

KIC 007365552

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})
007365552-01	OBS	No	366.785666	174.892317	619.3	16.695	8.0	8.4	0.92	5851	2.73	1.01

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007365552-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—ALL_TRANS_CHASES—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.

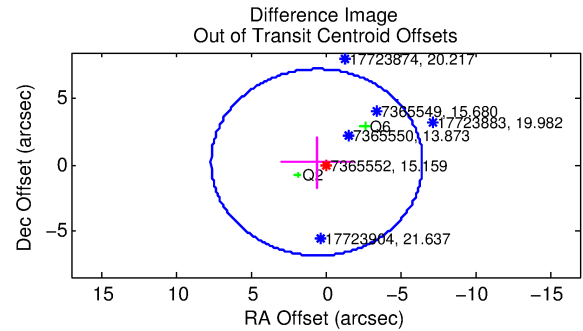
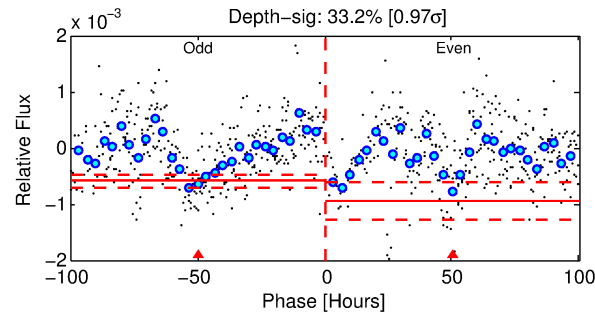
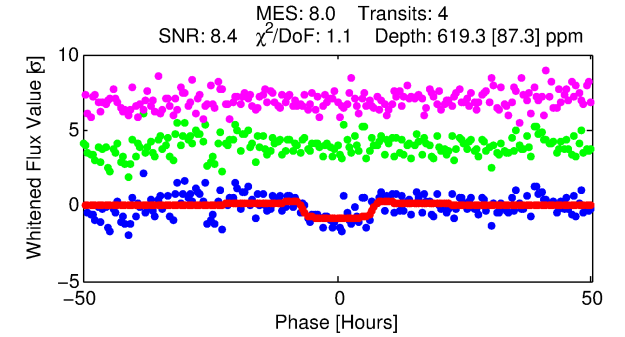
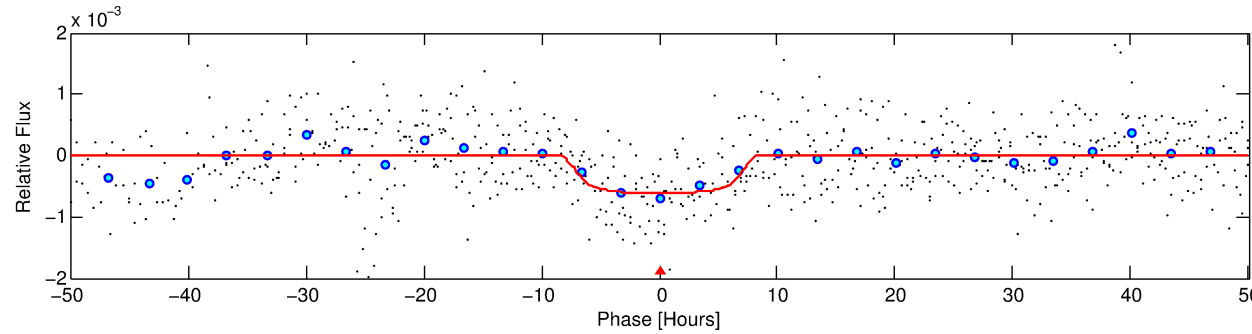
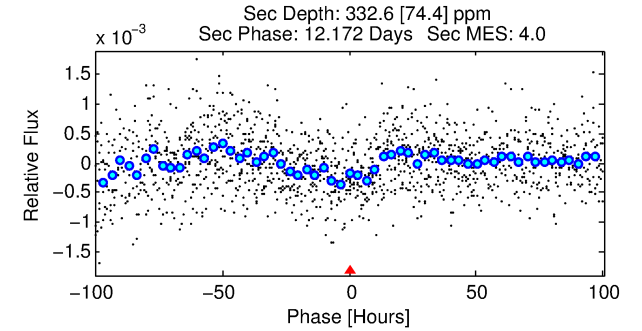
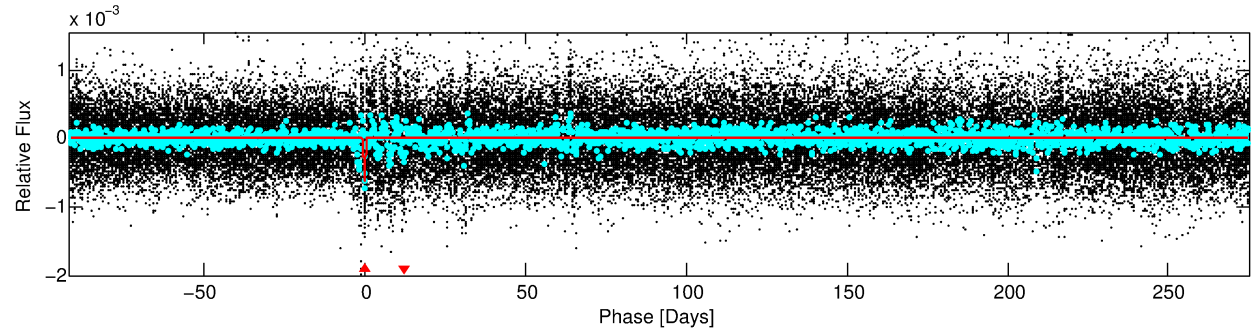
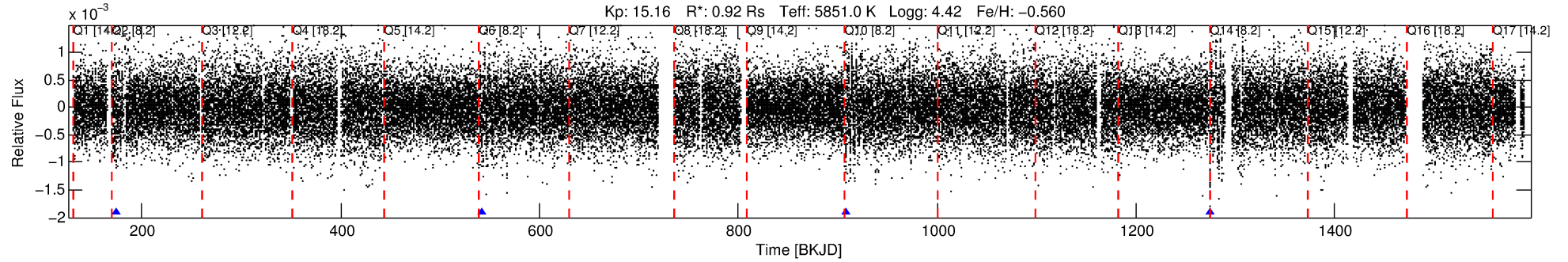
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007365552-01

No Significant Match Found

DV One-Page Summary

KIC: 7365552 Candidate: 1 of 1 Period: 366.786 d



DV Fit Results:

Period = 366.78567 [0.01571] d
Epoch = 174.8923 [0.0280] BKJD
Rp/R* = 0.0273 [0.0029]
a/R* = 77.40 [26.83]
b = 0.92 [0.06]
Seff = 1.01 [0.35]
Teff = 256 [22] K
Rp = 2.73 [0.78] Re
a = 0.9309 [0.2068] AU
Ag = 21272.55 [9464.29] [2.25σ]
Teffp = 4778 [393] K [11.47σ]

