

KIC 003342467

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})
003342467-01	OBS	3278.01	88.180725	209.154965	1085.8	5.183	23.2	22.2	0.84	5497	2.96	3.95
003342467-02	OBS	No	88.180428	164.514173	536.5	9.478	11.5	11.3	0.84	5497	2.15	3.95

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003342467-01	OBS	FP	0.00	0	1	0	0	HAS_SEC_TCE
003342467-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE

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.

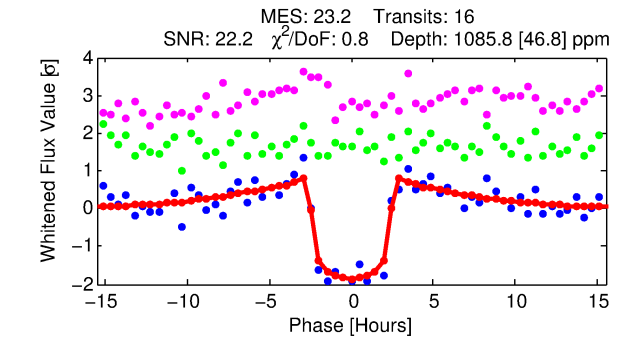
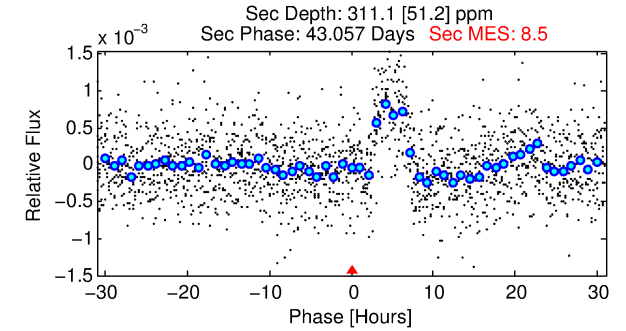
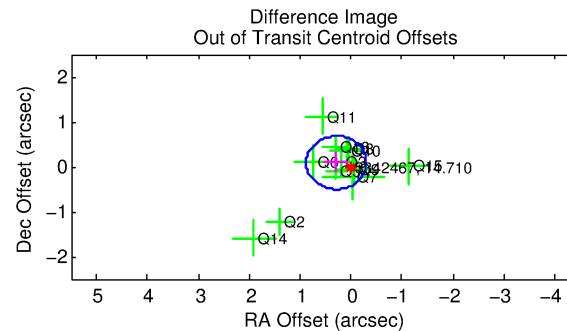
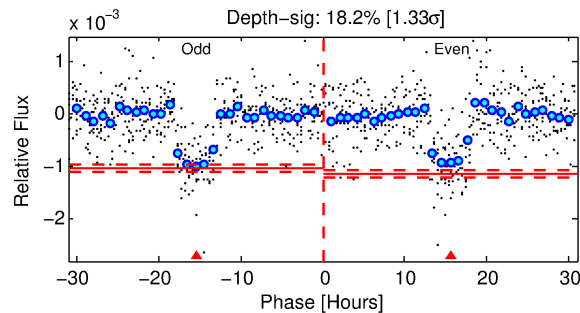
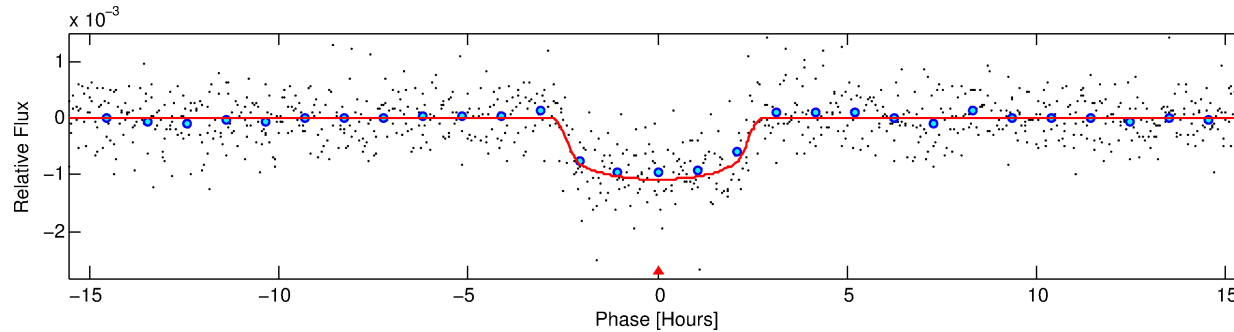
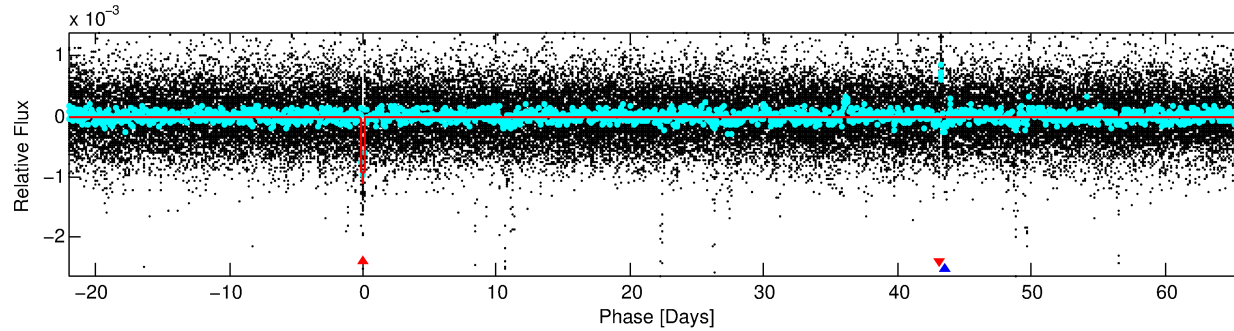
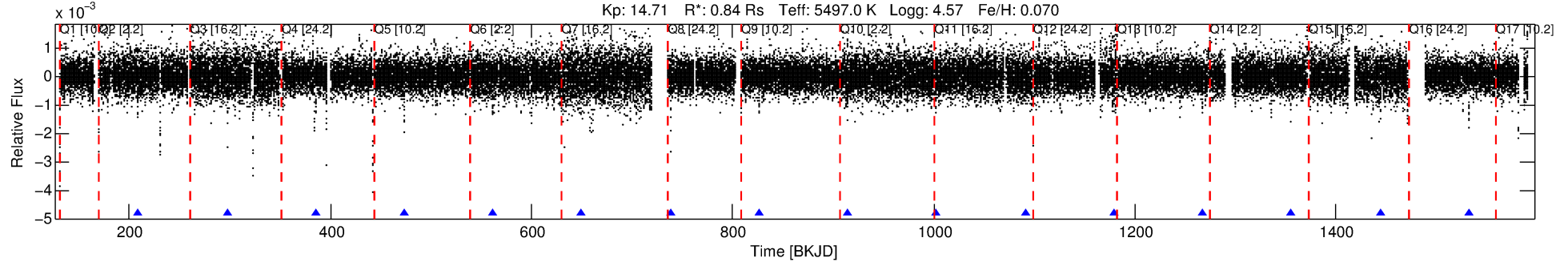
Ephemeris Match Information For 003342467-01

No Significant Match Found

DV One-Page Summary

KIC: 3342467 Candidate: 1 of 2 Period: 88.181 d
KOI: K03278.01 Corr: 0.982

Kp: 14.71 R*: 0.84 Rs Teff: 5497.0 K Logg: 4.57 Fe/H: 0.070



DV Fit Results:

Period = 88.18073 [0.00039] d
Epoch = 209.1550 [0.0036] BKJD
Rp/R* = 0.0323 [0.0075]
a/R* = 97.27 [88.66]
b = 0.71 [0.64]
Seff = 3.95 [1.17]
Teq = 360 [27] K
Rp = 2.96 [0.92] Re
a = 0.3818 [0.0690] AU
Ag = 2843.68 [1595.14] [1.78σ]
Teff = 4059 [512] K [7.21σ]

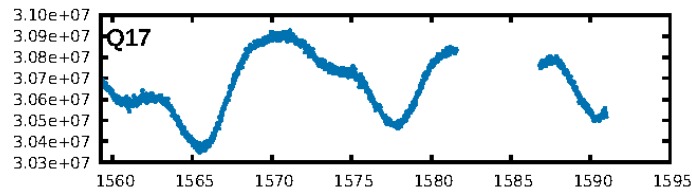
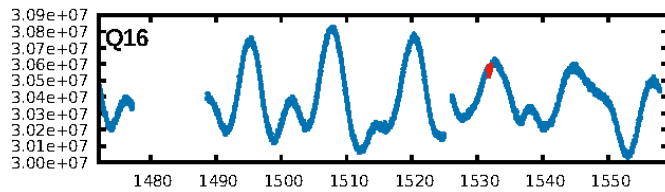
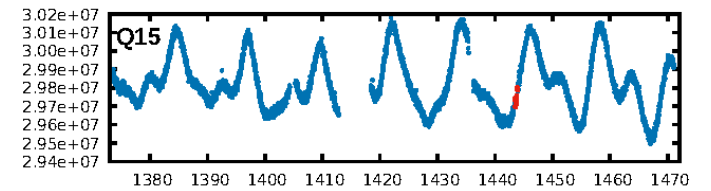
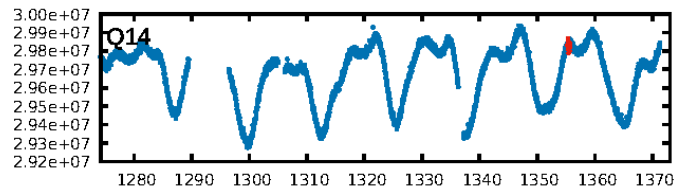
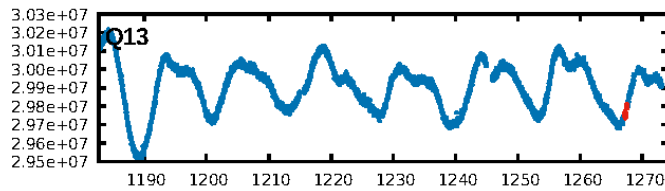
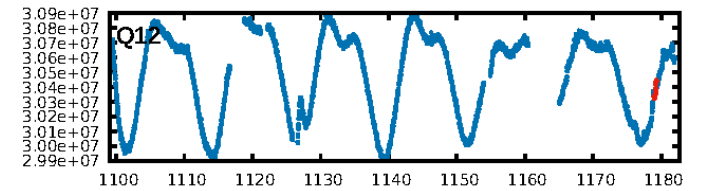
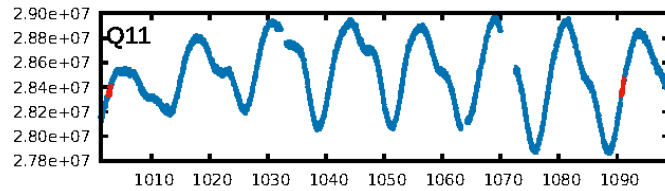
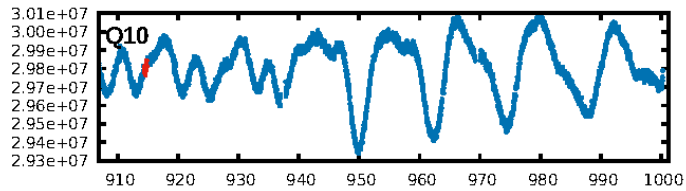
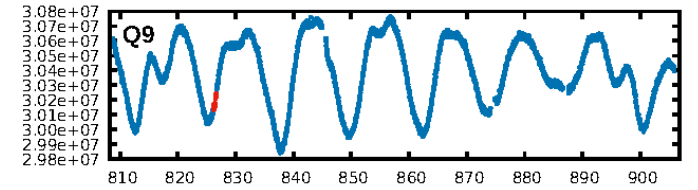
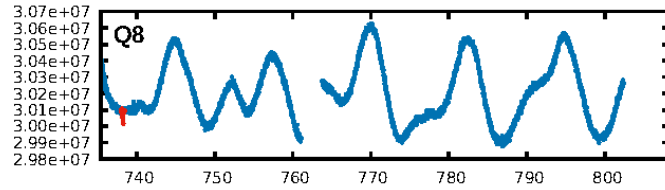
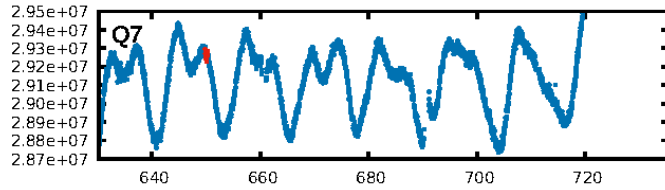
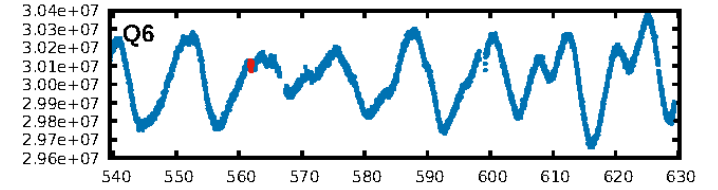
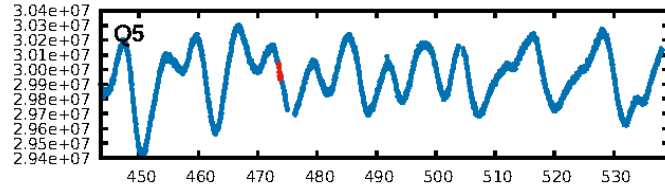
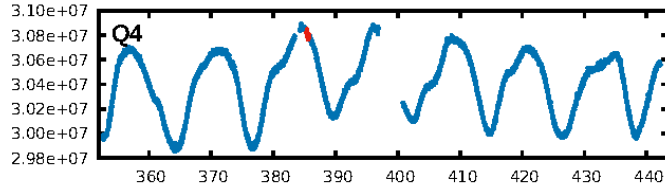
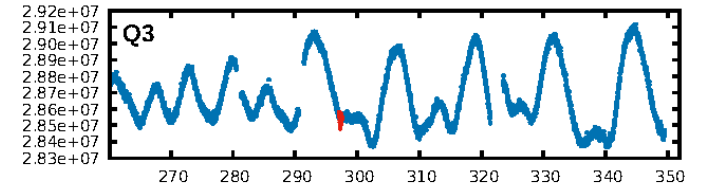
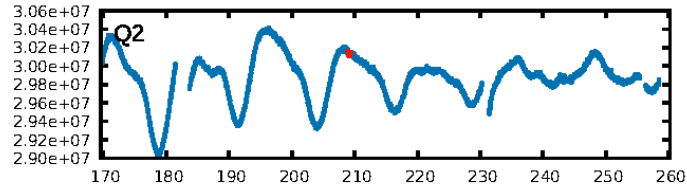
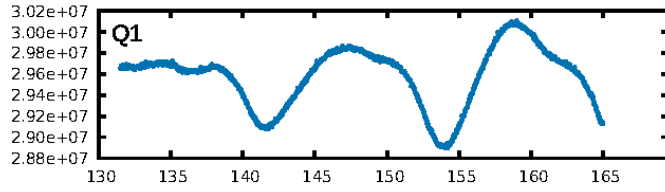
DV Diagnostic Results:

ShortPeriod-sig: 0.1% [0.00σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 79.4%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.81e-52
RollingBand-fgt: 1.00 [16/16]
GhostDiagnostic-chr: 0.3768
Centroid-sig: 6.6%
Centroid-so: 0.490 arcsec [1.09σ]
OotOffset-rm: 0.305 arcsec [1.55σ]
KicOffset-rm: 0.510 arcsec [2.69σ]
OotOffset-st: 4/4/2/2 [12]
KicOffset-st: 4/4/2/2 [12]
DiffImageQuality-fgm: 1.00 [12/12]
DiffImageOverlap-fno: 1.00 [12/12]

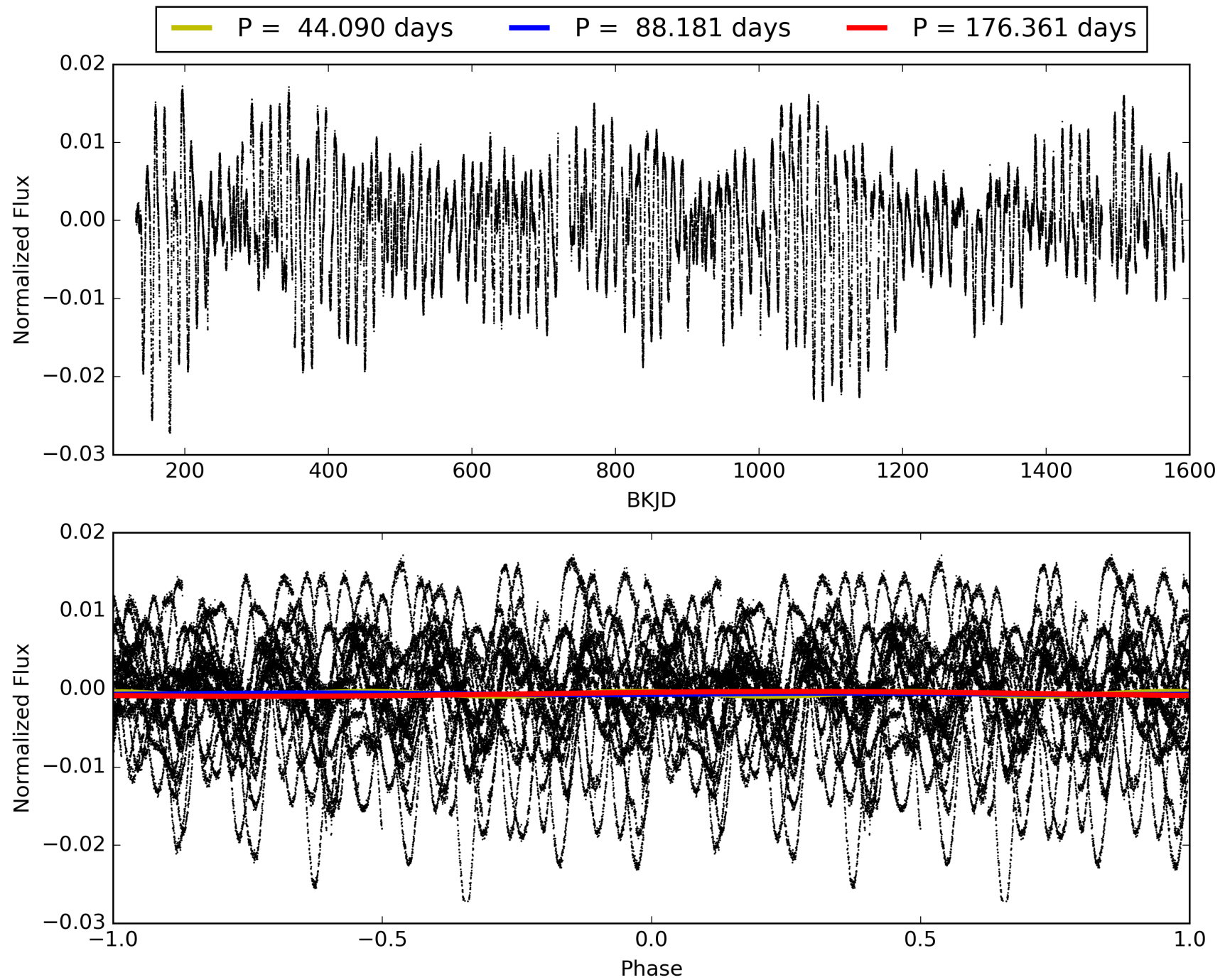
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 23:34:33 Z

