

KIC 003548044

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})
003548044-01	OBS	2194.01	34.763100	161.740113	286.7	4.457	19.6	21.6	0.95	5670	1.85	22.26
003548044-02	OBS	2194.02	67.968862	163.555480	314.2	8.144	20.4	23.6	0.95	5670	1.83	9.11
003548044-03	OBS	2194.03	445.216076	202.897005	232.8	19.370	7.9	9.5	0.95	5670	1.60	0.74

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003548044-01	OBS	PC	0.99	0	0	0	0	NO_COMMENT
003548044-02	OBS	PC	0.98	0	0	0	0	NO_COMMENT
003548044-03	OBS	PC	0.50	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.

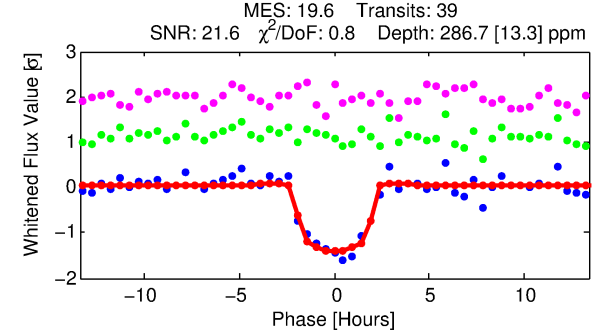
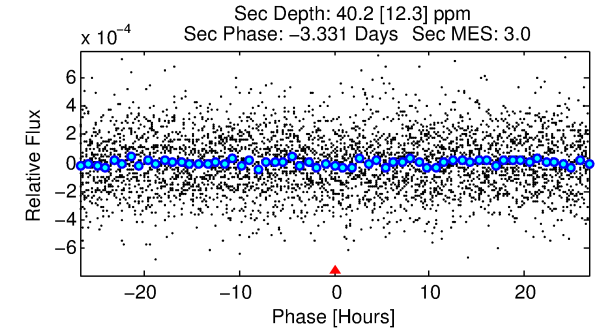
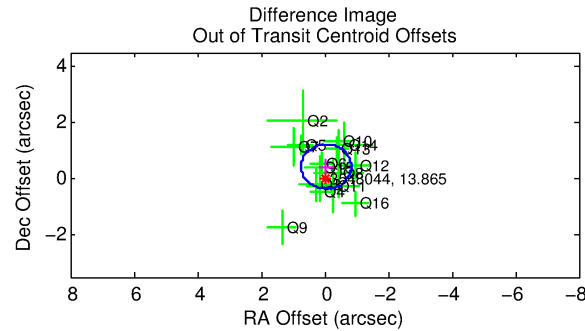
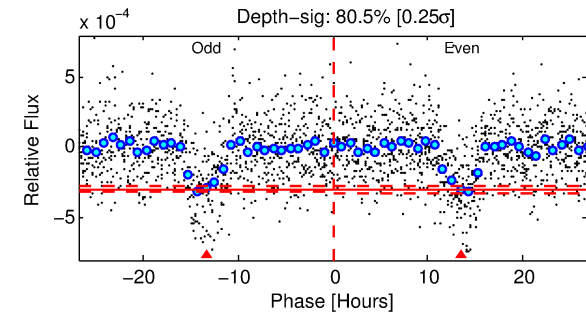
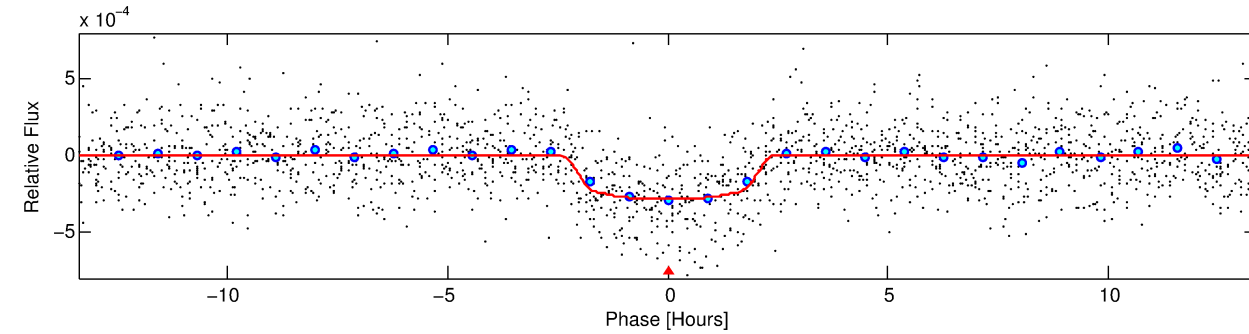
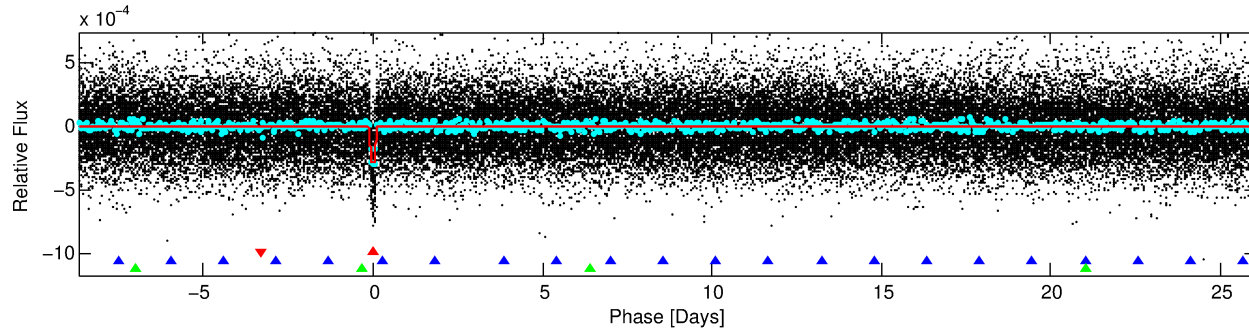
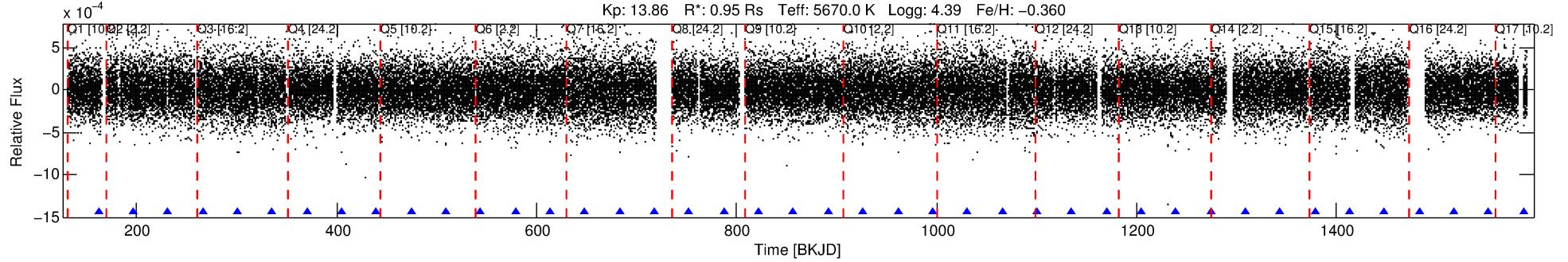
Ephemeris Match Information For 003548044-01

No Significant Match Found

DV One-Page Summary

KIC: 3548044 Candidate: 1 of 3 Period: 34.763 d
KOI: K02194.01 Name: Kepler-371b Corr: 0.970

Kp: 13.86 R*: 0.95 Rs Teff: 5670.0 K Logg: 4.39 Fe/H: -0.360



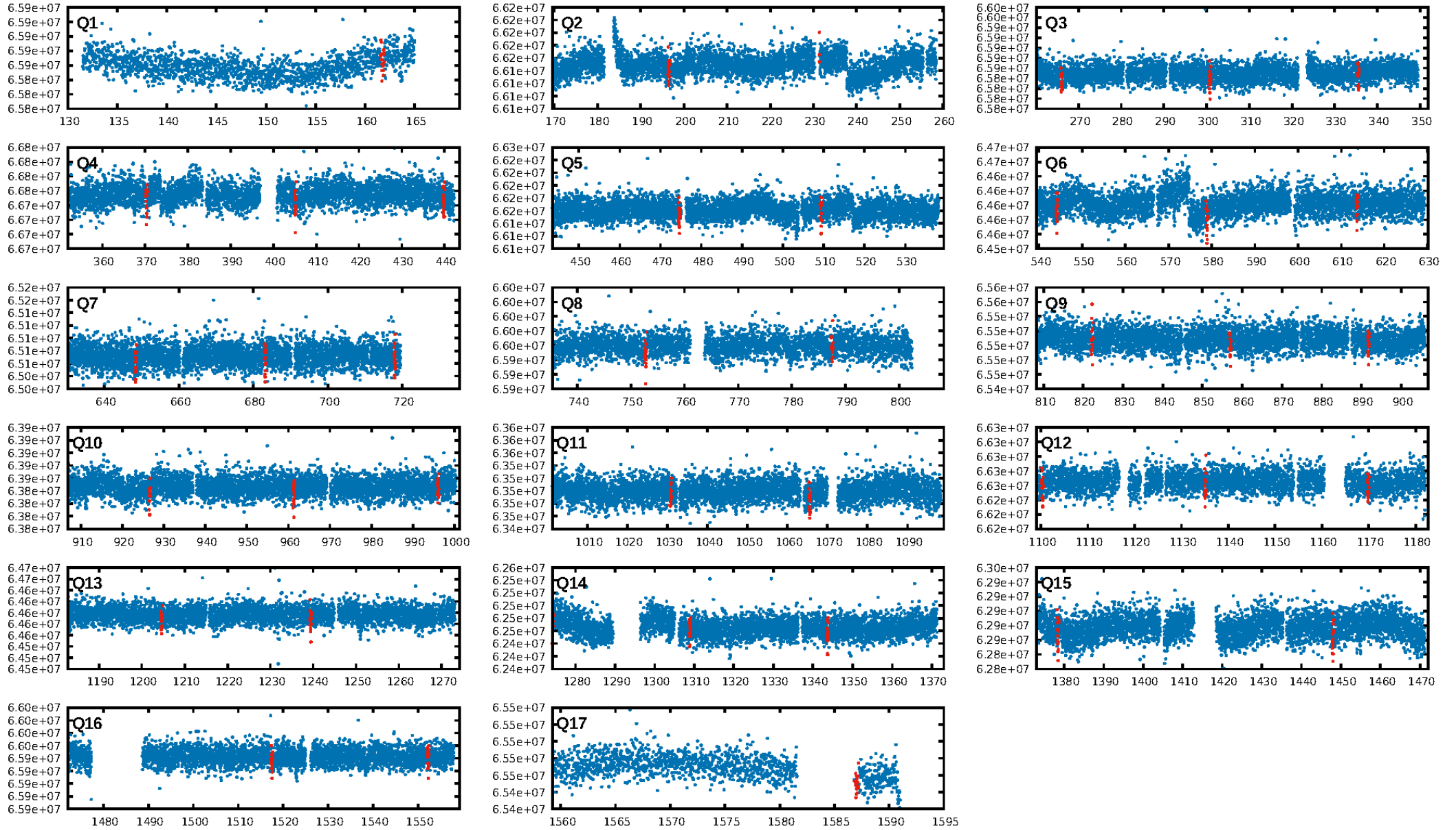
DV Fit Results:

Period = 34.76310 [0.00019] d
Epoch = 161.7401 [0.0045] BKJD
Rp/R* = 0.0178 [0.0041]
a/R* = 32.22 [34.66]
b = 0.86 [0.32]
Seff = 22.26 [5.40]
Teq = 554 [34] K
Rp = 1.85 [0.49] Re
a = 0.1938 [0.0266] AU
Ag = 242.54 [144.67] [1.67σ]
Teffp = 3380 [470] K [5.99σ]

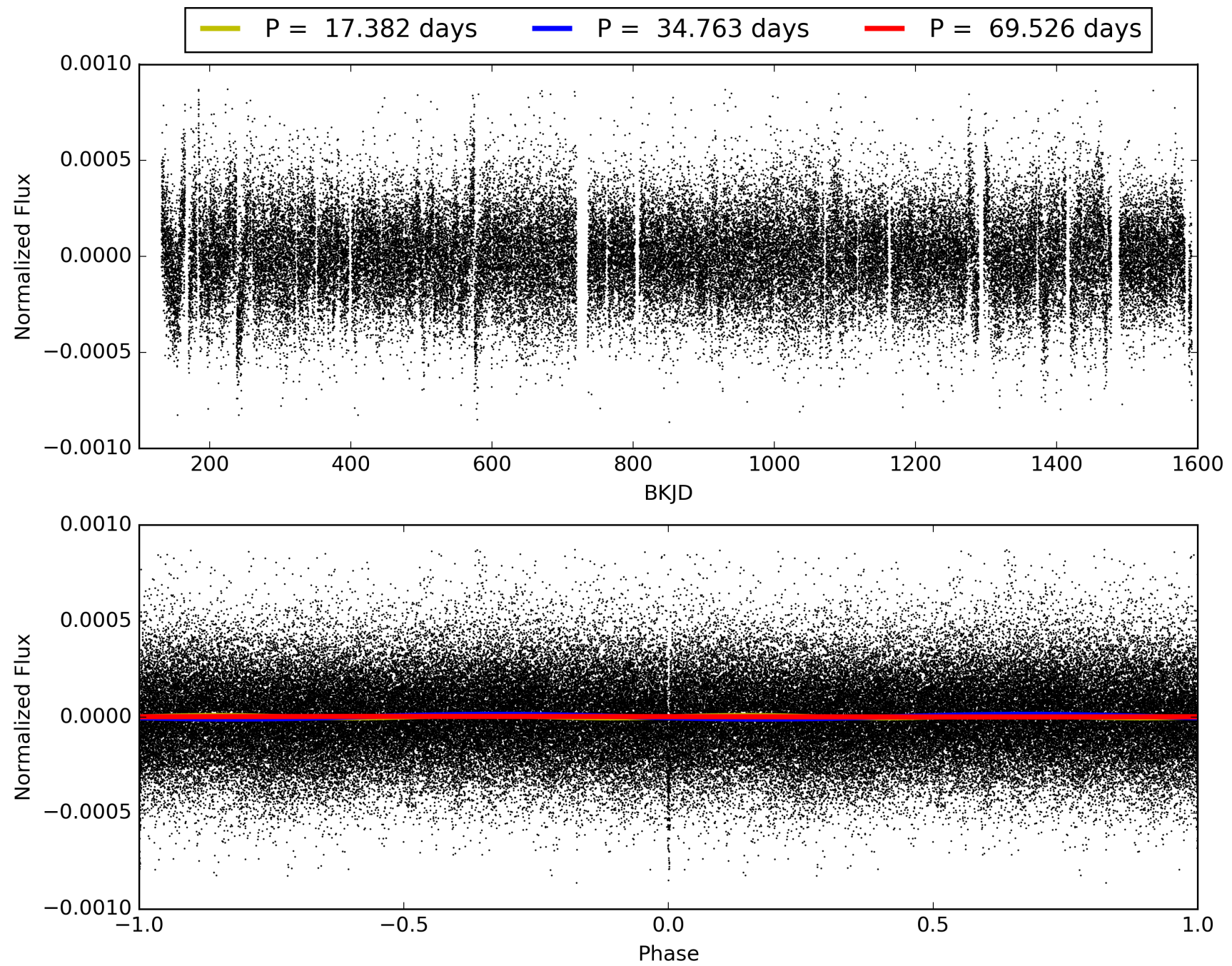
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [85.84σ]
ModelChiSquare2-sig: 76.6%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 3.36e-80
RollingBand-fgt: 1.00 [37/37]
GhostDiagnostic-chr: 3.546
Centroid-sig: 6.7%
Centroid-so: 0.904 arcsec [1.34σ]
OotOffset-rm: 0.431 arcsec [1.64σ]
KicOffset-rm: 0.406 arcsec [1.45σ]
OotOffset-st: 4/4/4/3 [15]
KicOffset-st: 4/4/4/3 [15]
DiffImageQuality-fgm: 0.80 [12/15]
DiffImageOverlap-fno: 1.00 [16/16]

TCE 003548044-01, PDC Light Curves

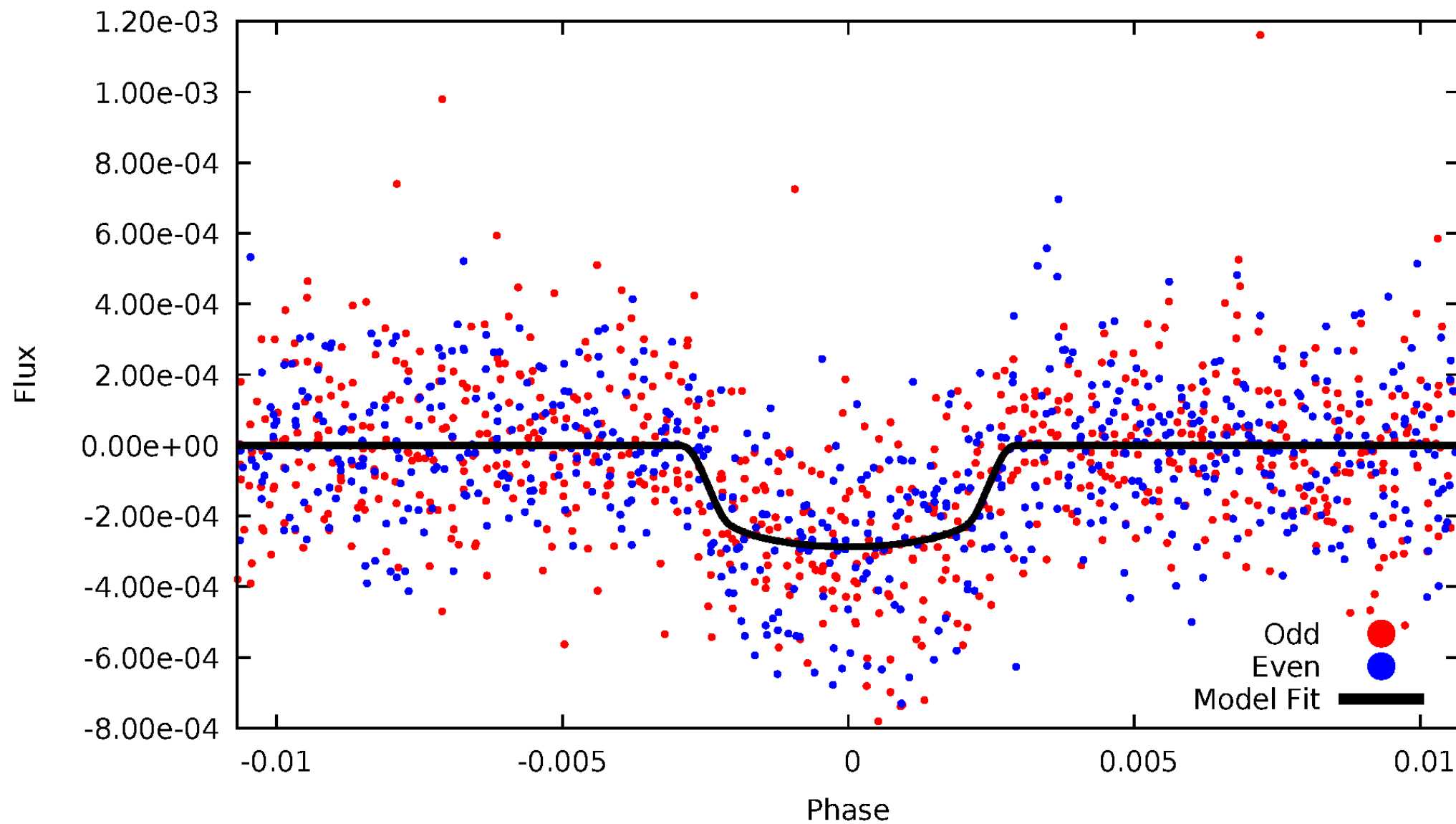


TCE 003548044-01



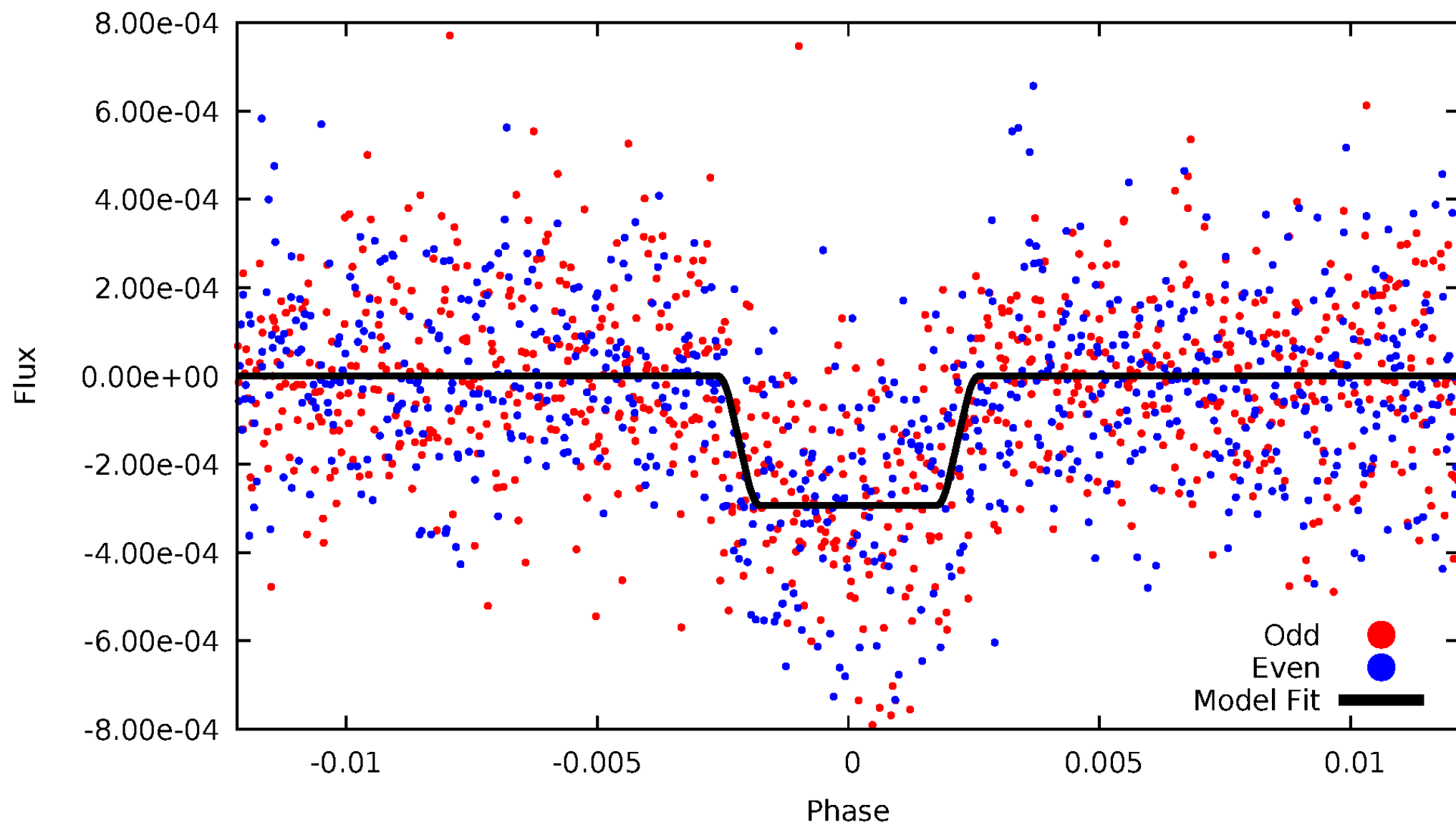
DV Odd/Even

TCE 003548044-01

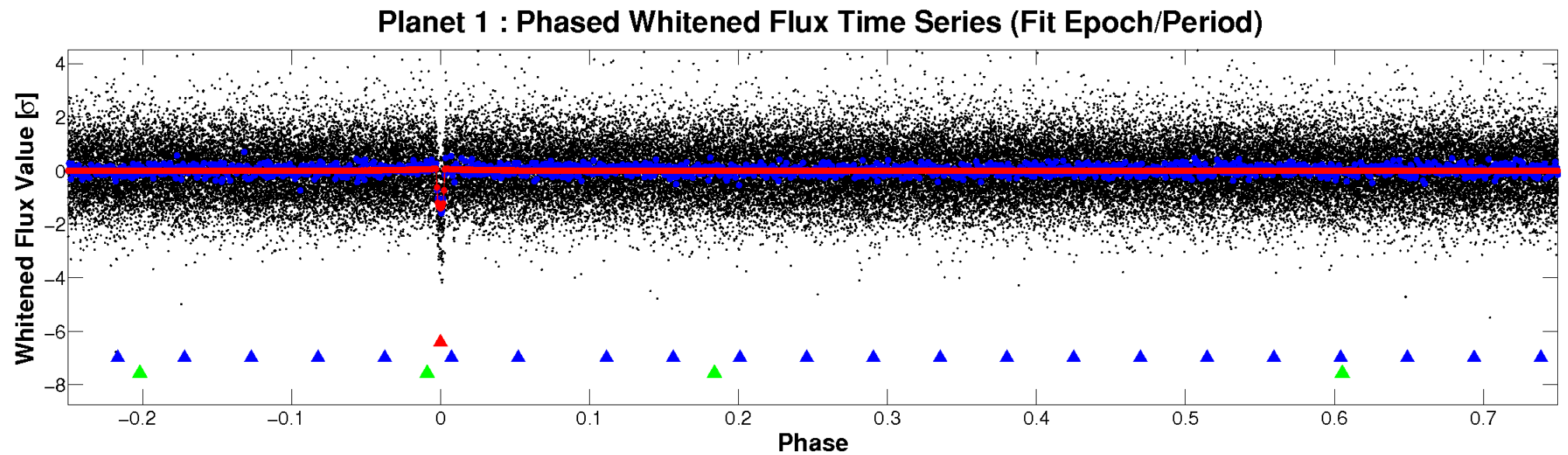
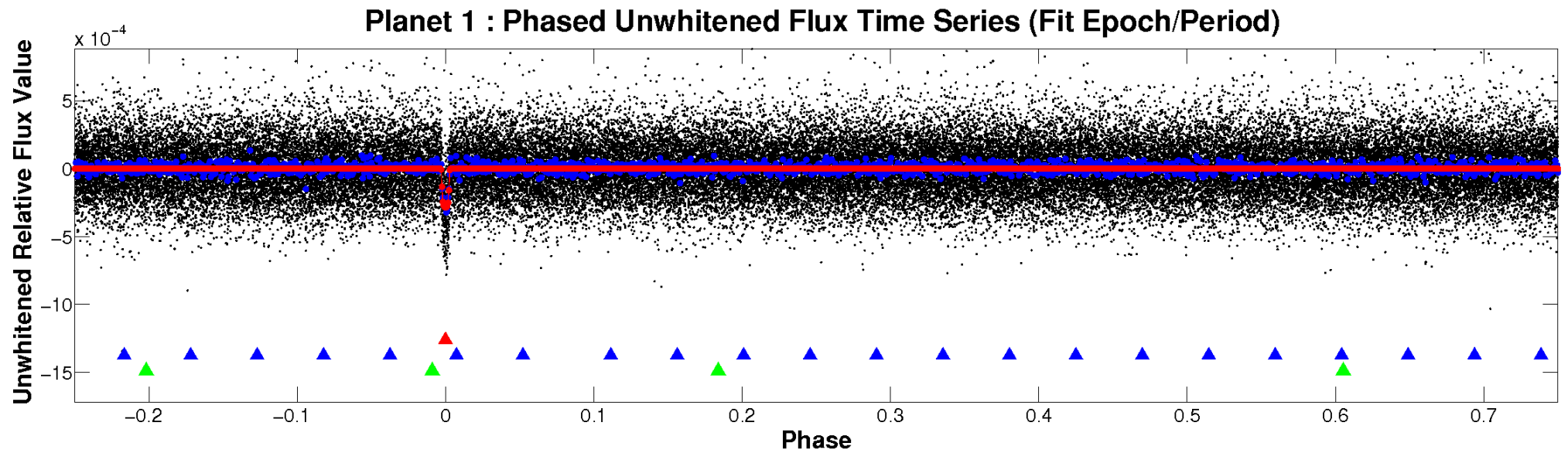


