

KIC 011599937

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})
011599937-01	OBS	5915.01	37.625990	167.217336	408.5	4.027	9.4	10.8	0.87	5874	1.93	17.17

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011599937-01	OBS	FP	0.02	1	0	0	0	MOD_NONUNIQ_ALT

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 011599937-01

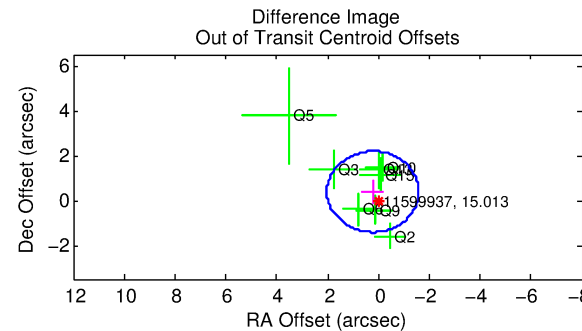
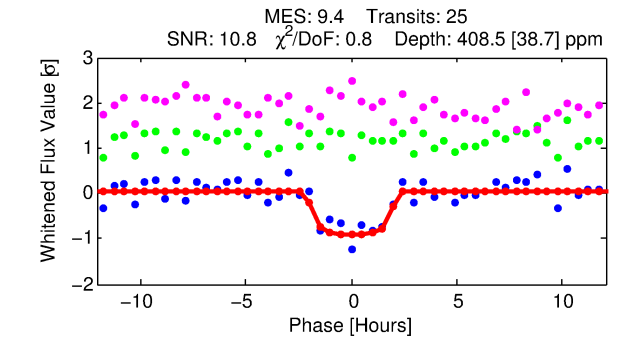
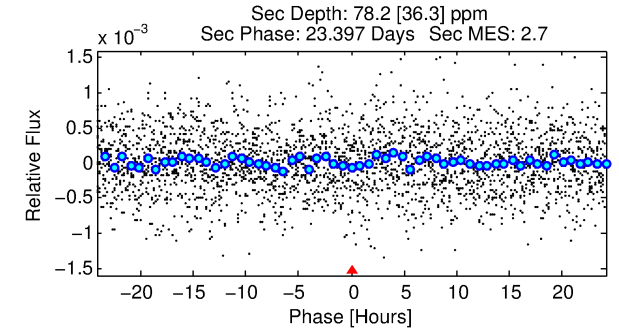
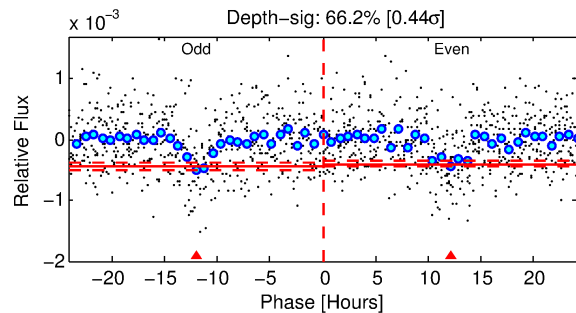
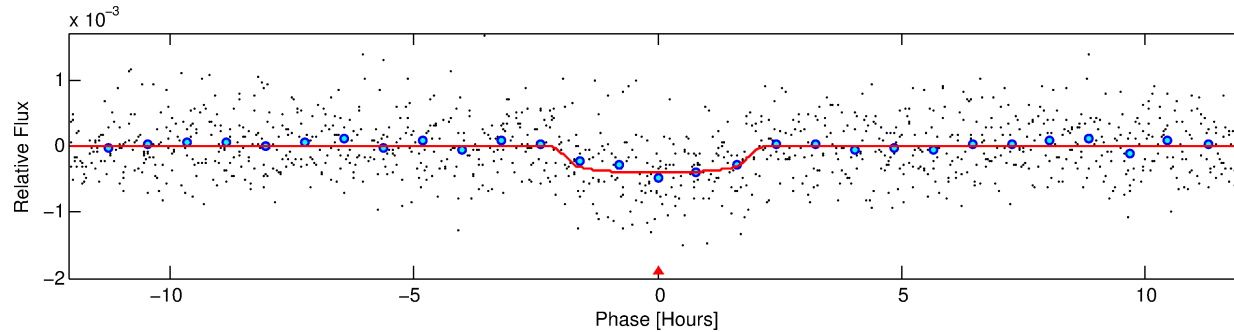
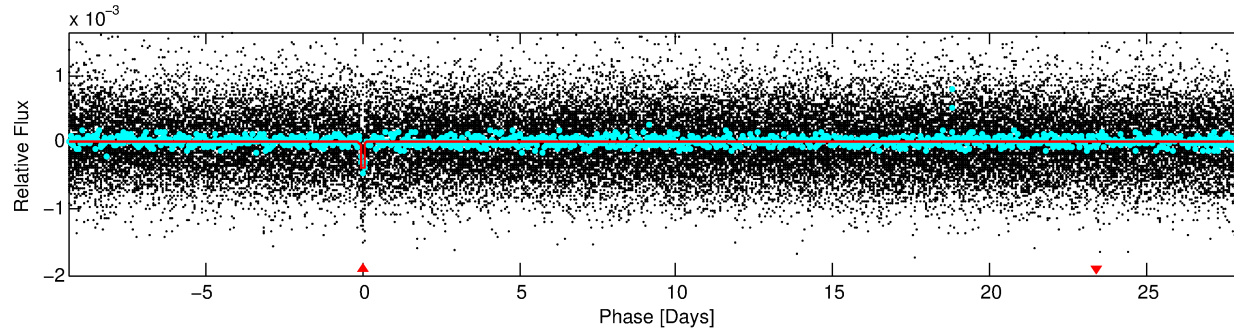
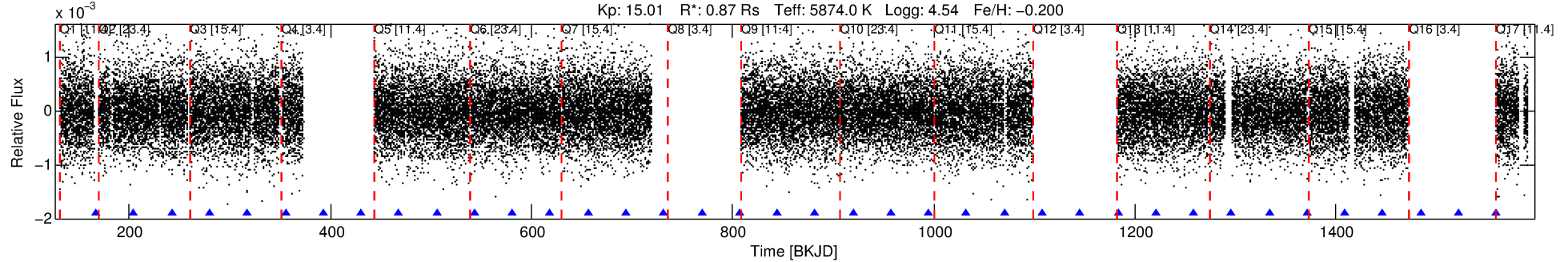
No Significant Match Found

DV One-Page Summary

KIC: 11599937 Candidate: 1 of 1 Period: 37.626 d

KOI: K05915.01 Corr: 0.958

Kp: 15.01 R*: 0.87 Rs Teff: 5874.0 K Logg: 4.54 Fe/H: -0.200



DV Fit Results:

Period = 37.62599 [0.00037] d
Epoch = 167.2173 [0.0078] BKJD
Rp/R* = 0.0203 [0.0145]
a/R* = 47.62 [160.08]
b = 0.77 [1.78]
Seff = 17.17 [6.10]
Teq = 519 [46] K
Rp = 1.93 [1.47] Re
a = 0.2171 [0.0494] AU
Ag = 545.63 [840.03] [0.65σ]
Teffp = 3878 [1462] K [2.30σ]

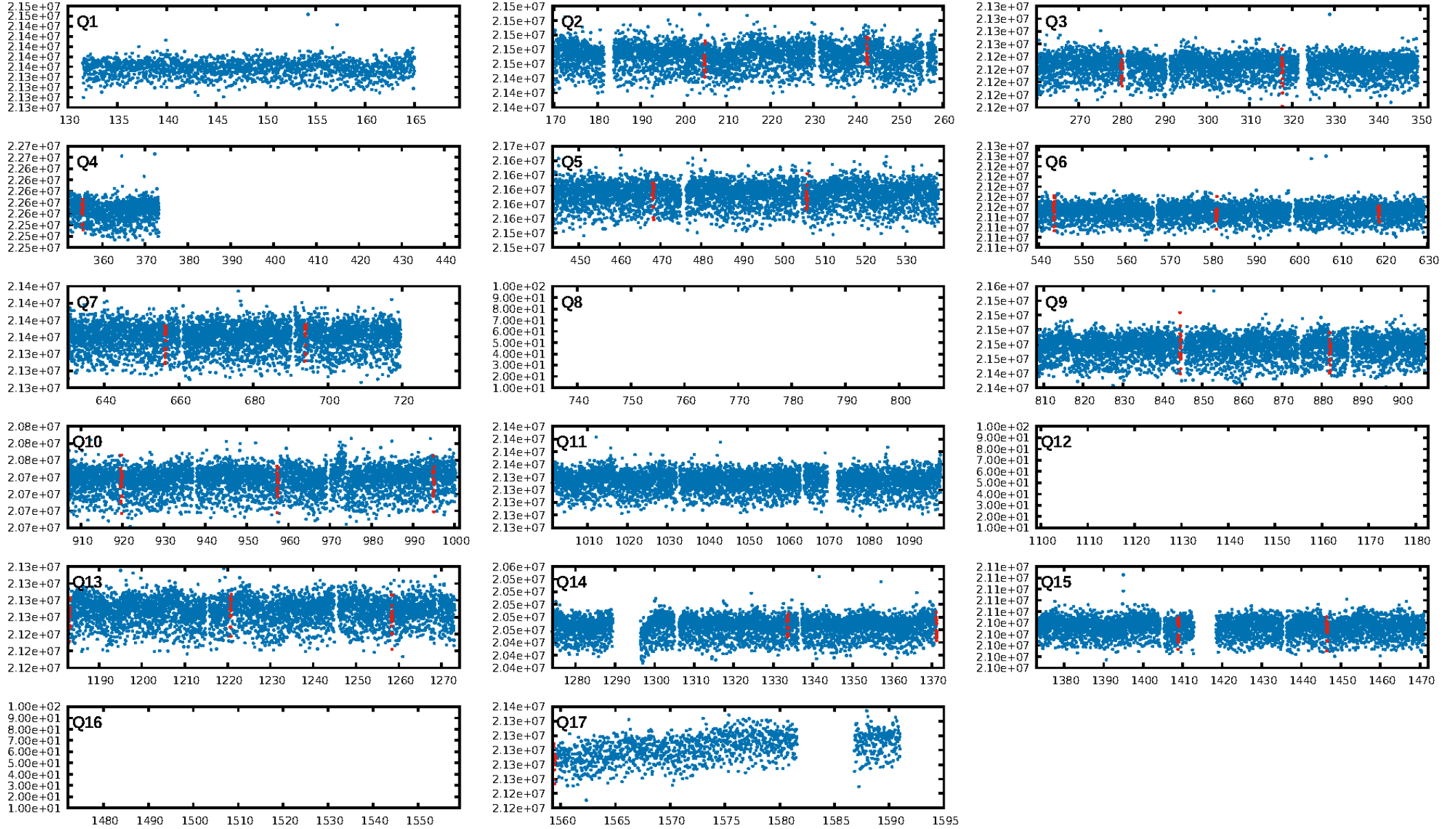
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 63.9%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 8.87e-21
RollingBand-fgt: 1.00 [23/23]
GhostDiagnostic-chr: 1.286
Centroid-sig: 37.4%
Centroid-so: 0.988 arcsec [0.76σ]
OotOffset-rm: 0.443 arcsec [0.74σ]
KicOffset-rm: 0.554 arcsec [0.96σ]
OotOffset-st: 3/2/0/3 [8]
KicOffset-st: 3/2/0/3 [8]
DiffImageQuality-fgm: 0.75 [6/8]
DiffImageOverlap-fno: 1.00 [11/11]

