

KIC 010735564

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})
010735564-01	OBS	3617.01	1.674989	131.791892	199239.0	4.273	7331.0	3818.0	2.45	8285	127.30	20619.46

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010735564-01	OBS	FP	0.00	0	1	0	0	SWEET_EB—MOD_SEC_DV—MOD_SEC_ALT—DEEP_V_SHAPED

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.

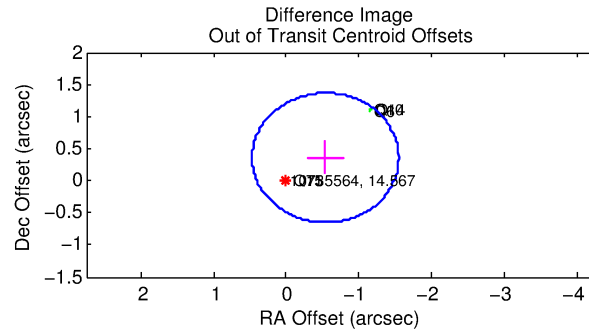
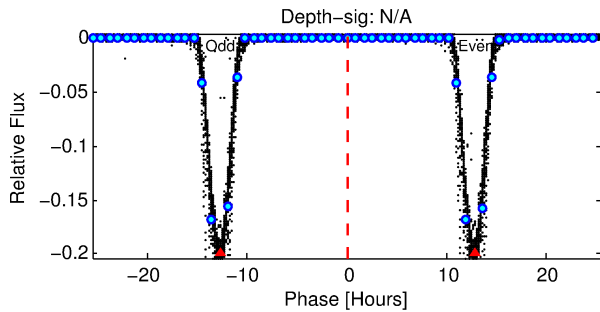
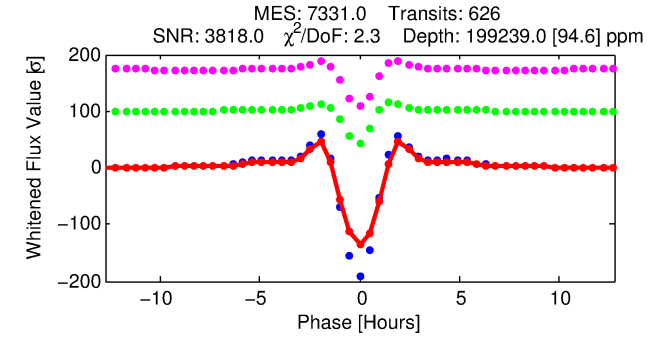
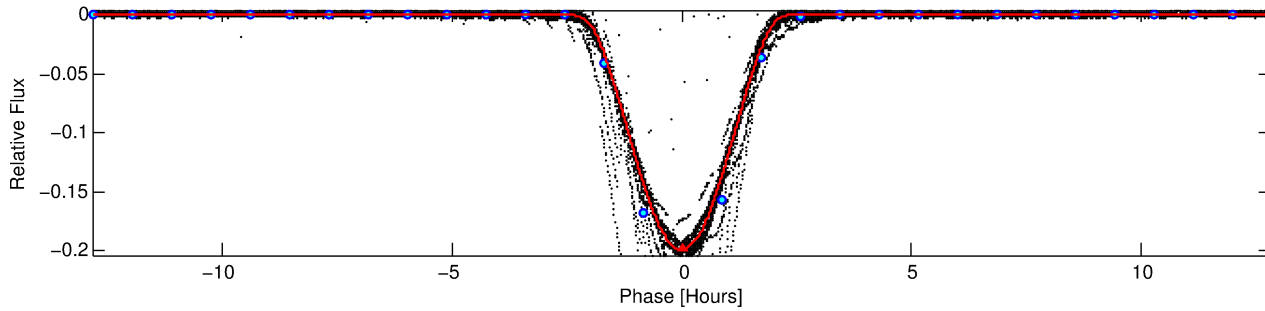
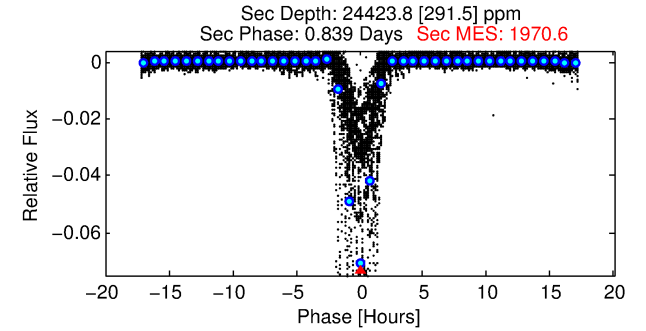
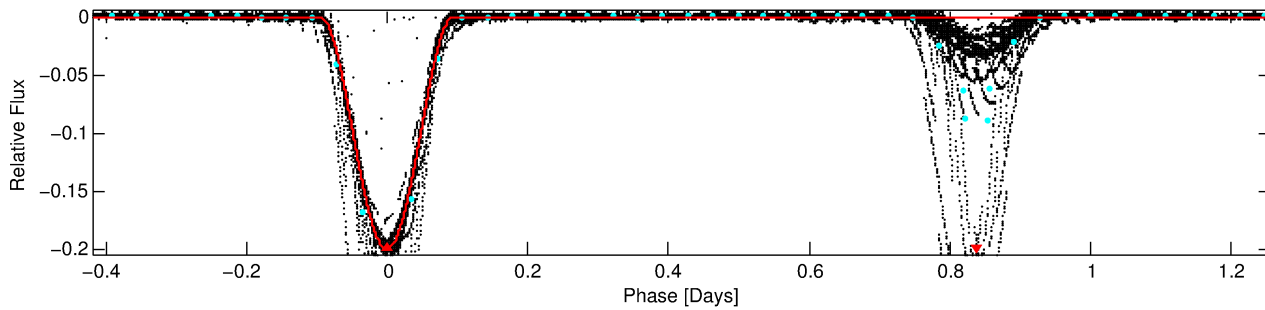
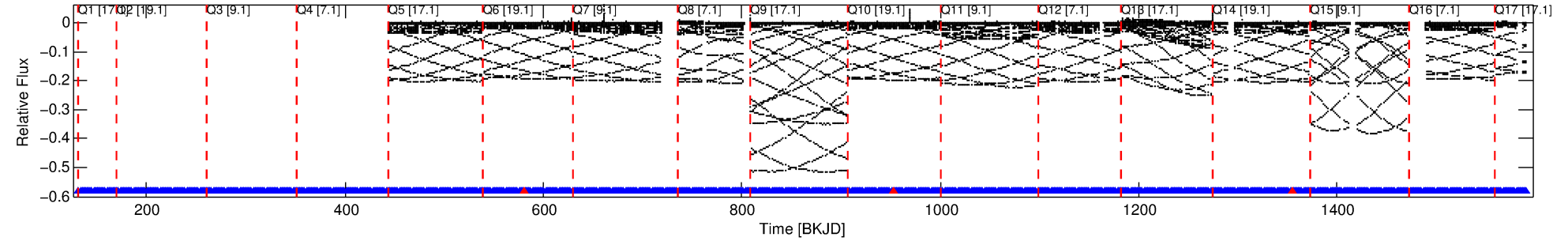
Ephemeris Match Information For 010735564-01

No Significant Match Found

DV One-Page Summary

KIC: 10735564 Candidate: 1 of 1 Period: 1.675 d
KOI: K03617.01 Corr: 0.912

Kp: 14.57 R*: 2.45 Rs Teff: 8285.0 K Logg: 3.97 Fe/H: 0.070



DV Fit Results:

Period = 1.67499 [0.00000] d
Epoch = 131.7919 [0.0000] BKJD
Rp/R* = 0.4760 [0.0012]
a/R* = 4.07 [0.00]
b = 0.67 [0.00]
Seff = 20619.45 [9006.93]
Teq = 3056 [334] K
Rp = 127.30 [39.89] Re
a = 0.0351 [0.0094] AU
Ag = 1.02 [0.41] [0.05σ]
Teffp = 4747 [213] K [4.27σ]

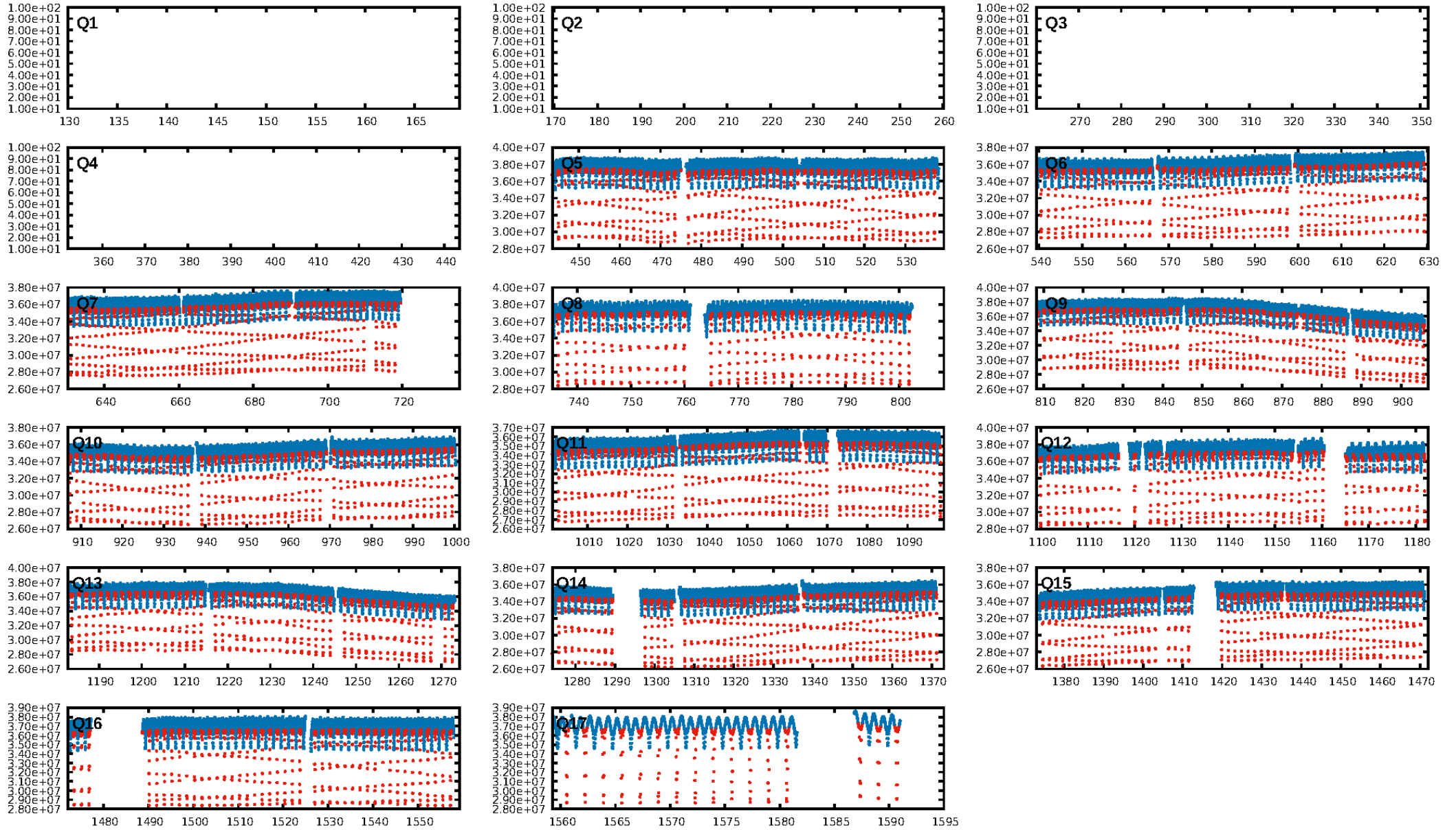
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [607/610]
GhostDiagnostic-chr: 2.069
Centroid-sig: 0.0%
Centroid-so: 2.034 arcsec [1314.14σ]
OotOffset-rm: 0.647 arcsec [1.92σ]
OotOffset-st: 3/3/0/0 [6]
KicOffset-rm: 0.096 arcsec [1.38σ]
KicOffset-st: 3/3/3/4 [13]
DiffImageQuality-fgm: 1.00 [13/13]
DiffImageOverlap-fno: 1.00 [13/13]

