

KIC 008258171

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})
008258171-01	OBS	0286.01	23.627274	150.019332	176.6	10.743	43.8	45.9	2.88	8308	7.34	806.29
008258171-02	OBS	No	23.627486	137.738955	95.4	11.659	25.5	26.6	2.88	8308	4.70	806.28
008258171-03	OBS	No	5.729930	134.018035	8.2	23.437	8.9	6.3	2.88	8308	0.90	5331.41

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008258171-01	OBS	FP	0.00	0	1	1	1	MOD_SEC_DV—MOD_SEC_ALT—HAS_SEC_TCE—CENT_UNRESOLVED_OFFSET—EPHEM_MATCH
008258171-02	OBS	FP	0.00	1	1	1	1	IS_SEC_TCE—CENT_RESOLVED_OFFSET—EPHEM_MATCH
008258171-03	OBS	FP	0.00	1	0	0	0	LPP_DV—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 008258171-01

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
008258171-01	8258171	3870.01	8258160	1:1	9.3	2	-2	16.38	11.65	72.17	Direct-PRF	0	0.03	0.05

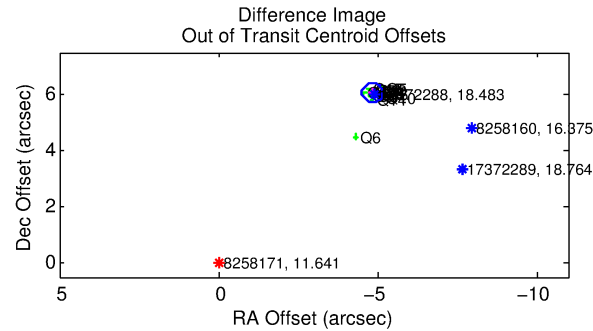
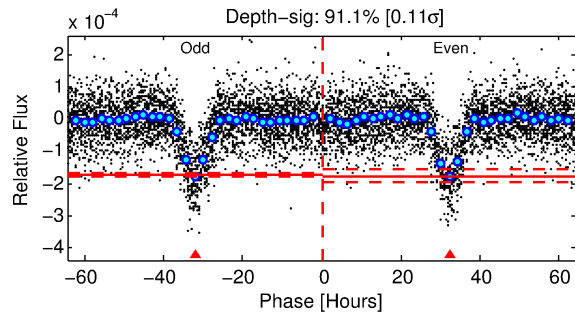
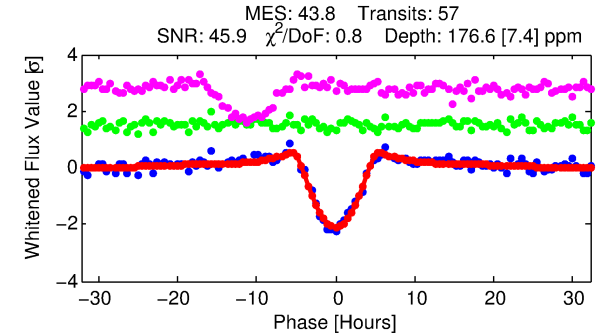
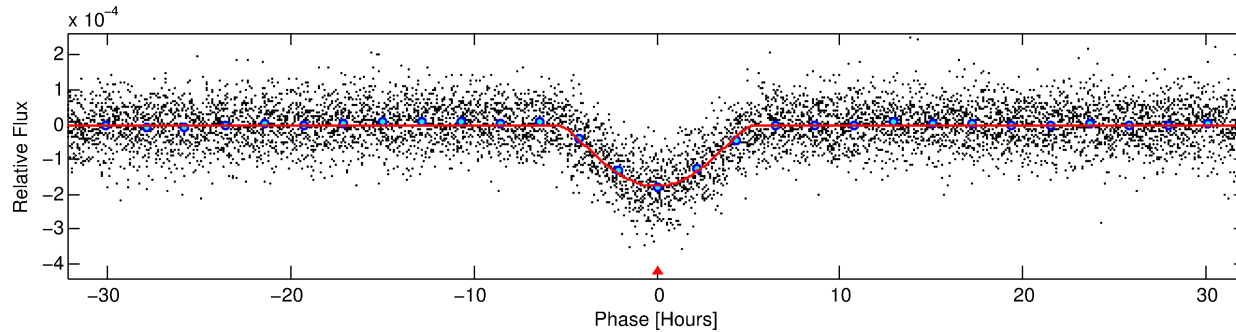
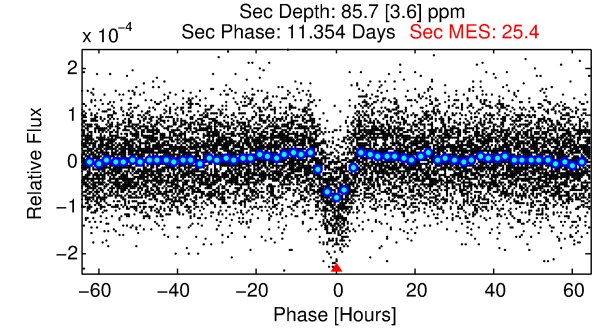
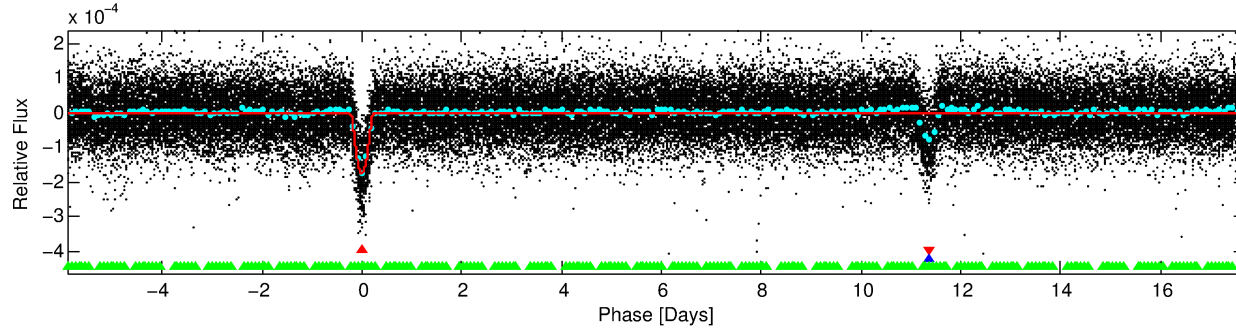
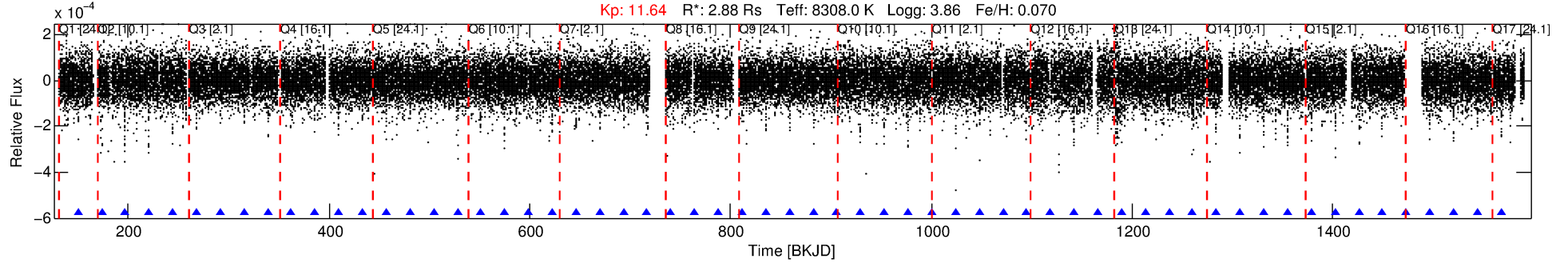
Notes: $P_1:P_2$ is the period ratio. Dist is the distance in arcseconds. Δ Row and Δ Col are the number of pixels apart in row and column. m_2 and m_1 are the magnitudes of the parent and child. D_2/D_1 is the parent's transit depth divided by the child's. σ_P and σ_T are the significance of the match 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: 8258171 Candidate: 1 of 3 Period: 23.627 d

KOI: K00286.01 Corr: 0.849

Kp: 11.64 R*: 2.88 Rs Teff: 8308.0 K Logg: 3.86 Fe/H: 0.070



DV Fit Results:

Period = 23.62727 [0.00012] d
Epoch = 150.0193 [0.0040] BKJD
Rp/R* = 0.0234 [0.0122]
a/R* = 3.81 [0.51]
b = 1.00 [0.02]
Seff = 806.29 [451.84]
Teff = 1359 [190] K
Rp = 7.34 [4.79] Re
a = 0.2095 [0.0731] AU
Ag = 38.37 [44.91] [0.83σ]
Teffp = 5229 [1383] K [2.77σ]

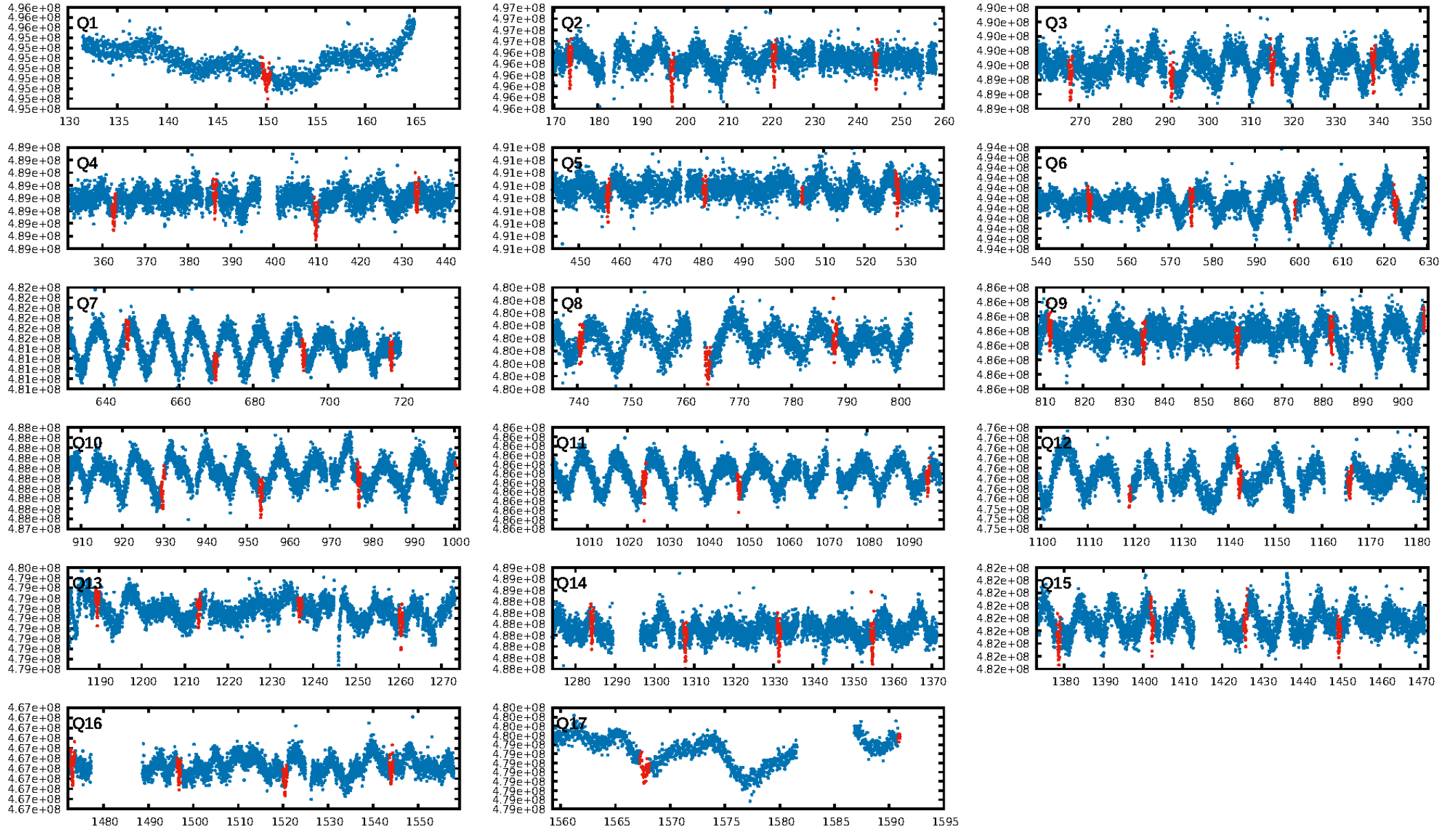
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [16.66σ]
LongPeriod-sig: 0.0% [0.00σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGoF-sig: 100.0%
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [55/55]
GhostDiagnostic-chr: 0.2713
Centroid-sig: 0.0%
Centroid-so: 10.846 arcsec [38.99σ]
OotOffset-rm: 7.751 arcsec [69.93σ]
KicOffset-rm: 7.768 arcsec [65.52σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.59 [10/17]
DiffImageOverlap-fno: 0.65 [11/17]

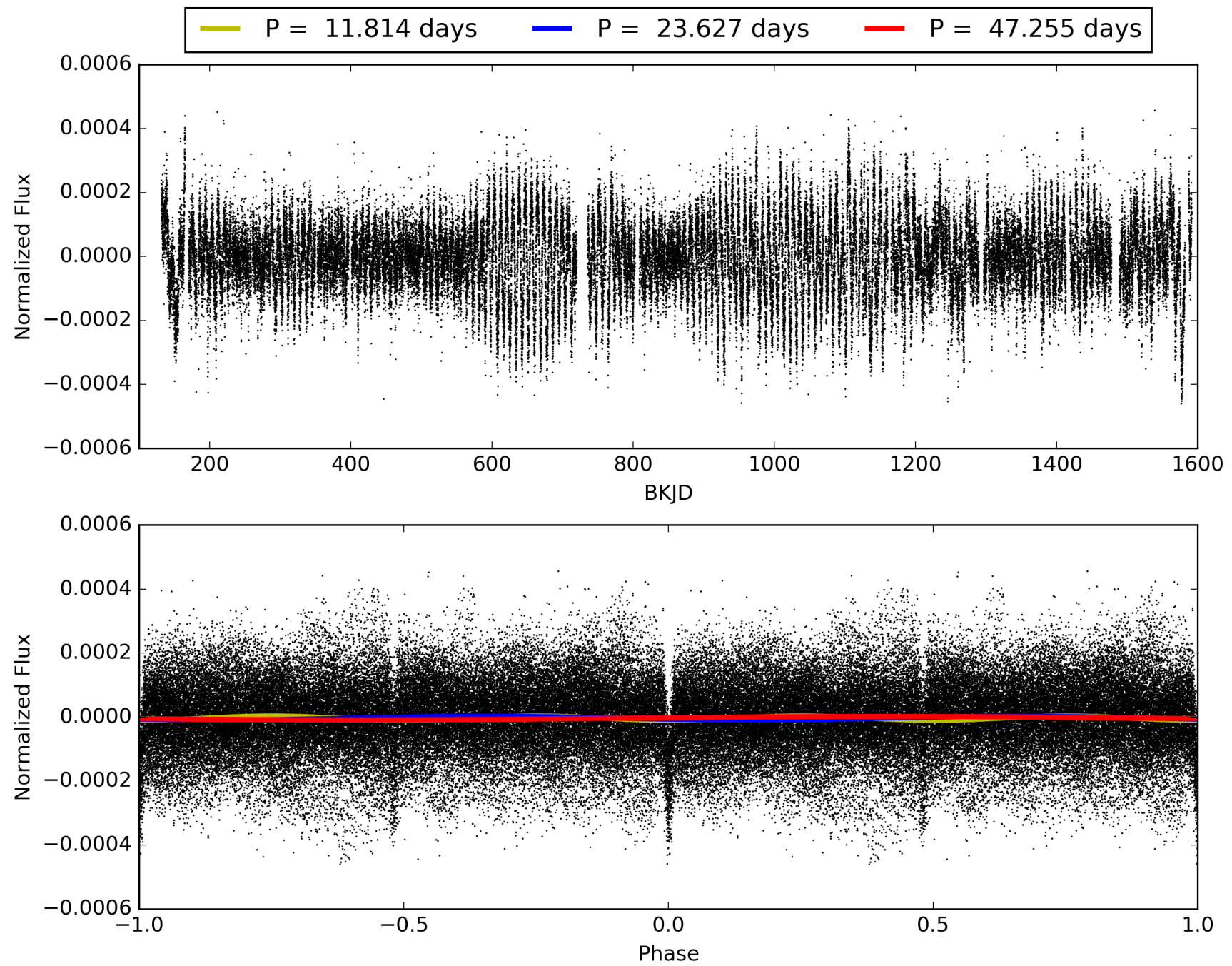
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 02:09:28 Z