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

TCE 003342467-01, PDC Light Curves

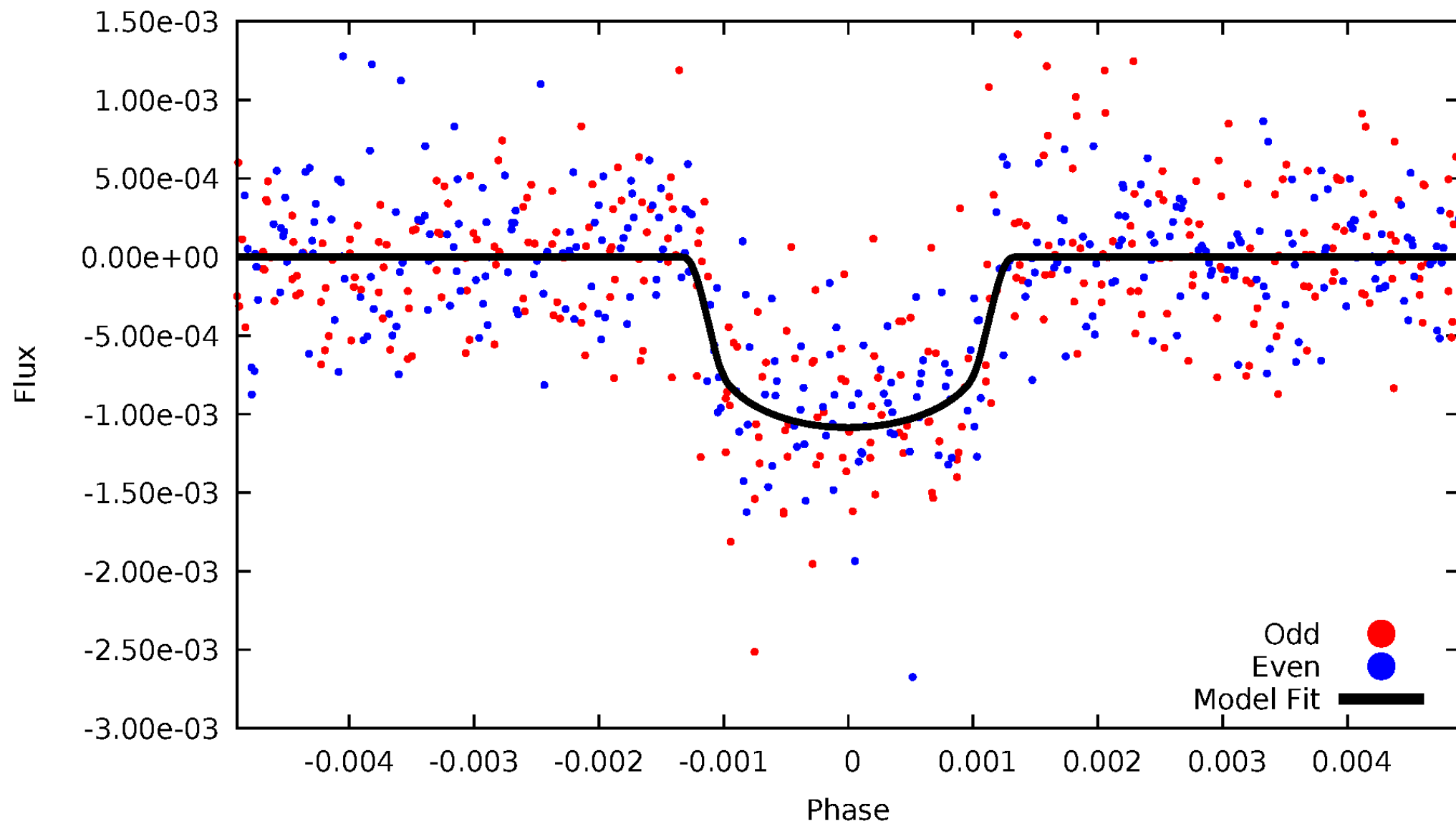


TCE 003342467-01



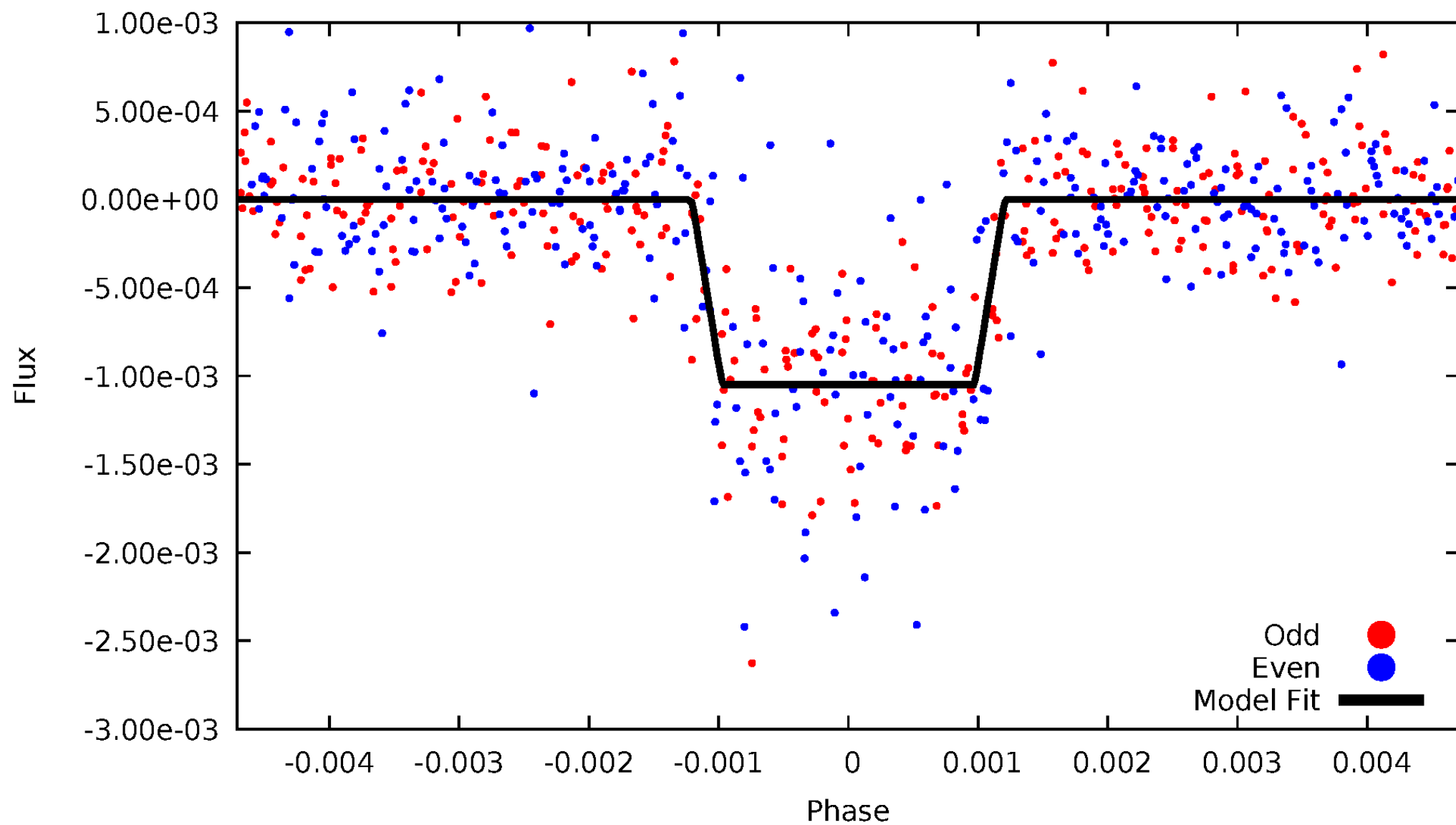
DV Odd/Even

TCE 003342467-01



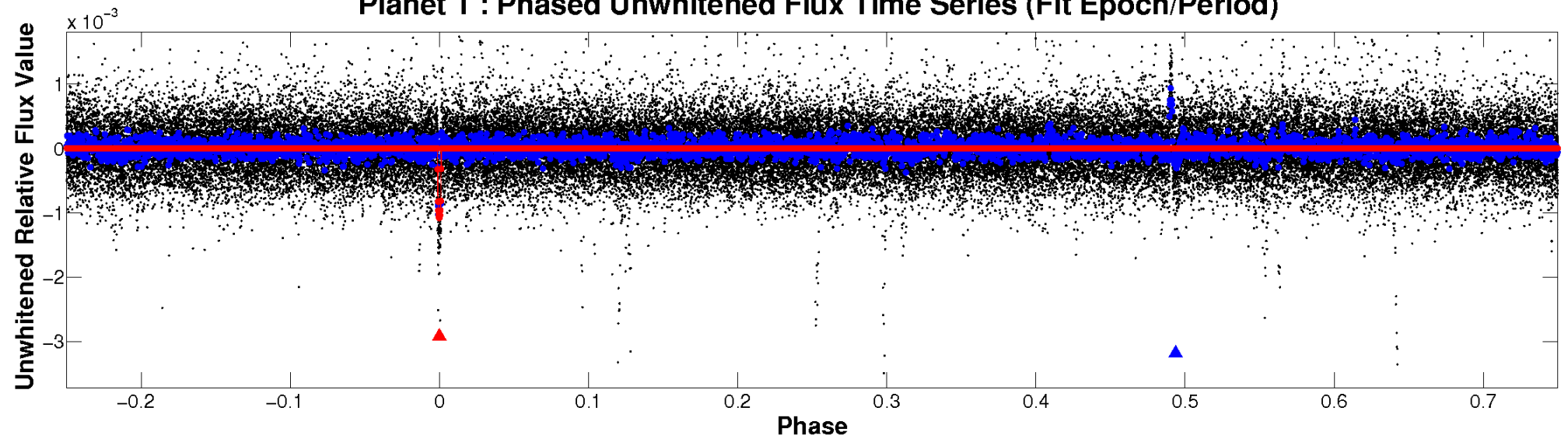
ALT Odd/Even

TCE 003342467-01

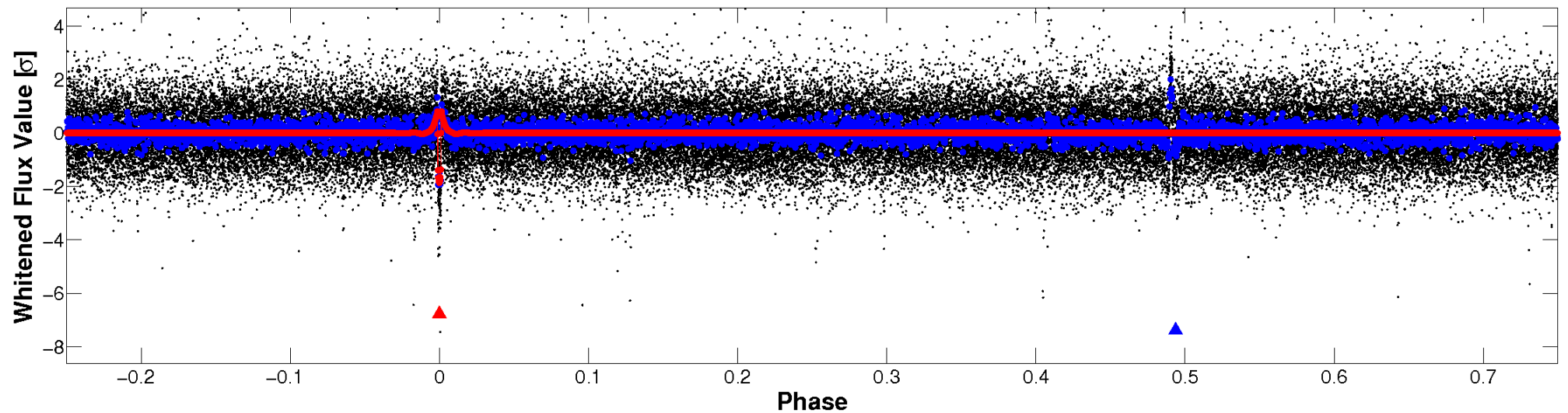


Non-Whitened Vs. Whitened Light Curve

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

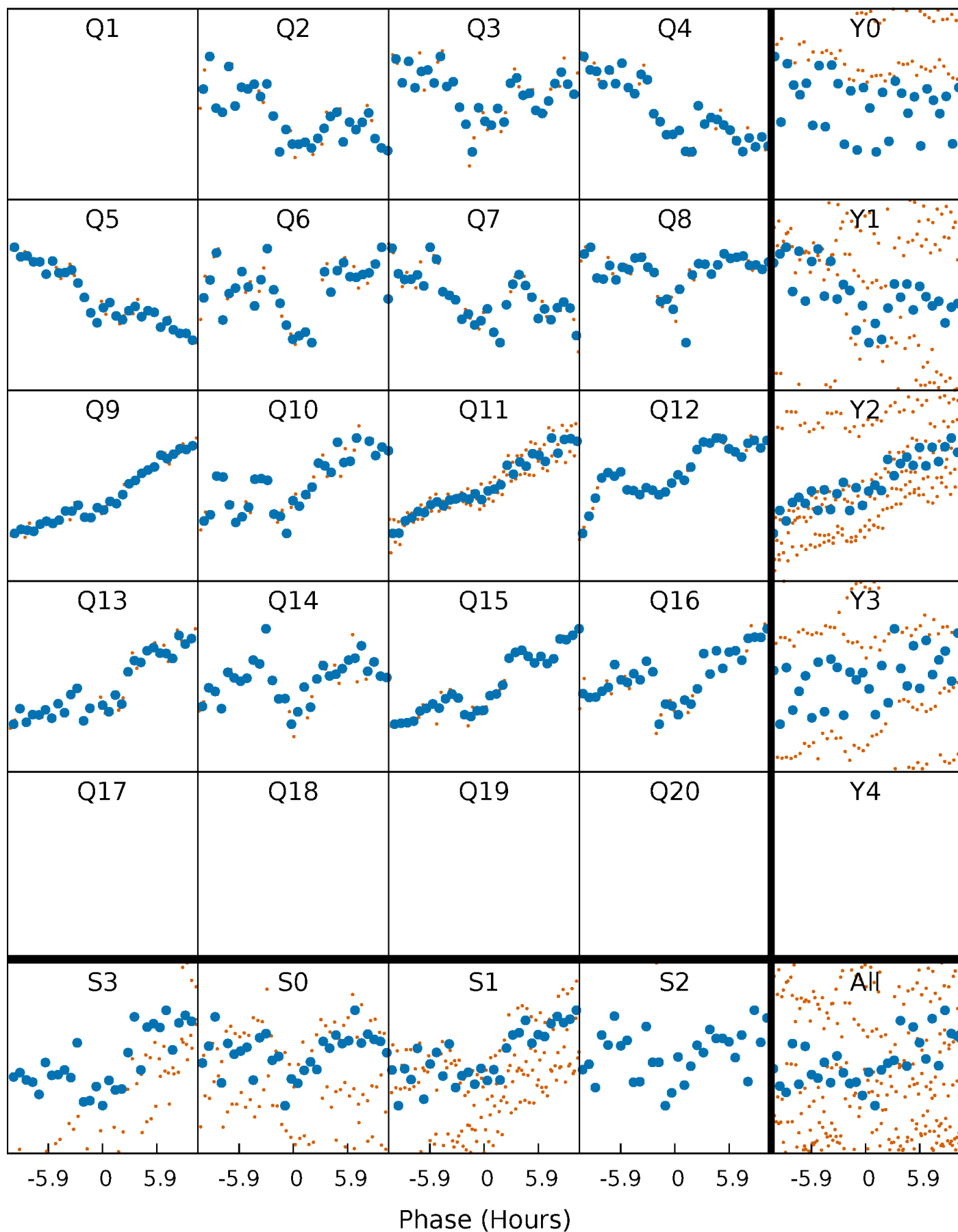


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



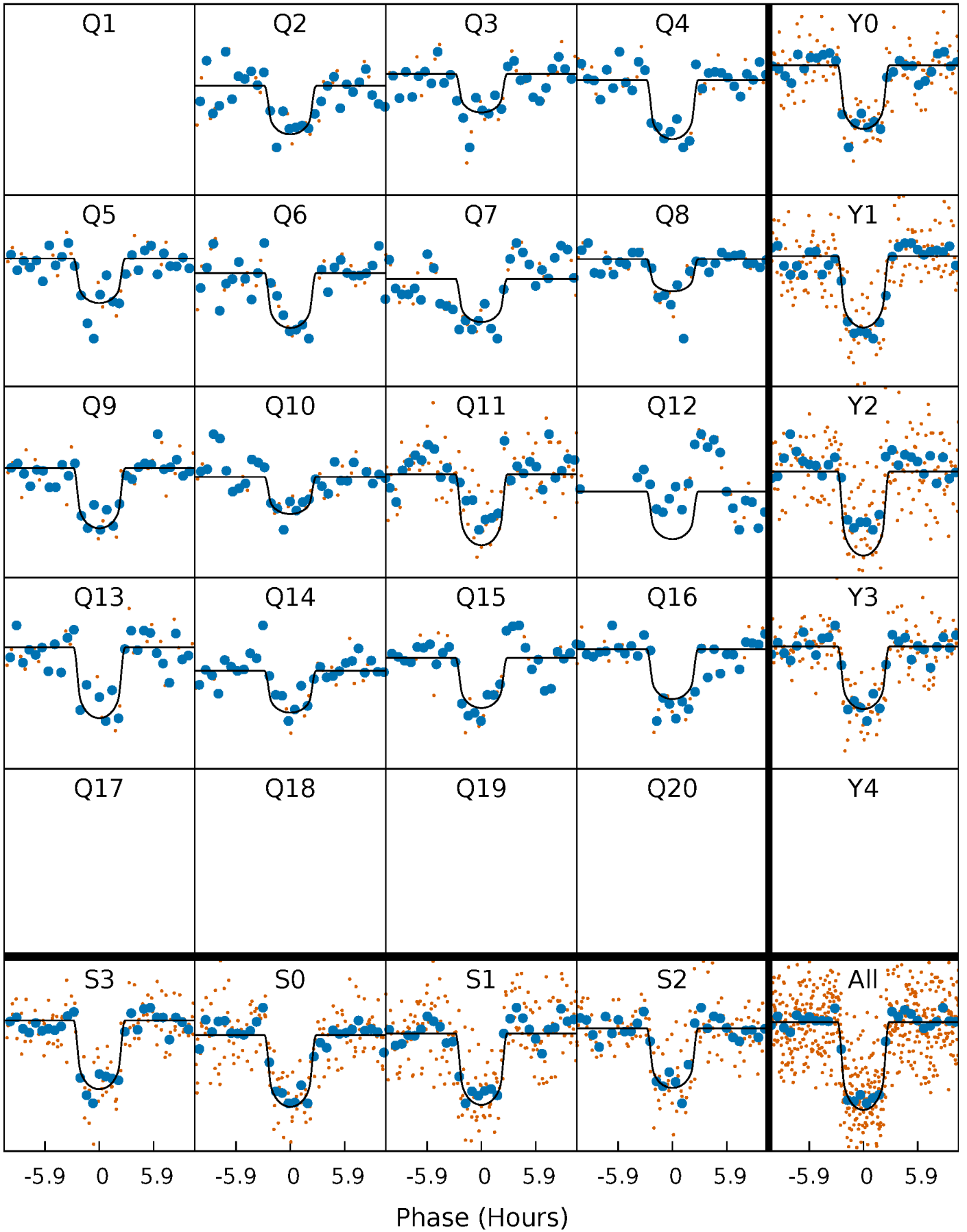
PDC Quarter-Phased Transit Curves

TCE 003342467-01 P= 88.180725 Days $T_0=209.154965$ (BKJD)



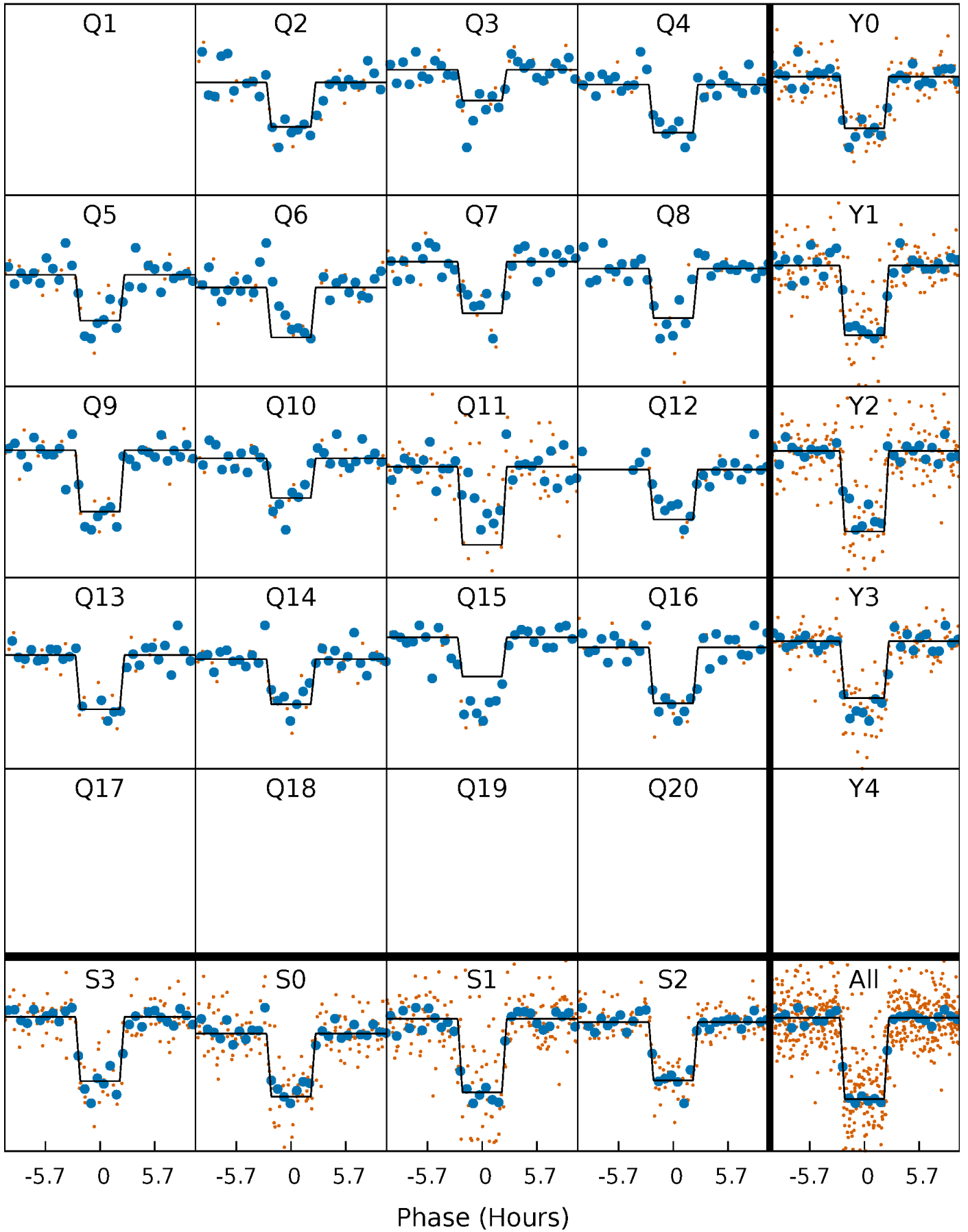
DV Quarter-Phased Transit Curves

TCE 003342467-01 P= 88.180725 Days $T_0=209.154965$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

