

KIC 006342968

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})
006342968-01	OBS	No	459.755213	173.421491	230.6	22.741	10.4	6.0	0.72	5808	1.22	0.45

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006342968-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—LPP_DV—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_FEW_DIFFS

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

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

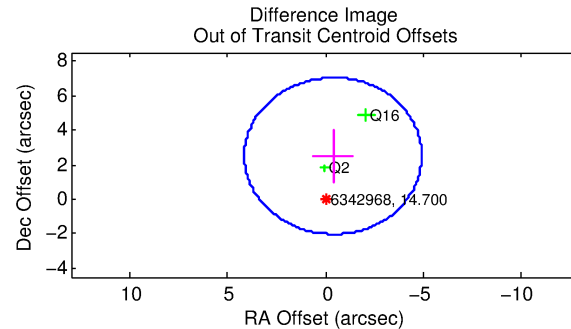
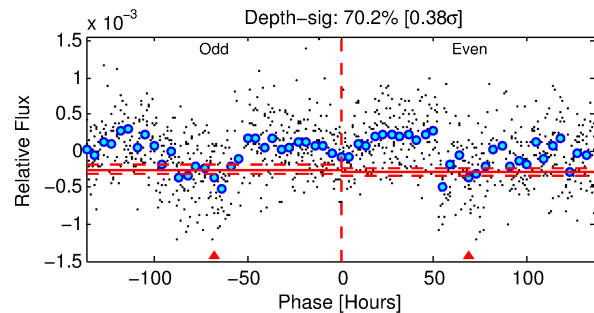
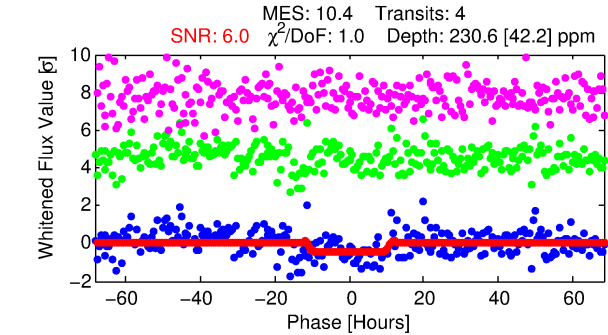
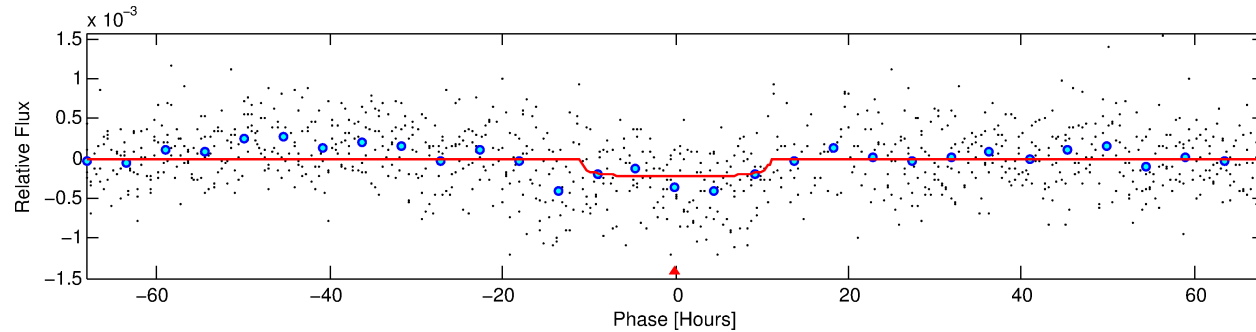
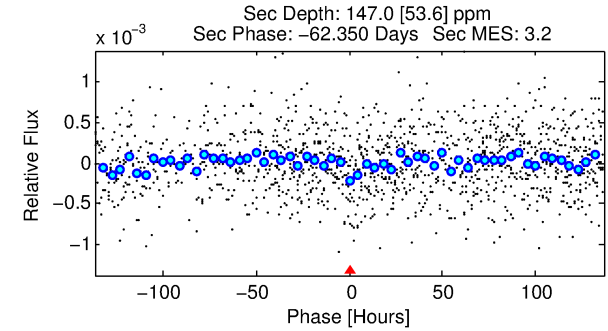
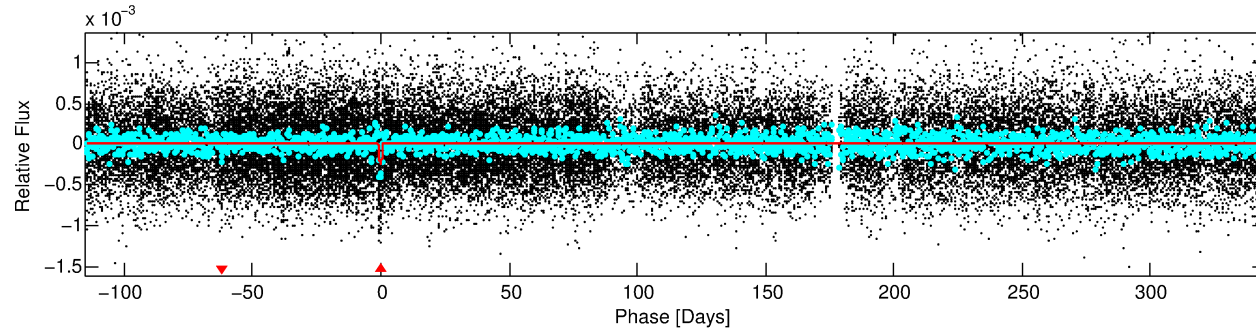
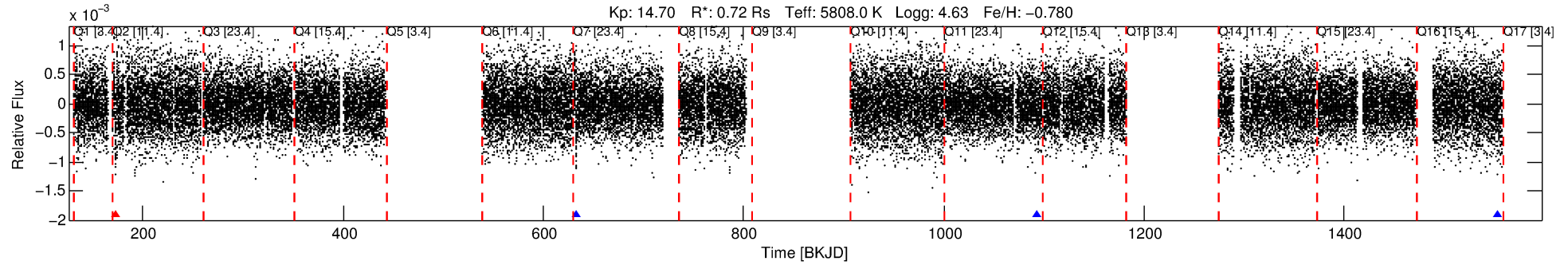
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006342968-01

No Significant Match Found

DV One-Page Summary

KIC: 6342968 Candidate: 1 of 1 Period: 459.755 d



DV Fit Results:

Period = 459.75521 [0.02734] d
Epoch = 173.4215 [0.0488] BKJD
Rp/R* = 0.0156 [0.0047]
a/R* = 91.09 [133.07]
b = 0.83 [0.56]
Seff = 0.45 [0.12]
Teff = 209 [14] K
Rp = 1.22 [0.44] Re
a = 1.0838 [0.1835] AU
Ag = 63388.53 [47110.03] [1.35 σ]
Teffp = 5123 [908] K [5.41 σ]

