

KIC 006292162

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})
006292162-01	OBS	1125.01	7.814842	138.704394	2013.4	3.047	92.3	95.5	0.93	5887	5.29	157.23
006292162-02	OBS	No	7.814823	134.793438	312.4	3.514	16.7	17.2	0.93	5887	2.20	157.23

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006292162-01	OBS	FP	0.00	0	1	0	0	MOD_SEC_DV—MOD_SEC_ALT—HAS_SEC_TCE—CENT_KIC_POS
006292162-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE—CENT_KIC_POS

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.

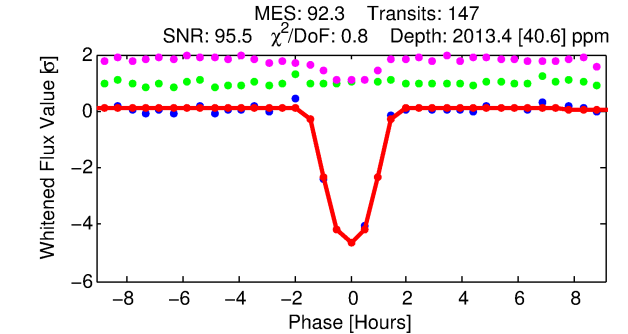
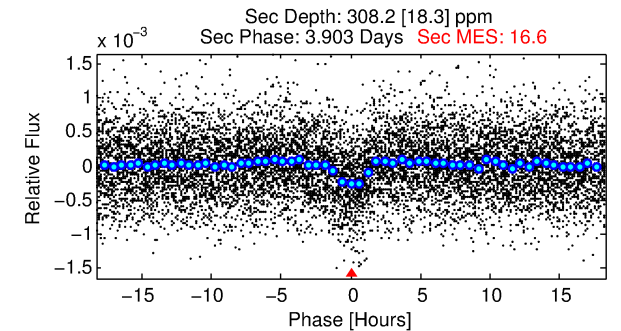
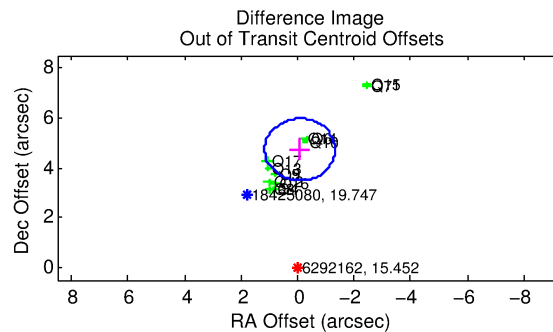
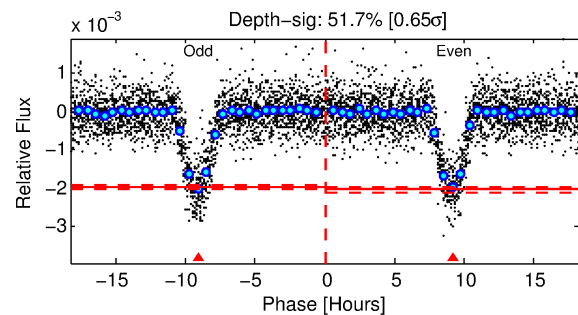
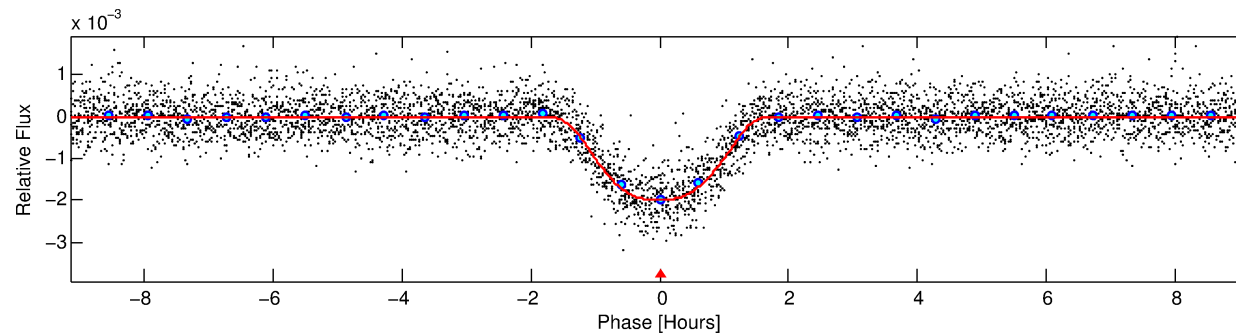
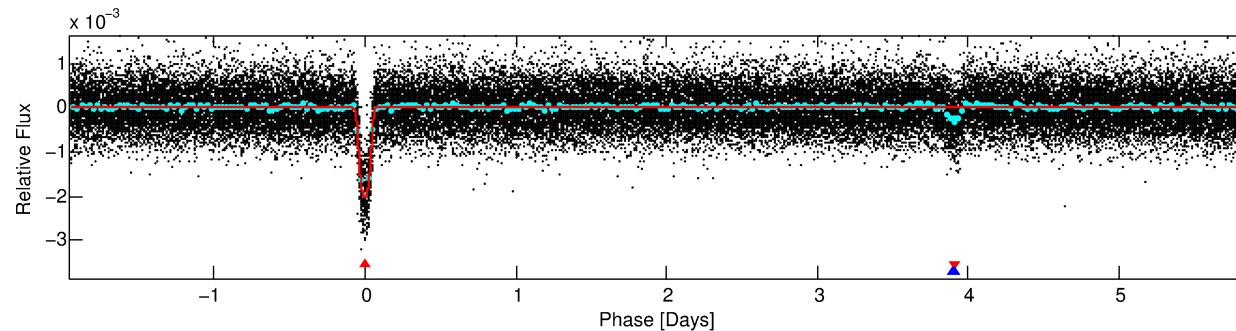
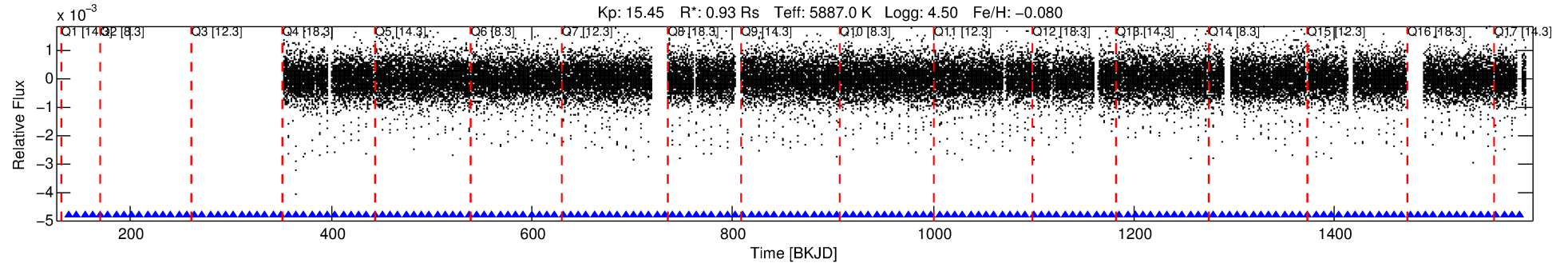
Ephemeris Match Information For 006292162-01

No Significant Match Found

DV One-Page Summary

KIC: 6292162 Candidate: 1 of 2 Period: 7.815 d
KOI: K01125.01 Corr: 0.993

Kp: 15.45 R*: 0.93 Rs Teff: 5887.0 K Logg: 4.50 Fe/H: -0.080



DV Fit Results:

Period = 7.81484 [0.00001] d
Epoch = 138.7044 [0.0010] BKJD
Rp/R* = 0.0521 [0.0009]
a/R* = 9.07 [0.26]
b = 0.95 [0.00]
Seff = 157.23 [64.17]
Teq = 903 [92] K
Rp = 5.29 [1.69] Re
a = 0.0770 [0.0205] AU
Ag = 35.88 [13.99] [2.49σ]
Teff = 3417 [133] K [15.54σ]

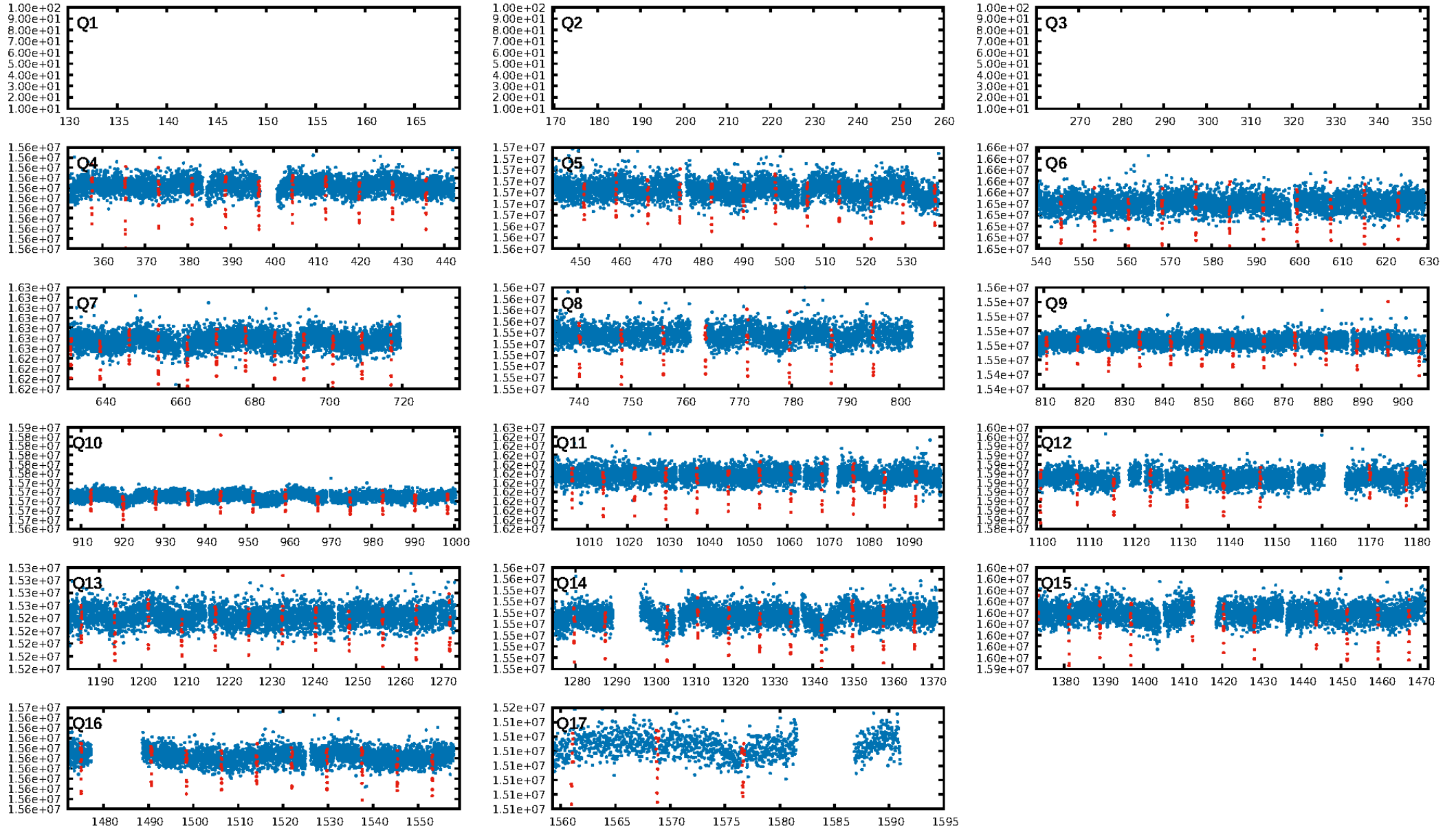
DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 47.5%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [144/144]
GhostDiagnostic-chr: 1.968
Centroid-sig: 0.0%
Centroid-so: 2.266 arcsec [22.94σ]
OotOffset-rm: 4.724 arcsec [11.41σ]
KicOffset-rm: 3.275 arcsec [34.47σ]
OotOffset-st: 3/3/4/4 [14]
KicOffset-st: 3/3/4/4 [14]
DiffImageQuality-fgm: 1.00 [14/14]
DiffImageOverlap-fno: 1.00 [14/14]

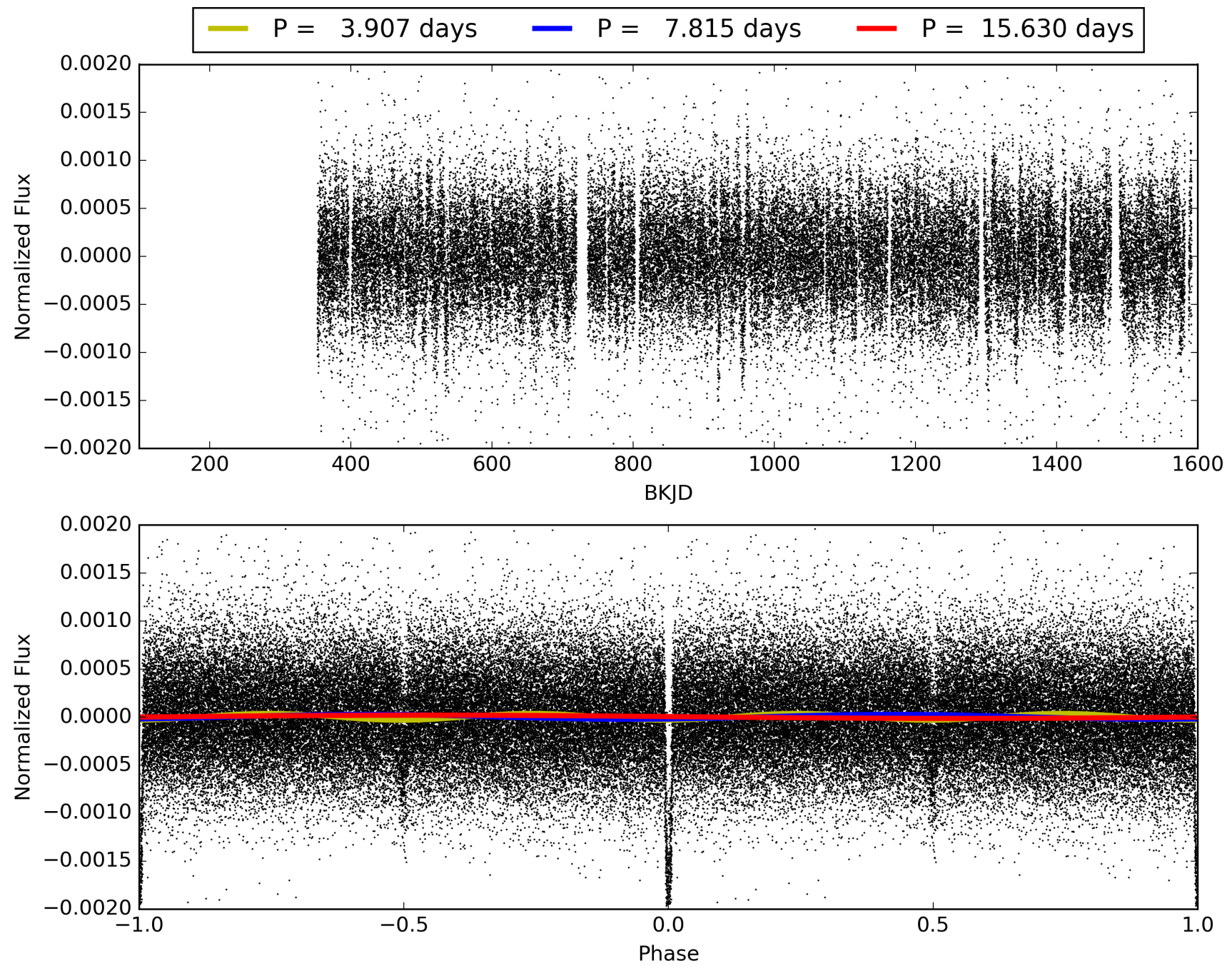
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 21:10:33 Z

