

KIC 005552562

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})
005552562-01	OBS	4495.01	5.932061	135.653173	178.9	4.768	11.3	11.9	0.98	5843	1.51	236.46

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005552562-01	OBS	PC	1.00	0	0	0	0	CENT_FEW_MEAS

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.

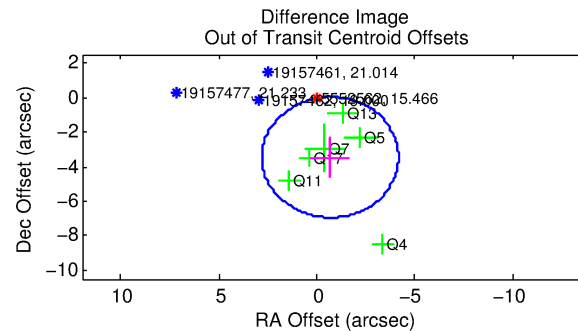
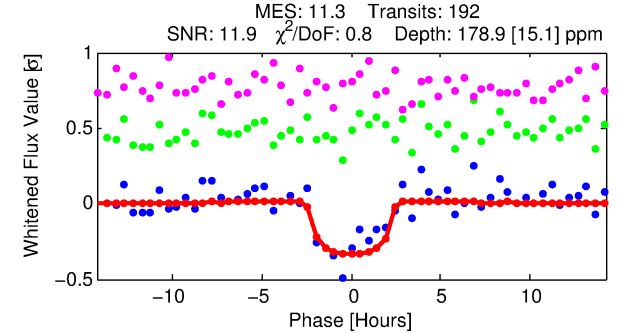
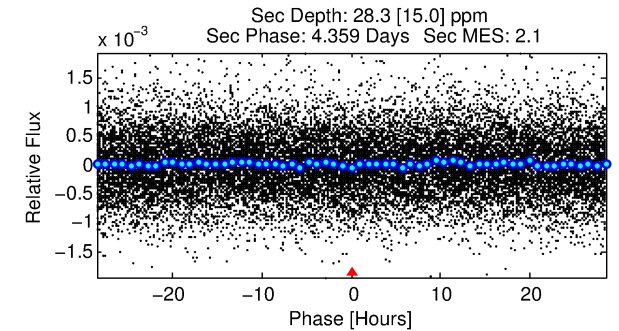
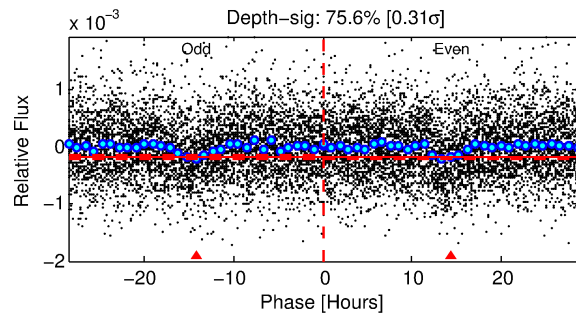
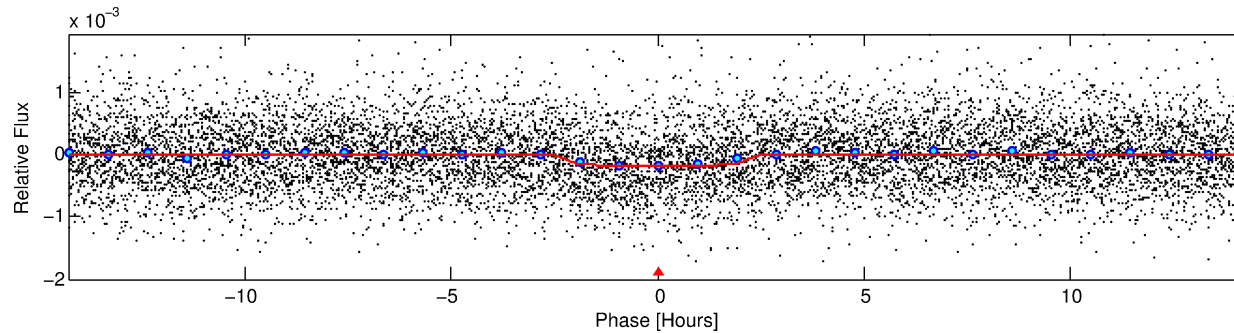
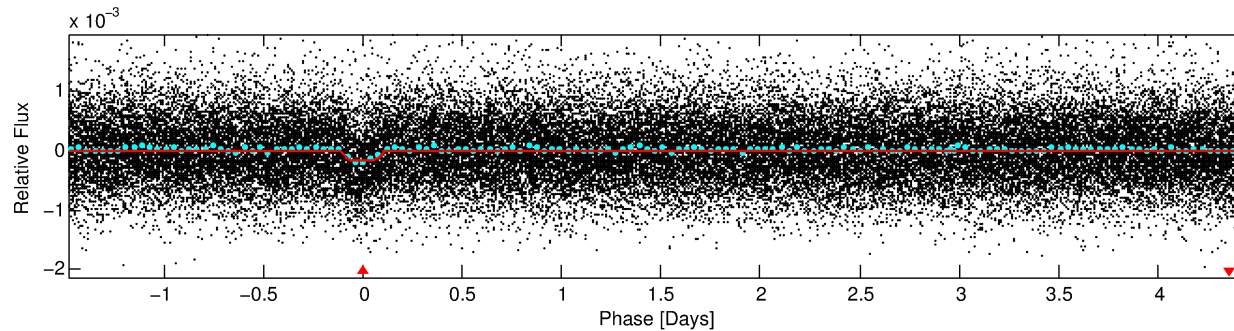
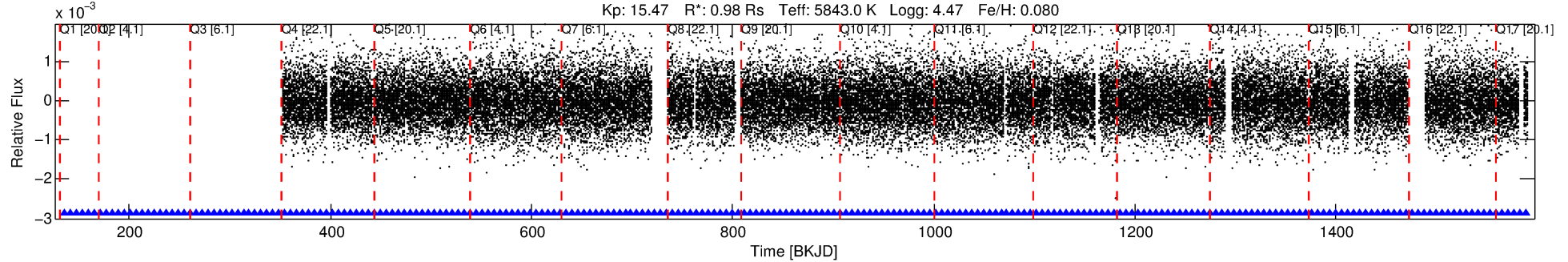
Ephemeris Match Information For 005552562-01

No Significant Match Found

DV One-Page Summary

KIC: 5552562 Candidate: 1 of 1 Period: 5.932 d
KOI: K04495.01 Corr: 0.928

Kp: 15.47 R*: 0.98 Rs Teff: 5843.0 K Logg: 4.47 Fe/H: 0.080



DV Fit Results:

Period = 5.93206 [0.00005] d
Epoch = 135.6532 [0.0073] BKJD
Rp/R* = 0.0142 [0.0061]
a/R* = 5.04 [9.89]
b = 0.87 [0.58]
Seff = 236.46 [97.70]
Teq = 1000 [103] K
Rp = 1.51 [0.80] Re
a = 0.0649 [0.0170] AU
Ag = 28.73 [31.15] [0.89σ]
Teffp = 3579 [914] K [2.80σ]

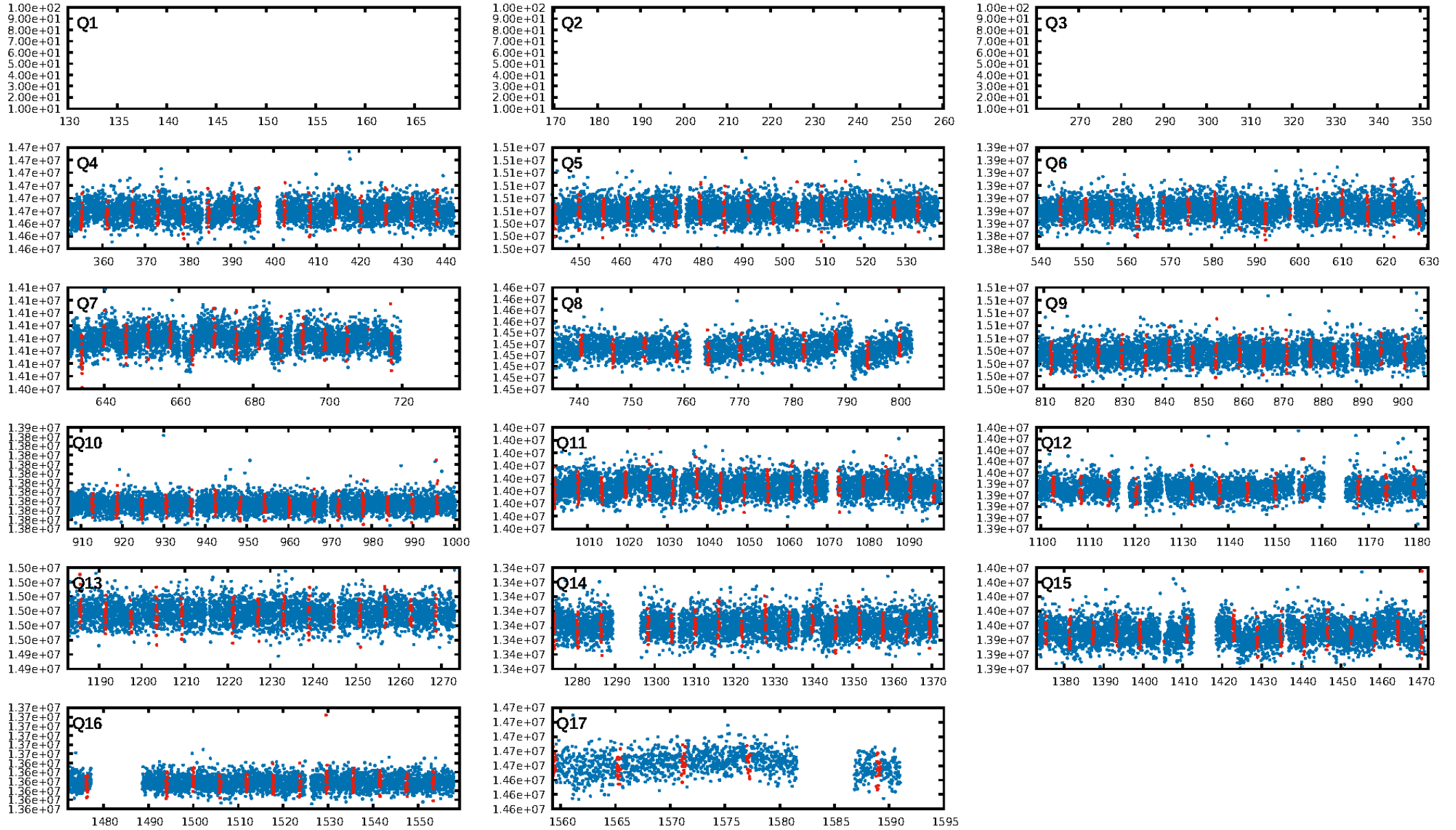
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 100.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.73e-28
RollingBand-fgt: 1.00 [187/187]
GhostDiagnostic-chr: -22.62
Centroid-sig: 0.1%
Centroid-so: 1.414 arcsec [1.41σ]
OotOffset-rm: 3.527 arcsec [3.03σ]
KicOffset-rm: 1.426 arcsec [2.24σ]
OotOffset-st: 0/2/1/3 [6]
KicOffset-st: 0/2/1/3 [6]
DiffImageQuality-fgm: 0.33 [2/6]
DiffImageOverlap-fno: 1.00 [14/14]

