

KIC 011302399

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})
011302399-01	OBS	No	341.433745	399.514253	371.6	9.617	8.1	7.2	1.03	6258	2.21	1.51

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011302399-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—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.

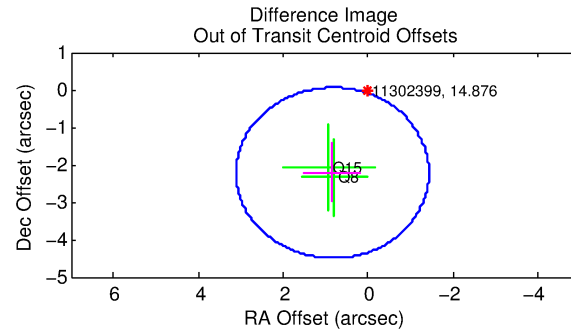
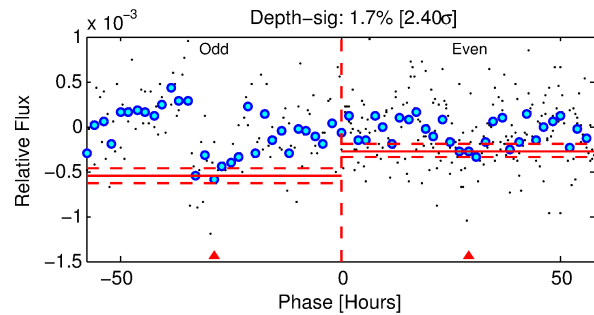
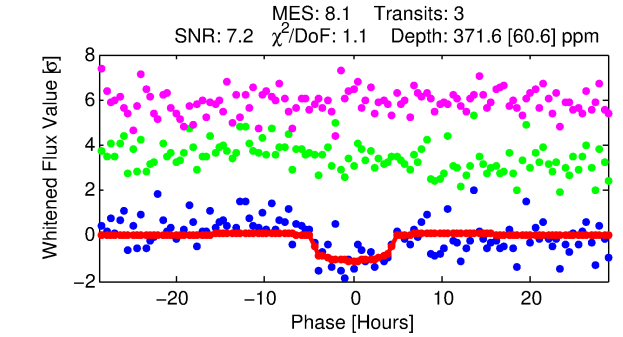
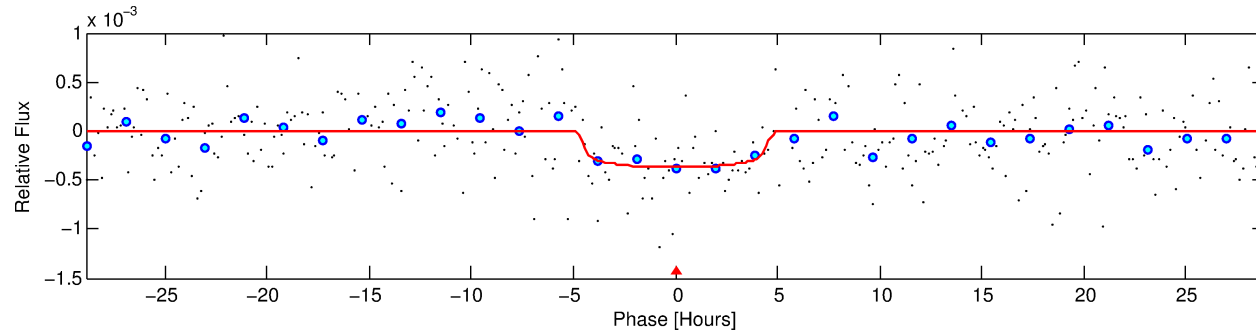
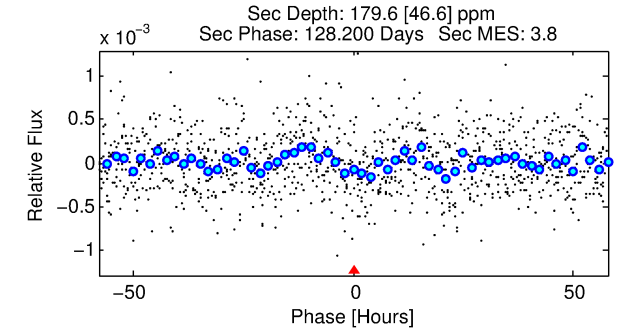
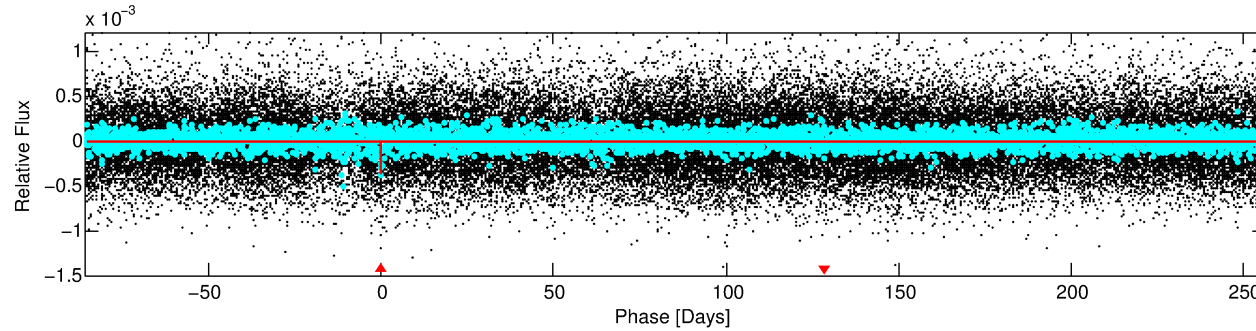
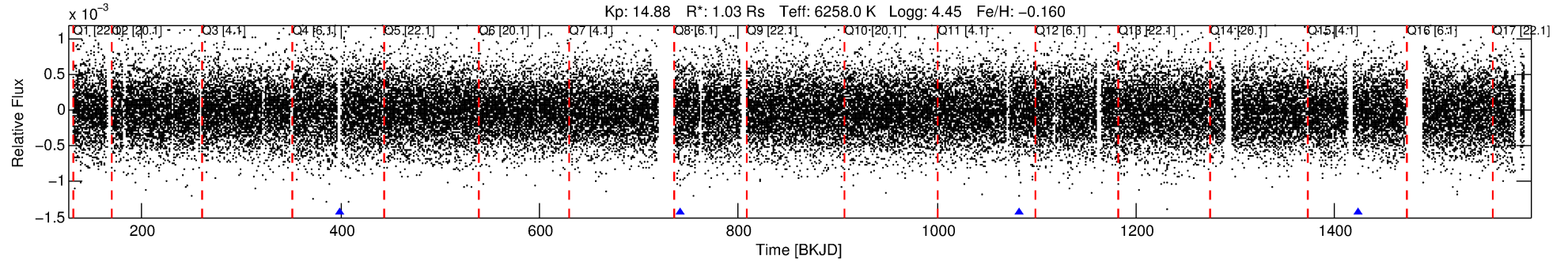
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011302399-01

