

KIC 011564366

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})
011564366-01	OBS	No	369.694345	171.969093	634.8	45.303	8.7	8.9	0.93	6253	2.71	1.16

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011564366-01	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_MARSHALL_SKYE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_FEW_DIFFS—HALO_GHOST

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

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

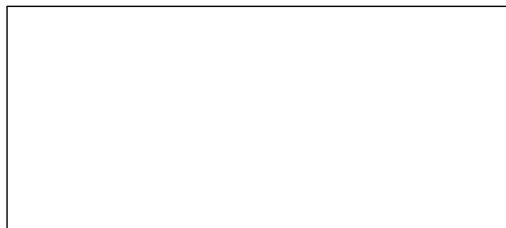
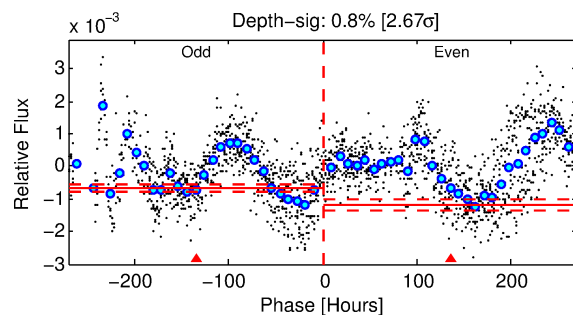
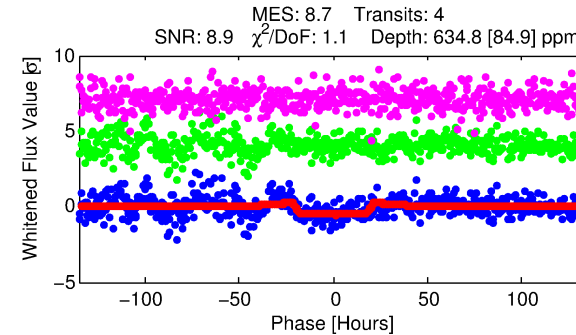
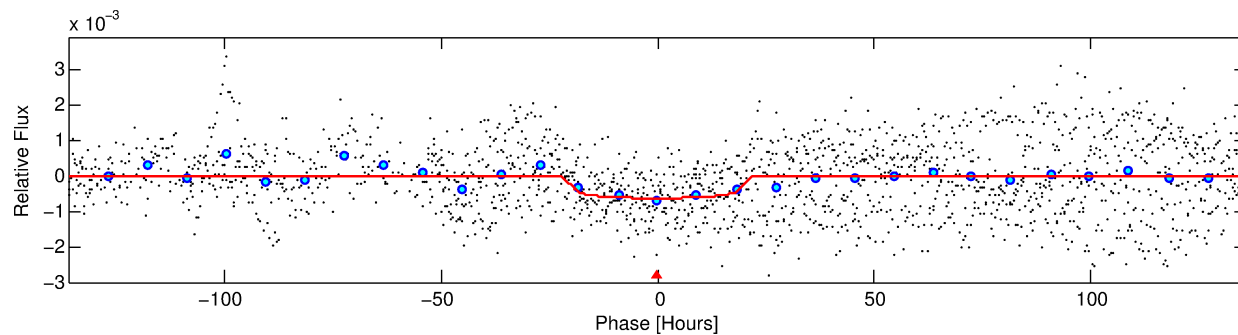
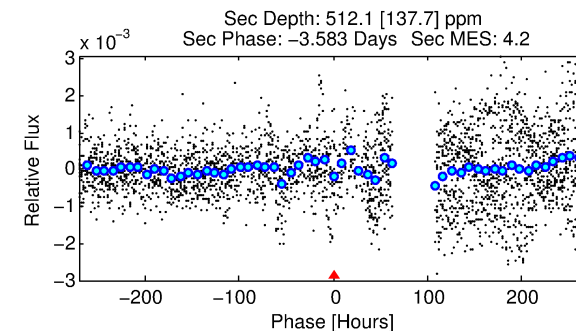
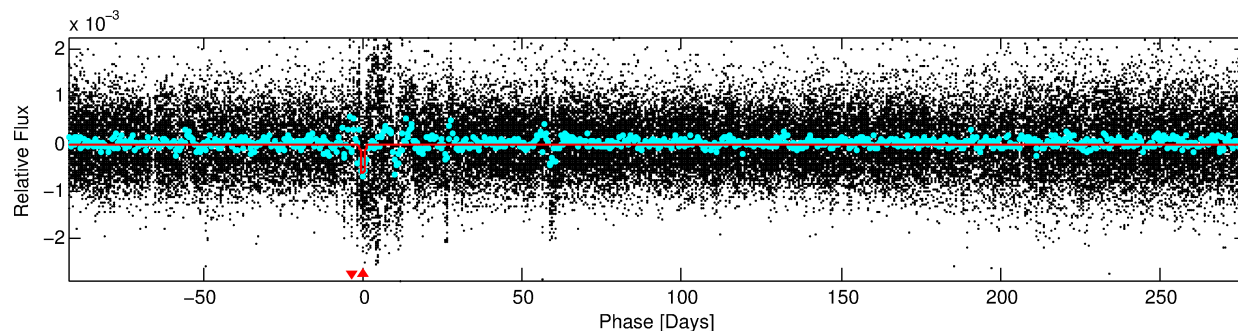
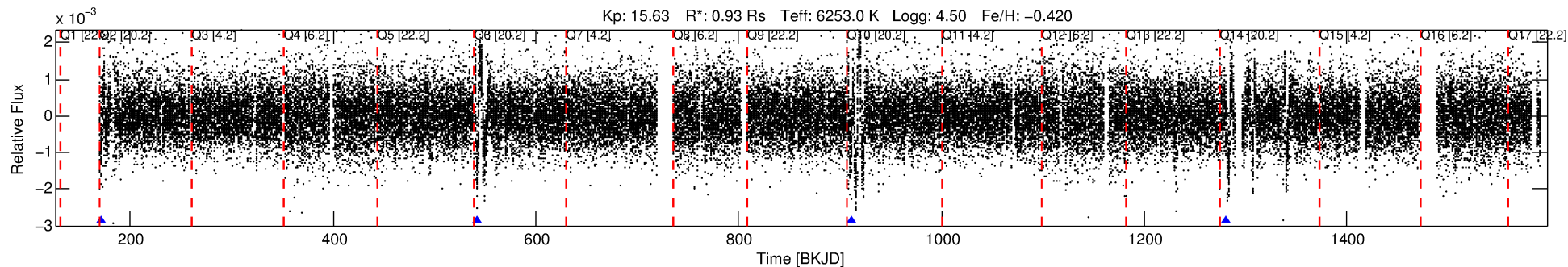
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011564366-01

No Significant Match Found

DV One-Page Summary

KIC: 11564366 Candidate: 1 of 1 Period: 369.694 d



DV Fit Results:

Period = 369.69434 [0.03165] d
Epoch = 171.9691 [0.0566] BKJD
Rp/R* = 0.0267 [0.0025]
a/R* = 32.30 [10.51]
b = 0.89 [0.08]
Seff = 1.16 [0.43]
Teq = 265 [25] K
Rp = 2.70 [0.80] Re
a = 1.0077 [0.2388] AU
Ag = 39096.75 [18731.94] [2.09σ]
Teffp = 5752 [510] K [10.75σ]

