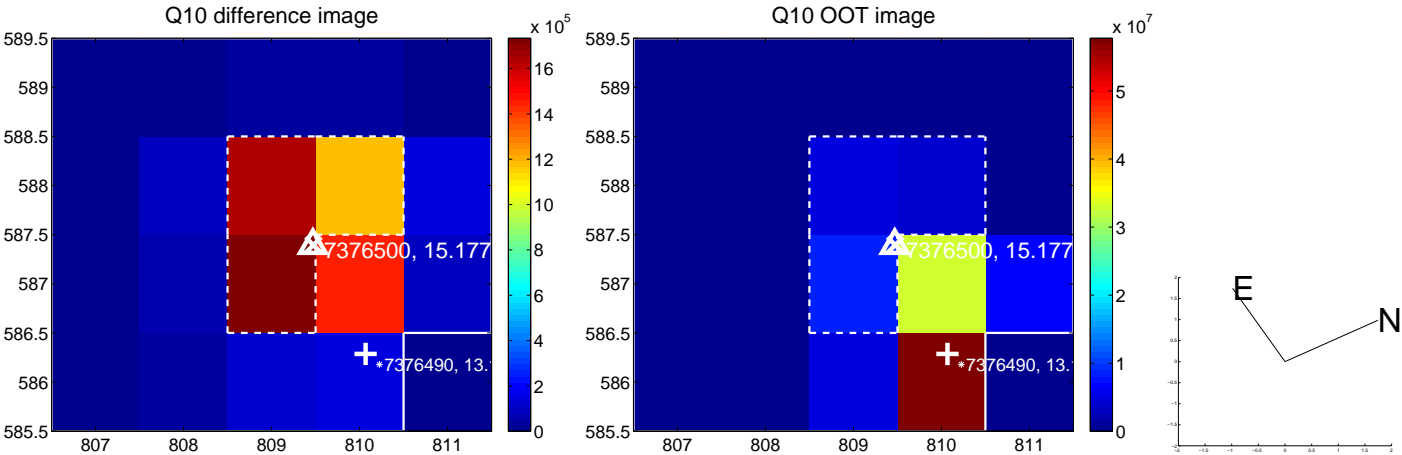
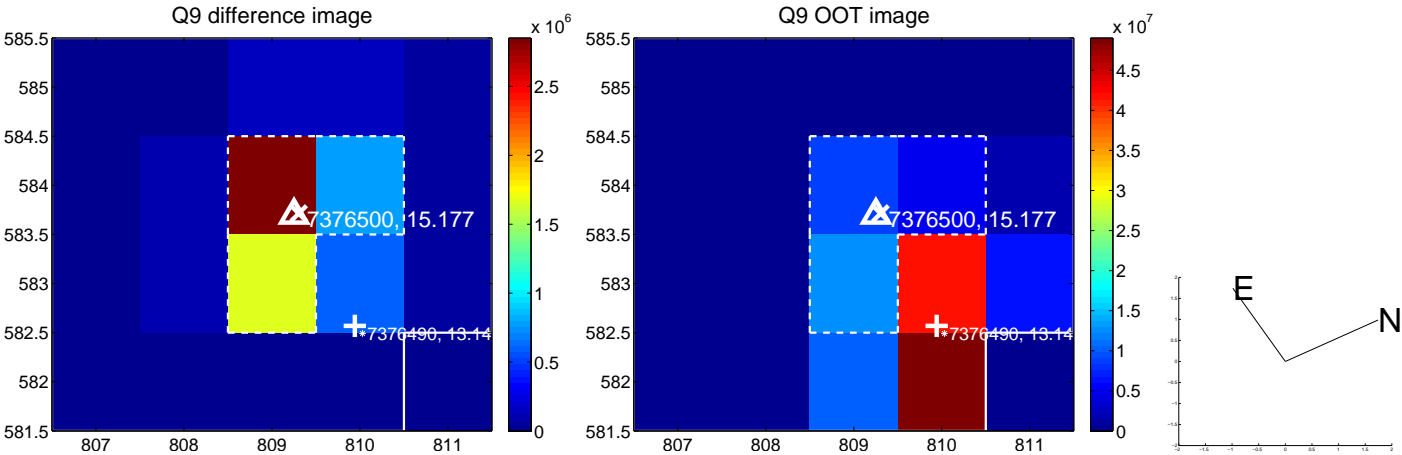
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