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

TCE 008258171-01, PDC Light Curves

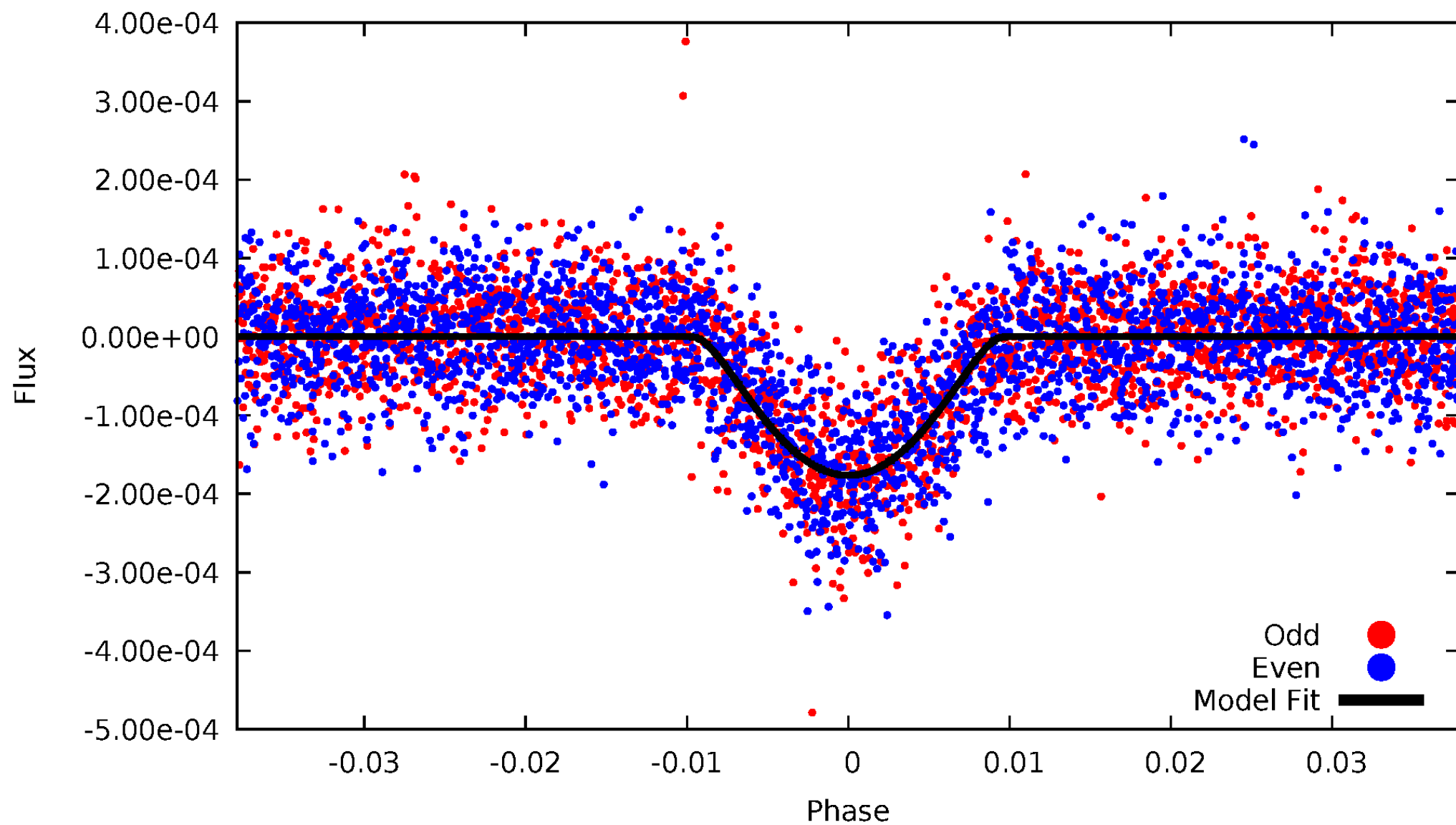


TCE 008258171-01



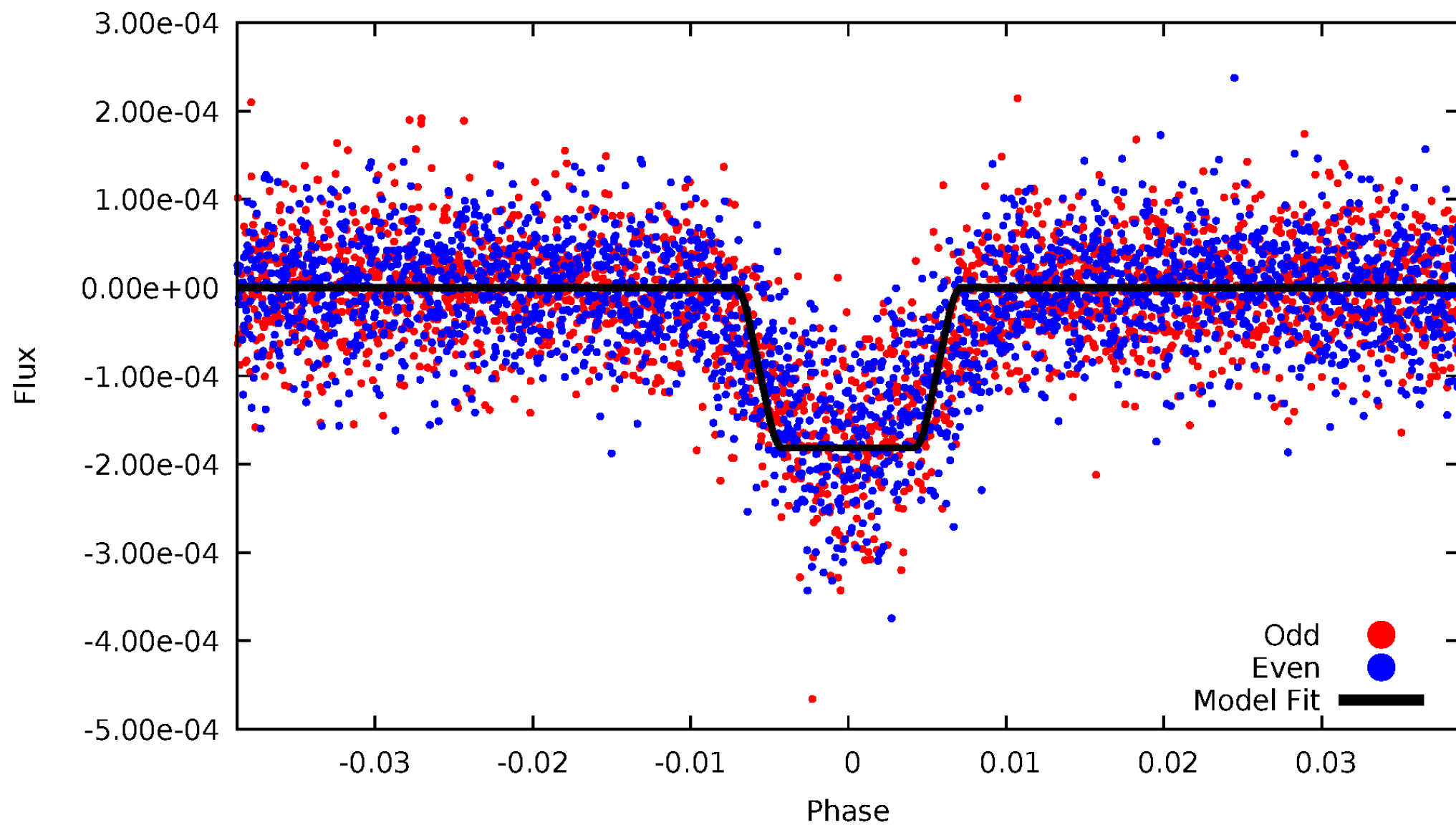
DV Odd/Even

TCE 008258171-01



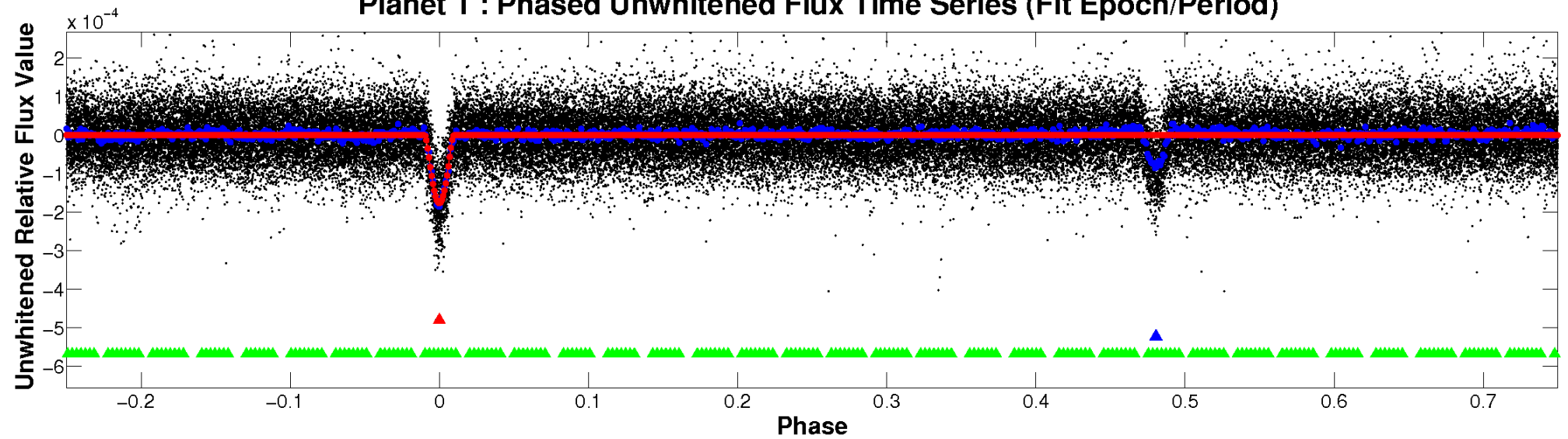
ALT Odd/Even

TCE 008258171-01

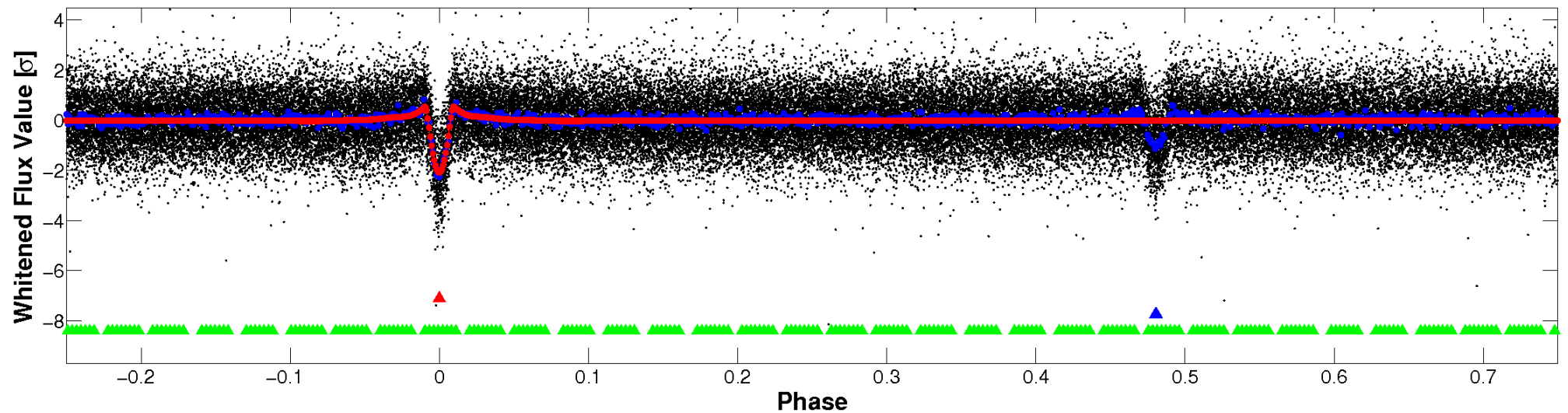


Non-Whitened Vs. Whitened Light Curve

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

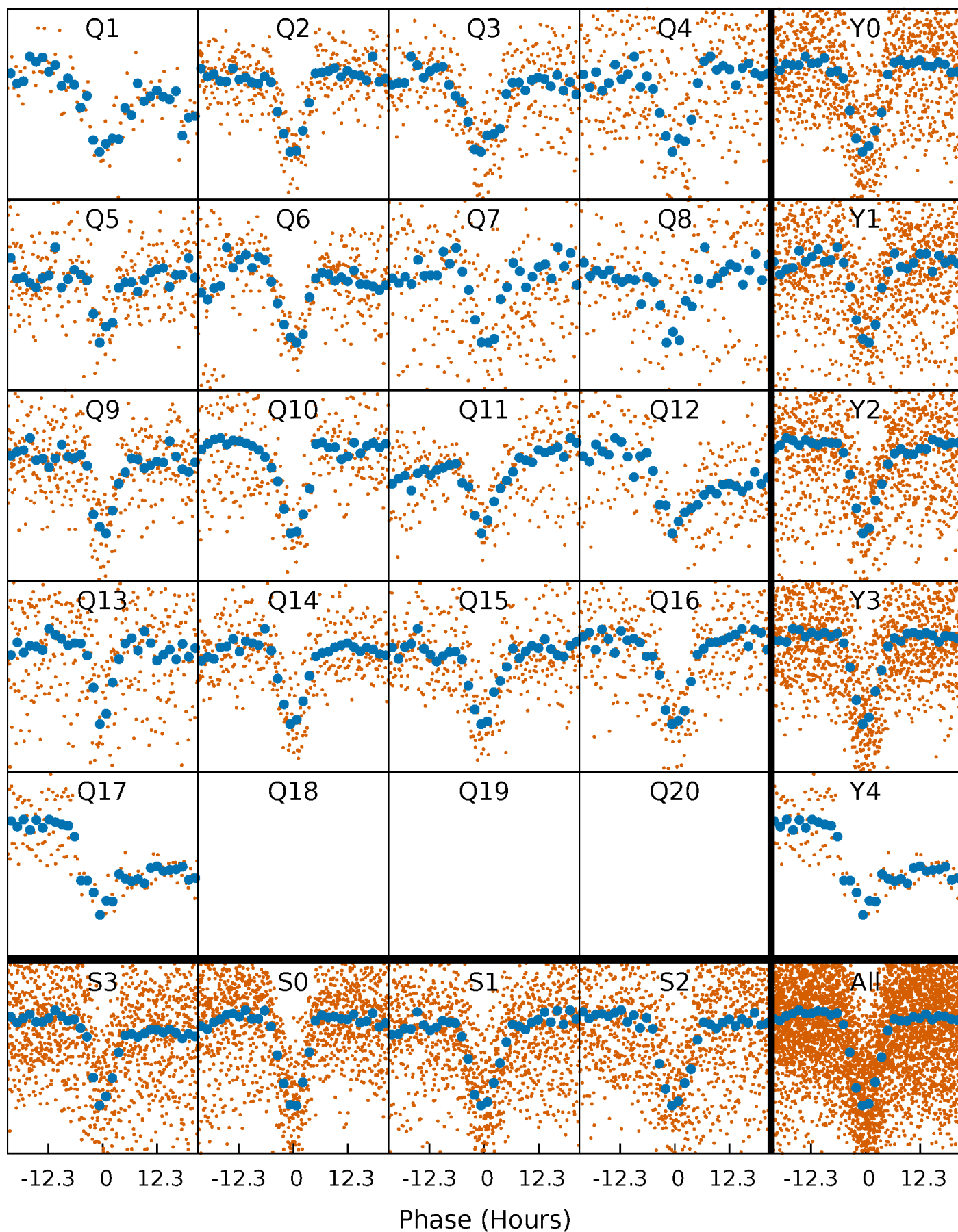


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



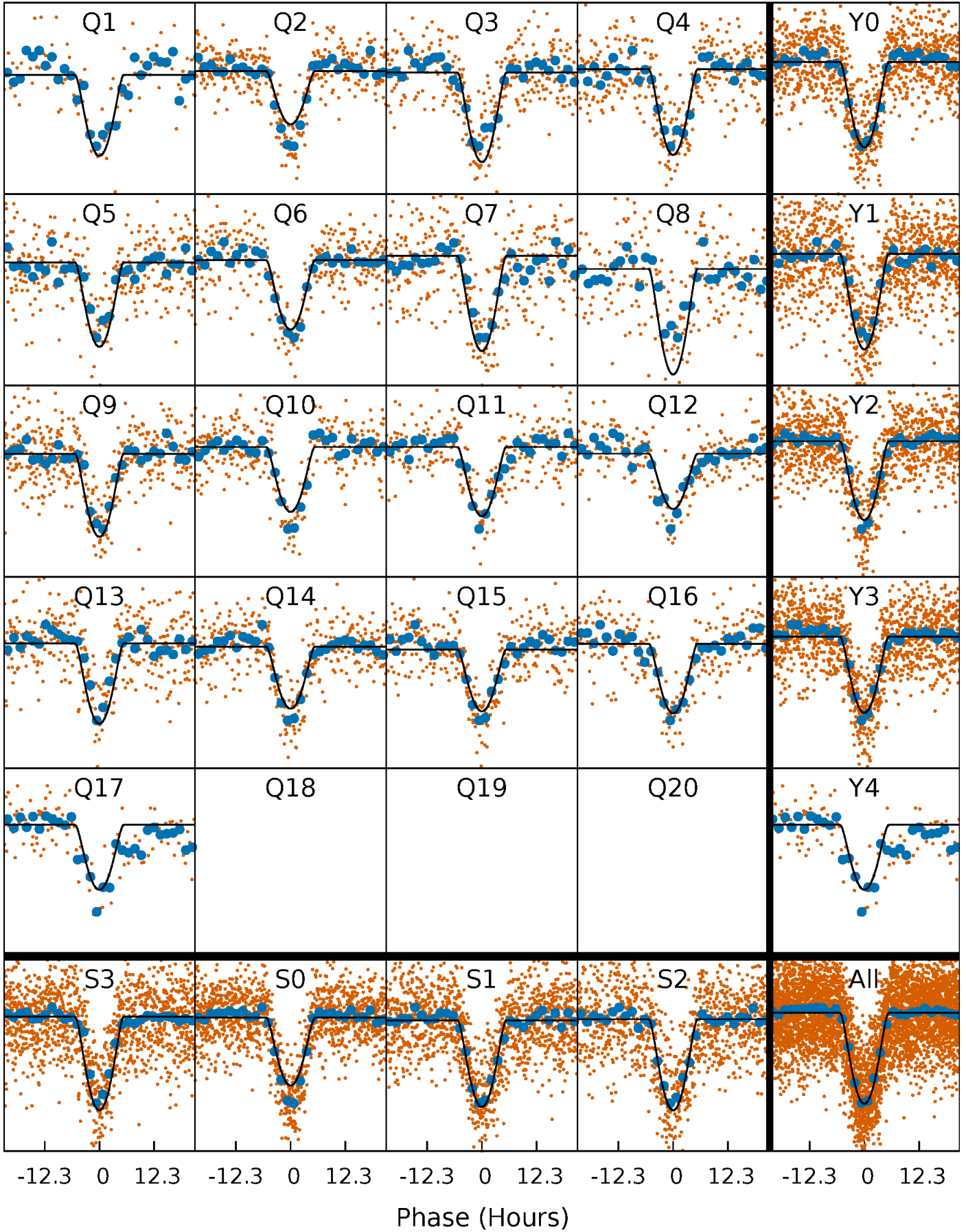
PDC Quarter-Phased Transit Curves

TCE 008258171-01 P= 23.627274 Days $T_0=150.019331$ (BKJD)



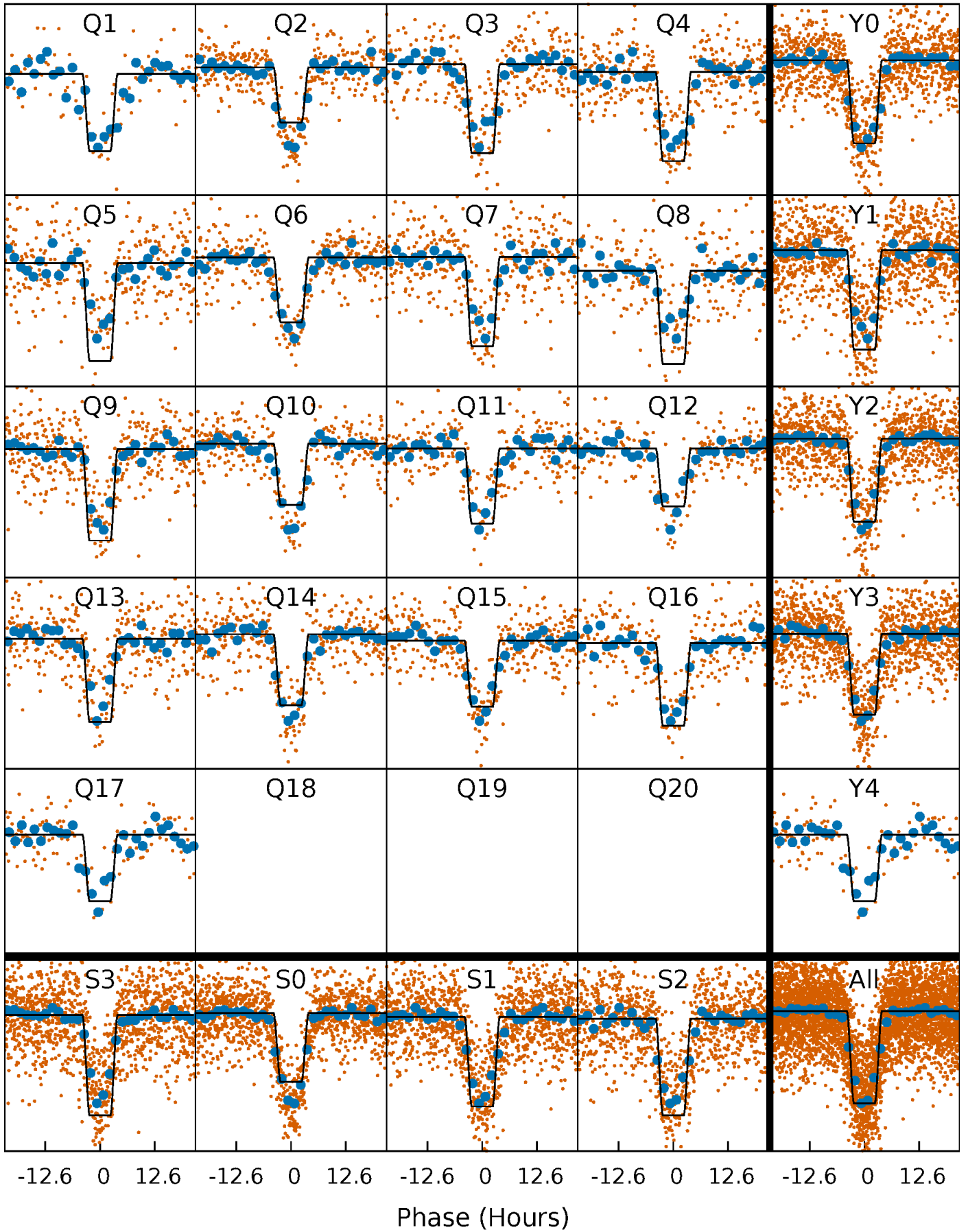
DV Quarter-Phased Transit Curves

TCE 008258171-01 P= 23.627274 Days $T_0=150.019331$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

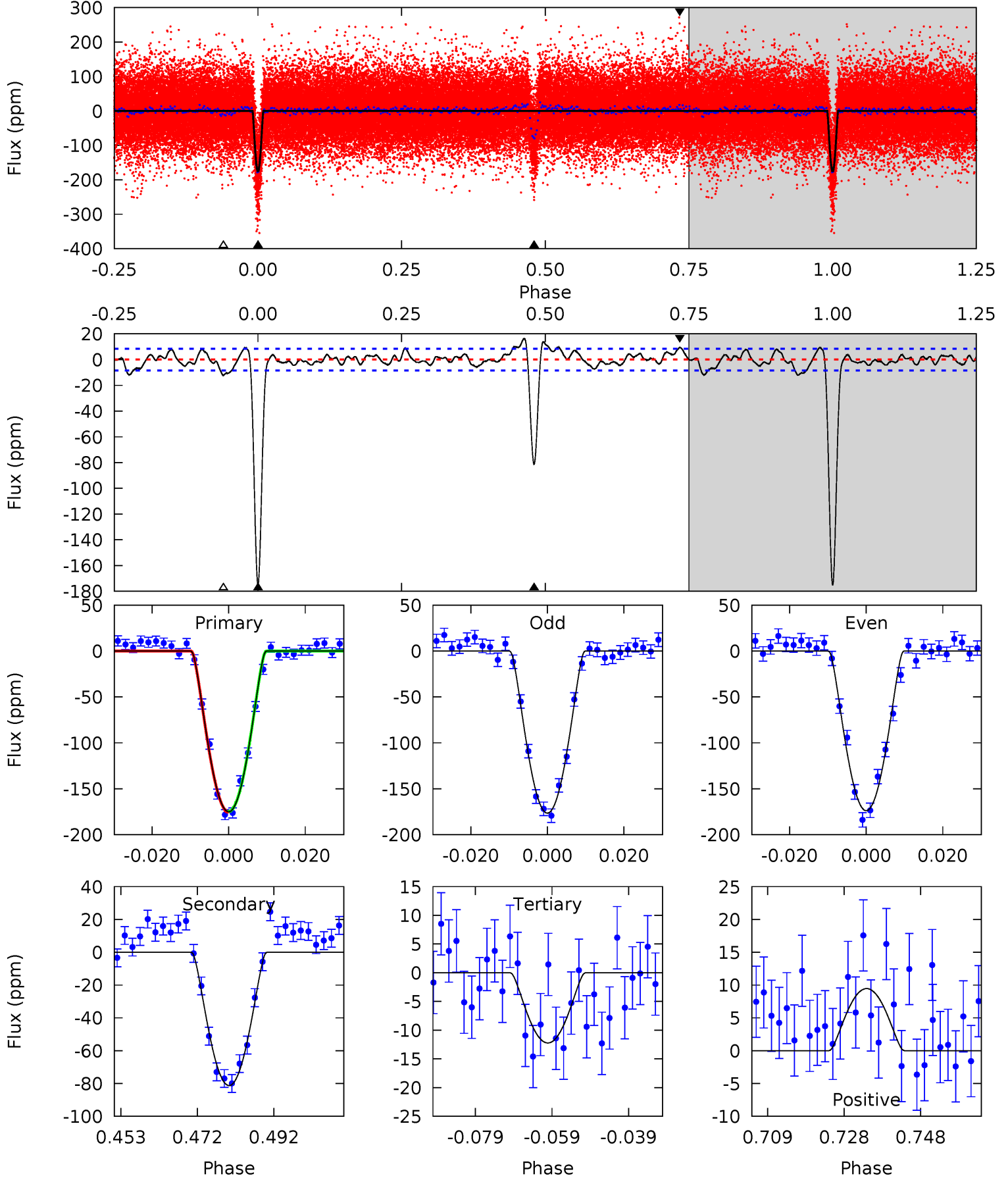
TCE 008258171-01 P= 23.627533 Days $T_0=150.010698$ (BKJD)



DV Model-Shift Uniqueness Test

008258171-01, P = 23.627274 Days, E = 126.392057 Days

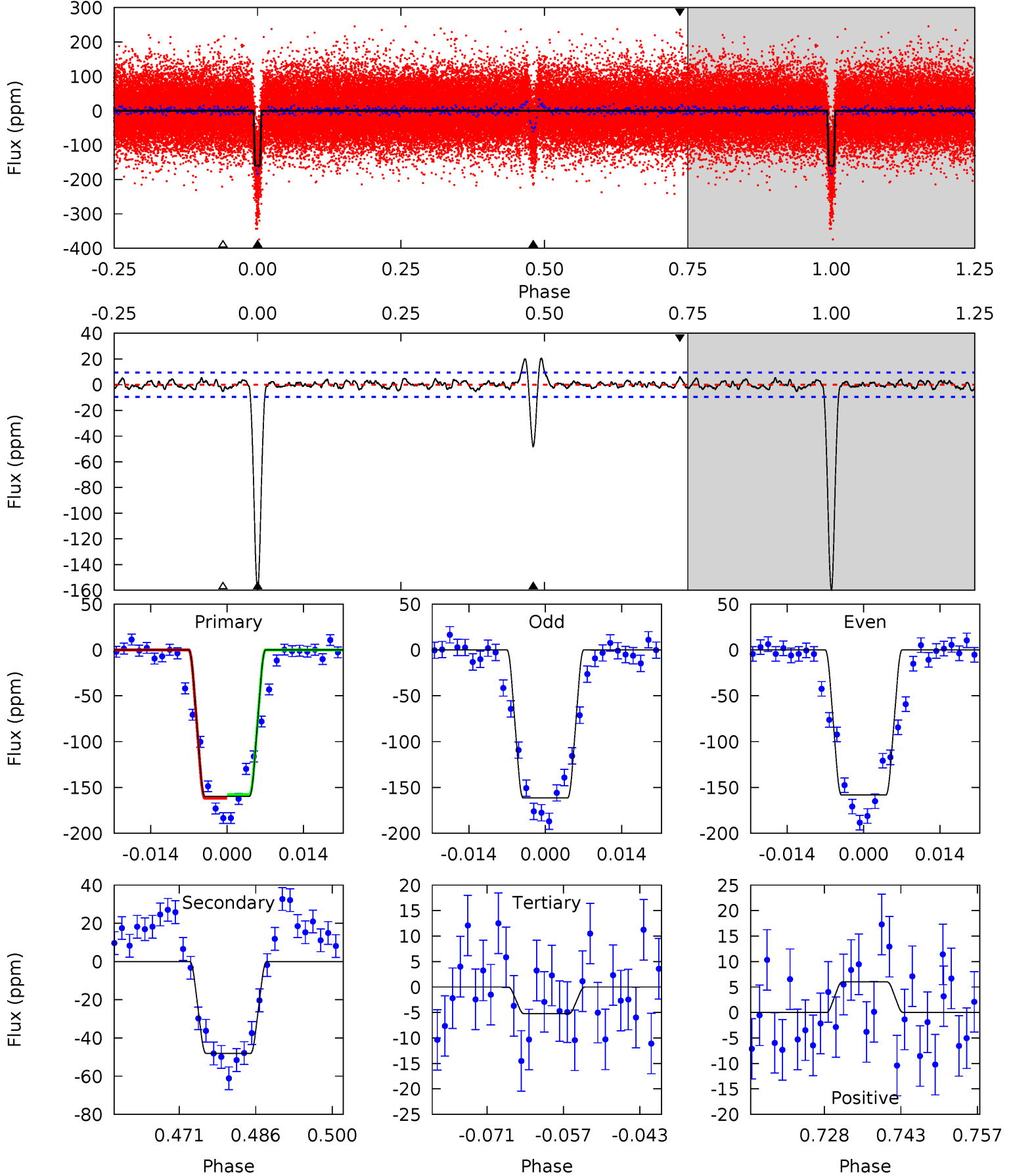
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
101.4	47.1	7.08	5.48	4.89	2.33	2.59	94.3	95.9	40.0	41.6	0.78	0.98	0.09	0.25



Alt Model-Shift Uniqueness Test

008258171-01, P = 23.627533 Days, E = 126.383165 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
83.2	25.0	2.73	3.13	4.96	2.45	1.44	80.5	80.1	22.3	21.9	0.83	1.05	0.11	1.03



Stellar Parameters For KIC 008258171

	$T_{\text{eff}} (K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	8308^{+229}_{-372}	$3.861^{+0.301}_{-0.108}$	$0.070^{+0.250}_{-0.500}$	$2.879^{+0.754}_{-1.130}$	$2.197^{+0.325}_{-0.604}$	$0.130^{+0.324}_{-0.051}$
	+3%/-4%	+8%/-3%	+357%/-714%	+26%/-39%	+15%/-27%	+250%/-39%
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 008258171-01 / KOI 0286.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-81 ± 2	$7.02^{+3.73}_{-3.57}$	1836^{+143}_{-172}	4944^{+1962}_{-692}	41^{+117}_{-23}
Alt.	-48 ± 2	$4.54^{+3.53}_{-2.67}$	1844^{+133}_{-178}	5337^{+2901}_{-1119}	55^{+266}_{-37}

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

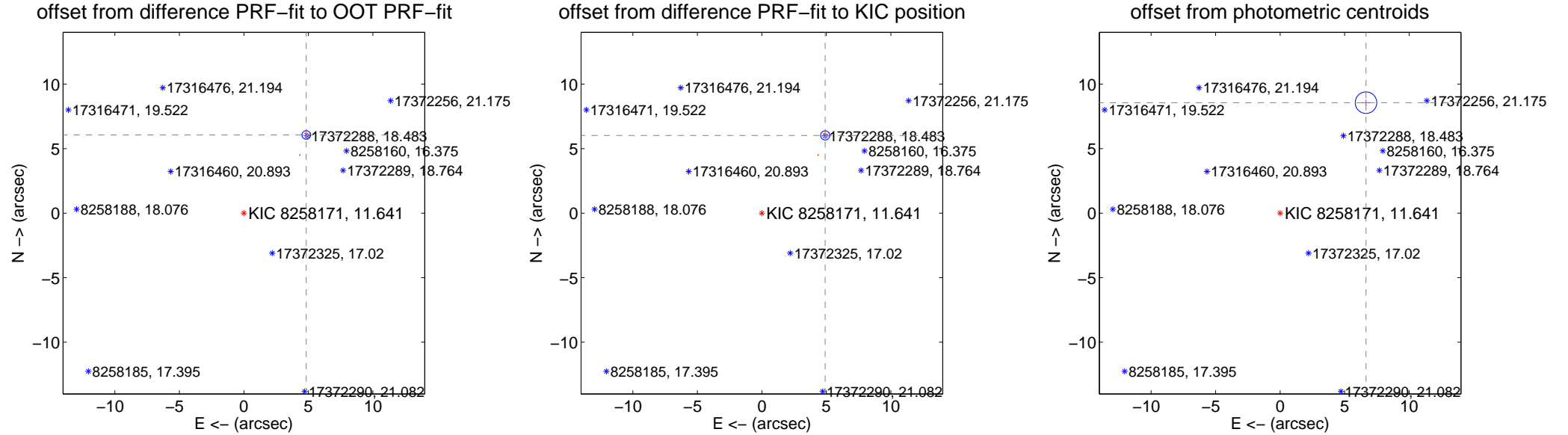
DV Centroid Data

Supplemental centroid analysis for 008258171-01. **Kepler magnitude: 11.64.** Transit SNR 45.95

There are 10 quarters with good PRF difference image offsets

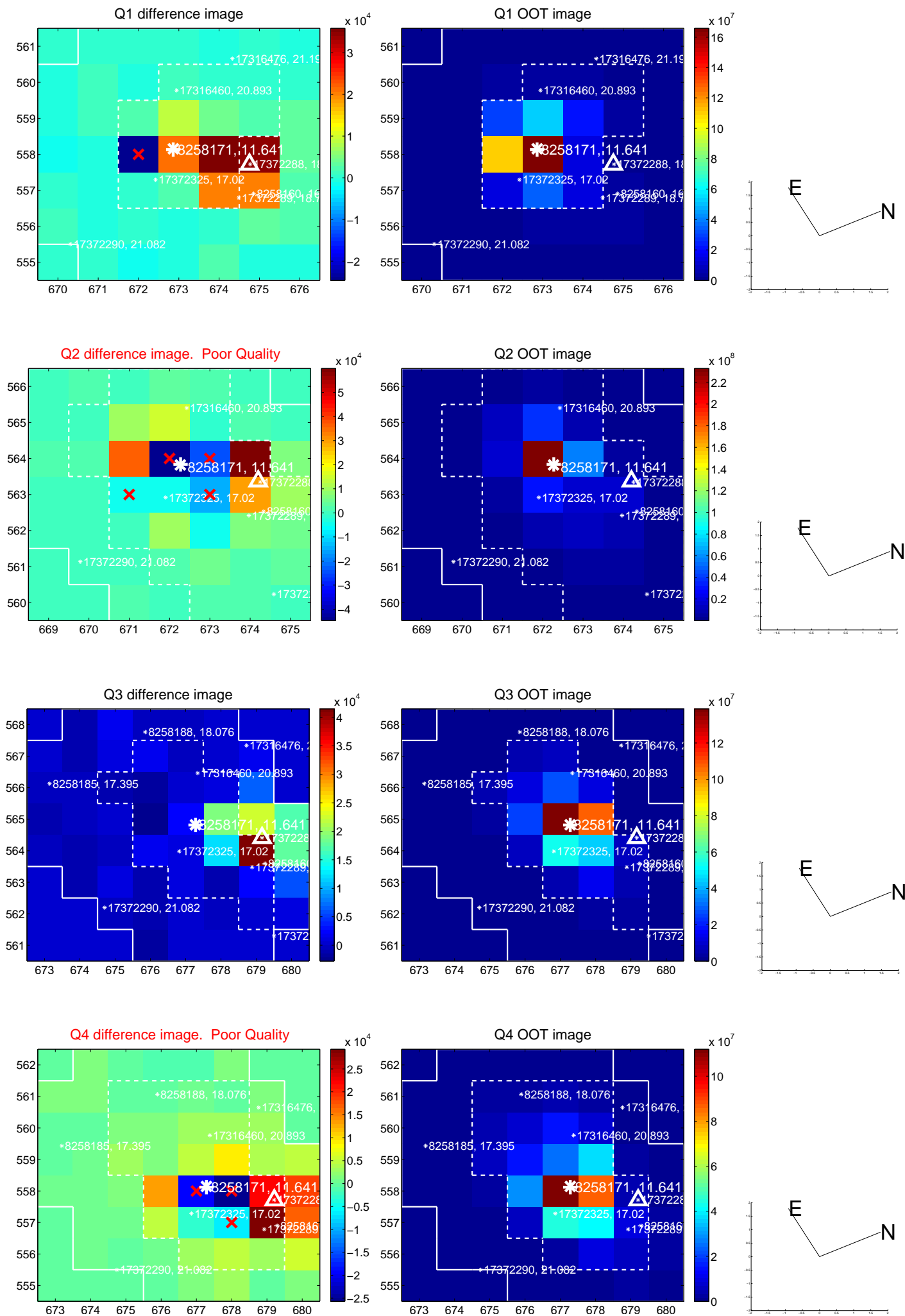
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	7.751 \pm 0.111	69.93	-4.833 \pm 0.081	6.060 \pm 0.110
PRF-fit source offset from KIC position	7.768 \pm 0.119	65.52	-4.907 \pm 0.083	6.022 \pm 0.115
photometric centroid source offset	10.85 \pm 0.28	38.99	-6.66 \pm 0.33	8.56 \pm 0.24

