

KIC 011807302

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})
011807302-01	OBS	No	468.929707	518.454942	635.7	22.211	8.0	8.3	0.93	5841	2.39	0.63

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011807302-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—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.

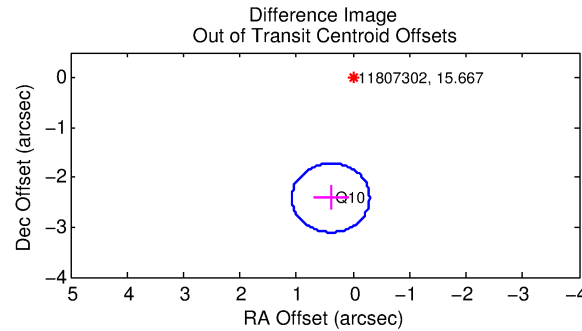
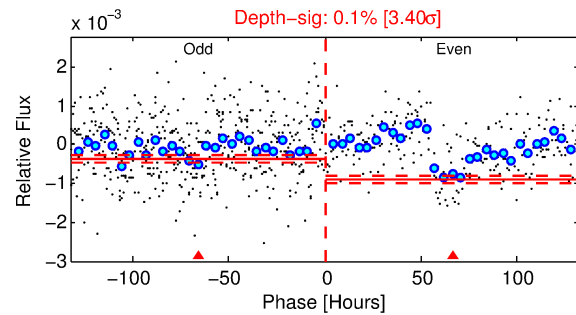
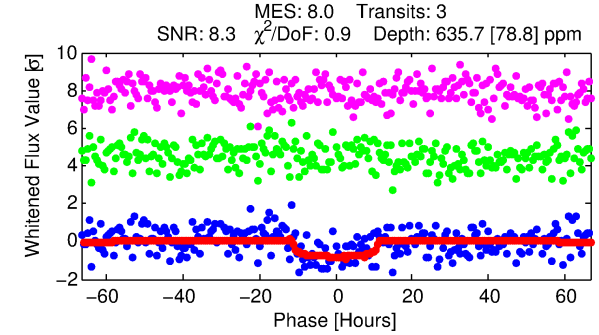
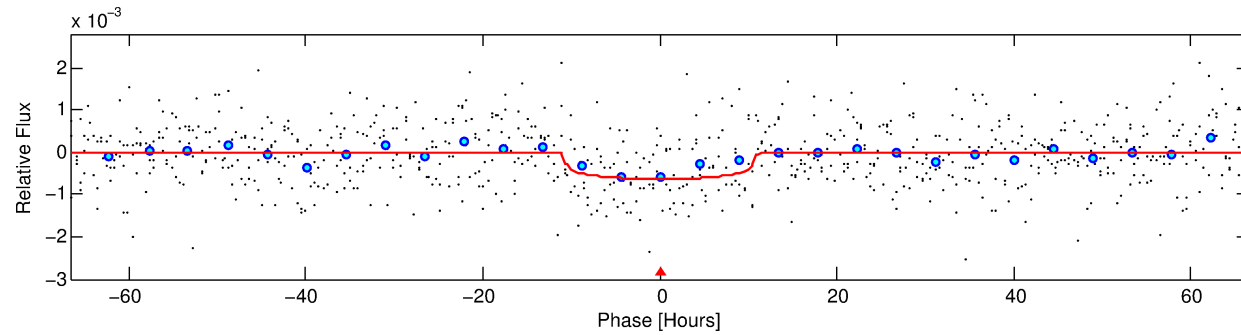
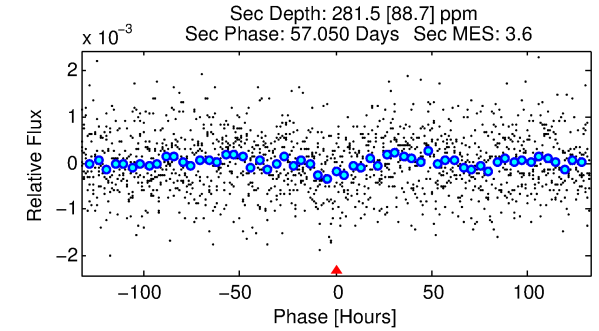
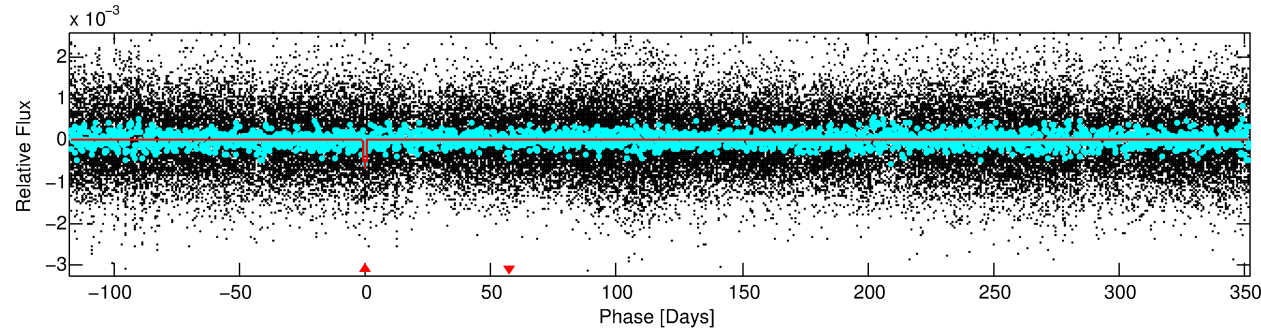
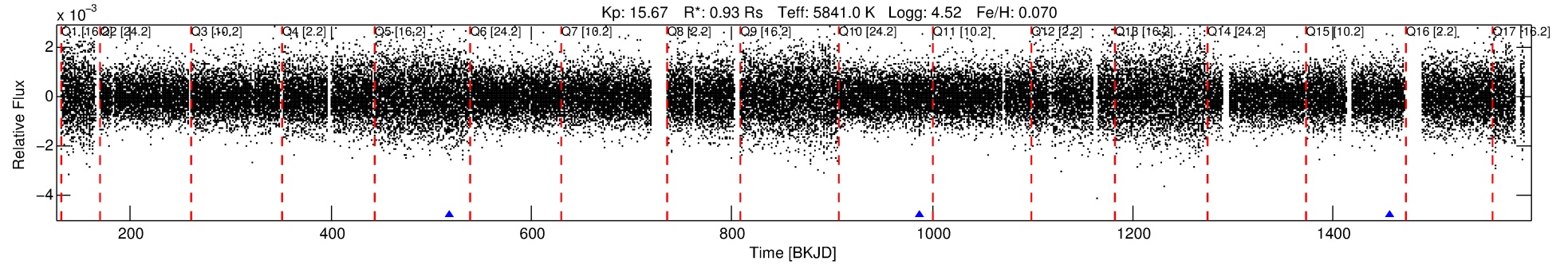
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011807302-01

No Significant Match Found

DV One-Page Summary

KIC: 11807302 Candidate: 1 of 1 Period: 468.930 d



DV Fit Results:

Period = 468.92971 [0.02810] d
Epoch = 518.4549 [0.0383] BKJD
Rp/R* = 0.0235 [0.0104]
a/R* = 146.02 [284.36]
b = 0.48 [3.16]
Seff = 0.63 [0.25]
Teq = 227 [23] K
Rp = 2.39 [1.27] Re
a = 1.1997 [0.3005] AU
Ag = 38983.63 [39433.67] [0.99σ]
Teff = 4932 [1176] K [4.00σ]