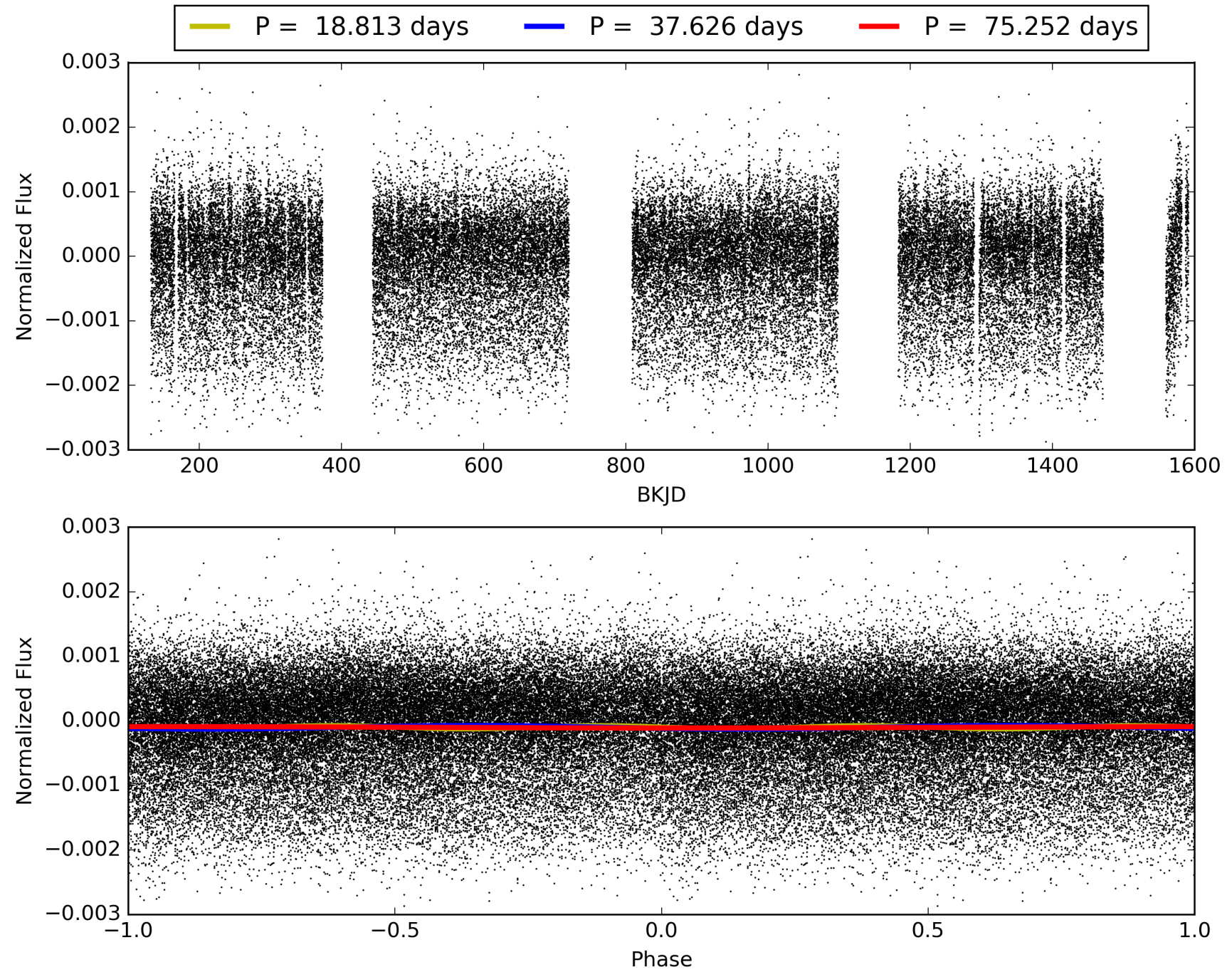
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 22:50:44 Z