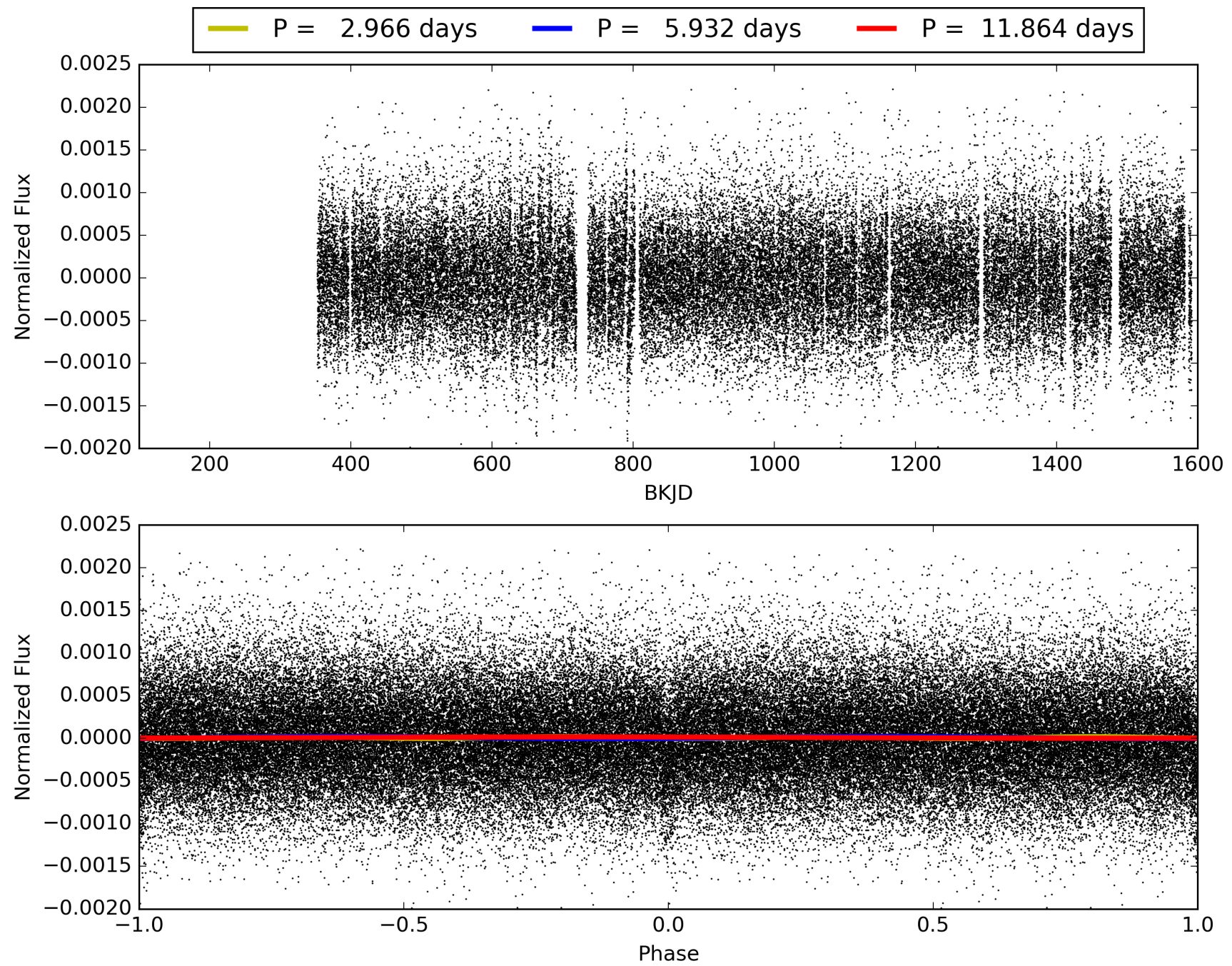
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 13:01:37 Z

