

KIC 011768149

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})
011768149-01	OBS	No	321.961847	447.410424	302.4	9.888	9.2	5.9	3.81	4817	7.83	7.12

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011768149-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—LPP_DV—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.

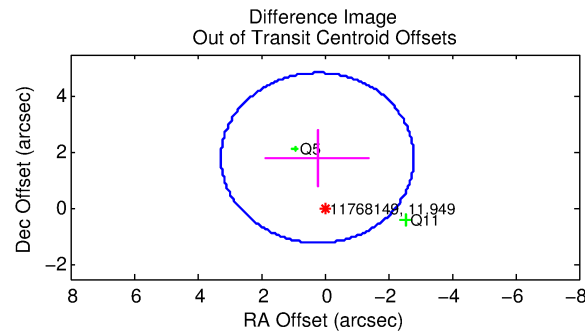
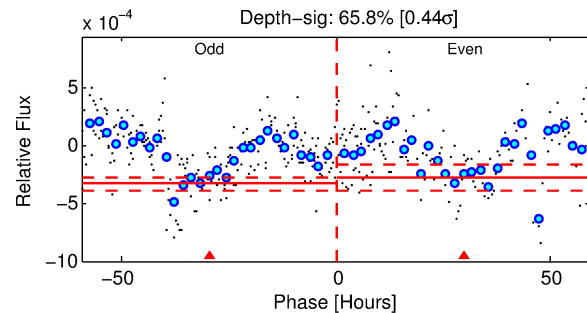
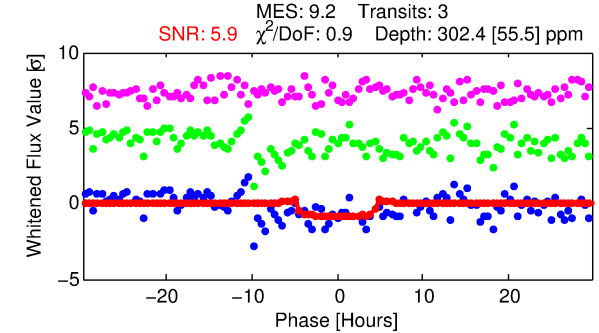
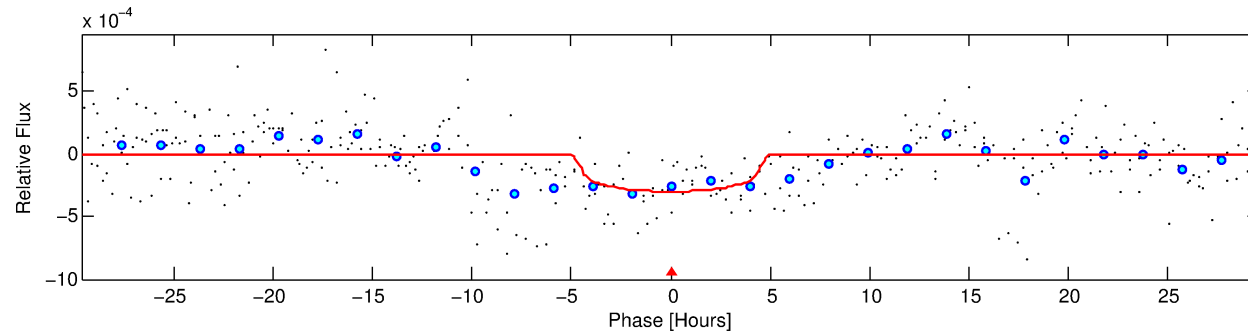
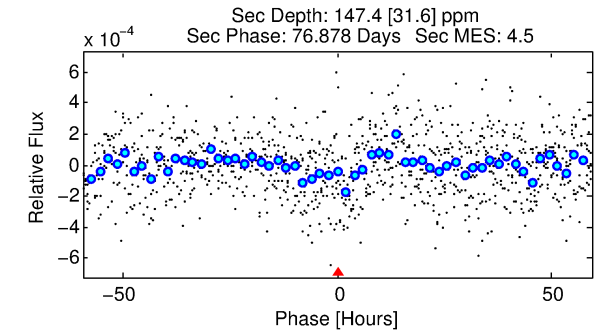
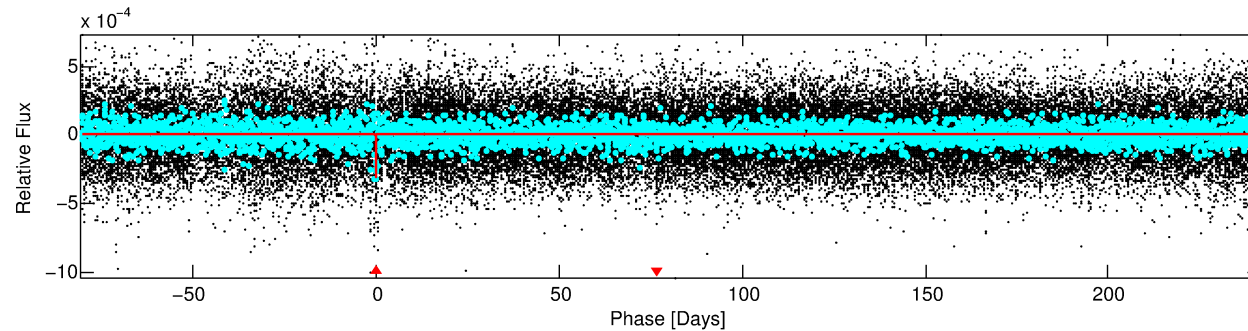
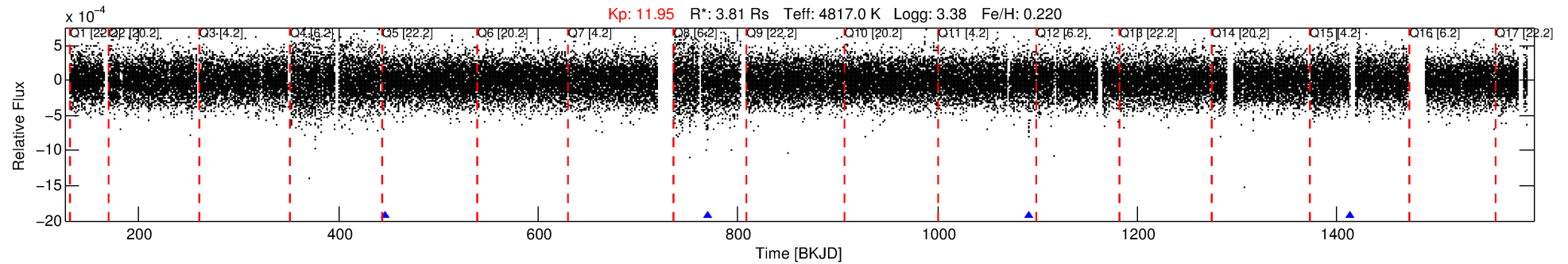
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011768149-01

No Significant Match Found

DV One-Page Summary

KIC: 11768149 Candidate: 1 of 1 Period: 321.962 d



DV Fit Results:

Period = 321.96185 [0.01266] d
Epoch = 447.4104 [0.0167] BKJD
Rp/R* = 0.0188 [0.0051]
a/R* = 133.82 [123.66]
b = 0.87 [0.27]
Seff = 7.12 [1.96]
Teq = 417 [29] K
Rp = 7.83 [2.69] Re
a = 0.9925 [0.1819] AU
Ag = 1301.84 [830.56] [1.57σ]
Teffp = 3868 [561] K [6.14σ]