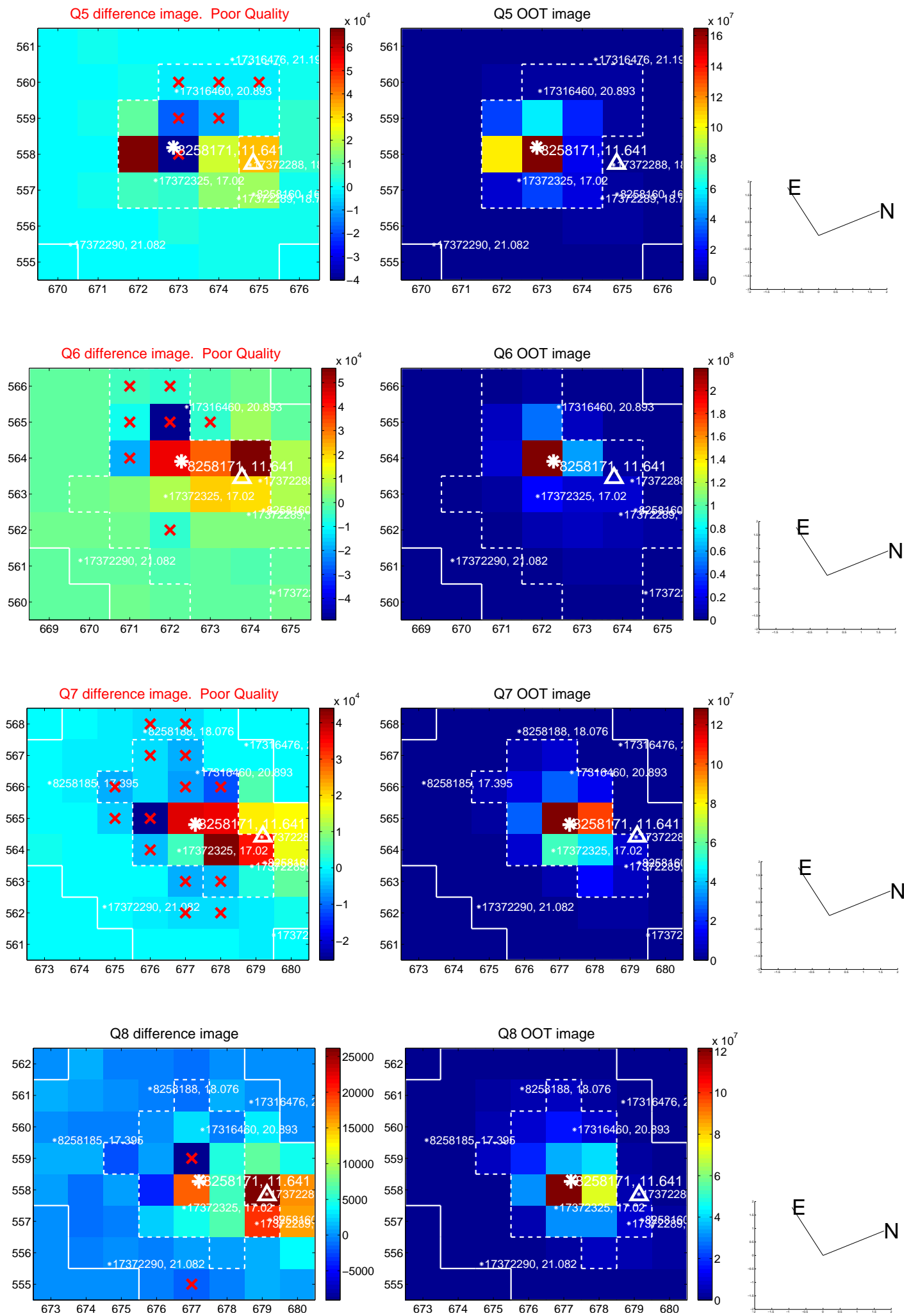


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

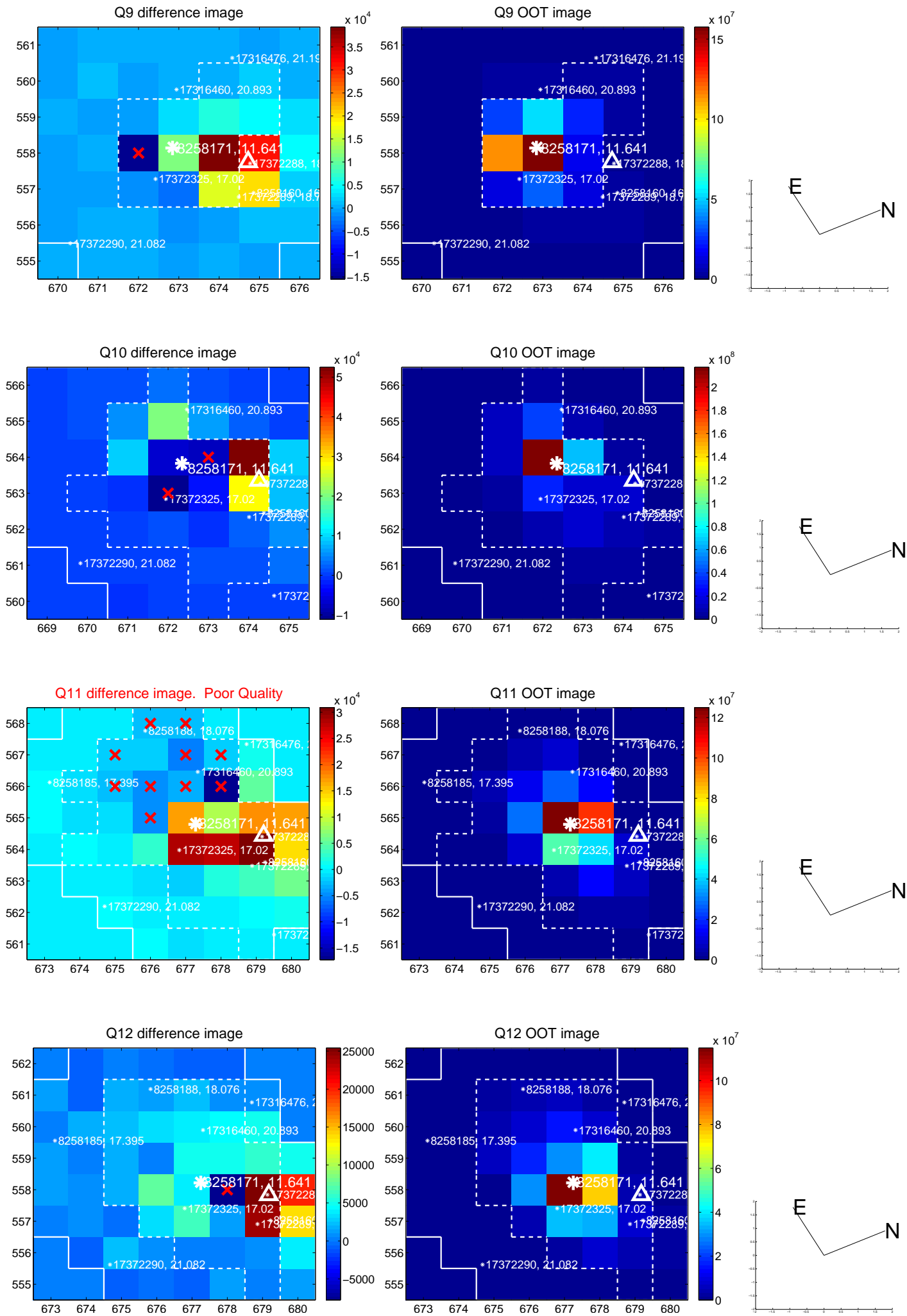
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



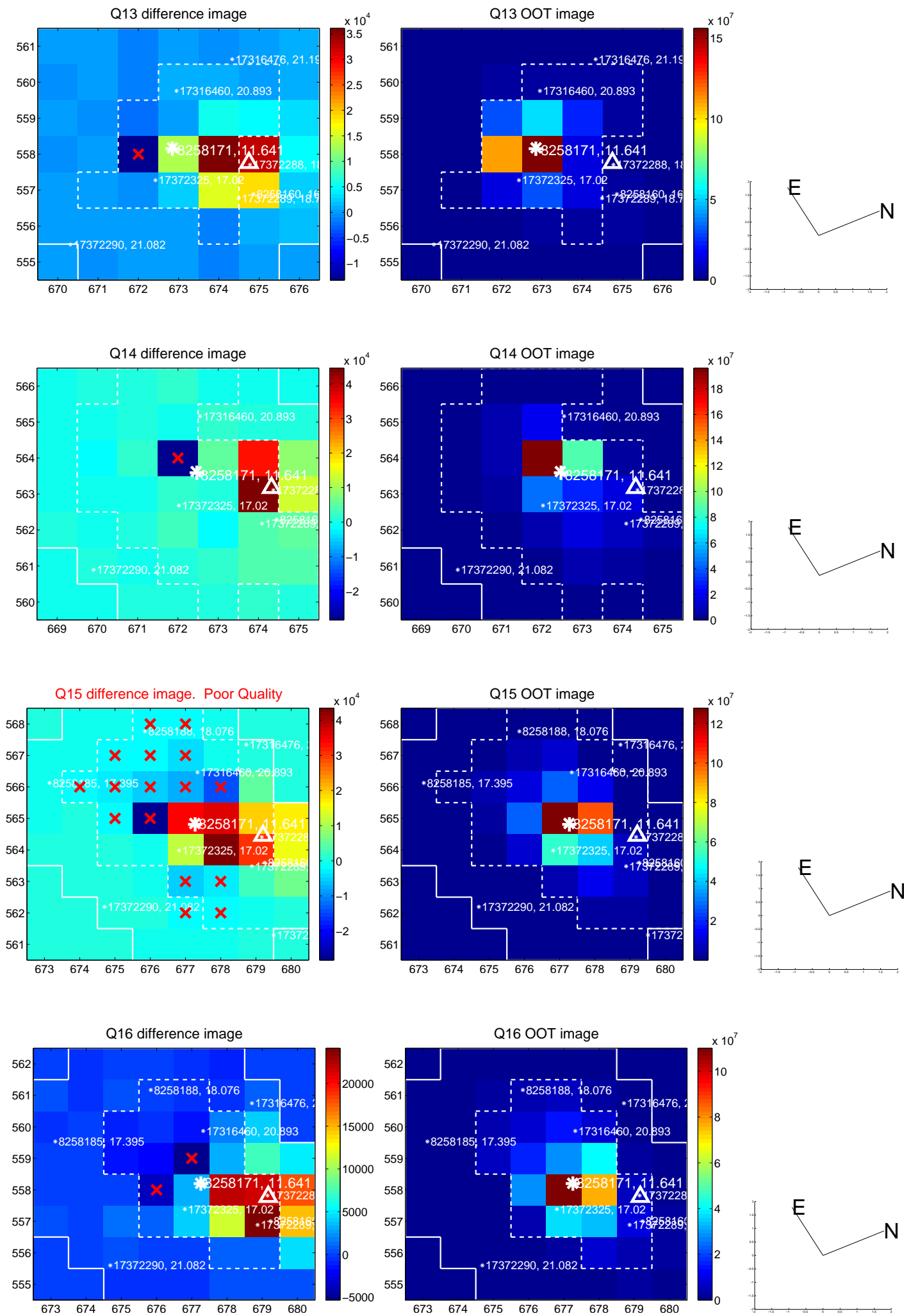
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



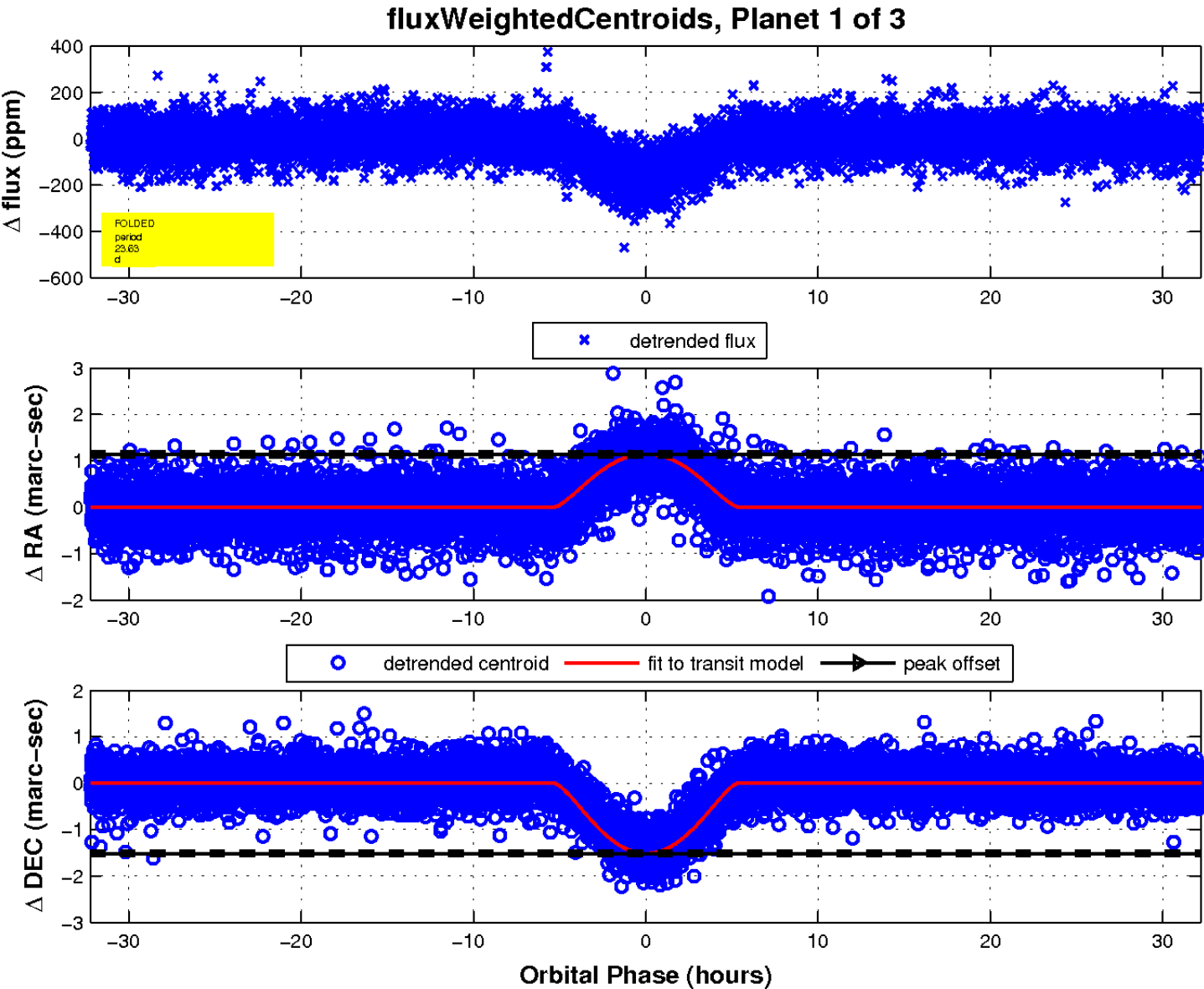
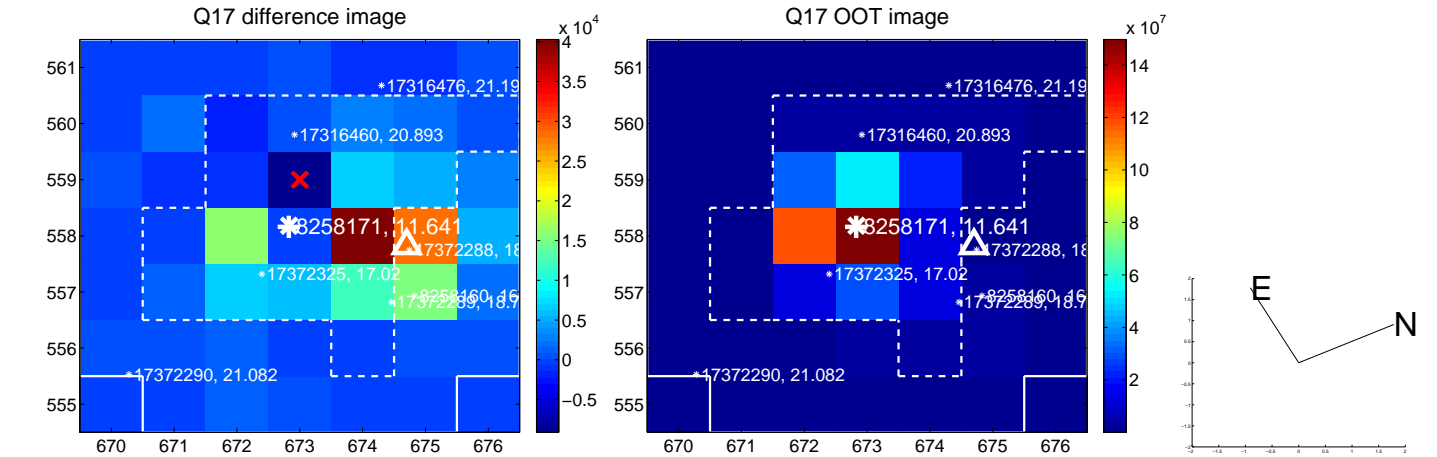
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

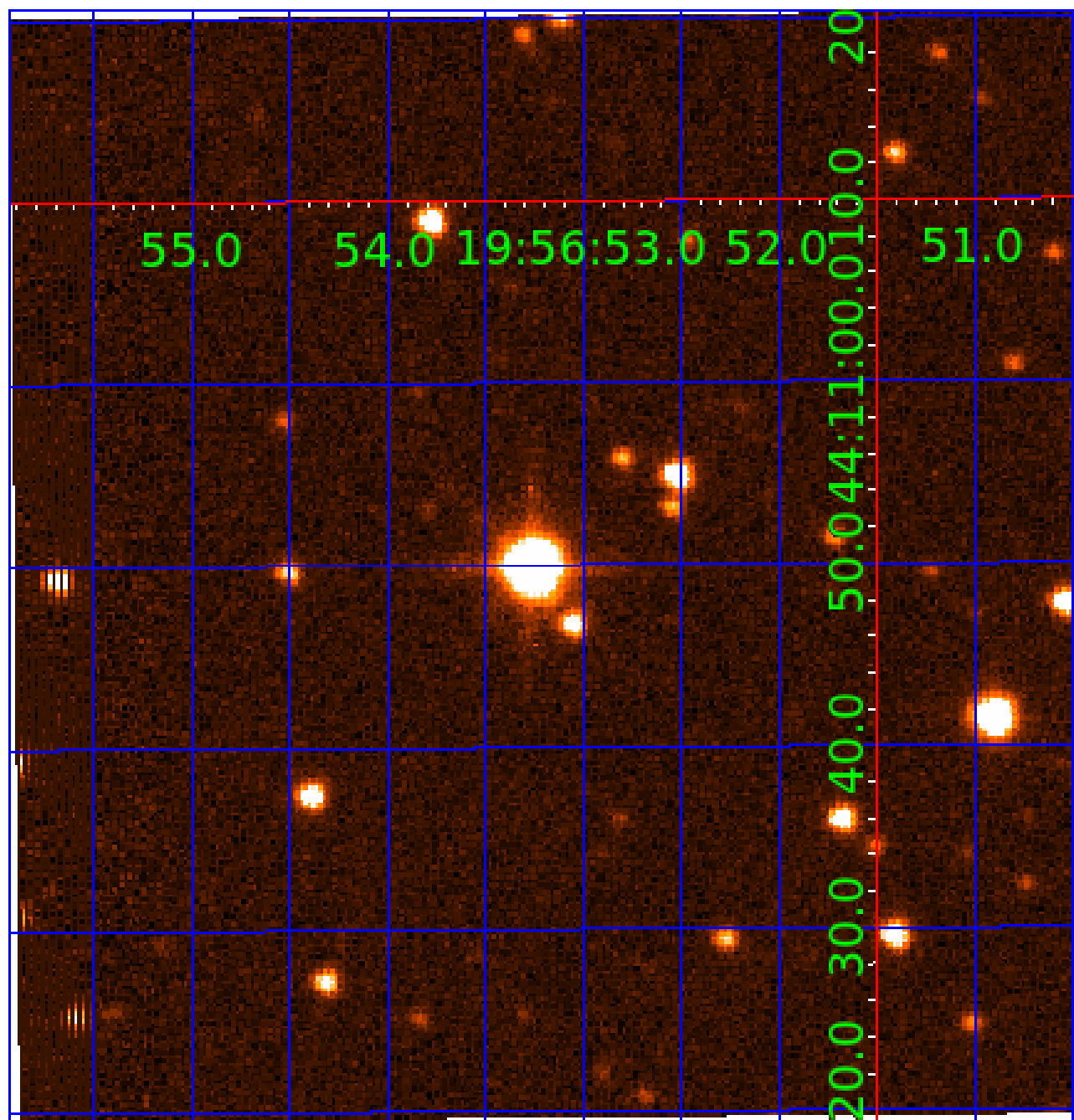


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 008258171

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})
008258171-01	OBS	0286.01	23.627274	150.019332	176.6	10.743	43.8	45.9	2.88	8308	7.34	806.29
008258171-02	OBS	No	23.627486	137.738955	95.4	11.659	25.5	26.6	2.88	8308	4.70	806.28
008258171-03	OBS	No	5.729930	134.018035	8.2	23.437	8.9	6.3	2.88	8308	0.90	5331.41

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008258171-01	OBS	FP	0.00	0	1	1	1	MOD_SEC_DV—MOD_SEC_ALT—HAS_SEC_TCE—CENT_UNRESOLVED_OFFSET—EPHEM_MATCH
008258171-02	OBS	FP	0.00	1	1	1	1	IS_SEC_TCE—CENT_RESOLVED_OFFSET—EPHEM_MATCH
008258171-03	OBS	FP	0.00	1	0	0	0	LPP_DV—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 008258171-02

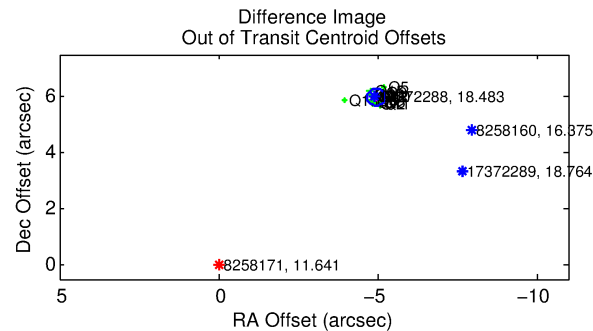
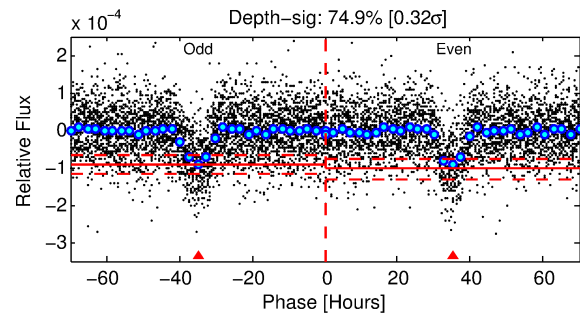
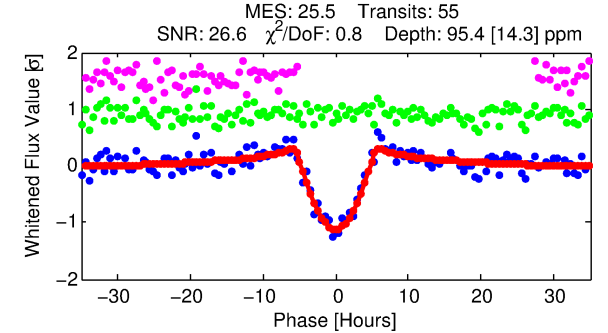
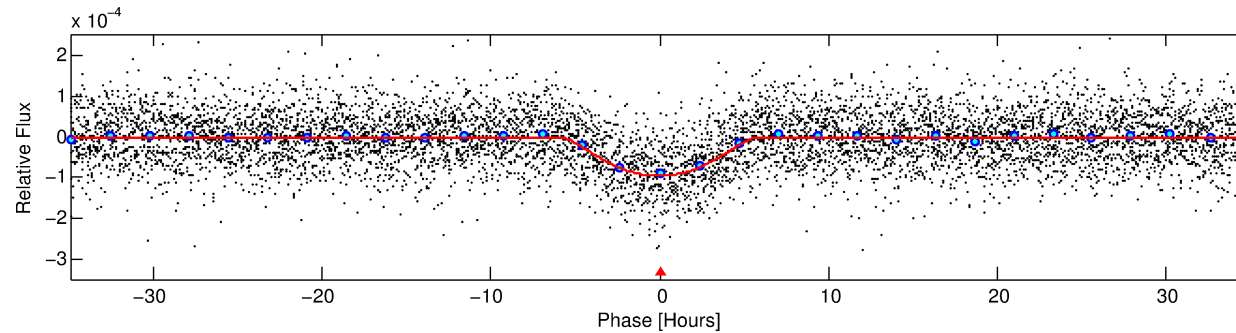
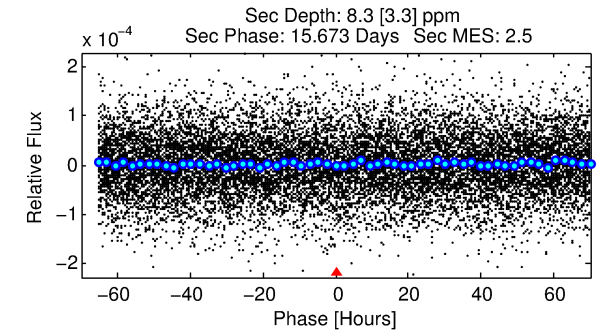
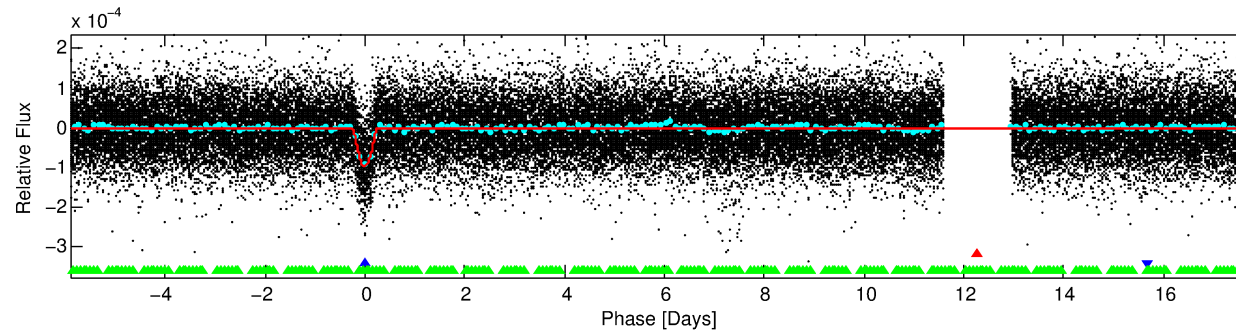
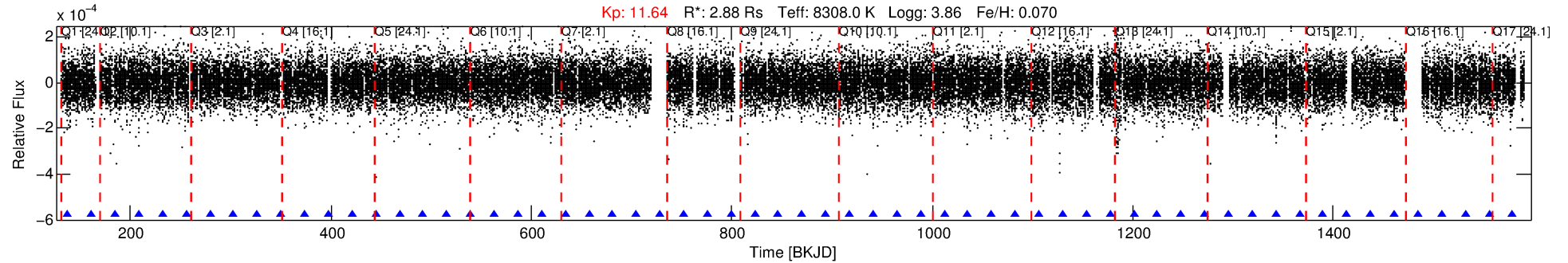
TCE (1)	KIC	Parent (2)	Parent KIC	P ₁ :P ₂	Dist ($''$)	Δ Row	Δ Col	m ₂	m ₁	D ₂ /D ₁	Mechanism	Flag	σ_P	σ_T
008258171-02	8258171	008258160-02	8258160	1:1	9.3	2	-2	16.38	11.65	48.74	Direct-PRF	0	0.45	0.41

Notes: P₁:P₂ 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. m₂ and m₁ are the magnitudes of the parent and child. D₂/D₁ 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: 8258171 Candidate: 2 of 3 Period: 23.627 d
KOI: K00286 Corr: No Ephemeris Match

Kp: 11.64 R*: 2.88 Rs Teff: 8308.0 K Logg: 3.86 Fe/H: 0.070



DV Fit Results:

Period = 23.62749 [0.00025] d
Epoch = 137.7390 [0.0084] BKJD
Rp/R* = 0.0150 [0.0073]
a/R* = 3.20 [0.51]
b = 1.00 [0.01]
Seff = 806.28 [451.83]
Teq = 1359 [190] K
Rp = 4.70 [2.94] Re
a = 0.2095 [0.0731] AU
Ag = 9.11 [10.69] [0.76σ]
Teff = 3649 [969] K [2.32σ]