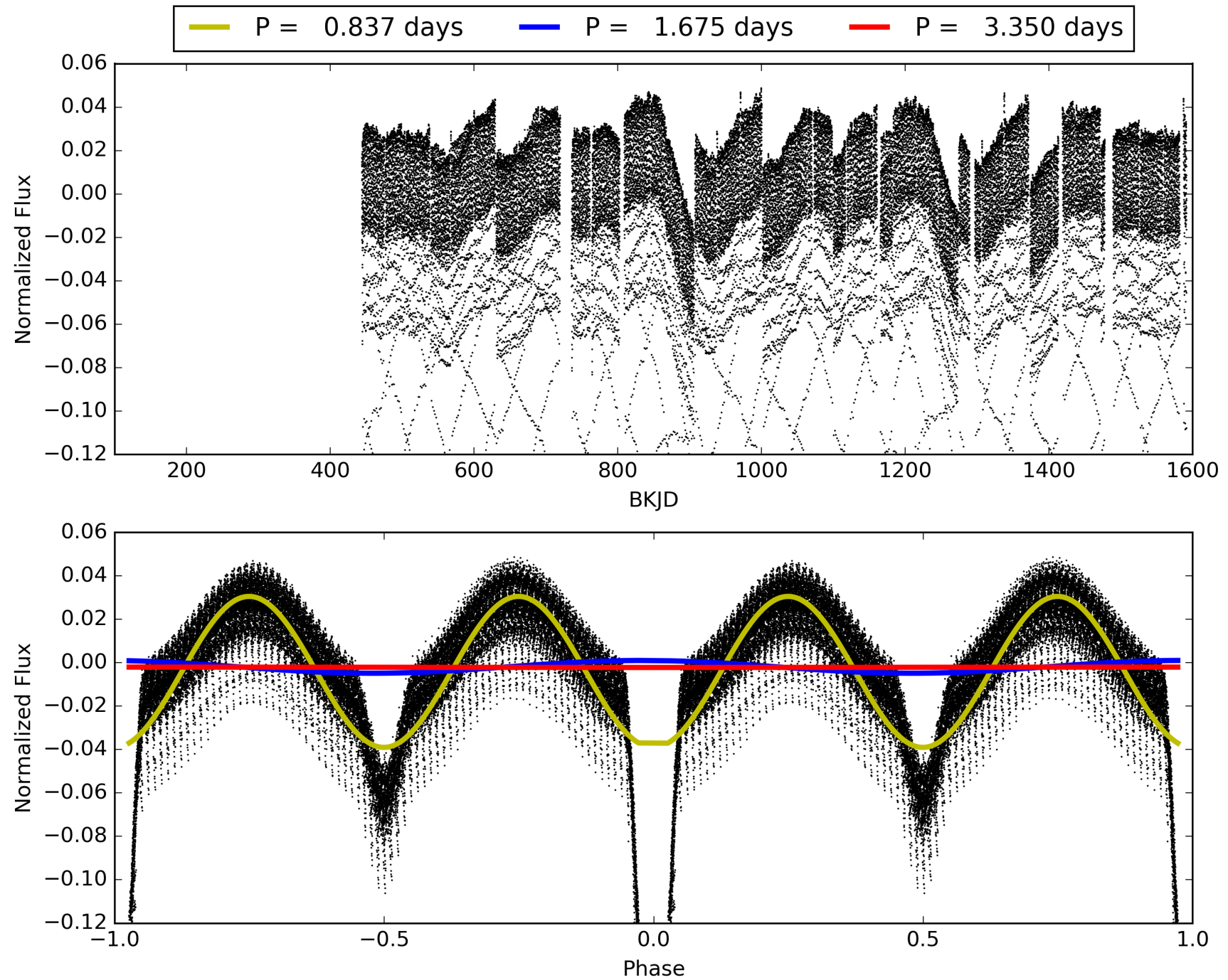
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 06:56:38 Z

