

KIC 010274200

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})
010274200-01	OBS	No	362.922414	362.903798	315.6	4.254	12.4	5.9	1.44	6638	2.67	3.35

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010274200-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—ALL_TRANS_CHASES—INCONSISTENT_TRANS

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

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

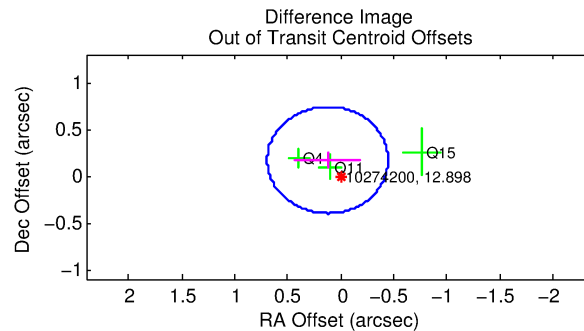
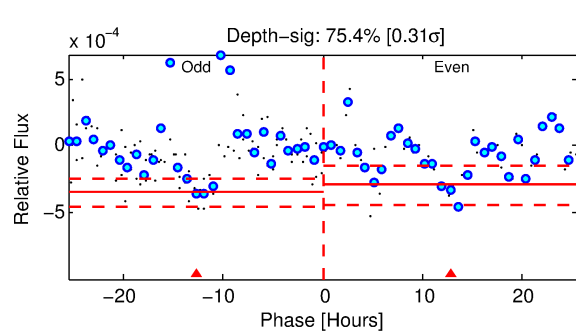
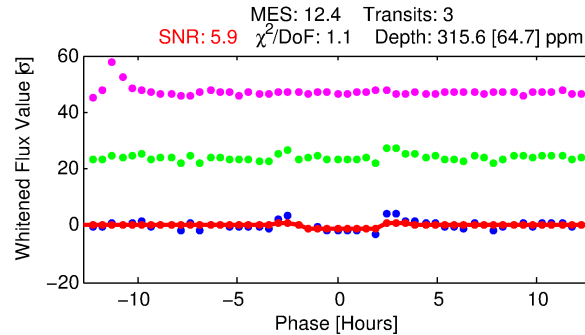
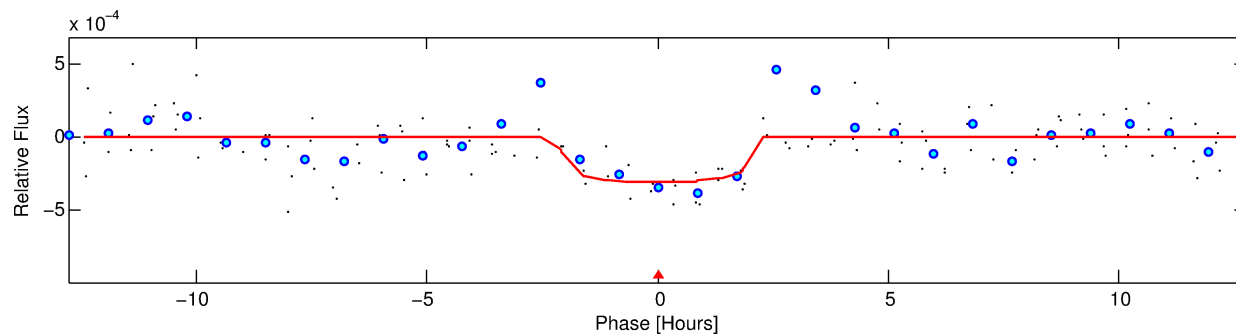
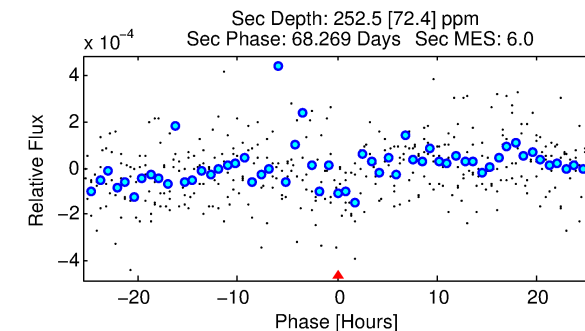
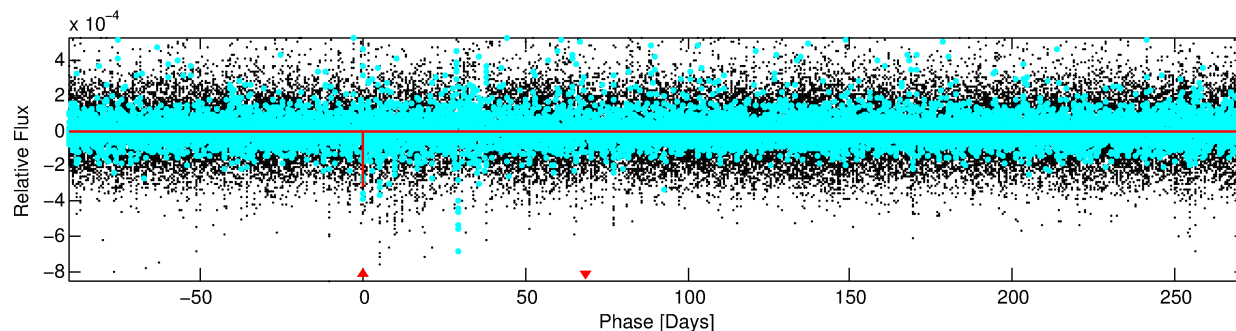
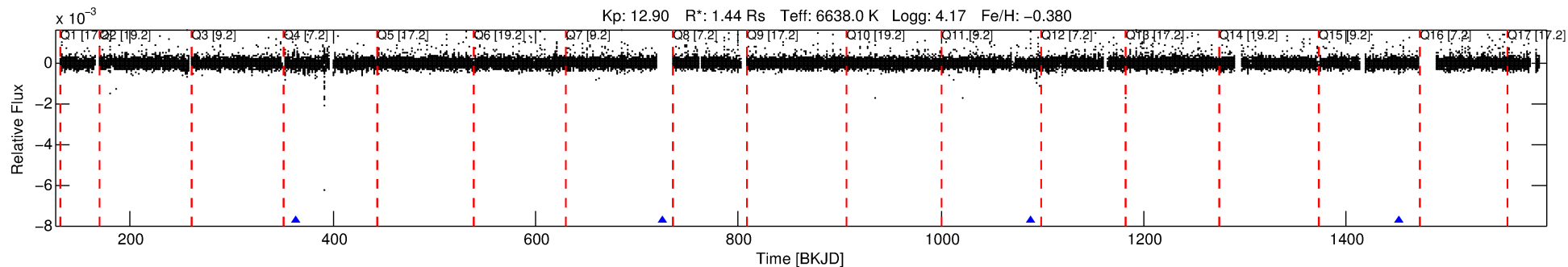
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010274200-01

No Significant Match Found

DV One-Page Summary

KIC: 10274200 Candidate: 1 of 1 Period: 362.922 d



DV Fit Results:

Period = 362.92241 [0.00488] d
 Epoch = 362.9038 [0.0104] BKJD
 Rp/R* = 0.0170 [0.0211]
 a/R* = 541.98 [3672.02]
 b = 0.59 [7.66]
 Seff = 3.35 [1.11]
 Teq = 345 [29] K
 Rp = 2.67 [3.36] Re
 a = 1.0349 [0.2023] AU
 Ag = 20818.42 [52321.66] [0.40] σ
 Tefp = 6409 [4001] K [1.52] σ