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

TCE 006292162-01, PDC Light Curves

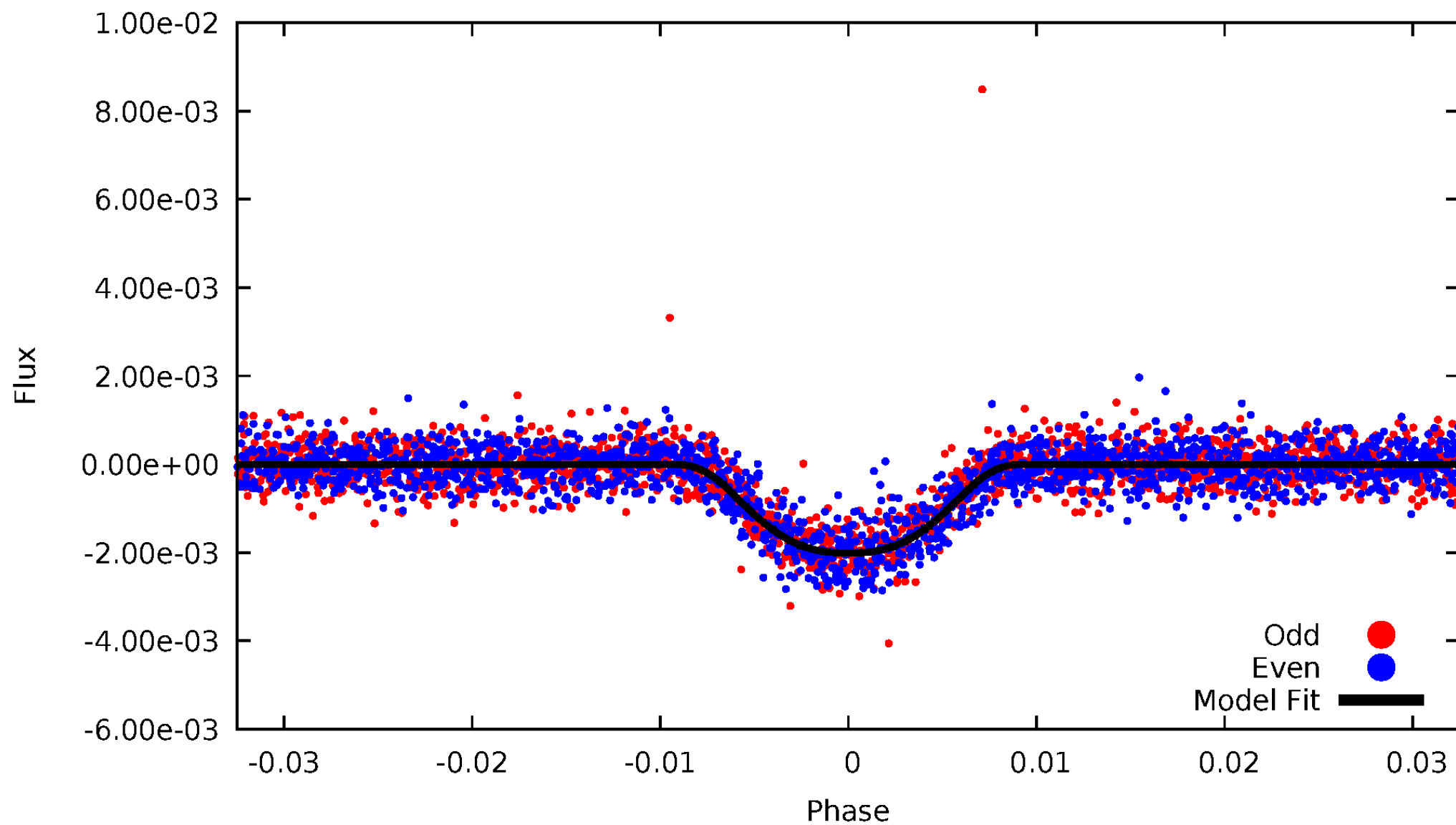


TCE 006292162-01



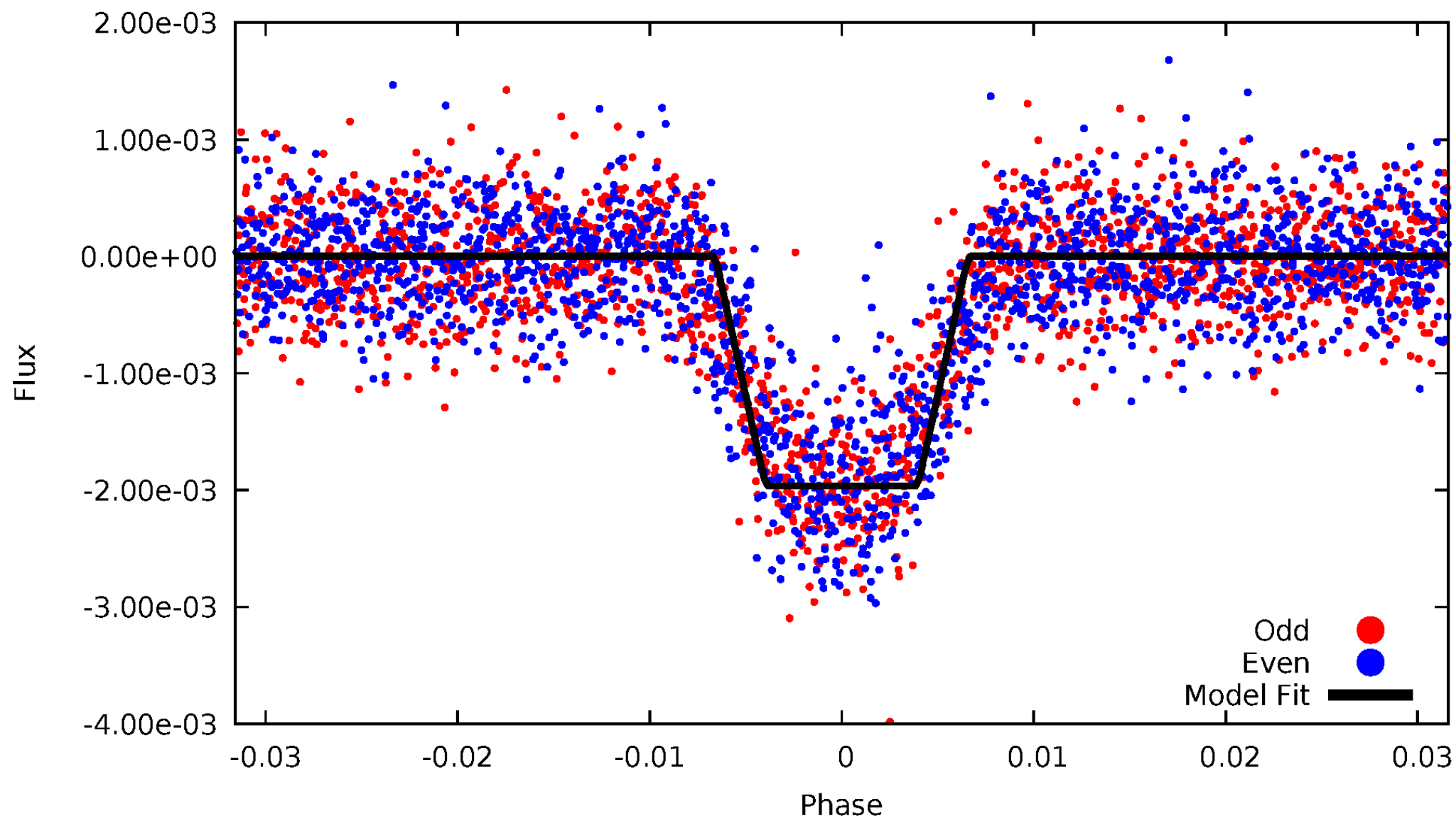
DV Odd/Even

TCE 006292162-01



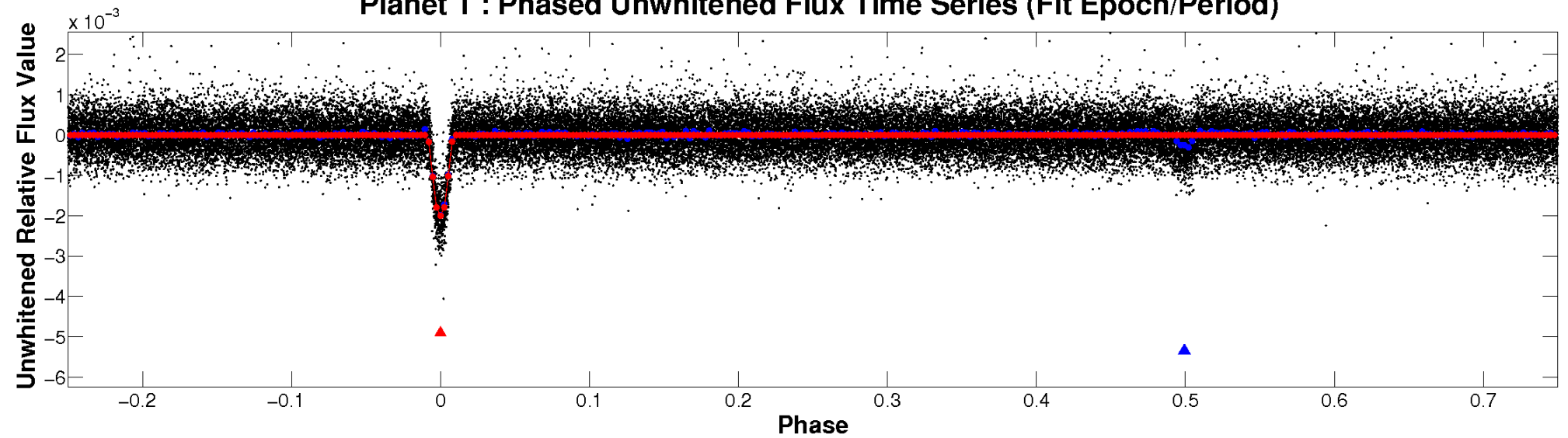
ALT Odd/Even

TCE 006292162-01

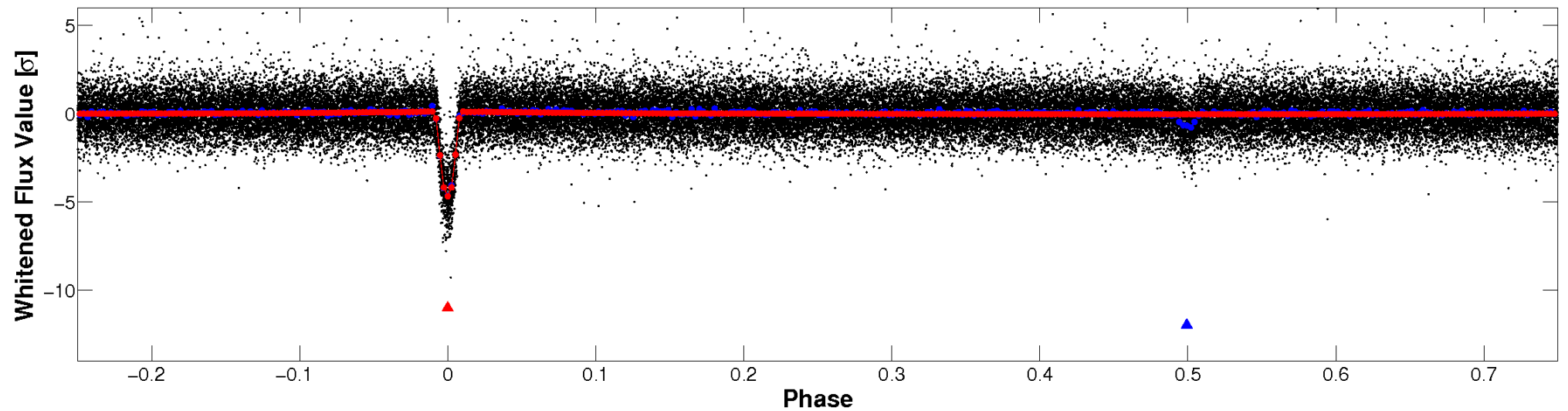


Non-Whitened Vs. Whitened Light Curve

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

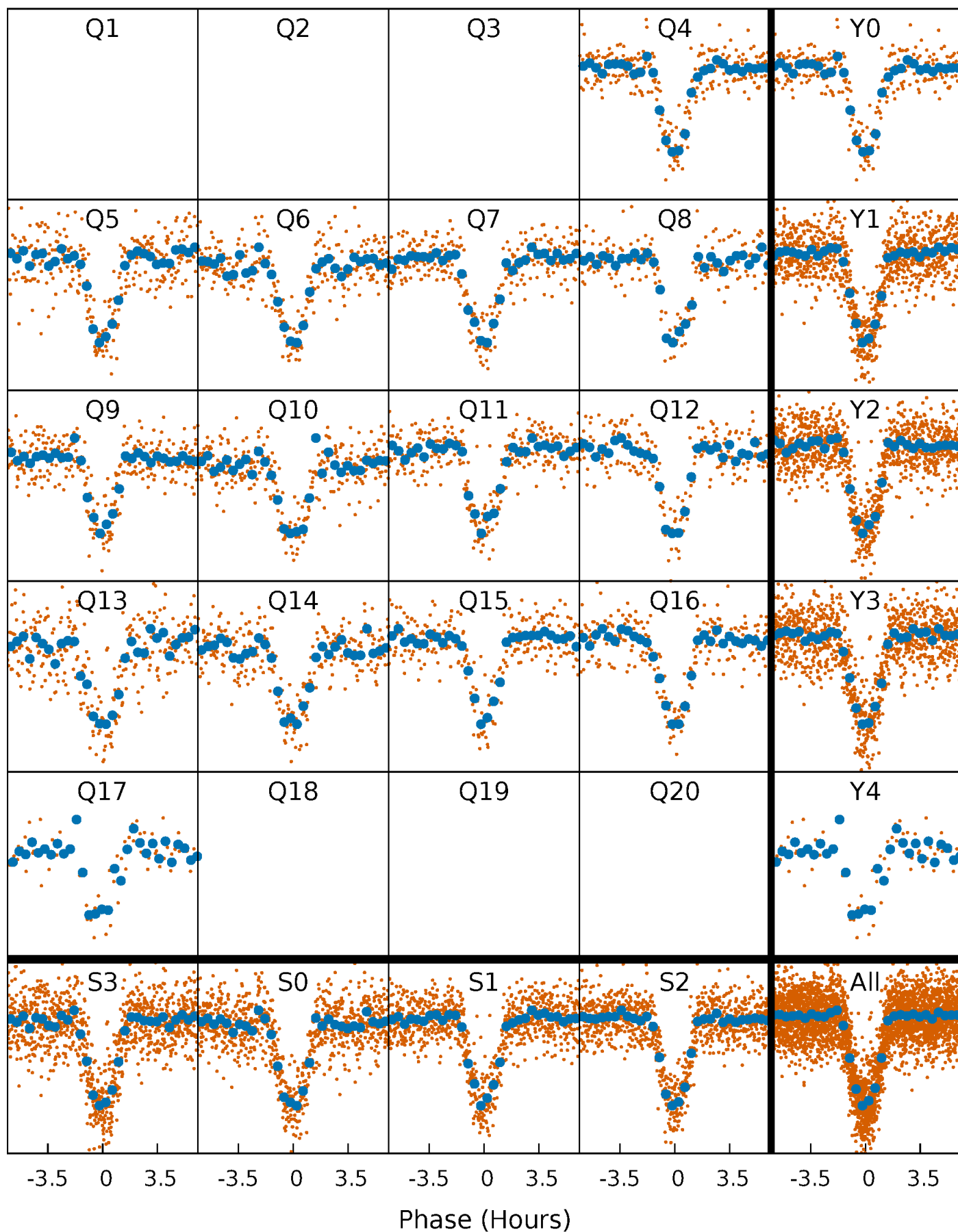


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



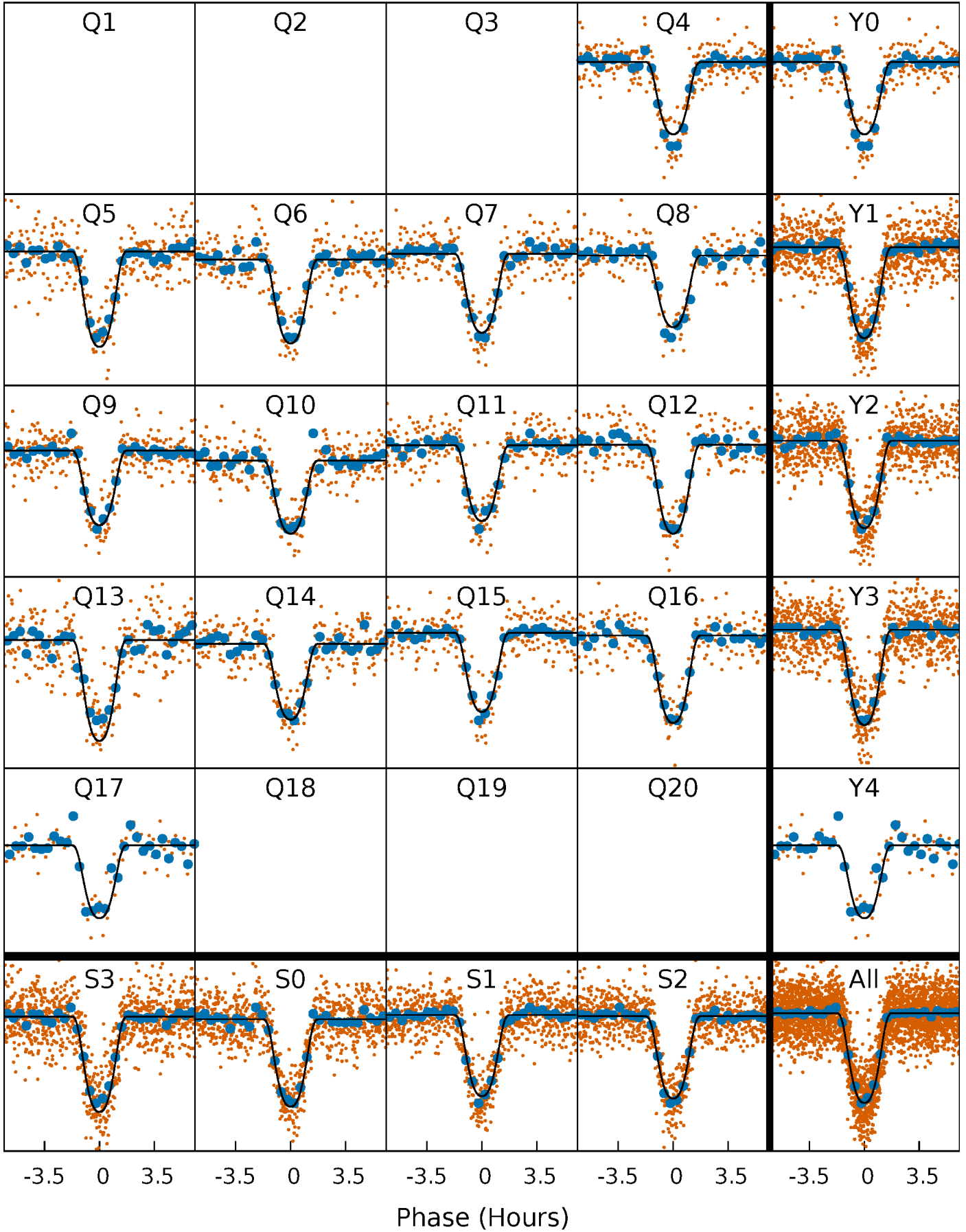
PDC Quarter-Phased Transit Curves

TCE 006292162-01 P= 7.814842 Days $T_0=138.704395$ (BKJD)



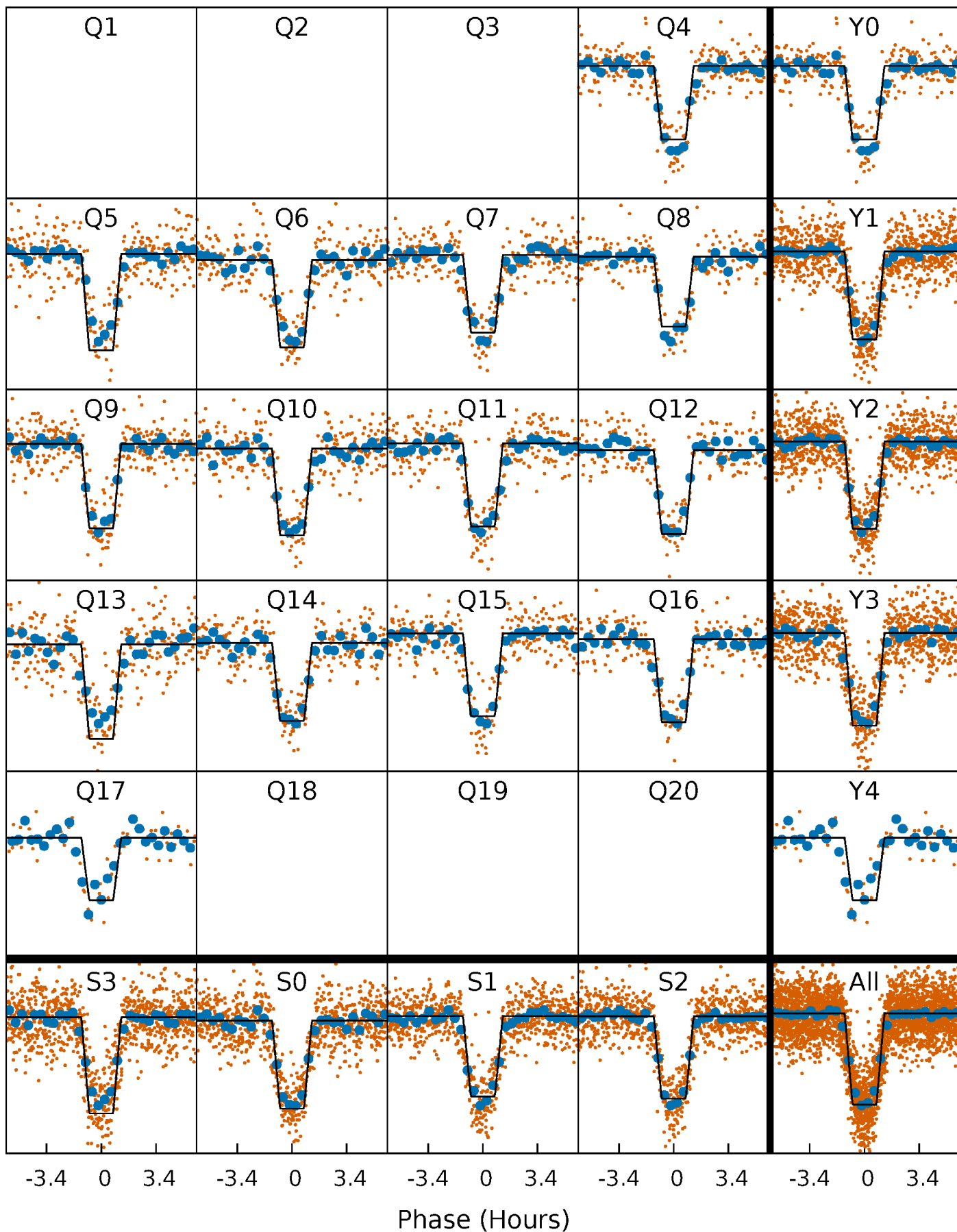
DV Quarter-Phased Transit Curves

TCE 006292162-01 P= 7.814842 Days $T_0=138.704395$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

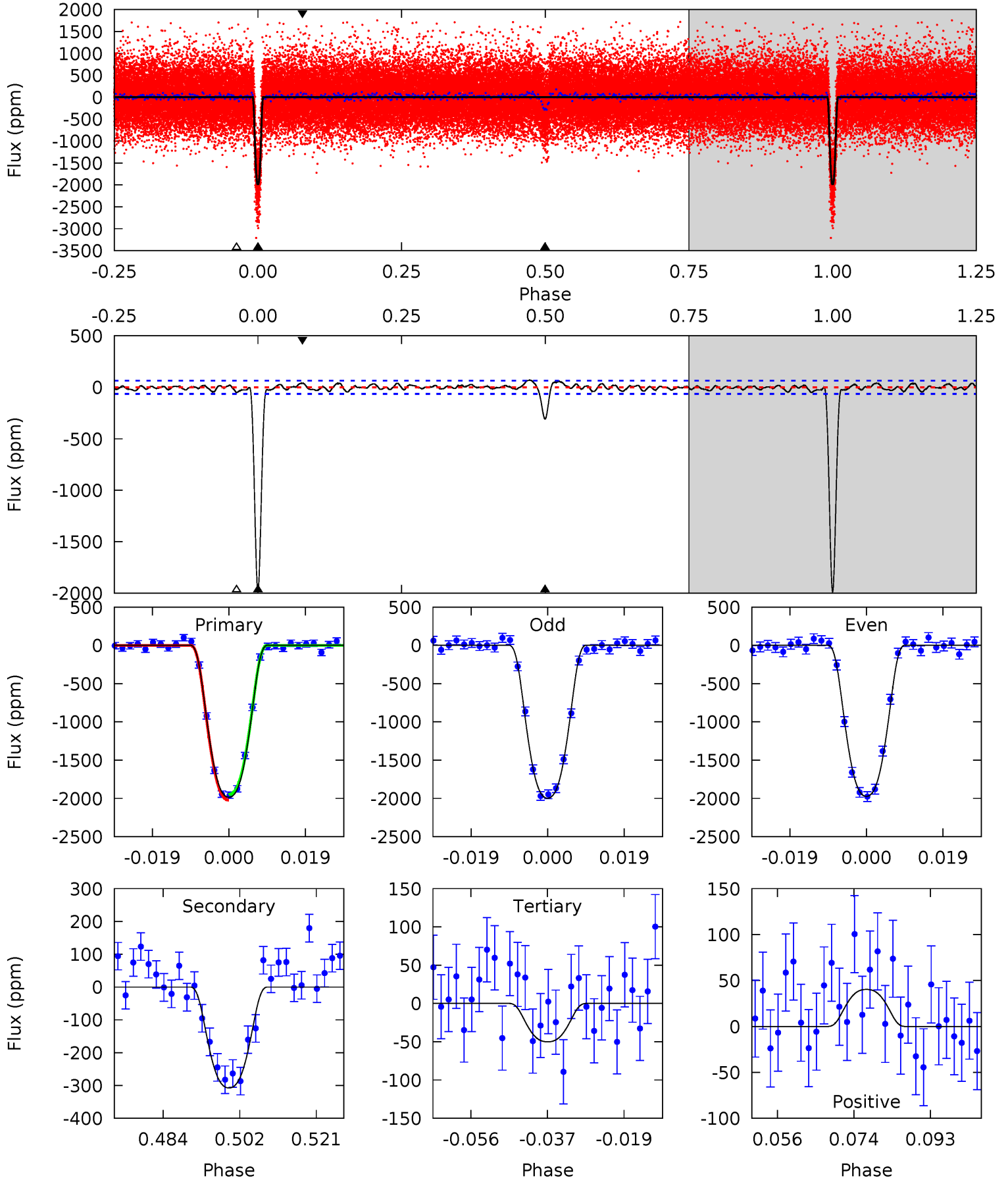
TCE 006292162-01 P= 7.814878 Days $T_0=138.700503$ (BKJD)



