

KIC 007199814

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})
007199814-01	OBS	No	0.566827	131.777652	35.9	3.690	9.0	8.3	0.64	4569	0.47	1205.05
007199814-02	OBS	No	37.579531	147.333118	921.8	1.081	8.6	9.4	0.64	4569	2.16	4.49

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007199814-01	OBS	FP	0.00	1	0	0	1	LPP_DV—MOD_NONUNIQ_ALT—EPHEM_MATCH
007199814-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—MOD_NONUNIQ_DV—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.

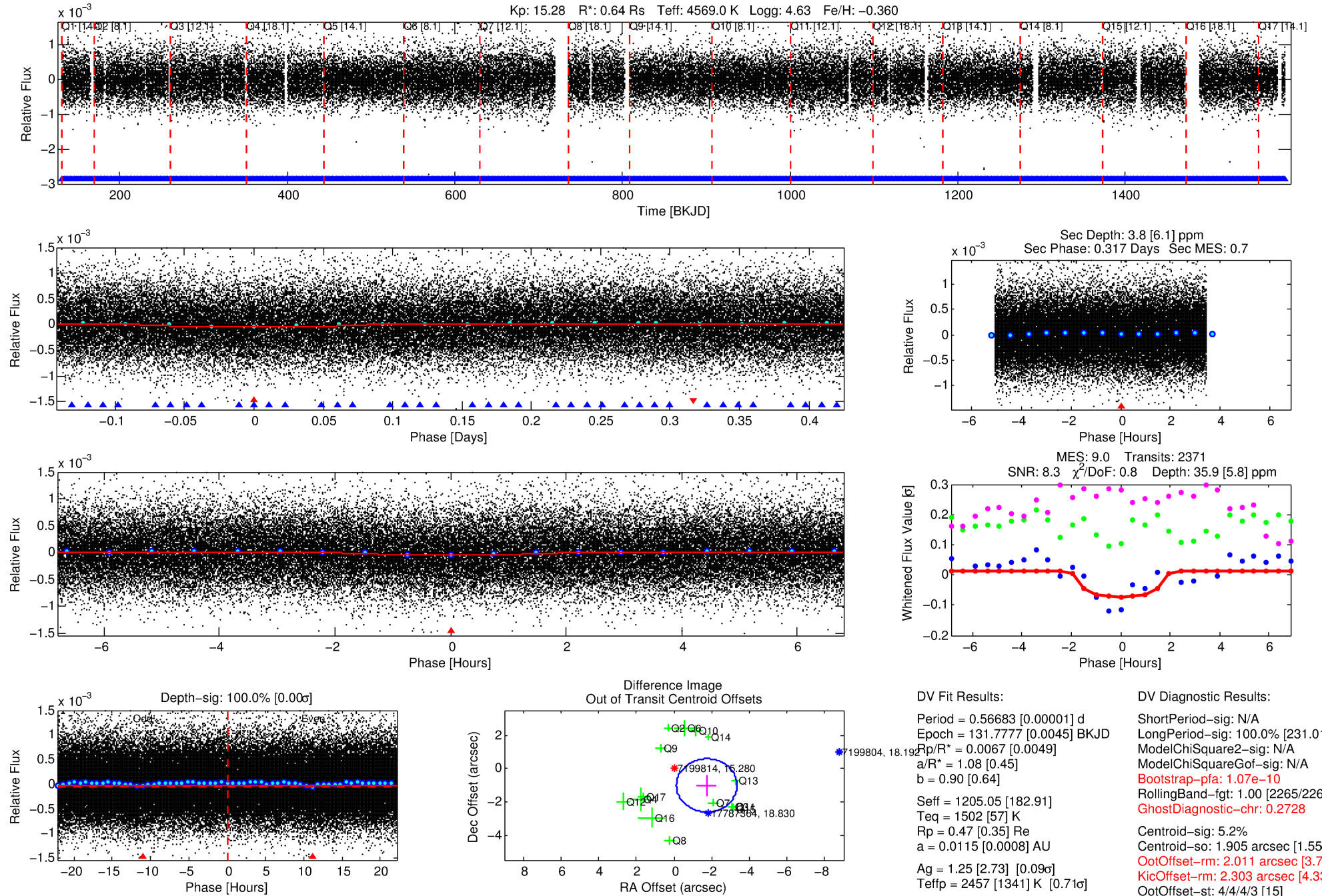
Ephemeris Match Information For 007199814-01

TCE (1)	KIC	Parent (2)	Parent KIC	$P_1:P_2$	Dist ($''$)	Δ Row	Δ Col	m_2	m_1	D_2/D_1	Mechanism	Flag	σ_P	σ_T
007199814-01	7199814	RR-Lyr-pri	7198959	1:1	725.8	148	106	7.86	15.28	17314.00	Direct-PRF	0	0.13	21.09

Notes: $P_1:P_2$ is the period ratio. Dist is the distance in arcseconds. Δ Row and Δ Col are the number of pixels apart in row and column. m_2 and m_1 are the magnitudes of the parent and child. D_2/D_1 is the parent's transit depth divided by the child's. σ_P and σ_T are the significance of the match in period and epoch. For a match to be considered significant $\sigma_P < 5.0$ and $\sigma_T < 5.0$. Matches which have σ_P and σ_T very close to this cutoff should receive extra scrutiny, especially if the period ratio is very large.

DV One-Page Summary

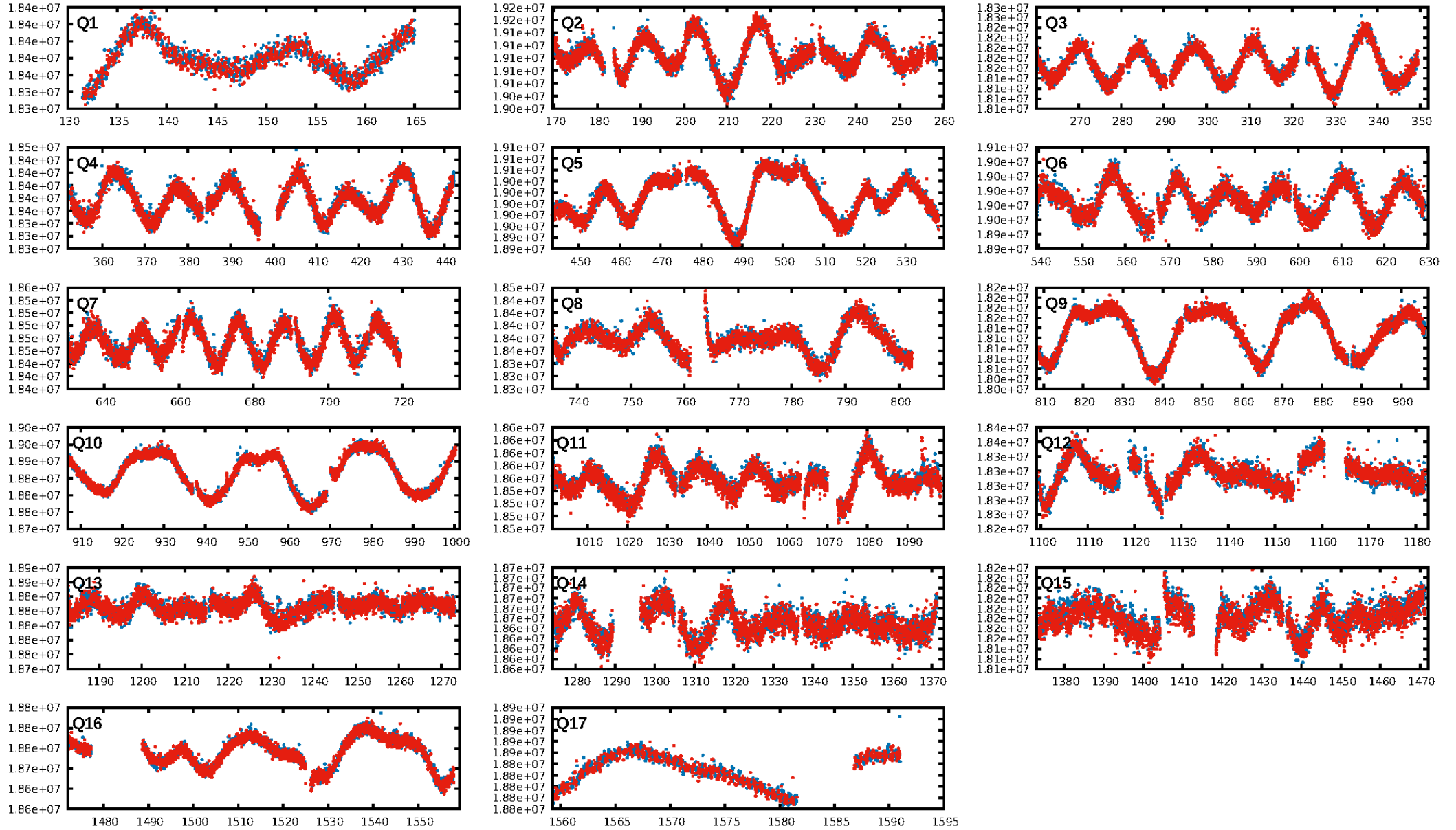
KIC: 7199814 Candidate: 1 of 2 Period: 0.567 d



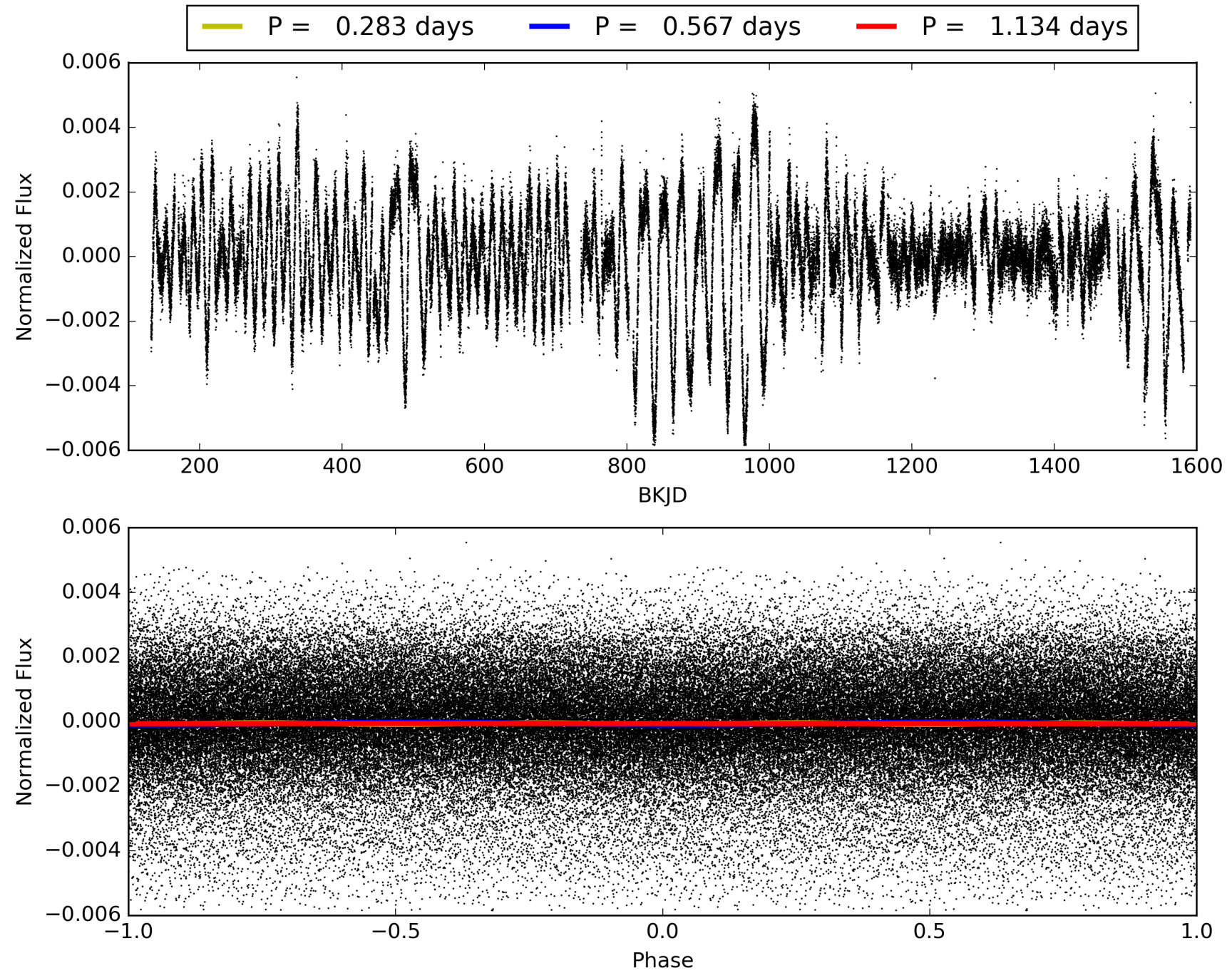
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 19:30:14 Z

