

KIC 005384183

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})
005384183-01	OBS	No	479.455557	226.345471	699.6	13.004	7.7	8.3	1.70	4976	8.49	1.13
005384183-02	OBS	No	1.242066	131.551861	291.3	4.500	7.5	-1.0	1.70	4976	2.79	3174.46

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005384183-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—INCONSISTENT_TRANS—CENT_FEW_DIFFS
005384183-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—CENT_NOFITS

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

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

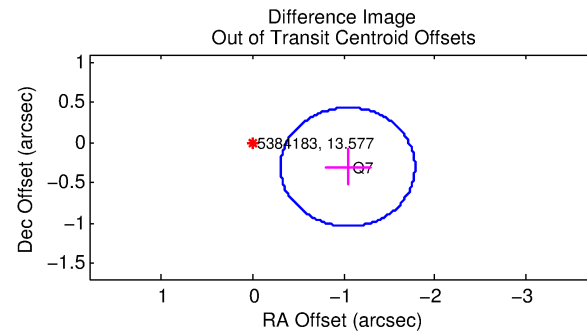
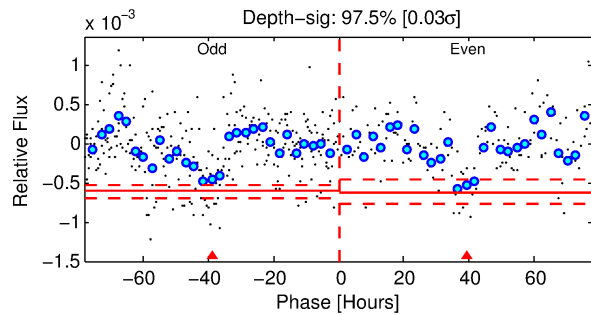
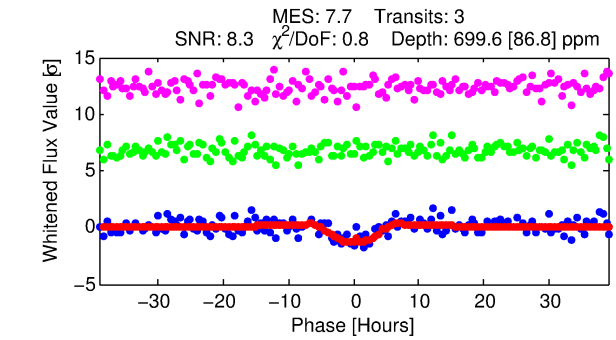
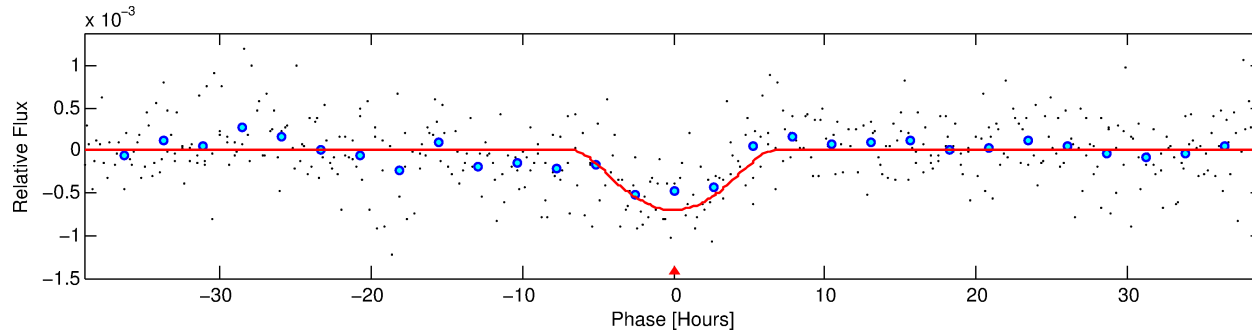
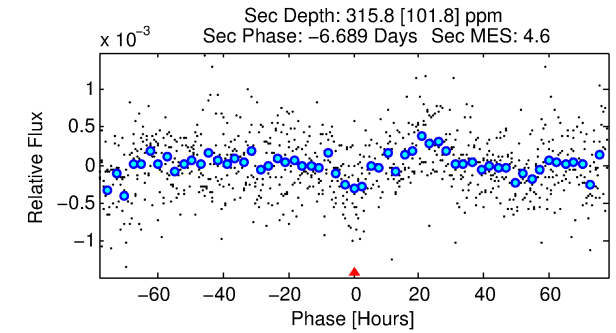
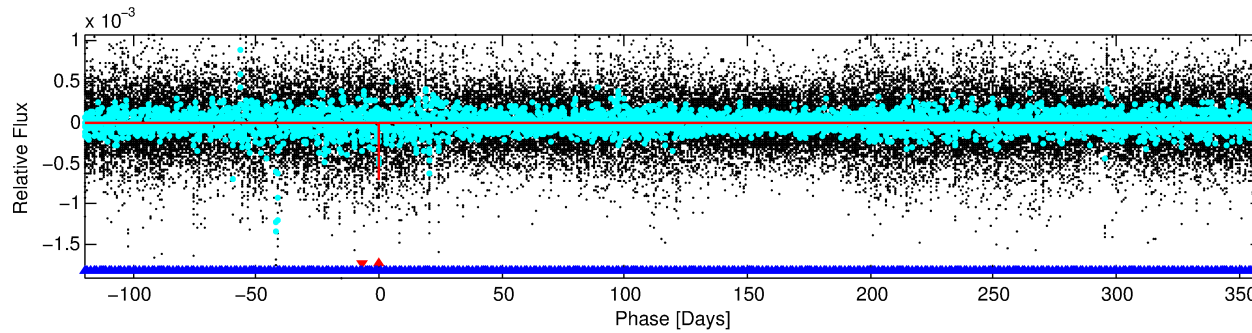
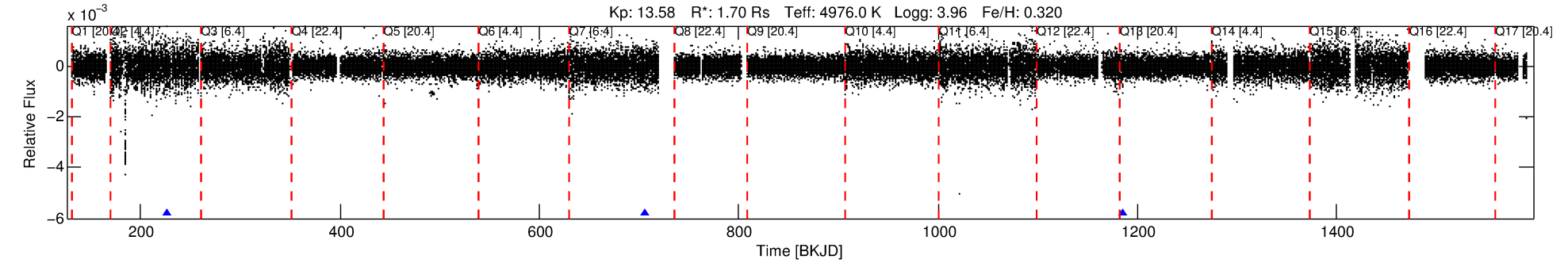
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005384183-01

No Significant Match Found

DV One-Page Summary

KIC: 5384183 Candidate: 1 of 2 Period: 479.456 d



DV Fit Results:

Period = 479.45556 [0.02272] d
Epoch = 226.3455 [0.0371] BKJD
Rp/R* = 0.0459 [0.1116]
a/R* = 92.29 [60.08]
b = 0.99 [0.18]
Seff = 1.13 [1.11]
Teq = 263 [65] K
Rp = 8.49 [21.14] Re
a = 1.1821 [0.6813] AU
Ag = 3371.21 [16765.95] [0.20 σ]
Teffp = 3097 [3777] K [0.75 σ]

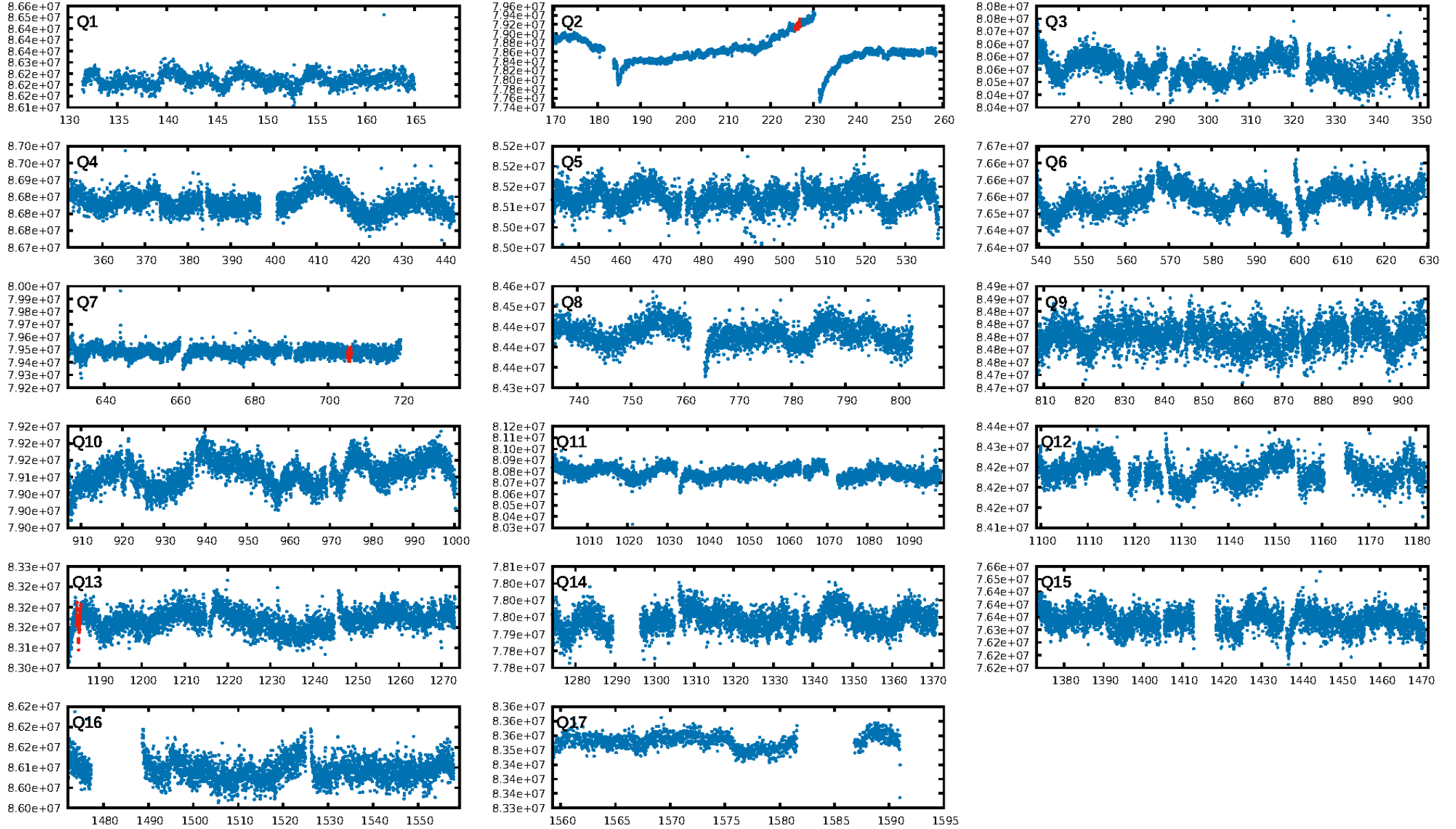
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [834.08 σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 70.5%
ModelChiSquareGof-sig: 99.9%
Bootstrap-pfa: 6.52e-08
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 1.392
Centroid-sig: 24.7%
Centroid-so: 2.360 arcsec [6.92 σ]
OotOffset-rm: 1.088 arcsec [4.41 σ]
KicOffset-rm: 3.994 arcsec [16.33 σ]
OotOffset-st: 0/1/0/0 [1]
KicOffset-st: 0/1/0/0 [1]
DiffImageQuality-fgm: 1.00 [1/1]
DiffImageOverlap-fno: 0.00 [0/2]

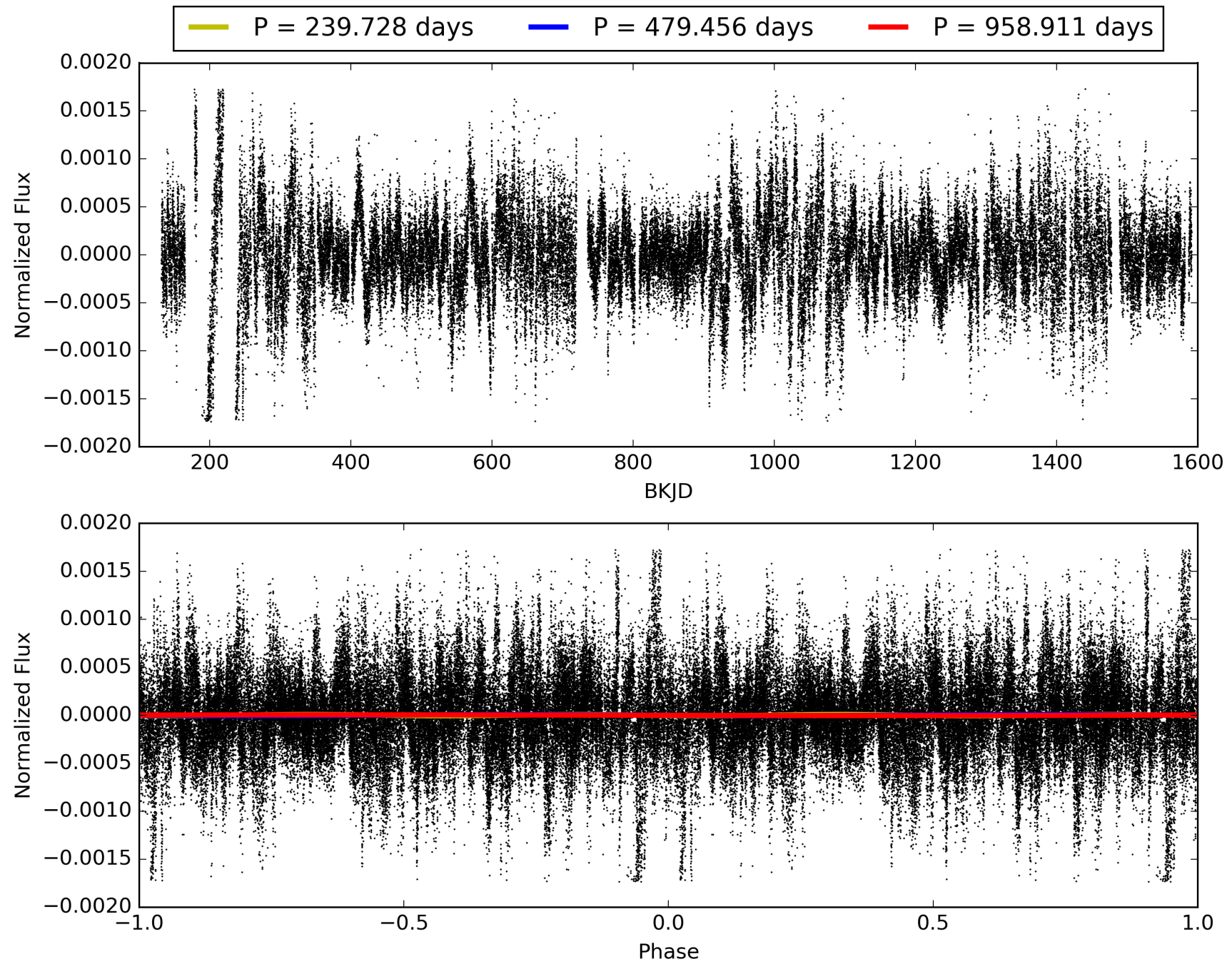
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 14:24:47 Z