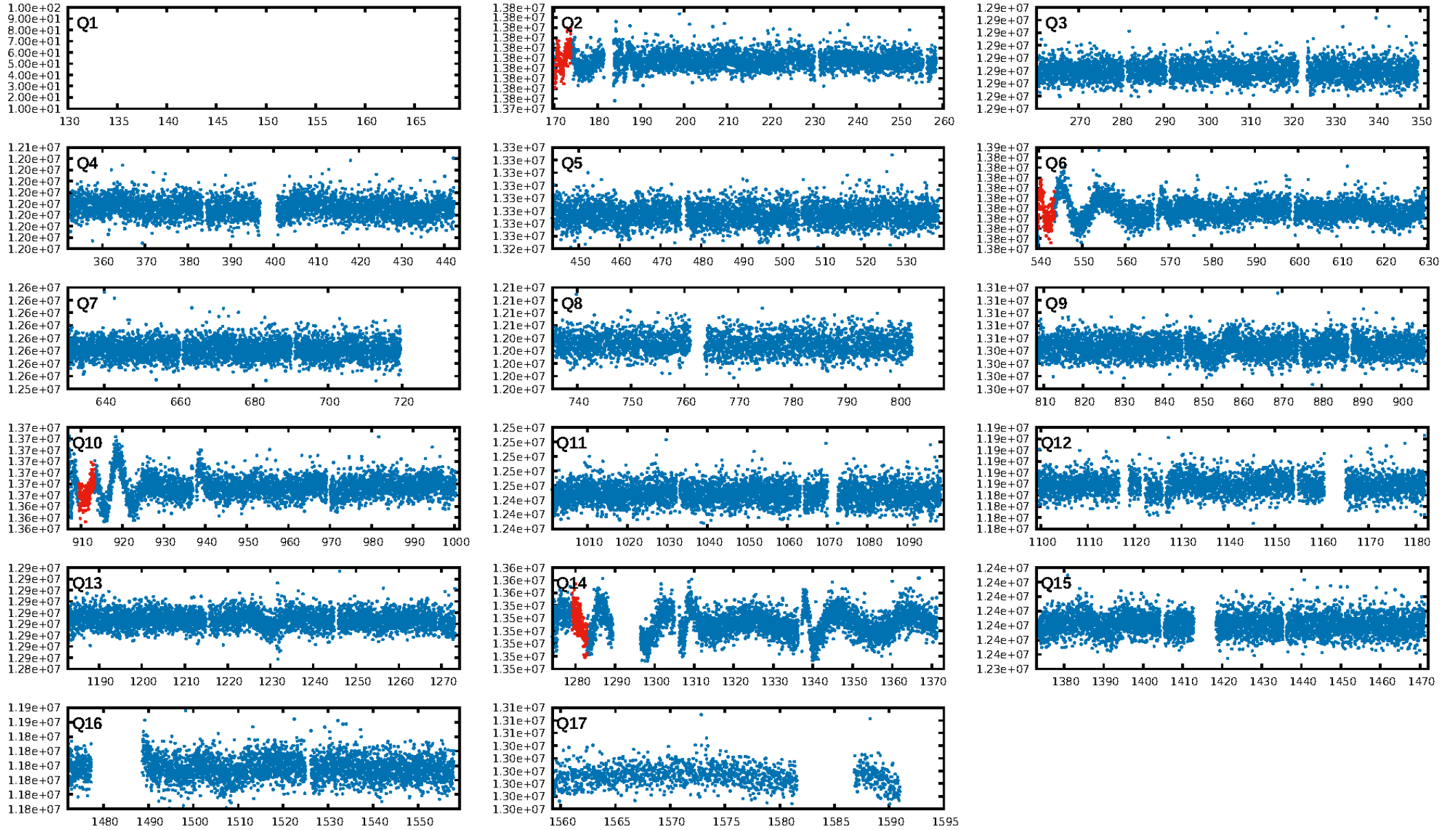
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 1.2%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 6.11e-11
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: -0.008572
Centroid-sig: 73.5%
Centroid-so: 0.756 arcsec [0.40σ]
OotOffset-rm: N/A
KicOffset-rm: N/A
OotOffset-st: 0/0/0 [0]
KicOffset-st: 0/0/0 [0]
DiffImageQuality-fgm: N/A
DiffImageOverlap-fno: 1.00 [1/1]

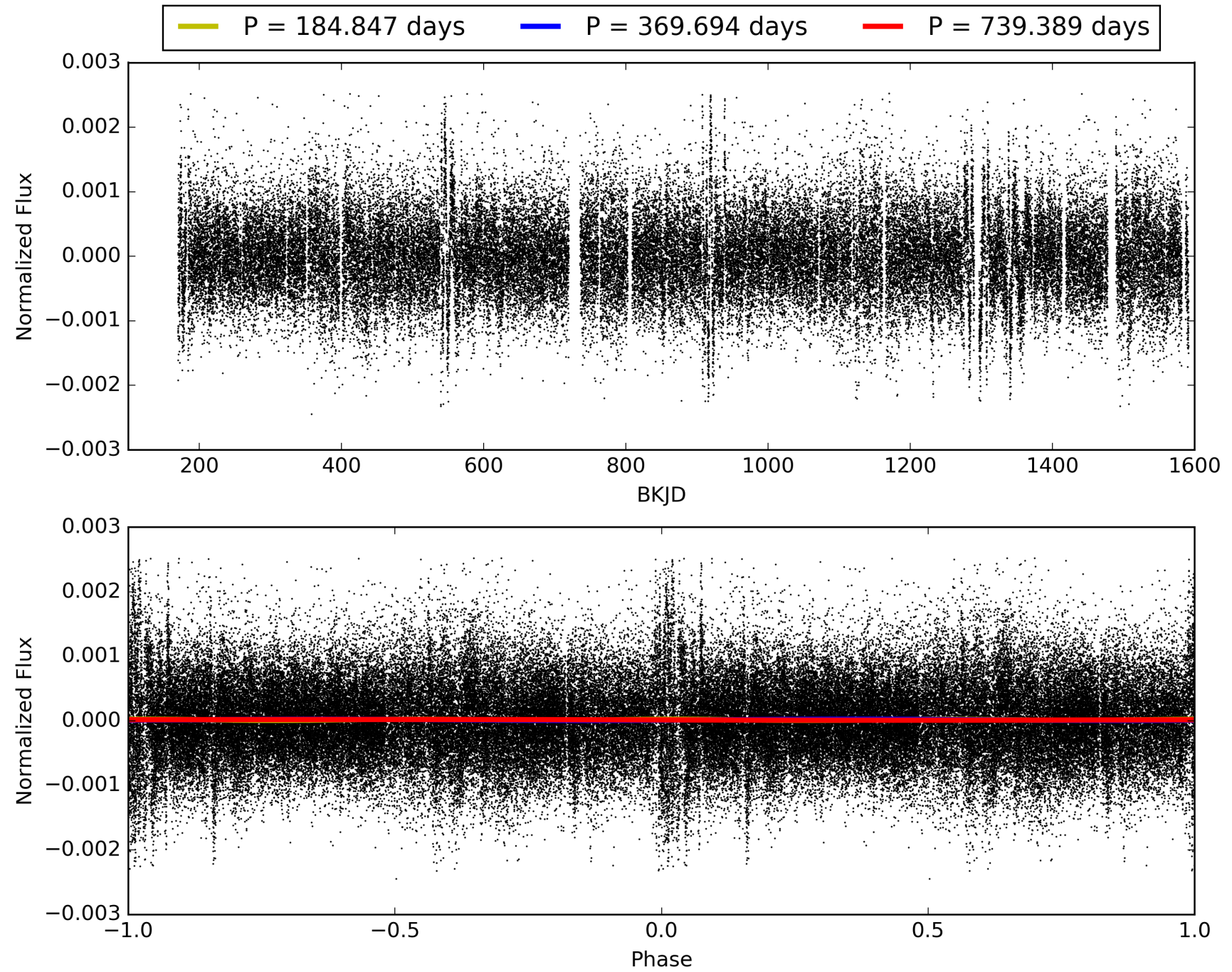
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 21:18:22 Z