ALT Odd/Even

TCE 003548044-01

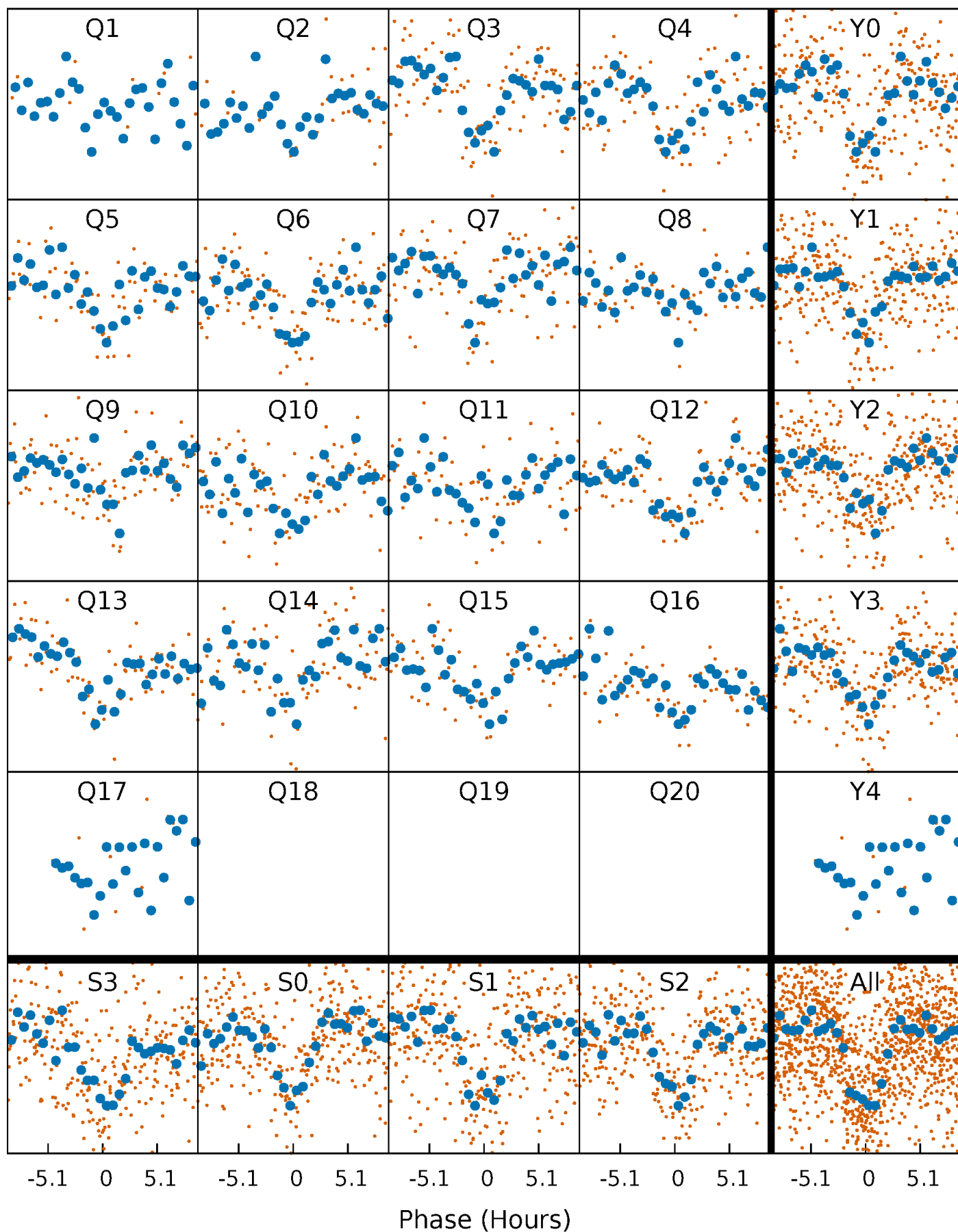


Non-Whitened Vs. Whitened Light Curve



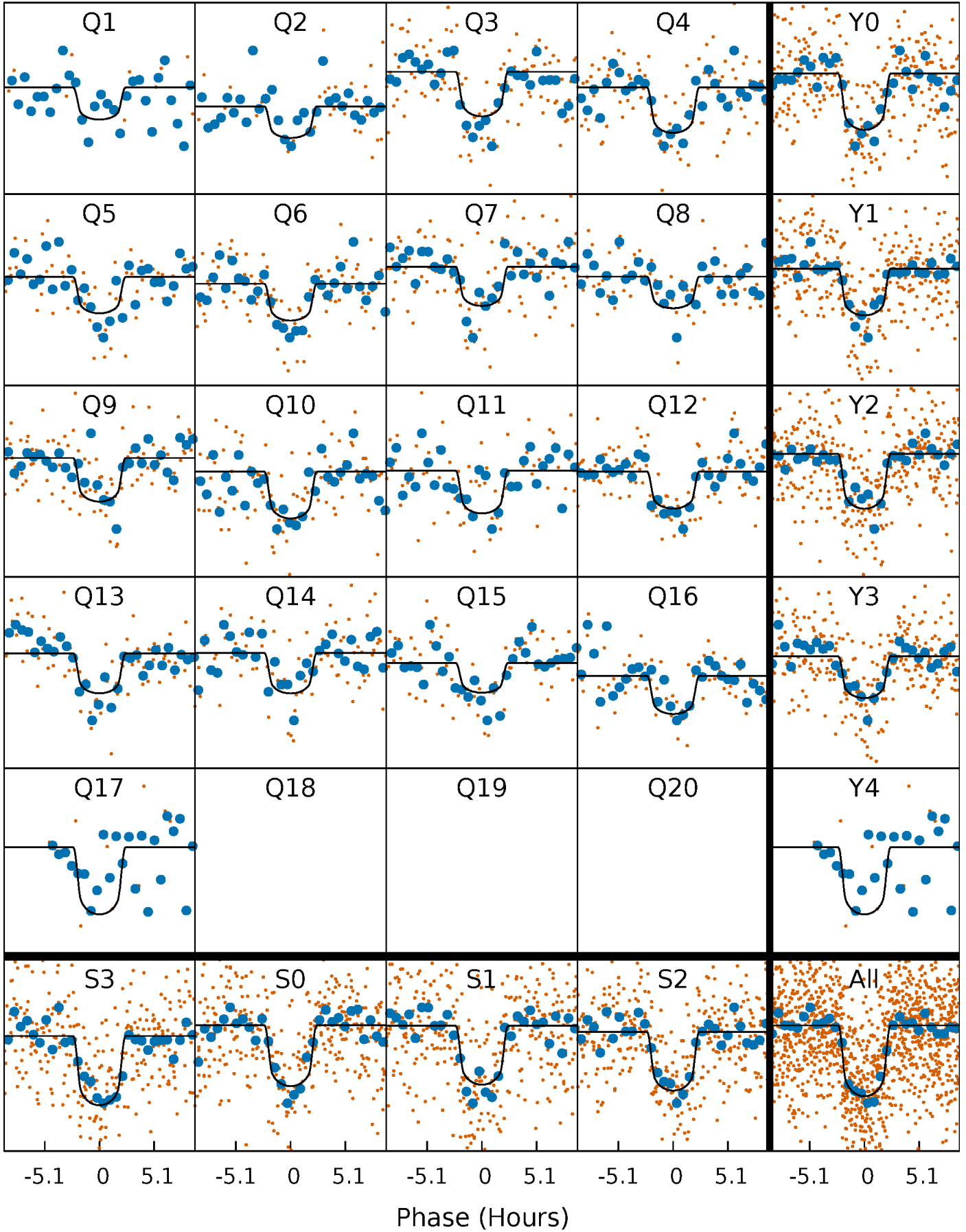
PDC Quarter-Phased Transit Curves

TCE 003548044-01 P= 34.763100 Days $T_0=161.740113$ (BKJD)



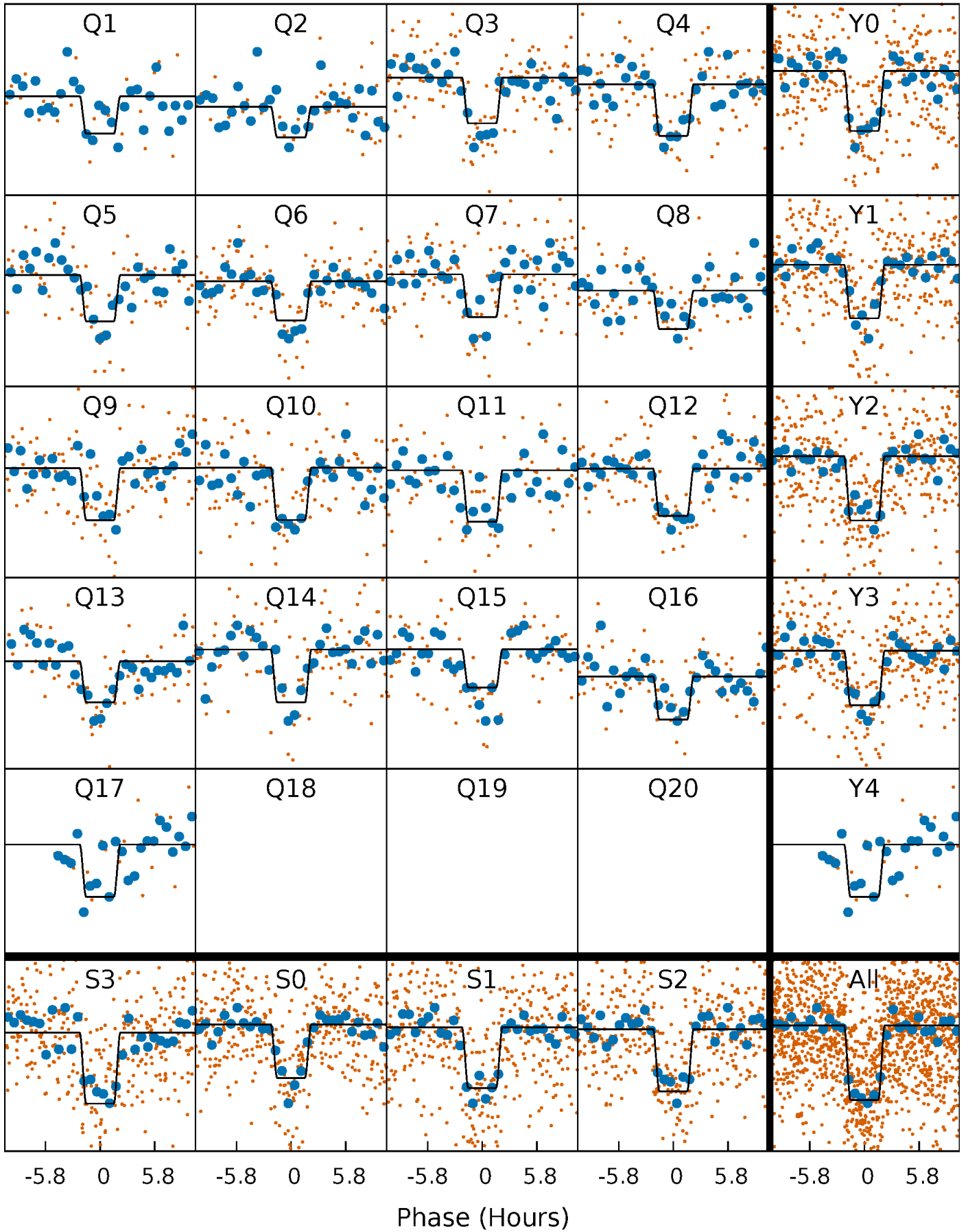
DV Quarter-Phased Transit Curves

TCE 003548044-01 P= 34.763100 Days $T_0=161.740113$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

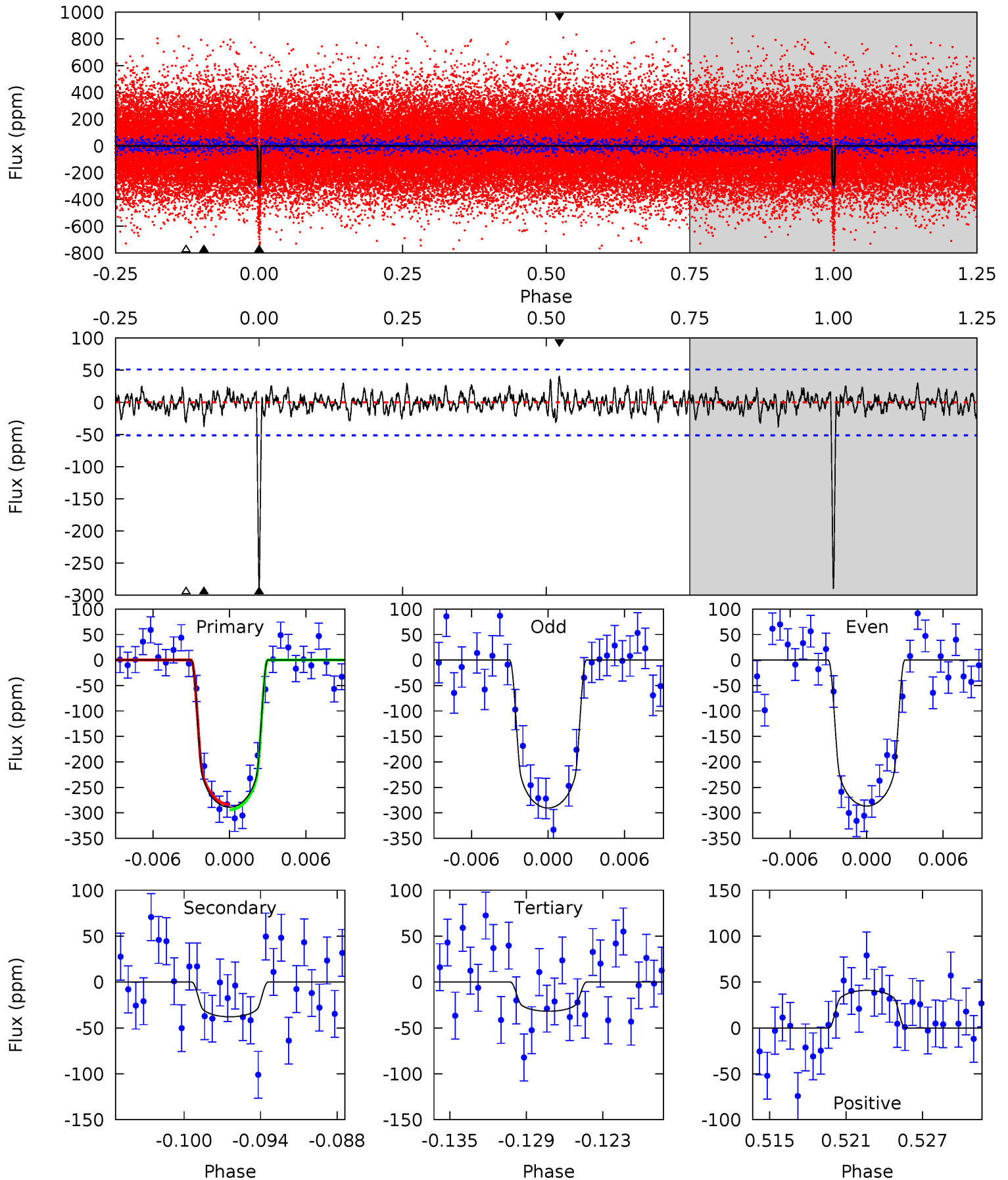
TCE 003548044-01 P= 34.763227 Days $T_0=161.739508$ (BKJD)



DV Model-Shift Uniqueness Test

003548044-01, P = 34.763100 Days, E = 126.977013 Days

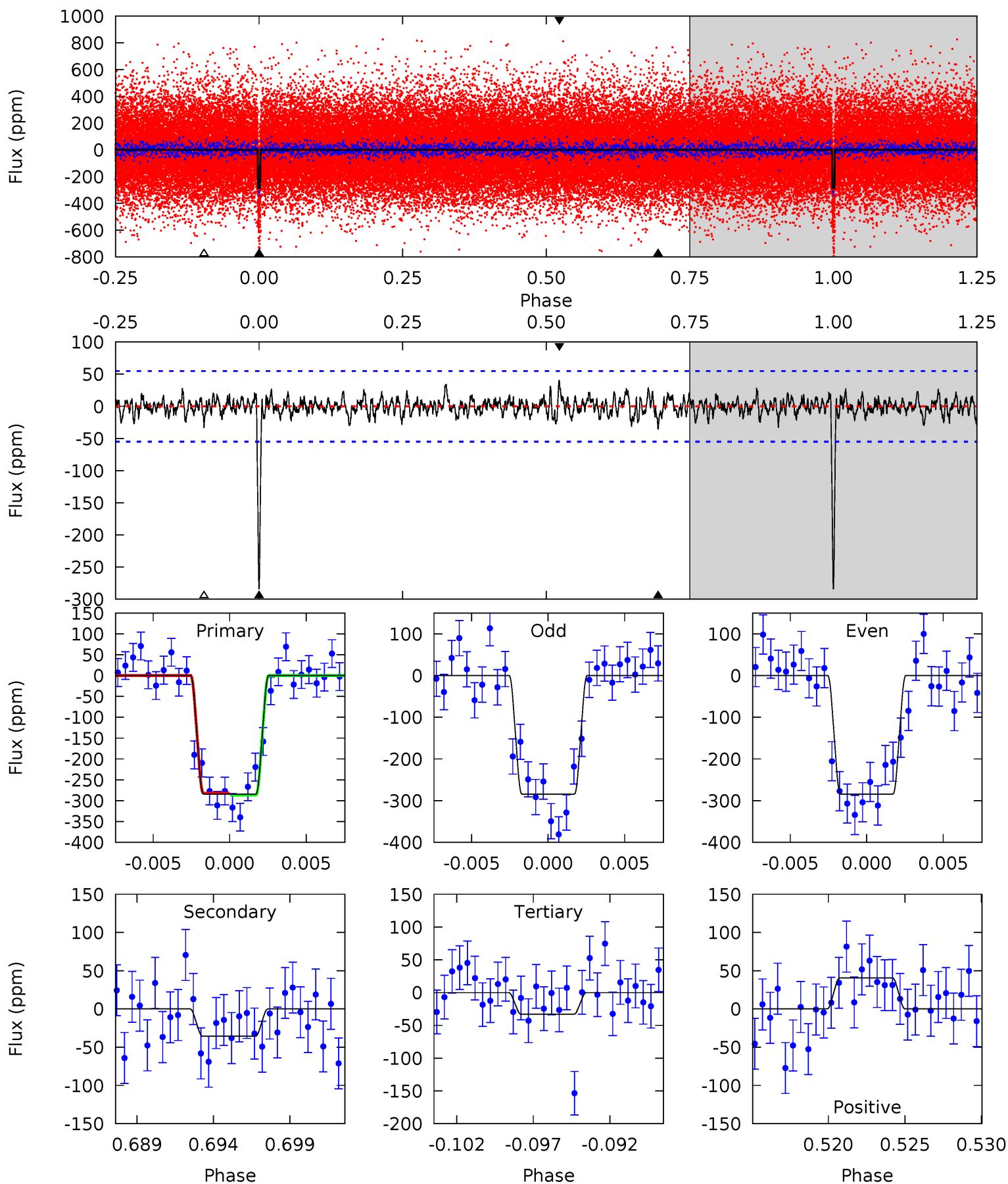
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
28.9	3.80	3.19	4.10	5.13	2.76	1.08	25.7	24.8	0.61	-0.30	0.19	0.94	0.12	0.53



Alt Model-Shift Uniqueness Test

003548044-01, P = 34.763227 Days, E = 126.976281 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
26.7	3.36	3.10	3.80	5.15	2.80	1.01	23.6	22.9	0.26	-0.45	0.00	0.97	0.12	0.22



Stellar Parameters For KIC 003548044

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5670^{+113}_{-102}	$4.387^{+0.138}_{-0.092}$	$-0.360^{+0.150}_{-0.150}$	$0.950^{+0.124}_{-0.124}$	$0.802^{+0.071}_{-0.036}$	$1.319^{+0.810}_{-0.359}$
	+2%/-2%	+3%/-2%	+42%/-42%	+13%/-13%	+9%/-4%	+61%/-27%
Source	SPE58	SPE58	SPE58	DSEP		

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

Secondary Eclipse Parameters for KIC 003548044-01 / KOI 2194.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-38 ± 10	$1.84^{+0.47}_{-0.44}$	770^{+33}_{-33}	3729^{+379}_{-311}	233^{+189}_{-97}
Alt.	-36 ± 11	$1.75^{+0.44}_{-0.39}$	770^{+35}_{-32}	3754^{+383}_{-337}	247^{+185}_{-111}

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

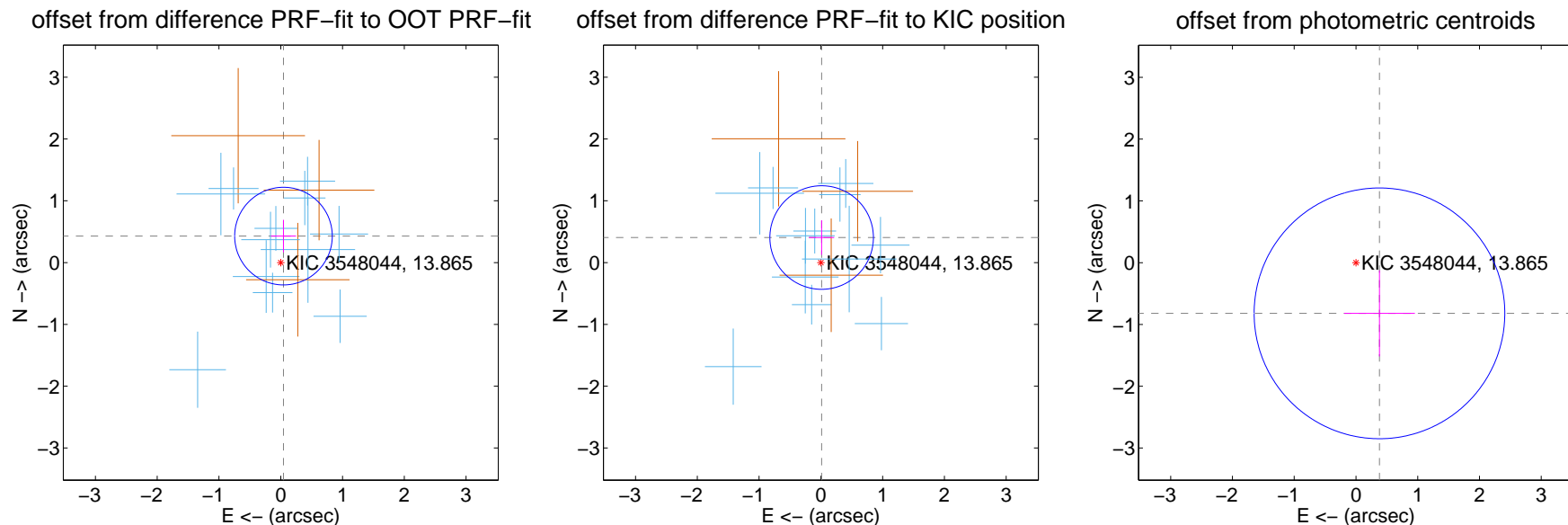
DV Centroid Data

Supplemental centroid analysis for 003548044-01. Kepler magnitude: 13.87. Transit SNR 21.64

There are 12 quarters with good PRF difference image offsets

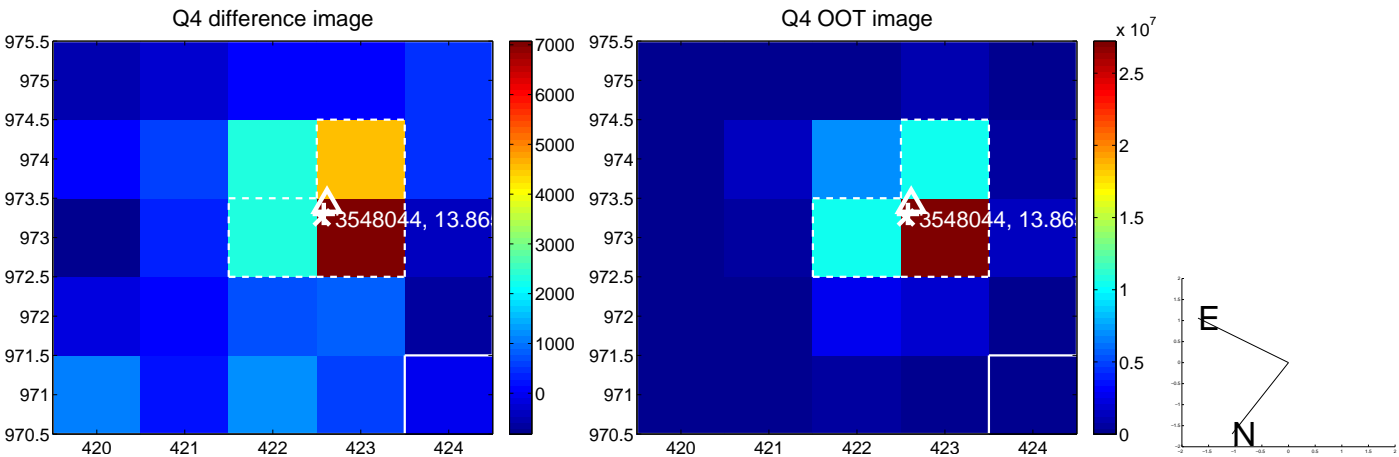
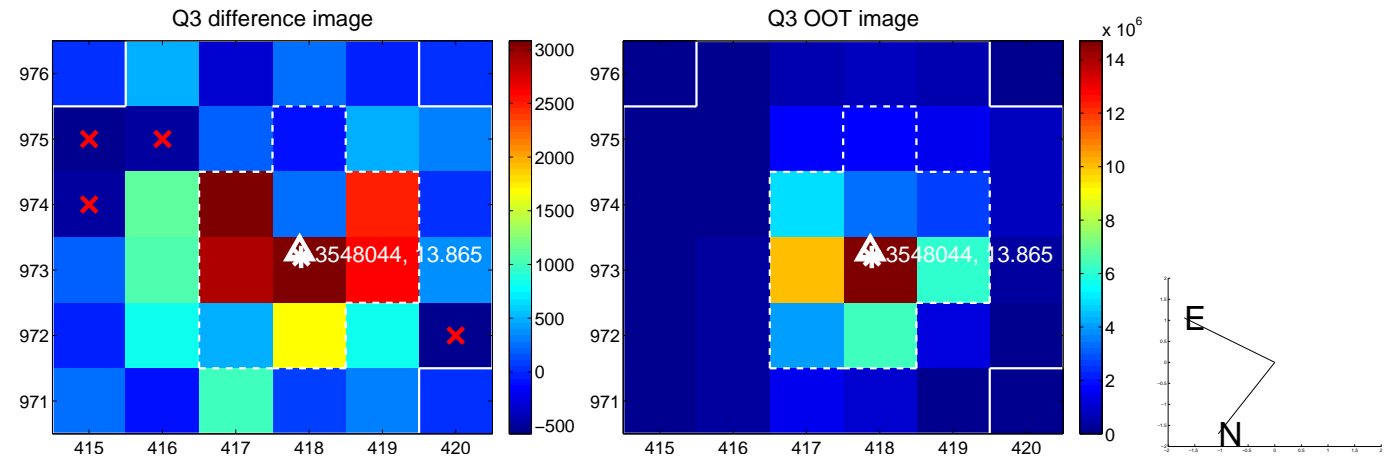
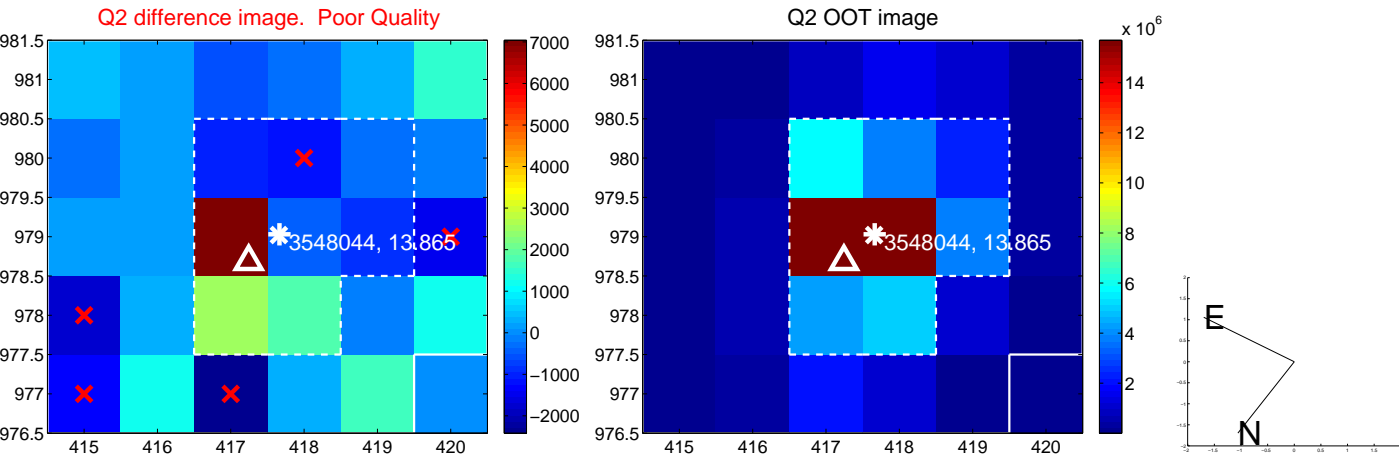
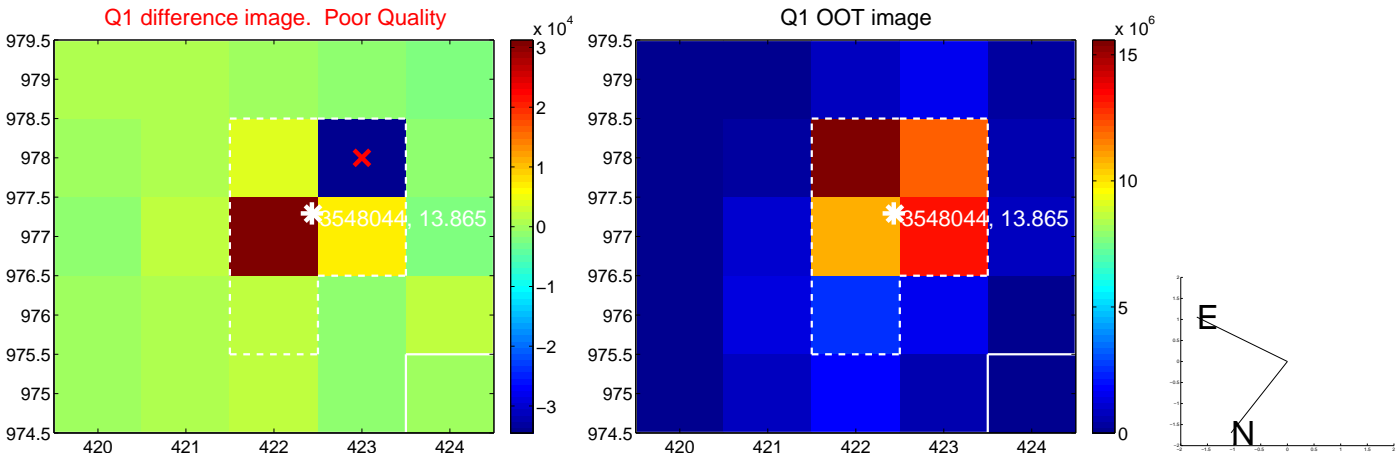
The direct PRF centroid is offset from the target star catalog position by about 0.12 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.431 ± 0.263	1.64	-0.044 ± 0.203	0.429 ± 0.264
PRF-fit source offset from KIC position	0.406 ± 0.279	1.45	-0.012 ± 0.204	0.406 ± 0.279
photometric centroid source offset	0.90 ± 0.68	1.34	-0.38 ± 0.57	-0.82 ± 0.70