DV Model-Shift Uniqueness Test

006292162-01, P = 7.814842 Days, E = 138.704395 Days

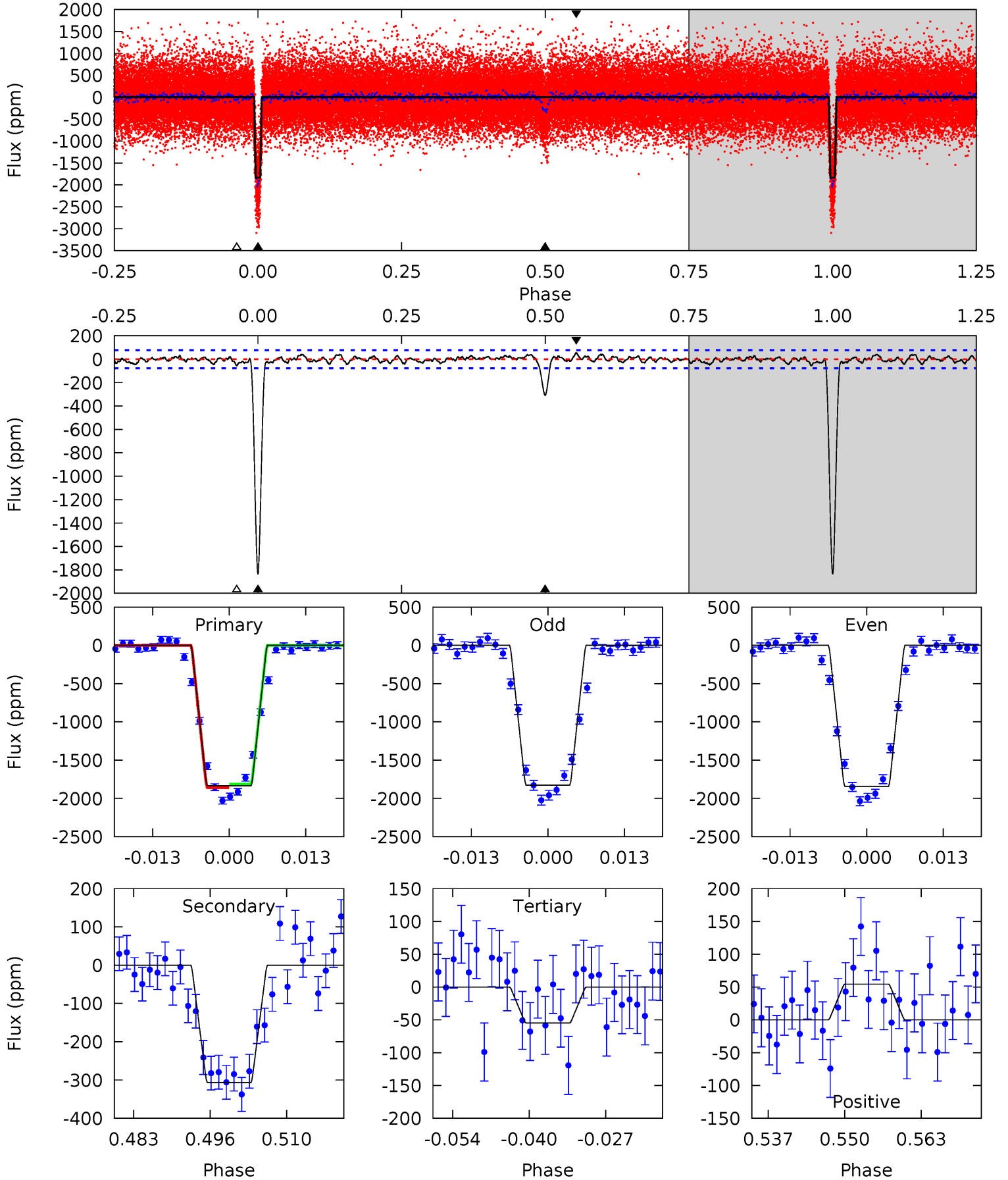
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
150.5	23.3	3.80	3.05	4.91	2.35	1.55	146.7	147.5	19.5	20.3	0.92	0.99	0.03	2.79



Alt Model-Shift Uniqueness Test

006292162-01, P = 7.814878 Days, E = 138.700503 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
118.3	19.8	3.53	3.51	4.97	2.47	1.21	114.8	114.8	16.2	16.2	0.53	0.99	0.03	1.49



Stellar Parameters For KIC 006292162

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5887^{+184}_{-205}	$4.499^{+0.052}_{-0.208}$	$-0.080^{+0.300}_{-0.300}$	$0.931^{+0.297}_{-0.099}$	$0.998^{+0.127}_{-0.127}$	$1.741^{+0.477}_{-0.891}$
	+3%/-3%	+1%/-5%	+375%/-375%	+32%/-11%	+13%/-13%	+27%/-51%
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 006292162-01 / KOI 1125.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-307 ± 13	$5.46^{+0.98}_{-0.46}$	1291^{+100}_{-62}	3794^{+93}_{-102}	33^{+5}_{-8}
Alt.	-306 ± 16	$4.60^{+0.80}_{-0.35}$	1289^{+90}_{-64}	4008^{+103}_{-120}	46^{+7}_{-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 $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

DV Centroid Data

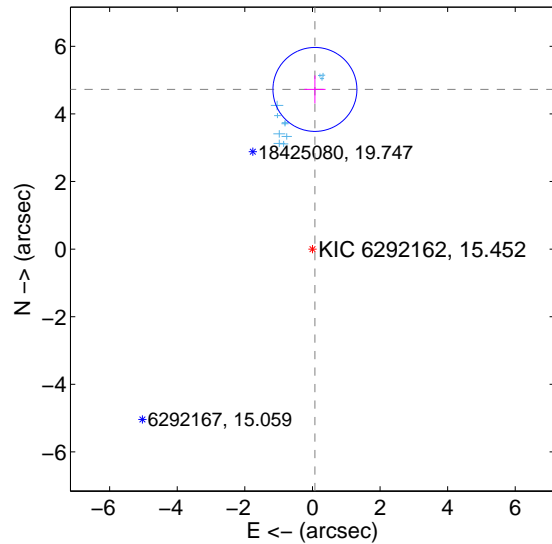
Supplemental centroid analysis for 006292162-01. Kepler magnitude: 15.45. Transit SNR 95.47

There are 14 quarters with good PRF difference image offsets

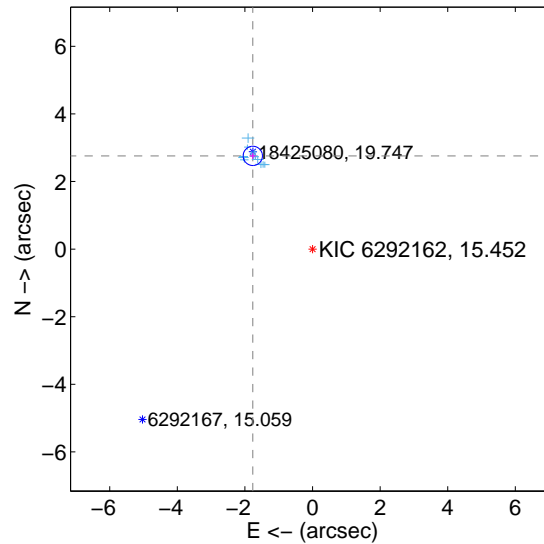
The direct PRF centroid is offset from the target star catalog position by about 1.29 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	4.724 ± 0.414	11.41	-0.074 ± 0.314	4.724 ± 0.414
PRF-fit source offset from KIC position	3.275 ± 0.095	34.47	1.767 ± 0.088	2.758 ± 0.086
photometric centroid source offset	2.27 ± 0.10	22.94	1.55 ± 0.10	1.65 ± 0.10

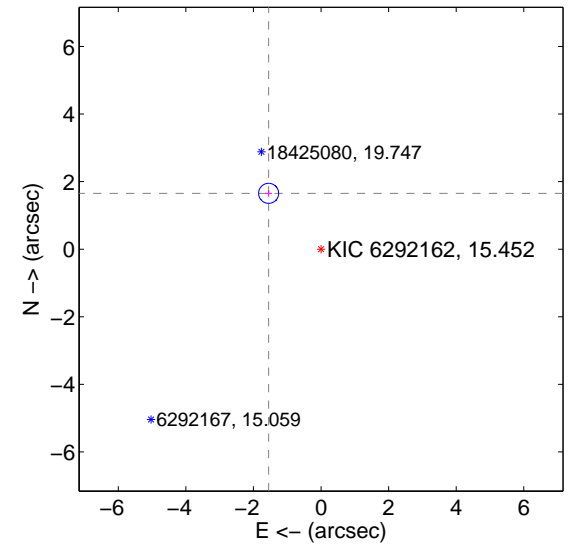
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

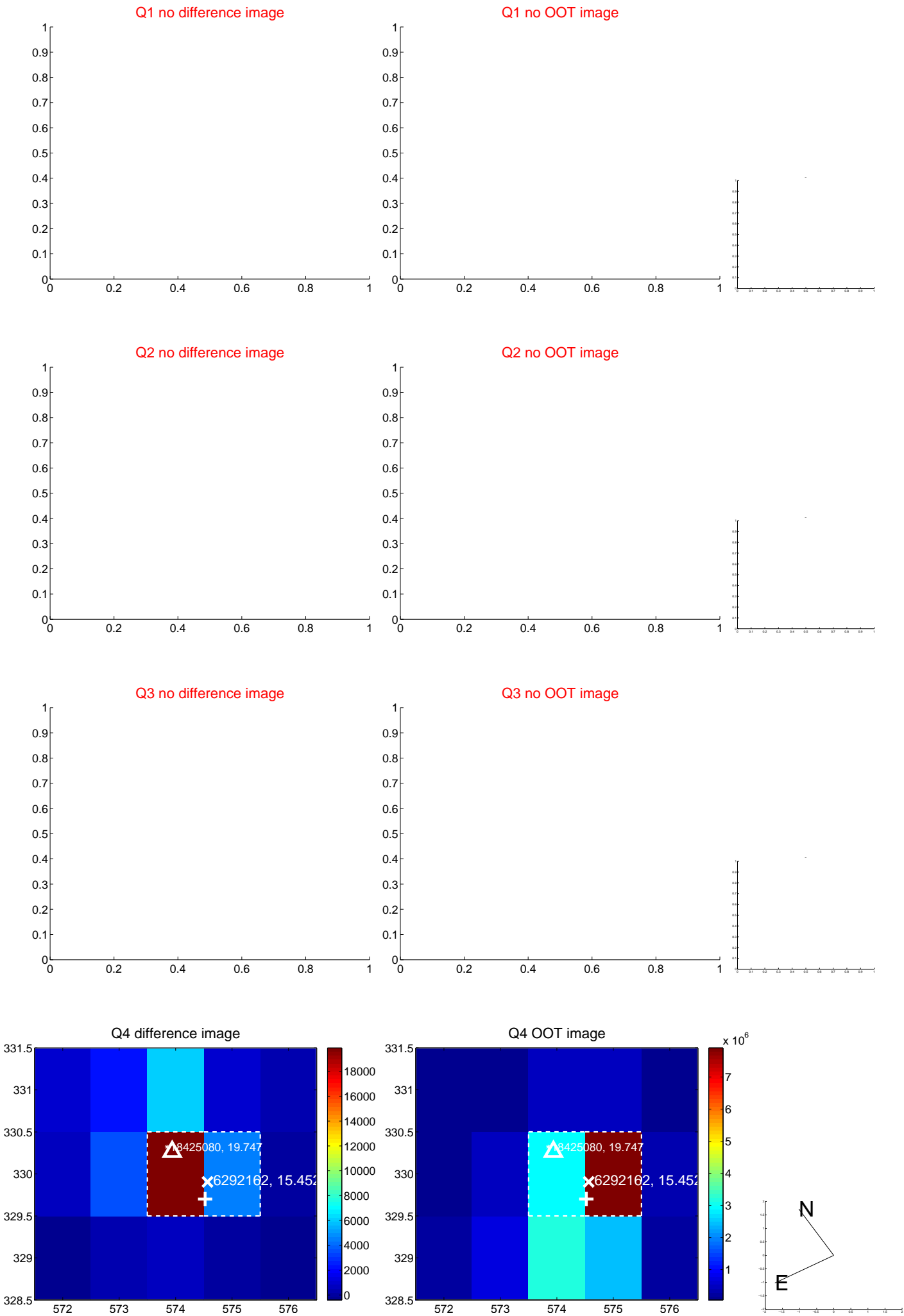


offset from photometric centroids

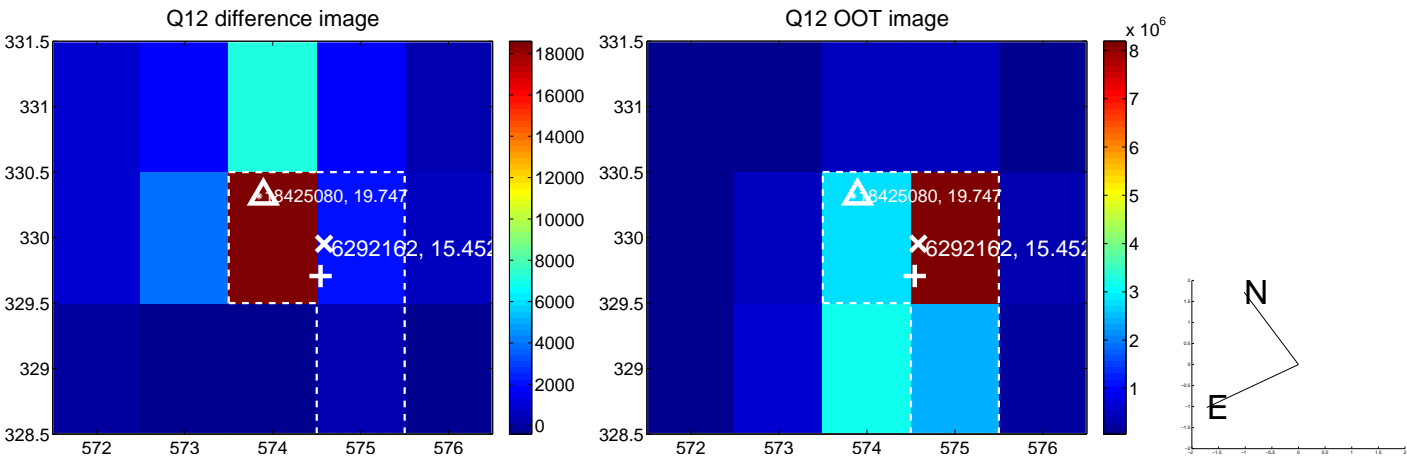
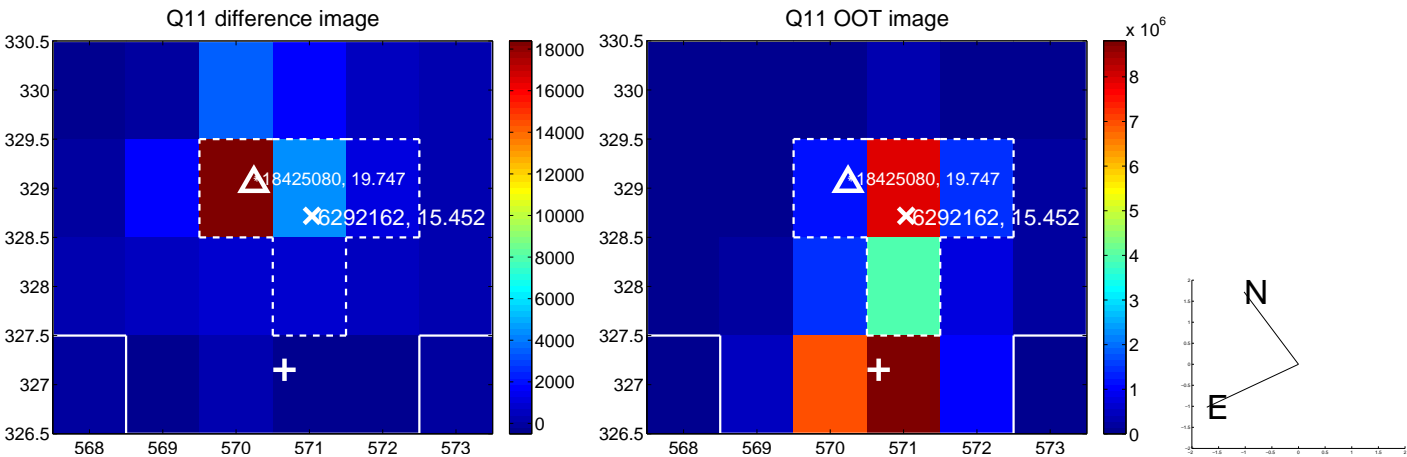
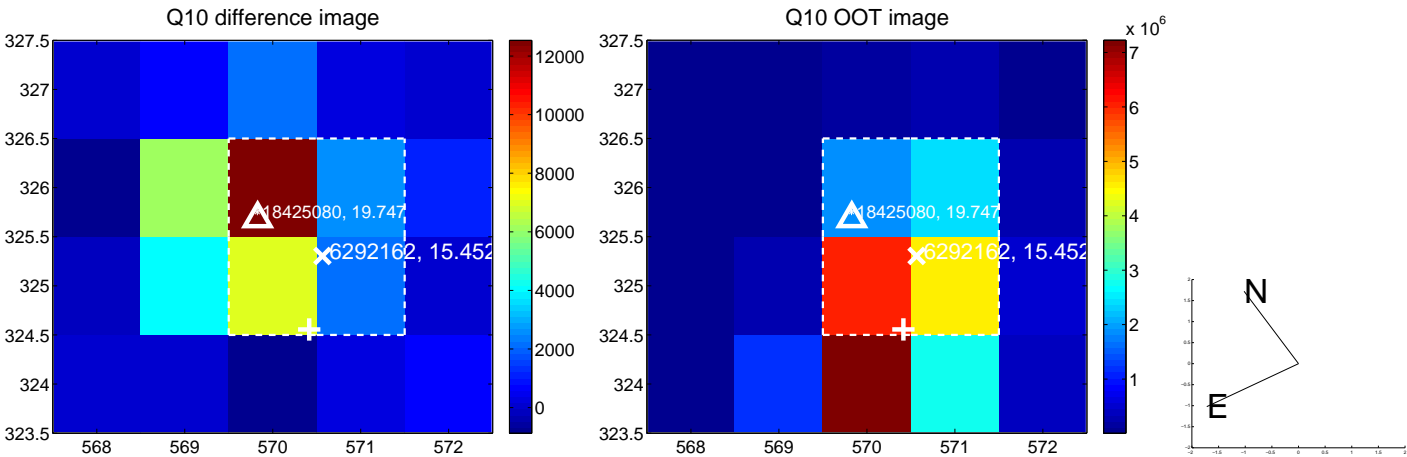
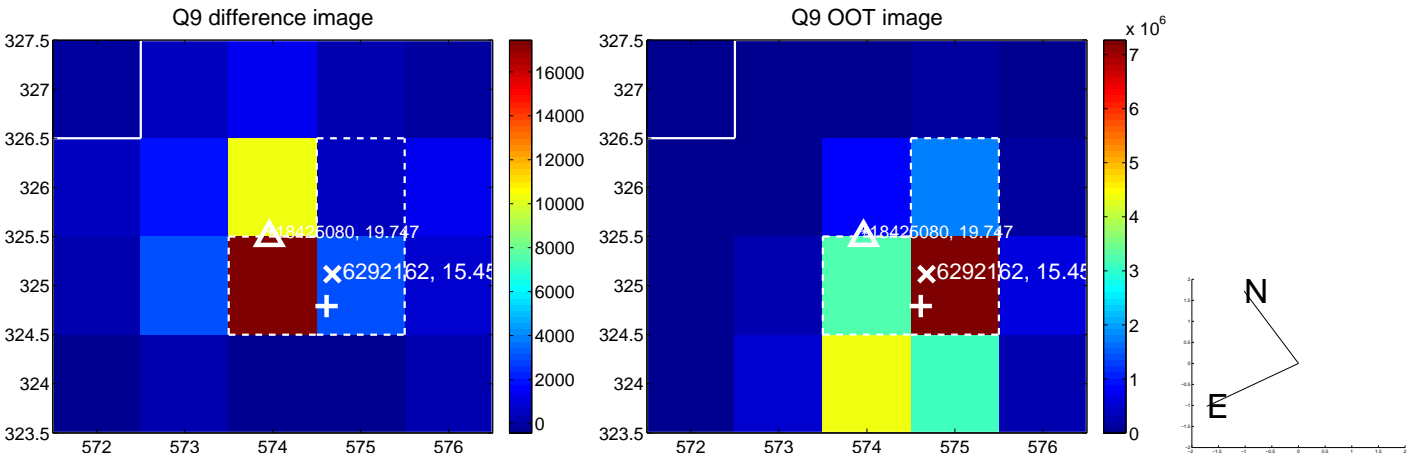


