

KIC 005526717

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})
005526717-01	OBS	1677.01	52.069050	178.154099	560.2	3.213	21.9	25.0	1.25	5565	3.44	17.80

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005526717-01	OBS	PC	0.99	0	0	0	0	NO_COMMENT

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

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

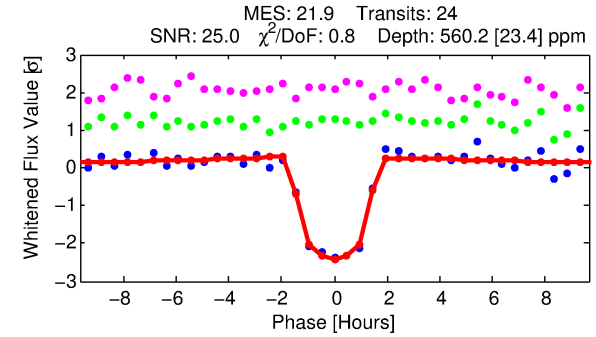
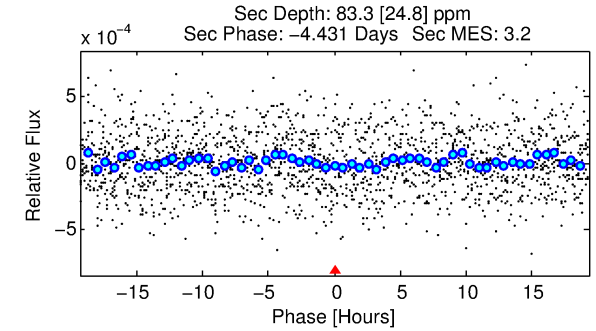
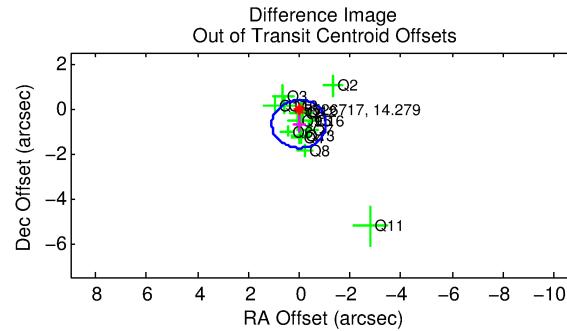
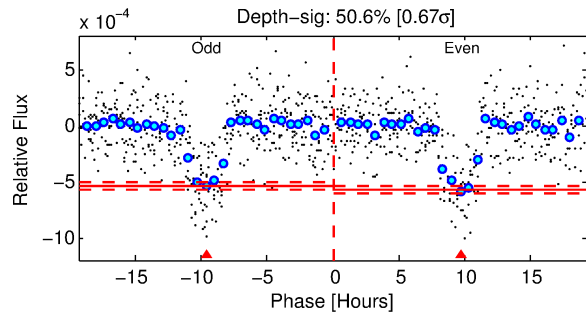
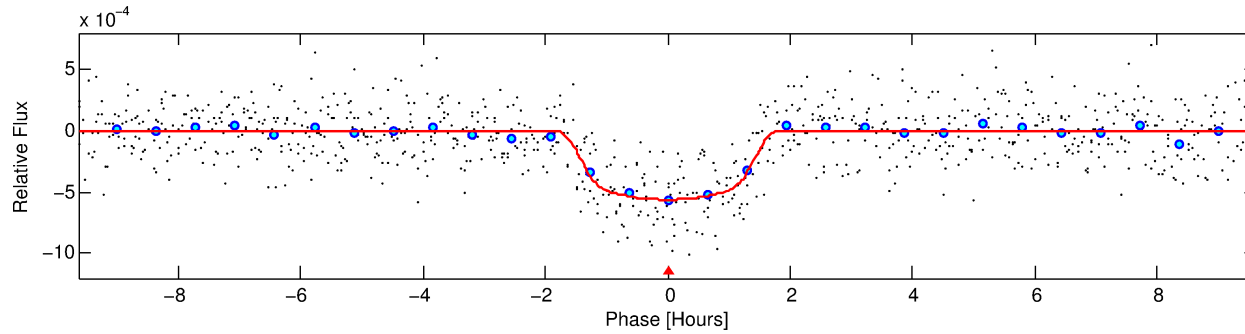
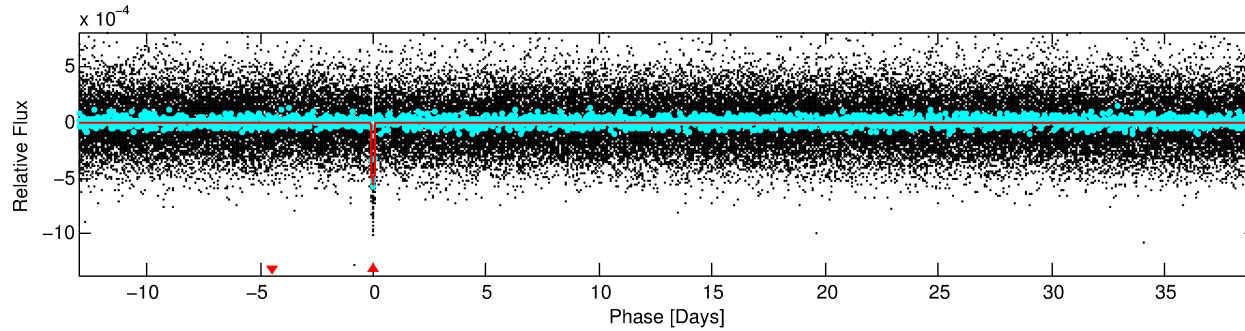
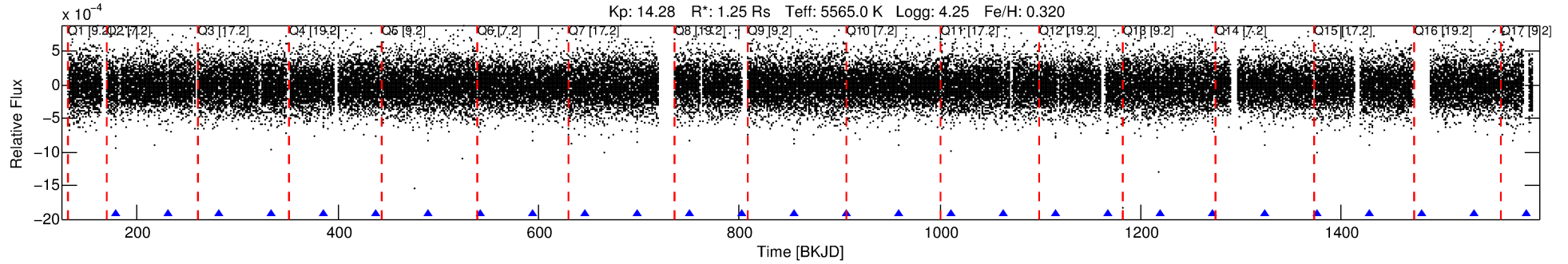
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005526717-01

No Significant Match Found

DV One-Page Summary

KIC: 5526717 Candidate: 1 of 1 Period: 52.069 d
KOI: K01677.01 Corr: 0.974



DV Fit Results:

Period = 52.06905 [0.00019] d
Epoch = 178.1541 [0.0027] BKJD
Rp/R* = 0.0253 [0.0050]
a/R* = 67.46 [54.74]
b = 0.87 [0.23]
Seff = 17.80 [4.70]
Teq = 524 [35] K
Rp = 3.44 [0.91] Re
a = 0.2738 [0.0448] AU
Ag = 290.11 [161.12] [1.79 σ]
Teffp = 3342 [414] K [6.78 σ]