No Significant Match Found

DV One-Page Summary

KIC: 11302399 Candidate: 1 of 1 Period: 341.434 d



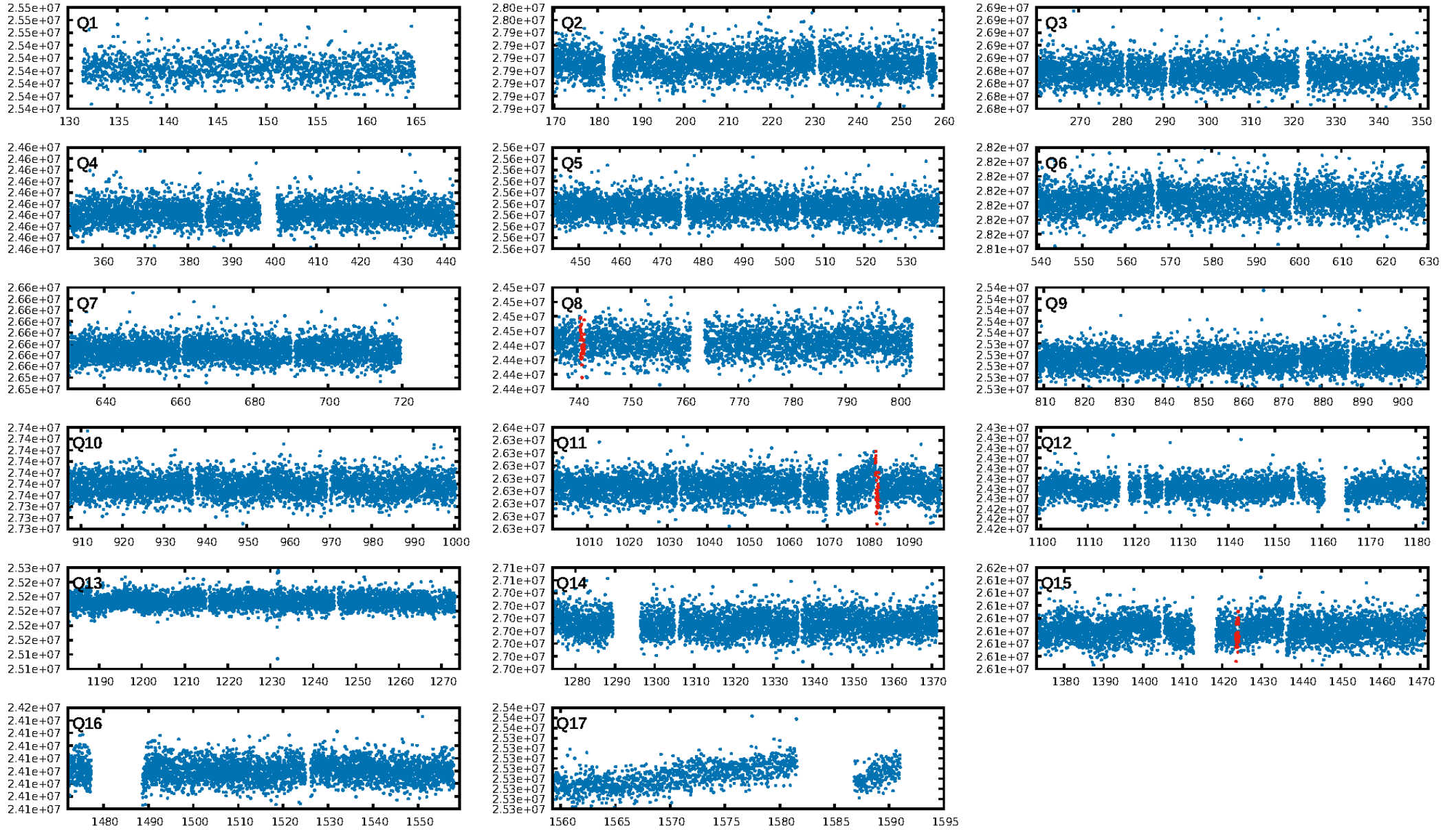
DV Fit Results:

Period = 341.43375 [0.01738] d
Epoch = 399.5143 [0.0396] BKJD
Rp/R* = 0.0196 [0.0092]
a/R* = 168.46 [411.27]
b = 0.81 [1.05]
Seff = 1.51 [0.60]
Teff = 283 [28] K
Rp = 2.21 [1.23] Re
a = 0.9842 [0.2504] AU
Ag = 19676.42 [20563.66] [0.96σ]
Teffp = 5174 [1277] K [3.83σ]

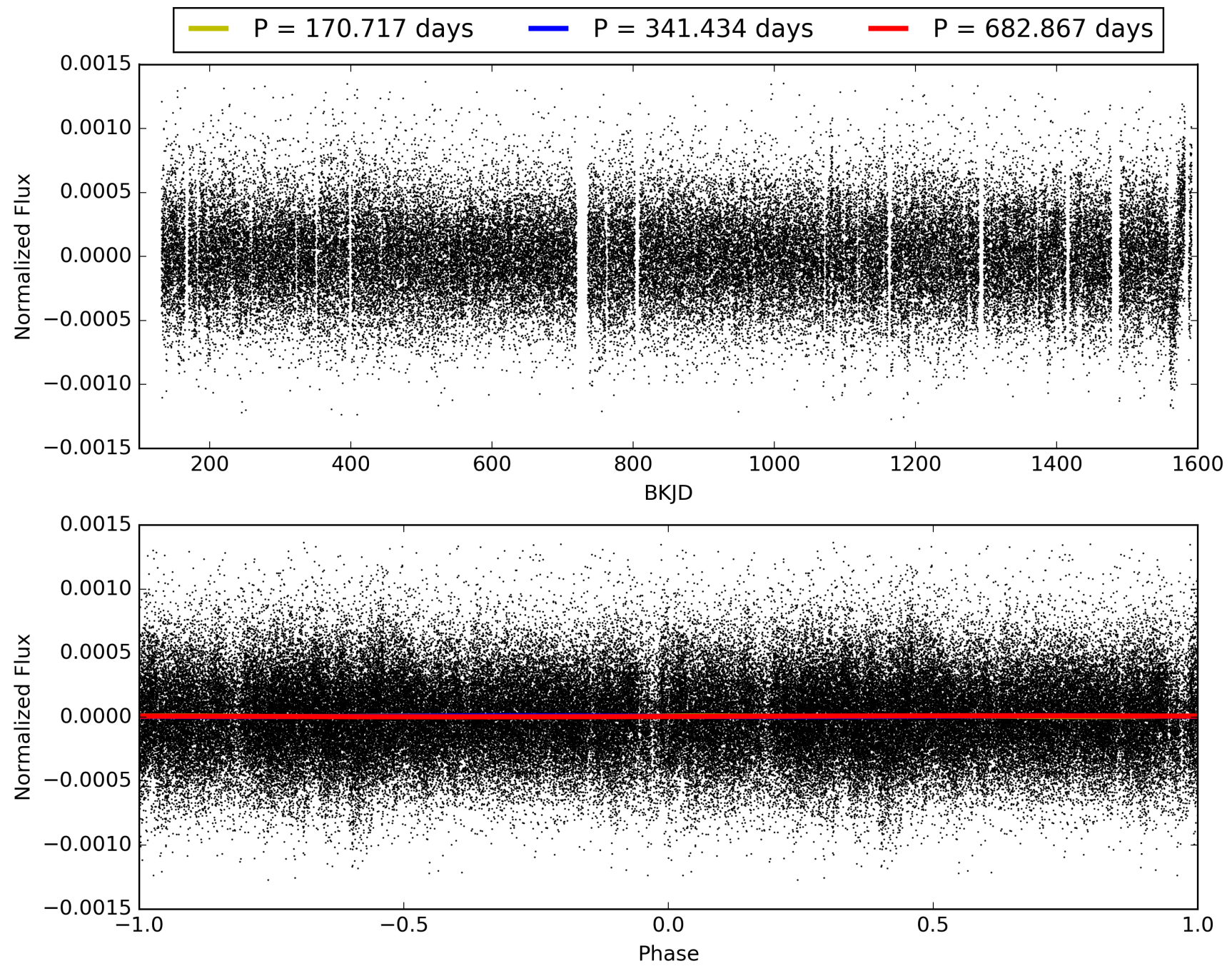
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 9.8%
ModelChiSquareGof-sig: 99.9%
Bootstrap-pfa: 1.79e-15
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -2.336
Centroid-sig: 52.1%
Centroid-so: 1.694 arcsec [0.92σ]
OutOffset-rm: 2.370 arcsec [3.12σ]
KicOffset-rm: 2.268 arcsec [2.99σ]
OutOffset-st: 0/1/1/0 [2]
KicOffset-st: 0/1/1/0 [2]
DiffImageQuality-fgm: 0.50 [1/2]
DiffImageOverlap-fno: 1.00 [2/2]

