

KIC 008784288

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})
008784288-01	OBS	7091.01	1.827551	132.266202	287789.0	2.500	39165.9	-1.0	2.08	5977	113.32	5328.76

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008784288-01	OBS	FP	0.00	0	1	0	0	DEPTH_ODDEVEN_DV—DEPTH_ODDEVEN_ALT—MOD_ODDEVEN_ALT—CENT_NOFITS

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.

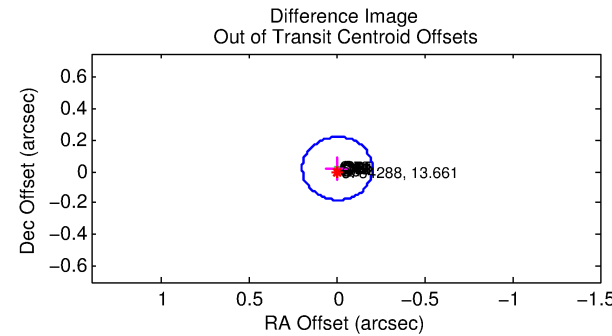
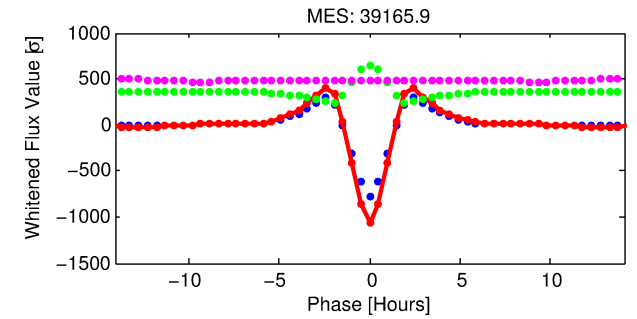
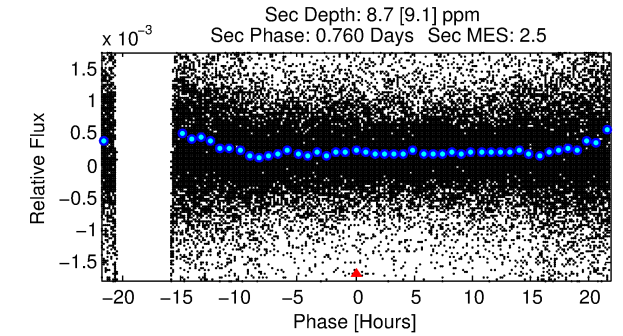
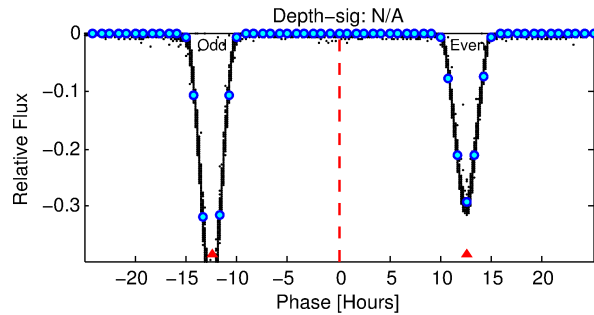
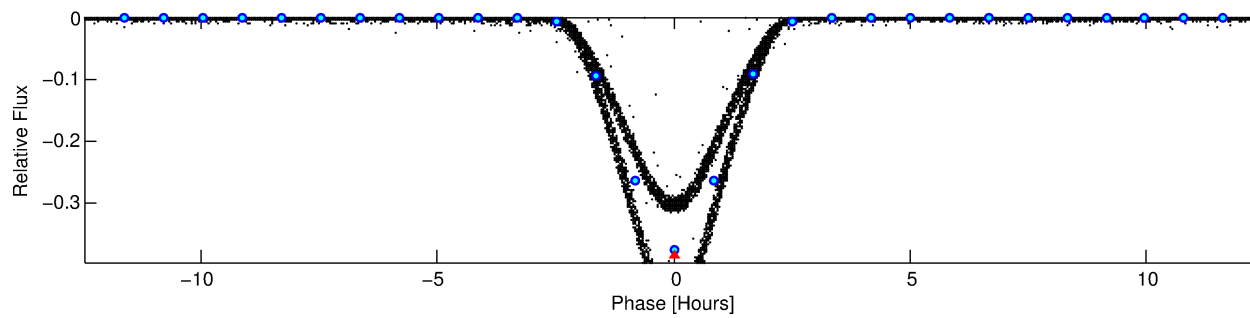
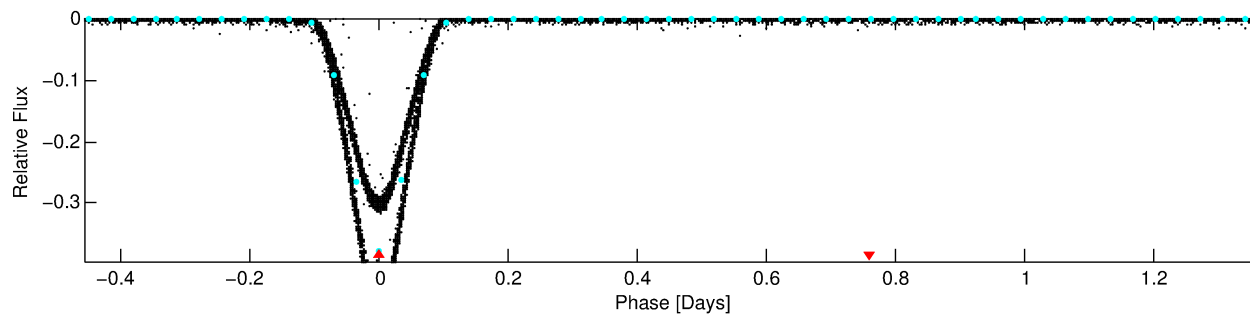
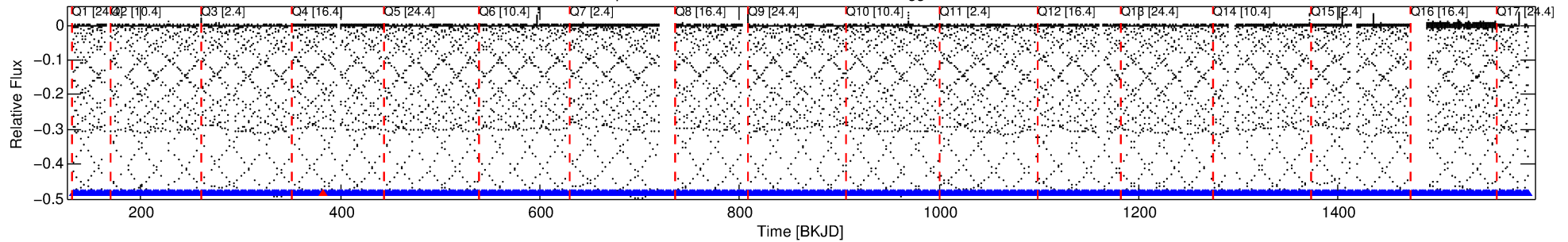
Ephemeris Match Information For 008784288-01

No Significant Match Found

DV One-Page Summary

KIC: 8784288 Candidate: 1 of 1 Period: 1.828 d
KOI: K07091 Corr: No Ephemeris Match

Kp: 13.66 R*: 2.08 Rs Teff: 5977.0 K Logg: 3.85 Fe/H: -0.300



TPS TCE Results:

Period = 1.82755 d
Epoch = 132.2662 BKJD

DV fit results are unavailable

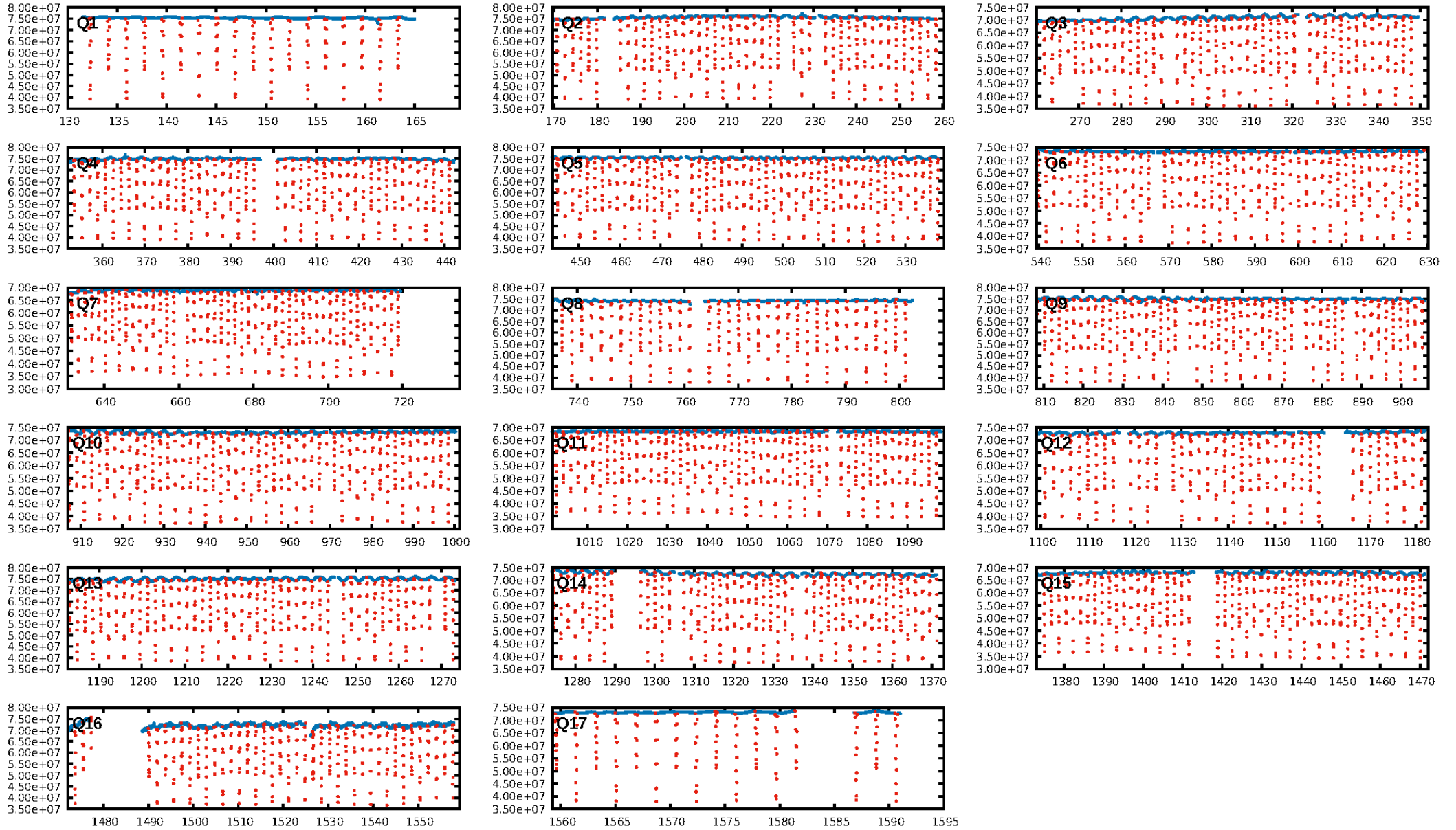
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [699/700]
GhostDiagnostic-chr: 1.347
Centroid-sig: 0.0%
Centroid-so: 1.024 arcsec [3374.61σ]
OotOffset-rm: 0.021 arcsec [0.31σ]
KicOffset-rm: 0.030 arcsec [0.43σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 1.00 [17/17]
DiffImageOverlap-fno: 1.00 [17/17]