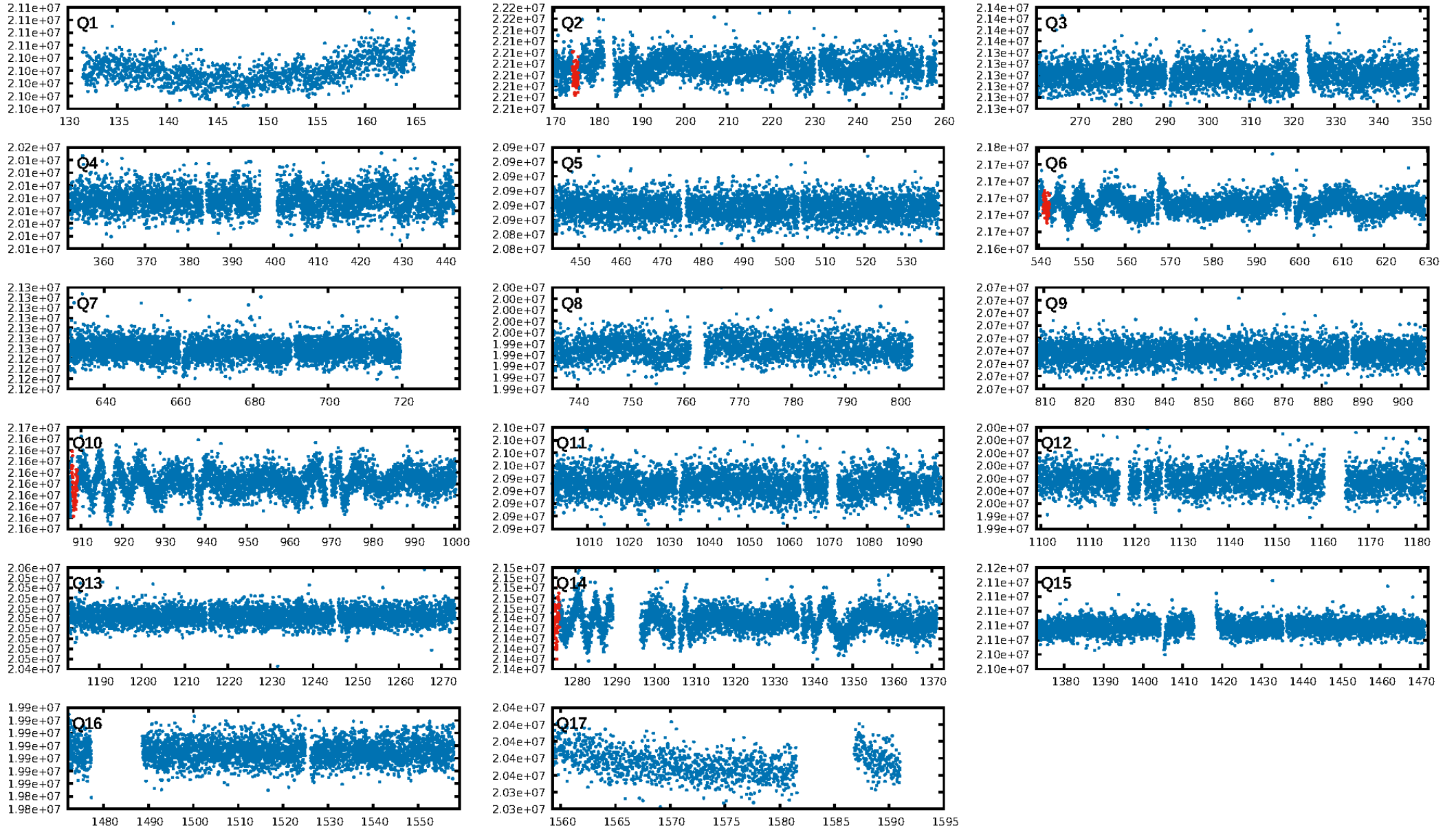
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 5.6%
ModelChiSquareGof-sig: 99.9%
Bootstrap-pfa: 1.15e-12
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: -2.511
Centroid-sig: 29.8%
Centroid-so: 0.825 arcsec [0.82σ]
OotOffset-rm: 0.591 arcsec [0.25σ]
OotOffset-st: 2/0/0/0 [2]
KicOffset-rm: 0.322 arcsec [0.15σ]
KicOffset-st: 2/0/0/0 [2]
DiffImageQuality-fgm: 0.00 [0/2]
DiffImageOverlap-fno: 1.00 [2/2]

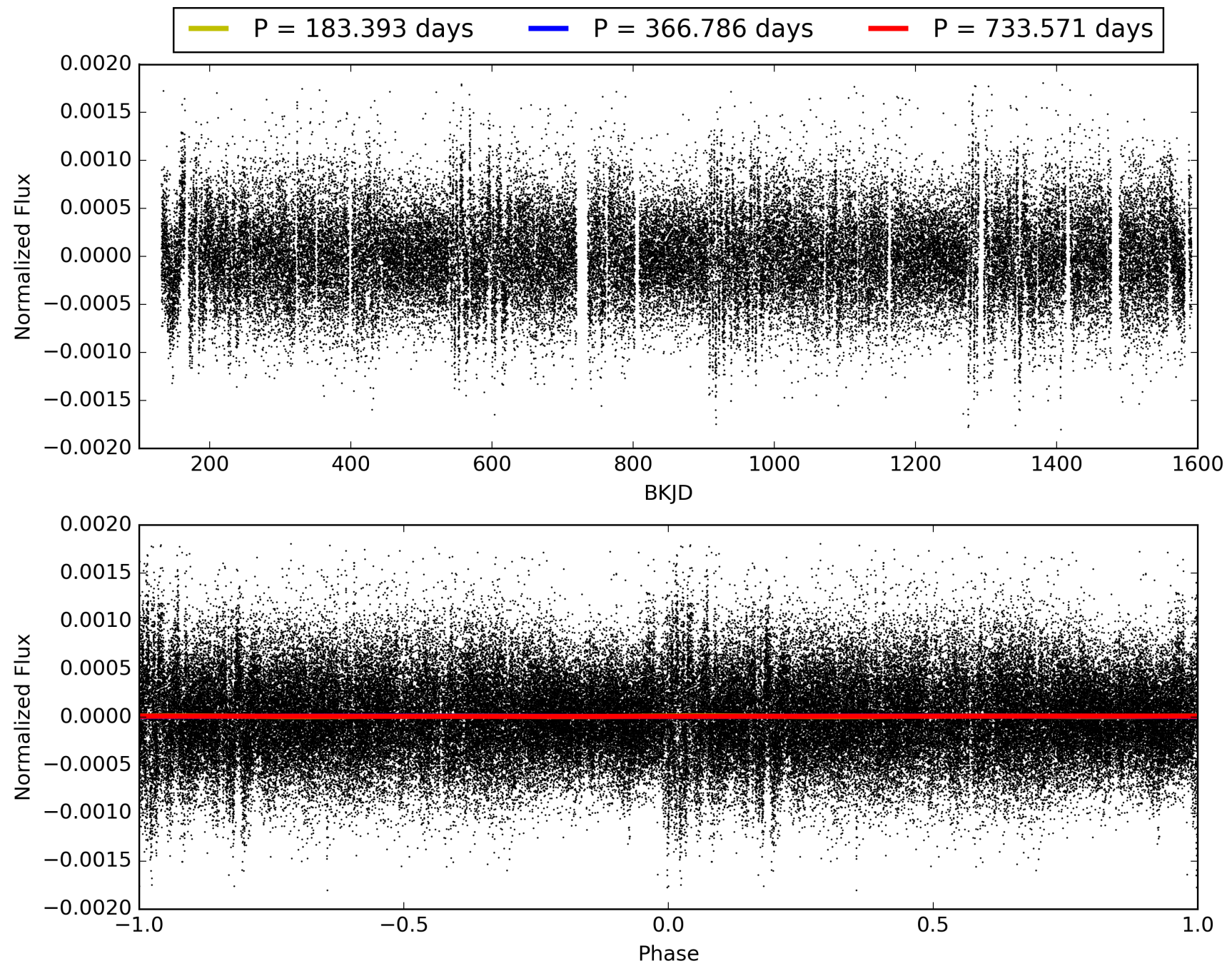
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 03:49:14 Z