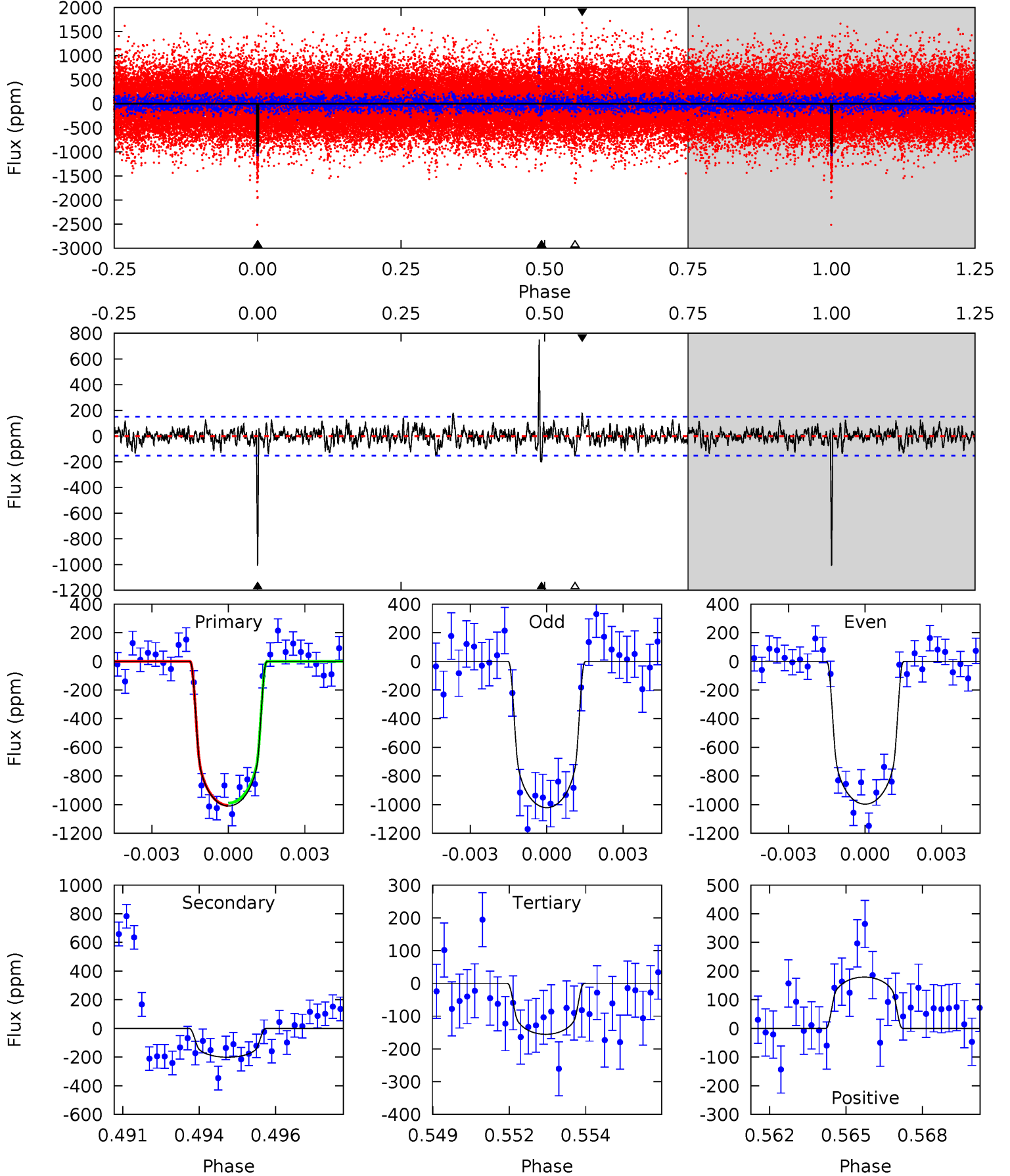
TCE 003342467-01 P= 88.180686 Days $T_0=209.154275$ (BKJD)



DV Model-Shift Uniqueness Test

003342467-01, P = 88.180725 Days, E = 120.974240 Days

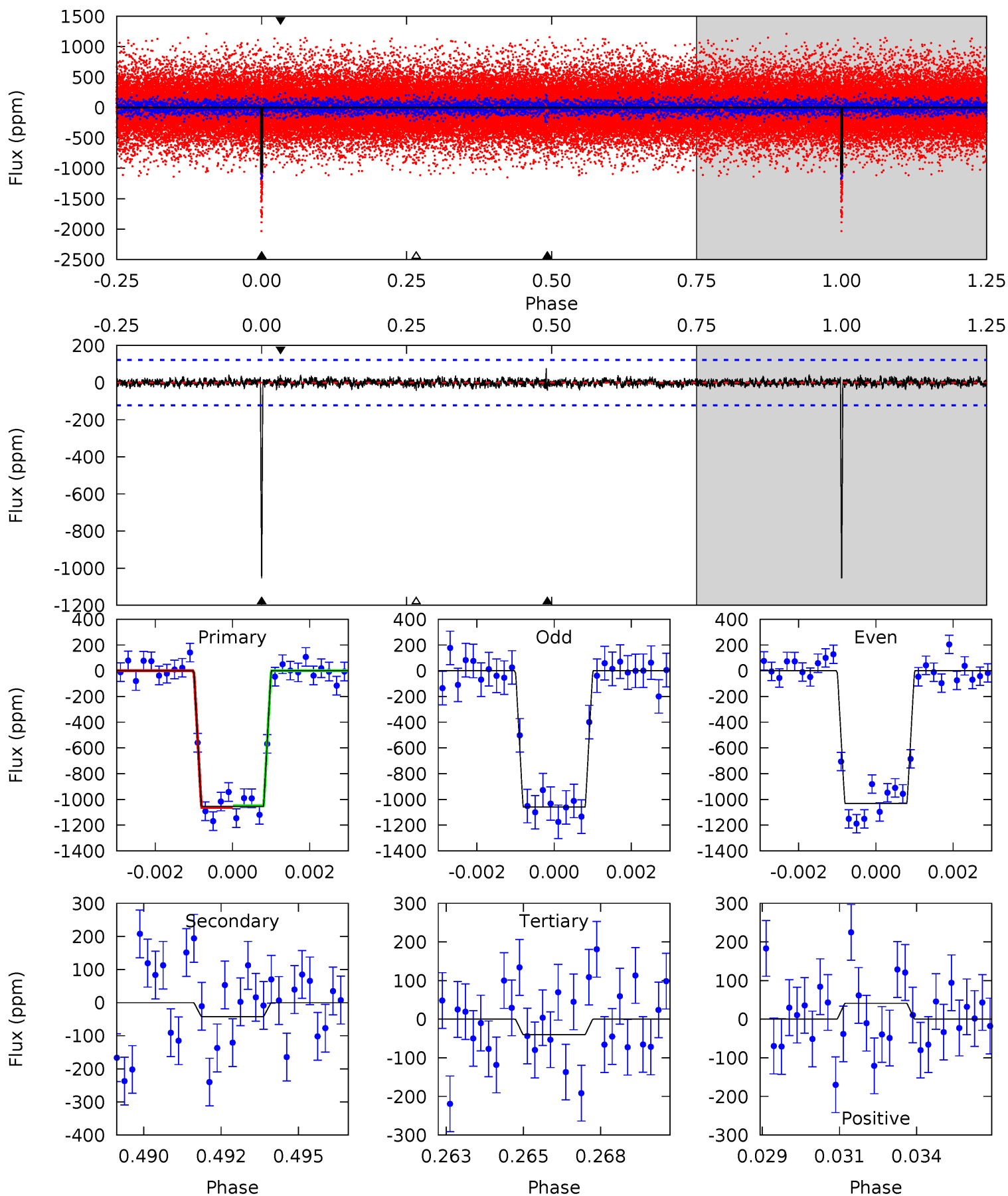
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
35.1	7.00	5.41	6.23	5.28	3.01	1.91	29.7	28.9	1.58	0.76	0.42	0.96	0.43	0.28



Alt Model-Shift Uniqueness Test

003342467-01, P = 88.180686 Days, E = 120.973589 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
45.7	1.83	1.73	1.78	5.29	3.03	0.50	44.0	43.9	0.10	0.05	0.62	0.96	0.07	0.27



Stellar Parameters For KIC 003342467

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5497^{+147}_{-164}	$4.570^{+0.027}_{-0.153}$	$0.070^{+0.250}_{-0.300}$	$0.839^{+0.173}_{-0.062}$	$0.952^{+0.065}_{-0.106}$	$2.272^{+0.334}_{-0.912}$
	+3%/-3%	+1%/-3%	+357%/-429%	+21%/-7%	+7%/-11%	+15%/-40%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 003342467-01 / KOI 3278.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-201 ± 29	$3.04^{+0.81}_{-0.70}$	511^{+28}_{-20}	3947^{+452}_{-310}	1671^{+1197}_{-648}
Alt.	-42 ± 23	$3.13^{+0.78}_{-0.72}$	513^{+28}_{-21}	3046^{+343}_{-353}	318^{+332}_{-195}

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

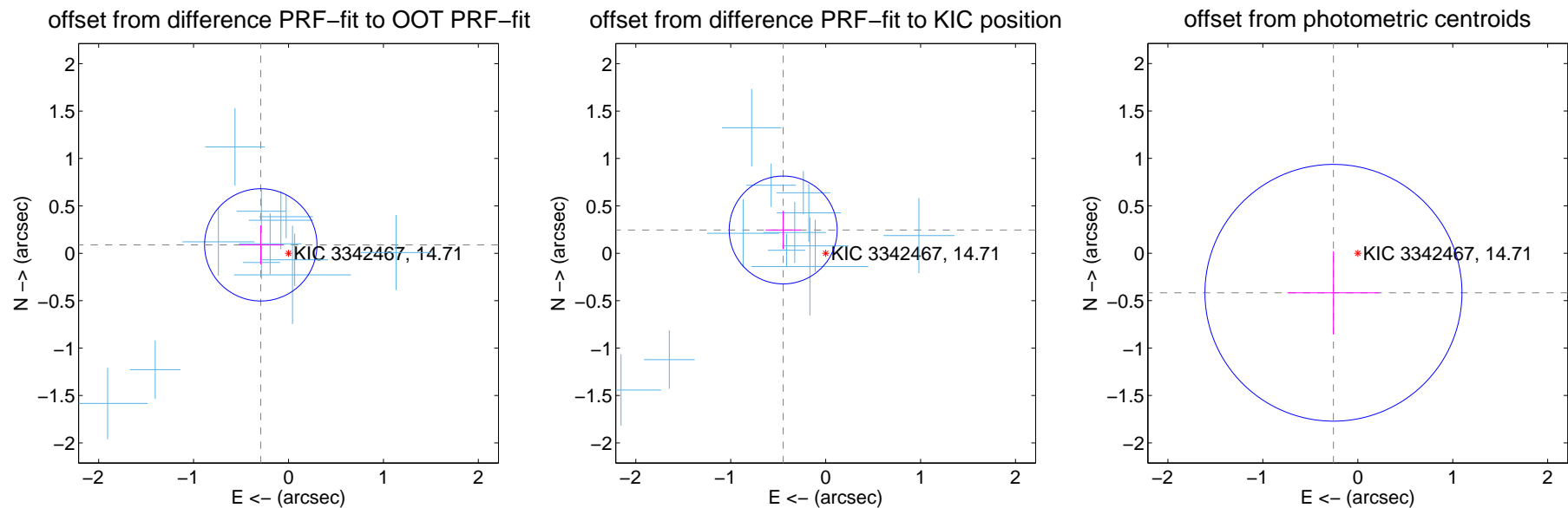
DV Centroid Data

Supplemental centroid analysis for 003342467-01. Kepler magnitude: 14.71. Transit SNR 22.23

There are 12 quarters with good PRF difference image offsets

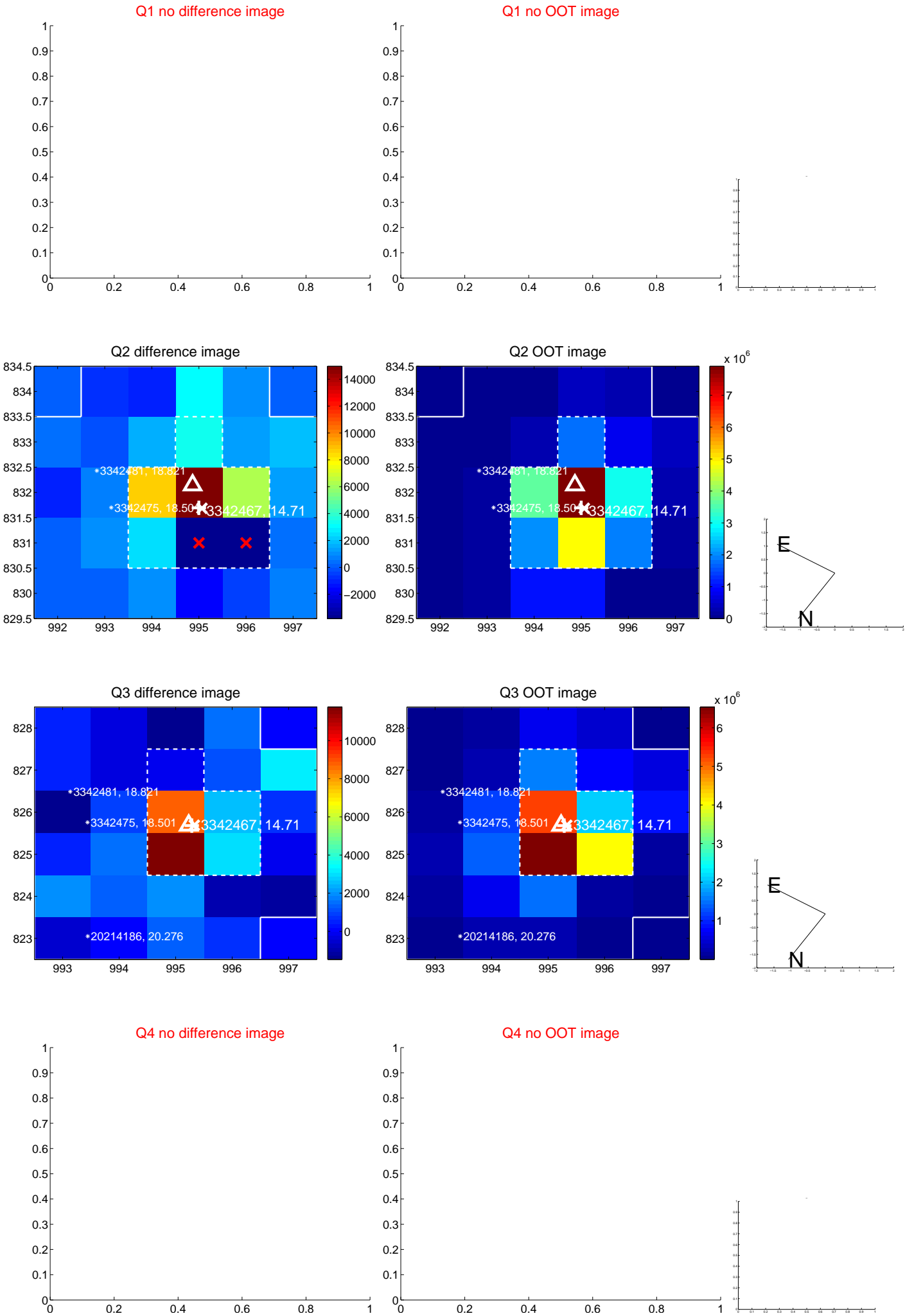
The direct PRF centroid is offset from the target star catalog position by about 0.40 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.305 ± 0.197	1.55	0.292 ± 0.226	0.089 ± 0.205
PRF-fit source offset from KIC position	0.510 ± 0.190	2.69	0.447 ± 0.186	0.246 ± 0.202
photometric centroid source offset	0.49 ± 0.45	1.09	0.26 ± 0.48	-0.42 ± 0.44

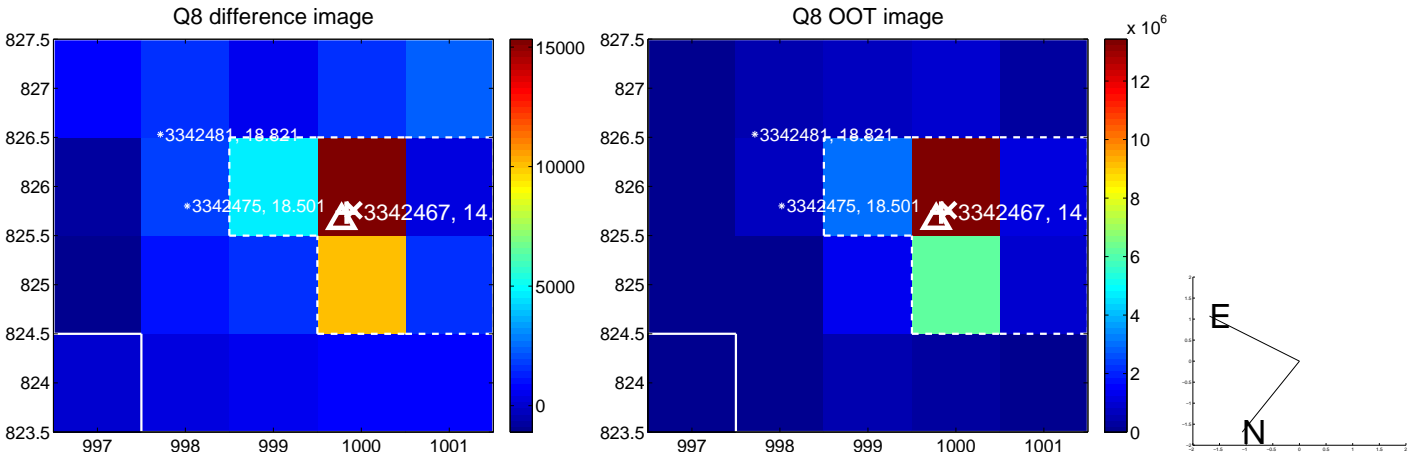
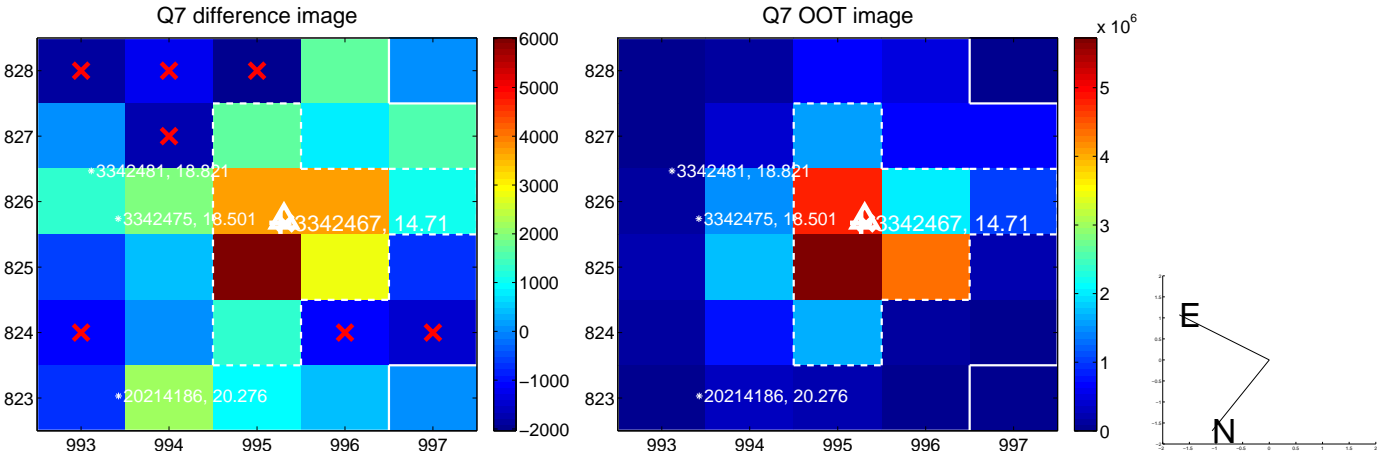
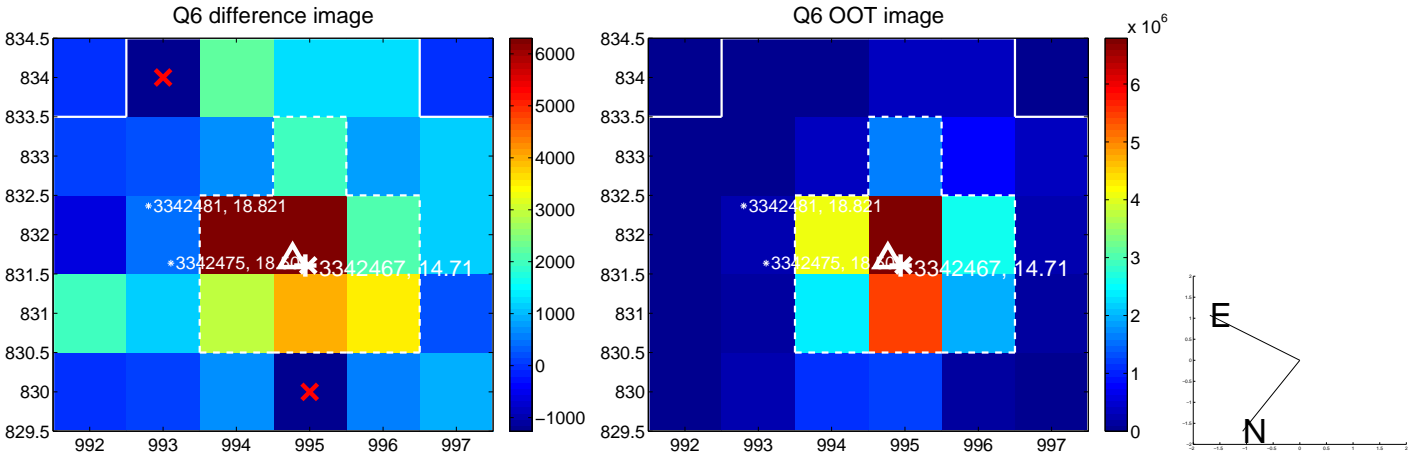
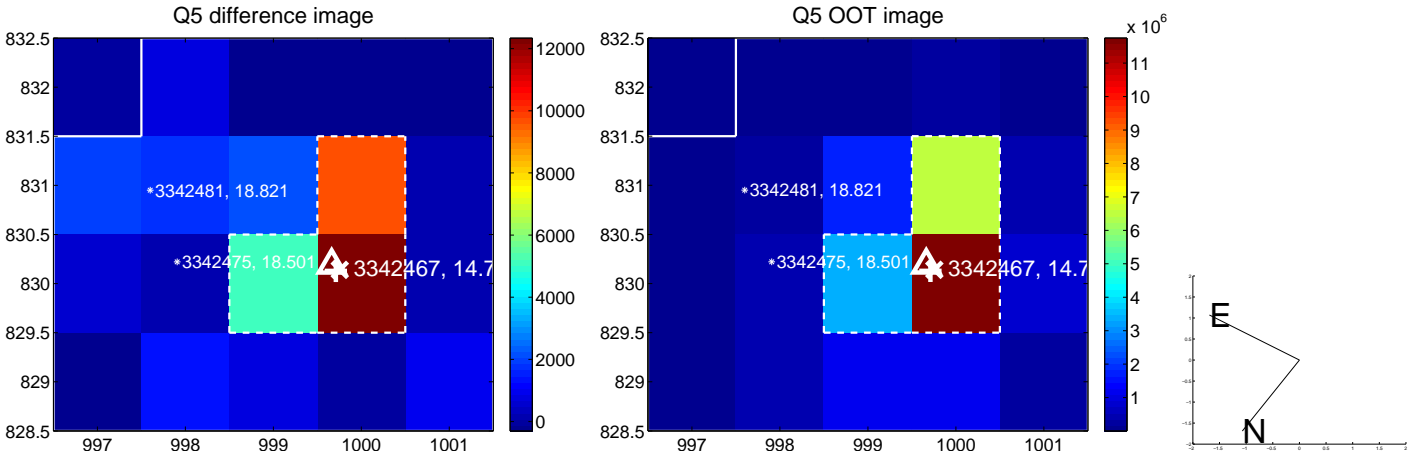