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

TCE 011599937-01, PDC Light Curves

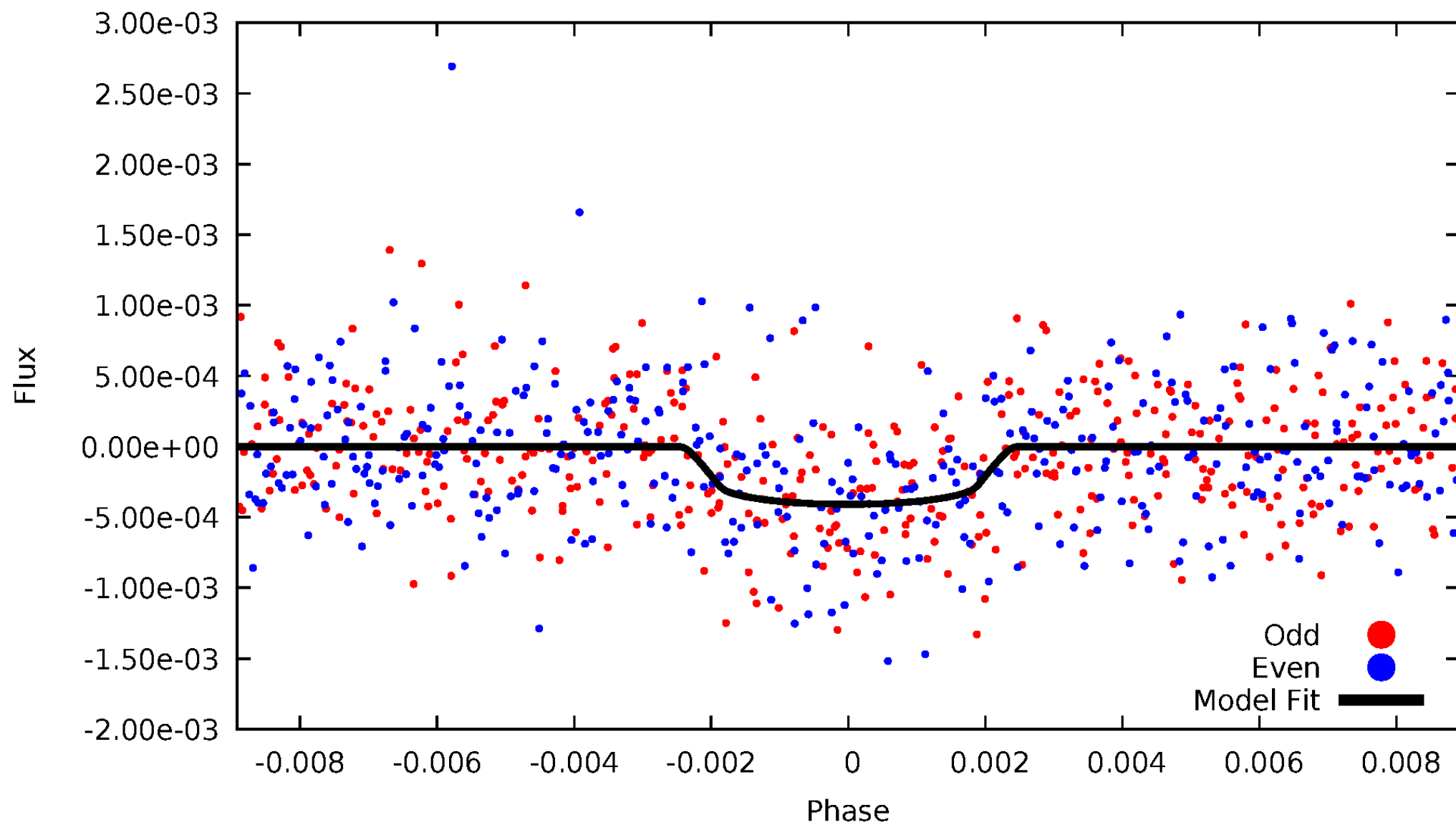


TCE 011599937-01



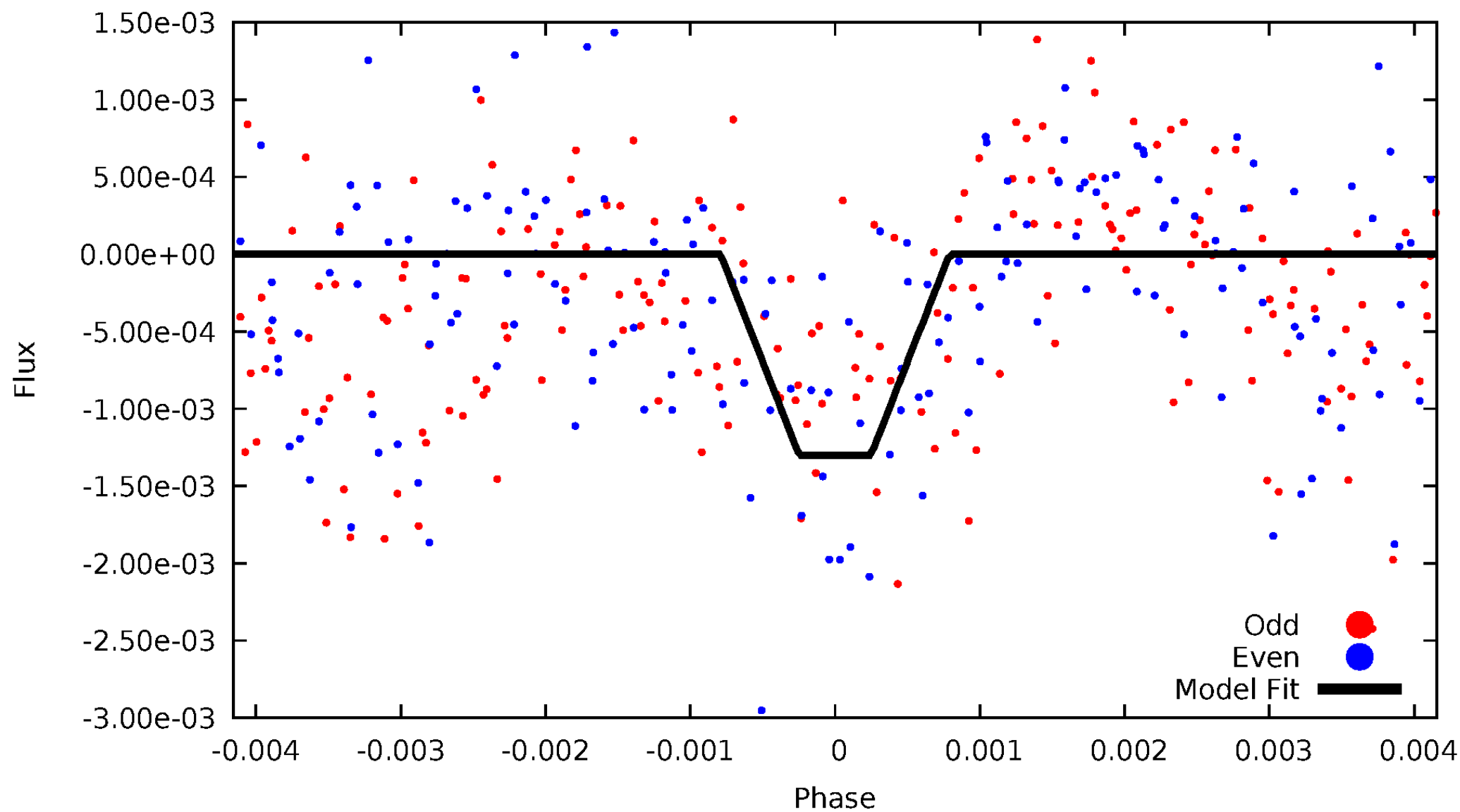
DV Odd/Even

TCE 011599937-01

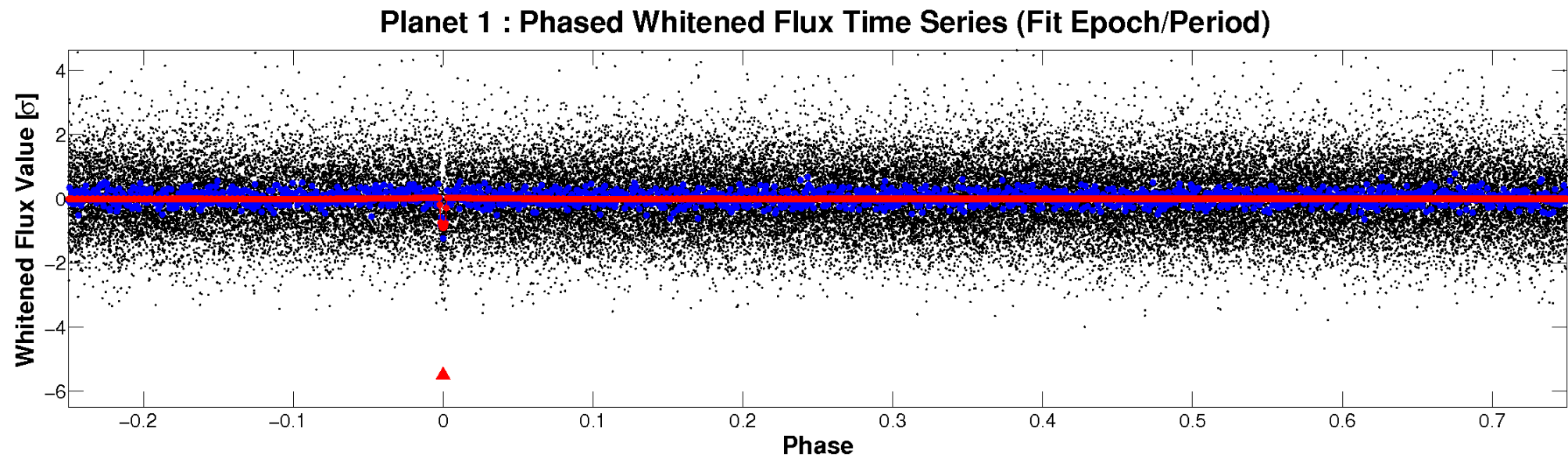
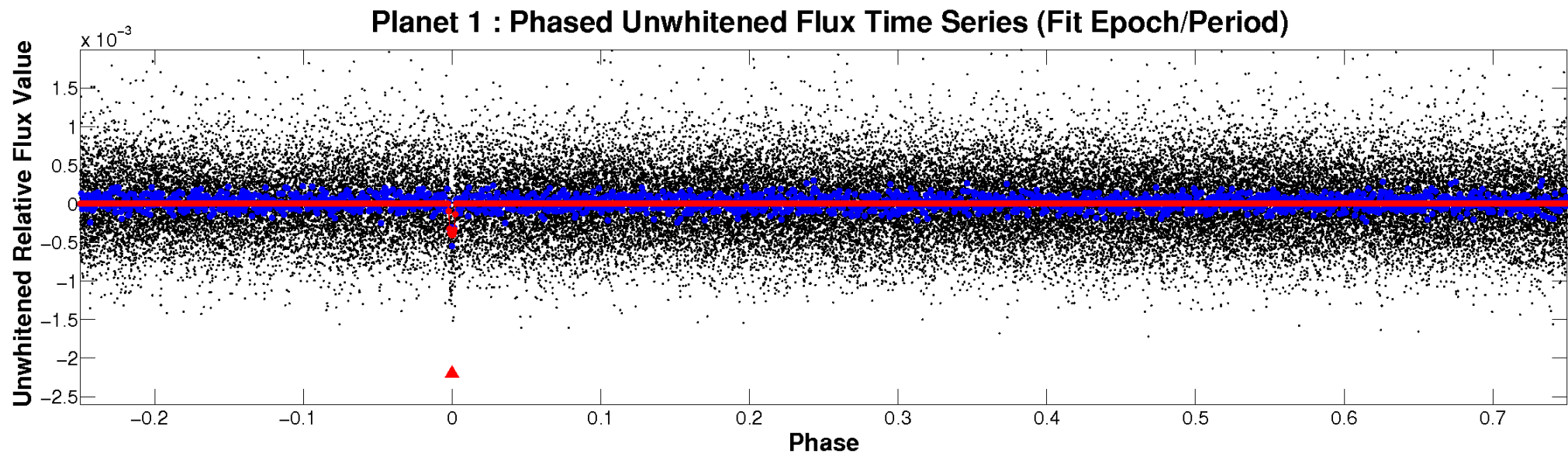