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

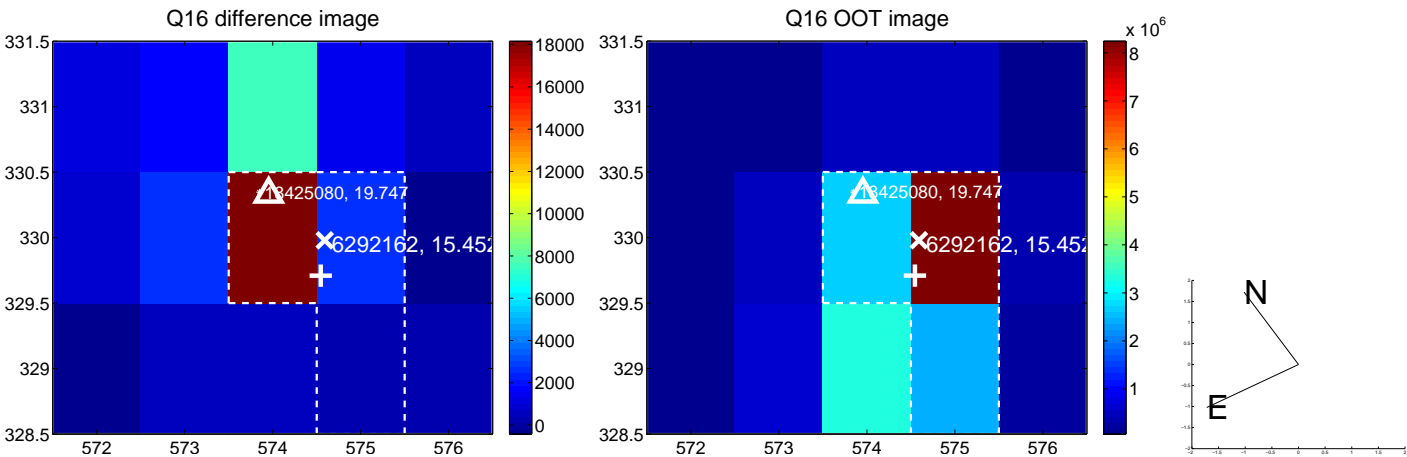
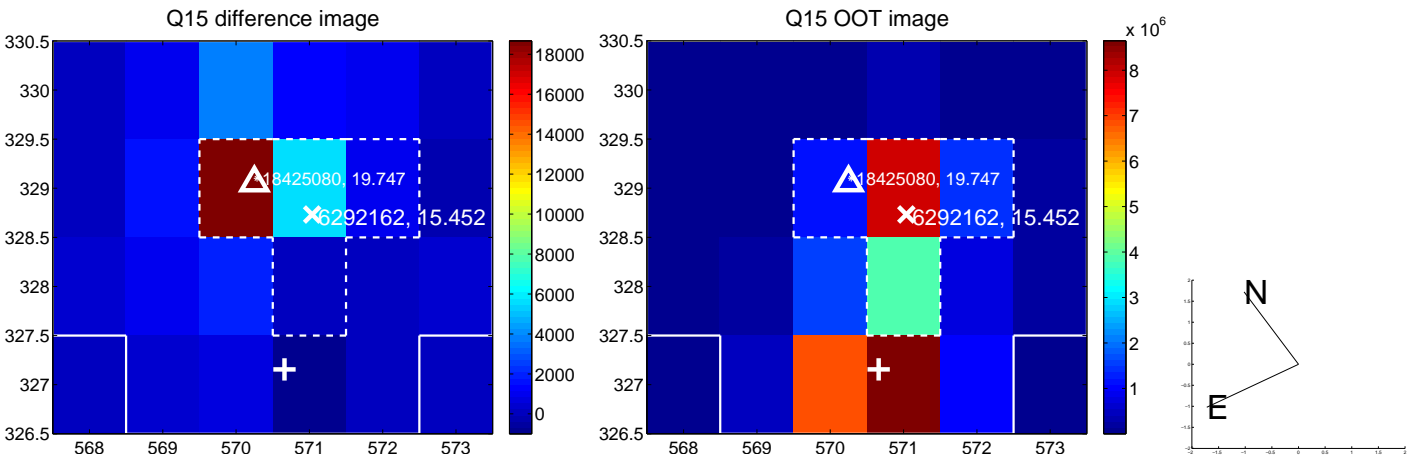
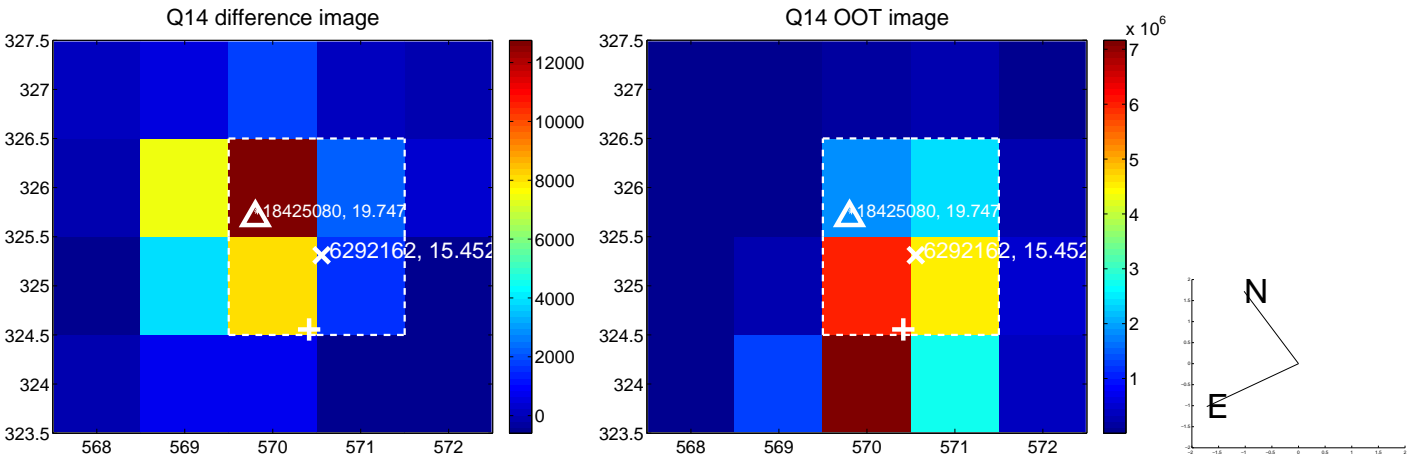
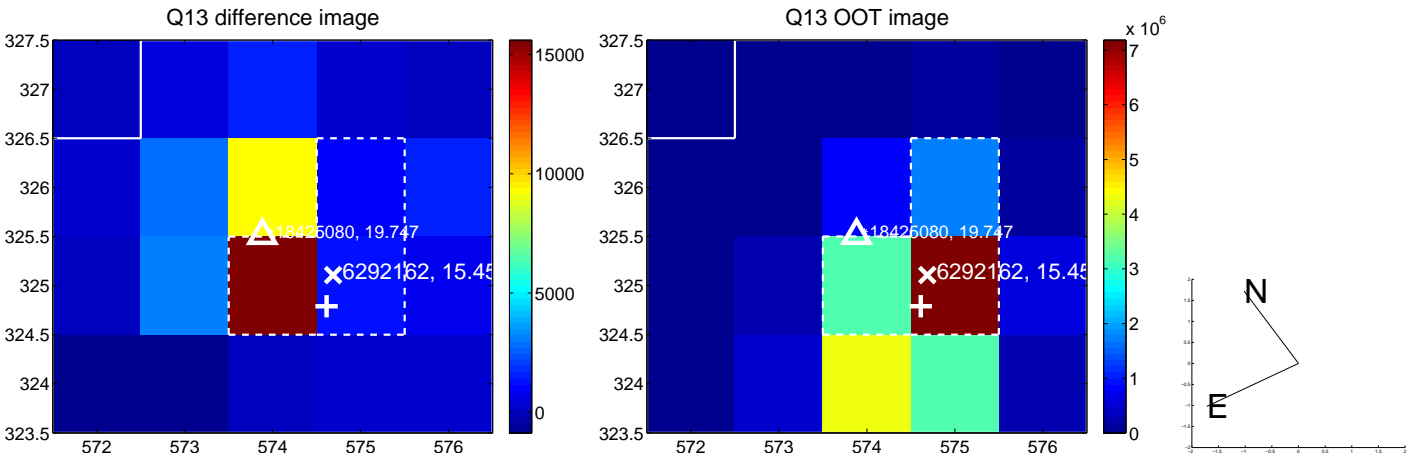
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



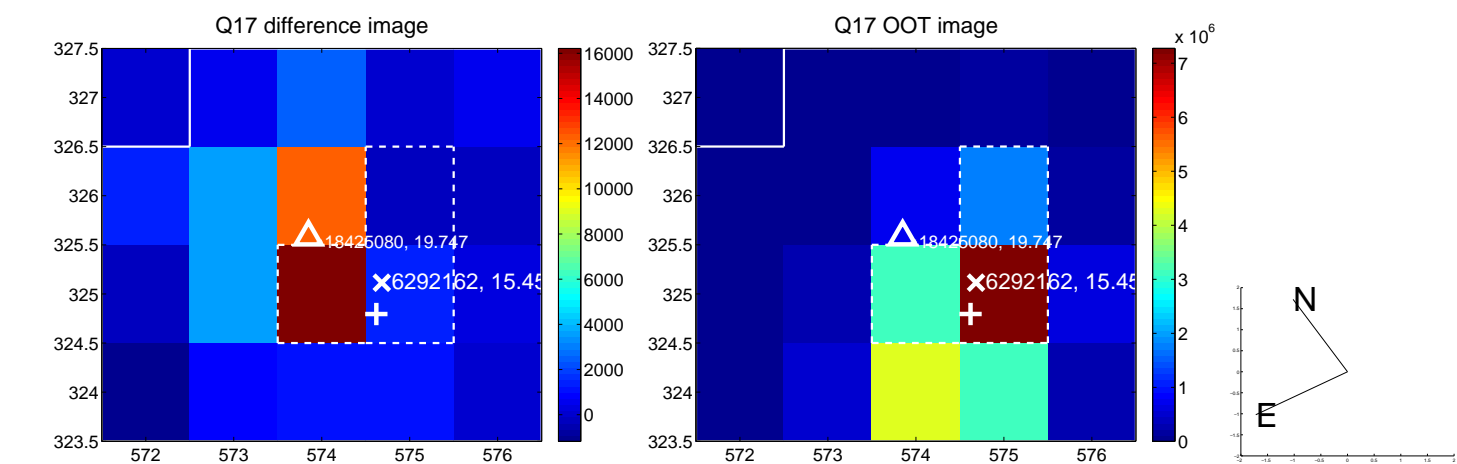
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



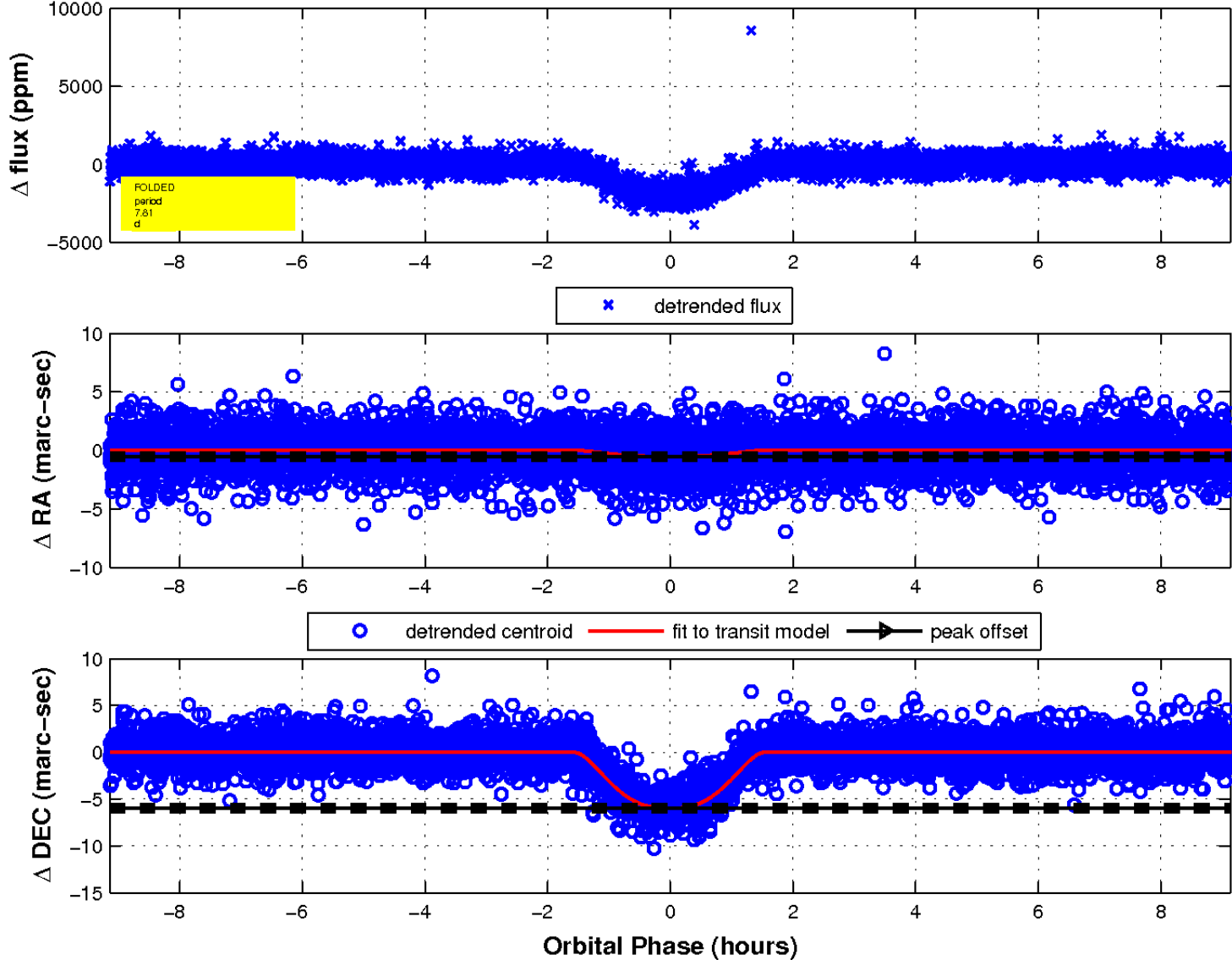
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

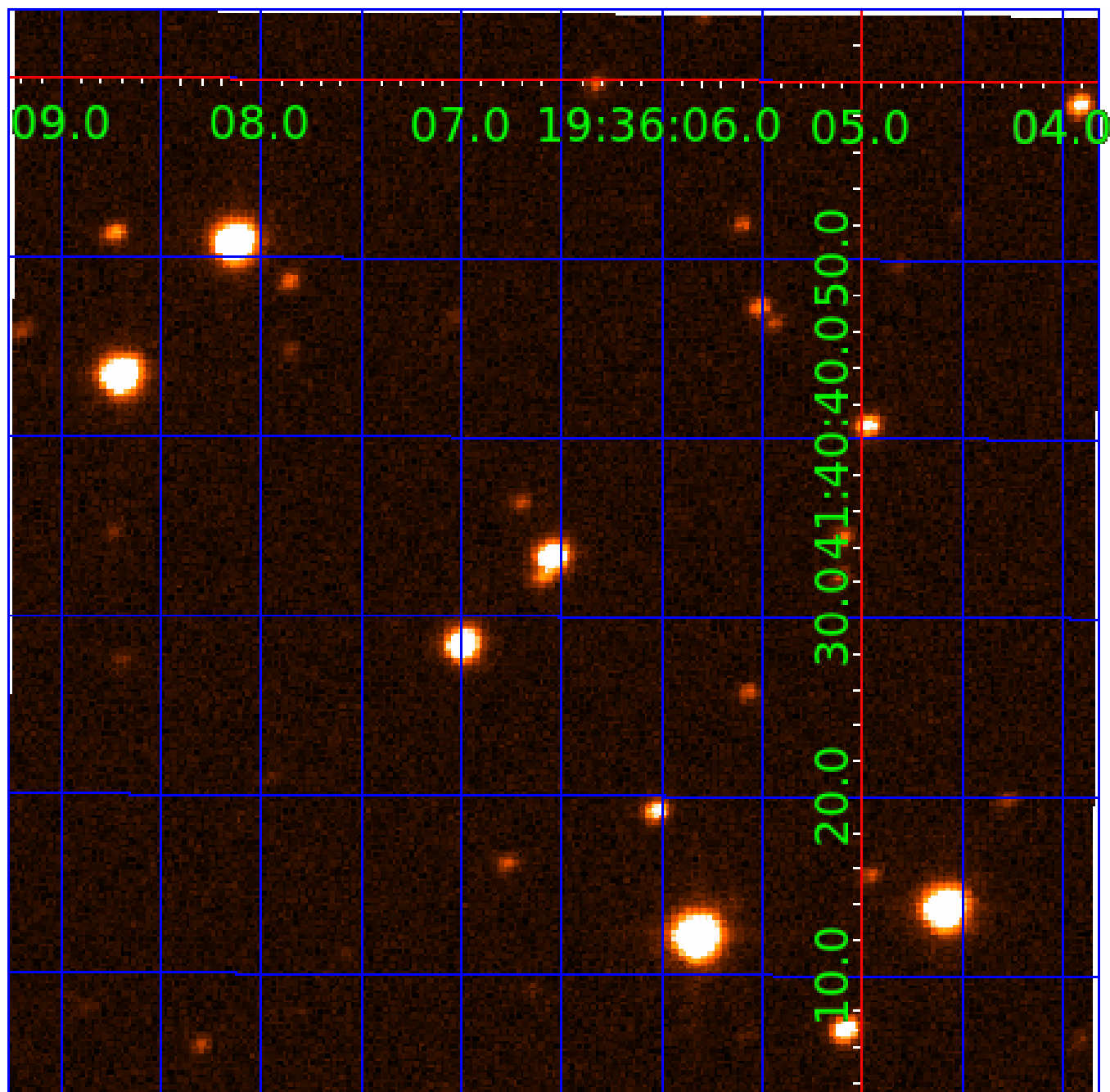


fluxWeightedCentroids, Planet 1 of 2



UKIRT Image

Declination



KIC 006292162

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})
006292162-01	OBS	1125.01	7.814842	138.704394	2013.4	3.047	92.3	95.5	0.93	5887	5.29	157.23
006292162-02	OBS	No	7.814823	134.793438	312.4	3.514	16.7	17.2	0.93	5887	2.20	157.23

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006292162-01	OBS	FP	0.00	0	1	0	0	MOD_SEC_DV—MOD_SEC_ALT—HAS_SEC_TCE—CENT_KIC_POS
006292162-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE—CENT_KIC_POS

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.