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

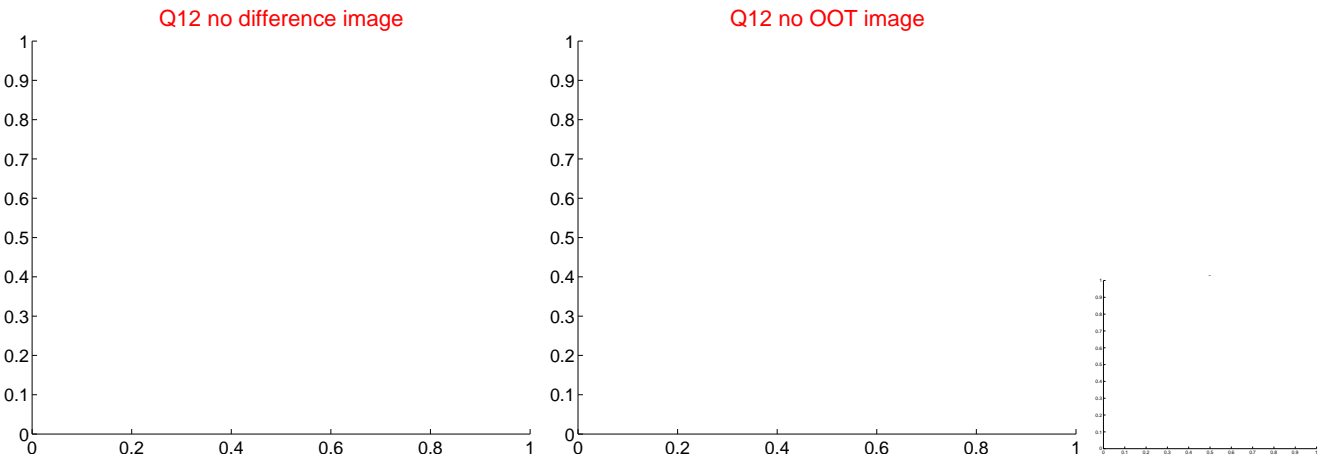
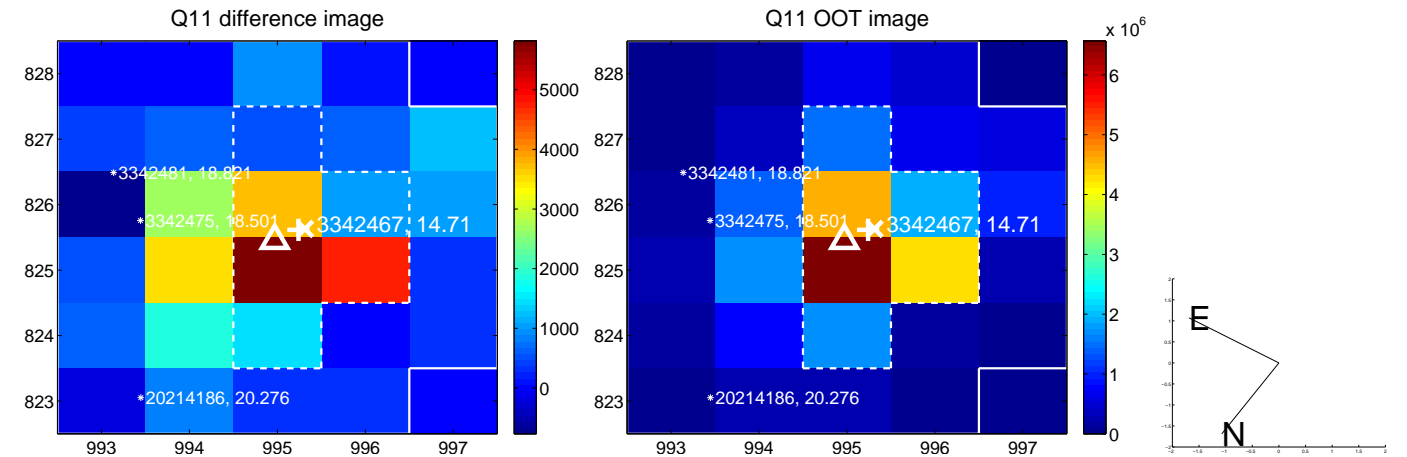
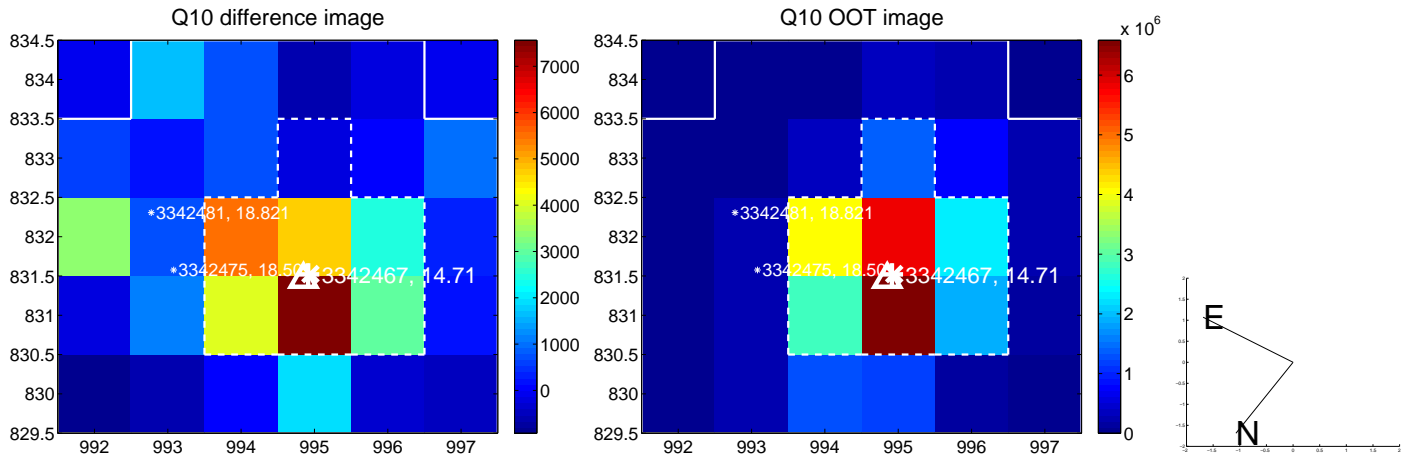
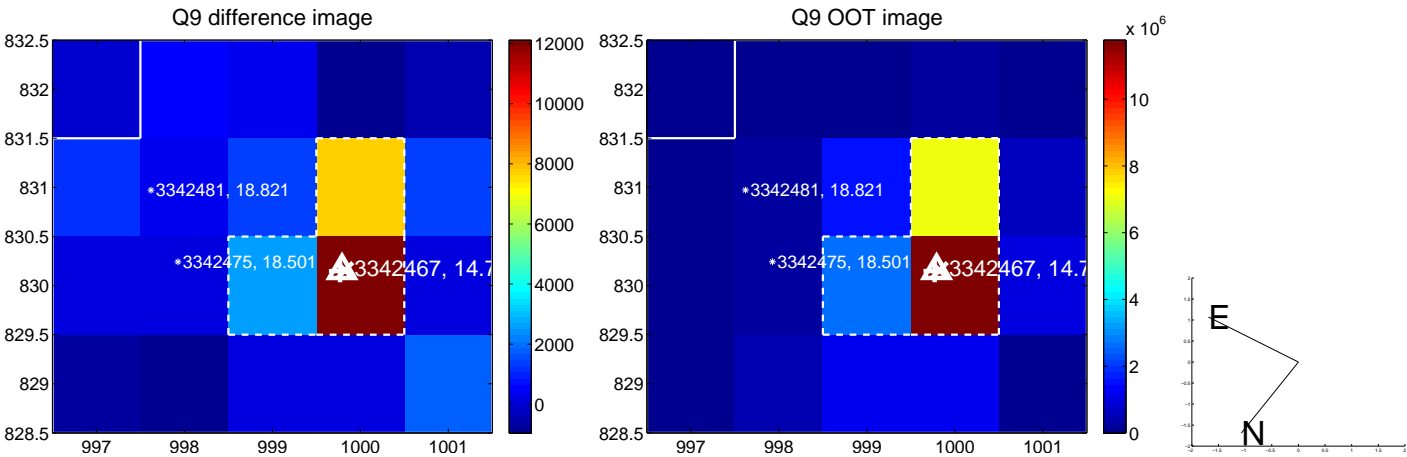
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



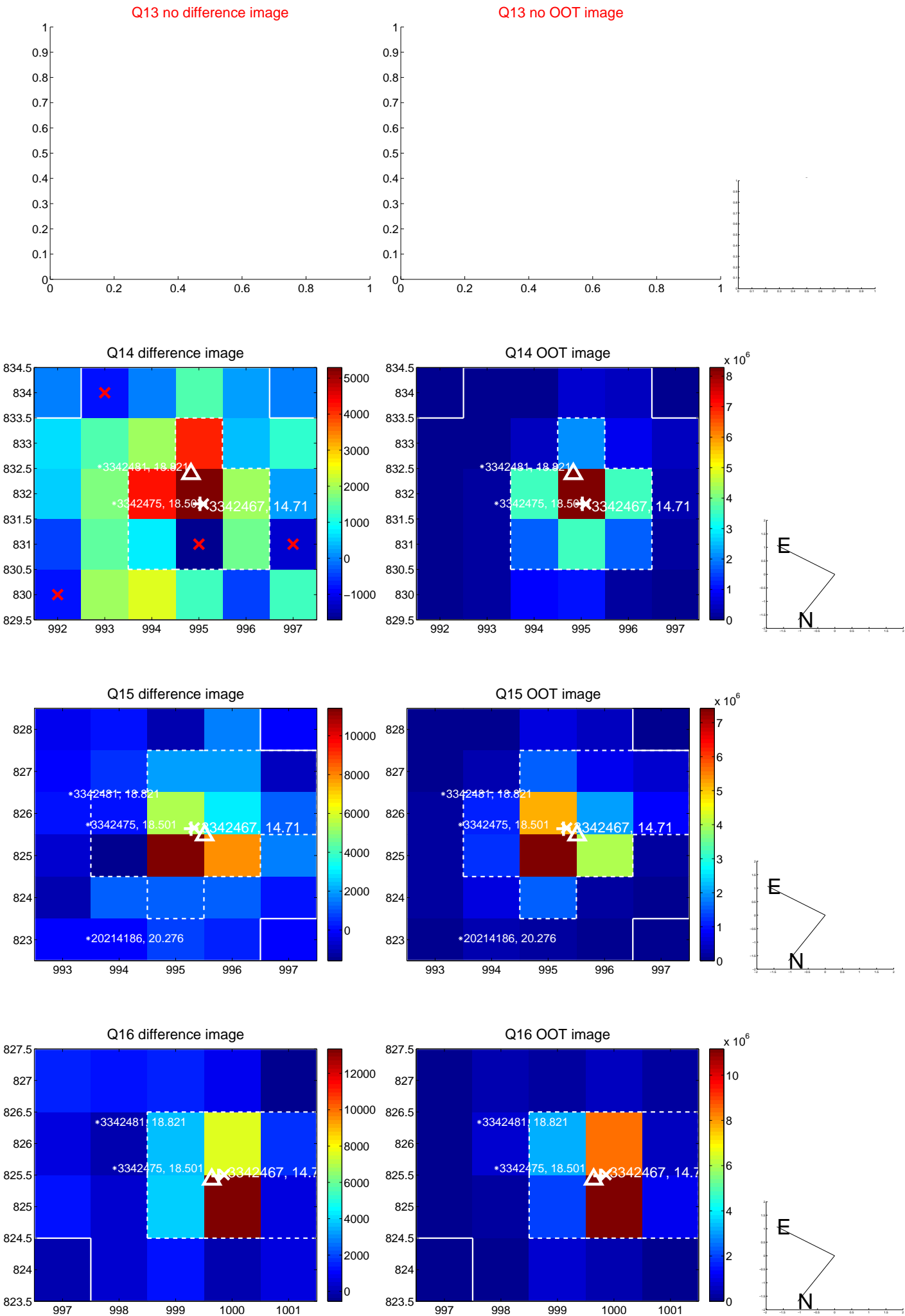
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



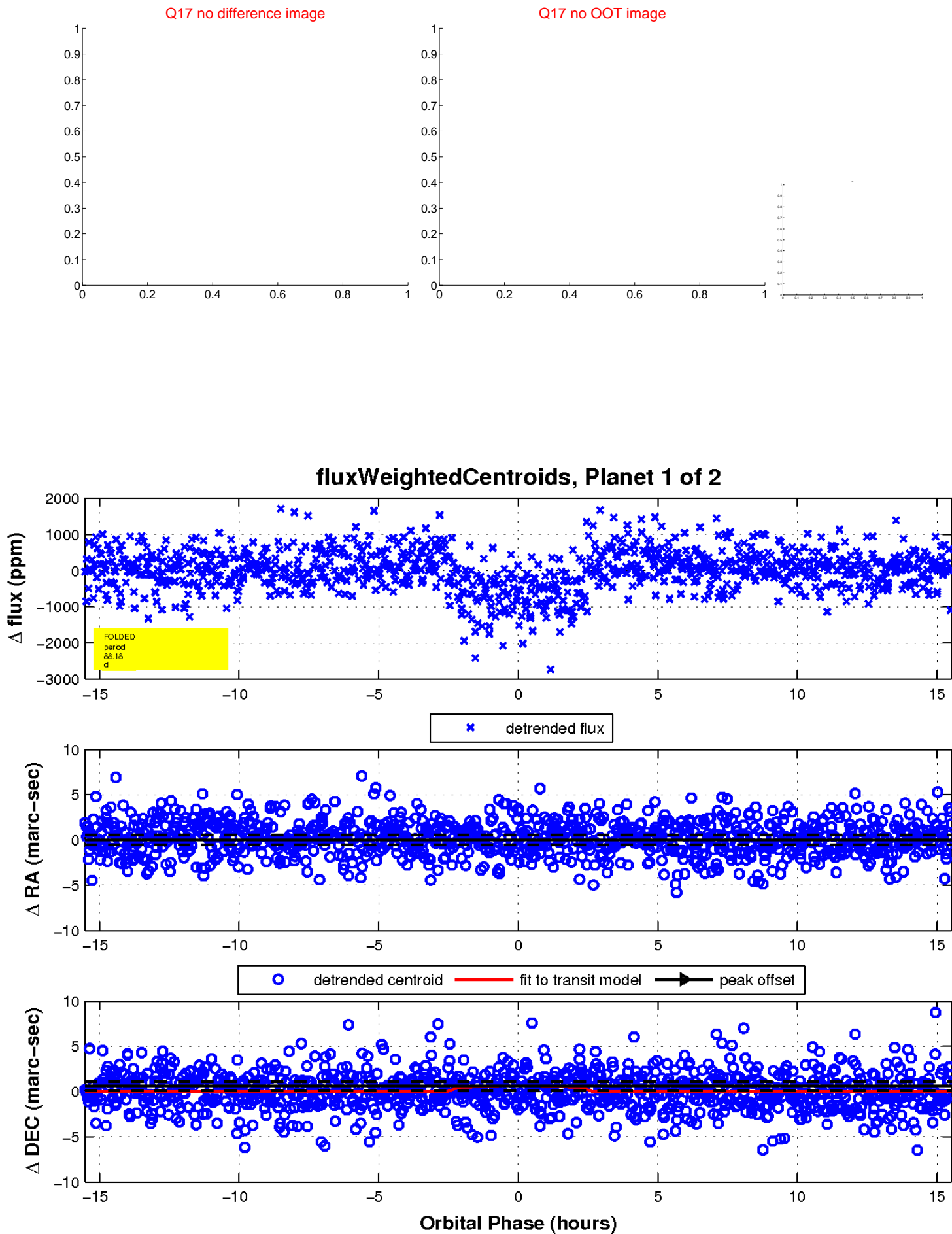
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

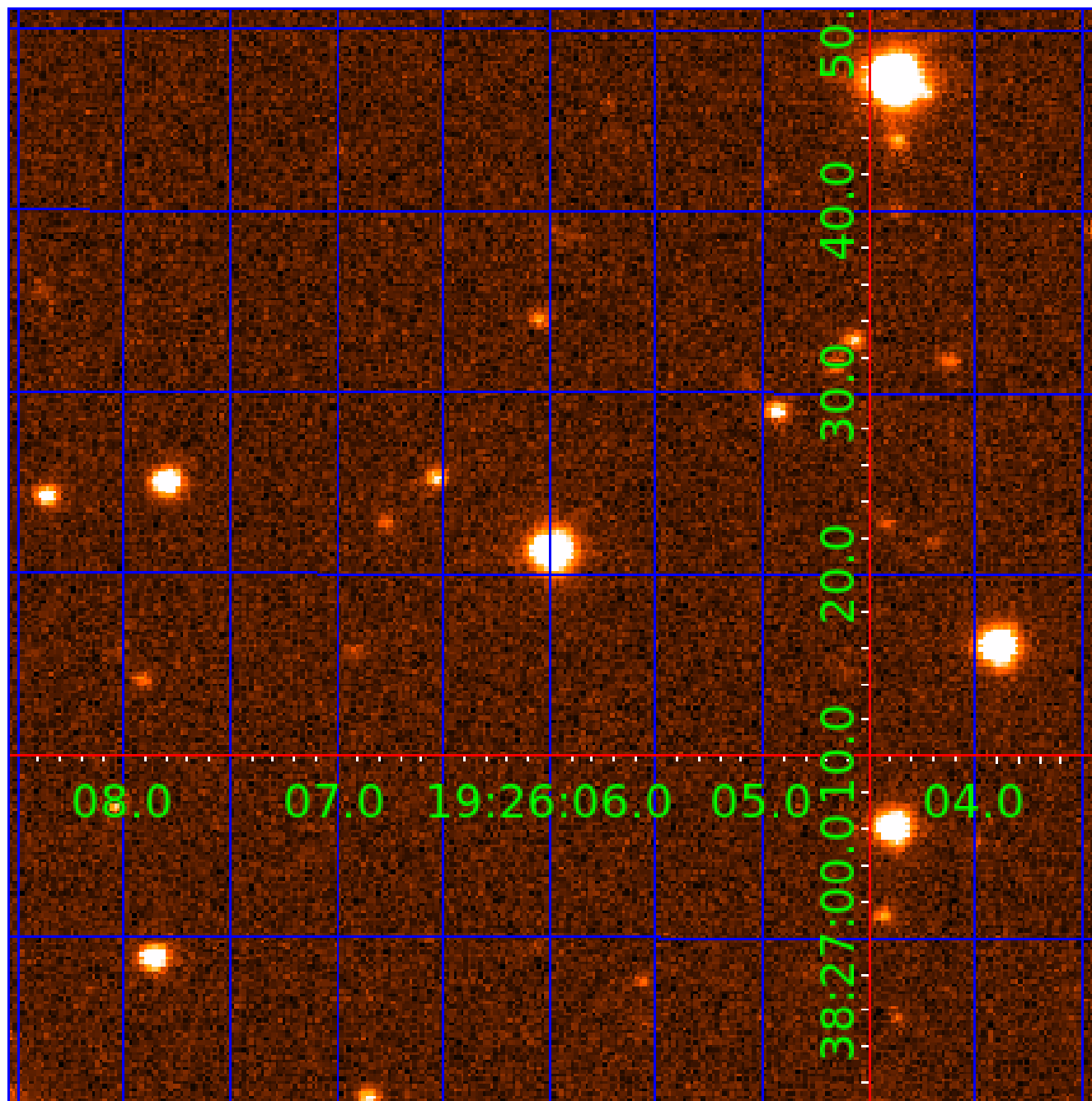


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 003342467

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})
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003342467-02	OBS	No	88.180428	164.514173	536.5	9.478	11.5	11.3	0.84	5497	2.15	3.95

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003342467-01	OBS	FP	0.00	0	1	0	0	HAS_SEC_TCE
003342467-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE

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.