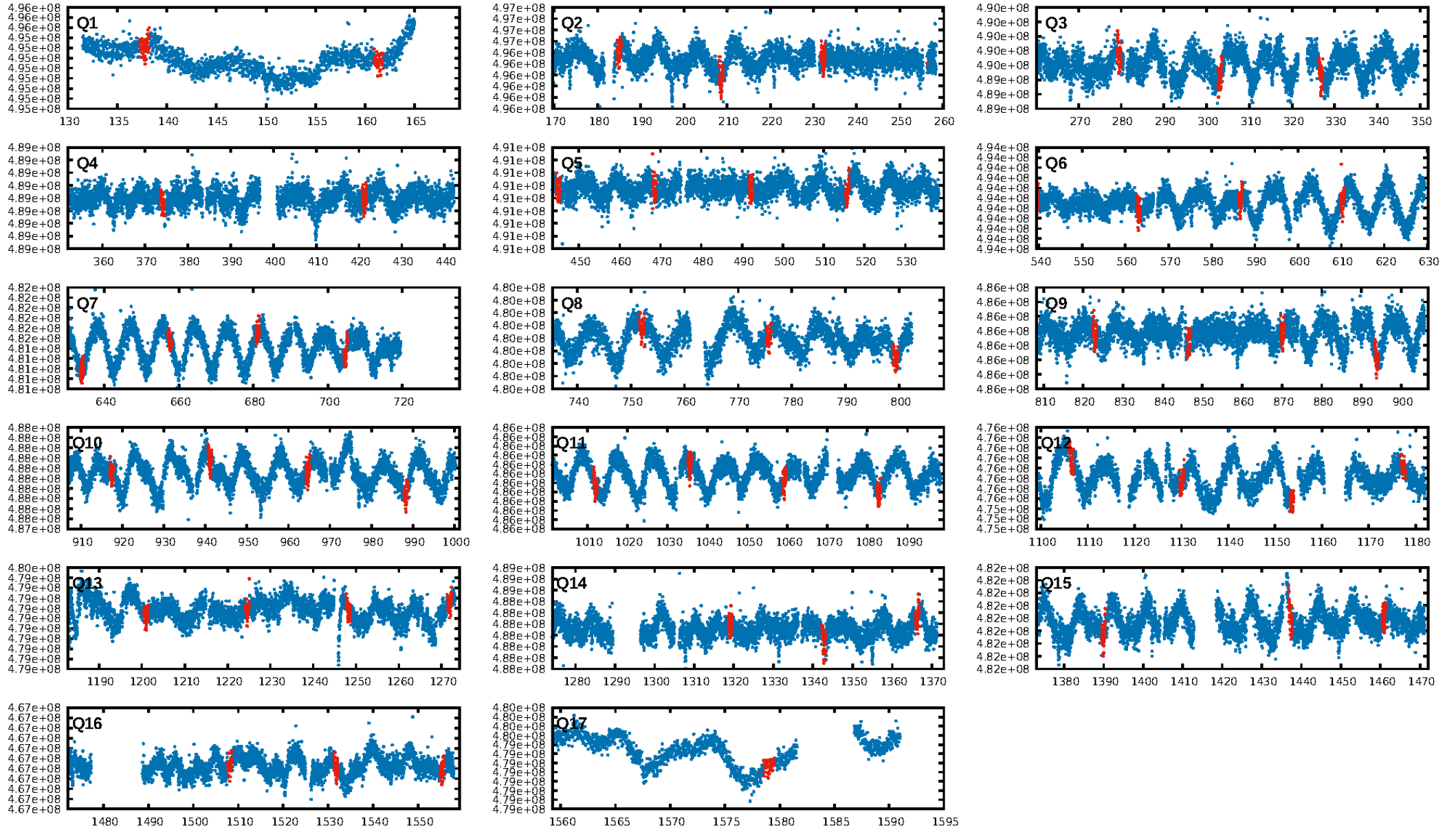
DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 9.0%
ModelChiSquareGoF-sig: 100.0%
Bootstrap-pfa: 3.31e-133
RollingBand-fgt: 1.00 [52/52]
GhostDiagnostic-chr: 0.2767
Centroid-sig: 0.0%
Centroid-so: 10.015 arcsec [20.19σ]
OotOffset-rm: 7.758 arcsec [81.42σ]
KicOffset-rm: 7.779 arcsec [83.39σ]
OotOffset-st: 3/4/4/3 [14]
KicOffset-st: 3/4/4/3 [14]
DiffImageQuality-fgm: 0.57 [8/14]
DiffImageOverlap-fno: 0.59 [10/17]

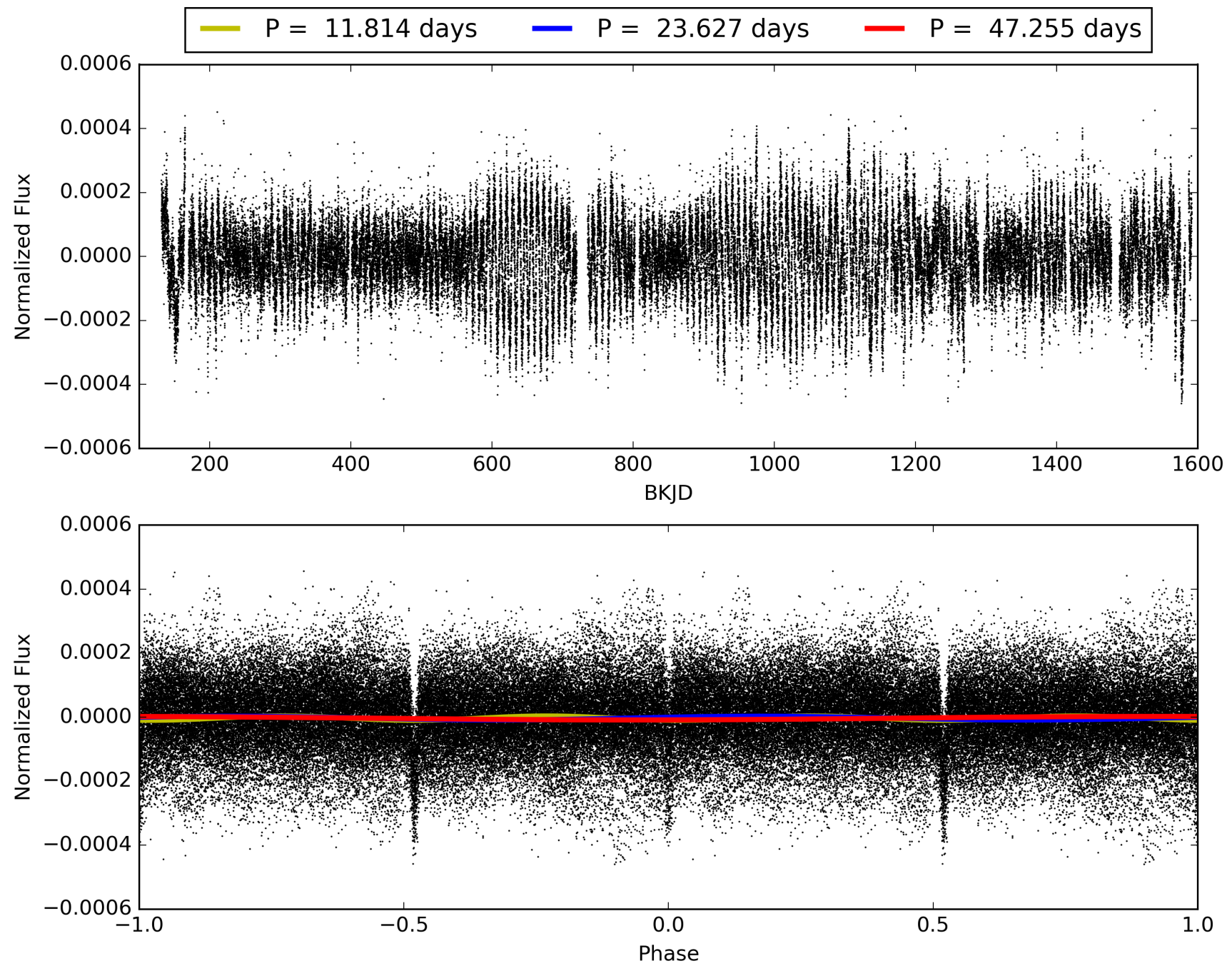
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 02:09:39 Z

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

TCE 008258171-02, PDC Light Curves

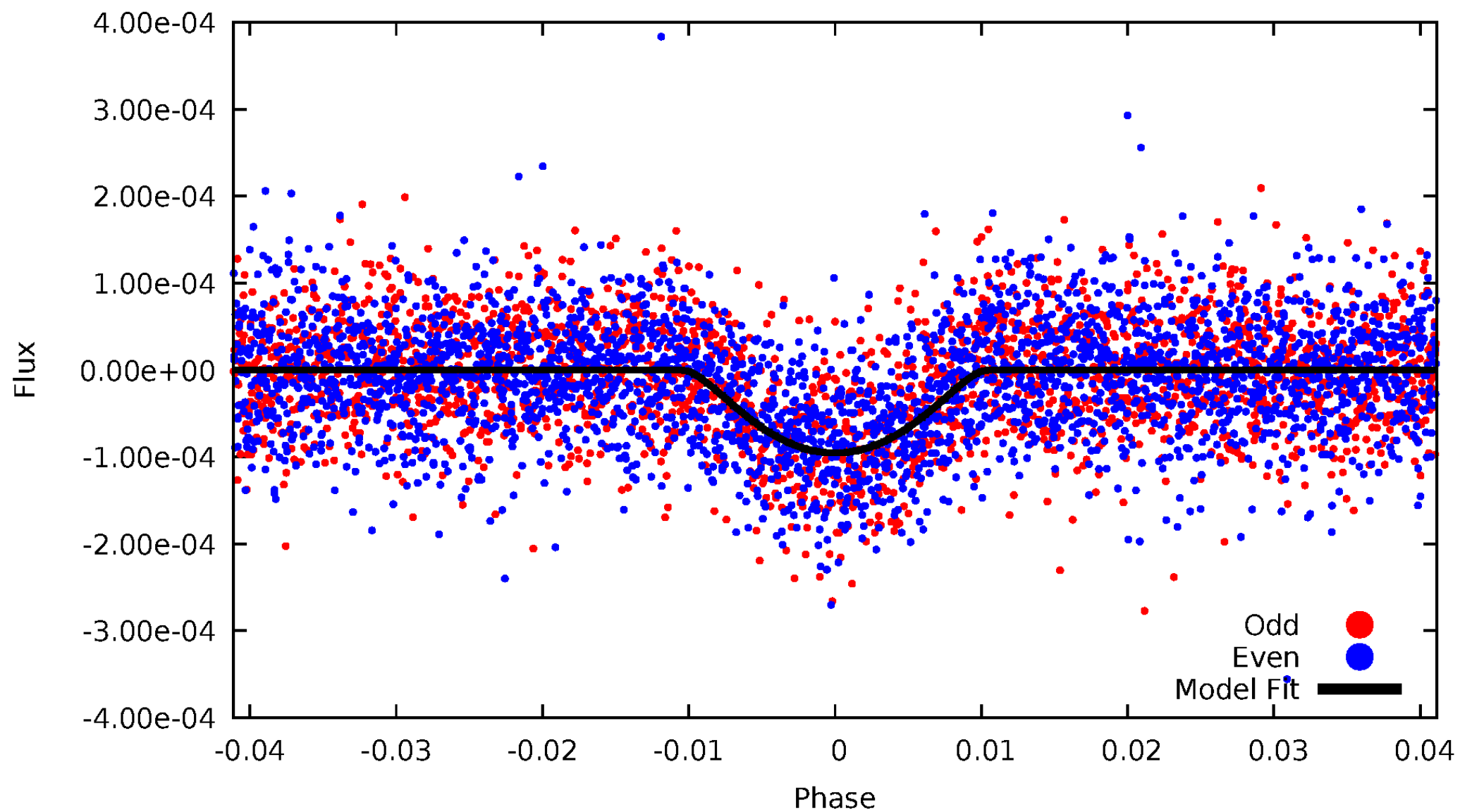


TCE 008258171-02



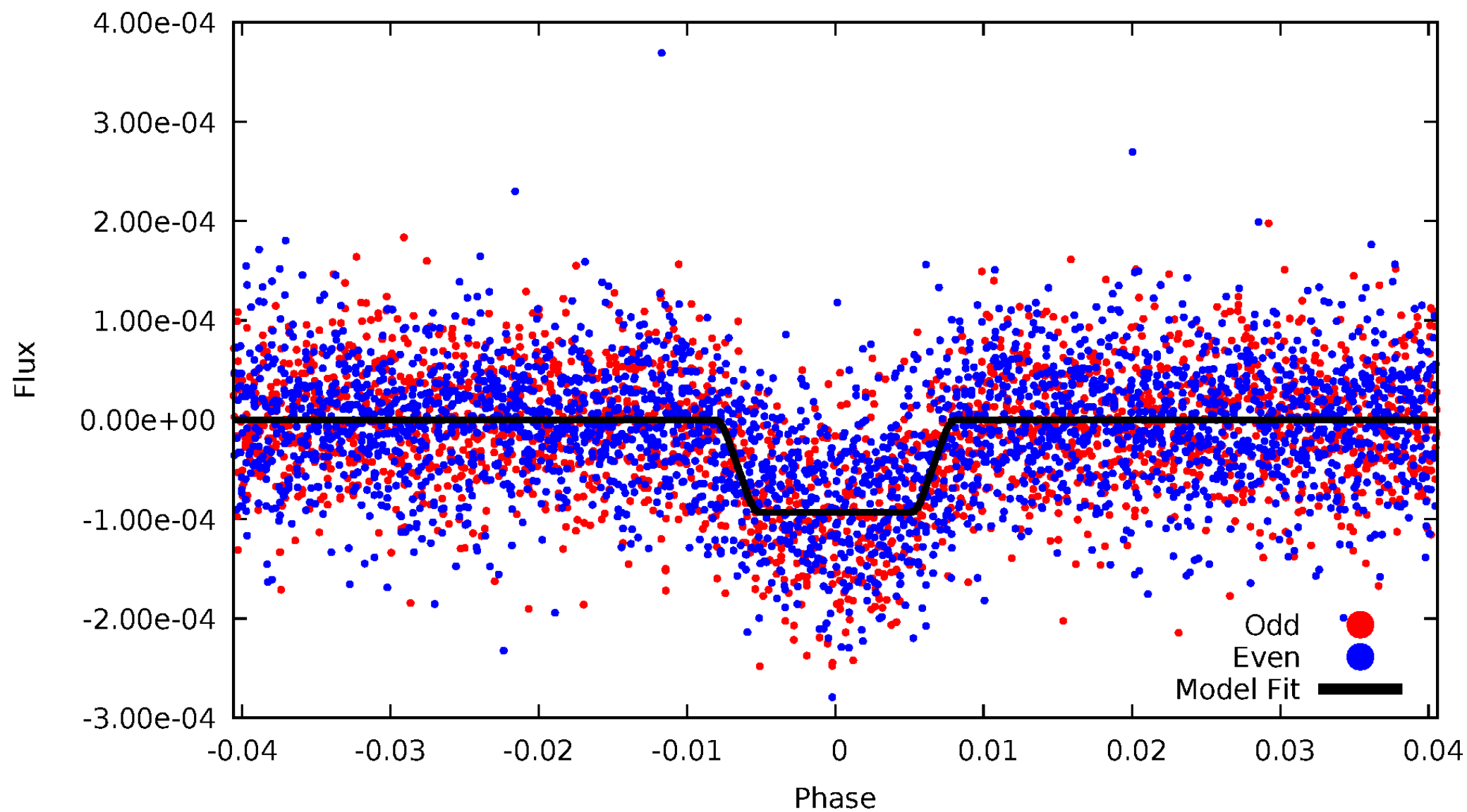
DV Odd/Even

TCE 008258171-02



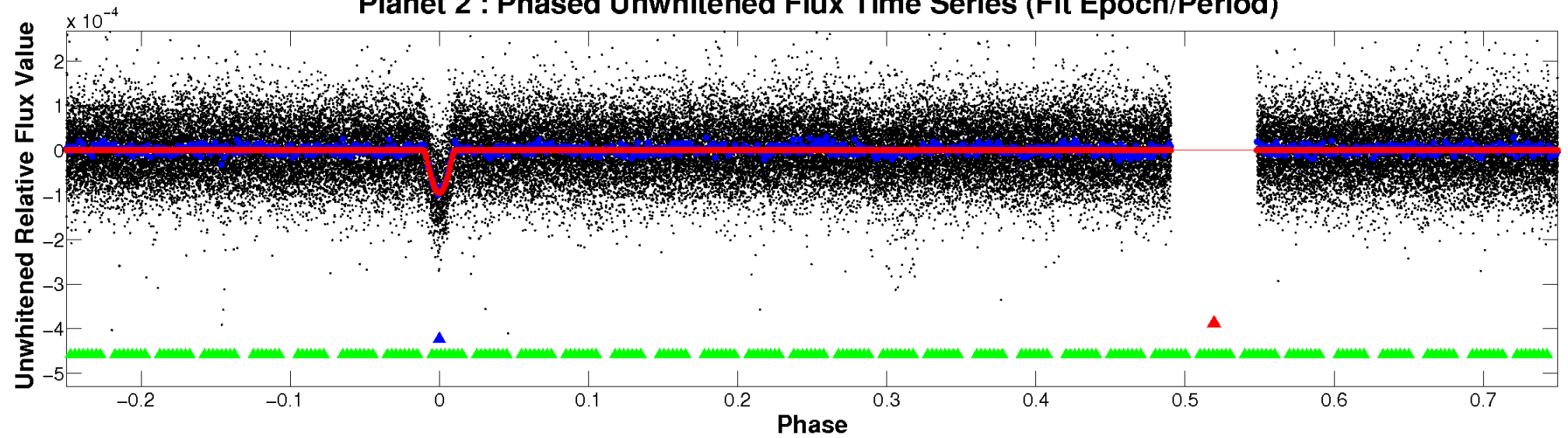
ALT Odd/Even

TCE 008258171-02

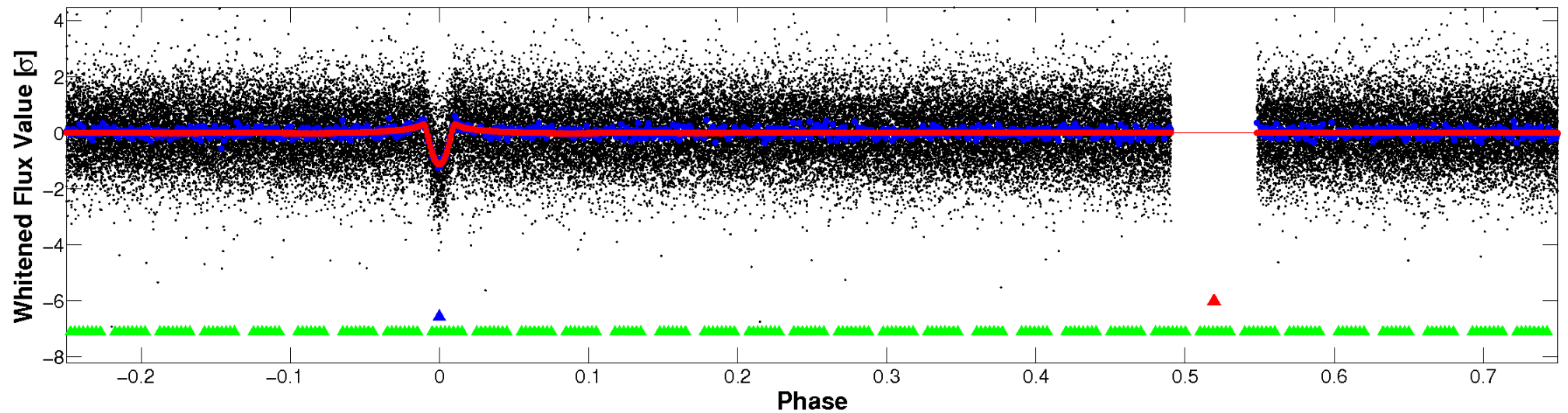


Non-Whitened Vs. Whitened Light Curve

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

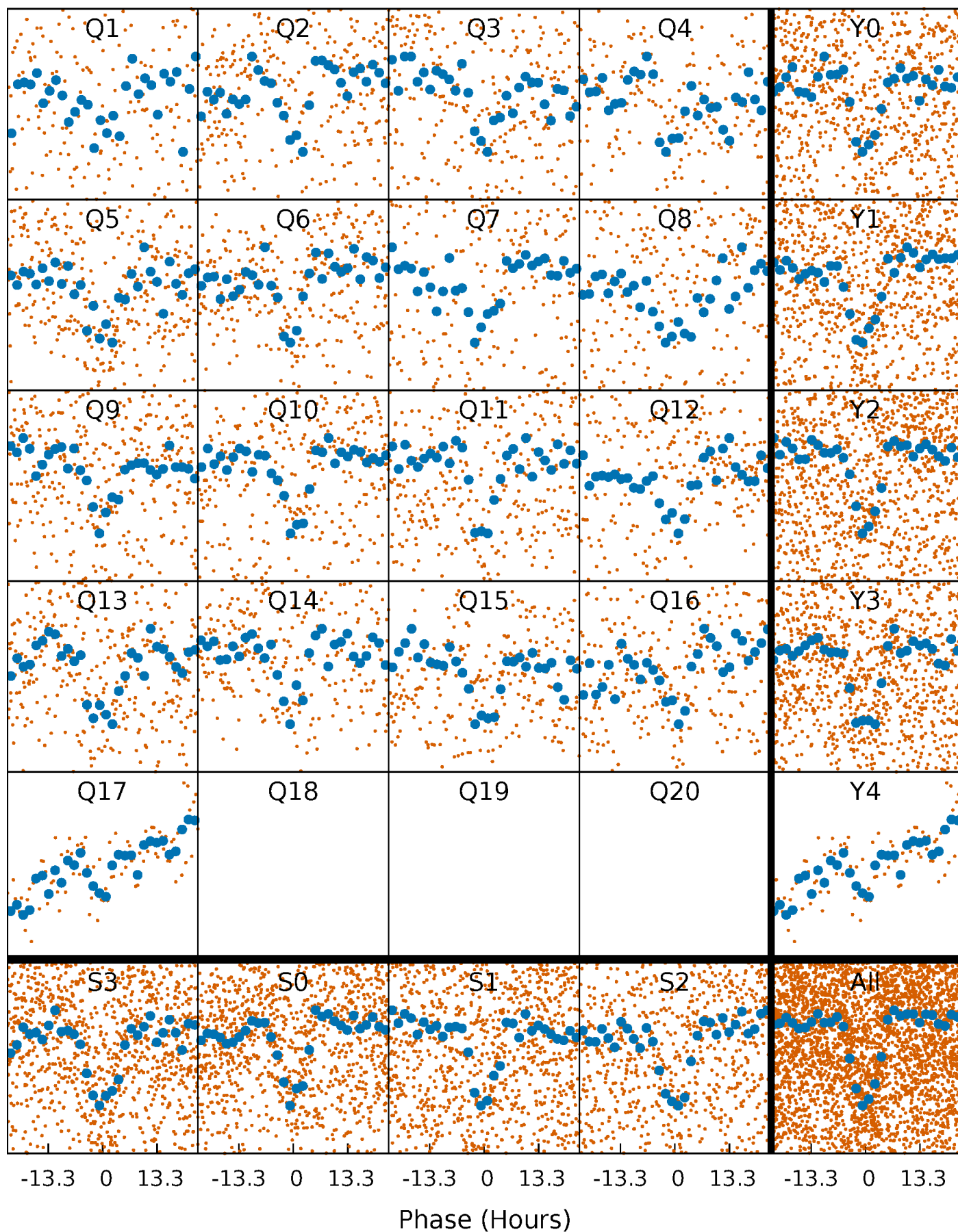


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



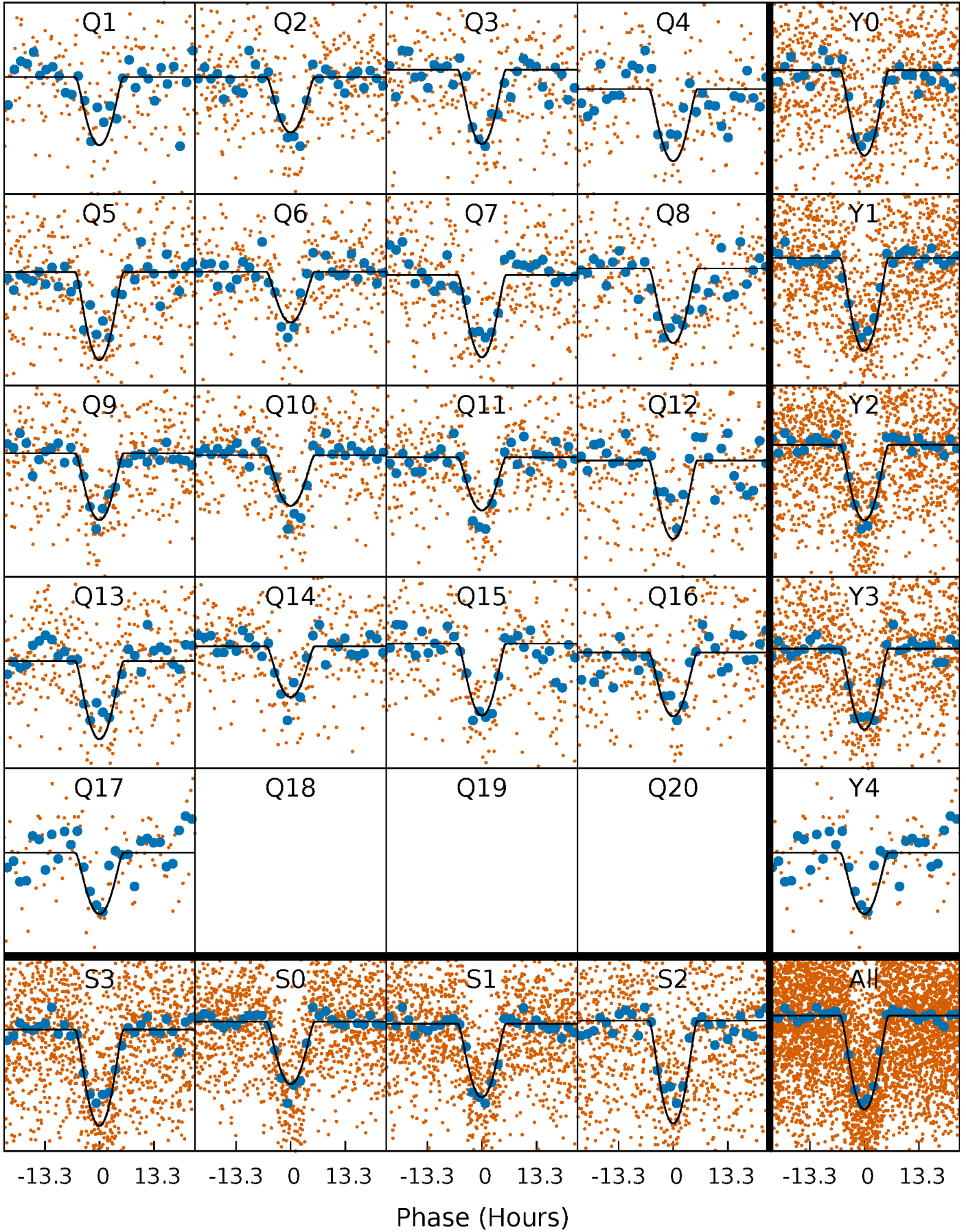
PDC Quarter-Phased Transit Curves

TCE 008258171-02 P= 23.627486 Days $T_0=137.738956$ (BKJD)



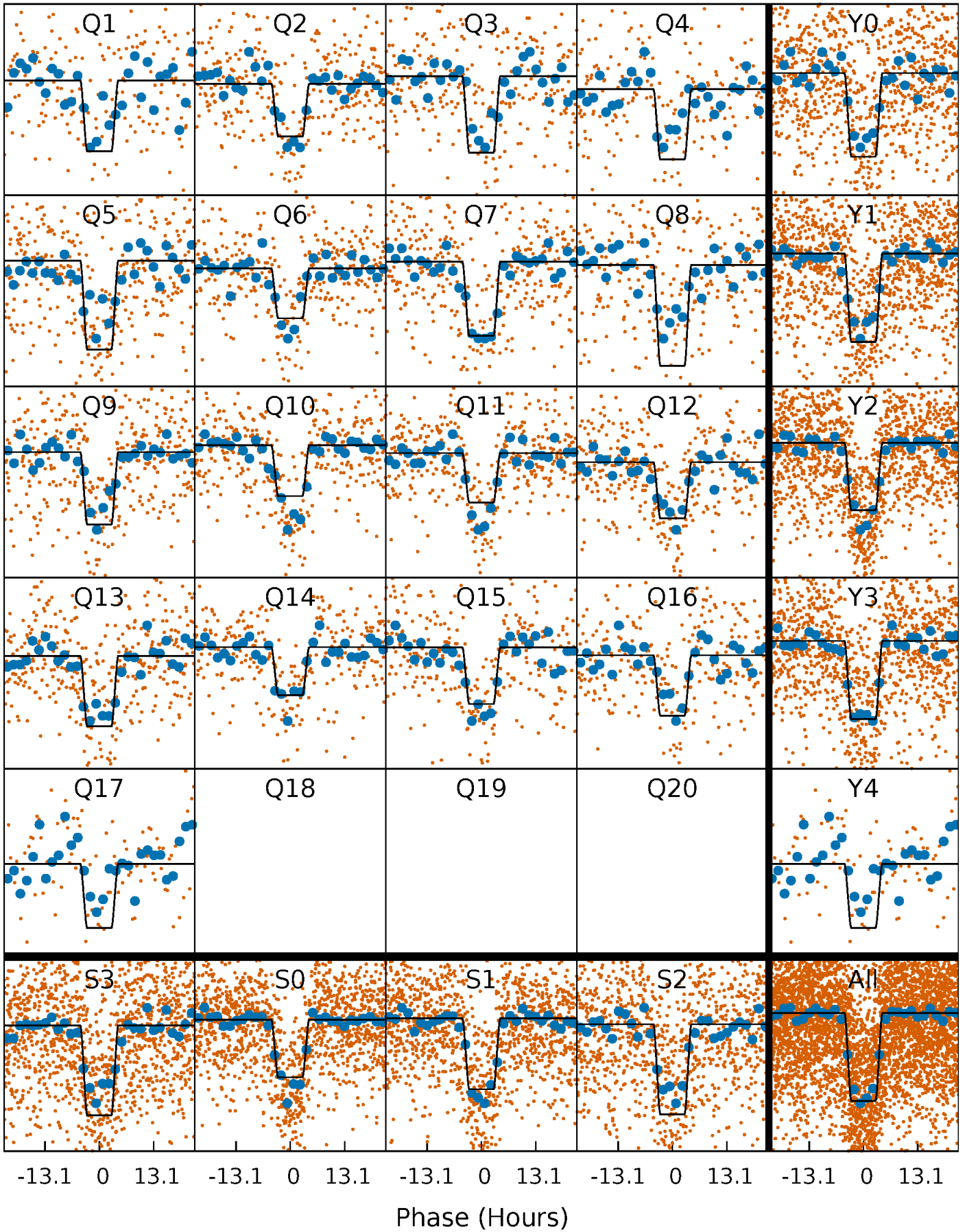
DV Quarter-Phased Transit Curves

TCE 008258171-02 $P = 23.627486$ Days $T_0 = 137.738956$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