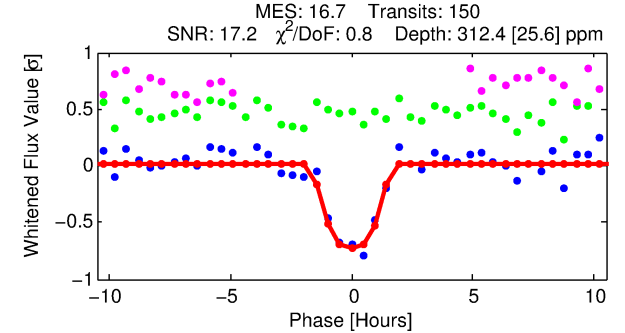
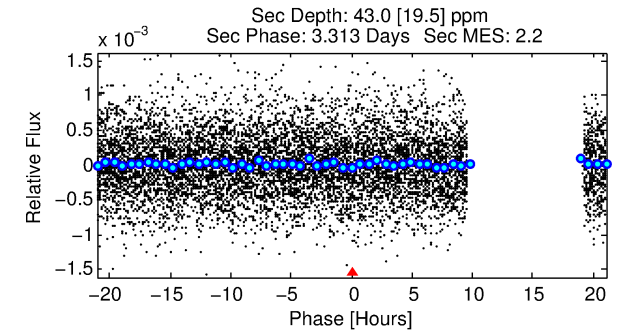
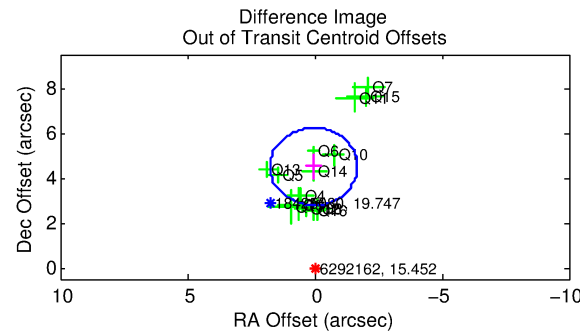
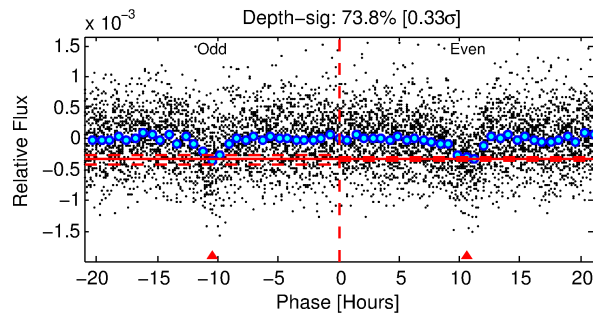
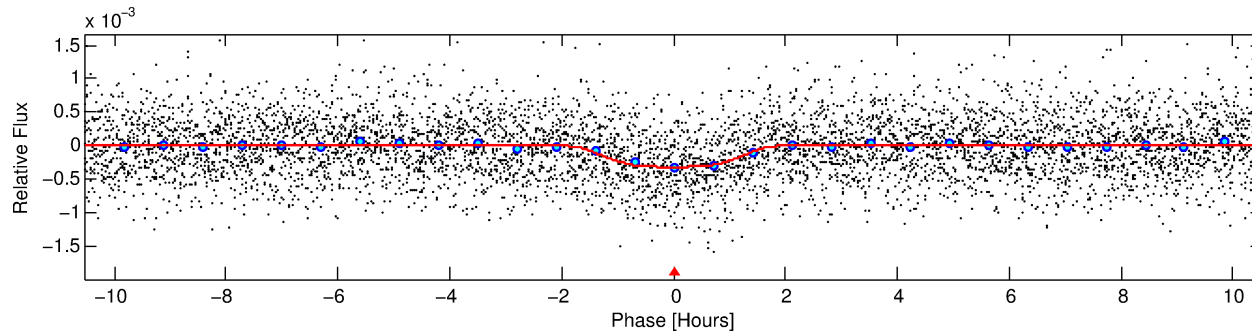
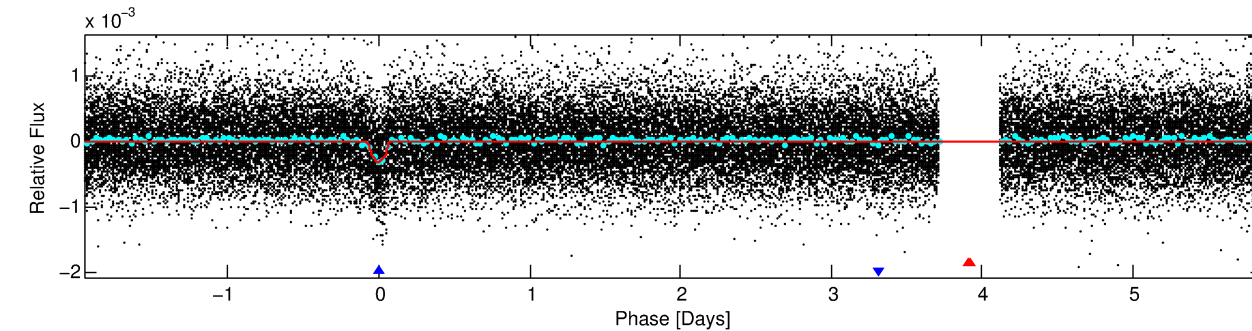
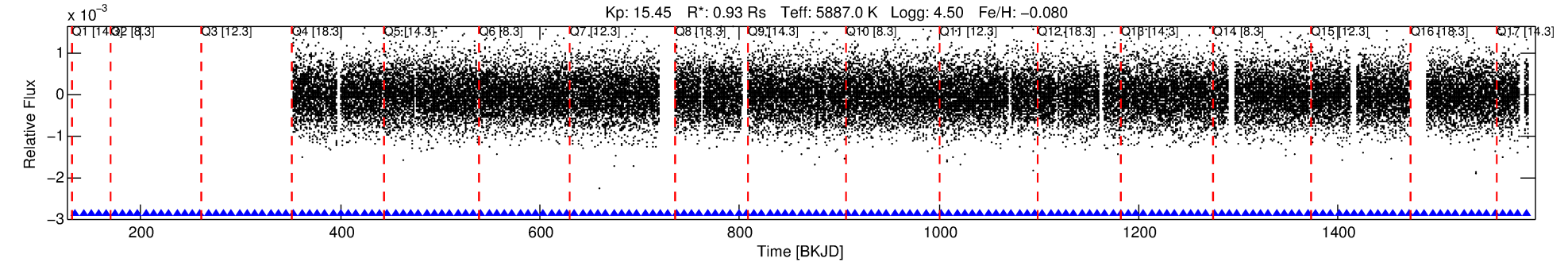
Ephemeris Match Information For 006292162-02

No Significant Match Found

DV One-Page Summary

KIC: 6292162 Candidate: 2 of 2 Period: 7.815 d
KOI: K01125 Corr: No Ephemeris Match

Kp: 15.45 R*: 0.93 Rs Teff: 5887.0 K Logg: 4.50 Fe/H: -0.080



DV Fit Results:

Period = 7.81482 [0.00006] d
Epoch = 134.7934 [0.0061] BKJD
Rp/R* = 0.0216 [0.0014]
a/R* = 5.38 [0.89]
b = 0.97 [0.01]
Seff = 157.23 [64.17]
Teq = 903 [92] K
Rp = 2.20 [0.72] Re
a = 0.0770 [0.0205] AU
Ag = 29.06 [17.68] [1.59σ]
Teffp = 3241 [399] K [5.71σ]

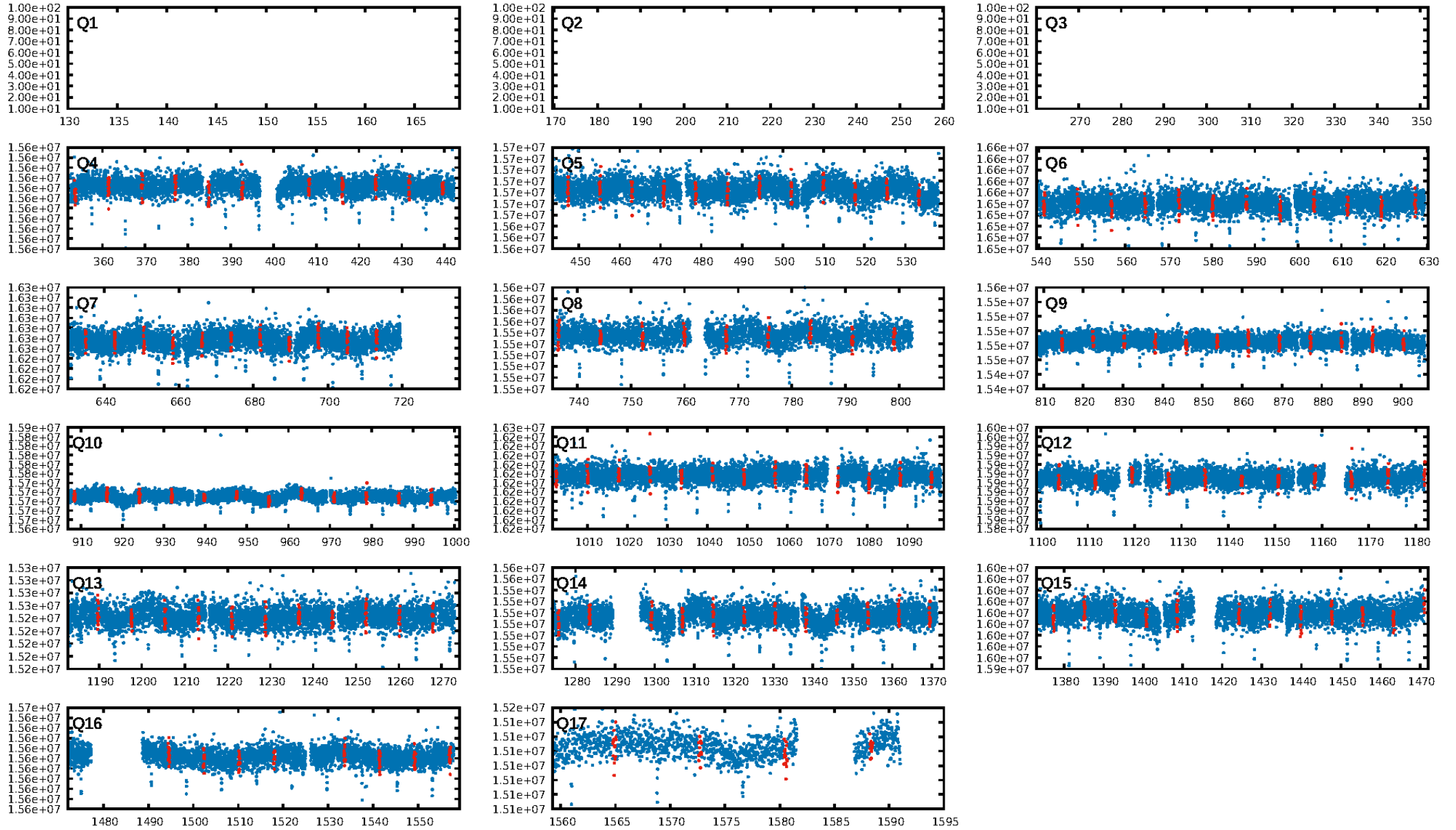
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 0.0% [0.00σ]
ModelChiSquare2-sig: 100.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 6.00e-62
RollingBand-fgt: 1.00 [146/146]
GhostDiagnostic-chr: 1.522
Centroid-sig: 0.0%
Centroid-so: 3.302 arcsec [5.92σ]
OotOffset-rm: 4.502 arcsec [7.85σ]
KicOffset-rm: 3.255 arcsec [13.71σ]
OotOffset-st: 3/3/4/4 [14]
KicOffset-st: 3/3/4/4 [14]
DiffImageQuality-fgm: 1.00 [14/14]
DiffImageOverlap-fno: 1.00 [14/14]

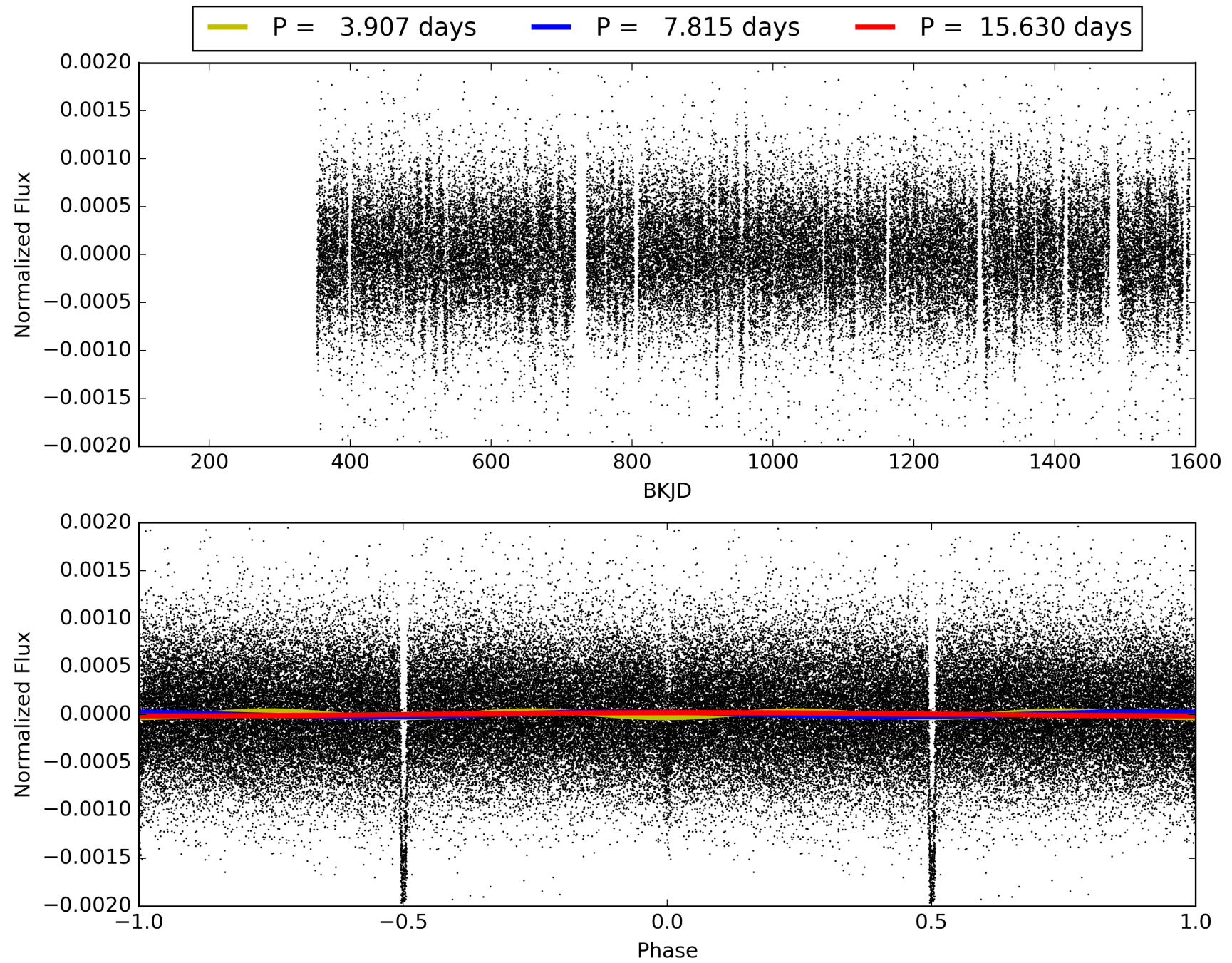
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 21:10:39 Z

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

TCE 006292162-02, PDC Light Curves

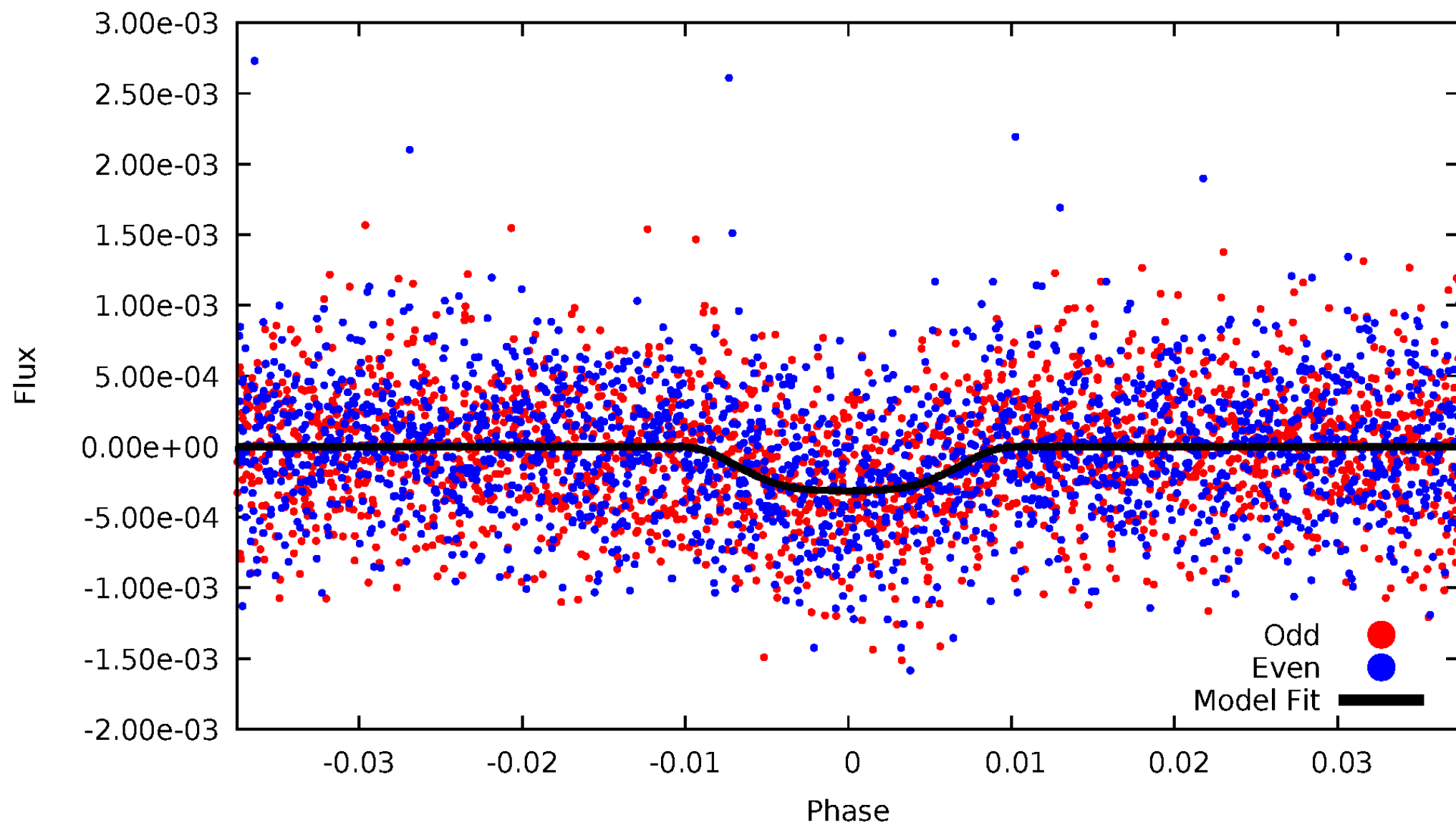


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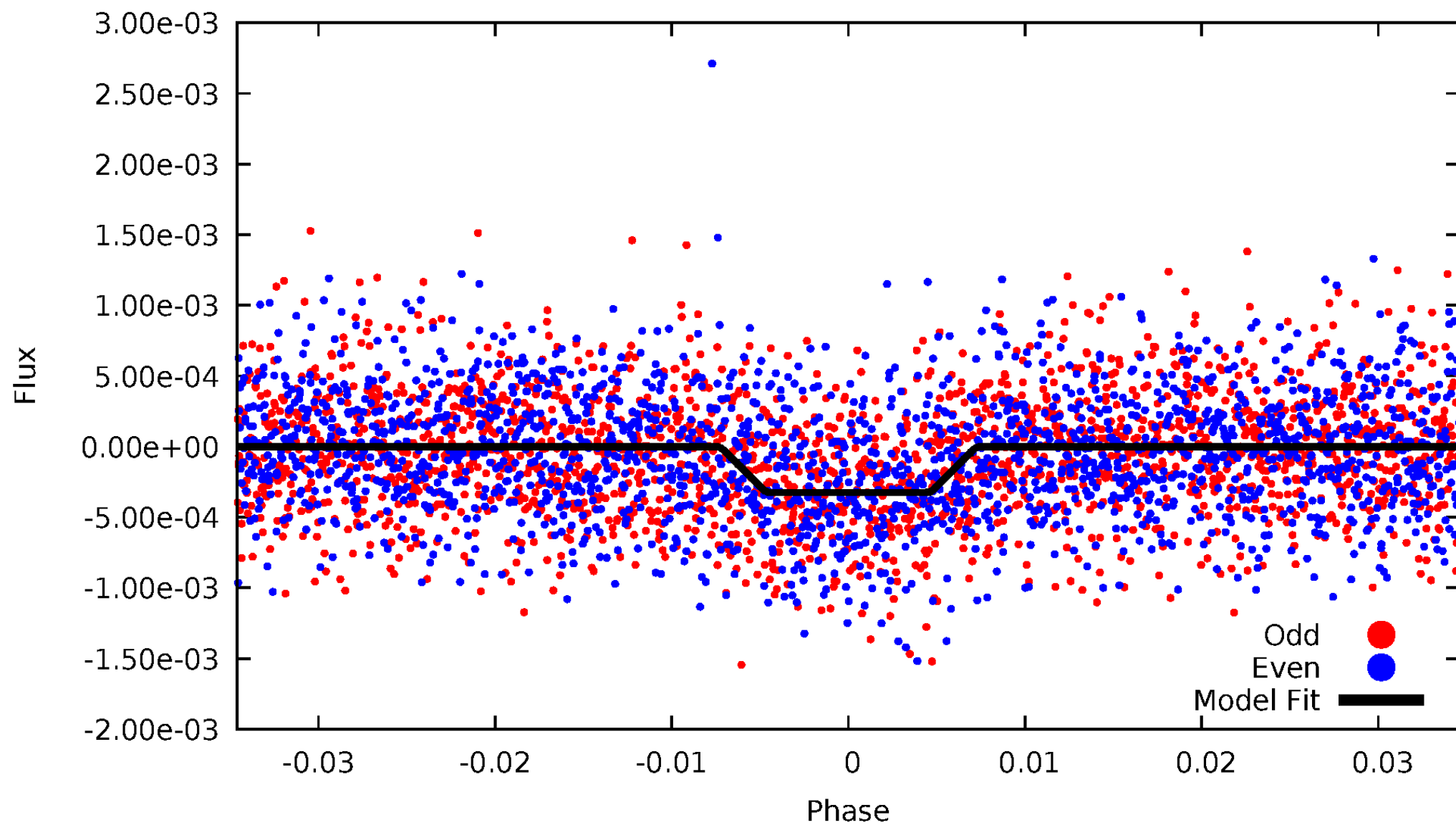
DV Odd/Even