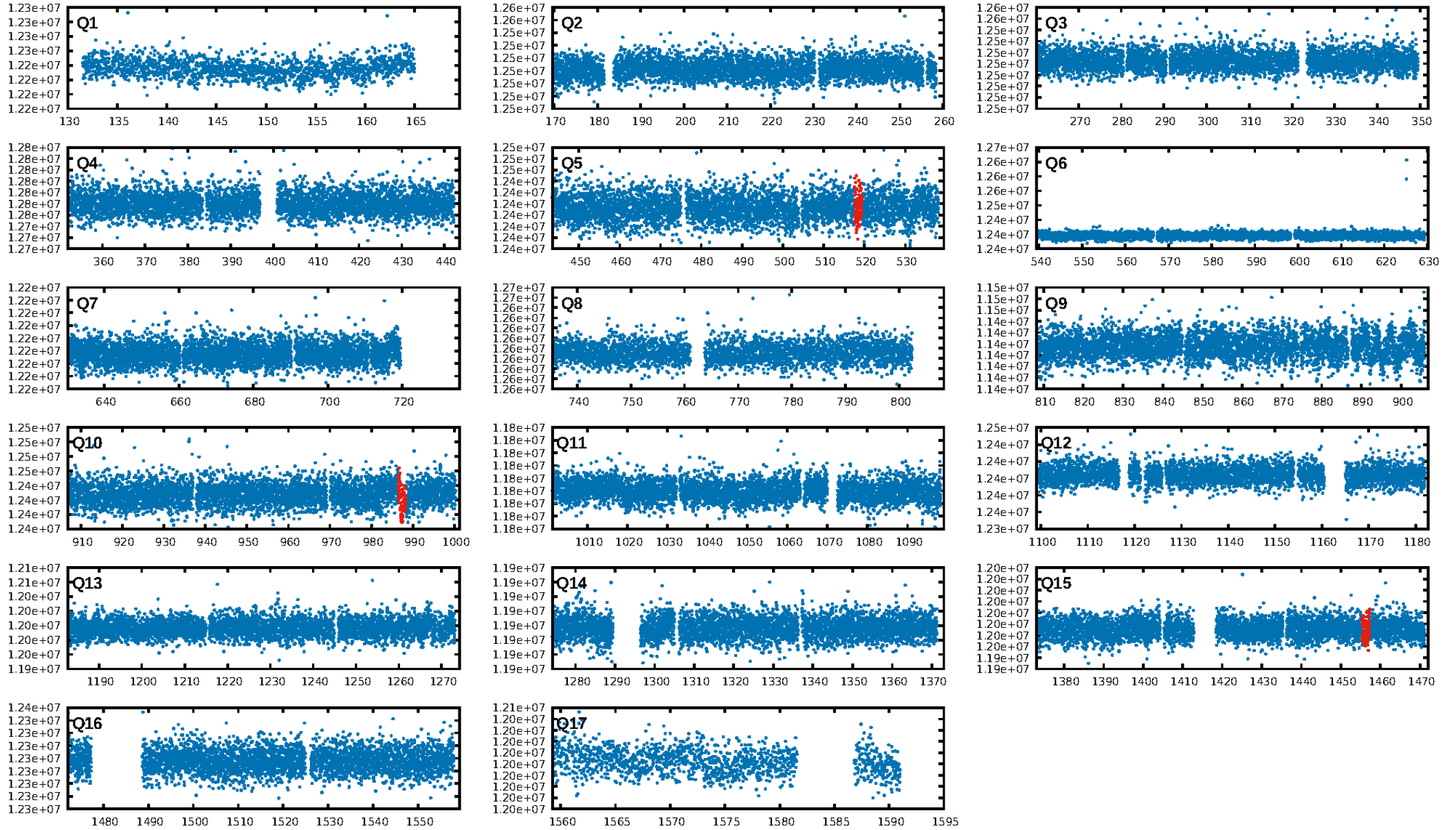
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 1.4%
ModelChiSquareGoF-sig: 99.6%
Bootstrap-pfa: 4.60e-14
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -3.817
Centroid-sig: 33.8%
Centroid-so: 1.344 arcsec [0.94σ]
OotOffset-rm: 2.448 arcsec [10.65σ]
KicOffset-rm: 2.461 arcsec [10.73σ]
OotOffset-st: 1/0/0/0 [1]
KicOffset-st: 1/0/0/0 [1]
DiffImageQuality-fgm: 1.00 [1/1]
DiffImageOverlap-fno: 1.00 [3/3]

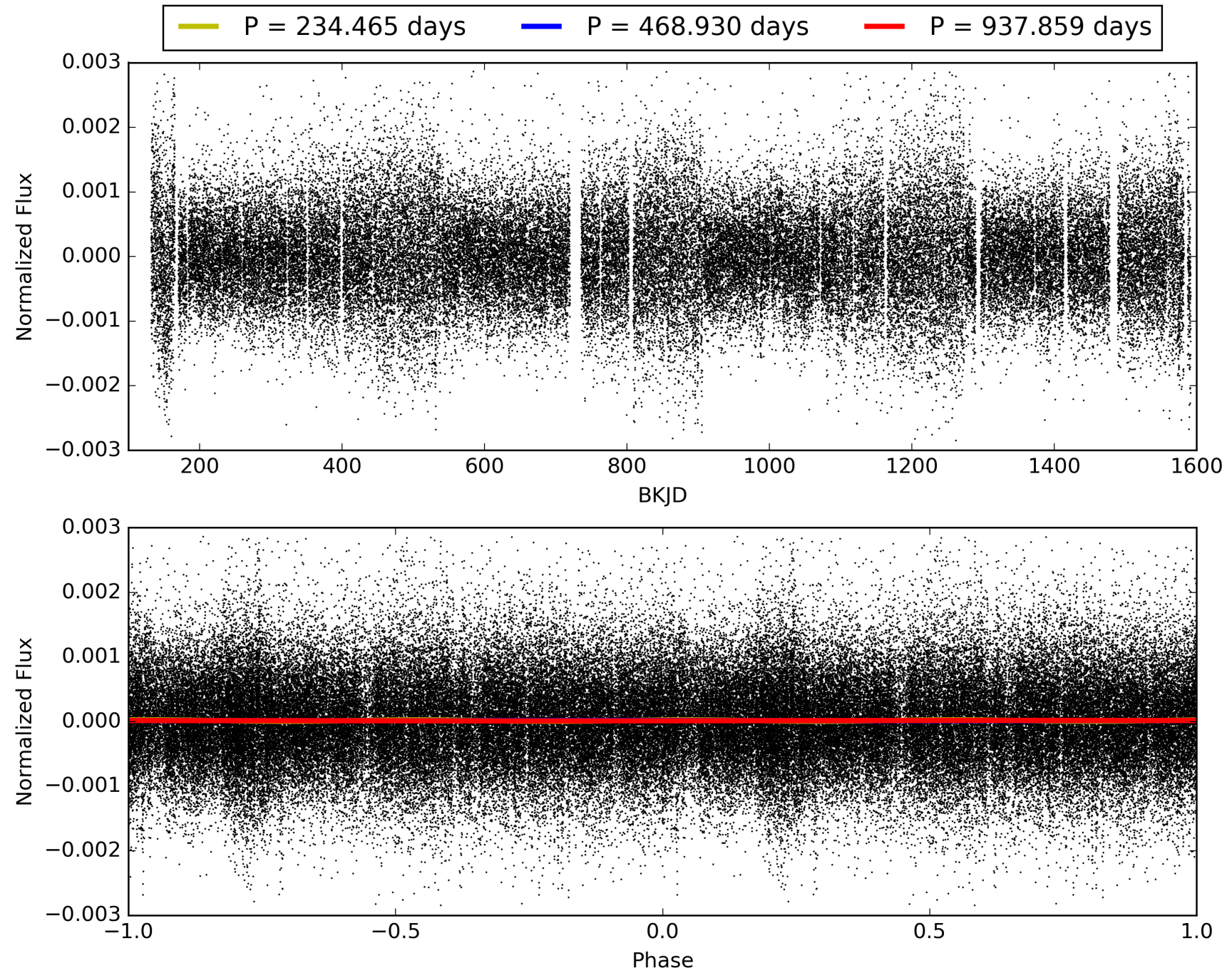
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 20:15:30 Z

