

KIC 007434875

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})
007434875-01	OBS	0884.01	9.439466	139.427558	3041.3	3.045	163.4	161.2	0.78	5097	4.65	52.47
007434875-02	OBS	0884.02	20.482529	137.701696	313.7	2.893	45.4	6.4	0.78	5097	2.71	18.68
007434875-03	OBS	0884.03	3.336122	131.980426	412.2	2.408	30.8	34.2	0.78	5097	1.97	209.99

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007434875-01	OBS	PC	1.00	0	0	0	0	NO_COMMENT
007434875-02	OBS	FP	0.00	1	0	0	0	LPP_DV
007434875-03	OBS	PC	1.00	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.

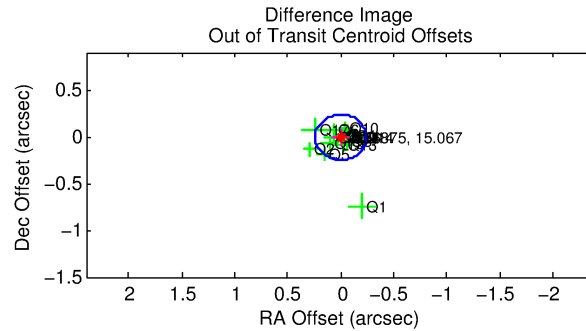
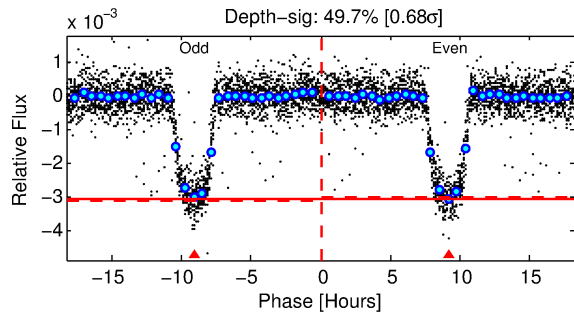
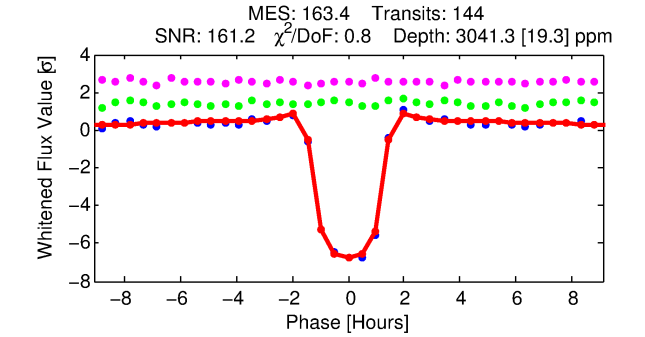
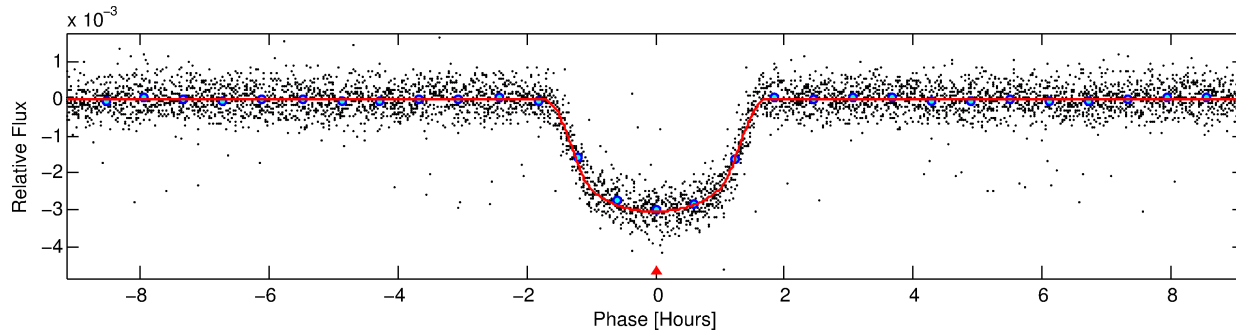
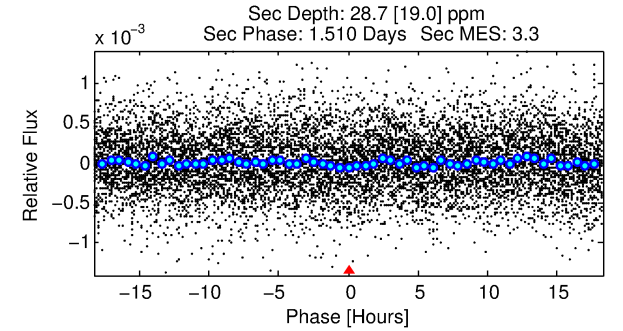
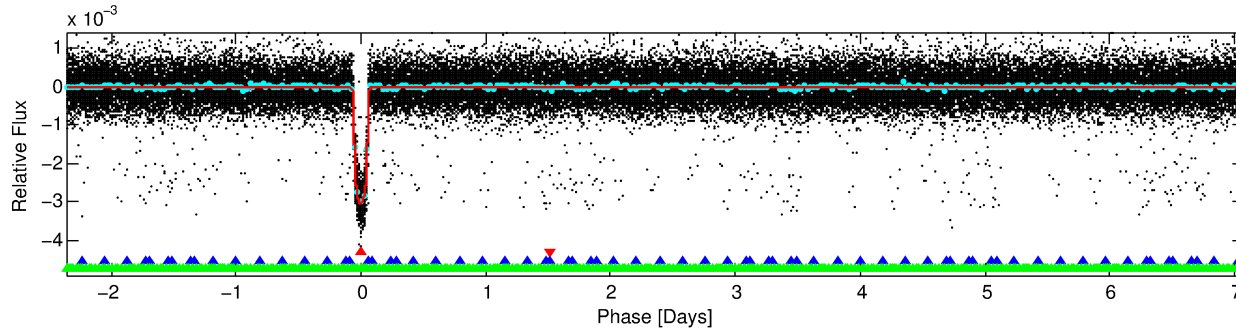
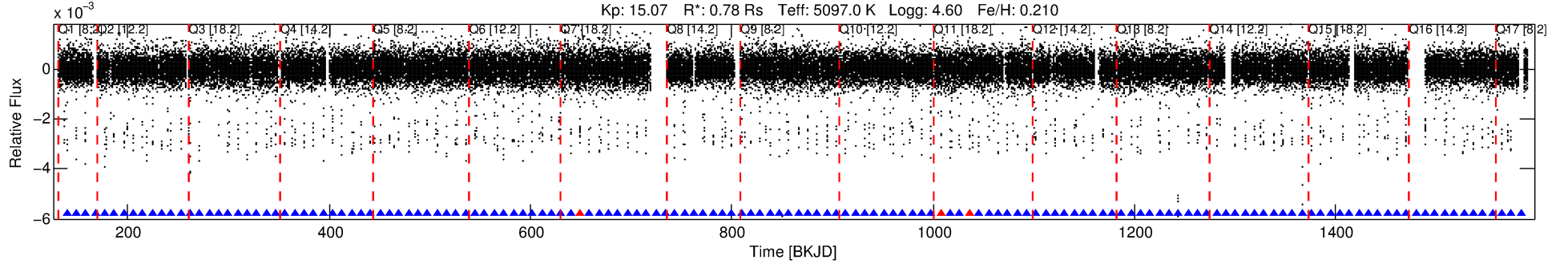
Ephemeris Match Information For 007434875-01

No Significant Match Found

DV One-Page Summary

KIC: 7434875 Candidate: 1 of 3 Period: 9.439 d
KOI: K00884.01 Name: Kepler-247c Corr: 0.978

Kp: 15.07 R*: 0.78 Rs Teff: 5097.0 K Logg: 4.60 Fe/H: 0.210



DV Fit Results:

Period = 9.43947 [0.00000] d
Epoch = 139.4276 [0.0004] BKJD
Rp/R* = 0.0547 [0.0018]
a/R* = 17.99 [2.02]
b = 0.73 [0.07]
Seff = 52.47 [10.17]
Teq = 686 [33] K
Rp = 4.65 [0.58] Re
a = 0.0836 [0.0086] AU
Ag = 5.10 [3.49] [1.18σ]
Teffp = 1595 [270] K [3.34σ]

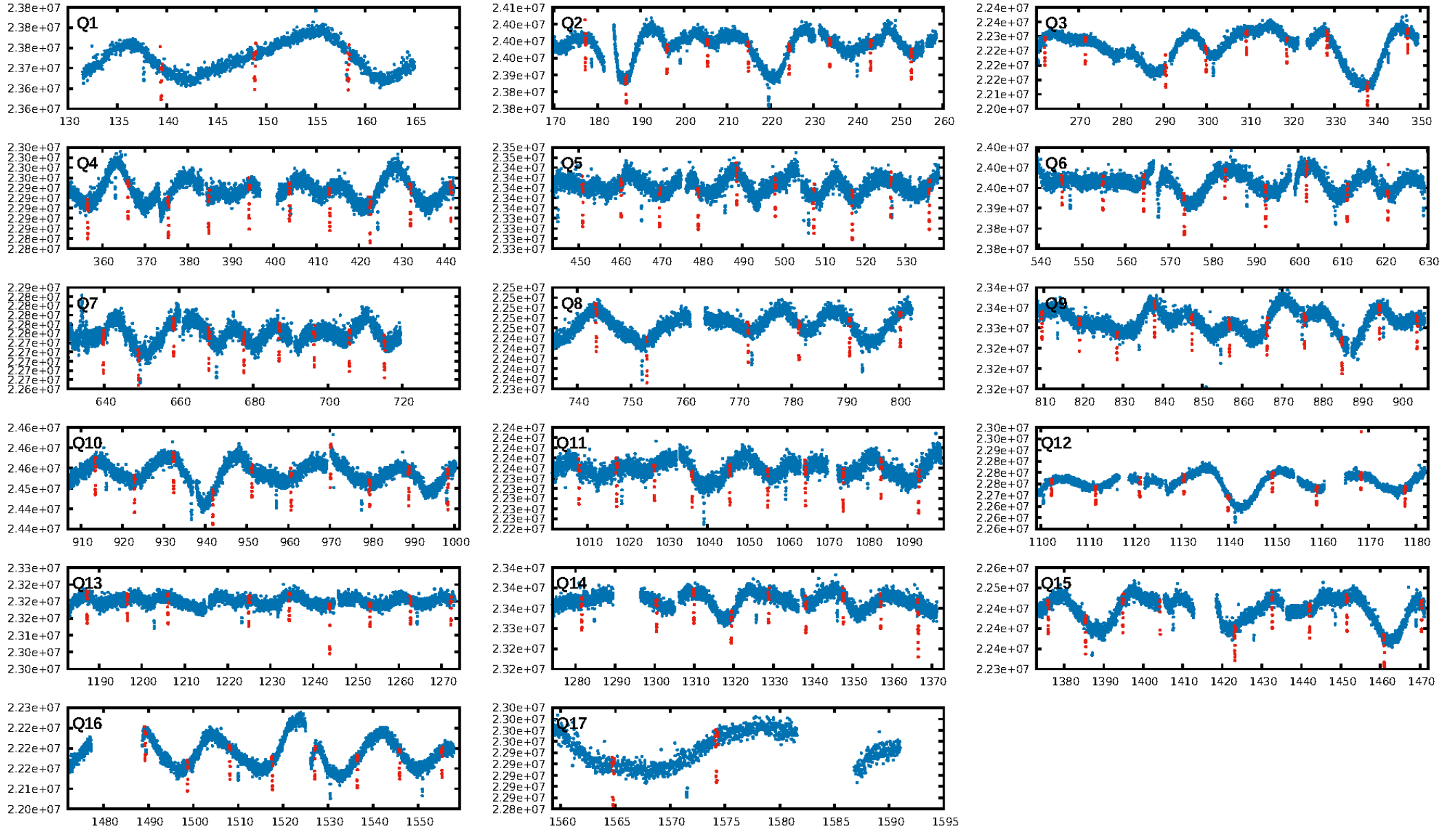
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [37.74σ]
LongPeriod-sig: 100.0% [63.11σ]
ModelChiSquare2-sig: 99.1%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 0.98 [136/139]
GhostDiagnostic-chr: 3.889
Centroid-sig: 1.9%
Centroid-so: 0.326 arcsec [5.63σ]
OotOffset-rm: 0.007 arcsec [0.08σ]
KicOffset-rm: 0.253 arcsec [3.08σ]
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]

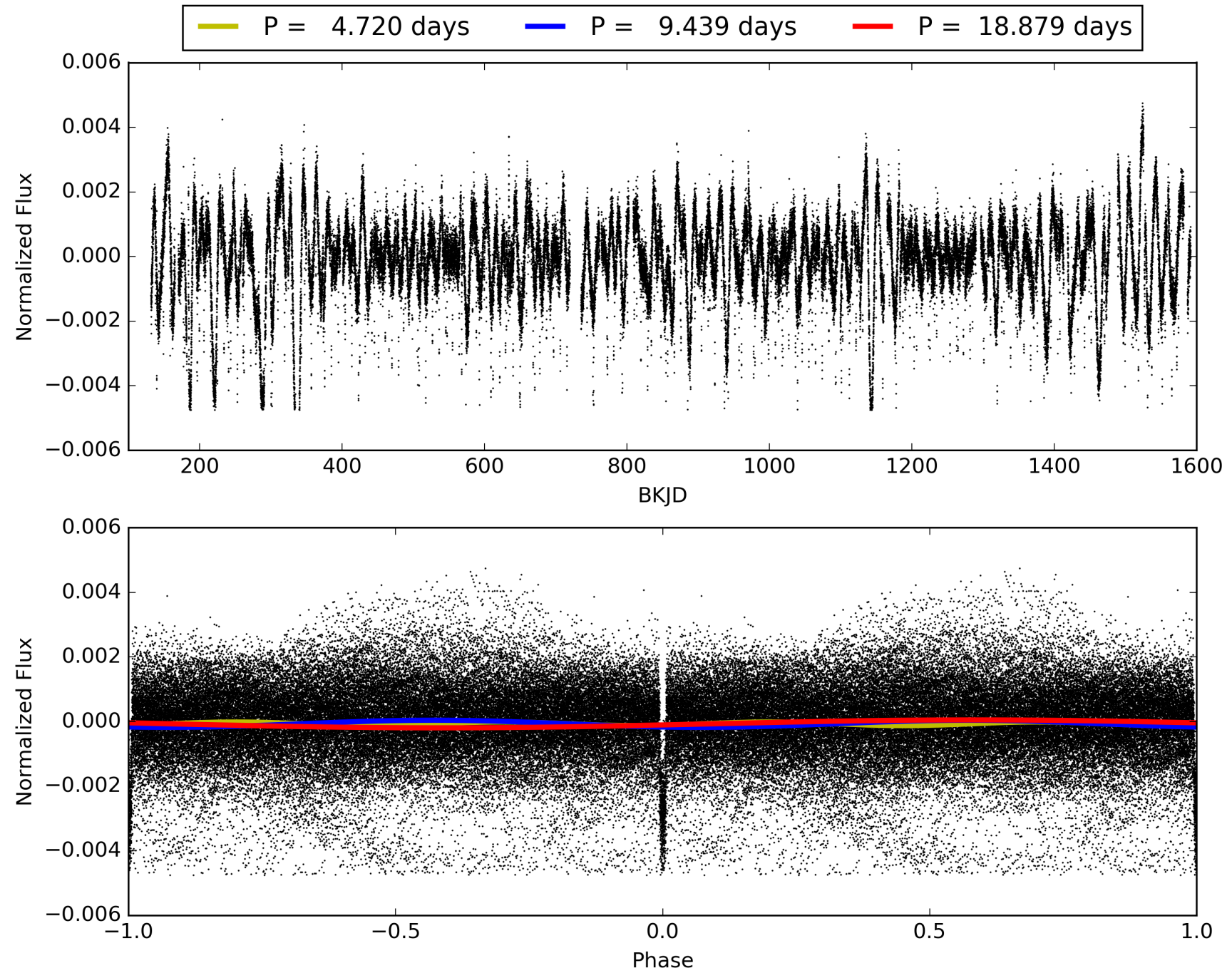
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 10:20:34 Z

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

TCE 007434875-01, PDC Light Curves

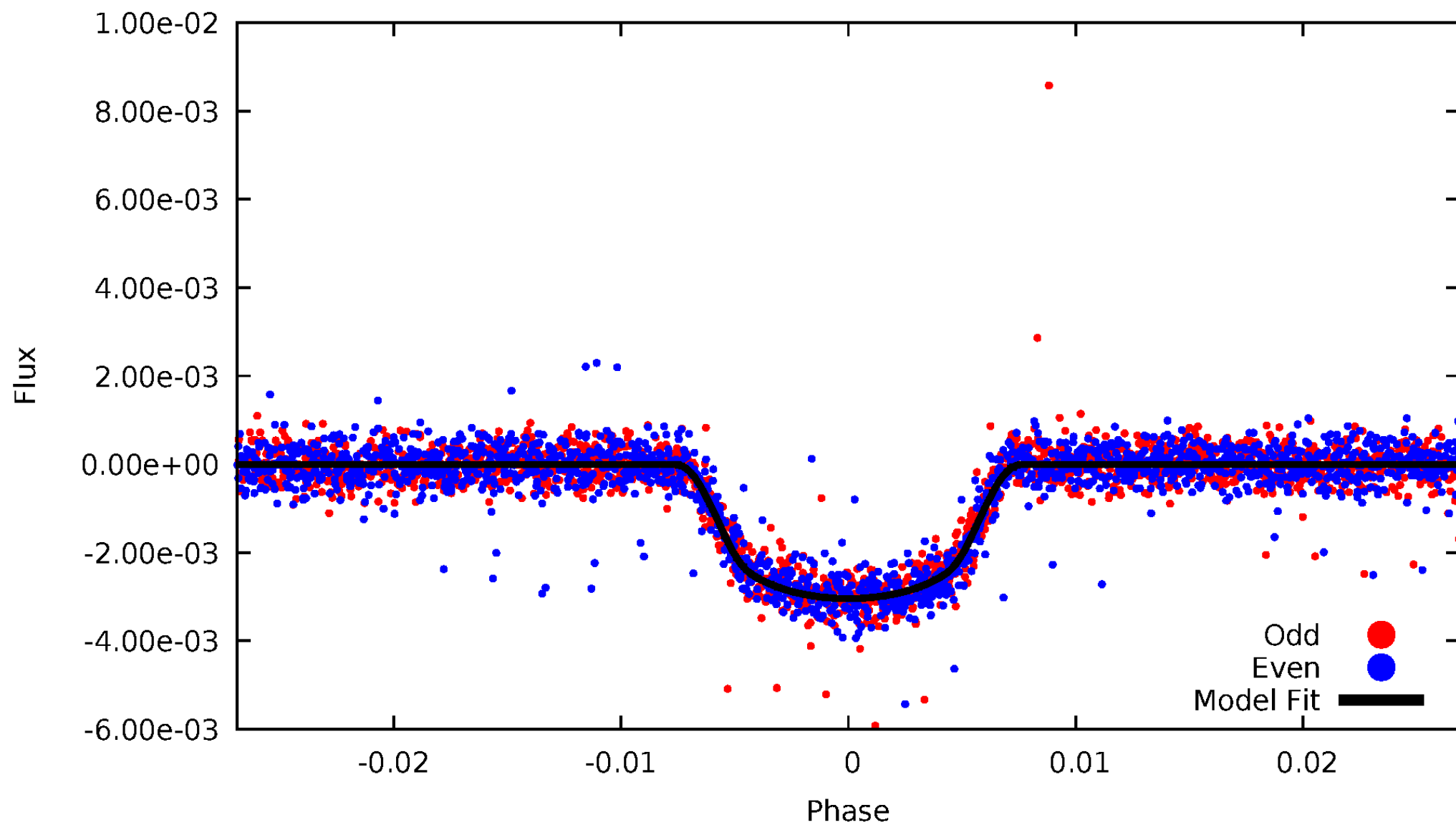


TCE 007434875-01



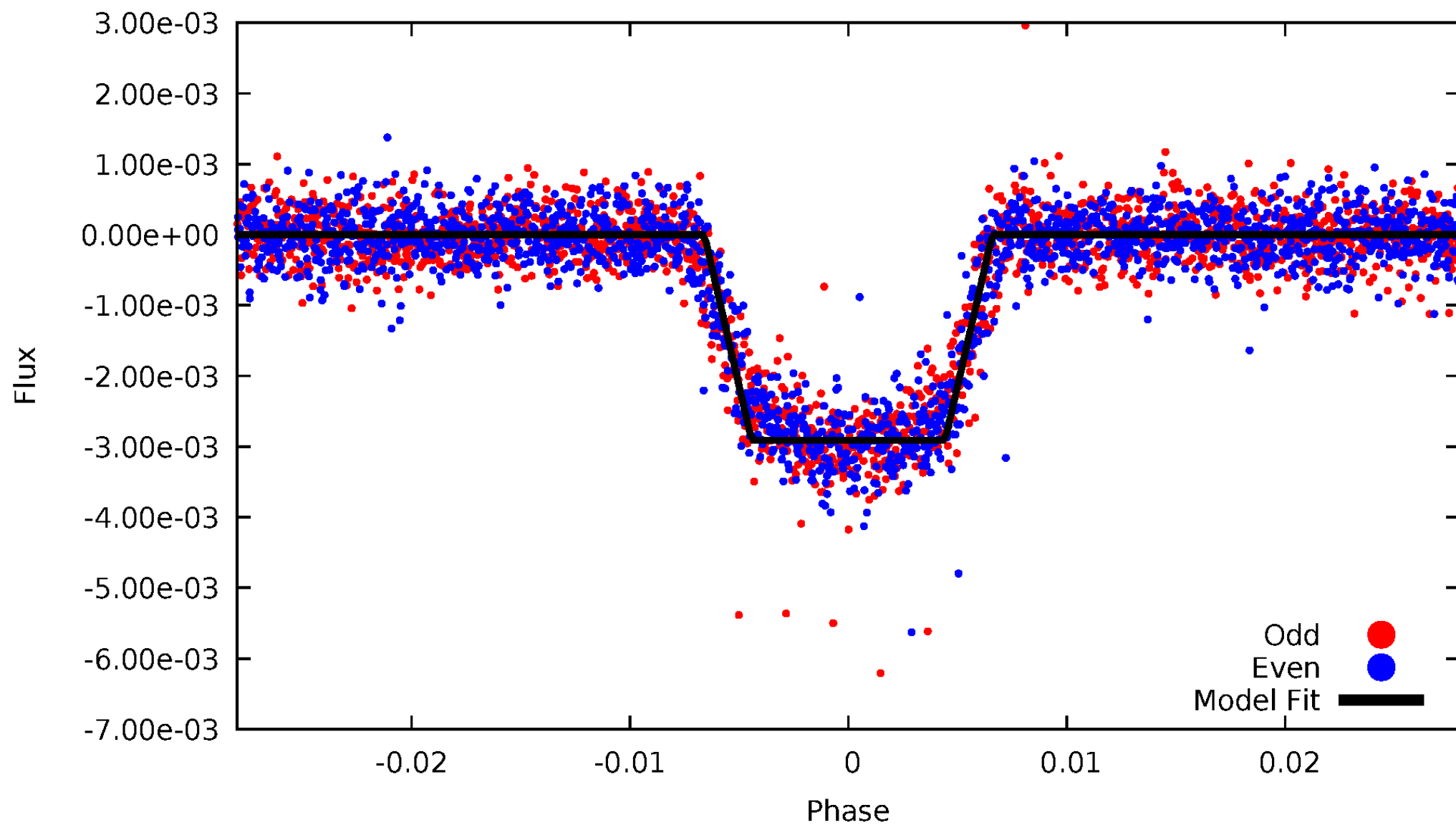
DV Odd/Even

TCE 007434875-01



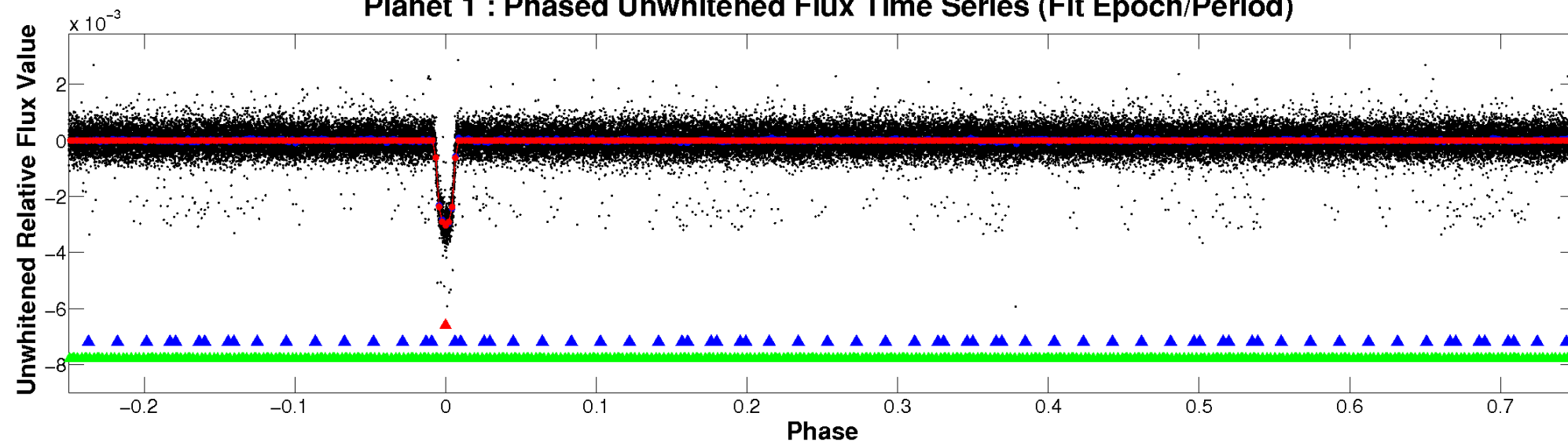
ALT Odd/Even

TCE 007434875-01

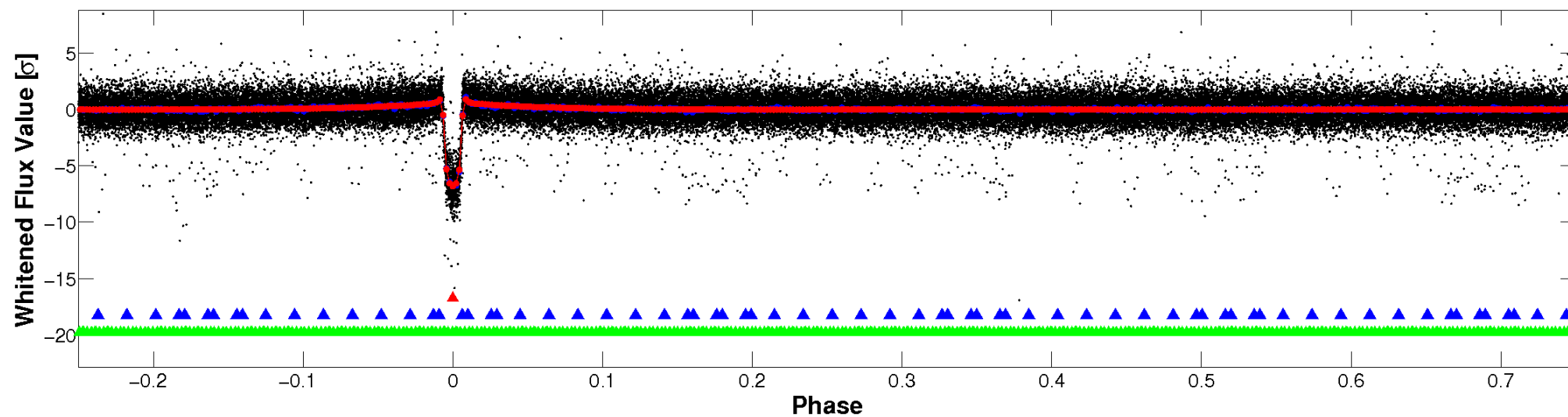


Non-Whitened Vs. Whitened Light Curve

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

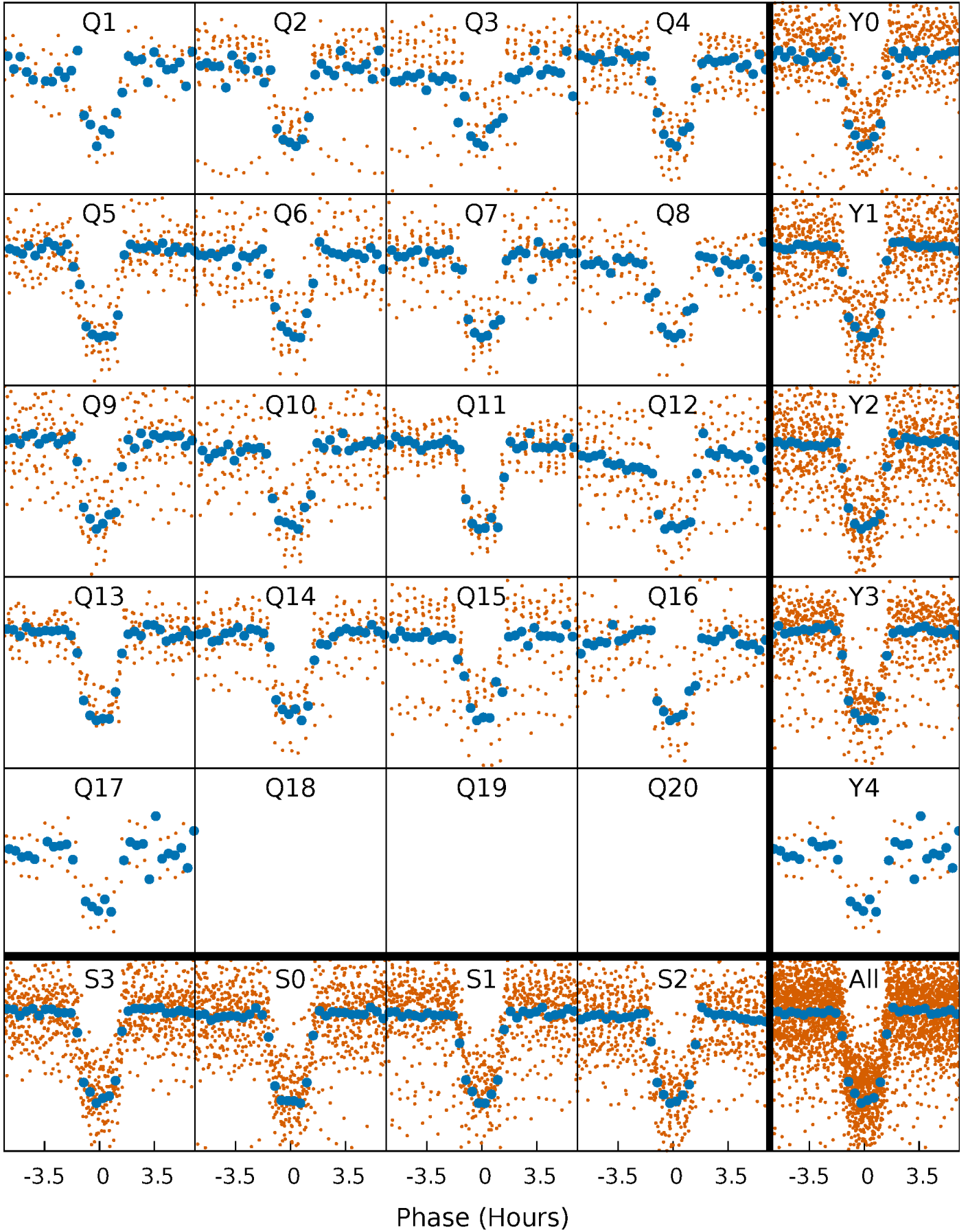


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



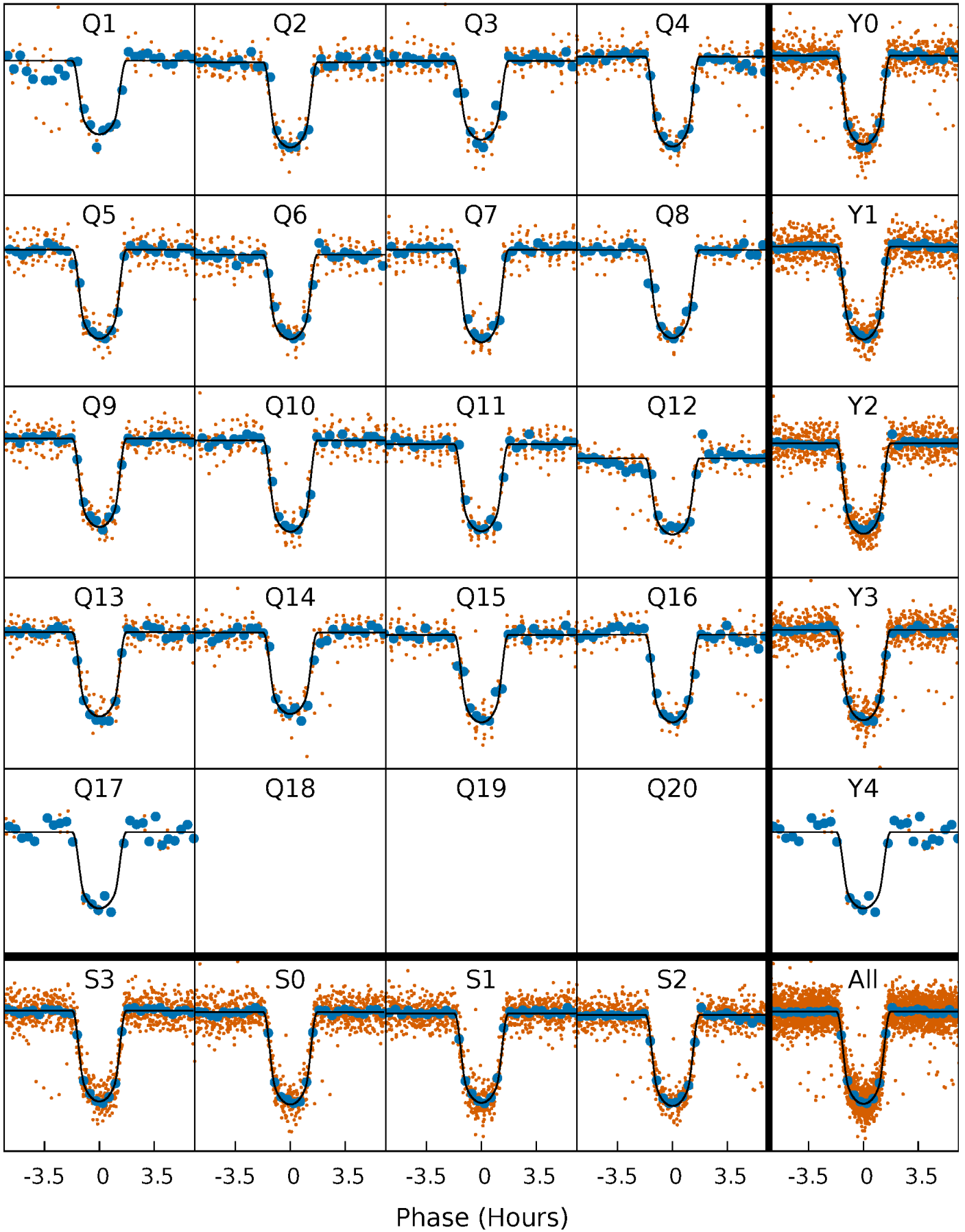
PDC Quarter-Phased Transit Curves

TCE 007434875-01 P= 9.439466 Days $T_0=139.427558$ (BKJD)