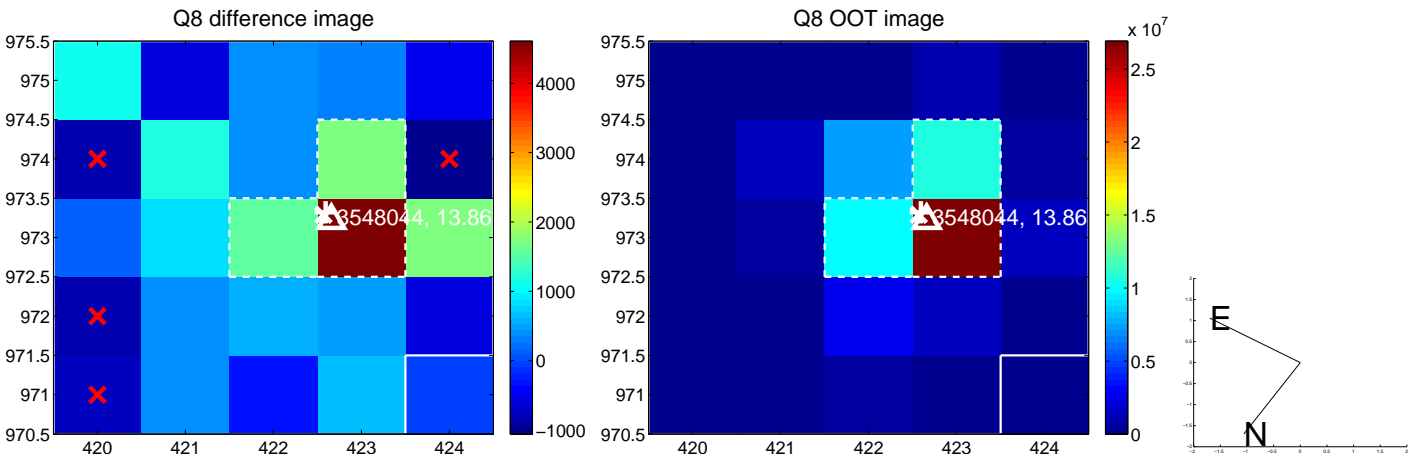
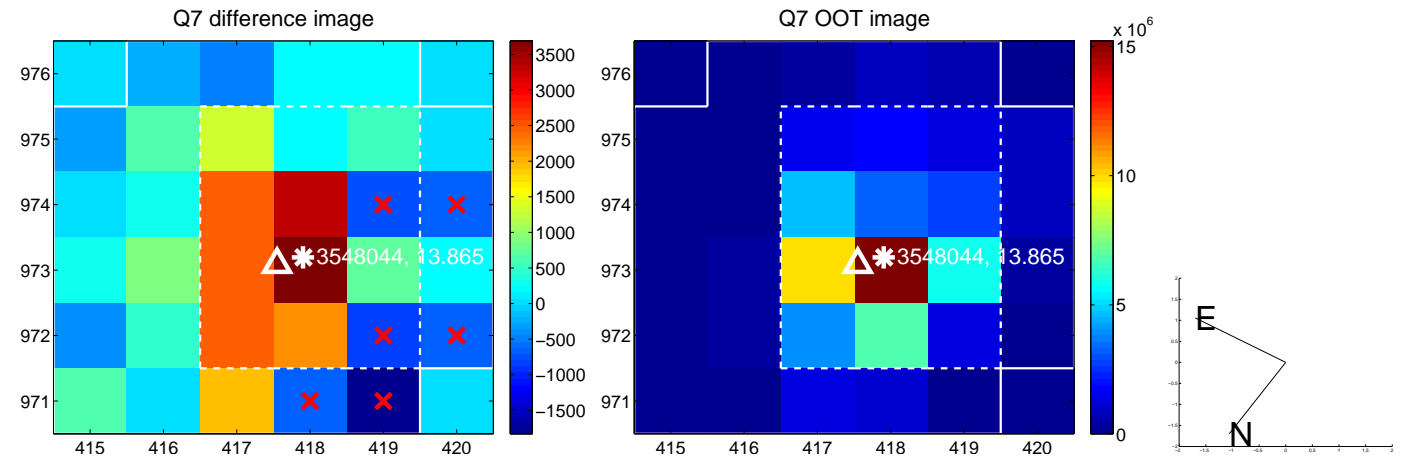
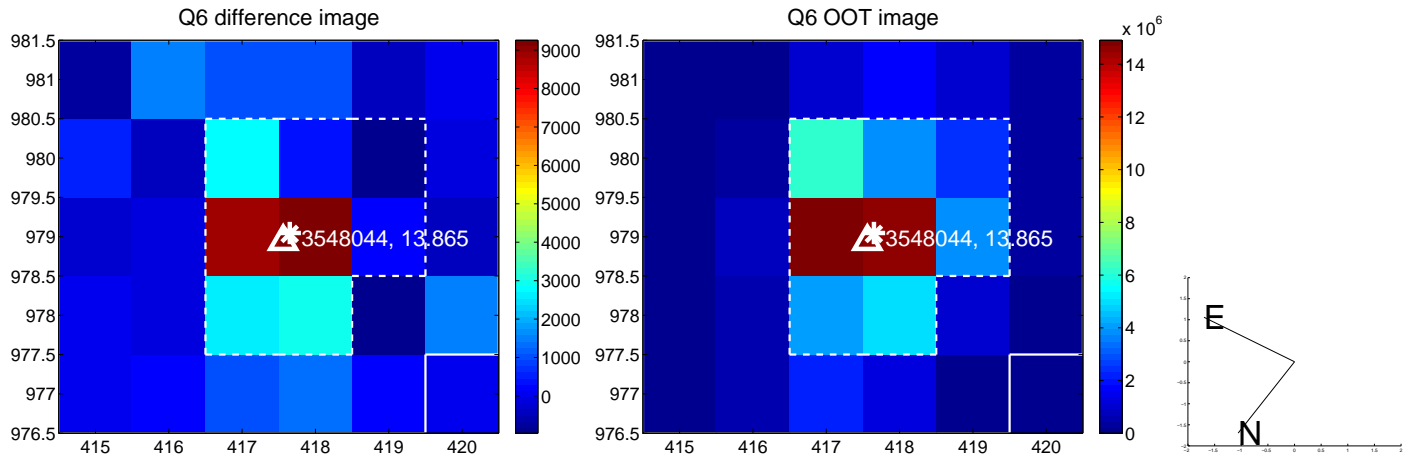
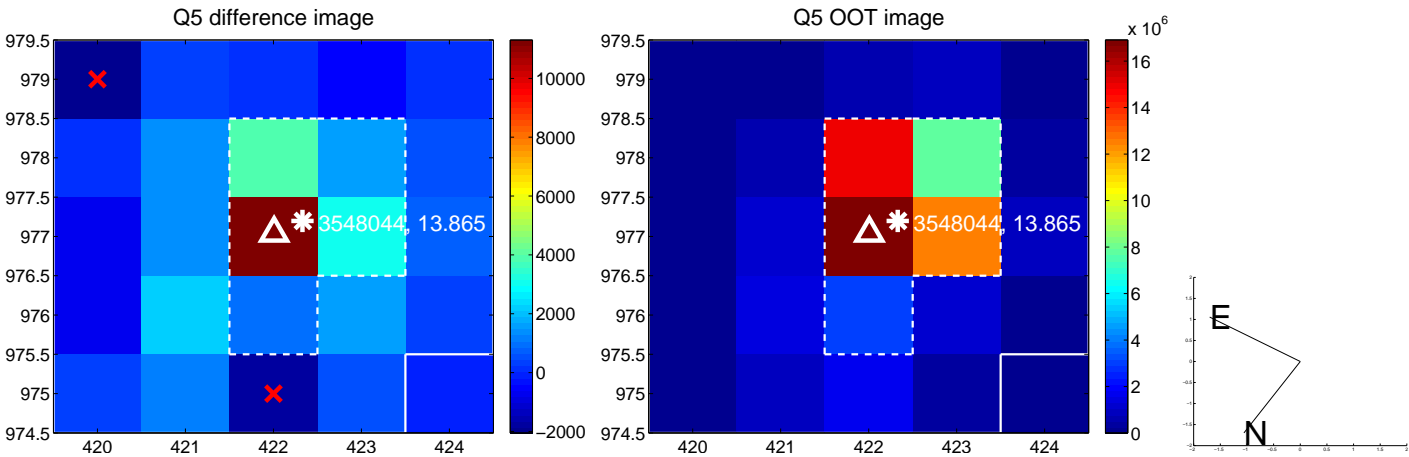


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

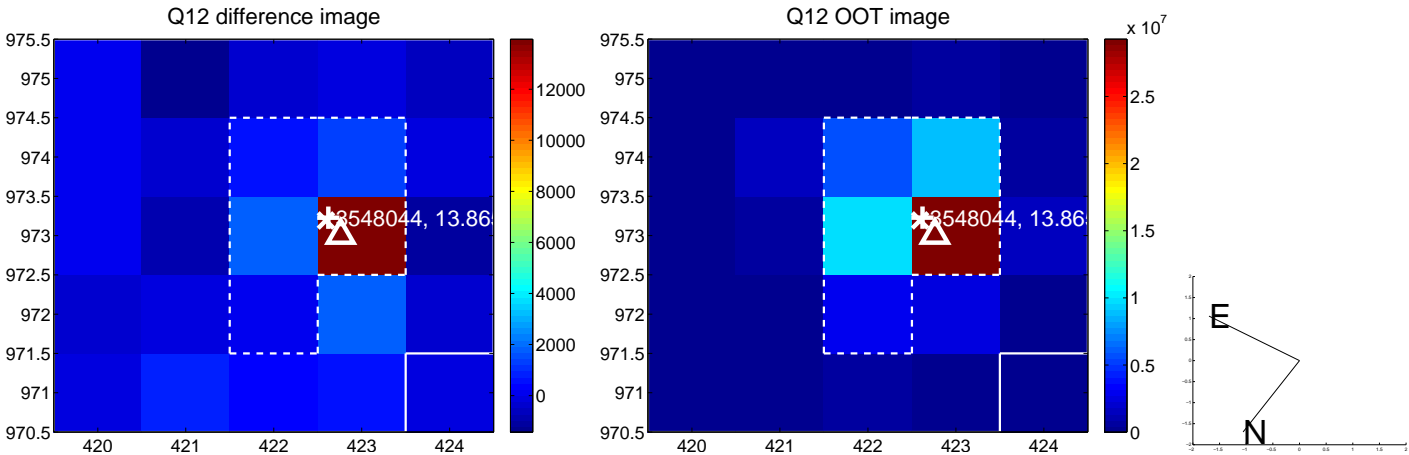
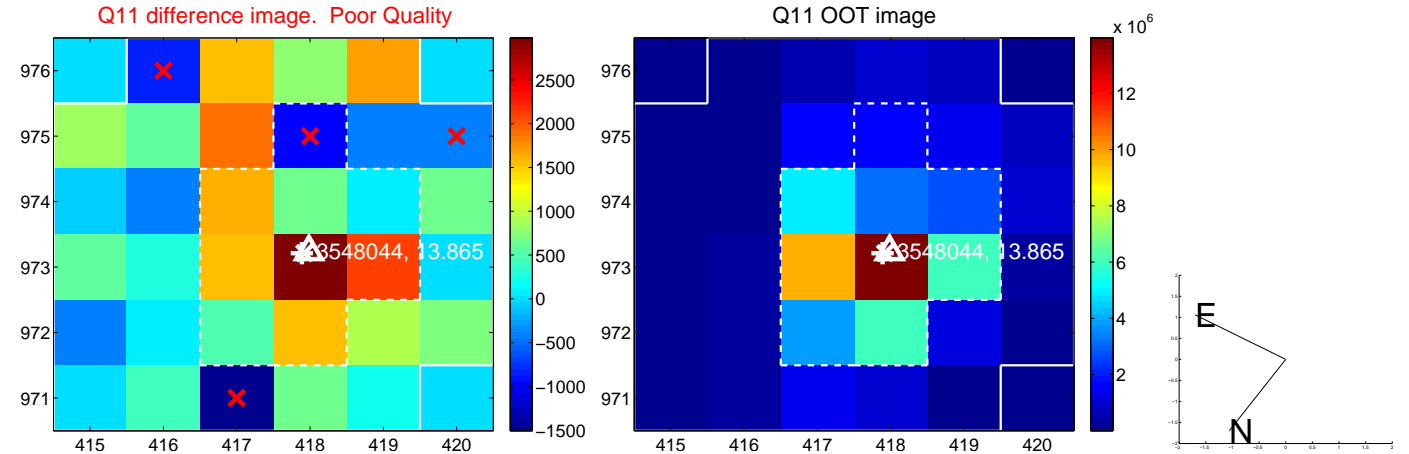
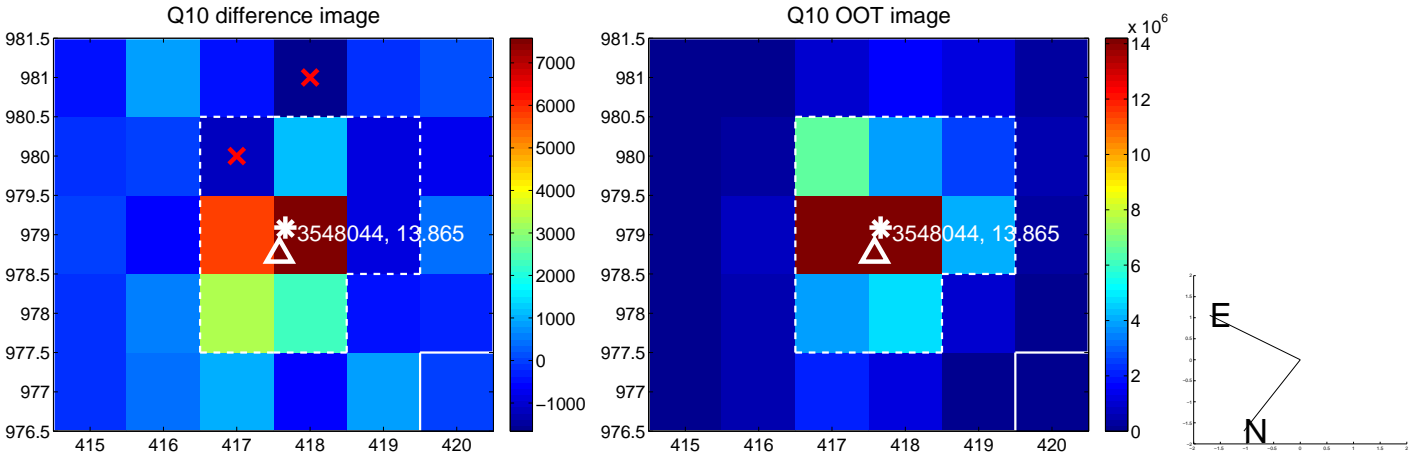
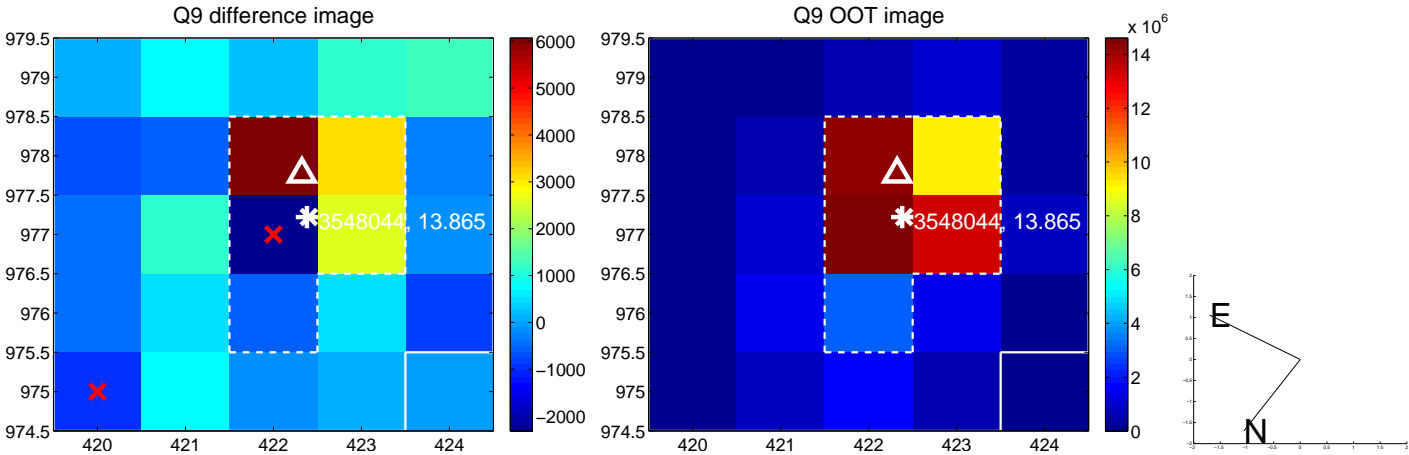
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



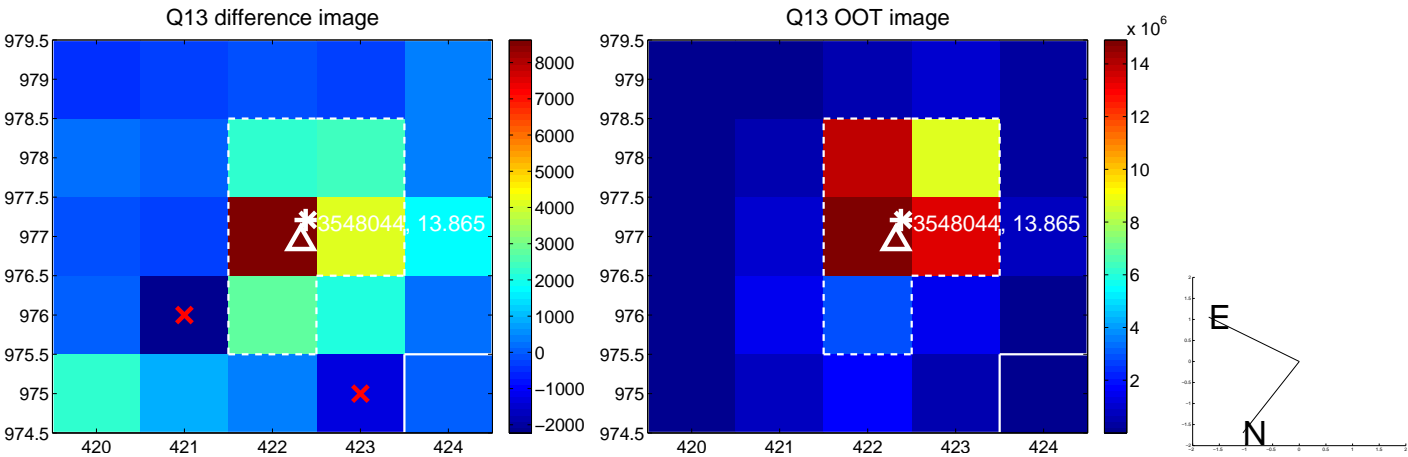
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



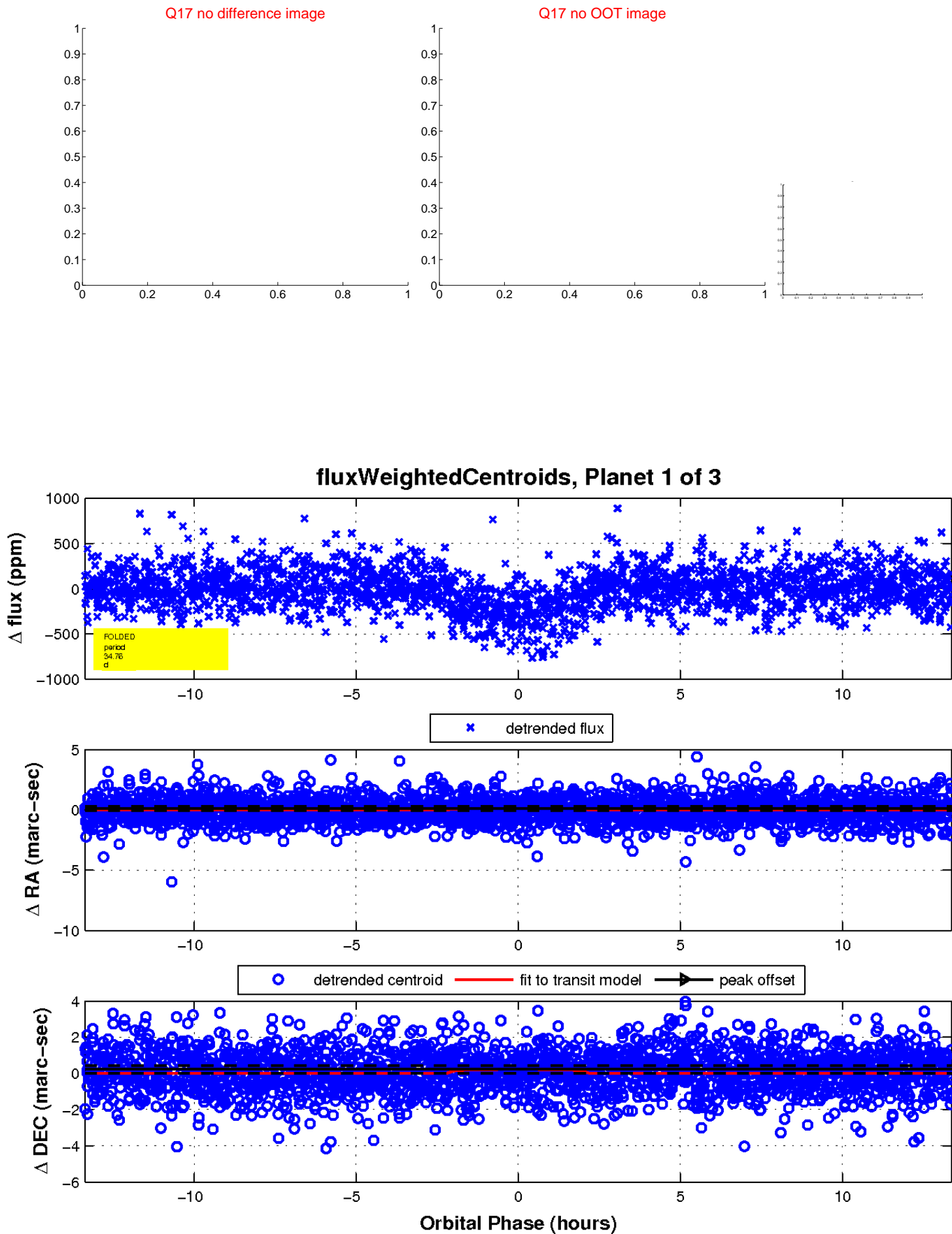
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

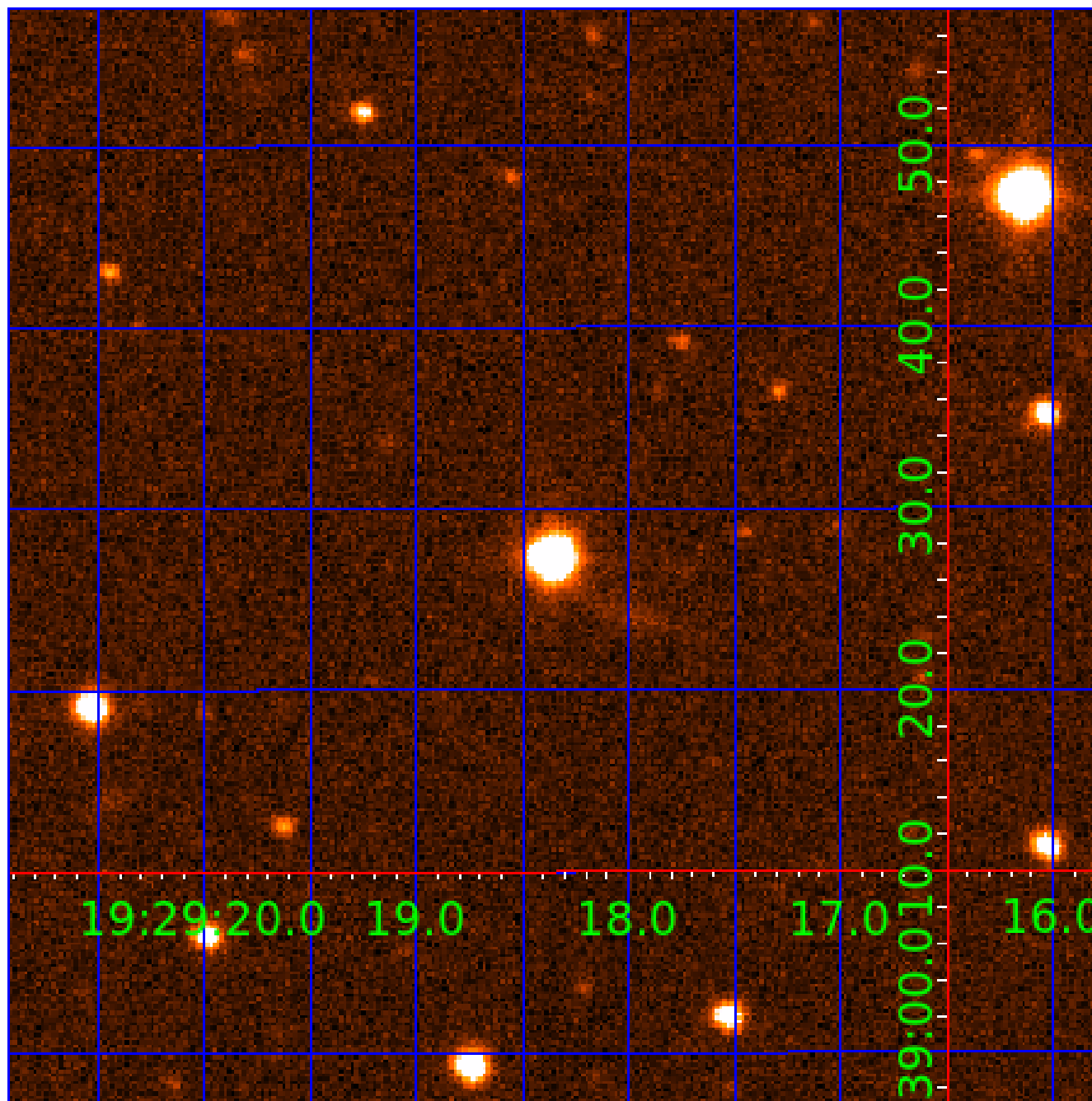


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 003548044

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})
003548044-01	OBS	2194.01	34.763100	161.740113	286.7	4.457	19.6	21.6	0.95	5670	1.85	22.26
003548044-02	OBS	2194.02	67.968862	163.555480	314.2	8.144	20.4	23.6	0.95	5670	1.83	9.11
003548044-03	OBS	2194.03	445.216076	202.897005	232.8	19.370	7.9	9.5	0.95	5670	1.60	0.74

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003548044-01	OBS	PC	0.99	0	0	0	0	NO_COMMENT
003548044-02	OBS	PC	0.98	0	0	0	0	NO_COMMENT
003548044-03	OBS	PC	0.50	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.