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

TCE 007199814-01, PDC Light Curves

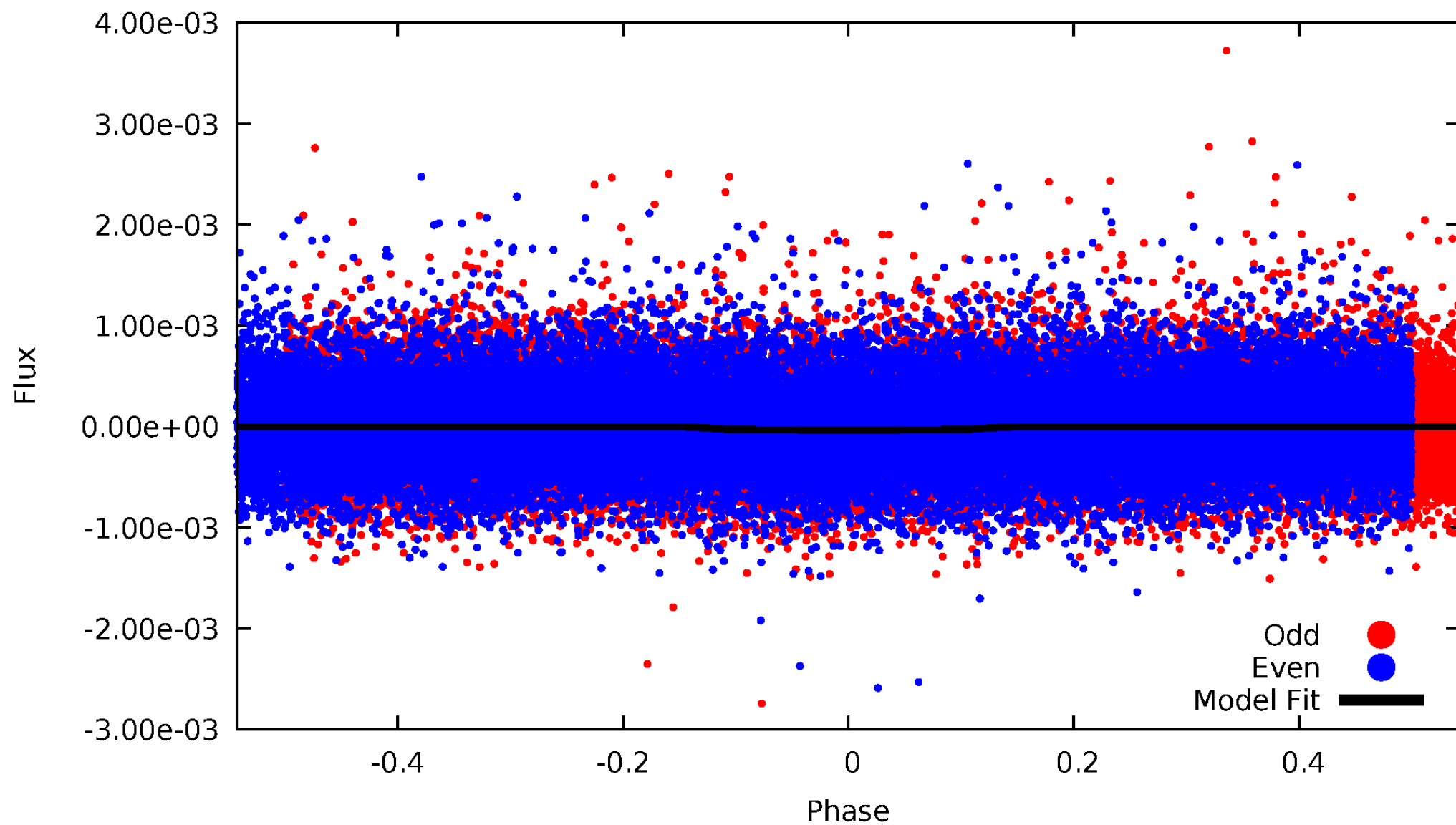


TCE 007199814-01



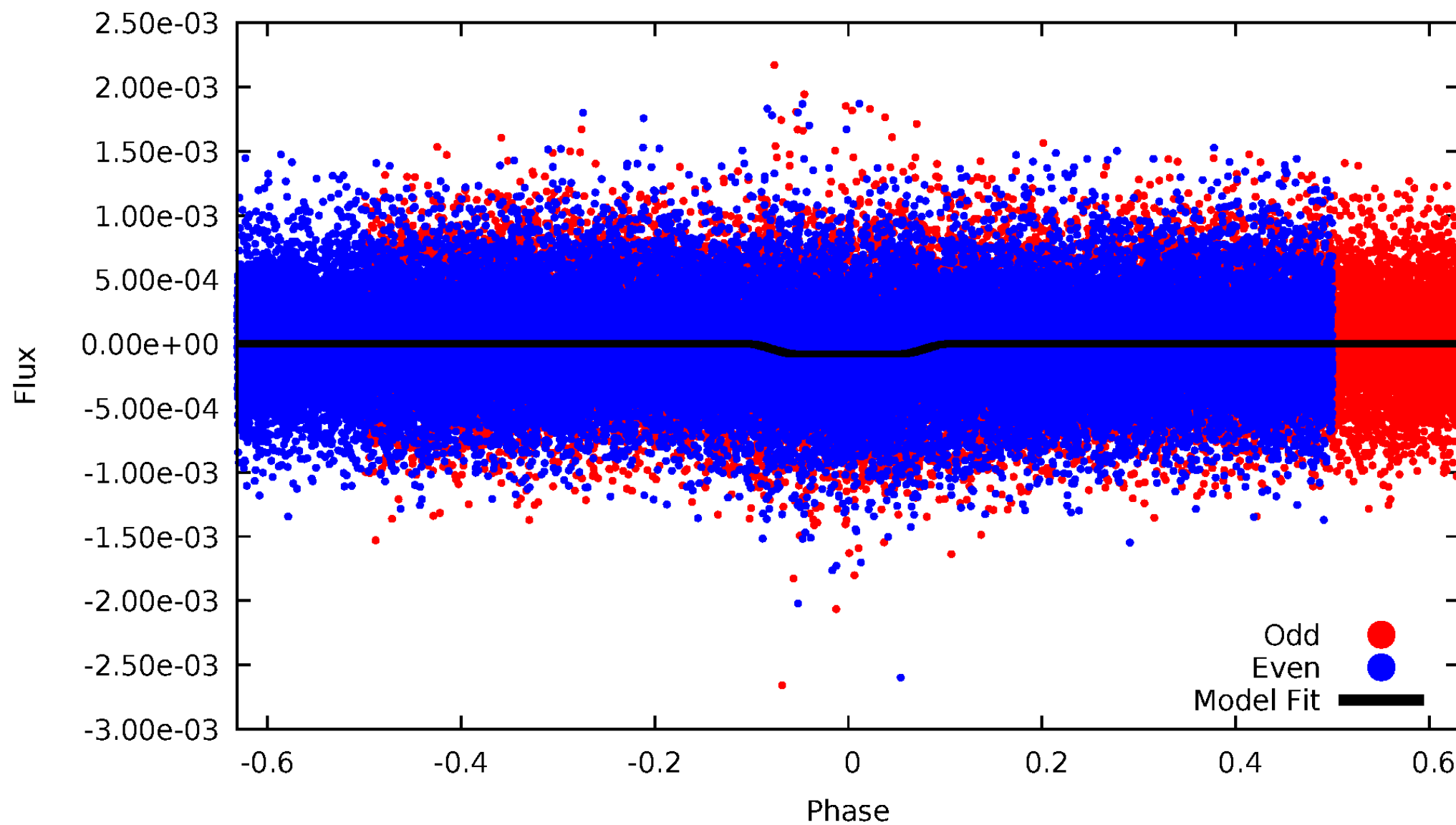
DV Odd/Even

TCE 007199814-01

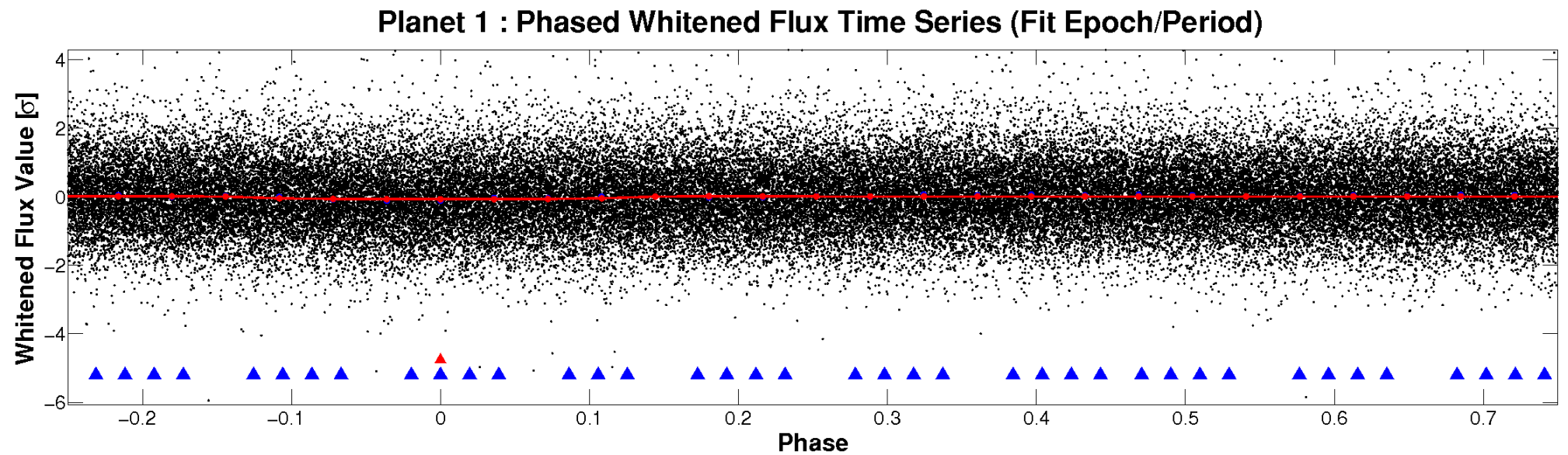
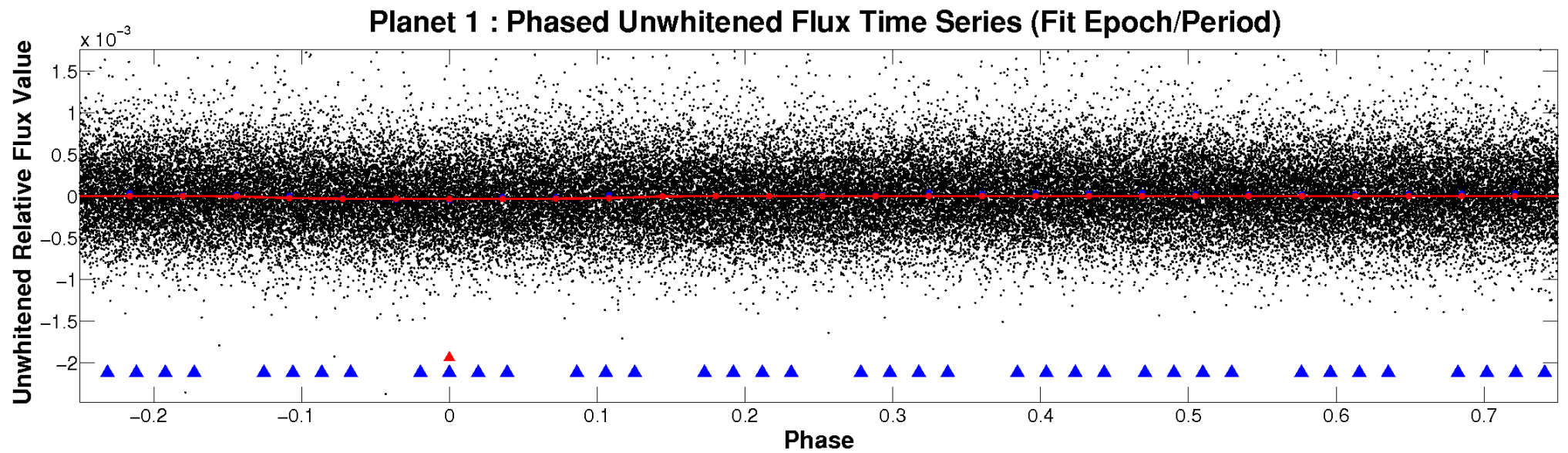


ALT Odd/Even

TCE 007199814-01

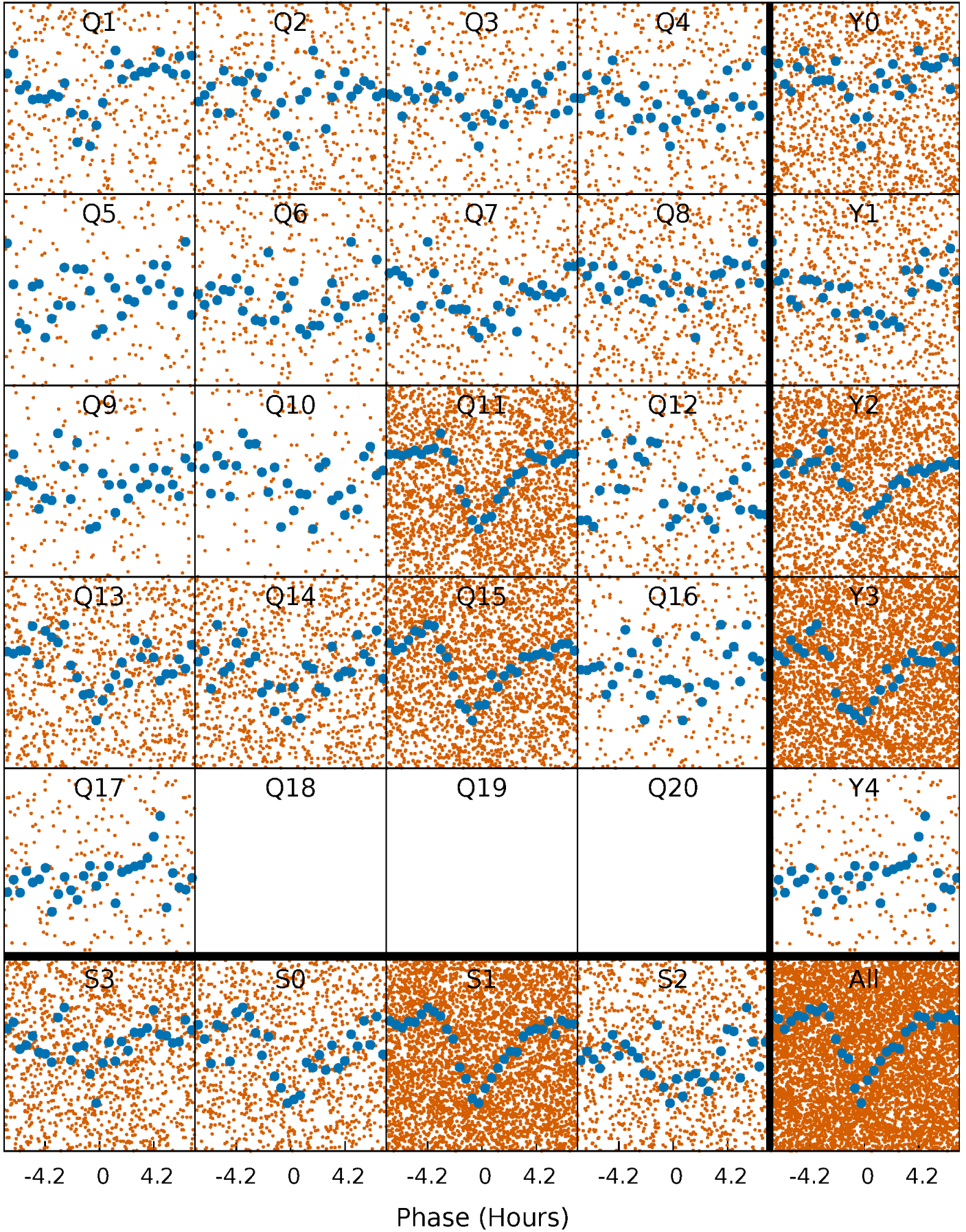


Non-Whitened Vs. Whitened Light Curve



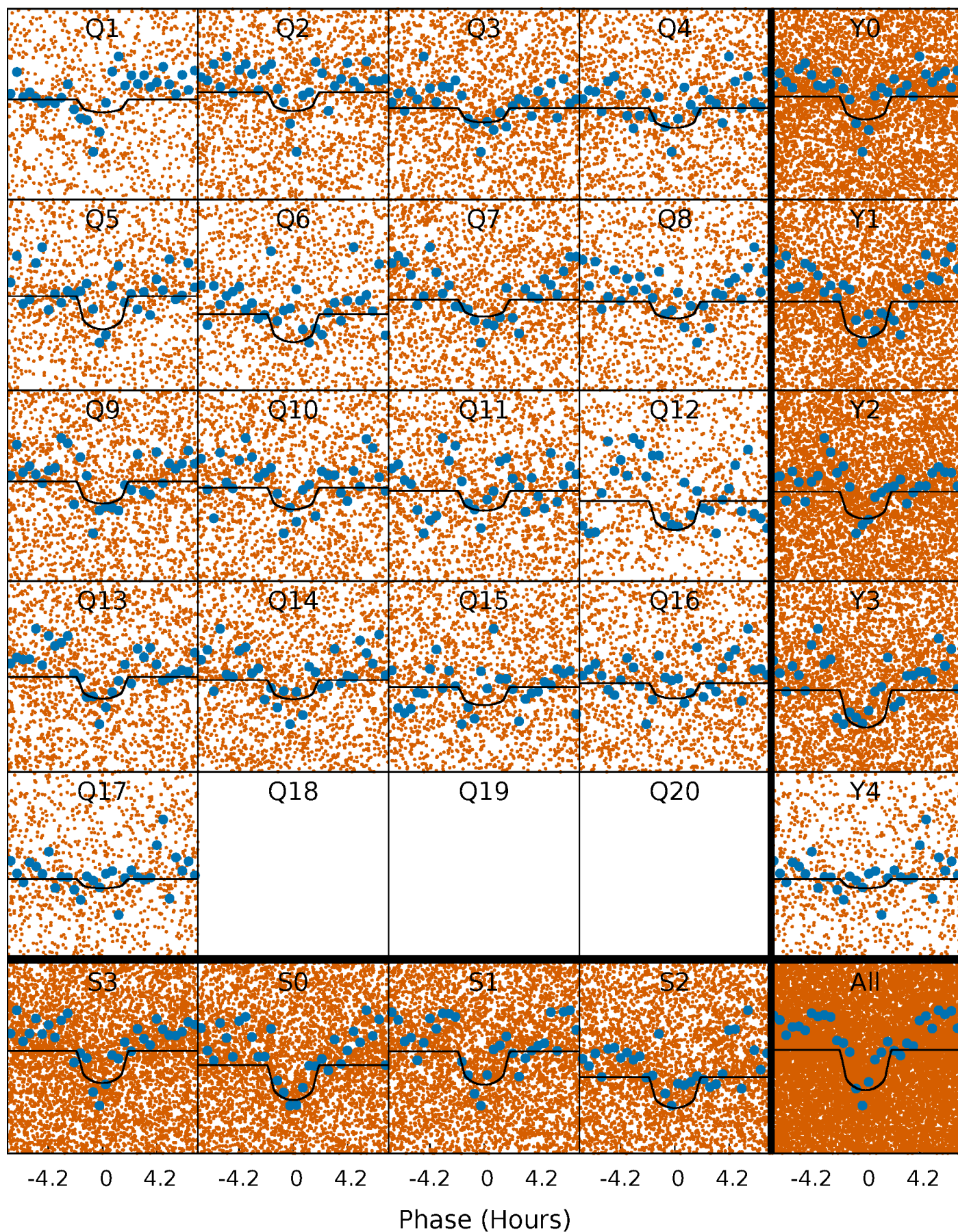
PDC Quarter-Phased Transit Curves

TCE 007199814-01 P= 0.566827 Days $T_0=131.777652$ (BKJD)



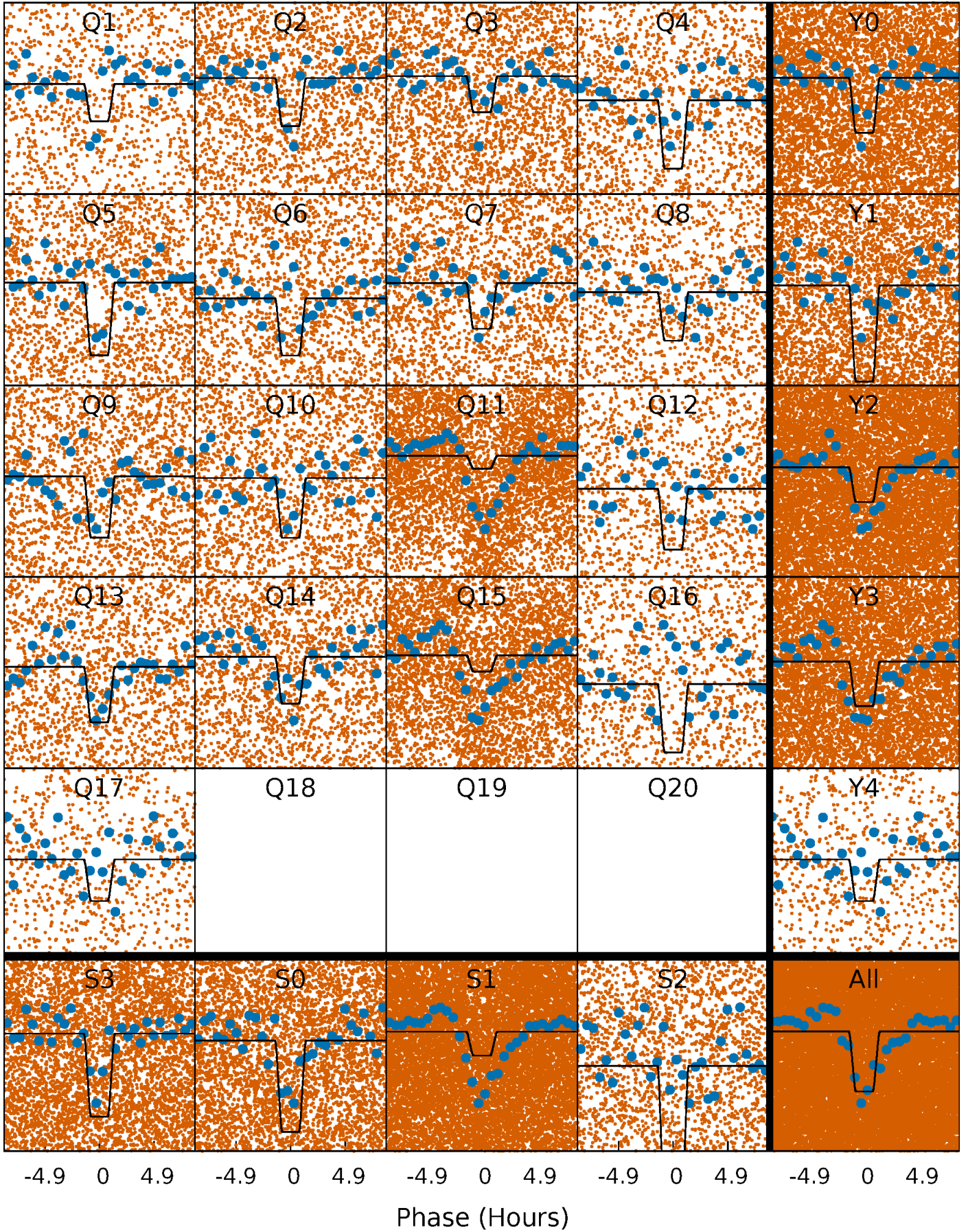
DV Quarter-Phased Transit Curves

TCE 007199814-01 P= 0.566827 Days $T_0=131.777652$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

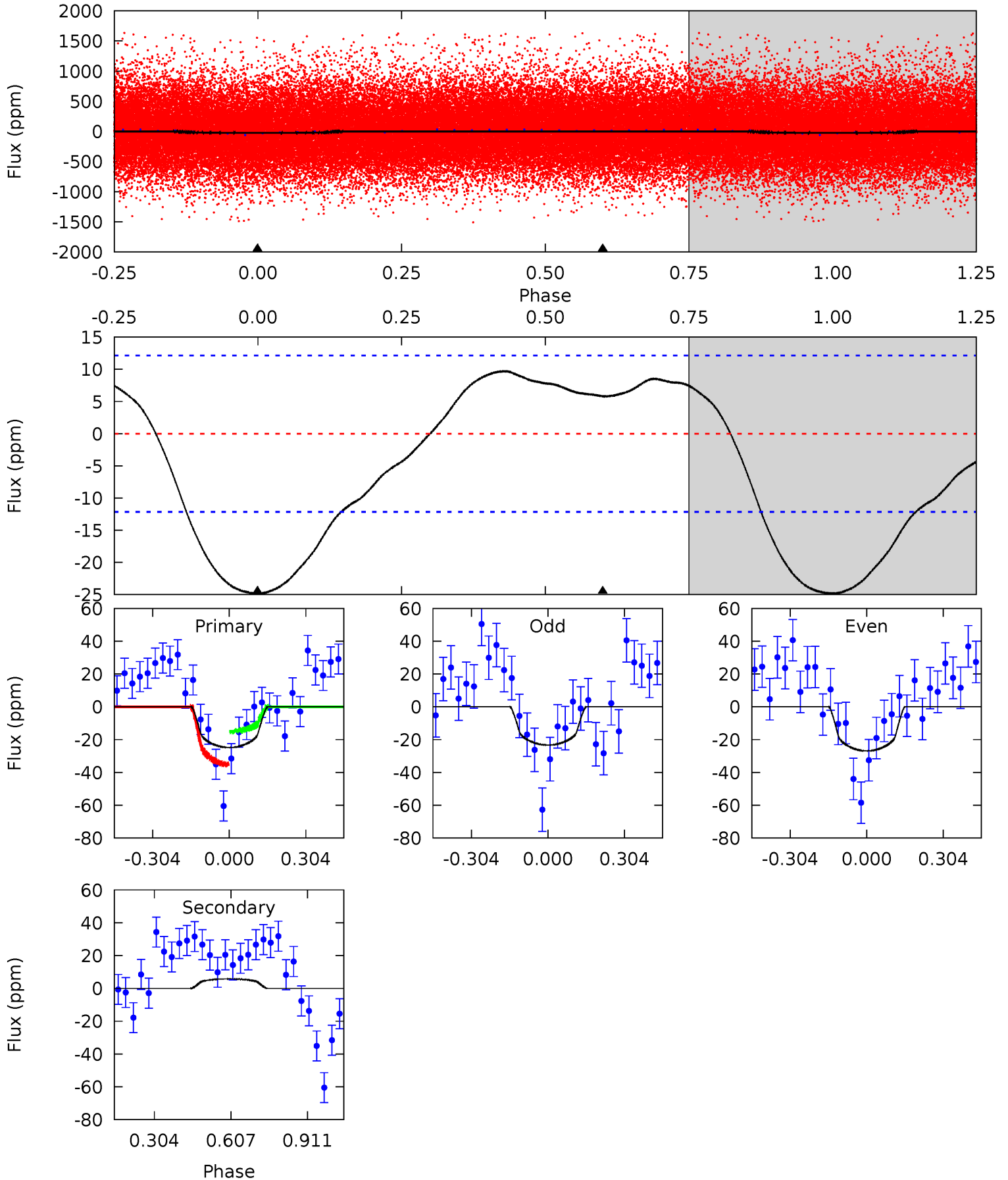
TCE 007199814-01 P= 0.566818 Days $T_0=131.780047$ (BKJD)