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

TCE 011564366-01, PDC Light Curves

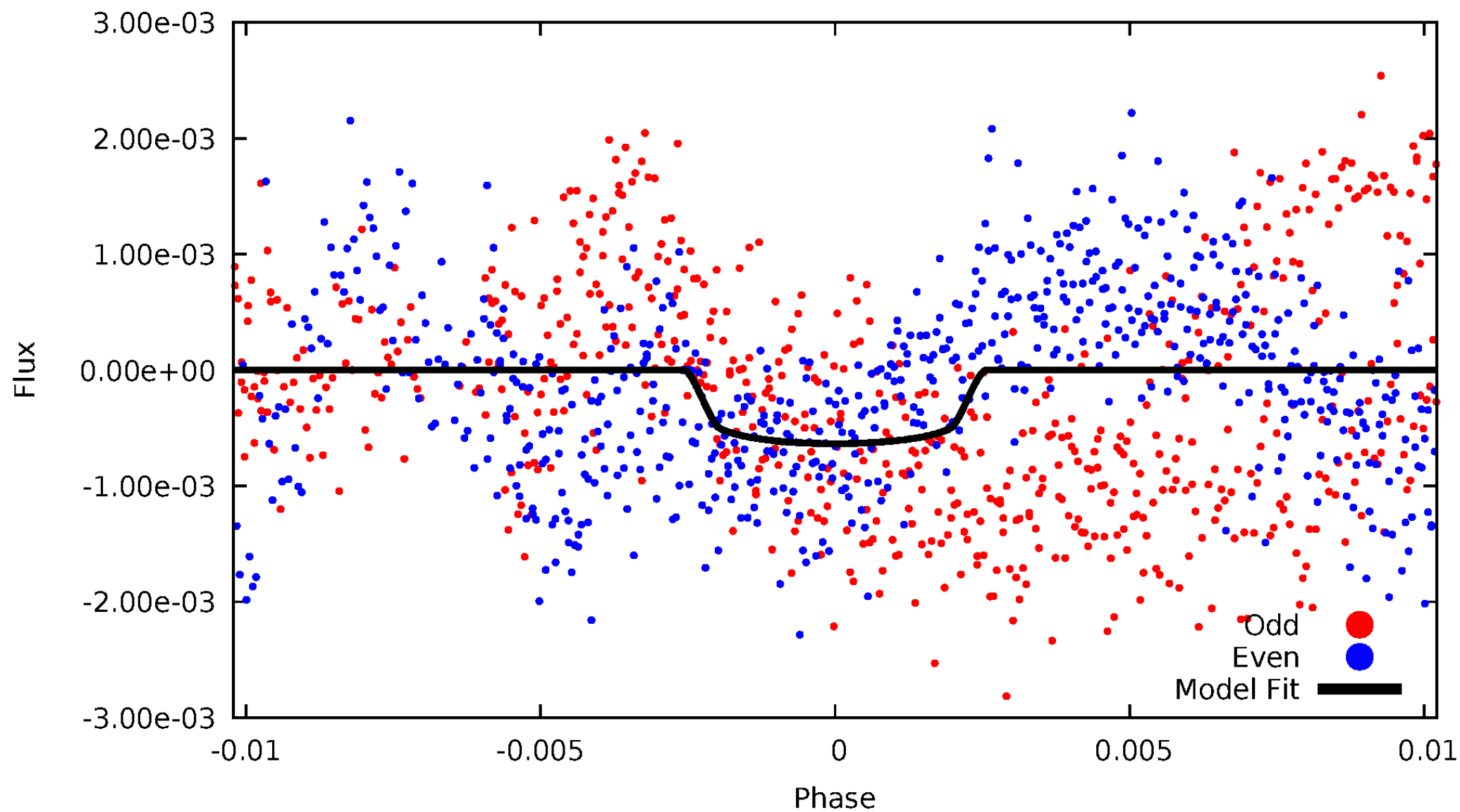


TCE 011564366-01



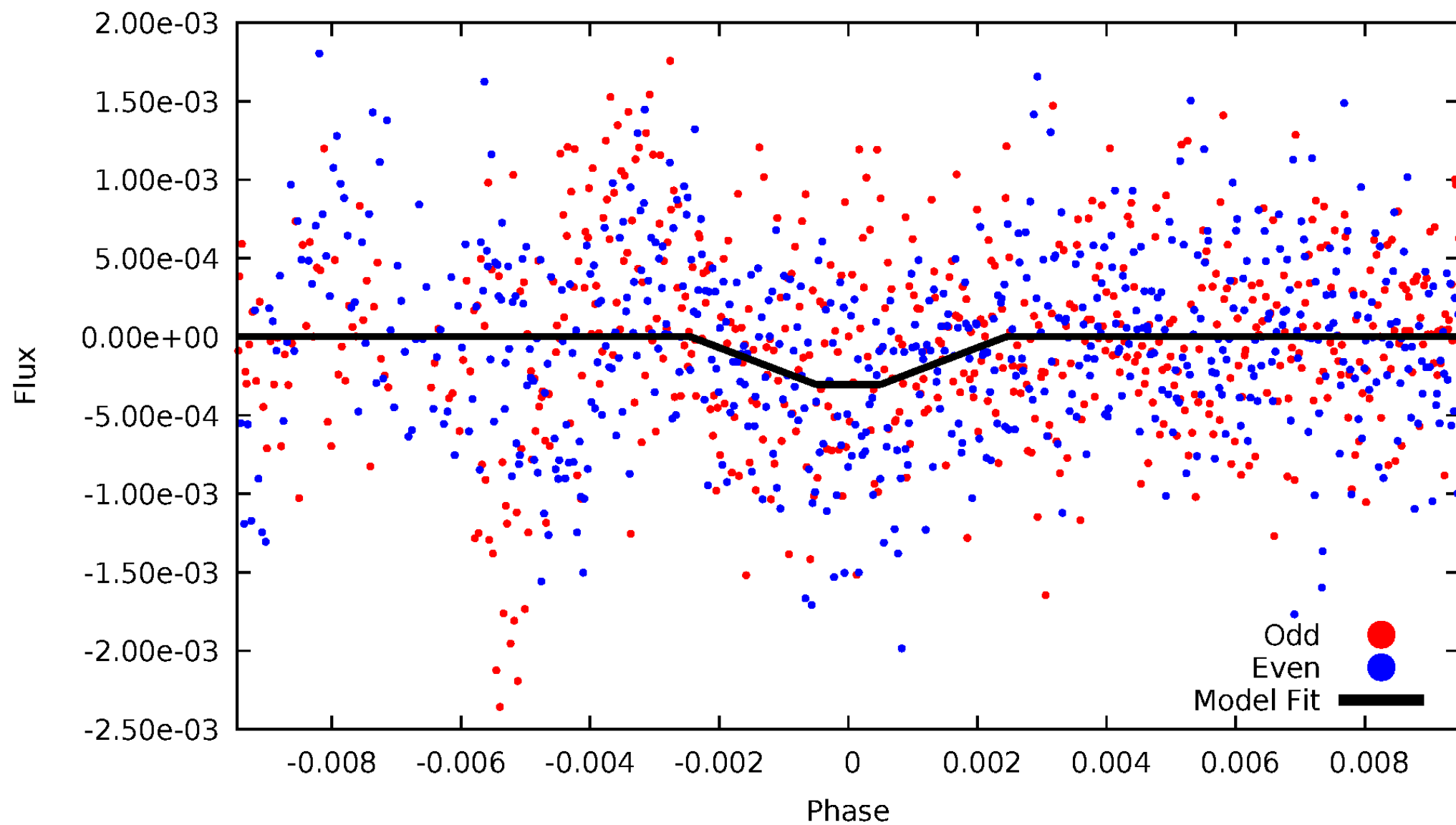
DV Odd/Even

TCE 011564366-01



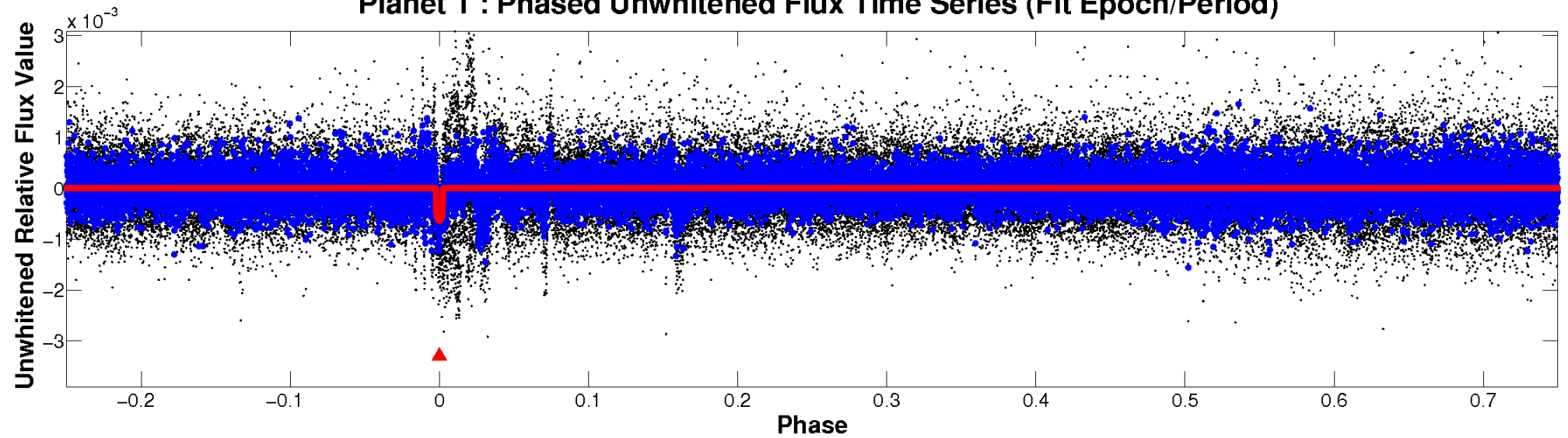
ALT Odd/Even