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

TCE 011807302-01, PDC Light Curves

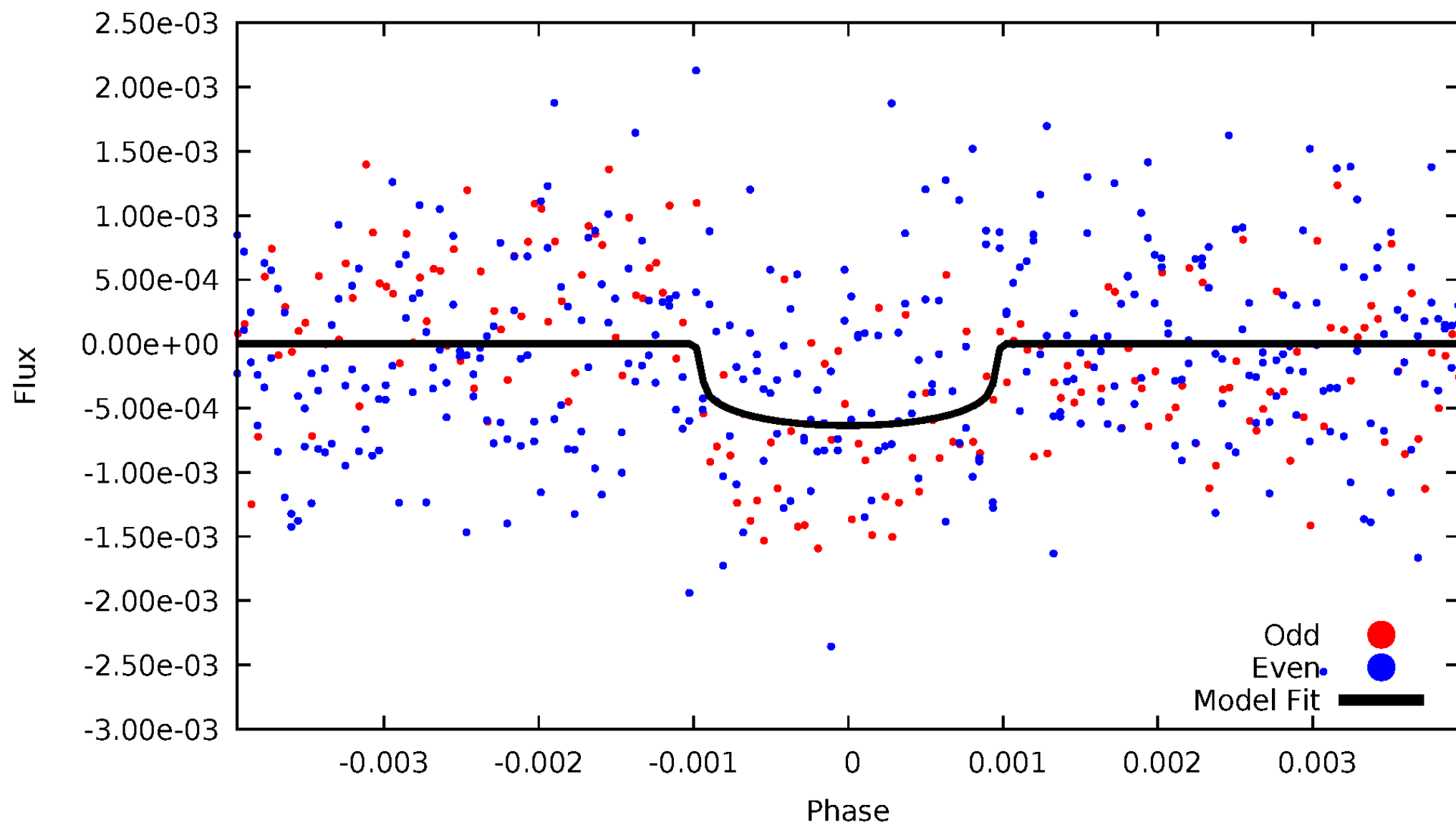


TCE 011807302-01