DV Model-Shift Uniqueness Test

007199814-01, P = 0.566827 Days, E = 131.210825 Days

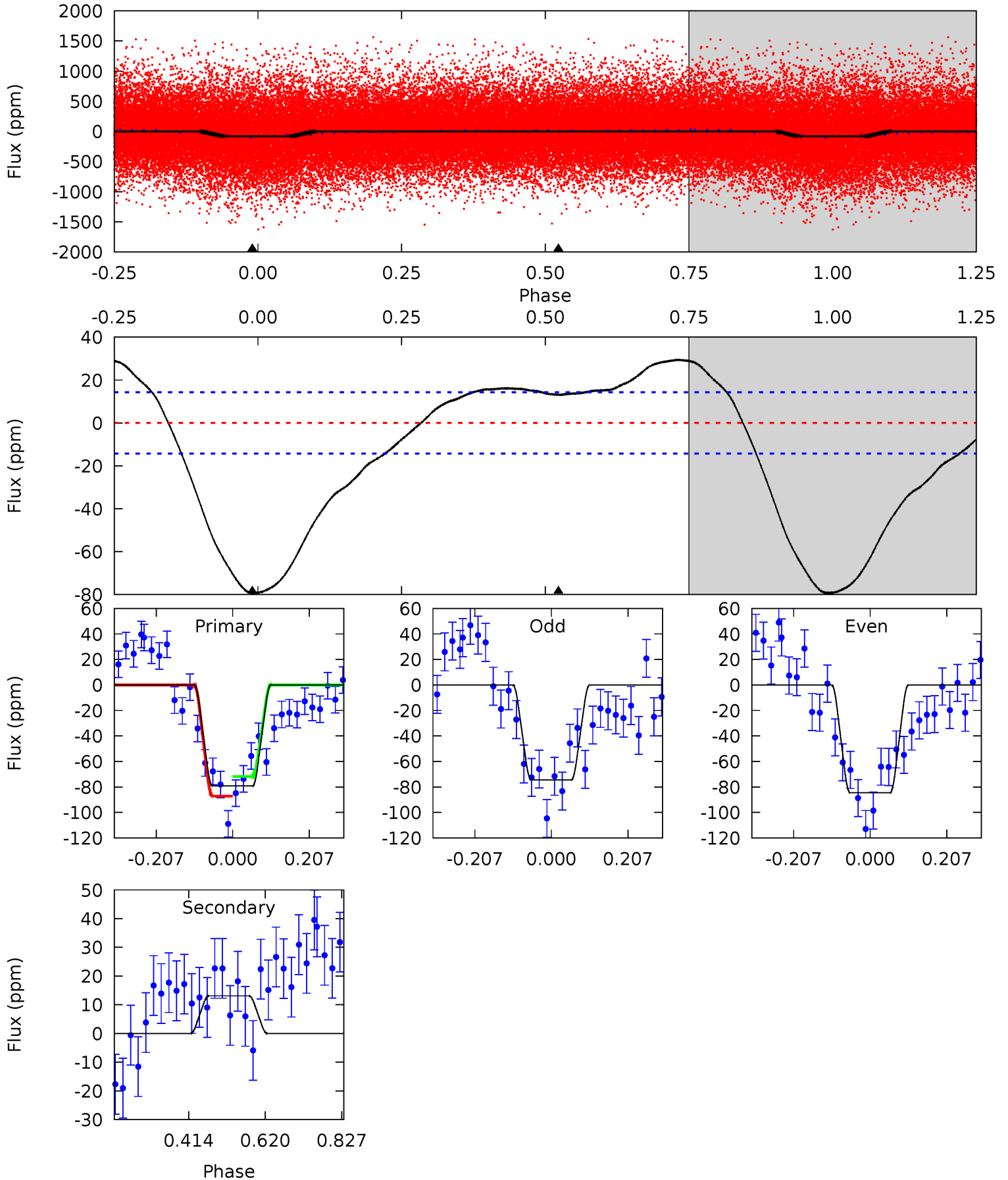
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.84	-2.07	0	0	4.33	1.03	1.06	8.84	8.84	-2.07	-2.07	0.64	0.95	0.28	3.56



Alt Model-Shift Uniqueness Test

007199814-01, P = 0.566818 Days, E = 131.213229 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
24.5	-4.05	0	0	4.41	1.26	5.22	24.5	24.5	-4.05	-4.05	1.55	1.07	0.27	2.37



Stellar Parameters For KIC 007199814

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	4569^{+136}_{-136}	$4.626^{+0.048}_{-0.028}$	$-0.360^{+0.300}_{-0.300}$	$0.637^{+0.051}_{-0.056}$	$0.627^{+0.075}_{-0.046}$	$3.412^{+0.779}_{-0.437}$
	+3%/-3%	+1%/-1%	+83%/-83%	+8%/-9%	+12%/-7%	+23%/-13%
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 007199814-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	6 ± 3	$0.50^{+0.33}_{-0.28}$	2095^{+69}_{-71}	-3196^{+370}_{-1020}	$-1.550^{+1.068}_{-7.693}$
Alt.	13 ± 3	$0.63^{+0.34}_{-0.32}$	2095^{+70}_{-76}	-3394^{+366}_{-848}	$-2.478^{+1.482}_{-7.631}$

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 $A_{obs} \gg 1.0$

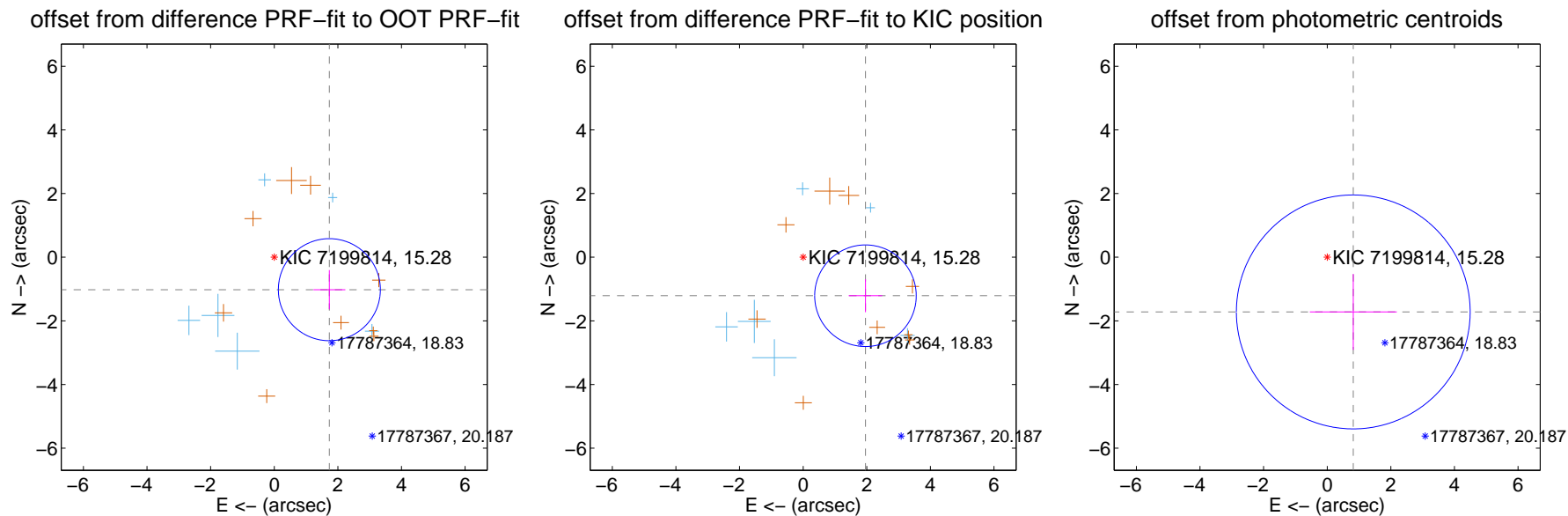
DV Centroid Data

Supplemental centroid analysis for 007199814-01. Kepler magnitude: 15.28. Transit SNR 8.30

There are 6 quarters with good PRF difference image offsets

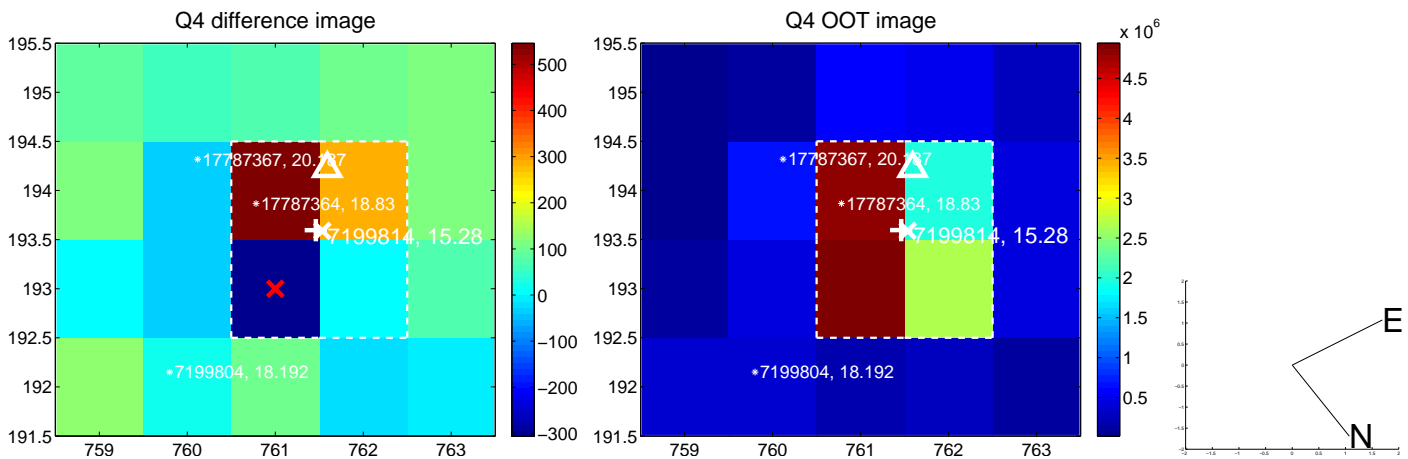
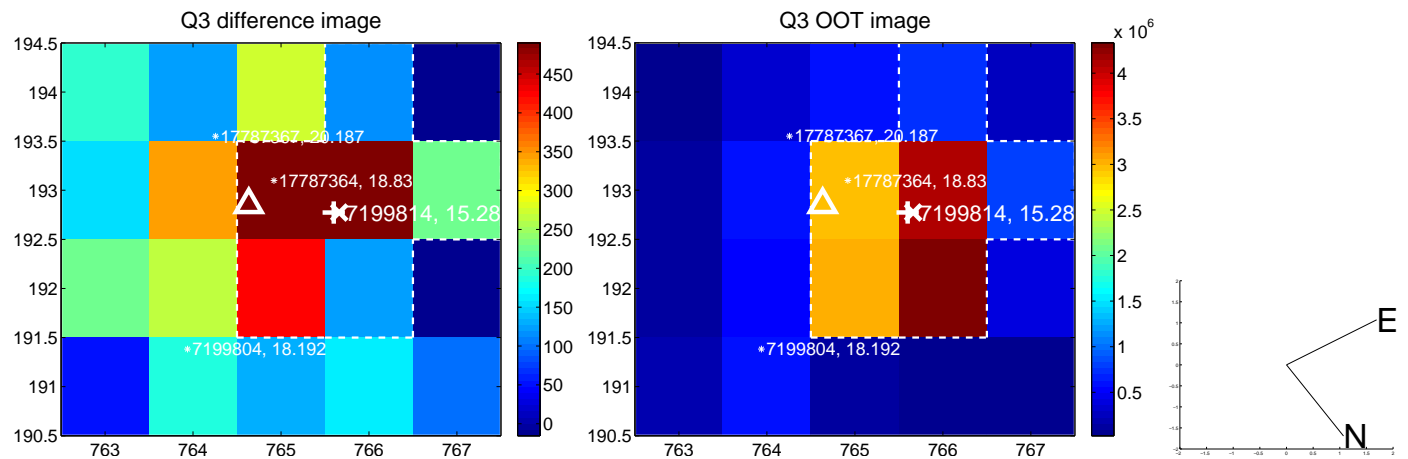
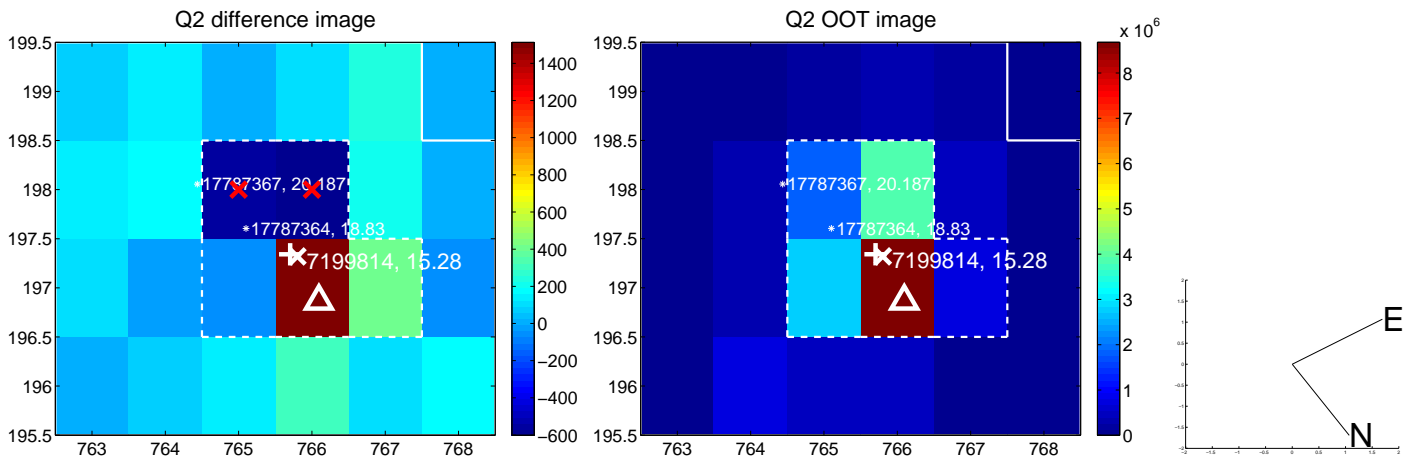
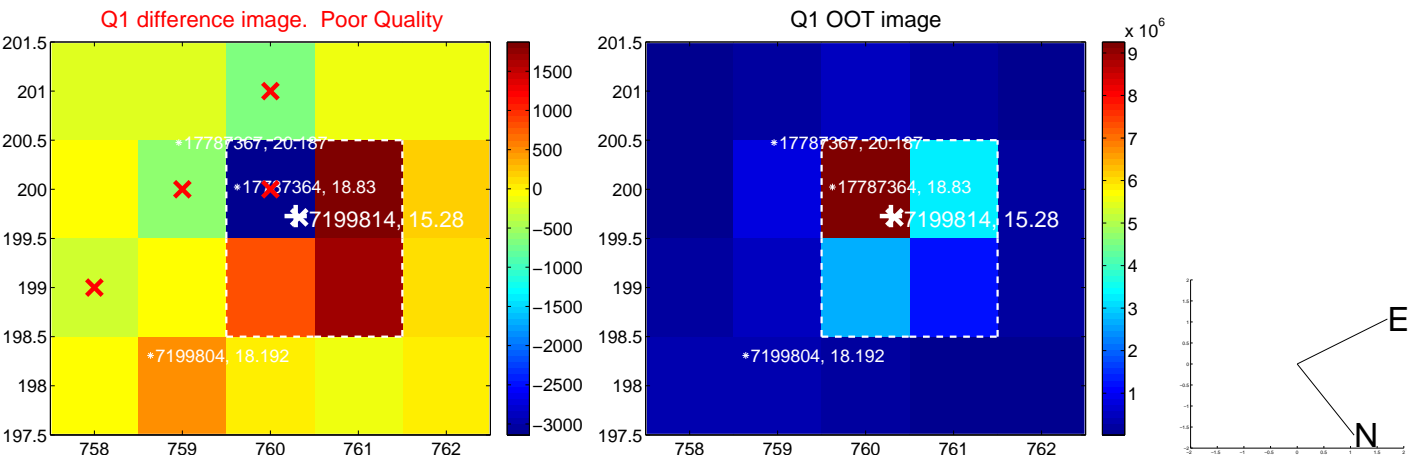
The direct PRF centroid is offset from the target star catalog position by about 0.24 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.011 ± 0.535	3.76	-1.733 ± 0.503	-1.021 ± 0.617
PRF-fit source offset from KIC position	2.303 ± 0.532	4.33	-1.959 ± 0.528	-1.211 ± 0.519
photometric centroid source offset	1.90 ± 1.23	1.55	-0.82 ± 1.37	-1.72 ± 1.19

