

KIC 006504534

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})
006504534-01	OBS	3152.01	28.162612	143.717526	37523.6	3.196	1278.7	1131.3	0.76	4936	21.70	11.55
006504534-02	OBS	No	170.315556	290.546578	1797.9	6.712	29.5	27.2	0.76	4936	6.43	1.05
006504534-03	OBS	No	28.162570	159.427488	999.8	2.628	27.2	32.3	0.76	4936	3.76	11.55

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006504534-01	OBS	FP	0.00	0	1	0	0	MOD_SEC_DV—MOD_SEC_ALT—DEEP_V_SHAPED—HAS_SEC_TCE—CENT_KIC_POS
006504534-02	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_KIC_POS
006504534-03	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE—CENT_KIC_POS

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

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

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

Ephemeris Match Information For 006504534-01

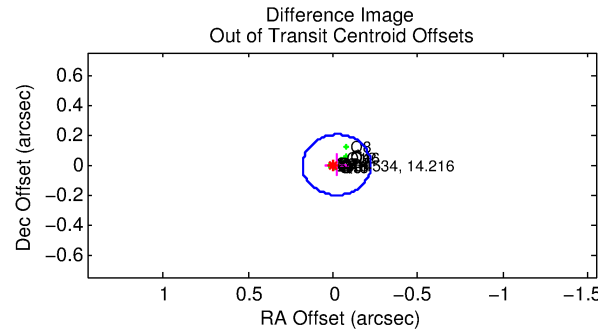
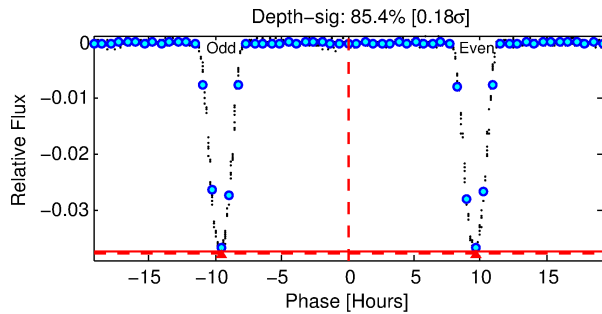
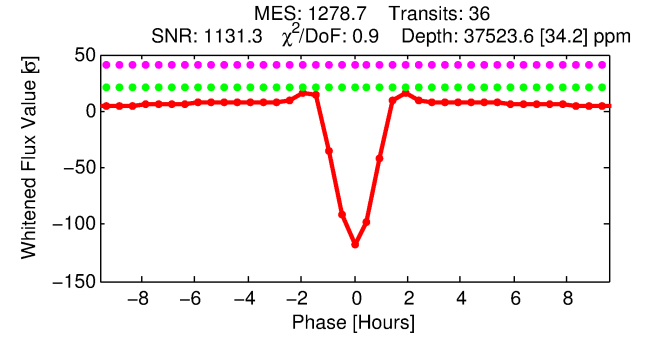
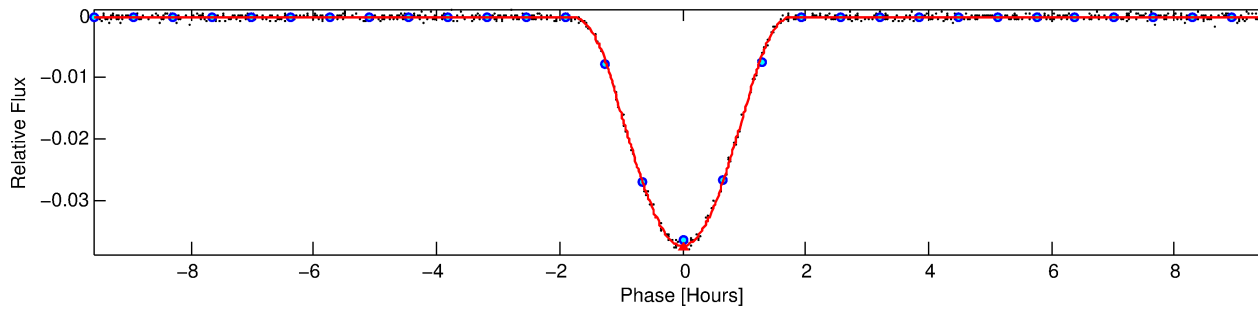
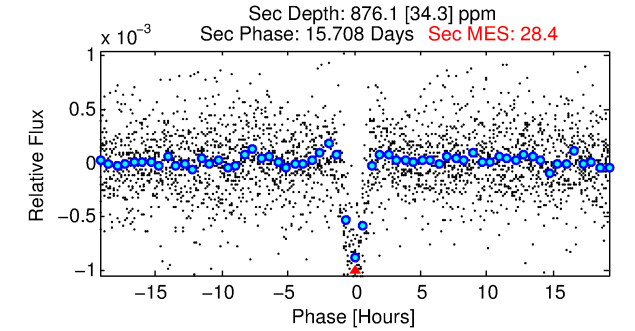
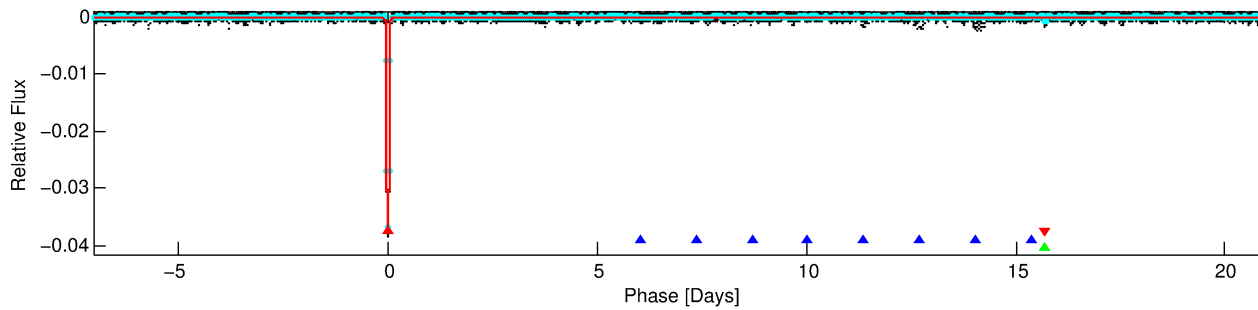
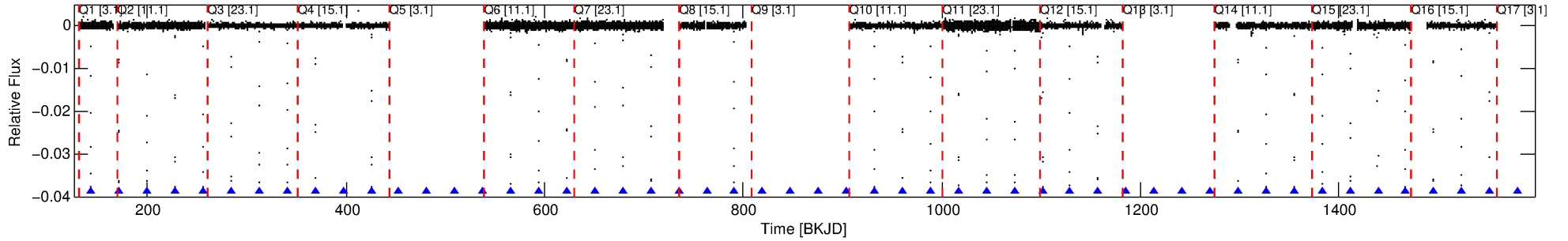
No Significant Match Found

DV One-Page Summary

KIC: 6504534 Candidate: 1 of 3 Period: 28.163 d

KOI: K03152.01 Corr: 1.000

Kp: 14.22 R*: 0.76 Rs Teff: 4936.0 K Logg: 4.54 Fe/H: -0.080



DV Fit Results:

Period = 28.16261 [0.00000] d
Epoch = 143.7175 [0.0001] BKJD
Rp/R* = 0.2613 [0.0075]
a/R* = 58.03 [0.19]
b = 0.92 [0.01]
Seff = 11.55 [2.10]
Teq = 470 [21] K
Rp = 21.70 [2.25] Re
a = 0.1633 [0.0146] AU
Ag = 27.32 [4.19] [6.27σ]
Teffp = 1661 [58] K [19.40σ]

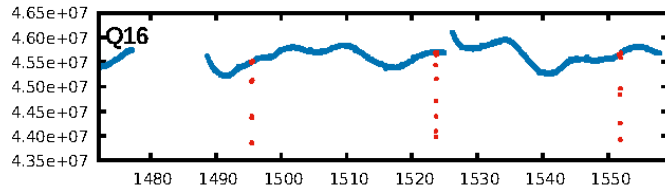
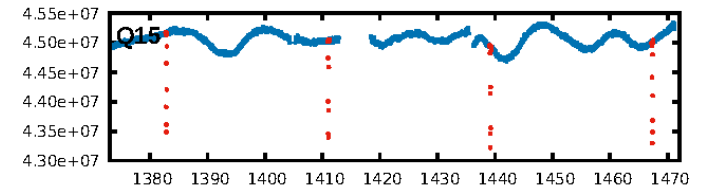
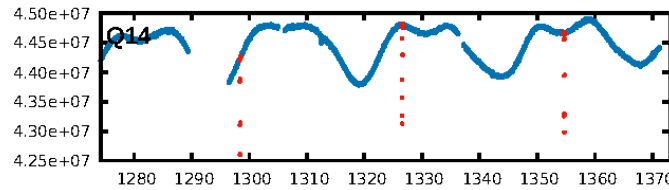
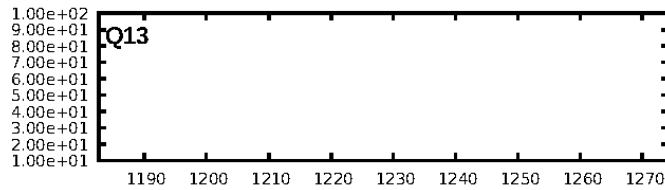
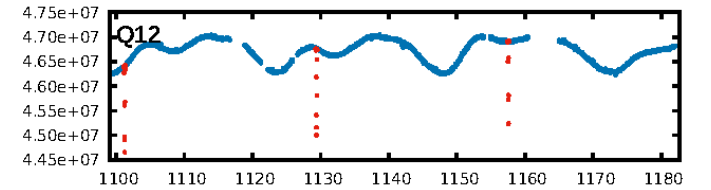
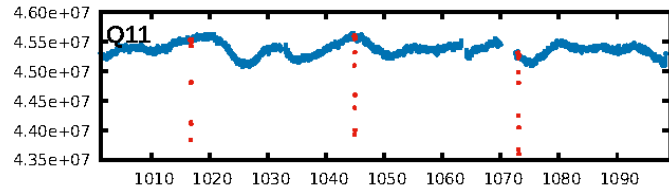
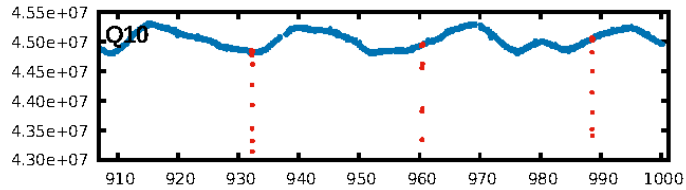
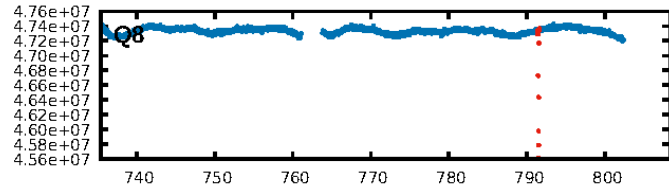
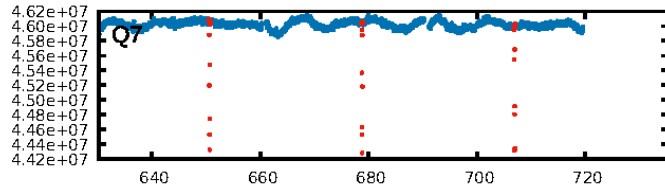
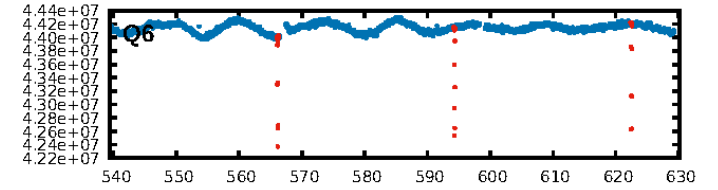
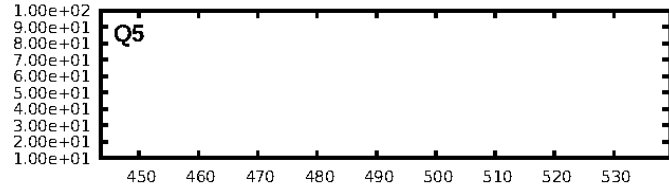
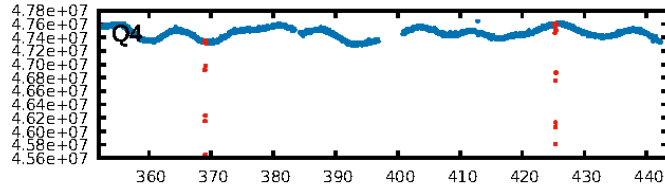
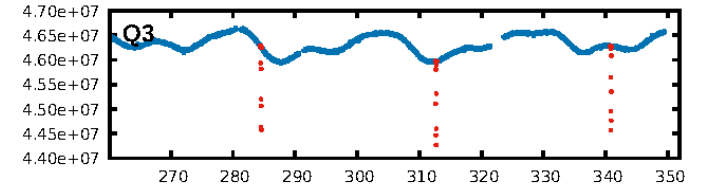
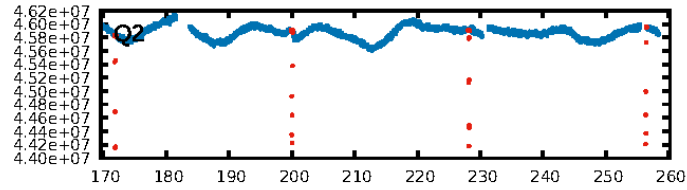
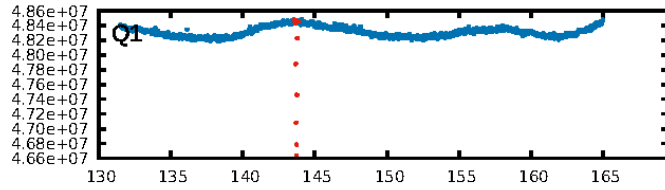
DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00σ]
LongPeriod-sig: 100.0% [458.94σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [35/35]
GhostDiagnostic-chr: 3.9
Centroid-sig: 0.0%
Centroid-so: 0.375 arcsec [47.62σ]
OotOffset-rm: 0.022 arcsec [0.32σ]
OotOffset-st: 4/4/4/1 [13]
KicOffset-rm: 0.416 arcsec [6.08σ]
KicOffset-st: 4/4/4/1 [13]
DiffImageQuality-fgm: 1.00 [13/13]
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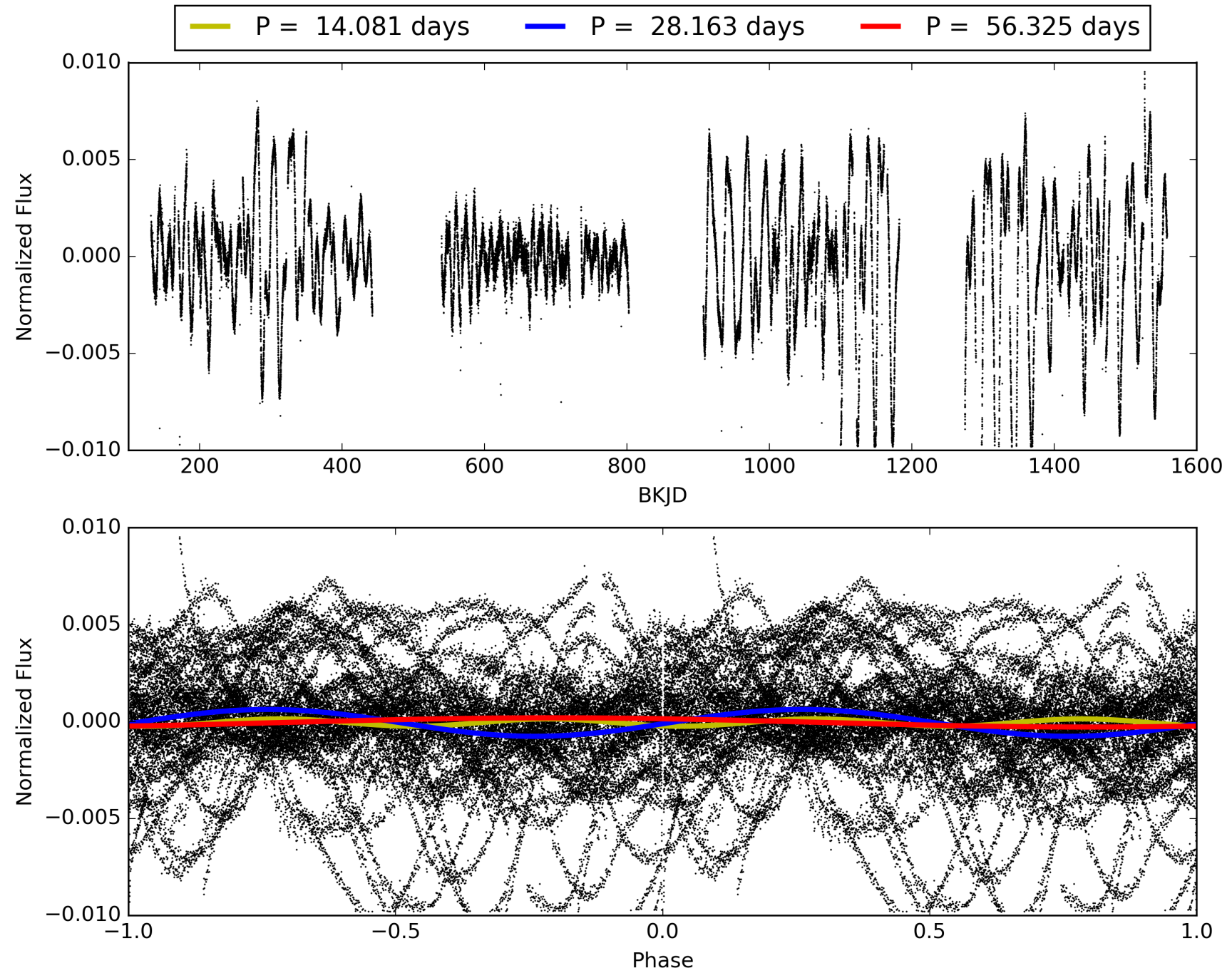
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 10:49:09 Z