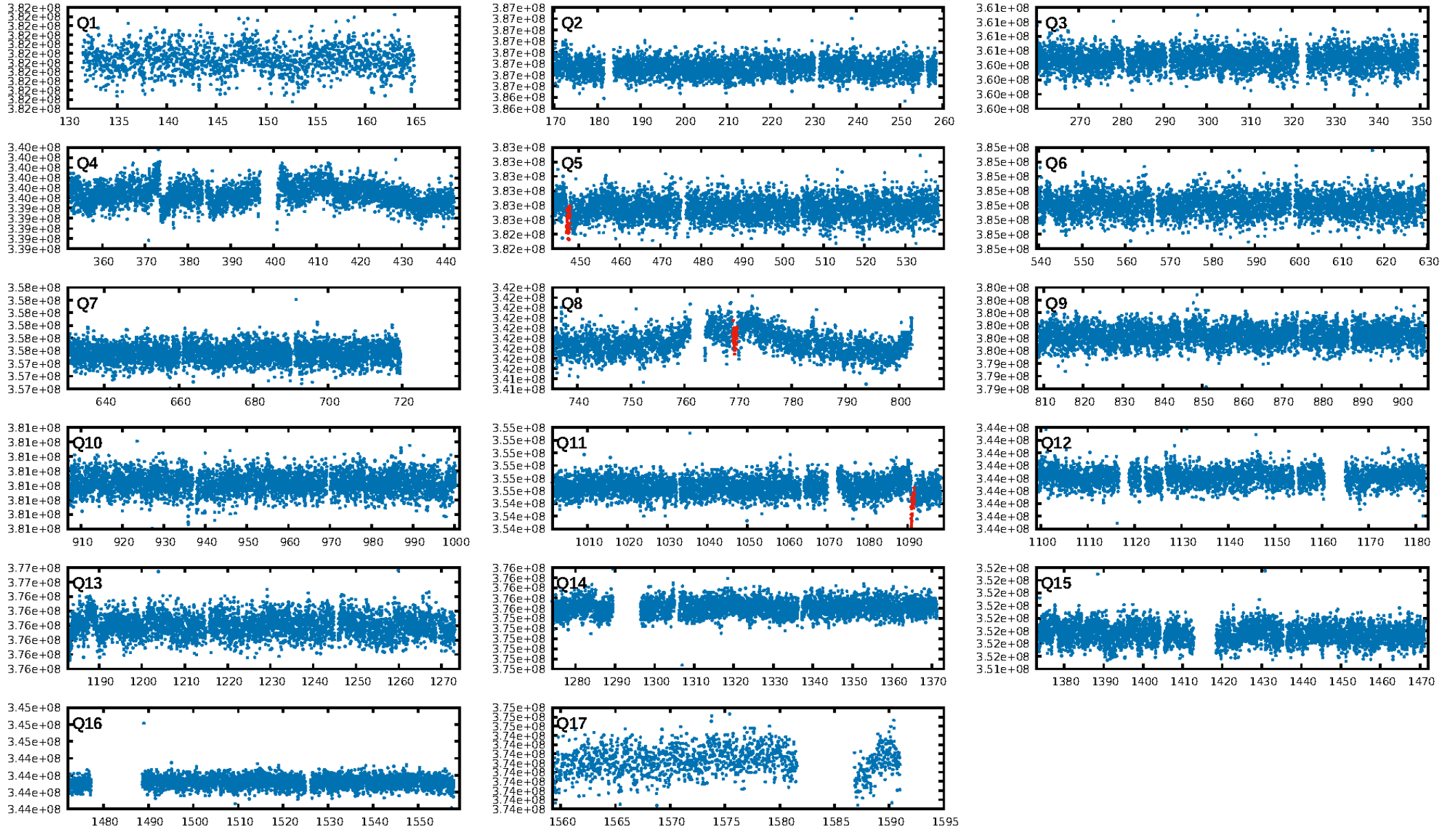
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 71.9%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 9.24e-19
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 2.111
Centroid-sig: 66.9%
Centroid-so: 0.323 arcsec [0.74σ]
OotOffset-rm: 1.825 arcsec [1.81σ]
KicOffset-rm: 1.756 arcsec [1.42σ]
OotOffset-st: 0/1/0/1 [2]
KicOffset-st: 0/1/0/1 [2]
DiffImageQuality-fgm: 1.00 [2/2]
DiffImageOverlap-fno: 1.00 [3/3]

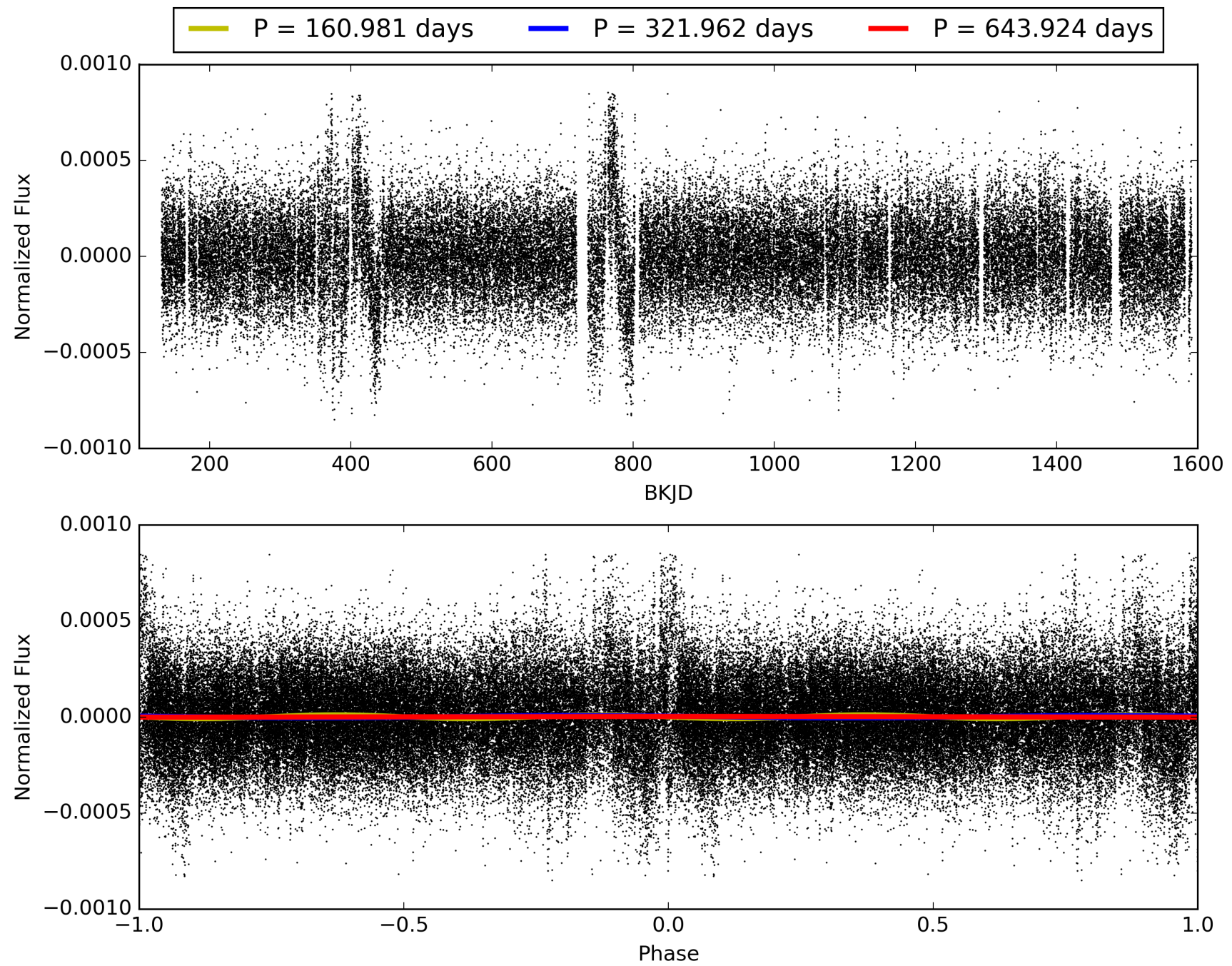
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 21:49:49 Z

