

KIC 008522497

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})
008522497-01	OBS	No	232.279036	134.266347	13851.9	7.156	23.4	13.5	1.21	6576	24.99	4.09
008522497-02	OBS	No	490.632014	333.800224	13149.4	7.621	17.7	10.3	1.21	6576	24.37	1.51
008522497-03	OBS	No	360.569087	361.478476	1909.1	3.333	16.3	3.3	1.21	6576	9.84	2.28

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008522497-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
008522497-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
008522497-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS

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

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

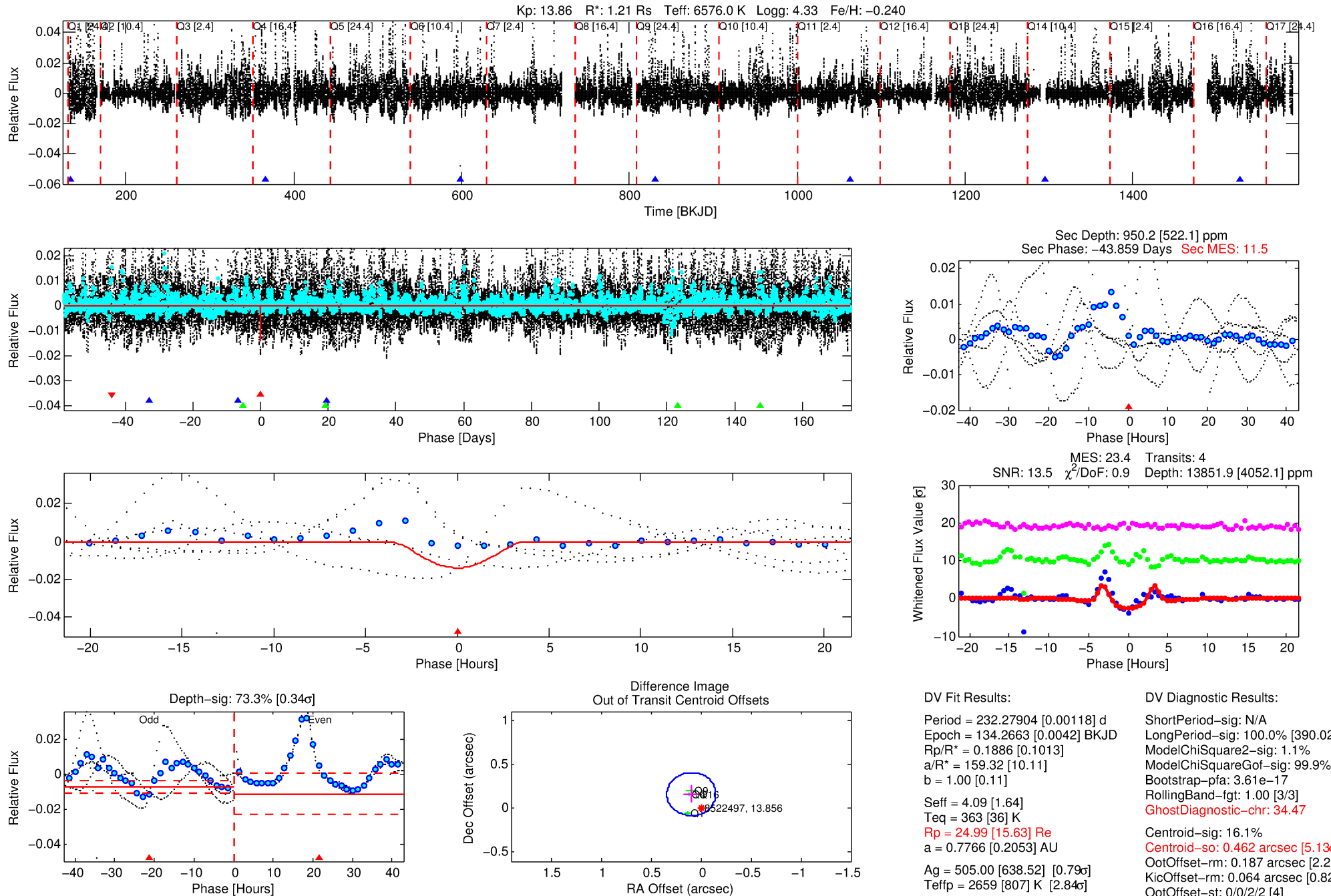
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008522497-01