TCE 011564366-01

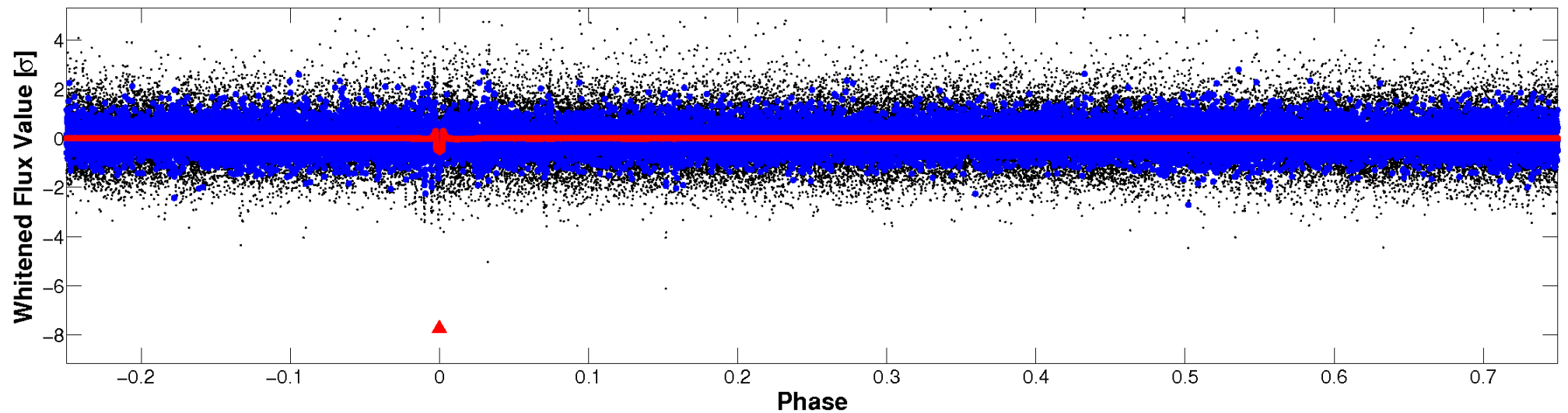


Non-Whitened Vs. Whitened Light Curve

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

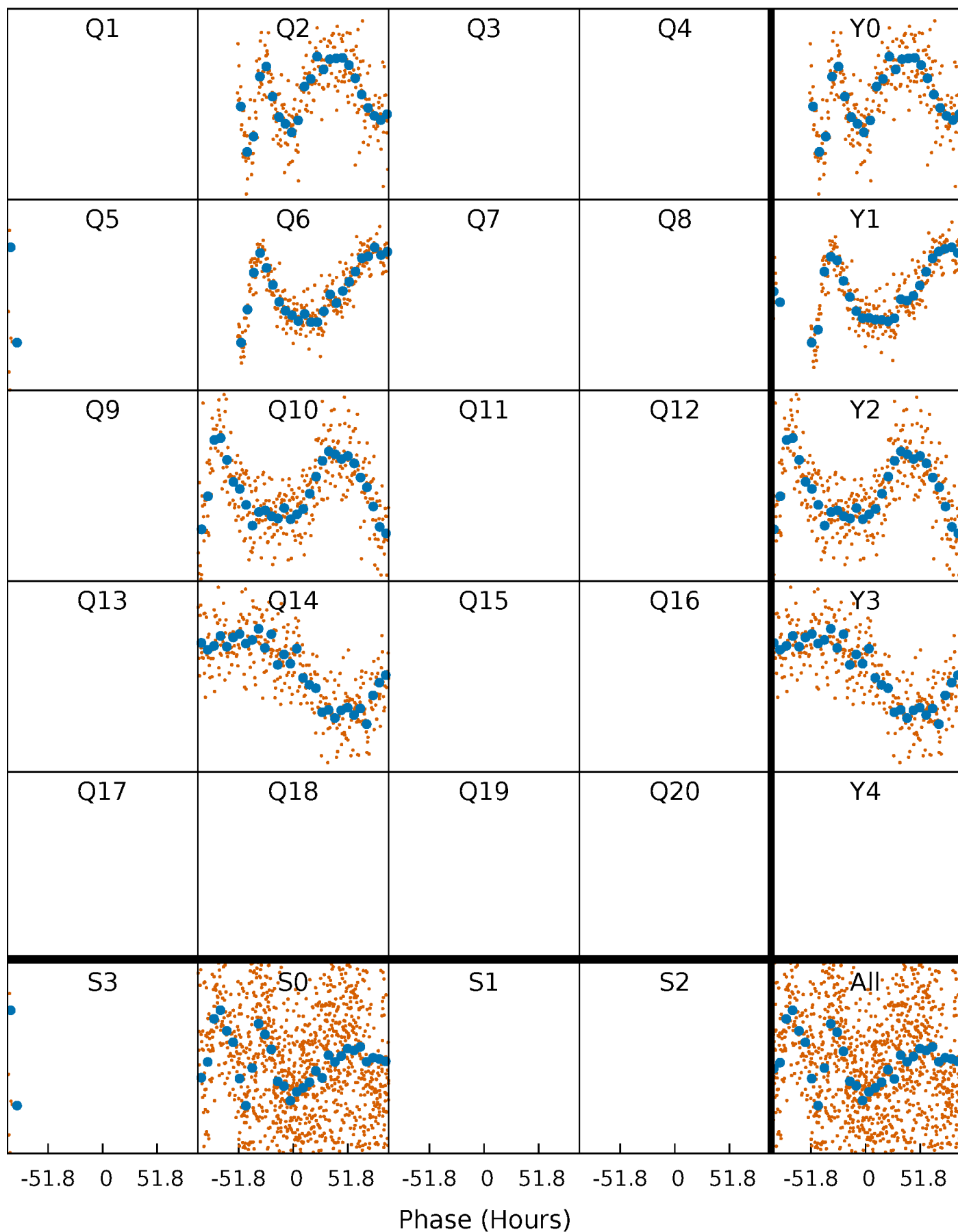


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



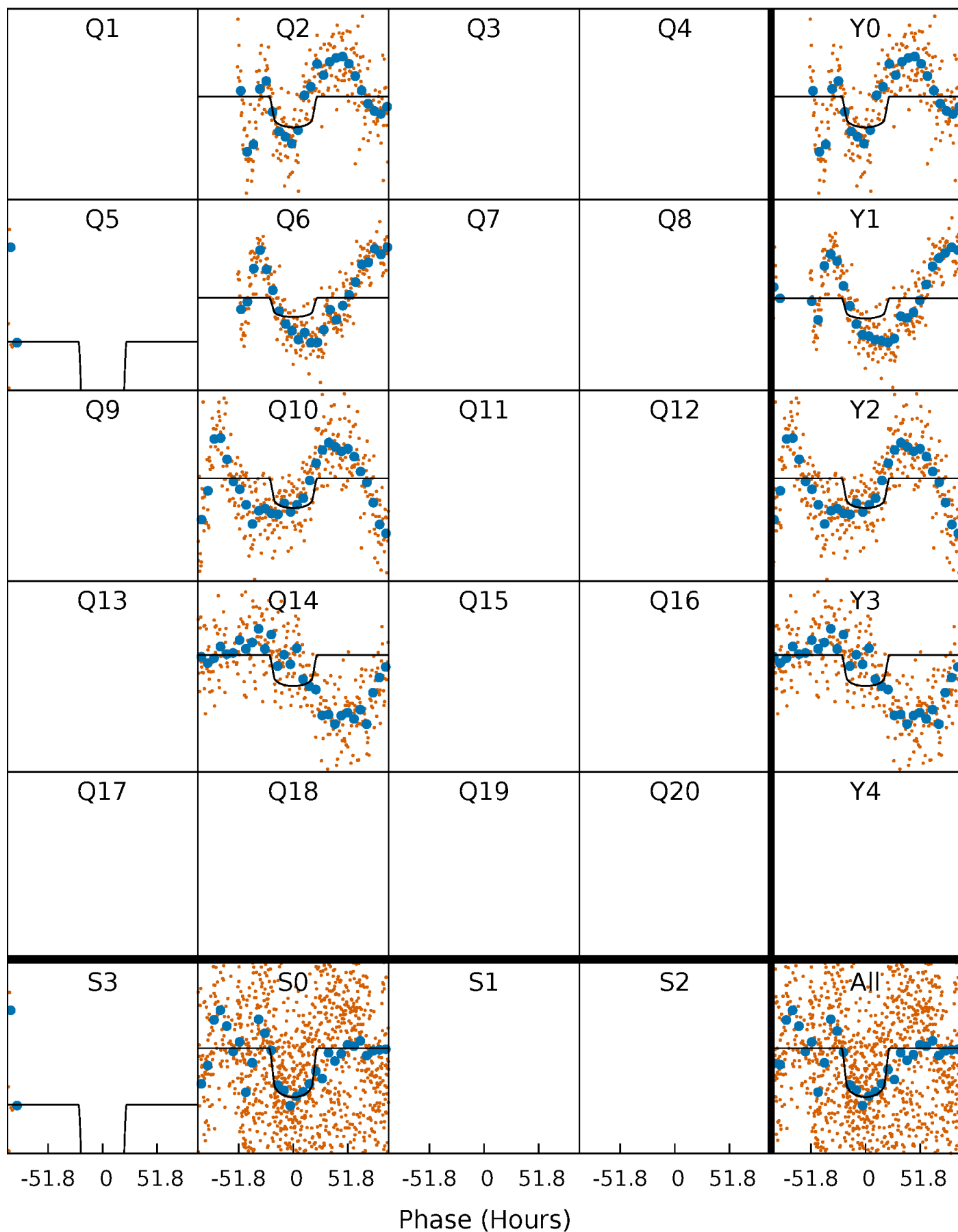