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

TCE 005384183-01, PDC Light Curves

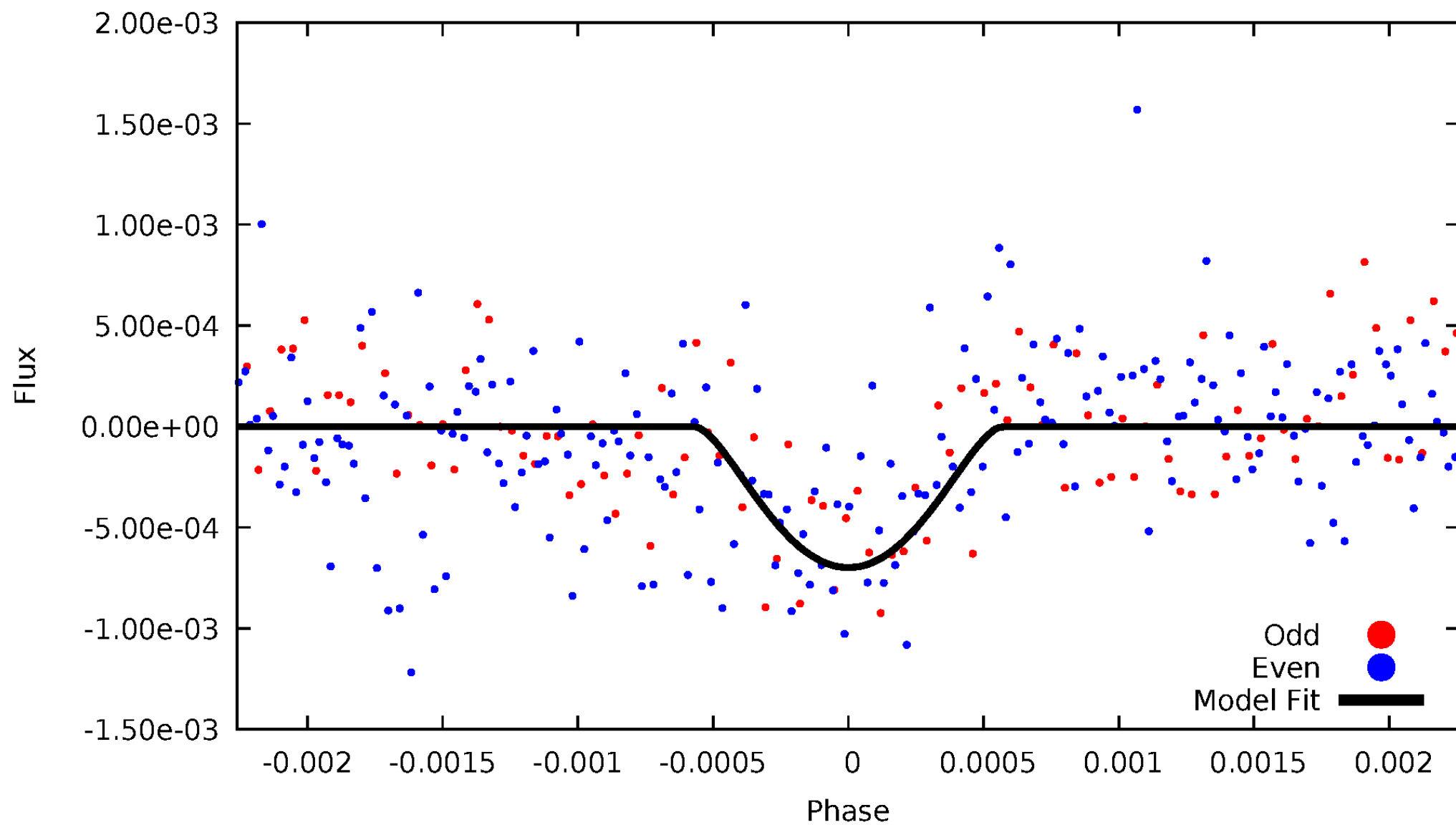


TCE 005384183-01



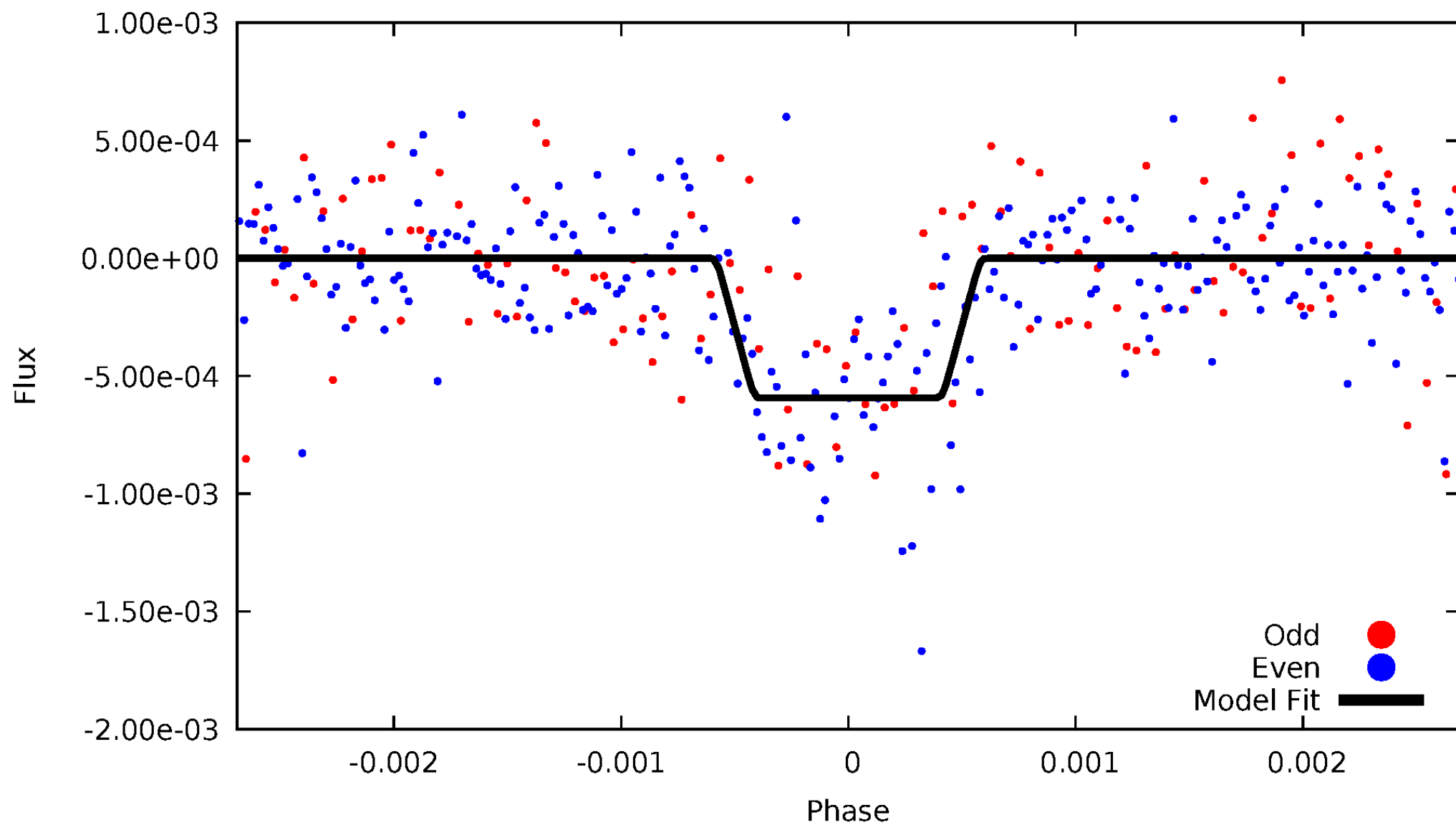
DV Odd/Even

TCE 005384183-01



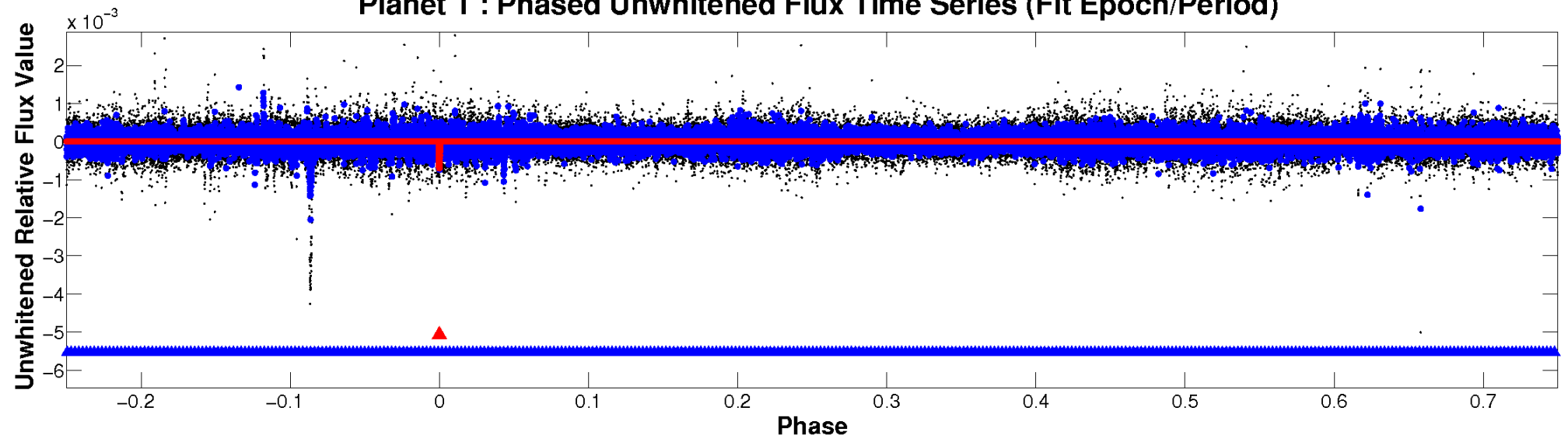
ALT Odd/Even

TCE 005384183-01

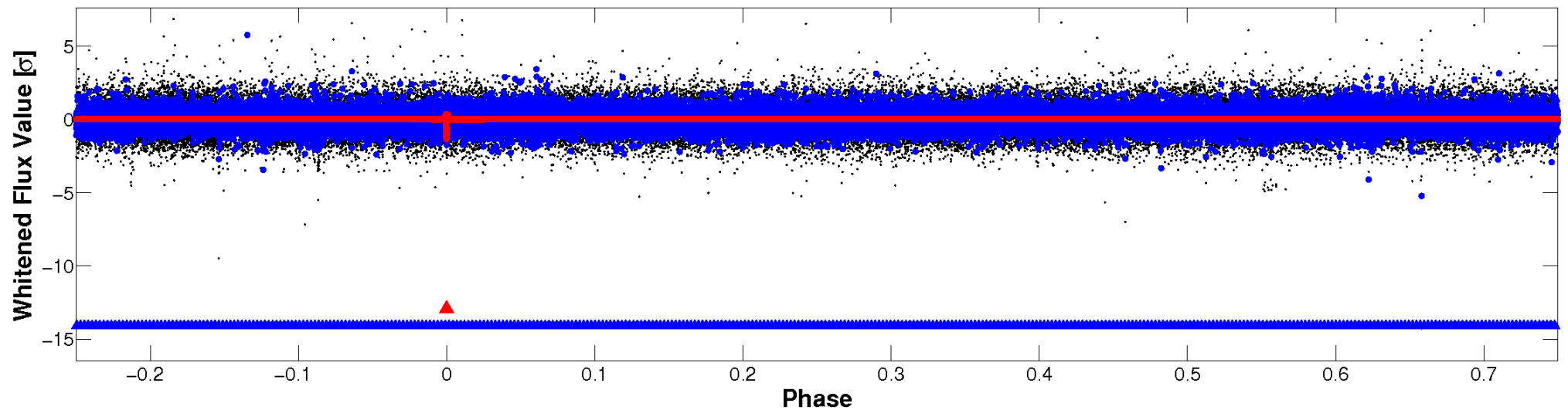


Non-Whitened Vs. Whitened Light Curve

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

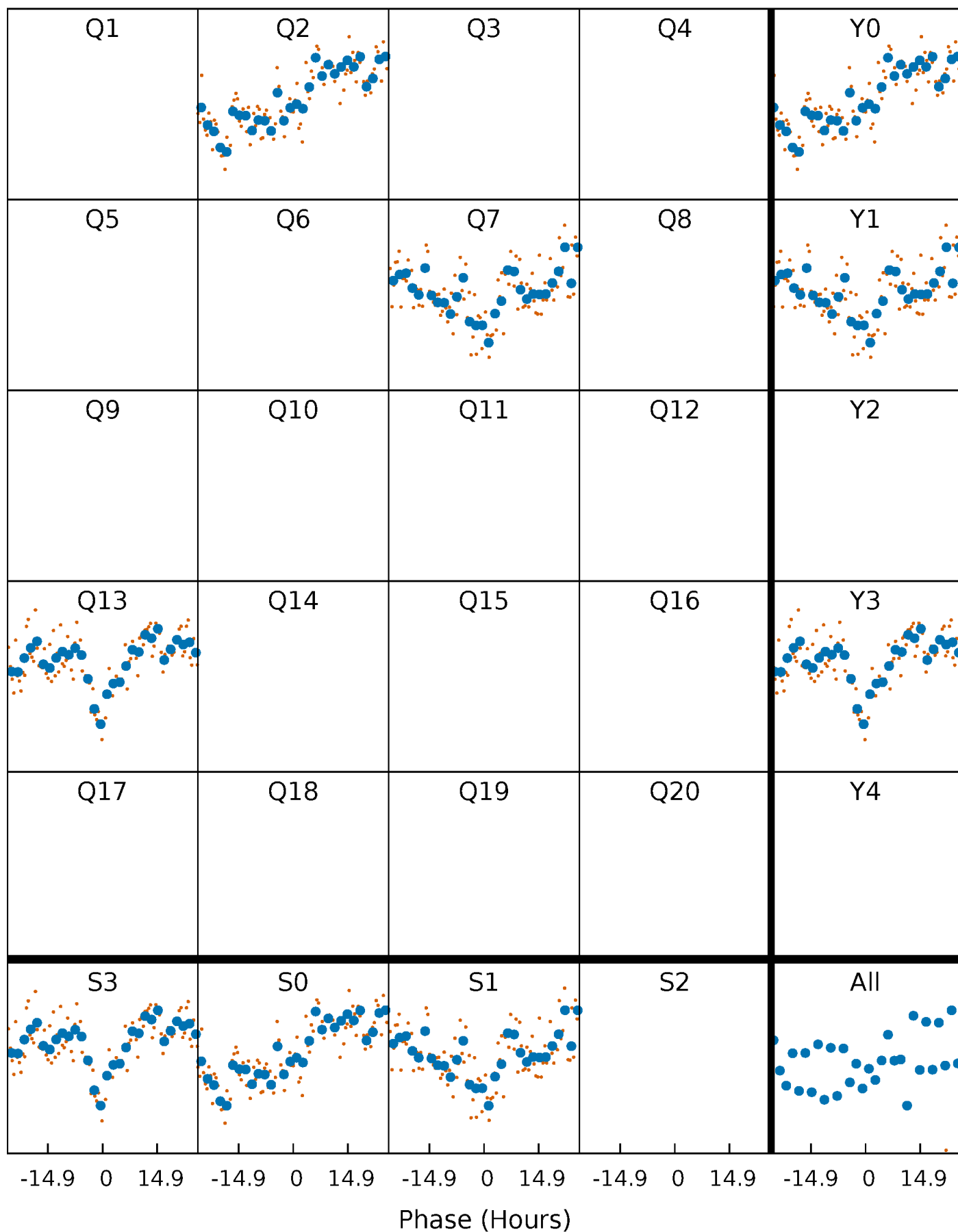


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



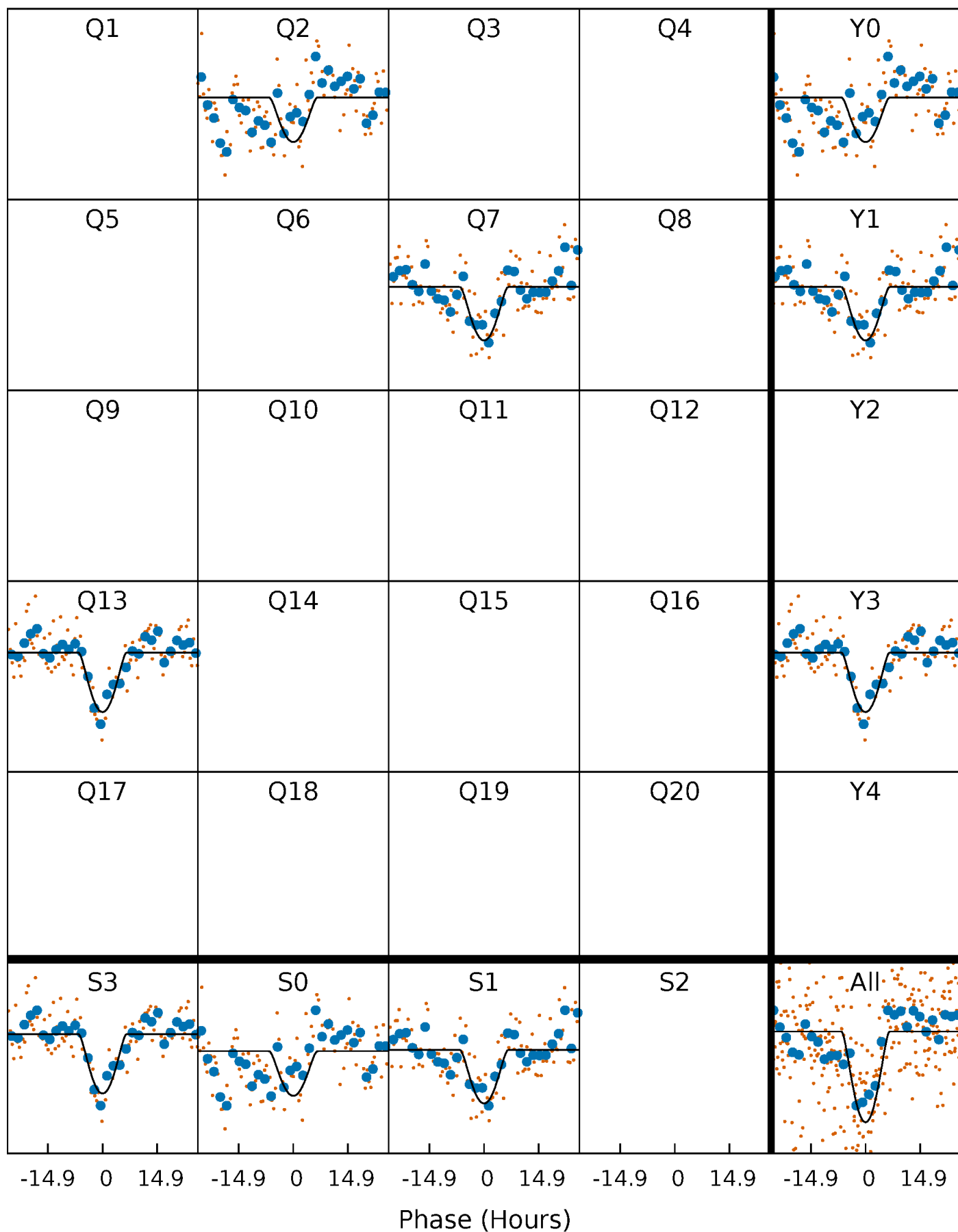
PDC Quarter-Phased Transit Curves

TCE 005384183-01 P=479.455557 Days $T_0=226.345471$ (BKJD)



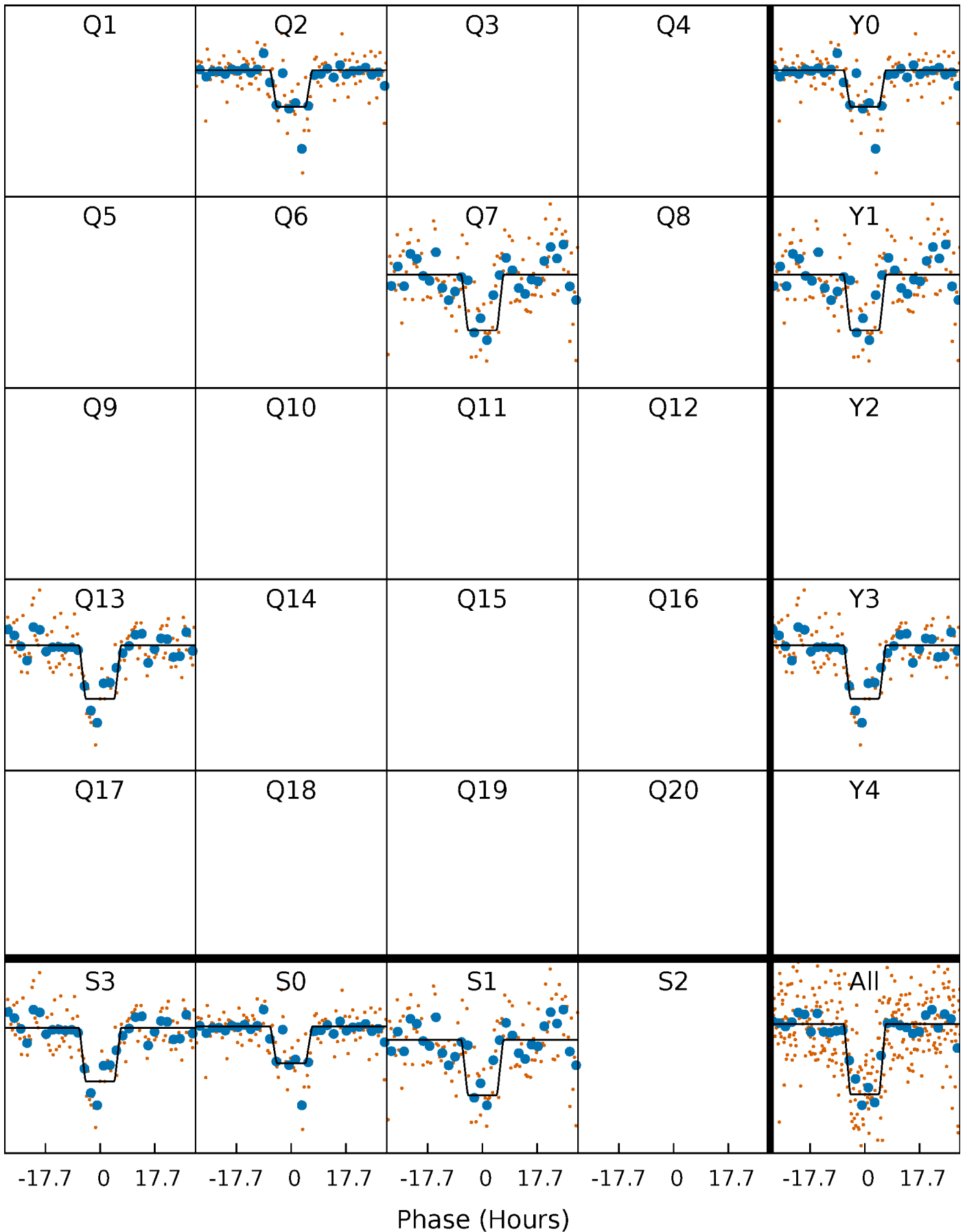
DV Quarter-Phased Transit Curves

TCE 005384183-01 P=479.455557 Days $T_0=226.345471$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

