

KIC 008360359

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})
008360359-01	OBS	No	74.818443	134.967584	32.4	5.331	9.1	2.8	150.65	3291	104.86	0.00

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008360359-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED

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

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

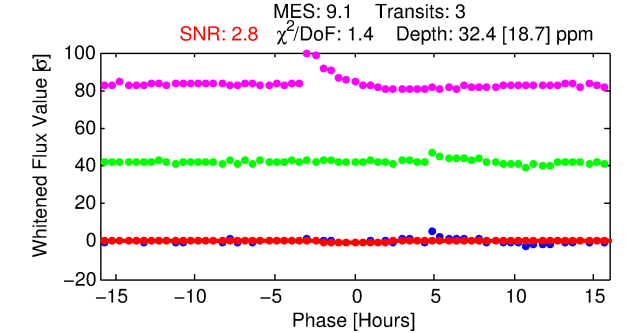
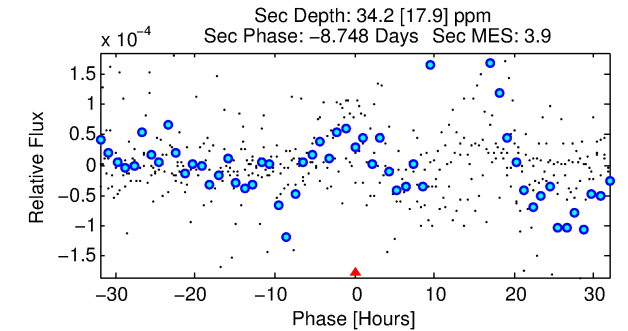
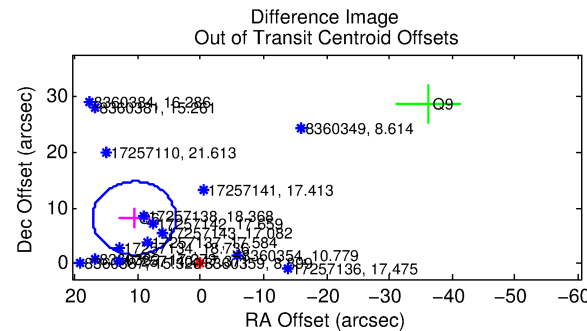
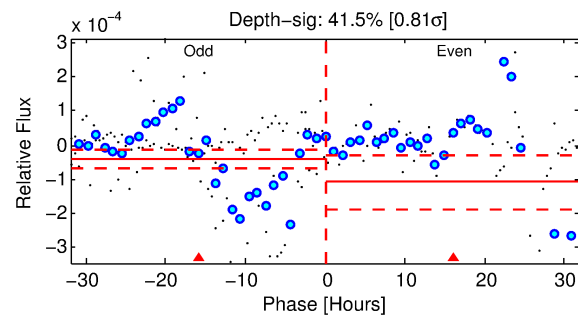
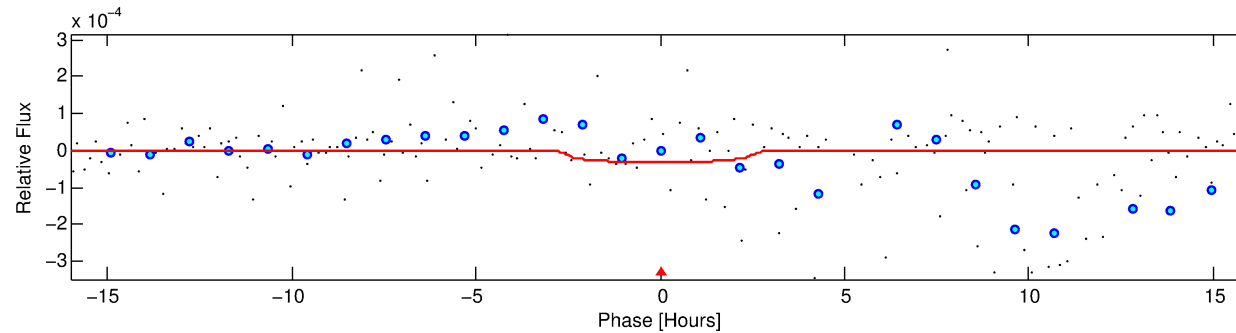
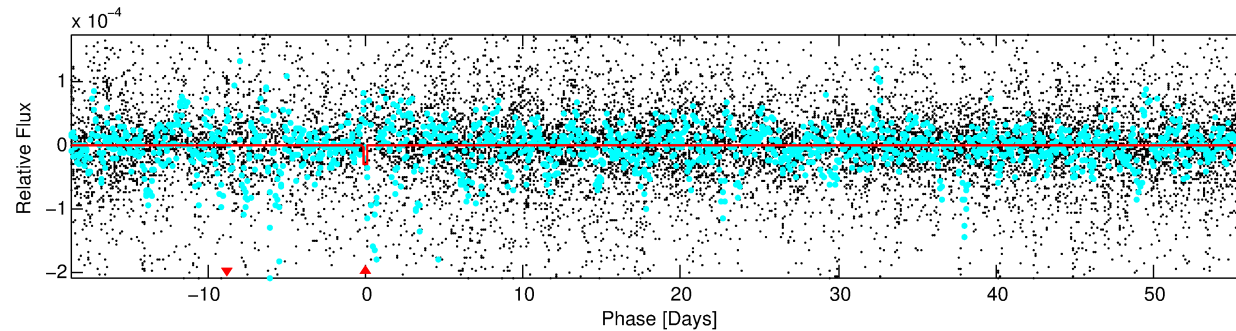
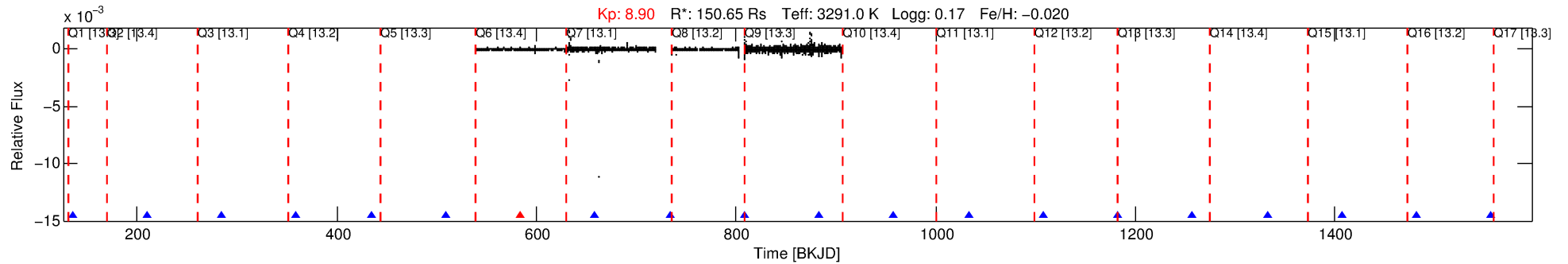
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008360359-01

No Significant Match Found

DV One-Page Summary

KIC: 8360359 Candidate: 1 of 1 Period: 74.818 d



DV Fit Results:

Period = 74.81844 [0.01627] d
Epoch = 134.9676 [0.1056] BKJD
Rp/R* = 0.0064 [0.0156]
a/R* = 55.42 [391.85]
b = 0.86 [2.16]
Seff = N/A
Teq = N/A
Rp = 104.86 [257.12] Re
a = N/A
Ag = N/A
Teffp = N/A