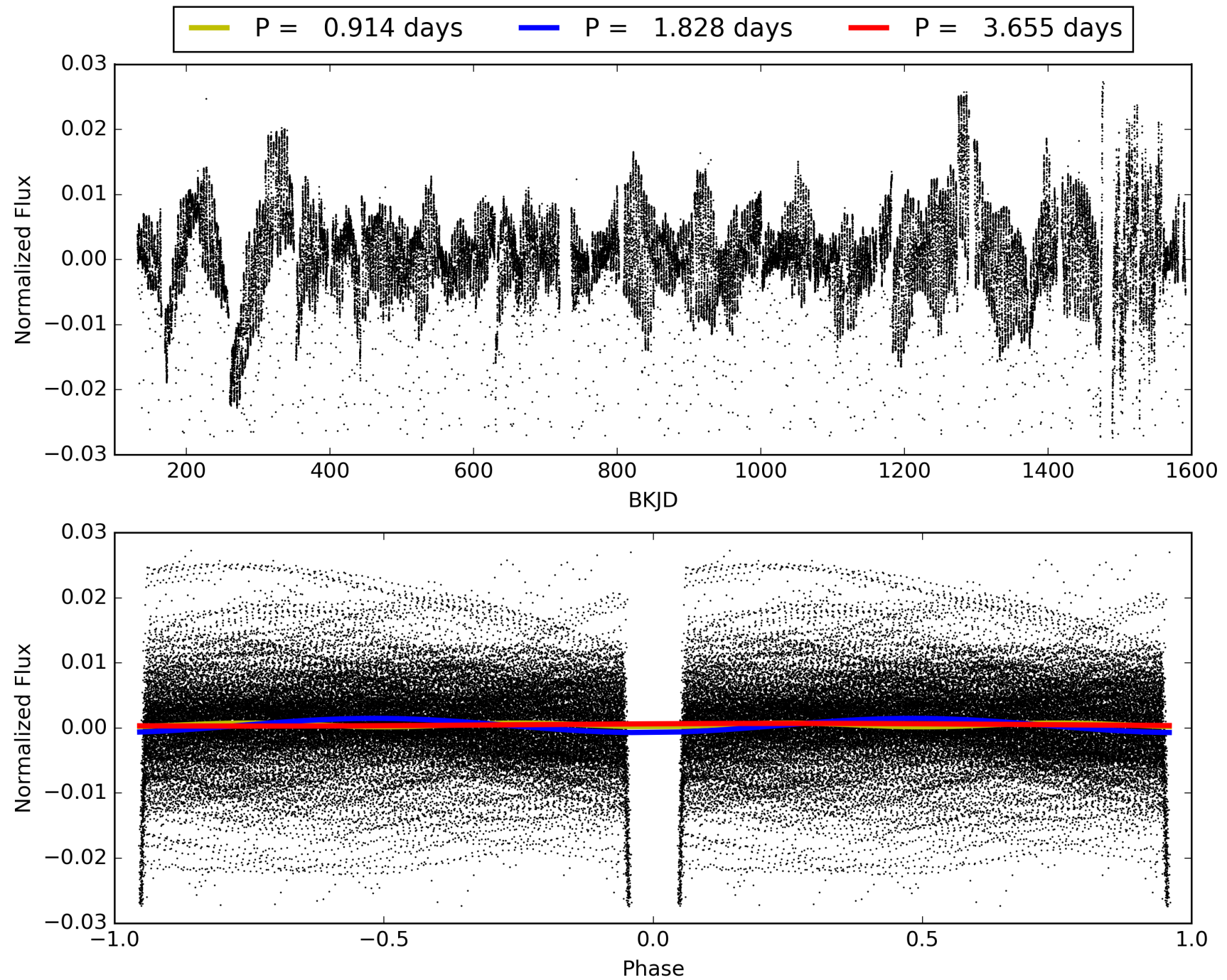
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 06:13:14 Z

