

KIC 003240158

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})
003240158-01	OBS	1106.01	7.426092	132.472907	446.2	3.893	32.0	35.8	1.18	6049	2.83	274.30
003240158-02	OBS	1106.02	15.986936	137.597272	187.1	4.464	9.3	10.3	1.18	6049	1.91	98.68
003240158-03	OBS	1106.03	13.229975	134.371641	162.3	6.787	7.9	9.3	1.18	6049	3.05	127.00

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003240158-01	OBS	PC	1.00	0	0	0	0	NO_COMMENT
003240158-02	OBS	PC	0.99	0	0	0	0	NO_COMMENT
003240158-03	OBS	PC	0.95	0	0	0	0	NO_COMMENT

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

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

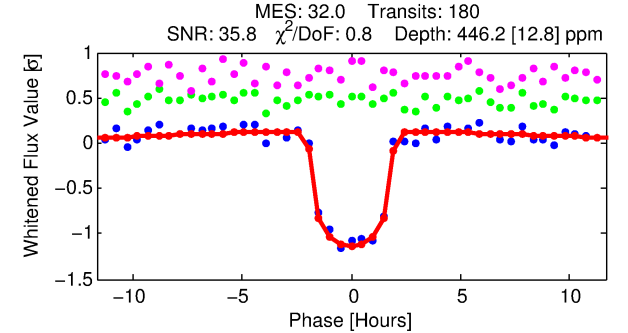
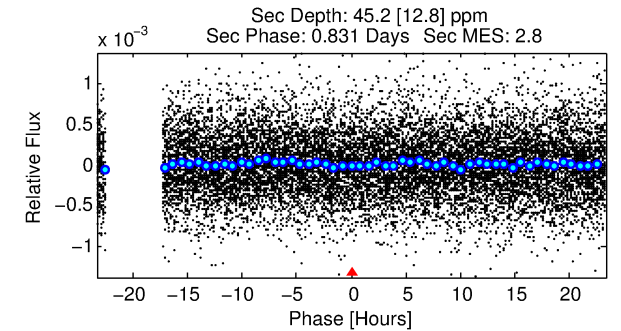
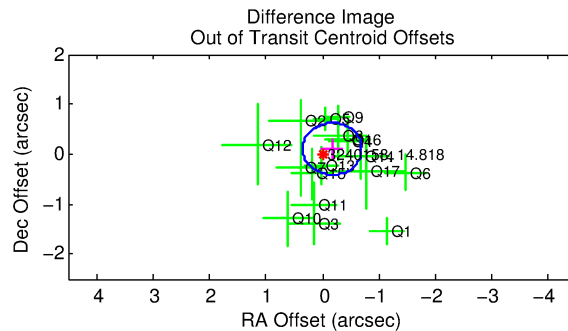
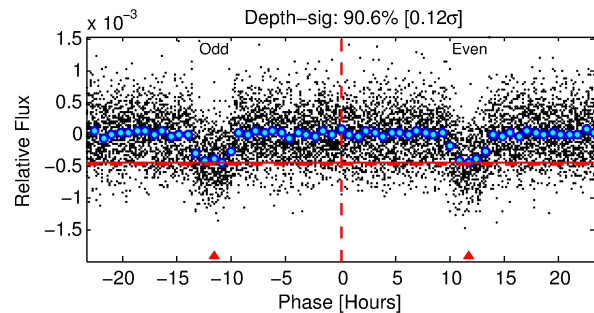
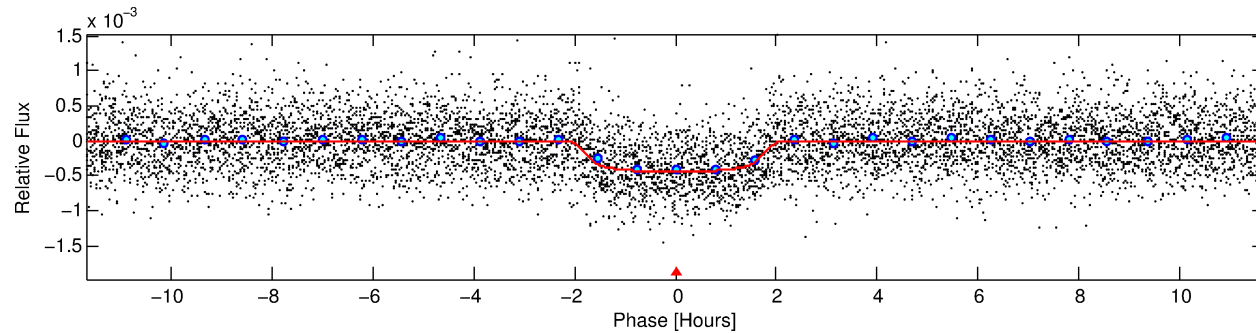
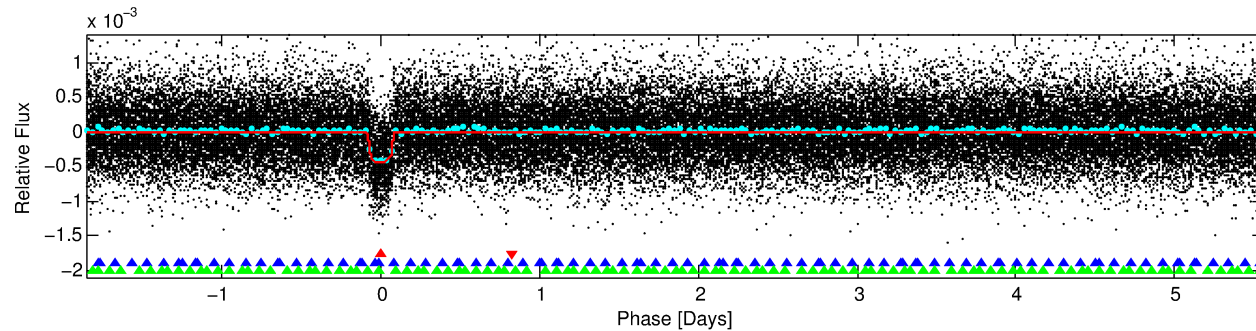
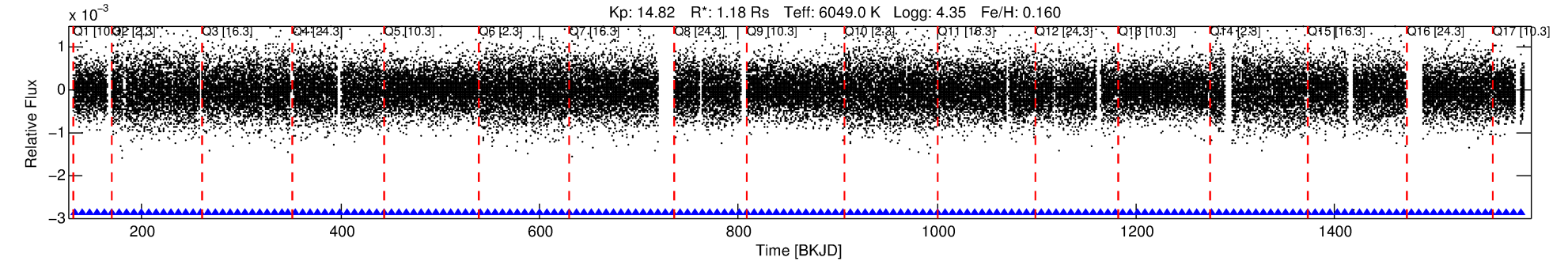
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003240158-01

No Significant Match Found

DV One-Page Summary

KIC: 3240158 Candidate: 1 of 3 Period: 7.426 d
KOI: K01106.01 Corr: 0.975



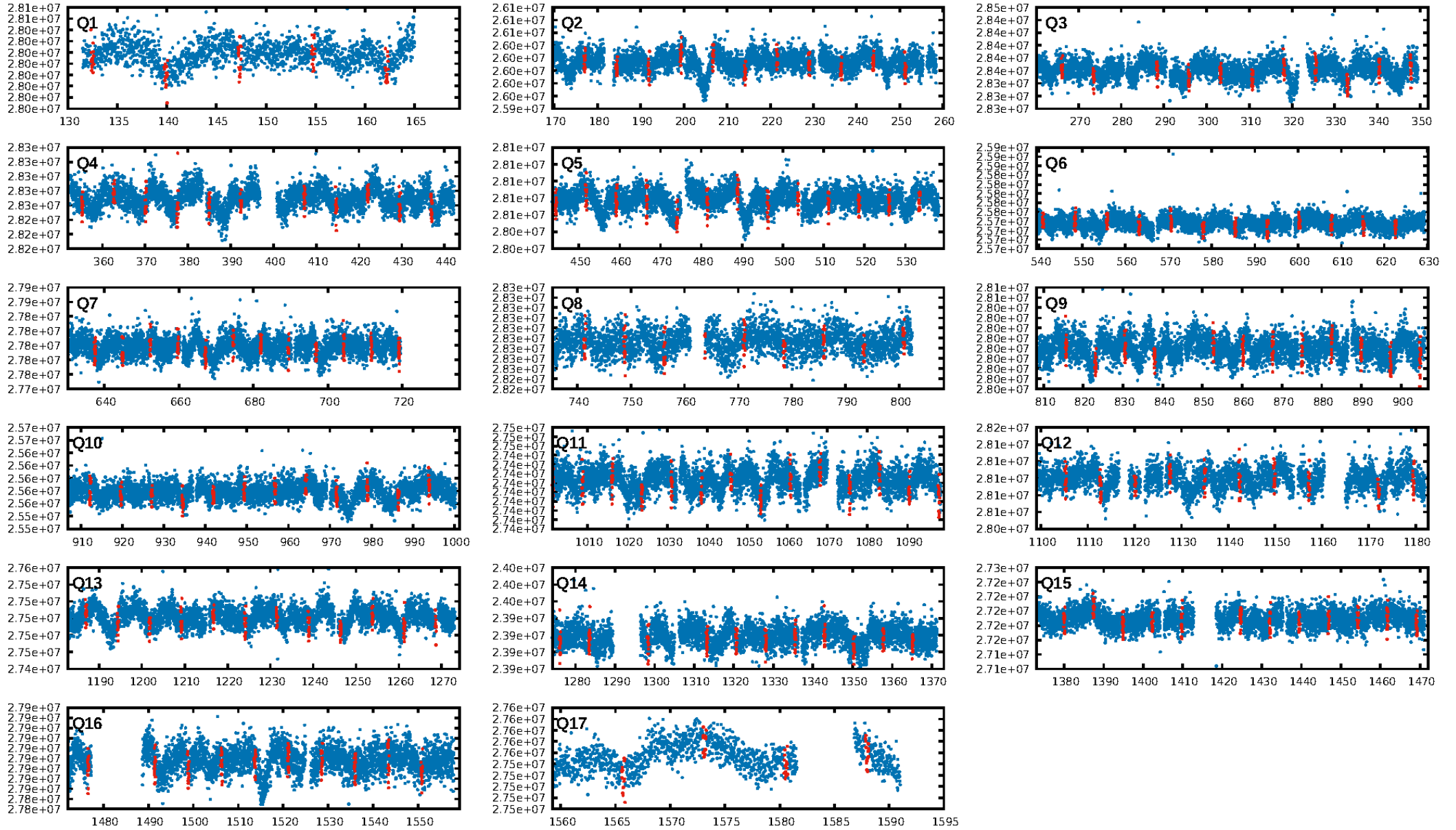
DV Fit Results:

Period = 7.42609 [0.00002] d
Epoch = 132.4729 [0.0020] BKJD
Rp/R* = 0.0221 [0.0029]
a/R* = 8.25 [5.10]
b = 0.85 [0.20]
Seff = 274.30 [58.27]
Teff = 1038 [55] K
Rp = 2.83 [0.58] Re
a = 0.0778 [0.0106] AU
Ag = 18.73 [8.17] [2.17 σ]
Teffp = 3338 [326] K [6.96 σ]

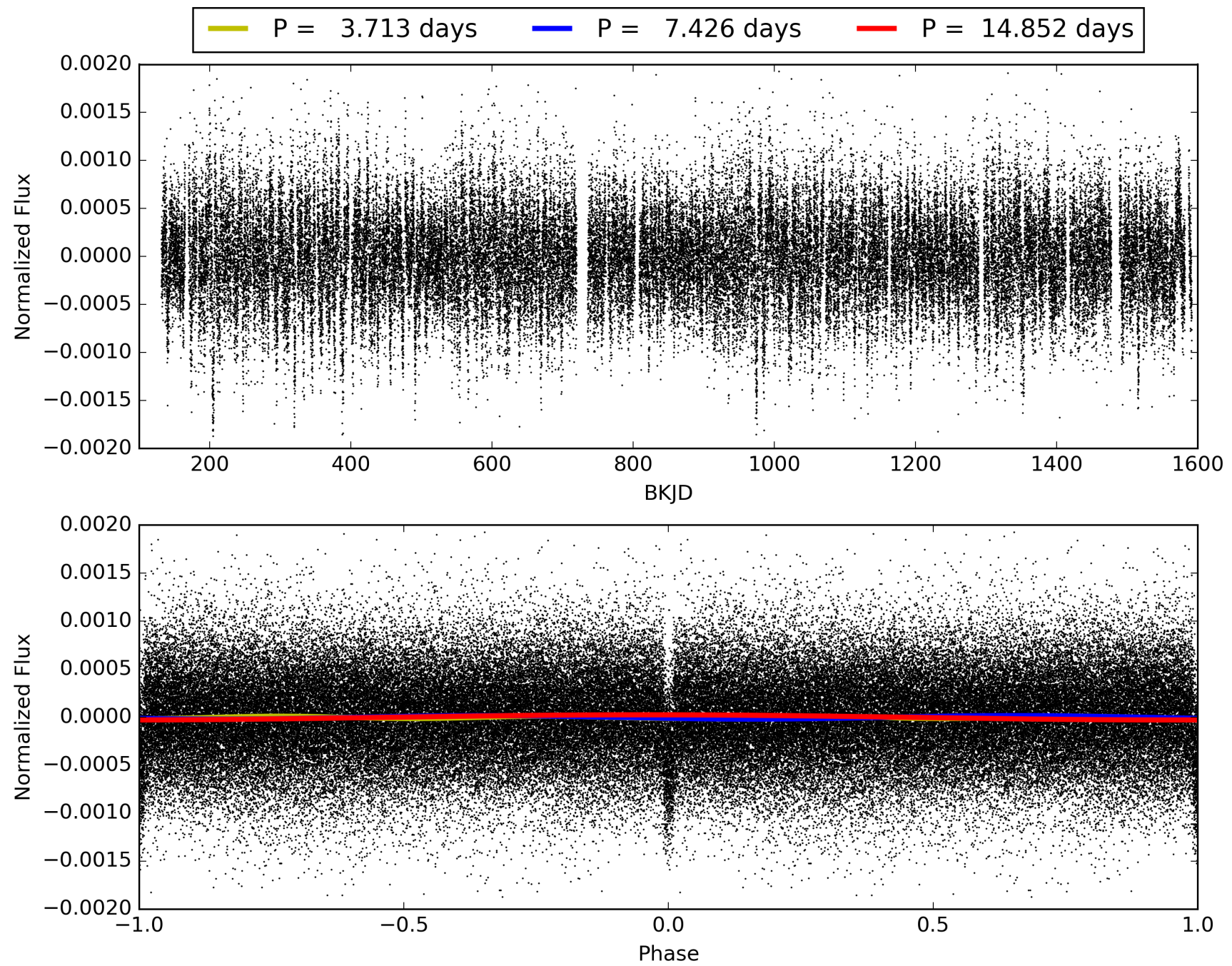
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [17.80 σ]
ModelChiSquare2-sig: 100.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 2.06e-222
RollingBand-fgt: 1.00 [171/171]
GhostDiagnostic-chr: 5.735
Centroid-sig: 0.1%
Centroid-so: 1.131 arcsec [3.41 σ]
OotOffset-rm: 0.202 arcsec [1.16 σ]
KicOffset-rm: 0.196 arcsec [1.11 σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 1.00 [17/17]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 003240158-01, PDC Light Curves

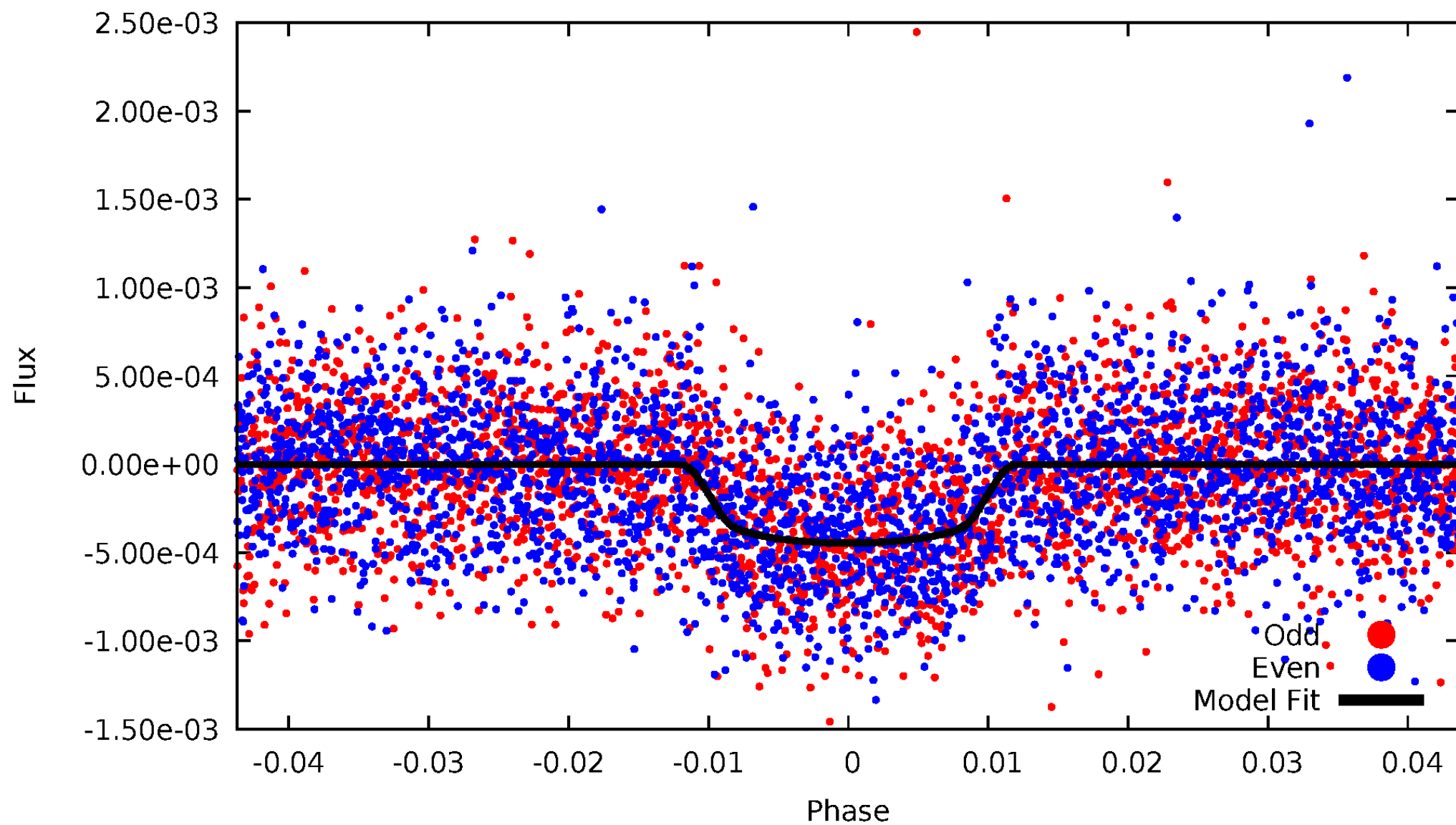


TCE 003240158-01



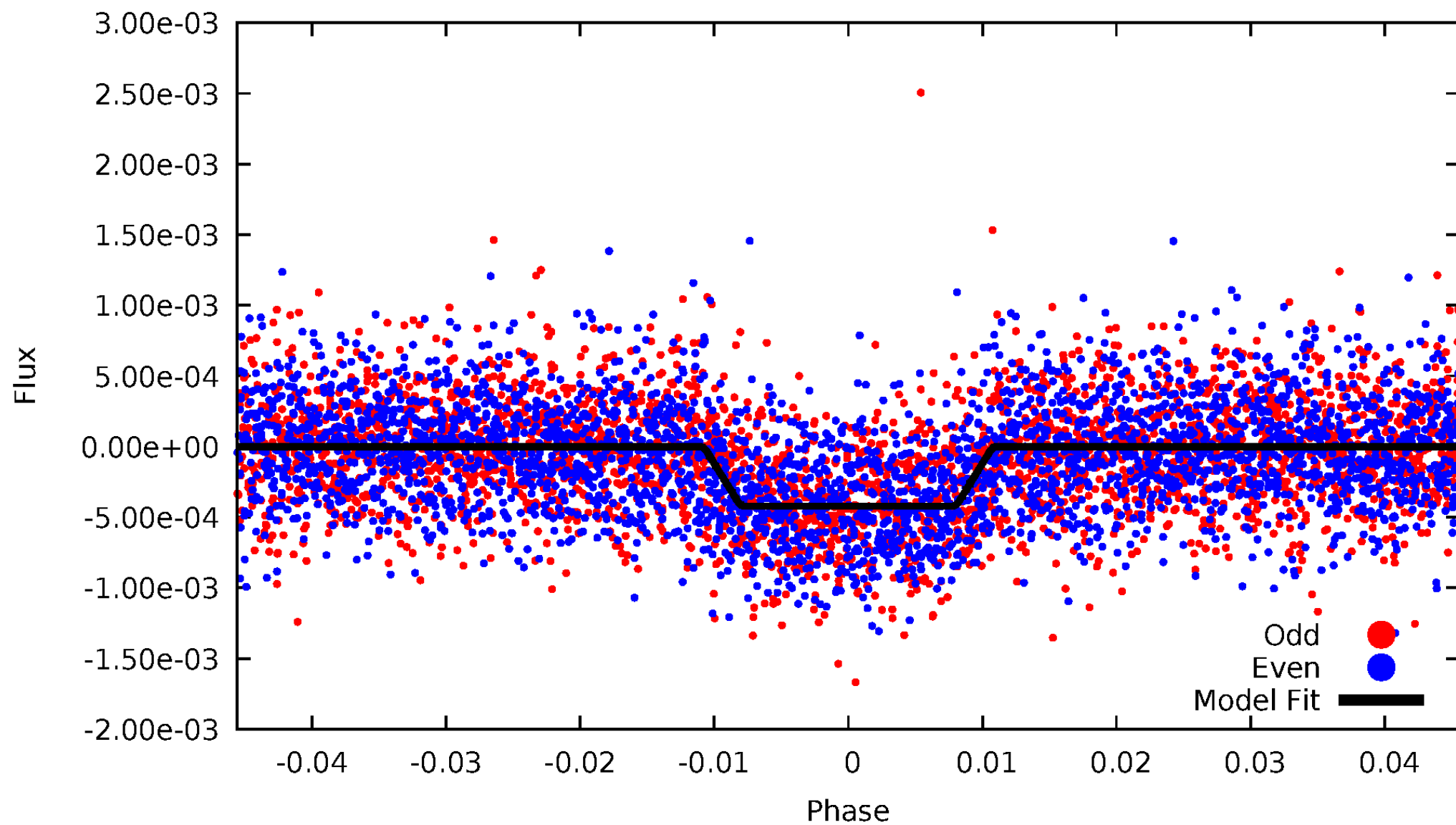
DV Odd/Even

TCE 003240158-01



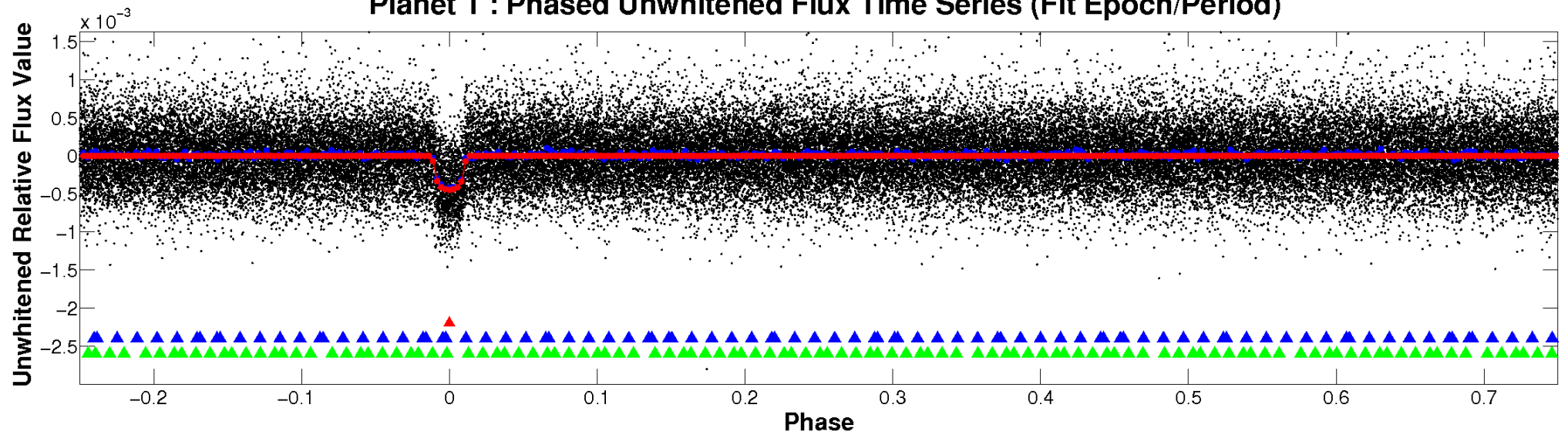
ALT Odd/Even

TCE 003240158-01

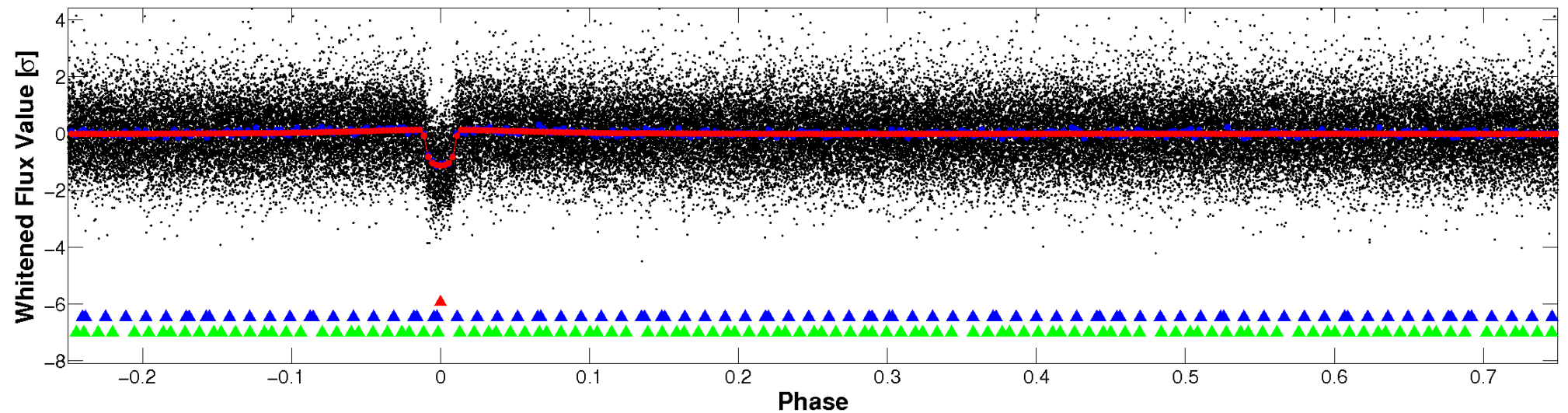


Non-Whitened Vs. Whitened Light Curve

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

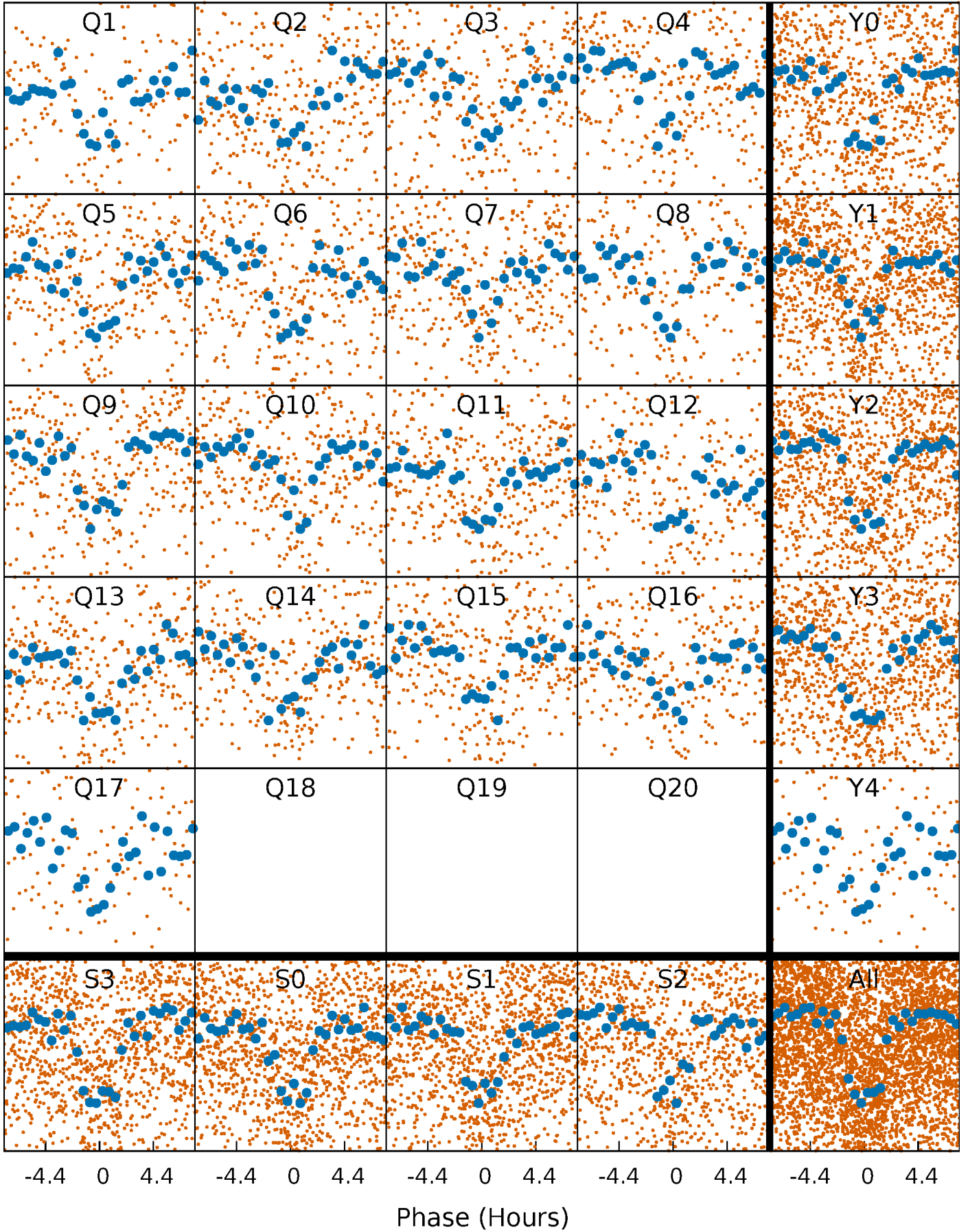


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



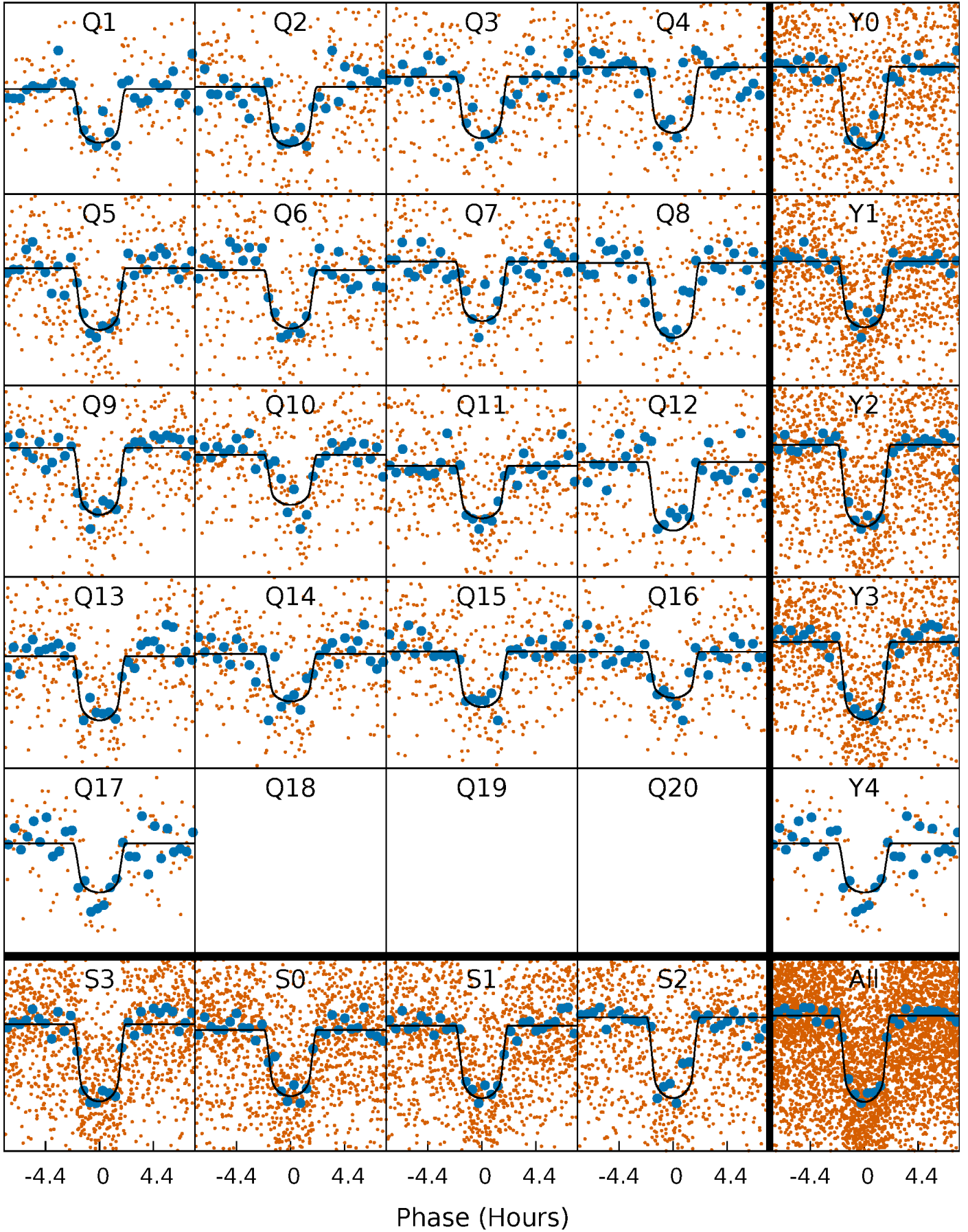
PDC Quarter-Phased Transit Curves

TCE 003240158-01 P= 7.426092 Days $T_0=132.472907$ (BKJD)