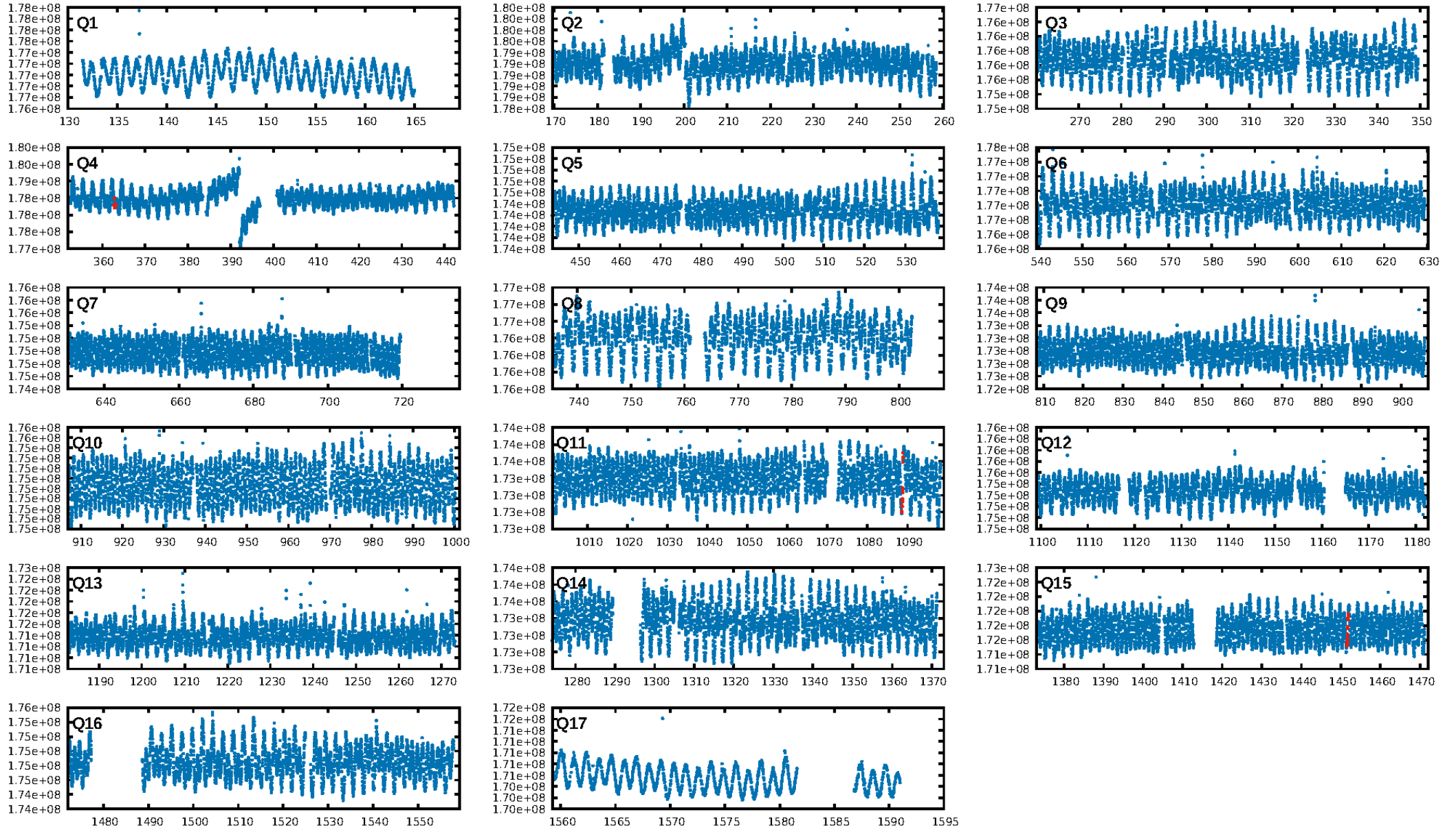
DV Diagnostic Results:

ShortPeriod-sig: N/A
 LongPeriod-sig: N/A
 ModelChiSquare2-sig: 66.5%
 ModelChiSquareGof-sig: 98.4%
 Bootstrap-pfa: 7.35e-13
 RollingBand-fgt: 1.00 [3/3]
 GhostDiagnostic-chr: -46.5
 Centroid-sig: 1.1%
 Centroid-so: 1.806 arcsec [1.93] σ
 OotOffset-rm: 0.209 arcsec [1.10] σ
 OotOffset-st: 0/2/1/0 [3]
 KicOffset-rm: 0.208 arcsec [1.37] σ
 KicOffset-st: 0/2/1/0 [3]
 DiffImageQuality-fgm: 1.00 [3/3]
 DiffImageOverlap-fno: 1.00 [3/3]

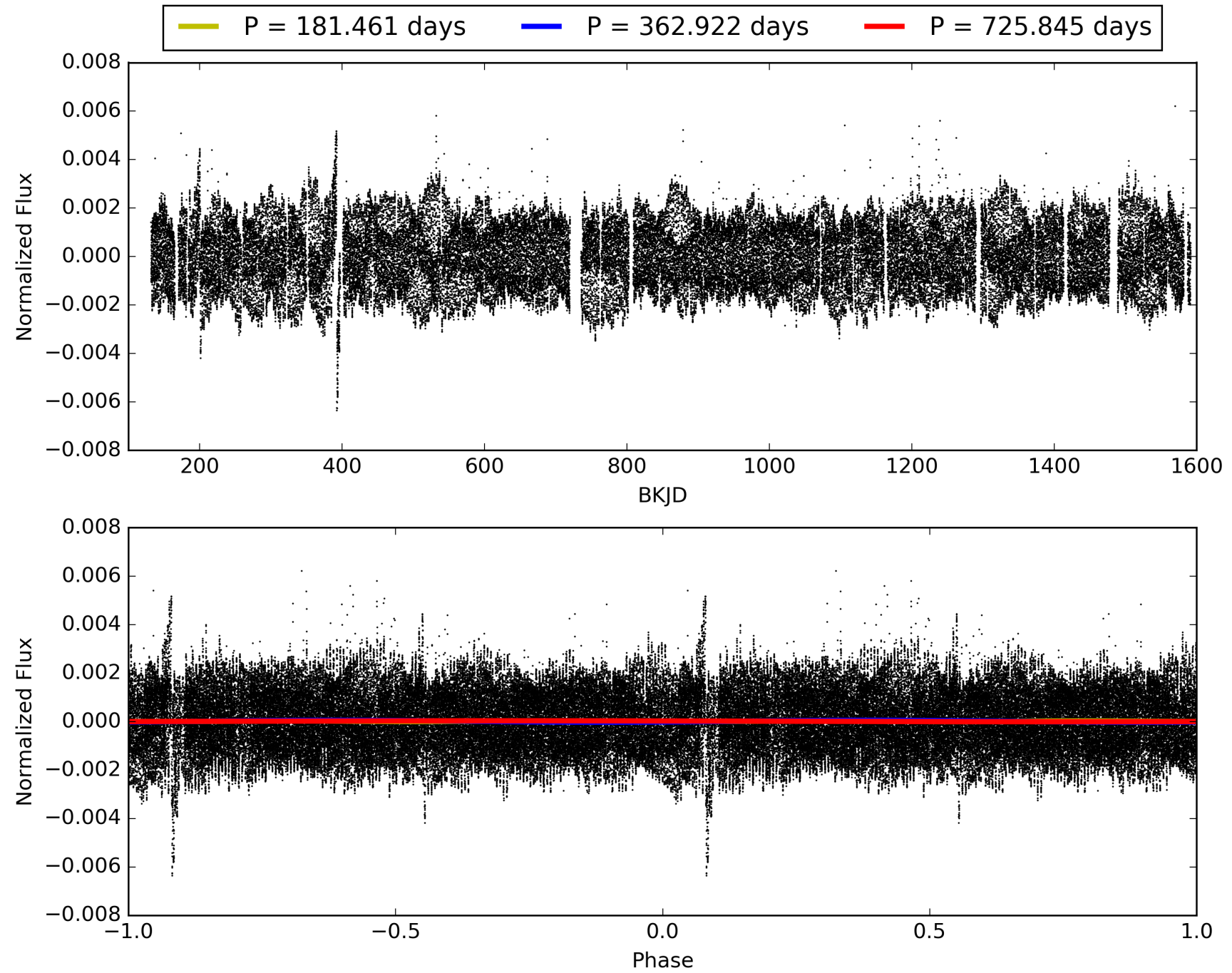
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 00:30:25 Z