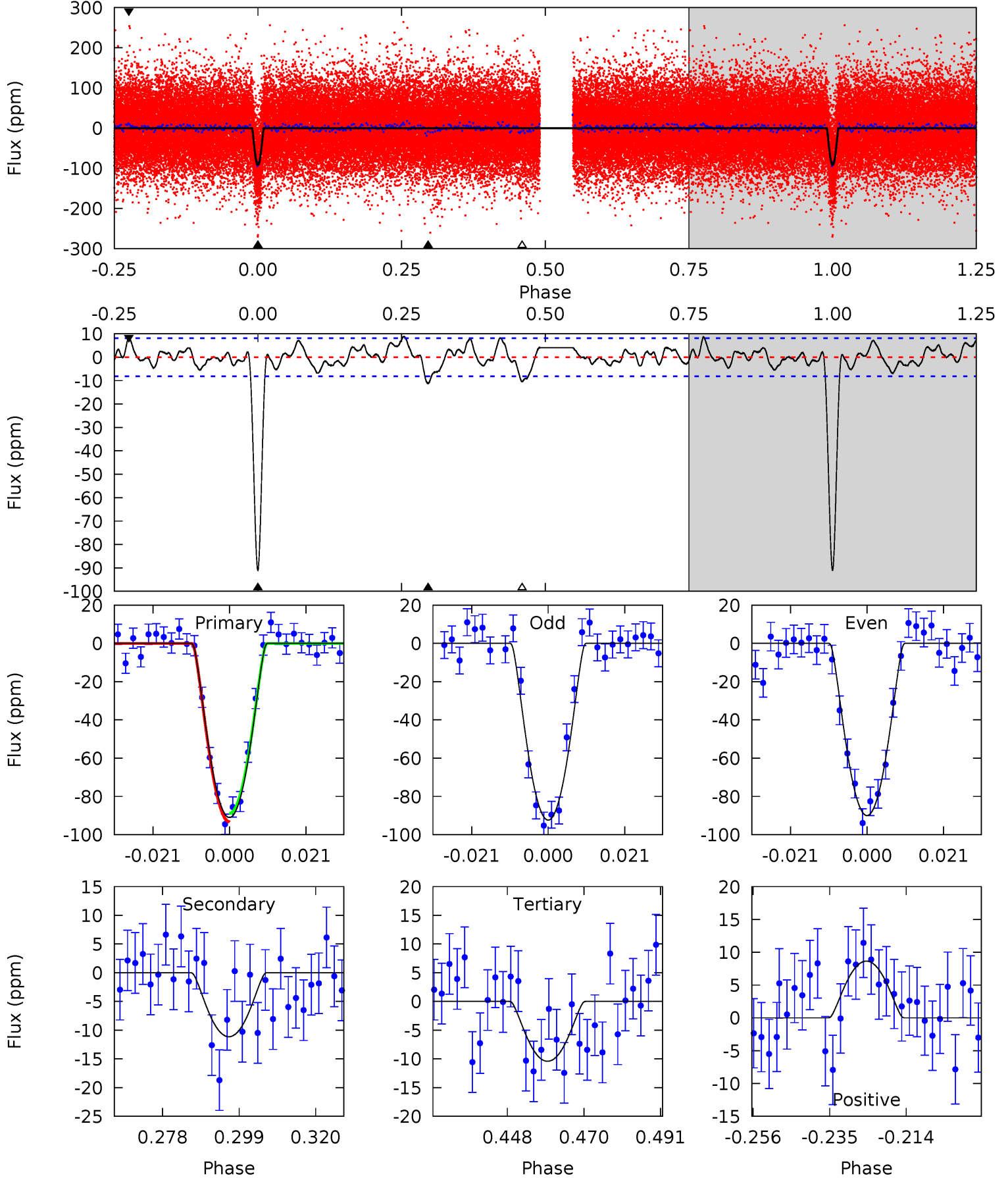
TCE 008258171-02 $P = 23.627642$ Days $T_0 = 137.731716$ (BKJD)



DV Model-Shift Uniqueness Test

008258171-02, P = 23.627486 Days, E = 114.111470 Days

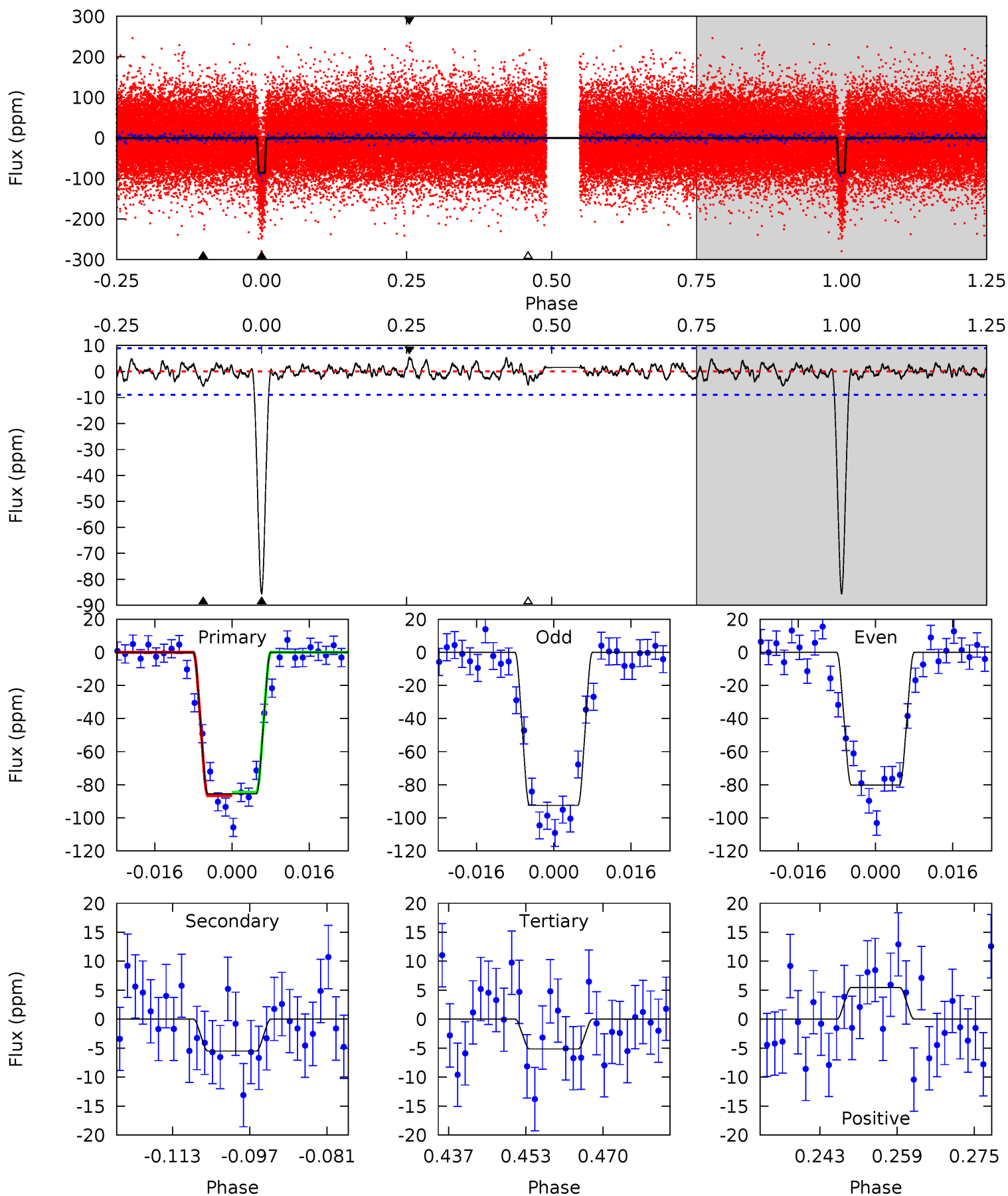
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
54.3	6.65	6.22	5.16	4.88	2.30	2.05	48.1	49.2	0.43	1.49	0.71	0.90	0.09	1.30



Alt Model-Shift Uniqueness Test

008258171-02, $P = 23.627642$ Days, $E = 114.104074$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
47.0	3.02	2.82	3.00	4.93	2.40	0.98	44.2	44.0	0.20	0.02	3.34	1.04	0.06	0.58



Stellar Parameters For KIC 008258171

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	8308^{+229}_{-372}	$3.861^{+0.301}_{-0.108}$	$0.070^{+0.250}_{-0.500}$	$2.879^{+0.754}_{-1.130}$	$2.197^{+0.325}_{-0.604}$	$0.130^{+0.324}_{-0.051}$
	+3%/-4%	+8%/-3%	+357%/-714%	+26%/-39%	+15%/-27%	+250%/-39%
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 008258171-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-11 ± 2	$4.42^{+2.53}_{-2.14}$	1851^{+128}_{-172}	4060^{+1184}_{-578}	14^{+37}_{-9}
Alt.	-6 ± 2	$2.87^{+2.31}_{-1.62}$	1850^{+131}_{-174}	4132^{+1758}_{-798}	15^{+70}_{-11}

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

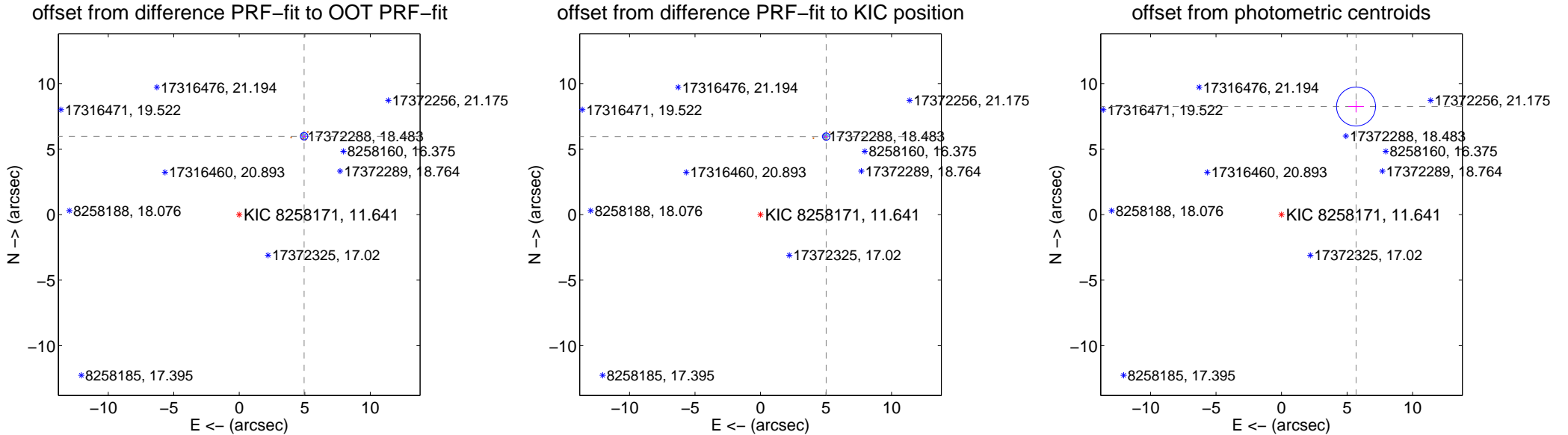
DV Centroid Data

Supplemental centroid analysis for 008258171-02. **Kepler magnitude: 11.64.** Transit SNR 26.57

There are 8 quarters with good PRF difference image offsets

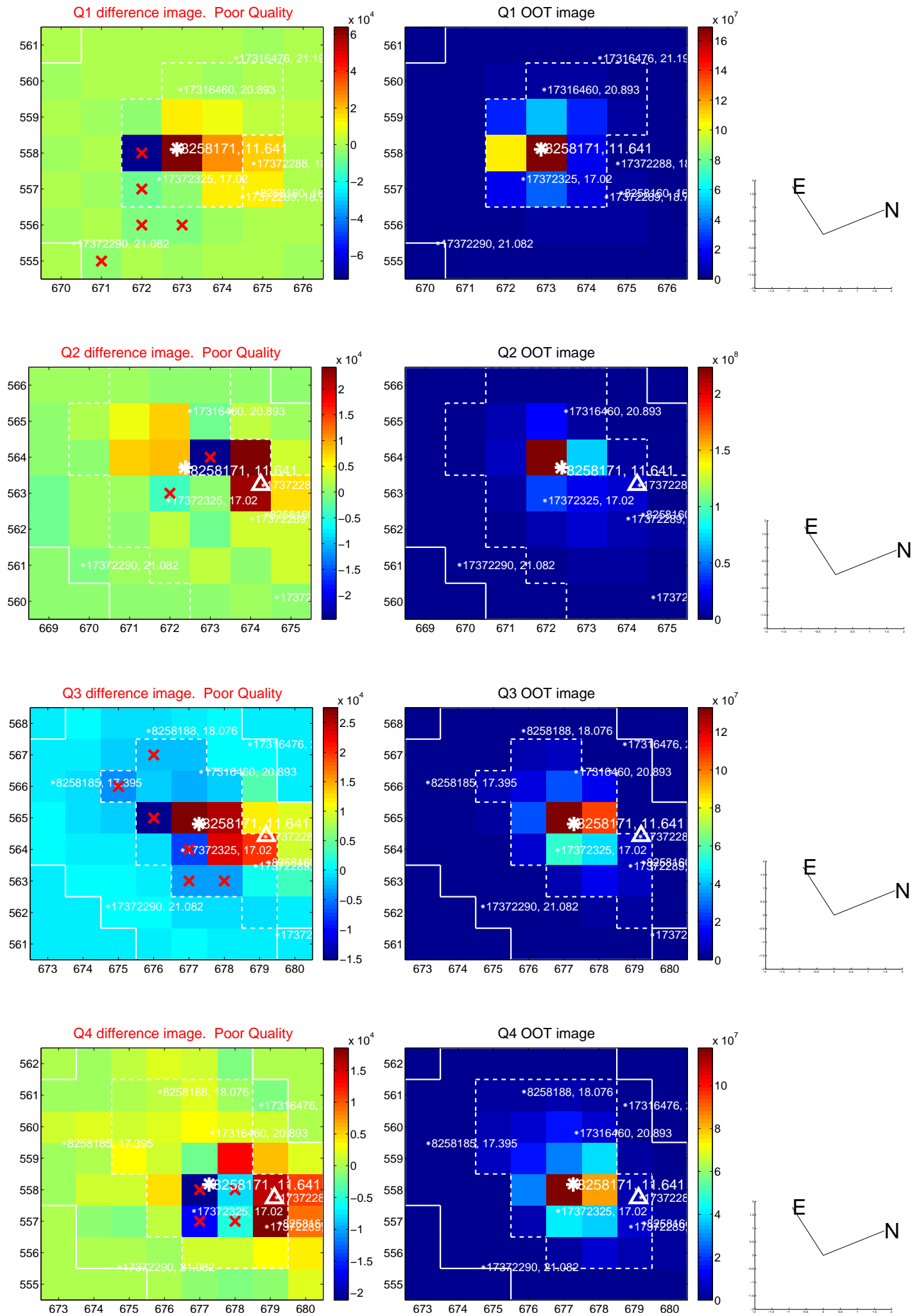
The direct PRF centroid is offset from the target star catalog position by about 0.04 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	7.758 \pm 0.095	81.42	-4.947 \pm 0.101	5.976 \pm 0.082
PRF-fit source offset from KIC position	7.779 \pm 0.093	83.39	-5.008 \pm 0.099	5.953 \pm 0.080
photometric centroid source offset	10.01 \pm 0.50	20.19	-5.68 \pm 0.58	8.25 \pm 0.45

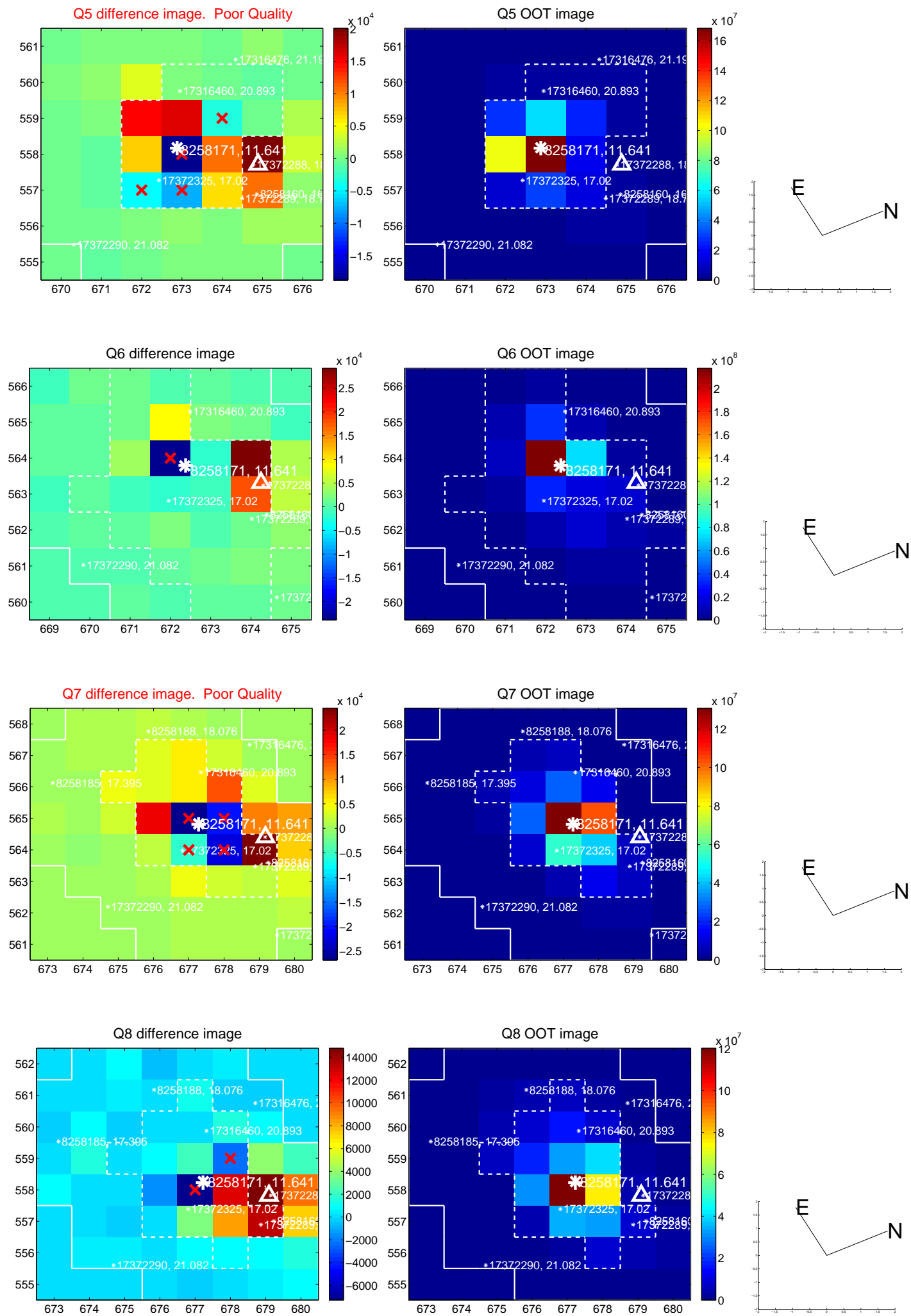


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

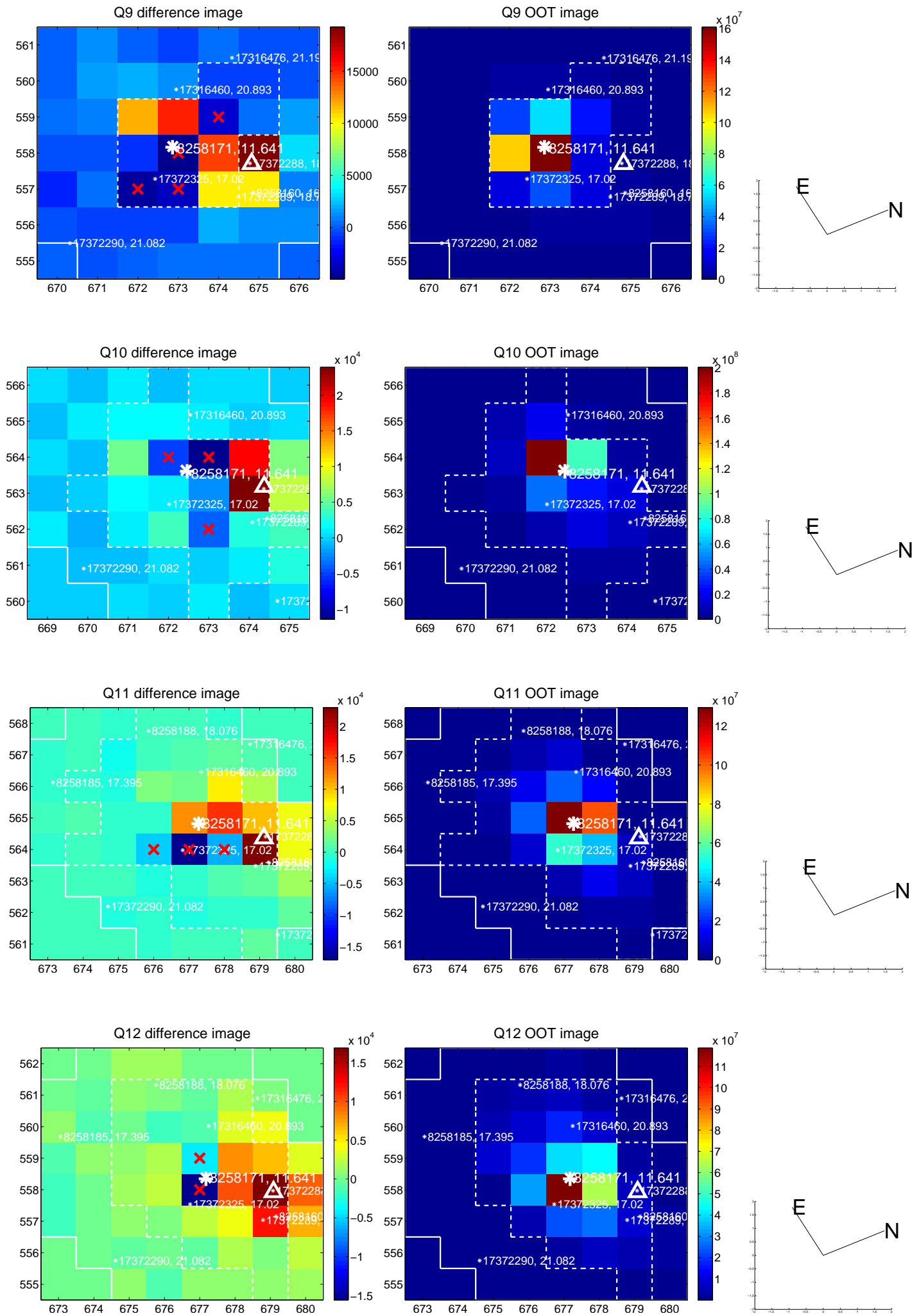
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



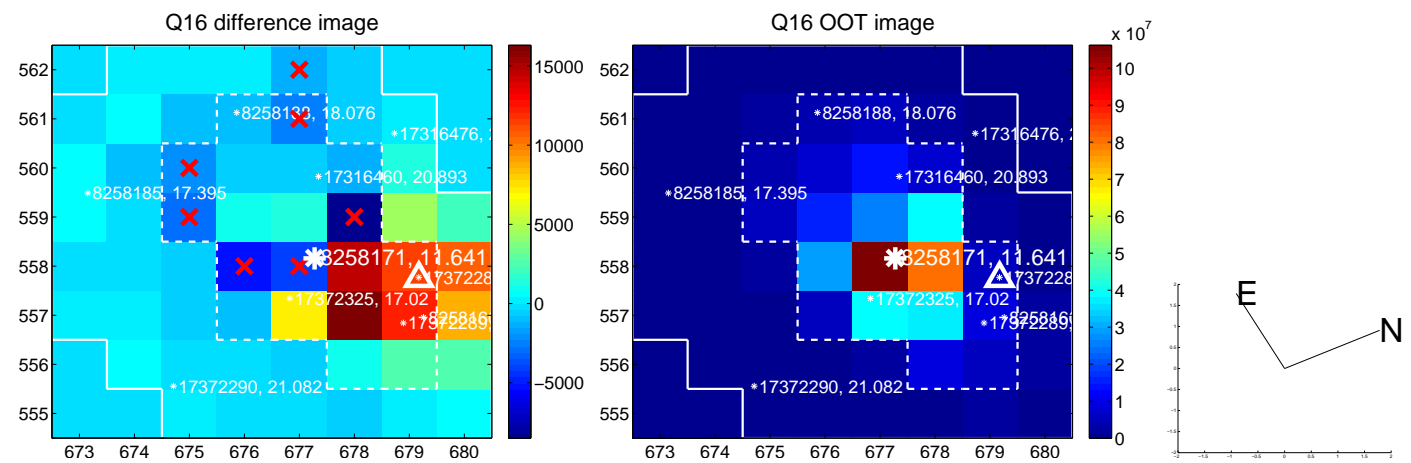
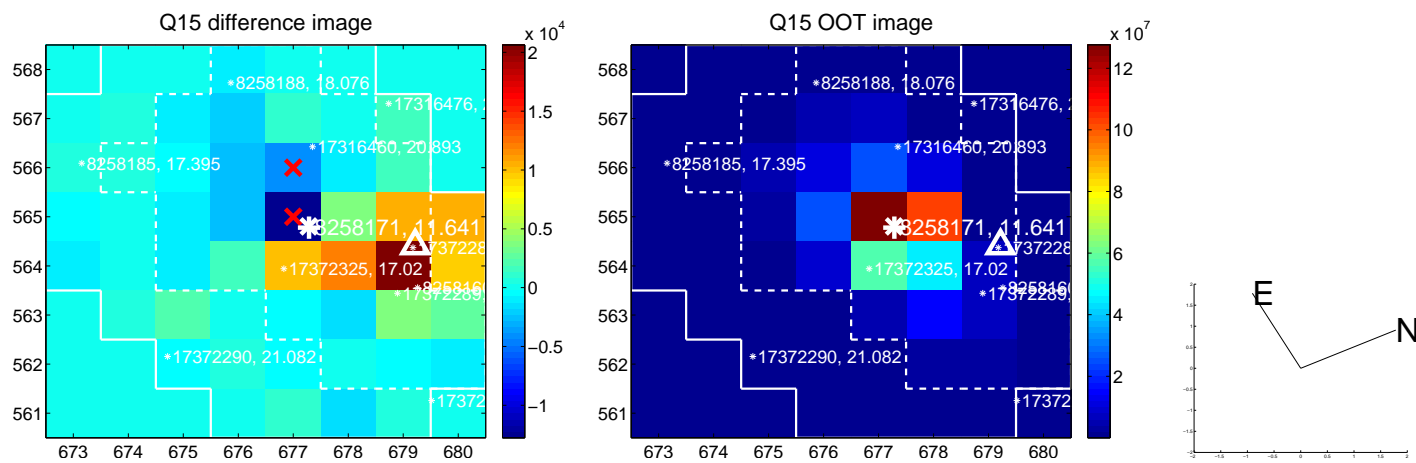
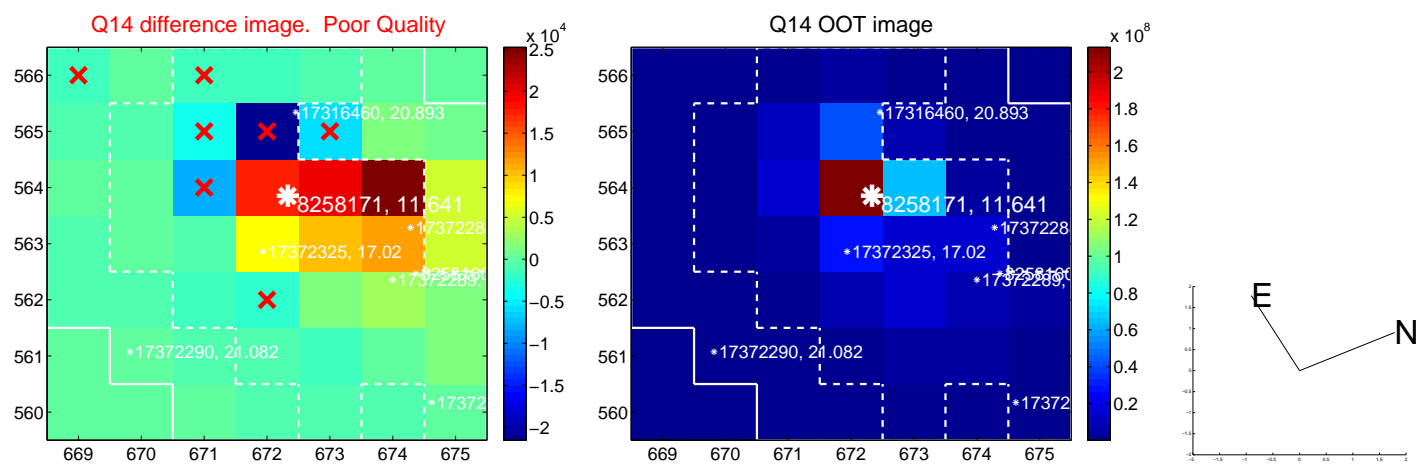
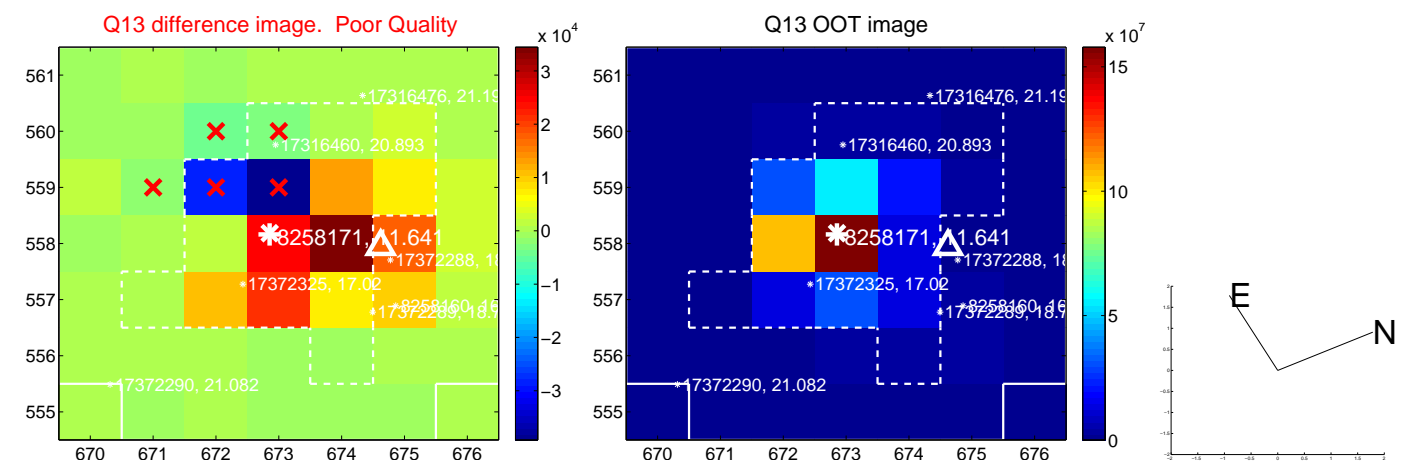
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