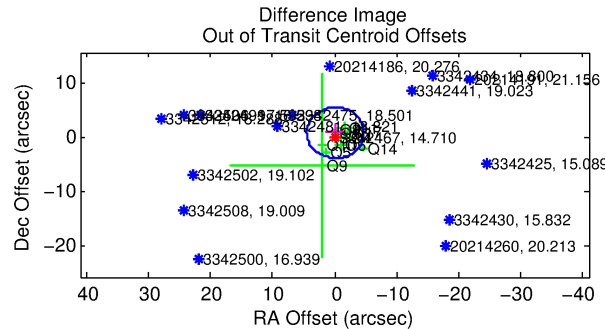
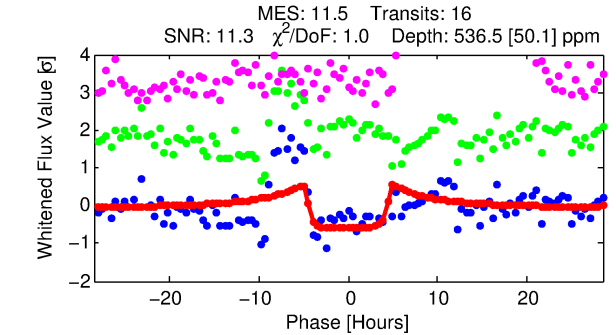
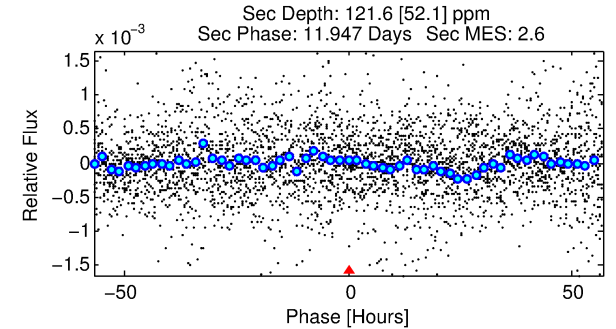
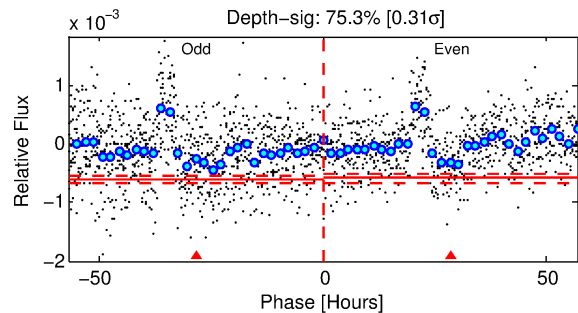
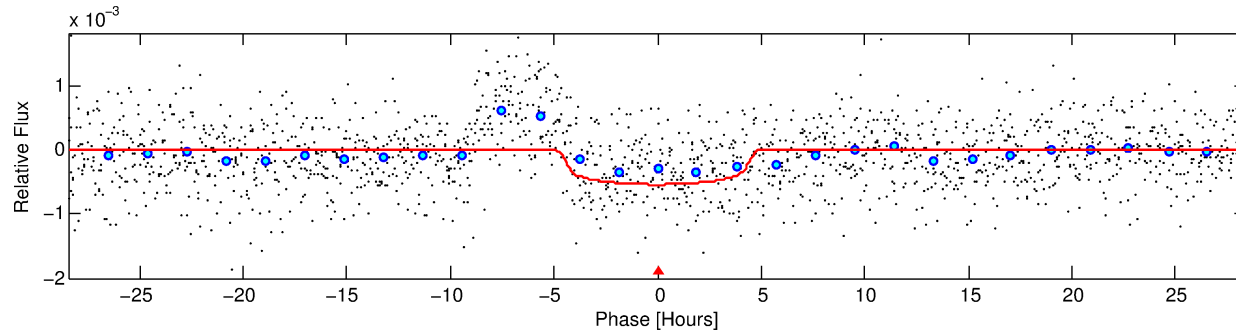
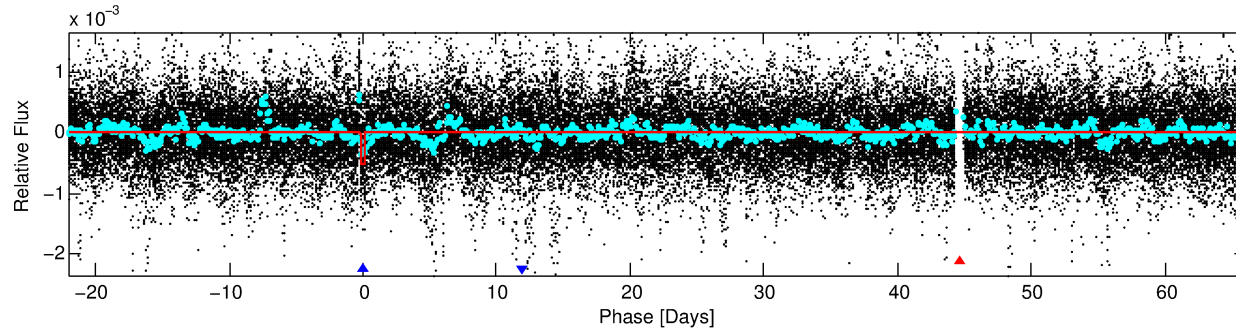
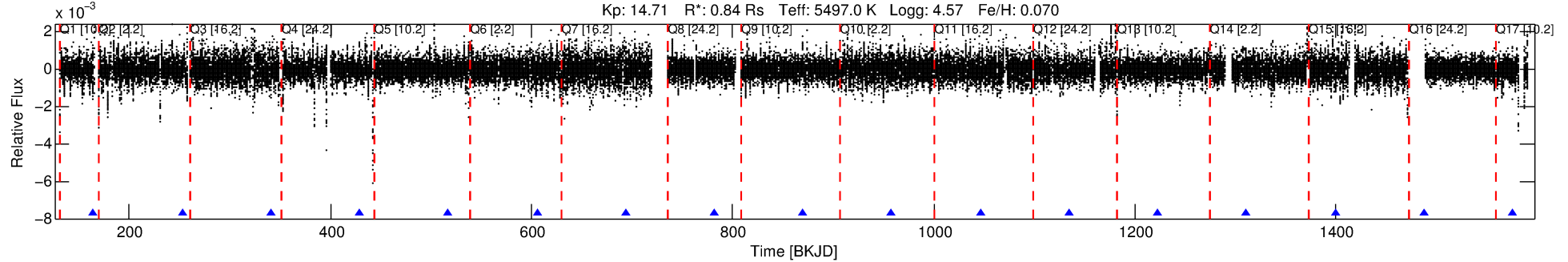
Ephemeris Match Information For 003342467-02

No Significant Match Found

DV One-Page Summary

KIC: 3342467 Candidate: 2 of 2 Period: 88.180 d
KOI: K03278 Corr: No Ephemeris Match

Kp: 14.71 R*: 0.84 Rs Teff: 5497.0 K Logg: 4.57 Fe/H: 0.070



DV Fit Results:

Period = 88.18043 [0.00105] d
Epoch = 164.5142 [0.0094] BKJD
Rp/R* = 0.0235 [0.0045]
a/R* = 46.39 [34.11]
b = 0.79 [0.36]
Seff = 3.95 [1.17]
Teq = 360 [27] K
Rp = 2.15 [0.60] Re
a = 0.3818 [0.0690] AU
Ag = 2108.14 [1337.77] [1.58σ]
Teffp = 3766 [551] K [6.17σ]

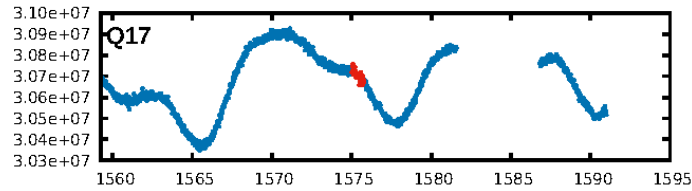
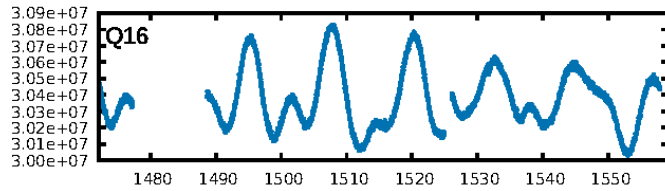
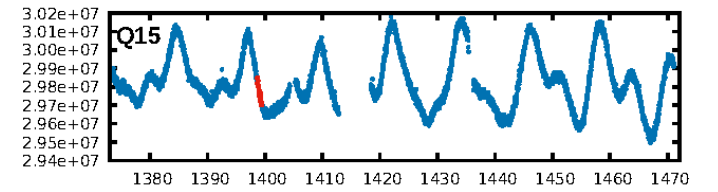
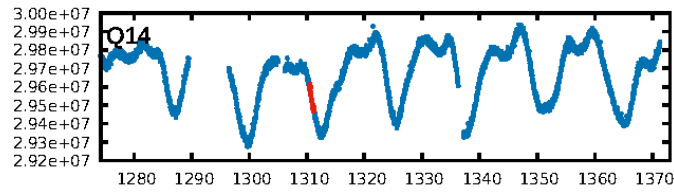
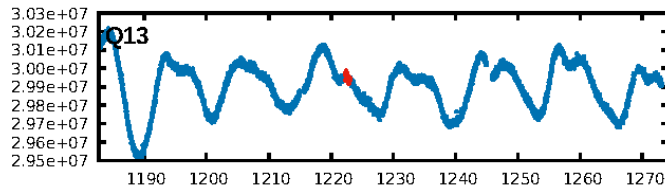
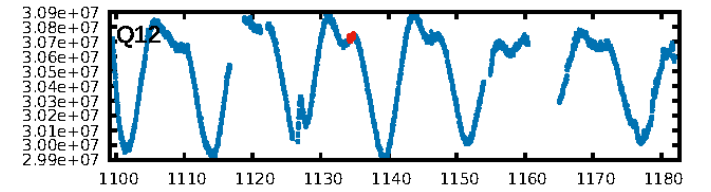
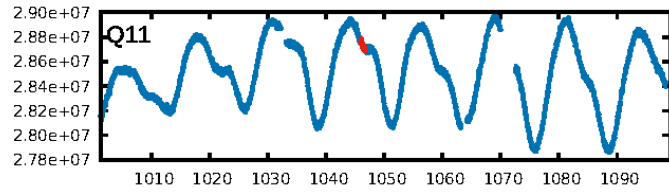
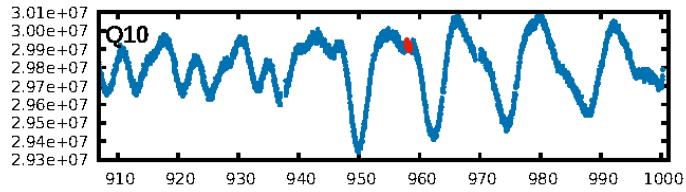
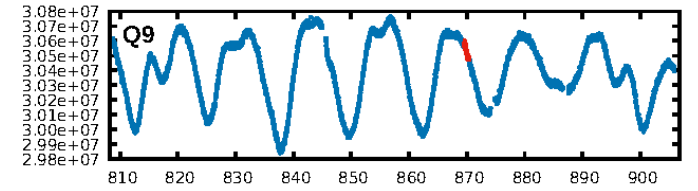
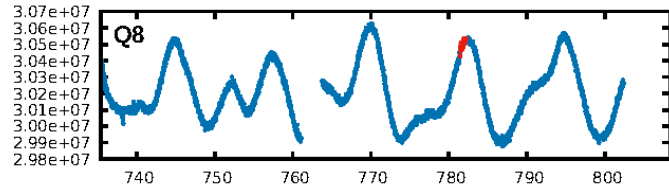
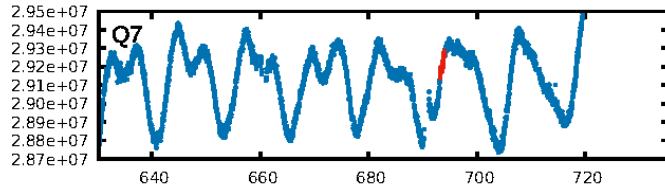
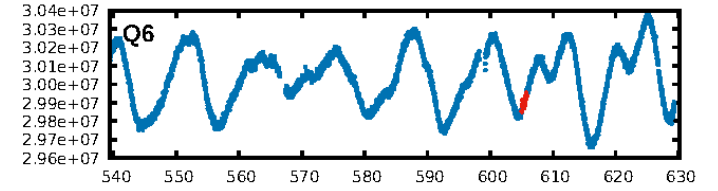
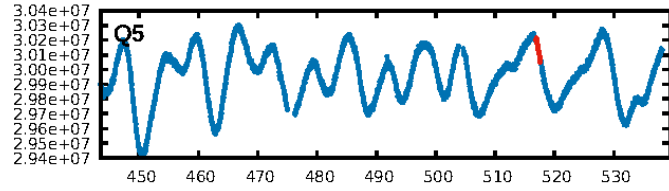
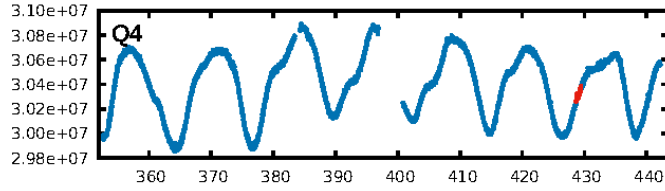
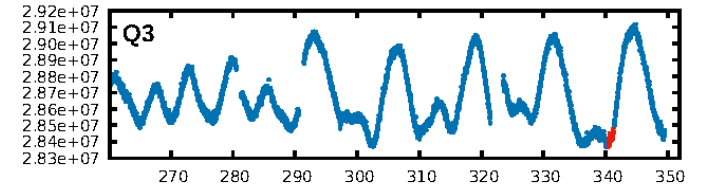
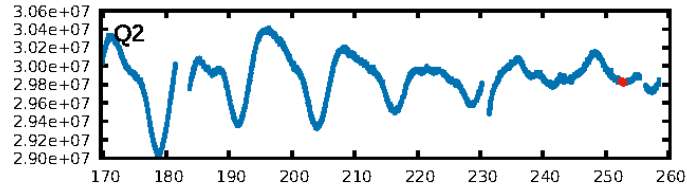
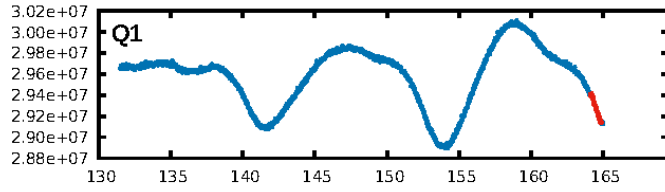
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 0.1% [0.00σ]
ModelChiSquare2-sig: 93.2%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 6.34e-19
RollingBand-fgt: 1.00 [14/14]
GhostDiagnostic-chr: -0.4275
Centroid-sig: 0.0%
Centroid-so: 2.029 arcsec [2.91σ]
OotOffset-rm: 0.819 arcsec [0.53σ]
KicOffset-rm: 0.615 arcsec [0.40σ]
OotOffset-st: 3/3/2/3 [11]
KicOffset-st: 3/3/2/3 [11]
DiffImageQuality-fgm: 0.36 [4/11]
DiffImageOverlap-fno: 1.00 [14/14]

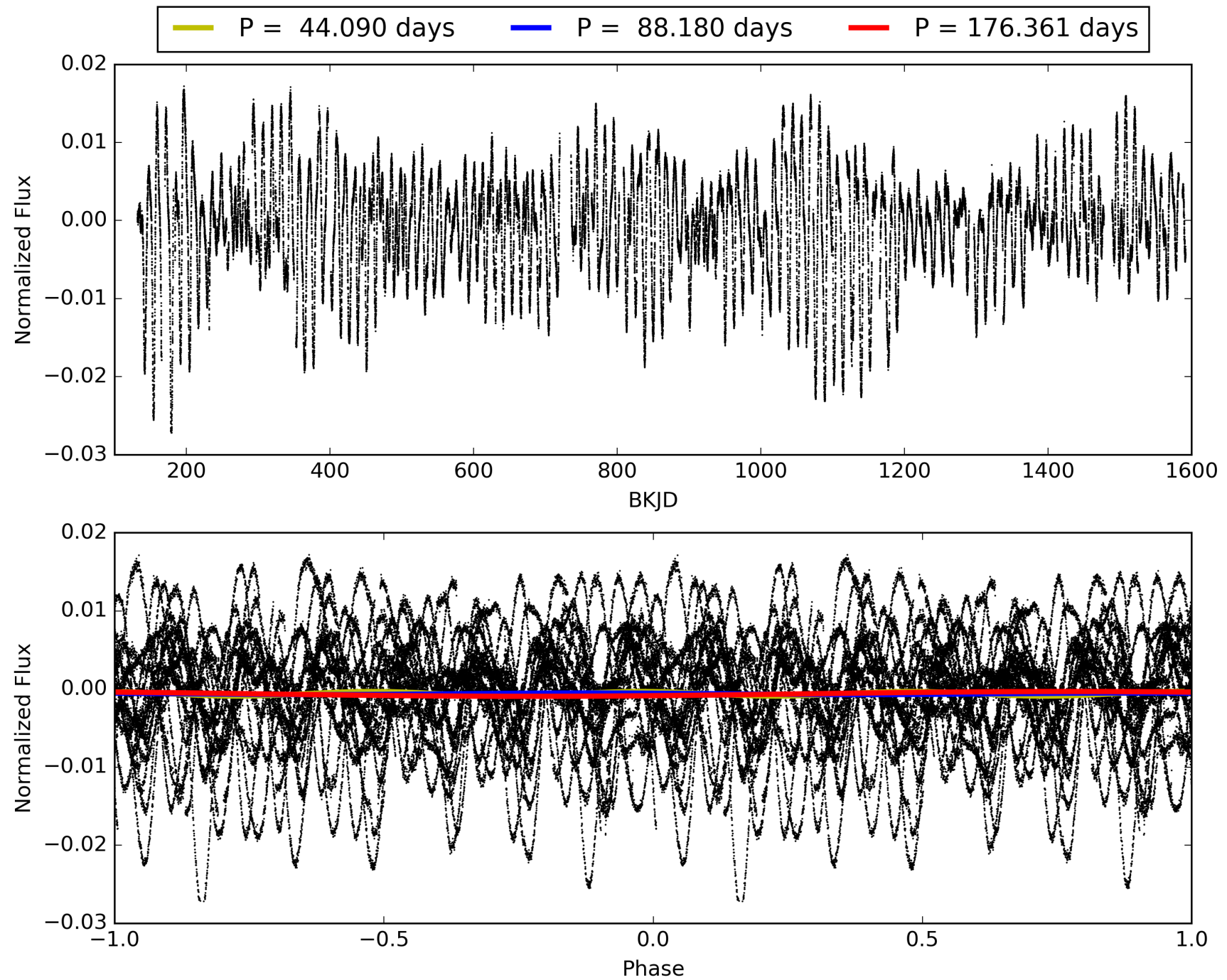
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 23:34:41 Z