ALT Odd/Even

TCE 011599937-01

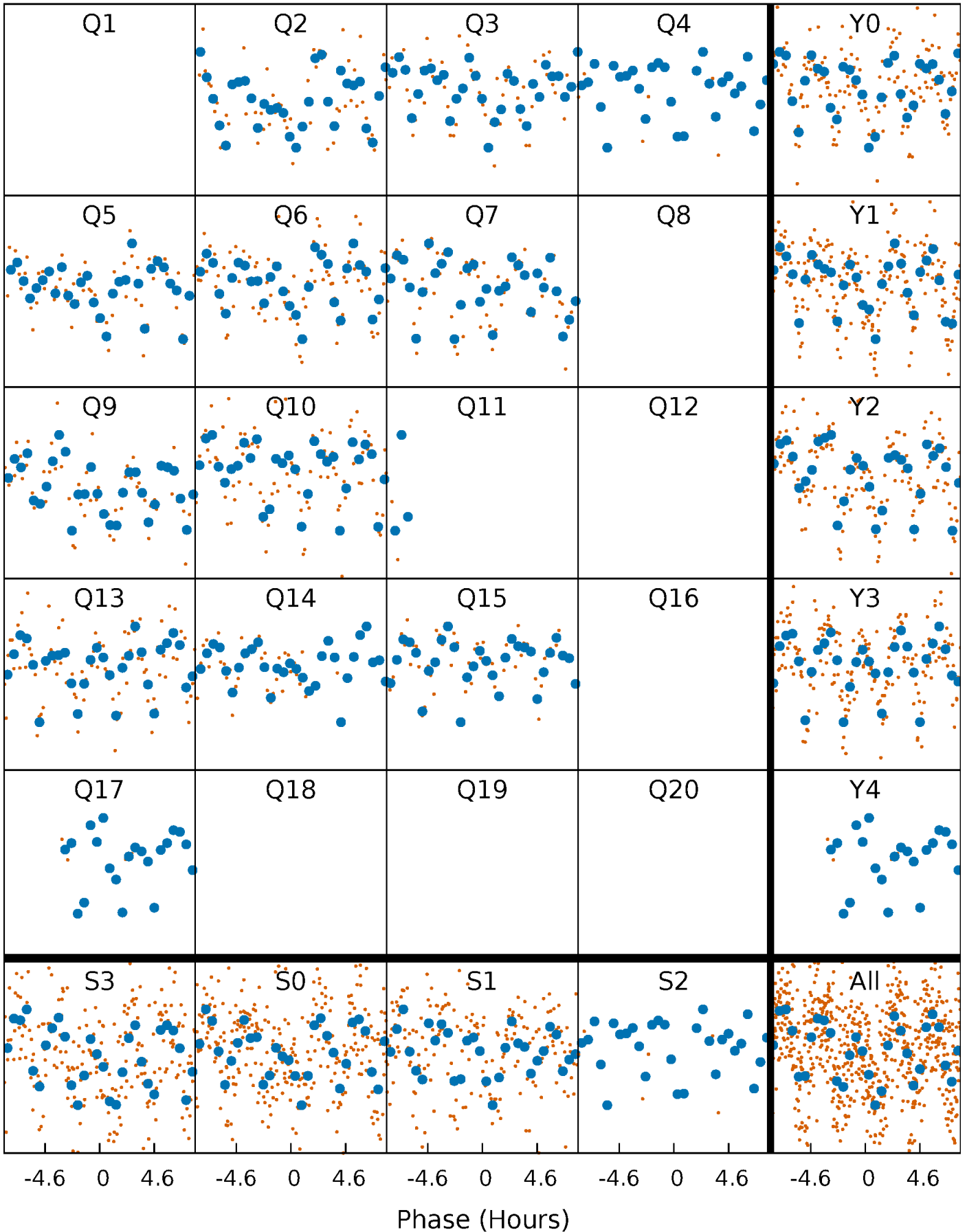


Non-Whitened Vs. Whitened Light Curve



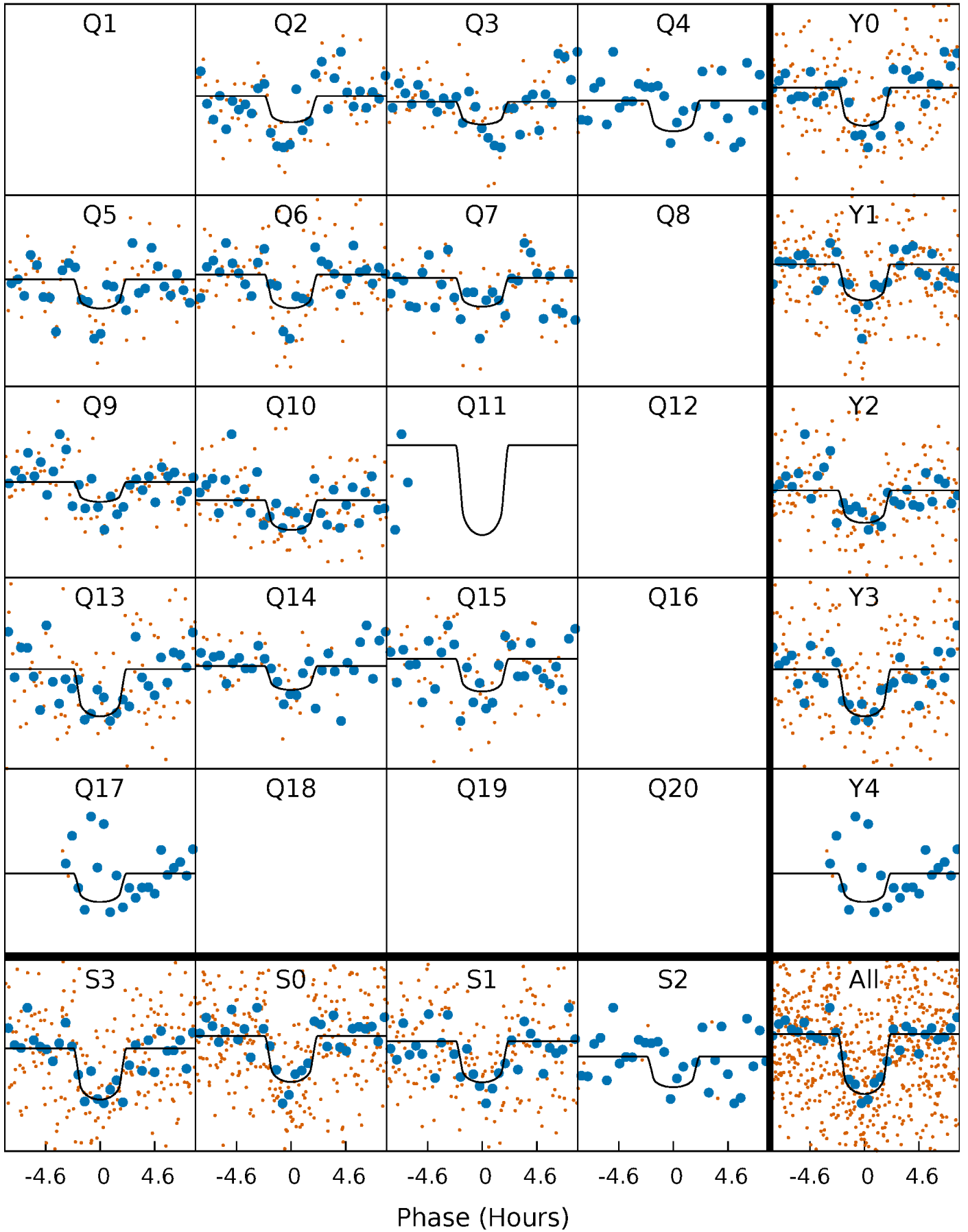
PDC Quarter-Phased Transit Curves

TCE 011599937-01 P= 37.625990 Days $T_0=167.217336$ (BKJD)



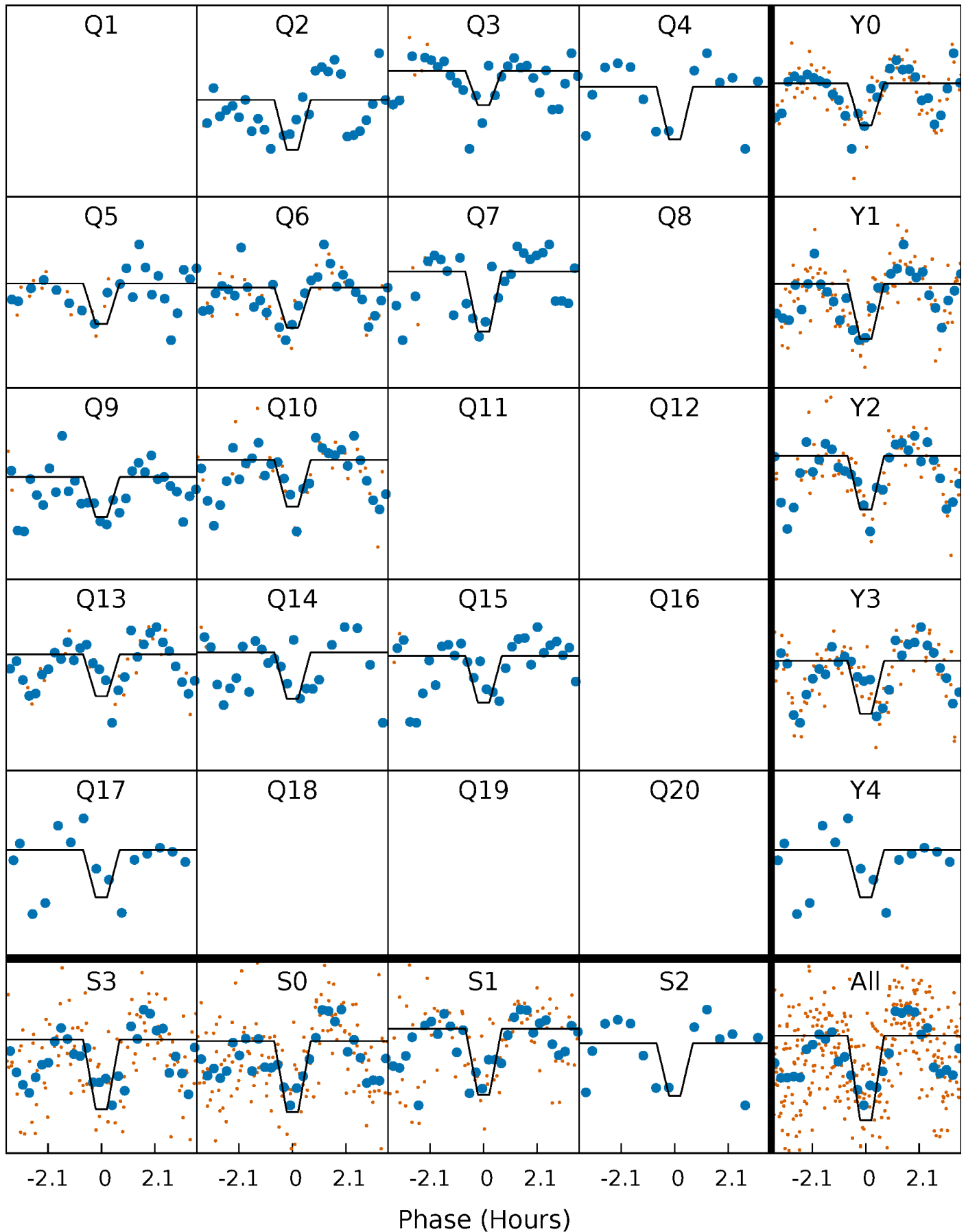
DV Quarter-Phased Transit Curves

TCE 011599937-01 P= 37.625990 Days $T_0=167.217336$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