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

TCE 005552562-01, PDC Light Curves

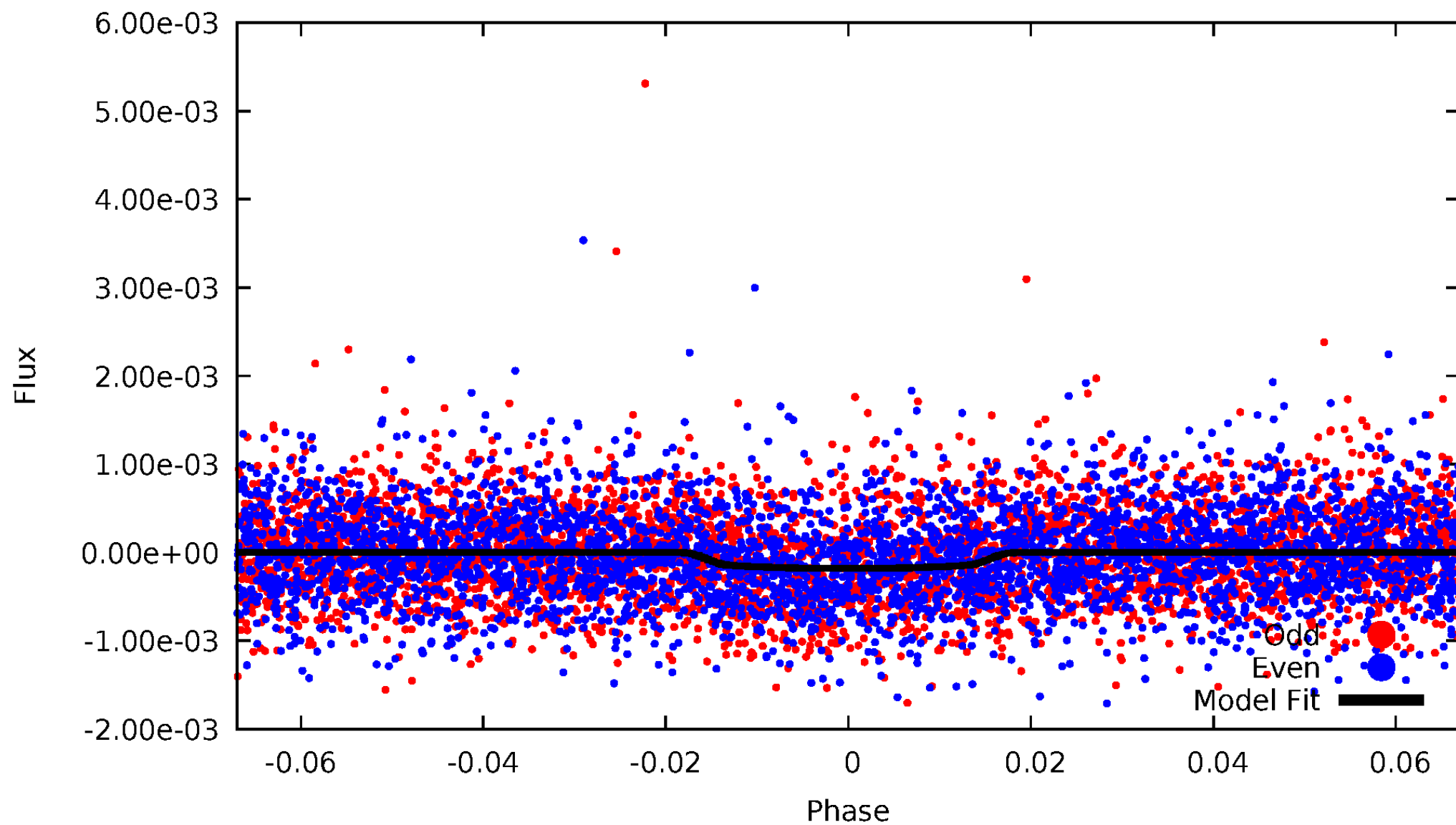


TCE 005552562-01



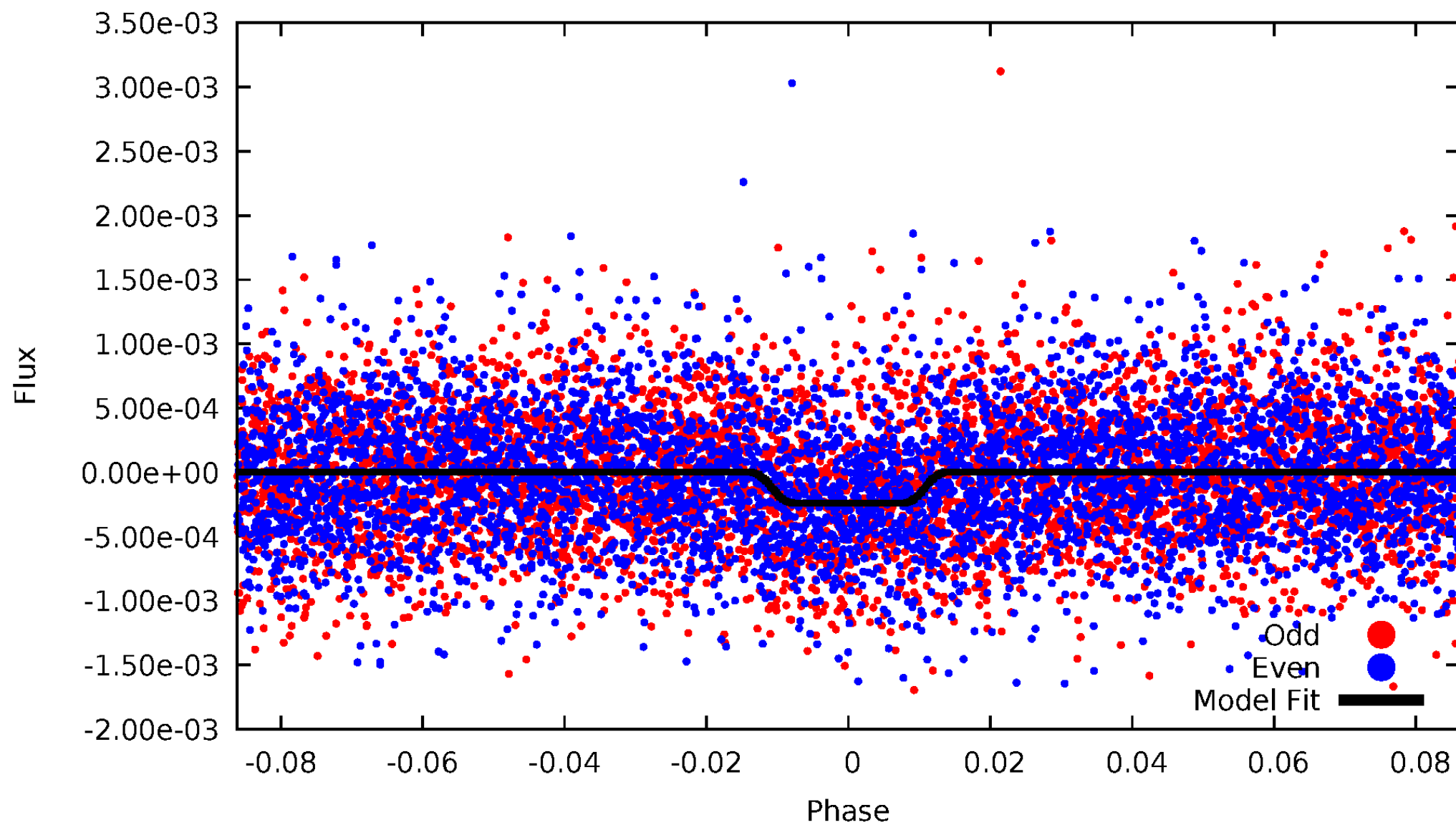
DV Odd/Even

TCE 005552562-01

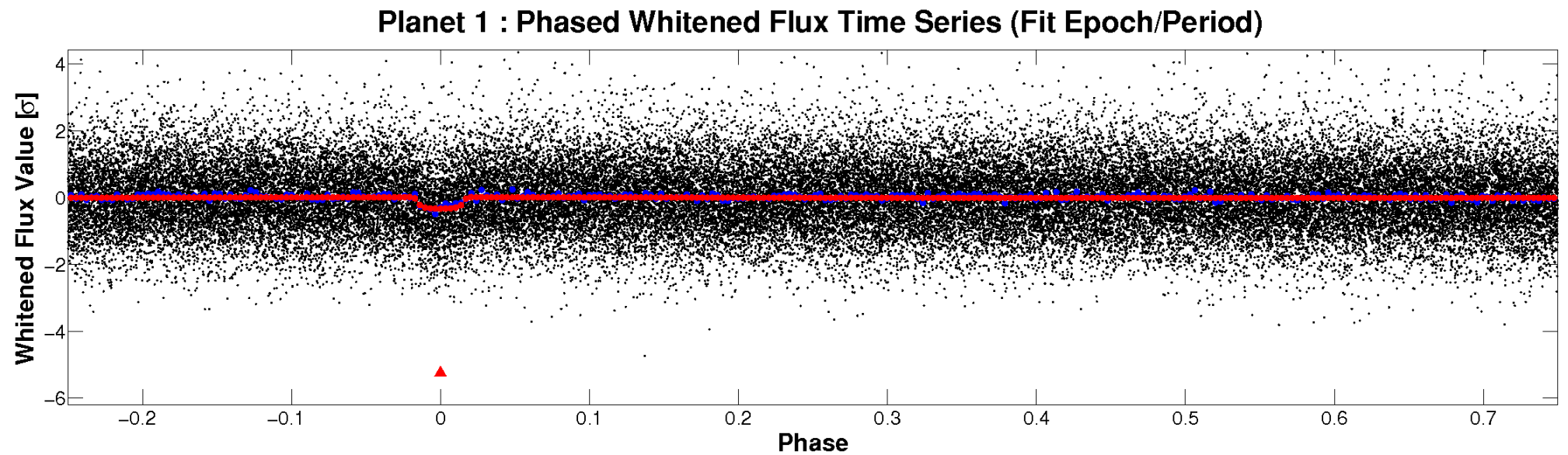
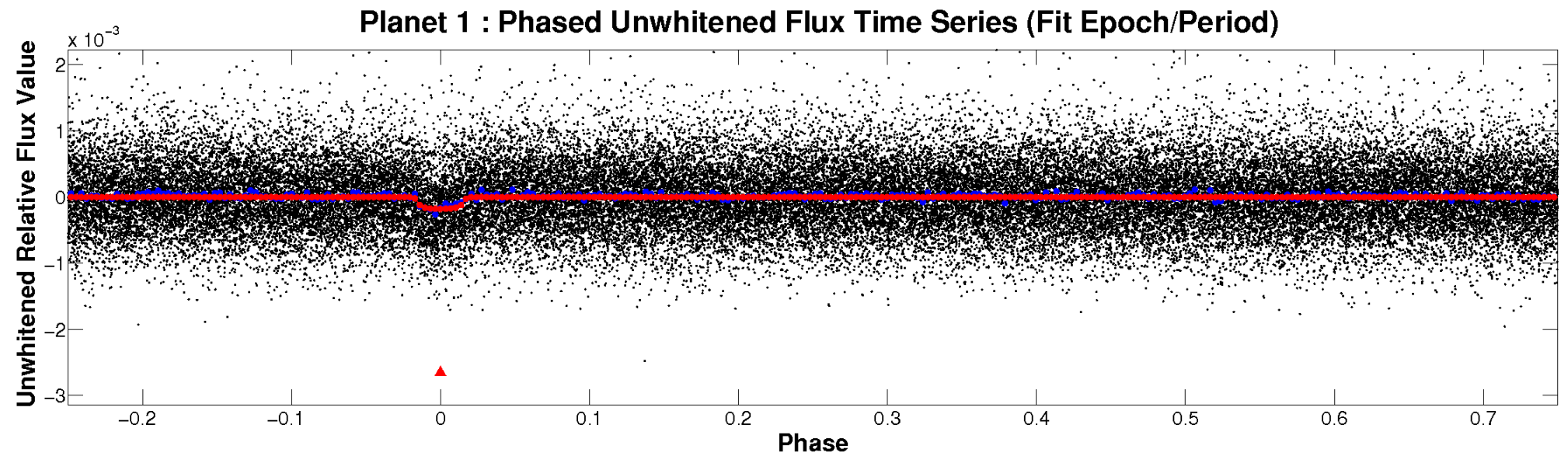