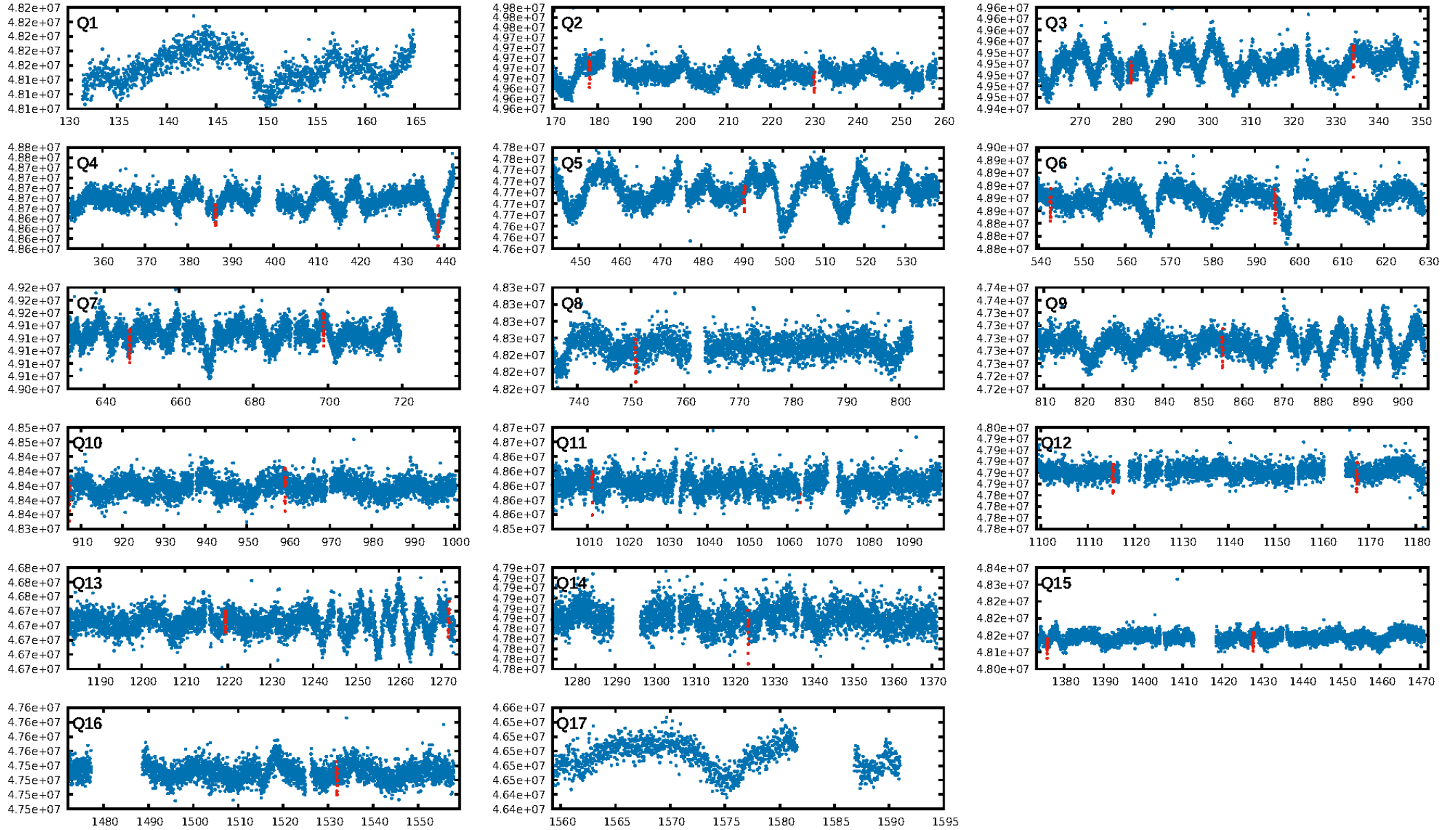
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 80.6%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.25e-107
RollingBand-fgt: 1.00 [24/24]
GhostDiagnostic-chr: 4.081
Centroid-sig: 0.0%
Centroid-so: 1.629 arcsec [2.86 σ]
OotOffset-rm: 0.690 arcsec [1.94 σ]
KicOffset-rm: 0.839 arcsec [2.29 σ]
OotOffset-st: 4/4/4/3 [15]
KicOffset-st: 4/4/4/3 [15]
DiffImageQuality-fgm: 0.93 [14/15]
DiffImageOverlap-fno: 1.00 [15/15]

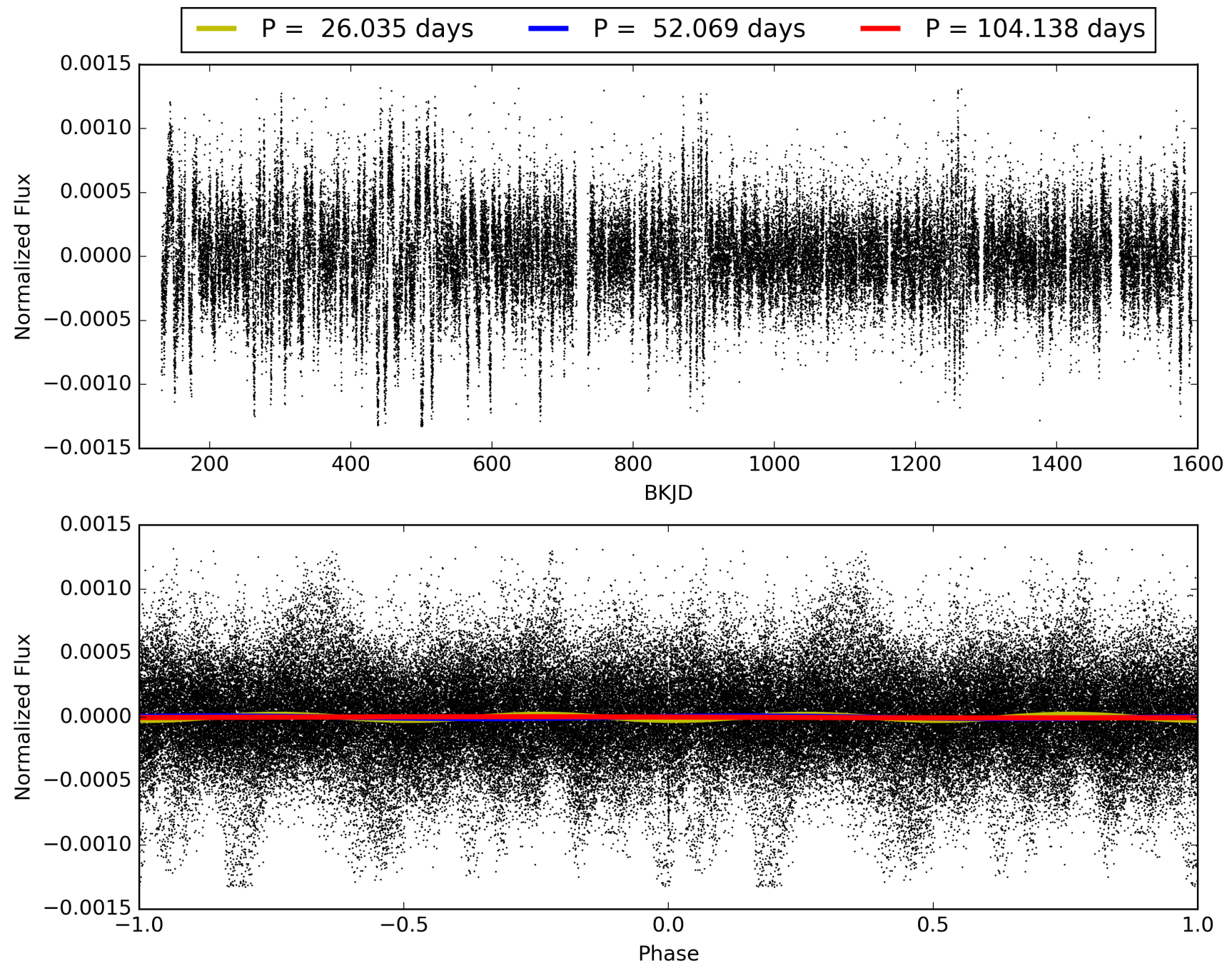
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 14:17:13 Z

