

KIC 009217369

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})
009217369-01	OBS	No	0.648264	131.647769	384.6	1.958	9.4	19.3	0.76	5092	1.81	1964.81

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009217369-01	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—HALO_GHOST

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

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

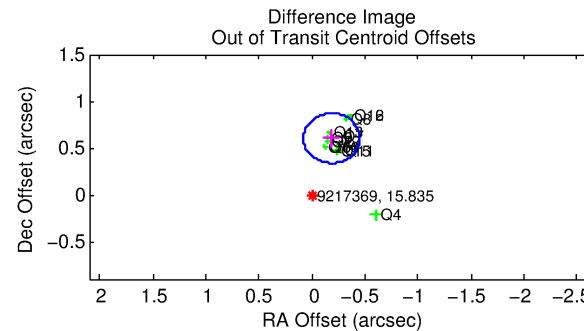
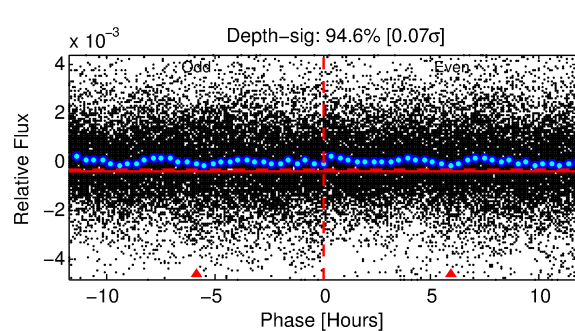
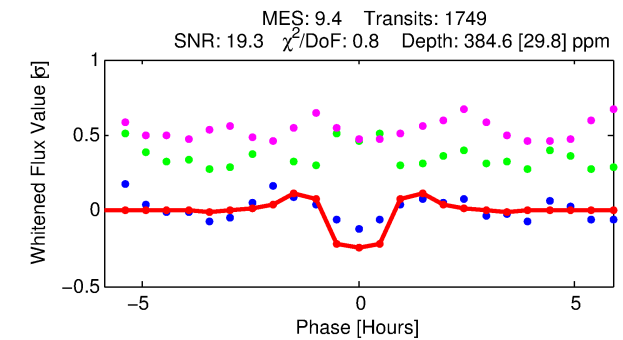
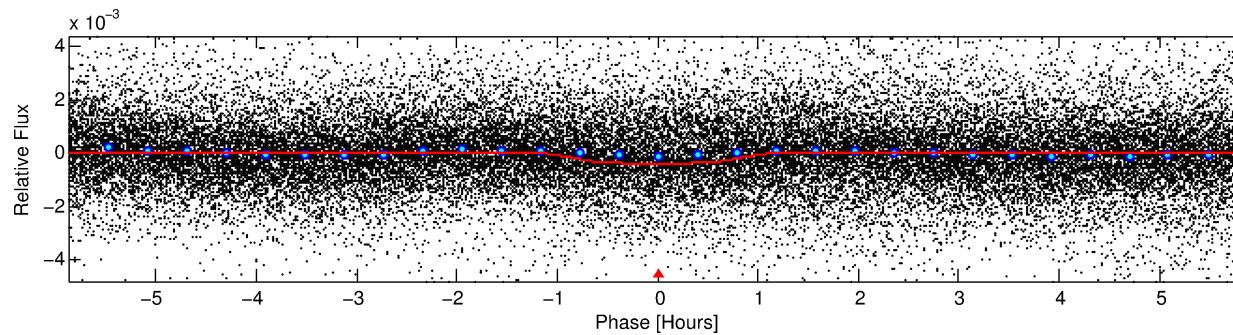
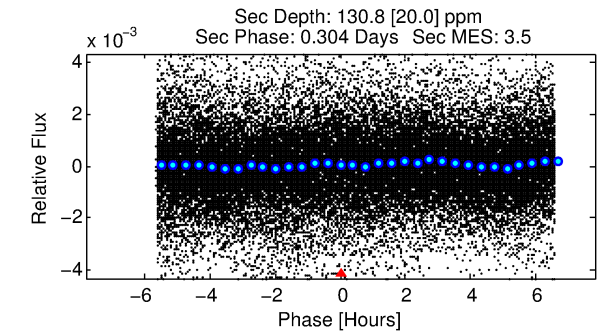
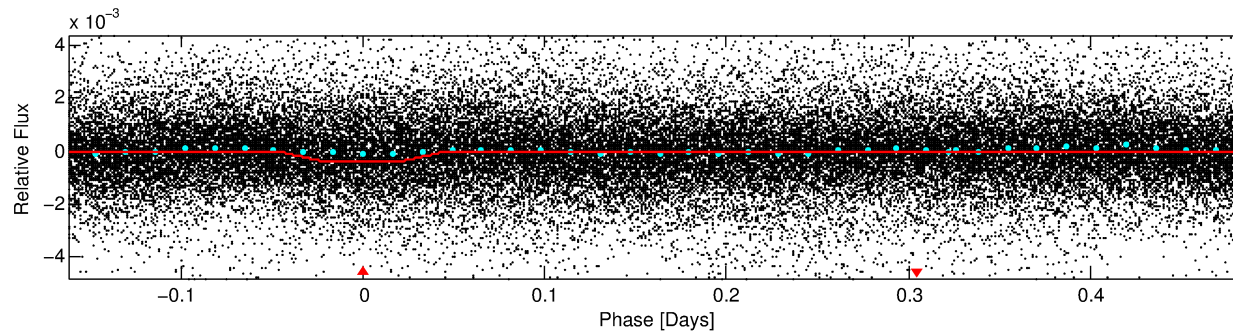
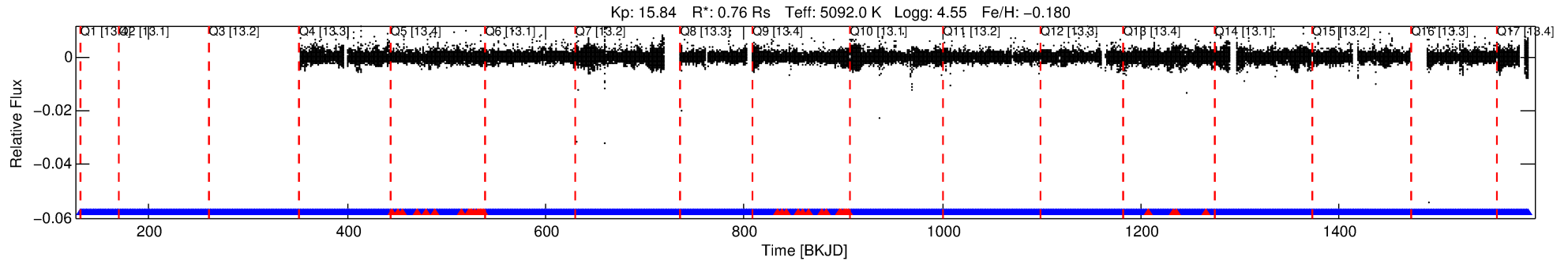
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 009217369-01

No Significant Match Found

DV One-Page Summary

KIC: 9217369 Candidate: 1 of 1 Period: 0.648 d



DV Fit Results:

Period = 0.64826 [0.00001] d
Epoch = 131.6478 [0.0008] BKJD
Rp/R* = 0.0218 [0.0041]
a/R* = 1.54 [0.64]
b = 0.90 [0.16]
Seff = 1964.81 [368.03]
Teff = 1698 [79] K
Rp = 1.81 [0.39] Re
a = 0.0133 [0.0012] AU
Ag = 3.88 [1.64] [1.76σ]
Teffp = 3684 [394] K [4.94σ]

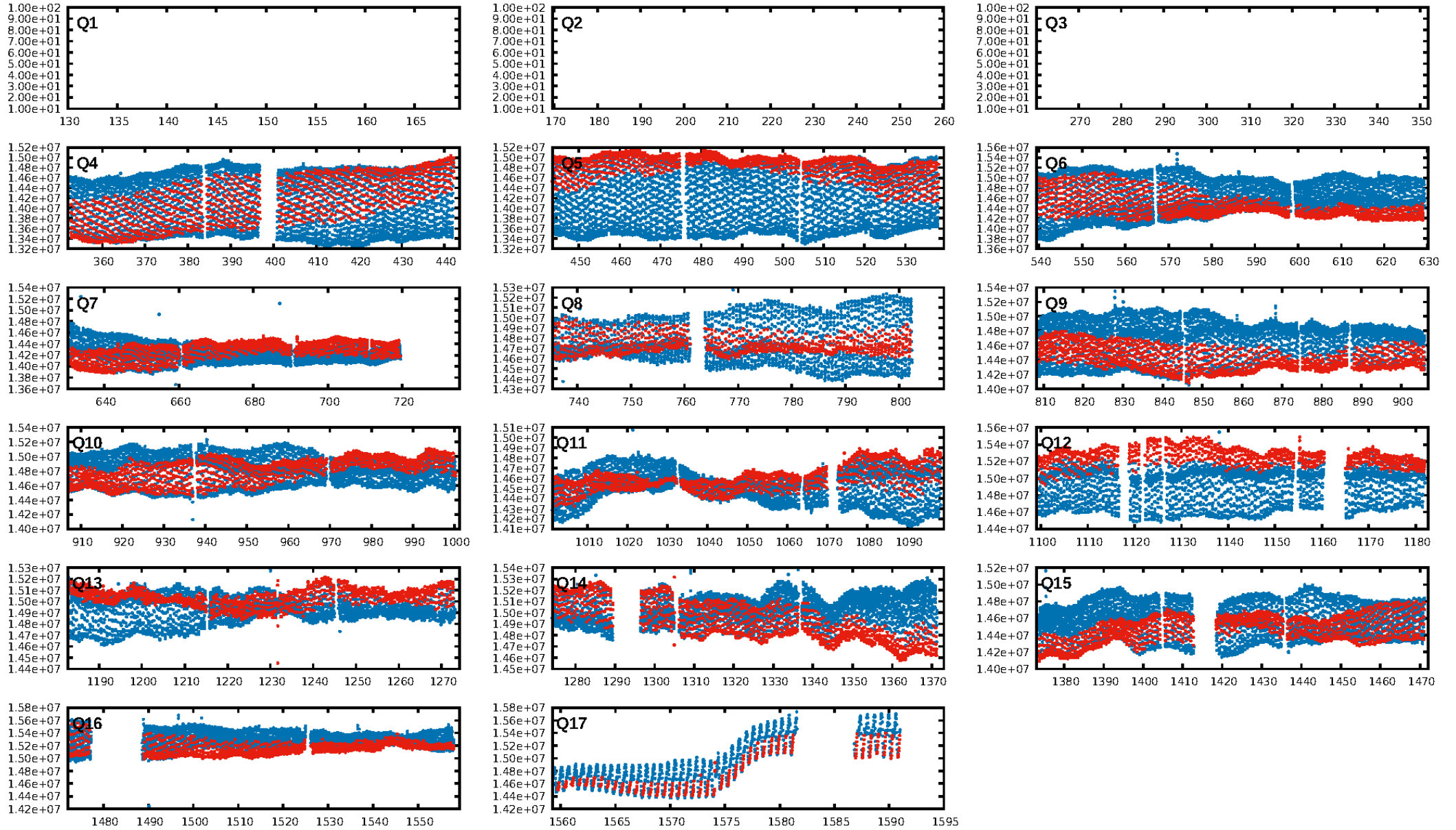
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 3.03e-19
RollingBand-fgt: 0.97 [1661/1708]
GhostDiagnostic-chr: -0.2386
Centroid-sig: 0.8%
Centroid-so: 0.282 arcsec [0.97σ]
OotOffset-rm: 0.631 arcsec [7.15σ]
KicOffset-rm: 0.547 arcsec [6.01σ]
OotOffset-st: 3/3/4/4 [14]
KicOffset-st: 3/3/4/4 [14]
DiffImageQuality-fgm: 0.50 [7/14]
DiffImageOverlap-fno: 1.00 [14/14]