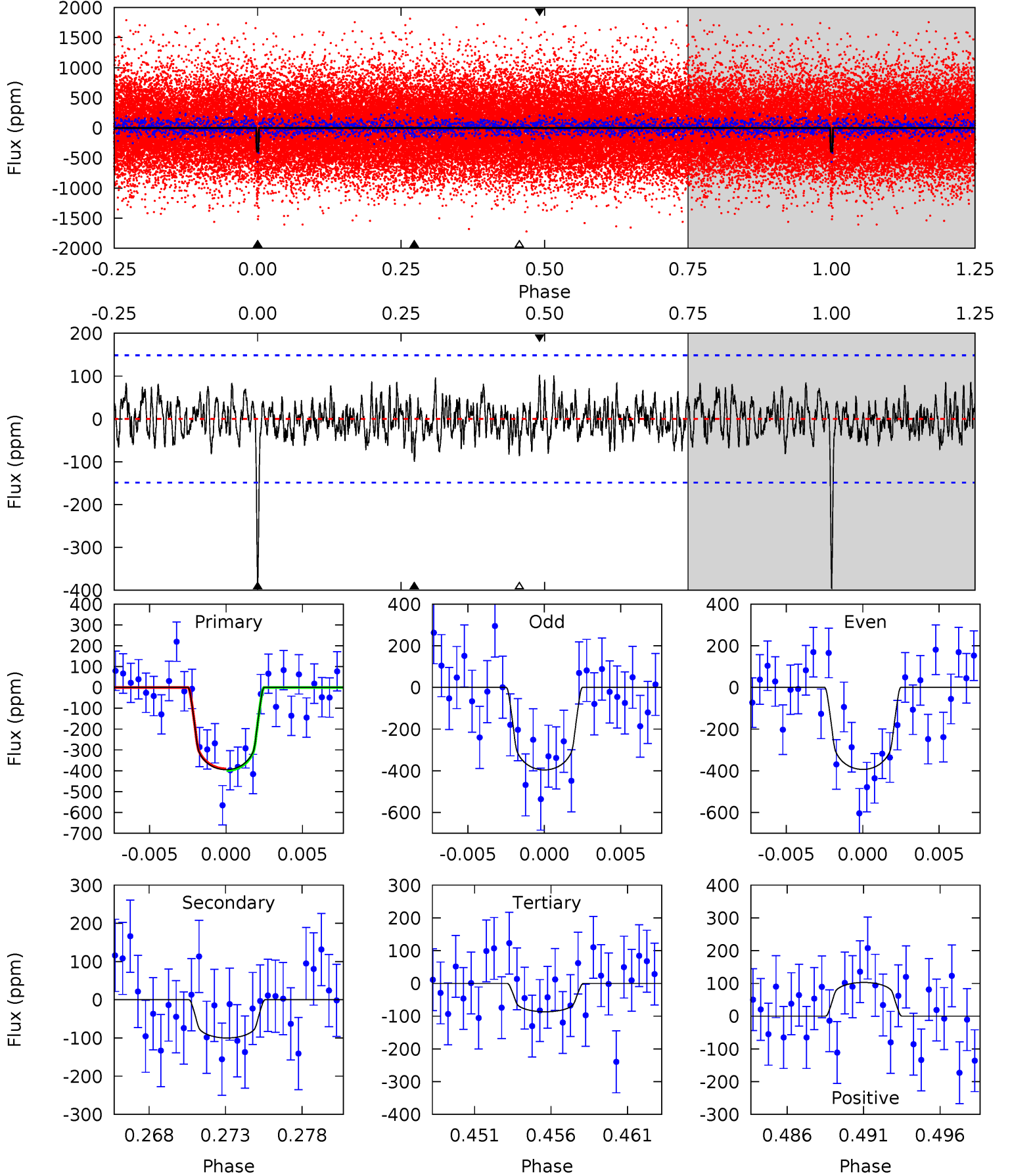
TCE 011599937-01 P= 37.625889 Days $T_0=167.258612$ (BKJD)



DV Model-Shift Uniqueness Test

011599937-01, P = 37.625990 Days, E = 129.591346 Days

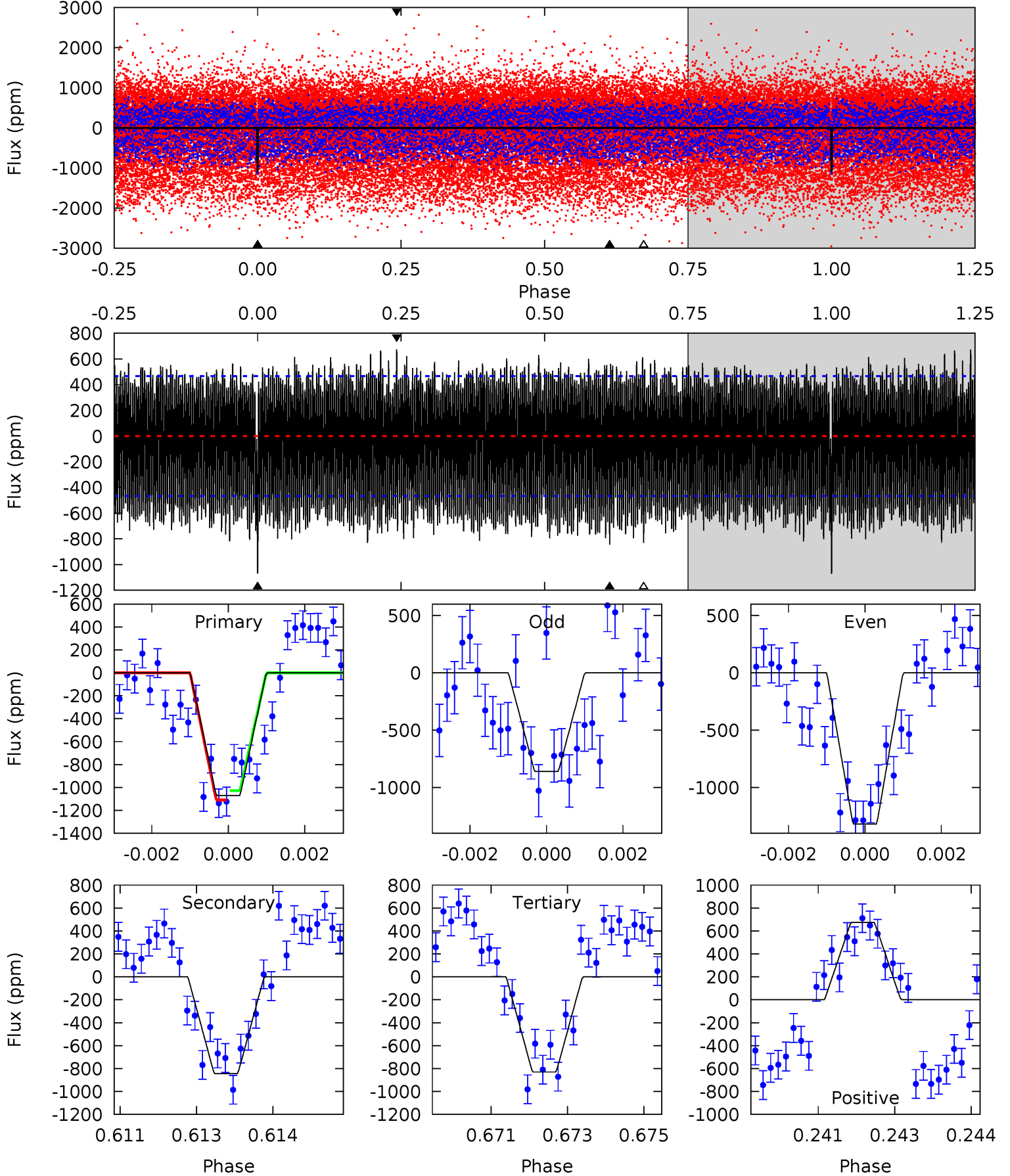
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.7	3.47	3.01	3.57	5.16	2.81	1.13	10.7	10.1	0.46	-0.10	0.04	1.28	0.21	0.14



Alt Model-Shift Uniqueness Test

011599937-01, $P = 37.625889$ Days, $E = 129.632723$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.3	9.72	9.56	7.76	5.37	3.16	4.64	2.77	4.57	0.16	1.95	2.64	1.07	0.39	0.48



Stellar Parameters For KIC 011599937

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5874^{+141}_{-177}	$4.542^{+0.034}_{-0.184}$	$-0.200^{+0.300}_{-0.300}$	$0.871^{+0.233}_{-0.078}$	$0.963^{+0.110}_{-0.121}$	$2.055^{+0.388}_{-1.033}$
	+2%/-3%	+1%/-4%	+150%/-150%	+27%/-9%	+11%/-13%	+19%/-50%
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 011599937-01 / KOI 5915.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-100 ± 29	$2.14^{+1.37}_{-1.16}$	739^{+44}_{-31}	4190^{+1634}_{-668}	520^{+2045}_{-332}
Alt.	-843 ± 87	$3.52^{+1.57}_{-1.35}$	741^{+46}_{-30}	5370^{+1417}_{-807}	1722^{+2809}_{-907}

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 $A_{obs} \gg 1.0$

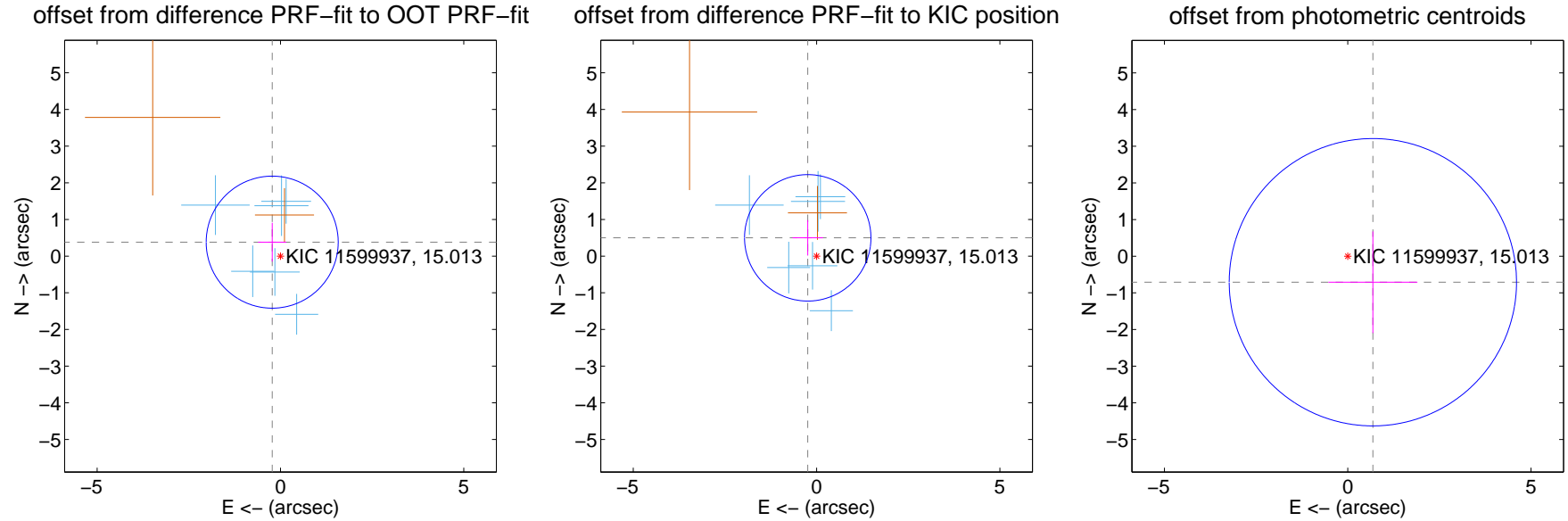
DV Centroid Data

Supplemental centroid analysis for 011599937-01. Kepler magnitude: 15.01. Transit SNR 10.82