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

TCE 006504534-01, PDC Light Curves

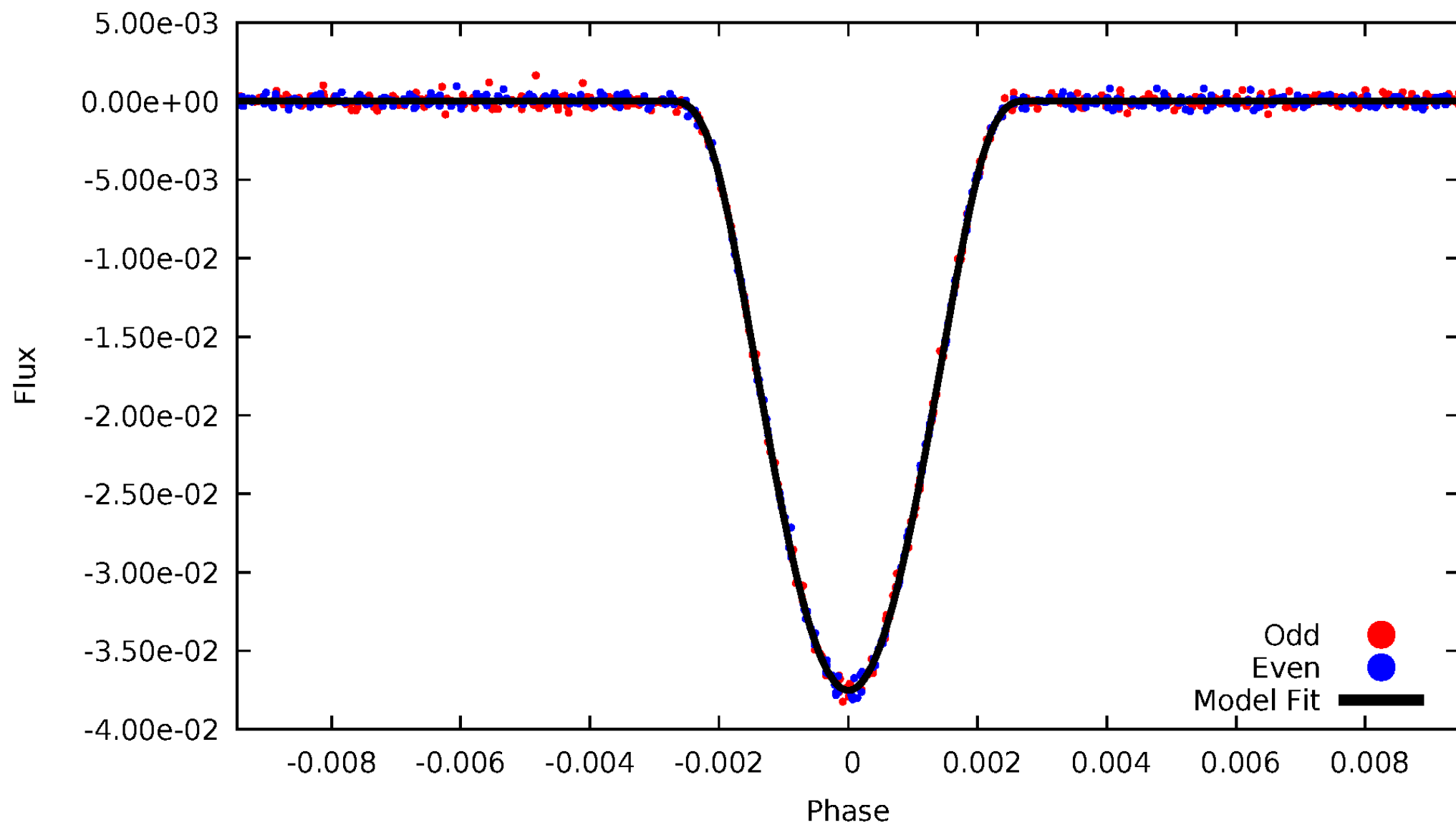


TCE 006504534-01



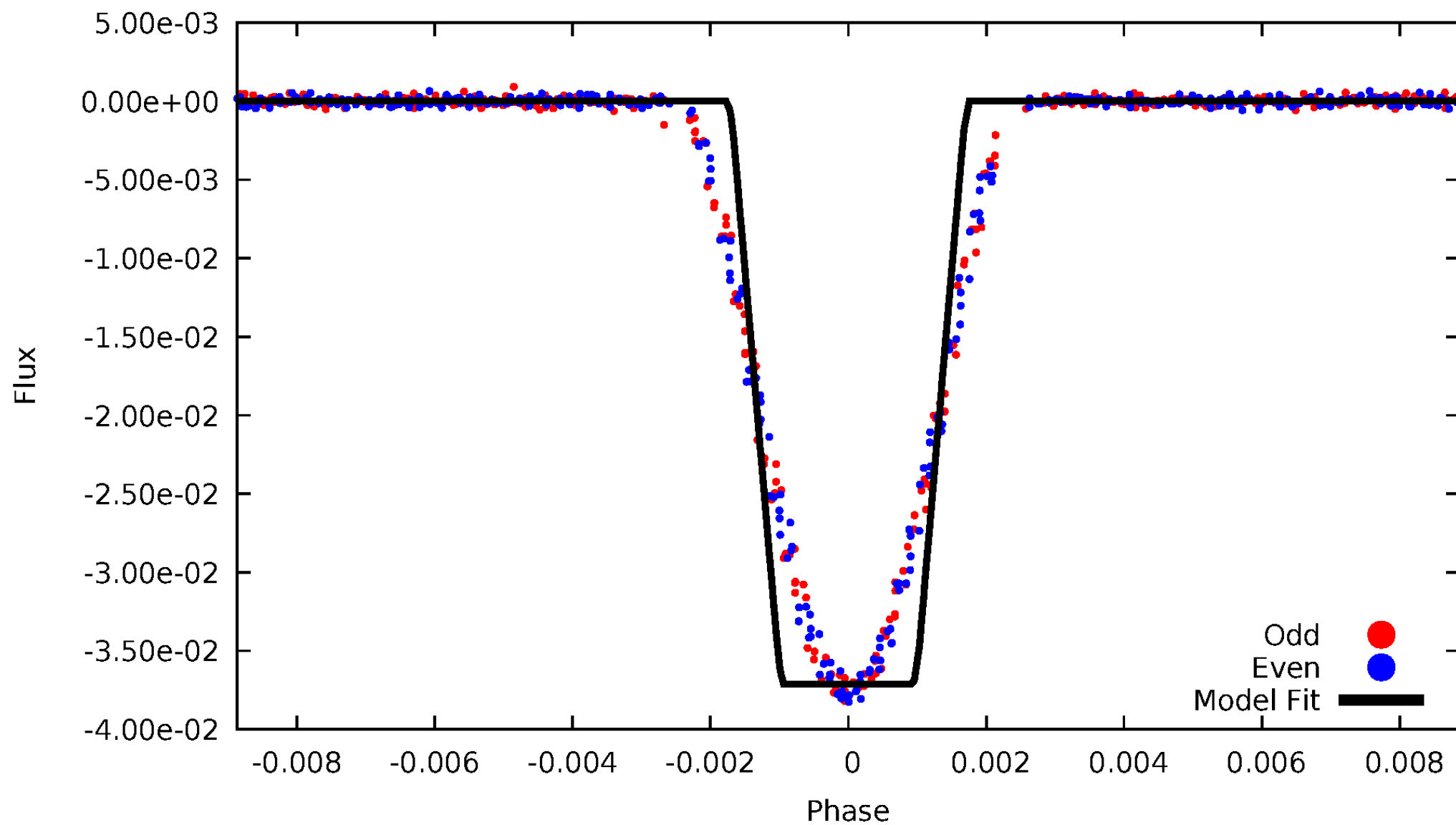
DV Odd/Even

TCE 006504534-01



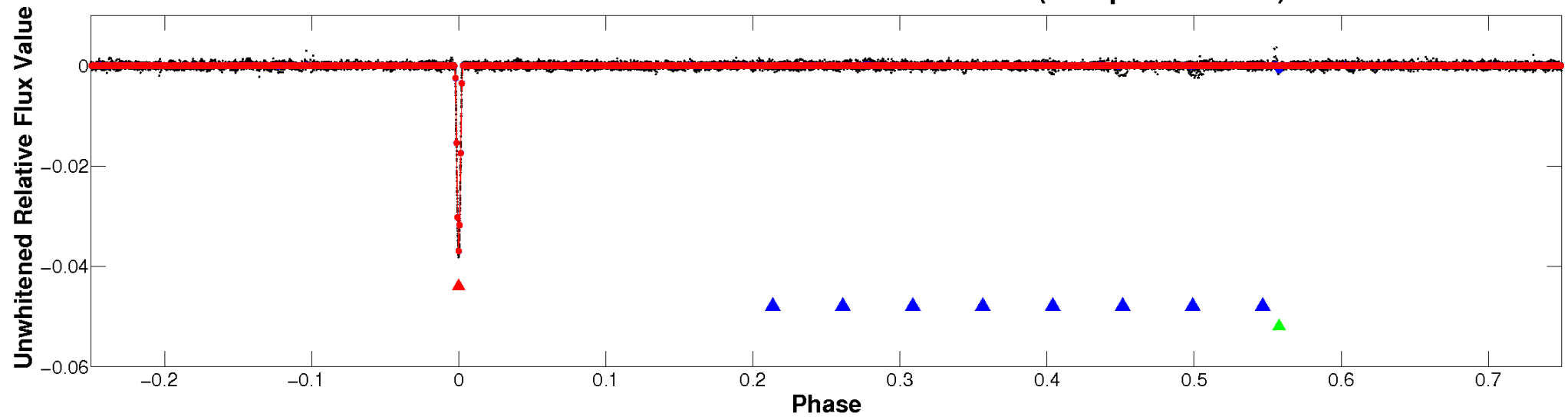
ALT Odd/Even

TCE 006504534-01

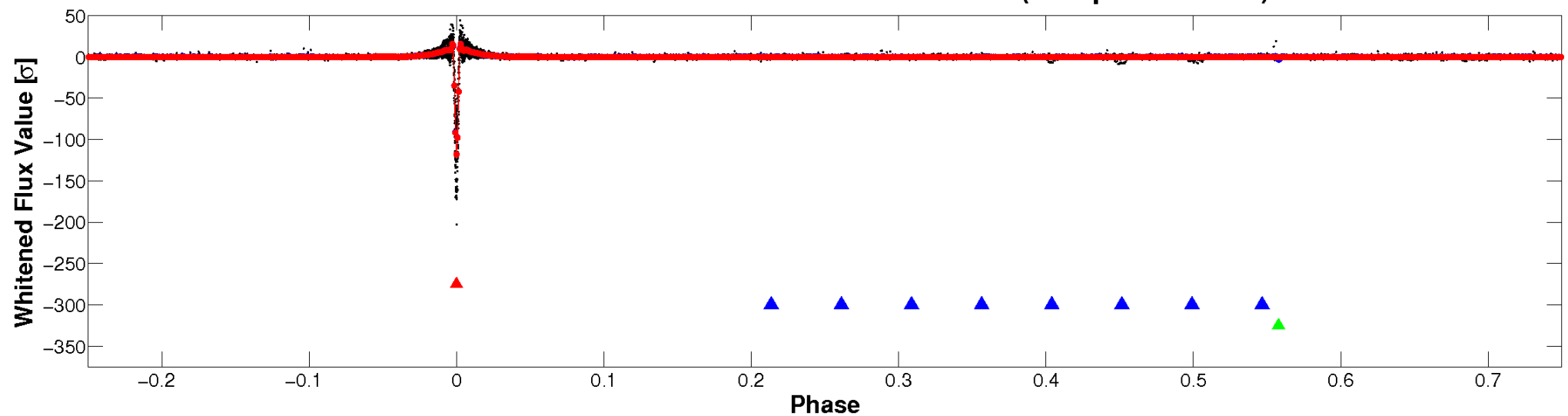


Non-Whitened Vs. Whitened Light Curve

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

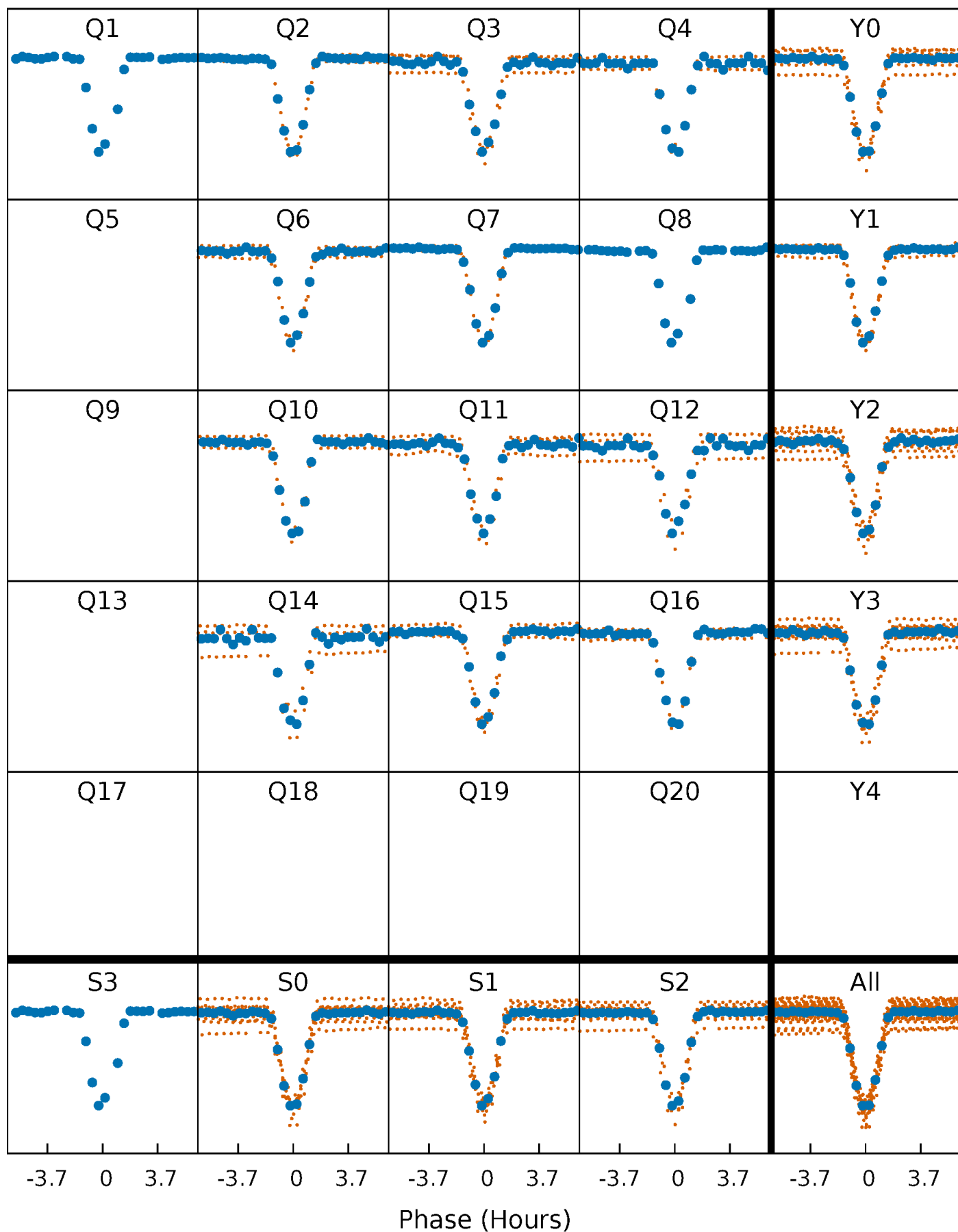


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



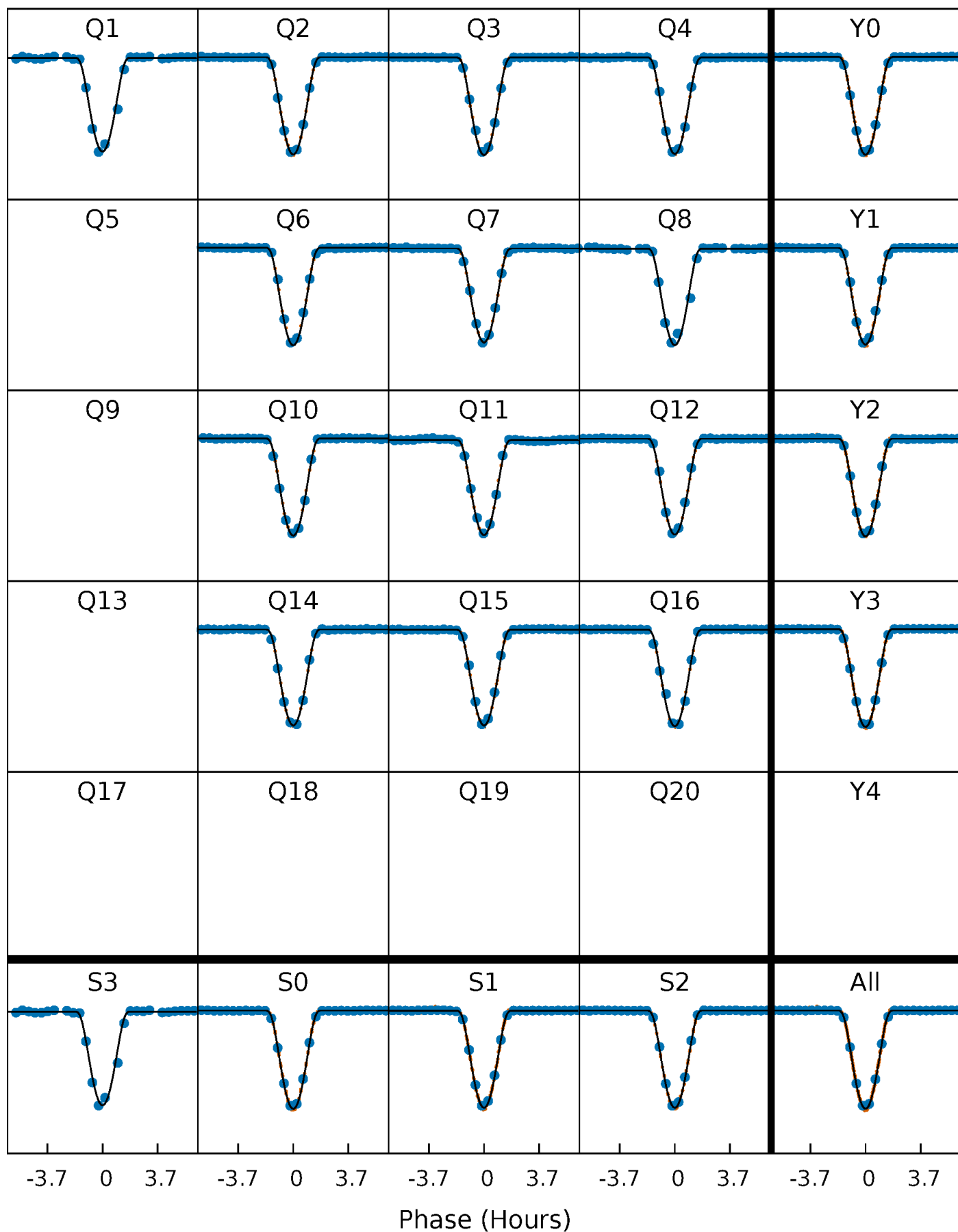
PDC Quarter-Phased Transit Curves

TCE 006504534-01 P= 28.162612 Days $T_0=143.717525$ (BKJD)



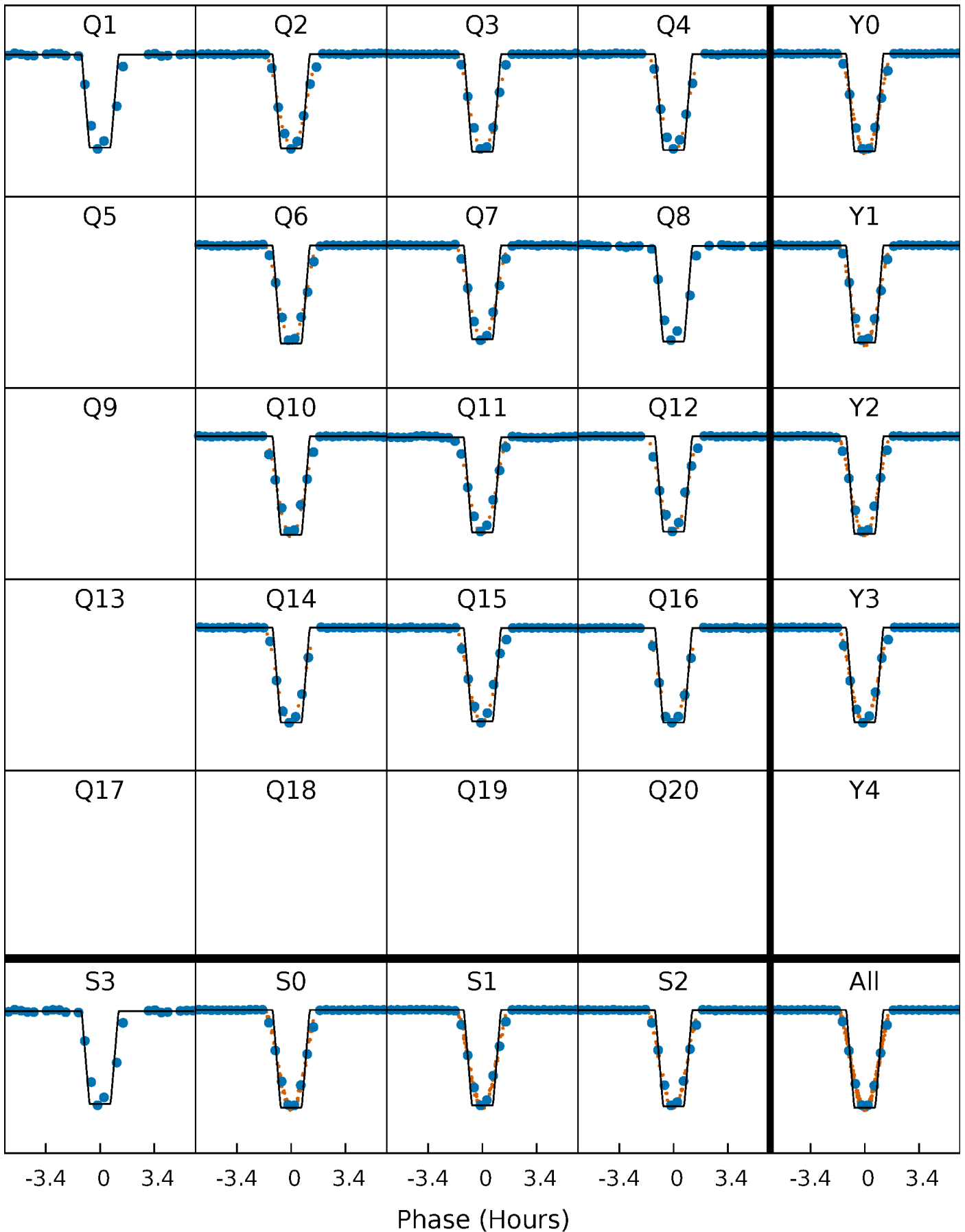
DV Quarter-Phased Transit Curves

TCE 006504534-01 P= 28.162612 Days $T_0=143.717525$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

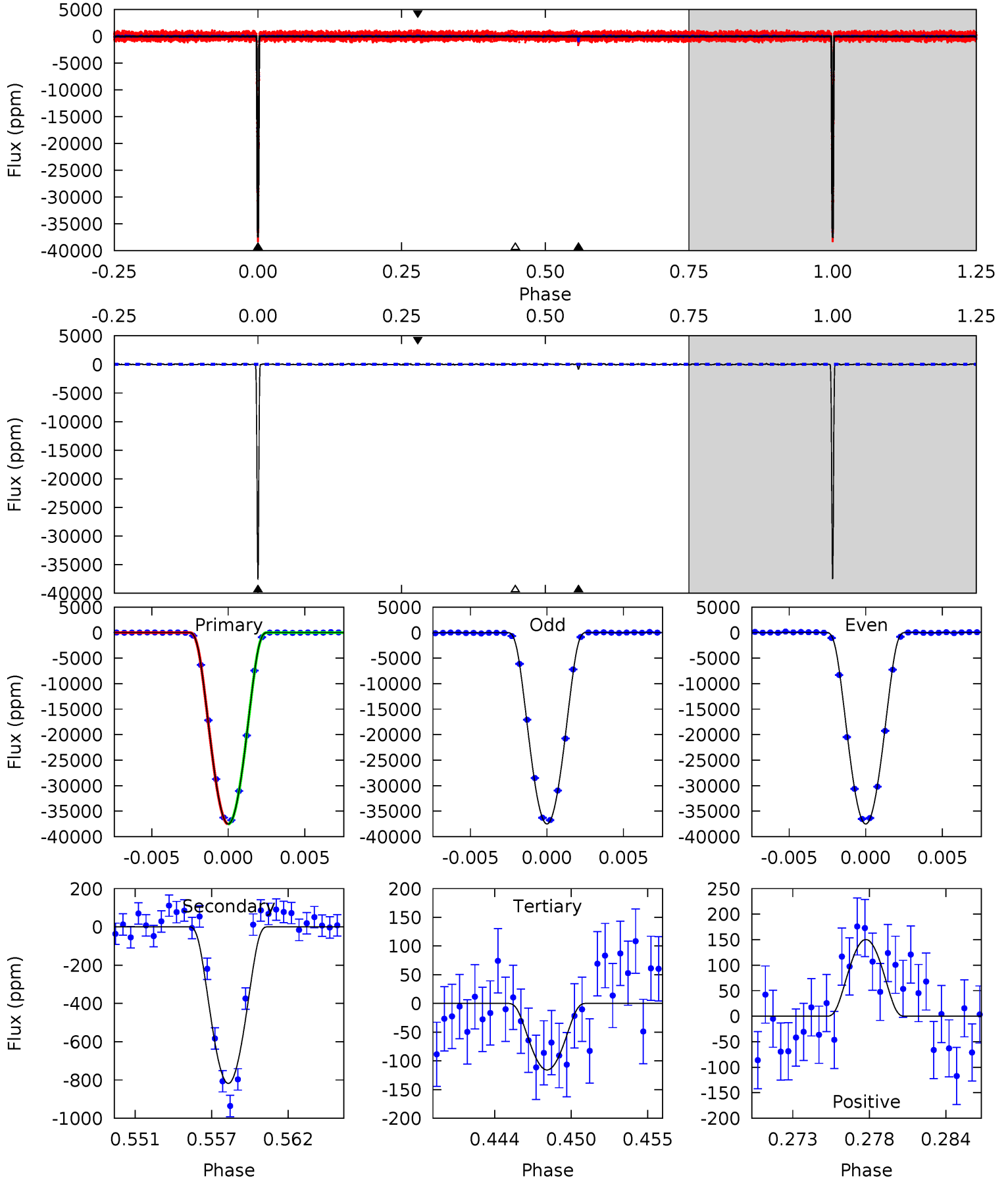
TCE 006504534-01 P= 28.162712 Days $T_0=143.714664$ (BKJD)



DV Model-Shift Uniqueness Test

006504534-01, P = 28.162612 Days, E = 115.554913 Days

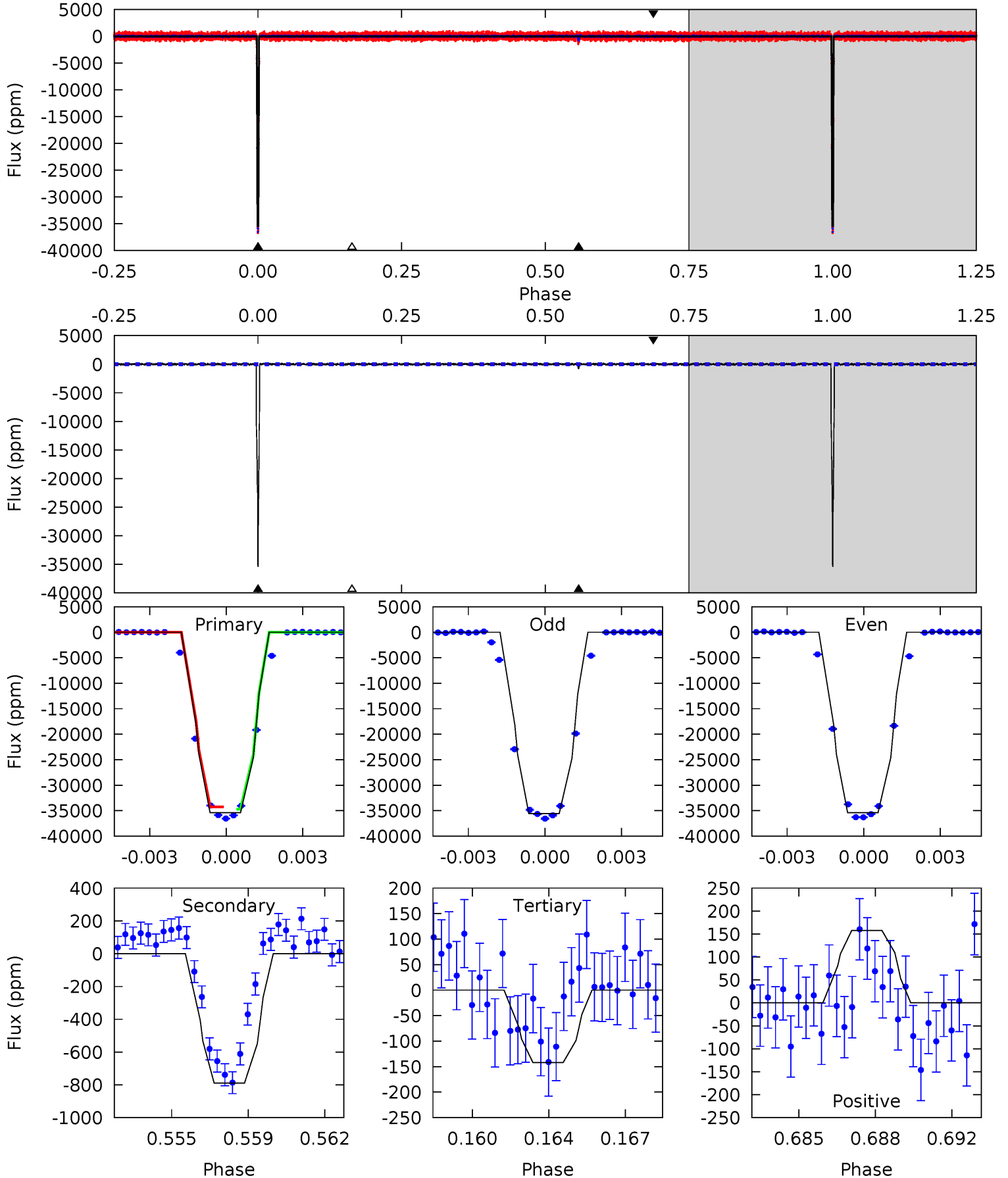
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2075	45.2	6.41	8.31	5.14	2.79	2.39	2069	2067	38.8	36.9	0.34	1.00	0.00	0.46



Alt Model-Shift Uniqueness Test

006504534-01, P = 28.162712 Days, E = 115.551952 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
978.7	21.8	3.92	4.35	5.23	2.93	1.17	974.8	974.3	17.9	17.5	2.30	1.00	0.00	0



Stellar Parameters For KIC 006504534

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4936^{+133}_{-148}	$4.540^{+0.078}_{-0.042}$	$-0.080^{+0.300}_{-0.300}$	$0.761^{+0.063}_{-0.076}$	$0.734^{+0.085}_{-0.054}$	$2.343^{+0.706}_{-0.378}$
	+3%/-3%	+2%/-1%	+375%/-375%	+8%/-10%	+12%/-7%	+30%/-16%
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 006504534-01 / KOI 3152.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-818 ± 18	$21.63^{+1.27}_{-1.43}$	653^{+24}_{-28}	2465^{+44}_{-51}	26^{+3}_{-3}
Alt.	-789 ± 36	$16.01^{+0.97}_{-1.15}$	652^{+23}_{-24}	2649^{+54}_{-58}	46^{+7}_{-5}

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

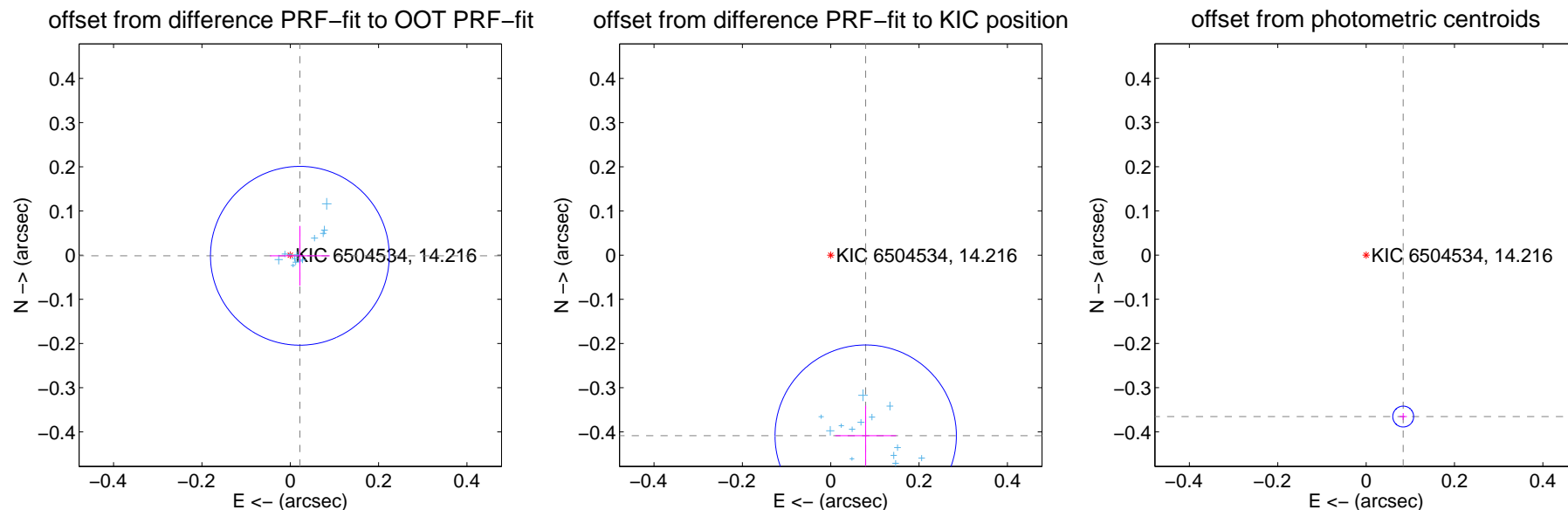
DV Centroid Data

Supplemental centroid analysis for 006504534-01. Kepler magnitude: 14.22. Transit SNR 1131.29