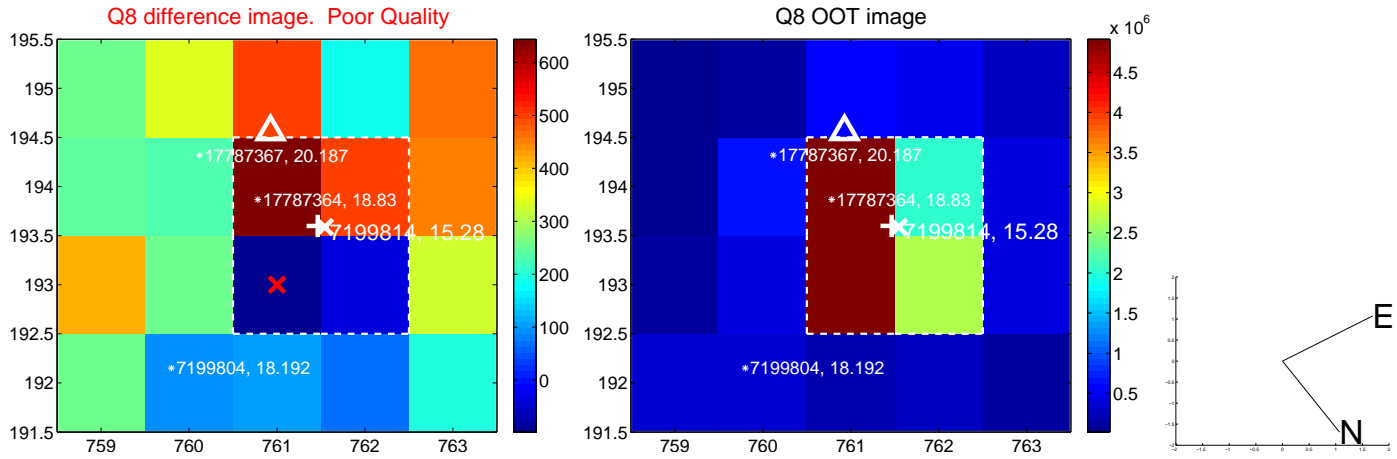
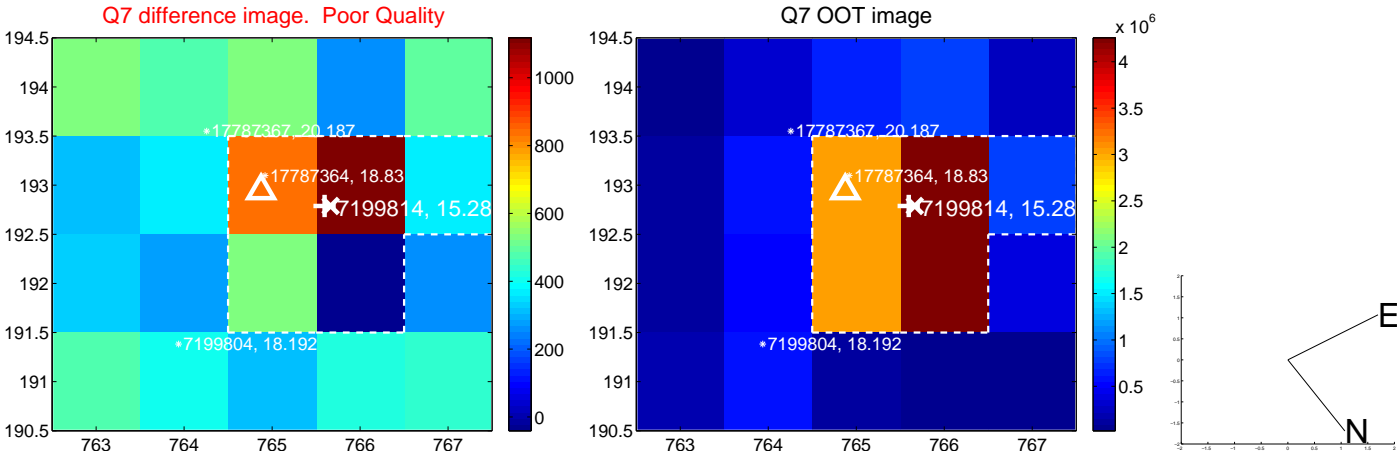
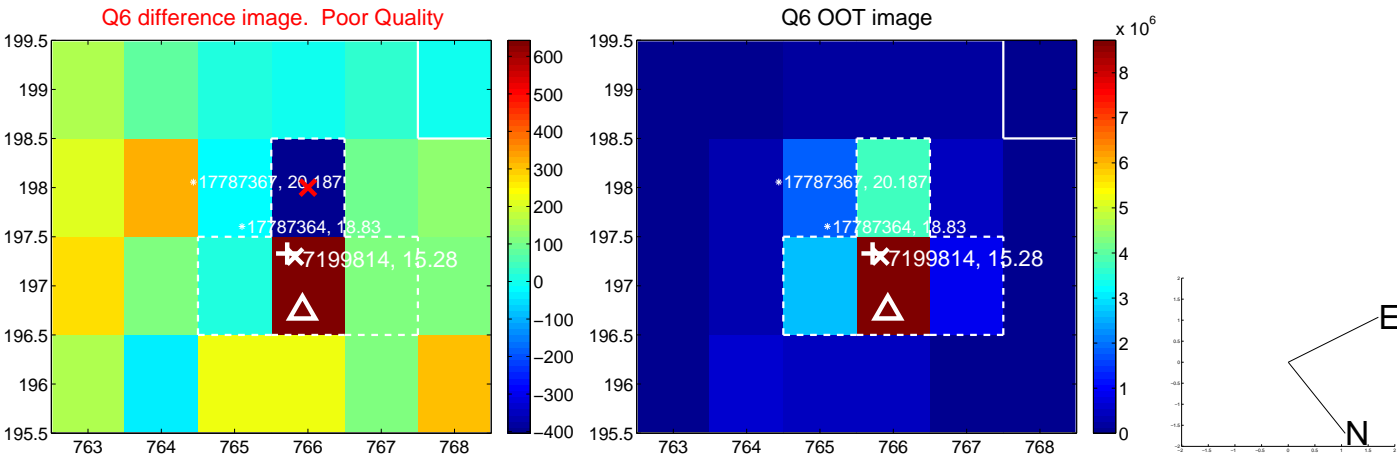
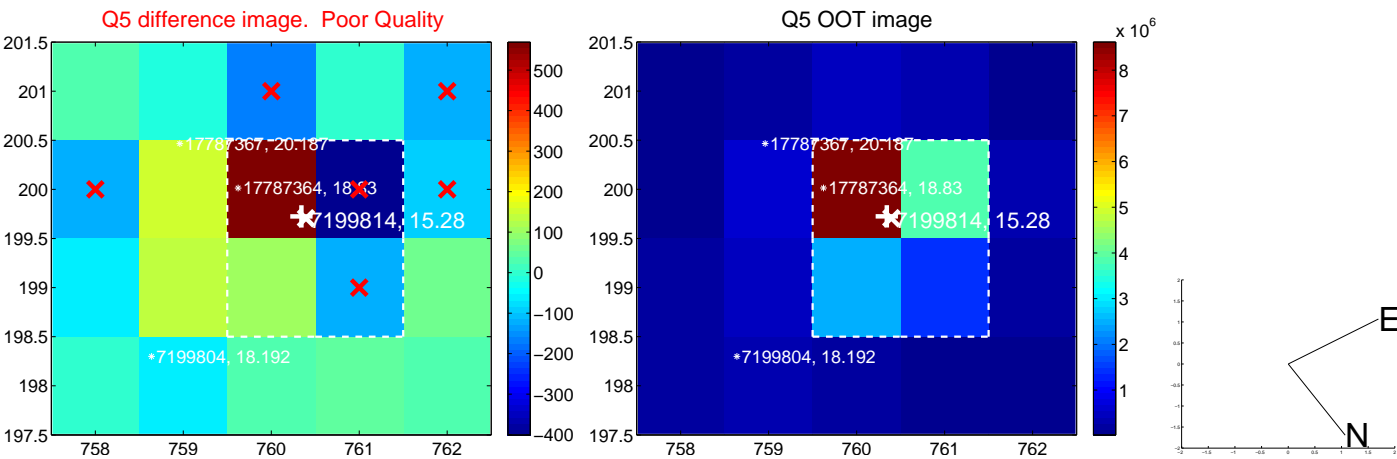


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

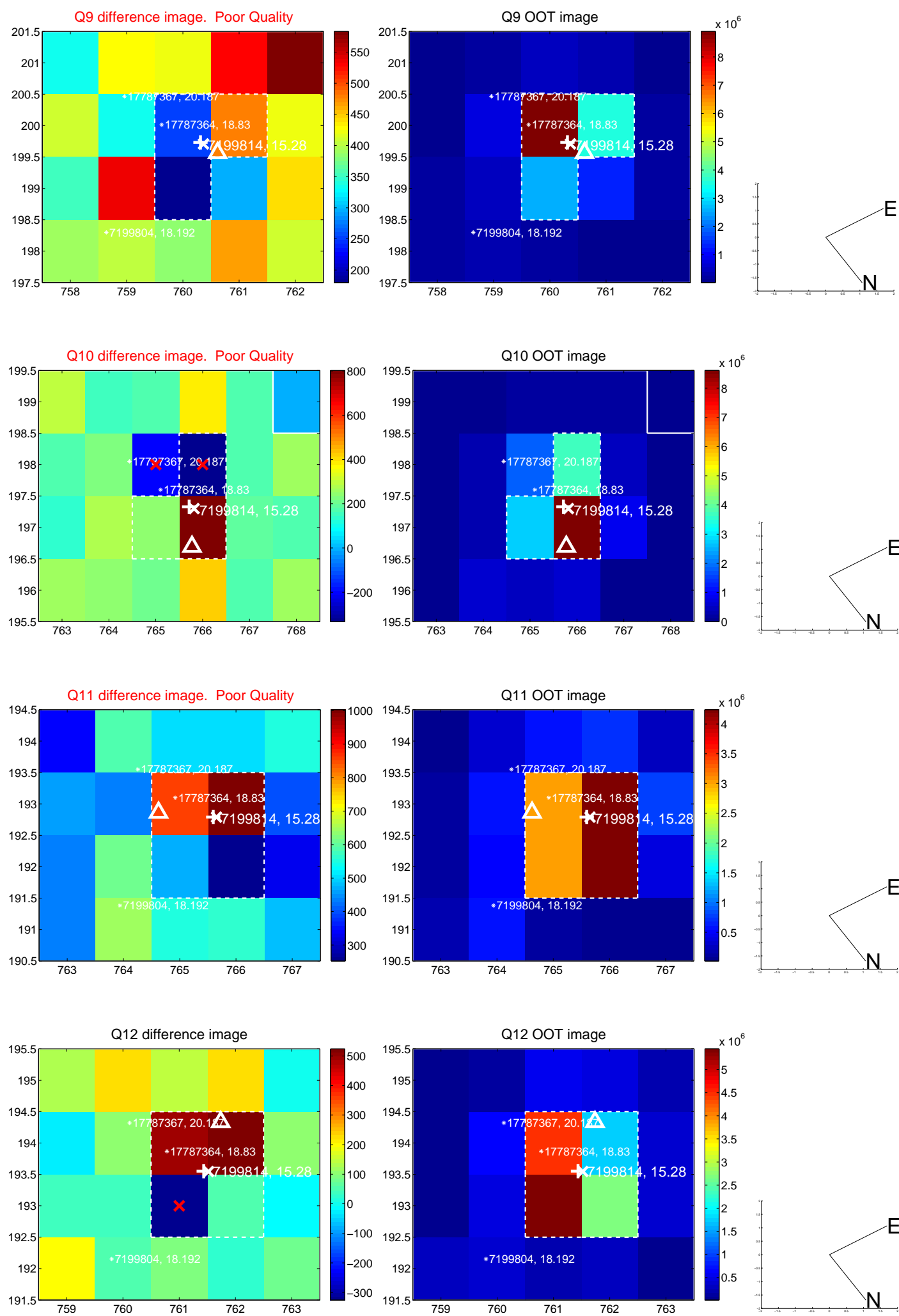
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



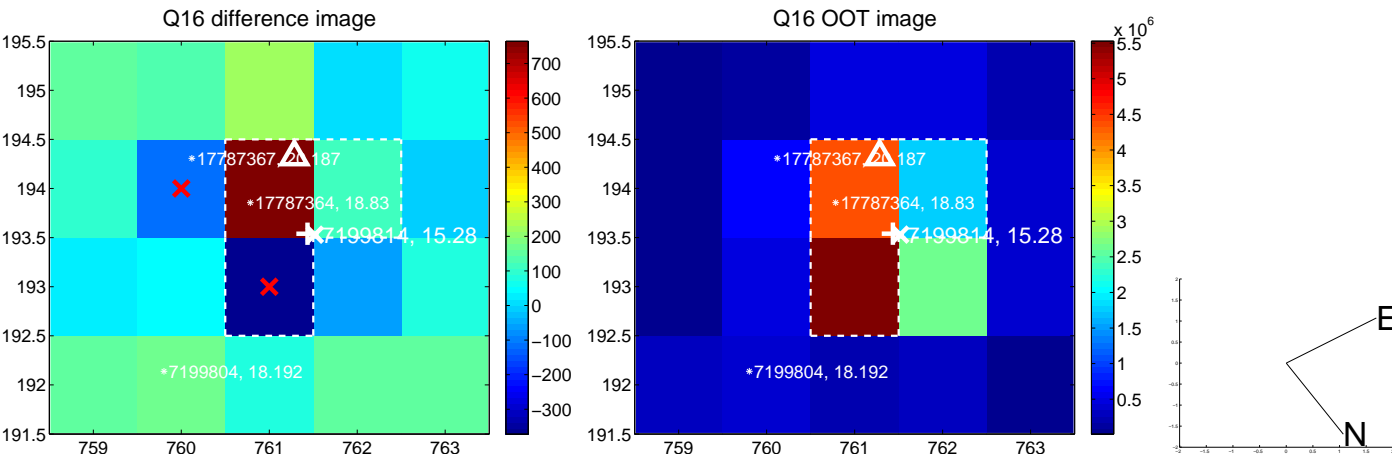
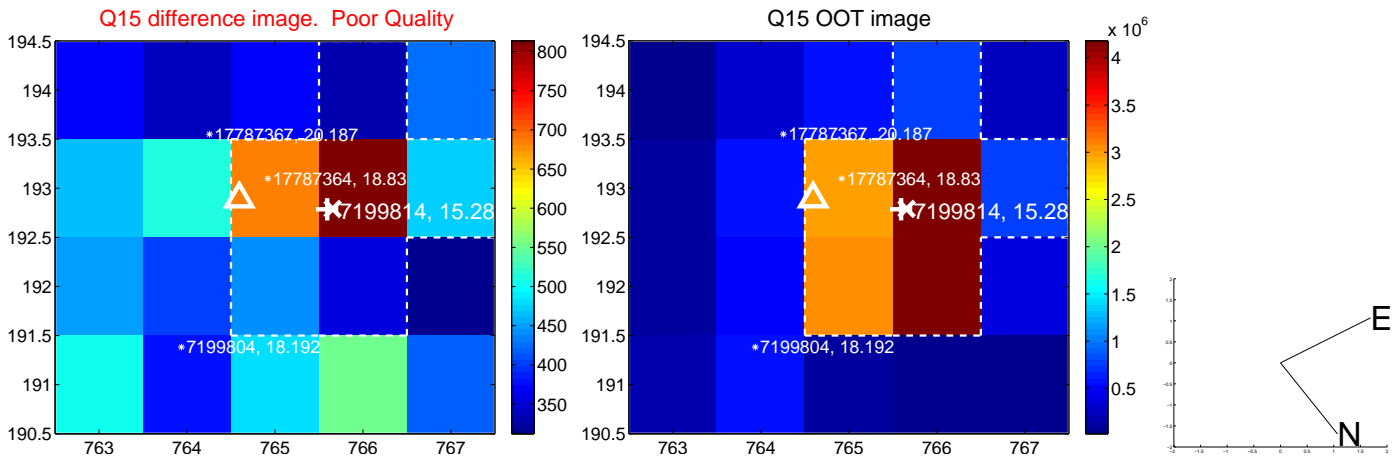
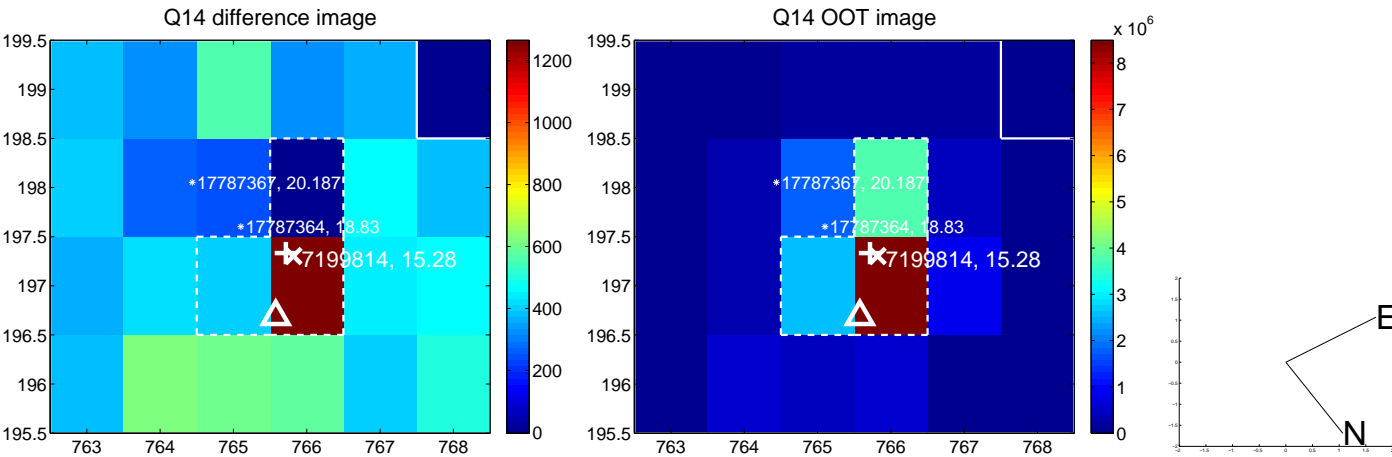
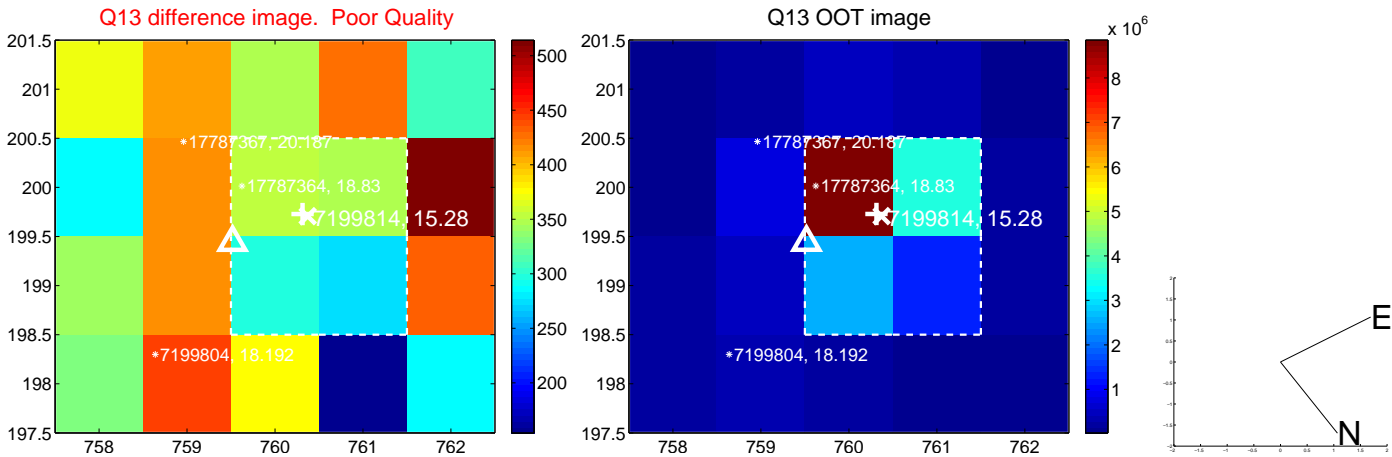
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



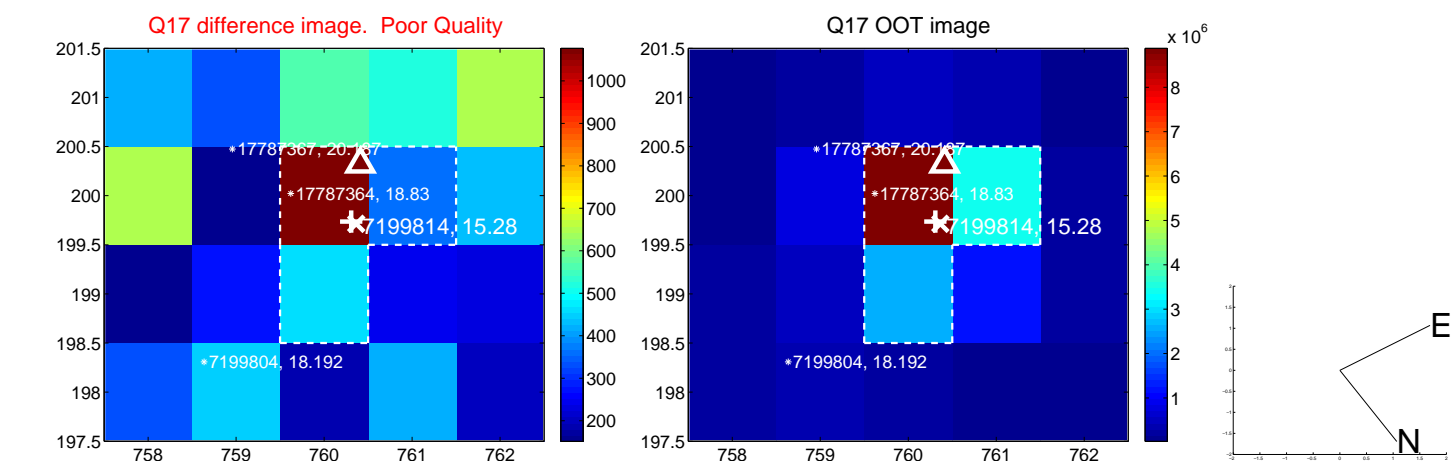
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