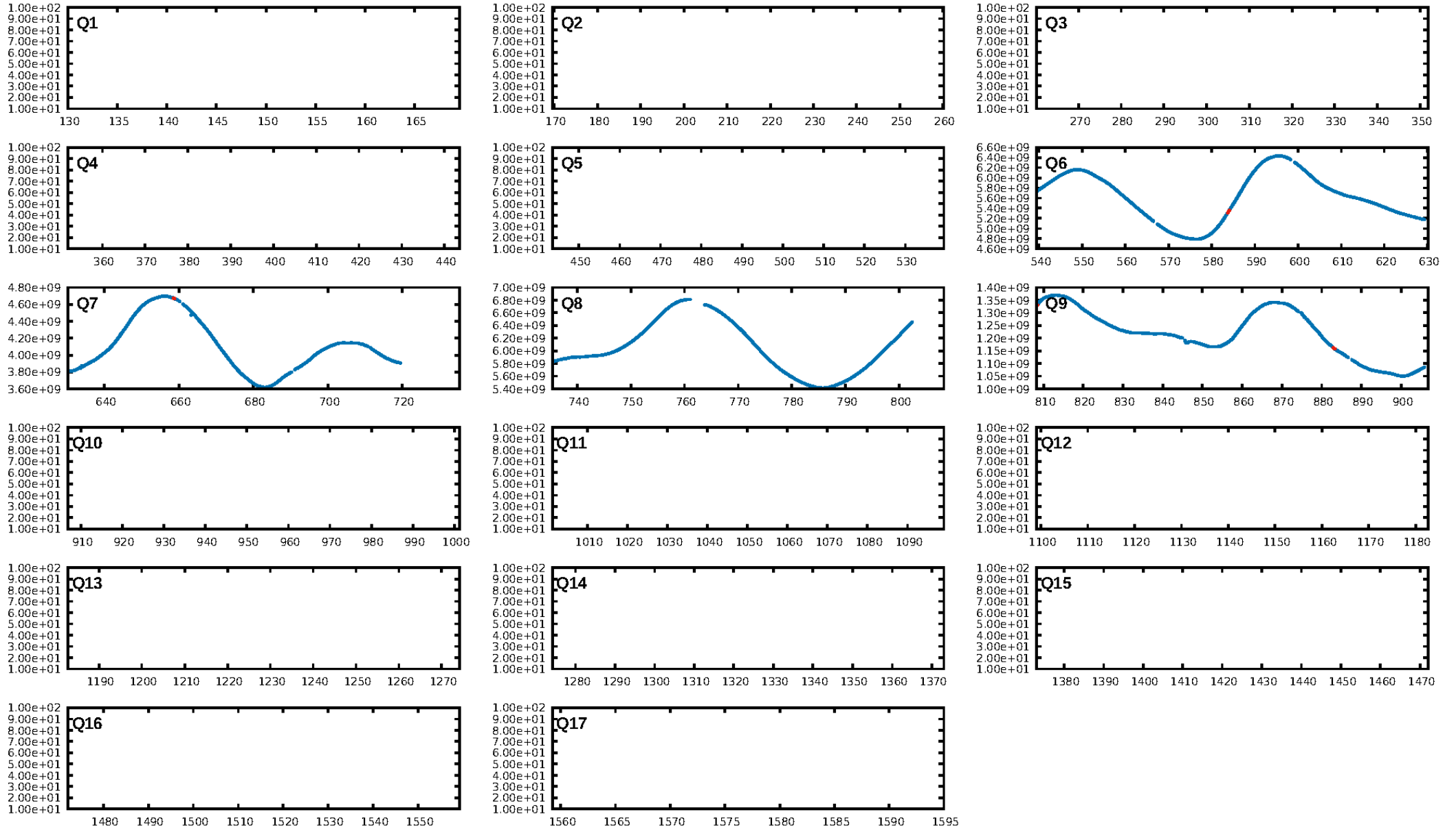
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 85.4%
ModelChiSquareGof-sig: 78.0%
Bootstrap-pfa: 3.59e-14
RollingBand-fgt: 0.67 [2/3]
GhostDiagnostic-chr: N/A
Centroid-sig: 8.2%
Centroid-so: 56.952 arcsec [0.93 σ]
OotOffset-rm: 13.375 arcsec [6.05 σ]
KicOffset-rm: 11.743 arcsec [3.35 σ]
OotOffset-st: 1/0/0/1 [2]
KicOffset-st: 1/0/0/1 [2]
DiffImageQuality-fgm: 0.00 [0/2]
DiffImageOverlap-fno: 1.00 [3/3]

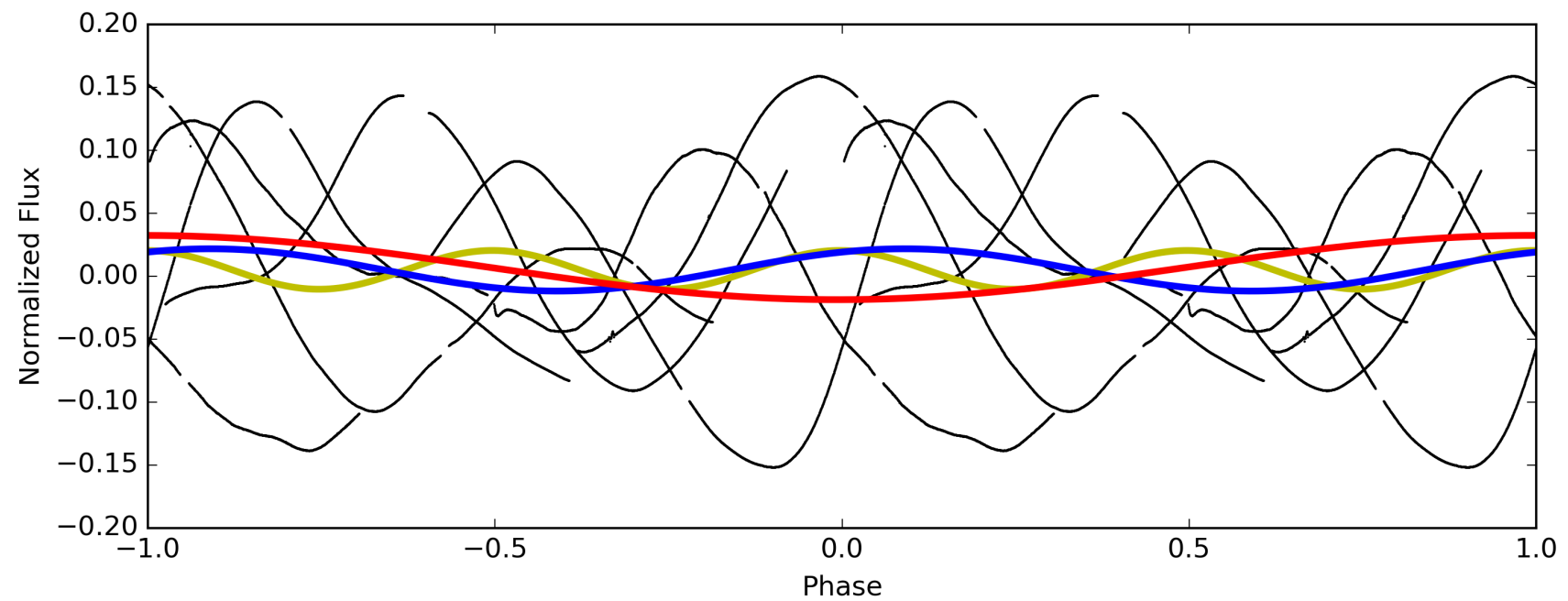
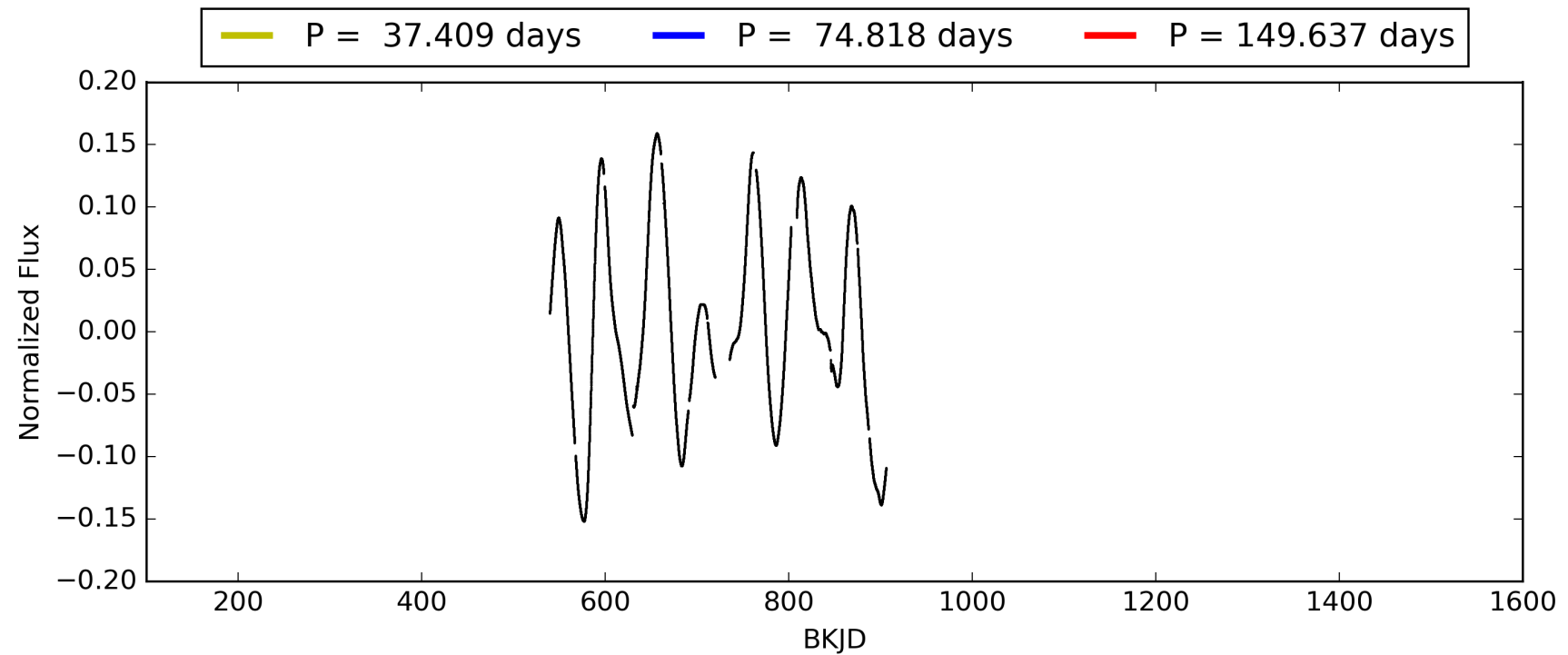
Software Revision: svn-ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 14:22:49 Z