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

TCE 007365552-01, PDC Light Curves

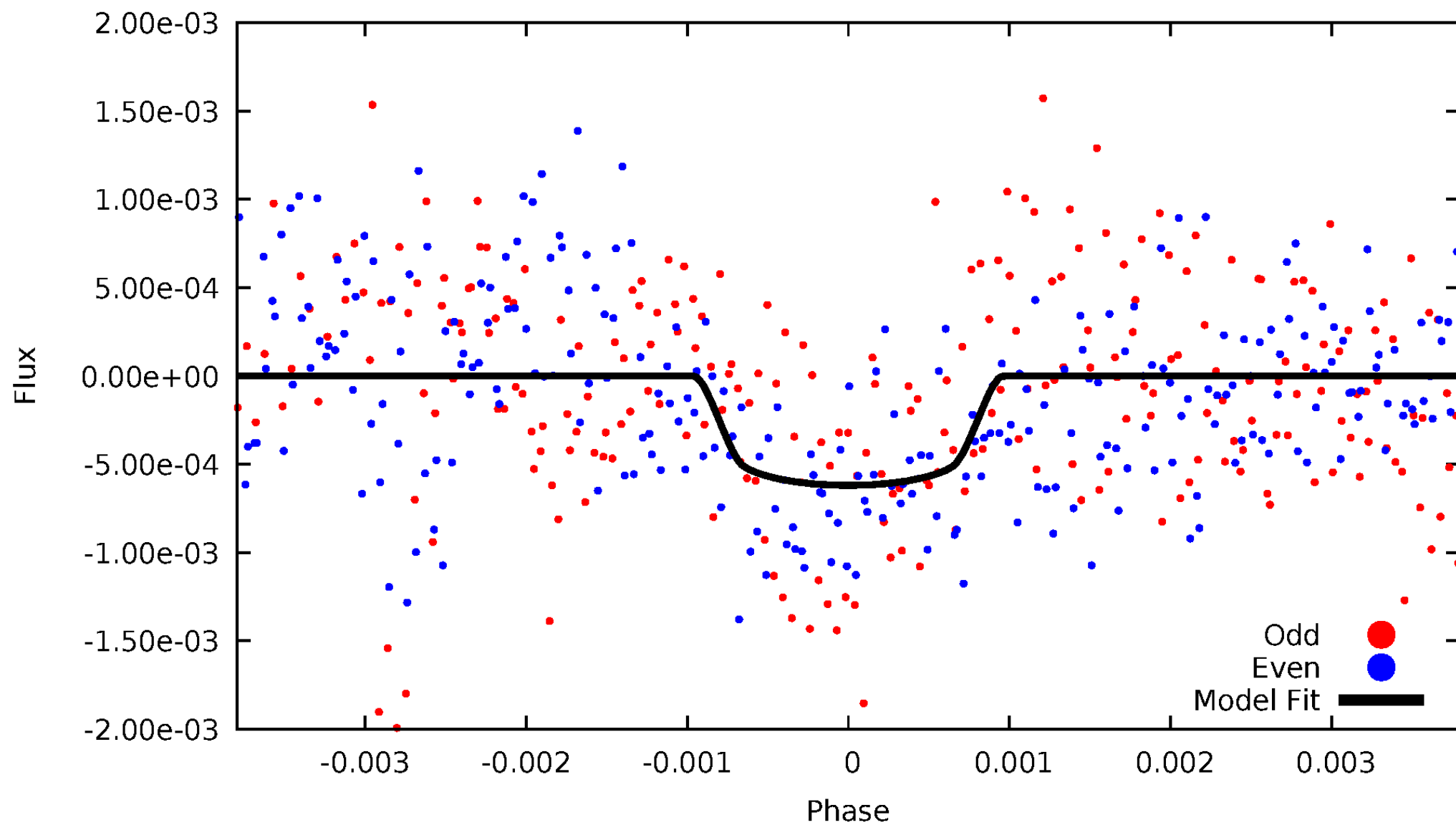


TCE 007365552-01



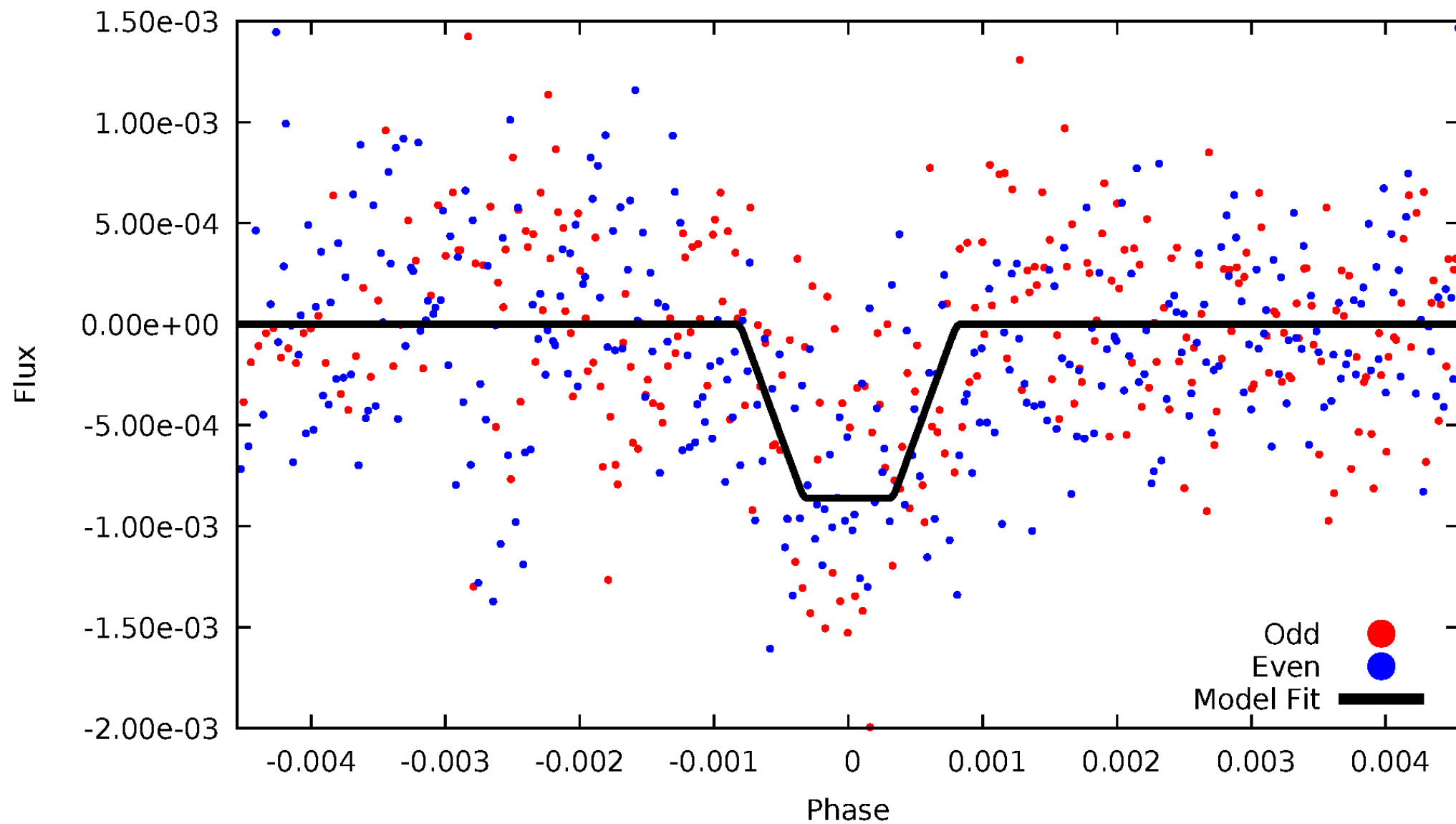
DV Odd/Even

TCE 00736552-01



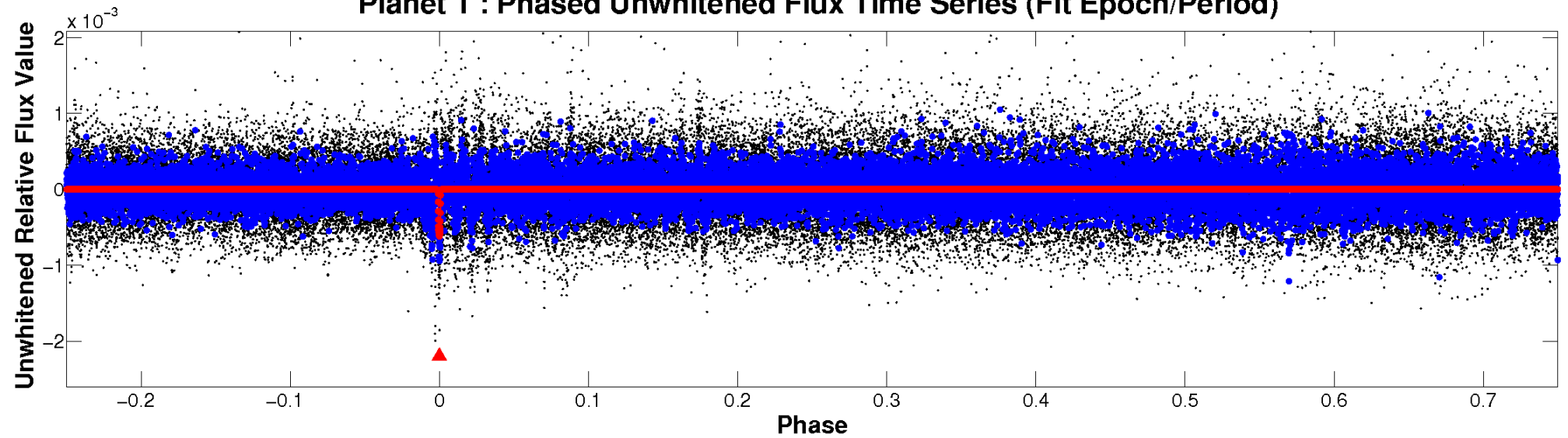
ALT Odd/Even

TCE 00736552-01