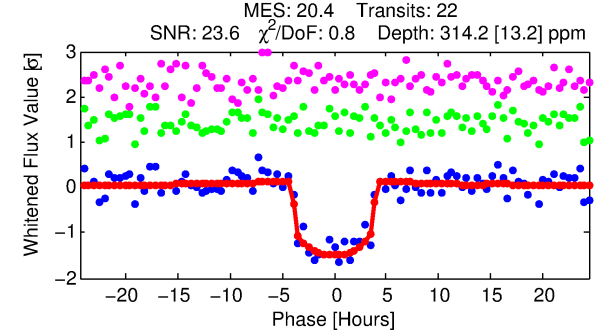
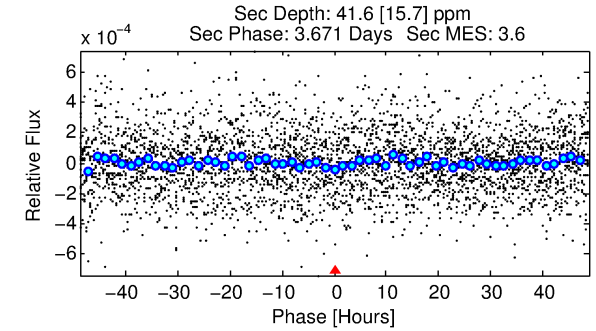
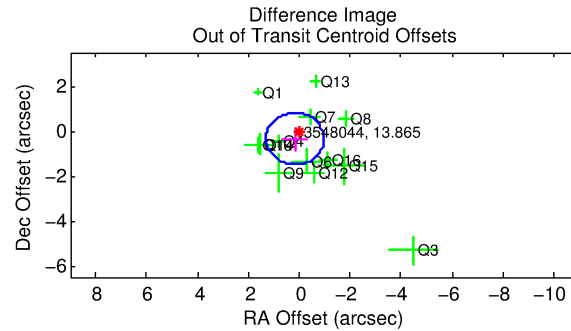
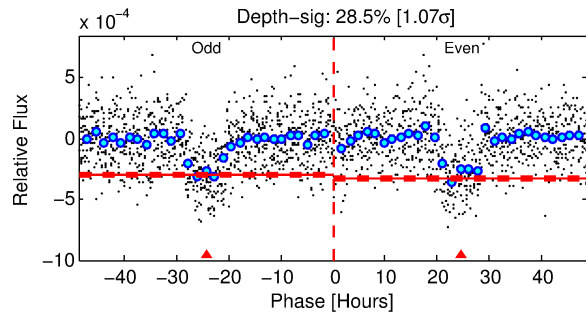
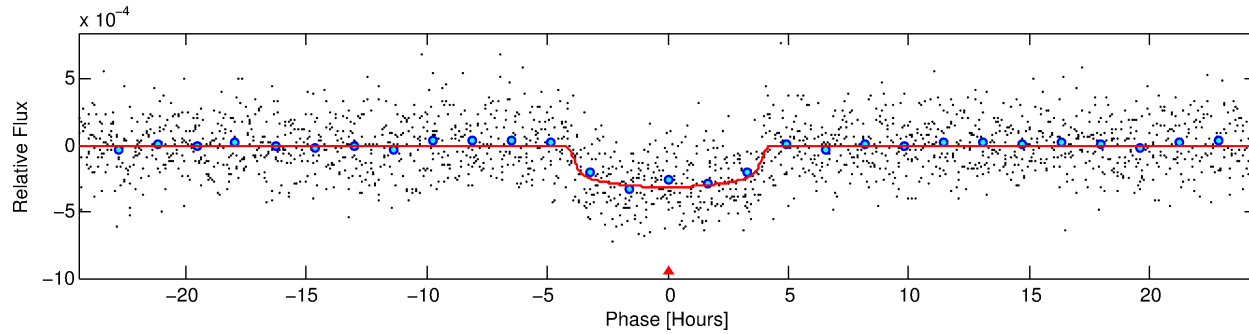
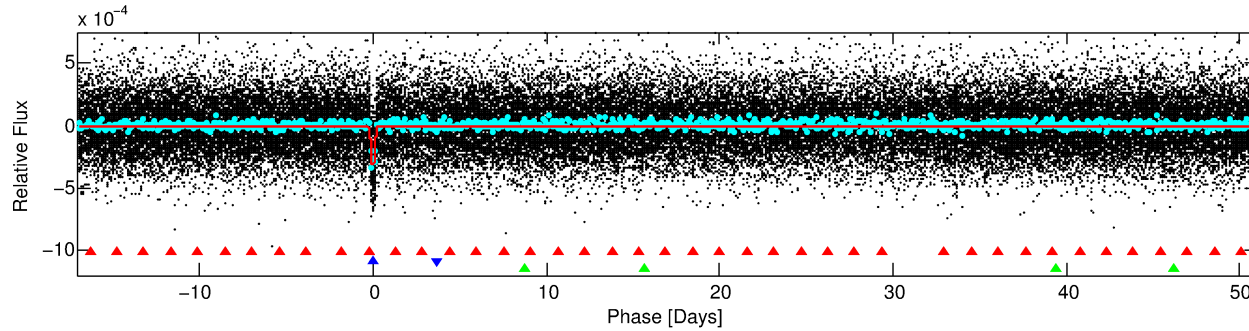
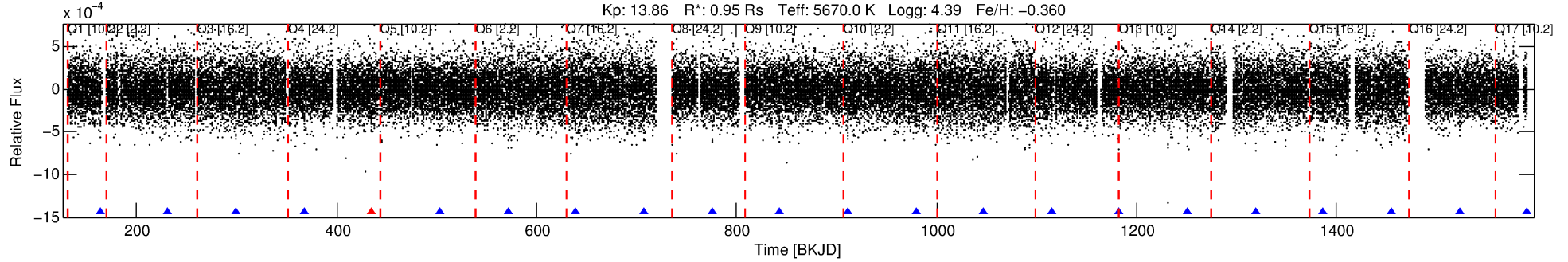
Ephemeris Match Information For 003548044-02

No Significant Match Found

DV One-Page Summary

KIC: 3548044 Candidate: 2 of 3 Period: 67.969 d
KOI: K02194.02 Name: Kepler-371c Corr: 0.985

Kp: 13.86 R*: 0.95 Rs Teff: 5670.0 K Logg: 4.39 Fe/H: -0.360



DV Fit Results:

Period = 67.96886 [0.00049] d
Epoch = 163.5555 [0.0061] BKJD
Rp/R* = 0.0177 [0.0043]
a/R* = 43.28 [47.93]
b = 0.76 [0.63]
Seff = 9.11 [2.21]
Teq = 443 [27] K
Rp = 1.83 [0.50] Re
a = 0.3030 [0.0415] AU
Ag = 625.02 [409.31] [1.52σ]
Teffp = 3424 [530] K [5.62σ]

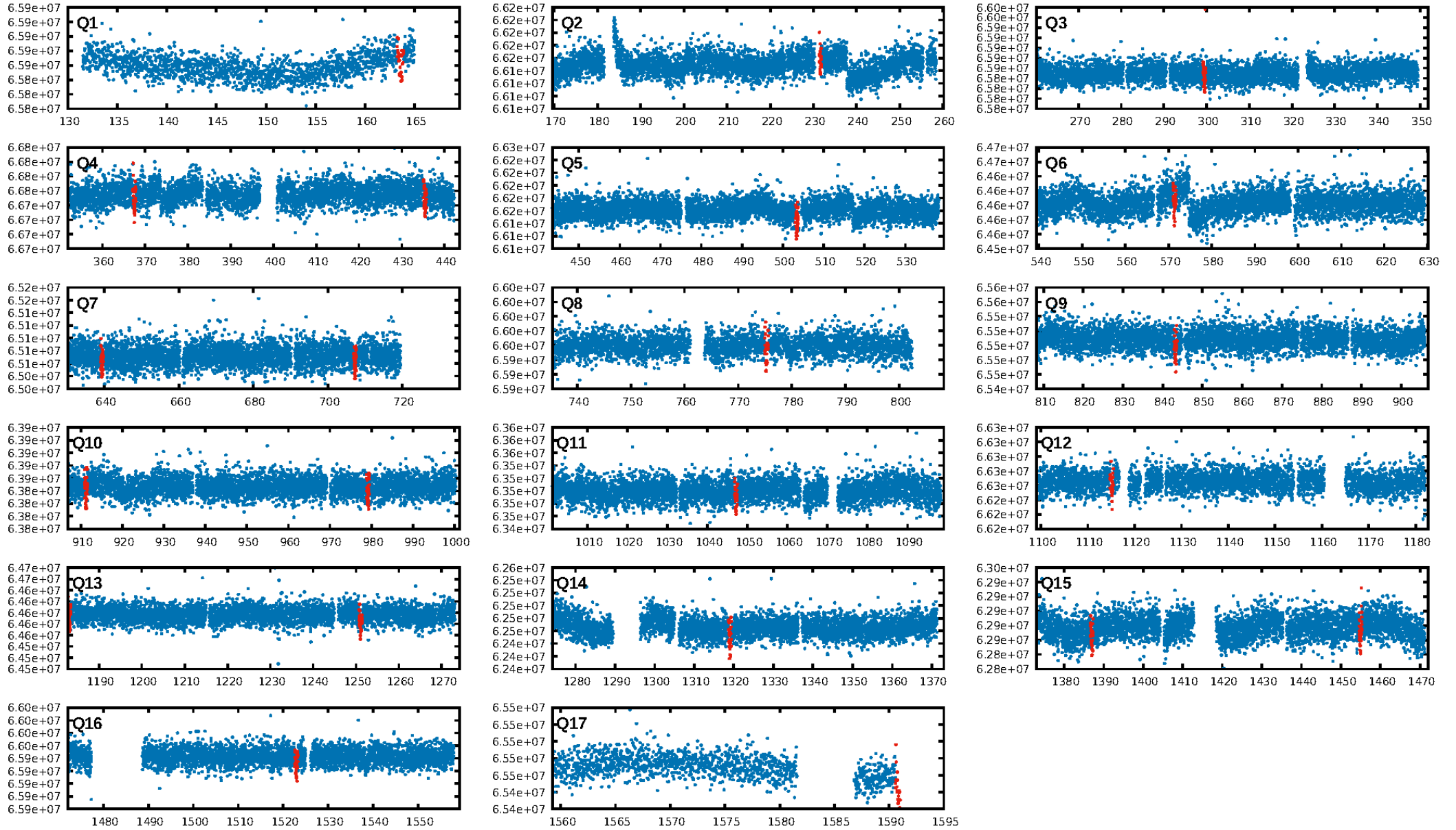
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [85.84σ]
LongPeriod-sig: 100.0% [430.88σ]
ModelChiSquare2-sig: 53.5%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 2.28e-81
RollingBand-fgt: 0.95 [19/20]
GhostDiagnostic-chr: 8.36
Centroid-sig: 1.3%
Centroid-so: 1.131 arcsec [2.09σ]
OotOffset-rm: 0.392 arcsec [1.03σ]
KicOffset-rm: 0.504 arcsec [1.35σ]
OotOffset-st: 3/3/4/3 [13]
KicOffset-st: 3/3/4/3 [13]
DiffImageQuality-fgm: 0.92 [12/13]
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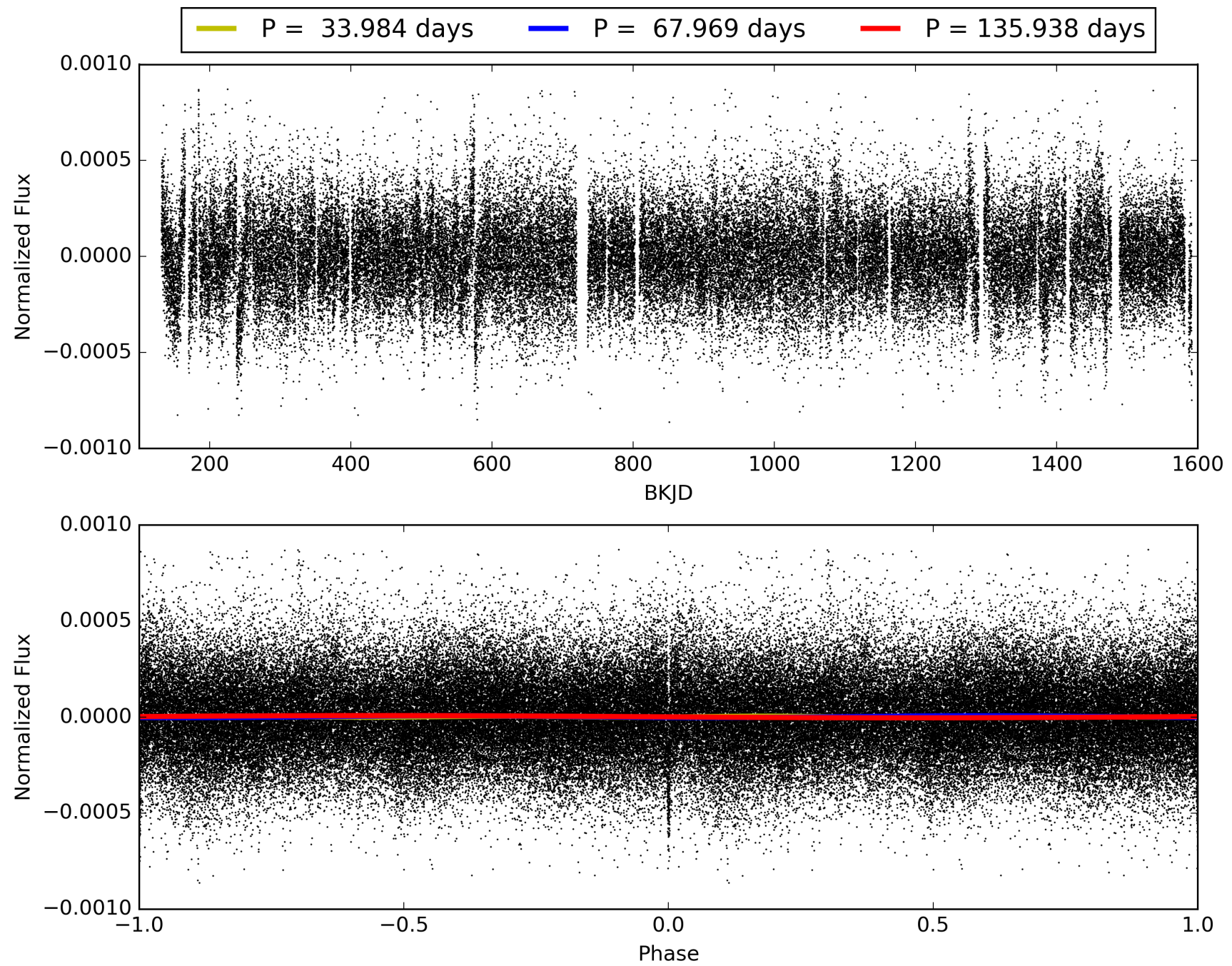
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This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 003548044-02, PDC Light Curves

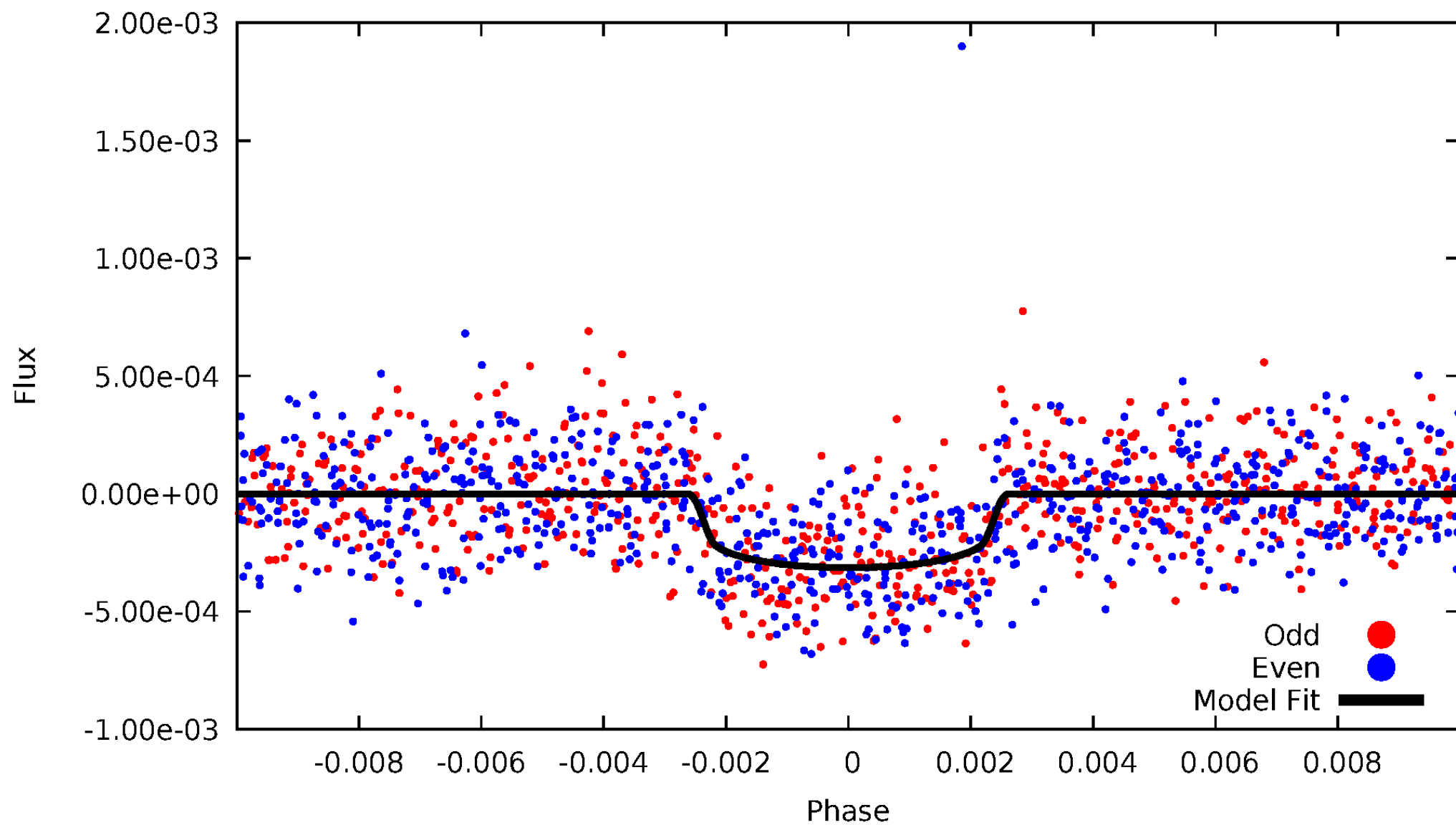


TCE 003548044-02



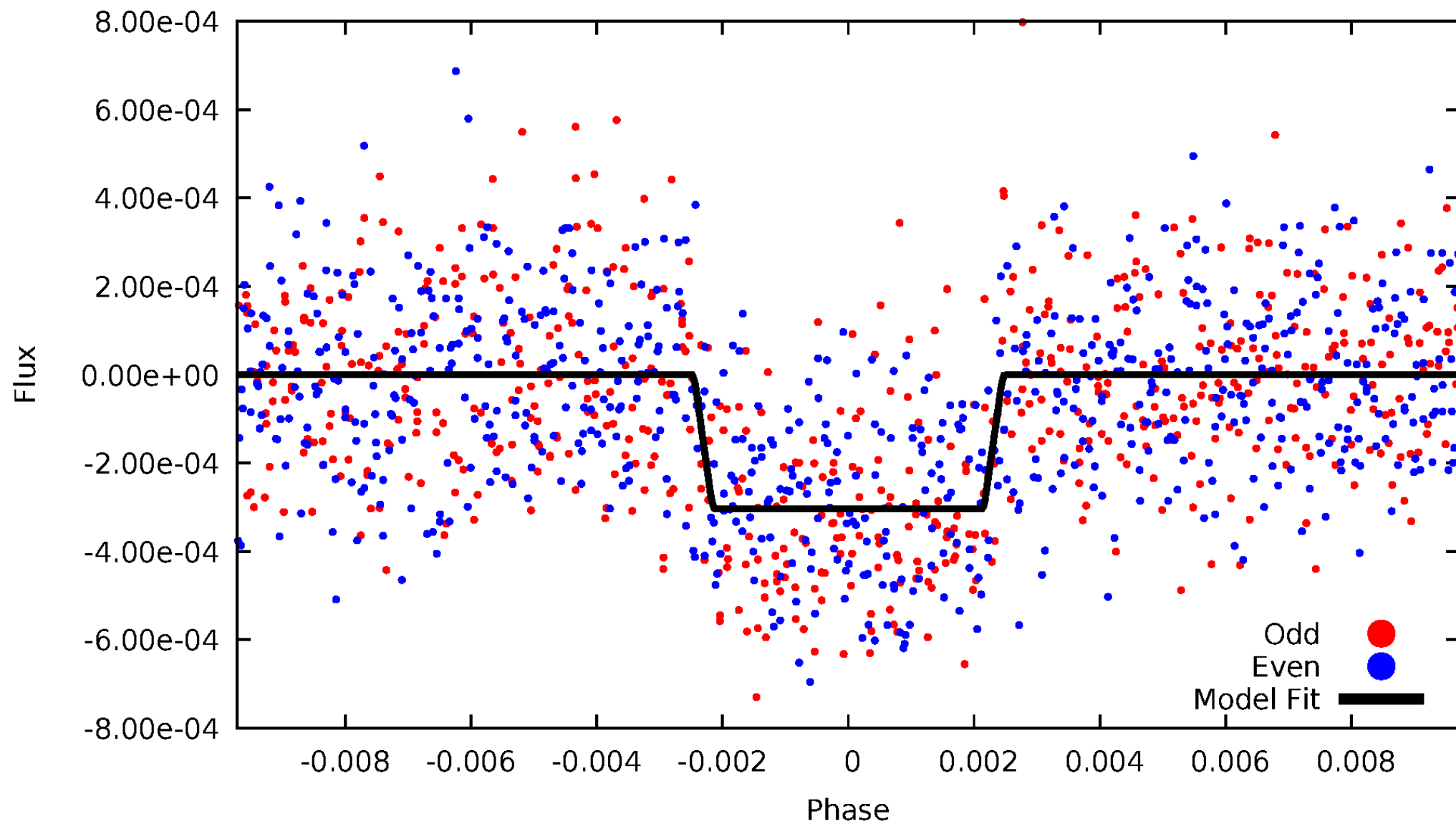
DV Odd/Even

TCE 003548044-02



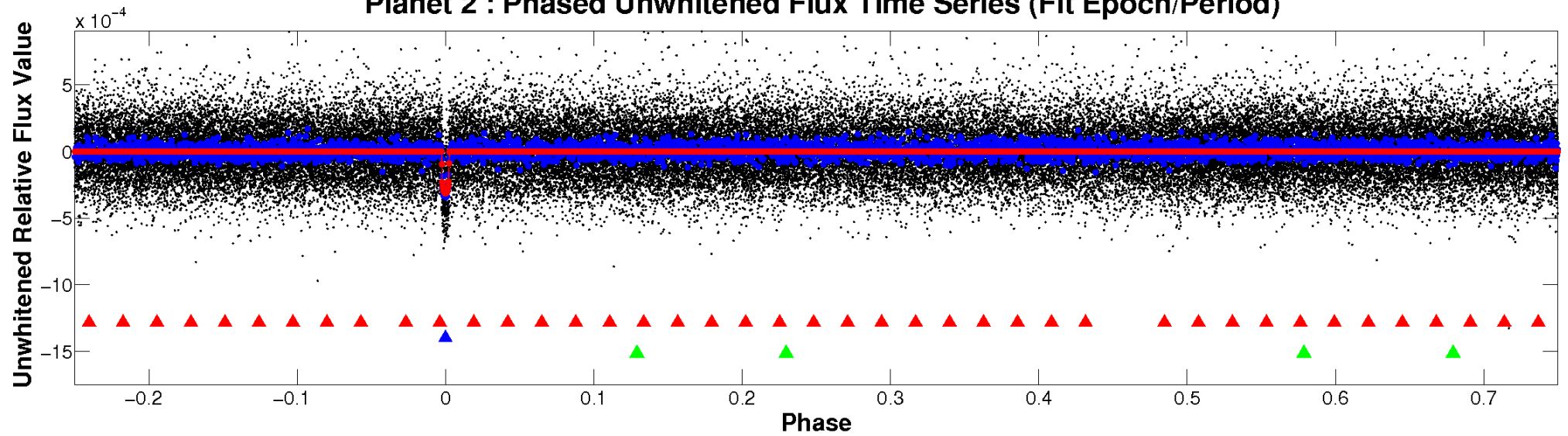
ALT Odd/Even

TCE 003548044-02

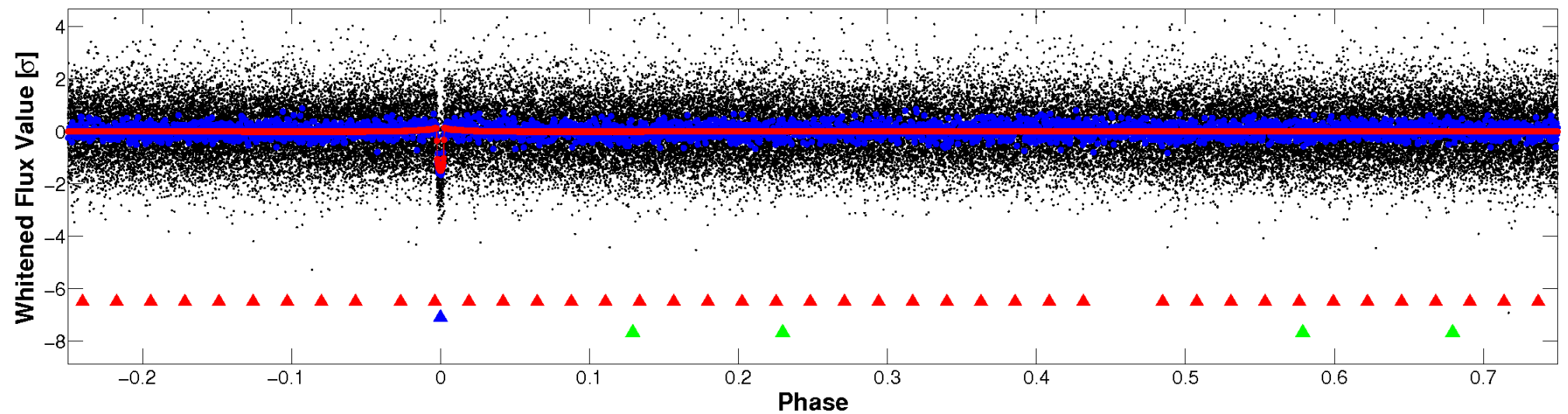


Non-Whitened Vs. Whitened Light Curve

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

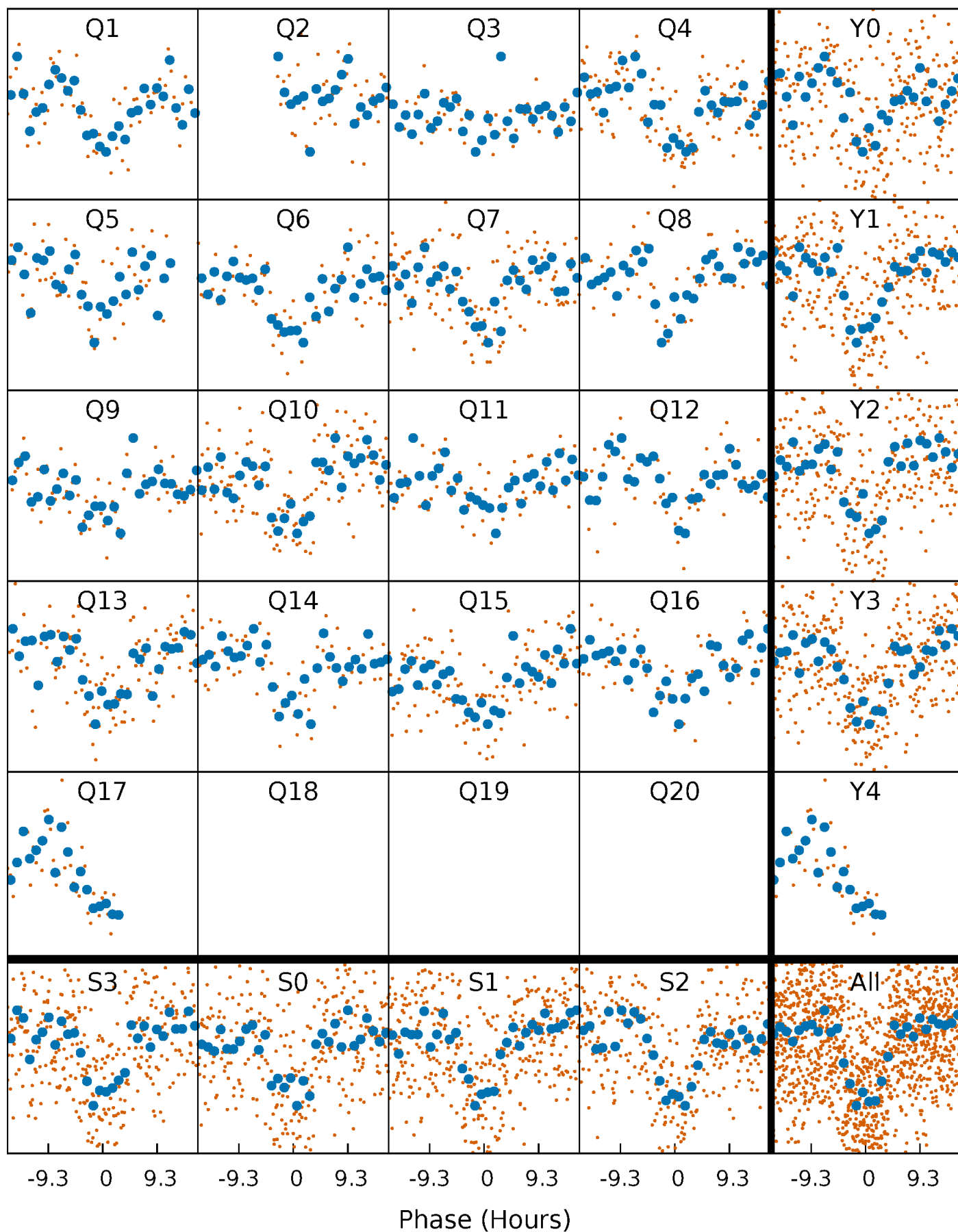


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



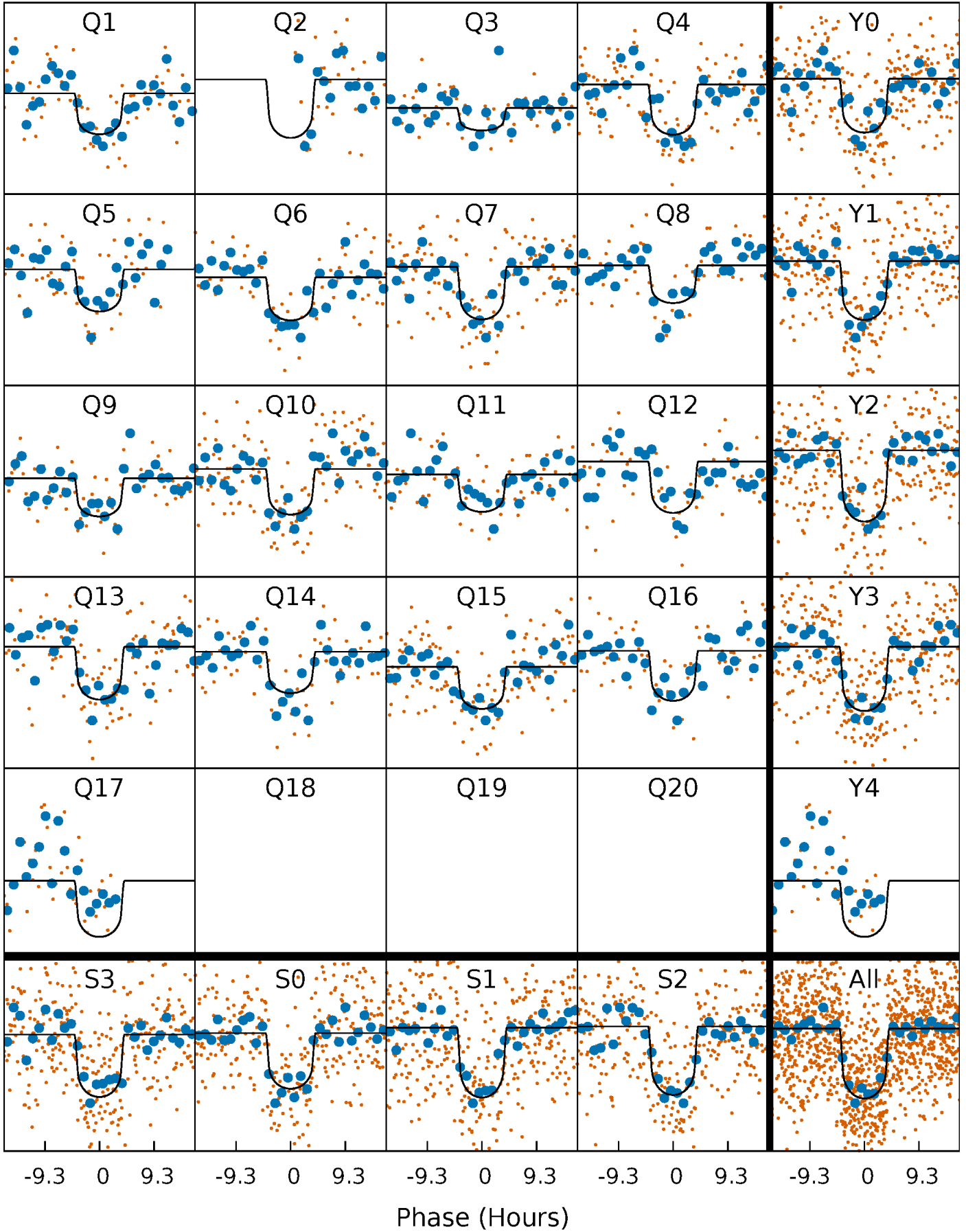
PDC Quarter-Phased Transit Curves

TCE 003548044-02 P= 67.968862 Days $T_0=163.555480$ (BKJD)



