

KIC 005784777

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})
005784777-01	OBS	3916.01	5.339051	132.141986	748.9	1.843	29.6	34.0	0.70	5057	2.38	105.41

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005784777-01	OBS	PC	1.00	0	0	0	0	NO_COMMENT

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

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

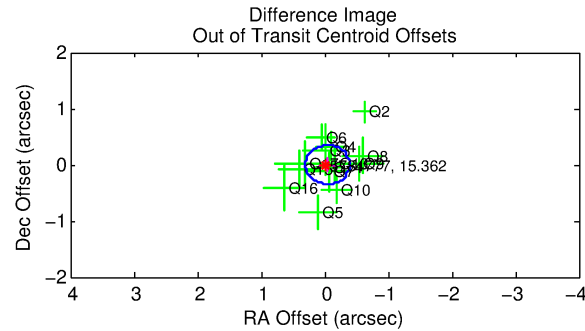
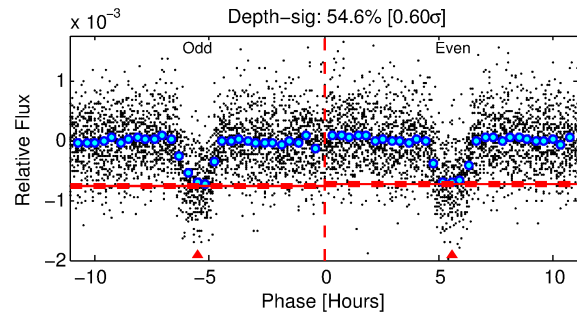
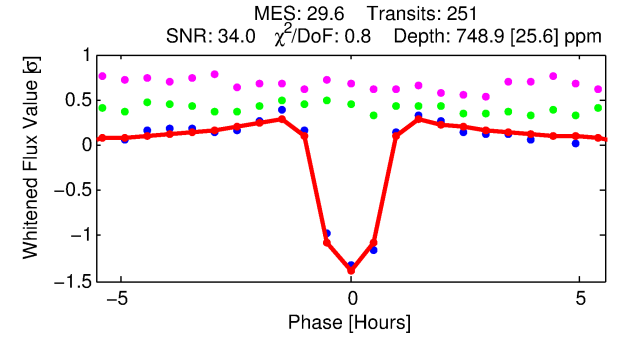
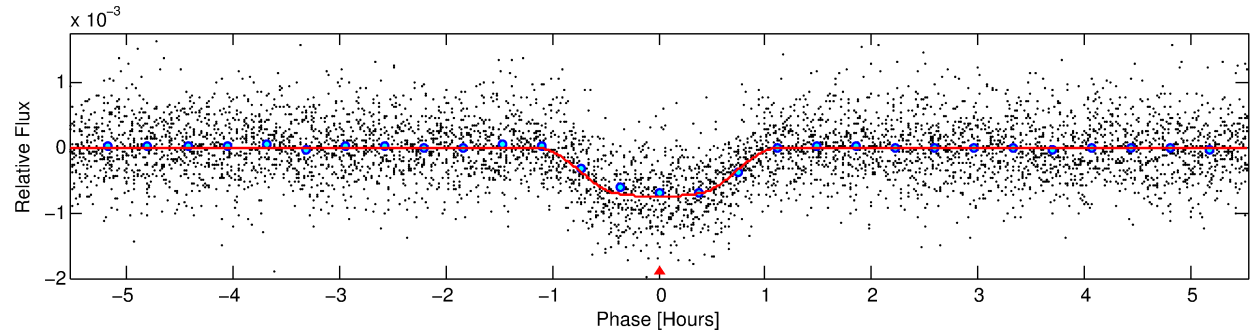
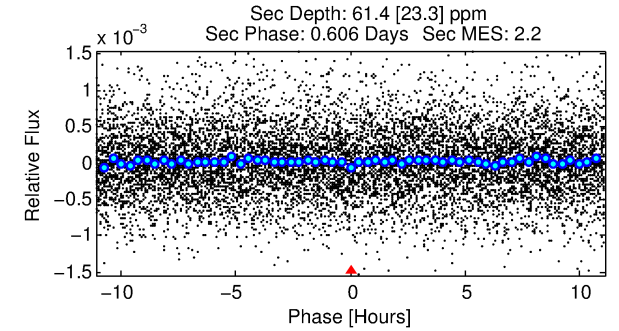
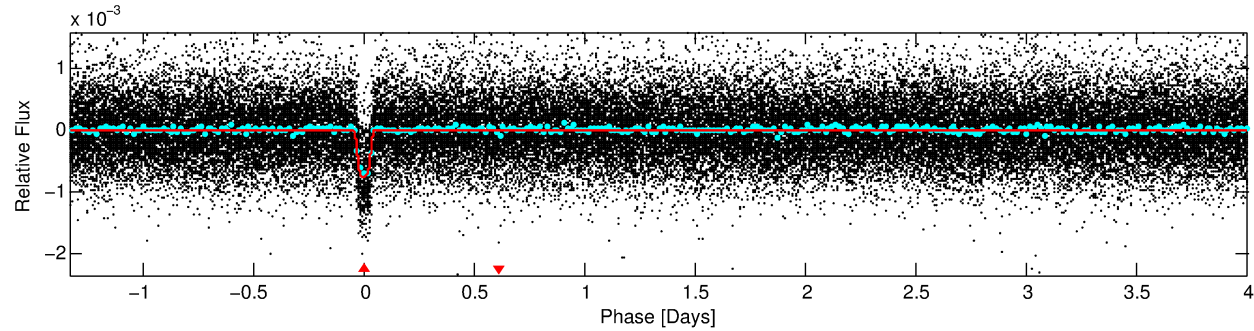
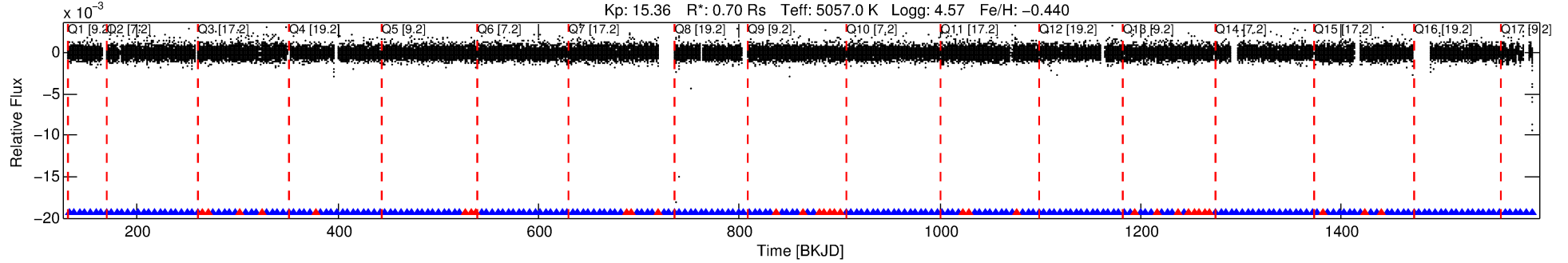
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005784777-01

No Significant Match Found

DV One-Page Summary

KIC: 5784777 Candidate: 1 of 1 Period: 5.339 d
KOI: K03916.01 Corr: 0.946



DV Fit Results:

Period = 5.33905 [0.00001] d
Epoch = 132.1420 [0.0009] BKJD
Rp/R* = 0.0309 [0.0030]
a/R* = 10.62 [3.96]
b = 0.91 [0.07]
Seff = 105.41 [18.60]
Teq = 817 [36] K
Rp = 2.38 [0.33] Re
a = 0.0525 [0.0046] AU
Ag = 16.46 [7.32] [2.11σ]
Teffp = 2545 [281] K [6.10σ]

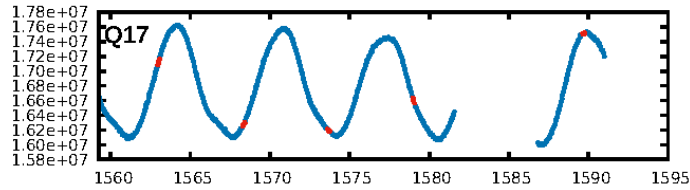
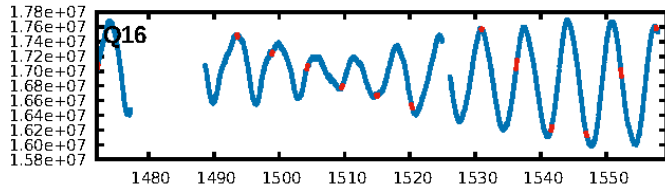
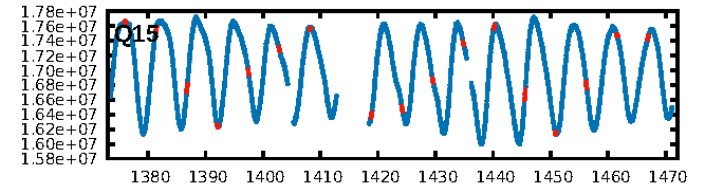
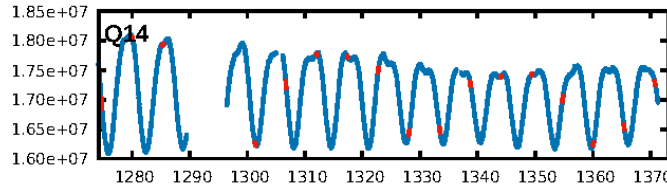
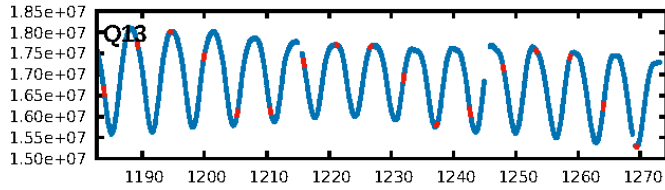
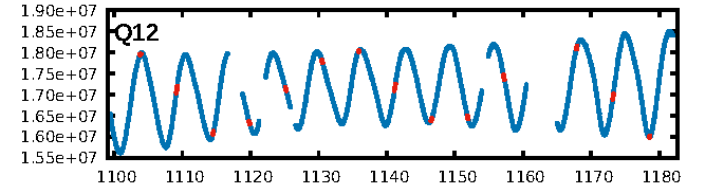
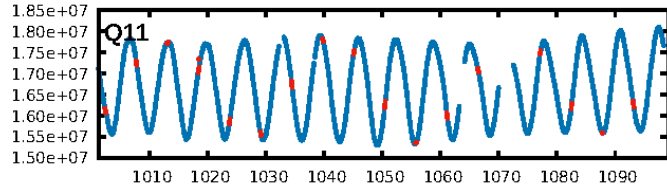
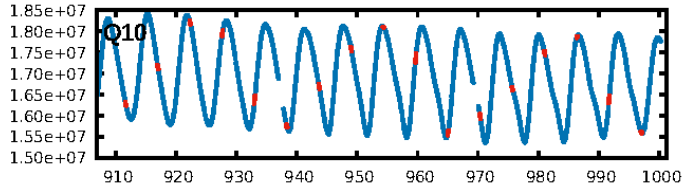
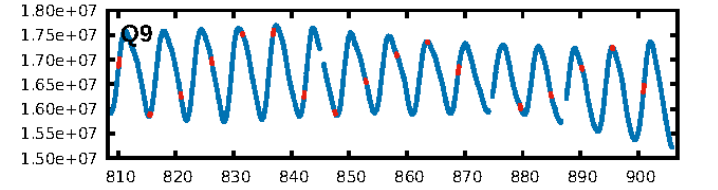
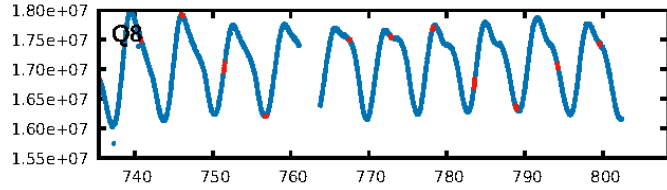
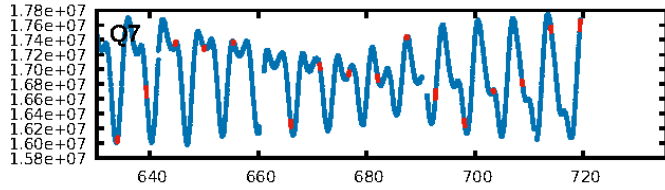
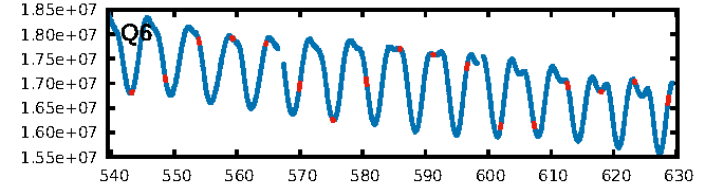
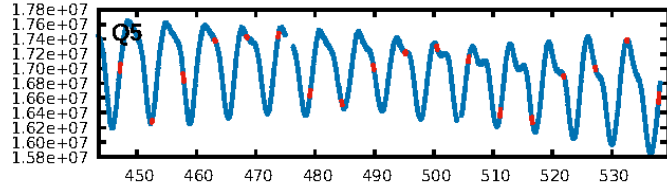
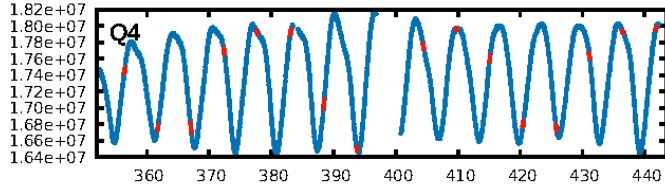
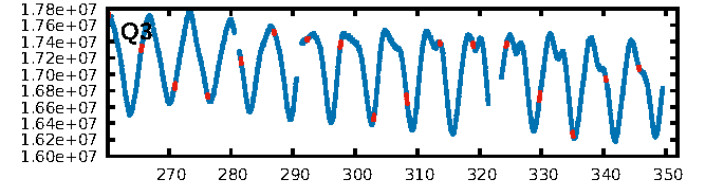
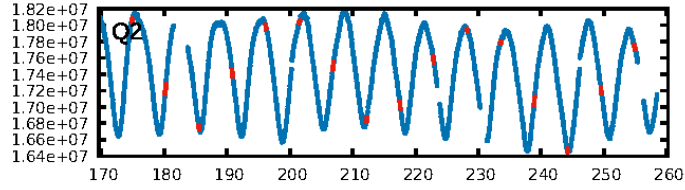
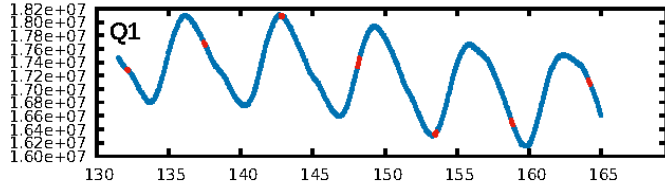
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 4.13e-181
RollingBand-fgt: 0.87 [207/239]
GhostDiagnostic-chr: 0.5203
Centroid-sig: 80.0%
Centroid-so: 0.121 arcsec [0.33σ]
OotOffset-rm: 0.043 arcsec [0.37σ]
KicOffset-rm: 0.092 arcsec [0.74σ]
OotOffset-st: 4/3/3/4 [14]
KicOffset-st: 4/3/3/4 [14]
DiffImageQuality-fgm: 1.00 [14/14]
DiffImageOverlap-fno: 1.00 [17/17]