There are 13 quarters with good PRF difference image offsets

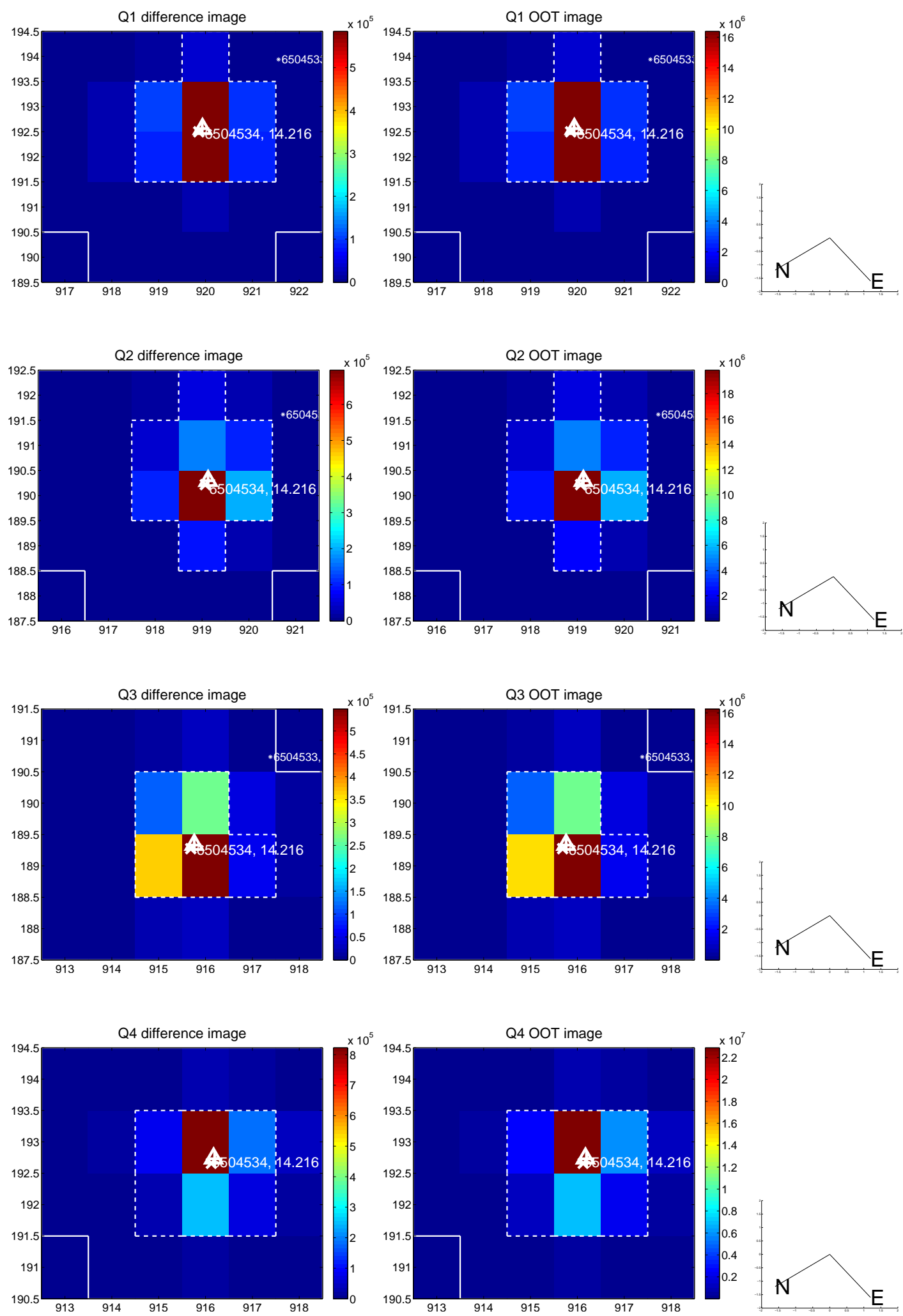
The direct PRF centroid is offset from the target star catalog position by about 0.51 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.022 ± 0.067	0.32	-0.022 ± 0.068	-0.001 ± 0.068
PRF-fit source offset from KIC position	0.416 ± 0.068	6.08	-0.079 ± 0.069	-0.408 ± 0.068
photometric centroid source offset	0.37 ± 0.01	47.62	-0.08 ± 0.01	-0.37 ± 0.01

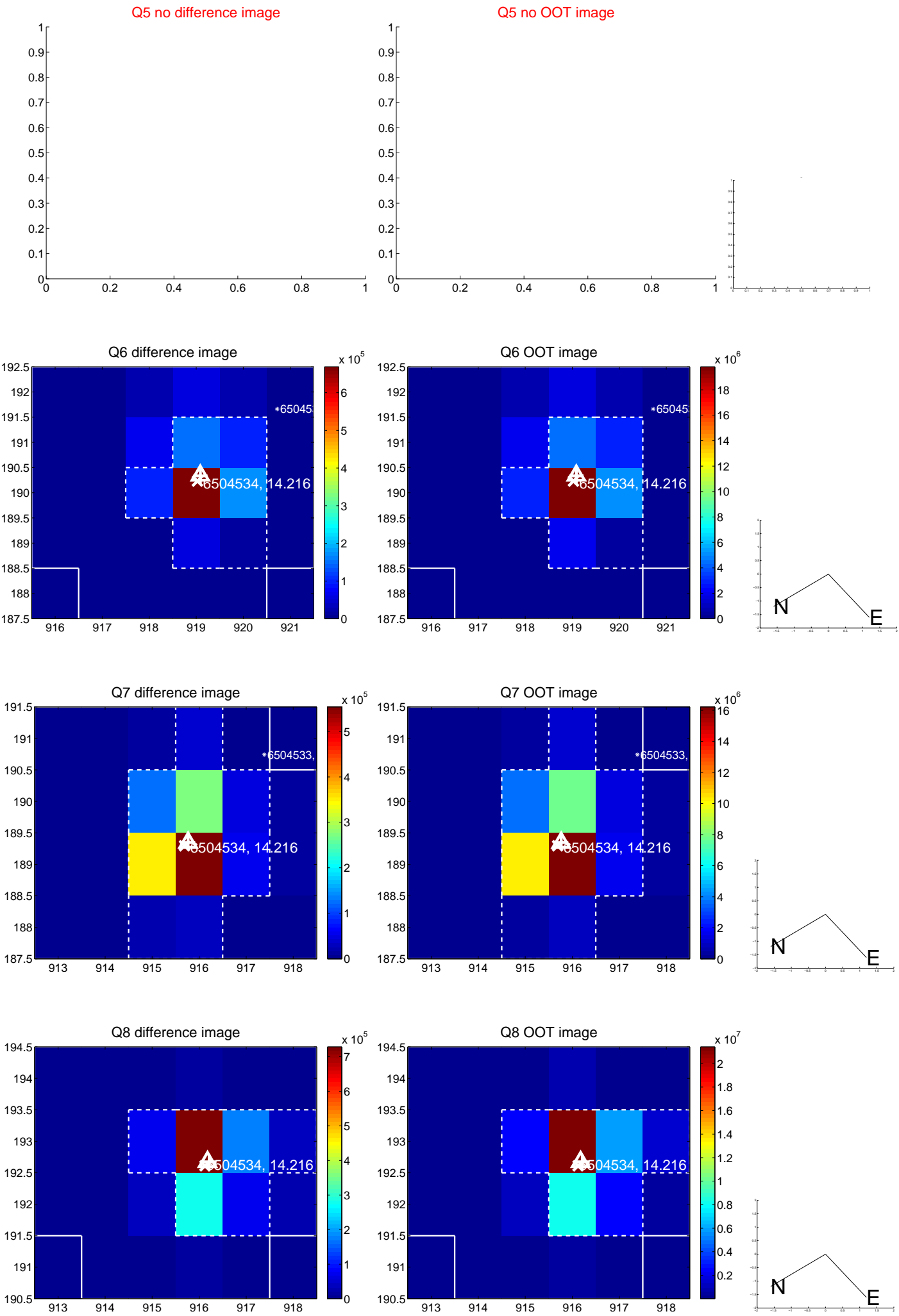


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

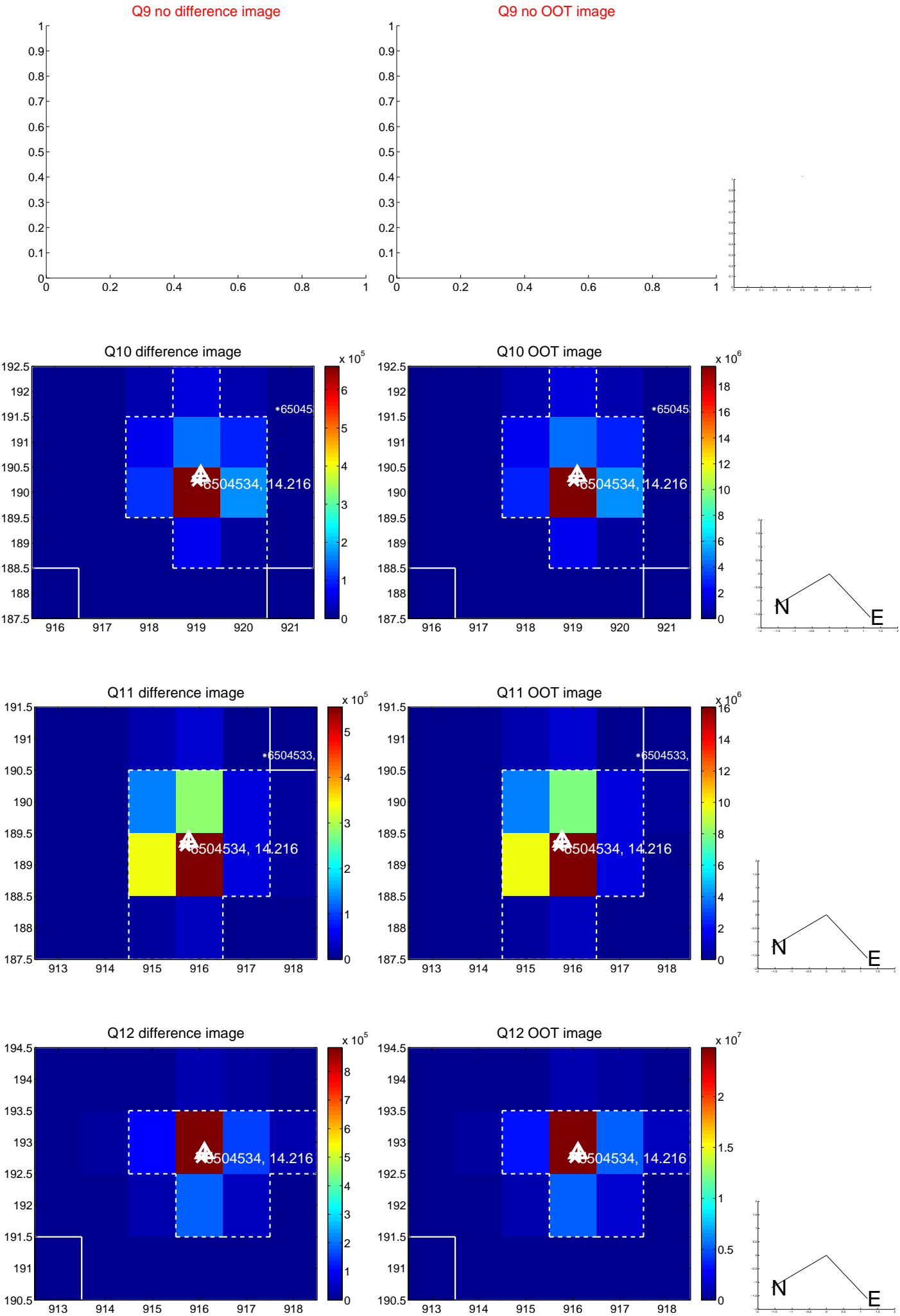
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



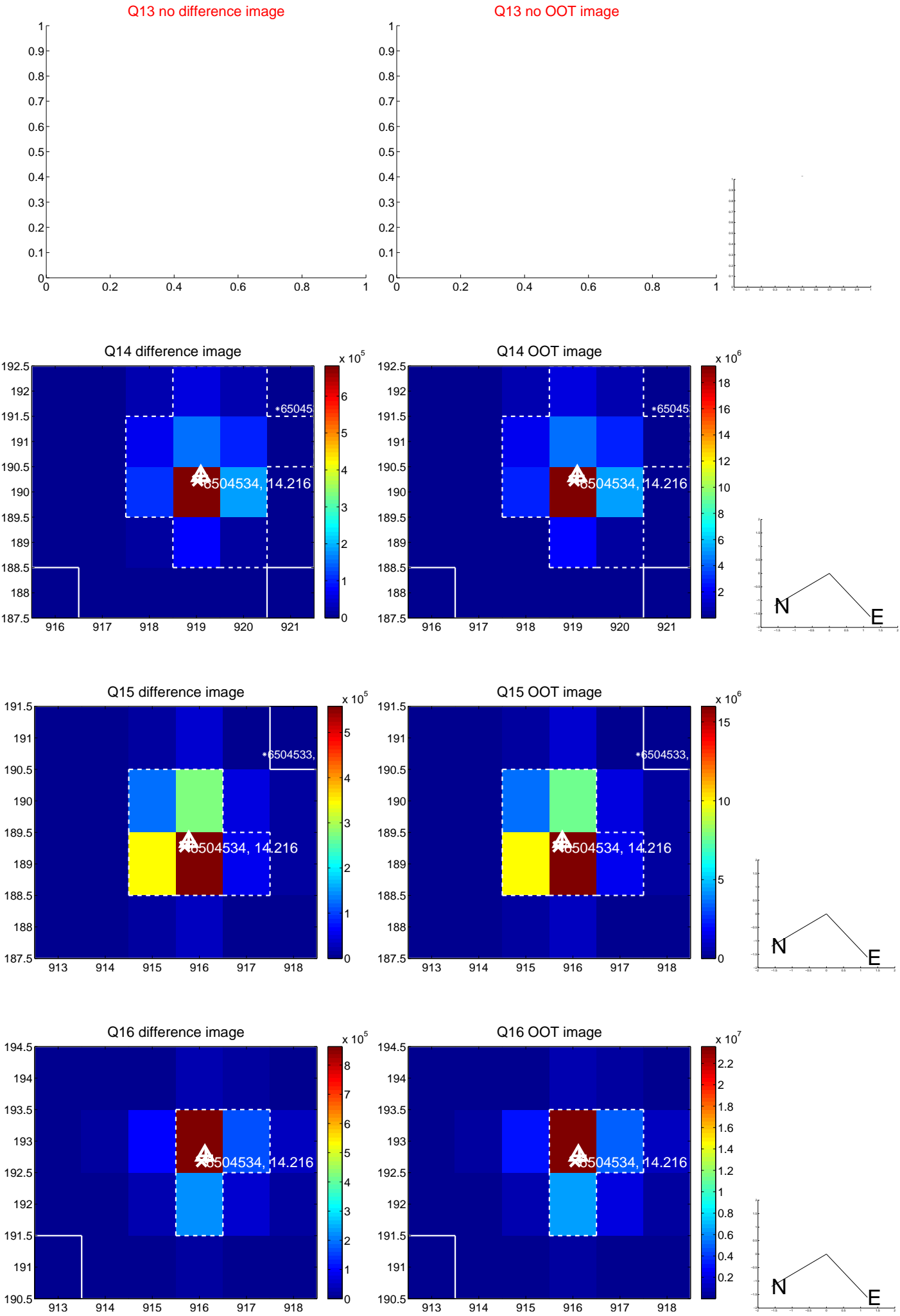
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



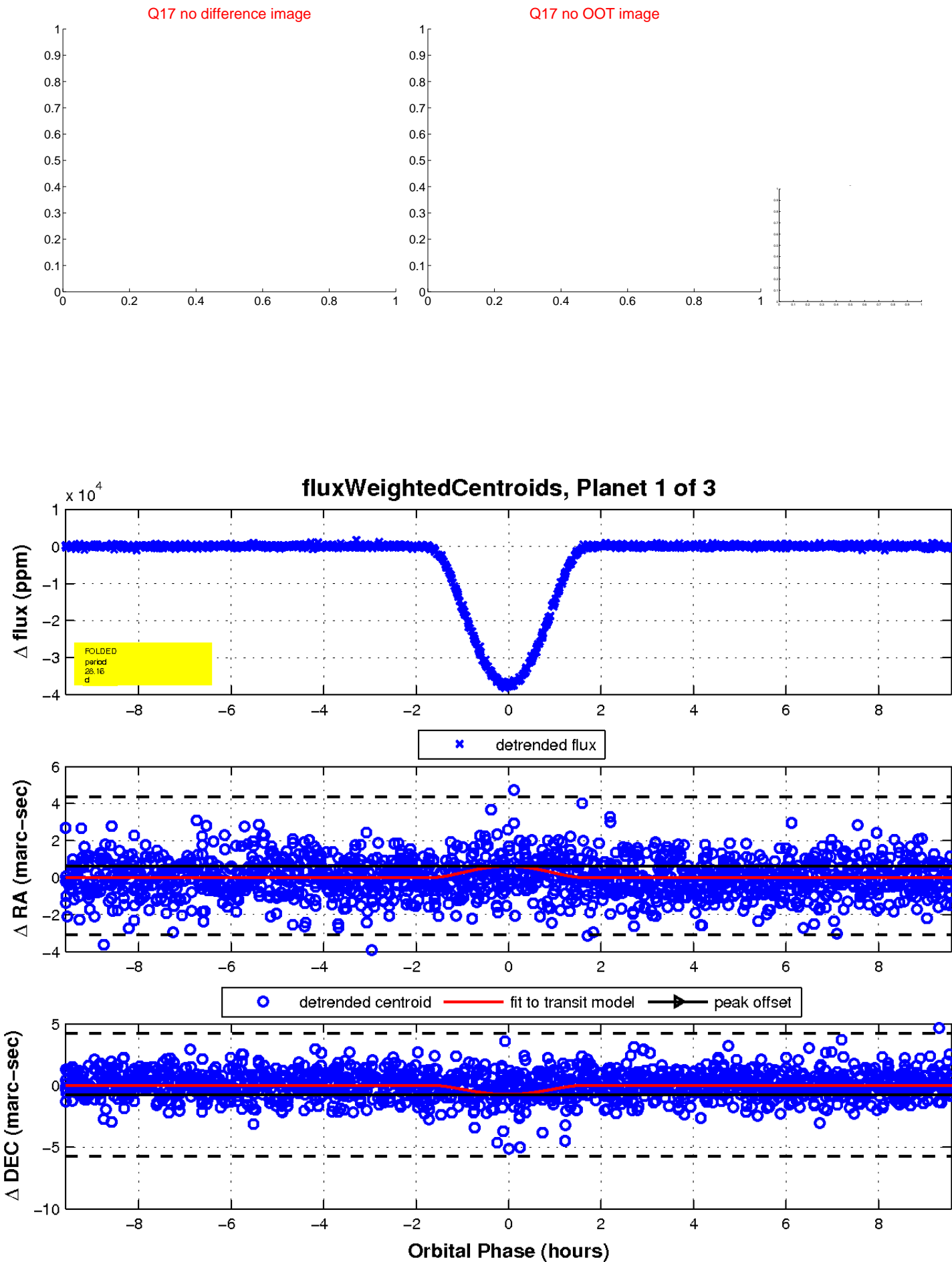
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

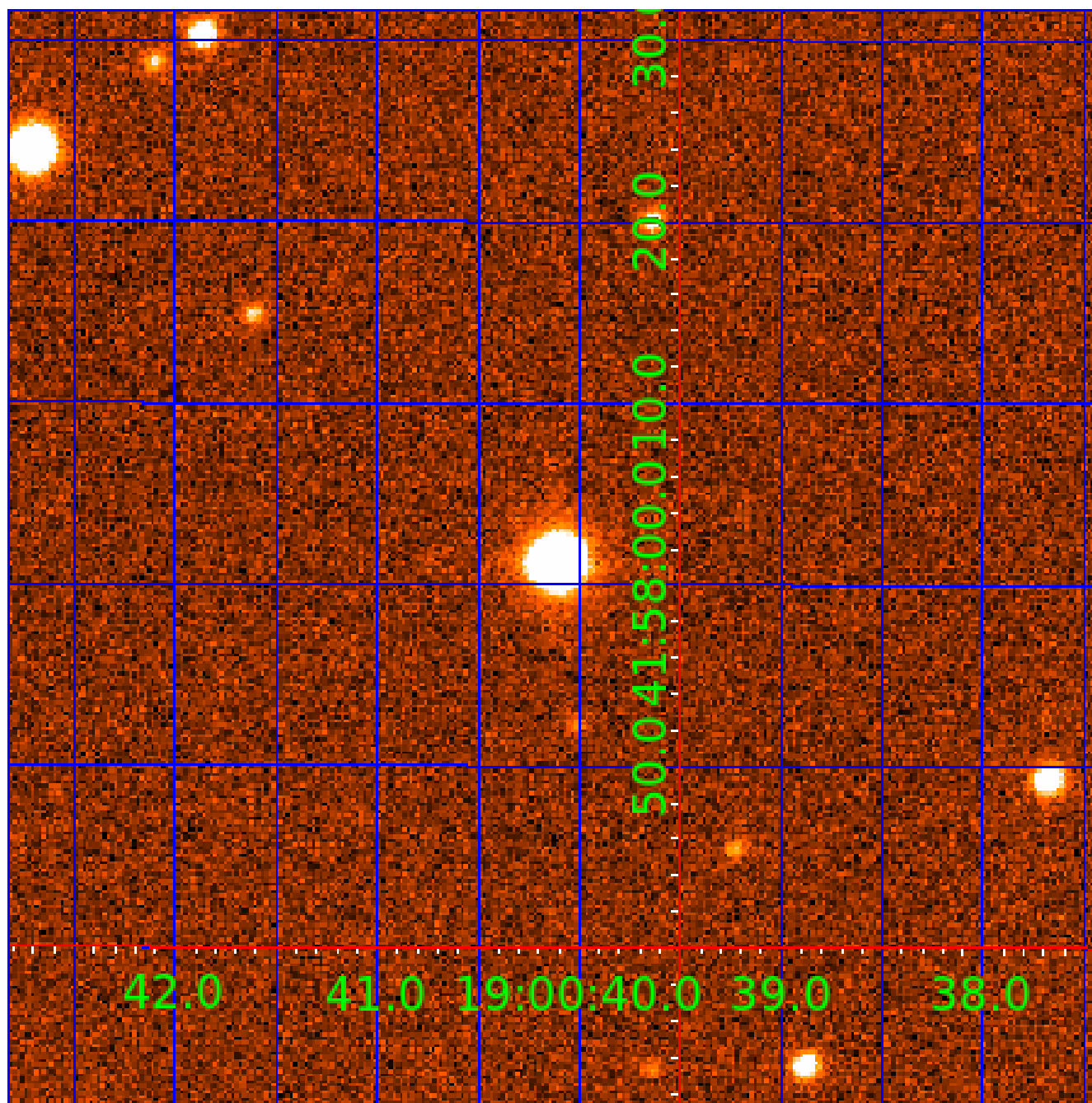


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 006504534

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})
006504534-01	OBS	3152.01	28.162612	143.717526	37523.6	3.196	1278.7	1131.3	0.76	4936	21.70	11.55
006504534-02	OBS	No	170.315556	290.546578	1797.9	6.712	29.5	27.2	0.76	4936	6.43	1.05
006504534-03	OBS	No	28.162570	159.427488	999.8	2.628	27.2	32.3	0.76	4936	3.76	11.55

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006504534-01	OBS	FP	0.00	0	1	0	0	MOD_SEC_DV—MOD_SEC_ALT—DEEP_V_SHAPED—HAS_SEC_TCE—CENT_KIC_POS
006504534-02	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_KIC_POS
006504534-03	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE—CENT_KIC_POS

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

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

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

Ephemeris Match Information For 006504534-02

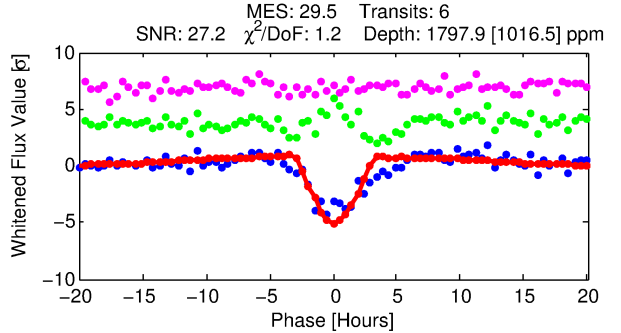
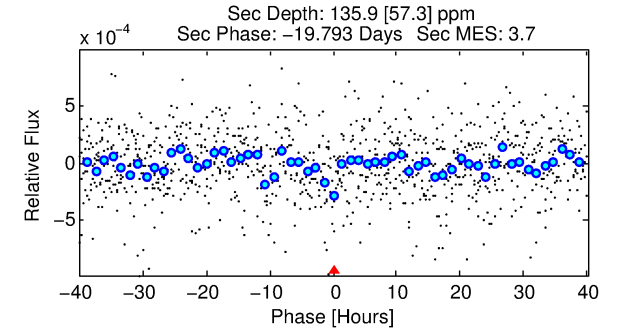
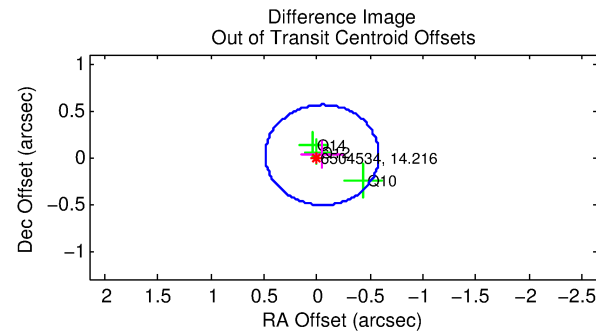
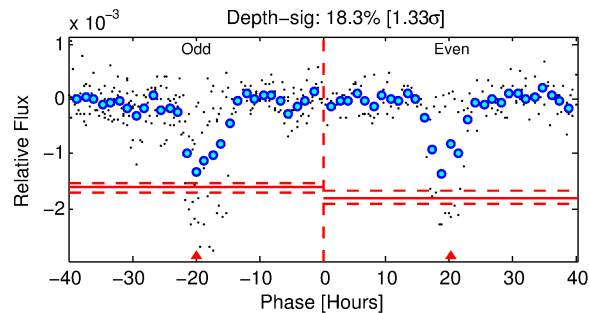
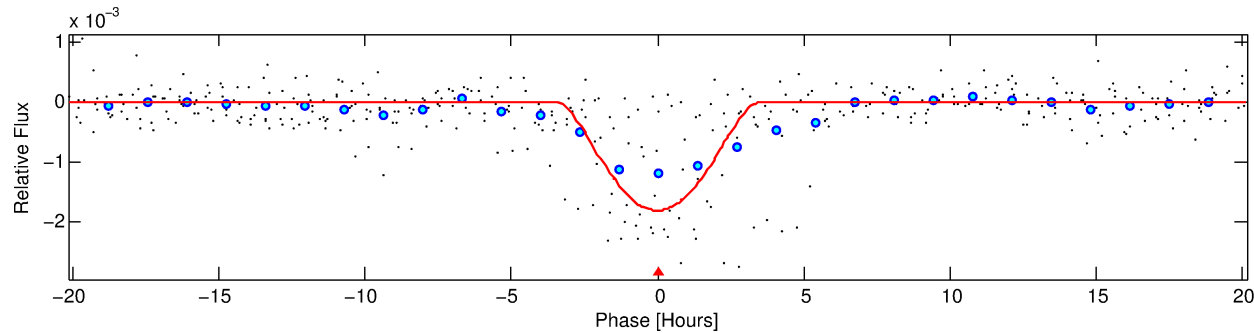
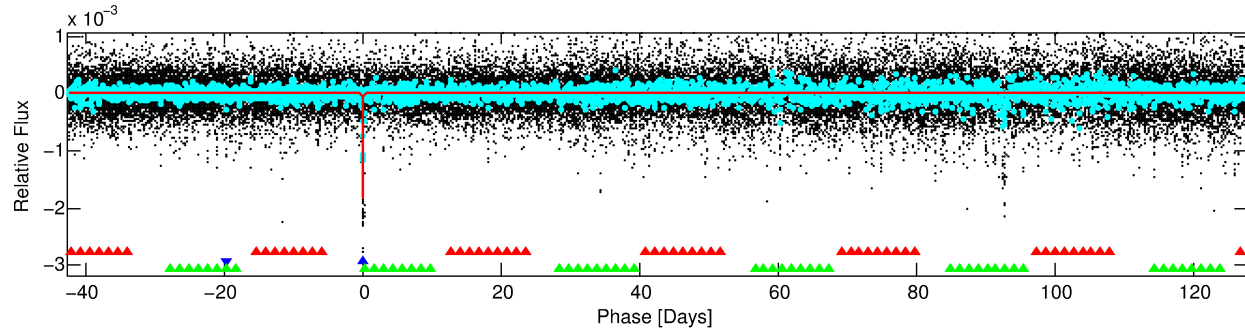
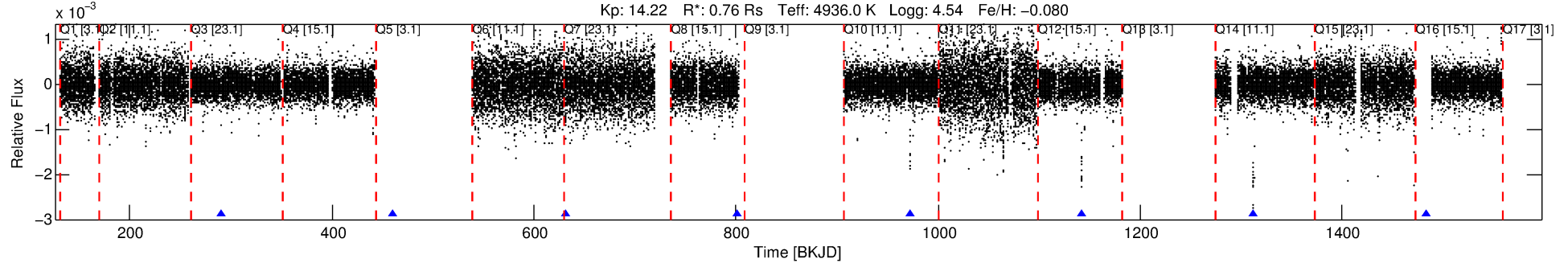
No Significant Match Found