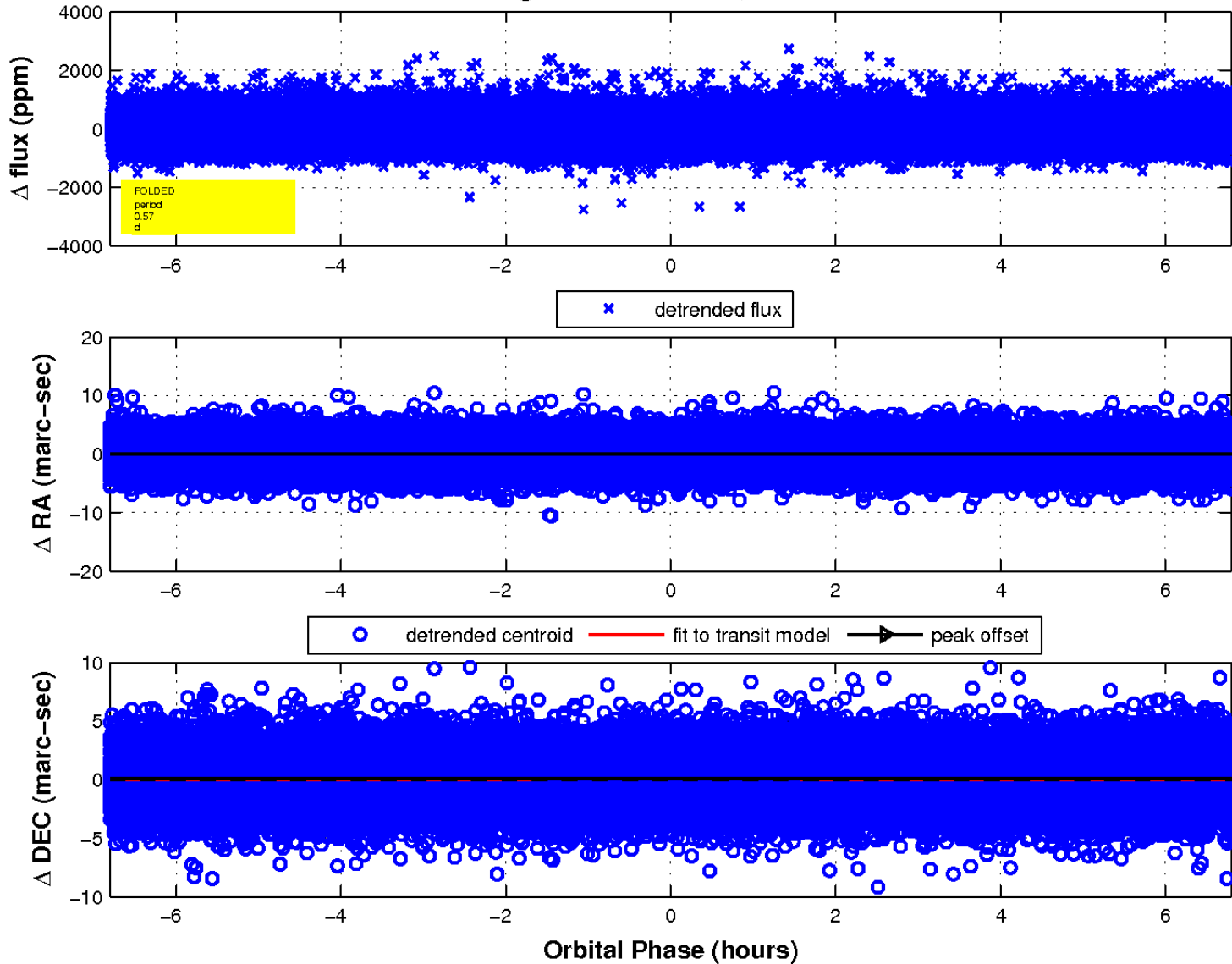
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

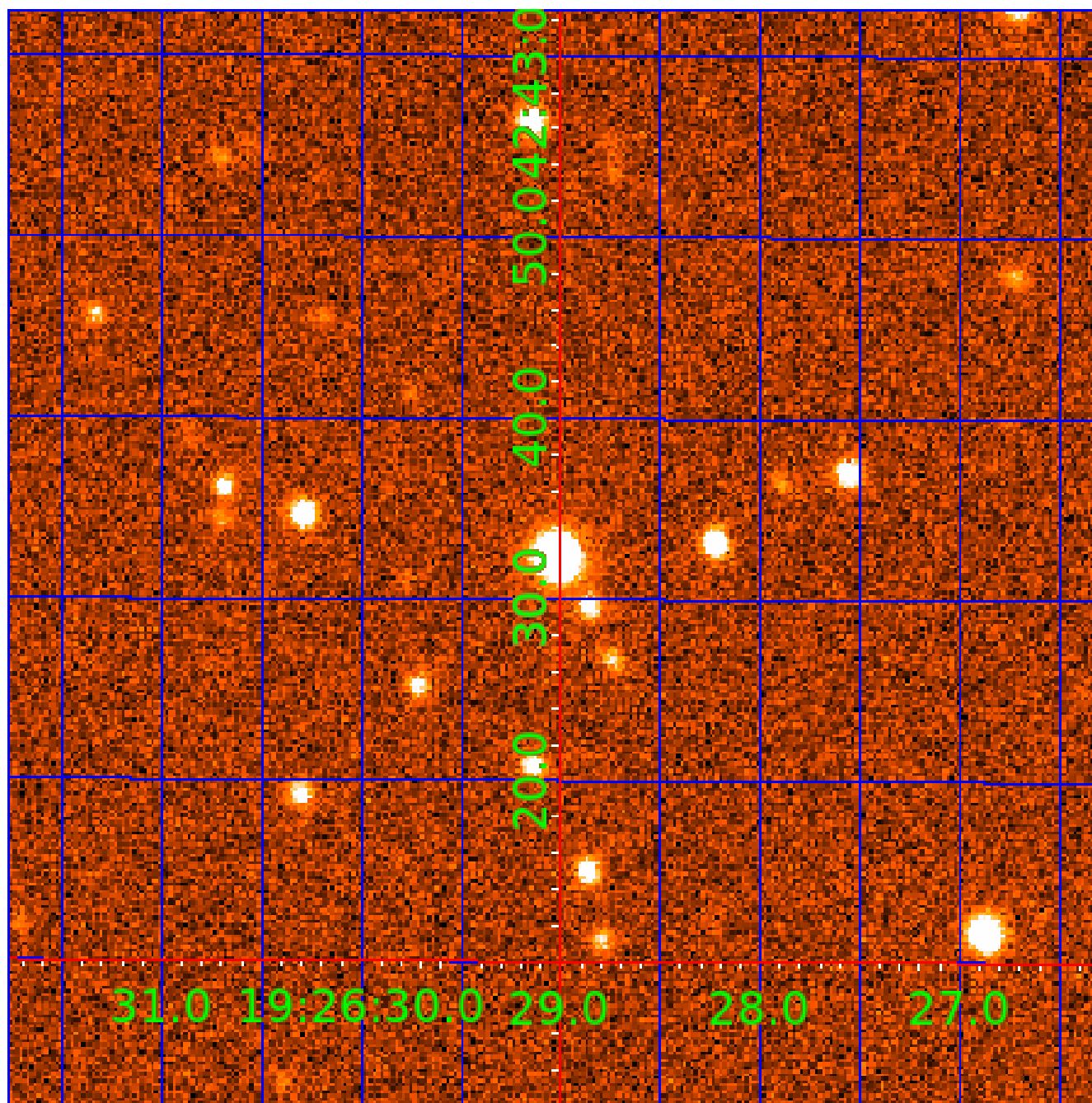


fluxWeightedCentroids, Planet 1 of 2



UKIRT Image

Declination



KIC 007199814

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})
007199814-01	OBS	No	0.566827	131.777652	35.9	3.690	9.0	8.3	0.64	4569	0.47	1205.05
007199814-02	OBS	No	37.579531	147.333118	921.8	1.081	8.6	9.4	0.64	4569	2.16	4.49

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007199814-01	OBS	FP	0.00	1	0	0	1	LPP_DV—MOD_NONUNIQ_ALT—EPHEM_MATCH
007199814-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—MOD_NONUNIQ_DV—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.

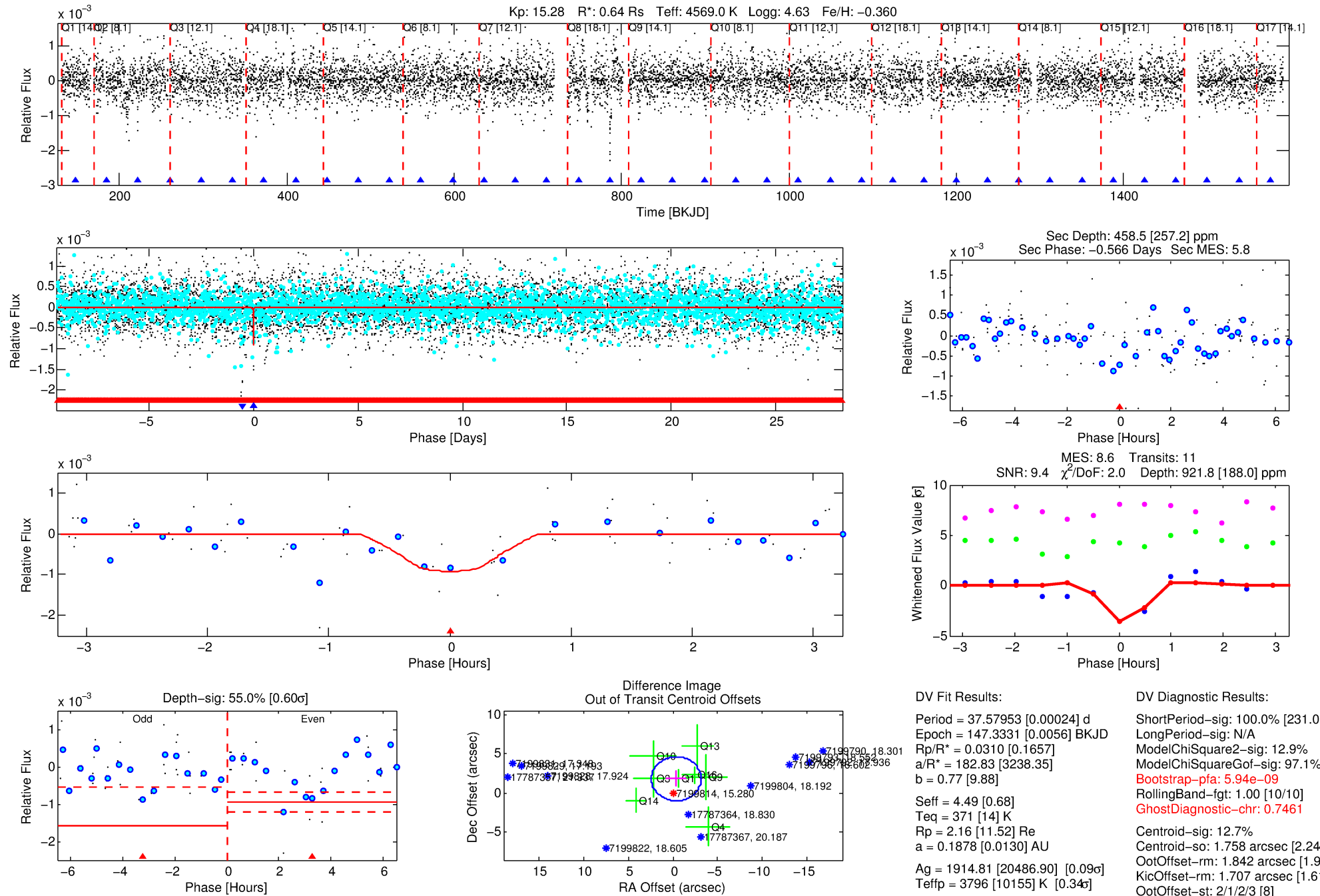
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007199814-02

No Significant Match Found

DV One-Page Summary

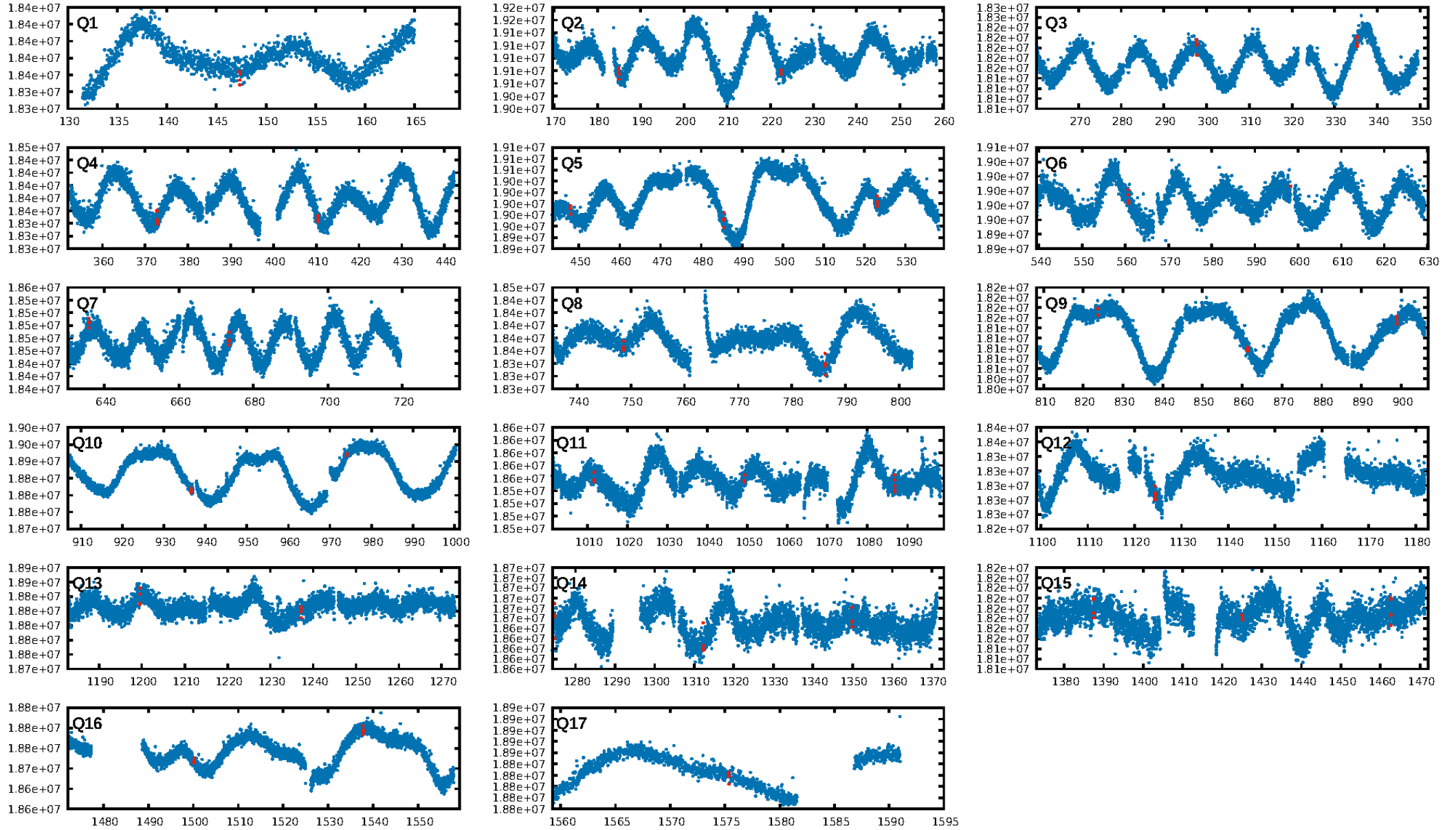
KIC: 7199814 Candidate: 2 of 2 Period: 37.580 d



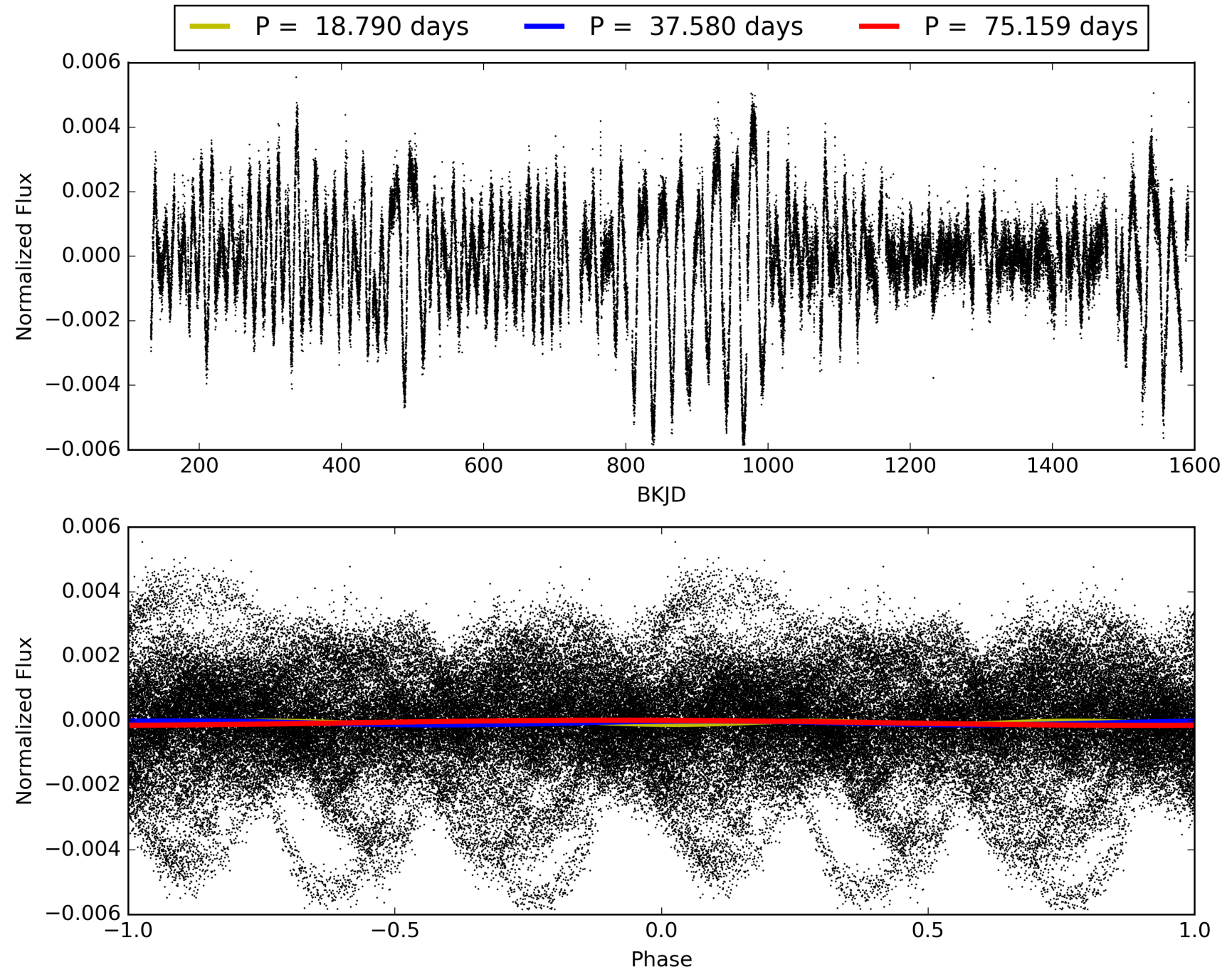
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 19:30:25 Z