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

TCE 005526717-01, PDC Light Curves

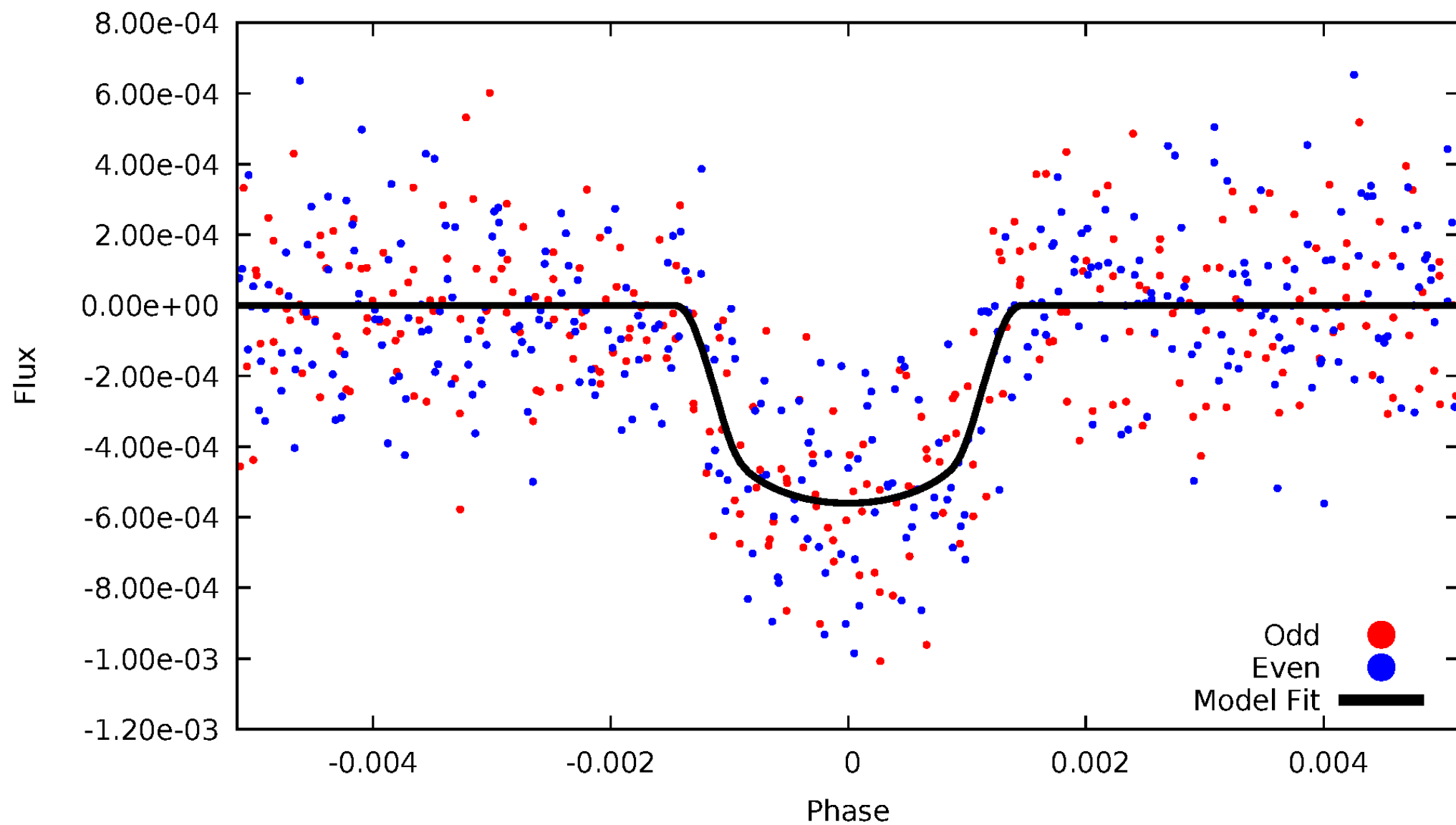


TCE 005526717-01



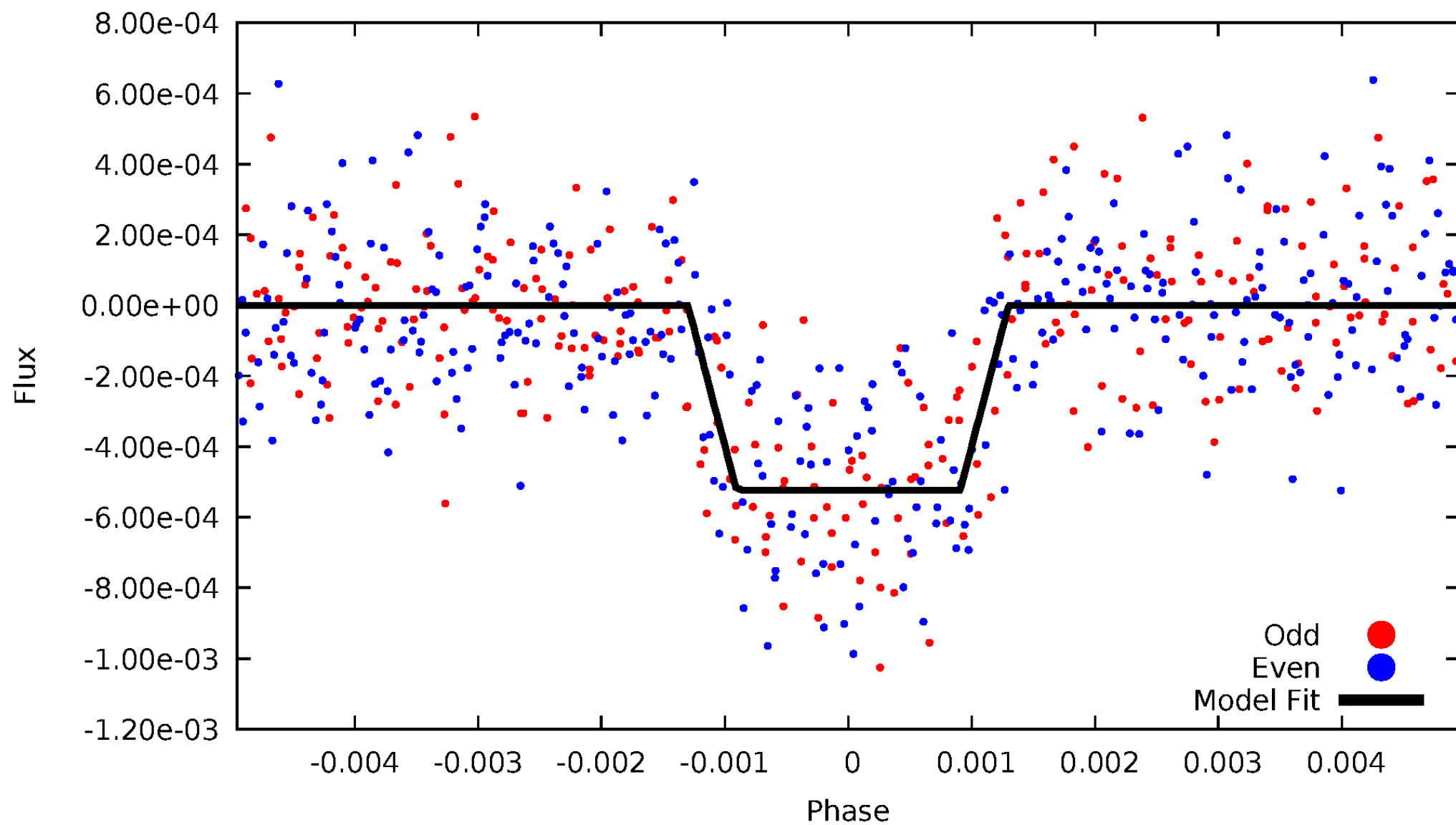
DV Odd/Even

TCE 005526717-01



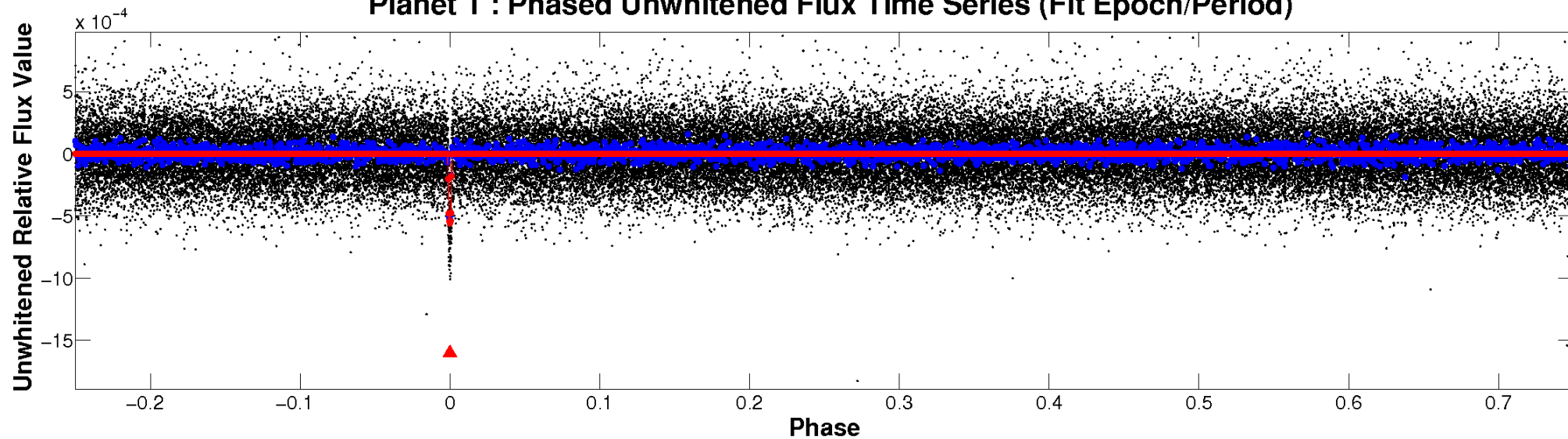
ALT Odd/Even

TCE 005526717-01

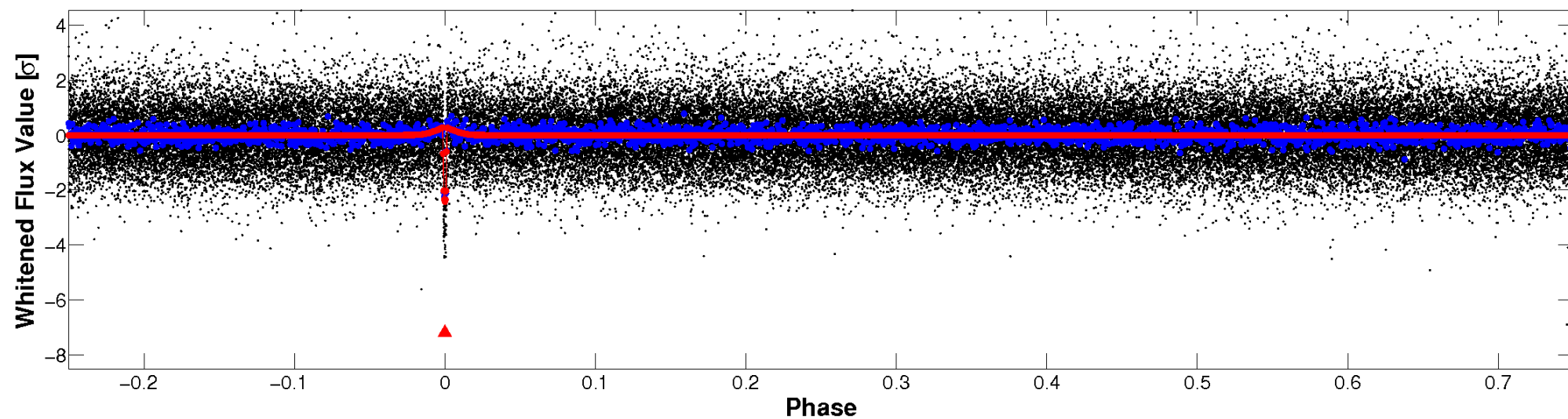