DV One-Page Summary

KIC: 6504534 Candidate: 2 of 3 Period: 170.316 d

KOI: K03152 Corr: No Ephemeris Match

Kp: 14.22 R*: 0.76 Rs Teff: 4936.0 K Logg: 4.54 Fe/H: -0.080



DV Fit Results:

Period = 170.31556 [0.00159] d
Epoch = 290.5466 [0.0069] BKJD
Rp/R* = 0.0774 [0.1188]
a/R* = 77.76 [25.19]
b = 1.00 [0.14]
Seff = 1.05 [0.19]
Teq = 258 [12] K
Rp = 6.43 [9.89] Re
a = 0.5422 [0.0485] AU
Ag = 531.61 [1648.82] [0.32σ]
Teff = 1915 [1485] K [1.12σ]

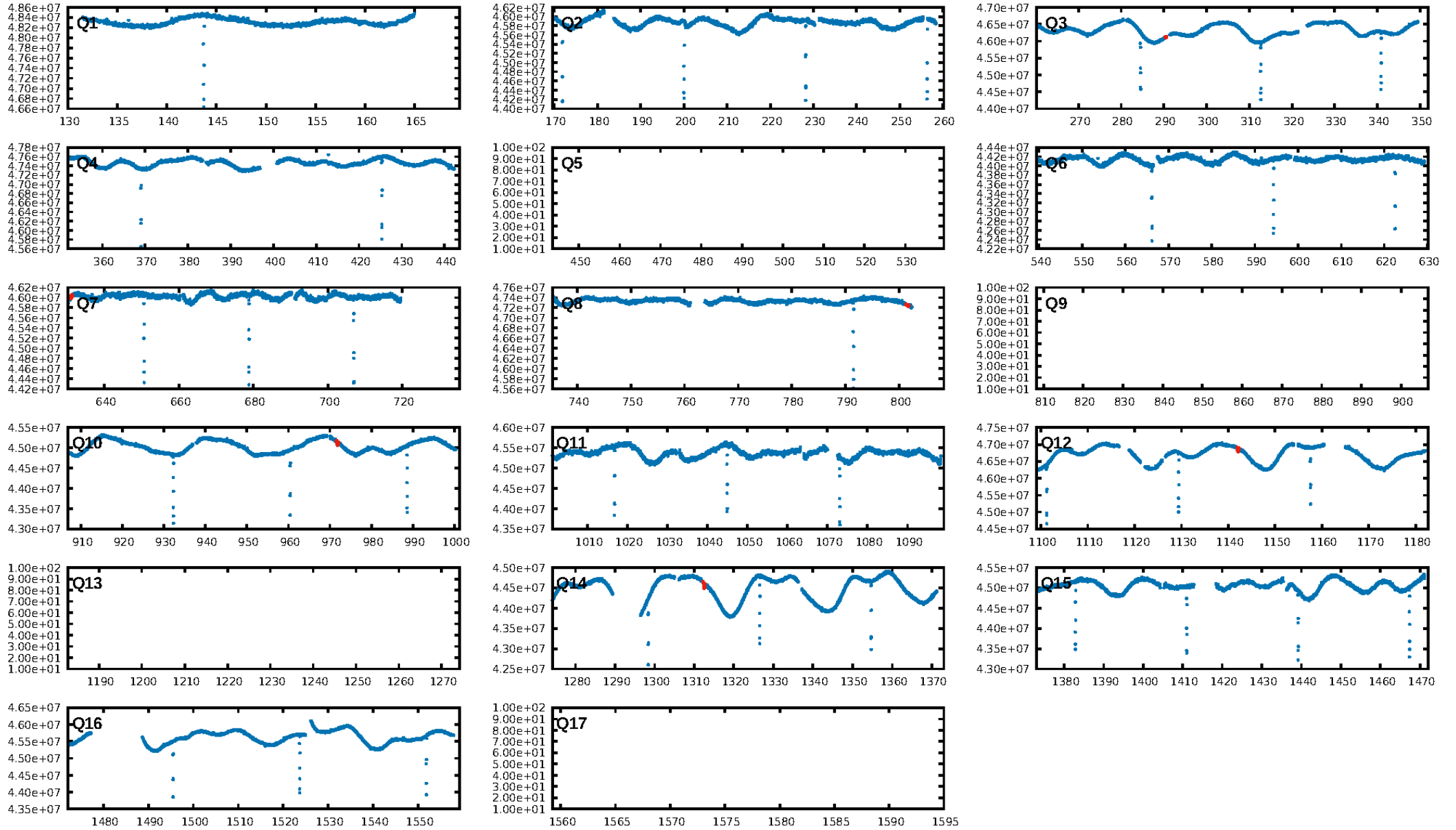
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [458.94σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 62.2%
Bootstrap-pfa: 1.82e-107
RollingBand-fgt: 1.00 [6/6]
GhostDiagnostic-chr: 1.093
Centroid-sig: 32.9%
Centroid-so: 0.524 arcsec [1.70σ]
OotOffset-rm: 0.054 arcsec [0.30σ]
OotOffset-st: 2/0/1/0 [3]
KicOffset-rm: 0.485 arcsec [3.14σ]
KicOffset-st: 2/0/1/0 [3]
DiffImageQuality-fgm: 1.00 [3/3]
DiffImageOverlap-fno: 1.00 [4/4]

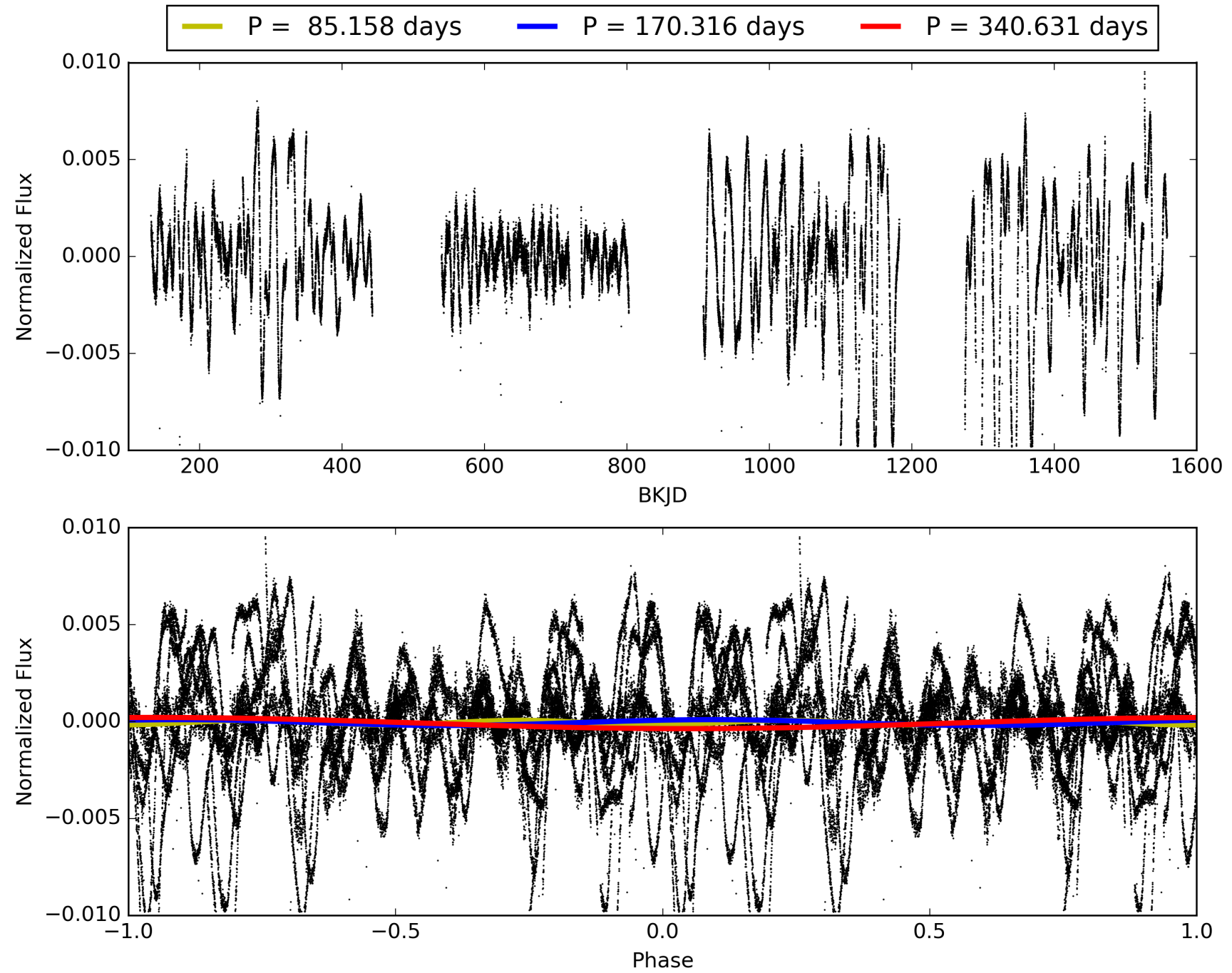
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 10:49:15 Z