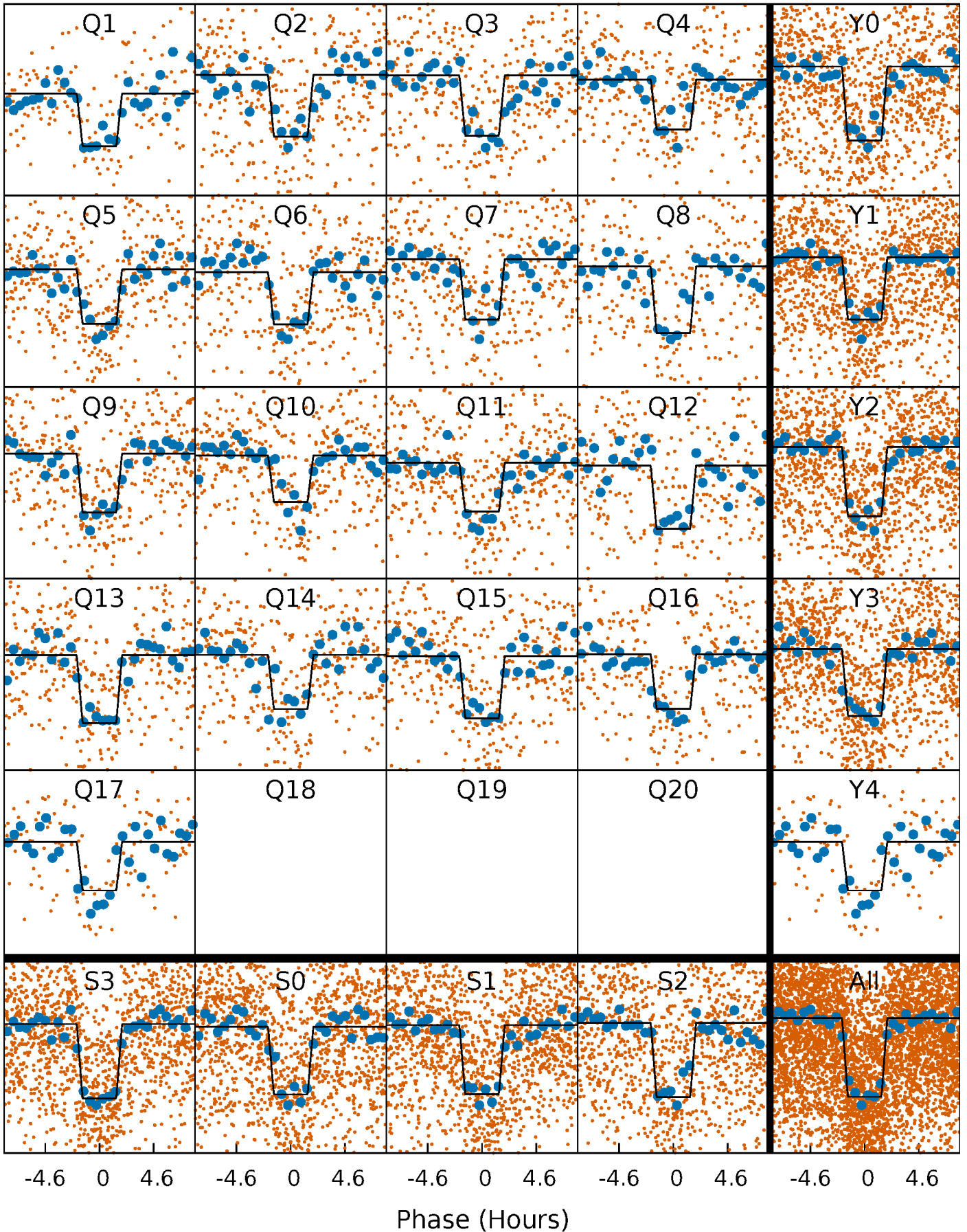
DV Quarter-Phased Transit Curves

TCE 003240158-01 P= 7.426092 Days $T_0=132.472907$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

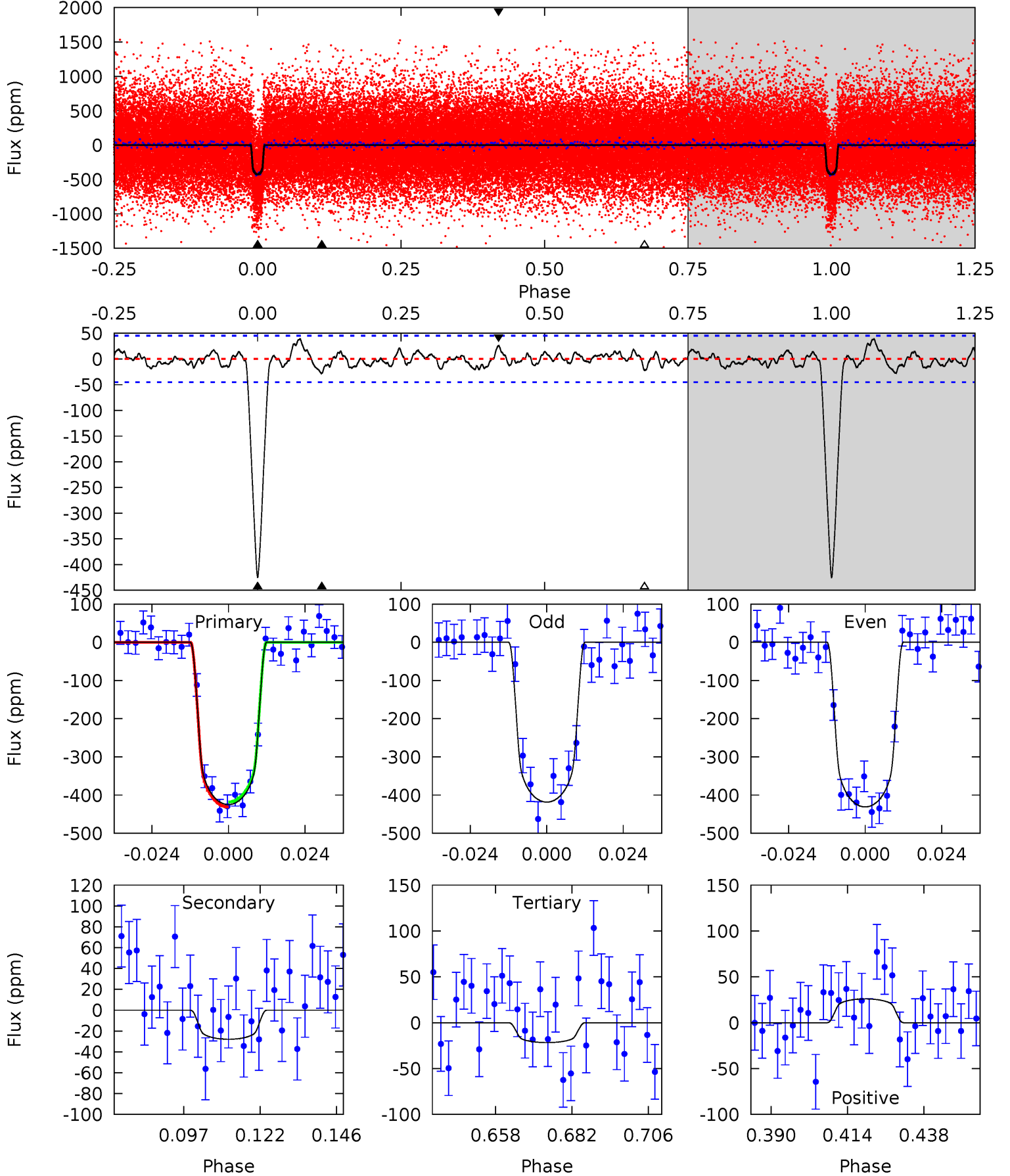
TCE 003240158-01 P= 7.426158 Days $T_0=132.466889$ (BKJD)



DV Model-Shift Uniqueness Test

003240158-01, P = 7.426092 Days, E = 125.046815 Days

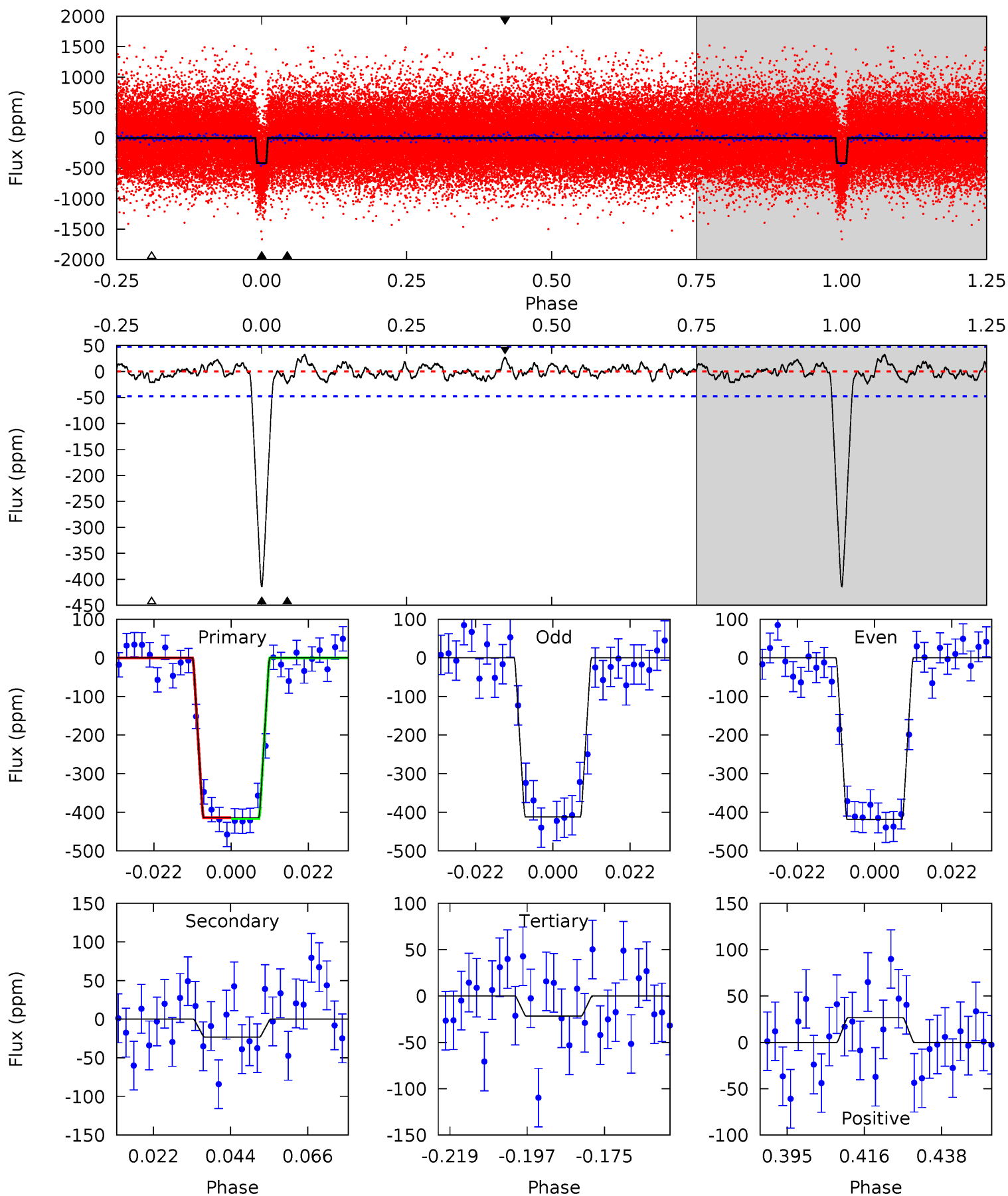
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
45.6	3.00	2.33	2.78	4.85	2.25	1.14	43.3	42.8	0.67	0.22	0.68	0.97	0.08	0.70



Alt Model-Shift Uniqueness Test

003240158-01, P = 7.426158 Days, E = 125.040731 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
42.4	2.38	2.22	2.73	4.87	2.29	1.02	40.2	39.7	0.16	-0.35	0.32	0.99	0.07	0.11



Stellar Parameters For KIC 003240158

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6049^{+72}_{-91}	$4.353^{+0.076}_{-0.114}$	$0.160^{+0.150}_{-0.150}$	$1.176^{+0.184}_{-0.107}$	$1.140^{+0.068}_{-0.081}$	$0.988^{+0.261}_{-0.349}$
	+1%/-2%	+2%/-3%	+94%/-94%	+16%/-9%	+6%/-7%	+26%/-35%
Source	SPE90	SPE90	SPE90	DSEP		

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

Secondary Eclipse Parameters for KIC 003240158-01 / KOI 1106.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-28 ± 9	$2.85^{+0.42}_{-0.41}$	1453^{+55}_{-44}	3440^{+236}_{-245}	11^{+6}_{-4}
Alt.	-23 ± 10	$2.66^{+0.46}_{-0.38}$	1454^{+57}_{-44}	3425^{+266}_{-347}	11^{+7}_{-6}

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

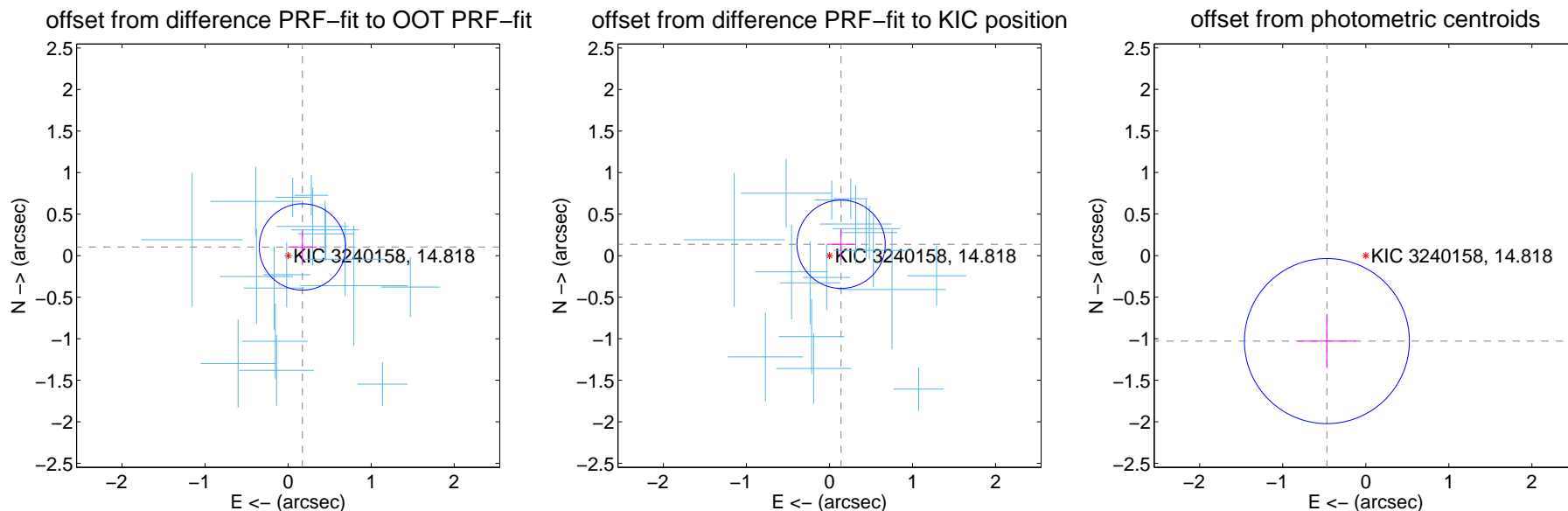
DV Centroid Data

Supplemental centroid analysis for 003240158-01. Kepler magnitude: 14.82. Transit SNR 35.76

There are 17 quarters with good PRF difference image offsets

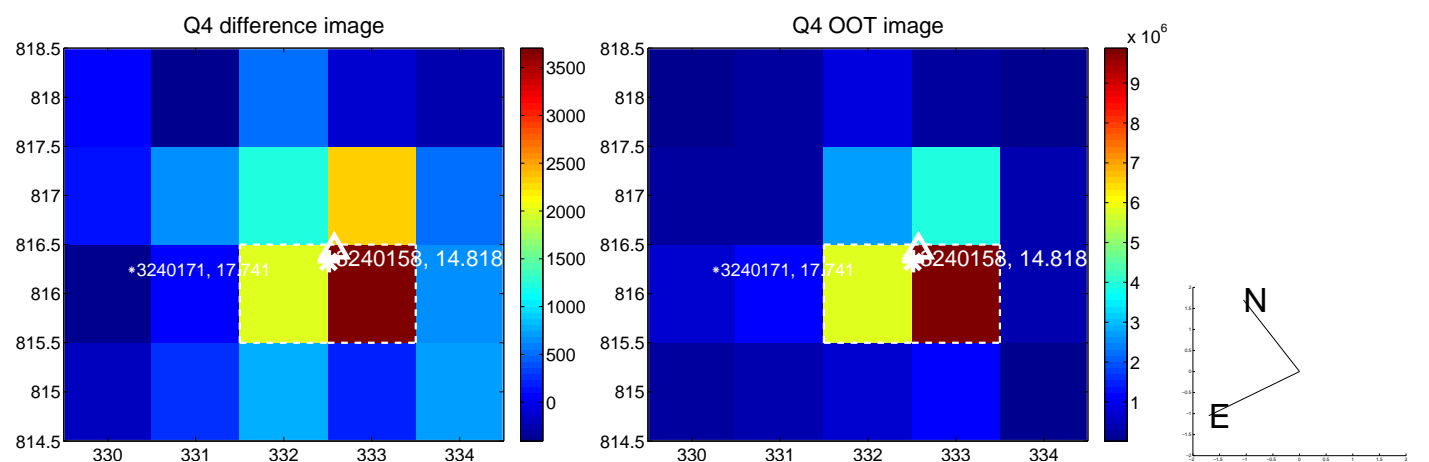
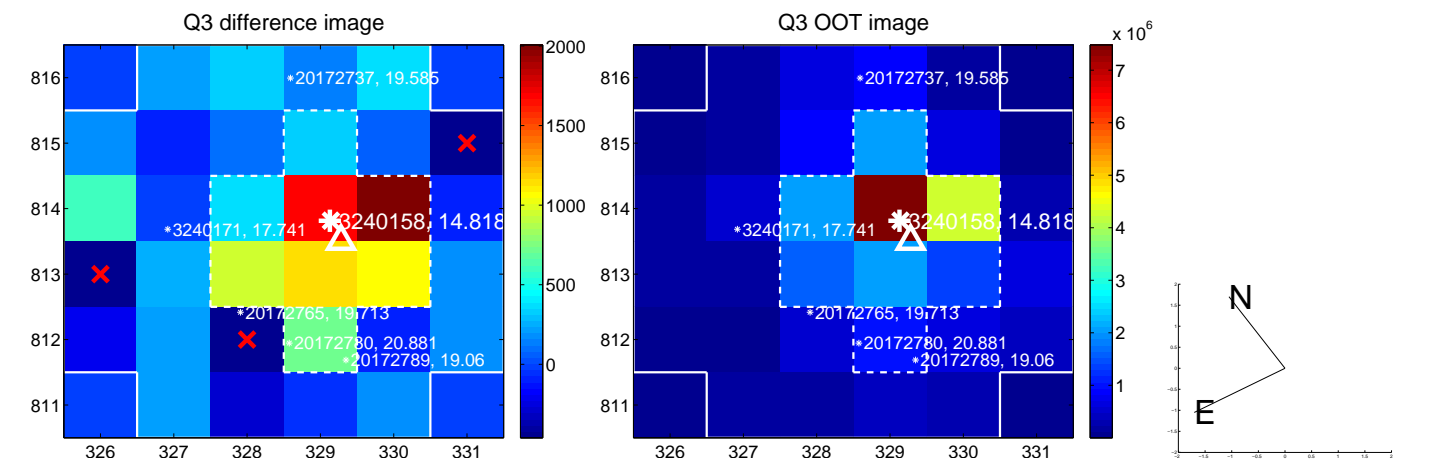
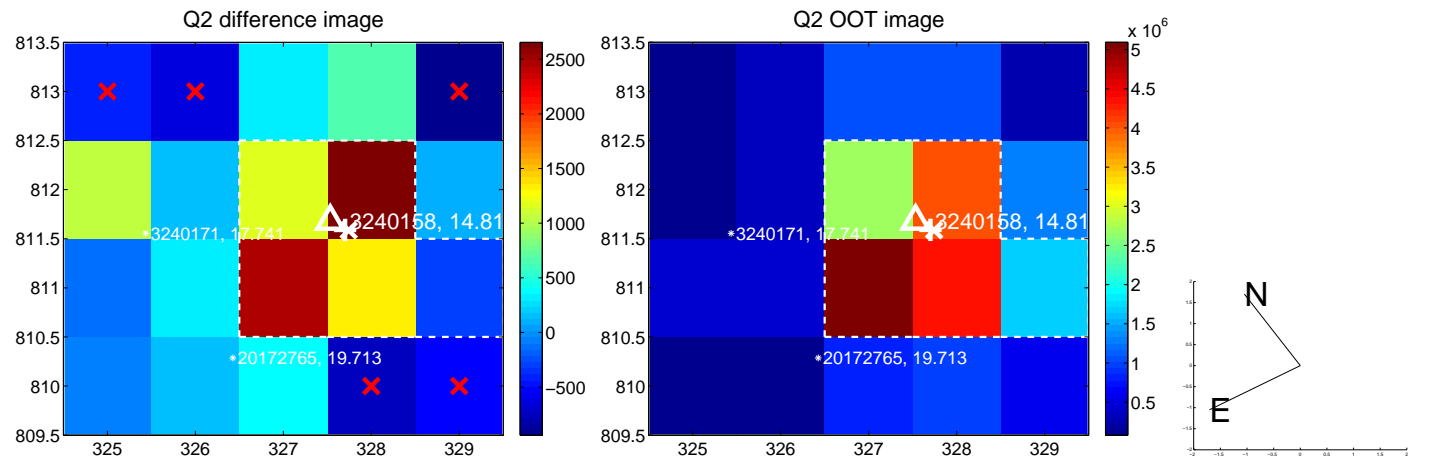
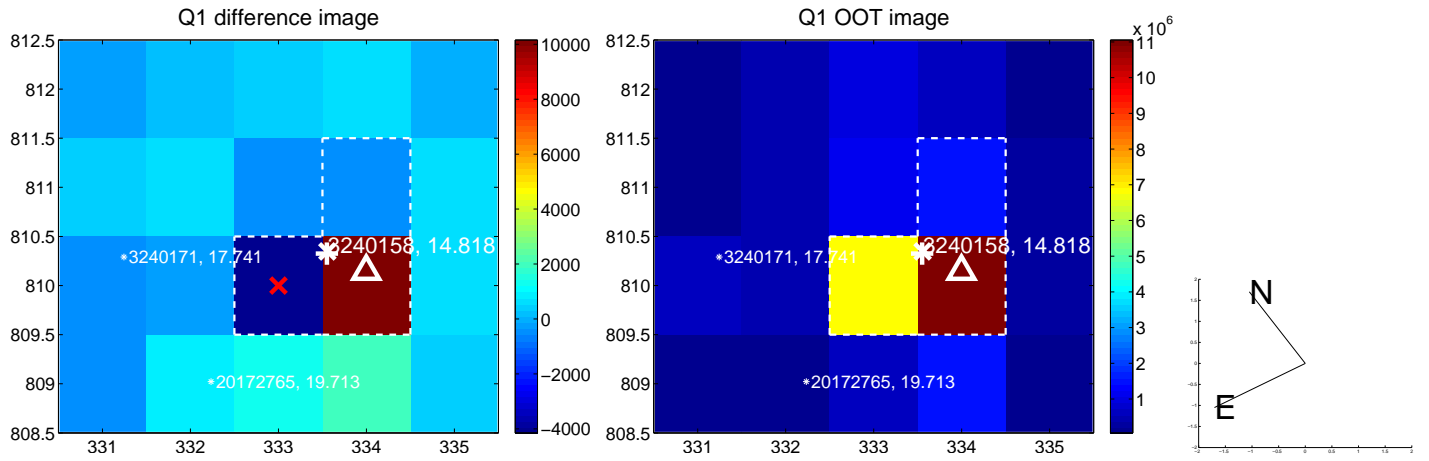
The direct PRF centroid is offset from the target star catalog position by about 0.06 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.202 ± 0.173	1.16	-0.172 ± 0.174	0.105 ± 0.197
PRF-fit source offset from KIC position	0.196 ± 0.177	1.11	-0.140 ± 0.174	0.137 ± 0.185
photometric centroid source offset	1.13 ± 0.33	3.41	0.47 ± 0.35	-1.03 ± 0.33

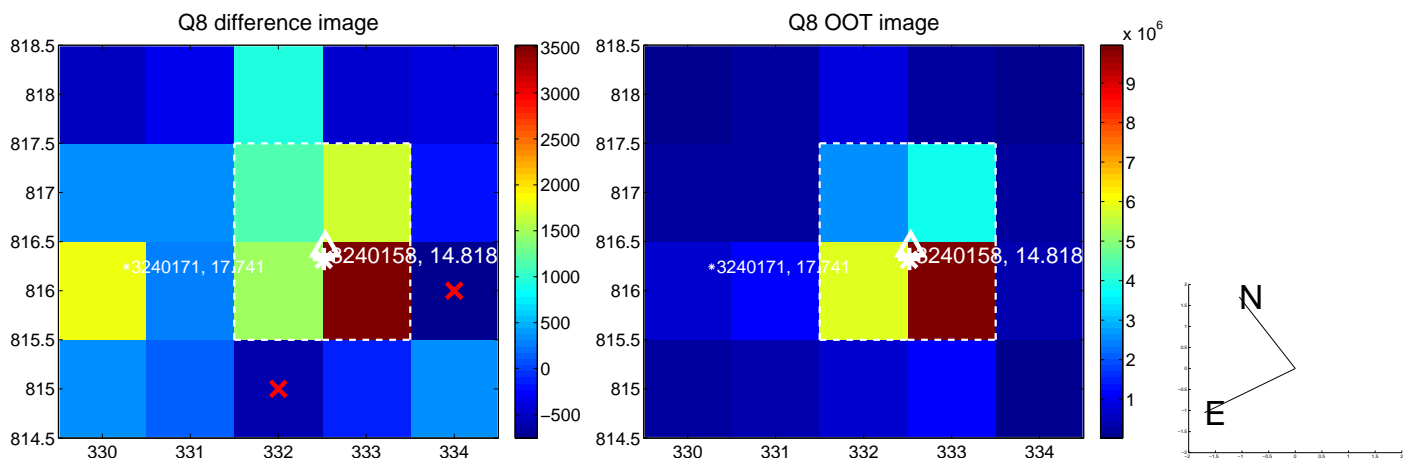
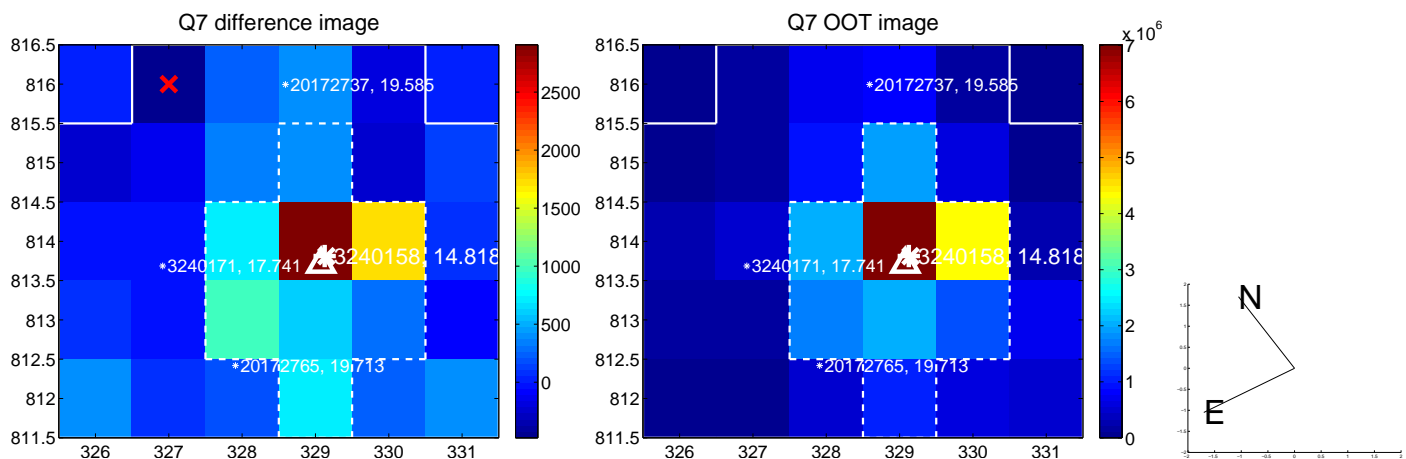
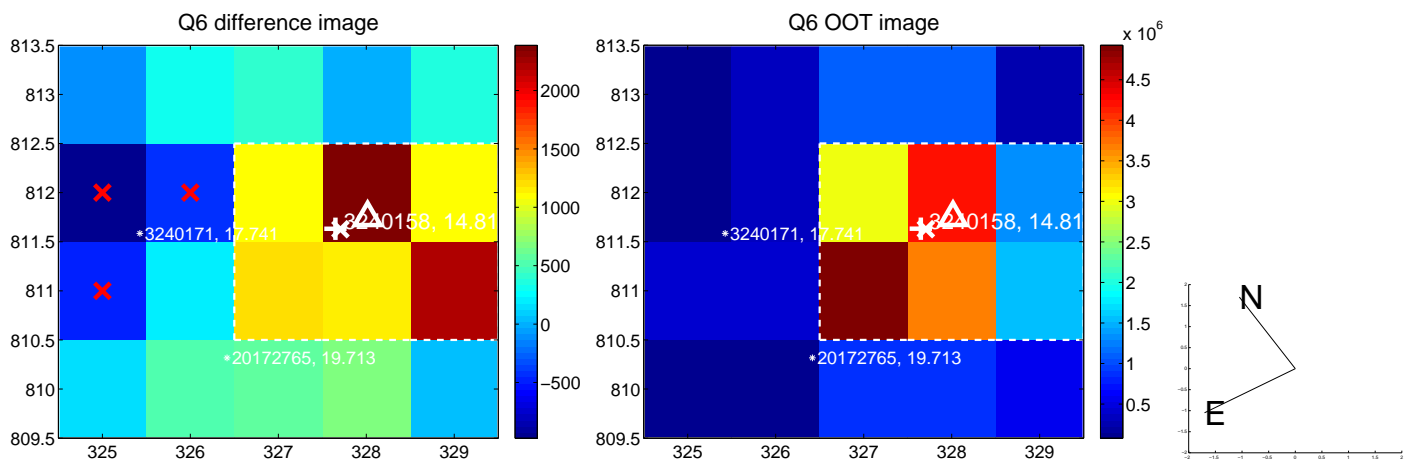
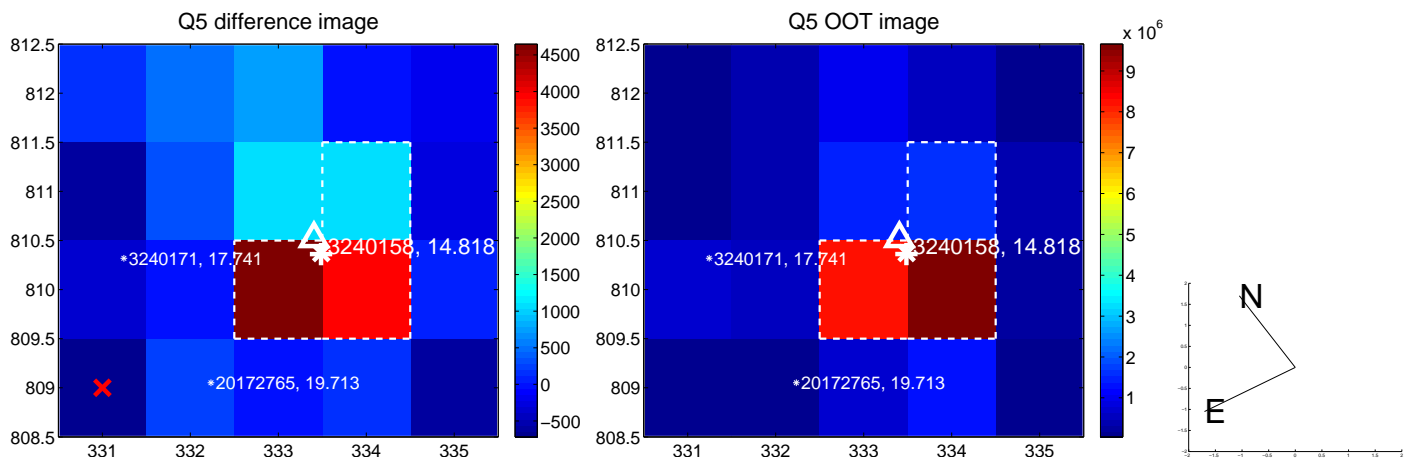