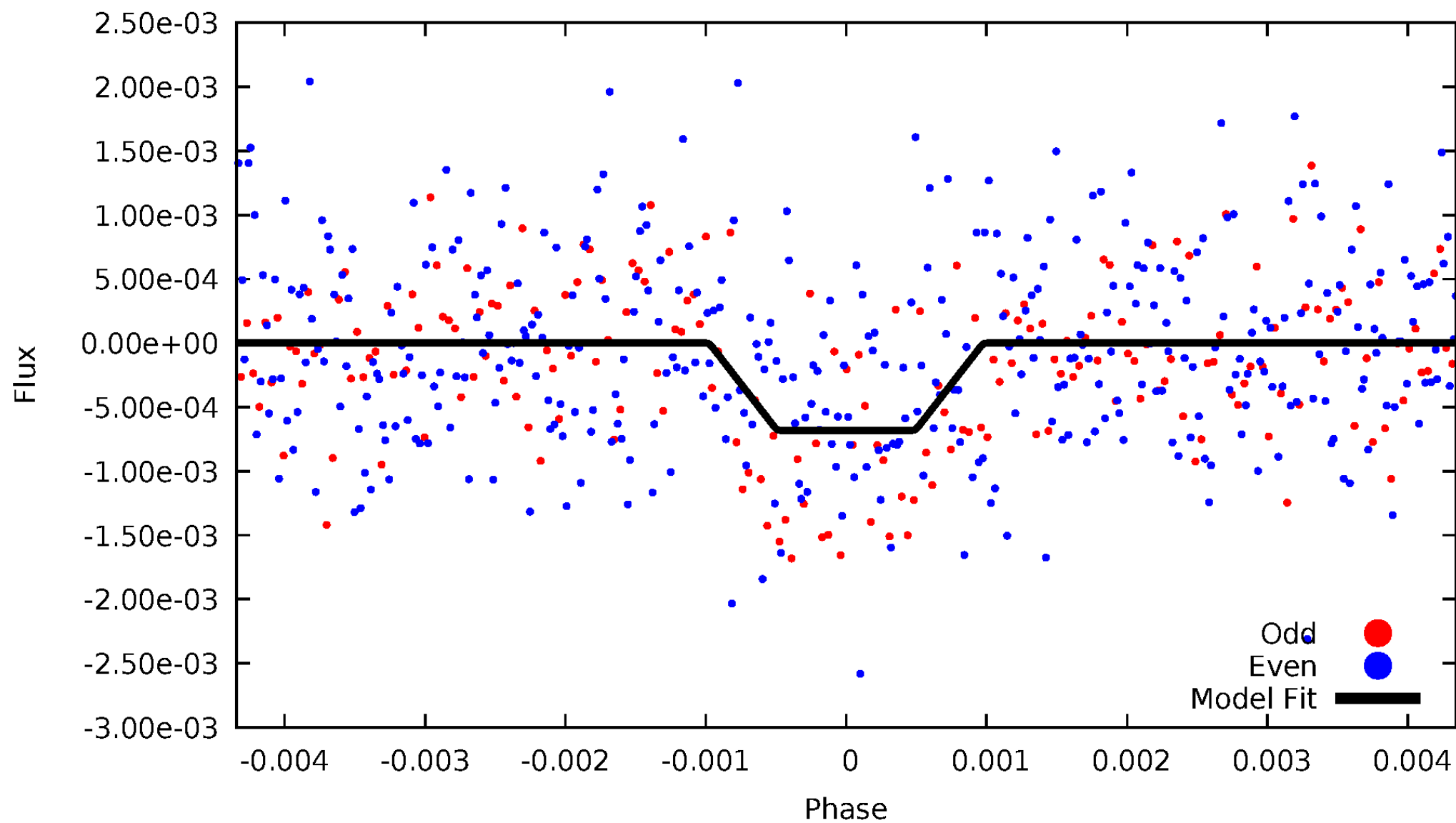
DV Odd/Even

TCE 011807302-01

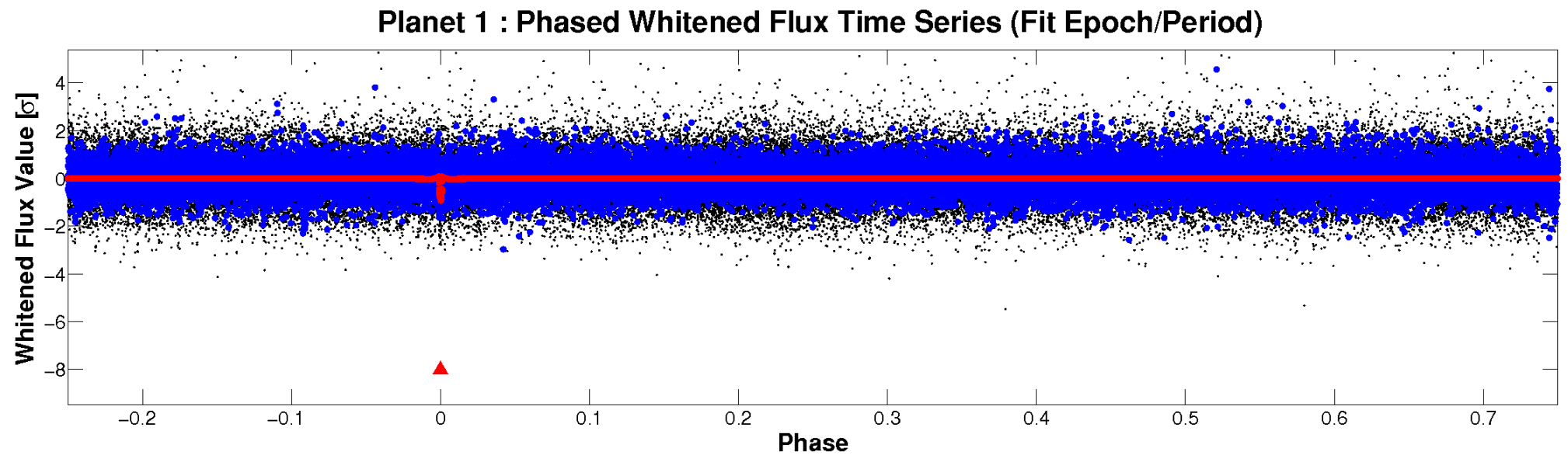
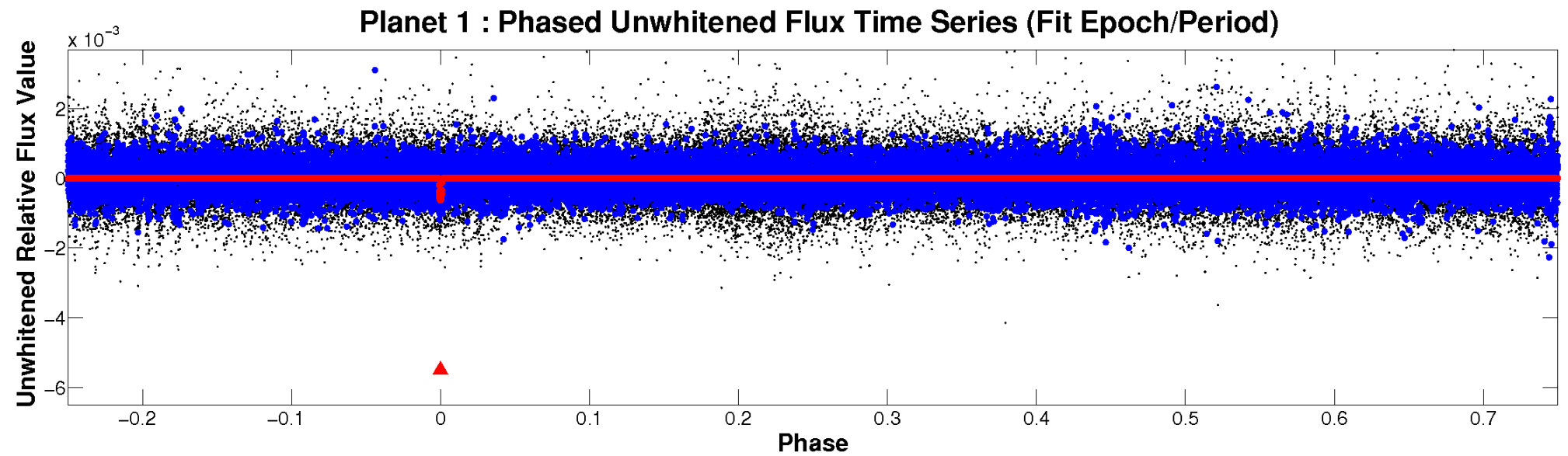