There are 6 quarters with good PRF difference image offsets

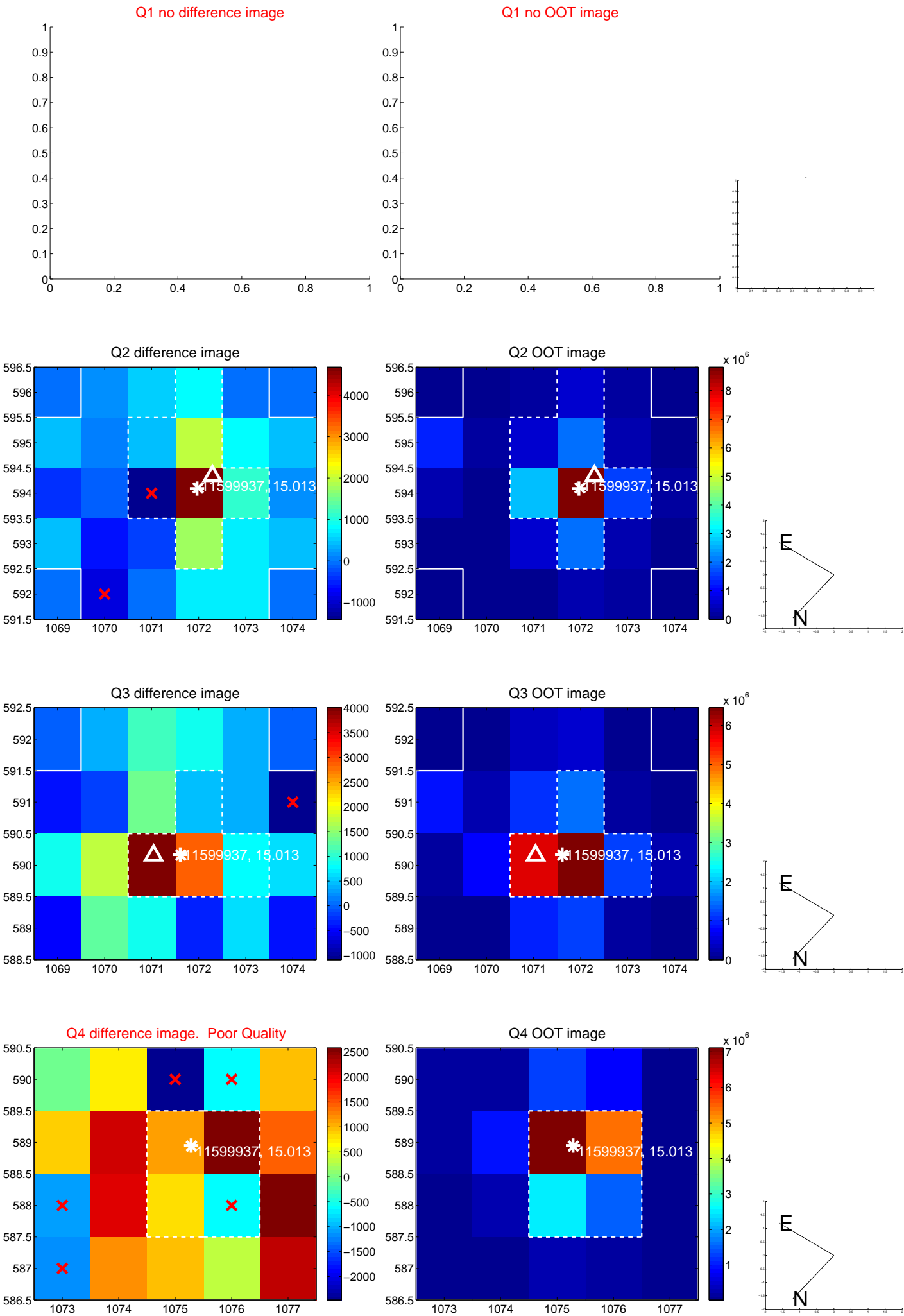
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.443 ± 0.600	0.74	0.225 ± 0.386	0.381 ± 0.530
PRF-fit source offset from KIC position	0.554 ± 0.575	0.96	0.241 ± 0.416	0.499 ± 0.485
photometric centroid source offset	0.99 ± 1.31	0.76	-0.69 ± 1.22	-0.71 ± 1.39

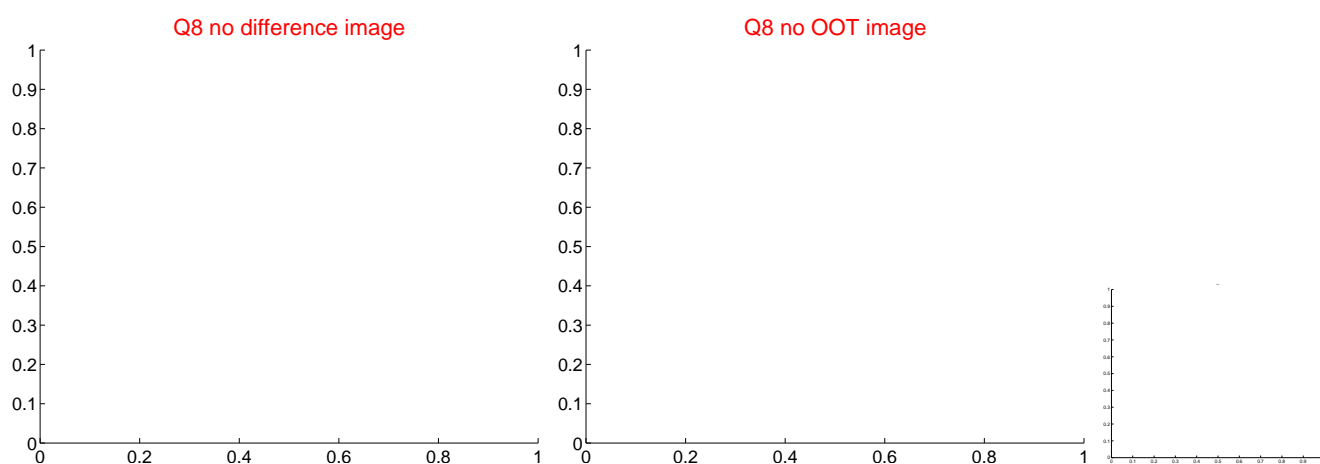
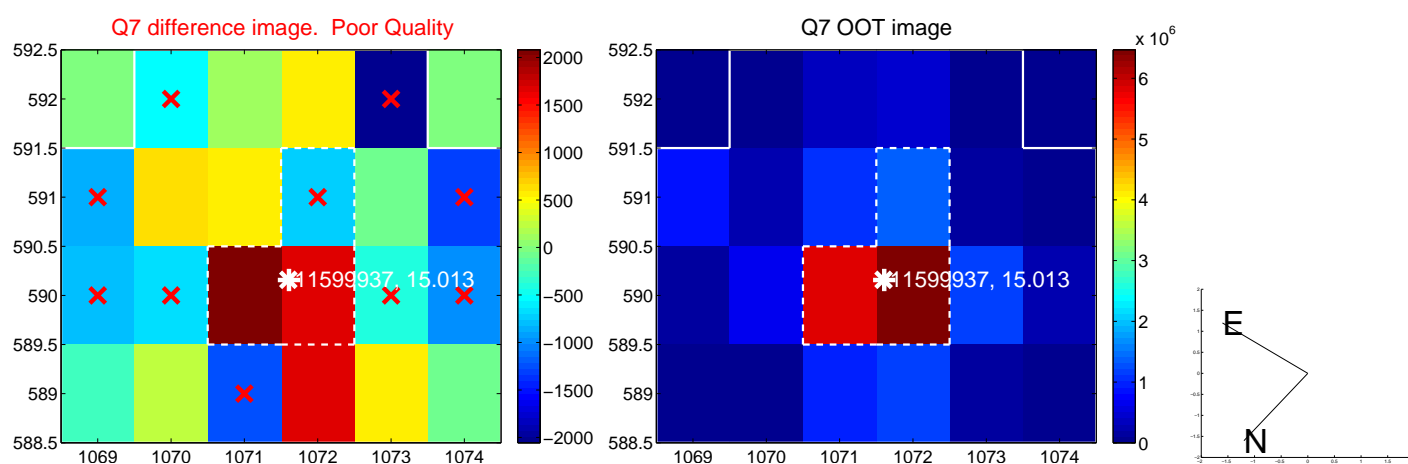
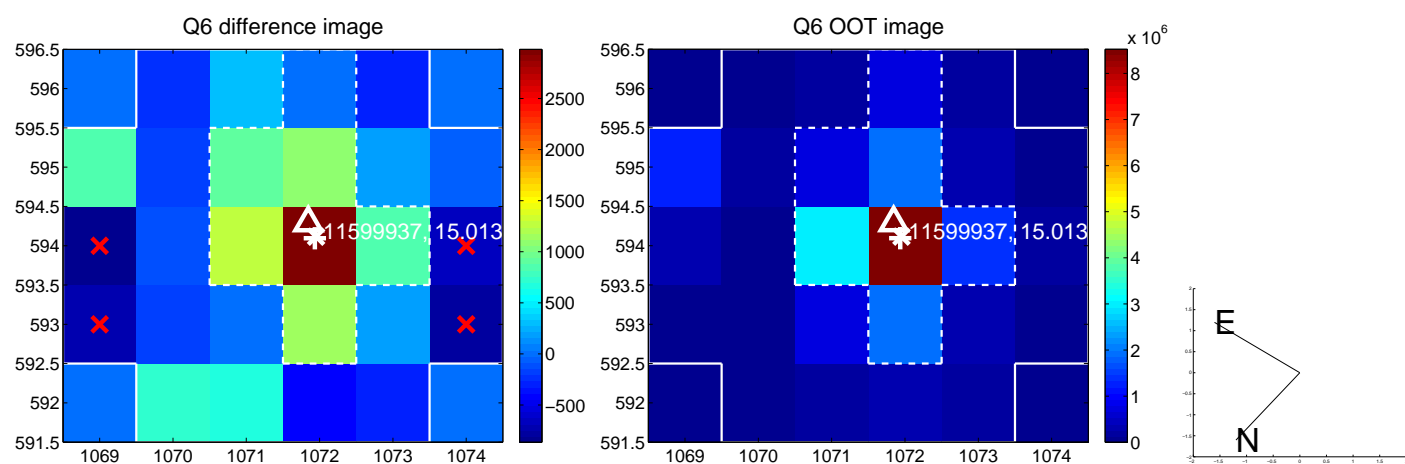
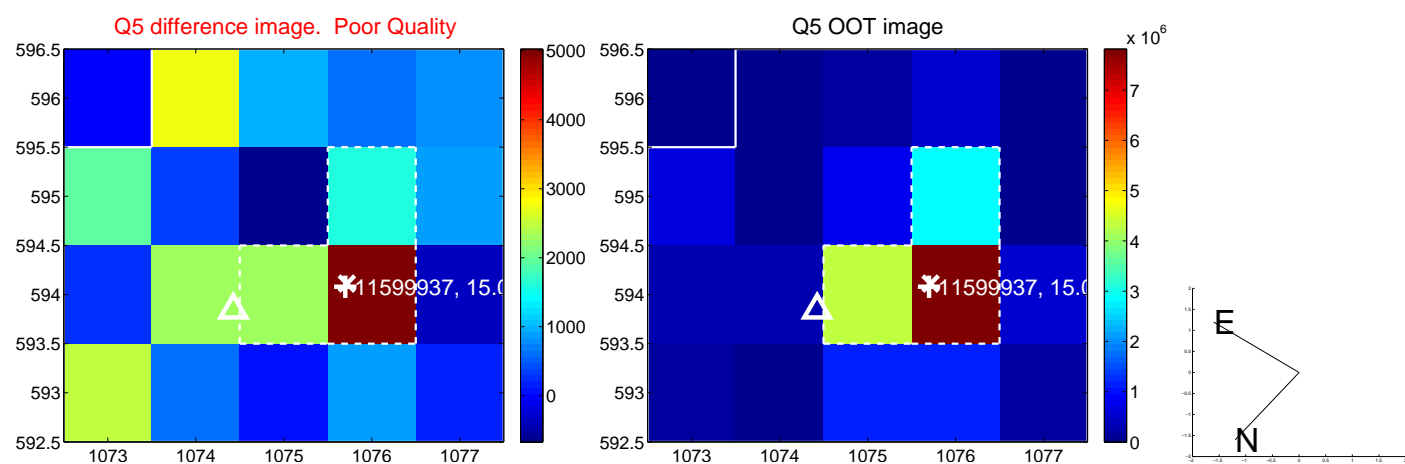