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

TCE 010274200-01, PDC Light Curves

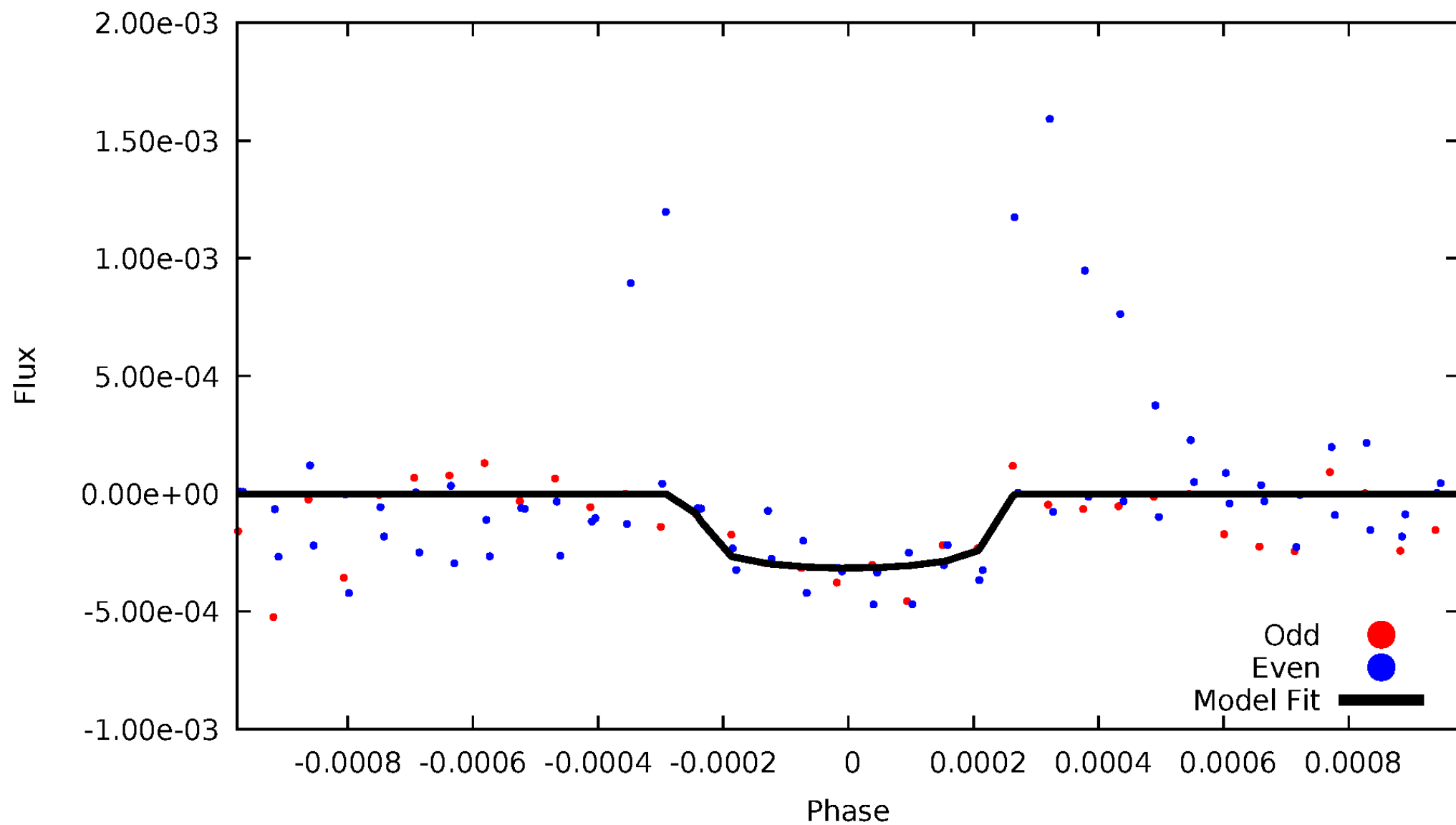


TCE 010274200-01



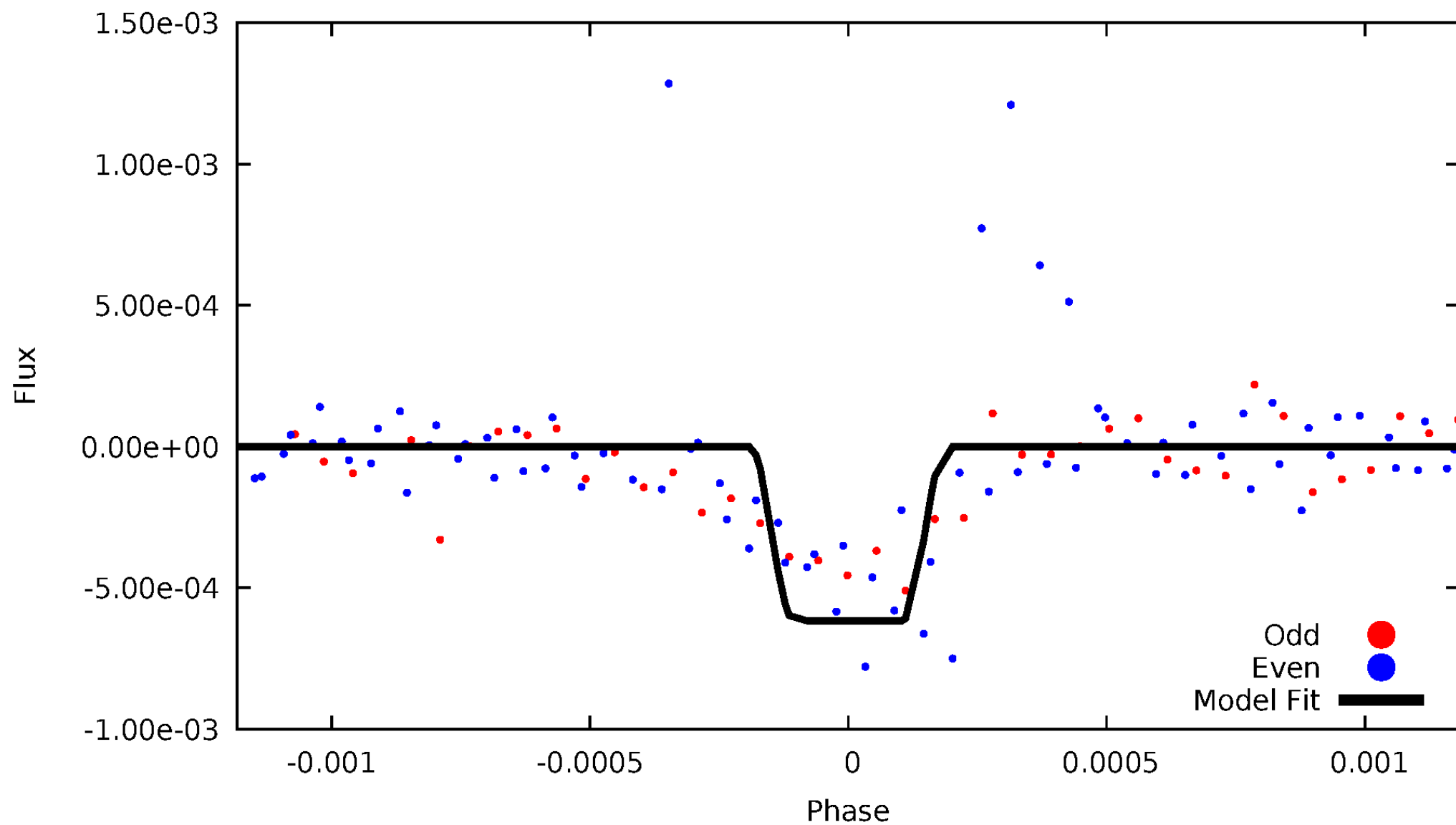
DV Odd/Even

TCE 010274200-01



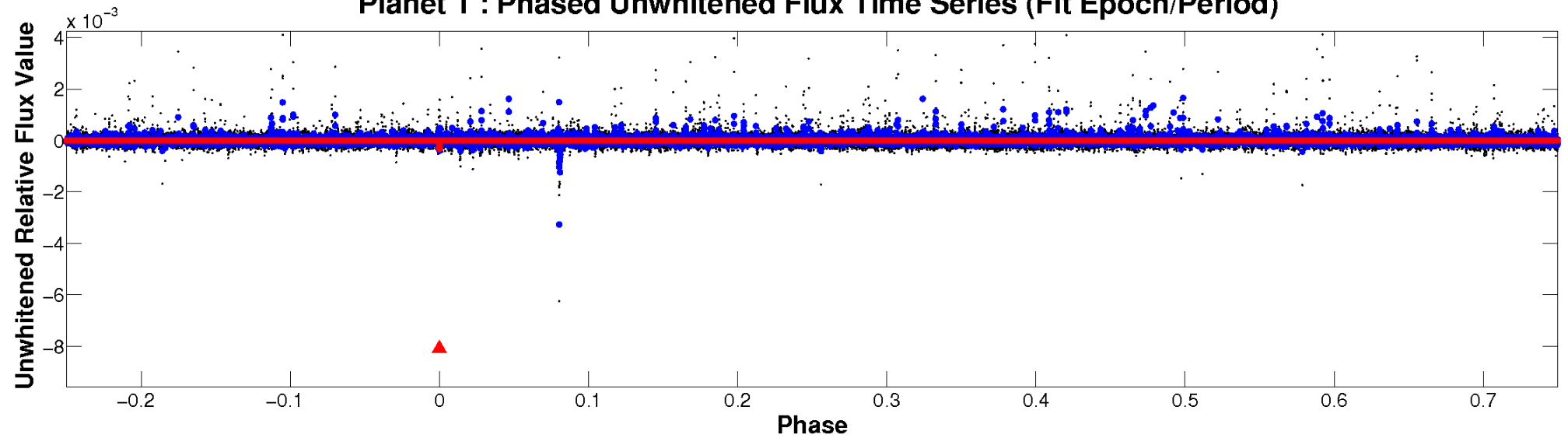
ALT Odd/Even