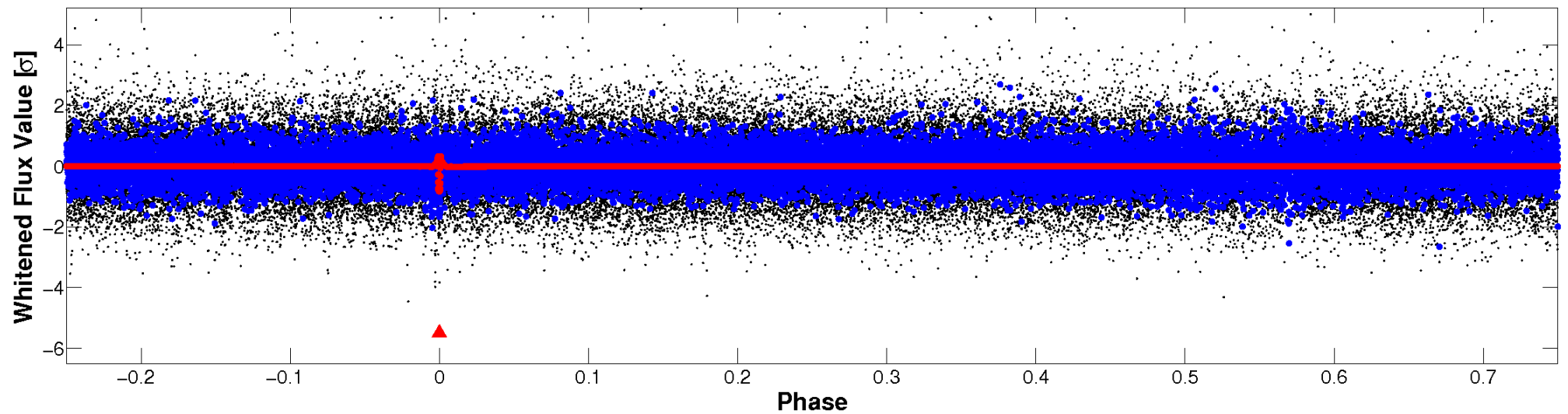


Non-Whitened Vs. Whitened Light Curve

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



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



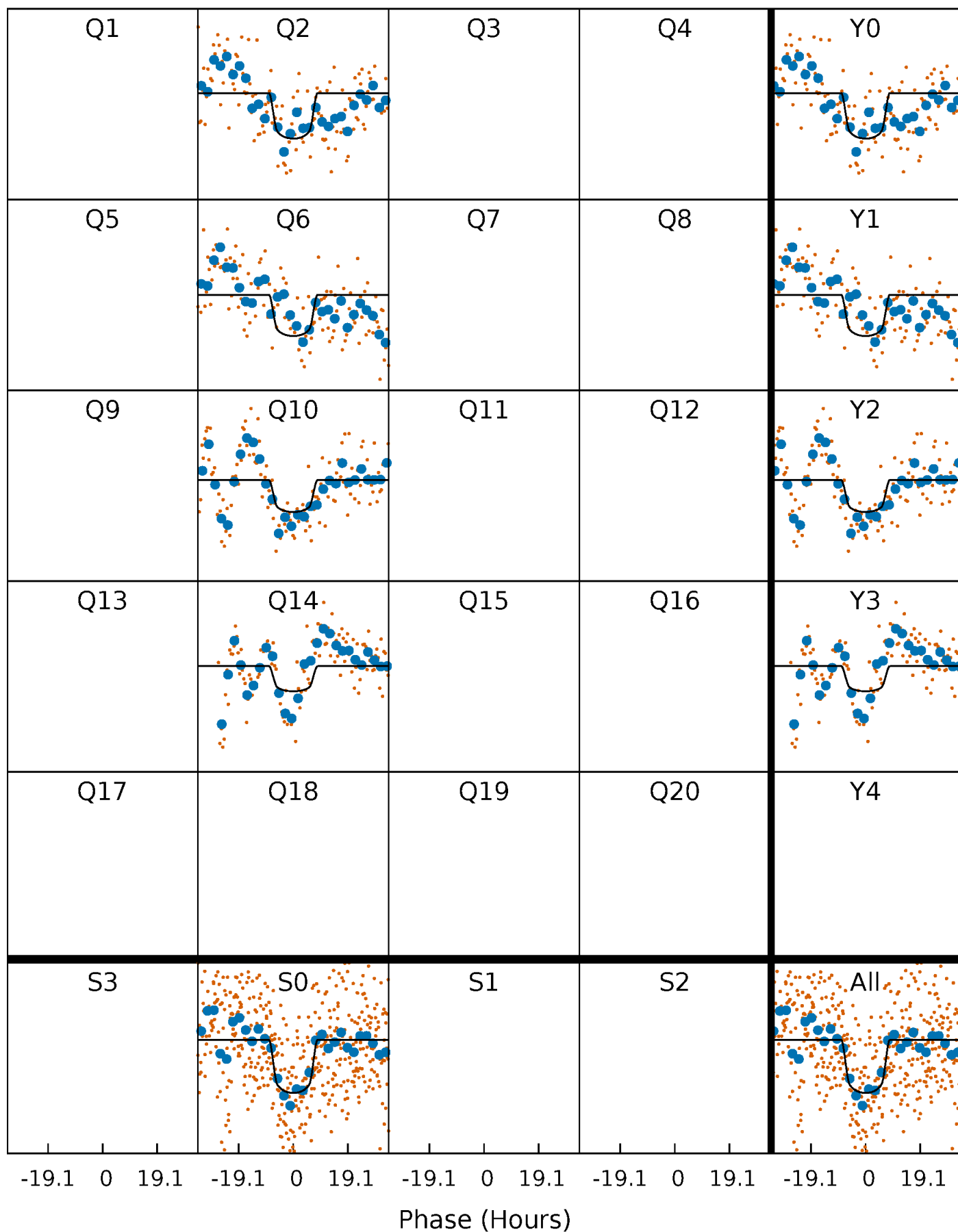
PDC Quarter-Phased Transit Curves

TCE 007365552-01 P=366.785666 Days $T_0=174.892317$ (BKJD)



