

KIC 008480582

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})
008480582-01	OBS	4386.01	18.501243	149.170145	403.9	3.211	11.9	13.1	0.73	5242	1.75	22.44

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008480582-01	OBS	PC	0.97	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 008480582-01

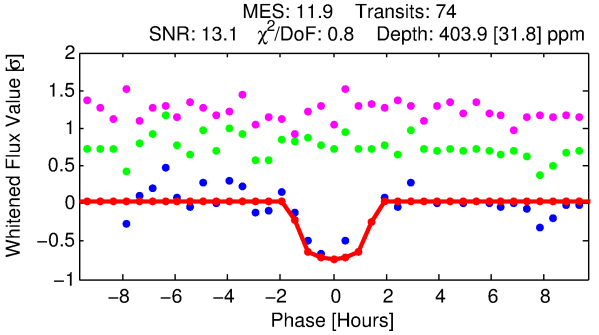
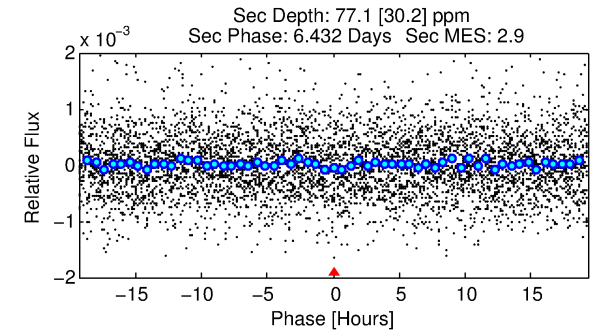
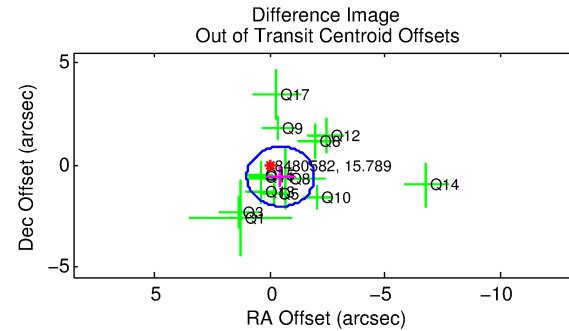
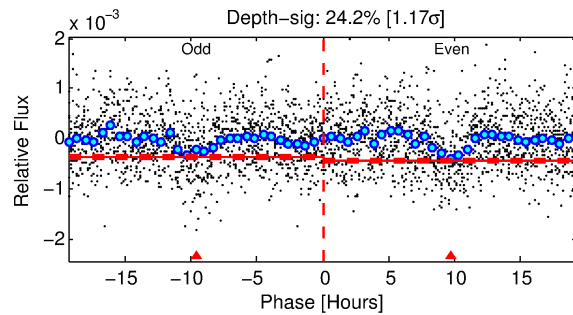
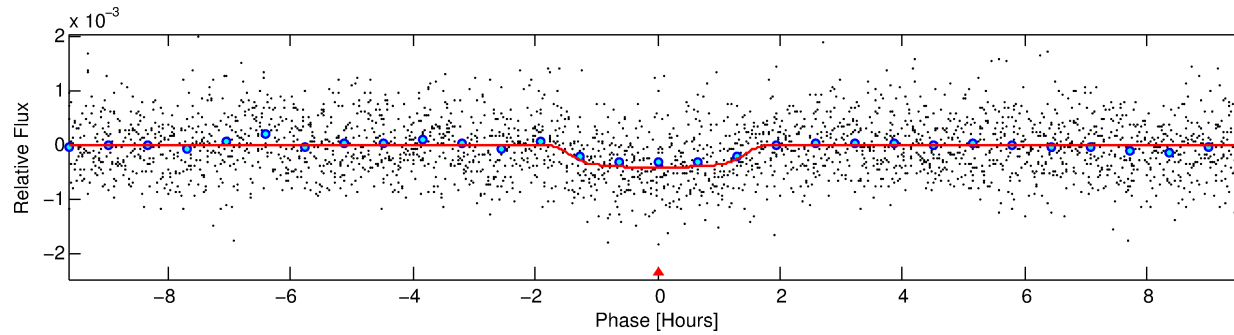
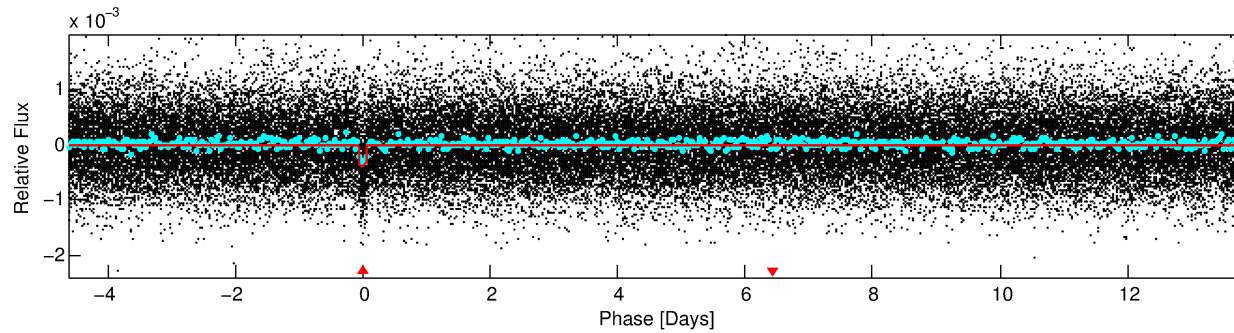
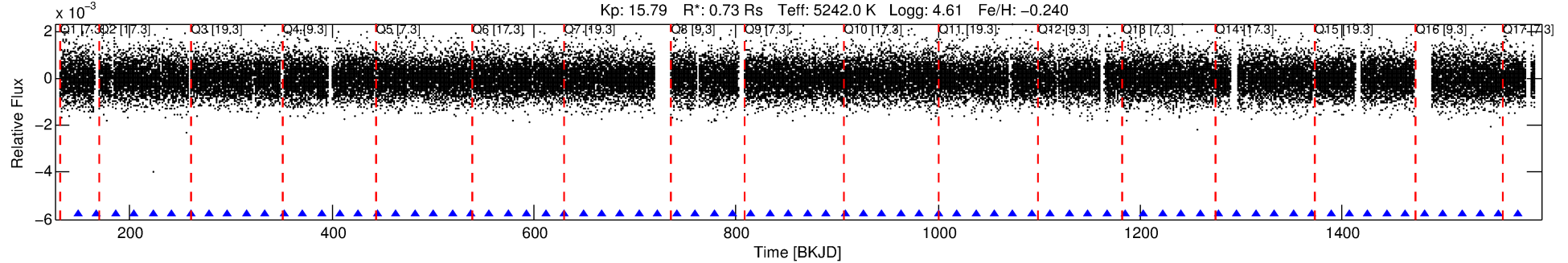
No Significant Match Found

DV One-Page Summary

KIC: 8480582 Candidate: 1 of 1 Period: 18.501 d

KOI: K04386.01 Corr: 0.966

Kp: 15.79 R*: 0.73 Rs Teff: 5242.0 K Logg: 4.61 Fe/H: -0.240



DV Fit Results:

Period = 18.50124 [0.00013] d
Epoch = 149.1701 [0.0059] BKJD
Rp/R* = 0.0218 [0.0095]
a/R* = 22.64 [40.58]
b = 0.88 [0.46]
Seff = 22.44 [4.71]
Teq = 555 [29] K
Rp = 1.75 [0.81] Re
a = 0.1274 [0.0157] AU
Ag = 225.37 [218.39] [1.03σ]
Teffp = 3325 [799] K [3.46σ]

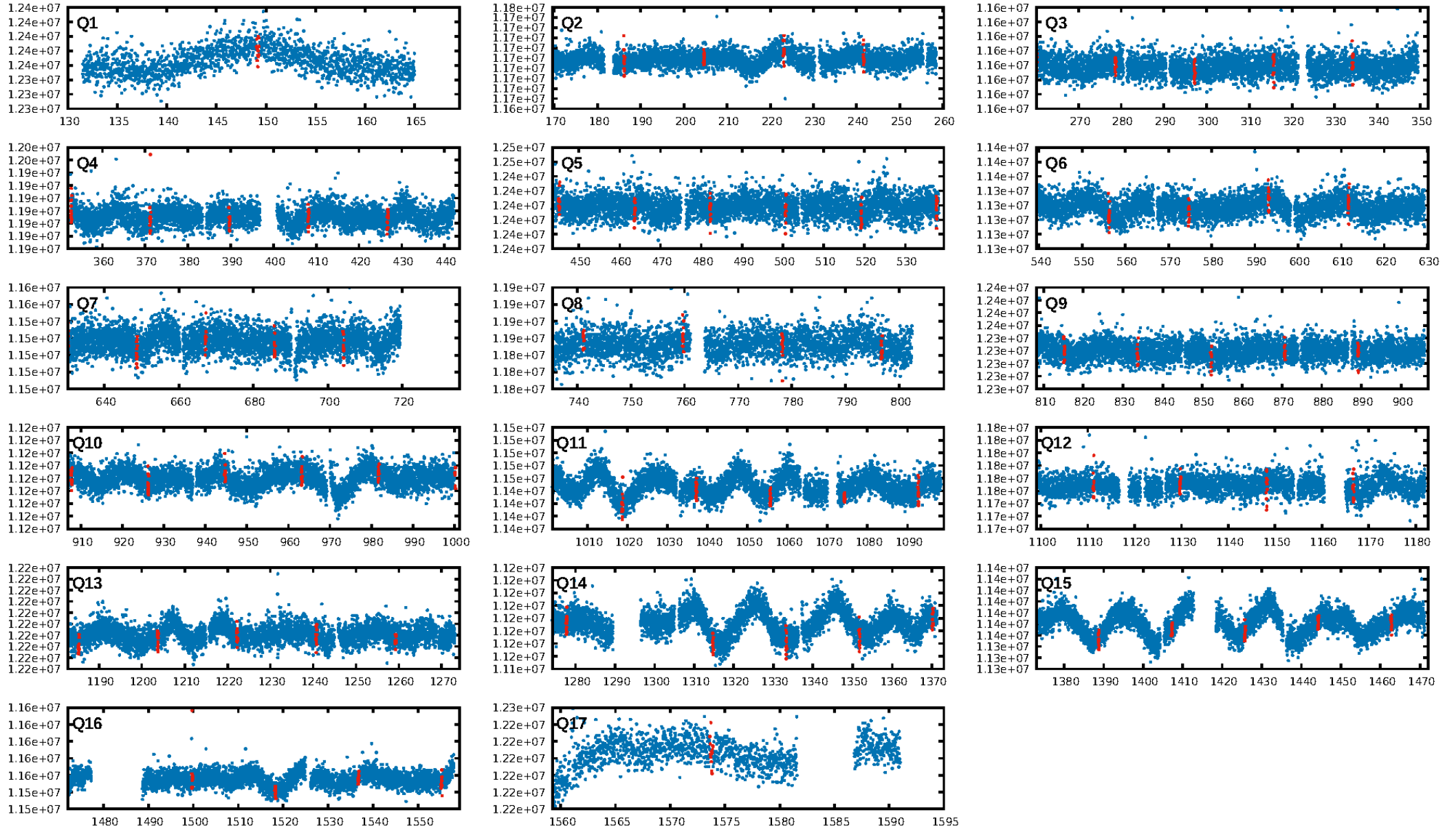
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 99.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.14e-32
RollingBand-fgt: 1.00 [72/72]
GhostDiagnostic-chr: 3.073
Centroid-sig: 9.0%
Centroid-so: 1.311 arcsec [1.20σ]
OotOffset-rm: 0.745 arcsec [1.53σ]
KicOffset-rm: 0.877 arcsec [1.88σ]
OotOffset-st: 3/3/2/5 [13]
KicOffset-st: 3/3/2/5 [13]
DiffImageQuality-fgm: 0.62 [8/13]
DiffImageOverlap-fno: 1.00 [17/17]