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

TCE 003342467-02, PDC Light Curves

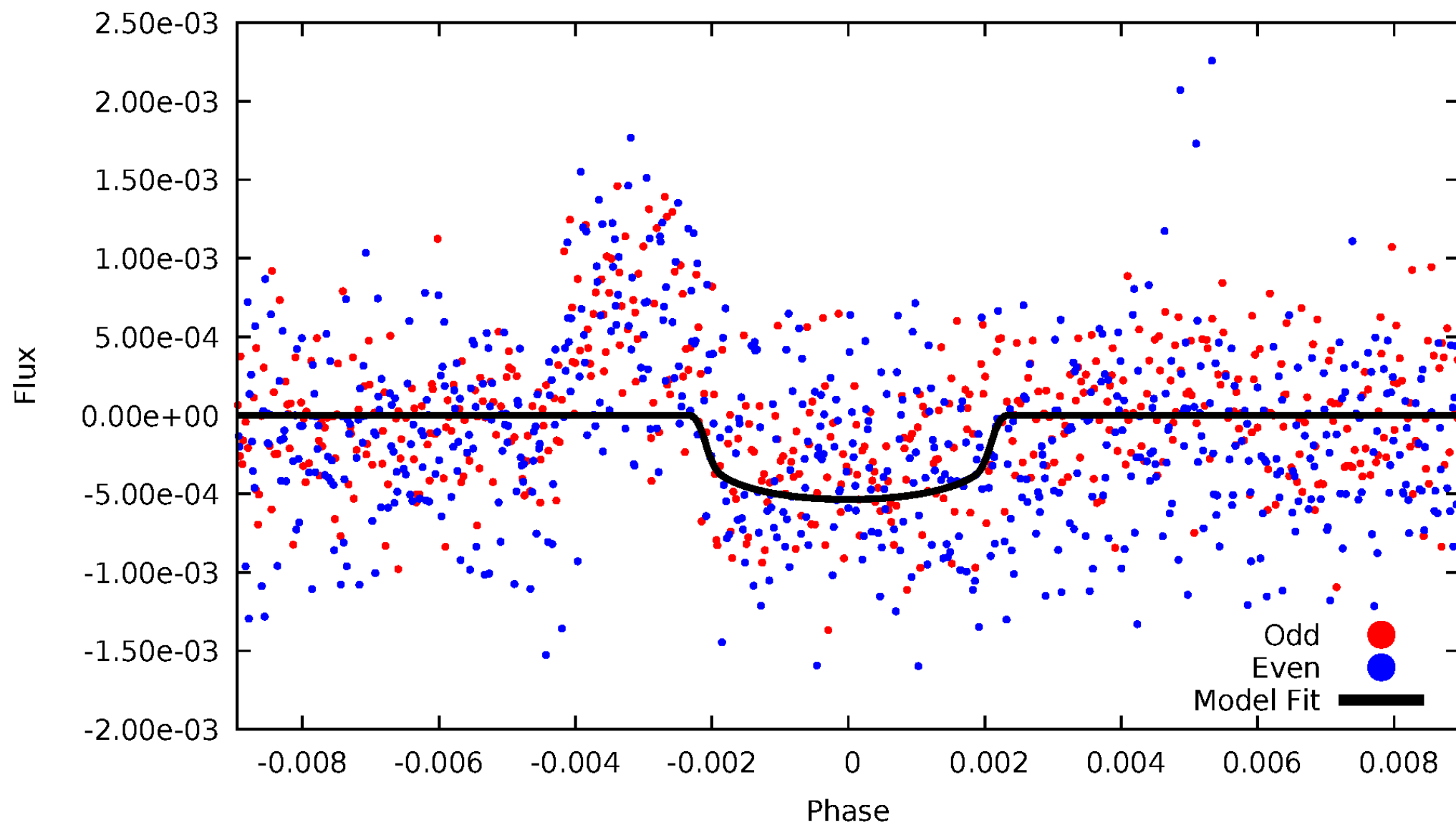


TCE 003342467-02



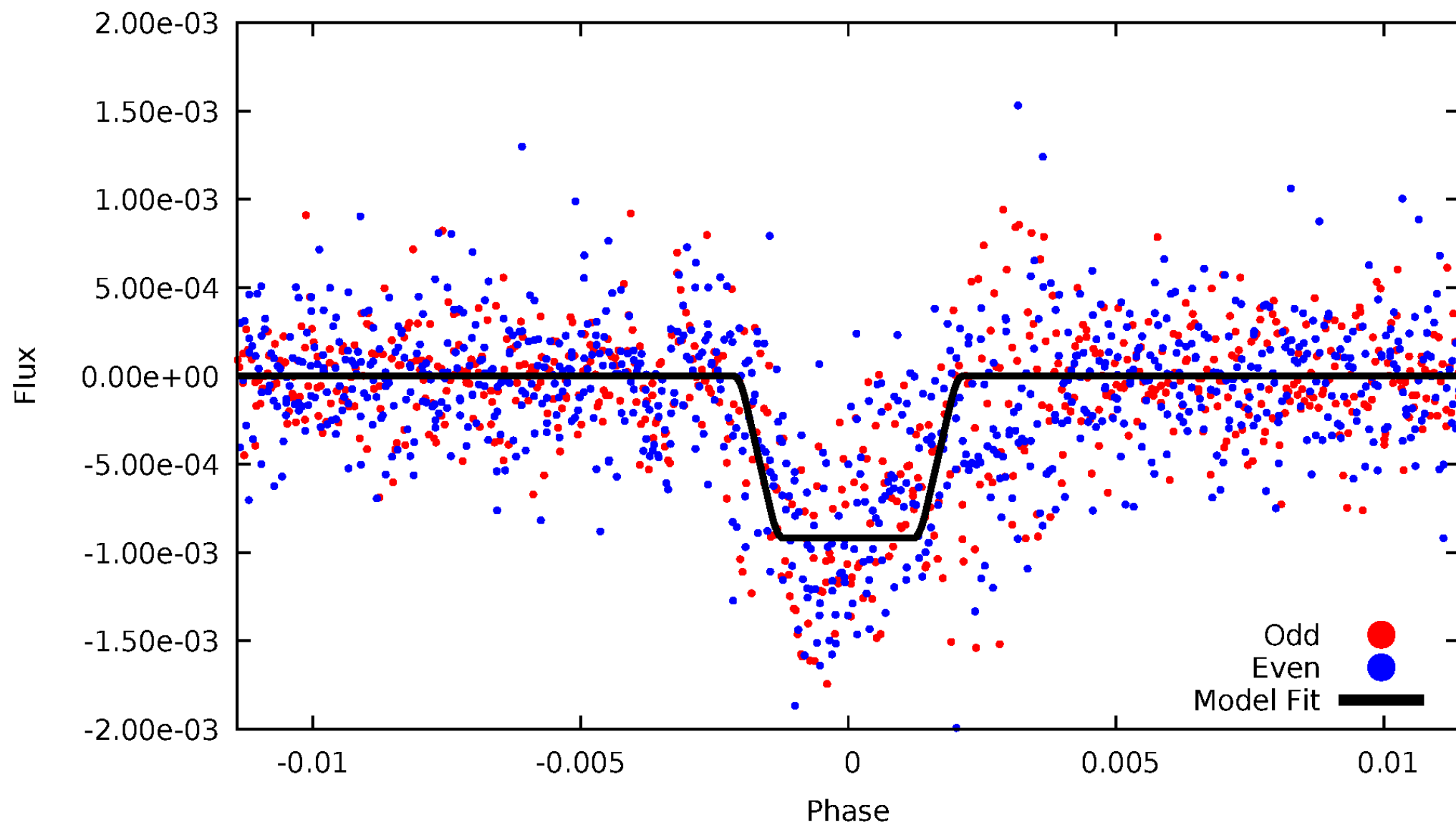
DV Odd/Even

TCE 003342467-02



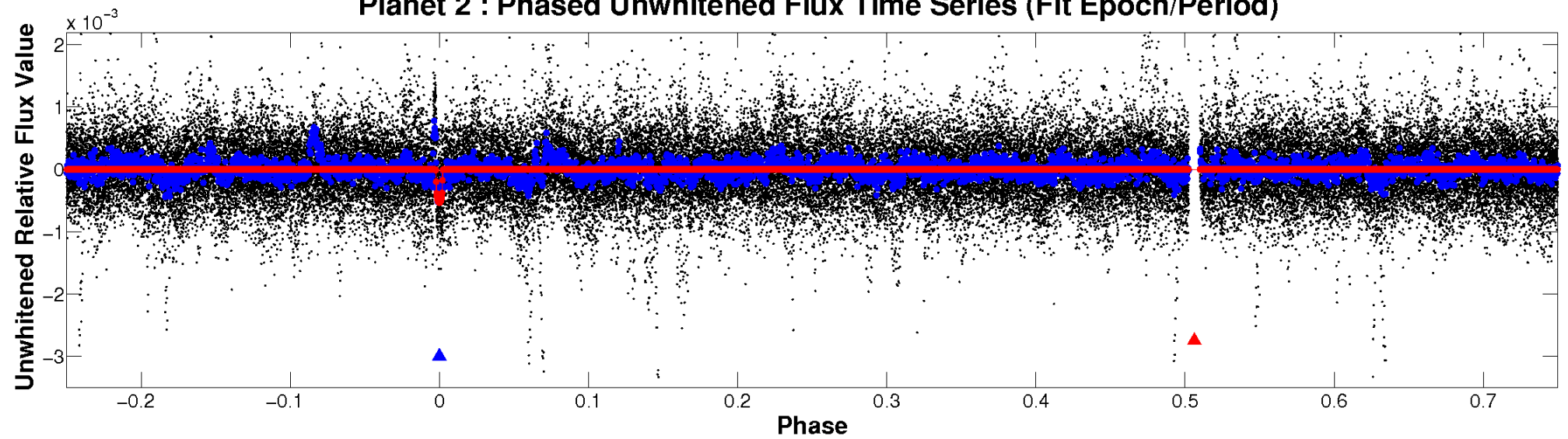
ALT Odd/Even

TCE 003342467-02

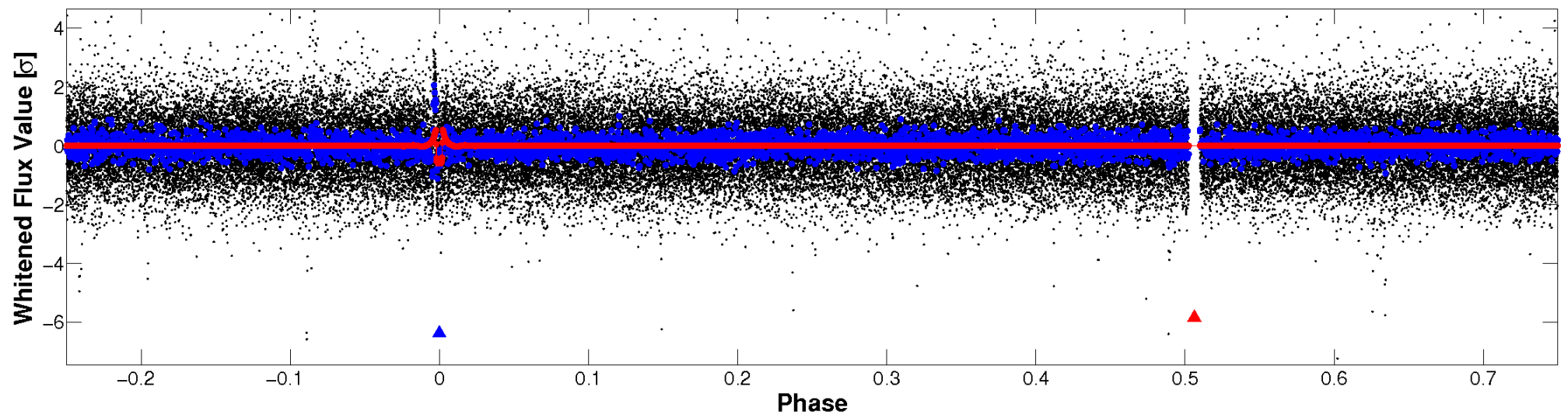


Non-Whitened Vs. Whitened Light Curve

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

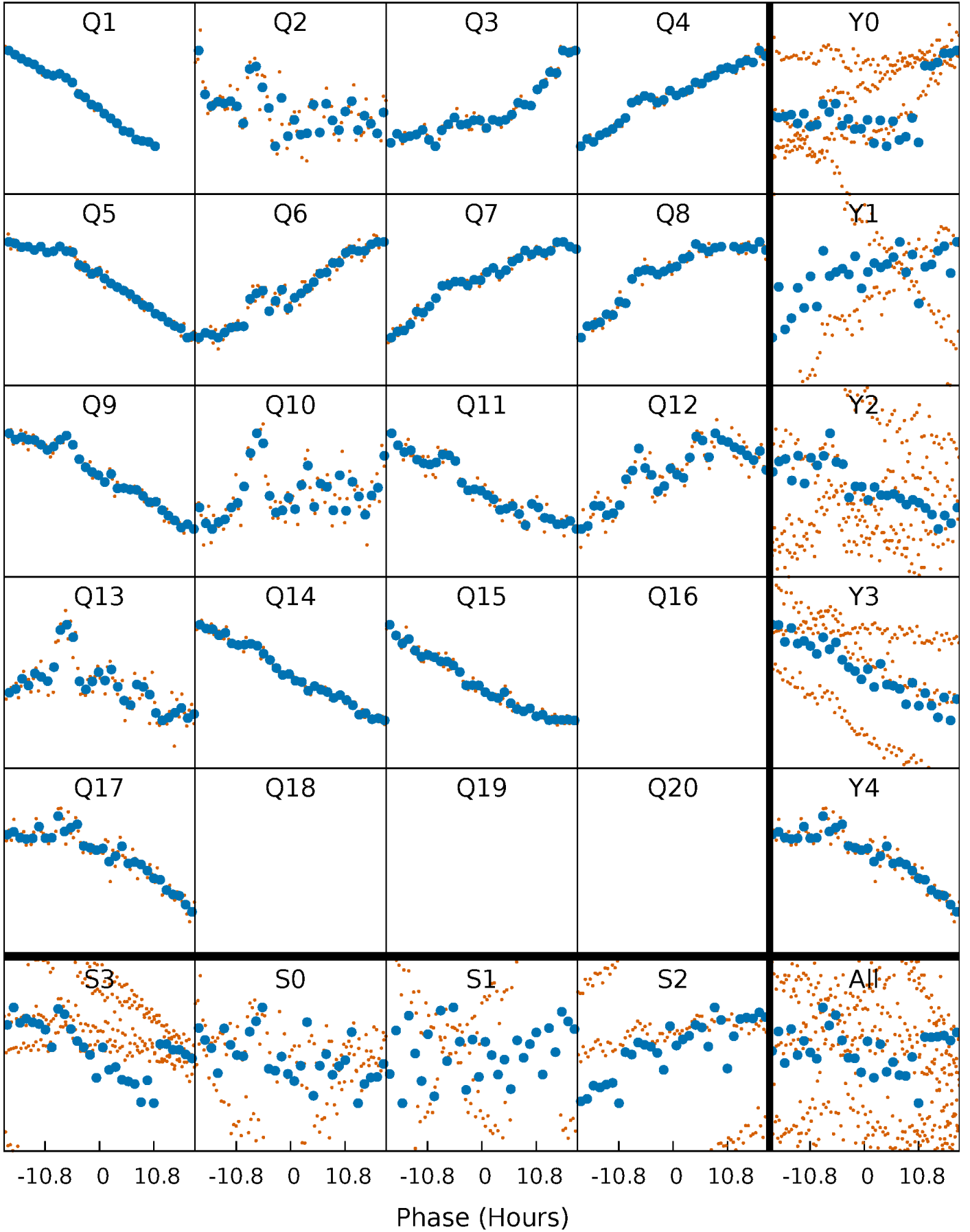


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



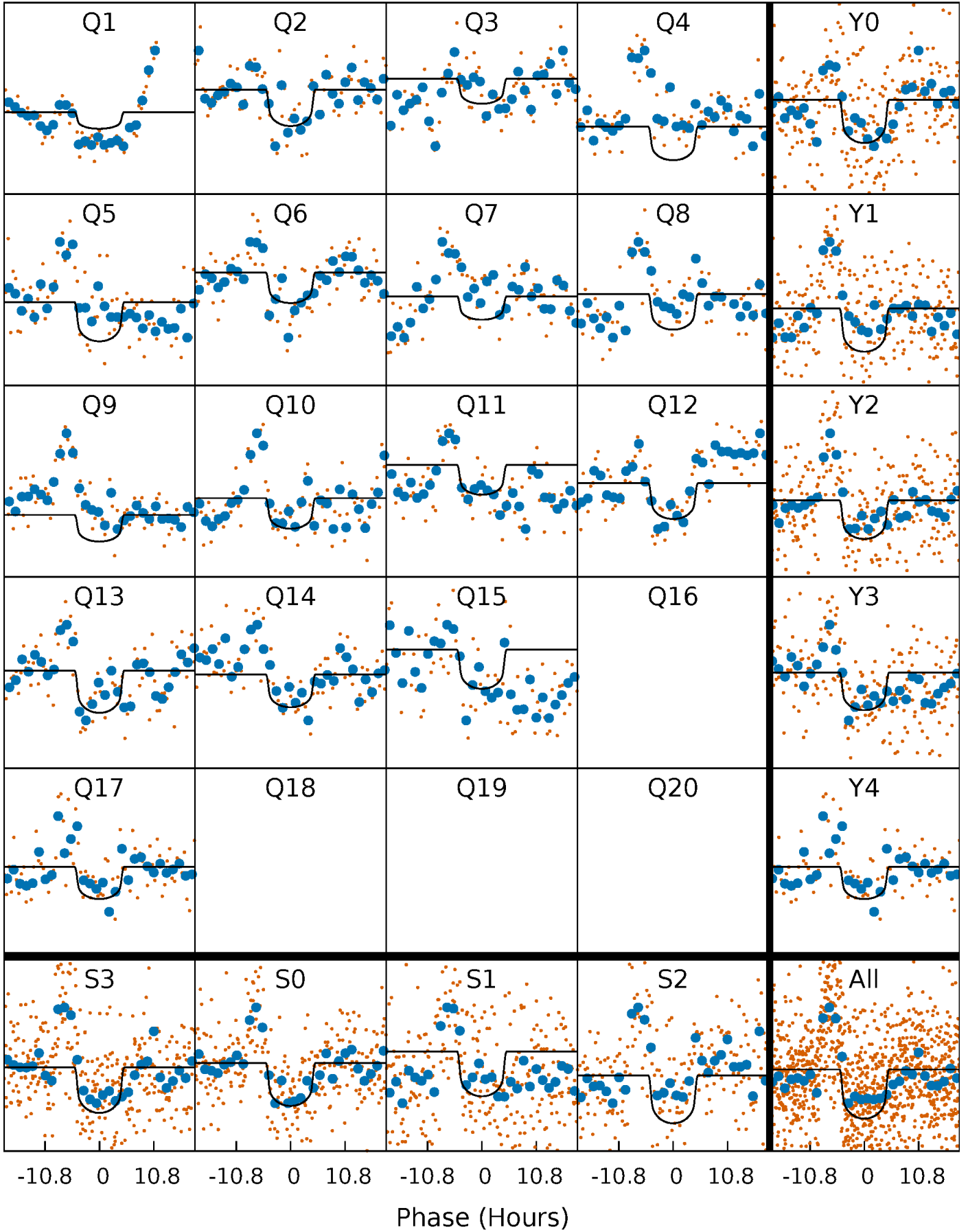
PDC Quarter-Phased Transit Curves

TCE 003342467-02 $P = 88.180428$ Days $T_0 = 164.514173$ (BKJD)



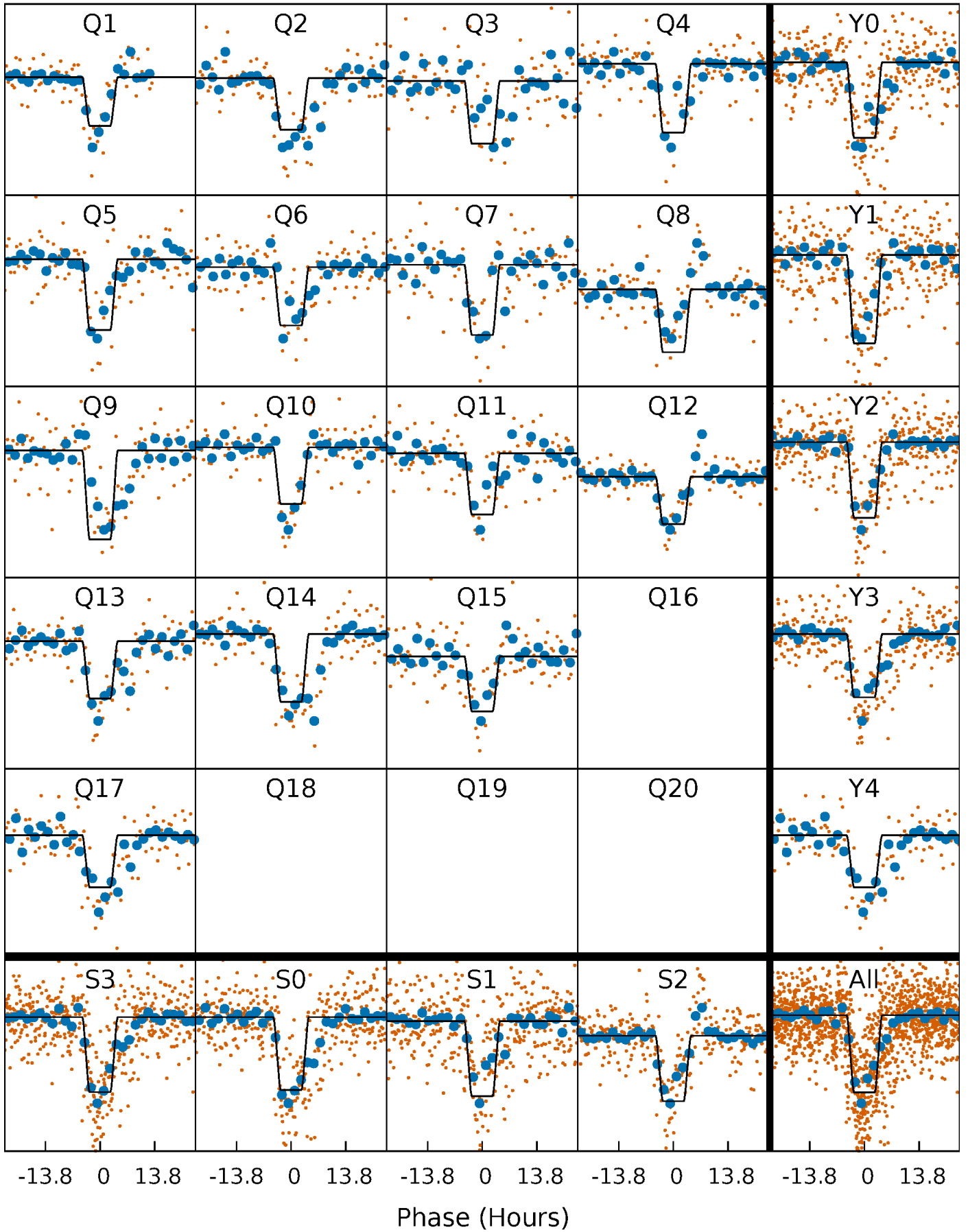
DV Quarter-Phased Transit Curves

TCE 003342467-02 P= 88.180428 Days $T_0=164.514173$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

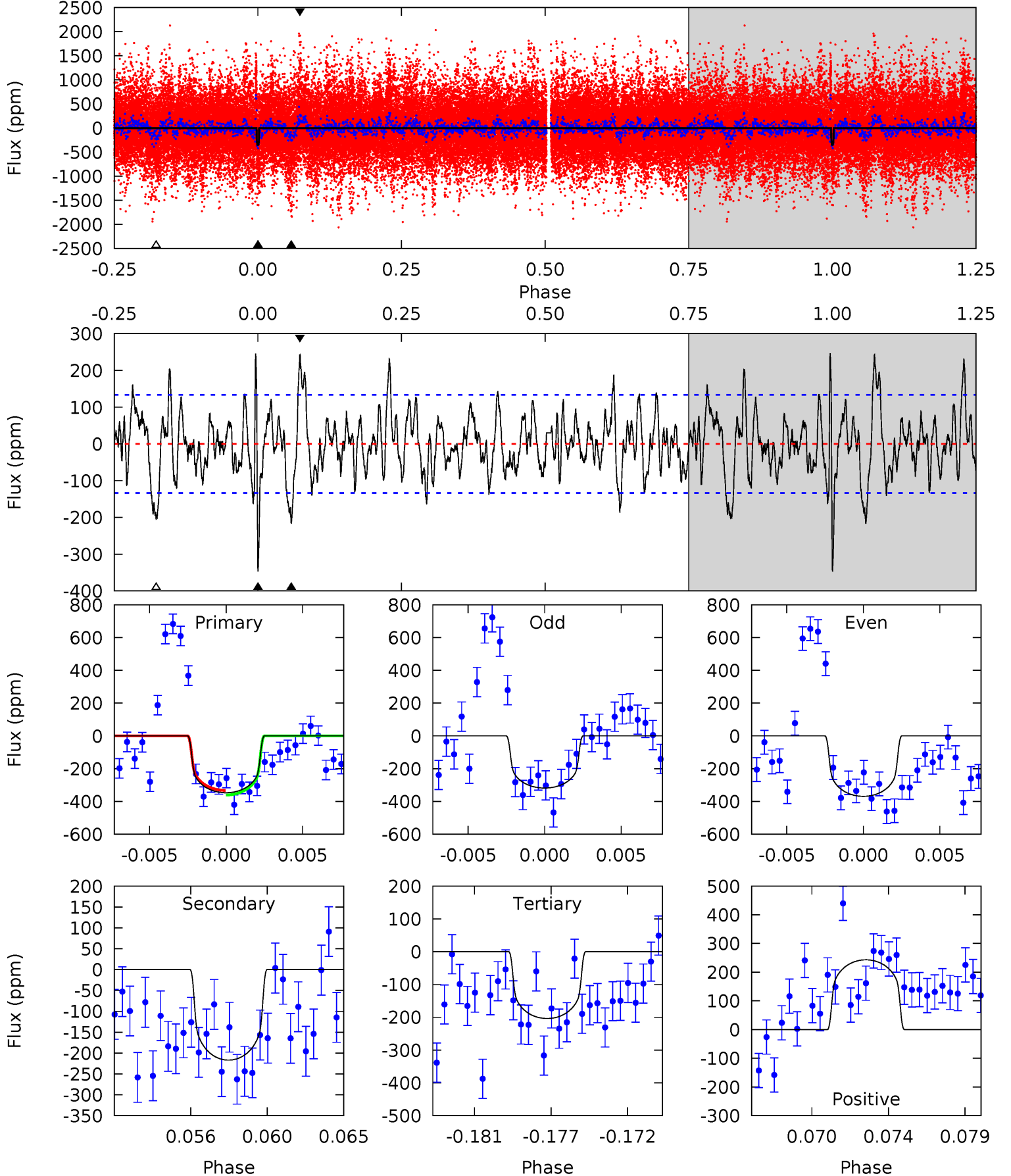
TCE 003342467-02 P= 88.179693 Days $T_0=164.438446$ (BKJD)