ALT Odd/Even

TCE 005552562-01

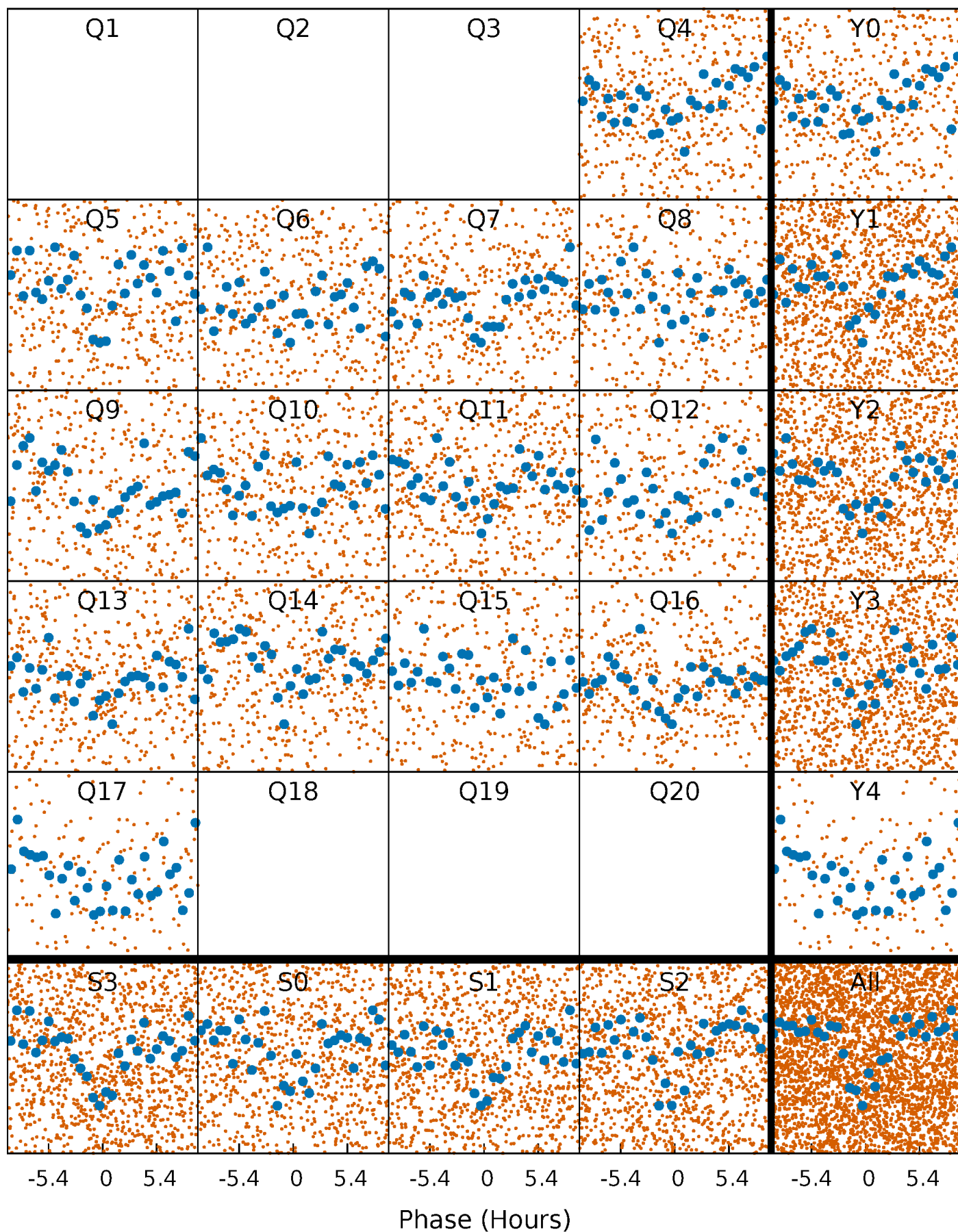


Non-Whitened Vs. Whitened Light Curve



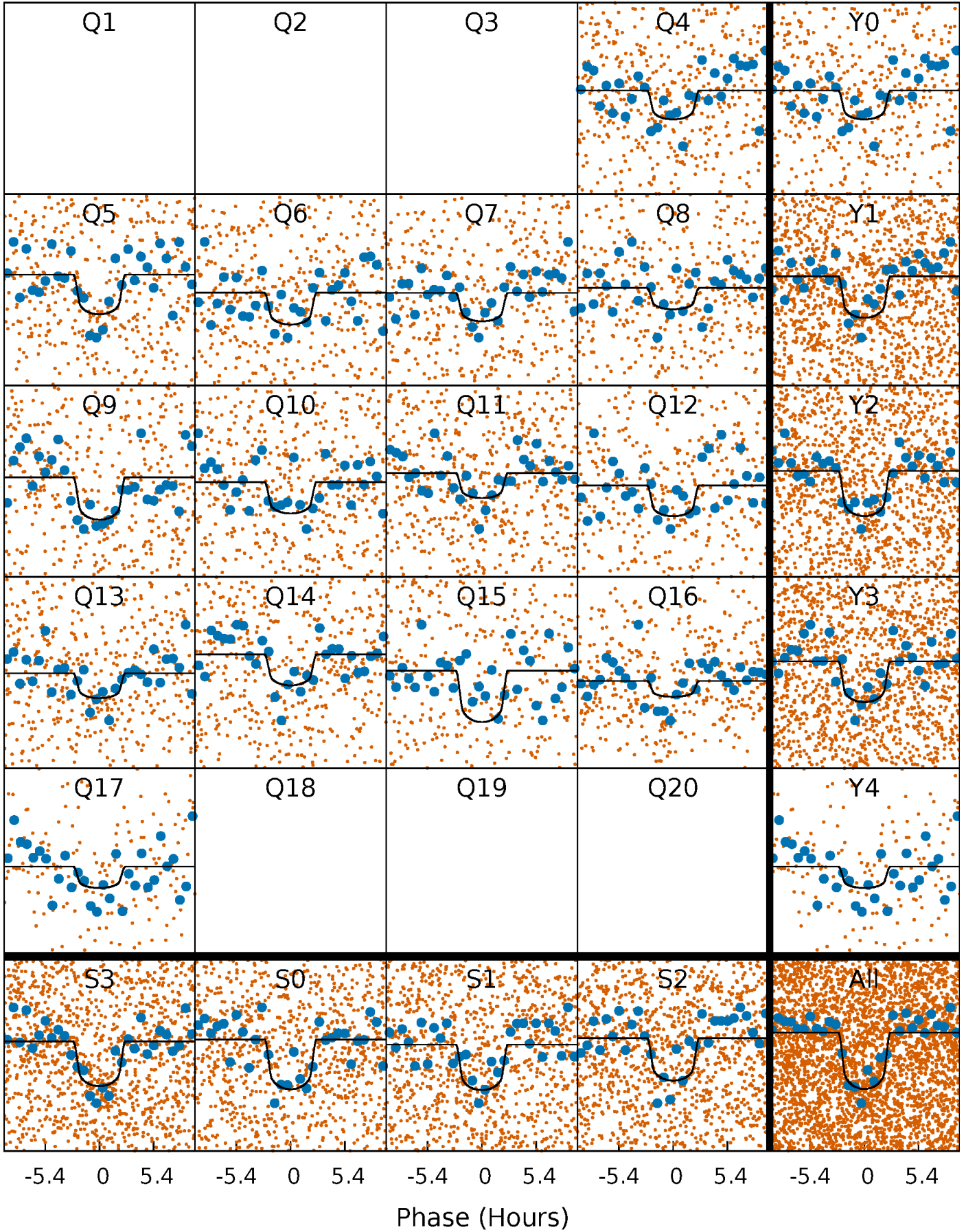
PDC Quarter-Phased Transit Curves

TCE 005552562-01 P= 5.932061 Days $T_0=135.653173$ (BKJD)



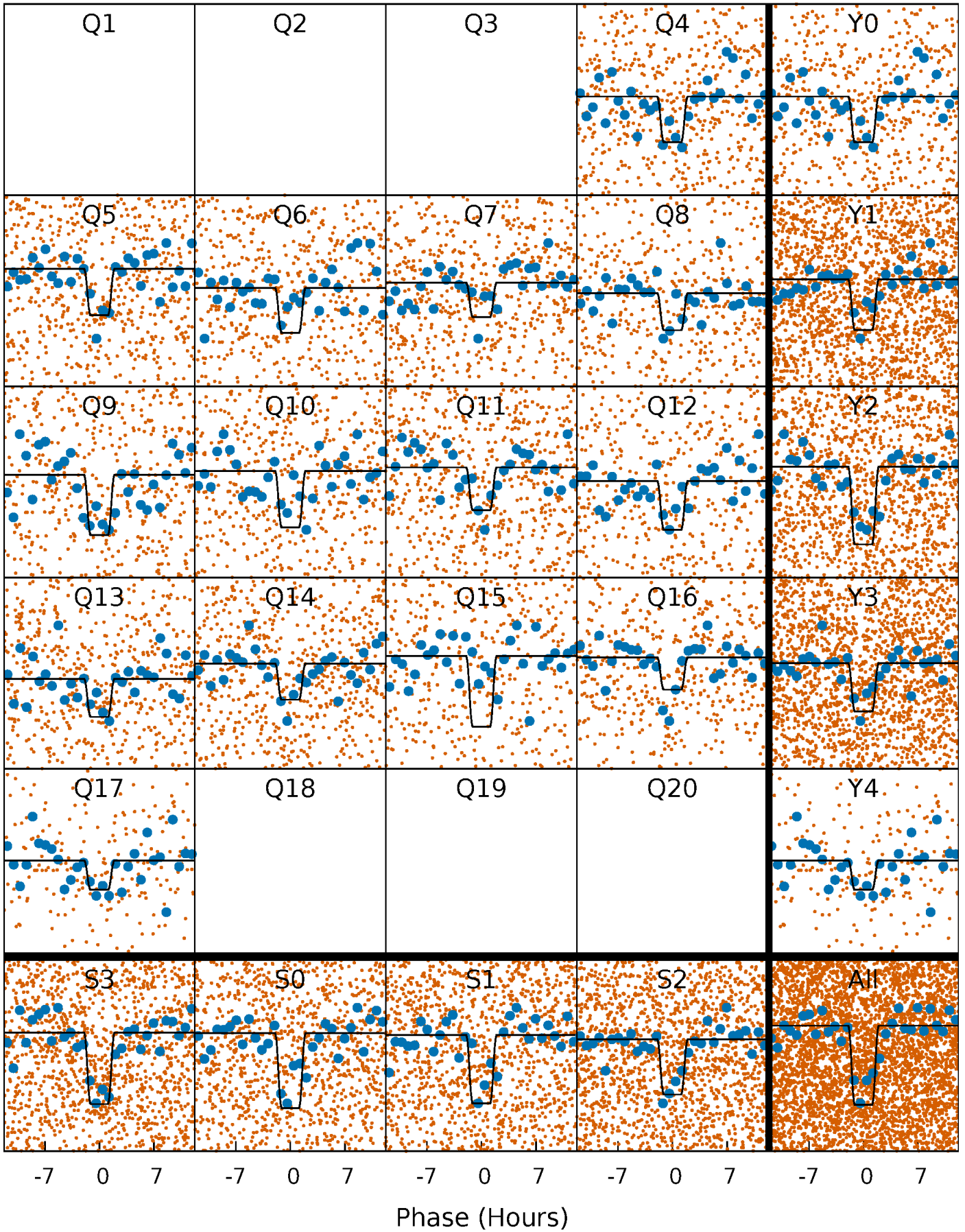
DV Quarter-Phased Transit Curves

TCE 005552562-01 P= 5.932061 Days $T_0=135.653173$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

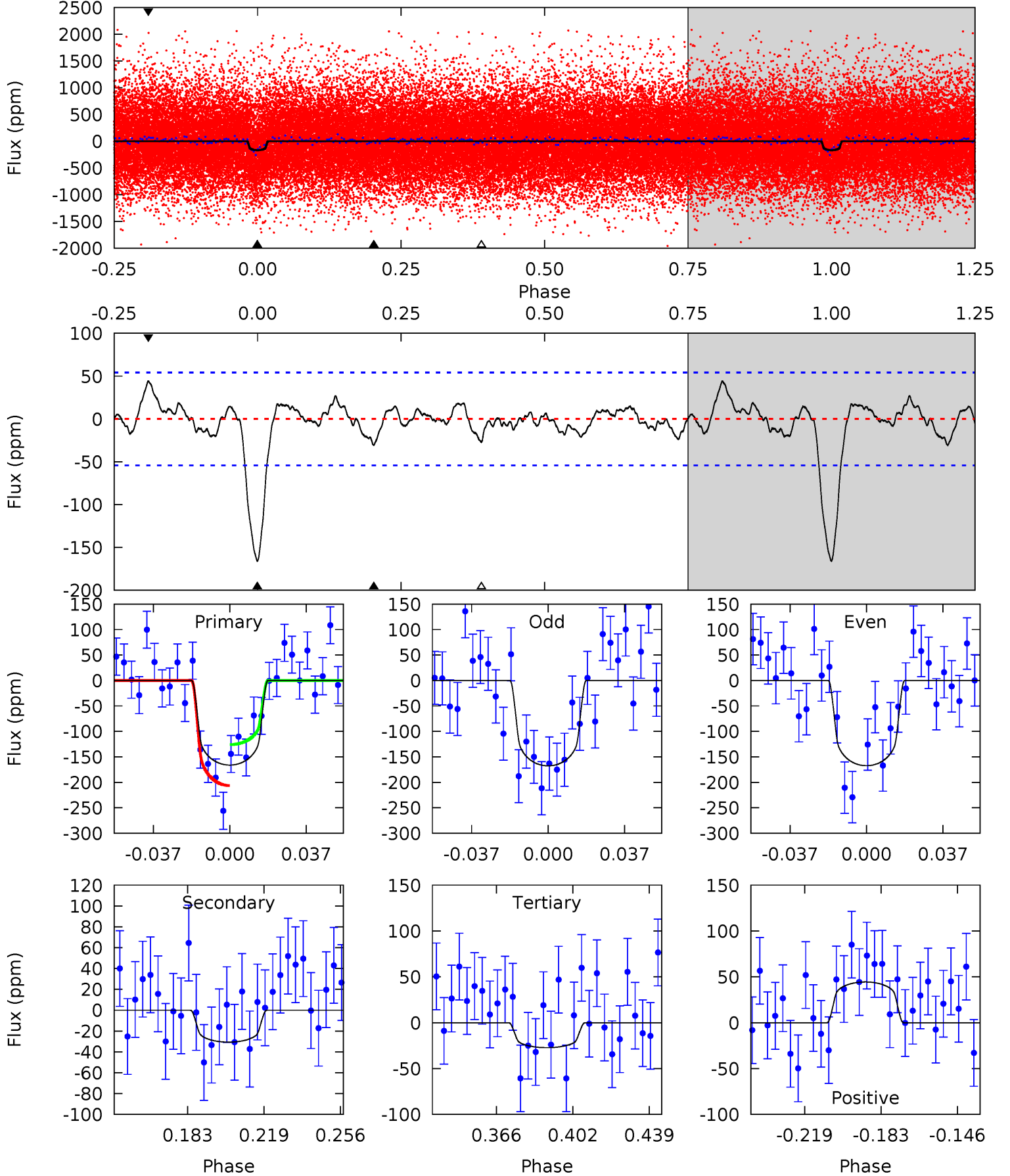
TCE 005552562-01 P= 5.932093 Days $T_0=135.634458$ (BKJD)