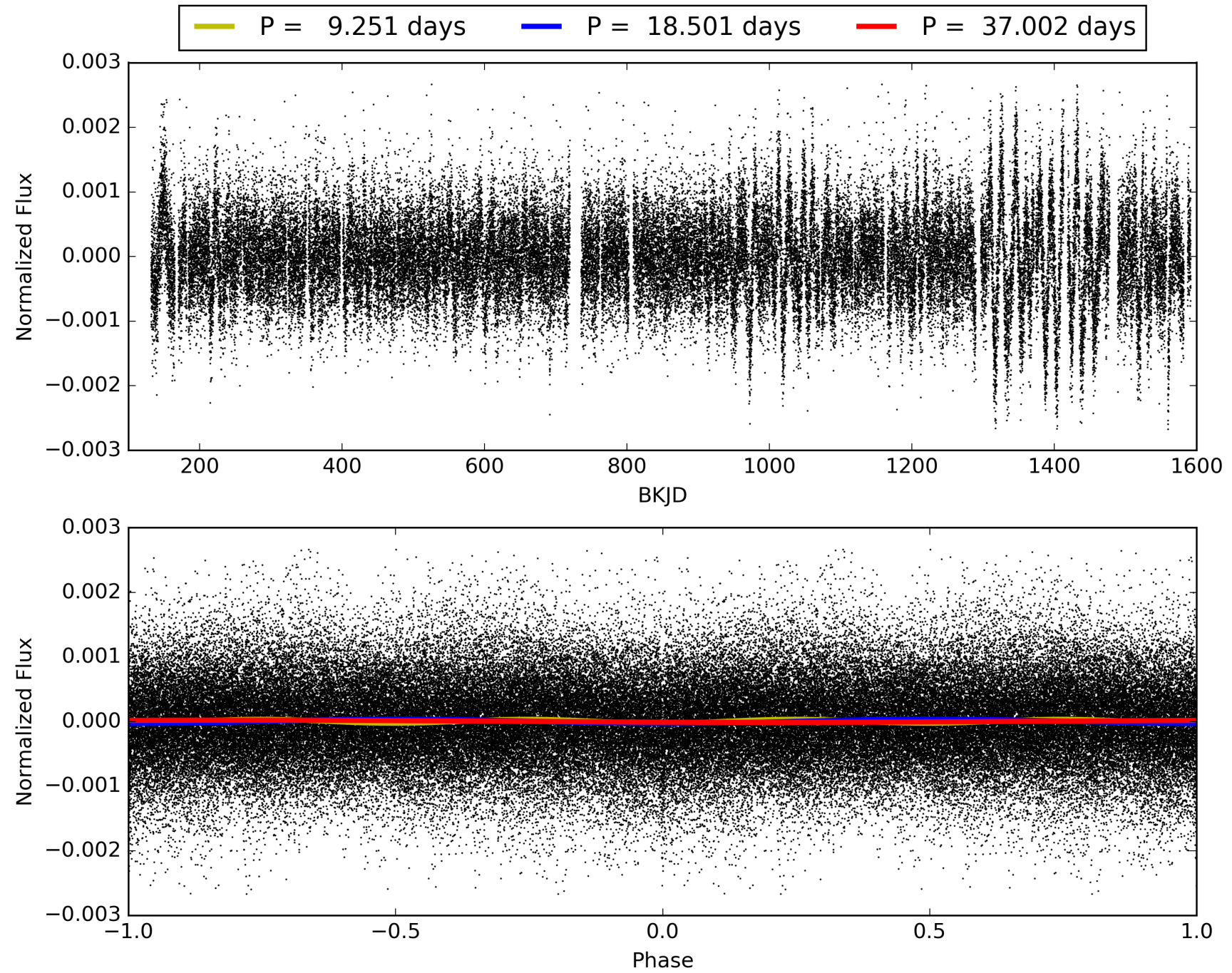
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 22:41:26 Z