Non-Whitened Vs. Whitened Light Curve

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

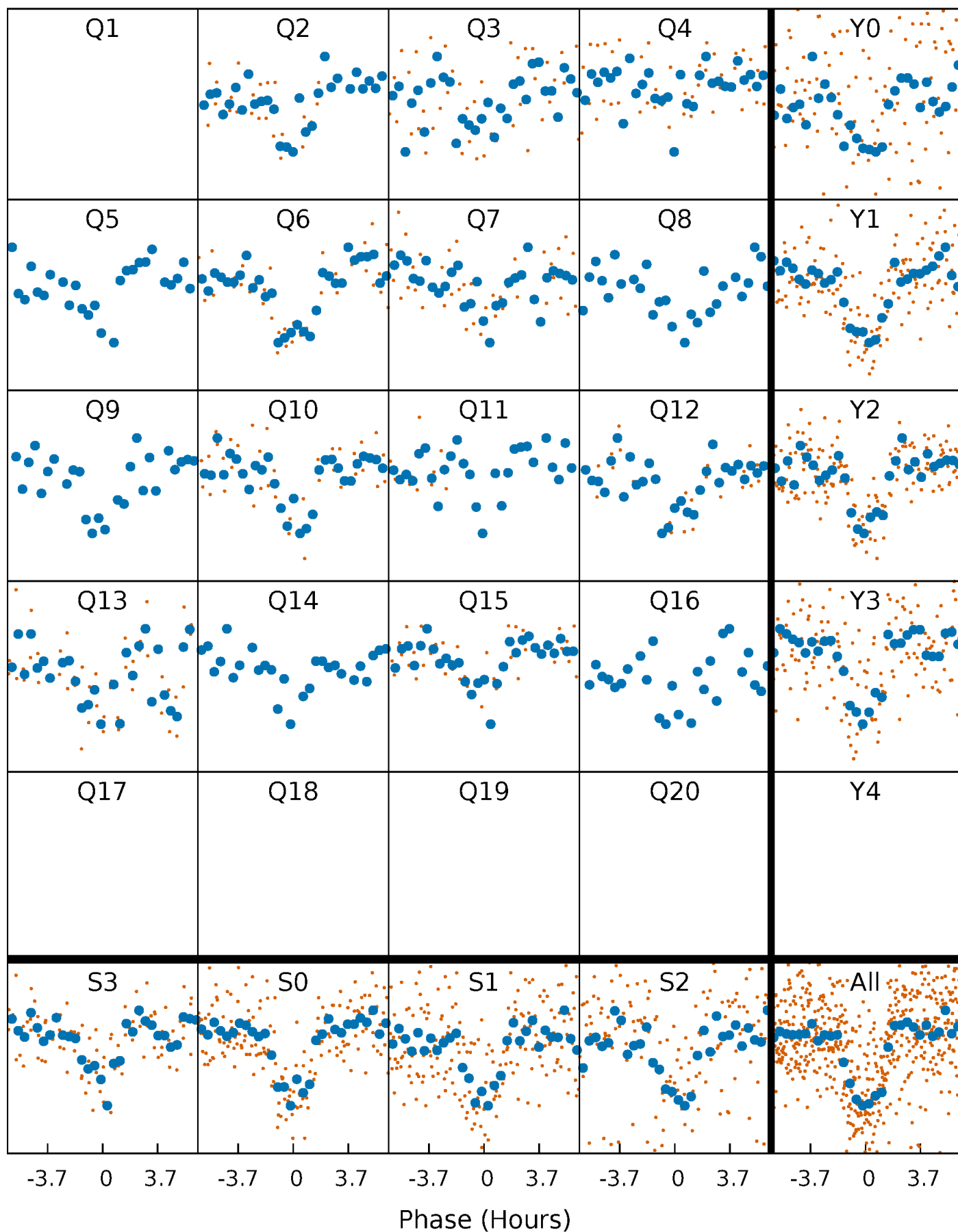


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



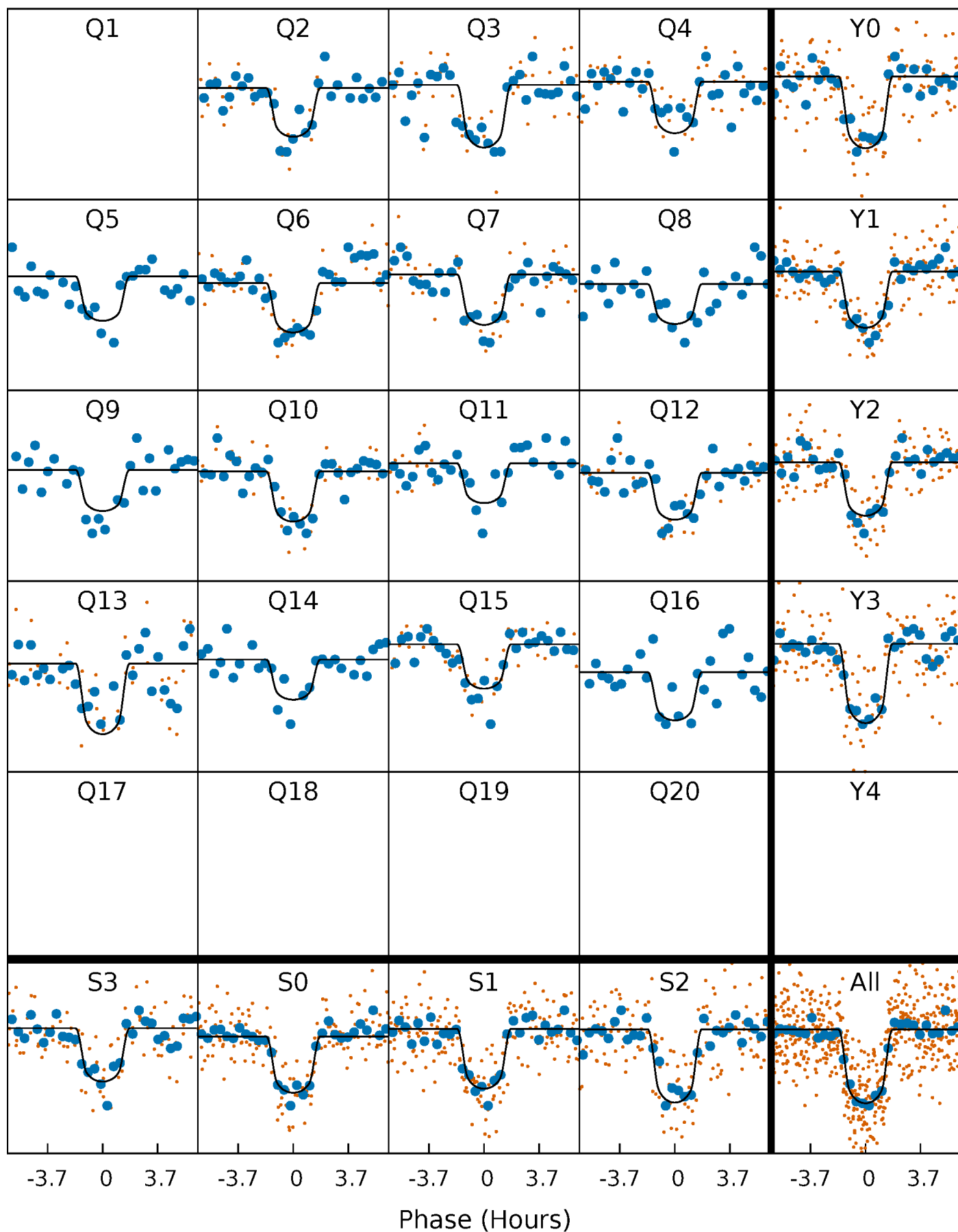
PDC Quarter-Phased Transit Curves

TCE 005526717-01 P= 52.069050 Days $T_0=178.154099$ (BKJD)