DV Model-Shift Uniqueness Test

005552562-01, P = 5.932061 Days, E = 135.653173 Days

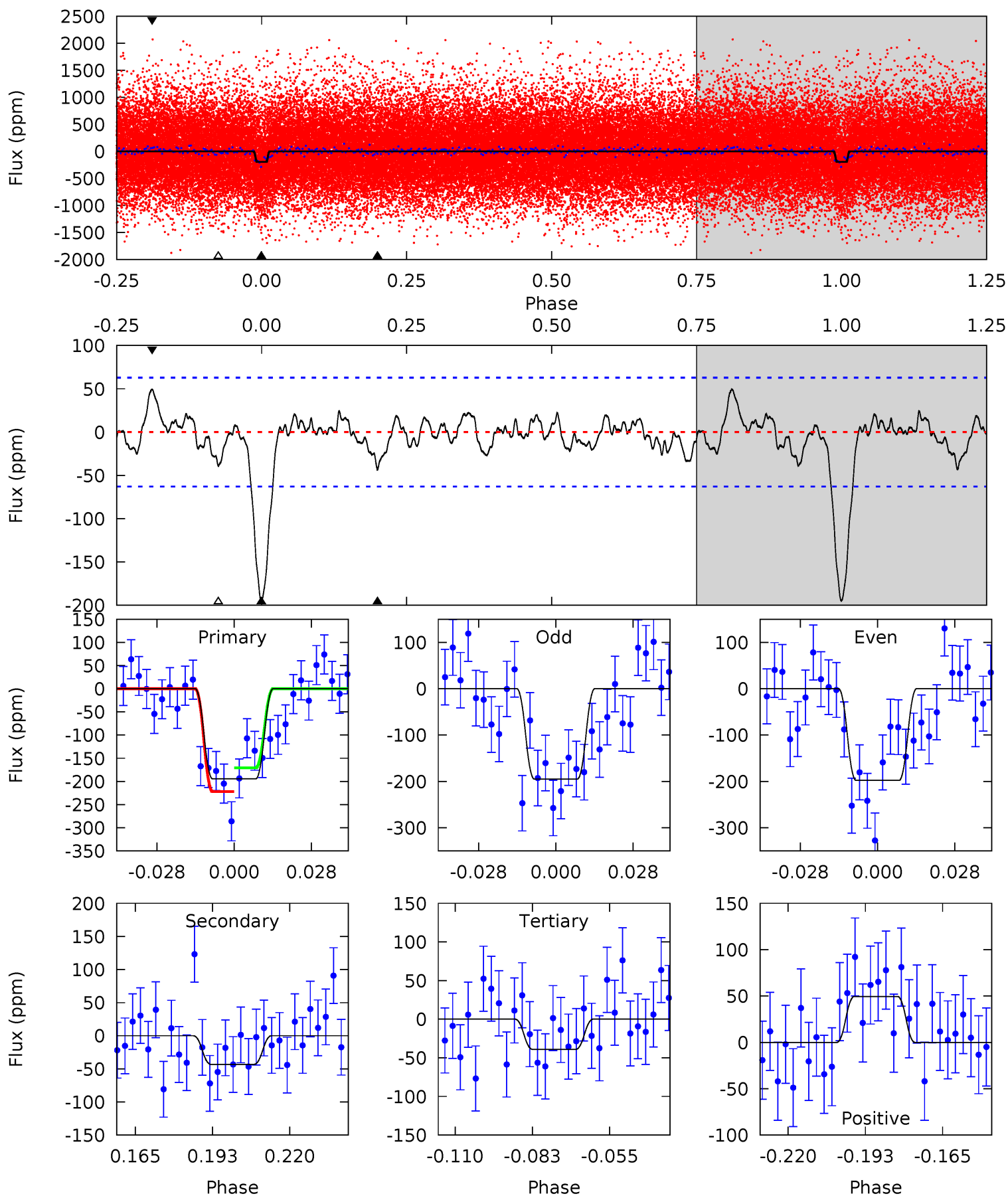
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.6	2.69	2.39	3.90	4.77	2.09	1.06	12.2	10.7	0.30	-1.21	0.01	1.05	0.21	3.54



Alt Model-Shift Uniqueness Test

005552562-01, P = 5.932093 Days, E = 135.634458 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.9	3.32	3.00	3.80	4.83	2.20	1.11	11.9	11.1	0.32	-0.48	0.11	0.88	0.20	1.97



Stellar Parameters For KIC 005552562

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5843^{+164}_{-205}	$4.474^{+0.054}_{-0.216}$	$0.080^{+0.250}_{-0.300}$	$0.977^{+0.297}_{-0.099}$	$1.036^{+0.127}_{-0.127}$	$1.564^{+0.449}_{-0.830}$
	+3%/-4%	+1%/-5%	+312%/-375%	+30%/-10%	+12%/-12%	+29%/-53%
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 005552562-01 / KOI 4495.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-31 ± 11	$1.57^{+0.74}_{-0.69}$	1430^{+104}_{-71}	3959^{+968}_{-560}	28^{+59}_{-17}
Alt.	-43 ± 13	$1.76^{+0.73}_{-0.74}$	1426^{+115}_{-65}	4043^{+936}_{-499}	31^{+65}_{-17}

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

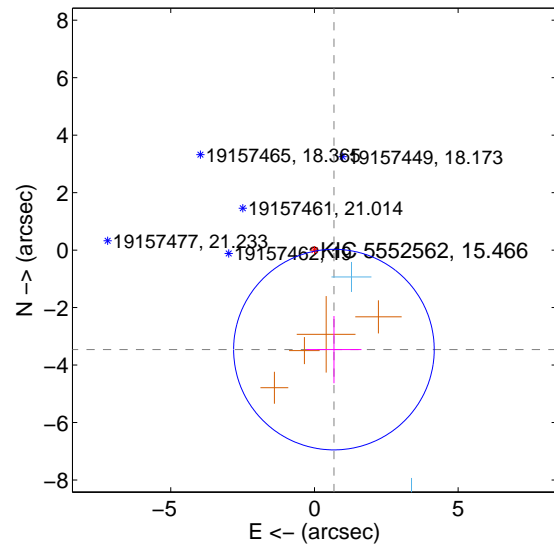
Supplemental centroid analysis for 005552562-01. Kepler magnitude: 15.47. Transit SNR 11.91

There are 2 quarters with good PRF difference image offsets

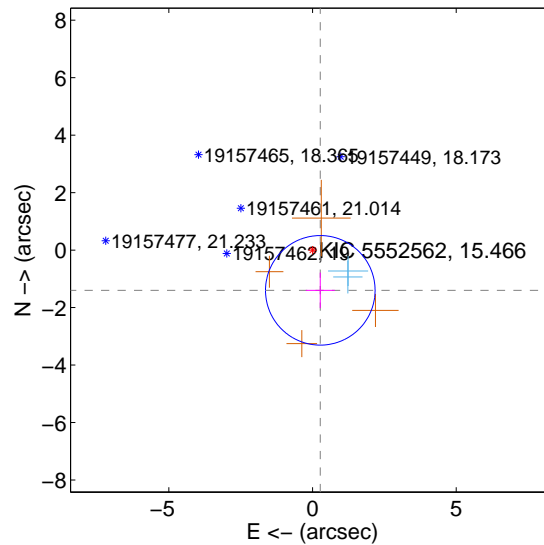
The direct PRF centroid is offset from the target star catalog position by about 0.24 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.527 ± 1.163	3.03	-0.678 ± 0.959	-3.461 ± 1.170
PRF-fit source offset from KIC position	1.426 ± 0.635	2.24	-0.270 ± 0.504	-1.400 ± 0.619
photometric centroid source offset	1.41 ± 1.00	1.41	-0.52 ± 0.70	1.32 ± 1.04

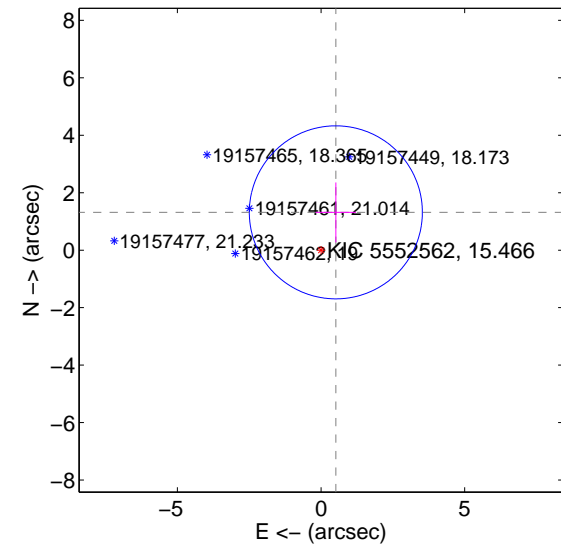
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