No Significant Match Found

DV One-Page Summary

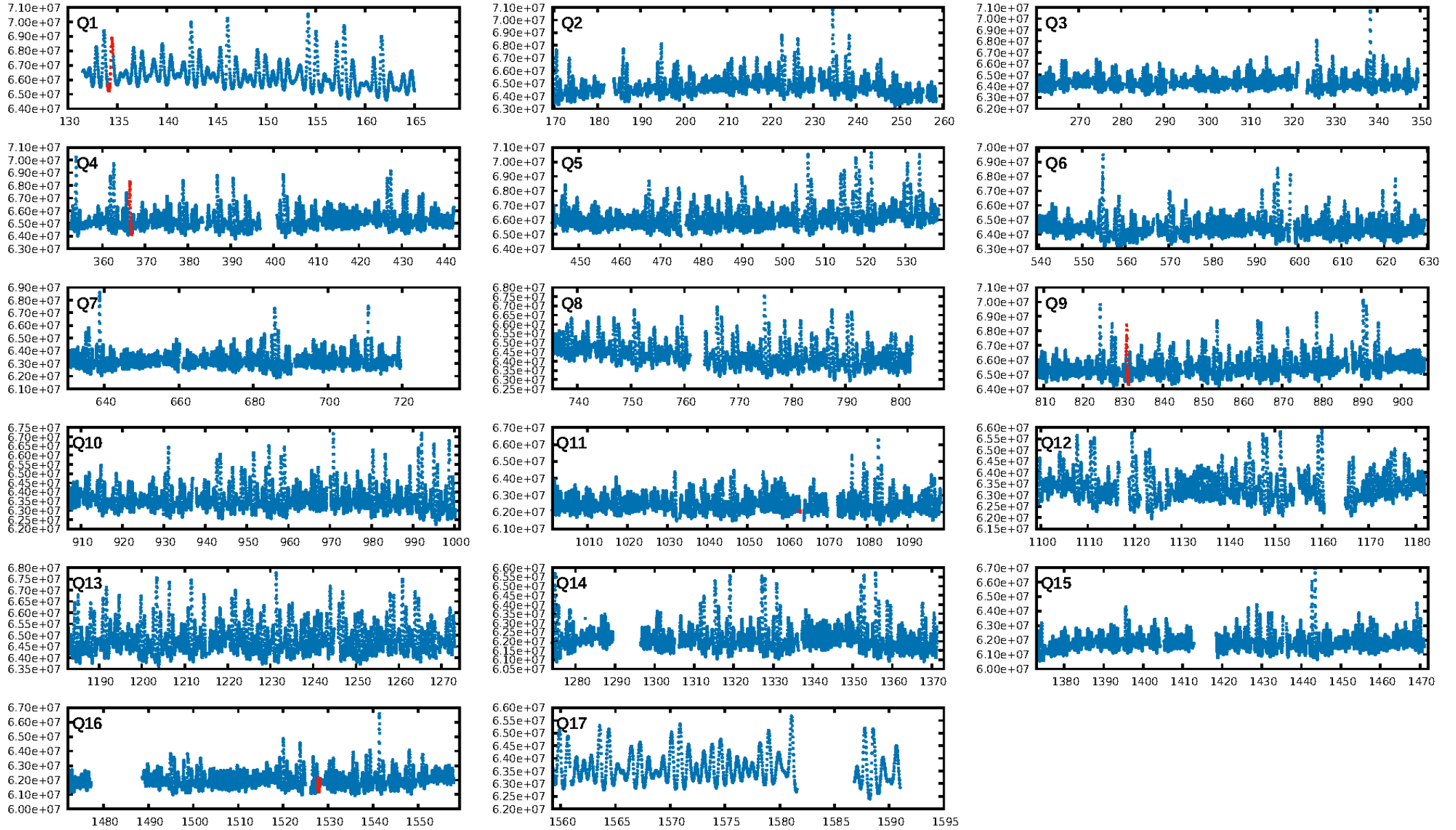
KIC: 8522497 Candidate: 1 of 3 Period: 232.279 d



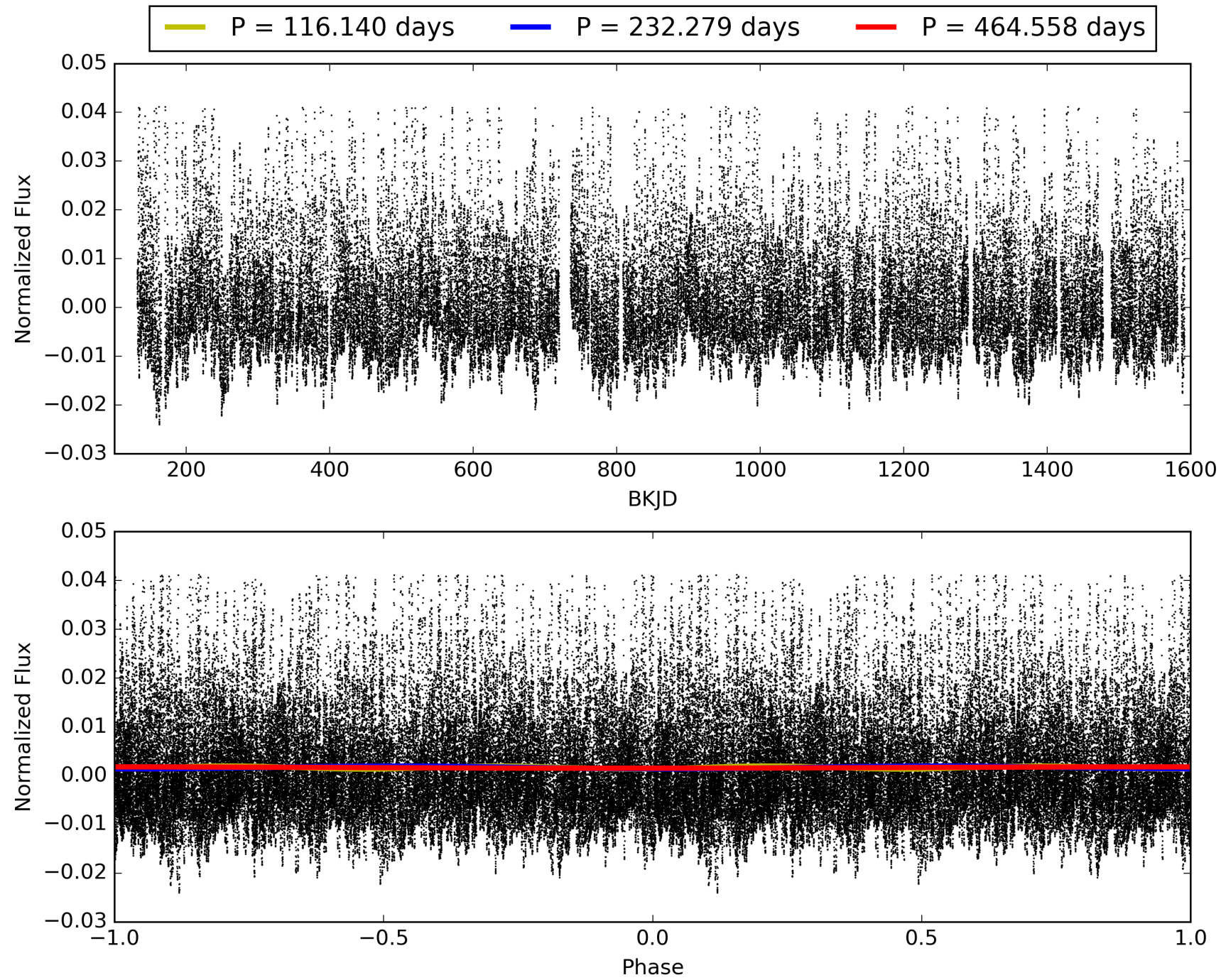
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 05:13:33 Z

