

KIC 003629967

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})
003629967-01	OBS	1901.01	85.654006	155.124755	467.2	7.056	25.2	27.2	1.65	5818	3.90	17.54

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003629967-01	OBS	PC	0.96	0	0	0	0	CENT_KIC_POS

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

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

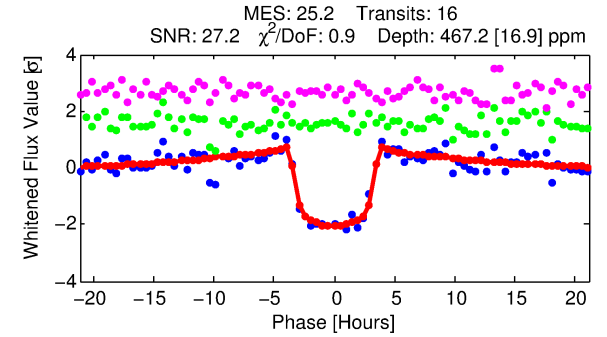
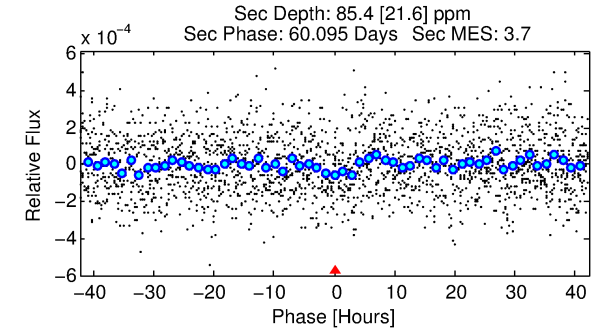
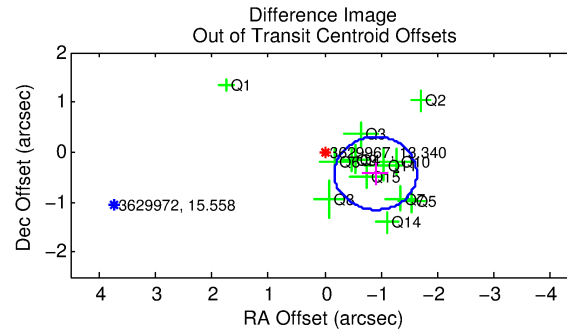
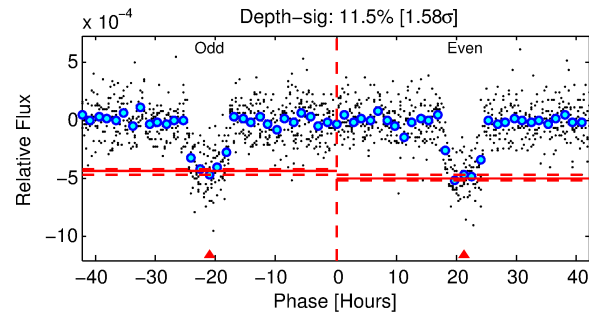
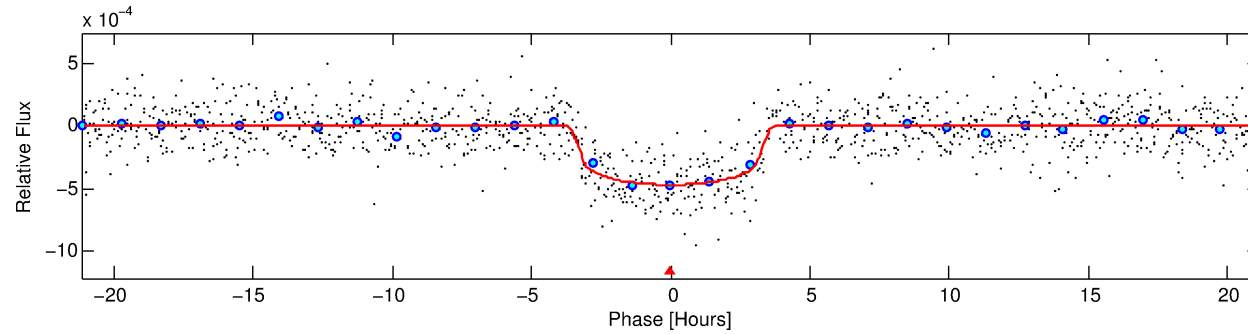
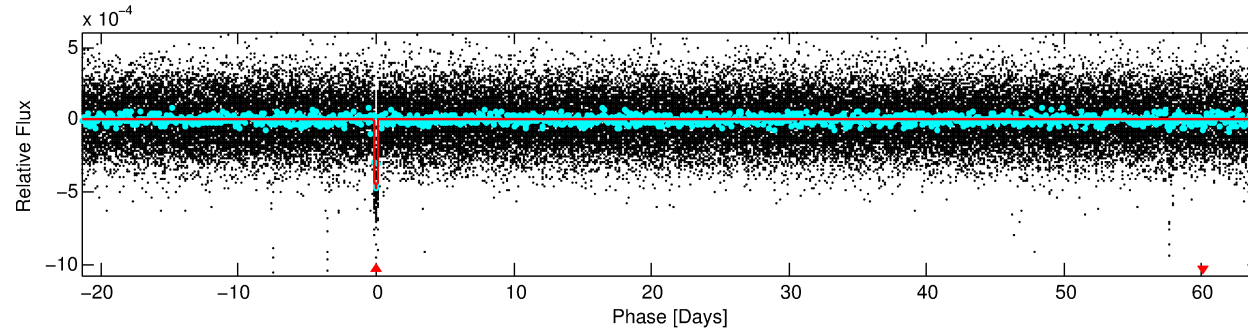
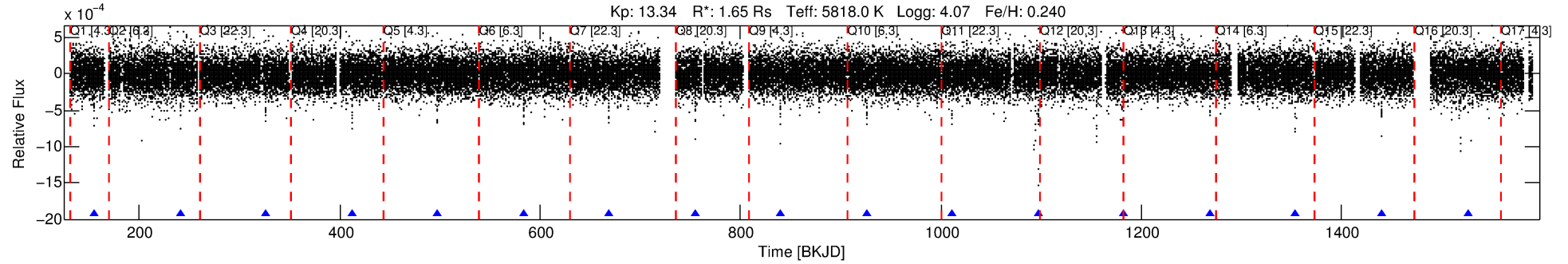
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003629967-01

No Significant Match Found

DV One-Page Summary

KIC: 3629967 Candidate: 1 of 1 Period: 85.654 d
KOI: K01901.01 Corr: 0.987



DV Fit Results:

Period = 85.65401 [0.00043] d
Epoch = 155.1248 [0.0039] BKJD
Rp/R* = 0.0217 [0.0032]
a/R* = 62.25 [40.47]
b = 0.77 [0.35]
Seff = 17.54 [6.15]
Teff = 522 [46] K
Rp = 3.90 [1.07] Re
a = 0.3984 [0.0868] AU
Ag = 490.72 [256.52] [1.91 σ]
Teffp = 3798 [376] K [8.64 σ]