TCE 010274200-01

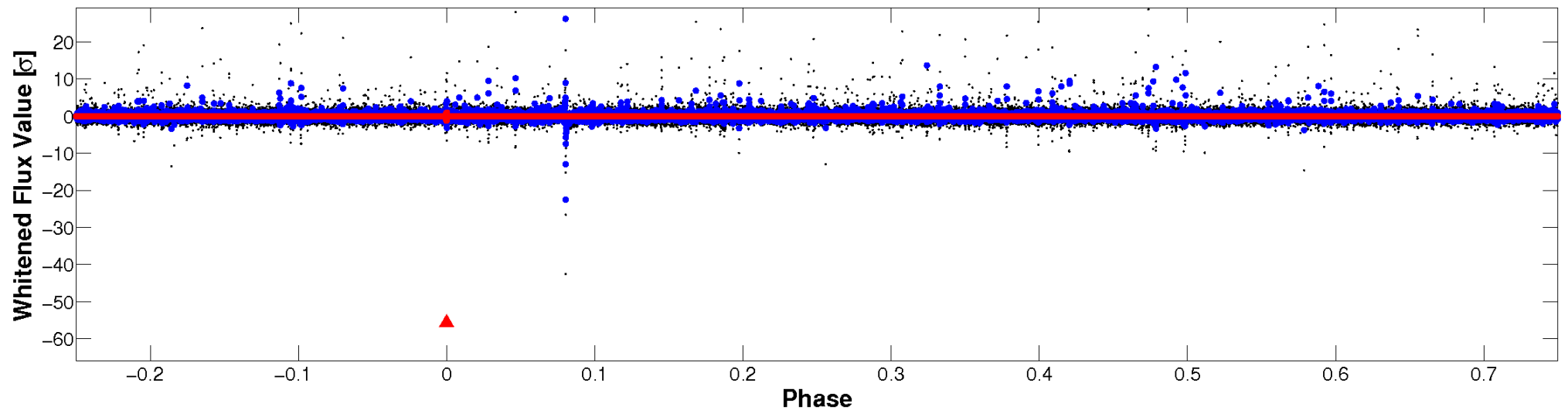


Non-Whitened Vs. Whitened Light Curve

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

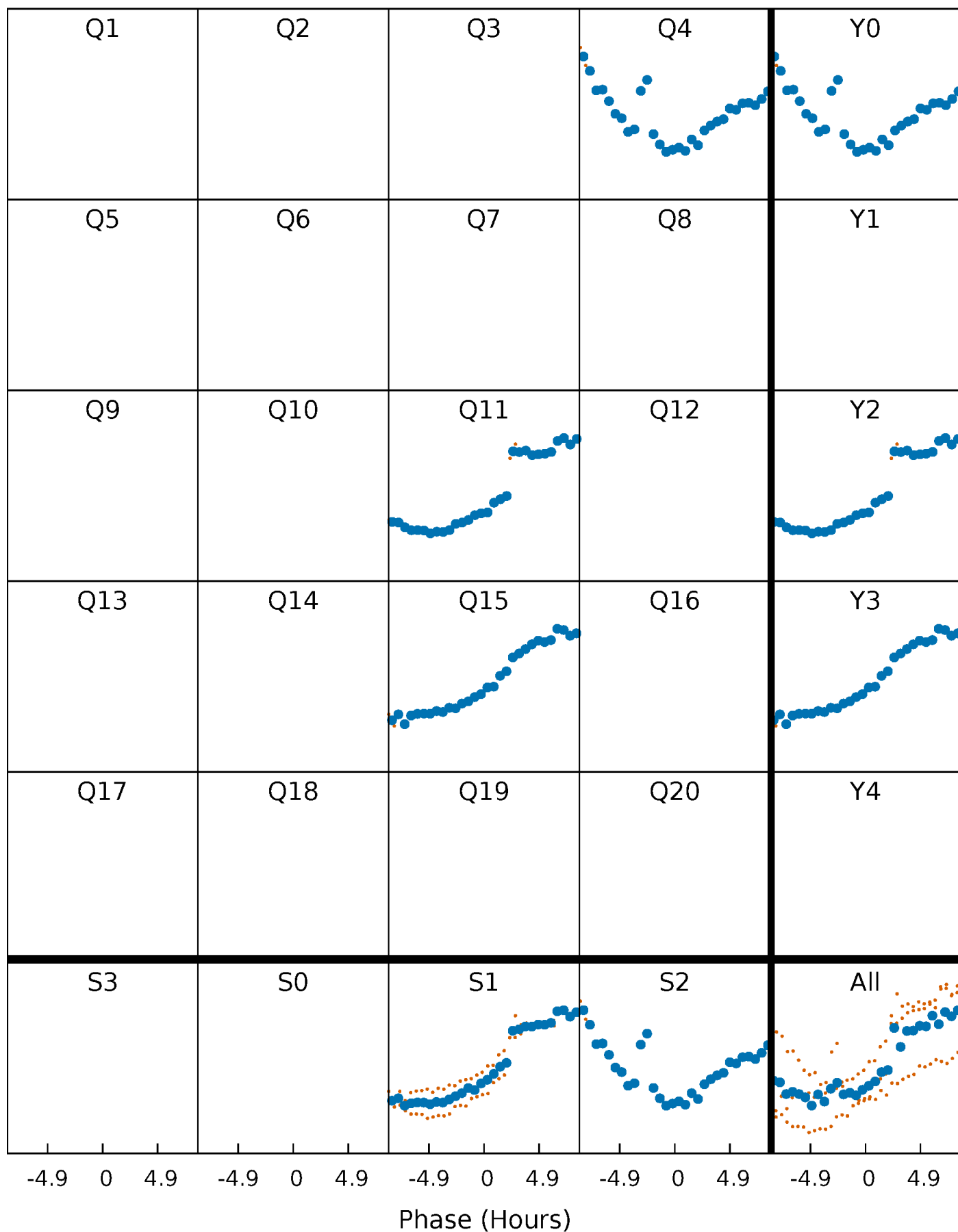


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



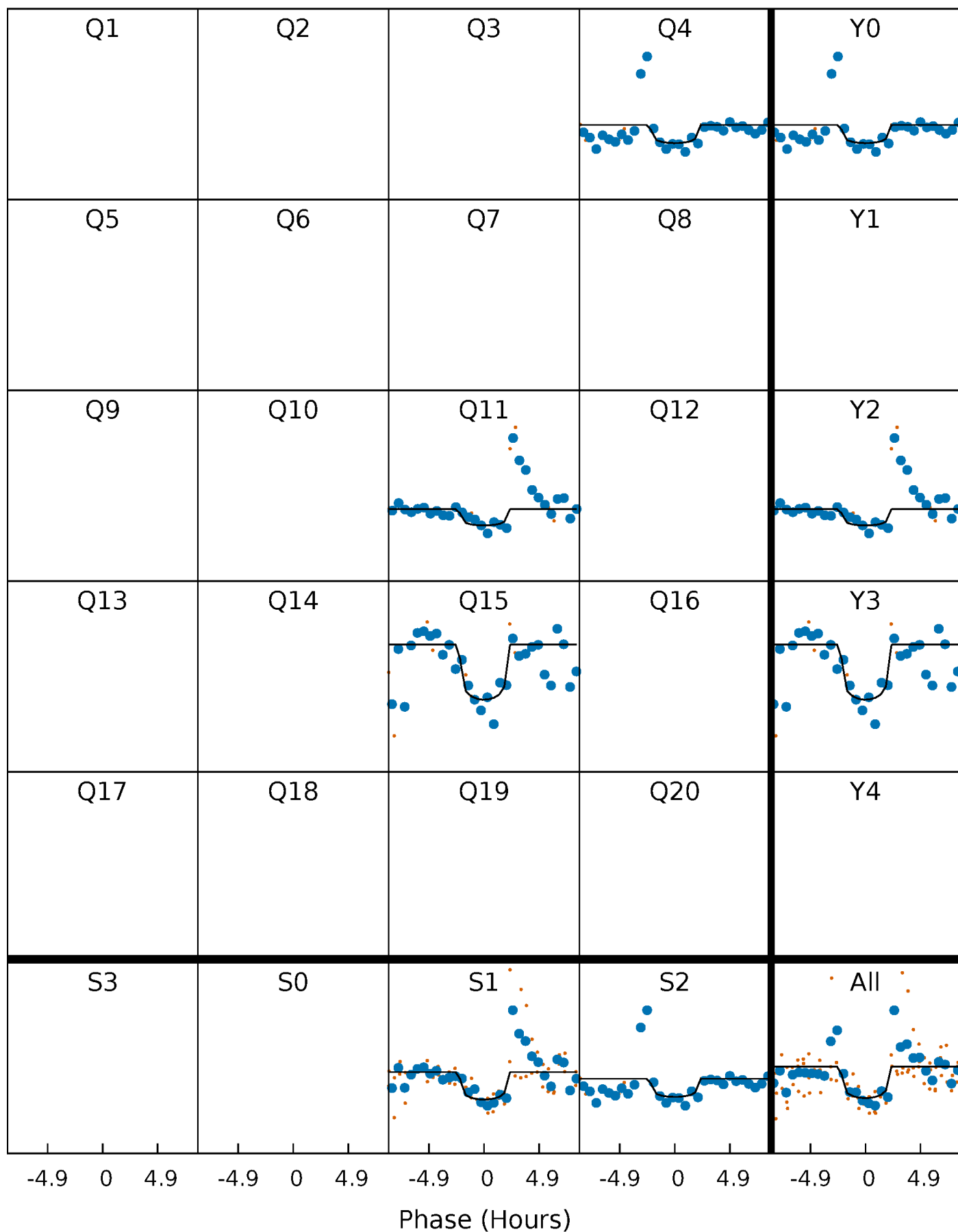