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

TCE 008480582-01, PDC Light Curves

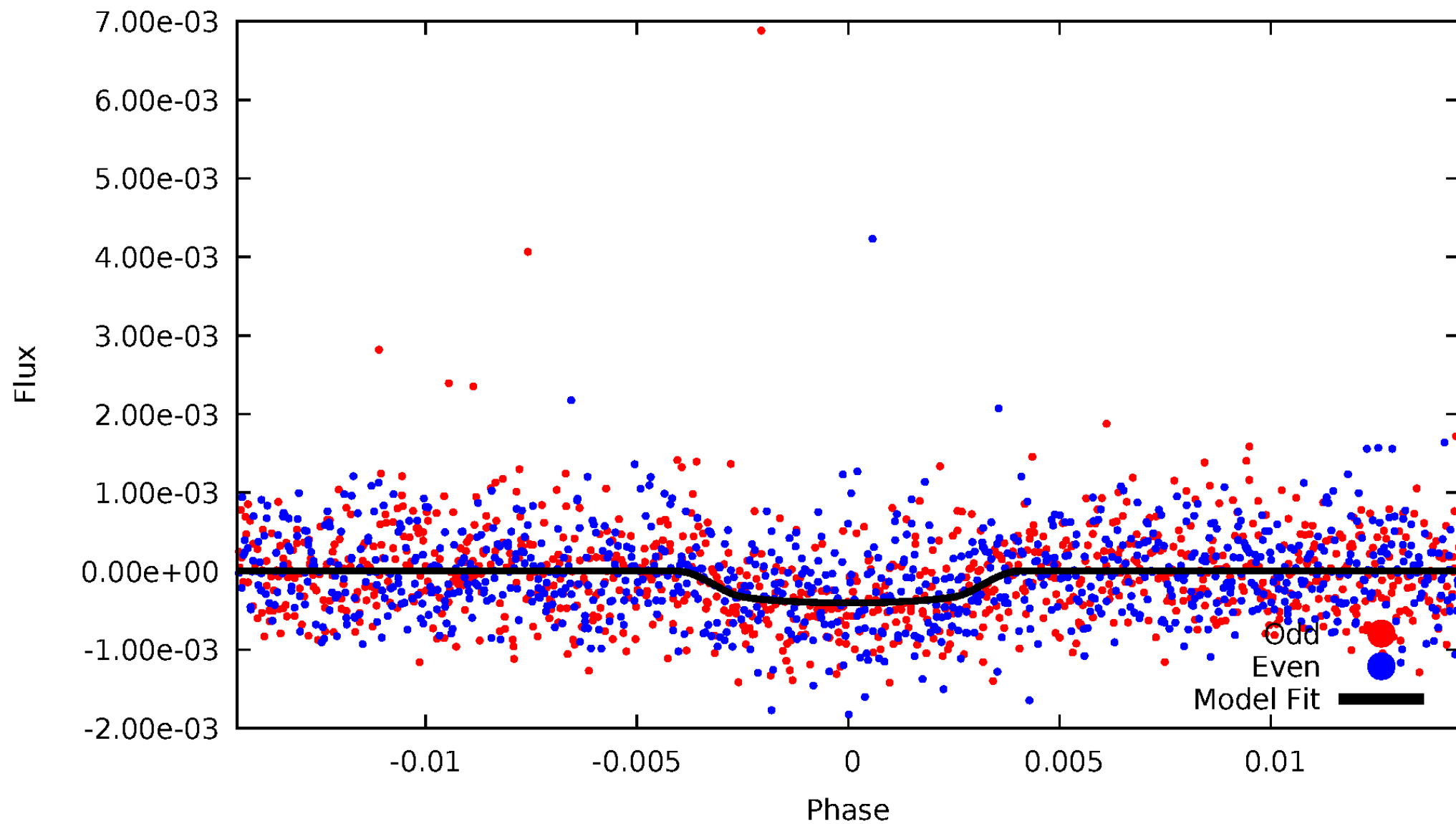


TCE 008480582-01



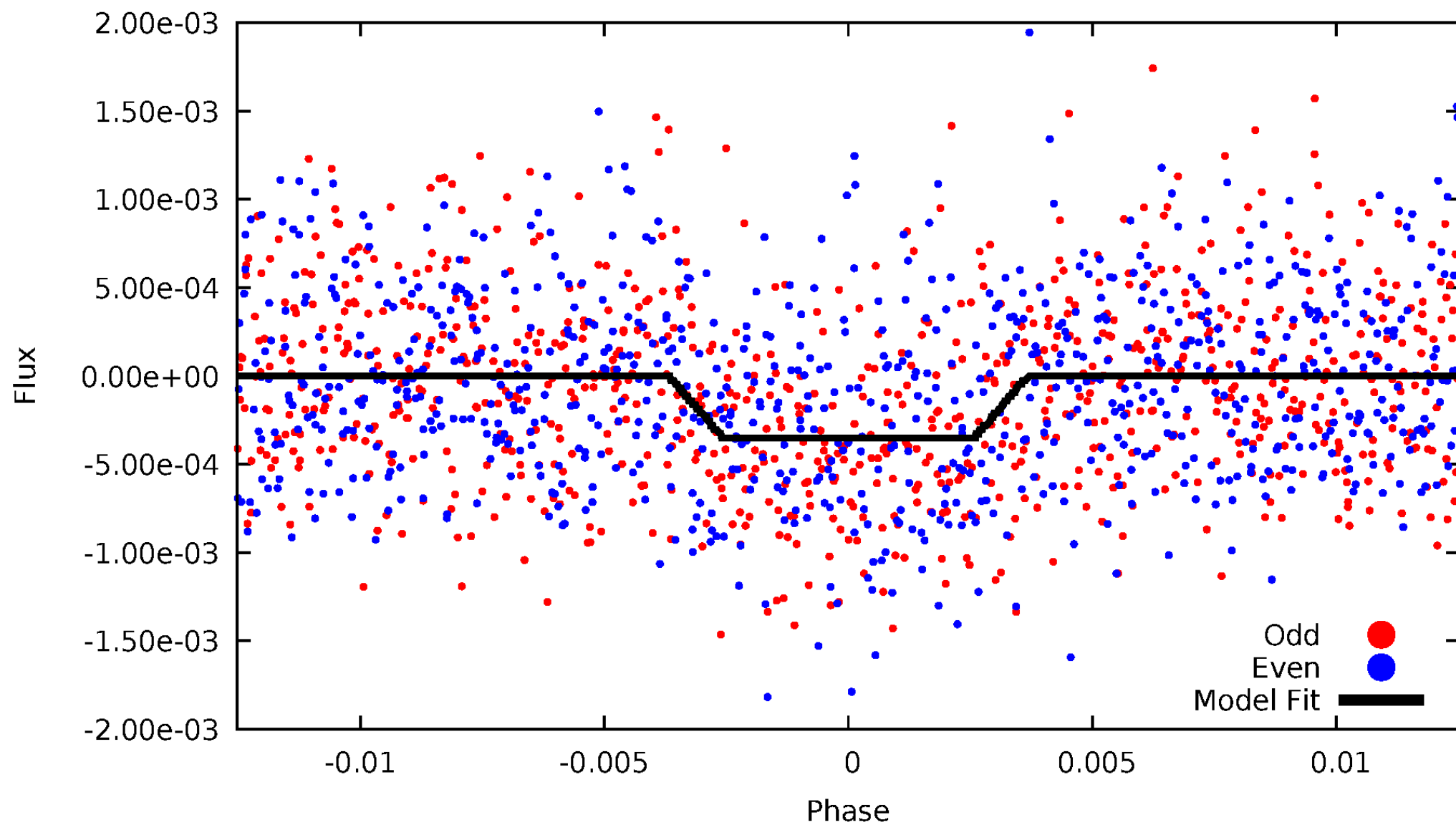
DV Odd/Even

TCE 008480582-01

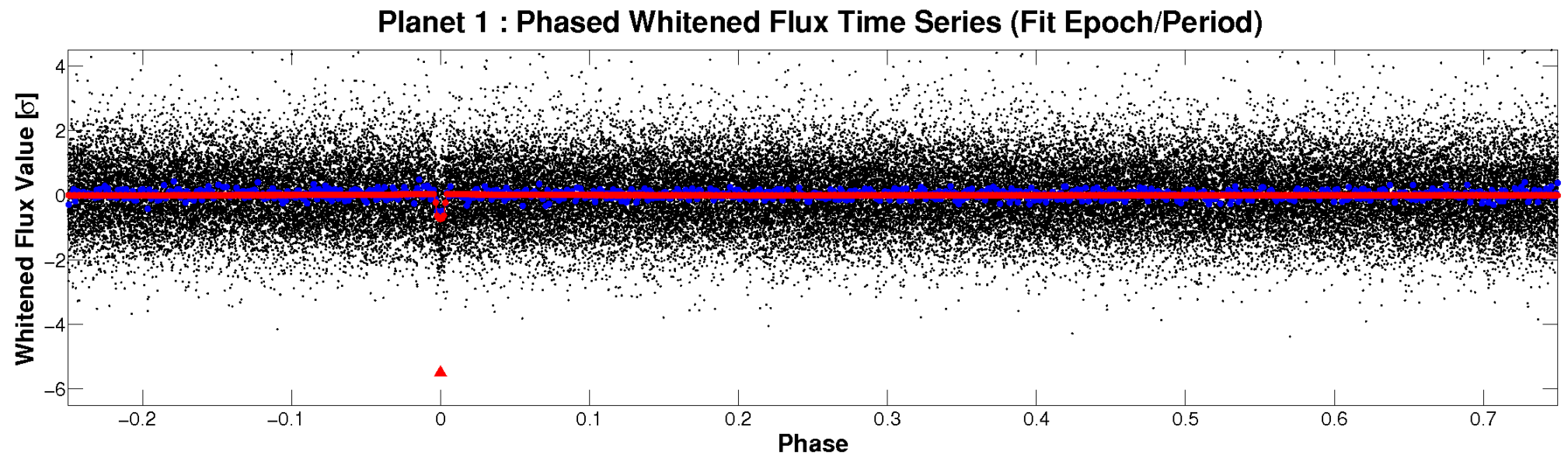
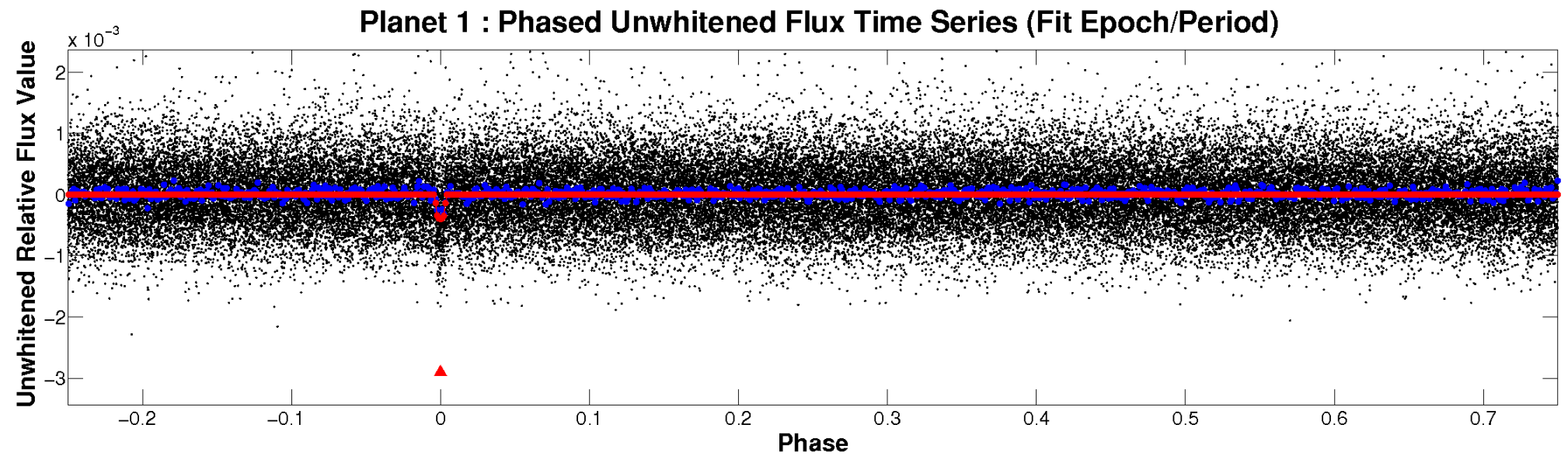


ALT Odd/Even

TCE 008480582-01

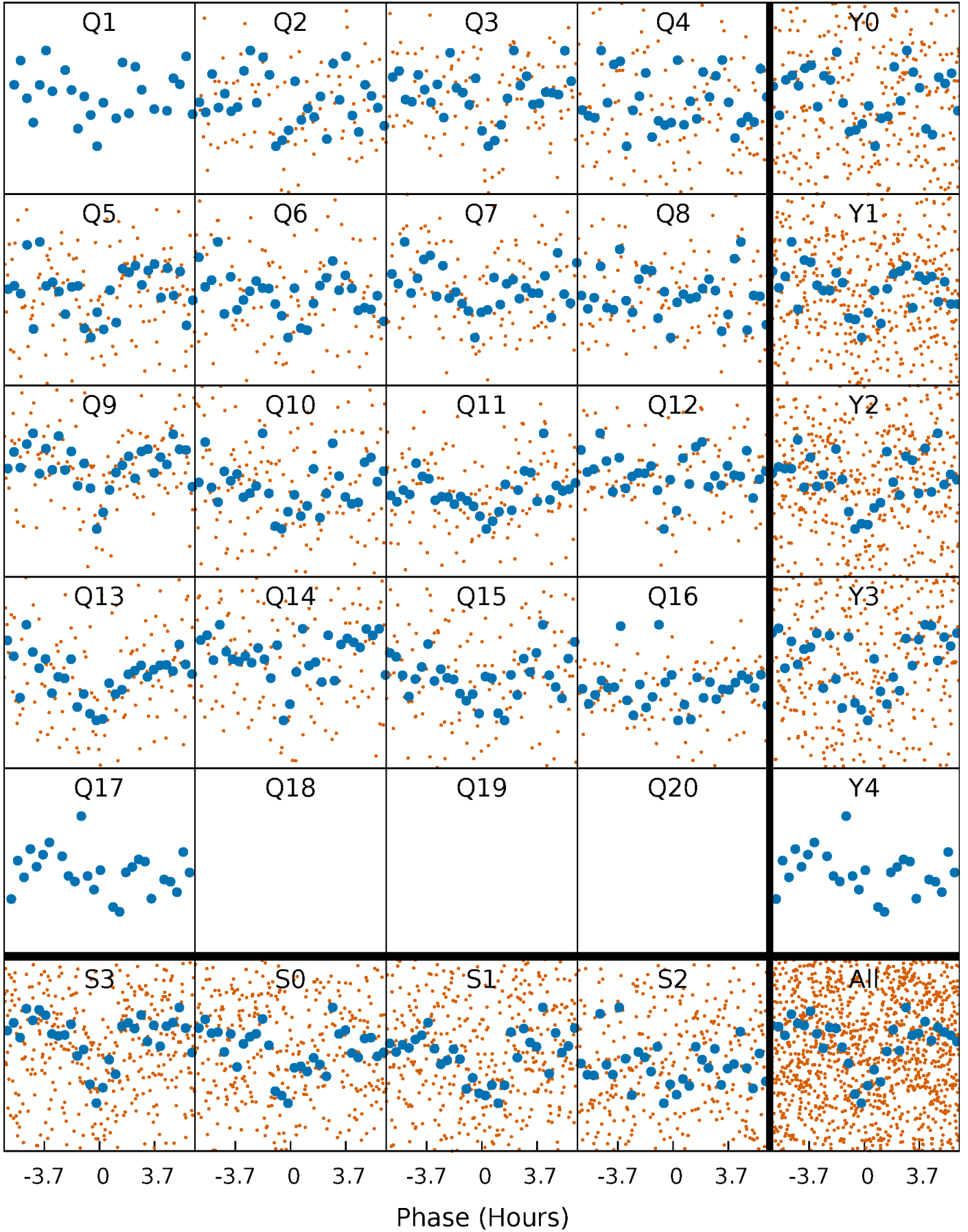


Non-Whitened Vs. Whitened Light Curve



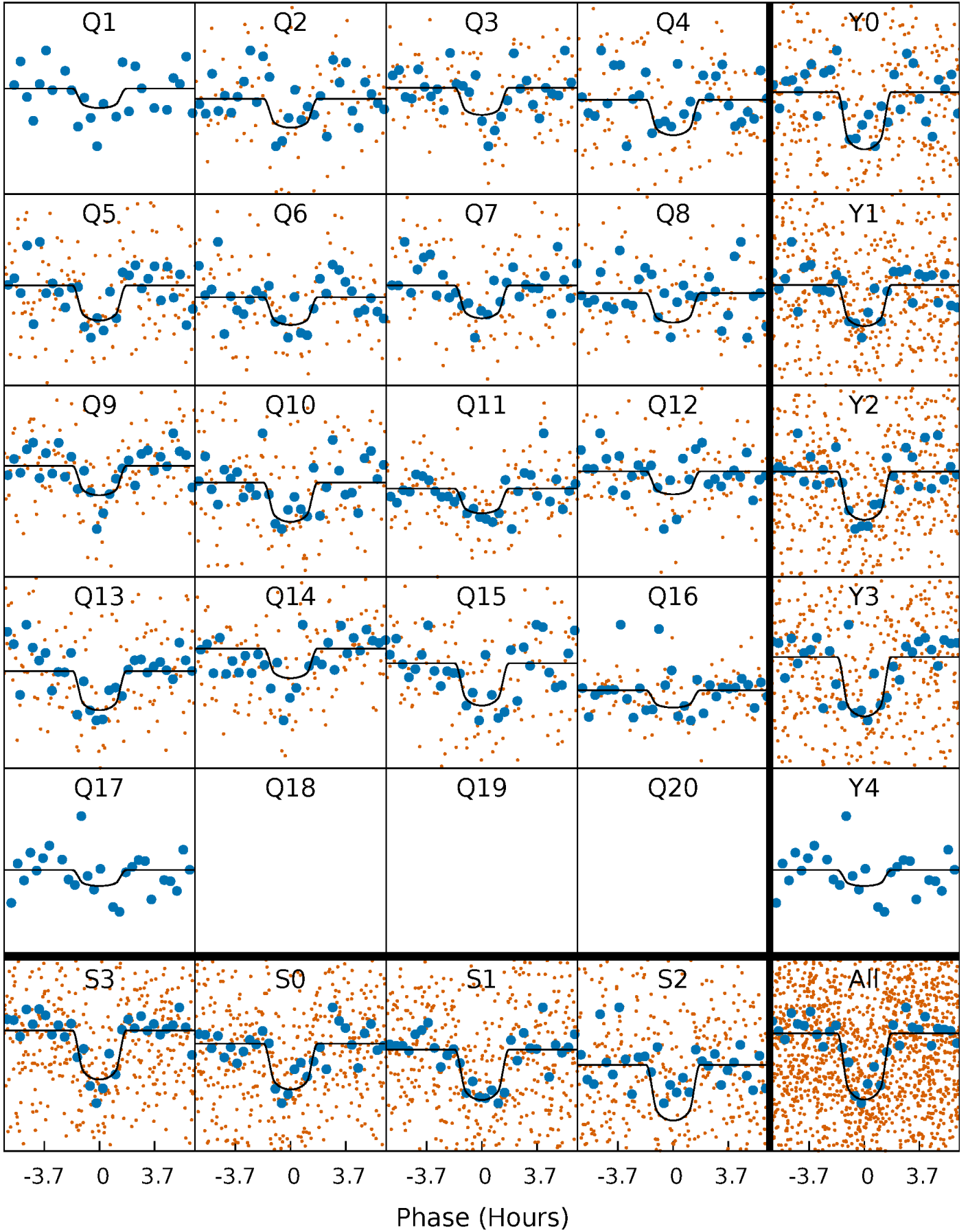
PDC Quarter-Phased Transit Curves

TCE 008480582-01 P= 18.501243 Days $T_0=149.170145$ (BKJD)