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

TCE 008784288-01, PDC Light Curves

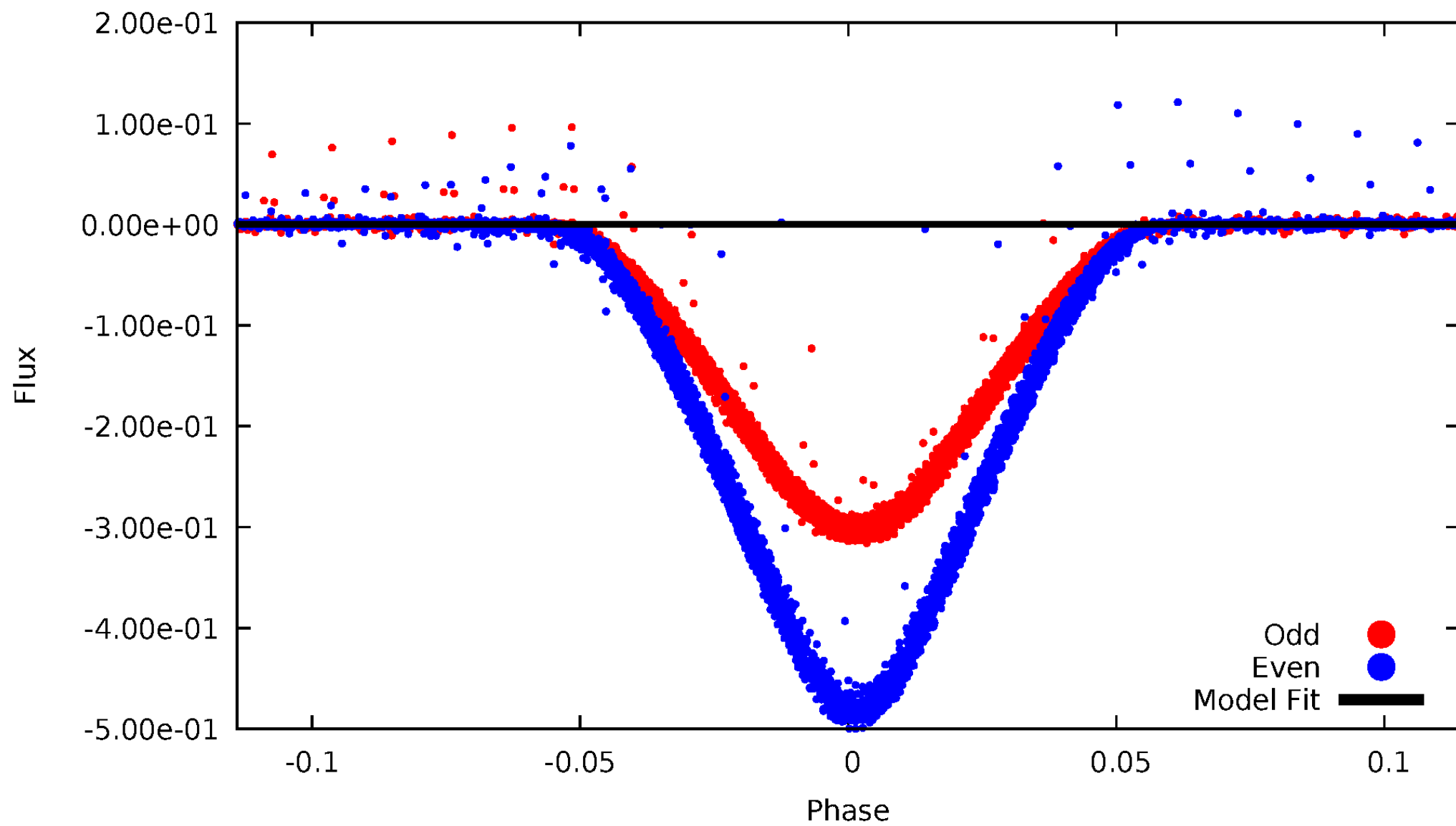


TCE 008784288-01



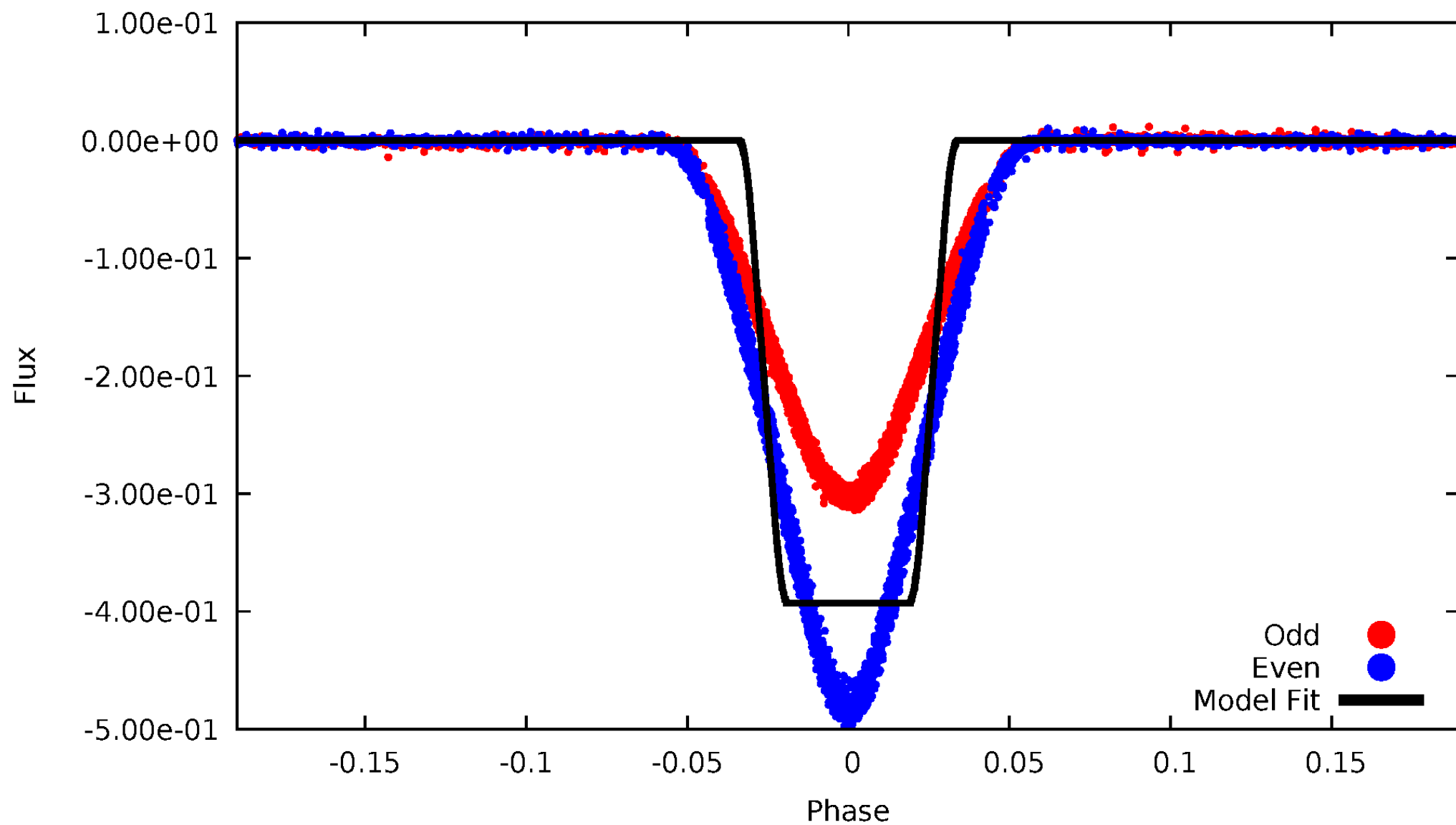
DV Odd/Even

TCE 008784288-01



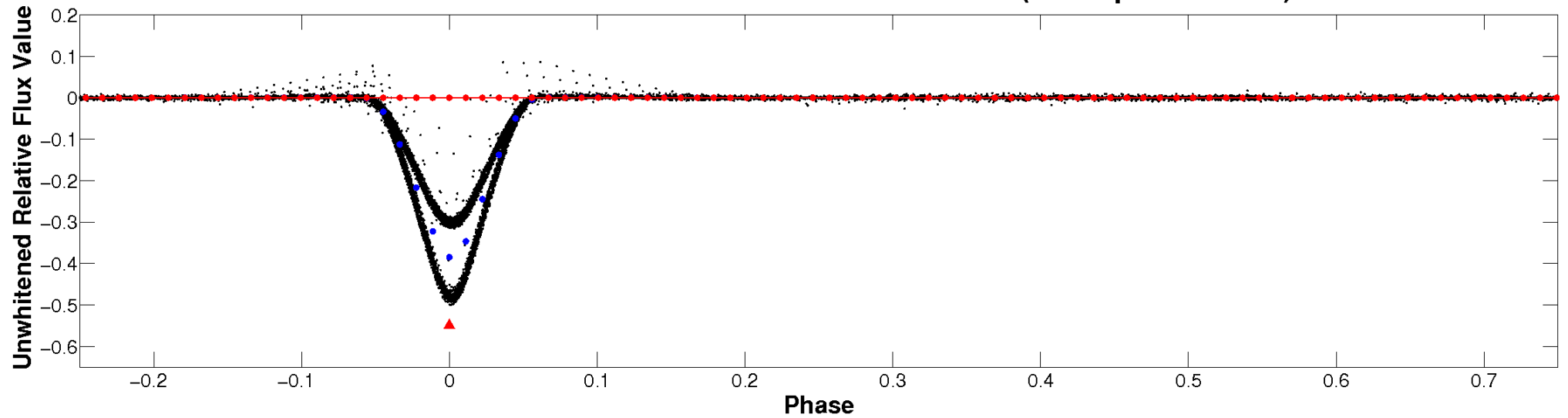
ALT Odd/Even

TCE 008784288-01



Non-Whitened Vs. Whitened Light Curve

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

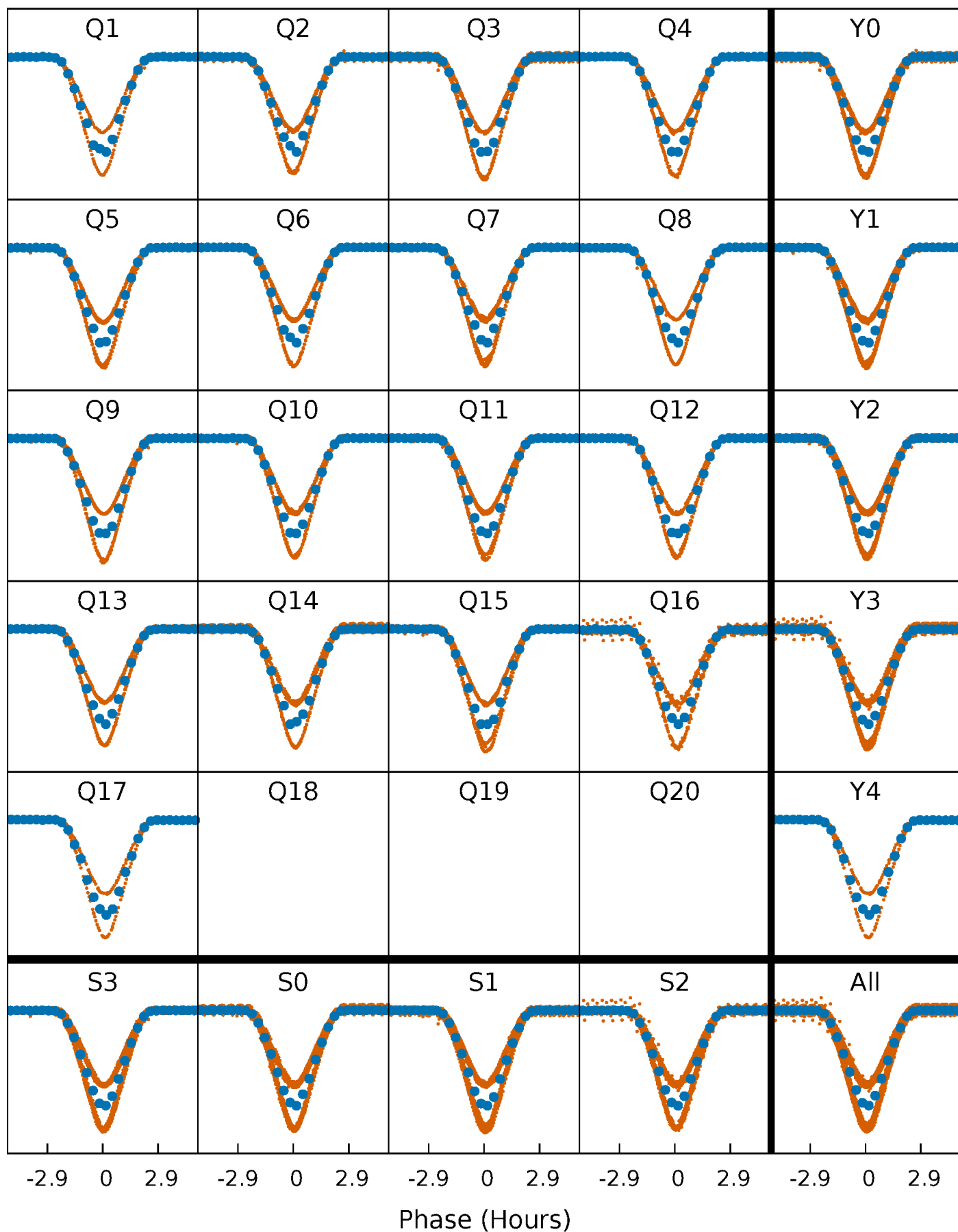


Planet 1 : Phased Whitened Flux Time Series (TPS Epoch/Period)



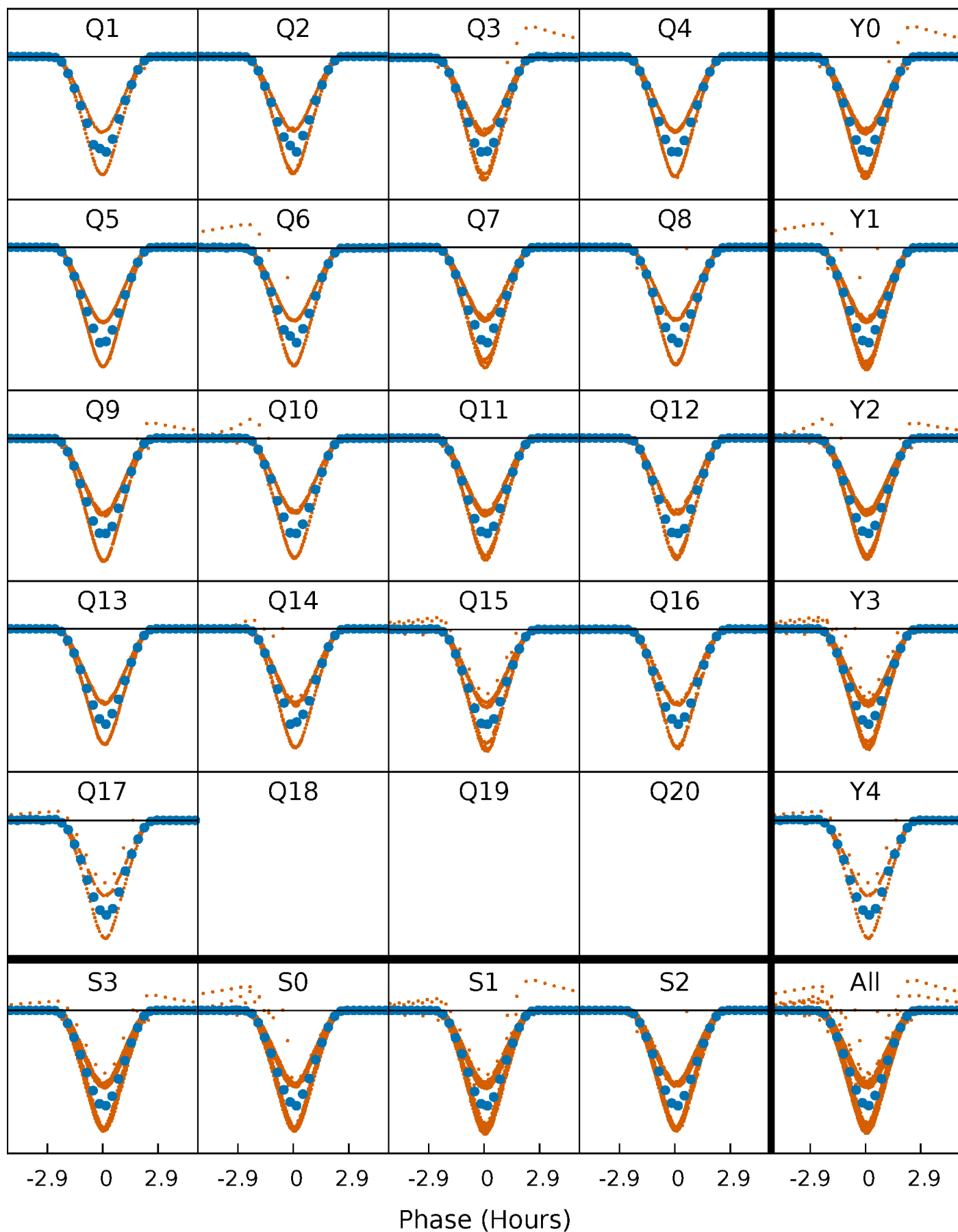
PDC Quarter-Phased Transit Curves

TCE 008784288-01 P= 1.827551 Days $T_0=132.266202$ (BKJD)