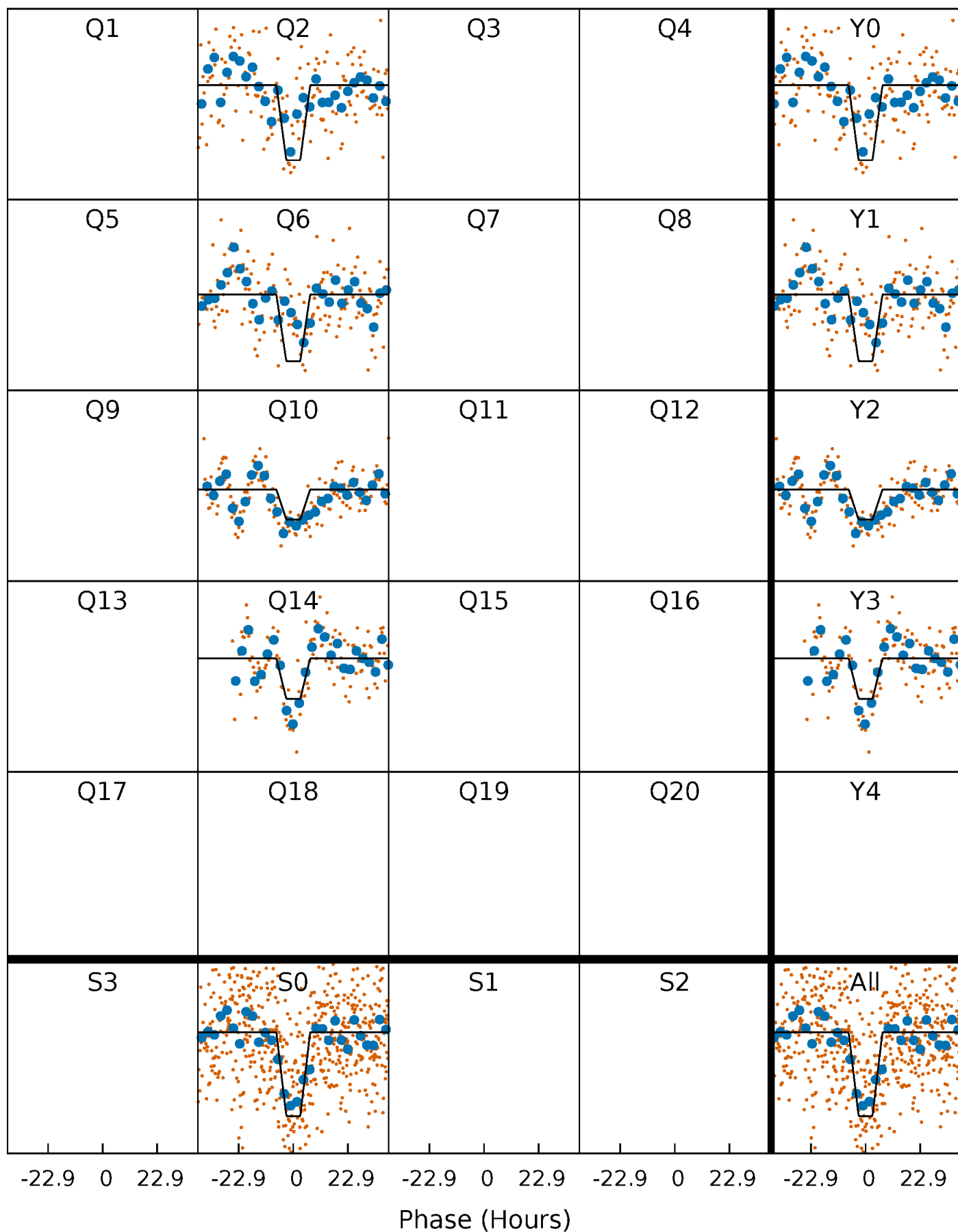
DV Quarter-Phased Transit Curves

TCE 007365552-01 P=366.785666 Days $T_0=174.892317$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

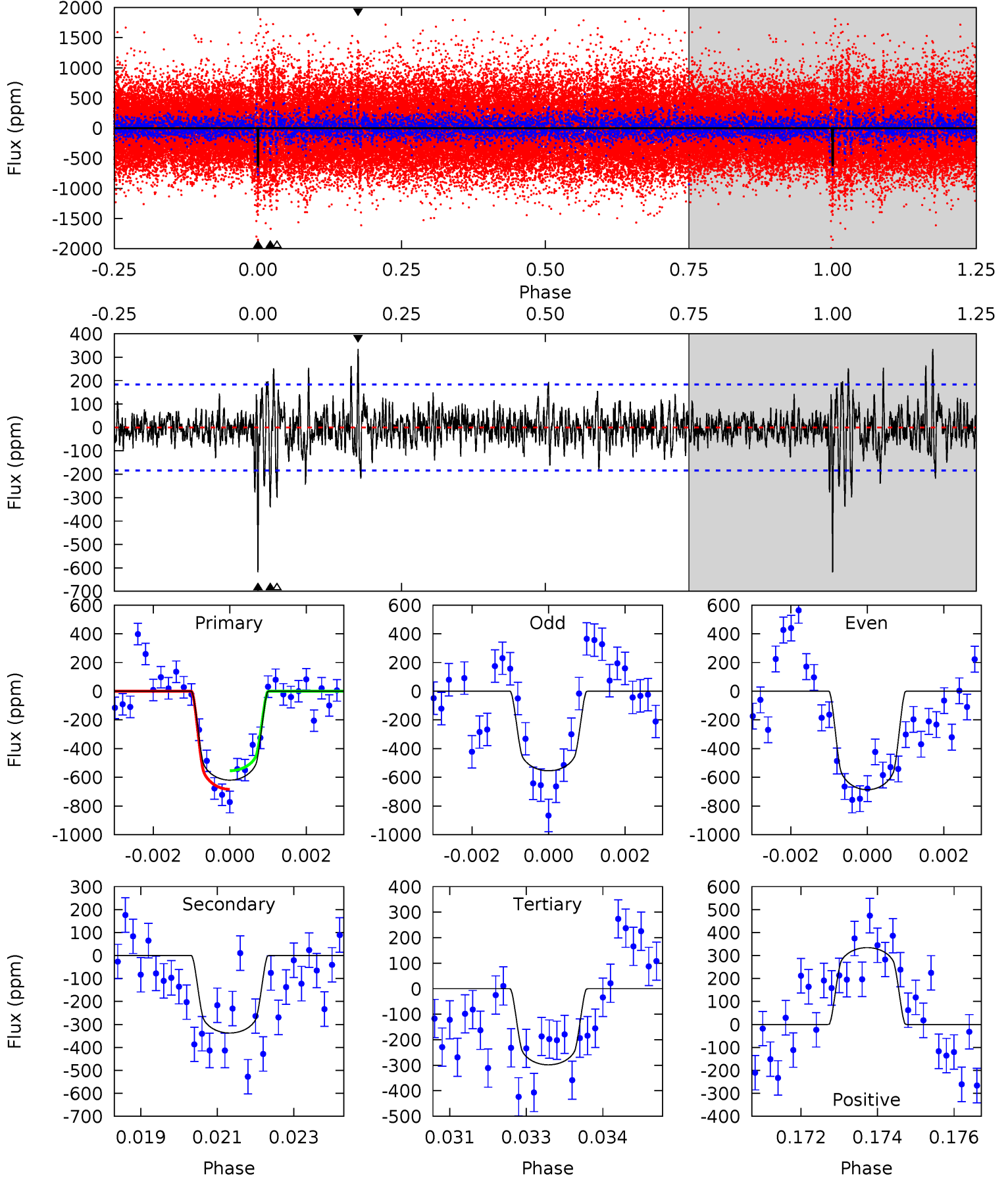
TCE 00736552-01 P=366.796024 Days $T_0=174.836648$ (BKJD)



DV Model-Shift Uniqueness Test

007365552-01, P = 366.785666 Days, E = 174.892317 Days

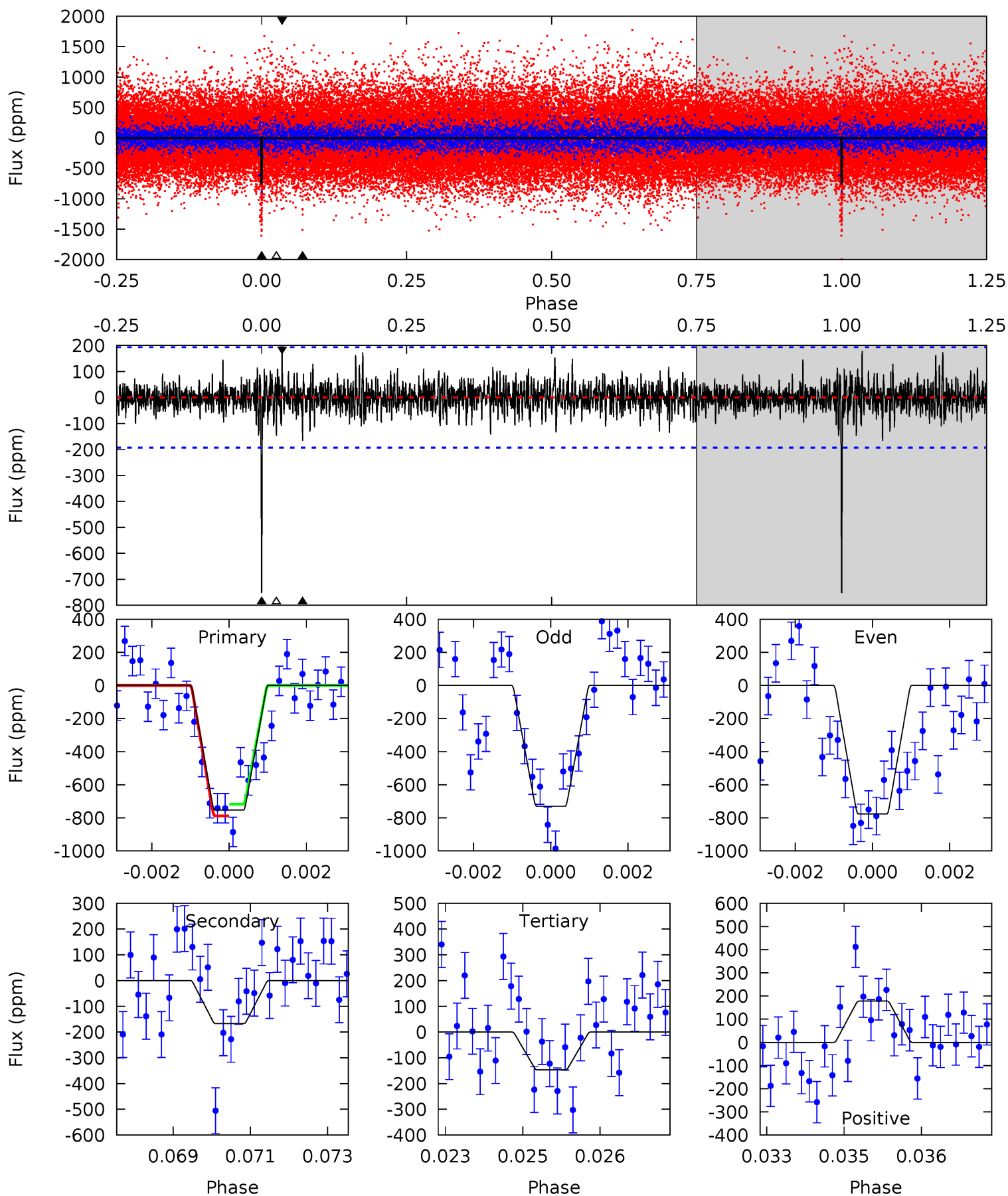
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
18.0	9.82	8.68	9.73	5.33	3.10	1.80	9.34	8.29	1.14	0.09	1.92	0.98	0.35	1.89