ALT Odd/Even

TCE 011807302-01

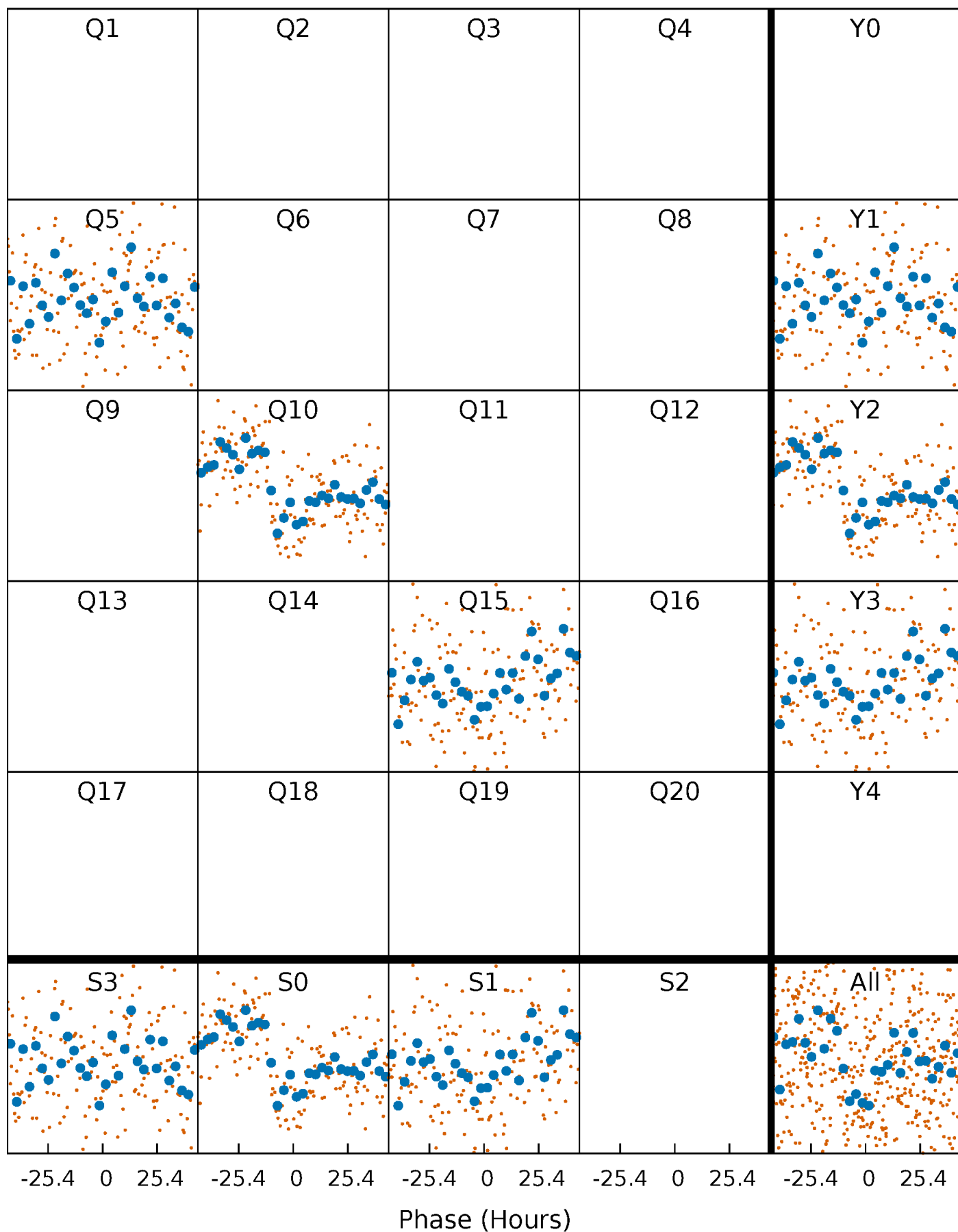


Non-Whitened Vs. Whitened Light Curve



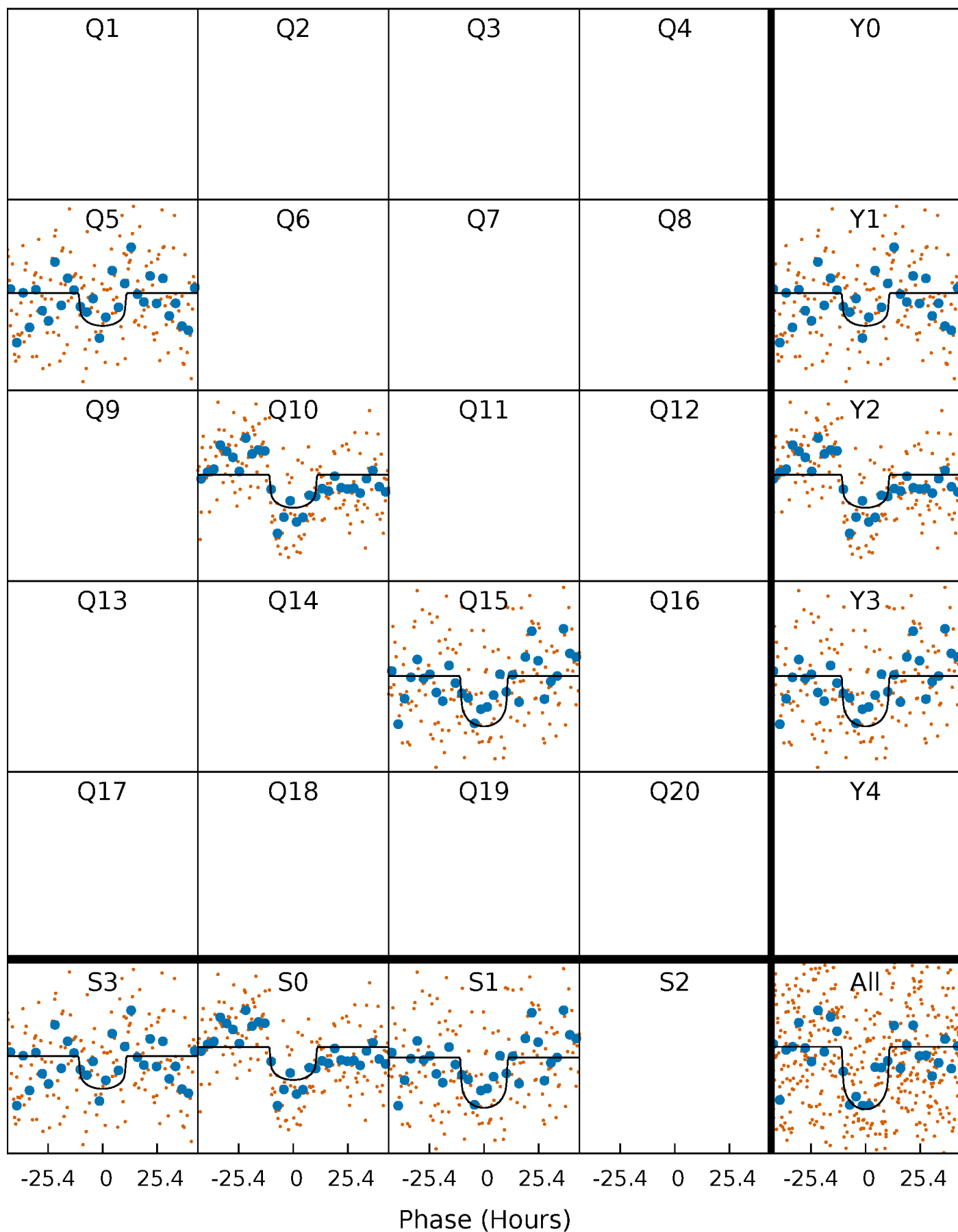
PDC Quarter-Phased Transit Curves

TCE 011807302-01 P=468.929707 Days $T_0=518.454942$ (BKJD)



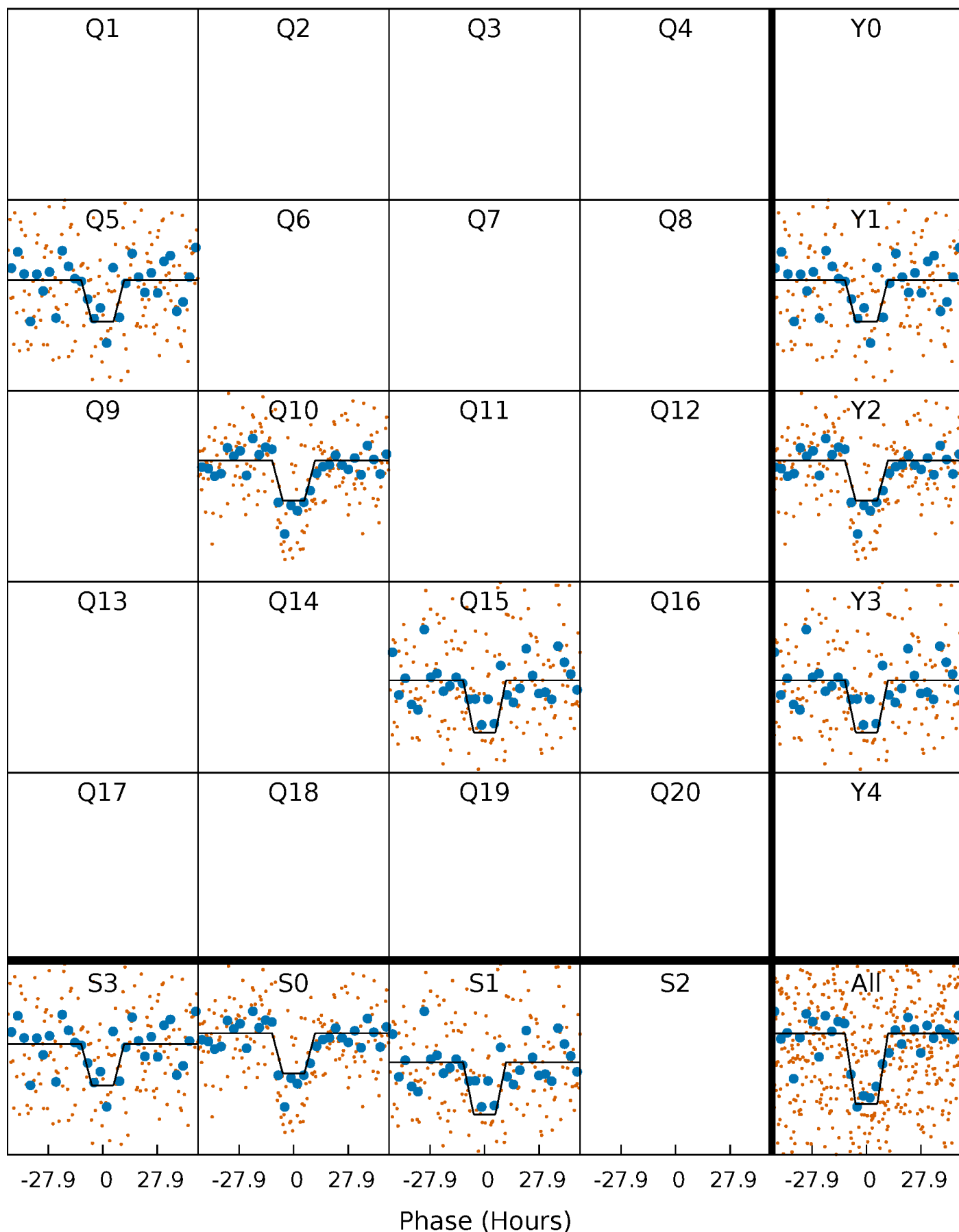
DV Quarter-Phased Transit Curves

TCE 011807302-01 P=468.929707 Days $T_0=518.454942$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

