

KIC 008264492

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})
008264492-01	OBS	No	0.949661	132.290285	26.5	4.244	9.3	8.2	2.41	7992	1.33	39033.39
008264492-02	OBS	No	0.949645	131.809398	29.1	4.906	9.0	9.9	2.41	7992	1.49	39034.27

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008264492-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT
008264492-02	OBS	FP	0.00	1	0	0	0	LPP_DV—SAME_NTL_PERIOD

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

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

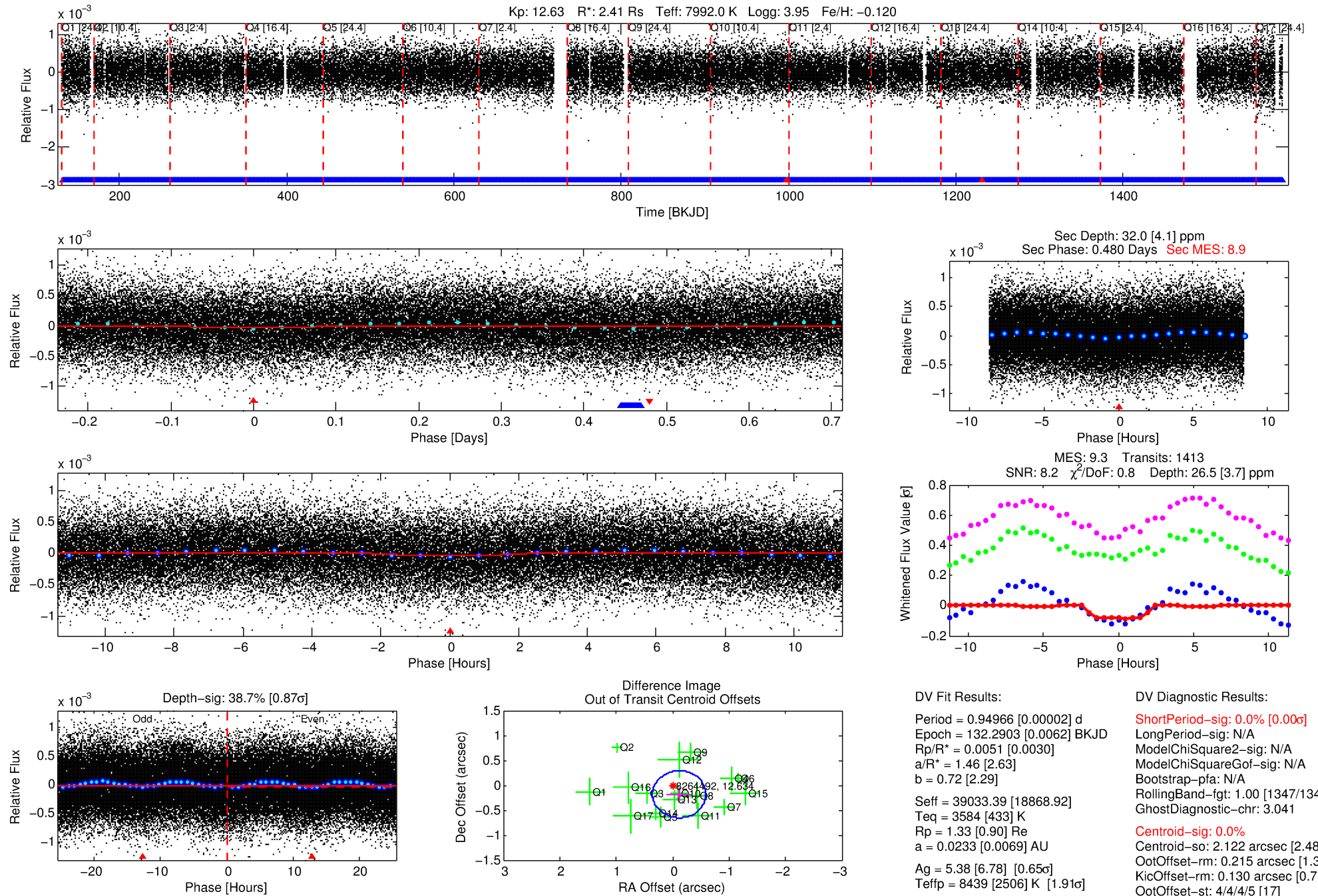
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008264492-01

No Significant Match Found

DV One-Page Summary

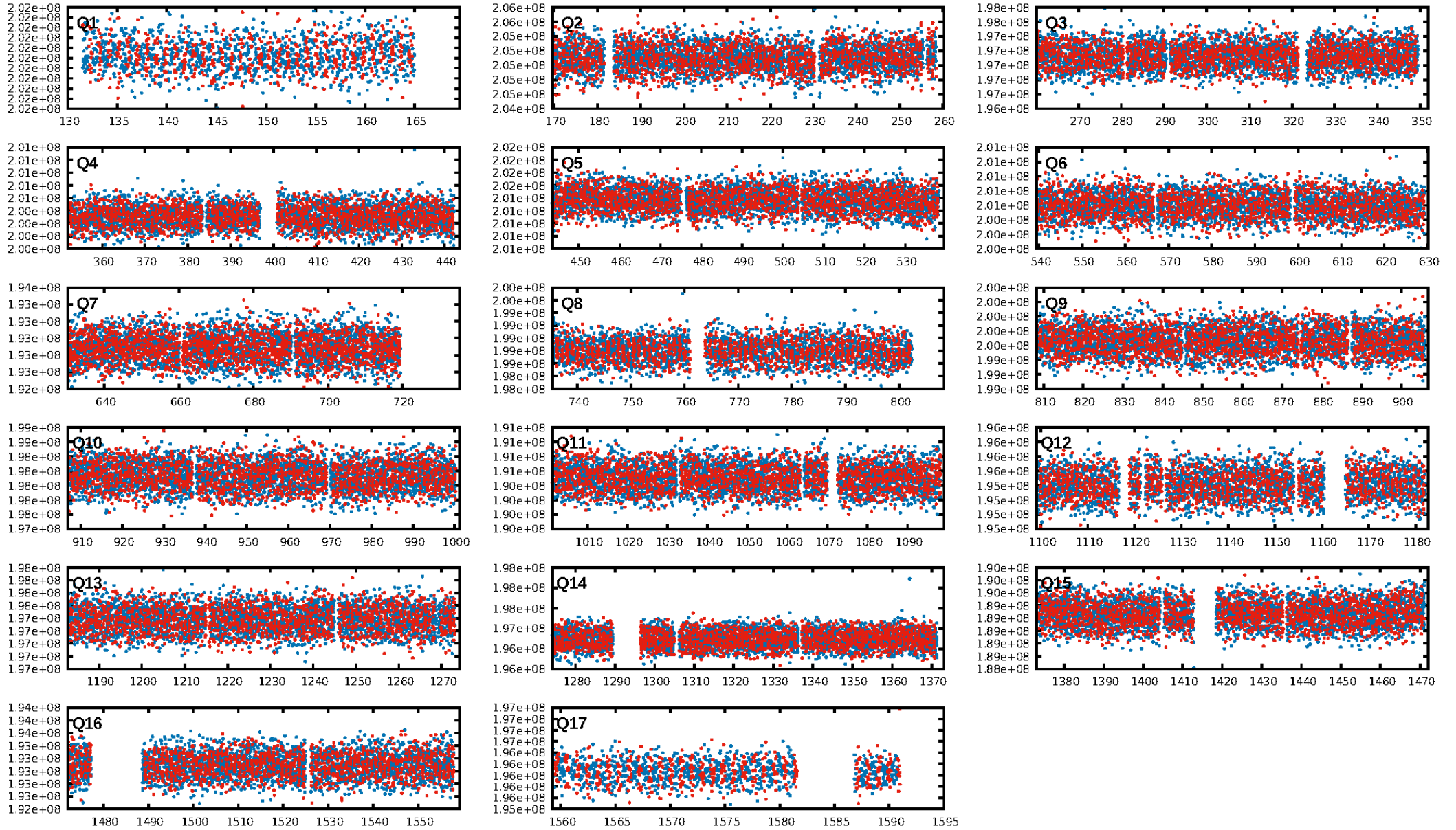
KIC: 8264492 Candidate: 1 of 2 Period: 0.950 d



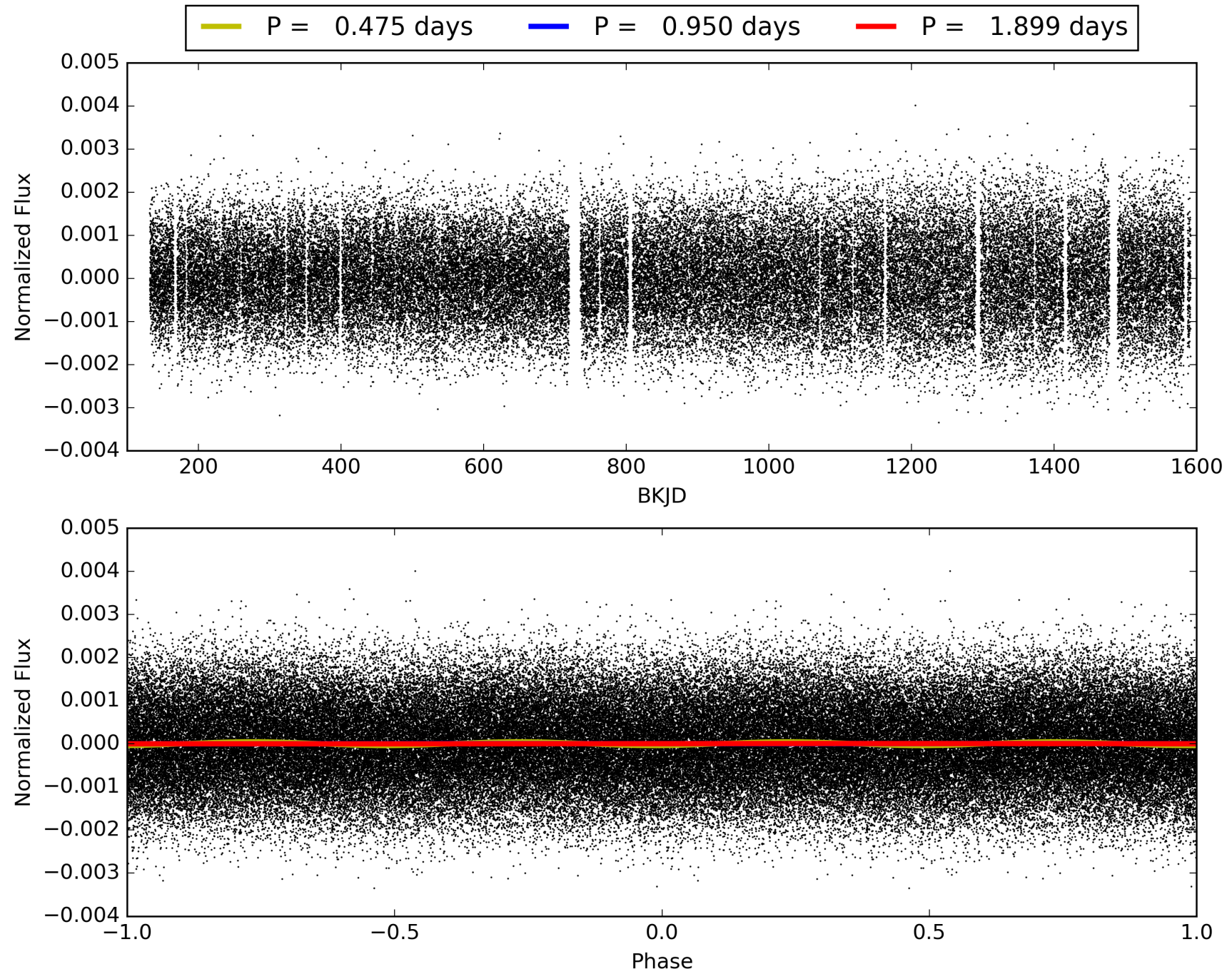
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 09:27:36 Z

