

KIC 007848324

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})
007848324-01	OBS	No	0.901194	132.281227	5.4	3.796	9.4	11.5	2.05	8057	0.55	31483.96
007848324-02	OBS	No	378.738425	304.125038	60.3	36.749	11.6	5.4	2.05	8057	1.74	10.00
007848324-03	OBS	No	0.541529	132.046179	5.2	5.036	10.0	11.4	2.05	8057	0.48	62089.49

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007848324-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
007848324-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
007848324-03	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_ALT—CENT_SATURATED

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

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

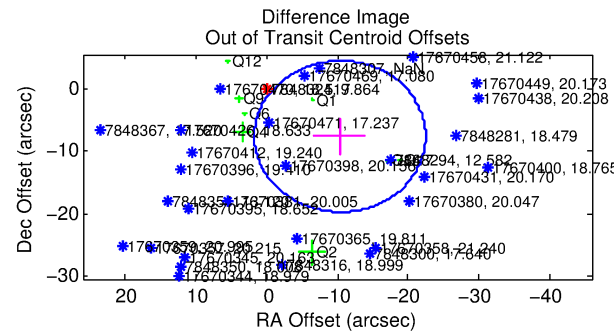
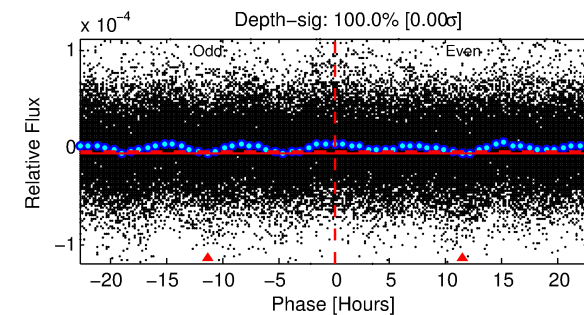
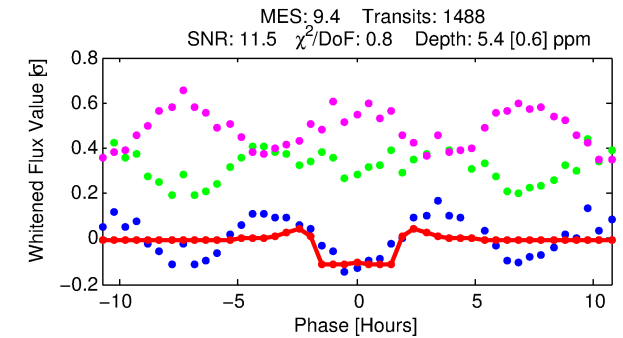
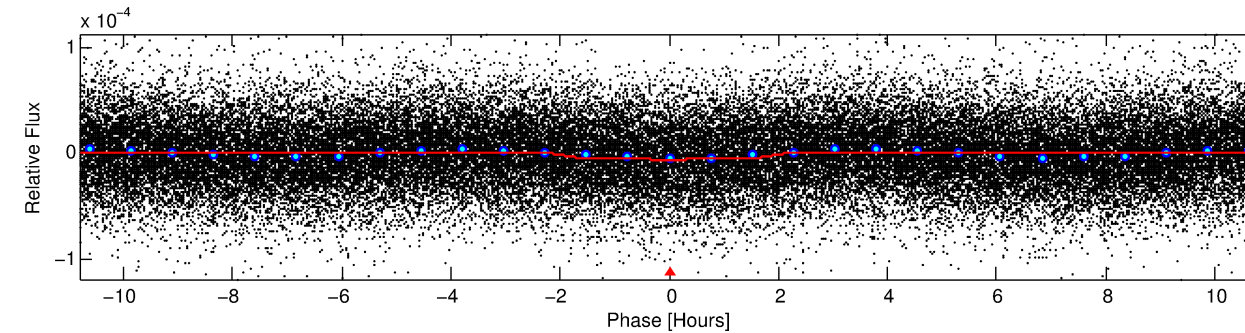
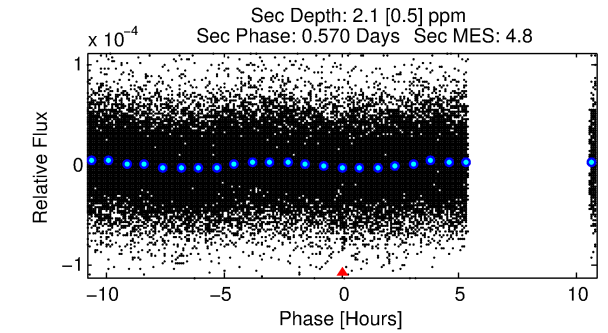
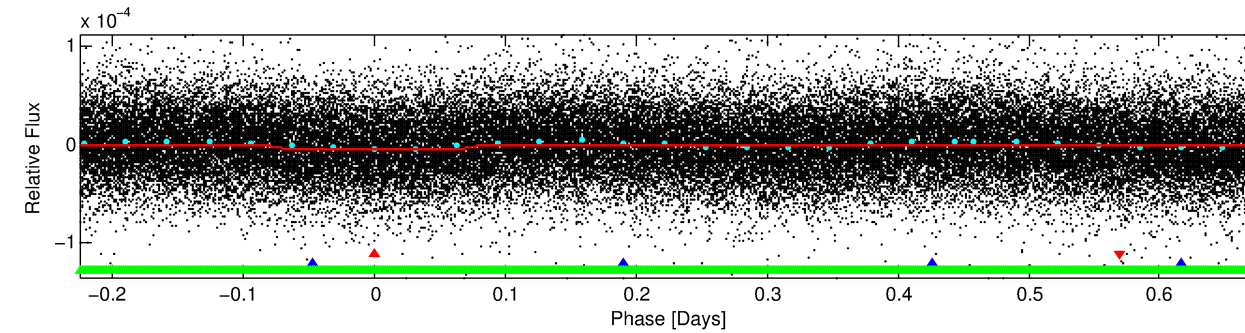
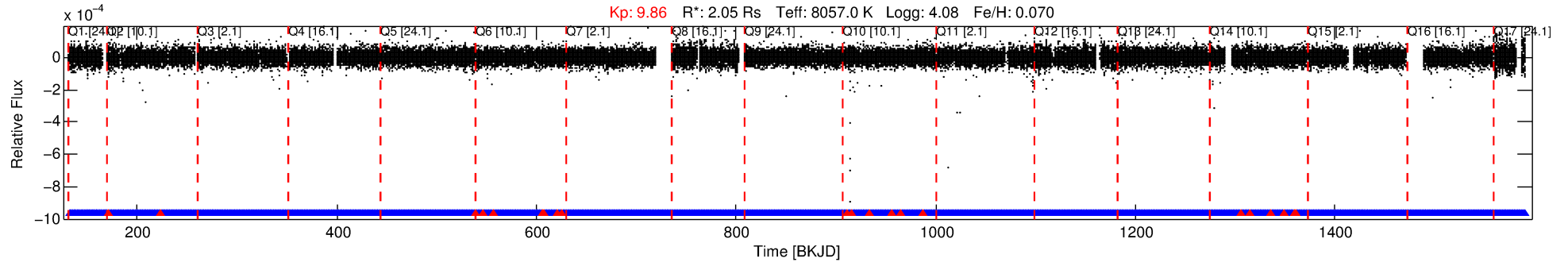
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007848324-01

No Significant Match Found

DV One-Page Summary

KIC: 7848324 Candidate: 1 of 3 Period: 0.901 d



DV Fit Results:

Period = 0.90119 [0.00001] d
Epoch = 132.2812 [0.0024] BKJD
Rp/R* = 0.0025 [0.0003]
a/R* = 1.23 [0.30]
b = 0.90 [0.15]
Seff = 31483.96 [10149.08]
Teq = 3397 [274] K
Rp = 0.55 [0.14] Re
a = 0.0225 [0.0042] AU
Ag = 1.95 [0.86] [1.11 σ]
Teffp = 6207 [608] K [4.21 σ]

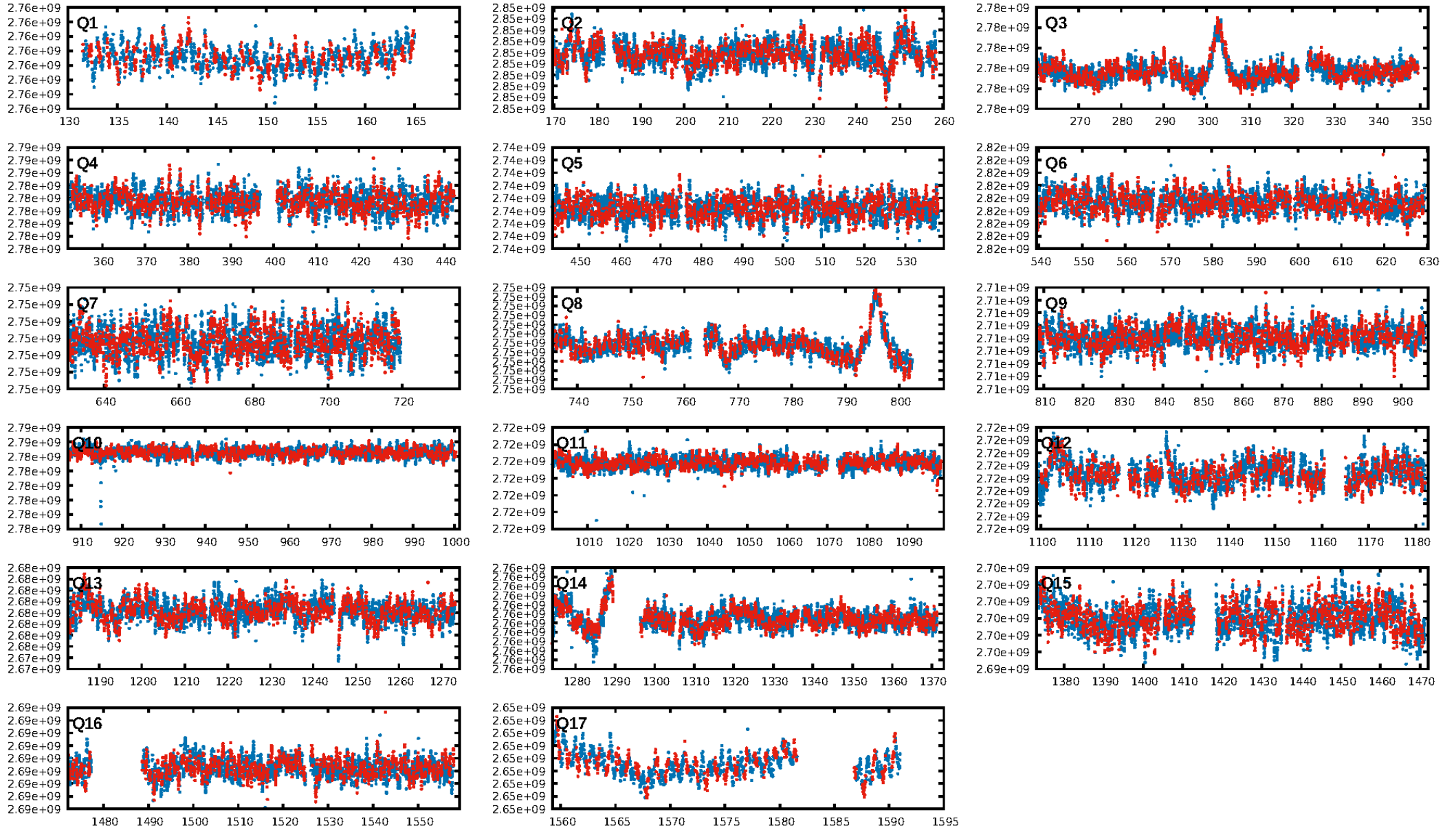
DV Diagnostic Results:

ShortPeriod-sig: 82.9% [1.37 σ]
LongPeriod-sig: 100.0% [245.45 σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.99 [1400/1421]
GhostDiagnostic-chr: N/A
Centroid-sig: 0.2%
Centroid-so: 2.638 arcsec [1.88 σ]
OotOffset-rm: 12.891 arcsec [3.19 σ]
KicOffset-rm: 13.265 arcsec [3.65 σ]
OotOffset-st: 2/0/3/3 [8]
KicOffset-st: 2/0/3/3 [8]
DiffImageQuality-fgm: 0.38 [3/8]
DiffImageOverlap-fno: 0.00 [0/17]

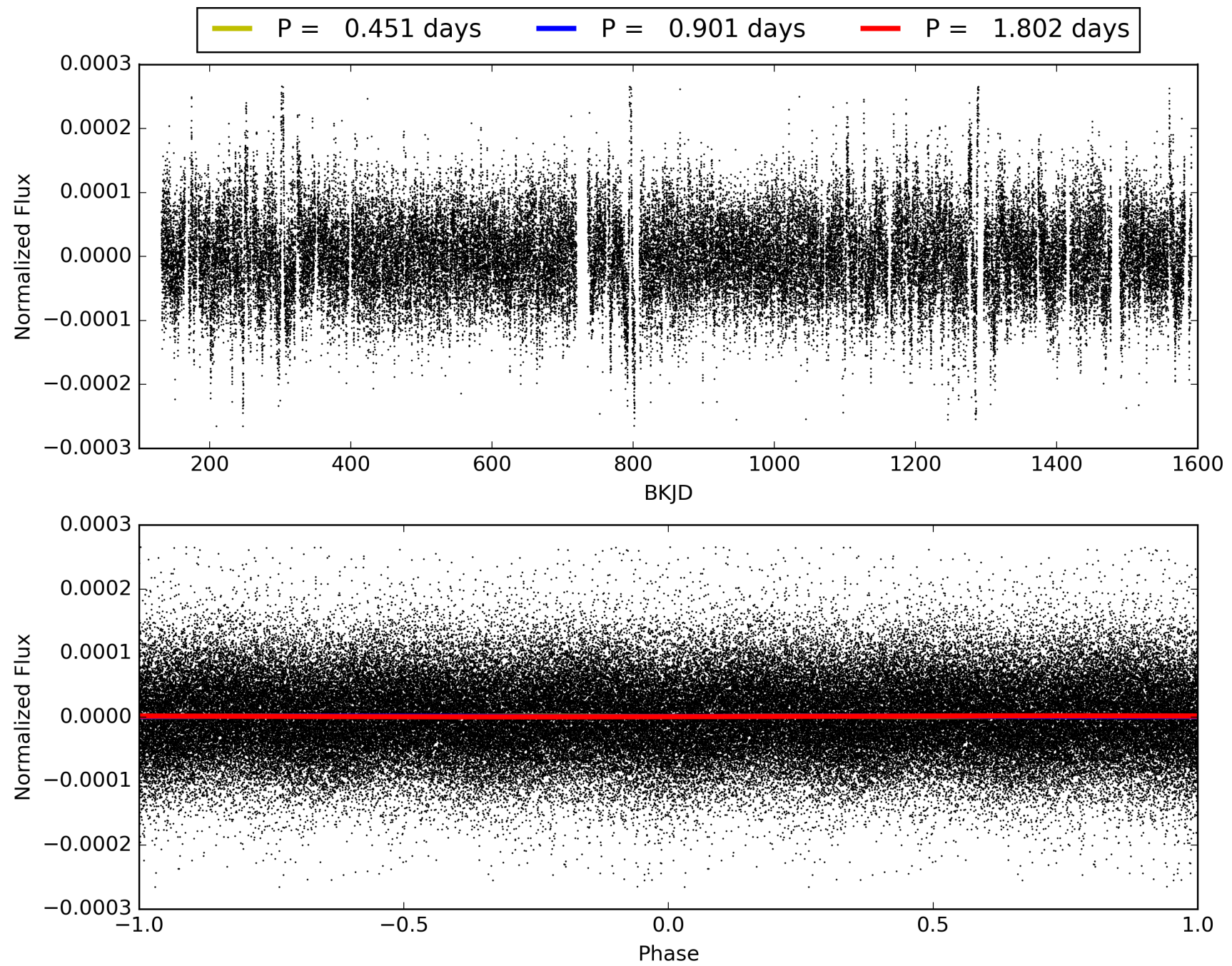
Software Revision: svn-ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 16:03:42 Z

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

TCE 007848324-01, PDC Light Curves

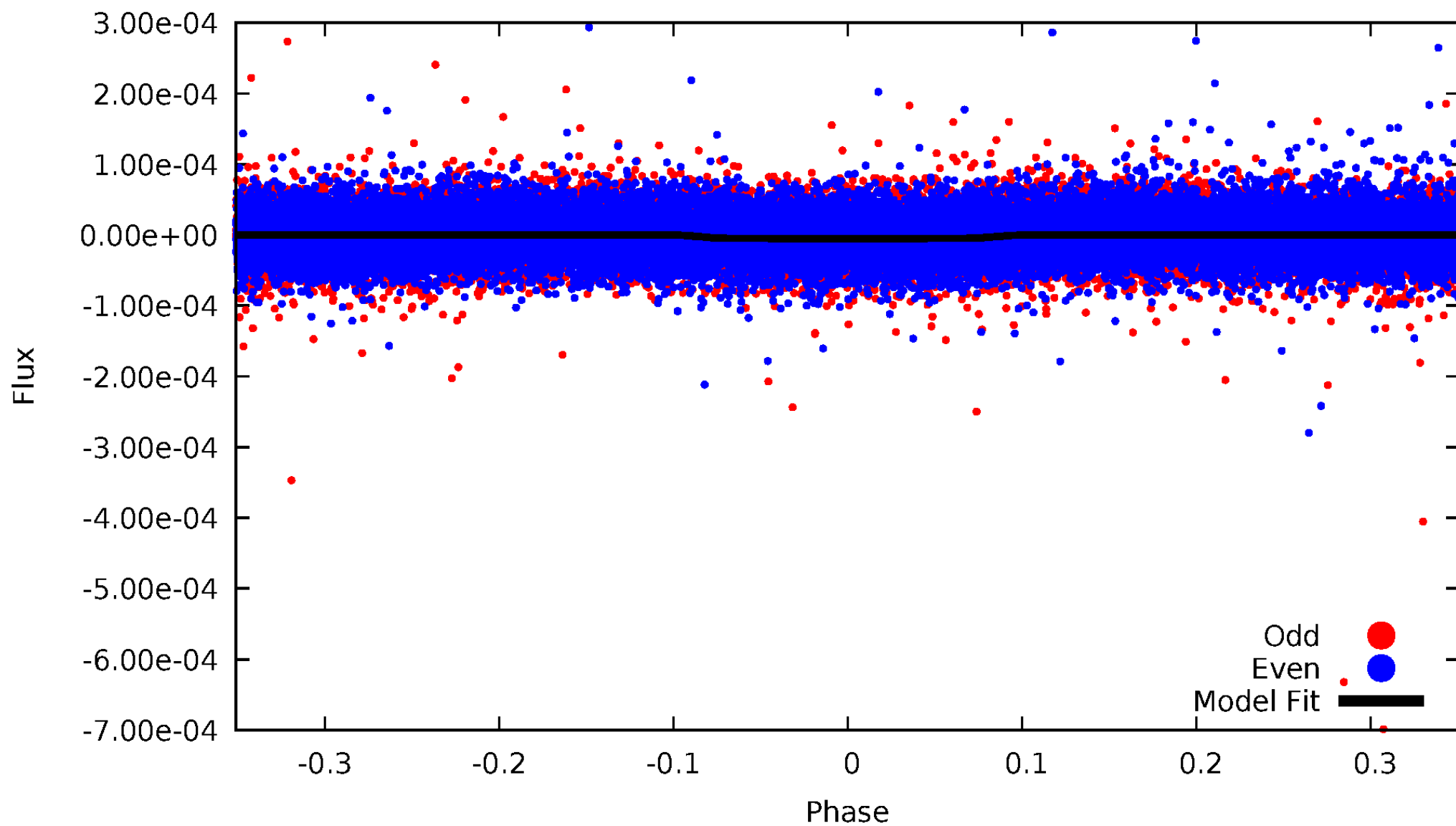


TCE 007848324-01



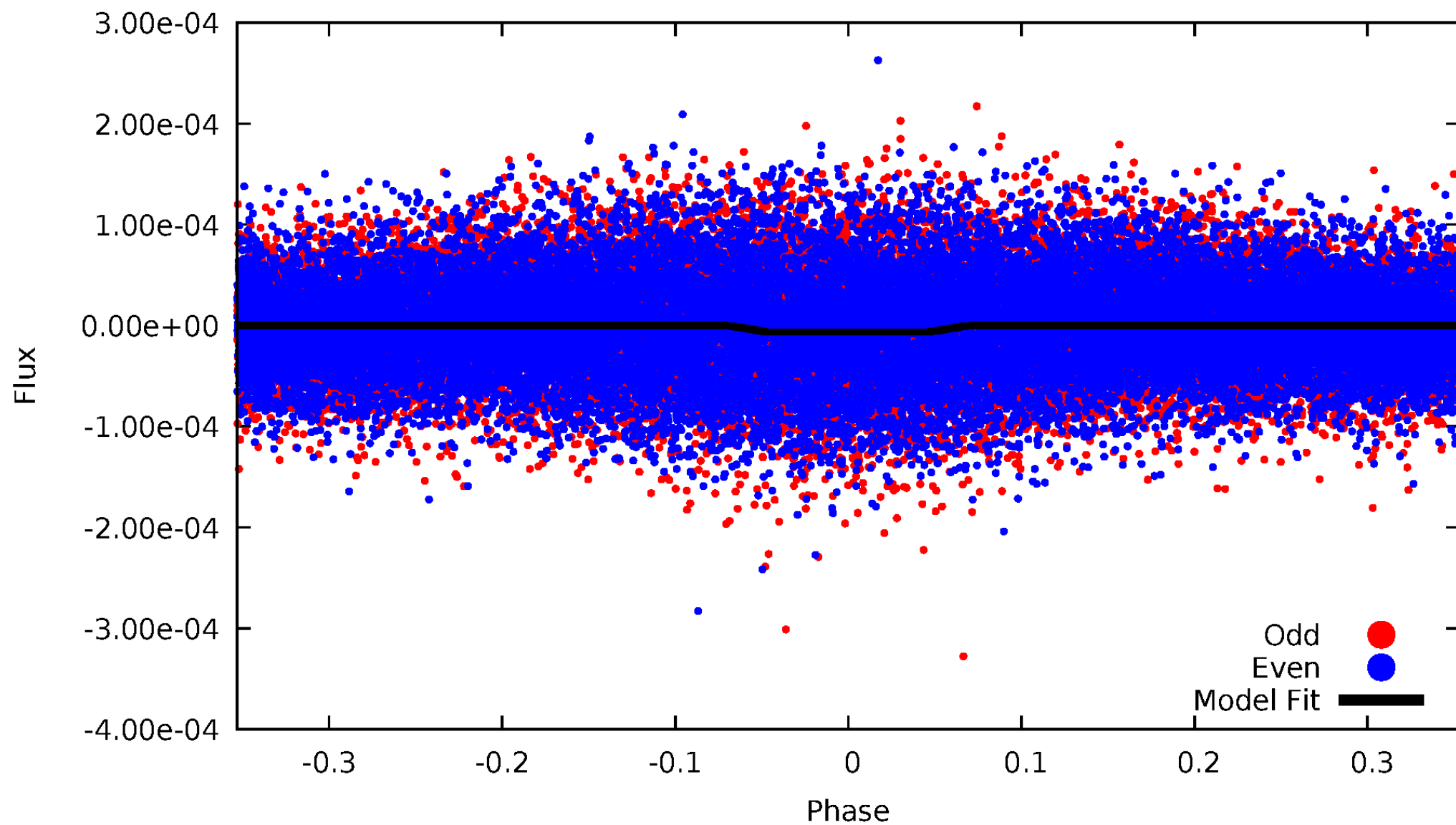
DV Odd/Even

TCE 007848324-01

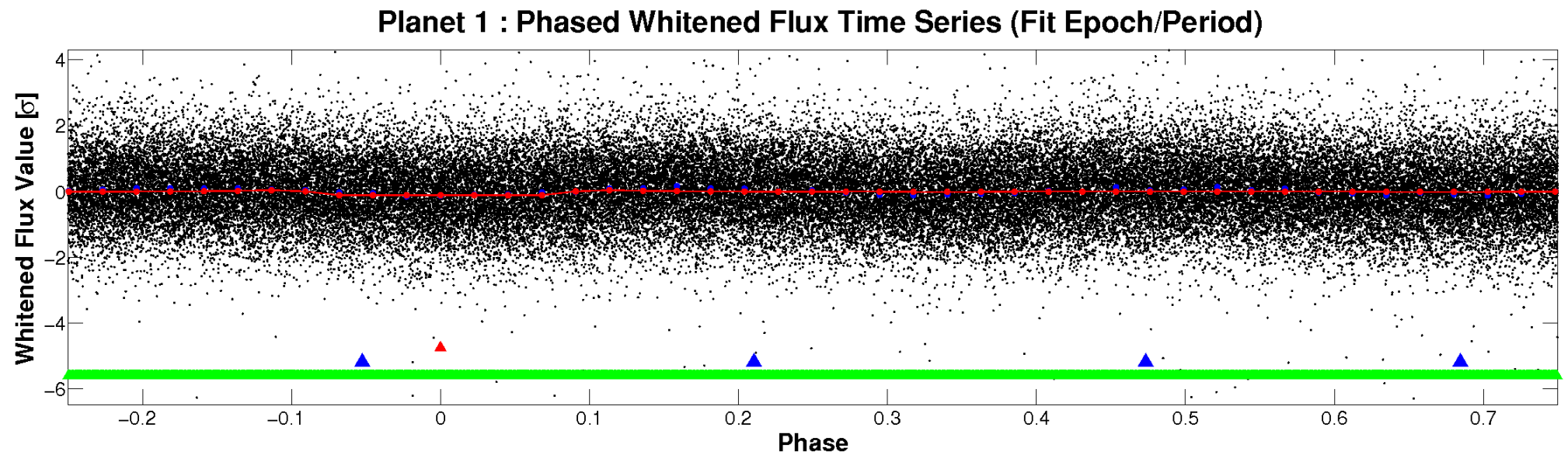
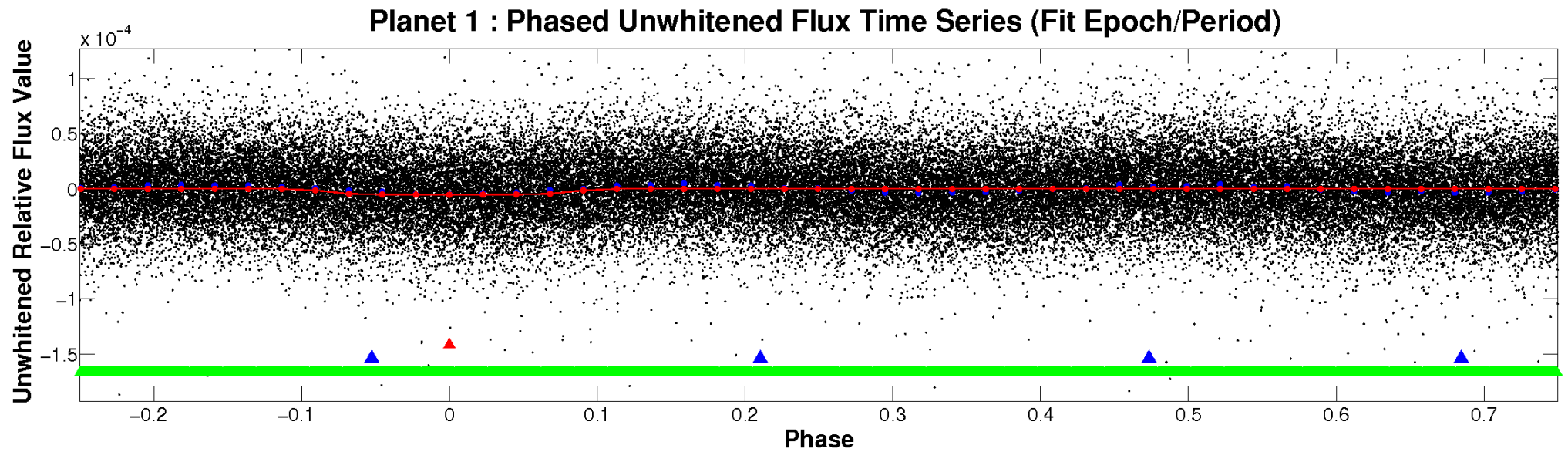