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

TCE 010735564-01, PDC Light Curves

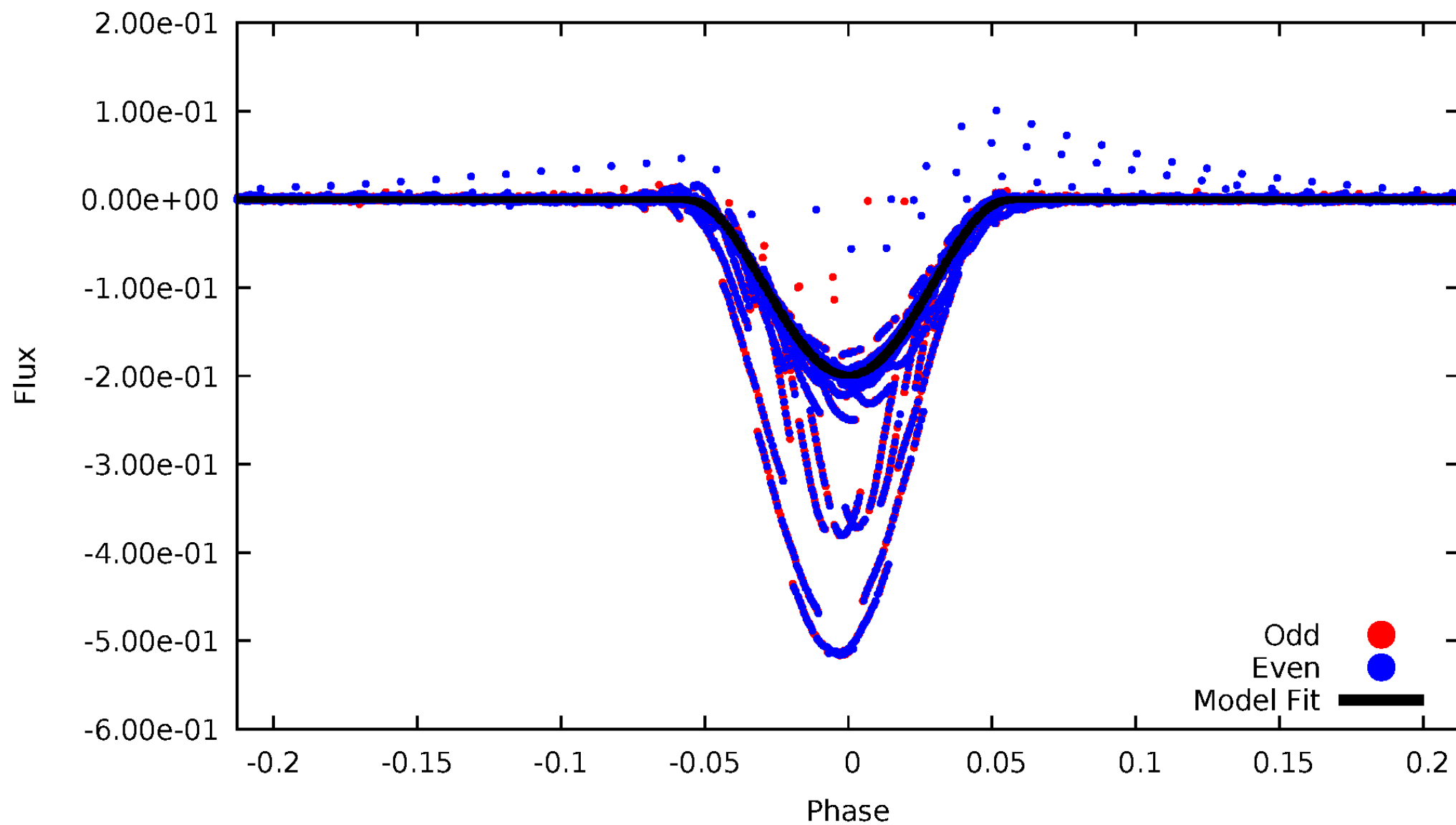


TCE 010735564-01



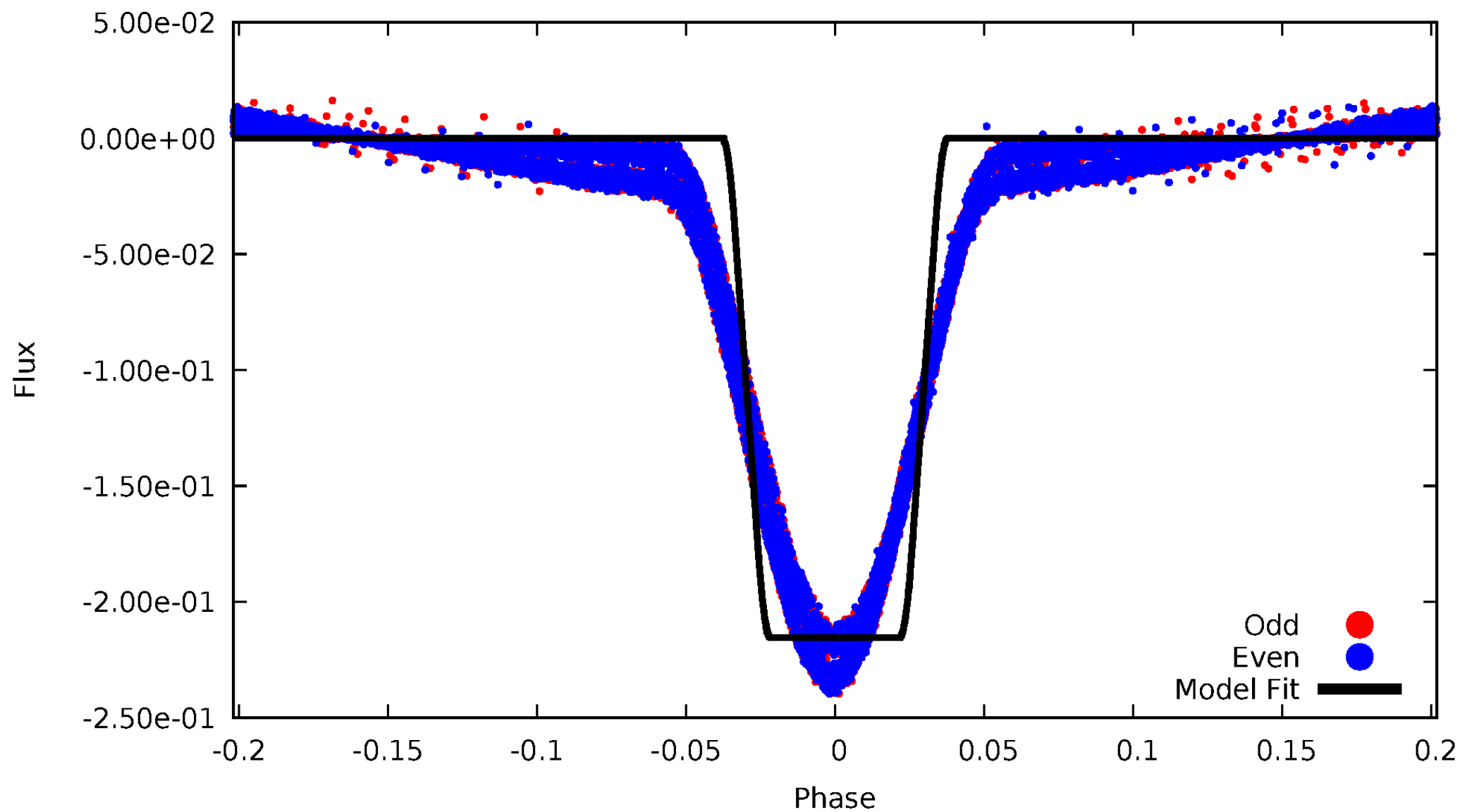
DV Odd/Even

TCE 010735564-01



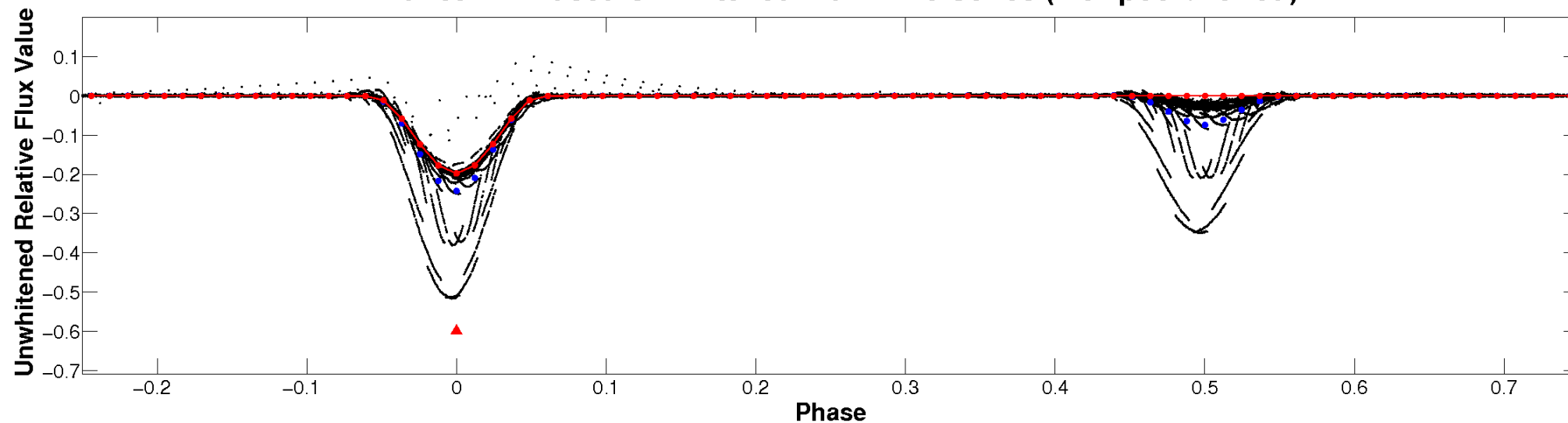
ALT Odd/Even

TCE 010735564-01

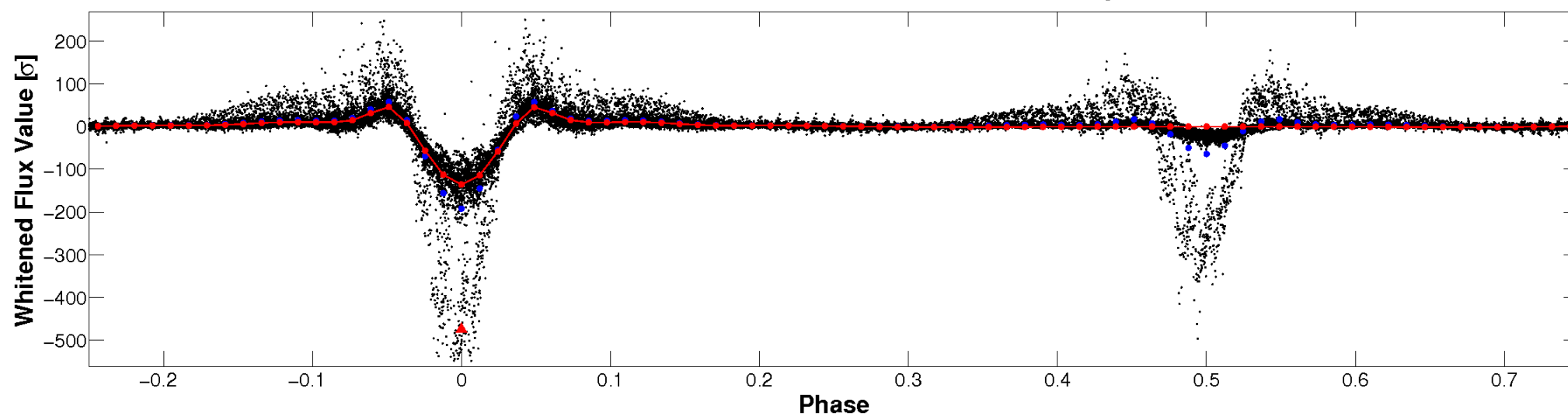


Non-Whitened Vs. Whitened Light Curve

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