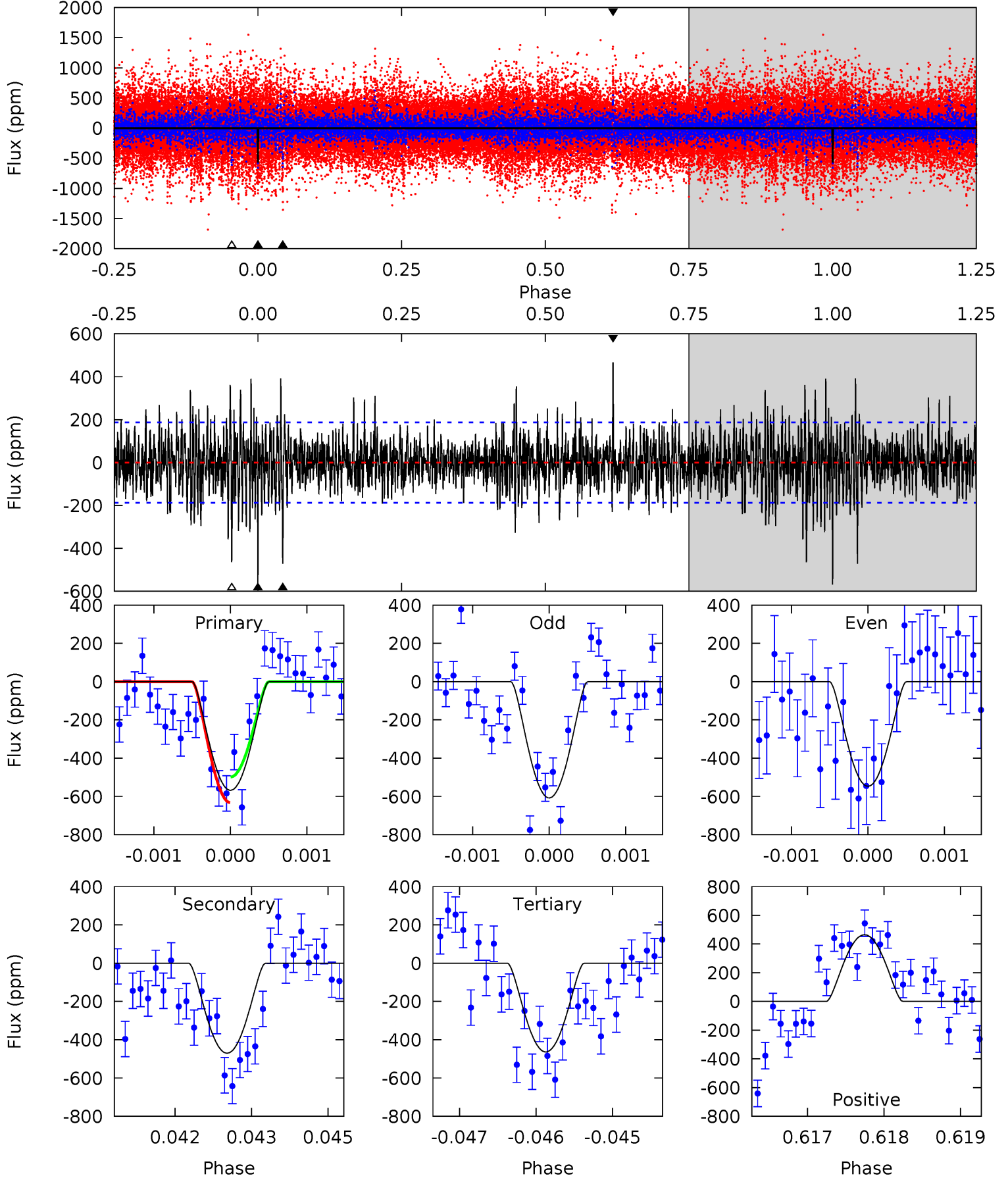
TCE 005384183-01 P=479.507541 Days $T_0=226.294286$ (BKJD)



DV Model-Shift Uniqueness Test

005384183-01, P = 479.455557 Days, E = 226.345471 Days

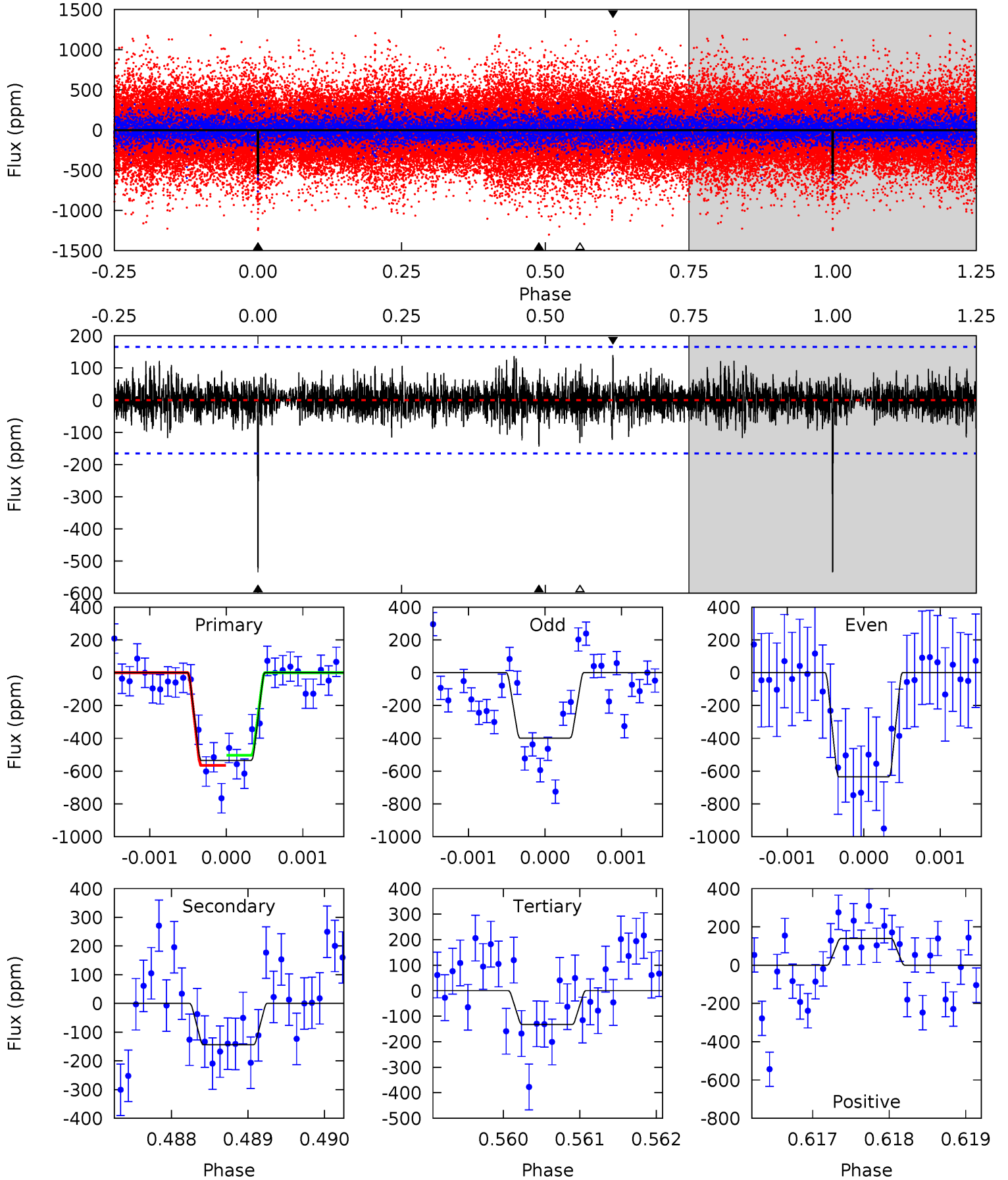
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.5	13.6	13.4	13.5	5.43	3.25	2.69	3.02	2.99	0.19	0.16	0.86	0.94	0.45	1.95



Alt Model-Shift Uniqueness Test

005384183-01, P = 479.507541 Days, E = 226.294286 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17.5	4.71	4.34	4.58	5.42	3.24	1.10	13.2	12.9	0.37	0.13	3.79	0.93	0.21	1.01



Stellar Parameters For KIC 005384183

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	4976^{+164}_{-149}	$3.961^{+0.591}_{-0.318}$	$0.320^{+0.150}_{-0.300}$	$1.695^{+0.904}_{-0.904}$	$0.957^{+0.184}_{-0.151}$	$0.277^{+2.052}_{-0.187}$
	+3%/-3%	+15%/-8%	+47%/-94%	+53%/-53%	+19%/-16%	+741%/-68%
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 005384183-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-470 ± 35	$16.02^{+18.01}_{-10.89}$	363^{+52}_{-55}	3025^{+1347}_{-505}	1469^{+12780}_{-1154}
Alt.	-144 ± 31	$14.55^{+16.94}_{-10.05}$	365^{+52}_{-57}	2664^{+1077}_{-443}	531^{+5417}_{-421}

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 $A_{obs} \gg 1.0$

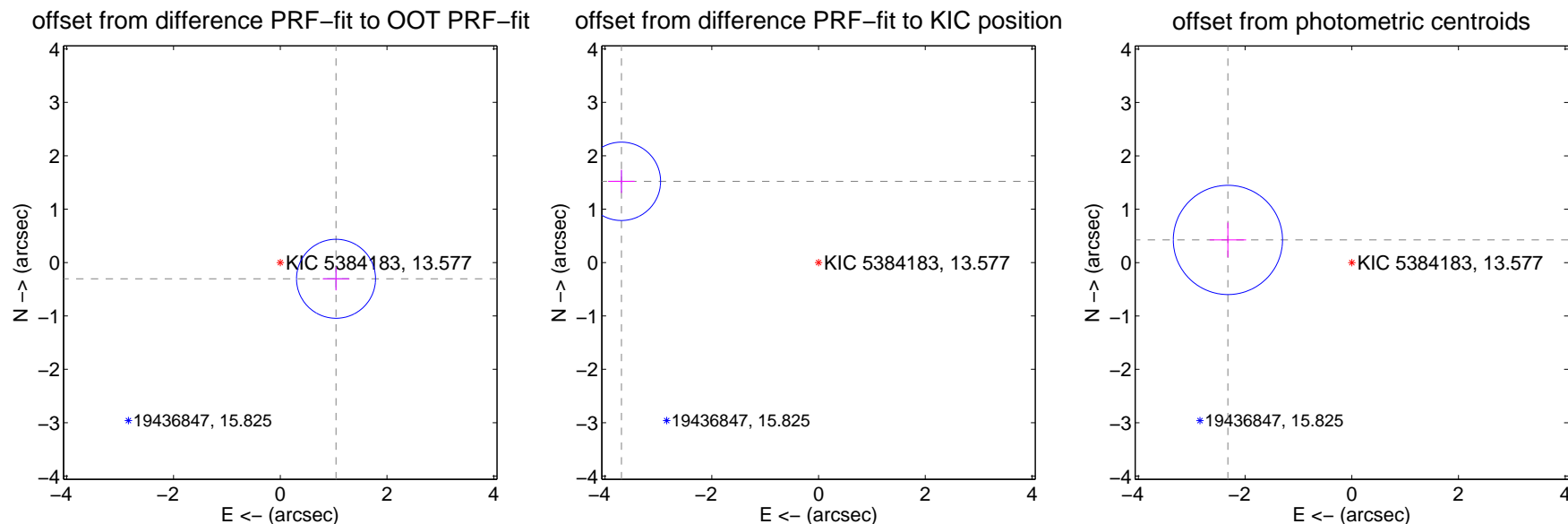
DV Centroid Data

Supplemental centroid analysis for 005384183-01. Kepler magnitude: 13.58. Transit SNR 8.26

There are 1 quarters with good PRF difference image offsets

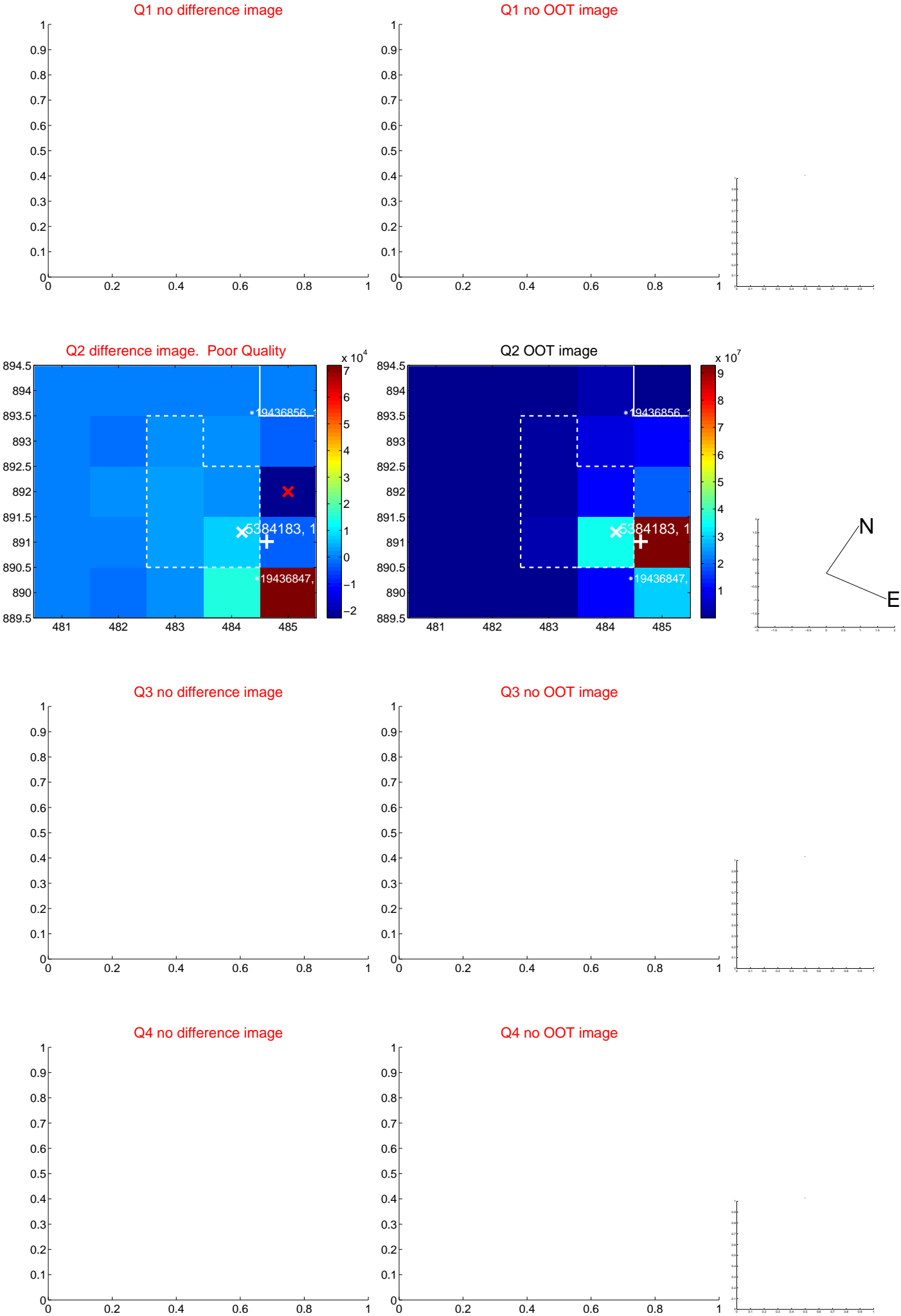
The OOT PRF centroid is offset from the target star catalog position by about 5.08 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.088 ± 0.247	4.41	-1.045 ± 0.249	-0.304 ± 0.217
PRF-fit source offset from KIC position	3.994 ± 0.245	16.33	3.693 ± 0.249	1.521 ± 0.217
photometric centroid source offset	2.36 ± 0.34	6.92	2.32 ± 0.34	0.42 ± 0.32