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

TCE 008522497-01, PDC Light Curves

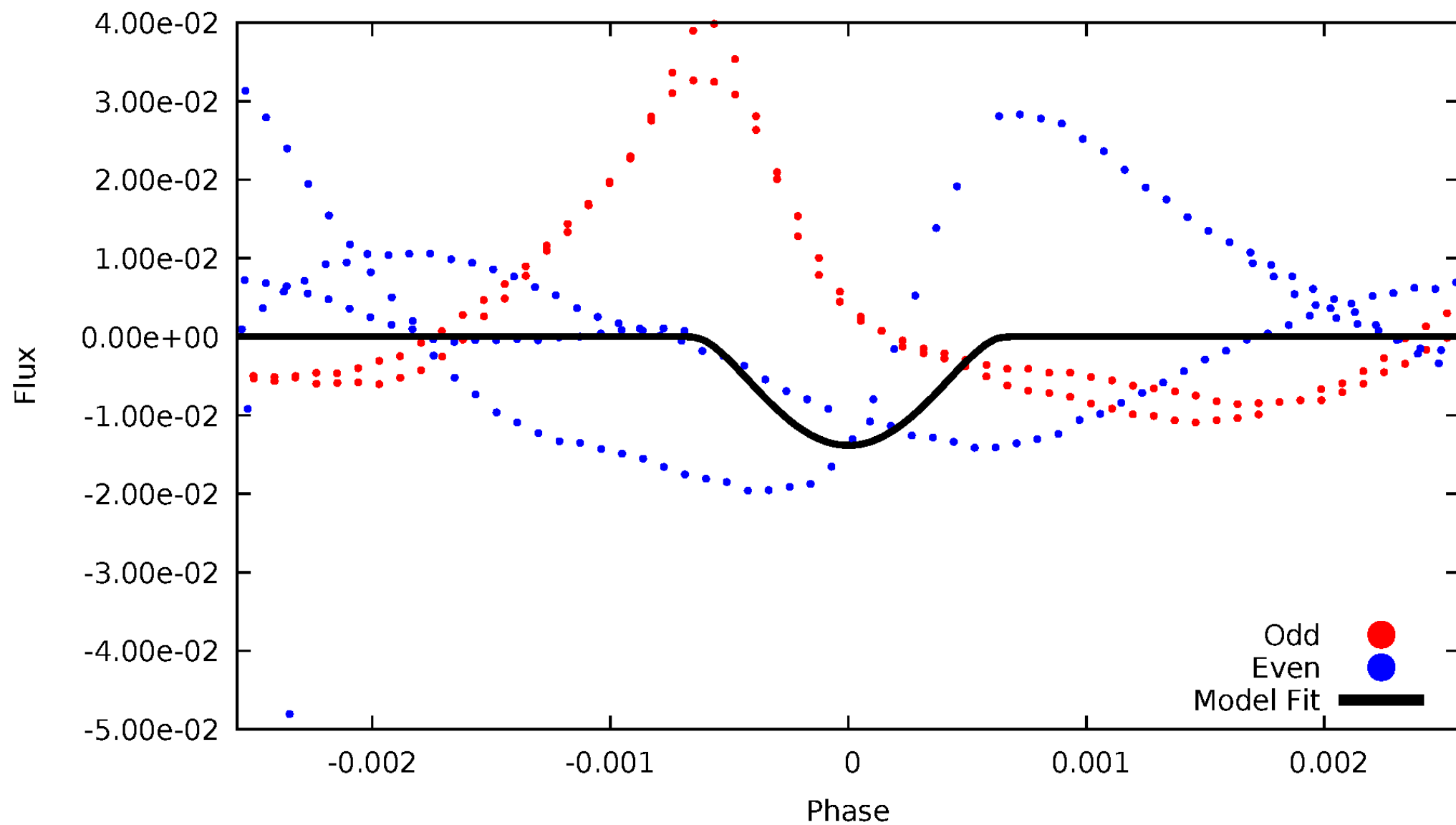


TCE 008522497-01