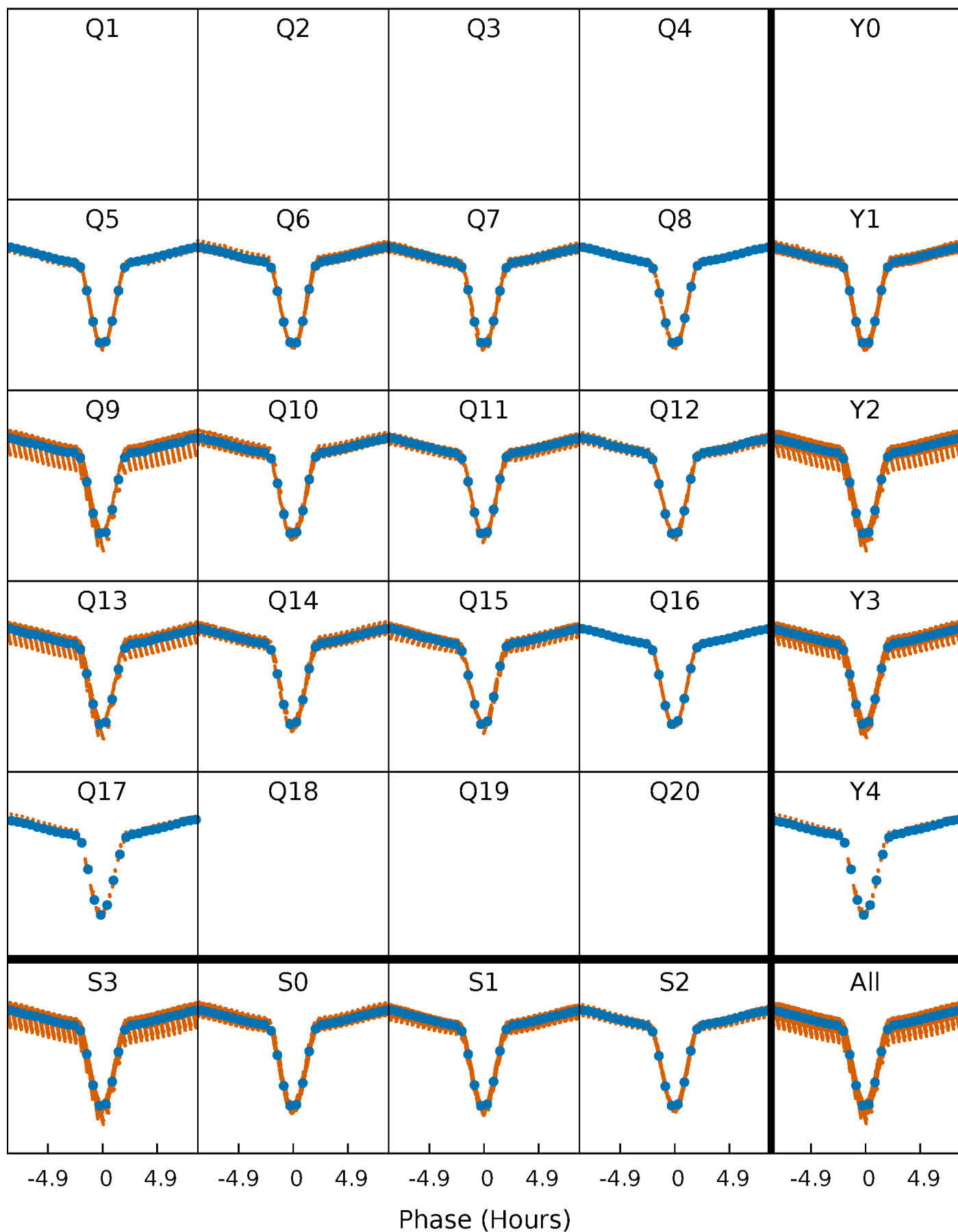


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



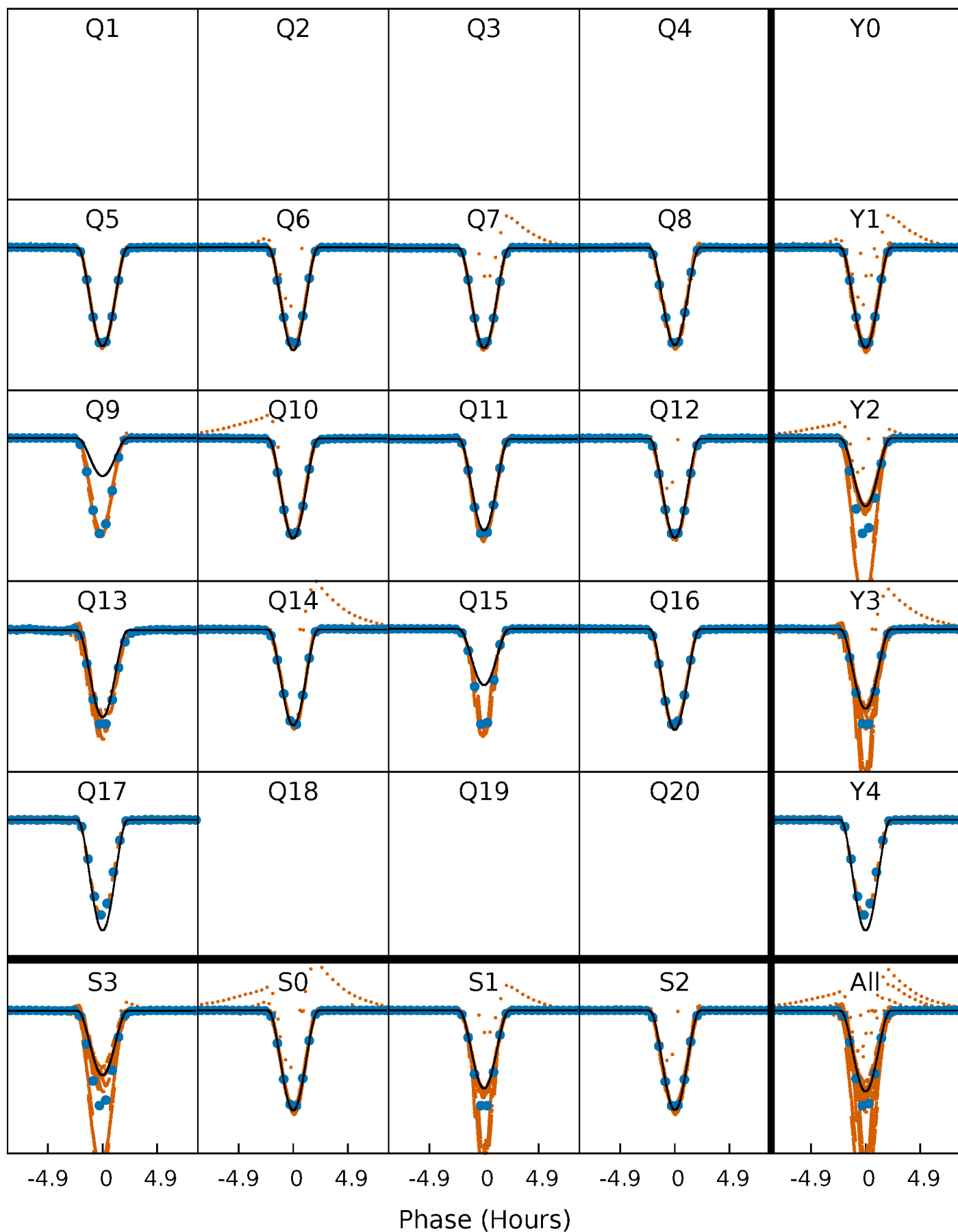
PDC Quarter-Phased Transit Curves

TCE 010735564-01 P= 1.674989 Days $T_0=131.791892$ (BKJD)



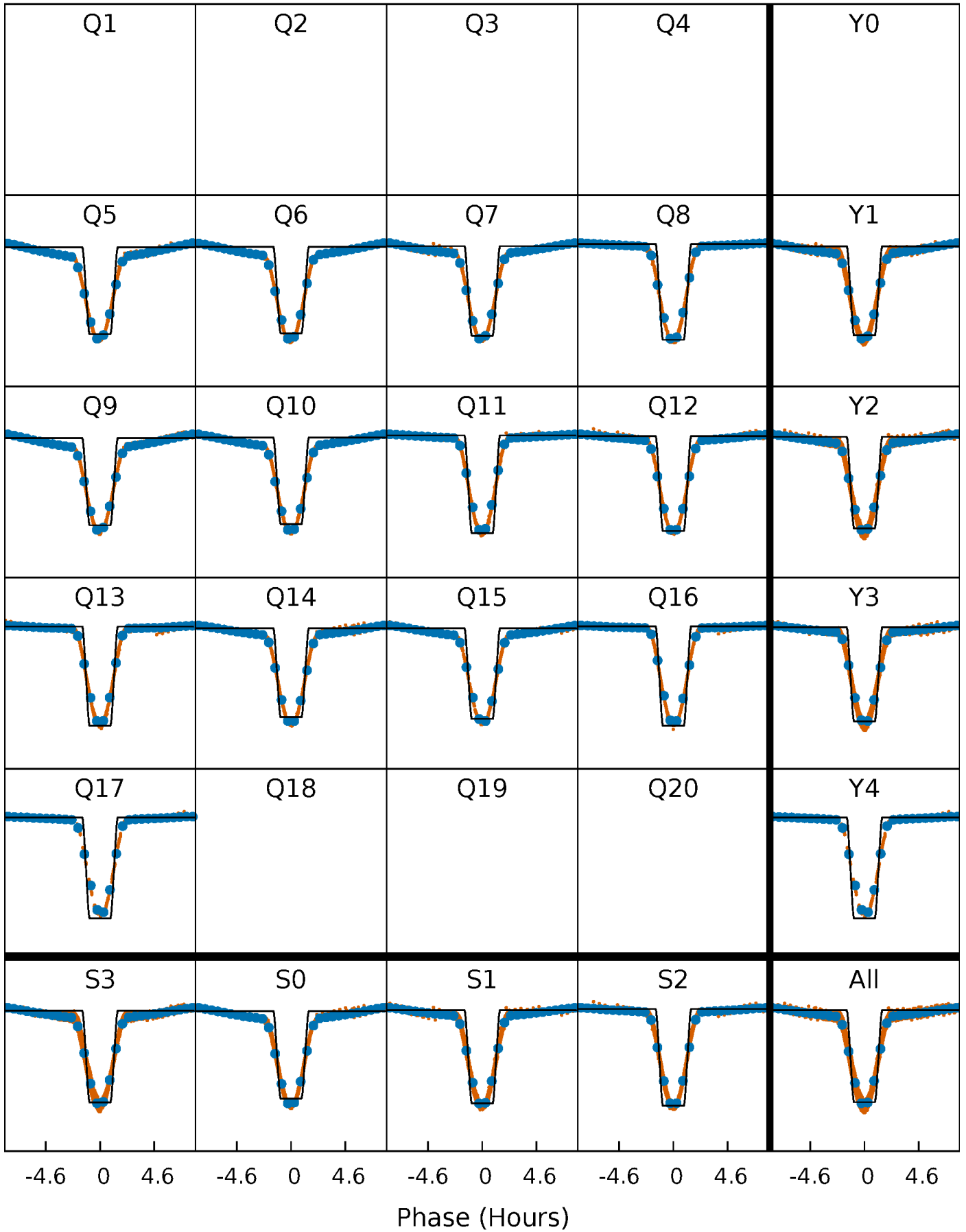
DV Quarter-Phased Transit Curves

TCE 010735564-01 P= 1.674989 Days $T_0=131.791892$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