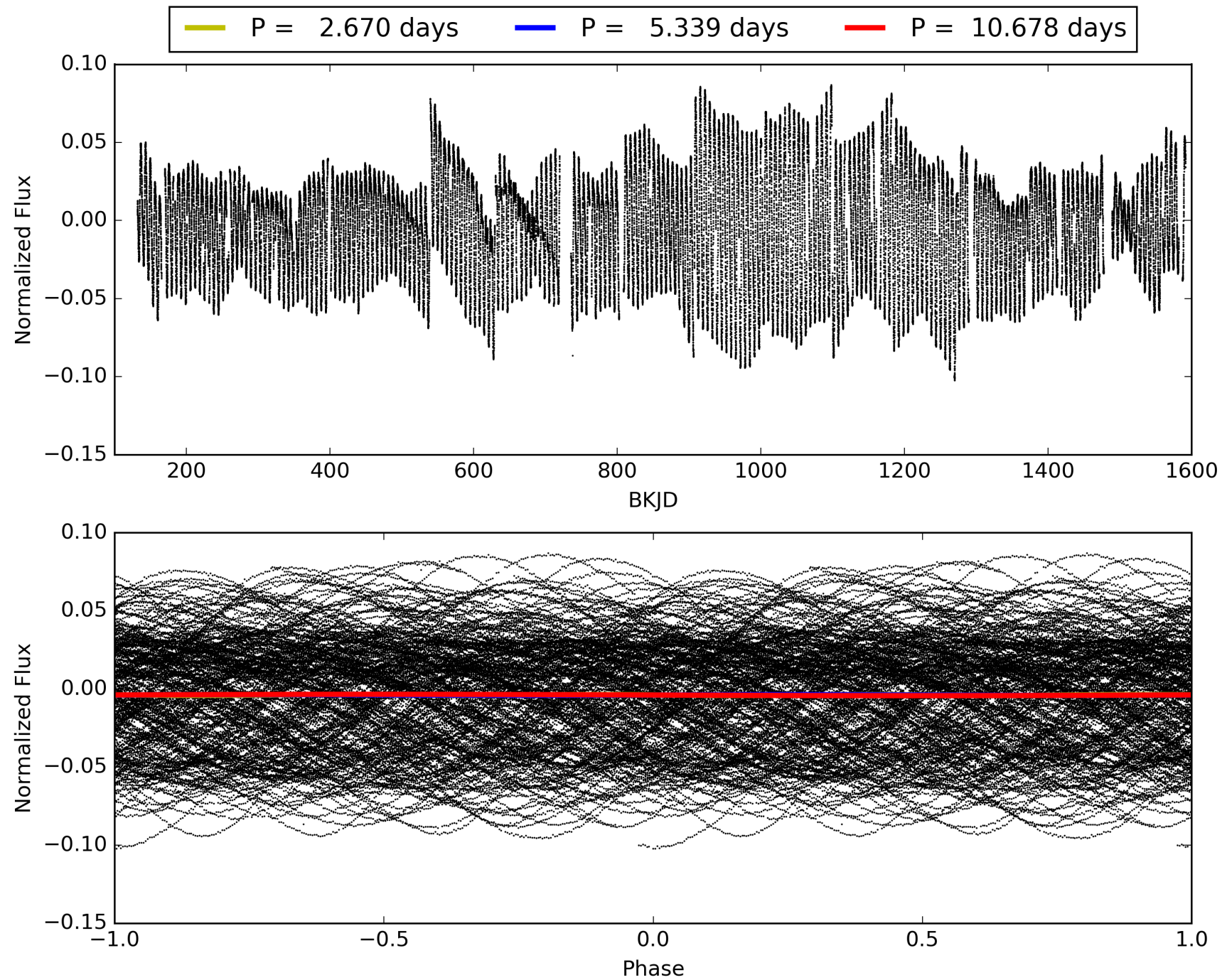
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 22:34:03 Z