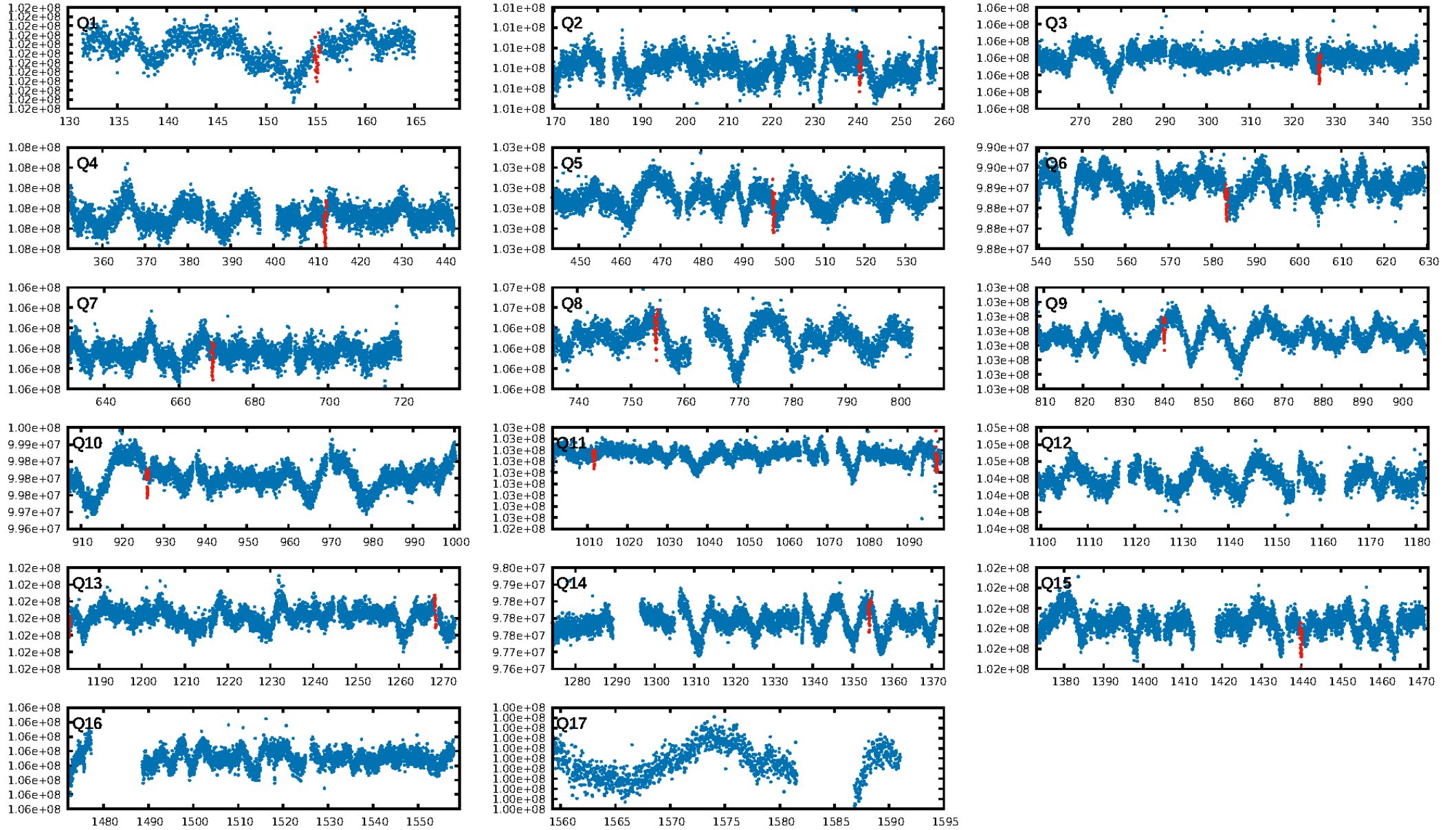
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 53.5%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 4.59e-106
RollingBand-fgt: 1.00 [15/15]
GhostDiagnostic-chr: 4.54
Centroid-sig: 0.0%
Centroid-so: 0.272 arcsec [0.82 σ]
OotOffset-rm: 0.995 arcsec [4.09 σ]
KicOffset-rm: 0.539 arcsec [2.00 σ]
OotOffset-st: 4/4/2/3 [13]
KicOffset-st: 4/4/2/3 [13]
DiffImageQuality-fgm: 1.00 [13/13]
DiffImageOverlap-fno: 1.00 [13/13]

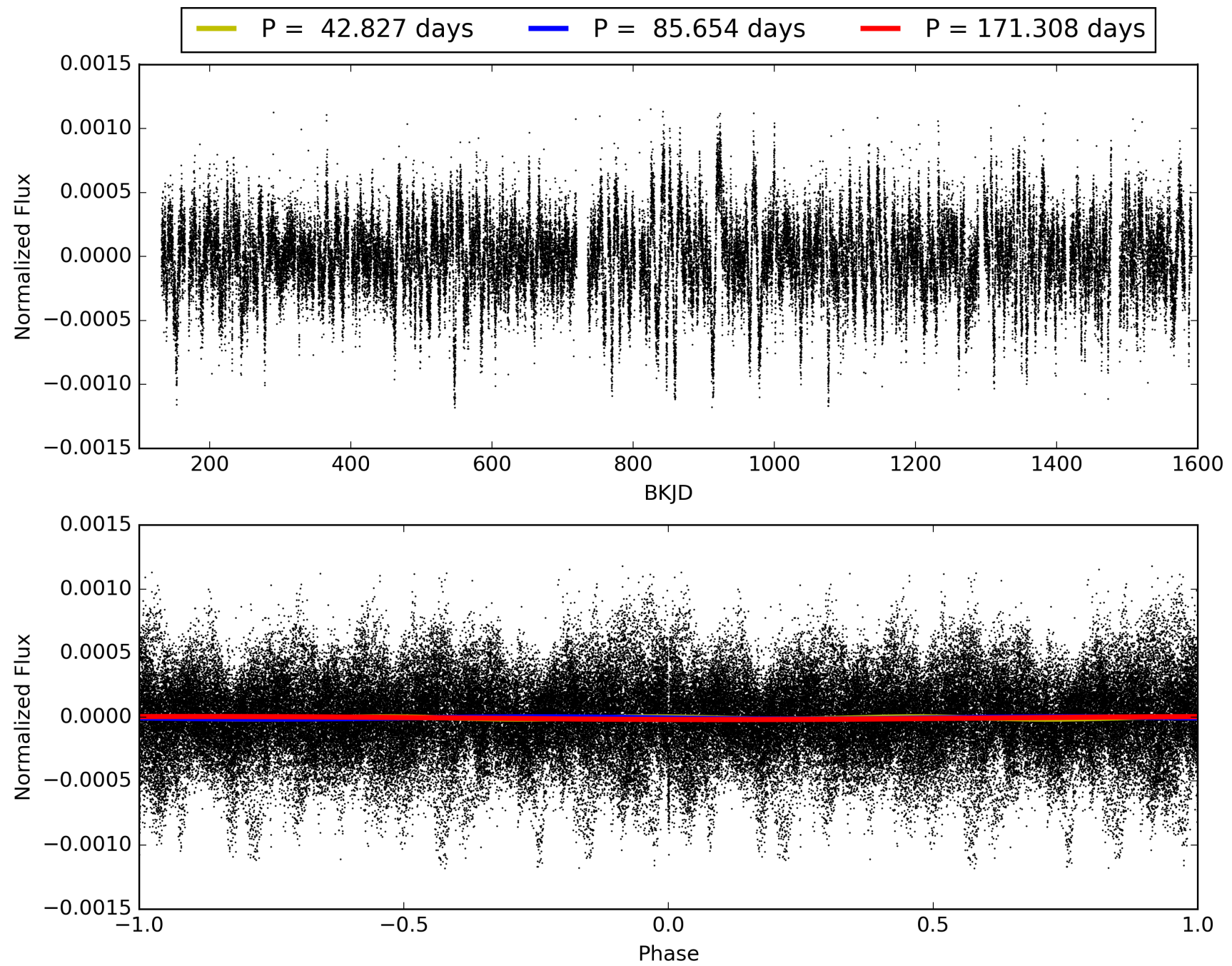
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 16:11:15 Z