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

TCE 006504534-02, PDC Light Curves

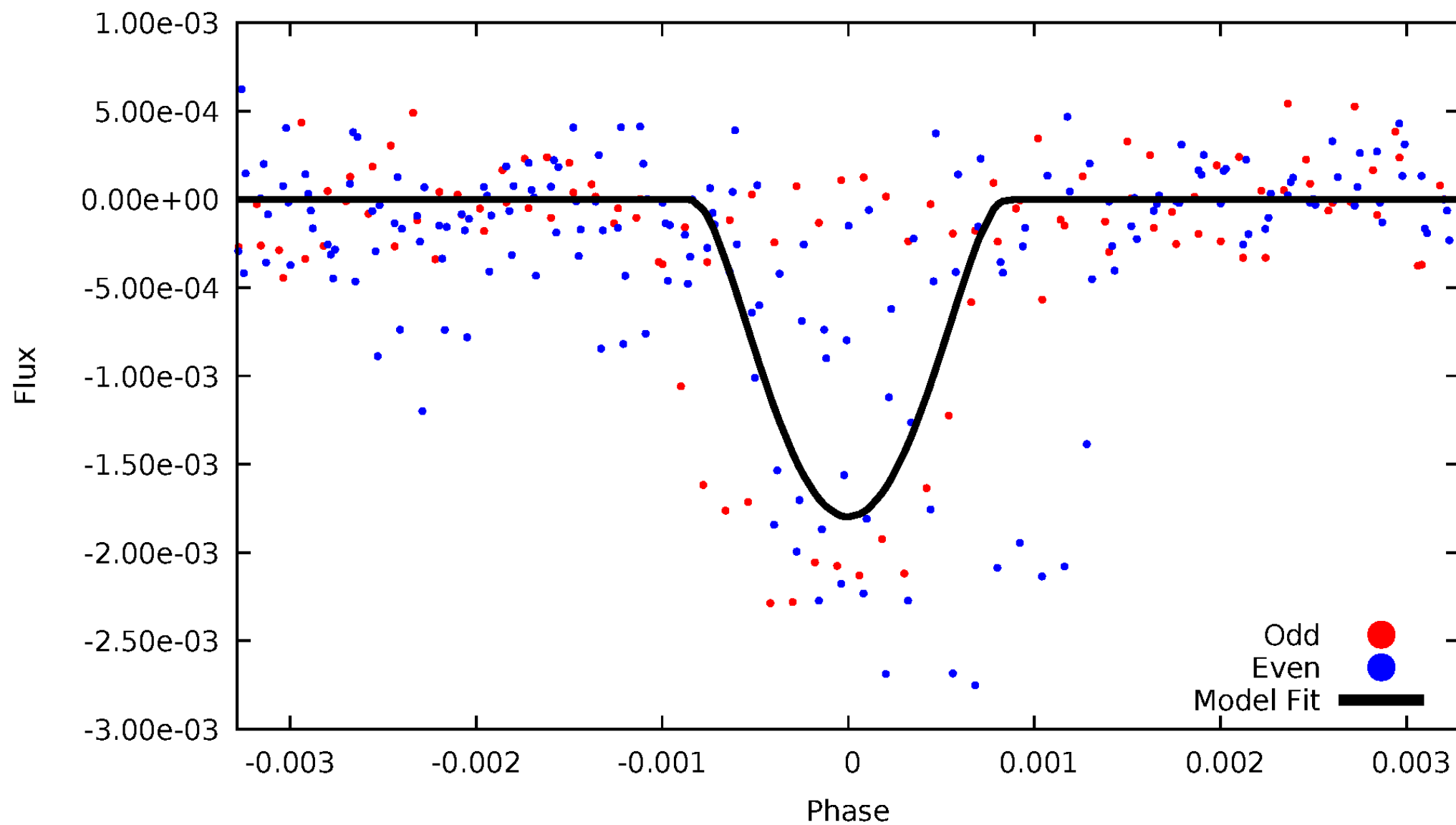


TCE 006504534-02



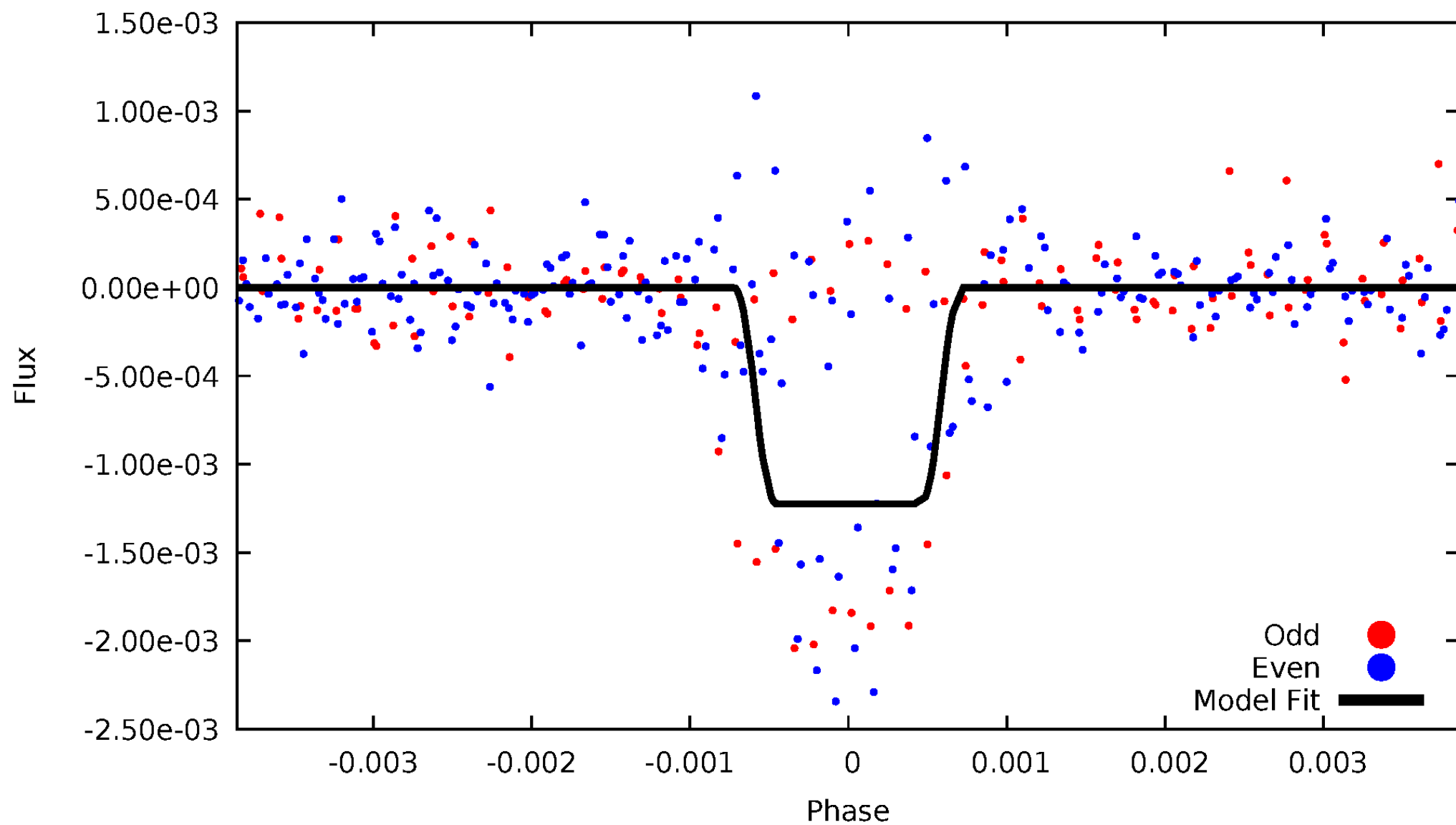
DV Odd/Even

TCE 006504534-02



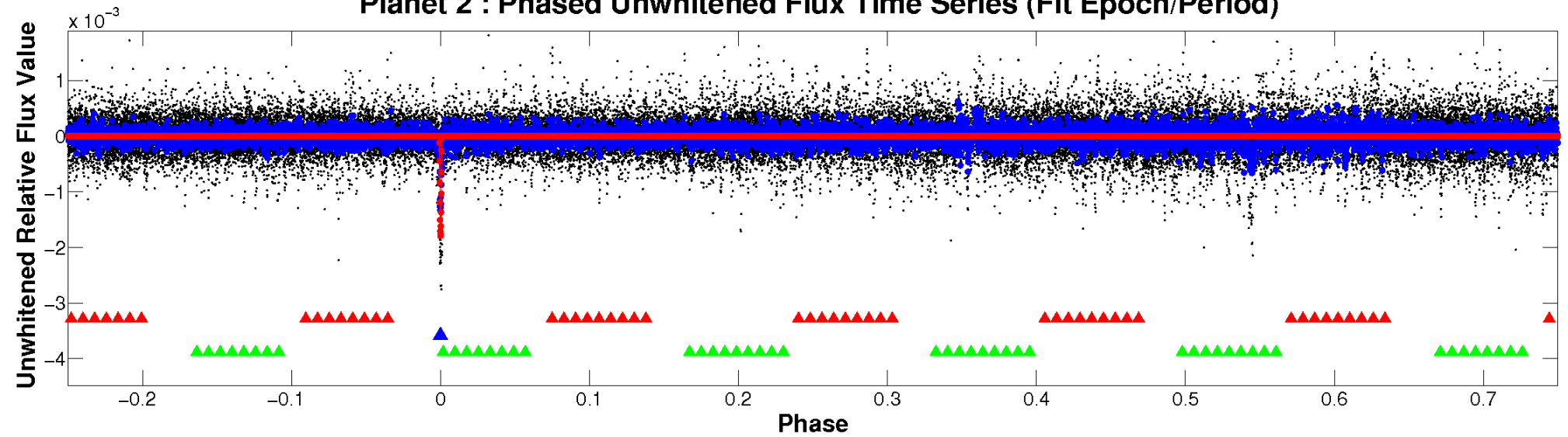
ALT Odd/Even

TCE 006504534-02

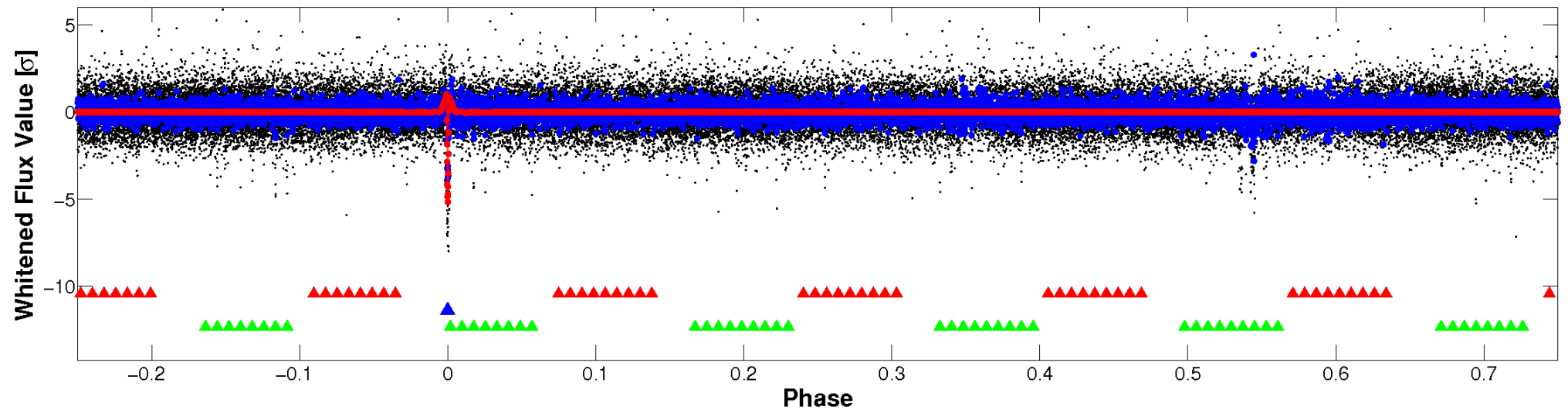


Non-Whitened Vs. Whitened Light Curve

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

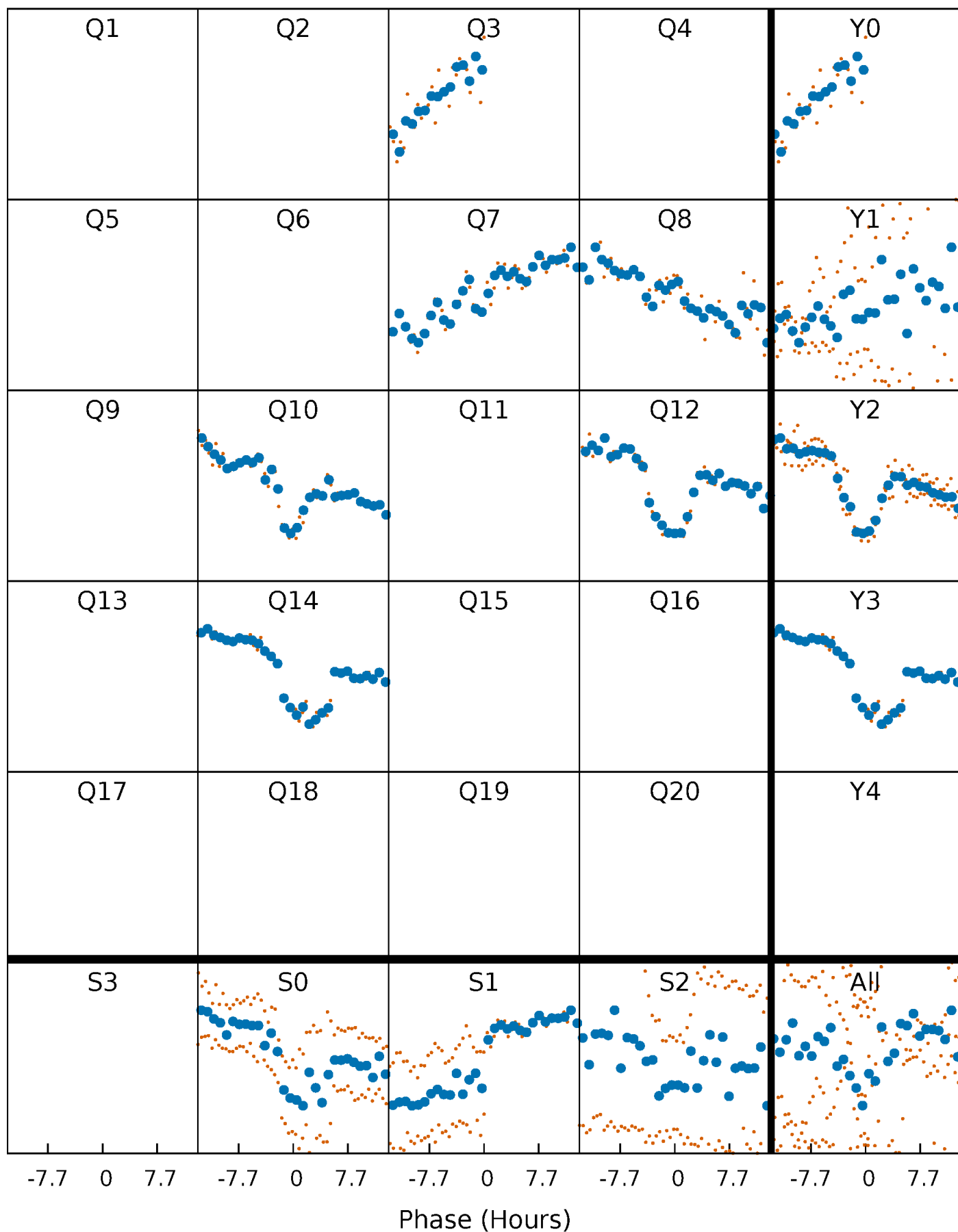


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



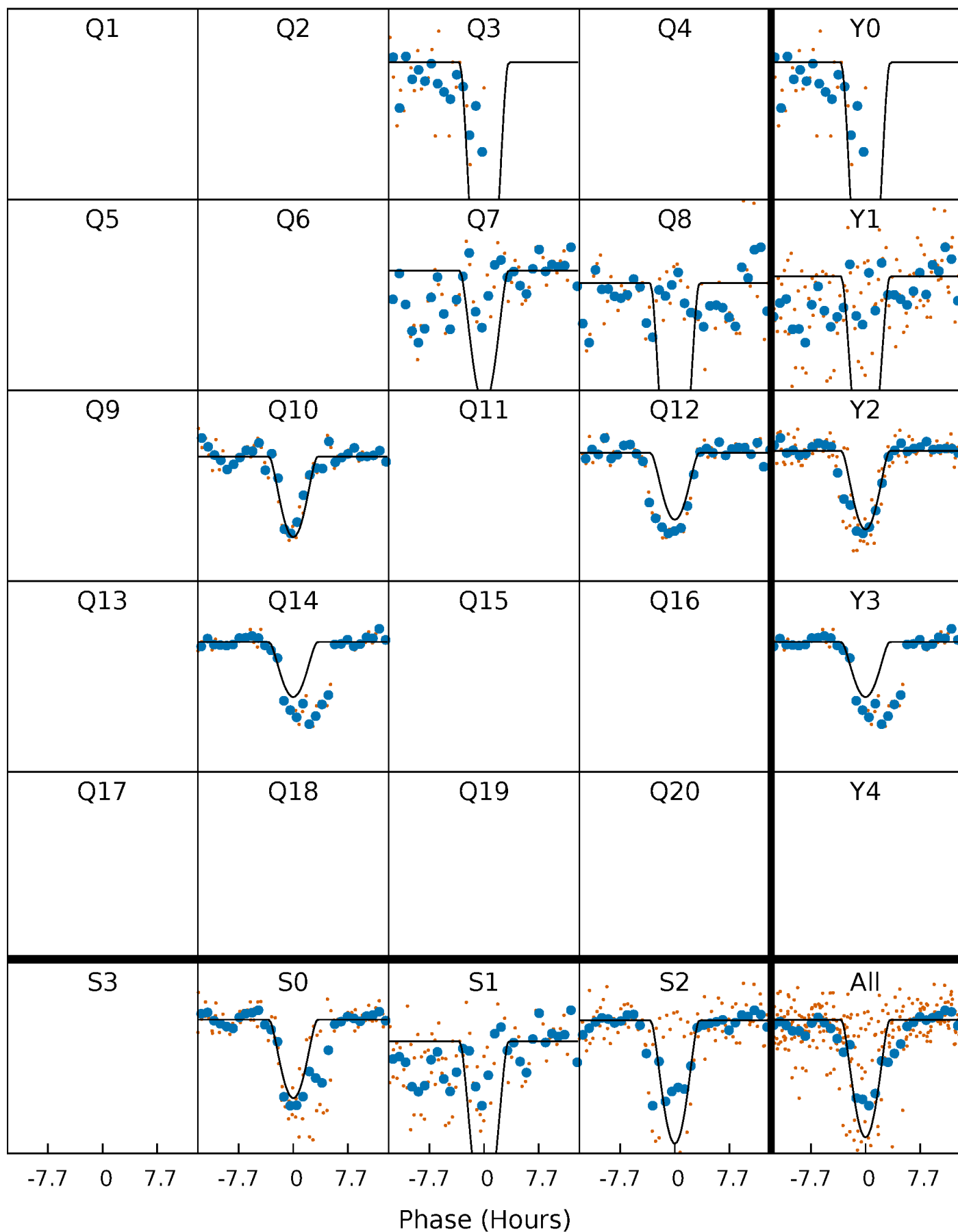
PDC Quarter-Phased Transit Curves

TCE 006504534-02 P=170.315556 Days $T_0=290.546578$ (BKJD)



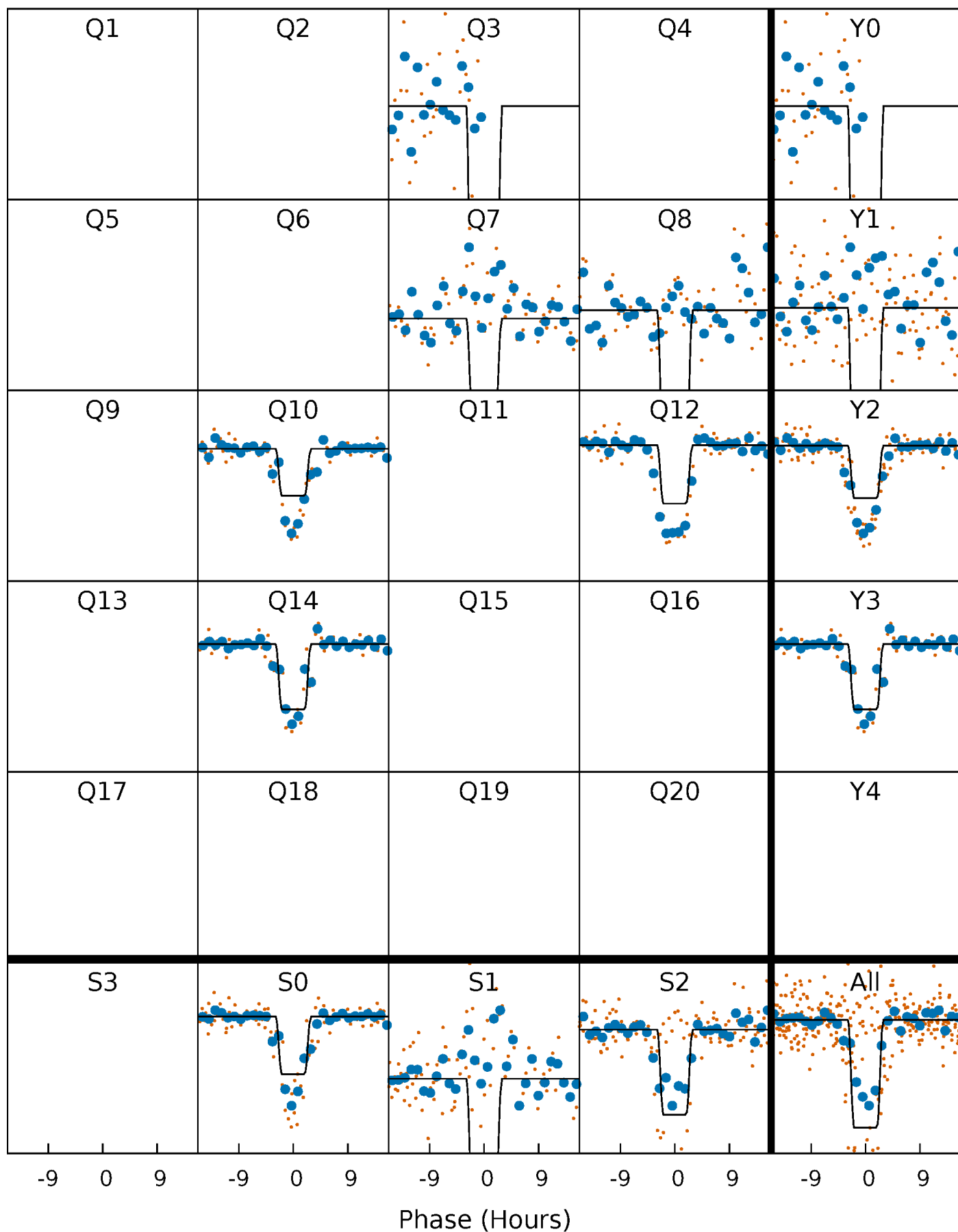
DV Quarter-Phased Transit Curves

TCE 006504534-02 P=170.315556 Days $T_0=290.546578$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

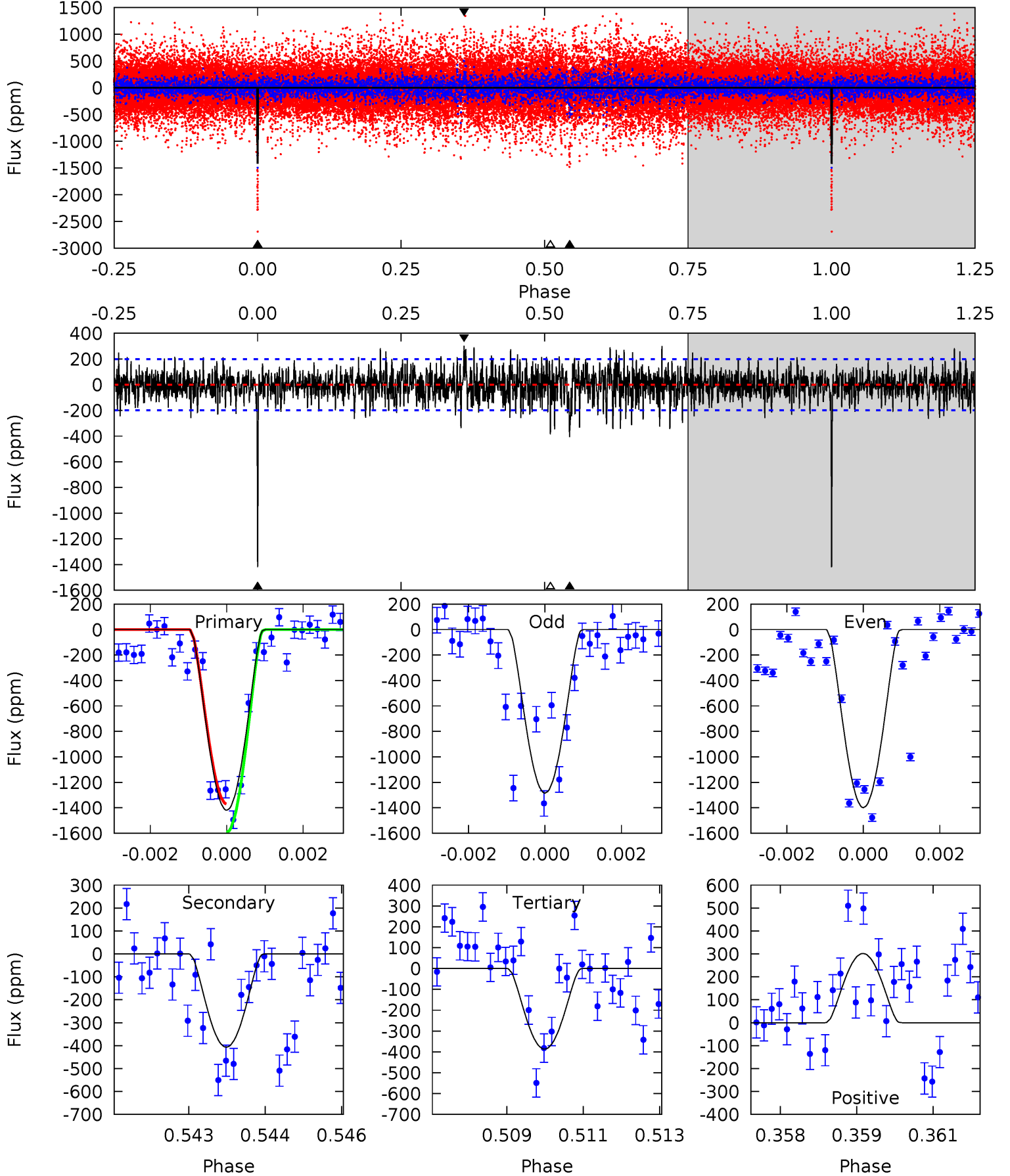
TCE 006504534-02 P=170.312536 Days $T_0=290.548024$ (BKJD)



DV Model-Shift Uniqueness Test

006504534-02, P = 170.315556 Days, E = 120.231022 Days

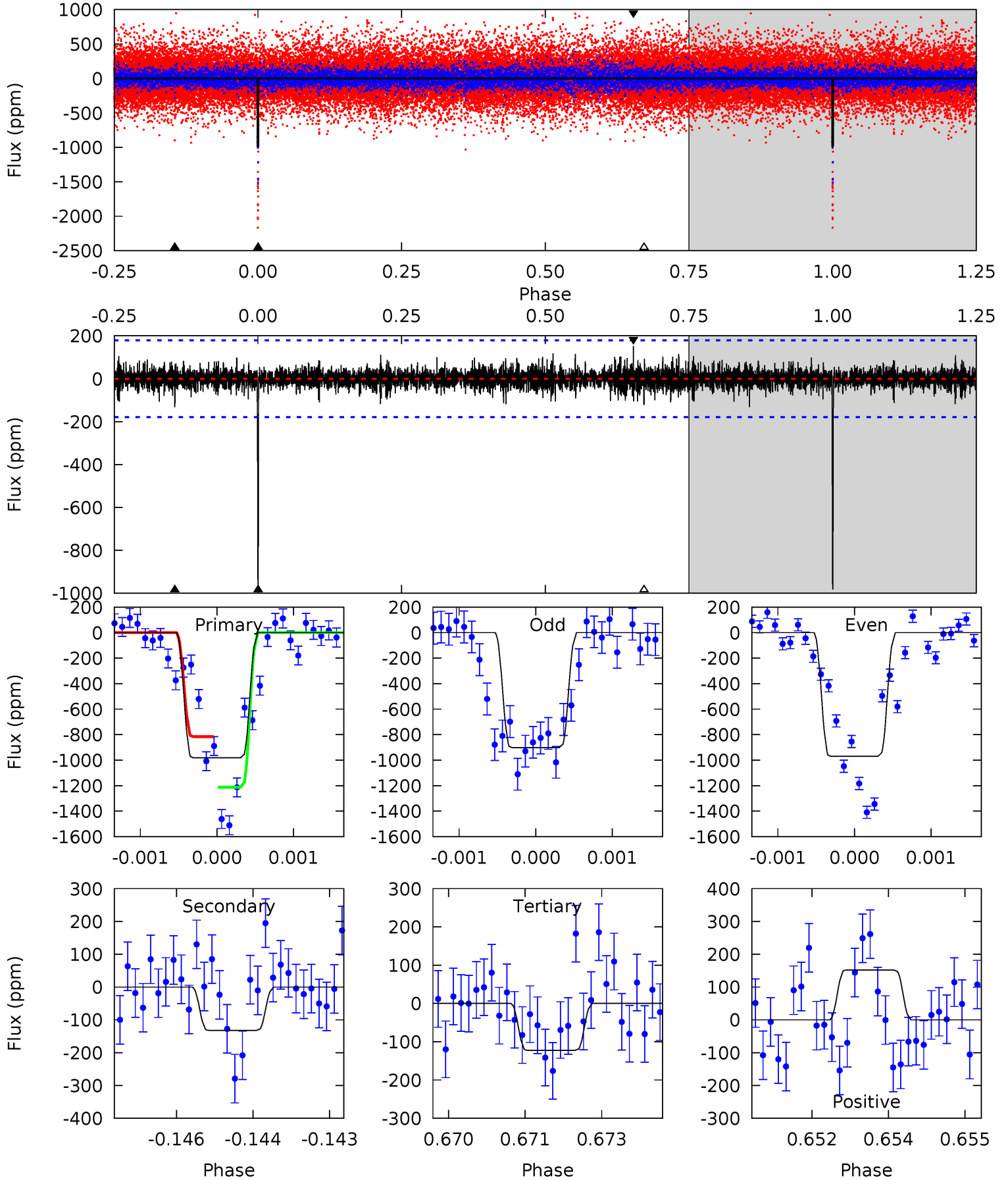
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
38.3	11.0	10.4	8.14	5.35	3.13	2.43	27.9	30.1	0.54	2.83	1.58	1.18	0.18	2.99



Alt Model-Shift Uniqueness Test

006504534-02, P = 170.312536 Days, E = 120.235488 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	3.98	3.69	4.58	5.40	3.20	0.94	25.9	25.0	0.29	-0.60	1.13	1.24	0.13	0



Stellar Parameters For KIC 006504534

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4936^{+133}_{-148}	$4.540^{+0.078}_{-0.042}$	$-0.080^{+0.300}_{-0.300}$	$0.761^{+0.063}_{-0.076}$	$0.734^{+0.085}_{-0.054}$	$2.343^{+0.706}_{-0.378}$
	+3%/-3%	+2%/-1%	+375%/-375%	+8%/-10%	+12%/-7%	+30%/-16%
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 006504534-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-407 ± 37	$10.01^{+8.26}_{-6.69}$	359^{+12}_{-14}	2751^{+1069}_{-396}	702^{+5407}_{-508}
Alt.	-132 ± 33	$8.15^{+8.25}_{-5.45}$	359^{+13}_{-13}	2501^{+854}_{-385}	322^{+2533}_{-247}

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

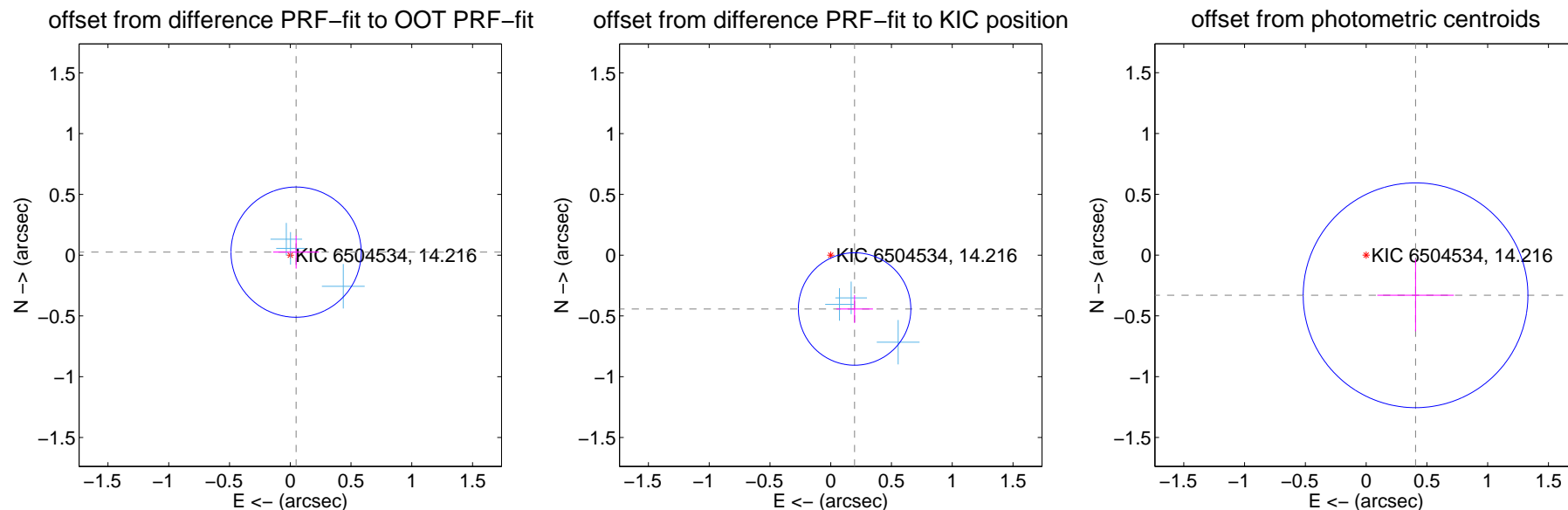
DV Centroid Data

Supplemental centroid analysis for 006504534-02. Kepler magnitude: 14.22. Transit SNR 27.17

There are 3 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.52 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.054 ± 0.179	0.30	-0.048 ± 0.188	0.025 ± 0.135
PRF-fit source offset from KIC position	0.485 ± 0.154	3.14	-0.197 ± 0.151	-0.443 ± 0.114
photometric centroid source offset	0.52 ± 0.31	1.70	-0.41 ± 0.32	-0.33 ± 0.30

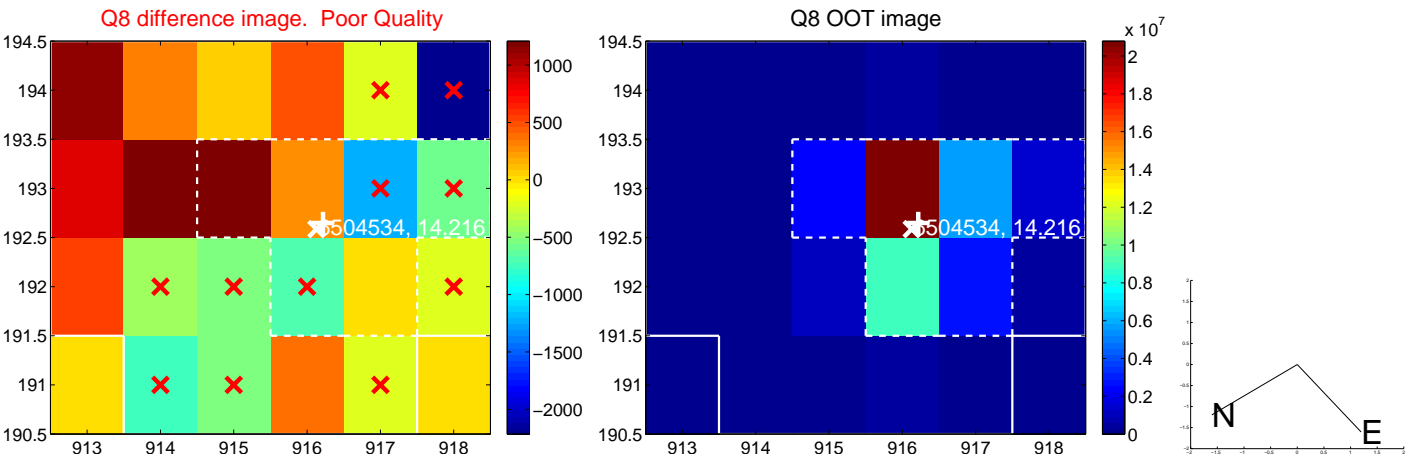


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

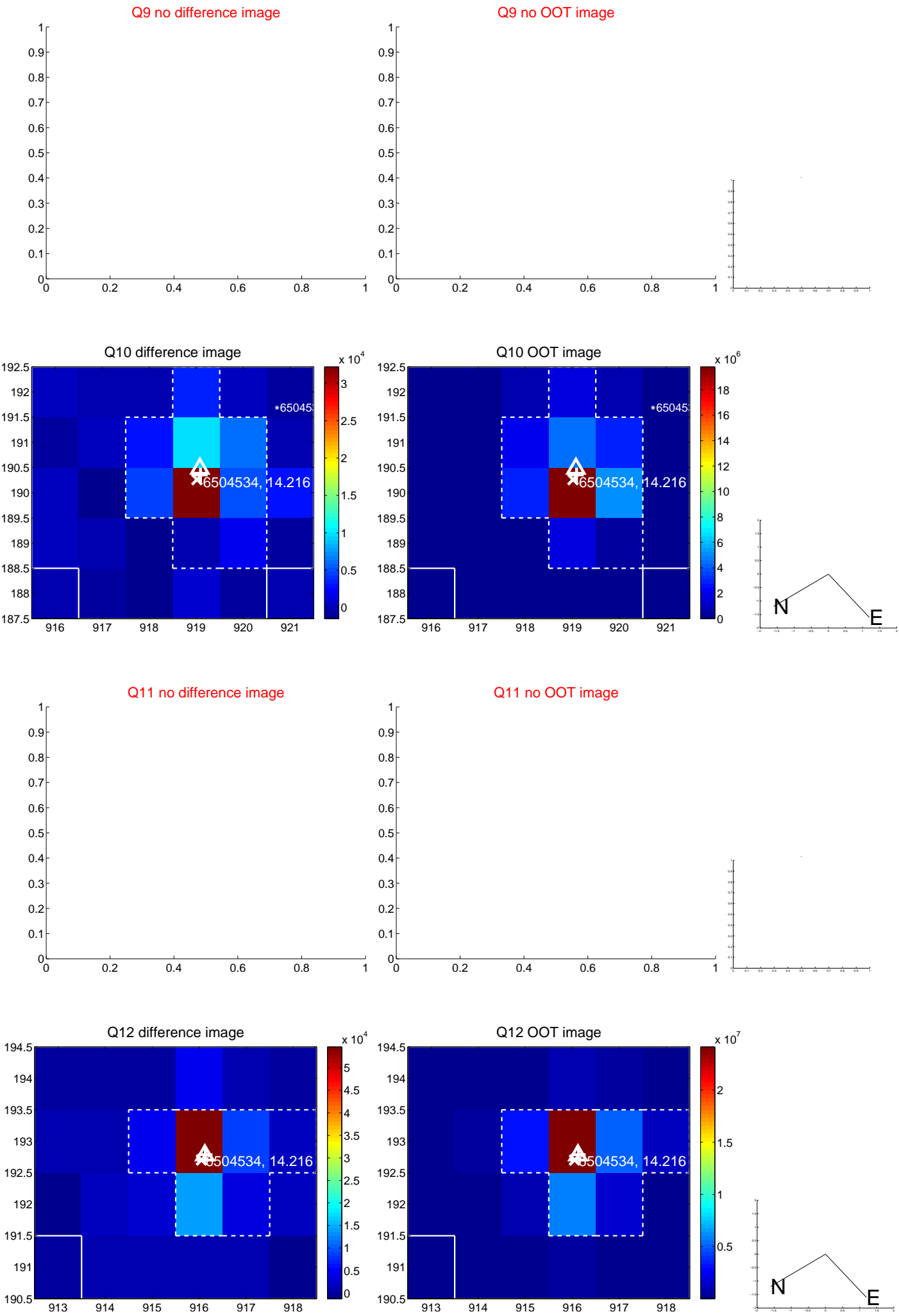
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