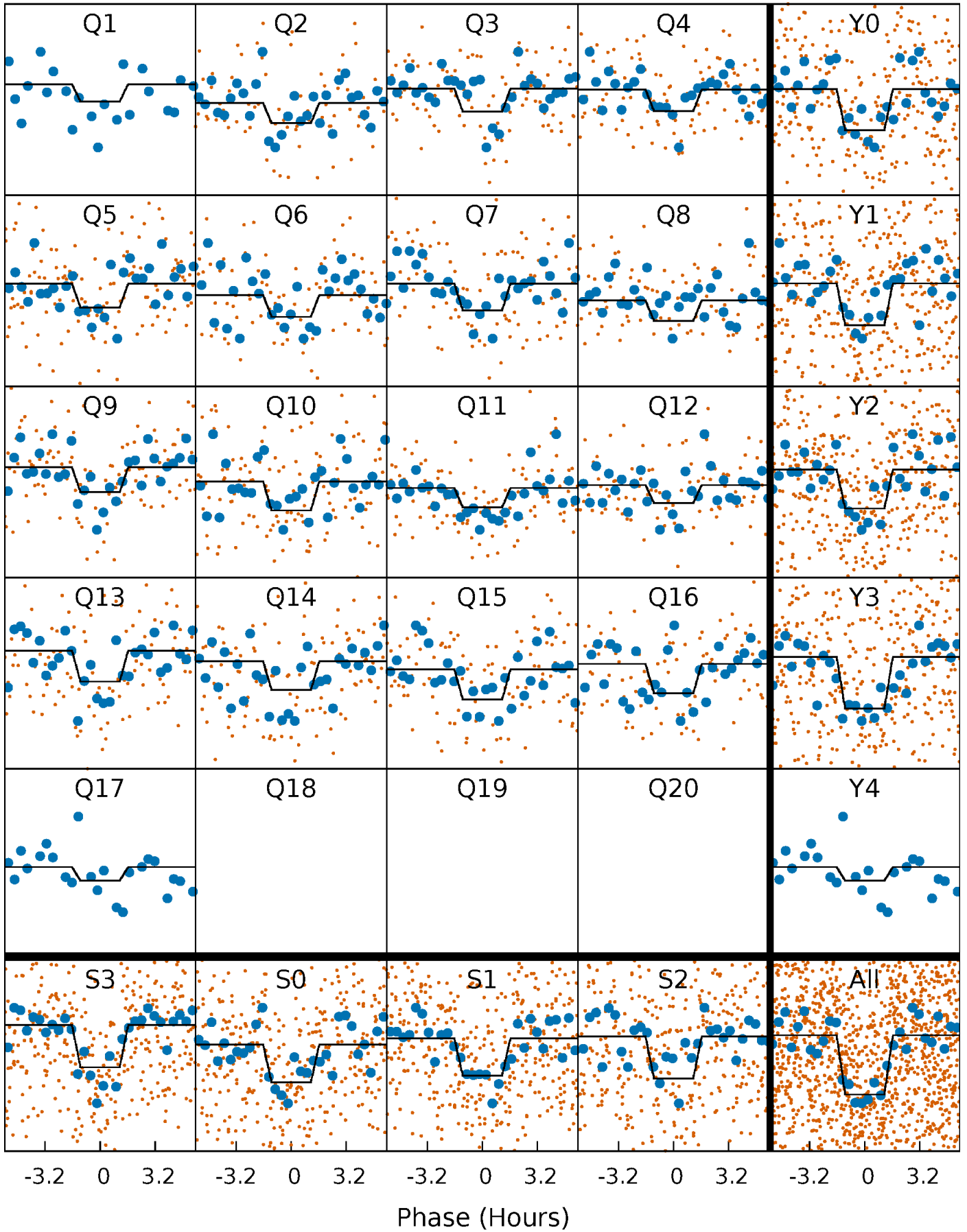
DV Quarter-Phased Transit Curves

TCE 008480582-01 P= 18.501243 Days $T_0=149.170145$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

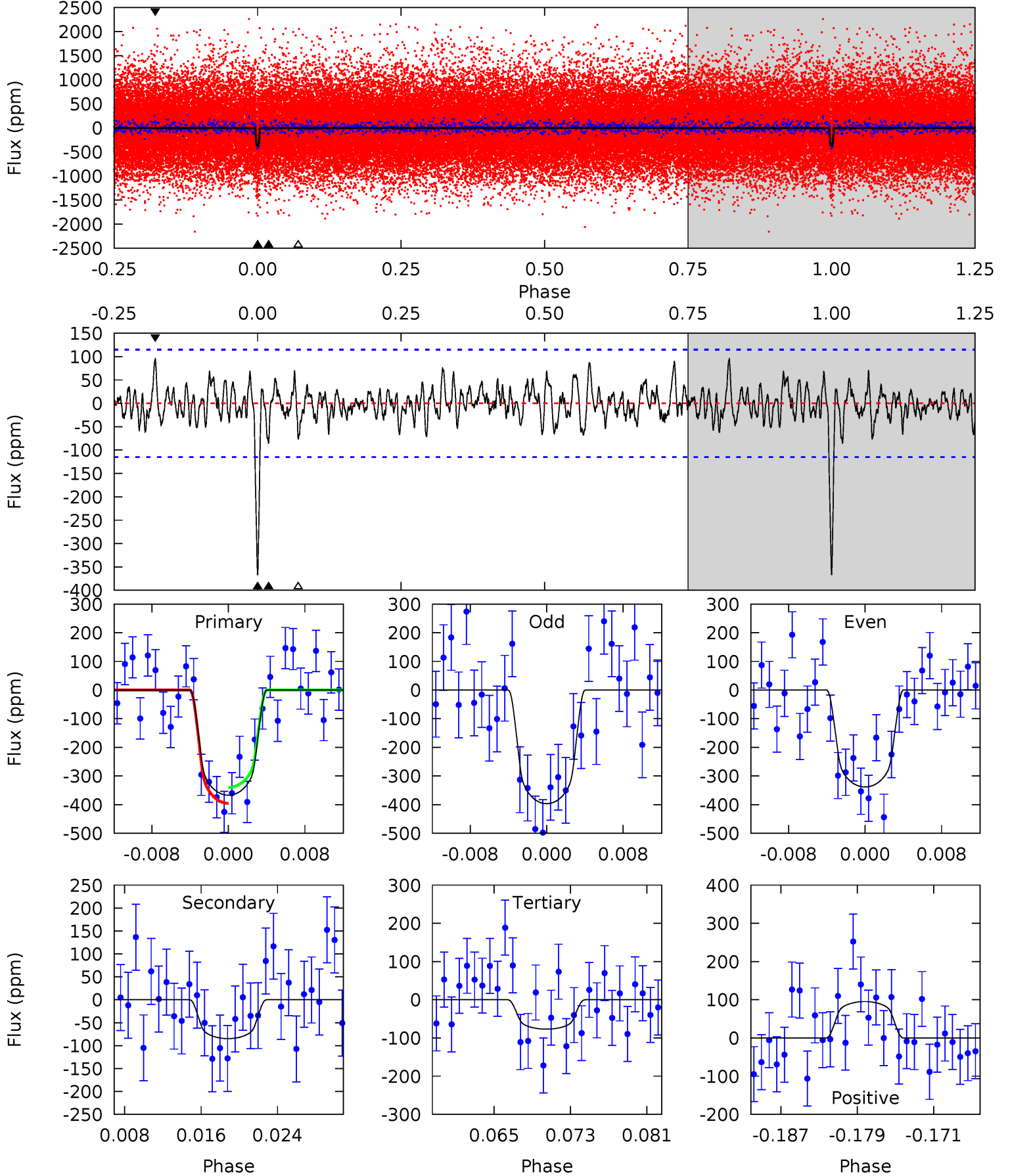
TCE 008480582-01 P= 18.501150 Days $T_0=149.172170$ (BKJD)