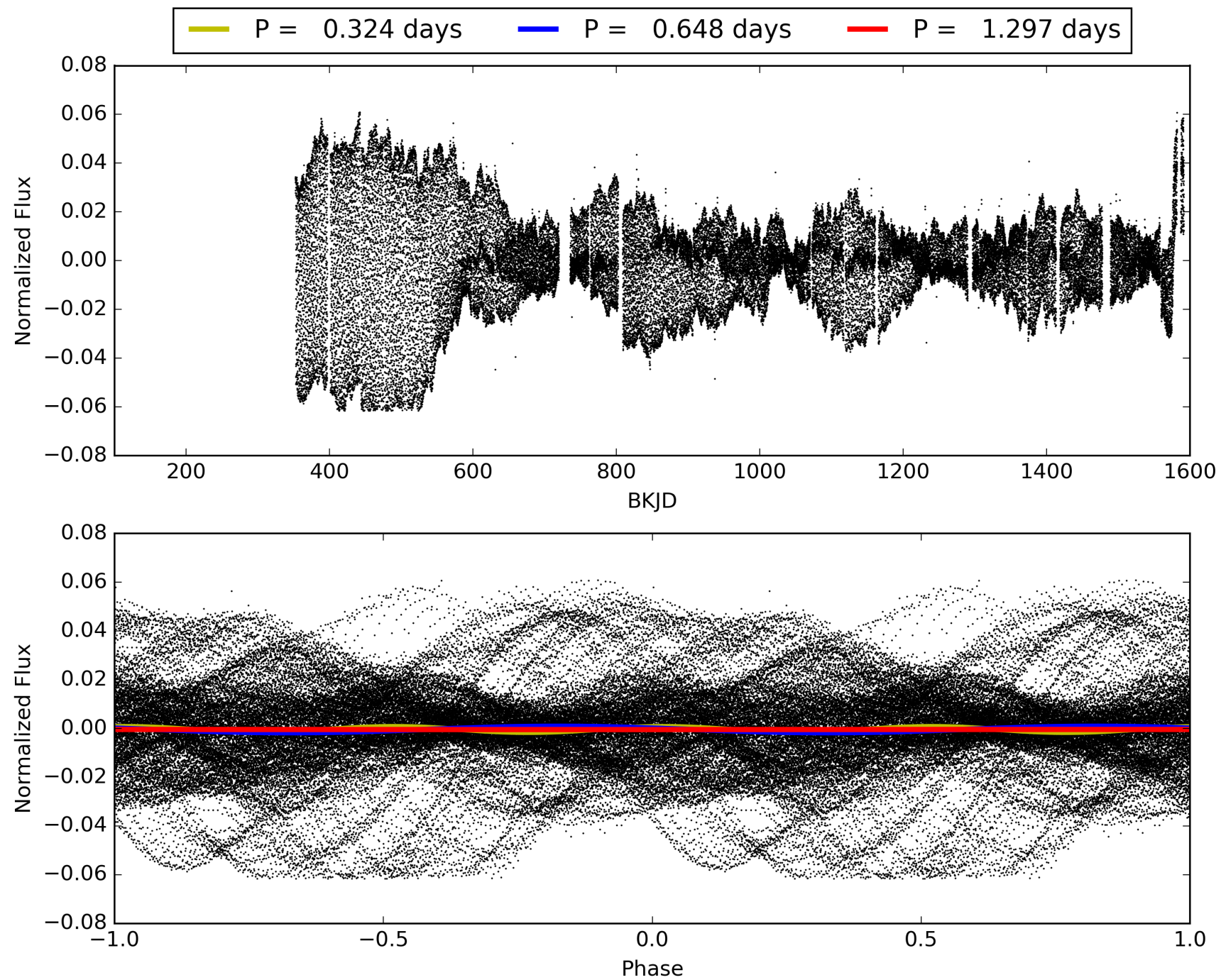
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 23:25:04 Z