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

TCE 008264492-01, PDC Light Curves

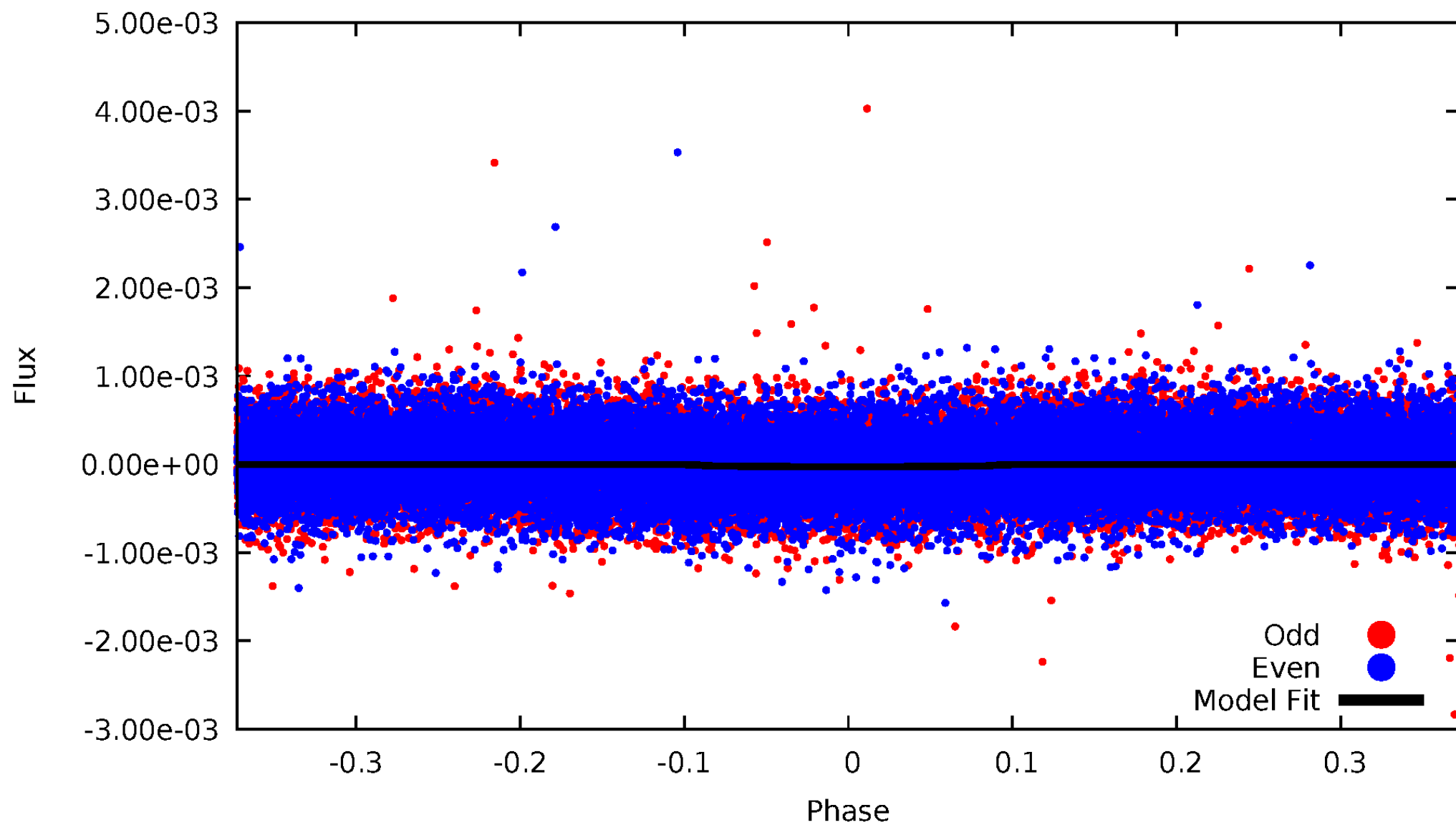


TCE 008264492-01



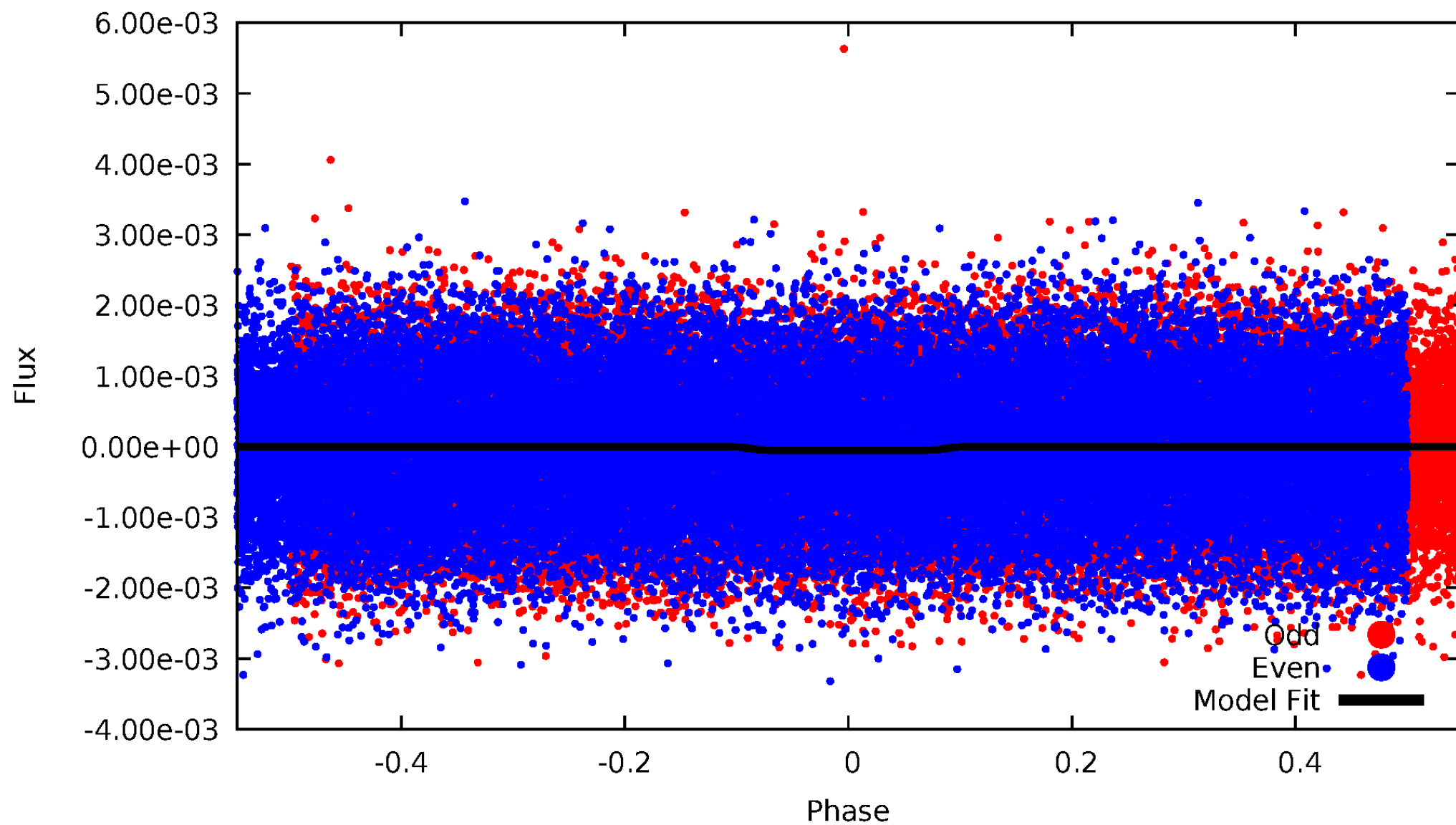
DV Odd/Even

TCE 008264492-01



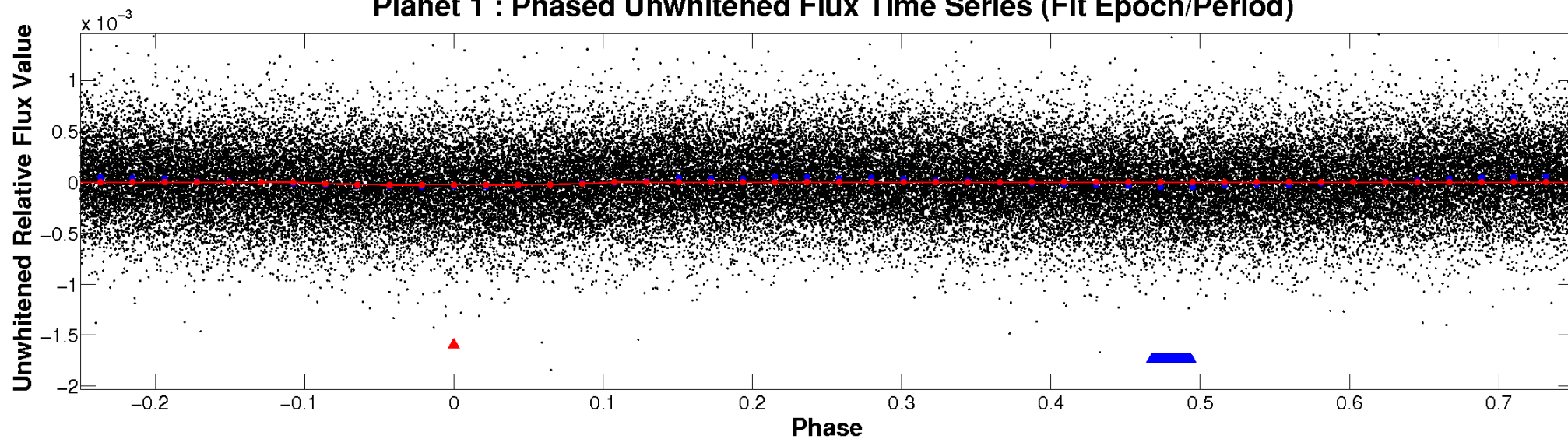
ALT Odd/Even

TCE 008264492-01

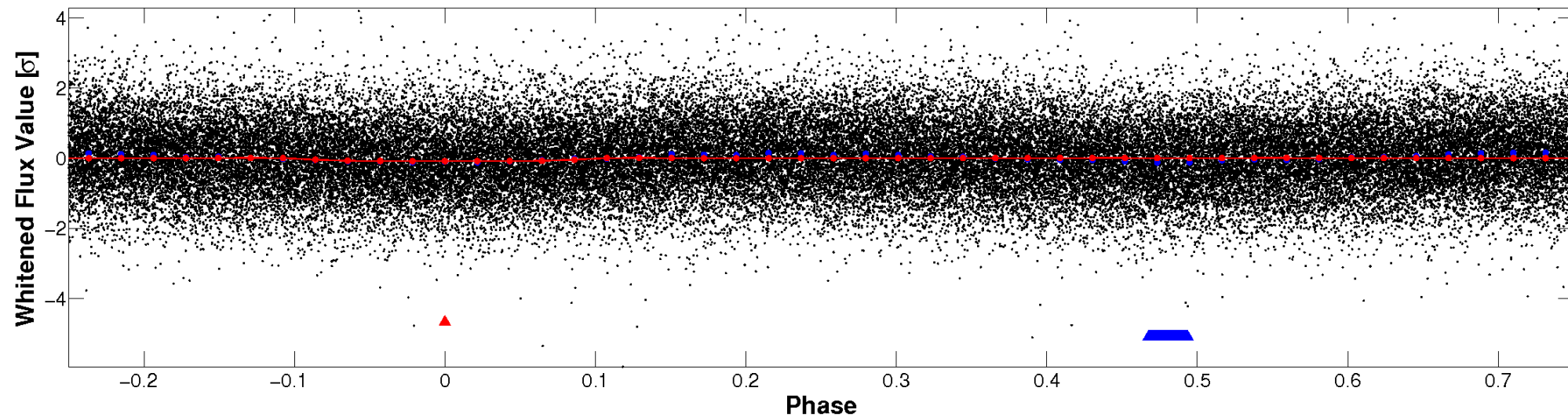


Non-Whitened Vs. Whitened Light Curve

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

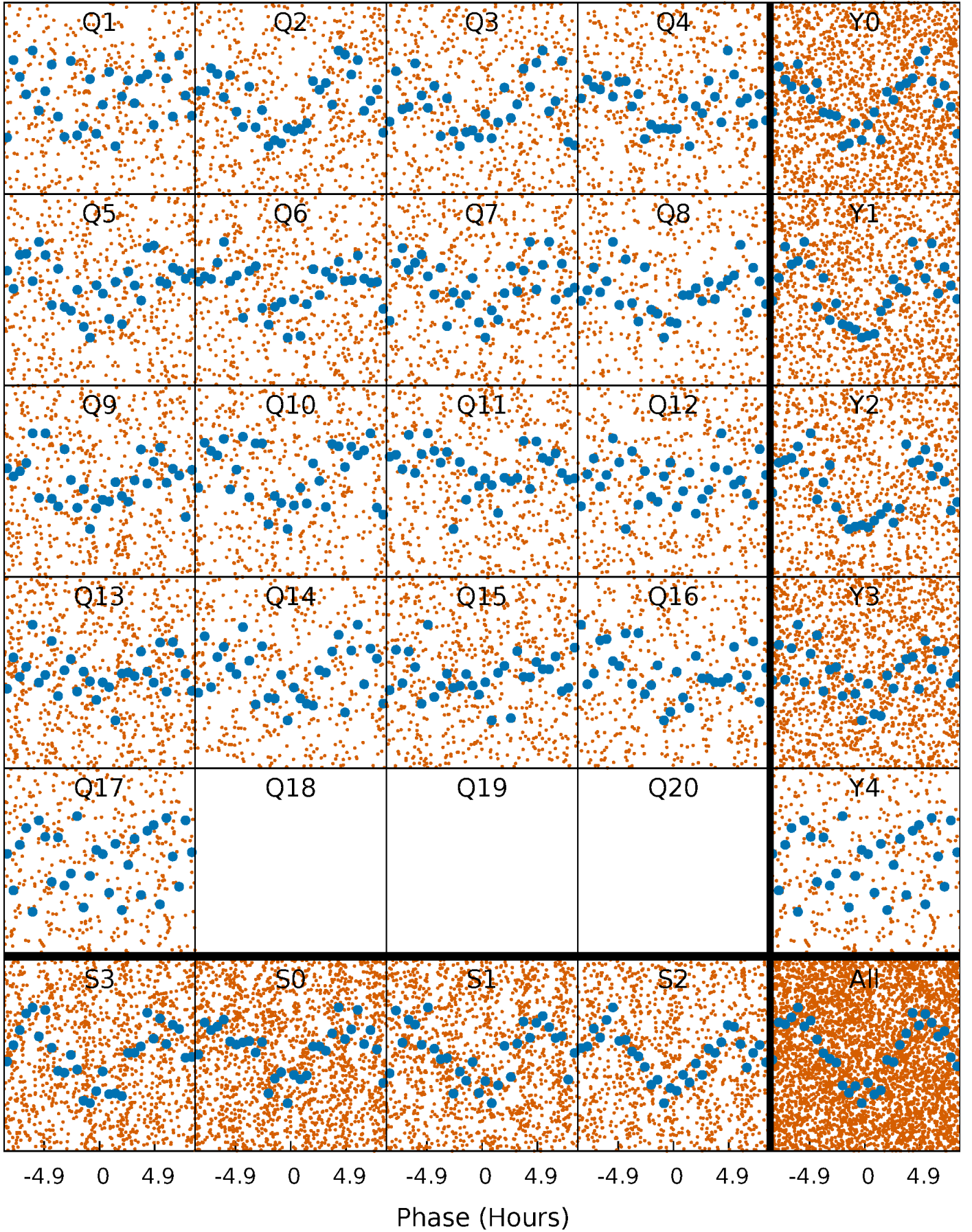


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



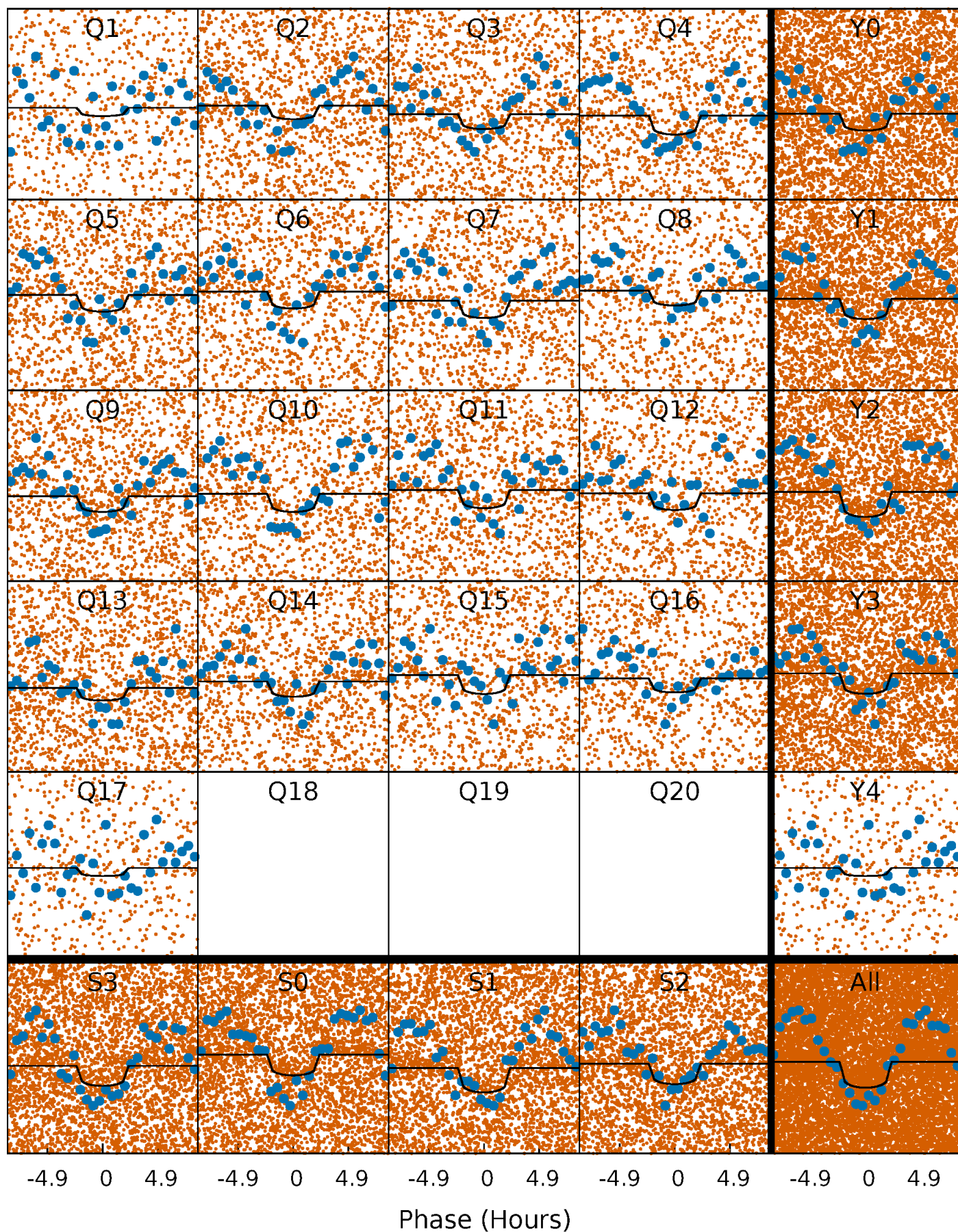
PDC Quarter-Phased Transit Curves

TCE 008264492-01 P= 0.949661 Days $T_0=132.290285$ (BKJD)



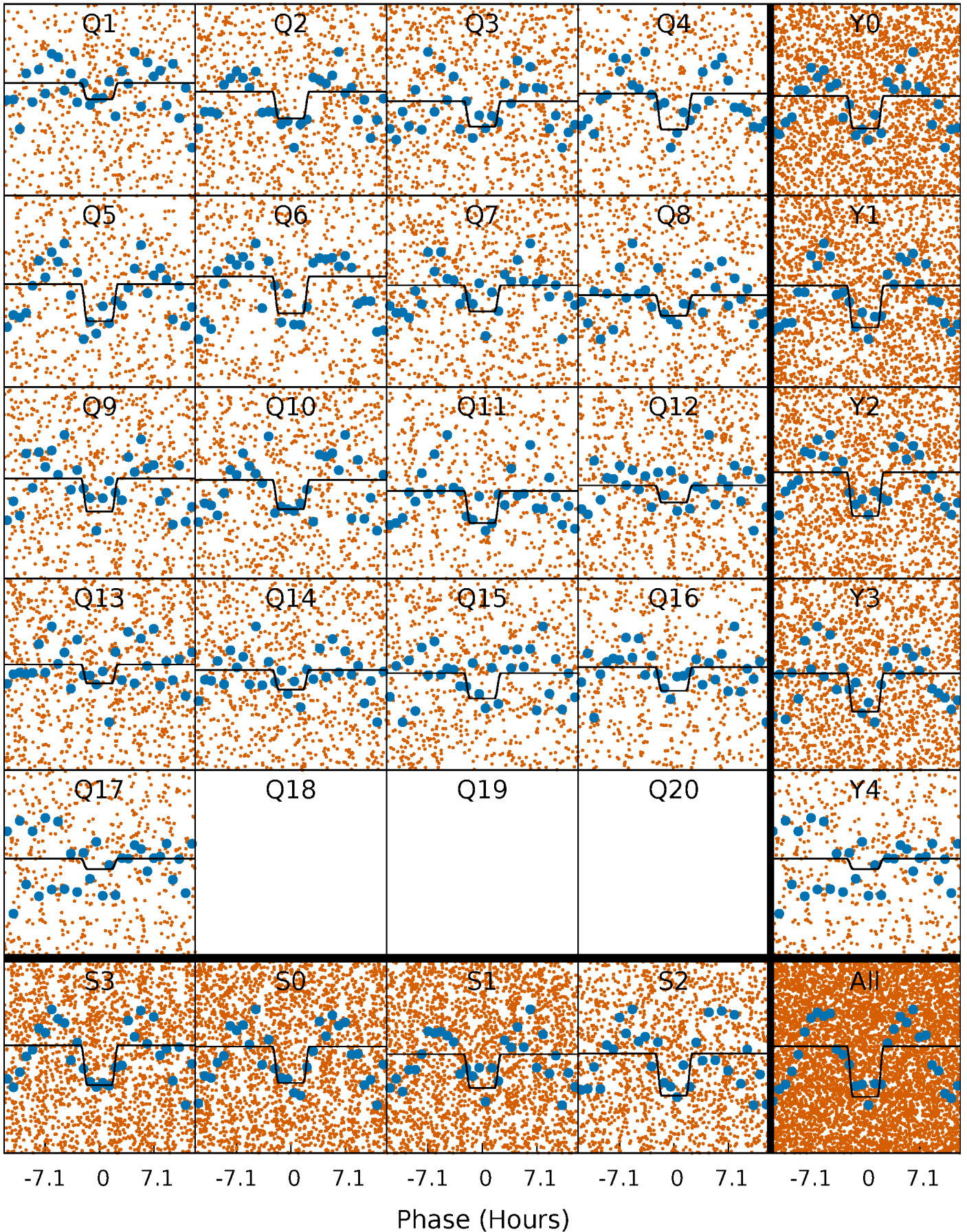
DV Quarter-Phased Transit Curves

TCE 008264492-01 P= 0.949661 Days $T_0=132.290285$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