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

TCE 011768149-01, PDC Light Curves

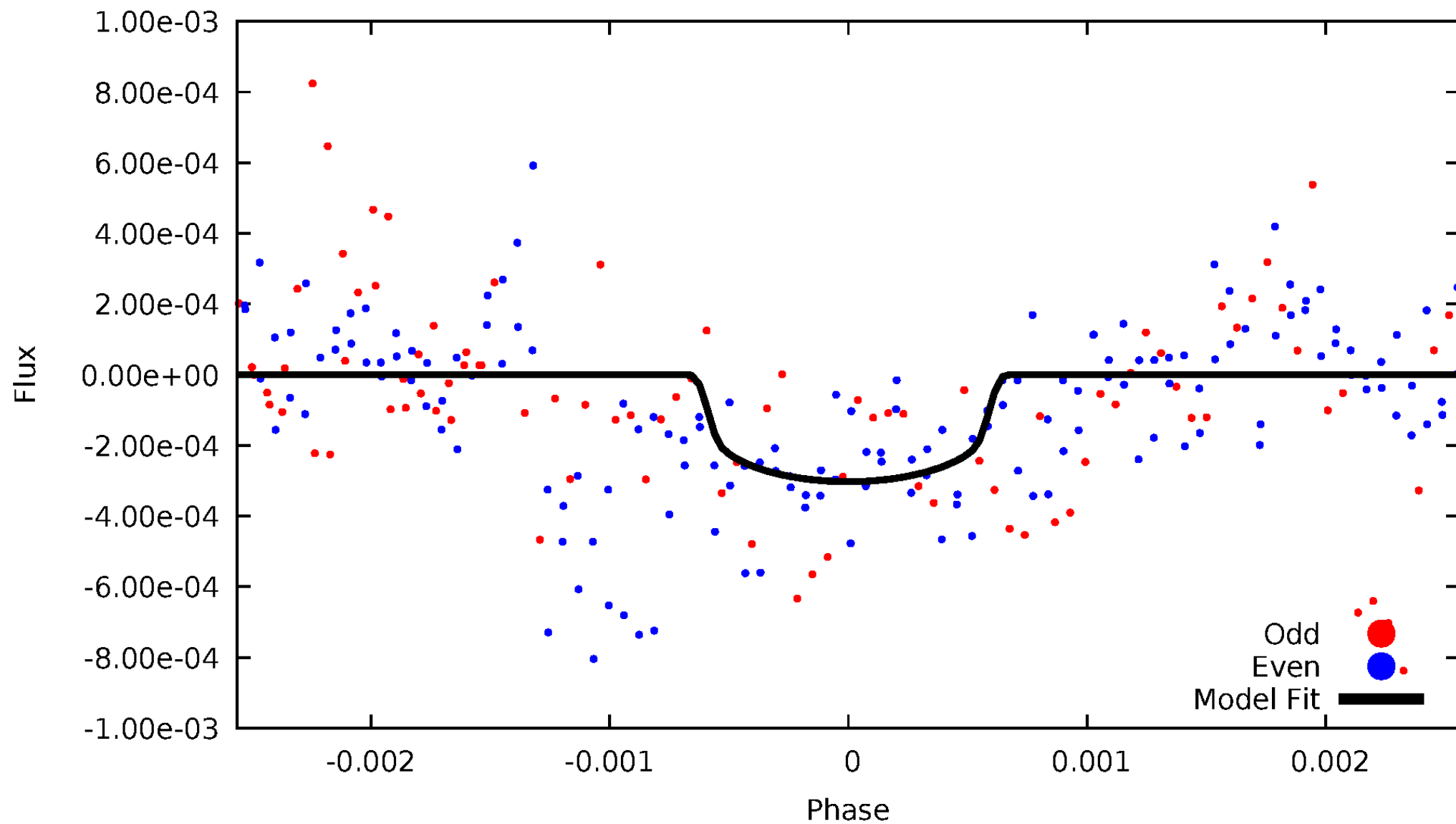


TCE 011768149-01



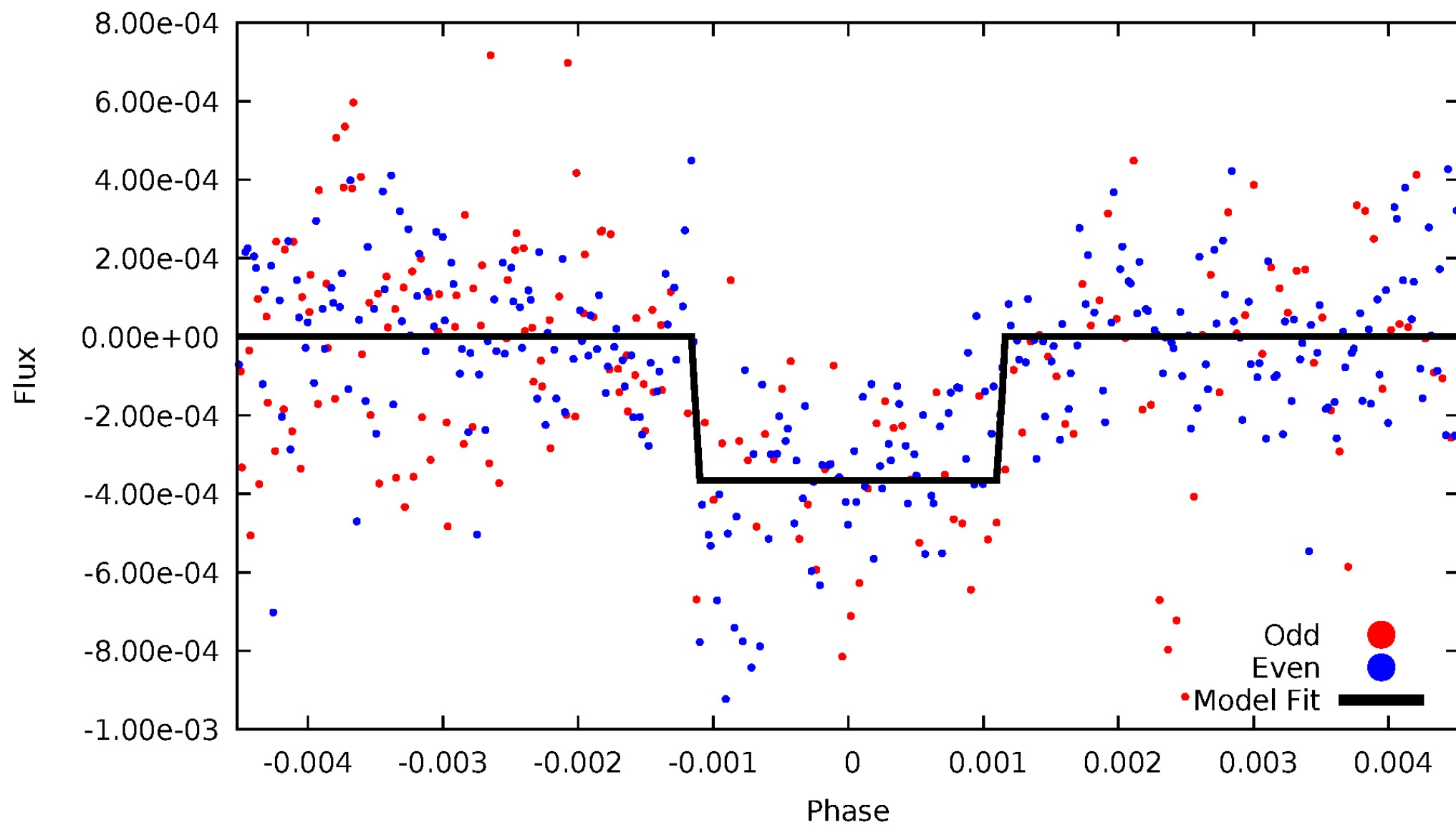
DV Odd/Even

TCE 011768149-01



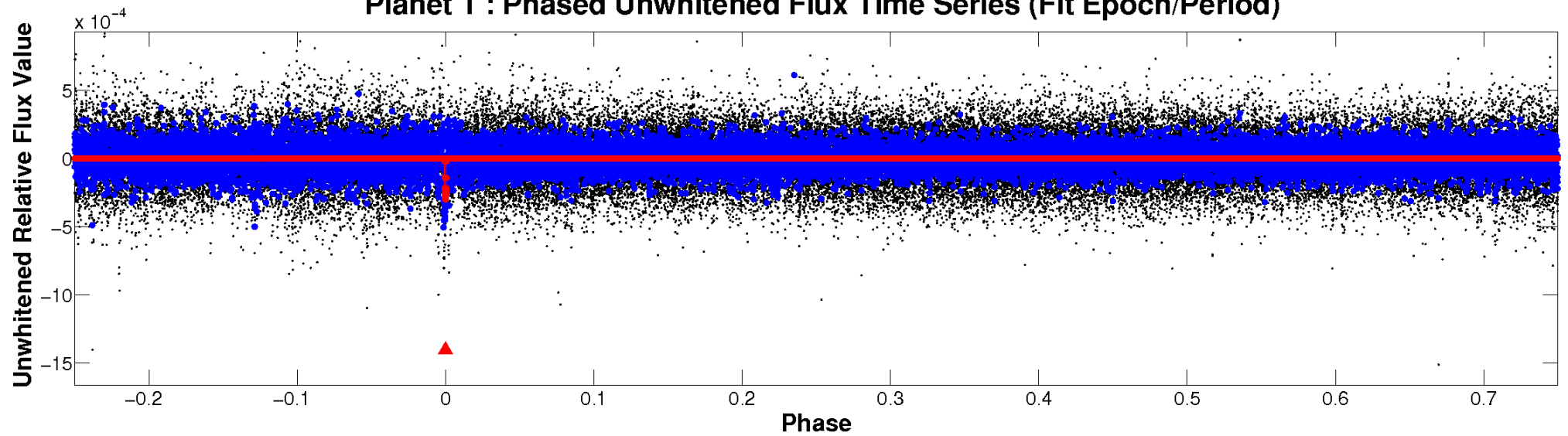
ALT Odd/Even

TCE 011768149-01

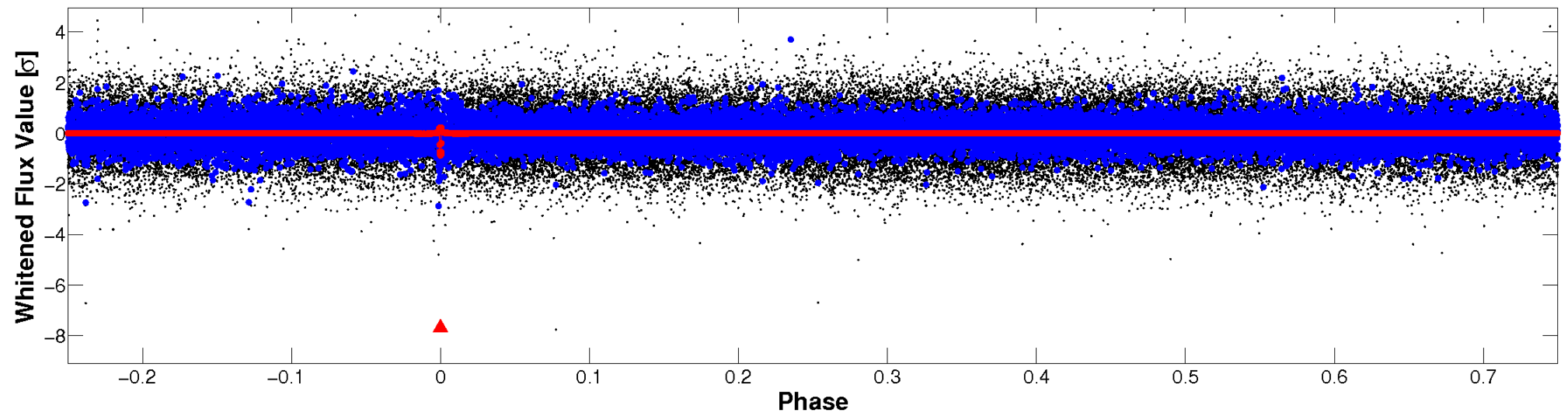