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

TCE 009217369-01, PDC Light Curves

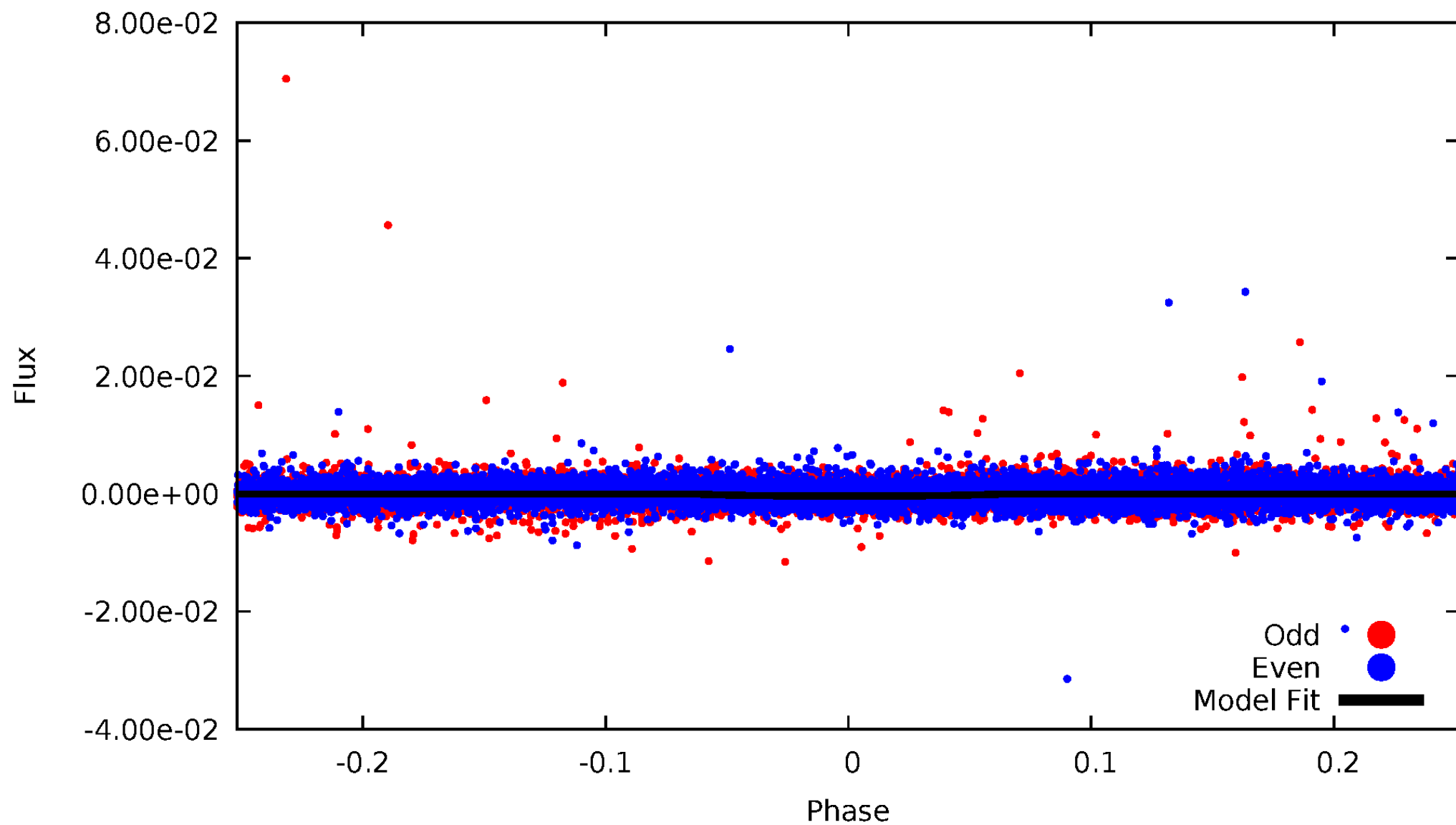


TCE 009217369-01



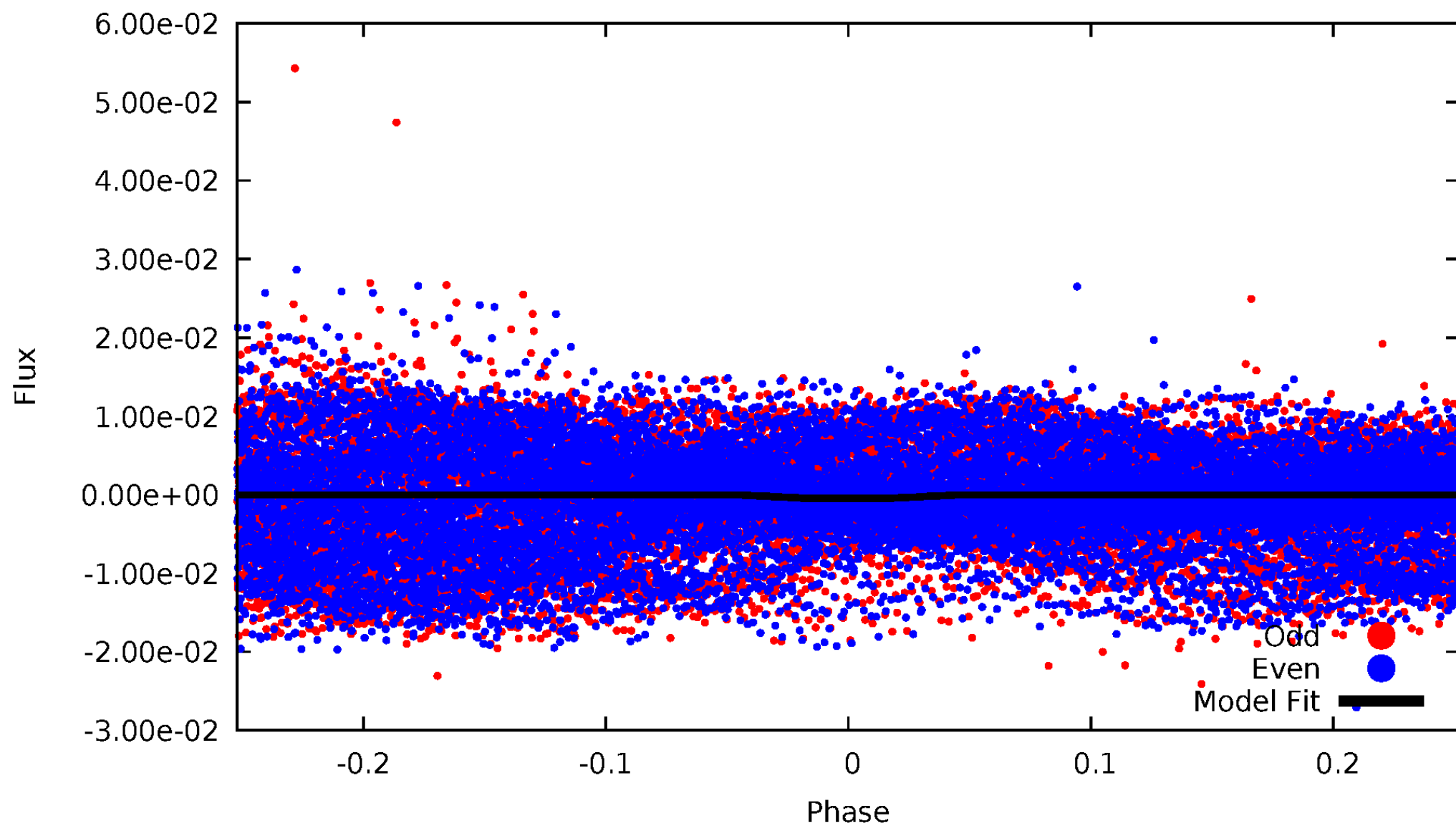
DV Odd/Even

TCE 009217369-01



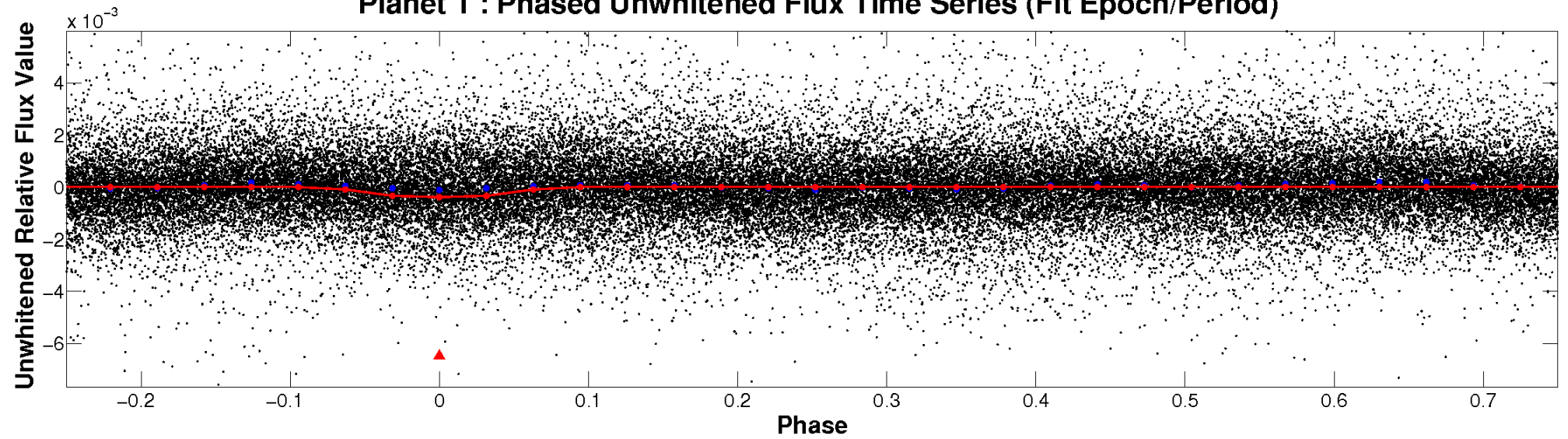
ALT Odd/Even

TCE 009217369-01

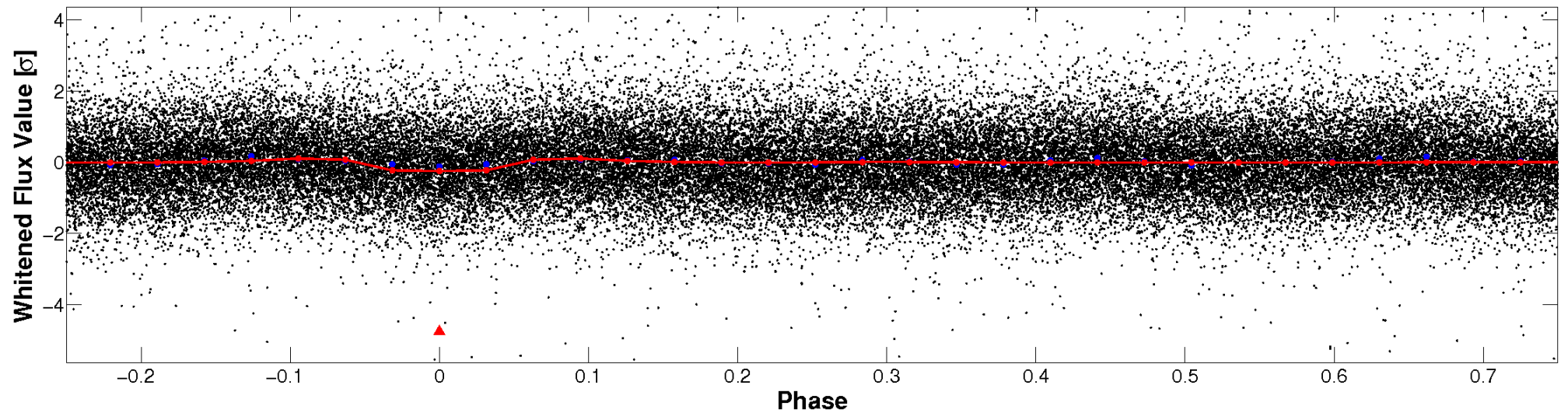


Non-Whitened Vs. Whitened Light Curve

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

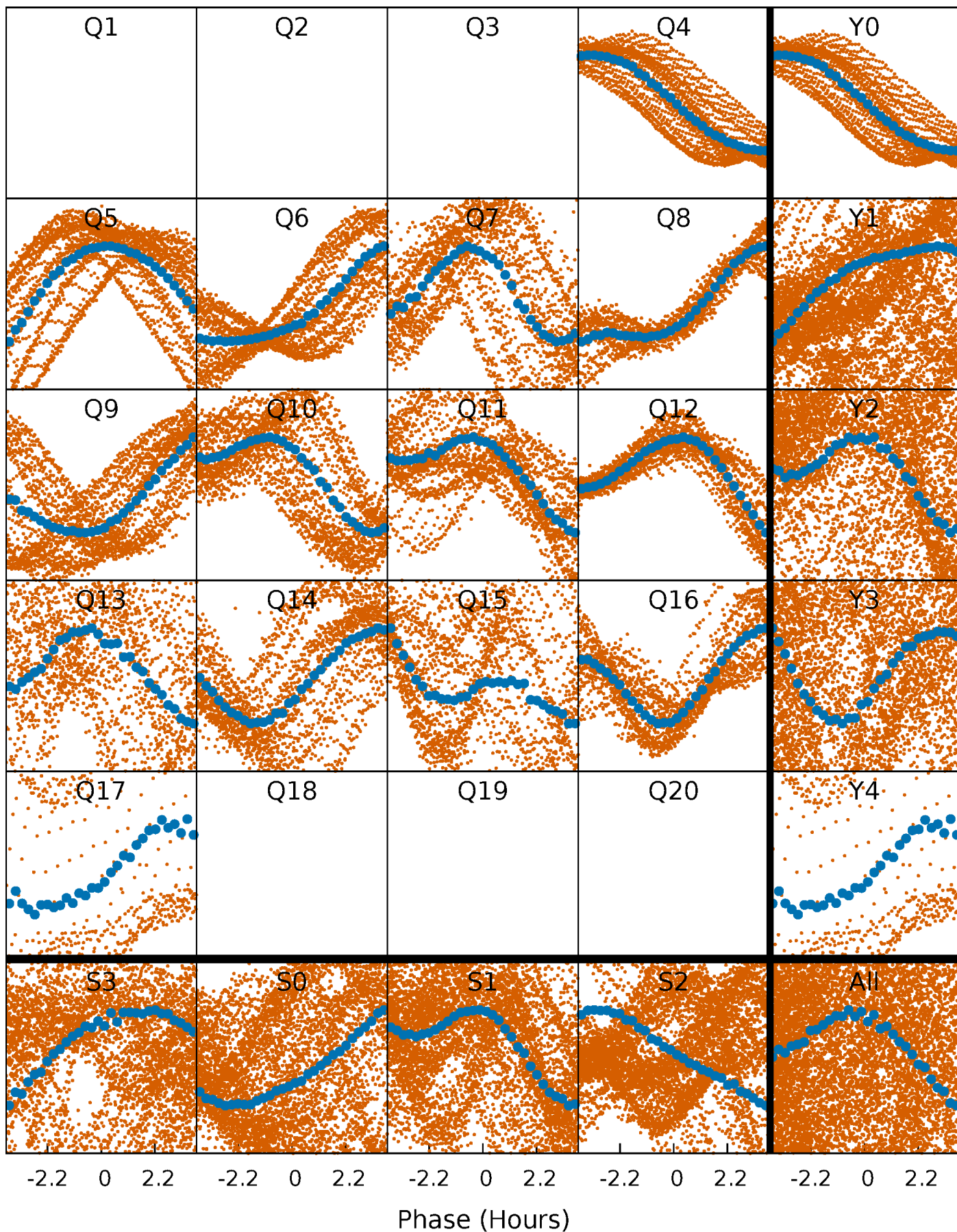


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



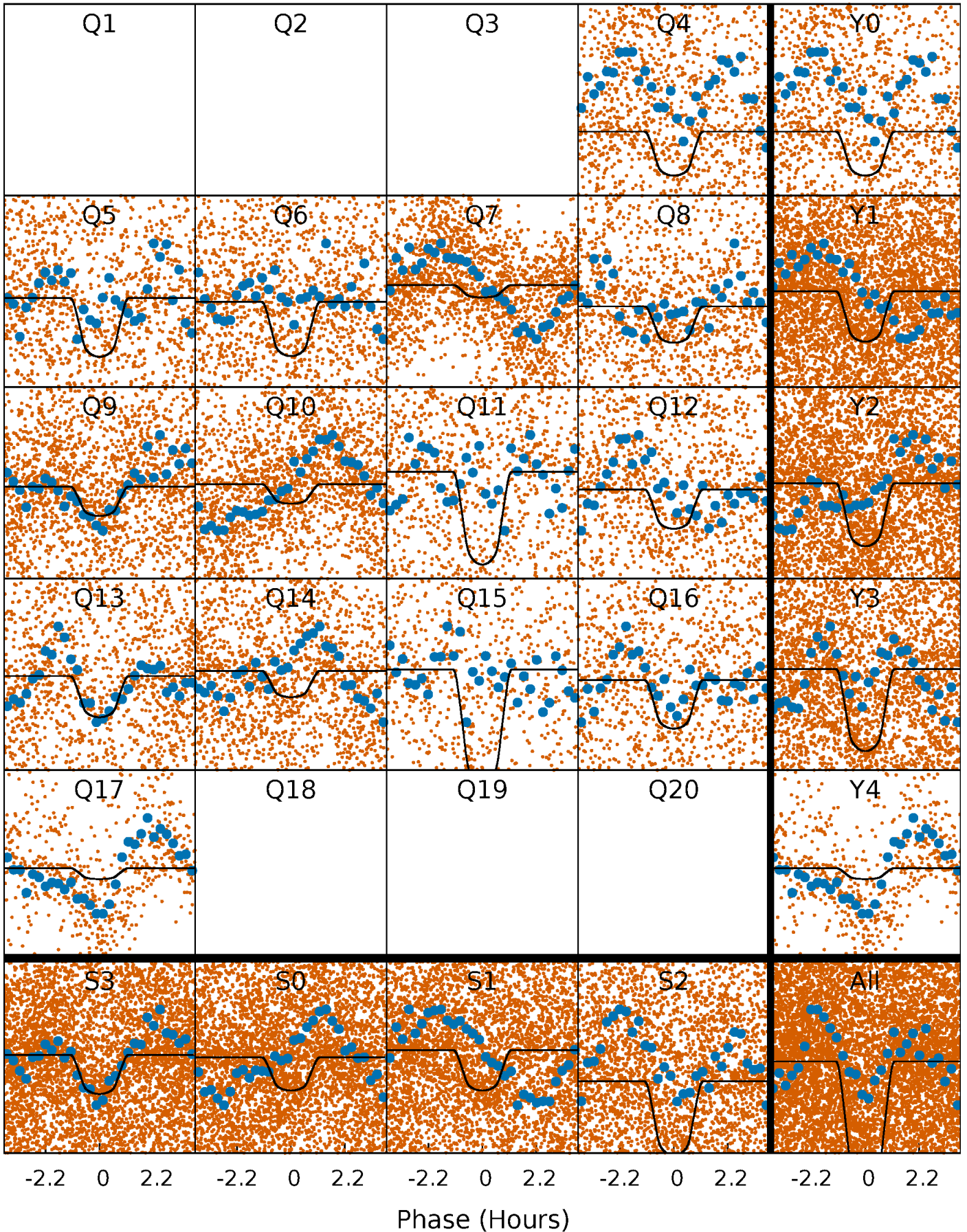
PDC Quarter-Phased Transit Curves

TCE 009217369-01 P= 0.648264 Days $T_0=131.647769$ (BKJD)