PDC Quarter-Phased Transit Curves

TCE 010274200-01 P=362.922414 Days $T_0=362.903798$ (BKJD)



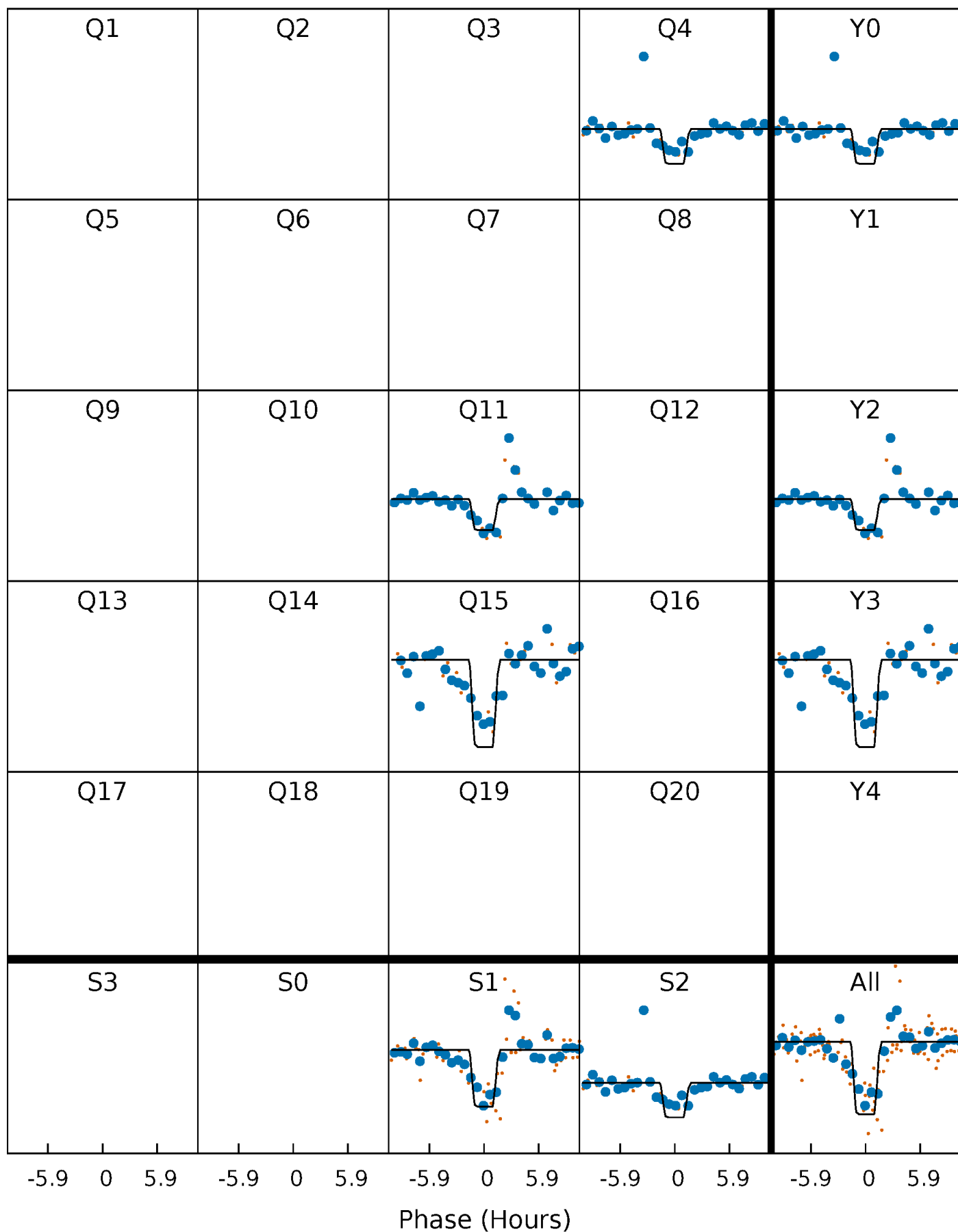
DV Quarter-Phased Transit Curves

TCE 010274200-01 P=362.922414 Days $T_0=362.903798$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