Alt Model-Shift Uniqueness Test

007365552-01, $P = 366.796024$ Days, $E = 174.836648$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
20.9	4.63	4.08	4.94	5.36	3.15	1.16	16.8	15.9	0.55	-0.31	0.65	0.97	0.19	1.00



Stellar Parameters For KIC 007365552

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5851^{+159}_{-177}	$4.418^{+0.144}_{-0.176}$	$-0.560^{+0.300}_{-0.300}$	$0.915^{+0.242}_{-0.149}$	$0.799^{+0.110}_{-0.055}$	$1.472^{+0.981}_{-0.678}$
	+3%/-3%	+3%/-4%	+54%/-54%	+26%/-16%	+14%/-7%	+67%/-46%
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 007365552-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-337 ± 34	$2.76^{+0.45}_{-0.38}$	359^{+23}_{-21}	4884^{+298}_{-247}	21041^{+8301}_{-5536}
Alt.	-167 ± 36	$2.97^{+0.49}_{-0.41}$	358^{+25}_{-22}	4147^{+257}_{-253}	9132^{+3996}_{-2933}

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

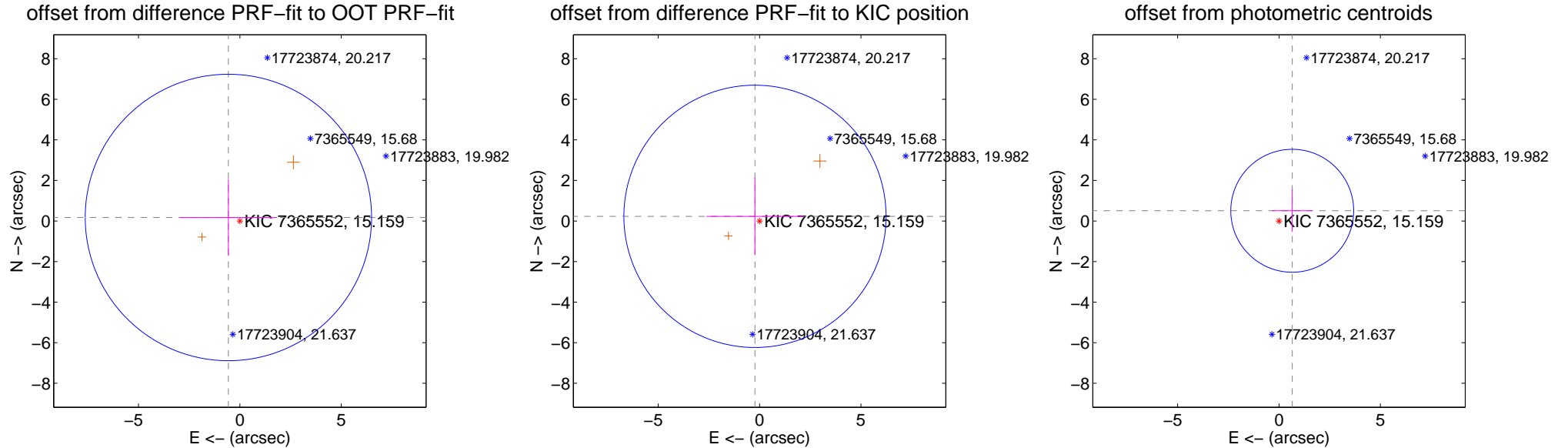
DV Centroid Data

Supplemental centroid analysis for 007365552-01. Kepler magnitude: 15.16. Transit SNR 8.36