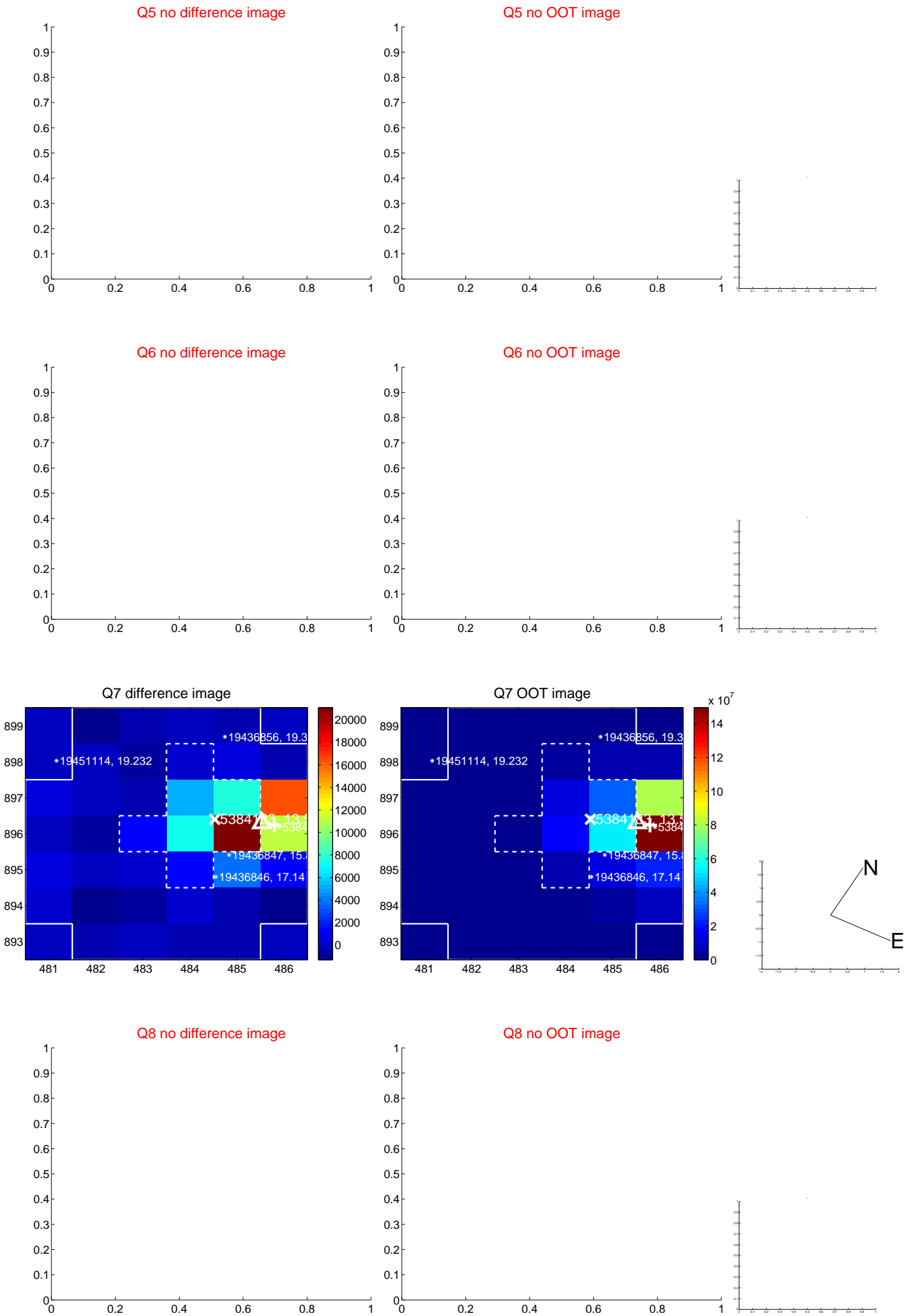


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



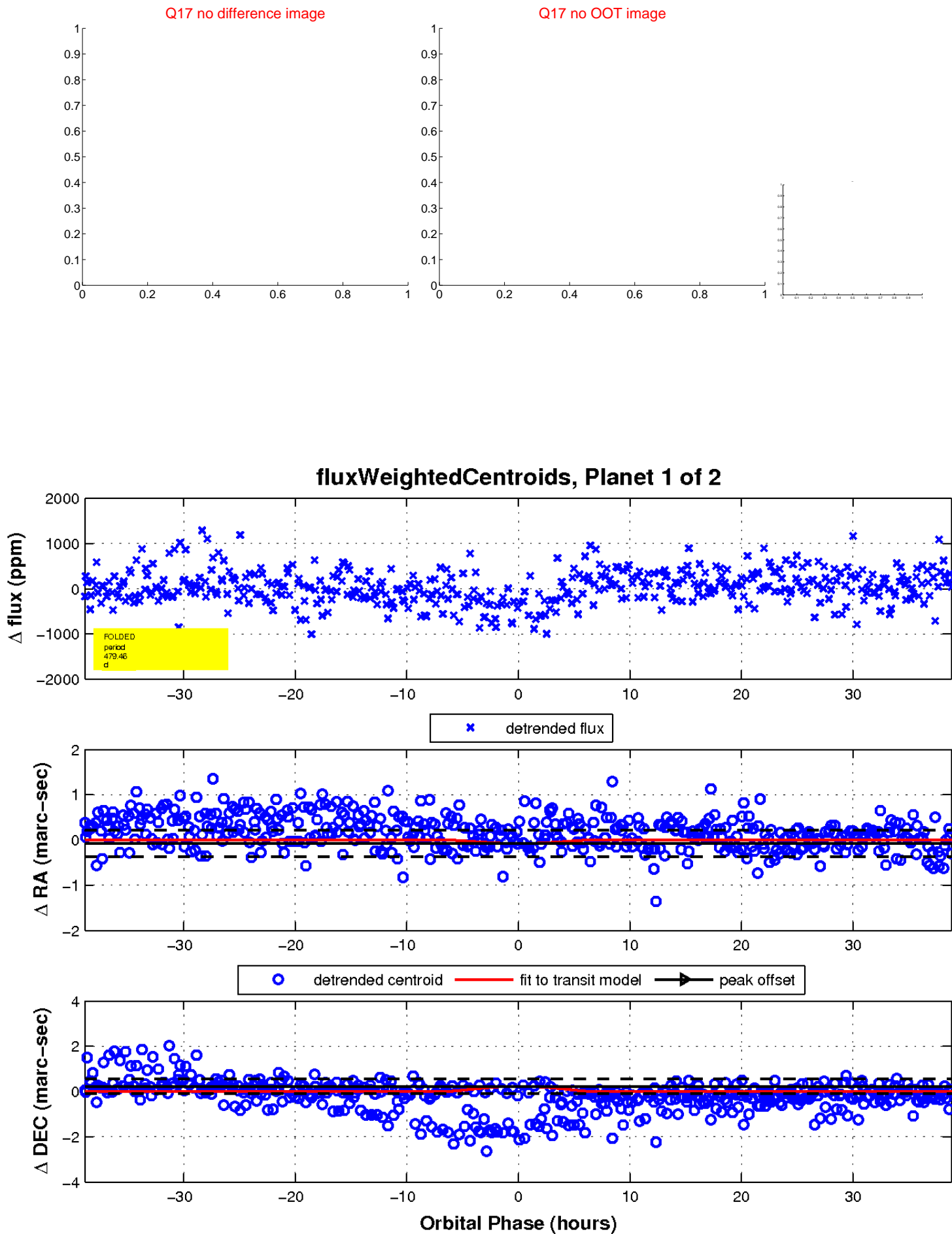
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

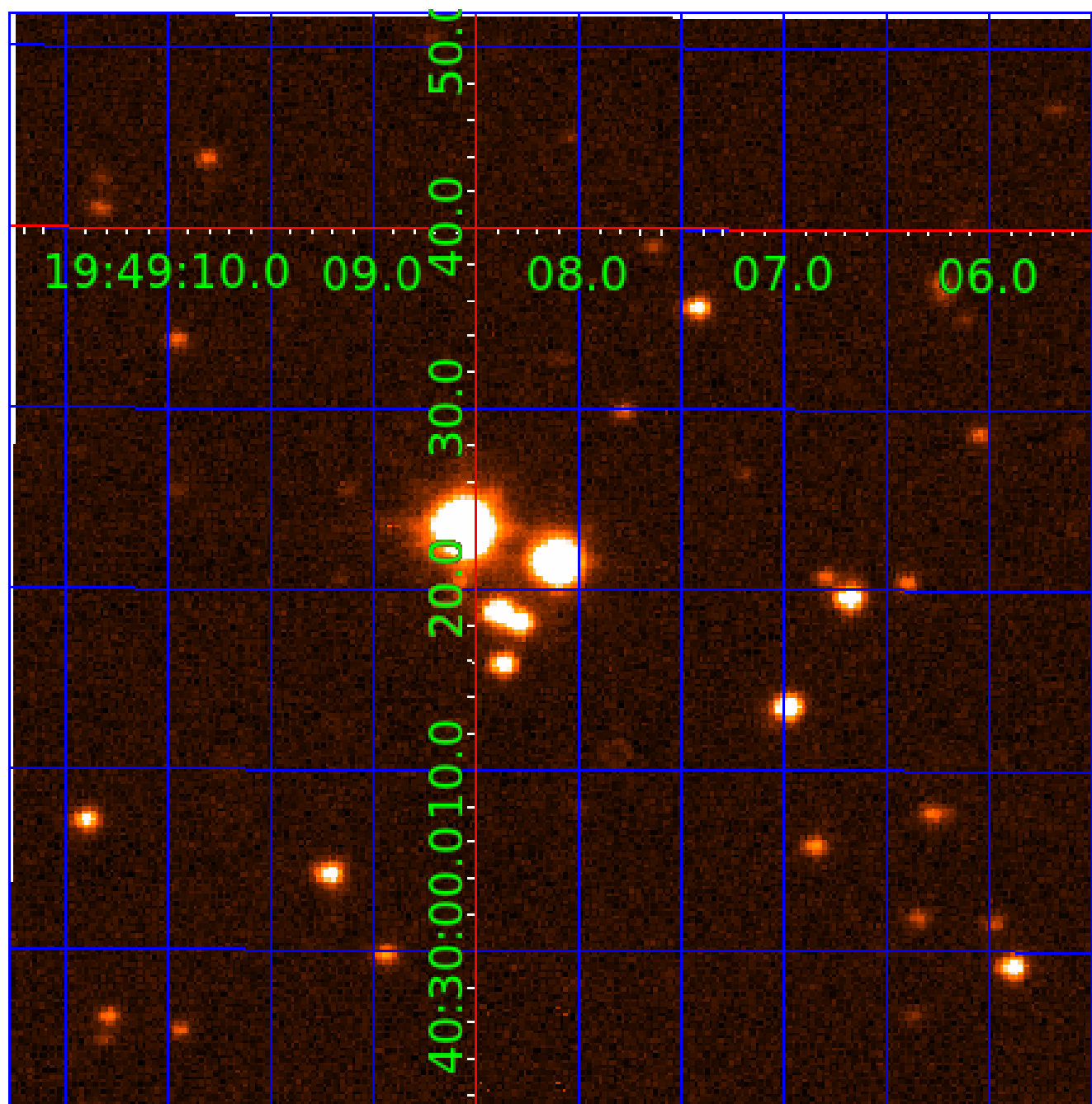


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 005384183

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})
005384183-01	OBS	No	479.455557	226.345471	699.6	13.004	7.7	8.3	1.70	4976	8.49	1.13
005384183-02	OBS	No	1.242066	131.551861	291.3	4.500	7.5	-1.0	1.70	4976	2.79	3174.46

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005384183-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—INCONSISTENT_TRANS—CENT_FEW_DIFFS
005384183-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—CENT_NOFITS

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

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

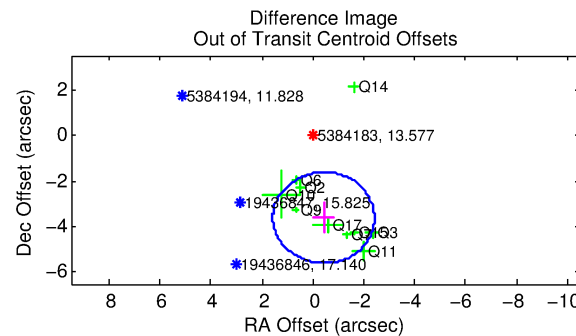
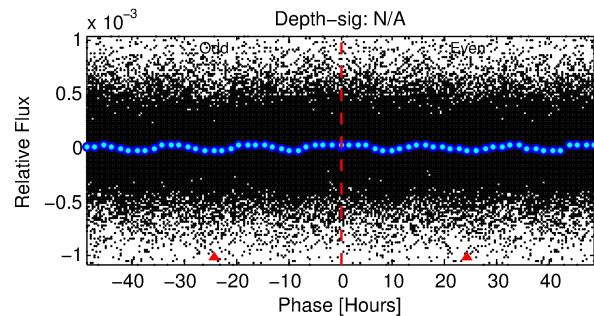
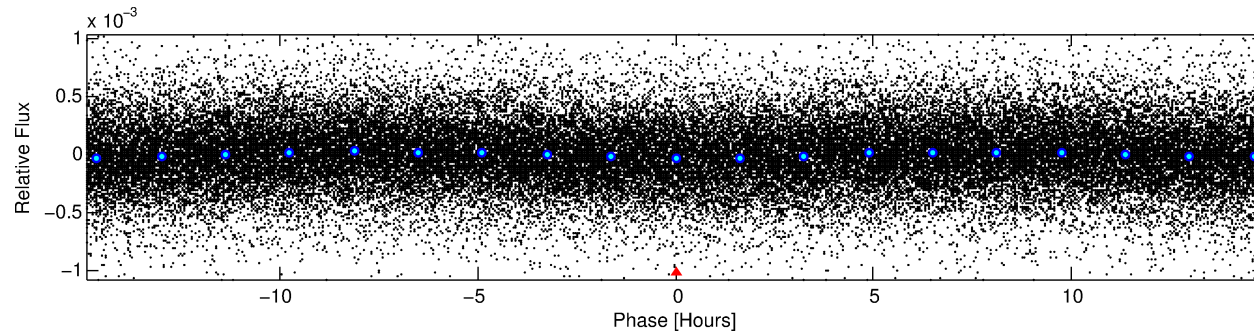
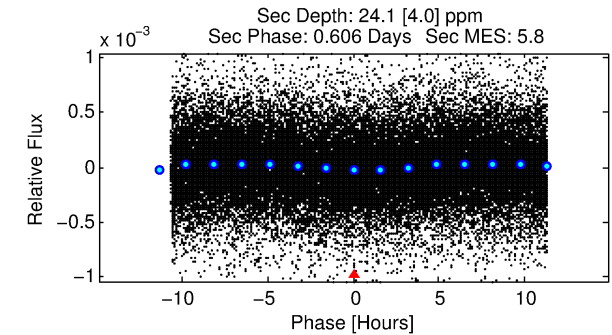
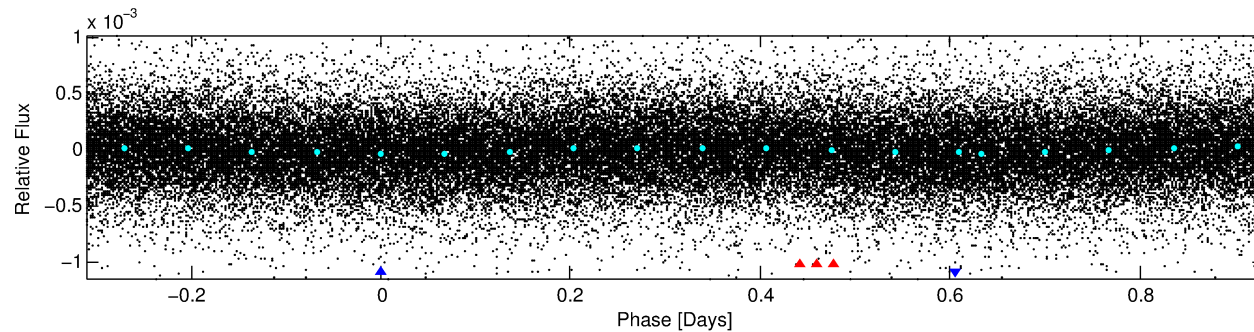
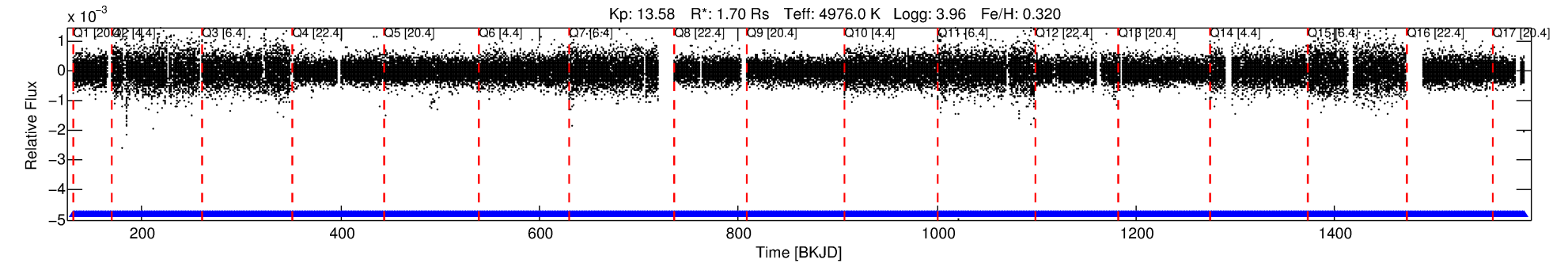
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005384183-02

No Significant Match Found

DV One-Page Summary

KIC: 5384183 Candidate: 2 of 2 Period: 1.242 d



TPS TCE Results:

Period = 1.24207 d
Epoch = 131.5519 BKJD

DV fit results are unavailable

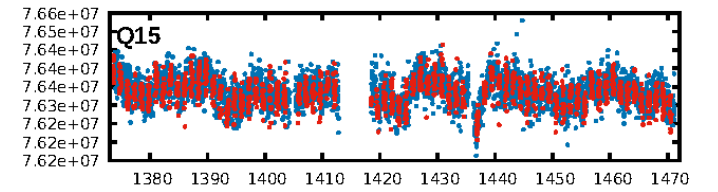
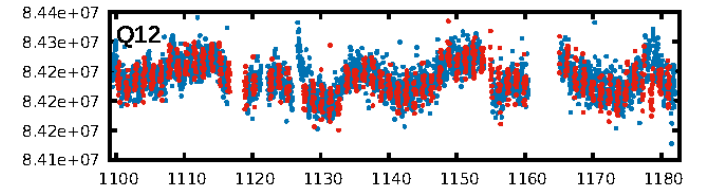
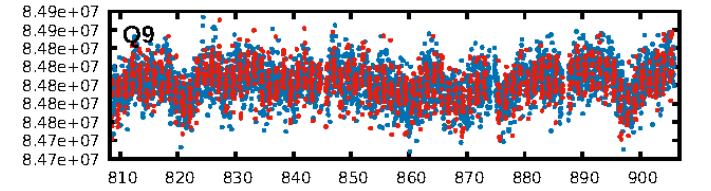
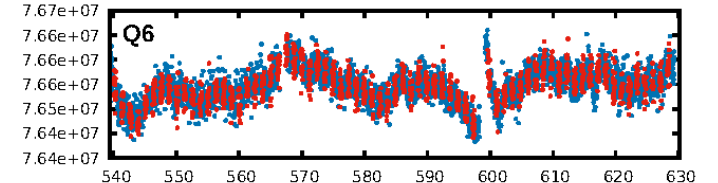
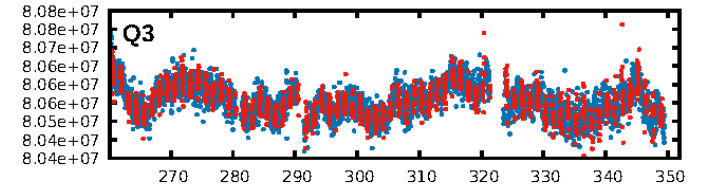
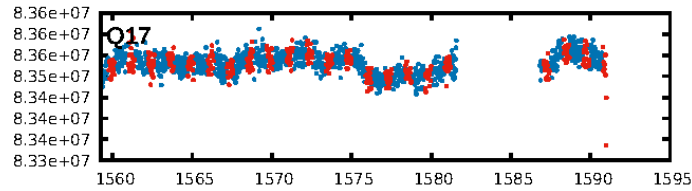
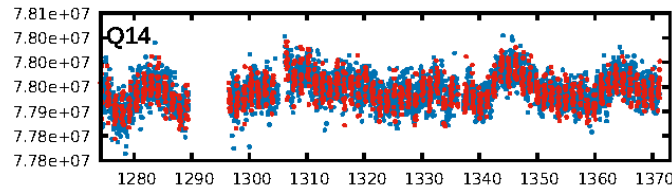
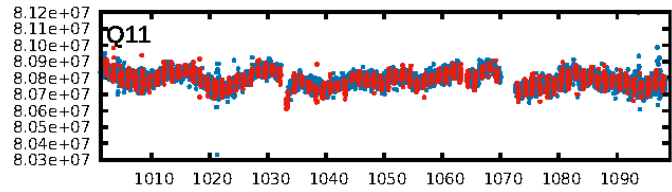
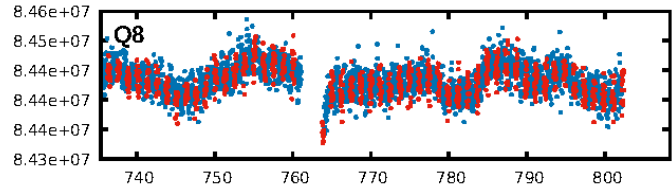
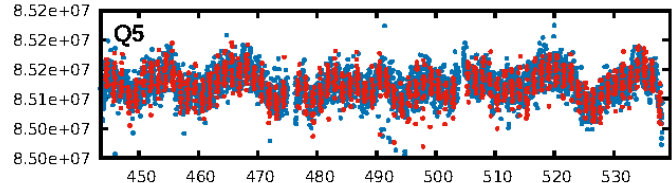
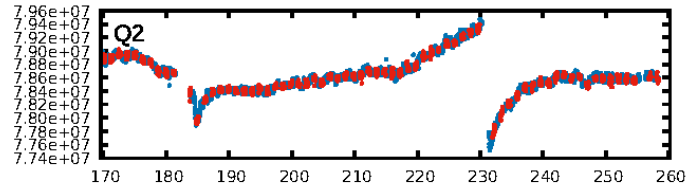
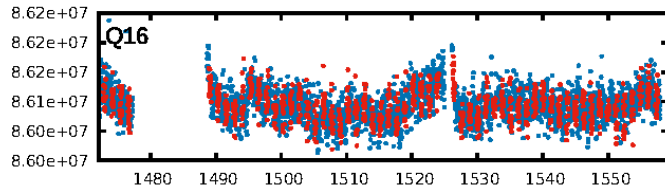
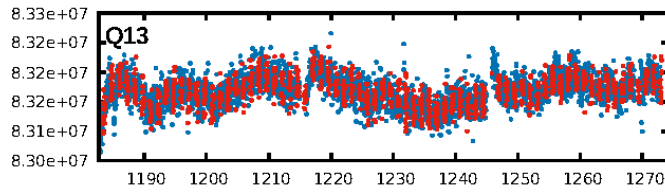
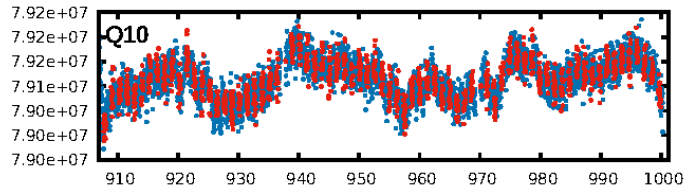
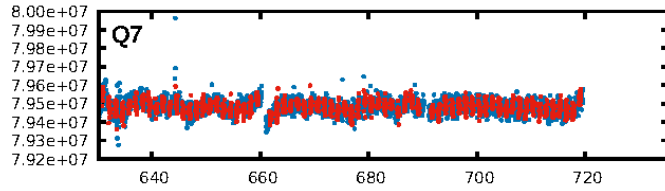
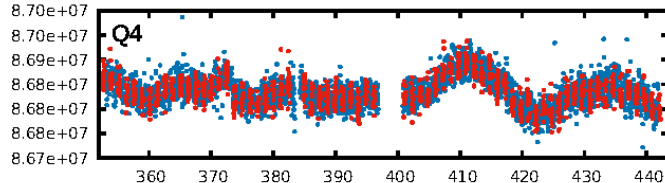
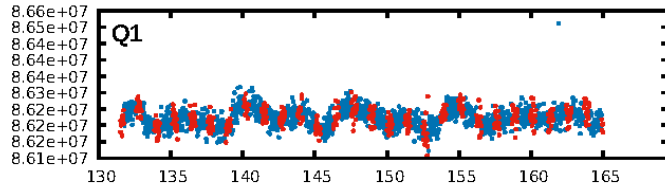
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [834.08 σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.38e-12
RollingBand-fgt: 1.00 [1036/1036]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 3.626 arcsec [5.45 σ]
KicOffset-rm: 3.929 arcsec [8.74 σ]
OotOffset-st: 4/4/0/2 [10]
KicOffset-st: 4/4/3/2 [13]
DiffImageQuality-fgm: 0.62 [8/13]
DiffImageOverlap-fno: 1.00 [17/17]

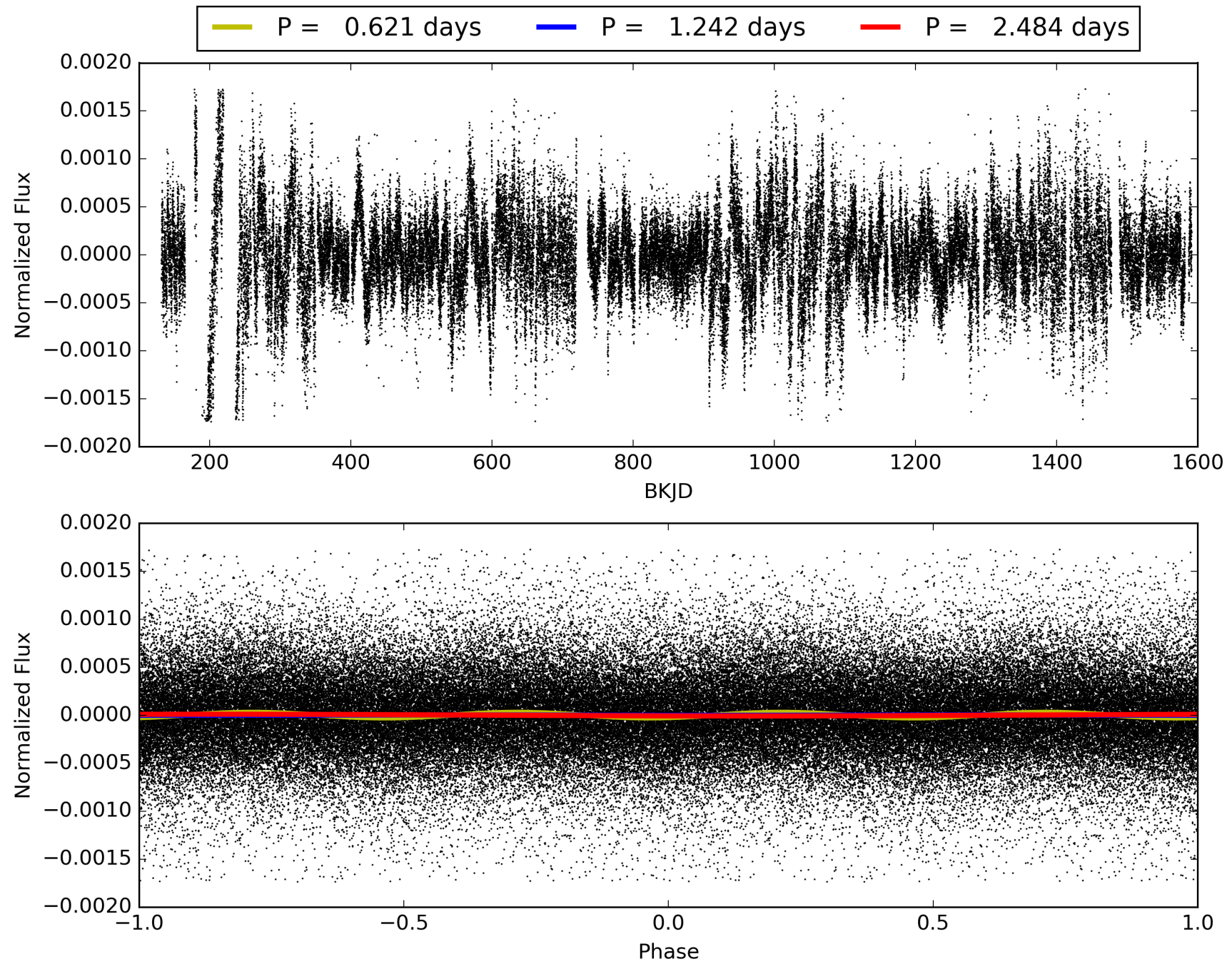
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 14:24:56 Z

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

TCE 005384183-02, PDC Light Curves

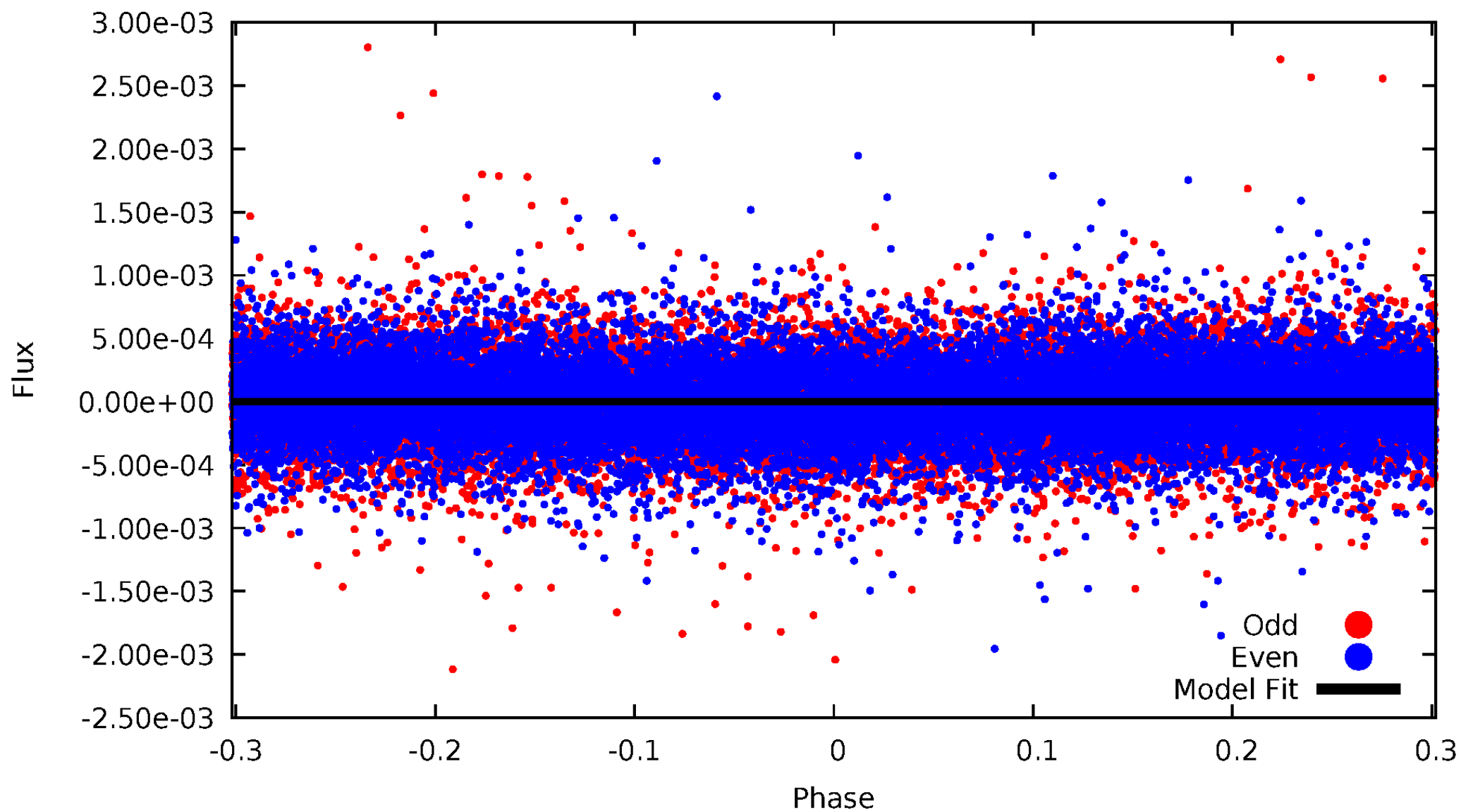


TCE 005384183-02



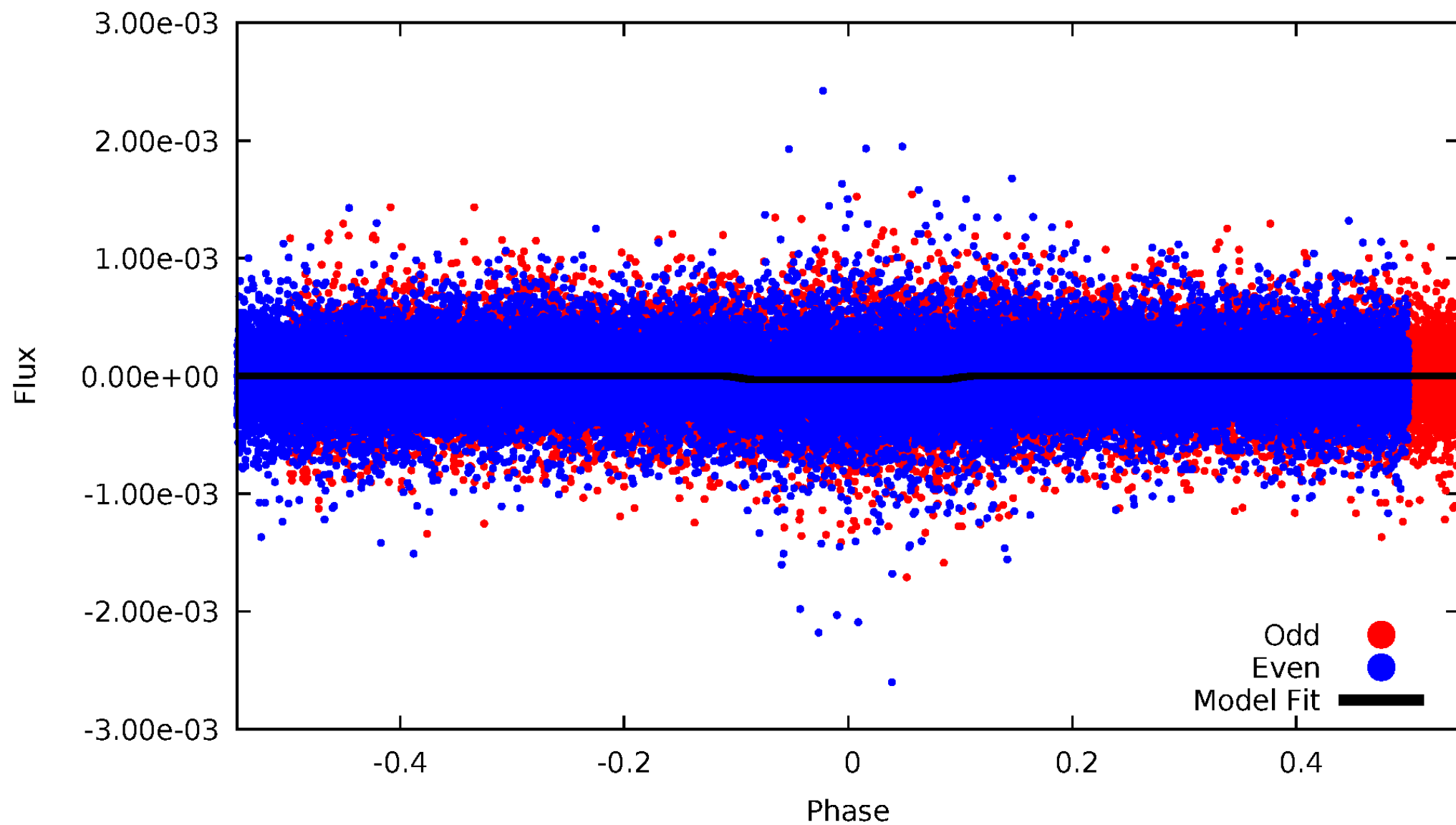
DV Odd/Even

TCE 005384183-02



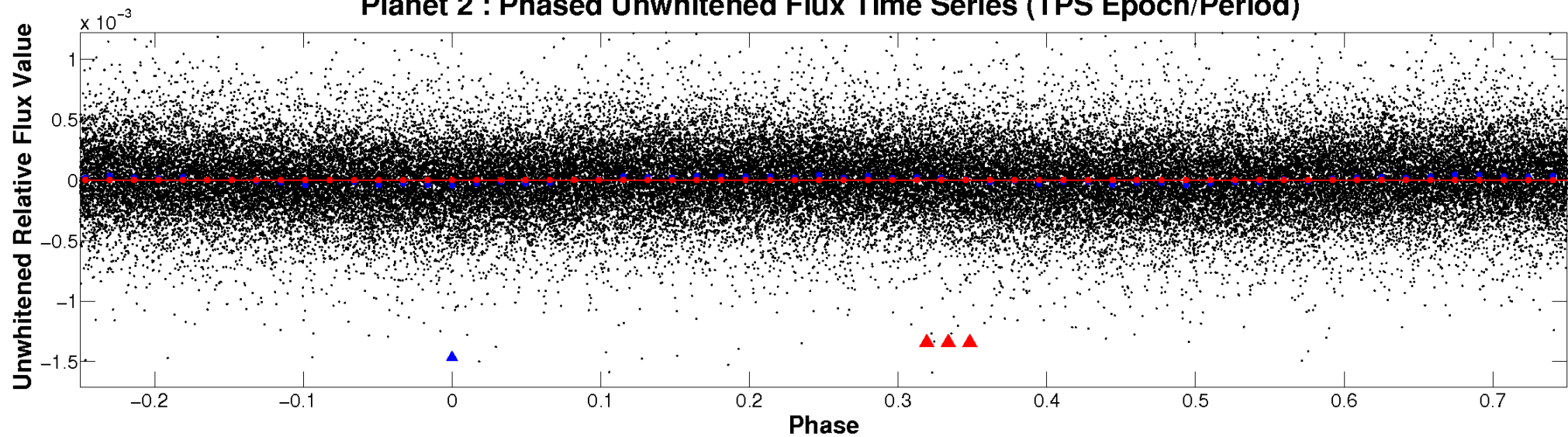
ALT Odd/Even

TCE 005384183-02

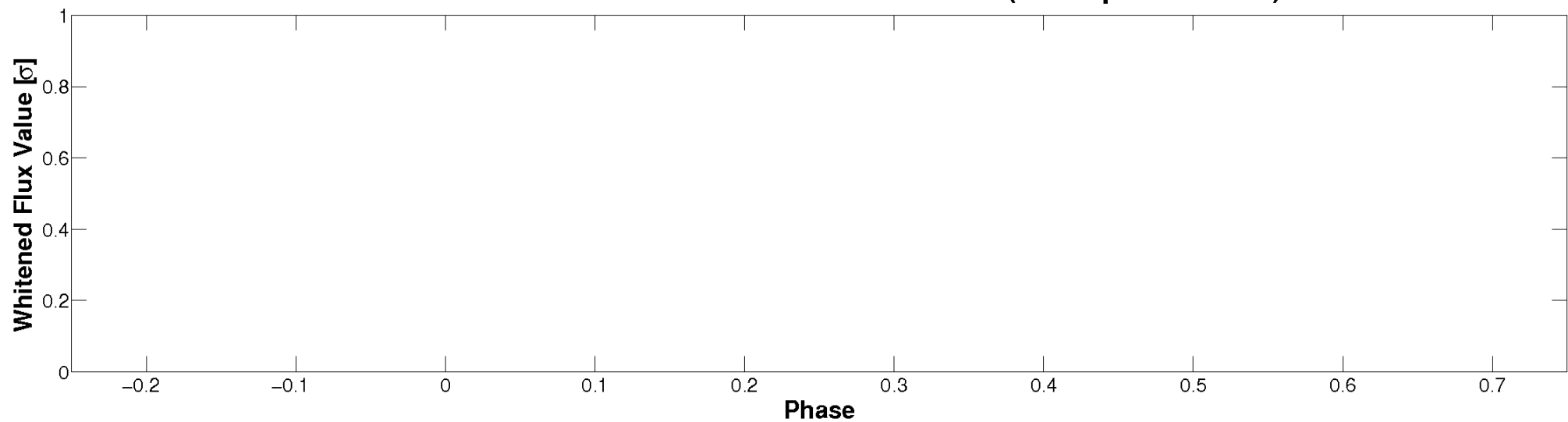


Non-Whitened Vs. Whitened Light Curve

Planet 2 : Phased Unwhitened Flux Time Series (TPS Epoch/Period)