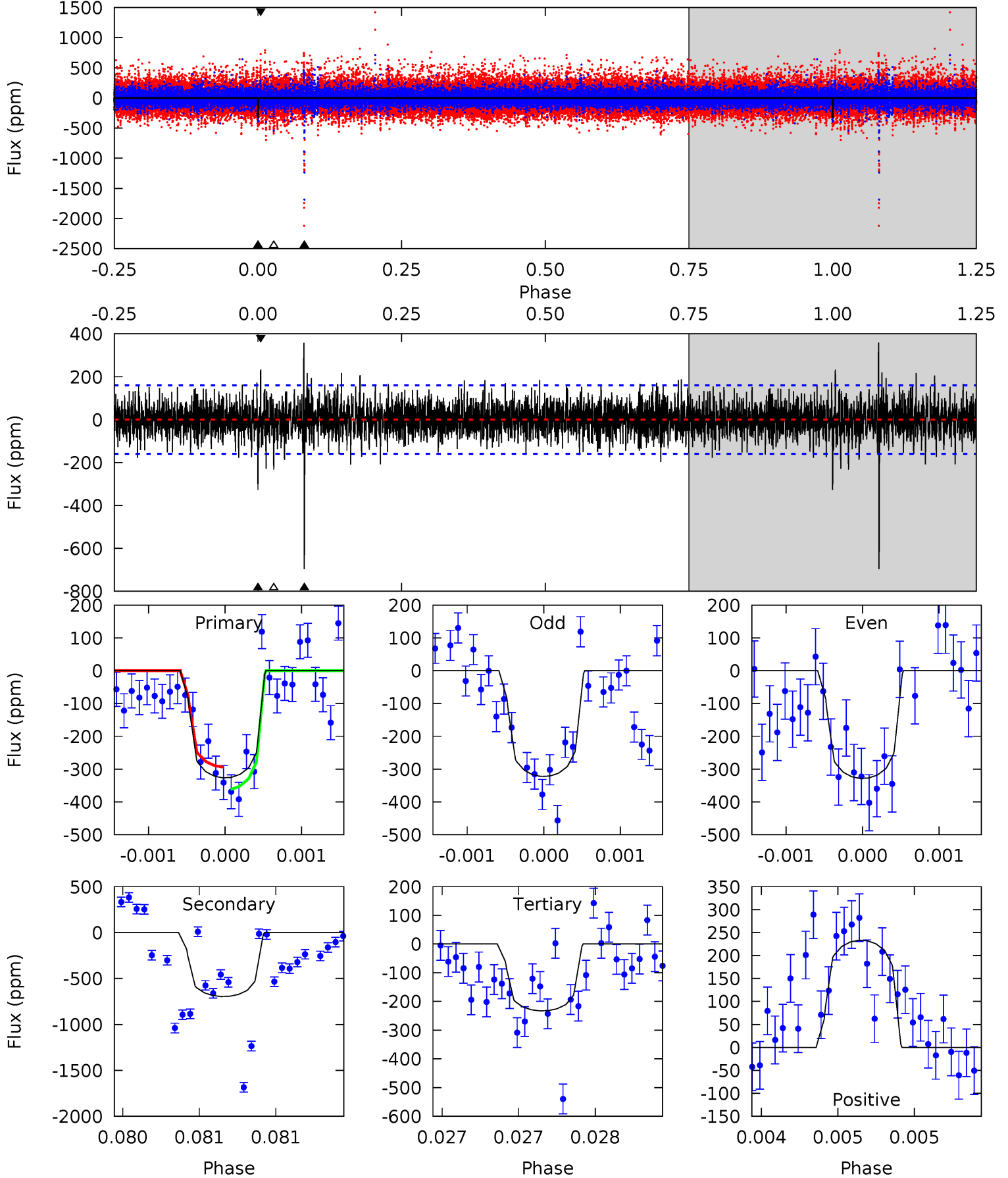
TCE 010274200-01 P=362.913648 Days $T_0=362.924032$ (BKJD)



DV Model-Shift Uniqueness Test

010274200-01, P = 362.922414 Days, E = 362.903798 Days

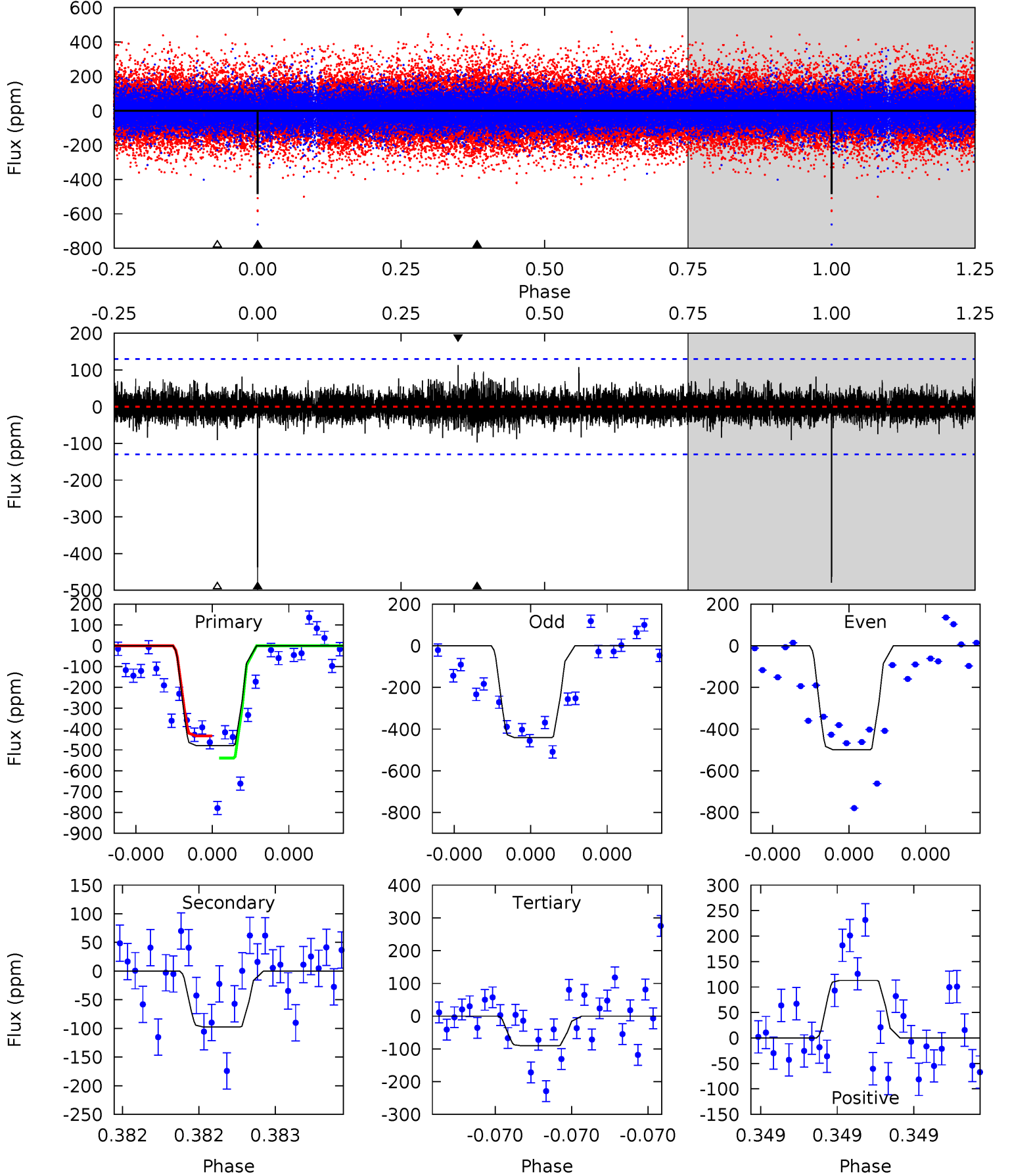
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.4	24.3	8.13	8.15	5.57	3.48	1.95	3.28	3.27	16.2	16.2	0.10	1.01	0.34	1.19



Alt Model-Shift Uniqueness Test

010274200-01, $P = 362.913648$ Days, $E = 0.010384$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
20.8	4.22	3.92	4.90	5.62	3.56	0.90	16.8	15.9	0.30	-0.68	1.18	1.09	0.19	2.31



Stellar Parameters For KIC 010274200

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6638^{+162}_{-203}	$4.173^{+0.180}_{-0.135}$	$-0.380^{+0.250}_{-0.300}$	$1.437^{+0.298}_{-0.298}$	$1.124^{+0.178}_{-0.134}$	$0.533^{+0.454}_{-0.213}$
	+2%/-3%	+4%/-3%	+66%/-79%	+21%/-21%	+16%/-12%	+85%/-40%
Source	PHO1	FLK73	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 010274200-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-696 ± 29	$3.53^{+3.18}_{-2.33}$	480^{+30}_{-30}	7191^{+8575}_{-1943}	$33198^{+250947}_{-23953}$
Alt.	-97 ± 23	$4.41^{+3.04}_{-2.65}$	482^{+29}_{-30}	4138^{+2054}_{-660}	2887^{+14977}_{-1930}