Non-Whitened Vs. Whitened Light Curve

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

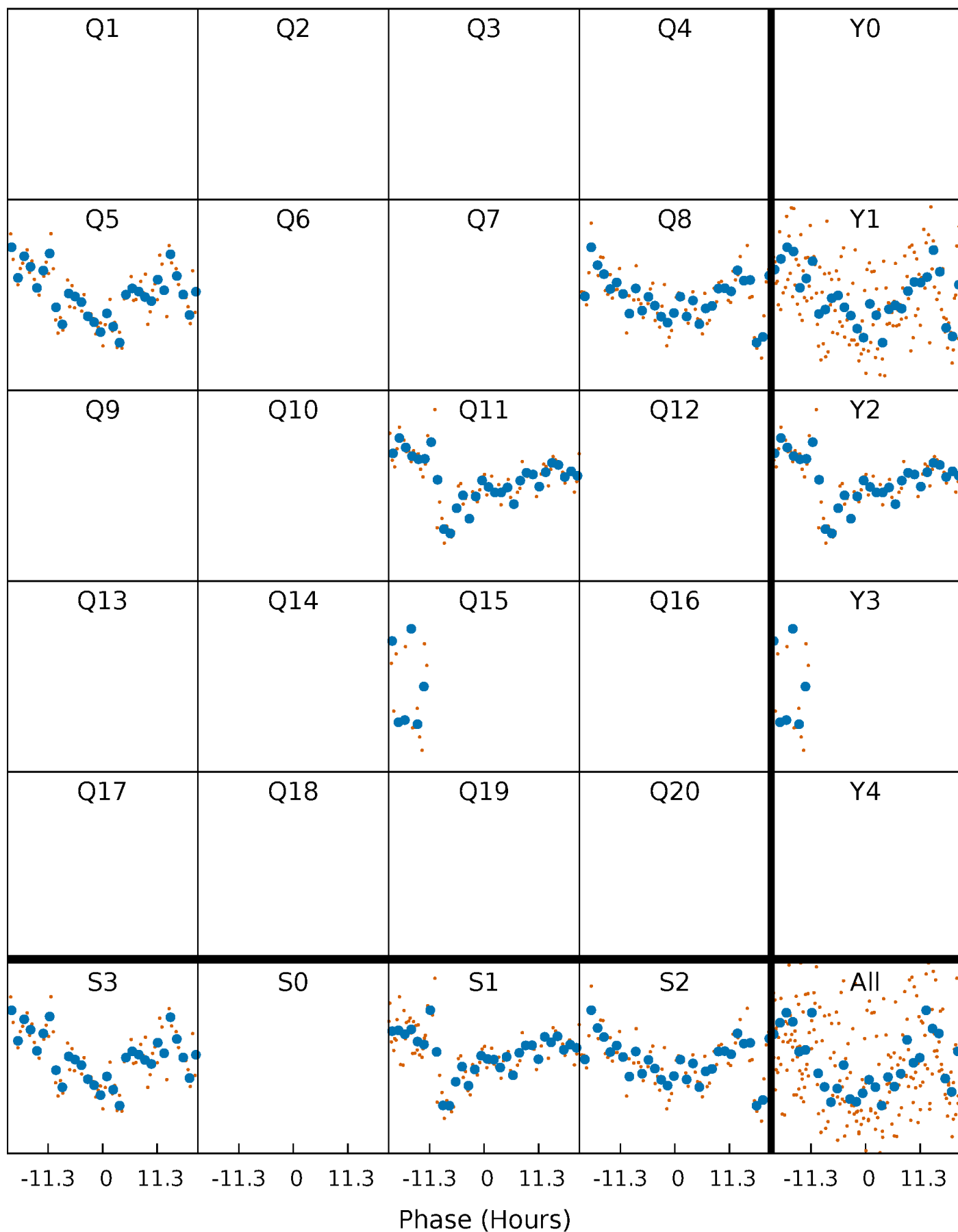


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



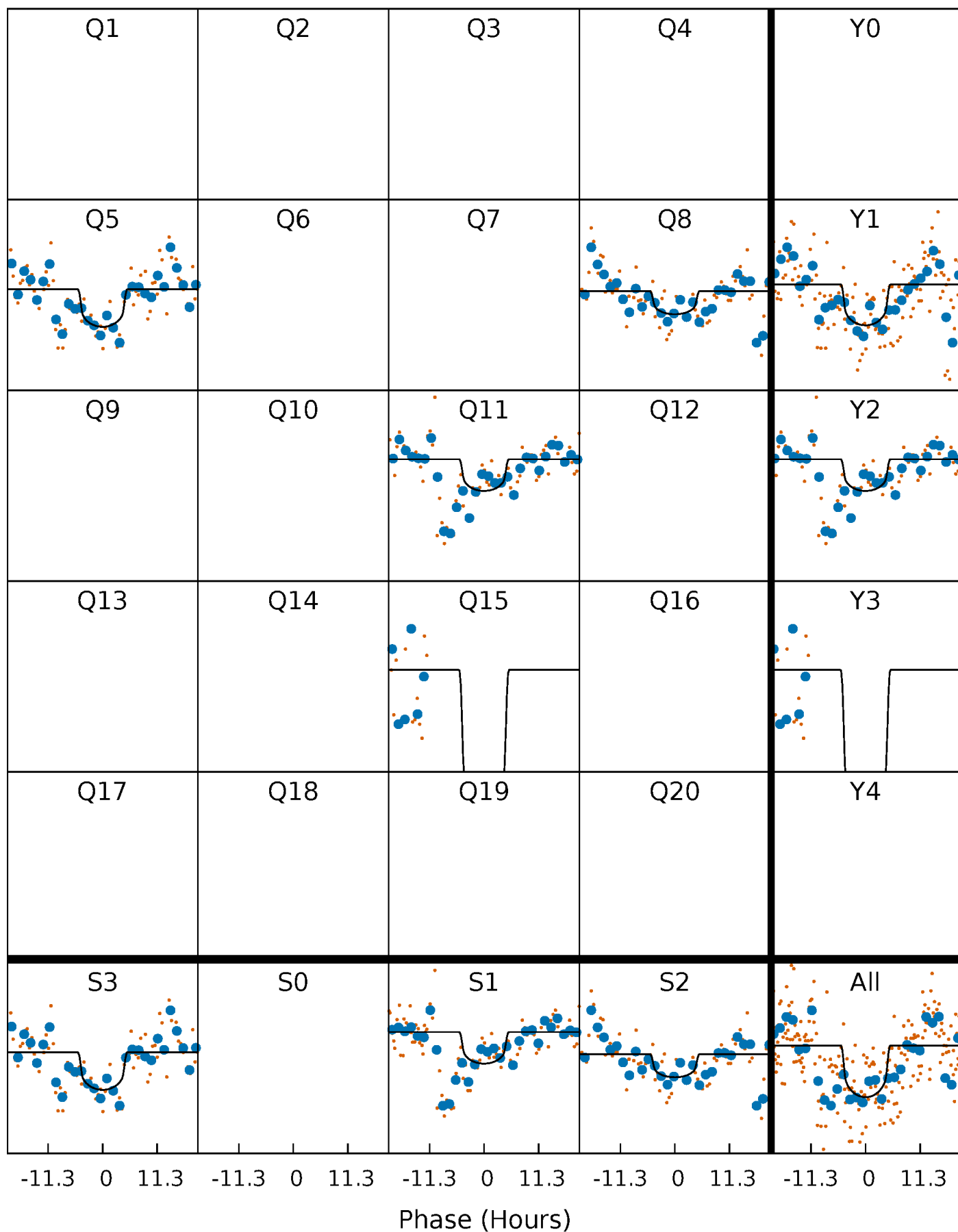
PDC Quarter-Phased Transit Curves

TCE 011768149-01 P=321.961847 Days $T_0=447.410423$ (BKJD)