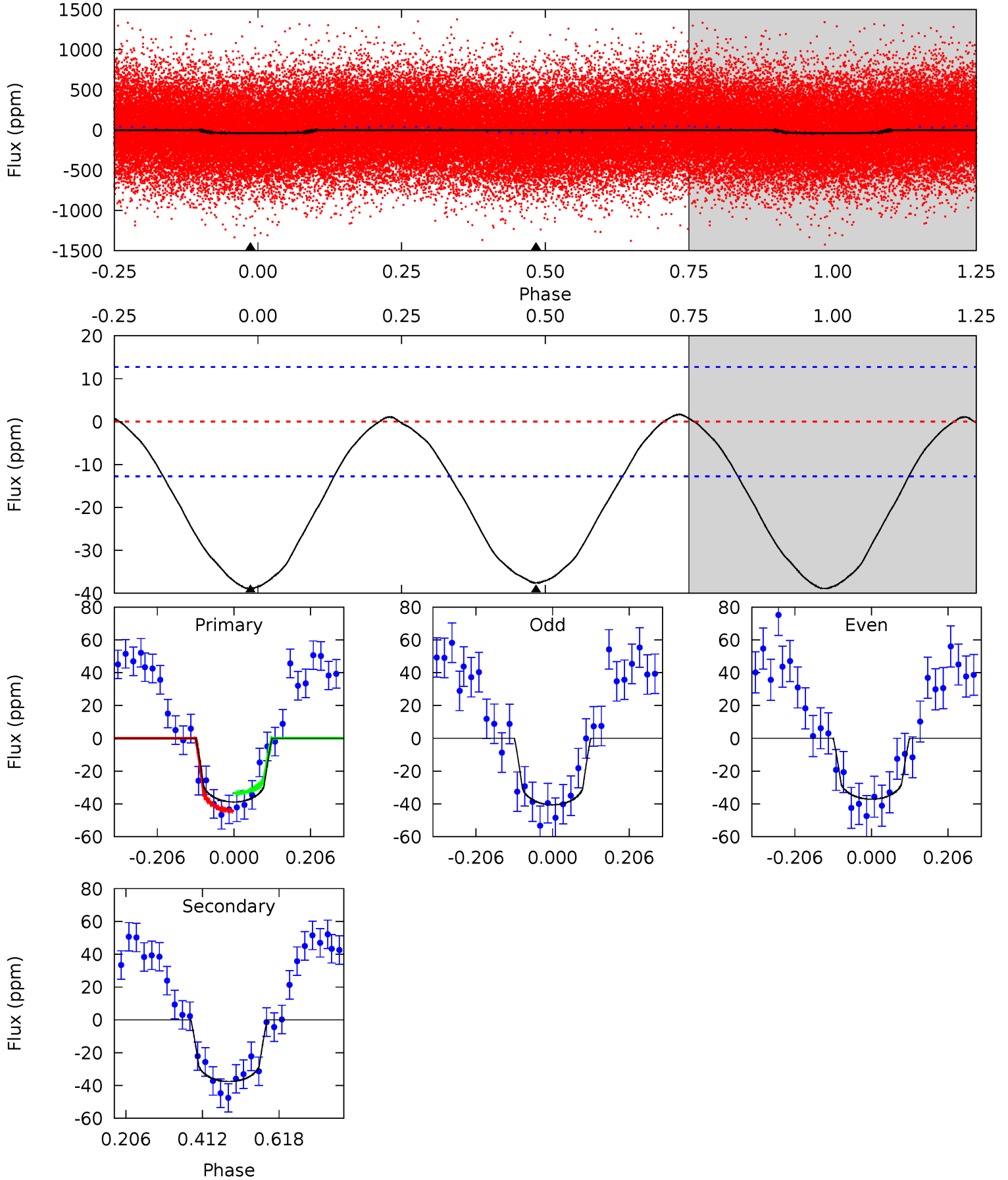
TCE 008264492-01 P= 0.949693 Days $T_0=132.254856$ (BKJD)



DV Model-Shift Uniqueness Test

008264492-01, P = 0.949661 Days, E = 131.340624 Days

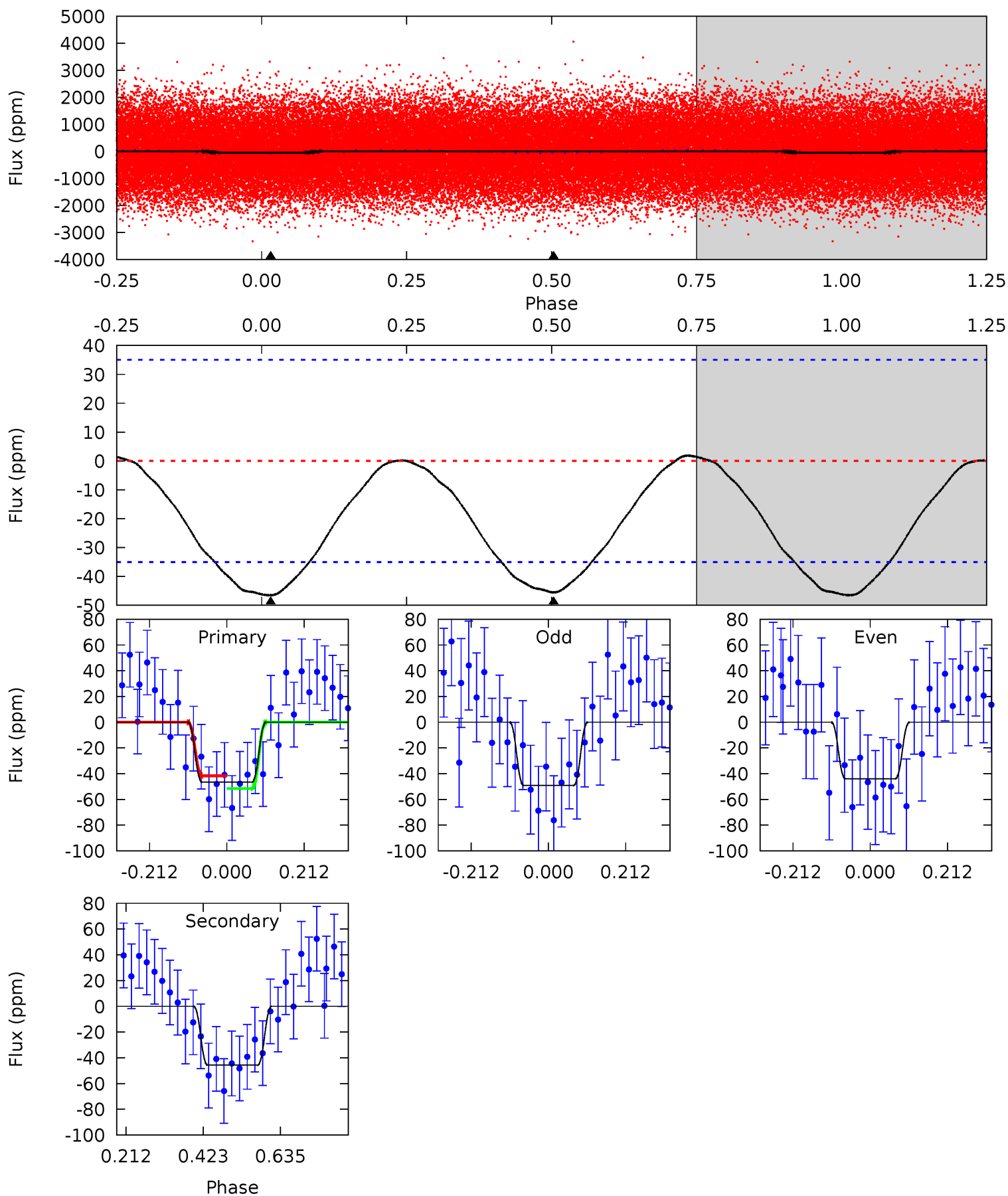
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.4	13.0	0	0	4.41	1.26	0.40	13.4	13.4	13.0	13.0	0.60	0.95	0.04	1.86



Alt Model-Shift Uniqueness Test

008264492-01, P = 0.949693 Days, E = 131.305163 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.86	5.74	0	0	4.40	1.25	0.22	5.86	5.86	5.74	5.74	0.33	0.95	0.04	0.63



Stellar Parameters For KIC 008264492

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (g \cdot \text{cm}^{-3})$
	7992^{+221}_{-332}	$3.947^{+0.259}_{-0.129}$	$-0.120^{+0.200}_{-0.350}$	$2.410^{+0.427}_{-0.792}$	$1.872^{+0.097}_{-0.387}$	$0.188^{+0.315}_{-0.064}$
	+3%/-4%	+7%/-3%	+167%/-292%	+18%/-33%	+5%/-21%	+167%/-34%
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 008264492-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-38 ± 3	$1.36^{+0.75}_{-0.70}$	4936^{+345}_{-396}	8532^{+6367}_{-2053}	$5.903^{+20.412}_{-3.436}$
Alt.	-46 ± 8	$1.82^{+0.77}_{-0.75}$	4926^{+359}_{-403}	7373^{+3043}_{-1341}	$4.006^{+7.204}_{-2.059}$

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 $A_{obs} \gg 1.0$

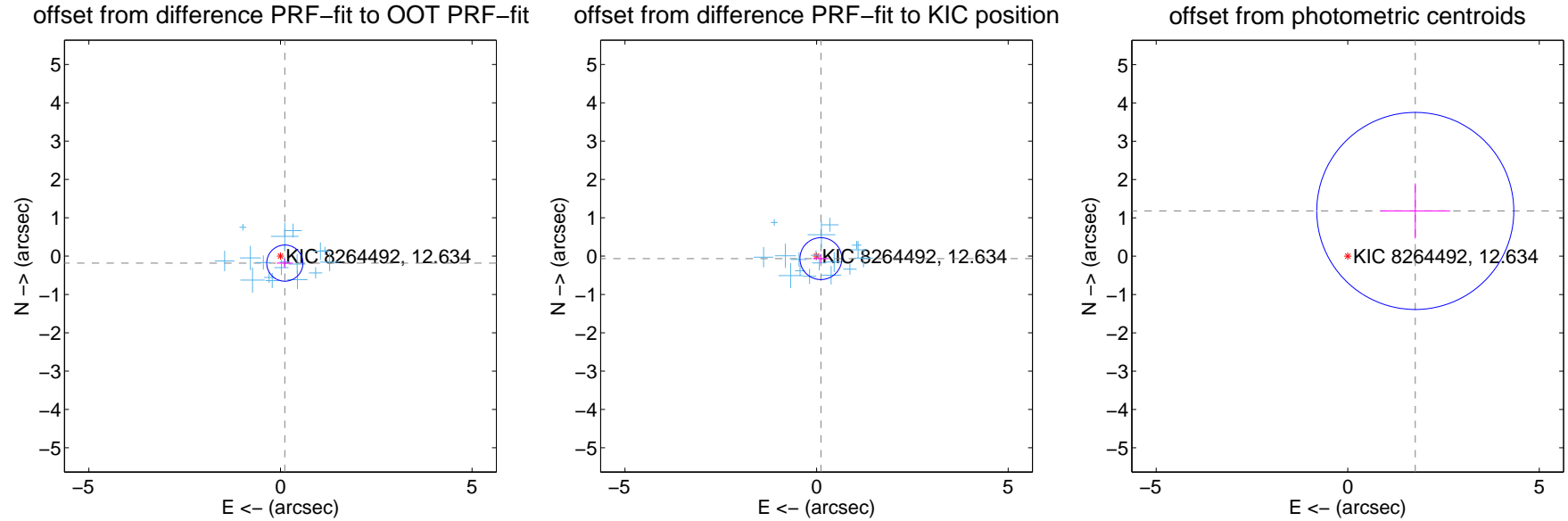
DV Centroid Data

Supplemental centroid analysis for 008264492-01. Kepler magnitude: 12.63. Transit SNR 8.20

There are 17 quarters with good PRF difference image offsets

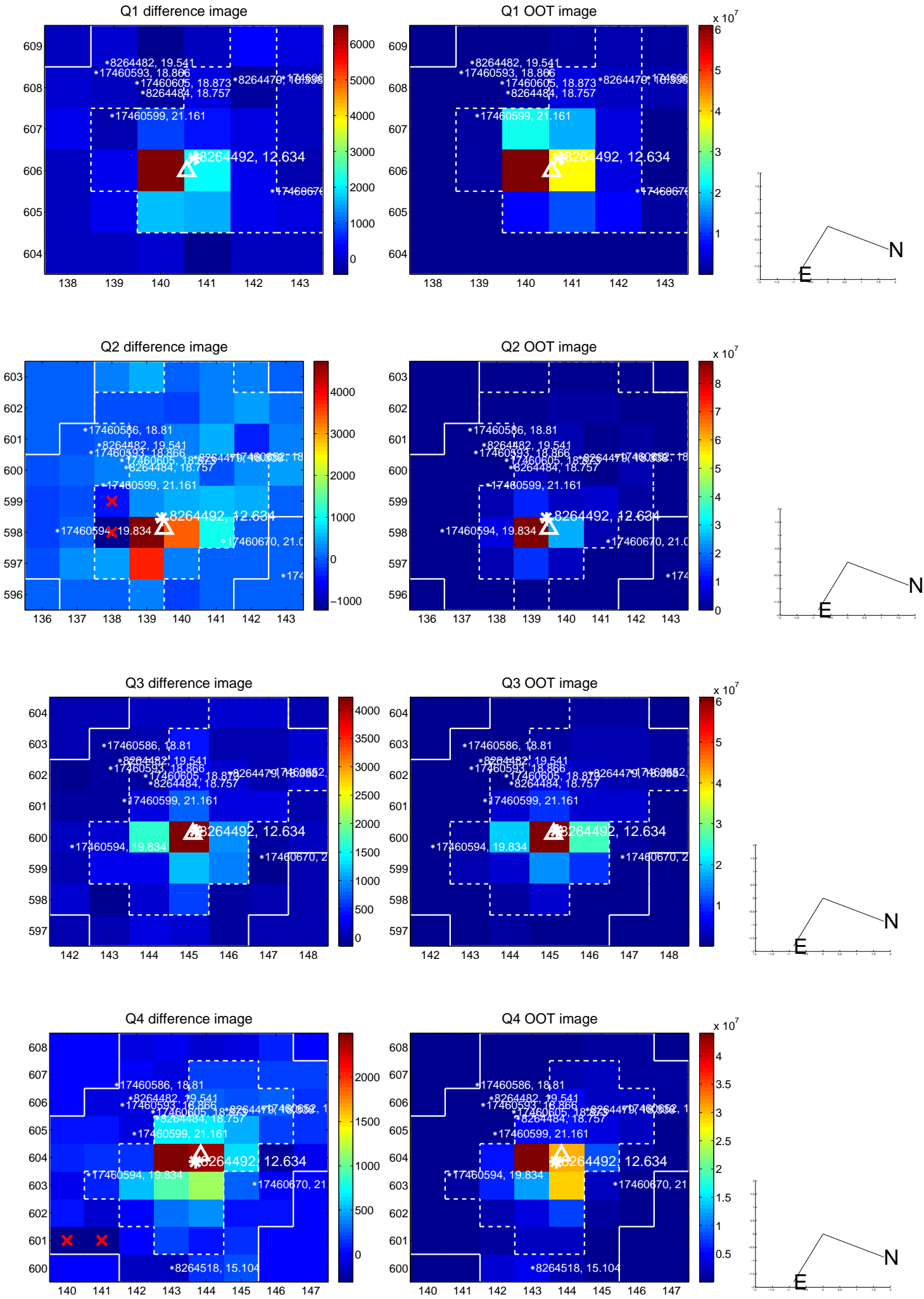
The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.215 ± 0.157	1.36	-0.114 ± 0.210	-0.182 ± 0.123
PRF-fit source offset from KIC position	0.130 ± 0.182	0.71	-0.112 ± 0.203	-0.065 ± 0.121
photometric centroid source offset	2.12 ± 0.86	2.48	-1.76 ± 0.91	1.18 ± 0.72