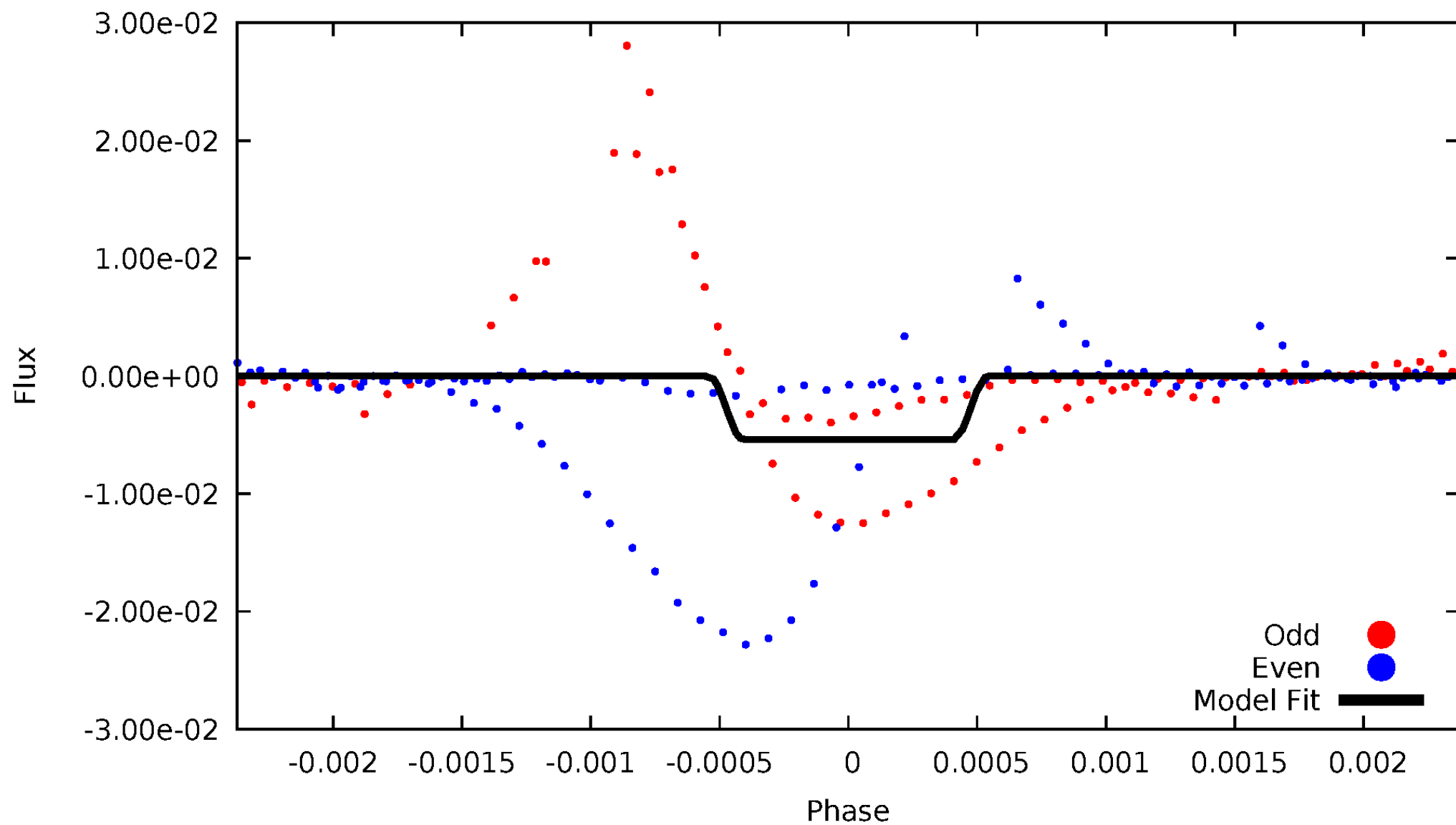
DV Odd/Even

TCE 008522497-01



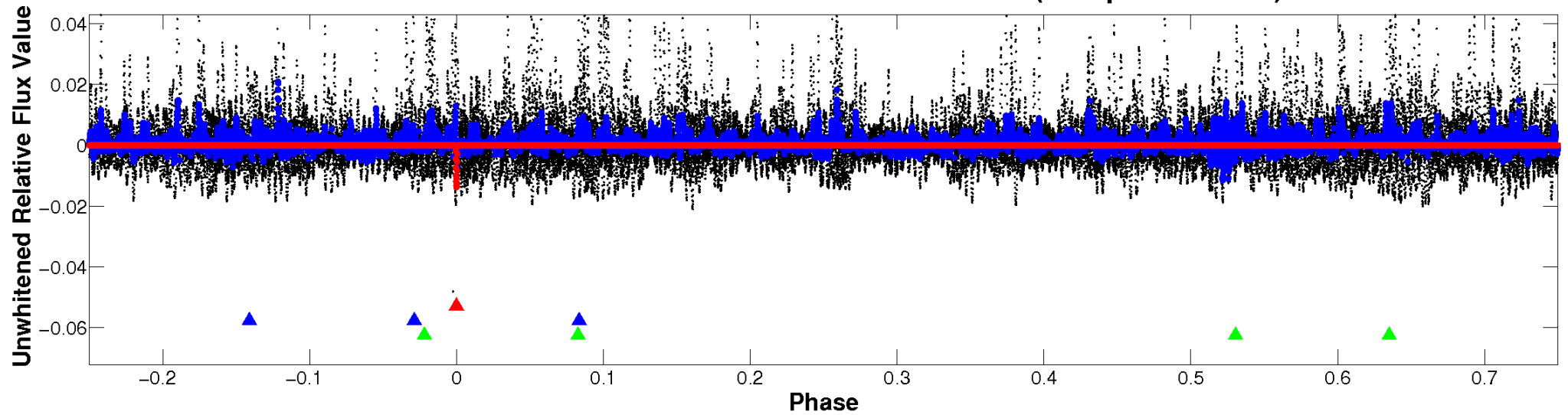
ALT Odd/Even

TCE 008522497-01

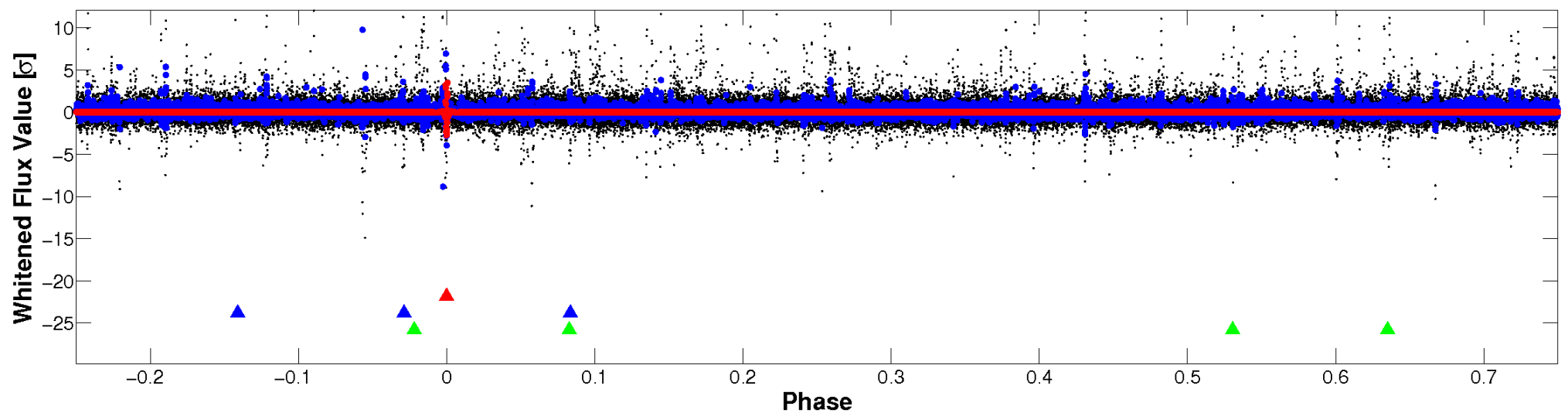