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

TCE 005784777-01, PDC Light Curves

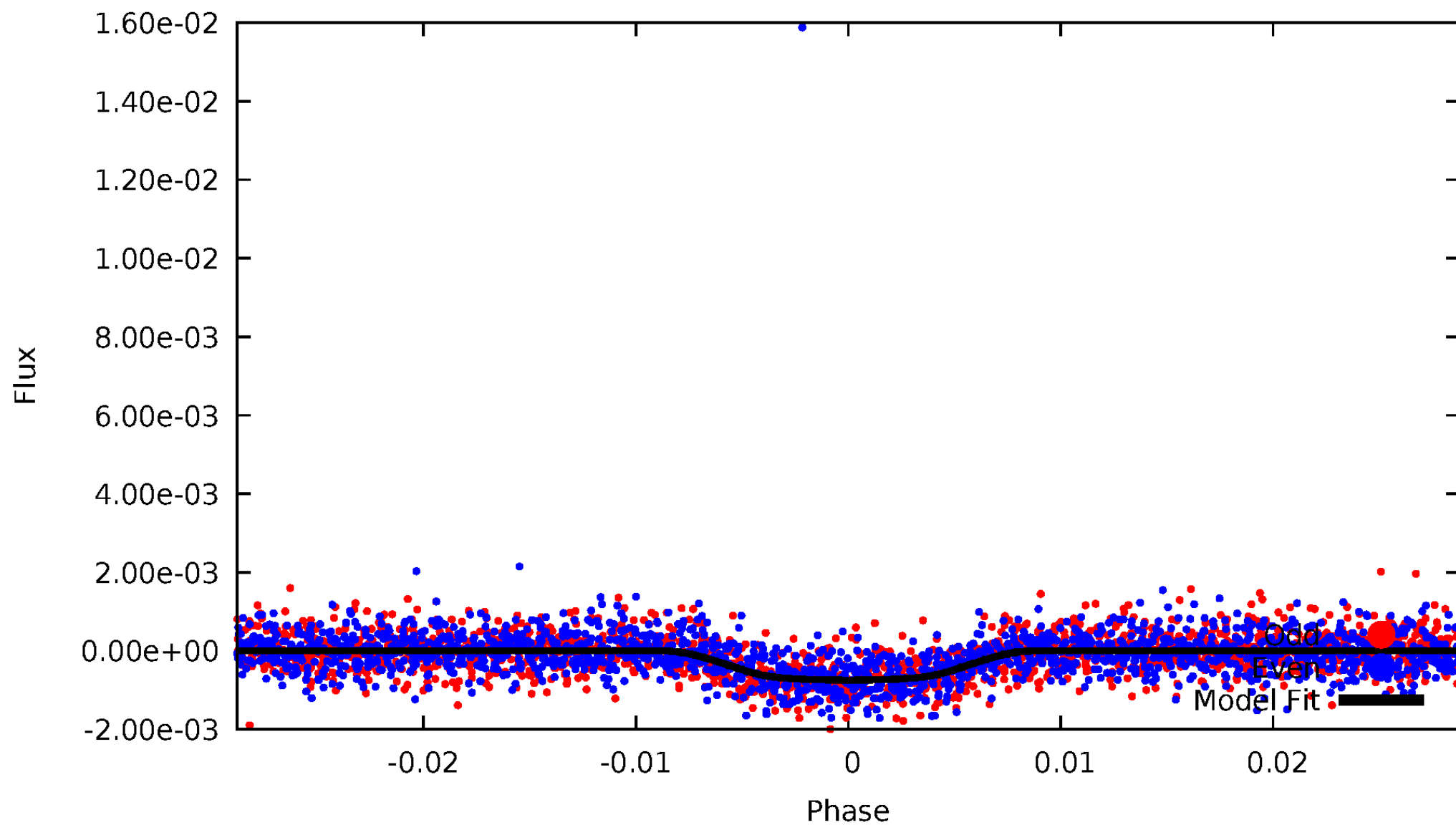


TCE 005784777-01



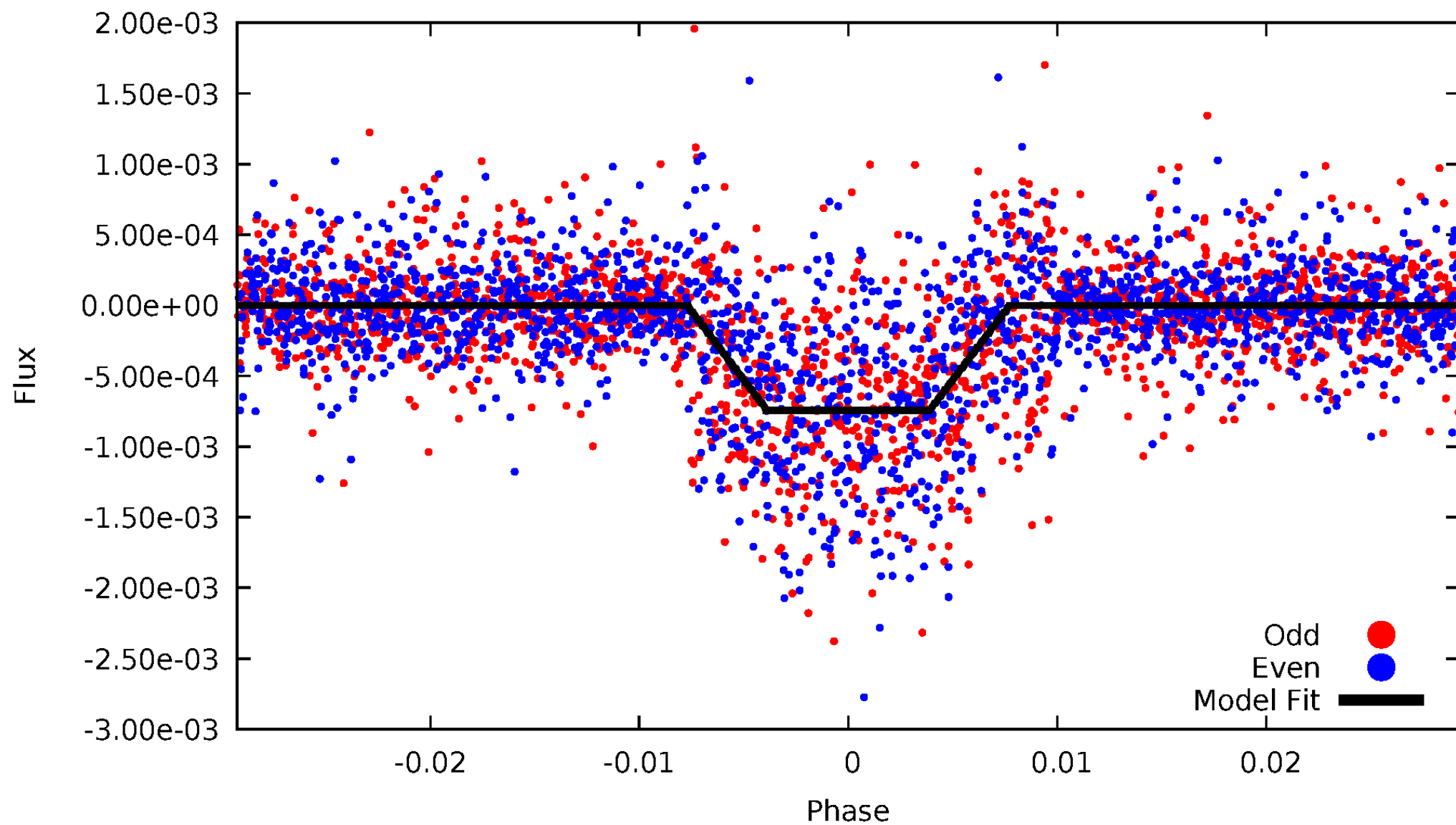
DV Odd/Even

TCE 005784777-01



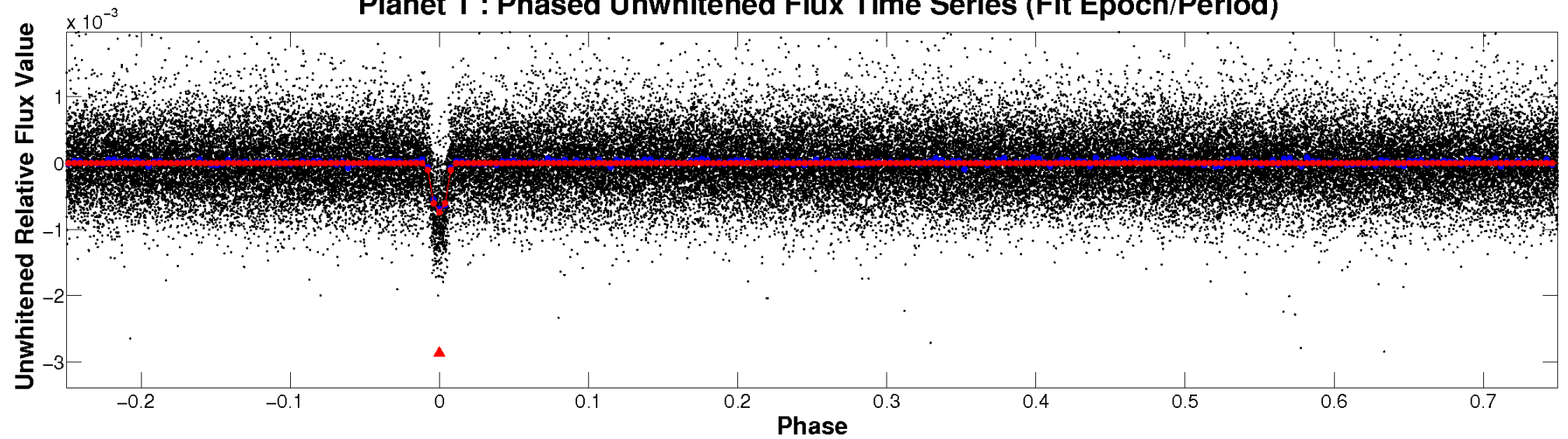
ALT Odd/Even

TCE 005784777-01

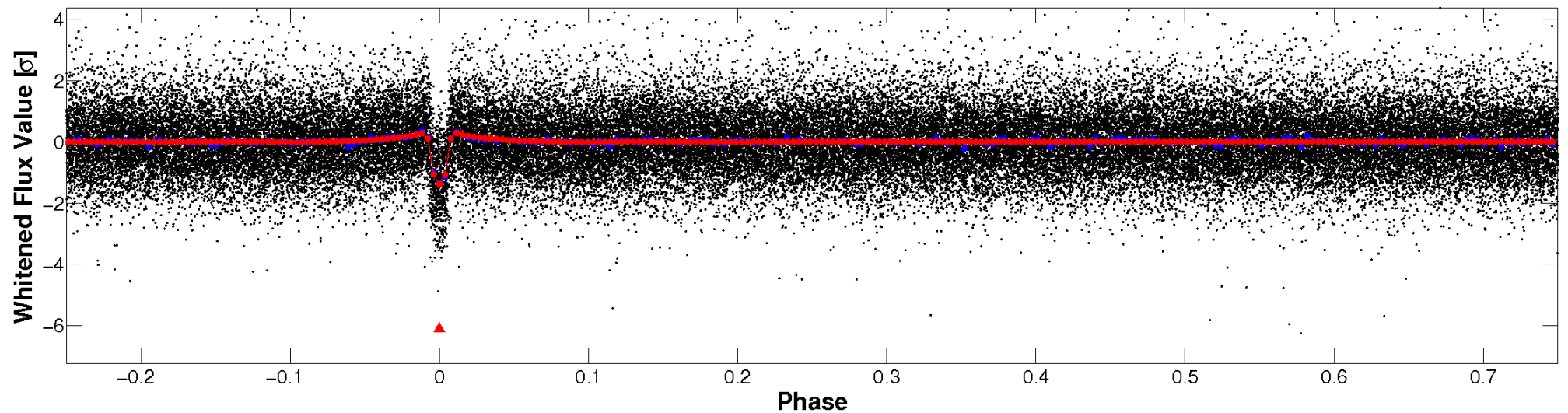


Non-Whitened Vs. Whitened Light Curve

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

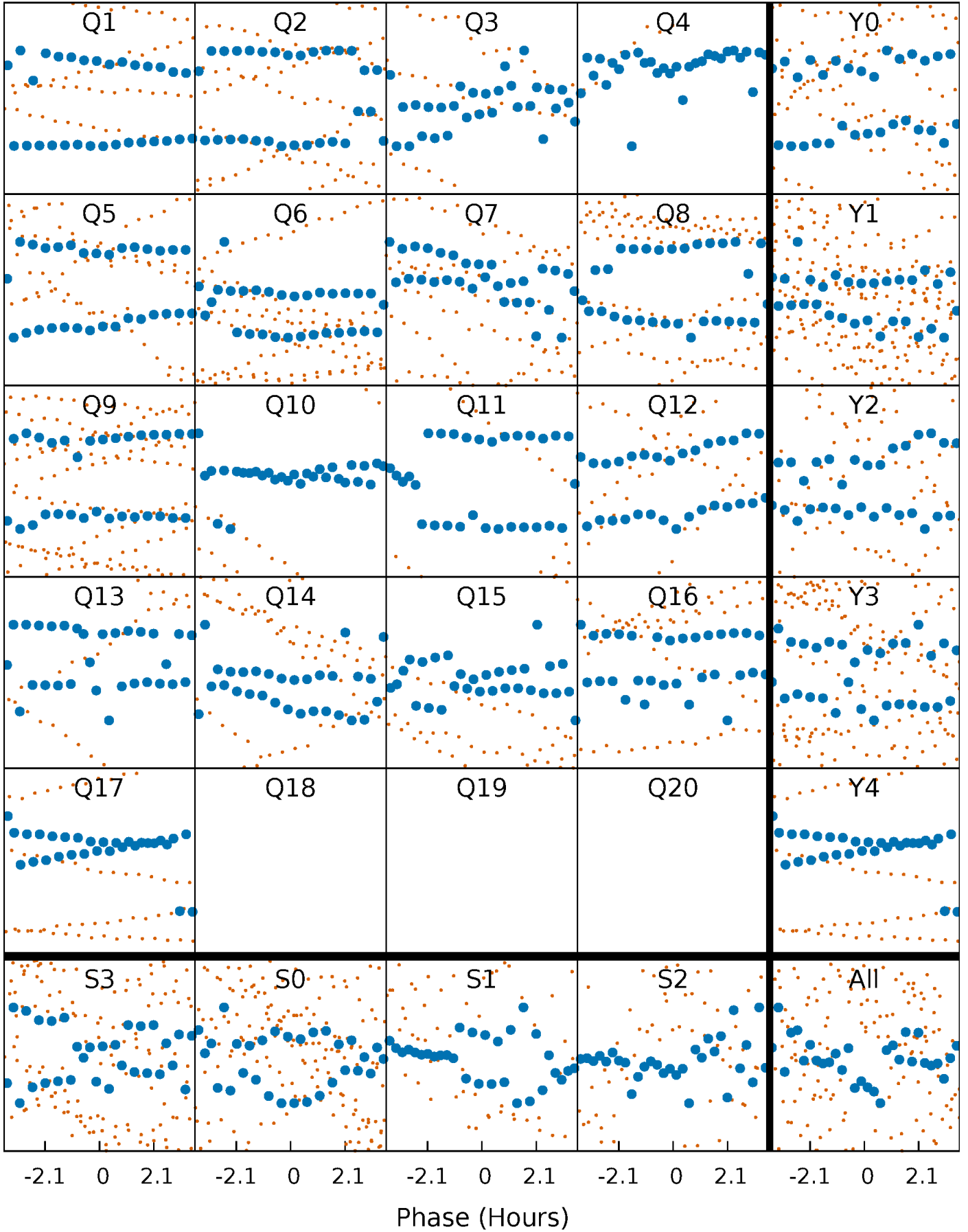