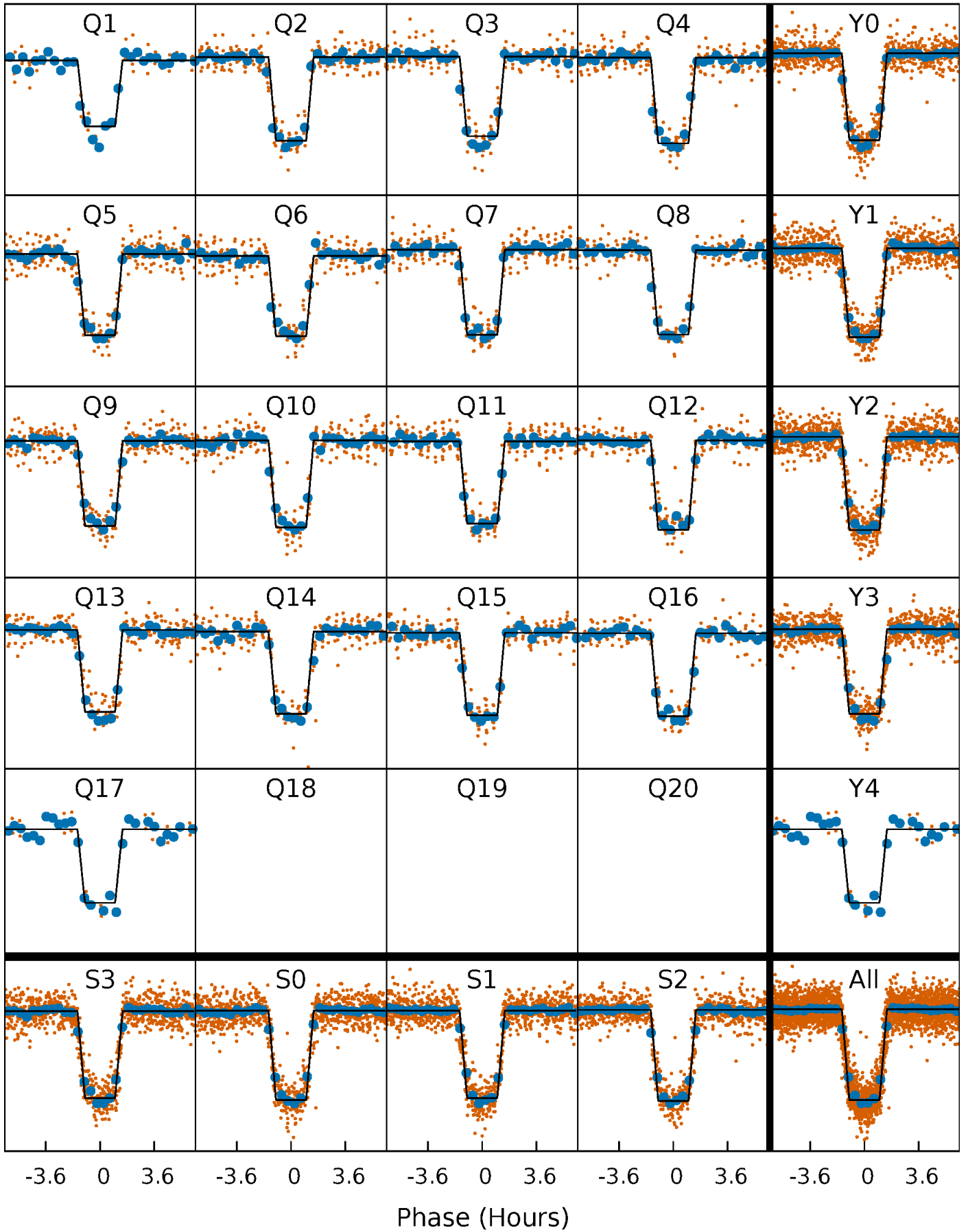
DV Quarter-Phased Transit Curves

TCE 007434875-01 P= 9.439466 Days $T_0=139.427558$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

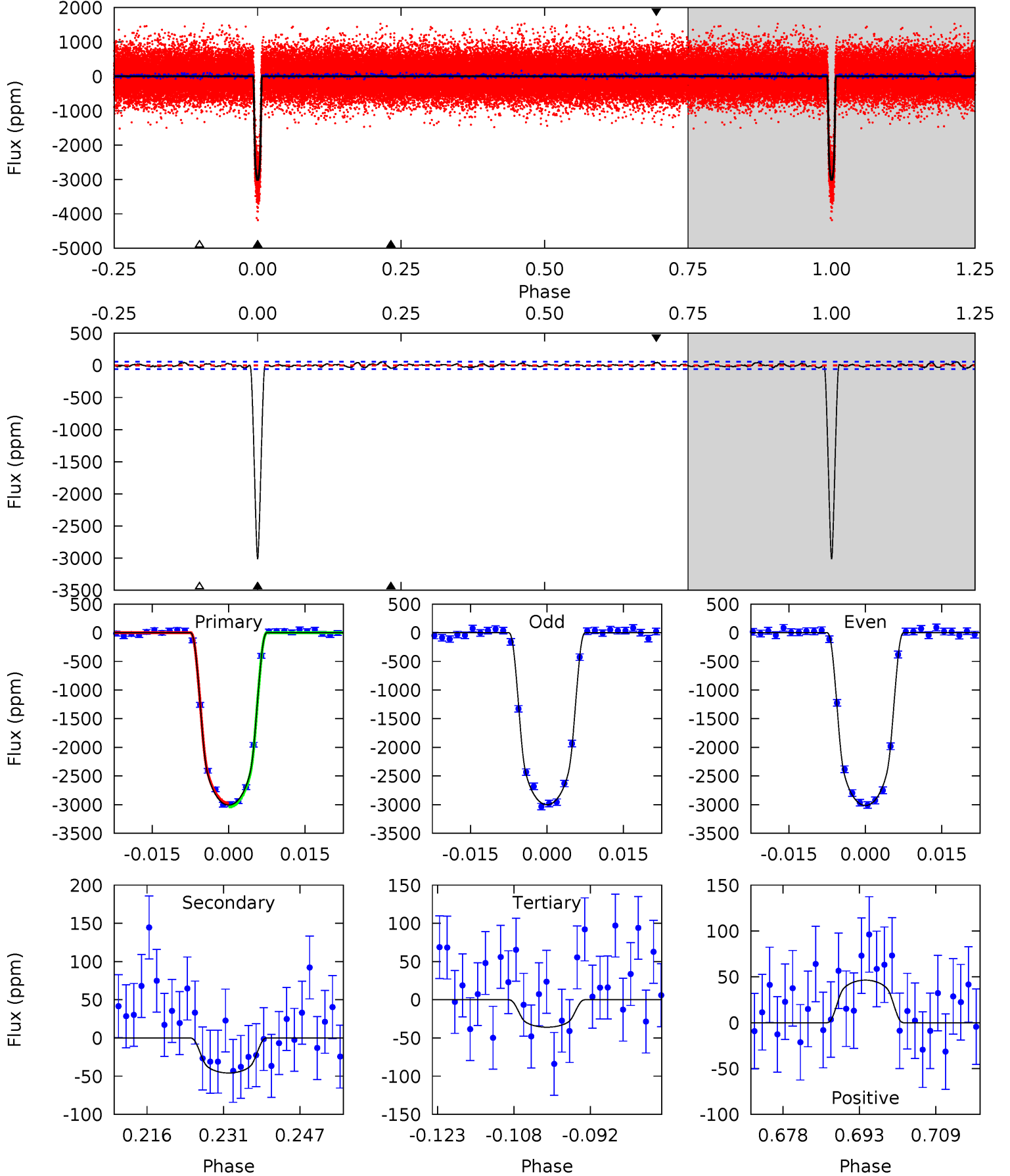
TCE 007434875-01 P= 9.439395 Days $T_0=139.433138$ (BKJD)



DV Model-Shift Uniqueness Test

007434875-01, P = 9.439466 Days, E = 129.988092 Days

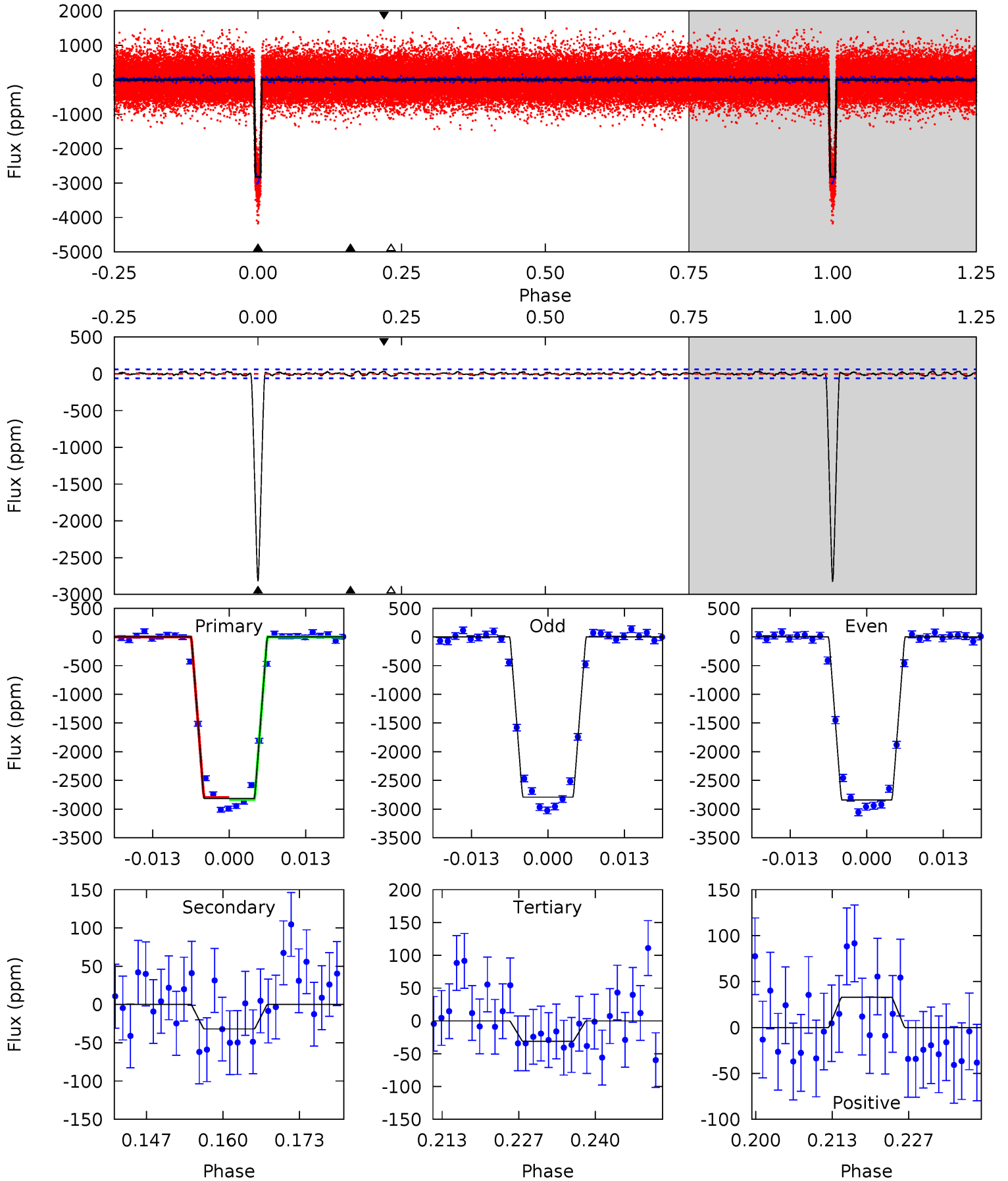
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
255.4	3.89	3.05	3.94	4.94	2.42	1.30	252.3	251.5	0.84	-0.05	0.55	0.99	0.02	2.76



Alt Model-Shift Uniqueness Test

007434875-01, P = 9.439395 Days, E = 129.993743 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
231.9	2.63	2.57	2.70	4.97	2.47	1.00	229.3	229.2	0.06	-0.07	2.00	1.00	0.01	1.56



Stellar Parameters For KIC 007434875

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5097^{+152}_{-152}	$4.597^{+0.025}_{-0.085}$	$0.210^{+0.200}_{-0.350}$	$0.779^{+0.093}_{-0.053}$	$0.891^{+0.039}_{-0.097}$	$2.653^{+0.370}_{-0.696}$
	+3%/-3%	+1%/-2%	+95%/-167%	+12%/-7%	+4%/-11%	+14%/-26%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 007434875-01 / KOI 0884.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-46 ± 12	$4.74^{+0.34}_{-0.29}$	971^{+39}_{-36}	2580^{+94}_{-107}	$7.786^{+2.335}_{-2.134}$
Alt.	-32 ± 12	$4.66^{+0.33}_{-0.26}$	969^{+42}_{-34}	2464^{+129}_{-143}	$5.502^{+2.456}_{-2.081}$

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

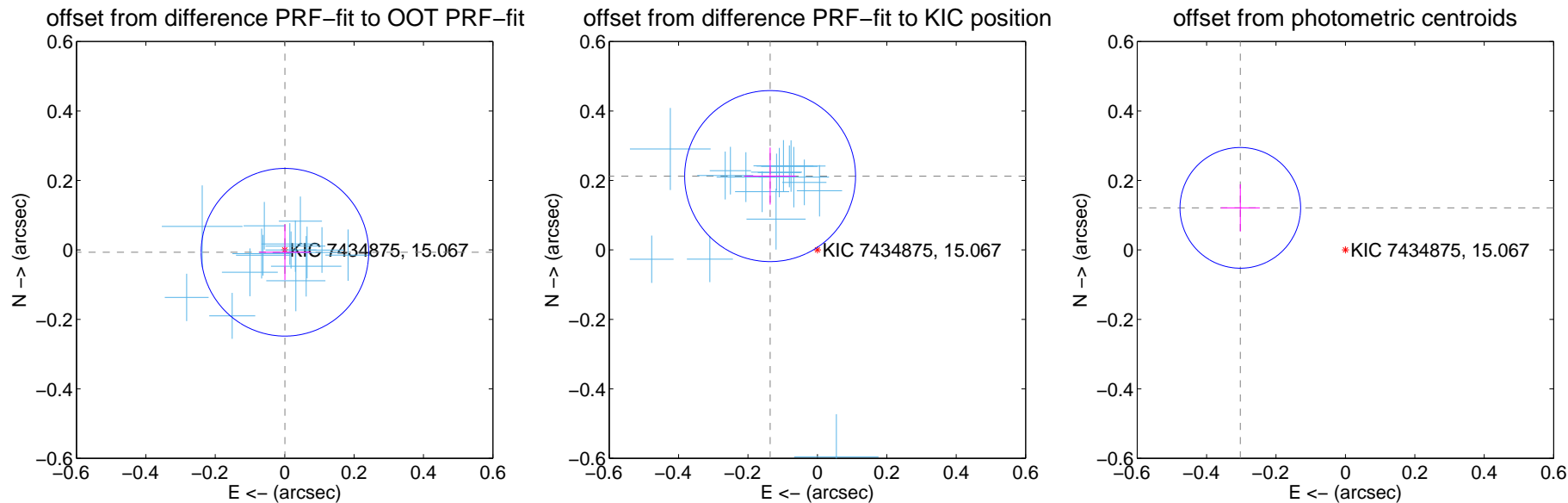
DV Centroid Data

Supplemental centroid analysis for 007434875-01. Kepler magnitude: 15.07. Transit SNR 161.18

There are 17 quarters with good PRF difference image offsets

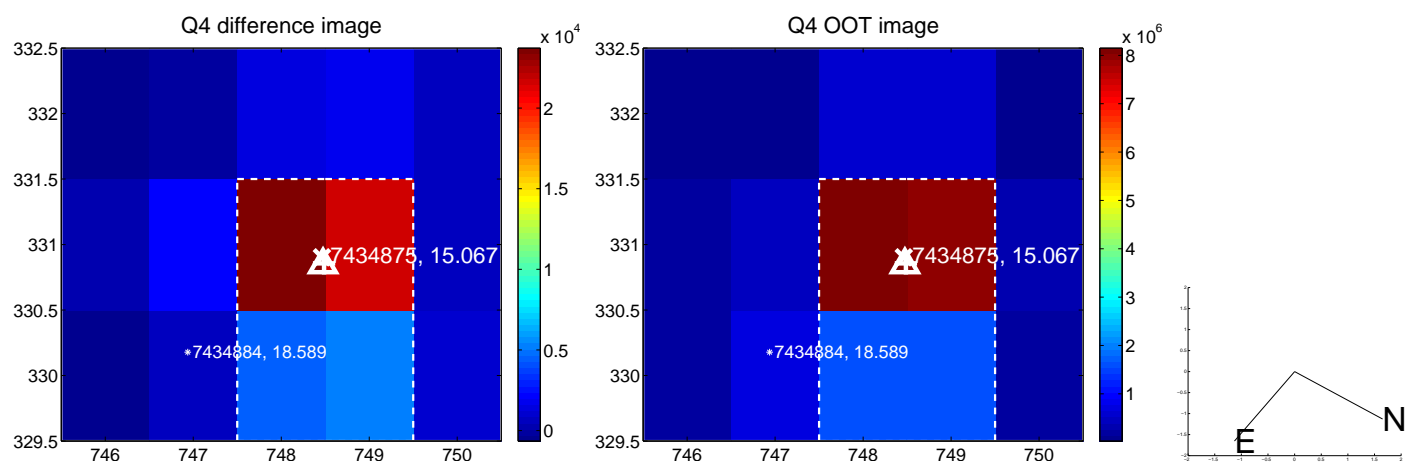
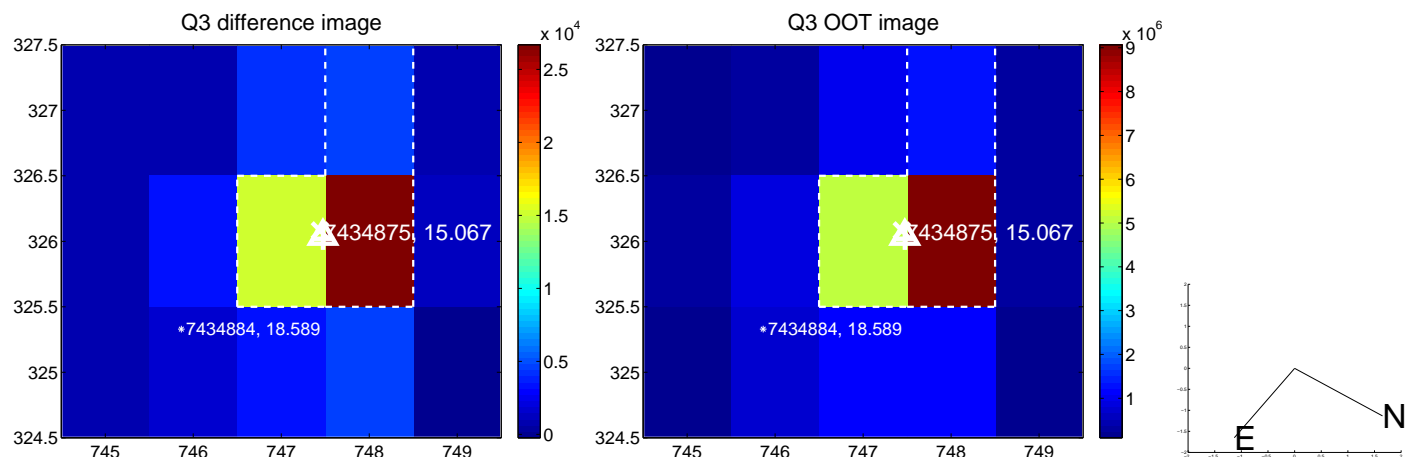
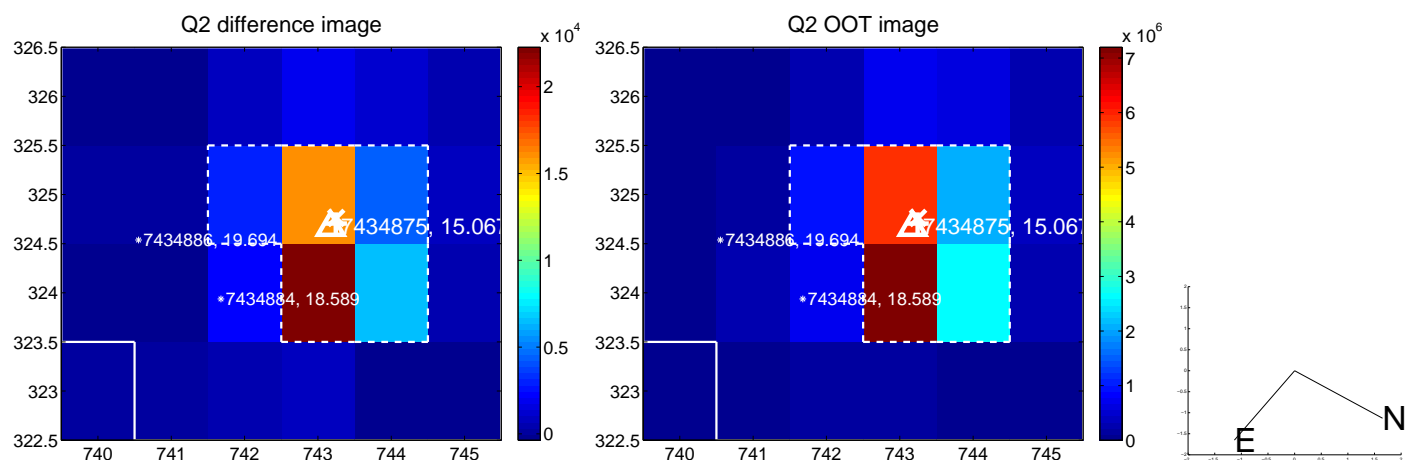
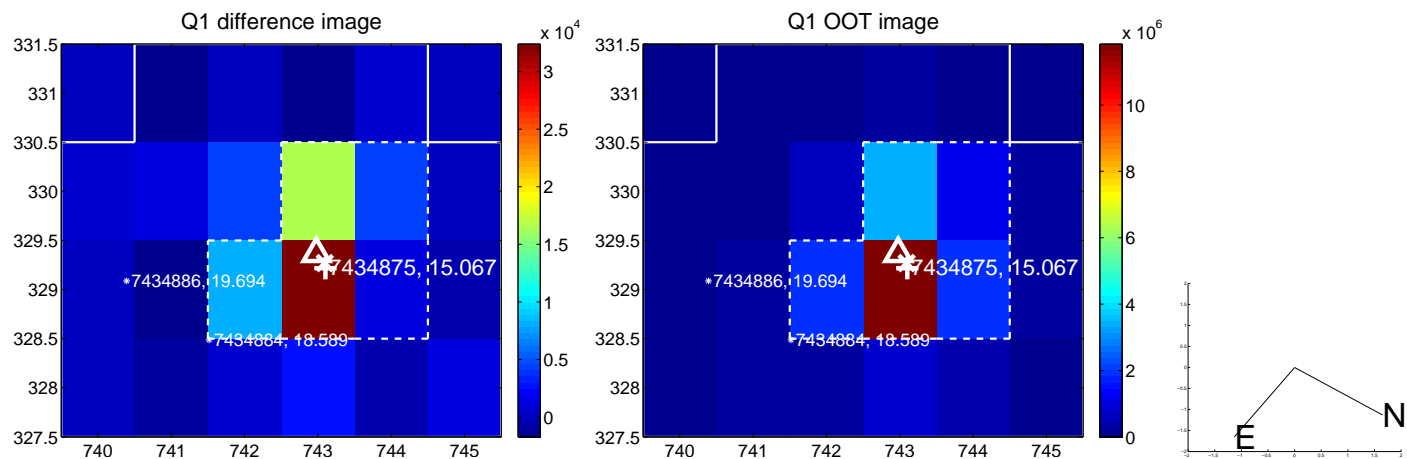
The direct PRF centroid is offset from the target star catalog position by about 0.29 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.007 ± 0.080	0.08	-0.001 ± 0.074	-0.007 ± 0.080
PRF-fit source offset from KIC position	0.253 ± 0.082	3.08	0.136 ± 0.075	0.213 ± 0.082
photometric centroid source offset	0.33 ± 0.06	5.63	0.30 ± 0.06	0.12 ± 0.07

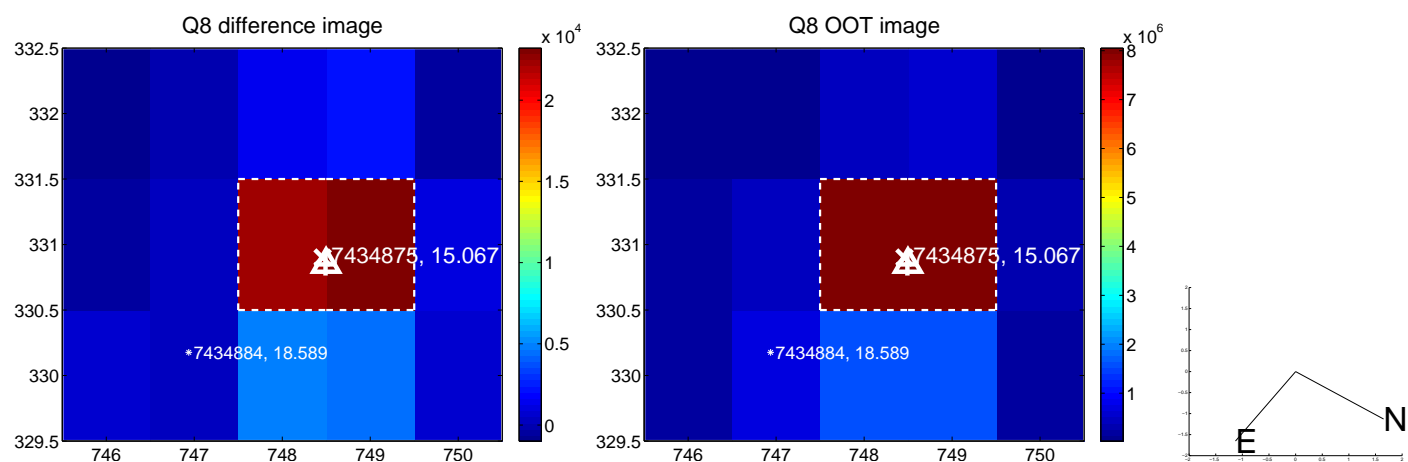
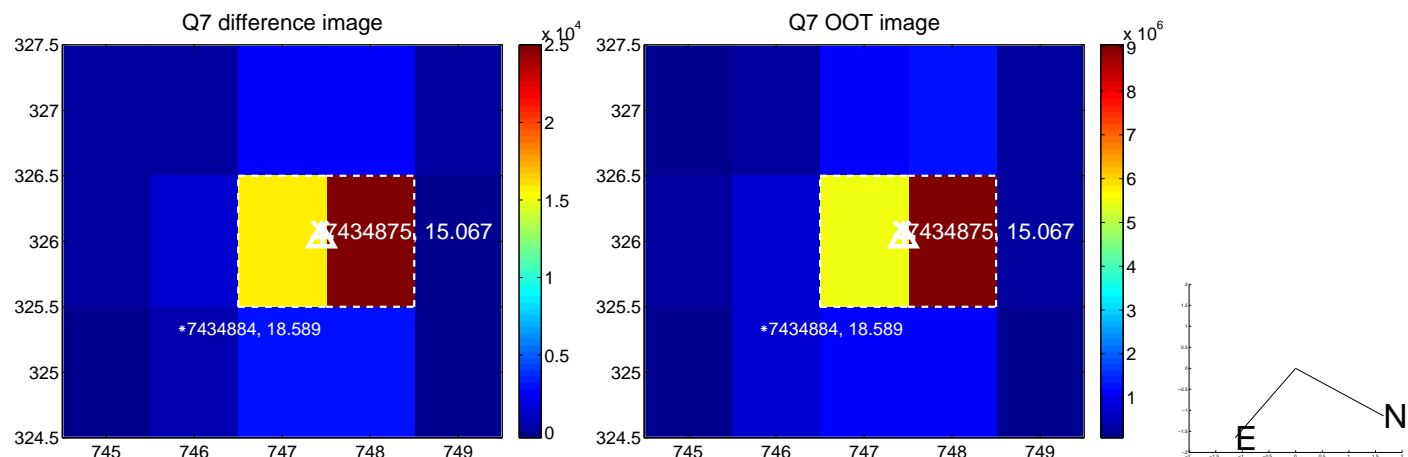
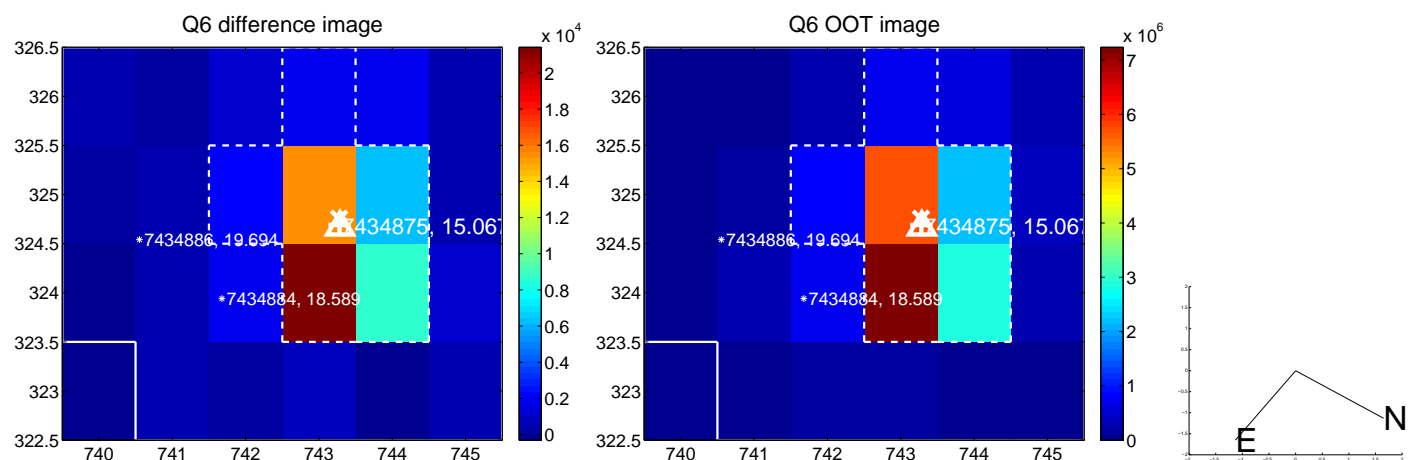
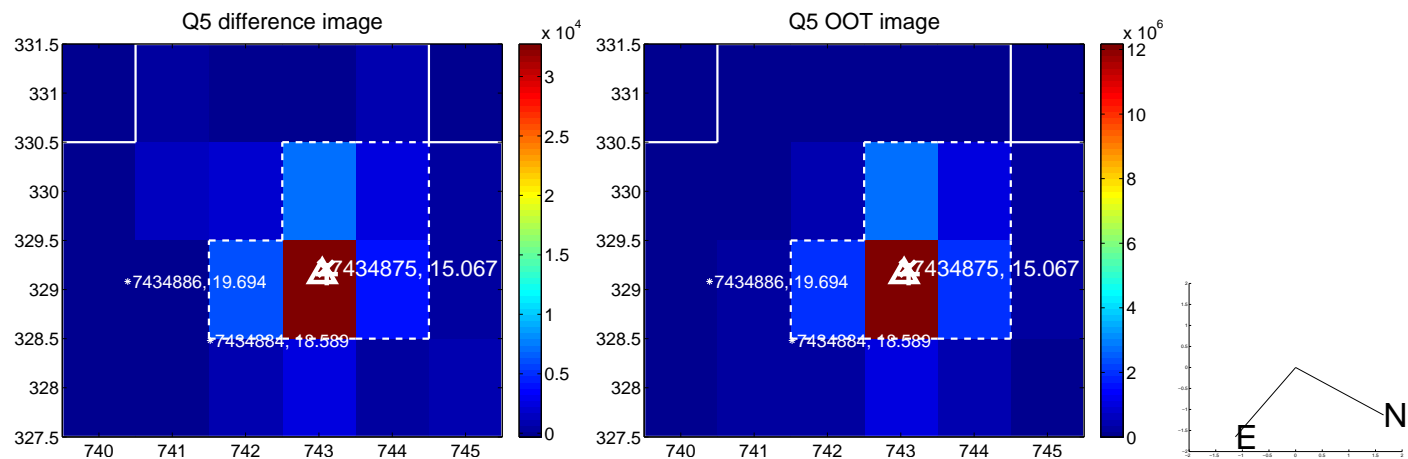