ALT Odd/Even

TCE 007848324-01

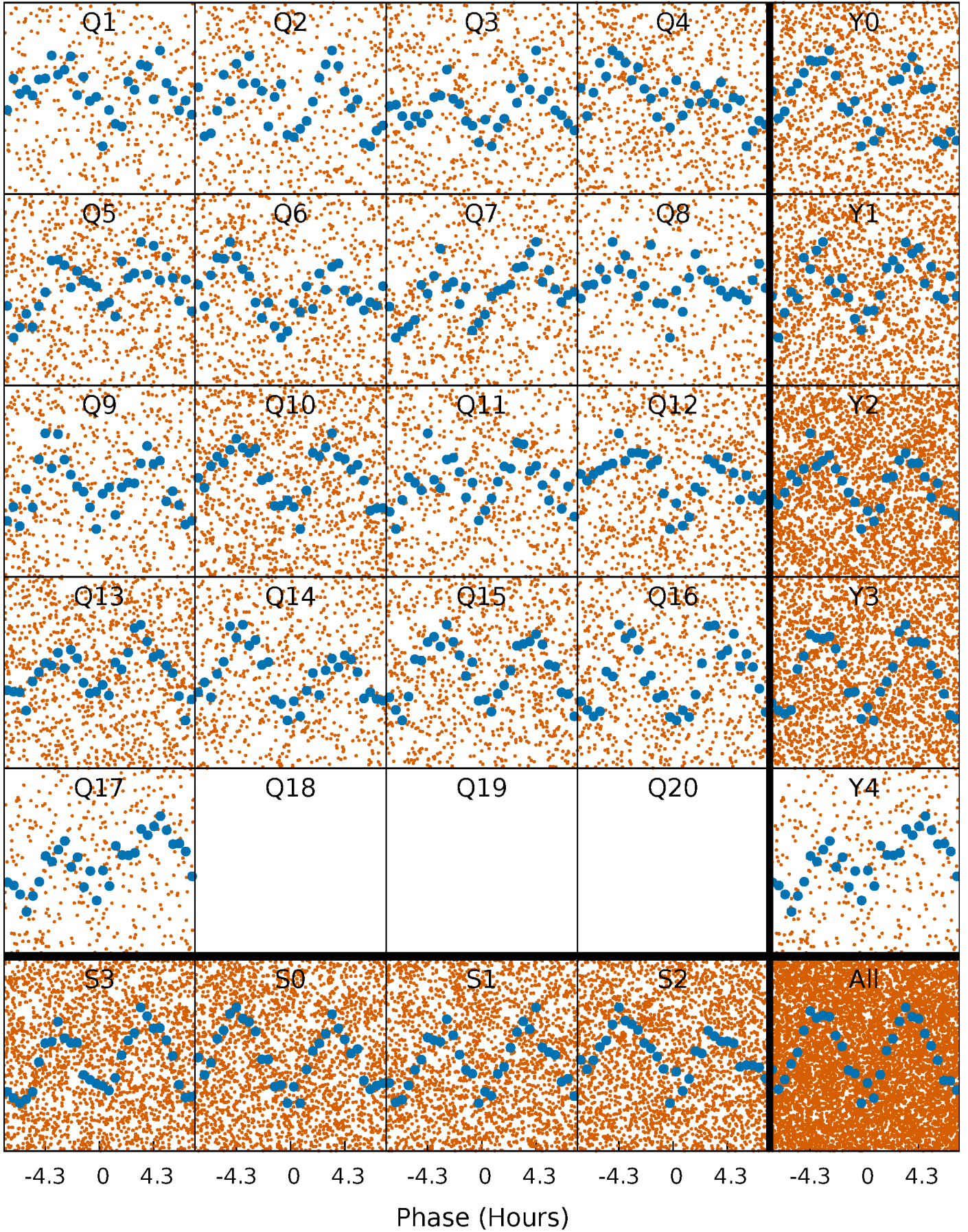


Non-Whitened Vs. Whitened Light Curve



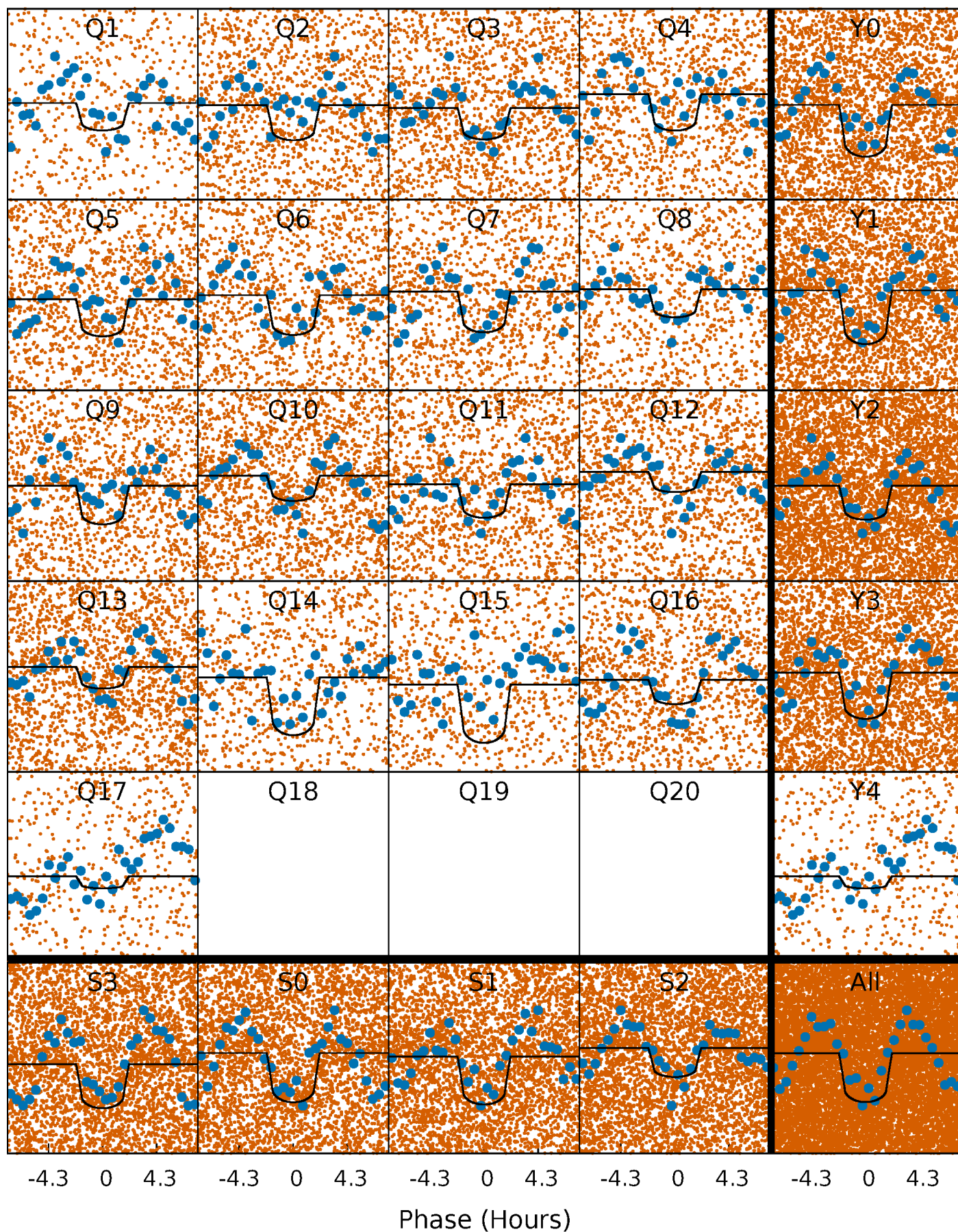
PDC Quarter-Phased Transit Curves

TCE 007848324-01 P= 0.901194 Days $T_0=132.281227$ (BKJD)



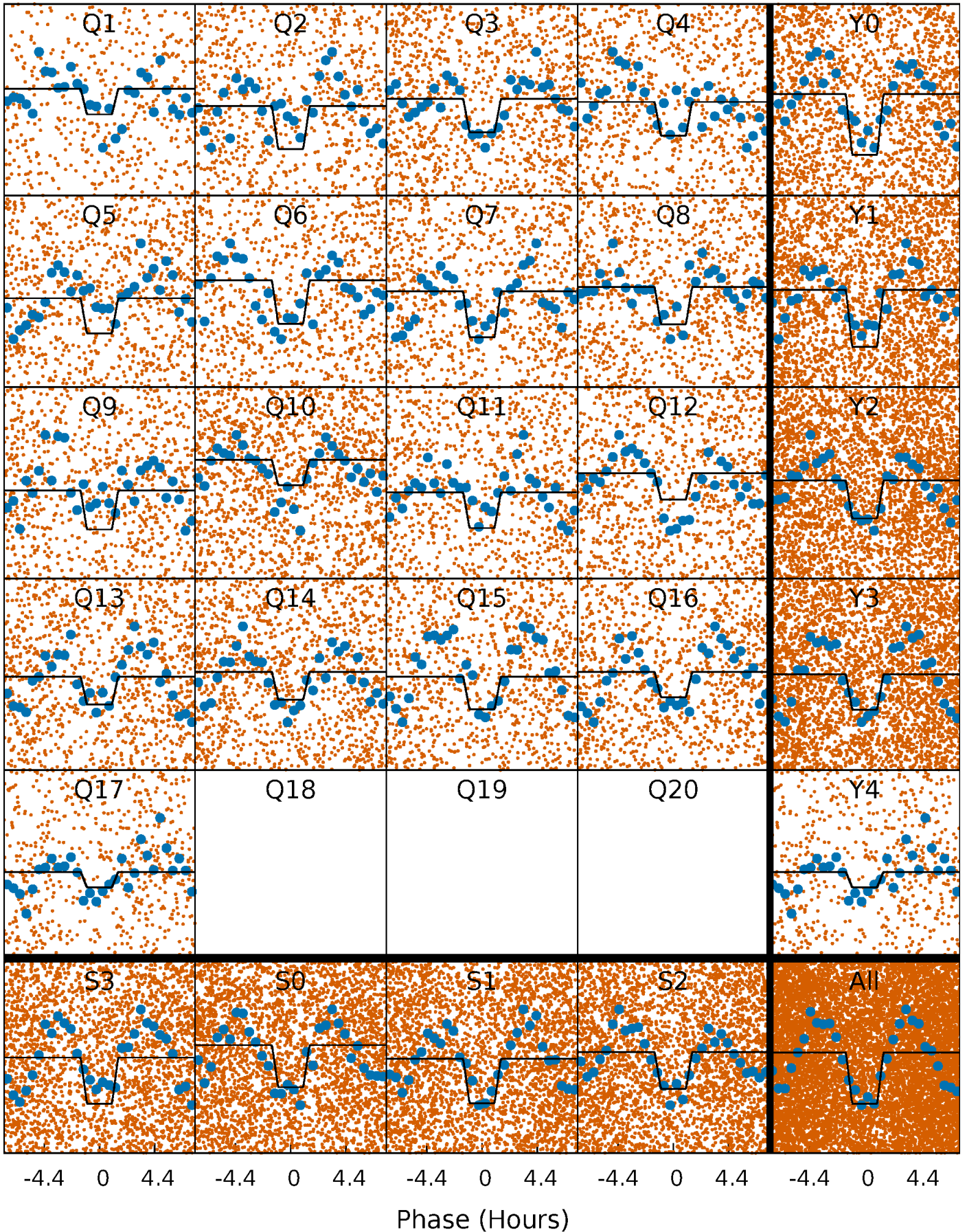
DV Quarter-Phased Transit Curves

TCE 007848324-01 P= 0.901194 Days $T_0=132.281227$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

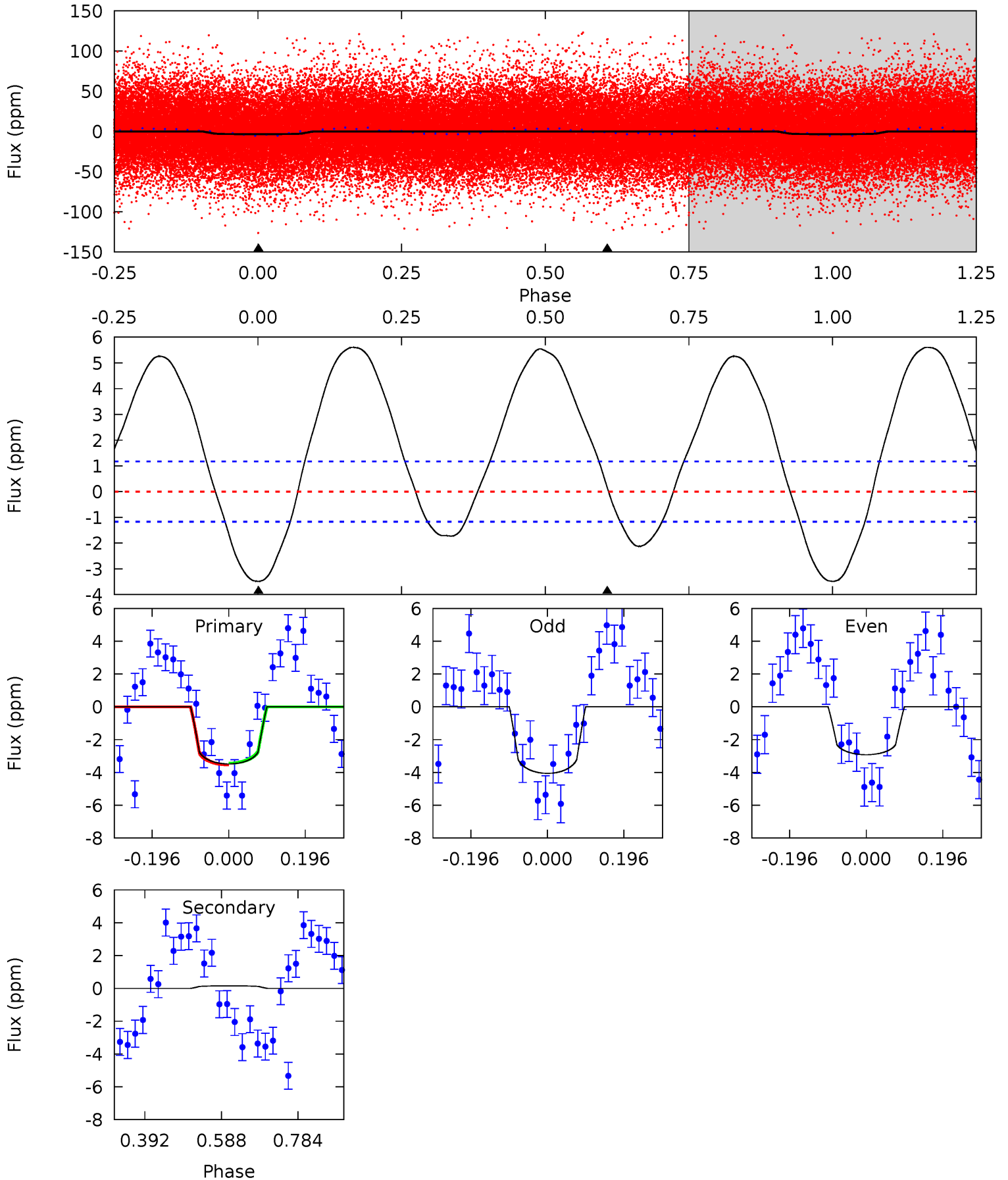
TCE 007848324-01 P= 0.901199 Days $T_0=132.279784$ (BKJD)



DV Model-Shift Uniqueness Test

007848324-01, P = 0.901194 Days, E = 131.380033 Days

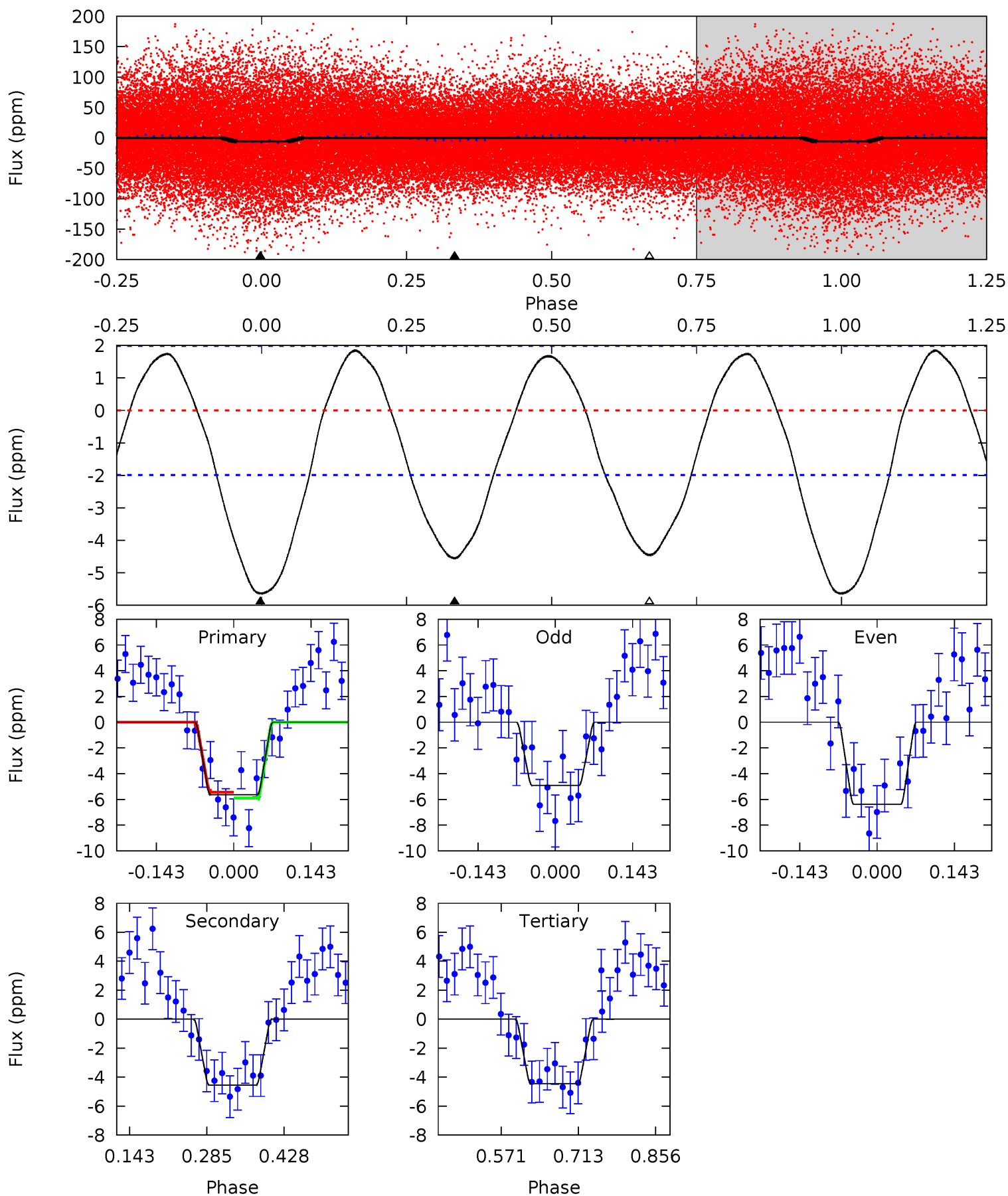
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.2	-0.57	0	0	4.42	1.29	7.67	13.2	13.2	-0.57	-0.57	2.17	1.20	0.62	0.19



Alt Model-Shift Uniqueness Test

007848324-01, P = 0.901199 Days, E = 131.378585 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.7	10.3	10.1	0	4.49	1.47	5.12	2.68	12.7	0.22	10.3	1.66	1.11	0.25	0.50



Stellar Parameters For KIC 007848324

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	8057^{+221}_{-359}	$4.084^{+0.145}_{-0.145}$	$0.070^{+0.250}_{-0.400}$	$2.053^{+0.463}_{-0.417}$	$1.863^{+0.208}_{-0.337}$	$0.303^{+0.221}_{-0.127}$
	+3%/-4%	+4%/-4%	+357%/-571%	+23%/-20%	+11%/-18%	+73%/-42%
Source	PHO54	PHO54	PHO54	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 007848324-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	0 ± 0	$0.55^{+0.10}_{-0.09}$	4738^{+293}_{-304}	-4344^{+645}_{-469}	$-0.129^{+0.248}_{-0.266}$
Alt.	-5 ± 0	$0.57^{+0.10}_{-0.09}$	4731^{+277}_{-318}	7010^{+652}_{-538}	$3.865^{+1.674}_{-1.081}$

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

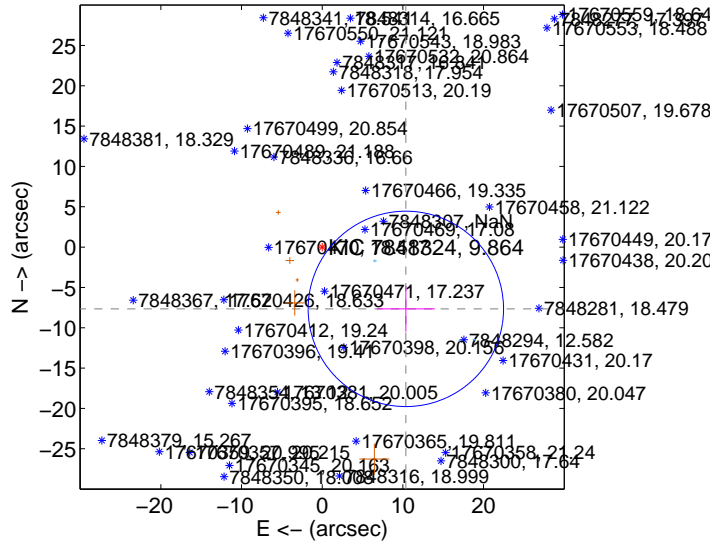
Supplemental centroid analysis for 007848324-01. **Kepler magnitude: 9.86.** Transit SNR 11.55

There are 3 quarters with good PRF difference image offsets

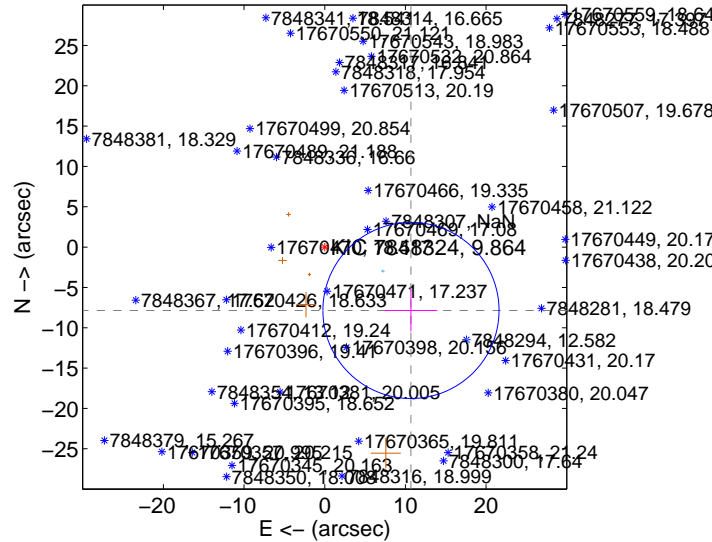
The direct PRF centroid is offset from the target star catalog position by about 1.19 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	12.891 \pm 4.036	3.19	-10.369 \pm 3.590	-7.659 \pm 2.824
PRF-fit source offset from KIC position	13.265 \pm 3.639	3.65	-10.690 \pm 3.260	-7.853 \pm 2.607
photometric centroid source offset	2.64 \pm 1.41	1.88	-0.04 \pm 2.19	2.64 \pm 1.41

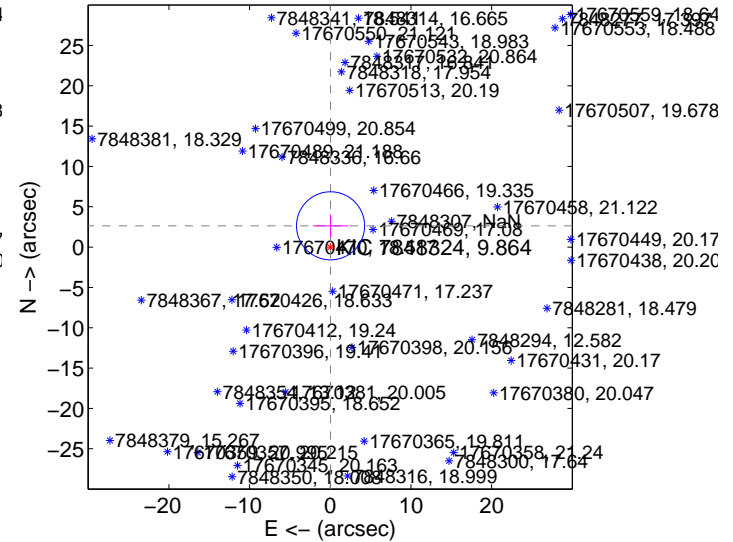
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