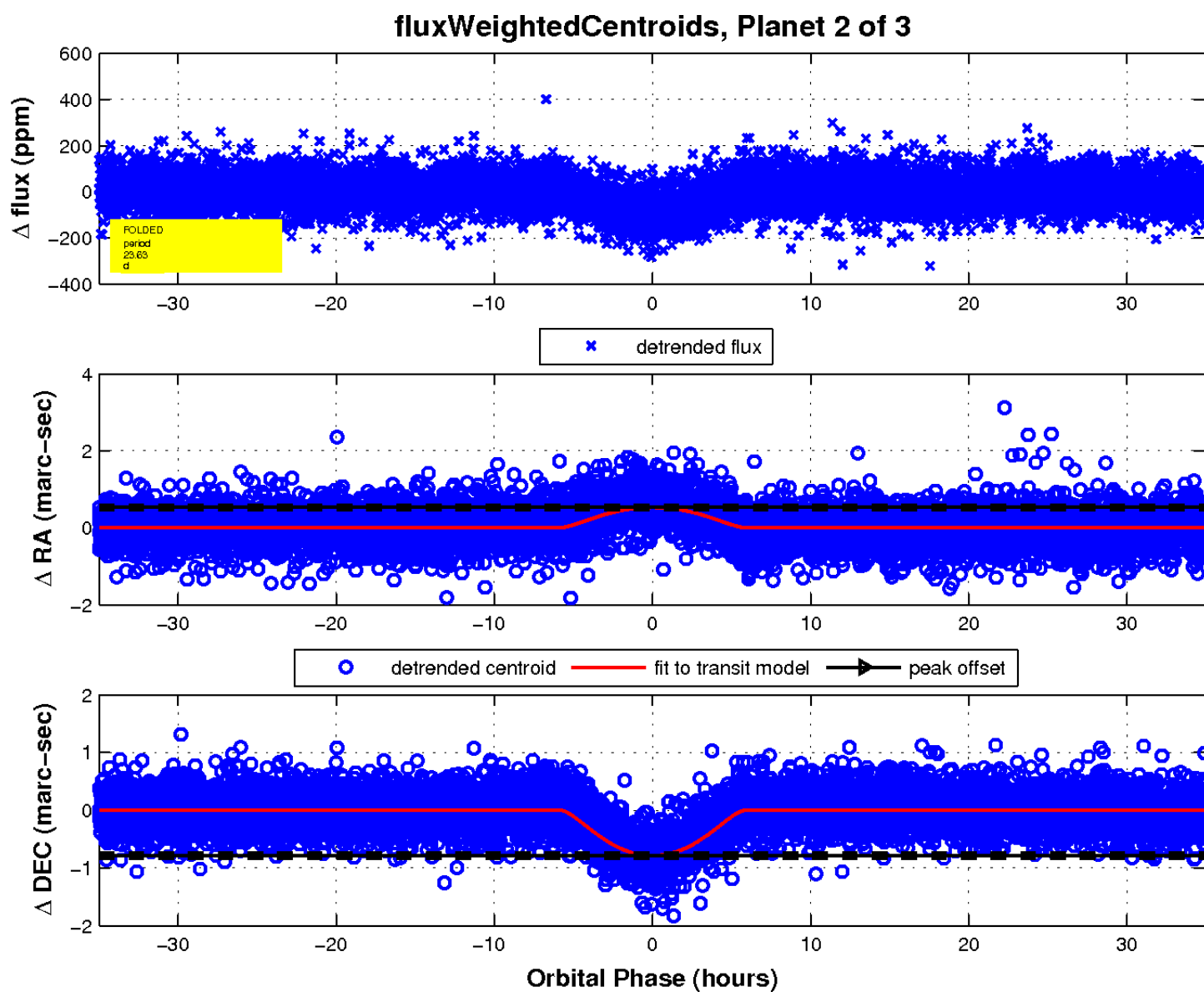
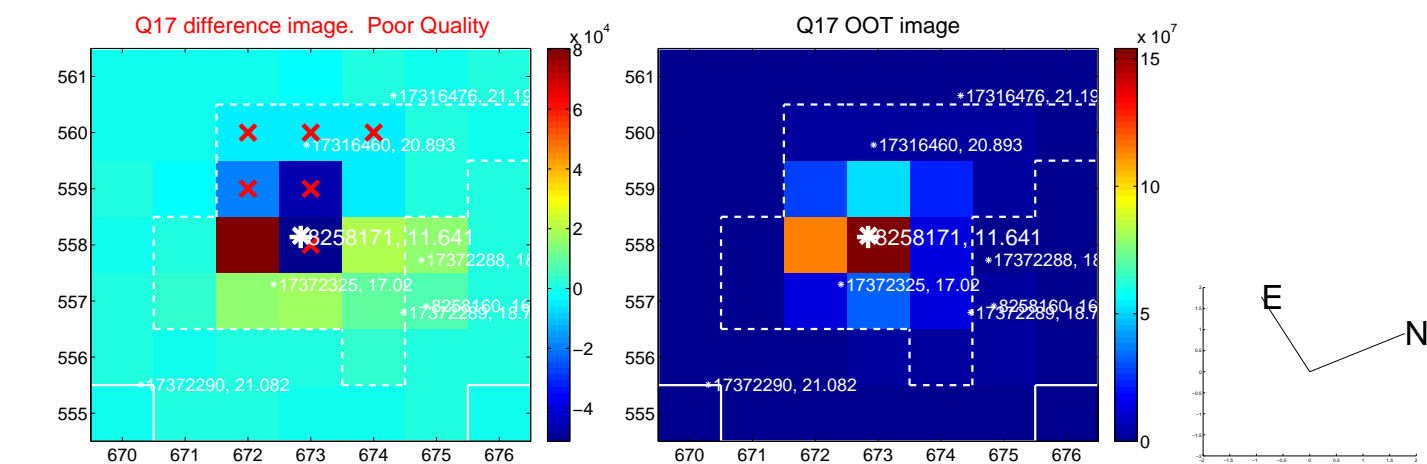
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

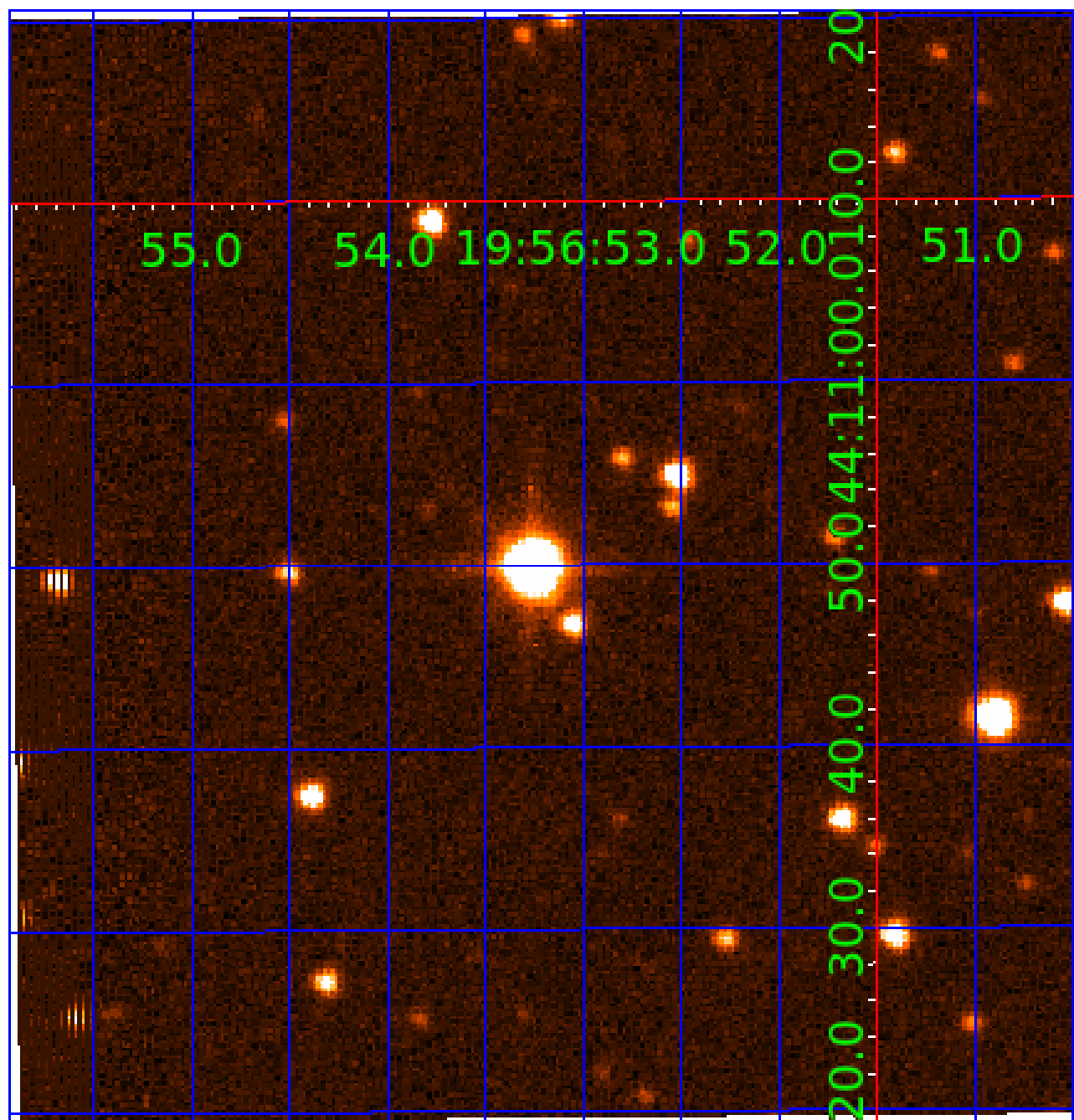


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



UKIRT Image

Declination



KIC 008258171

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})
008258171-01	OBS	0286.01	23.627274	150.019332	176.6	10.743	43.8	45.9	2.88	8308	7.34	806.29
008258171-02	OBS	No	23.627486	137.738955	95.4	11.659	25.5	26.6	2.88	8308	4.70	806.28
008258171-03	OBS	No	5.729930	134.018035	8.2	23.437	8.9	6.3	2.88	8308	0.90	5331.41

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008258171-01	OBS	FP	0.00	0	1	1	1	MOD_SEC_DV—MOD_SEC_ALT—HAS_SEC_TCE—CENT_UNRESOLVED_OFFSET—EPHEM_MATCH
008258171-02	OBS	FP	0.00	1	1	1	1	IS_SEC_TCE—CENT_RESOLVED_OFFSET—EPHEM_MATCH
008258171-03	OBS	FP	0.00	1	0	0	0	LPP_DV—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.

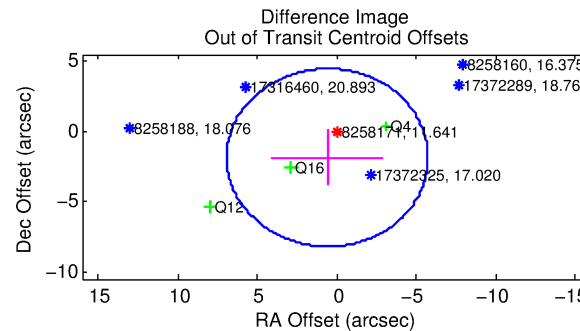
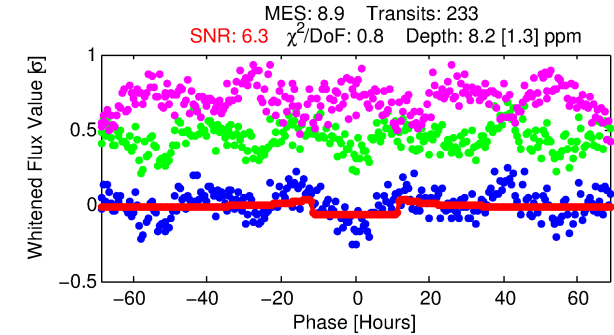
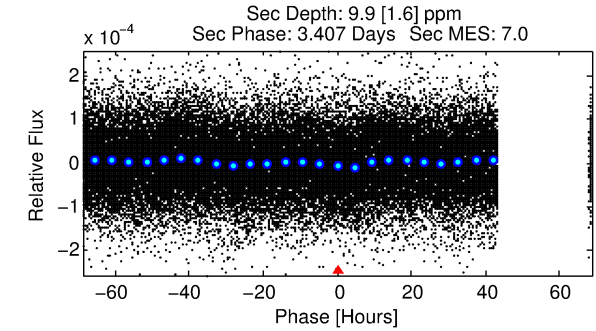
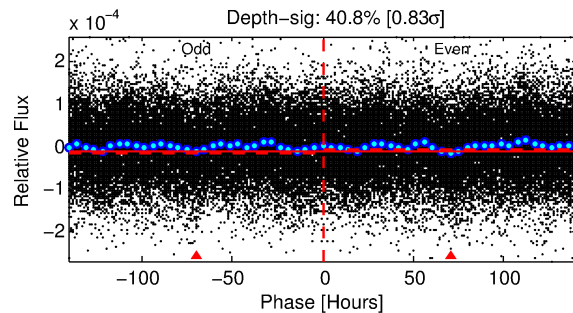
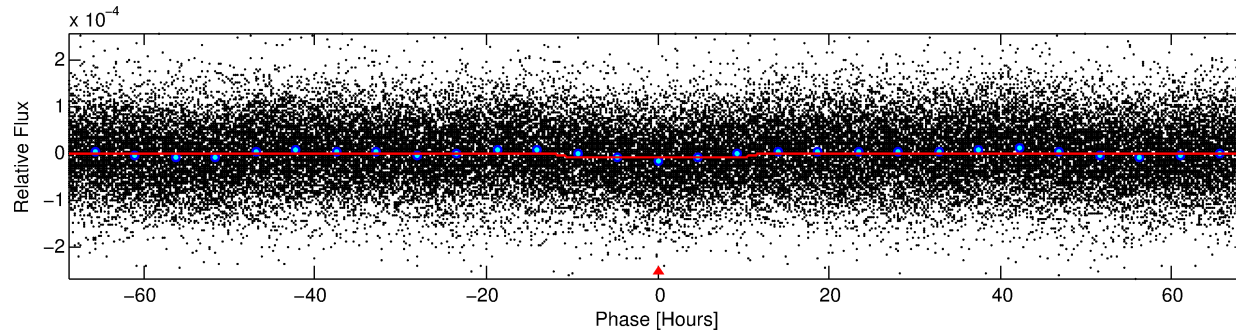
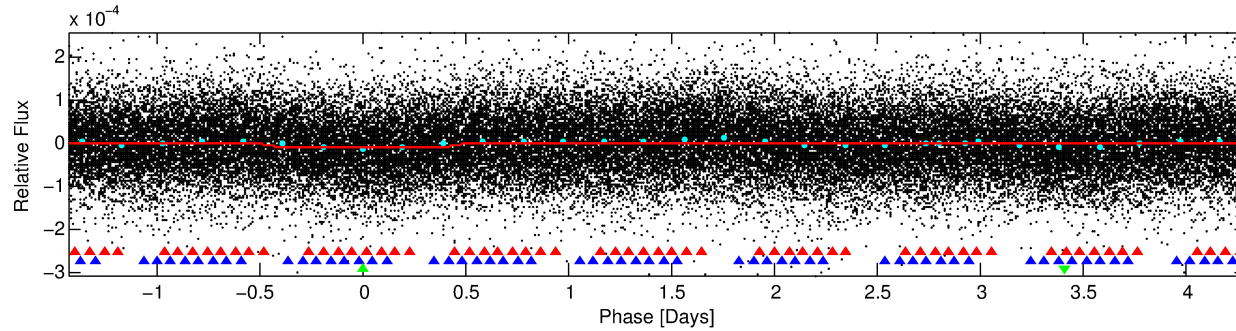
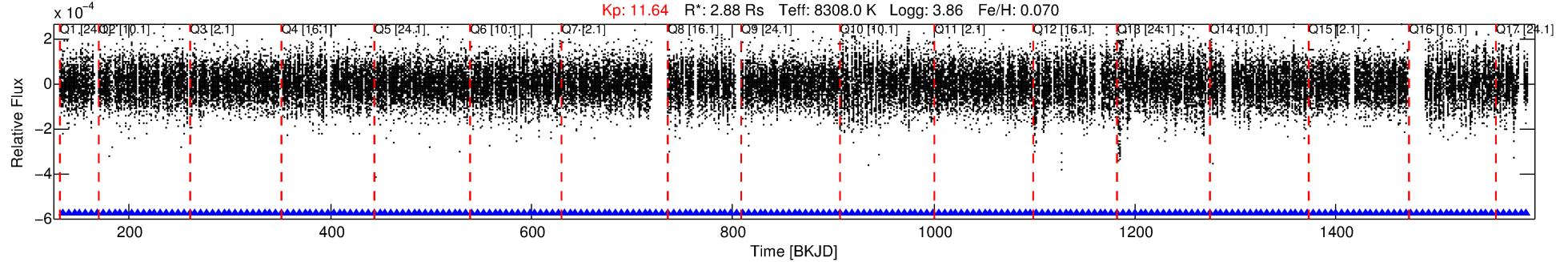
Ephemeris Match Information For 008258171-03

No Significant Match Found

DV One-Page Summary

KIC: 8258171 Candidate: 3 of 3 Period: 5.730 d
KOI: K00286 Corr: No Ephemeris Match

Kp: 11.64 R*: 2.88 Rs Teff: 8308.0 K Logg: 3.86 Fe/H: 0.070



DV Fit Results:

Period = 5.72993 [0.00015] d
Epoch = 134.0180 [0.0182] BKJD
Rp/R* = 0.0029 [0.0005]
a/R* = 1.49 [0.72]
b = 0.76 [0.49]
Seff = 5331.41 [2987.68]
Teq = 2179 [305] K
Rp = 0.90 [0.38] Re
a = 0.0815 [0.0284] AU
Ag = 44.79 [28.92] [1.51σ]
Teffp = 8715 [891] K [6.94σ]

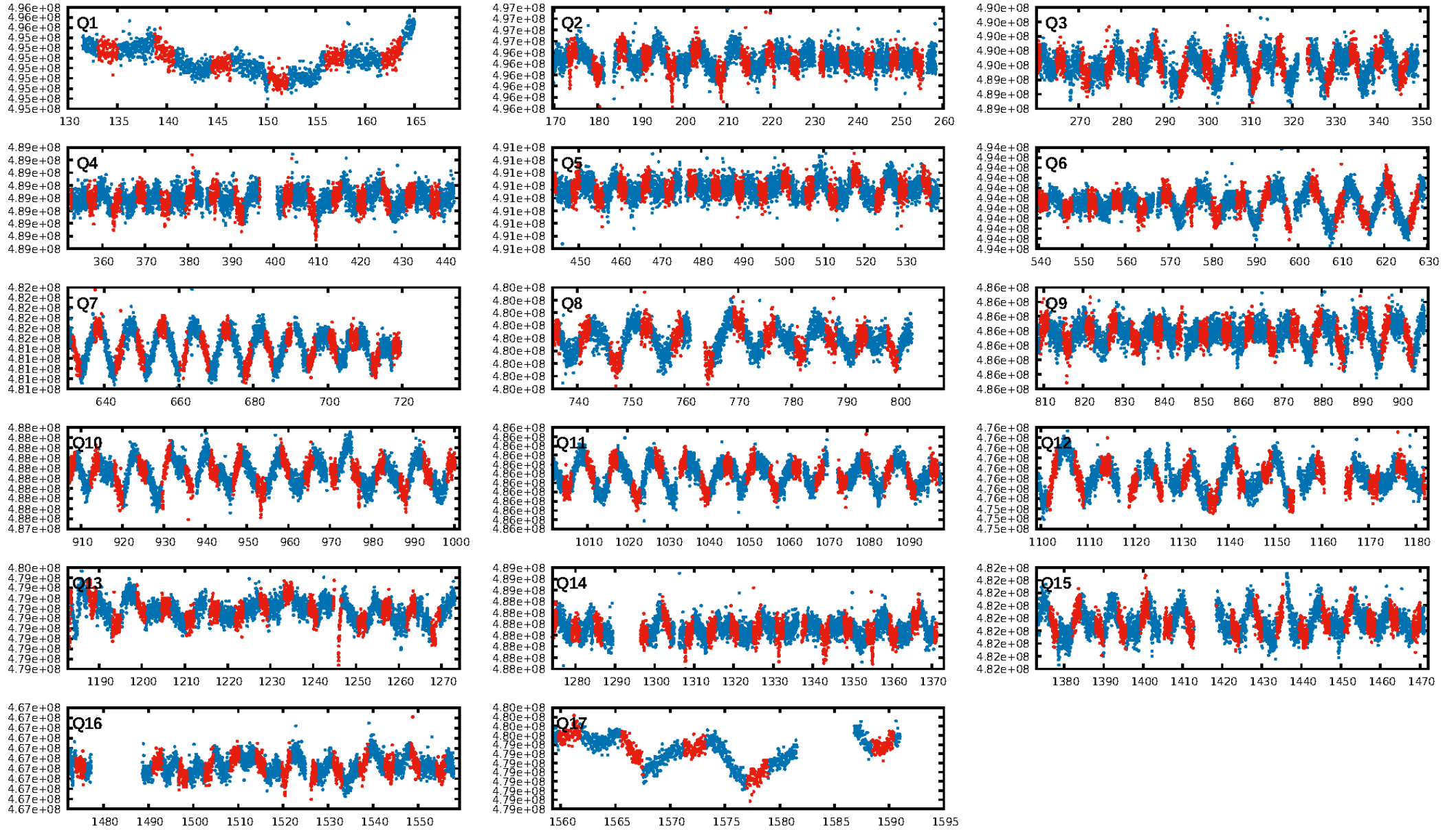
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [16.66σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.02e-18
RollingBand-fgt: 1.00 [222/222]
GhostDiagnostic-chr: 0.3756
Centroid-sig: 53.0%
Centroid-so: 1.129 arcsec [0.62σ]
OotOffset-rm: 1.946 arcsec [0.92σ]
KicOffset-rm: 1.973 arcsec [0.96σ]
OotOffset-st: 0/0/3/0 [3]
KicOffset-st: 0/0/3/0 [3]
DiffImageQuality-fgm: 0.00 [0/3]
DiffImageOverlap-fno: 1.00 [17/17]

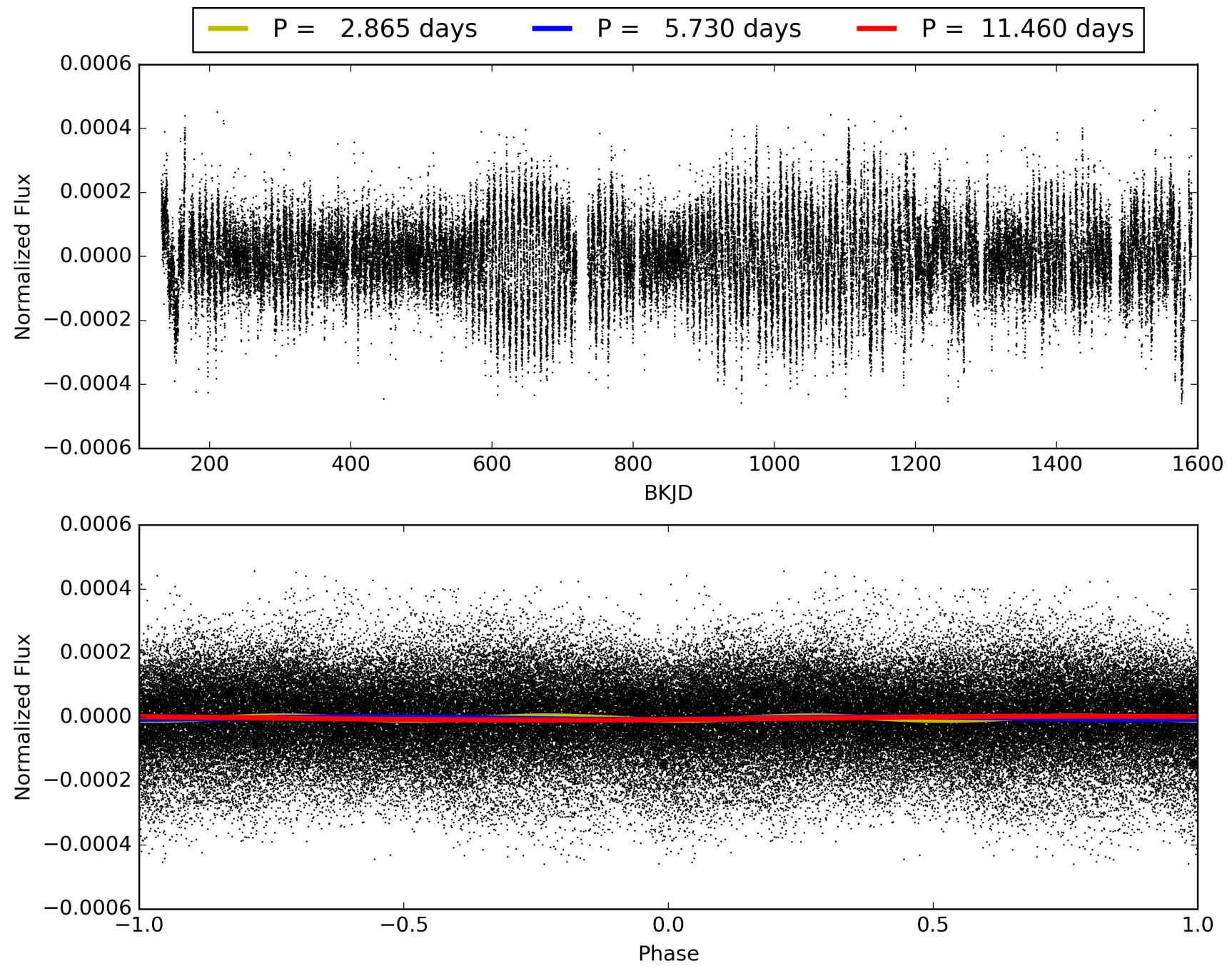
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 02:09:48 Z