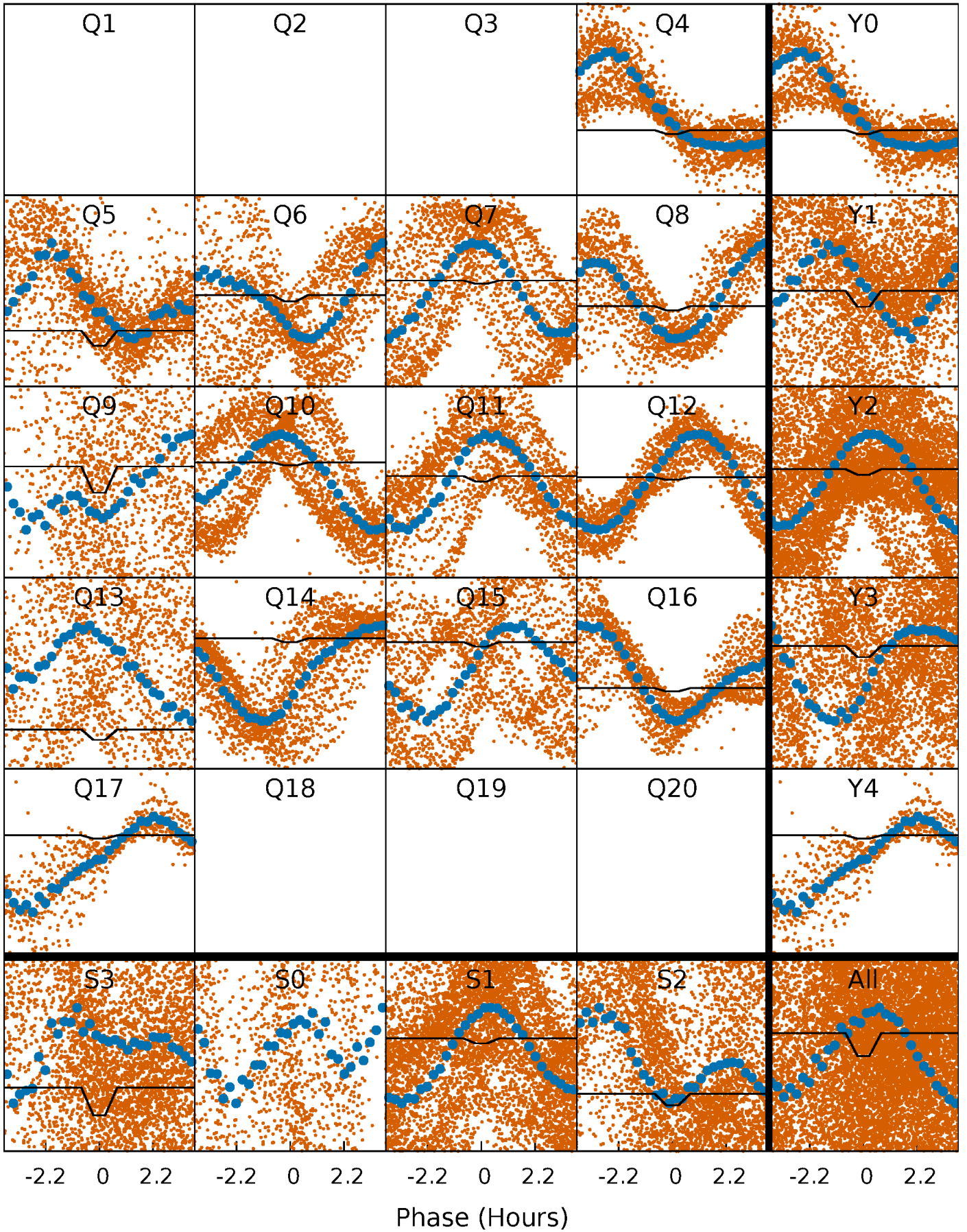
DV Quarter-Phased Transit Curves

TCE 009217369-01 P= 0.648264 Days $T_0=131.647769$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

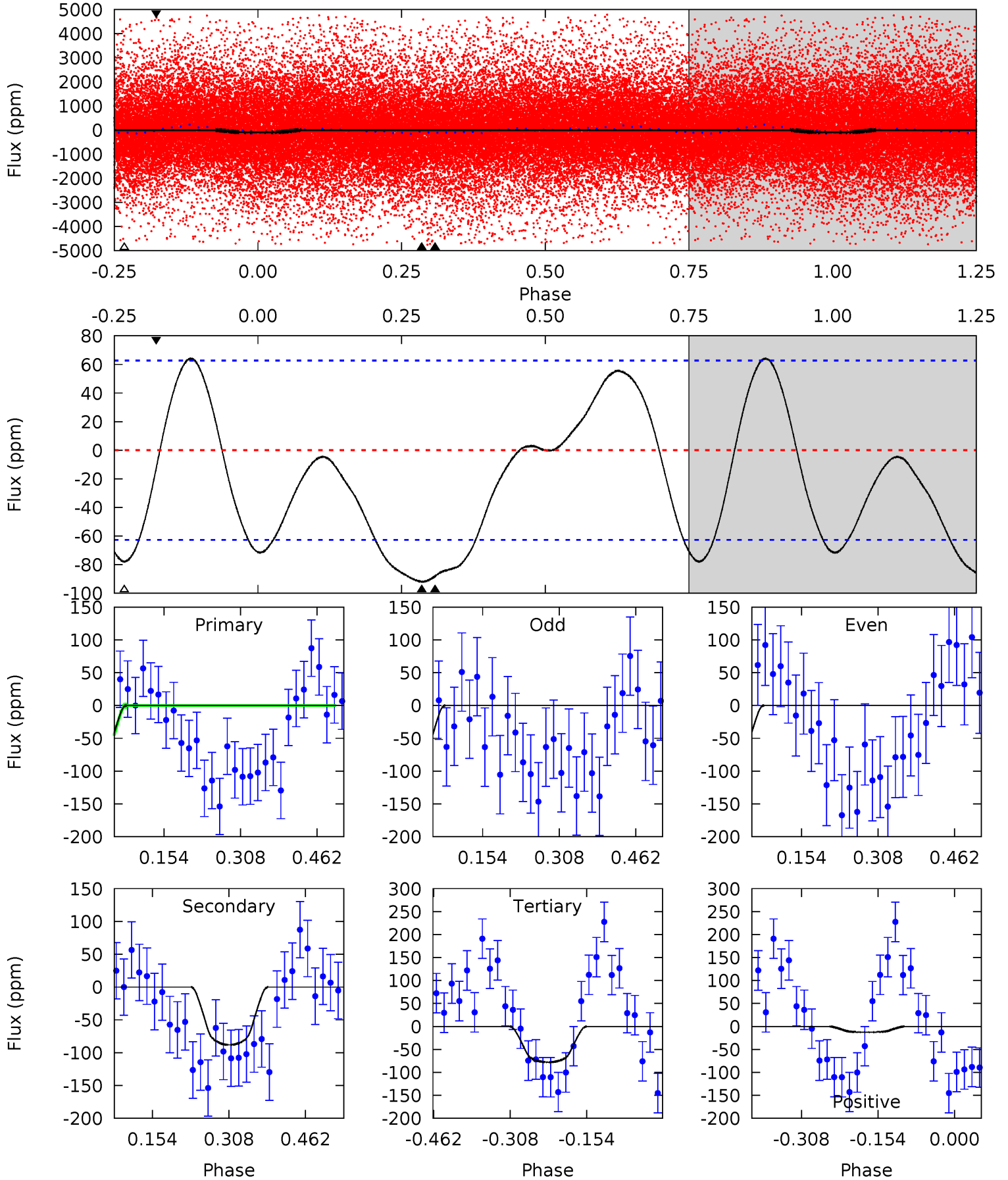
TCE 009217369-01 P= 0.648262 Days $T_0=131.647717$ (BKJD)