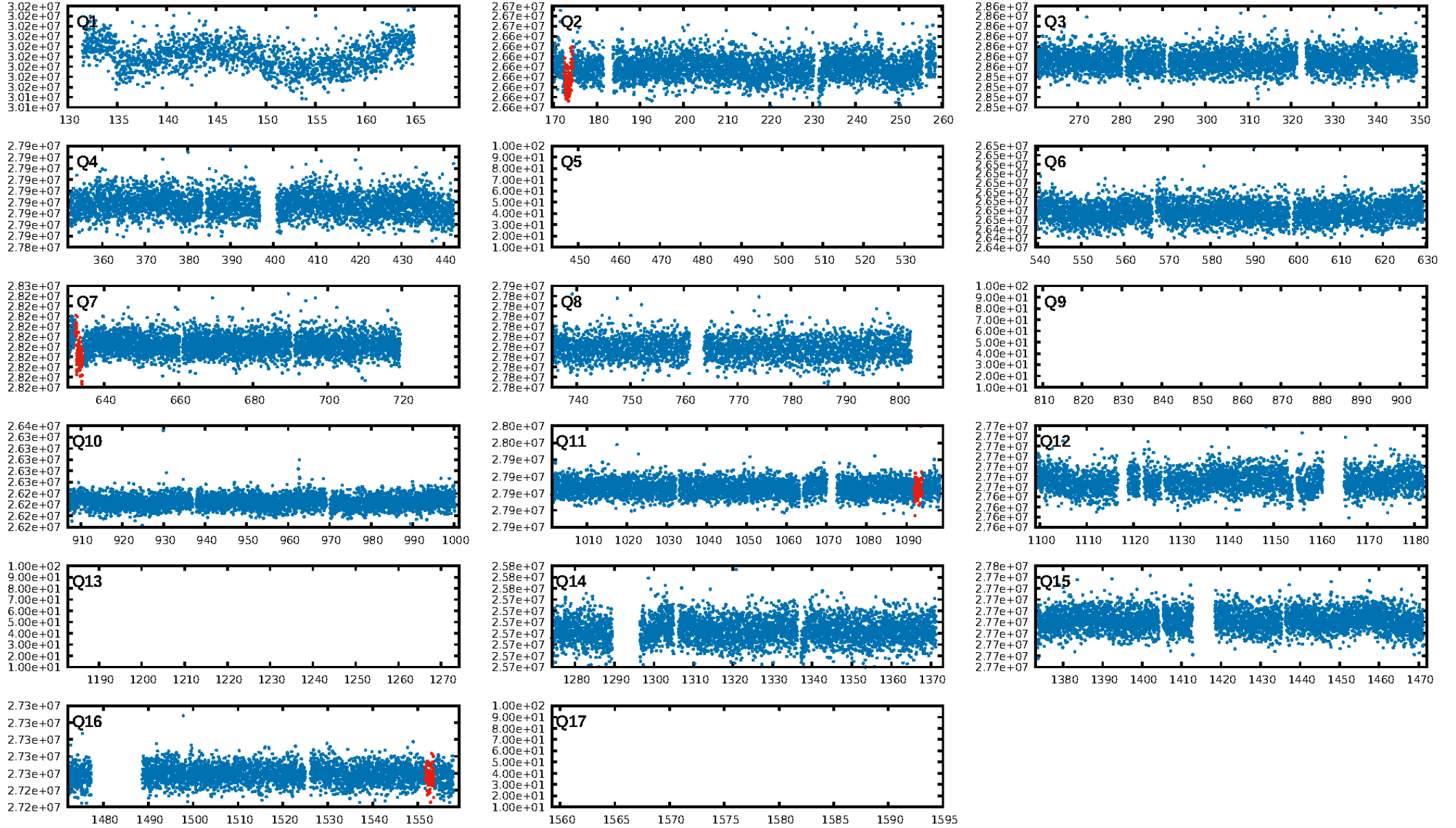
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 99.8%
Bootstrap-pfa: 3.97e-24
RollingBand-fgt: 0.75 [3/4]
GhostDiagnostic-chr: 0.5547
Centroid-sig: 30.6%
Centroid-so: 1.870 arcsec [0.80 σ]
OotOffset-rm: 2.535 arcsec [1.68 σ]
KicOffset-rm: 2.641 arcsec [1.79 σ]
OotOffset-st: 1/0/1/0 [2]
KicOffset-st: 1/0/1/0 [2]
DiffImageQuality-fgm: 0.50 [1/2]
DiffImageOverlap-fno: 1.00 [2/2]

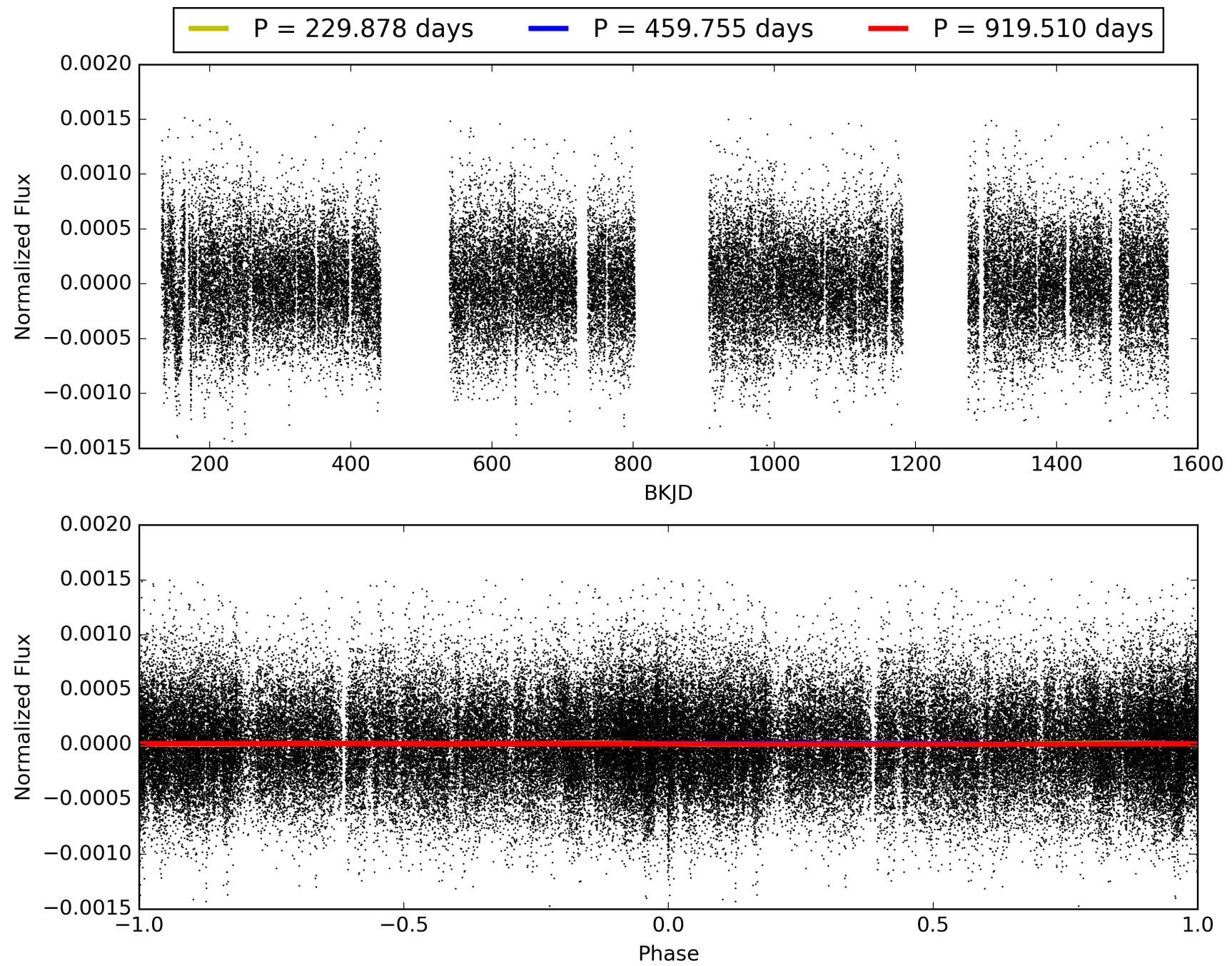
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 23:24:10 Z