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

TCE 003629967-01, PDC Light Curves

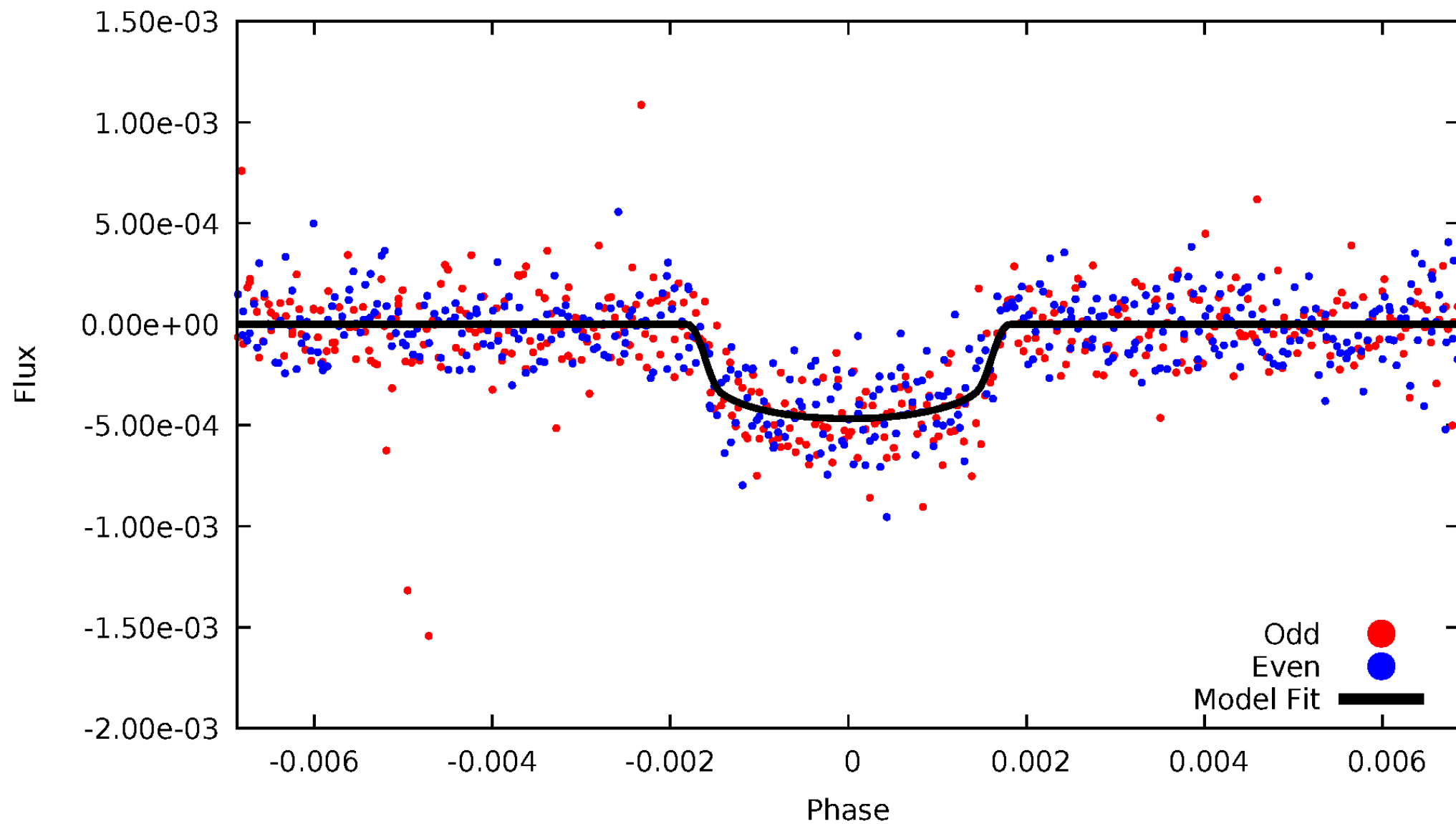


TCE 003629967-01



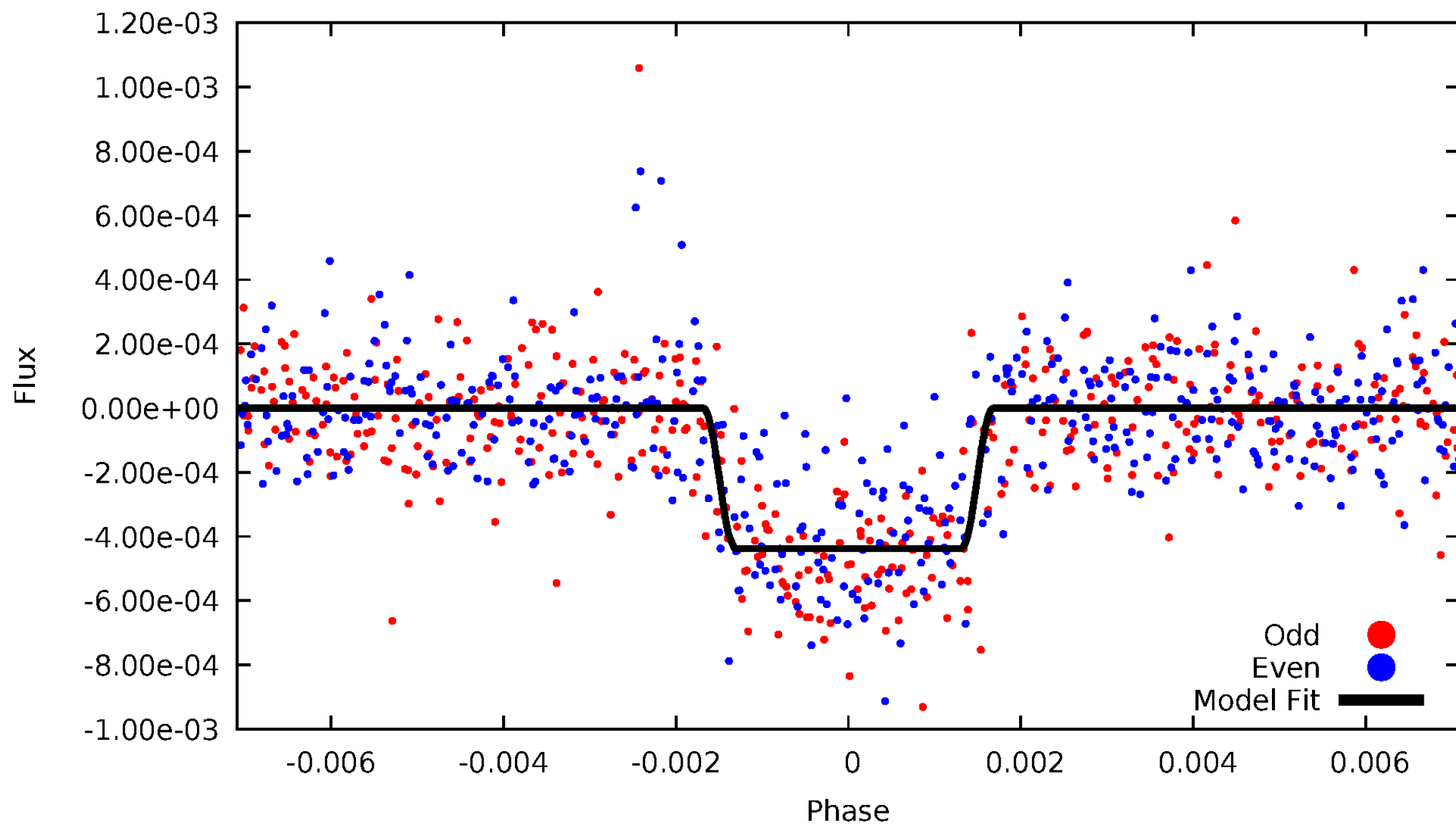
DV Odd/Even

TCE 003629967-01

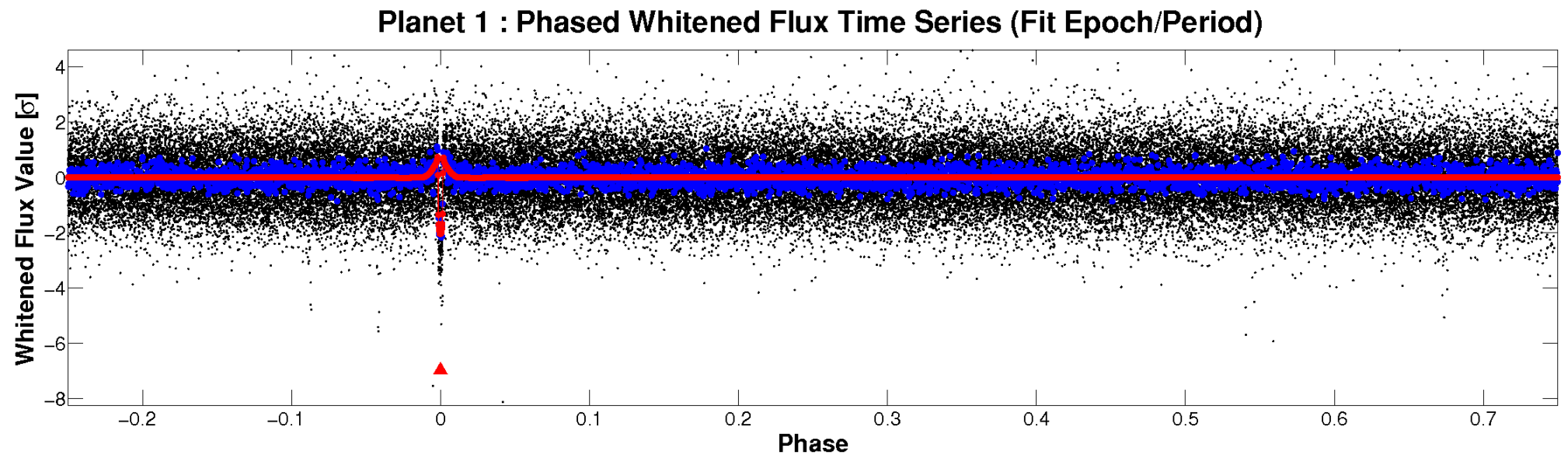
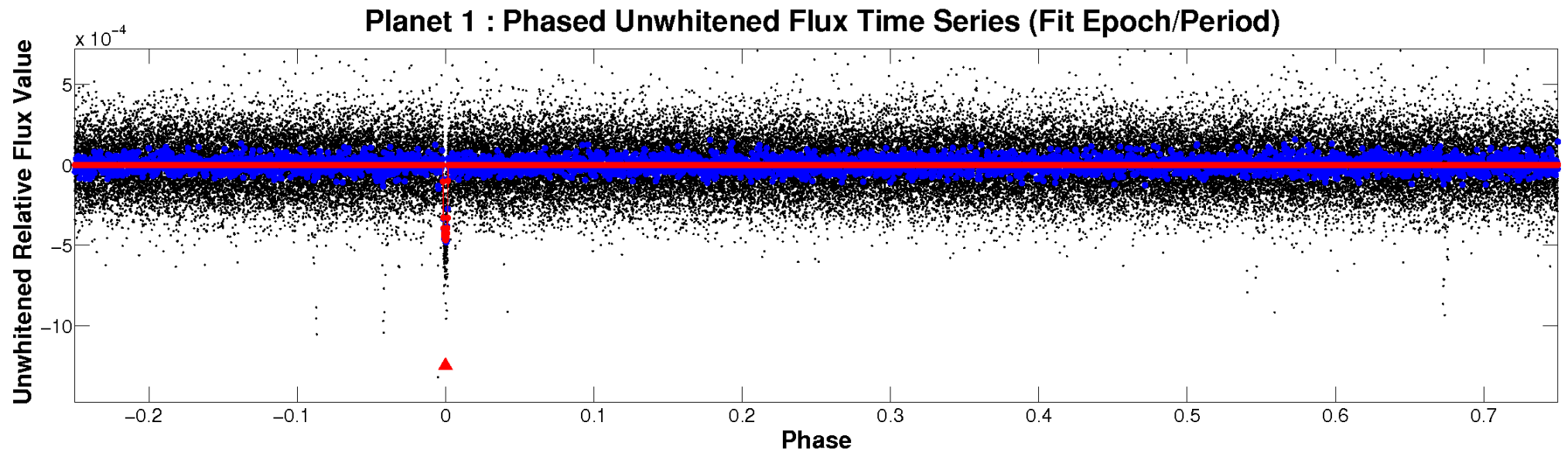