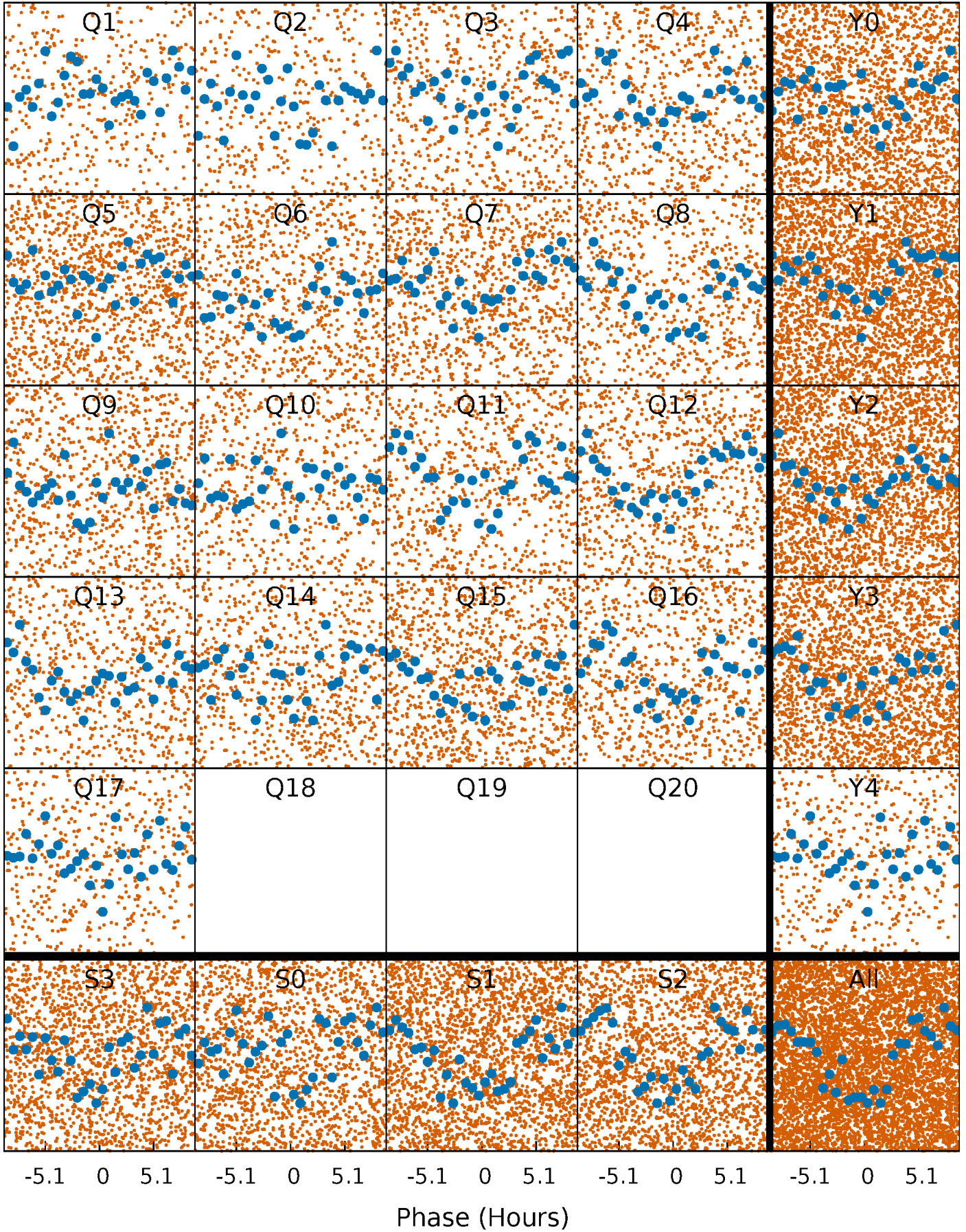


Planet 2 : Phased Whitened Flux Time Series (TPS Epoch/Period)



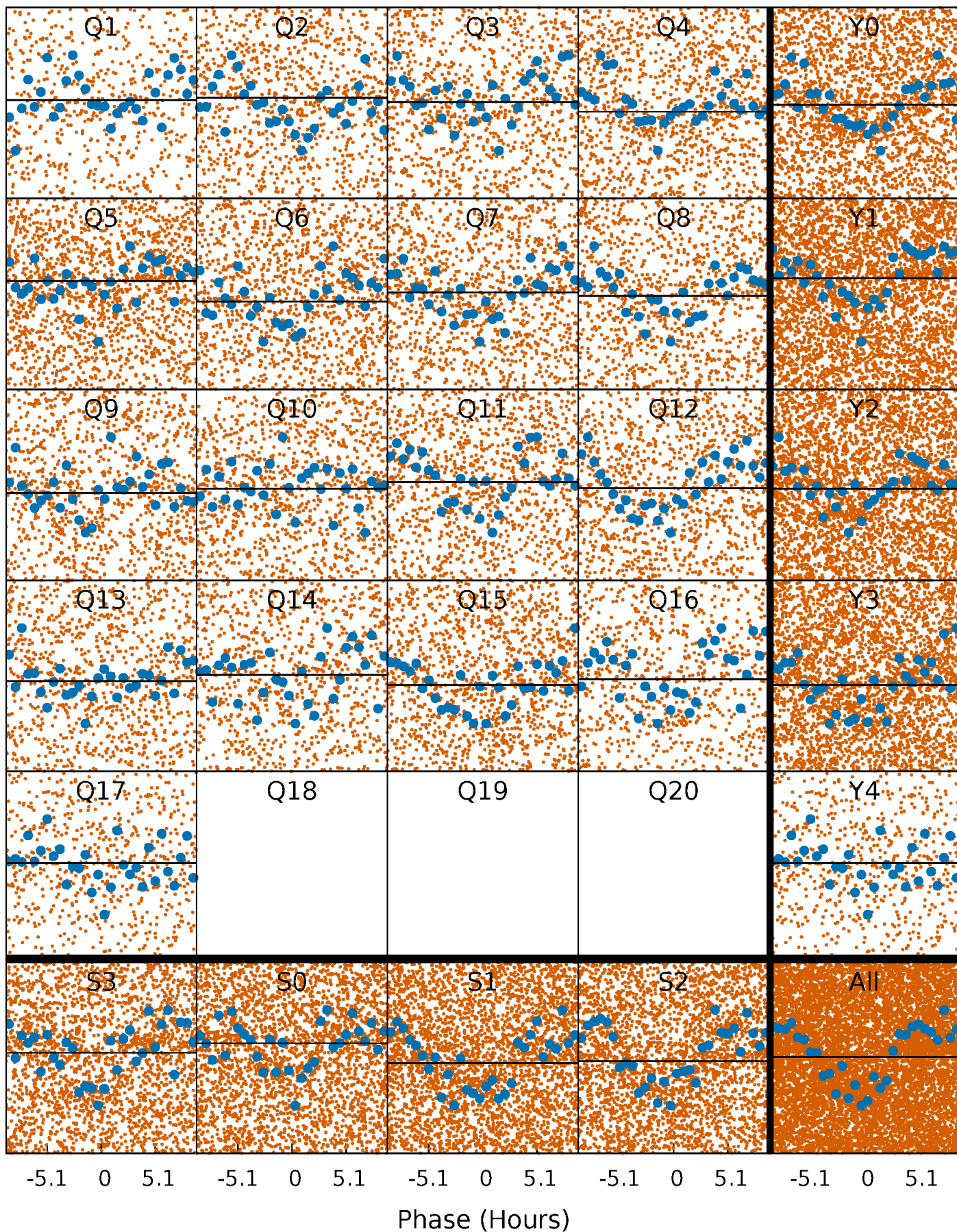
PDC Quarter-Phased Transit Curves

TCE 005384183-02 P= 1.242066 Days $T_0=131.551861$ (BKJD)



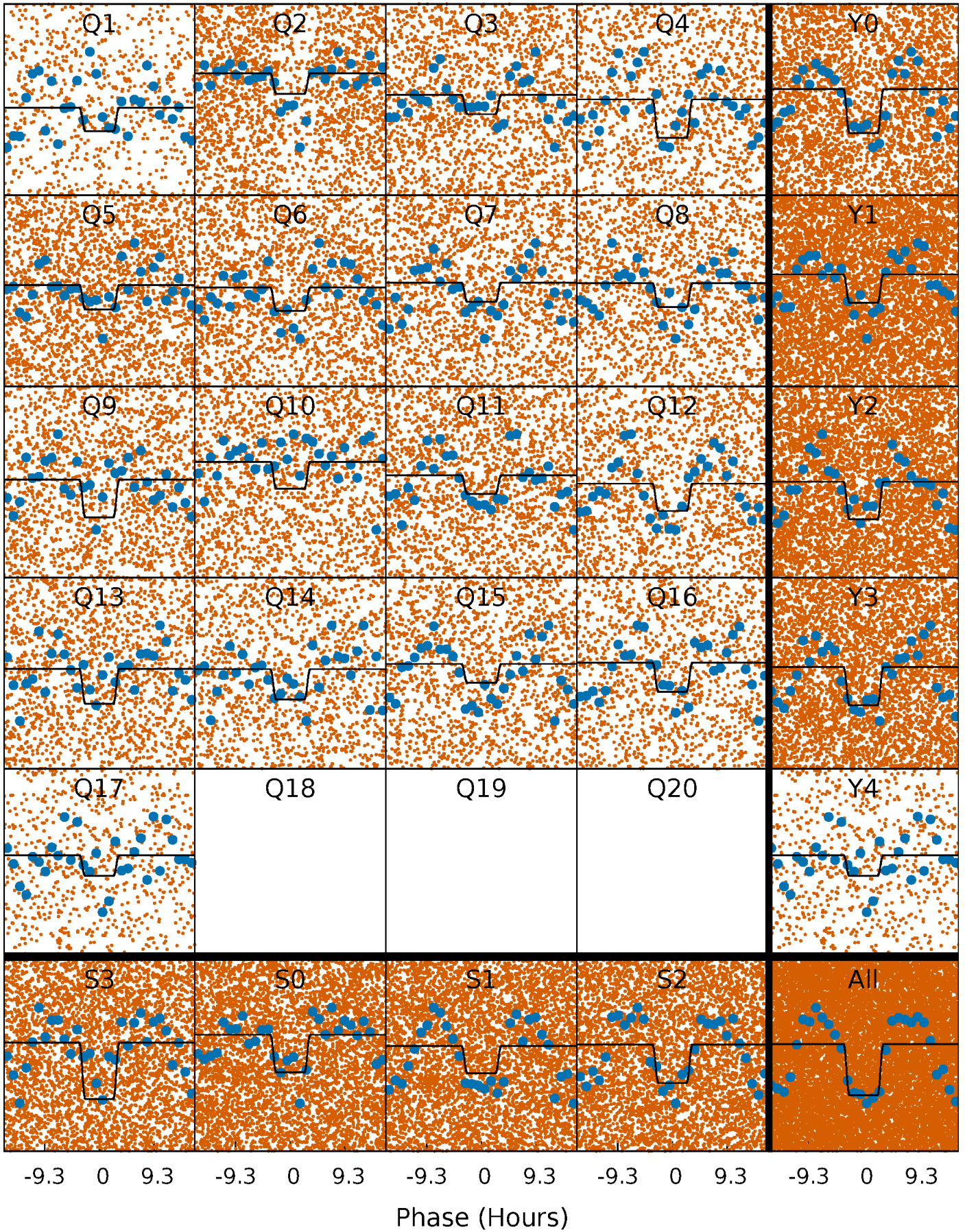
DV Quarter-Phased Transit Curves

TCE 005384183-02 P= 1.242066 Days $T_0=131.551861$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

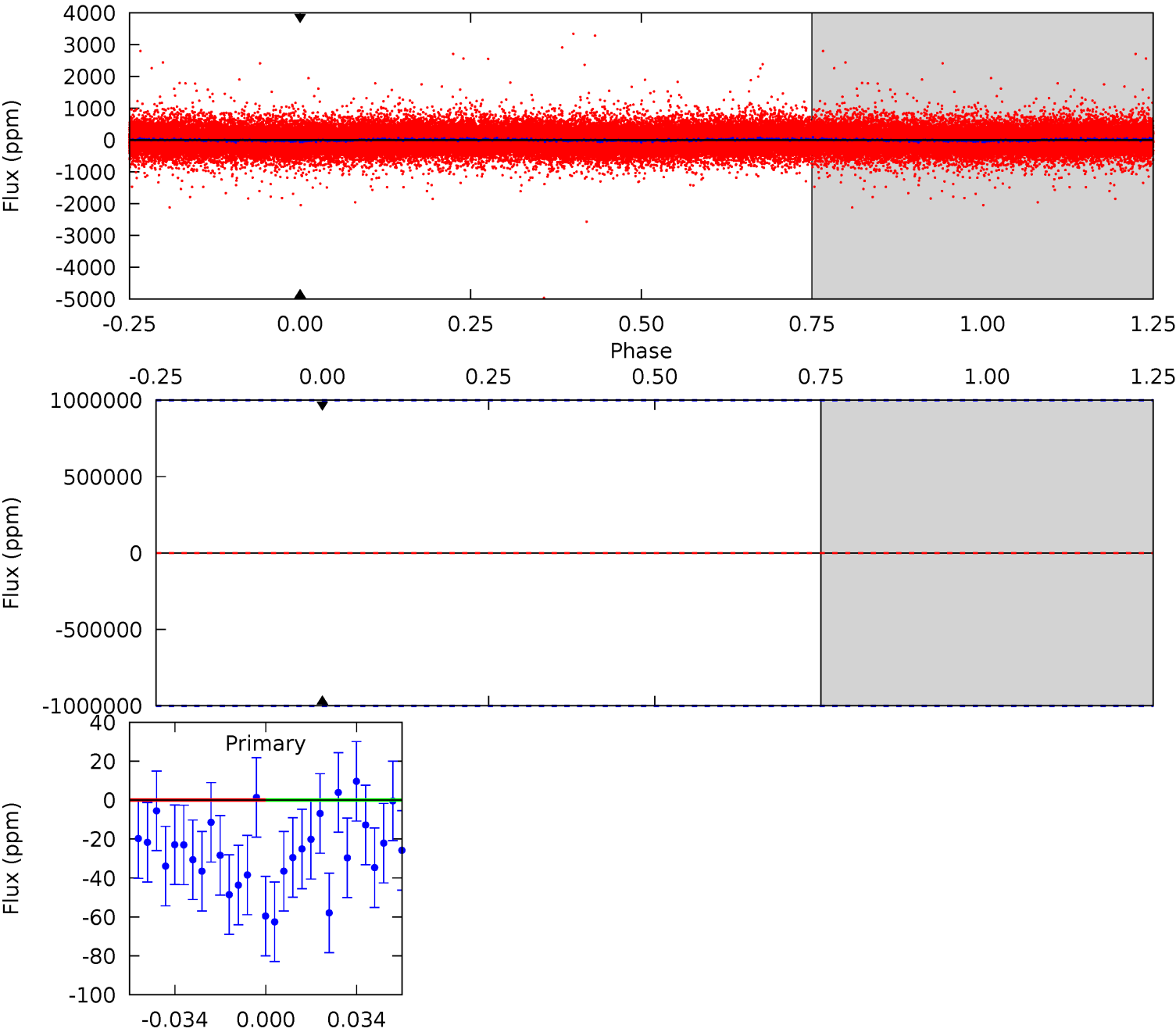
TCE 005384183-02 P= 1.242066 Days $T_0=131.507085$ (BKJD)