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

TCE 006342968-01, PDC Light Curves

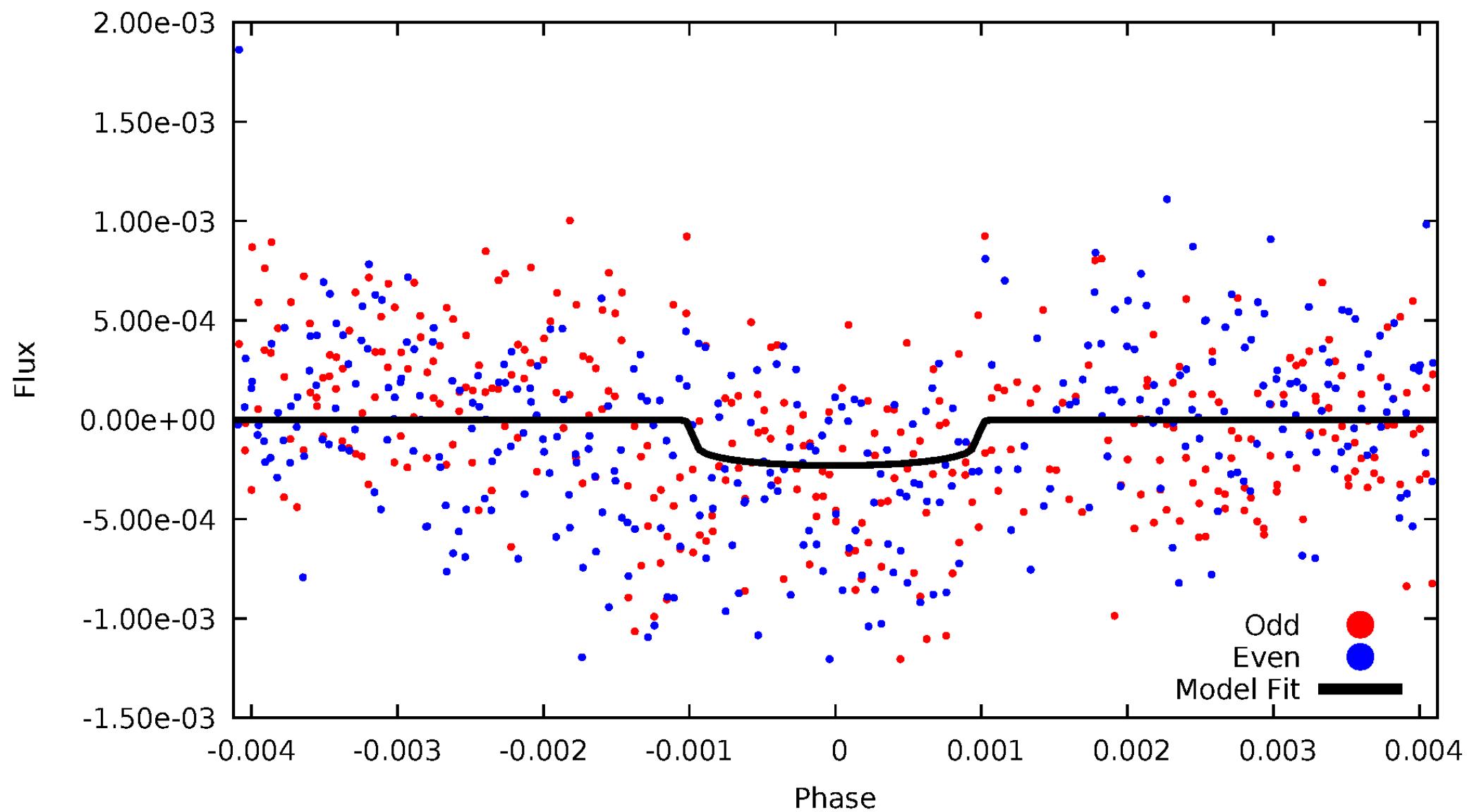


TCE 006342968-01



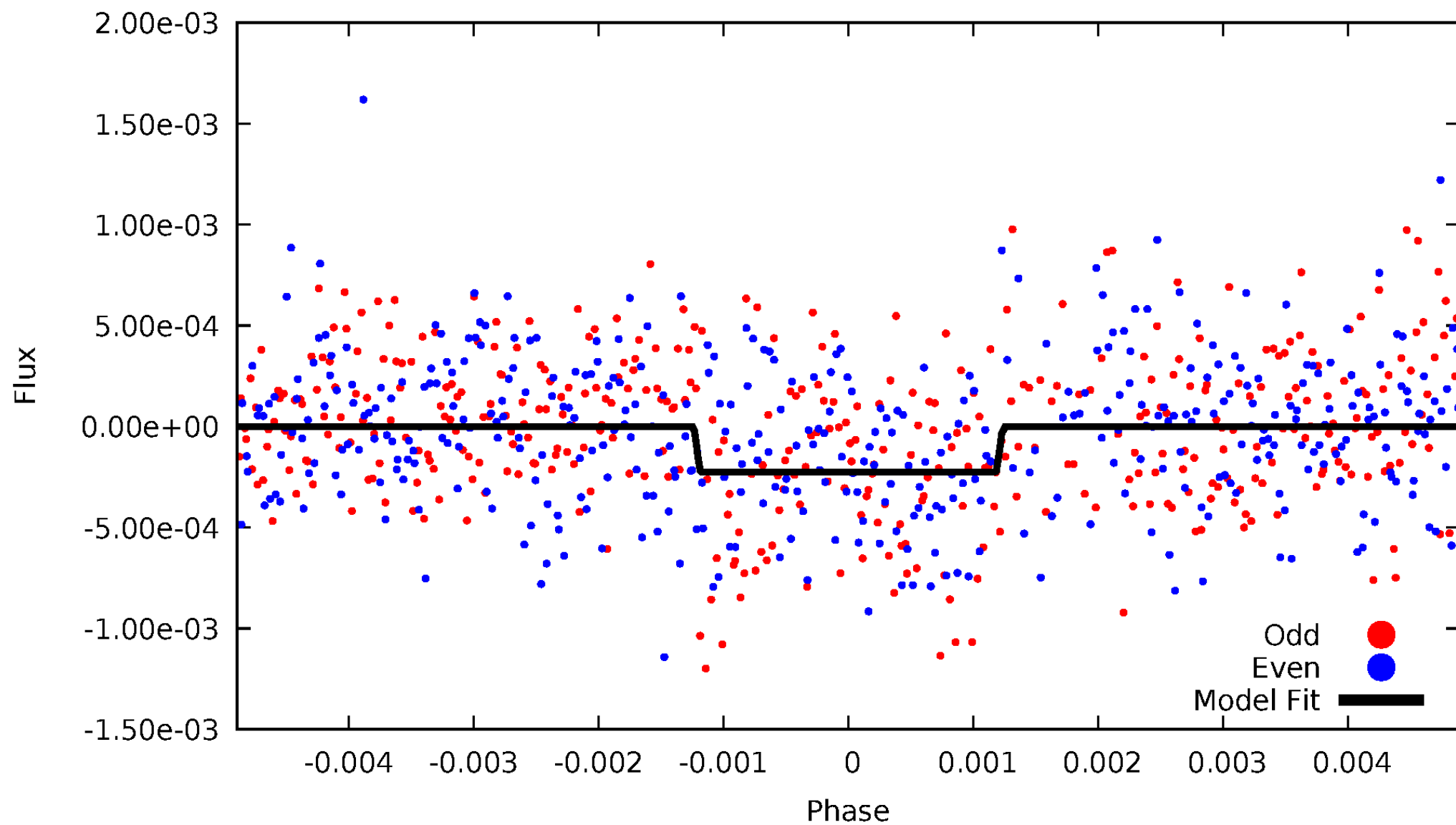
DV Odd/Even

TCE 006342968-01



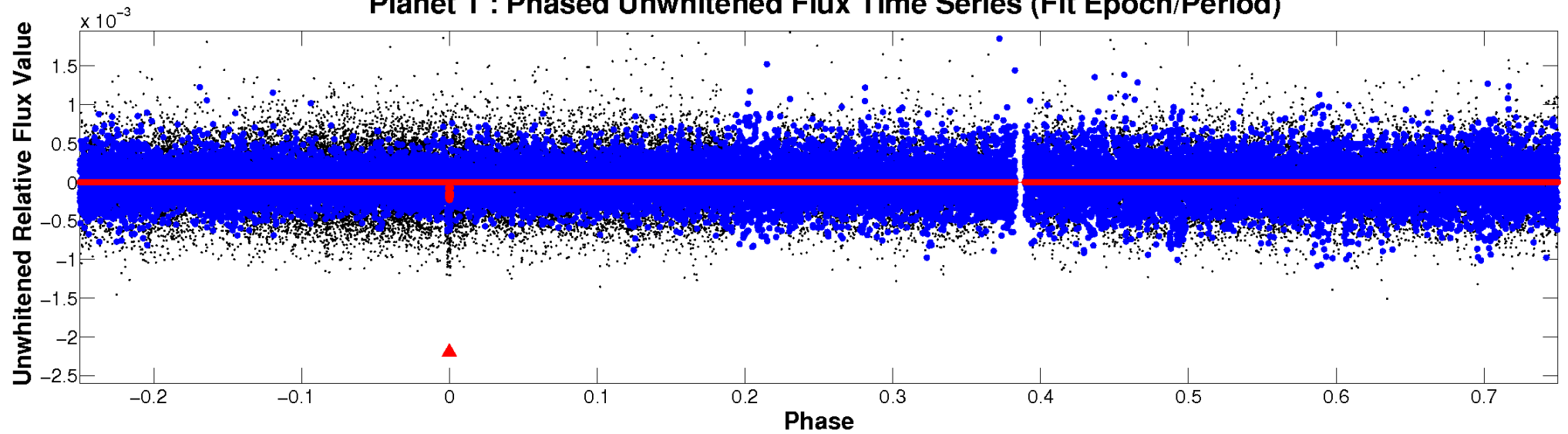
ALT Odd/Even