DV Model-Shift Uniqueness Test

009217369-01, P = 0.648264 Days, E = 131.647769 Days

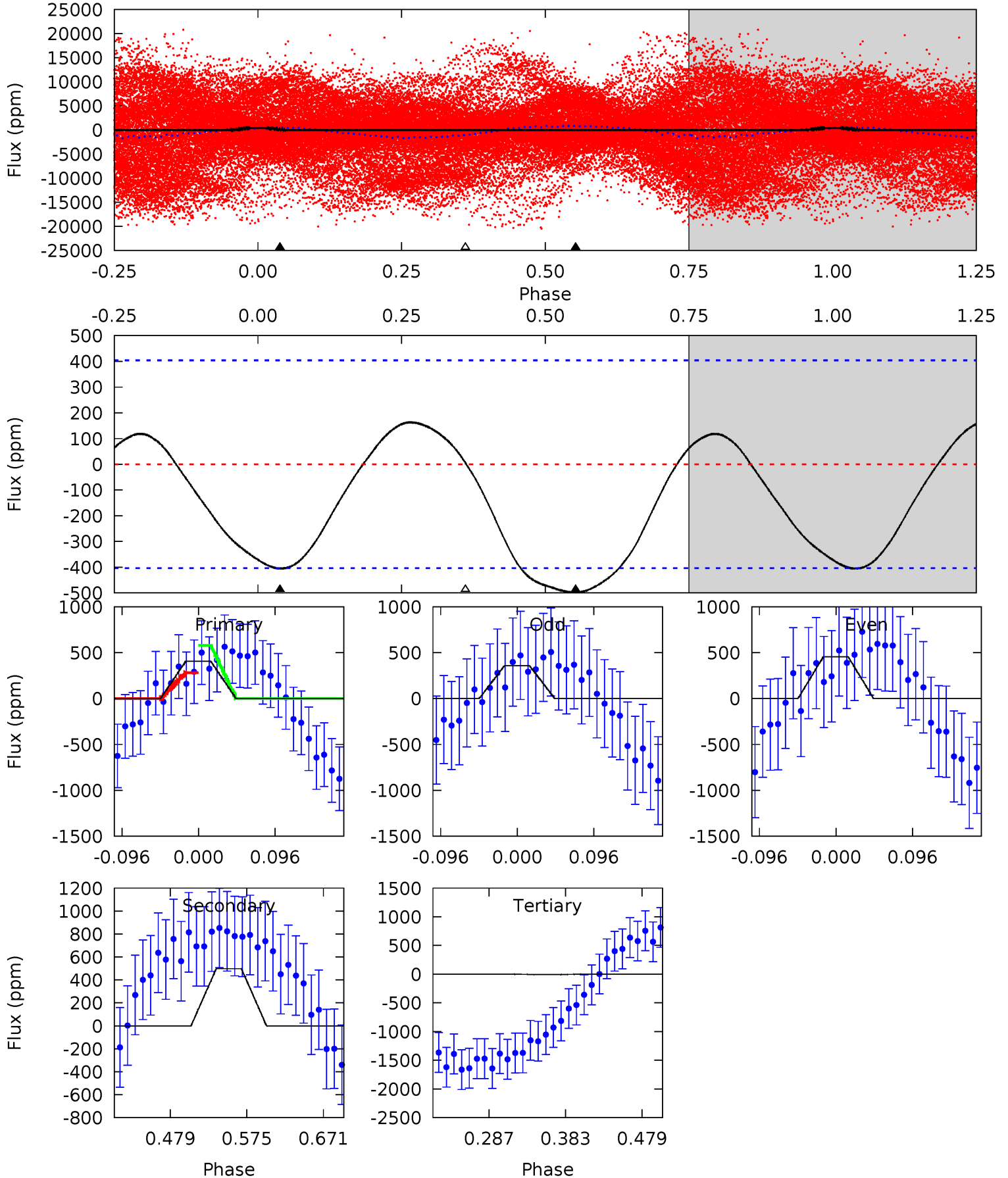
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.58	6.29	5.56	-0.91	4.47	1.43	3.04	1.01	7.49	0.73	7.20	0.21	0.47	0.41	0.16



Alt Model-Shift Uniqueness Test

009217369-01, P = 0.648262 Days, E = 131.647717 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.59	5.64	-0.06	0	4.57	1.67	1.69	4.66	4.59	5.71	5.64	0.54	2.73	0.25	1.62



Stellar Parameters For KIC 009217369

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5092^{+179}_{-179}	$4.550^{+0.066}_{-0.060}$	$-0.180^{+0.300}_{-0.300}$	$0.760^{+0.081}_{-0.073}$	$0.747^{+0.090}_{-0.065}$	$2.401^{+0.734}_{-0.517}$
	+4%/-4%	+1%/-1%	+167%/-167%	+11%/-10%	+12%/-9%	+31%/-22%
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 009217369-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-88 ± 14	$1.81^{+0.35}_{-0.37}$	2371^{+99}_{-104}	3629^{+342}_{-269}	$2.587^{+1.531}_{-0.804}$
Alt.	-498 ± 88	$1.84^{+0.35}_{-0.36}$	2374^{+95}_{-99}	5105^{+609}_{-427}	15^{+8}_{-5}

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 $A_{obs} \gg 1.0$

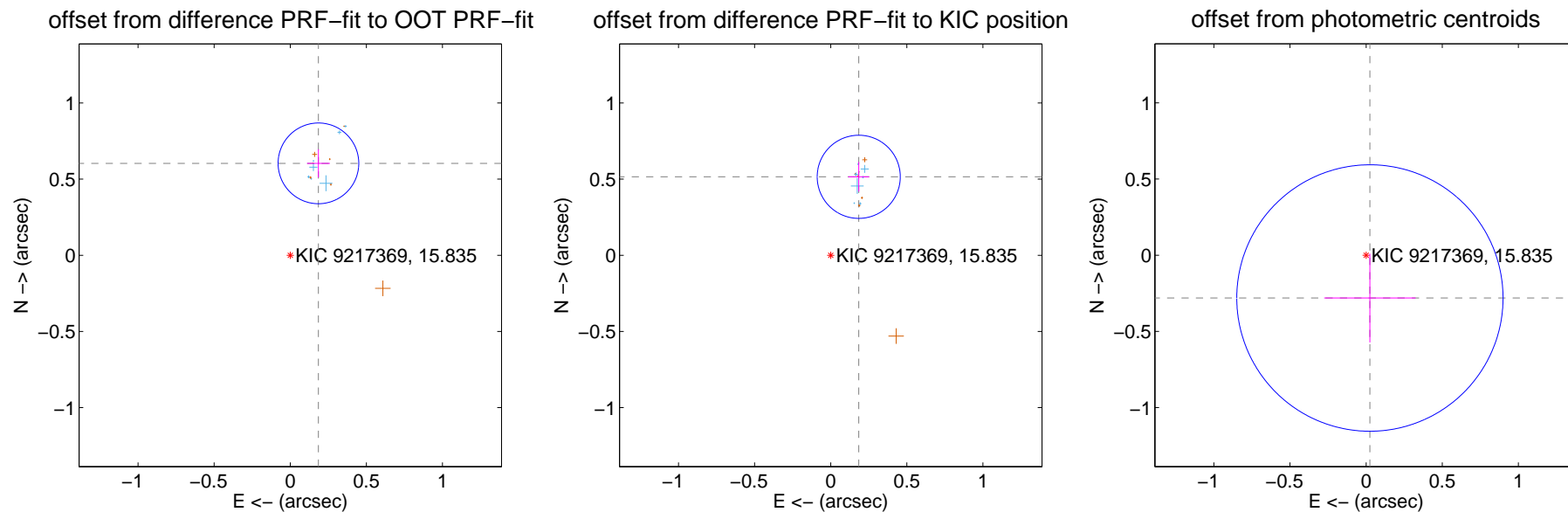
DV Centroid Data

Supplemental centroid analysis for 009217369-01. Kepler magnitude: 15.84. Transit SNR 19.26

There are 7 quarters with good PRF difference image offsets

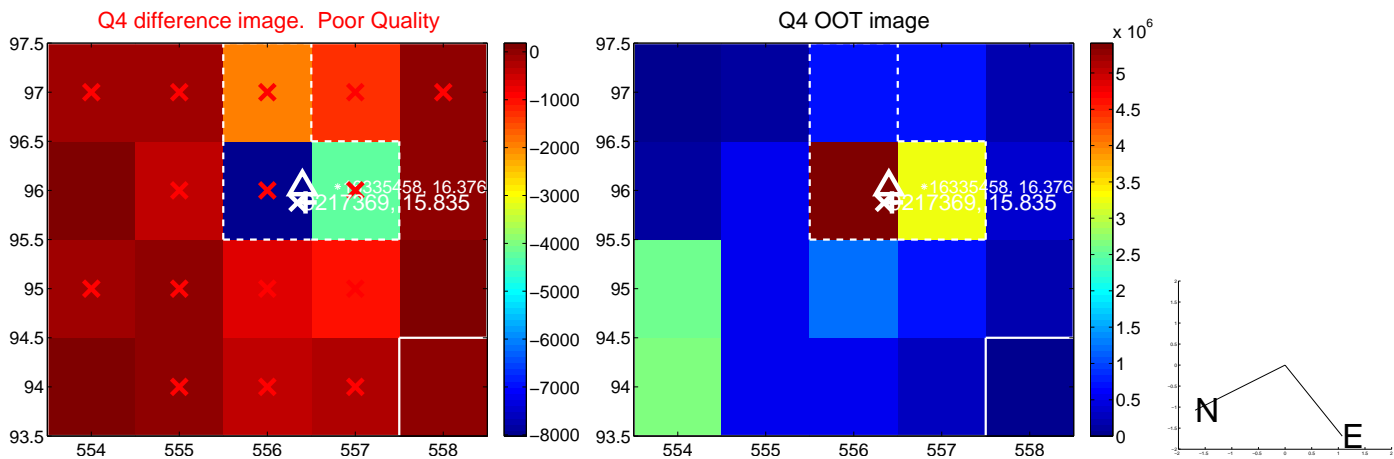
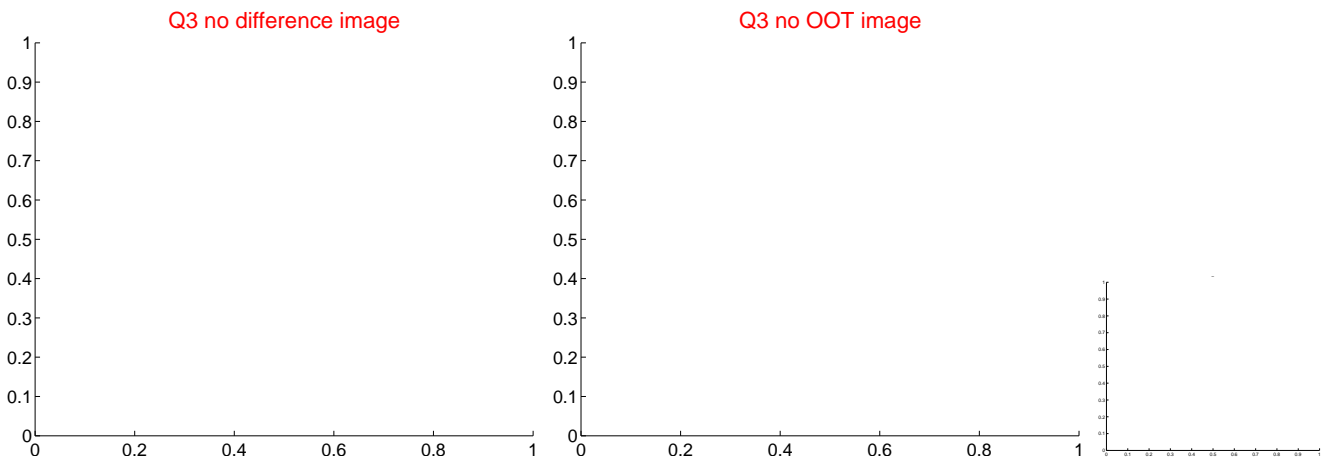
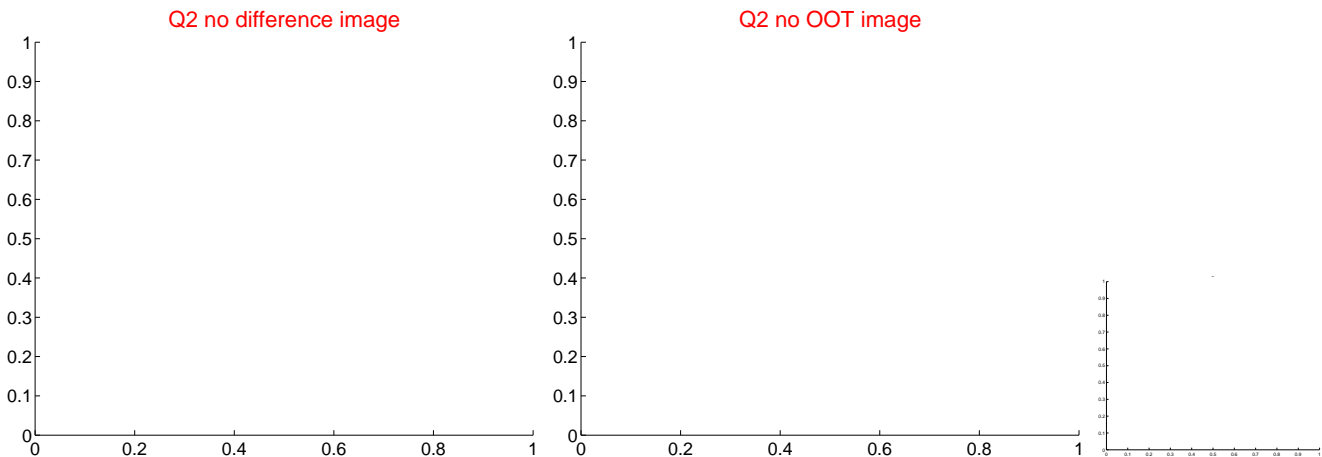
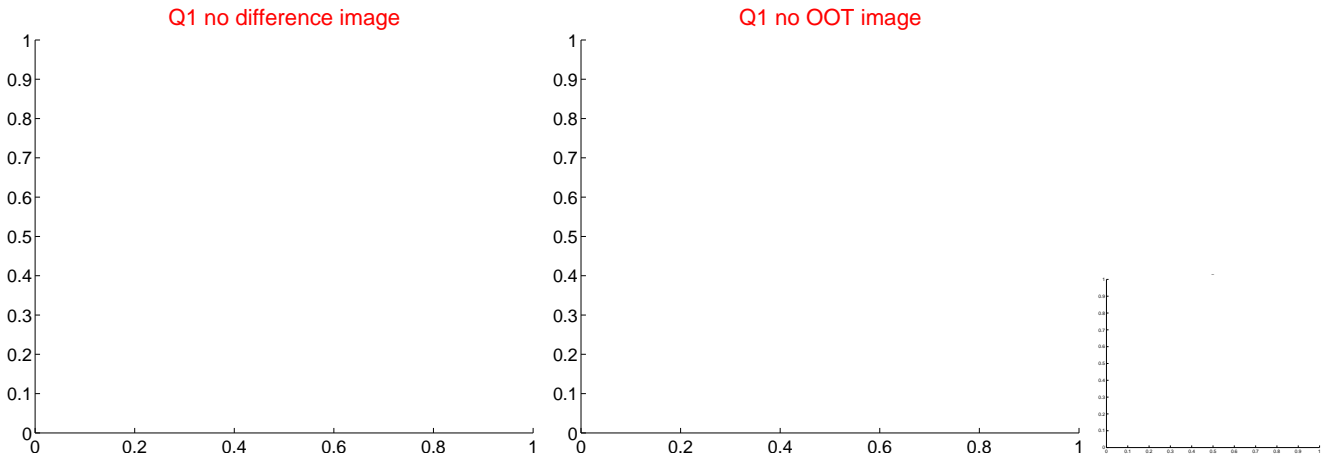
The direct PRF centroid is offset from the target star catalog position by about 0.07 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.631 ± 0.088	7.15	-0.185 ± 0.075	0.604 ± 0.093
PRF-fit source offset from KIC position	0.547 ± 0.091	6.01	-0.184 ± 0.069	0.515 ± 0.097
photometric centroid source offset	0.28 ± 0.29	0.97	-0.02 ± 0.30	-0.28 ± 0.29