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

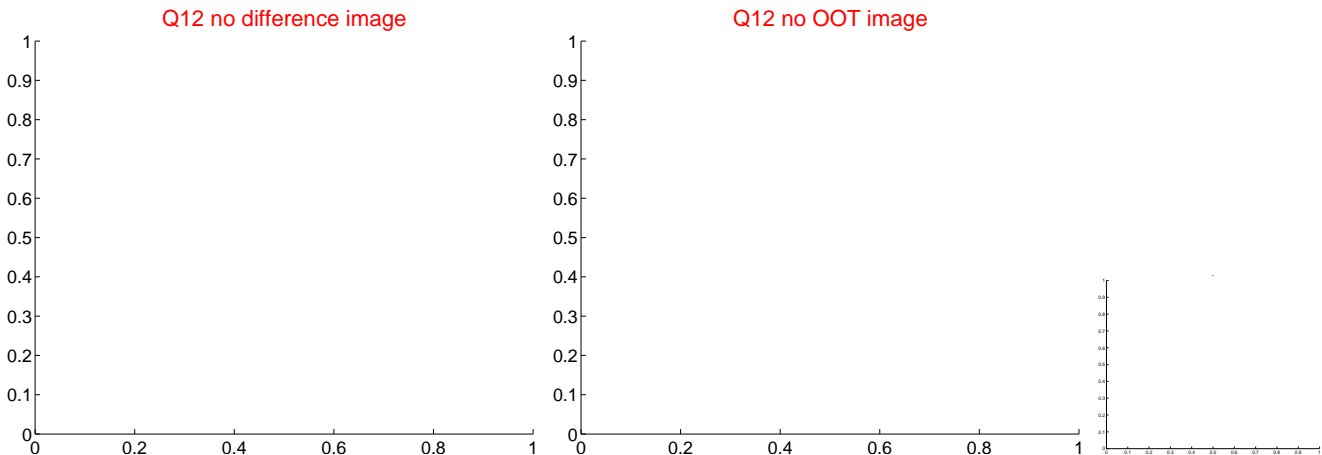
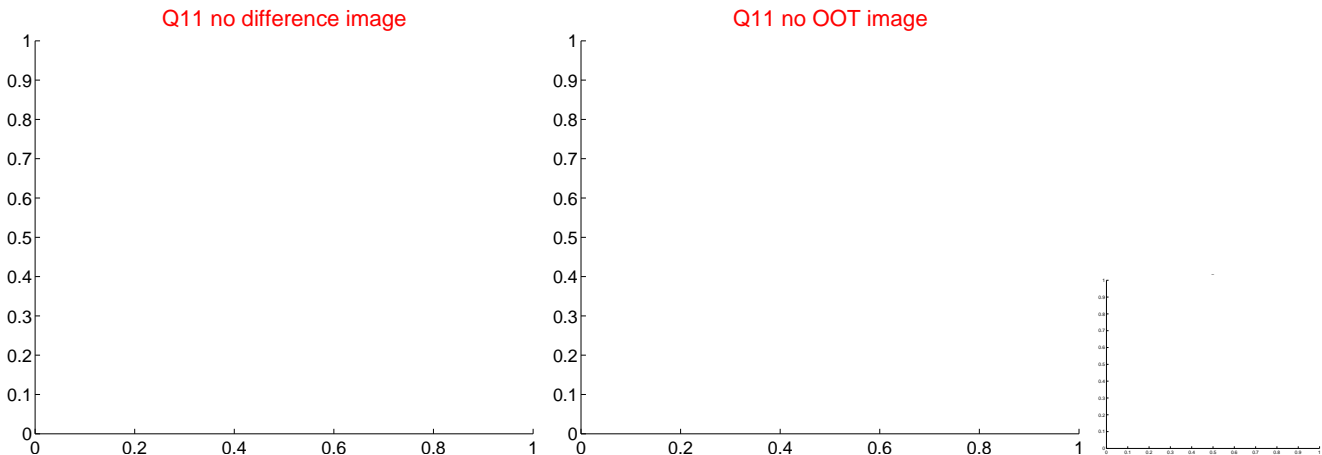
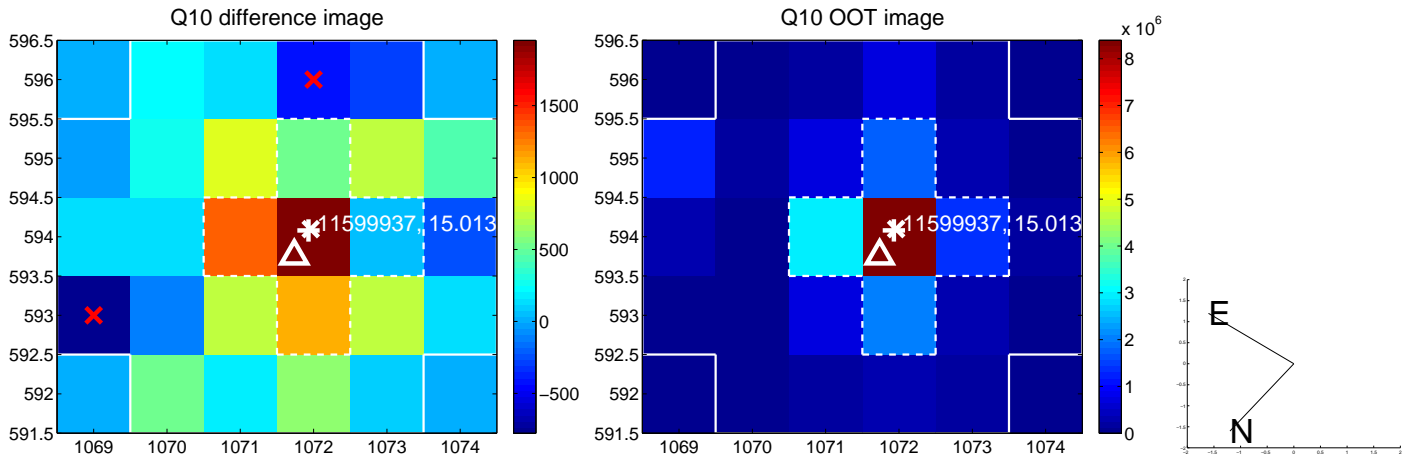
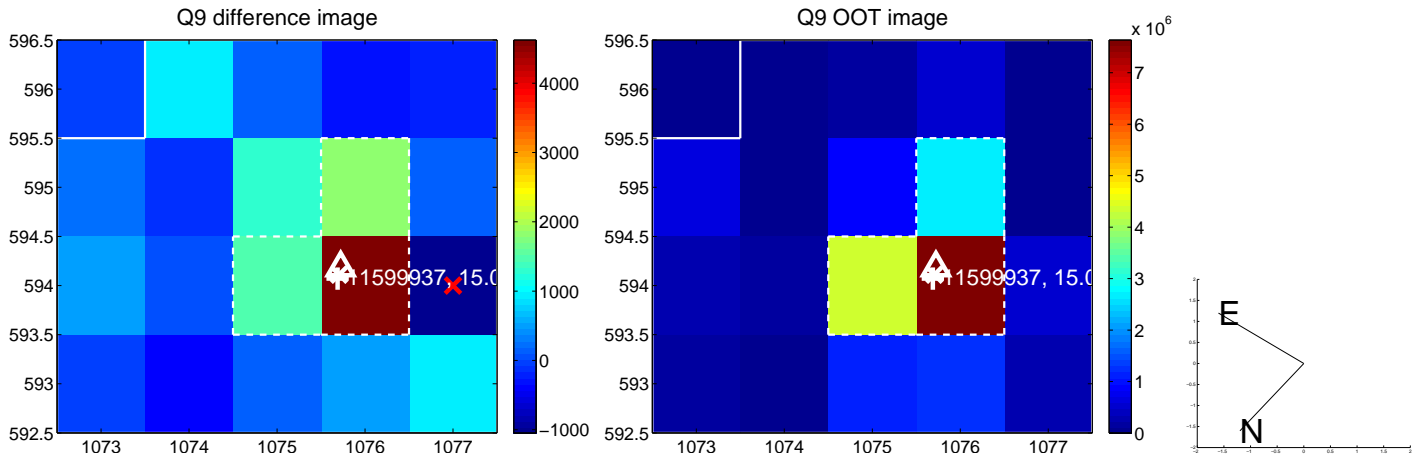
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