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

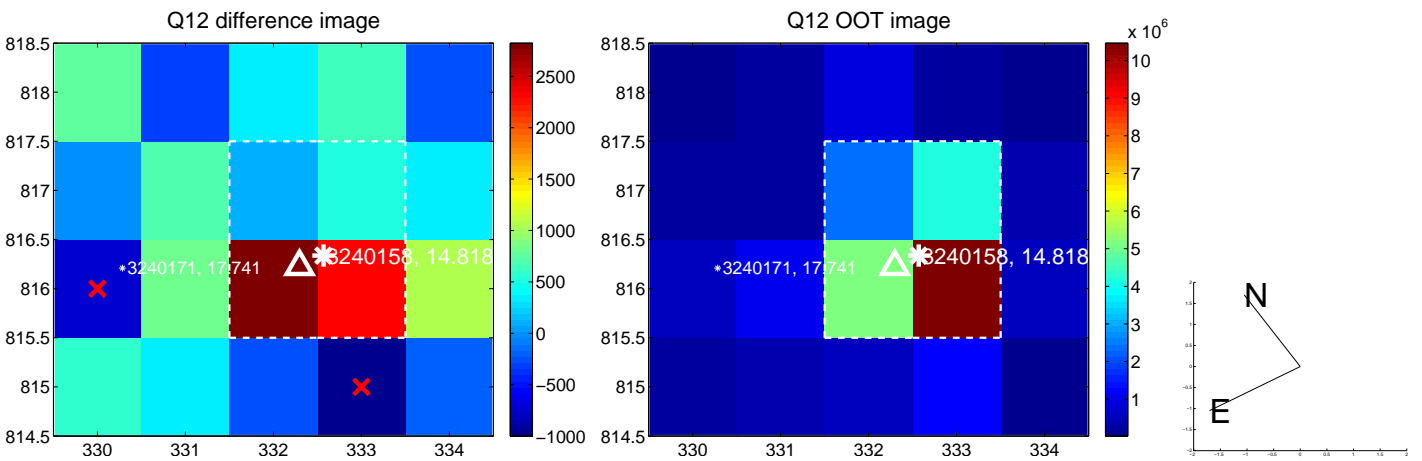
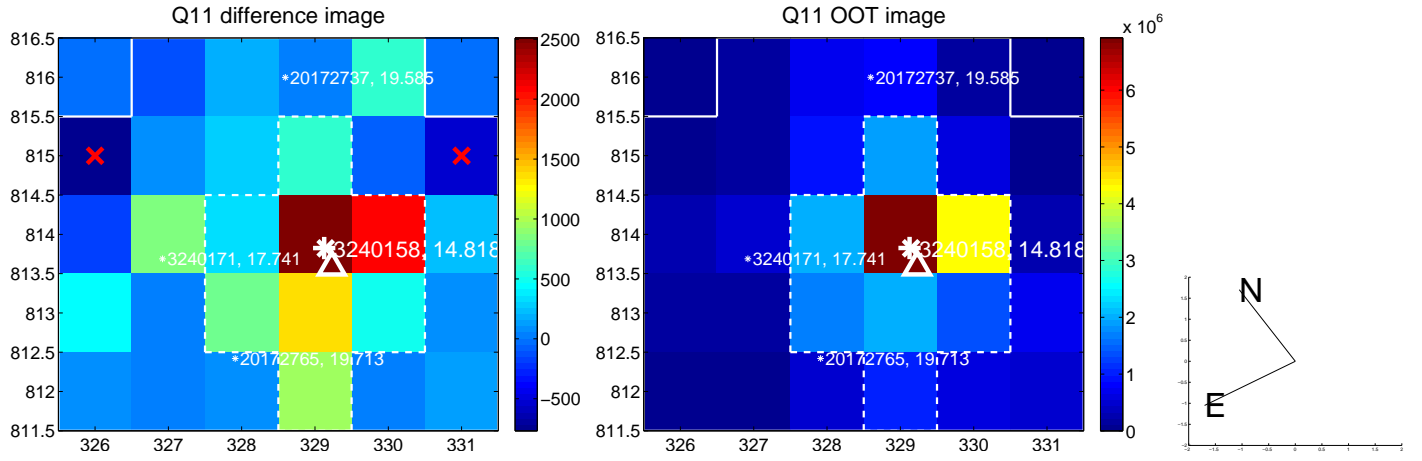
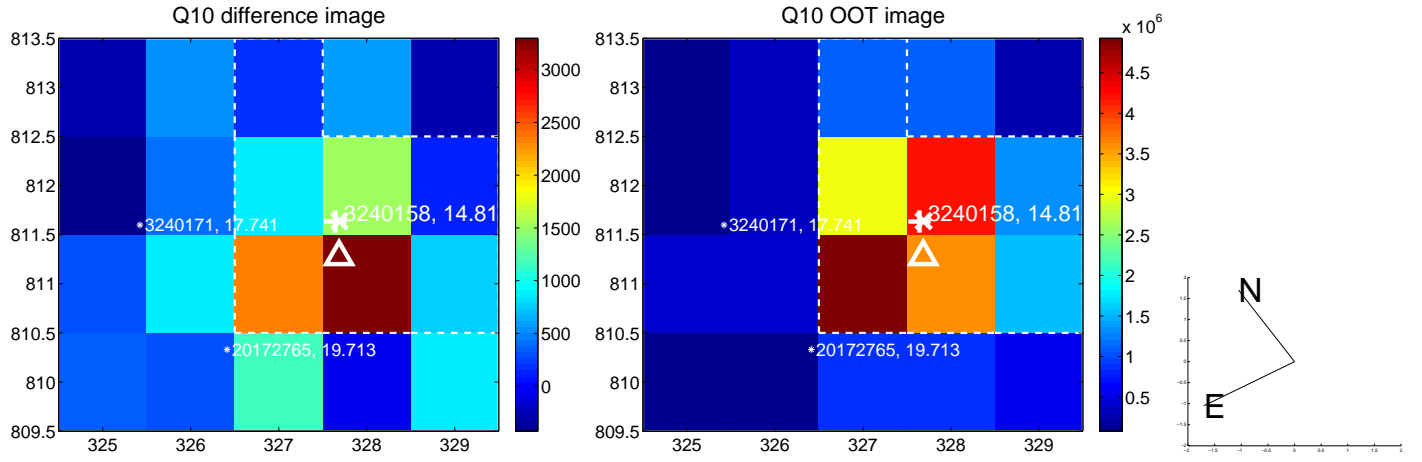
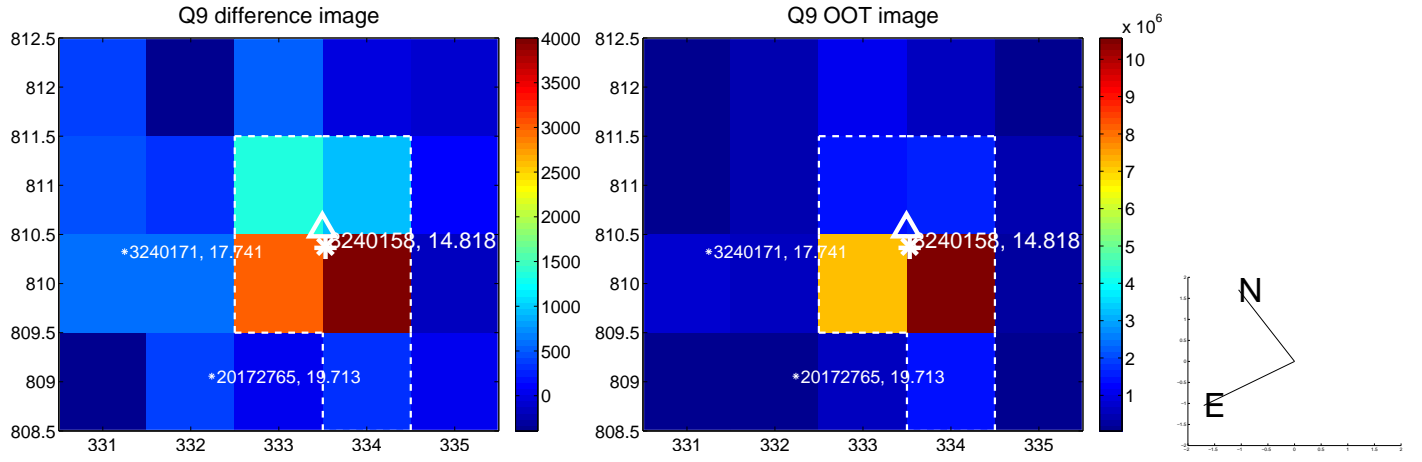
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



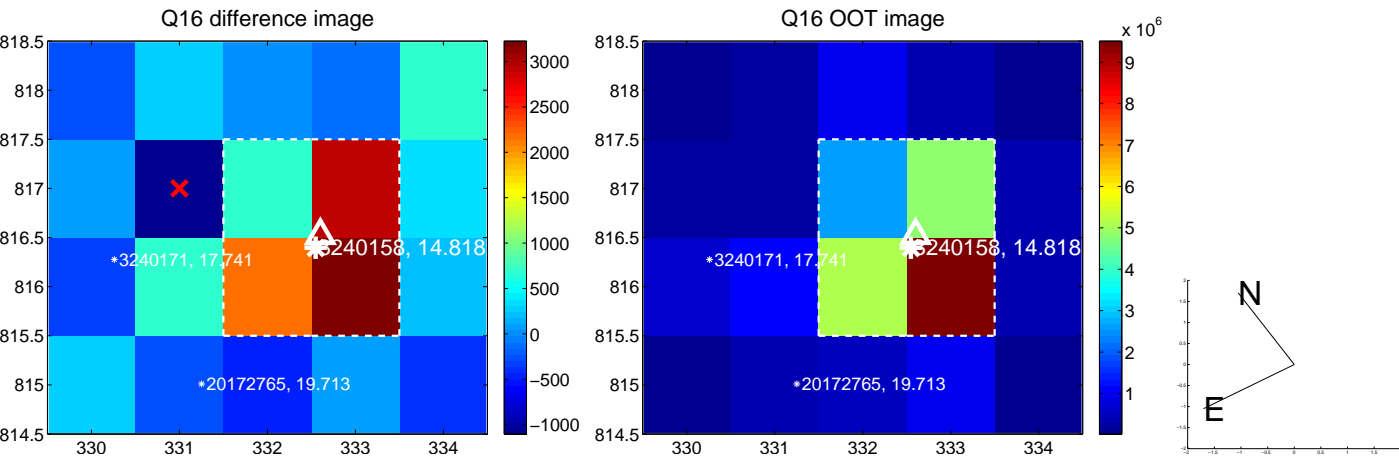
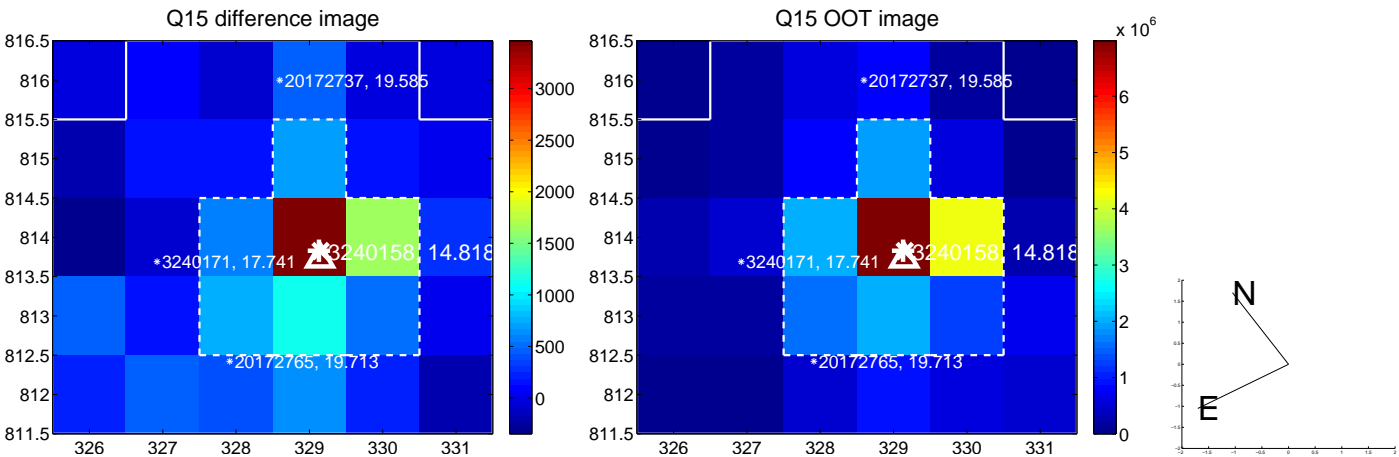
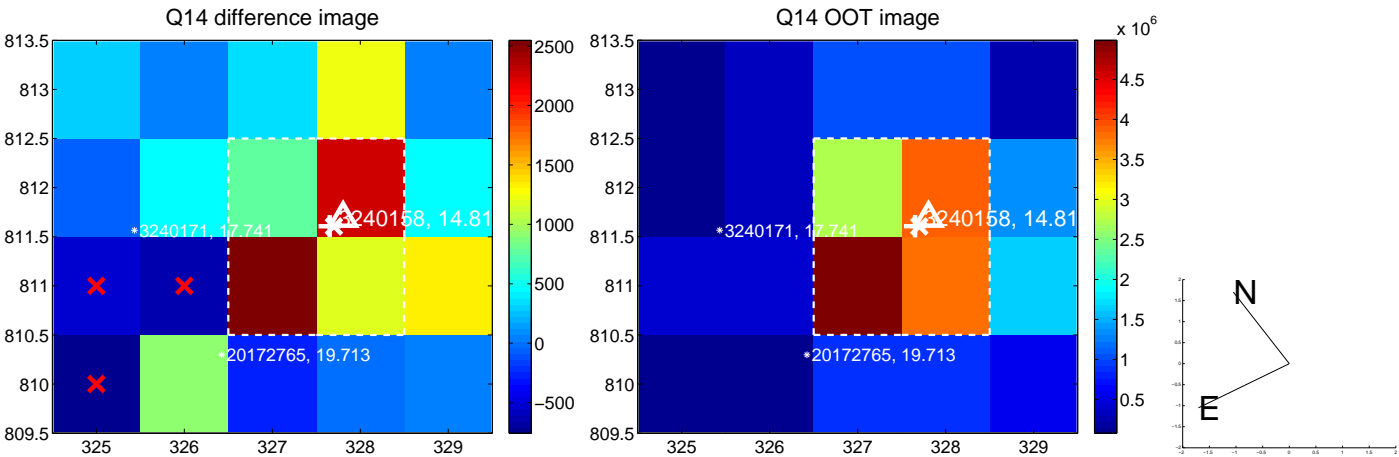
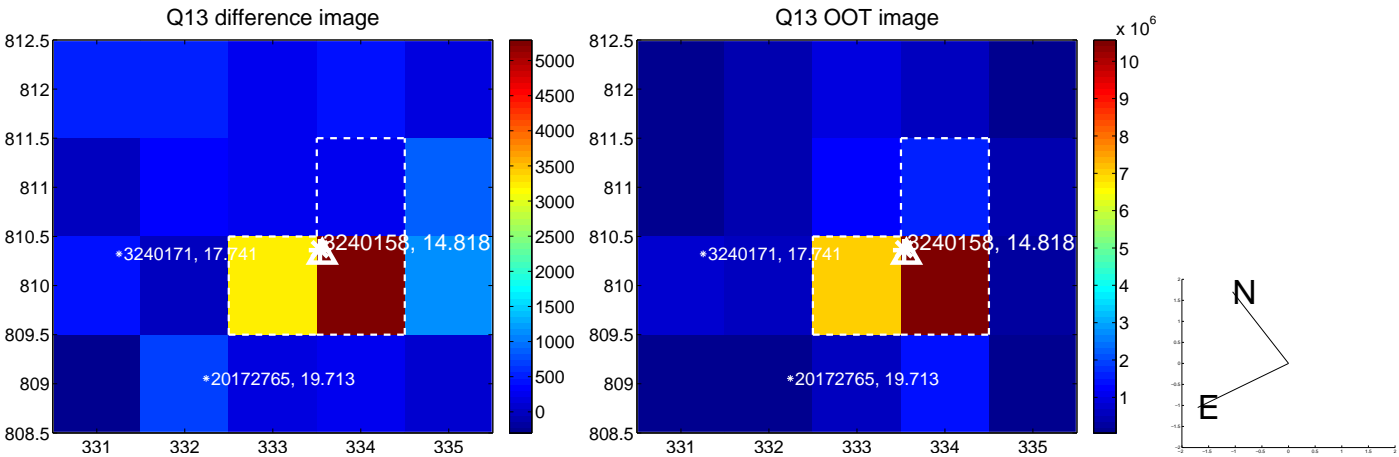
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



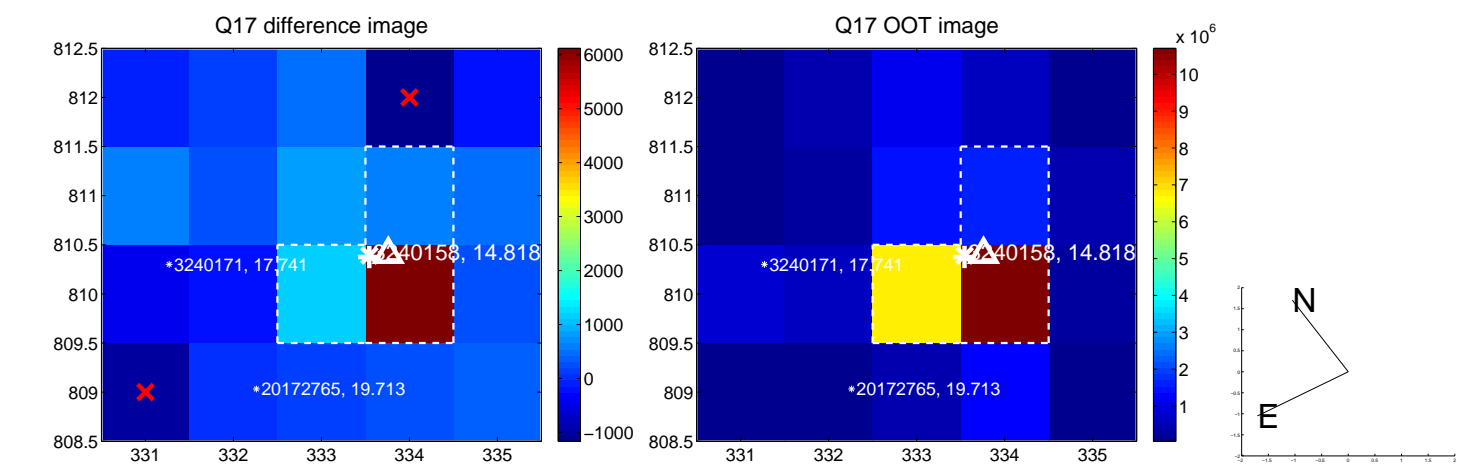
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



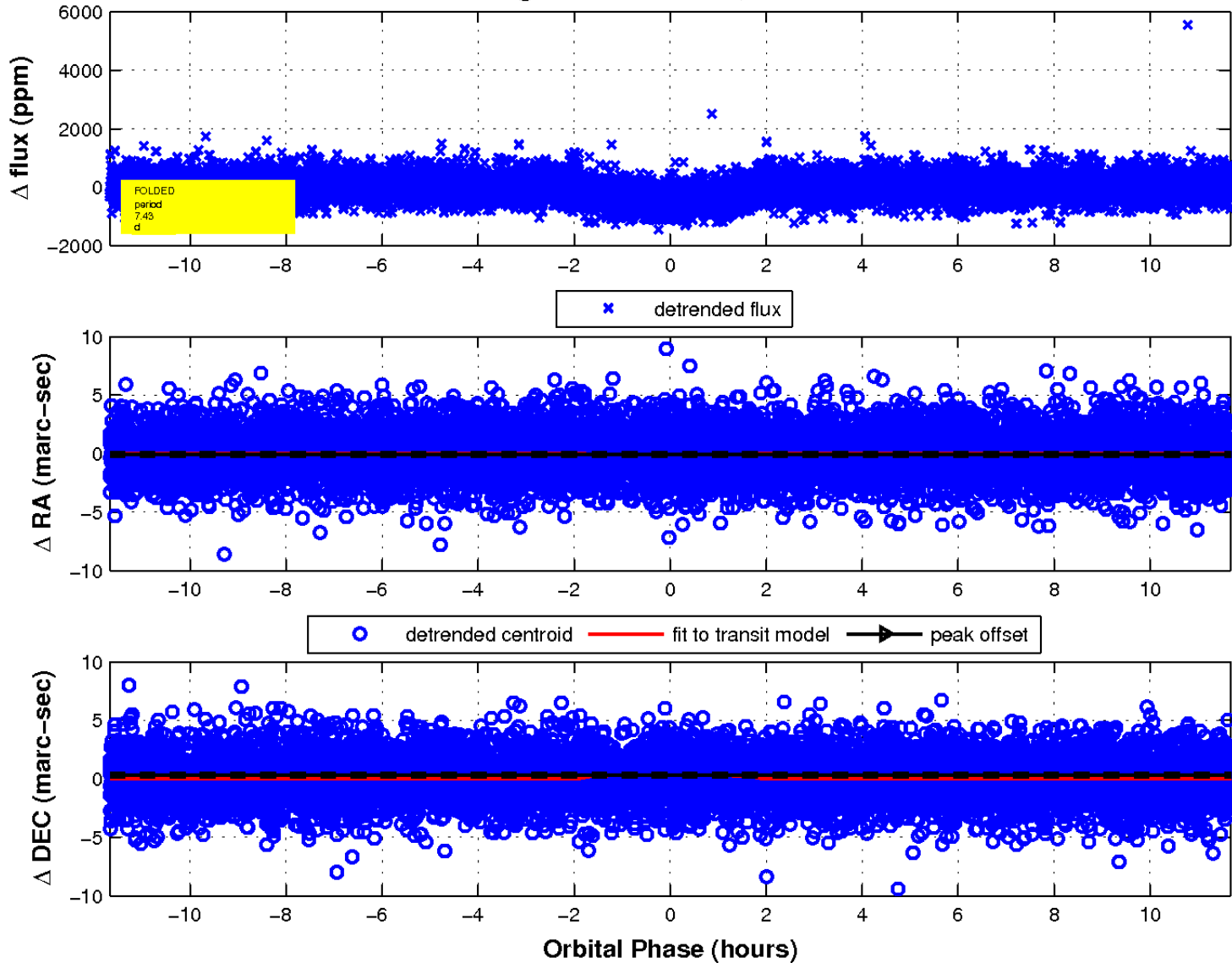
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

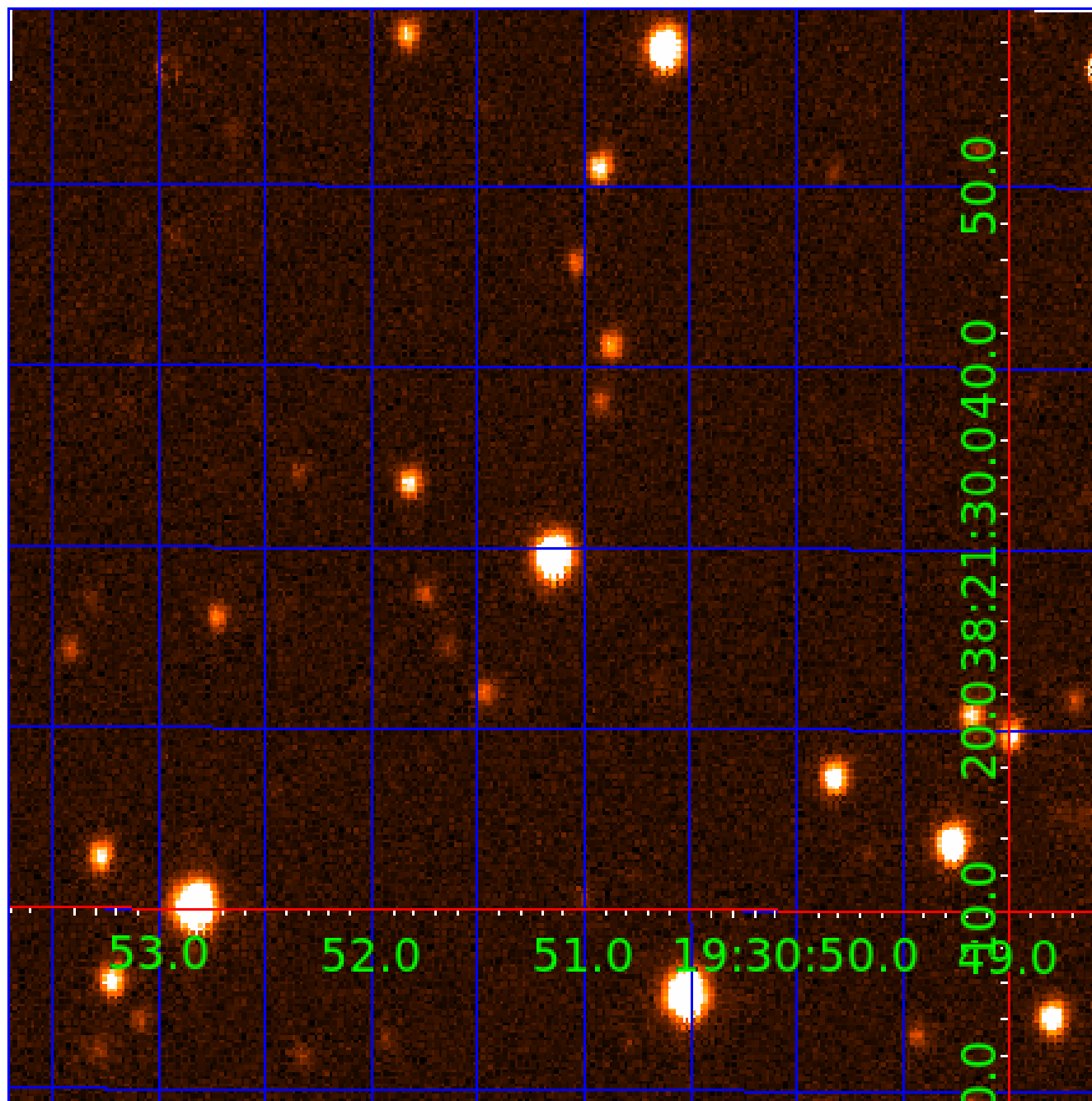


fluxWeightedCentroids, Planet 1 of 3



UKIRT Image

Declination



KIC 003240158

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})
003240158-01	OBS	1106.01	7.426092	132.472907	446.2	3.893	32.0	35.8	1.18	6049	2.83	274.30
003240158-02	OBS	1106.02	15.986936	137.597272	187.1	4.464	9.3	10.3	1.18	6049	1.91	98.68
003240158-03	OBS	1106.03	13.229975	134.371641	162.3	6.787	7.9	9.3	1.18	6049	3.05	127.00

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003240158-01	OBS	PC	1.00	0	0	0	0	NO_COMMENT
003240158-02	OBS	PC	0.99	0	0	0	0	NO_COMMENT
003240158-03	OBS	PC	0.95	0	0	0	0	NO_COMMENT

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.

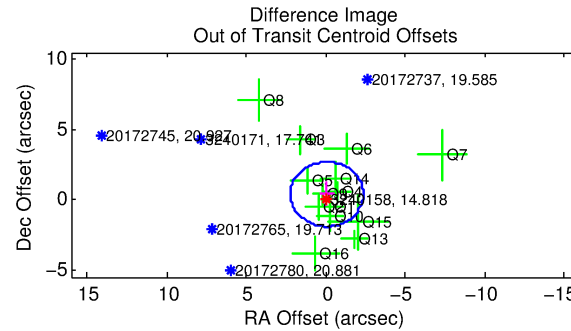
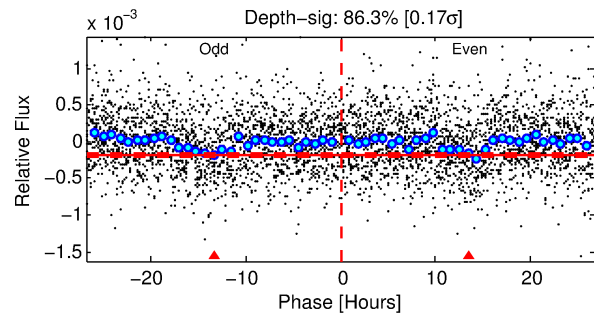
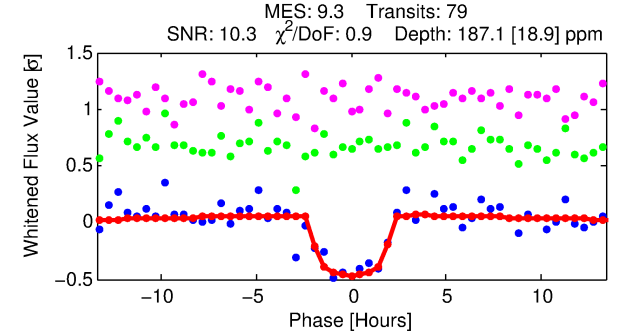
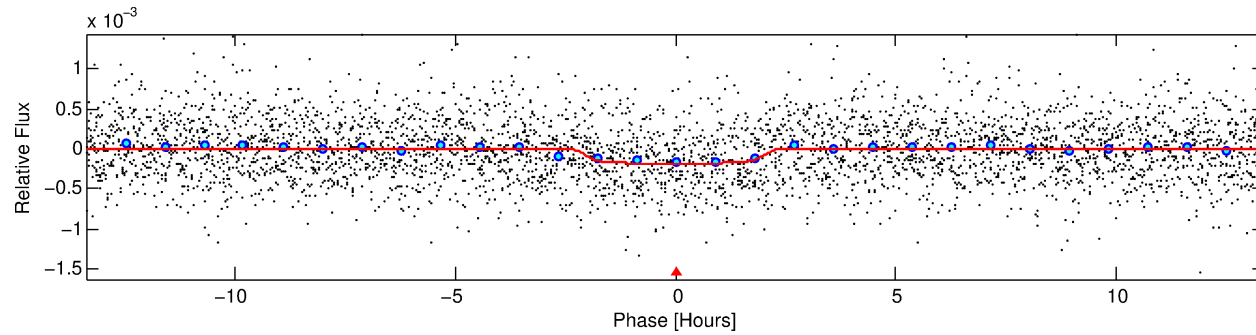
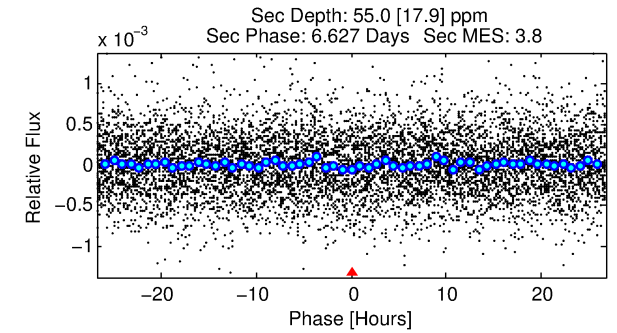
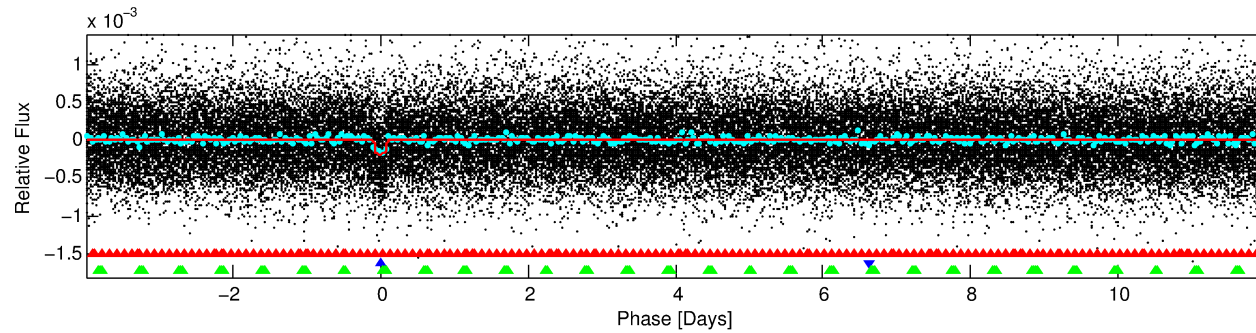
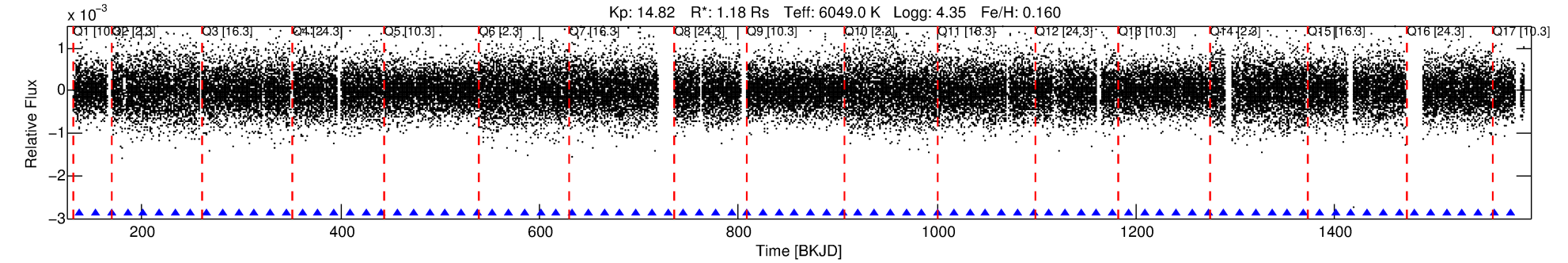
Ephemeris Match Information For 003240158-02