TCE 011302399-01, PDC Light Curves

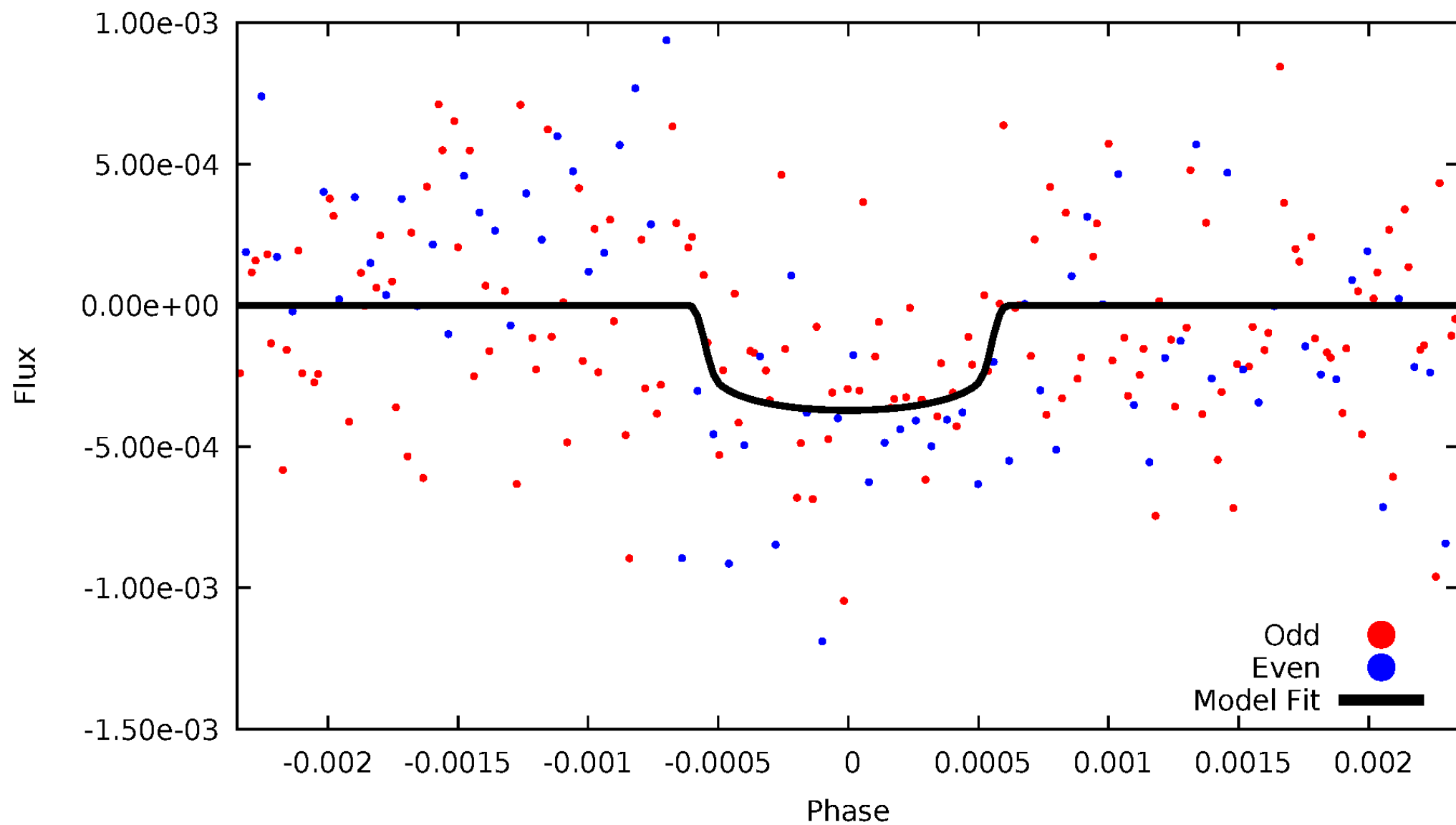


TCE 011302399-01



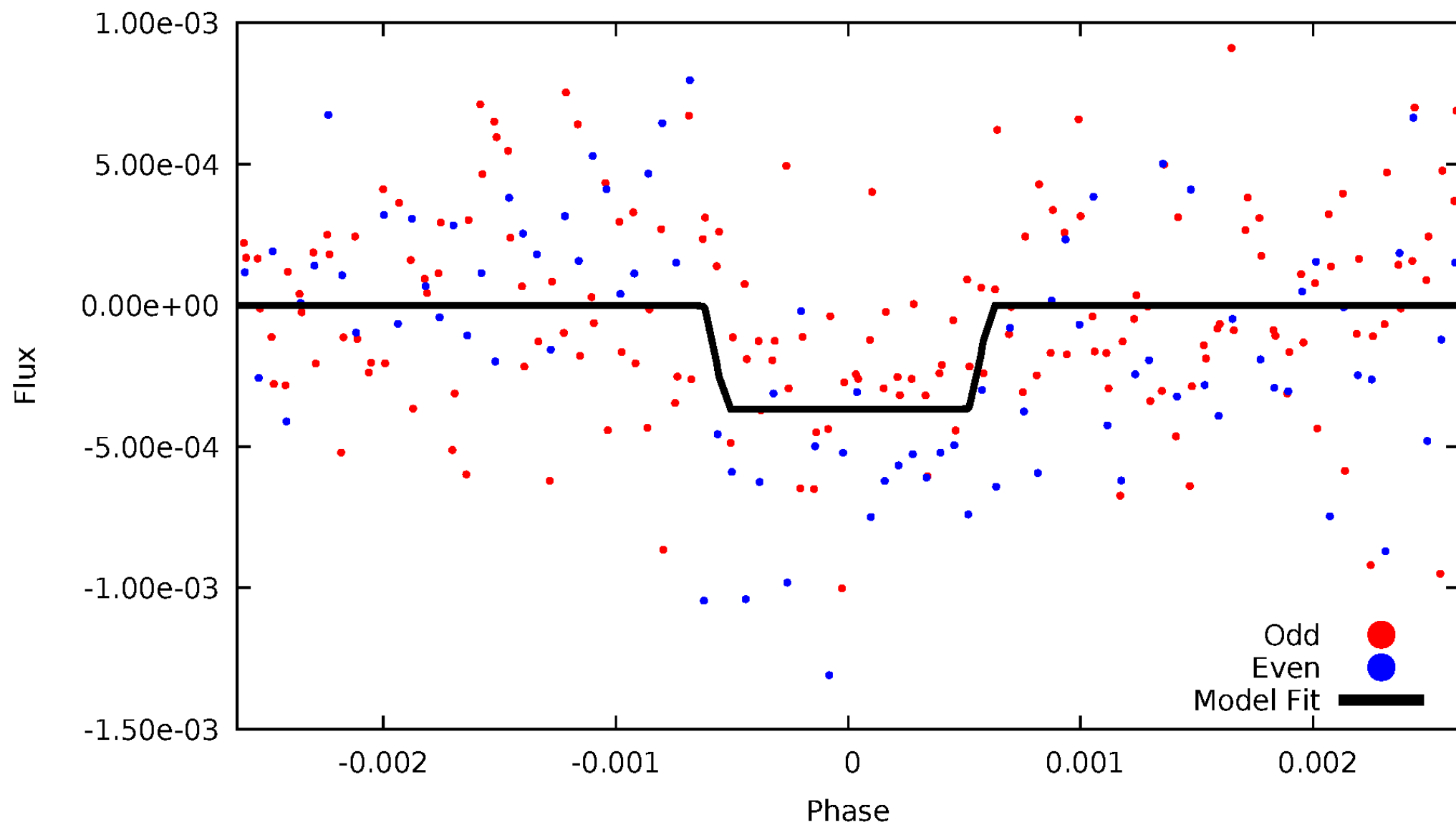
DV Odd/Even

TCE 011302399-01



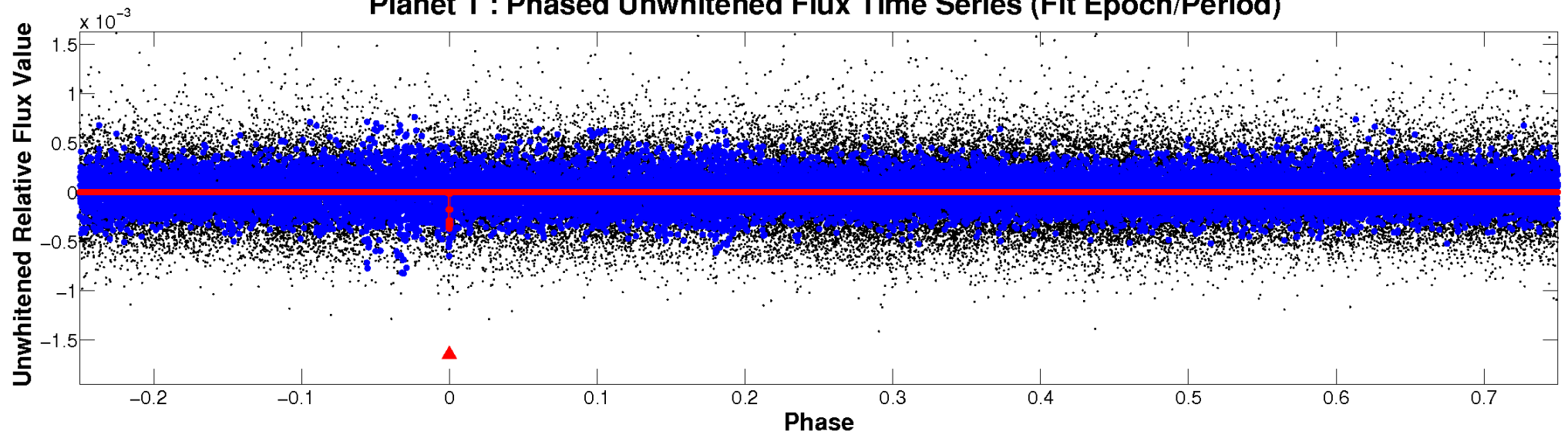
ALT Odd/Even

TCE 011302399-01

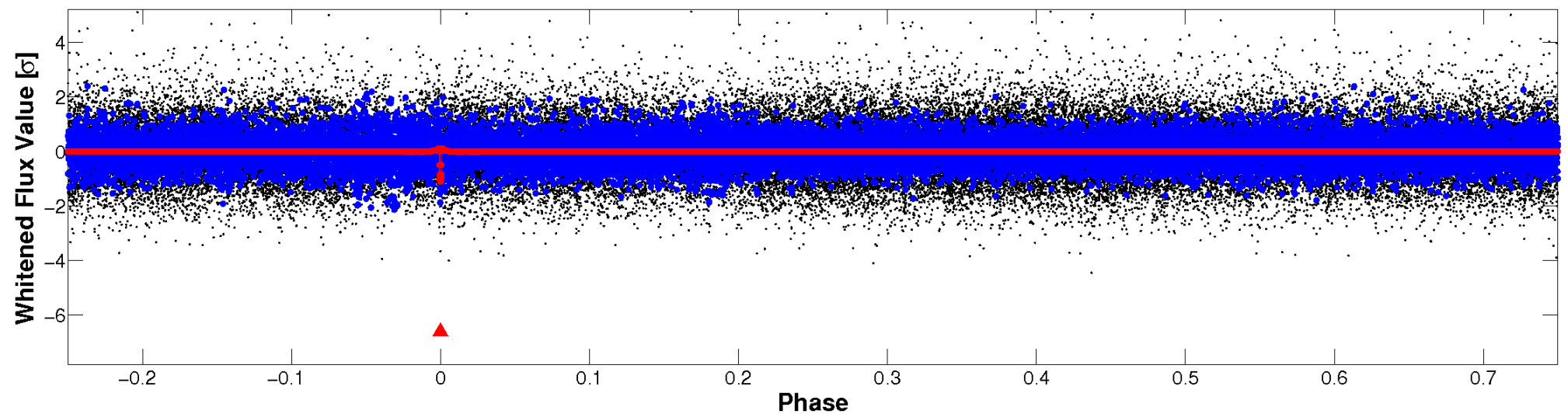