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

TCE 008360359-01, PDC Light Curves

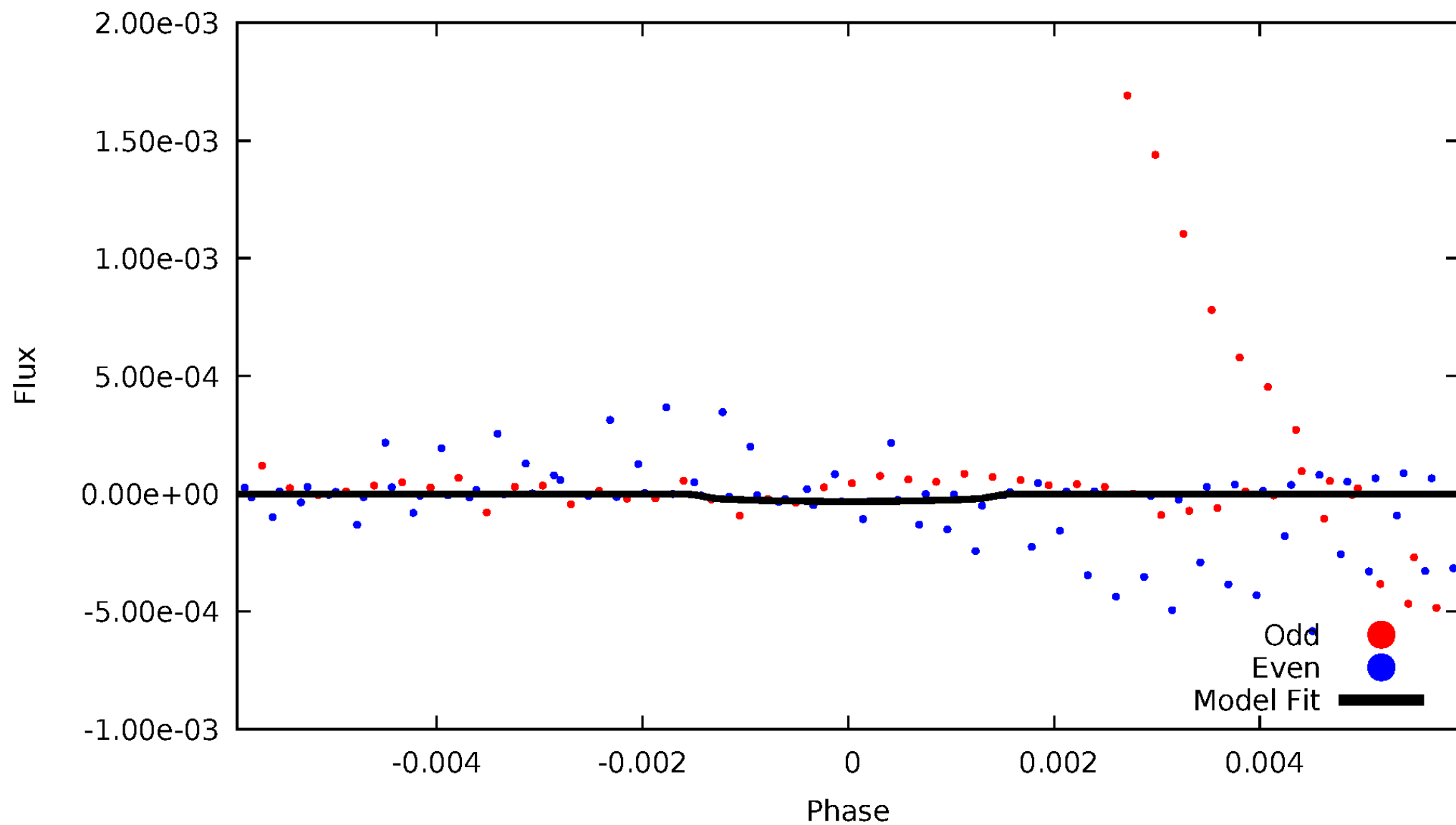


TCE 008360359-01



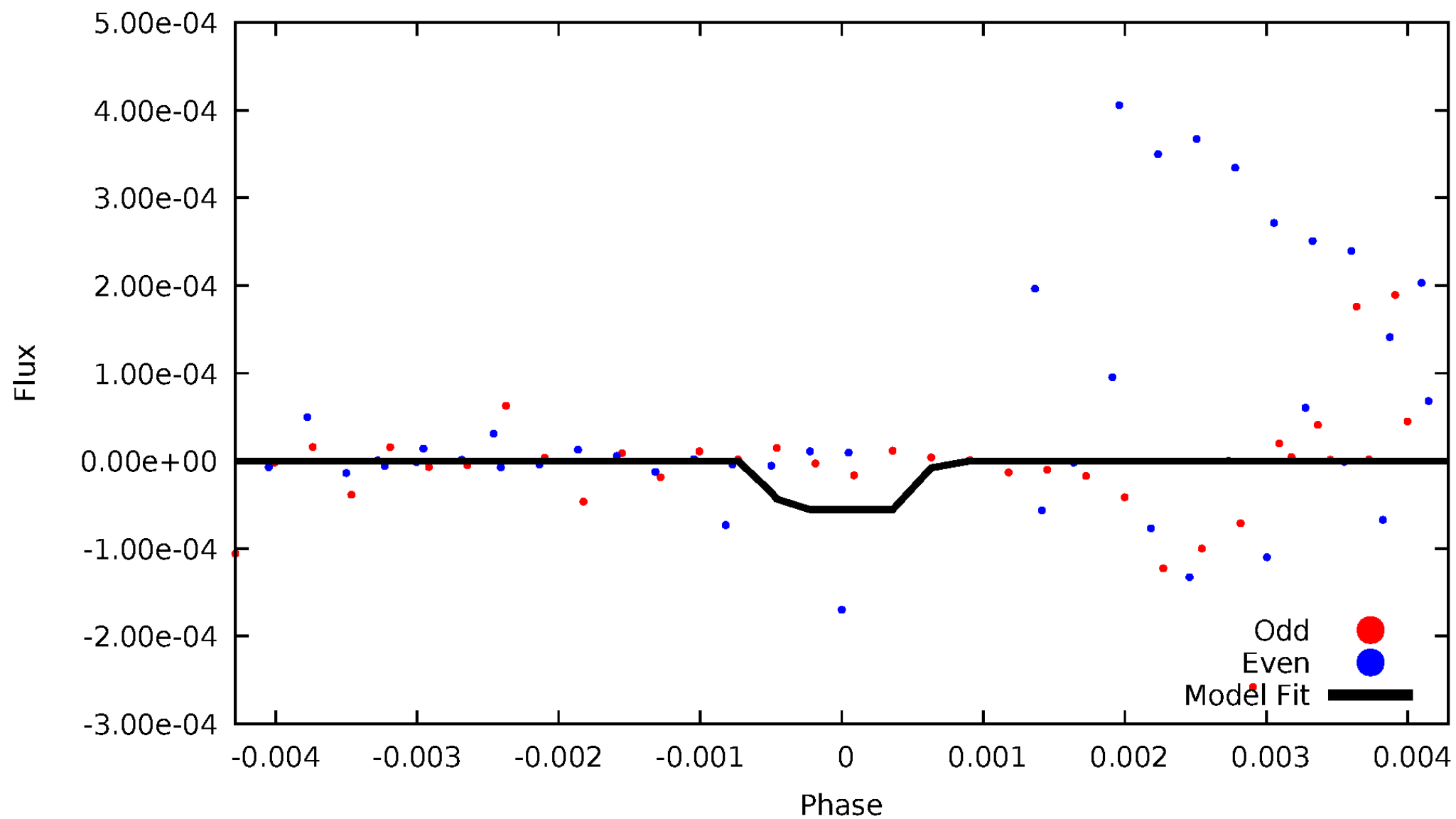
DV Odd/Even

TCE 008360359-01



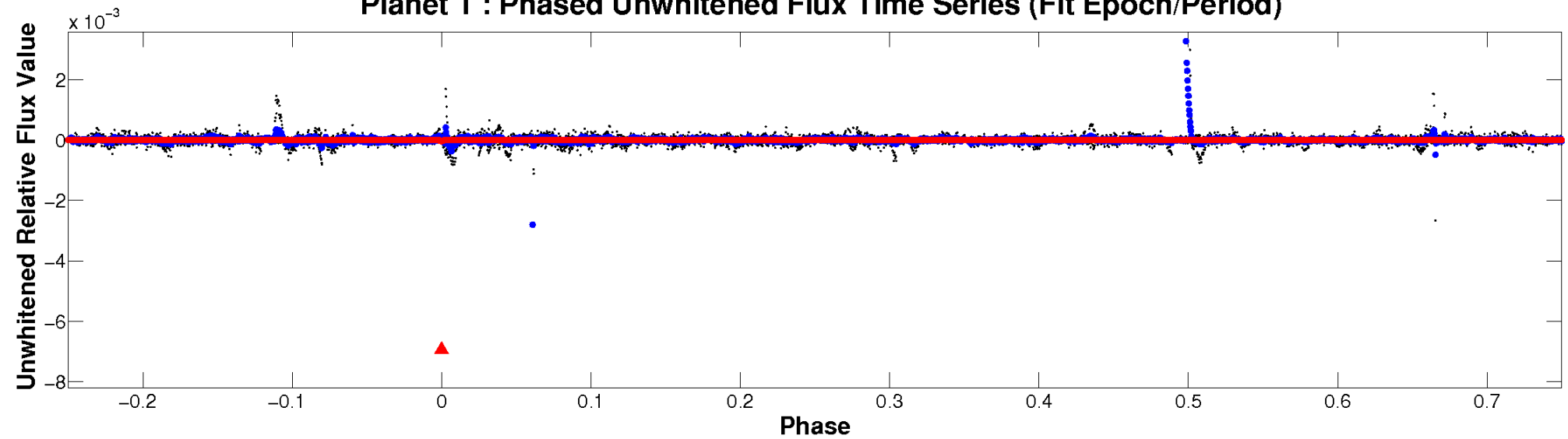
ALT Odd/Even

TCE 008360359-01