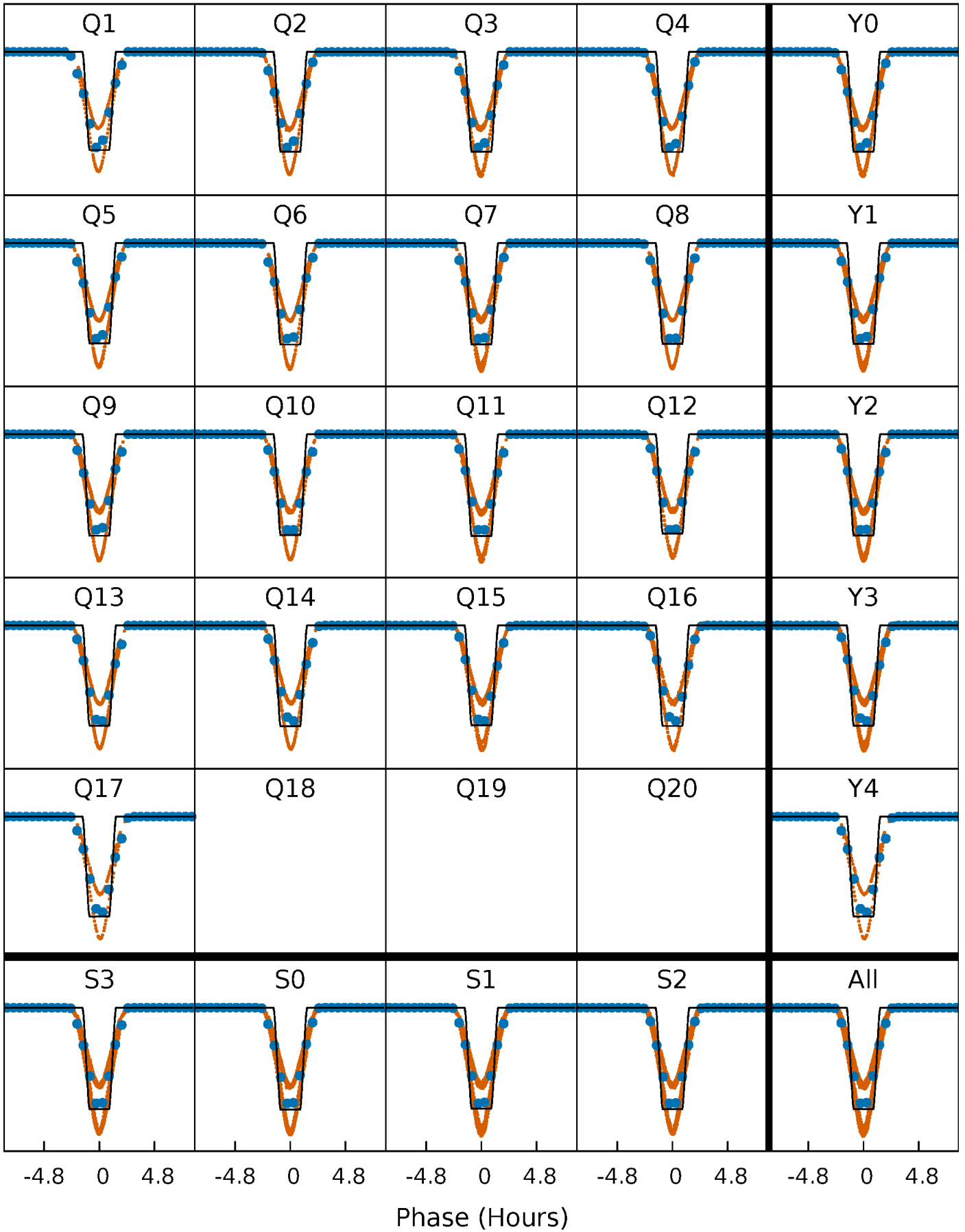
DV Quarter-Phased Transit Curves

TCE 008784288-01 P= 1.827551 Days $T_0=132.266202$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

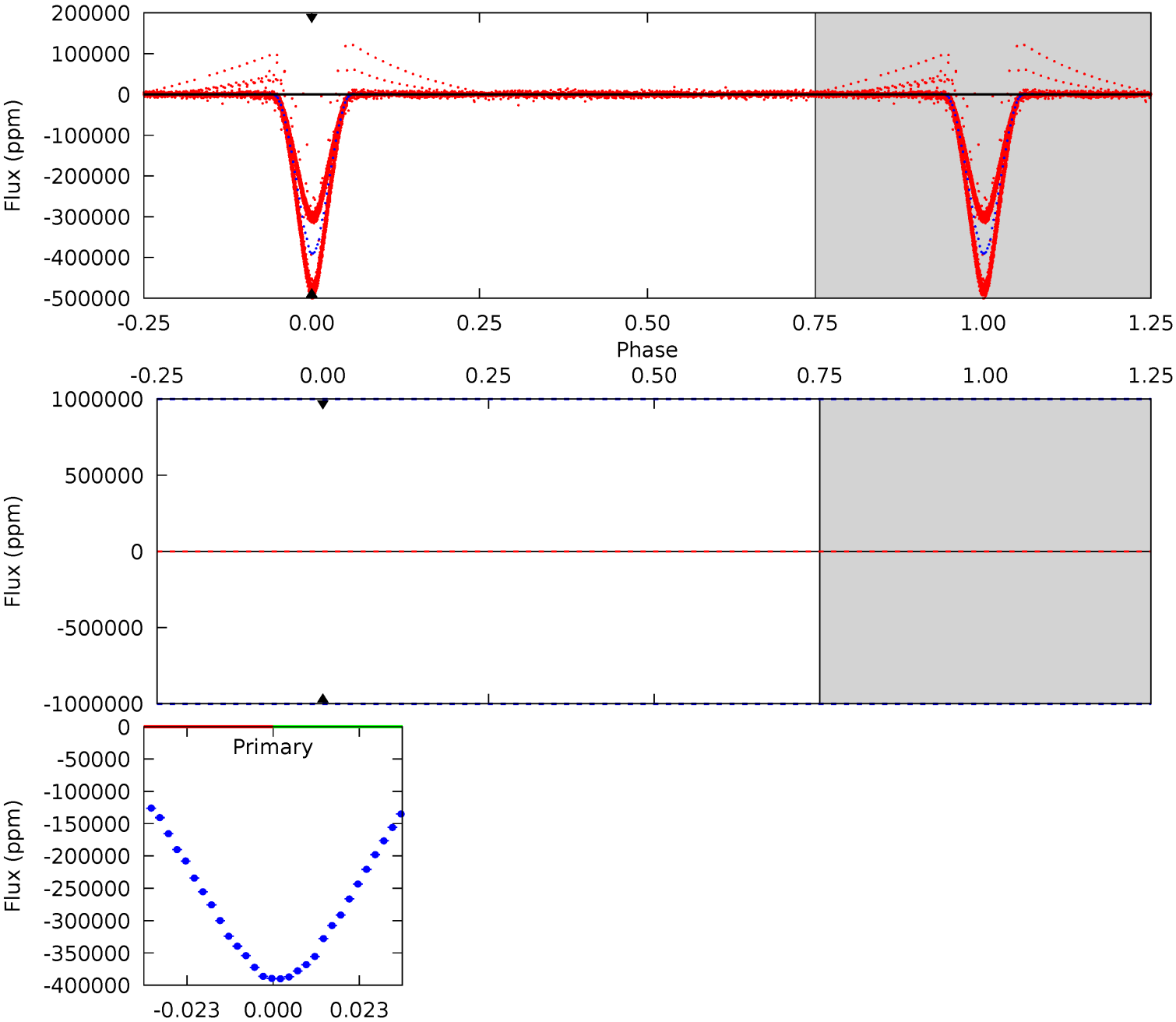
TCE 008784288-01 P= 1.827551 Days $T_0=132.268886$ (BKJD)



DV Model-Shift Uniqueness Test

008784288-01, P = 1.827551 Days, E = 130.438651 Days

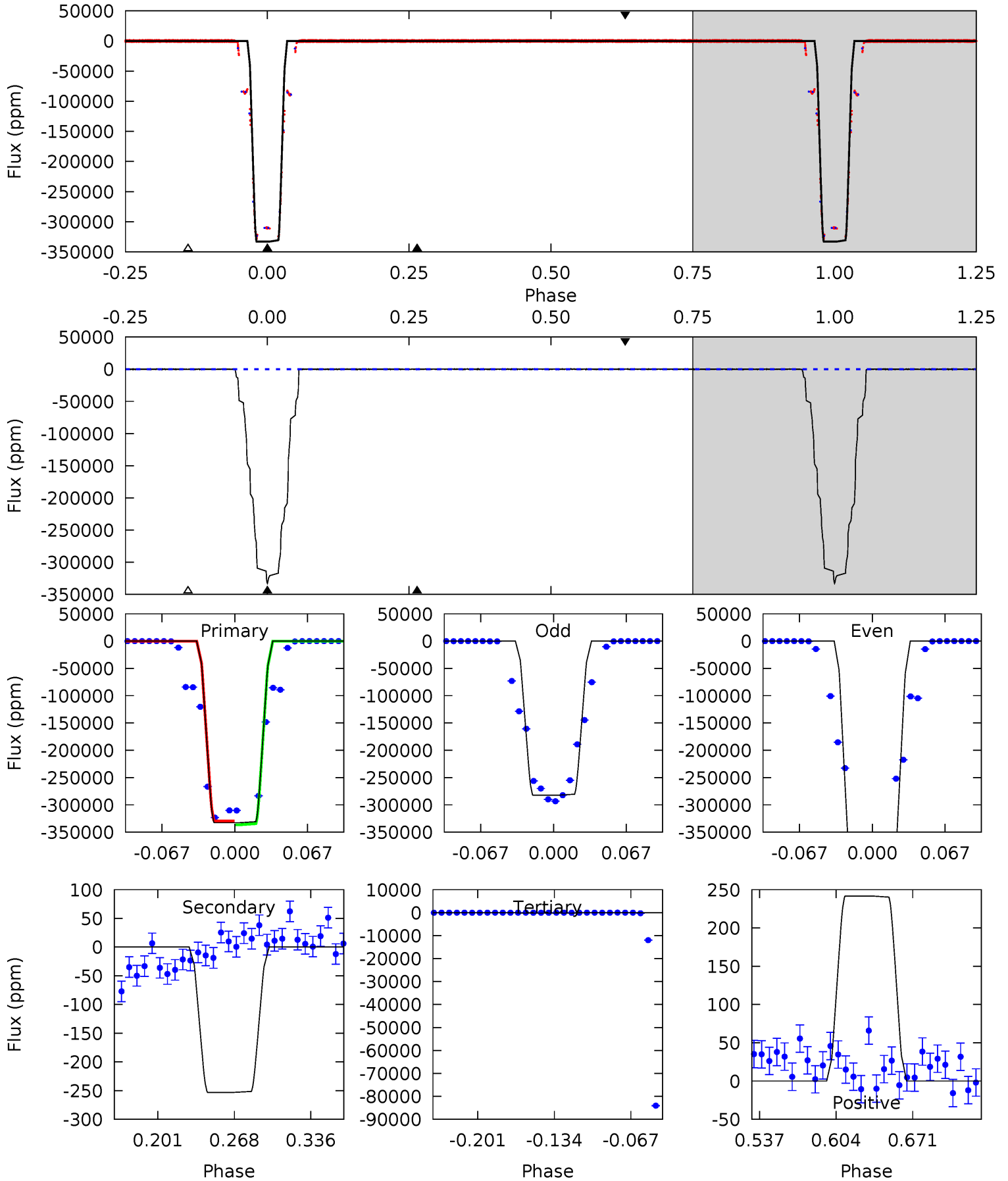
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