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



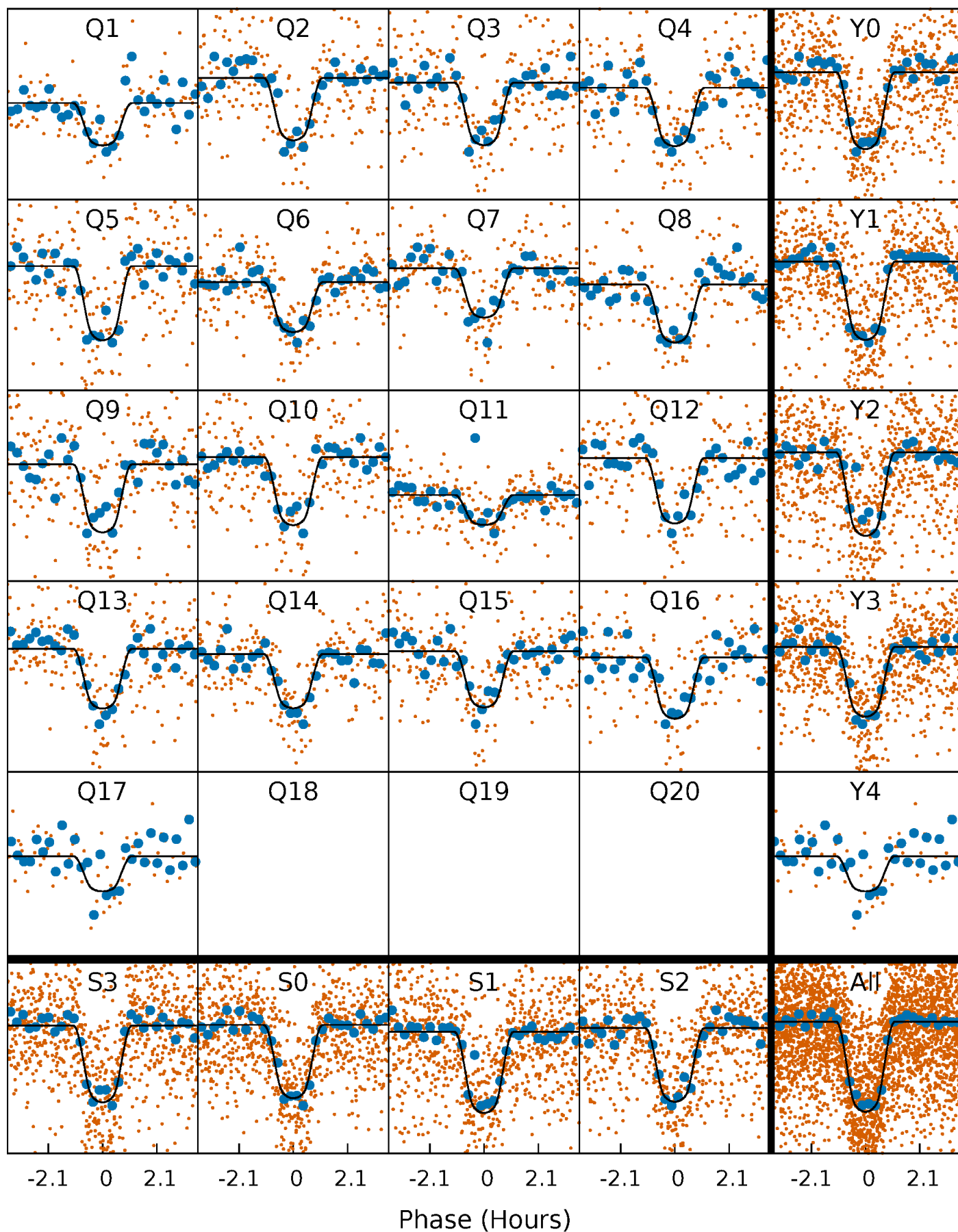
PDC Quarter-Phased Transit Curves

TCE 005784777-01 P= 5.339051 Days $T_0=132.141986$ (BKJD)



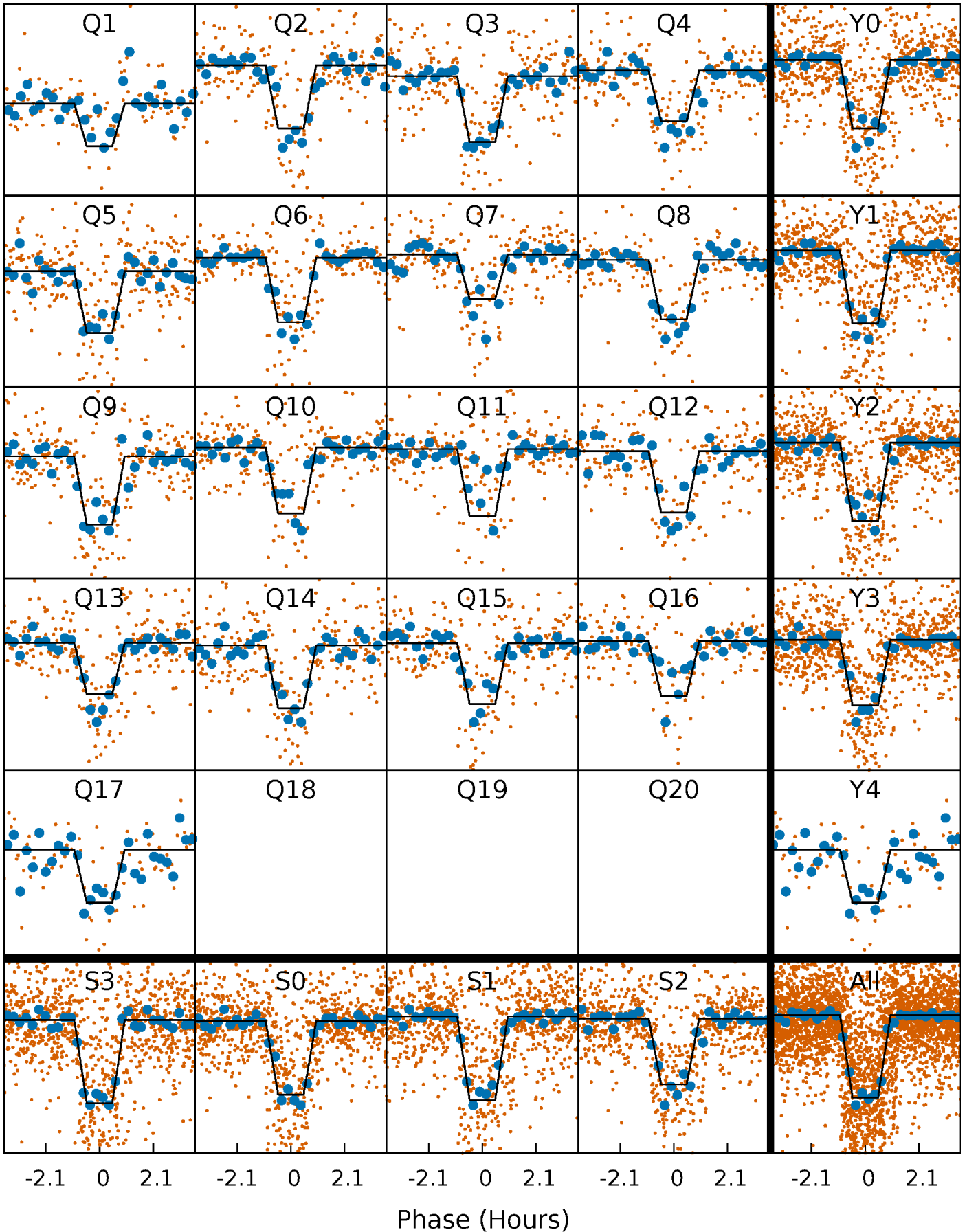
DV Quarter-Phased Transit Curves

TCE 005784777-01 P= 5.339051 Days $T_0=132.141986$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

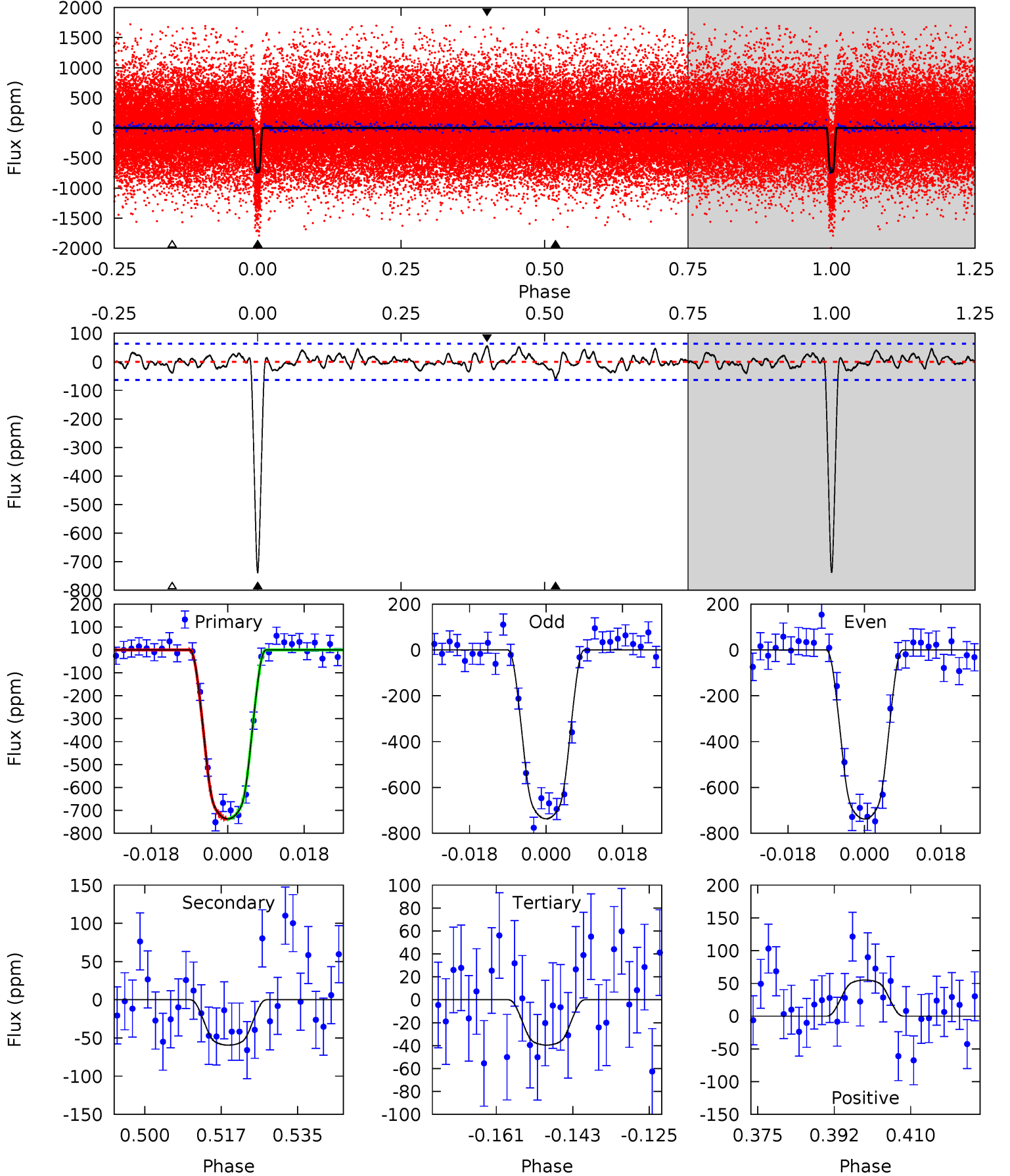
TCE 005784777-01 P= 5.339070 Days $T_0=132.140103$ (BKJD)