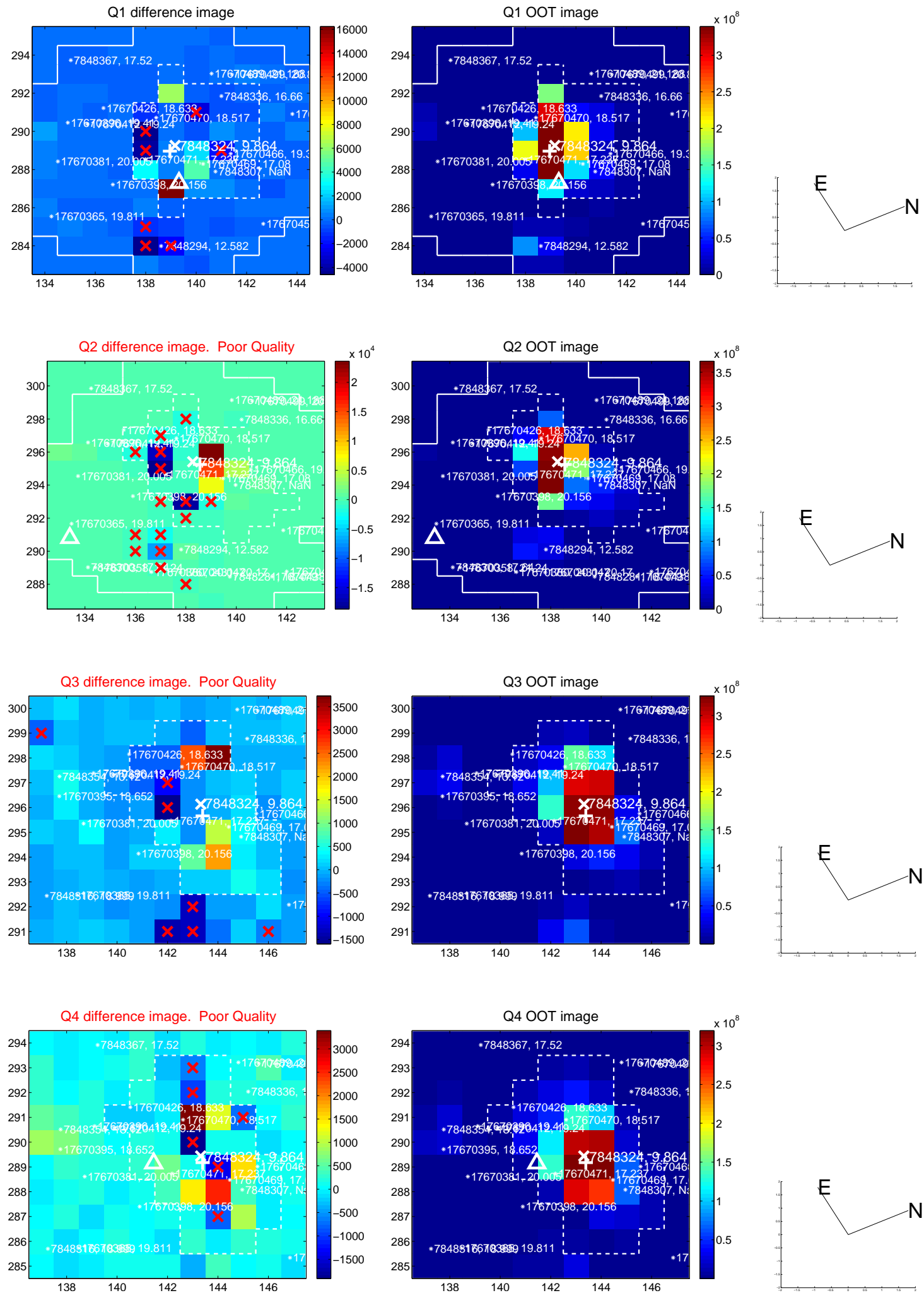


offset from photometric centroids

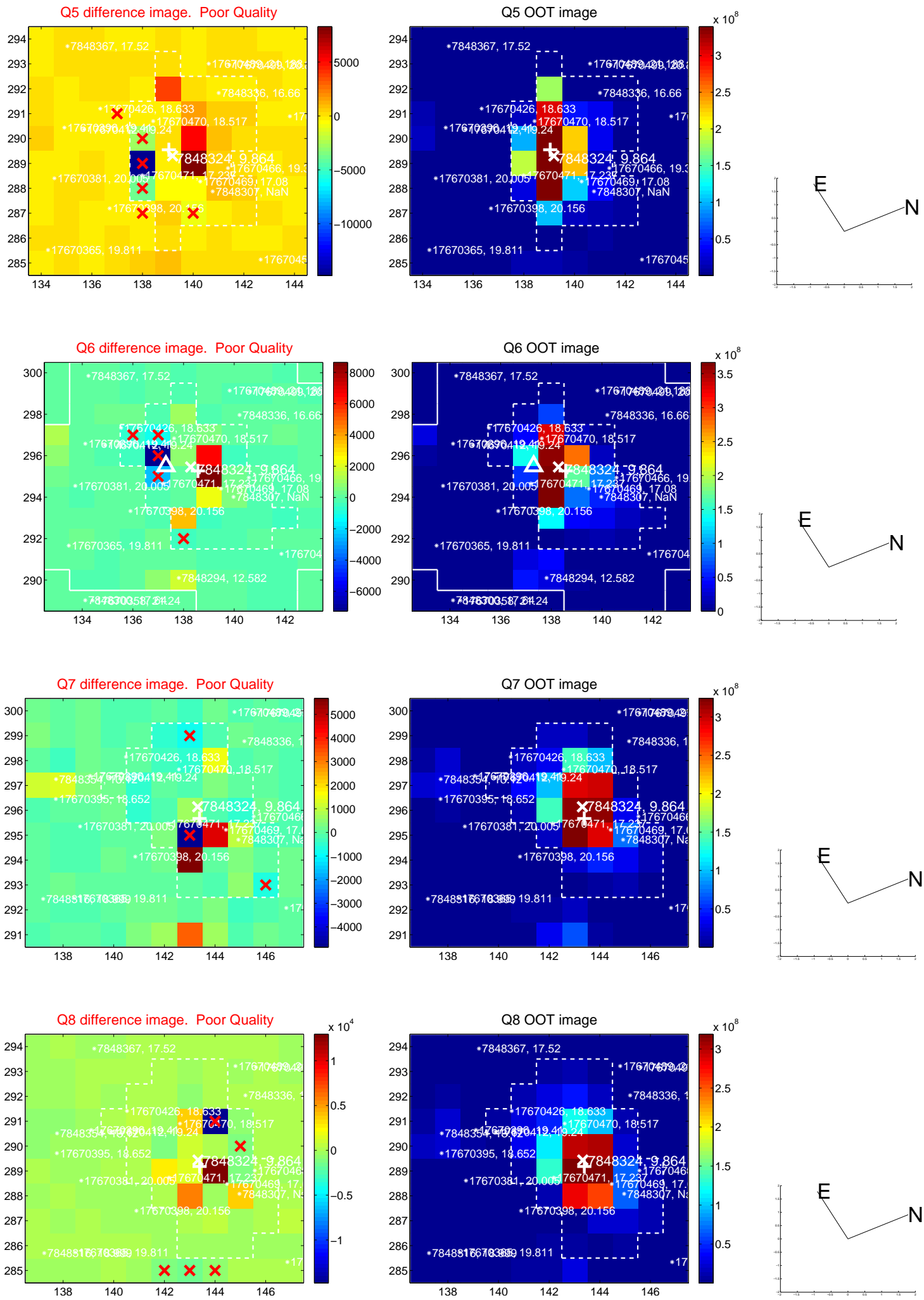


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

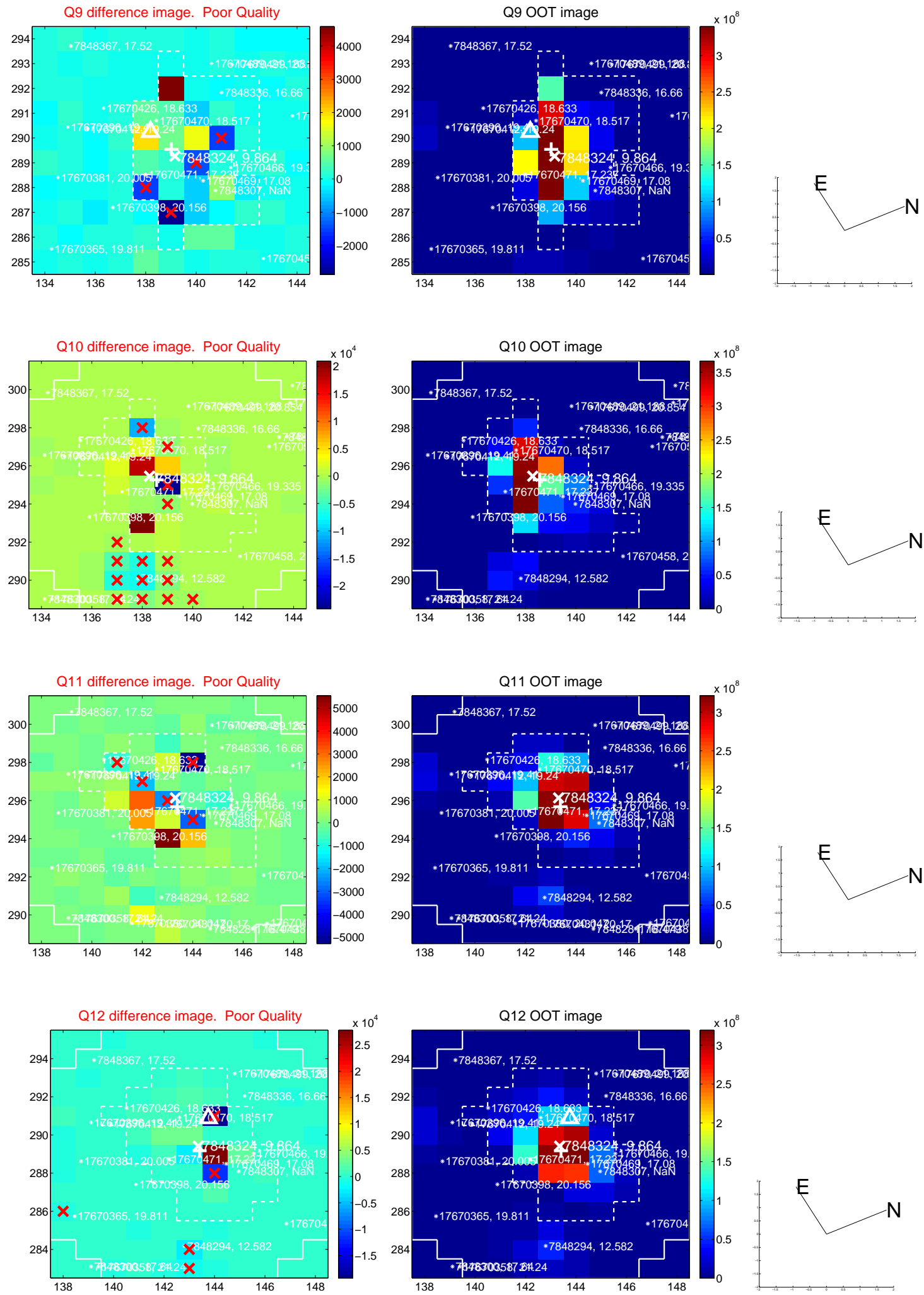
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



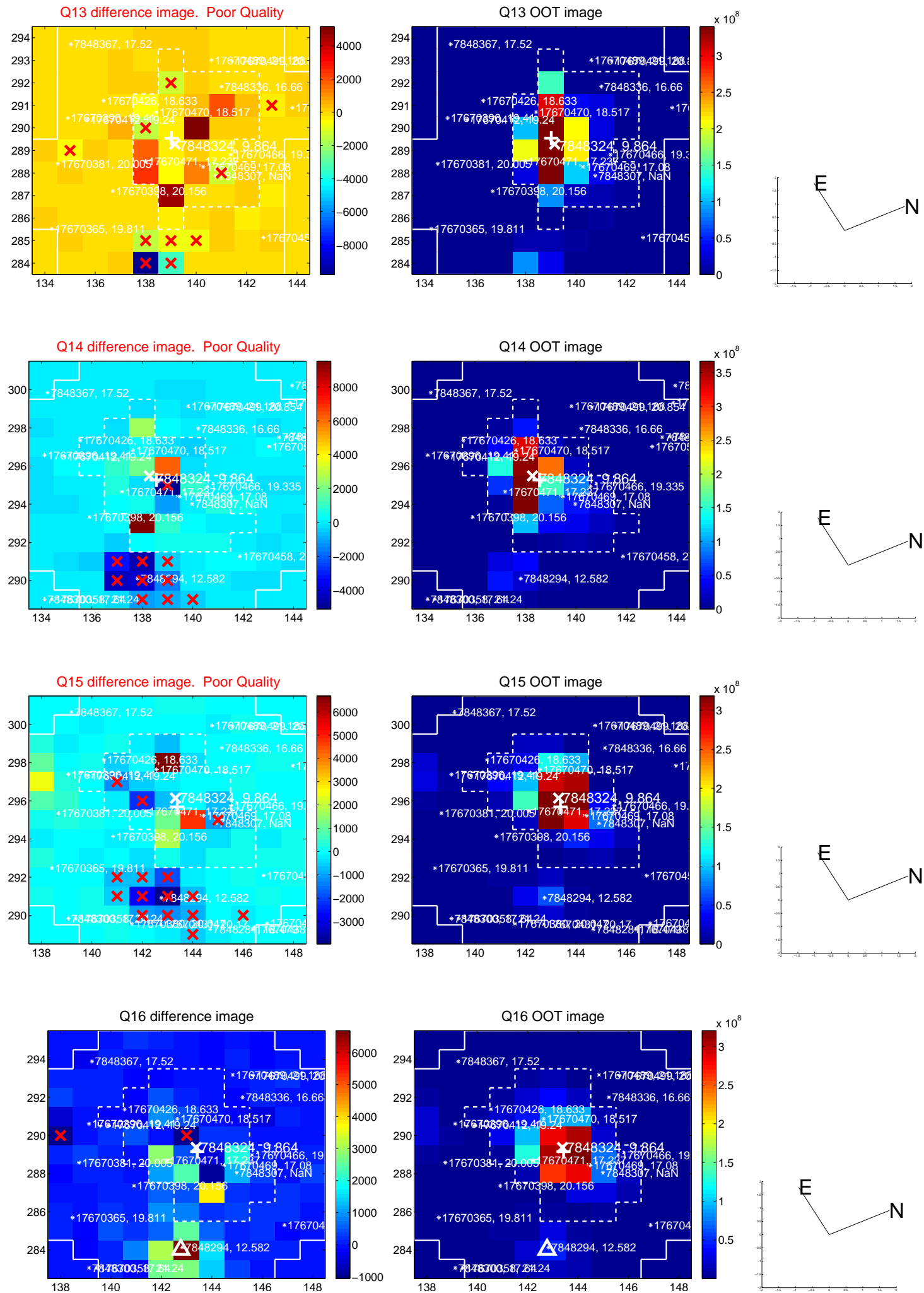
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



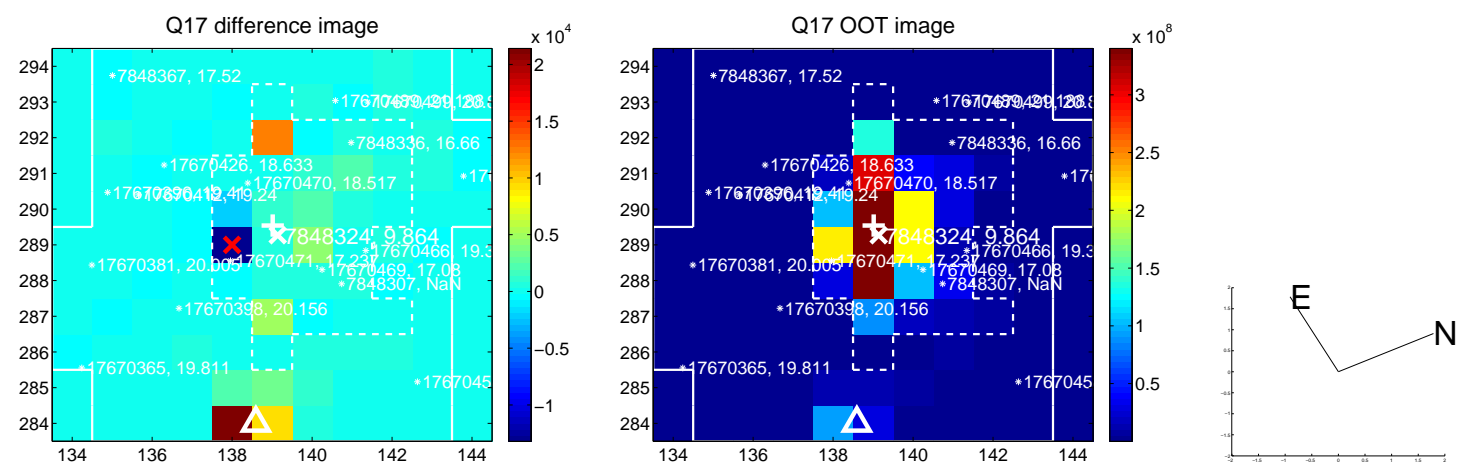
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



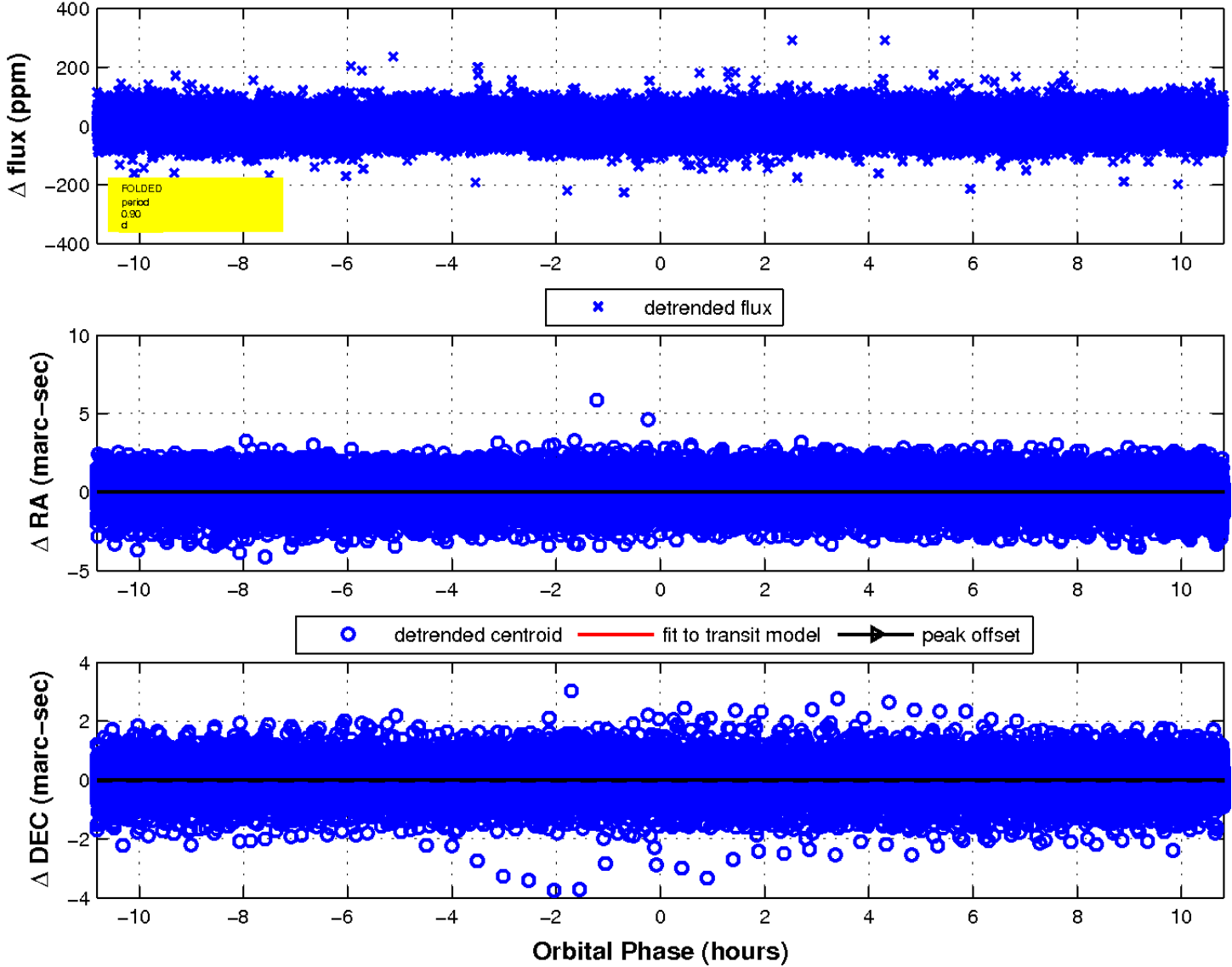
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

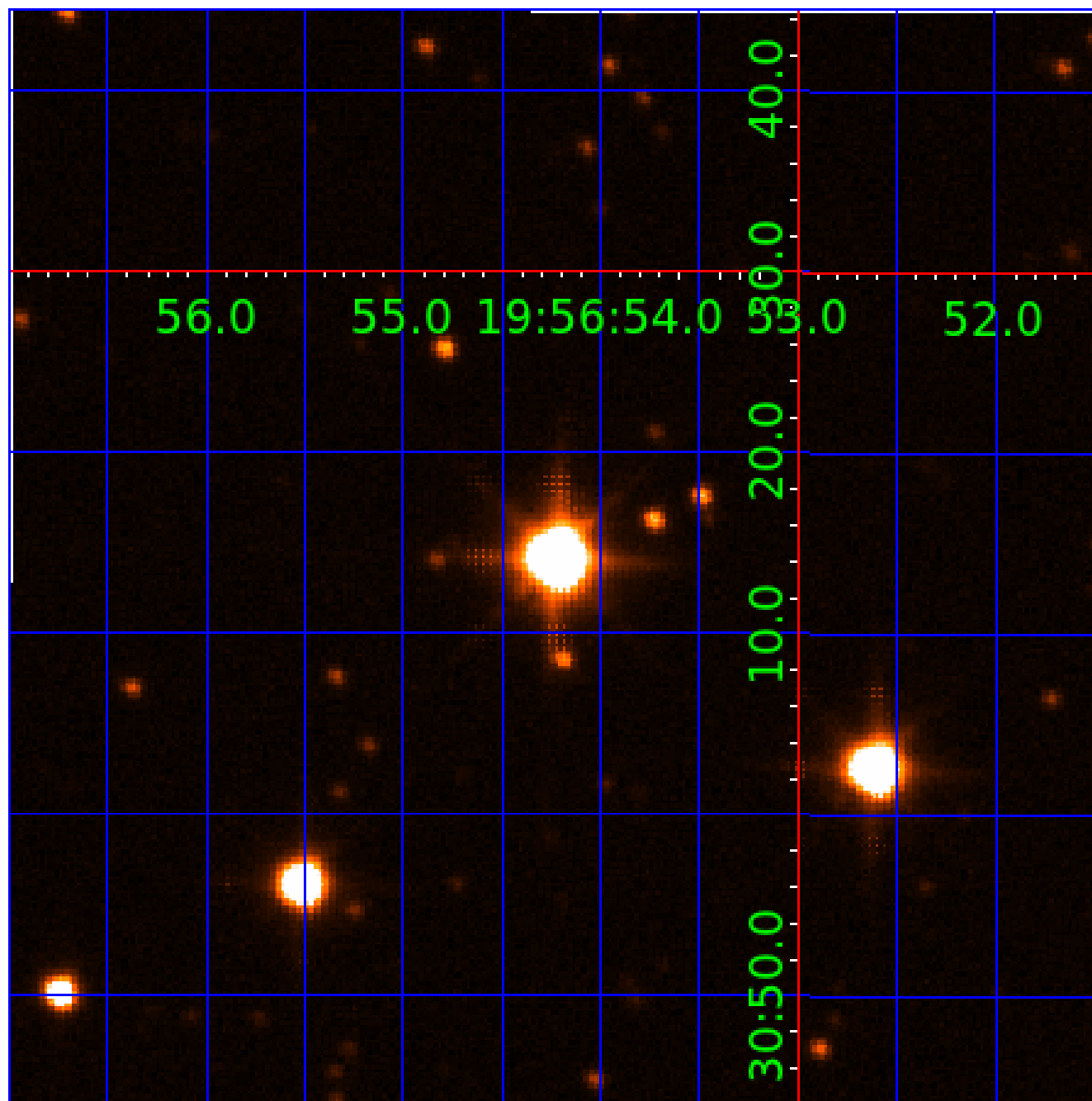


fluxWeightedCentroids, Planet 1 of 3



UKIRT Image

Declination



KIC 007848324

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})
007848324-01	OBS	No	0.901194	132.281227	5.4	3.796	9.4	11.5	2.05	8057	0.55	31483.96
007848324-02	OBS	No	378.738425	304.125038	60.3	36.749	11.6	5.4	2.05	8057	1.74	10.00
007848324-03	OBS	No	0.541529	132.046179	5.2	5.036	10.0	11.4	2.05	8057	0.48	62089.49

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007848324-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
007848324-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
007848324-03	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_ALT—CENT_SATURATED

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

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

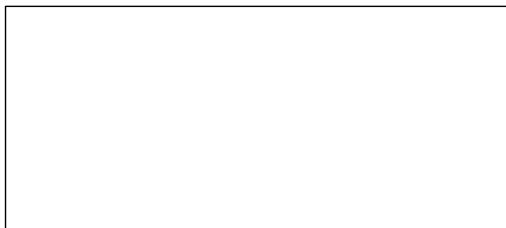
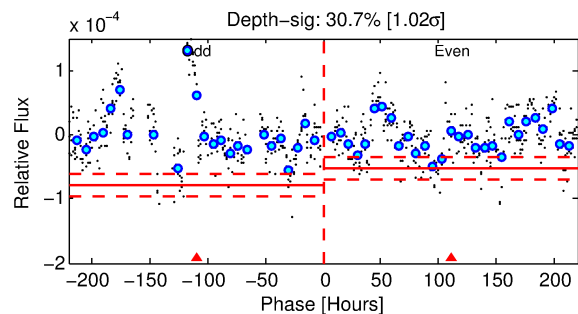
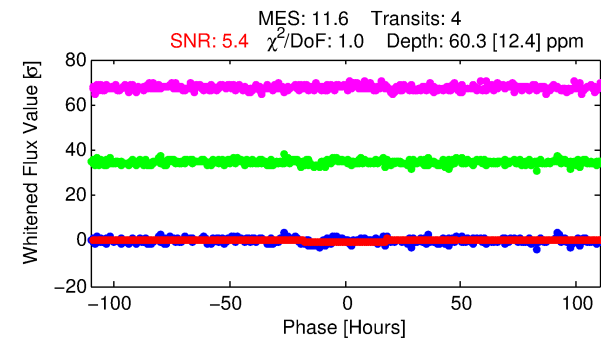
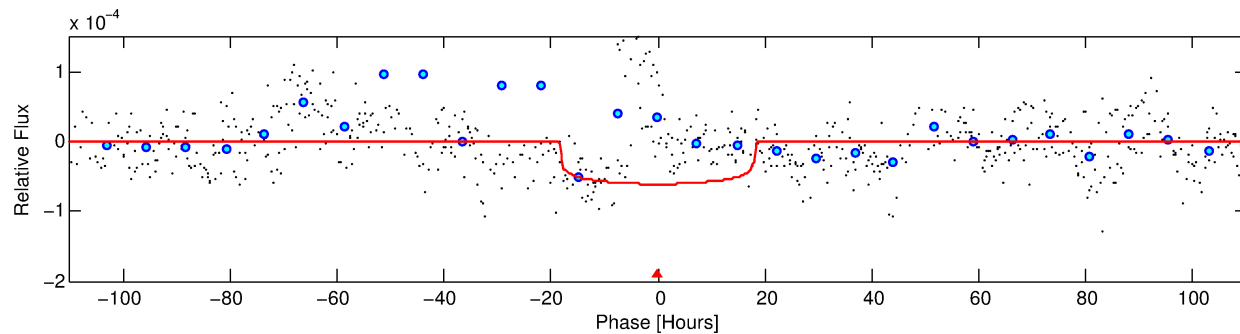
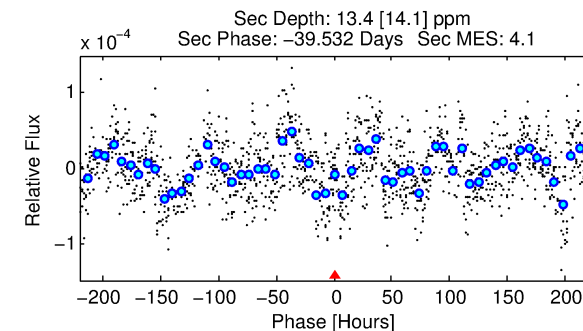
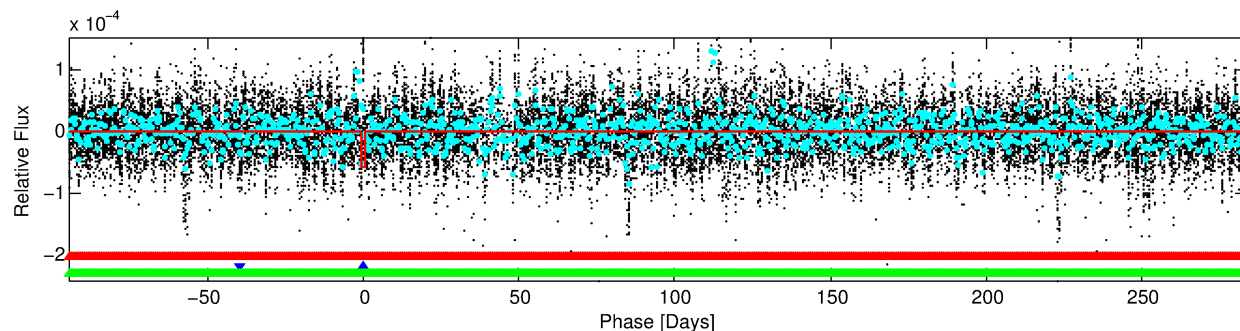
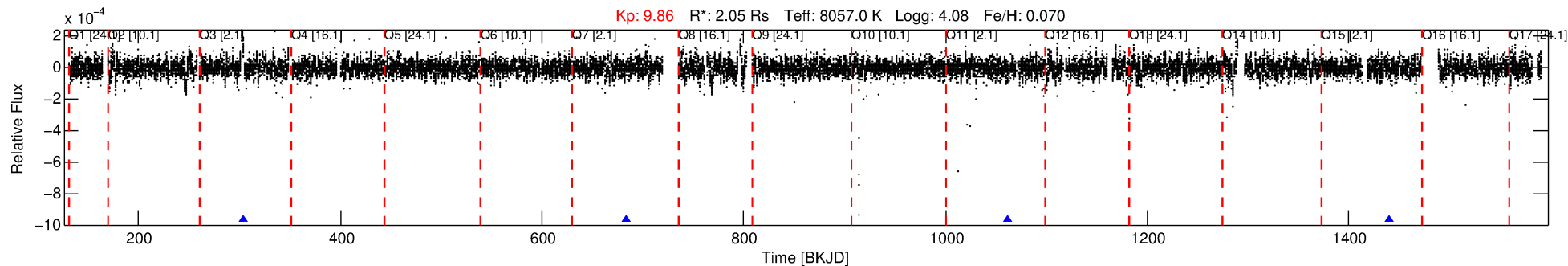
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007848324-02

No Significant Match Found

DV One-Page Summary

KIC: 7848324 Candidate: 2 of 3 Period: 378.738 d



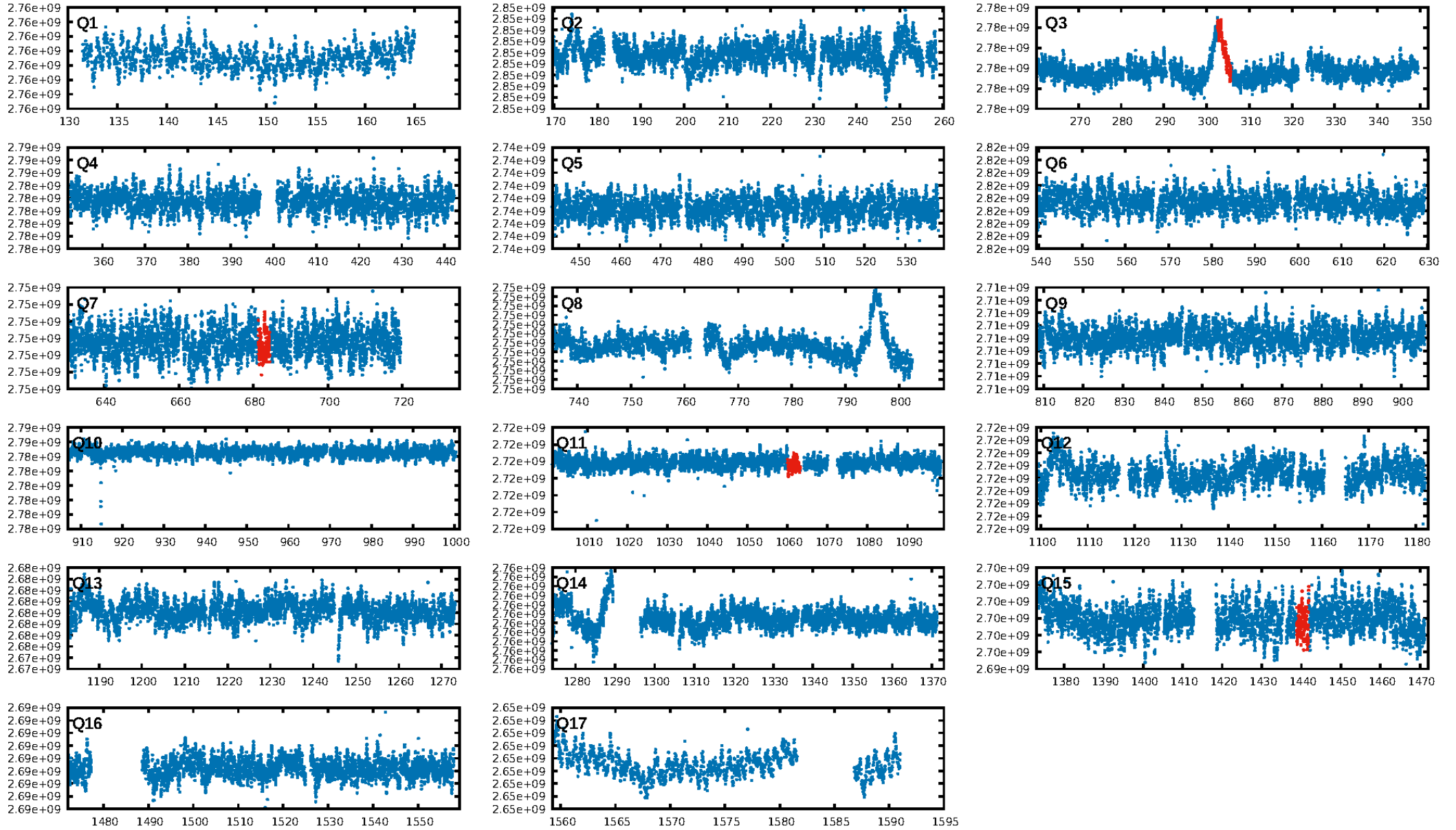
DV Fit Results:

Period = 378.73842 [0.00940] d
Epoch = 304.1250 [0.0207] BKJD
Rp/R* = 0.0078 [0.0010]
a/R* = 51.52 [19.95]
b = 0.77 [0.21]
Seff = 10.00 [3.22]
Teq = 453 [37] K
Rp = 1.74 [0.45] Re
a = 1.2614 [0.2360] AU
Ag = 3896.81 [4328.02] [0.90σ]
Teffp = 5539 [1513] K [3.36σ]

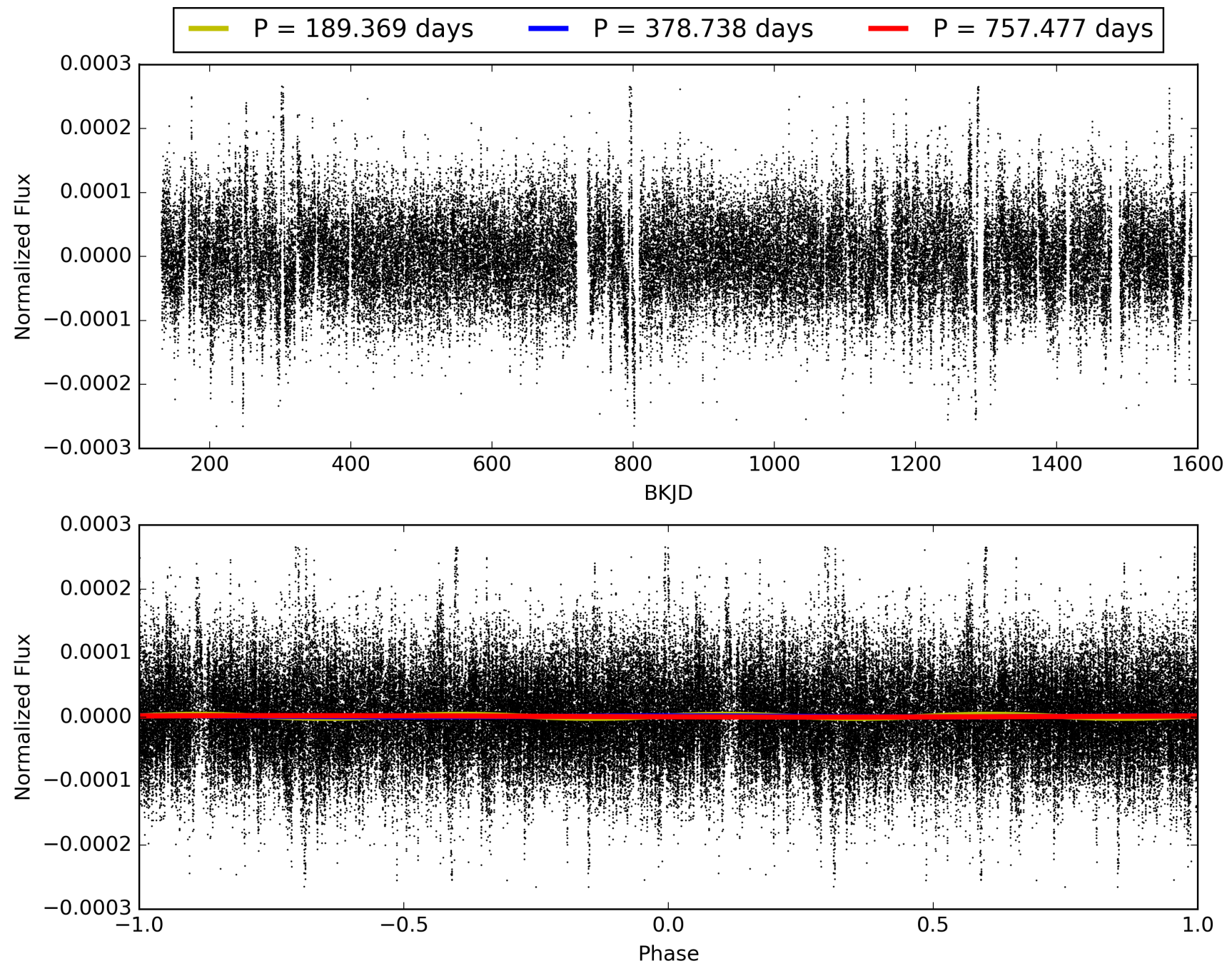
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [245.45σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.5%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: N/A
Centroid-sig: 53.7%
Centroid-so: 1.253 arcsec [0.59σ]
OotOffset-rm: N/A
KicOffset-rm: N/A
OotOffset-st: 0/0/0/0 [0]
KicOffset-st: 0/0/0/0 [0]
DiffImageQuality-fgm: N/A
DiffImageOverlap-fno: 0.00 [0/3]

TCE 007848324-02, PDC Light Curves

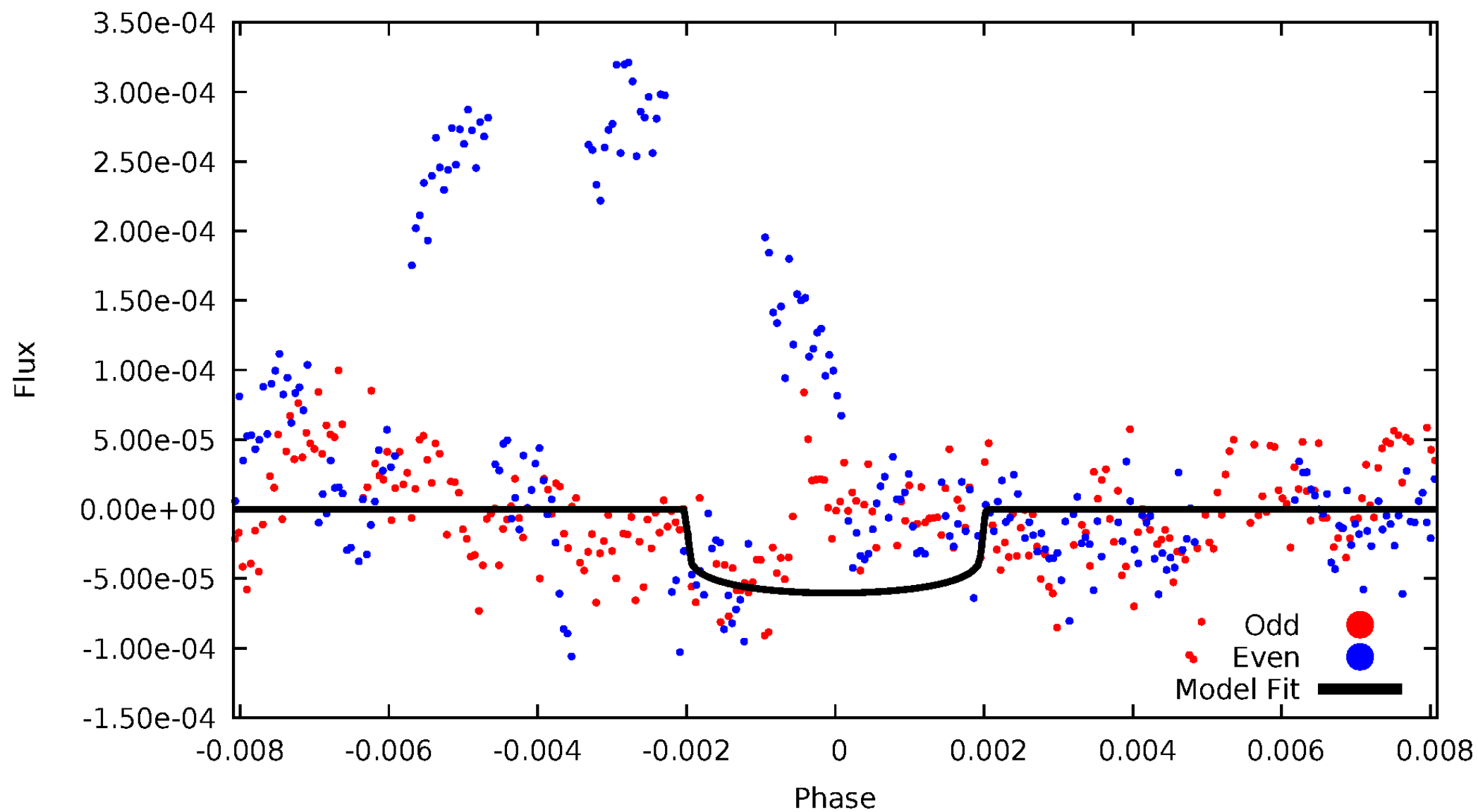


TCE 007848324-02



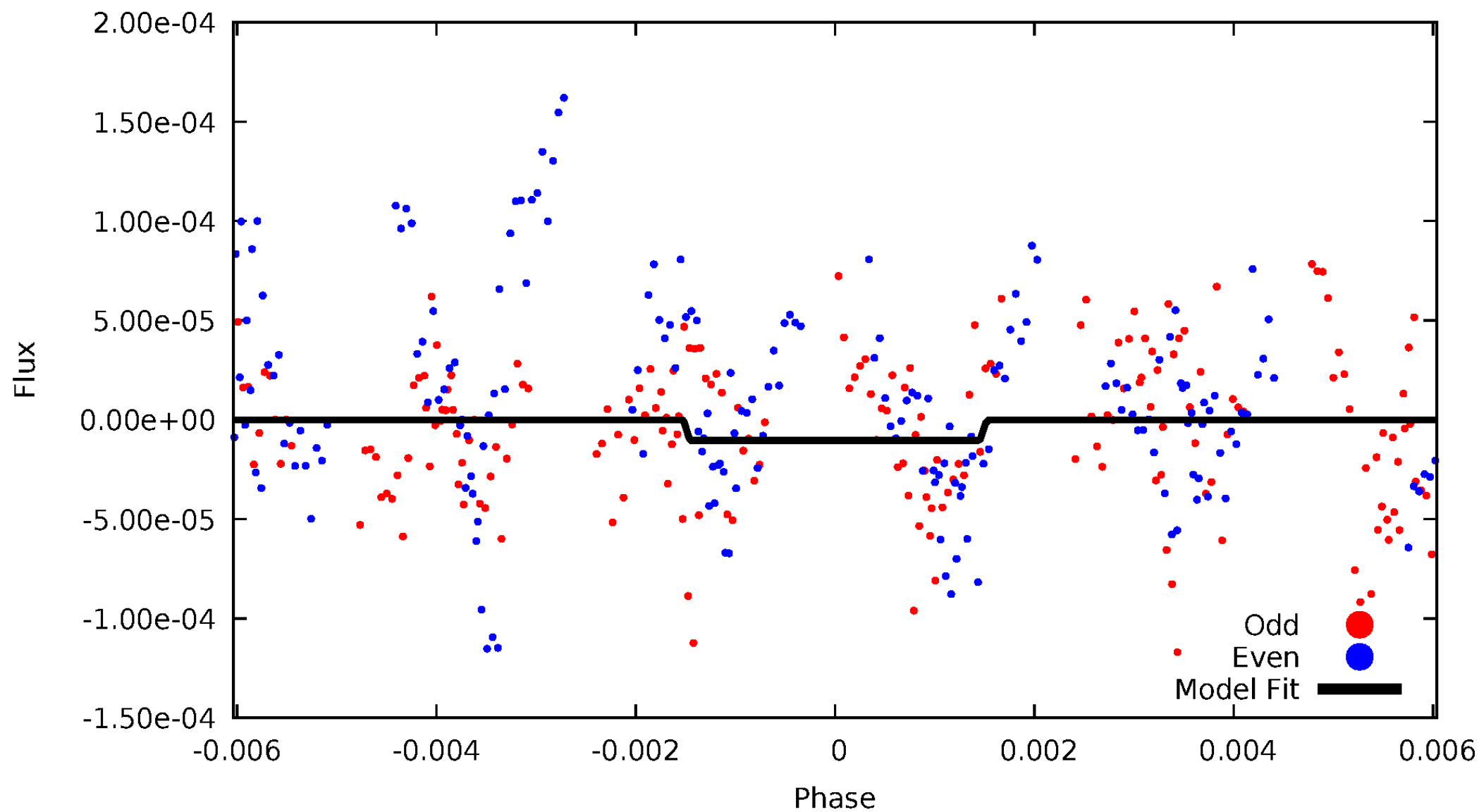
DV Odd/Even

TCE 007848324-02



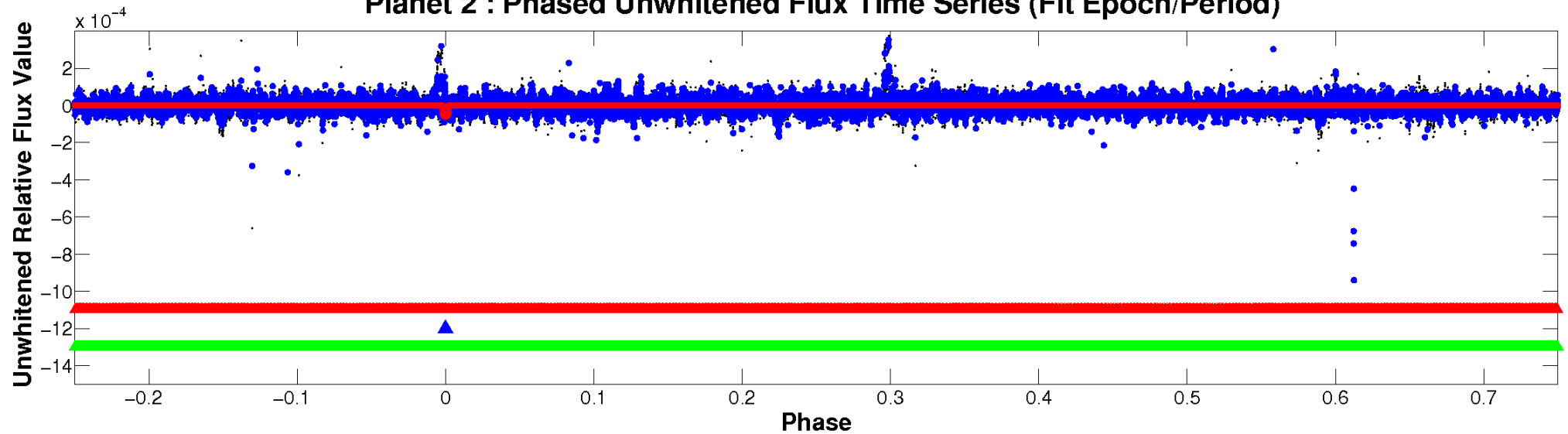
ALT Odd/Even

TCE 007848324-02

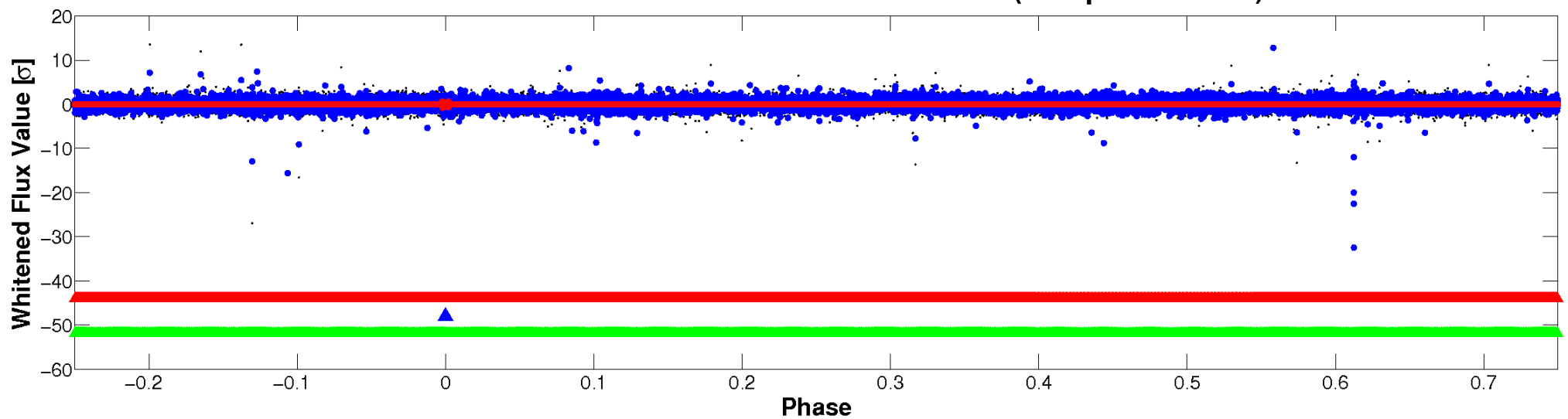


Non-Whitened Vs. Whitened Light Curve

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

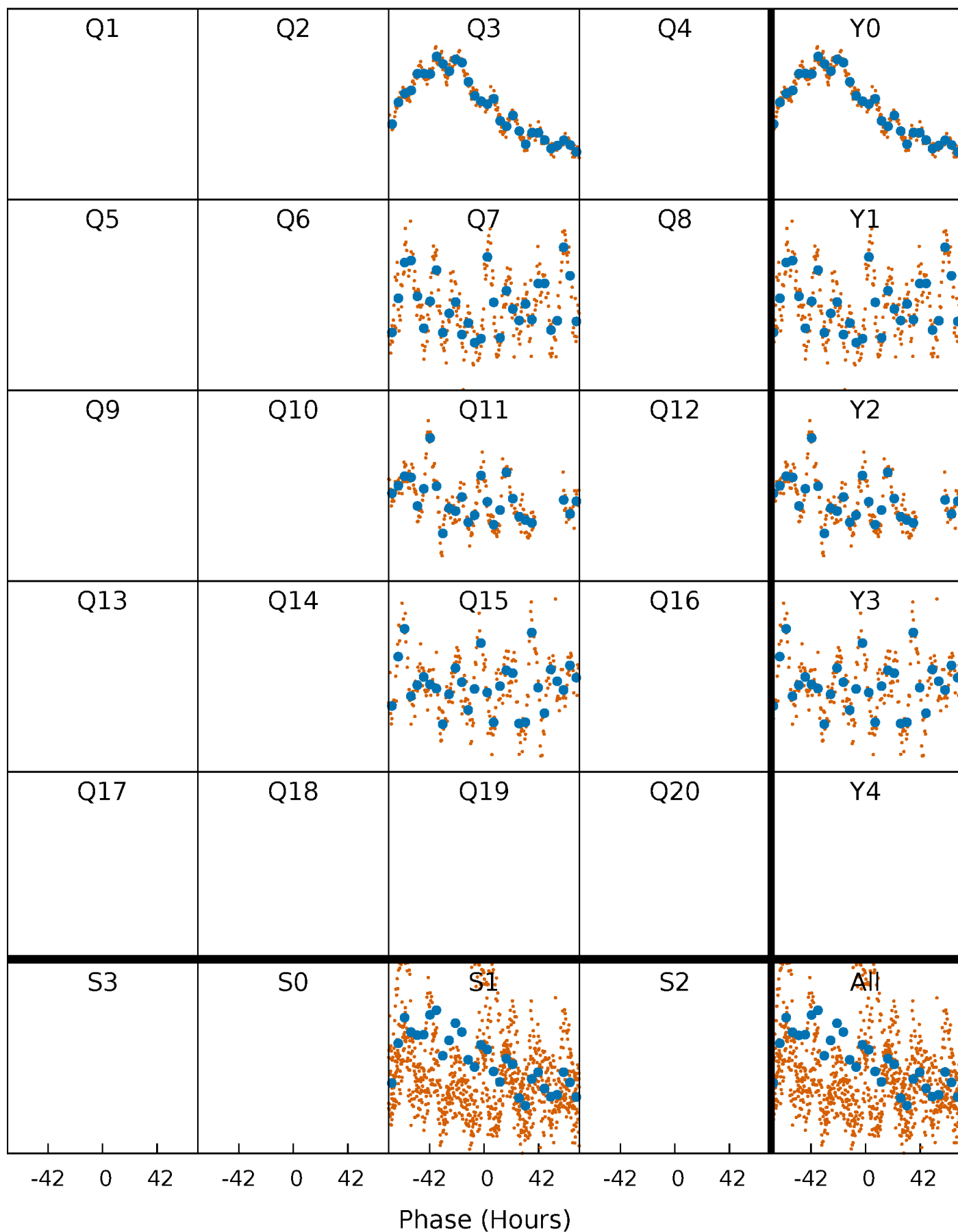


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



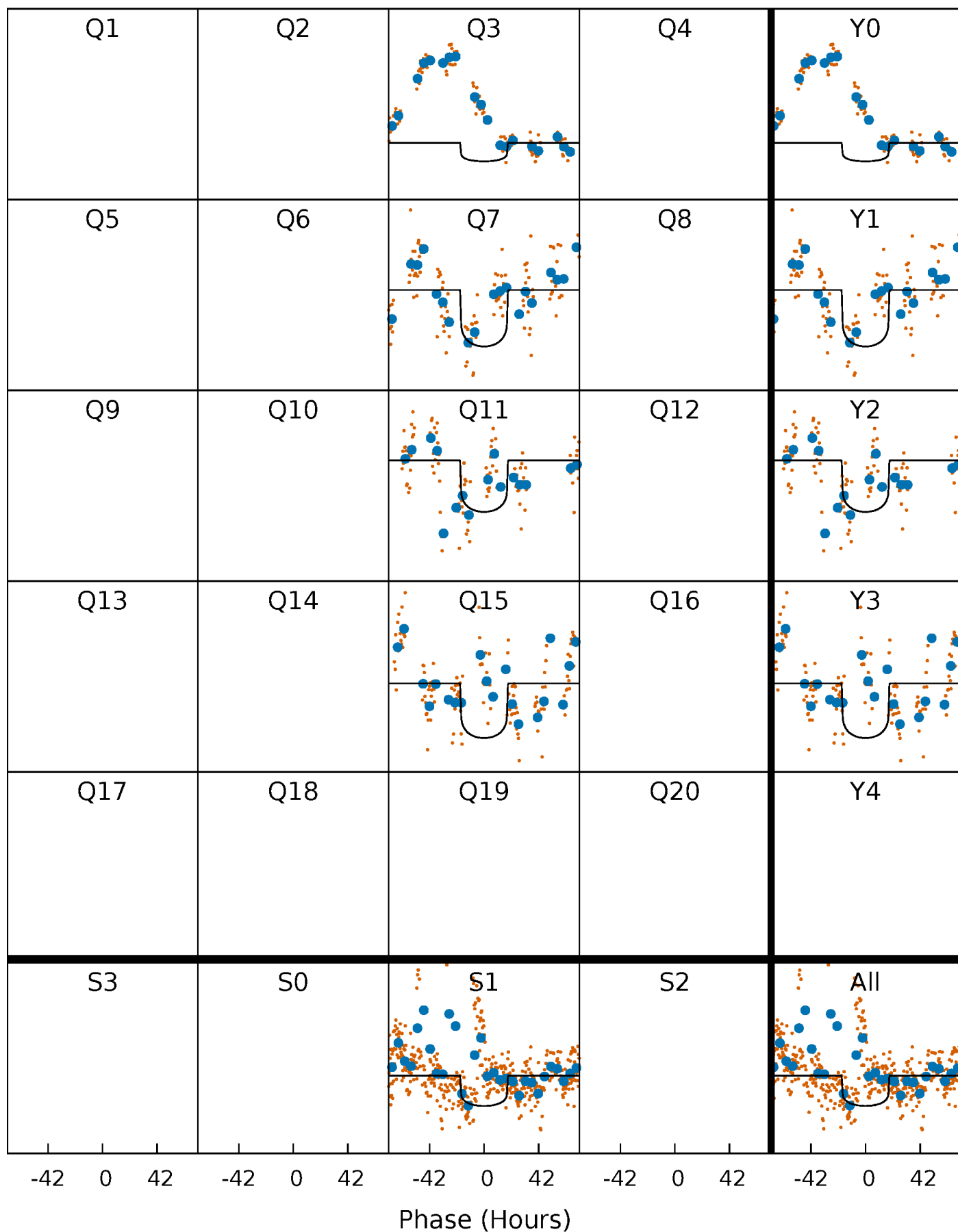
PDC Quarter-Phased Transit Curves

TCE 007848324-02 $P=378.738425$ Days $T_0=304.125038$ (BKJD)



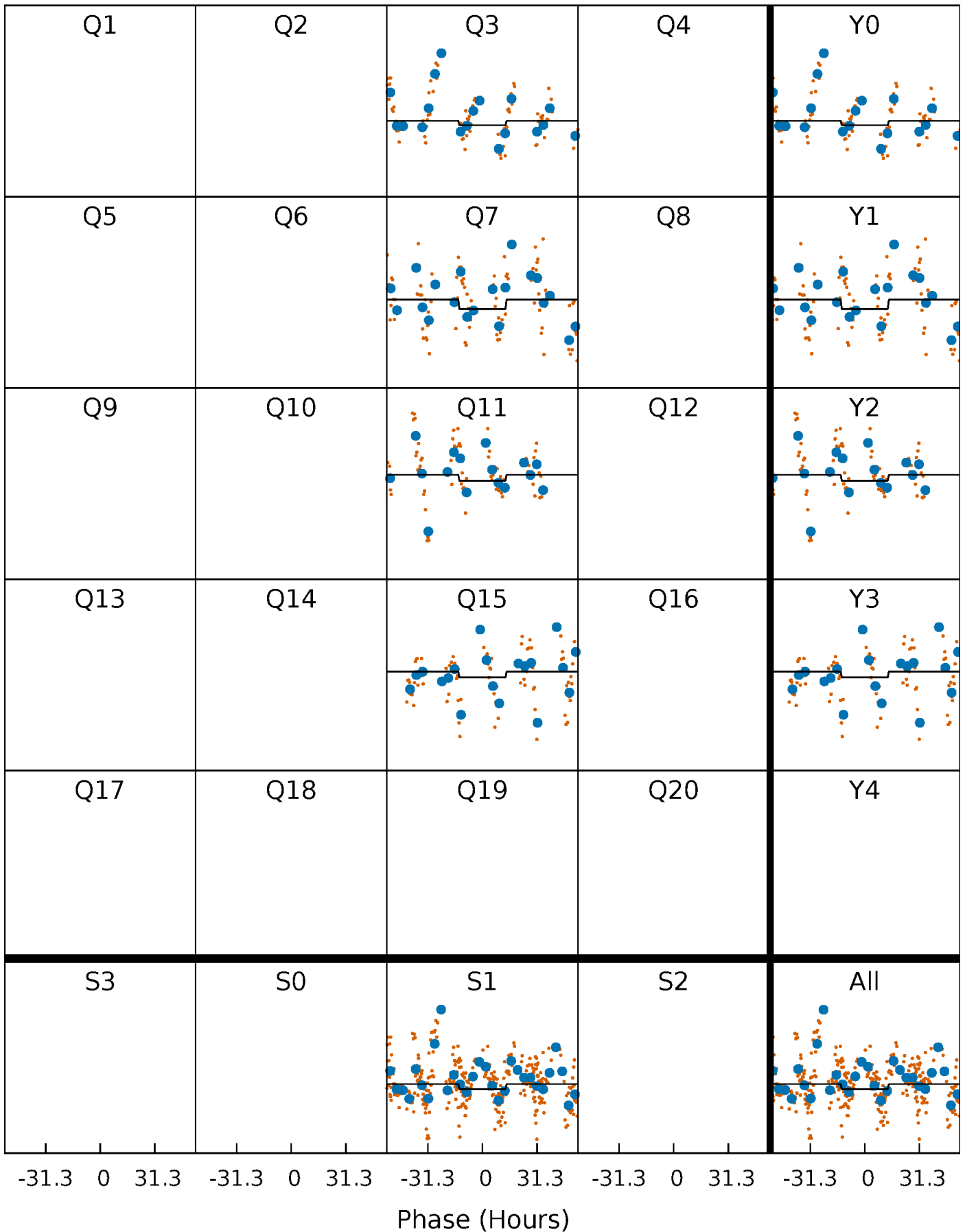
DV Quarter-Phased Transit Curves

TCE 007848324-02 $P=378.738425$ Days $T_0=304.125038$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