008784288-01, P = 1.827551 Days, E = 130.441335 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6134	4.66	4.21	4.46	4.65	1.83	1.26	6130	6130	0.45	0.21	2758	1.20	0.00	0



Stellar Parameters For KIC 008784288

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5977^{+178}_{-196}	$3.854^{+0.544}_{-0.136}$	$-0.300^{+0.350}_{-0.250}$	$2.077^{+0.474}_{-1.026}$	$1.125^{+0.157}_{-0.255}$	$0.177^{+1.037}_{-0.073}$
	+3%/-3%	+14%/-4%	+117%/-83%	+23%/-49%	+14%/-23%	+587%/-42%
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 008784288-01 / KOI 7091.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	0 ± 1000000	$103.10^{+31.84}_{-32.73}$	2959^{+259}_{-429}	-2778^{+7683}_{-2070}	$0.130^{+5.571}_{-4.947}$
Alt.	-253 ± 54	$128.84^{+36.78}_{-36.91}$	2957^{+254}_{-433}	-3057^{+267}_{-154}	$0.008^{+0.008}_{-0.003}$

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 $A_{obs} \gg 1.0$

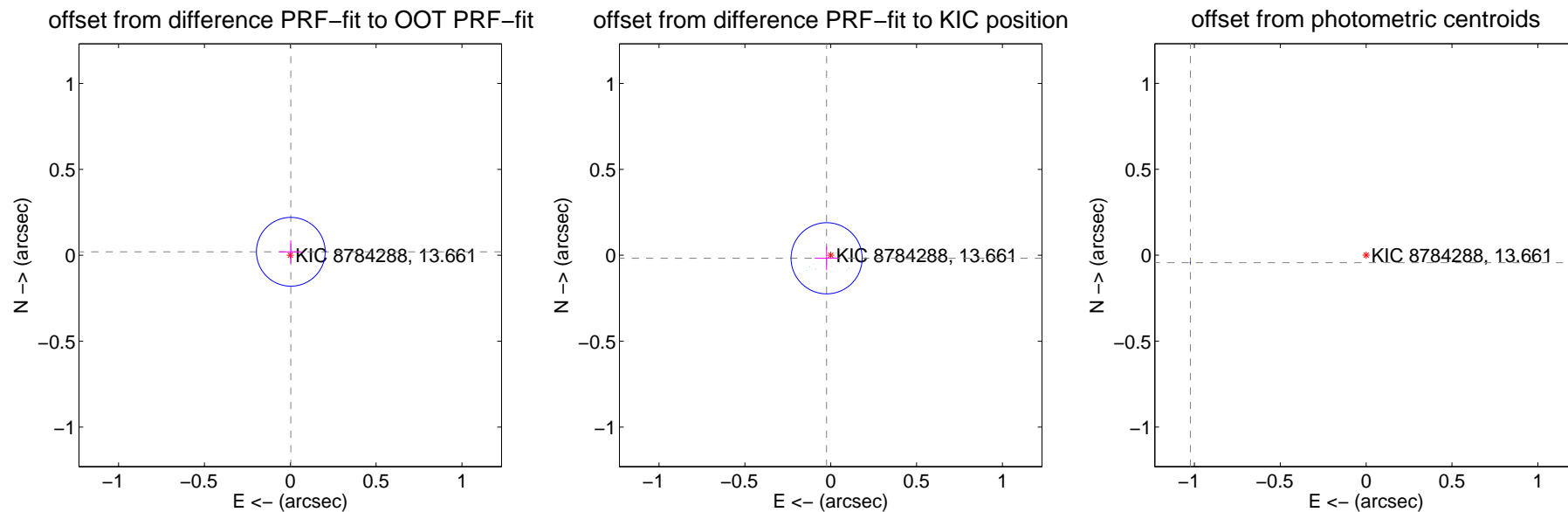
DV Centroid Data

Supplemental centroid analysis for 008784288-01. Kepler magnitude: 13.66. Transit SNR -1.00

There are 17 quarters with good PRF difference image offsets

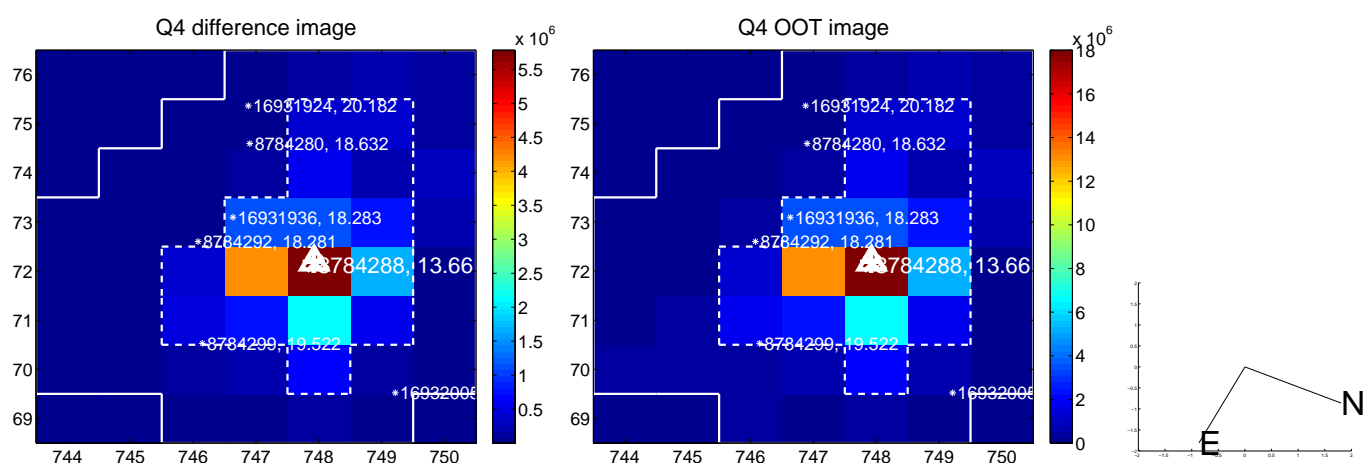
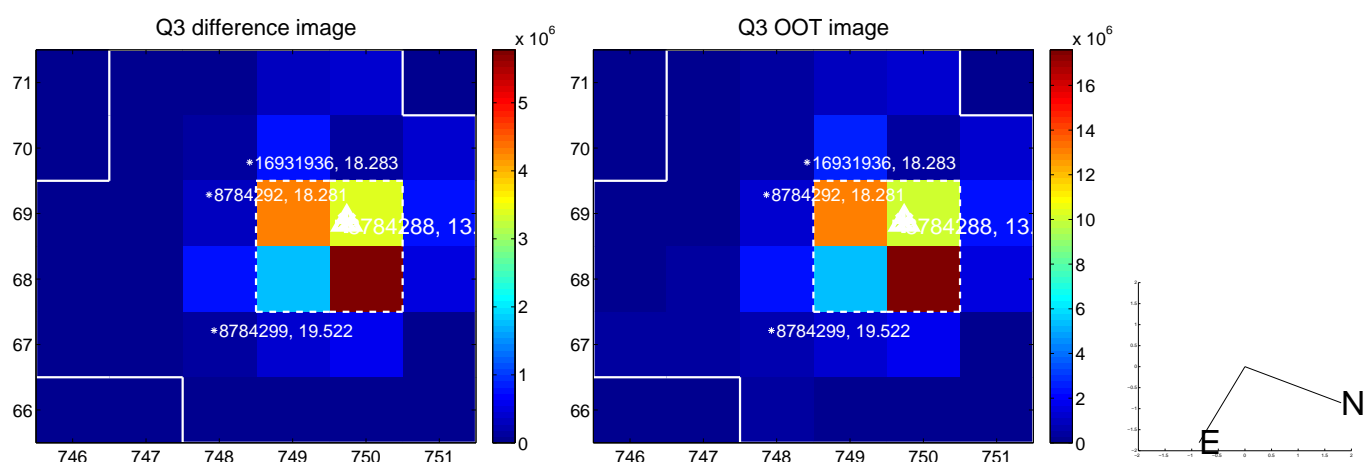
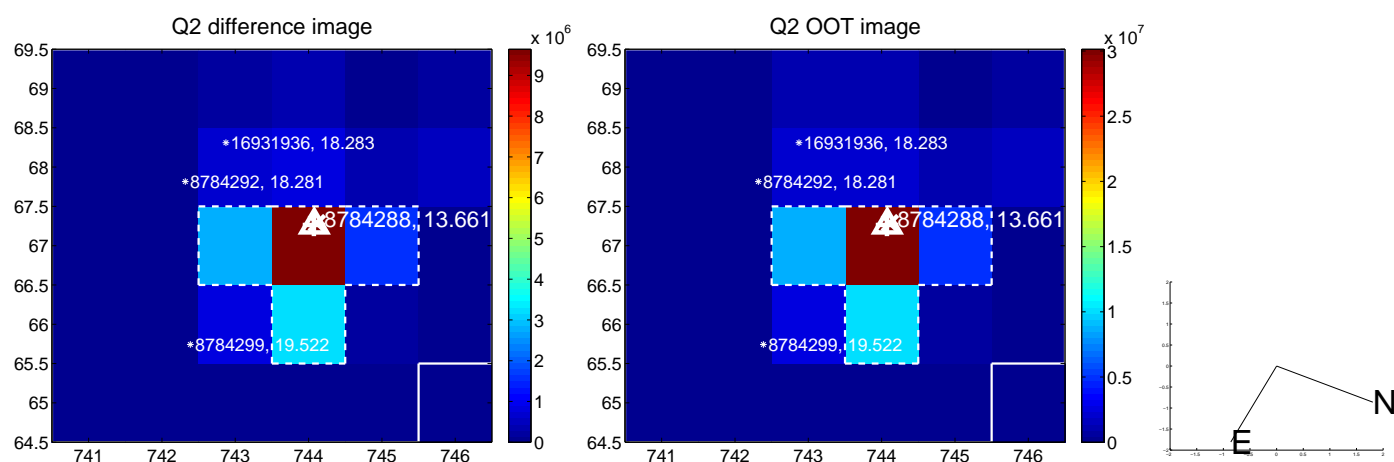
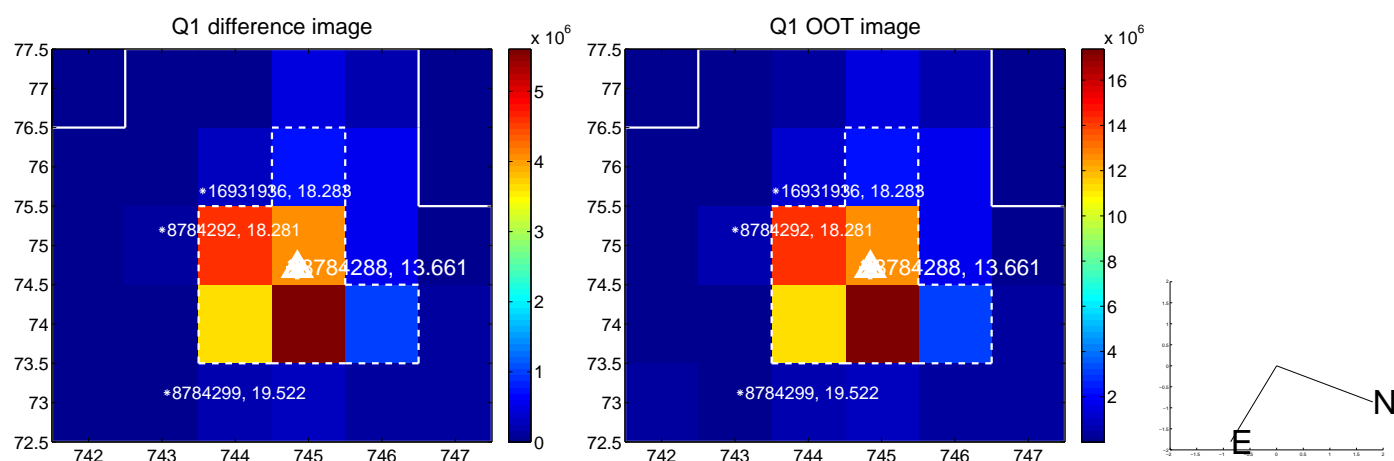
The direct PRF centroid is offset from the target star catalog position by about 0.06 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.021 ± 0.067	0.31	-0.003 ± 0.067	0.020 ± 0.067
PRF-fit source offset from KIC position	0.030 ± 0.069	0.43	0.024 ± 0.069	-0.017 ± 0.068
photometric centroid source offset	1.02 ± 0.00	3374.61	1.02 ± 0.00	-0.04 ± 0.00