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

TCE 007199814-02, PDC Light Curves

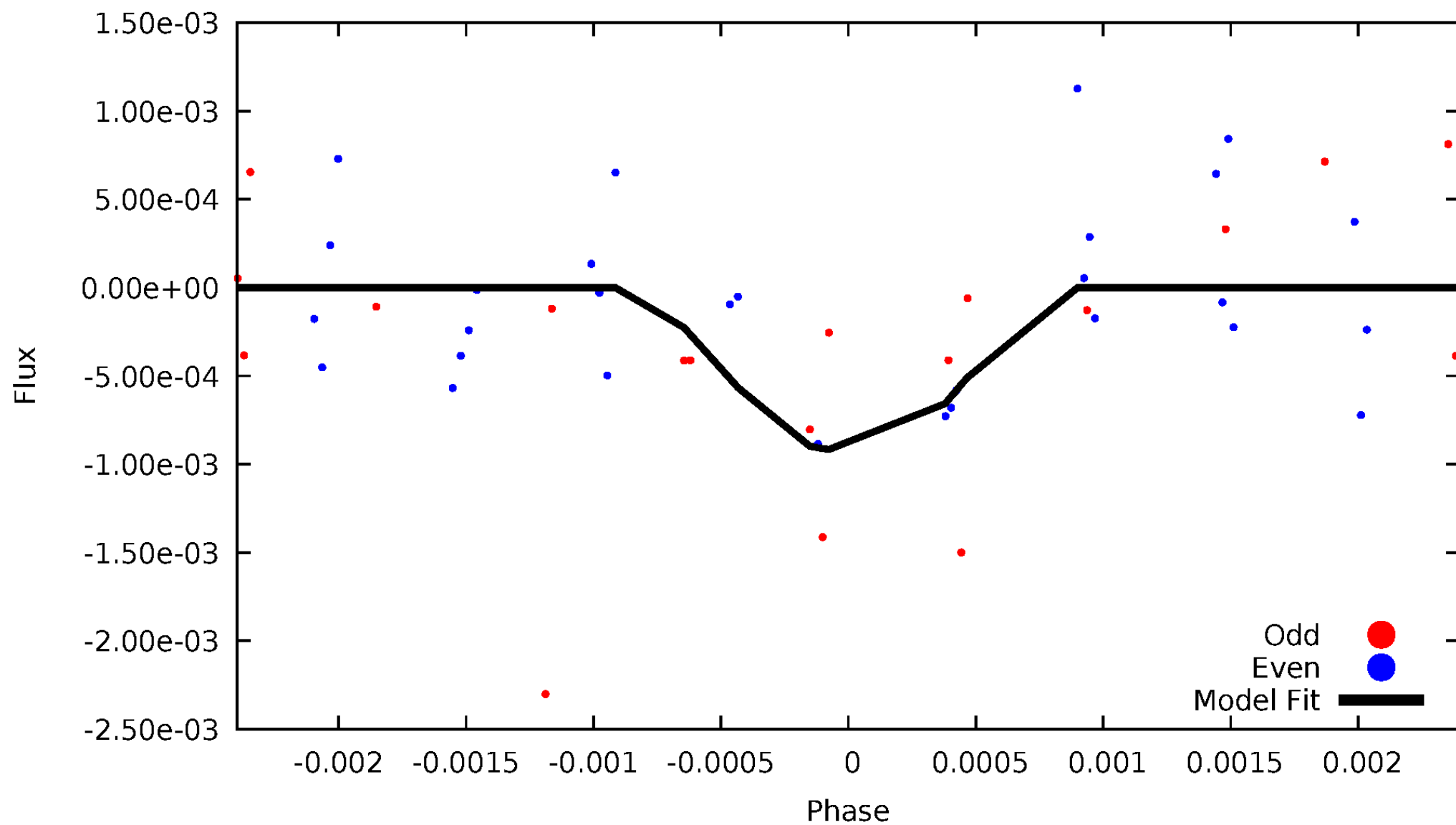


TCE 007199814-02



DV Odd/Even

TCE 007199814-02

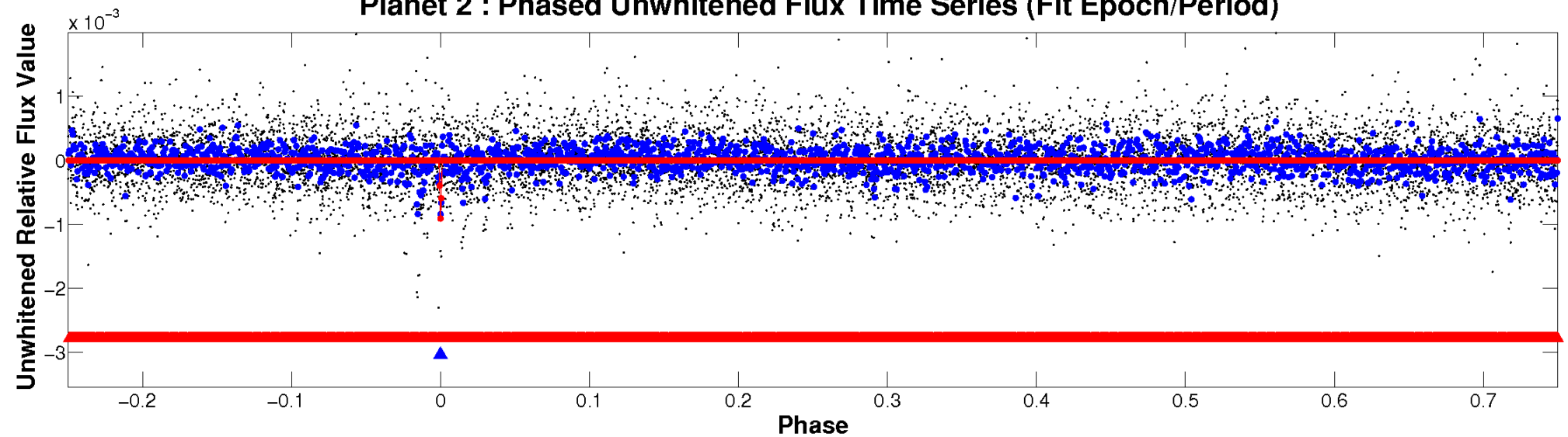


ALT Odd/Even

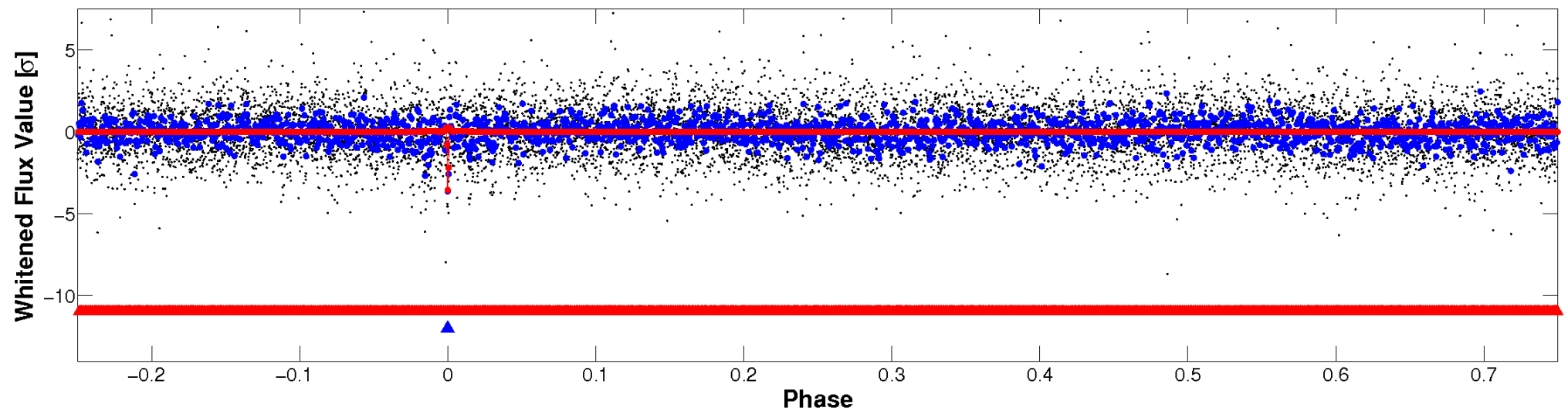
This plot does not exist for this TCE.

Non-Whitened Vs. Whitened Light Curve

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

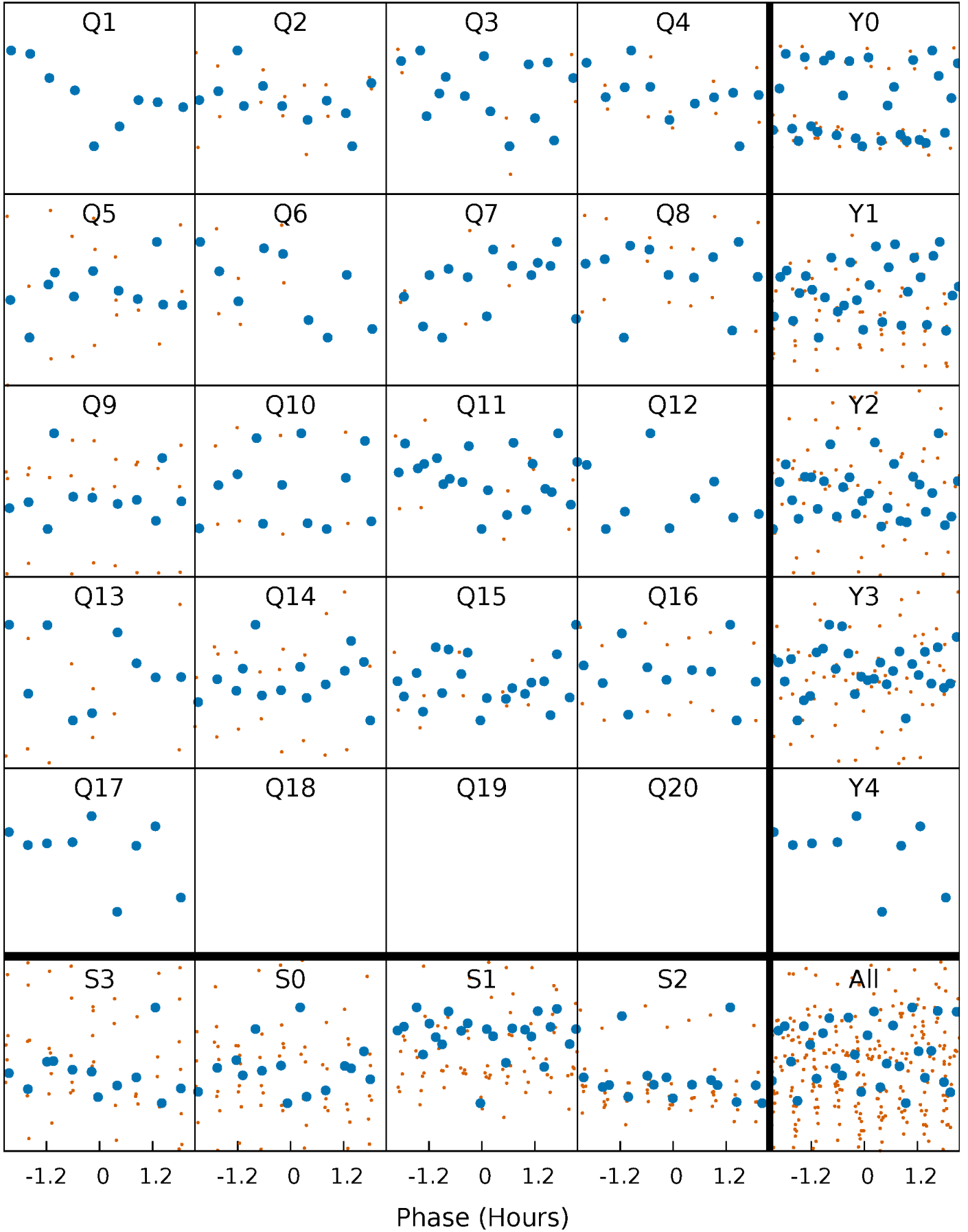


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



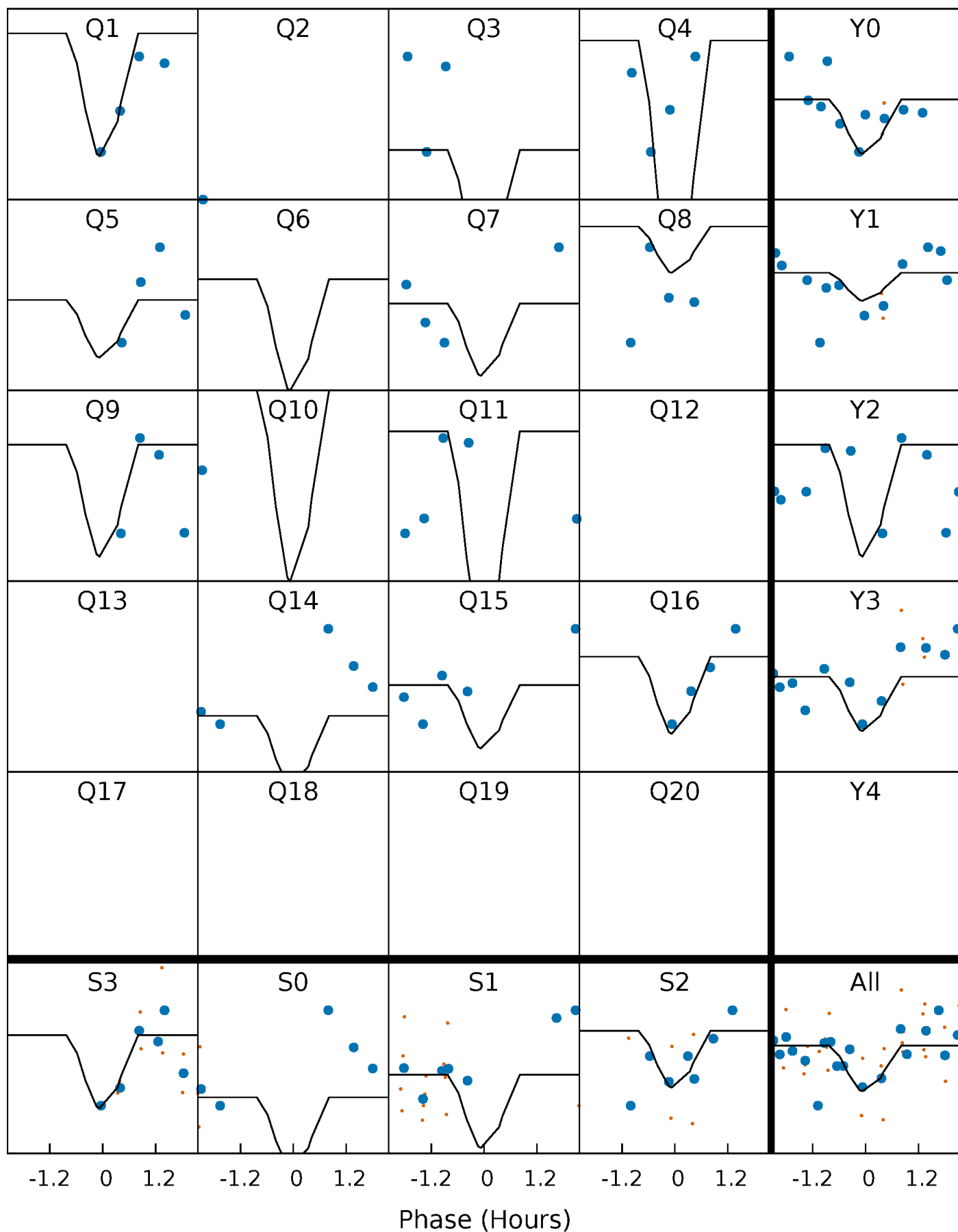
PDC Quarter-Phased Transit Curves

TCE 007199814-02 P= 37.579531 Days $T_0=147.333118$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 007199814-02 P= 37.579531 Days $T_0=147.333118$ (BKJD)

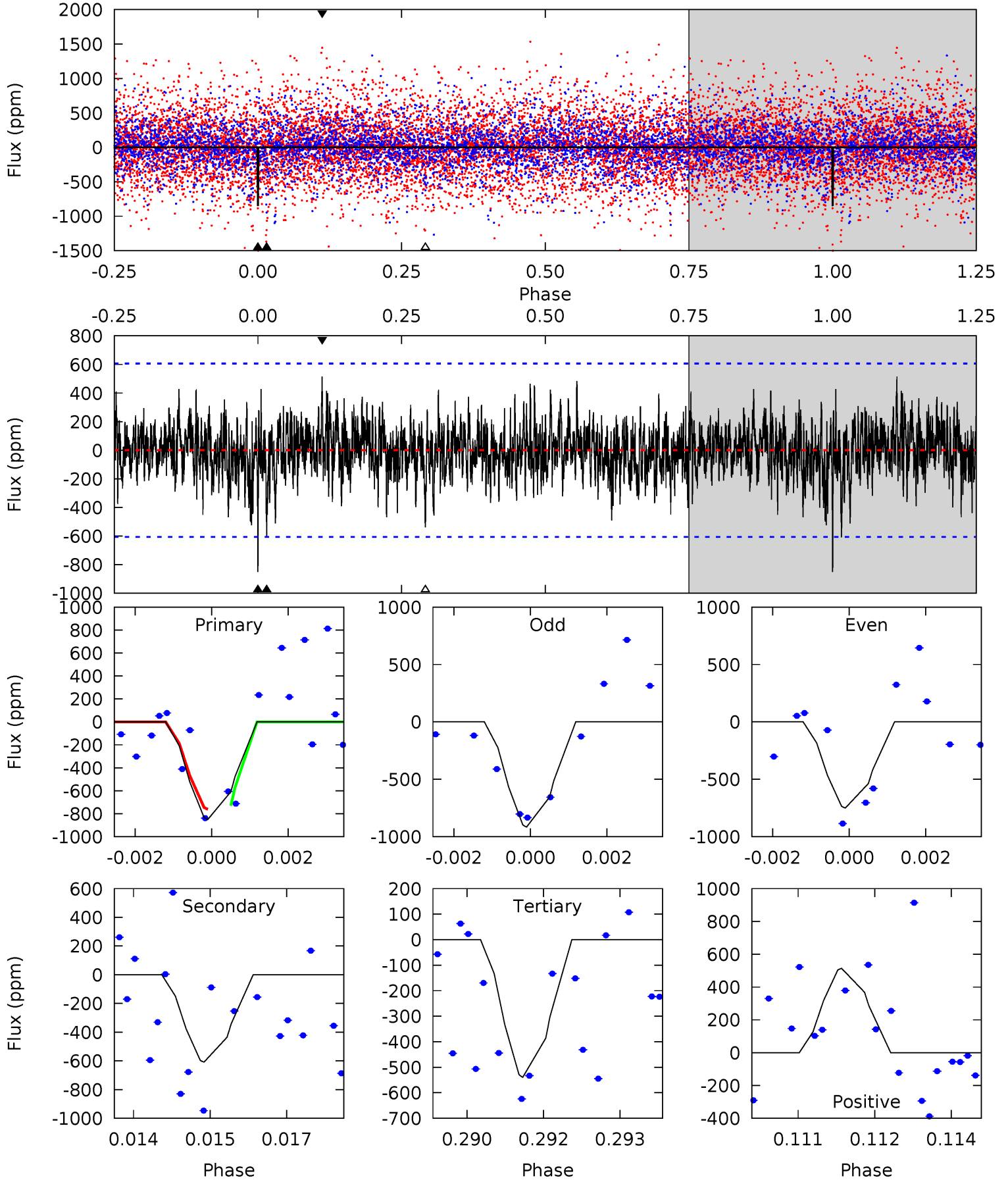


This plot does not exist for this TCE.

DV Model-Shift Uniqueness Test

007199814-02, P = 37.579531 Days, E = 109.753587 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.54	5.40	4.79	4.56	5.38	3.17	1.32	2.75	2.98	0.62	0.84	0.76	1.11	0.38	0.14



Alt Model-Shift Uniqueness Test

This plot does not exist for this TCE.