DV Model-Shift Uniqueness Test

003342467-02, P = 88.180428 Days, E = 76.333745 Days

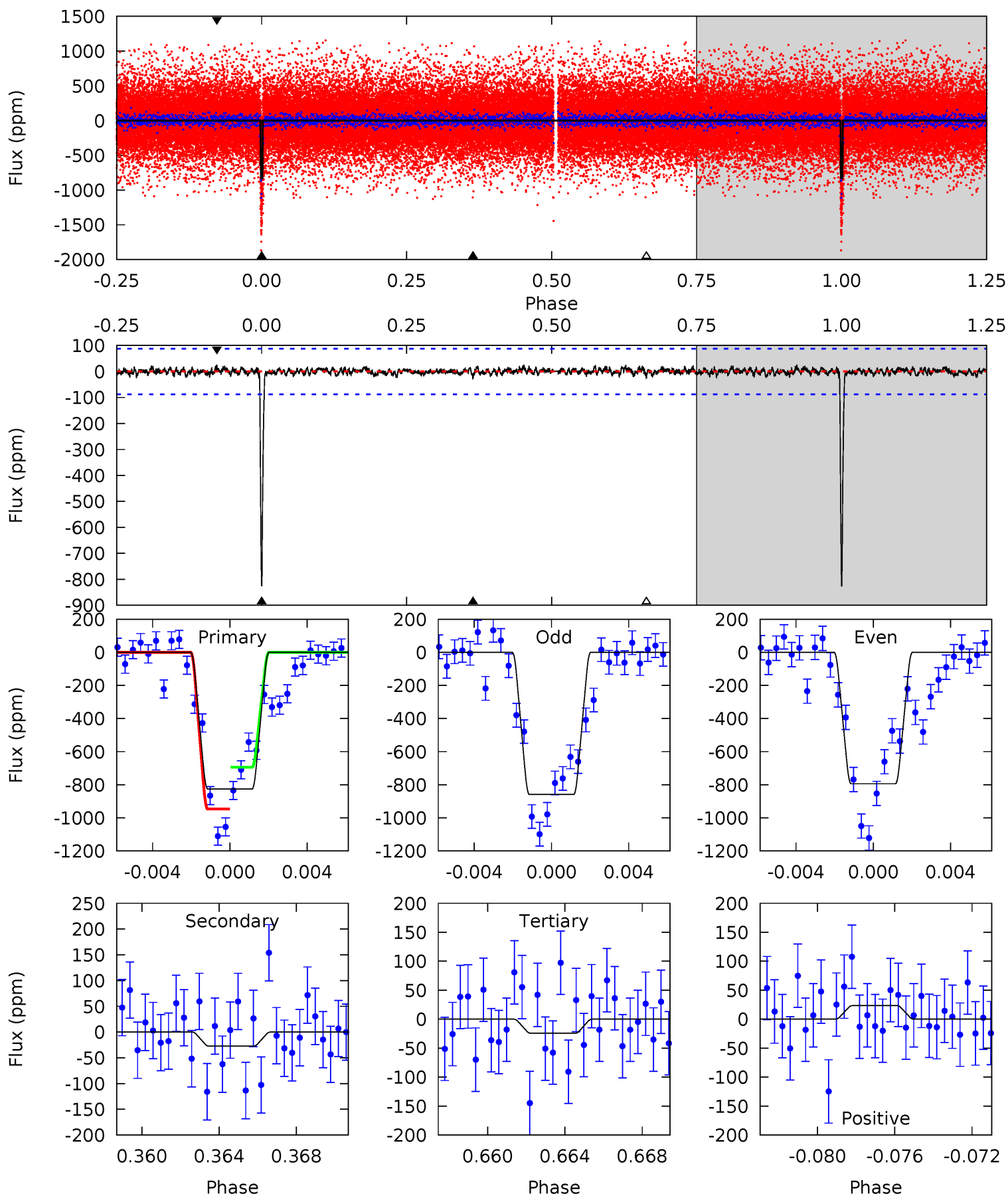
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.4	8.40	7.89	9.41	5.17	2.83	2.74	5.54	4.02	0.51	-1.01	0.97	0.94	0.41	0.54



Alt Model-Shift Uniqueness Test

003342467-02, P = 88.179693 Days, E = 76.258753 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
48.9	1.62	1.44	1.39	5.19	2.86	0.47	47.4	47.5	0.19	0.24	1.93	1.03	0.03	7.53



Stellar Parameters For KIC 003342467

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5497^{+147}_{-164}	$4.570^{+0.027}_{-0.153}$	$0.070^{+0.250}_{-0.300}$	$0.839^{+0.173}_{-0.062}$	$0.952^{+0.065}_{-0.106}$	$2.272^{+0.334}_{-0.912}$
	+3%/-3%	+1%/-3%	+357%/-429%	+21%/-7%	+7%/-11%	+15%/-40%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 003342467-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-217 ± 26	$2.25^{+0.48}_{-0.46}$	512^{+29}_{-19}	4506^{+414}_{-329}	3310^{+2065}_{-1089}
Alt.	-27 ± 17	$2.85^{+0.52}_{-0.49}$	513^{+26}_{-20}	2951^{+268}_{-377}	255^{+209}_{-167}

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

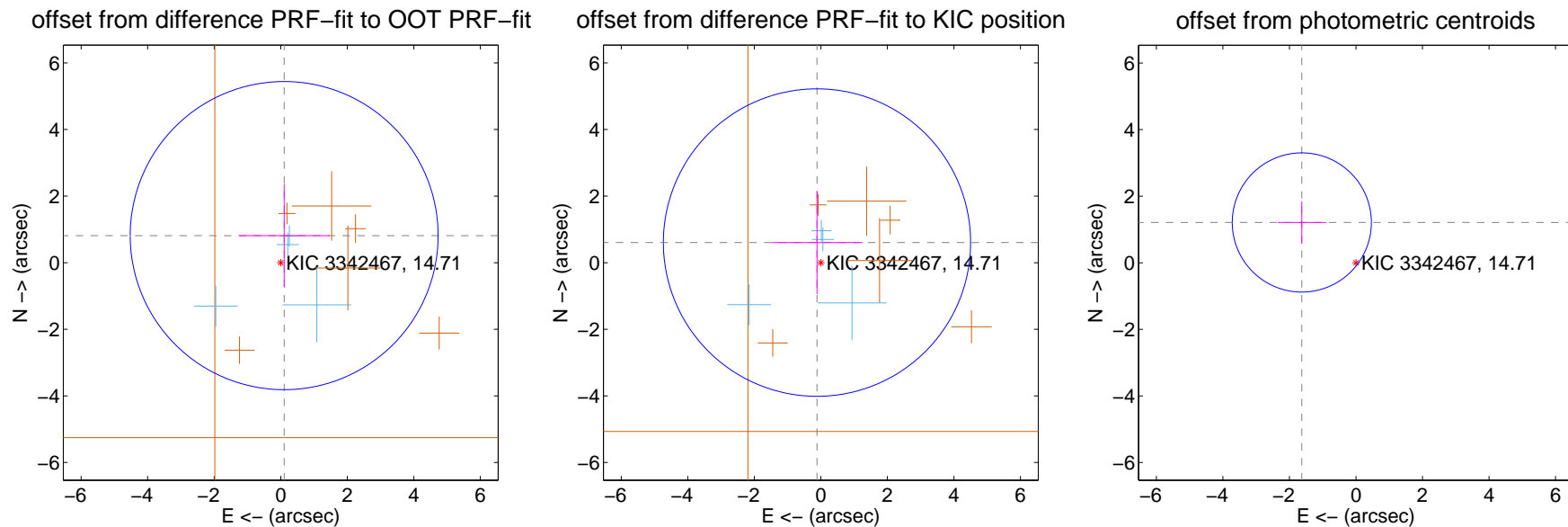
DV Centroid Data

Supplemental centroid analysis for 003342467-02. Kepler magnitude: 14.71. Transit SNR 11.32

There are 4 quarters with good PRF difference image offsets

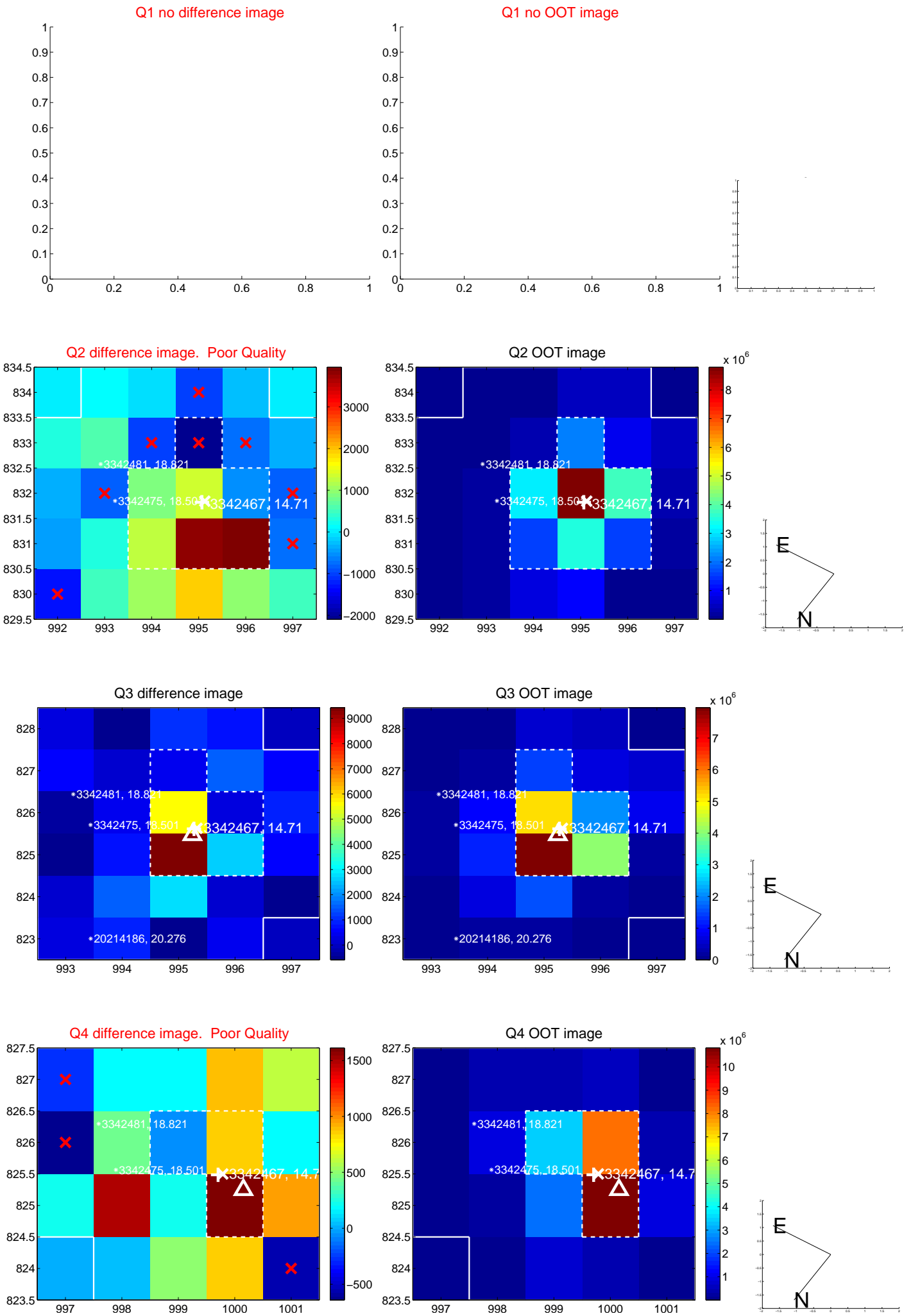
The direct PRF centroid is offset from the target star catalog position by about 0.30 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.819 ± 1.542	0.53	-0.102 ± 1.363	0.813 ± 1.545
PRF-fit source offset from KIC position	0.615 ± 1.539	0.40	0.116 ± 1.363	0.604 ± 1.545
photometric centroid source offset	2.03 ± 0.70	2.91	1.63 ± 0.73	1.21 ± 0.64

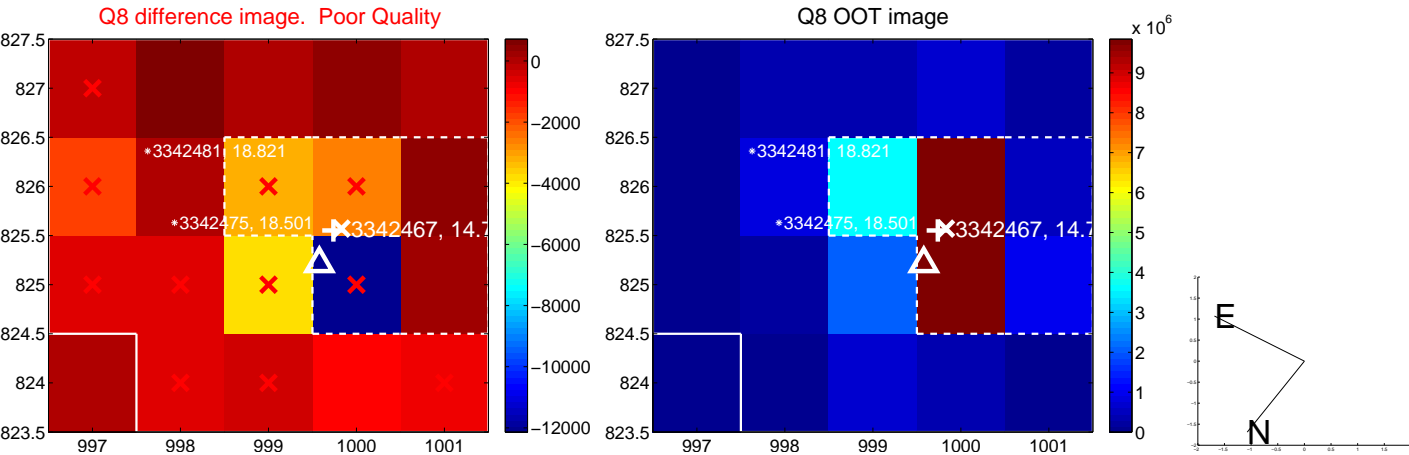
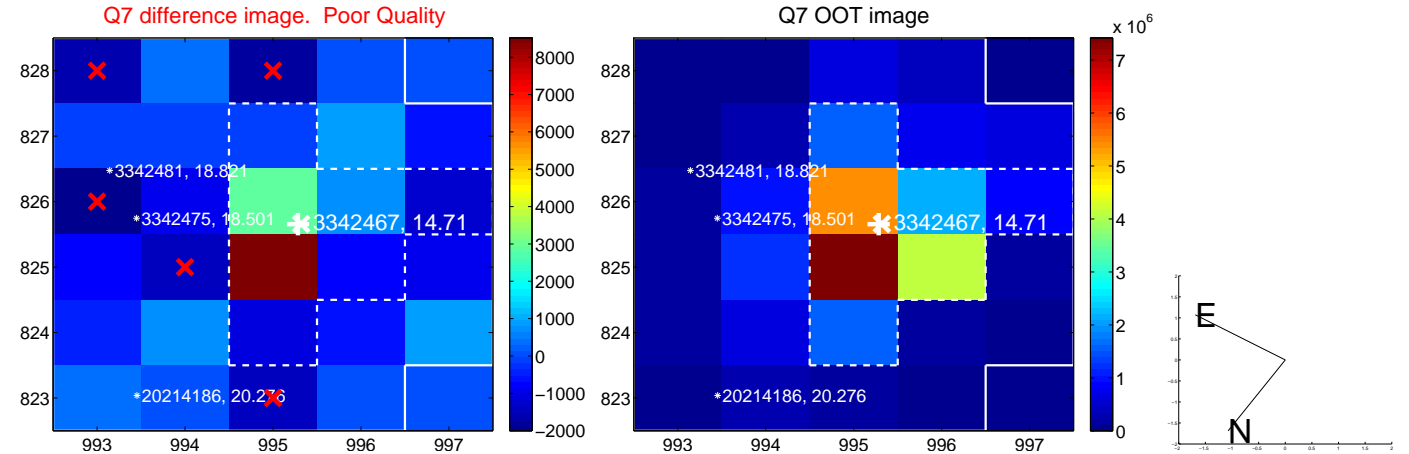
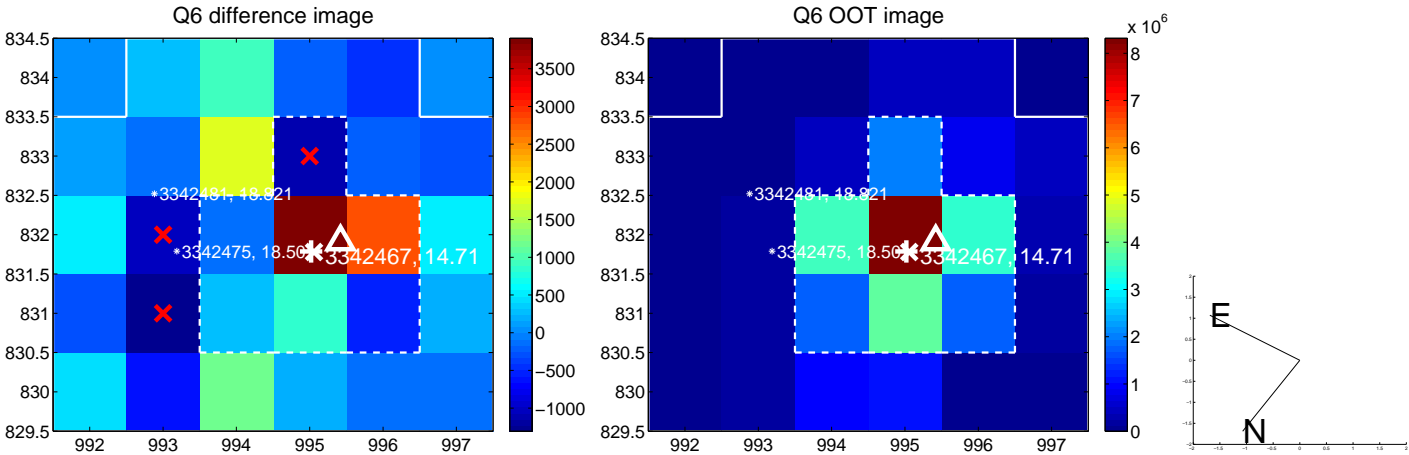
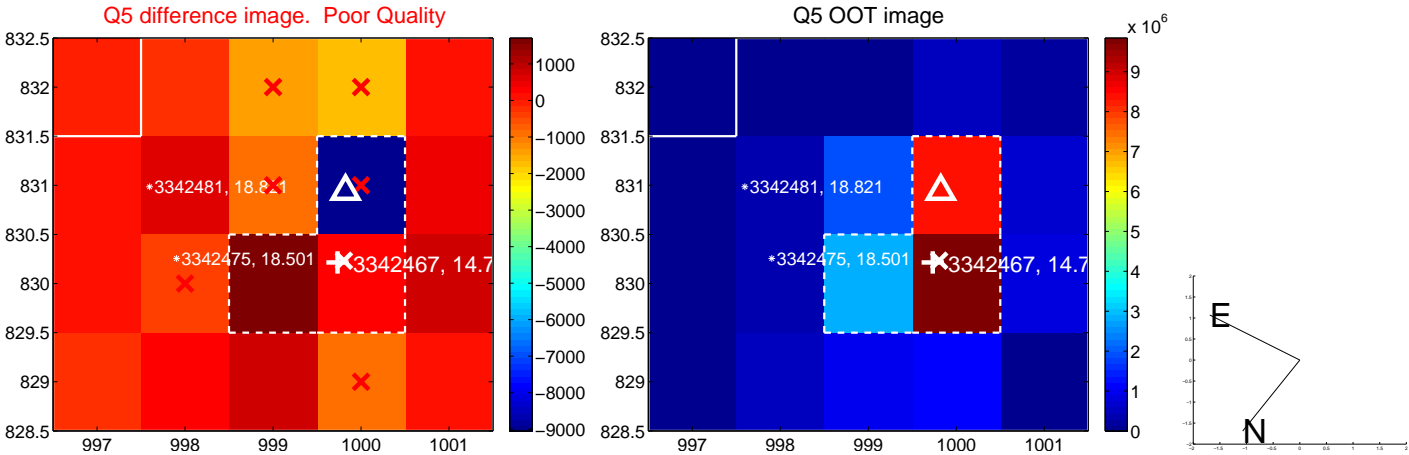