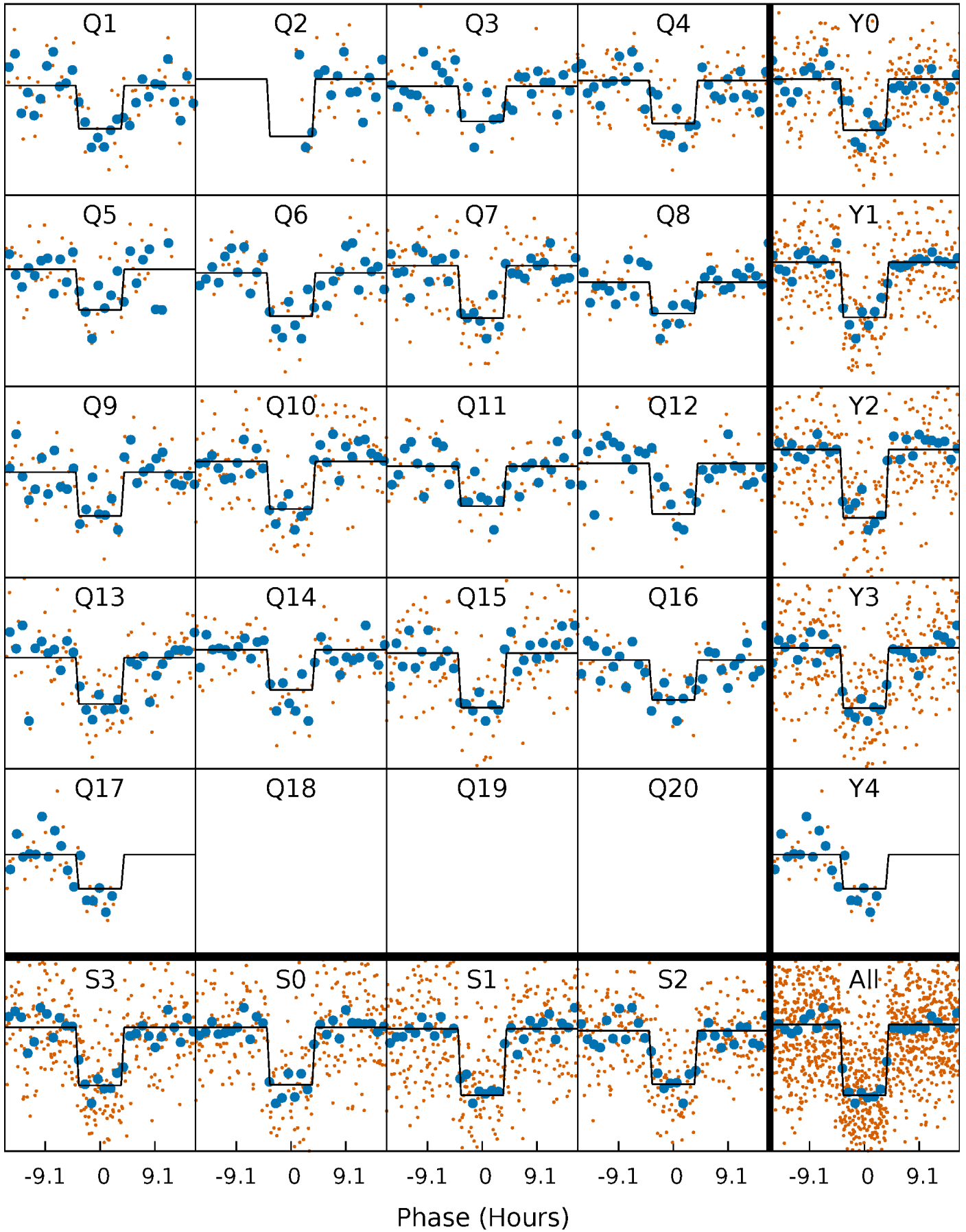
DV Quarter-Phased Transit Curves

TCE 003548044-02 P= 67.968862 Days $T_0=163.555480$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

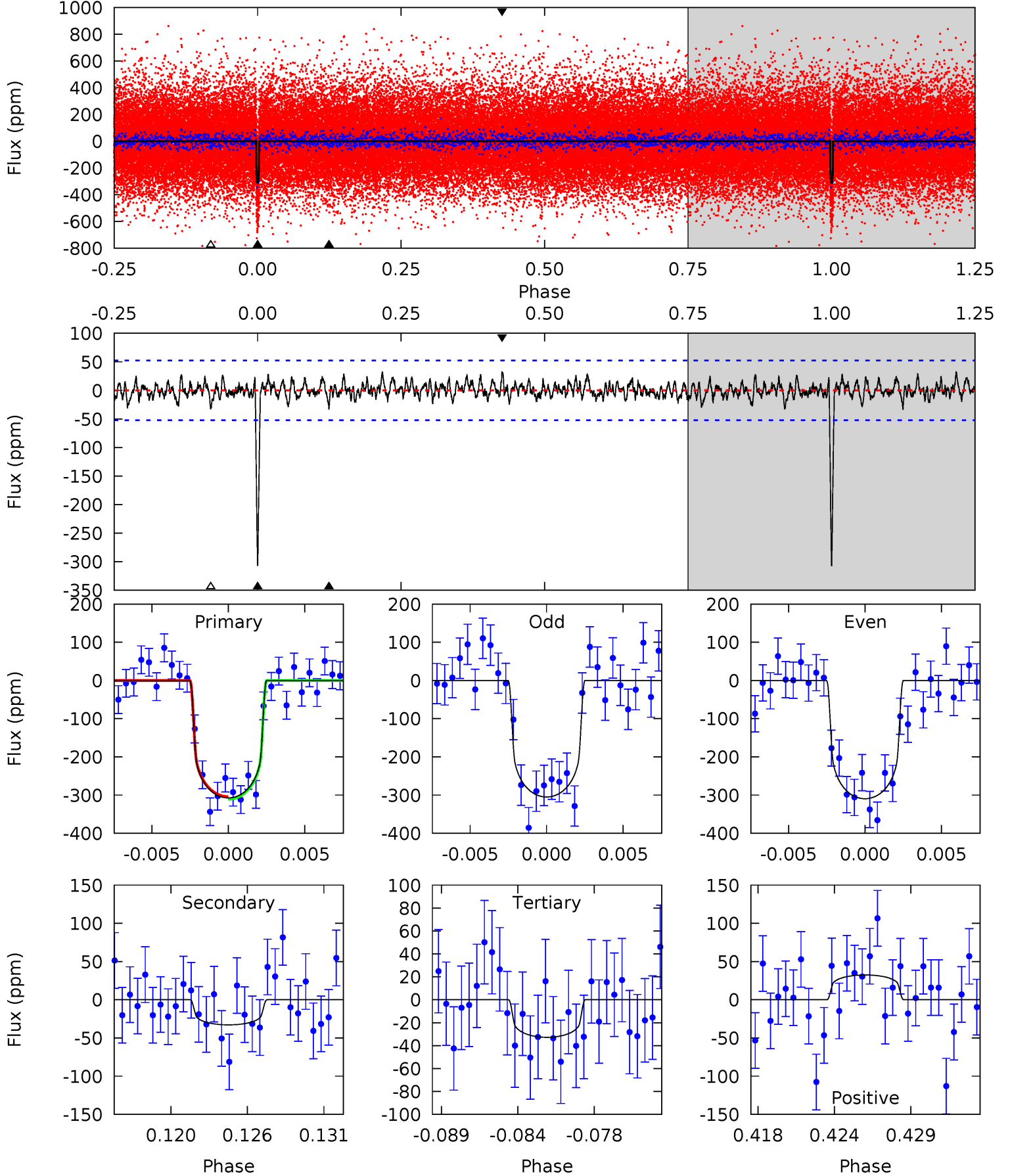
TCE 003548044-02 P= 67.969273 Days $T_0=163.553171$ (BKJD)



DV Model-Shift Uniqueness Test

003548044-02, P = 67.968862 Days, E = 95.586618 Days

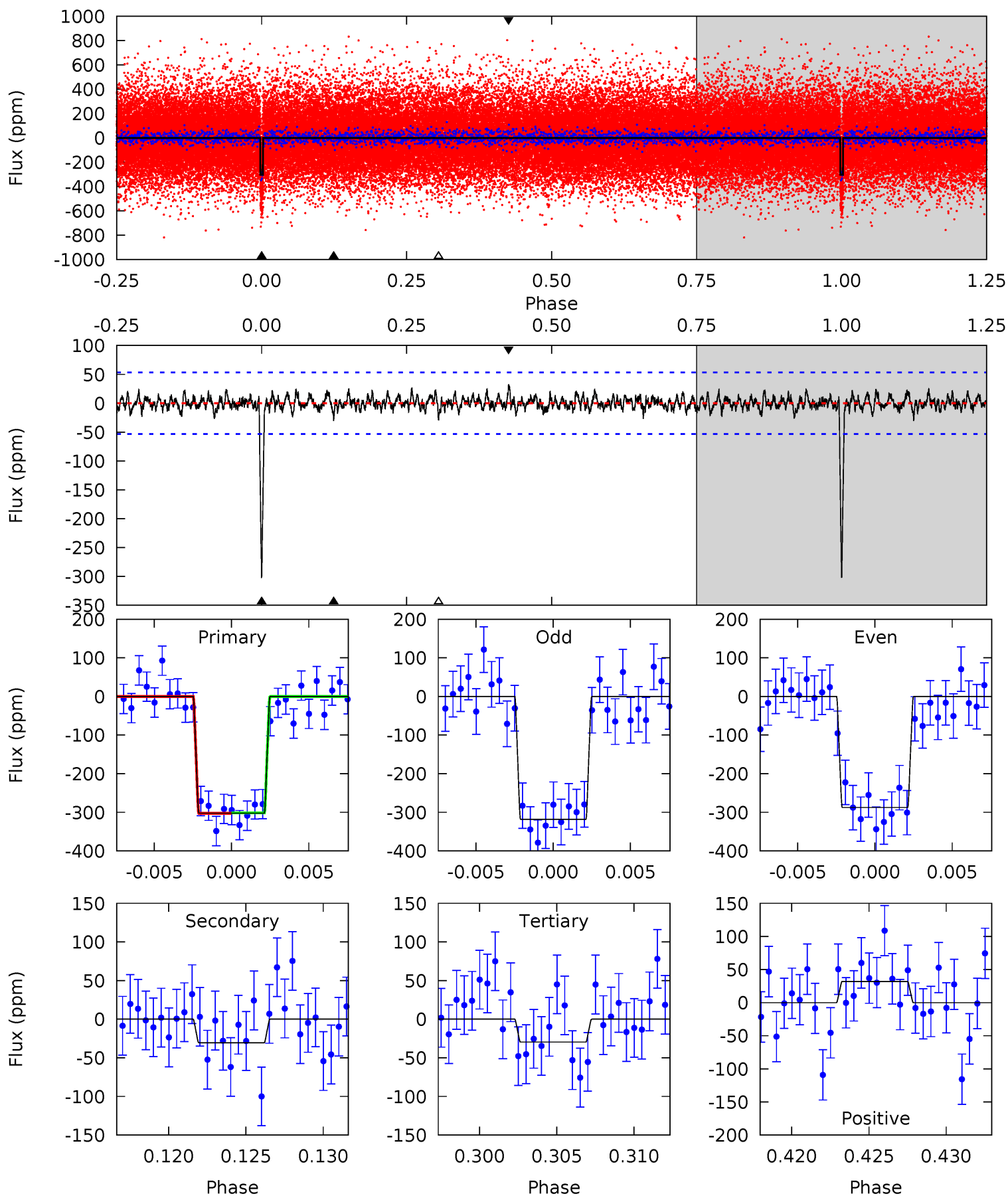
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
30.2	3.23	3.22	3.19	5.15	2.79	1.02	27.0	27.0	0.01	0.04	0.22	0.95	0.10	0.32



Alt Model-Shift Uniqueness Test

003548044-02, P = 67.969273 Days, E = 95.583898 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
29.2	2.95	2.85	3.08	5.16	2.81	0.85	26.3	26.1	0.09	-0.14	1.48	1.00	0.10	0.06



Stellar Parameters For KIC 003548044

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5670^{+113}_{-102}	$4.387^{+0.138}_{-0.092}$	$-0.360^{+0.150}_{-0.150}$	$0.950^{+0.124}_{-0.124}$	$0.802^{+0.071}_{-0.036}$	$1.319^{+0.810}_{-0.359}$
	+2%/-2%	+3%/-2%	+42%/-42%	+13%/-13%	+9%/-4%	+61%/-27%
Source	SPE58	SPE58	SPE58	DSEP		

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

Secondary Eclipse Parameters for KIC 003548044-02 / KOI 2194.02

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-33 ± 10	$1.81^{+0.45}_{-0.43}$	616^{+27}_{-28}	3645^{+412}_{-316}	504^{+433}_{-223}
Alt.	-30 ± 10	$1.78^{+0.48}_{-0.45}$	617^{+25}_{-29}	3623^{+409}_{-333}	467^{+466}_{-210}

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

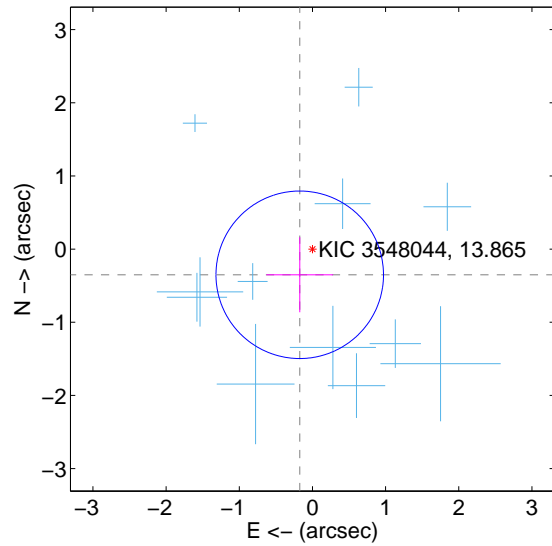
Supplemental centroid analysis for 003548044-02. Kepler magnitude: 13.87. Transit SNR 23.58

There are 12 quarters with good PRF difference image offsets

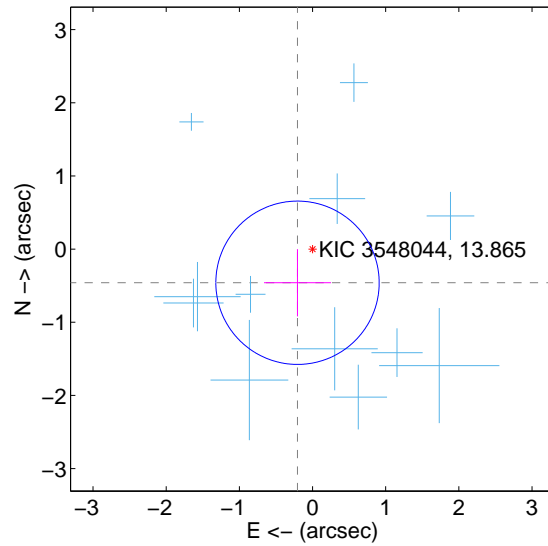
The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.392 ± 0.382	1.03	0.174 ± 0.456	-0.351 ± 0.513
PRF-fit source offset from KIC position	0.504 ± 0.372	1.35	0.205 ± 0.458	-0.460 ± 0.460
photometric centroid source offset	1.13 ± 0.54	2.09	-1.08 ± 0.53	0.35 ± 0.66

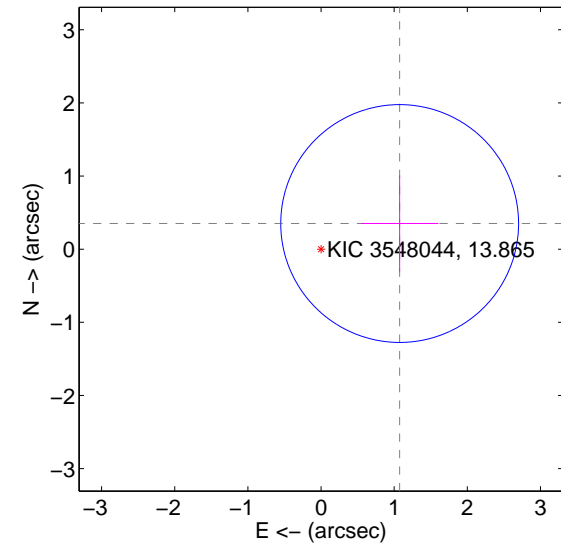
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

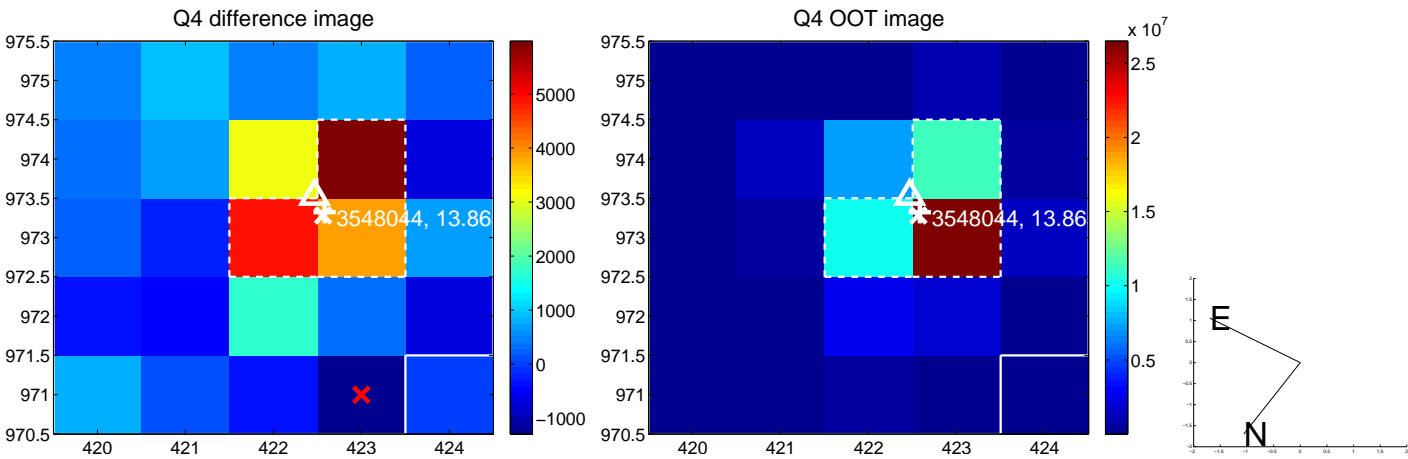
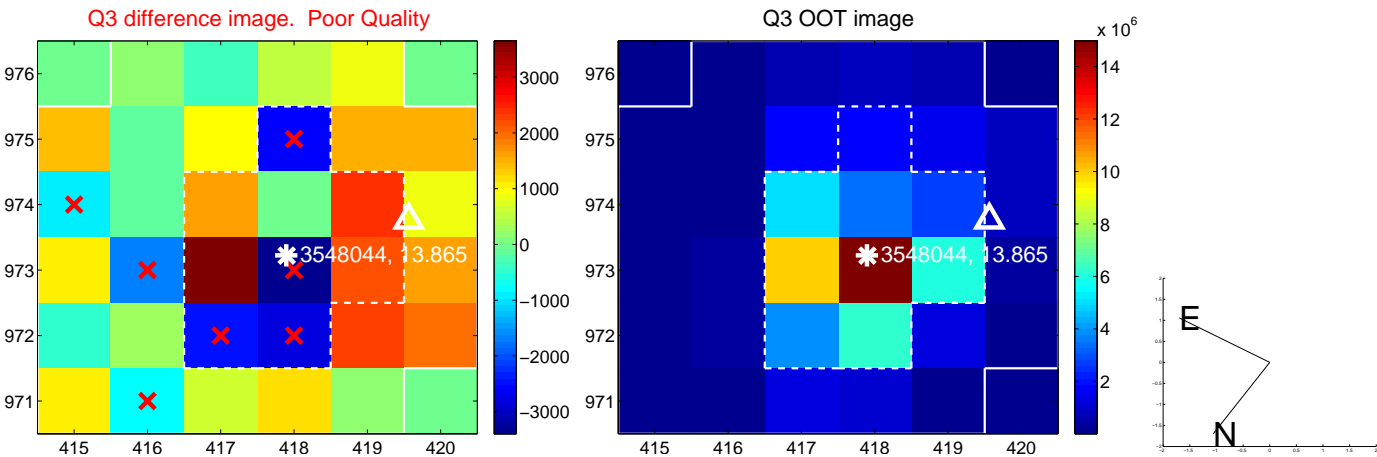
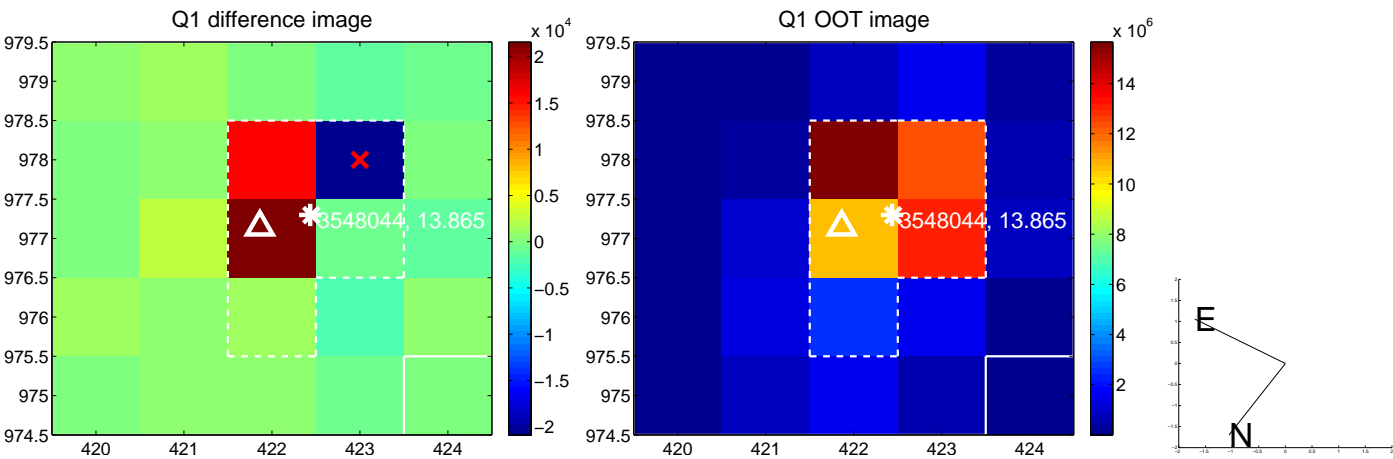


offset from photometric centroids

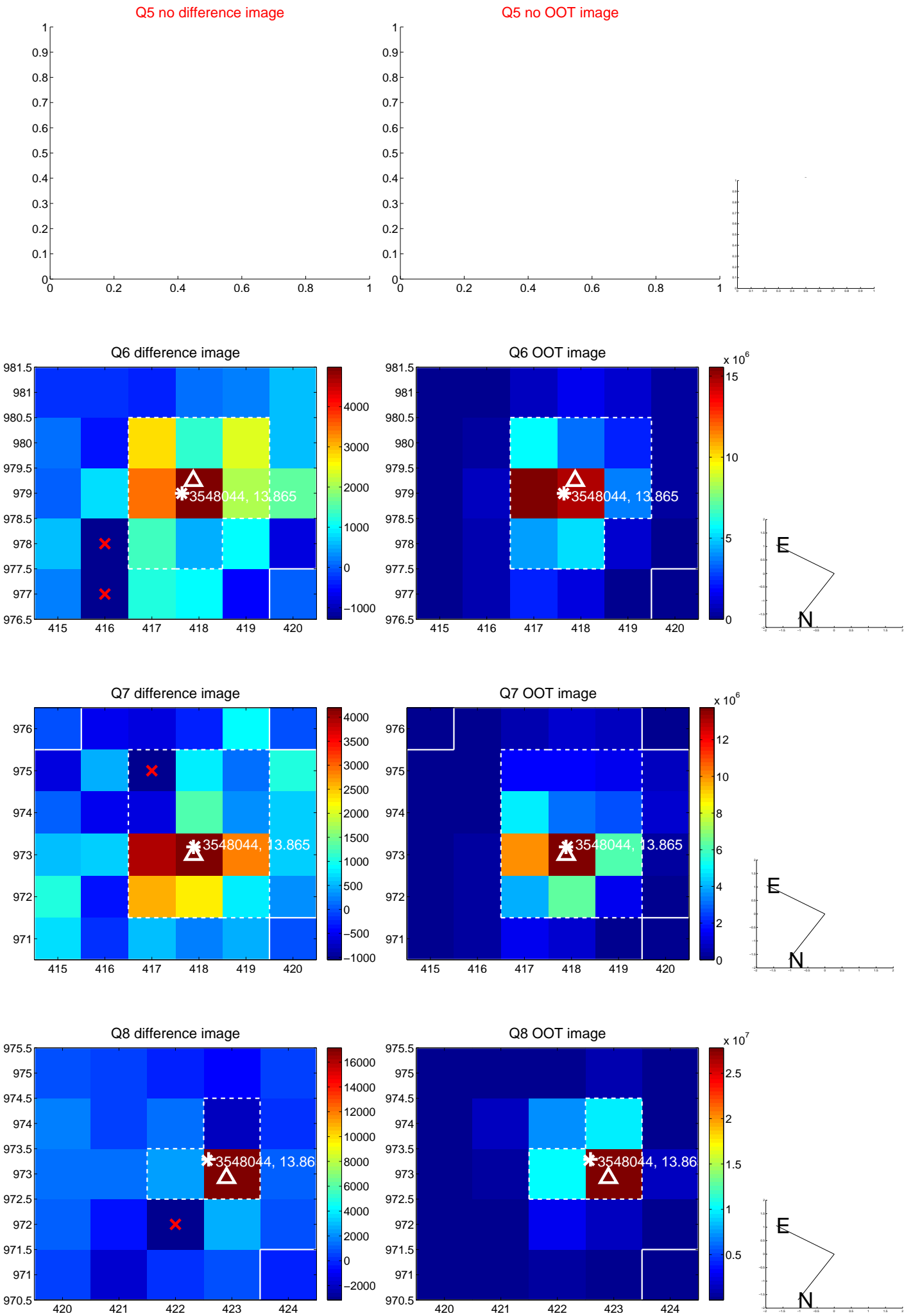


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

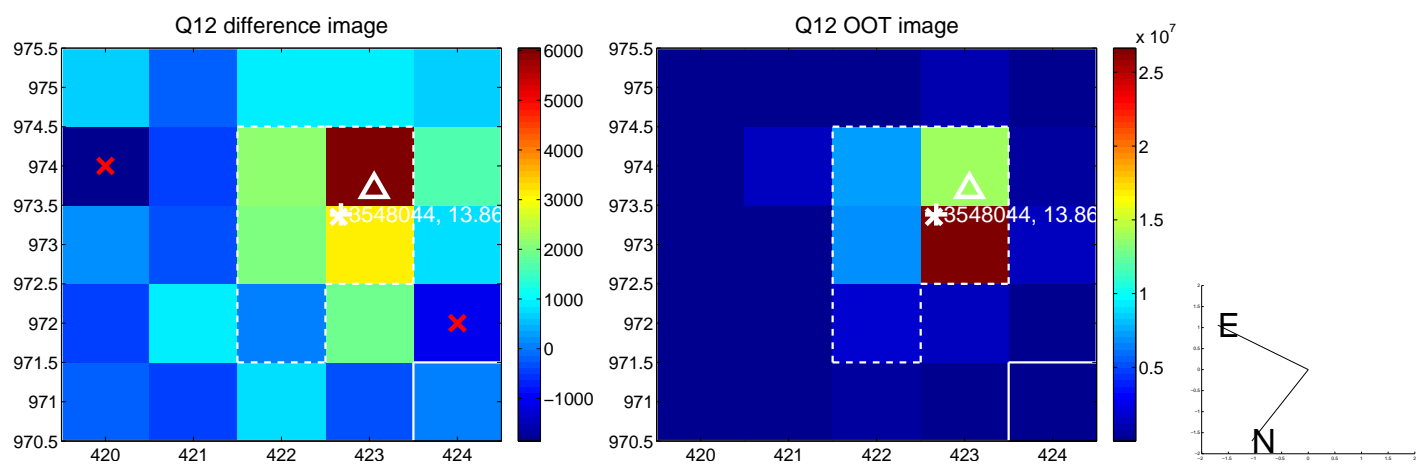
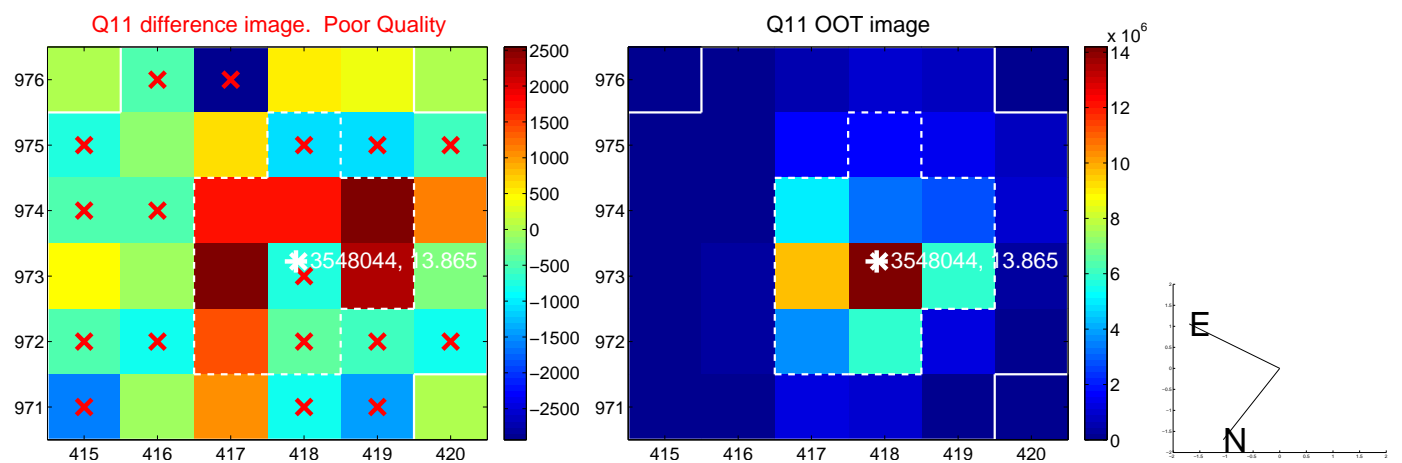
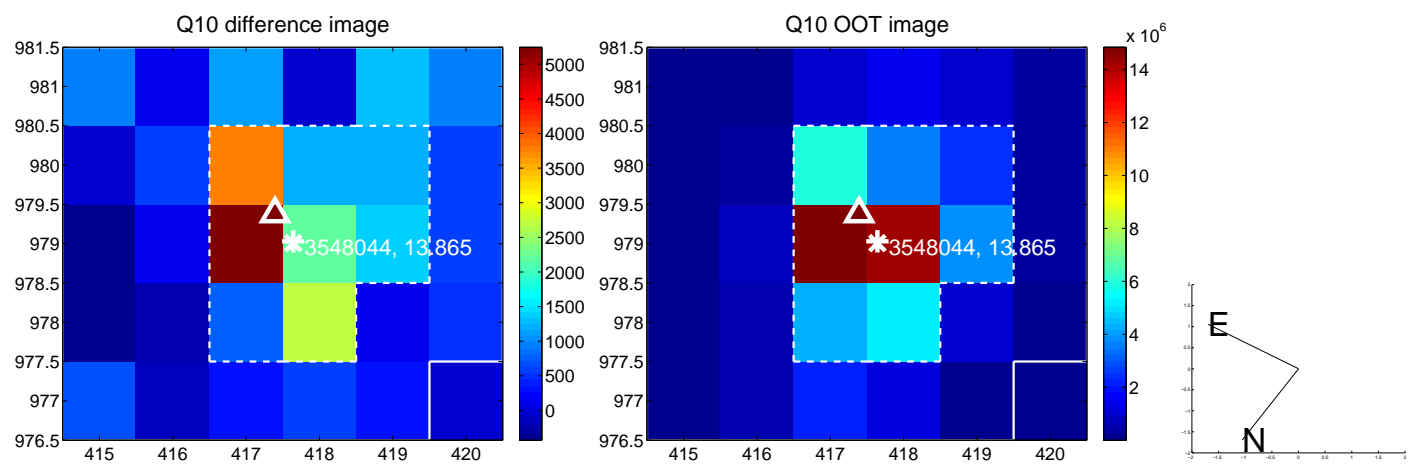
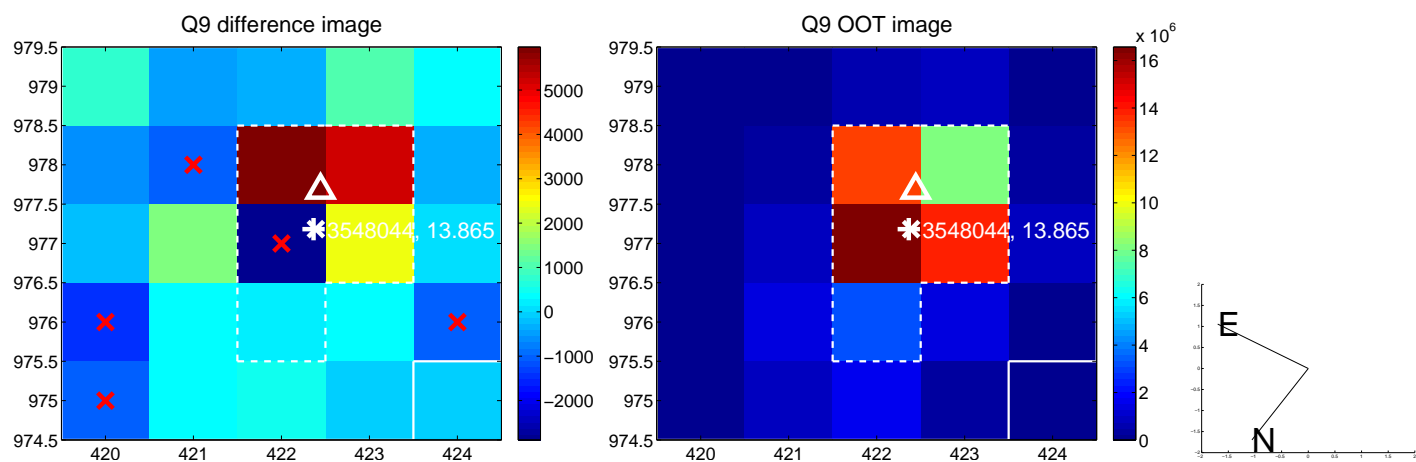
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