No Significant Match Found

DV One-Page Summary

KIC: 3240158 Candidate: 2 of 3 Period: 15.987 d

KOI: K01106.02 Corr: 0.978



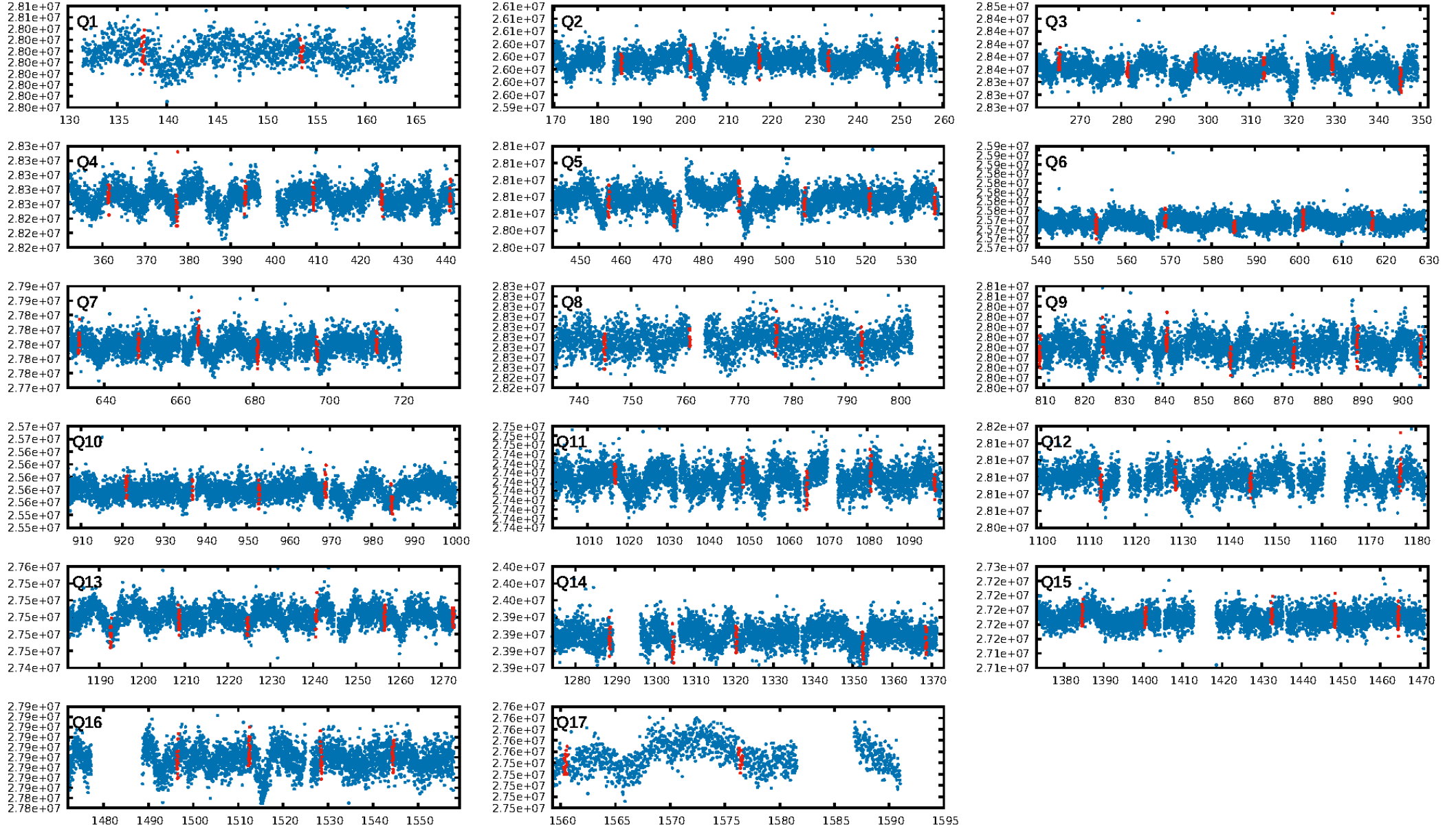
DV Fit Results:

Period = 15.98694 [0.00017] d
Epoch = 137.5973 [0.0084] BKJD
Rp/R* = 0.0149 [0.0047]
a/R* = 12.54 [19.58]
b = 0.91 [0.31]
Seff = 98.68 [20.96]
Teq = 804 [43] K
Rp = 1.91 [0.67] Re
a = 0.1297 [0.0177] AU
Ag = 138.86 [102.69] [1.34σ]
Teffp = 4265 [761] K [4.54σ]

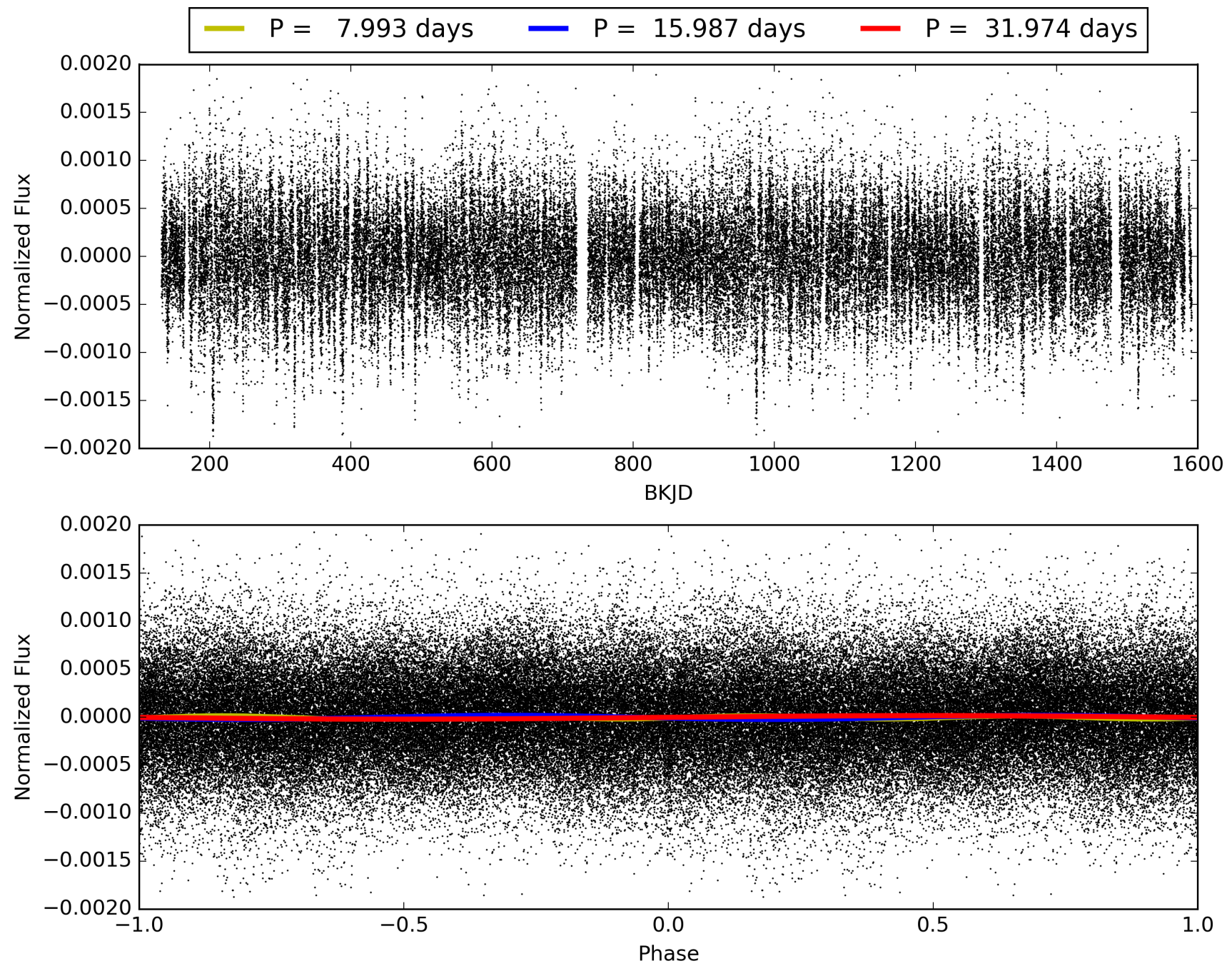
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [8.15σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 98.6%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.80e-21
RollingBand-fgt: 1.00 [75/75]
GhostDiagnostic-chr: 0.9593
Centroid-sig: 51.5%
Centroid-so: 0.636 arcsec [0.55σ]
OotOffset-rm: 0.397 arcsec [0.52σ]
KicOffset-rm: 0.418 arcsec [0.53σ]
OotOffset-st: 4/3/3/4 [14]
KicOffset-st: 4/3/3/4 [14]
DiffImageQuality-fgm: 0.50 [7/14]
DiffImageOverlap-fno: 0.94 [16/17]

TCE 003240158-02, PDC Light Curves

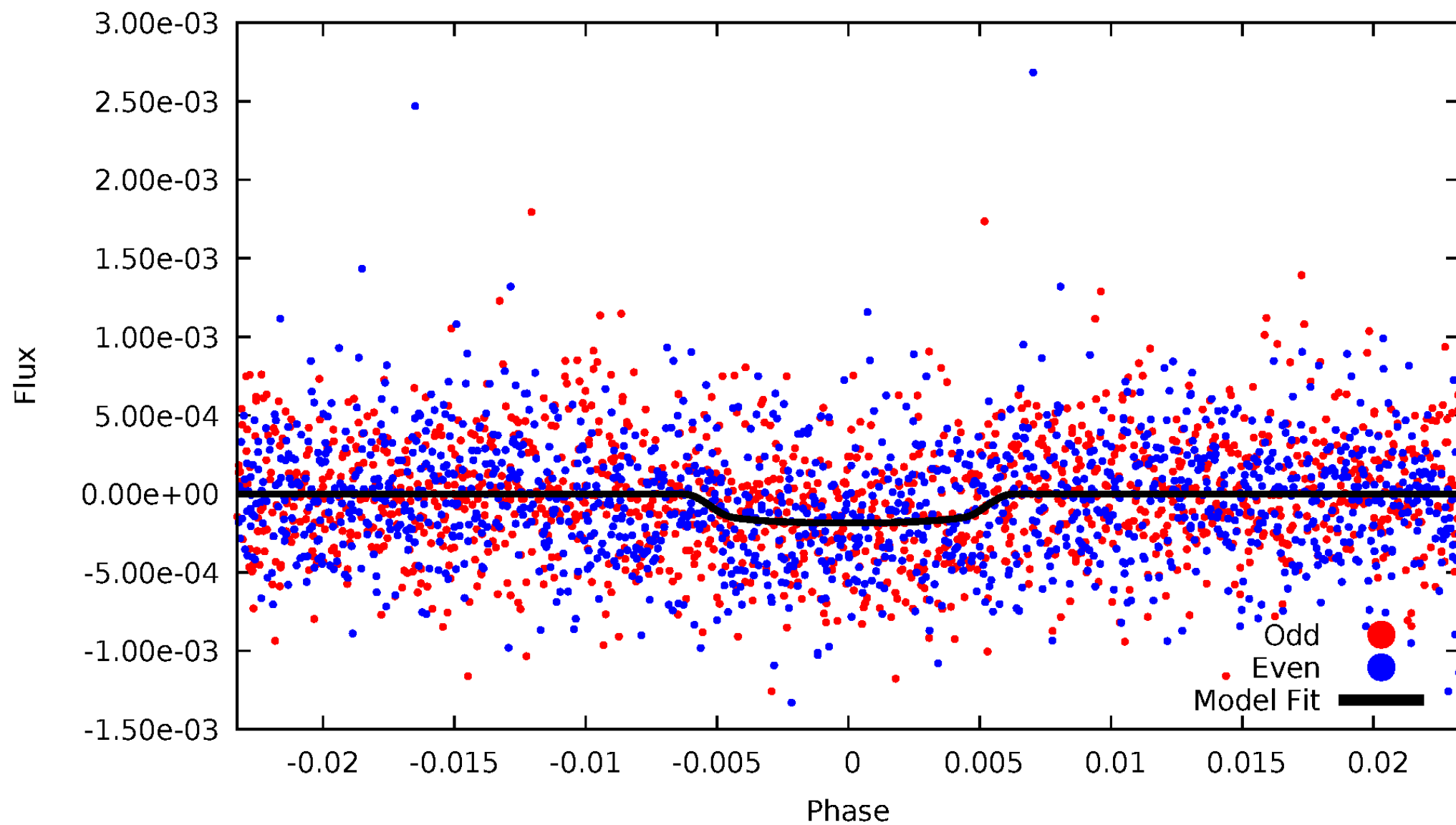


TCE 003240158-02



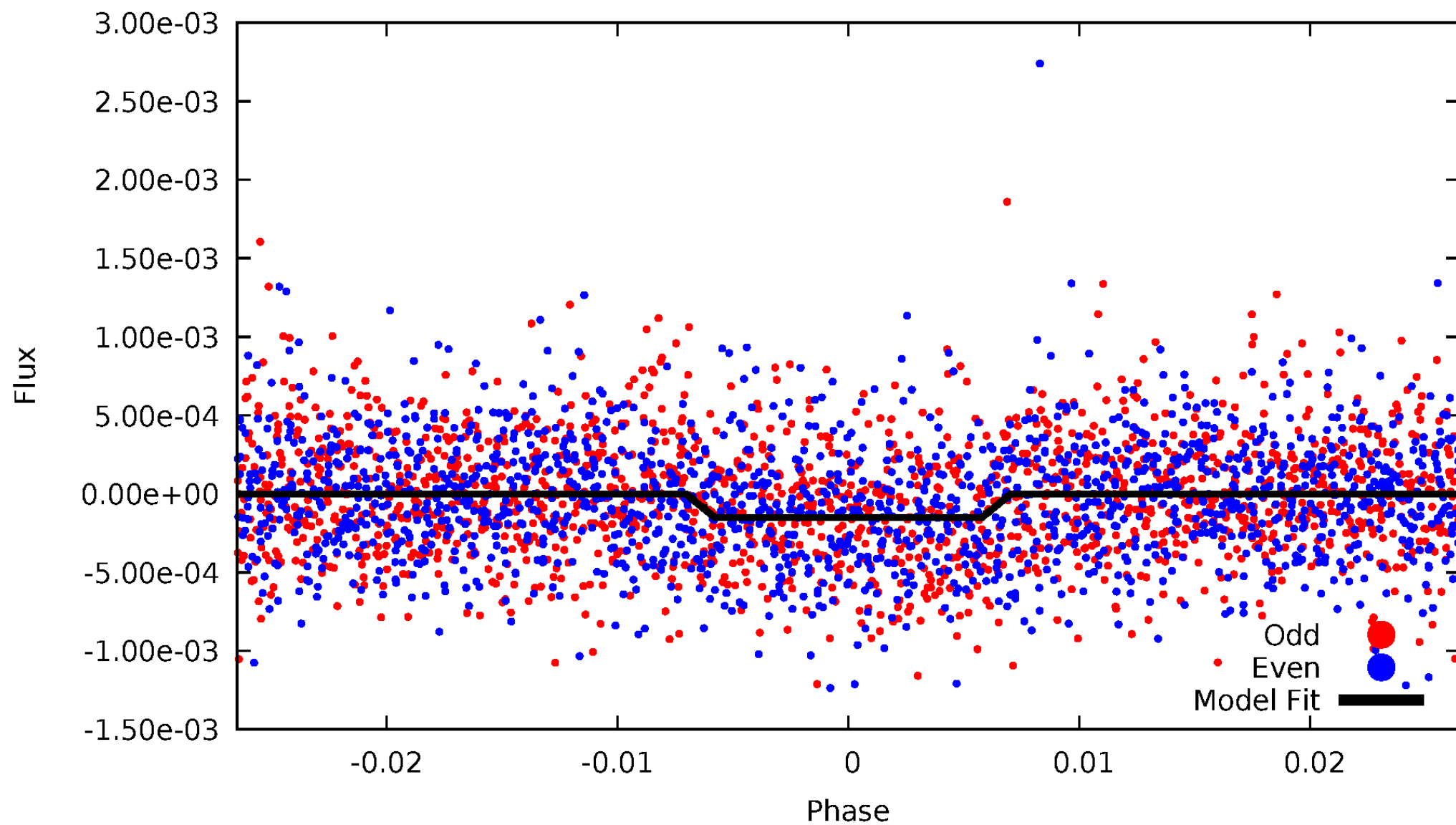
DV Odd/Even

TCE 003240158-02



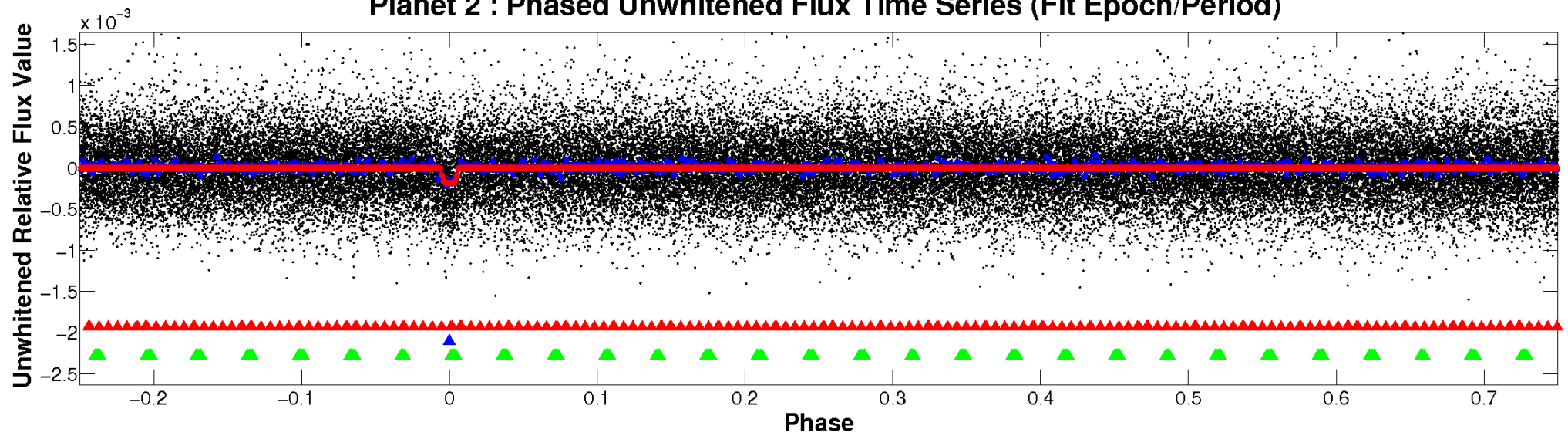
ALT Odd/Even

TCE 003240158-02

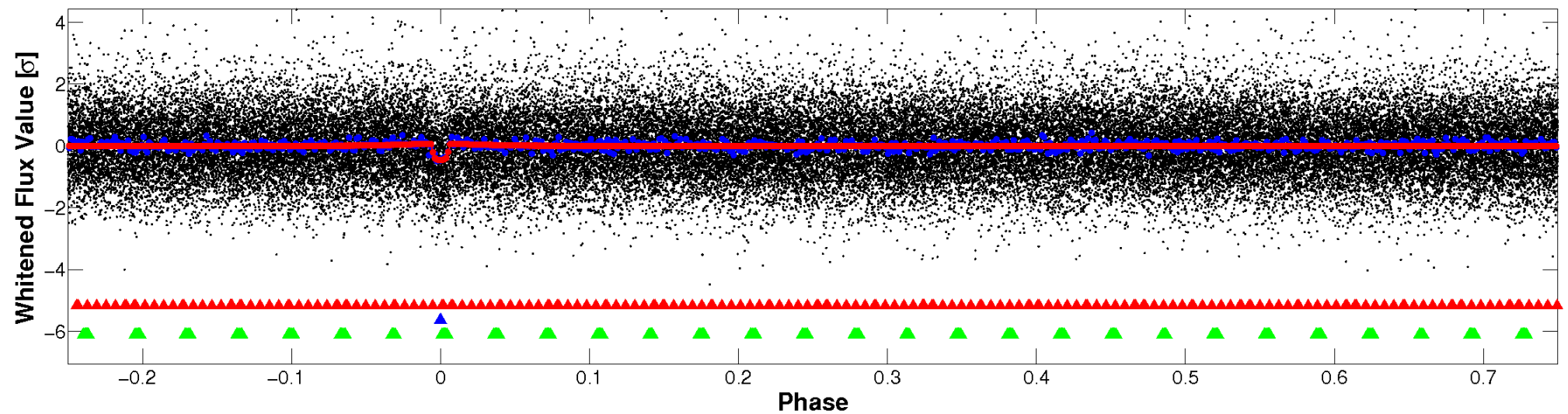


Non-Whitened Vs. Whitened Light Curve

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

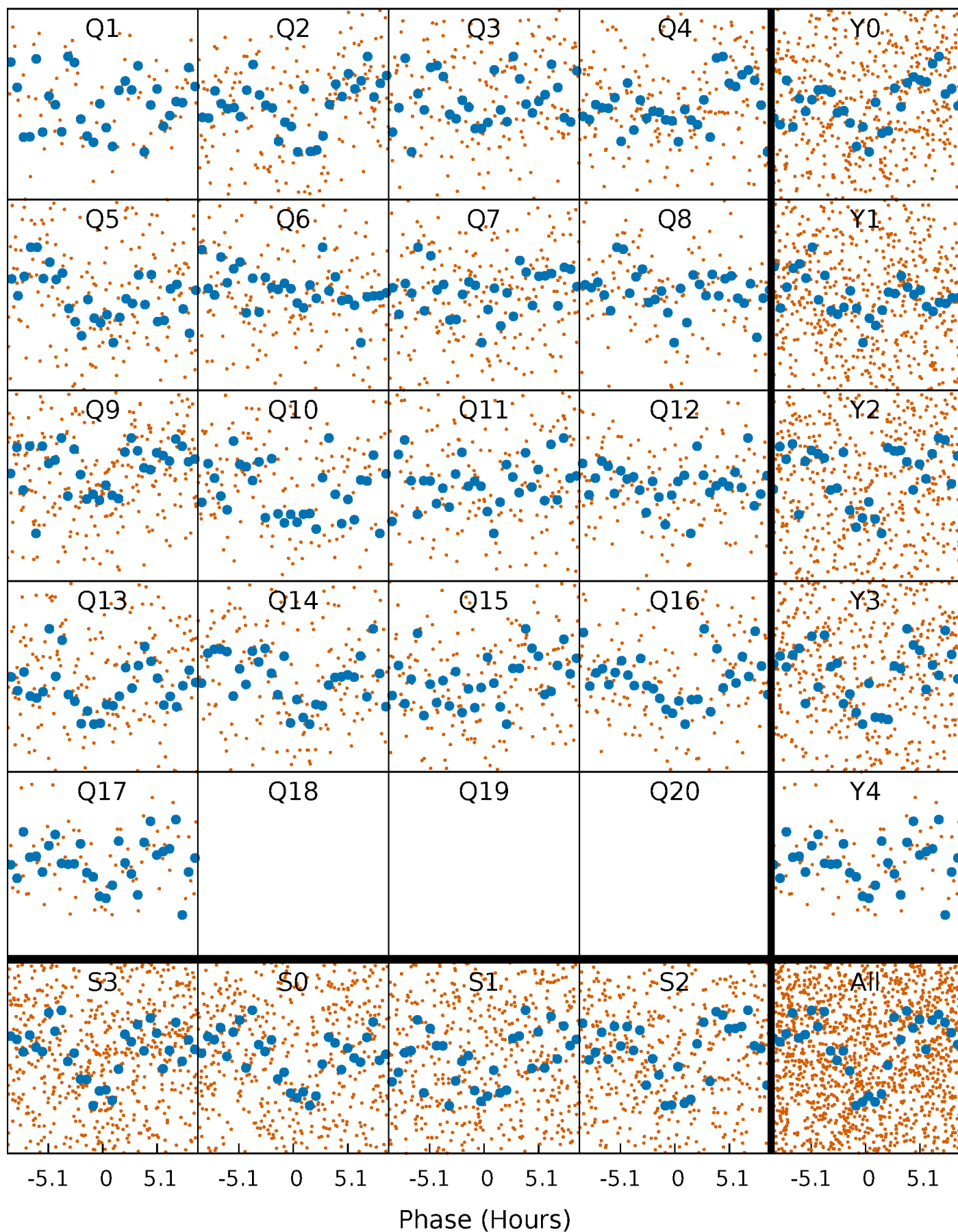


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



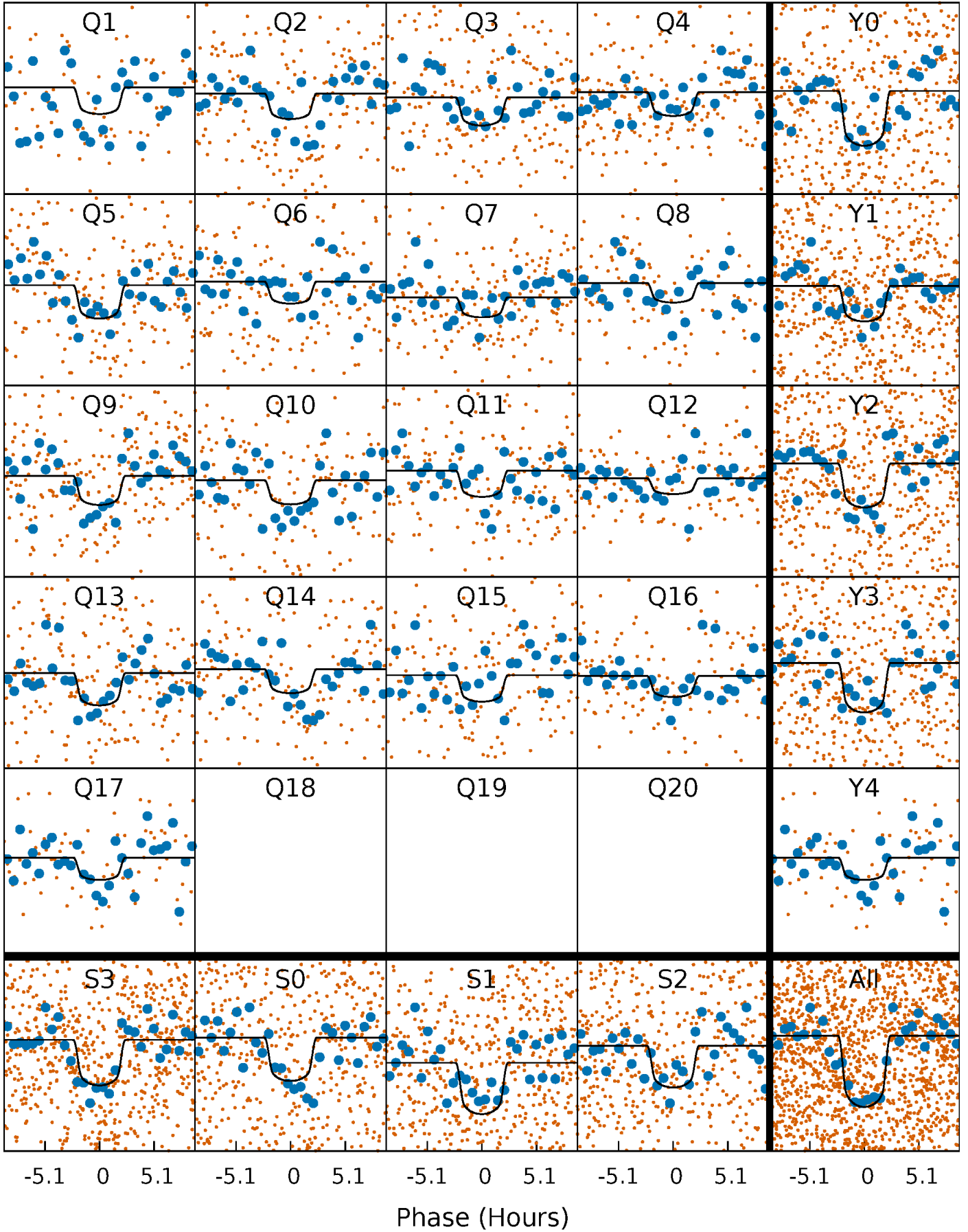
PDC Quarter-Phased Transit Curves

TCE 003240158-02 P= 15.986936 Days $T_0=137.597272$ (BKJD)



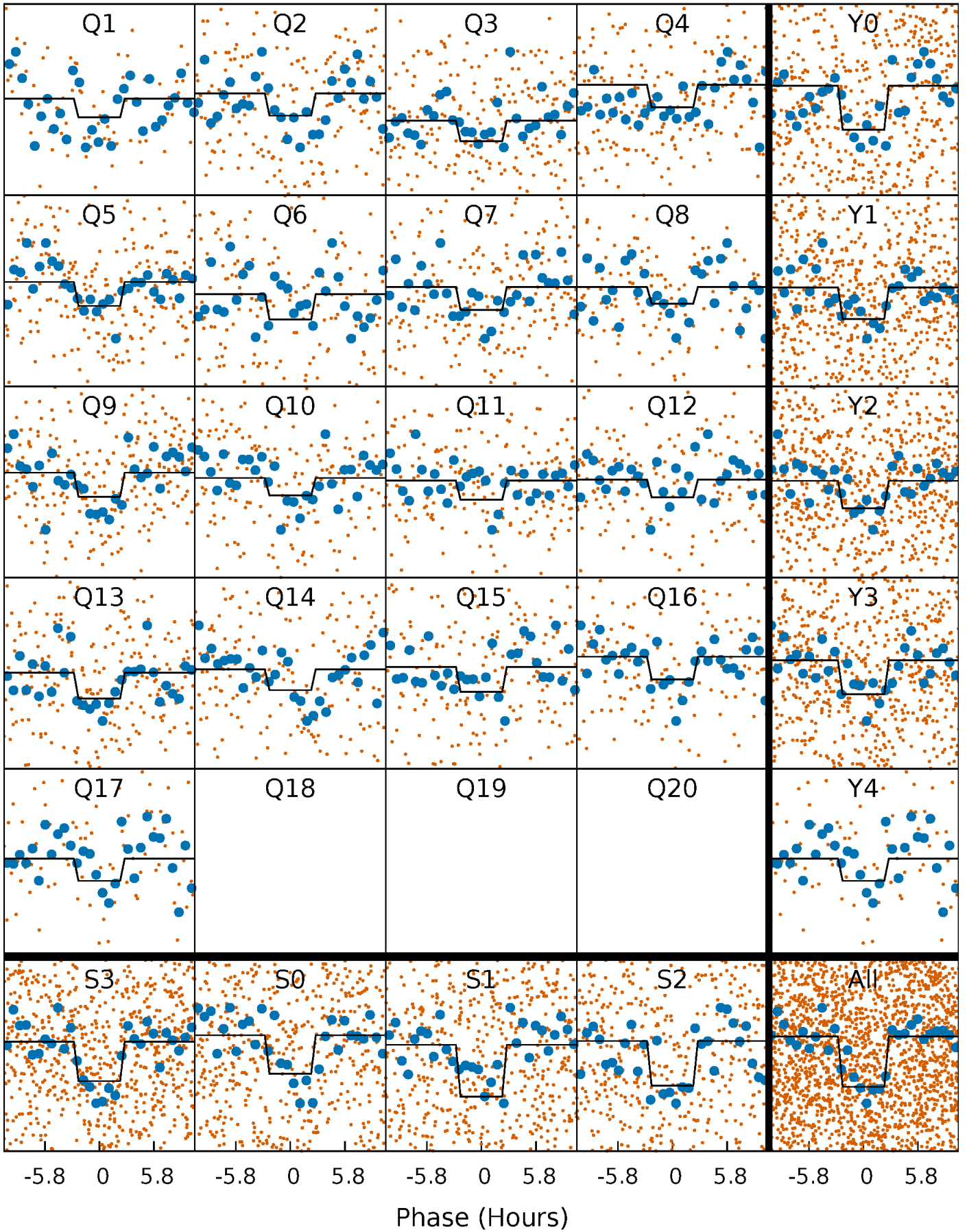
DV Quarter-Phased Transit Curves

TCE 003240158-02 P= 15.986936 Days $T_0=137.597272$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

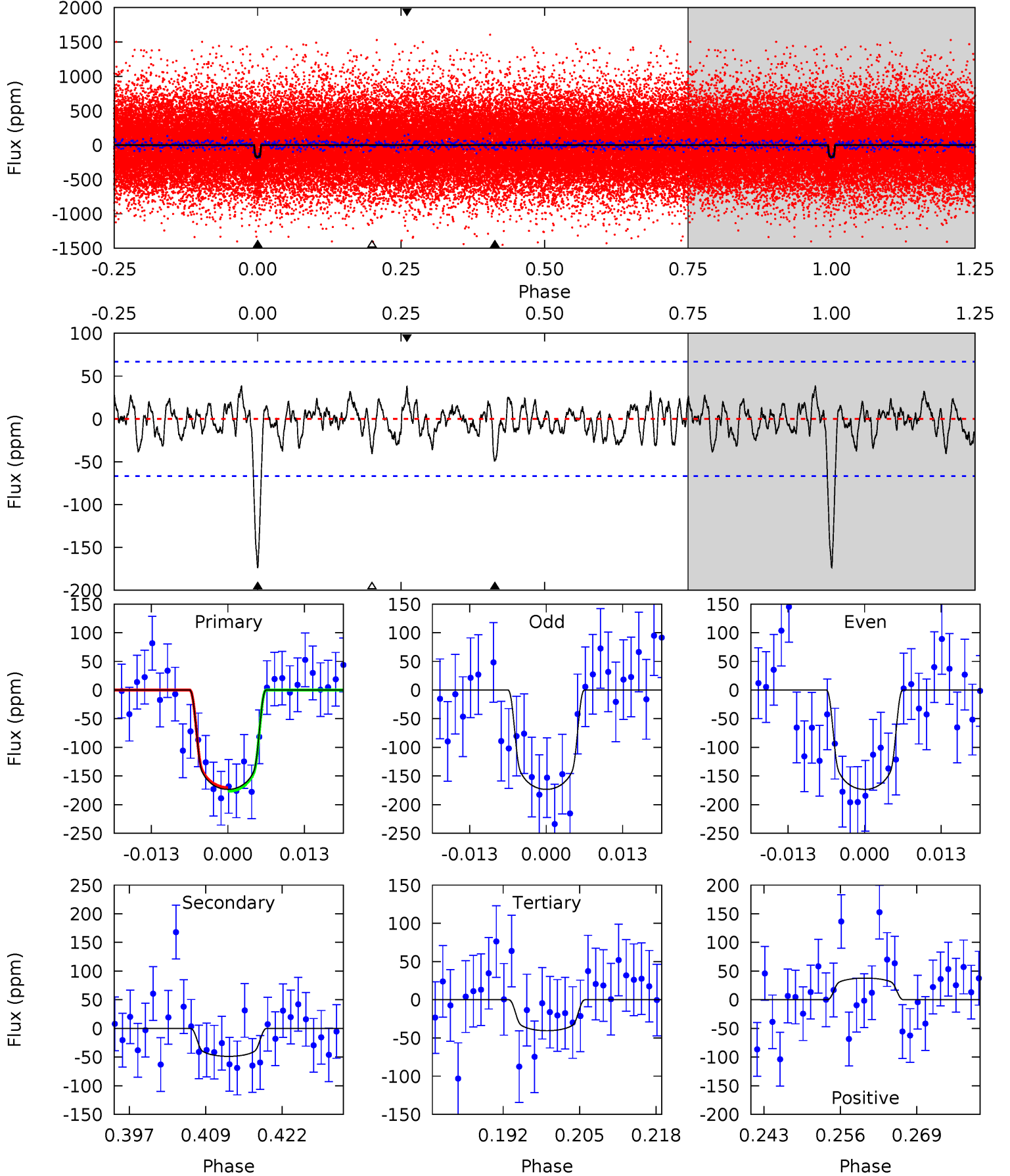
TCE 003240158-02 P= 15.986808 Days $T_0=137.578616$ (BKJD)