ALT Odd/Even

TCE 003629967-01

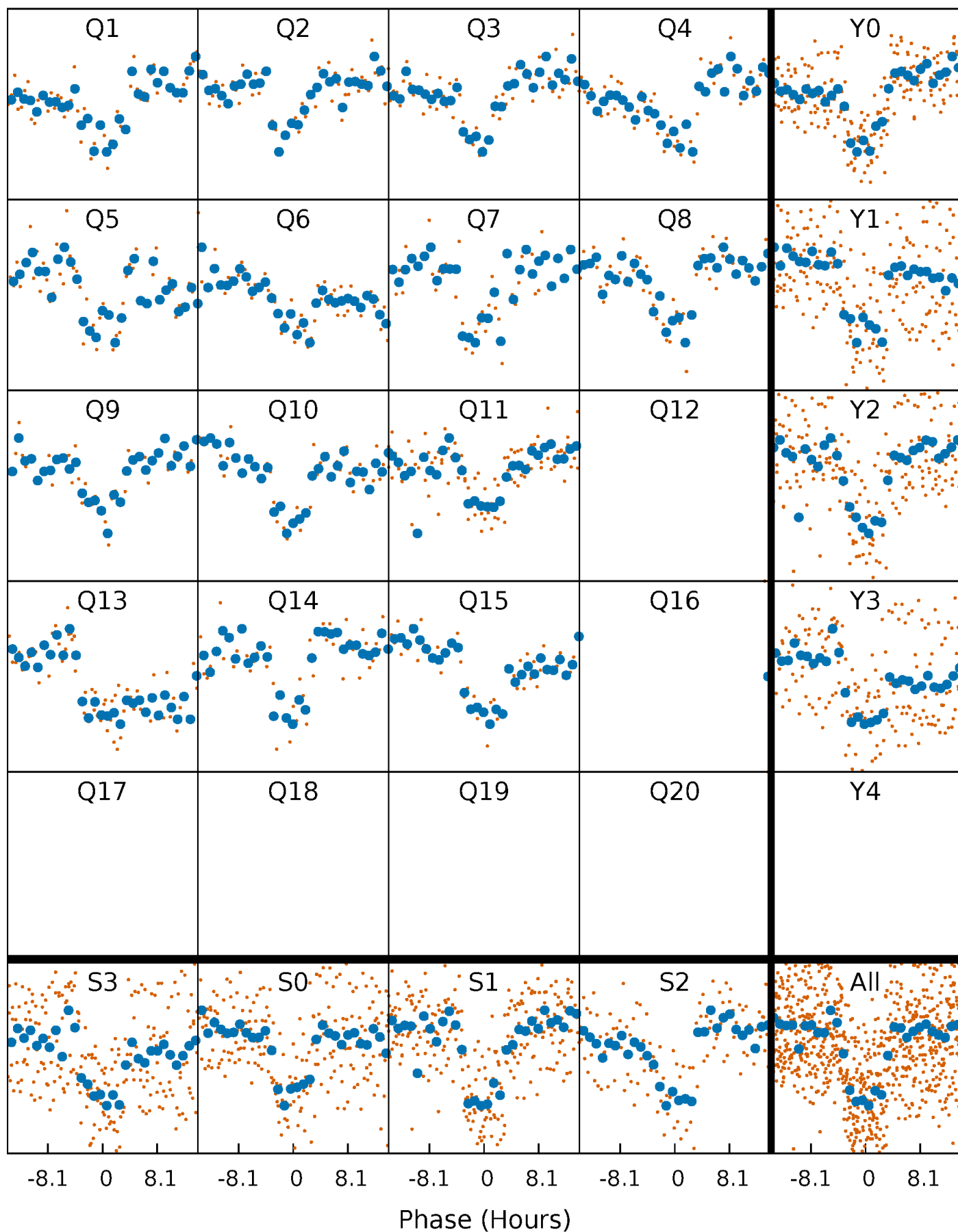


Non-Whitened Vs. Whitened Light Curve



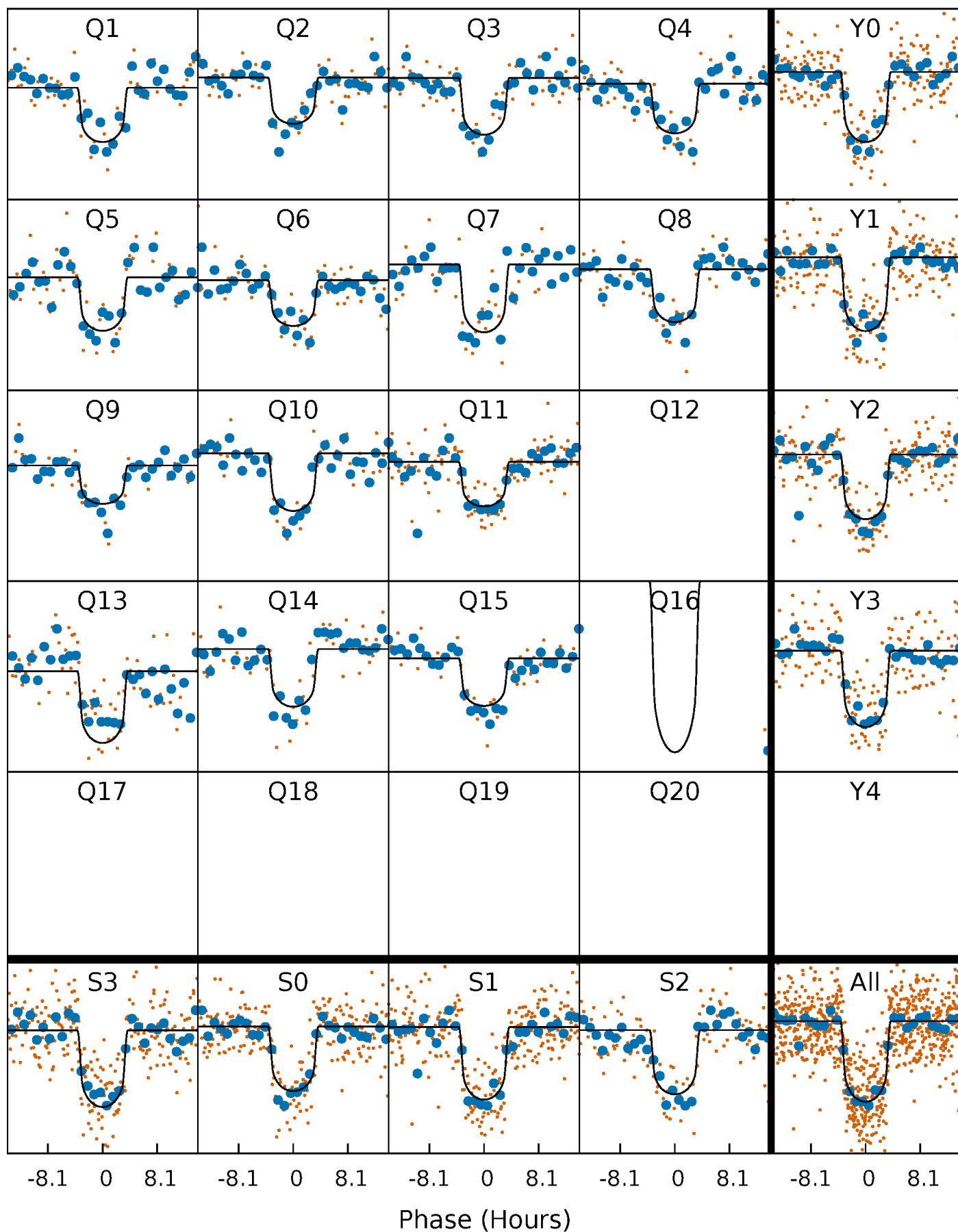
PDC Quarter-Phased Transit Curves

TCE 003629967-01 P= 85.654006 Days $T_0=155.124755$ (BKJD)