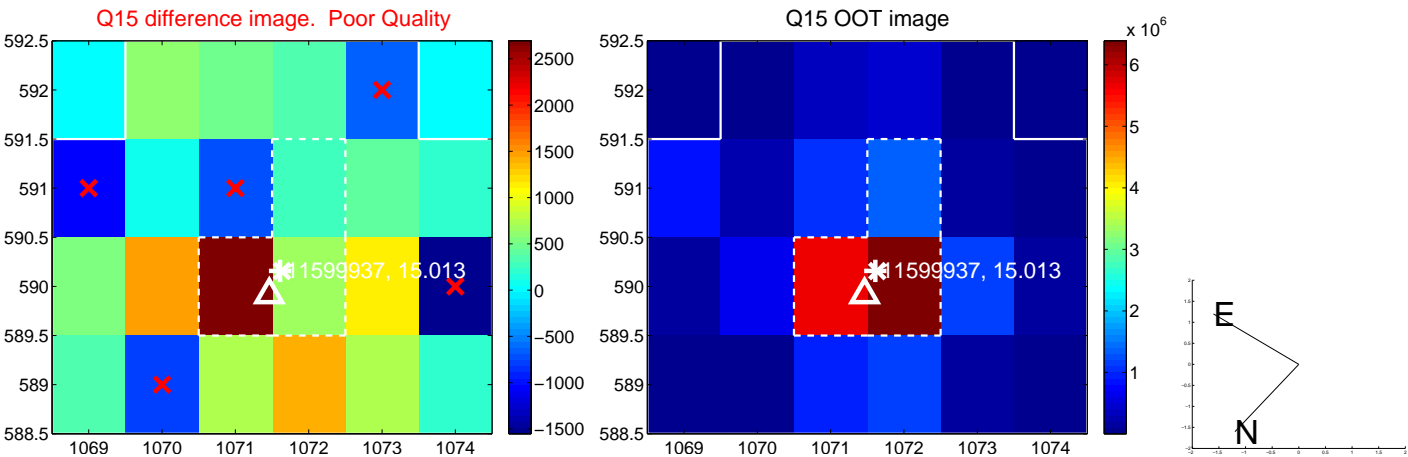
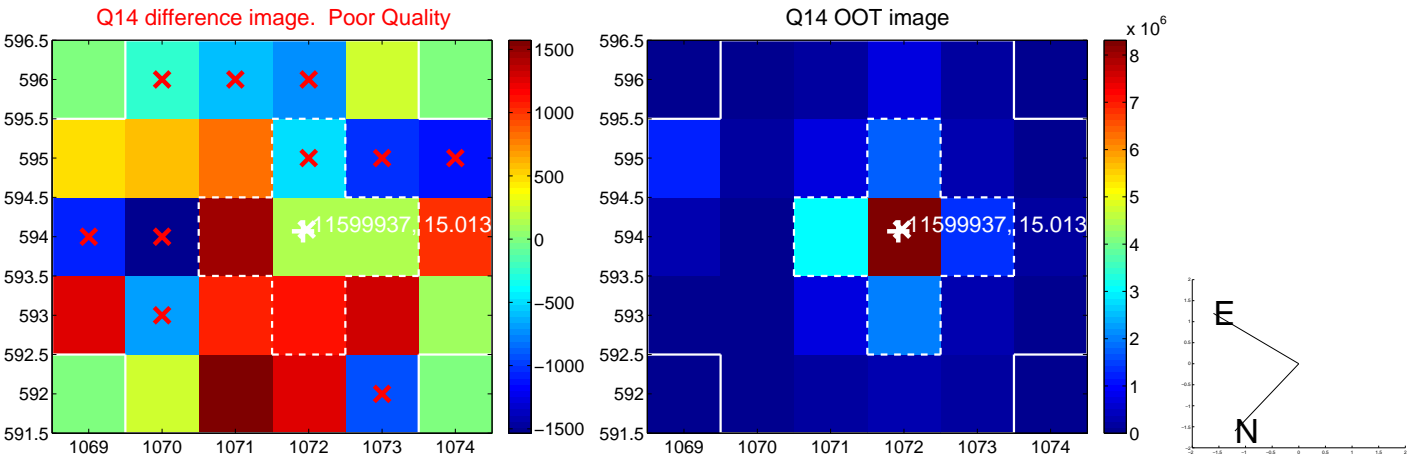
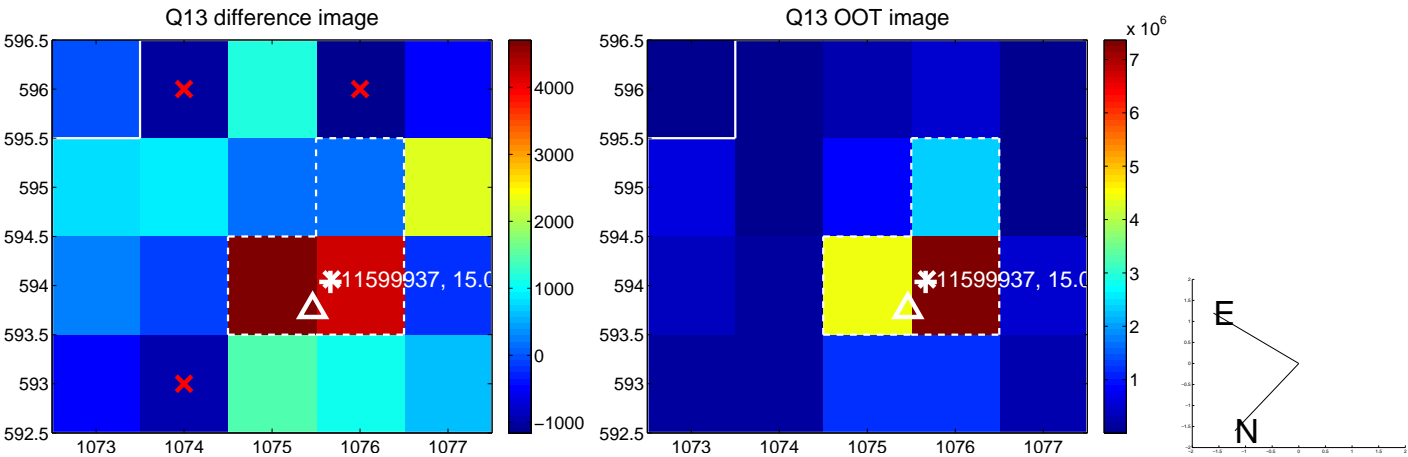
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



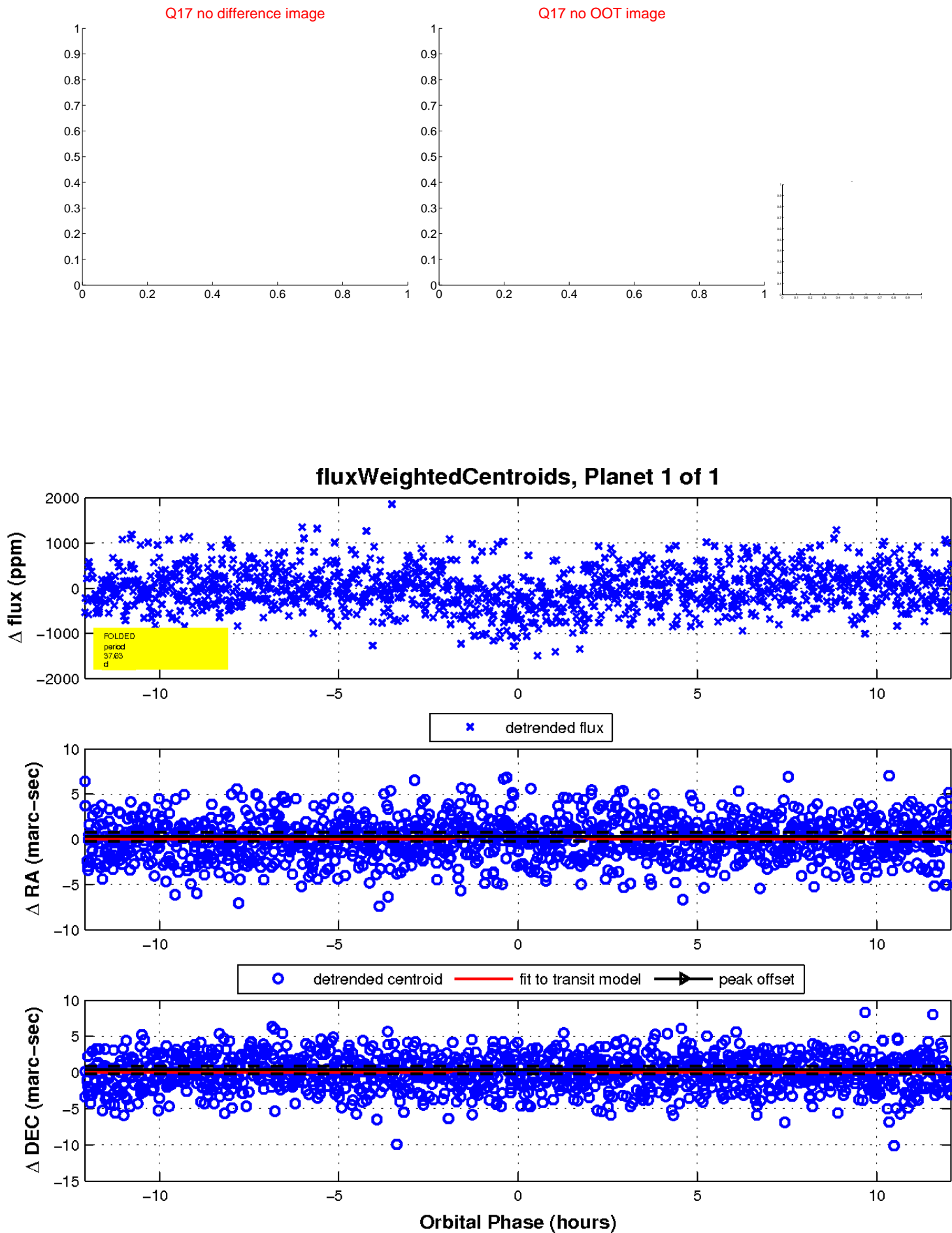
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UKIRT Image

Declination