Non-Whitened Vs. Whitened Light Curve

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

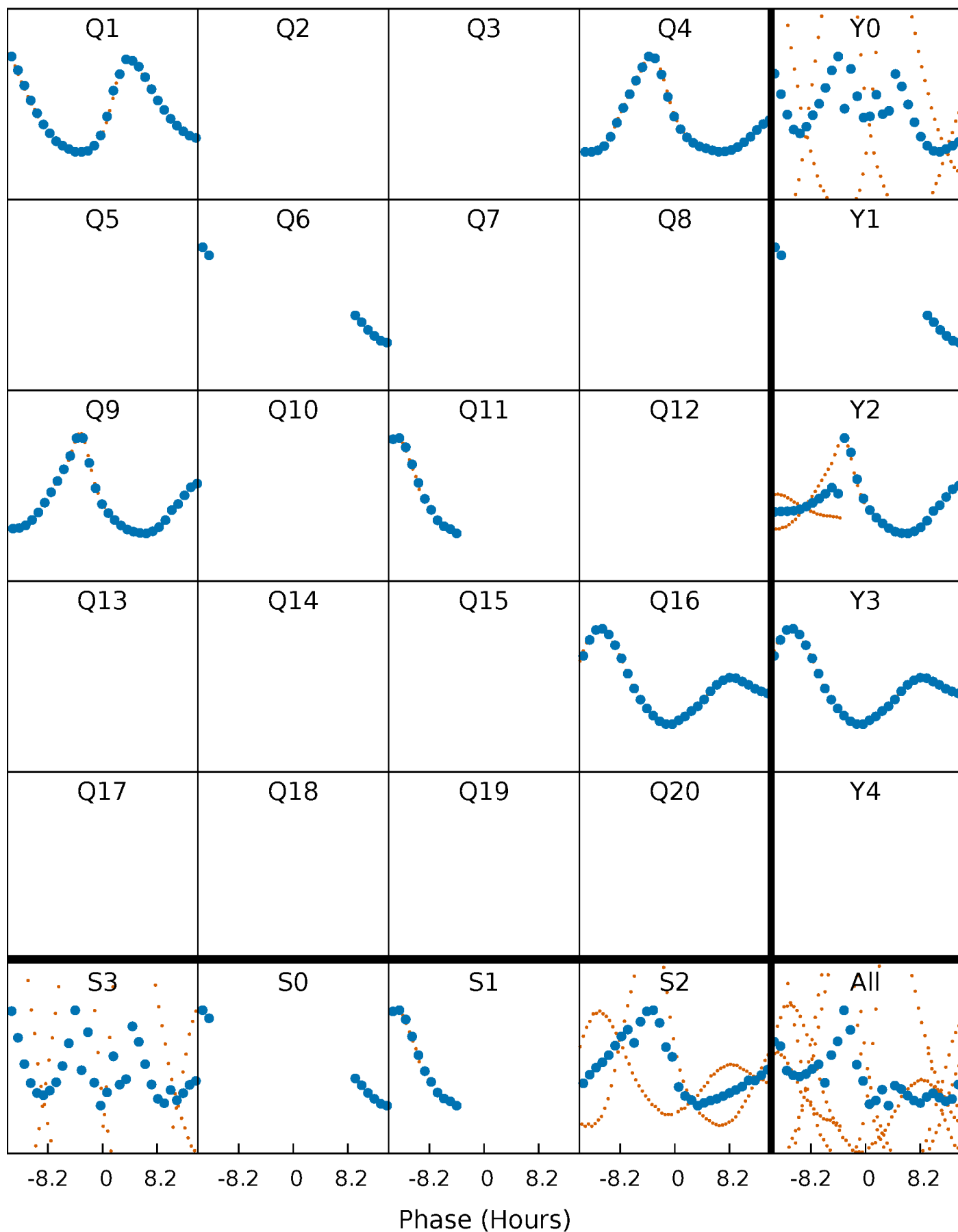