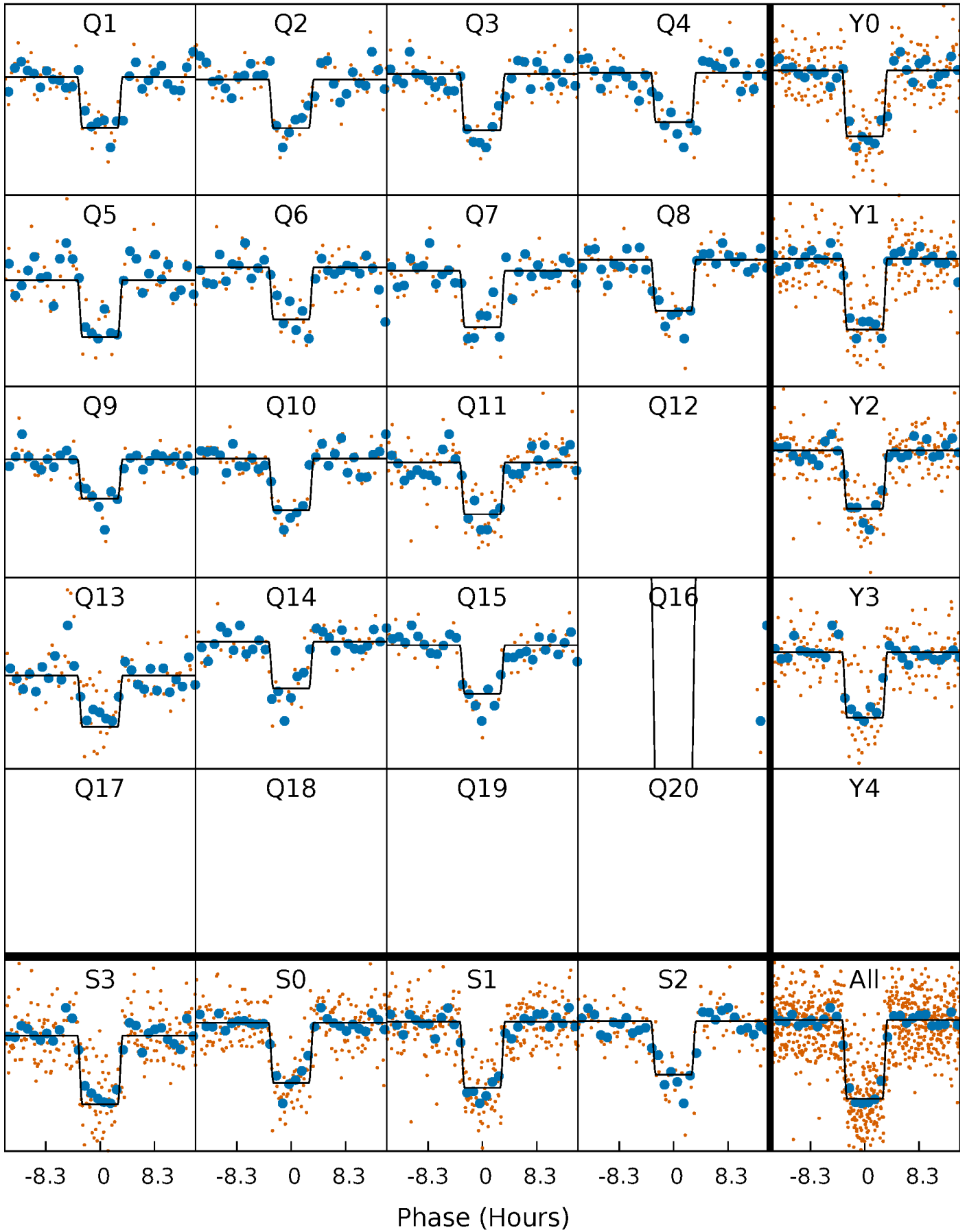
DV Quarter-Phased Transit Curves

TCE 003629967-01 P= 85.654006 Days $T_0=155.124755$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

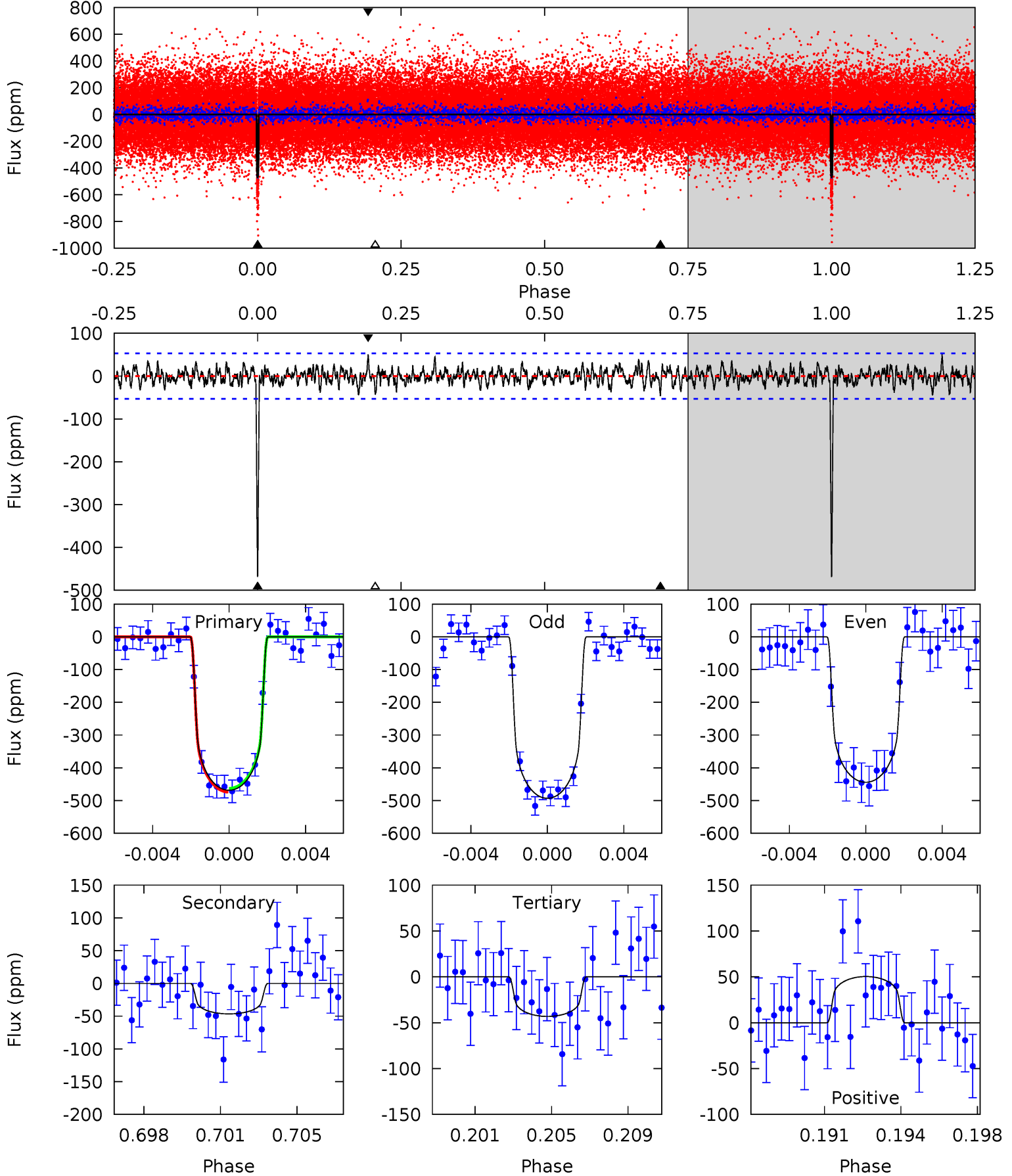
TCE 003629967-01 P= 85.656706 Days $T_0=155.103726$ (BKJD)



DV Model-Shift Uniqueness Test

003629967-01, P = 85.654006 Days, E = 69.470749 Days

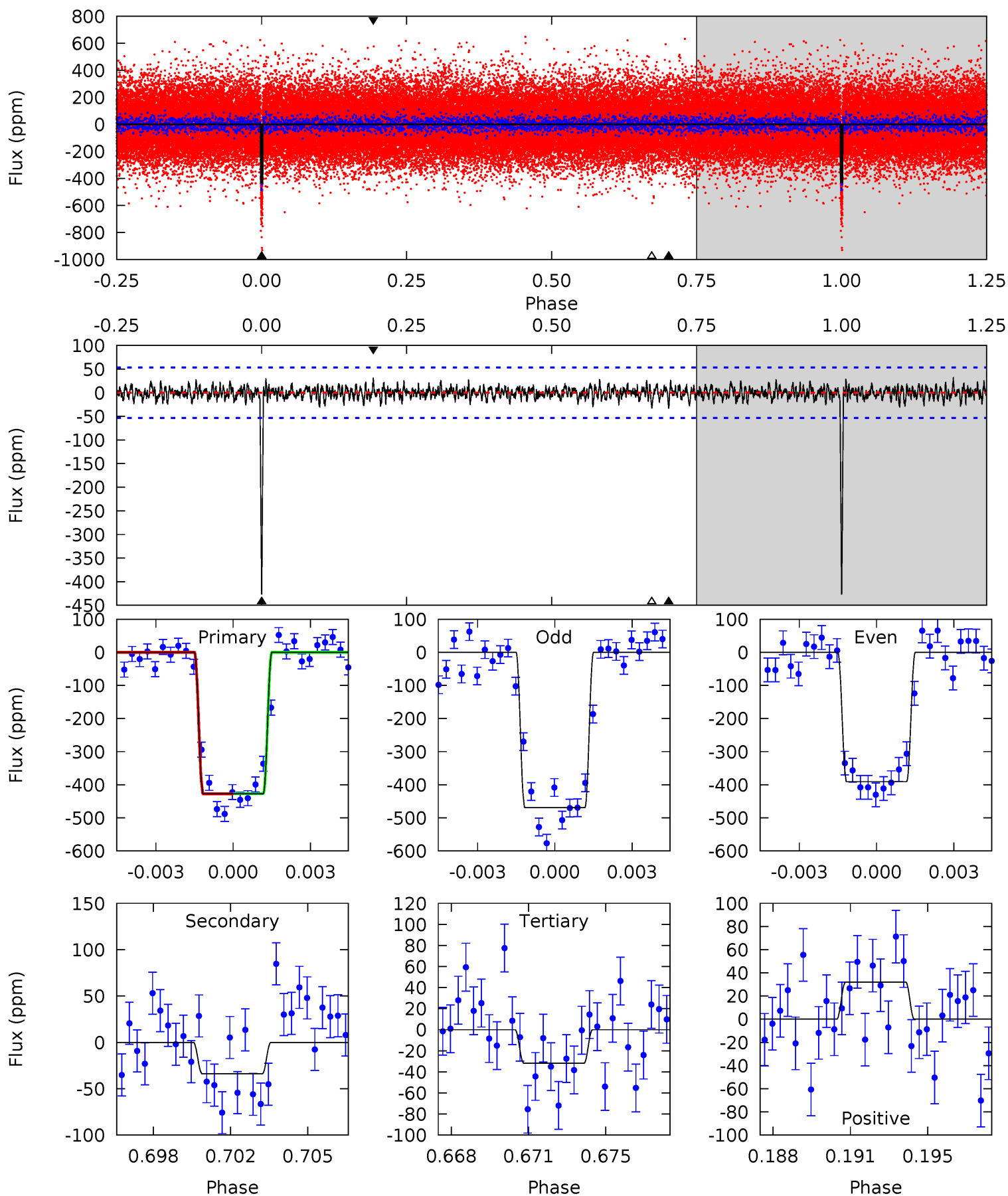
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
46.1	4.58	4.24	4.94	5.22	2.91	1.38	41.8	41.1	0.33	-0.37	2.41	0.97	0.10	0.57