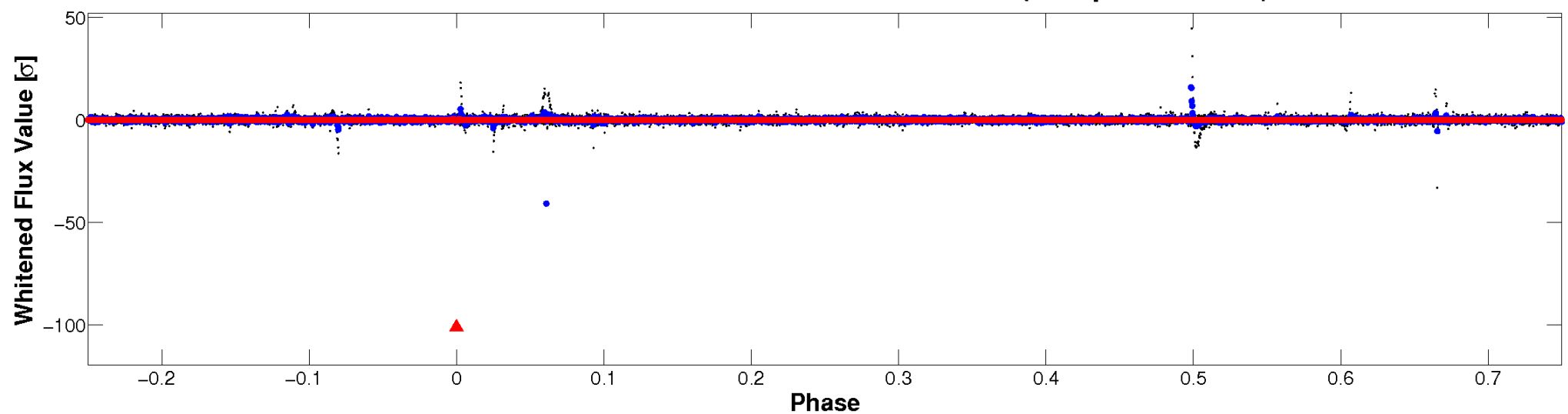


Non-Whitened Vs. Whitened Light Curve

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

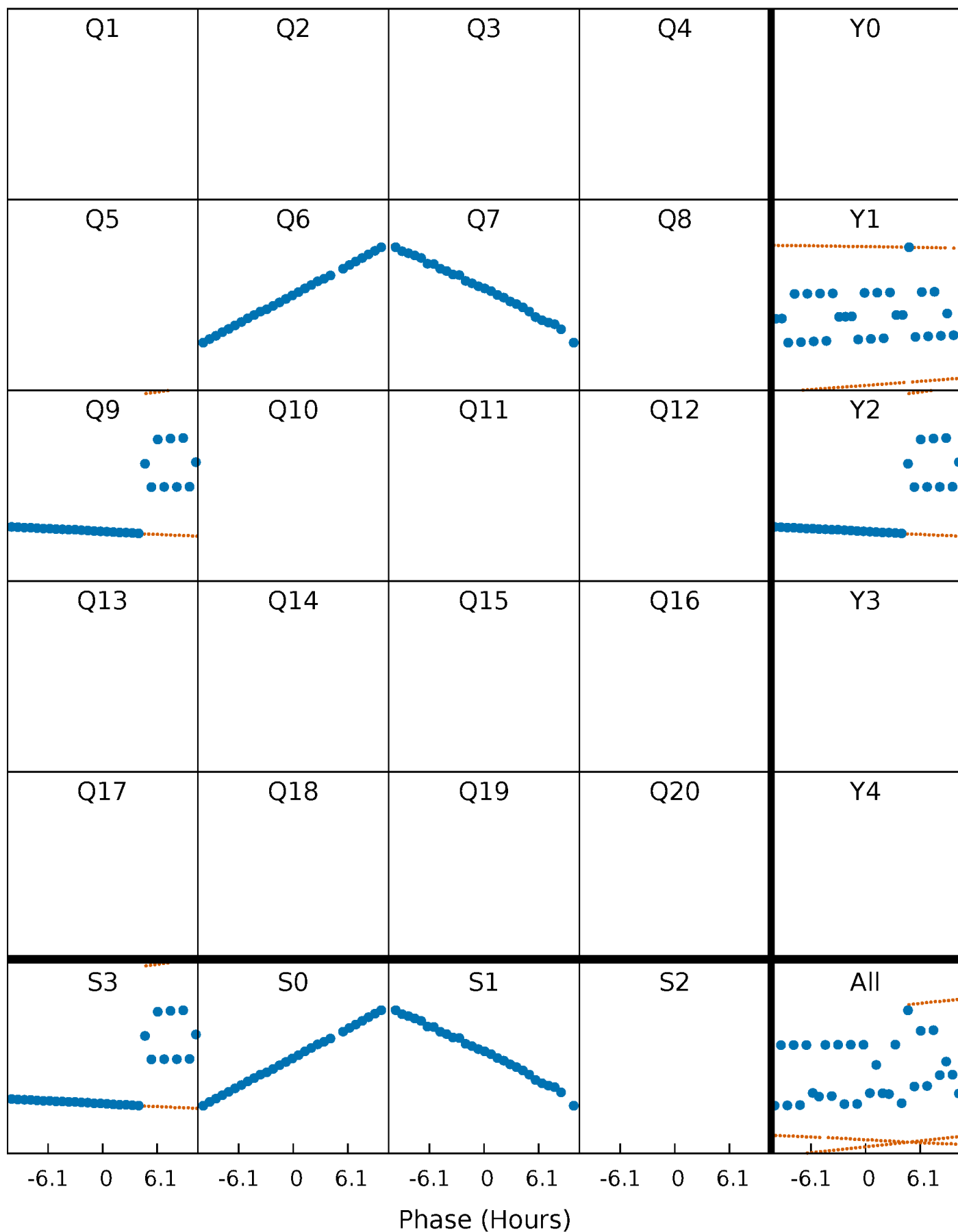


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



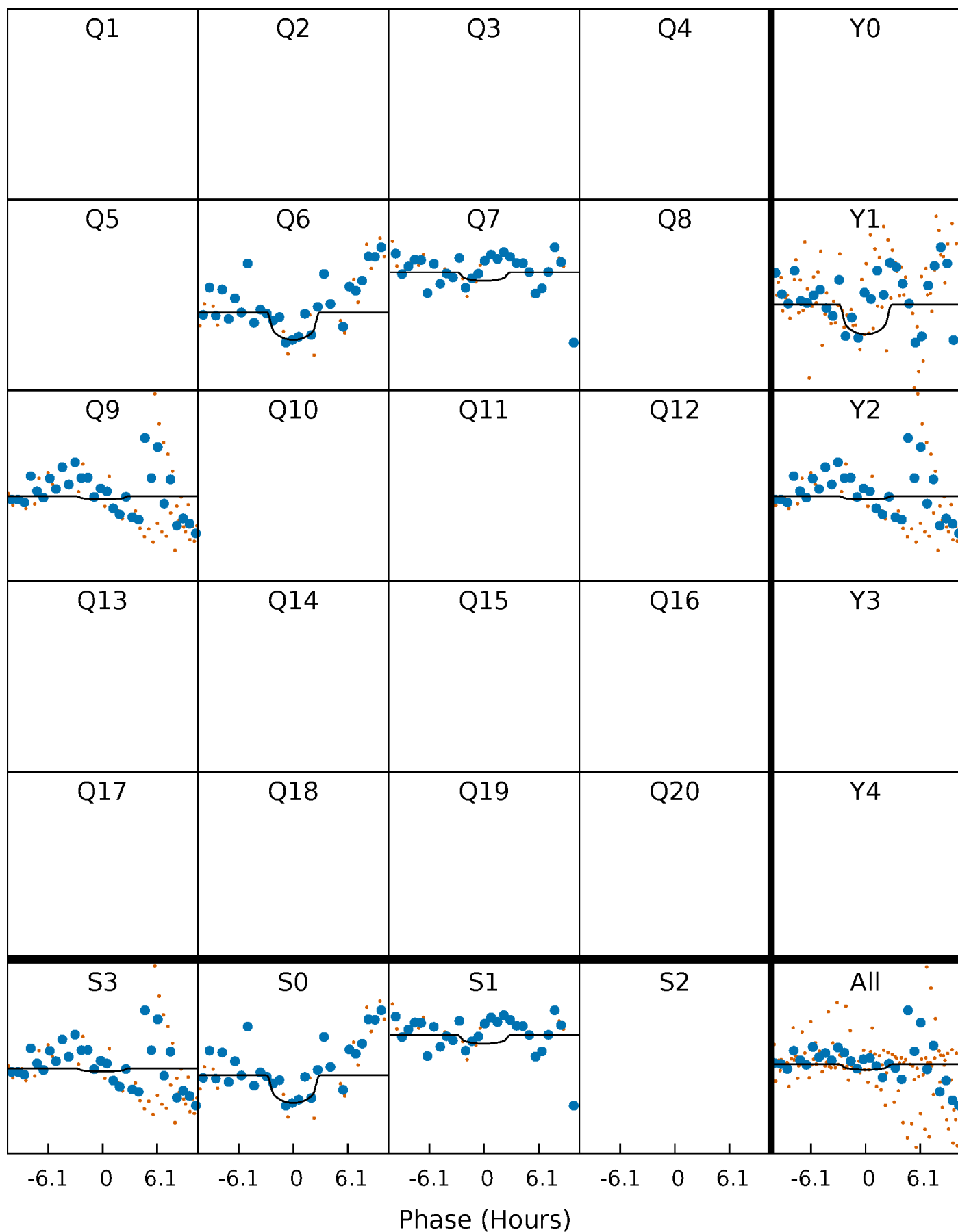
PDC Quarter-Phased Transit Curves