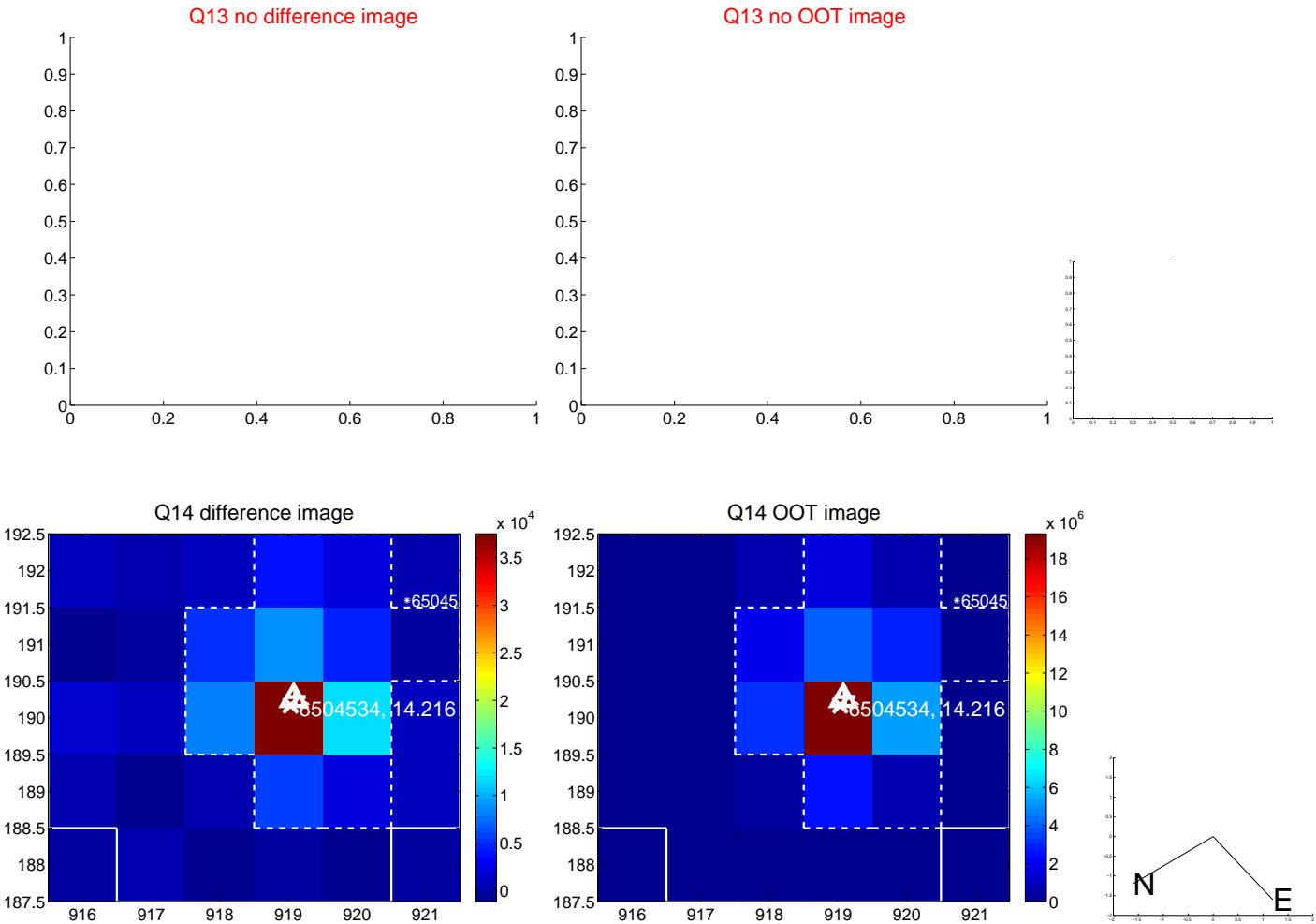
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



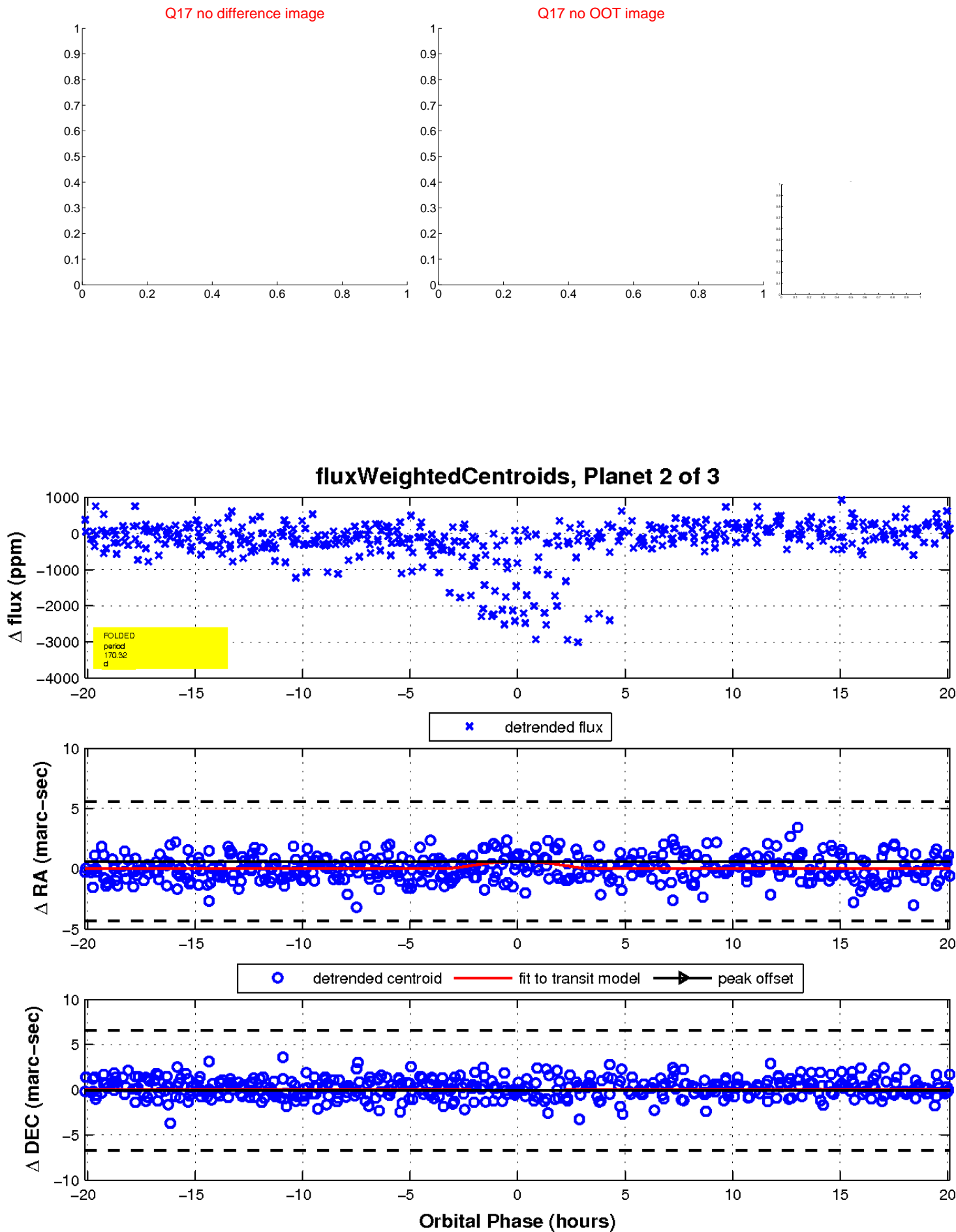
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

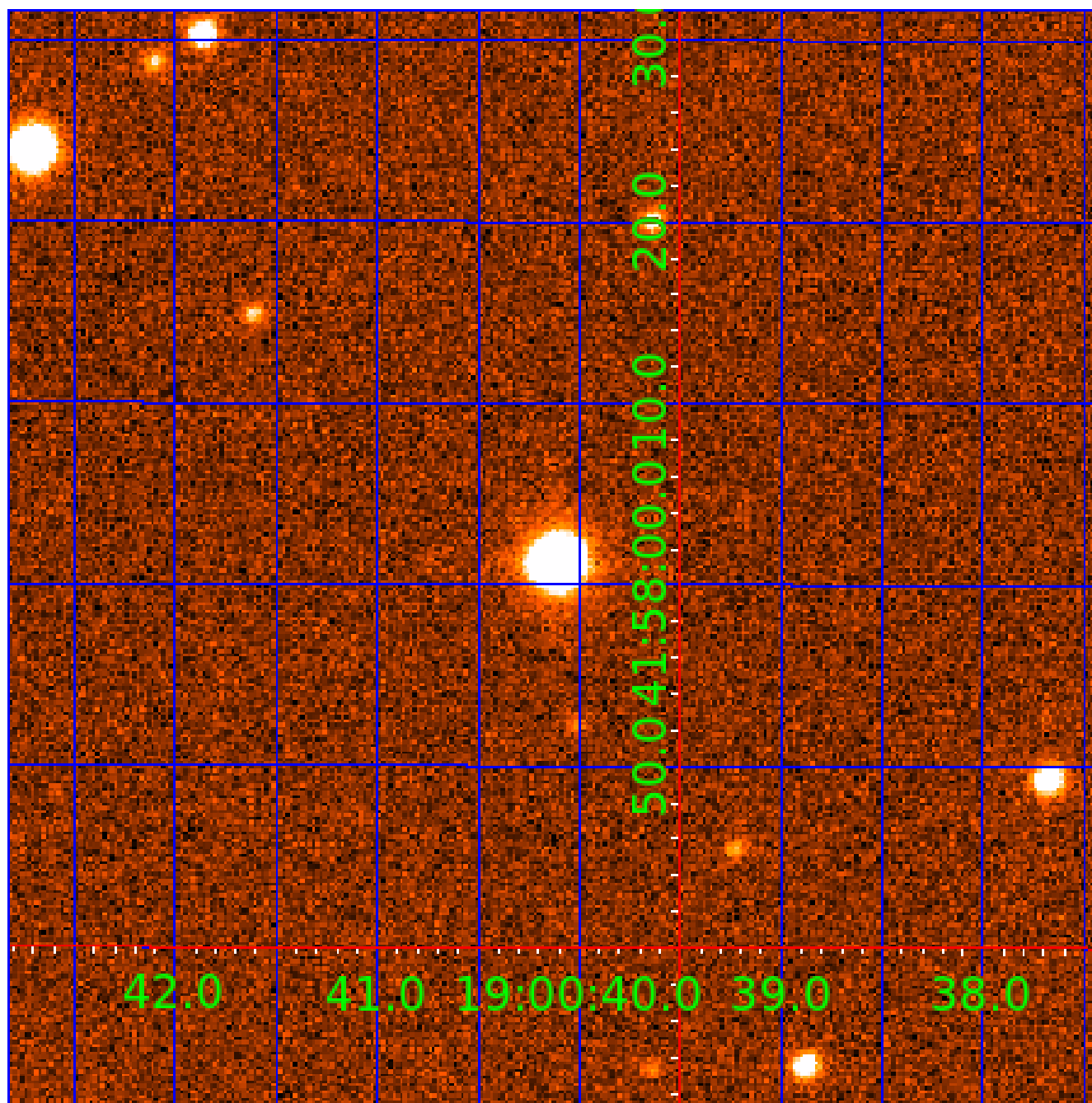


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 006504534

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})
006504534-01	OBS	3152.01	28.162612	143.717526	37523.6	3.196	1278.7	1131.3	0.76	4936	21.70	11.55
006504534-02	OBS	No	170.315556	290.546578	1797.9	6.712	29.5	27.2	0.76	4936	6.43	1.05
006504534-03	OBS	No	28.162570	159.427488	999.8	2.628	27.2	32.3	0.76	4936	3.76	11.55

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006504534-01	OBS	FP	0.00	0	1	0	0	MOD_SEC_DV—MOD_SEC_ALT—DEEP_V_SHAPED—HAS_SEC_TCE—CENT_KIC_POS
006504534-02	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_KIC_POS
006504534-03	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE—CENT_KIC_POS

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

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

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

Ephemeris Match Information For 006504534-03

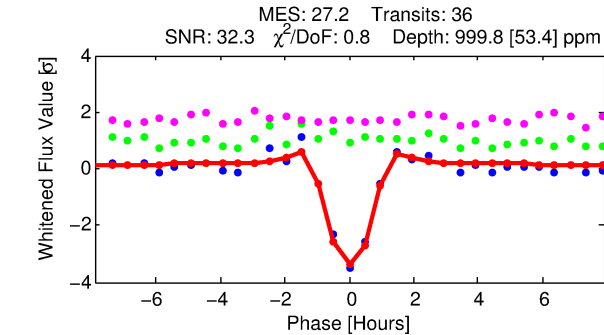
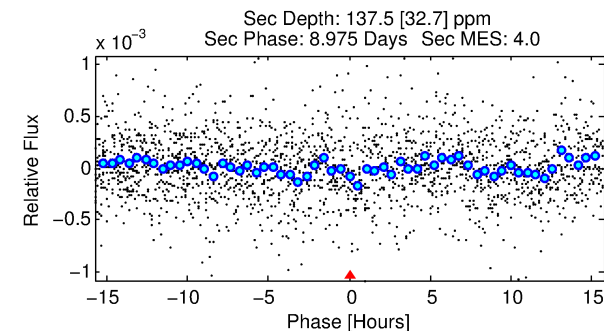
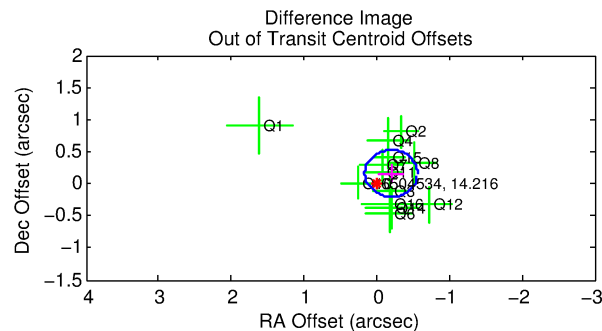
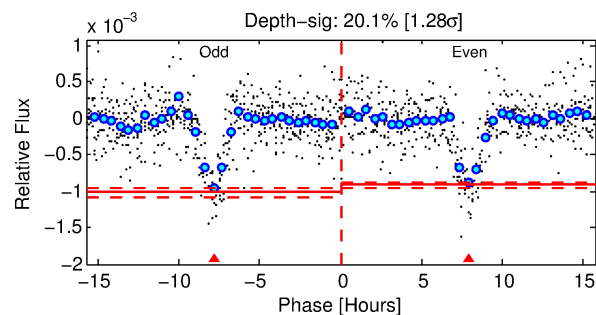
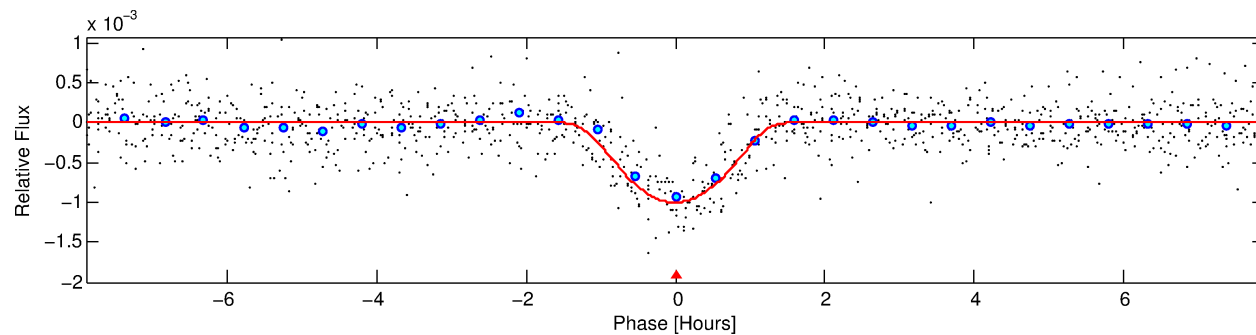
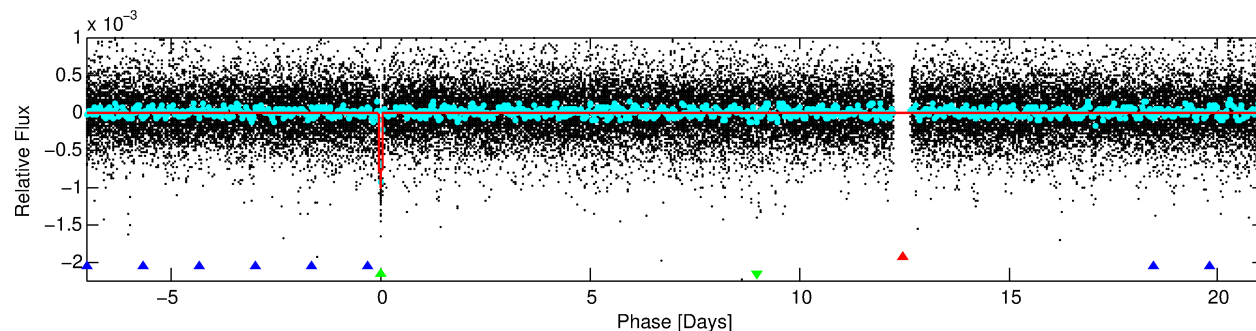
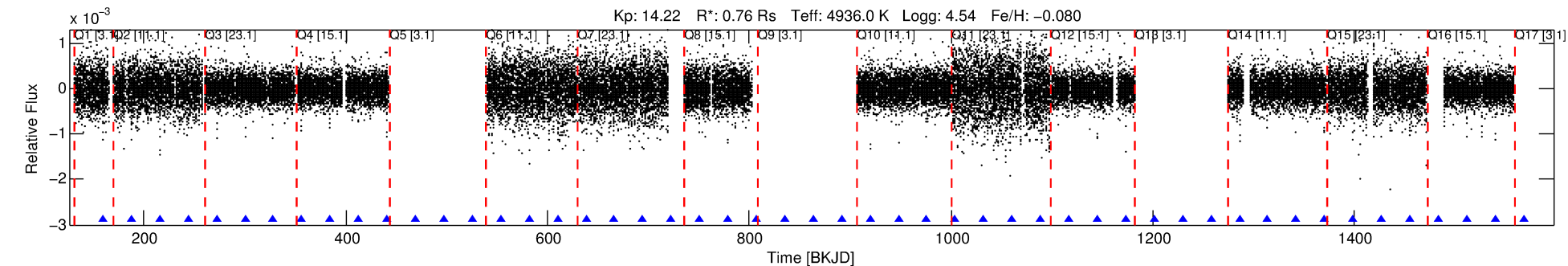
No Significant Match Found

DV One-Page Summary

KIC: 6504534 Candidate: 3 of 3 Period: 28.163 d

KOI: K03152 Corr: No Ephemeris Match

Kp: 14.22 R*: 0.76 Rs Teff: 4936.0 K Logg: 4.54 Fe/H: -0.080



DV Fit Results:

Period = 28.16257 [0.00005] d
Epoch = 159.4275 [0.0015] BKJD
Rp/R* = 0.0453 [0.0168]
a/R* = 30.61 [4.82]
b = 0.98 [0.03]
Seff = 11.55 [2.10]
Teff = 470 [21] K
Rp = 3.76 [1.45] Re
a = 0.1633 [0.0146] AU
Ag = 142.71 [112.91] [1.26σ]
Teffp = 2512 [495] K [4.12σ]

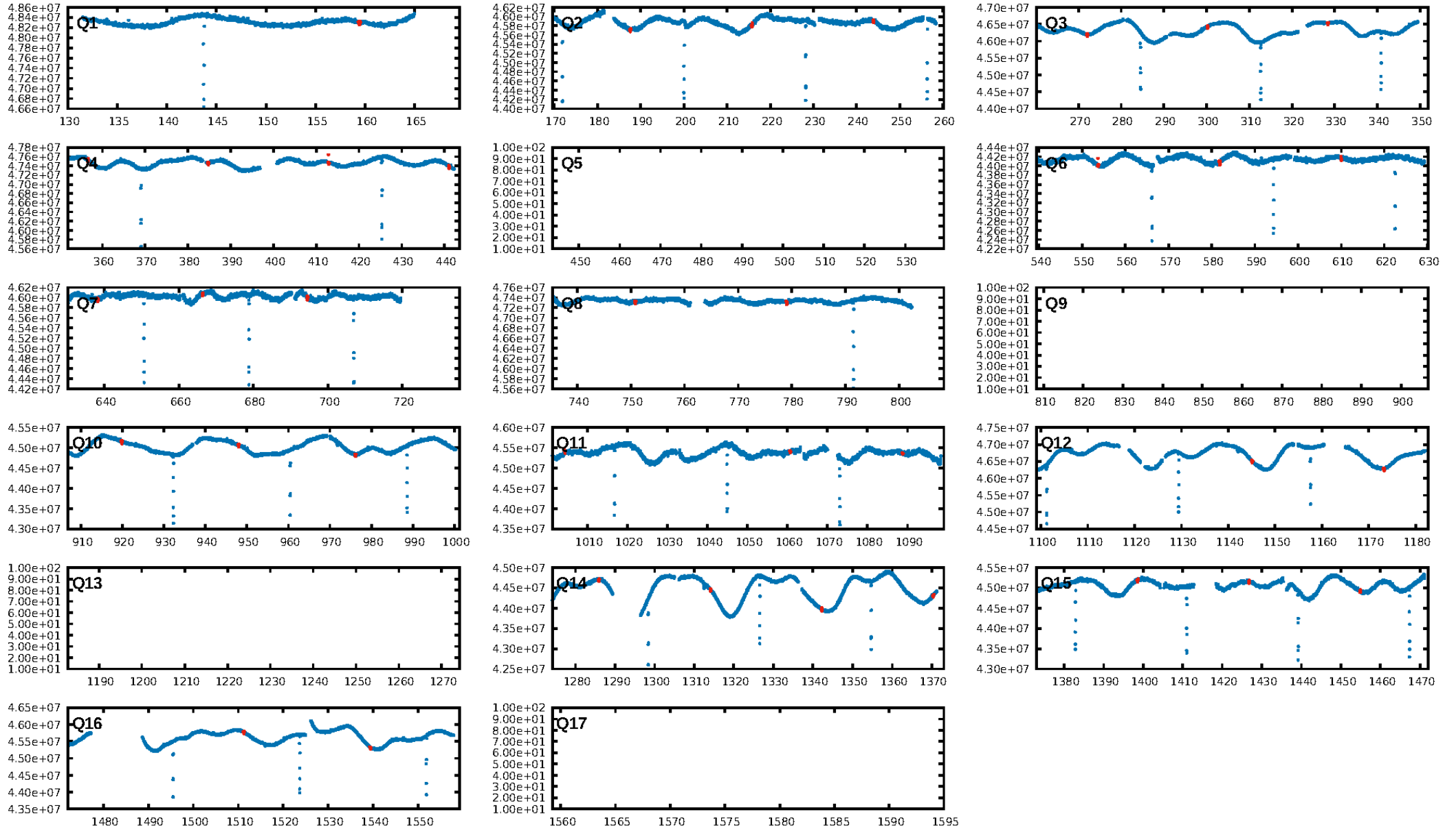
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 0.0% [0.00σ]
ModelChiSquare2-sig: 99.7%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 7.46e-133
RollingBand-fgt: 1.00 [35/35]
GhostDiagnostic-chr: 2.808
Centroid-sig: 1.4%
Centroid-so: 0.268 arcsec [0.82σ]
OotOffset-rm: 0.252 arcsec [2.08σ]
KicOffset-rm: 0.340 arcsec [1.82σ]
OotOffset-st: 4/4/4/1 [13]
KicOffset-st: 4/4/4/1 [13]
DiffImageQuality-fgm: 1.00 [13/13]
DiffImageOverlap-fno: 1.00 [13/13]

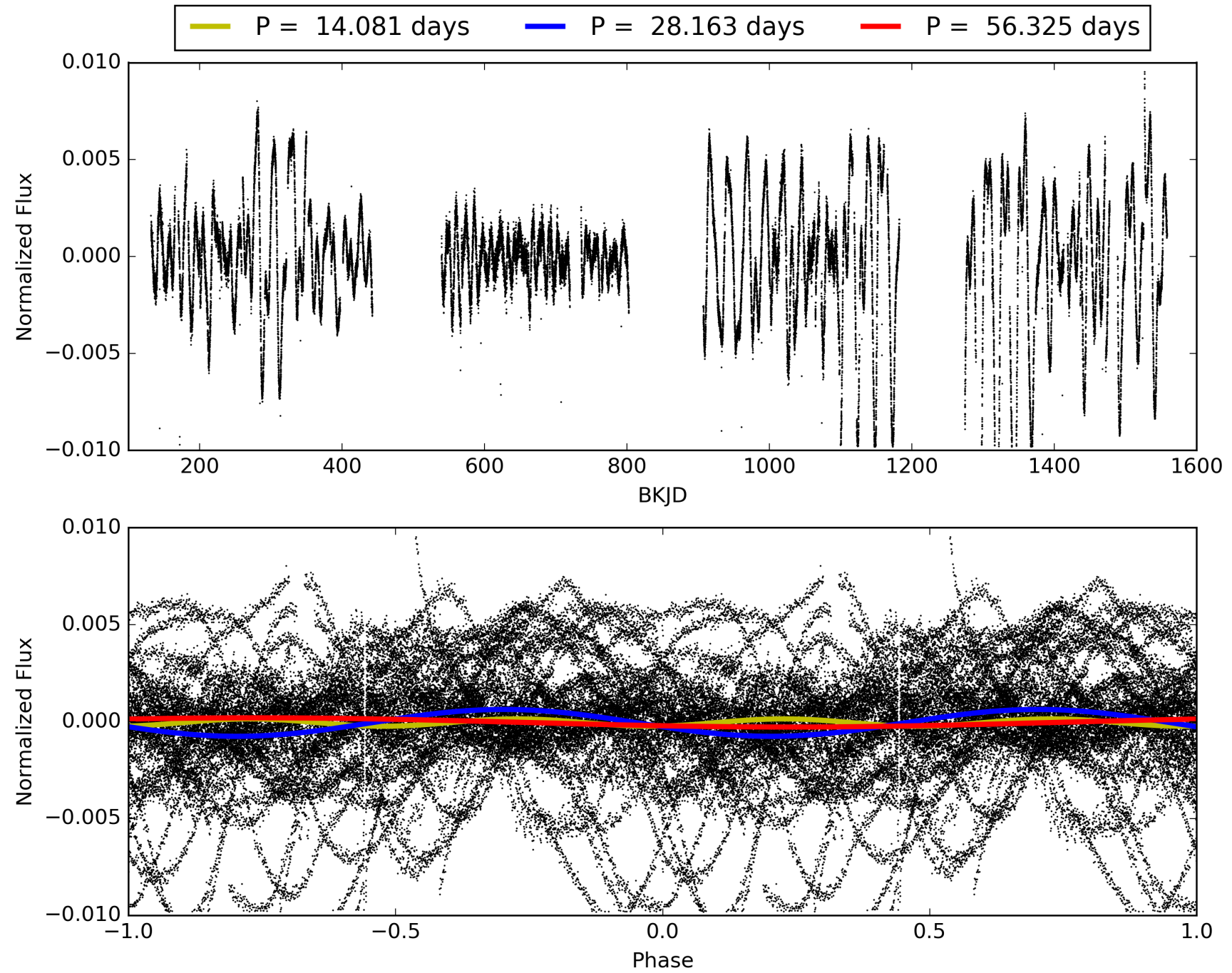
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 10:49:21 Z