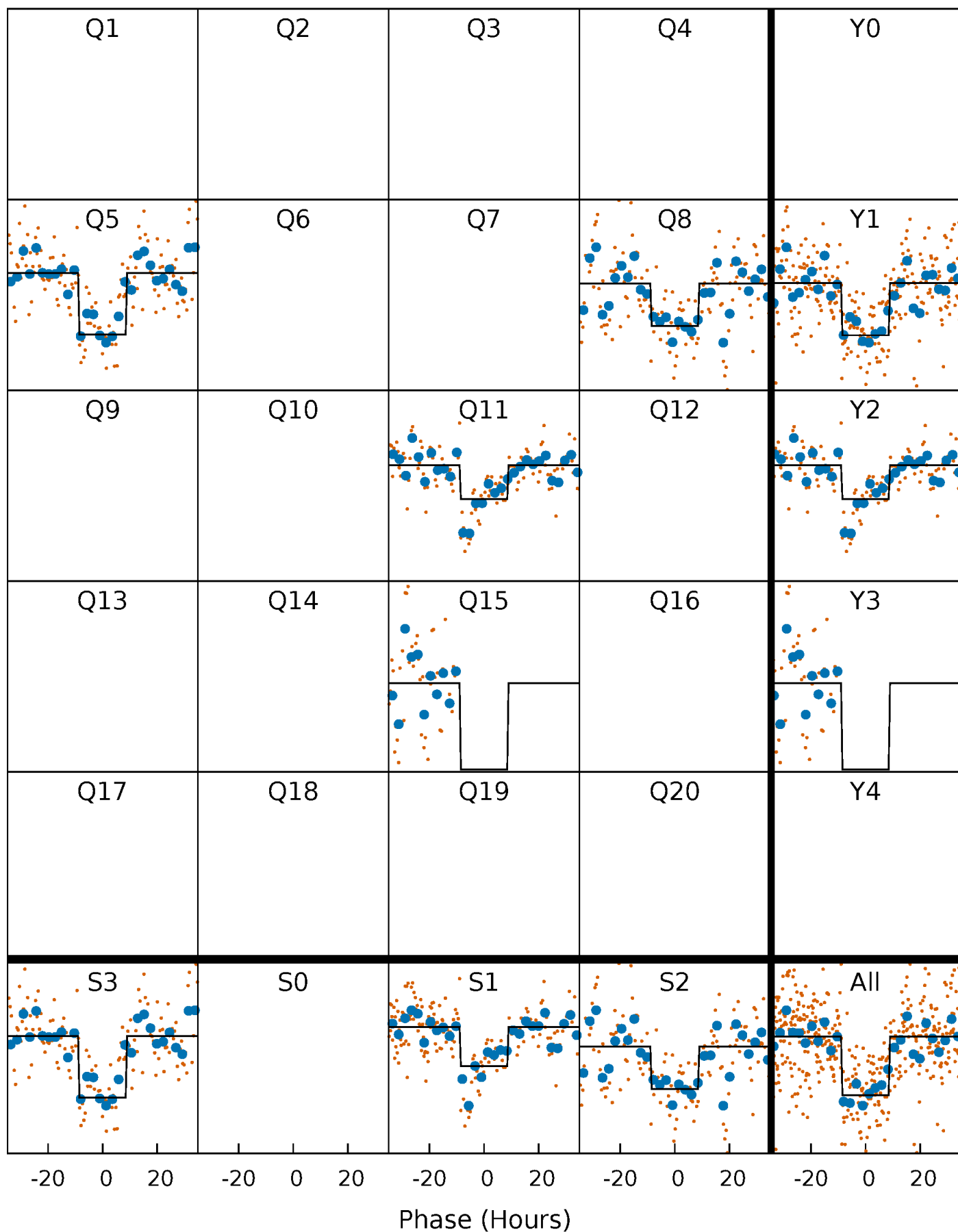
DV Quarter-Phased Transit Curves

TCE 011768149-01 P=321.961847 Days $T_0=447.410423$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

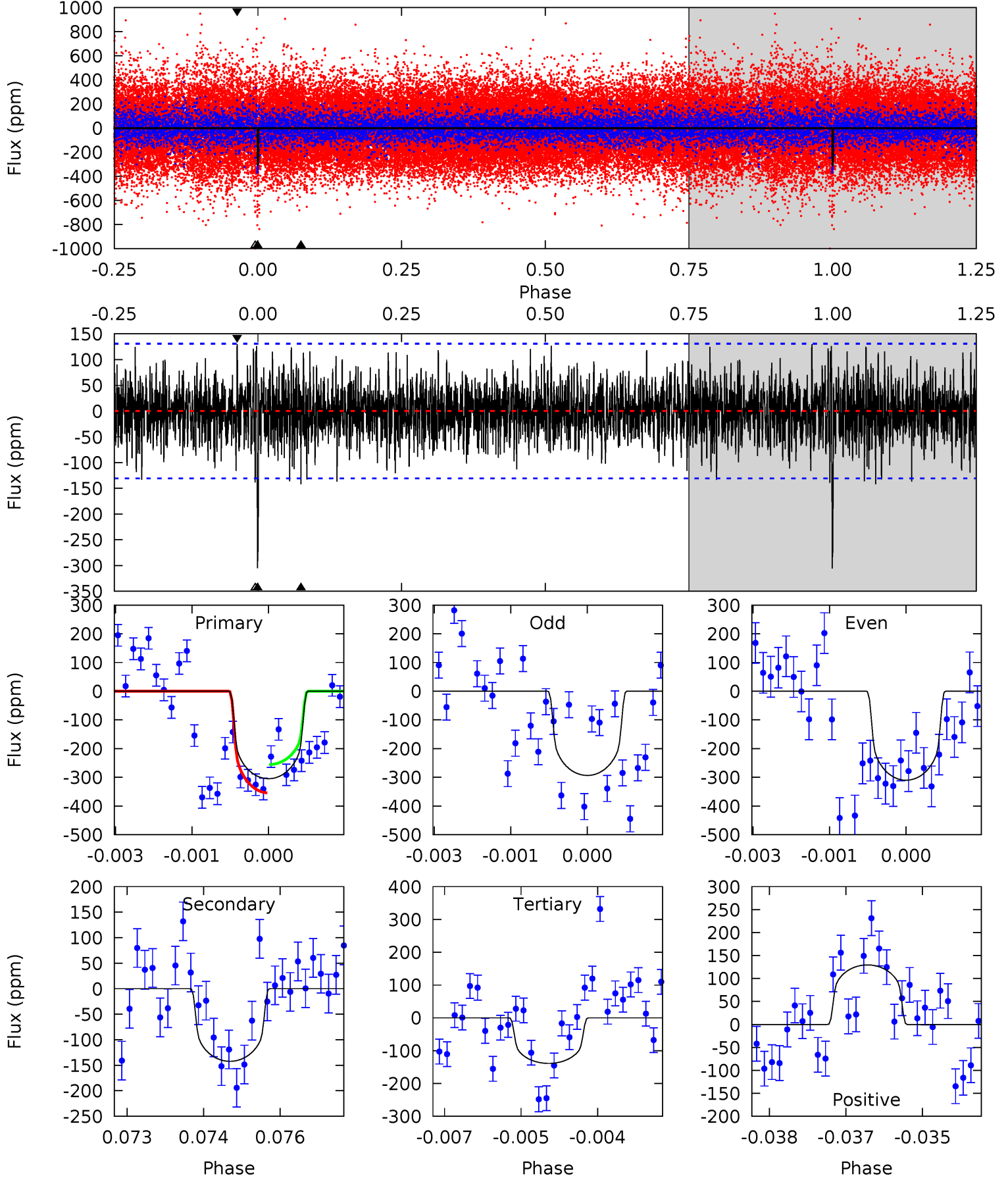
TCE 011768149-01 P=321.964794 Days $T_0=447.353449$ (BKJD)