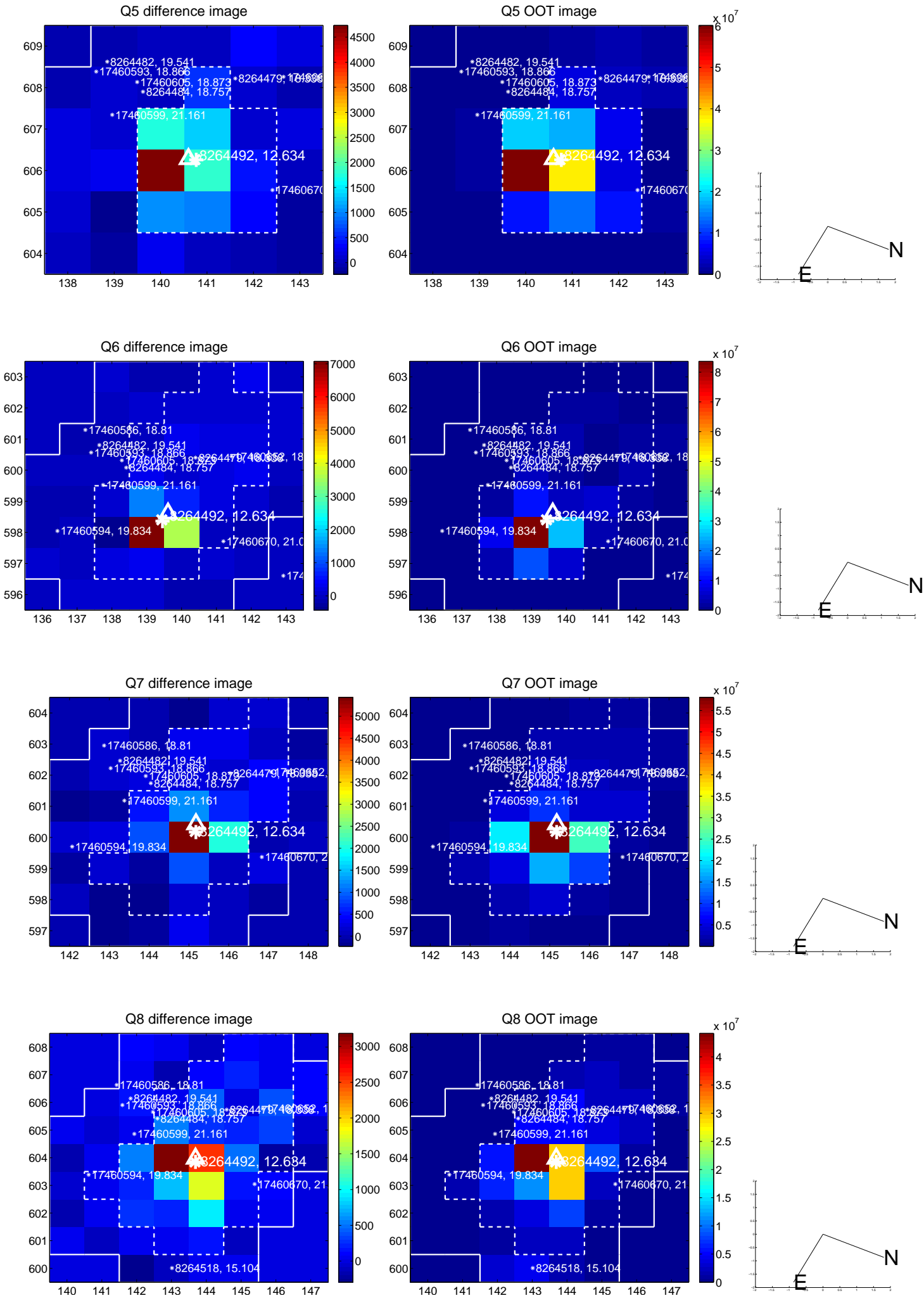


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

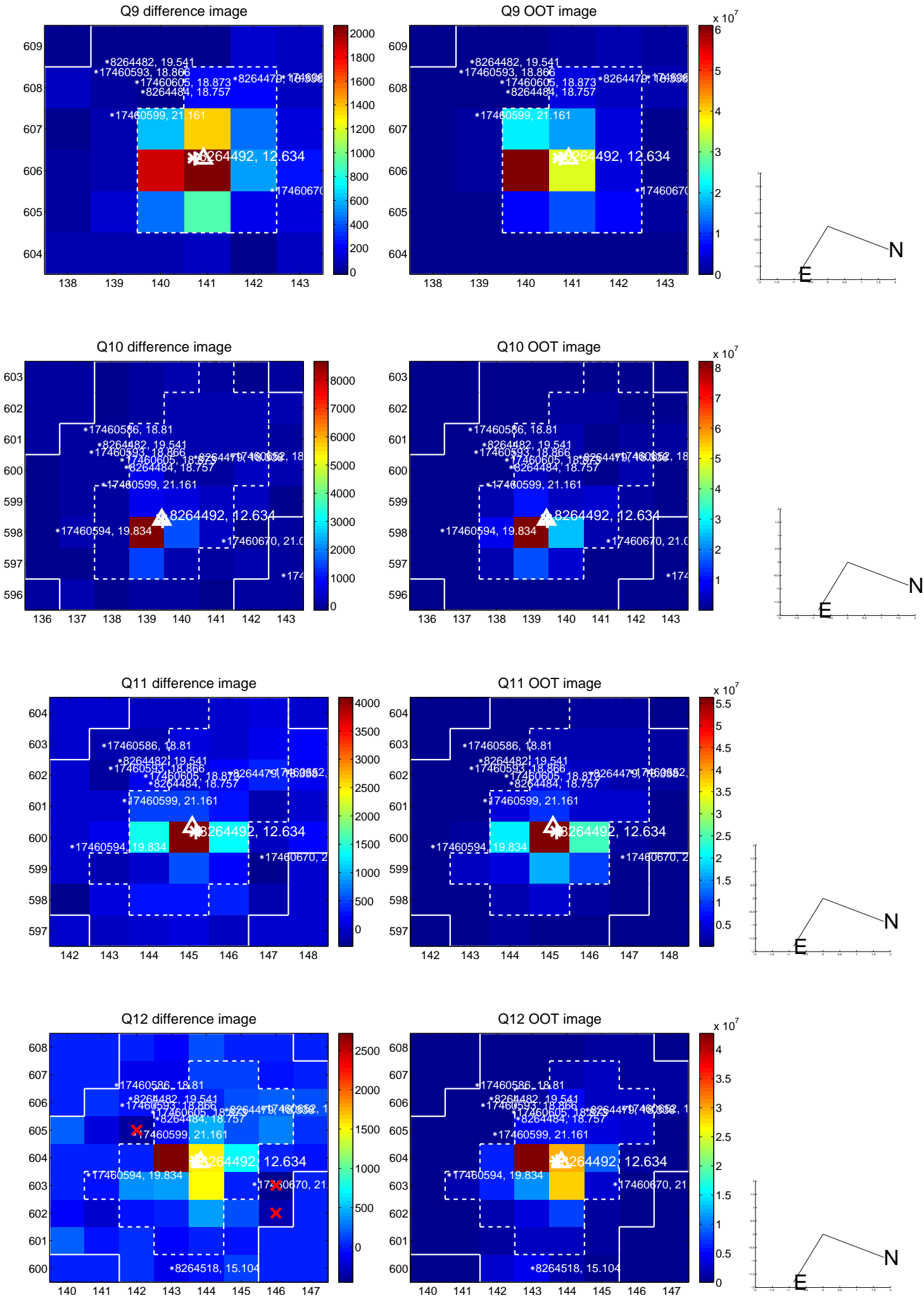
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



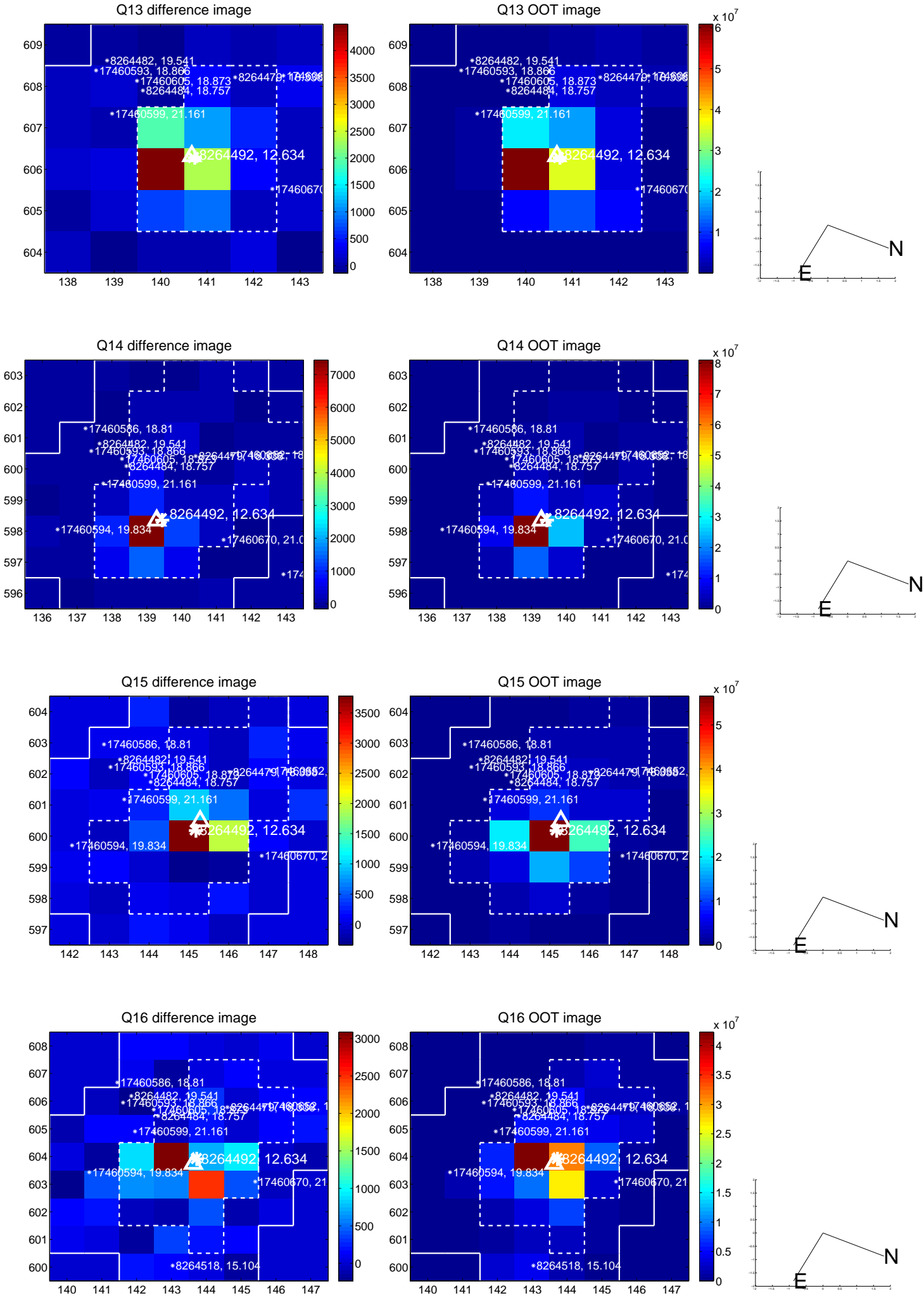
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



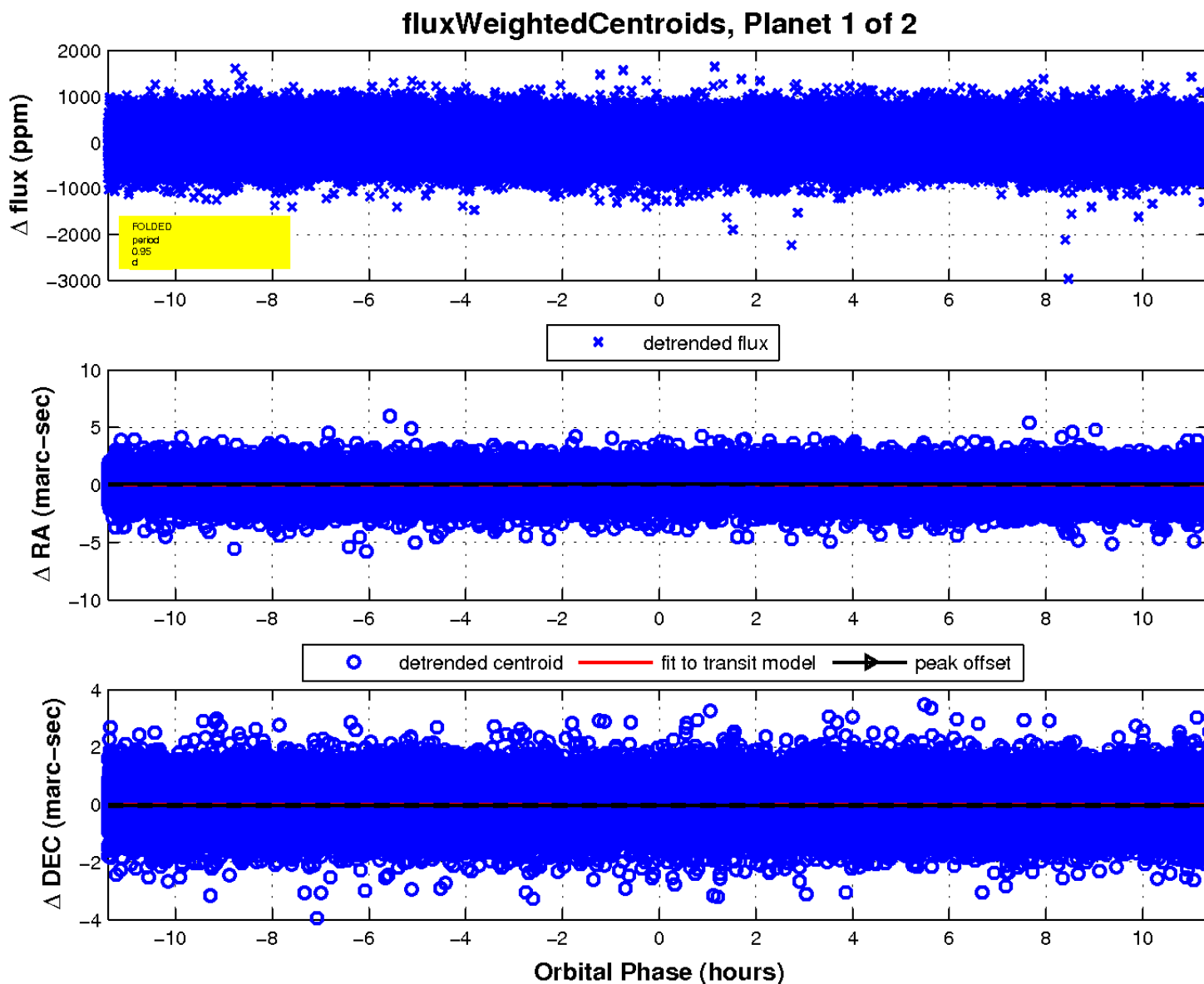
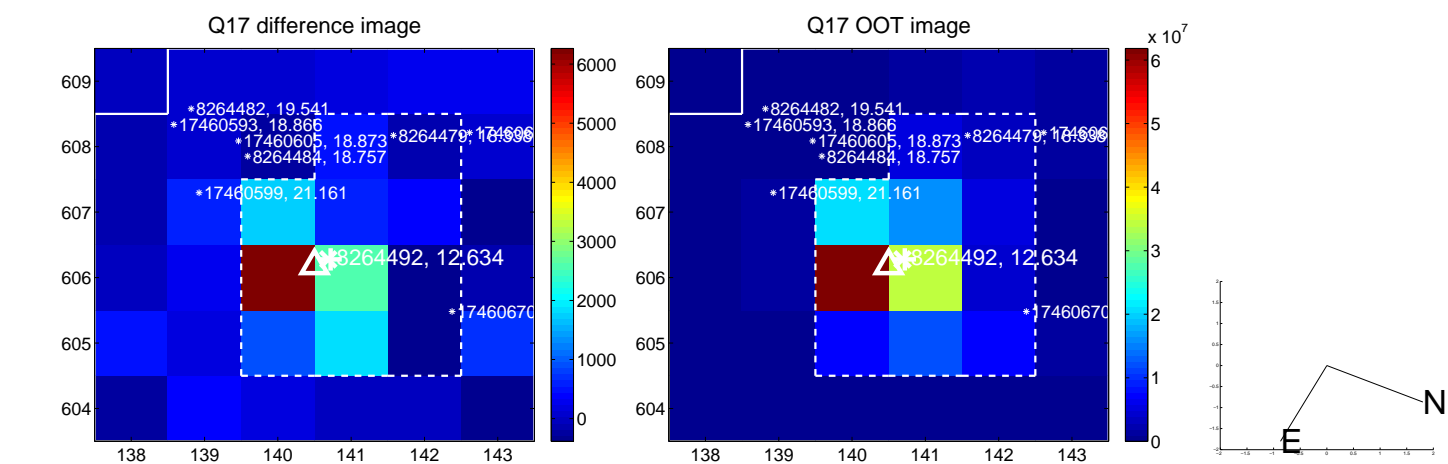
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

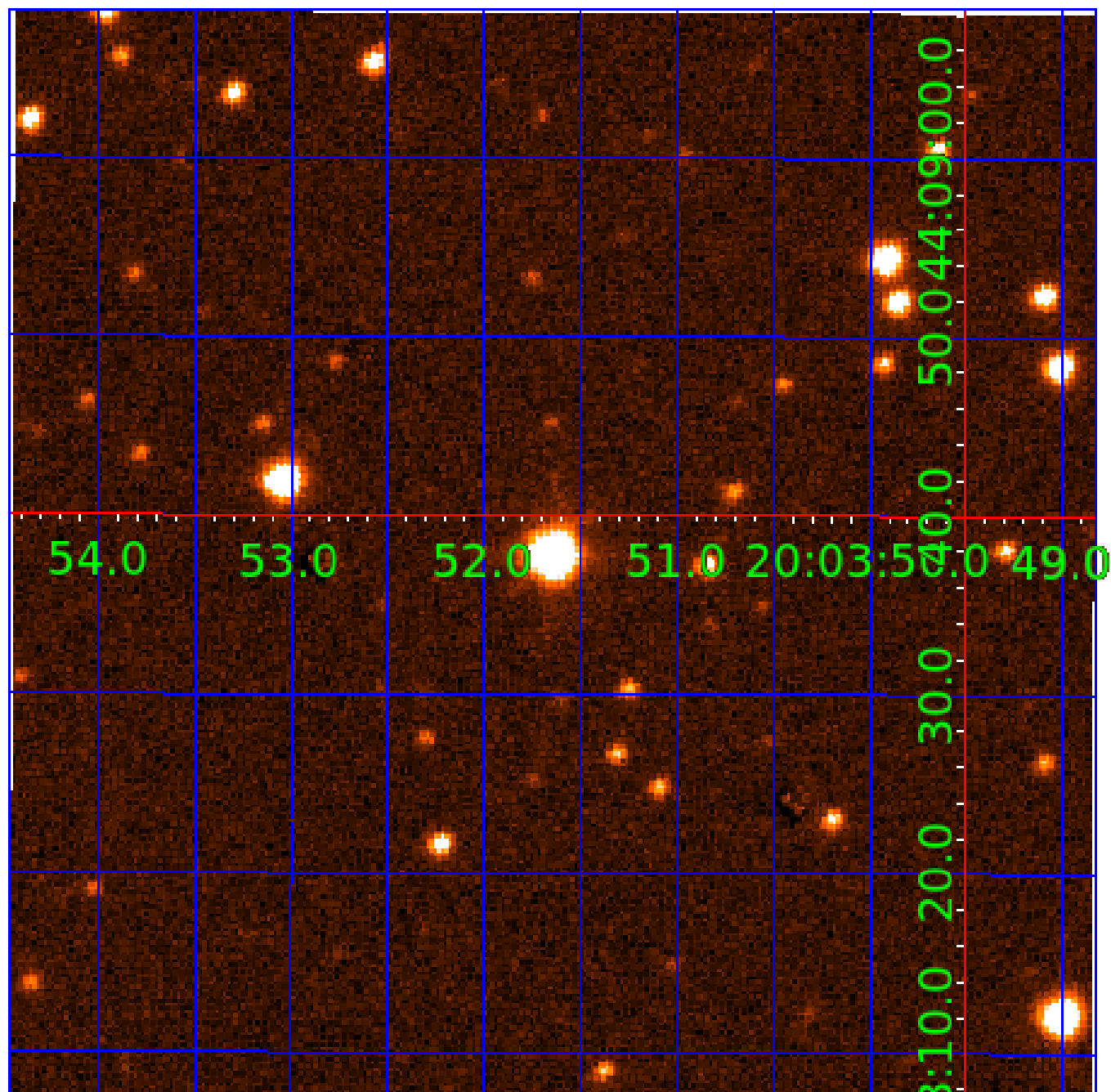


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 008264492

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})
008264492-01	OBS	No	0.949661	132.290285	26.5	4.244	9.3	8.2	2.41	7992	1.33	39033.39
008264492-02	OBS	No	0.949645	131.809398	29.1	4.906	9.0	9.9	2.41	7992	1.49	39034.27