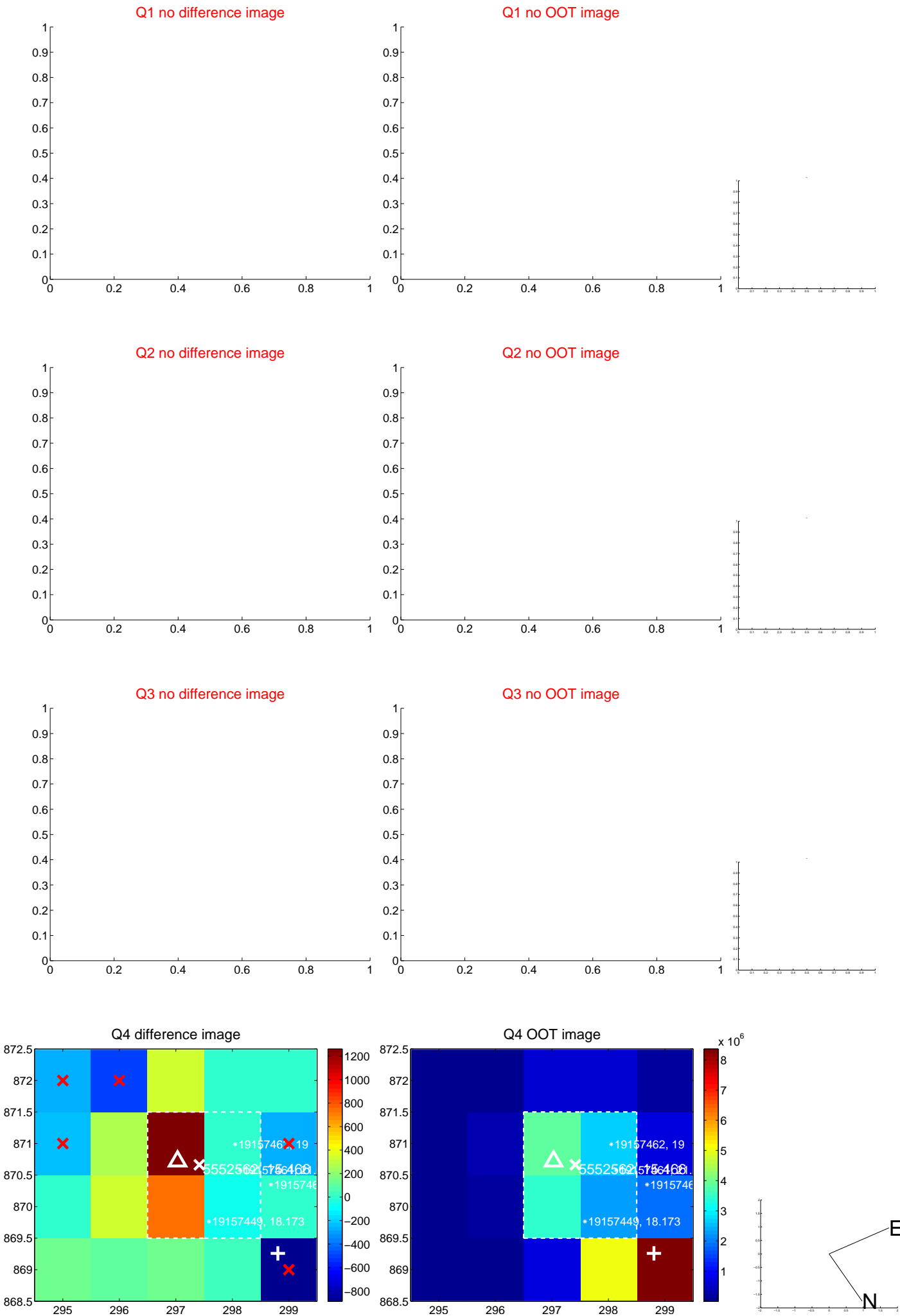


offset from photometric centroids

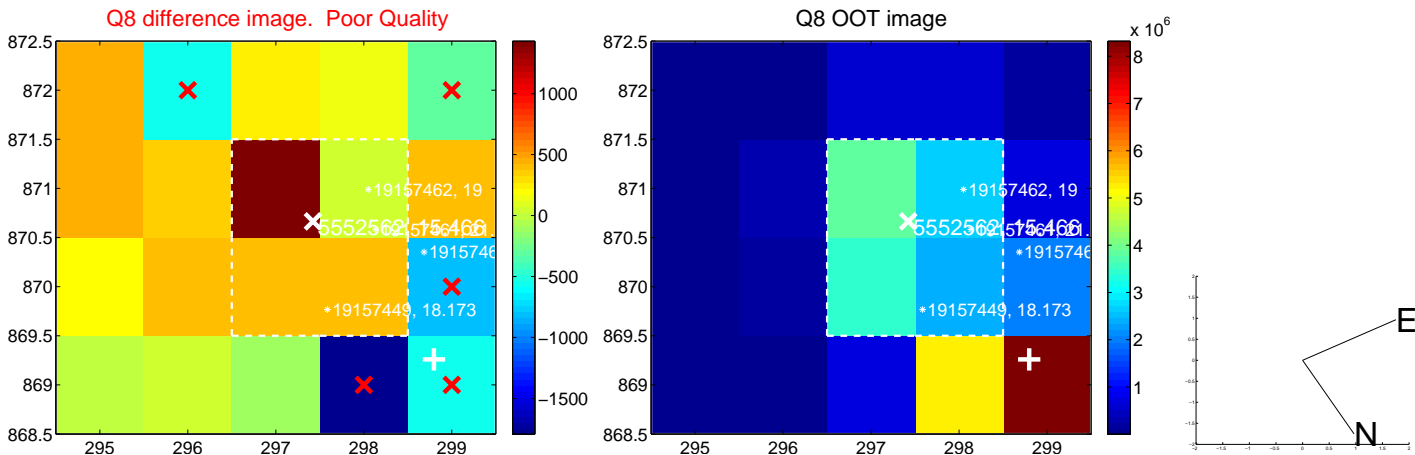
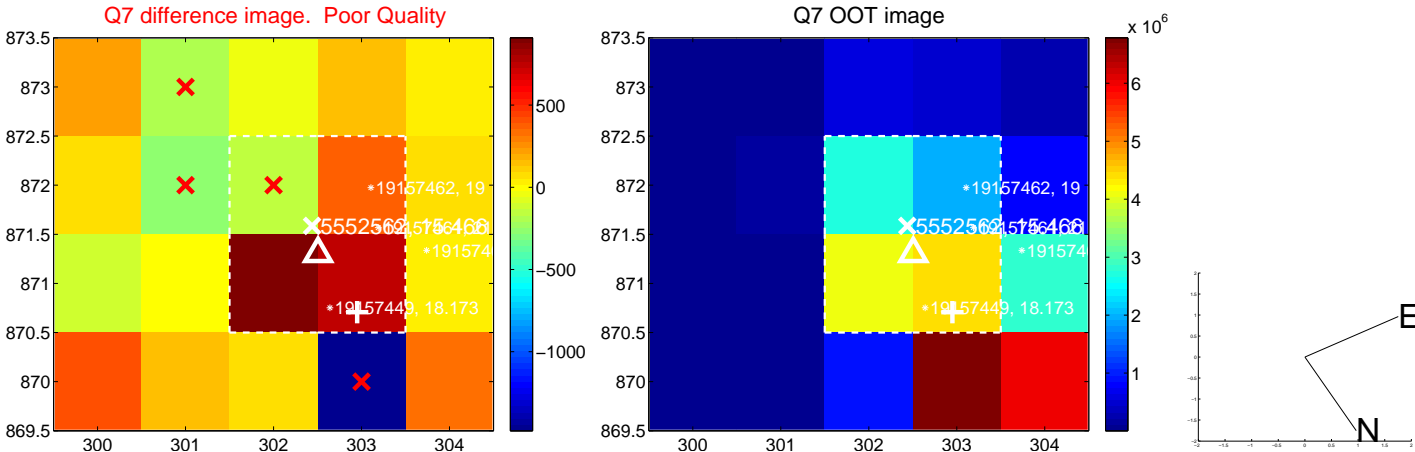
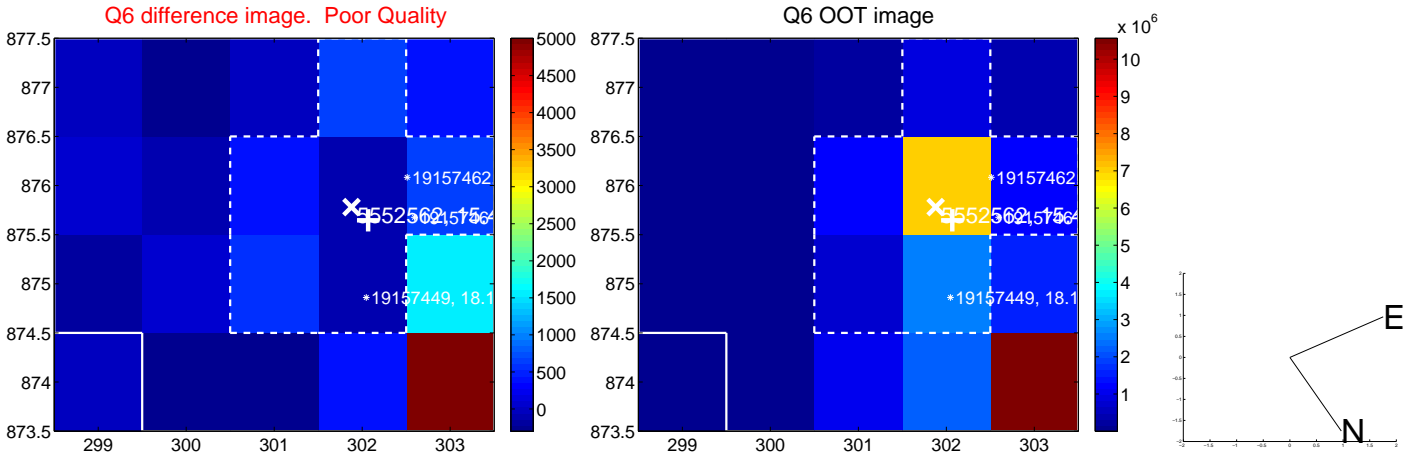
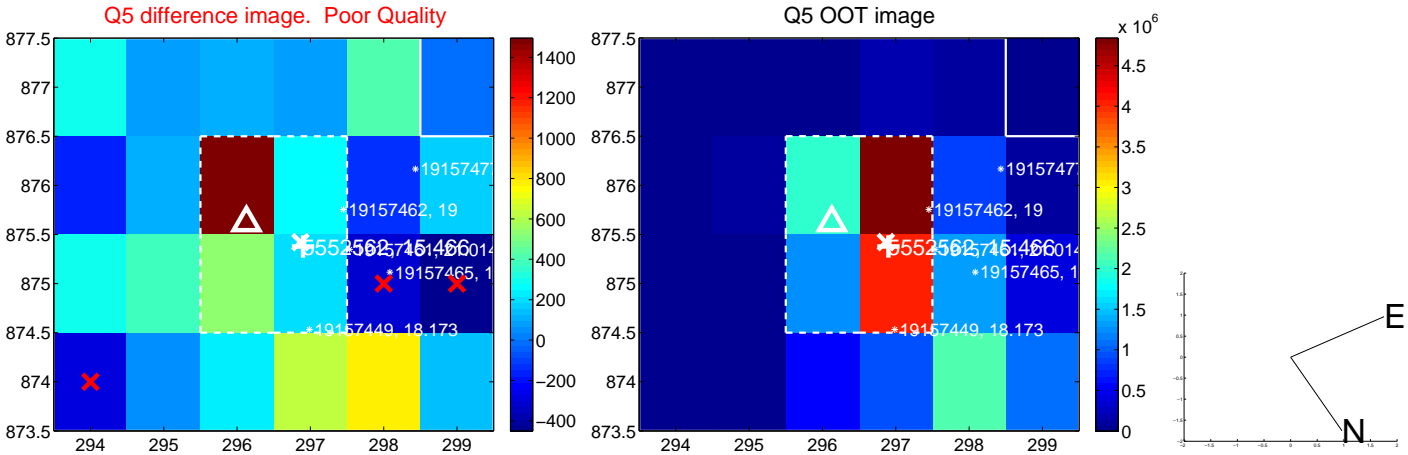