TCE 006292162-02



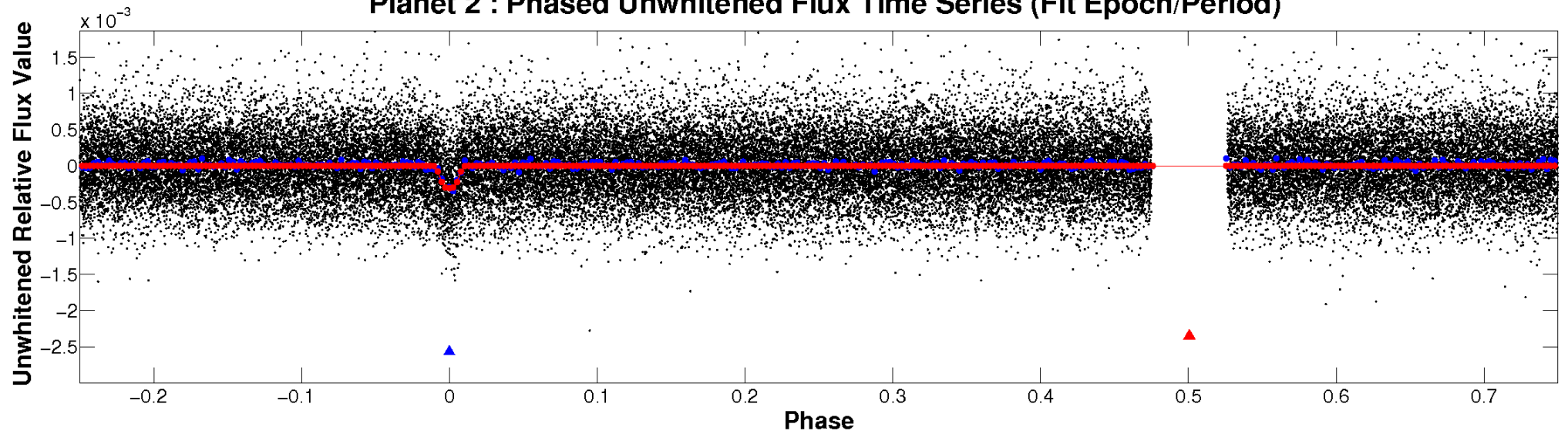
ALT Odd/Even

TCE 006292162-02

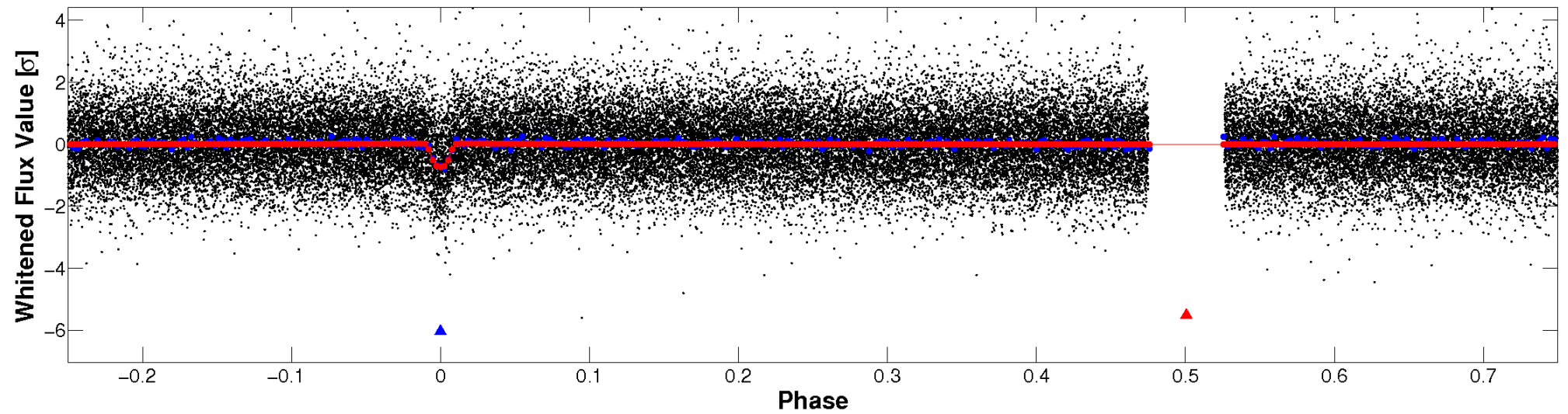


Non-Whitened Vs. Whitened Light Curve

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

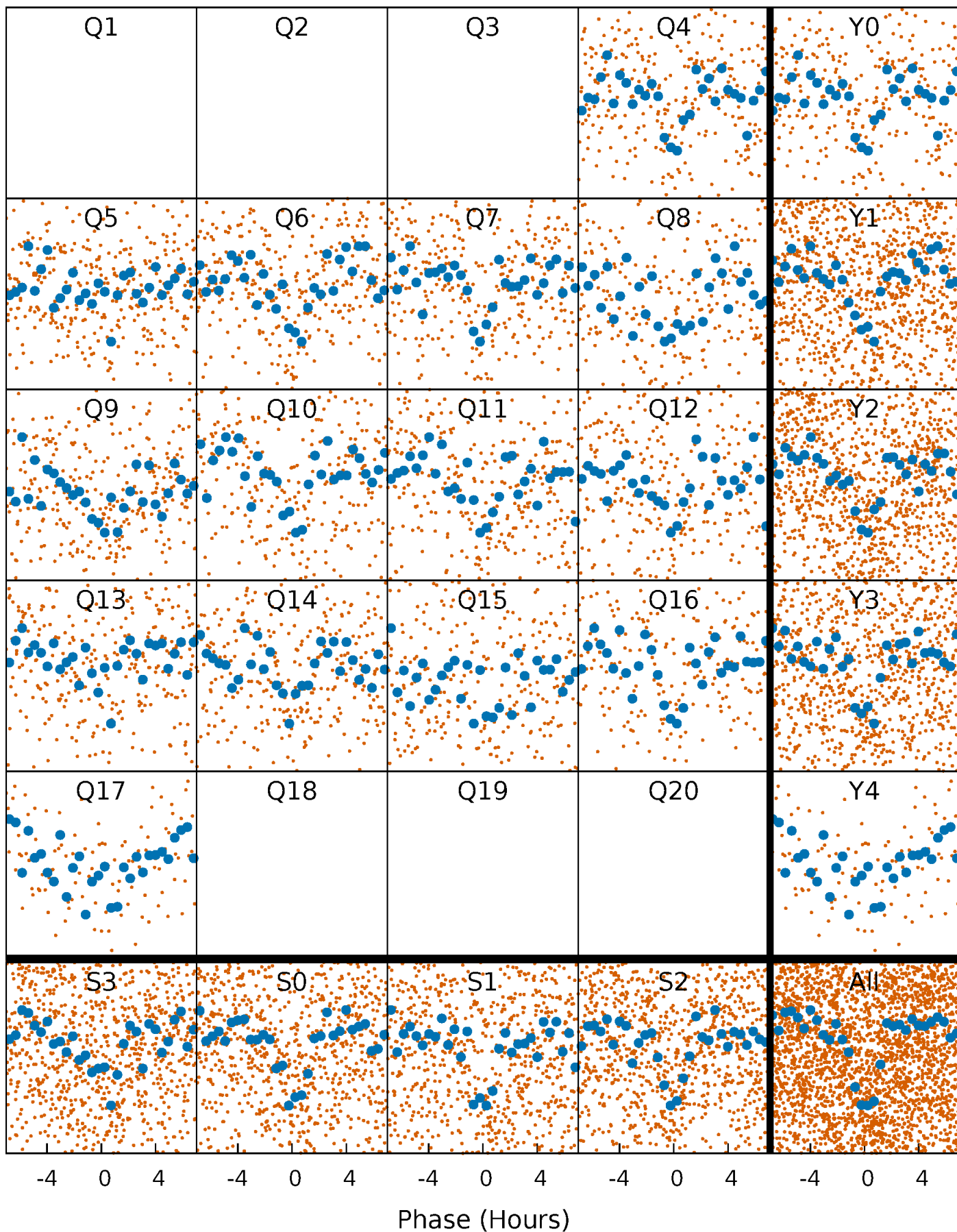


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



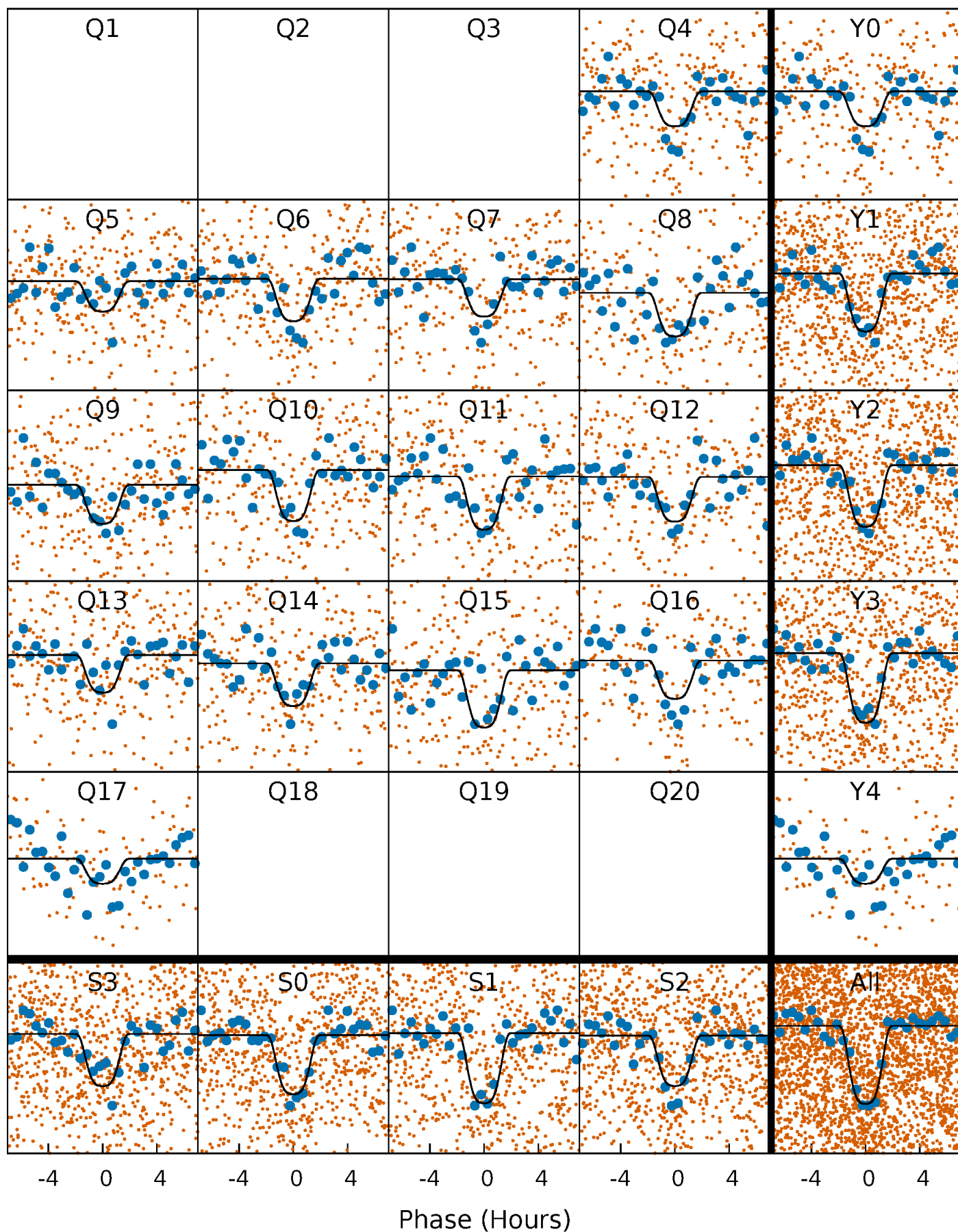
PDC Quarter-Phased Transit Curves

TCE 006292162-02 P= 7.814823 Days $T_0=134.793438$ (BKJD)



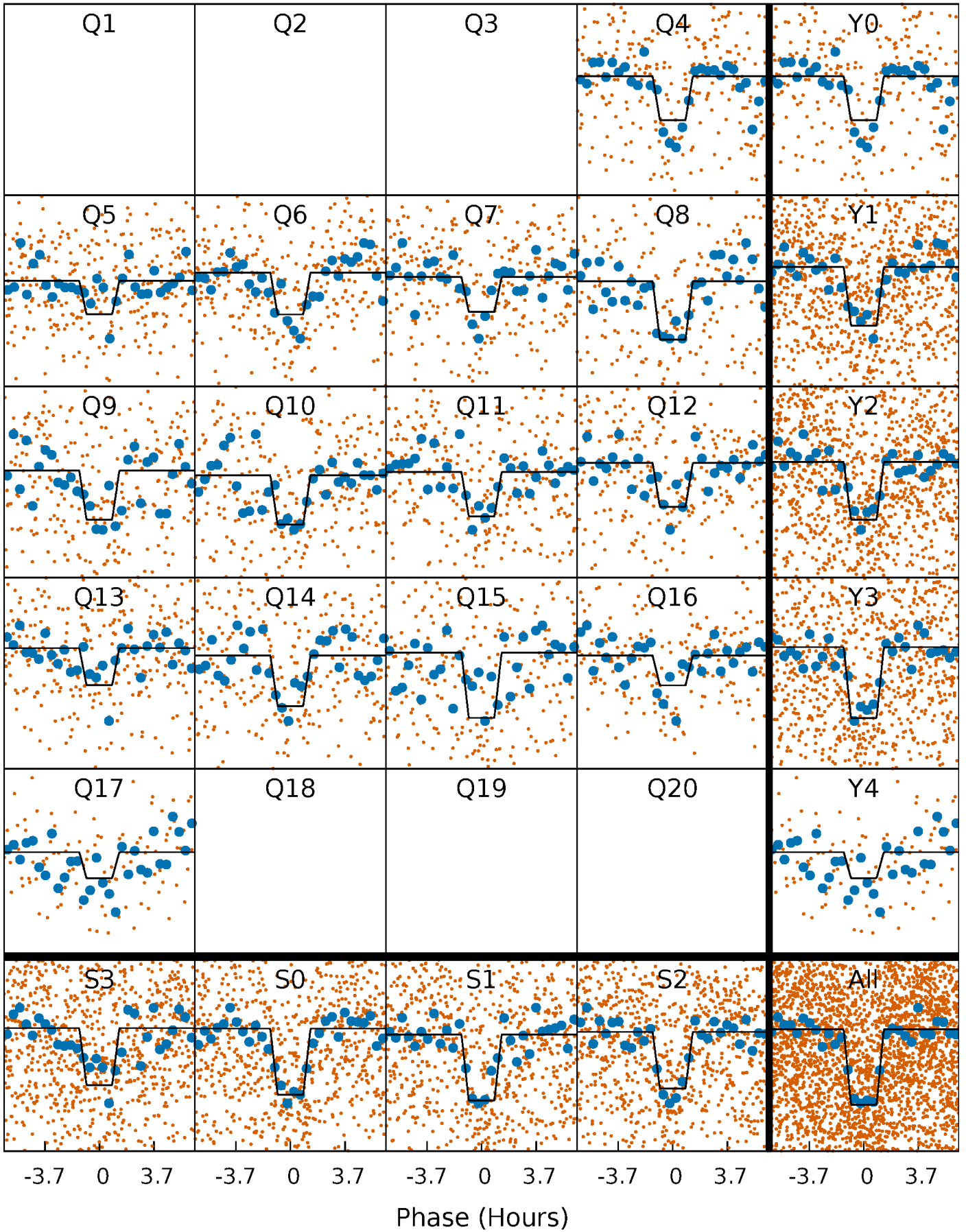
DV Quarter-Phased Transit Curves

TCE 006292162-02 $P = 7.814823$ Days $T_0 = 134.793438$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

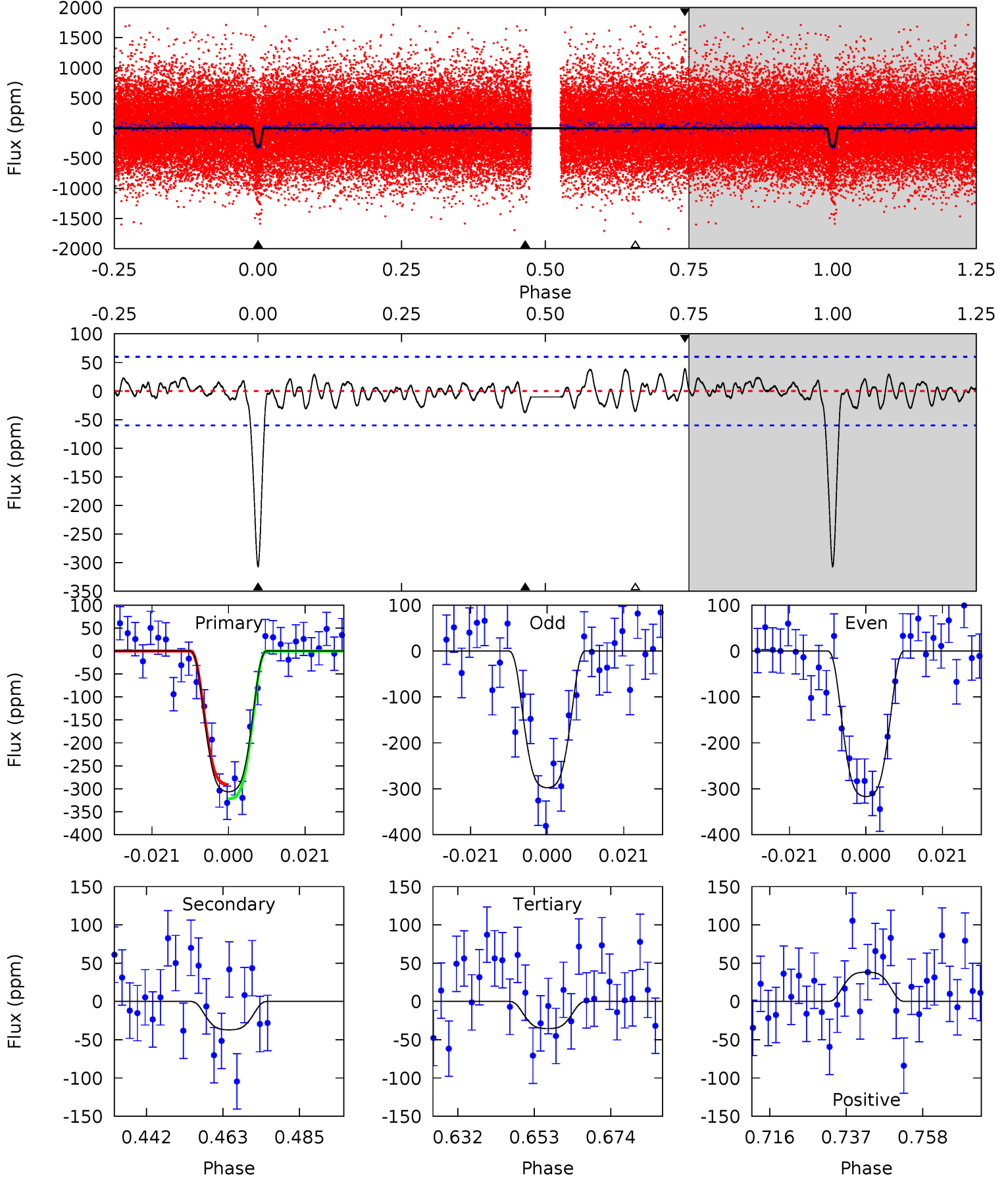
TCE 006292162-02 P= 7.814878 Days $T_0=134.790250$ (BKJD)