TCE 008360359-01 P= 74.818443 Days $T_0=134.967584$ (BKJD)



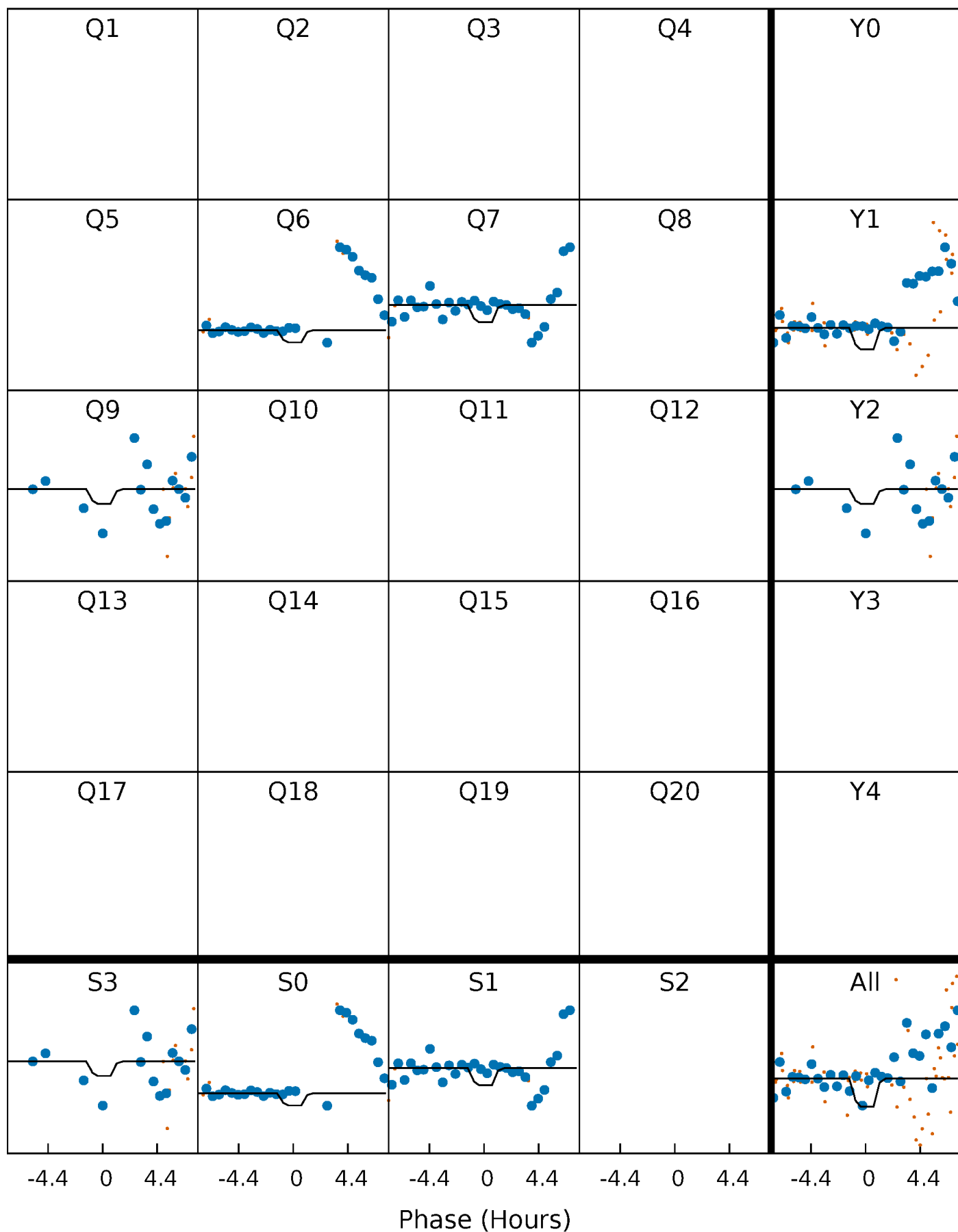
DV Quarter-Phased Transit Curves

TCE 008360359-01 P= 74.818443 Days $T_0=134.967584$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

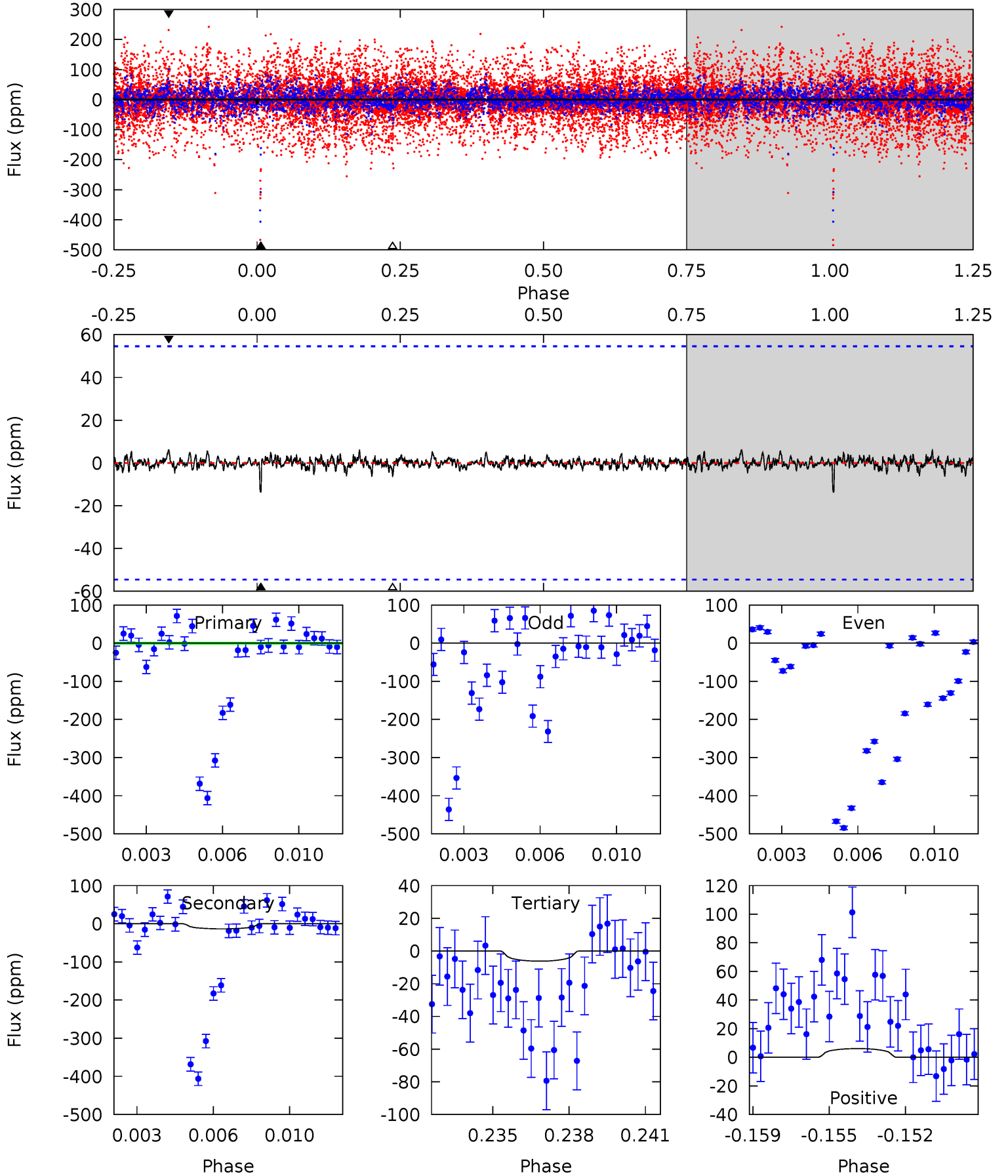
TCE 008360359-01 P= 74.802854 Days $T_0=135.134178$ (BKJD)