DV Model-Shift Uniqueness Test

011768149-01, P = 321.961847 Days, E = 125.448576 Days

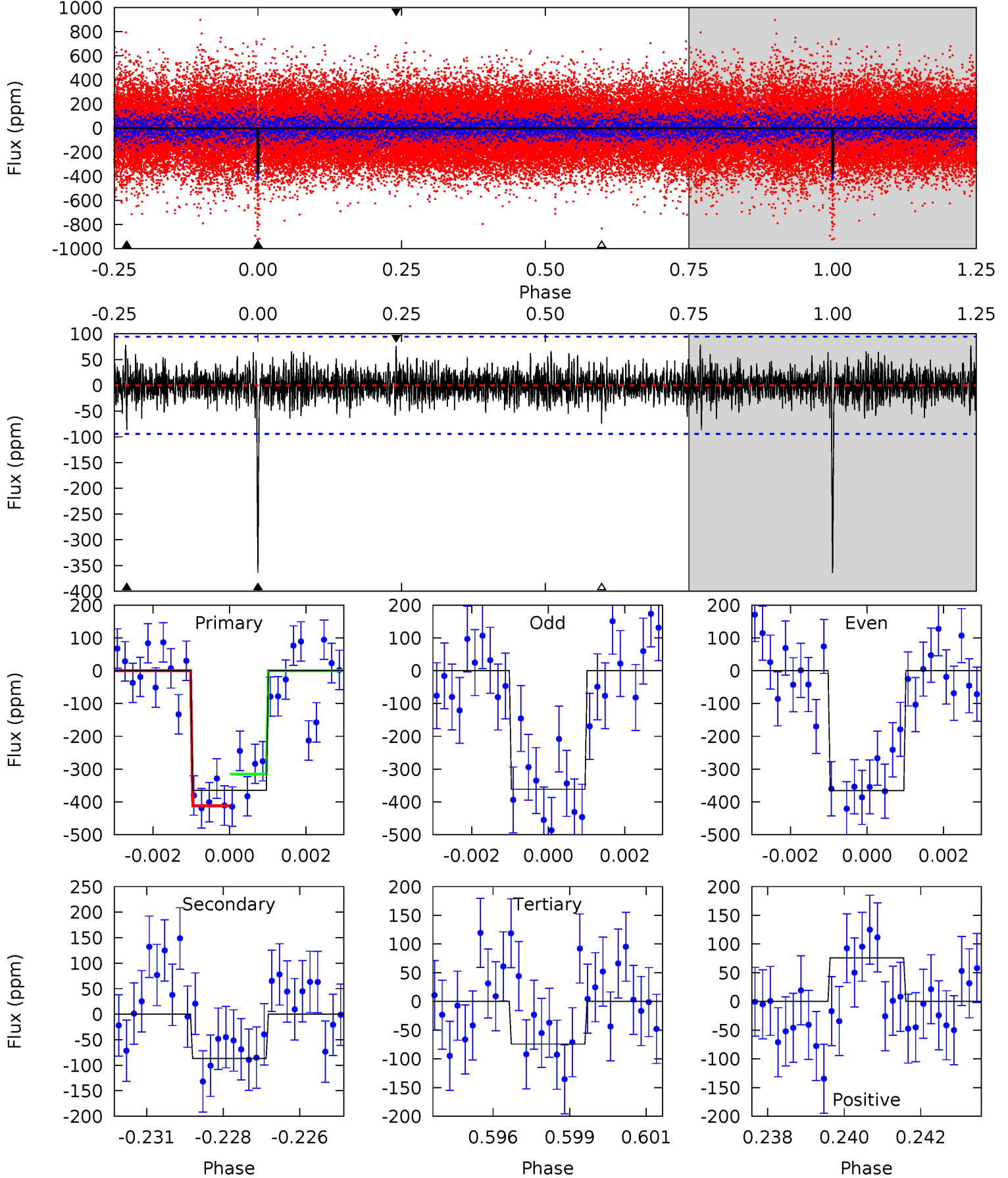
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.6	5.88	5.74	5.36	5.40	3.21	1.65	6.86	7.24	0.14	0.52	0.32	1.04	0.30	2.03



Alt Model-Shift Uniqueness Test

011768149-01, P = 321.964794 Days, E = 125.388655 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
20.5	4.88	4.17	4.27	5.30	3.05	1.12	16.3	16.2	0.71	0.61	0.11	1.01	0.18	2.70



Stellar Parameters For KIC 011768149

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4817^{+64}_{-64}	$3.375^{+0.149}_{-0.135}$	$0.220^{+0.100}_{-0.150}$	$3.813^{+0.670}_{-0.819}$	$1.259^{+0.151}_{-0.208}$	$0.032^{+0.024}_{-0.012}$
	+1%/-1%	+4%/-4%	+45%/-68%	+18%/-21%	+12%/-17%	+74%/-36%
Source	SPE68	SPE68	SPE68	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 011768149-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-142 ± 24	$7.70^{+2.36}_{-2.25}$	585^{+29}_{-34}	4050^{+543}_{-347}	1270^{+1235}_{-535}
Alt.	-87 ± 18	$7.94^{+2.44}_{-2.29}$	584^{+28}_{-32}	3696^{+436}_{-315}	743^{+717}_{-333}

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

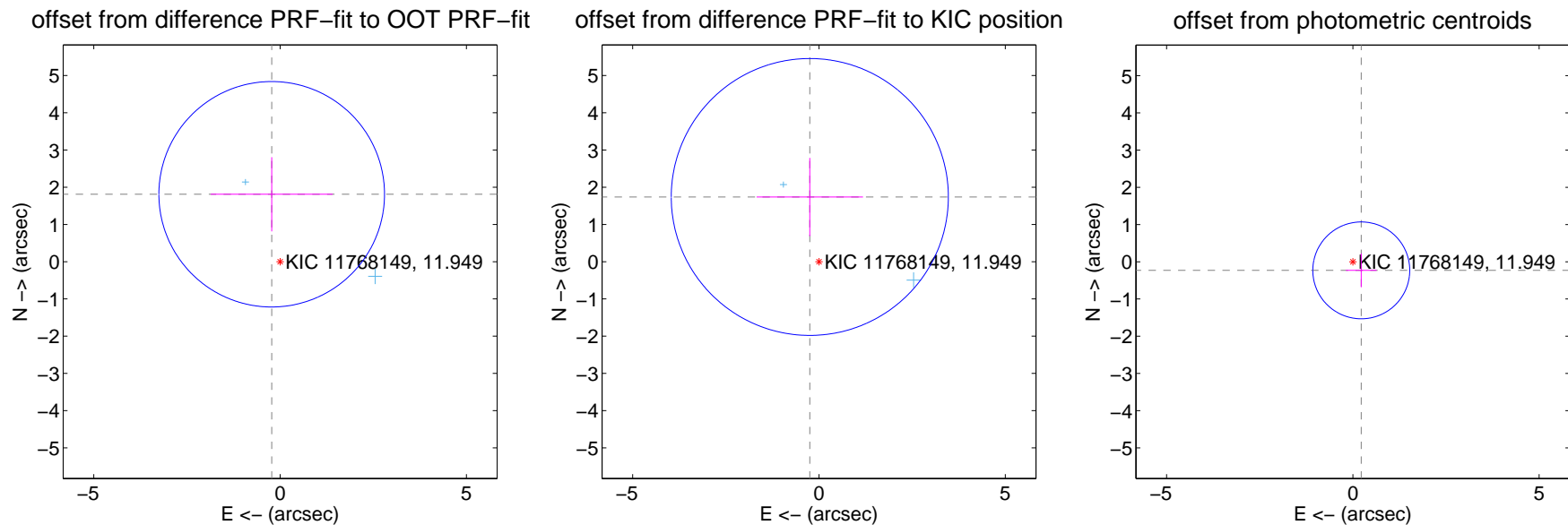
DV Centroid Data

Supplemental centroid analysis for 011768149-01. **Kepler magnitude: 11.95.** Transit SNR 5.88

There are 2 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.825 ± 1.009	1.81	0.226 ± 1.636	1.811 ± 0.996
PRF-fit source offset from KIC position	1.756 ± 1.240	1.42	0.247 ± 1.428	1.738 ± 1.050
photometric centroid source offset	0.32 ± 0.43	0.74	-0.23 ± 0.41	-0.23 ± 0.45