TCE 006342968-01

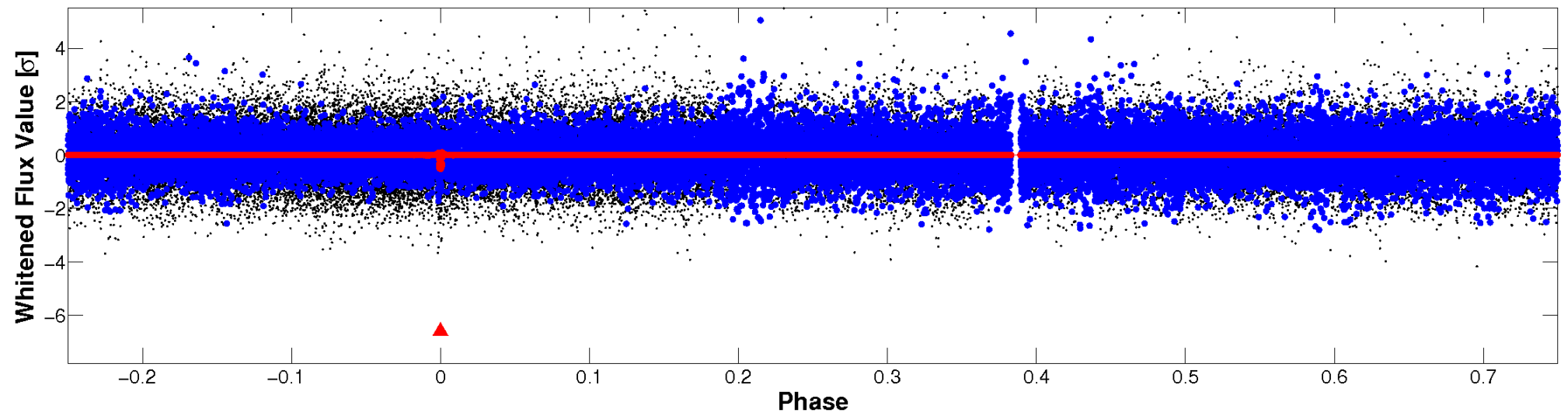


Non-Whitened Vs. Whitened Light Curve

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

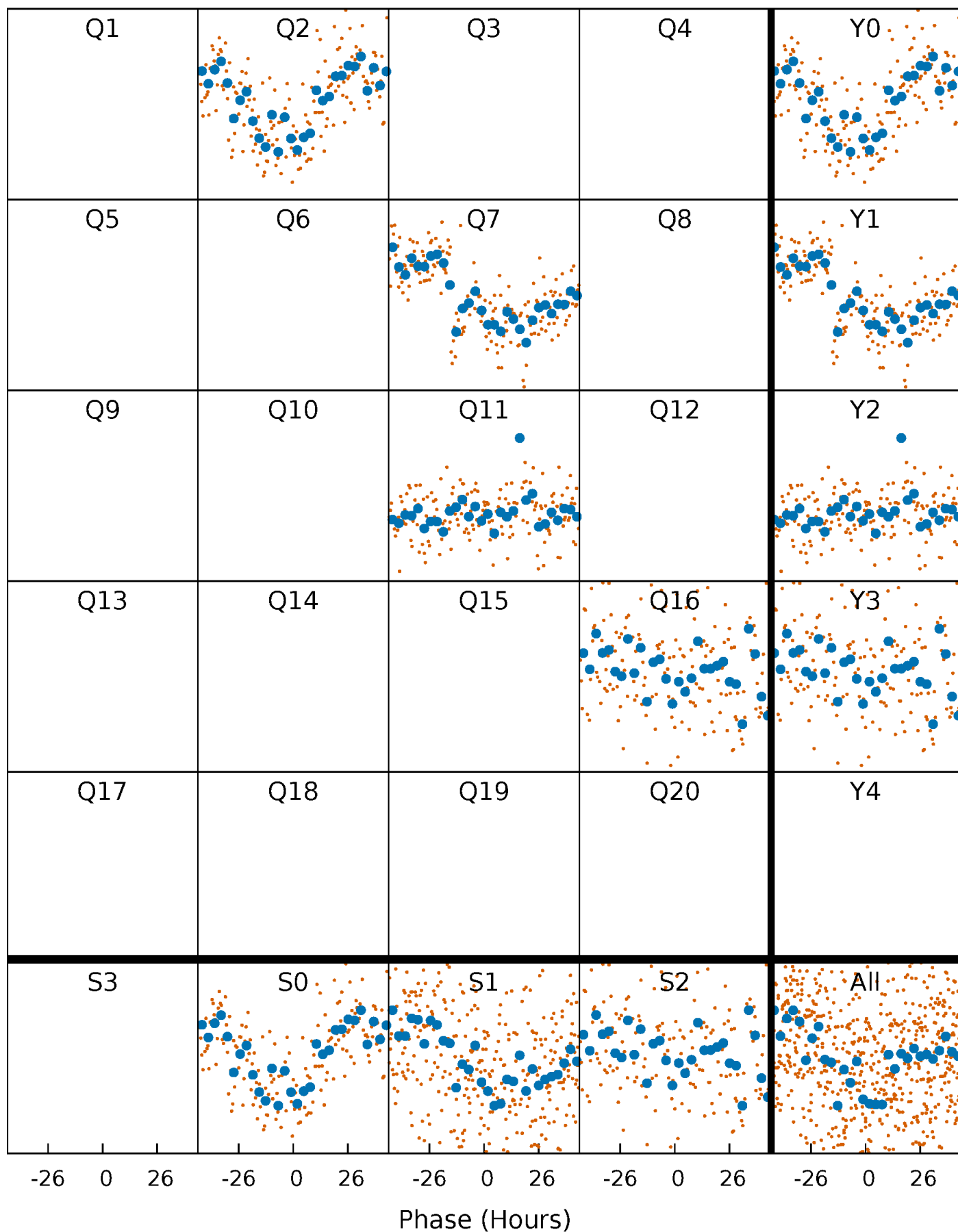


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



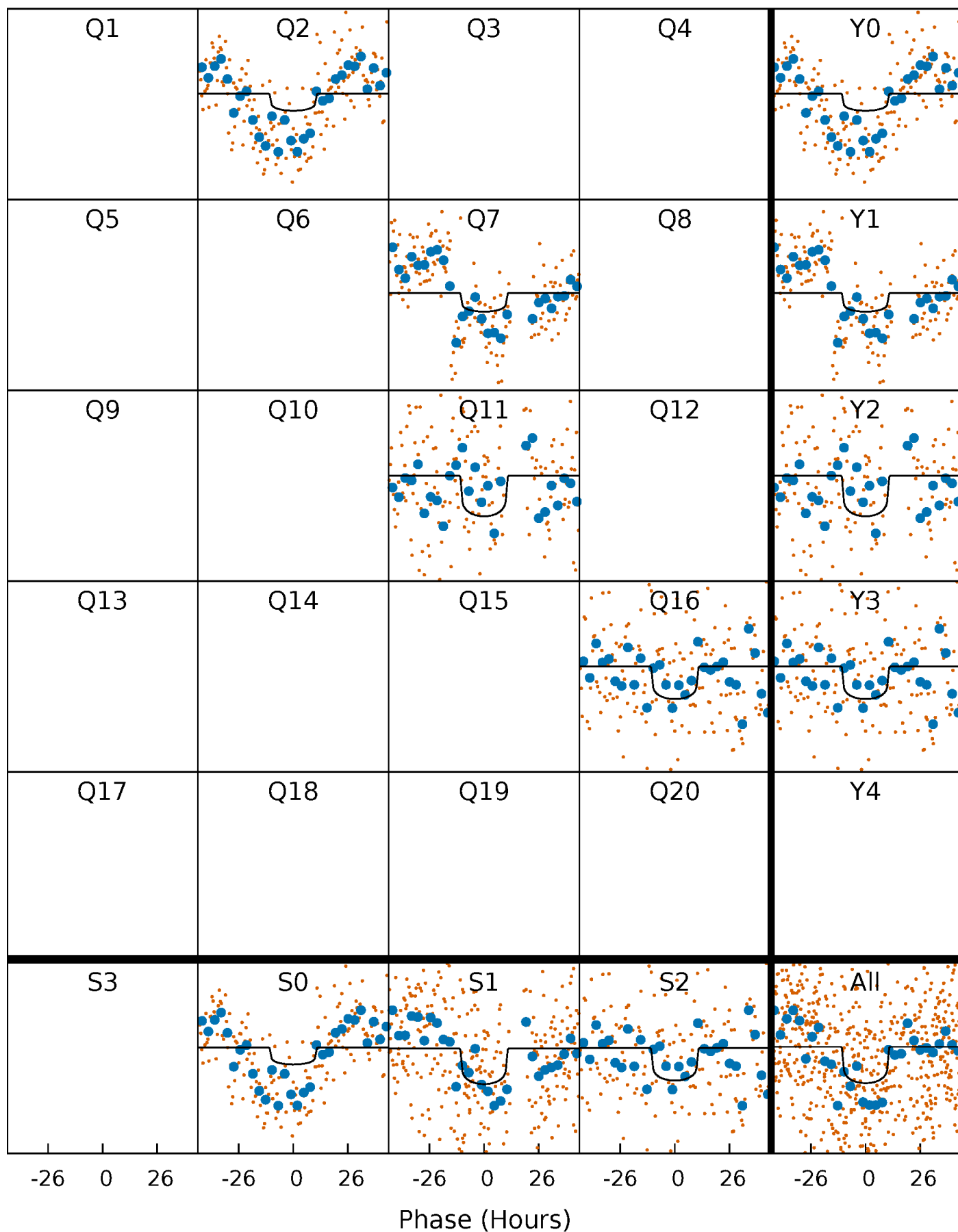