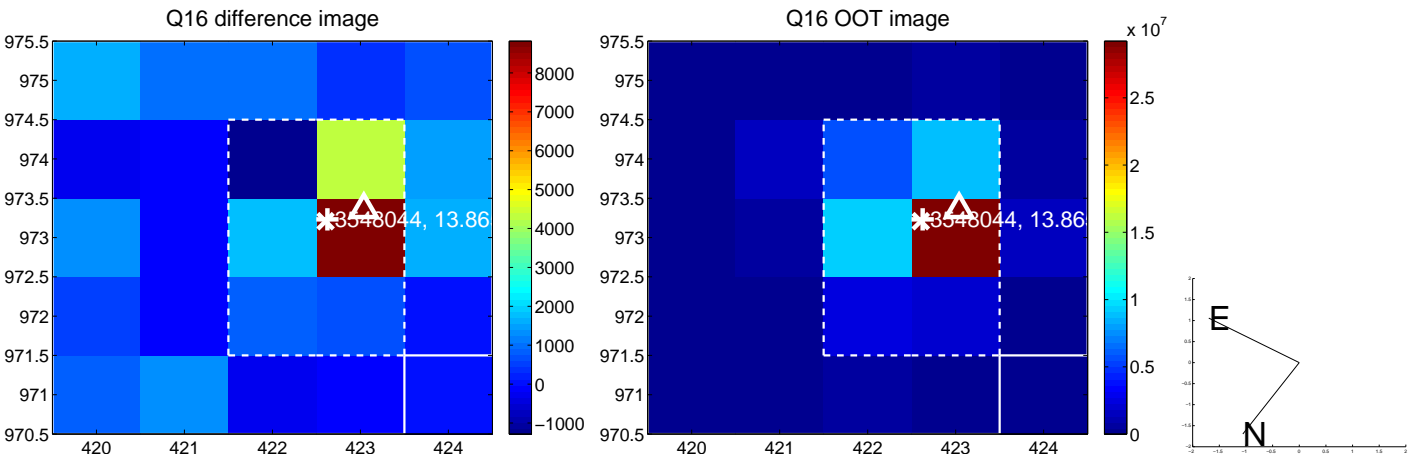
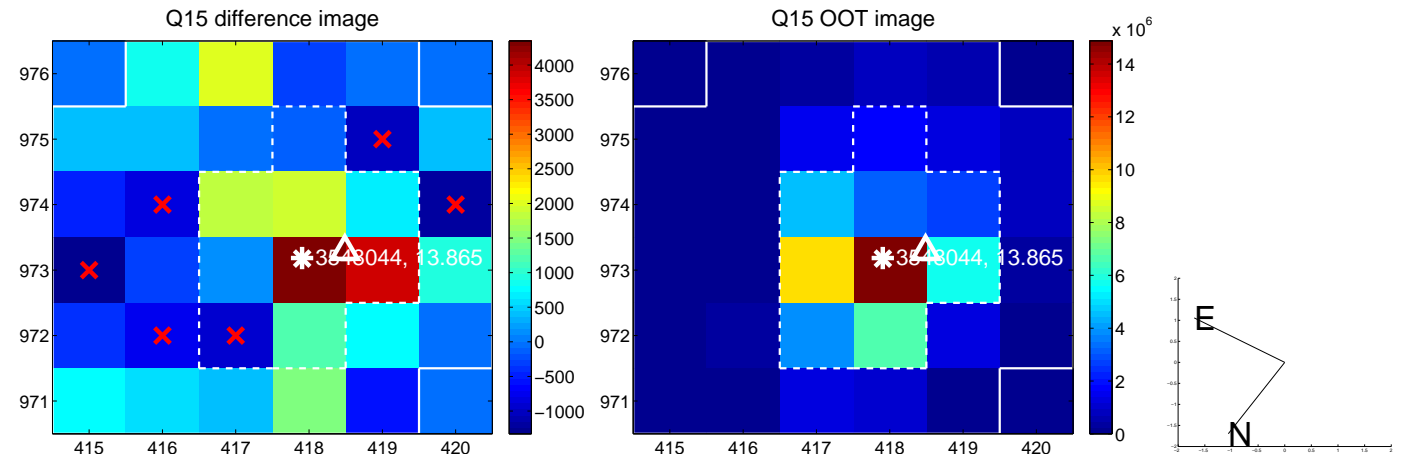
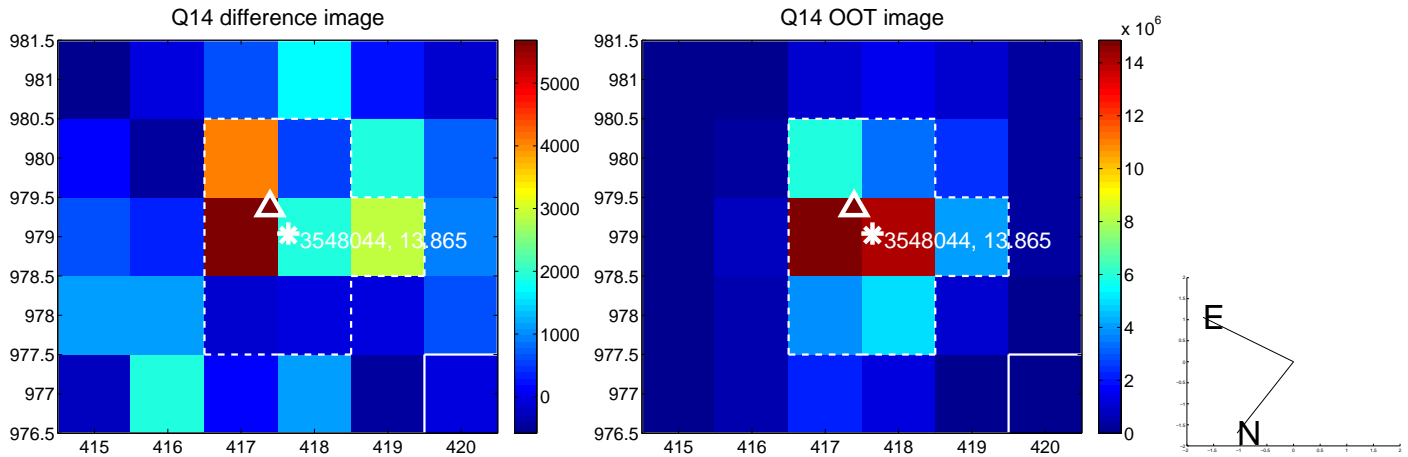
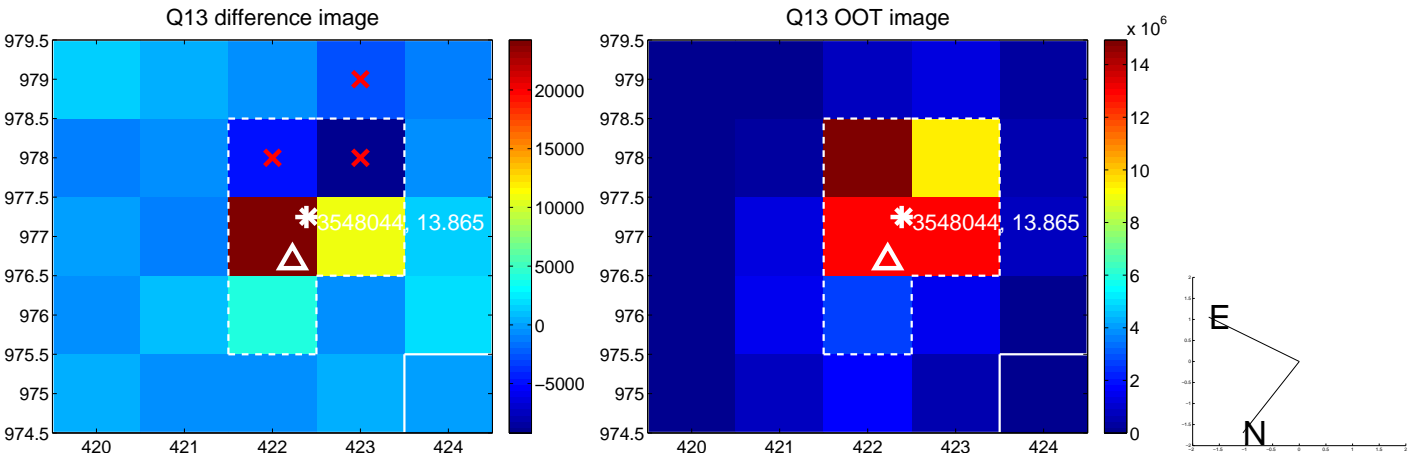
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



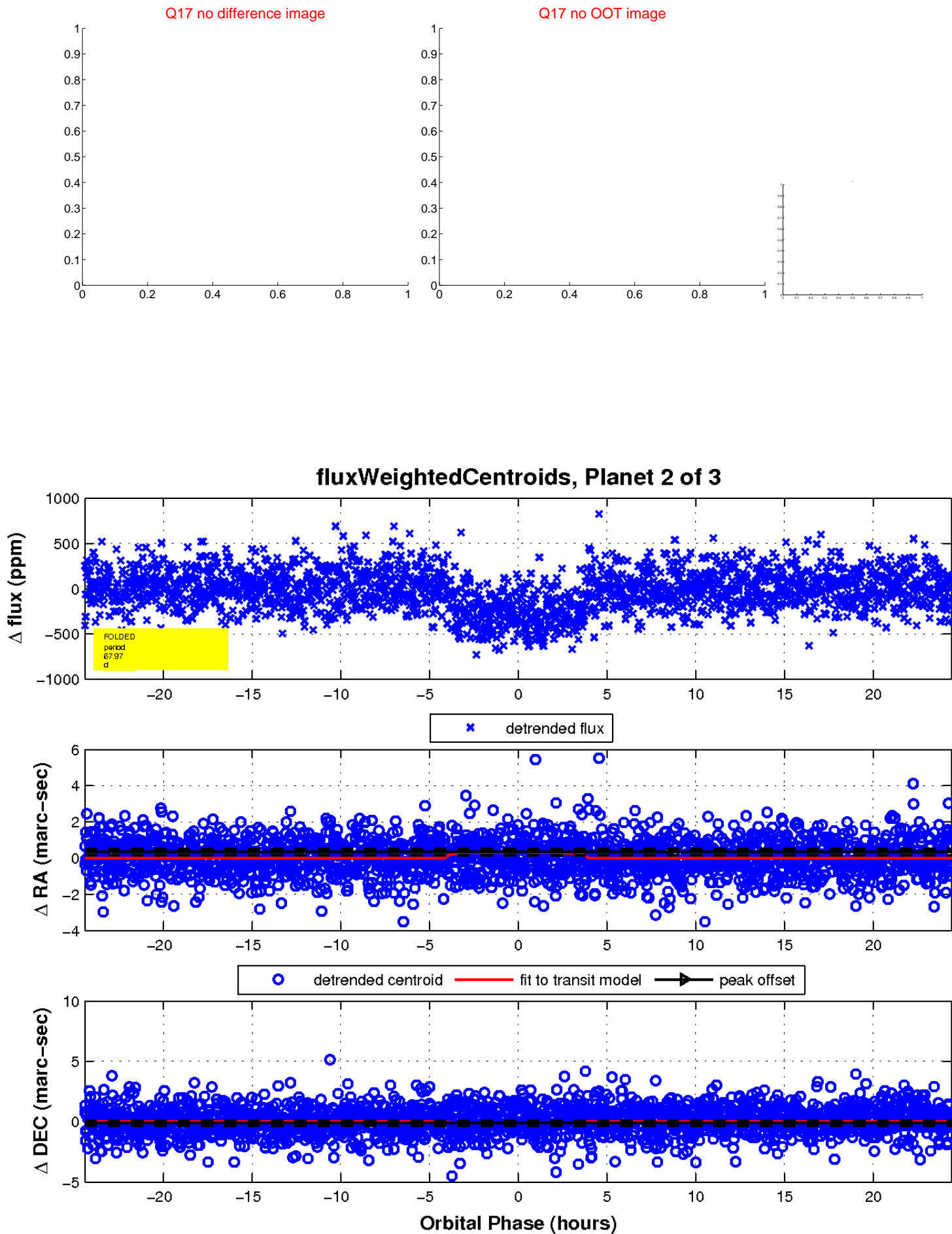
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

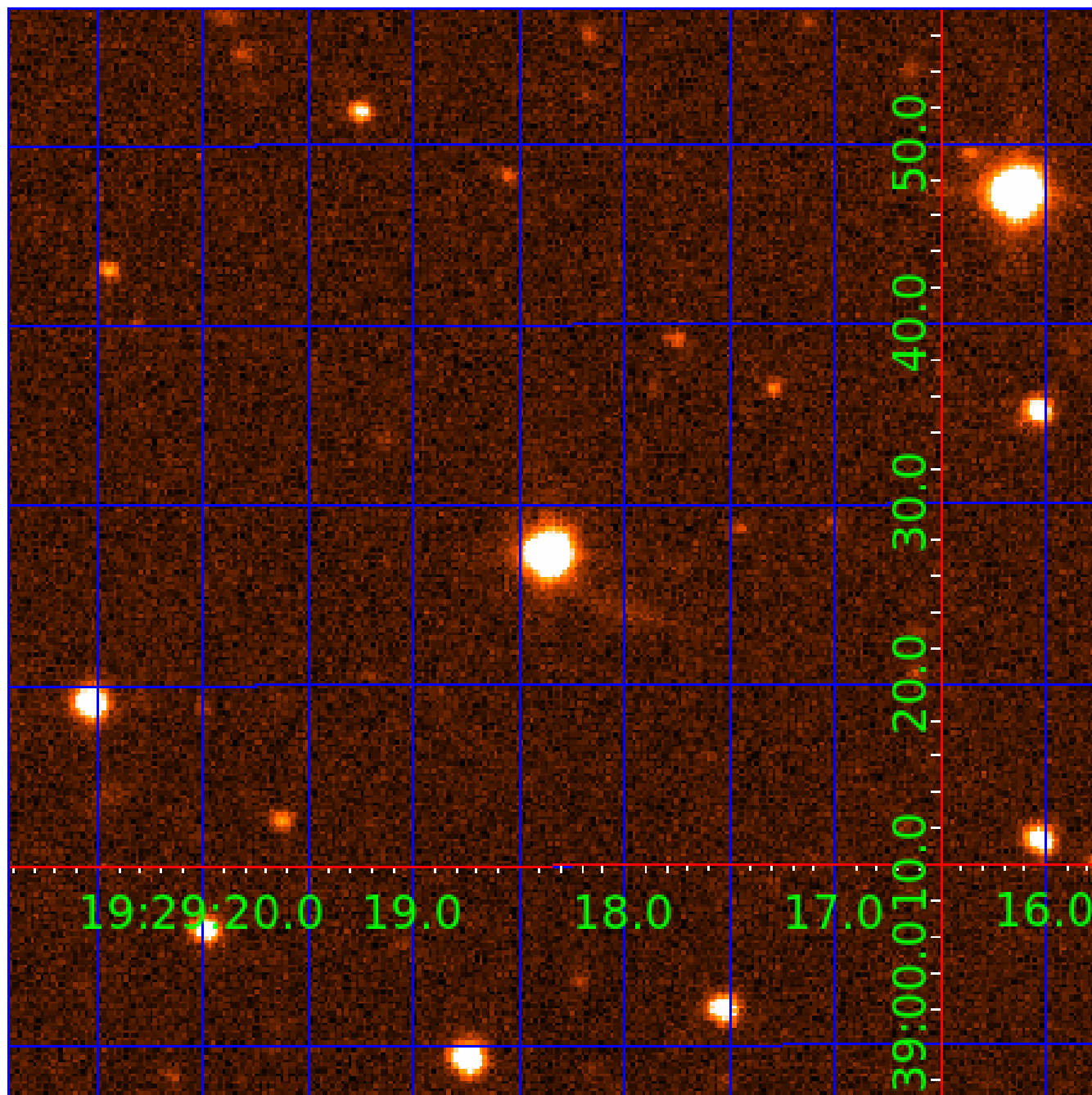


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 003548044

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})
003548044-01	OBS	2194.01	34.763100	161.740113	286.7	4.457	19.6	21.6	0.95	5670	1.85	22.26
003548044-02	OBS	2194.02	67.968862	163.555480	314.2	8.144	20.4	23.6	0.95	5670	1.83	9.11
003548044-03	OBS	2194.03	445.216076	202.897005	232.8	19.370	7.9	9.5	0.95	5670	1.60	0.74

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003548044-01	OBS	PC	0.99	0	0	0	0	NO_COMMENT
003548044-02	OBS	PC	0.98	0	0	0	0	NO_COMMENT
003548044-03	OBS	PC	0.50	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.

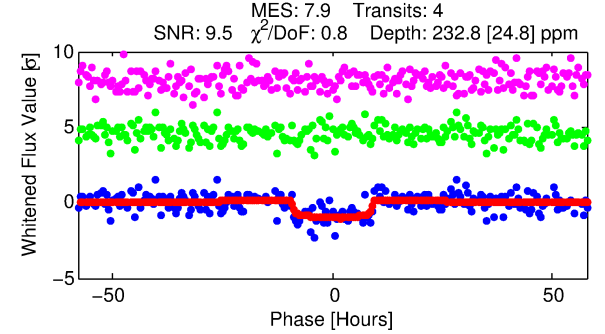
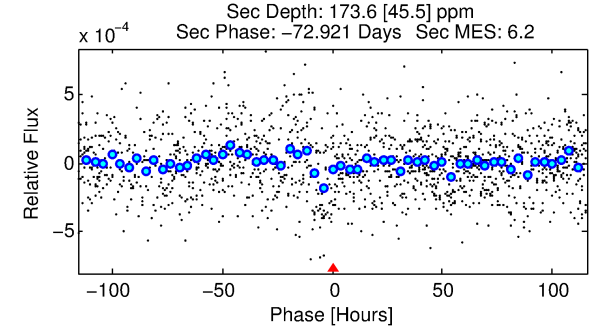
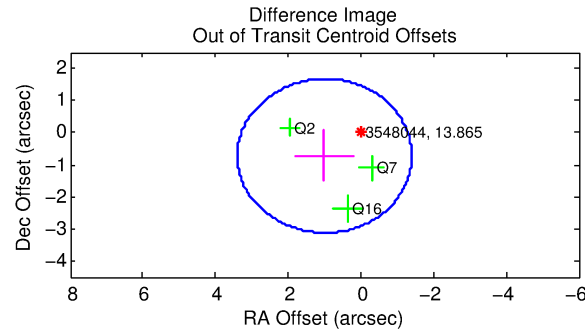
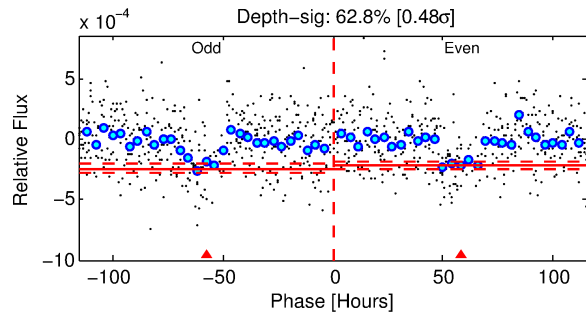
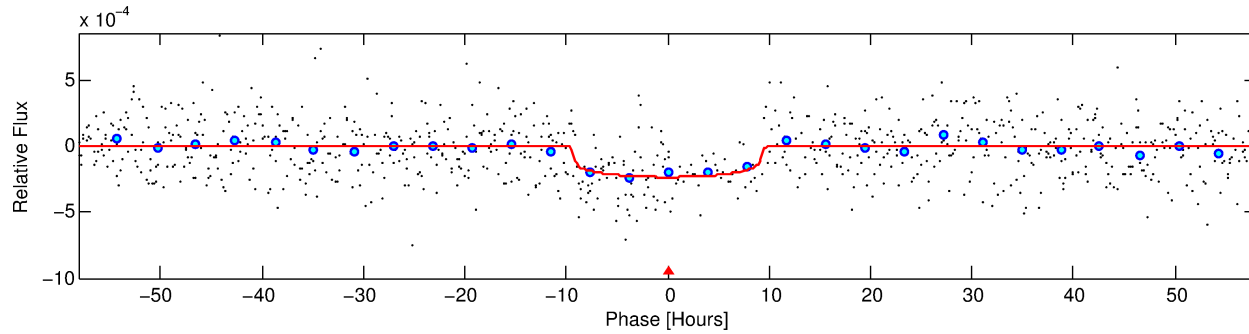
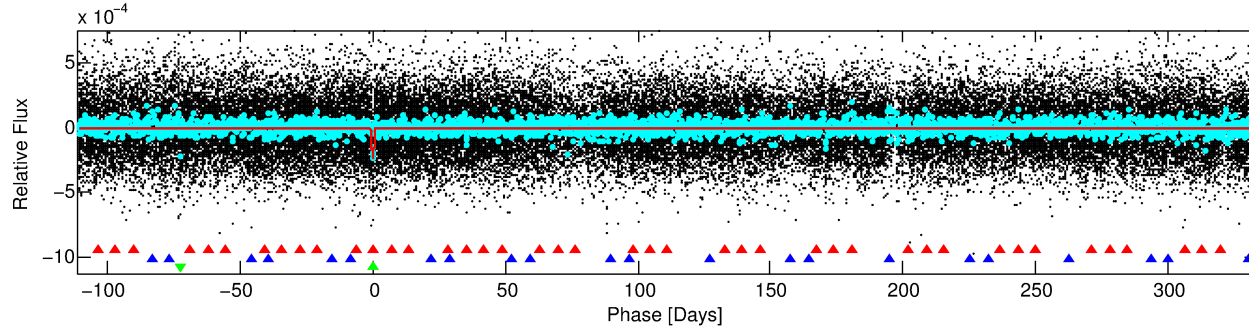
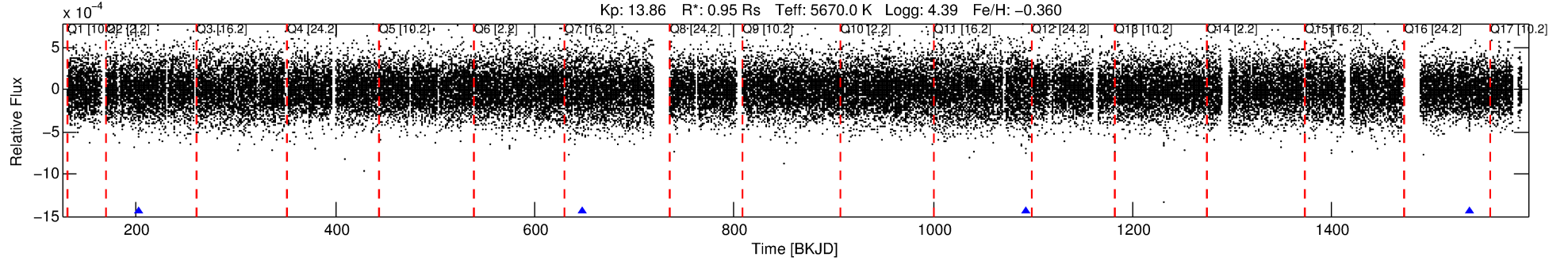
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003548044-03

No Significant Match Found

DV One-Page Summary

KIC: 3548044 Candidate: 3 of 3 Period: 445.216 d
KOI: K02194.03 Corr: 0.958



DV Fit Results:

Period = 445.21608 [0.01103] d
Epoch = 202.8970 [0.0243] BKJD
Rp/R* = 0.0154 [0.0039]
a/R* = 111.94 [126.75]
b = 0.79 [0.54]
Seff = 0.74 [0.18]
Teq = 237 [14] K
Rp = 1.60 [0.45] Re
a = 1.0606 [0.1454] AU
Ag = 41986.94 [25660.30] [1.64 σ]
Teffp = 5239 [749] K [6.67 σ]

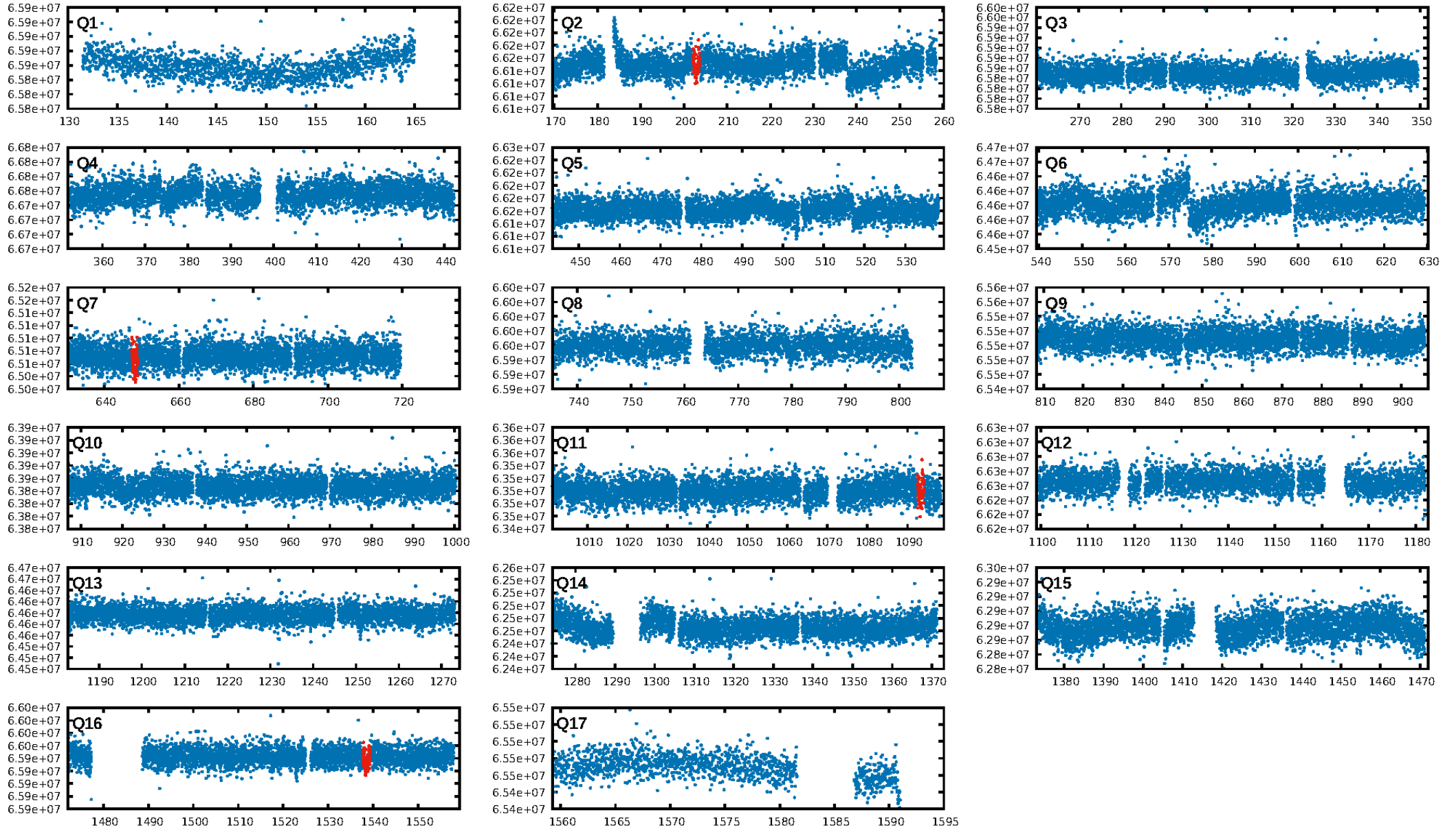
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [430.88 σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 96.7%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 5.96e-11
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: 0.9643
Centroid-sig: 0.8%
Centroid-so: 3.361 arcsec [1.77 σ]
OotOffset-rm: 1.237 arcsec [1.55 σ]
KicOffset-rm: 1.245 arcsec [1.59 σ]
OotOffset-st: 1/1/1/0 [3]
KicOffset-st: 1/1/1/0 [3]
DiffImageQuality-fgm: 1.00 [3/3]
DiffImageOverlap-fno: 0.67 [2/3]