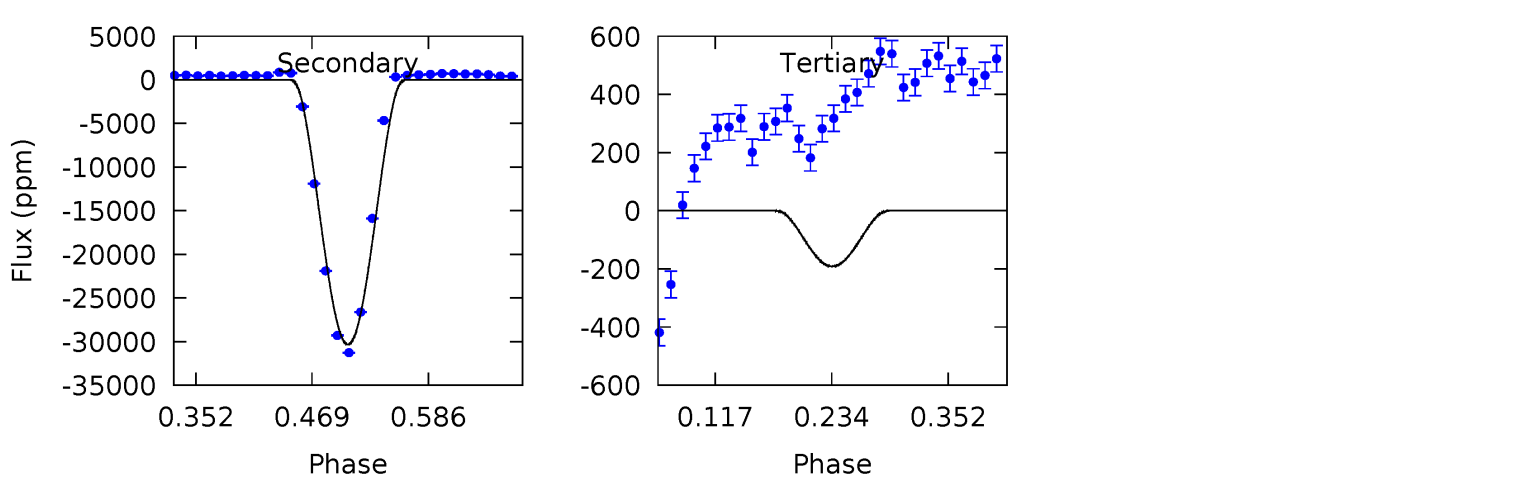
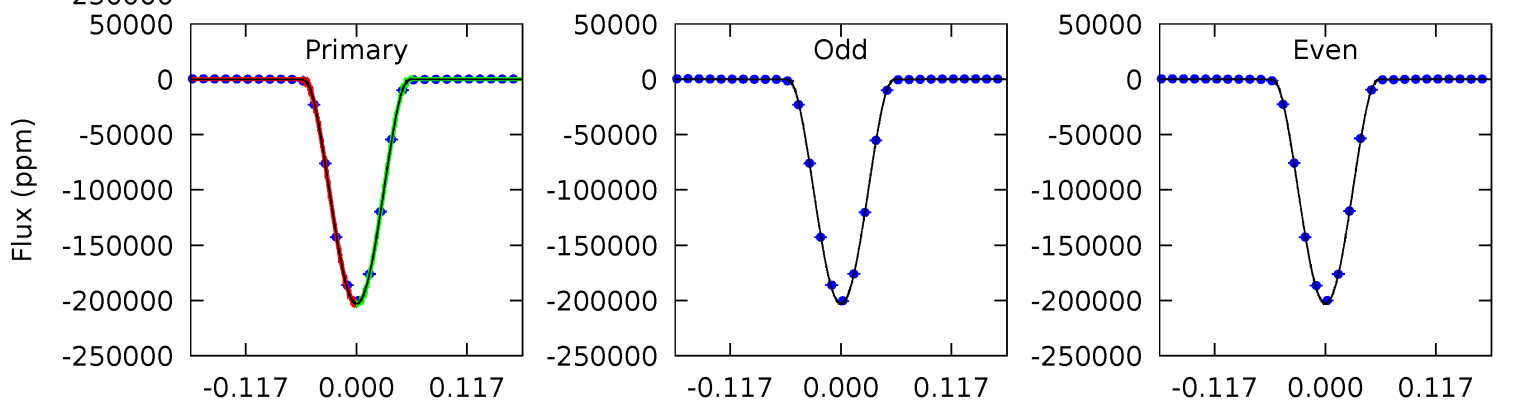
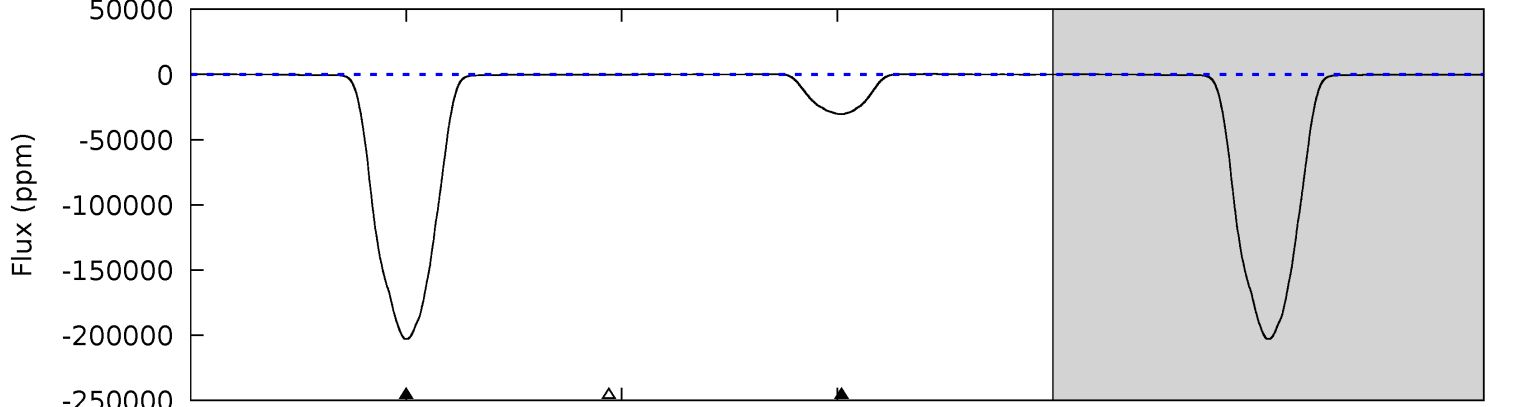
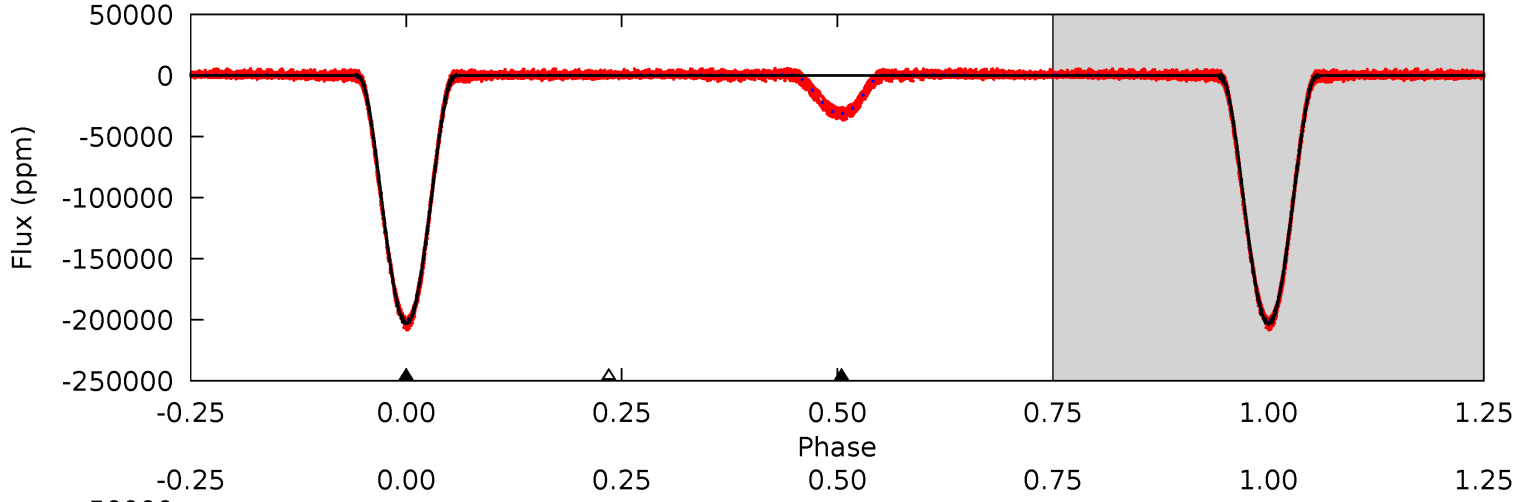
TCE 010735564-01 P= 1.674978 Days $T_0=131.797628$ (BKJD)



DV Model-Shift Uniqueness Test

010735564-01, P = 1.674989 Days, E = 131.791892 Days

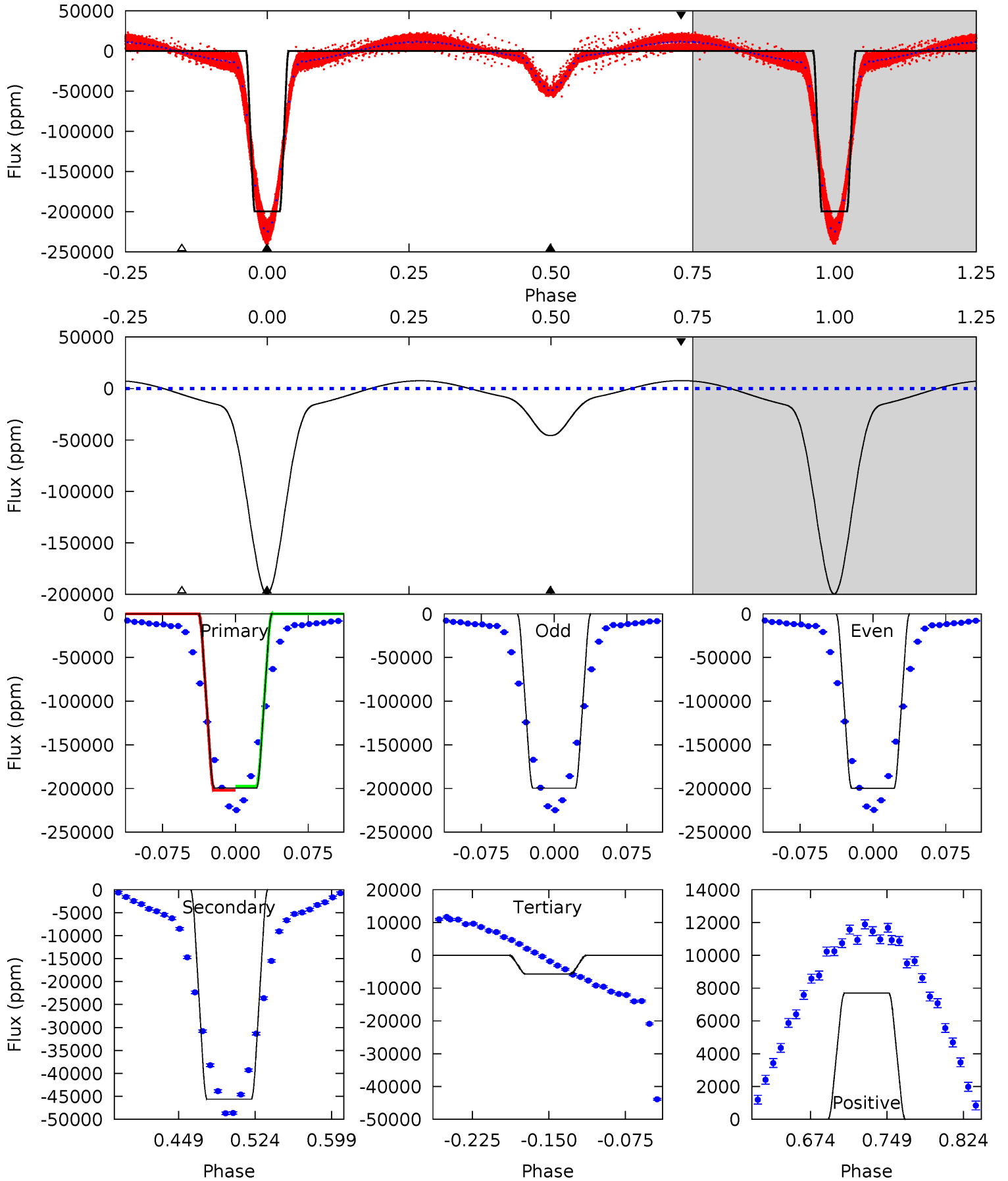
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10252	1533	9.68	0	4.53	1.57	7.57	10242	10252	1523	1533	3.02	1.18	0.00	25.6



Alt Model-Shift Uniqueness Test

010735564-01, P = 1.674978 Days, E = 131.797628 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1411	322.6	40.6	54.4	4.63	1.78	50.9	1370	1357	282.0	268.2	0.90	0.99	0.04	17.4



Stellar Parameters For KIC 010735564

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	8285^{+200}_{-371}	$3.971^{+0.221}_{-0.136}$	$0.070^{+0.250}_{-0.500}$	$2.451^{+0.448}_{-0.768}$	$2.050^{+0.283}_{-0.485}$	$0.196^{+0.275}_{-0.073}$
	+2%/-4%	+6%/-3%	+357%/-714%	+18%/-31%	+14%/-24%	+140%/-37%
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 010735564-01 / KOI 3617.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-30335 ± 20	$128.48^{+14.29}_{-21.80}$	4240^{+258}_{-325}	4716^{+101}_{-138}	$1.310^{+0.432}_{-0.247}$
Alt.	-45614 ± 141	$126.08^{+13.67}_{-19.16}$	4242^{+283}_{-328}	5318^{+110}_{-156}	$2.059^{+0.661}_{-0.351}$