PDC Quarter-Phased Transit Curves

TCE 006342968-01 P=459.755213 Days $T_0=173.421491$ (BKJD)



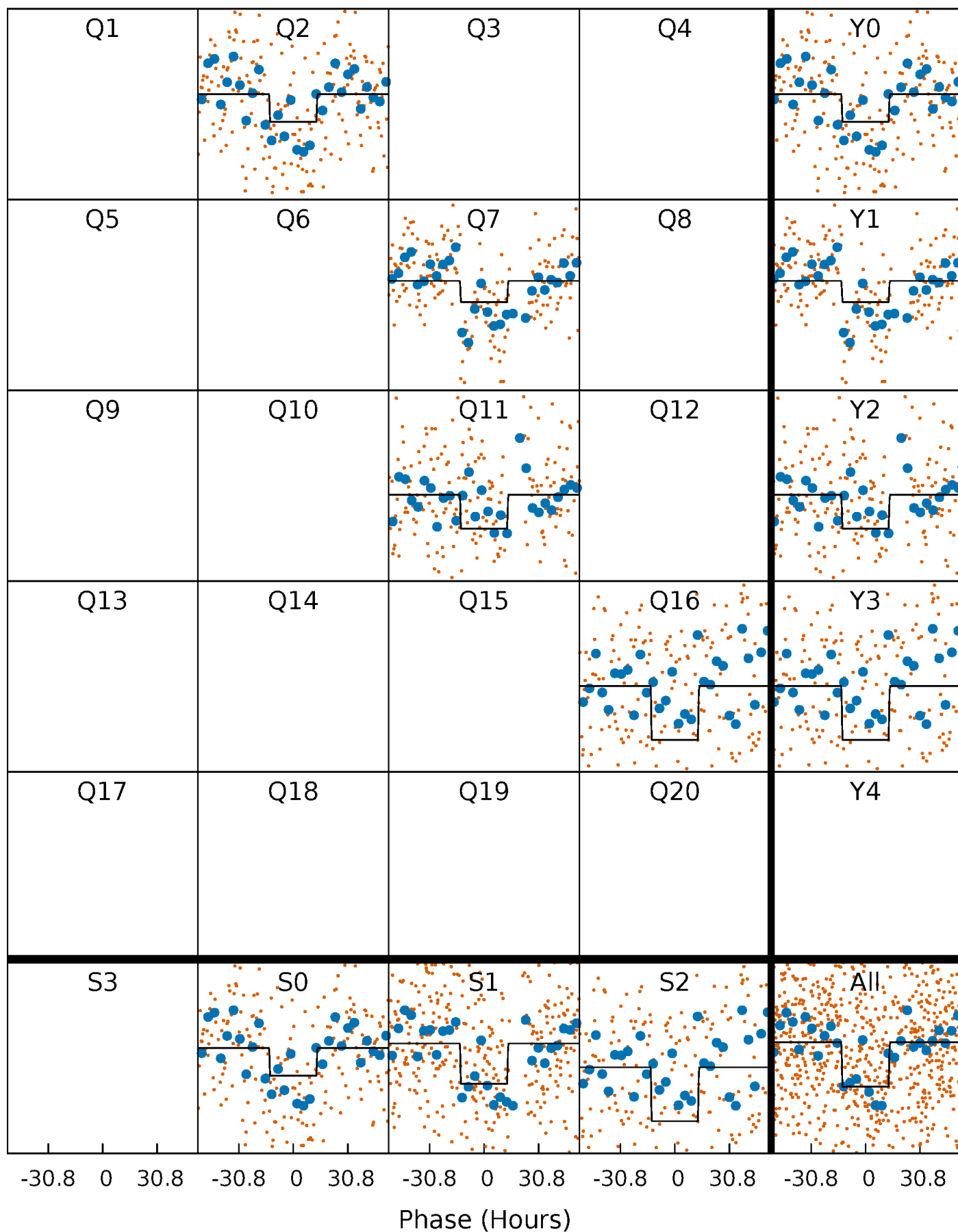
DV Quarter-Phased Transit Curves

TCE 006342968-01 P=459.755213 Days $T_0=173.421491$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