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

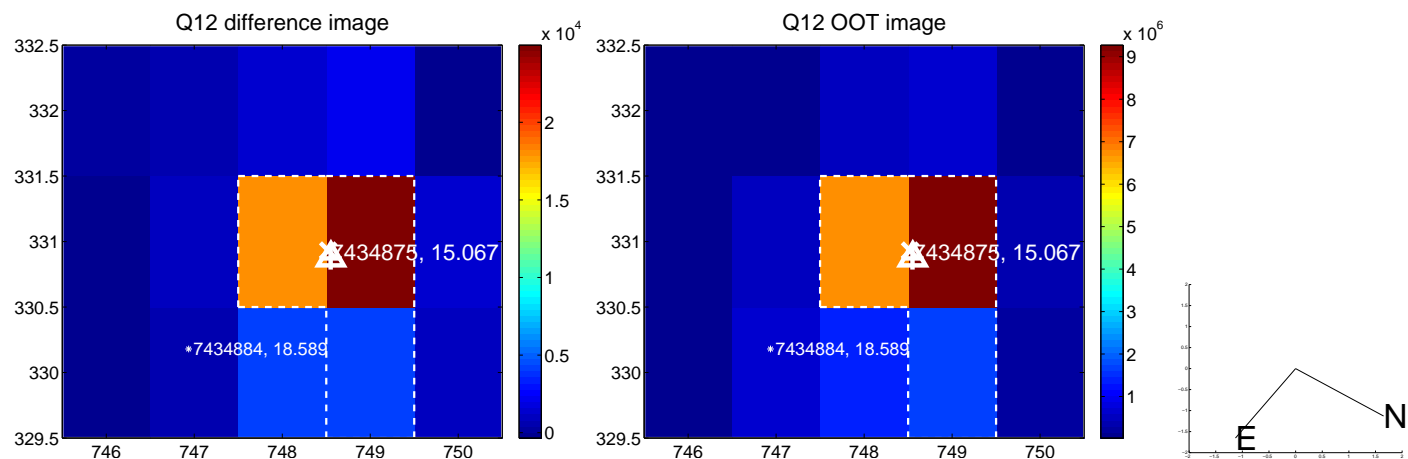
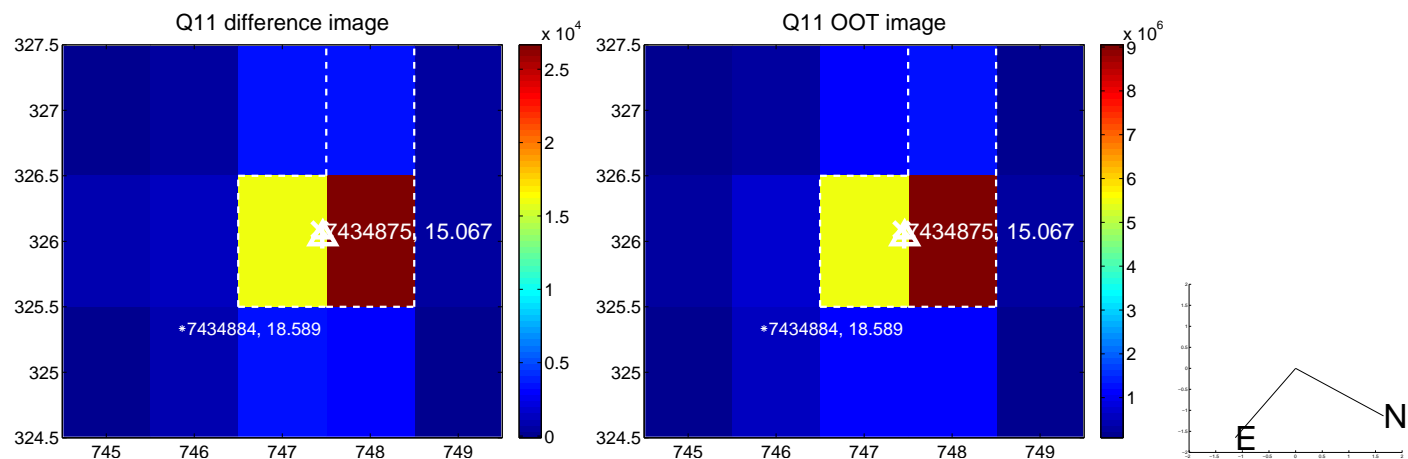
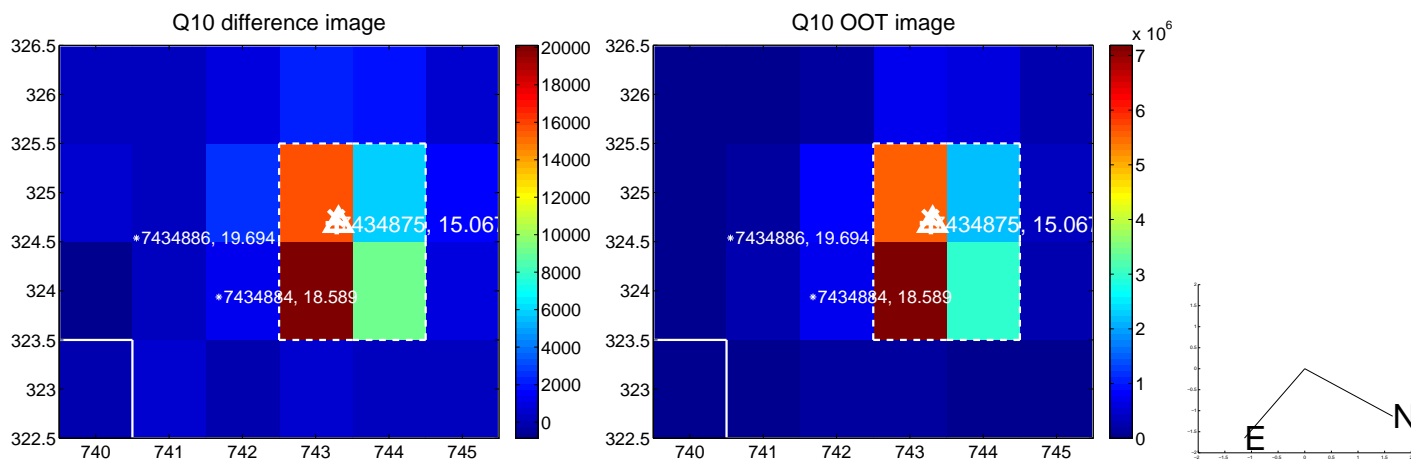
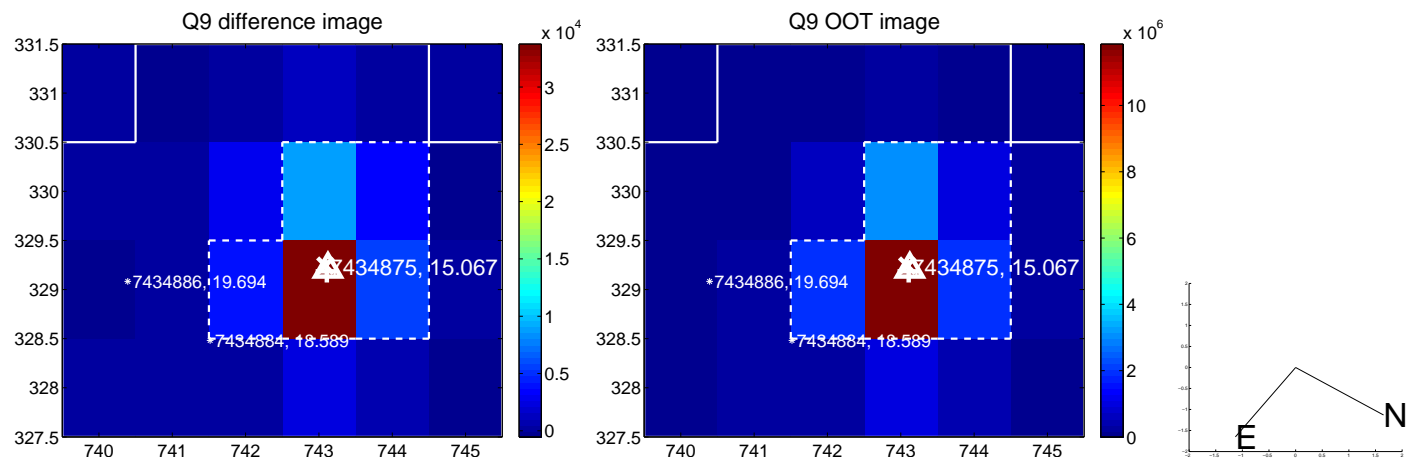
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



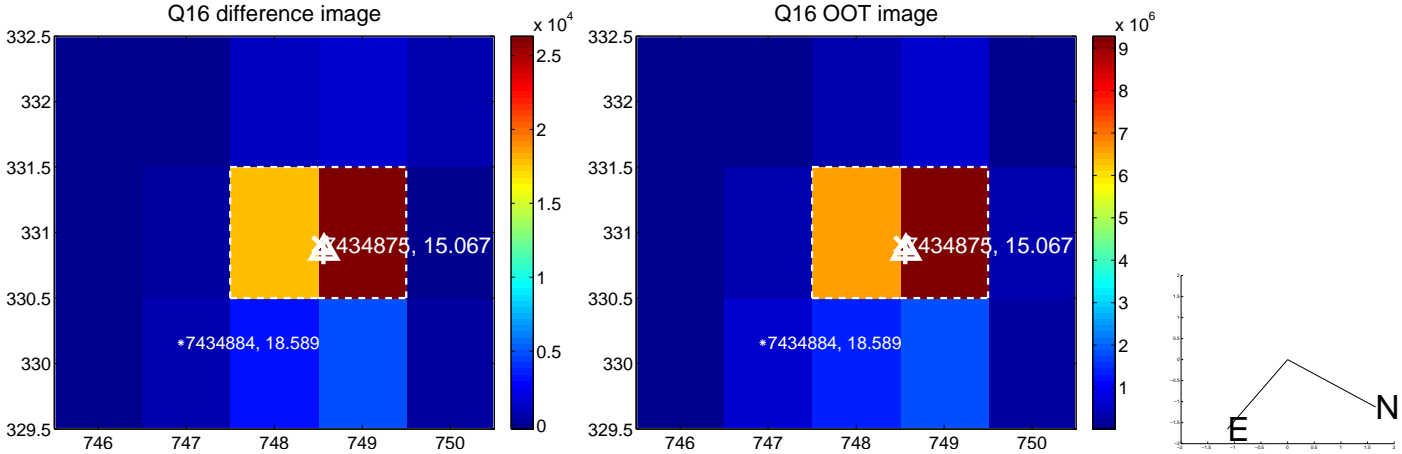
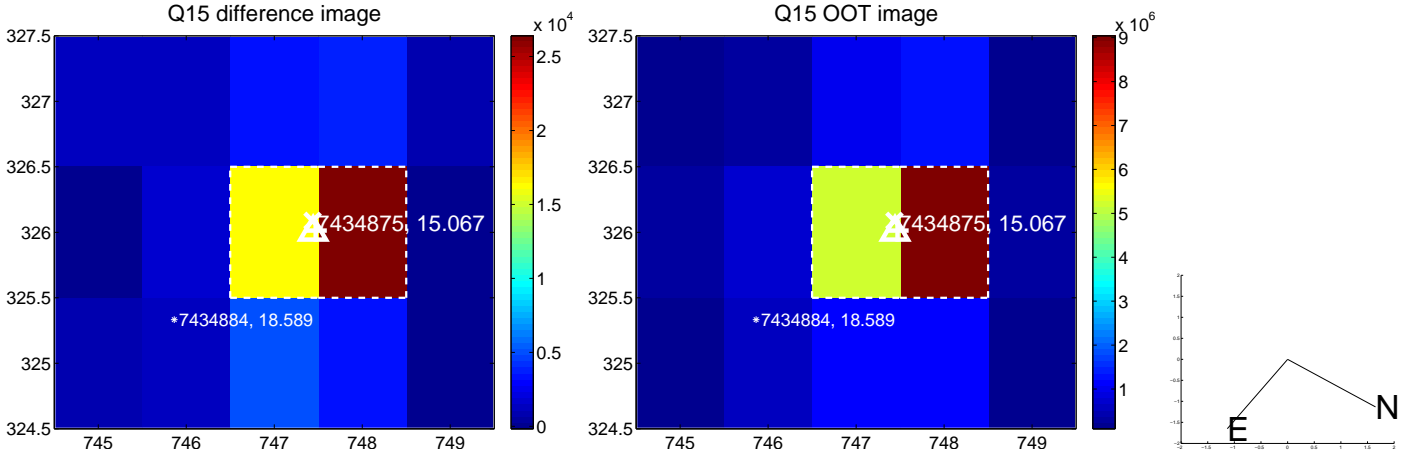
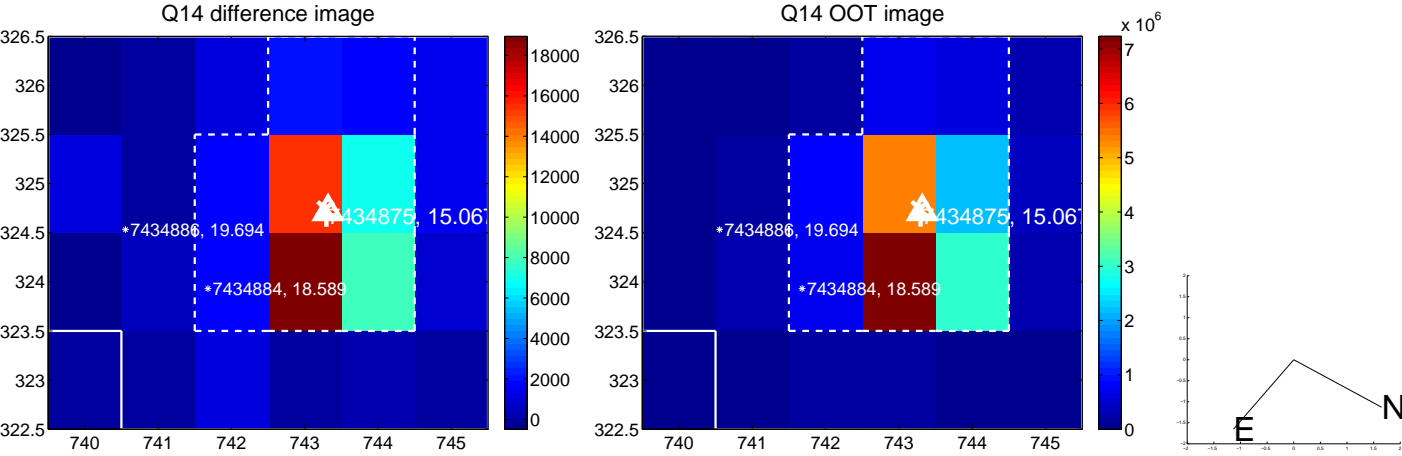
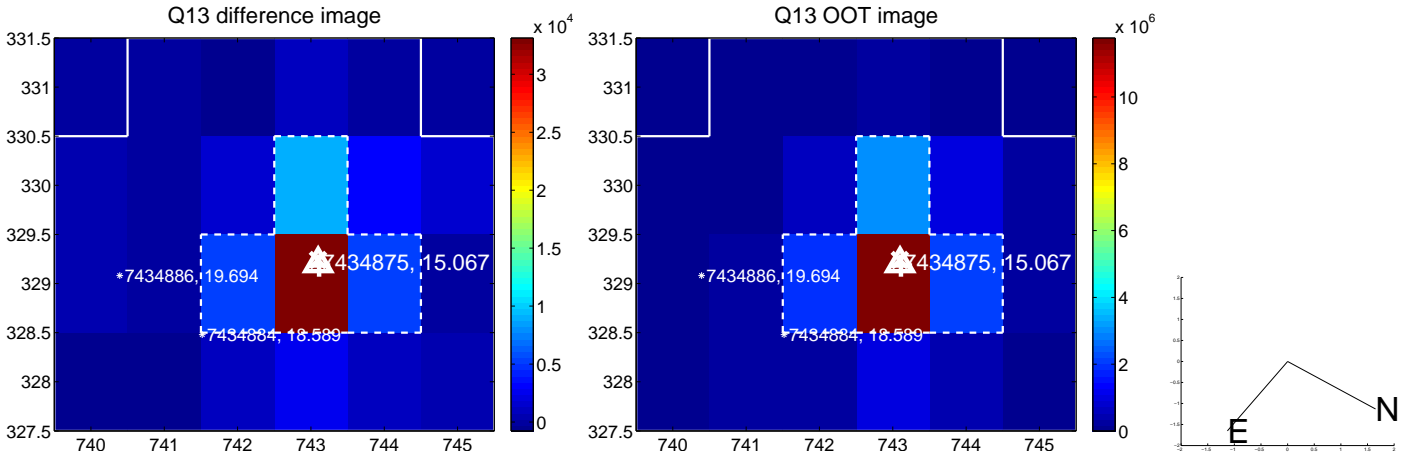
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



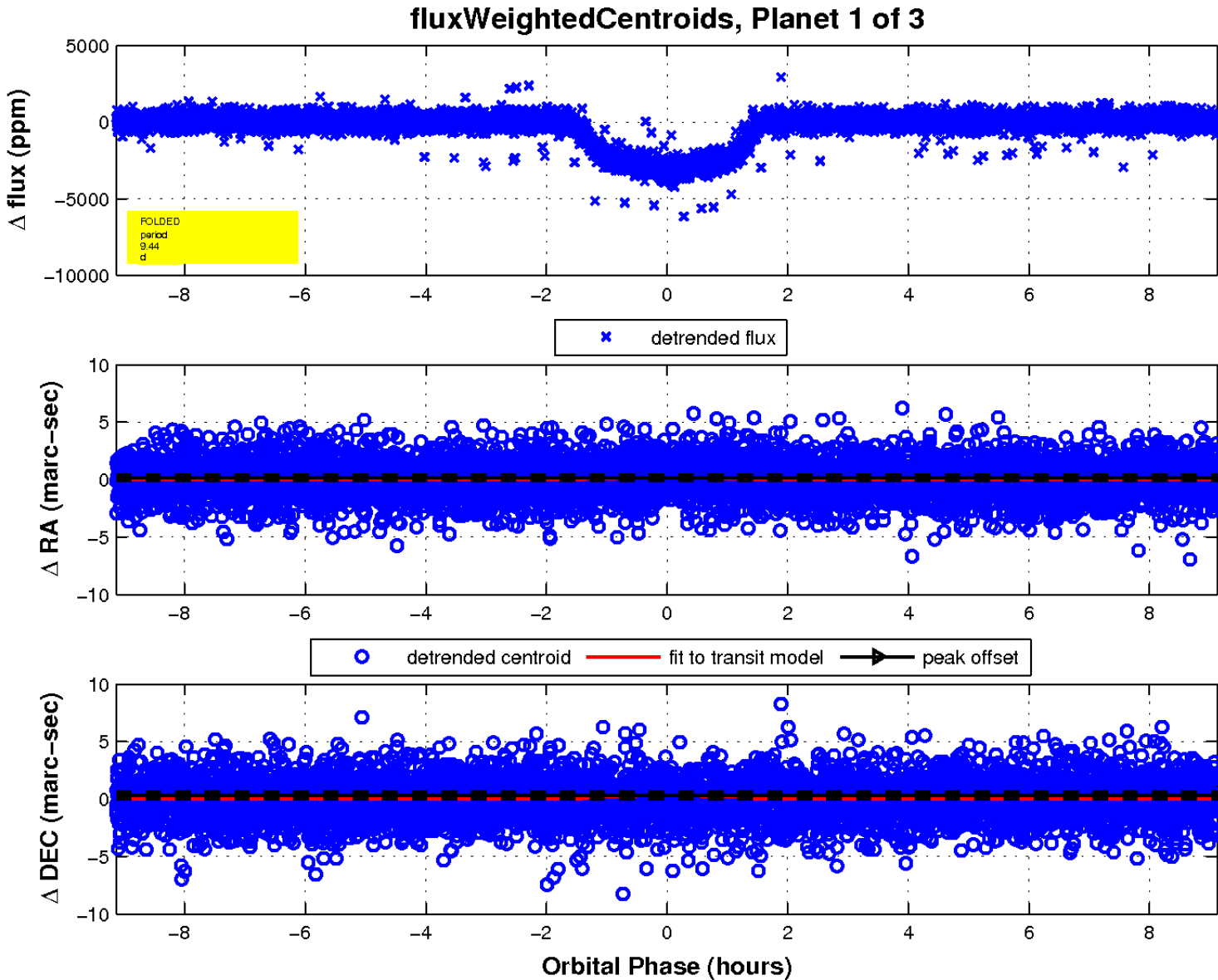
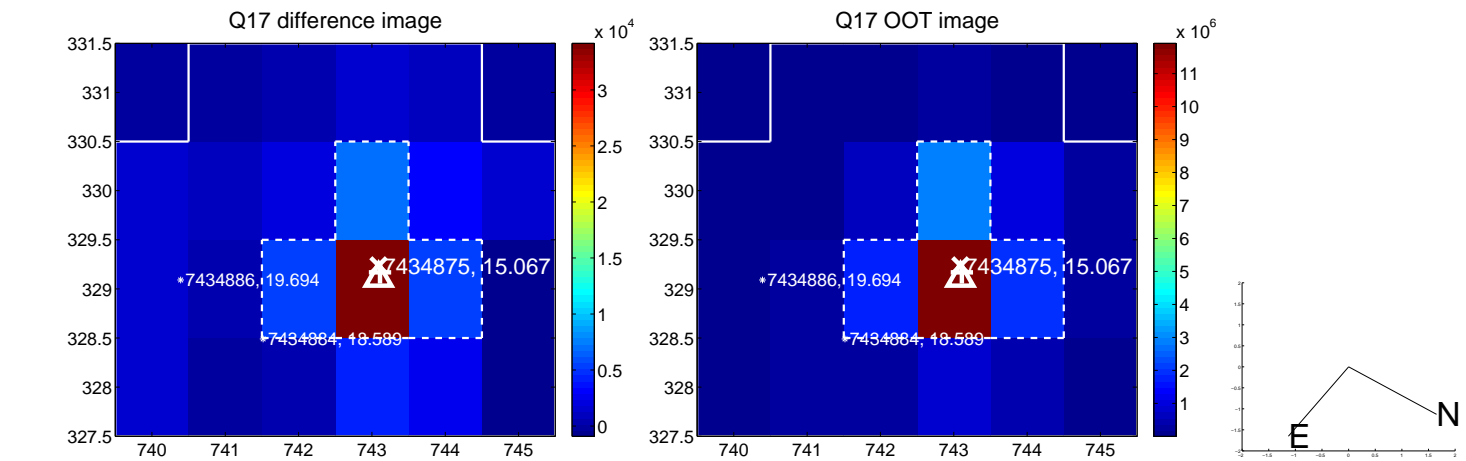
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

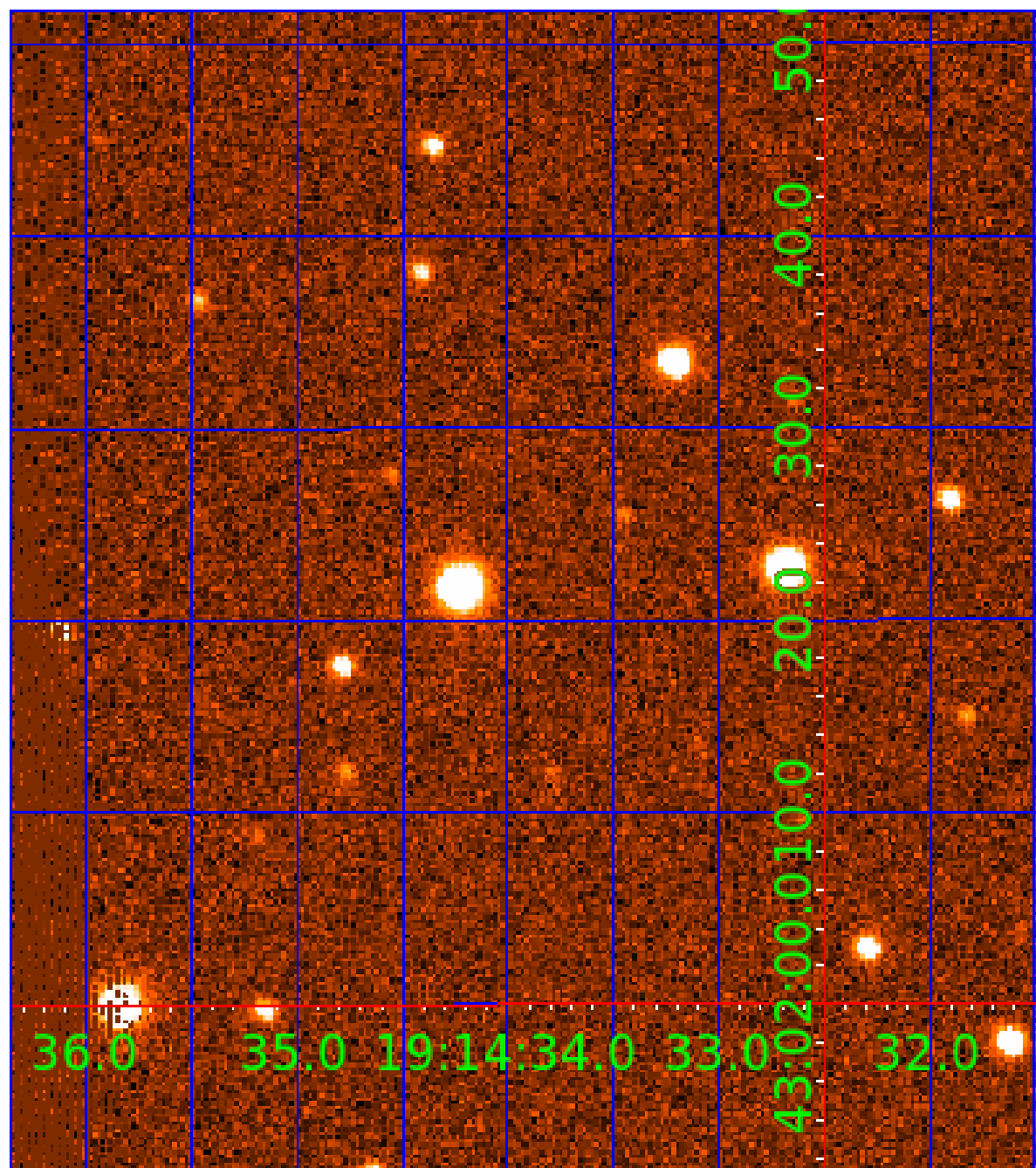


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 007434875

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})
007434875-01	OBS	0884.01	9.439466	139.427558	3041.3	3.045	163.4	161.2	0.78	5097	4.65	52.47
007434875-02	OBS	0884.02	20.482529	137.701696	313.7	2.893	45.4	6.4	0.78	5097	2.71	18.68
007434875-03	OBS	0884.03	3.336122	131.980426	412.2	2.408	30.8	34.2	0.78	5097	1.97	209.99

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007434875-01	OBS	PC	1.00	0	0	0	0	NO_COMMENT
007434875-02	OBS	FP	0.00	1	0	0	0	LPP_DV
007434875-03	OBS	PC	1.00	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.

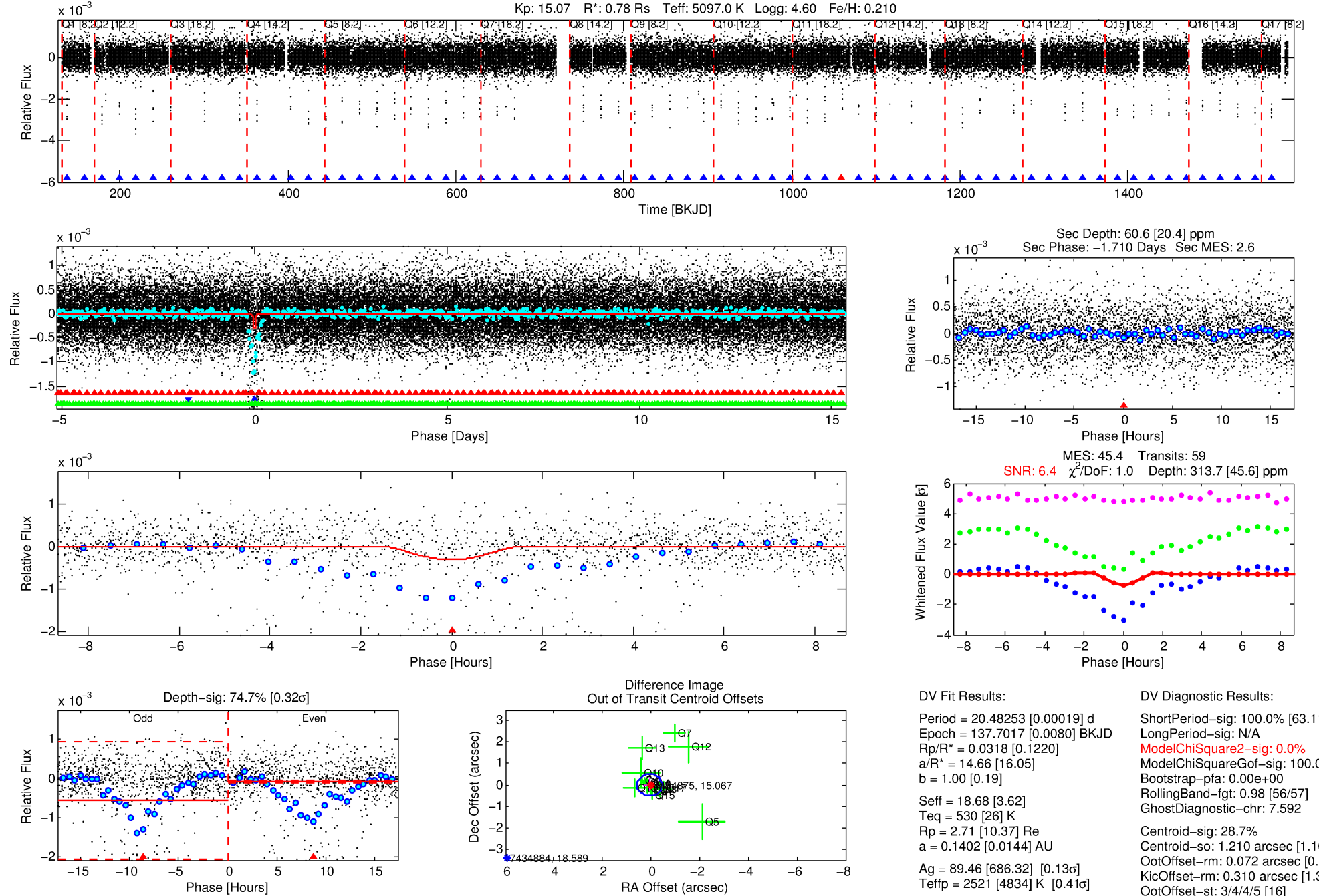
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007434875-02

No Significant Match Found

DV One-Page Summary

KIC: 7434875 Candidate: 2 of 3 Period: 20.483 d
KOI: K00884 Name: Kepler-247 Corr: No Ephemeris Match



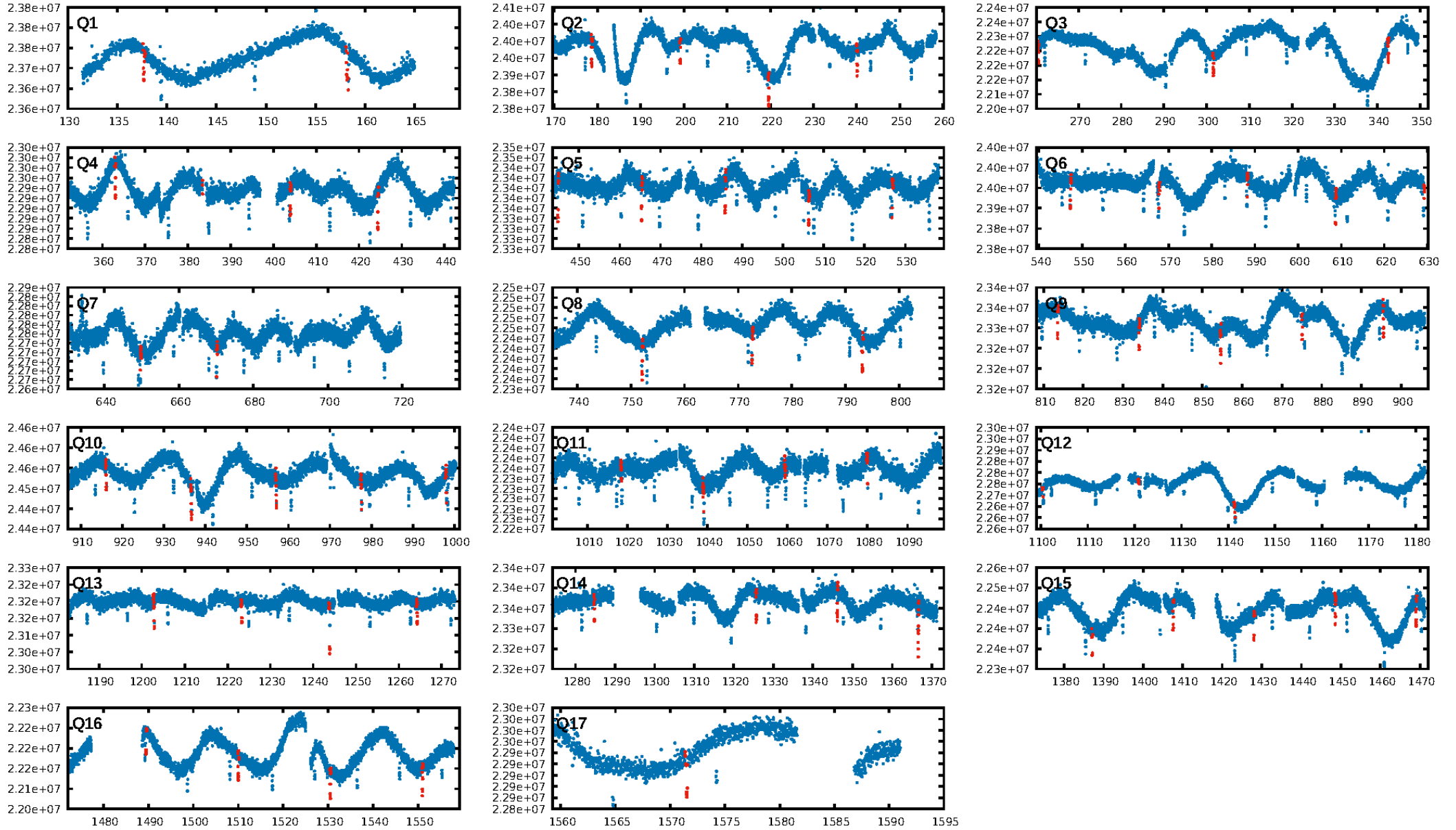
DV Fit Results:

Period = 20.48253 [0.00019] d
Epoch = 137.7017 [0.0080] BKJD
Rp/R* = 0.0318 [0.1220]
a/R* = 14.66 [16.05]
b = 1.00 [0.19]
Seff = 18.68 [3.62]
Teff = 530 [26] K
Rp = 2.71 [10.37] Re
a = 0.1402 [0.0144] AU
Ag = 89.46 [686.32] [0.13σ]
Teffp = 2521 [4834] K [0.41σ]

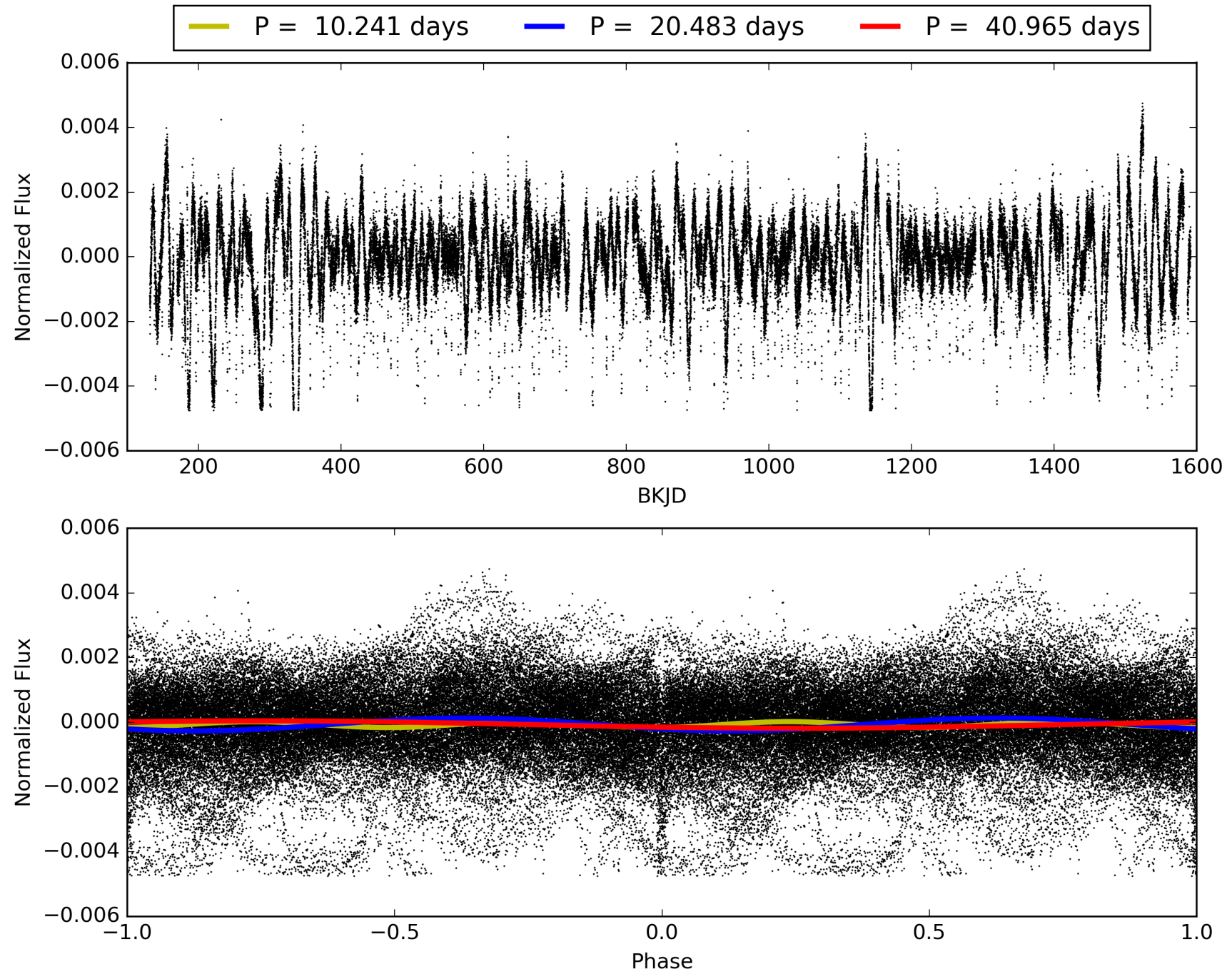
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [63.11σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 0.98 [56/57]
GhostDiagnostic-chr: 7.592
Centroid-sig: 28.7%
Centroid-so: 1.210 arcsec [1.10σ]
OotOffset-rm: 0.072 arcsec [0.42σ]
KicOffset-rm: 0.310 arcsec [1.37σ]
OotOffset-st: 3/4/4/5 [16]
KicOffset-st: 3/4/4/5 [16]
DiffImageQuality-fgm: 0.75 [12/16]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 007434875-02, PDC Light Curves

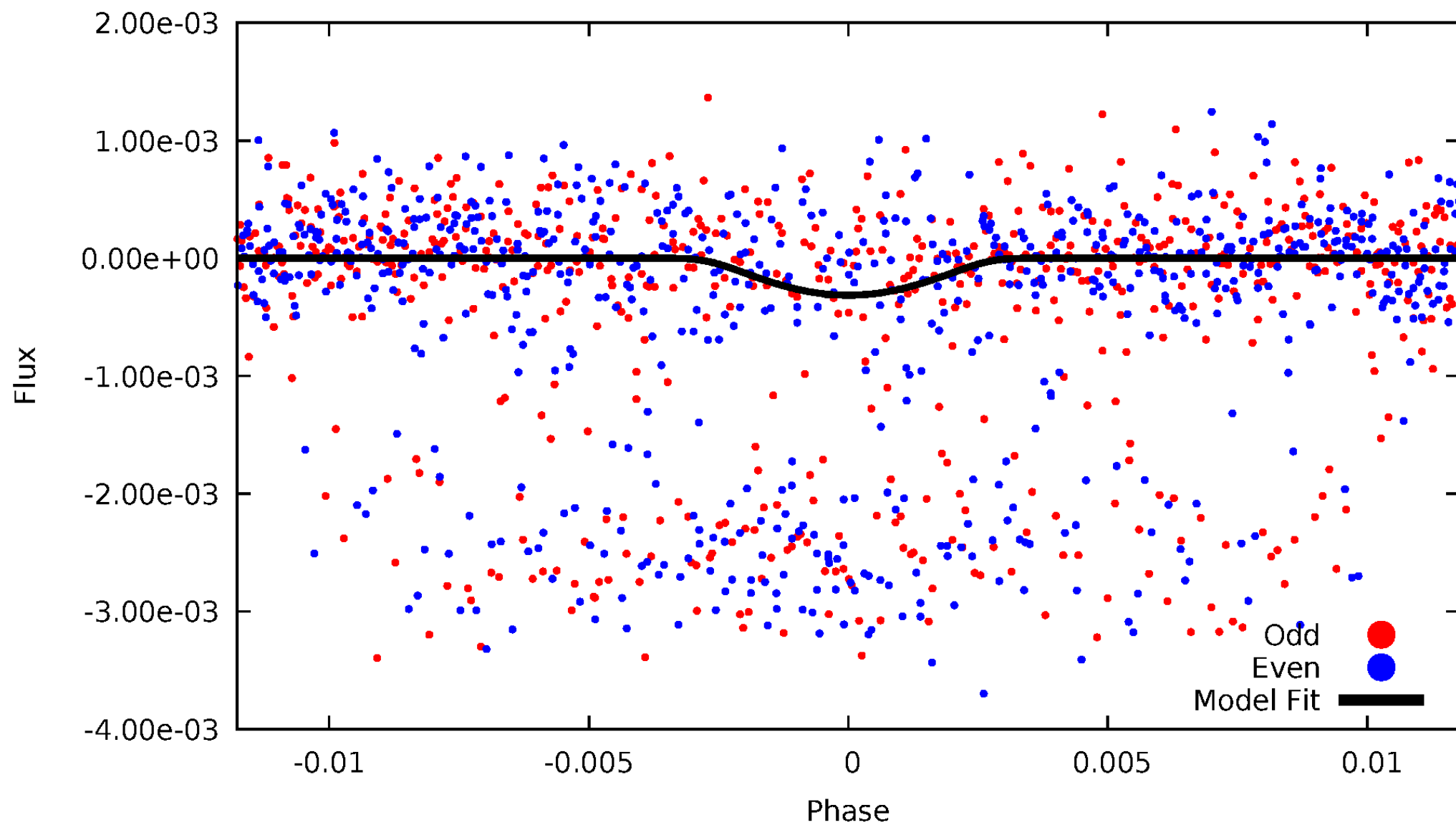


TCE 007434875-02



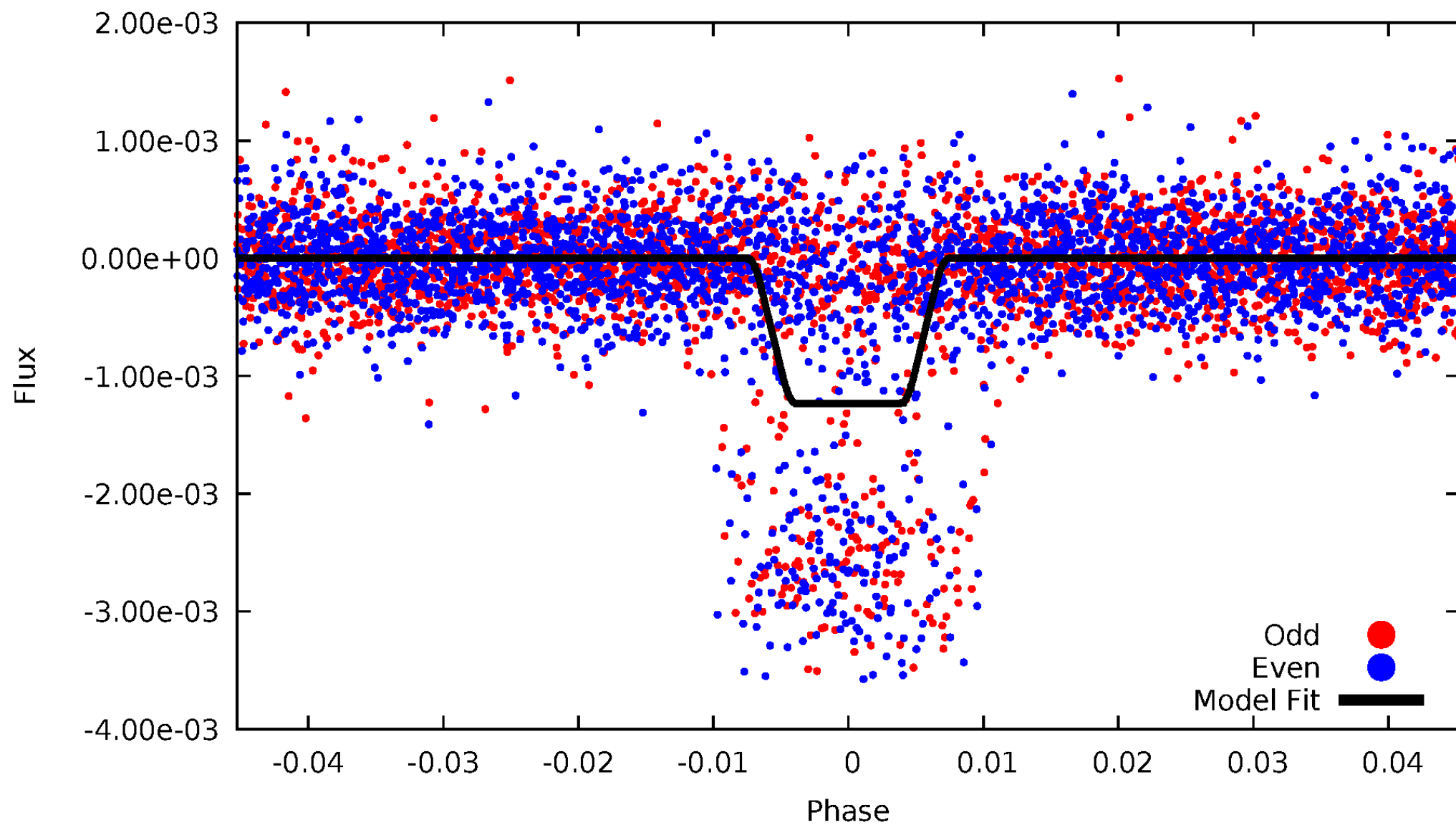
DV Odd/Even

TCE 007434875-02



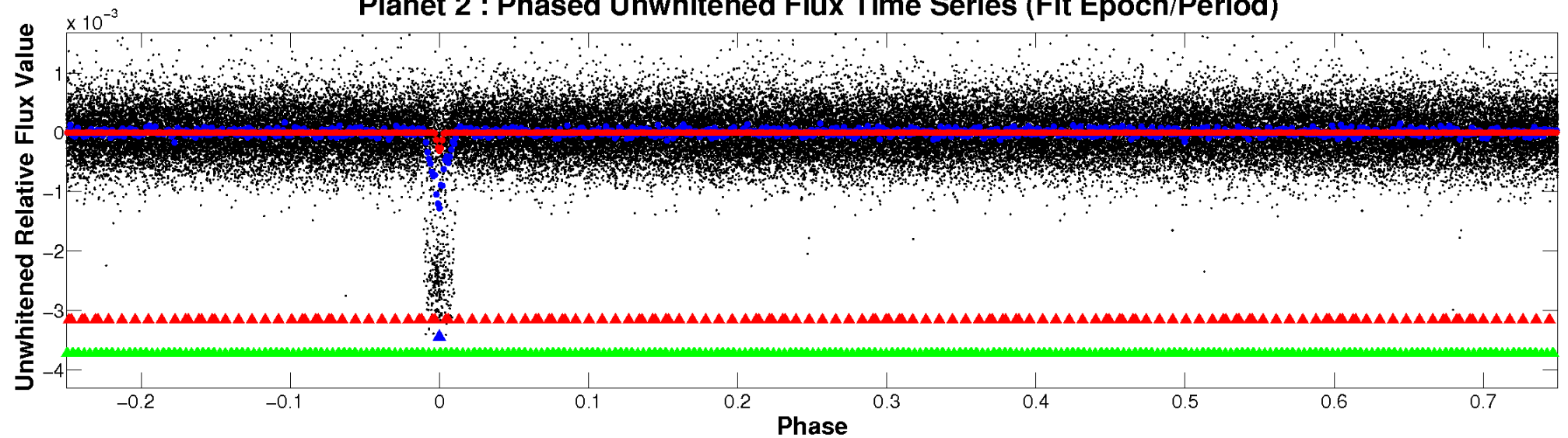
ALT Odd/Even

TCE 007434875-02

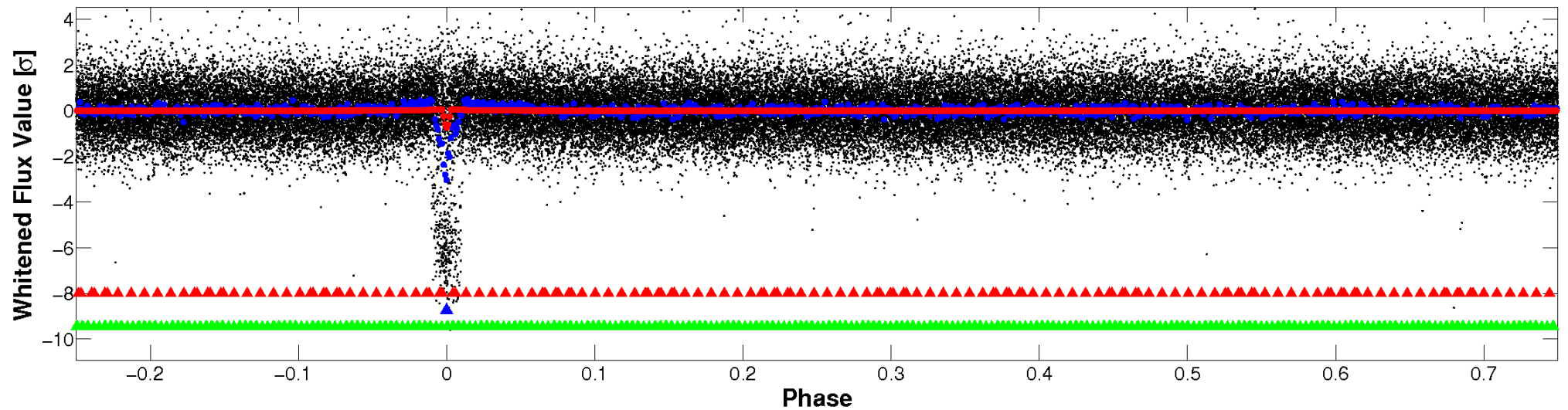


Non-Whitened Vs. Whitened Light Curve

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

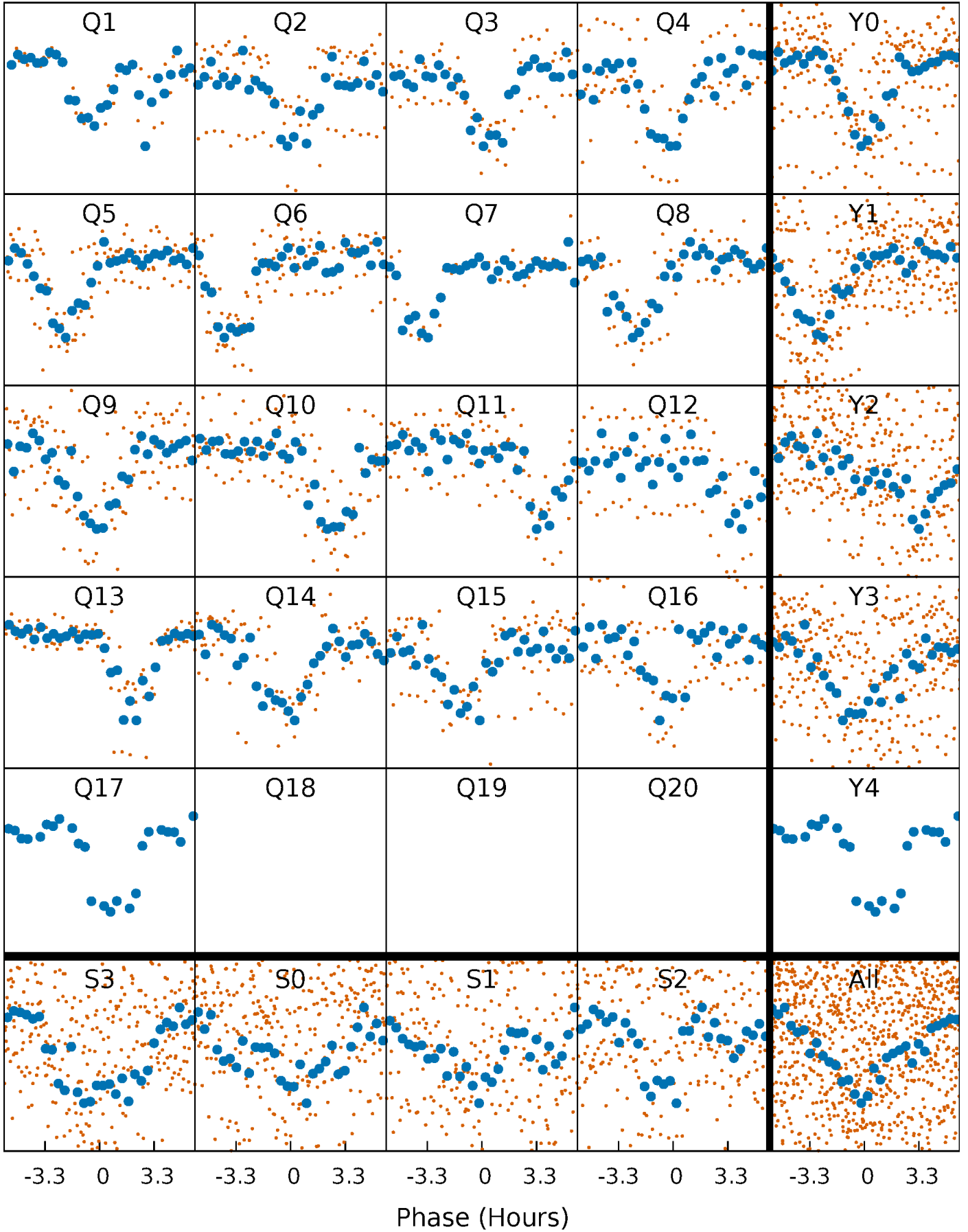


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



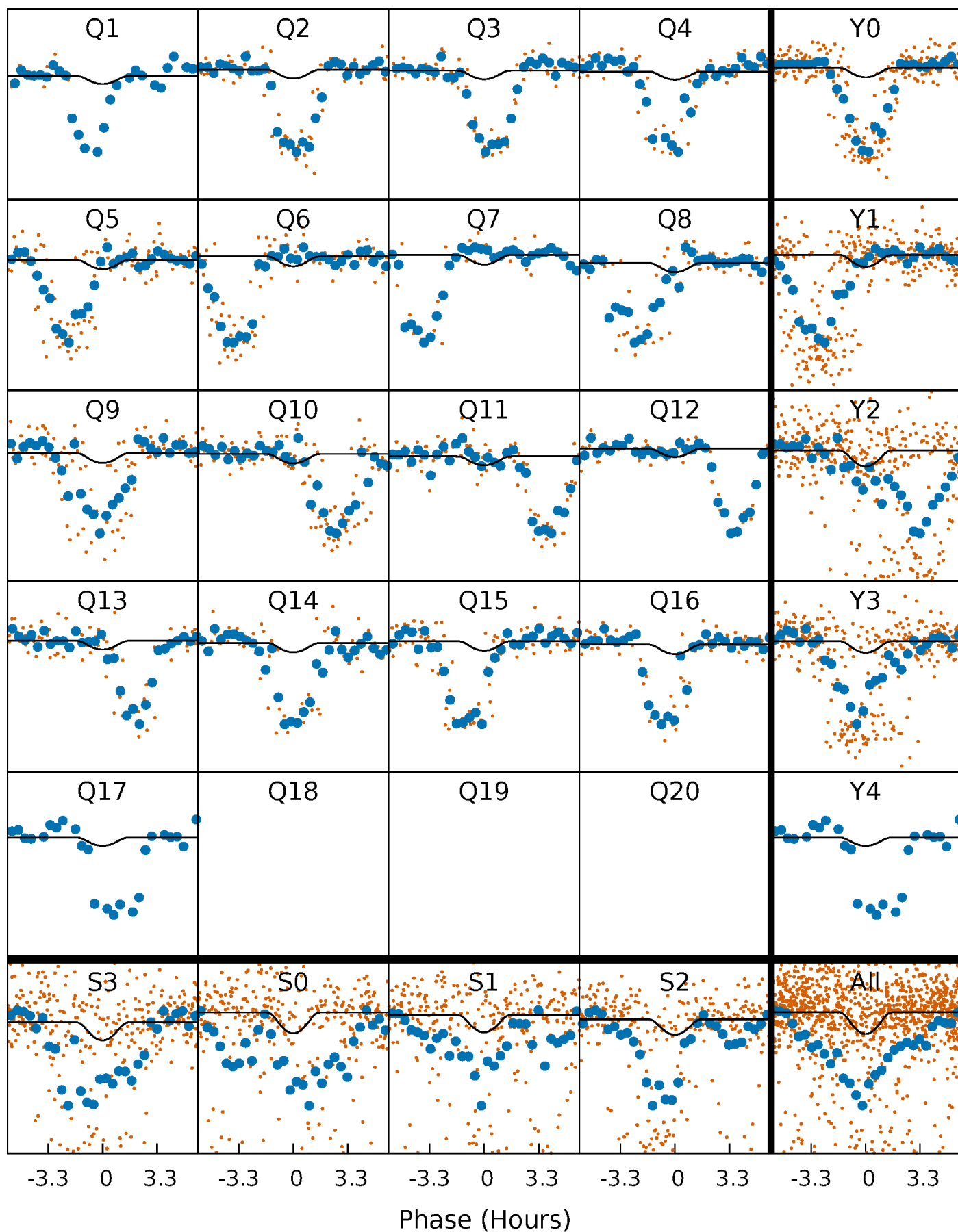
PDC Quarter-Phased Transit Curves

TCE 007434875-02 P= 20.482529 Days $T_0=137.701696$ (BKJD)



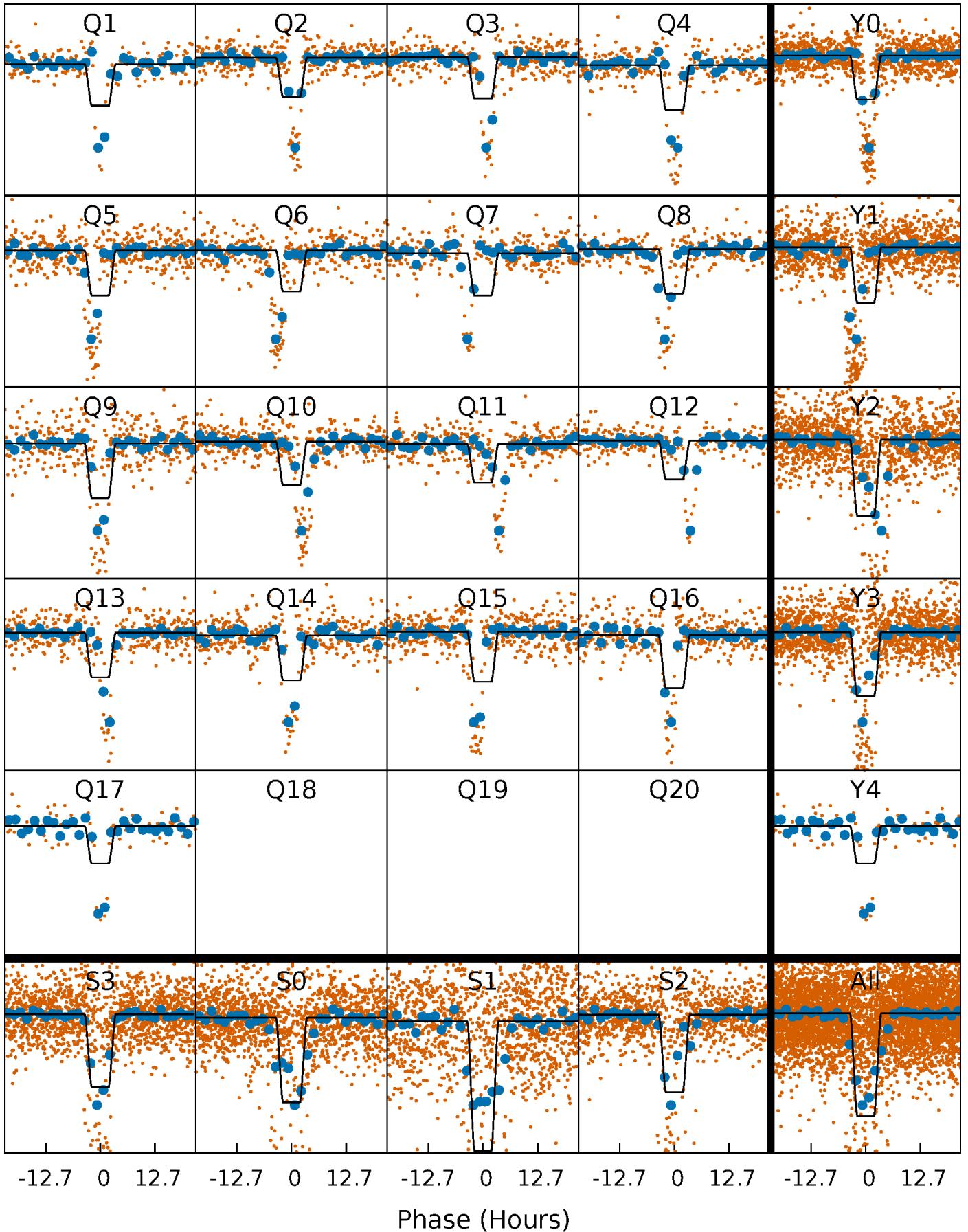
DV Quarter-Phased Transit Curves

TCE 007434875-02 P= 20.482529 Days $T_0=137.701696$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

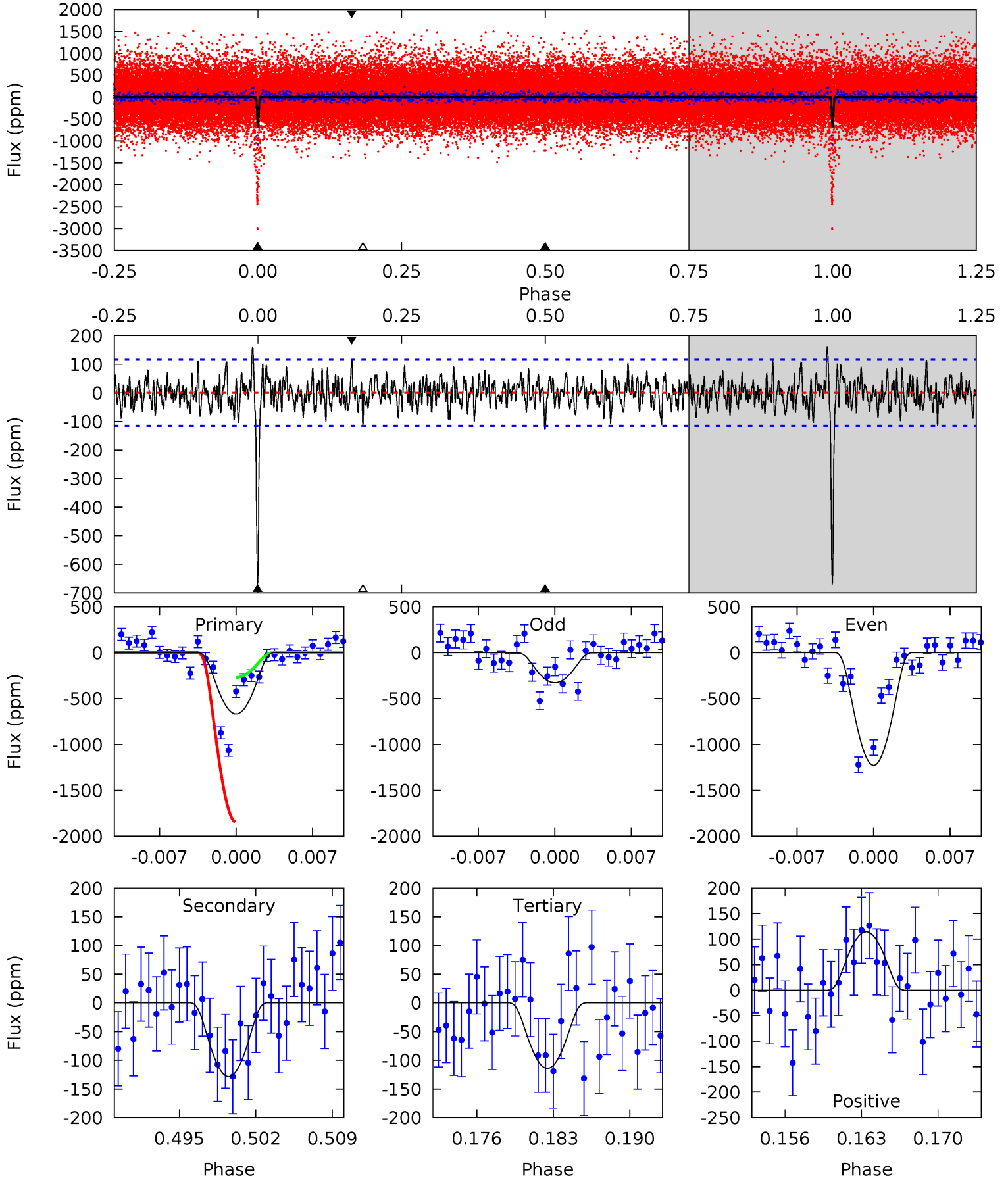
TCE 007434875-02 $P = 20.483297$ Days $T_0 = 137.670848$ (BKJD)