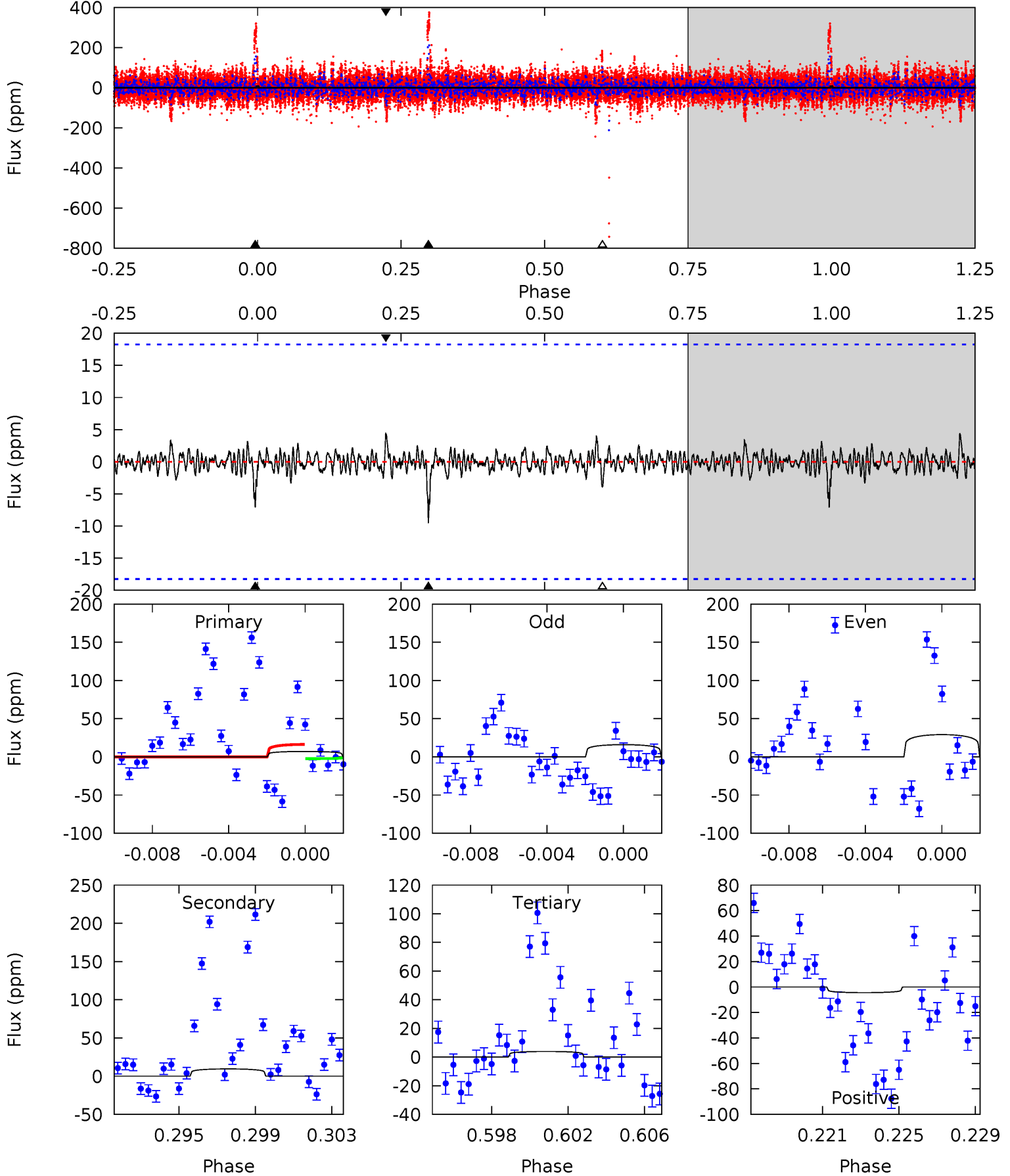
TCE 007848324-02 $P=378.627056$ Days $T_0=304.286579$ (BKJD)



DV Model-Shift Uniqueness Test

007848324-02, P = 378.738425 Days, E = 304.125038 Days

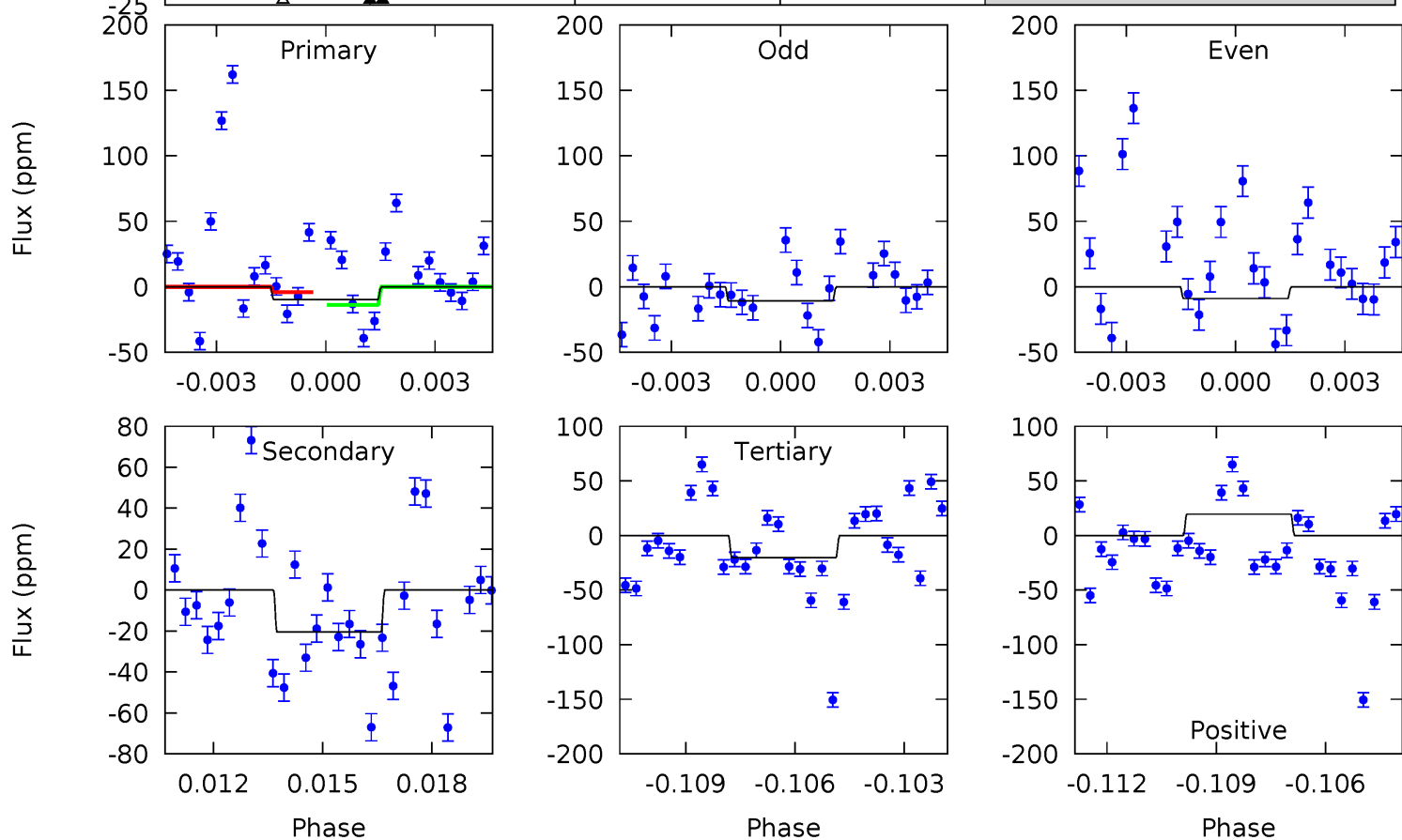
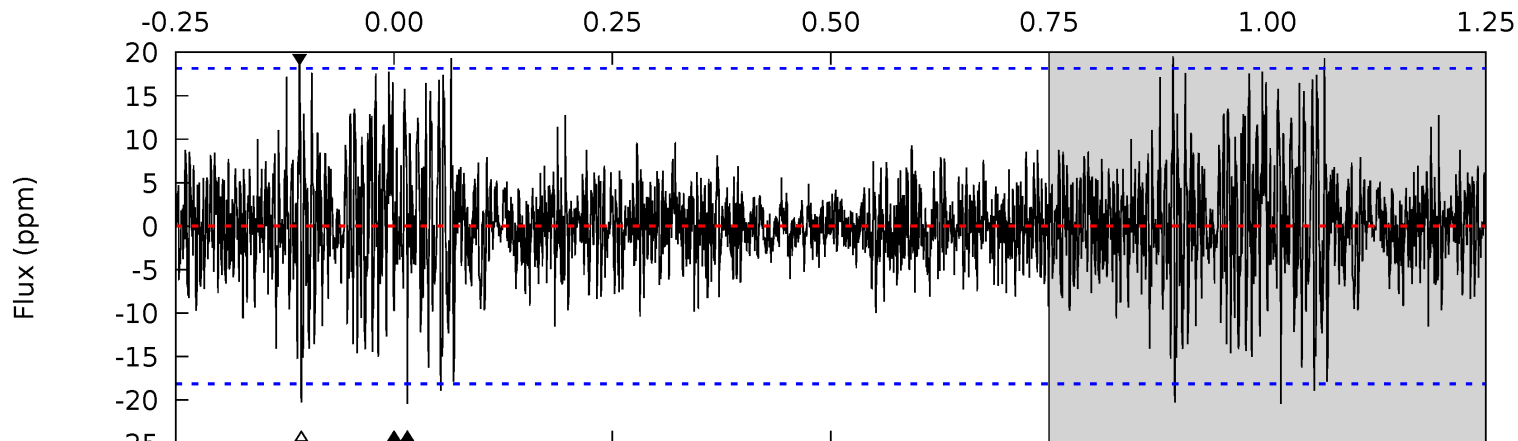
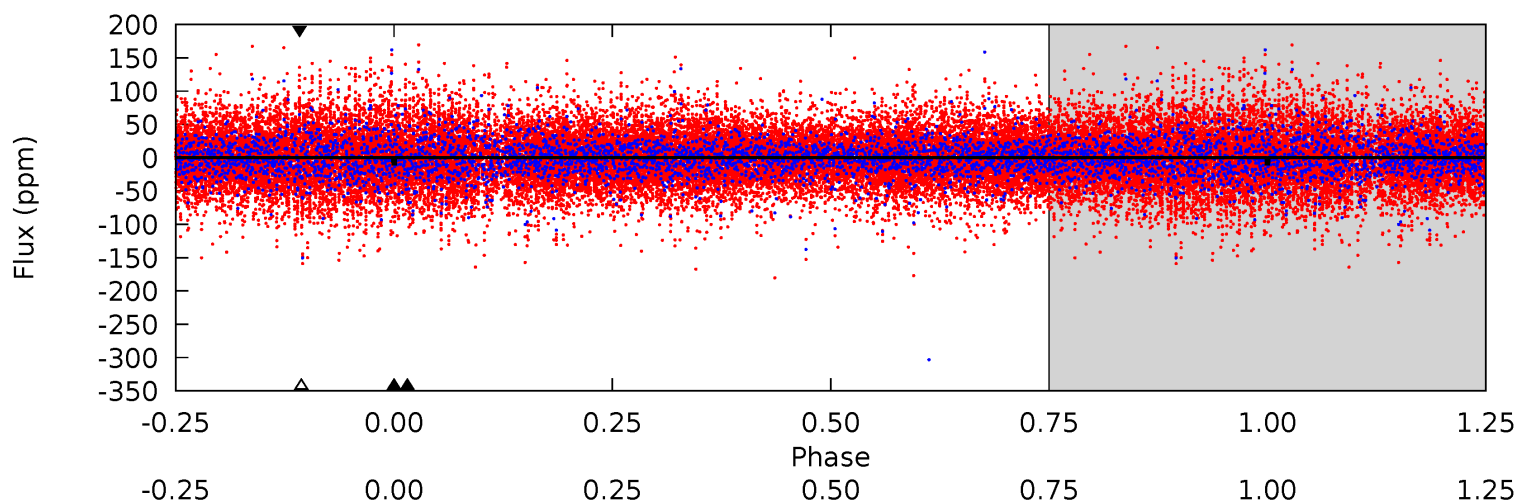
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.02	2.71	1.11	1.26	5.19	2.87	0.32	0.90	0.76	1.60	1.45	1.80	-0.93	0.32	1.92



Alt Model-Shift Uniqueness Test

007848324-02, $P = 378.627056$ Days, $E = 304.286579$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.82	5.92	5.86	5.65	5.25	2.97	1.30	-3.04	-2.83	0.05	0.27	0.24	0.94	0.49	1.39



Stellar Parameters For KIC 007848324

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	8057^{+221}_{-359}	$4.084^{+0.145}_{-0.145}$	$0.070^{+0.250}_{-0.400}$	$2.053^{+0.463}_{-0.417}$	$1.863^{+0.208}_{-0.337}$	$0.303^{+0.221}_{-0.127}$
	+3%/-4%	+4%/-4%	+357%/-571%	+23%/-20%	+11%/-18%	+73%/-42%
Source	PHO54	PHO54	PHO54	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 007848324-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-10 ± 4	$1.73^{+0.32}_{-0.29}$	631^{+43}_{-39}	4997^{+523}_{-498}	2681^{+1722}_{-1113}
Alt.	-20 ± 3	$0.71^{+0.25}_{-0.22}$	633^{+43}_{-42}	10139^{+3776}_{-1825}	35392^{+39139}_{-16245}

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

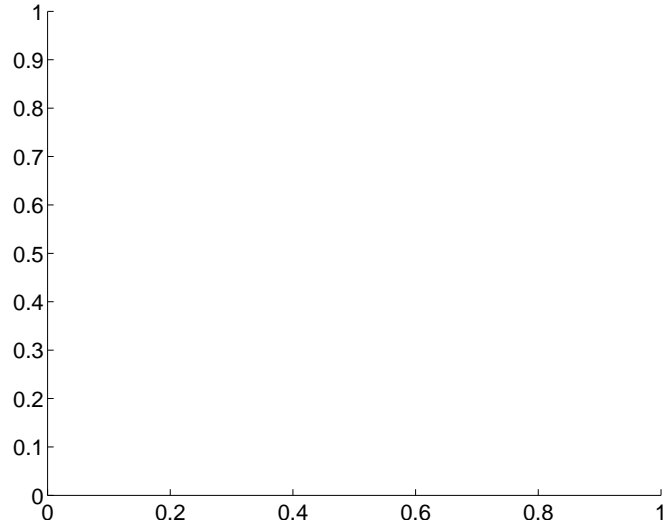
Supplemental centroid analysis for 007848324-02. **Kepler magnitude: 9.86.** Transit SNR 5.37

There are 0 quarters with good PRF difference image offsets

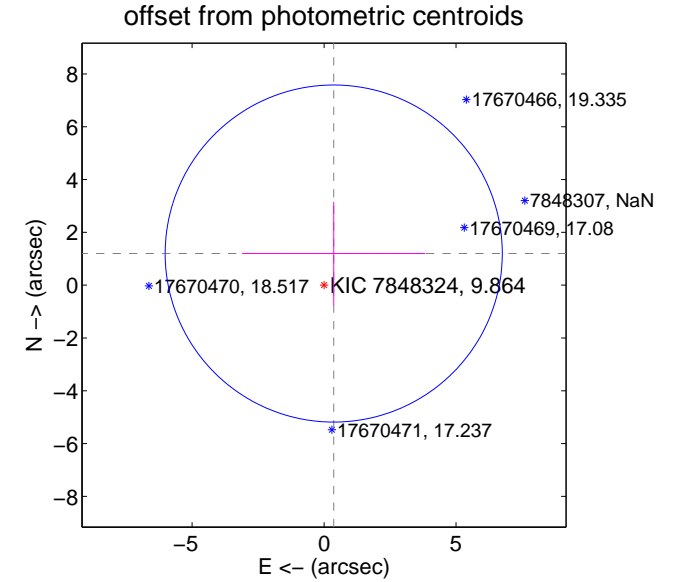
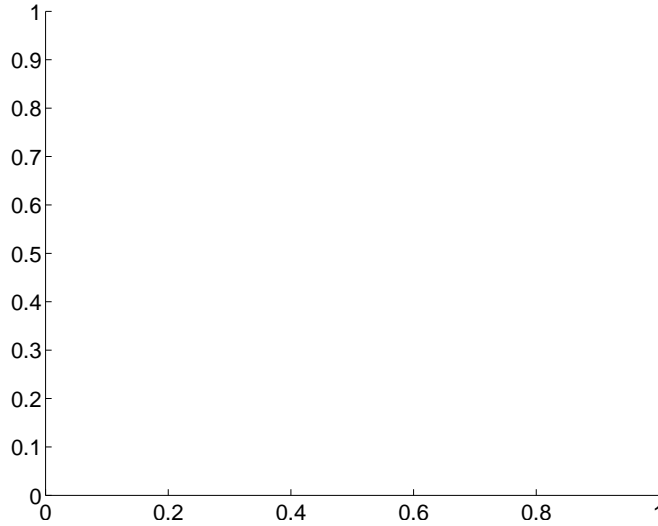
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	—	—	—	—
PRF-fit source offset from KIC position	—	—	—	—
photometric centroid source offset	1.25 ± 2.13	0.59	-0.37 ± 3.47	1.20 ± 1.96

There is no PRF-fit offset from OOT-fit

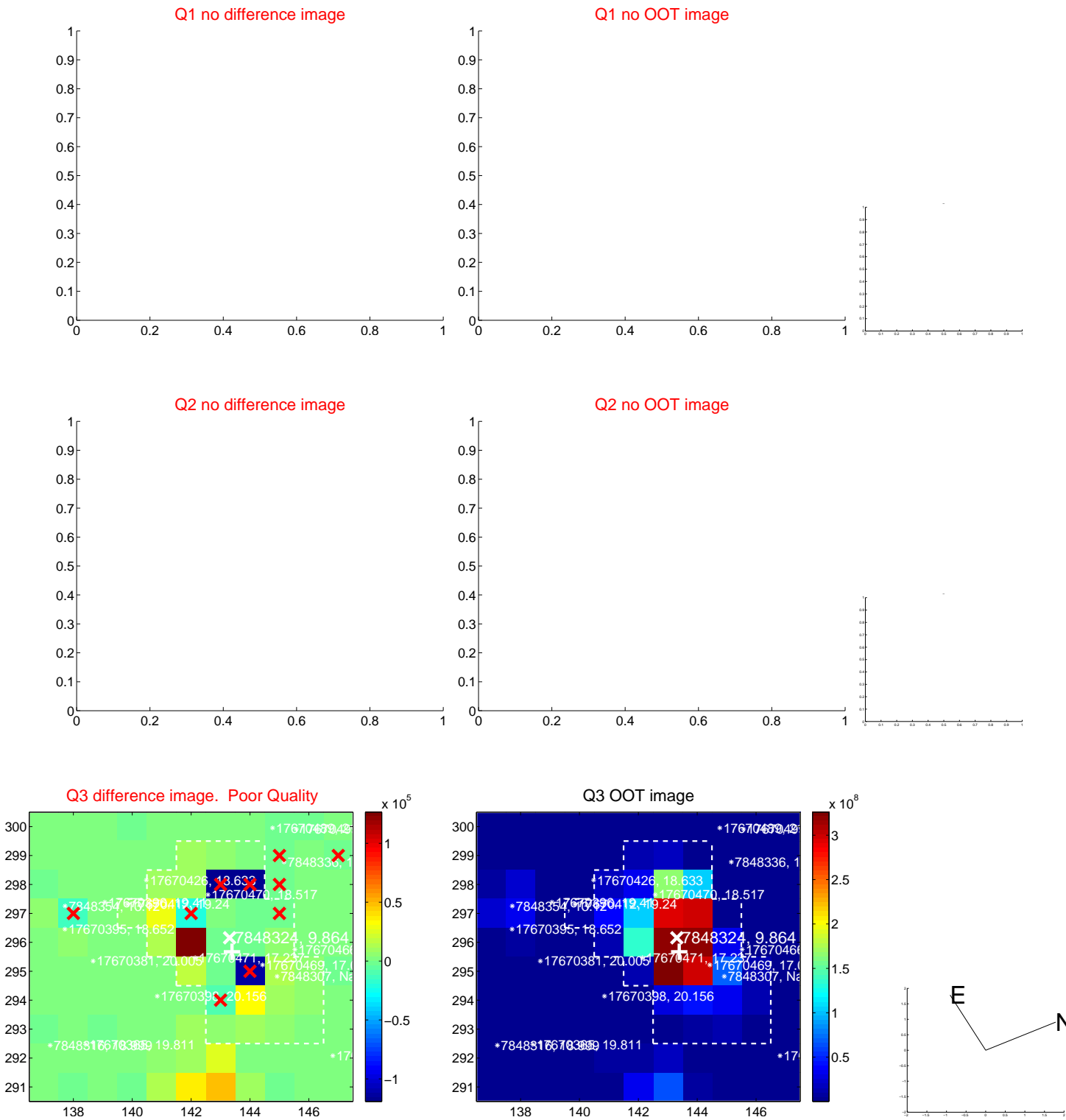


There is no PRF-fit offset from KIC

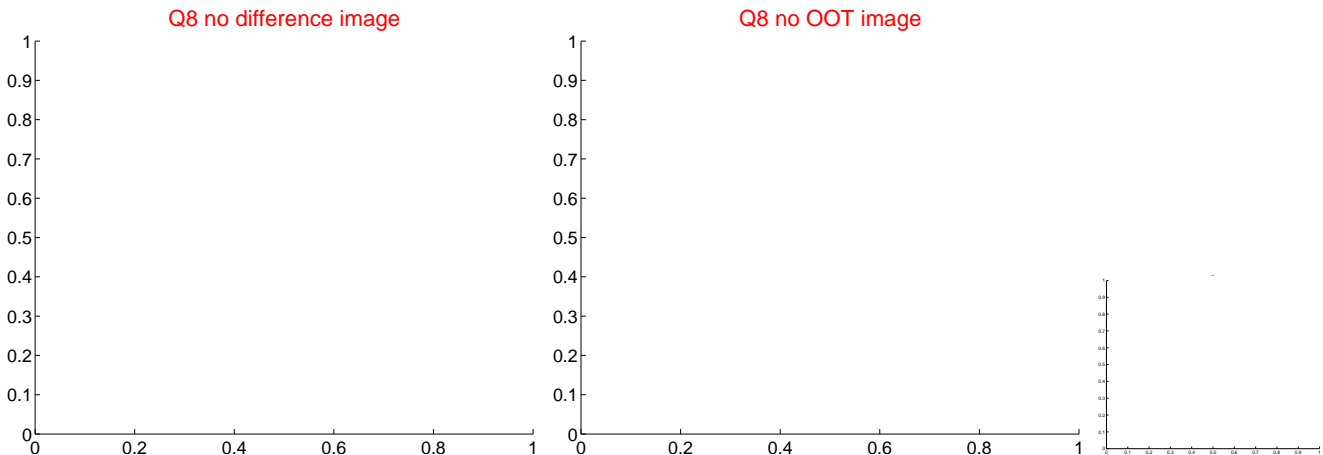
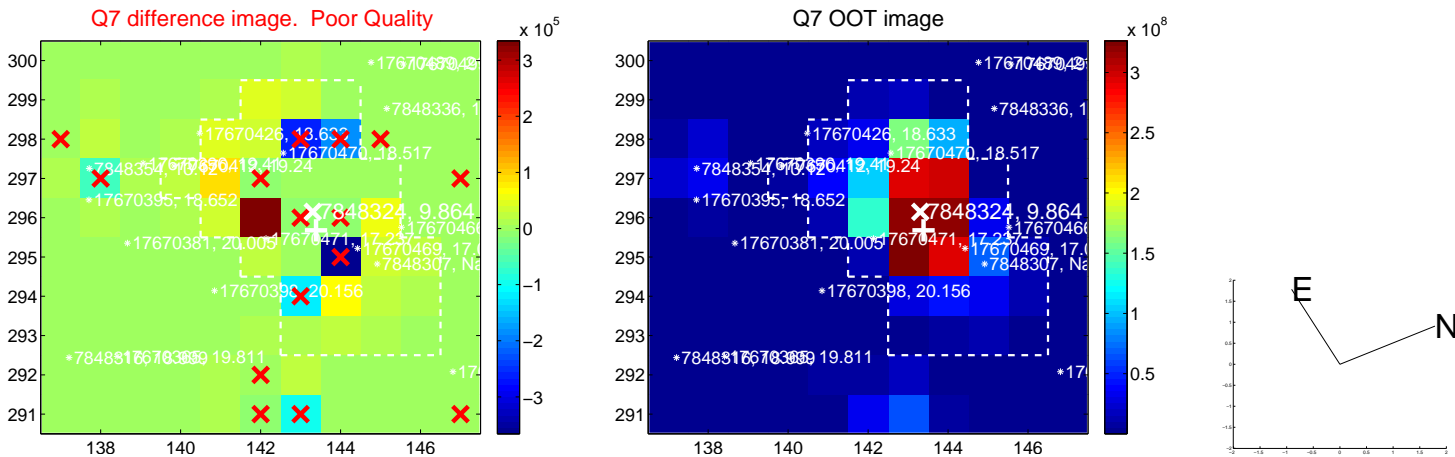
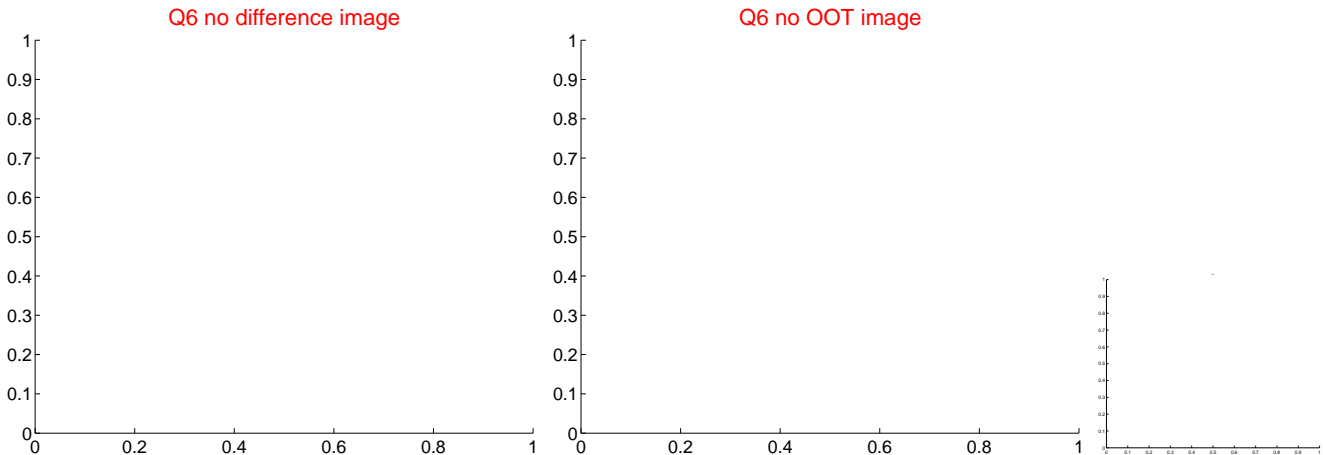
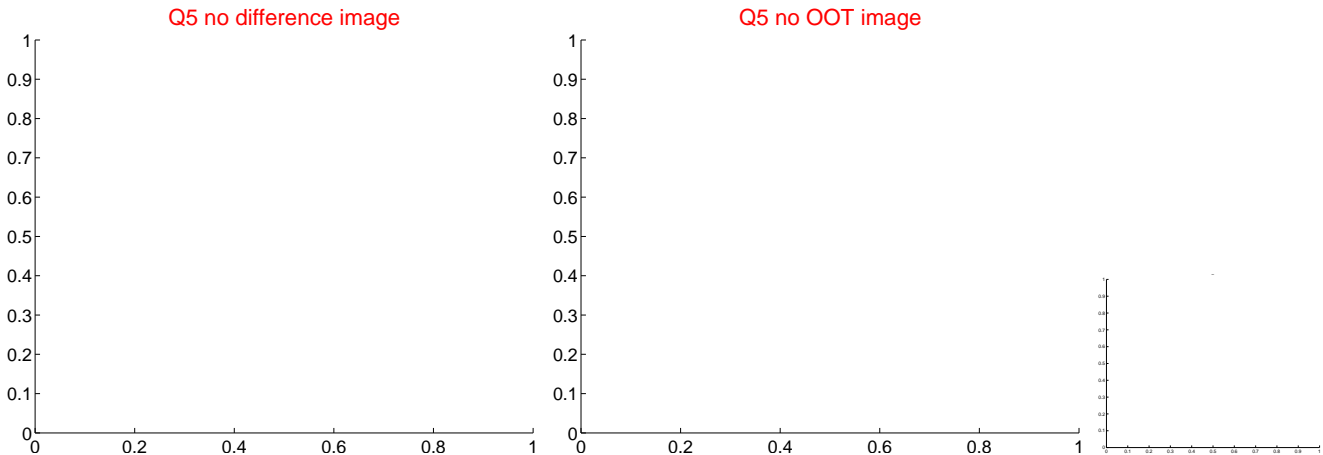