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

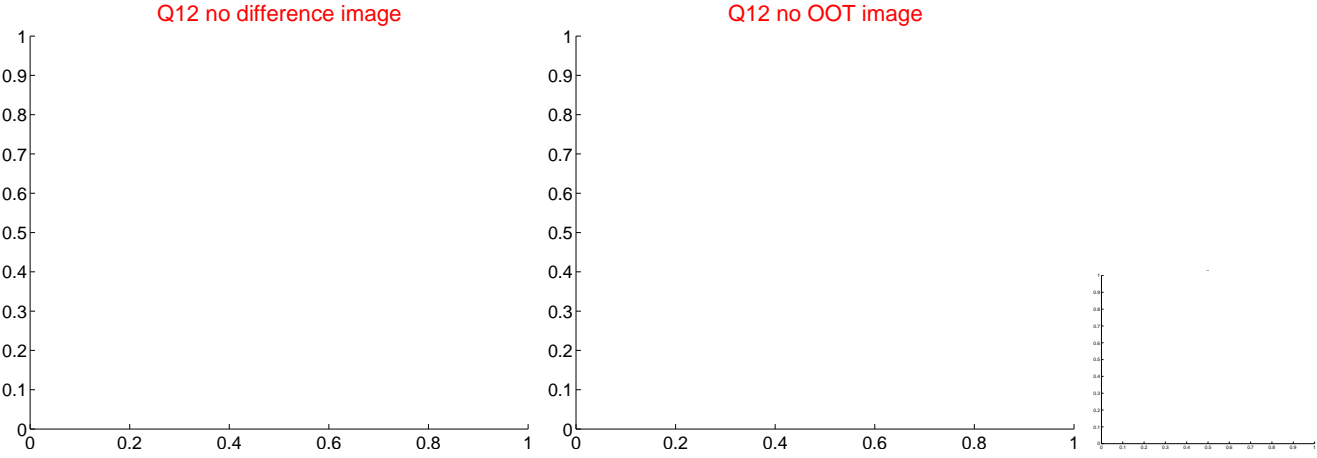
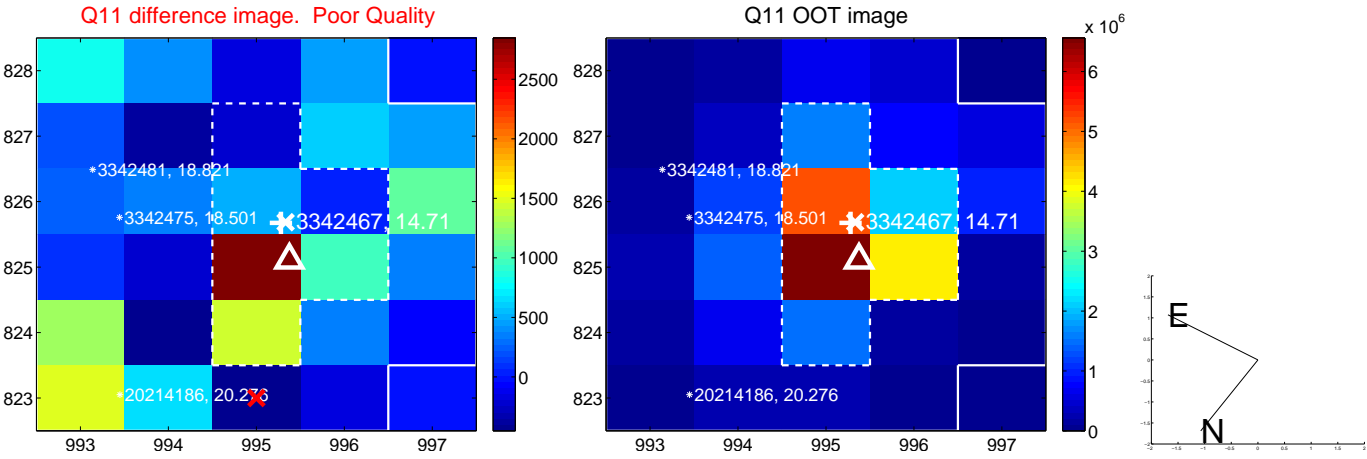
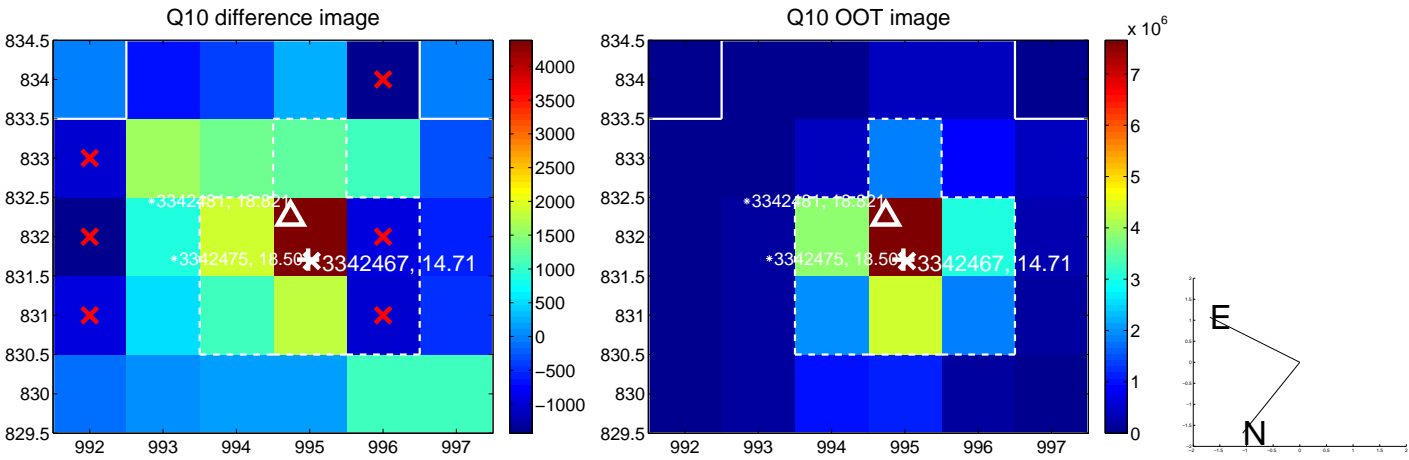
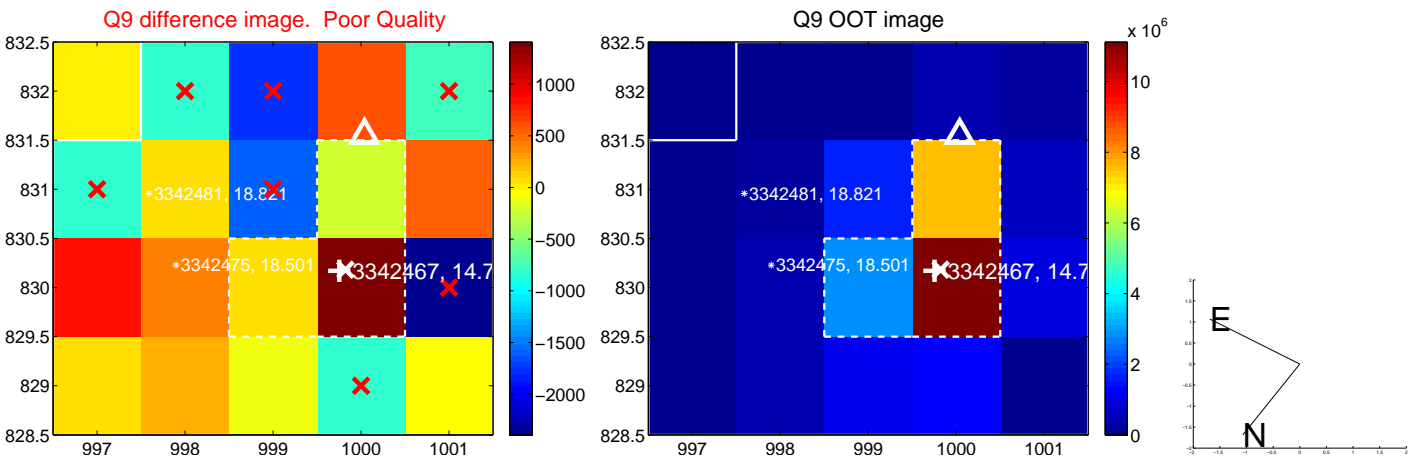
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



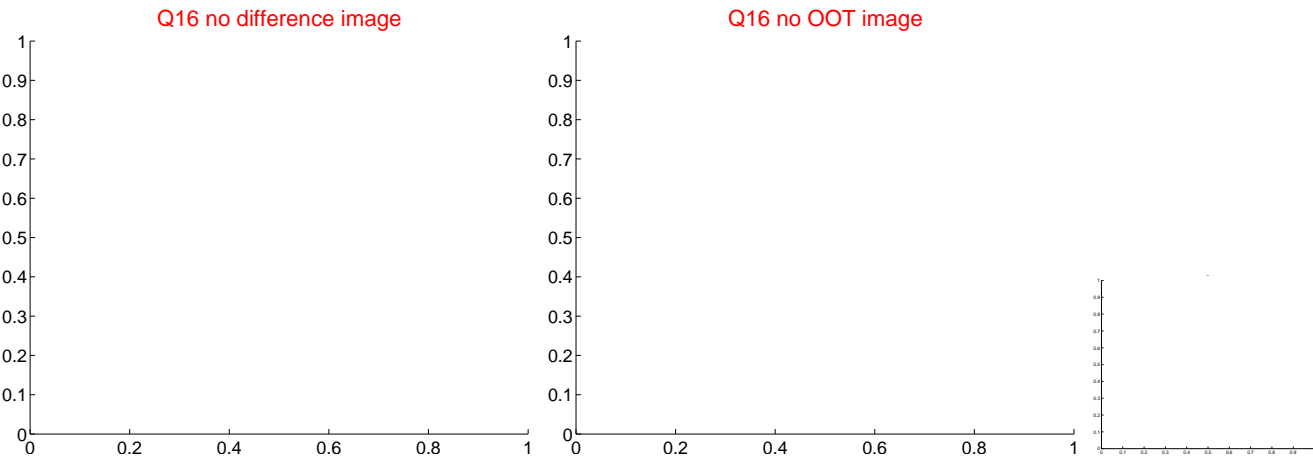
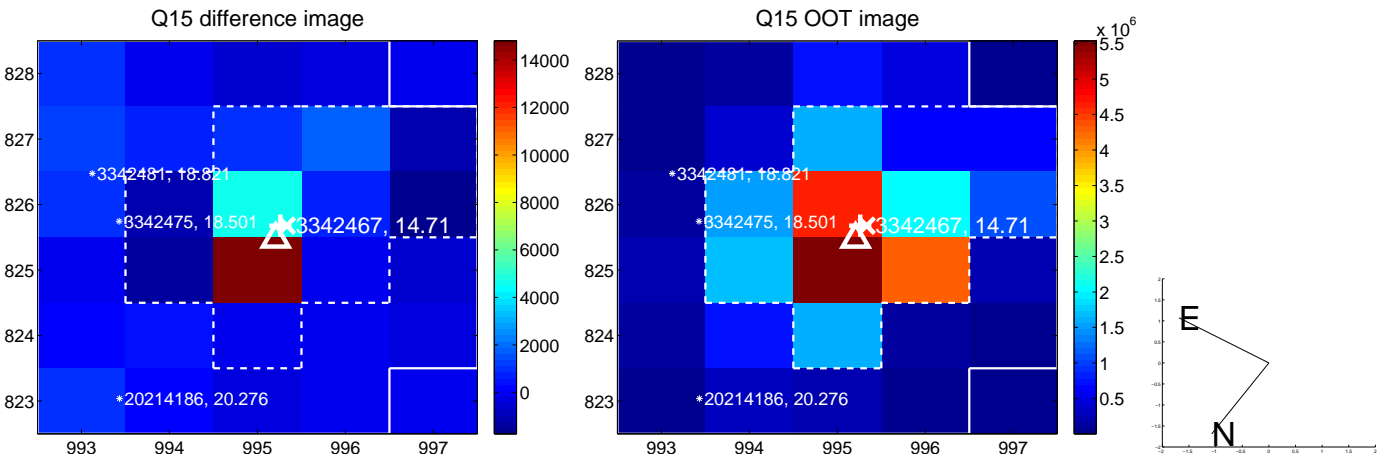
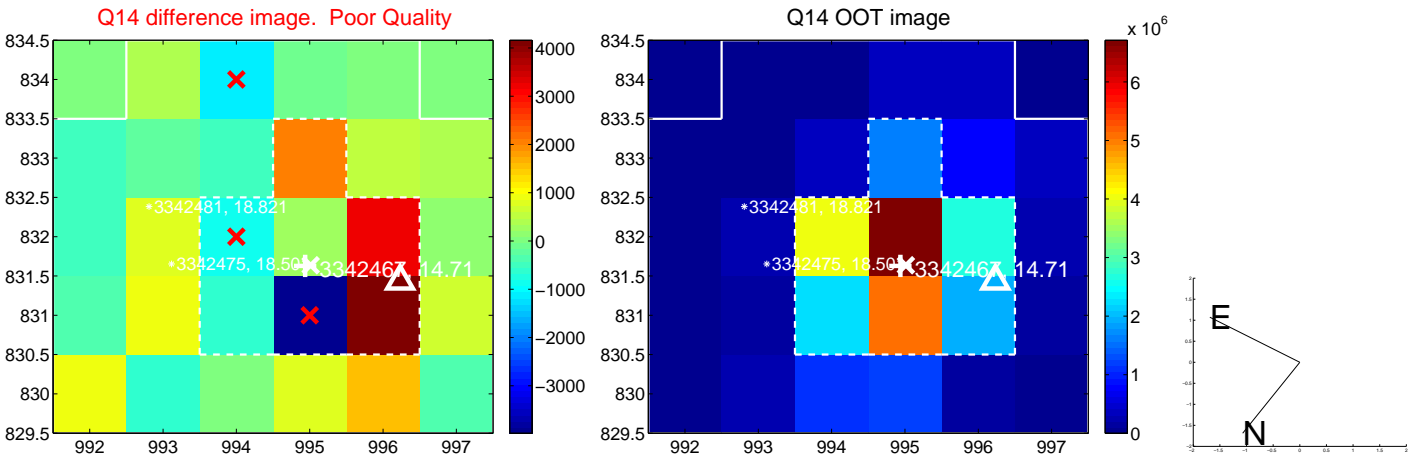
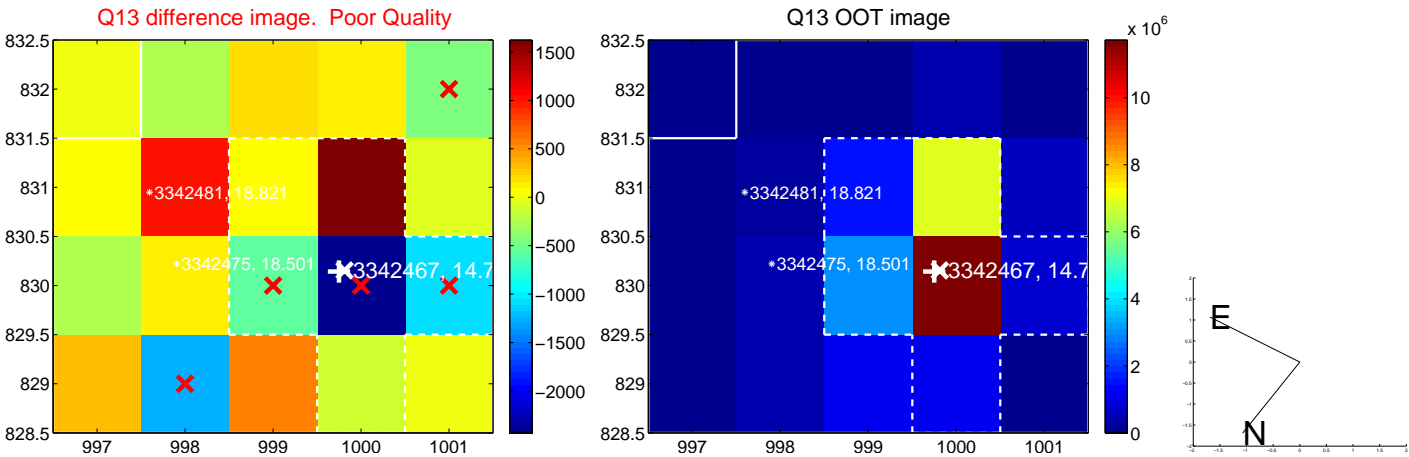
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



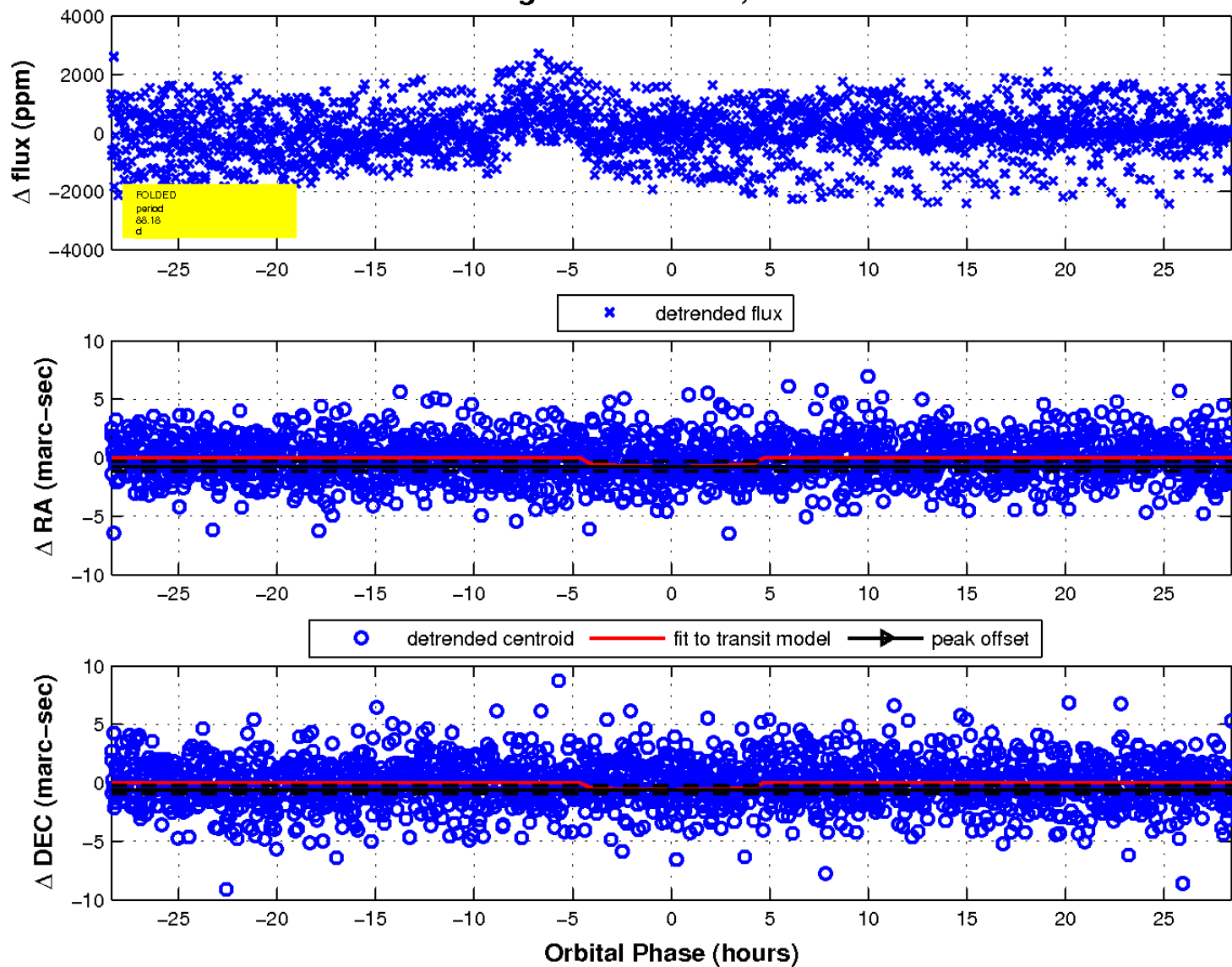
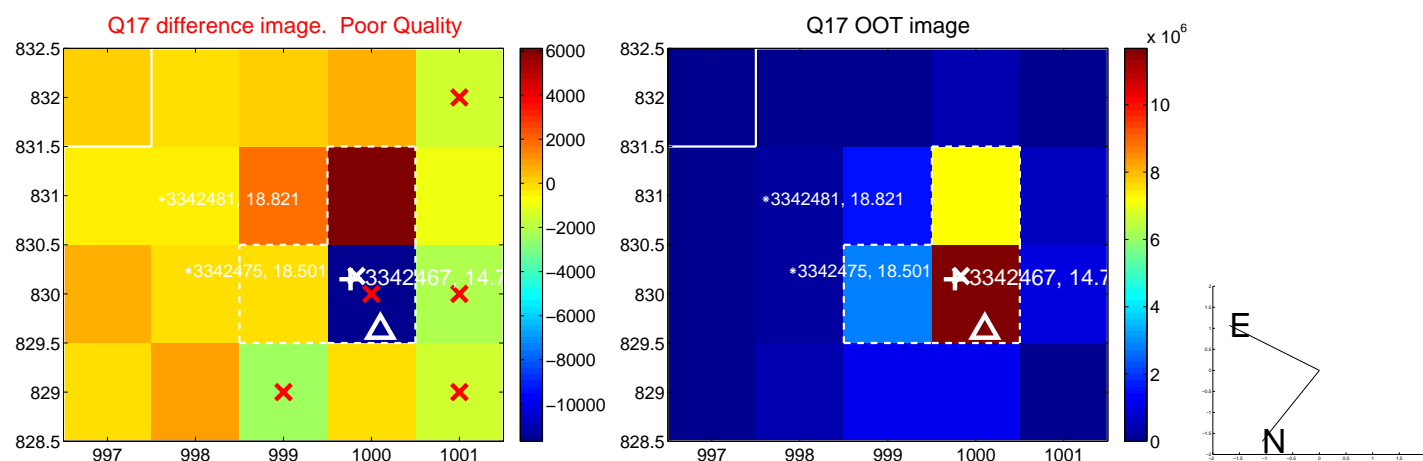
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