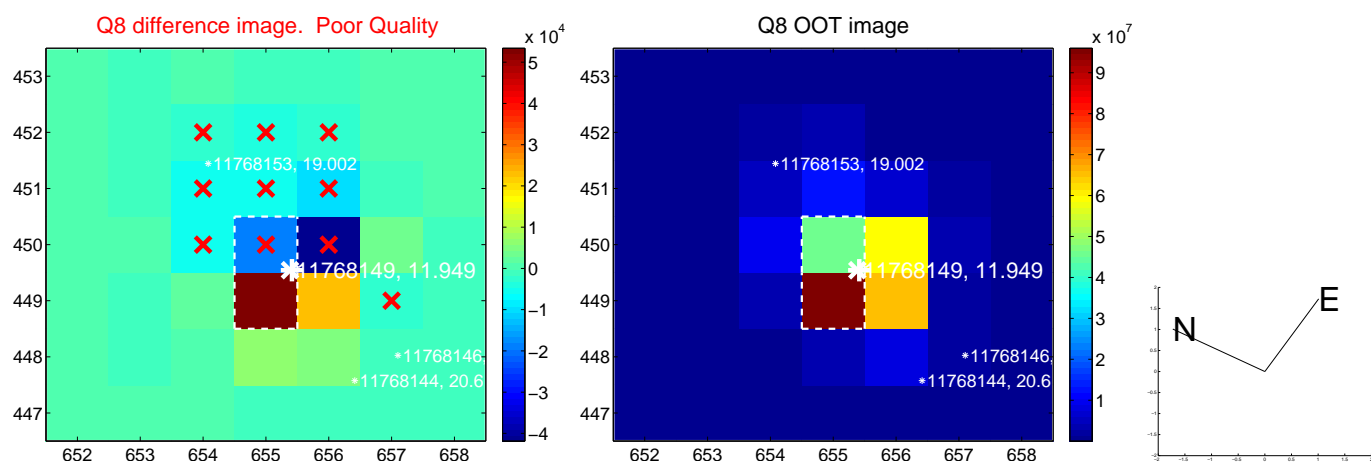
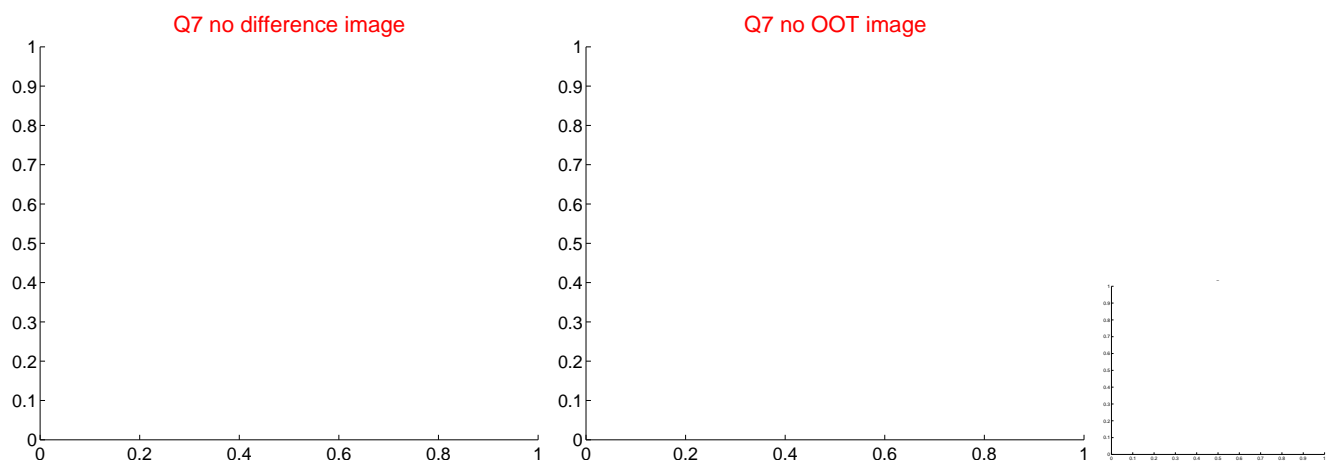
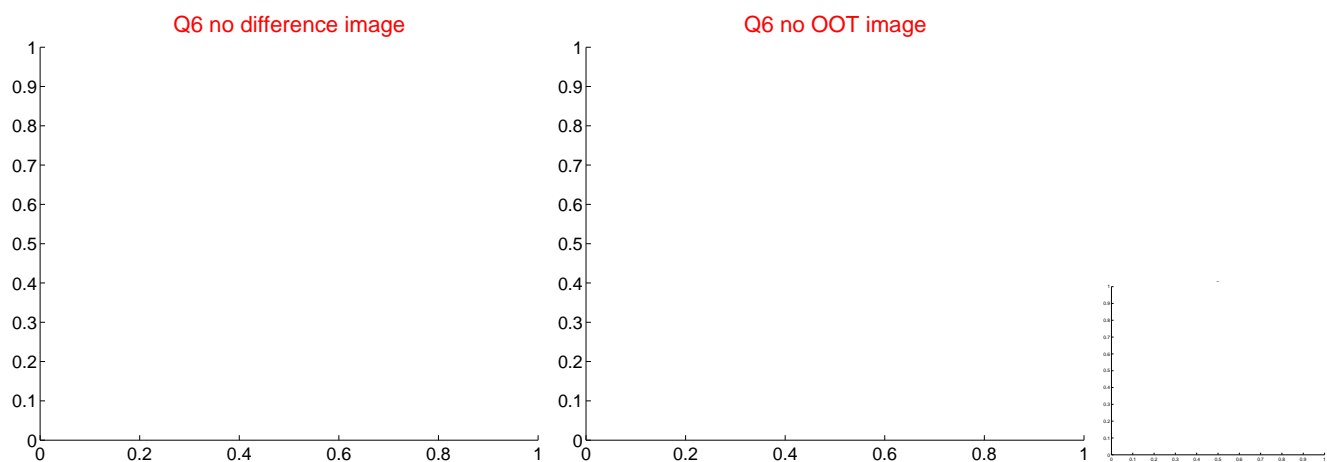
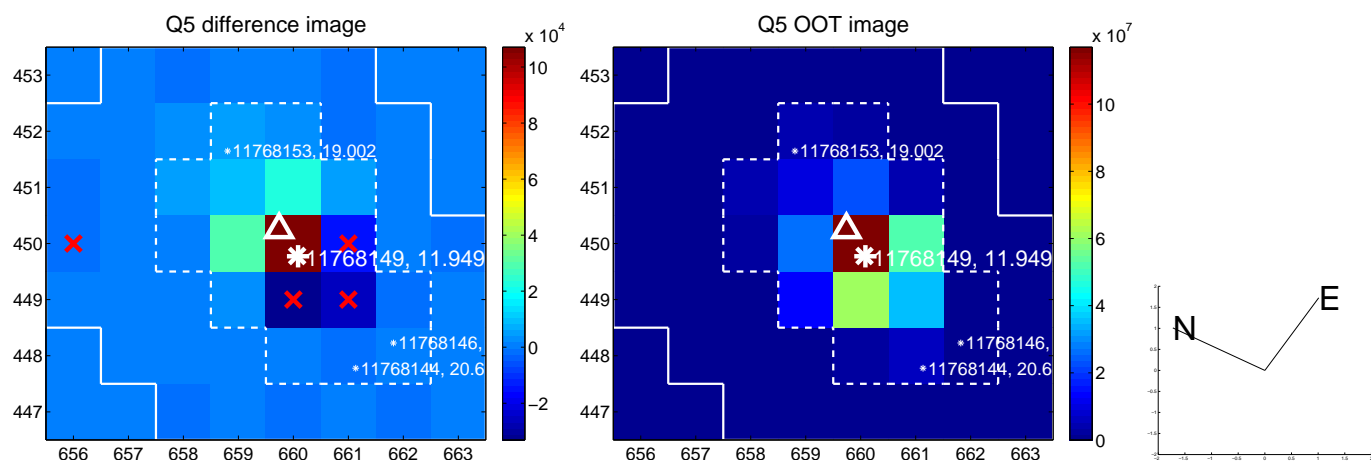