DV Model-Shift Uniqueness Test

008480582-01, $P = 18.501243$ Days, $E = 130.668902$ Days

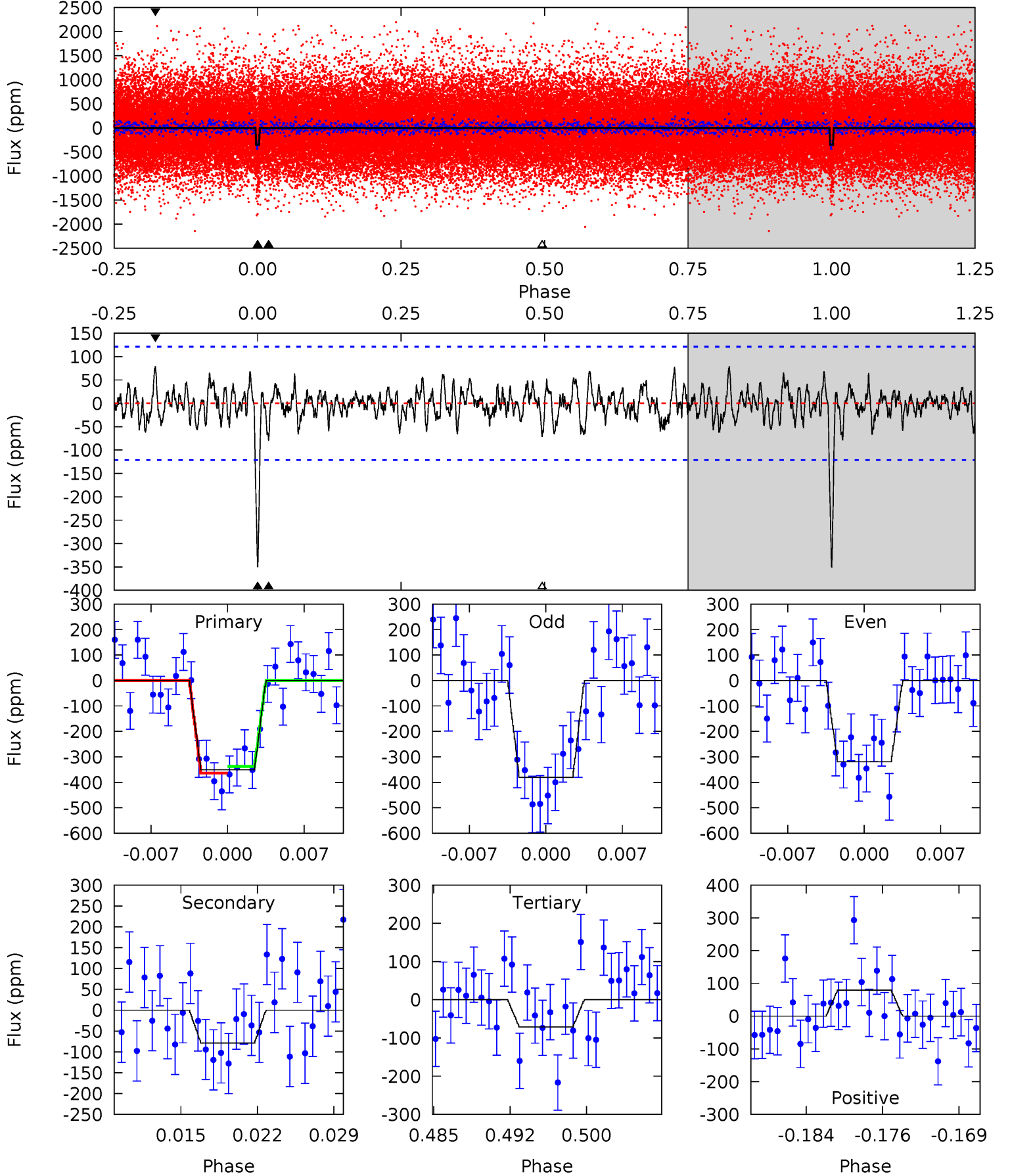
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.2	3.73	3.39	4.20	5.07	2.65	1.26	12.8	12.0	0.34	-0.47	1.29	0.88	0.21	1.22



Alt Model-Shift Uniqueness Test

008480582-01, $P = 18.501150$ Days, $E = 130.671020$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.7	3.31	3.00	3.33	5.09	2.68	1.11	11.7	11.4	0.31	-0.02	1.30	1.01	0.18	0.55



Stellar Parameters For KIC 008480582

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5242^{+158}_{-142}	$4.613^{+0.030}_{-0.090}$	$-0.240^{+0.300}_{-0.300}$	$0.734^{+0.112}_{-0.060}$	$0.815^{+0.070}_{-0.085}$	$2.906^{+0.482}_{-0.878}$
	+3%/-3%	+1%/-2%	+125%/-125%	+15%/-8%	+9%/-10%	+17%/-30%
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 008480582-01 / KOI 4386.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-85 ± 23	$1.78^{+0.79}_{-0.74}$	786^{+29}_{-27}	3777^{+872}_{-457}	242^{+504}_{-137}
Alt.	-79 ± 24	$1.60^{+0.76}_{-0.79}$	786^{+33}_{-26}	3875^{+1066}_{-529}	277^{+733}_{-164}

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

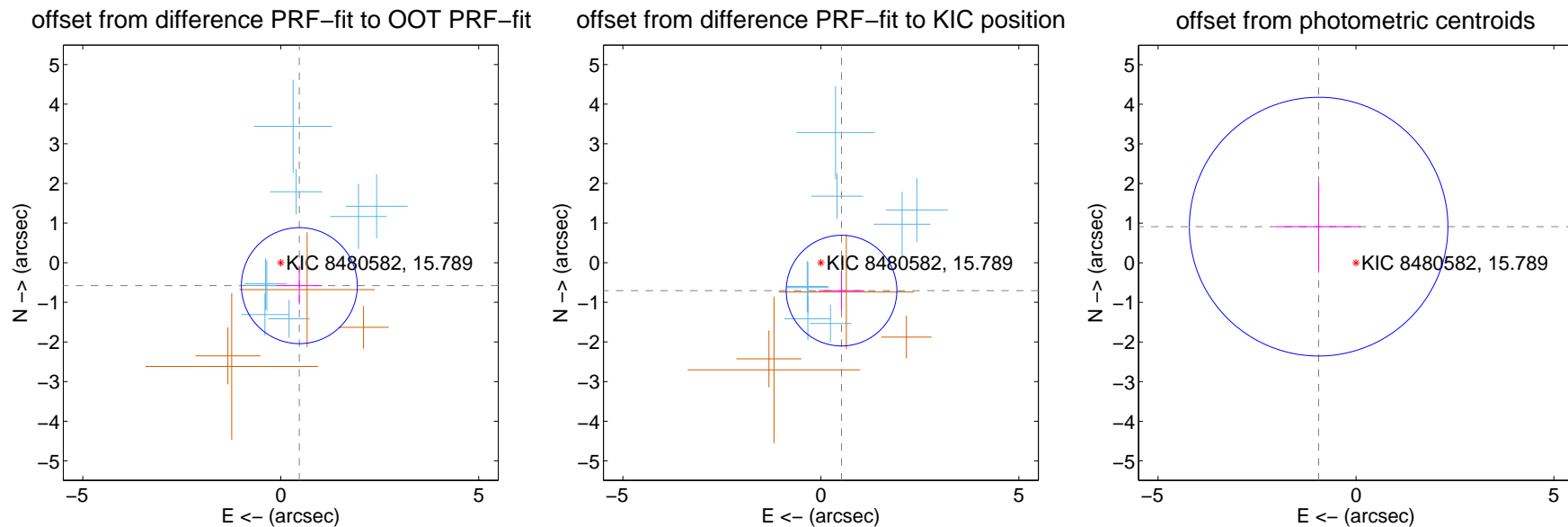
DV Centroid Data

Supplemental centroid analysis for 008480582-01. Kepler magnitude: 15.79. Transit SNR 13.07

There are 8 quarters with good PRF difference image offsets

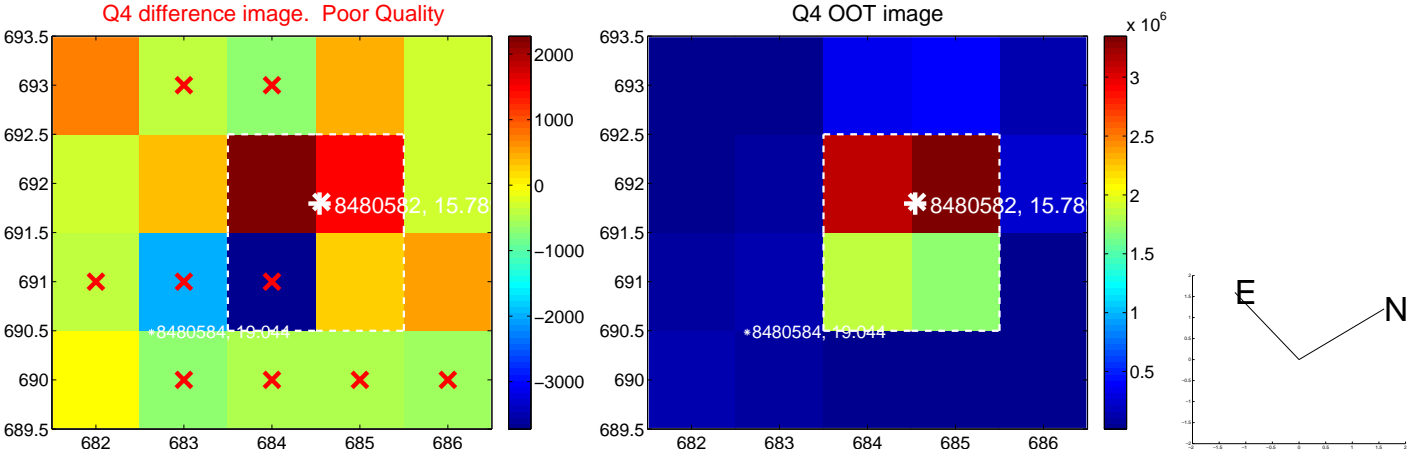
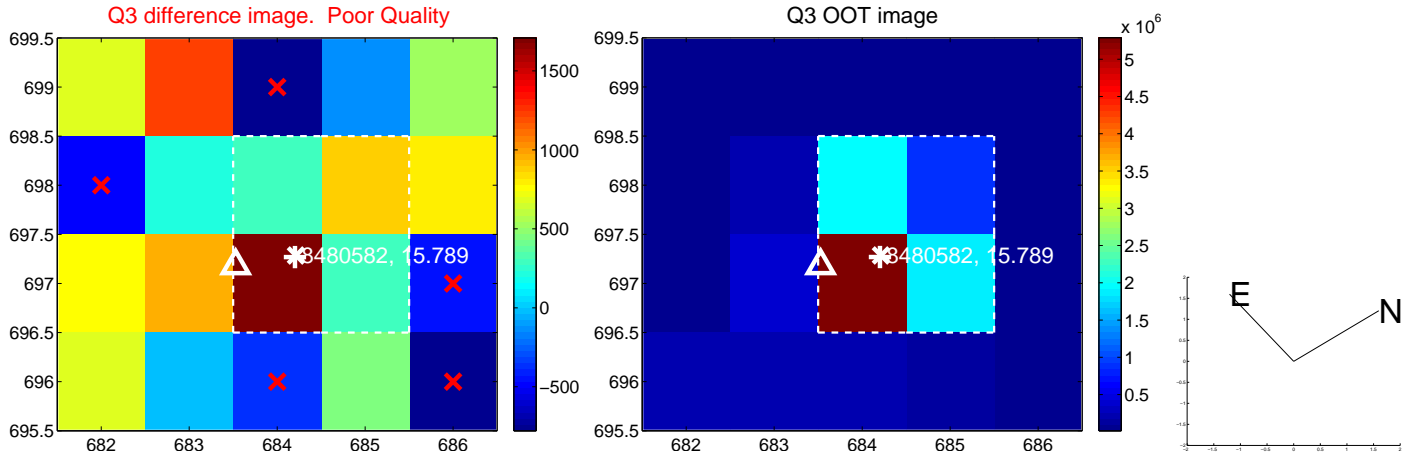
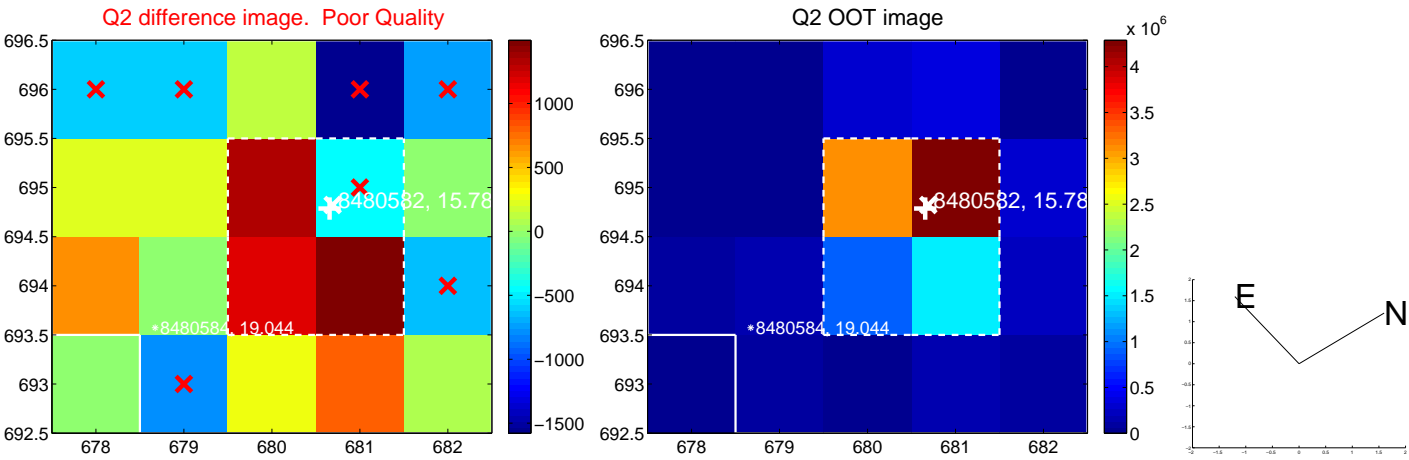
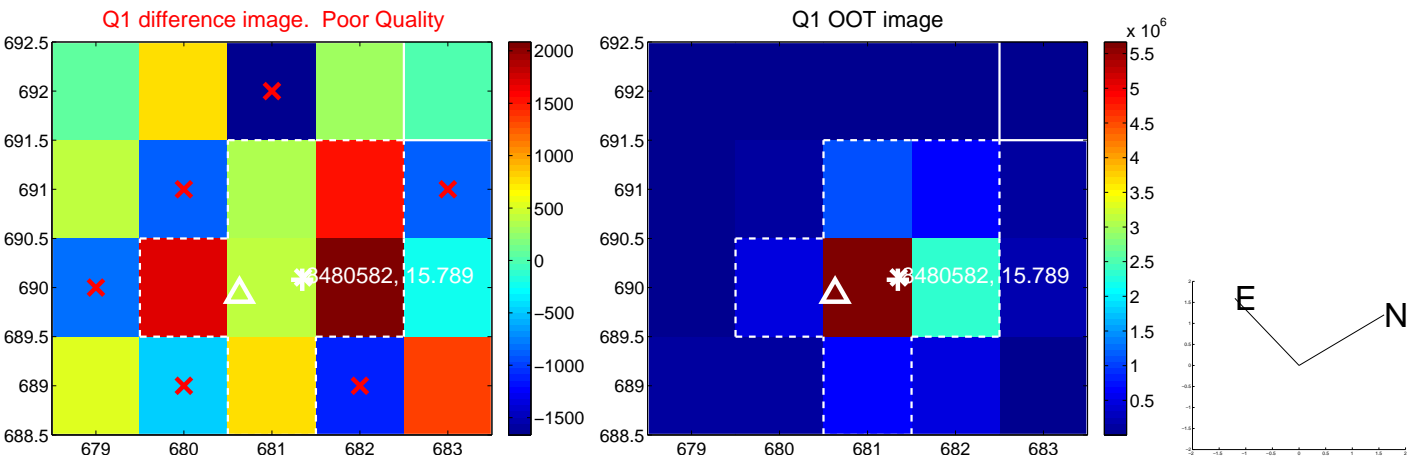
The direct PRF centroid is offset from the target star catalog position by about 0.17 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.745 ± 0.488	1.53	-0.470 ± 0.580	-0.579 ± 0.479
PRF-fit source offset from KIC position	0.877 ± 0.466	1.88	-0.522 ± 0.575	-0.704 ± 0.484
photometric centroid source offset	1.31 ± 1.09	1.20	0.94 ± 1.06	0.91 ± 1.11