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

TCE 008258171-03, PDC Light Curves

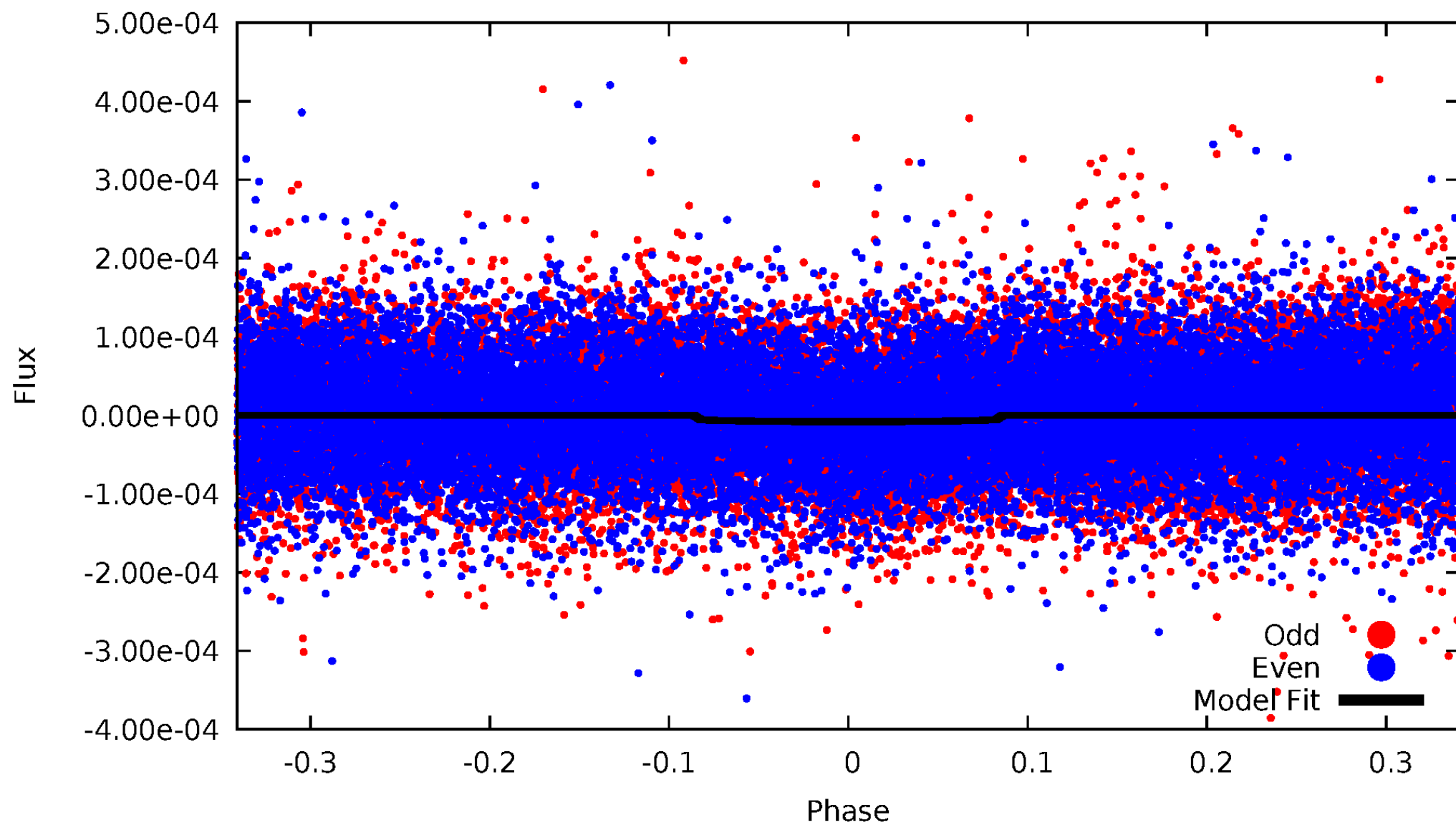


TCE 008258171-03



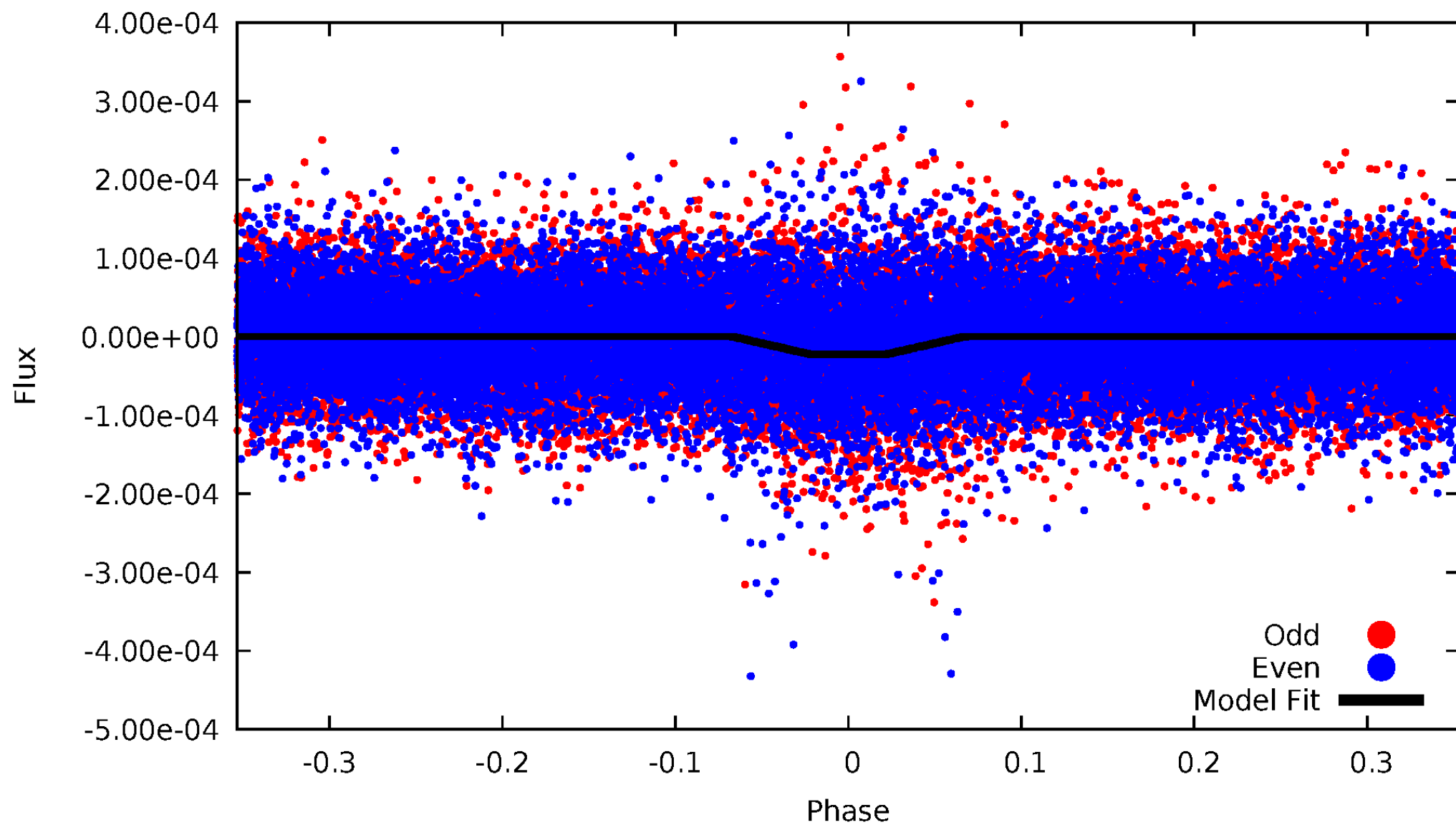
DV Odd/Even

TCE 008258171-03

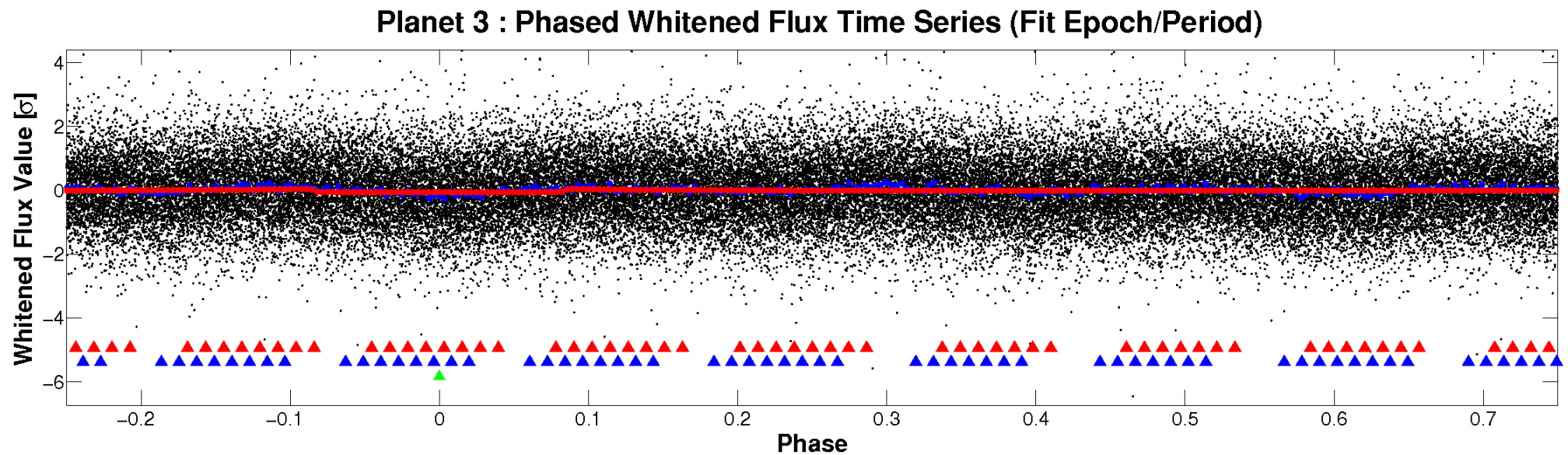
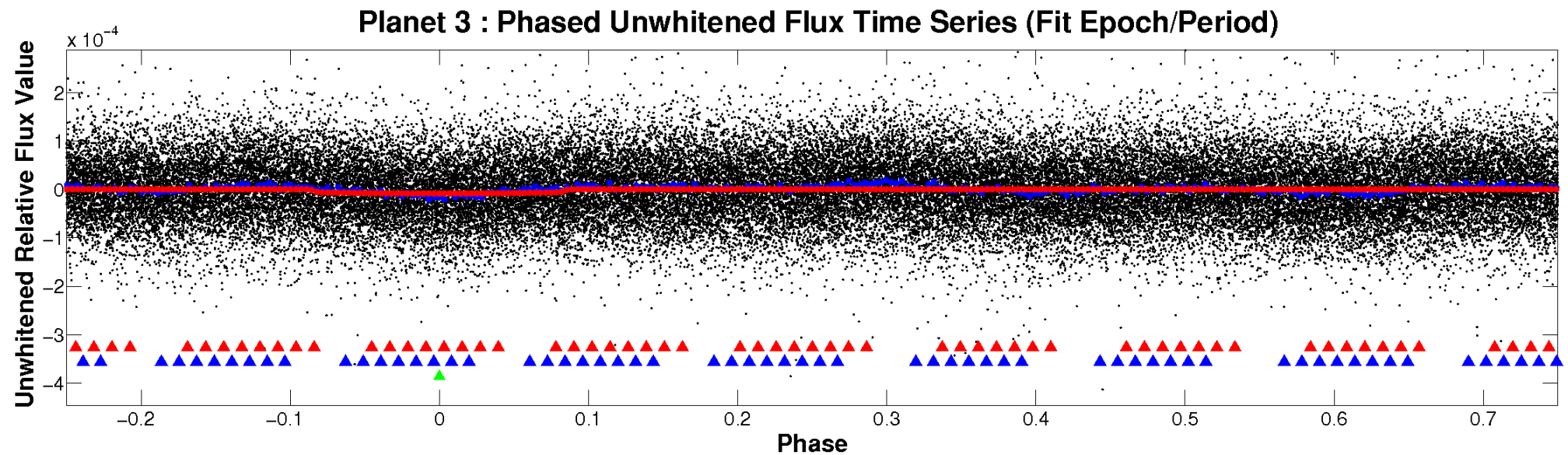


ALT Odd/Even

TCE 008258171-03

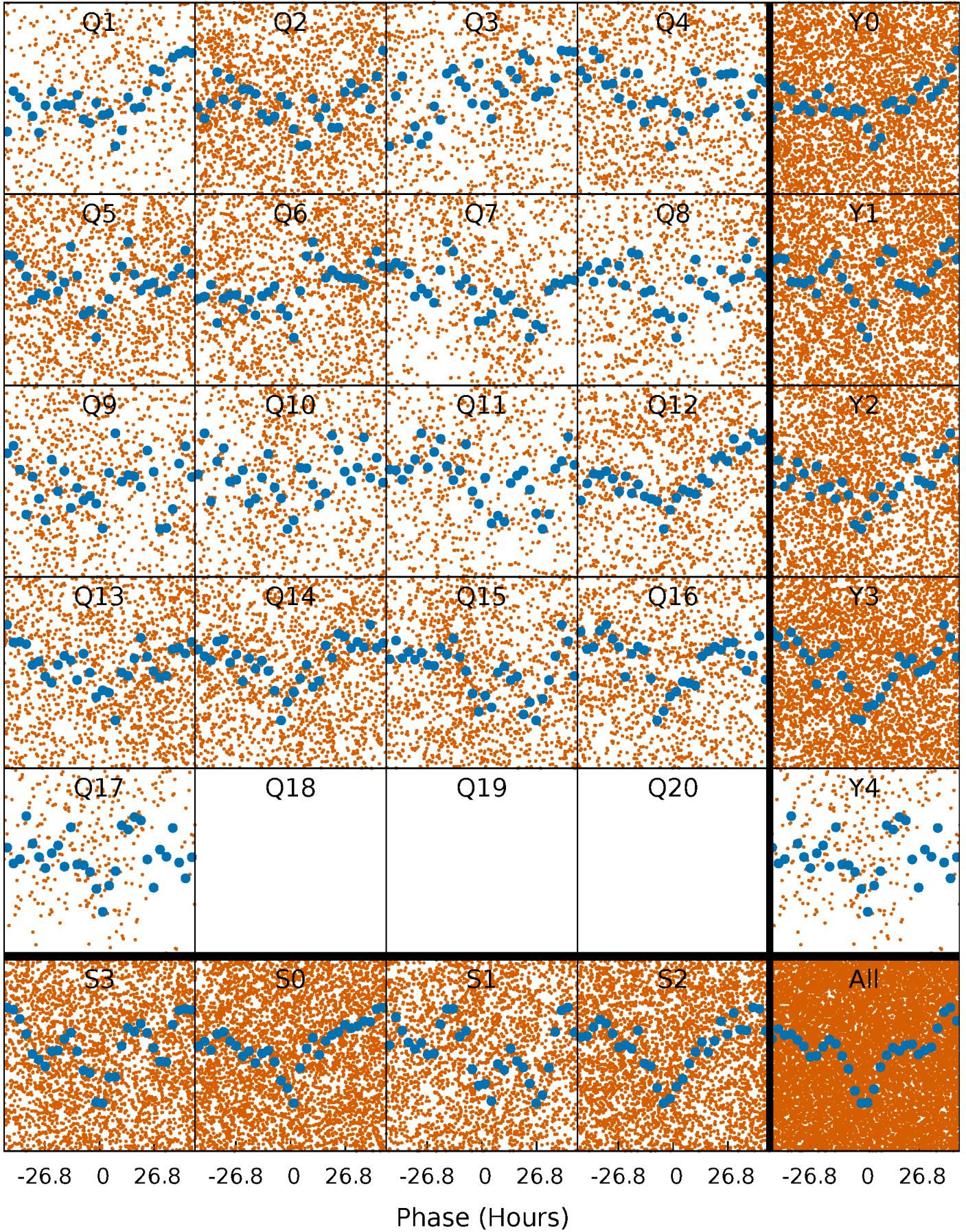


Non-Whitened Vs. Whitened Light Curve



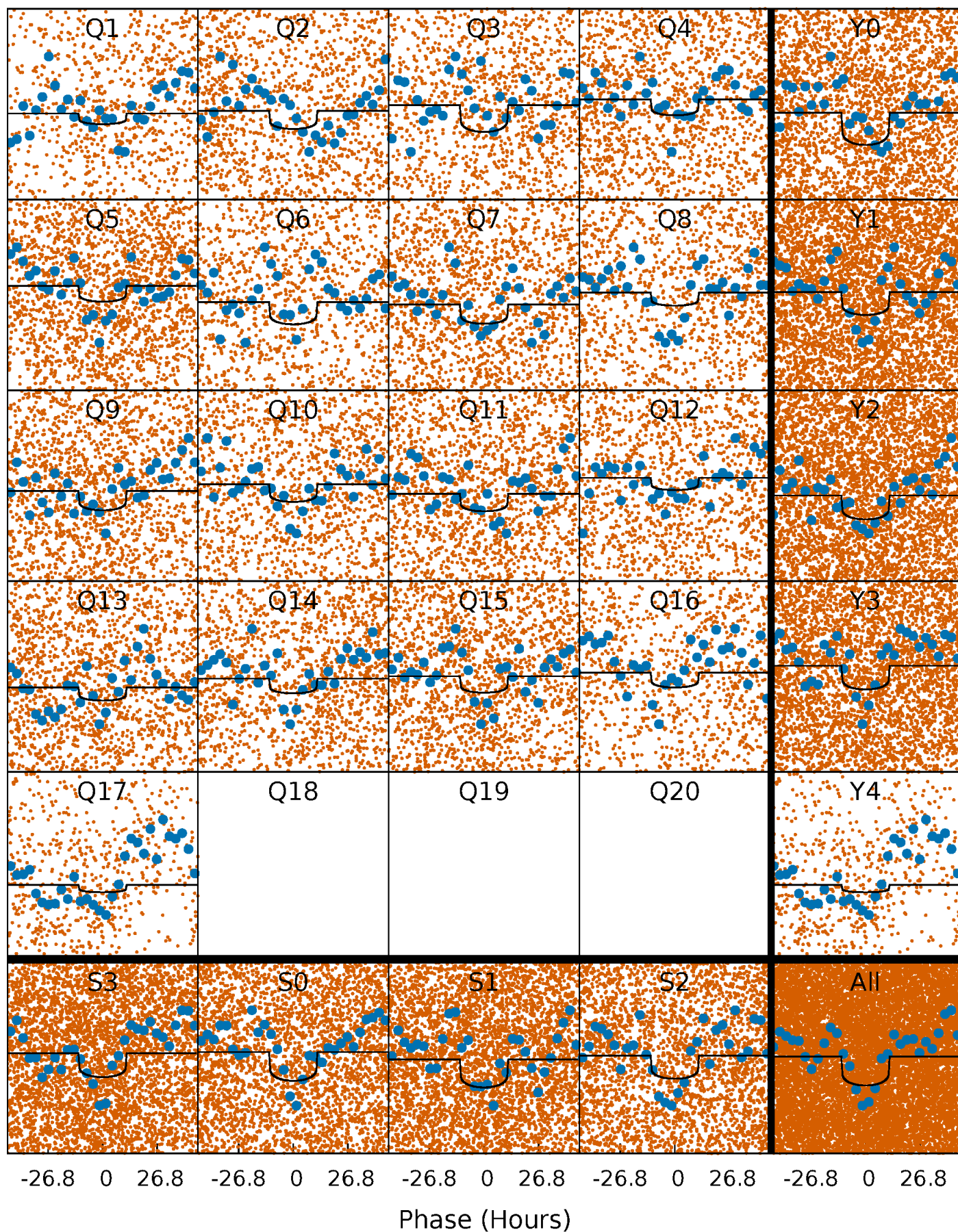
PDC Quarter-Phased Transit Curves

TCE 008258171-03 P= 5.729930 Days $T_0=134.018035$ (BKJD)



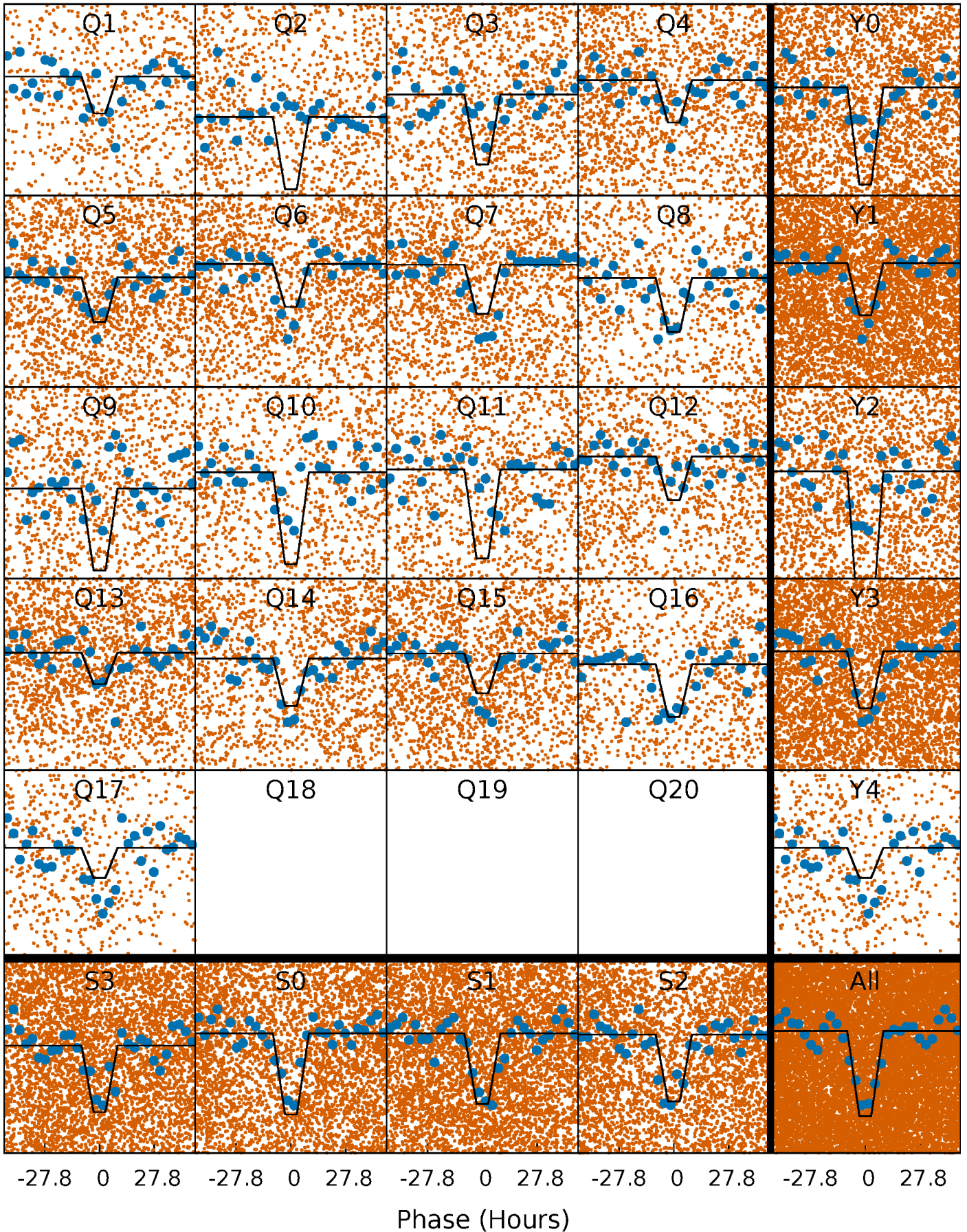
DV Quarter-Phased Transit Curves

TCE 008258171-03 P= 5.729930 Days $T_0=134.018035$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

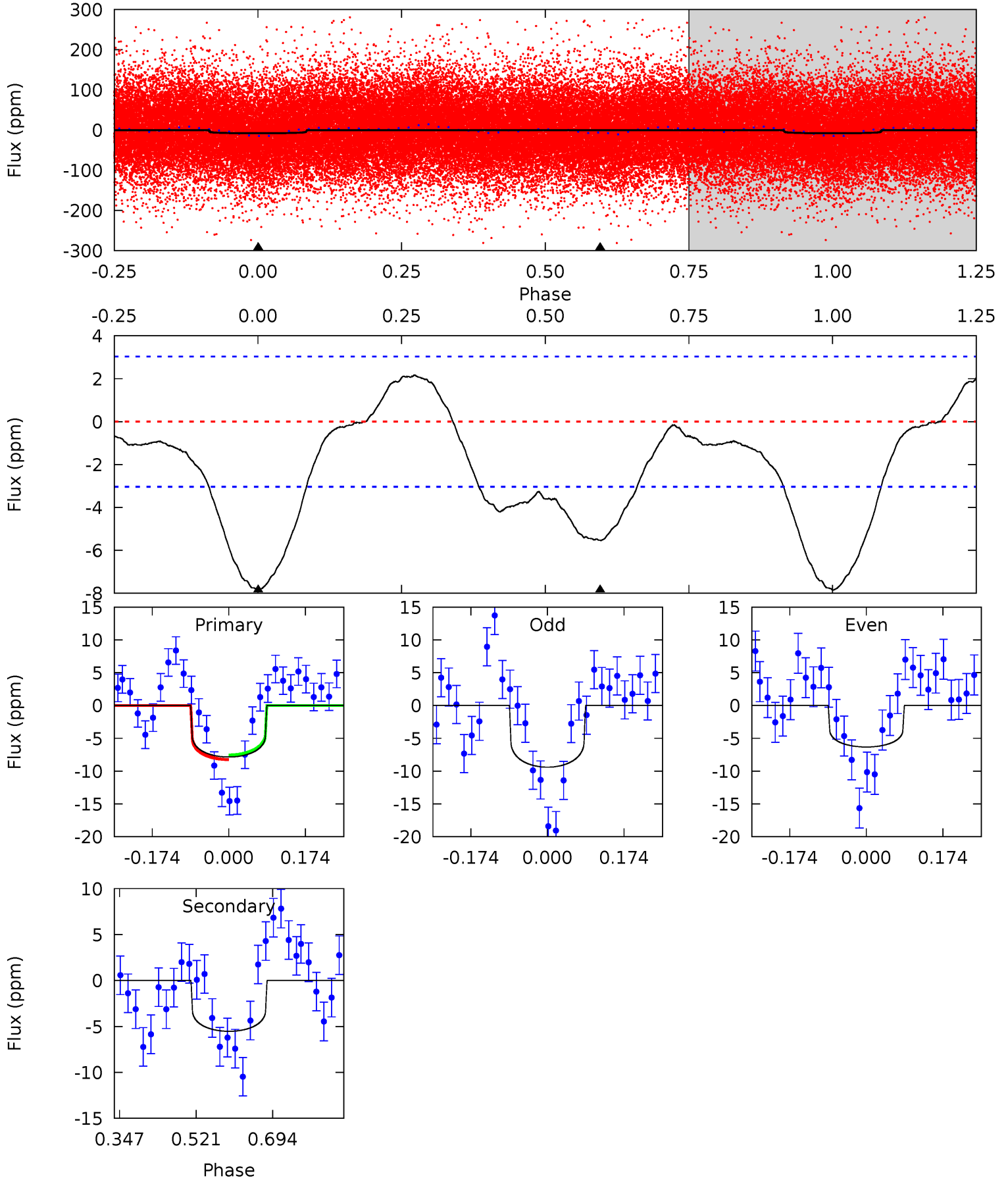
TCE 008258171-03 P= 5.729496 Days $T_0=134.076765$ (BKJD)