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 $A_{\text{obs}} \gg 1.0$

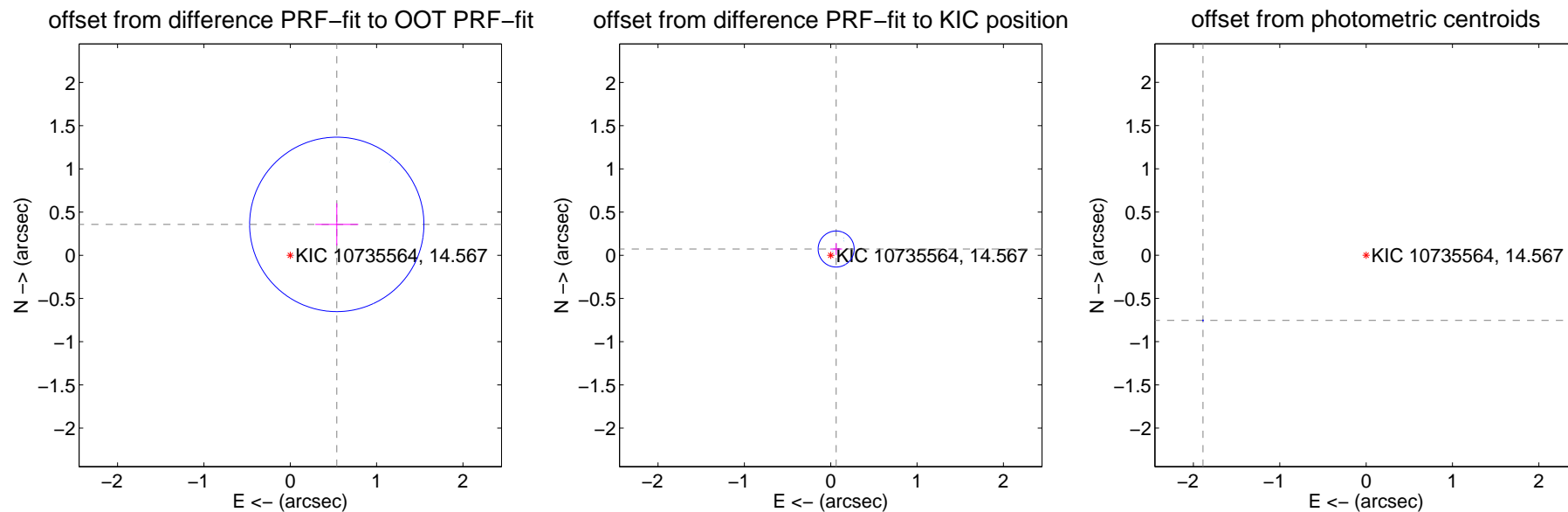
DV Centroid Data

Supplemental centroid analysis for 010735564-01. Kepler magnitude: 14.57. Transit SNR 3818.01

There are 13 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.05 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.647 ± 0.336	1.92	-0.539 ± 0.249	0.357 ± 0.244
PRF-fit source offset from KIC position	0.096 ± 0.070	1.38	-0.063 ± 0.068	0.073 ± 0.069
photometric centroid source offset	2.03 ± 0.00	1314.14	1.89 ± 0.00	-0.75 ± 0.00

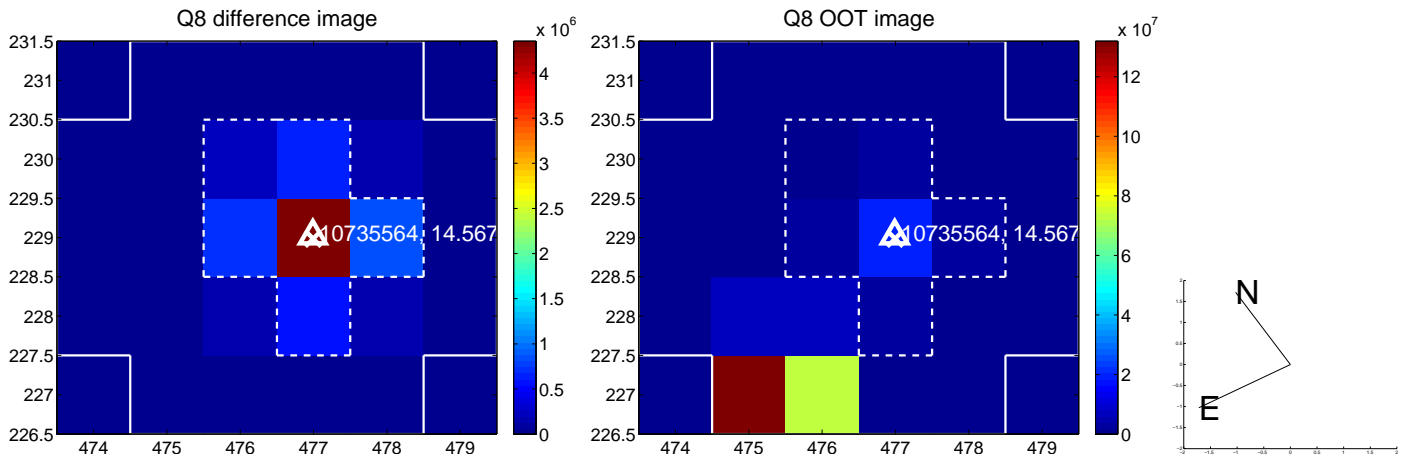
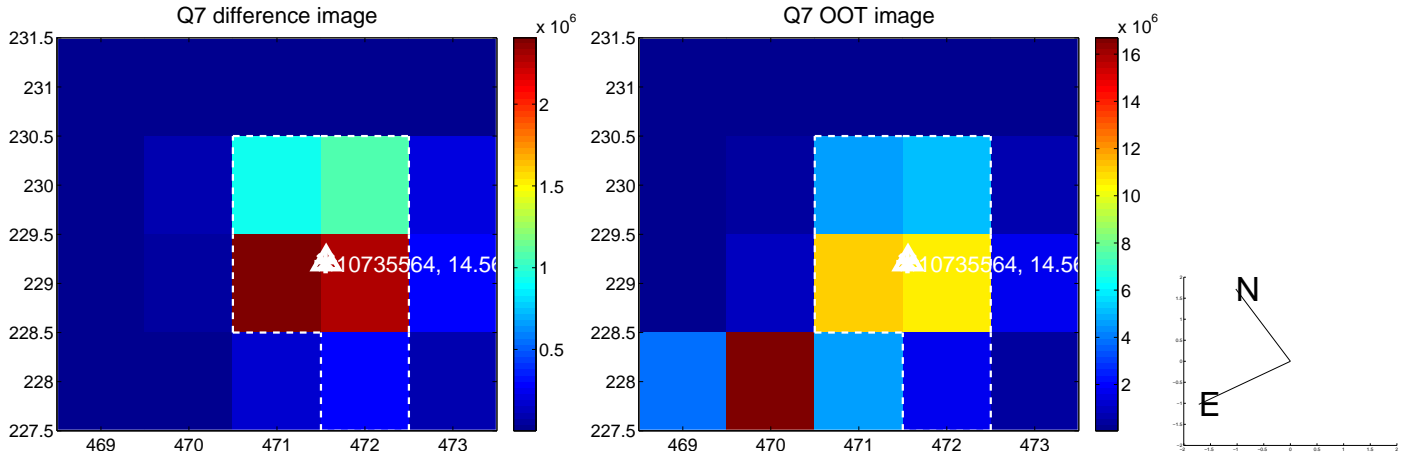
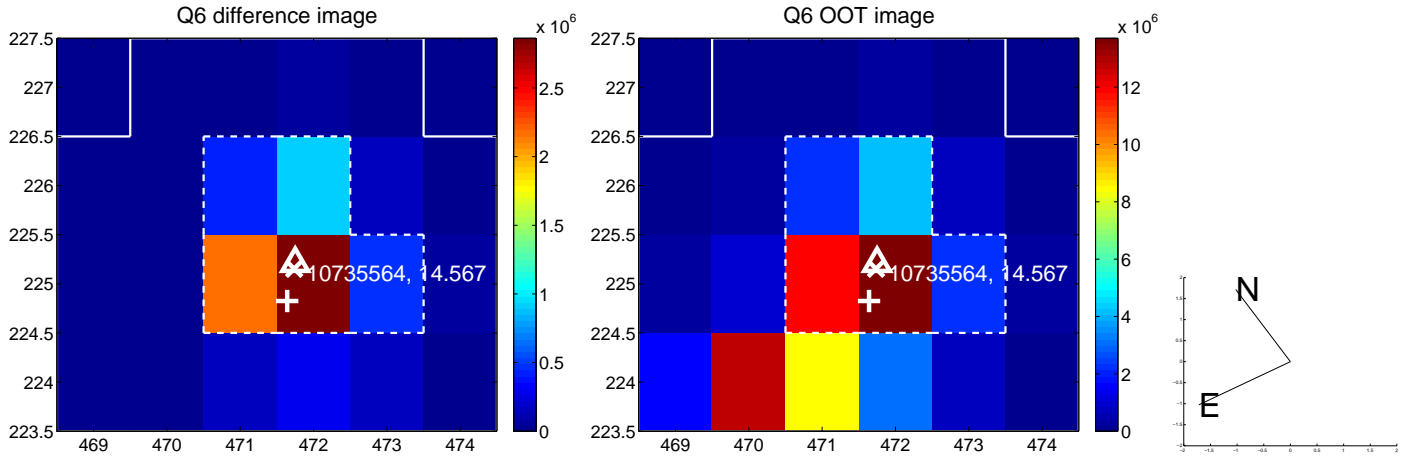
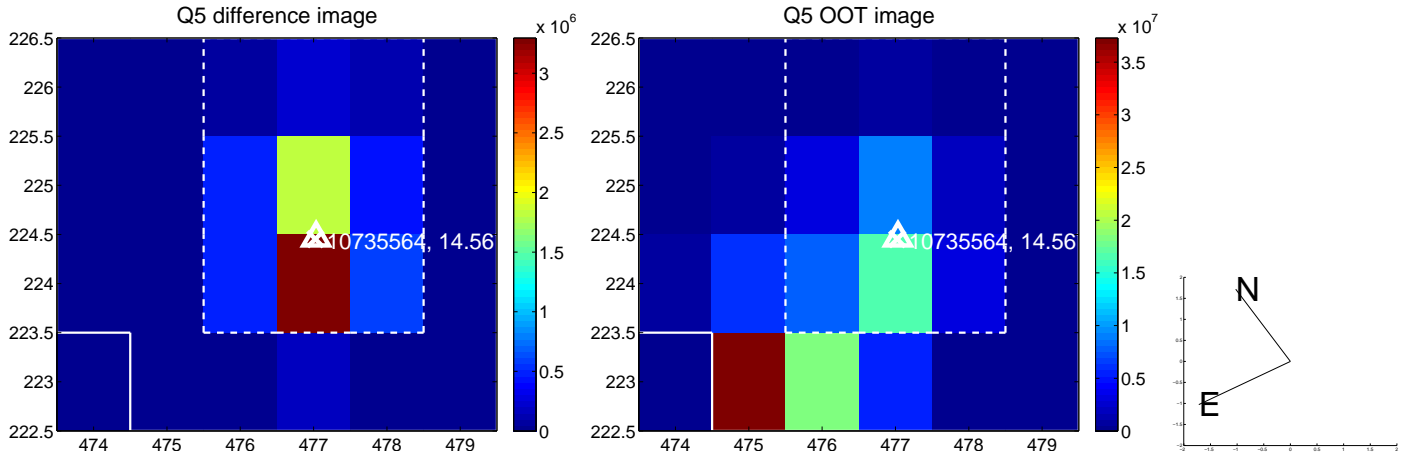