DV Model-Shift Uniqueness Test

008360359-01, $P = 74.818443$ Days, $E = 134.967584$ Days

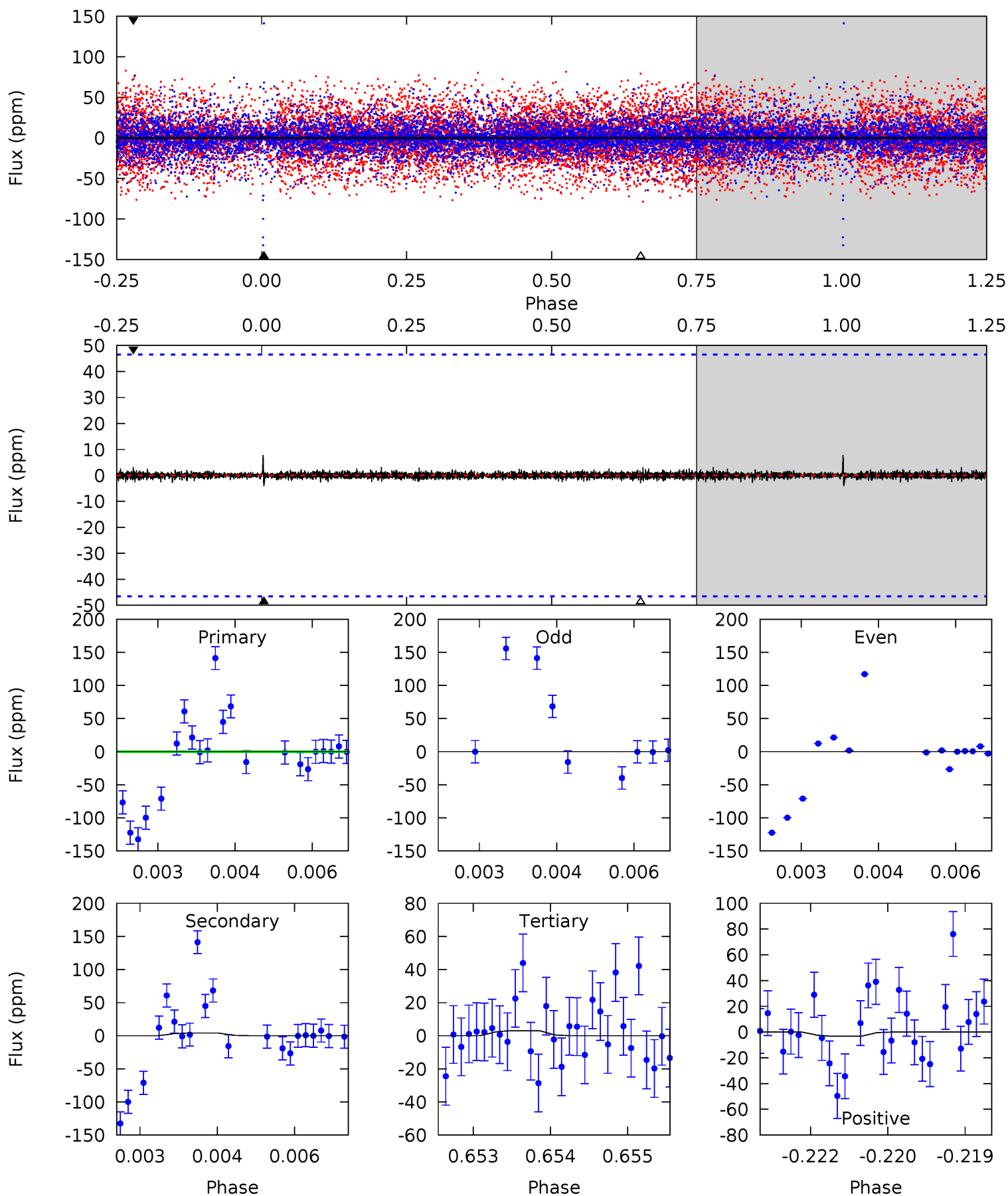
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.31	1.29	0.60	0.59	5.24	2.95	0.16	0.71	0.73	0.69	0.70	0.44	0.31	0.31	0.10



Alt Model-Shift Uniqueness Test

008360359-01, P = 74.802854 Days, E = 135.134178 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0.40	0.47	0.34	0.36	5.39	3.19	0.09	0.06	0.04	0.13	0.10	0.32	1.00	0.66	0



Stellar Parameters For KIC 008360359

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	3291^{+107}_{-88}	$0.169^{+0.216}_{-0.054}$	$-0.020^{+0.250}_{-0.150}$	$150.645^{+8.579}_{-32.172}$	$1.221^{+0.221}_{-0.166}$	$0.000^{+0.000}_{-0.000}$
	+3%/-3%	+128%/-32%	+1250%/-750%	+6%/-21%	+18%/-14%	+116%/-17%
Source	KIC0	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 008360359-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-13 ± 10	$210.11^{+199.58}_{-144.54}$	4014^{+172}_{-257}	-3200^{+460}_{-167}	$0.019^{+0.182}_{-0.016}$
Alt.	-4 ± 9	$235.00^{+210.71}_{-158.94}$	4000^{+203}_{-218}	-3246^{+187}_{-183}	$0.004^{+0.048}_{-0.011}$

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 $A_{obs} \gg 1.0$

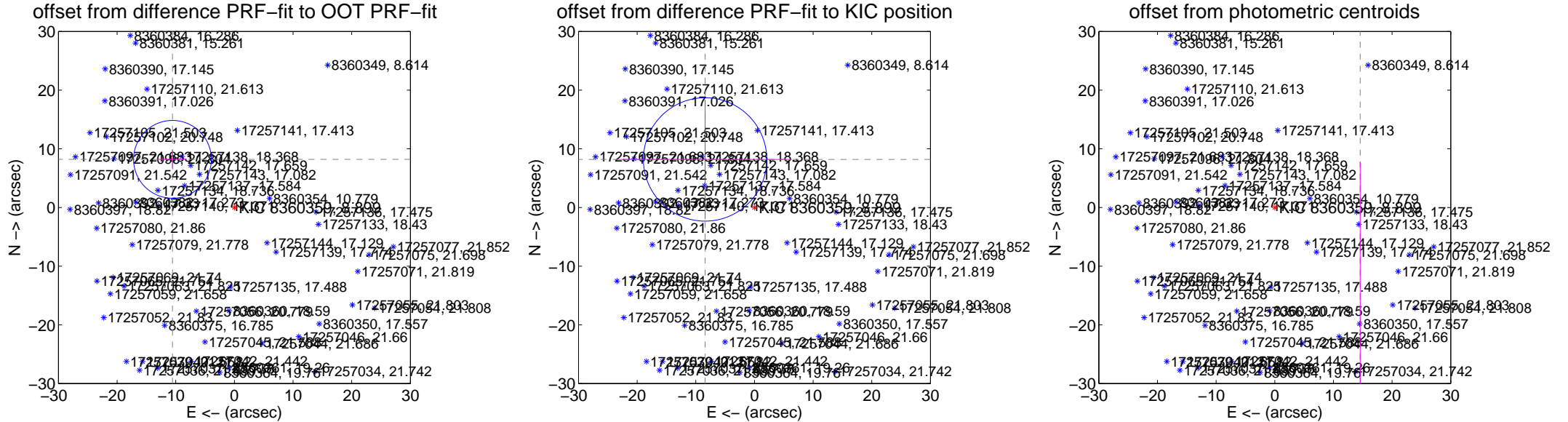
DV Centroid Data

Supplemental centroid analysis for 008360359-01. **Kepler magnitude: 8.90.** Transit SNR 2.82

There are 0 quarters with good PRF difference image offsets

The OOT PRF centroid is offset from the target star catalog position by about 24.57 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	13.375 ± 2.210	6.05	10.563 ± 2.473	8.205 ± 1.684
PRF-fit source offset from KIC position	11.743 ± 3.505	3.35	8.418 ± 14.777	8.187 ± 10.168
photometric centroid source offset	56.95 ± 60.91	0.94	-14.56 ± 17.33	-55.06 ± 62.84



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.