PDC Quarter-Phased Transit Curves

TCE 011564366-01 P=369.694344 Days $T_0=171.969093$ (BKJD)



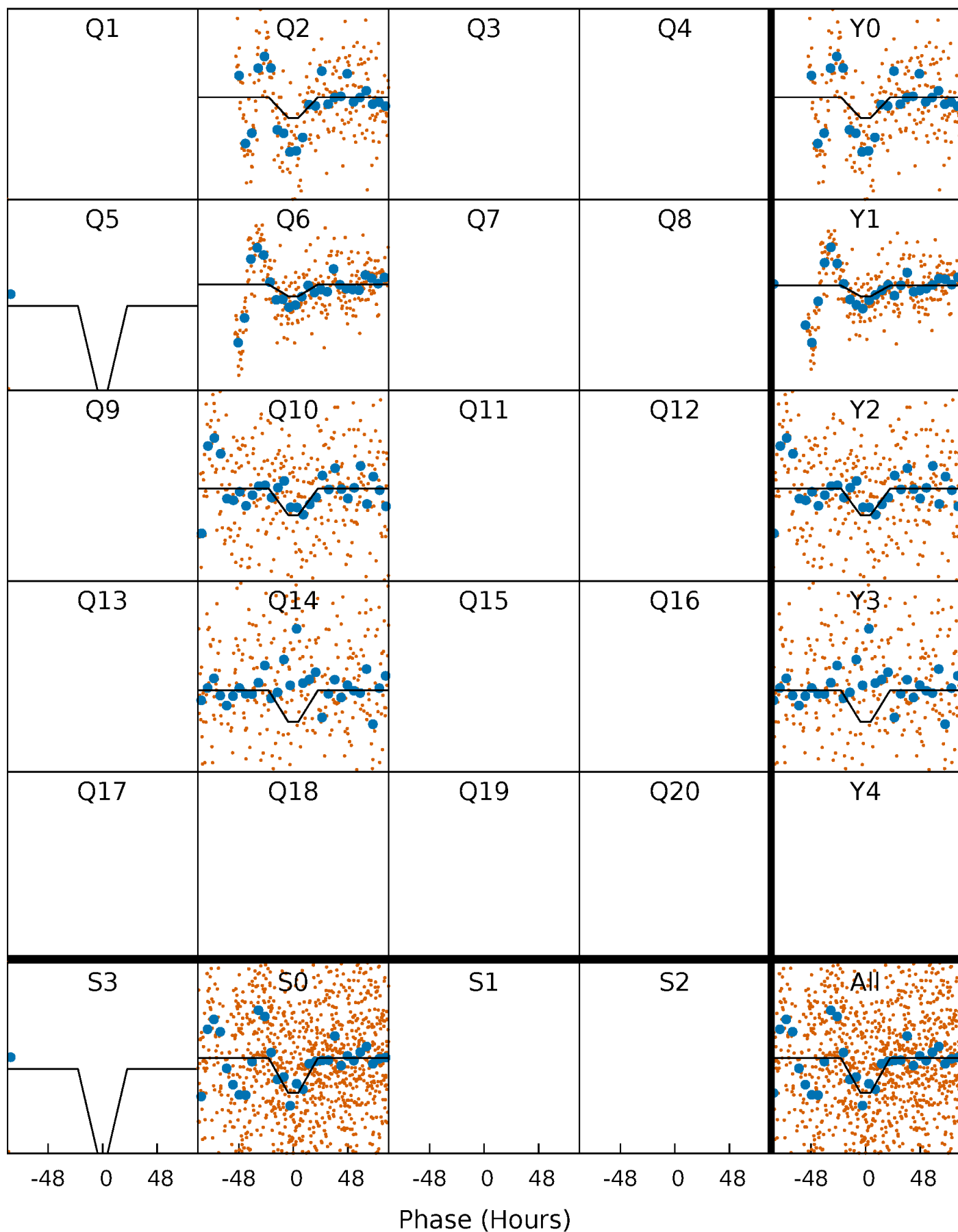
DV Quarter-Phased Transit Curves

TCE 011564366-01 P=369.694344 Days $T_0=171.969093$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