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008264492-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT
008264492-02	OBS	FP	0.00	1	0	0	0	LPP_DV—SAME_NTL_PERIOD

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

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

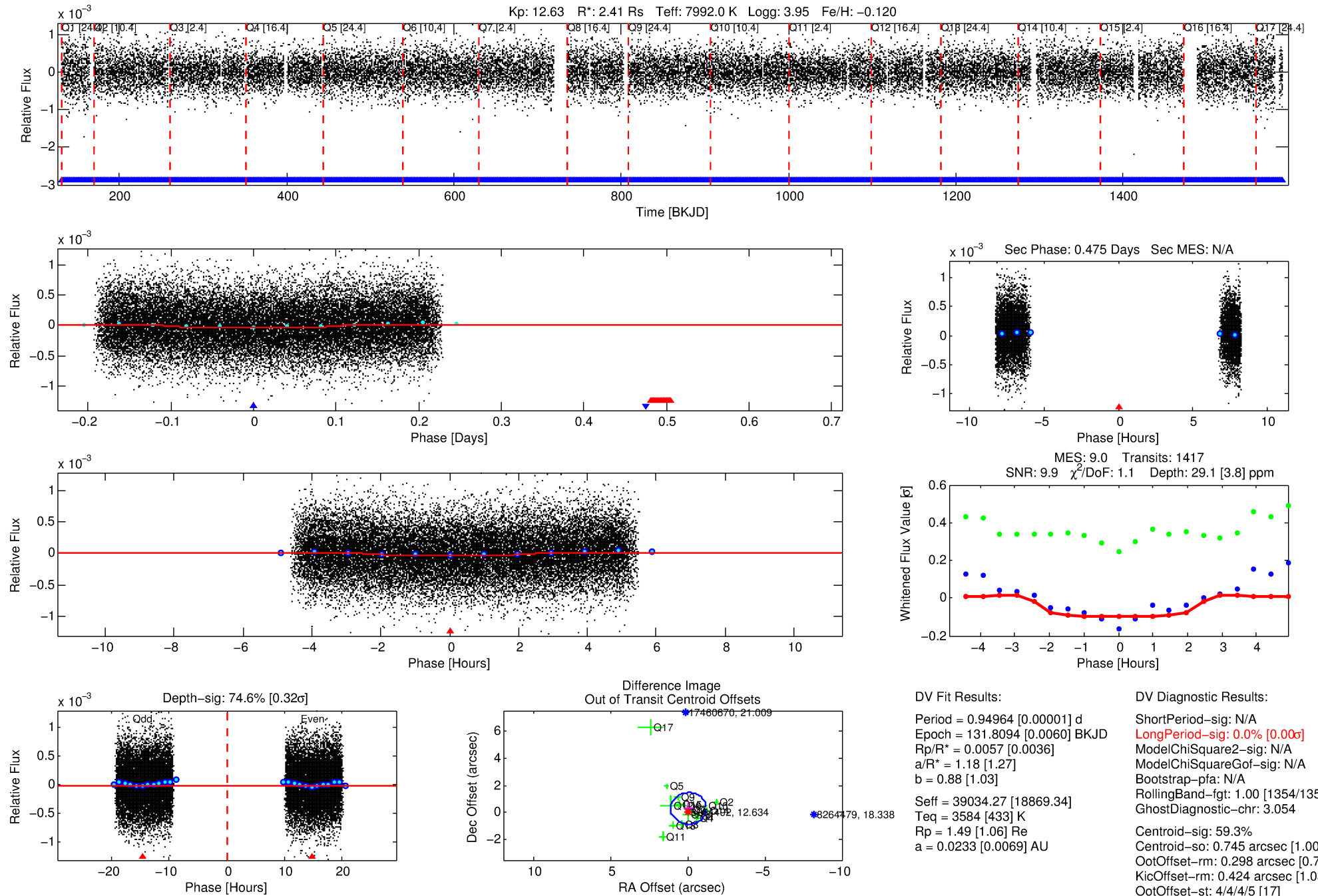
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008264492-02

No Significant Match Found

DV One-Page Summary

KIC: 8264492 Candidate: 2 of 2 Period: 0.950 d



DV Fit Results:

Period = 0.94964 [0.00001] d
 Epoch = 131.8094 [0.0060] BKJD
 Rp/R* = 0.0057 [0.0036]
 a/R* = 1.18 [1.27]
 b = 0.88 [1.03]
 Seff = 39034.27 [18869.34]
 Teq = 3584 [433] K
 Rp = 1.49 [1.06] Re
 a = 0.0233 [0.0069] AU

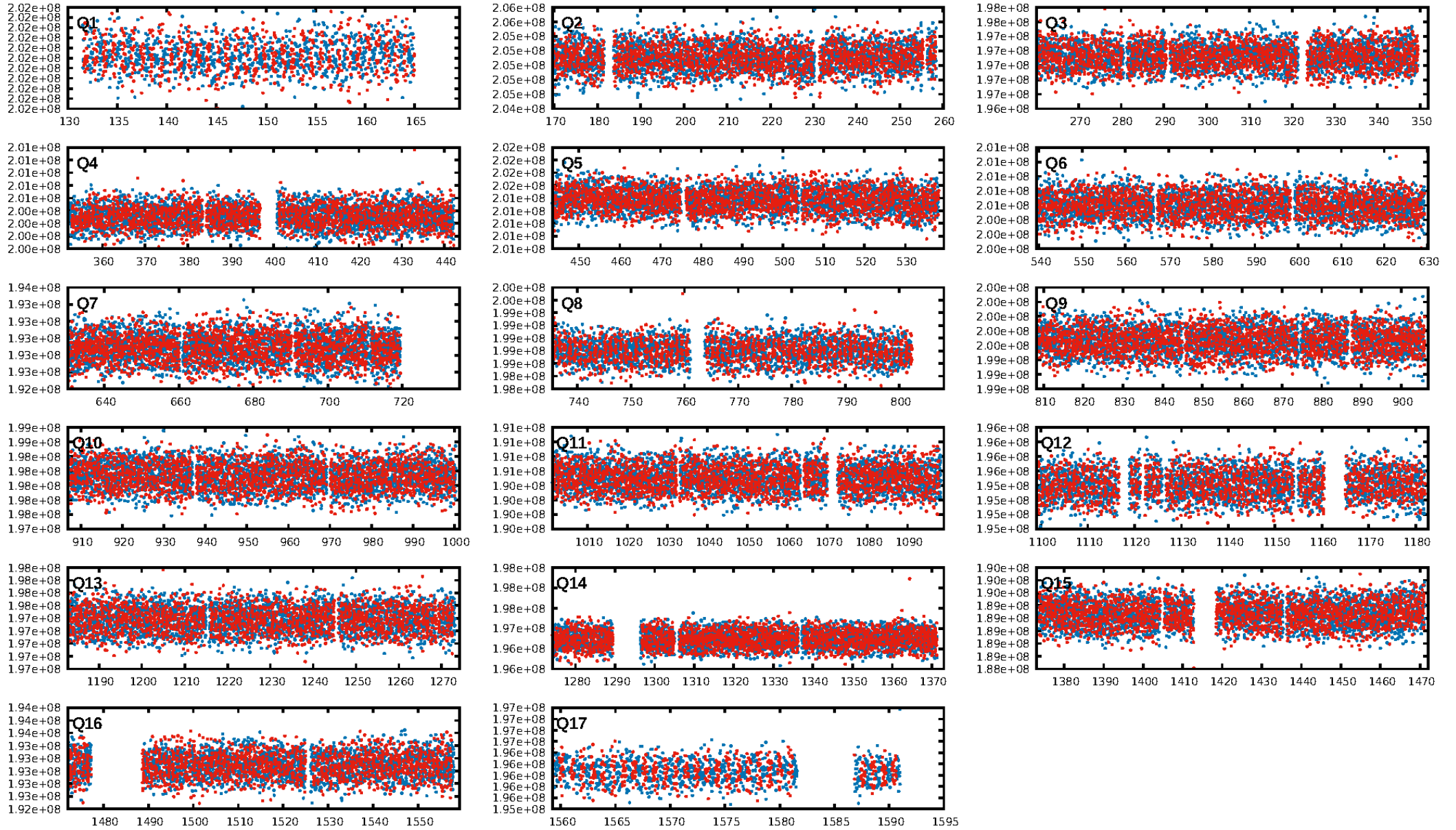
DV Diagnostic Results:

ShortPeriod-sig: N/A
 LongPeriod-sig: 0.0% [0.00 σ]
 ModelChiSquare2-sig: N/A
 ModelChiSquareGof-sig: N/A
 Bootstrap-pfa: N/A
 RollingBand-fgt: 1.00 [1354/1354]
 GhostDiagnostic-chr: 3.054
 Centroid-sig: 59.3%
 Centroid-so: 0.745 arcsec [1.00 σ]
 OotOffset-rm: 0.298 arcsec [0.77 σ]
 KicOffset-rm: 0.424 arcsec [1.03 σ]
 OotOffset-st: 4/4/4/5 [17]
 KicOffset-st: 4/4/4/5 [17]
 DiffImageQuality-fgm: 0.88 [15/17]
 DiffImageOverlap-fno: 0.00 [0/17]

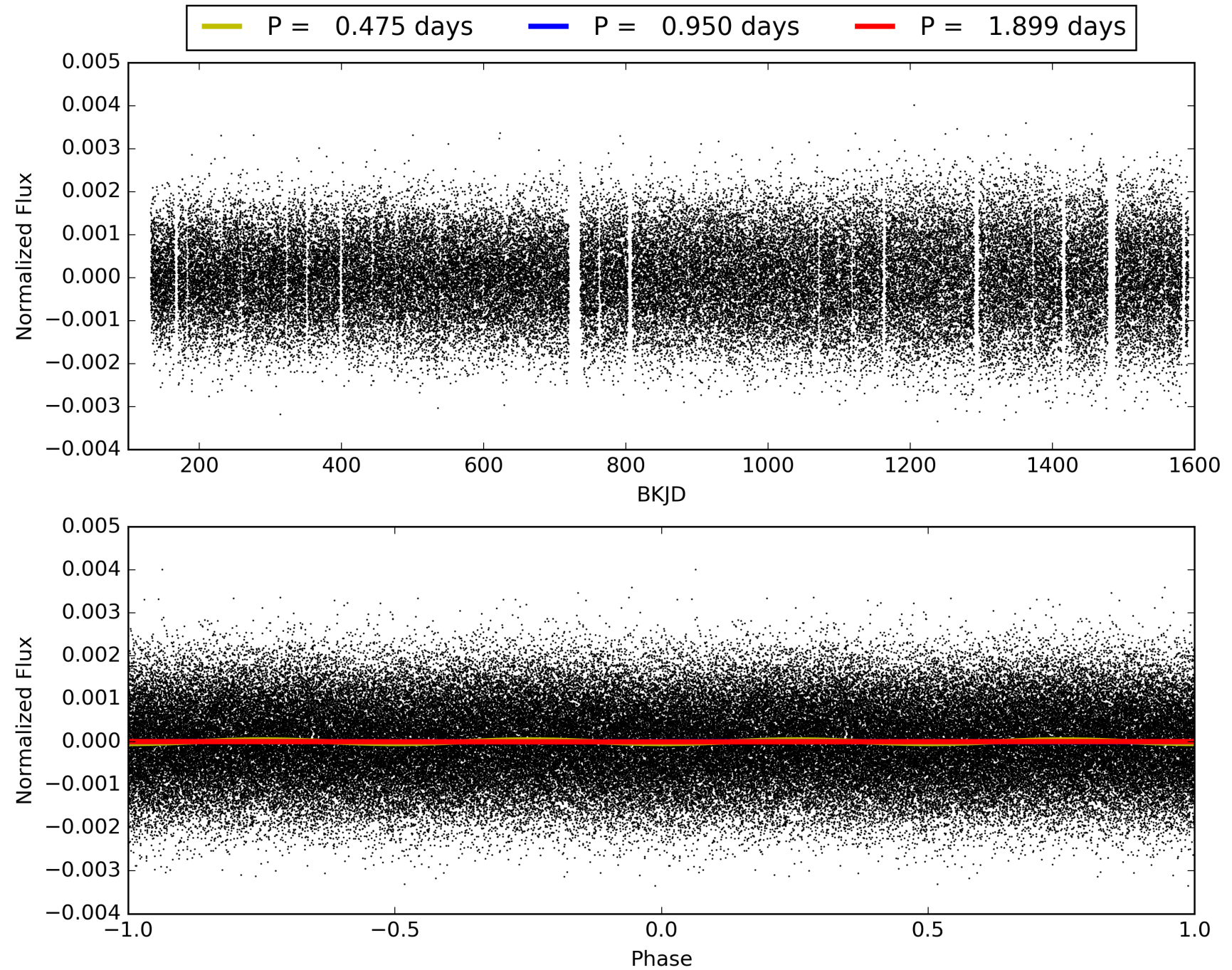
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 09:27:50 Z