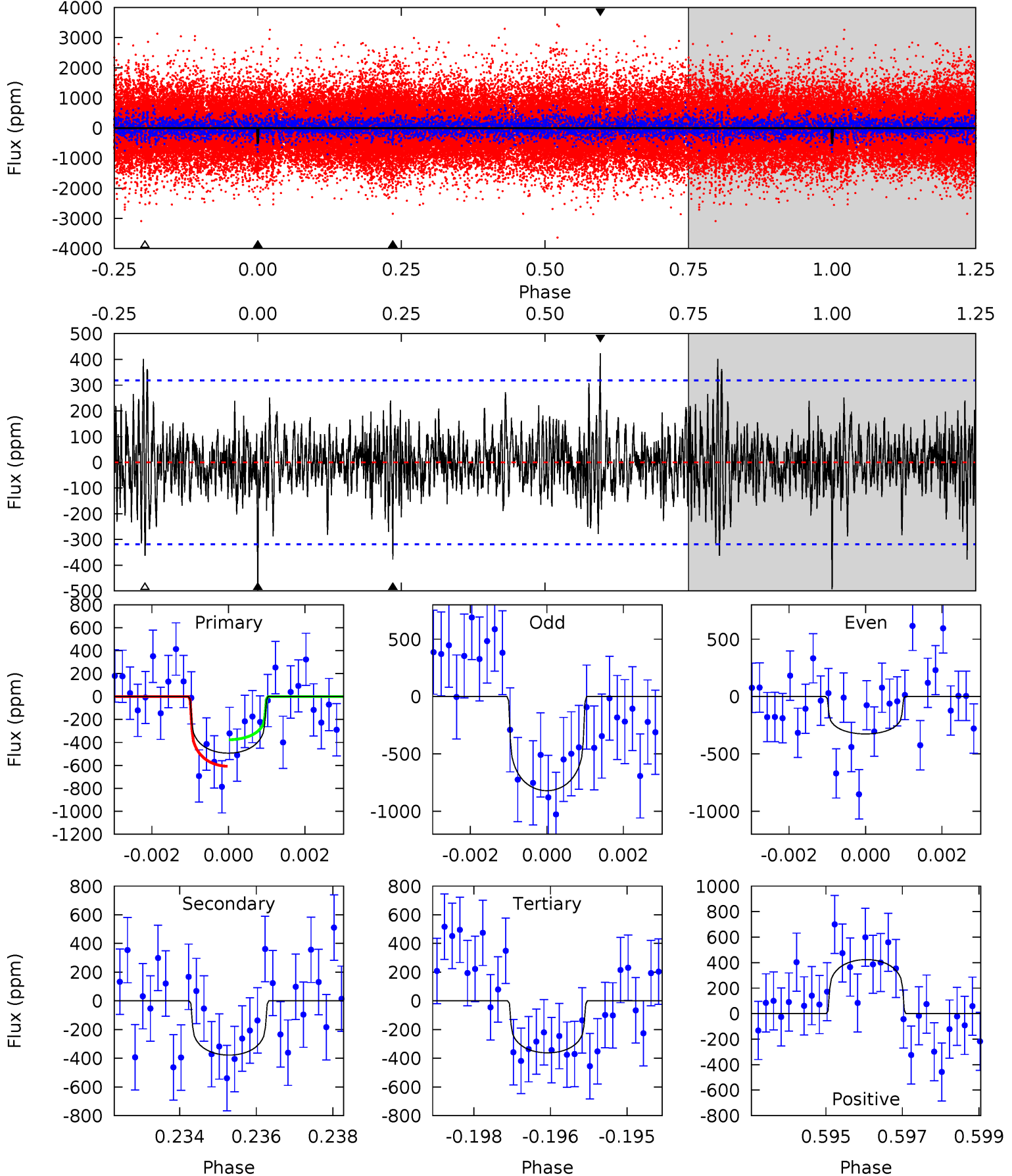
TCE 011807302-01 P=468.957013 Days $T_0=518.355216$ (BKJD)



DV Model-Shift Uniqueness Test

011807302-01, $P = 468.929707$ Days, $E = 49.525235$ Days

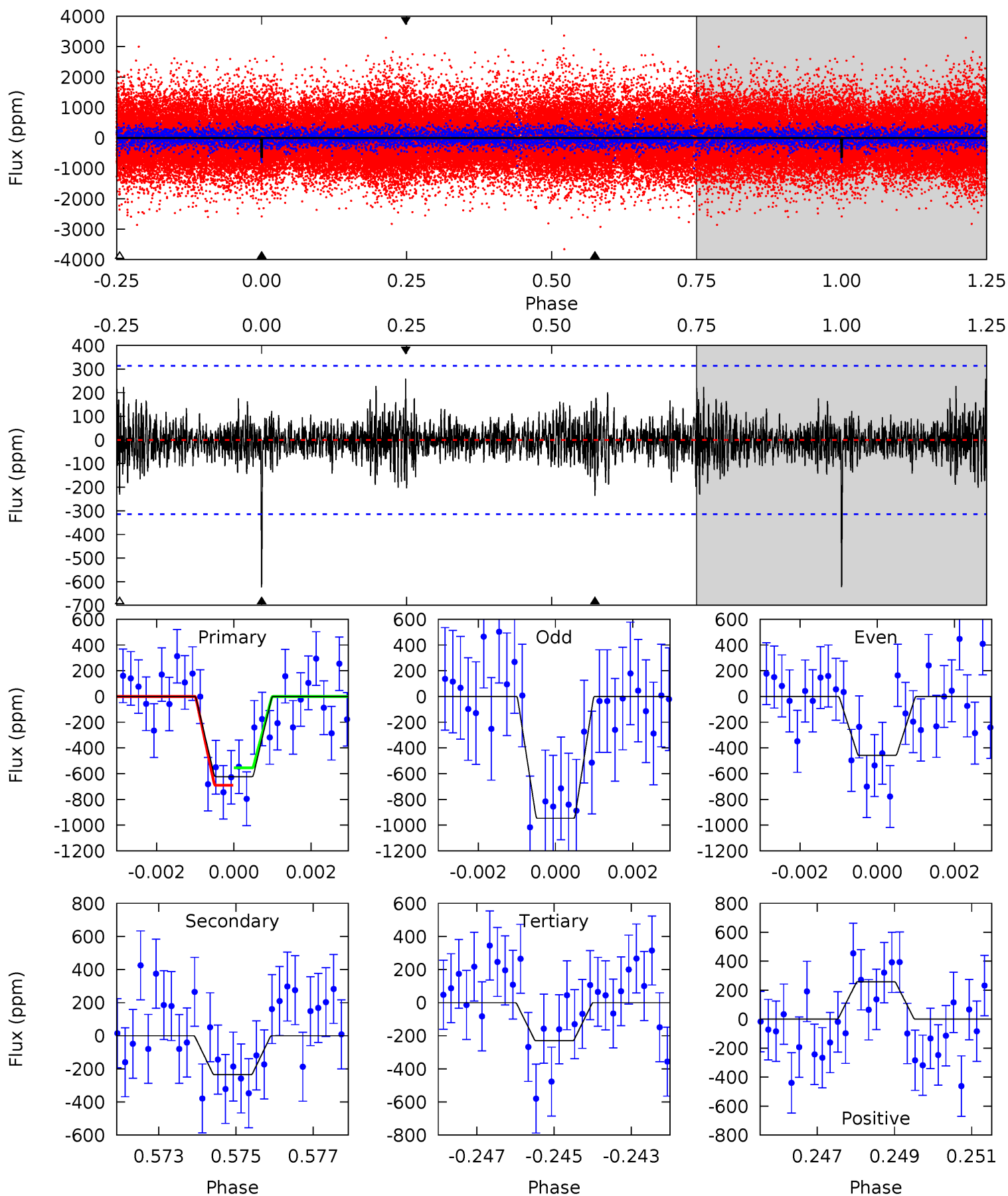
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.26	6.33	6.06	7.09	5.33	3.10	1.52	2.19	1.17	0.26	-0.76	3.92	1.32	0.46	1.94



Alt Model-Shift Uniqueness Test

011807302-01, P = 468.957013 Days, E = 49.398203 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.6	3.99	3.91	4.39	5.33	3.09	1.01	6.65	6.17	0.08	-0.40	3.93	1.10	0.29	1.15



Stellar Parameters For KIC 011807302

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5841^{+162}_{-223}	$4.520^{+0.036}_{-0.204}$	$0.070^{+0.250}_{-0.300}$	$0.931^{+0.273}_{-0.091}$	$1.047^{+0.112}_{-0.137}$	$1.828^{+0.365}_{-0.941}$
	+3%/-4%	+1%/-5%	+357%/-429%	+29%/-10%	+11%/-13%	+20%/-51%
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 011807302-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-378 ± 60	$2.57^{+1.21}_{-1.18}$	325^{+27}_{-16}	5293^{+1958}_{-781}	$44362^{+112207}_{-24058}$
Alt.	-235 ± 59	$2.84^{+1.20}_{-1.07}$	325^{+20}_{-17}	4534^{+1049}_{-547}	21706^{+34010}_{-11213}

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

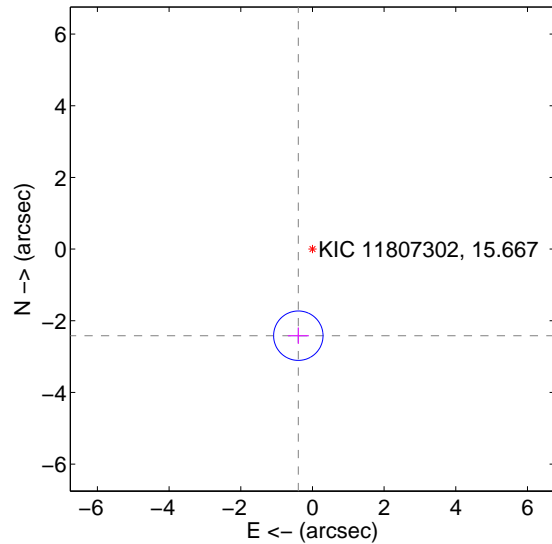
Supplemental centroid analysis for 011807302-01. Kepler magnitude: 15.67. Transit SNR 8.27