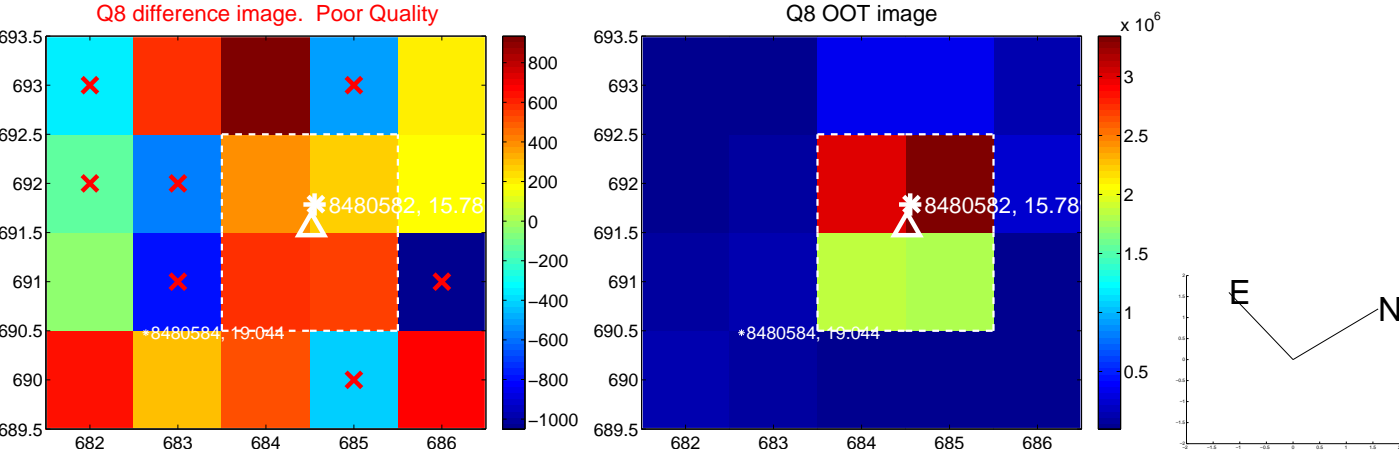
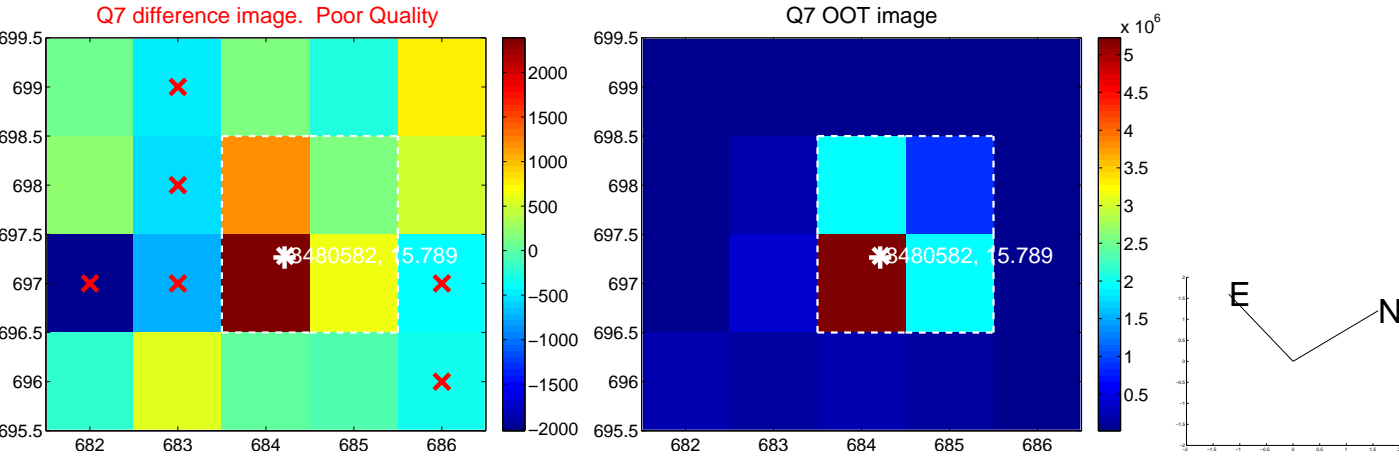
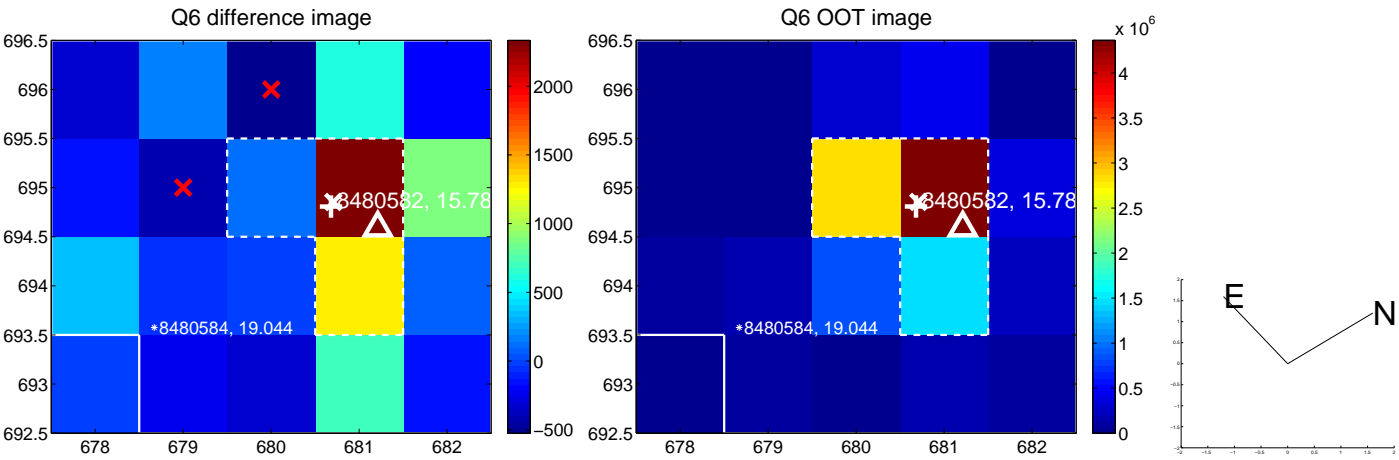
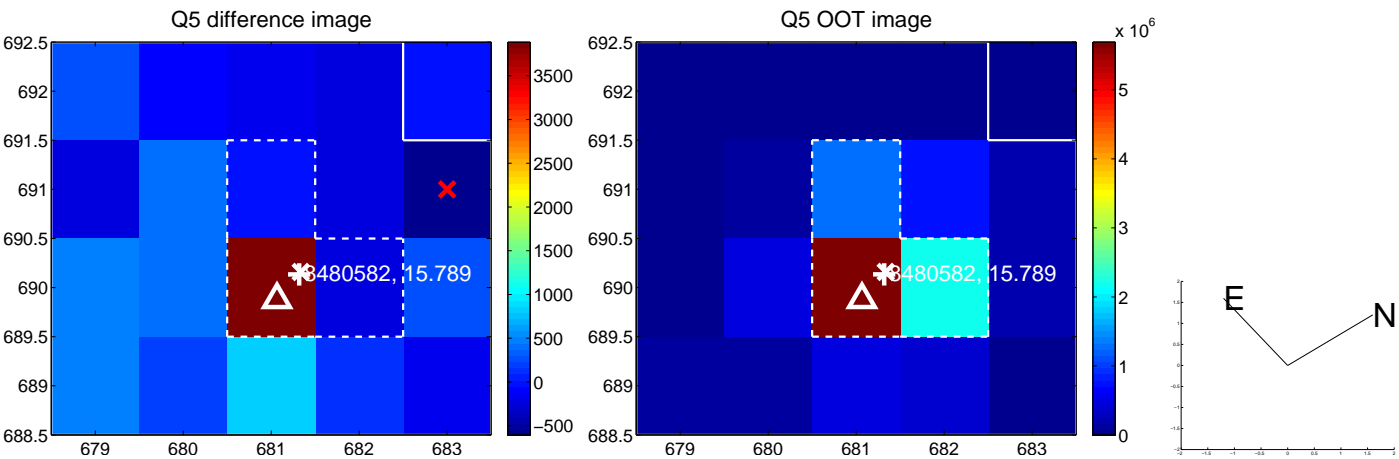