DV Model-Shift Uniqueness Test

006292162-02, P = 7.814823 Days, E = 134.793438 Days

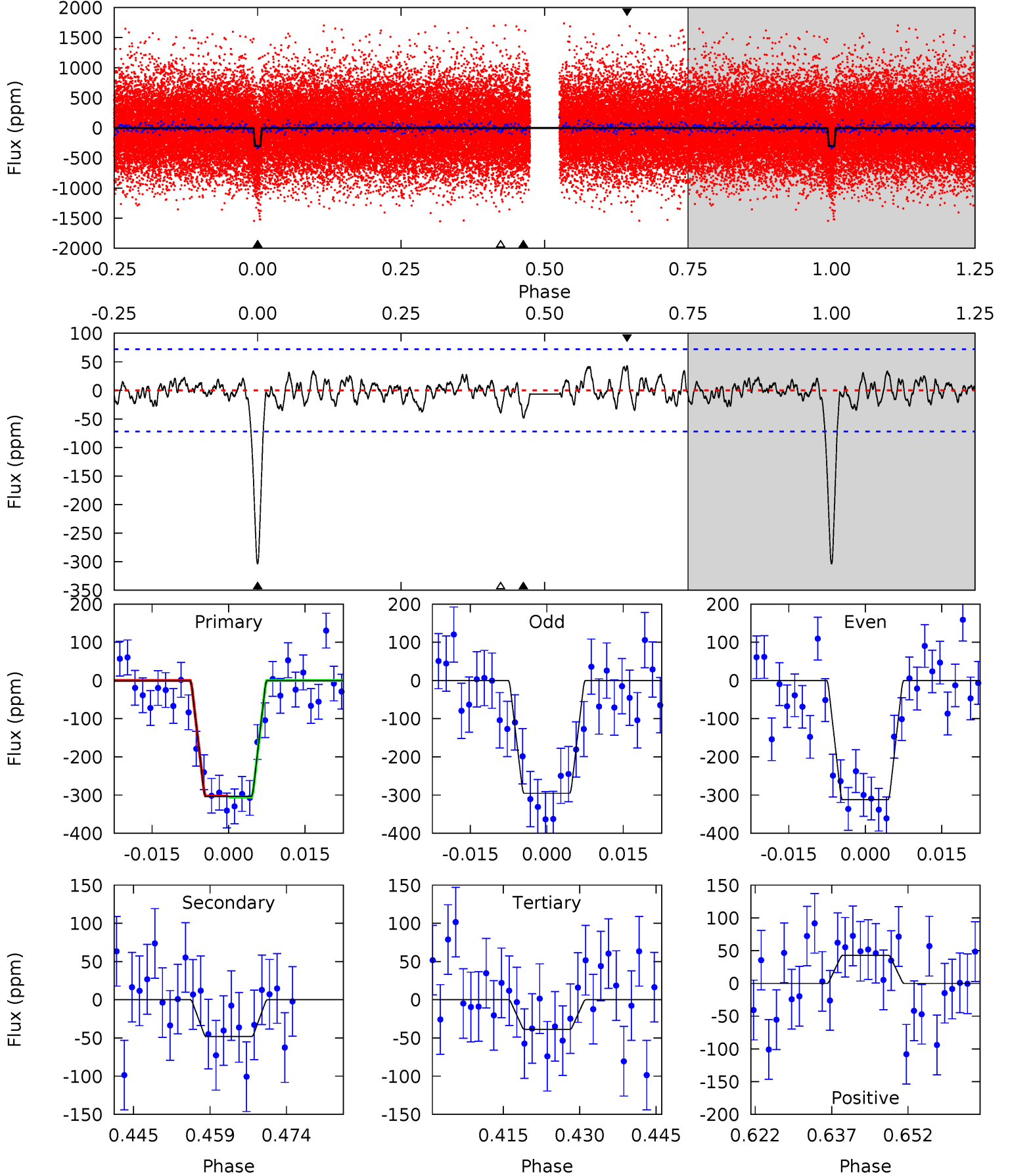
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
25.0	3.02	2.89	3.12	4.88	2.31	1.16	22.1	21.8	0.13	-0.10	0.79	0.97	0.11	1.26



Alt Model-Shift Uniqueness Test

006292162-02, P = 7.814878 Days, E = 134.790250 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
20.9	3.31	2.66	2.96	4.95	2.44	1.03	18.2	17.9	0.64	0.35	0.57	1.00	0.12	0.10



Stellar Parameters For KIC 006292162

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5887^{+184}_{-205}	$4.499^{+0.052}_{-0.208}$	$-0.080^{+0.300}_{-0.300}$	$0.931^{+0.297}_{-0.099}$	$0.998^{+0.127}_{-0.127}$	$1.741^{+0.477}_{-0.891}$
	+3%/-3%	+1%/-5%	+375%/-375%	+32%/-11%	+13%/-13%	+27%/-51%
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 006292162-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-37 ± 12	$2.29^{+0.42}_{-0.25}$	1293^{+95}_{-67}	3563^{+205}_{-242}	22^{+10}_{-8}
Alt.	-48 ± 15	$1.92^{+0.31}_{-0.24}$	1286^{+99}_{-61}	3949^{+253}_{-253}	40^{+20}_{-14}

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

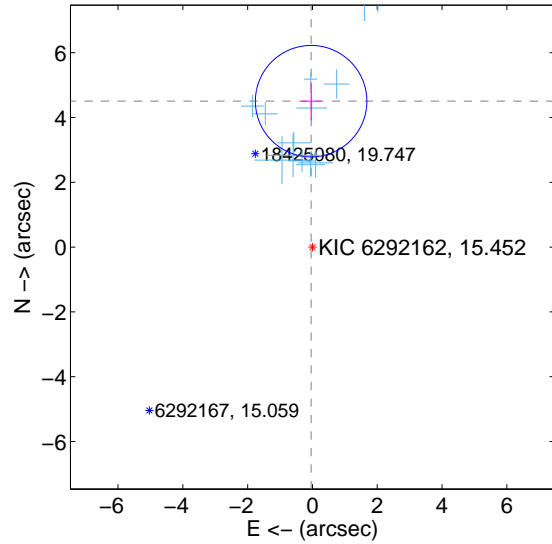
Supplemental centroid analysis for 006292162-02. Kepler magnitude: 15.45. Transit SNR 17.20

There are 14 quarters with good PRF difference image offsets

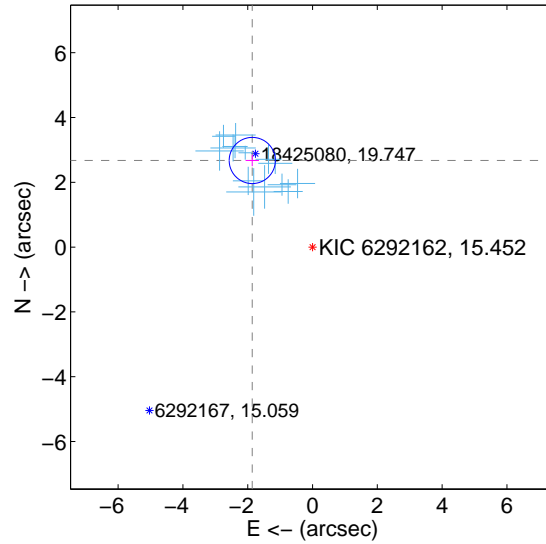
The direct PRF centroid is offset from the target star catalog position by about 1.31 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	4.502 ± 0.573	7.85	0.041 ± 0.304	4.502 ± 0.575
PRF-fit source offset from KIC position	3.255 ± 0.237	13.71	1.859 ± 0.207	2.672 ± 0.174
photometric centroid source offset	3.30 ± 0.56	5.92	1.73 ± 0.56	2.81 ± 0.56

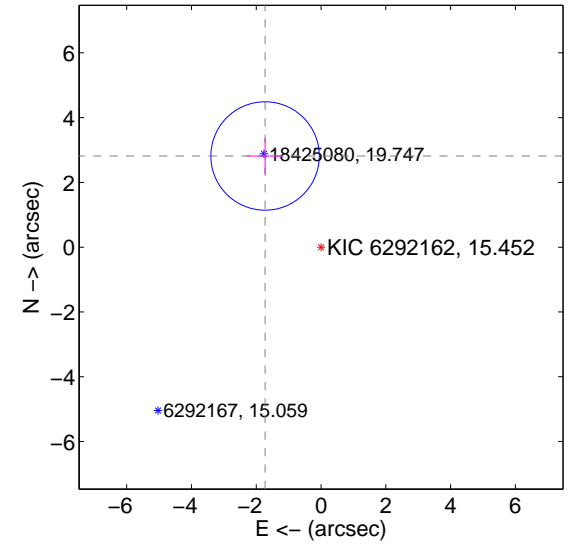
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

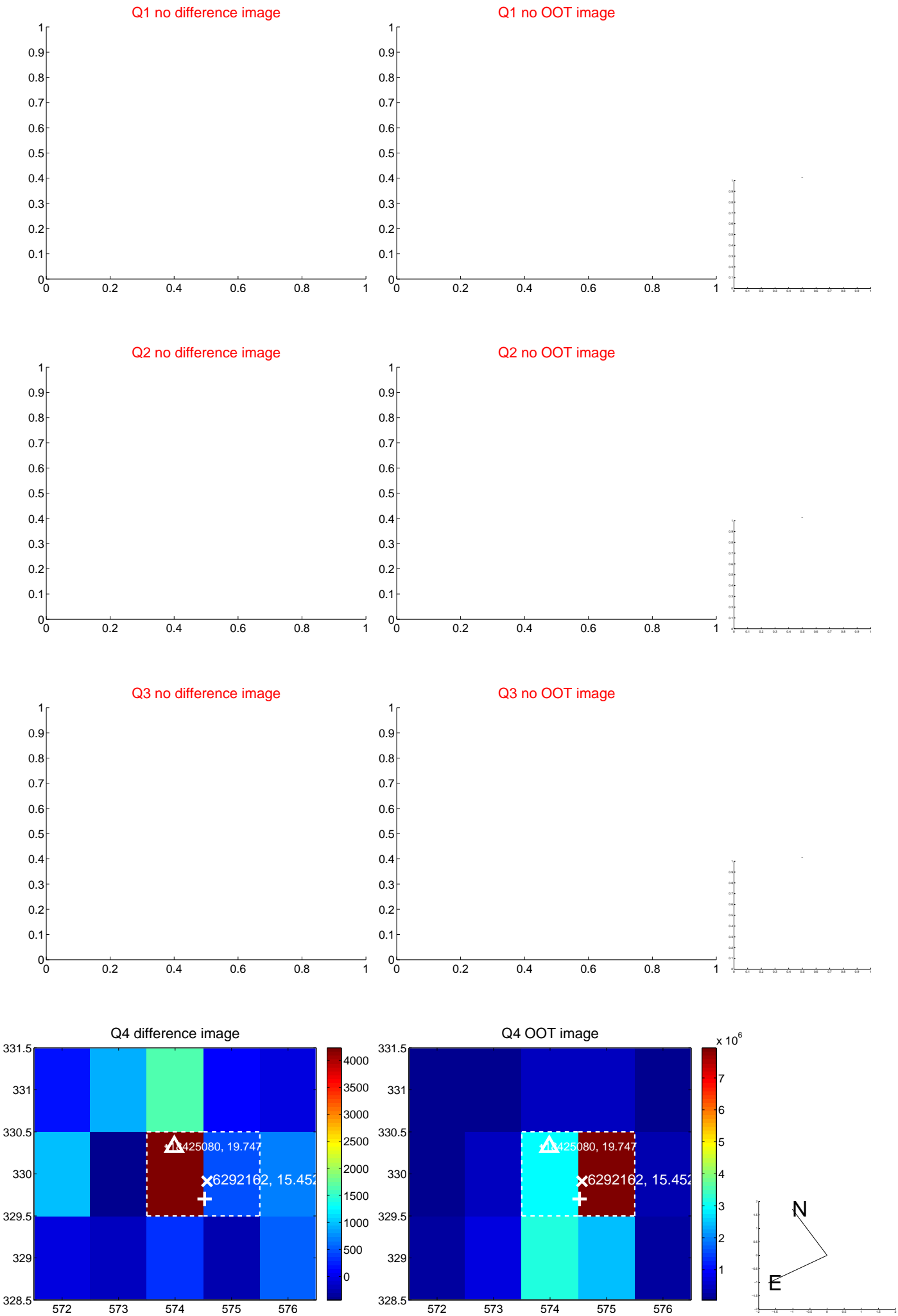


offset from photometric centroids

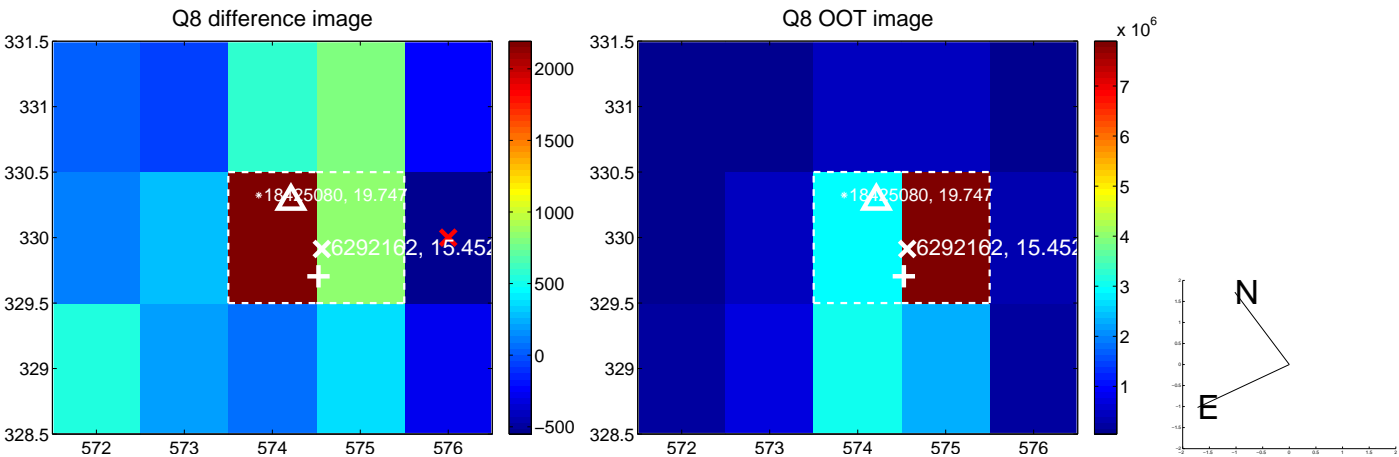
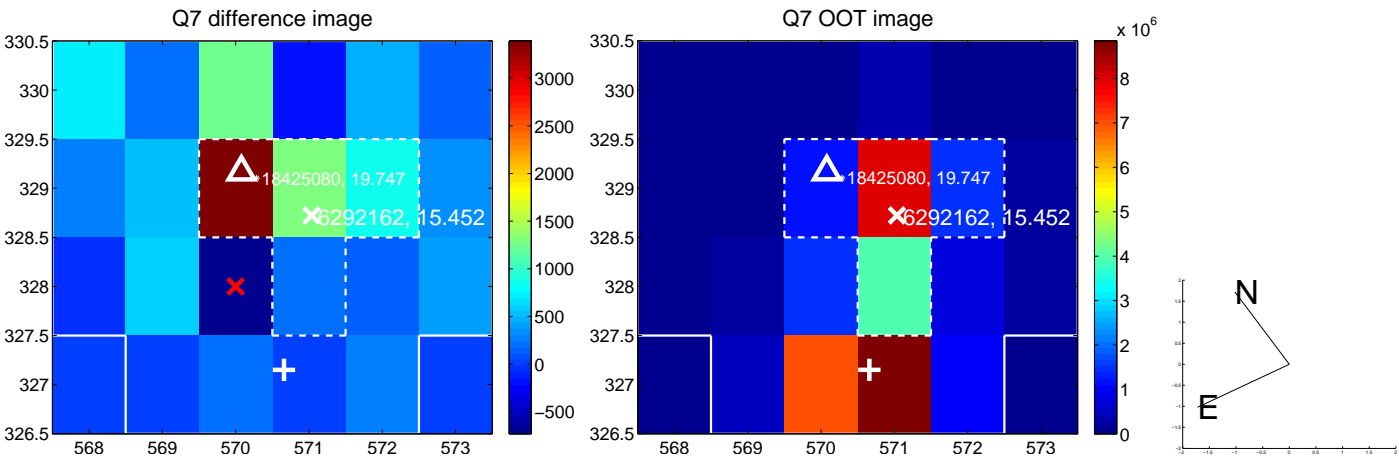
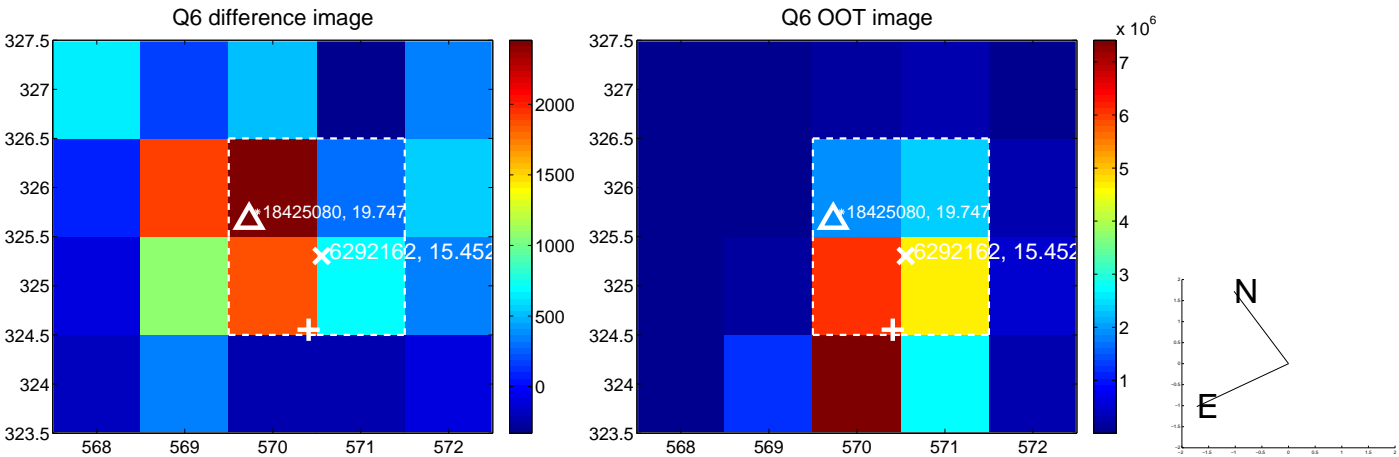
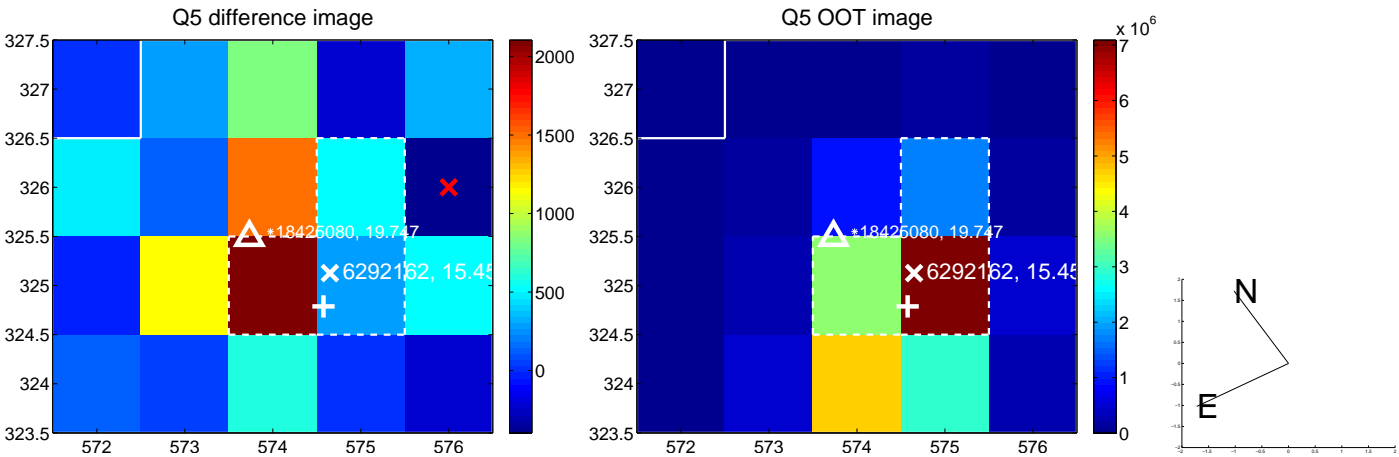