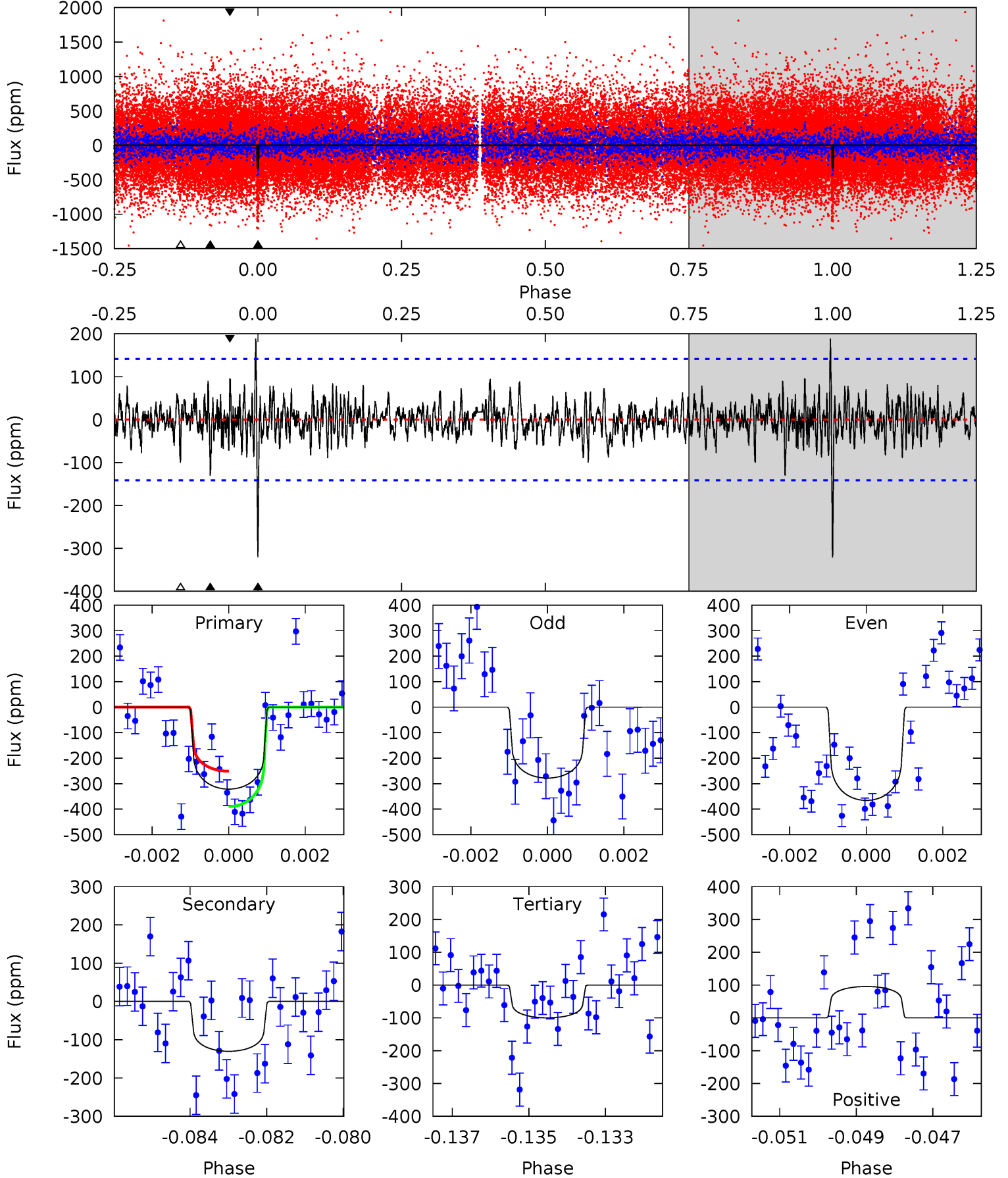
TCE 006342968-01 P=459.741478 Days $T_0=173.328522$ (BKJD)



DV Model-Shift Uniqueness Test

006342968-01, P = 459.755213 Days, E = 173.421491 Days

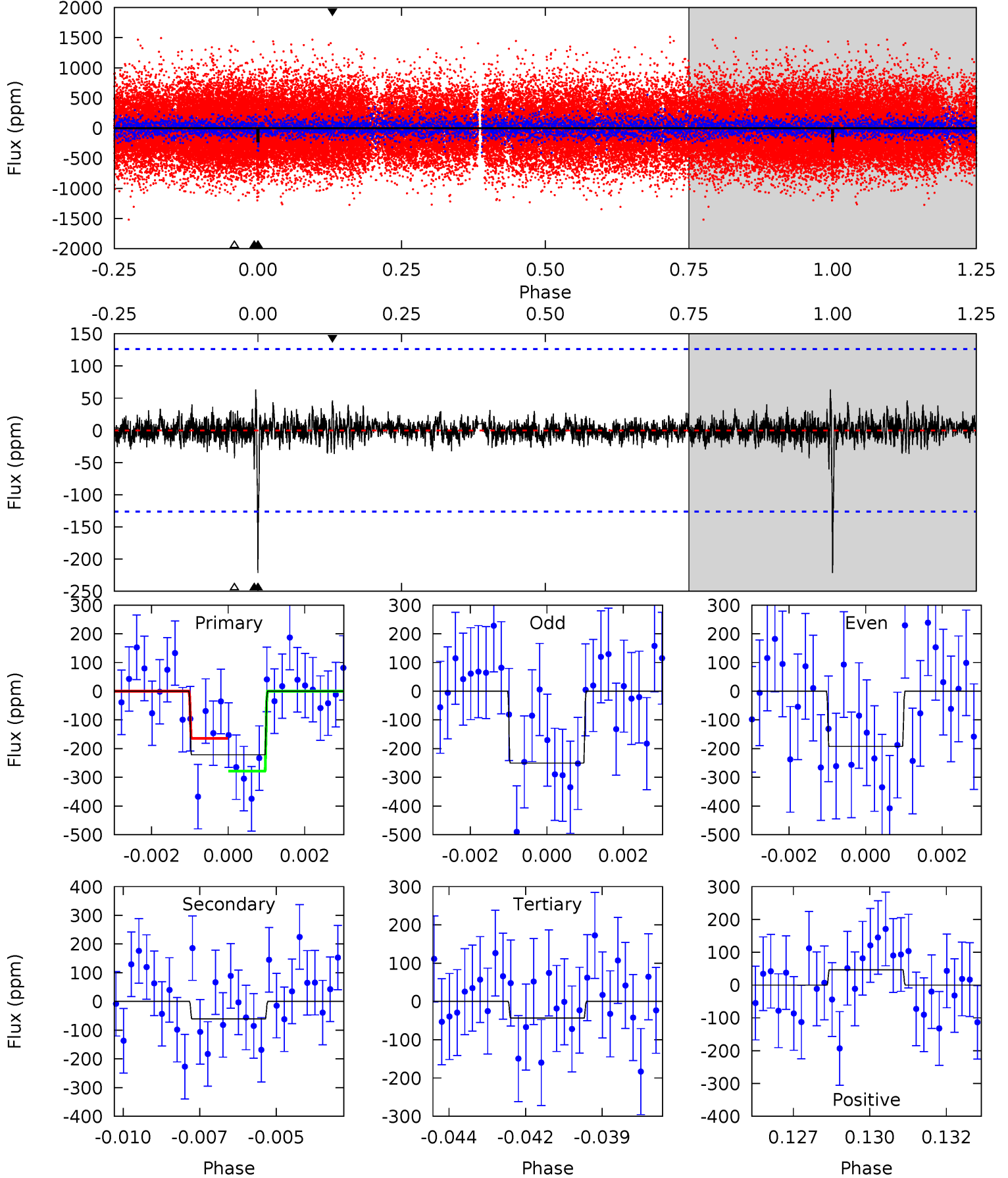
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.1	4.90	3.76	3.60	5.32	3.08	1.20	8.32	8.49	1.14	1.30	1.64	1.16	0.37	2.61



Alt Model-Shift Uniqueness Test

006342968-01, P = 459.741478 Days, E = 173.328522 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.29	2.53	1.81	1.95	5.29	3.03	0.46	7.48	7.34	0.72	0.58	1.22	1.15	0.22	2.40



Stellar Parameters For KIC 006342968

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5808^{+156}_{-156}	$4.628^{+0.034}_{-0.136}$	$-0.780^{+0.300}_{-0.300}$	$0.720^{+0.144}_{-0.045}$	$0.809^{+0.063}_{-0.077}$	$3.056^{+0.416}_{-1.158}$
	+3%/-3%	+1%/-3%	+38%/-38%	+20%/-6%	+8%/-10%	+14%/-38%
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 006342968-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-130 ± 27	$1.26^{+0.40}_{-0.39}$	295^{+14}_{-10}	4990^{+913}_{-535}	50795^{+52564}_{-22620}
Alt.	-60 ± 24	$1.22^{+0.38}_{-0.35}$	297^{+15}_{-11}	4371^{+761}_{-565}	25765^{+28727}_{-13683}

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

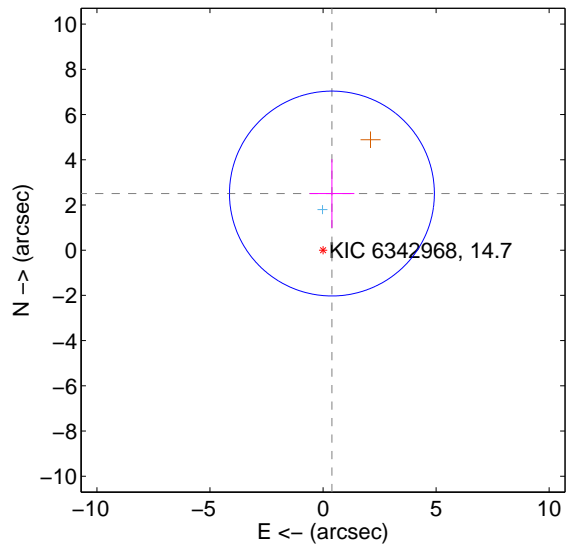
Supplemental centroid analysis for 006342968-01. Kepler magnitude: 14.70. Transit SNR 6.04