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

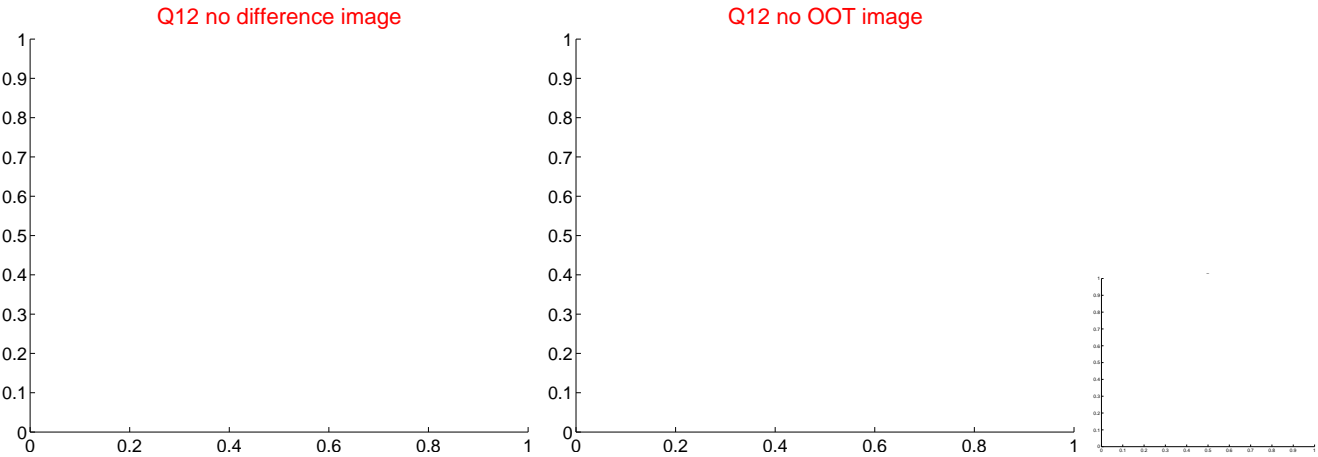
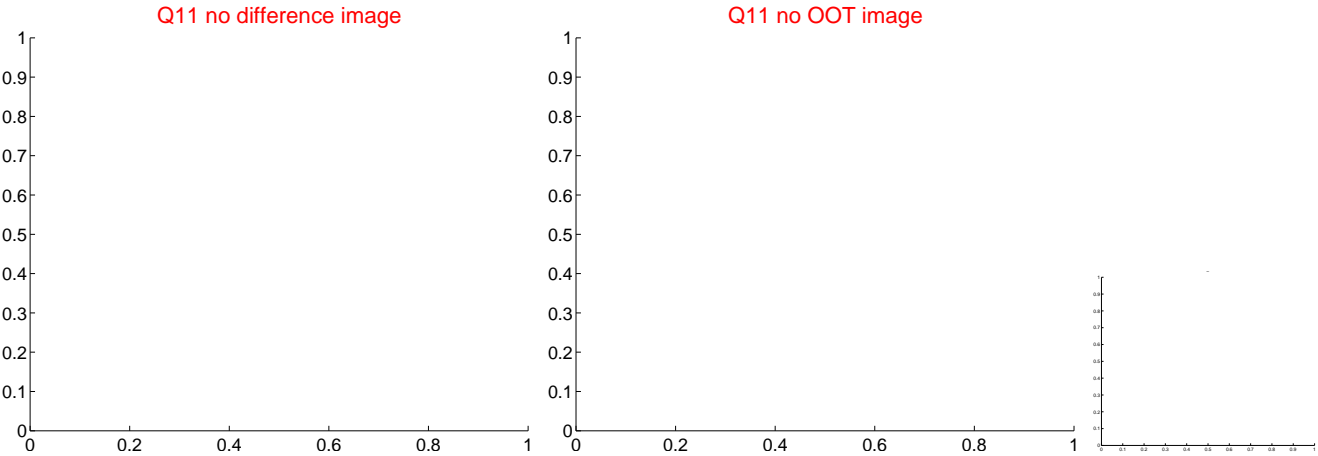
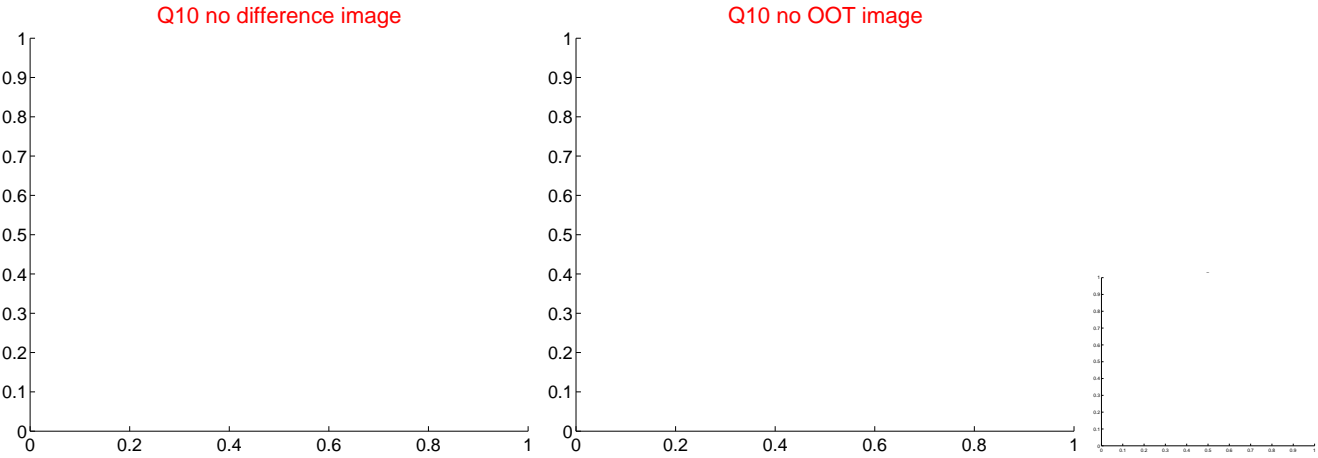
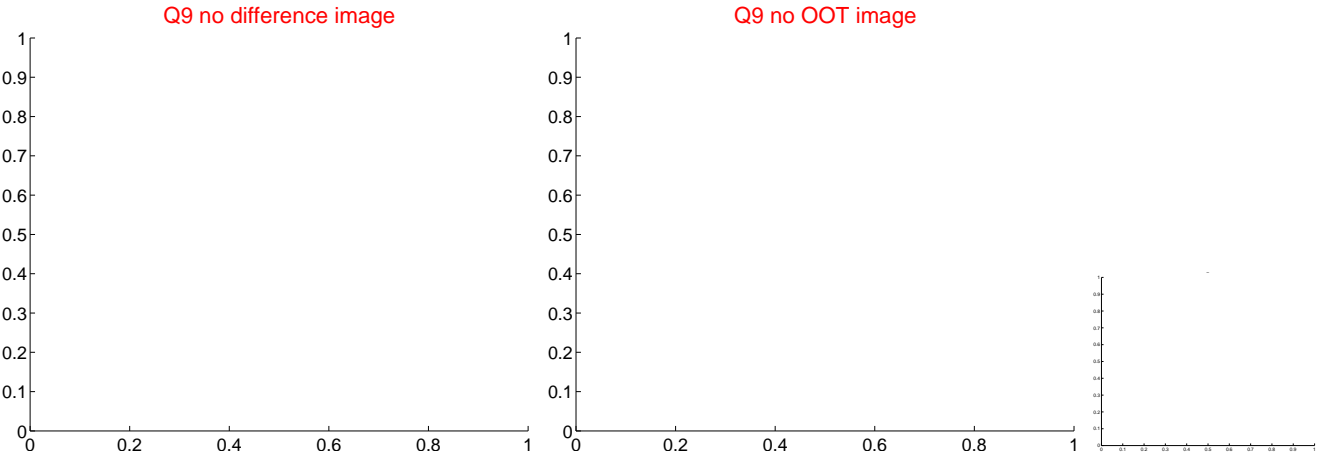
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



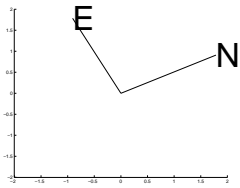
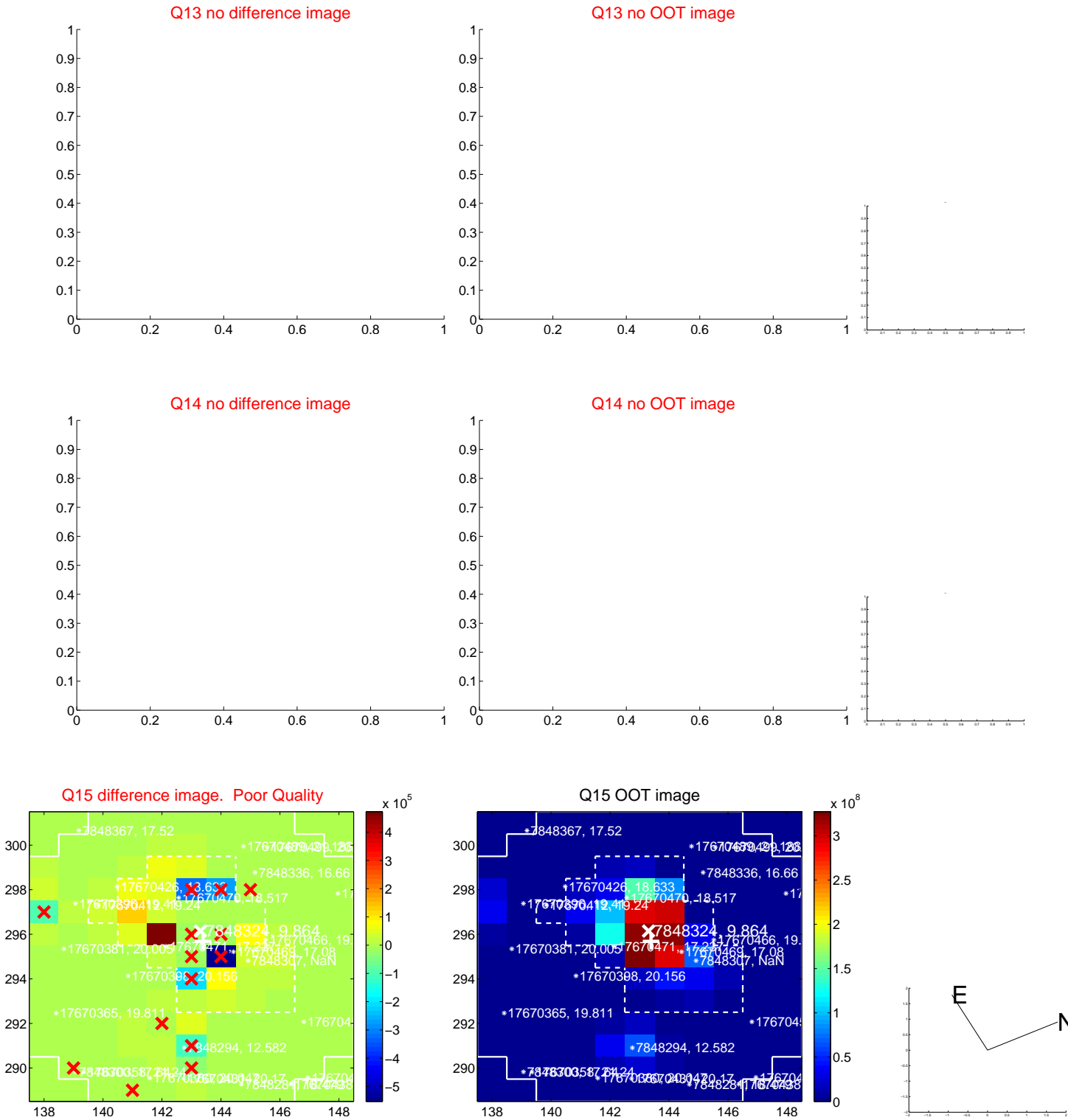
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



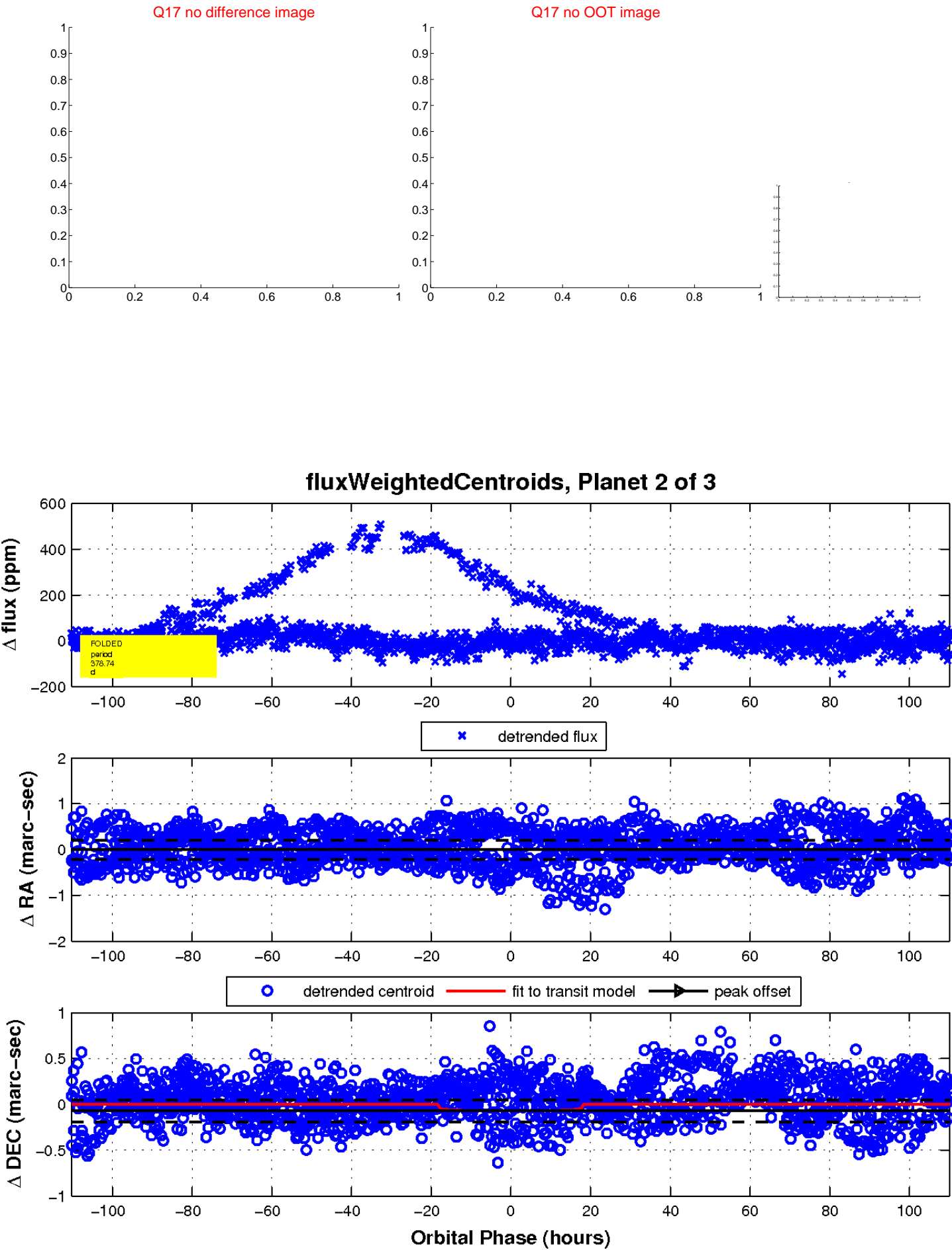
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

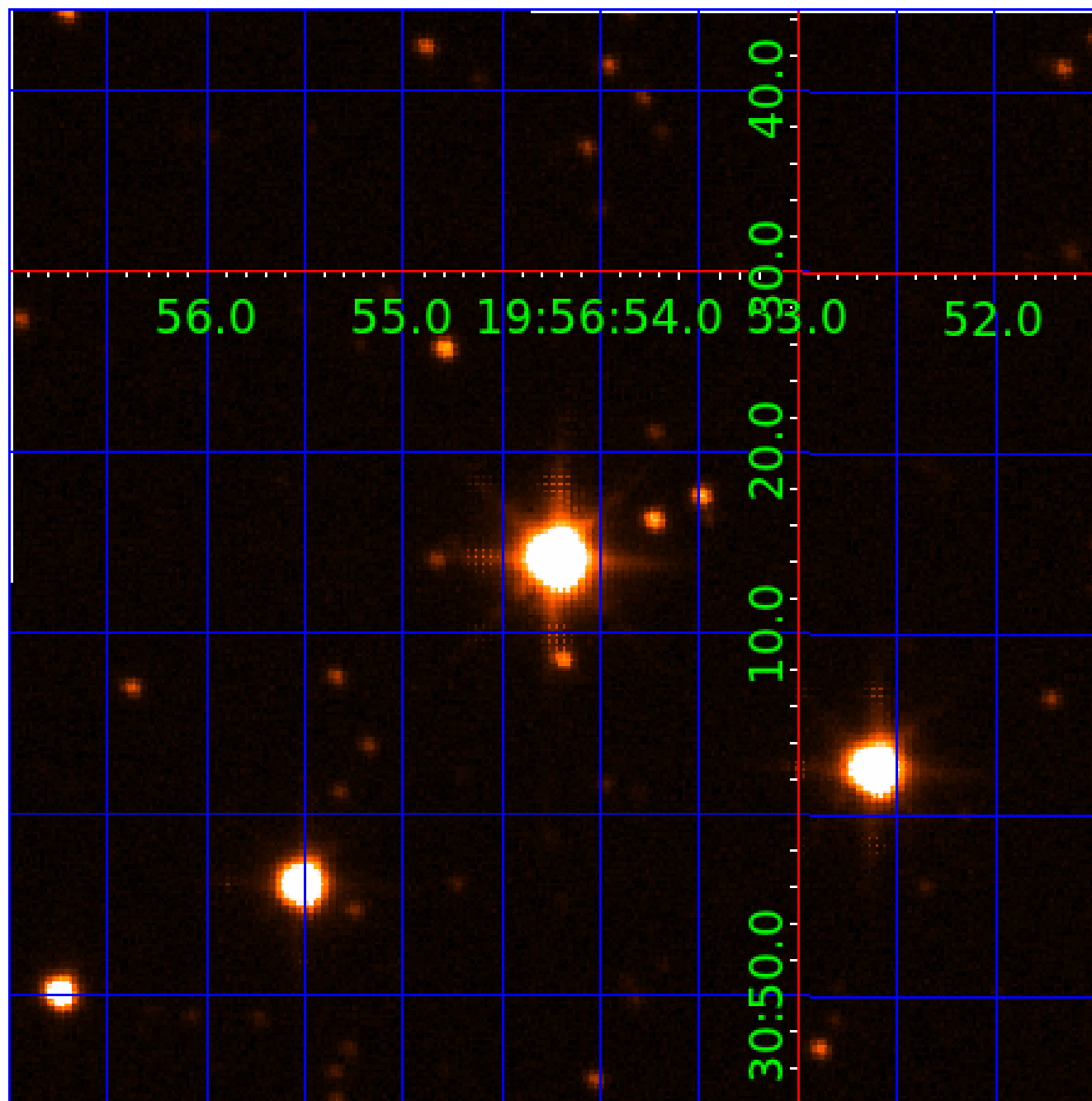


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 007848324

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})
007848324-01	OBS	No	0.901194	132.281227	5.4	3.796	9.4	11.5	2.05	8057	0.55	31483.96
007848324-02	OBS	No	378.738425	304.125038	60.3	36.749	11.6	5.4	2.05	8057	1.74	10.00
007848324-03	OBS	No	0.541529	132.046179	5.2	5.036	10.0	11.4	2.05	8057	0.48	62089.49

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007848324-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
007848324-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
007848324-03	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_ALT—CENT_SATURATED

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

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

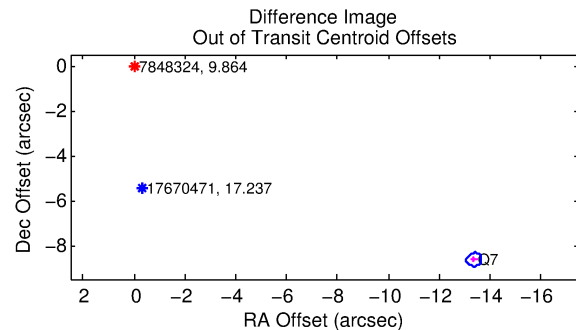
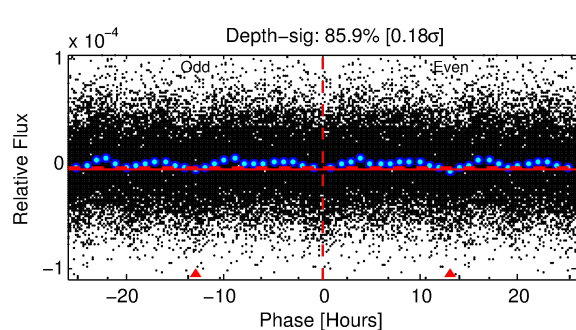
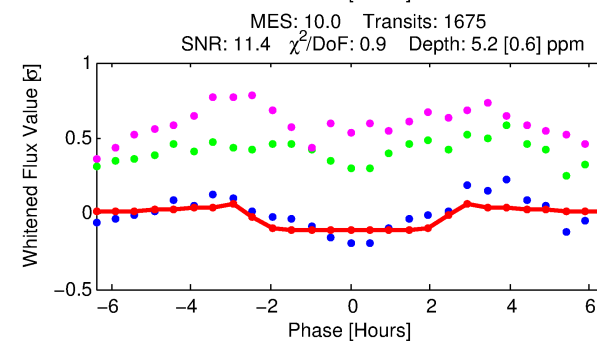
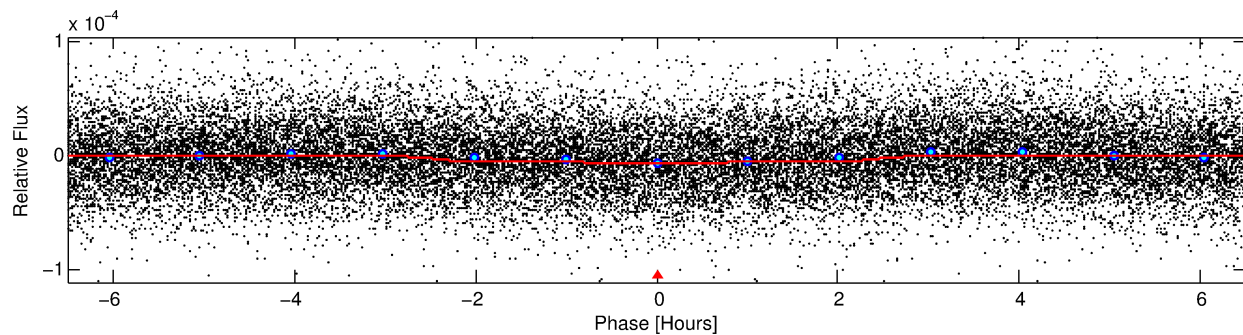
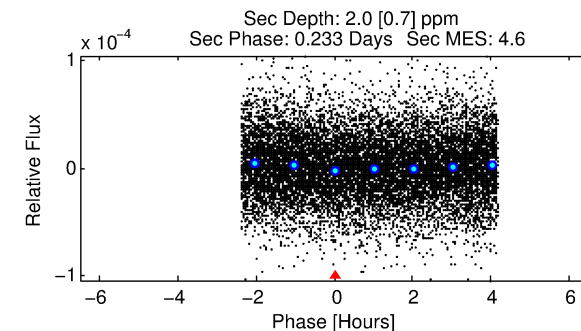
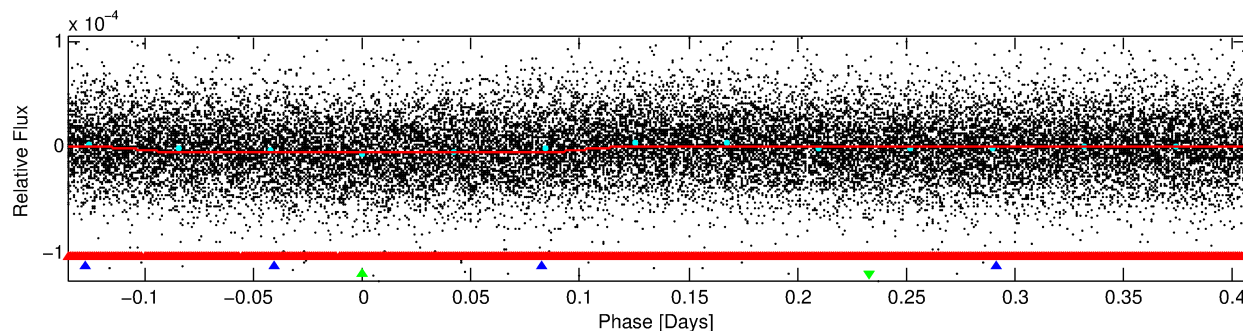
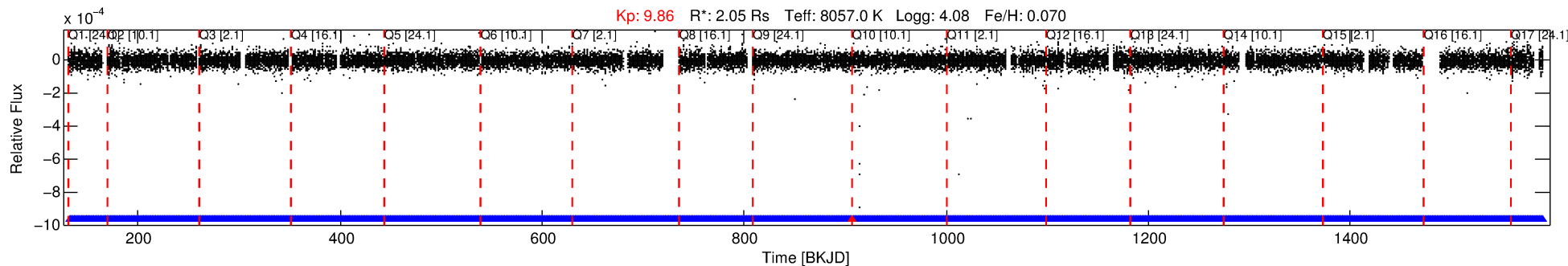
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007848324-03

No Significant Match Found

DV One-Page Summary

KIC: 7848324 Candidate: 3 of 3 Period: 0.542 d



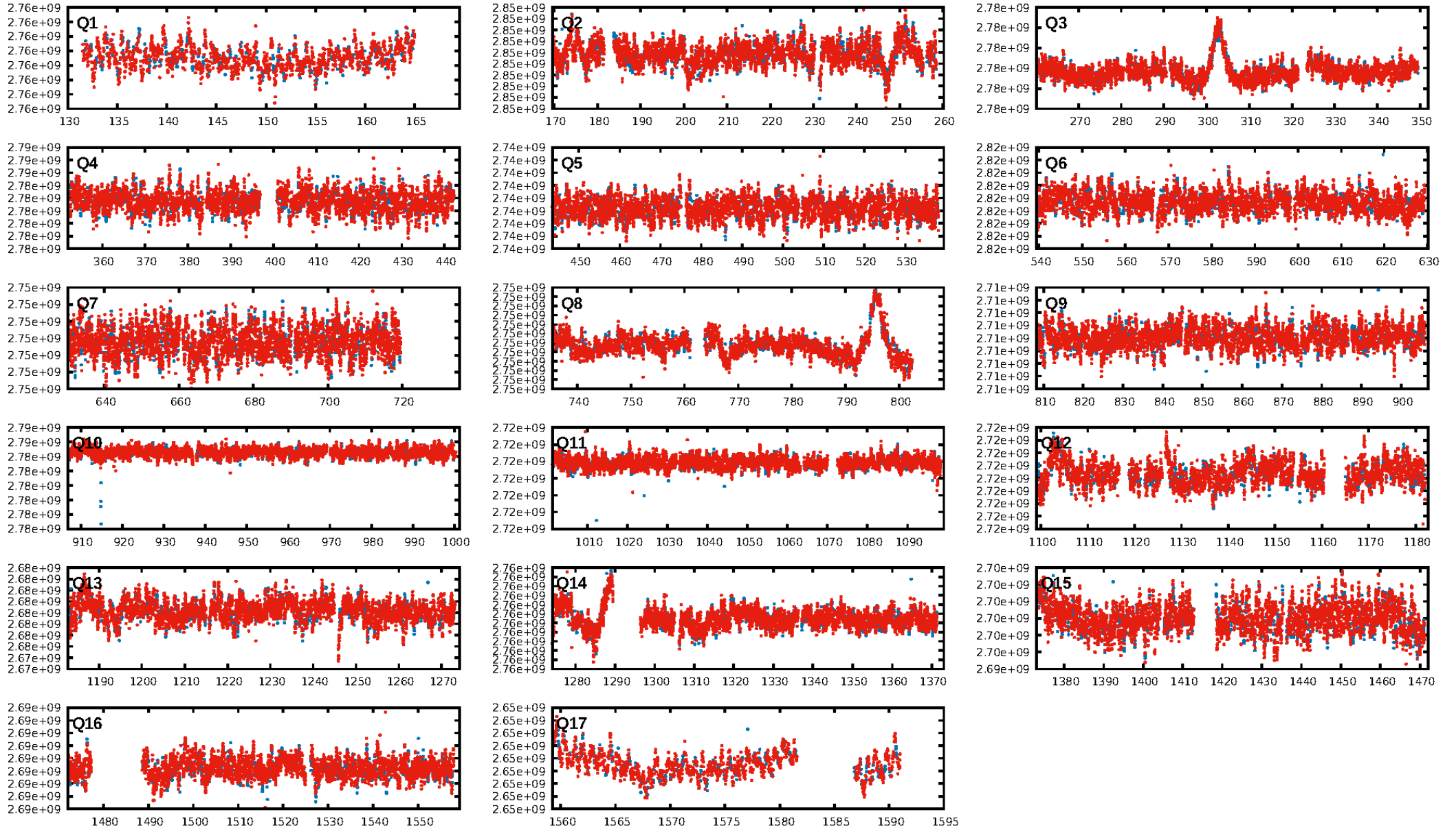
DV Fit Results:

Period = 0.54153 [0.00001] d
Epoch = 132.0462 [0.0032] BKJD
Rp/R* = 0.0021 [0.0013]
a/R* = 1.06 [0.42]
b = 0.34 [9.48]
Seff = 62089.48 [20014.99]
Teq = 4025 [324] K
Rp = 0.48 [0.31] Re
a = 0.0160 [0.0030] AU
Ag = 1.21 [1.56] [0.13σ]
Teff = 6524 [2078] K [1.19σ]