DV Model-Shift Uniqueness Test

005384183-02, P = 1.242066 Days, E = 130.309795 Days

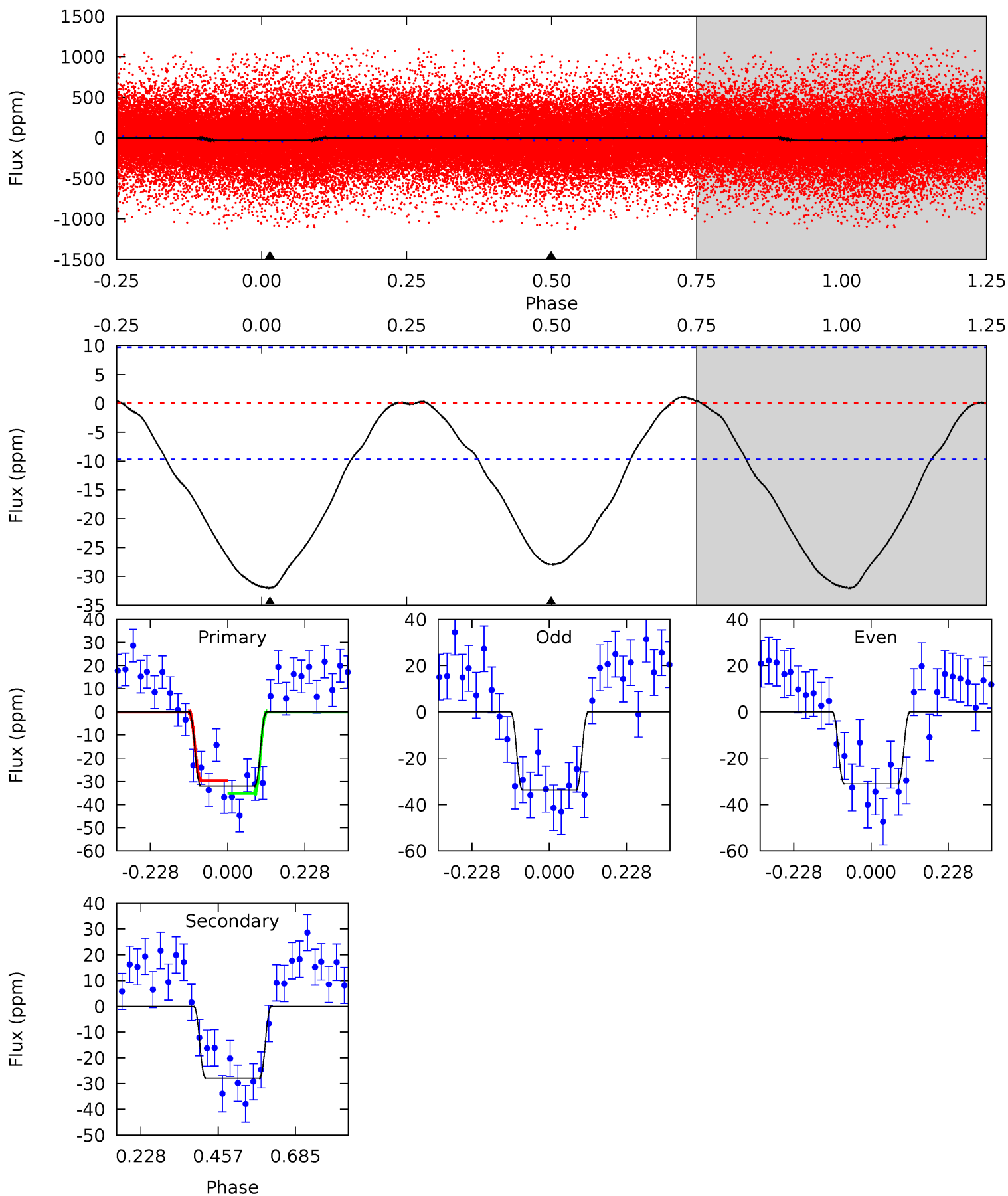
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

005384183-02, P = 1.242066 Days, E = 131.507085 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.5	12.6	0	0	4.39	1.20	0.36	14.5	14.5	12.6	12.6	0.60	0.93	0.03	1.27



Stellar Parameters For KIC 005384183

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4976^{+164}_{-149}	$3.961^{+0.591}_{-0.318}$	$0.320^{+0.150}_{-0.300}$	$1.695^{+0.904}_{-0.904}$	$0.957^{+0.184}_{-0.151}$	$0.277^{+2.052}_{-0.187}$
	+3%/-3%	+15%/-8%	+47%/-94%	+53%/-53%	+19%/-16%	+741%/-68%
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 005384183-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	0 ± 1000000	$13.00^{+15.89}_{-9.30}$	2682^{+381}_{-410}	-3688^{+19679}_{-10634}	$-0.850^{+345.494}_{-277.854}$
Alt.	-28 ± 2	$12.08^{+14.48}_{-8.26}$	2663^{+393}_{-444}	-2677^{+5384}_{-338}	$0.053^{+0.485}_{-0.042}$

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 $A_{obs} \gg 1.0$

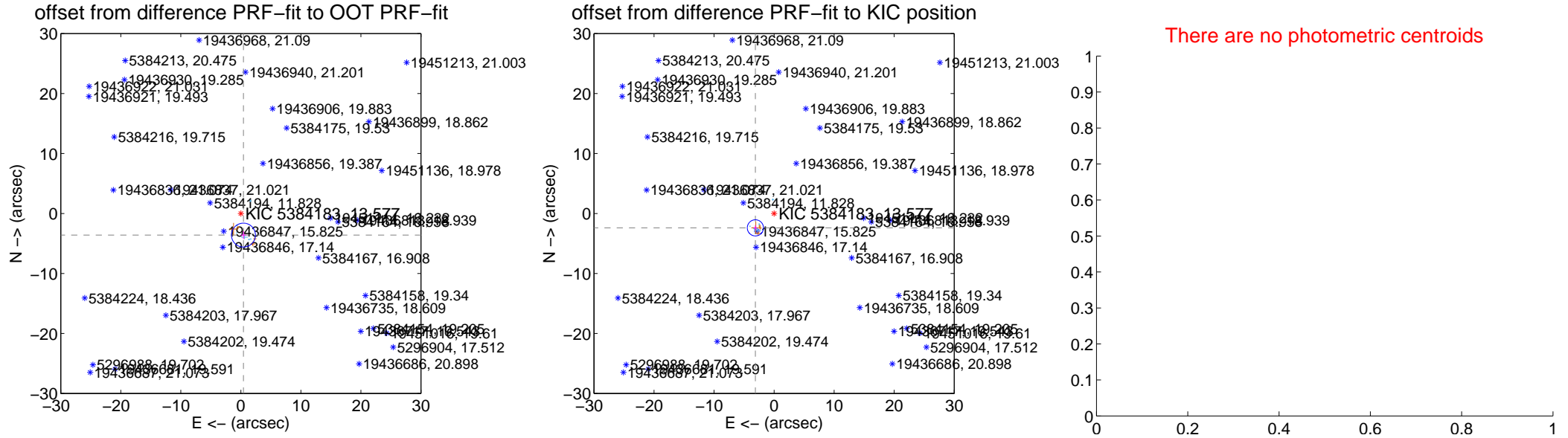
DV Centroid Data

Supplemental centroid analysis for 005384183-02. Kepler magnitude: 13.58. Transit SNR -1.00

There are 8 quarters with good PRF difference image offsets

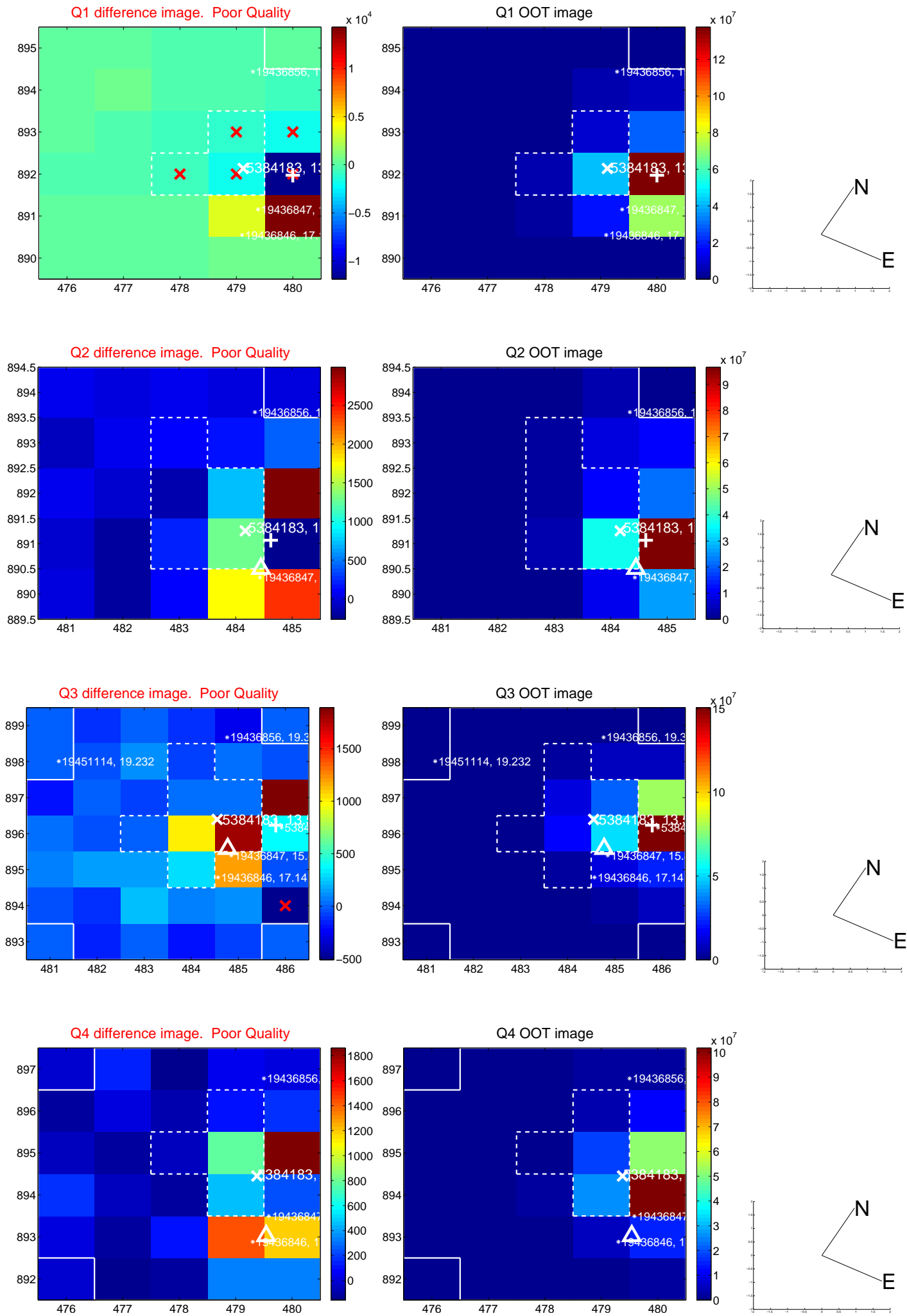
The OOT PRF centroid is offset from the target star catalog position by about 3.56 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.626 ± 0.665	5.45	-0.430 ± 0.426	-3.601 ± 0.647
PRF-fit source offset from KIC position	3.929 ± 0.449	8.74	3.116 ± 0.268	-2.393 ± 0.430
photometric centroid source offset	—	—	—	—

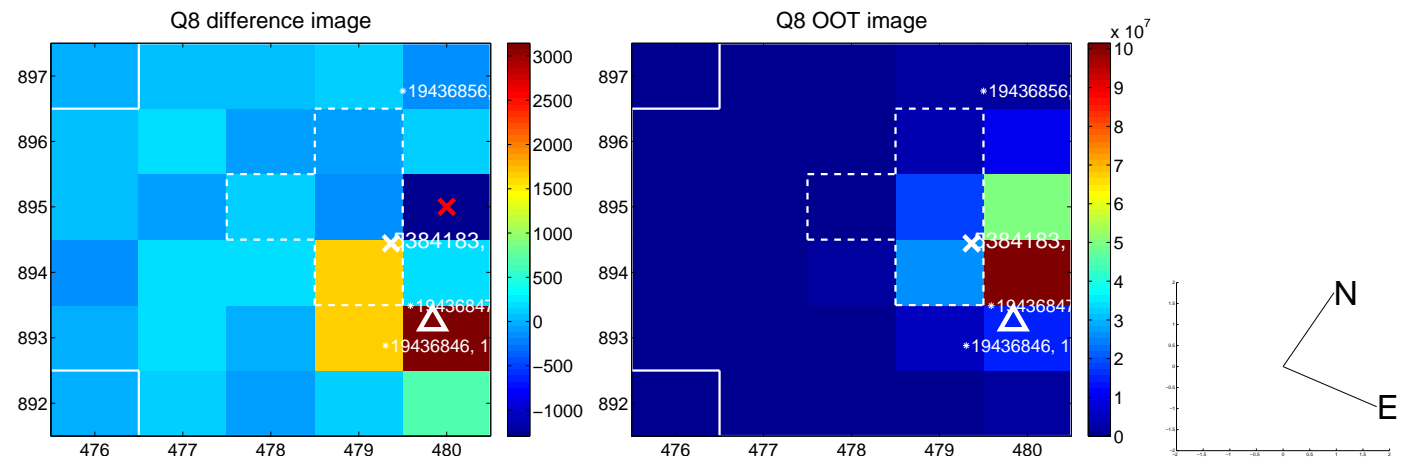
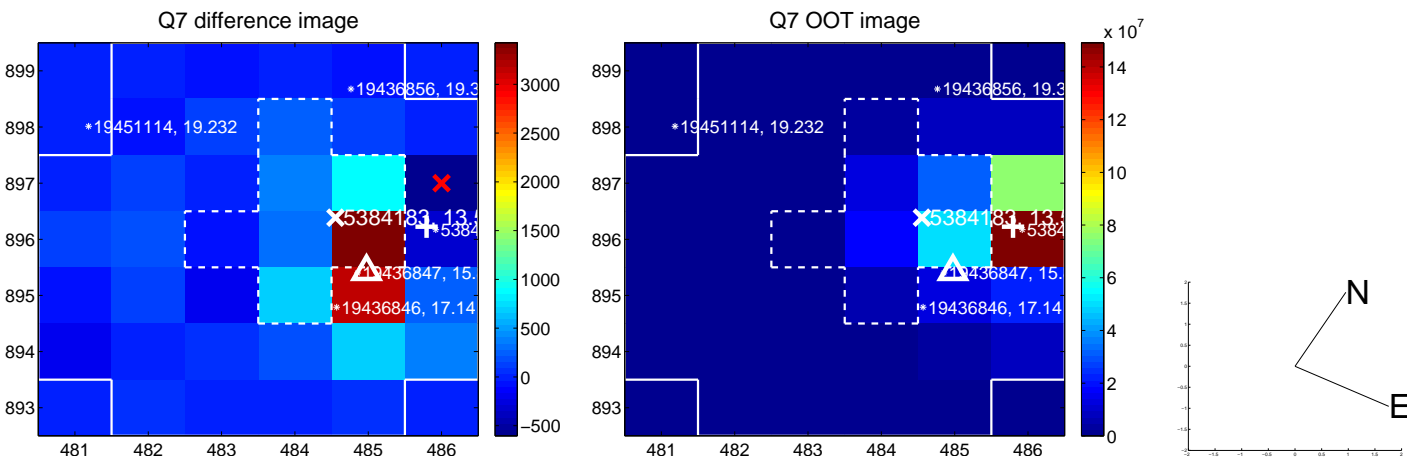
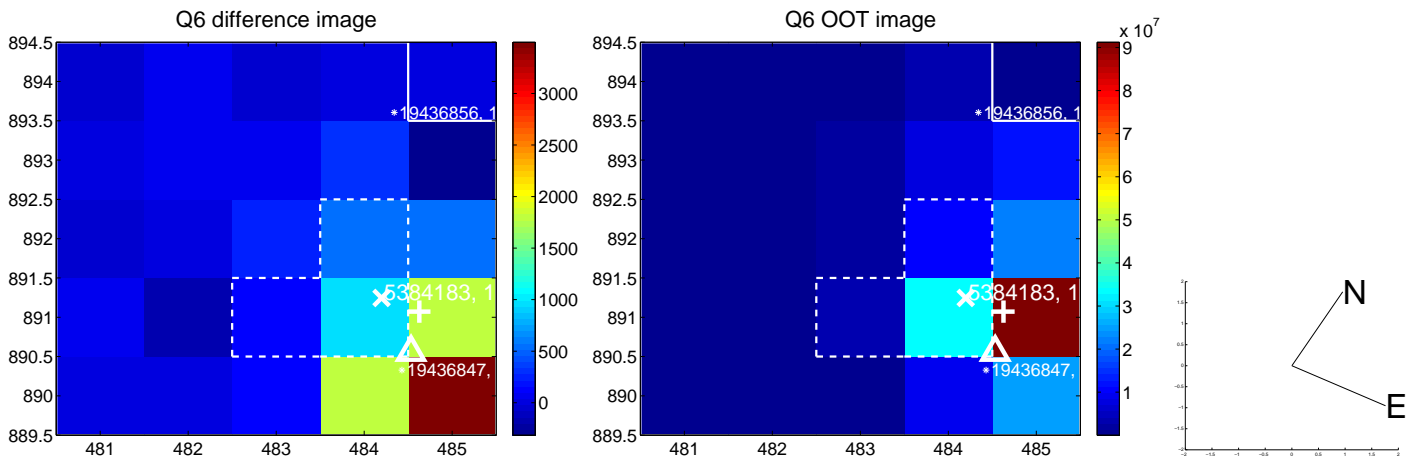
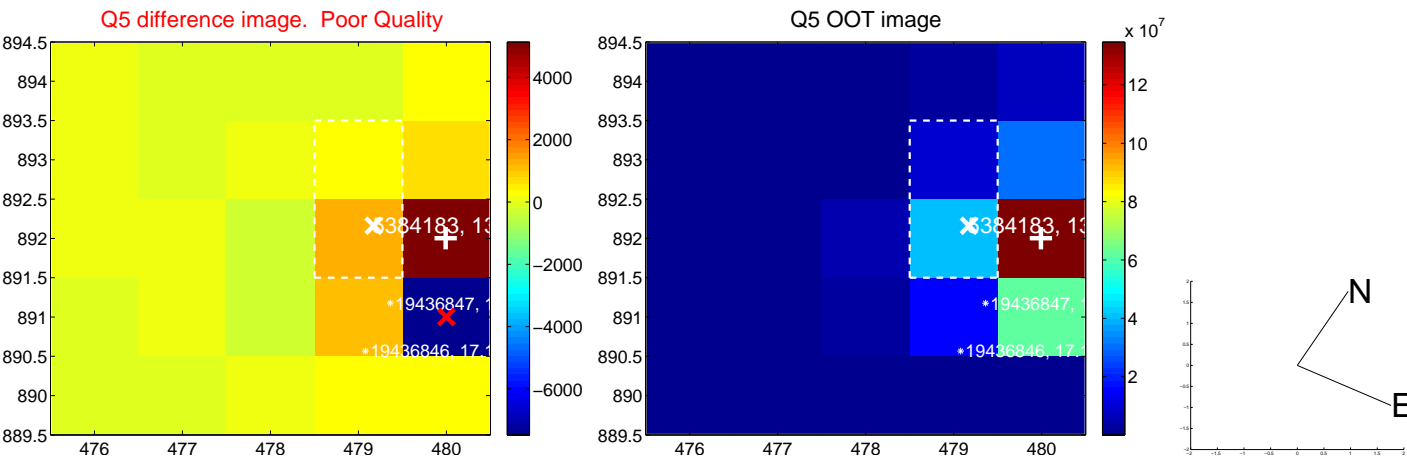