Non-Whitened Vs. Whitened Light Curve

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

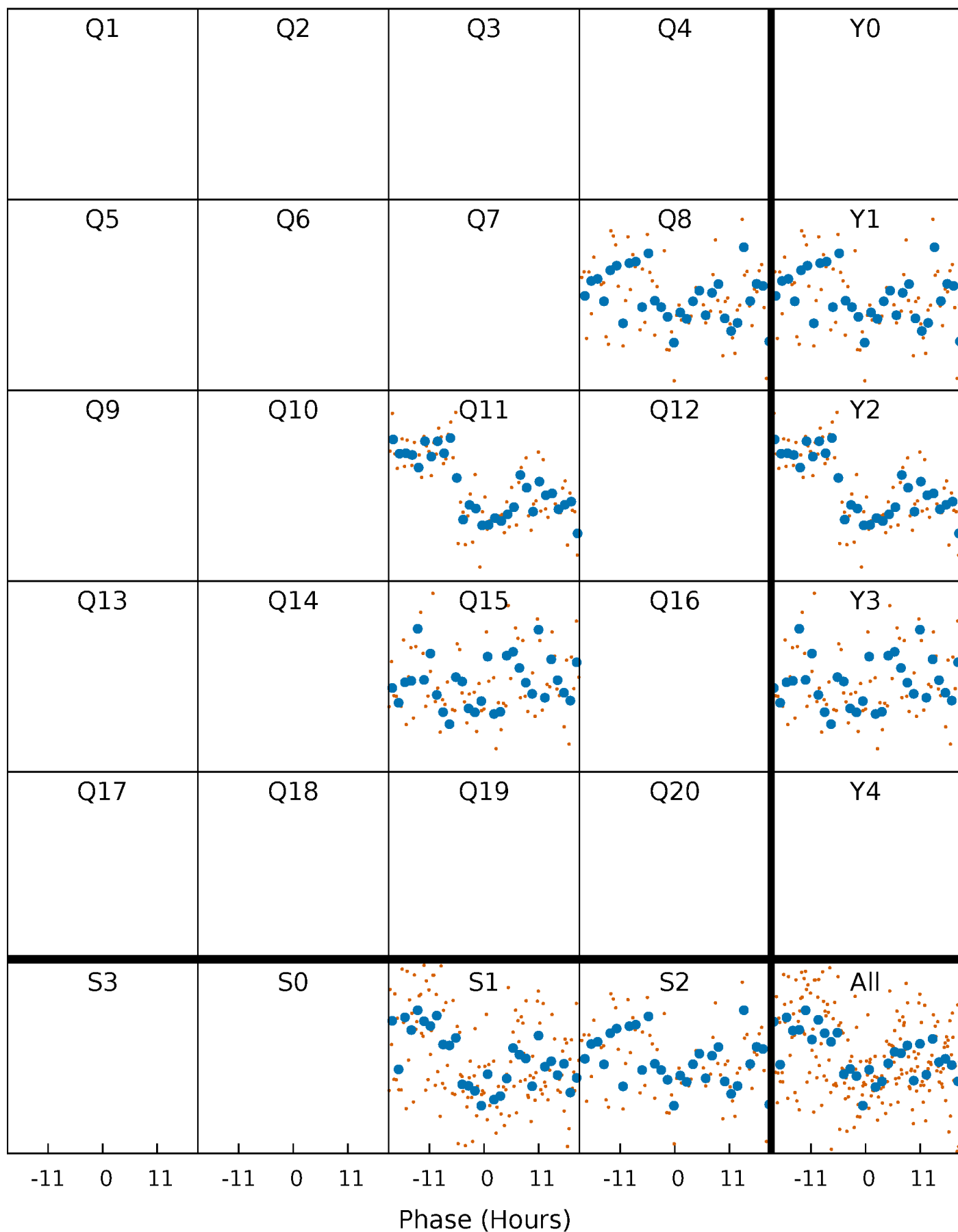


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



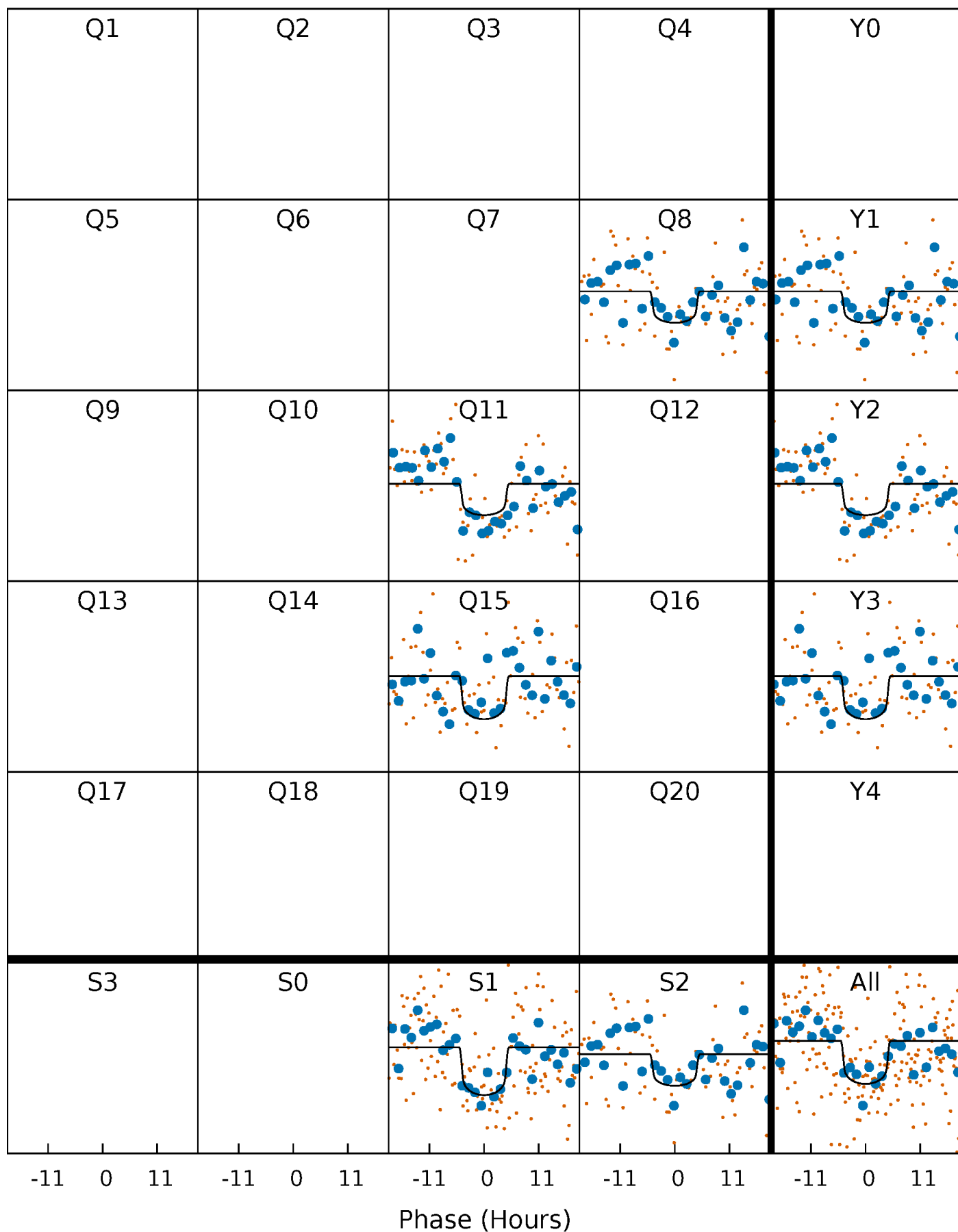