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

TCE 008264492-02, PDC Light Curves

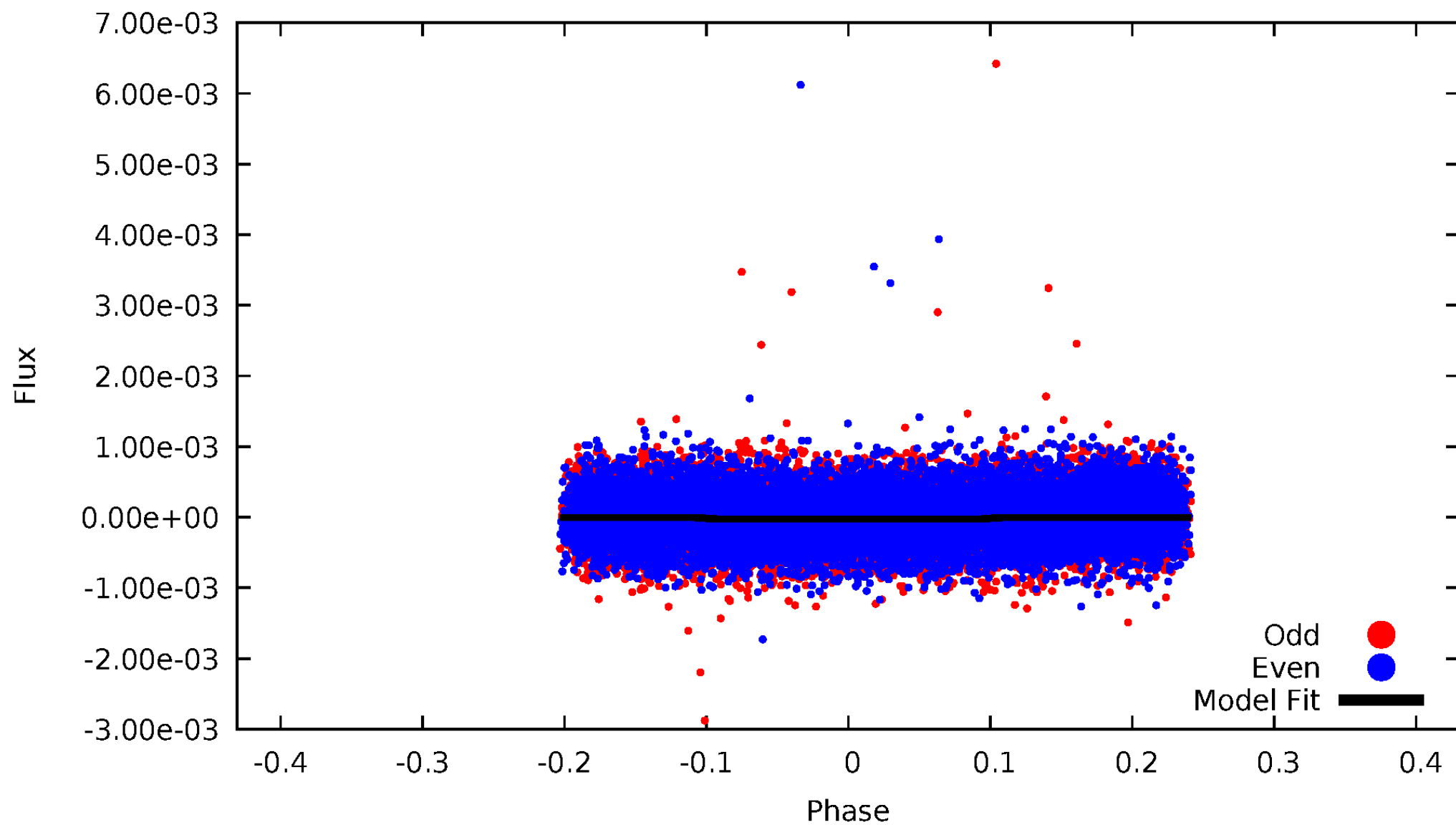


TCE 008264492-02



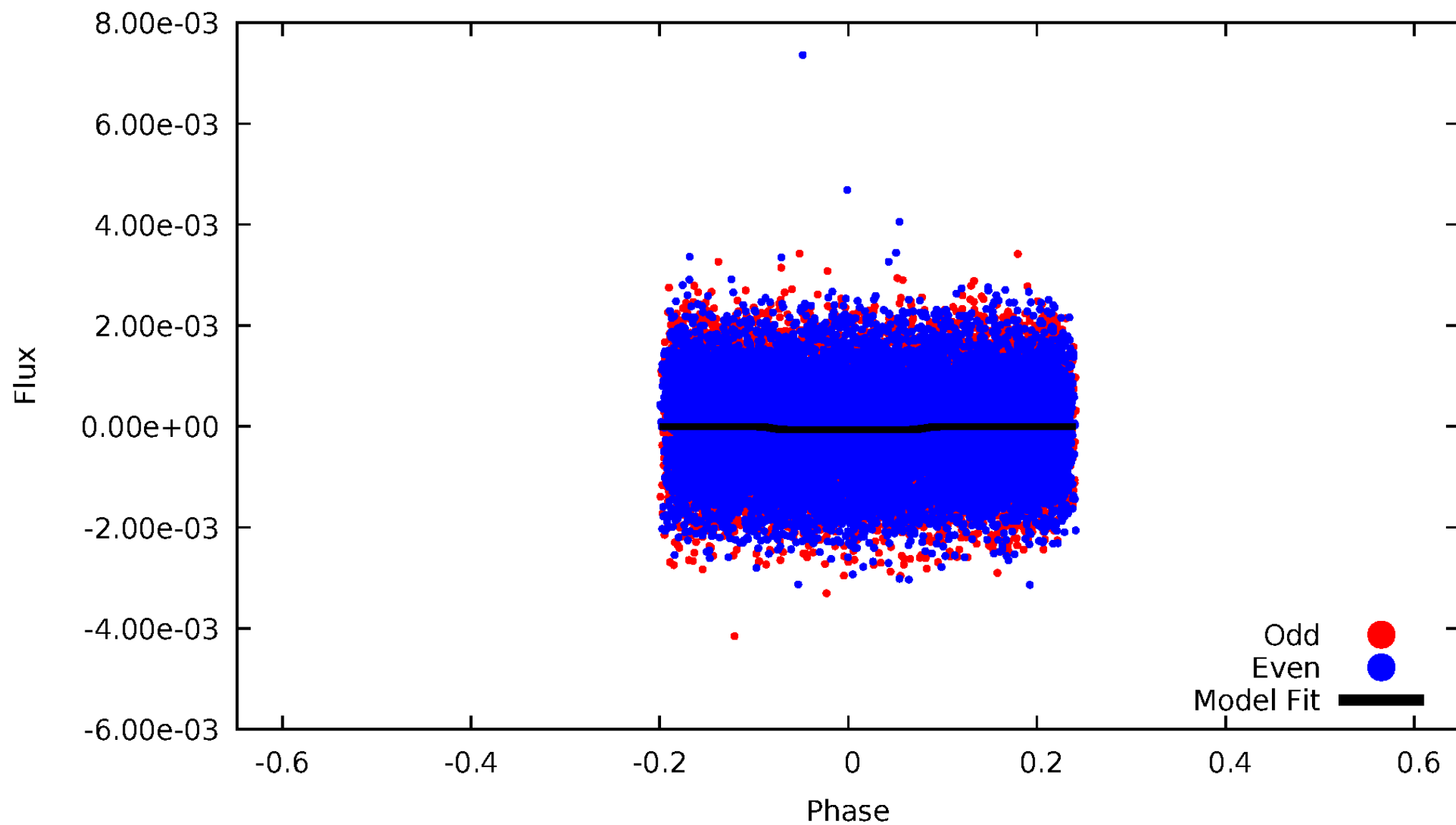
DV Odd/Even

TCE 008264492-02



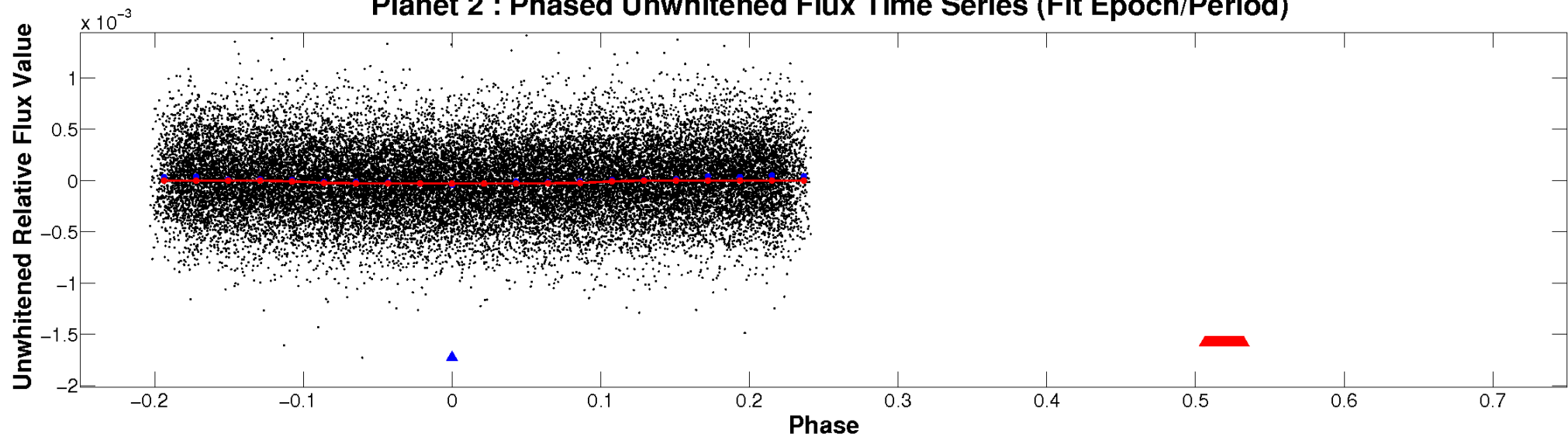
ALT Odd/Even

TCE 008264492-02

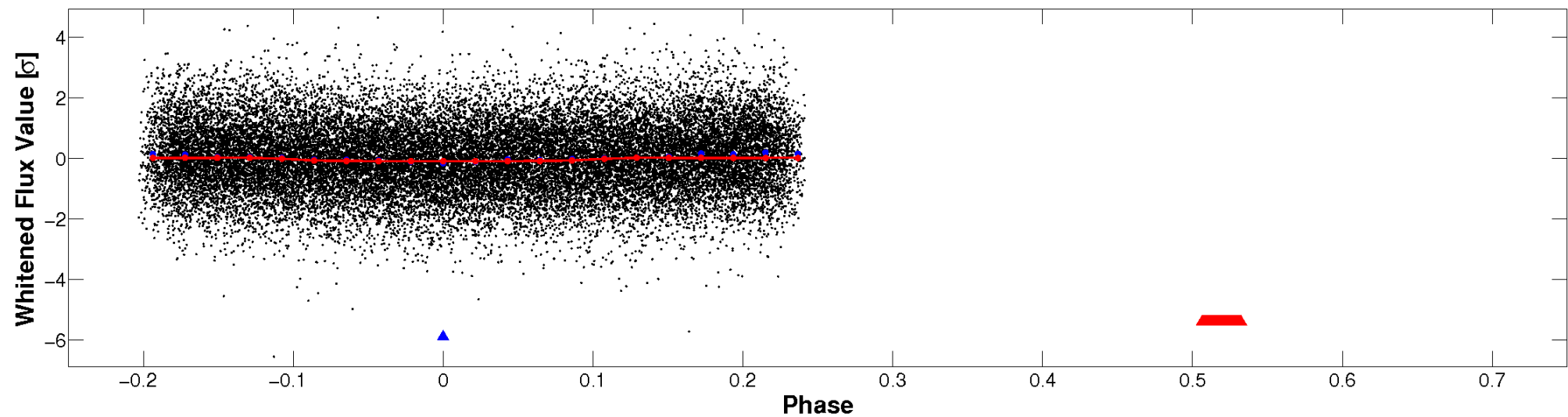


Non-Whitened Vs. Whitened Light Curve

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

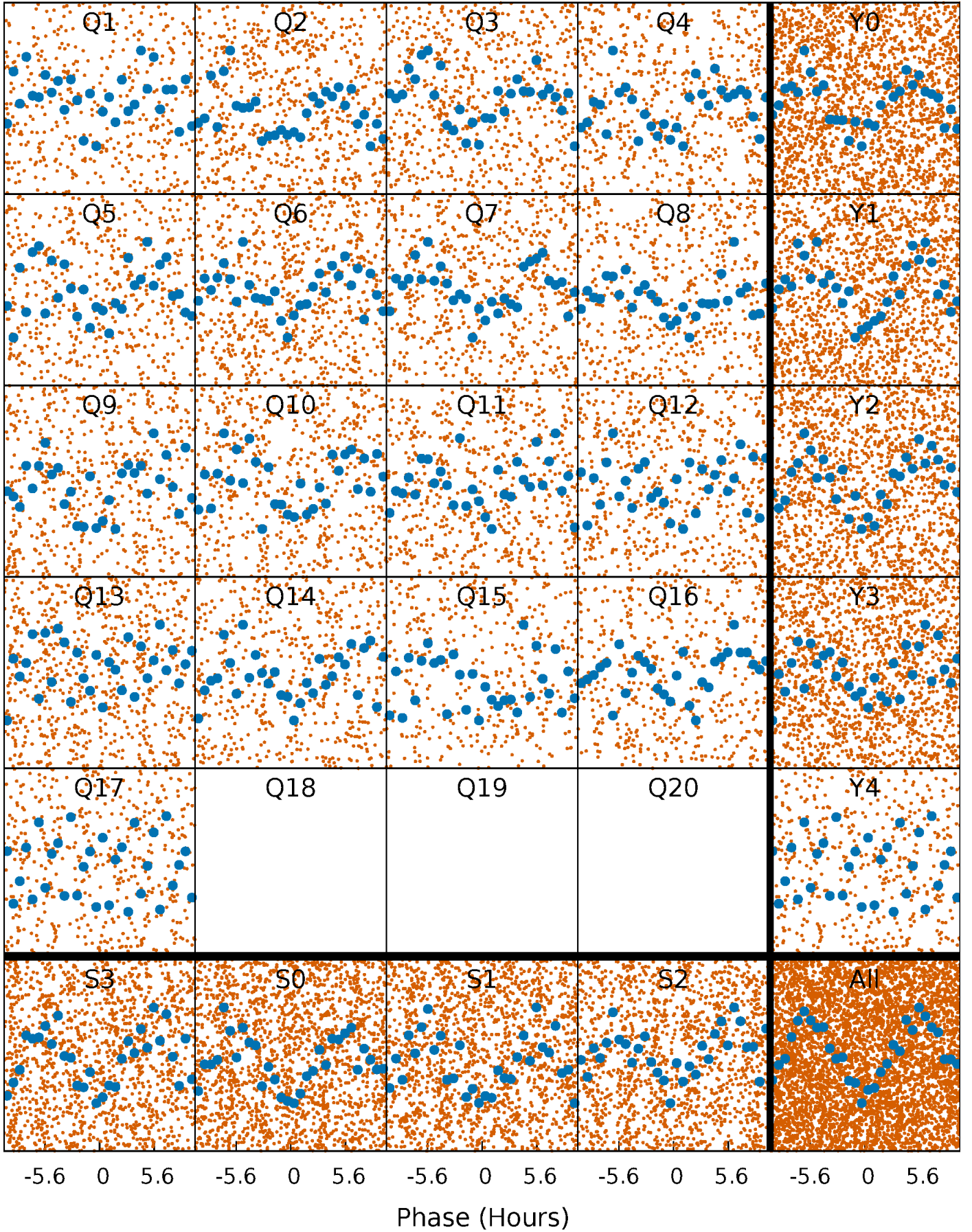


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



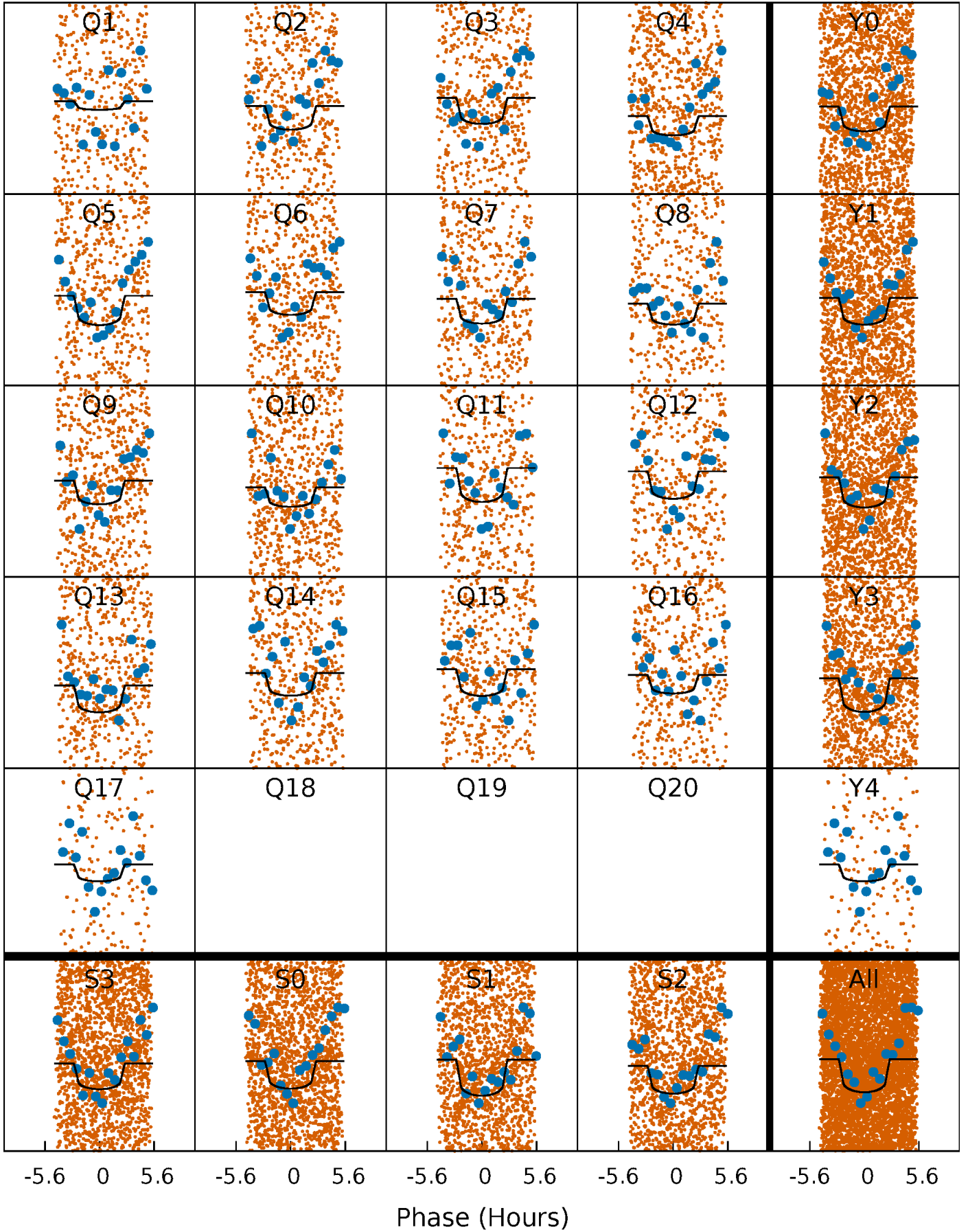
PDC Quarter-Phased Transit Curves

TCE 008264492-02 P= 0.949645 Days $T_0=131.809398$ (BKJD)