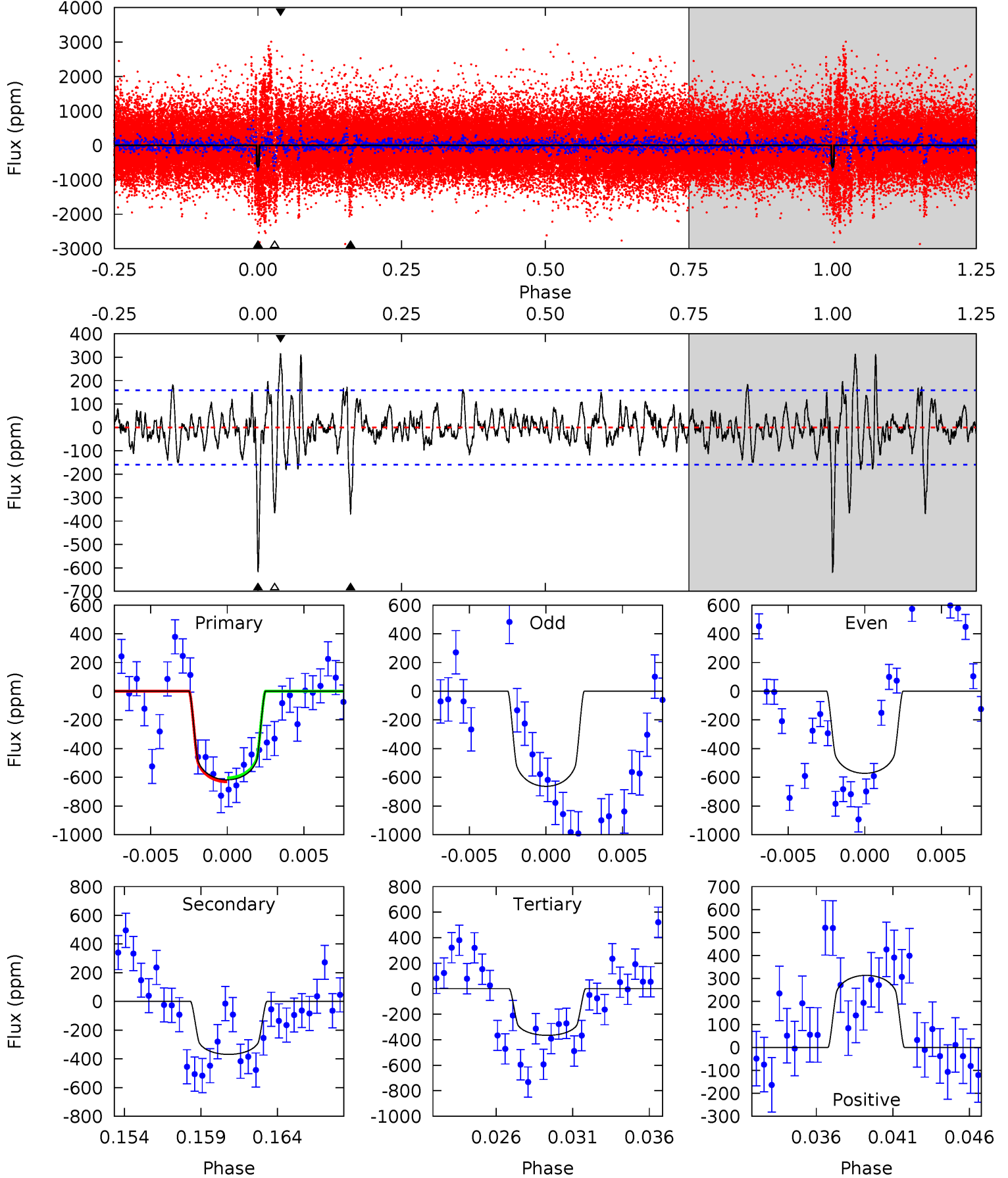
TCE 011564366-01 P=369.738457 Days $T_0=171.870139$ (BKJD)



DV Model-Shift Uniqueness Test

011564366-01, P = 369.694344 Days, E = 171.969093 Days

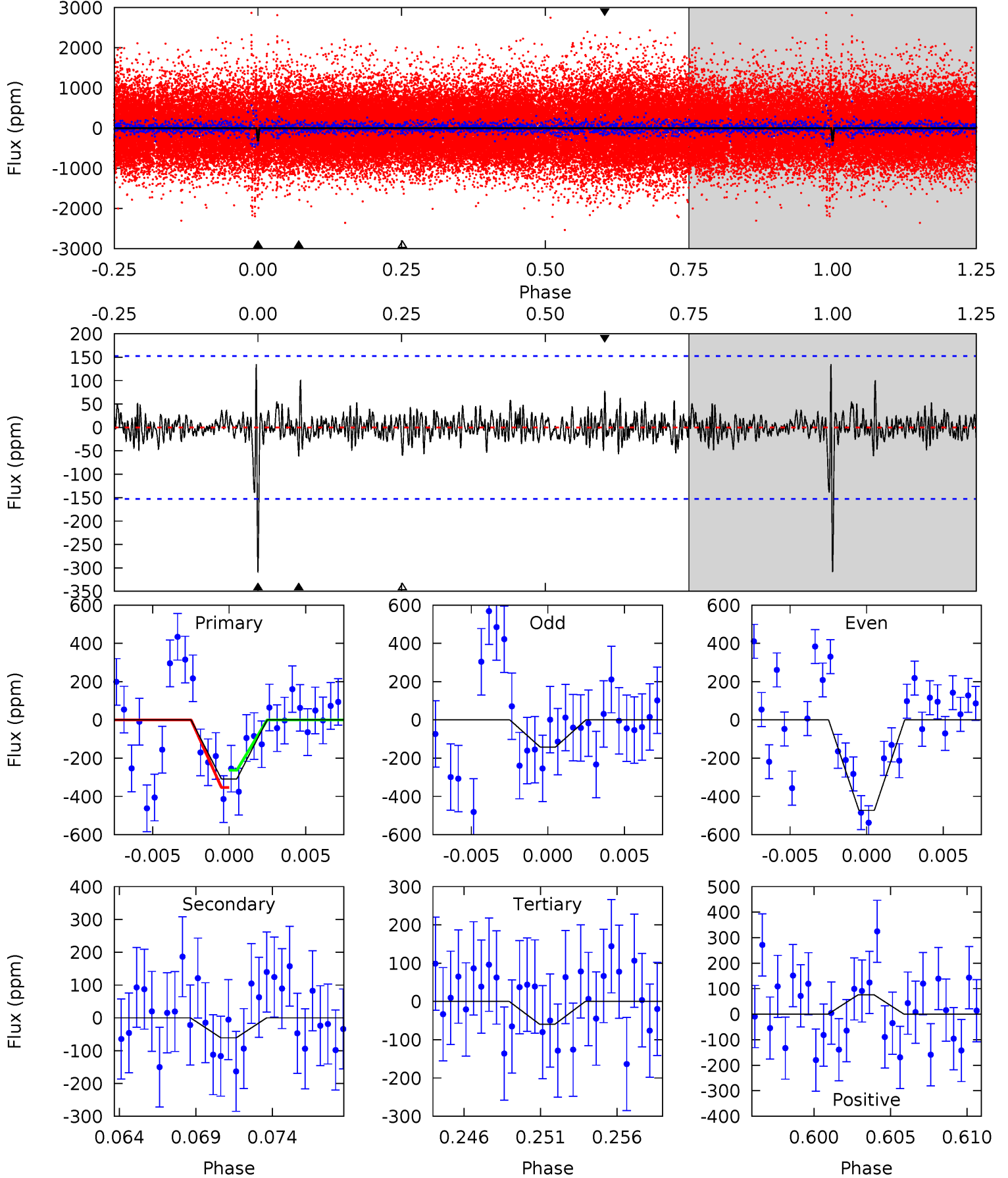
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
20.0	11.9	11.8	10.2	5.15	2.80	2.10	8.15	9.83	0.10	1.78	1.47	1.08	0.34	0.46



Alt Model-Shift Uniqueness Test

011564366-01, P = 369.738457 Days, E = 171.870139 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.4	2.06	2.01	2.59	5.16	2.81	0.69	8.42	7.84	0.05	-0.54	5.62	0.85	0.30	1.51



Stellar Parameters For KIC 011564366

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6253^{+188}_{-207}	$4.503^{+0.048}_{-0.192}$	$-0.420^{+0.300}_{-0.300}$	$0.927^{+0.258}_{-0.092}$	$0.997^{+0.123}_{-0.123}$	$1.764^{+0.445}_{-0.866}$
	+3%/-3%	+1%/-4%	+71%/-71%	+28%/-10%	+12%/-12%	+25%/-49%
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 011564366-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-369 ± 31	$2.77^{+0.46}_{-0.32}$	378^{+22}_{-19}	5347^{+321}_{-299}	25654^{+8034}_{-6552}
Alt.	-61 ± 30	$1.83^{+0.35}_{-0.30}$	377^{+26}_{-17}	4375^{+460}_{-511}	9403^{+7074}_{-4592}