DV Model-Shift Uniqueness Test

005784777-01, P = 5.339051 Days, E = 126.802935 Days

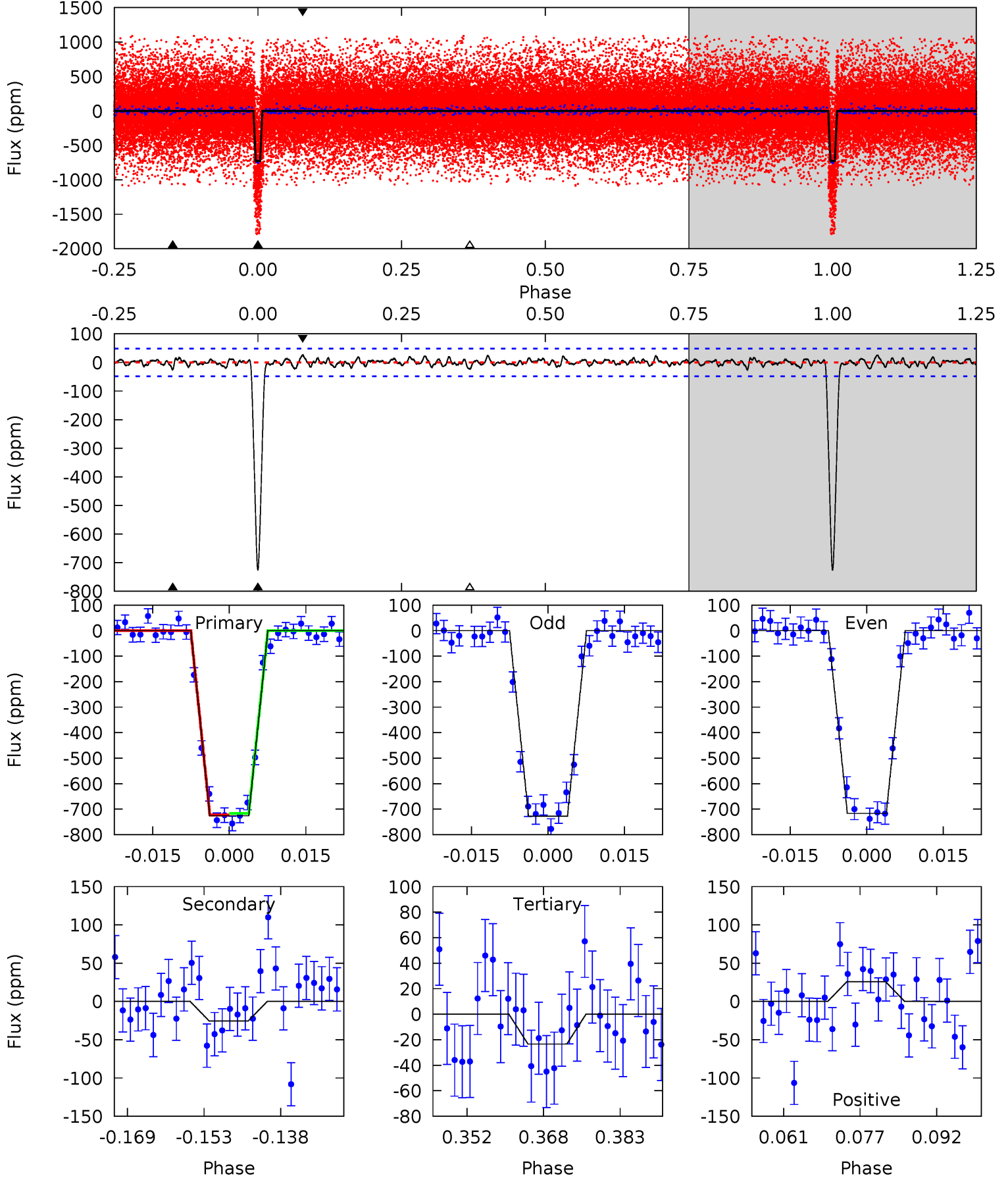
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
57.0	4.60	3.06	4.26	4.91	2.37	1.36	54.0	52.8	1.54	0.33	0.03	0.99	0.07	0.08



Alt Model-Shift Uniqueness Test

005784777-01, P = 5.339070 Days, E = 126.801033 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
74.1	2.62	2.38	2.63	4.94	2.42	0.85	71.7	71.5	0.23	-0.01	0.56	1.08	0.03	0.30



Stellar Parameters For KIC 005784777

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5057^{+151}_{-136}	$4.573^{+0.072}_{-0.048}$	$-0.440^{+0.350}_{-0.300}$	$0.704^{+0.072}_{-0.072}$	$0.676^{+0.093}_{-0.043}$	$2.732^{+0.841}_{-0.539}$
	+3%/-3%	+2%/-1%	+80%/-68%	+10%/-10%	+14%/-6%	+31%/-20%
Source	PHO1	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 005784777-01 / KOI 3916.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-59 ± 13	$2.39^{+0.26}_{-0.26}$	1138^{+45}_{-38}	3104^{+148}_{-143}	16^{+6}_{-4}
Alt.	-26 ± 10	$2.10^{+0.27}_{-0.27}$	1137^{+43}_{-41}	2845^{+192}_{-209}	$9.032^{+4.406}_{-3.843}$

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 $A_{obs} \gg 1.0$

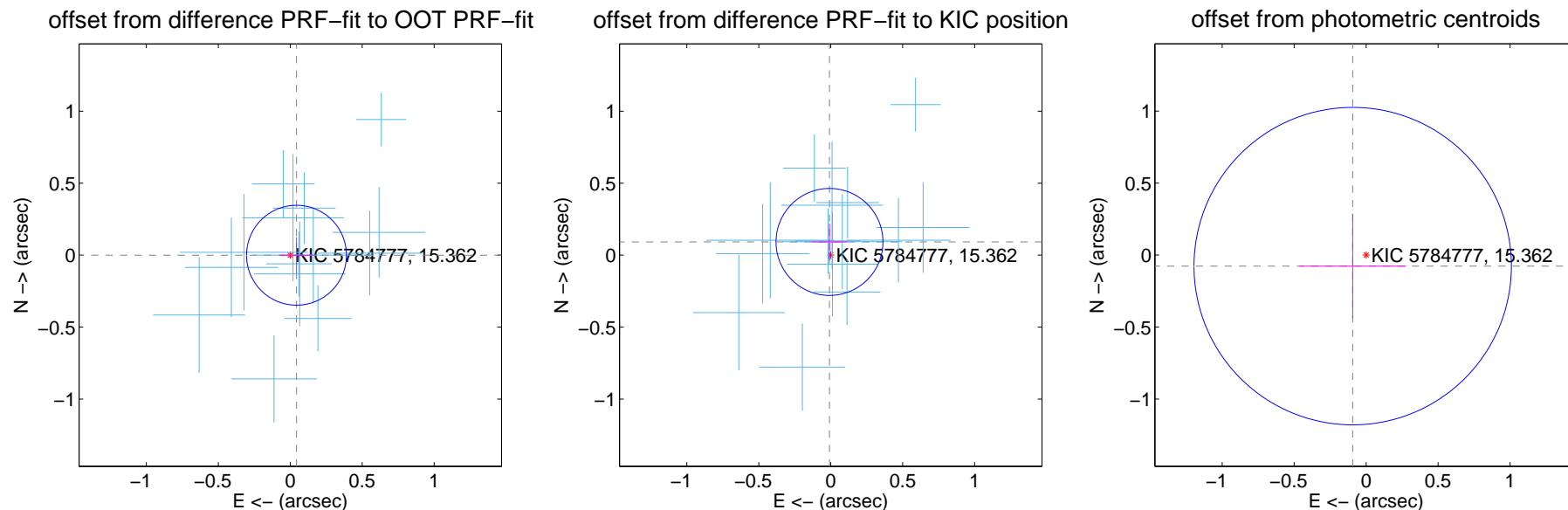
DV Centroid Data

Supplemental centroid analysis for 005784777-01. Kepler magnitude: 15.36. Transit SNR 34.05