There are 1 quarters with good PRF difference image offsets

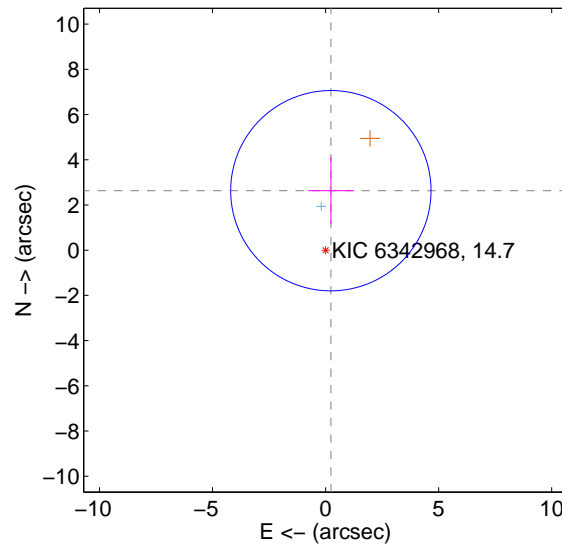
The direct PRF centroid is offset from the target star catalog position by about 0.15 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.535 ± 1.510	1.68	-0.393 ± 0.990	2.505 ± 1.521
PRF-fit source offset from KIC position	2.641 ± 1.476	1.79	-0.233 ± 1.004	2.630 ± 1.480
photometric centroid source offset	1.87 ± 2.35	0.80	0.23 ± 2.62	1.86 ± 2.34

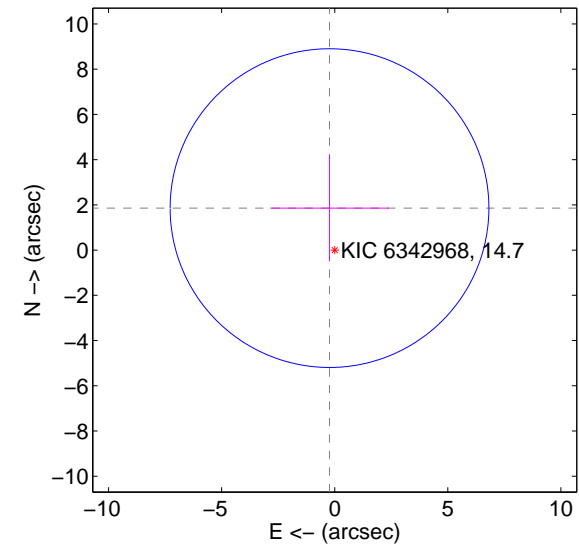
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

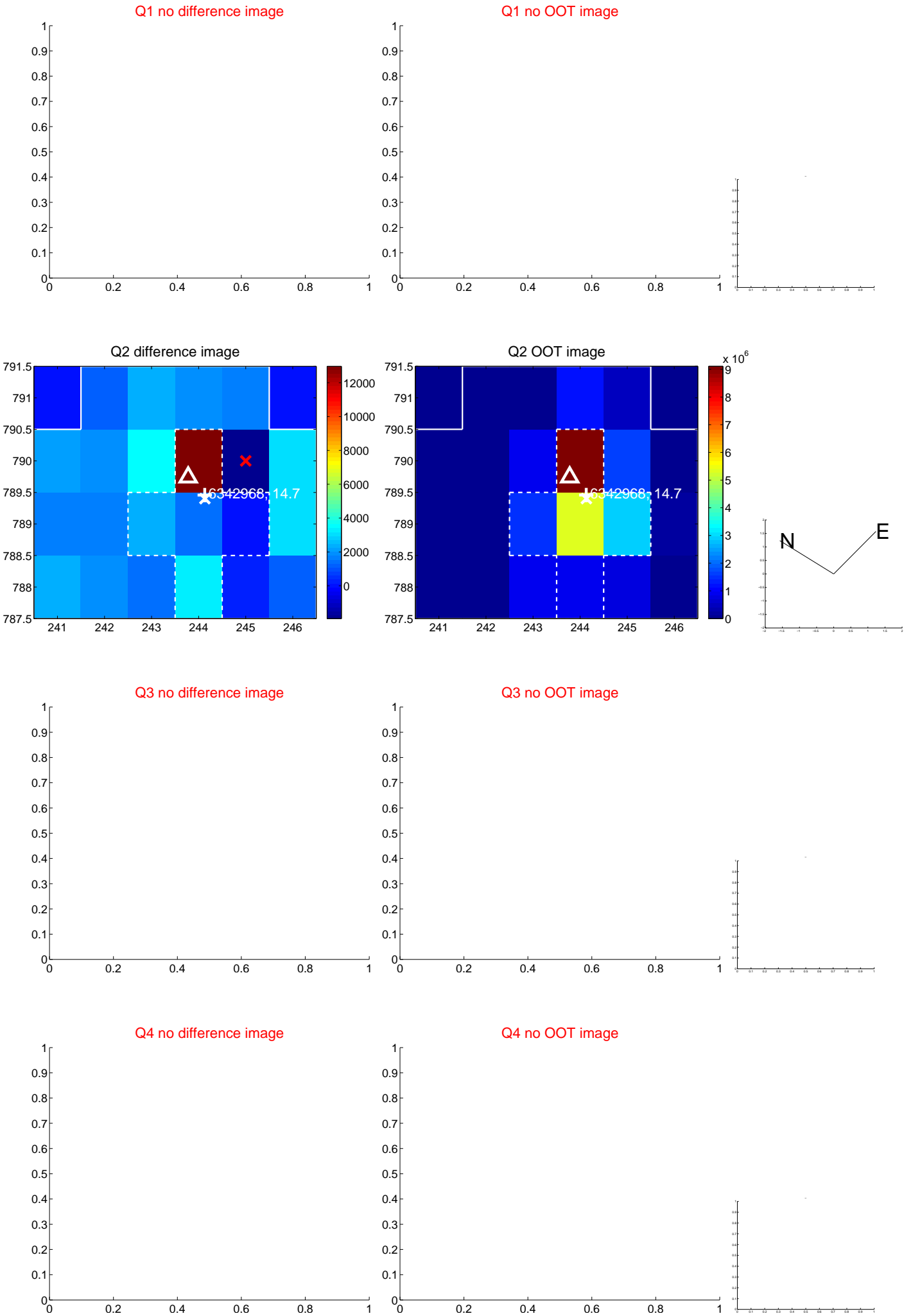


offset from photometric centroids



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.