DV Model-Shift Uniqueness Test

003240158-02, P = 15.986936 Days, E = 121.610336 Days

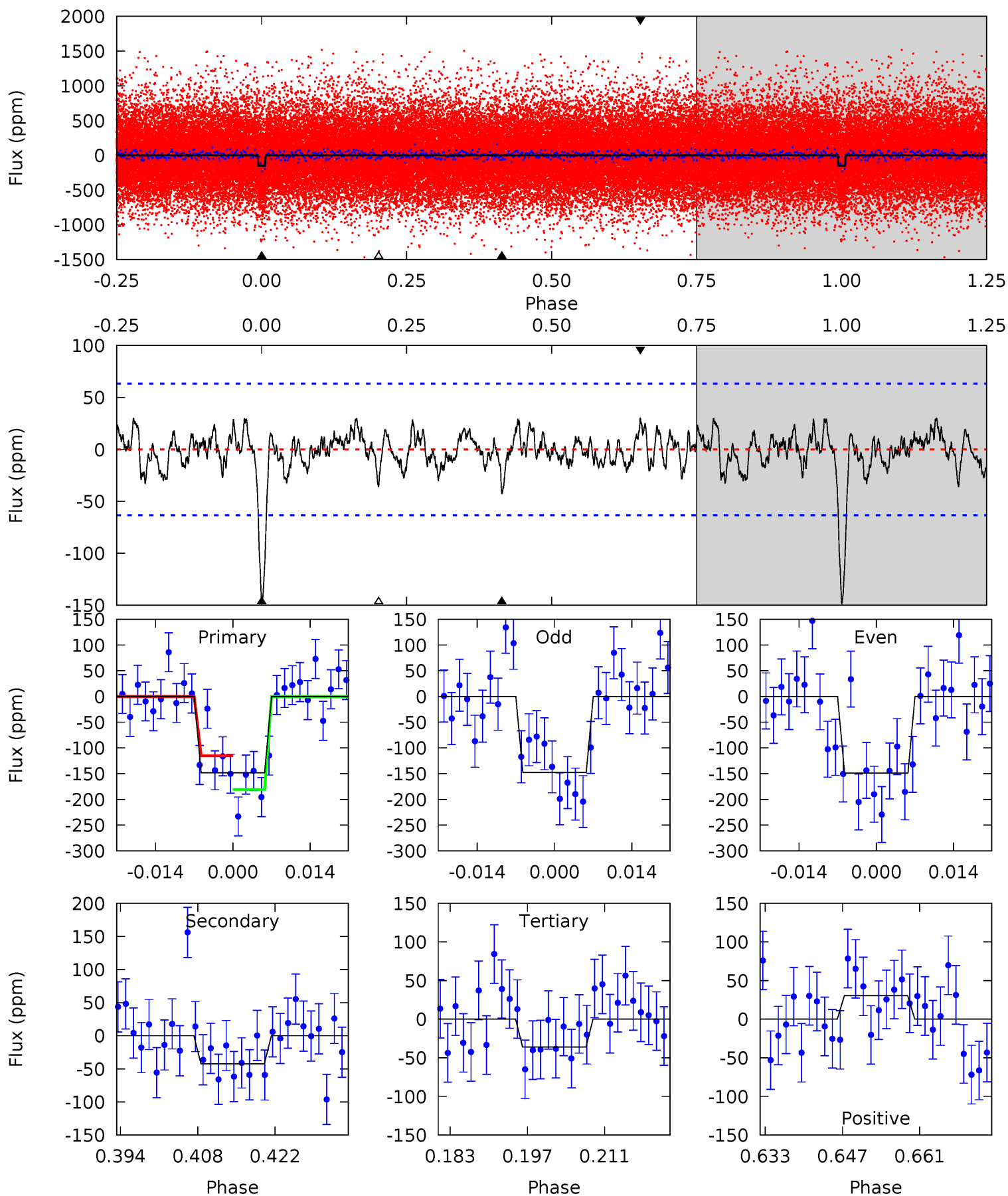
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.9	3.64	3.02	2.82	4.98	2.49	1.08	9.92	10.1	0.62	0.82	0.00	1.04	0.18	0.24



Alt Model-Shift Uniqueness Test

003240158-02, P = 15.986808 Days, E = 121.591808 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.6	3.32	2.82	2.37	4.96	2.46	1.02	8.79	9.24	0.50	0.95	0.03	1.01	0.17	2.56



Stellar Parameters For KIC 003240158

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6049^{+72}_{-91}	$4.353^{+0.076}_{-0.114}$	$0.160^{+0.150}_{-0.150}$	$1.176^{+0.184}_{-0.107}$	$1.140^{+0.068}_{-0.081}$	$0.988^{+0.261}_{-0.349}$
	+1%/-2%	+2%/-3%	+94%/-94%	+16%/-9%	+6%/-7%	+26%/-35%
Source	SPE90	SPE90	SPE90	DSEP		

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

Secondary Eclipse Parameters for KIC 003240158-02 / KOI 1106.02

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-49 ± 13	$1.95^{+0.67}_{-0.60}$	1124^{+46}_{-37}	4317^{+698}_{-443}	118^{+130}_{-56}
Alt.	-42 ± 13	$1.62^{+0.58}_{-0.63}$	1125^{+43}_{-34}	4506^{+1113}_{-514}	145^{+245}_{-70}

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 $A_{obs} \gg 1.0$

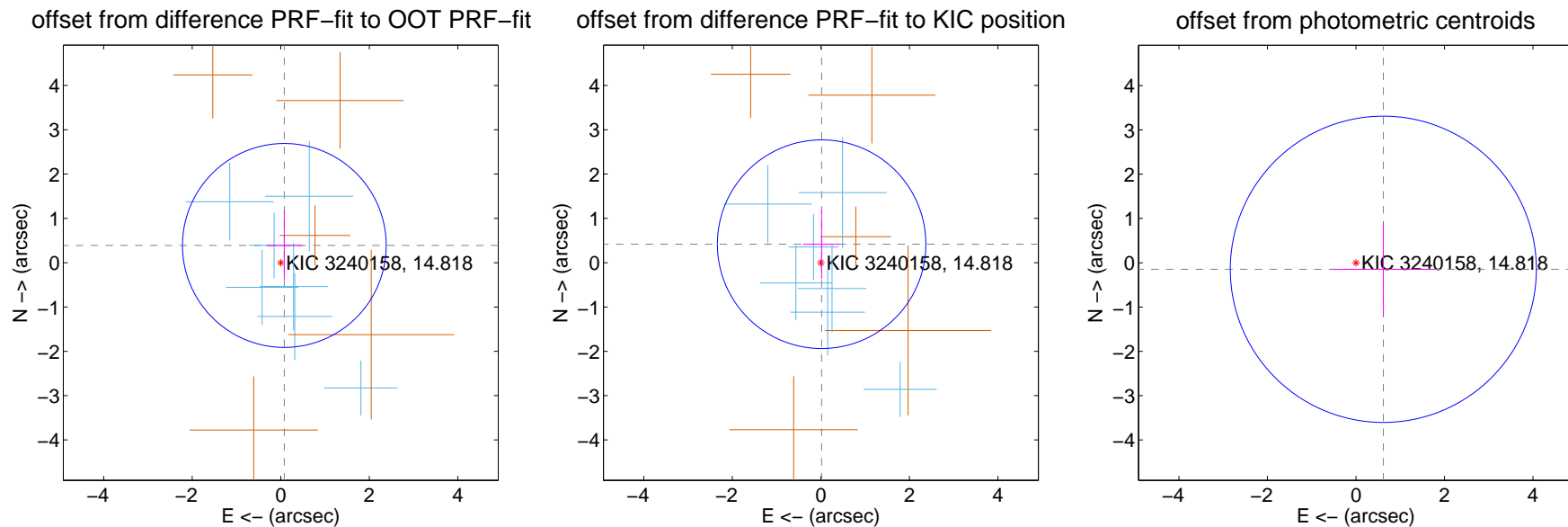
DV Centroid Data

Supplemental centroid analysis for 003240158-02. Kepler magnitude: 14.82. Transit SNR 10.28

There are 7 quarters with good PRF difference image offsets

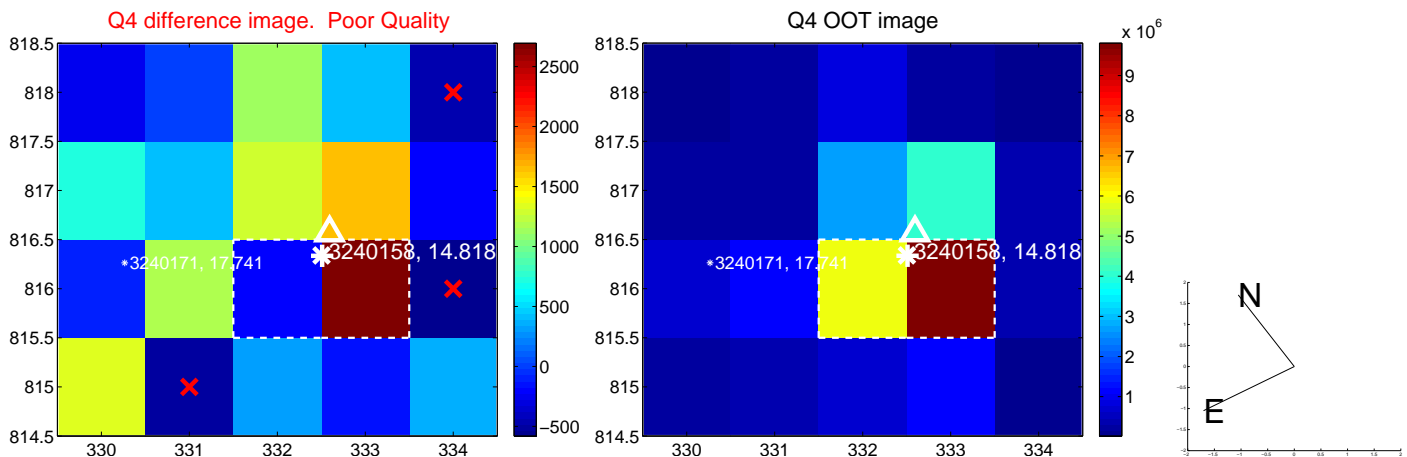
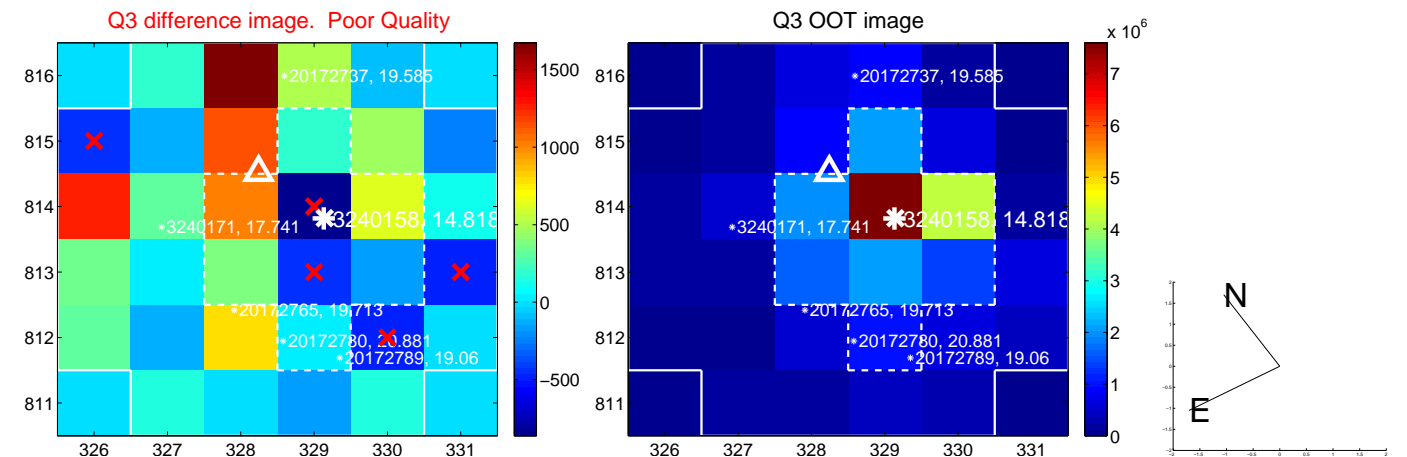
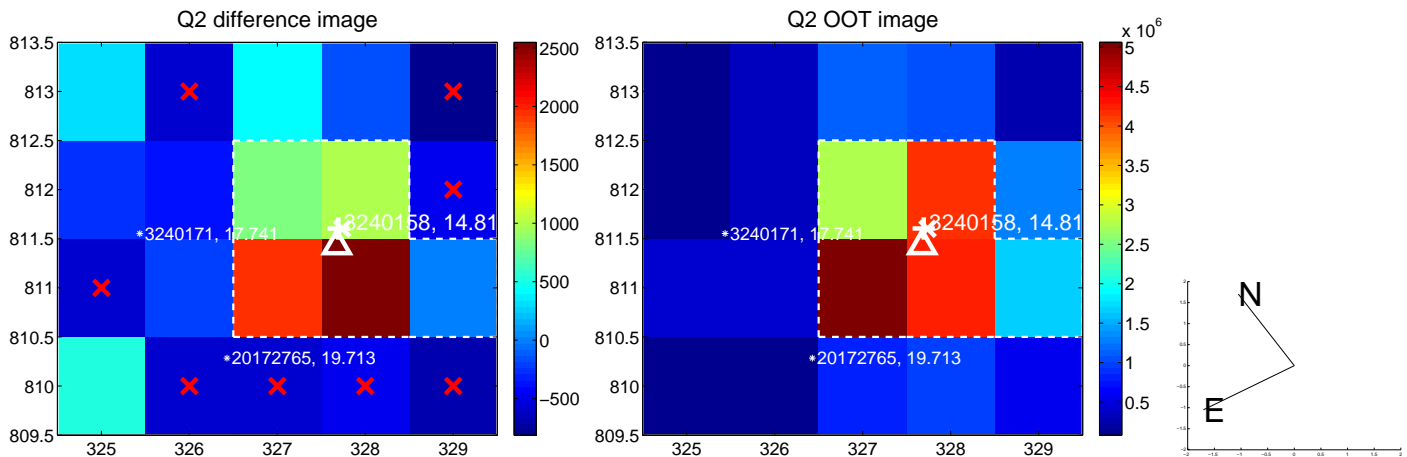
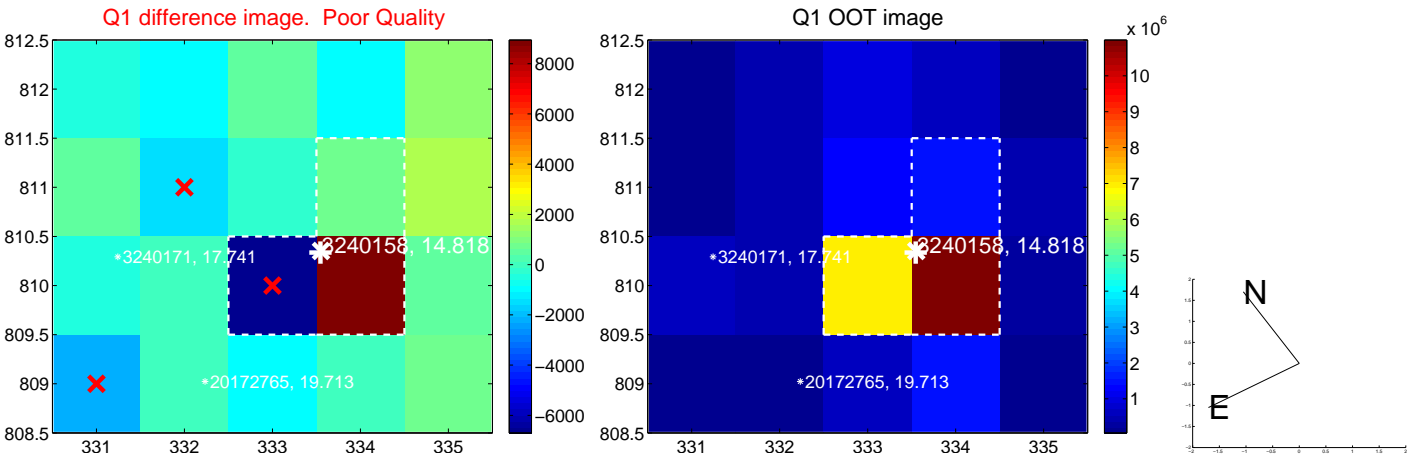
The direct PRF centroid is offset from the target star catalog position by about 0.06 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.397 ± 0.767	0.52	-0.081 ± 0.416	0.389 ± 0.779
PRF-fit source offset from KIC position	0.418 ± 0.785	0.53	-0.017 ± 0.414	0.417 ± 0.785
photometric centroid source offset	0.64 ± 1.15	0.55	-0.62 ± 1.16	-0.15 ± 1.07

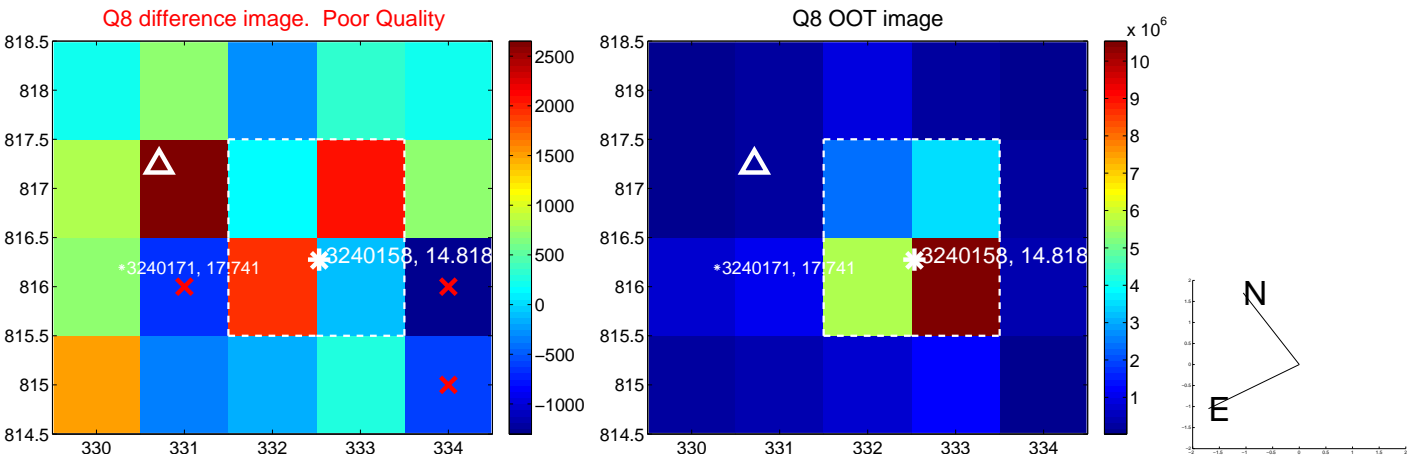
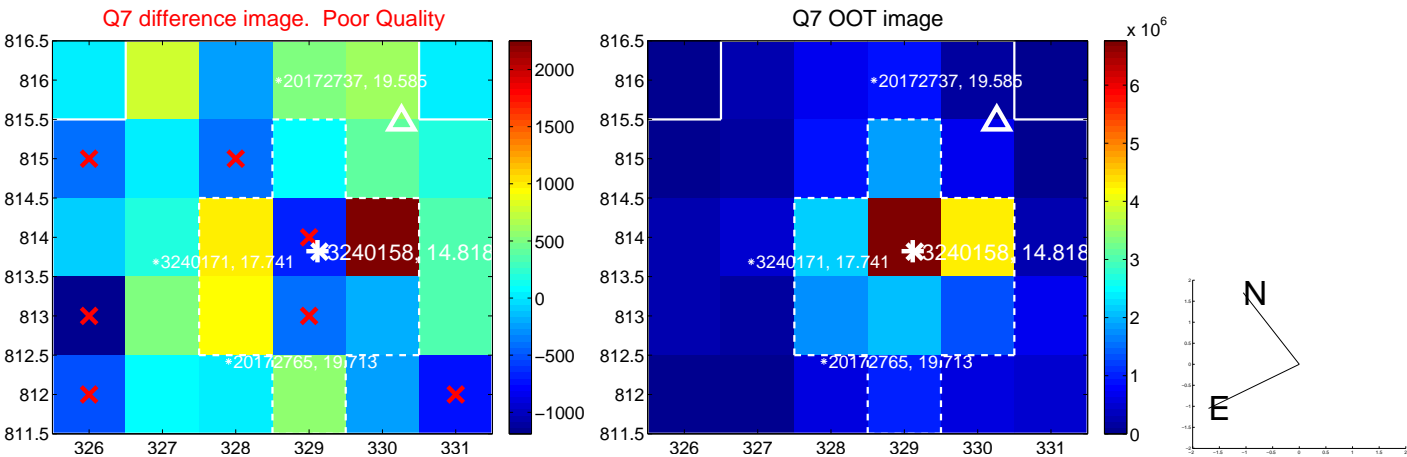
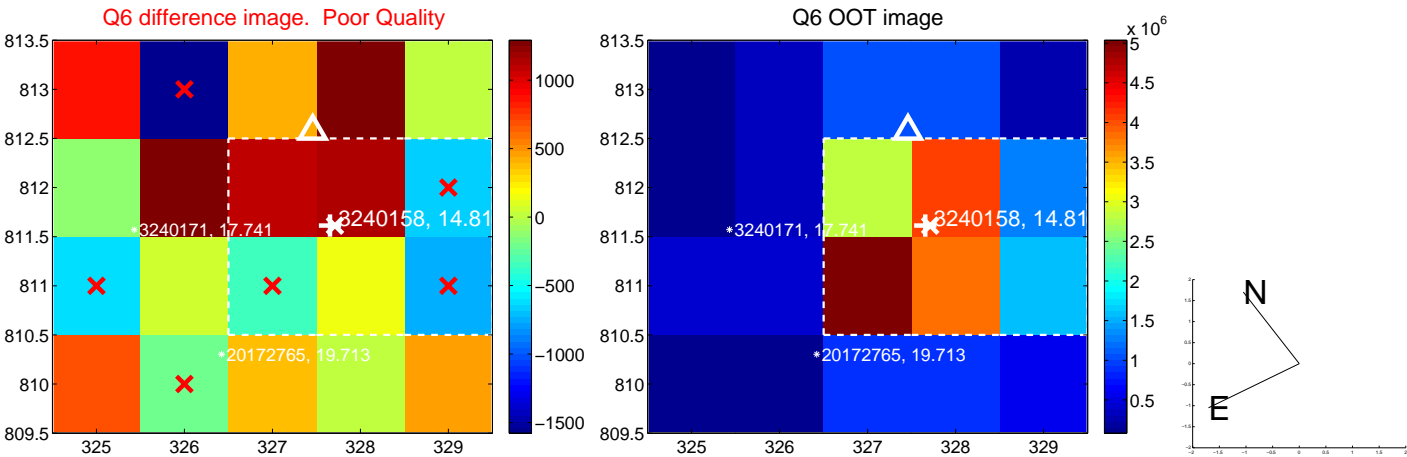
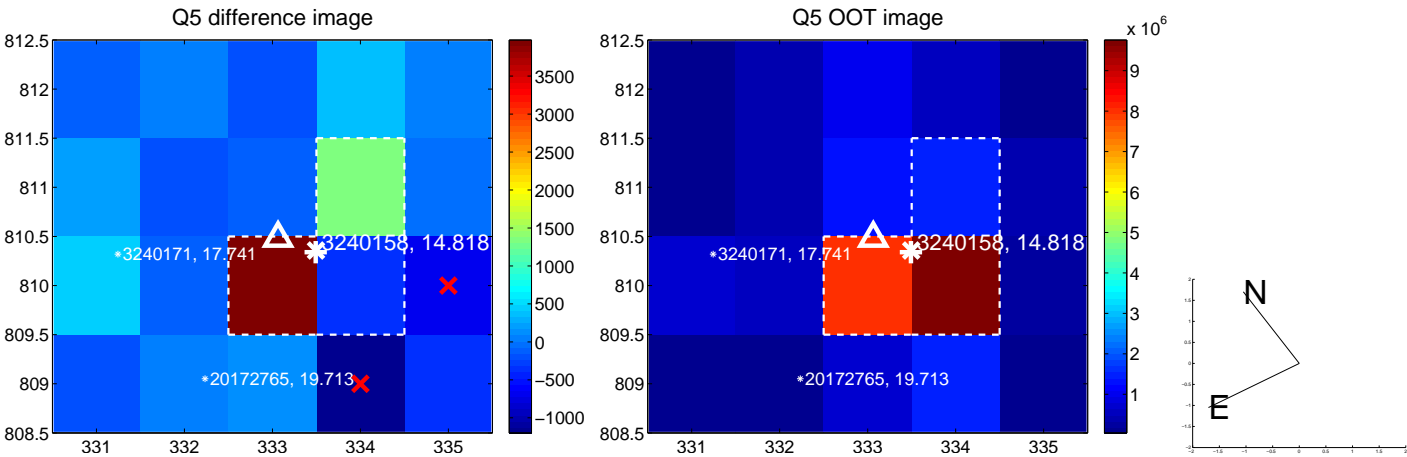


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

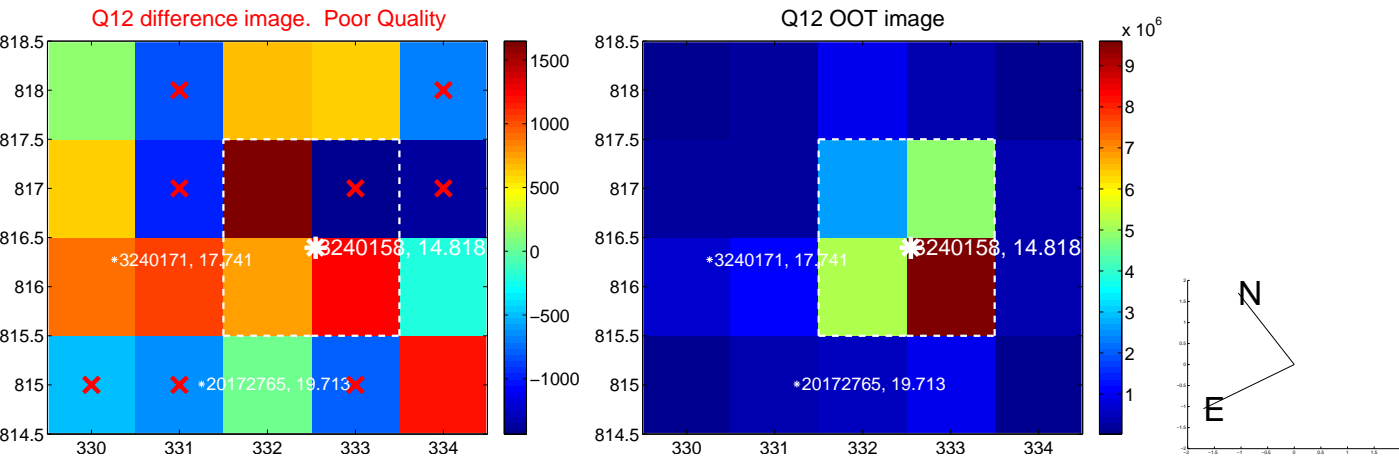
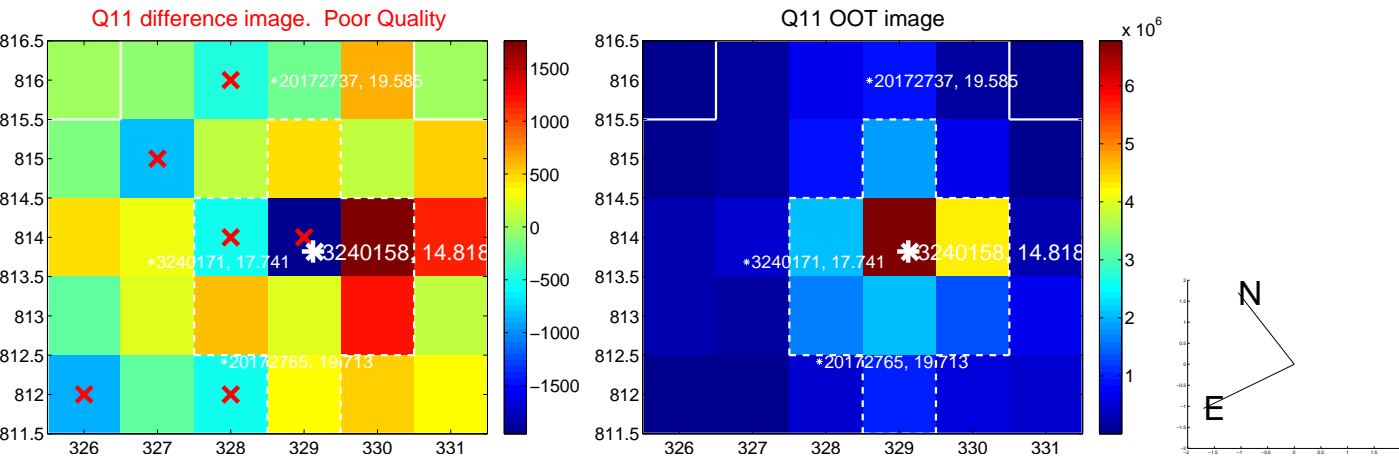
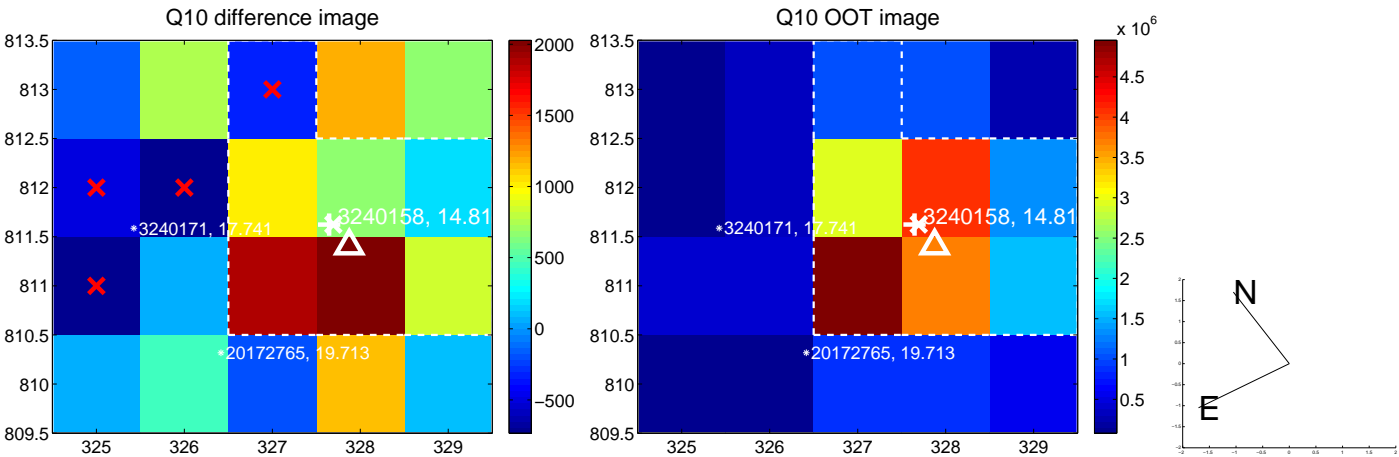
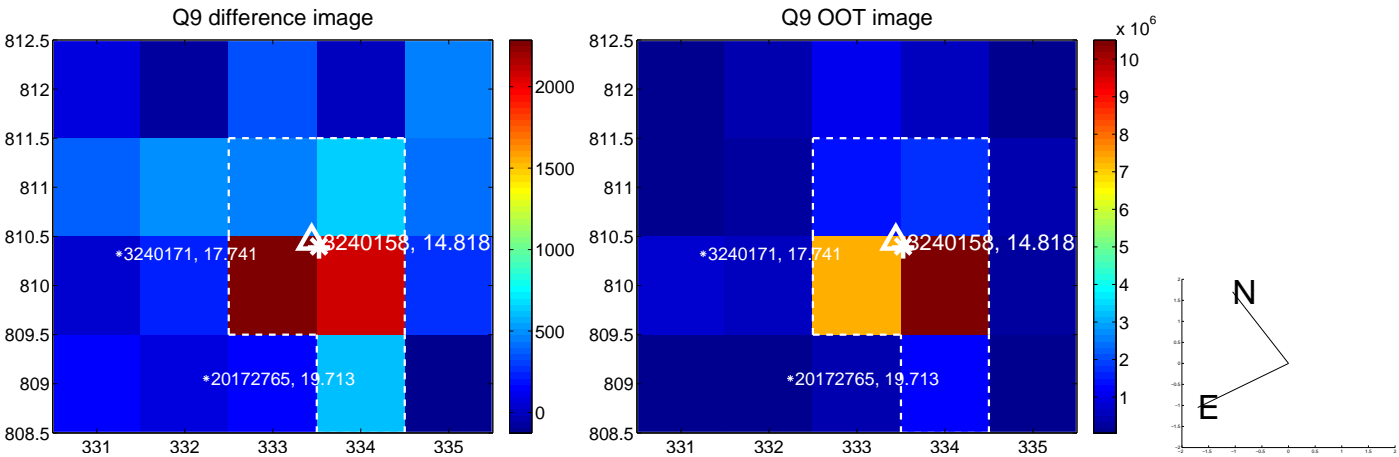
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