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



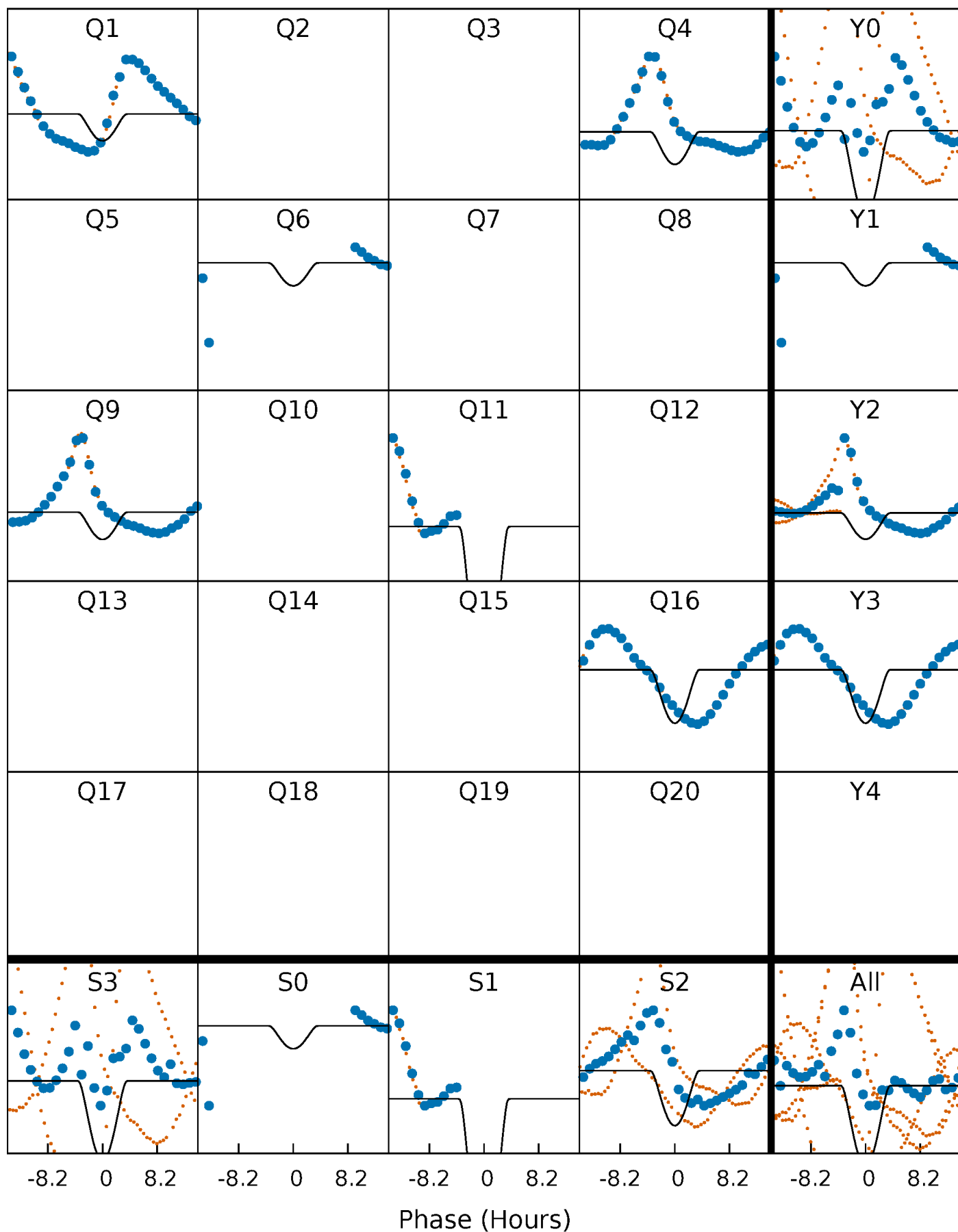
PDC Quarter-Phased Transit Curves

TCE 008522497-01 P=232.279036 Days $T_0=134.266347$ (BKJD)