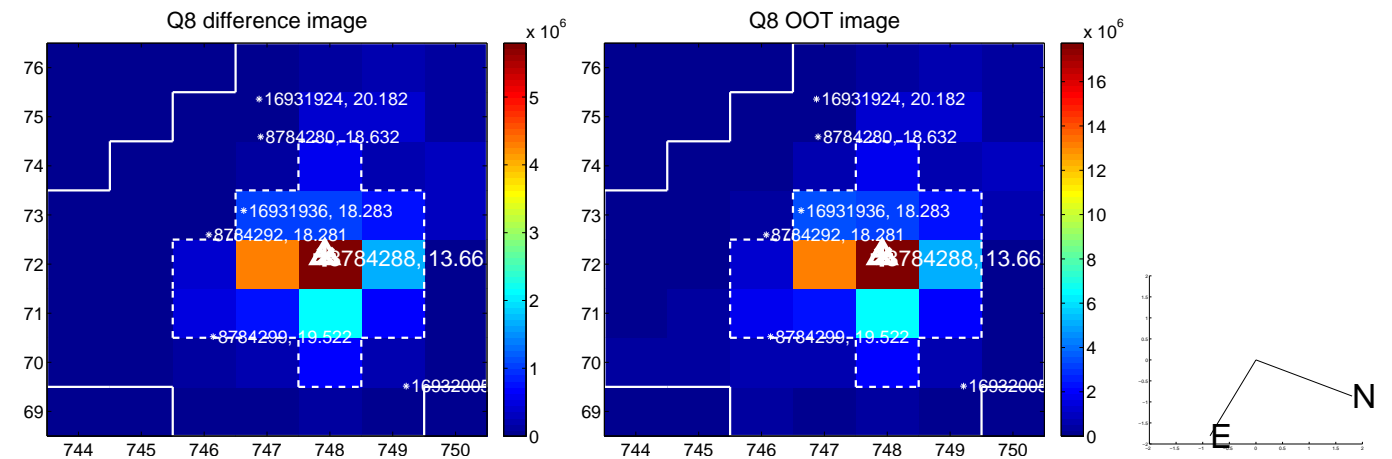
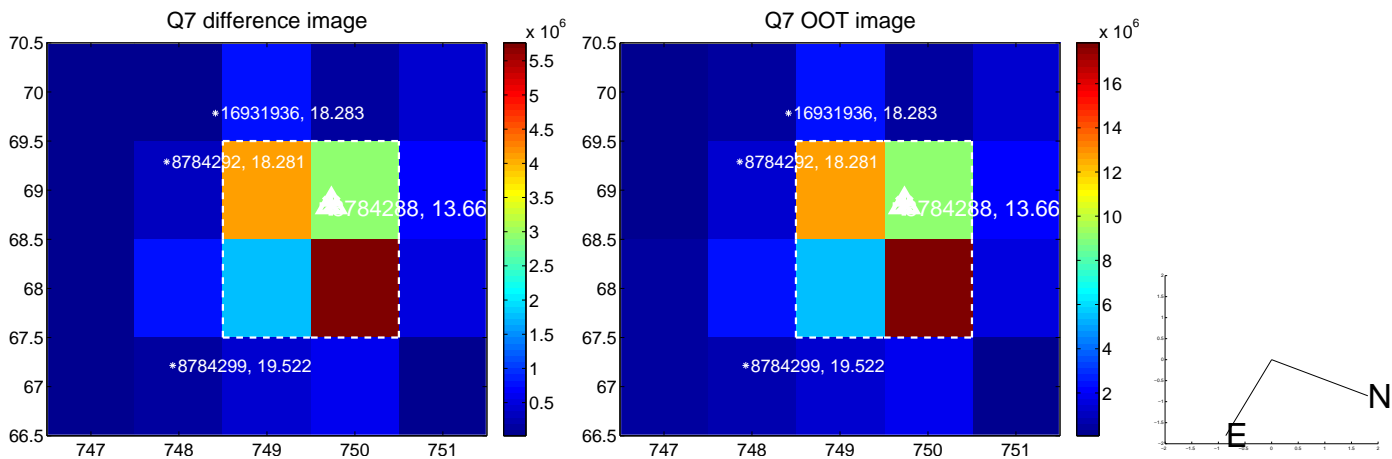
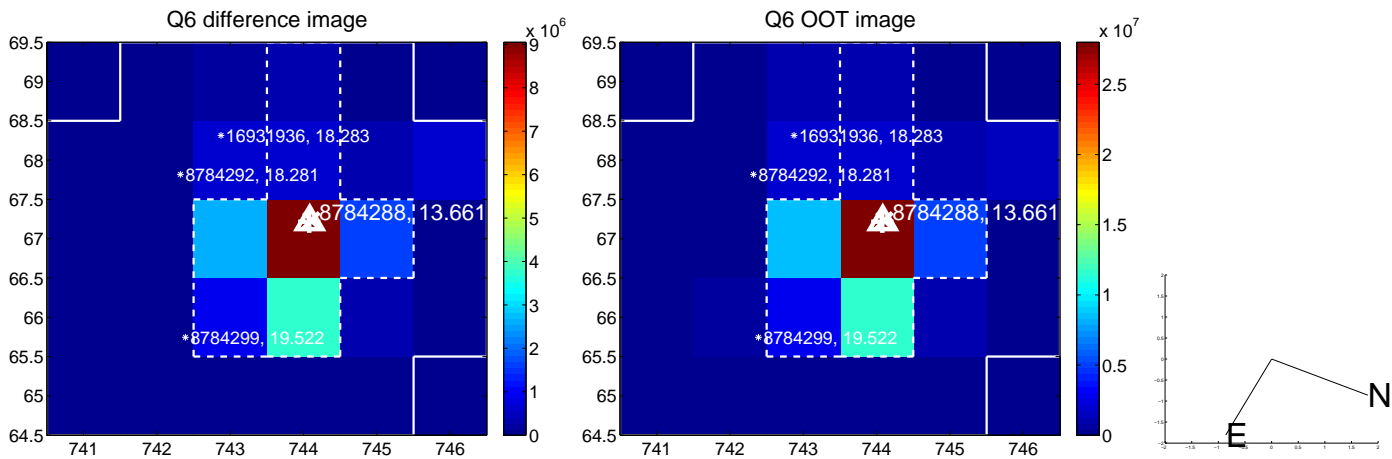
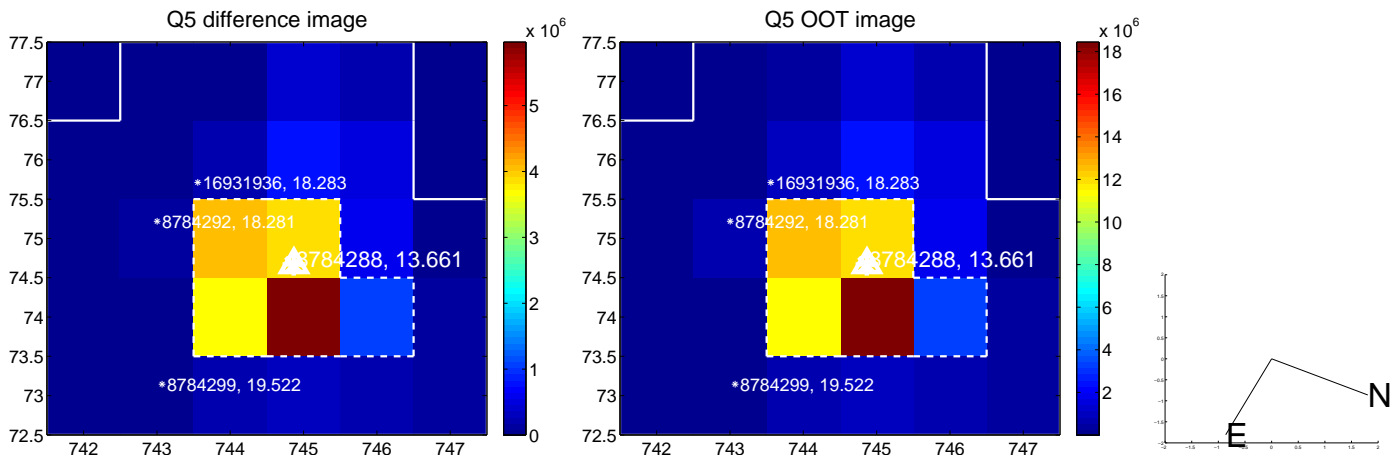