DV Model-Shift Uniqueness Test

008258171-03, P = 5.729930 Days, E = 128.288105 Days

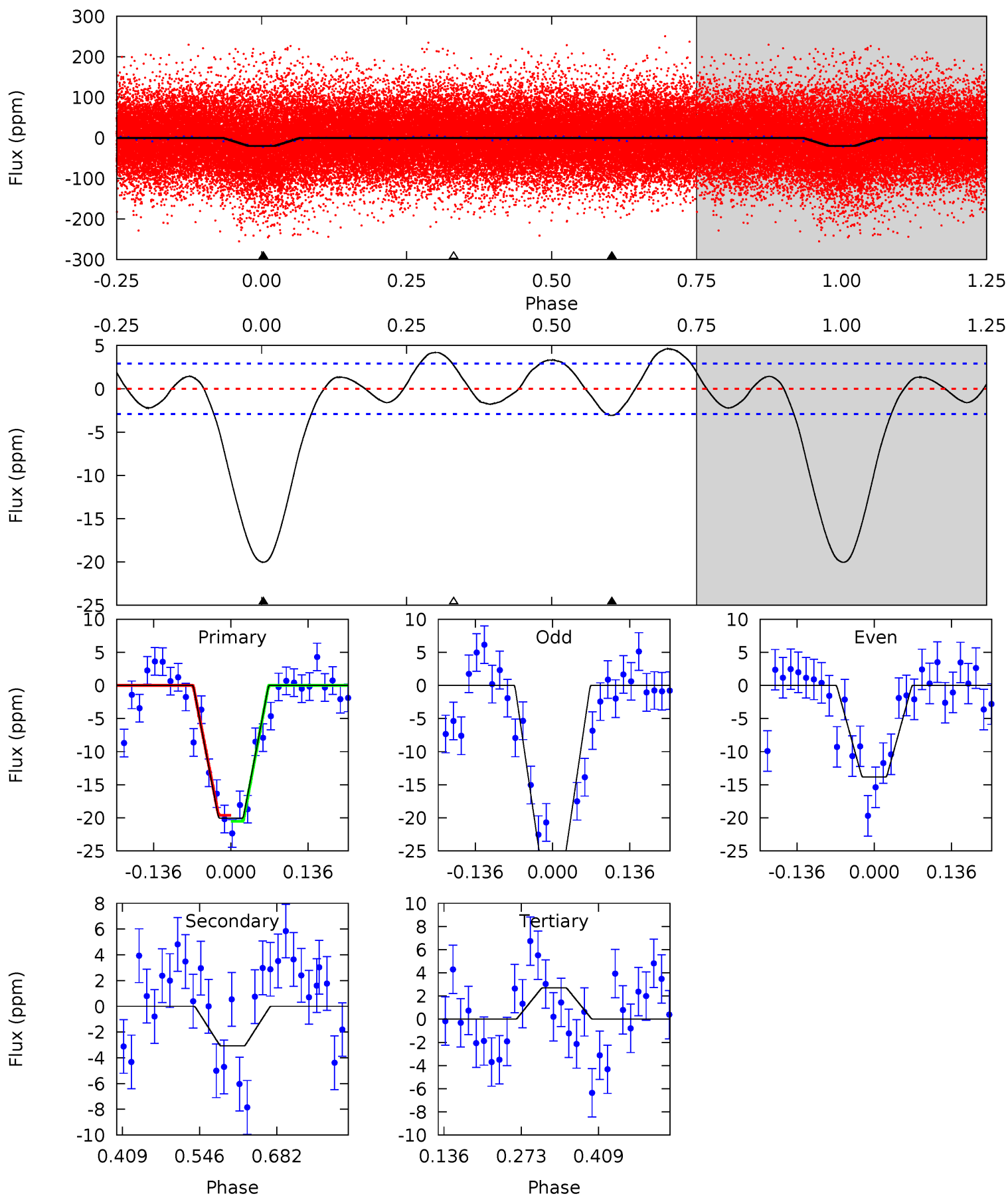
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.5	8.12	0	0	4.45	1.36	2.77	11.5	11.5	8.12	8.12	2.25	1.42	0.22	0.52



Alt Model-Shift Uniqueness Test

008258171-03, P = 5.729496 Days, E = 128.347269 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
31.0	4.76	-4.19	0	4.50	1.49	2.83	35.2	31.0	8.94	4.76	9.51	1.19	0.19	0.69



Stellar Parameters For KIC 008258171

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	8308^{+229}_{-372}	$3.861^{+0.301}_{-0.108}$	$0.070^{+0.250}_{-0.500}$	$2.879^{+0.754}_{-1.130}$	$2.197^{+0.325}_{-0.604}$	$0.130^{+0.324}_{-0.051}$
	+3%/-4%	+8%/-3%	+357%/-714%	+26%/-39%	+15%/-27%	+250%/-39%
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 008258171-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-6 ± 1	$0.82^{+0.21}_{-0.21}$	2941^{+217}_{-268}	7333^{+961}_{-671}	29^{+21}_{-10}
Alt.	-3 ± 1	$1.40^{+0.30}_{-0.33}$	2933^{+234}_{-293}	4904^{+345}_{-340}	$5.733^{+3.637}_{-1.893}$

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

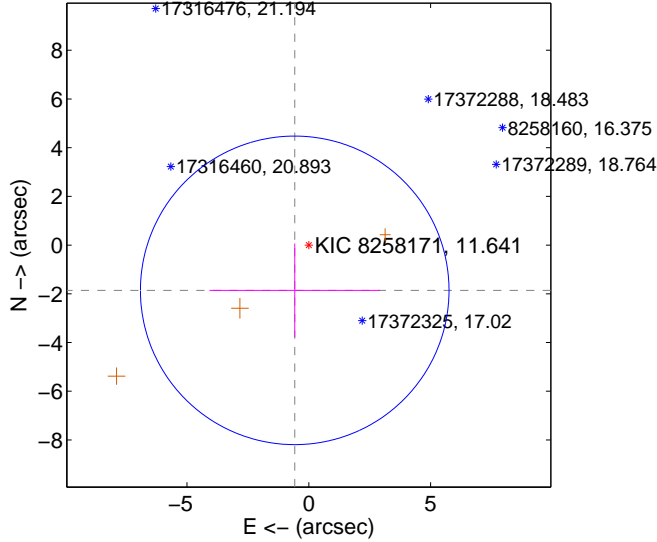
Supplemental centroid analysis for 008258171-03. **Kepler magnitude: 11.64.** Transit SNR 6.35

There are 0 quarters with good PRF difference image offsets

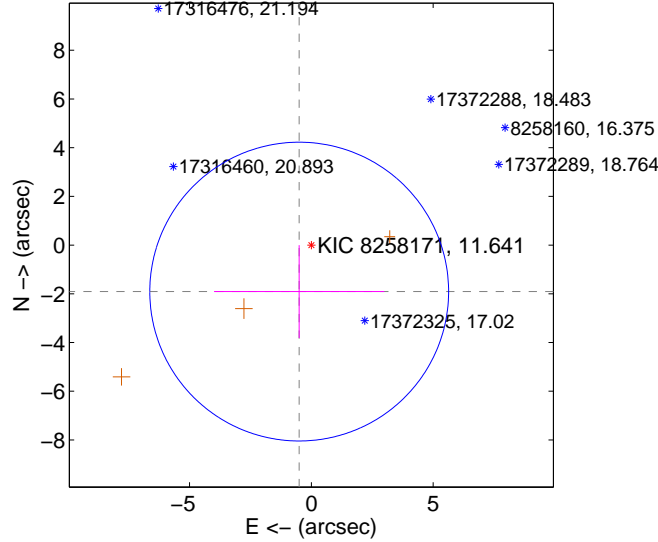
The direct PRF centroid is offset from the target star catalog position by about 0.06 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.946 ± 2.112	0.92	0.578 ± 3.500	-1.858 ± 1.925
PRF-fit source offset from KIC position	1.973 ± 2.045	0.96	0.499 ± 3.499	-1.909 ± 1.906
photometric centroid source offset	1.13 ± 1.83	0.62	0.74 ± 2.13	-0.85 ± 1.55

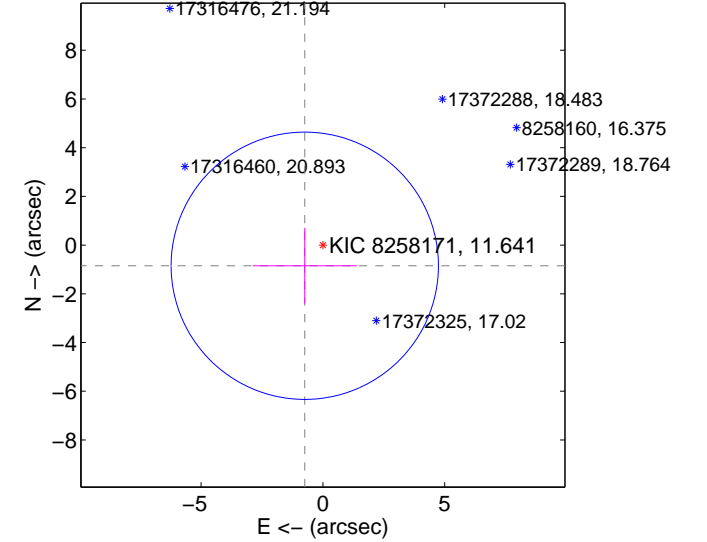
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

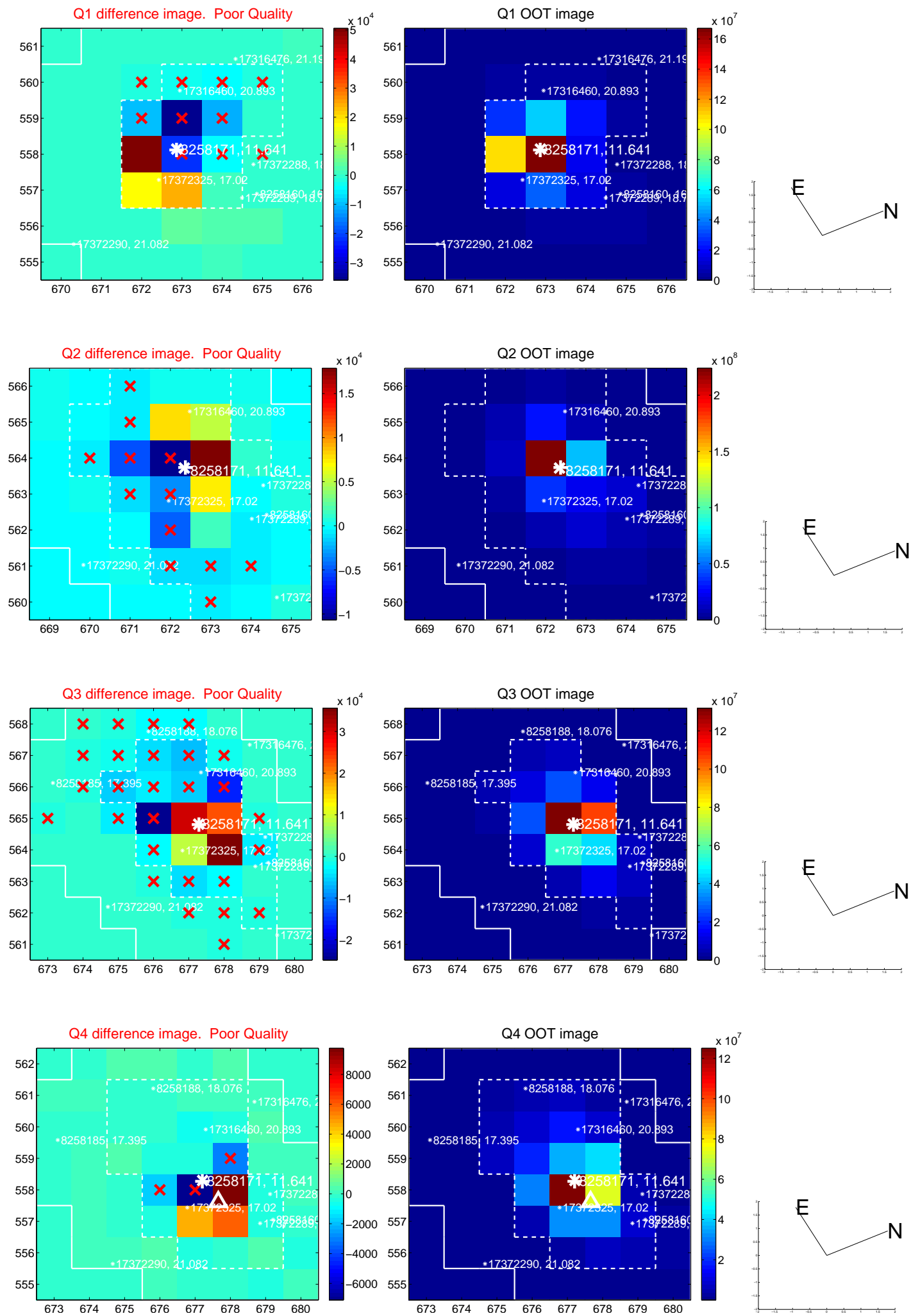


offset from photometric centroids

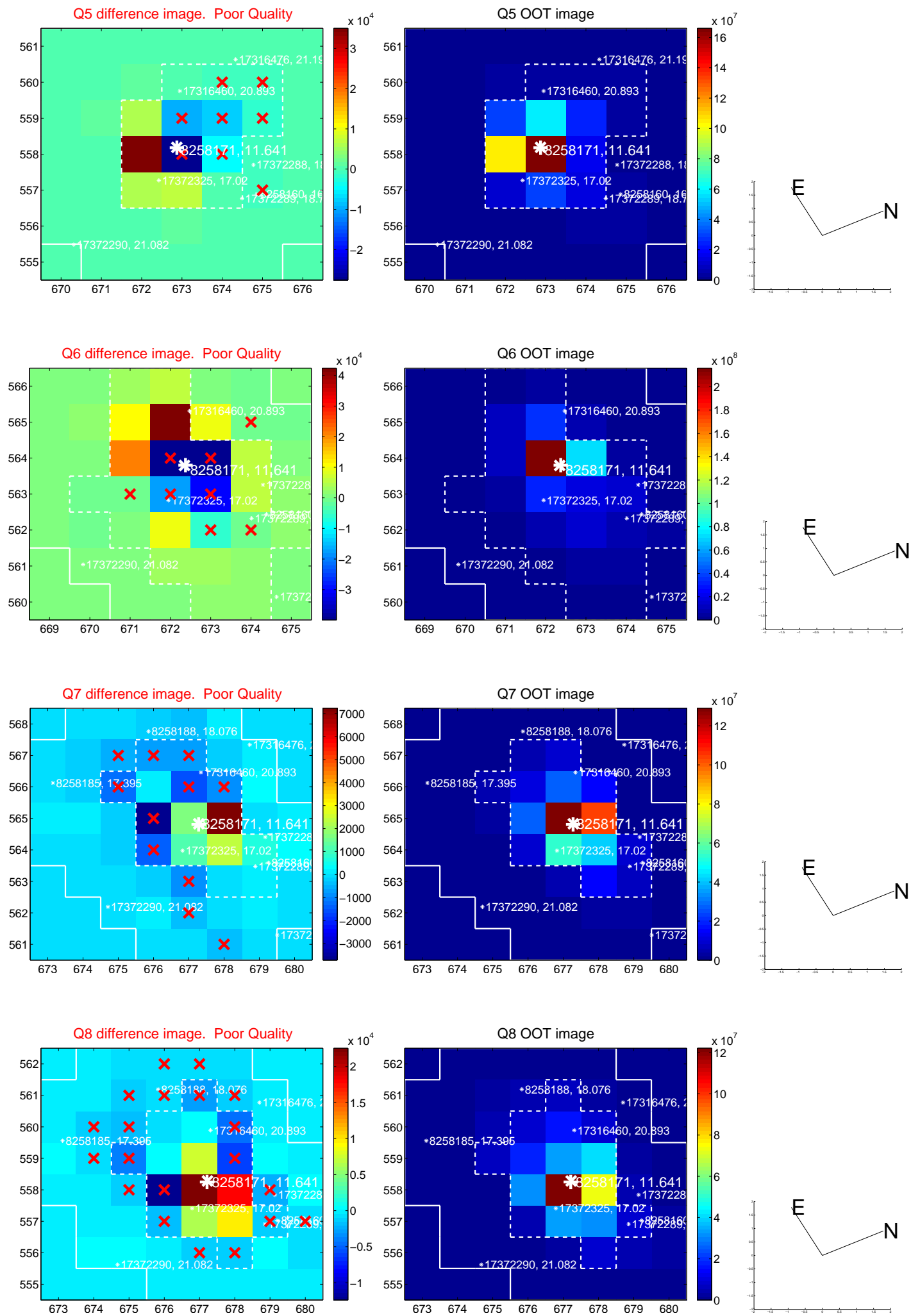


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

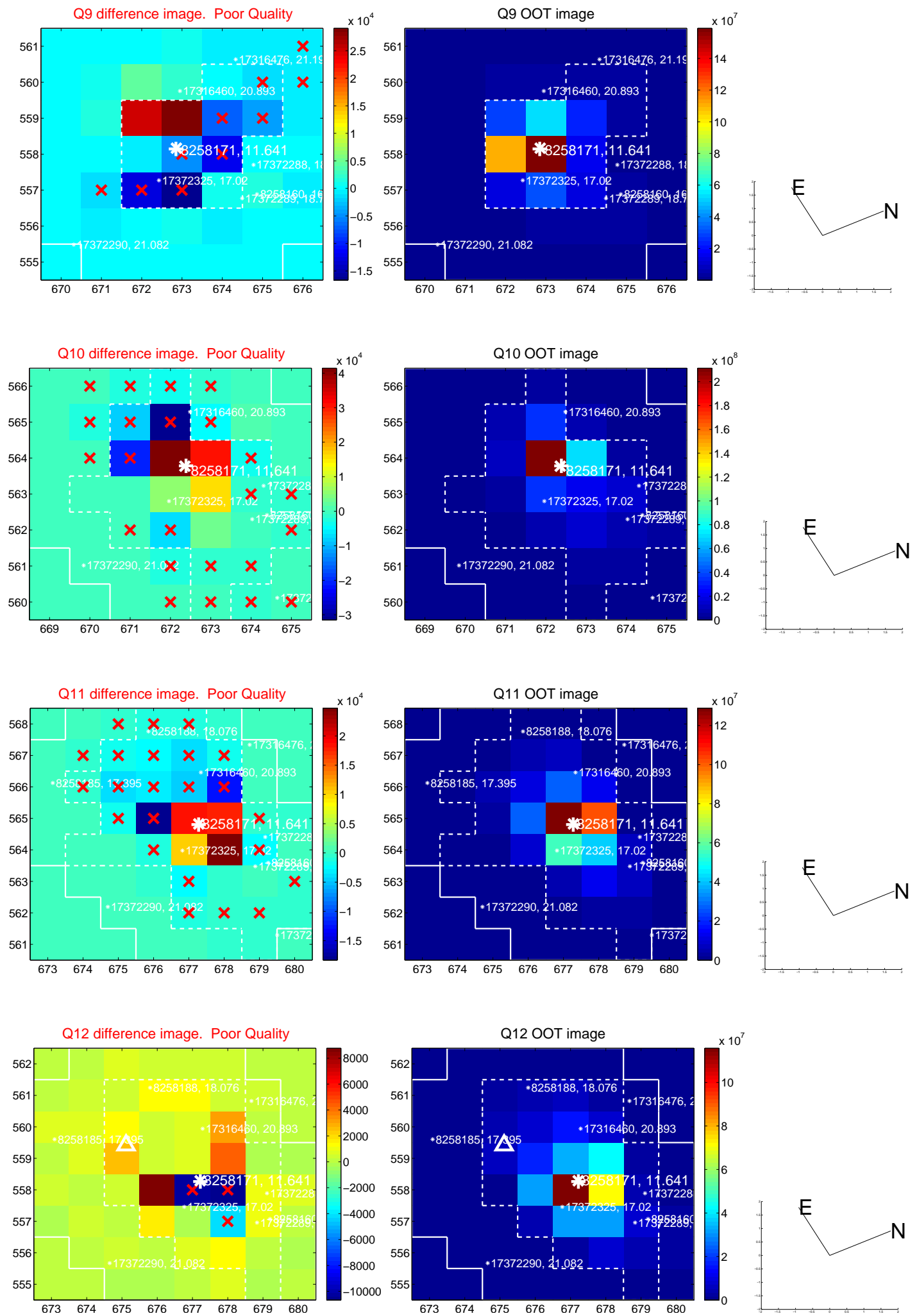
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



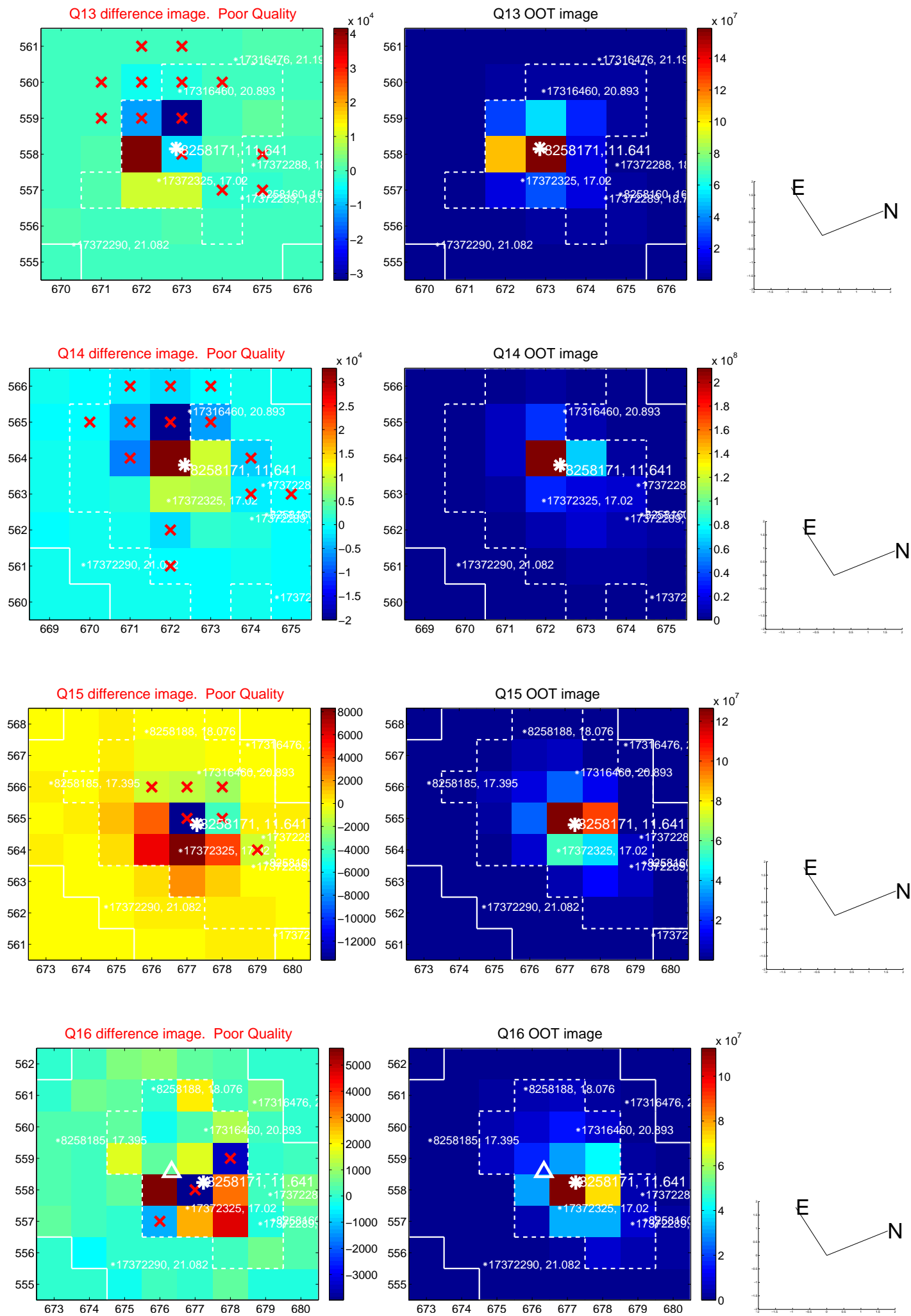
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



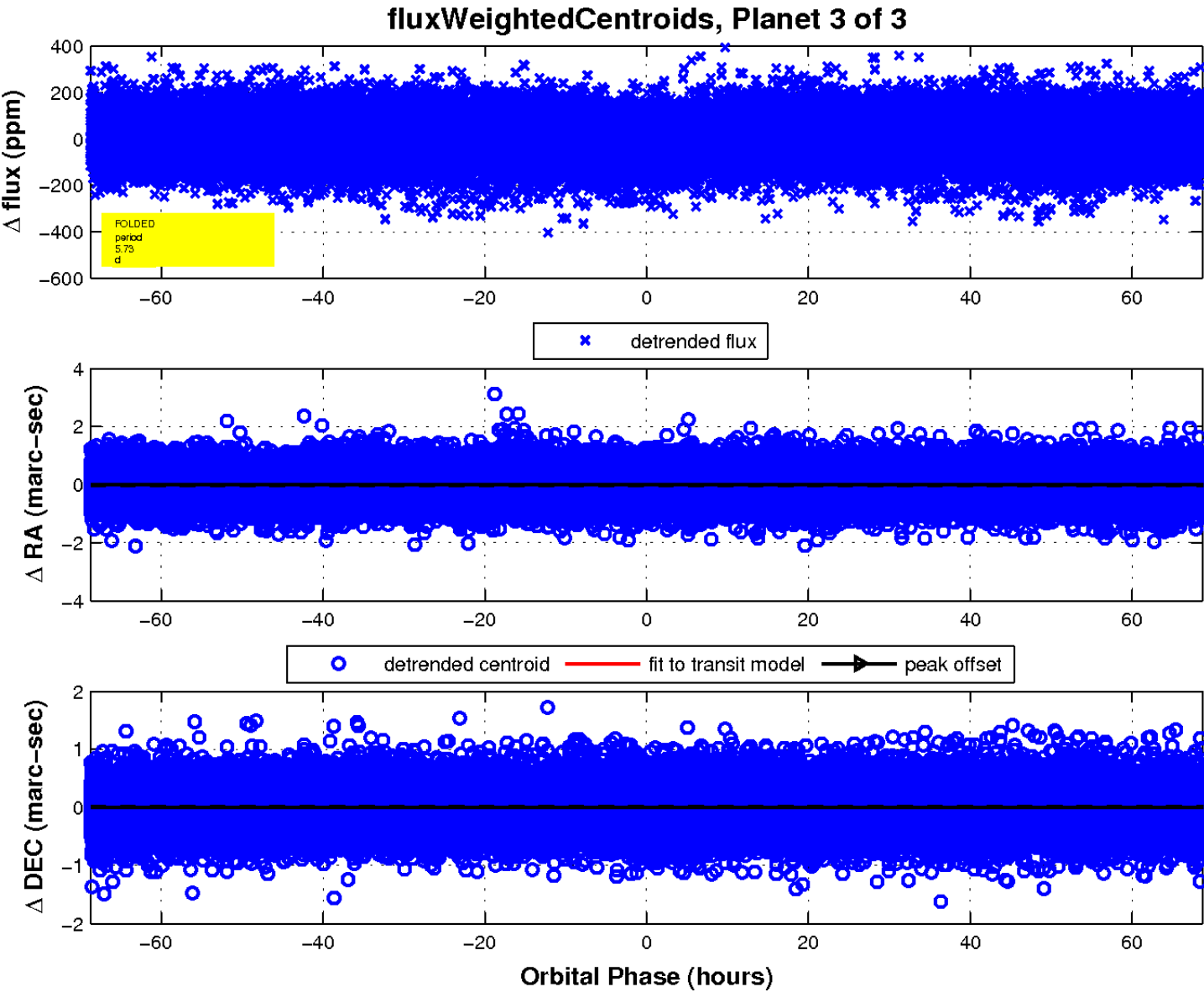
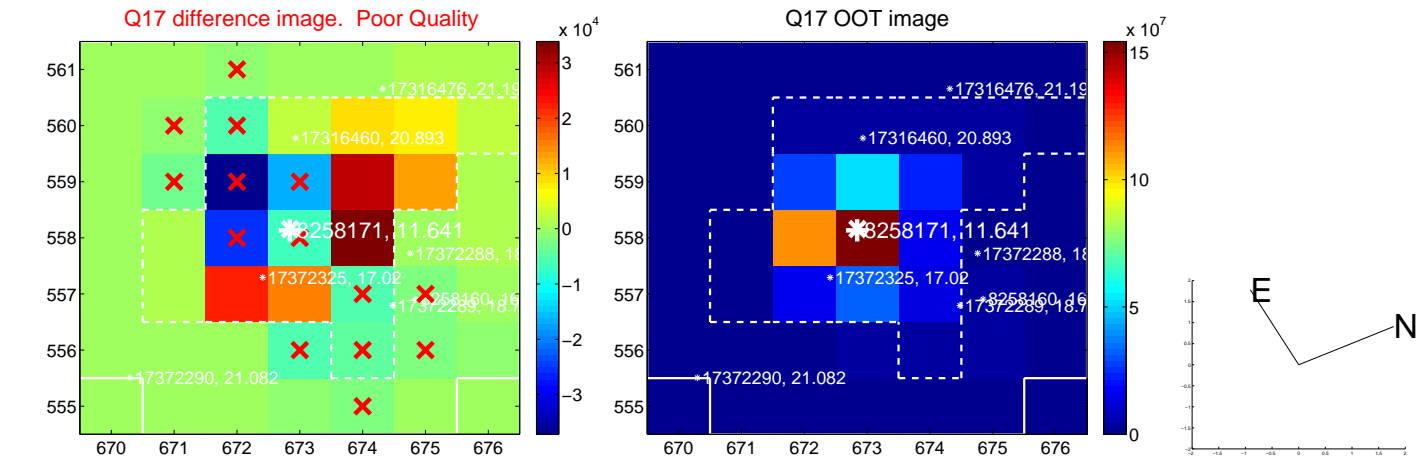
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