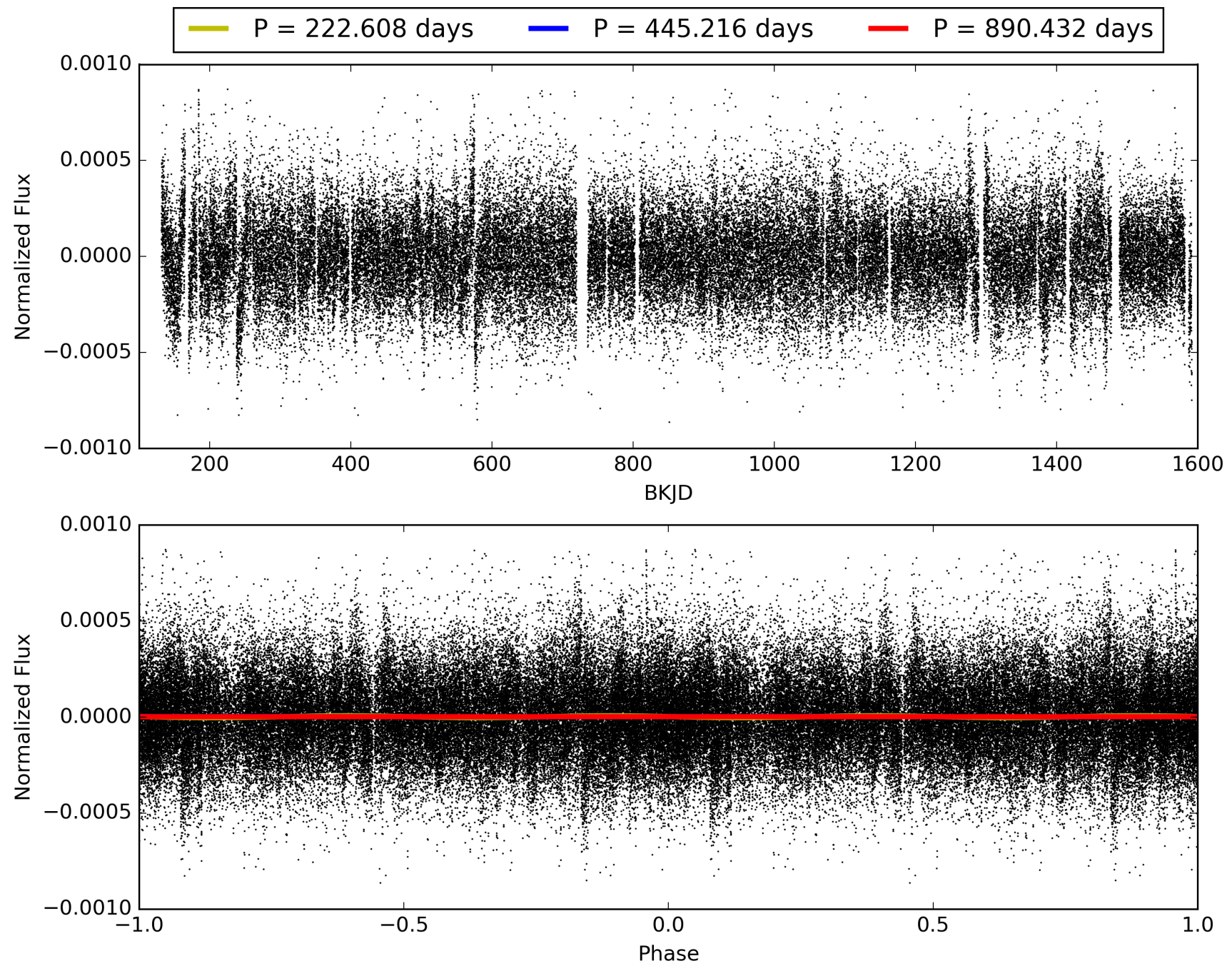
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 05:23:28 Z

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

TCE 003548044-03, PDC Light Curves

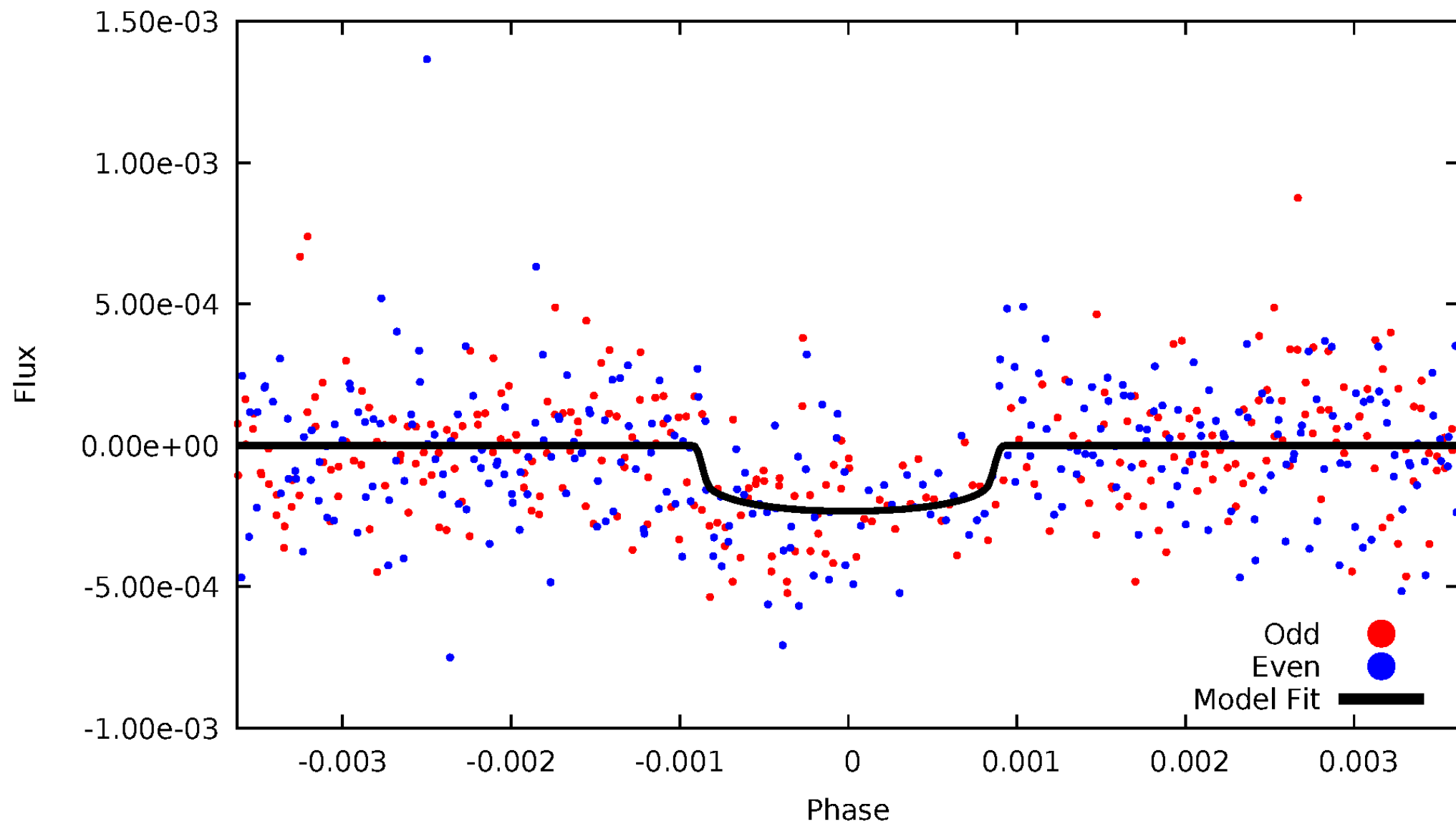


TCE 003548044-03



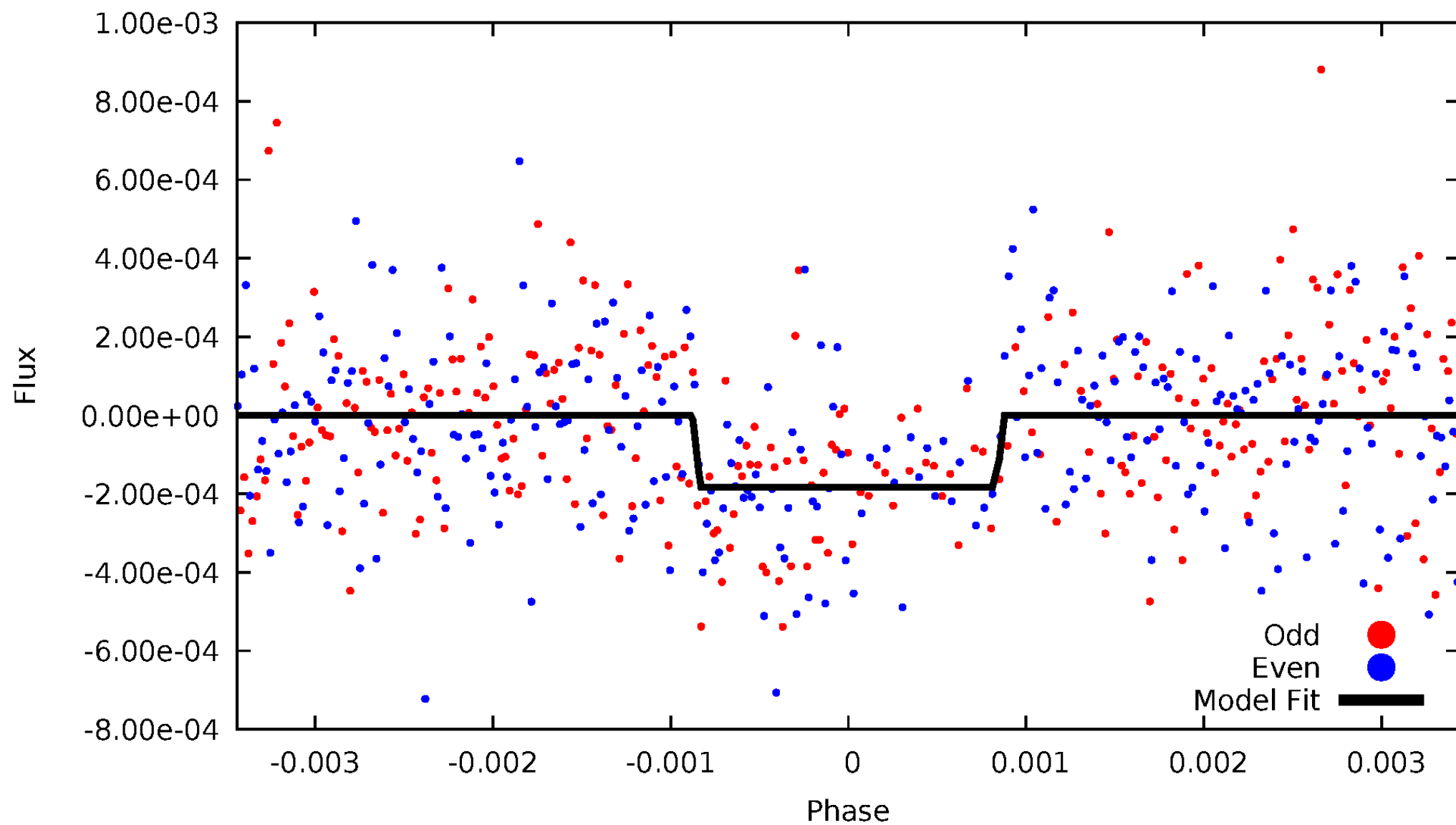
DV Odd/Even

TCE 003548044-03



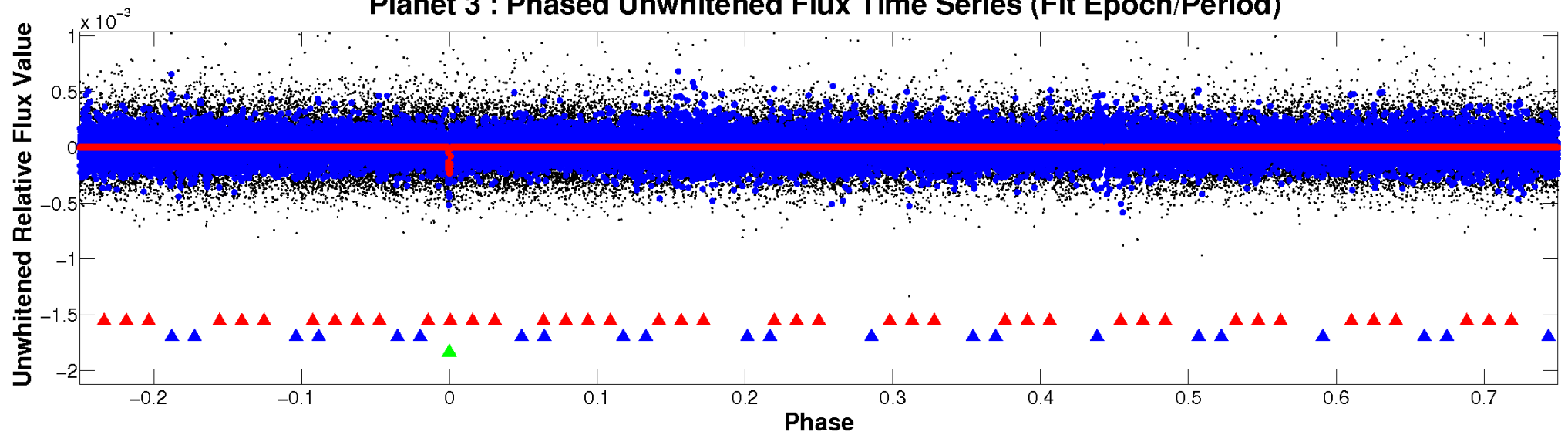
ALT Odd/Even

TCE 003548044-03

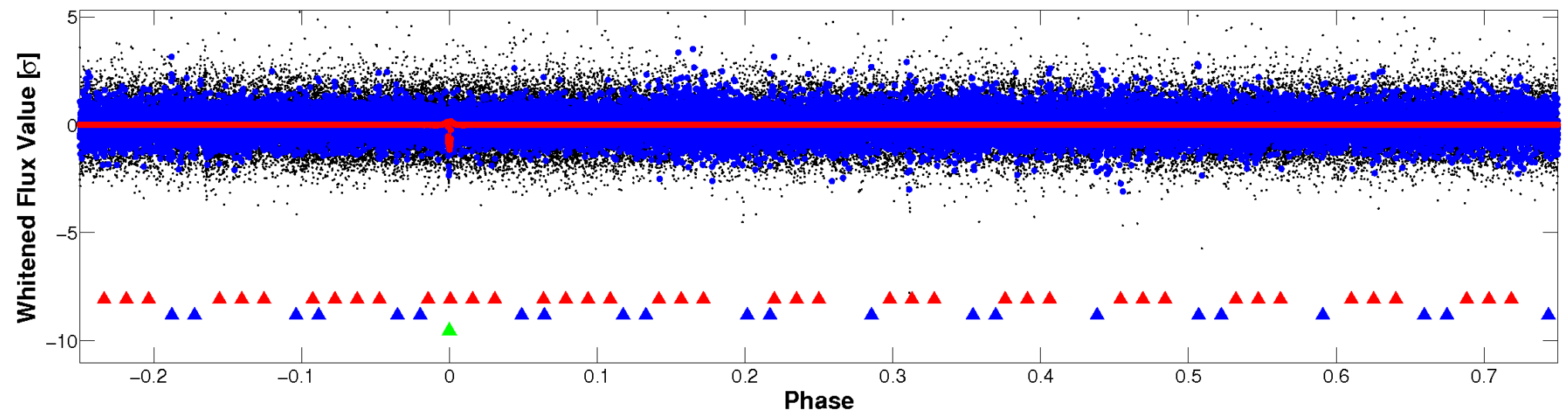


Non-Whitened Vs. Whitened Light Curve

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



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



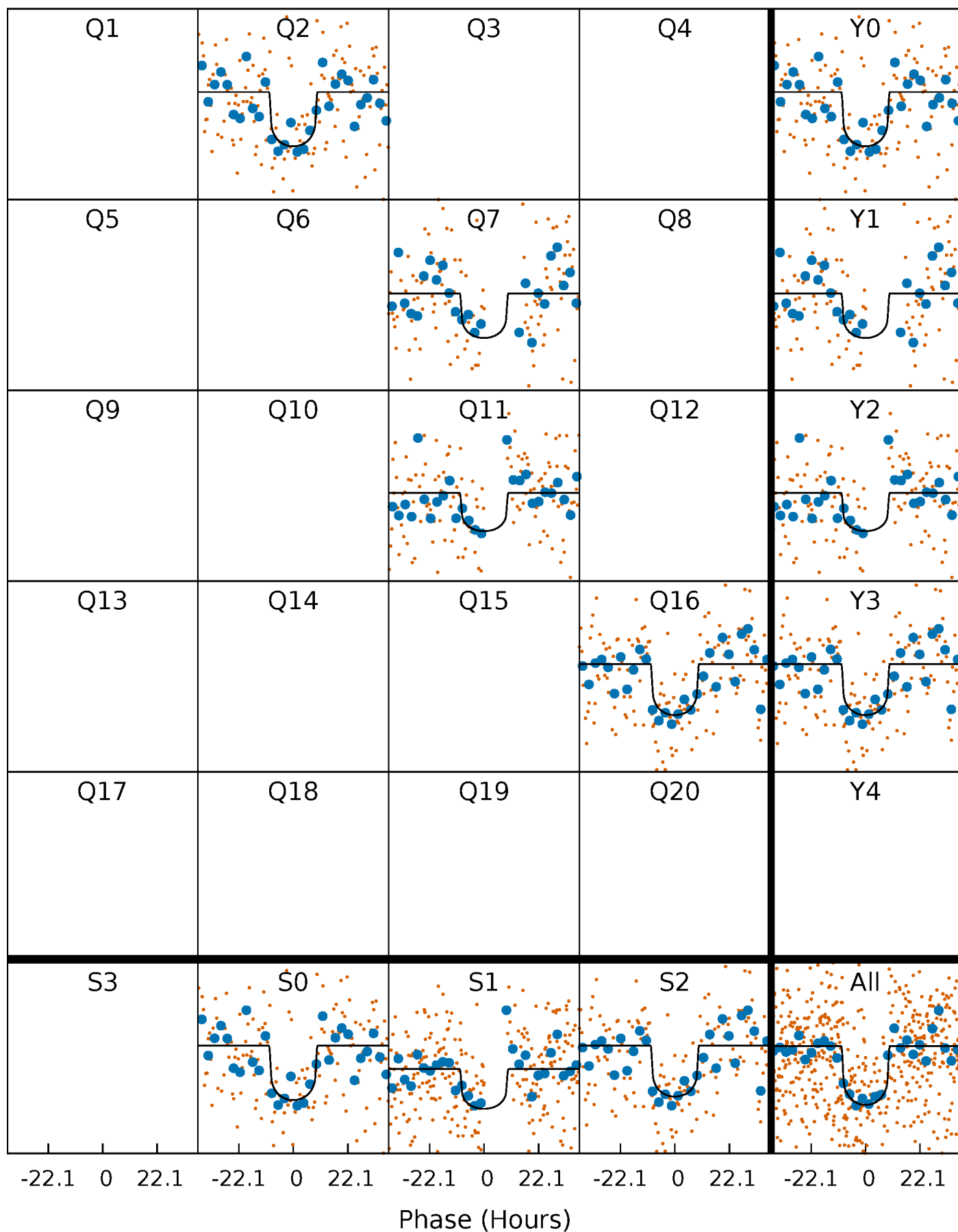
PDC Quarter-Phased Transit Curves

TCE 003548044-03 P=445.216076 Days $T_0=202.897005$ (BKJD)



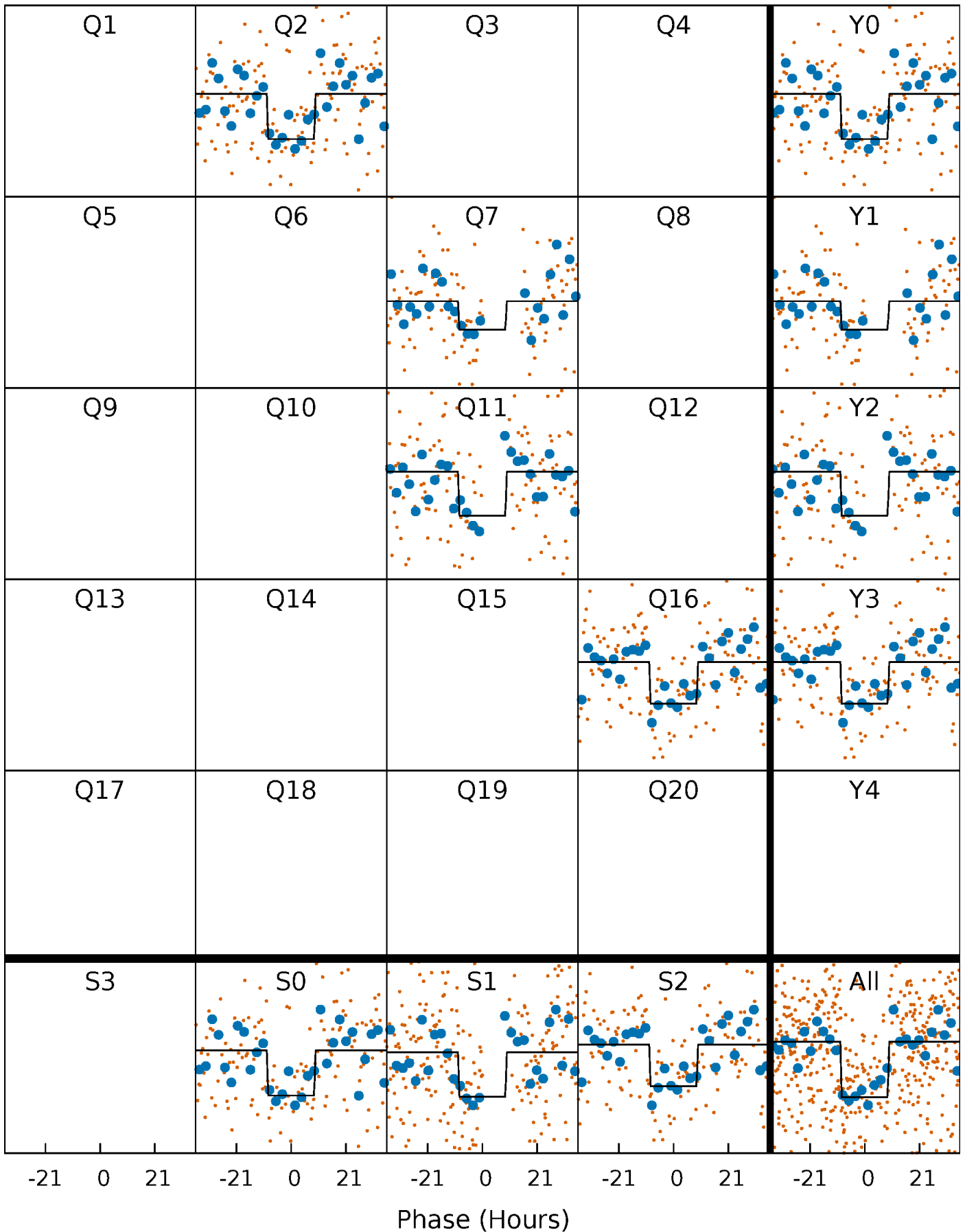
DV Quarter-Phased Transit Curves

TCE 003548044-03 P=445.216076 Days $T_0=202.897005$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

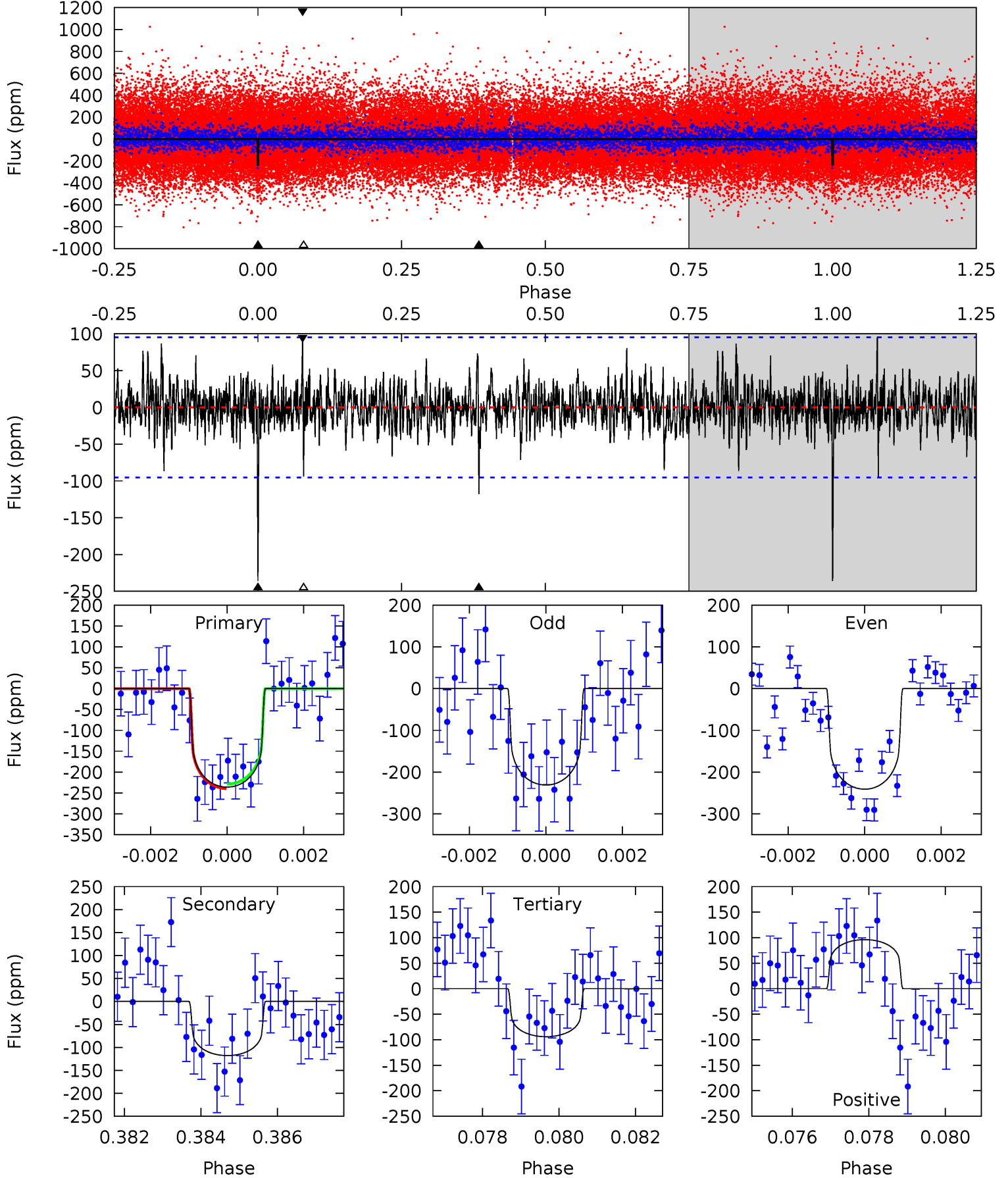
TCE 003548044-03 P=445.220028 Days $T_0=202.896398$ (BKJD)