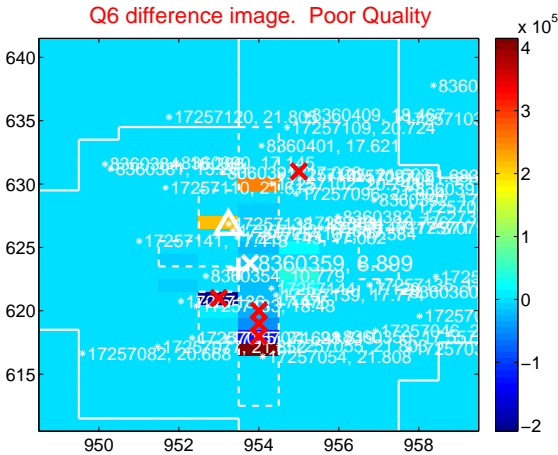
Q5 no difference image



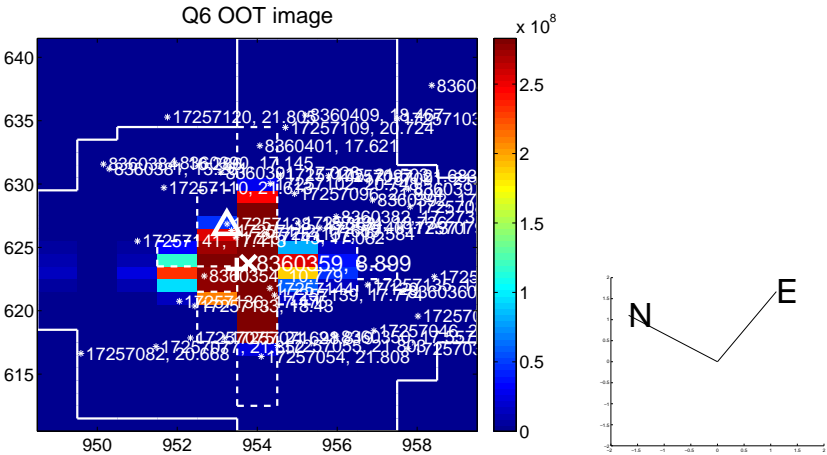
Q5 no OOT image



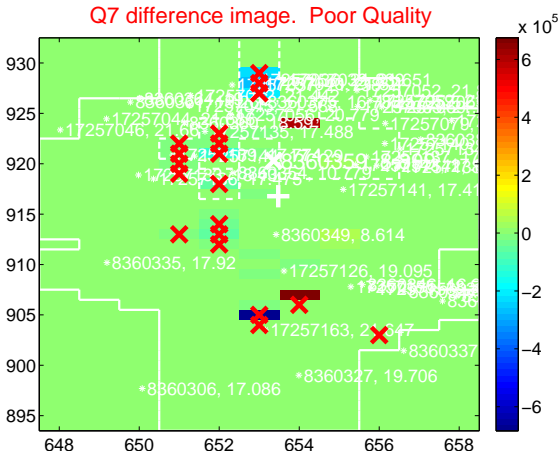
Q6 difference image. Poor Quality



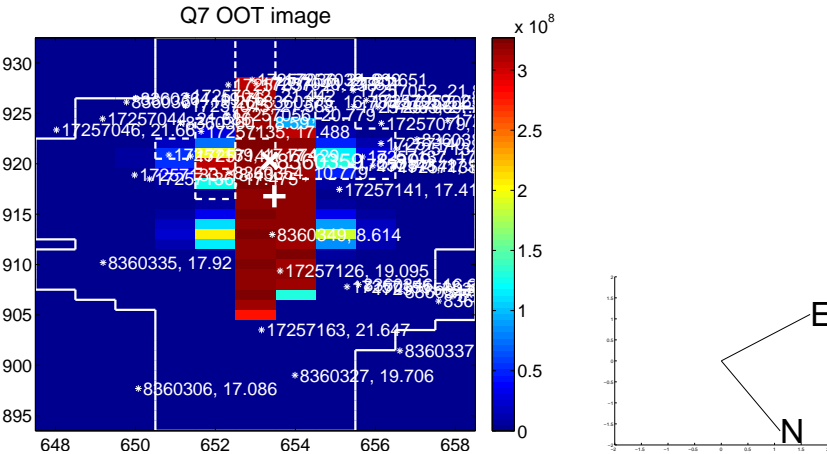
Q6 OOT image



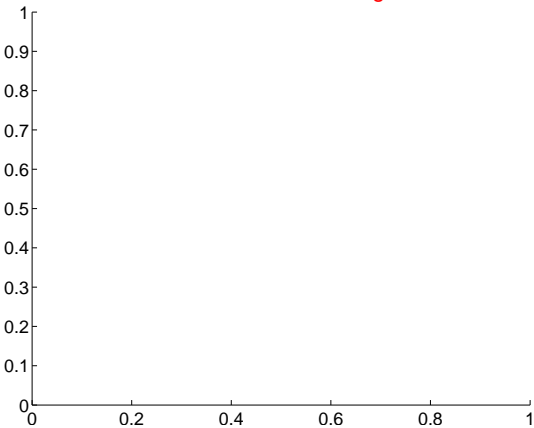
Q7 difference image. Poor Quality



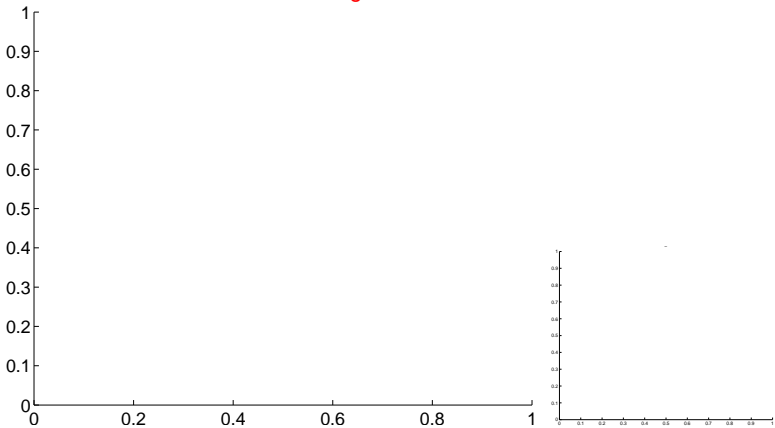
Q7 OOT image