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

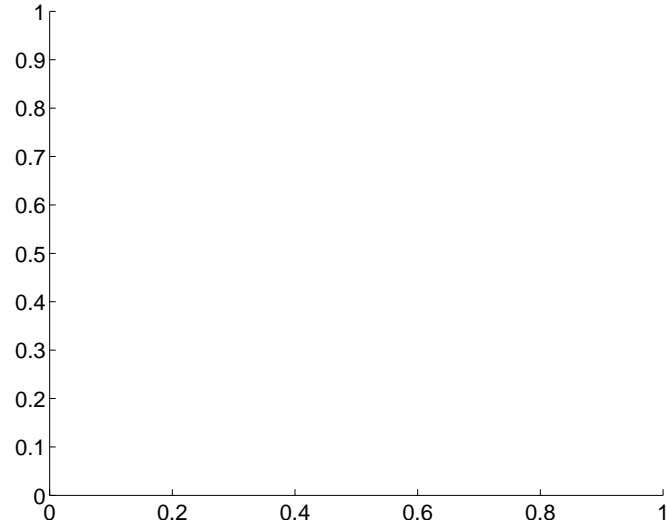
Supplemental centroid analysis for 011564366-01. Kepler magnitude: 15.63. Transit SNR 8.87

There are 0 quarters with good PRF difference image offsets

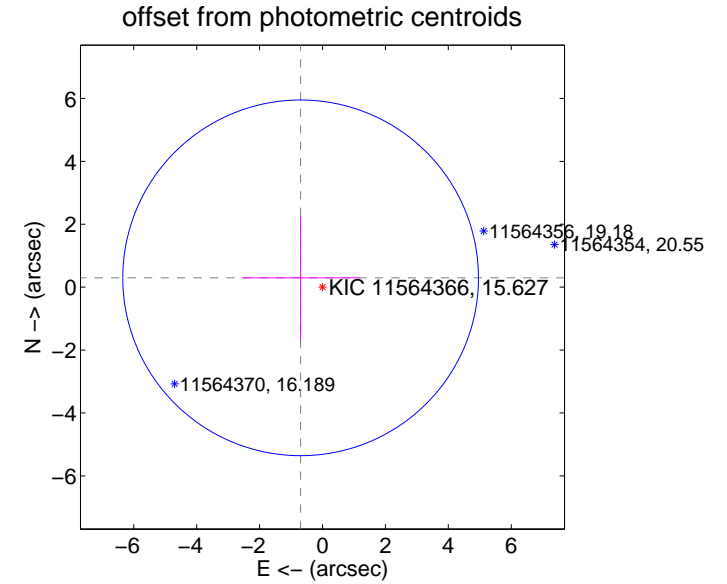
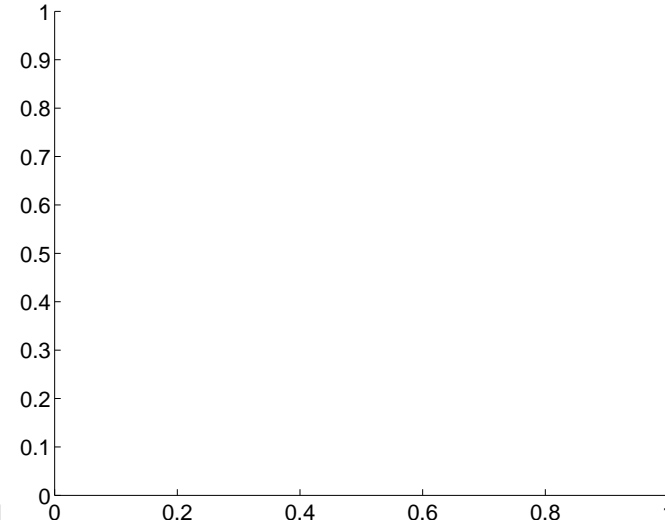
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	—	—	—	—
PRF-fit source offset from KIC position	—	—	—	—
photometric centroid source offset	0.76 ± 1.88	0.40	0.70 ± 1.86	0.30 ± 1.99

There is no PRF-fit offset from OOT-fit



There is no PRF-fit offset from KIC



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.