PDC Quarter-Phased Transit Curves

TCE 011302399-01 P=341.433745 Days $T_0=399.514253$ (BKJD)



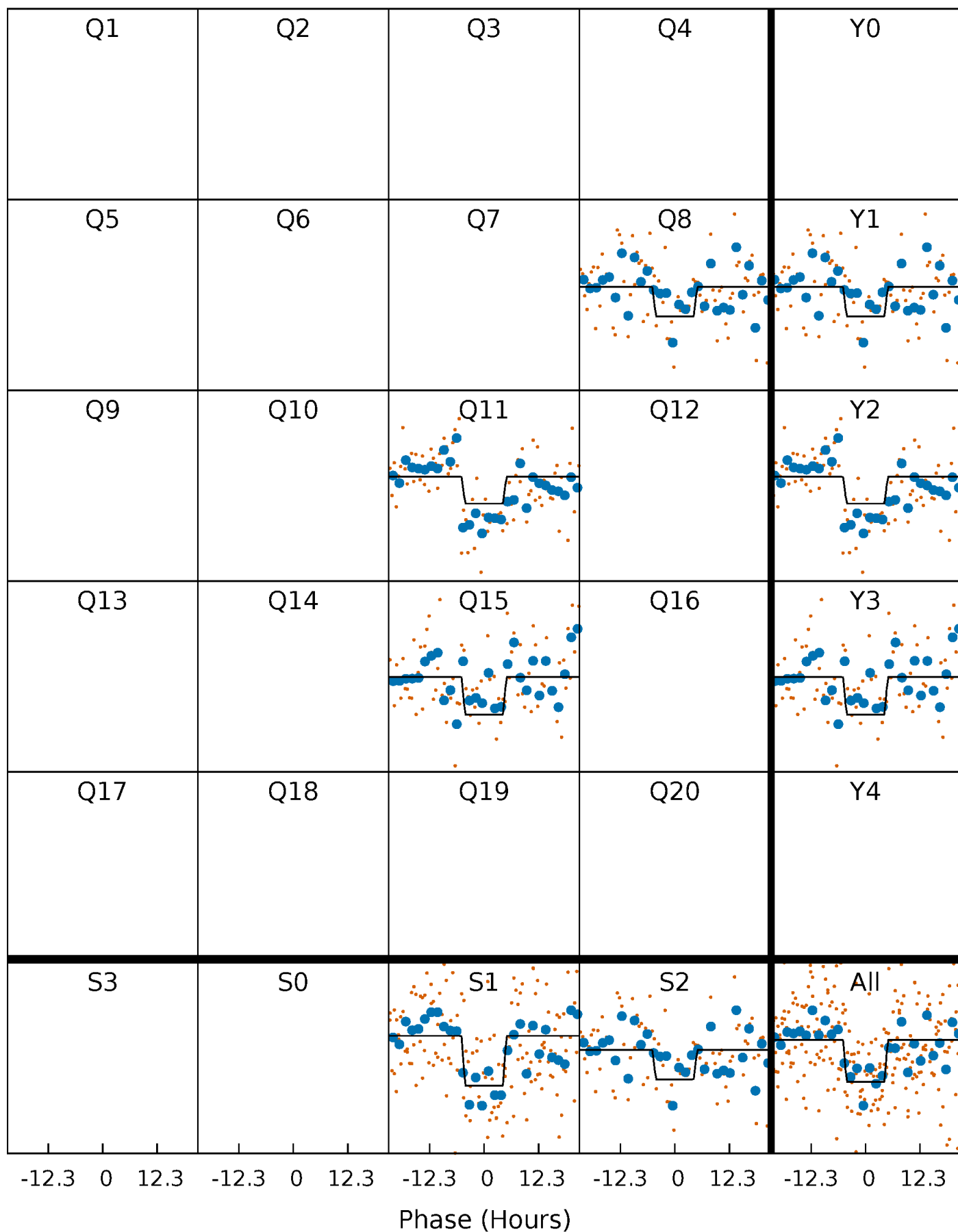
DV Quarter-Phased Transit Curves

TCE 011302399-01 $P=341.433745$ Days $T_0=399.514253$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