There are 0 quarters with good PRF difference image offsets

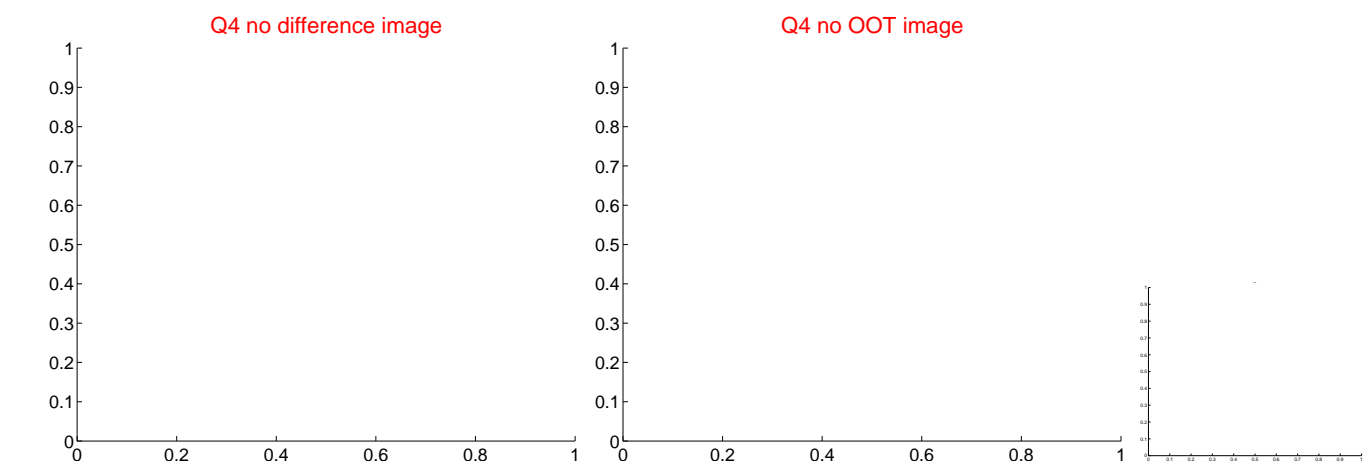
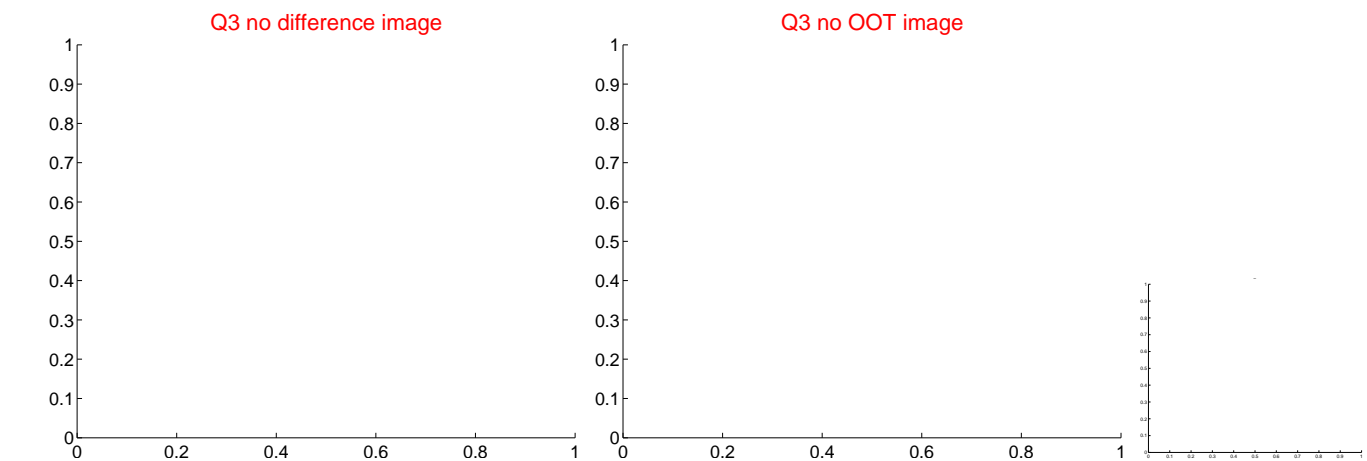
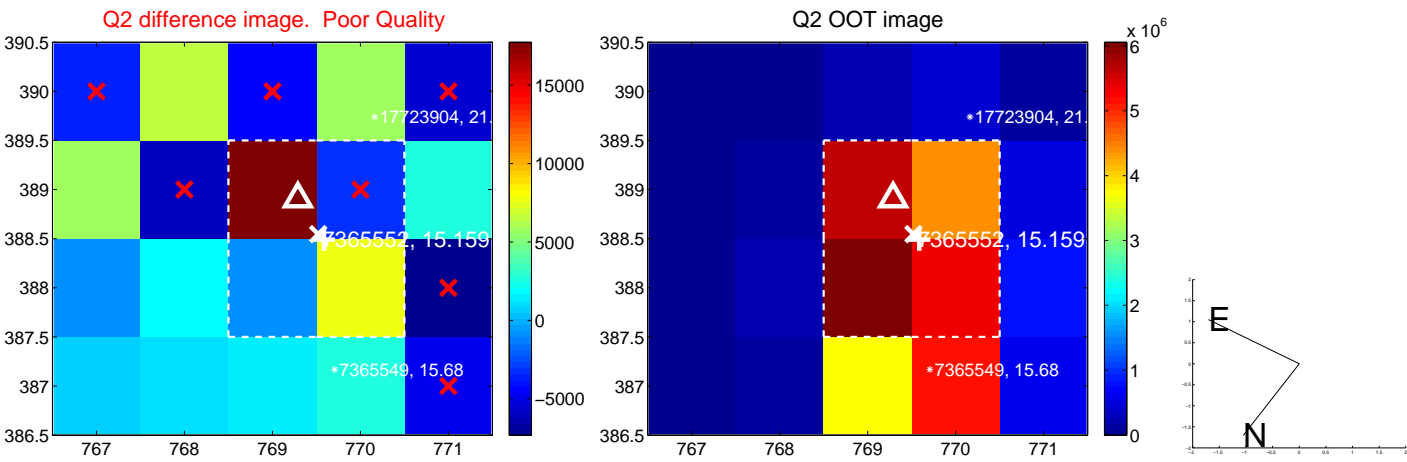
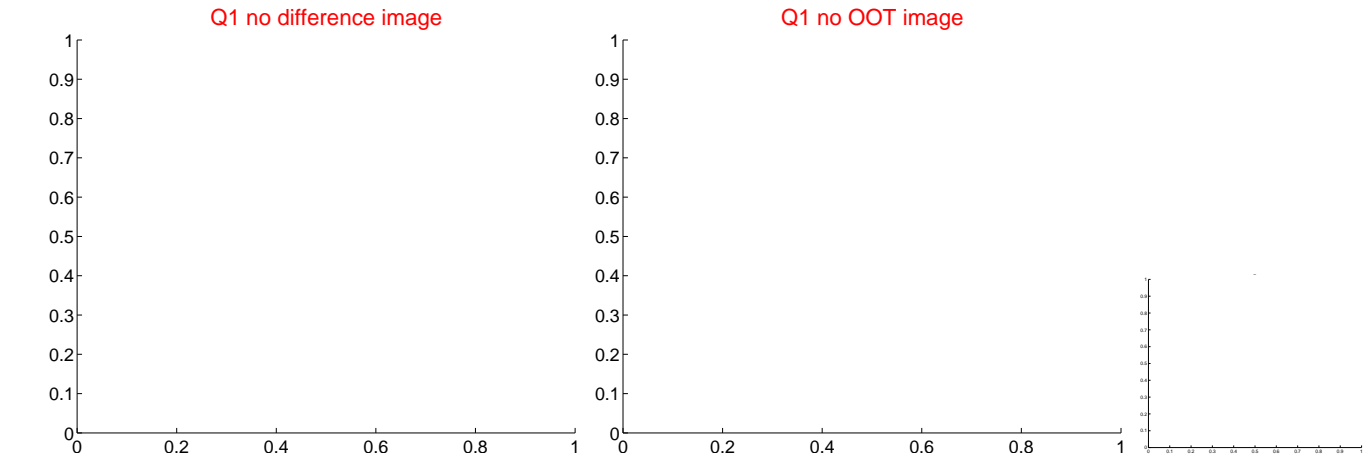
The direct PRF centroid is offset from the target star catalog position by about 0.34 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.591 ± 2.354	0.25	0.565 ± 2.393	0.174 ± 1.891
PRF-fit source offset from KIC position	0.322 ± 2.155	0.15	0.226 ± 2.392	0.229 ± 1.897
photometric centroid source offset	0.82 ± 1.01	0.82	-0.65 ± 0.99	0.50 ± 1.04