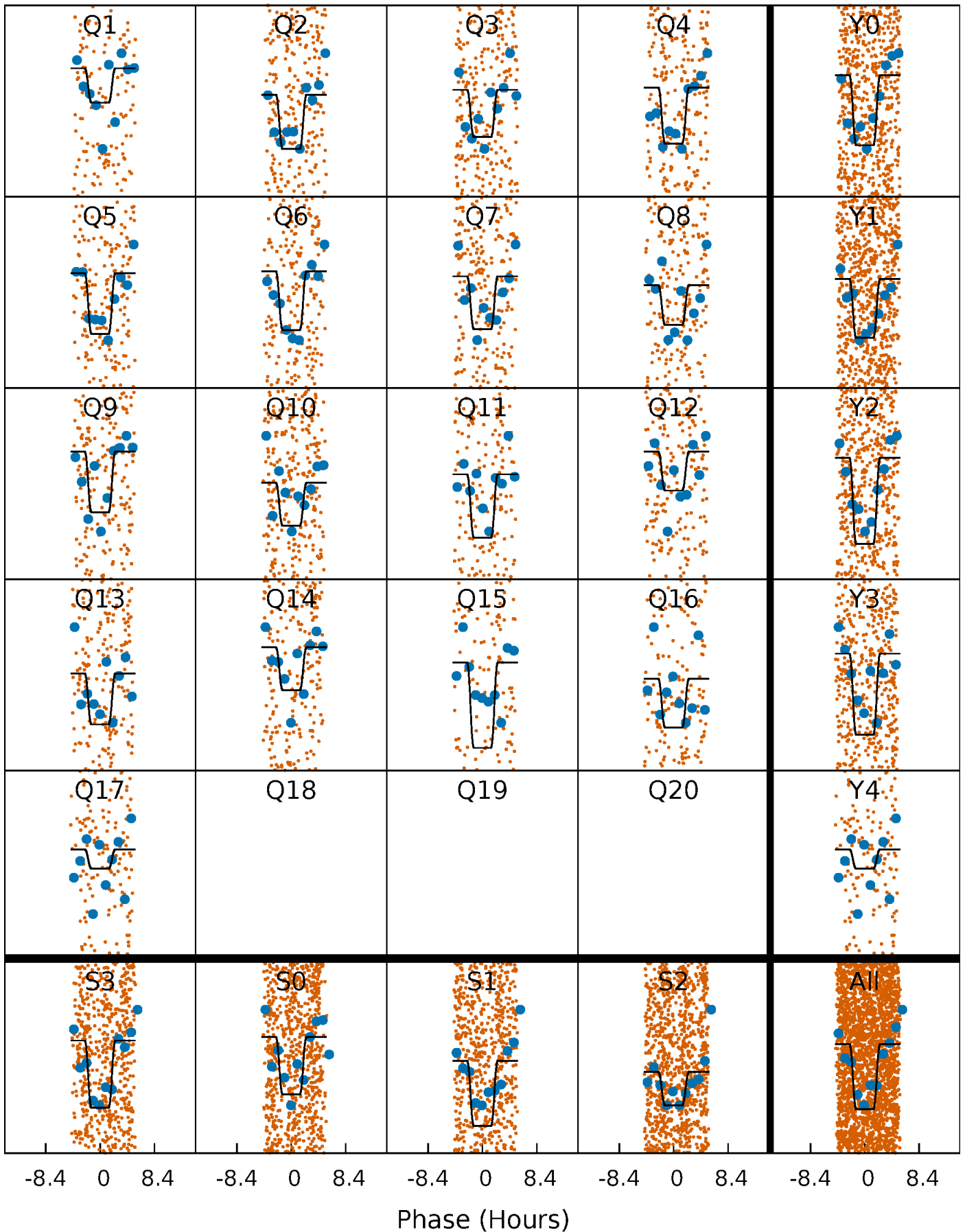
DV Quarter-Phased Transit Curves

TCE 008264492-02 $P = 0.949645$ Days $T_0 = 131.809398$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

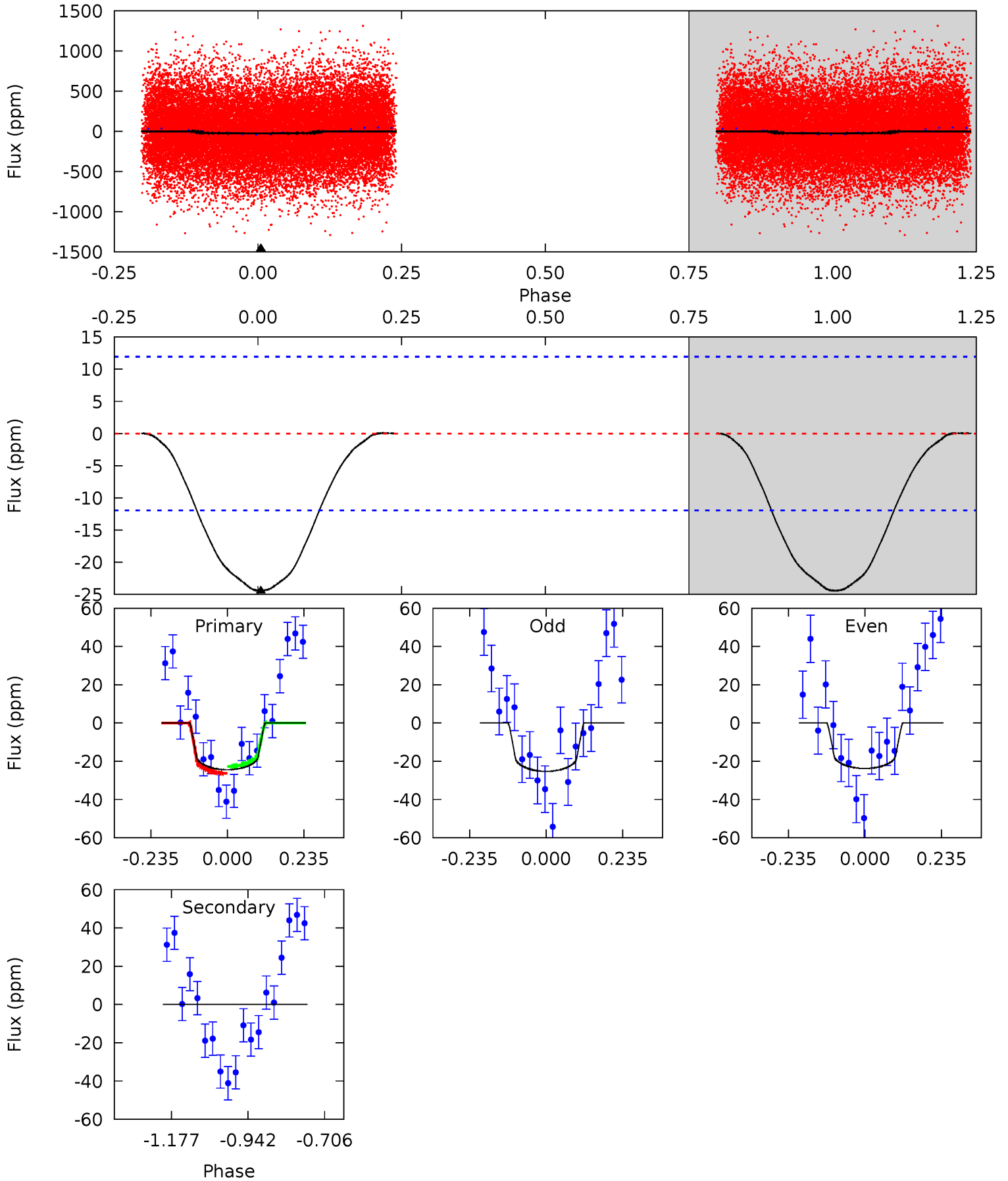
TCE 008264492-02 P= 0.949675 Days $T_0=131.784919$ (BKJD)



DV Model-Shift Uniqueness Test

008264492-02, P = 0.949645 Days, E = 130.859753 Days

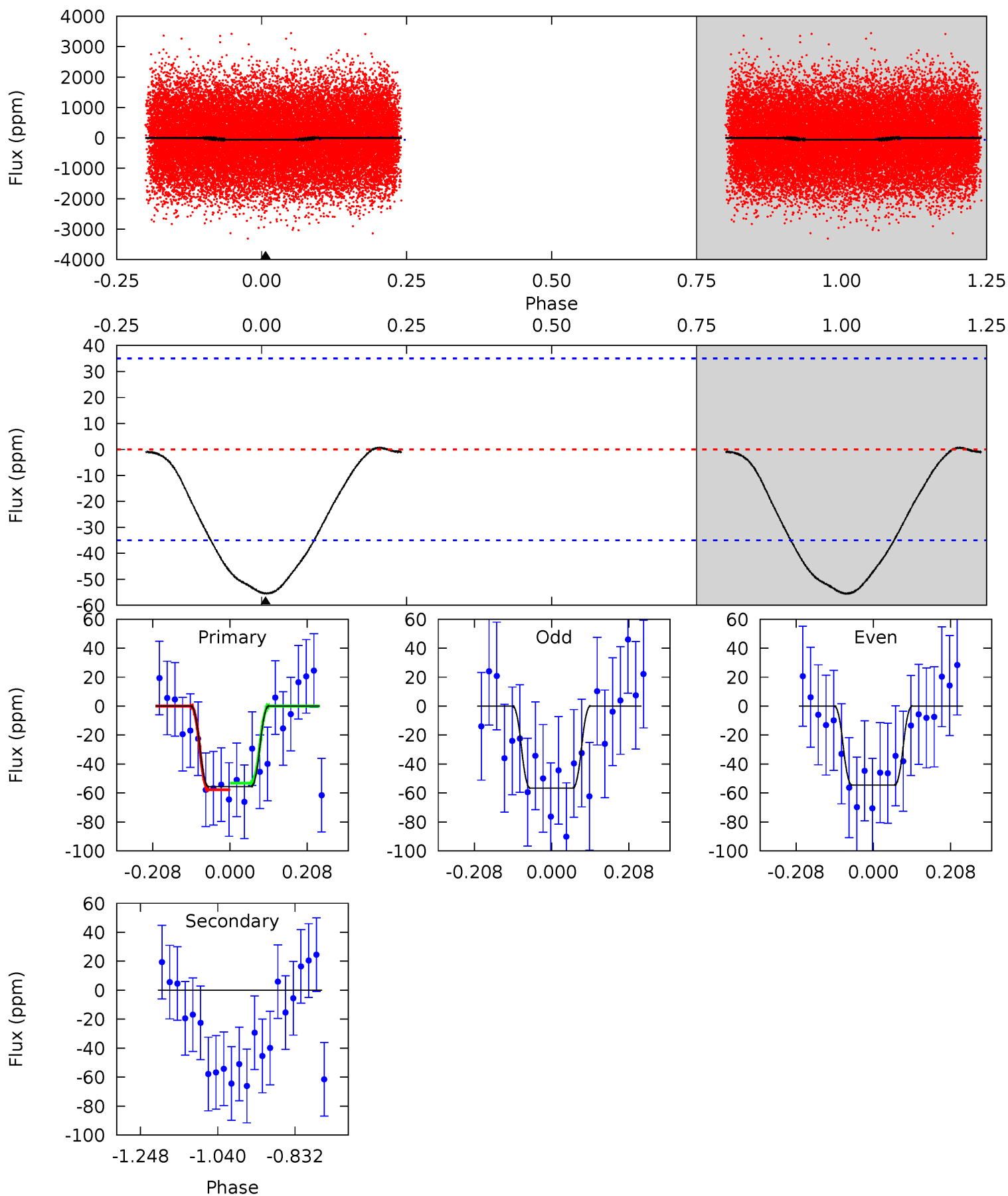
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.97	0	0	0	4.38	1.19	0.06	8.97	8.97	0	0	0.28	0.95	0.00	0.65



Alt Model-Shift Uniqueness Test

008264492-02, P = 0.949675 Days, E = 130.835244 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.99	0	0	0	4.41	1.26	0.09	6.99	6.99	0	0	0.13	1.07	0.01	0.29



Stellar Parameters For KIC 008264492

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7992^{+221}_{-332}	$3.947^{+0.259}_{-0.129}$	$-0.120^{+0.200}_{-0.350}$	$2.410^{+0.427}_{-0.792}$	$1.872^{+0.097}_{-0.387}$	$0.188^{+0.315}_{-0.064}$
	+3%/-4%	+7%/-3%	+167%/-292%	+18%/-33%	+5%/-21%	+167%/-34%
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 008264492-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	0 ± 3	$1.43^{+0.96}_{-0.76}$	4931^{+353}_{-384}	-4197^{+8149}_{-969}	$0.010^{+0.541}_{-0.560}$
Alt.	0 ± 8	$2.05^{+0.94}_{-0.93}$	4940^{+327}_{-439}	-4157^{+8435}_{-1132}	$0.013^{+0.651}_{-0.620}$

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

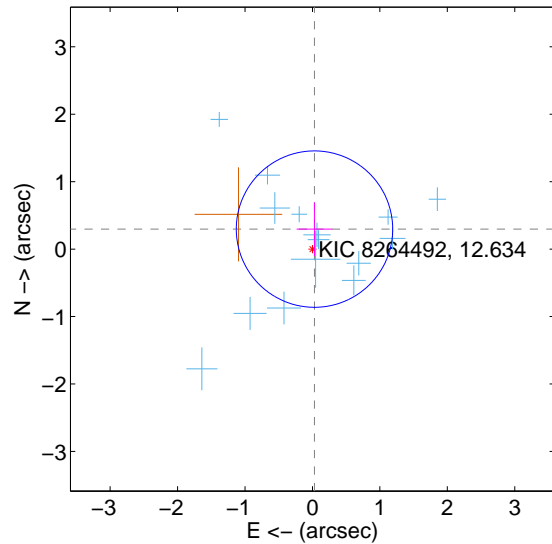
Supplemental centroid analysis for 008264492-02. Kepler magnitude: 12.63. Transit SNR 9.94

There are 15 quarters with good PRF difference image offsets

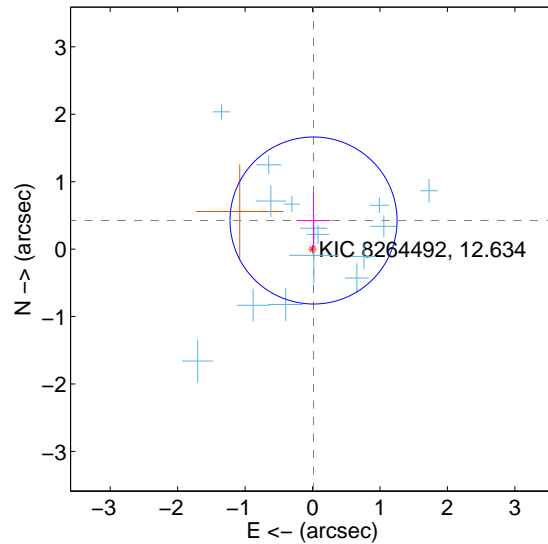
The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.298 ± 0.386	0.77	-0.030 ± 0.266	0.296 ± 0.397
PRF-fit source offset from KIC position	0.424 ± 0.413	1.03	-0.015 ± 0.253	0.424 ± 0.416
photometric centroid source offset	0.75 ± 0.75	1.00	0.66 ± 0.78	0.34 ± 0.61

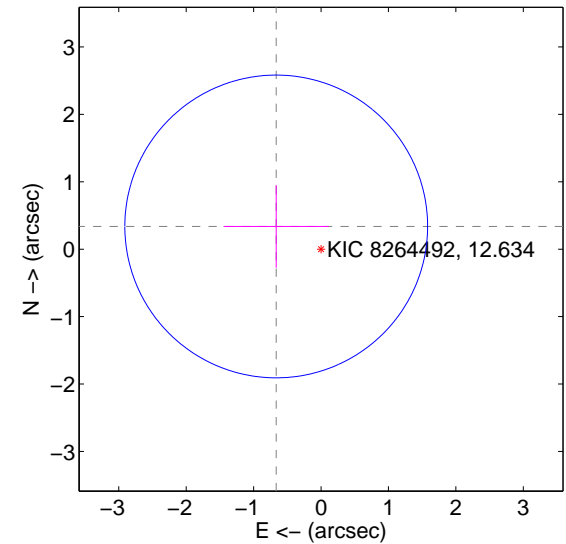
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