There are 14 quarters with good PRF difference image offsets

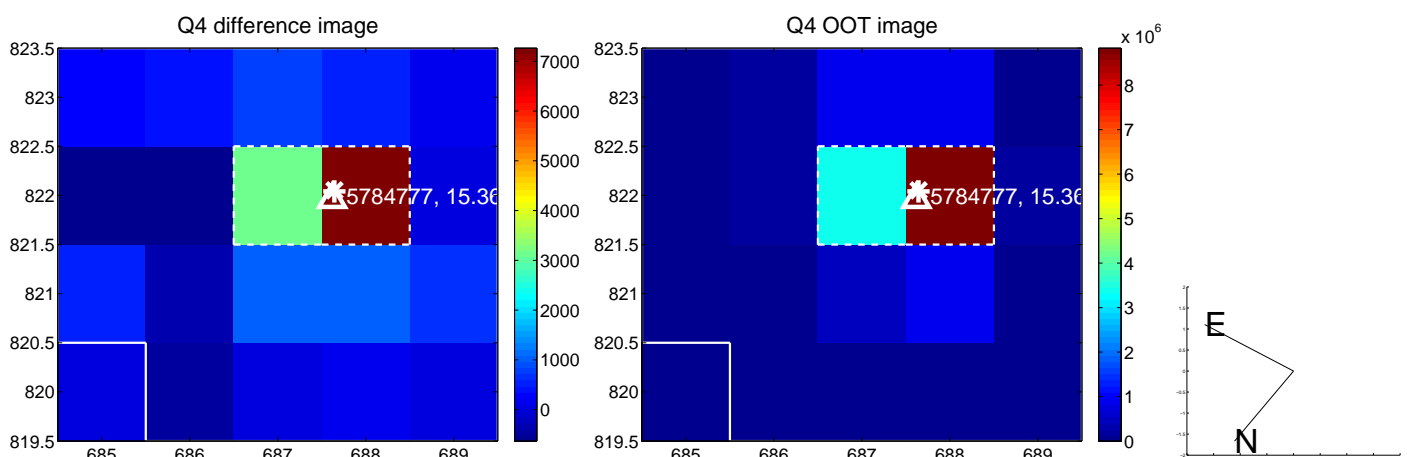
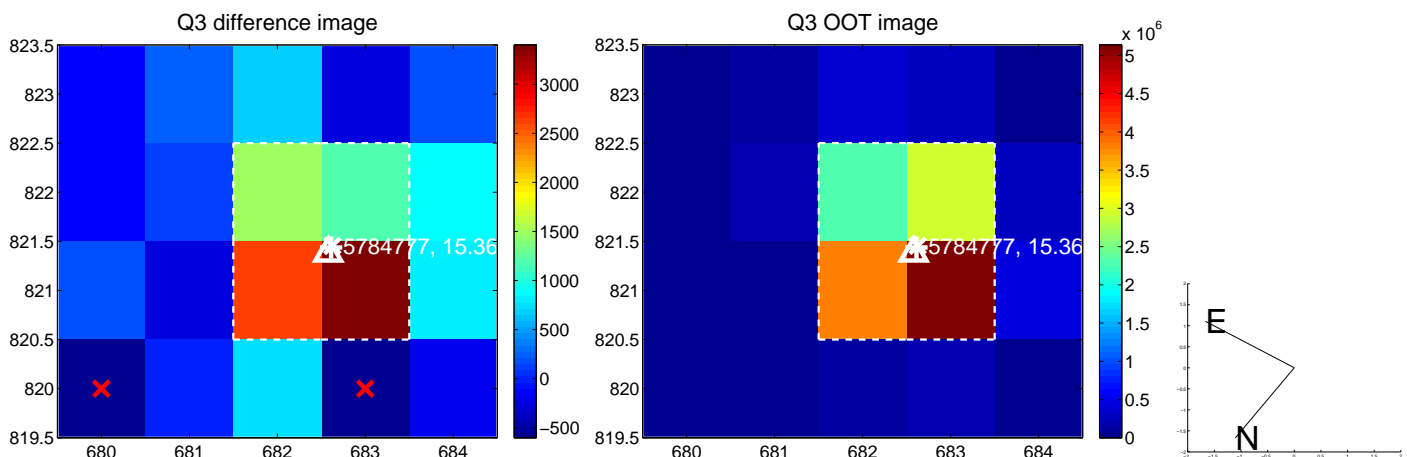
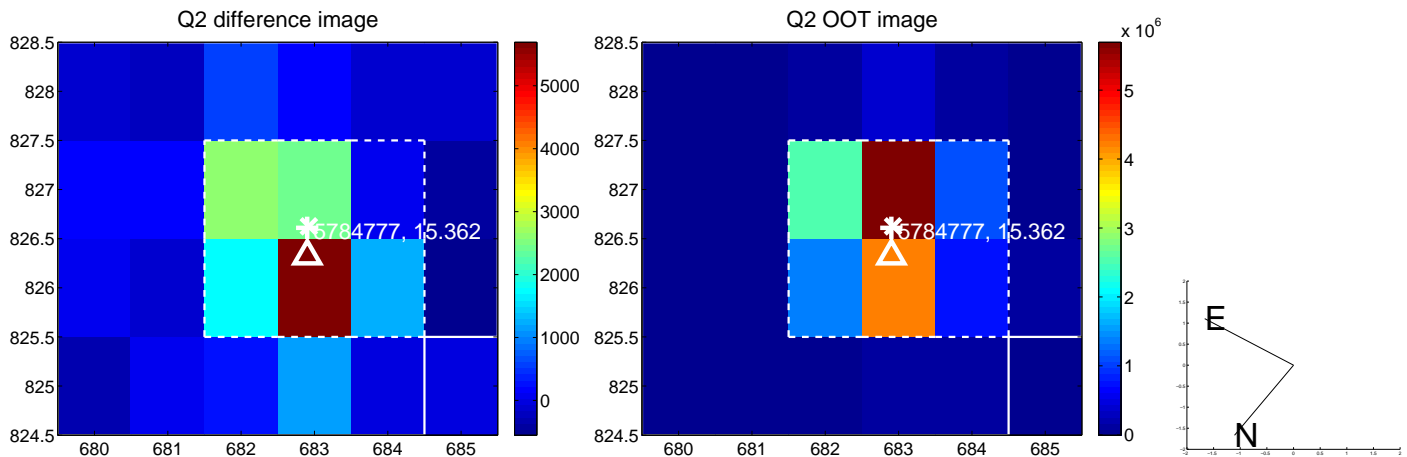
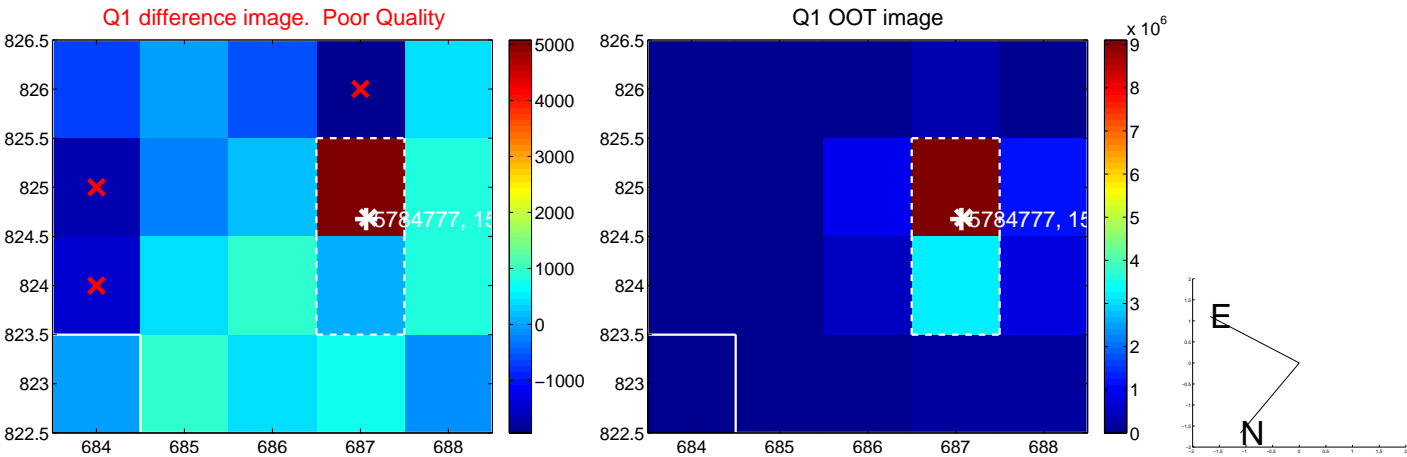
The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.043 ± 0.116	0.37	-0.043 ± 0.116	-0.001 ± 0.126
PRF-fit source offset from KIC position	0.092 ± 0.124	0.74	0.009 ± 0.123	0.092 ± 0.128
photometric centroid source offset	0.12 ± 0.37	0.33	0.09 ± 0.37	-0.08 ± 0.36

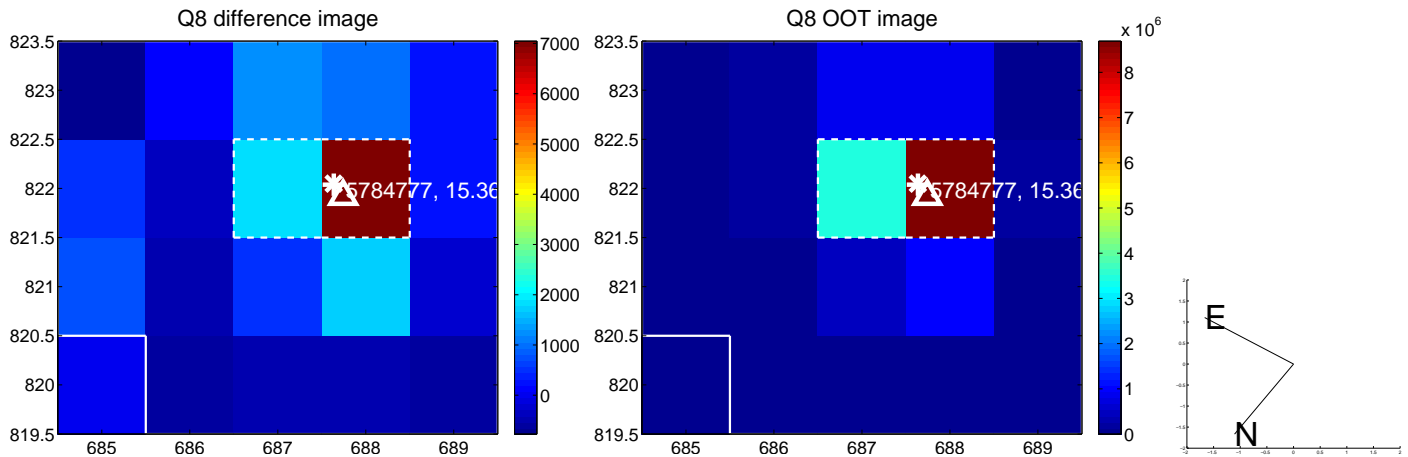
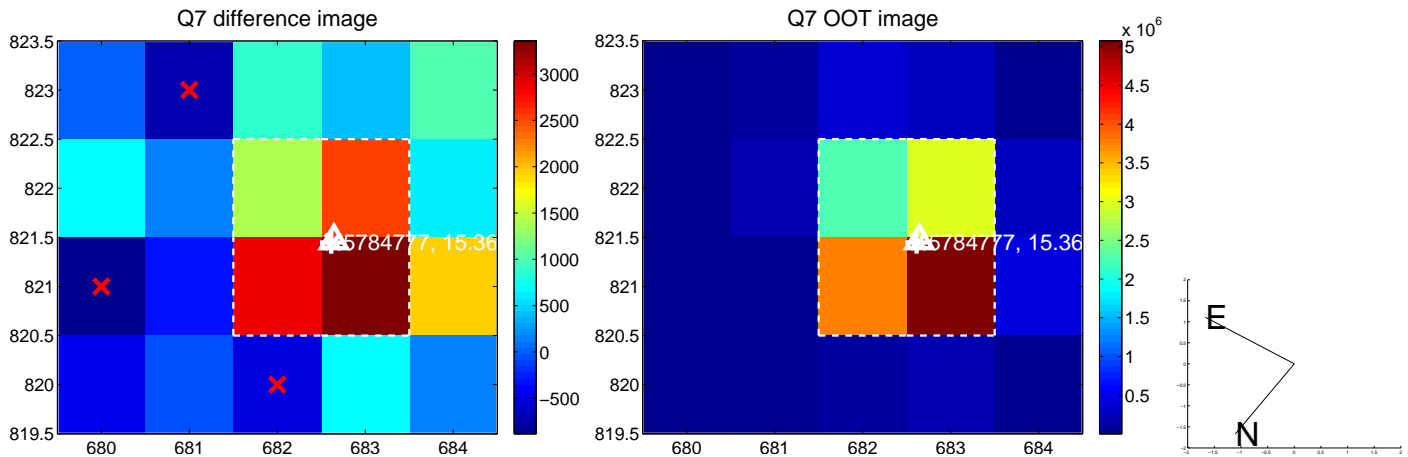
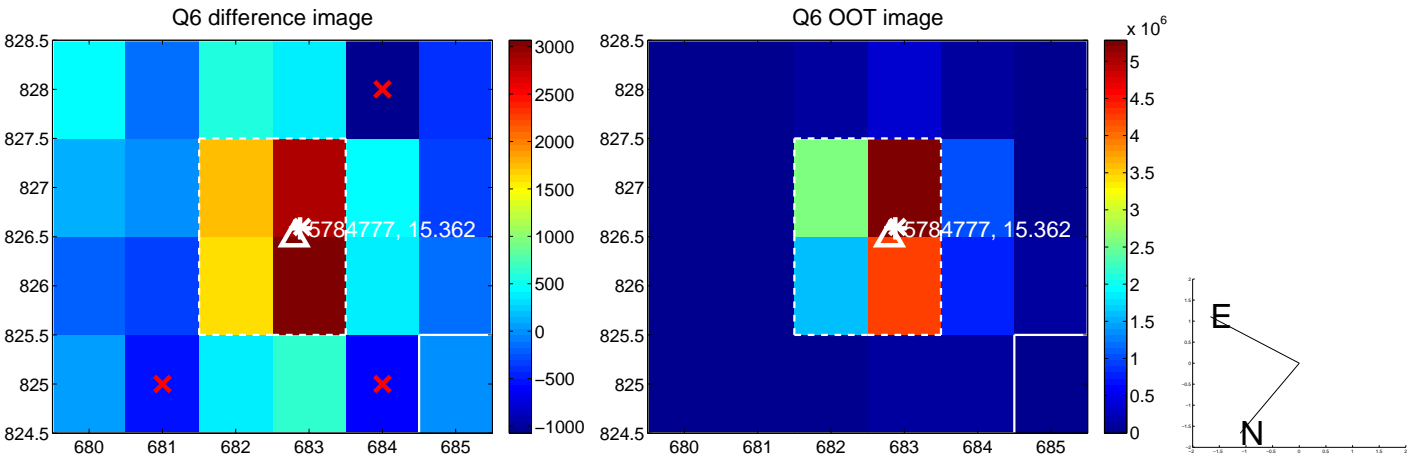
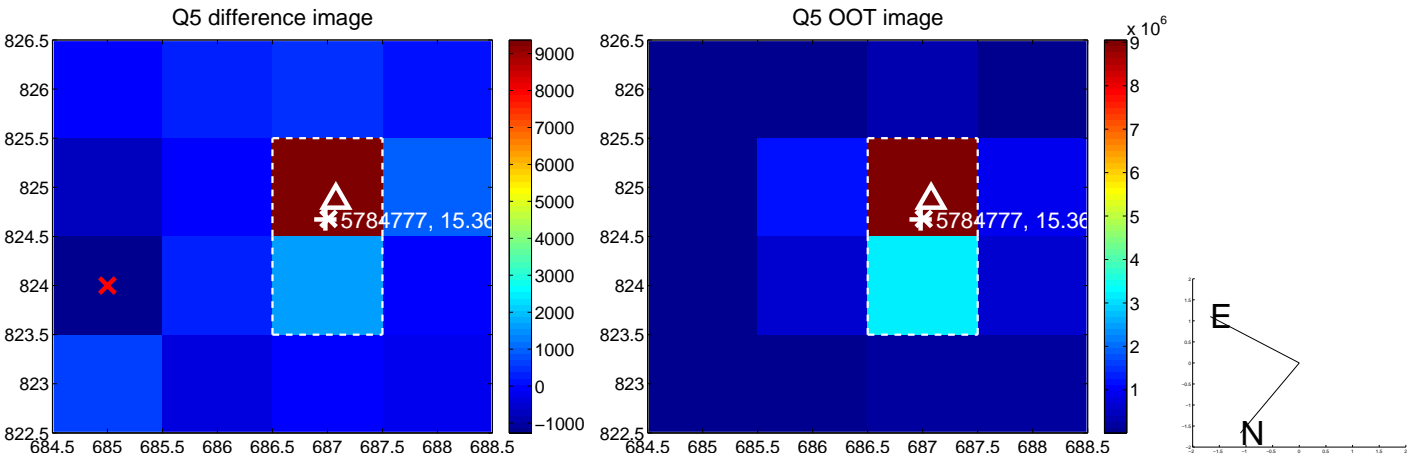