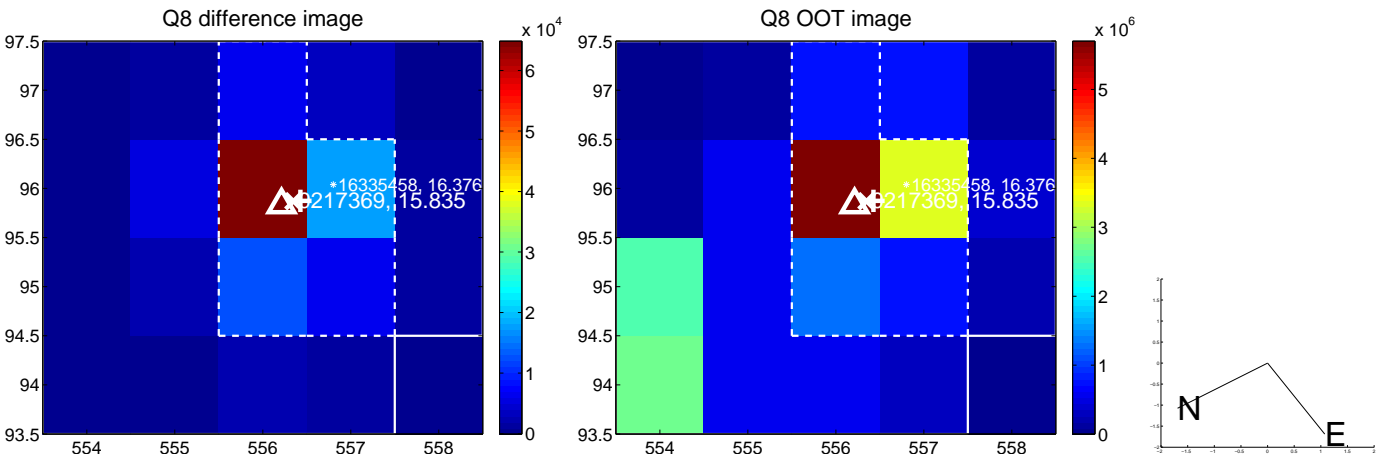
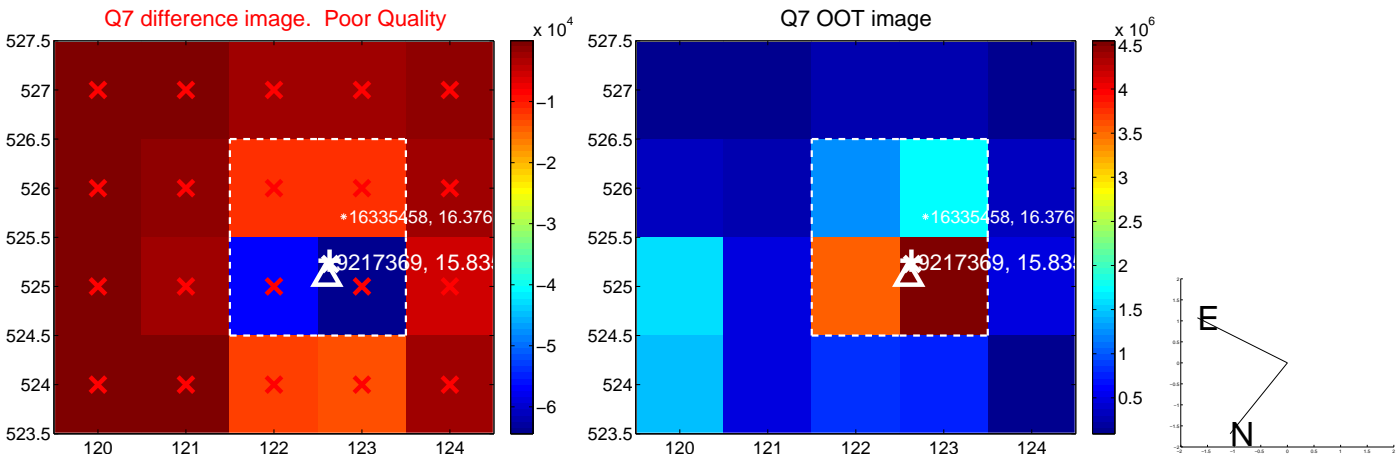
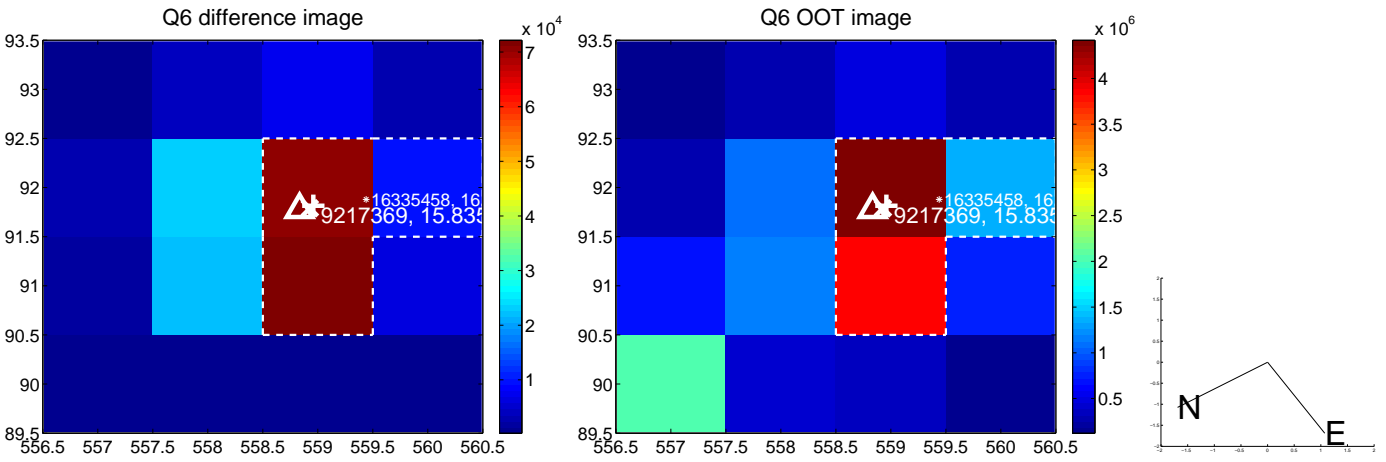
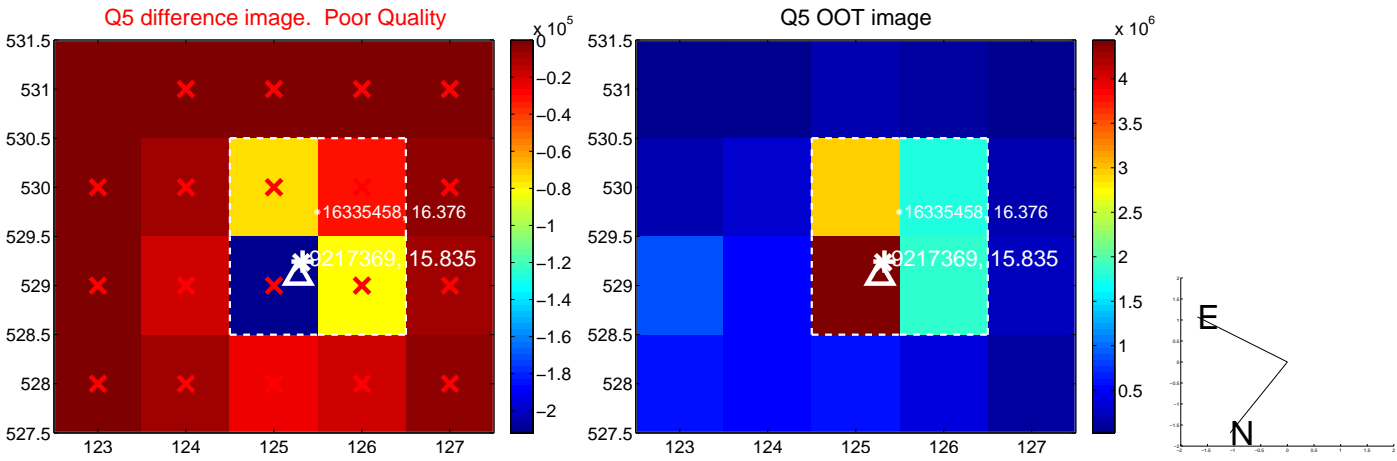