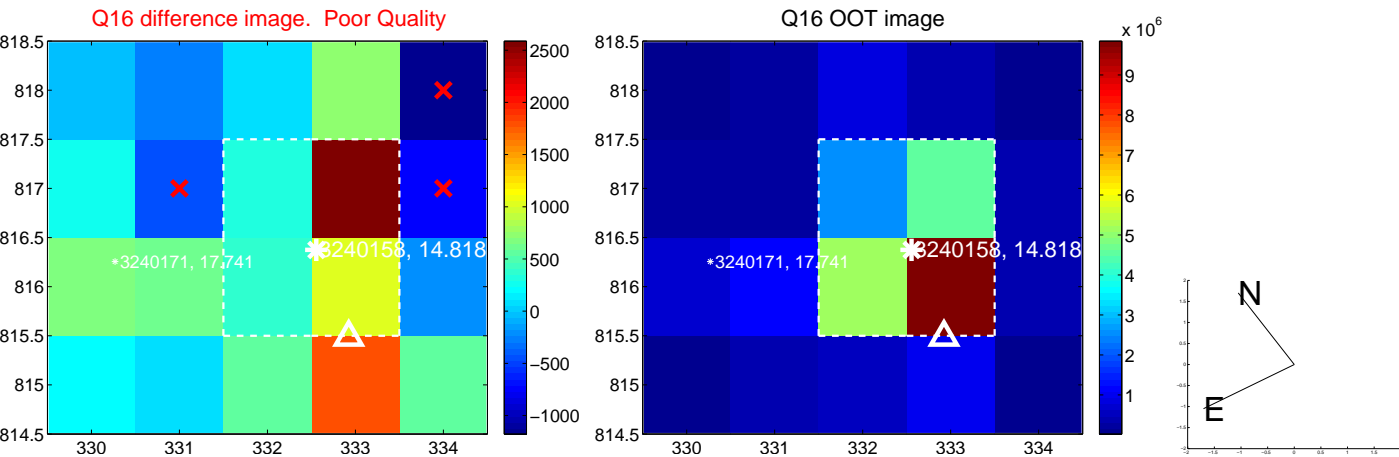
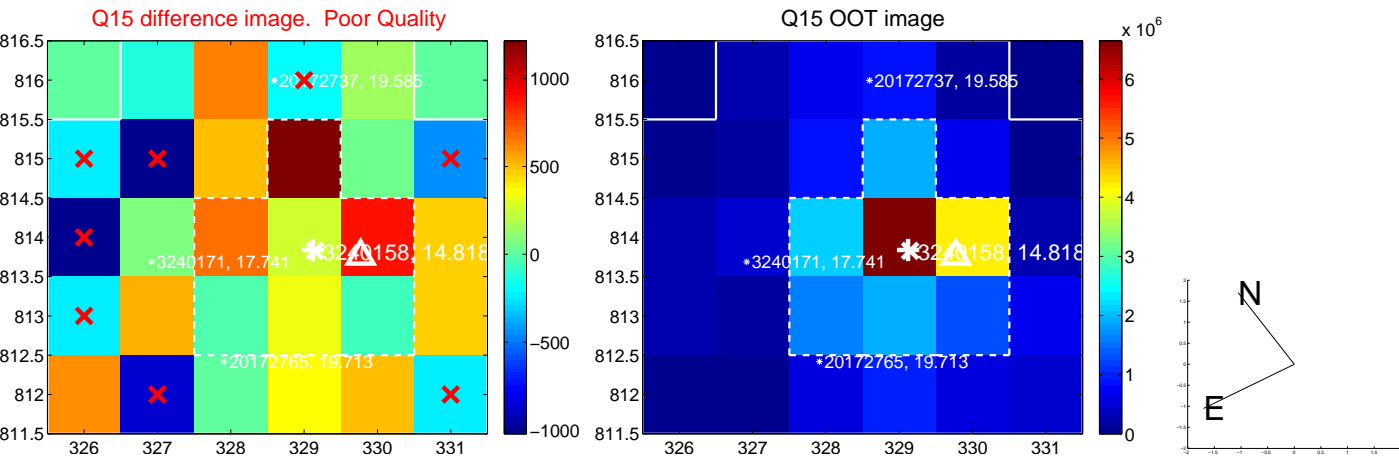
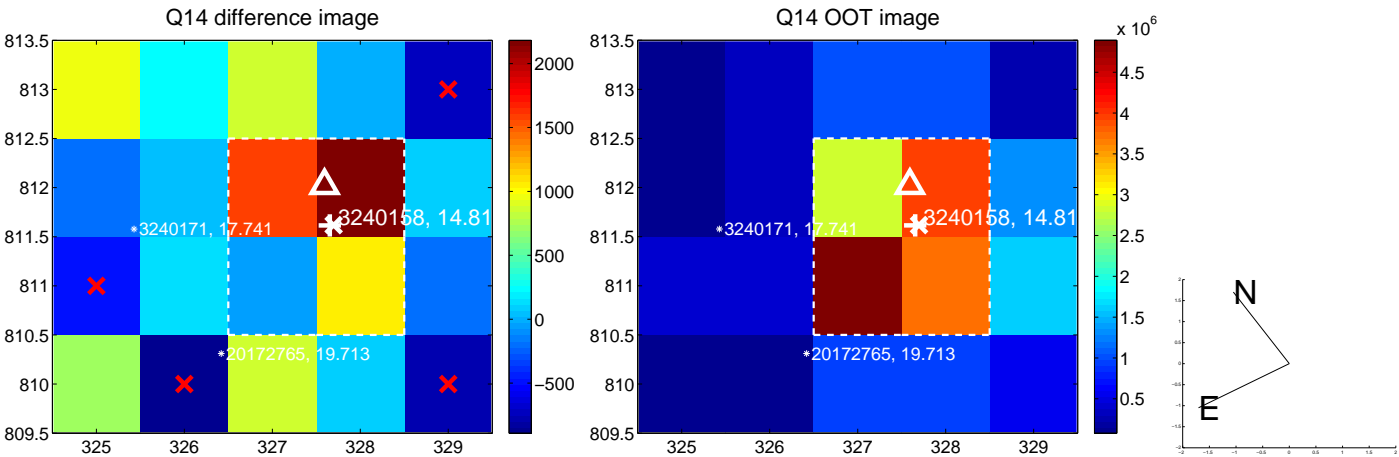
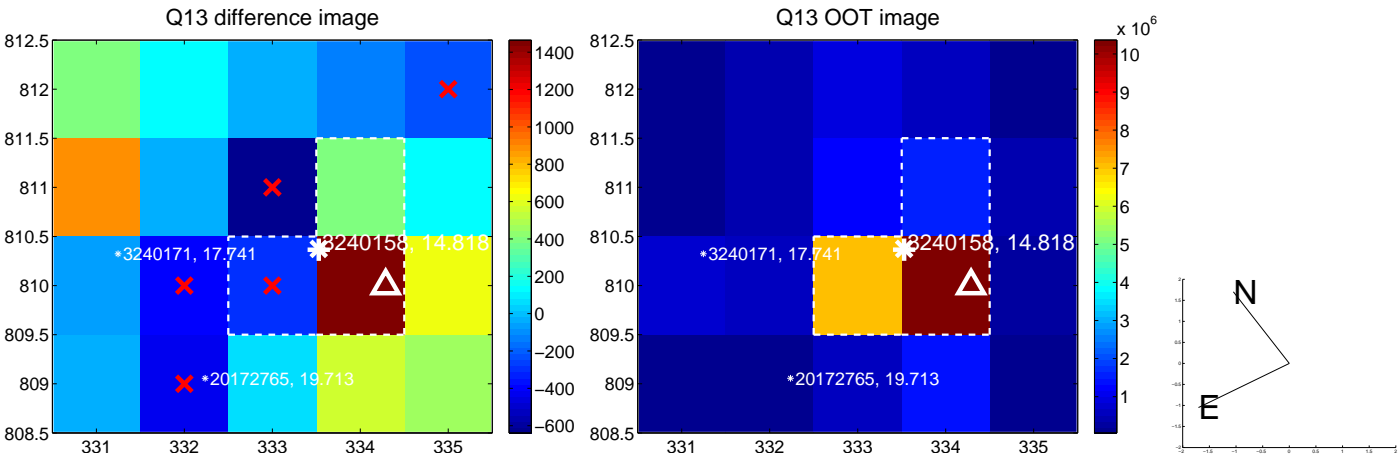
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



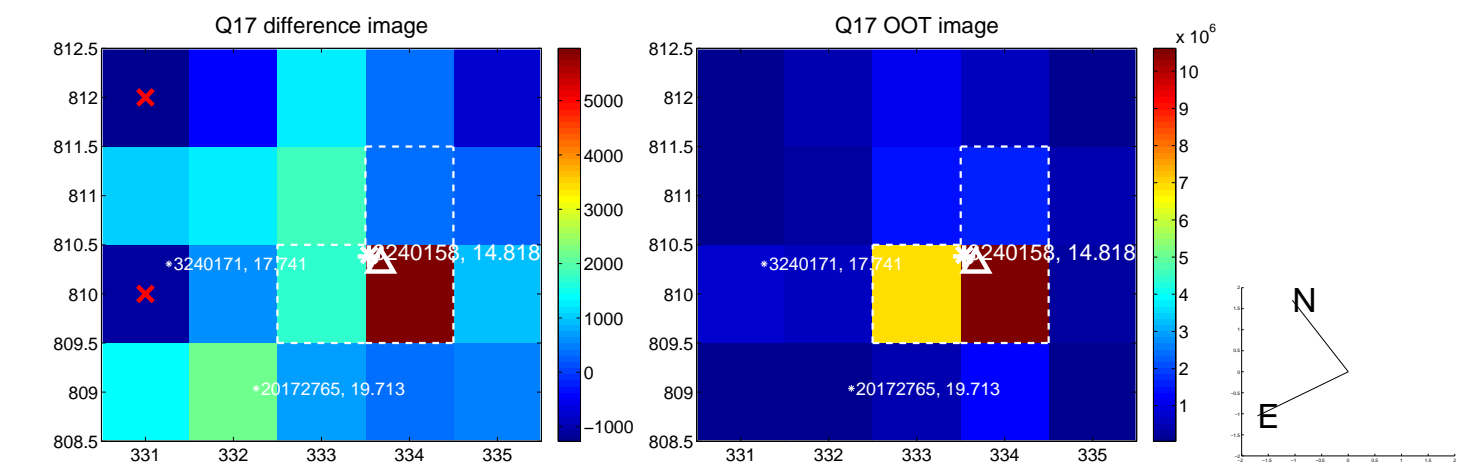
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



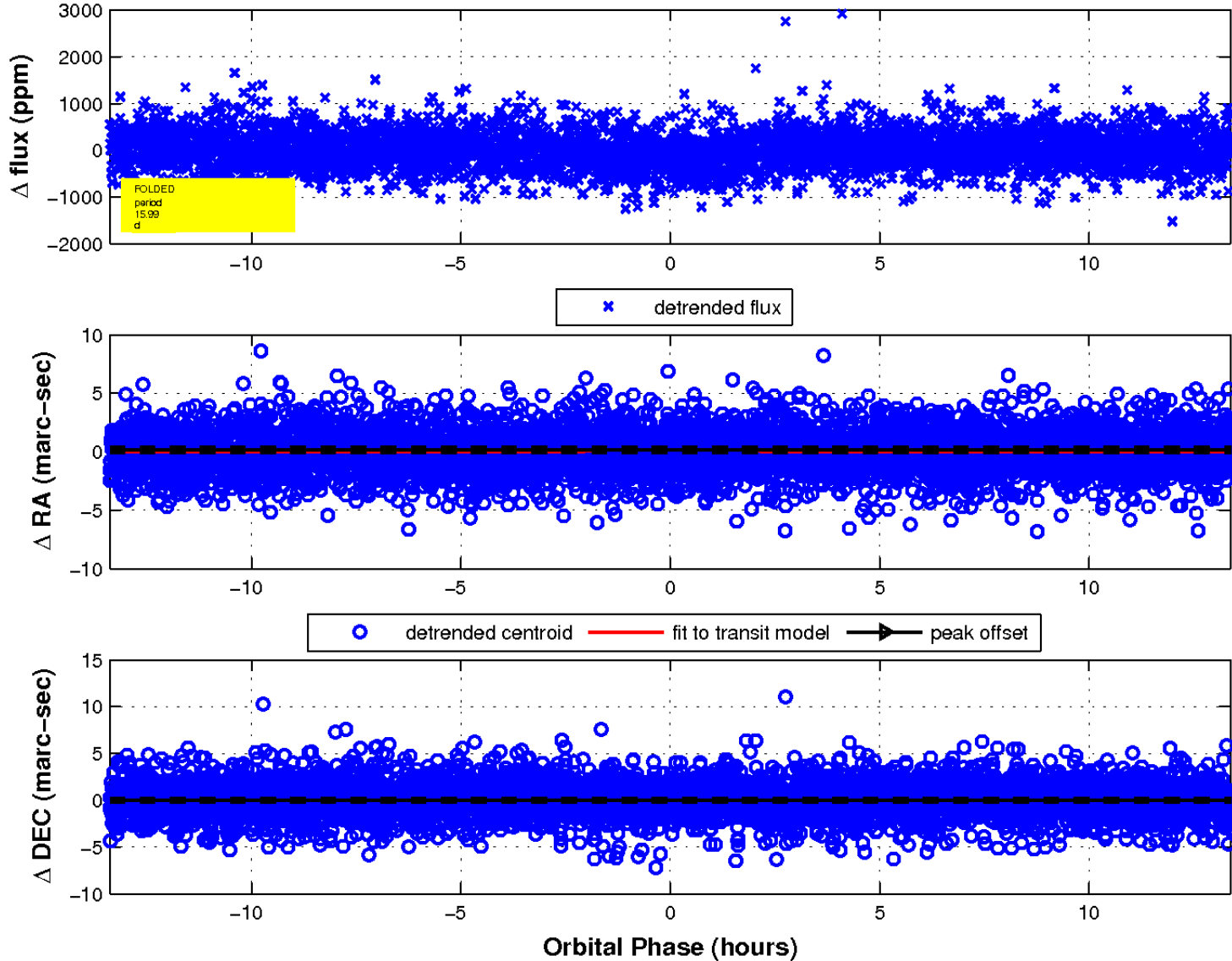
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

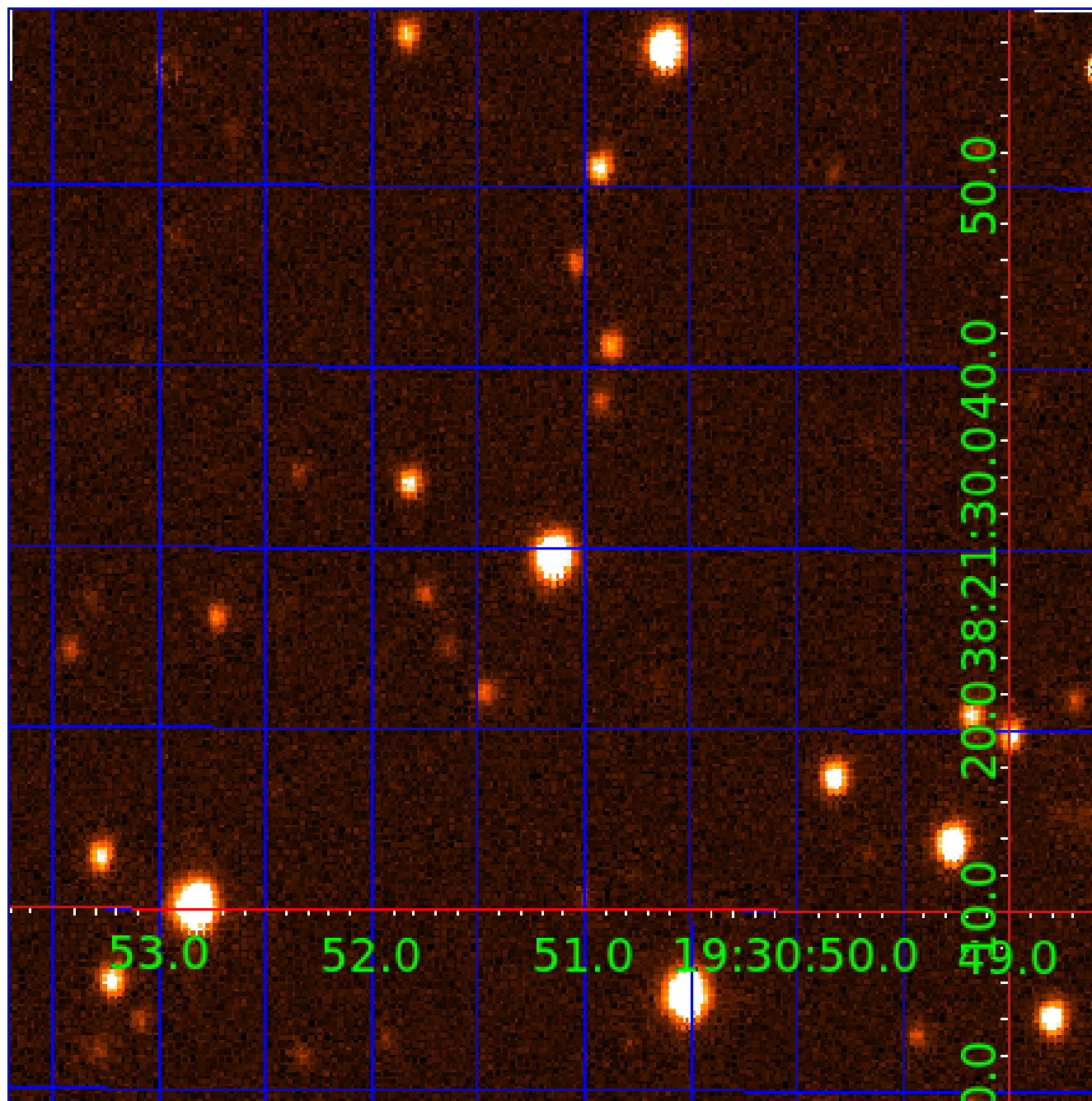


fluxWeightedCentroids, Planet 2 of 3



UKIRT Image

Declination



KIC 003240158

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})
003240158-01	OBS	1106.01	7.426092	132.472907	446.2	3.893	32.0	35.8	1.18	6049	2.83	274.30
003240158-02	OBS	1106.02	15.986936	137.597272	187.1	4.464	9.3	10.3	1.18	6049	1.91	98.68
003240158-03	OBS	1106.03	13.229975	134.371641	162.3	6.787	7.9	9.3	1.18	6049	3.05	127.00

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003240158-01	OBS	PC	1.00	0	0	0	0	NO_COMMENT
003240158-02	OBS	PC	0.99	0	0	0	0	NO_COMMENT
003240158-03	OBS	PC	0.95	0	0	0	0	NO_COMMENT

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.

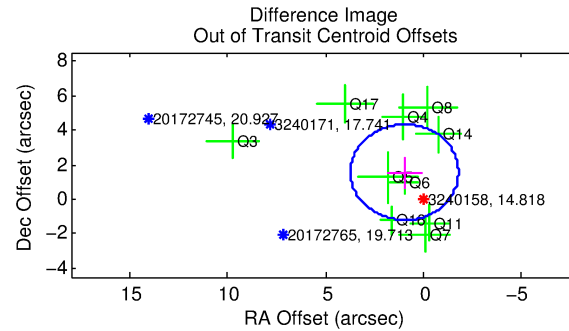
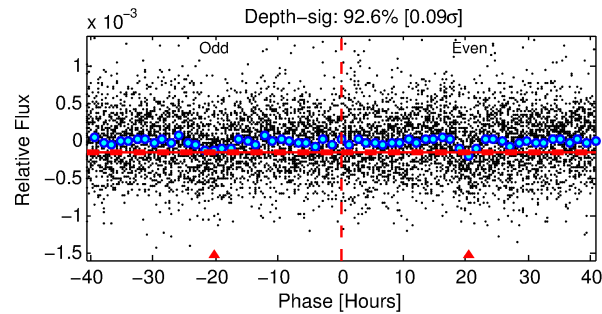
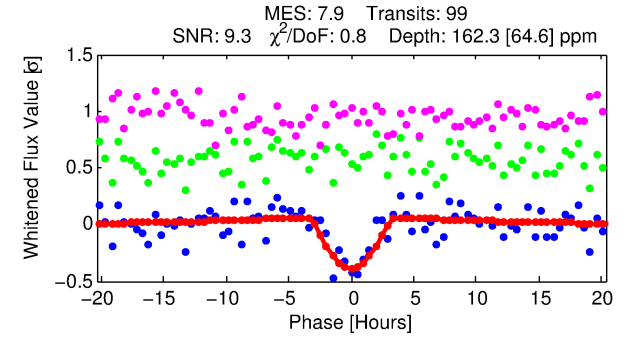
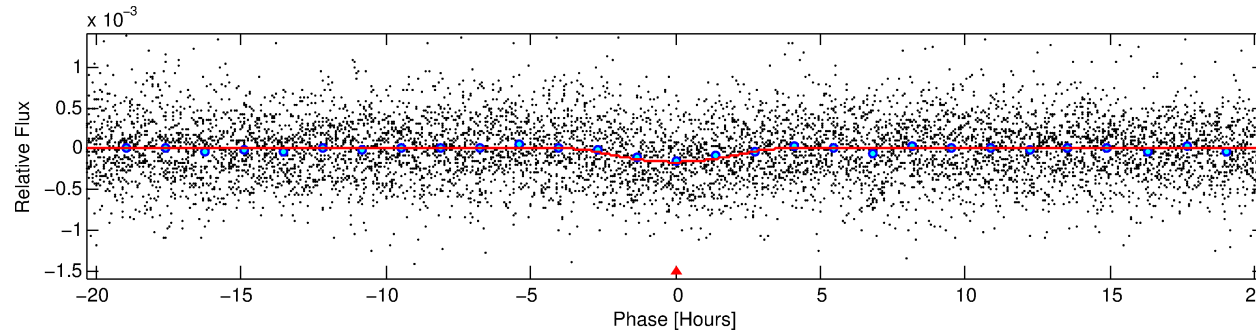
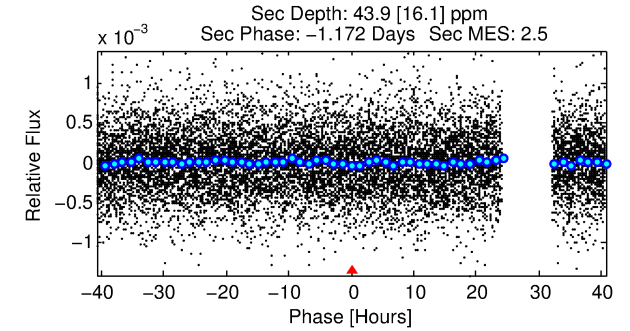
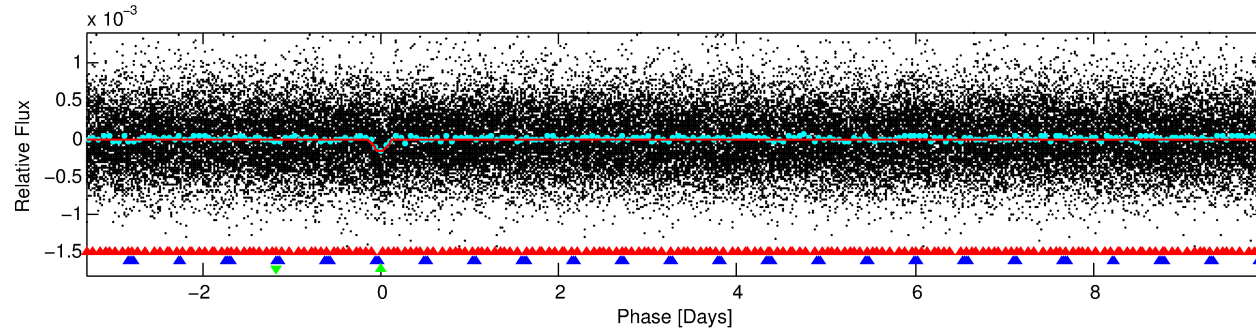
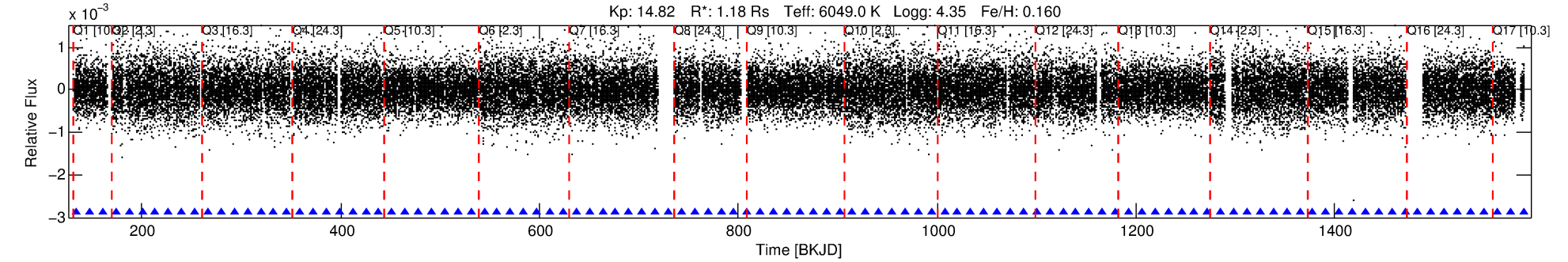
Ephemeris Match Information For 003240158-03

No Significant Match Found

DV One-Page Summary

KIC: 3240158 Candidate: 3 of 3 Period: 13.230 d

KOI: K01106.03 Corr: 0.917



DV Fit Results:

Period = 13.22998 [0.00025] d
Epoch = 134.3716 [0.0156] BKJD
Rp/R* = 0.0238 [0.0875]
a/R* = 3.43 [3.09]
b = 1.00 [0.13]
Seff = 127.01 [26.98]
Teff = 856 [45] K
Rp = 3.05 [11.24] Re
a = 0.1143 [0.0156] AU
Ag = 33.94 [250.51] [0.13σ]
Teffp = 3195 [5892] K [0.40σ]

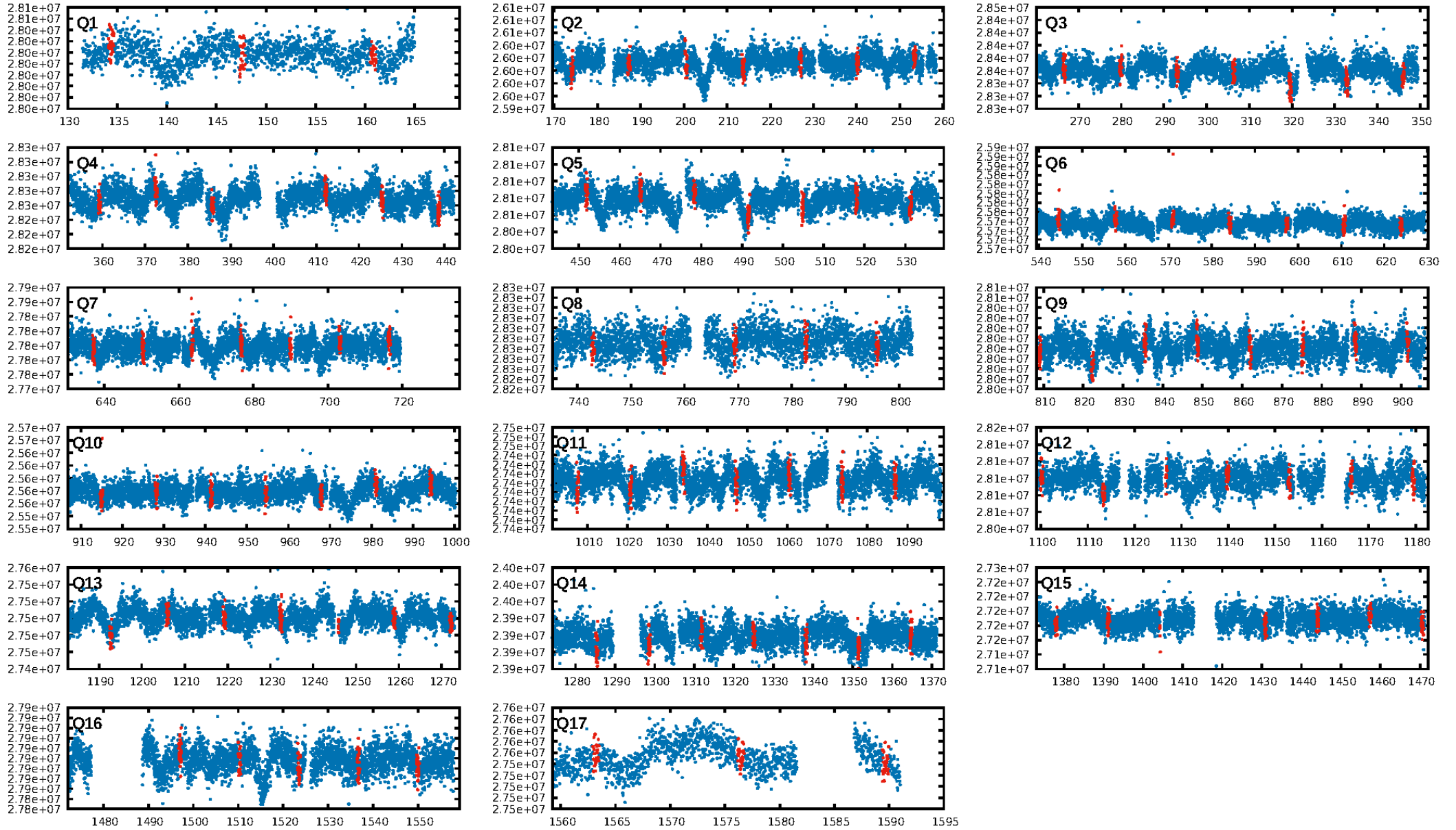
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [17.80σ]
LongPeriod-sig: 100.0% [8.15σ]
ModelChiSquare2-sig: 95.4%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.37e-15
RollingBand-fgt: 1.00 [94/94]
GhostDiagnostic-chr: 1.124
Centroid-sig: 54.8%
Centroid-so: 0.899 arcsec [0.73σ]
OotOffset-rm: 1.834 arcsec [1.99σ]
KicOffset-rm: 1.906 arcsec [1.88σ]
OotOffset-st: 2/3/3/2 [10]
KicOffset-st: 2/3/3/2 [10]
DiffImageQuality-fgm: 0.50 [5/10]
DiffImageOverlap-fno: 1.00 [17/17]

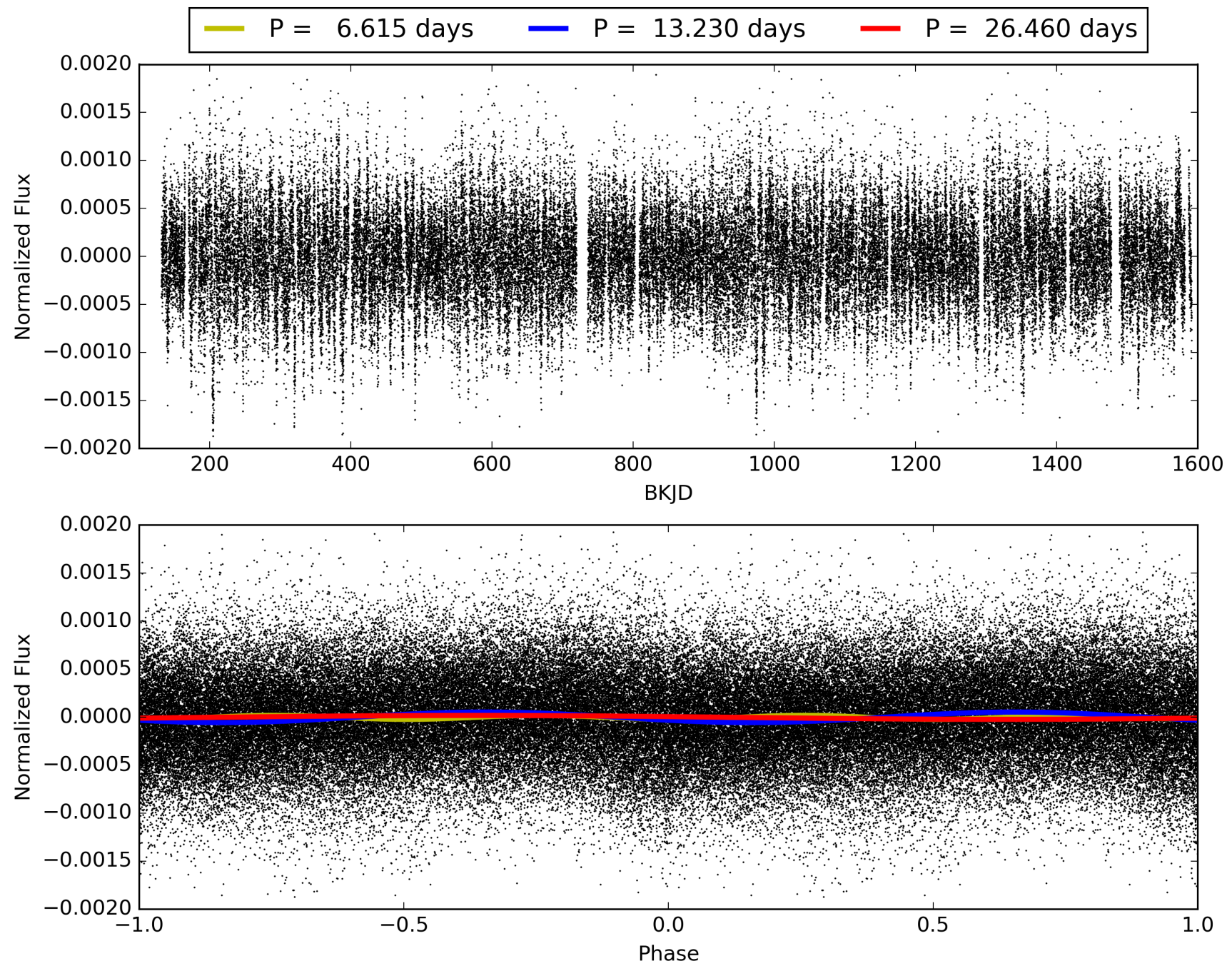
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 04:45:39 Z