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

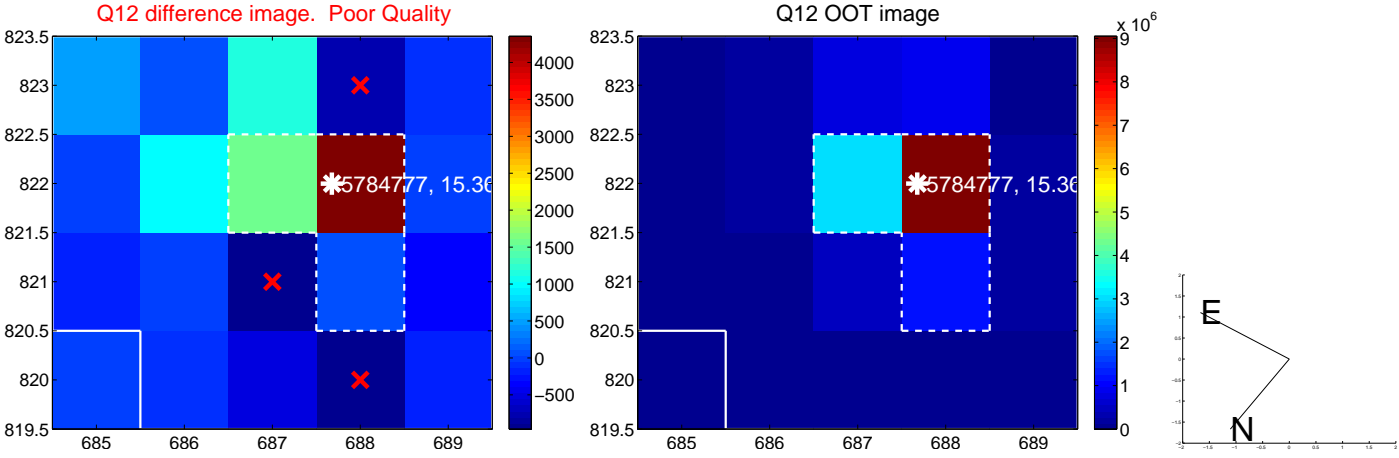
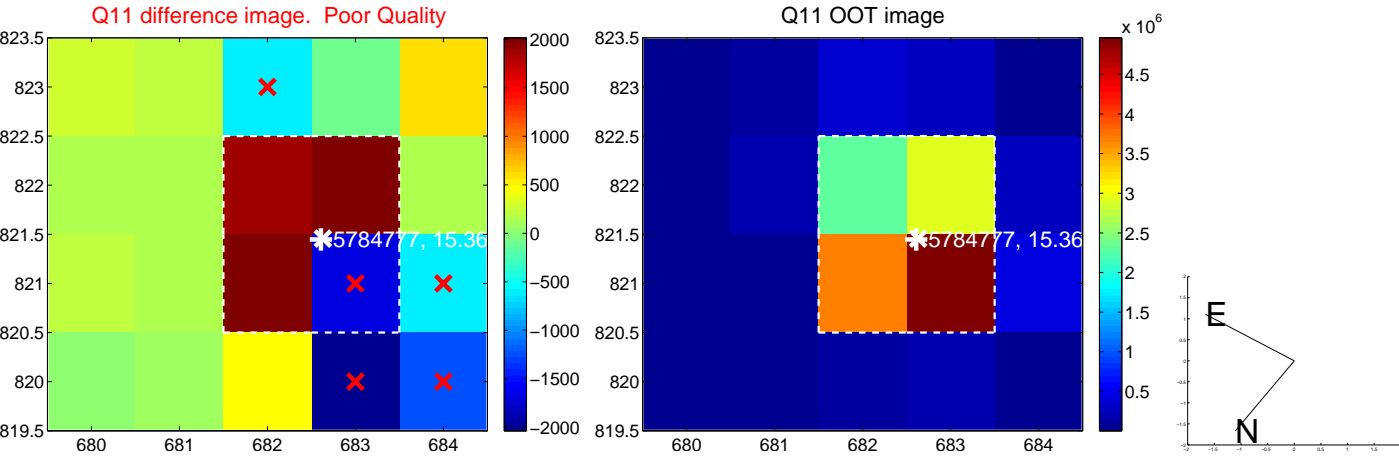
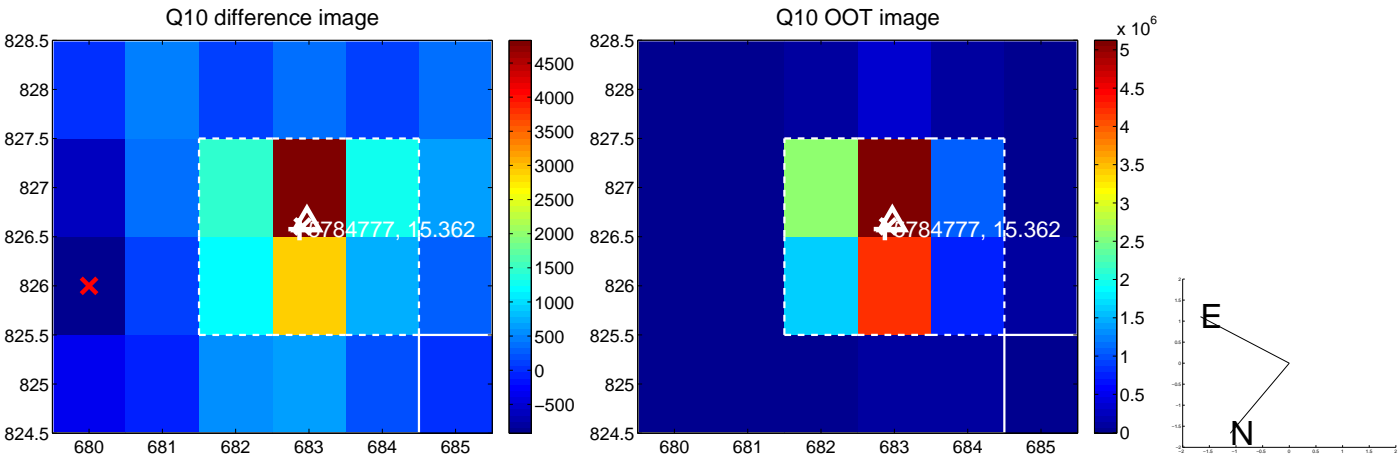
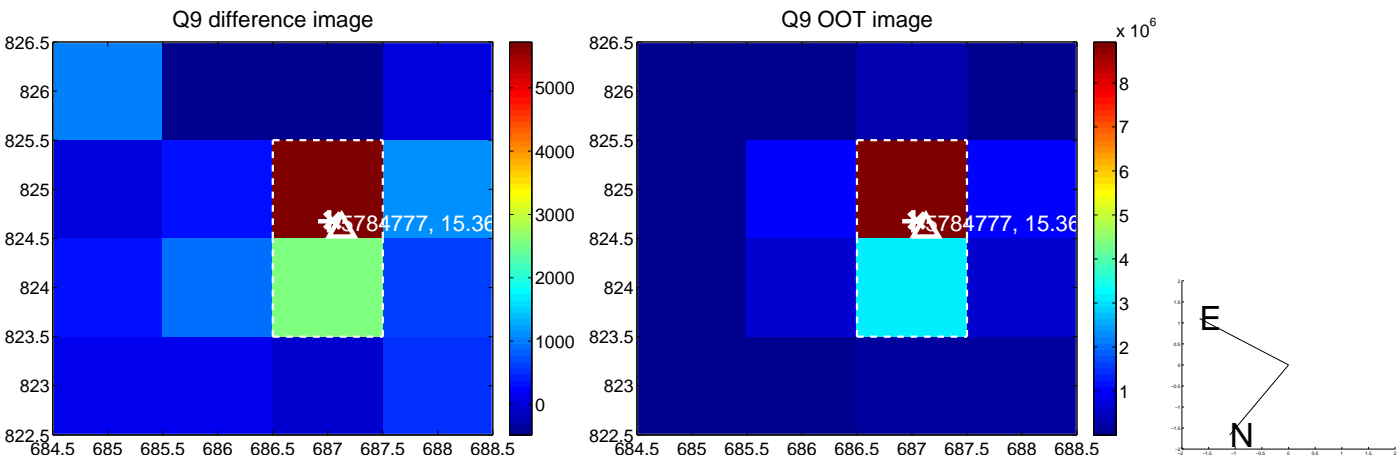
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