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

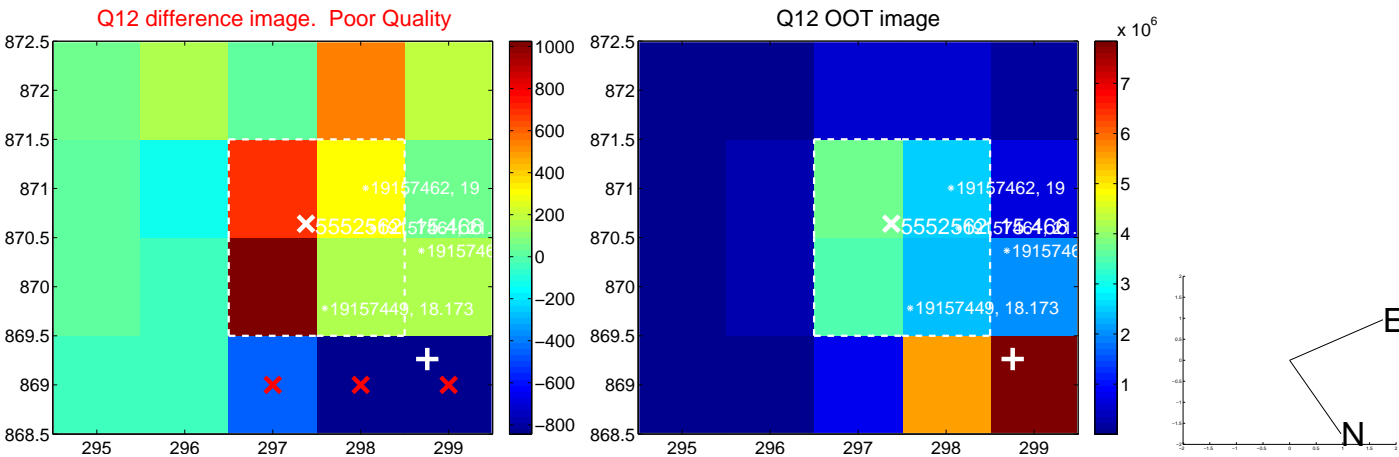
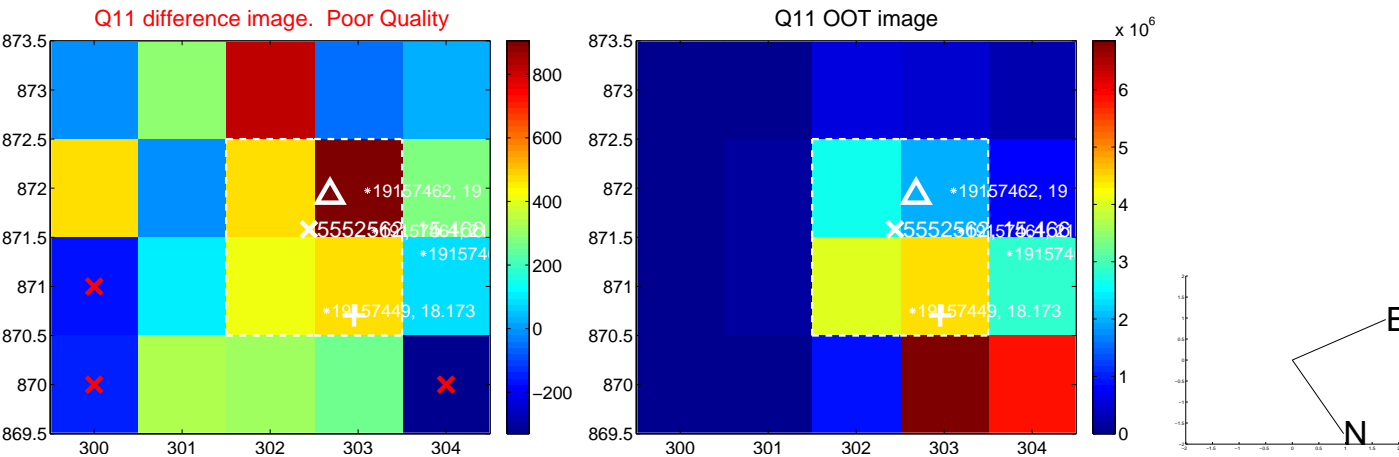
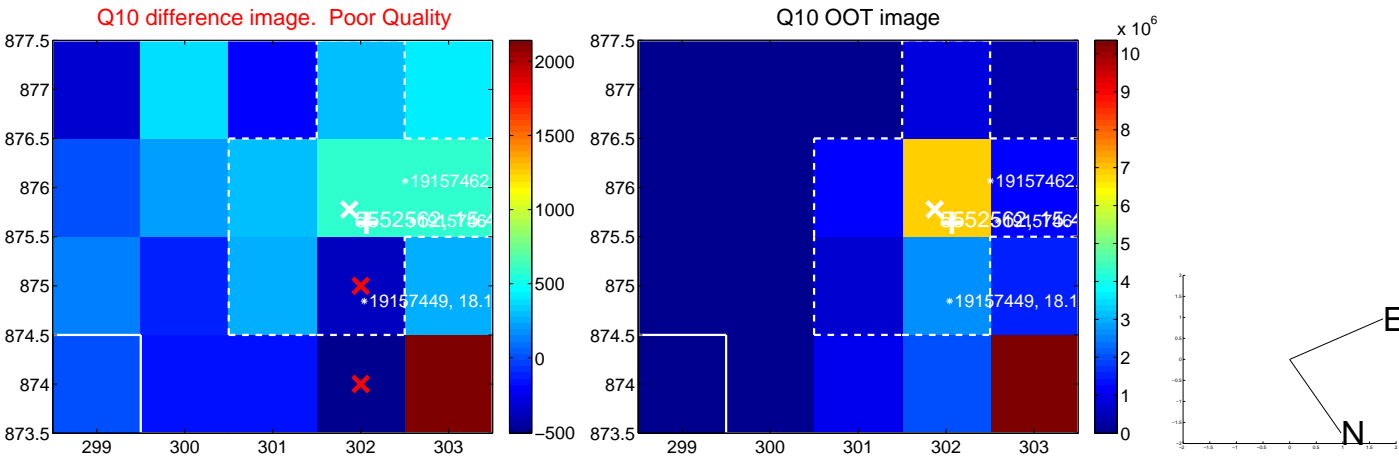
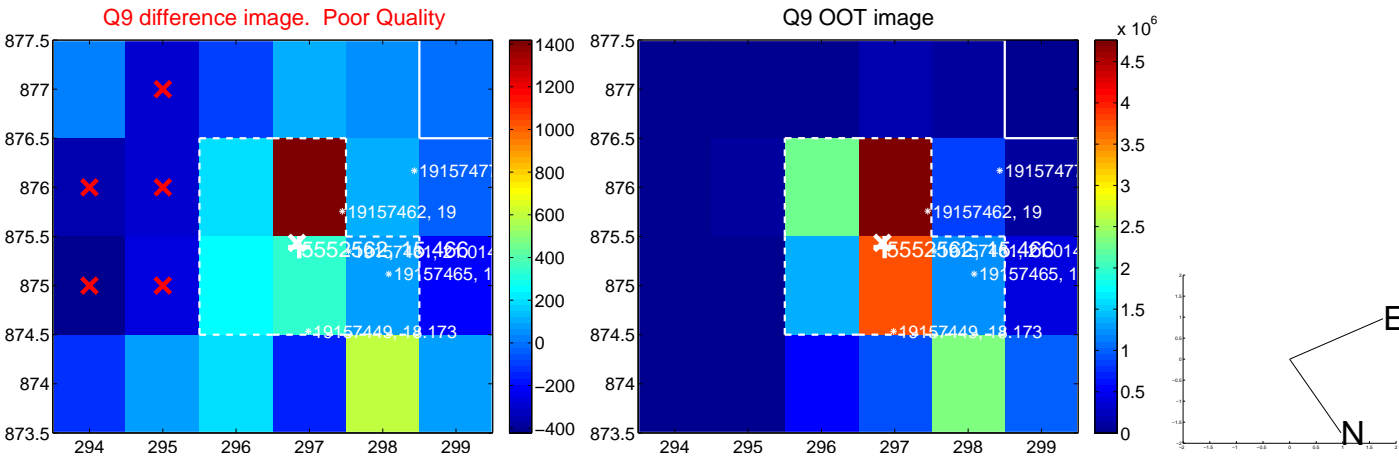
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