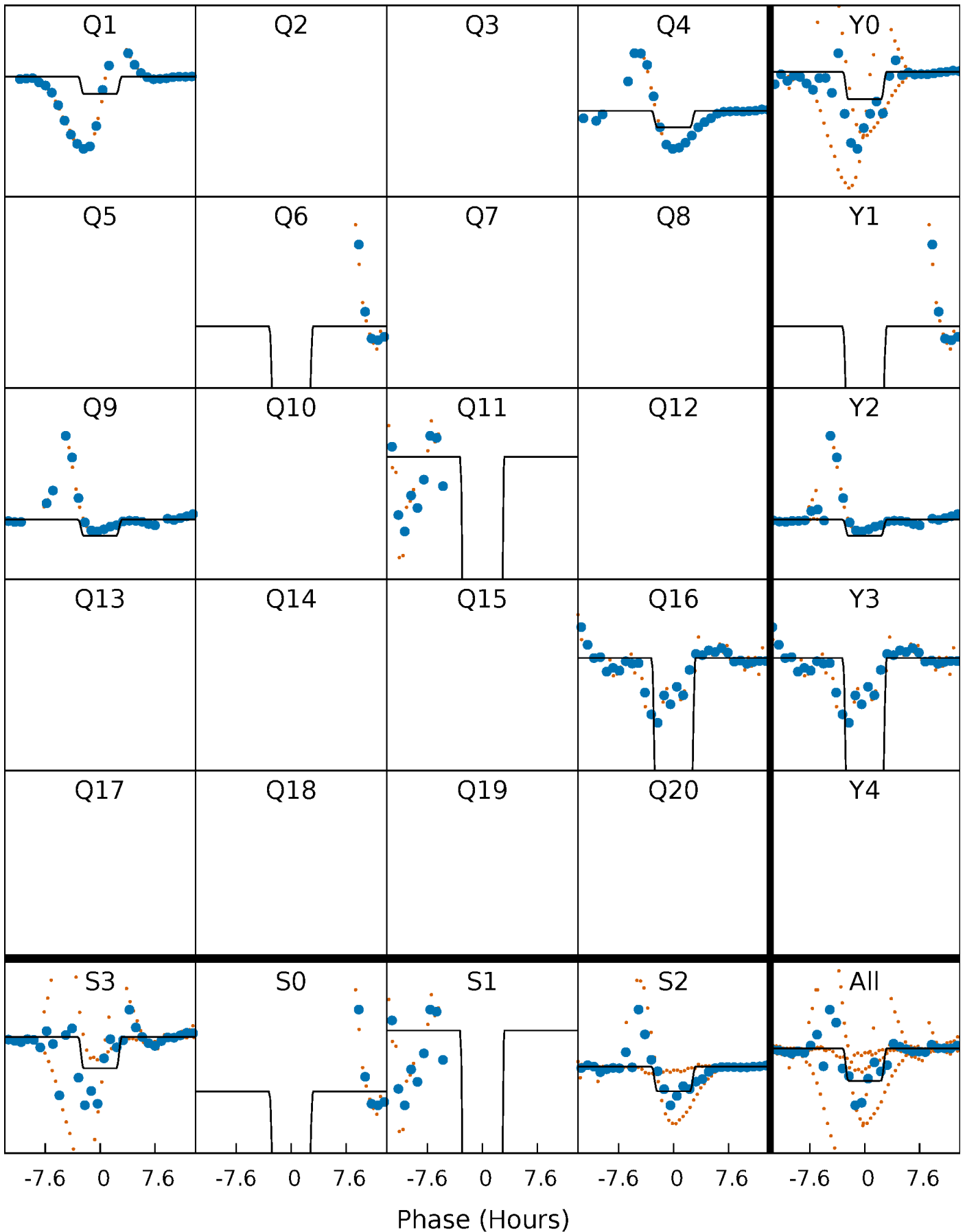
DV Quarter-Phased Transit Curves

TCE 008522497-01 P=232.279036 Days $T_0=134.266347$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