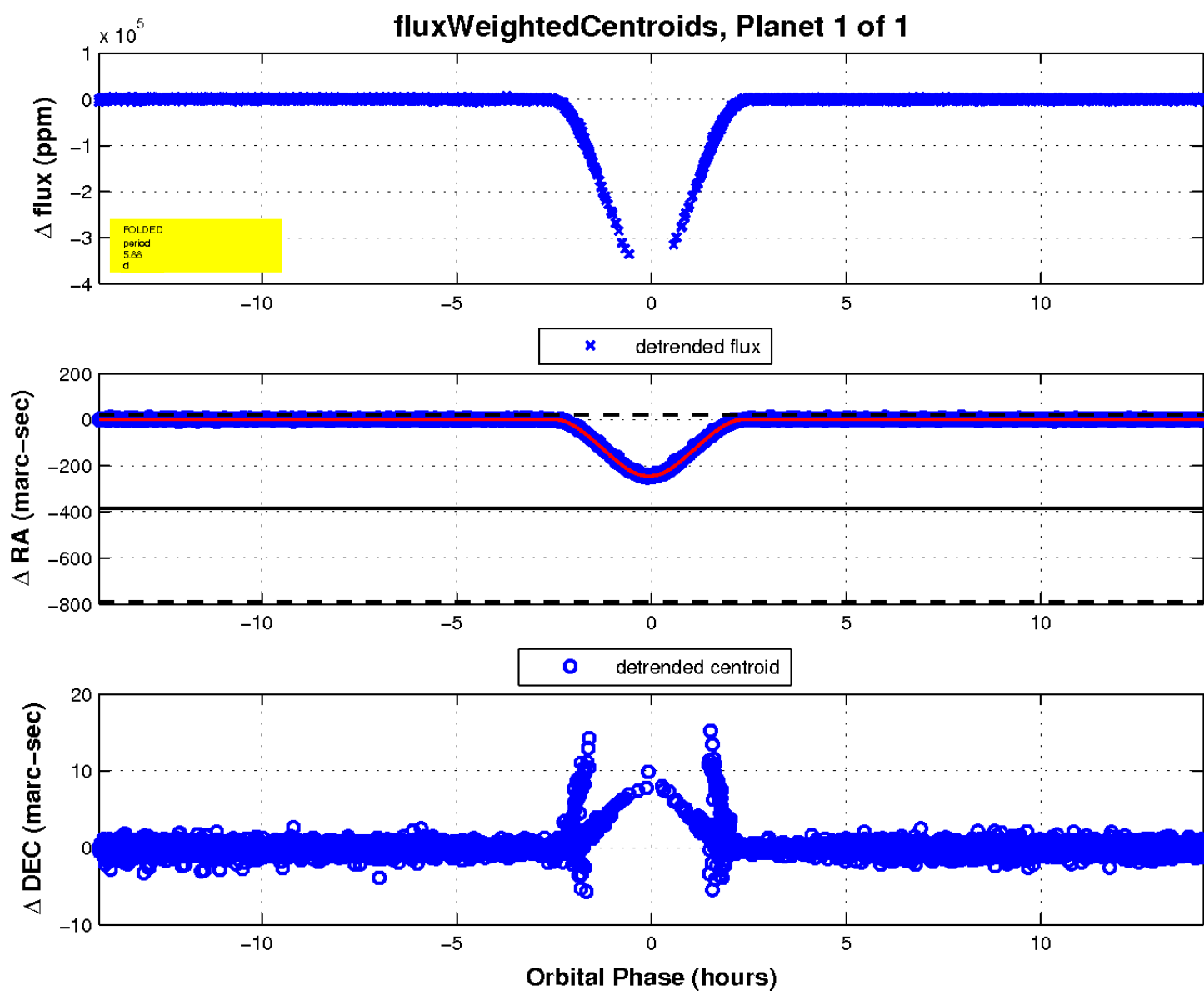
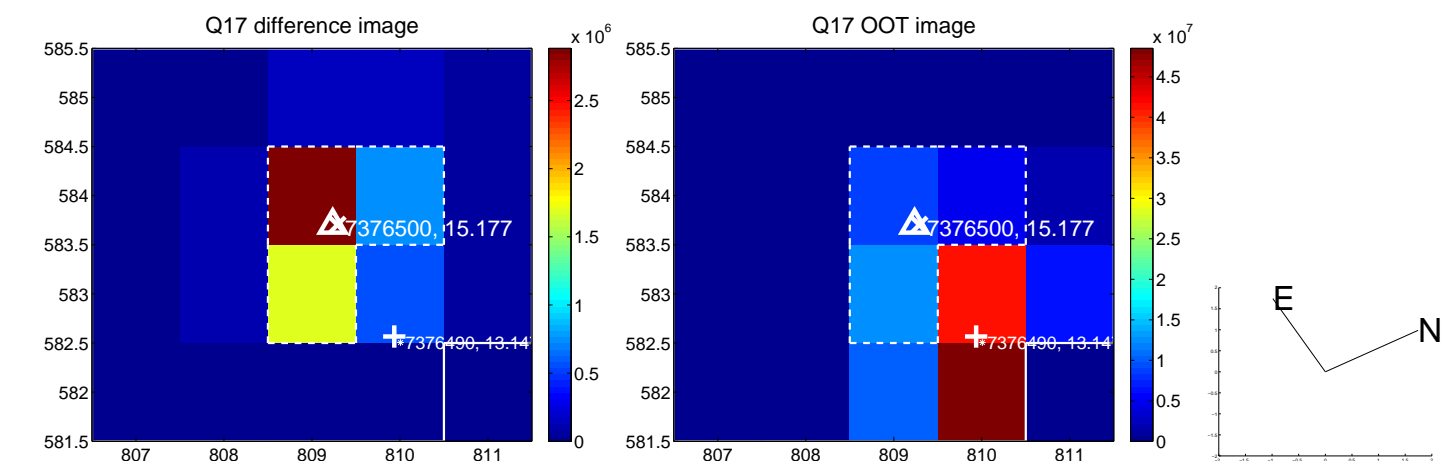
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