There are 1 quarters with good PRF difference image offsets

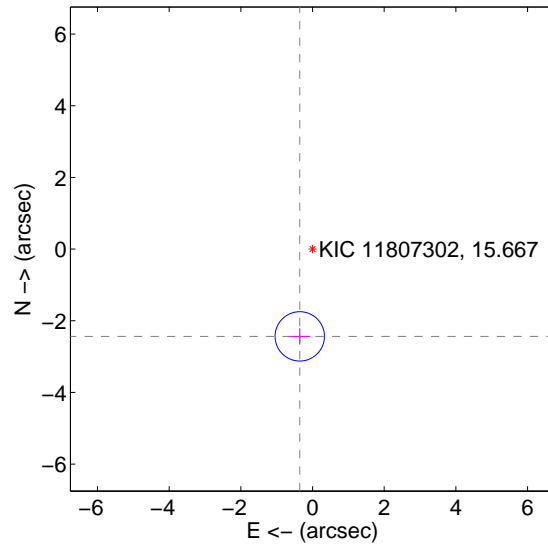
The direct PRF centroid is offset from the target star catalog position by about 0.04 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.448 ± 0.230	10.65	0.394 ± 0.292	-2.416 ± 0.228
PRF-fit source offset from KIC position	2.461 ± 0.229	10.73	0.356 ± 0.292	-2.436 ± 0.228
photometric centroid source offset	1.34 ± 1.43	0.94	0.04 ± 1.56	-1.34 ± 1.43

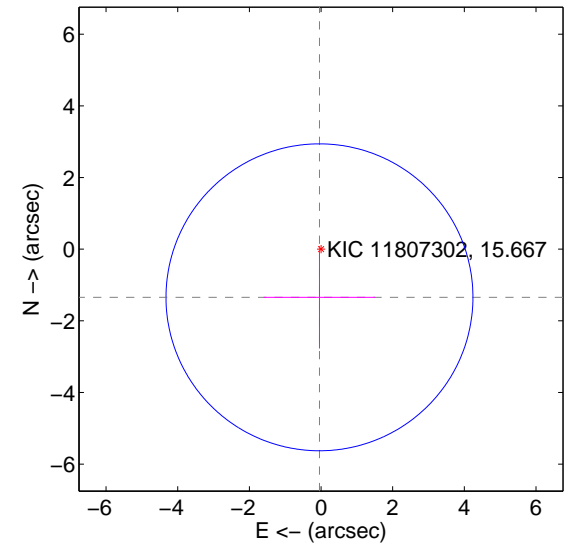
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position



offset from photometric centroids

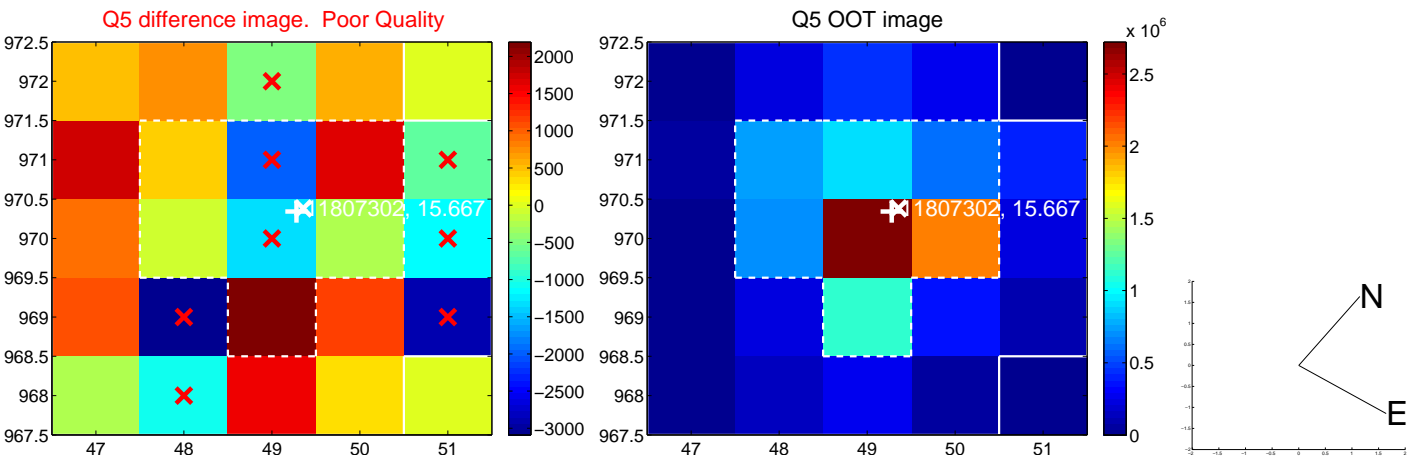


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

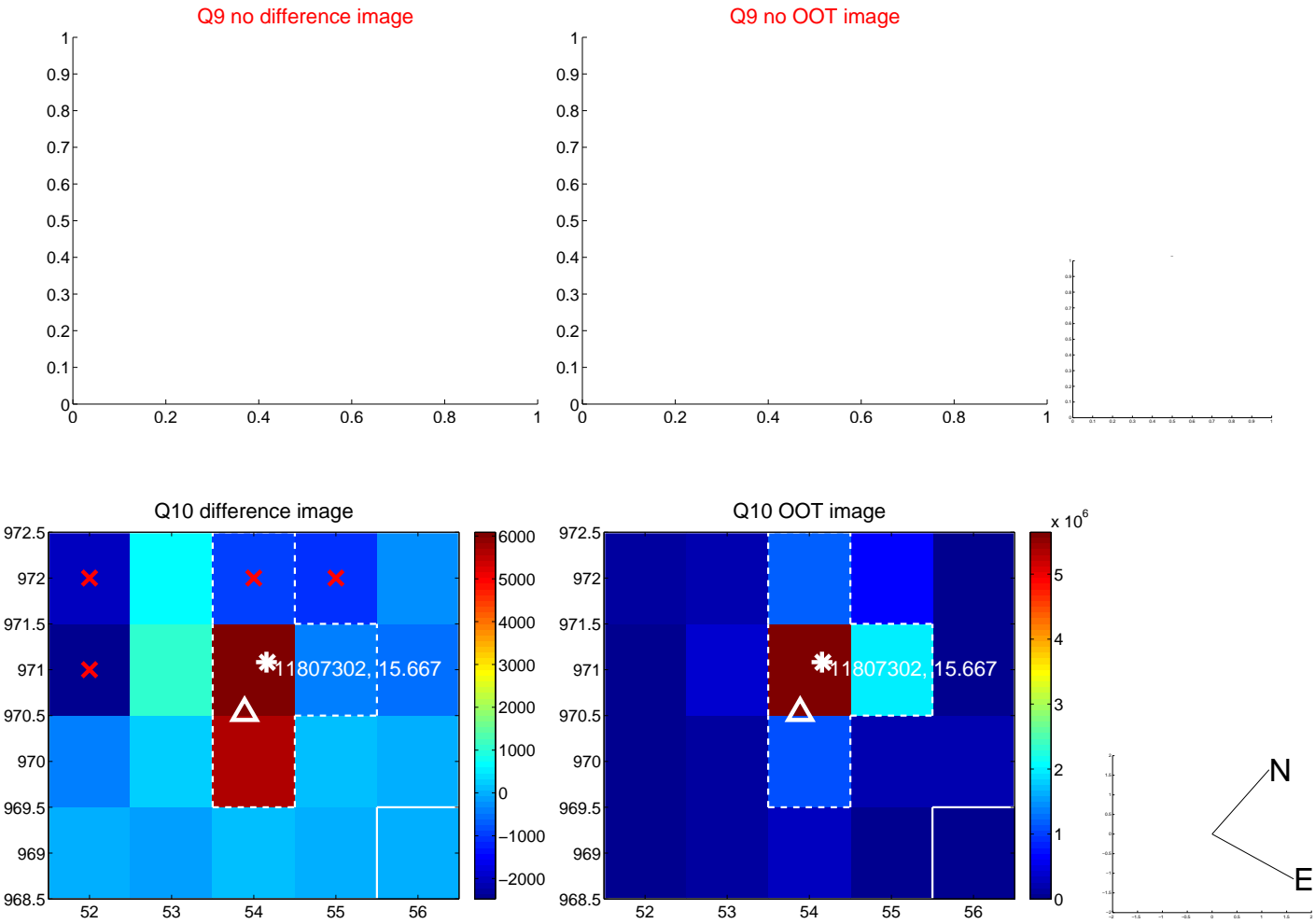
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