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

TCE 003240158-03, PDC Light Curves

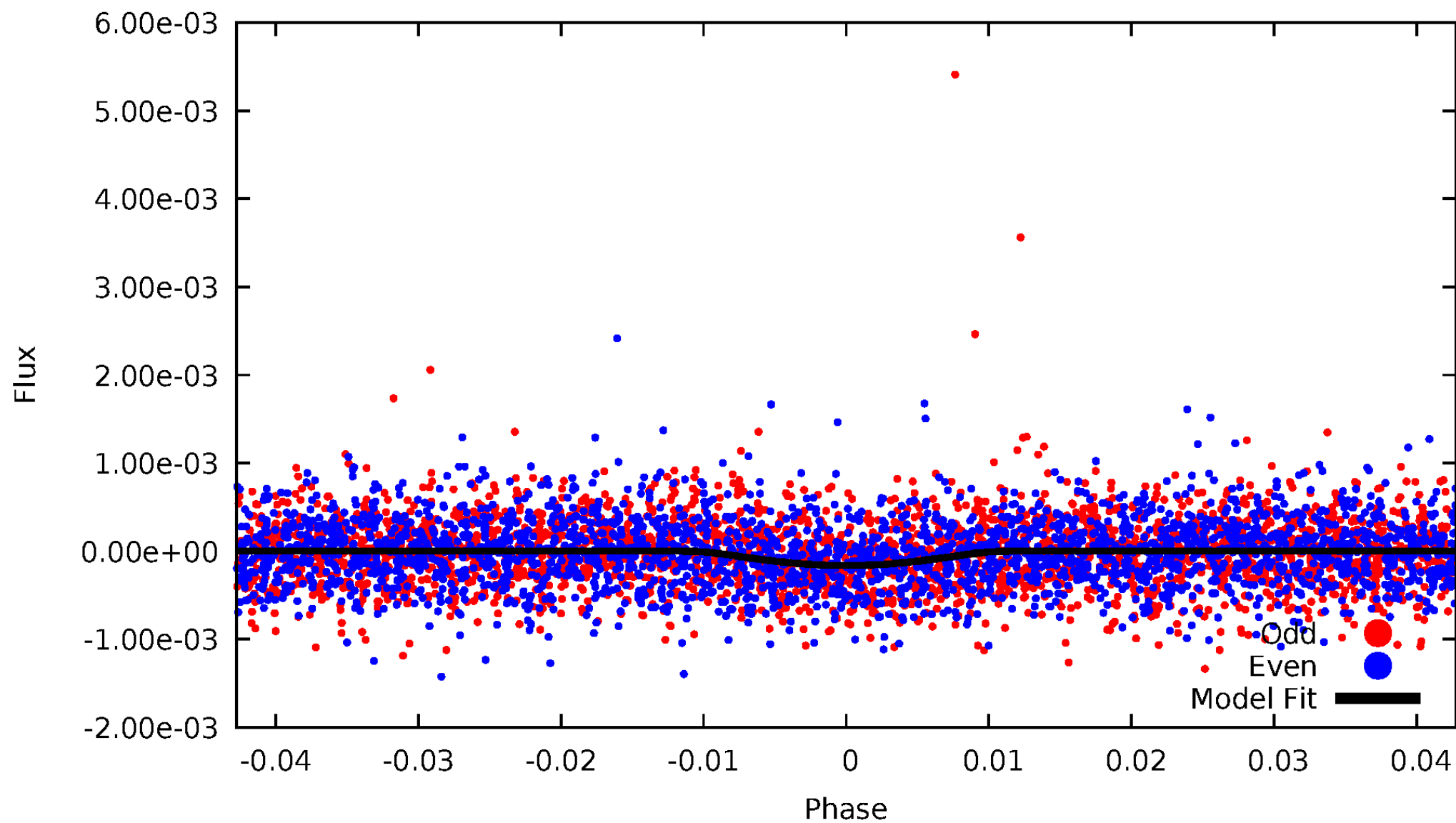


TCE 003240158-03



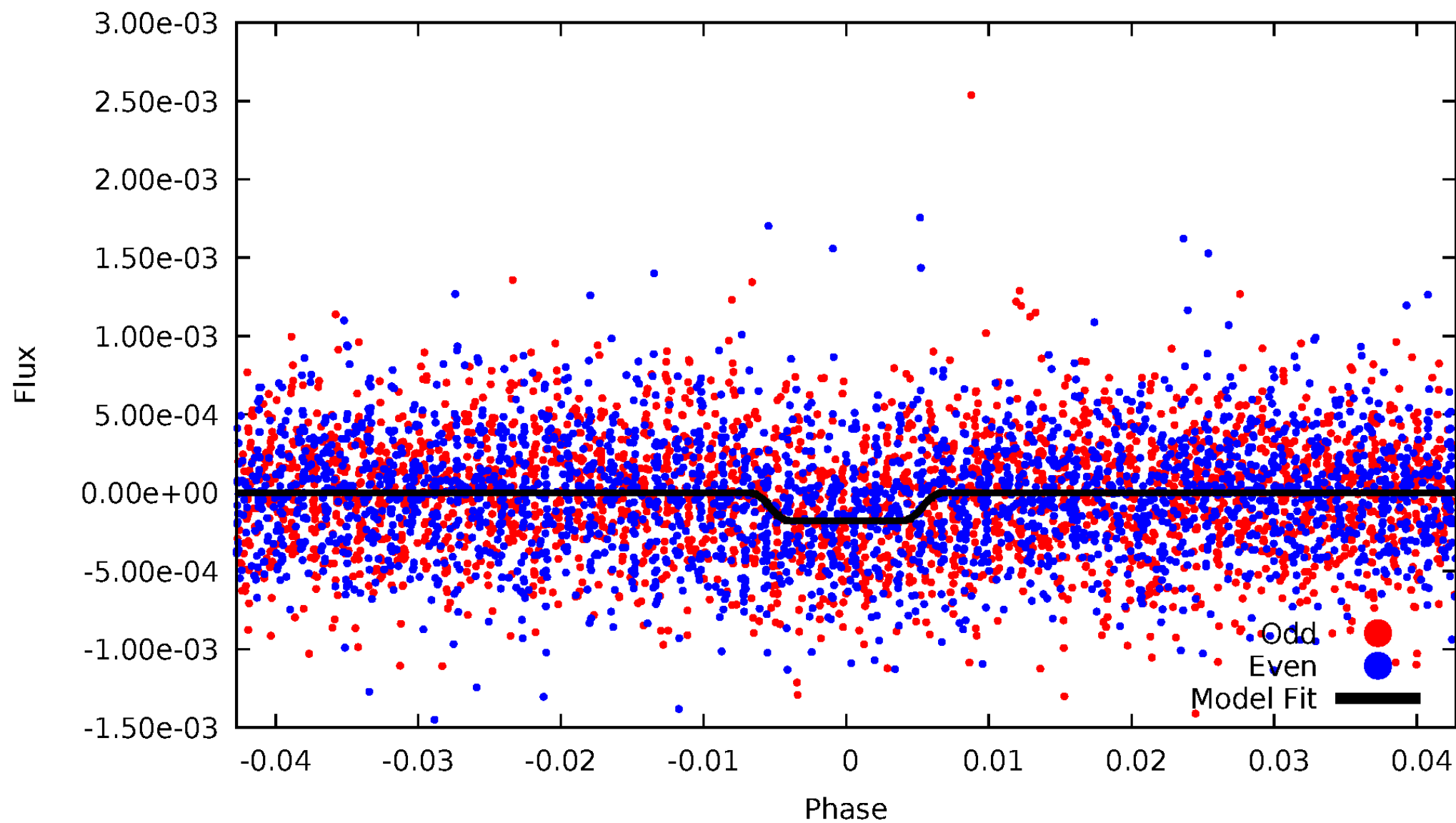
DV Odd/Even

TCE 003240158-03

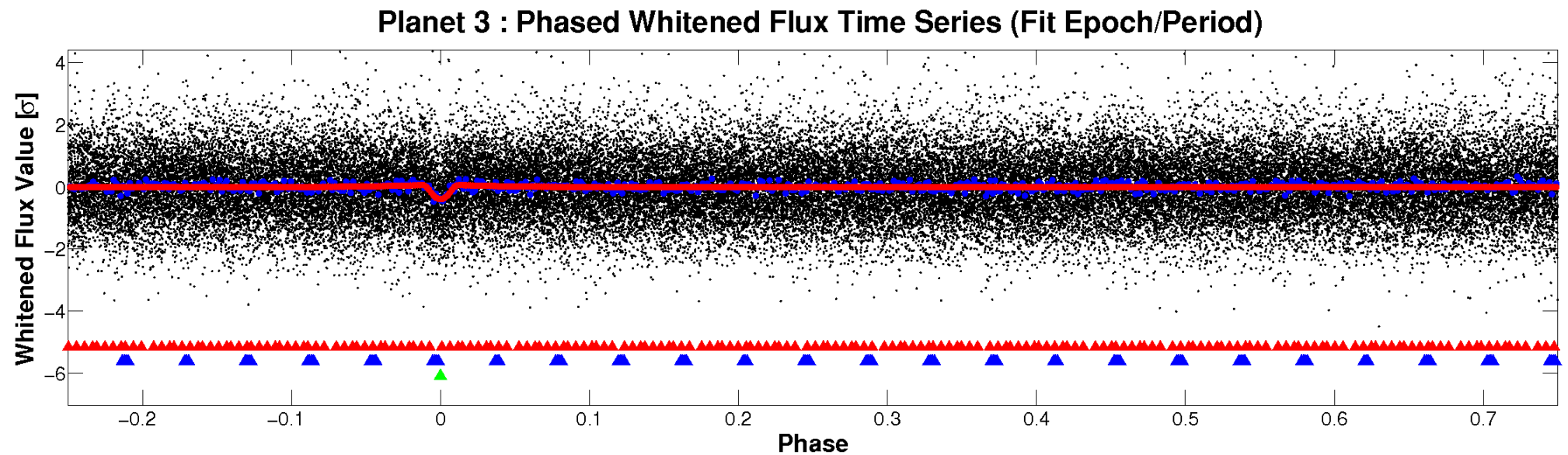
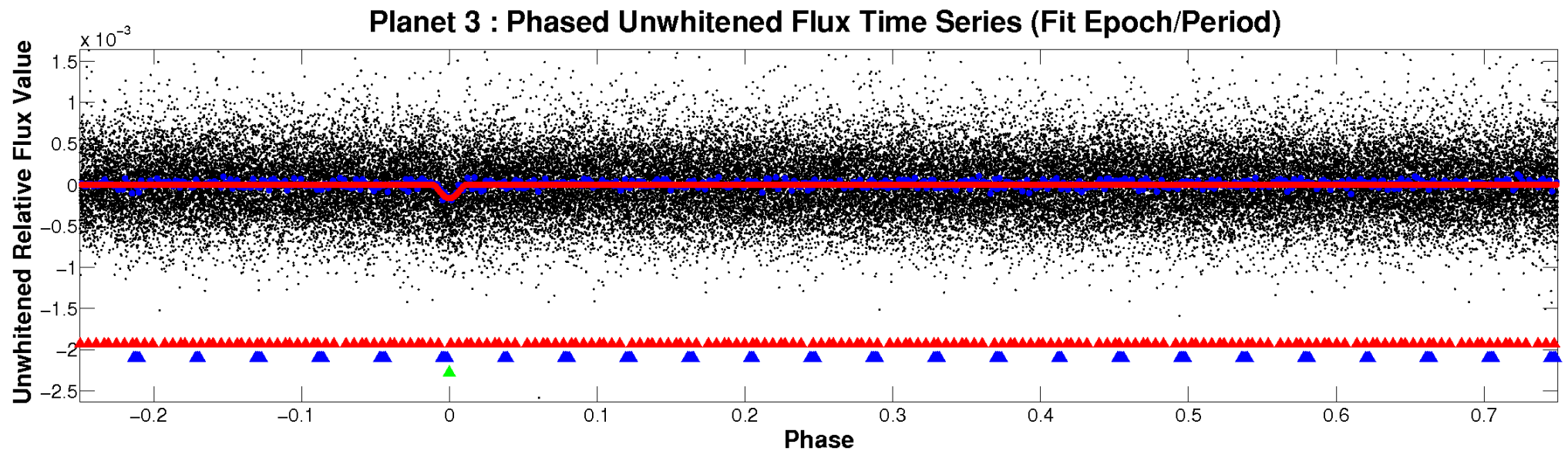


ALT Odd/Even

TCE 003240158-03

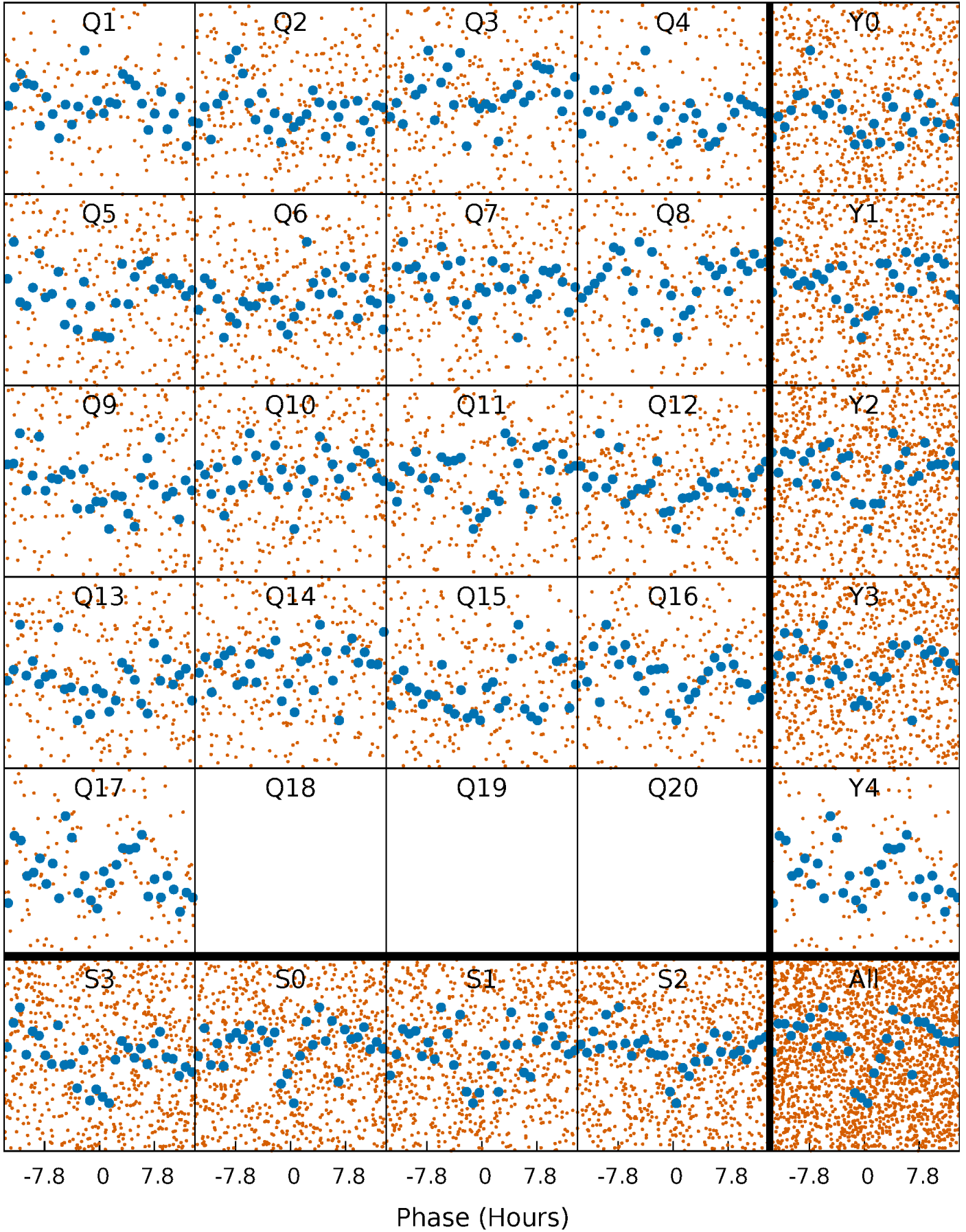


Non-Whitened Vs. Whitened Light Curve



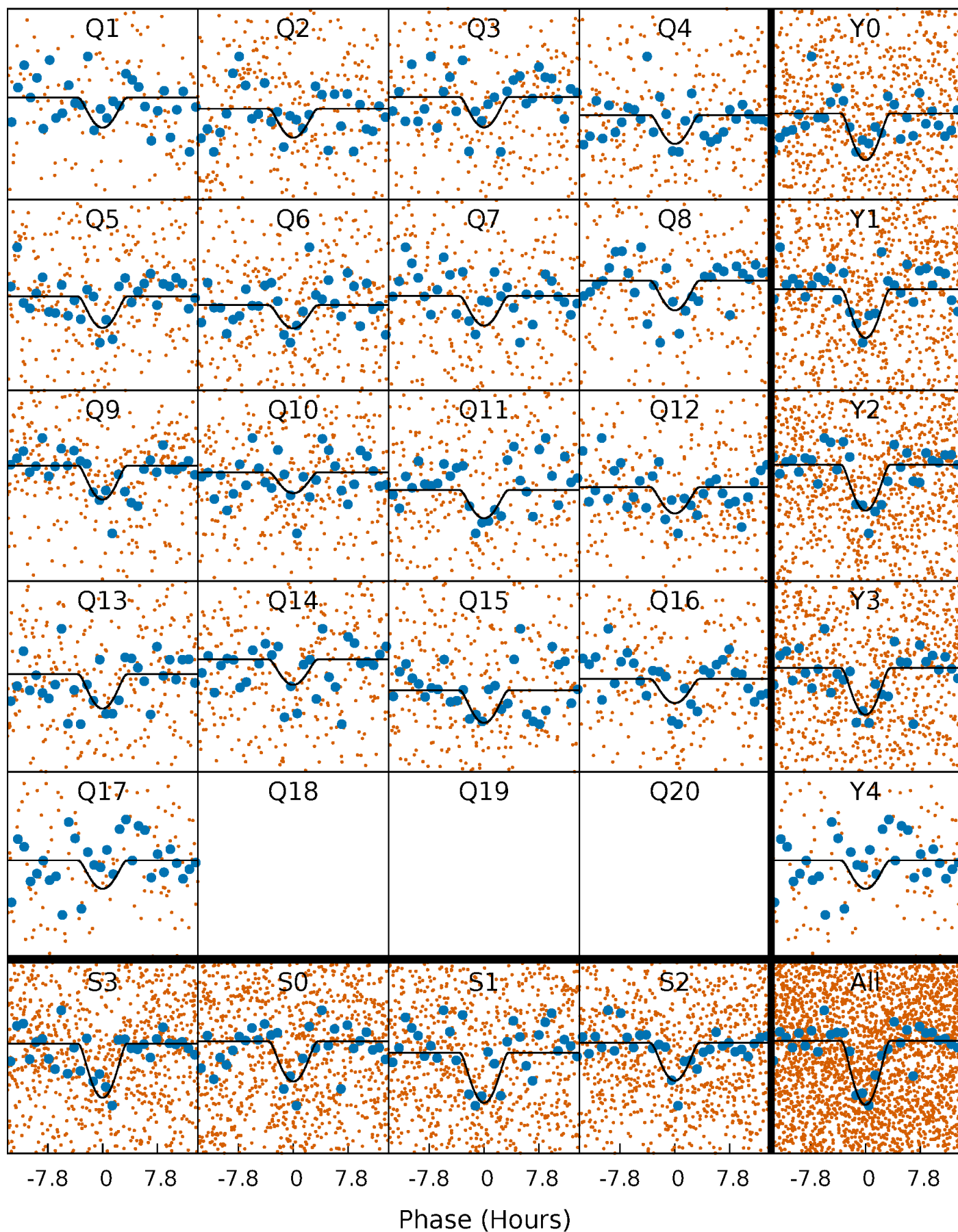
PDC Quarter-Phased Transit Curves

TCE 003240158-03 P= 13.229975 Days $T_0=134.371641$ (BKJD)



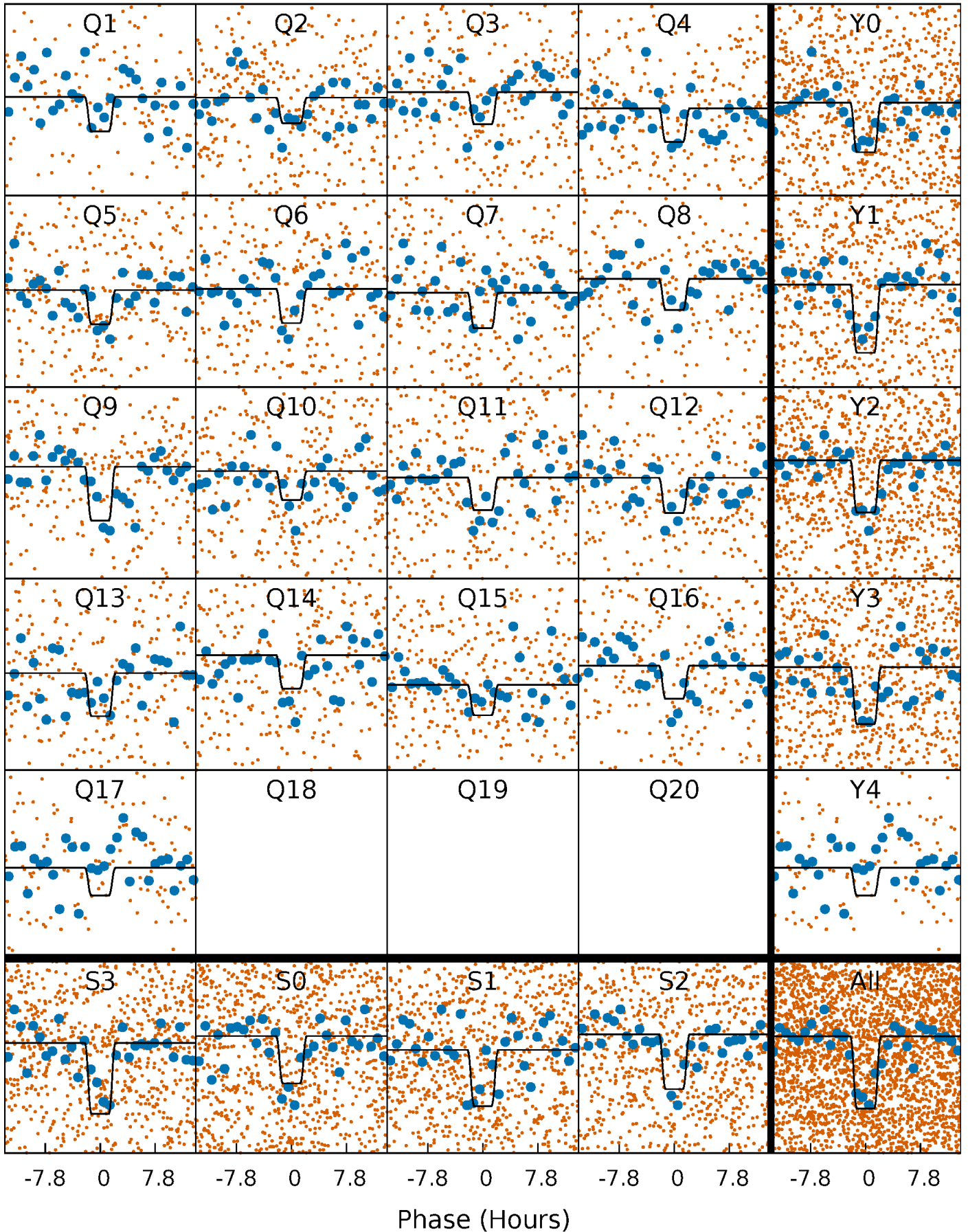
DV Quarter-Phased Transit Curves

TCE 003240158-03 P= 13.229975 Days $T_0=134.371641$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

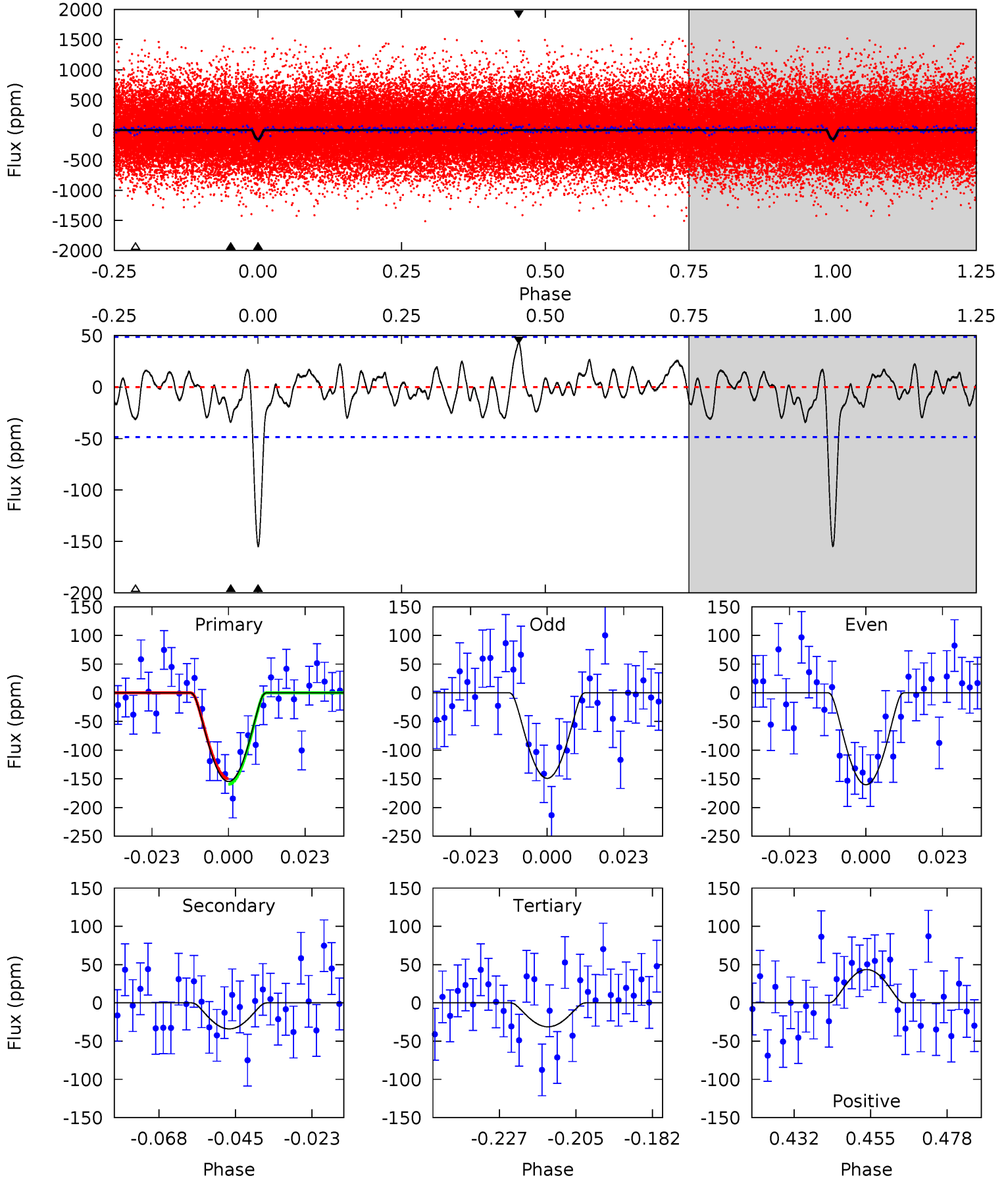
TCE 003240158-03 P= 13.230052 Days $T_0=134.372849$ (BKJD)



DV Model-Shift Uniqueness Test

003240158-03, P = 13.229975 Days, E = 121.141666 Days

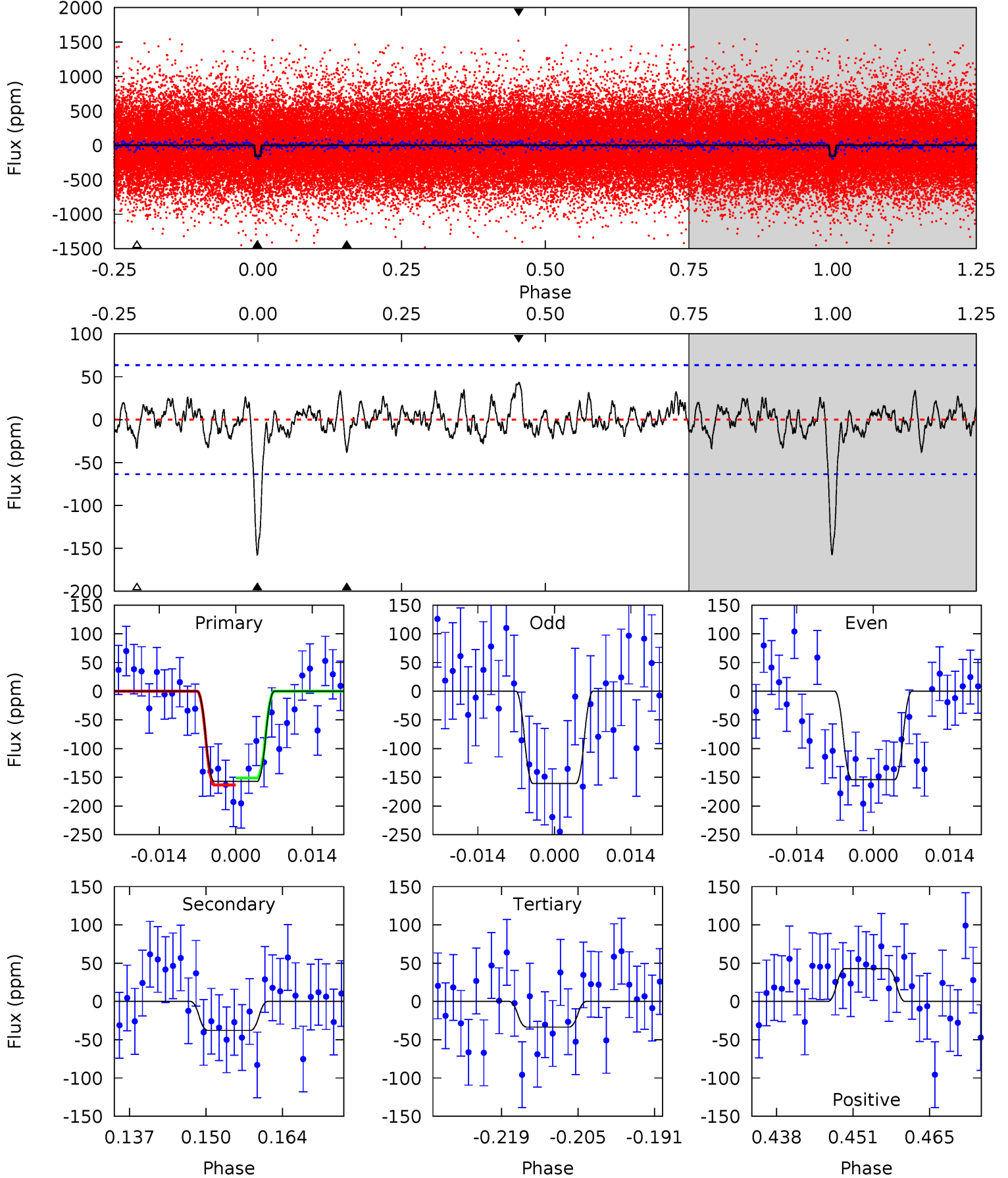
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.5	3.40	3.13	4.35	4.87	2.28	1.32	12.3	11.1	0.28	-0.95	0.56	0.97	0.22	0.48



Alt Model-Shift Uniqueness Test

003240158-03, P = 13.230052 Days, E = 121.142797 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.3	2.95	2.61	3.35	4.97	2.47	1.02	9.68	8.93	0.34	-0.40	0.26	1.20	0.21	0.47



Stellar Parameters For KIC 003240158

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6049^{+72}_{-91}	$4.353^{+0.076}_{-0.114}$	$0.160^{+0.150}_{-0.150}$	$1.176^{+0.184}_{-0.107}$	$1.140^{+0.068}_{-0.081}$	$0.988^{+0.261}_{-0.349}$
	+1%/-2%	+2%/-3%	+94%/-94%	+16%/-9%	+6%/-7%	+26%/-35%
Source	SPE90	SPE90	SPE90	DSEP		

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

Secondary Eclipse Parameters for KIC 003240158-03 / KOI 1106.03

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-34 ± 10	$8.94^{+8.75}_{-6.32}$	1197^{+50}_{-34}	2548^{+1168}_{-492}	$3.026^{+31.333}_{-2.305}$
Alt.	-38 ± 13	$9.00^{+8.41}_{-6.51}$	1202^{+48}_{-39}	2580^{+1160}_{-481}	$3.115^{+37.626}_{-2.313}$