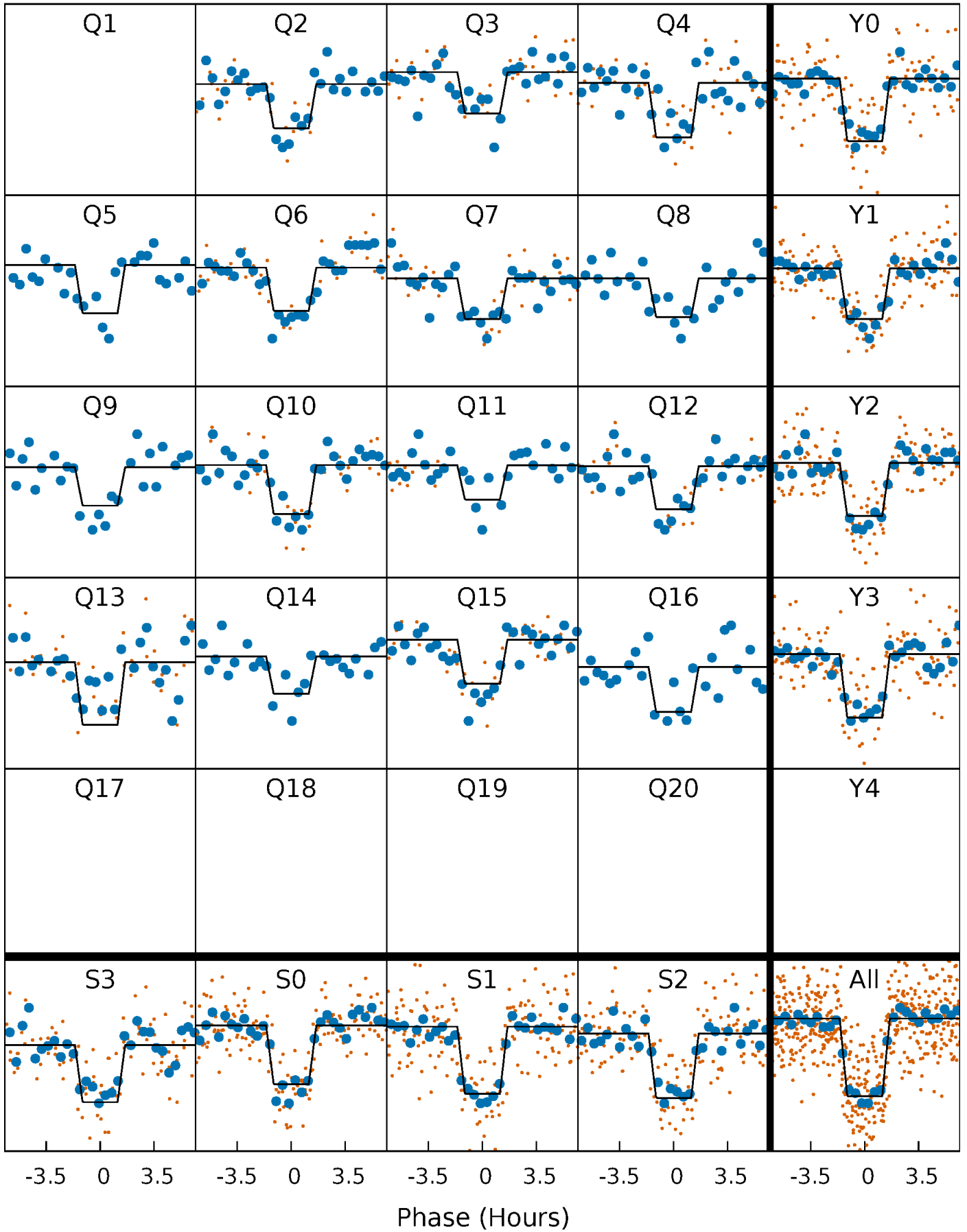
DV Quarter-Phased Transit Curves

TCE 005526717-01 P= 52.069050 Days $T_0=178.154099$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

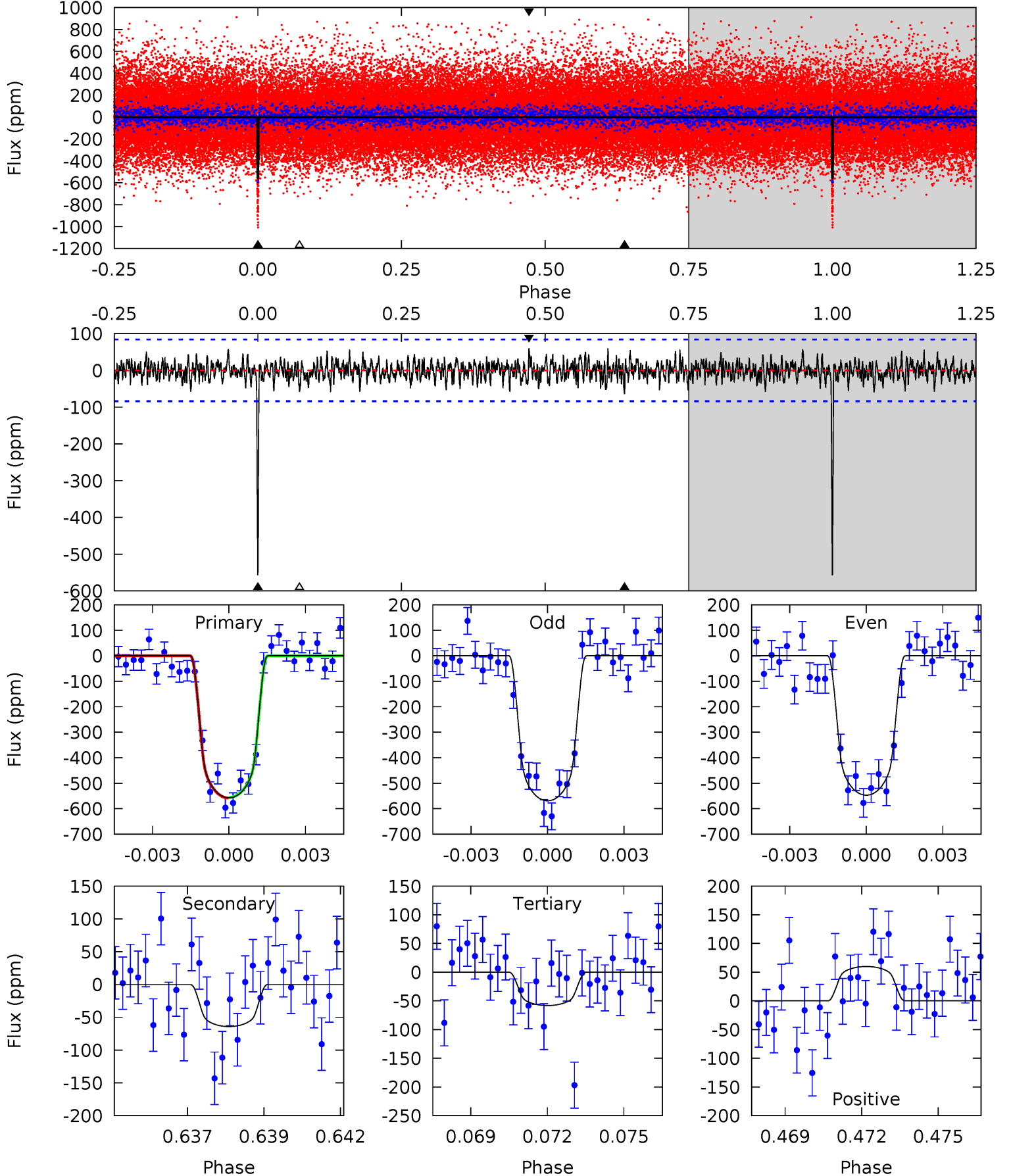
TCE 005526717-01 P= 52.069085 Days $T_0=178.153945$ (BKJD)