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

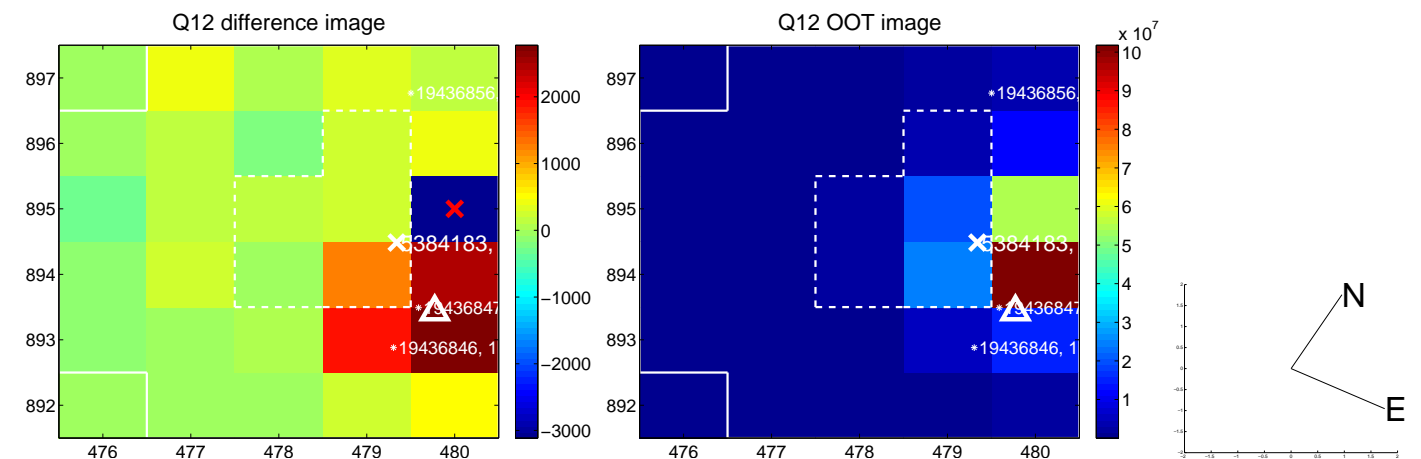
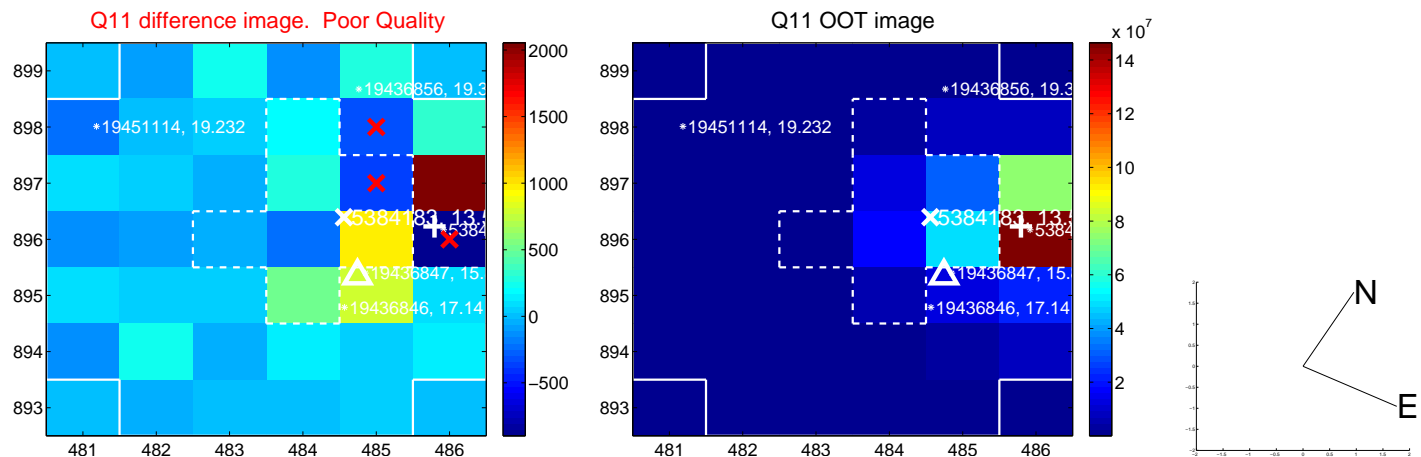
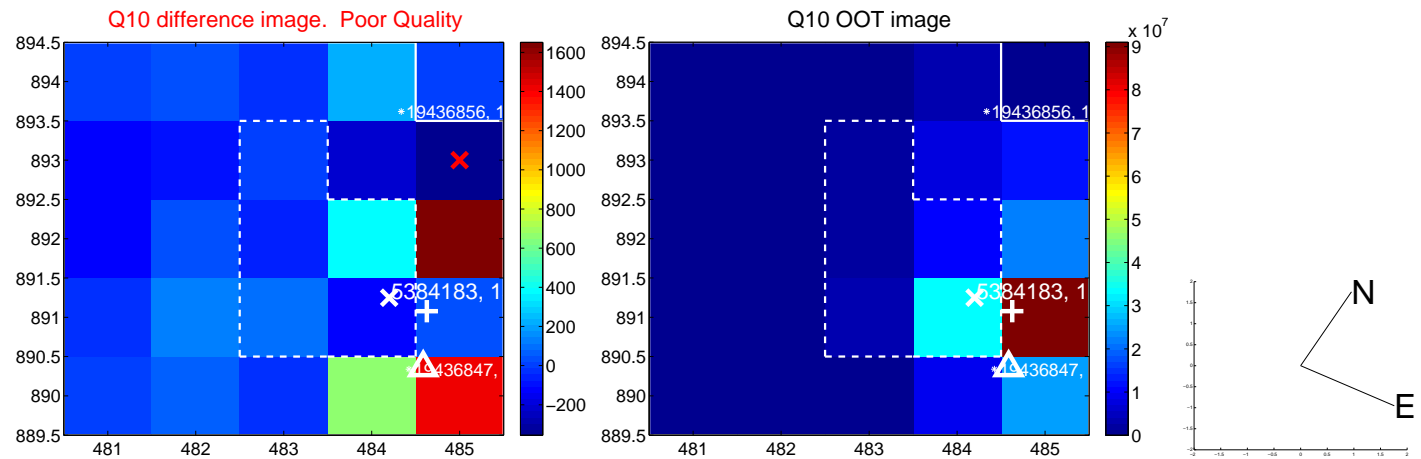
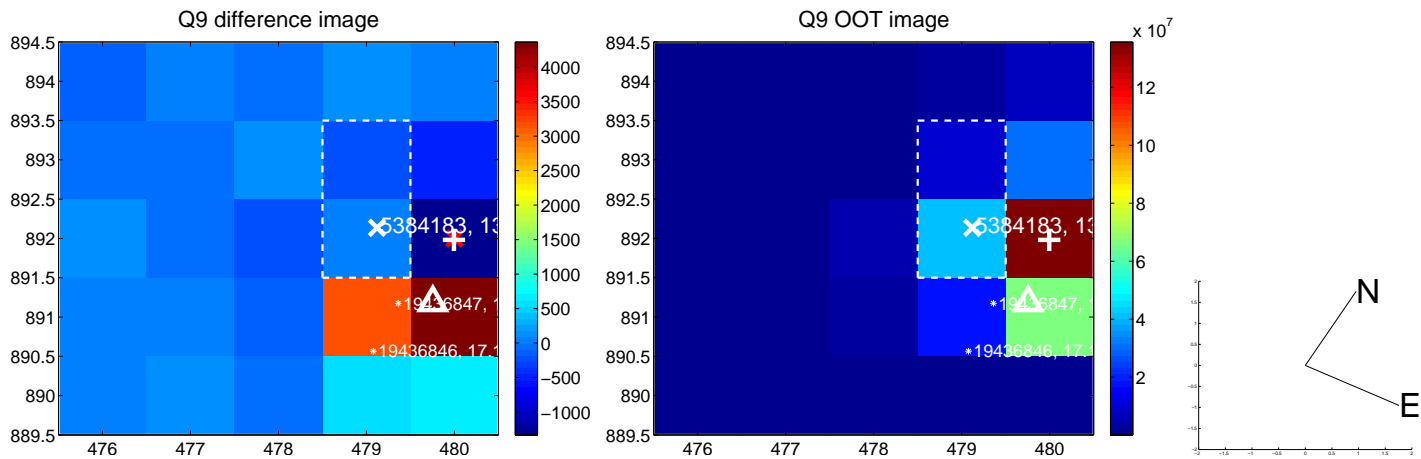
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



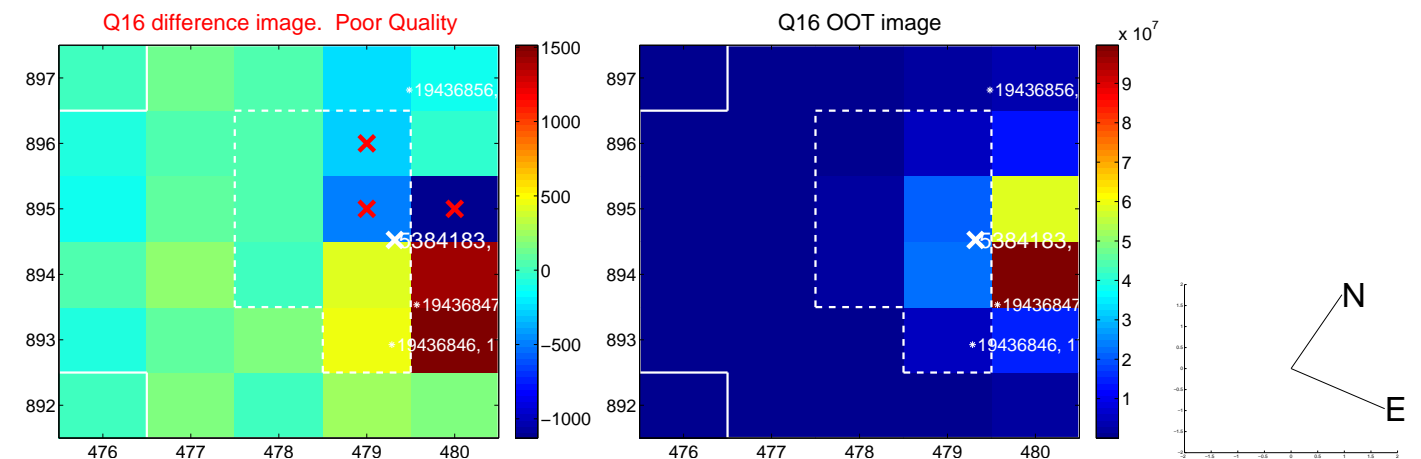
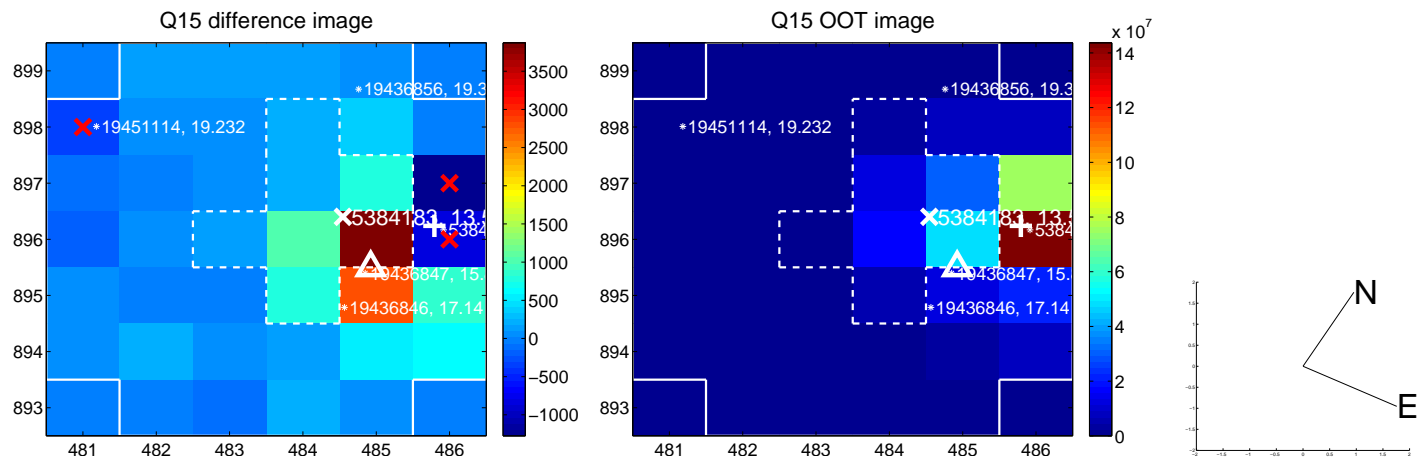
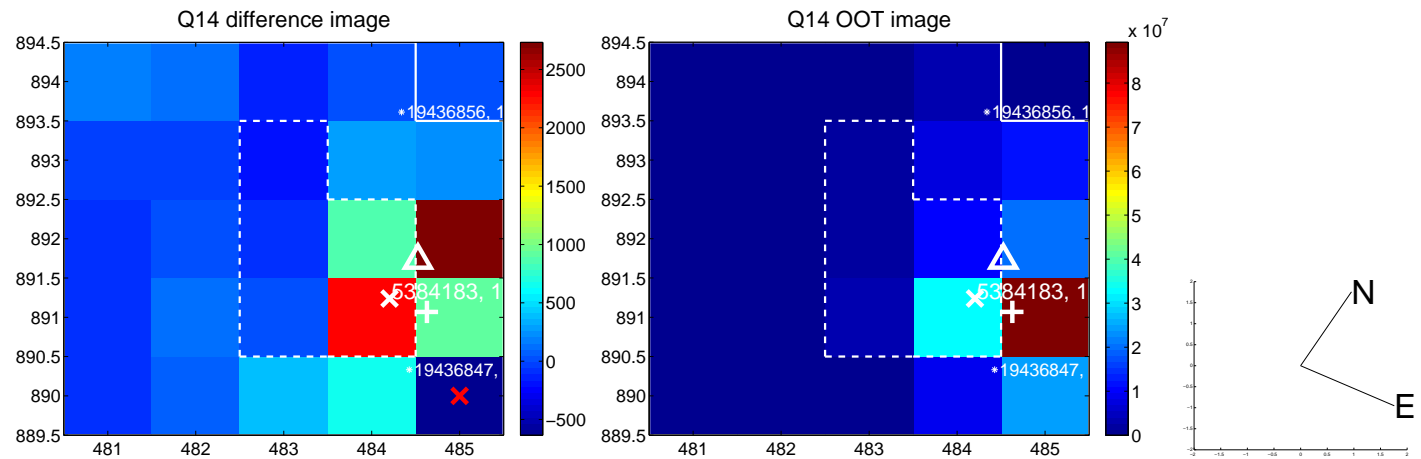
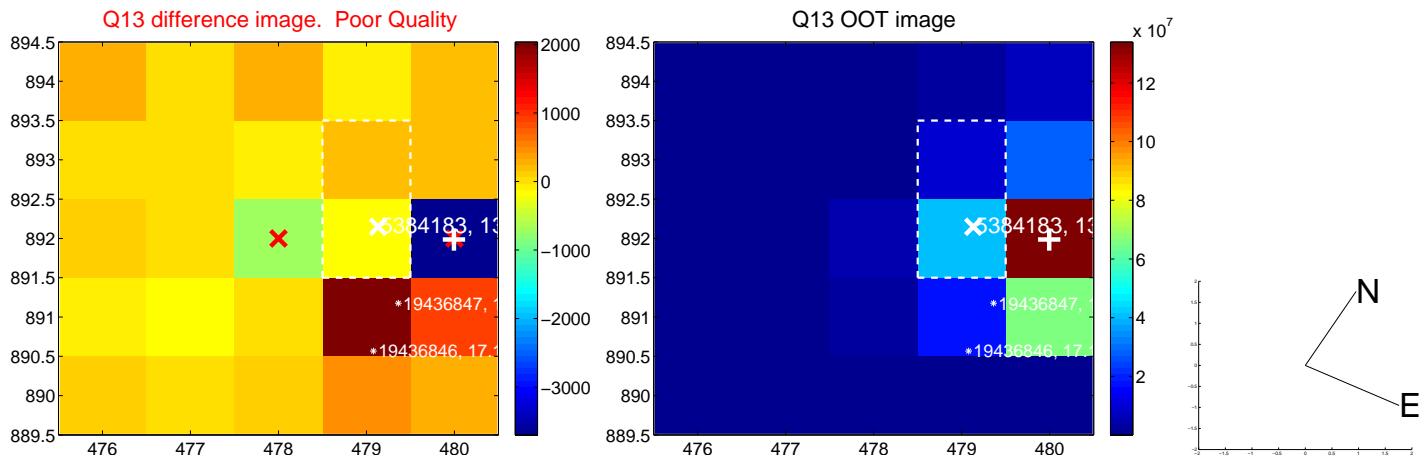
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



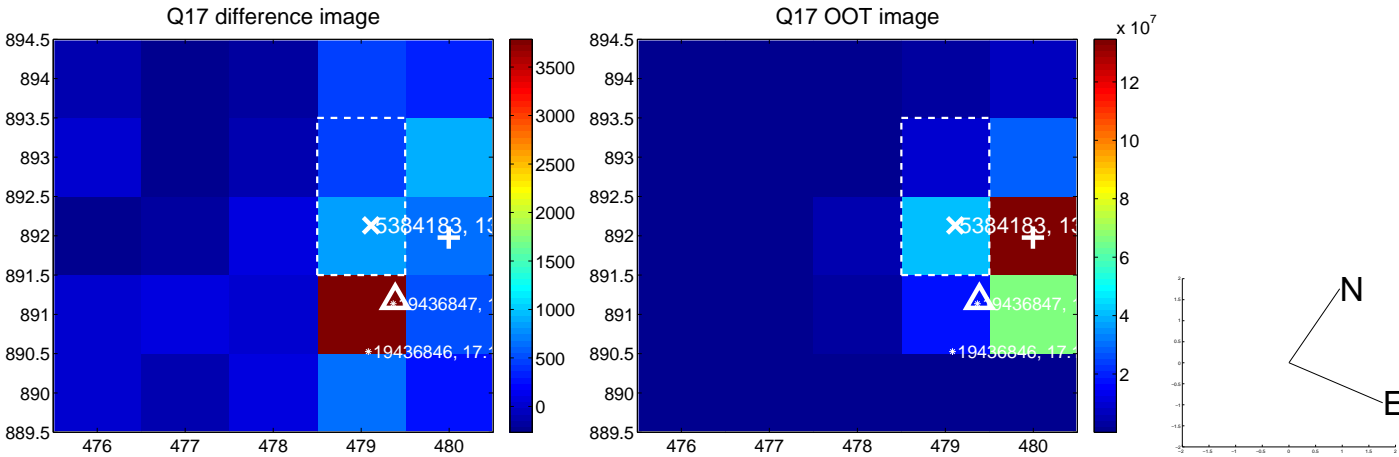
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



folded centroid time series figure for this object.

UKIRT Image

Declination