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

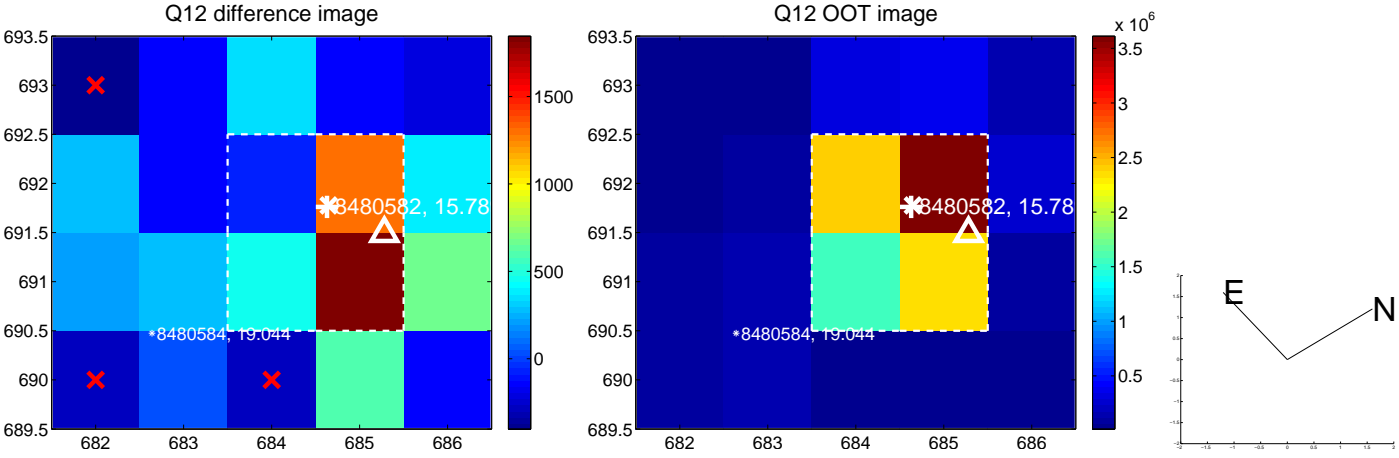
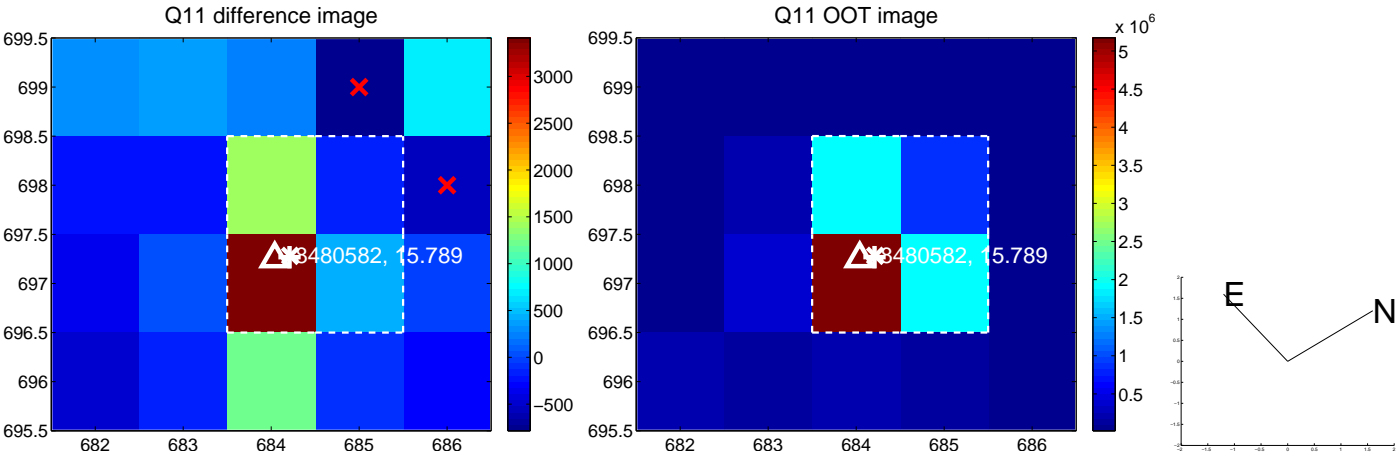
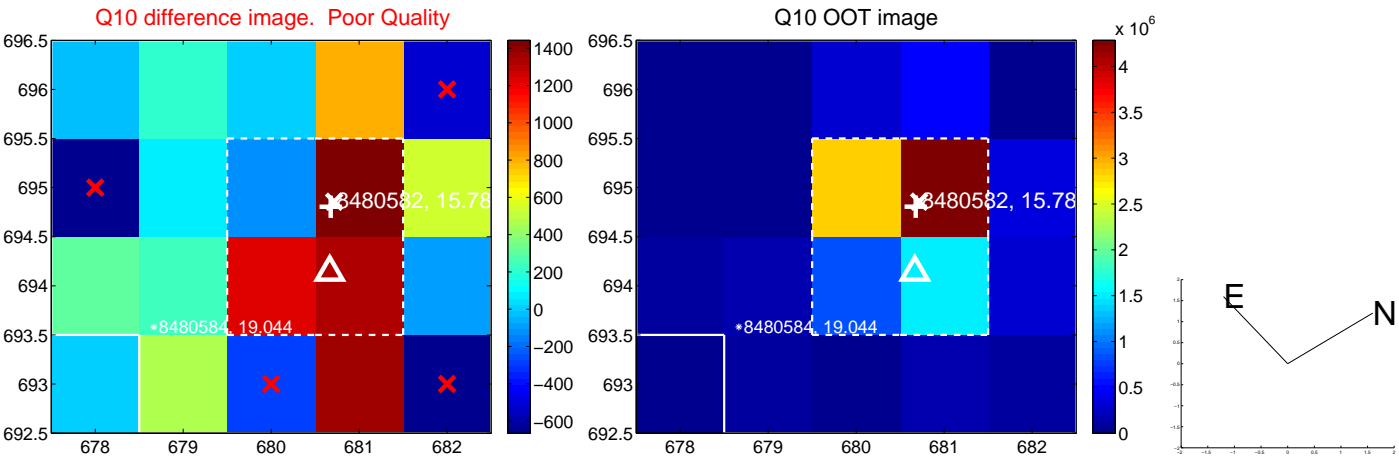
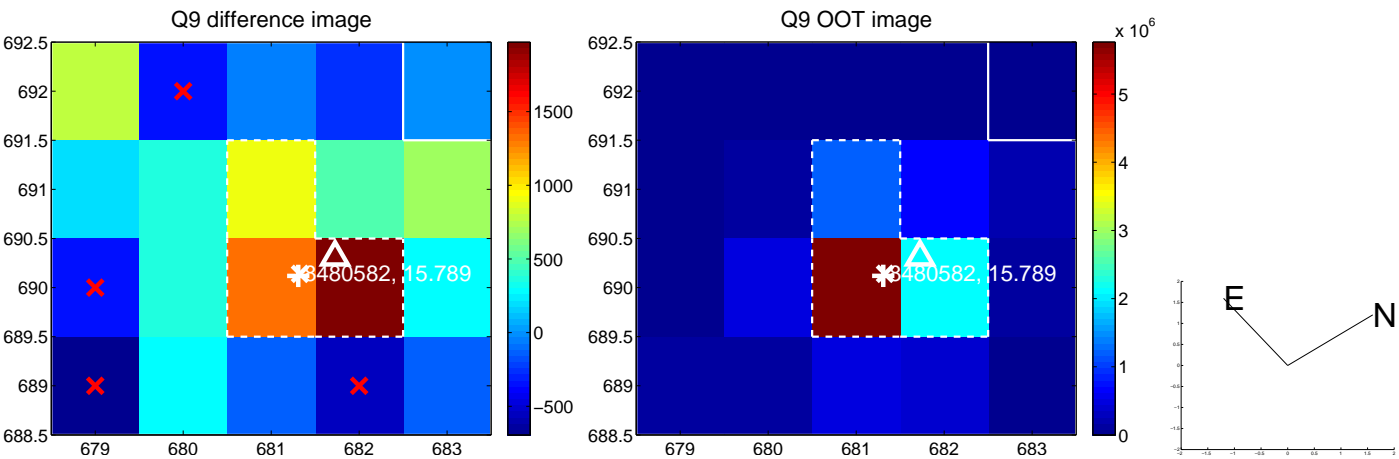
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