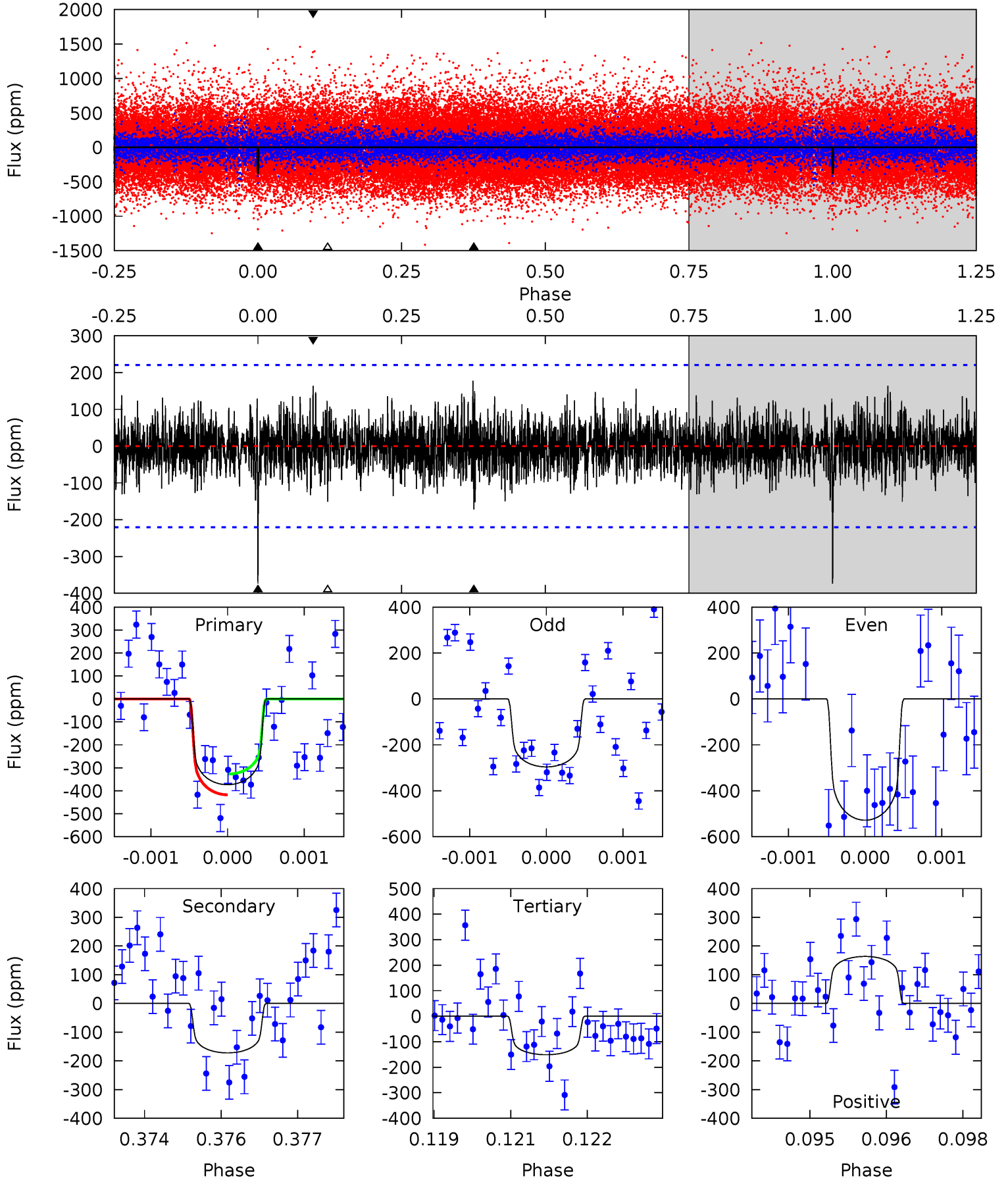
TCE 011302399-01 $P=341.424354$ Days $T_0=399.527100$ (BKJD)



DV Model-Shift Uniqueness Test

011302399-01, $P = 341.433745$ Days, $E = 58.080508$ Days

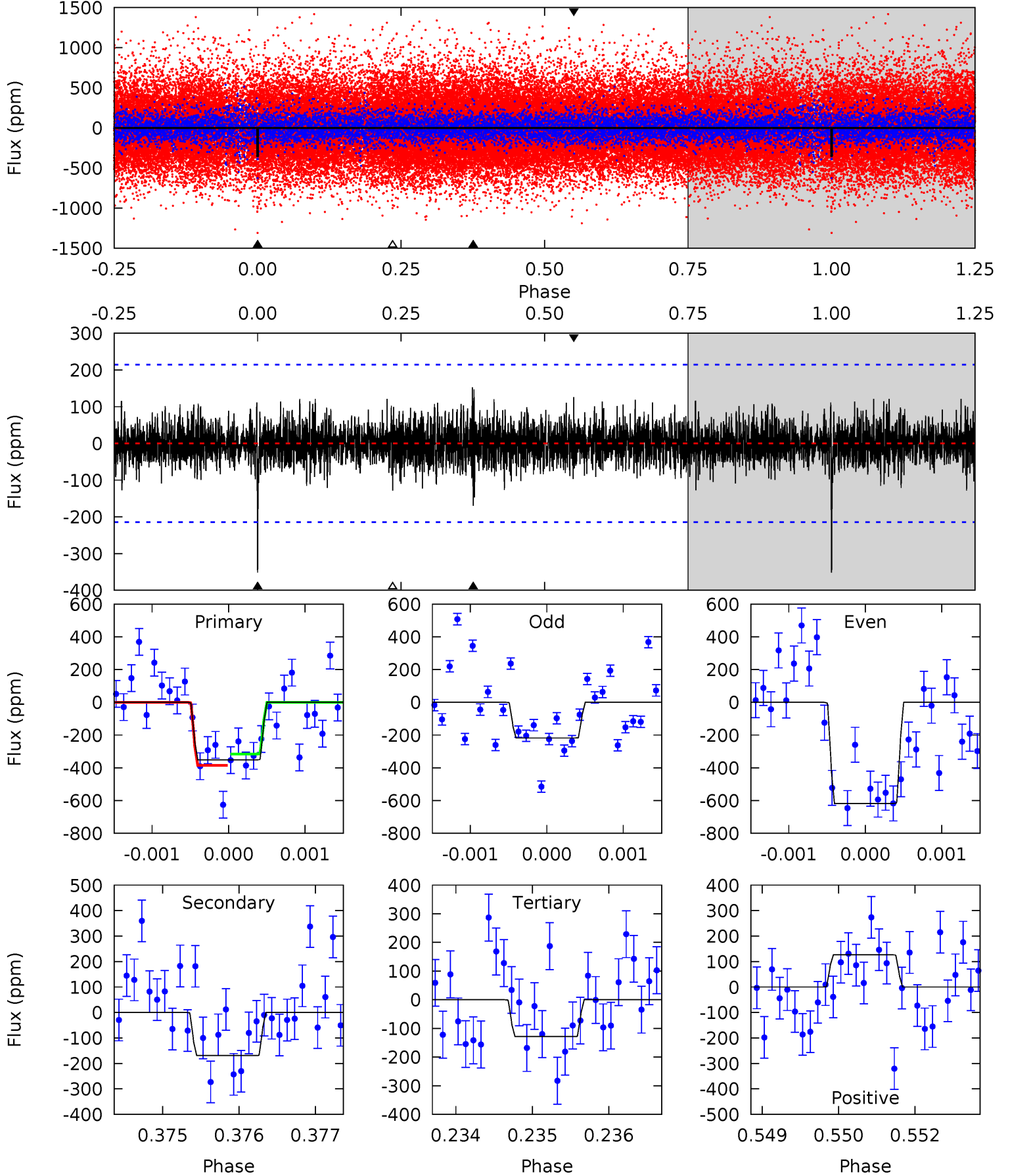
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.17	4.23	3.70	4.02	5.42	3.23	1.12	5.46	5.15	0.52	0.20	2.68	1.08	0.32	1.11