Alt Model-Shift Uniqueness Test

003629967-01, P = 85.656706 Days, E = 69.447020 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
41.9	3.32	3.12	3.14	5.23	2.93	0.94	38.7	38.7	0.20	0.18	3.84	0.99	0.07	0.05



Stellar Parameters For KIC 003629967

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5818^{+69}_{-86}	$4.065^{+0.202}_{-0.081}$	$0.240^{+0.150}_{-0.100}$	$1.647^{+0.252}_{-0.378}$	$1.149^{+0.128}_{-0.105}$	$0.362^{+0.378}_{-0.109}$
	+1%/-1%	+5%/-2%	+62%/-42%	+15%/-23%	+11%/-9%	+104%/-30%
Source	SPE90	SPE90	SPE90	DSEP		

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

Secondary Eclipse Parameters for KIC 003629967-01 / KOI 1901.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-47 ± 10	$3.76^{+0.70}_{-0.64}$	719^{+34}_{-42}	3677^{+247}_{-223}	290^{+144}_{-100}
Alt.	-34 ± 10	$3.60^{+0.71}_{-0.63}$	722^{+29}_{-45}	3539^{+262}_{-248}	222^{+140}_{-86}

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

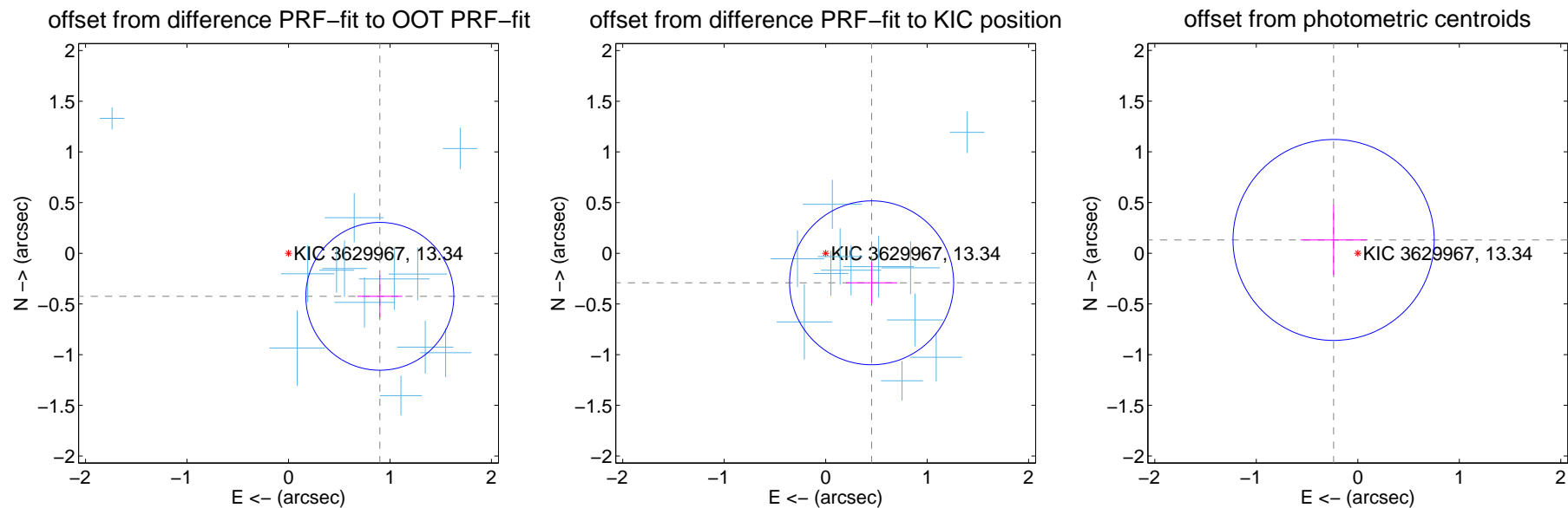
DV Centroid Data

Supplemental centroid analysis for 003629967-01. Kepler magnitude: 13.34. Transit SNR 27.20

There are 13 quarters with good PRF difference image offsets

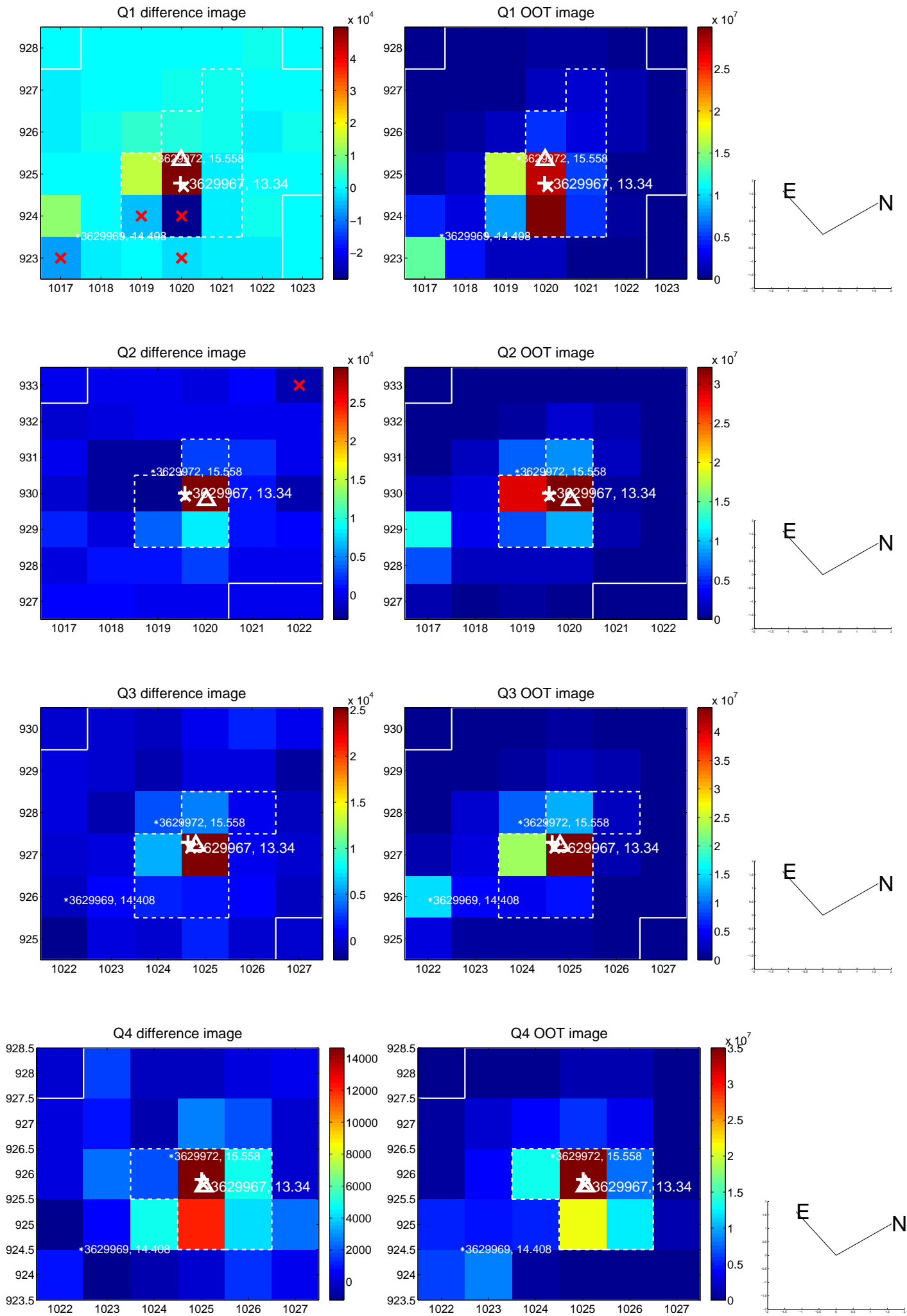
The direct PRF centroid is offset from the target star catalog position by about 0.59 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.995 ± 0.243	4.09	-0.900 ± 0.220	-0.425 ± 0.208
PRF-fit source offset from KIC position	0.539 ± 0.270	2.00	-0.453 ± 0.251	-0.291 ± 0.204
photometric centroid source offset	0.27 ± 0.33	0.82	0.24 ± 0.33	0.13 ± 0.34