DV Model-Shift Uniqueness Test

003548044-03, P = 445.216076 Days, E = 202.897005 Days

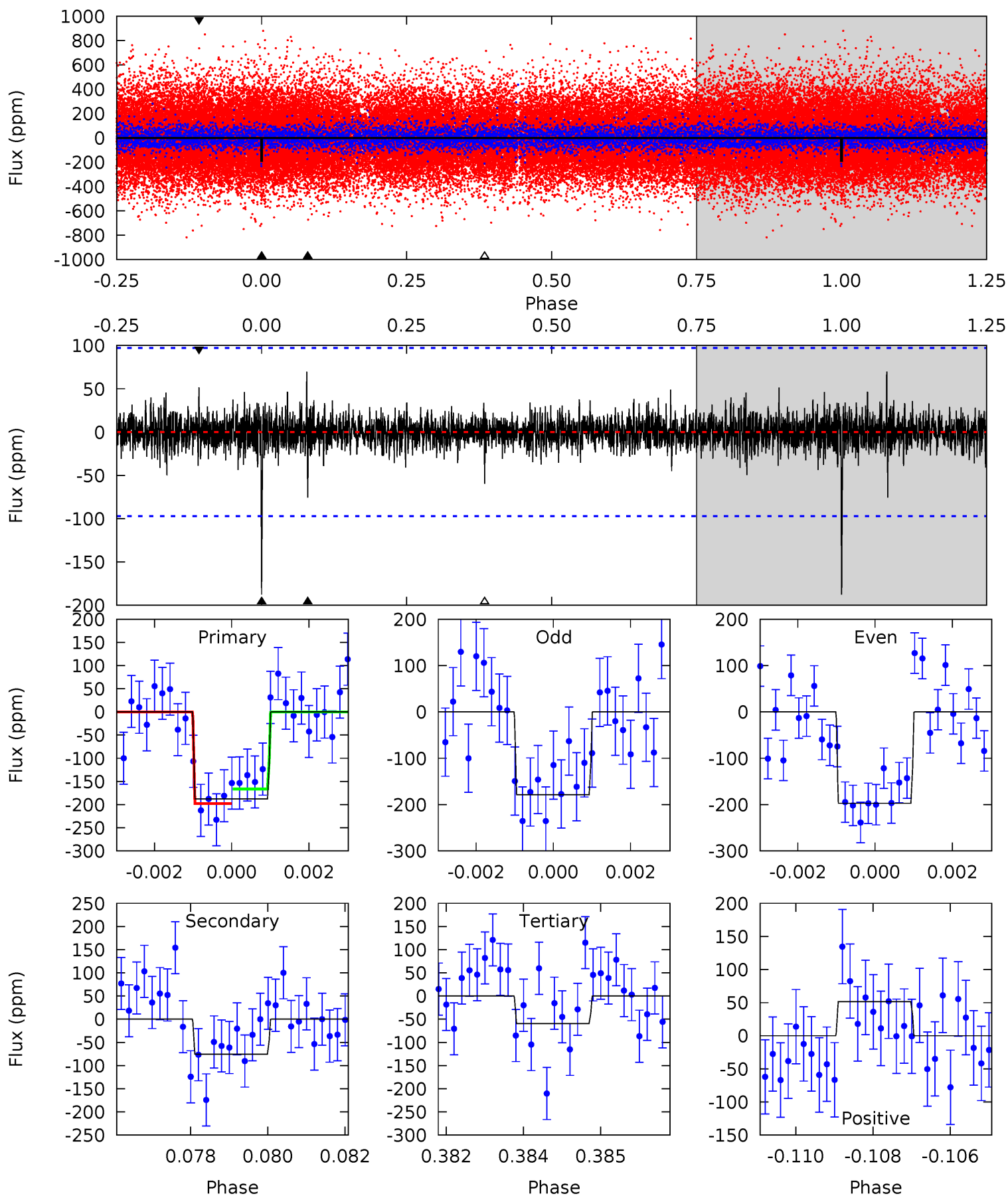
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.2	6.60	5.27	5.39	5.34	3.11	1.23	7.96	7.84	1.33	1.22	0.28	0.96	0.29	0.29



Alt Model-Shift Uniqueness Test

003548044-03, P = 445.220028 Days, E = 202.896398 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.3	4.16	3.28	2.84	5.35	3.13	0.67	7.06	7.50	0.88	1.32	0.52	1.04	0.27	0.82



Stellar Parameters For KIC 003548044

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5670^{+113}_{-102}	$4.387^{+0.138}_{-0.092}$	$-0.360^{+0.150}_{-0.150}$	$0.950^{+0.124}_{-0.124}$	$0.802^{+0.071}_{-0.036}$	$1.319^{+0.810}_{-0.359}$
	+2%/-2%	+3%/-2%	+42%/-42%	+13%/-13%	+9%/-4%	+61%/-27%
Source	SPE58	SPE58	SPE58	DSEP		

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

Secondary Eclipse Parameters for KIC 003548044-03 / KOI 2194.03

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-118 ± 18	$1.60^{+0.39}_{-0.44}$	328^{+14}_{-15}	4851^{+717}_{-441}	28870^{+27682}_{-10781}
Alt.	-75 ± 18	$1.36^{+0.48}_{-0.42}$	329^{+15}_{-14}	4688^{+760}_{-524}	24814^{+26994}_{-11897}

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

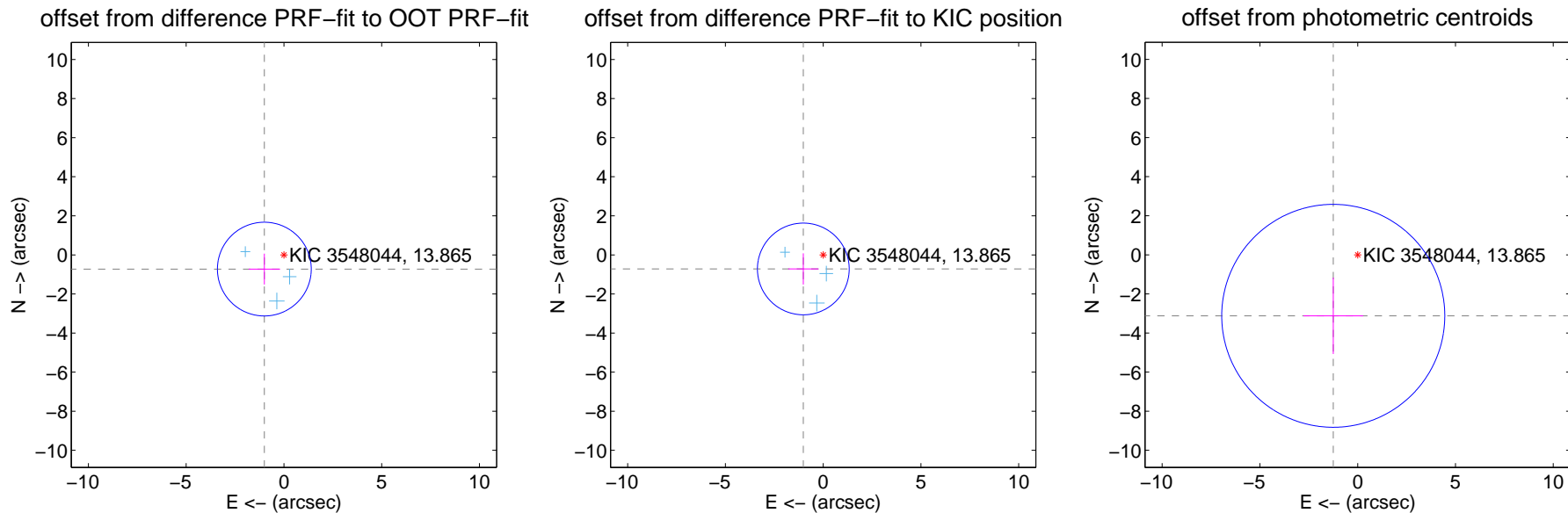
DV Centroid Data

Supplemental centroid analysis for 003548044-03. Kepler magnitude: 13.87. Transit SNR 9.45

There are 3 quarters with good PRF difference image offsets

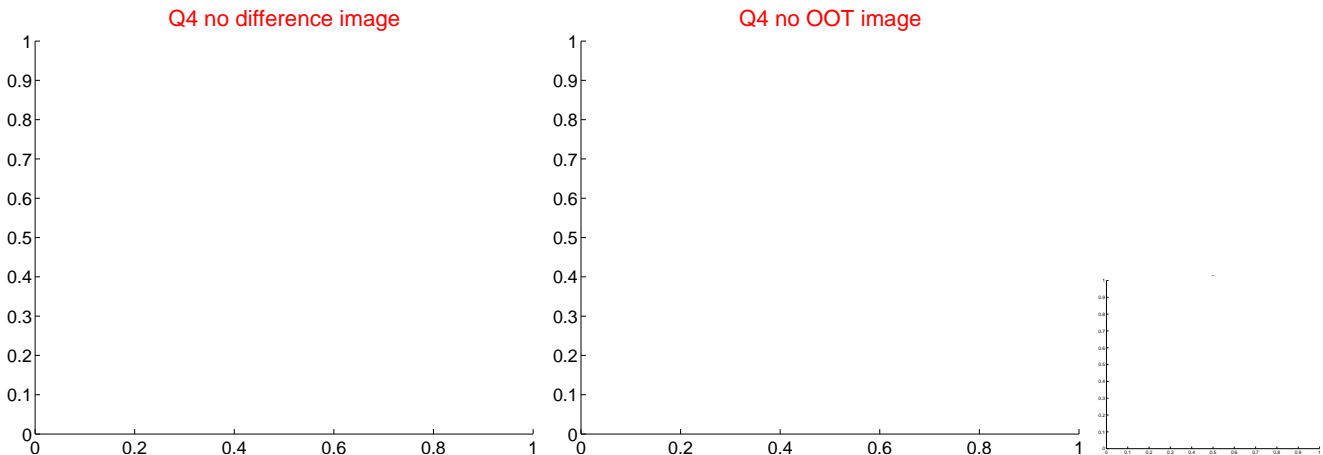
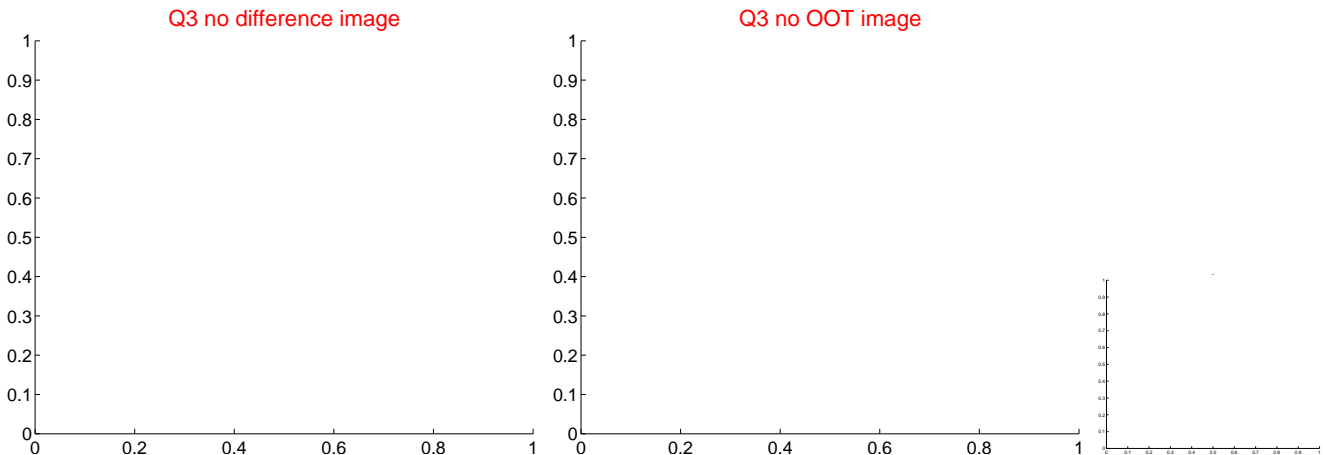
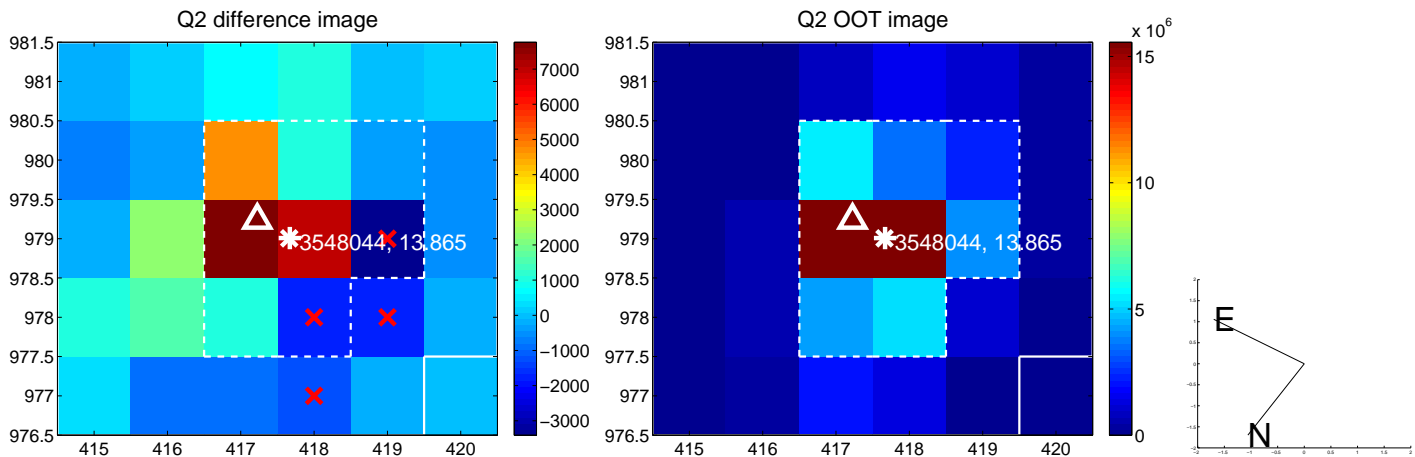
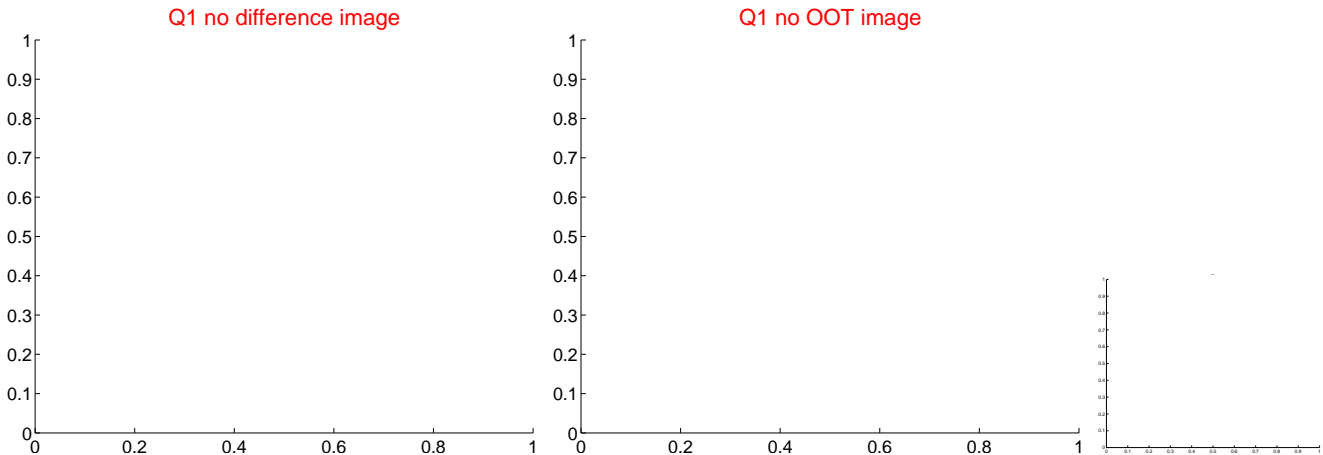
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.237 ± 0.800	1.55	1.002 ± 0.804	-0.726 ± 0.791
PRF-fit source offset from KIC position	1.245 ± 0.782	1.59	1.016 ± 0.775	-0.719 ± 0.797
photometric centroid source offset	3.36 ± 1.90	1.77	1.25 ± 1.52	-3.12 ± 1.95

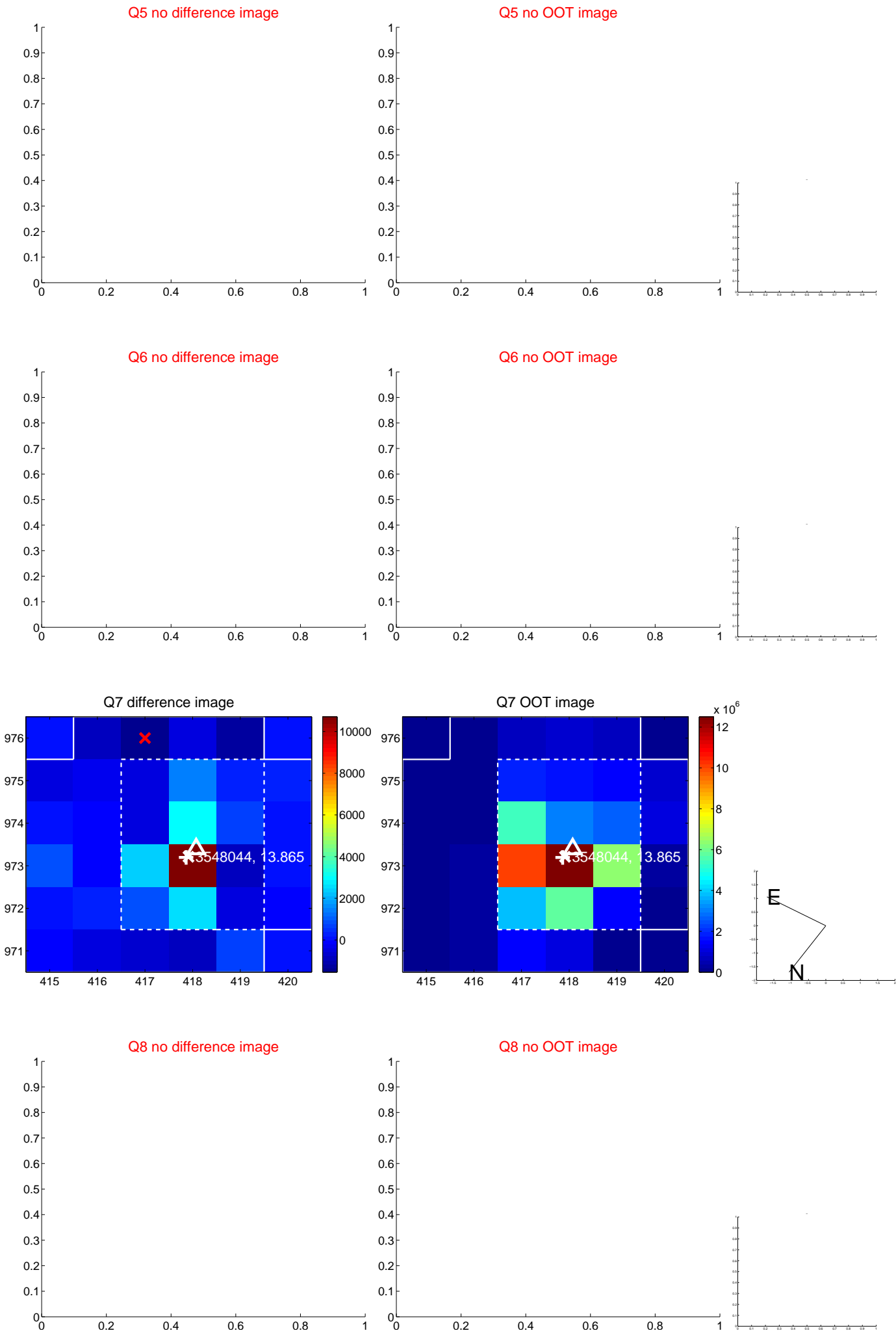


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



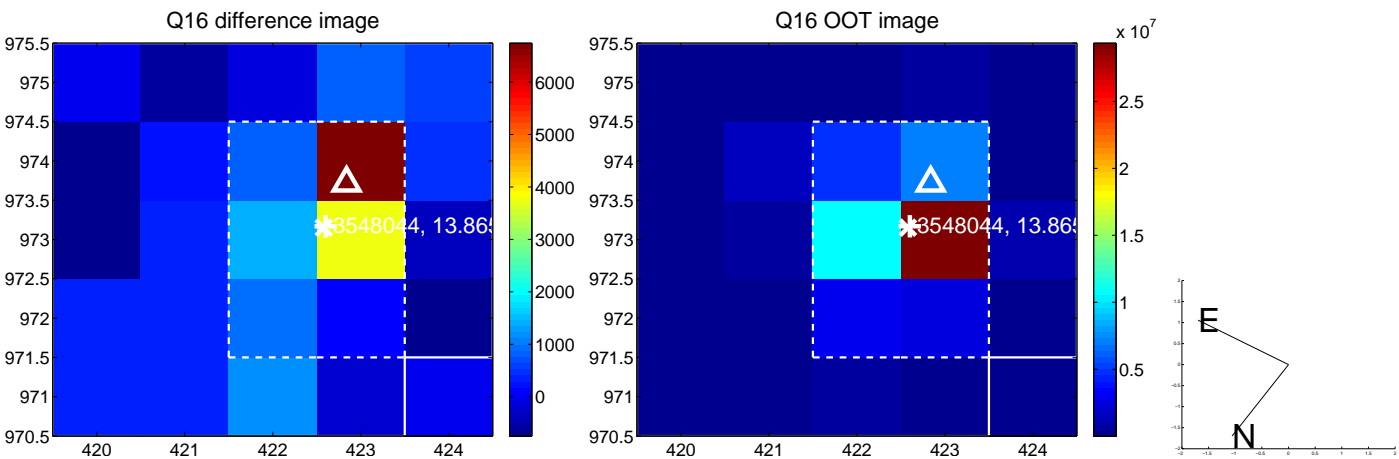
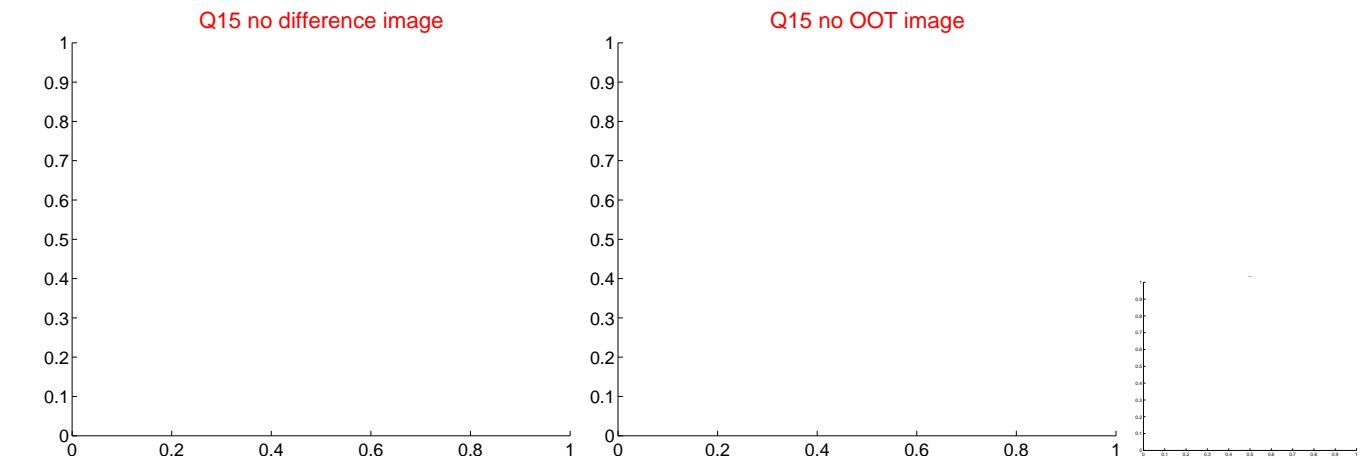
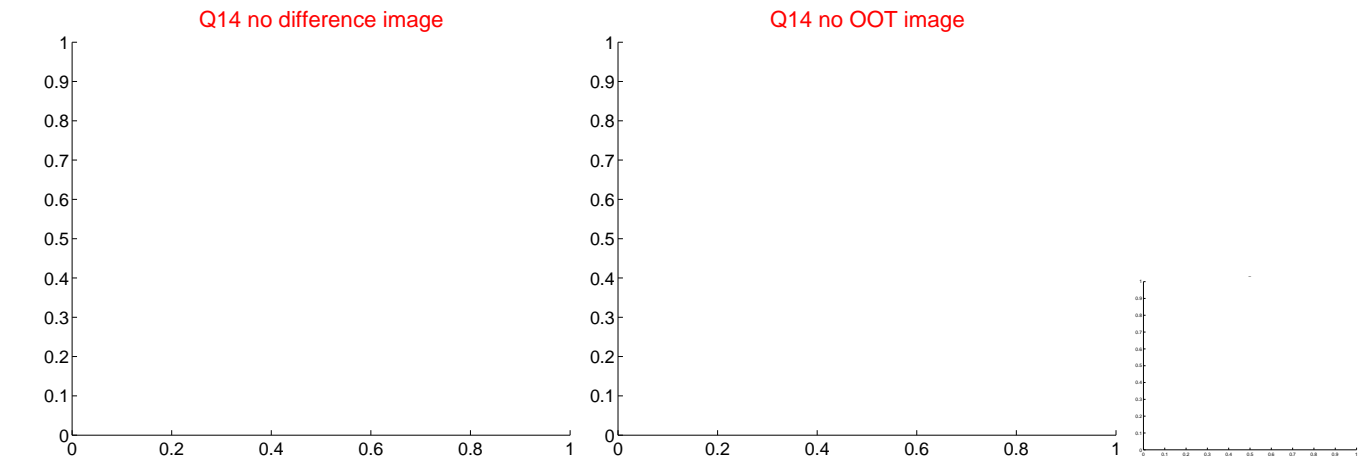
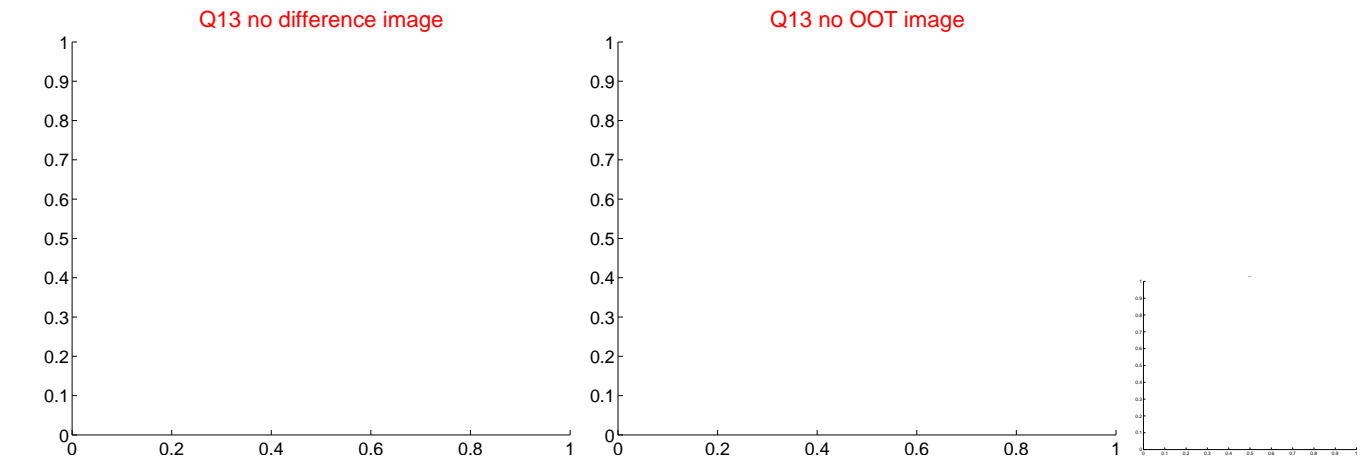
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



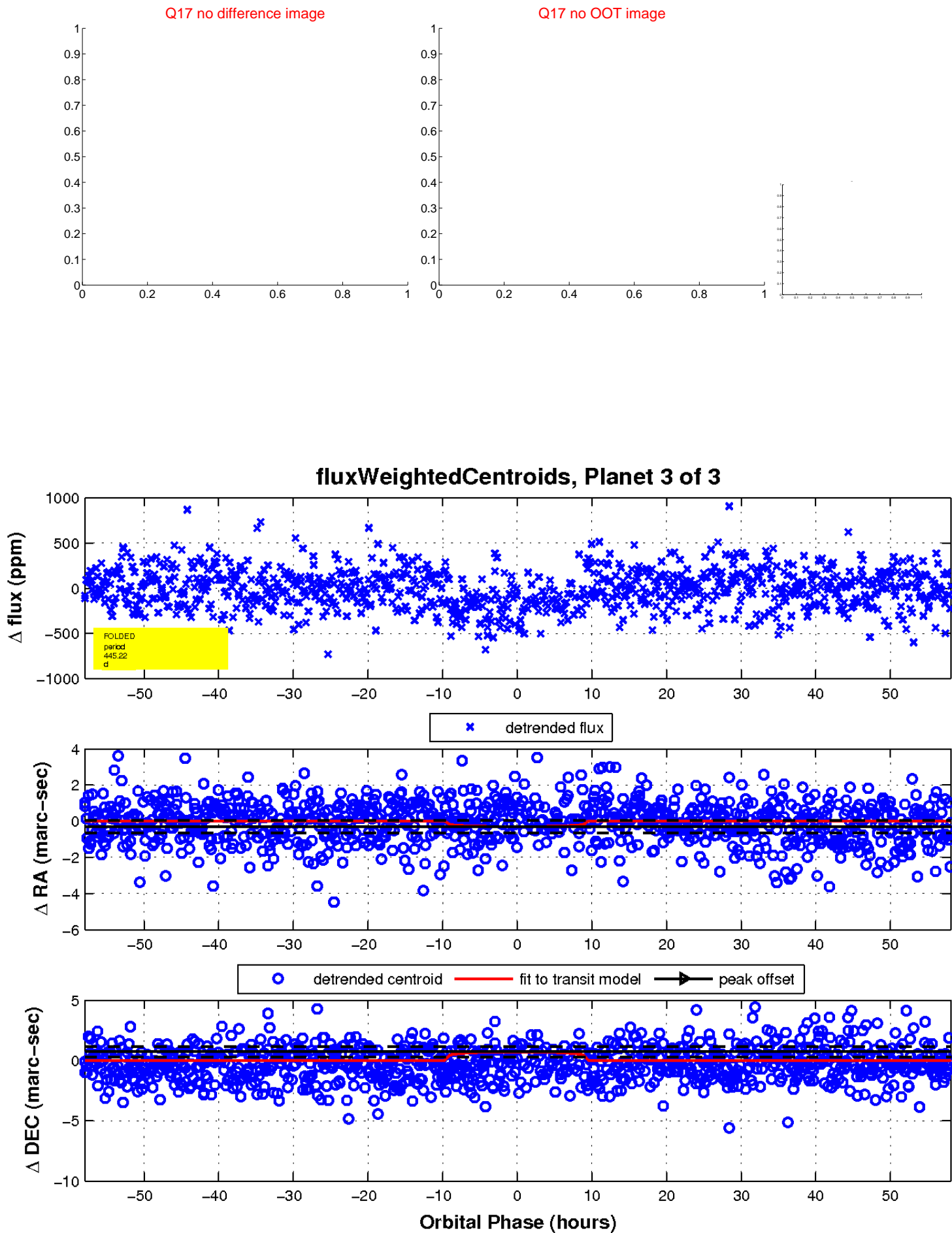
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



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



UKIRT Image

Declination