DV Model-Shift Uniqueness Test

007434875-02, P = 20.482529 Days, E = 117.219167 Days

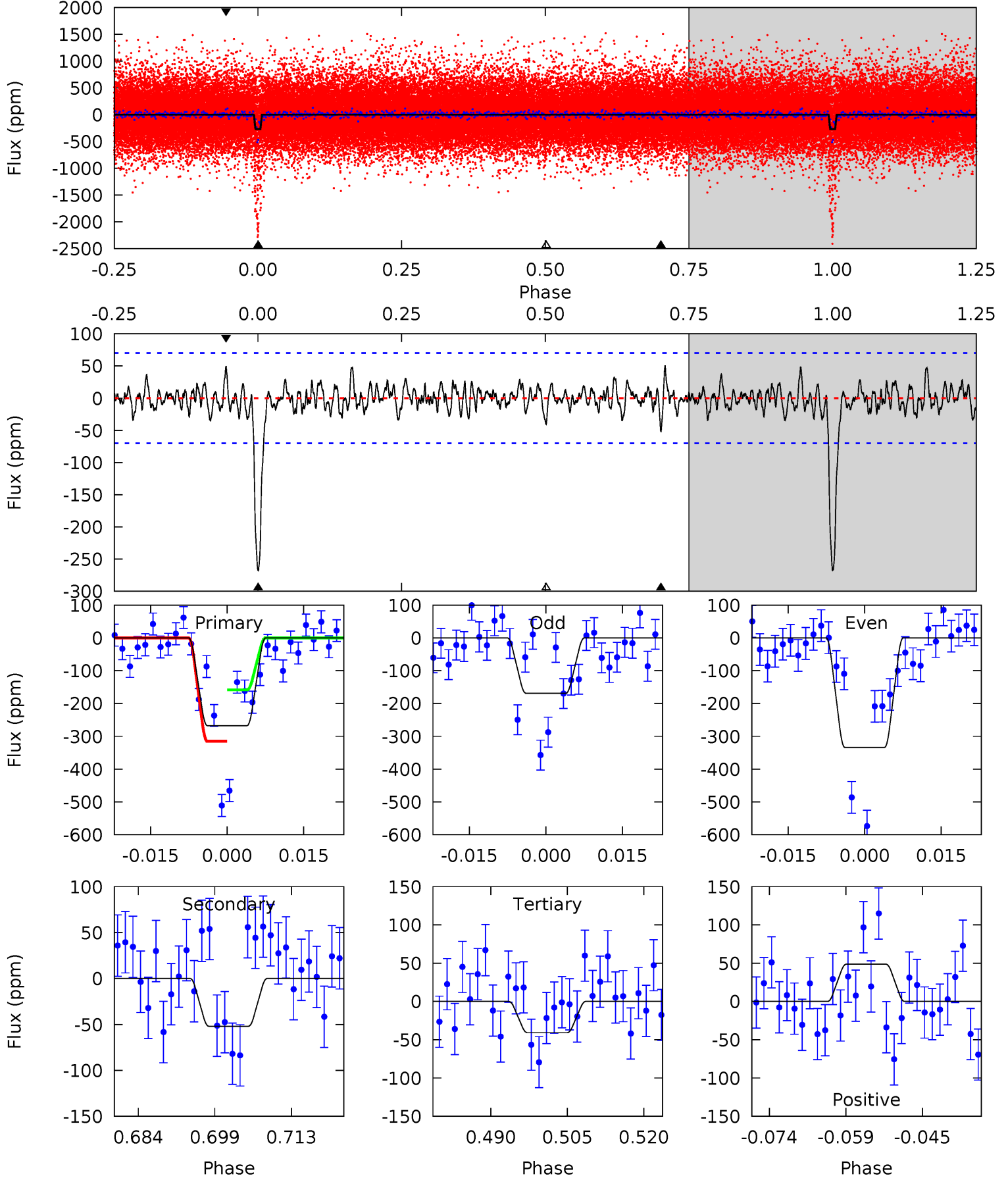
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
29.6	5.69	5.04	5.05	5.10	2.71	1.72	24.5	24.5	0.64	0.63	20.0	1.00	0.19	34.4



Alt Model-Shift Uniqueness Test

007434875-02, P = 20.483297 Days, E = 117.187551 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
18.9	3.67	2.89	3.44	4.95	2.44	1.01	16.0	15.5	0.78	0.24	5.80	0.88	0.16	5.50



Stellar Parameters For KIC 007434875

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5097^{+152}_{-152}	$4.597^{+0.025}_{-0.085}$	$0.210^{+0.200}_{-0.350}$	$0.779^{+0.093}_{-0.053}$	$0.891^{+0.039}_{-0.097}$	$2.653^{+0.370}_{-0.696}$
	+3%/-3%	+1%/-2%	+95%/-167%	+12%/-7%	+4%/-11%	+14%/-26%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 007434875-02 / KOI 0884.02

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-129±23	$8.98^{+7.64}_{-6.08}$	750^{+28}_{-27}	2518^{+903}_{-363}	18^{+142}_{-13}
Alt.	-52±14	$8.36^{+7.92}_{-5.69}$	751^{+30}_{-28}	2294^{+819}_{-340}	$8.354^{+74.452}_{-6.290}$

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 $A_{obs} \gg 1.0$

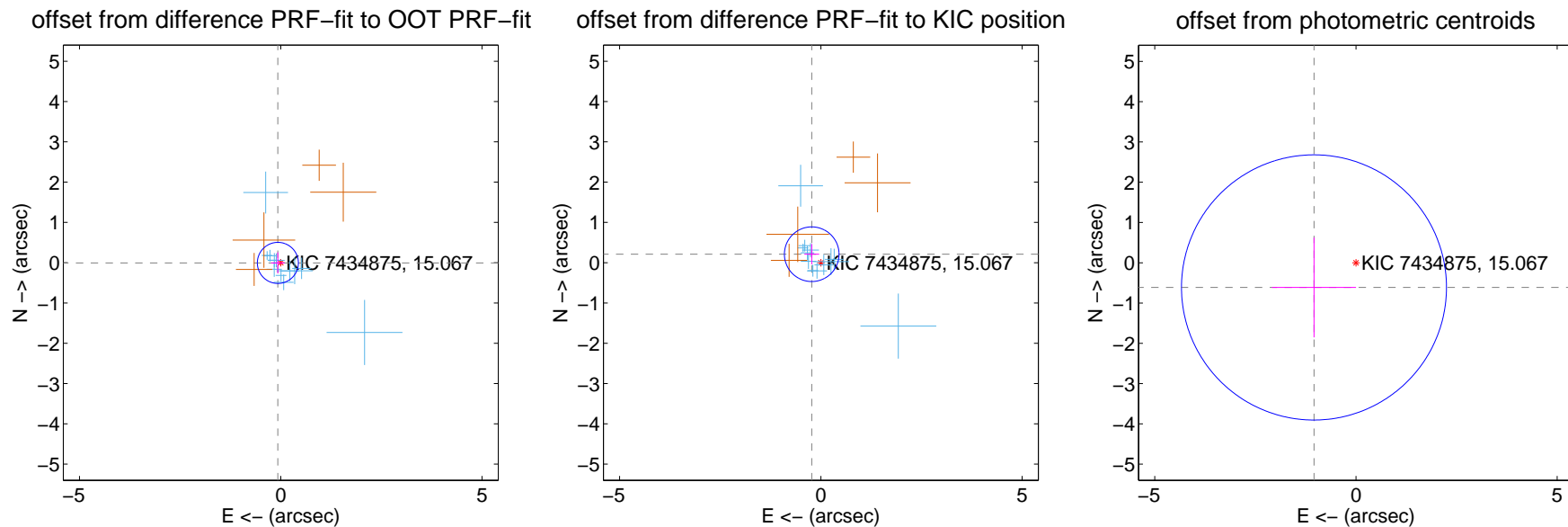
DV Centroid Data

Supplemental centroid analysis for 007434875-02. Kepler magnitude: 15.07. Transit SNR 6.42

There are 12 quarters with good PRF difference image offsets

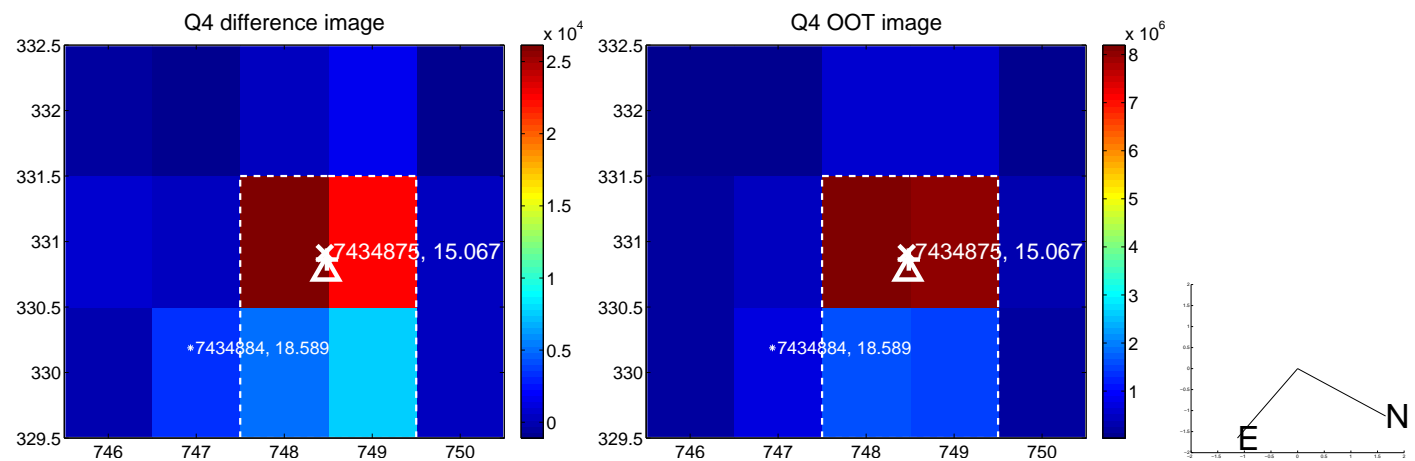
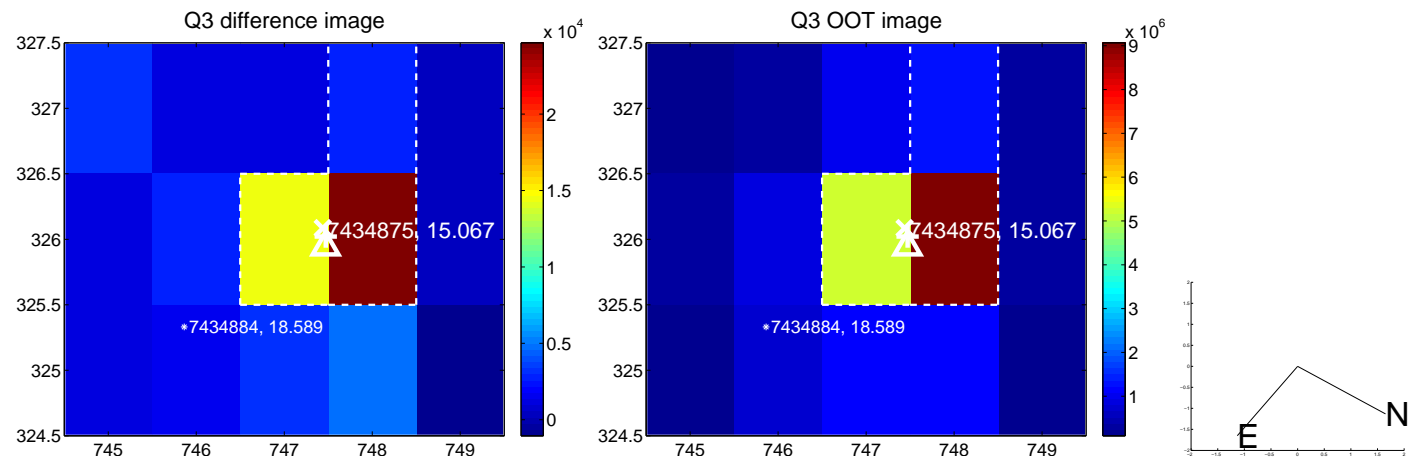
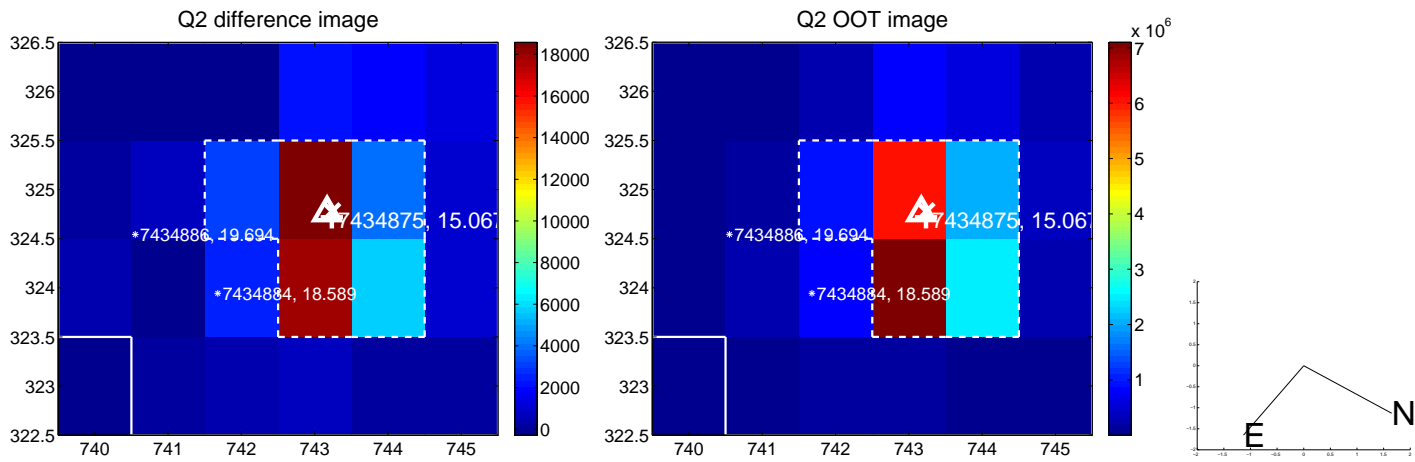
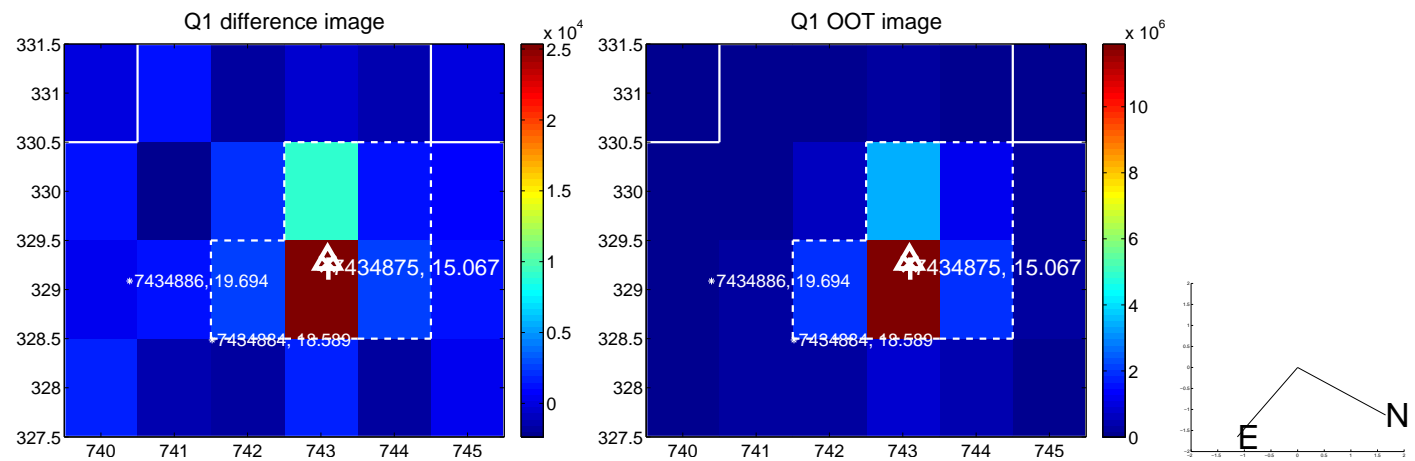
The direct PRF centroid is offset from the target star catalog position by about 0.29 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.072 ± 0.170	0.42	0.072 ± 0.170	-0.005 ± 0.262
PRF-fit source offset from KIC position	0.310 ± 0.226	1.37	0.227 ± 0.184	0.211 ± 0.252
photometric centroid source offset	1.21 ± 1.10	1.10	1.04 ± 1.04	-0.61 ± 1.24

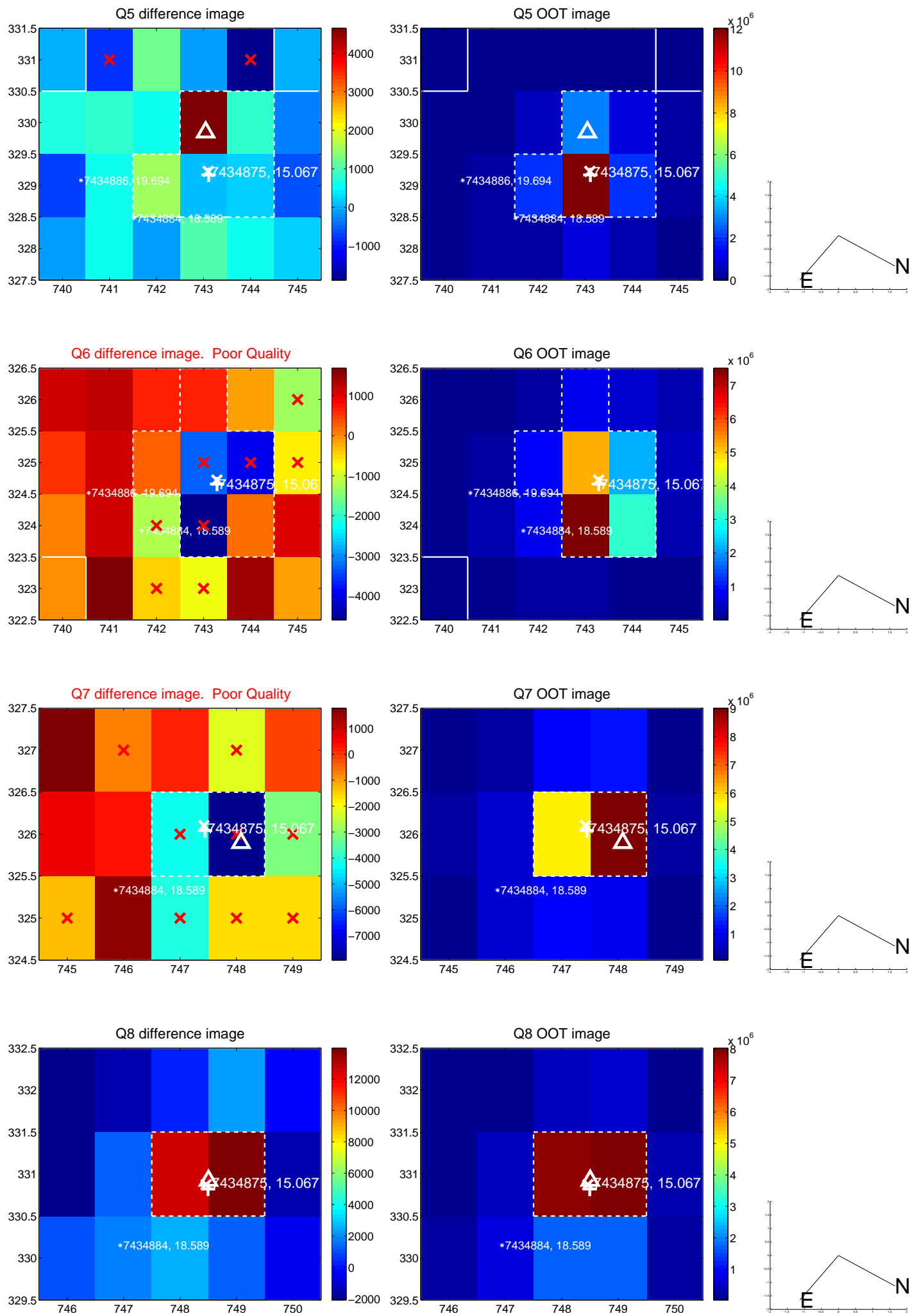


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

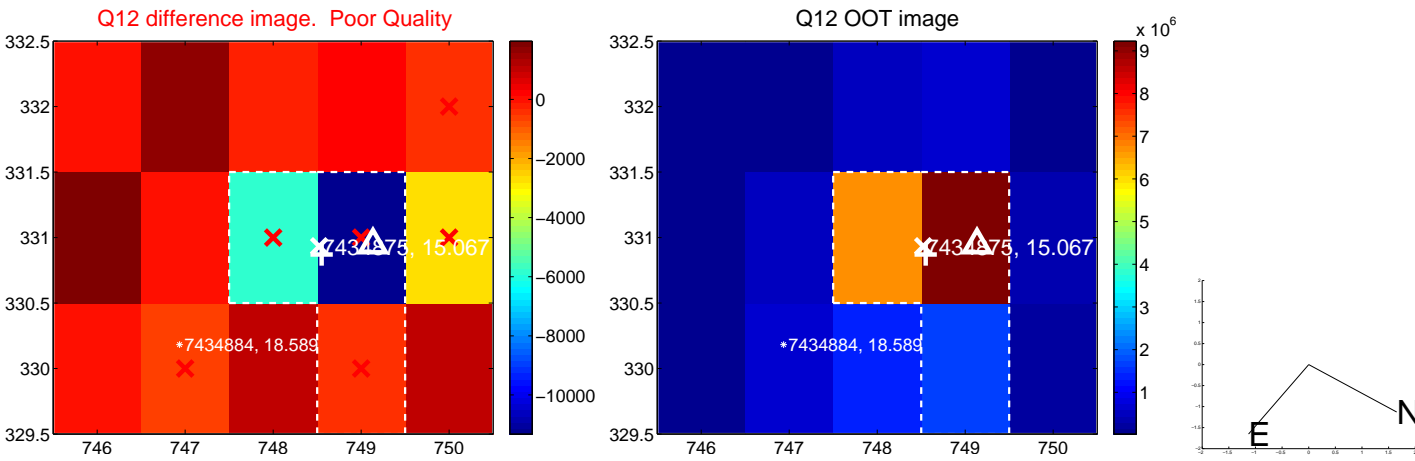
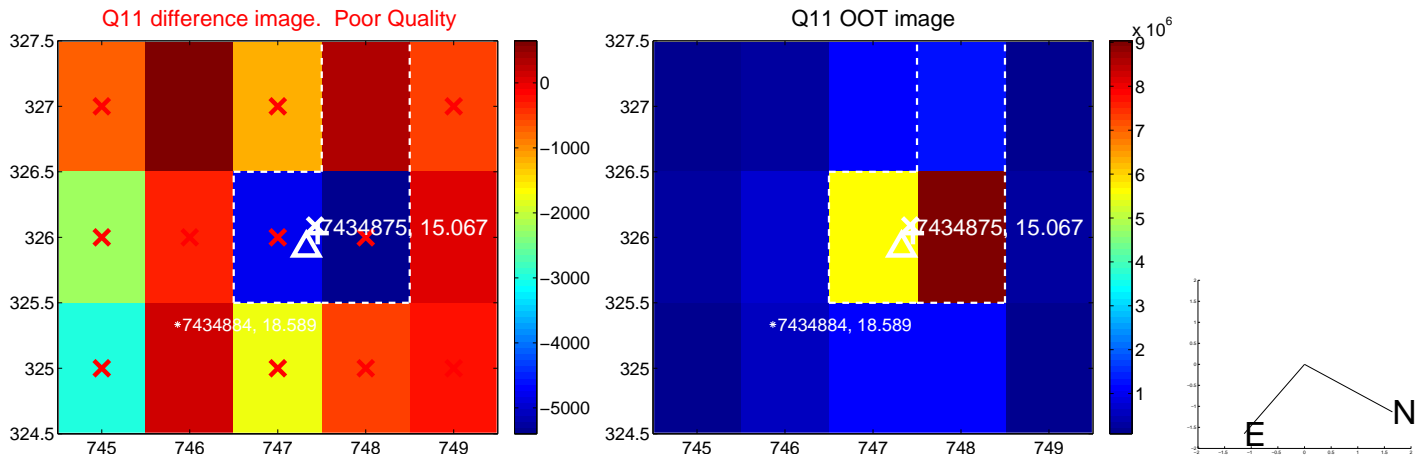
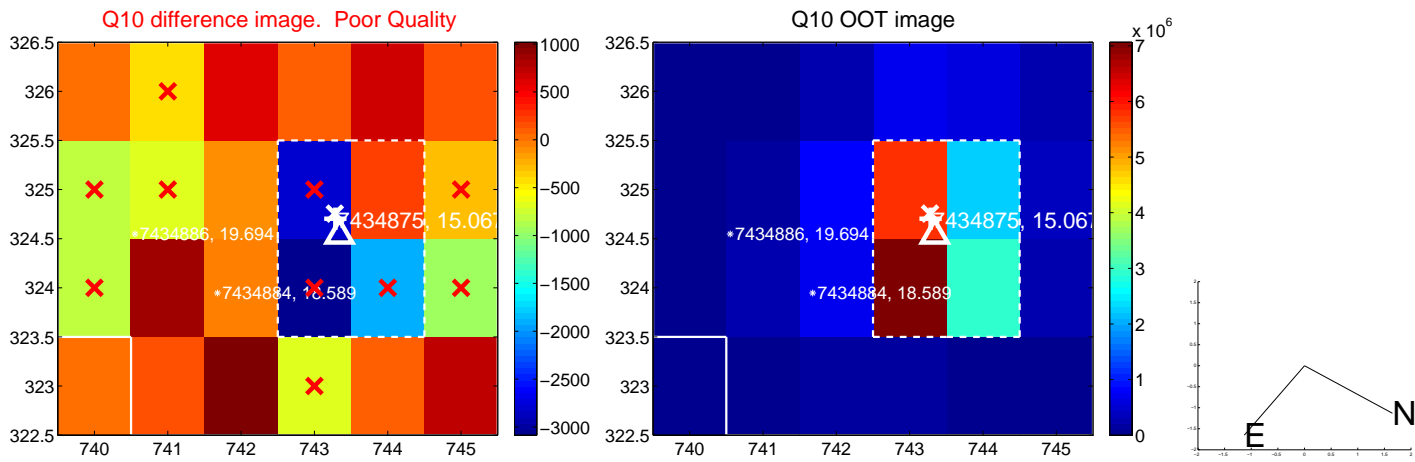
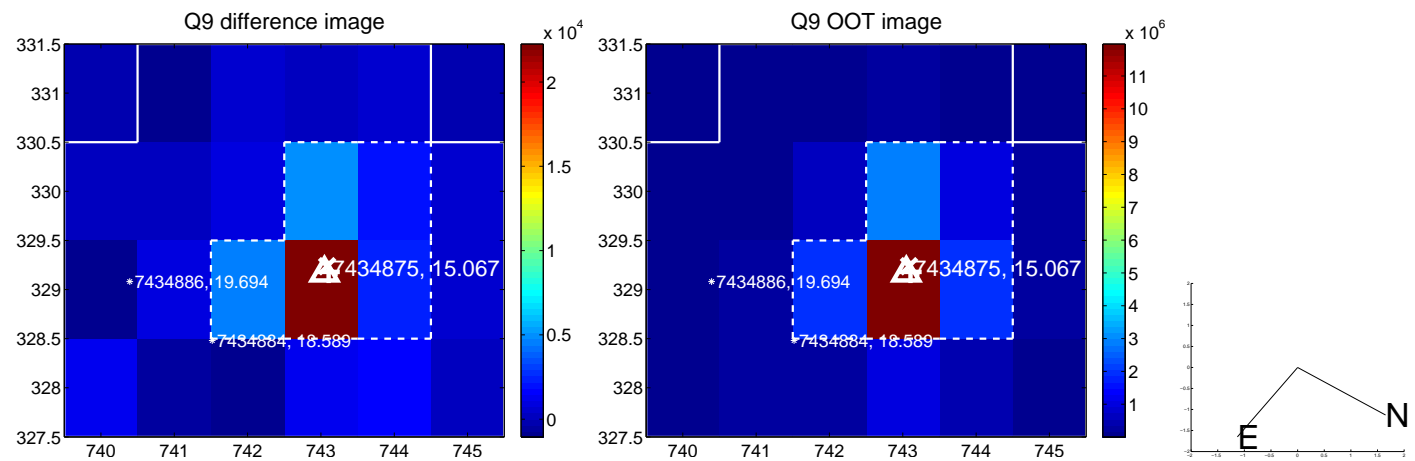
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



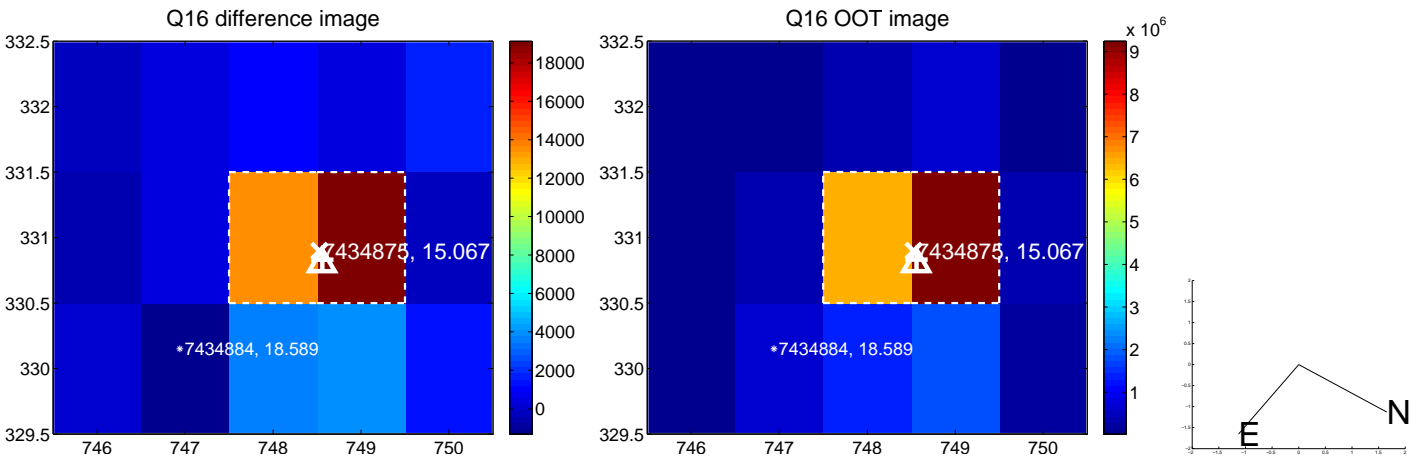
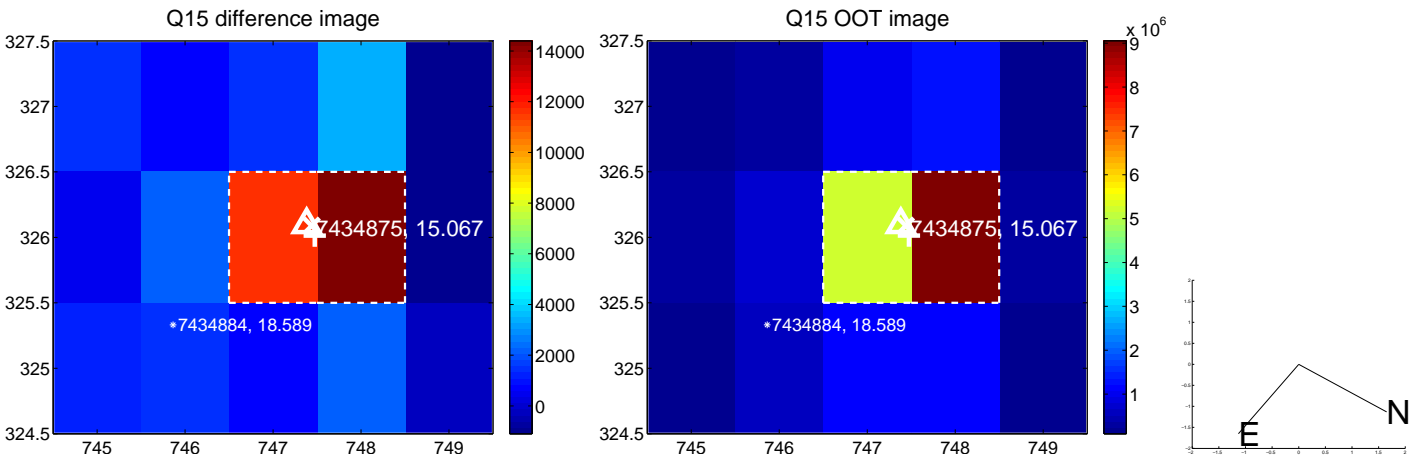
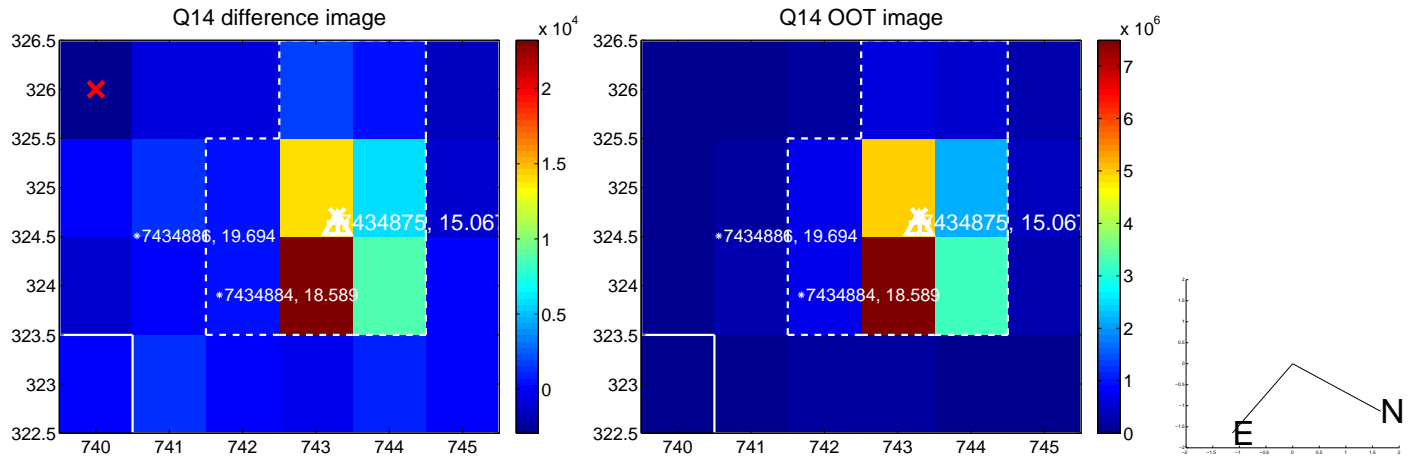
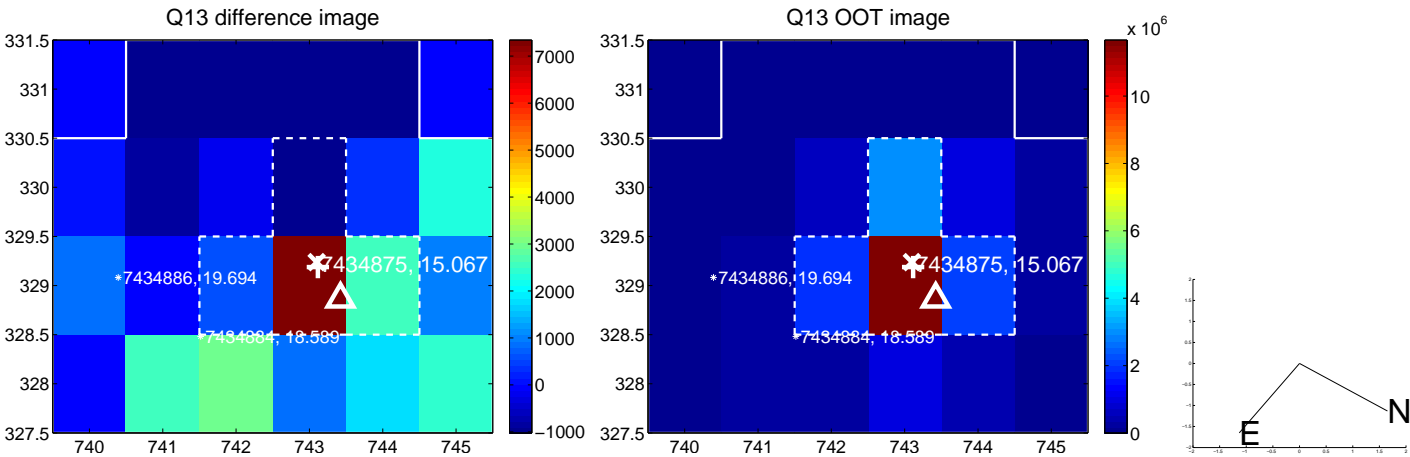
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