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

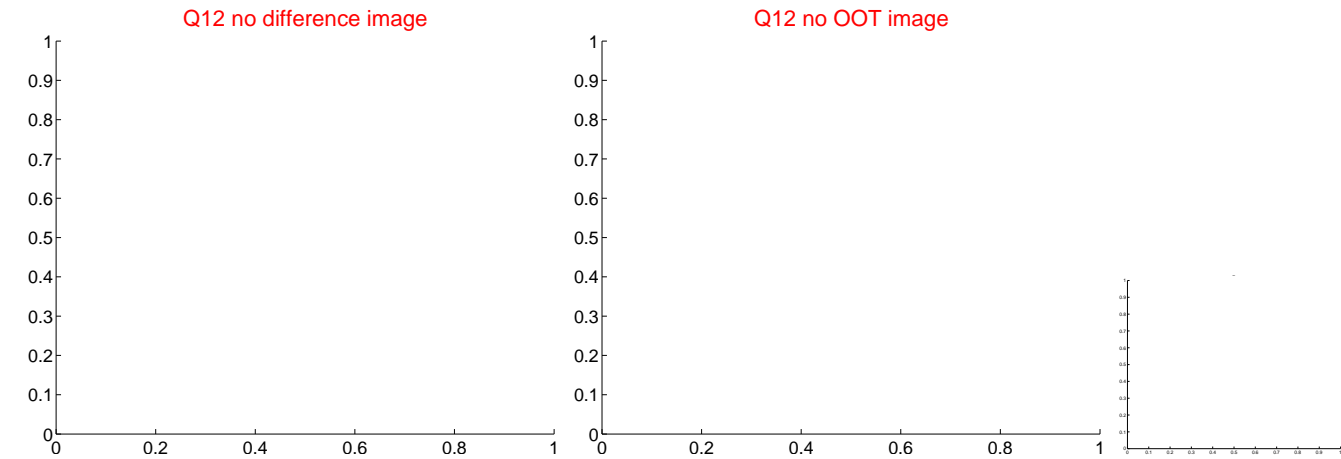
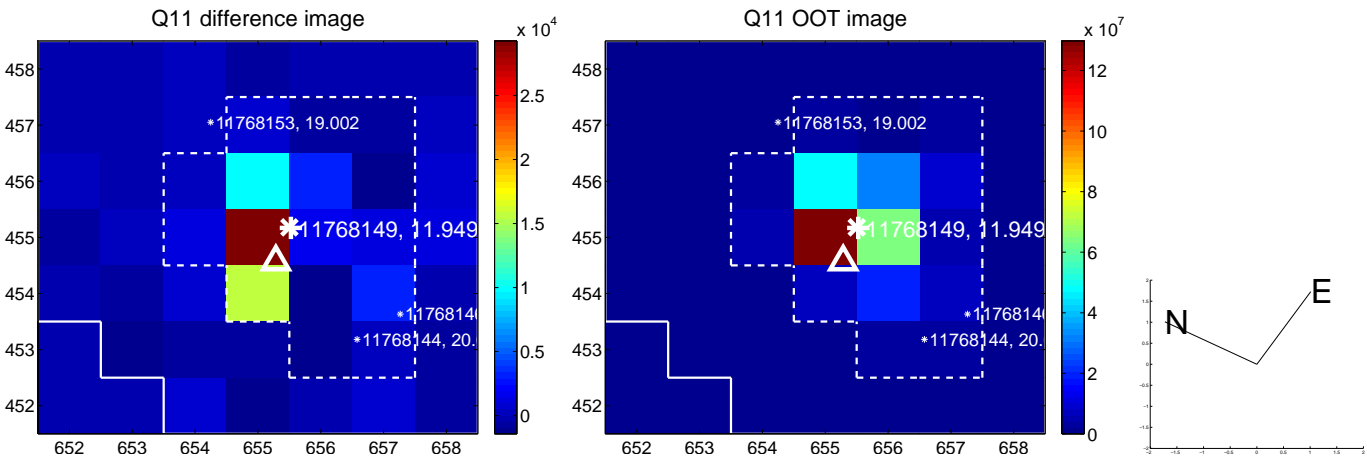
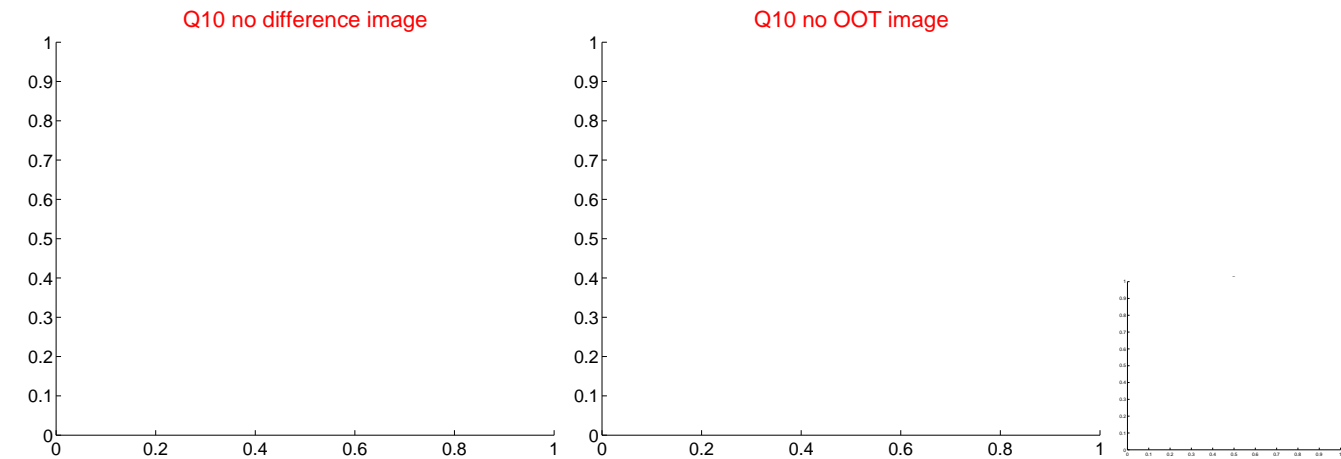
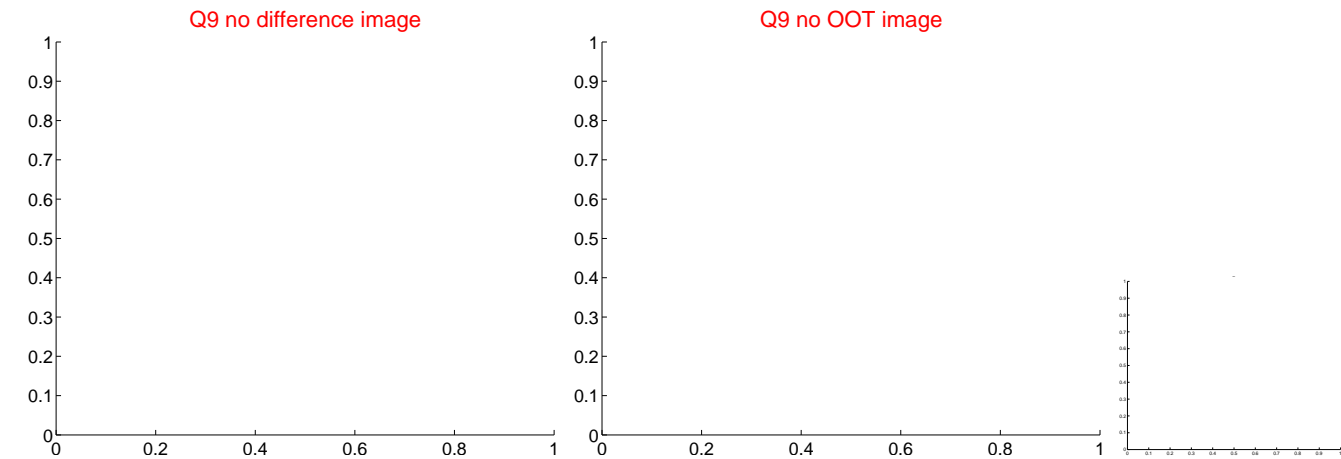
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



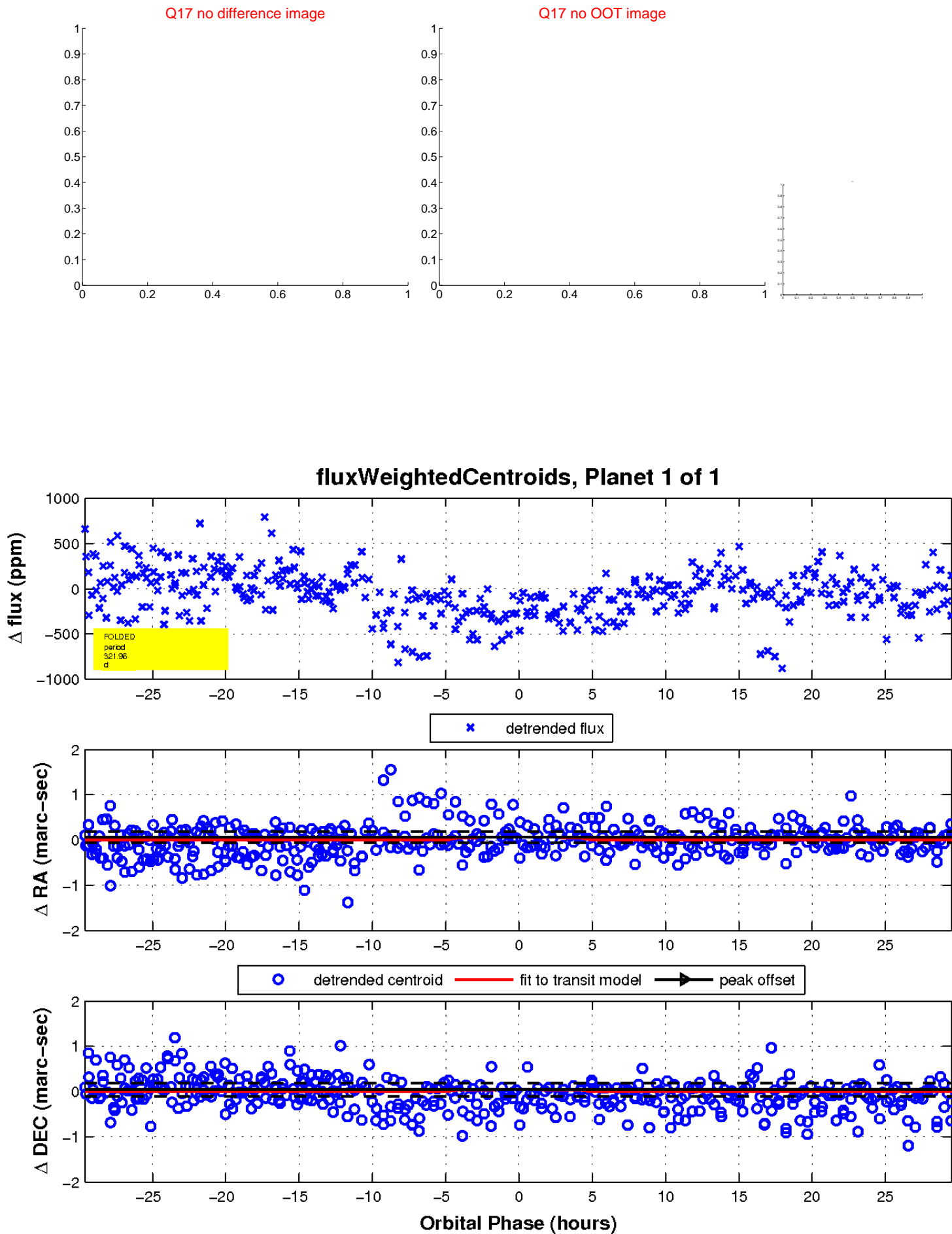
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



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