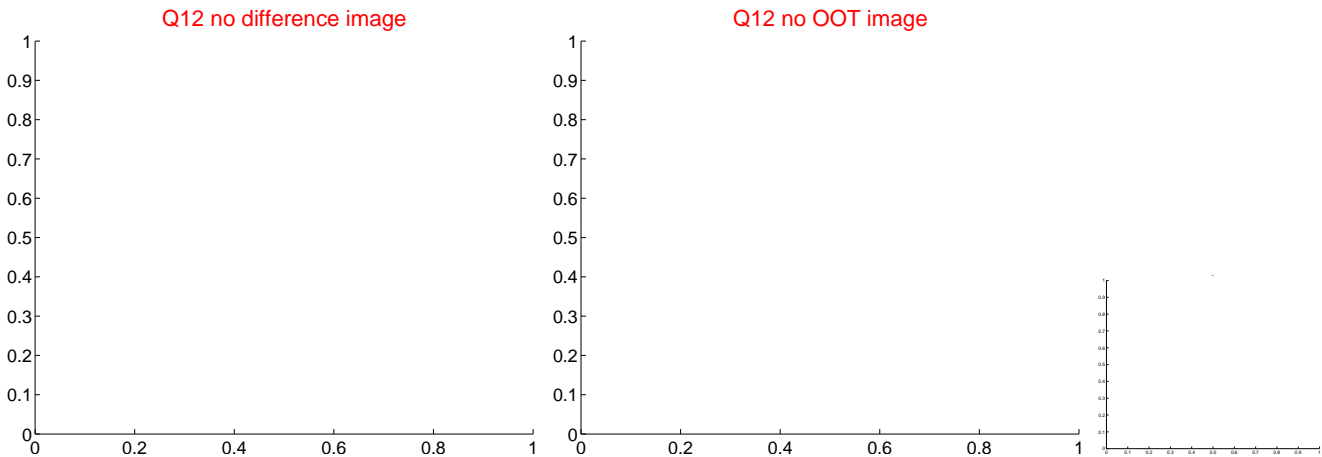
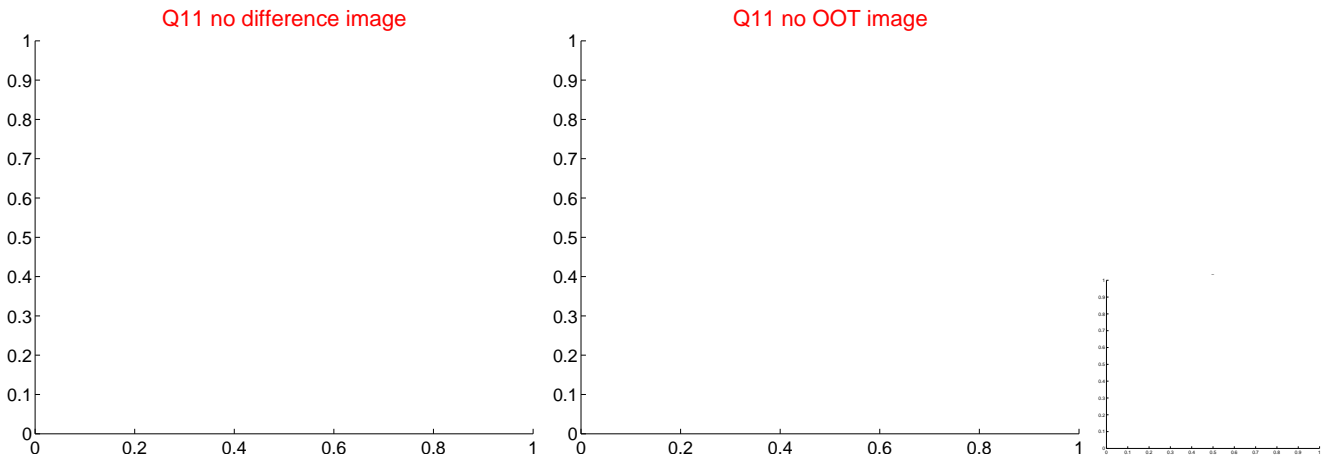
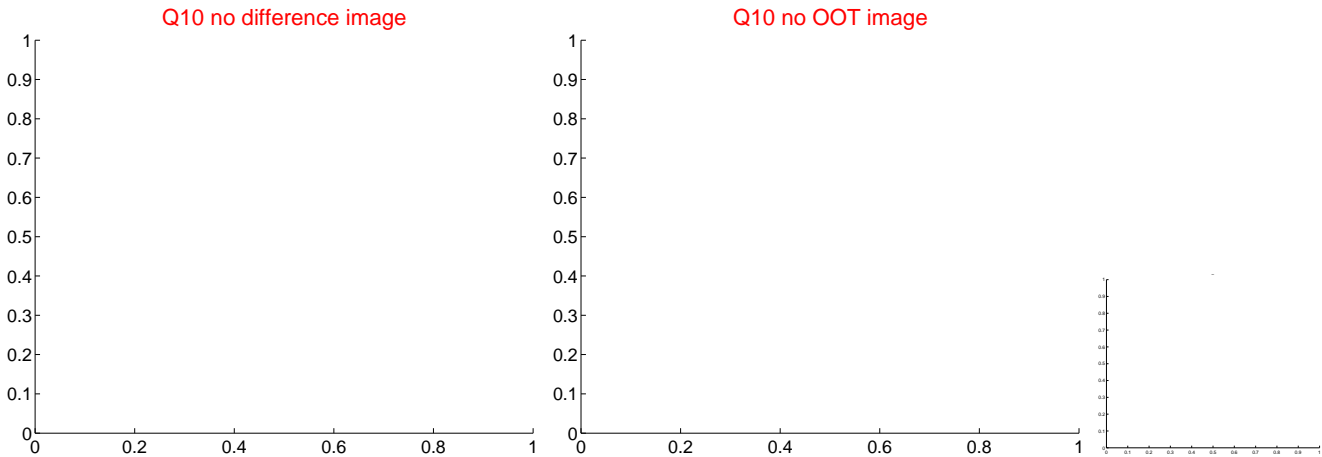
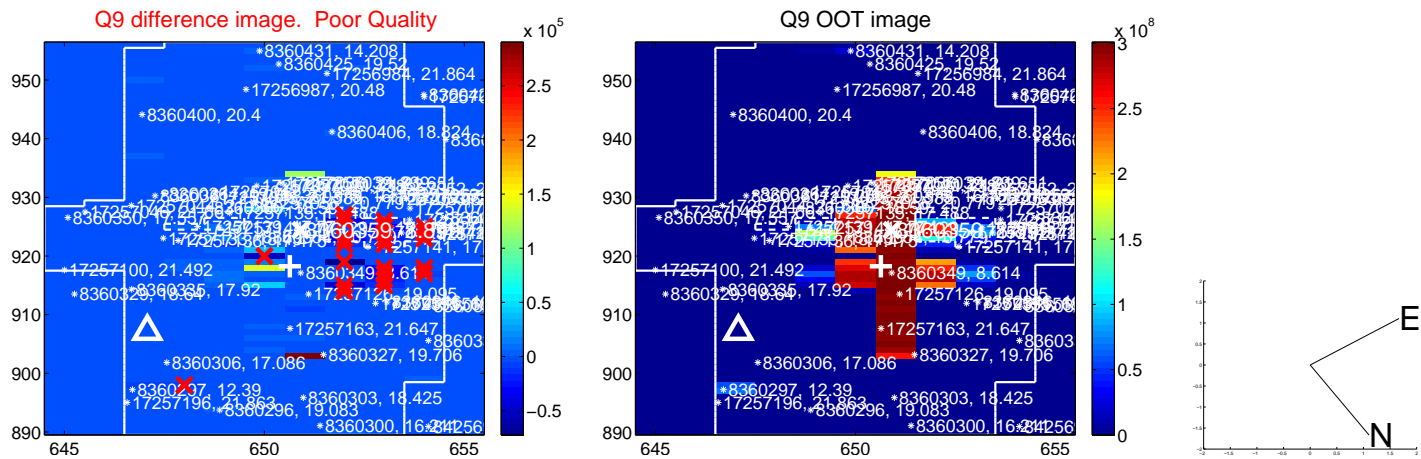
Q8 no difference image



Q8 no OOT image



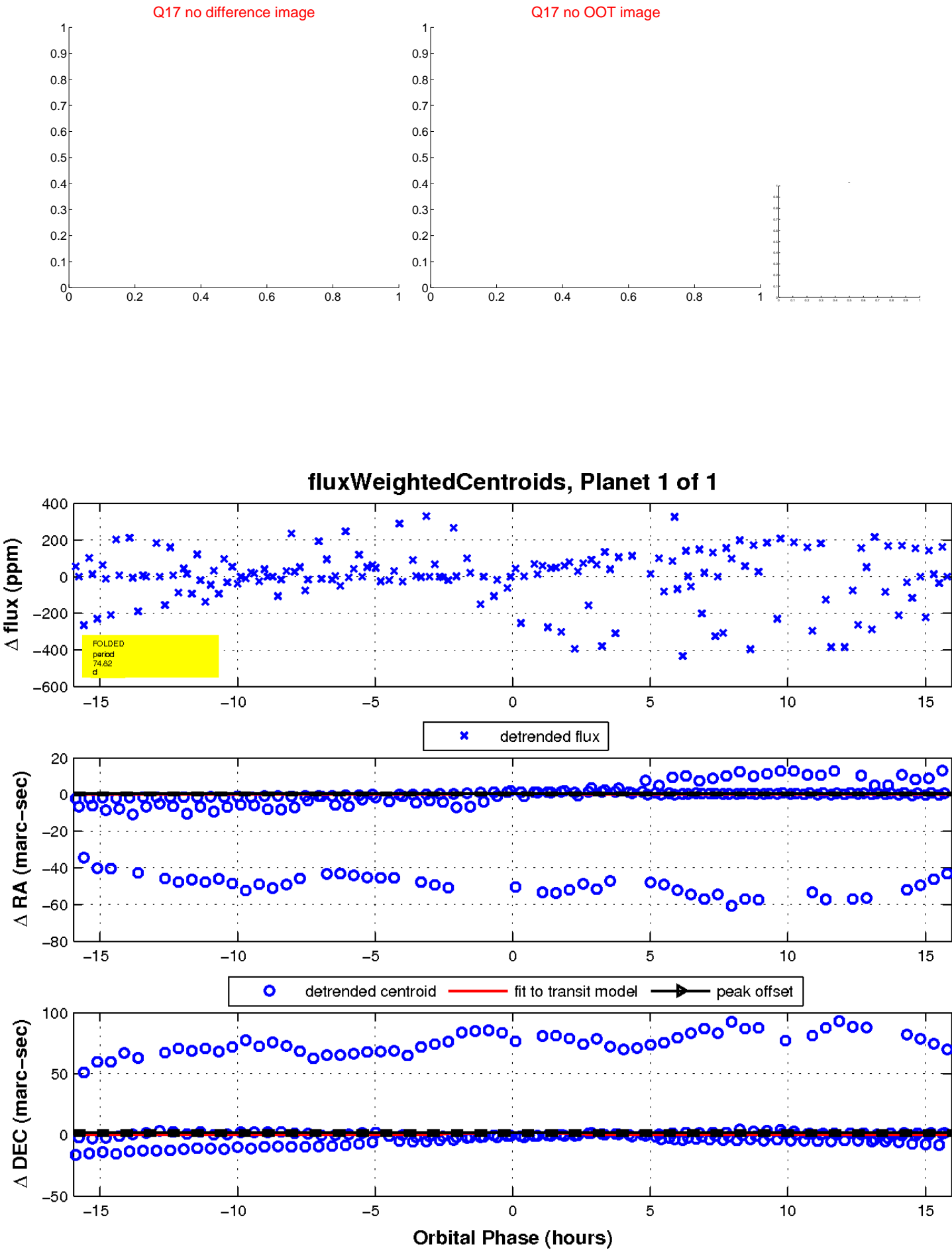
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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UKIRT Image

Declination