DV Model-Shift Uniqueness Test

005526717-01, P = 52.069050 Days, E = 126.085049 Days

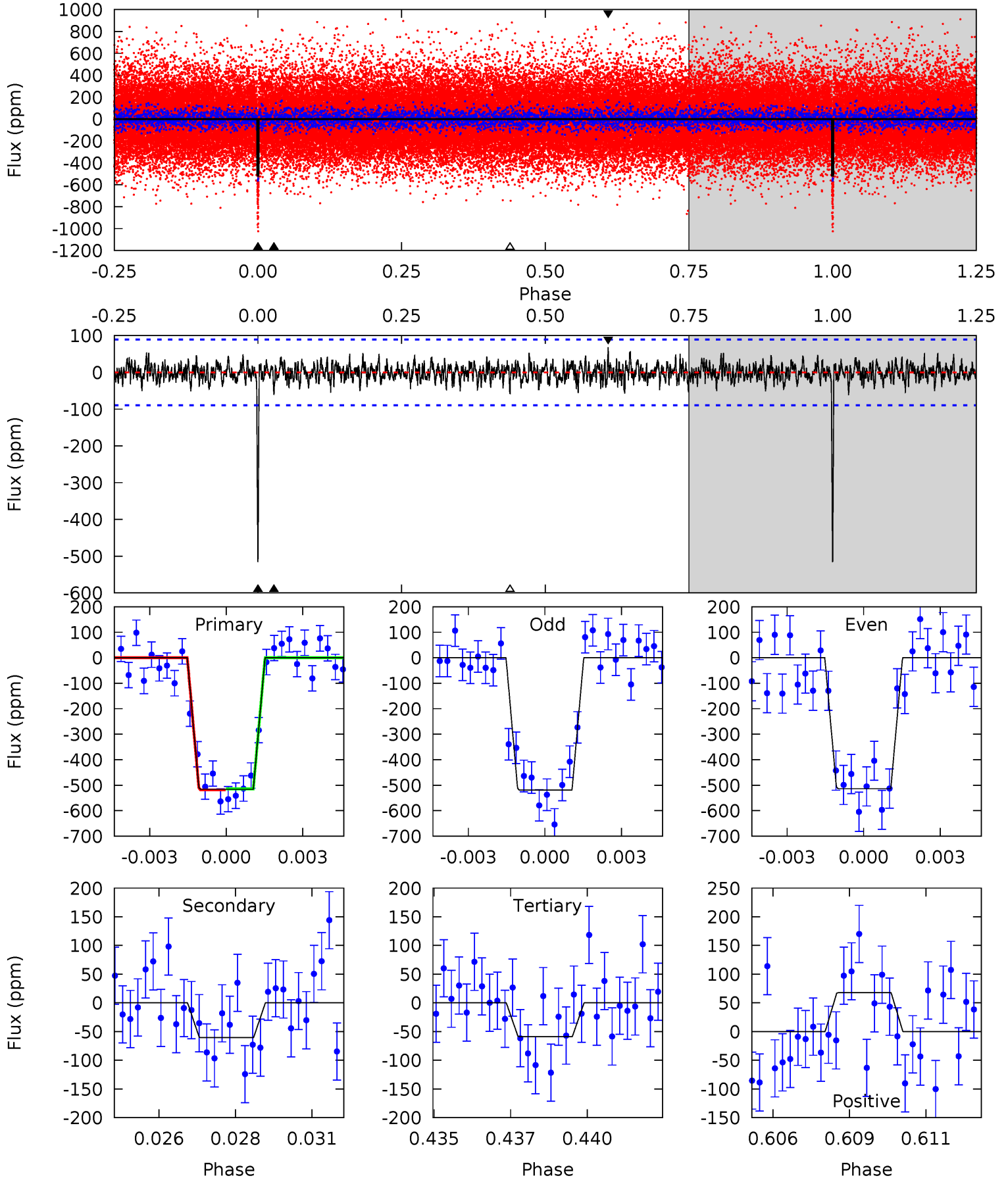
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
34.9	4.02	3.64	3.75	5.26	2.98	1.24	31.3	31.1	0.38	0.27	0.69	0.98	0.10	0.09



Alt Model-Shift Uniqueness Test

005526717-01, P = 52.069085 Days, E = 126.084860 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
30.6	3.59	3.49	4.01	5.28	3.02	1.09	27.1	26.5	0.10	-0.43	0.16	0.99	0.12	0.12



Stellar Parameters For KIC 005526717

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5565^{+75}_{-83}	$4.251^{+0.149}_{-0.108}$	$0.320^{+0.150}_{-0.150}$	$1.246^{+0.179}_{-0.219}$	$1.008^{+0.057}_{-0.057}$	$0.735^{+0.539}_{-0.225}$
	+1%/-1%	+4%/-3%	+47%/-47%	+14%/-18%	+6%/-6%	+73%/-31%
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 005526717-01 / KOI 1677.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-64 ± 16	$3.42^{+0.77}_{-0.74}$	732^{+30}_{-38}	3586^{+300}_{-266}	229^{+156}_{-89}
Alt.	-61 ± 17	$3.09^{+0.79}_{-0.78}$	731^{+33}_{-36}	3657^{+355}_{-287}	256^{+219}_{-107}

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

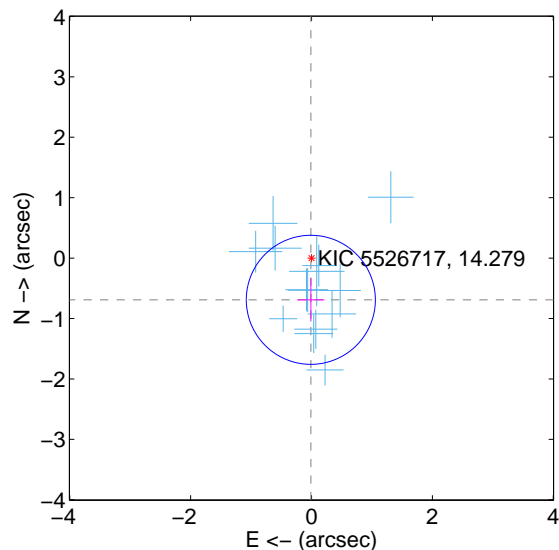
Supplemental centroid analysis for 005526717-01. Kepler magnitude: 14.28. Transit SNR 25.01

There are 14 quarters with good PRF difference image offsets

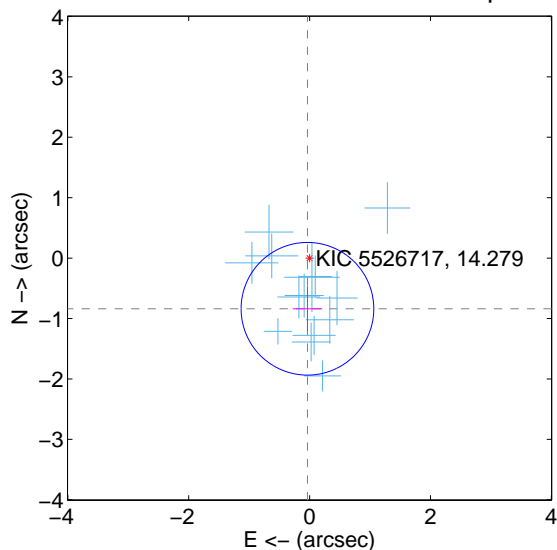
The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.690 ± 0.356	1.94	0.011 ± 0.227	-0.690 ± 0.358
PRF-fit source offset from KIC position	0.839 ± 0.366	2.29	0.036 ± 0.243	-0.839 ± 0.373
photometric centroid source offset	1.63 ± 0.57	2.86	-0.34 ± 0.55	-1.59 ± 0.57

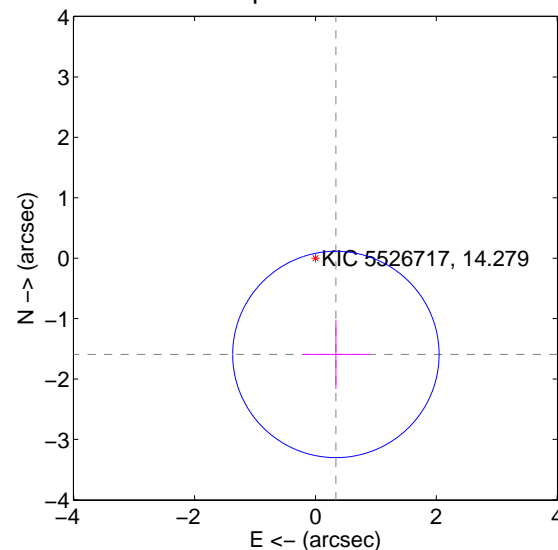
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