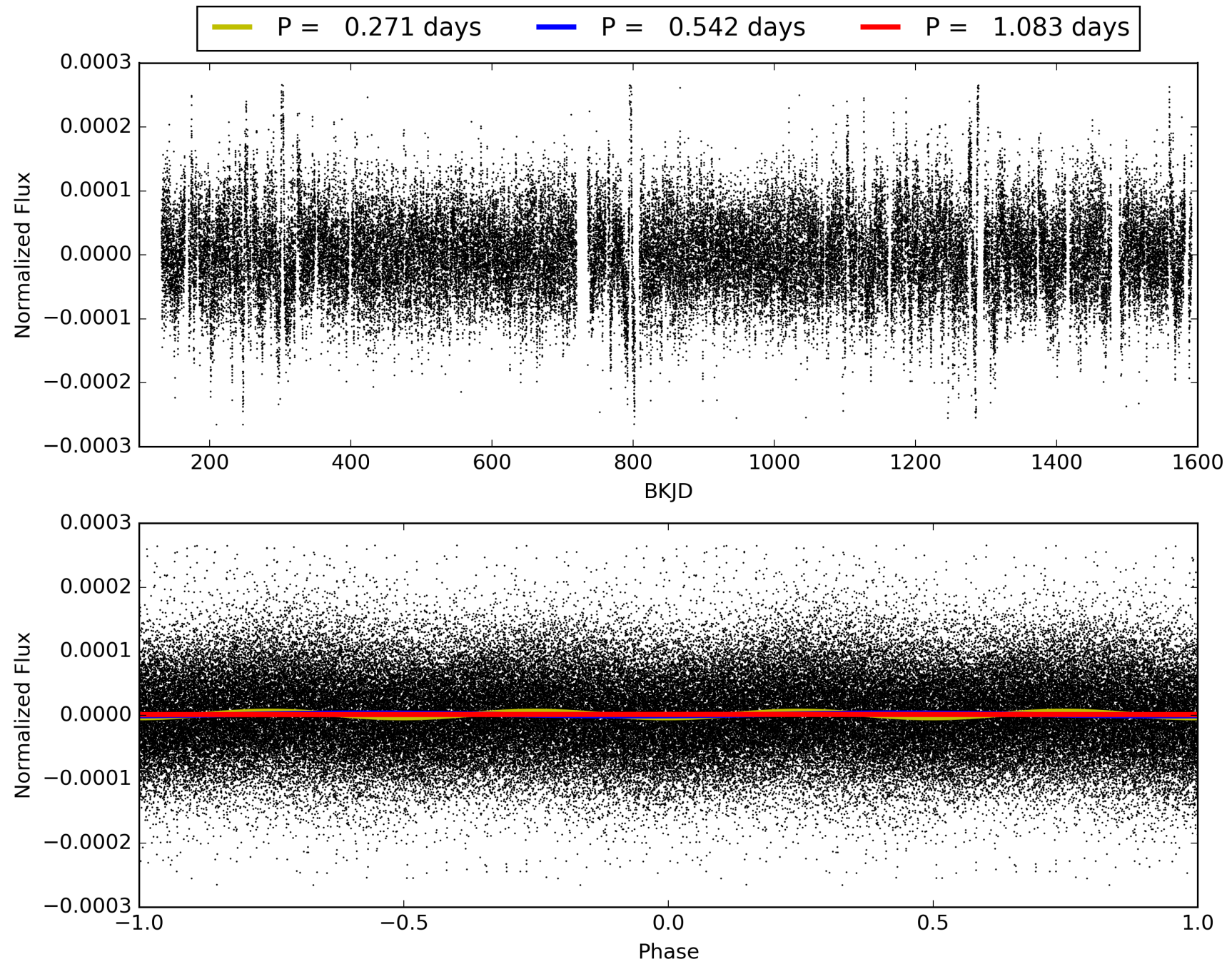
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 82.9% [1.37σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [1598/1599]
GhostDiagnostic-chr: N/A
Centroid-sig: 25.9%
Centroid-so: 1.115 arcsec [0.77σ]
OotOffset-rm: 15.914 arcsec [160.20σ]
KicOffset-rm: 17.774 arcsec [178.09σ]
OotOffset-st: 0/1/0/0 [1]
KicOffset-st: 0/1/0/0 [1]
DiffImageQuality-fgm: 0.00 [0/1]
DiffImageOverlap-fno: 0.94 [16/17]

TCE 007848324-03, PDC Light Curves

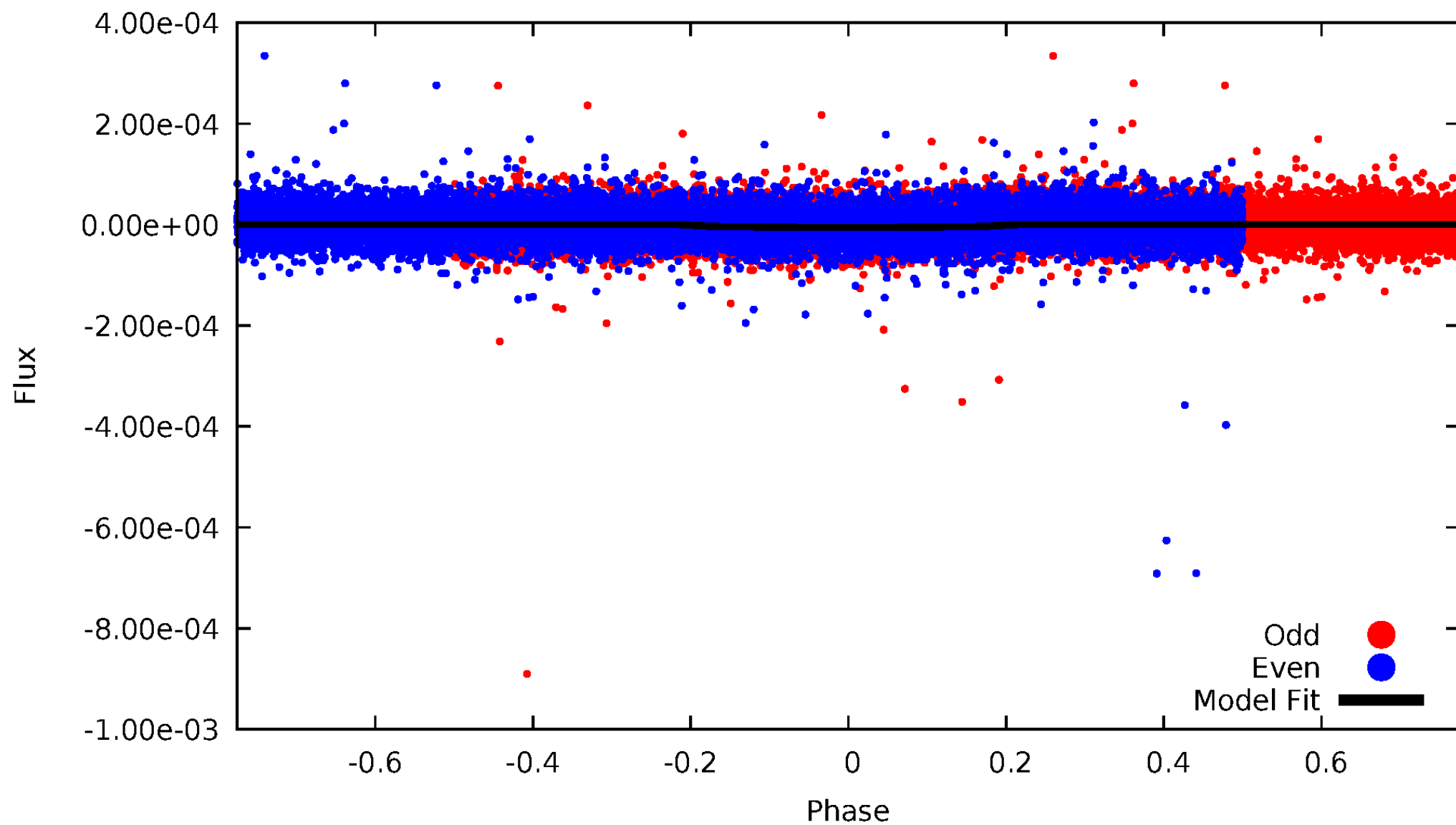


TCE 007848324-03



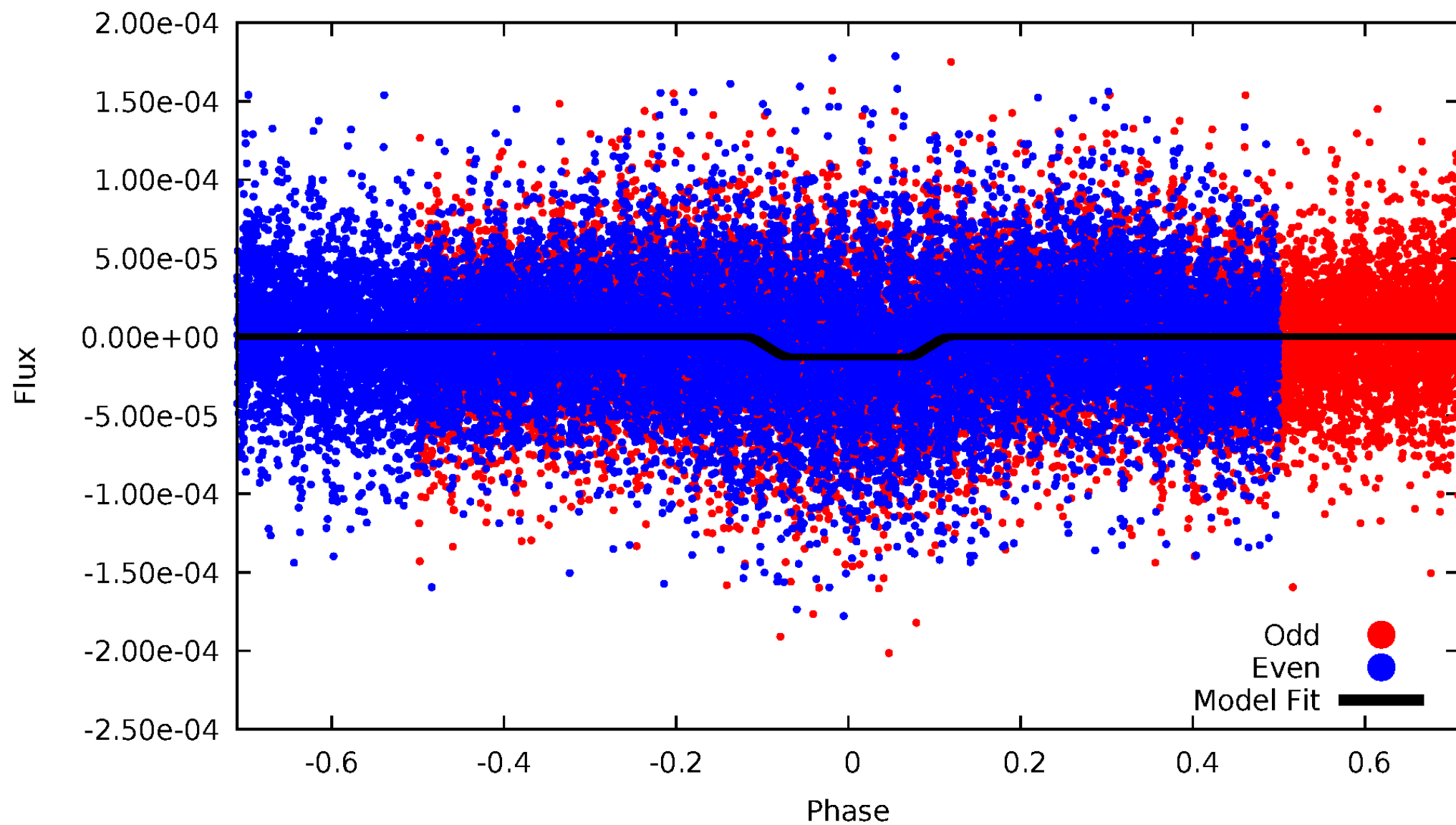
DV Odd/Even

TCE 007848324-03



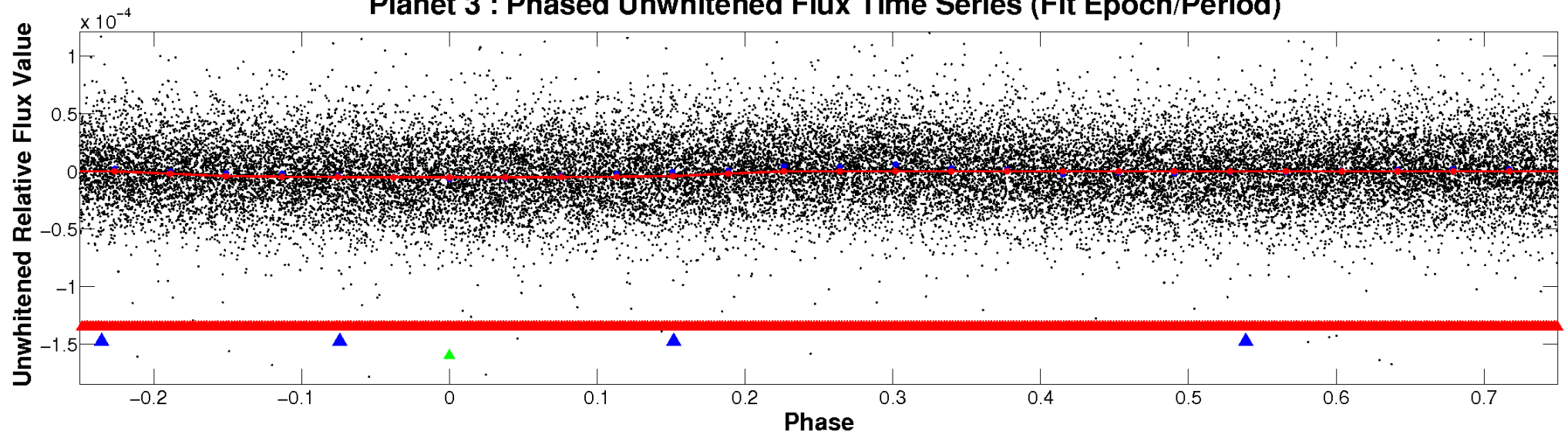
ALT Odd/Even

TCE 007848324-03

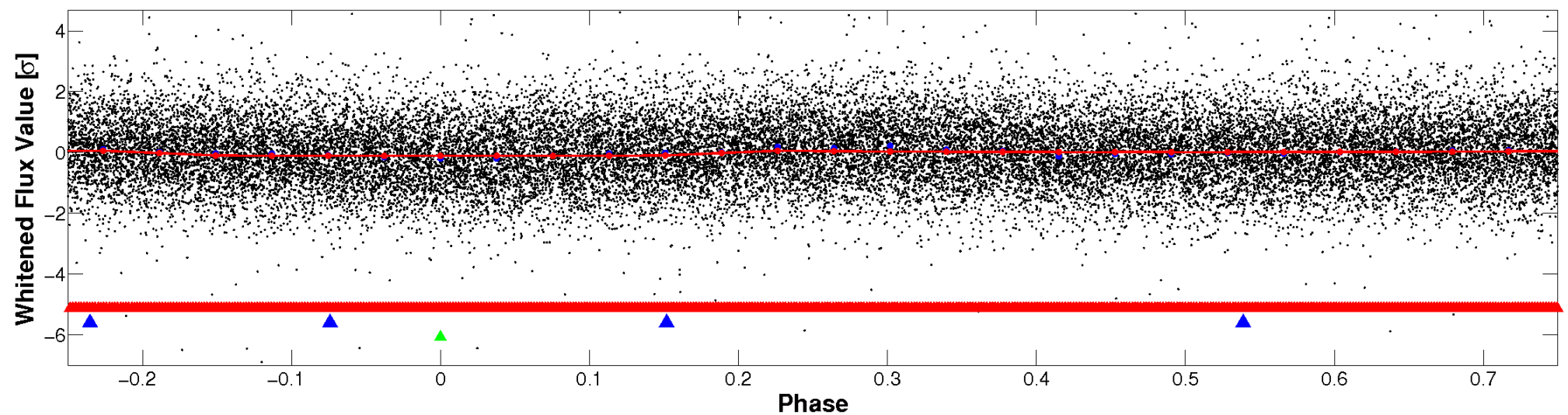


Non-Whitened Vs. Whitened Light Curve

Planet 3 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

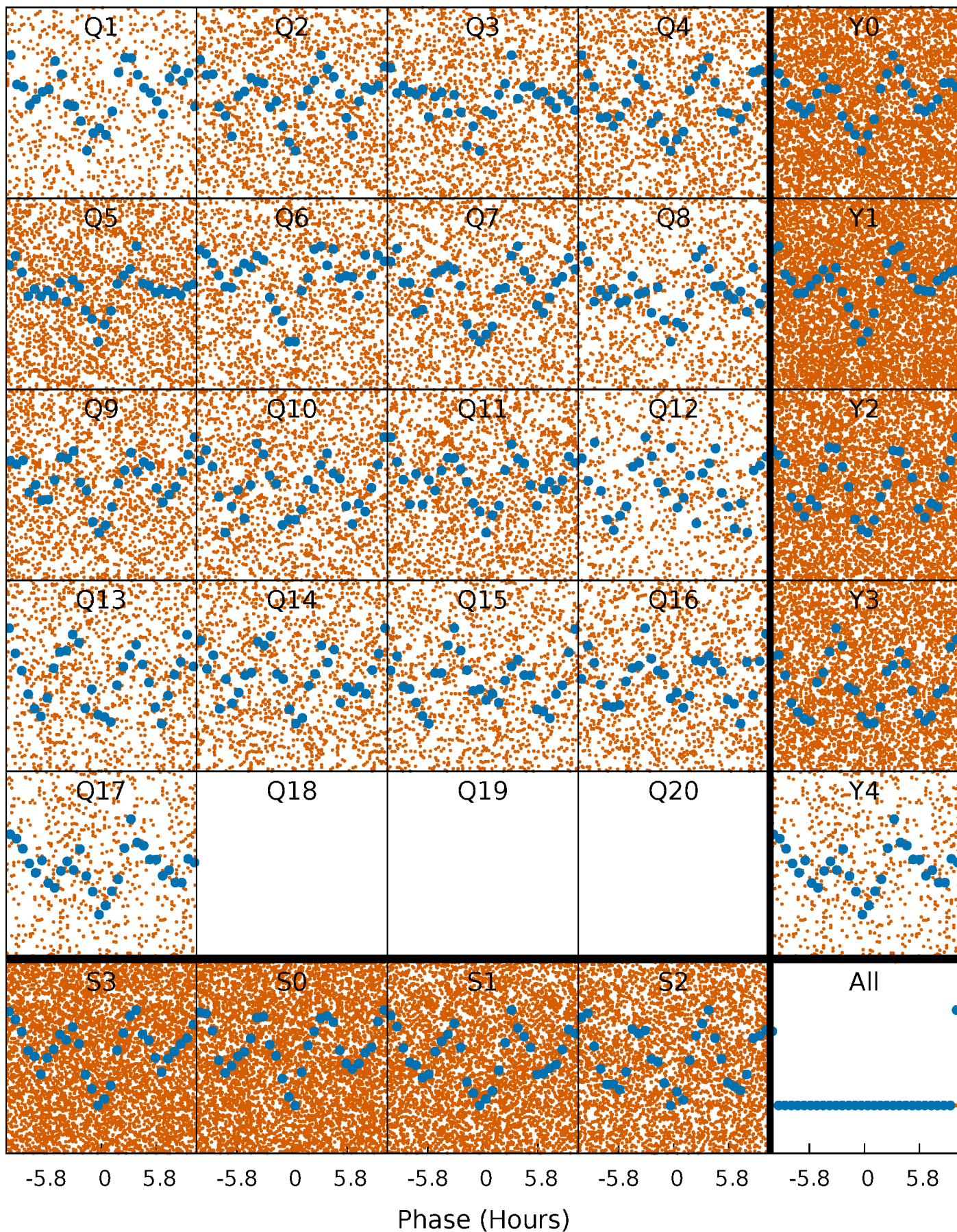


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



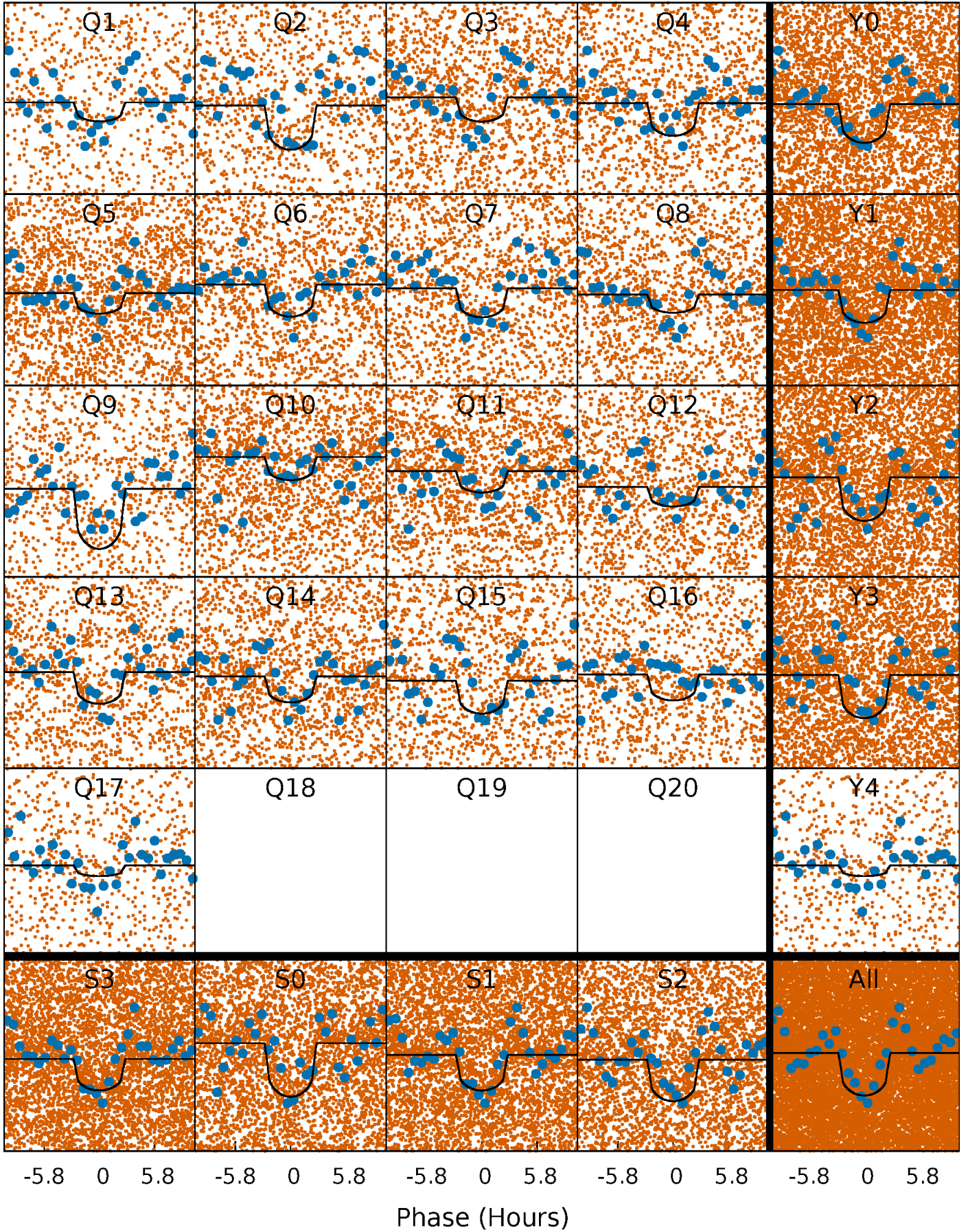
PDC Quarter-Phased Transit Curves

TCE 007848324-03 P= 0.541529 Days $T_0=132.046179$ (BKJD)



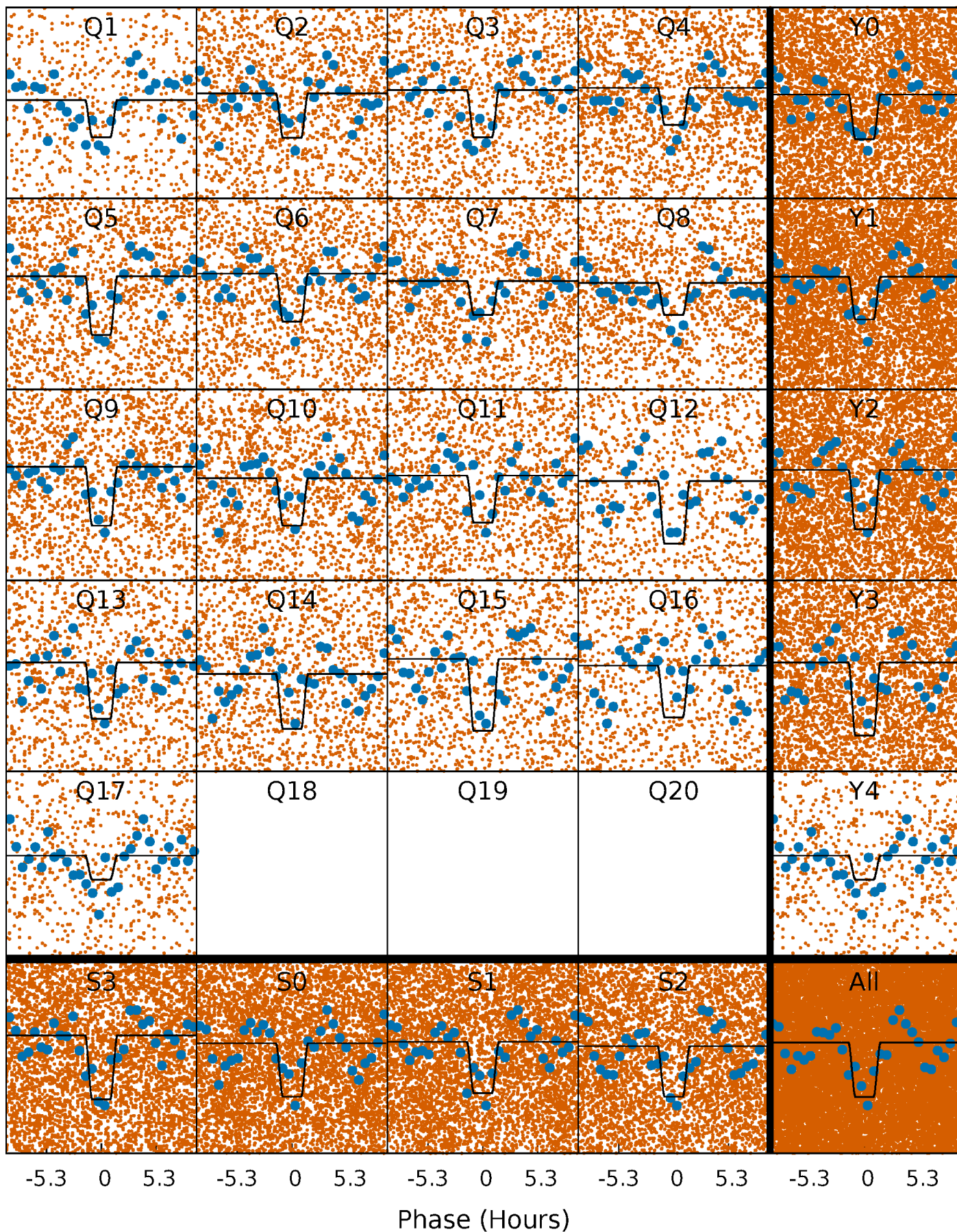
DV Quarter-Phased Transit Curves

TCE 007848324-03 P= 0.541529 Days $T_0=132.046179$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

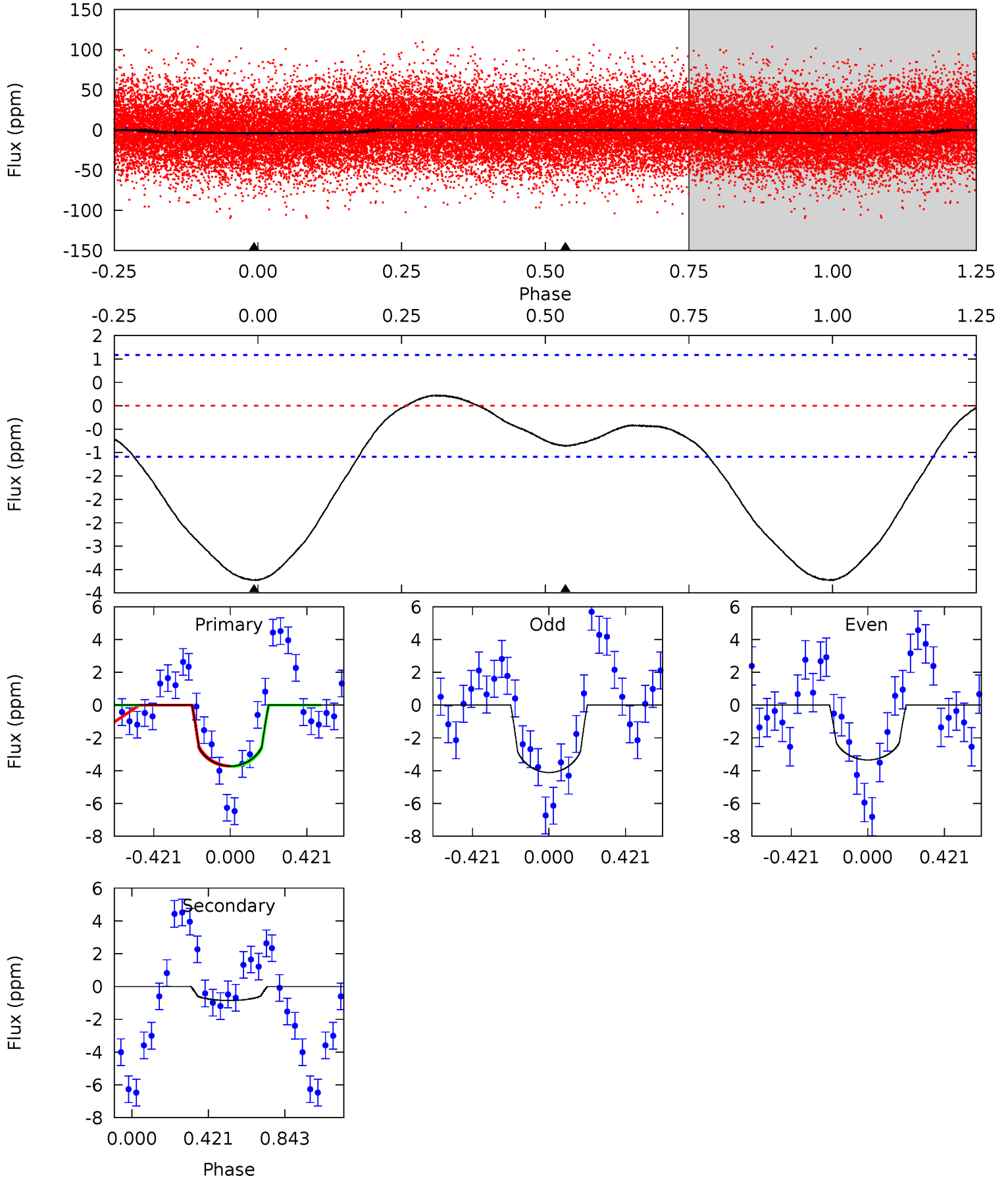
TCE 007848324-03 P= 0.541535 Days $T_0=132.035638$ (BKJD)