Alt Model-Shift Uniqueness Test

011302399-01, P = 341.424354 Days, E = 58.102746 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.87	4.27	3.24	3.19	5.41	3.23	0.93	5.63	5.68	1.03	1.08	4.71	1.43	0.30	0.88



Stellar Parameters For KIC 011302399

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6258^{+175}_{-219}	$4.449^{+0.054}_{-0.202}$	$-0.160^{+0.250}_{-0.300}$	$1.031^{+0.312}_{-0.112}$	$1.087^{+0.144}_{-0.144}$	$1.398^{+0.388}_{-0.724}$
	+3%/-3%	+1%/-5%	+156%/-188%	+30%/-11%	+13%/-13%	+28%/-52%
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 011302399-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-172 ± 41	$2.38^{+1.07}_{-0.99}$	402^{+26}_{-21}	5038^{+1563}_{-644}	15283^{+31164}_{-7919}
Alt.	-169 ± 40	$2.33^{+1.07}_{-1.03}$	403^{+31}_{-20}	5117^{+1761}_{-774}	16041^{+33178}_{-9160}

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

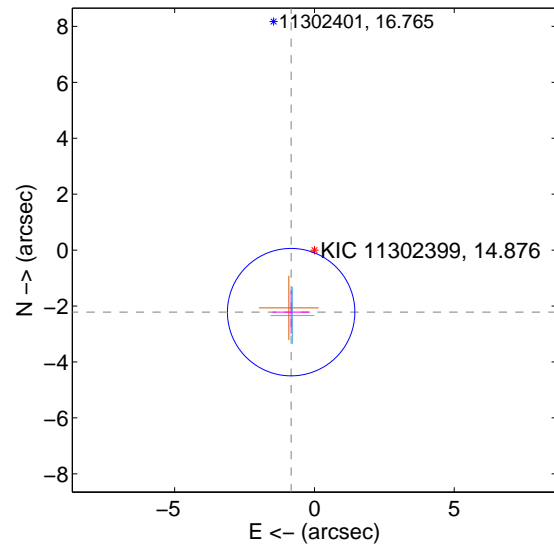
Supplemental centroid analysis for 011302399-01. Kepler magnitude: 14.88. Transit SNR 7.21

There are 1 quarters with good PRF difference image offsets

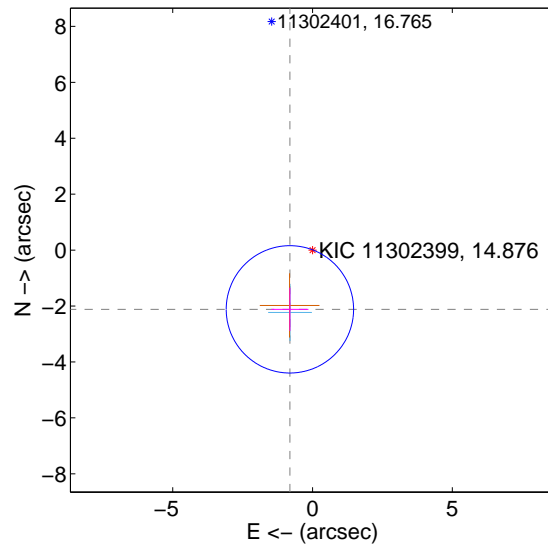
The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.370 ± 0.759	3.12	0.833 ± 0.665	-2.219 ± 0.772
PRF-fit source offset from KIC position	2.268 ± 0.759	2.99	0.809 ± 0.665	-2.119 ± 0.772
photometric centroid source offset	1.69 ± 1.84	0.92	-1.05 ± 1.54	1.33 ± 2.00

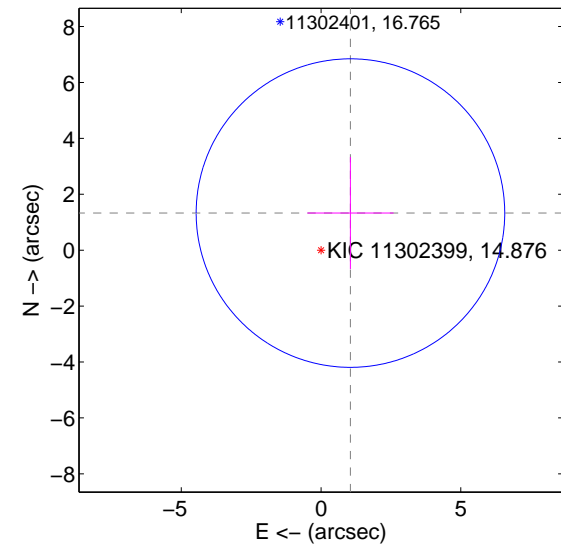
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position