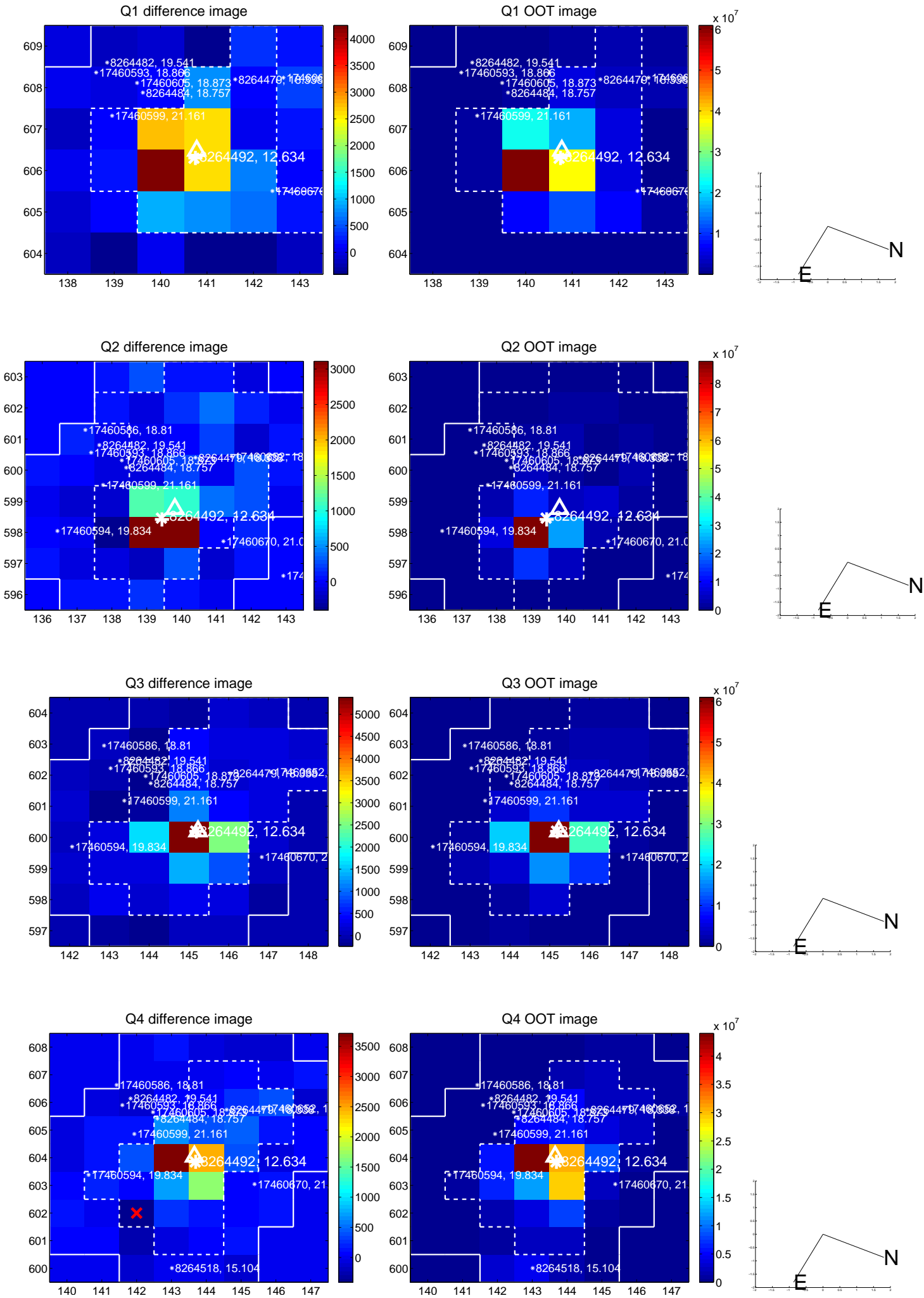


offset from photometric centroids

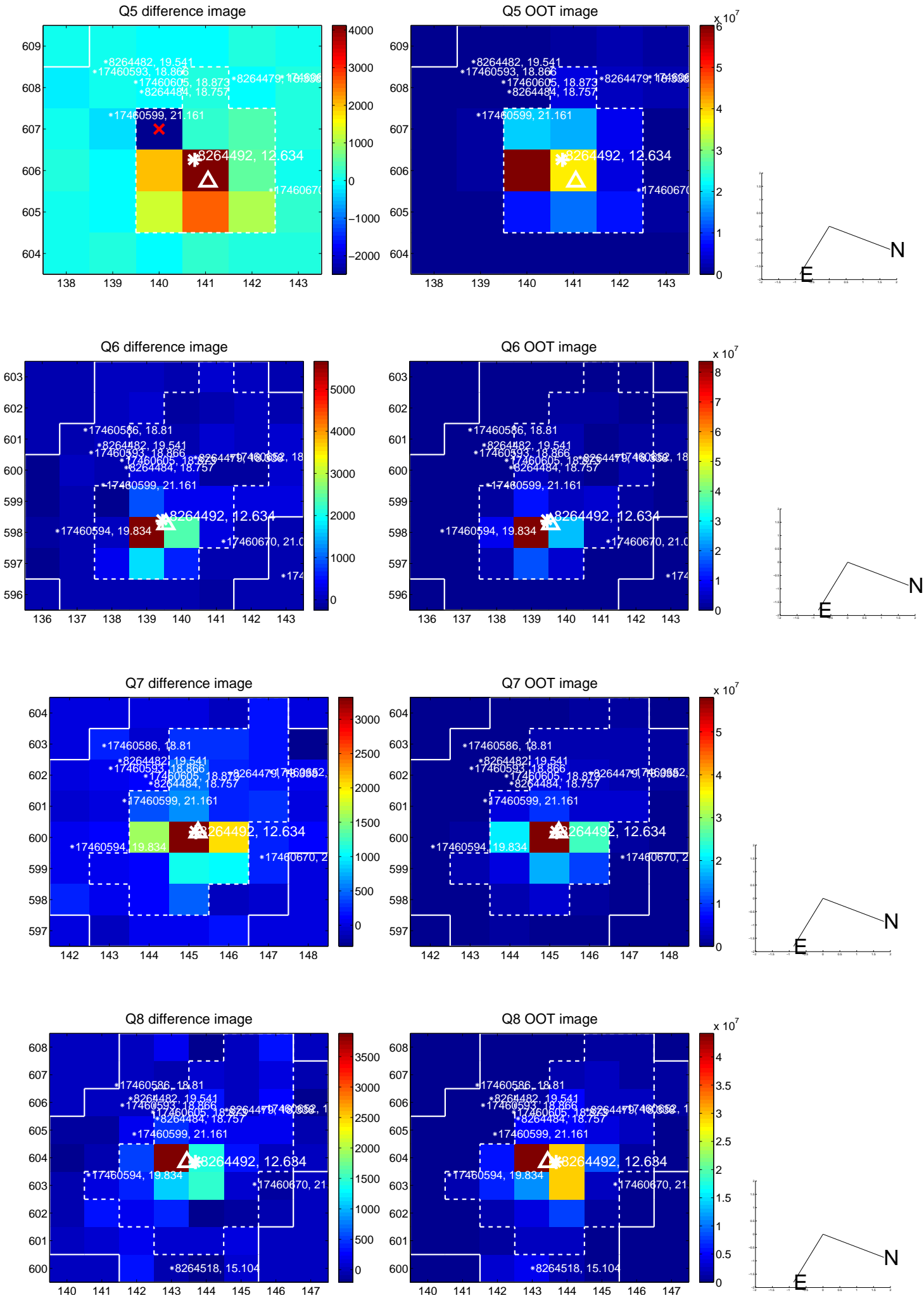


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

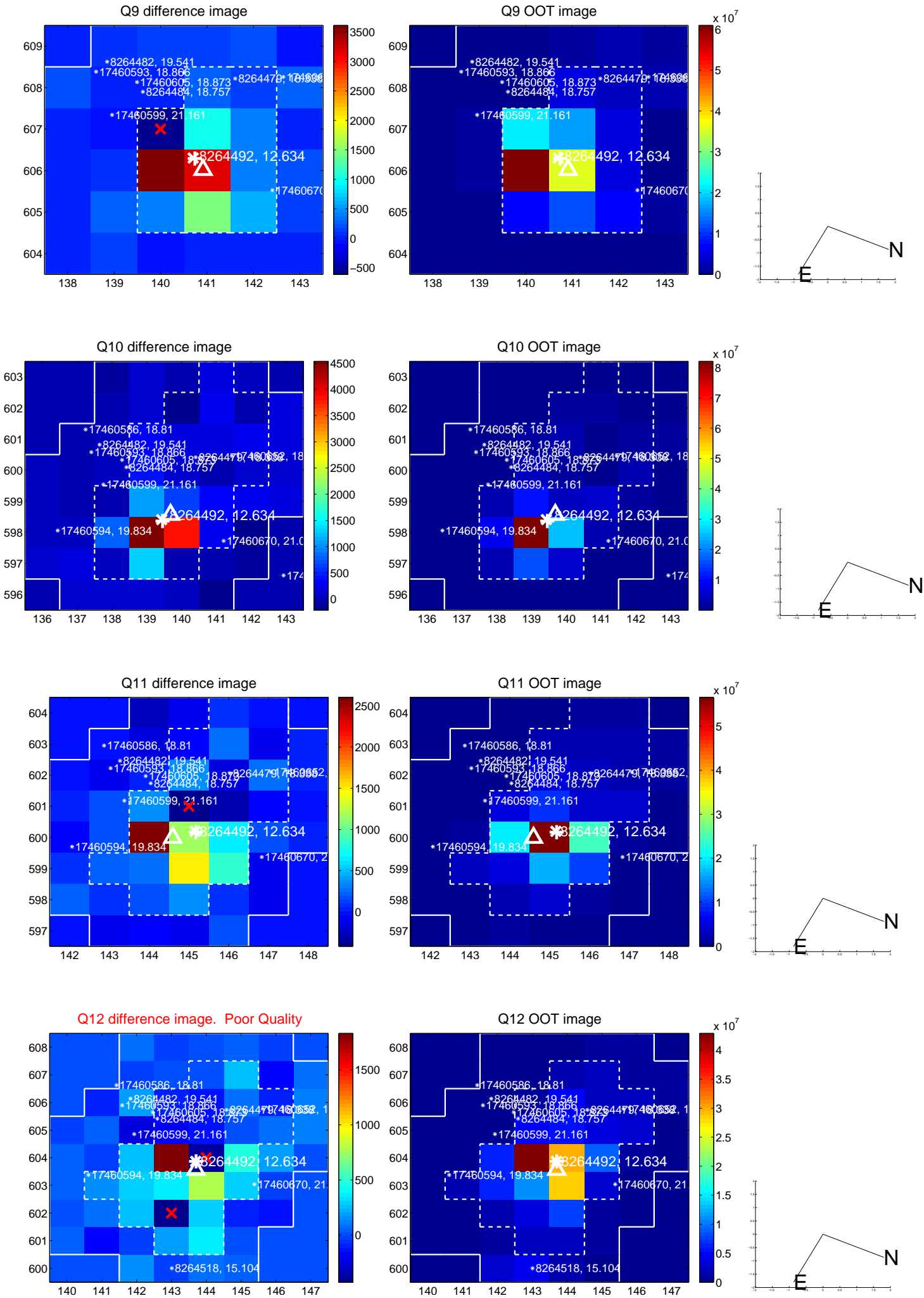
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



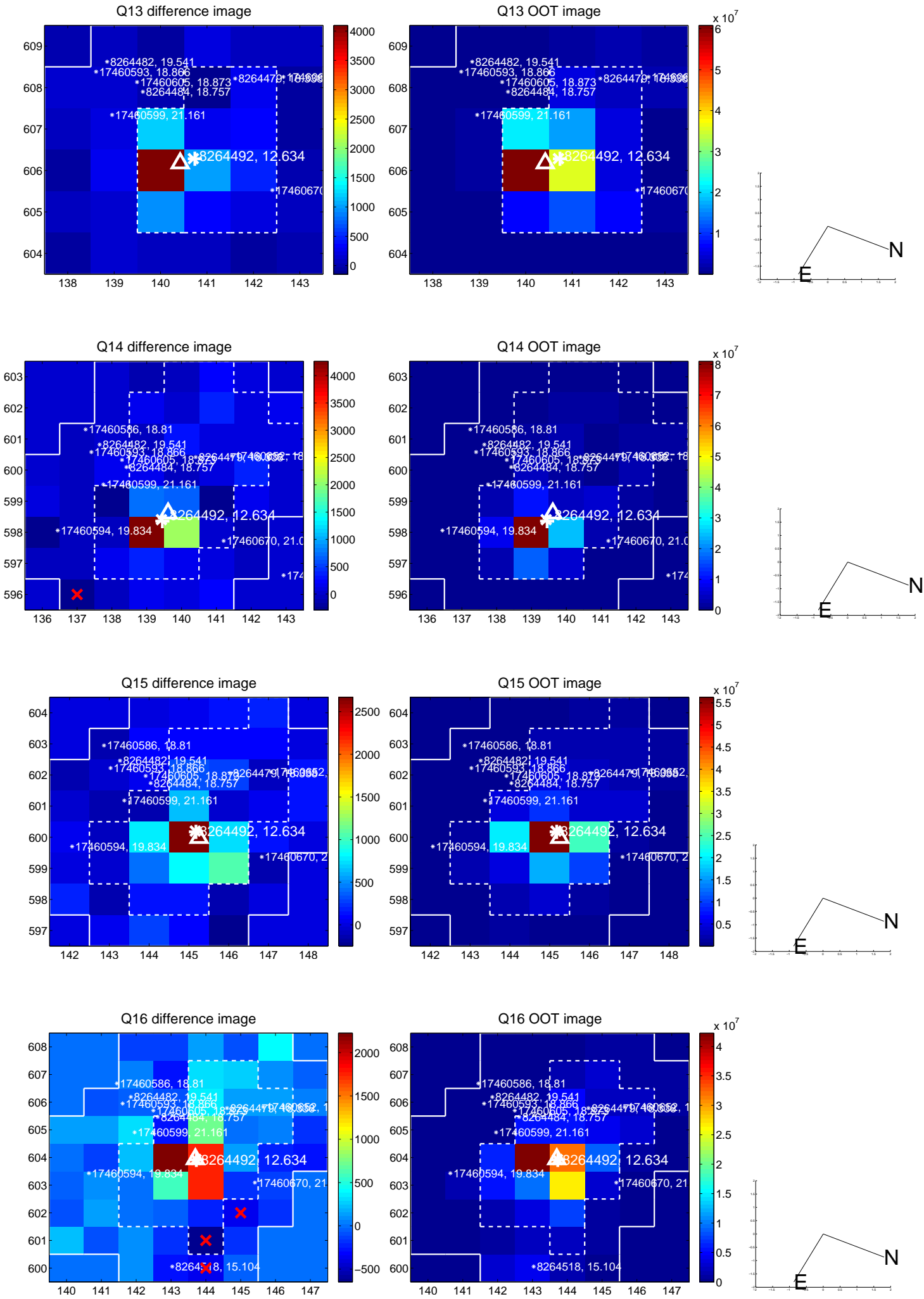
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



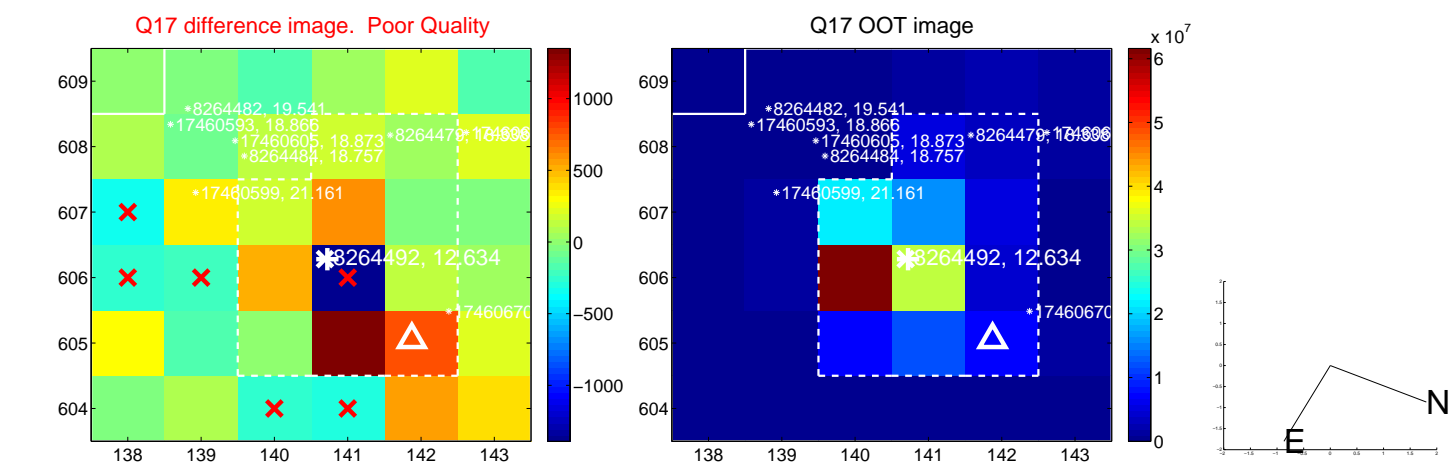
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



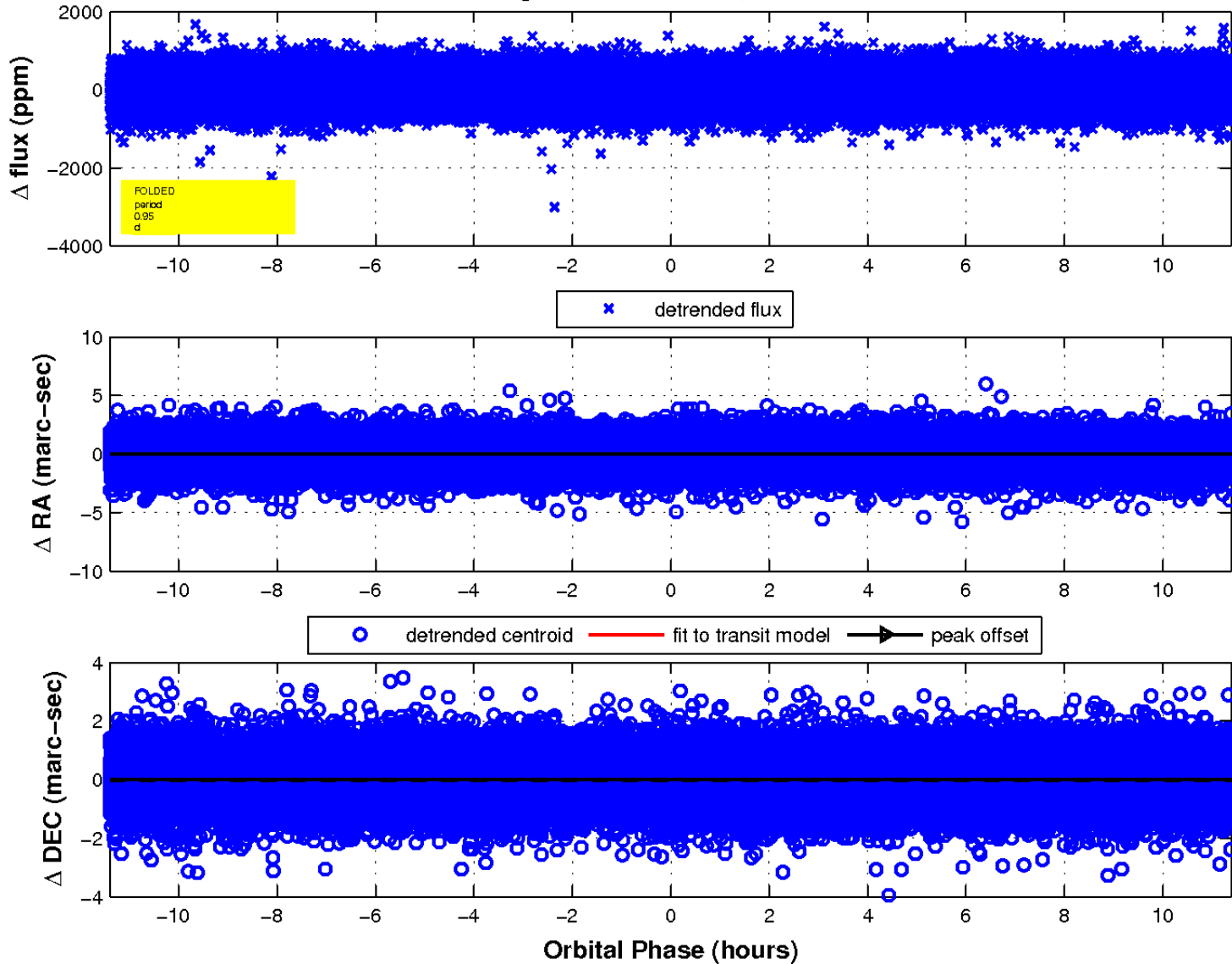
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 2 of 2



UKIRT Image