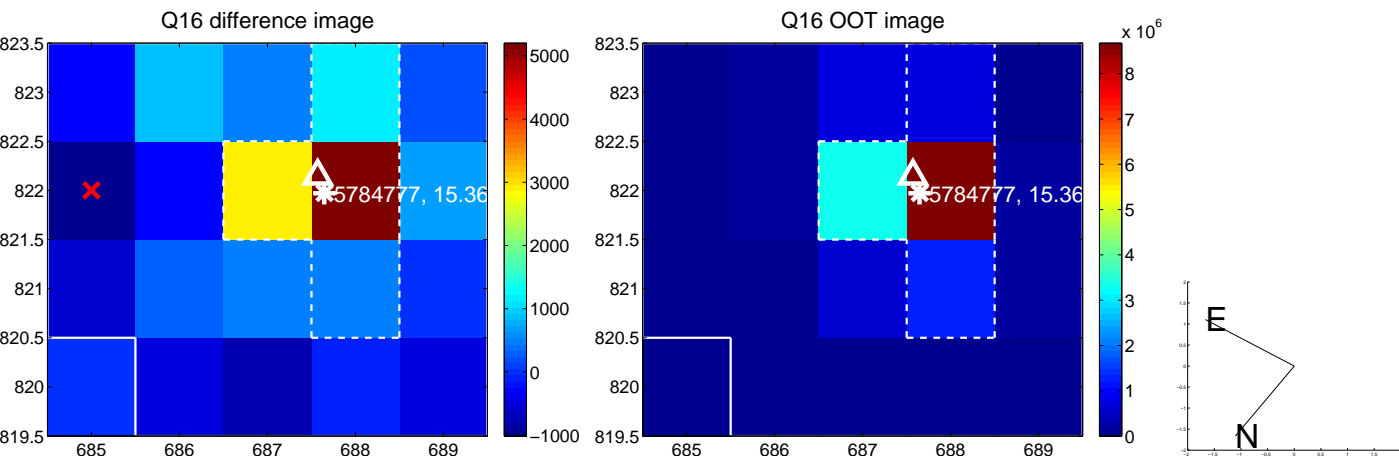
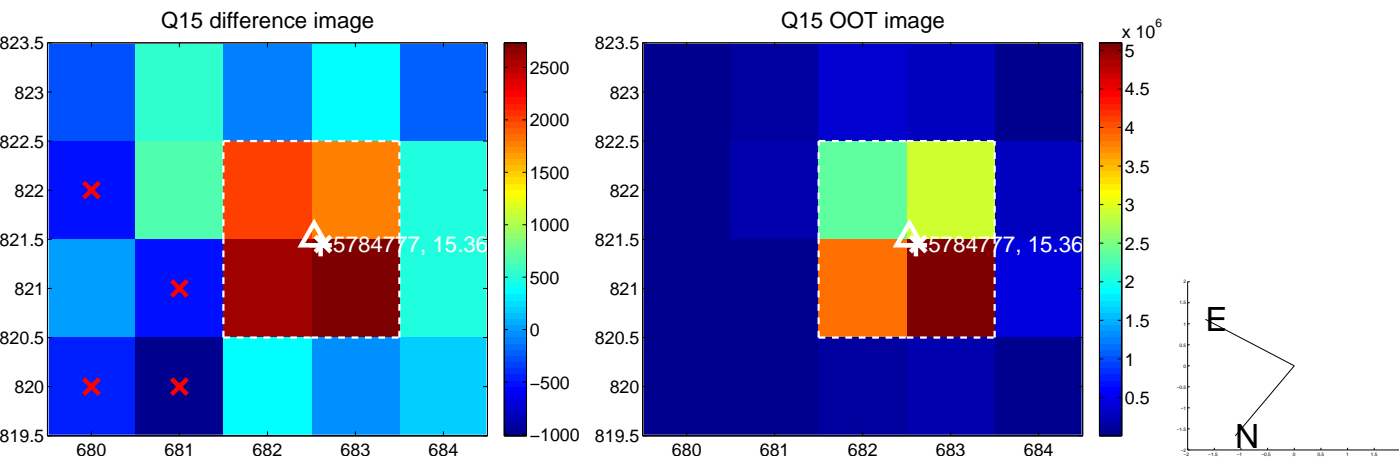
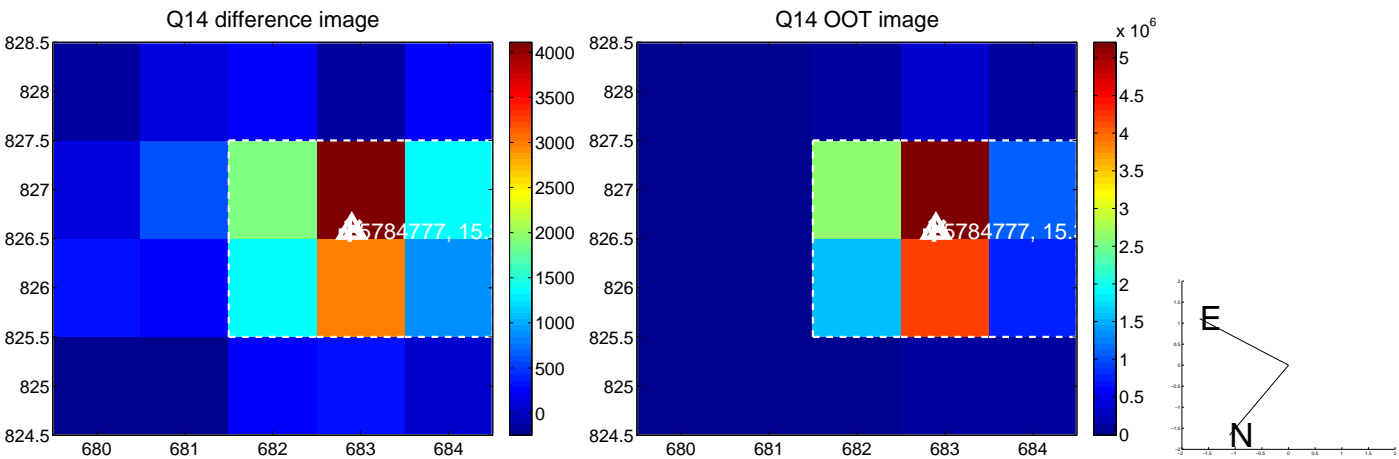
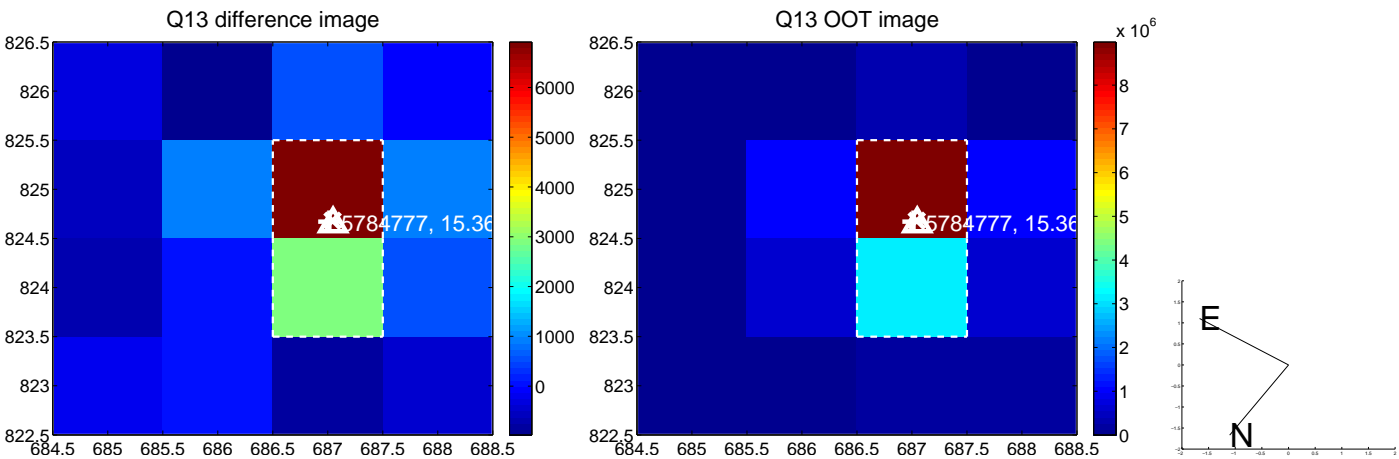
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



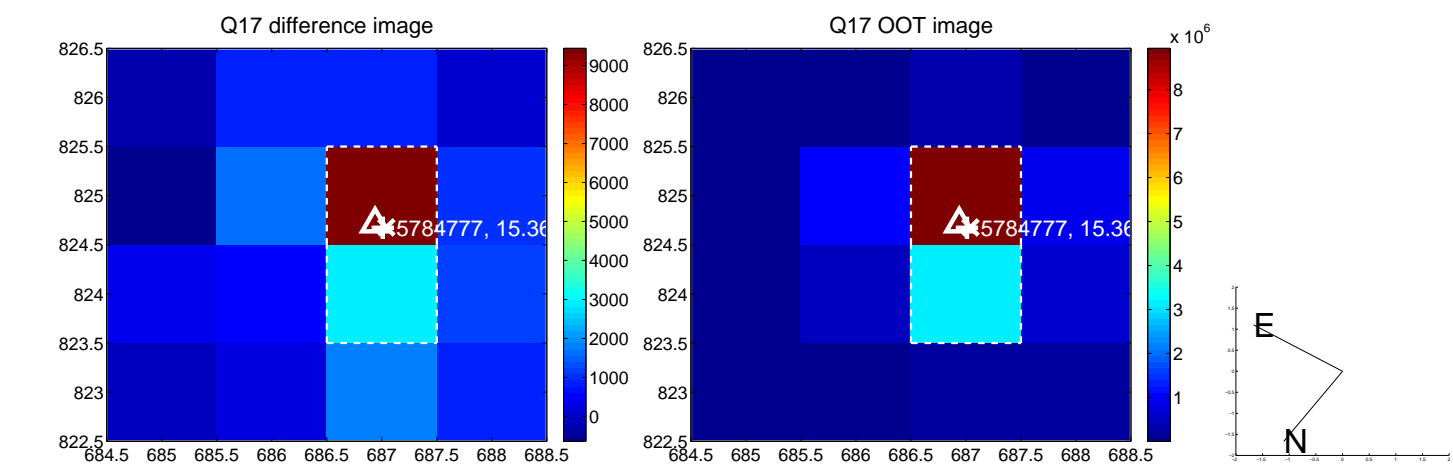
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



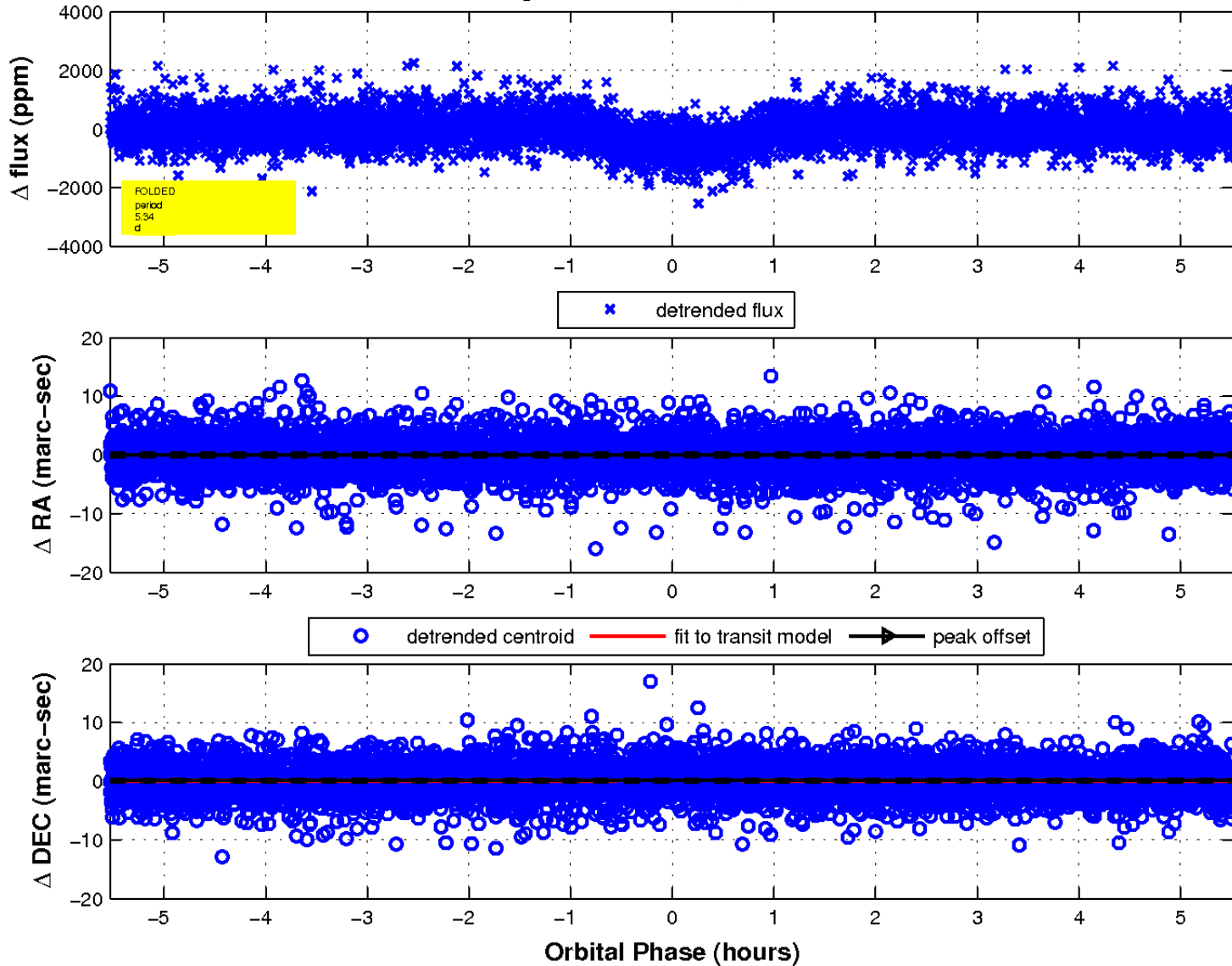
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