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

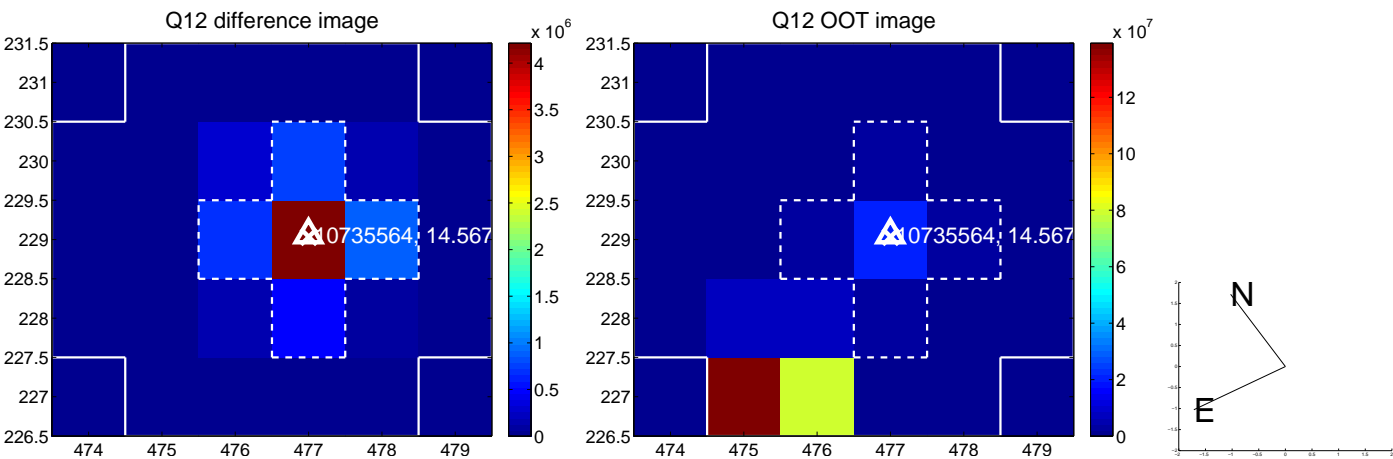
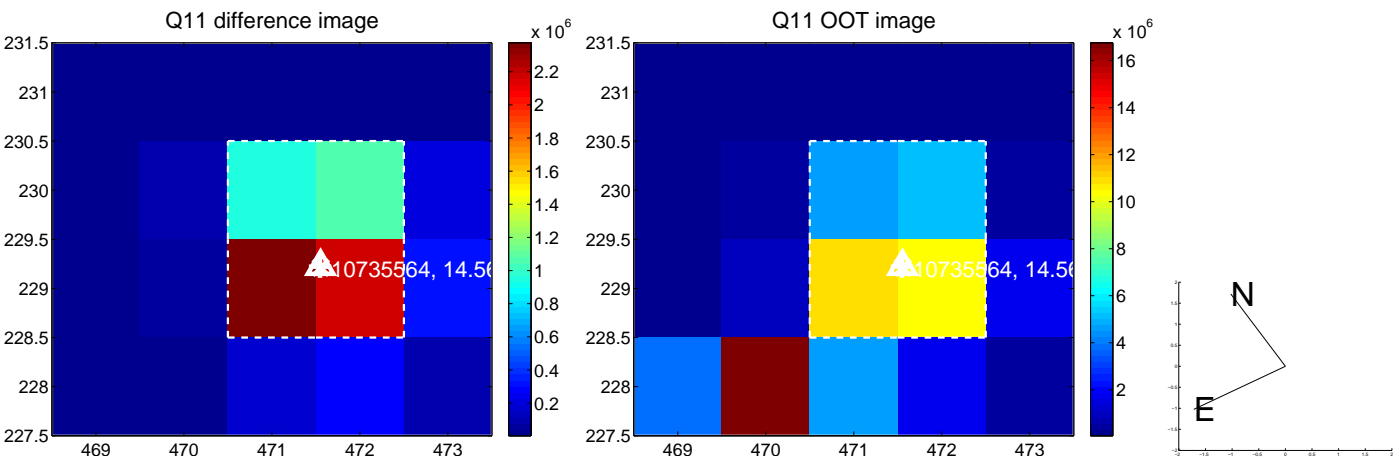
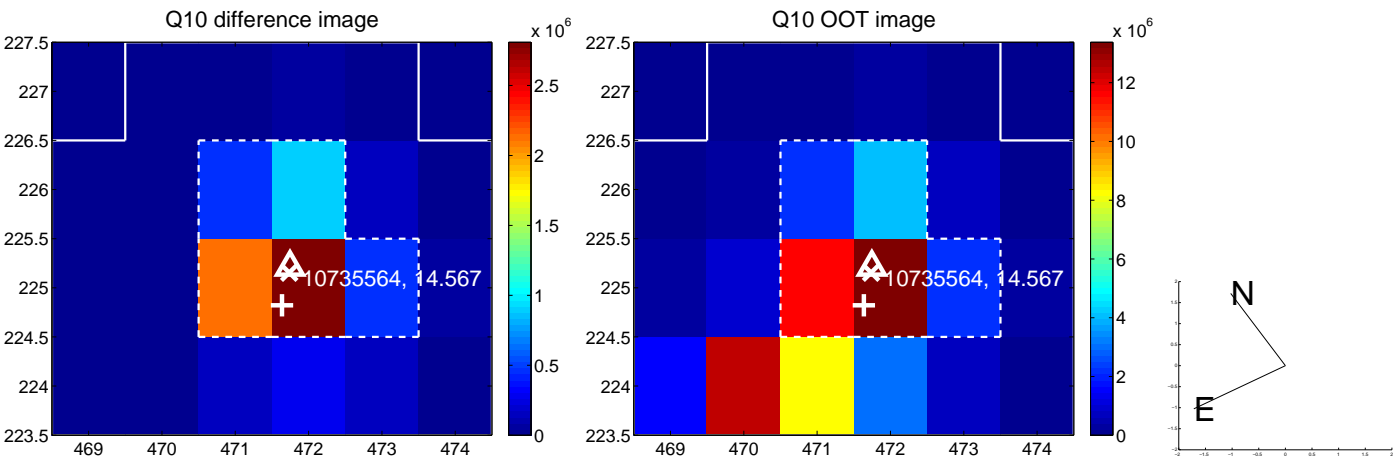
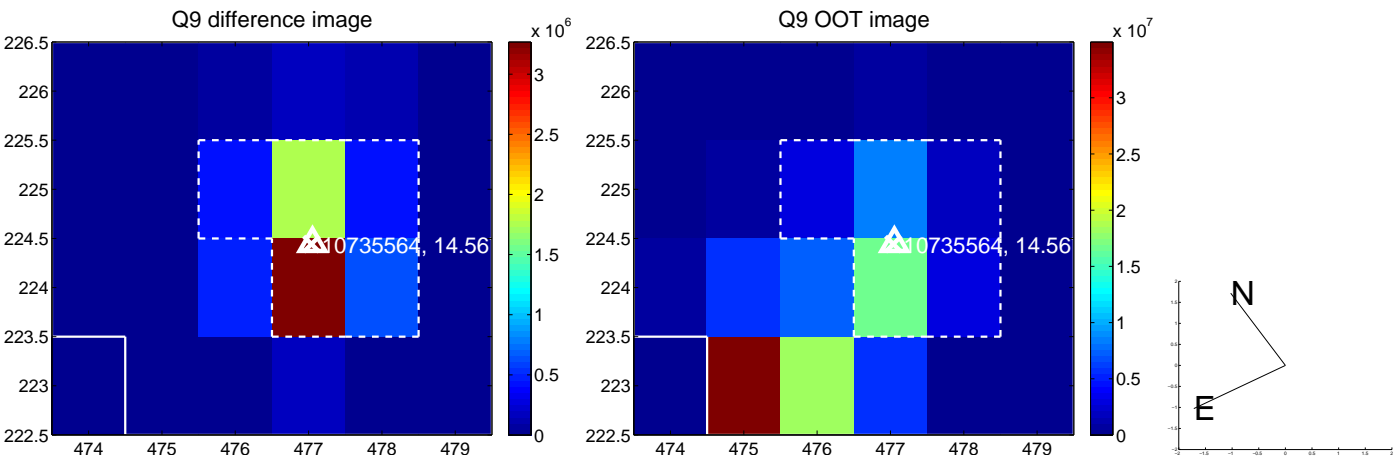
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