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

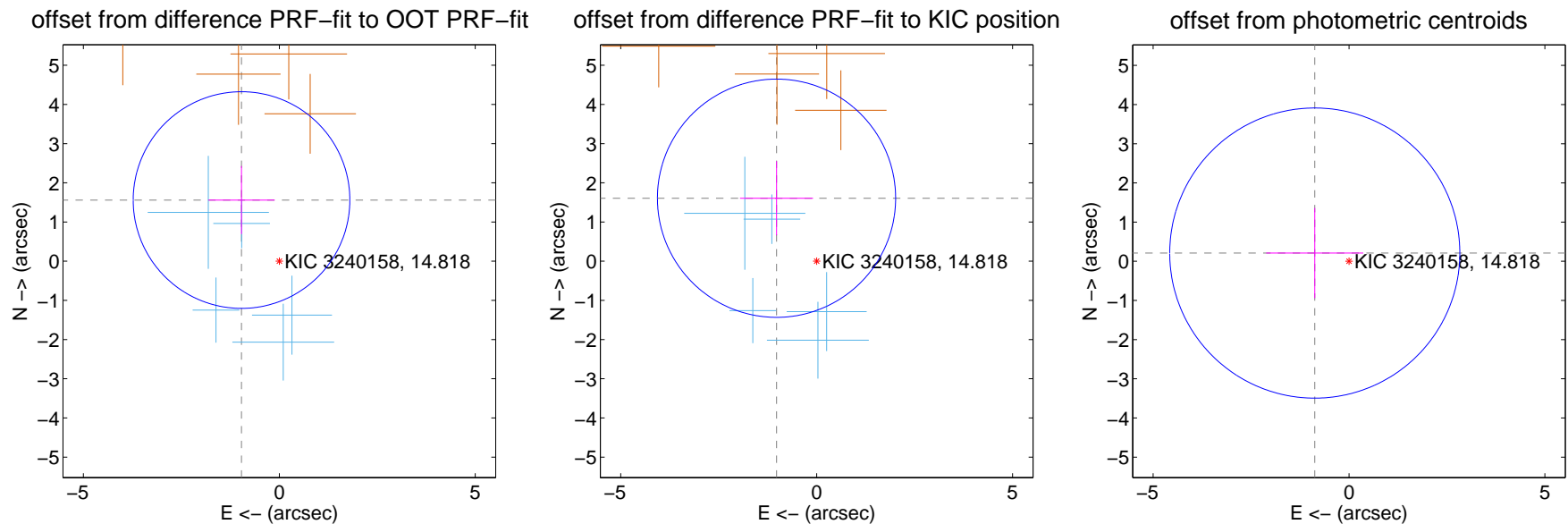
DV Centroid Data

Supplemental centroid analysis for 003240158-03. Kepler magnitude: 14.82. Transit SNR 9.26

There are 5 quarters with good PRF difference image offsets

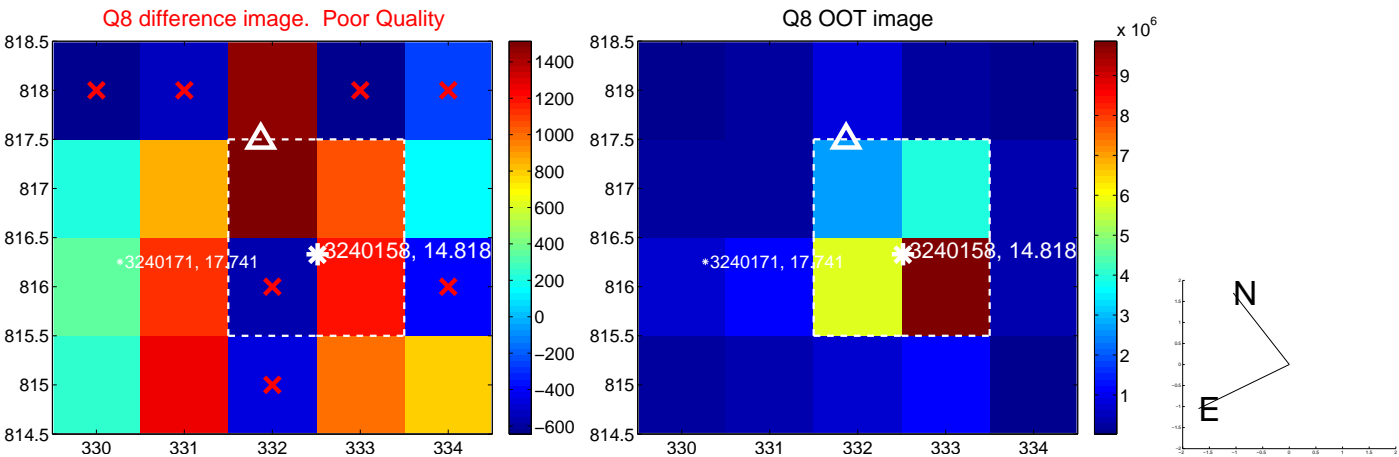
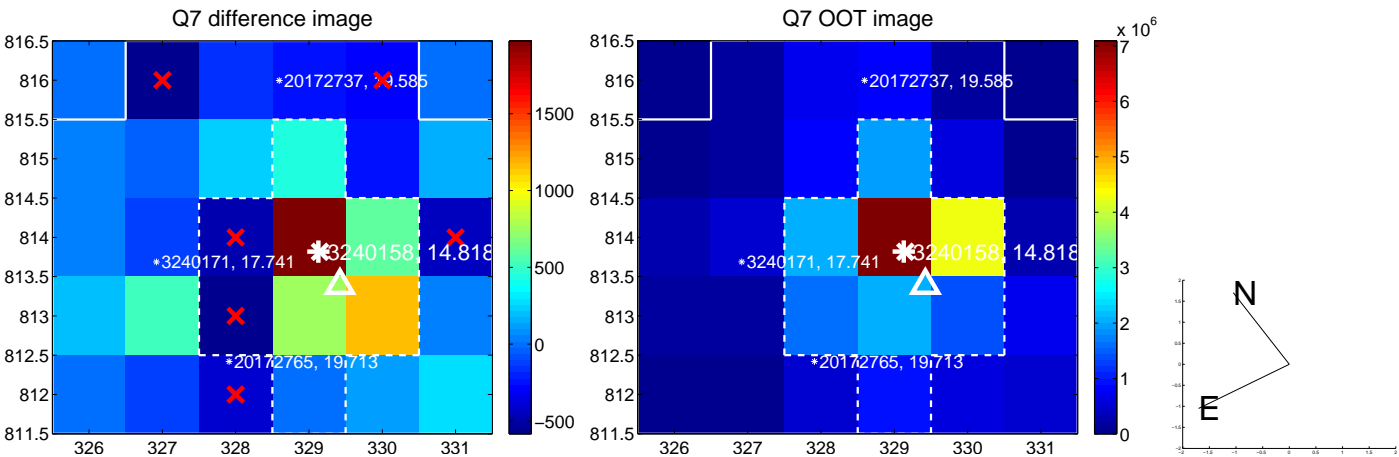
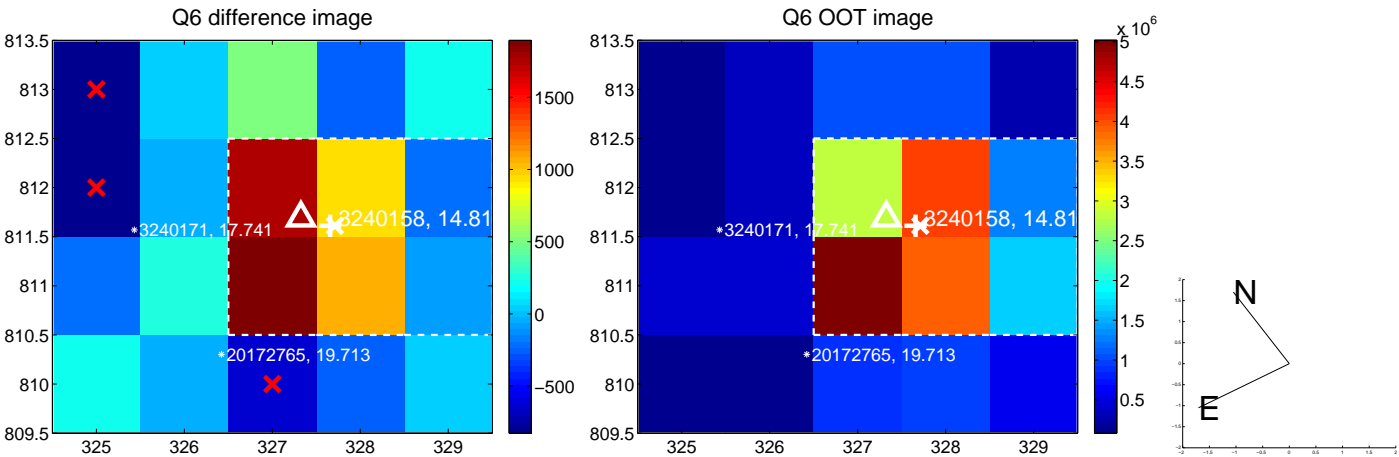
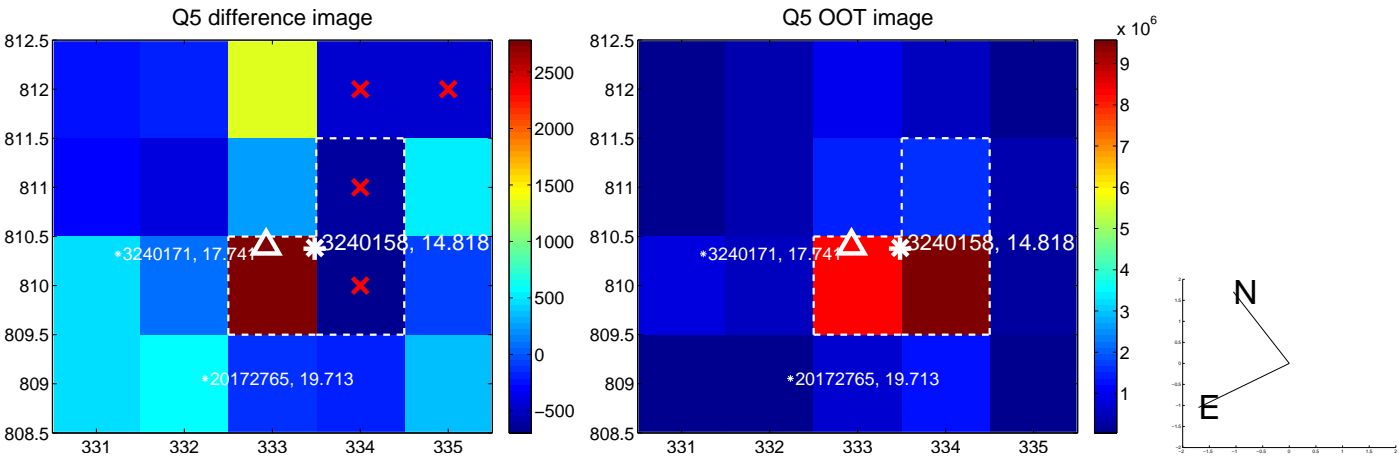
The direct PRF centroid is offset from the target star catalog position by about 0.06 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.834 ± 0.922	1.99	0.965 ± 0.845	1.560 ± 0.870
PRF-fit source offset from KIC position	1.906 ± 1.013	1.88	1.024 ± 0.932	1.607 ± 0.946
photometric centroid source offset	0.90 ± 1.23	0.73	0.87 ± 1.24	0.21 ± 1.15

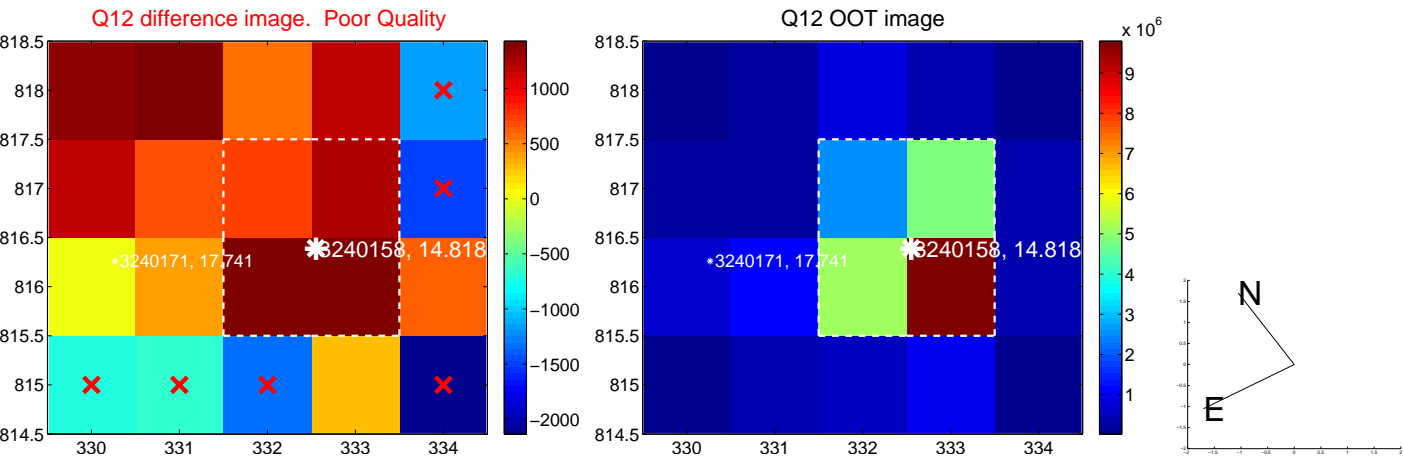
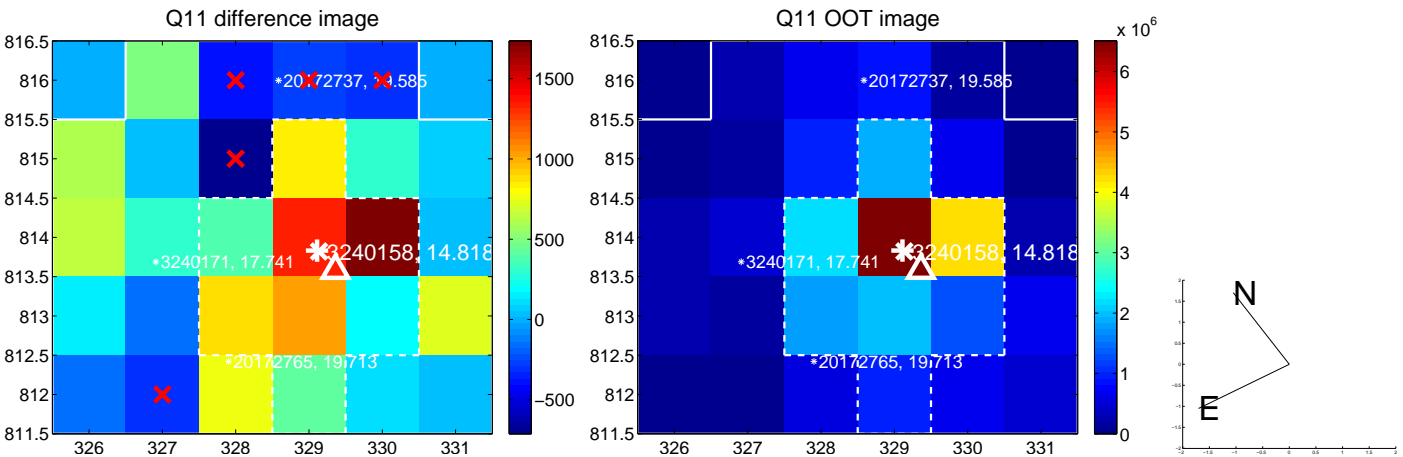
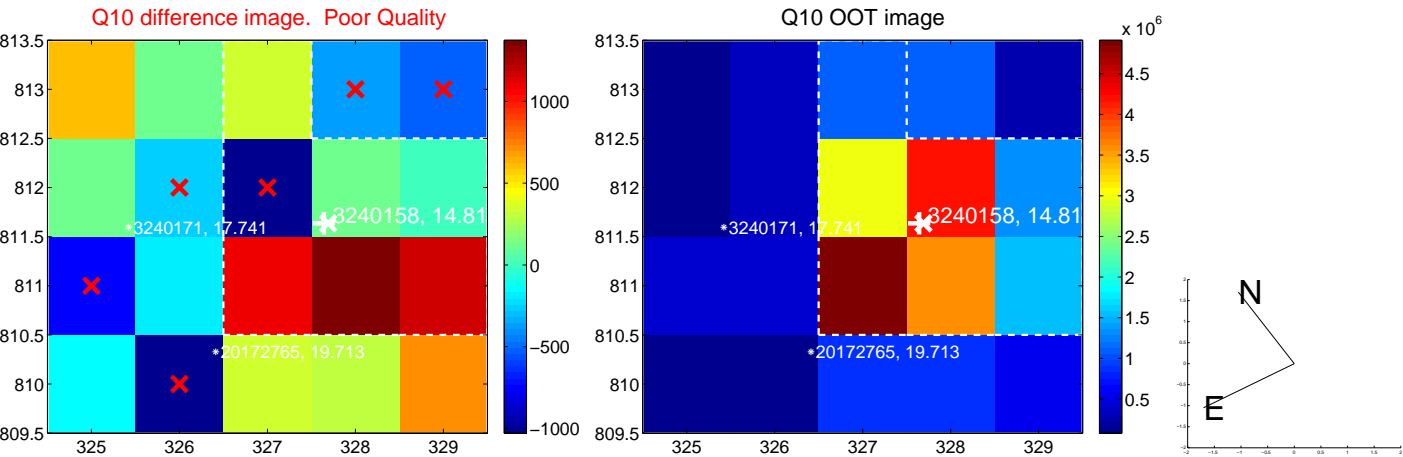
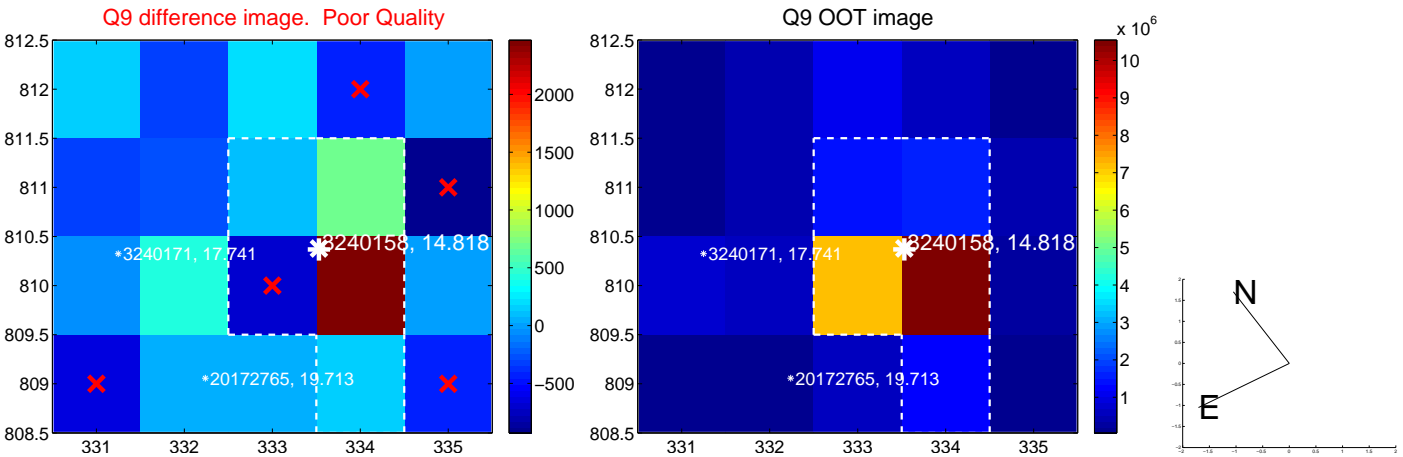


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

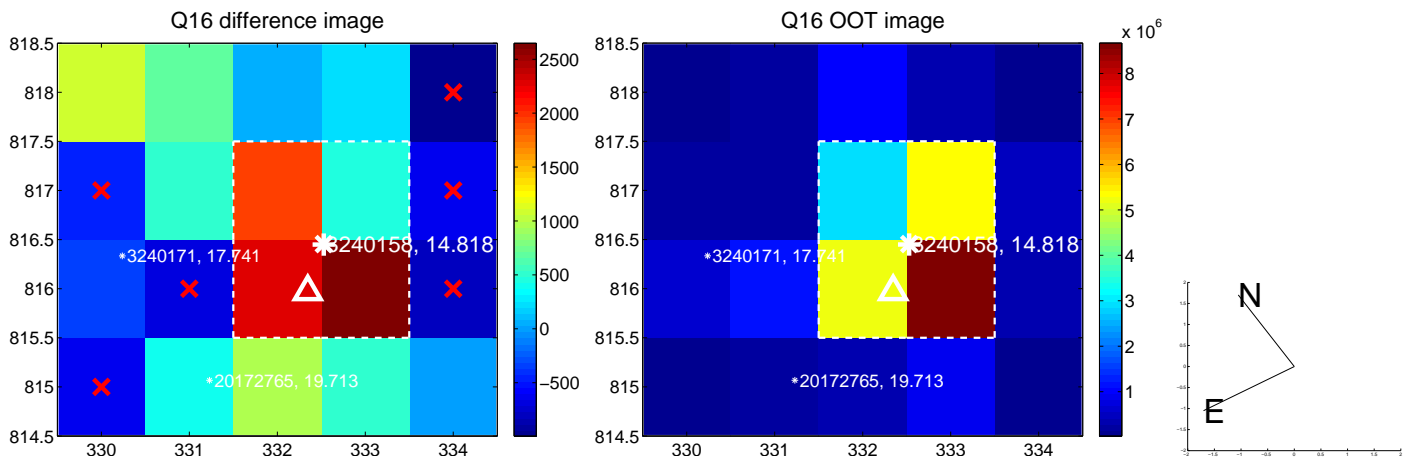
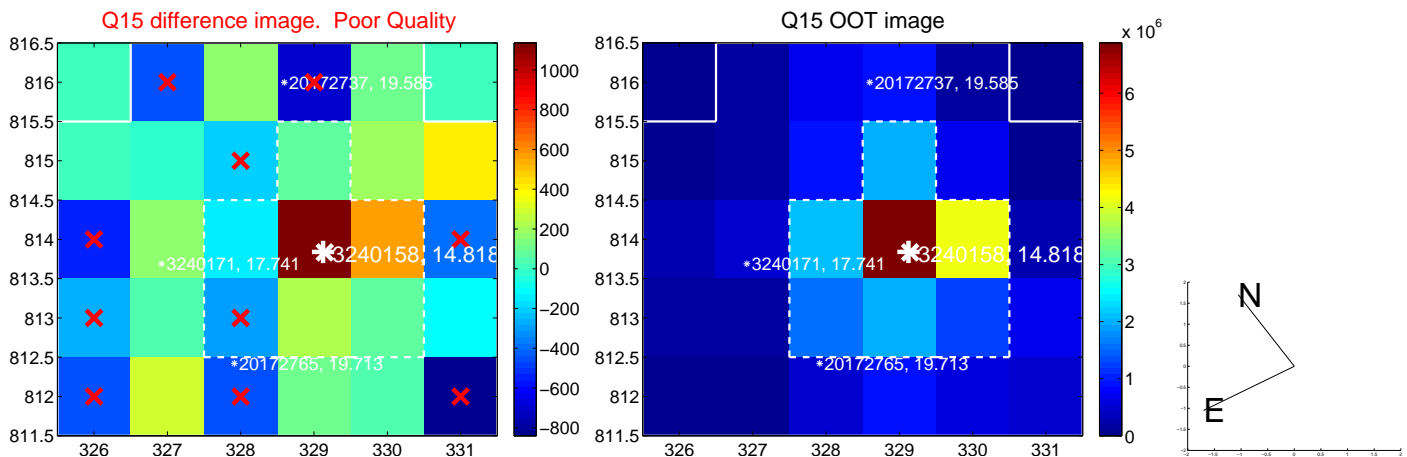
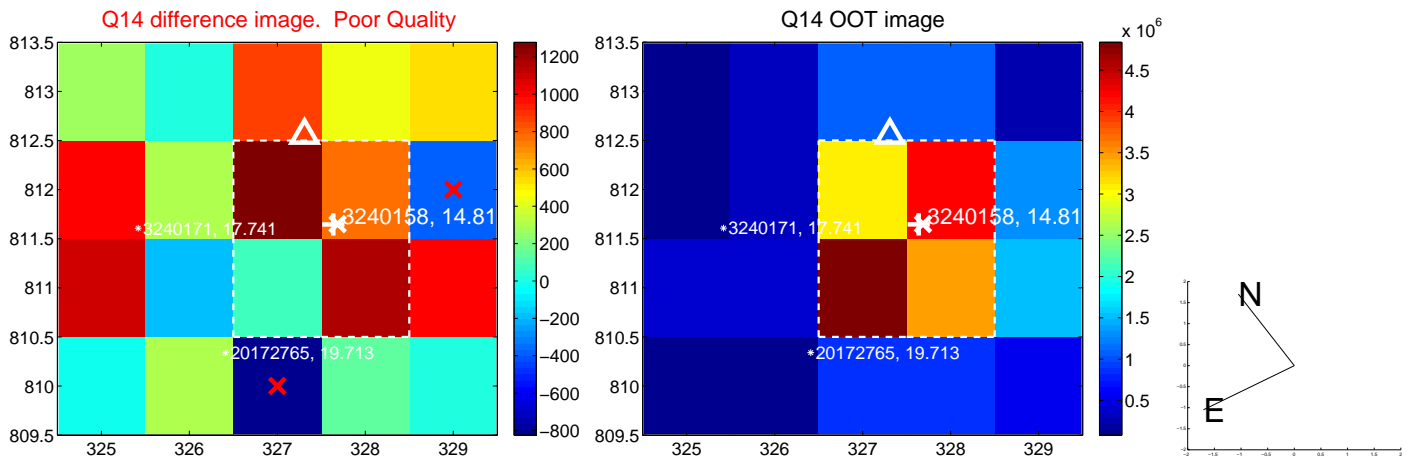
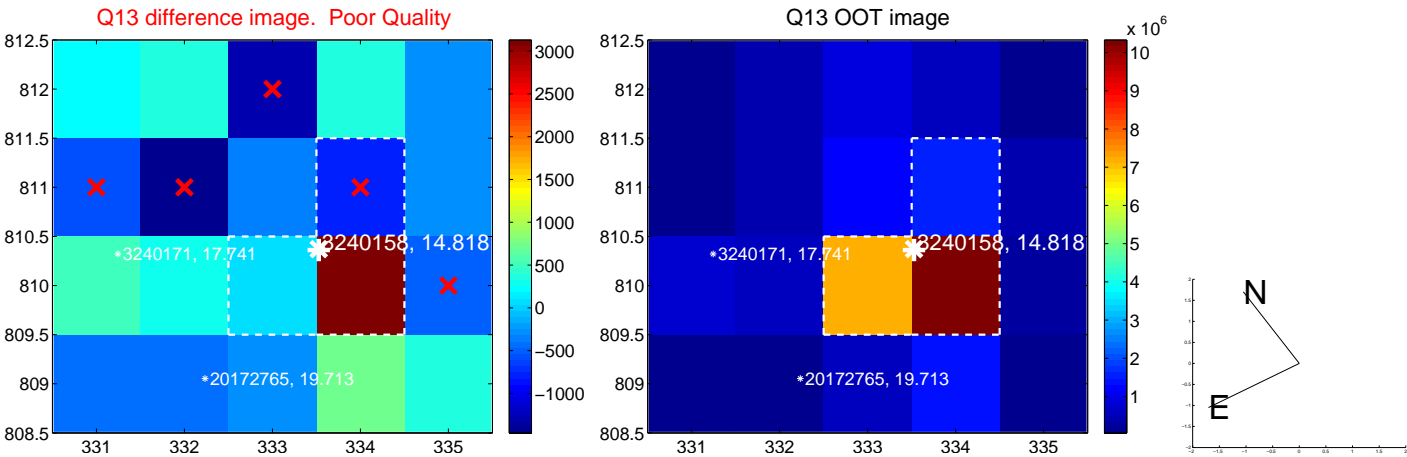
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



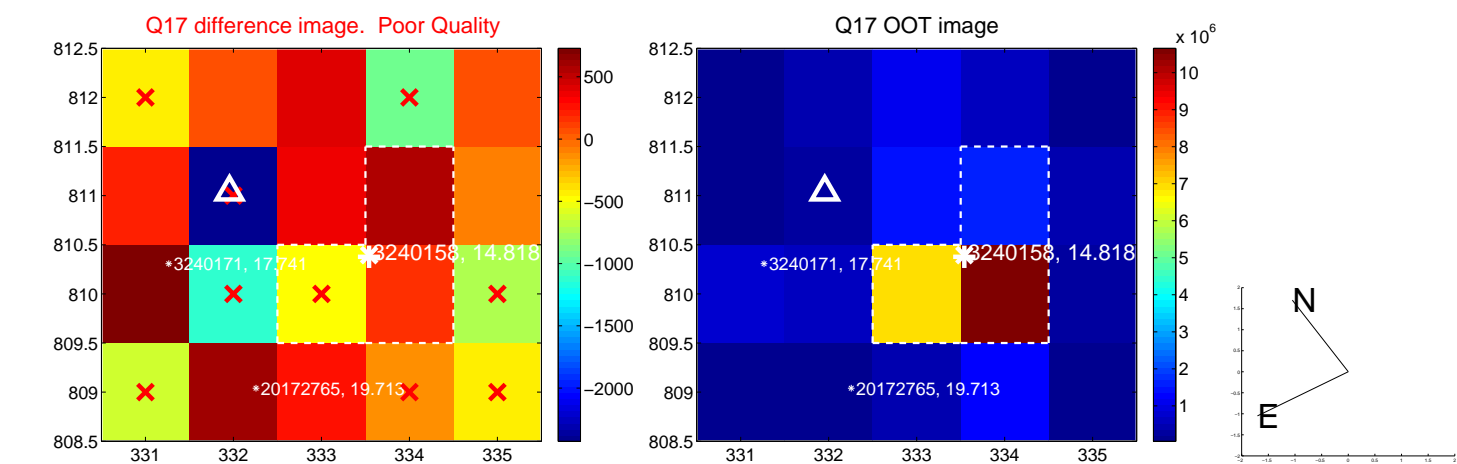
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



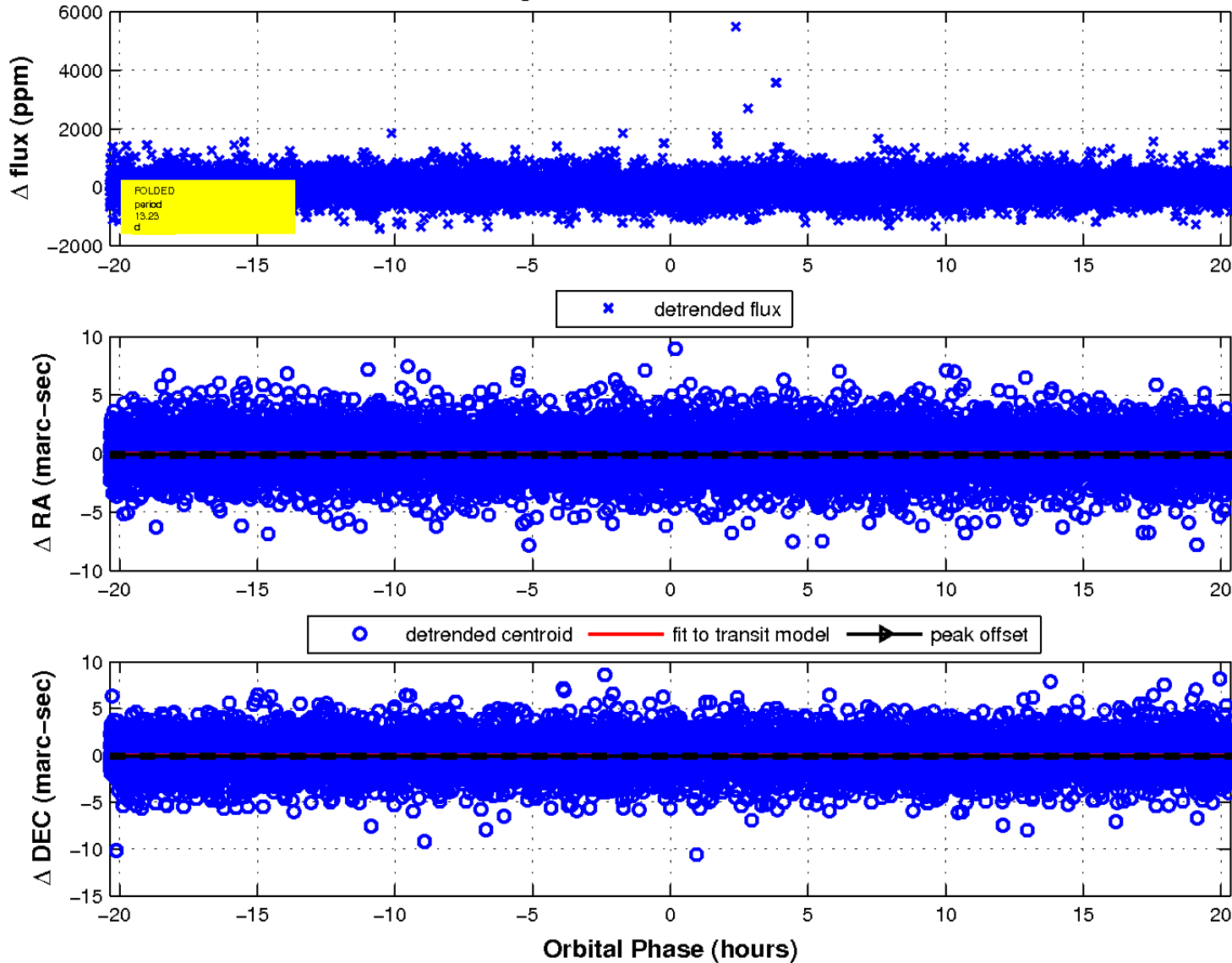
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 3 of 3



UKIRT Image

Declination