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 $A_{obs} \gg 1.0$

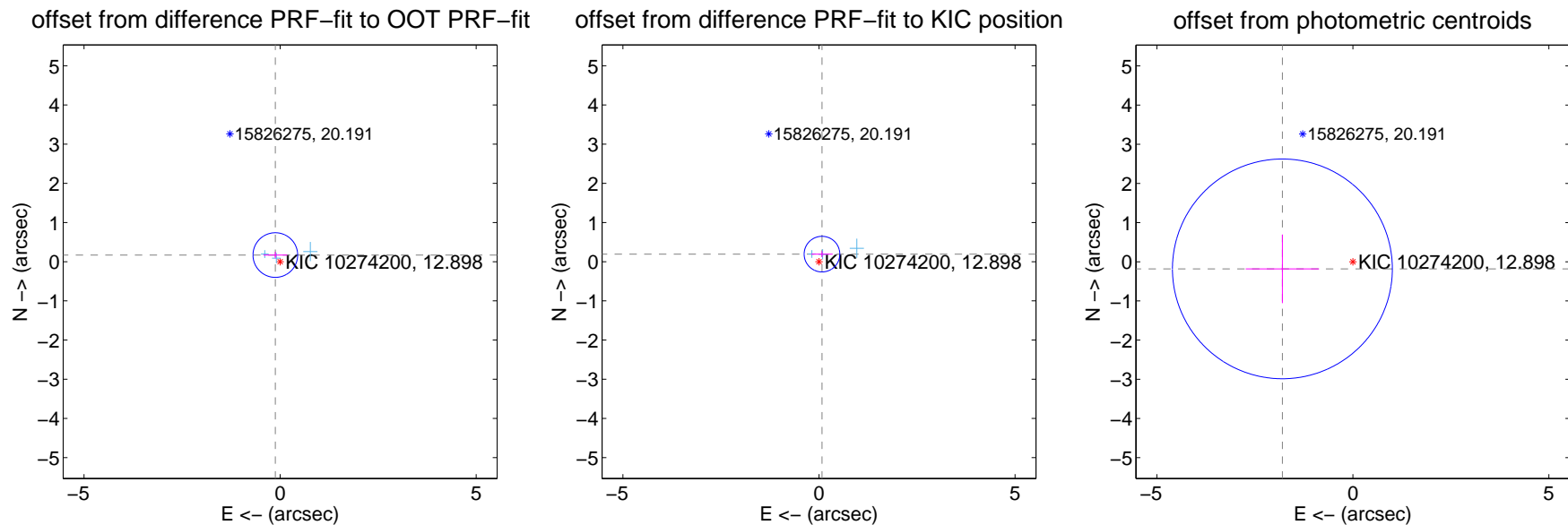
DV Centroid Data

Supplemental centroid analysis for 010274200-01. Kepler magnitude: 12.90. Transit SNR 5.92

There are 3 quarters with good PRF difference image offsets

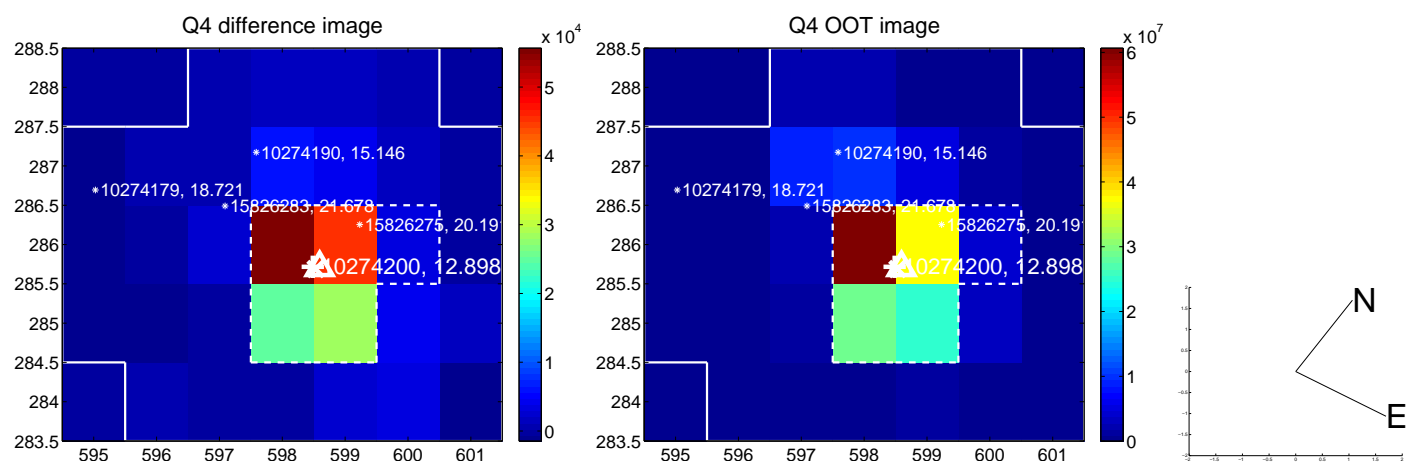
The direct PRF centroid is offset from the target star catalog position by about 0.21 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.209 ± 0.190	1.10	0.122 ± 0.304	0.169 ± 0.083
PRF-fit source offset from KIC position	0.208 ± 0.152	1.37	-0.076 ± 0.272	0.193 ± 0.079
photometric centroid source offset	1.81 ± 0.93	1.93	1.80 ± 0.94	-0.18 ± 0.88



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



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Q9 no difference image



Q9 no OOT image



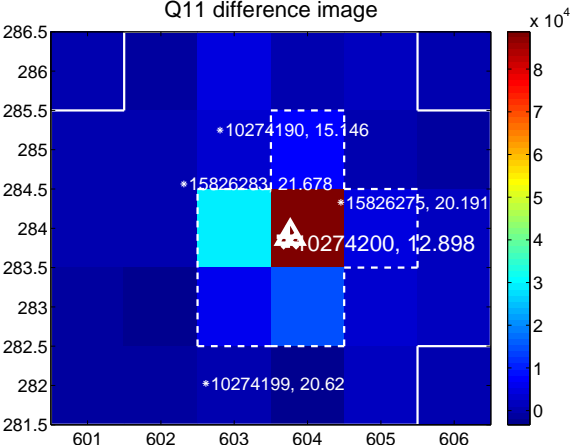
Q10 no difference image



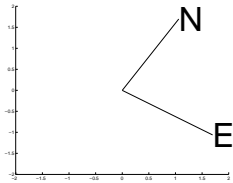
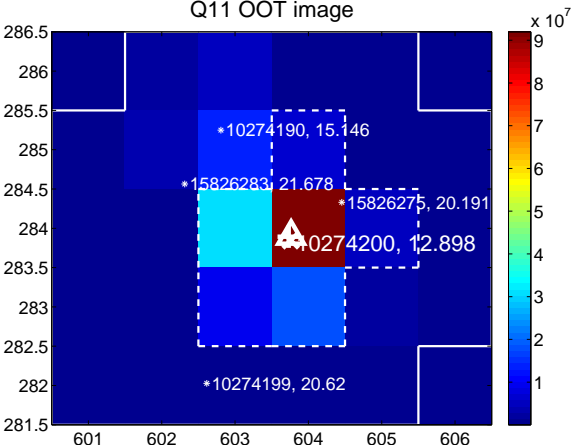
Q10 no OOT image