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

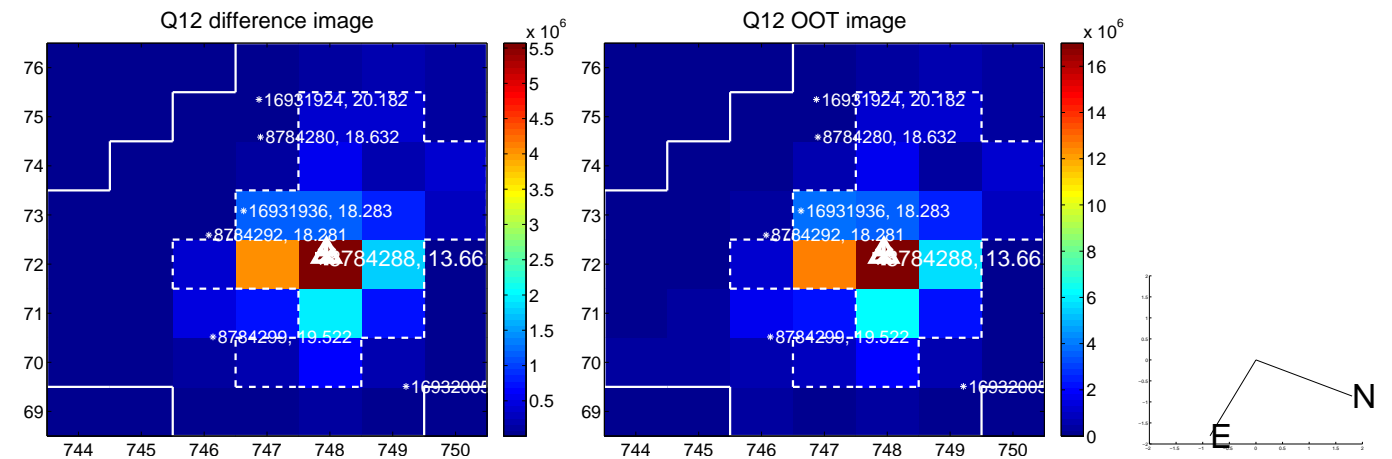
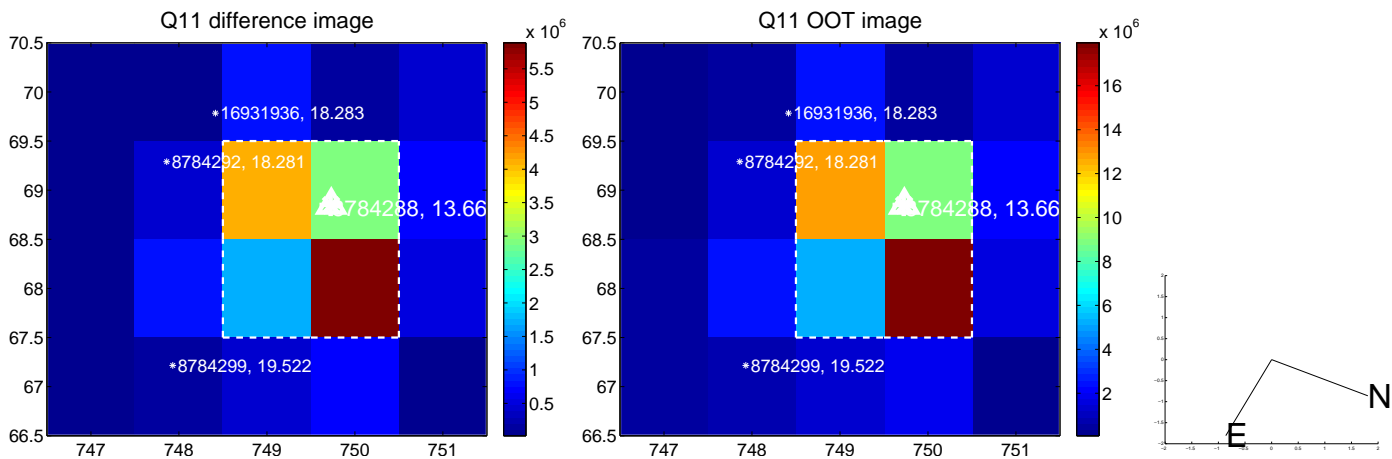
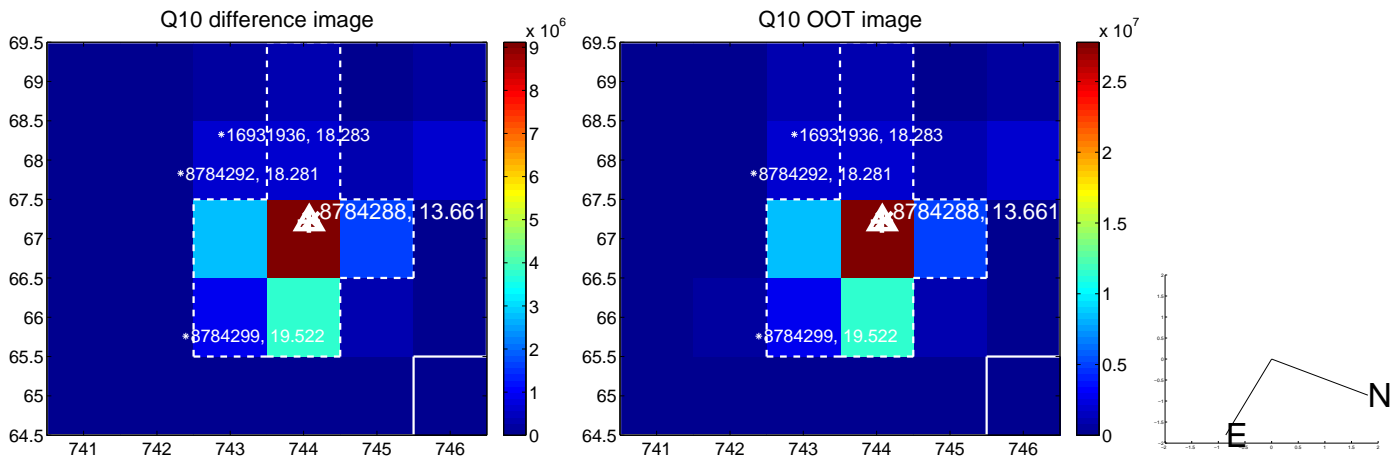
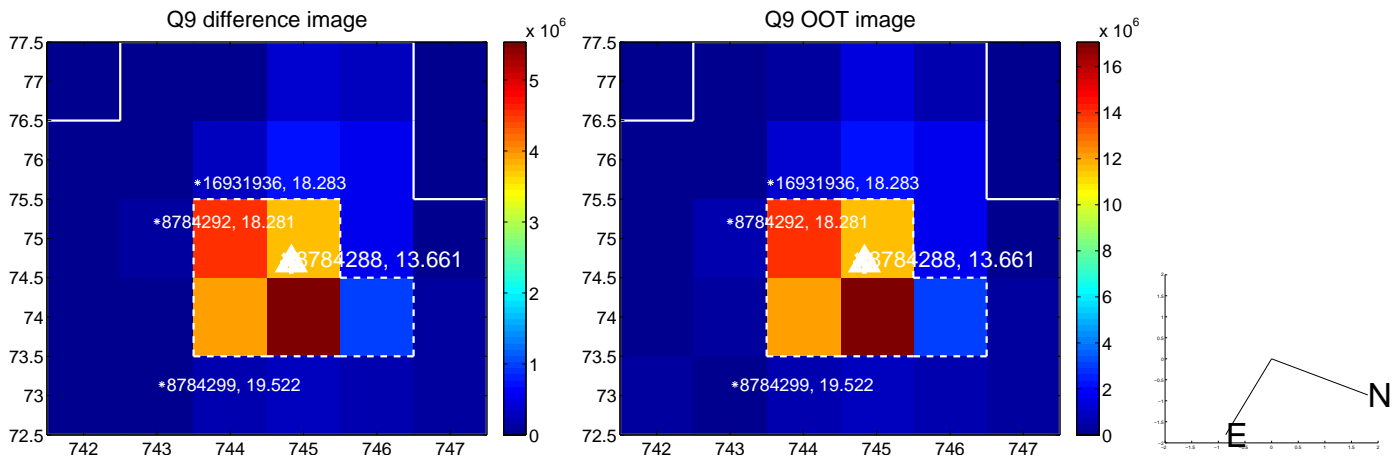
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