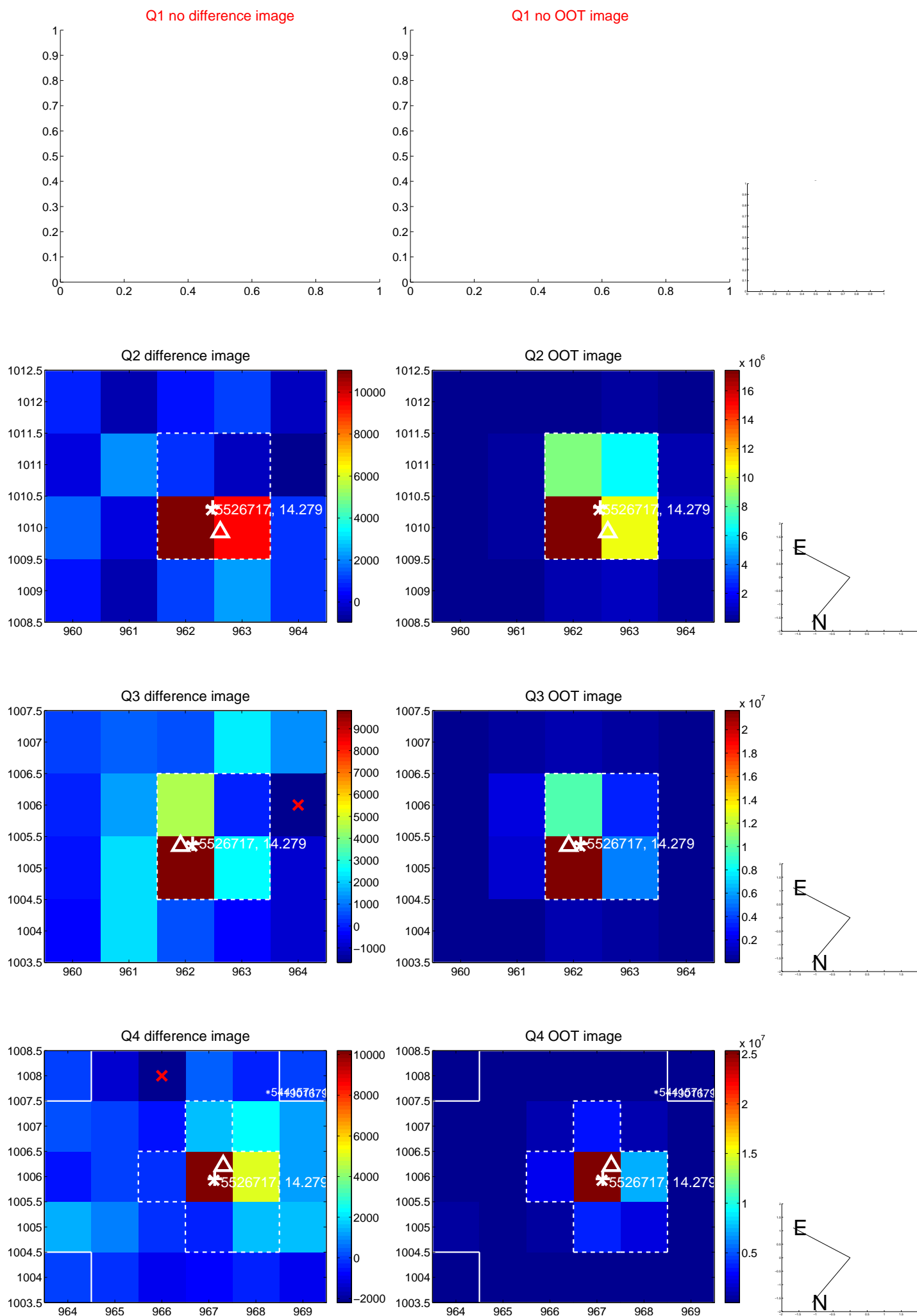


offset from photometric centroids

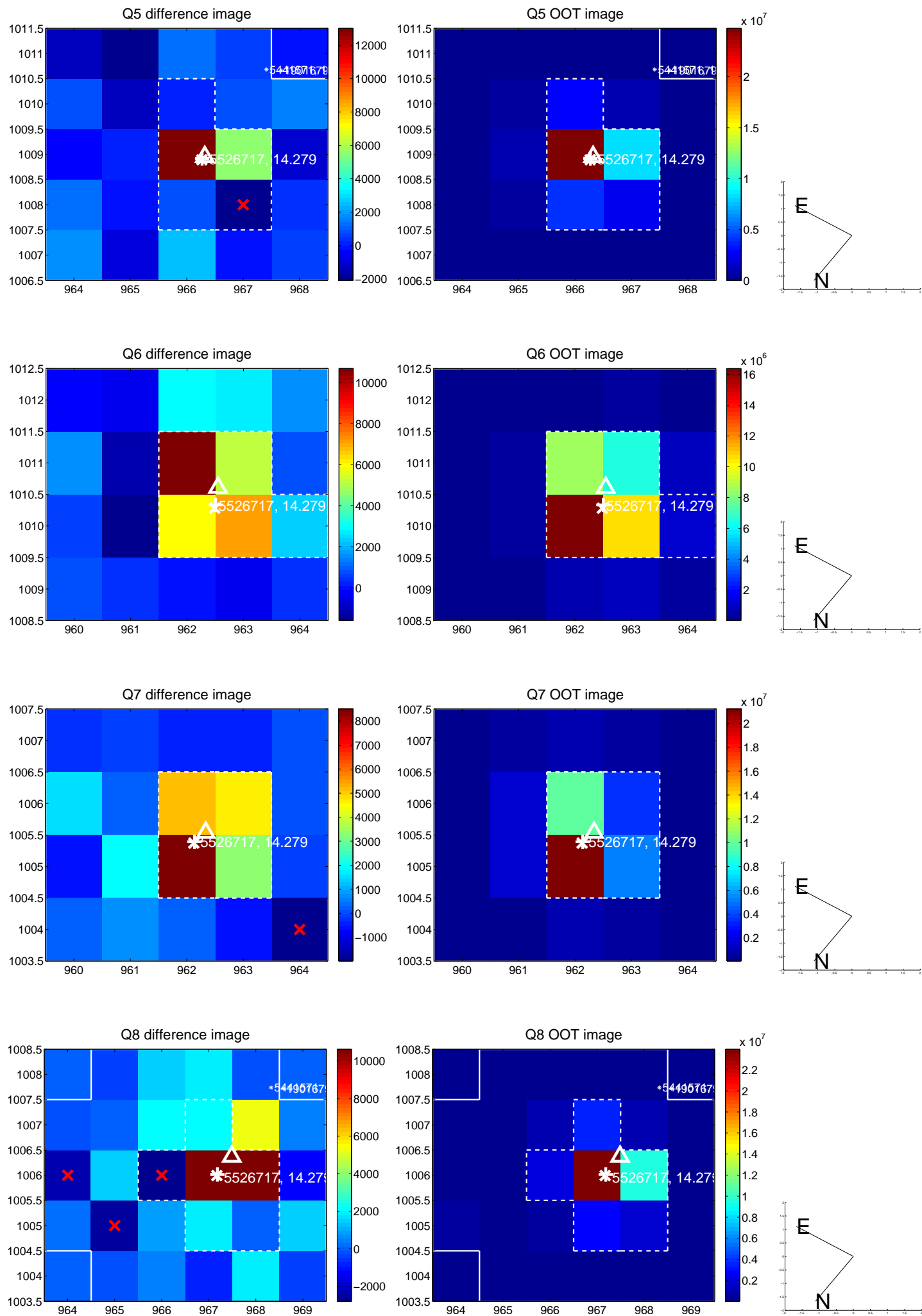


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

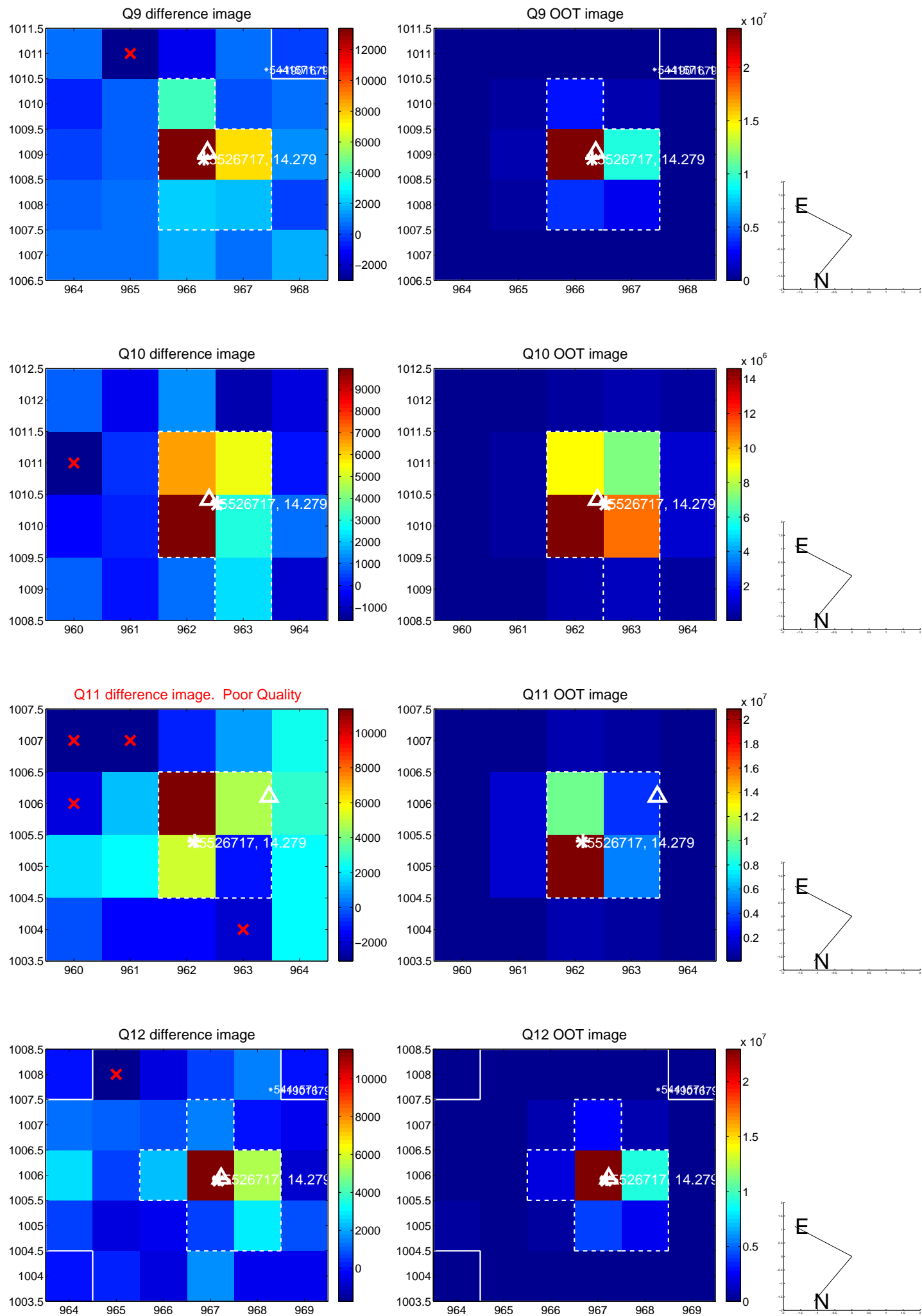
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