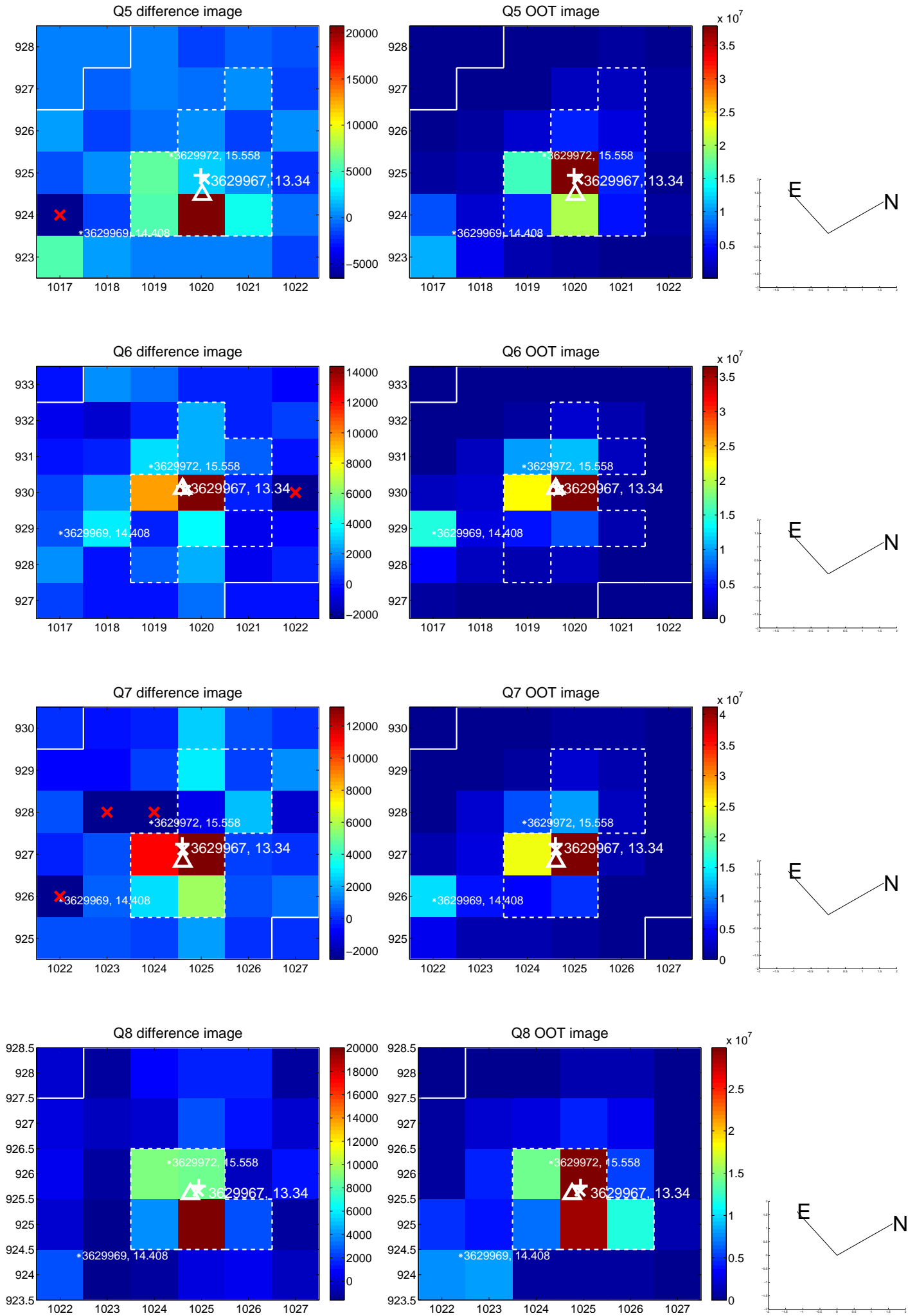


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

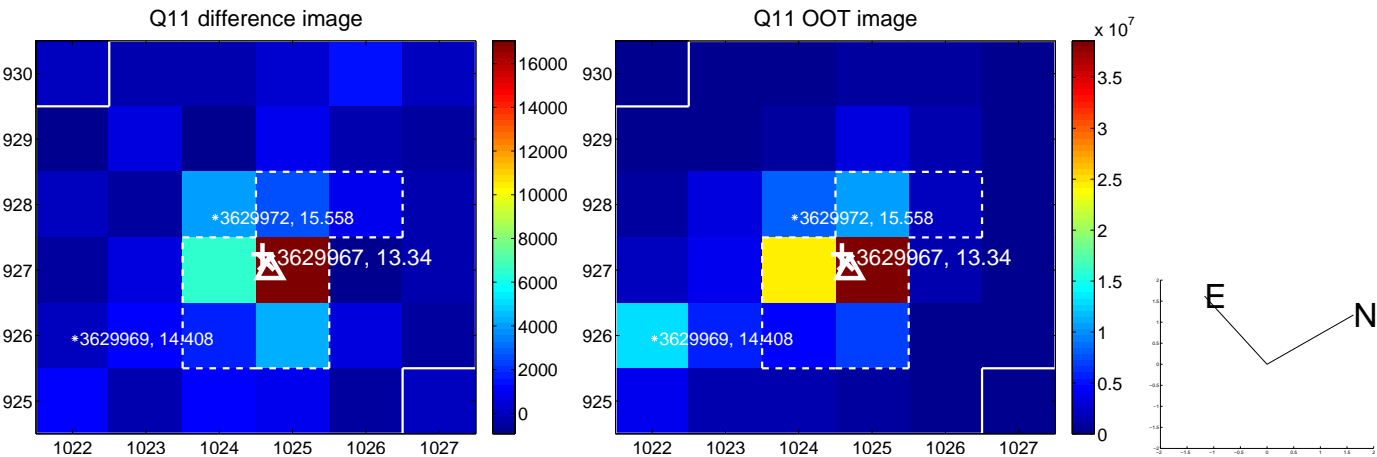
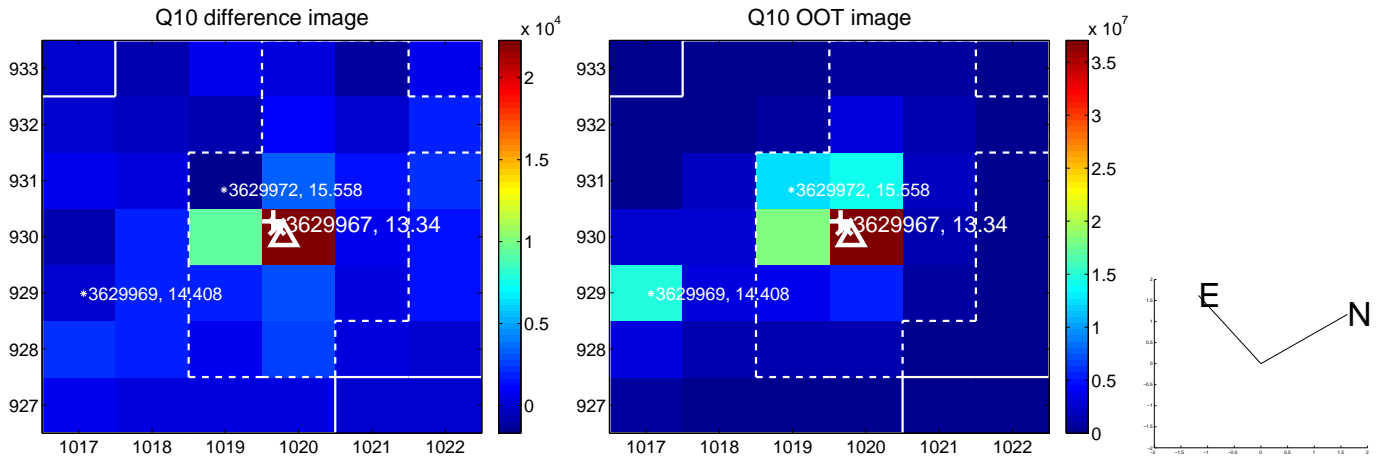
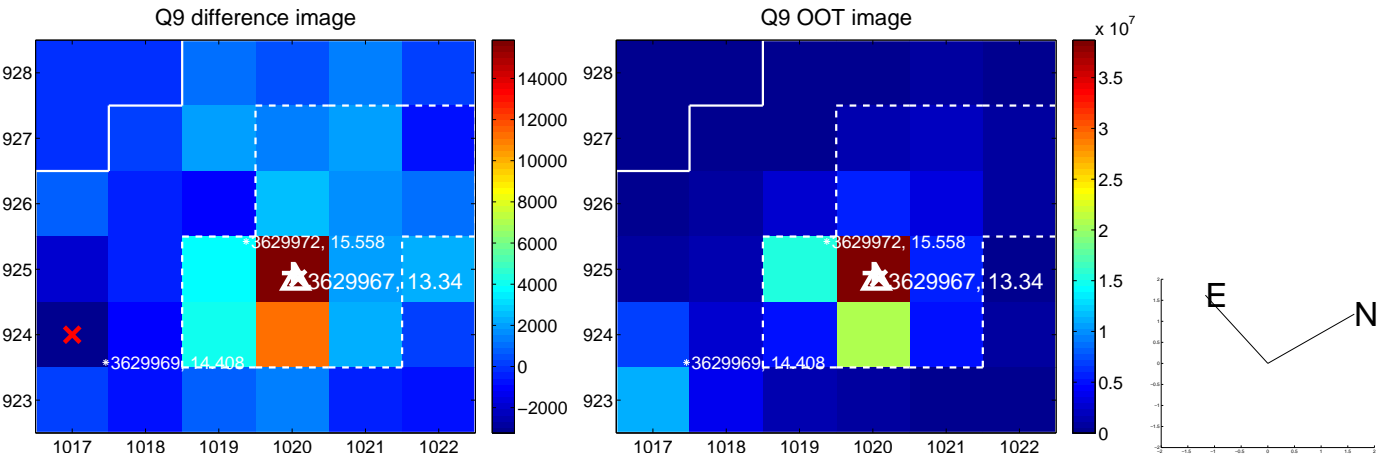
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

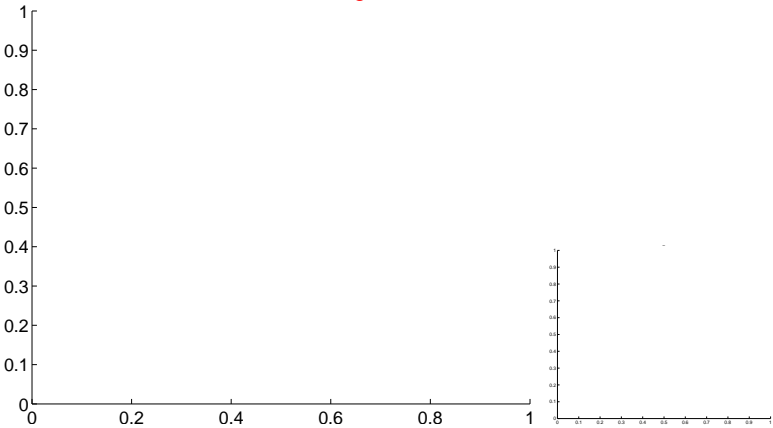


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.