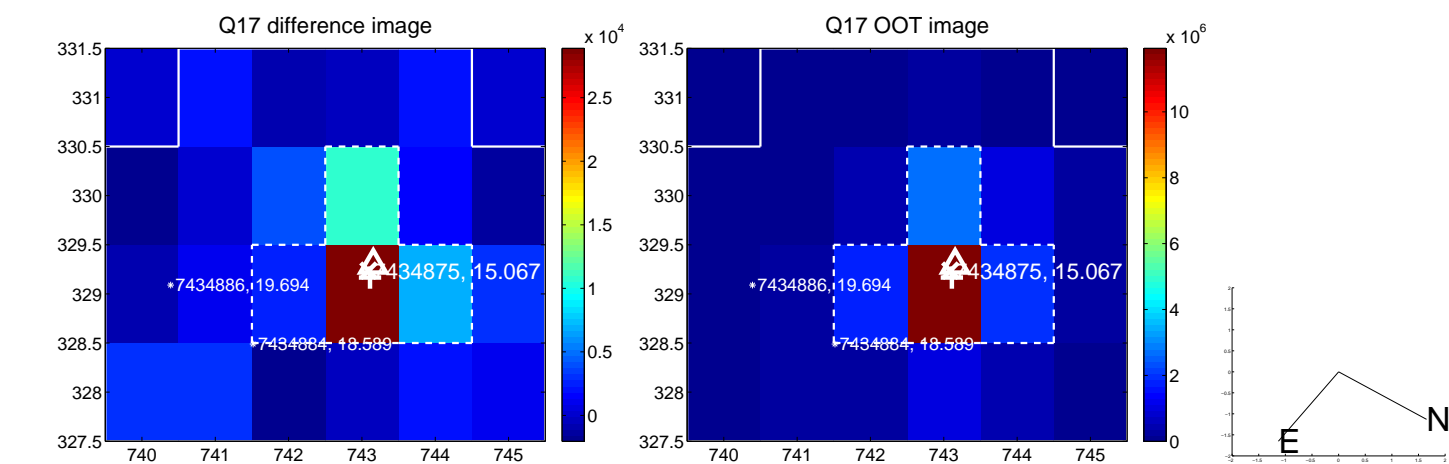
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



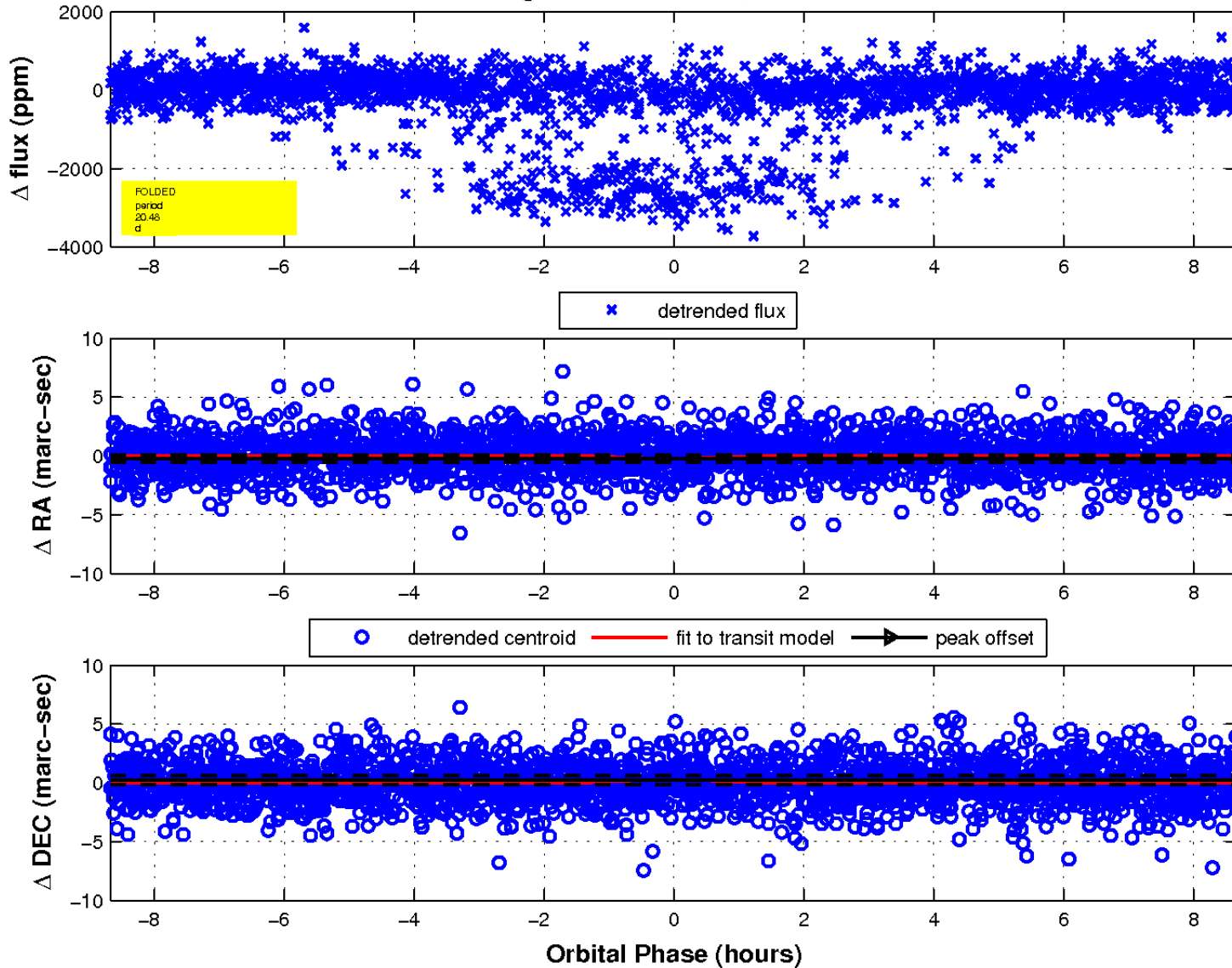
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

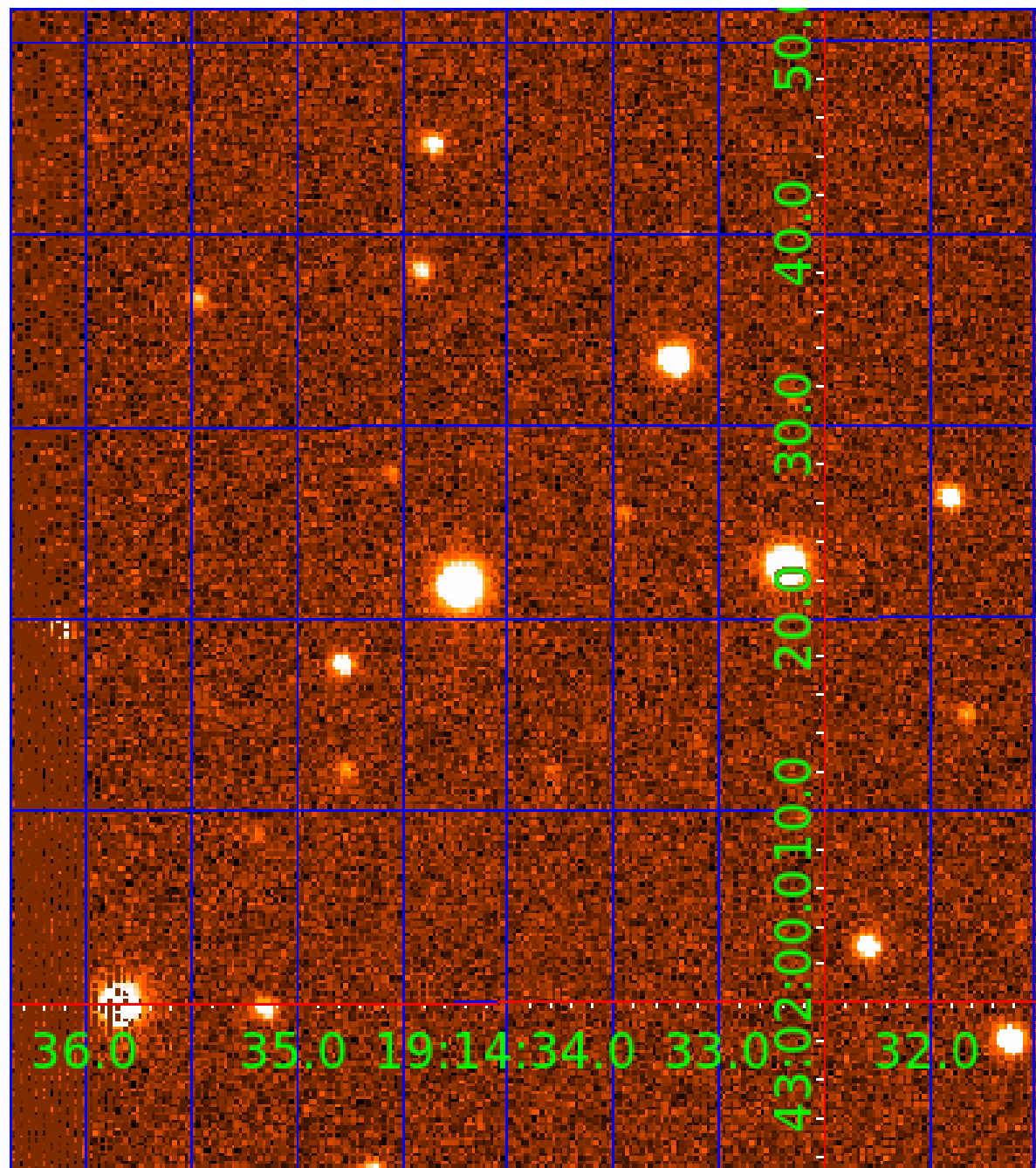


fluxWeightedCentroids, Planet 2 of 3



UKIRT Image

Declination



KIC 007434875

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})
007434875-01	OBS	0884.01	9.439466	139.427558	3041.3	3.045	163.4	161.2	0.78	5097	4.65	52.47
007434875-02	OBS	0884.02	20.482529	137.701696	313.7	2.893	45.4	6.4	0.78	5097	2.71	18.68
007434875-03	OBS	0884.03	3.336122	131.980426	412.2	2.408	30.8	34.2	0.78	5097	1.97	209.99

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007434875-01	OBS	PC	1.00	0	0	0	0	NO_COMMENT
007434875-02	OBS	FP	0.00	1	0	0	0	LPP_DV
007434875-03	OBS	PC	1.00	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.

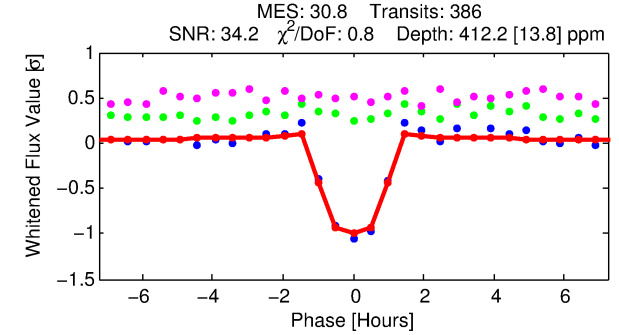
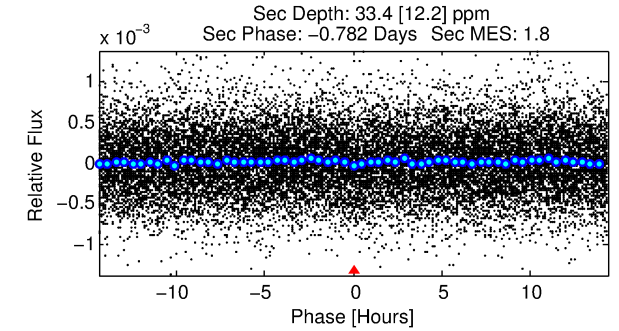
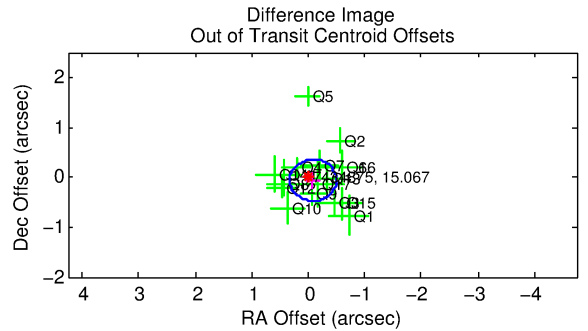
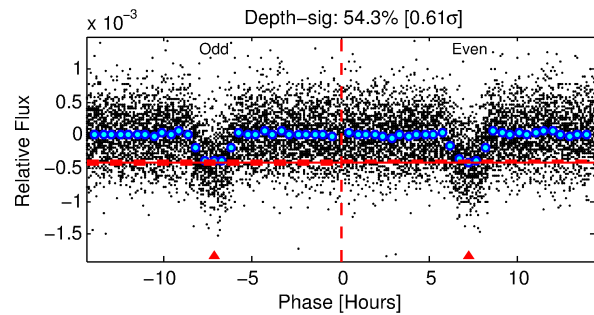
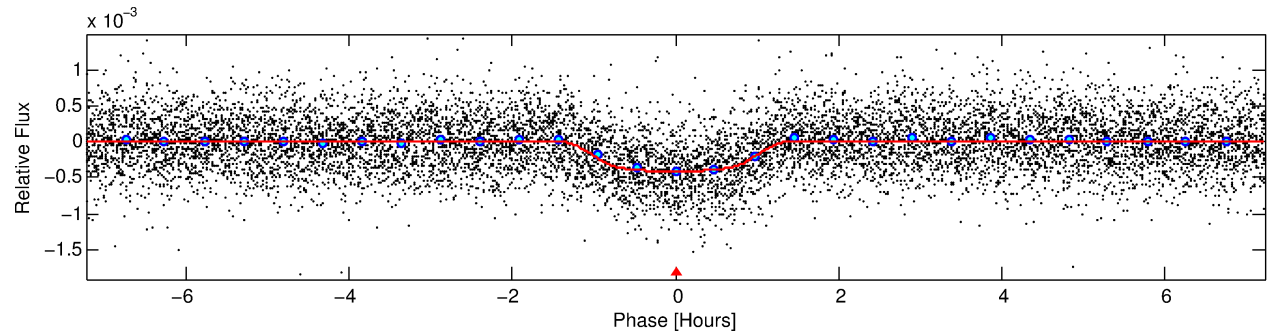
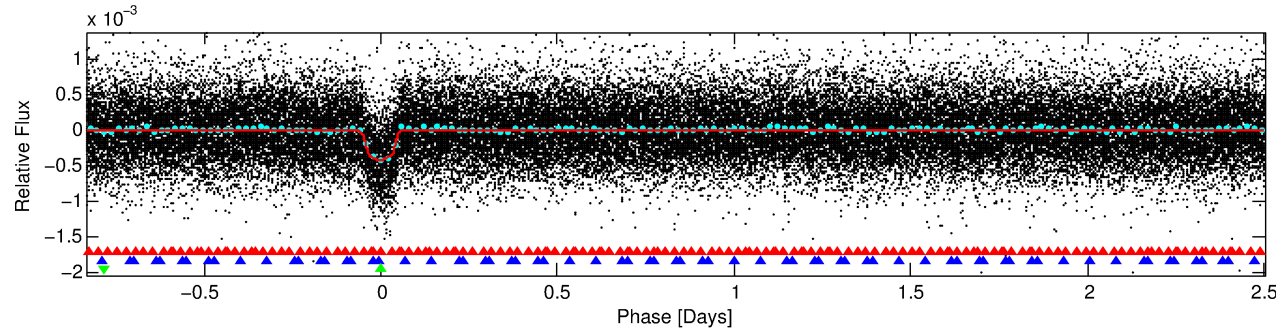
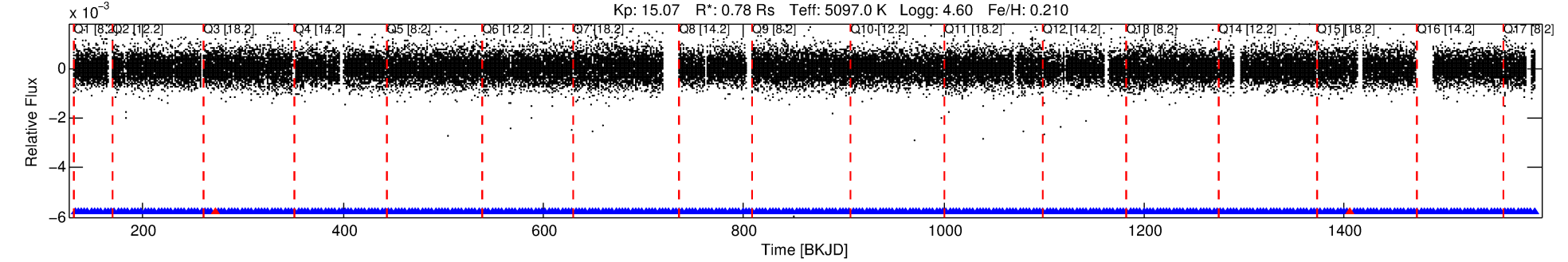
Ephemeris Match Information For 007434875-03

No Significant Match Found

DV One-Page Summary

KIC: 7434875 Candidate: 3 of 3 Period: 3.336 d
KOI: K00884.03 Name: Kepler-247b Corr: 0.939

Kp: 15.07 R*: 0.78 Rs Teff: 5097.0 K Logg: 4.60 Fe/H: 0.210



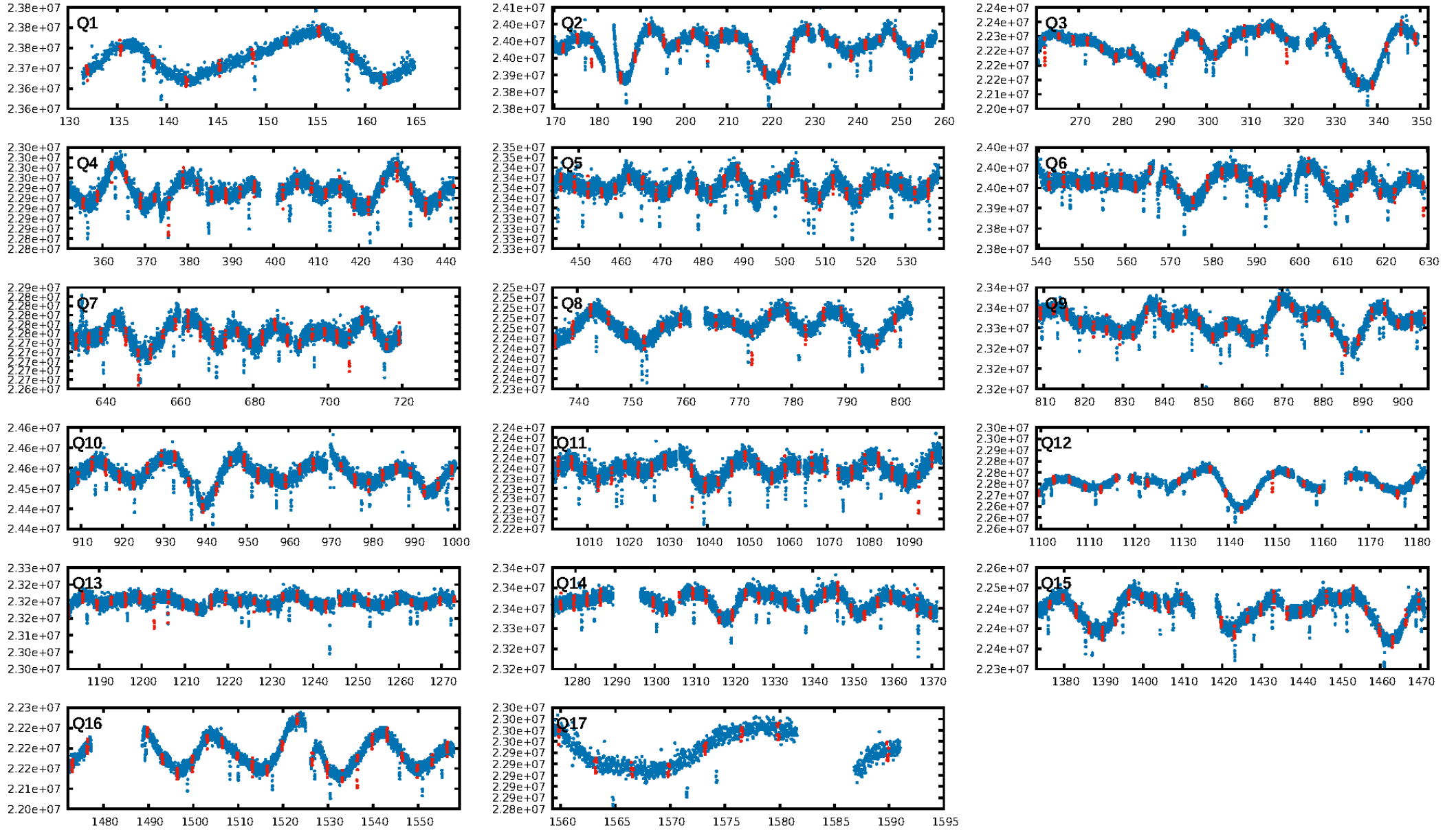
DV Fit Results:

Period = 3.33612 [0.00001] d
Epoch = 131.9804 [0.0011] BKJD
Rp/R* = 0.0231 [0.0026]
a/R* = 4.93 [2.11]
b = 0.92 [0.08]
Seff = 209.99 [40.71]
Teff = 971 [47] K
Rp = 1.97 [0.32] Re
a = 0.0418 [0.0043] AU
Ag = 8.32 [3.78] [1.94σ]
Teffp = 2549 [283] K [5.50σ]

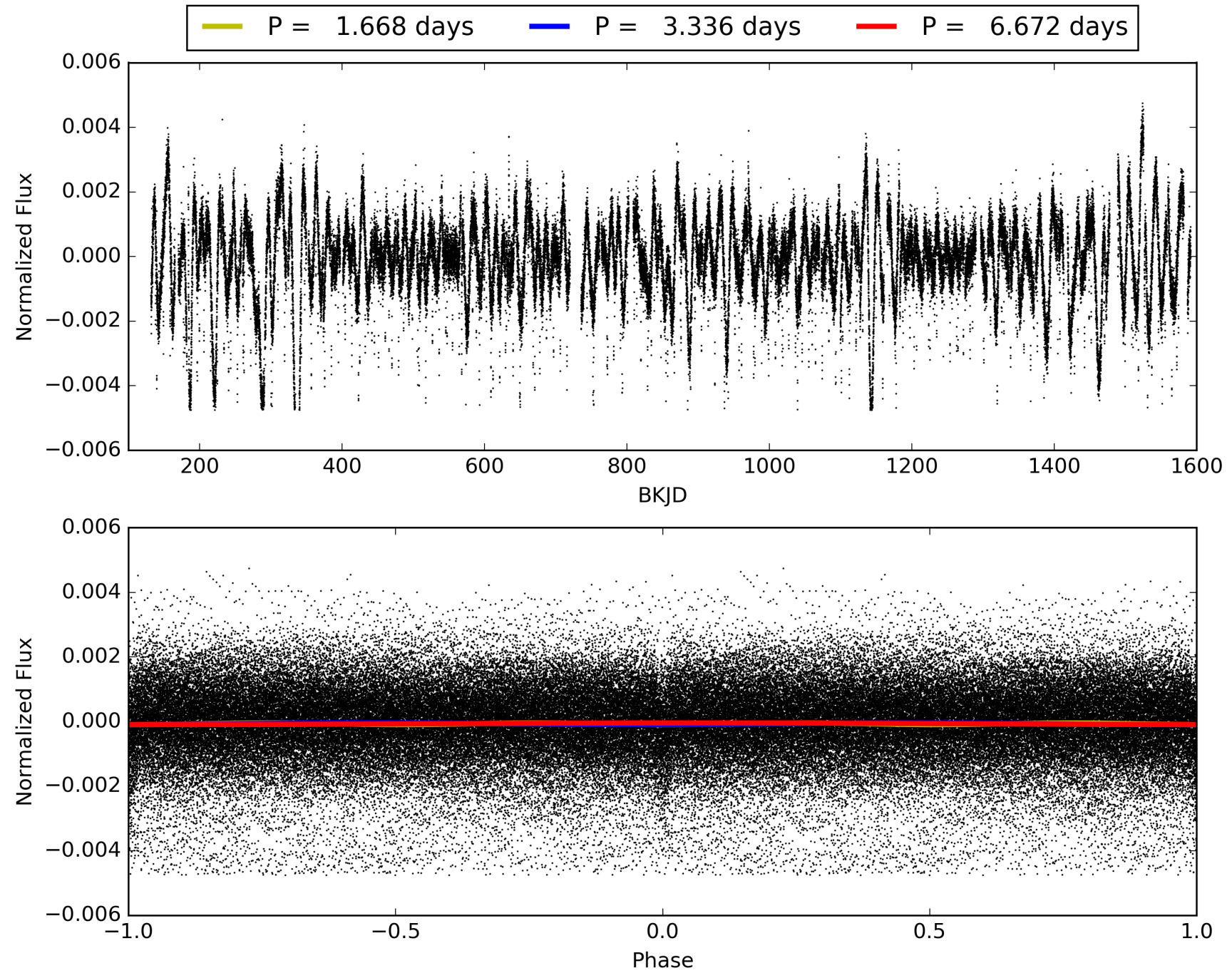
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [37.74σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 5.24e-194
RollingBand-fgt: 0.99 [366/368]
GhostDiagnostic-chr: 4.691
Centroid-sig: 11.5%
Centroid-so: 0.797 arcsec [2.67σ]
OotOffset-rm: 0.104 arcsec [0.75σ]
KicOffset-rm: 0.160 arcsec [1.04σ]
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 007434875-03, PDC Light Curves