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

TCE 006504534-03, PDC Light Curves

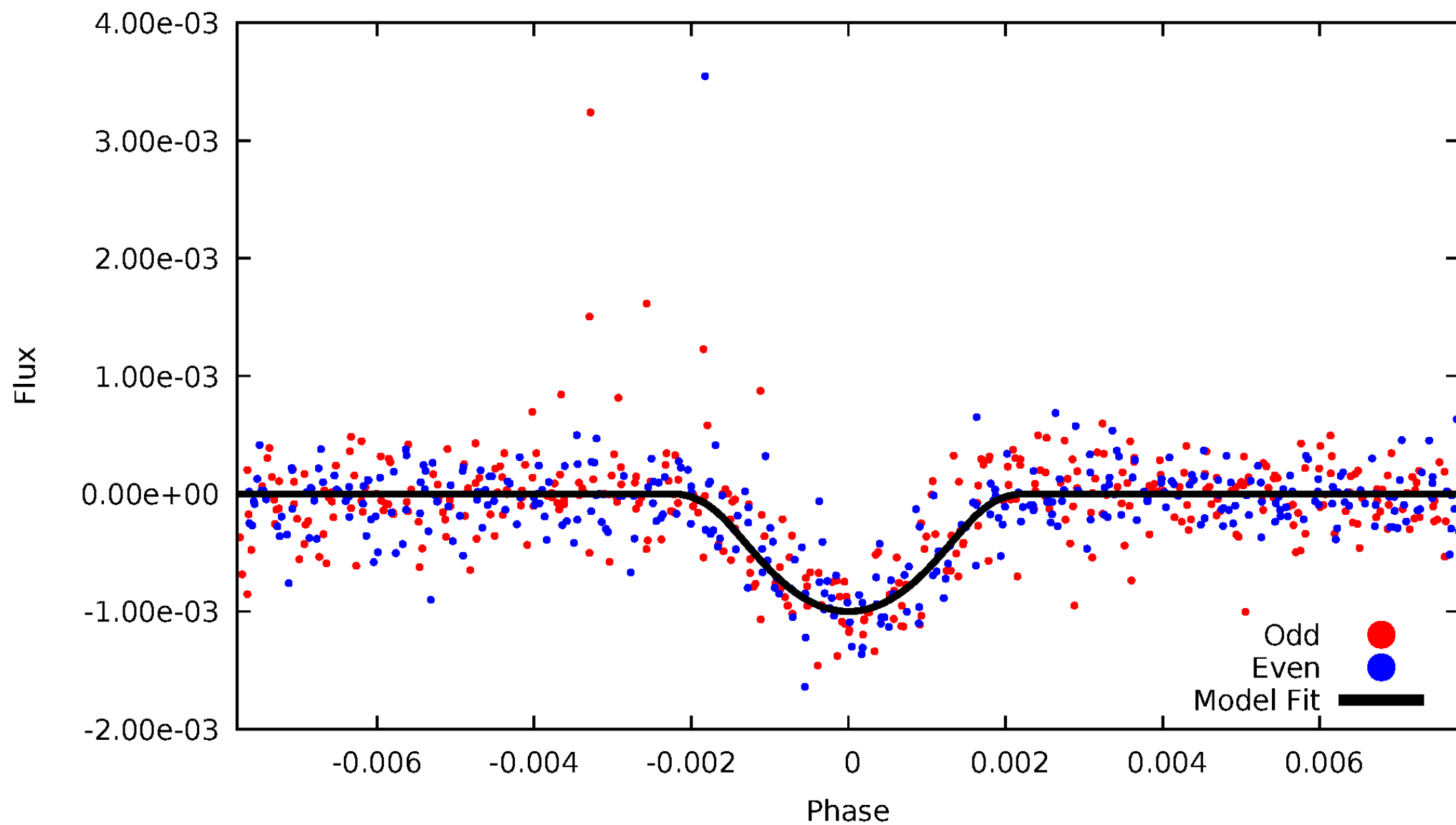


TCE 006504534-03



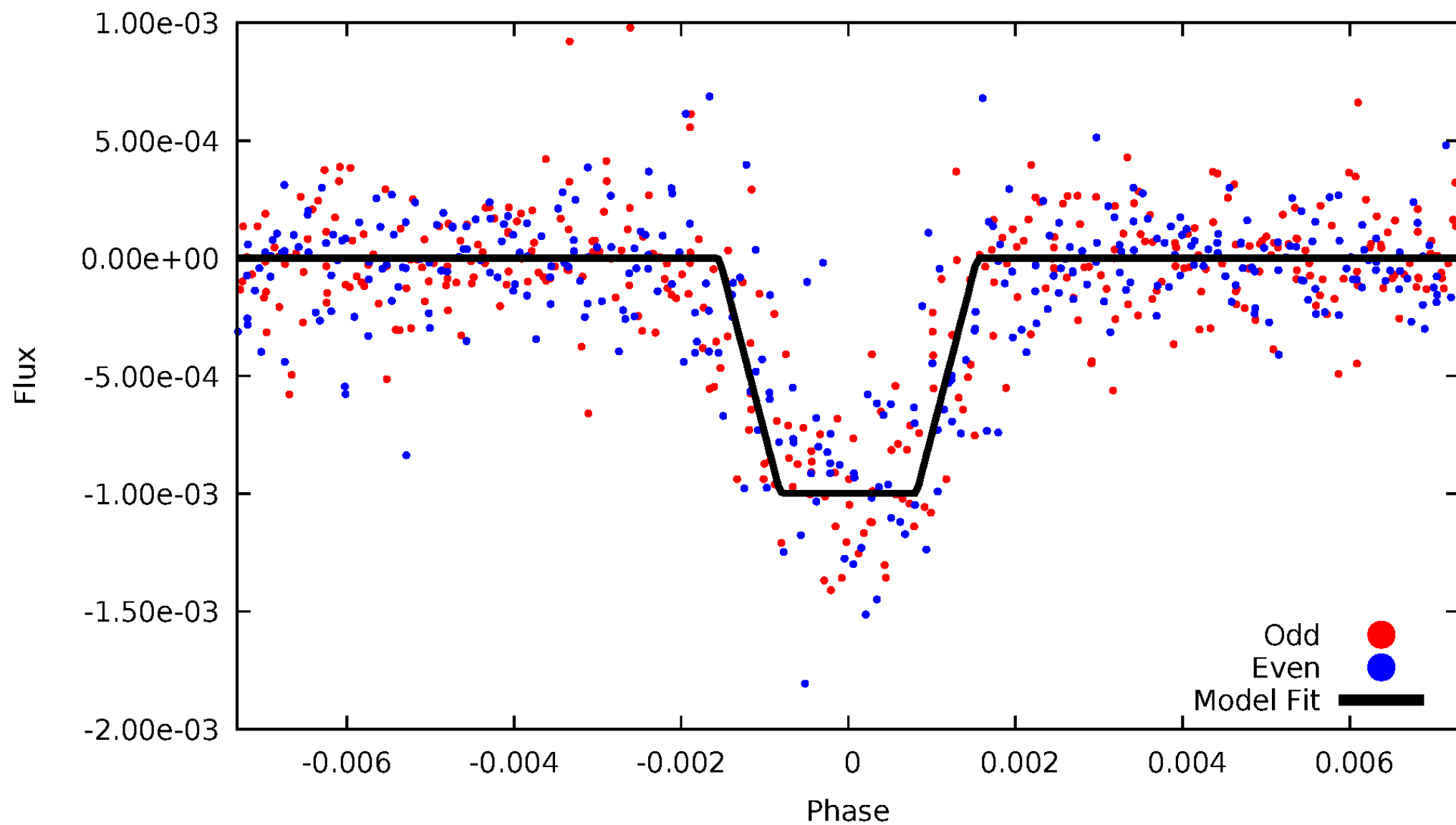
DV Odd/Even

TCE 006504534-03



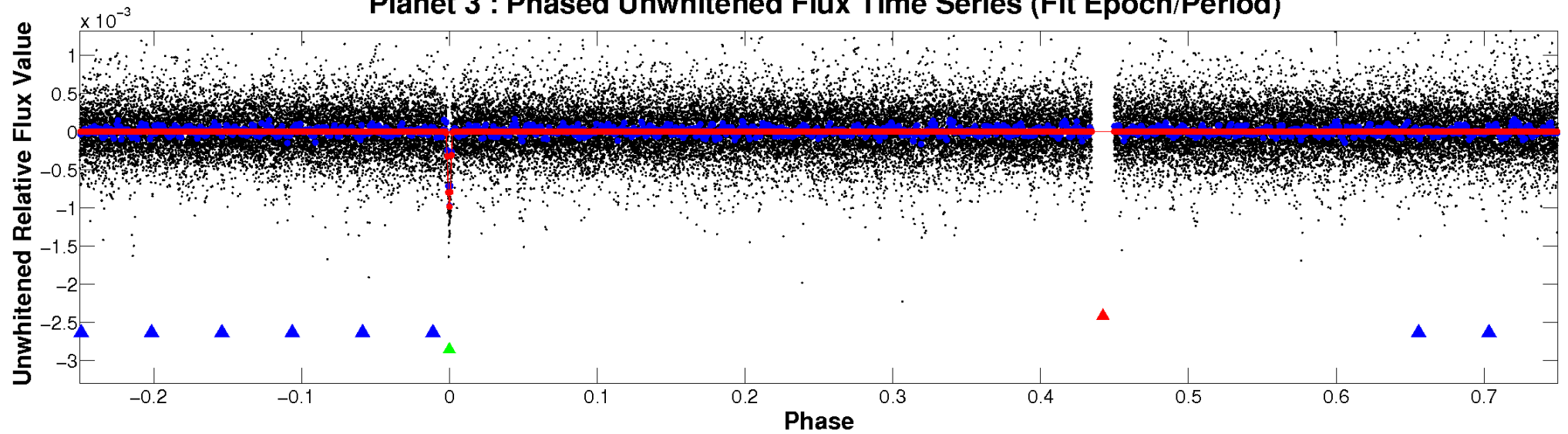
ALT Odd/Even

TCE 006504534-03

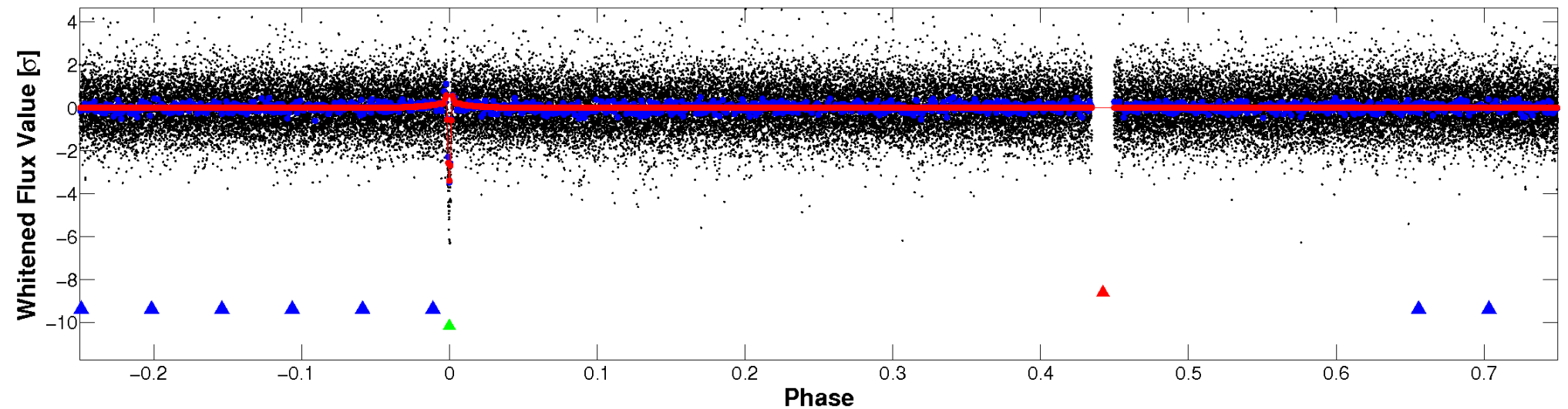


Non-Whitened Vs. Whitened Light Curve

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

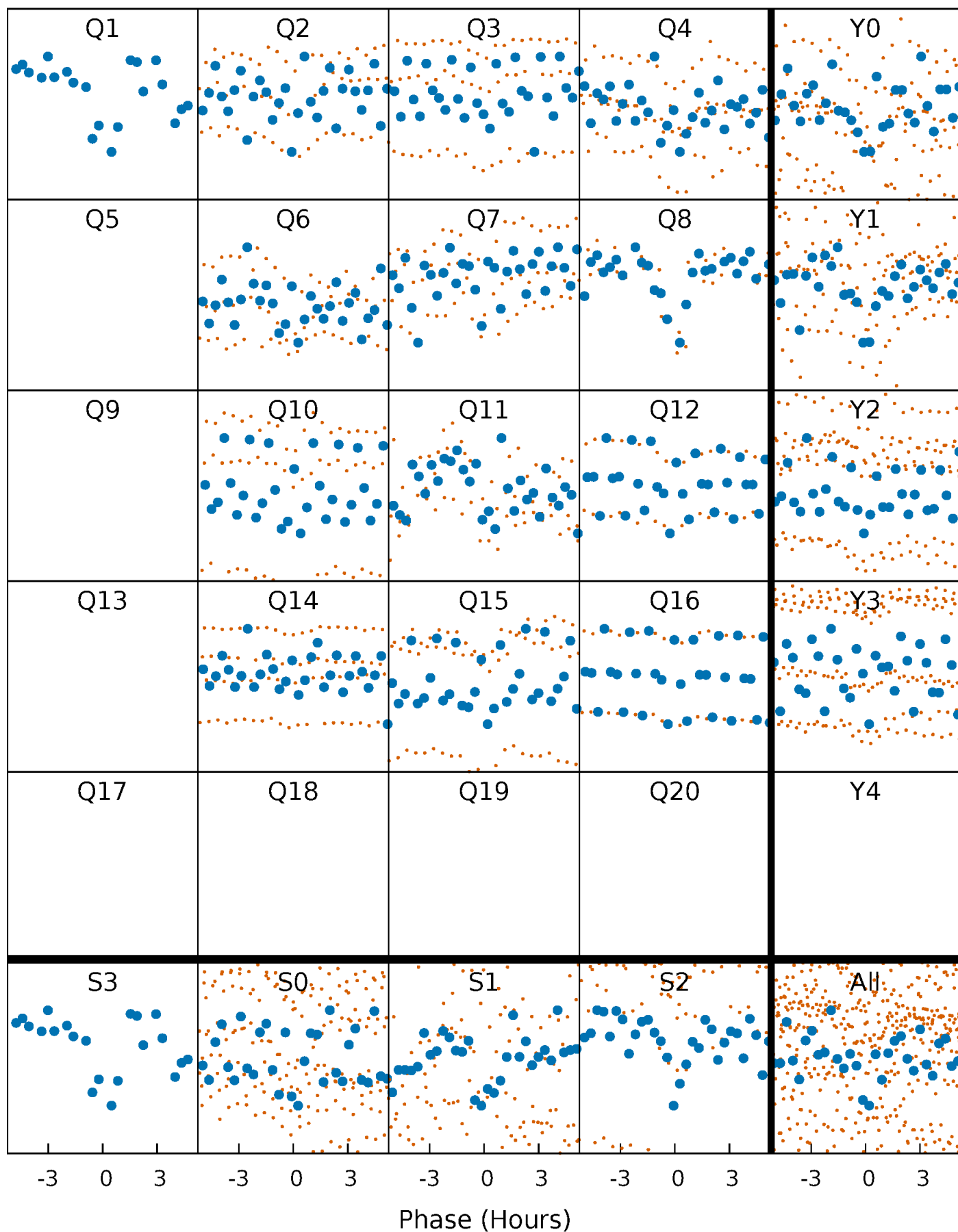


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



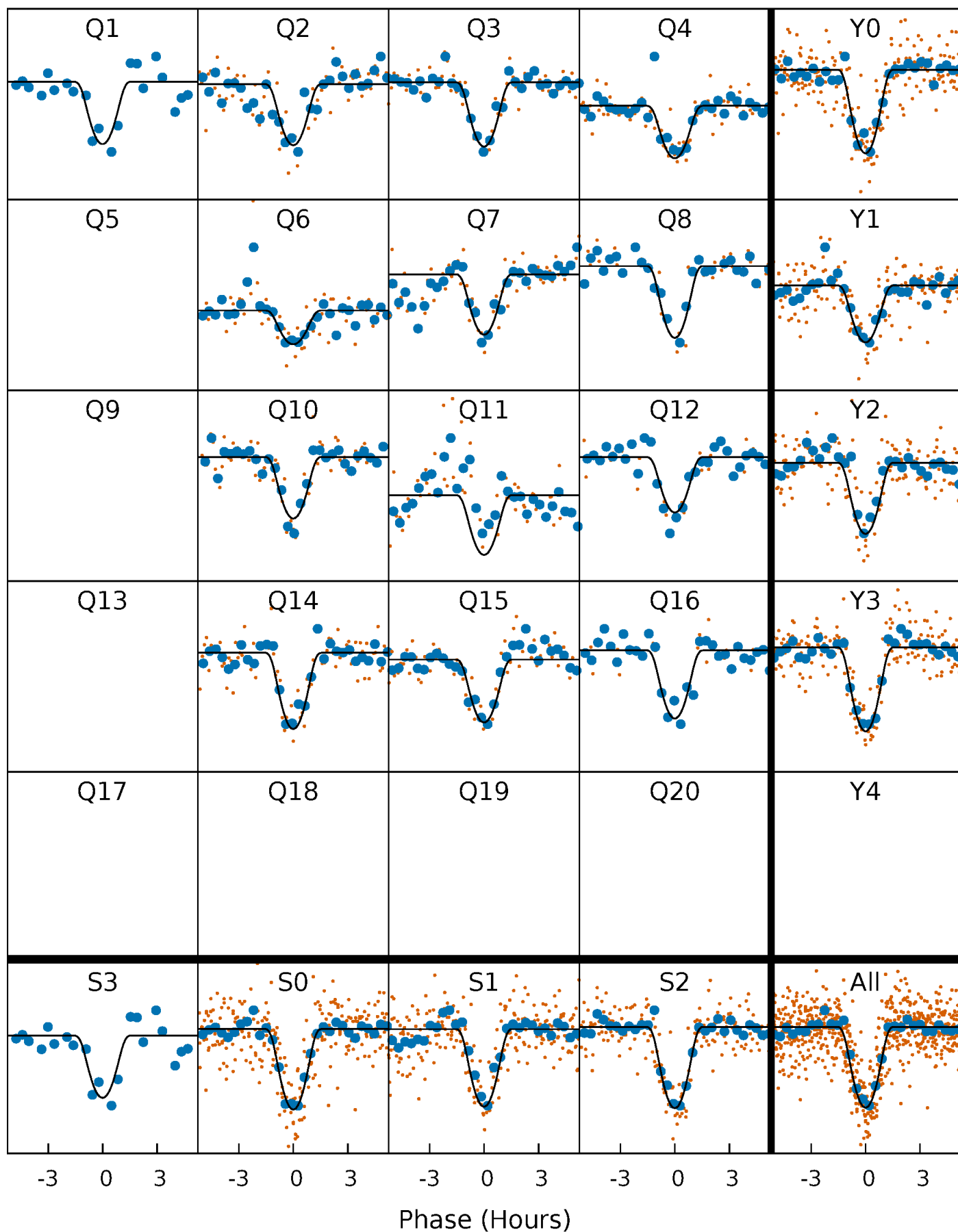
PDC Quarter-Phased Transit Curves

TCE 006504534-03 P= 28.162570 Days $T_0=159.427488$ (BKJD)



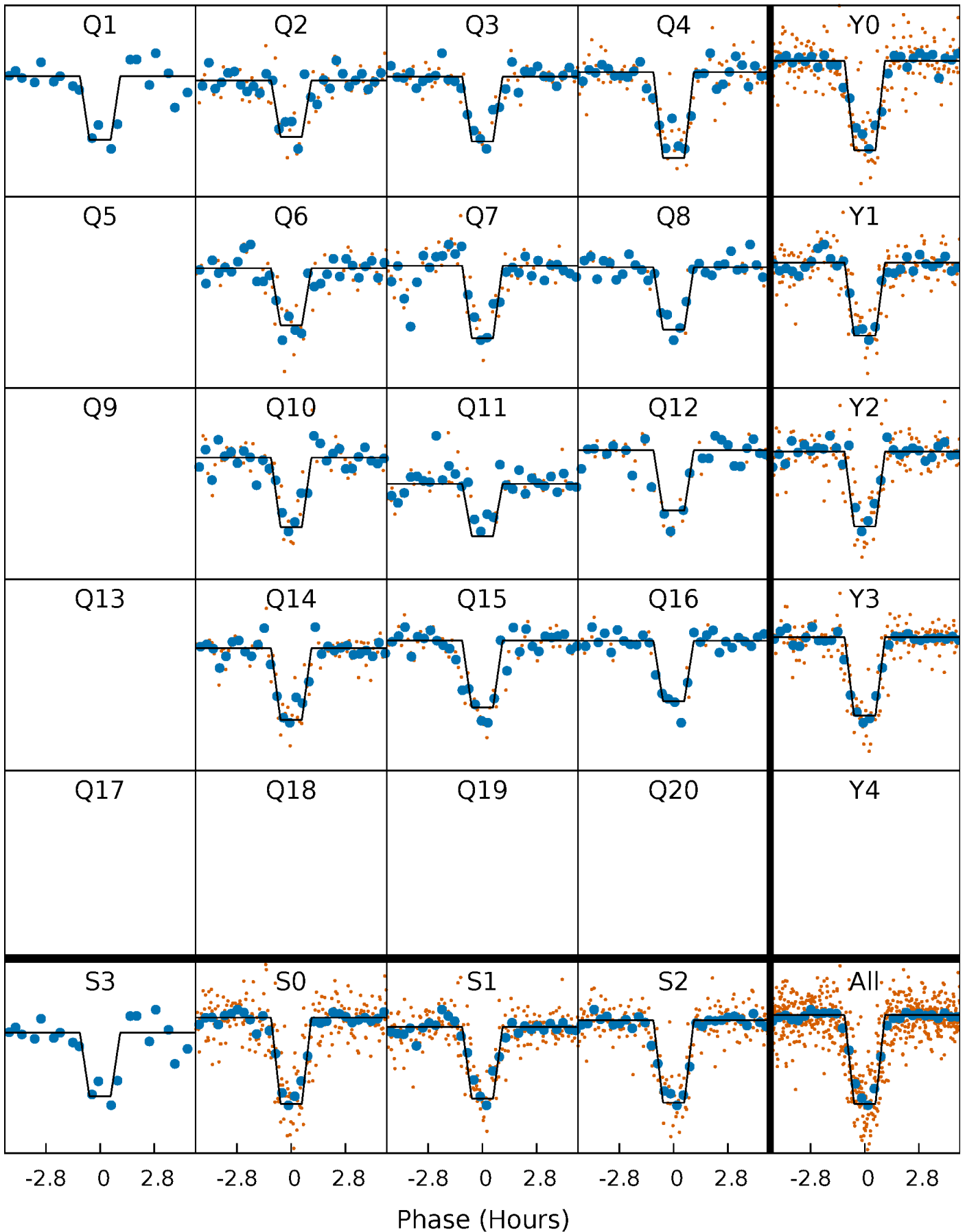
DV Quarter-Phased Transit Curves

TCE 006504534-03 P= 28.162570 Days $T_0=159.427488$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

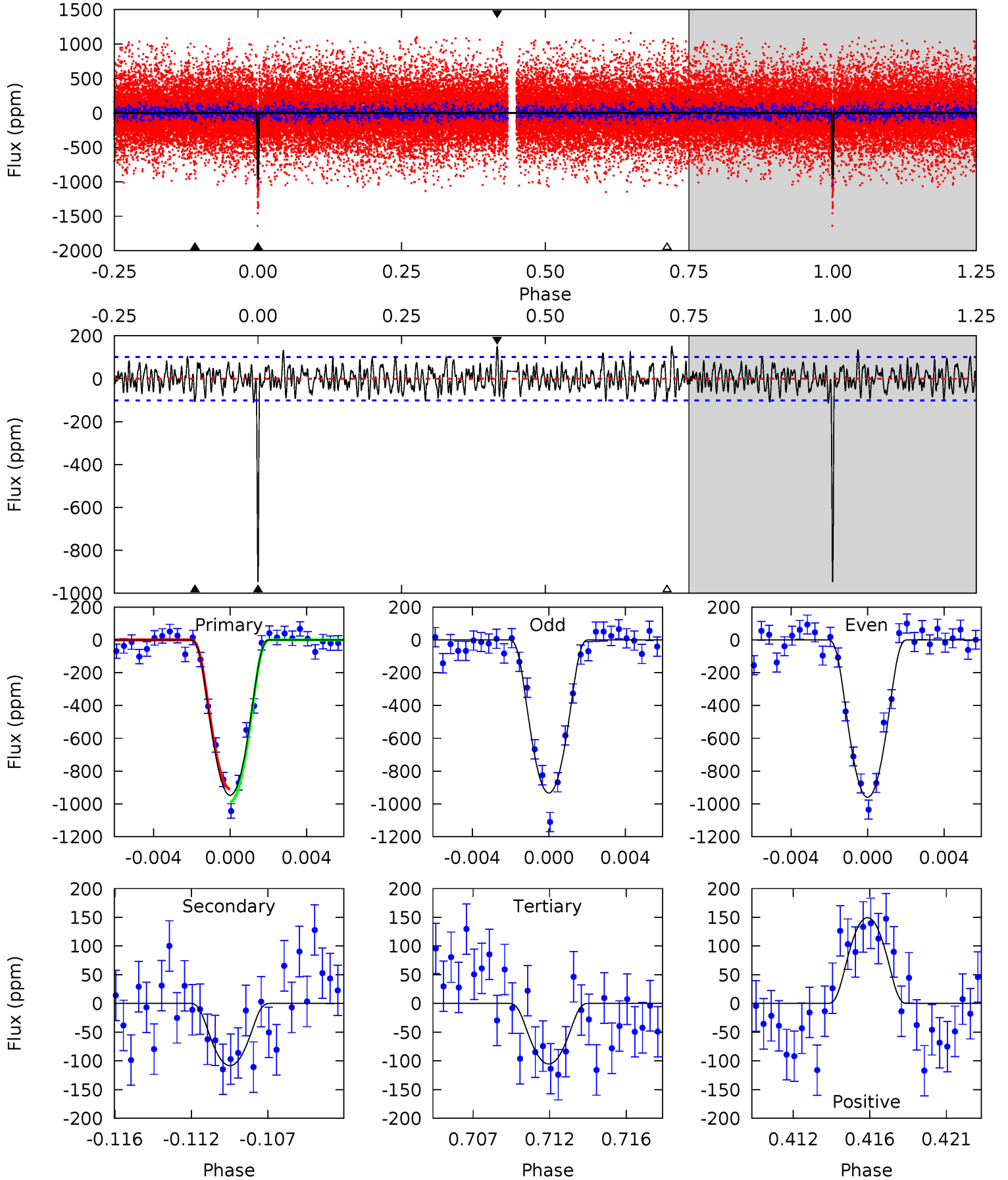
TCE 006504534-03 P= 28.162712 Days $T_0=159.424333$ (BKJD)