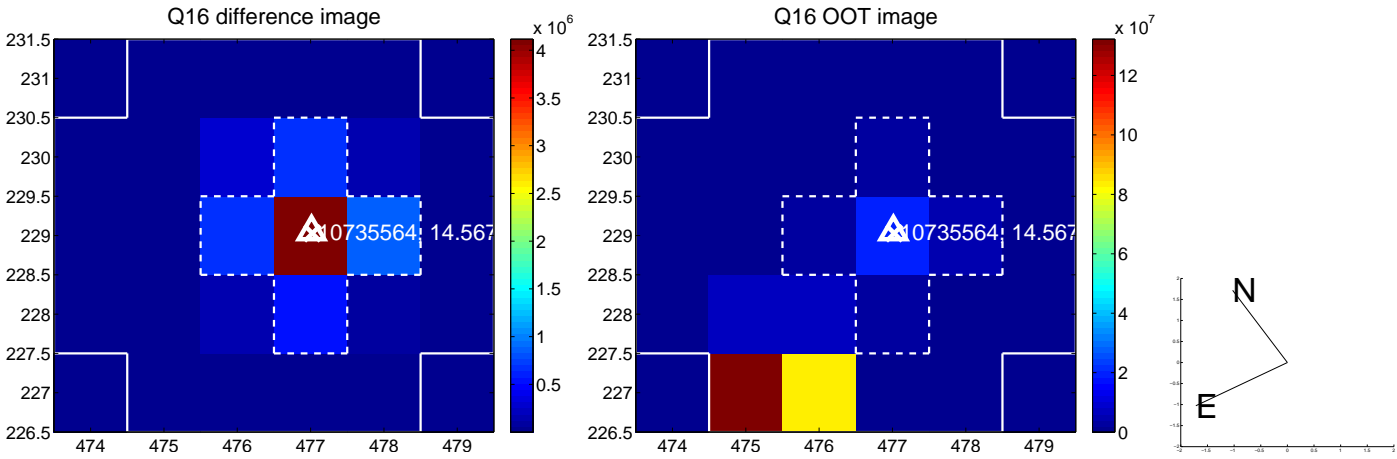
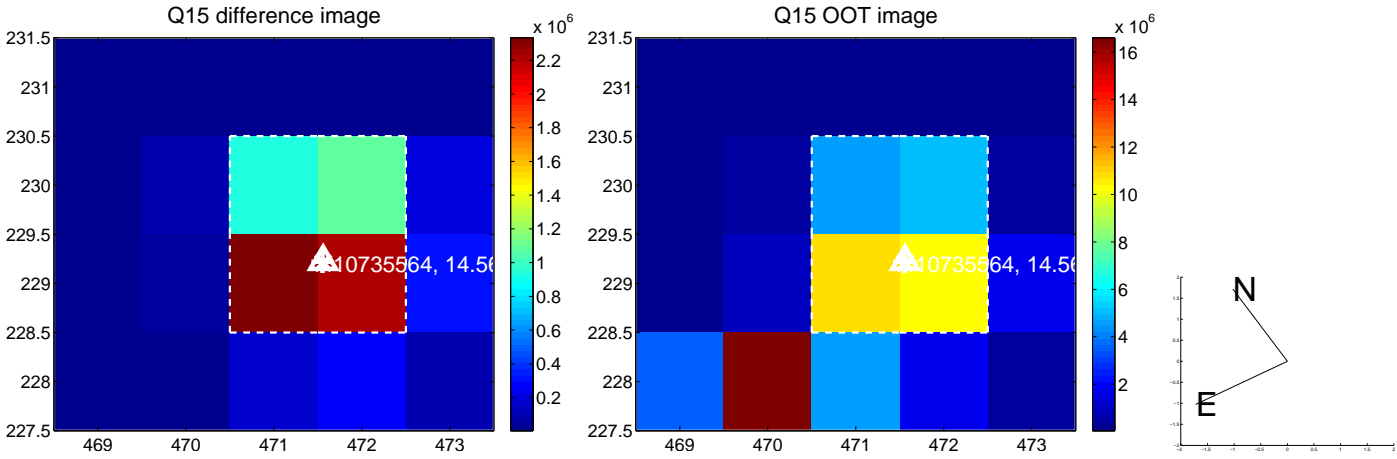
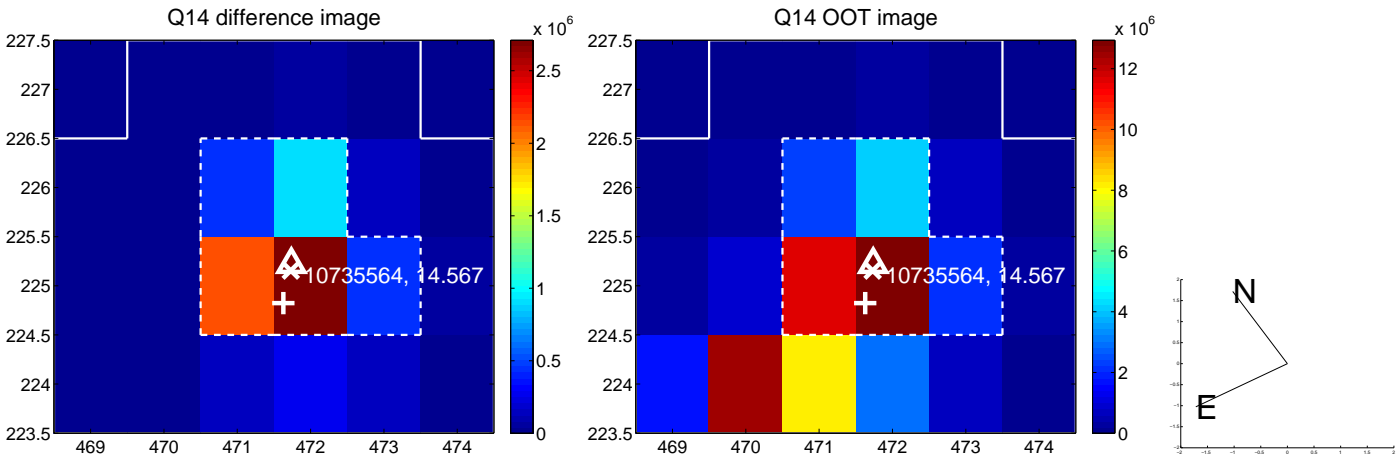
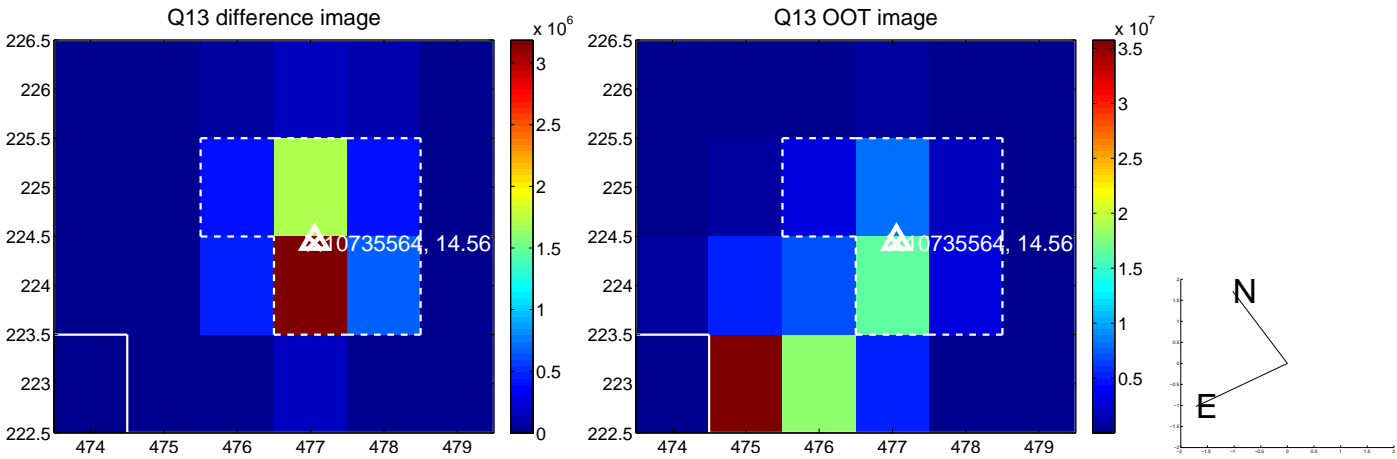
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



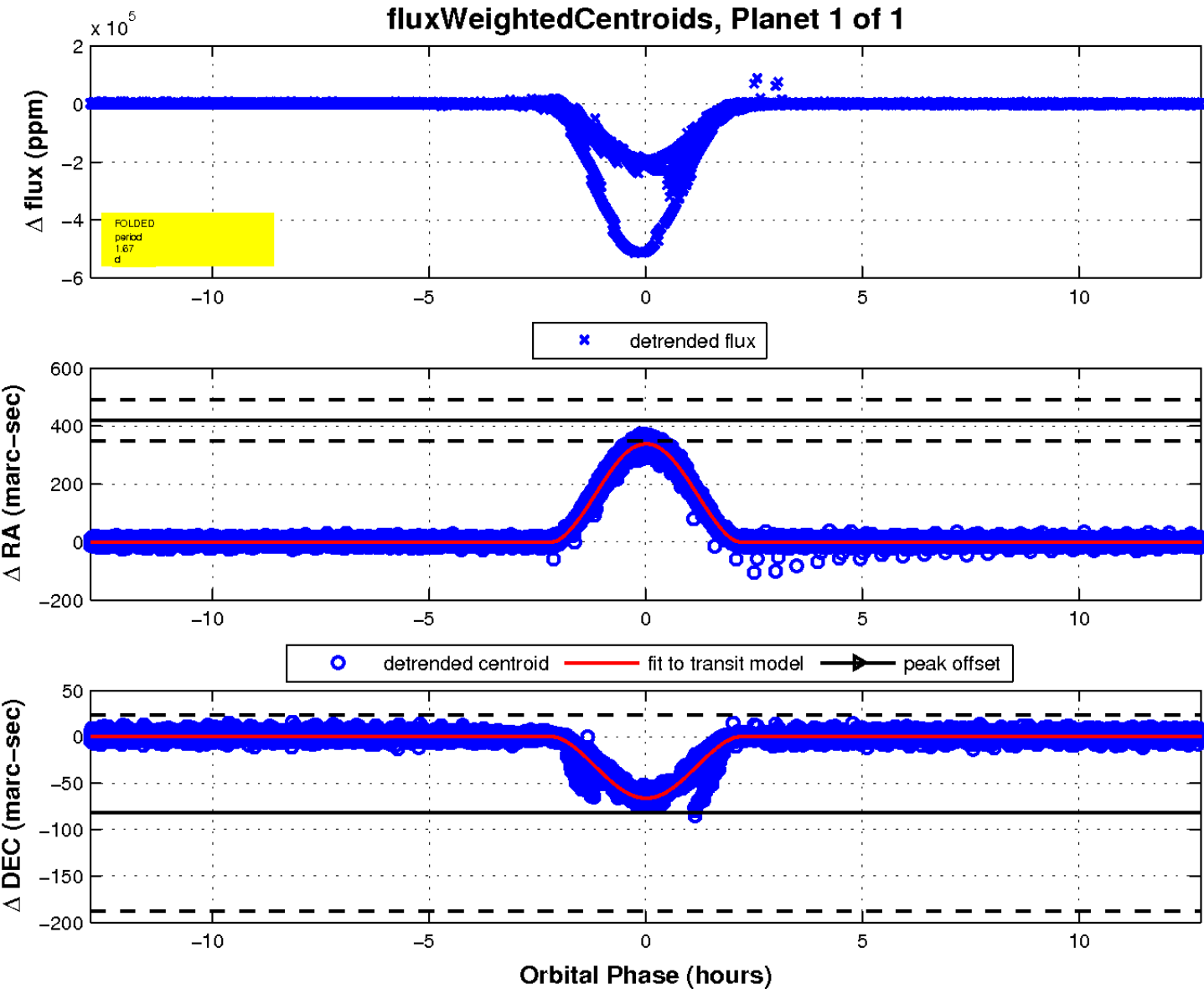
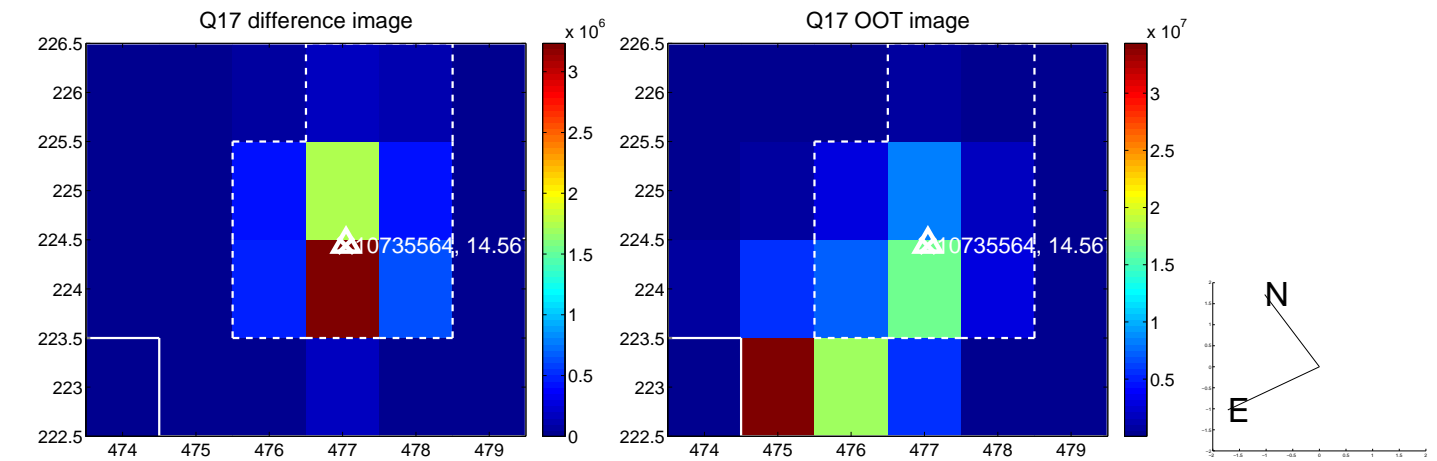
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