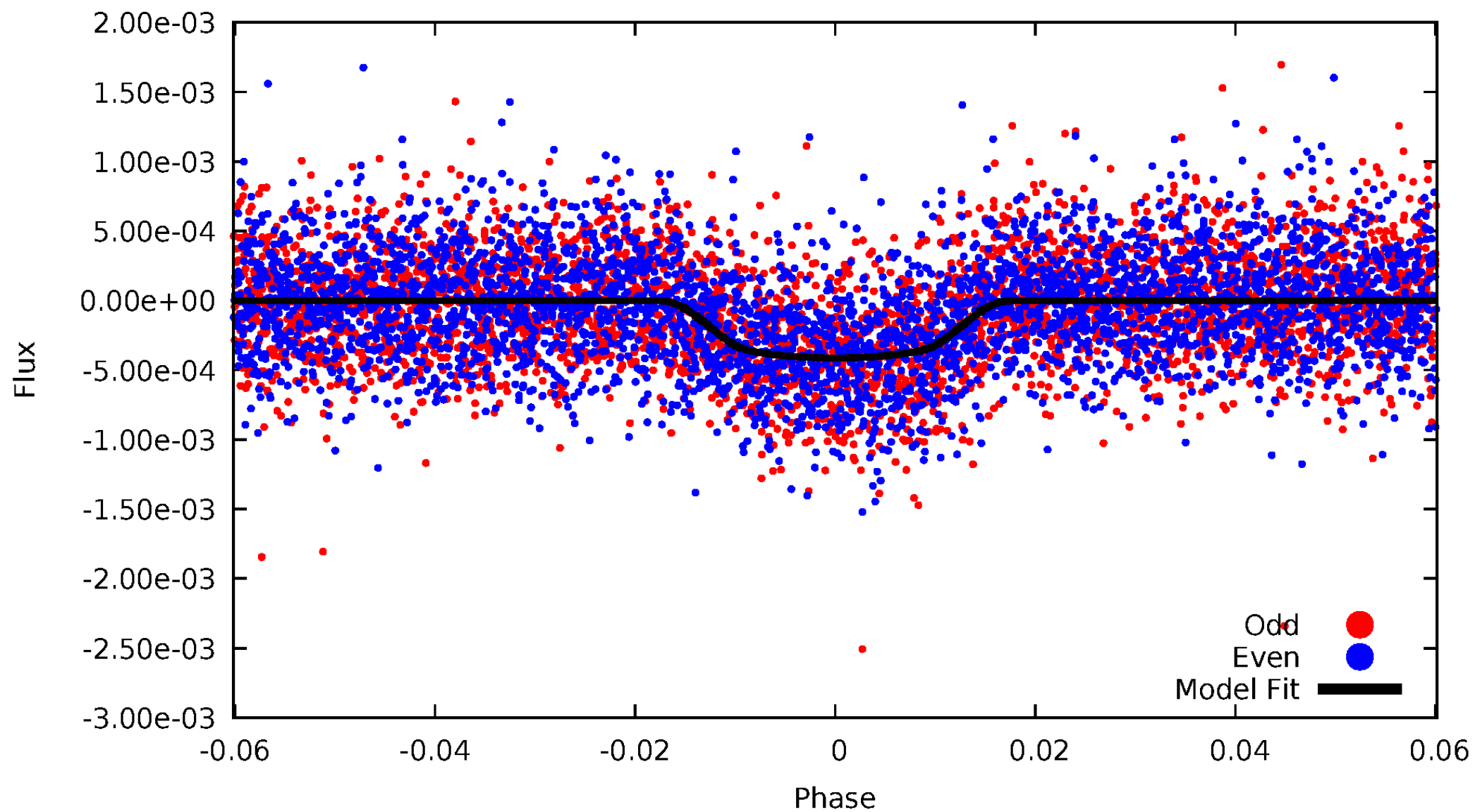


TCE 007434875-03



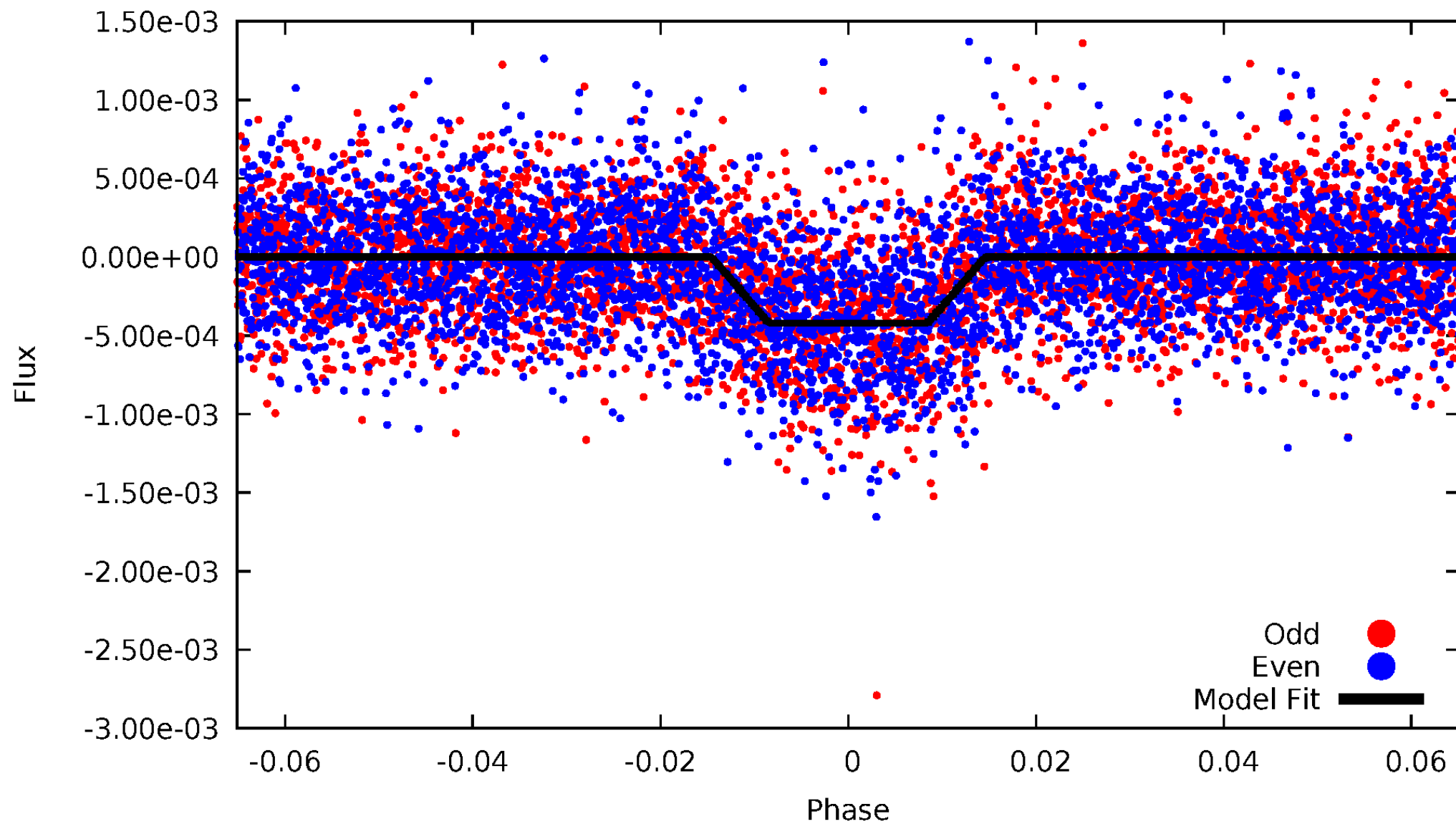
DV Odd/Even

TCE 007434875-03



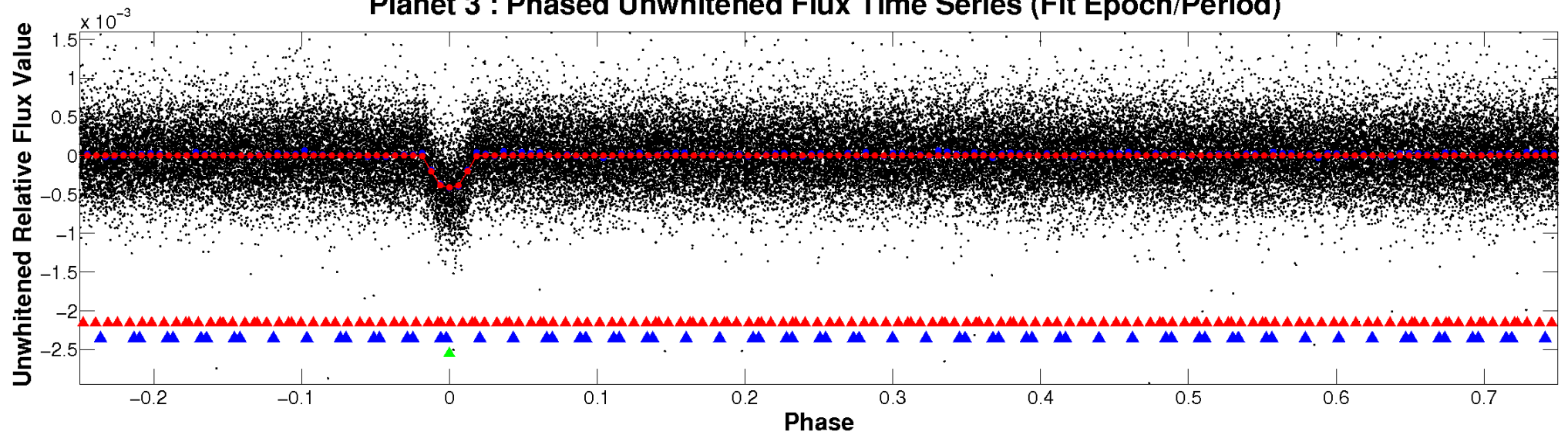
ALT Odd/Even

TCE 007434875-03

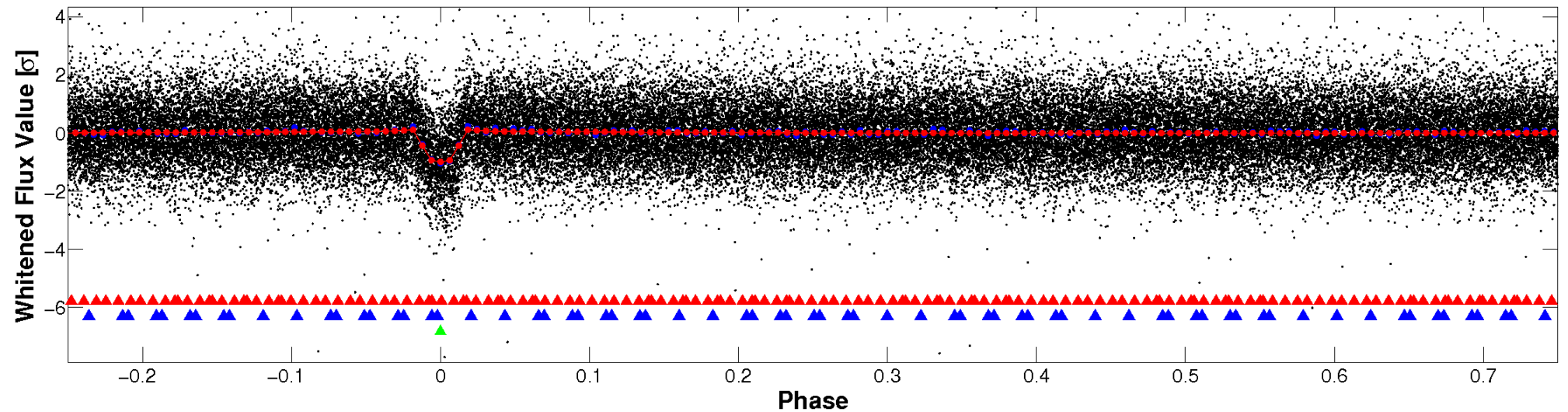


Non-Whitened Vs. Whitened Light Curve

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

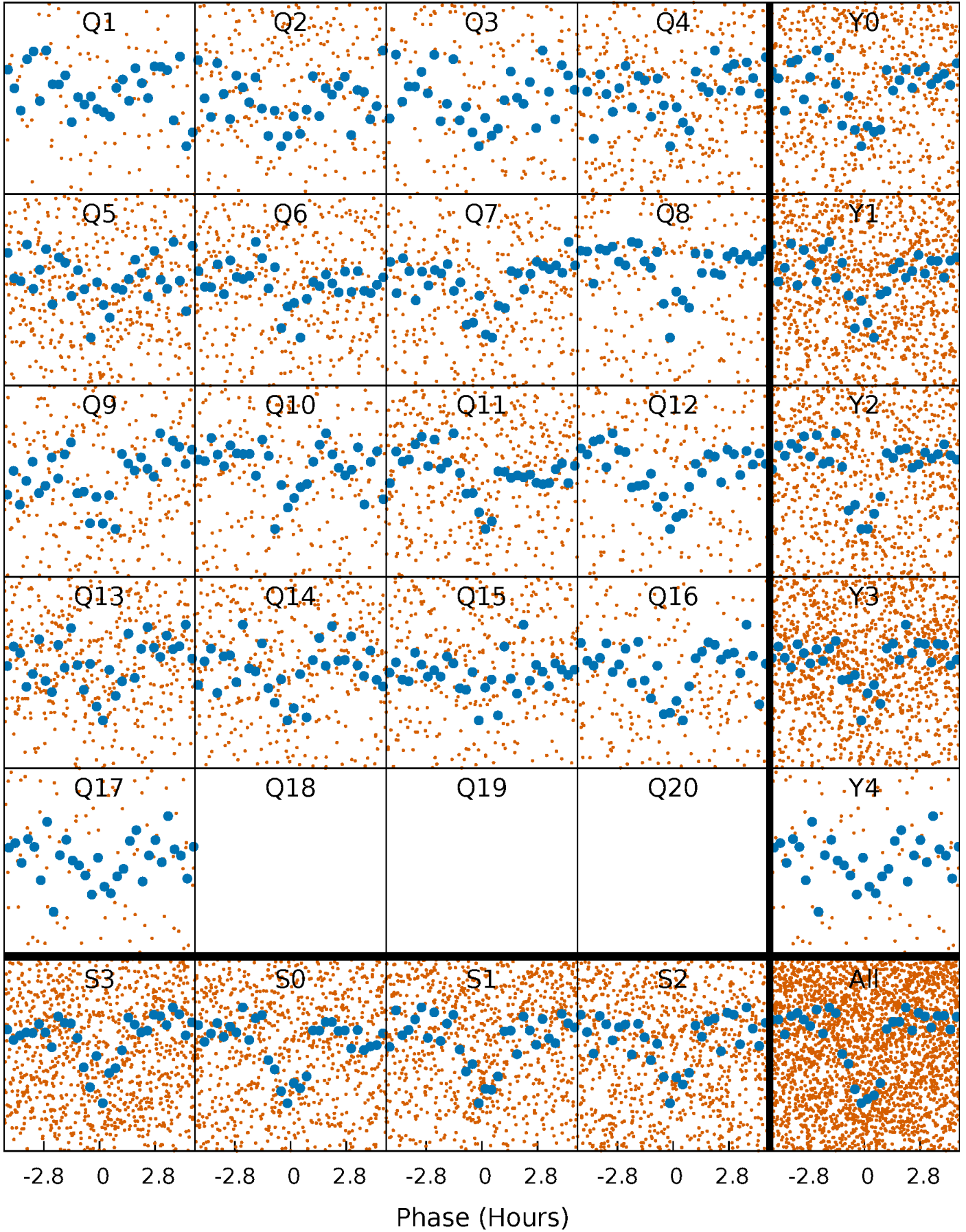


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



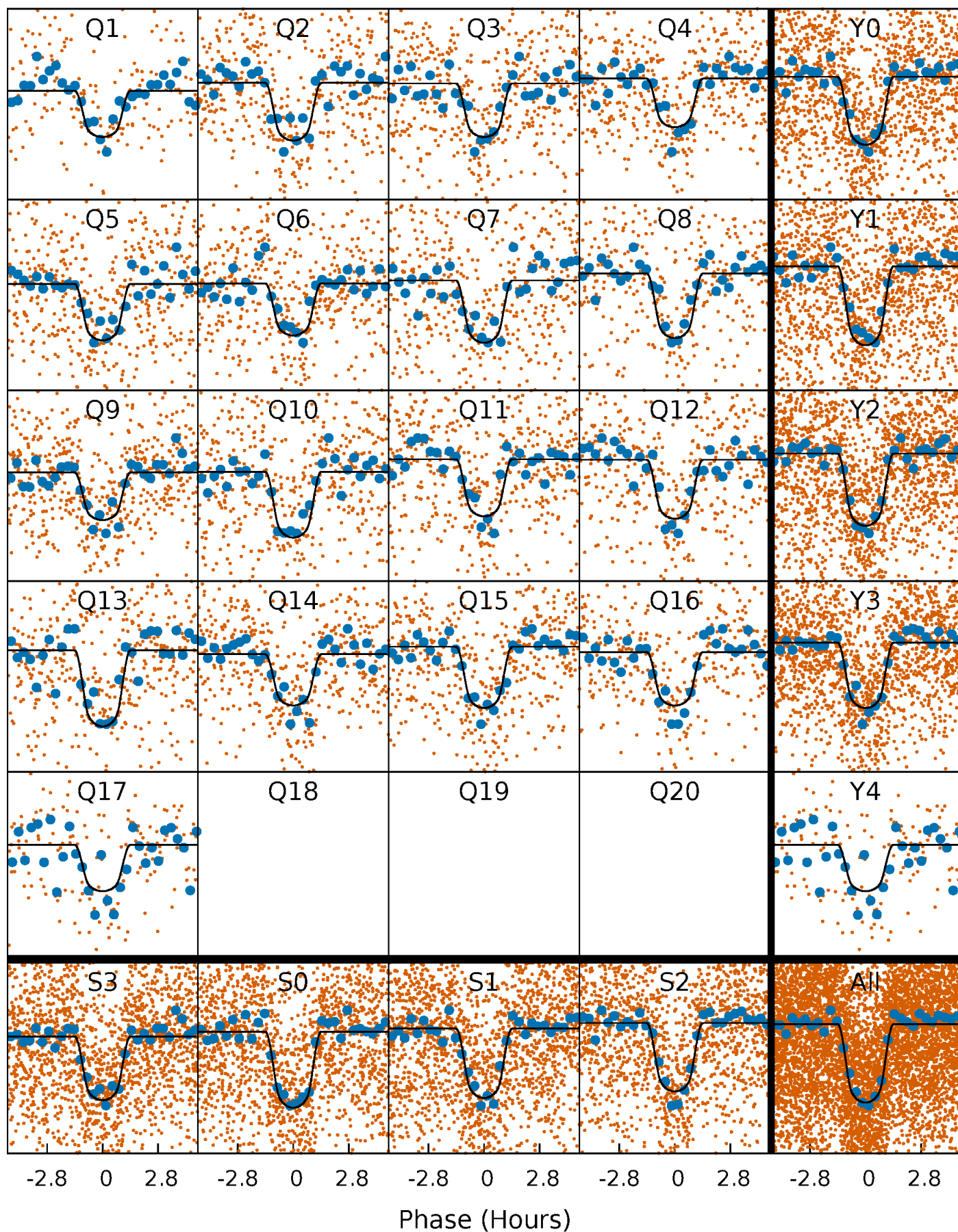
PDC Quarter-Phased Transit Curves

TCE 007434875-03 P= 3.336122 Days $T_0=131.980426$ (BKJD)



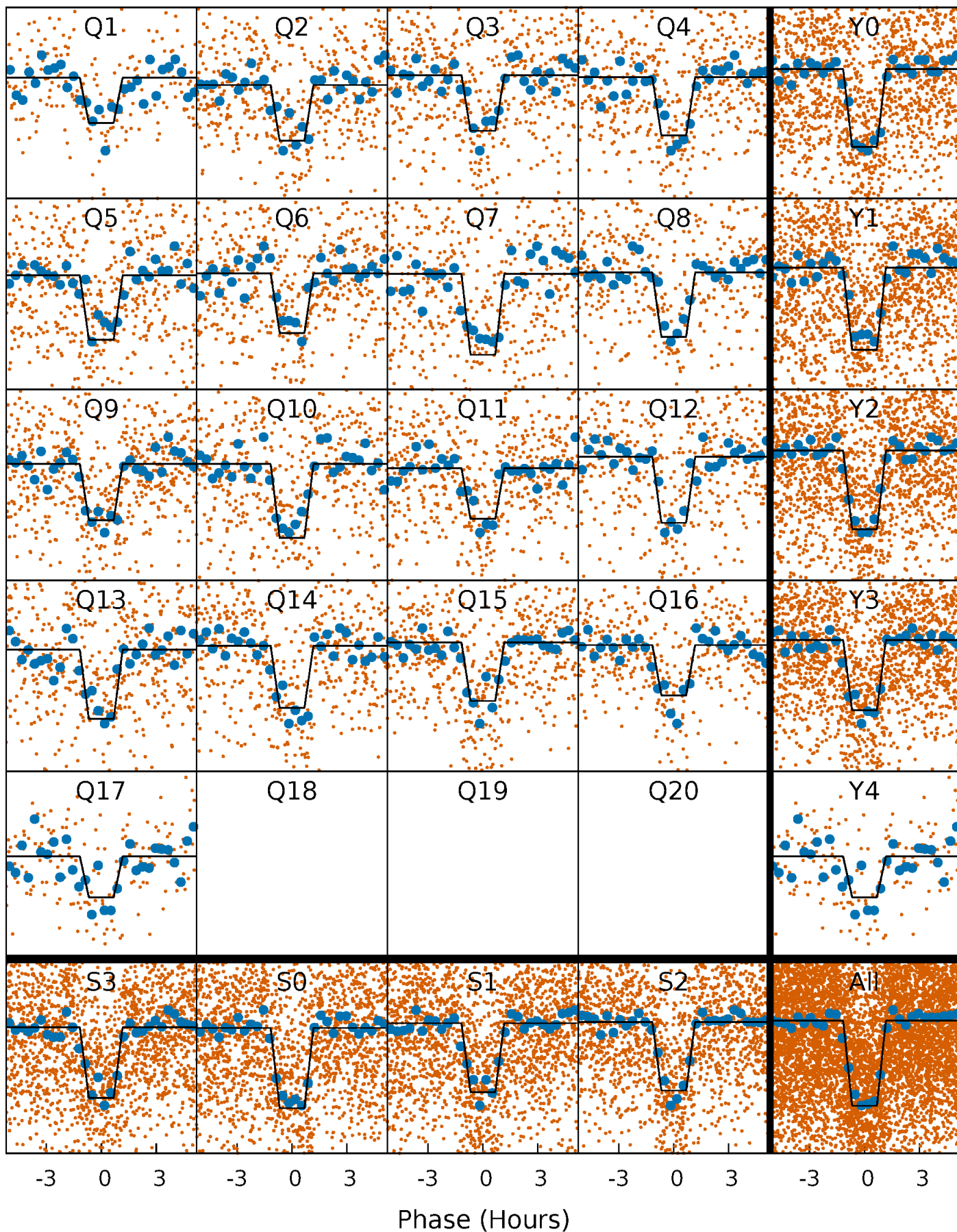
DV Quarter-Phased Transit Curves

TCE 007434875-03 P= 3.336122 Days $T_0=131.980426$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

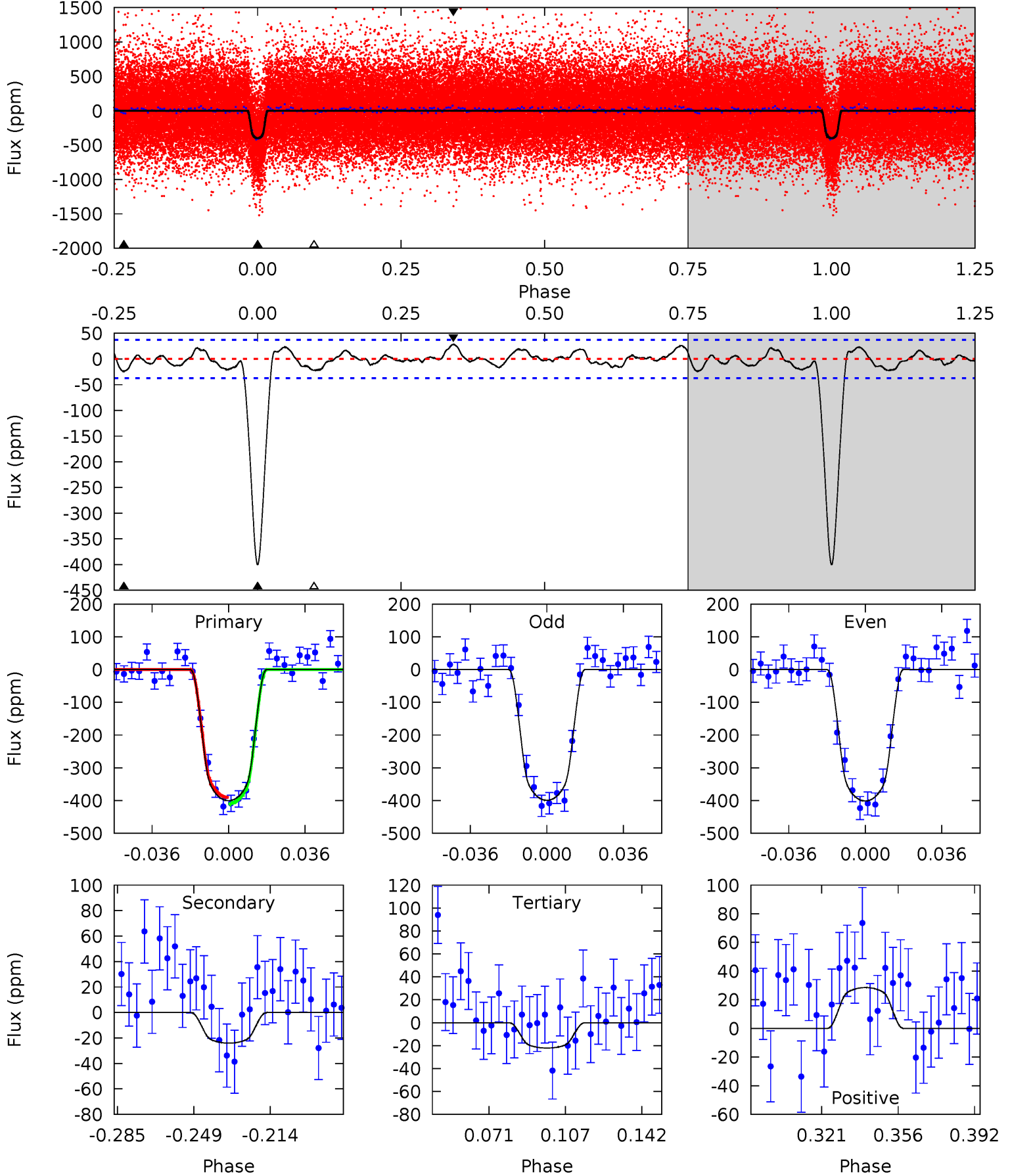
TCE 007434875-03 P= 3.336143 Days $T_0=131.976169$ (BKJD)



DV Model-Shift Uniqueness Test

007434875-03, P = 3.336122 Days, E = 128.644304 Days

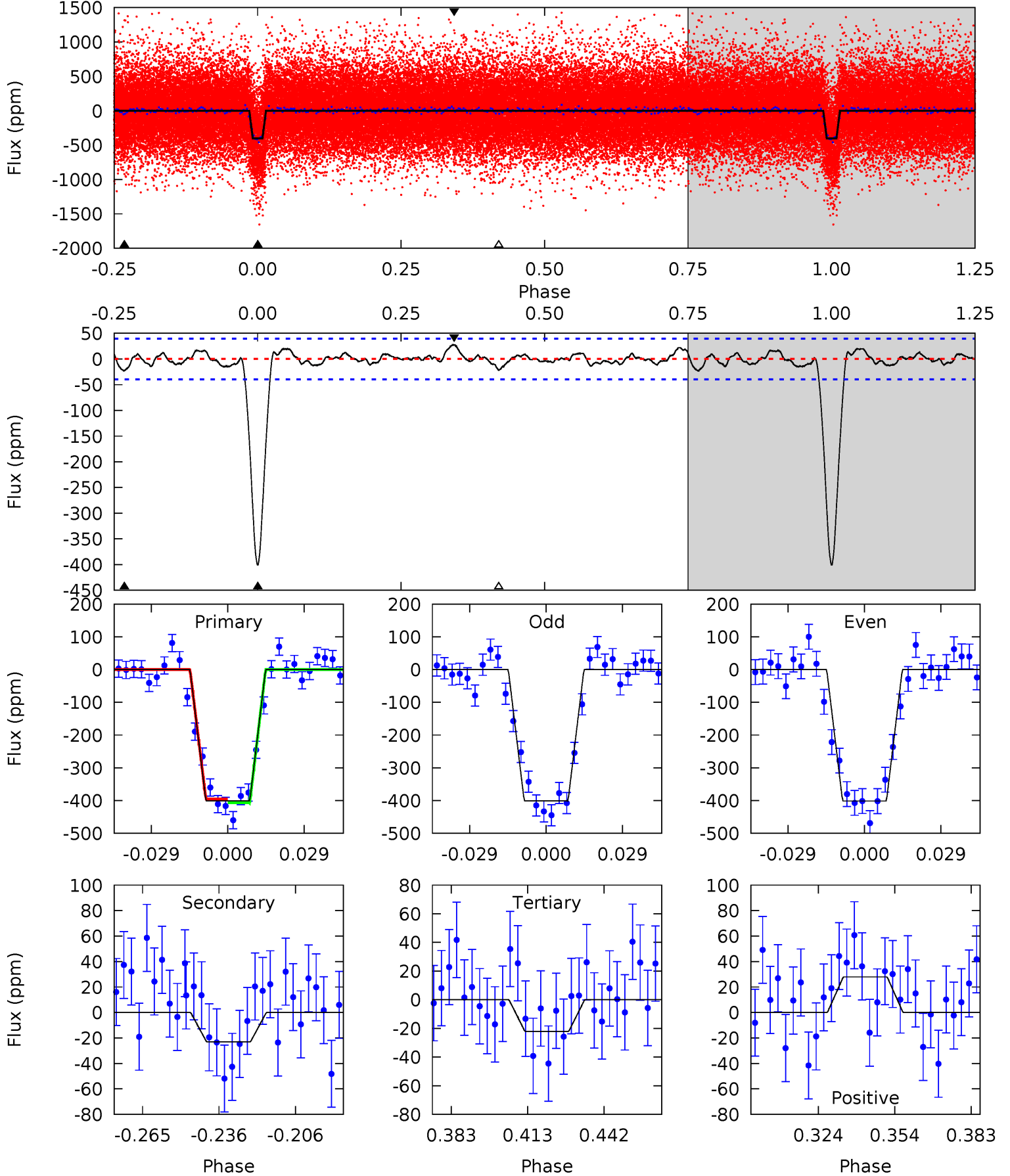
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
51.3	3.08	2.84	3.65	4.78	2.10	1.44	48.5	47.6	0.24	-0.58	0.13	1.02	0.07	1.23



Alt Model-Shift Uniqueness Test

007434875-03, P = 3.336143 Days, E = 128.640026 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
48.9	2.82	2.69	3.41	4.81	2.18	1.09	46.2	45.5	0.13	-0.59	0.04	1.08	0.07	0.70



Stellar Parameters For KIC 007434875

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5097^{+152}_{-152}	$4.597^{+0.025}_{-0.085}$	$0.210^{+0.200}_{-0.350}$	$0.779^{+0.093}_{-0.053}$	$0.891^{+0.039}_{-0.097}$	$2.653^{+0.370}_{-0.696}$
	+3%/-3%	+1%/-2%	+95%/-167%	+12%/-7%	+4%/-11%	+14%/-26%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 007434875-03 / KOI 0884.03

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-24 ± 8	$2.01^{+0.25}_{-0.23}$	1373^{+55}_{-47}	2958^{+176}_{-225}	$5.575^{+2.397}_{-2.250}$
Alt.	-23 ± 8	$1.78^{+0.26}_{-0.22}$	1375^{+51}_{-50}	3039^{+220}_{-203}	$6.724^{+3.520}_{-2.609}$

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

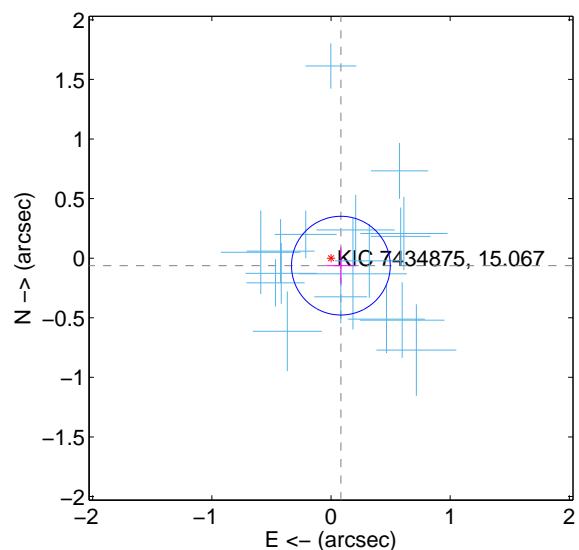
Supplemental centroid analysis for 007434875-03. Kepler magnitude: 15.07. Transit SNR 34.16

There are 17 quarters with good PRF difference image offsets

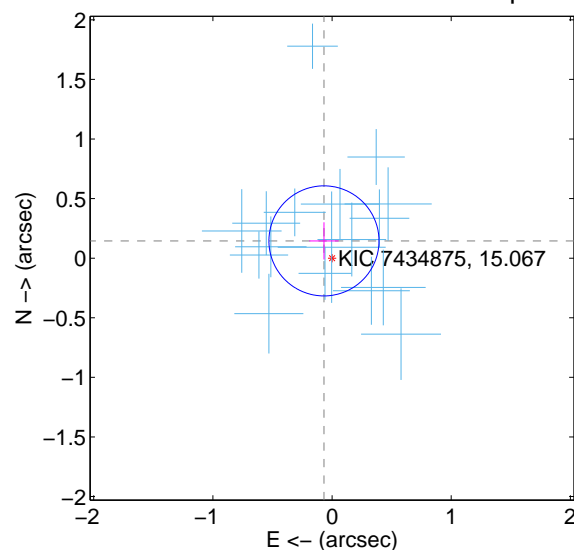
The direct PRF centroid is offset from the target star catalog position by about 0.29 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.104 ± 0.138	0.75	-0.083 ± 0.125	-0.063 ± 0.152
PRF-fit source offset from KIC position	0.160 ± 0.154	1.04	0.068 ± 0.123	0.145 ± 0.156
photometric centroid source offset	0.80 ± 0.30	2.67	0.63 ± 0.28	0.49 ± 0.33

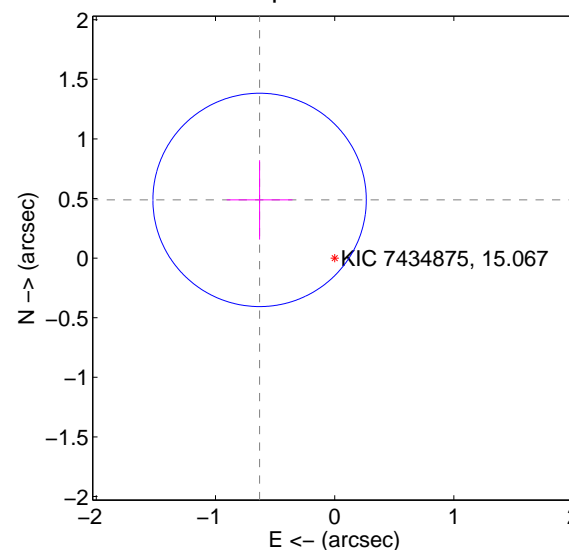
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

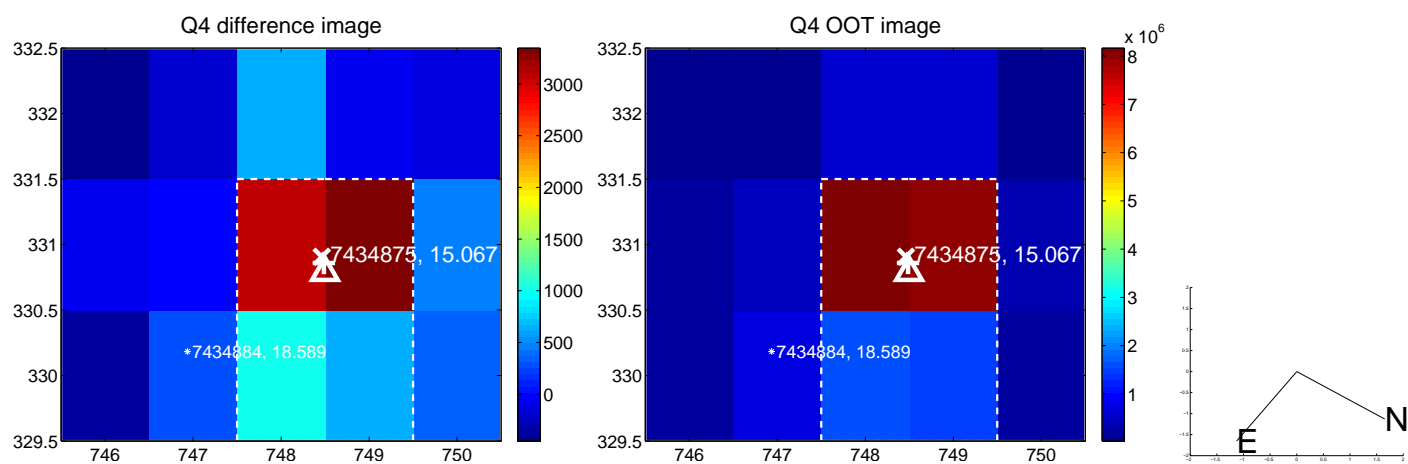
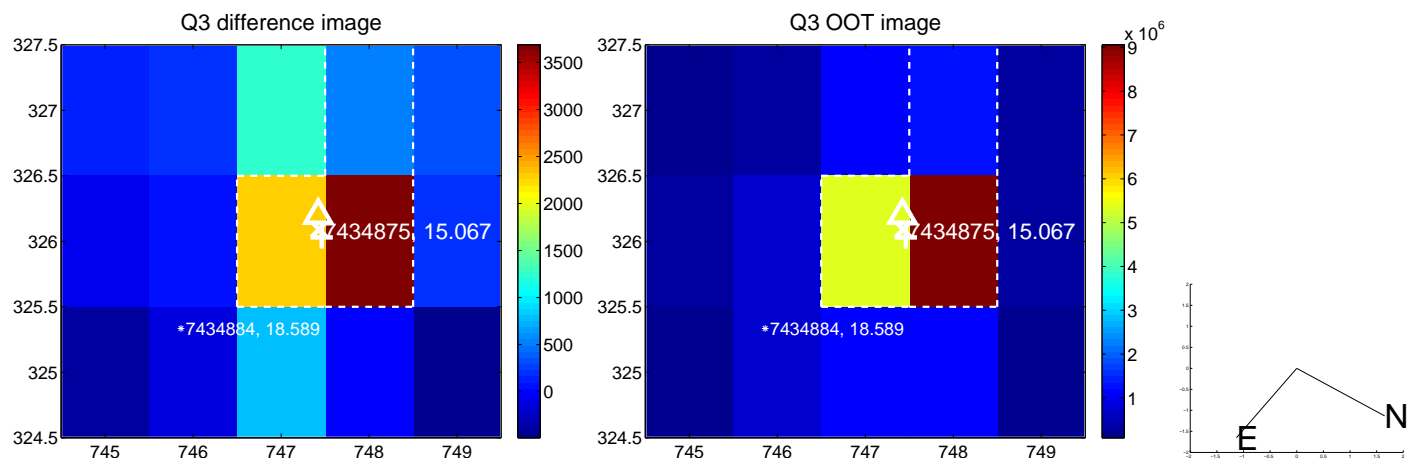
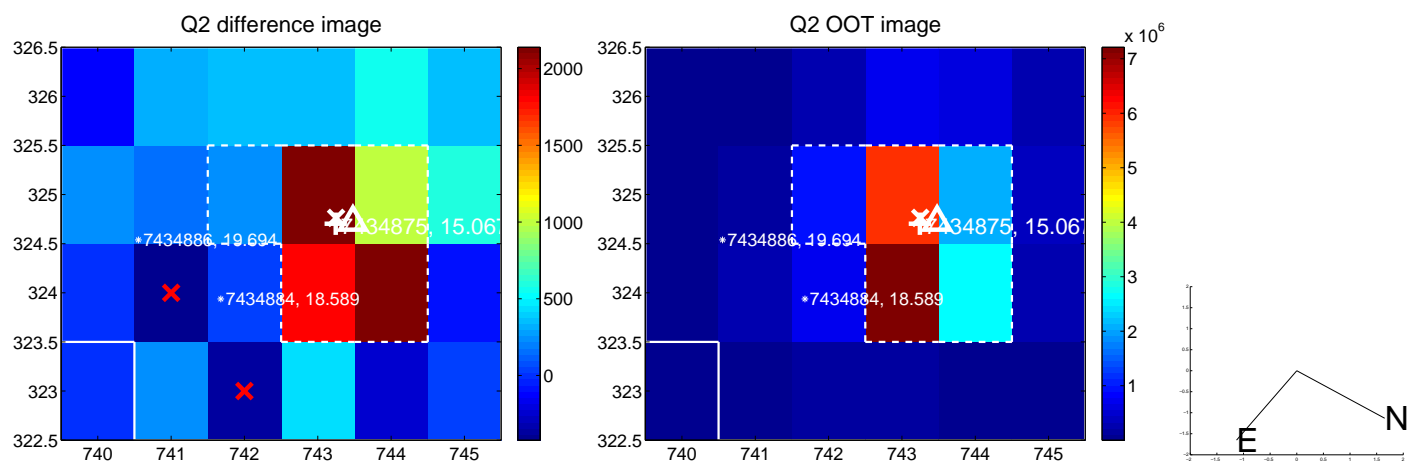
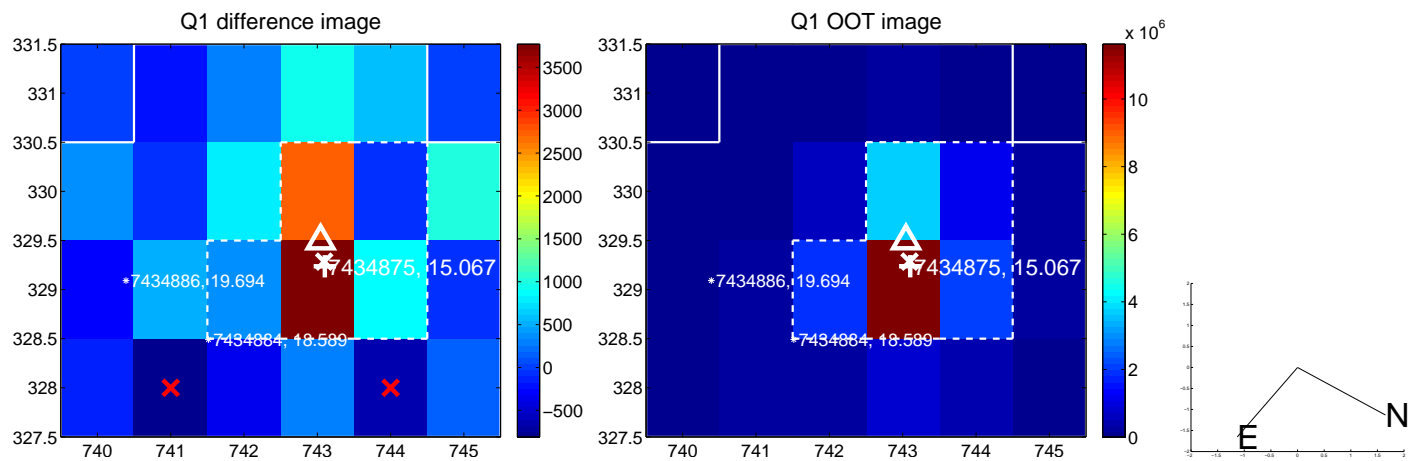