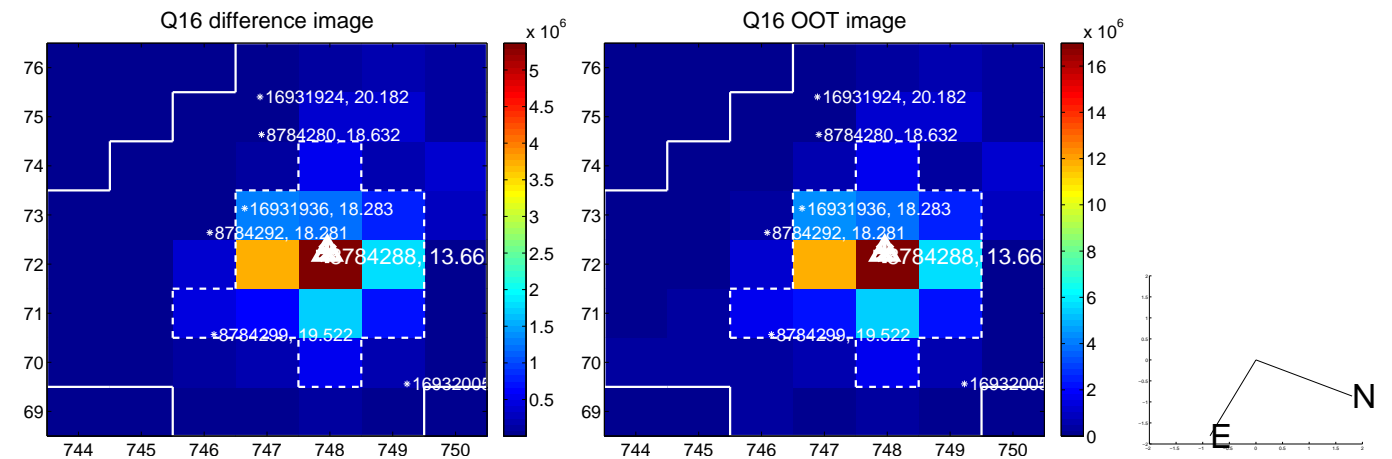
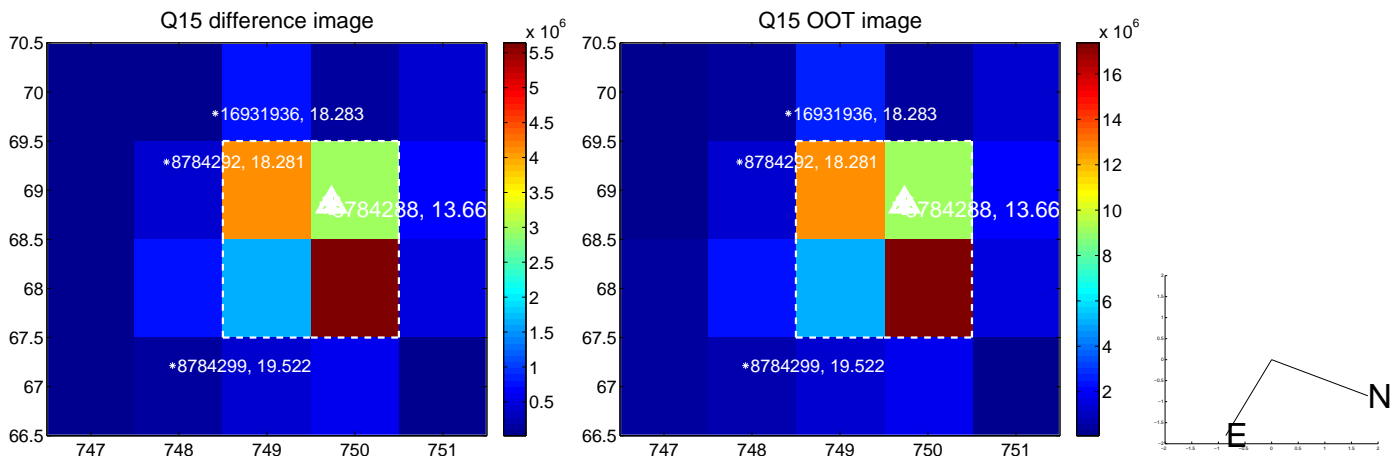
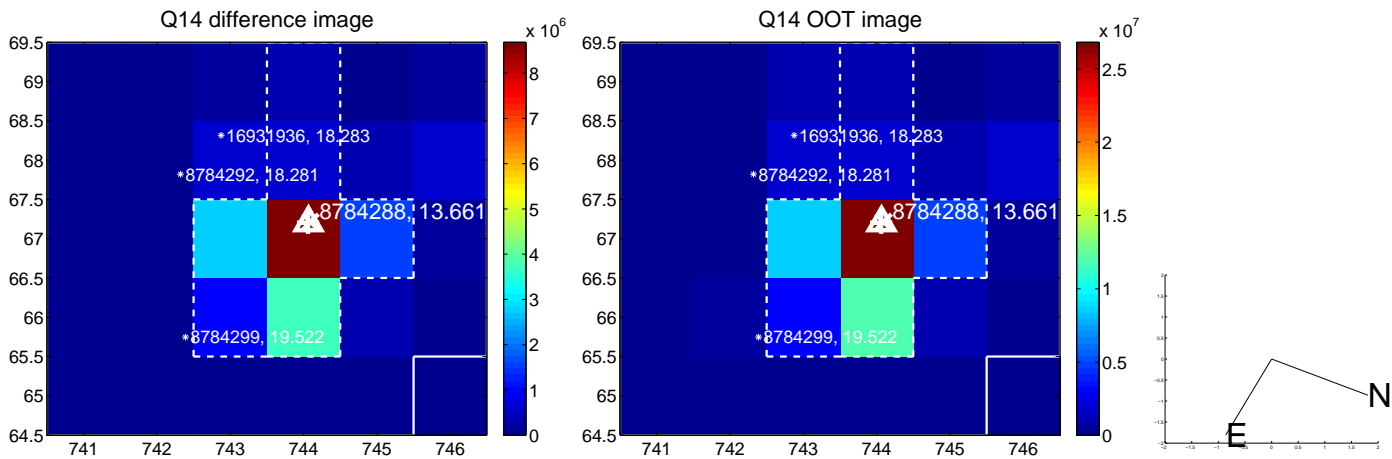
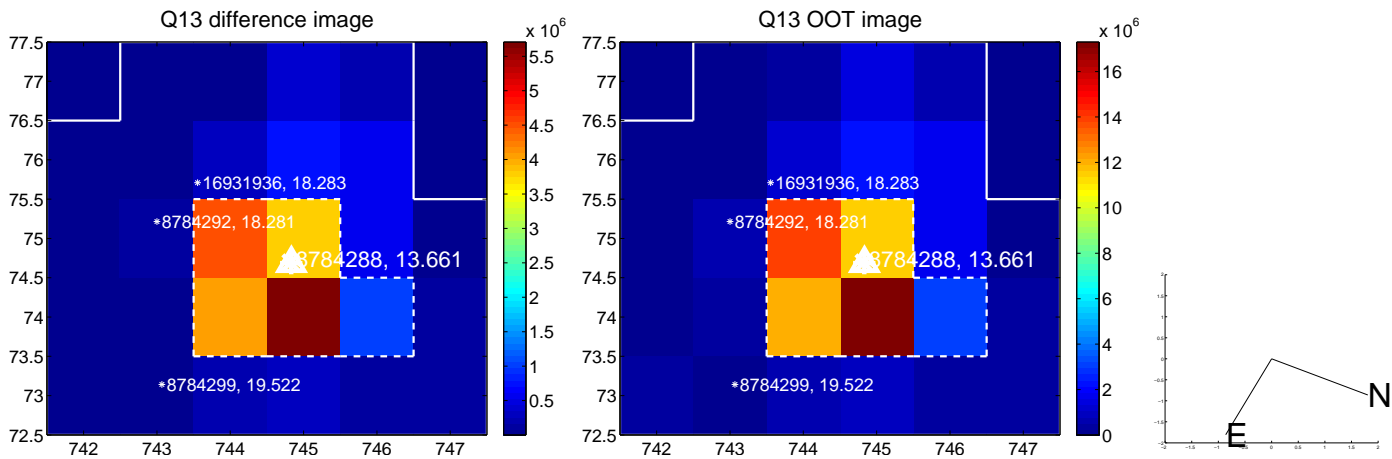
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



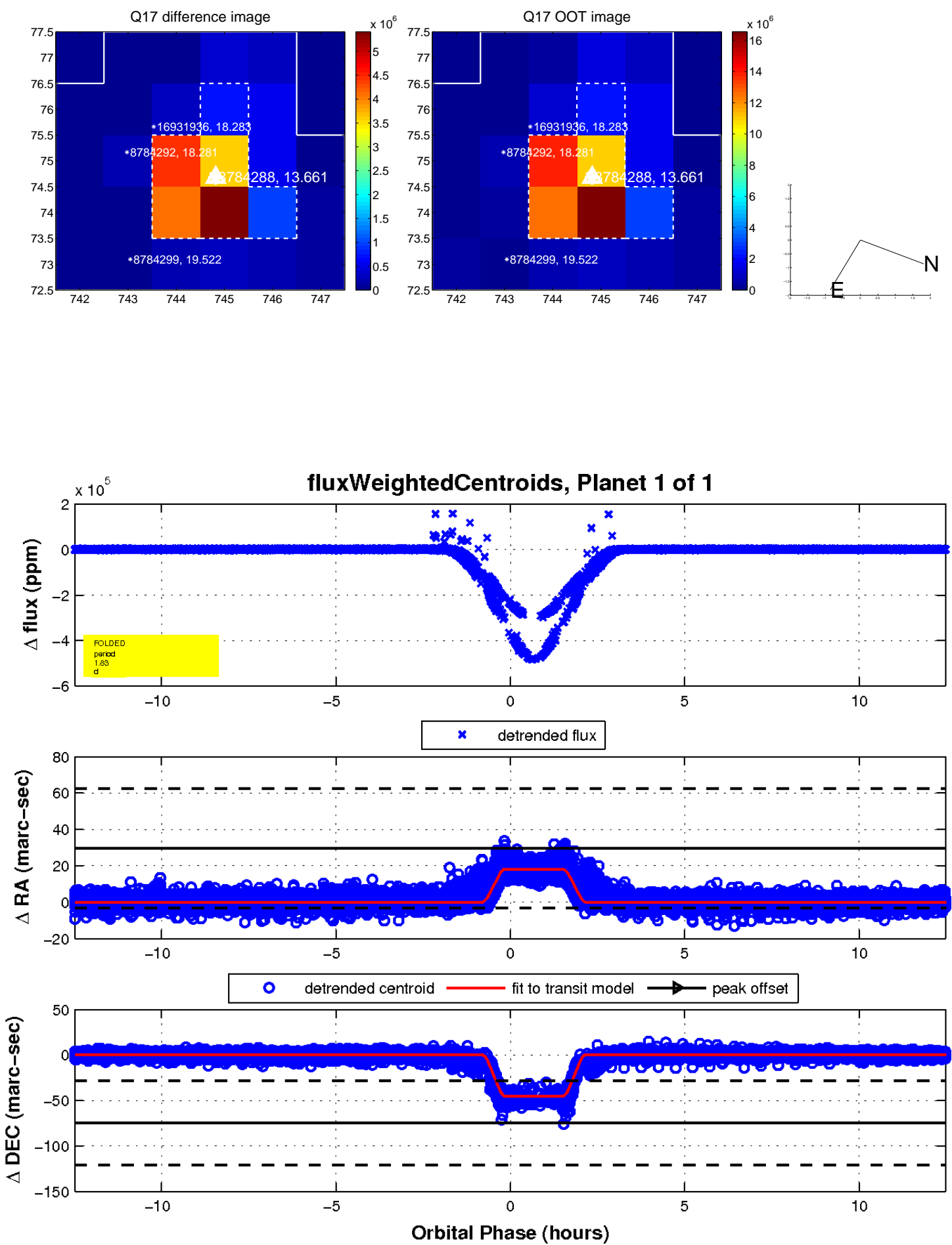
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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UKIRT Image

Declination