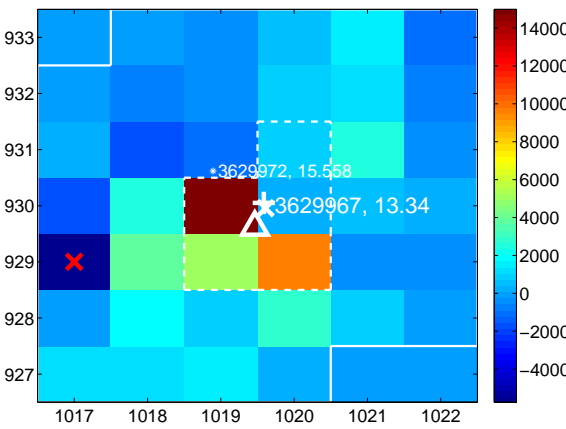
Q13 no difference image



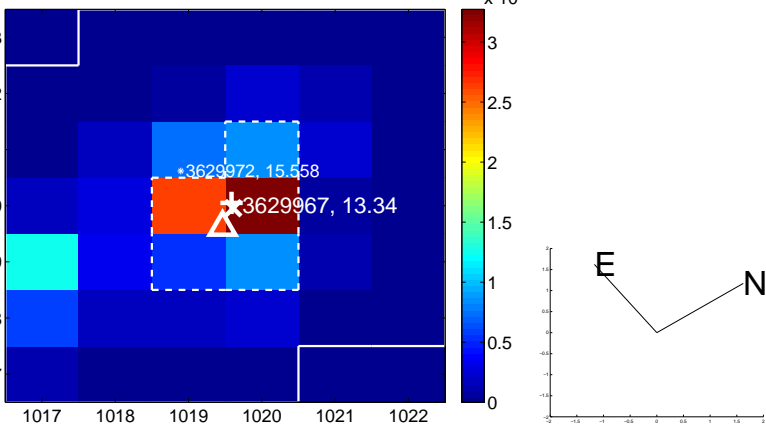
Q13 no OOT image



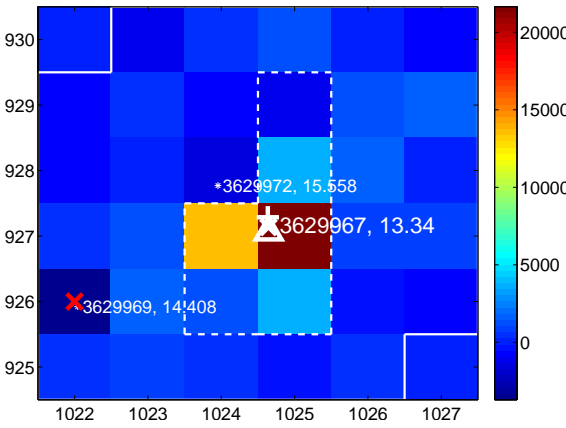
Q14 difference image



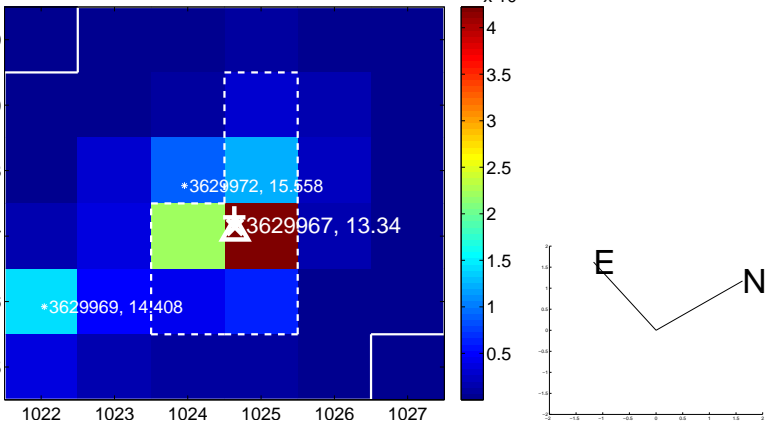
Q14 OOT image



Q15 difference image



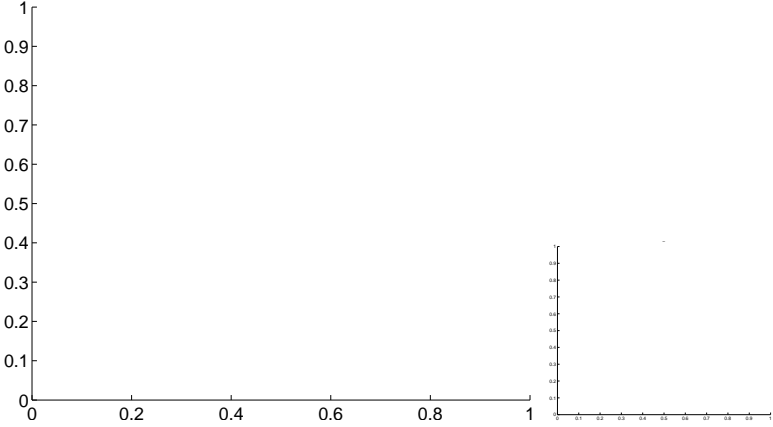
Q15 OOT image



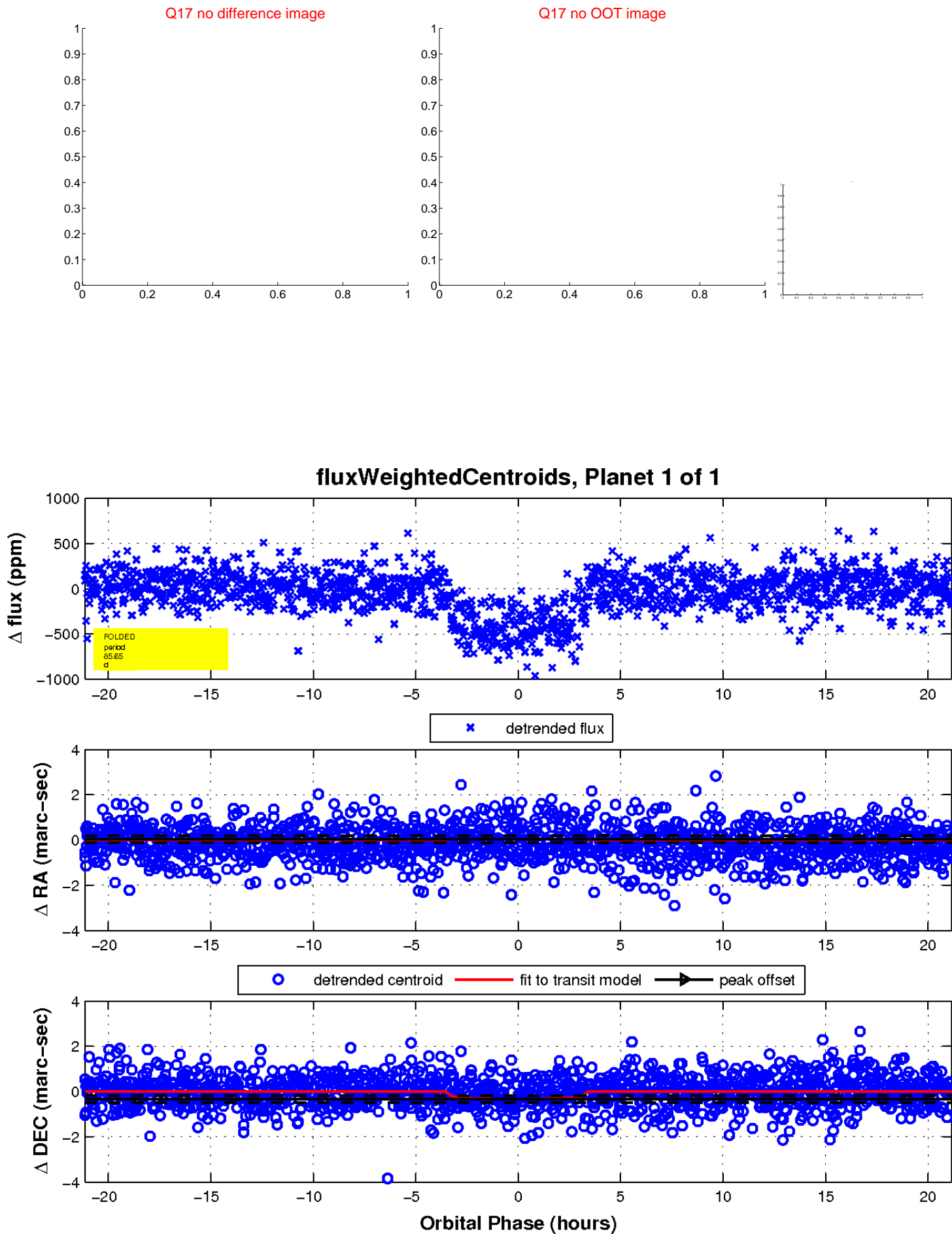
Q16 no difference image



Q16 no OOT image



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



UKIRT Image