offset from photometric centroids

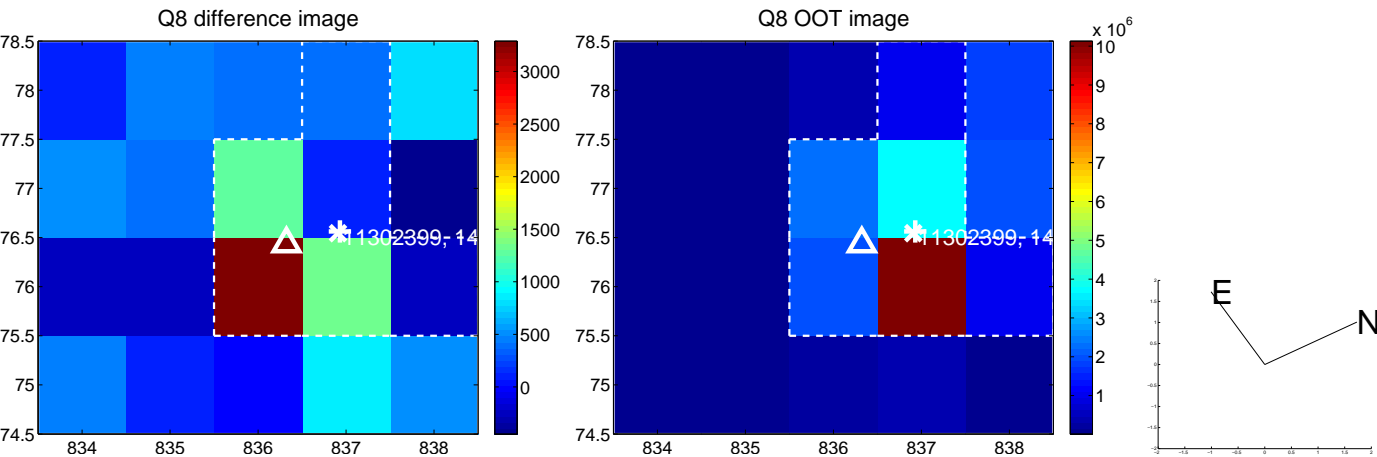


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



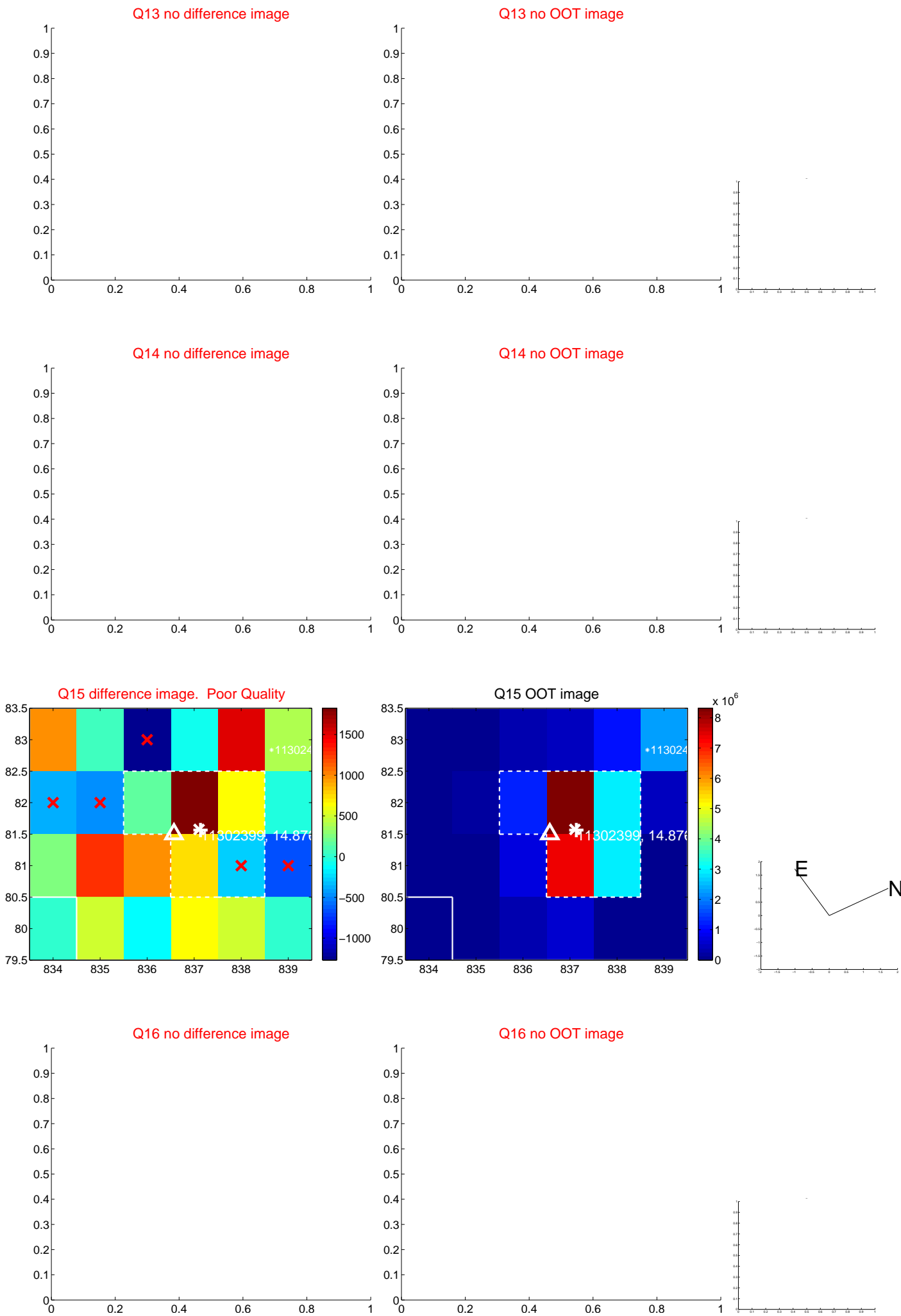
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



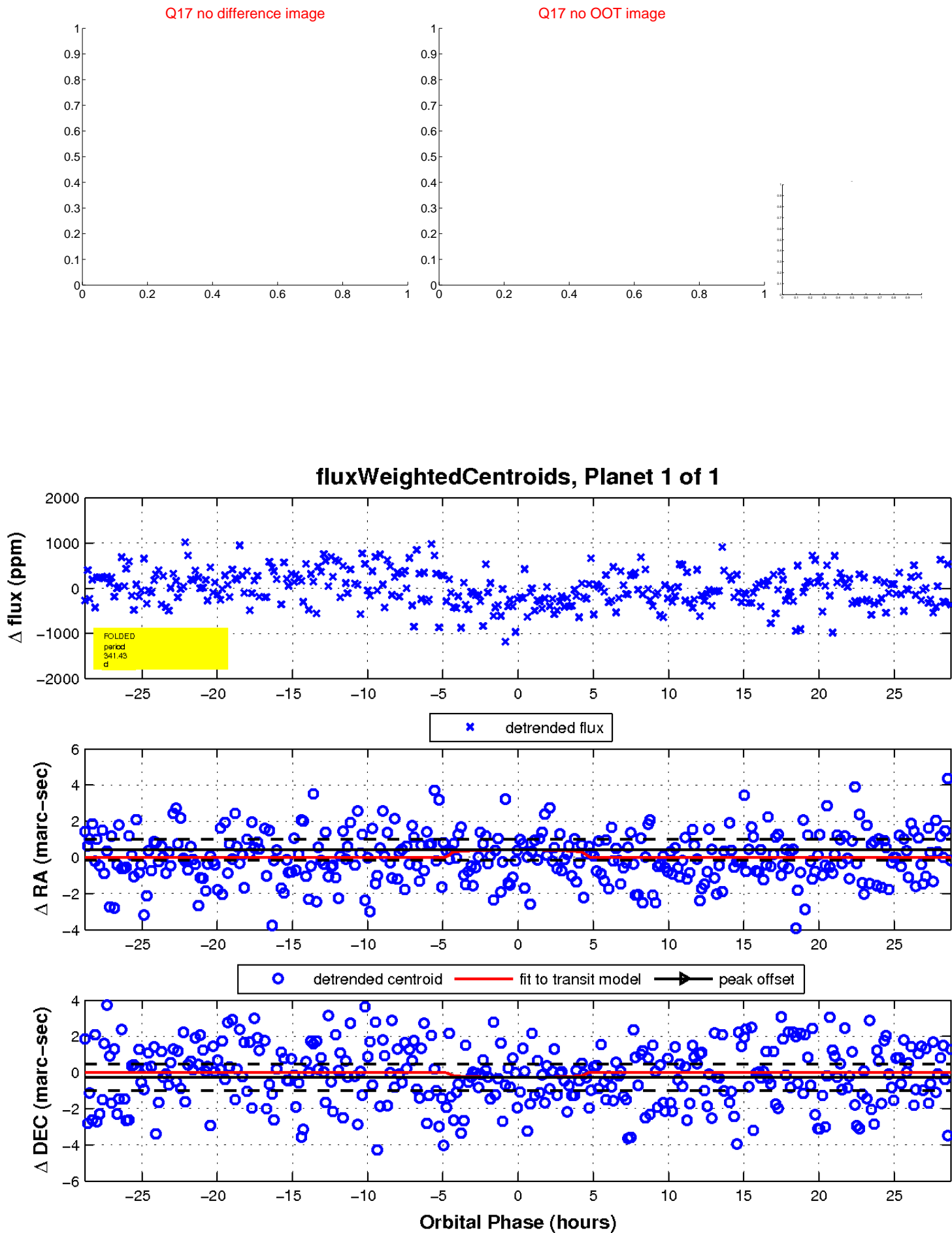
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UKIRT Image

Declination