Stellar Parameters For KIC 007199814

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	ρ_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	4569^{+136}_{-136}	$4.626^{+0.048}_{-0.028}$	$-0.360^{+0.300}_{-0.300}$	$0.637^{+0.051}_{-0.056}$	$0.627^{+0.075}_{-0.046}$	$3.412^{+0.779}_{-0.437}$
	+3%/-3%	+1%/-1%	+83%/-83%	+8%/-9%	+12%/-7%	+23%/-13%
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 007199814-02 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-609 ± 113	$8.65^{+8.50}_{-5.90}$	518^{+18}_{-18}	2743^{+1077}_{-431}	158^{+1311}_{-117}
Alt.	N/A	N/A	N/A	N/A	N/A

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

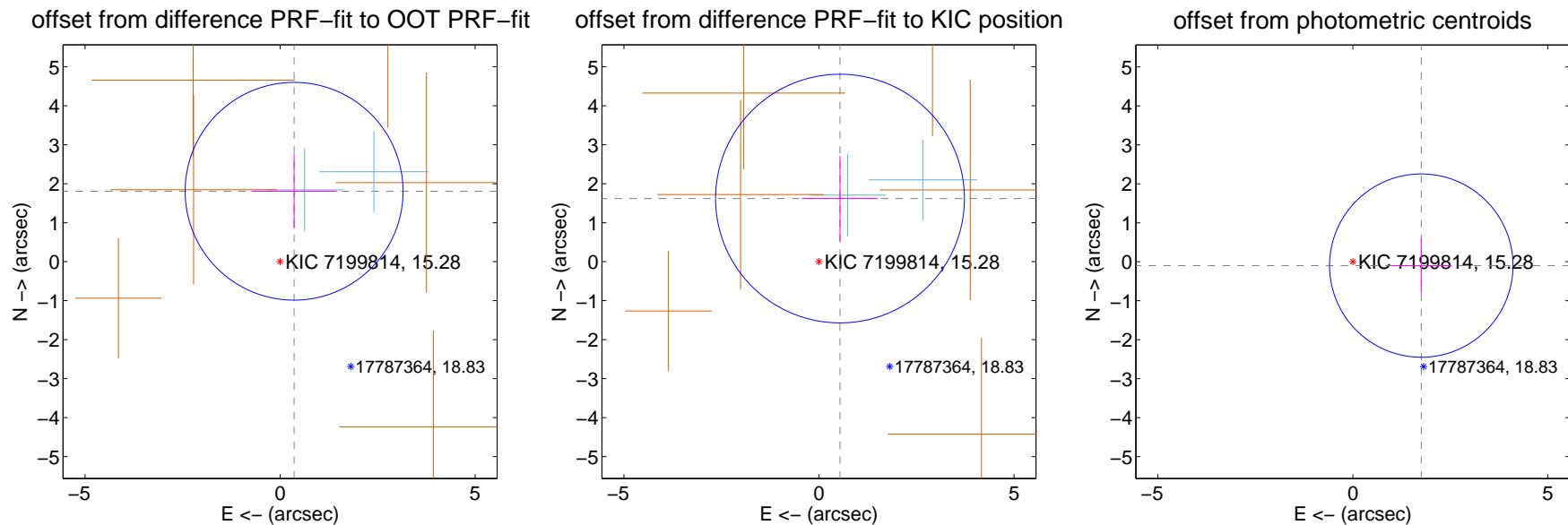
DV Centroid Data

Supplemental centroid analysis for 007199814-02. Kepler magnitude: 15.28. Transit SNR 9.35

There are 2 quarters with good PRF difference image offsets

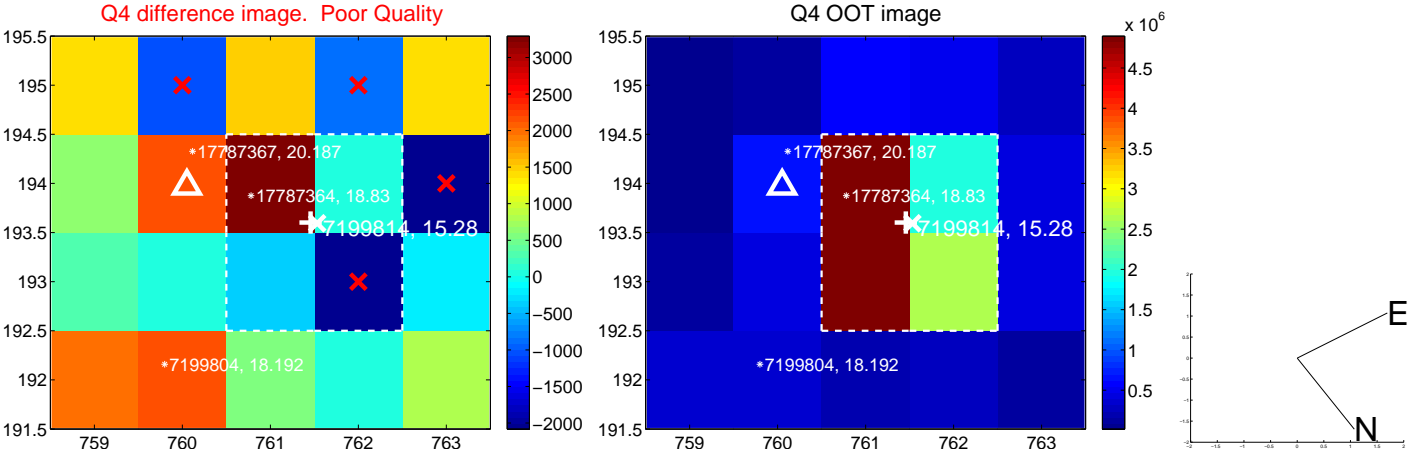
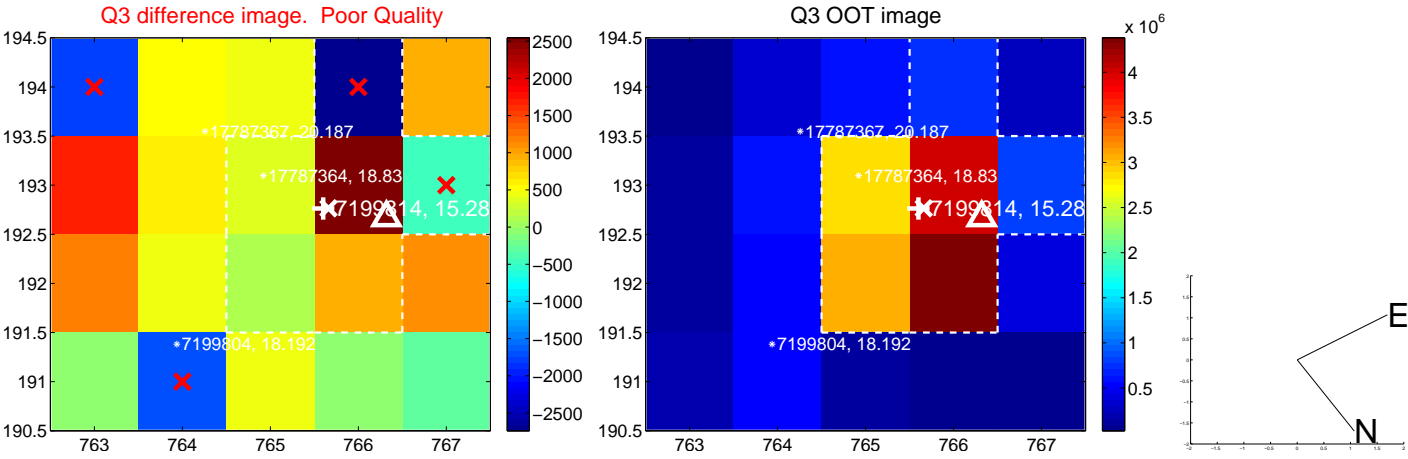
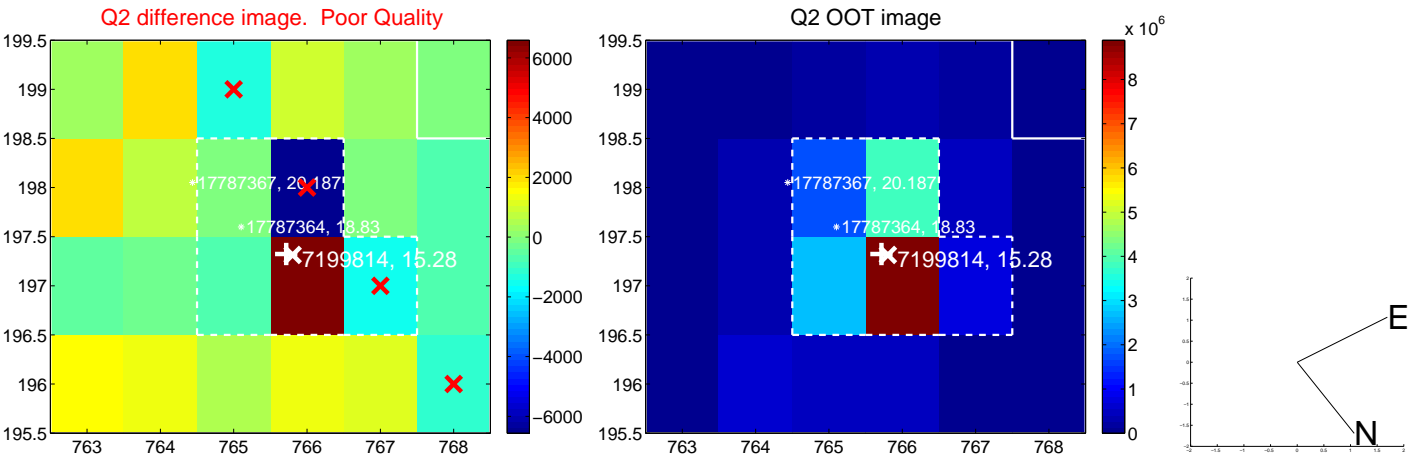
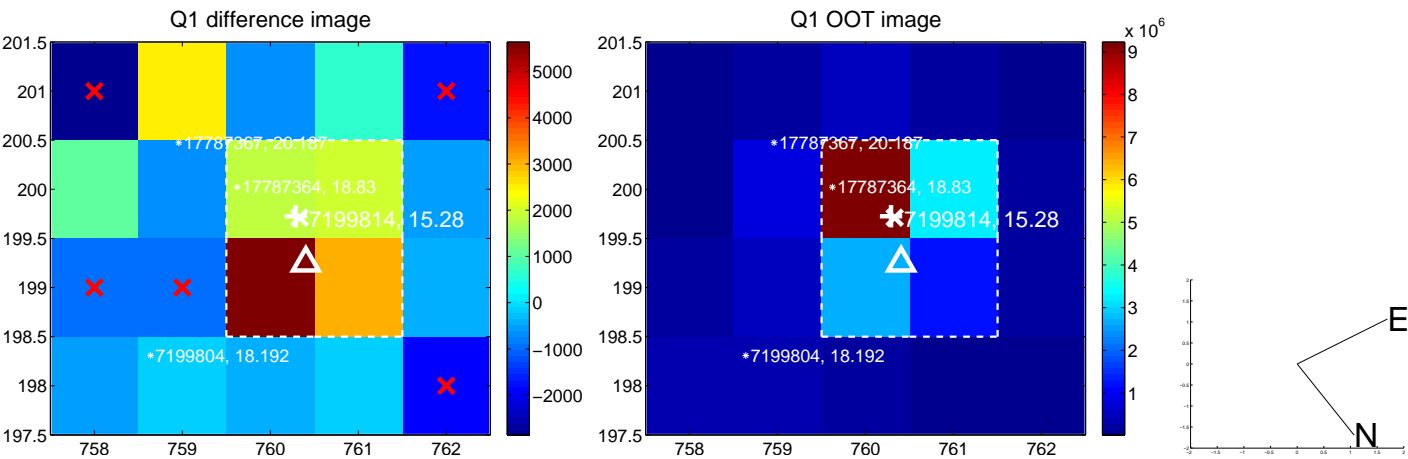
The direct PRF centroid is offset from the target star catalog position by about 0.33 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.842 ± 0.931	1.98	-0.359 ± 1.094	1.807 ± 0.956
PRF-fit source offset from KIC position	1.707 ± 1.064	1.61	-0.539 ± 0.978	1.620 ± 1.096
photometric centroid source offset	1.76 ± 0.78	2.24	-1.75 ± 0.78	-0.10 ± 0.71

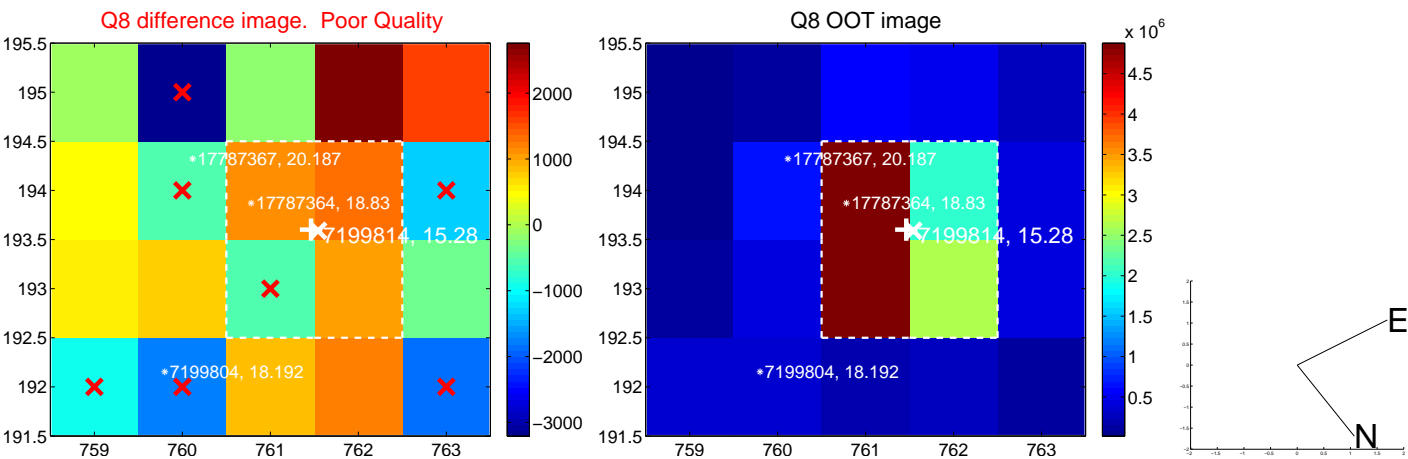
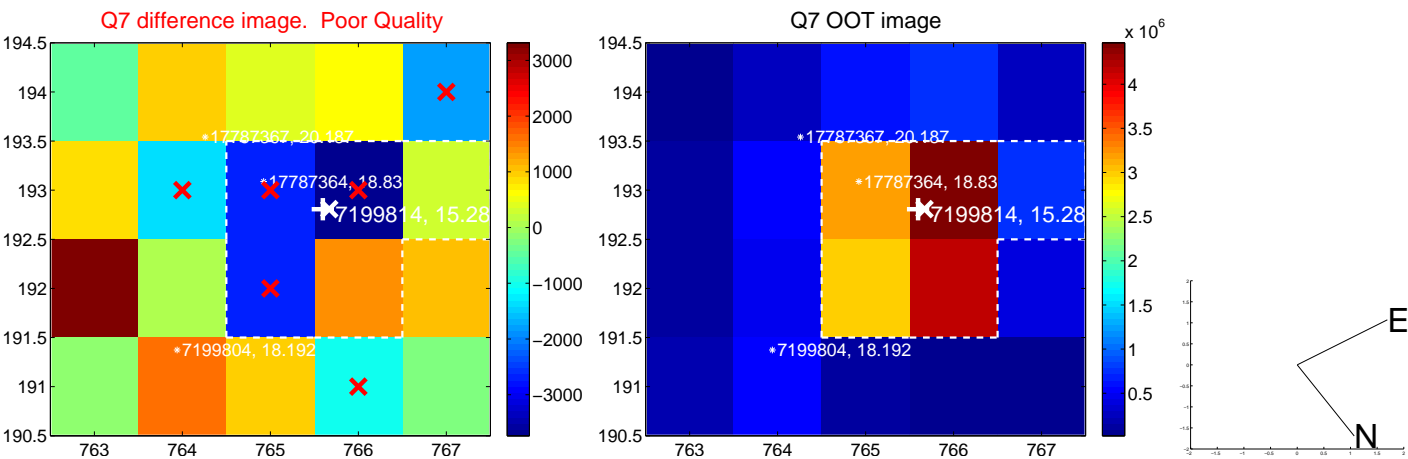
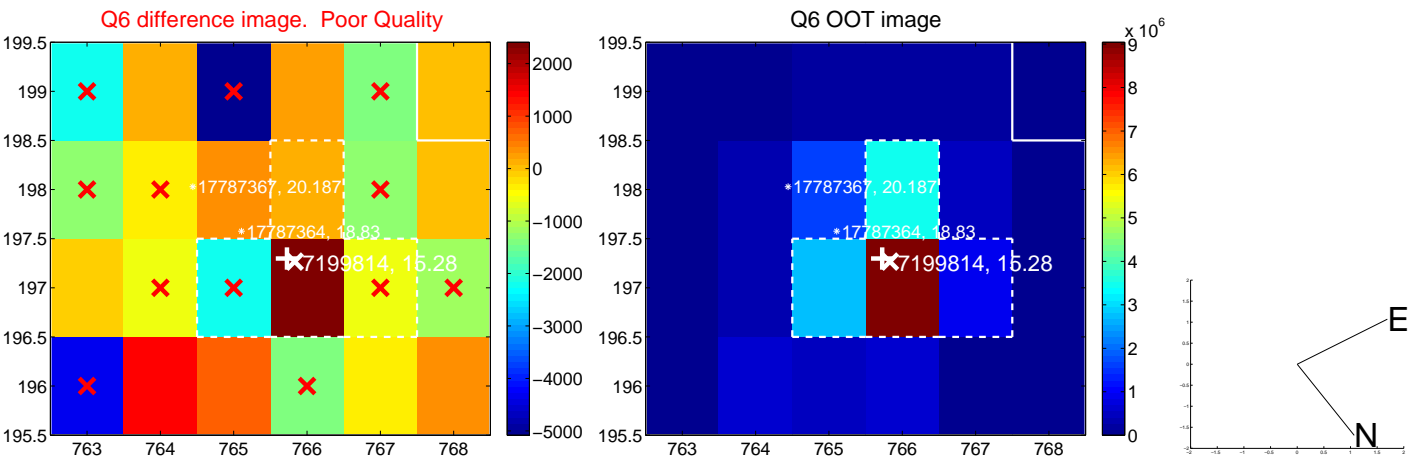
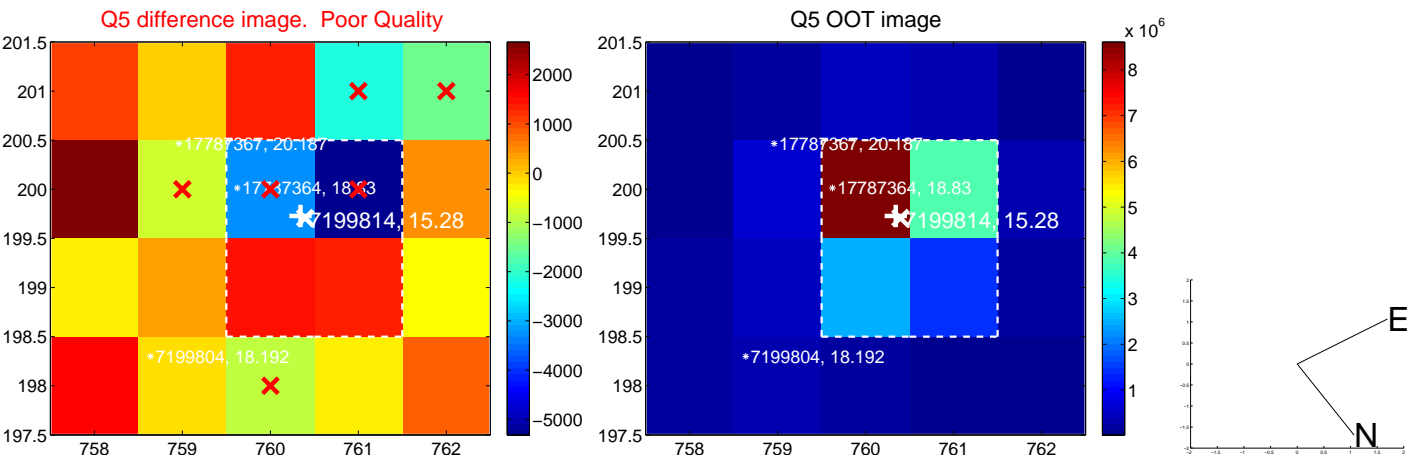