DV Model-Shift Uniqueness Test

006504534-03, P = 28.162570 Days, E = 131.264918 Days

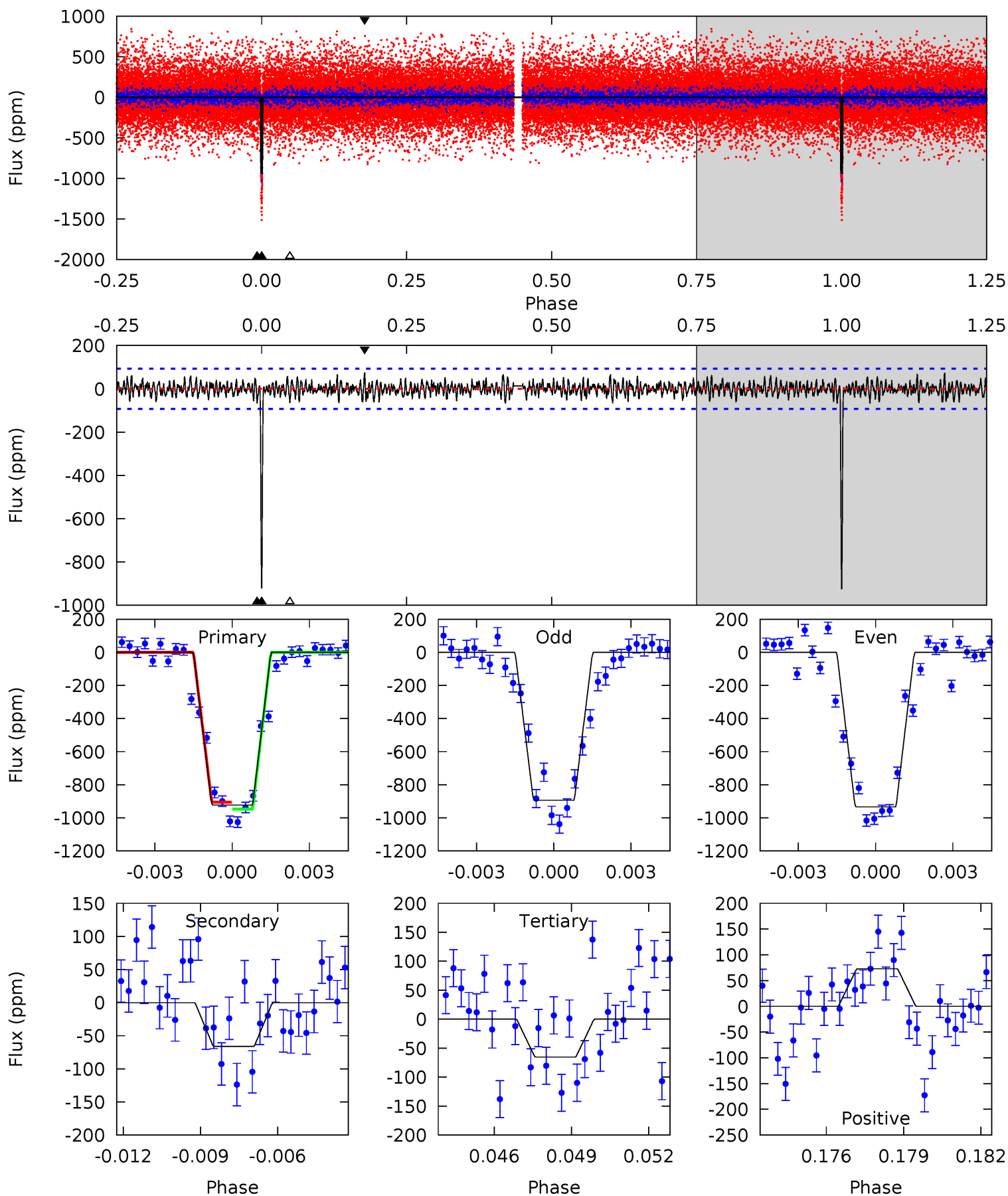
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
48.6	5.55	5.40	7.66	5.18	2.84	2.20	43.2	40.9	0.15	-2.11	0.68	0.93	0.14	2.04



Alt Model-Shift Uniqueness Test

006504534-03, P = 28.162712 Days, E = 131.261621 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
52.1	3.74	3.69	4.12	5.25	2.96	1.27	48.4	48.0	0.05	-0.38	1.13	0.99	0.07	1.18



Stellar Parameters For KIC 006504534

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4936^{+133}_{-148}	$4.540^{+0.078}_{-0.042}$	$-0.080^{+0.300}_{-0.300}$	$0.761^{+0.063}_{-0.076}$	$0.734^{+0.085}_{-0.054}$	$2.343^{+0.706}_{-0.378}$
	+3%/-3%	+2%/-1%	+375%/-375%	+8%/-10%	+12%/-7%	+30%/-16%
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 006504534-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-108 ± 20	$3.72^{+1.31}_{-1.32}$	653^{+21}_{-25}	2997^{+437}_{-264}	117^{+167}_{-56}
Alt.	-66 ± 18	$2.54^{+1.60}_{-1.22}$	654^{+24}_{-25}	3064^{+720}_{-373}	136^{+370}_{-83}

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 $A_{obs} \gg 1.0$

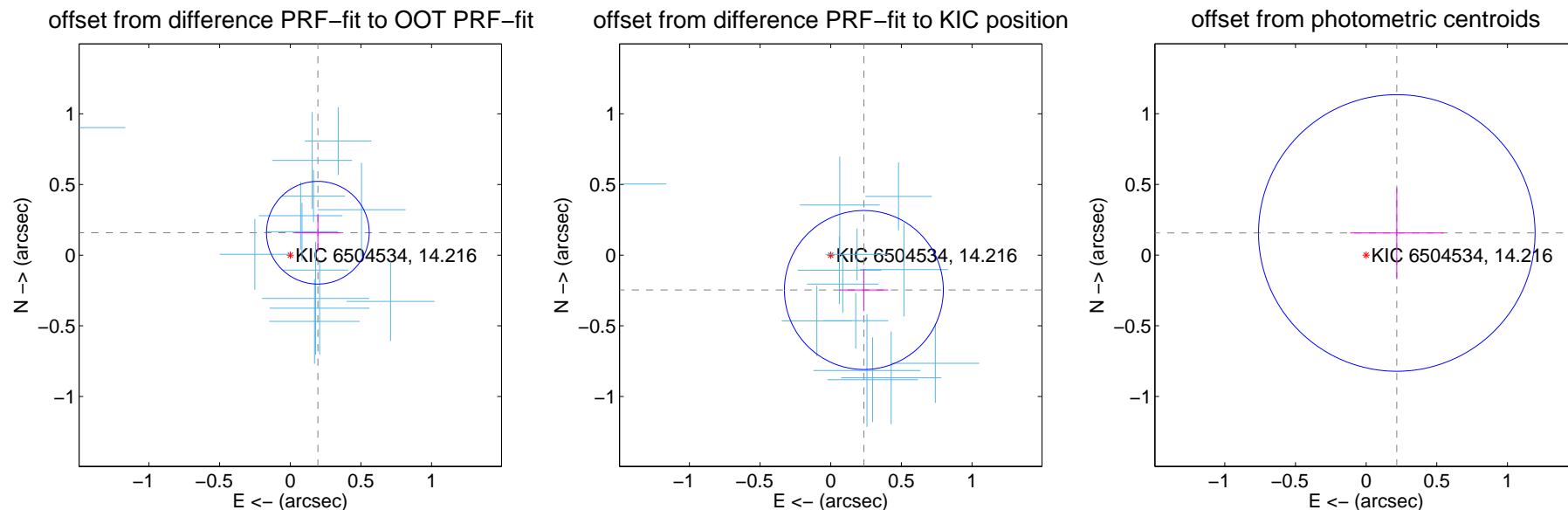
DV Centroid Data

Supplemental centroid analysis for 006504534-03. Kepler magnitude: 14.22. Transit SNR 32.30

There are 13 quarters with good PRF difference image offsets

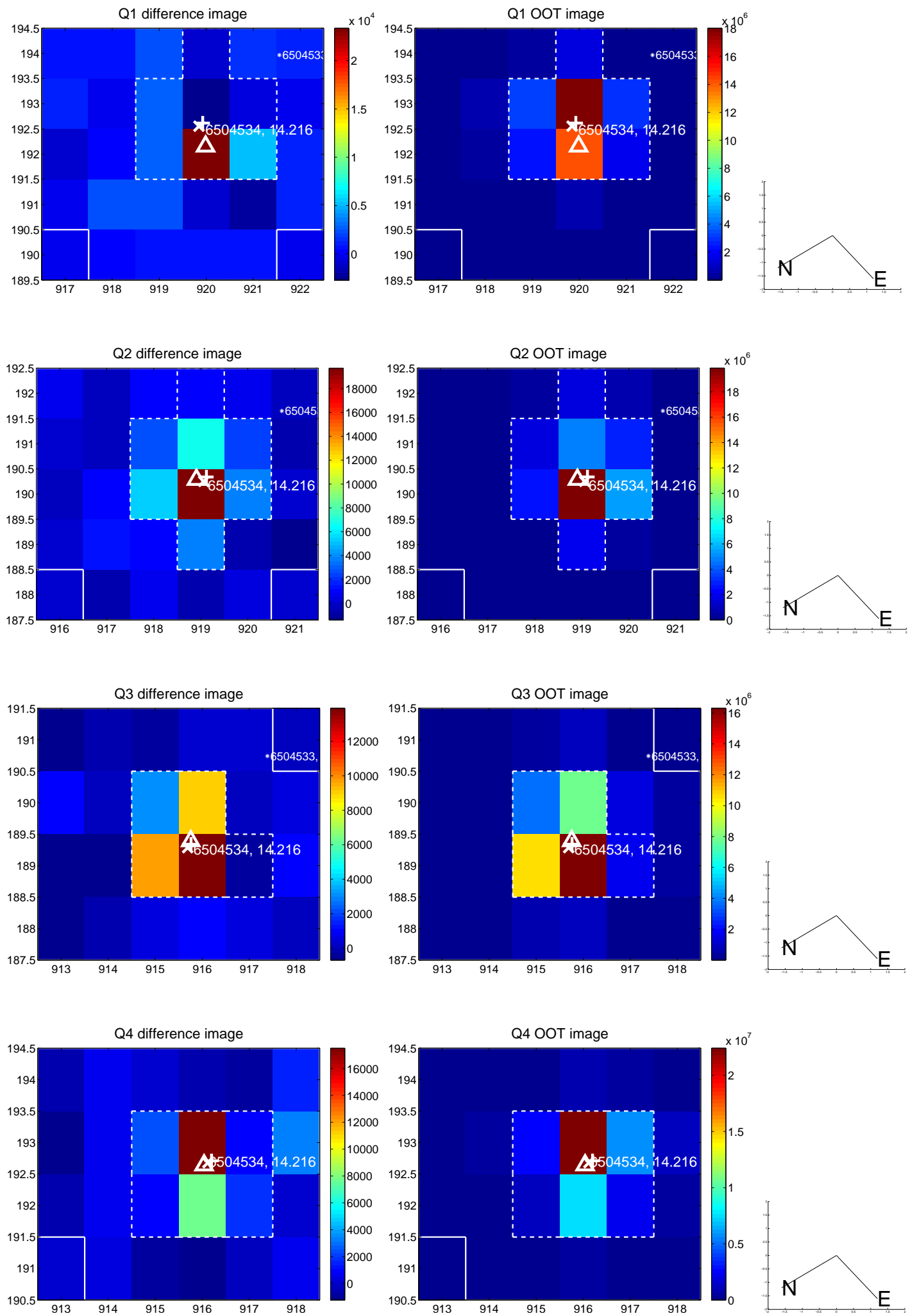
The direct PRF centroid is offset from the target star catalog position by about 0.52 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.252 ± 0.121	2.08	-0.195 ± 0.159	0.159 ± 0.131
PRF-fit source offset from KIC position	0.340 ± 0.187	1.82	-0.235 ± 0.172	-0.247 ± 0.150
photometric centroid source offset	0.27 ± 0.33	0.82	-0.22 ± 0.33	0.16 ± 0.32

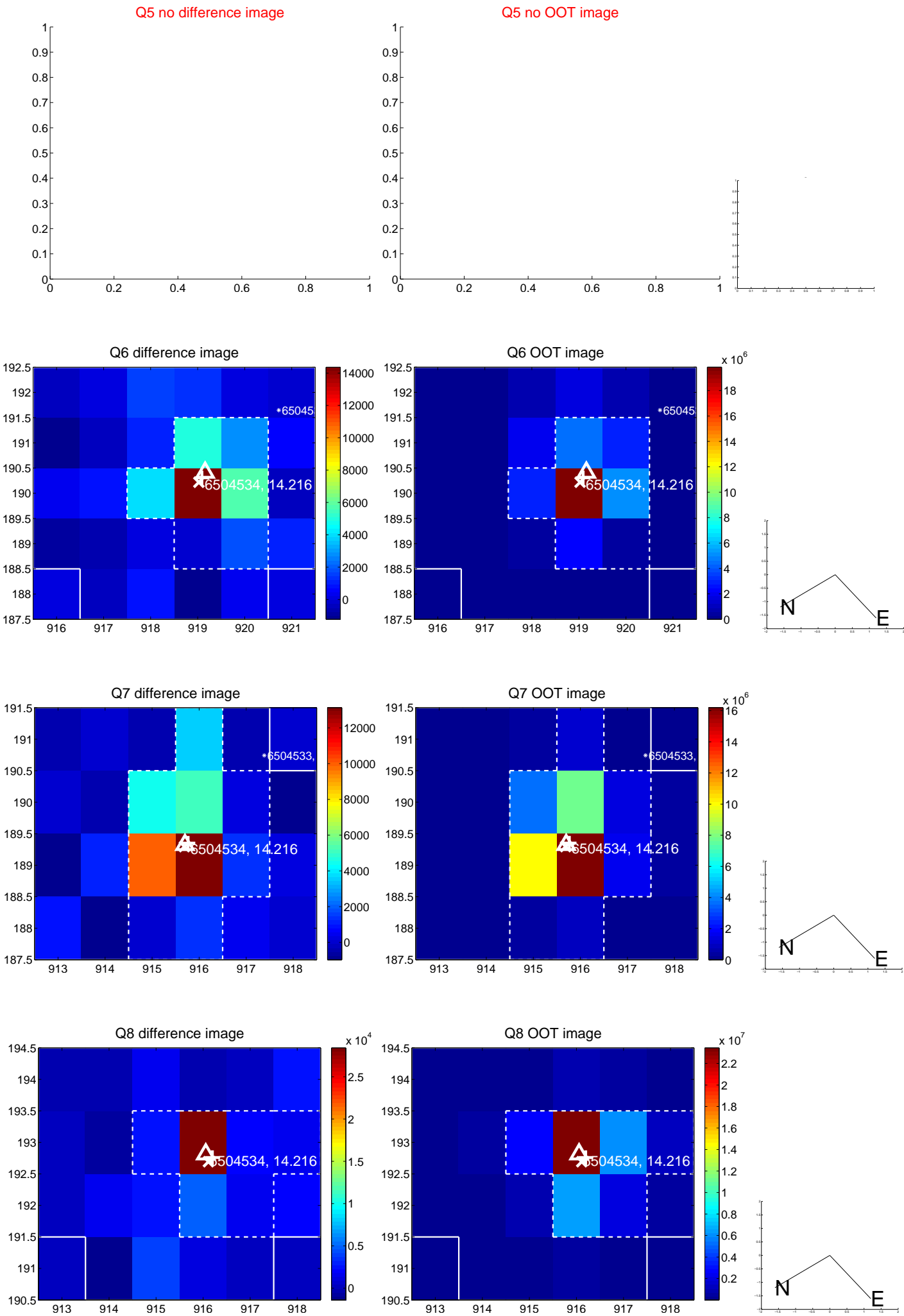


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

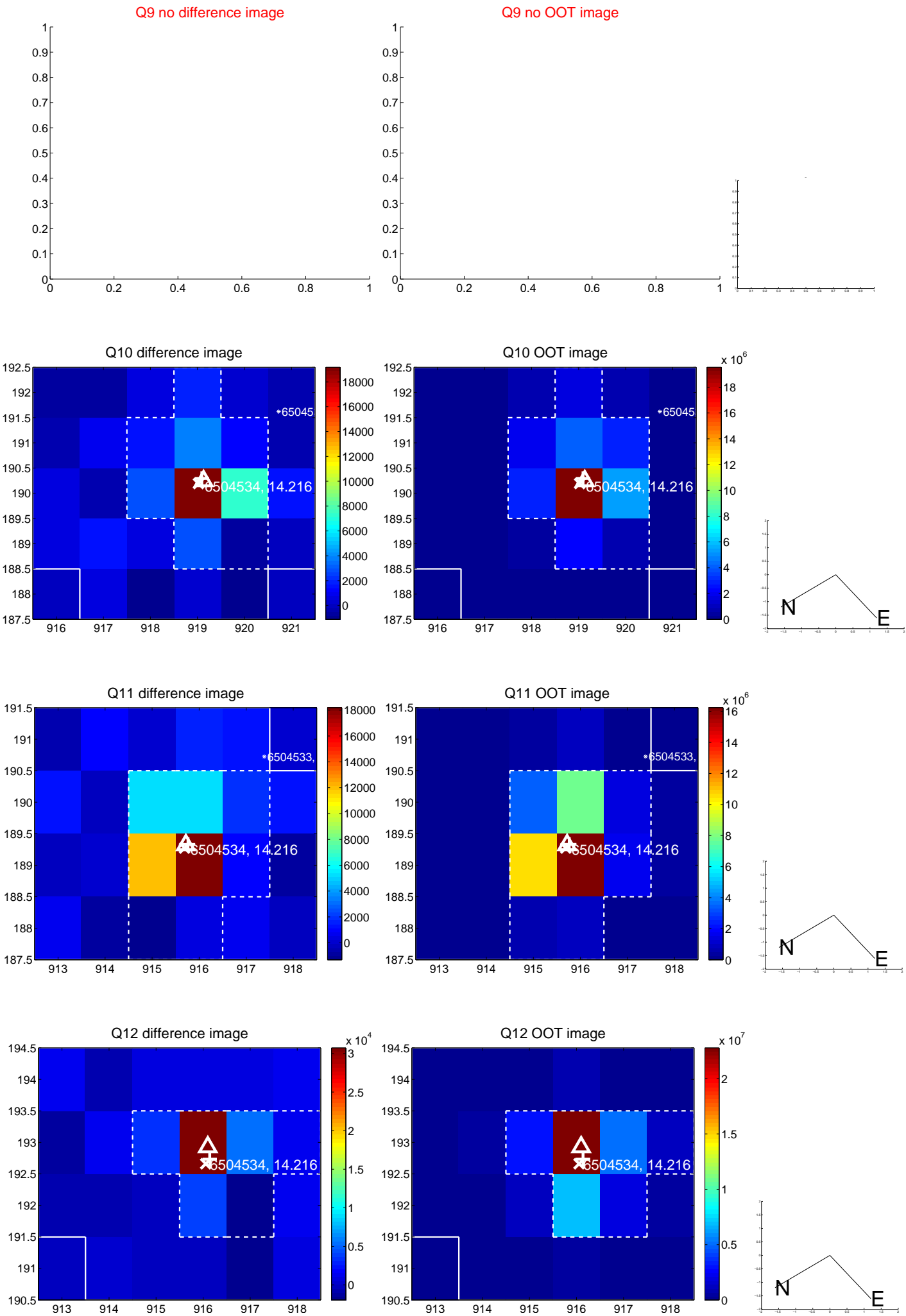
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



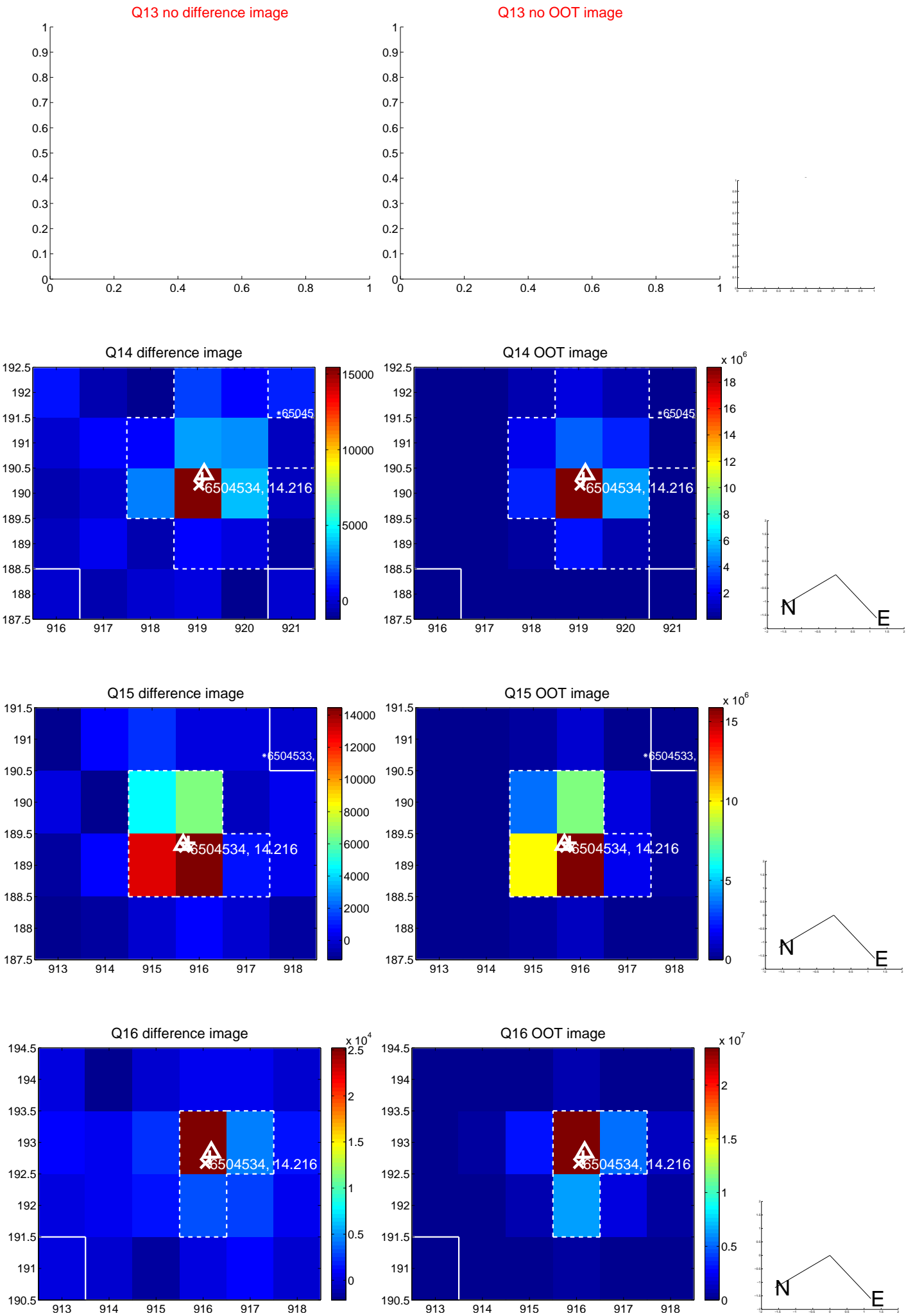
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



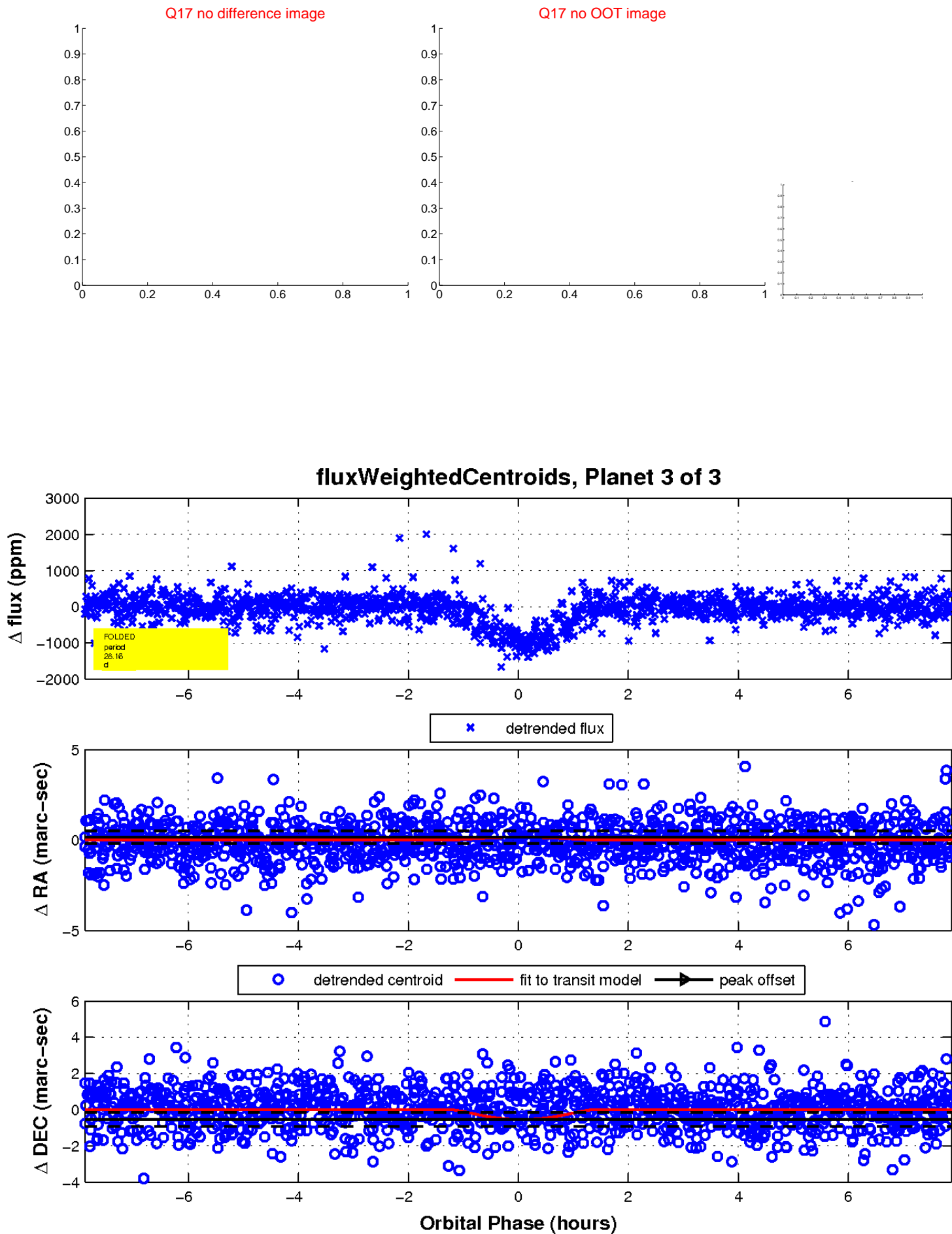
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