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

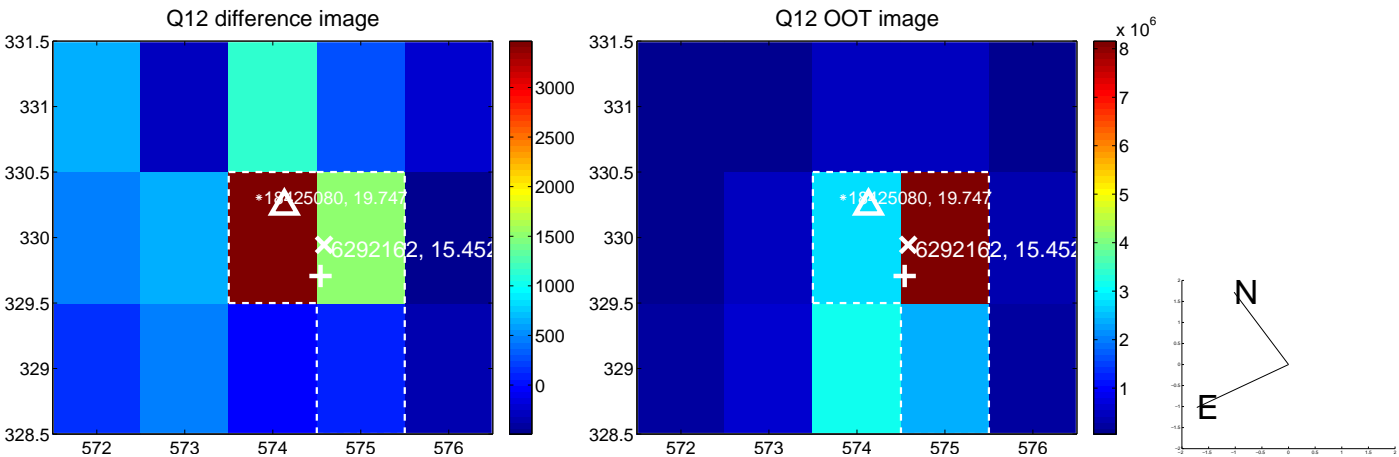
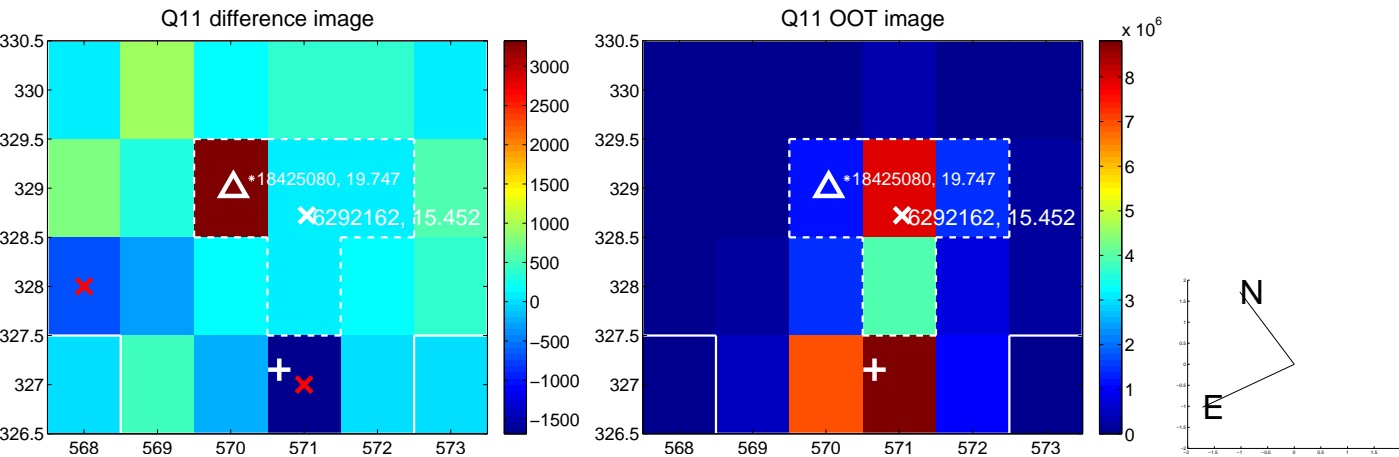
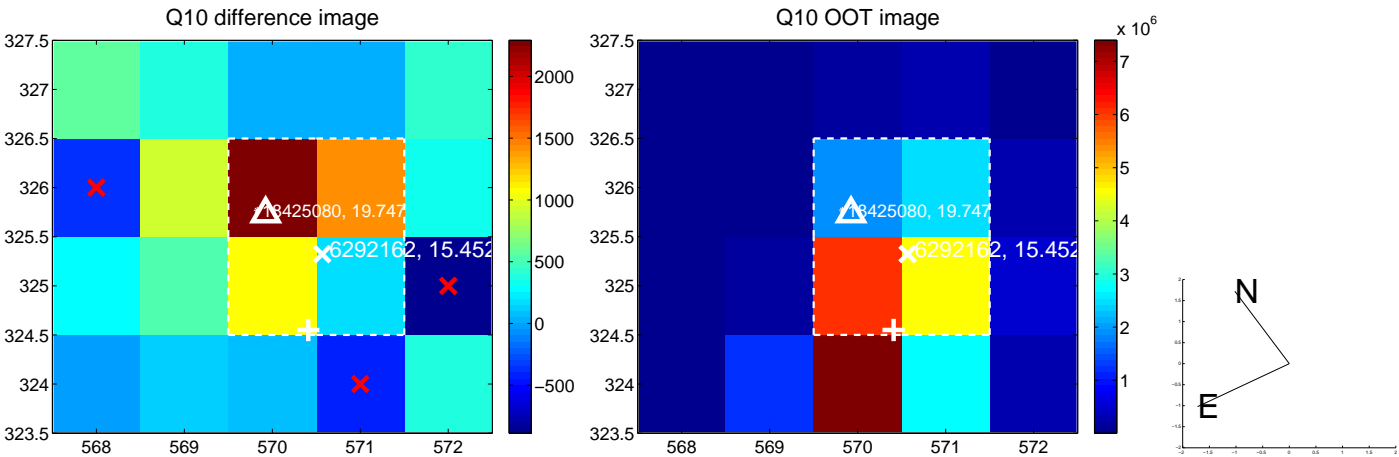
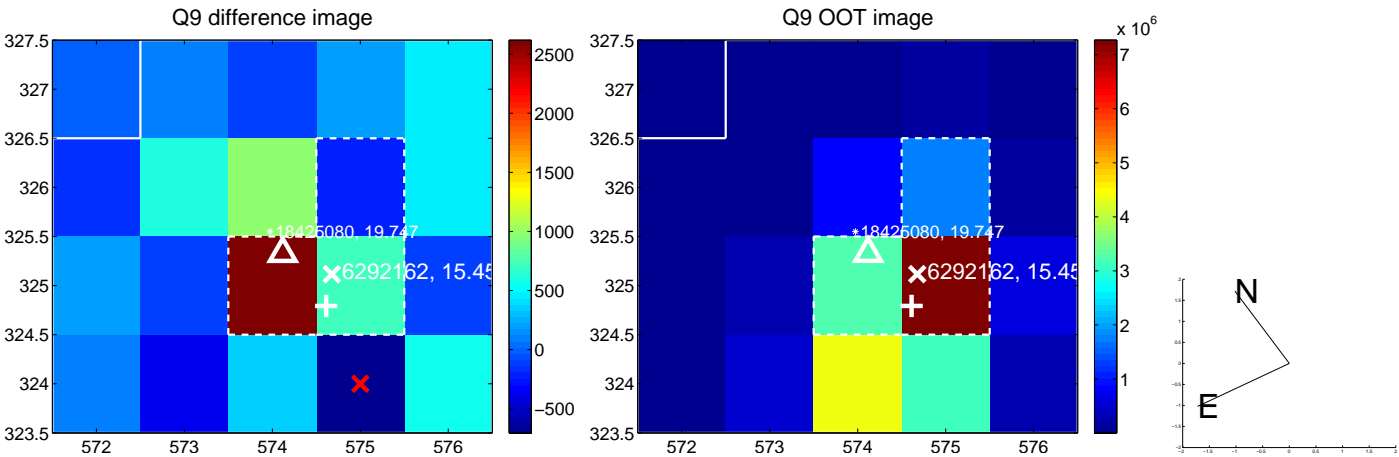
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



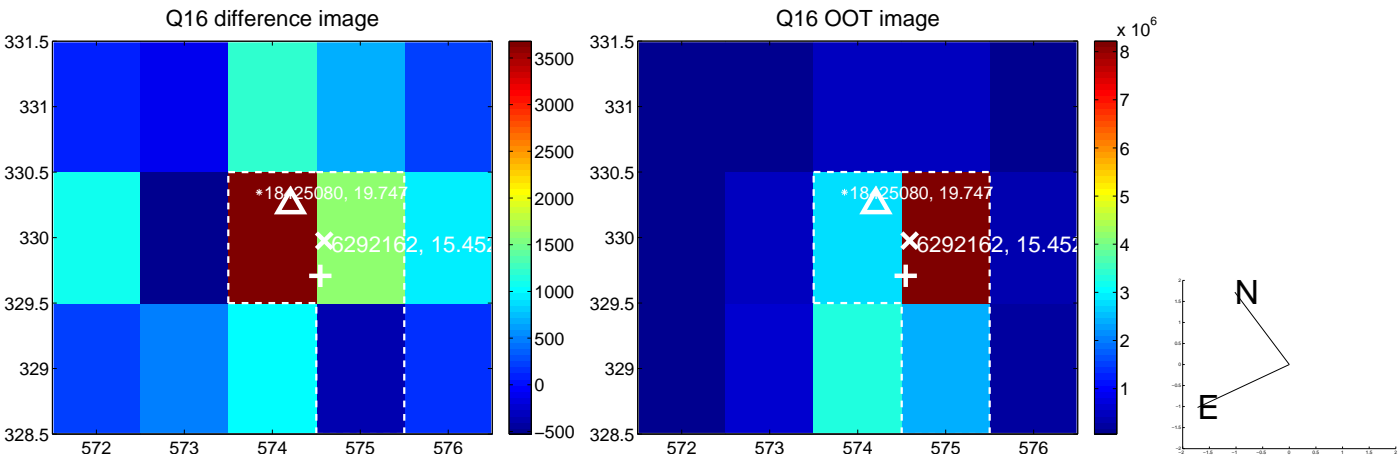
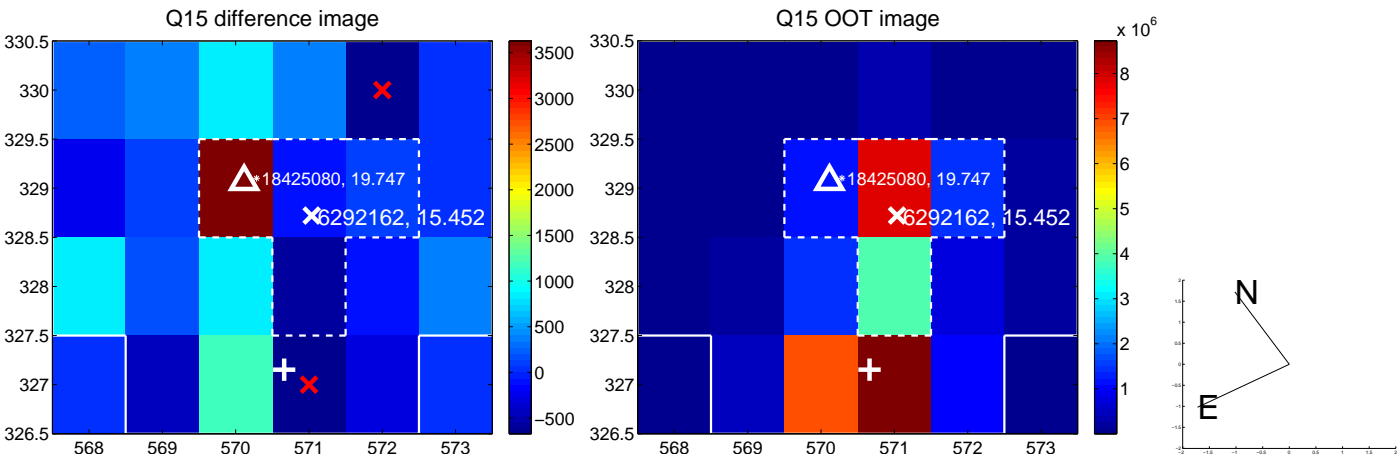
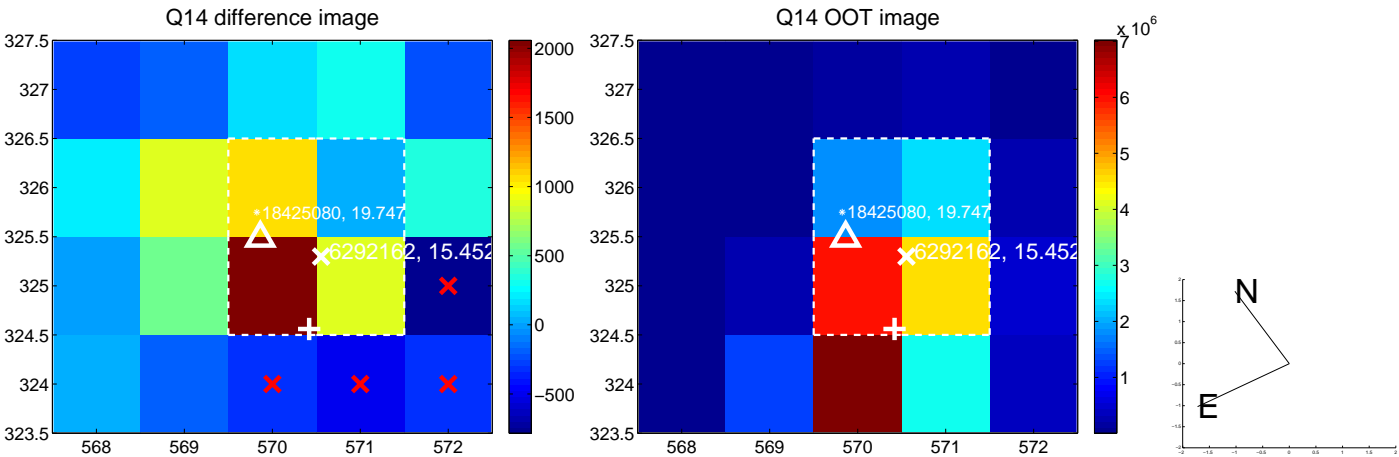
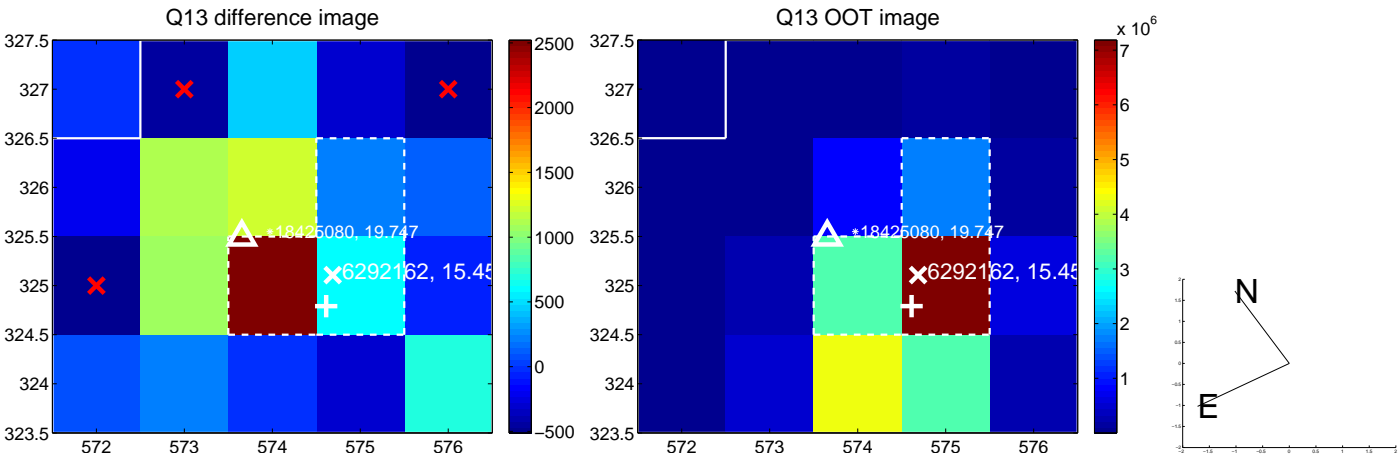
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



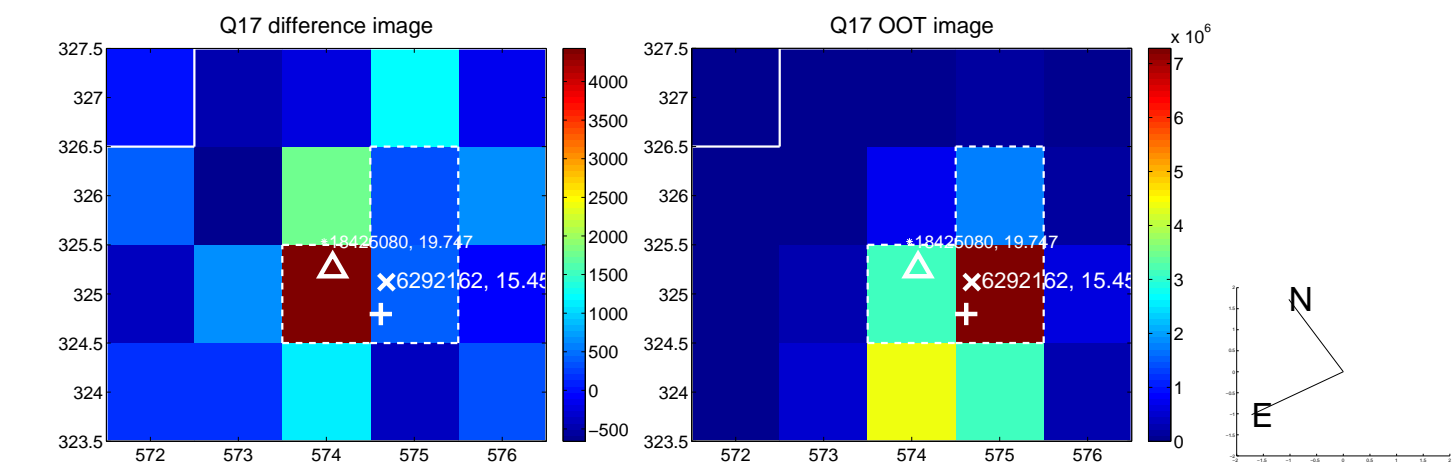
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



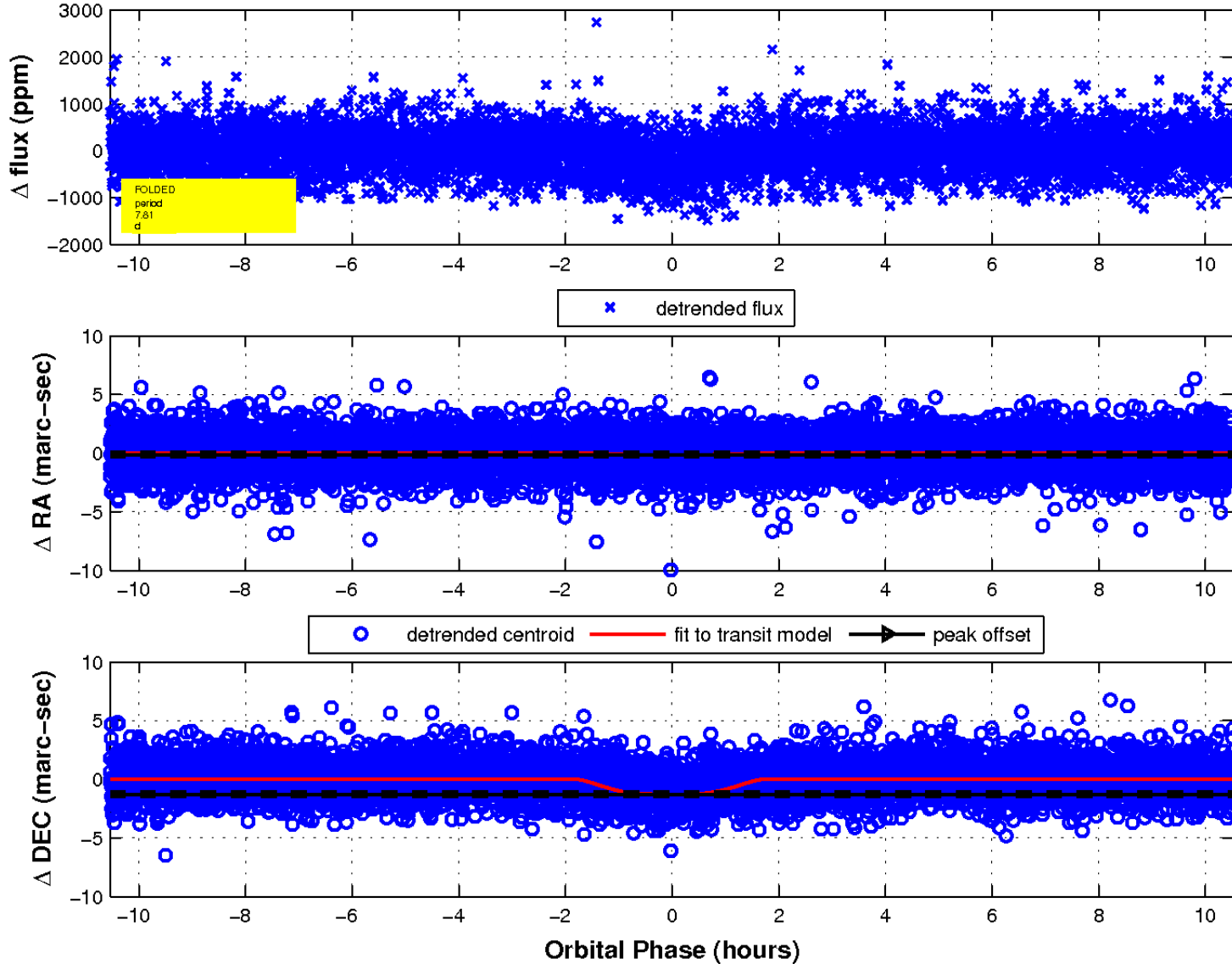
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 2 of 2



UKIRT Image

Declination