DV Model-Shift Uniqueness Test

007848324-03, P = 0.541529 Days, E = 131.504650 Days

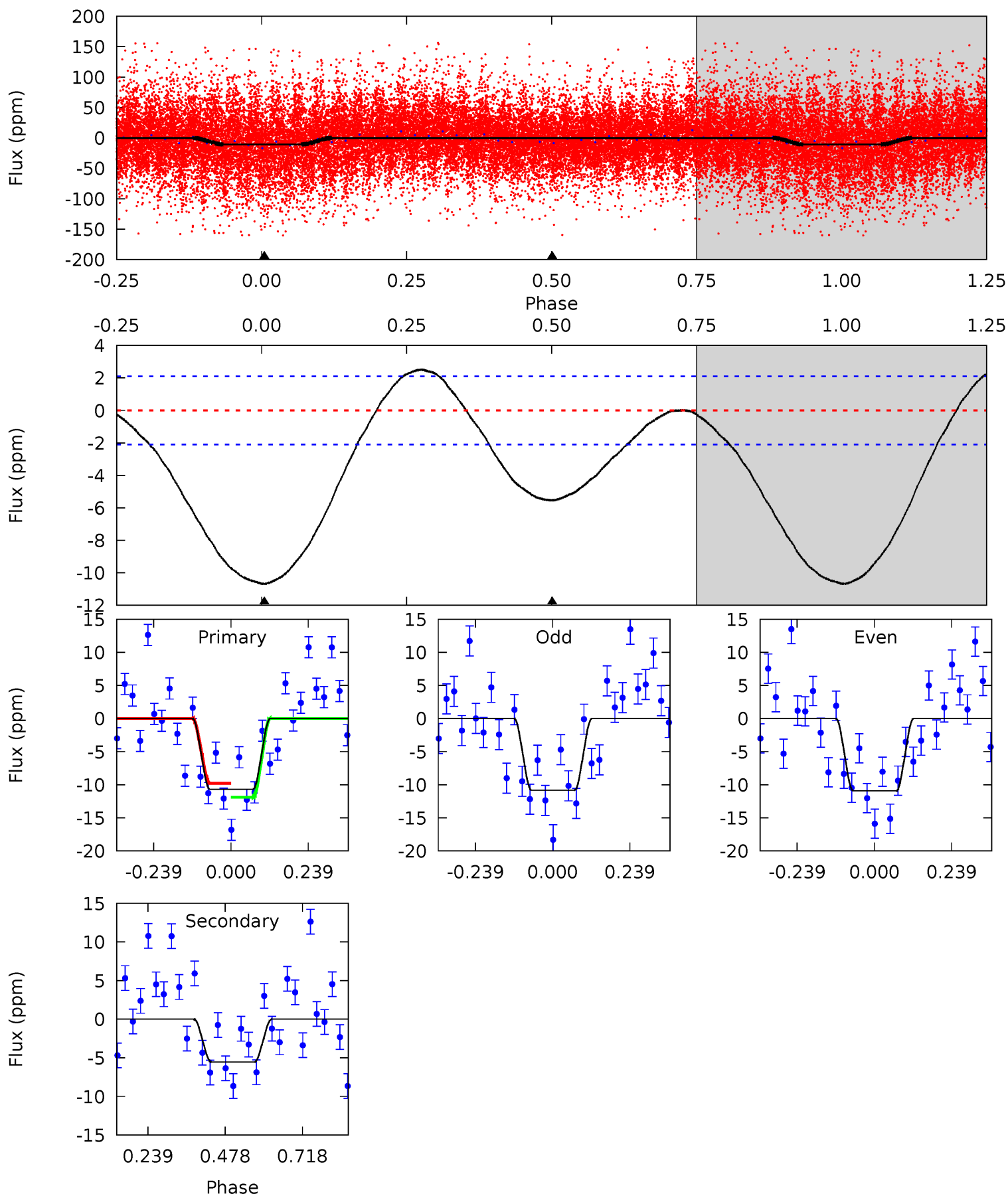
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.6	3.35	0	0	4.25	0.80	1.22	14.6	14.6	3.35	3.35	1.53	1.01	0.06	0.07



Alt Model-Shift Uniqueness Test

007848324-03, P = 0.541535 Days, E = 131.494103 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
22.3	11.6	0	0	4.38	1.18	2.79	22.3	22.3	11.6	11.6	0.10	1.01	0.19	2.13



Stellar Parameters For KIC 007848324

	$T_{\text{eff}} (K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M (M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	8057^{+221}_{-359}	$4.084^{+0.145}_{-0.145}$	$0.070^{+0.250}_{-0.400}$	$2.053^{+0.463}_{-0.417}$	$1.863^{+0.208}_{-0.337}$	$0.303^{+0.221}_{-0.127}$
	+3%/-4%	+4%/-4%	+357%/-571%	+23%/-20%	+11%/-18%	+73%/-42%
Source	PHO54	PHO54	PHO54	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 007848324-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-1 ± 0	$0.49^{+0.32}_{-0.26}$	5608^{+355}_{-380}	4099^{+2767}_{-8118}	$0.466^{+1.598}_{-0.303}$
Alt.	-6 ± 0	$0.78^{+0.32}_{-0.28}$	5614^{+359}_{-356}	5929^{+2117}_{-1133}	$1.241^{+2.004}_{-0.596}$

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

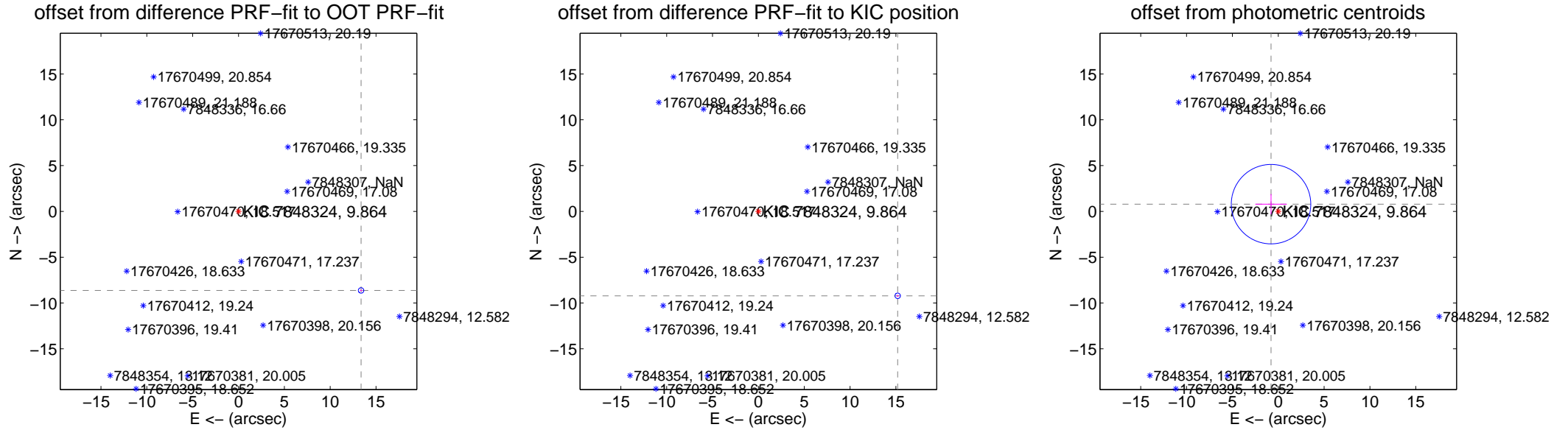
DV Centroid Data

Supplemental centroid analysis for 007848324-03. **Kepler magnitude: 9.86.** Transit SNR 11.44

There are 0 quarters with good PRF difference image offsets

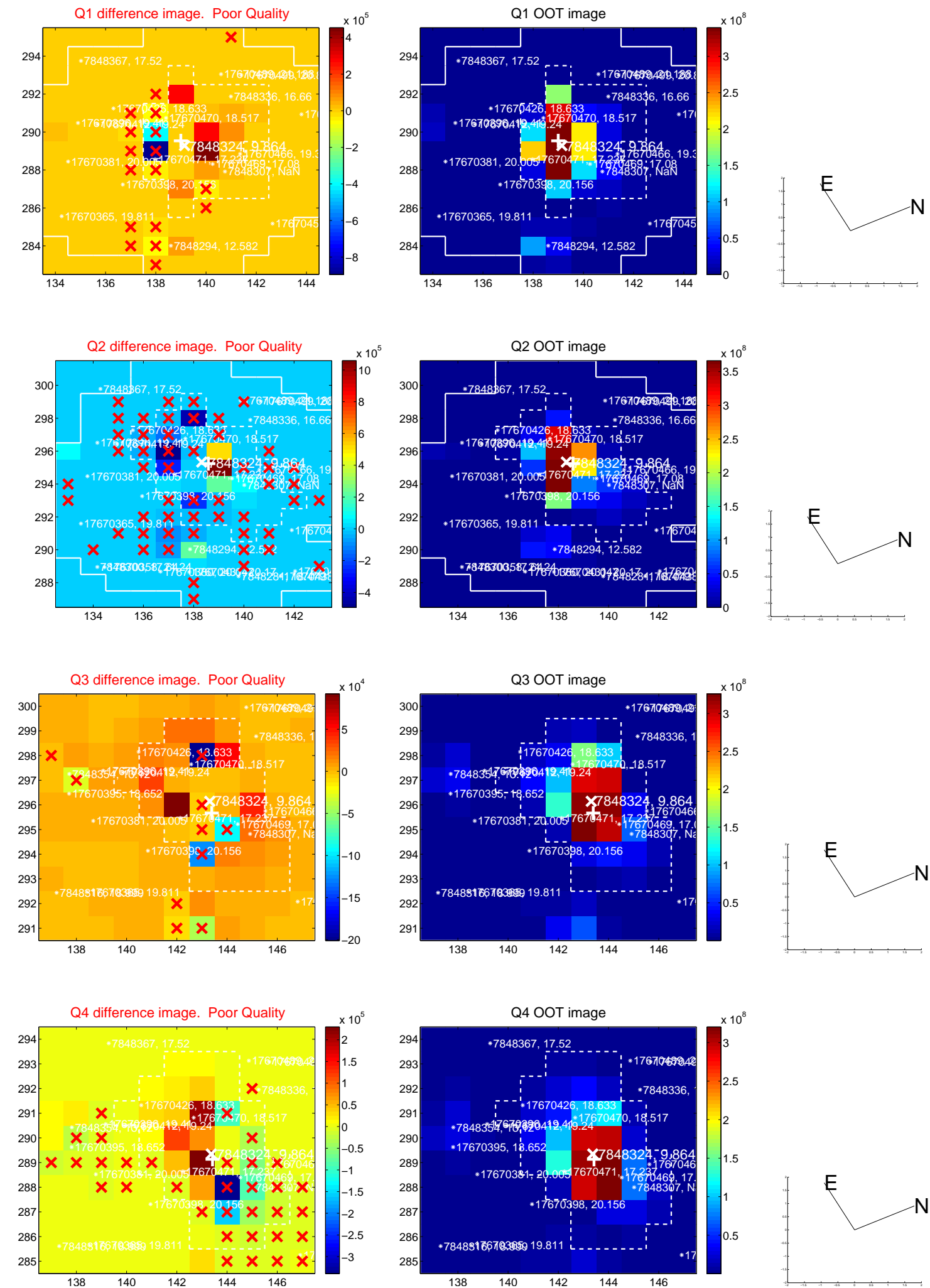
The direct PRF centroid is offset from the target star catalog position by about 1.92 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	15.914 \pm 0.099	160.20	-13.370 \pm 0.105	-8.631 \pm 0.085
PRF-fit source offset from KIC position	17.774 \pm 0.100	178.09	-15.197 \pm 0.105	-9.218 \pm 0.085
photometric centroid source offset	1.12 \pm 1.45	0.77	0.79 \pm 1.72	0.79 \pm 1.10

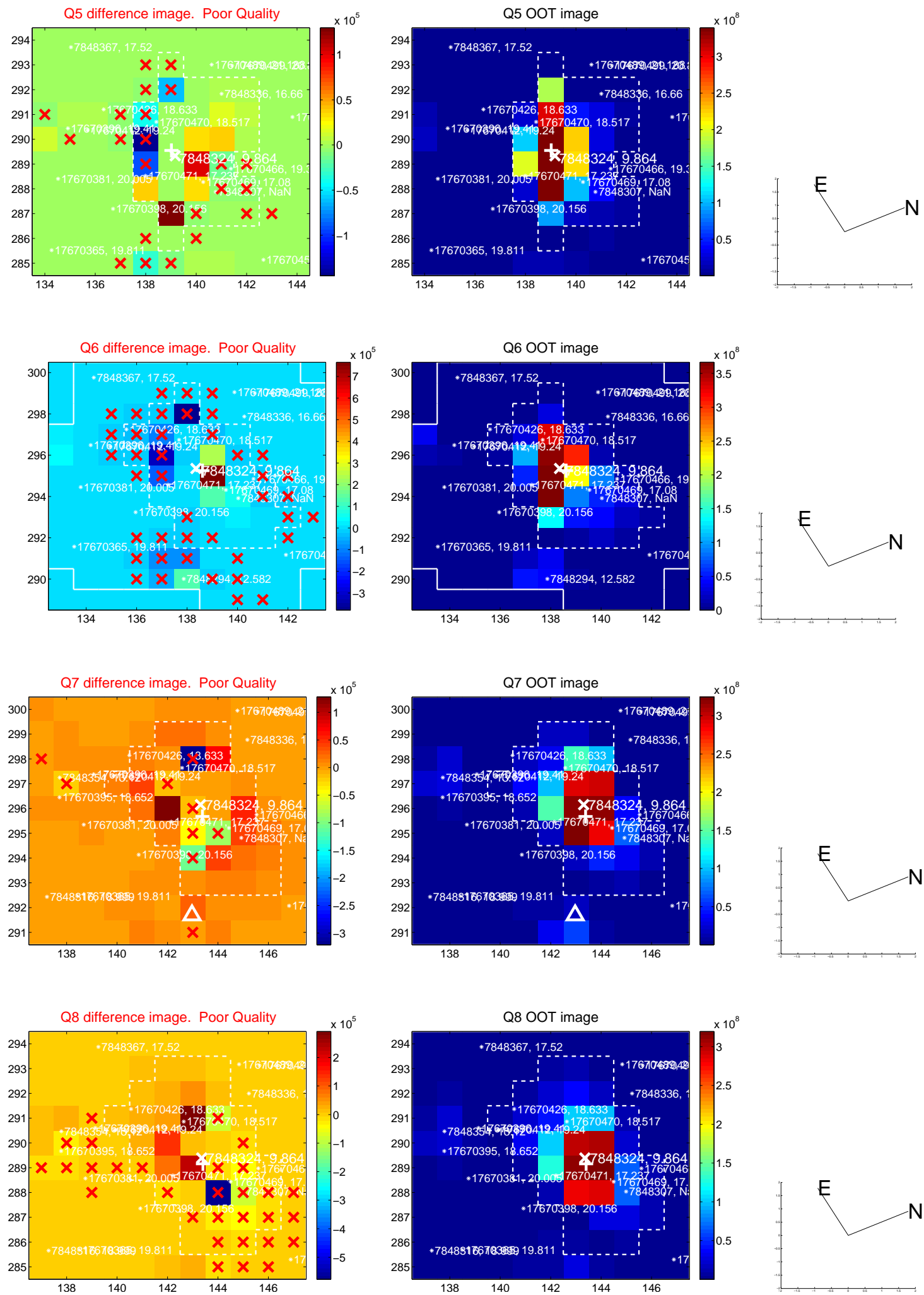


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

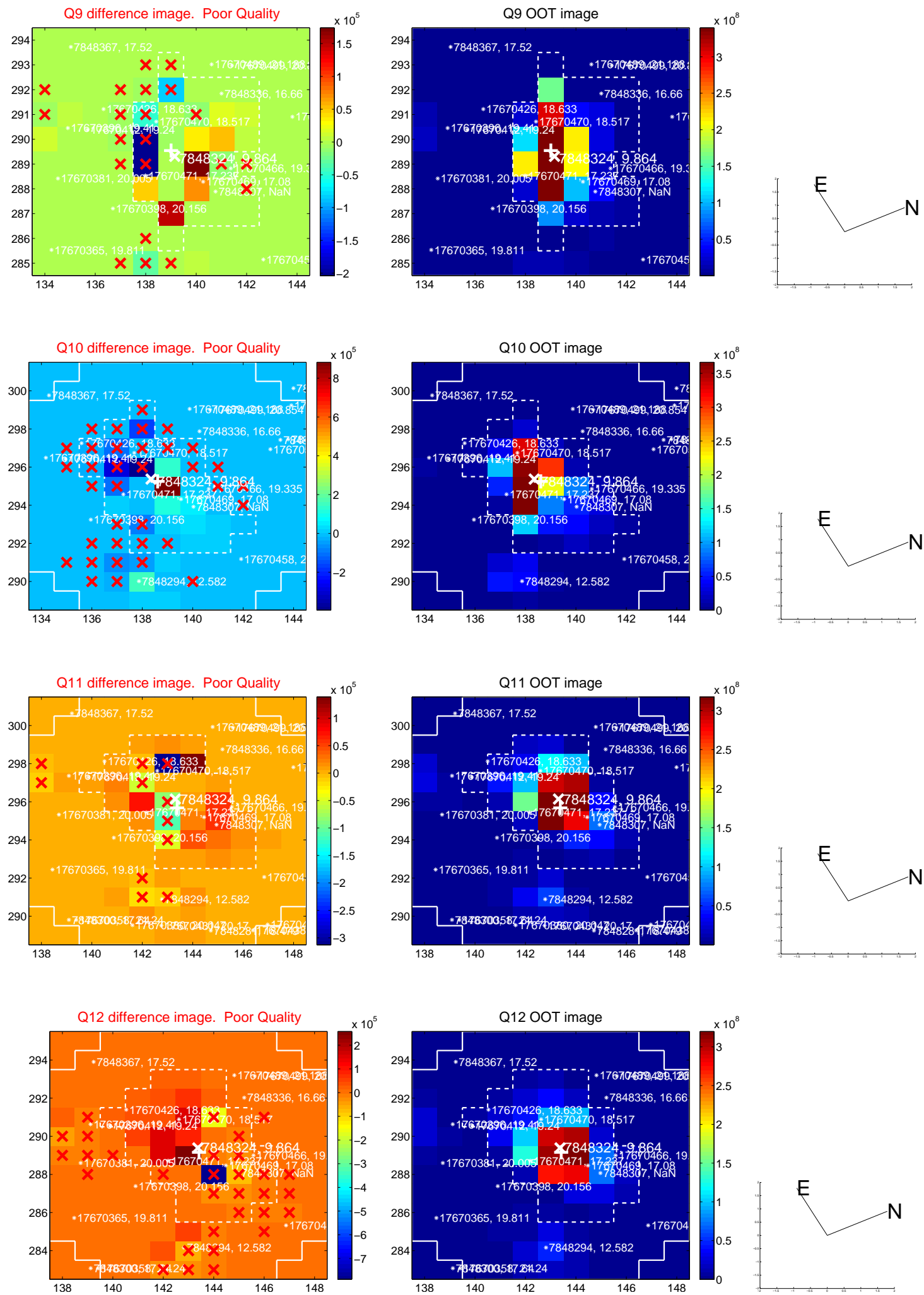
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



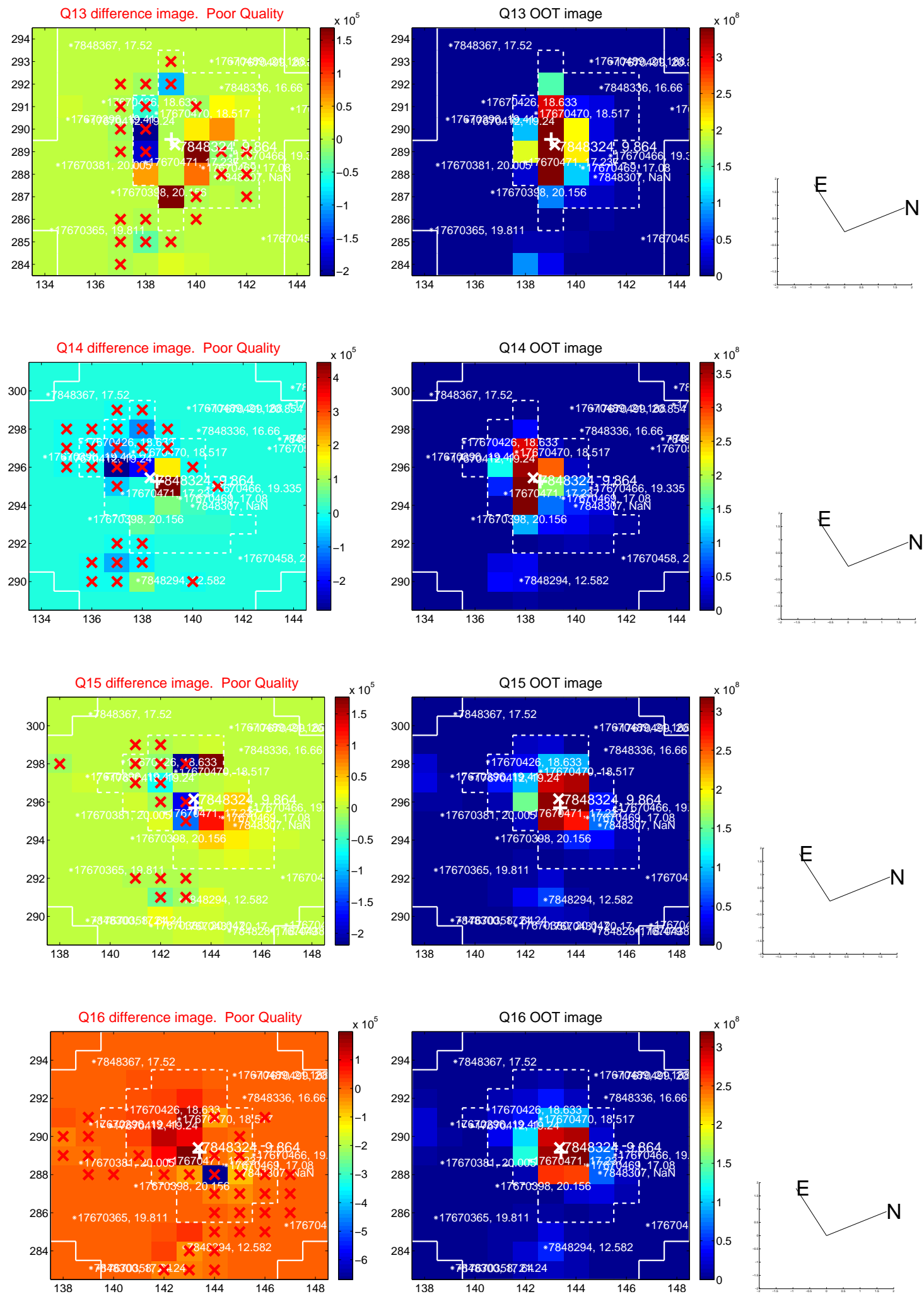
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



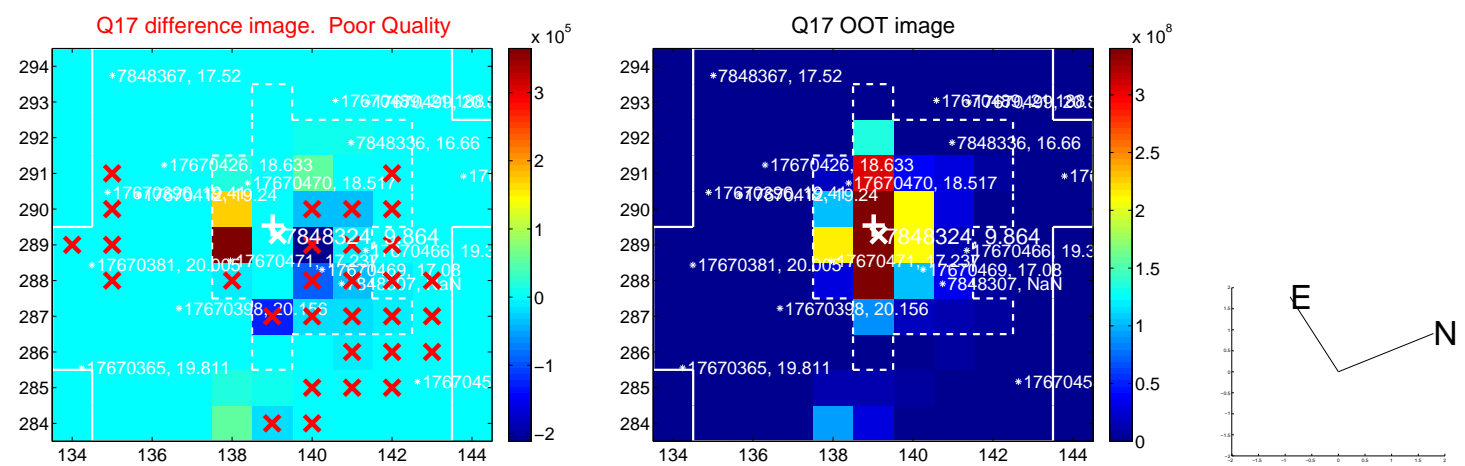
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



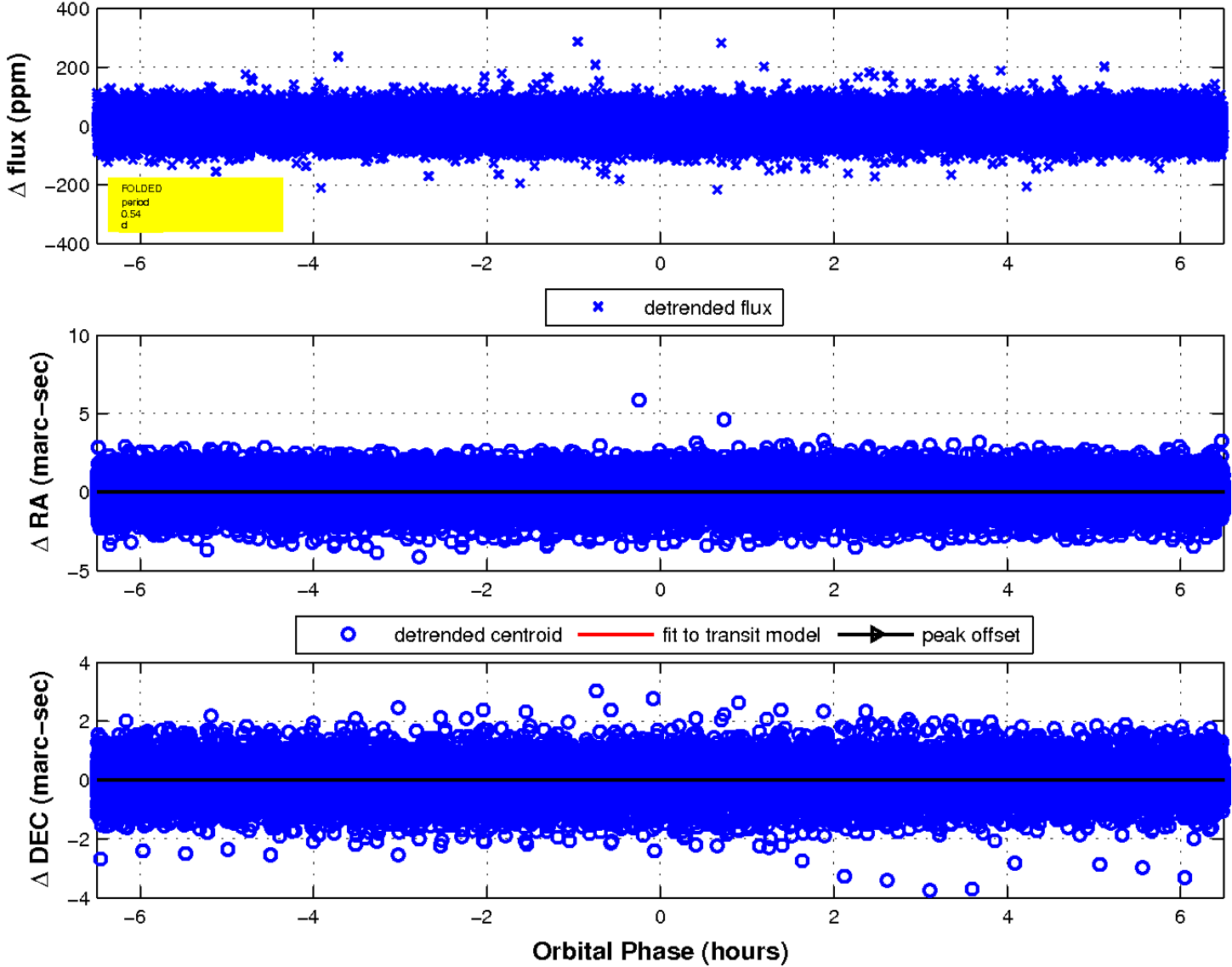
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 3 of 3



UKIRT Image

Declination