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

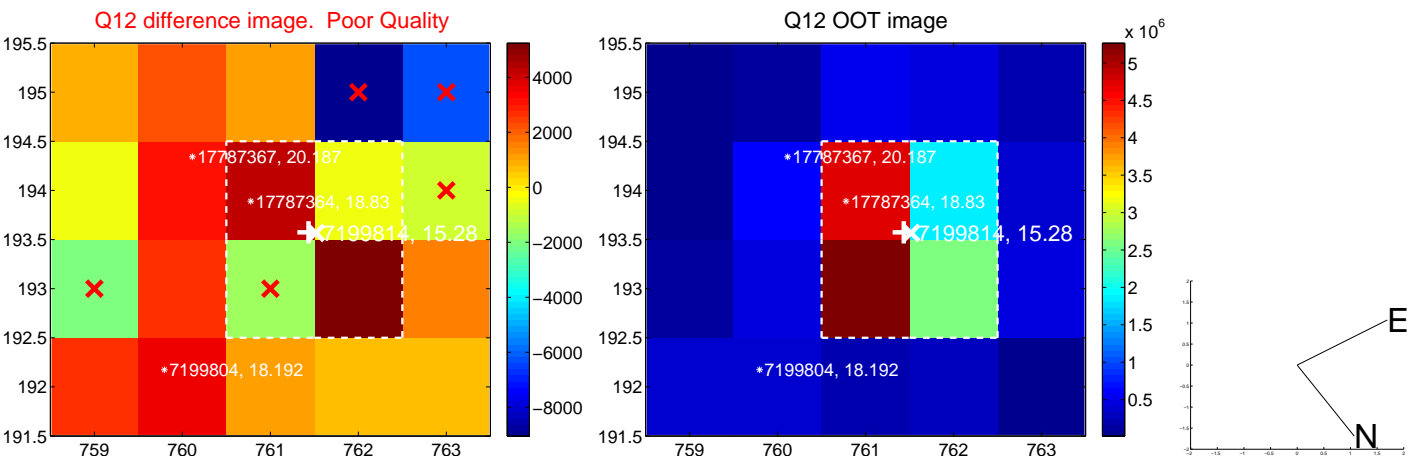
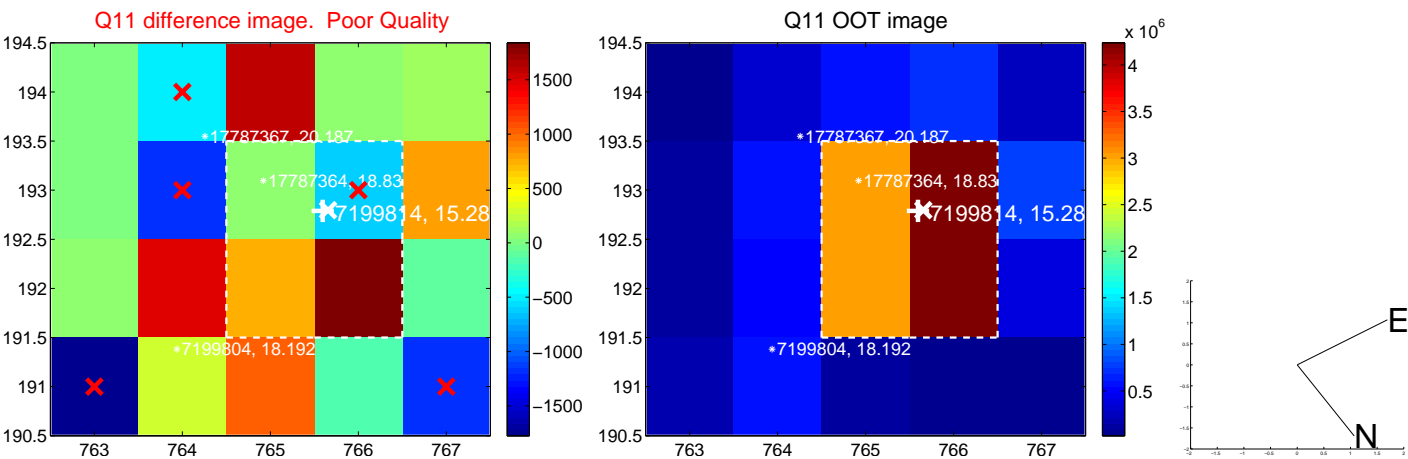
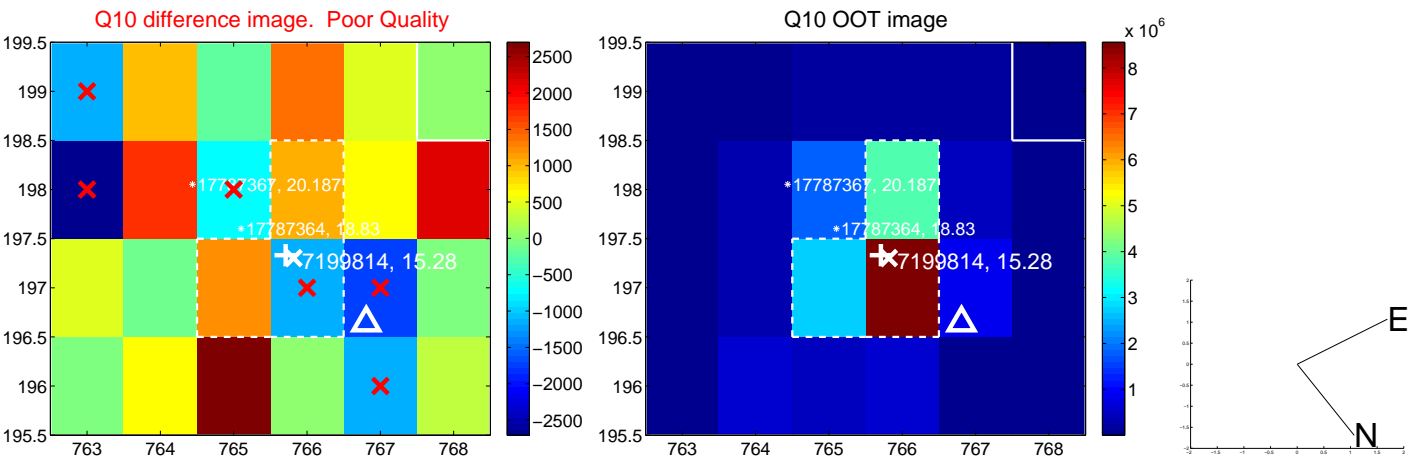
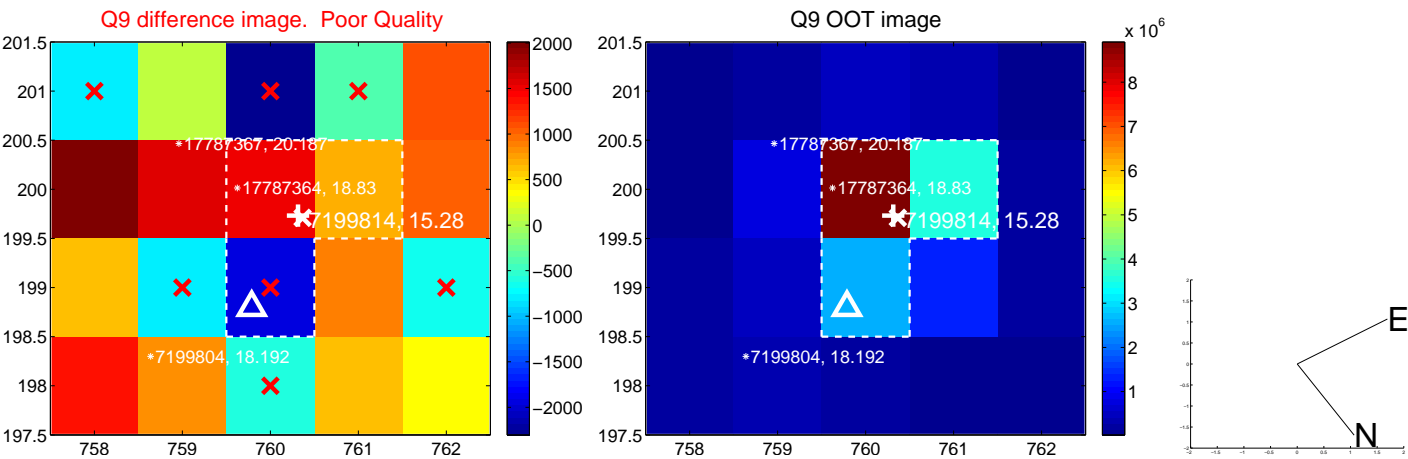
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



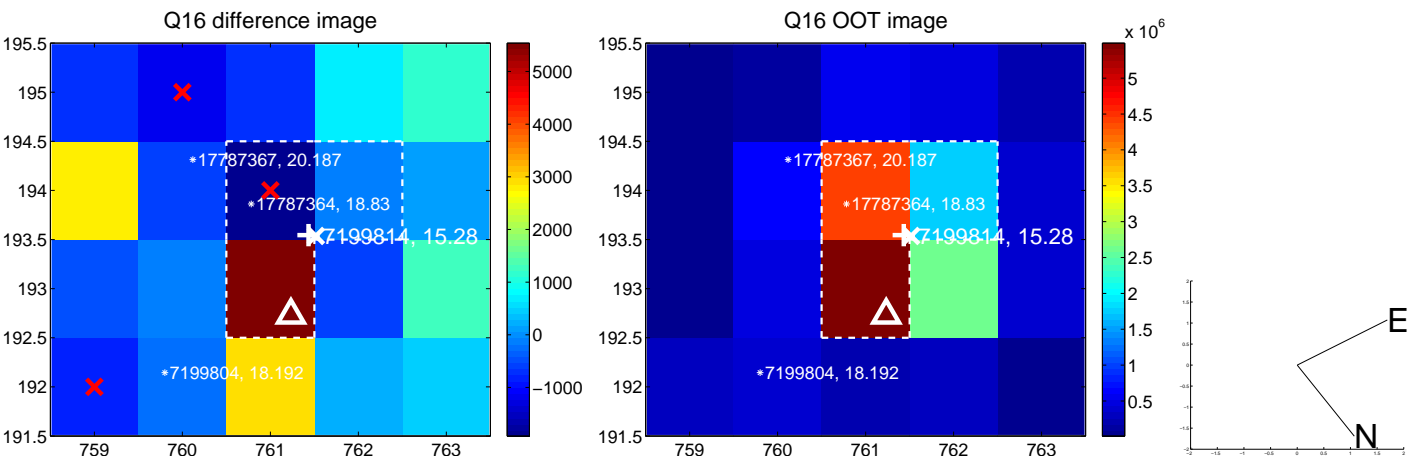
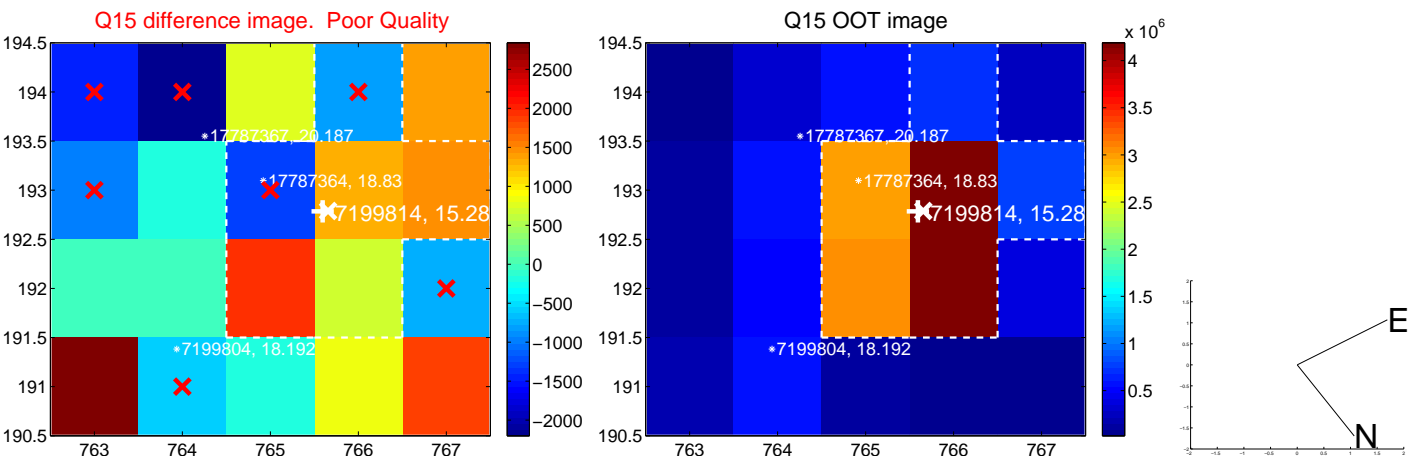
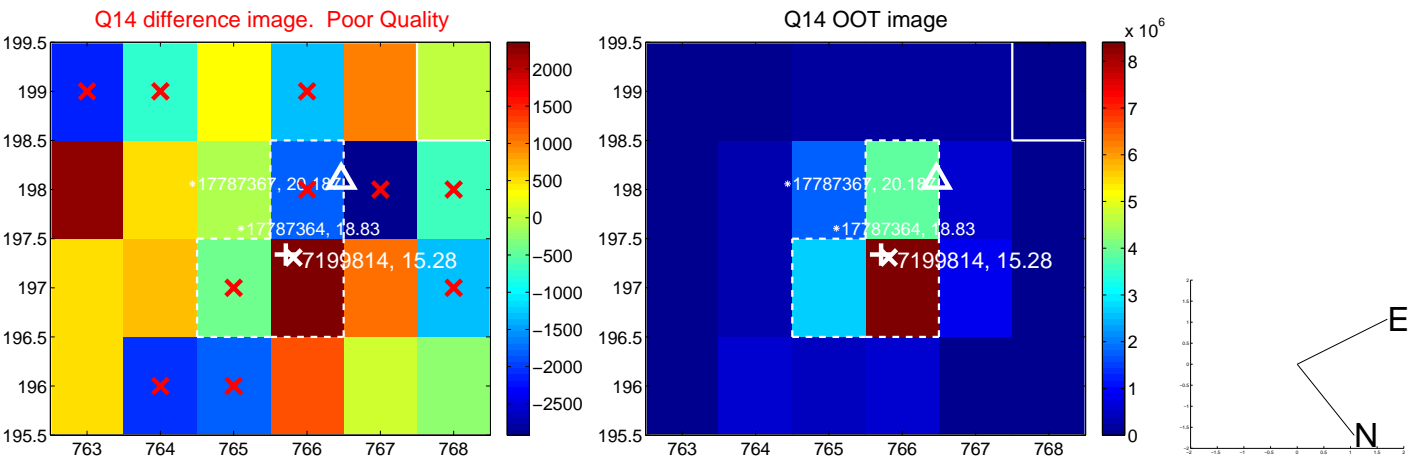
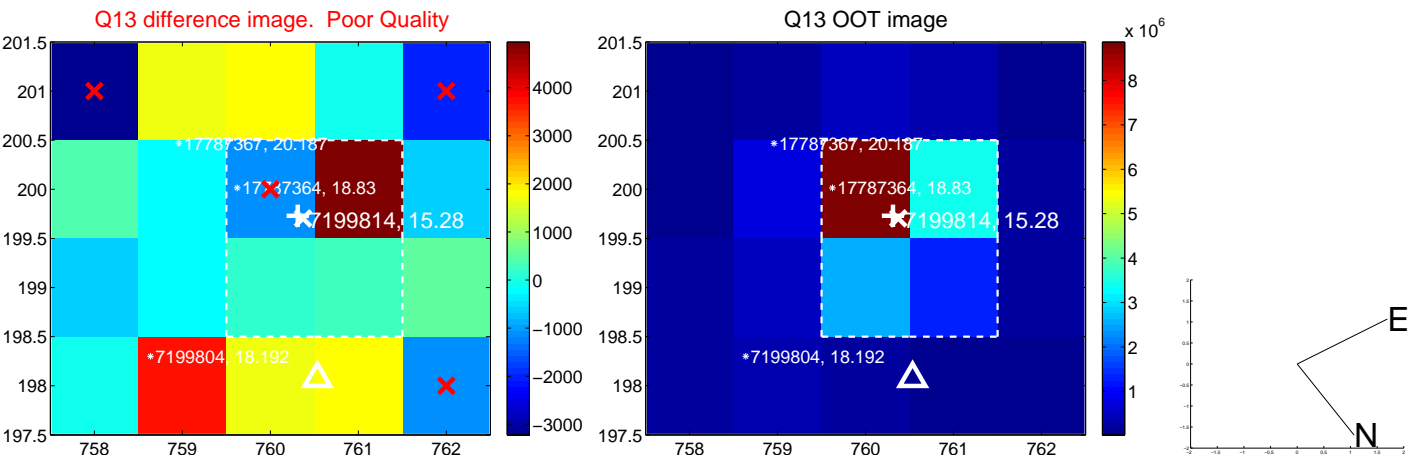
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



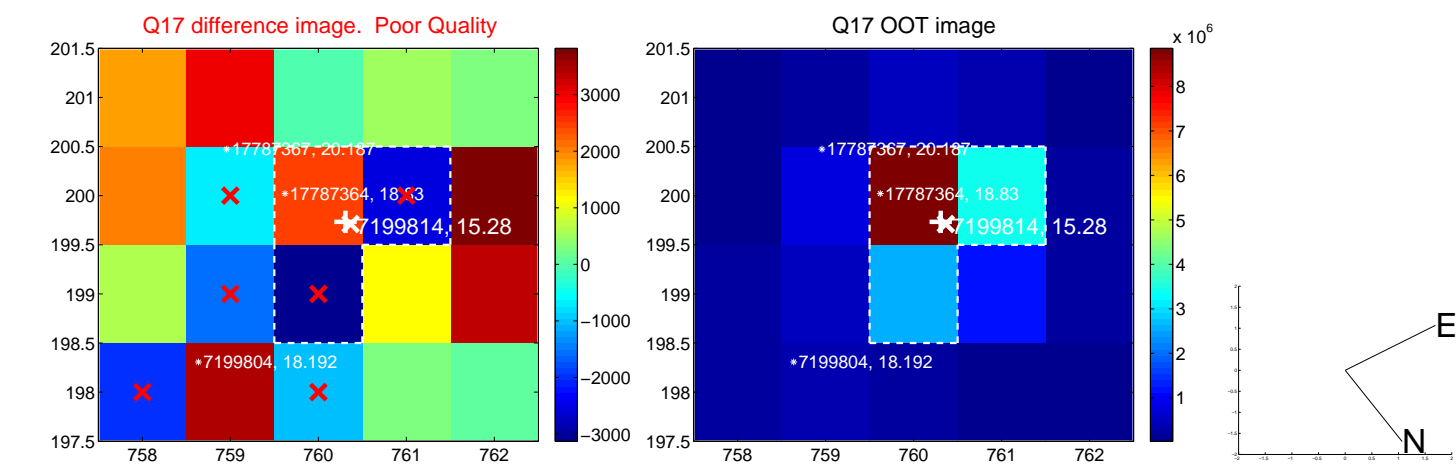
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



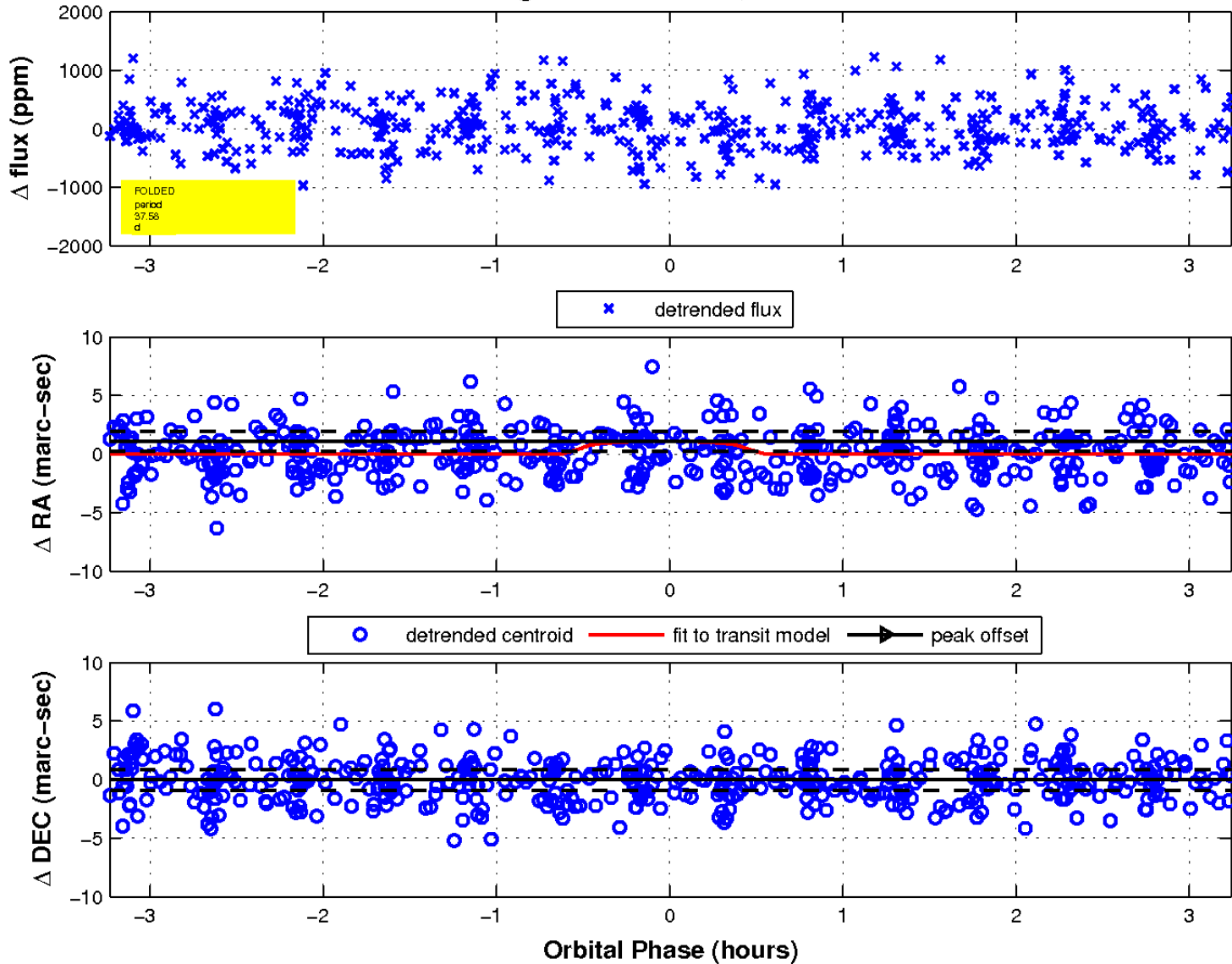
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 2 of 2



UKIRT Image

Declination