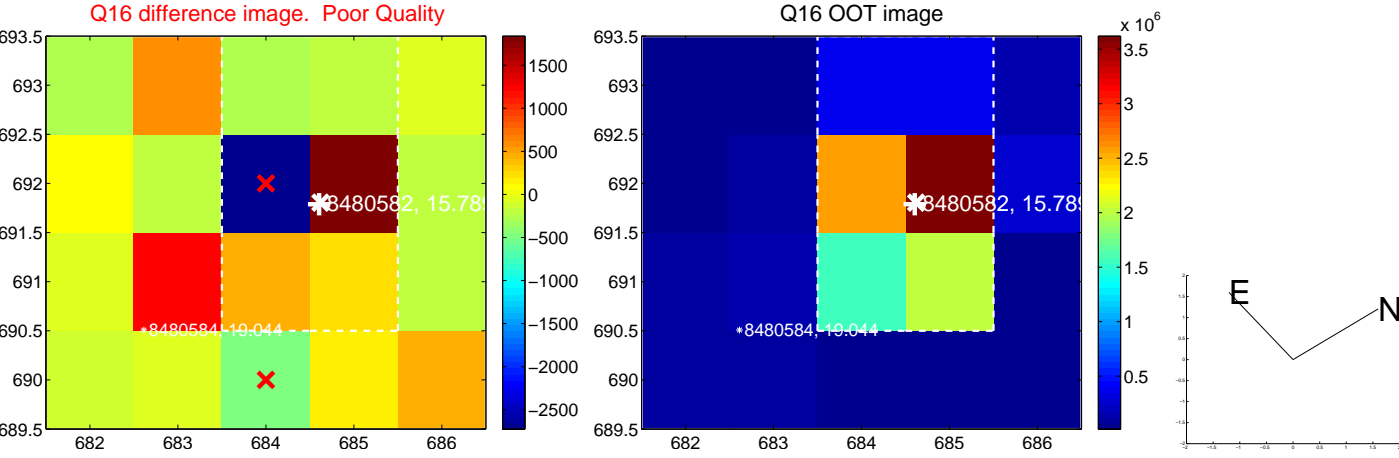
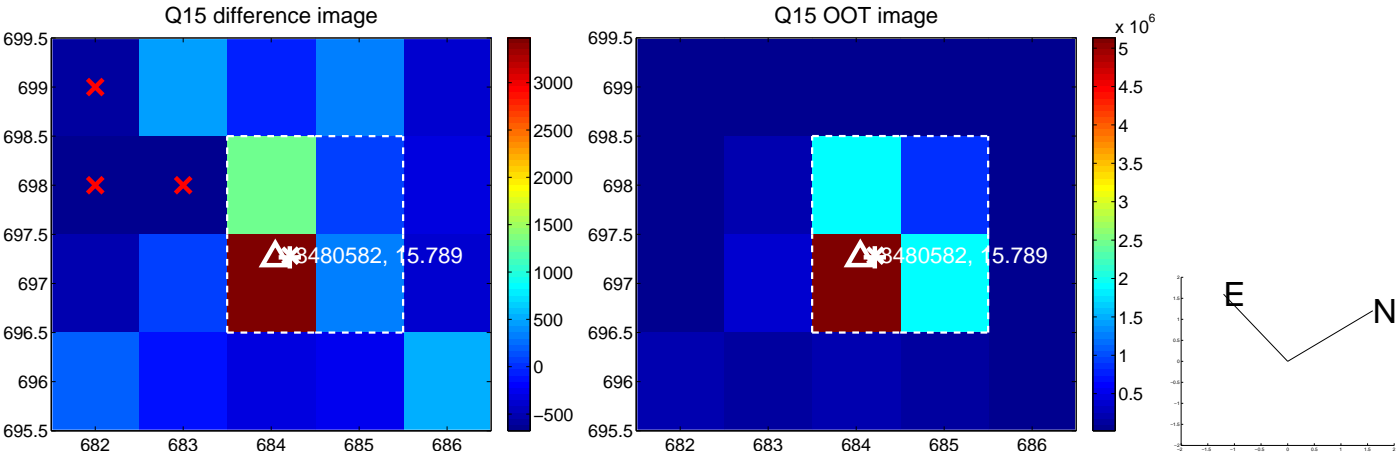
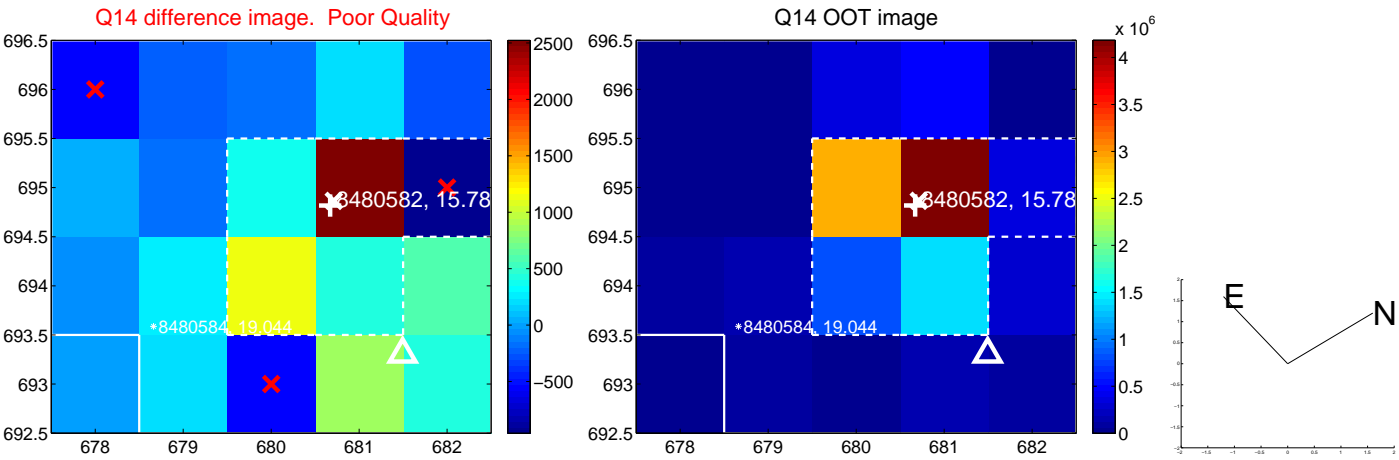
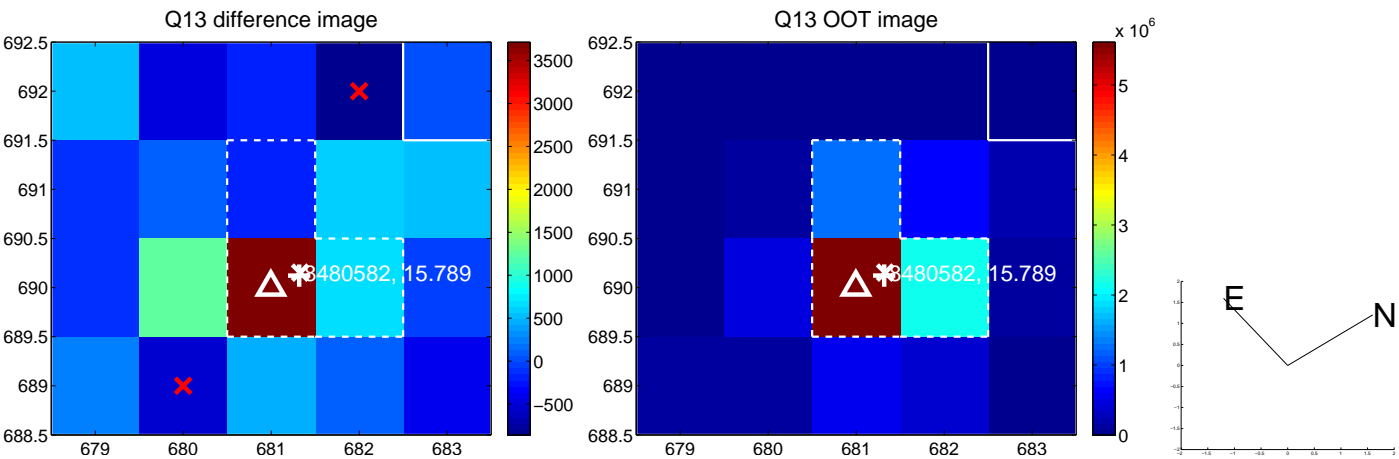
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



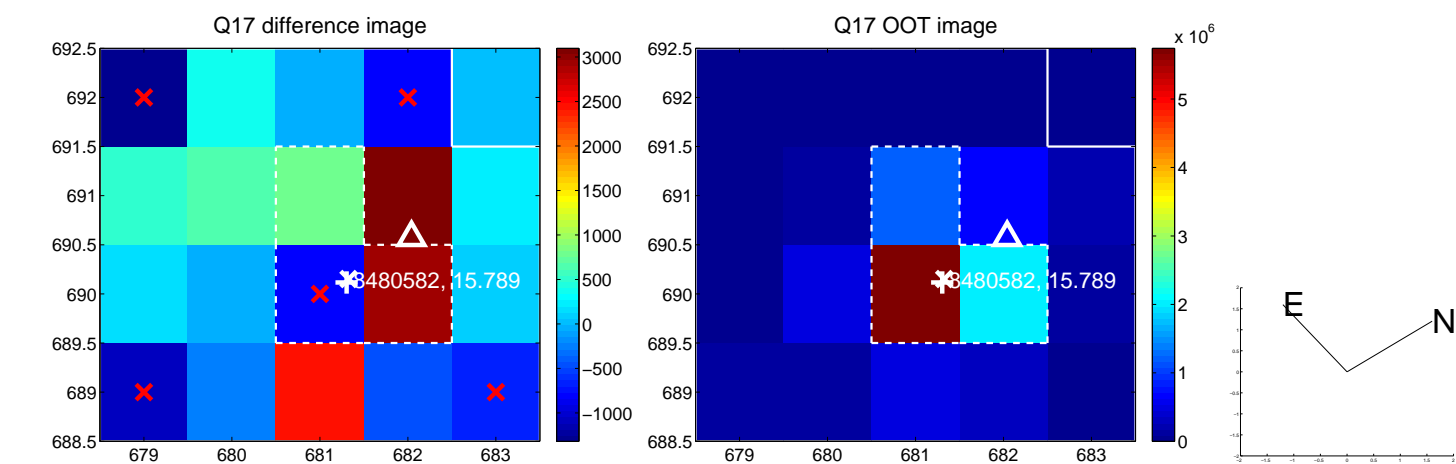
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



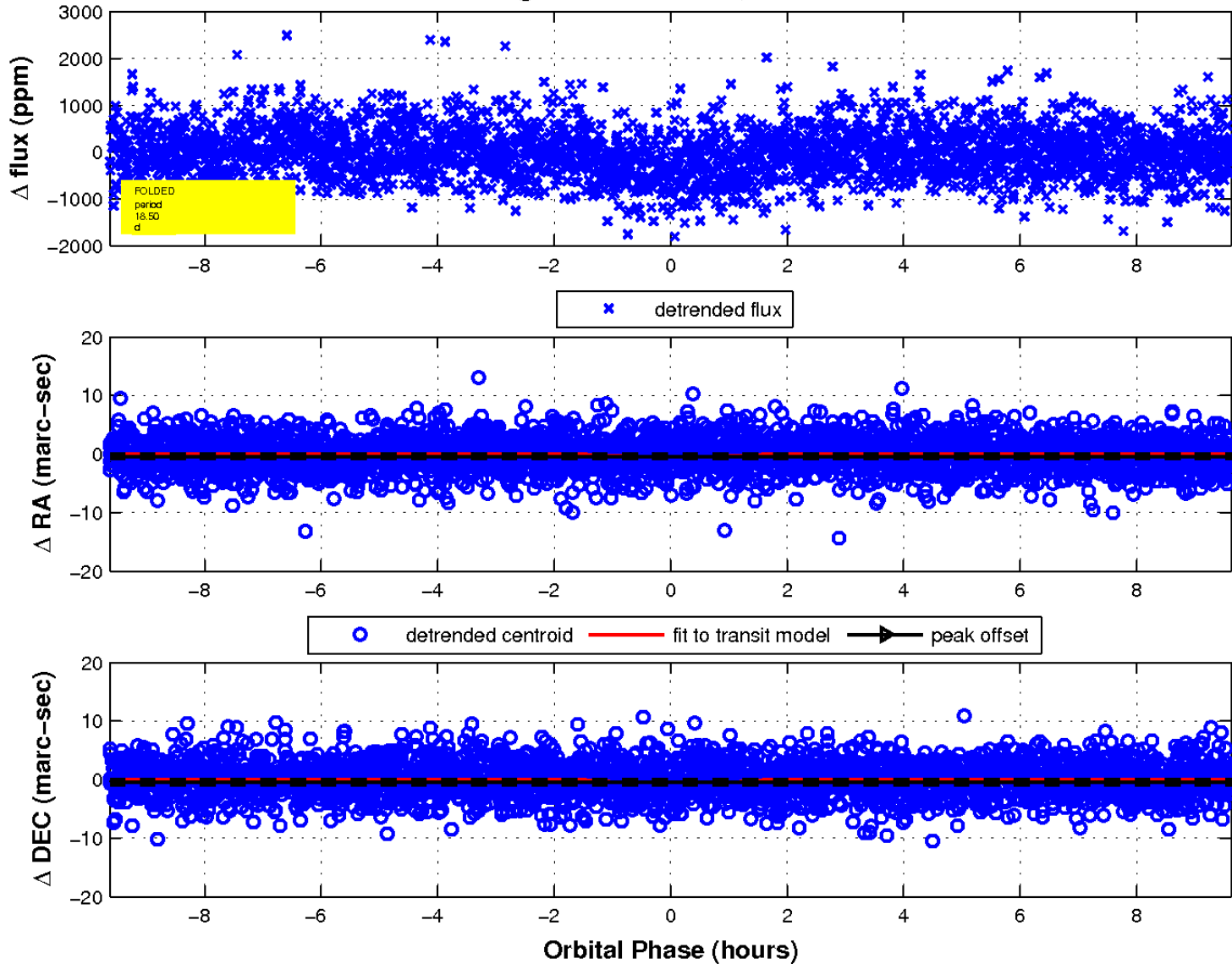
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