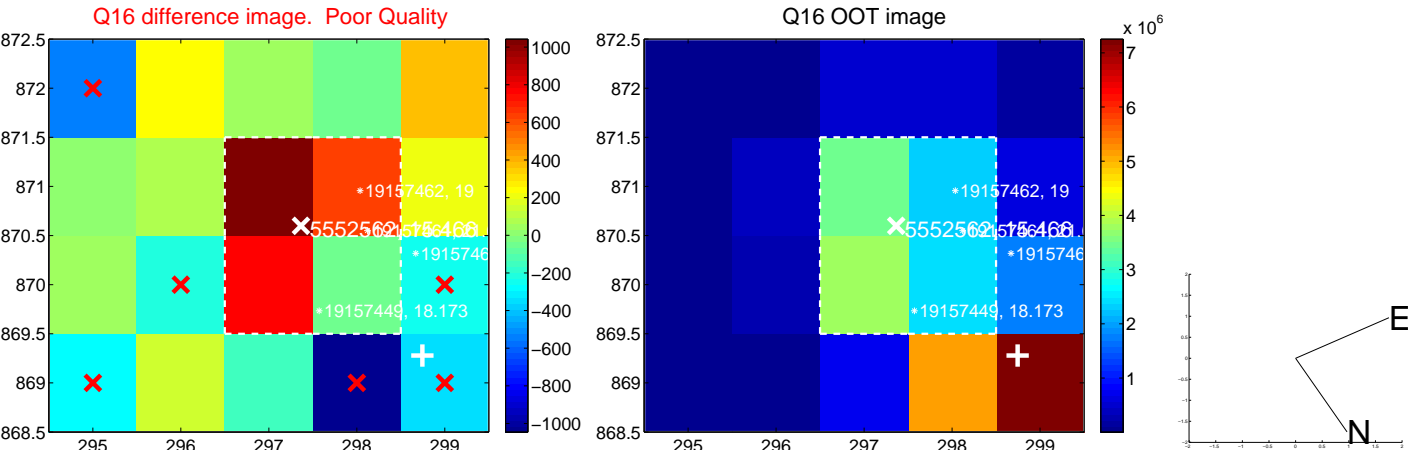
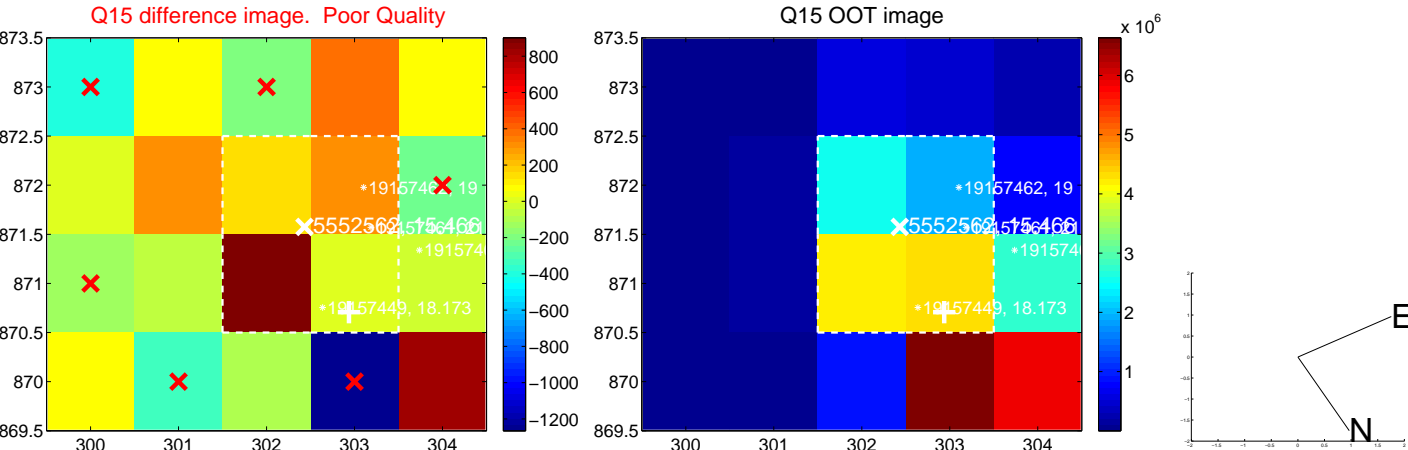
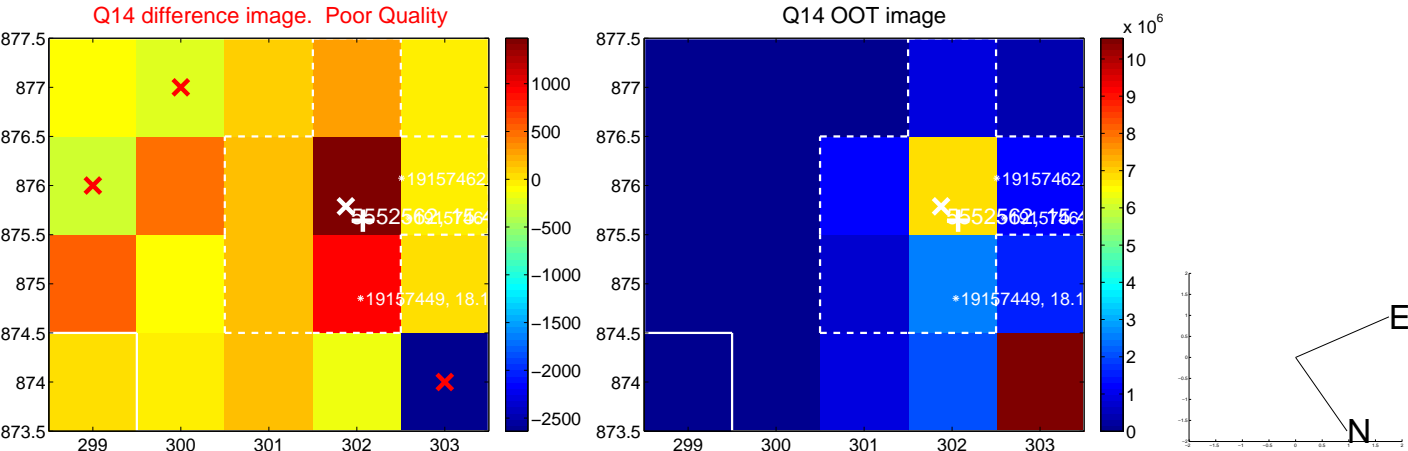
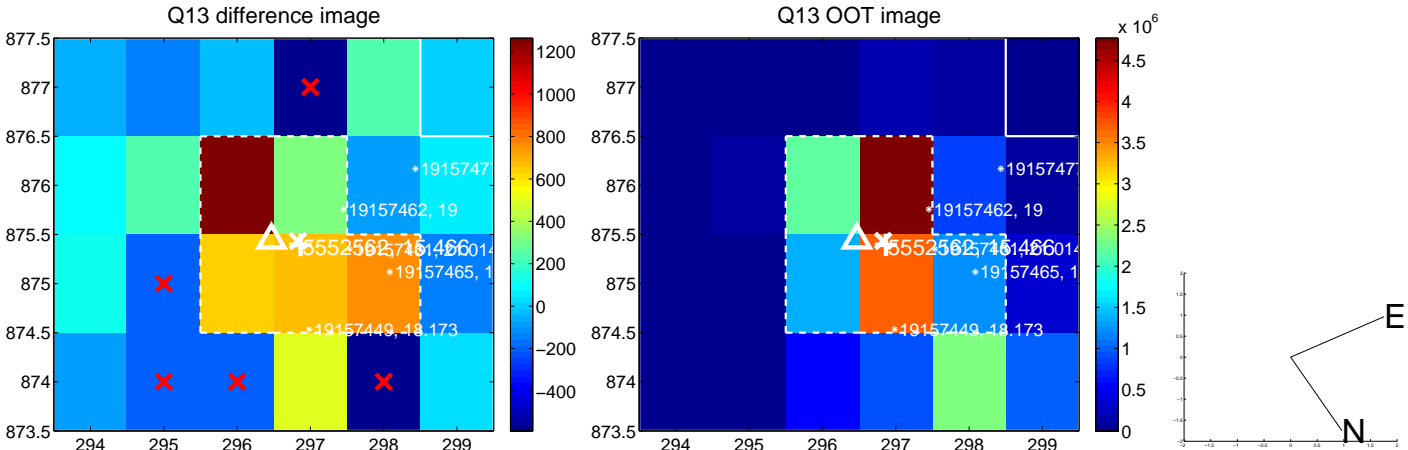
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



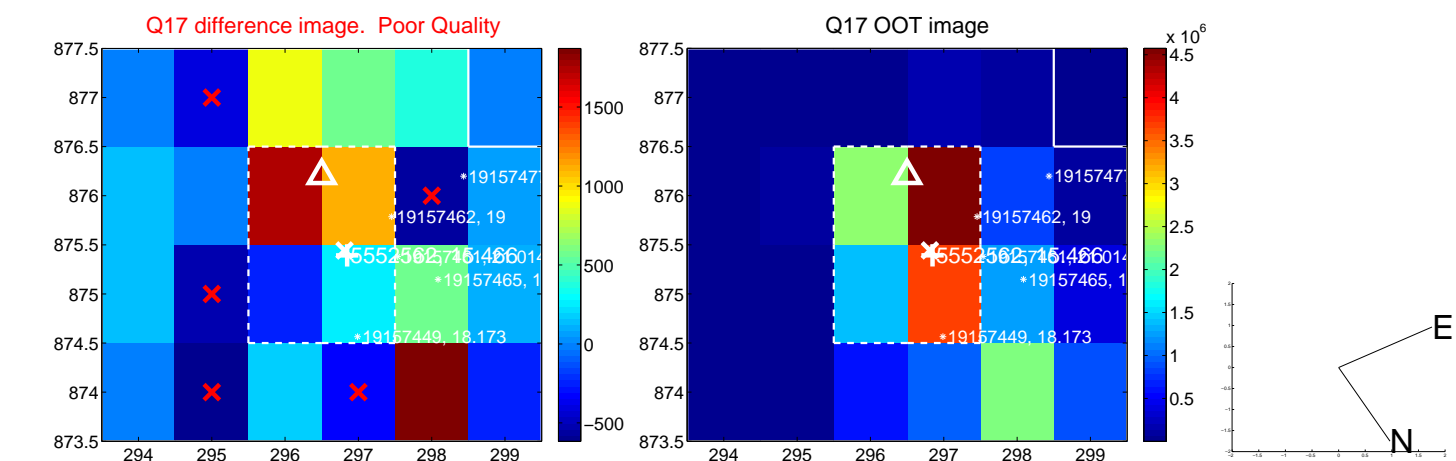
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



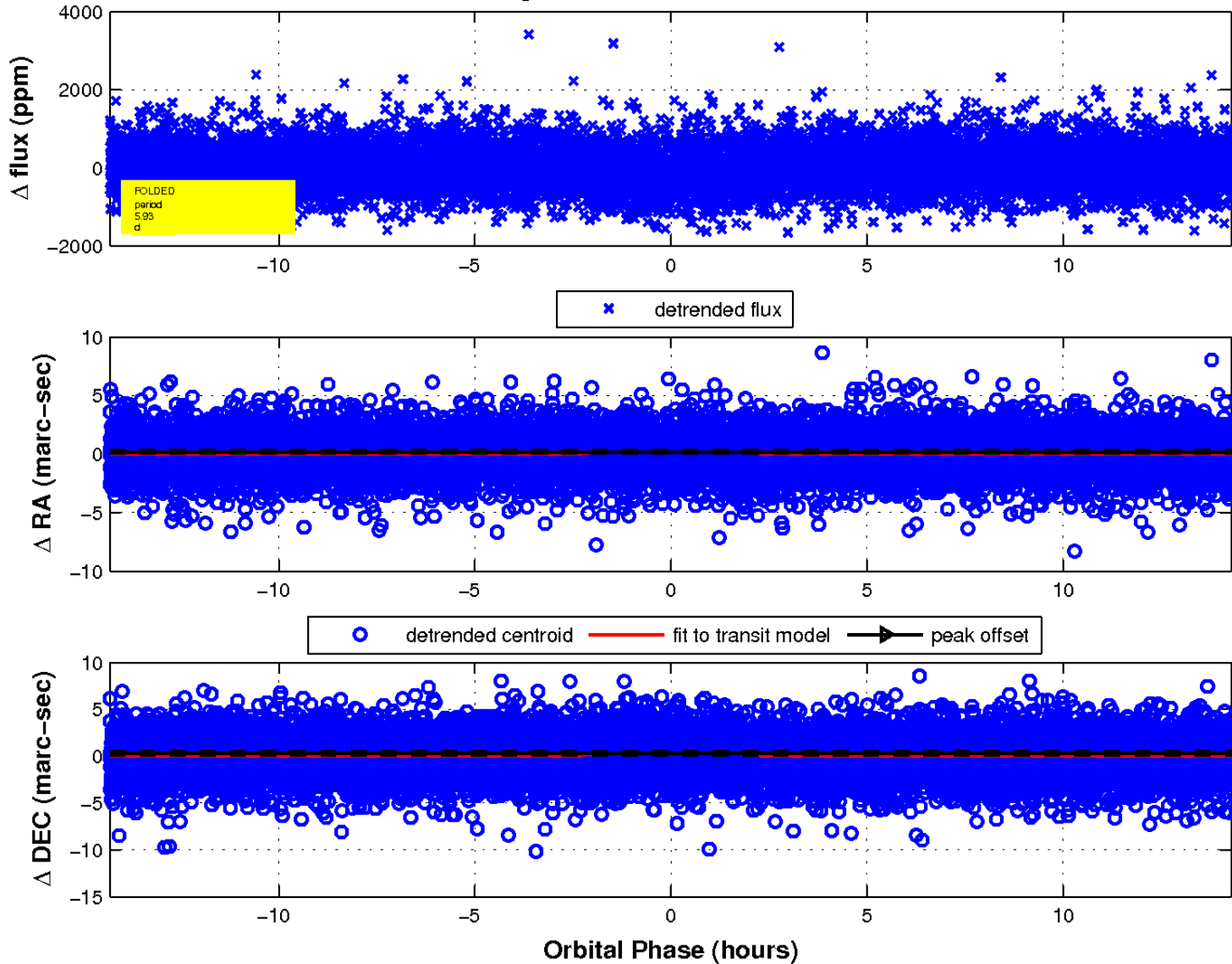
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