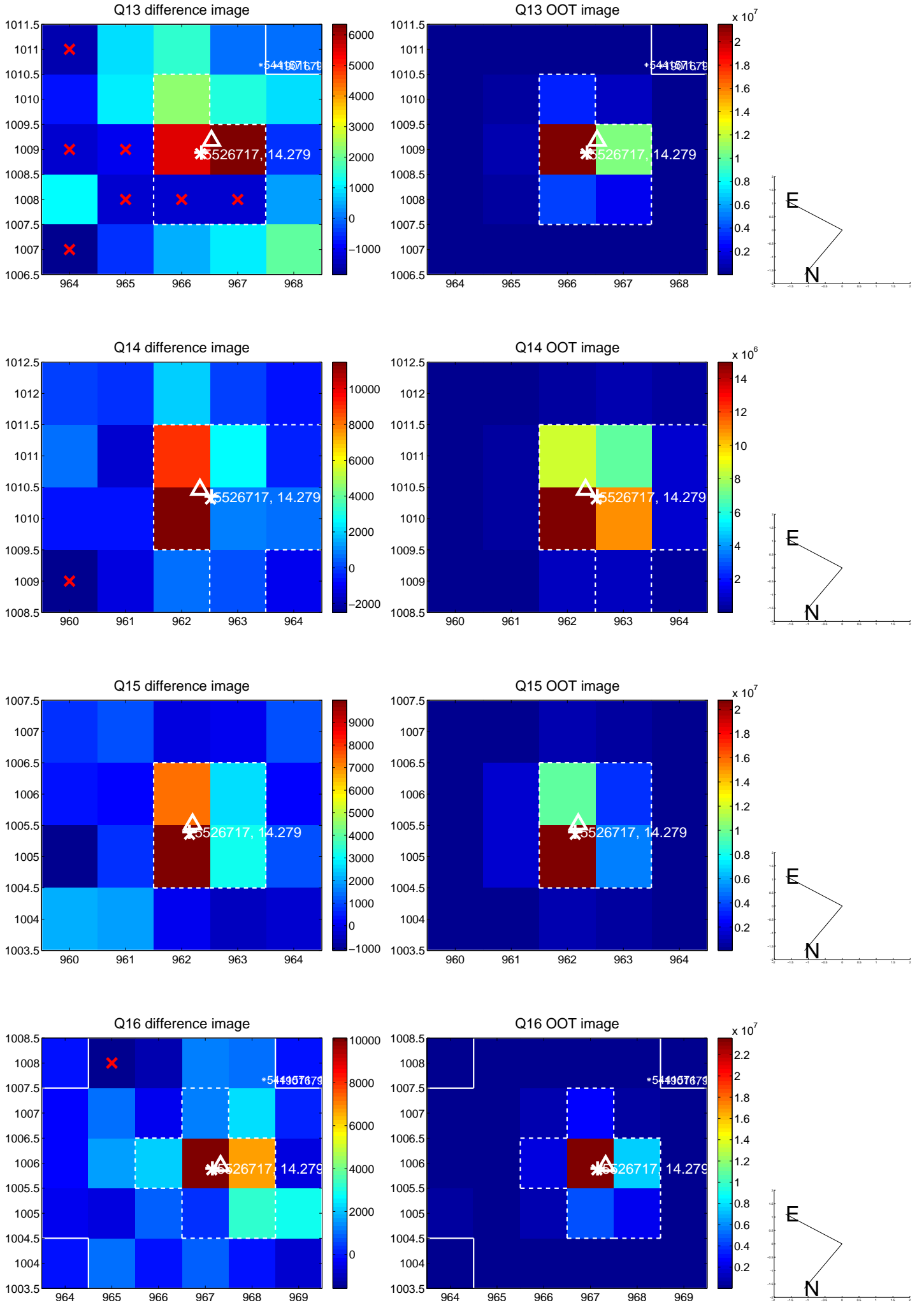
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



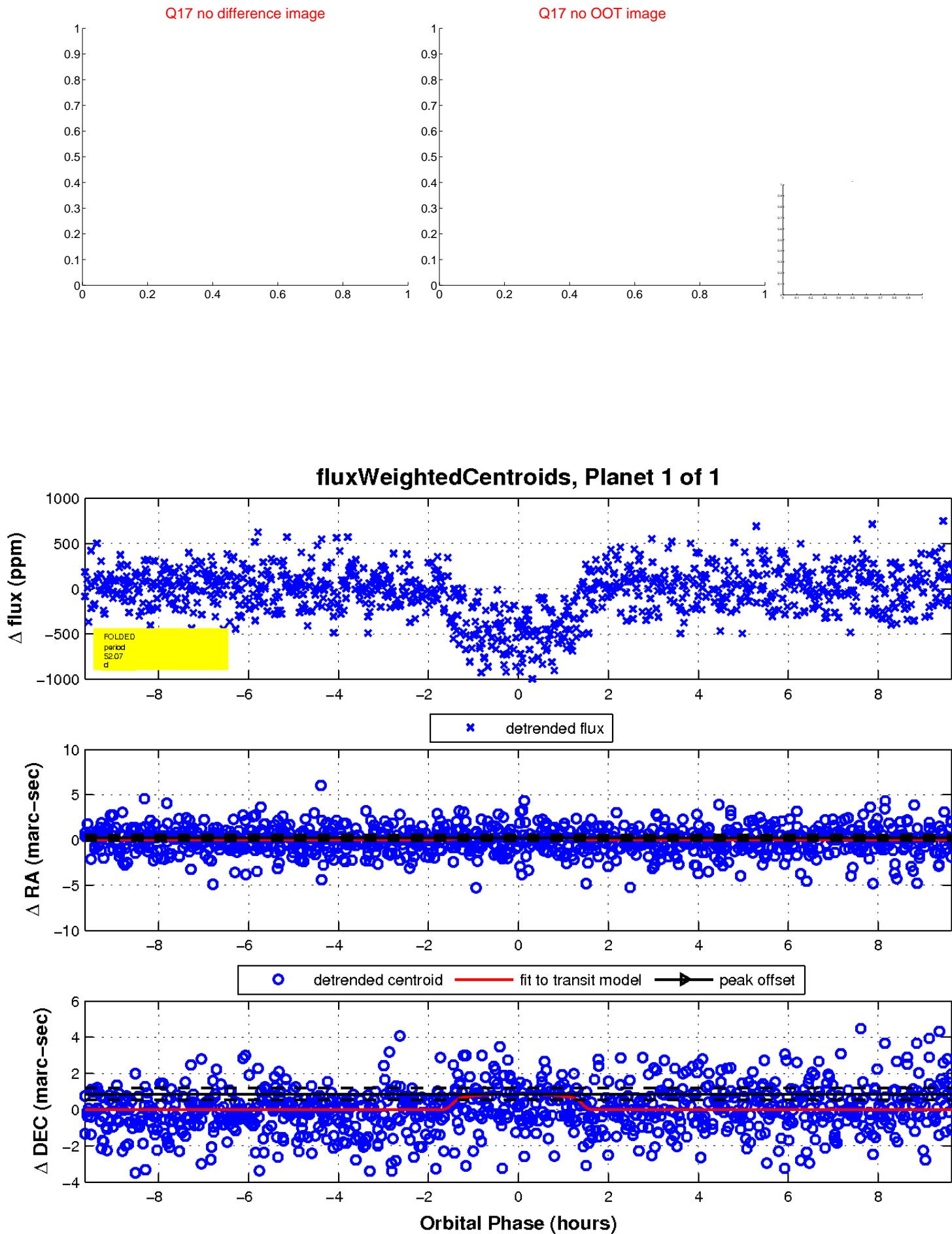
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