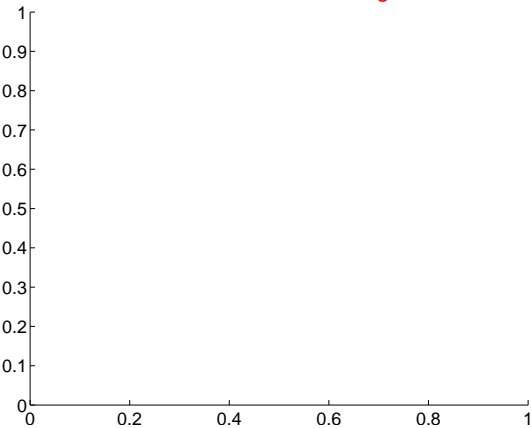
Q11 difference image



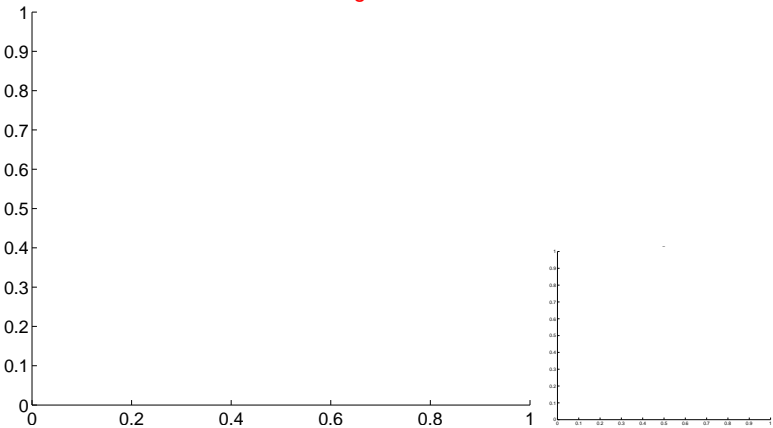
Q11 OOT image



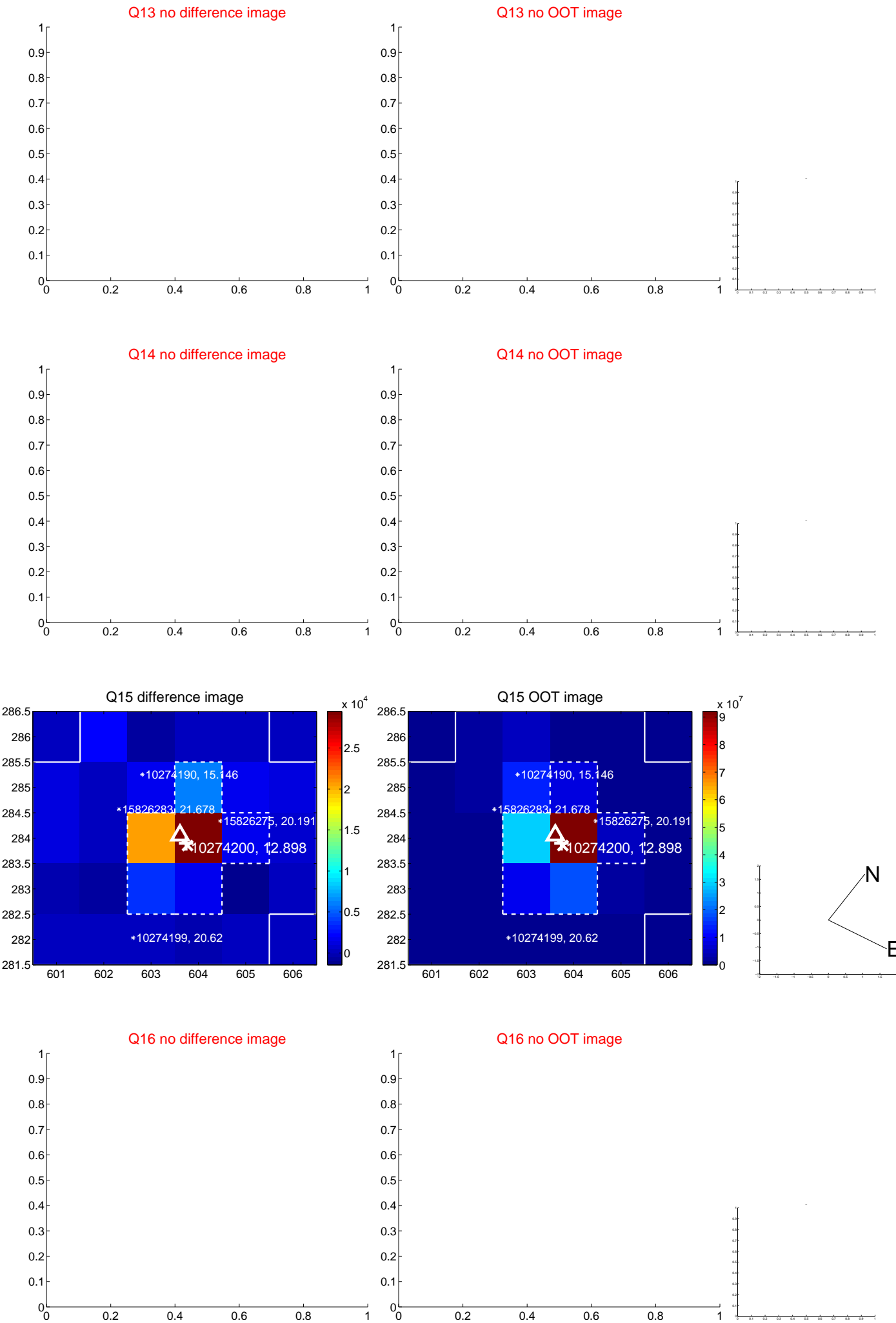
Q12 no difference image



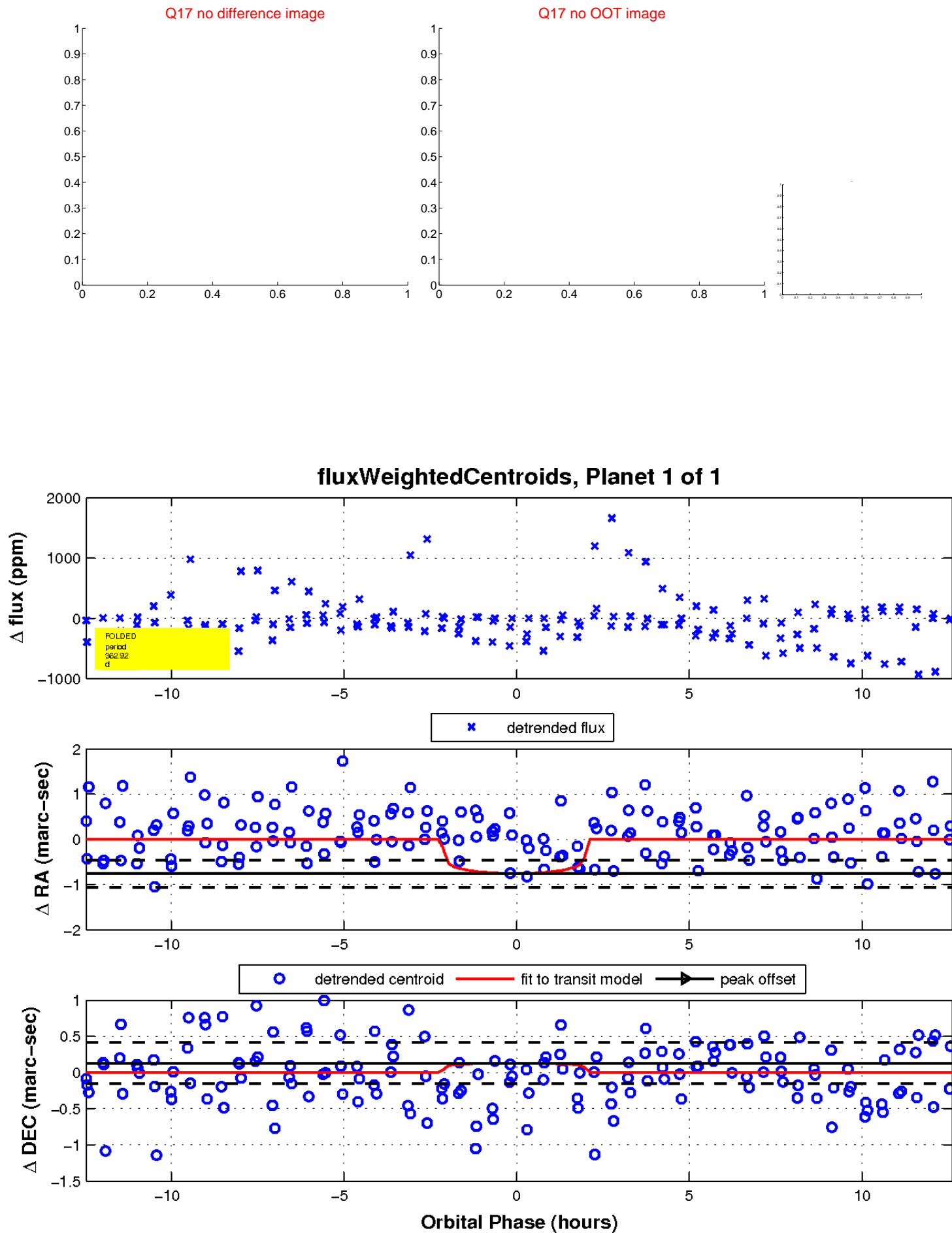
Q12 no OOT image



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.



UKIRT Image

Declination