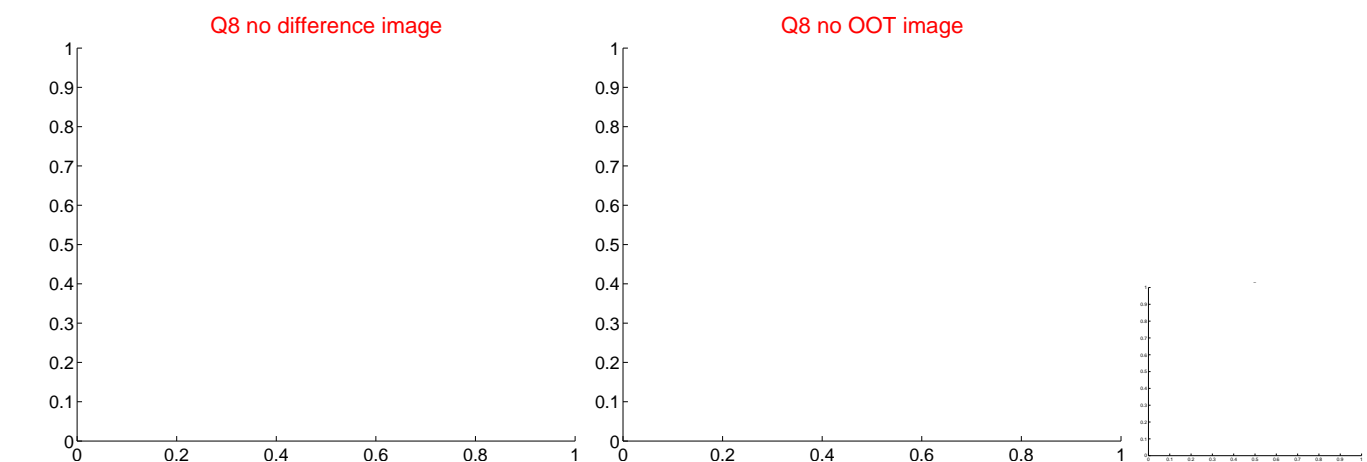
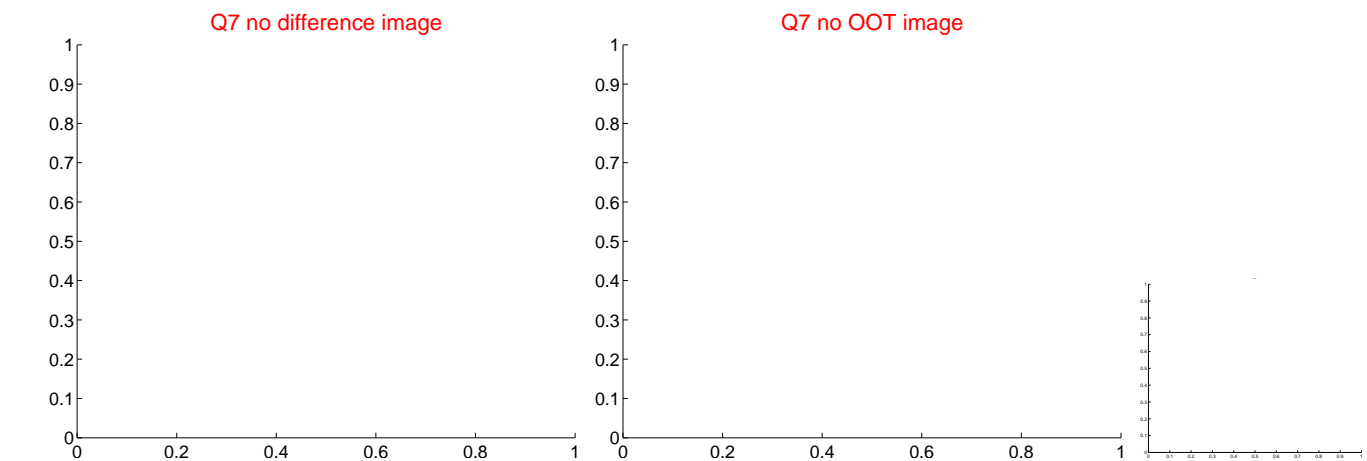
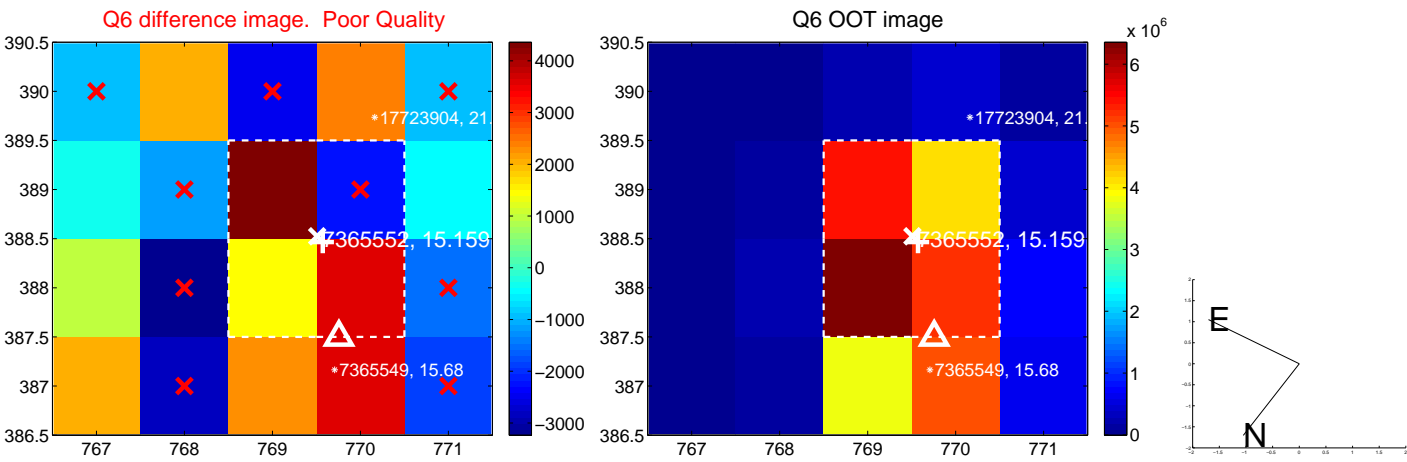
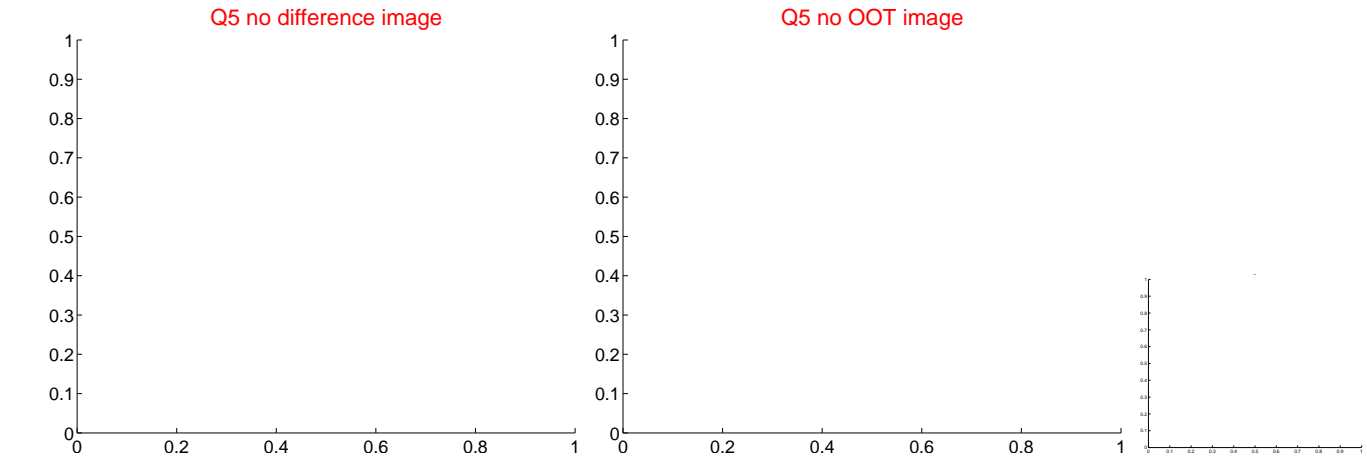


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . 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 ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



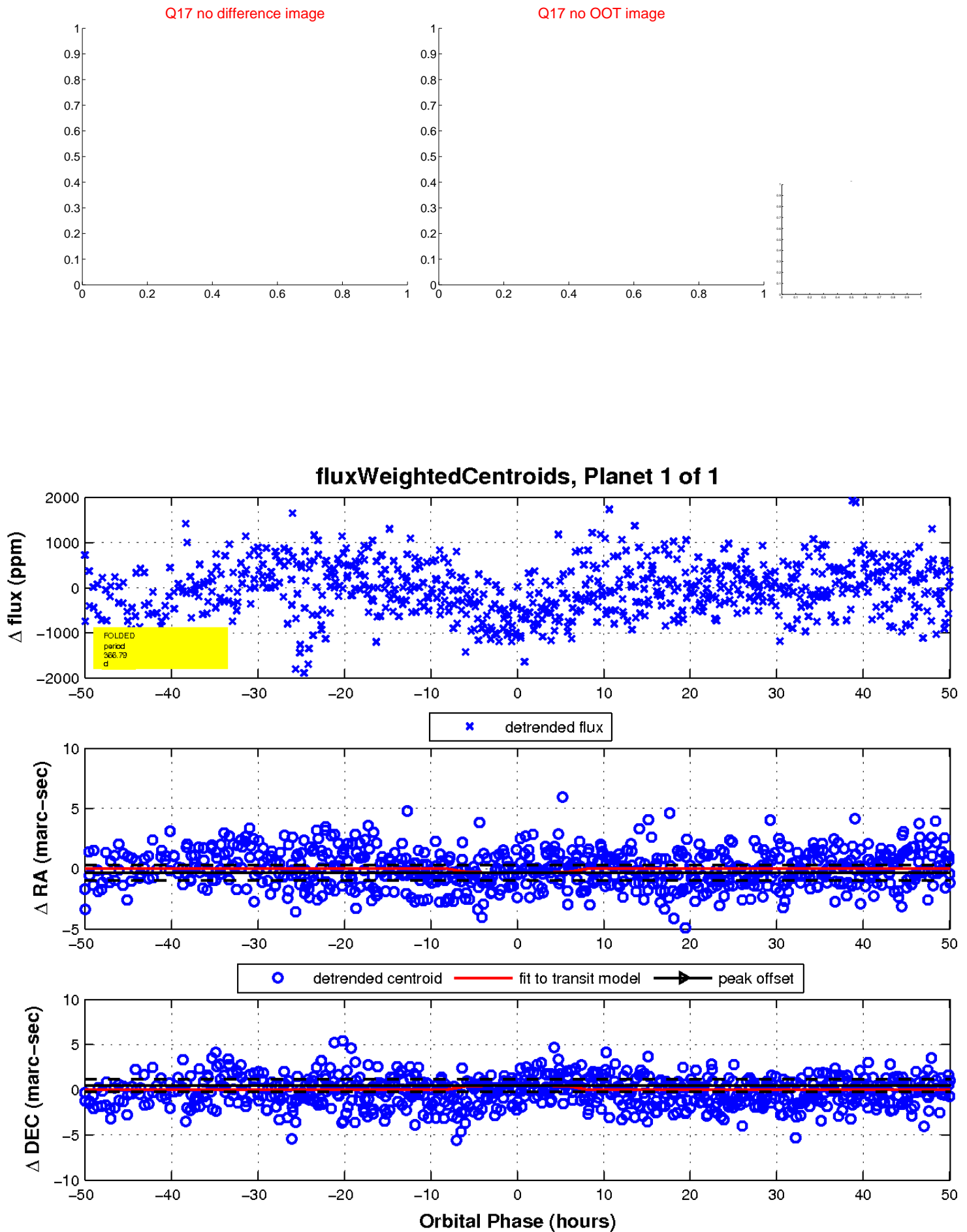
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



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



UKIRT Image

Declination