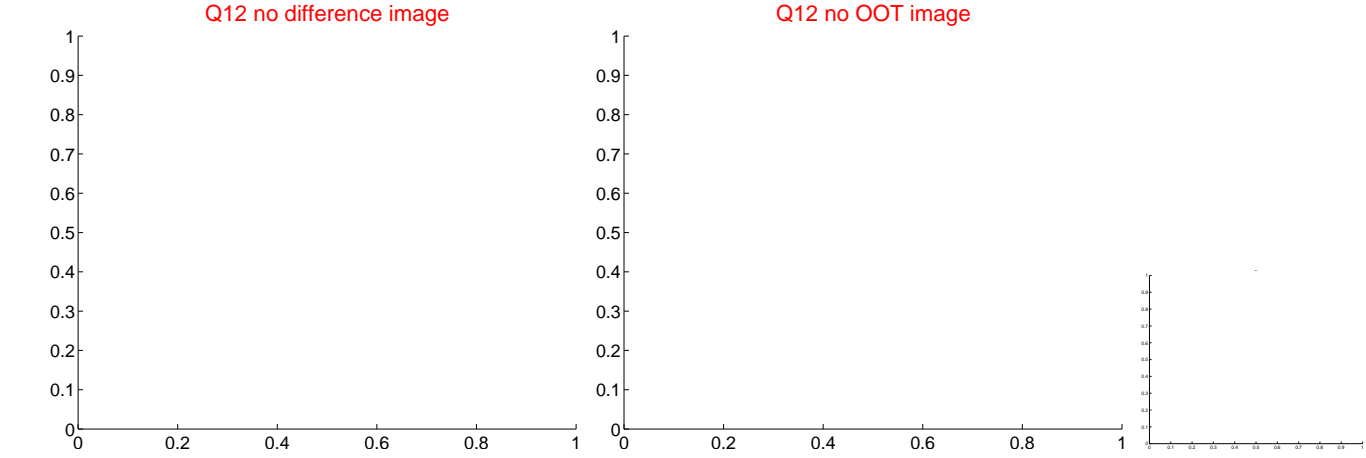
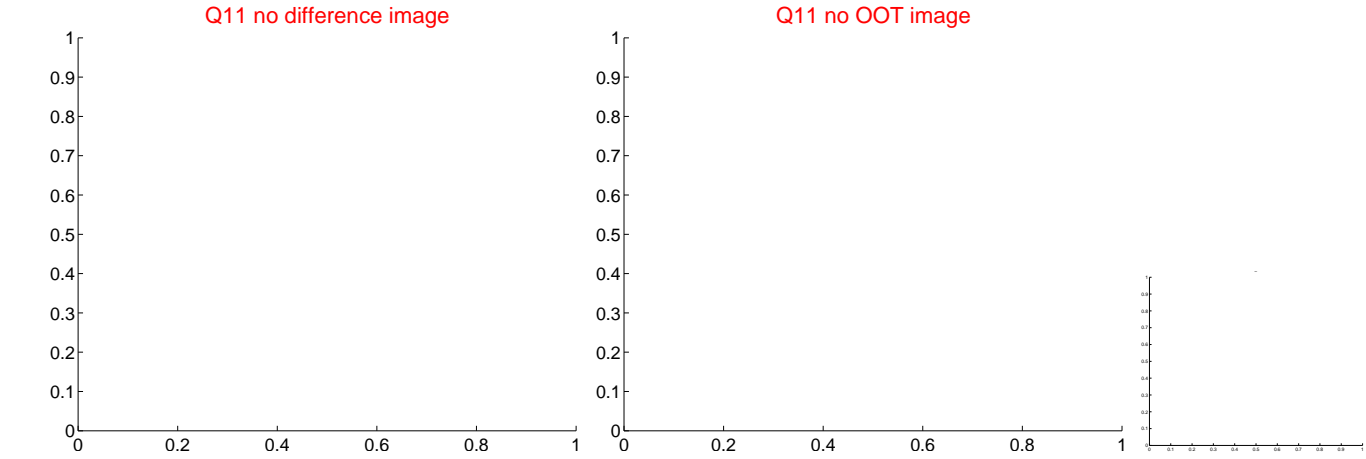
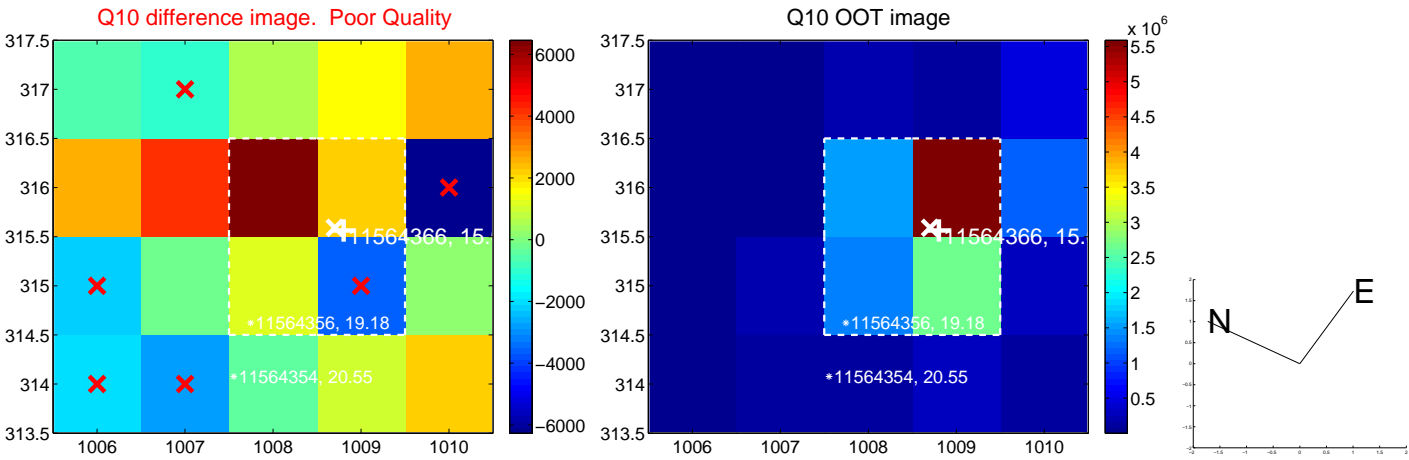
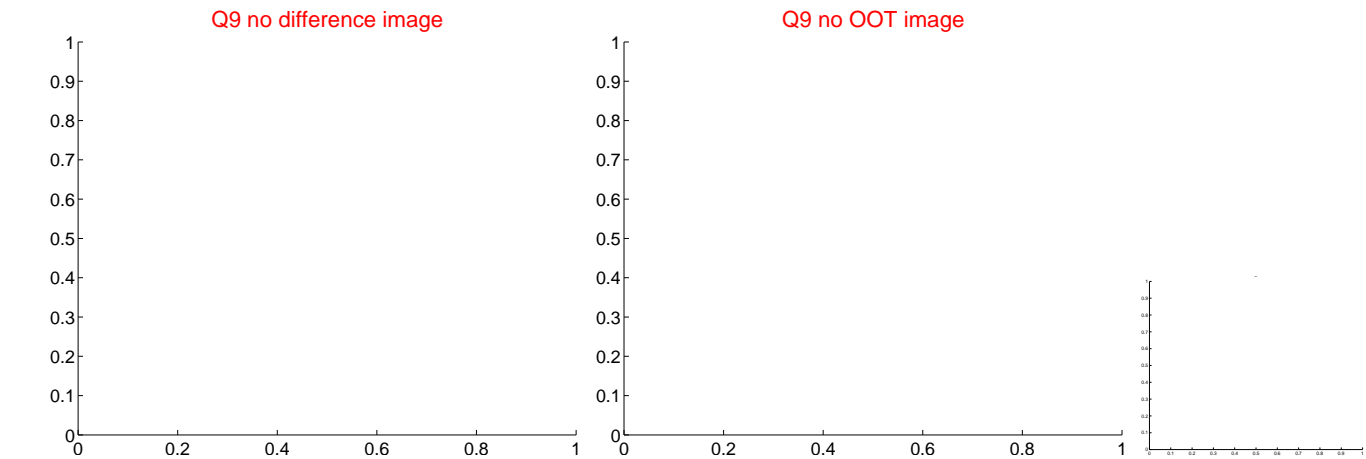
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



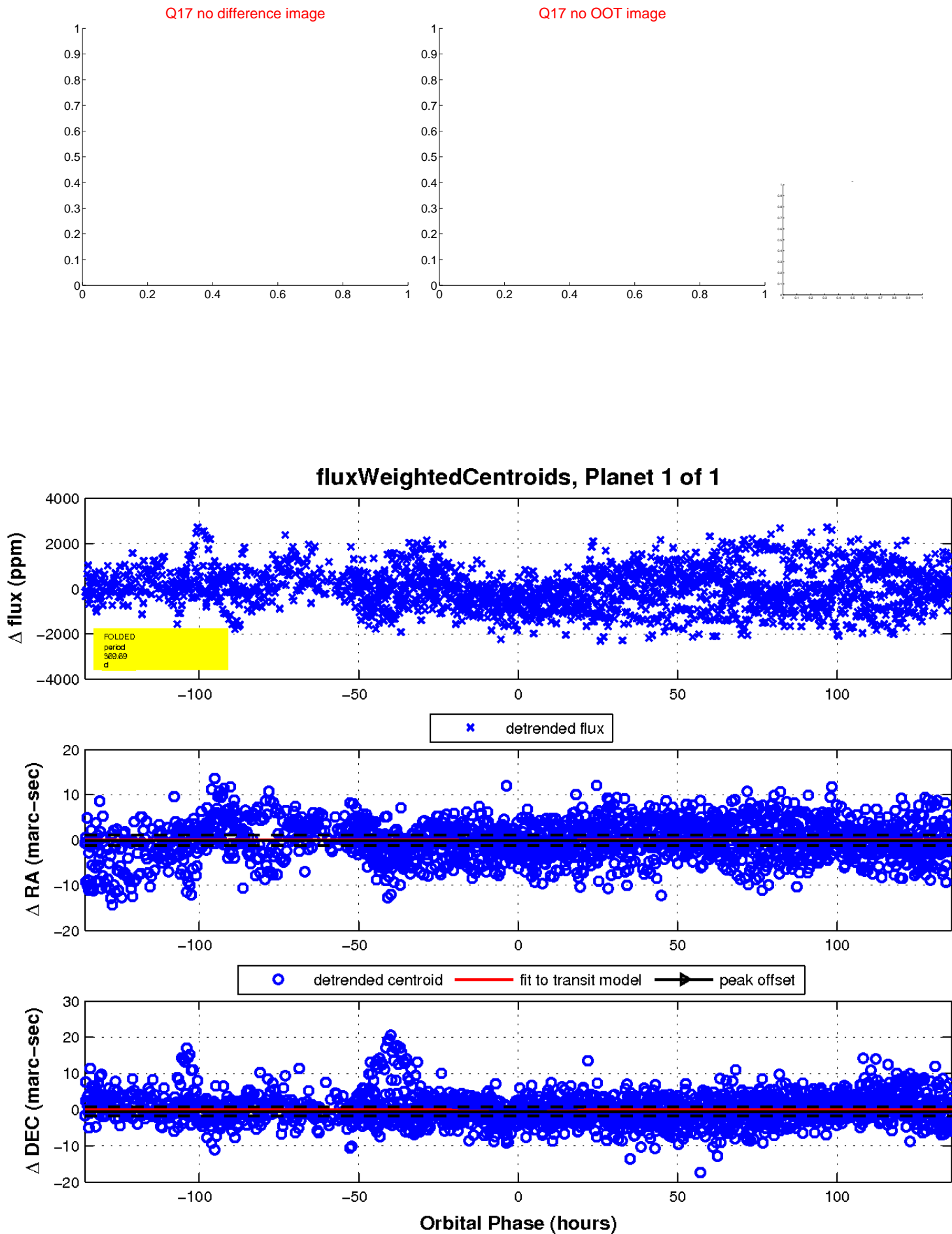
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



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



UKIRT Image

Declination