offset from photometric centroids

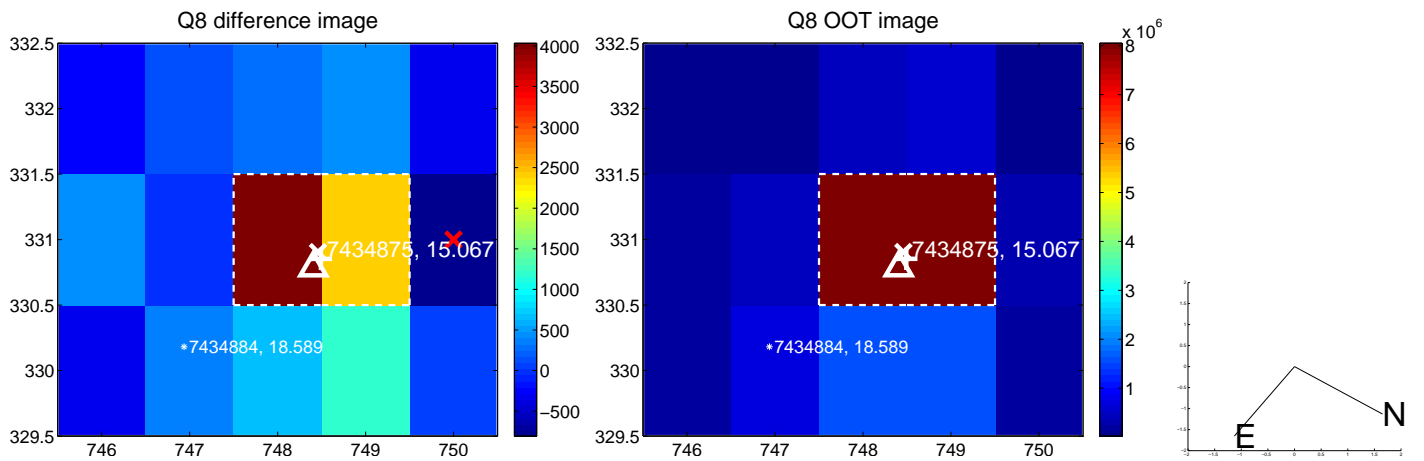
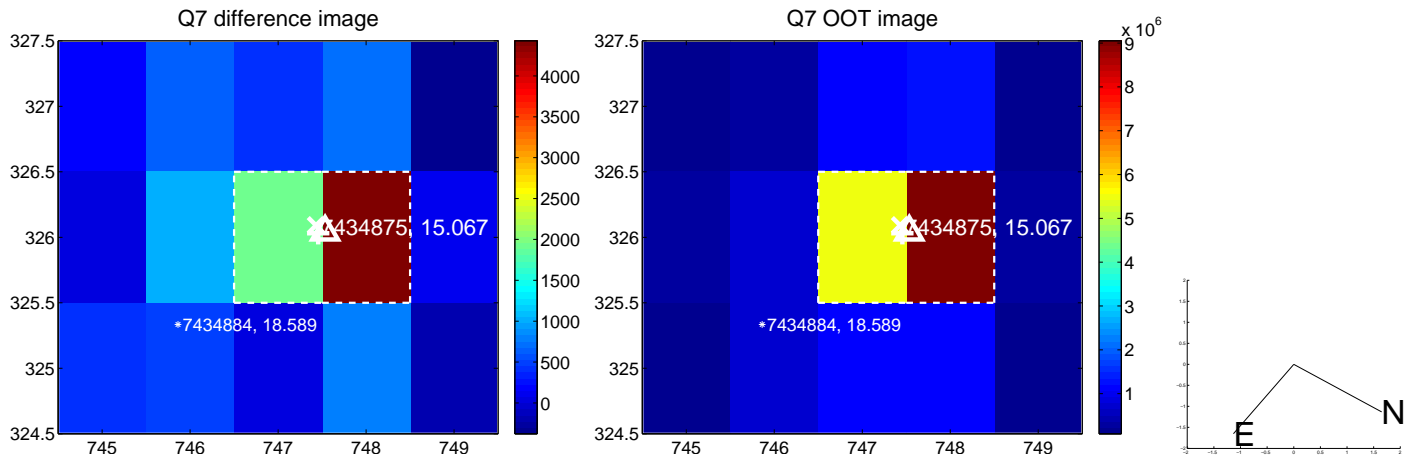
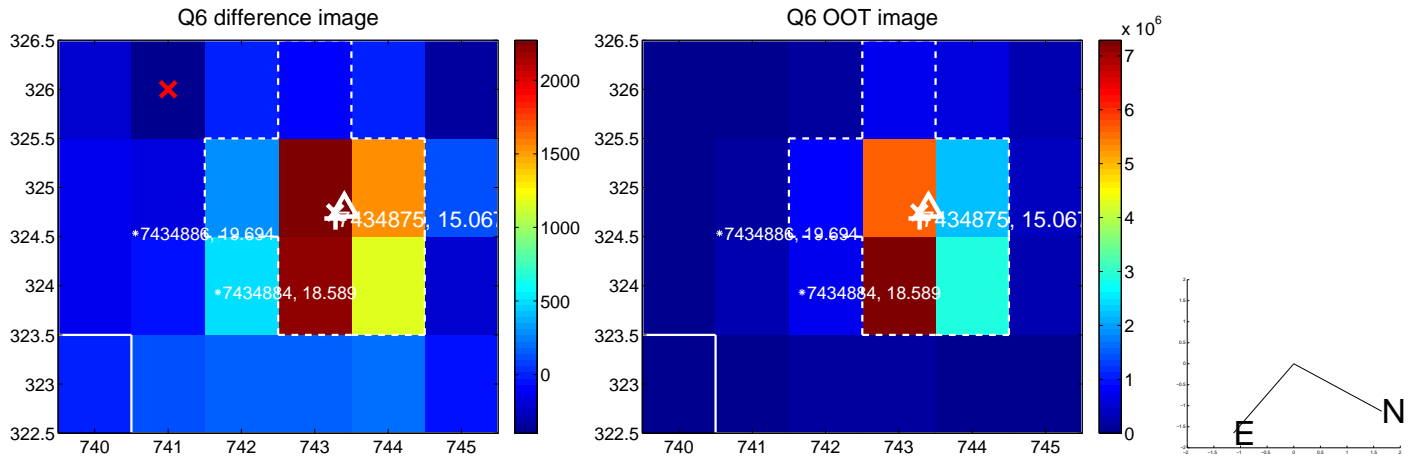
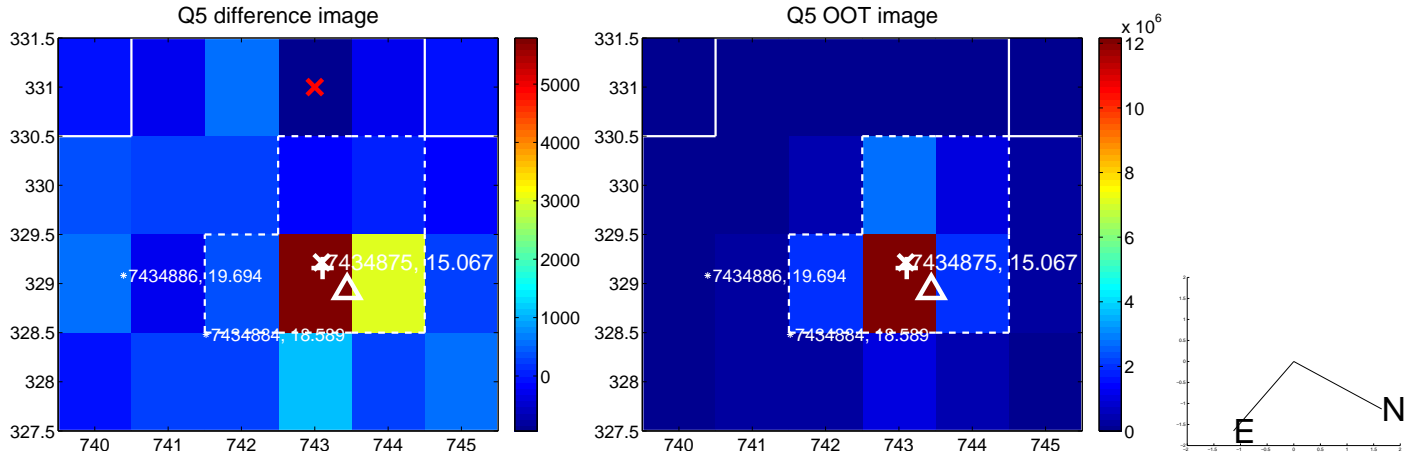


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

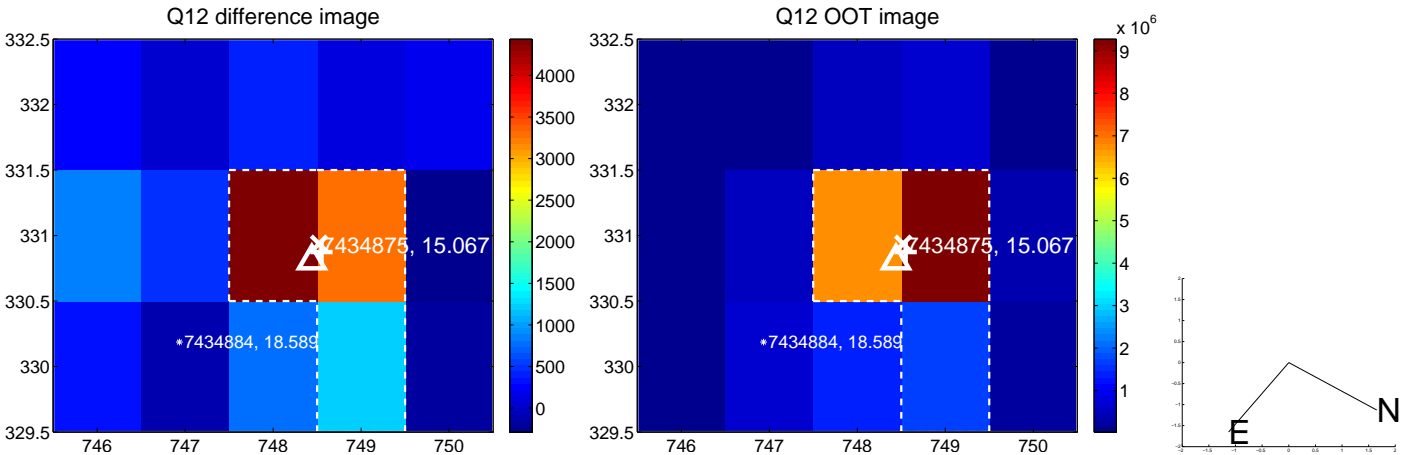
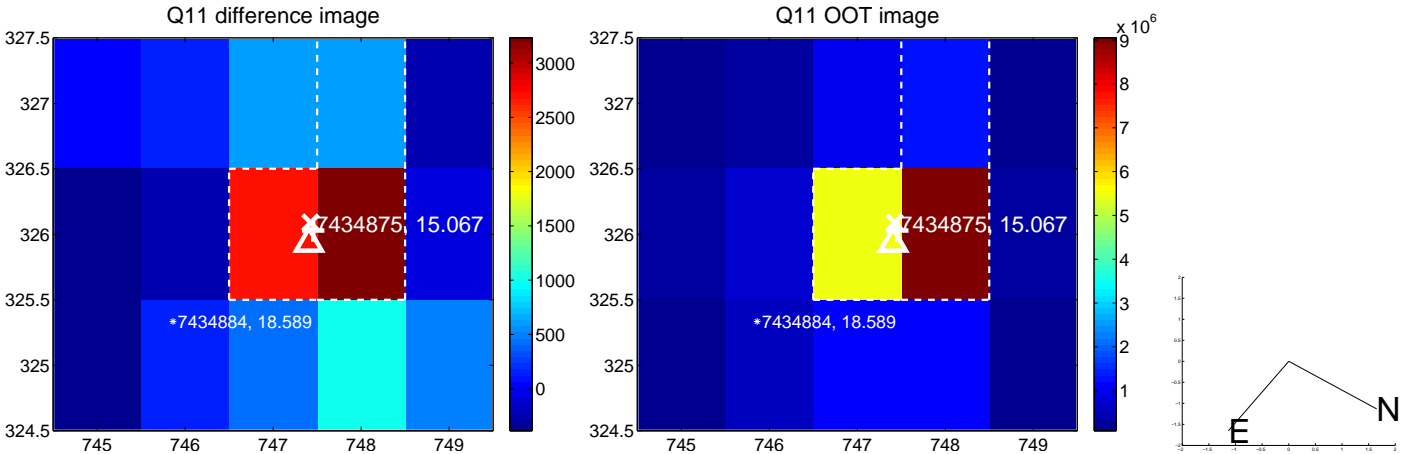
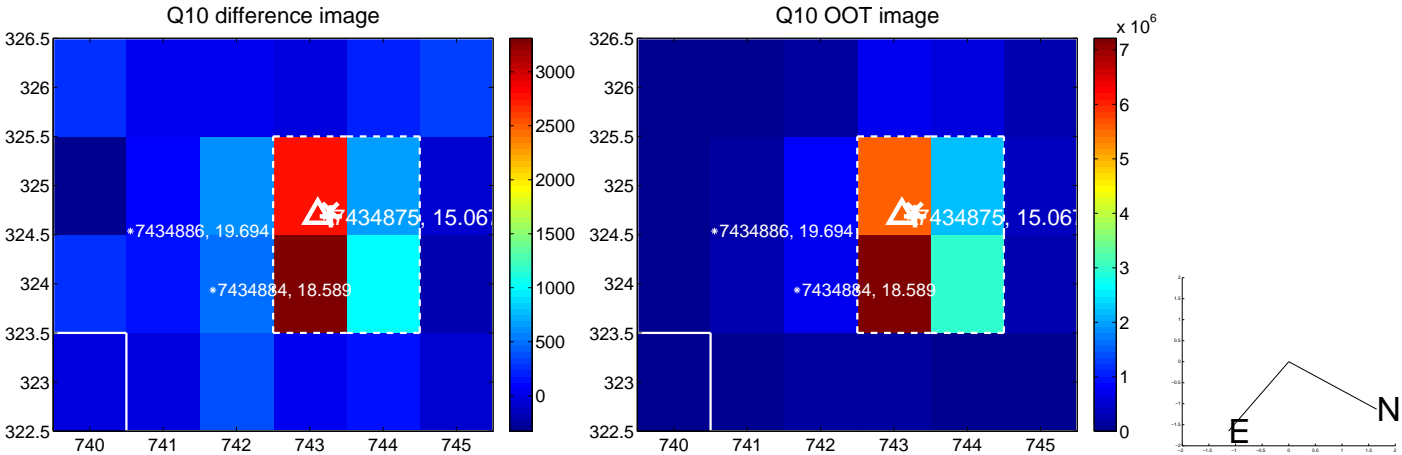
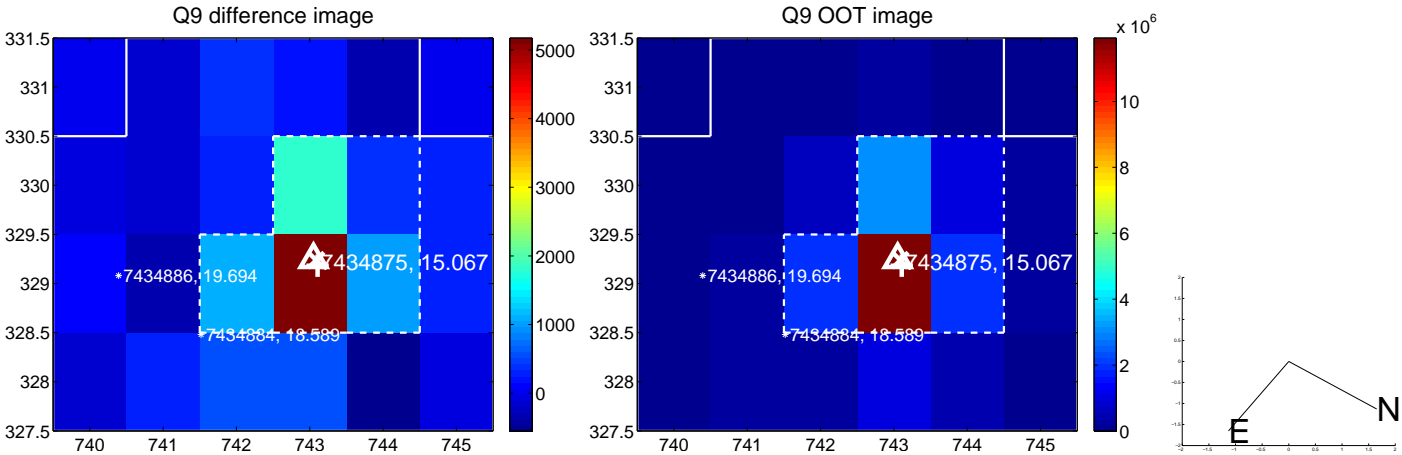
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



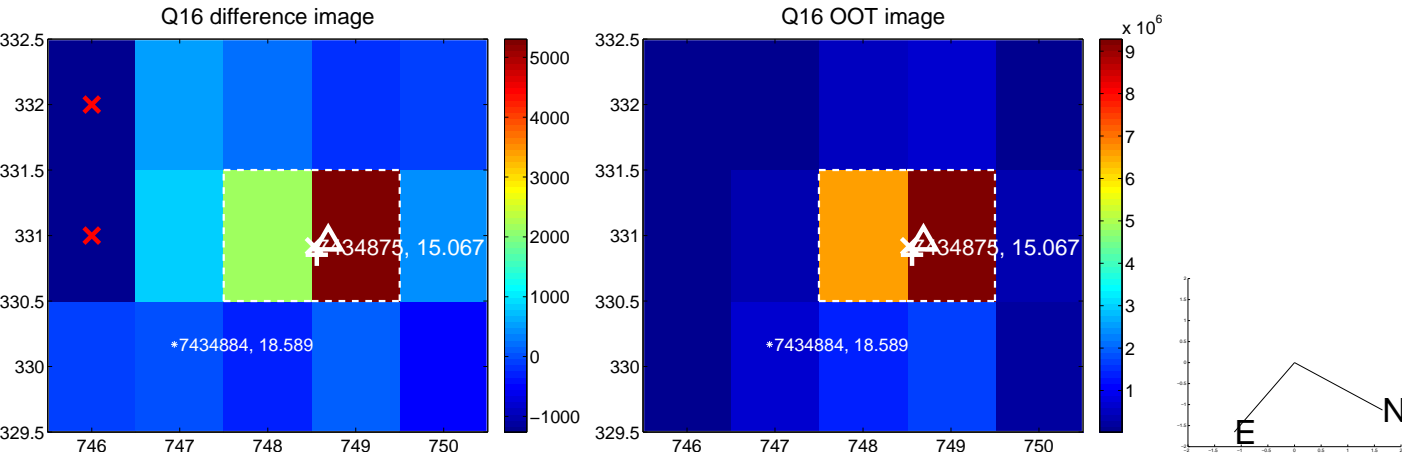
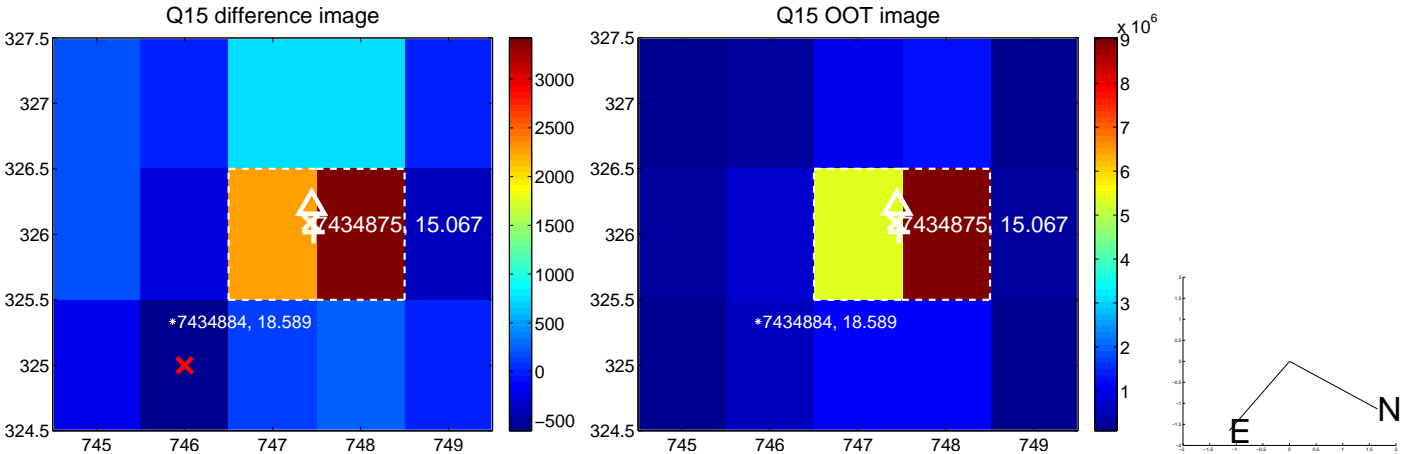
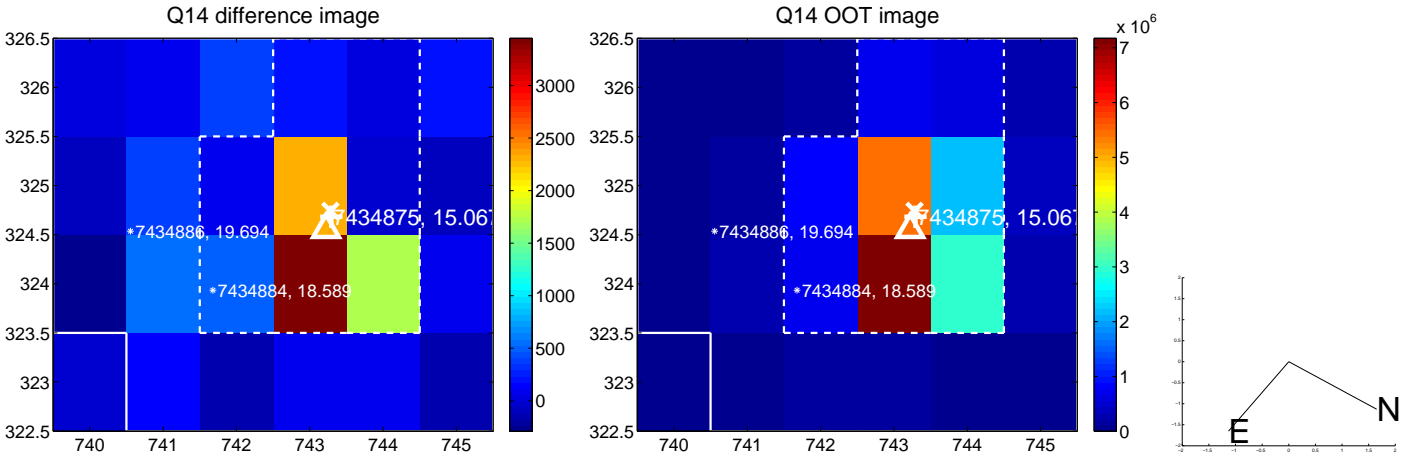
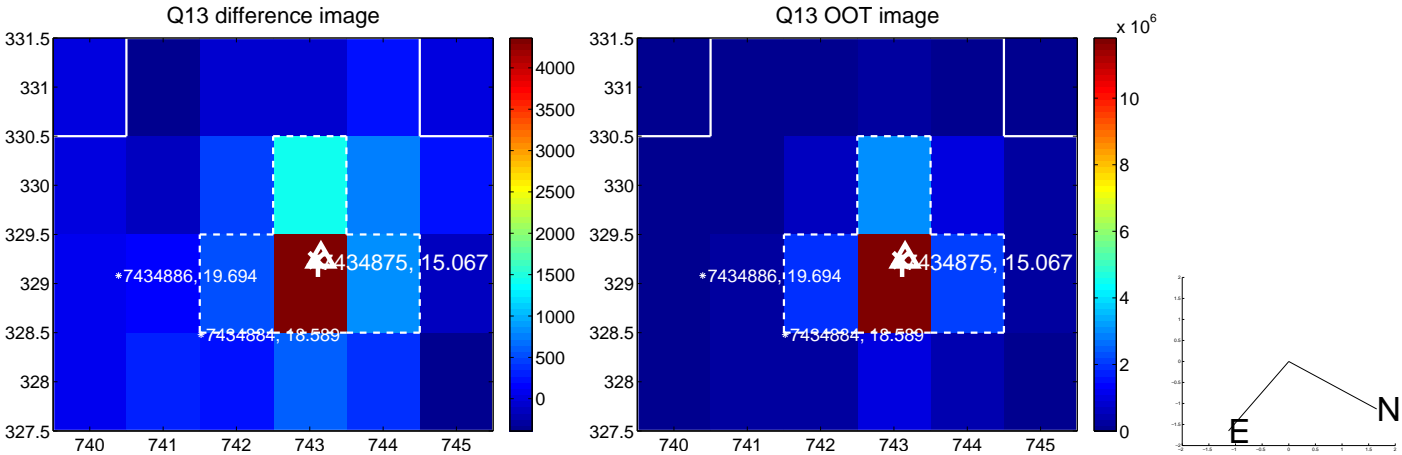
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



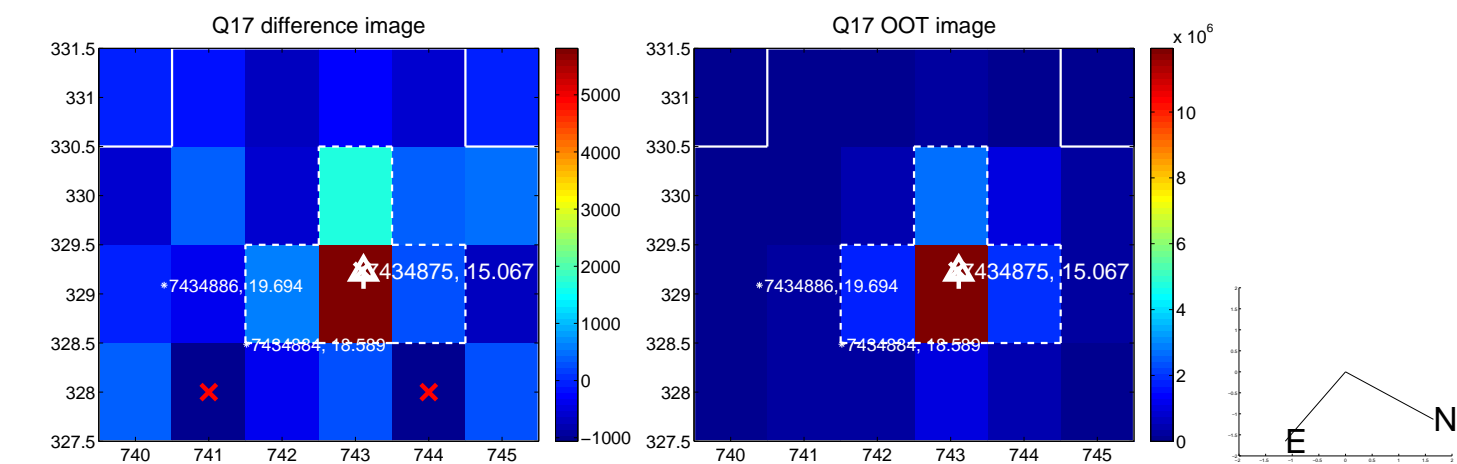
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



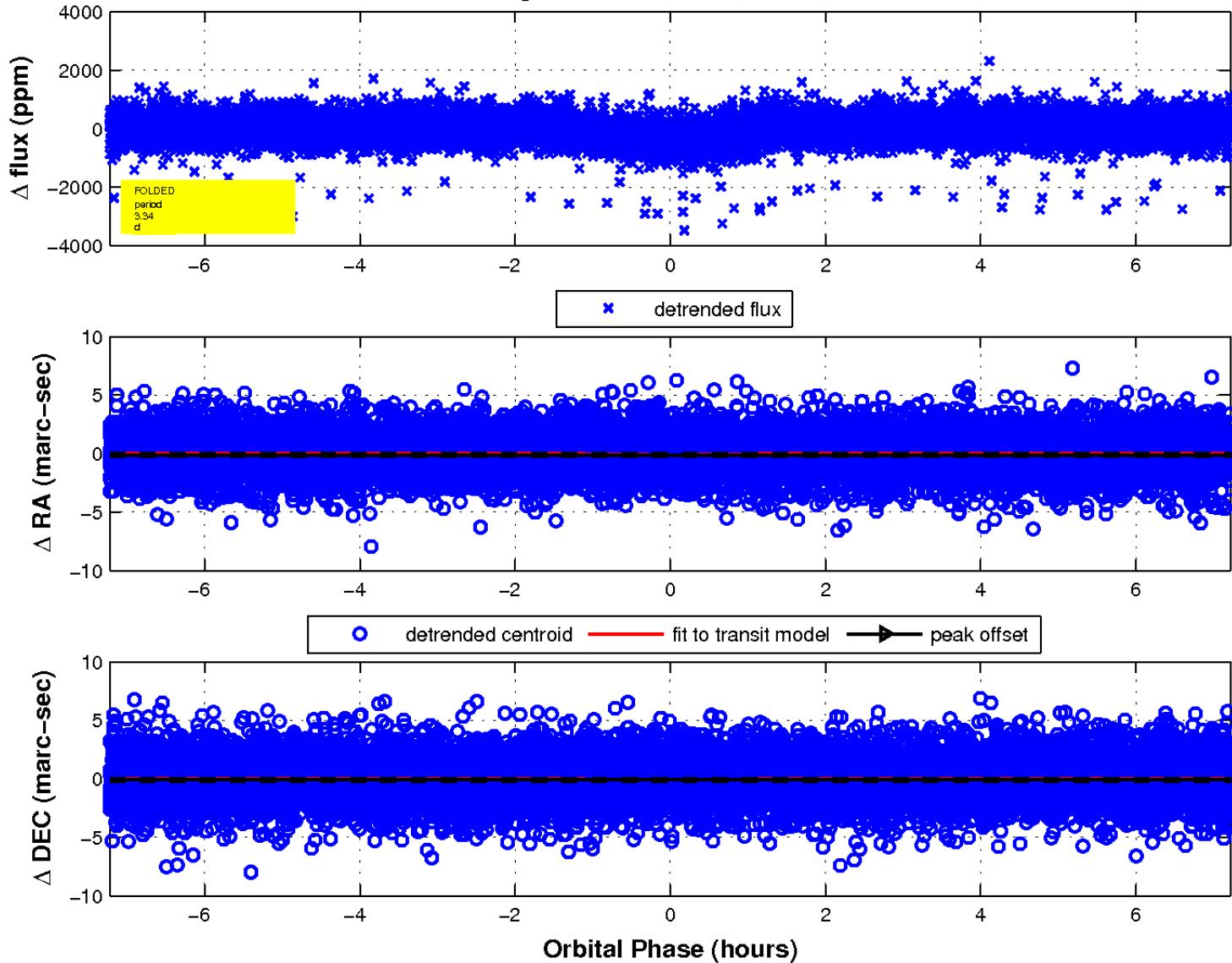
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 3 of 3



UKIRT Image

Declination