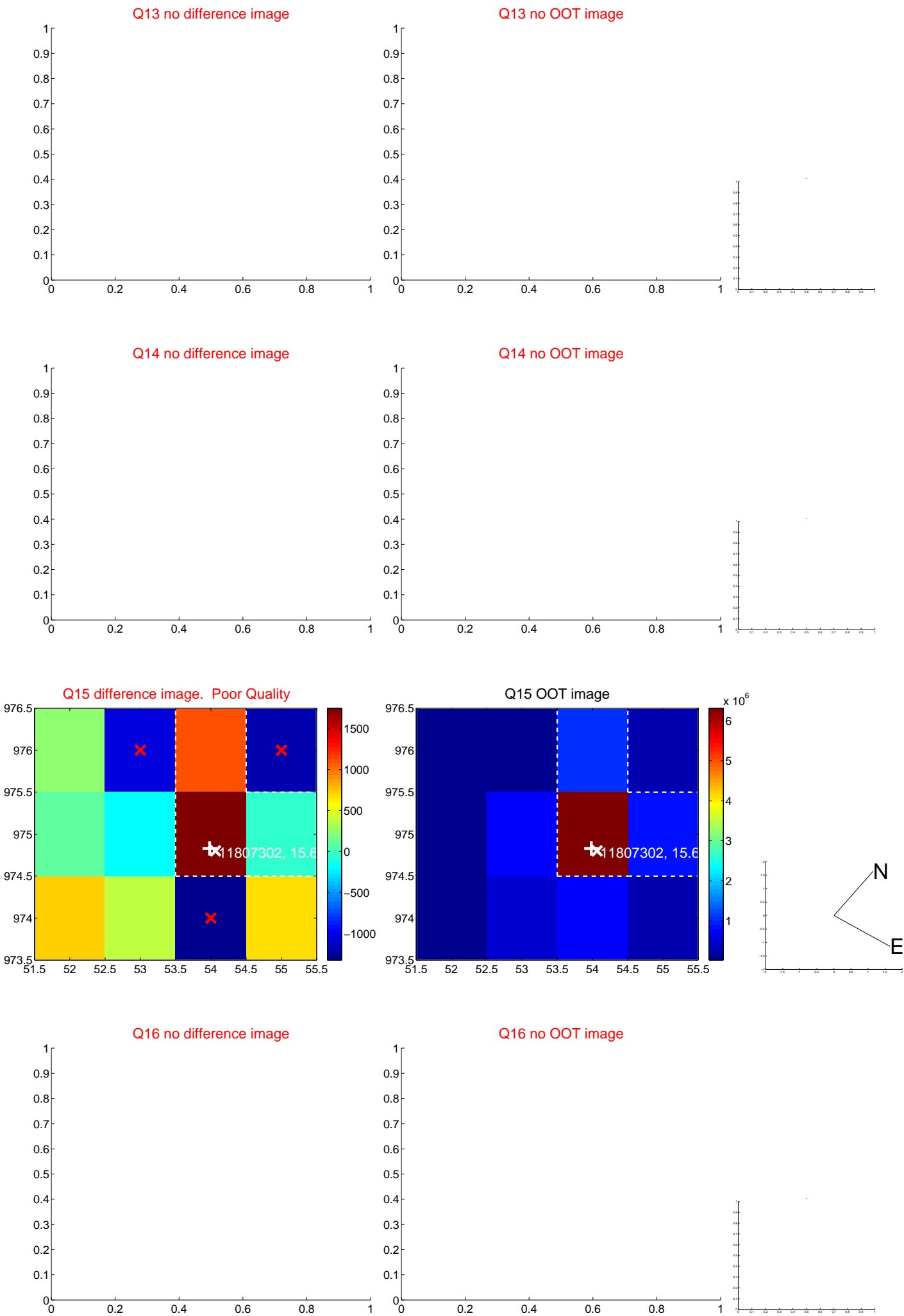
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



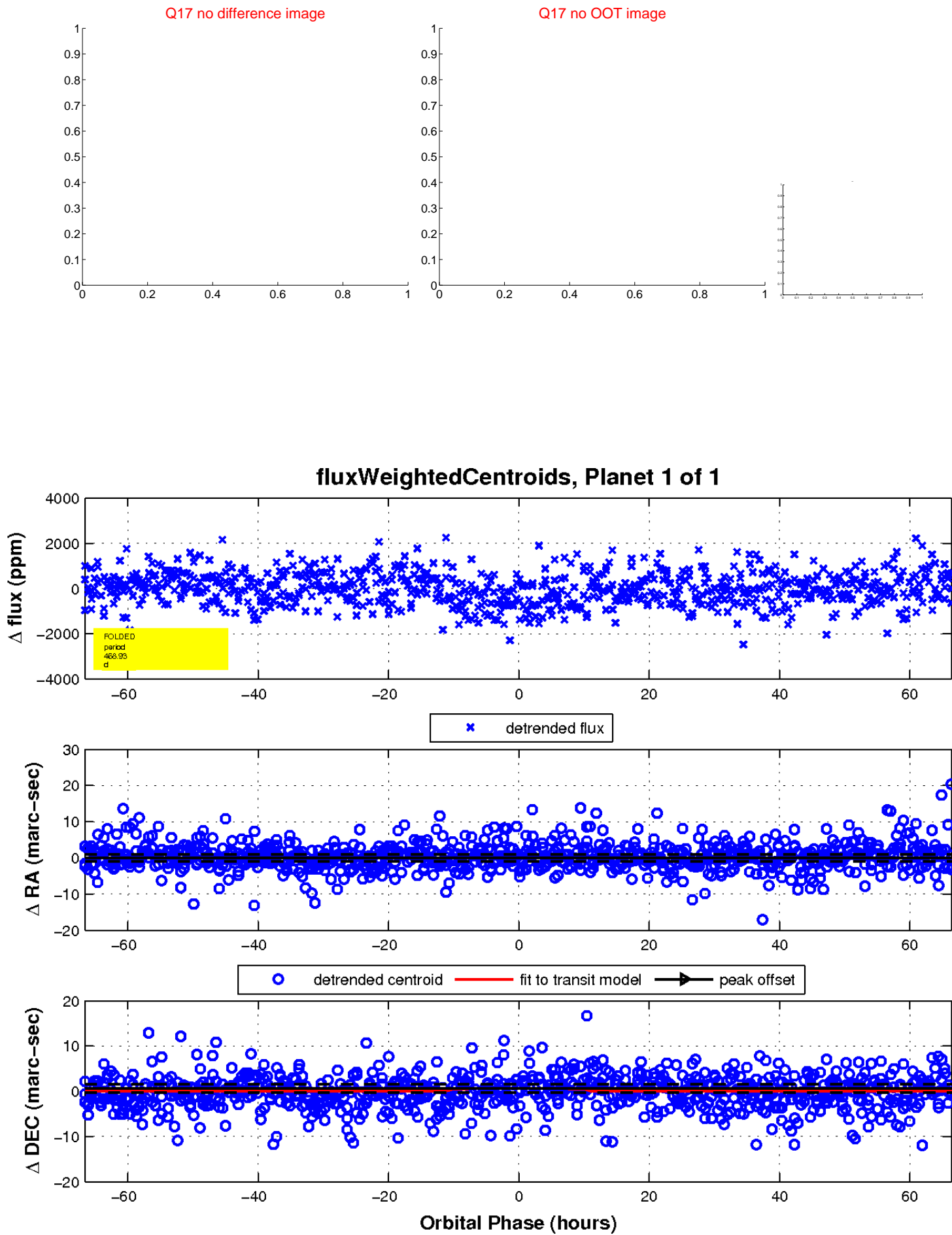
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white ×: 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.



UKIRT Image

Declination