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

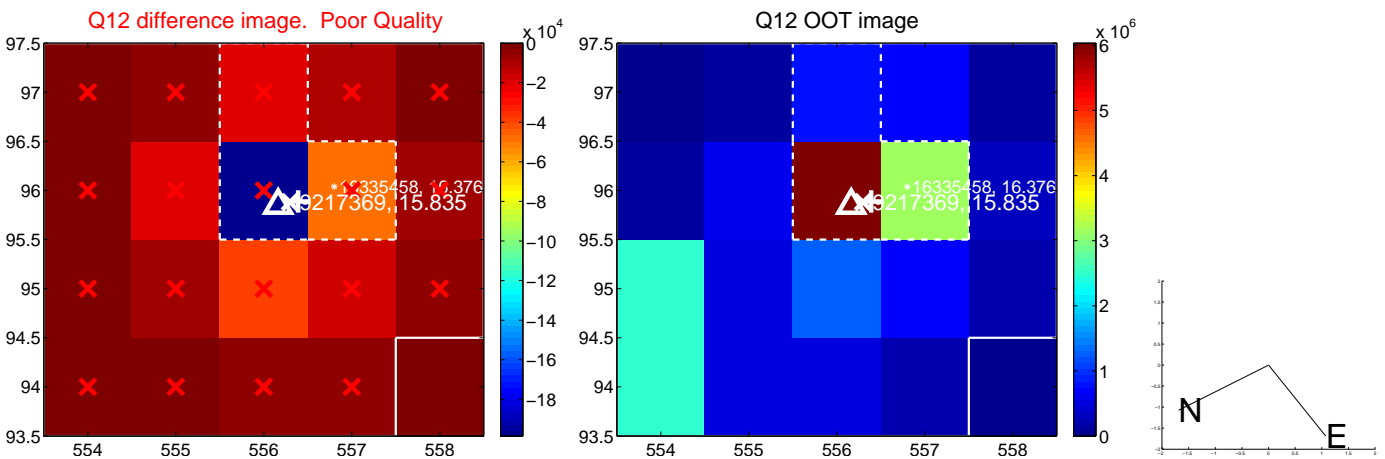
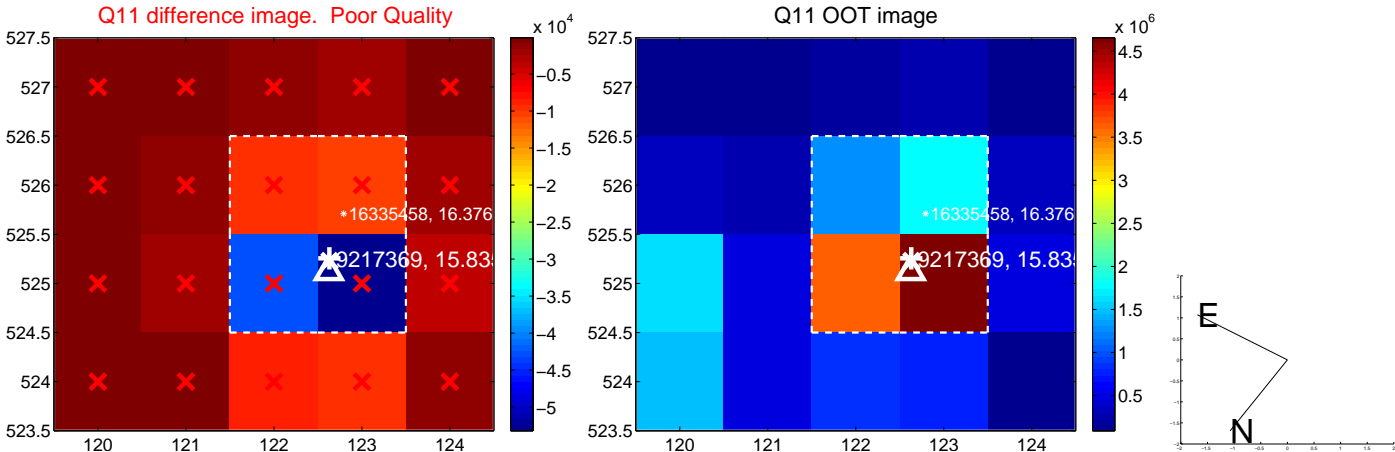
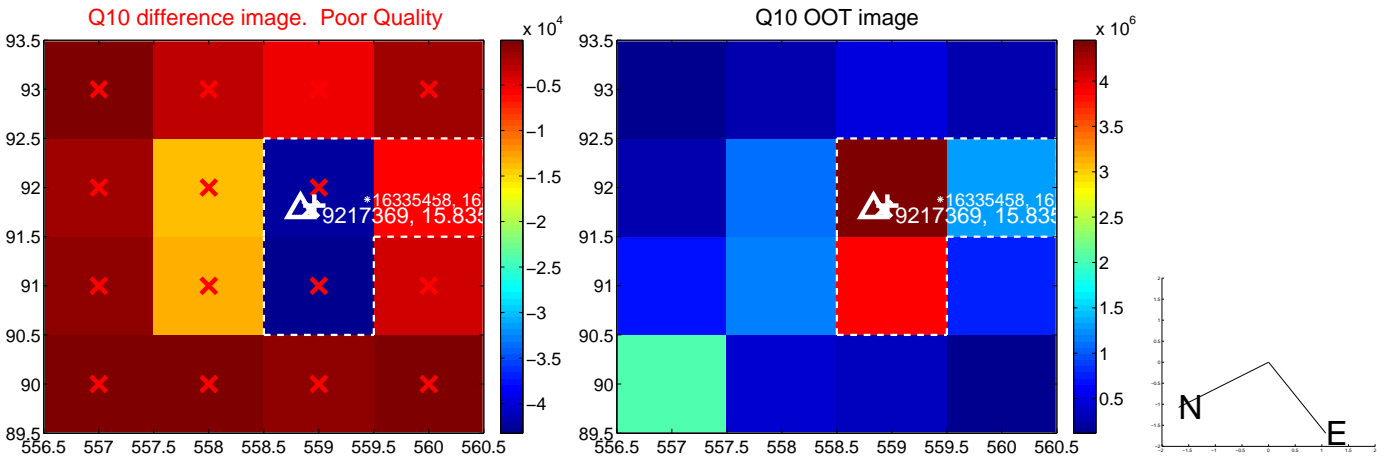
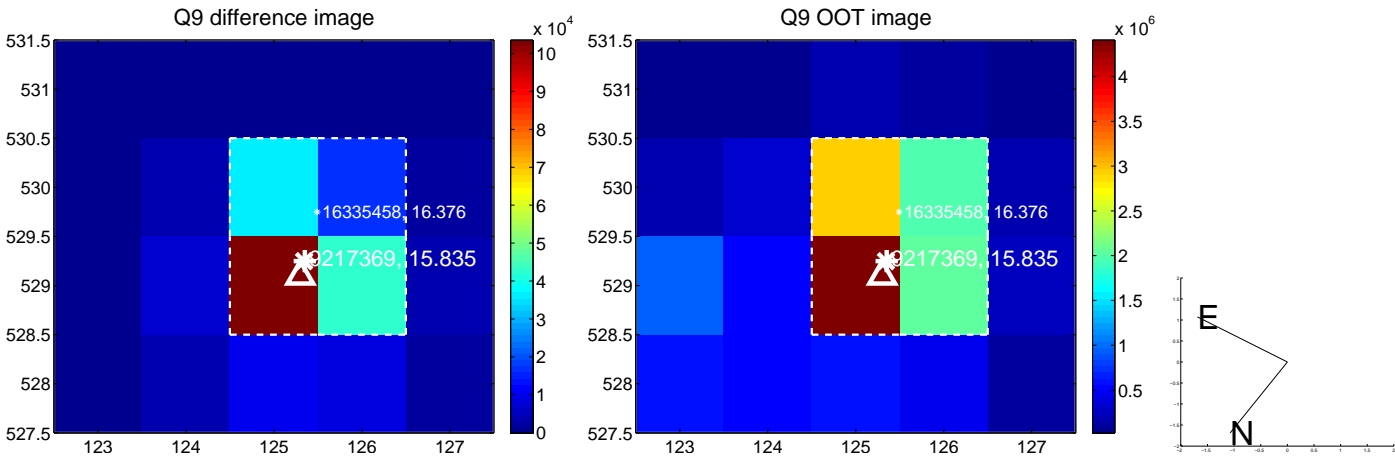
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