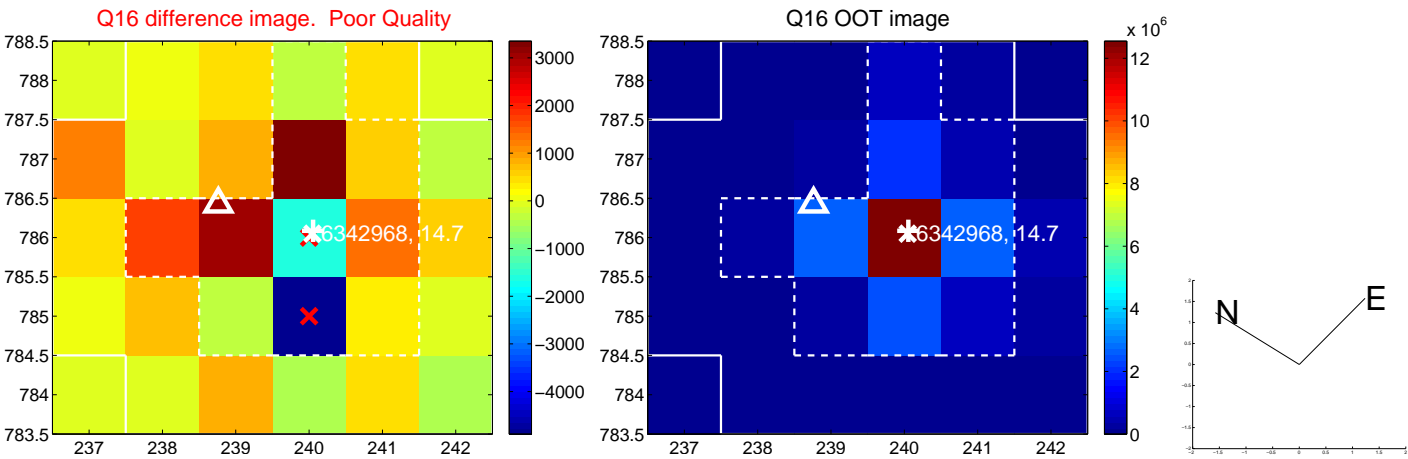
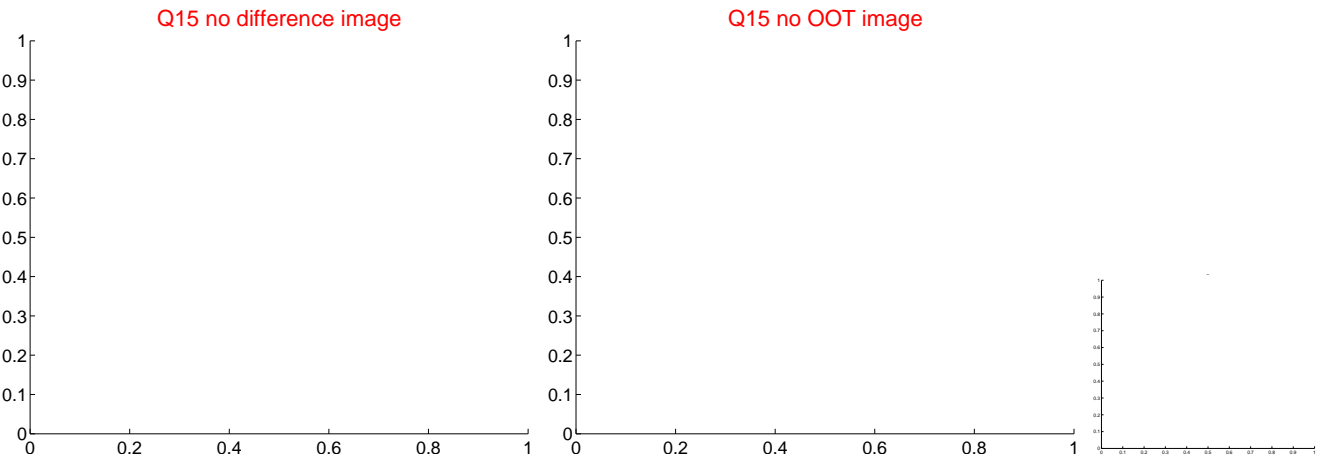
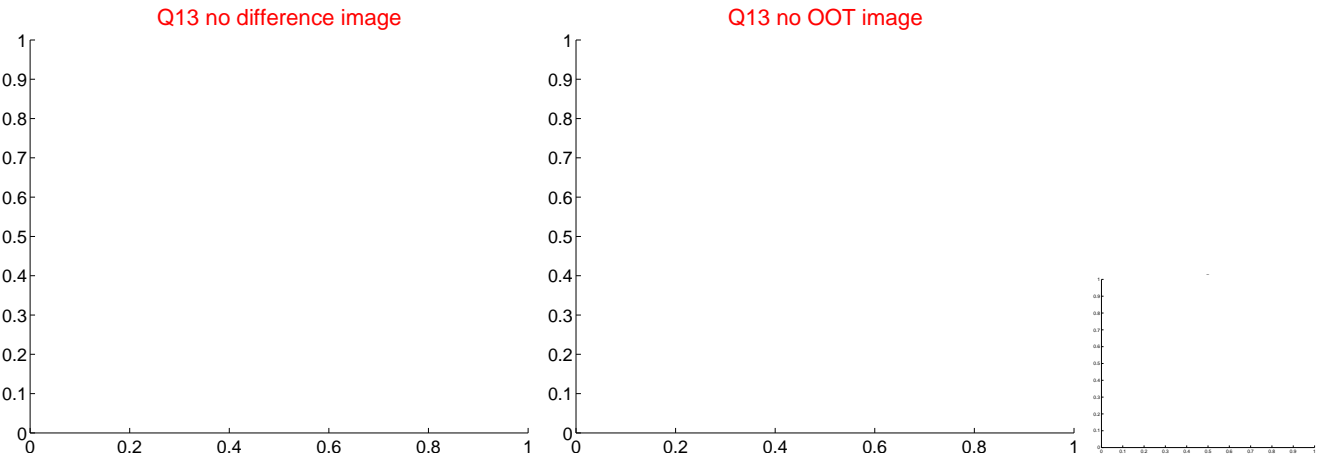
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



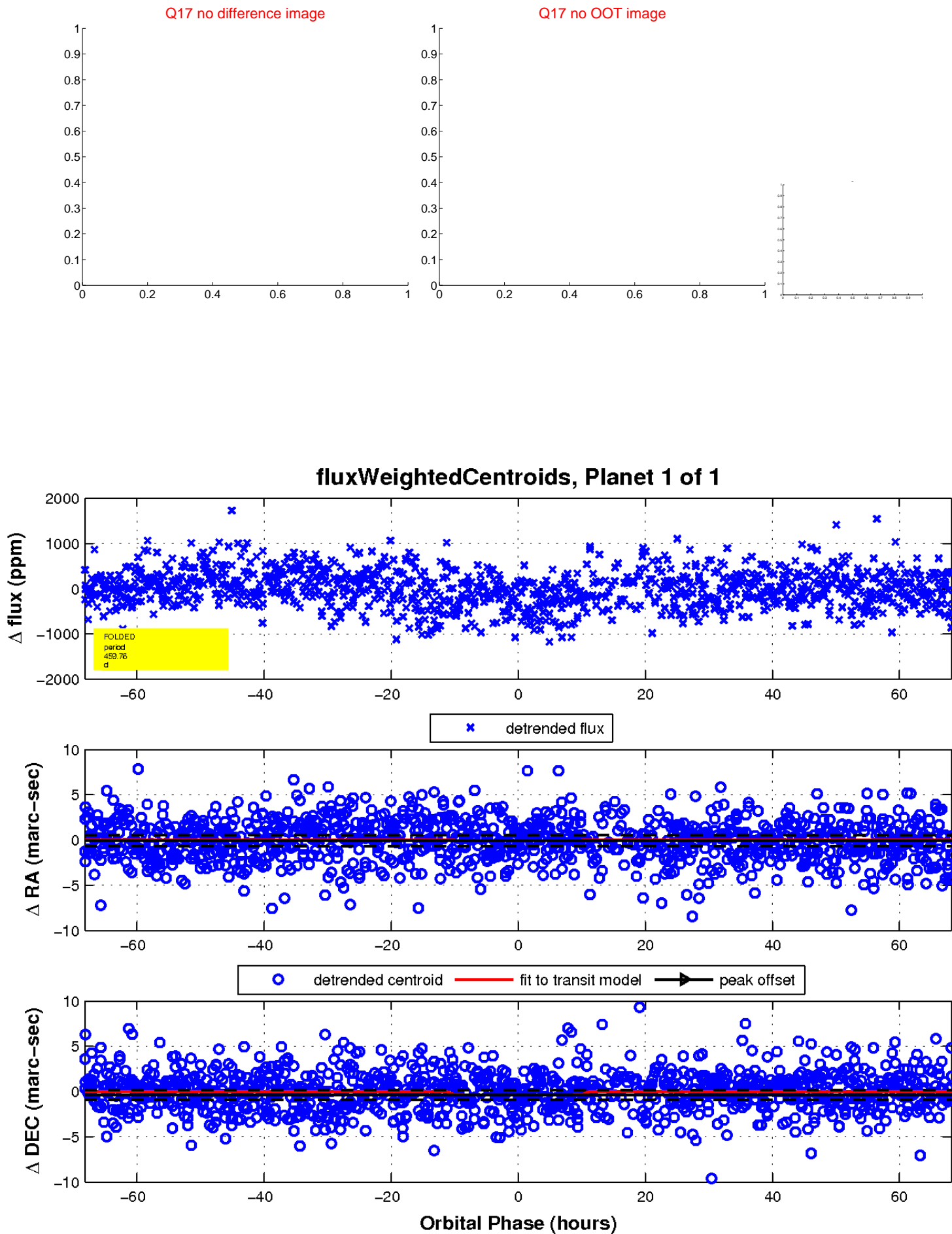
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UKIRT Image

Declination