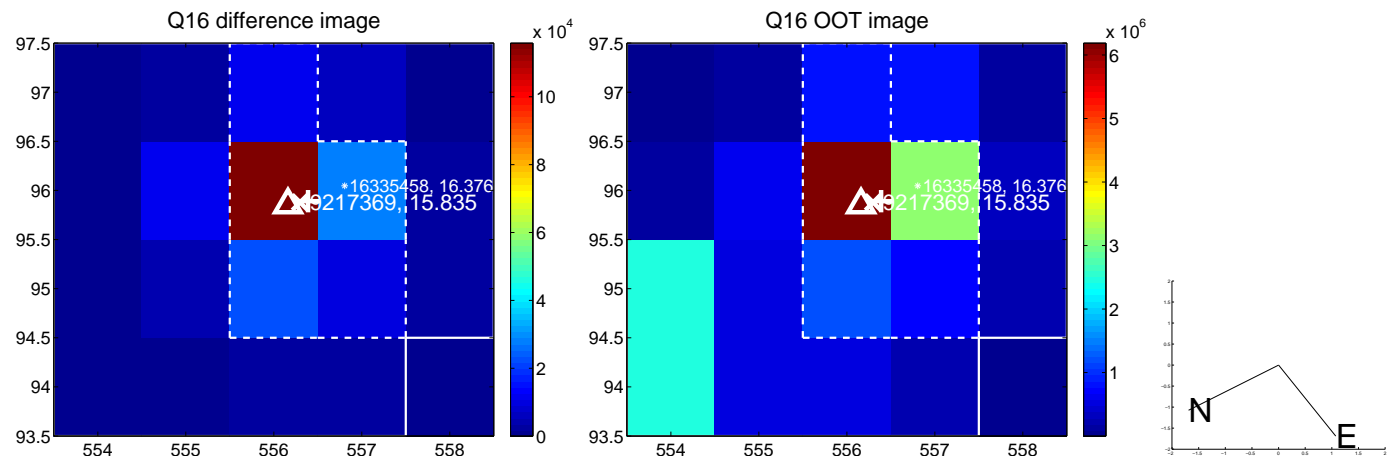
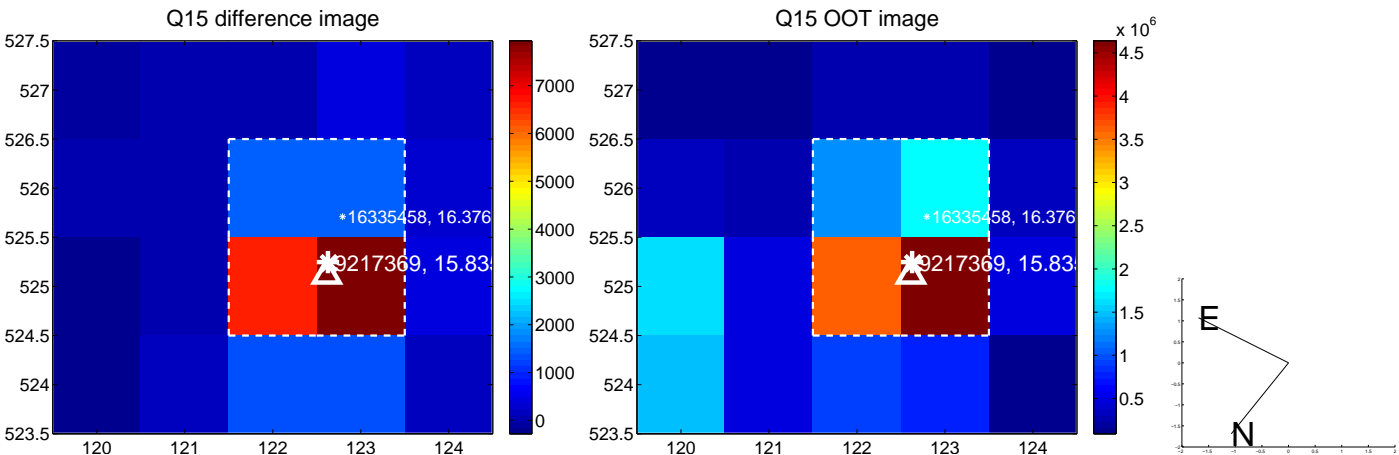
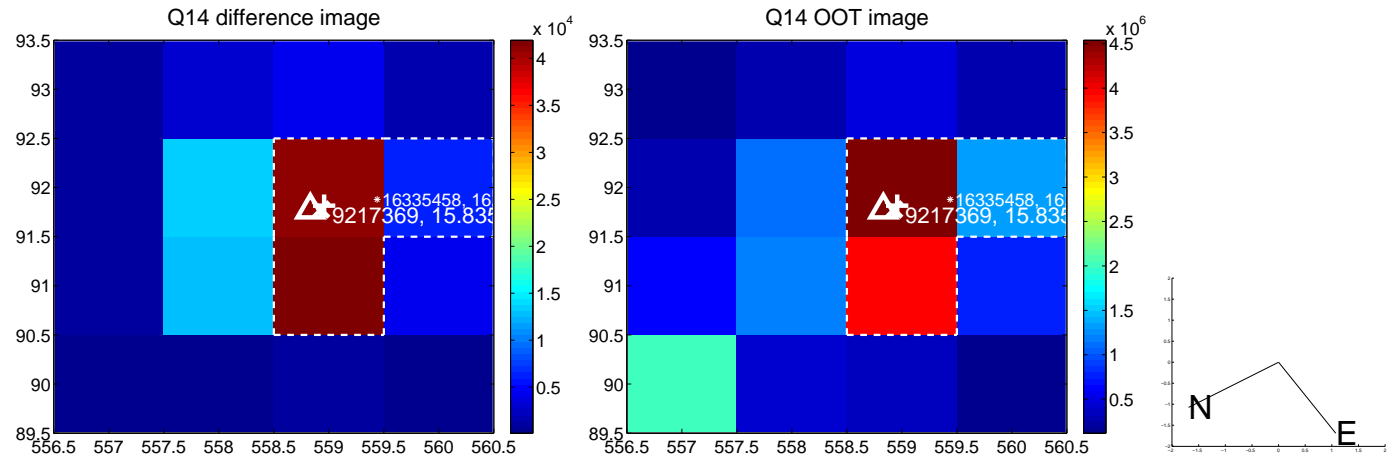
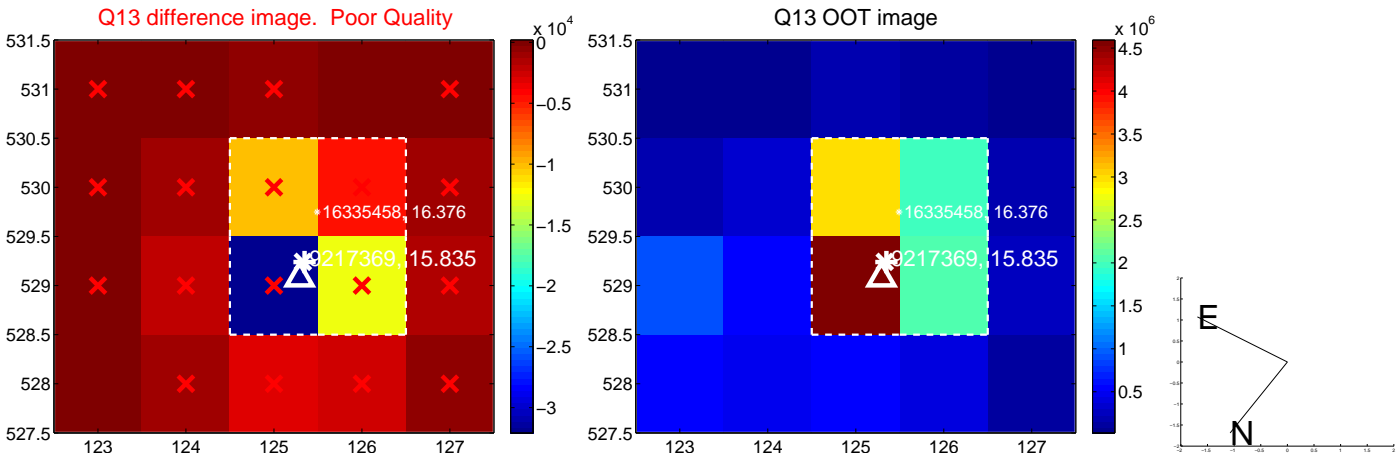
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



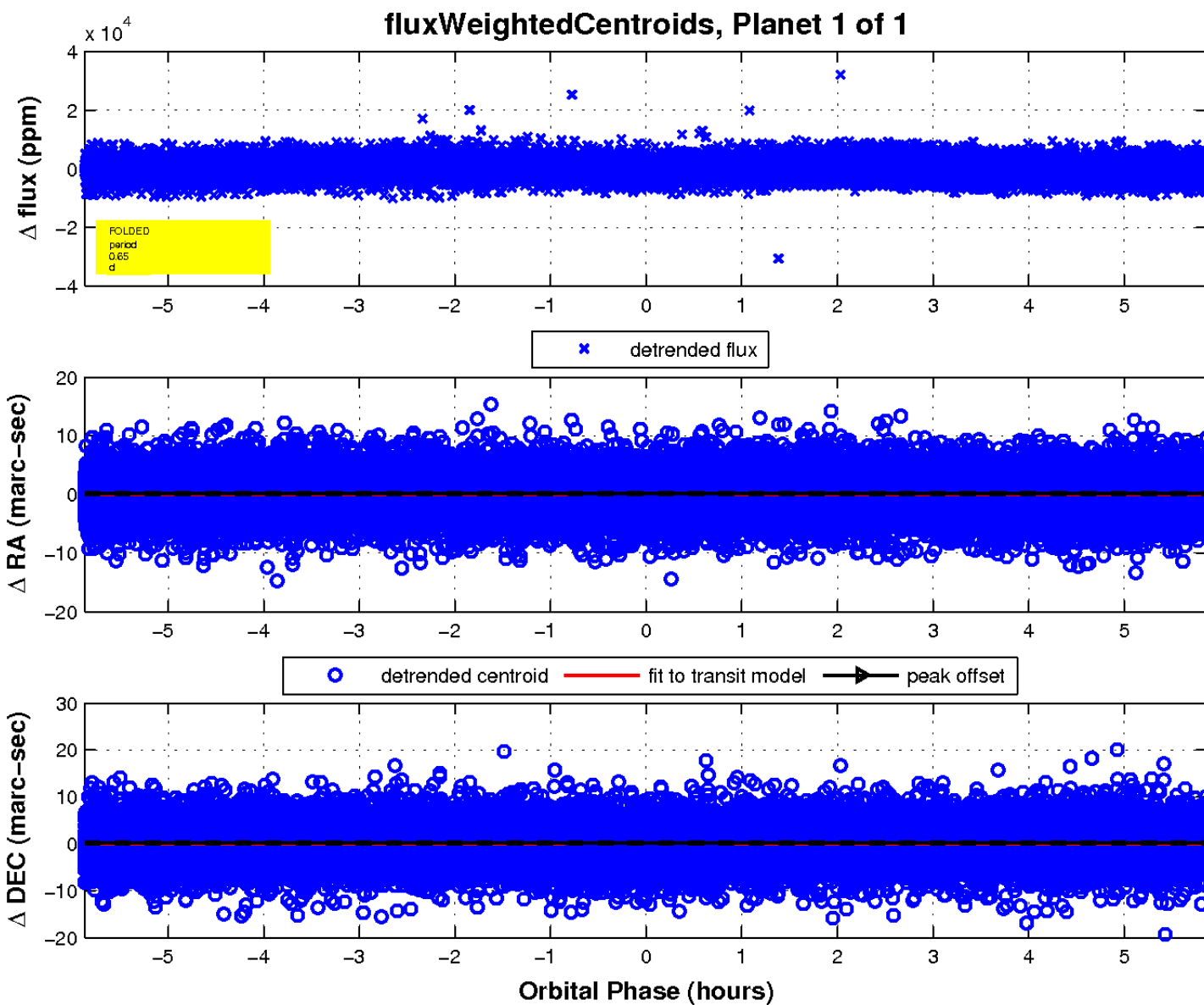
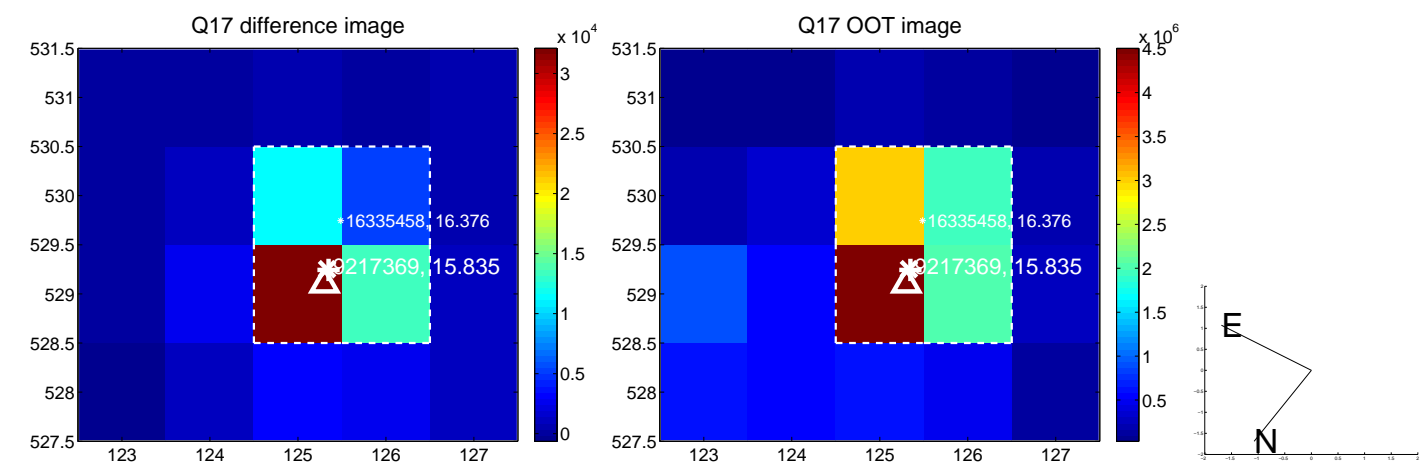
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