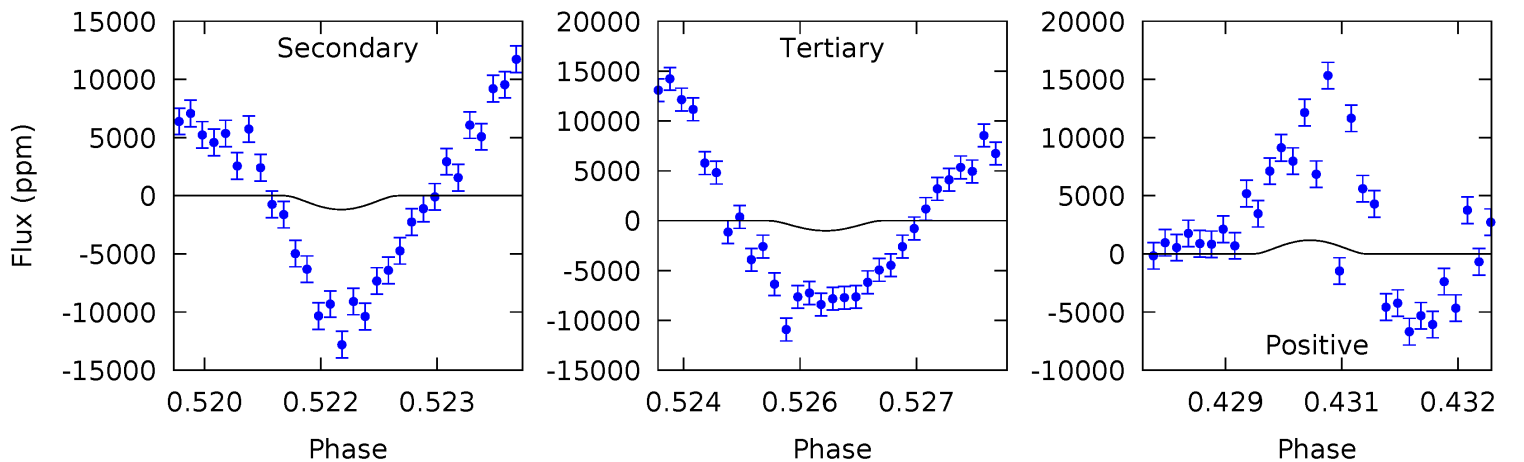
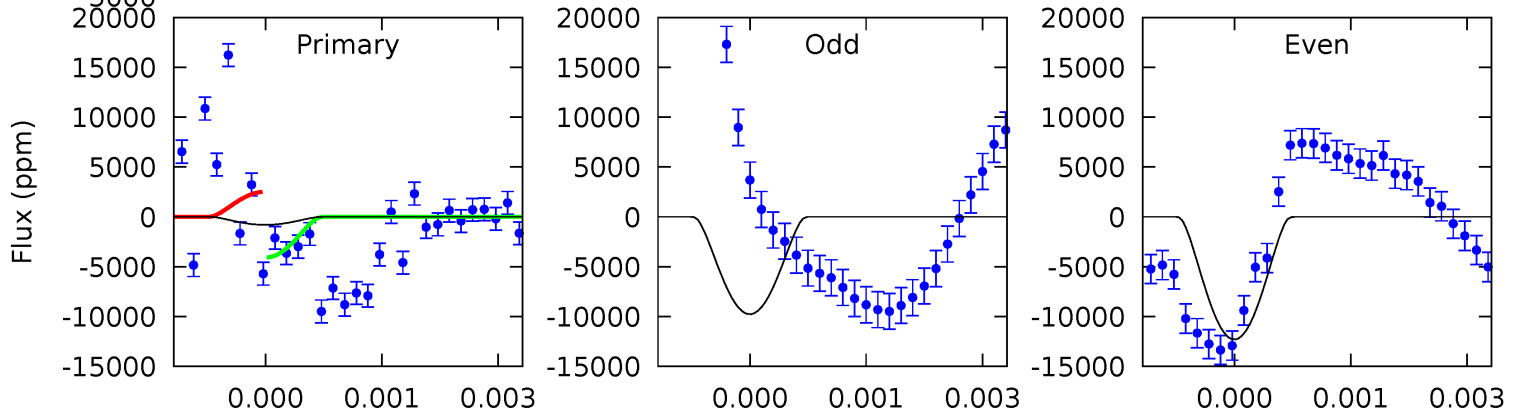
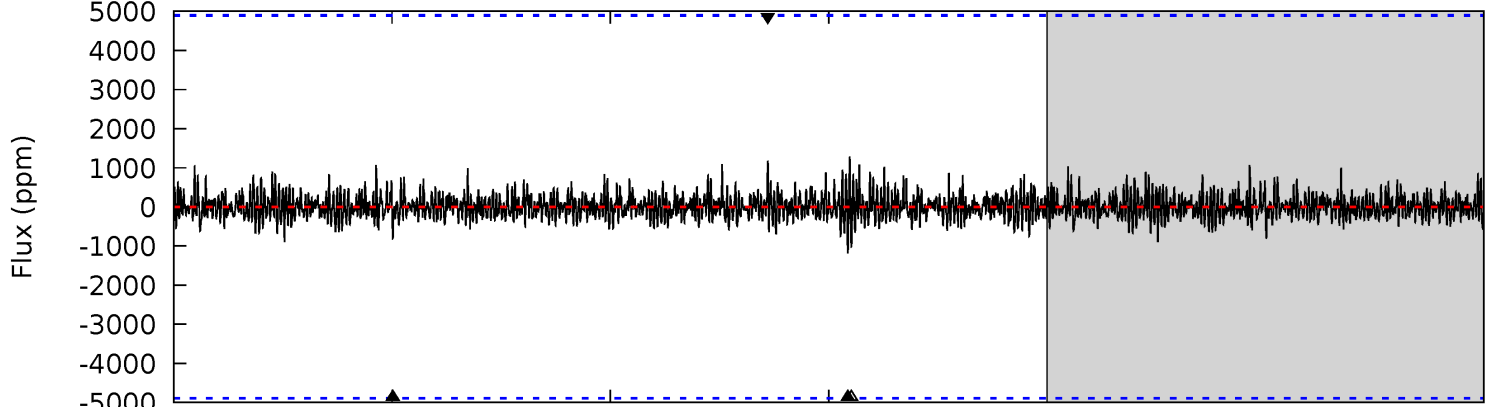
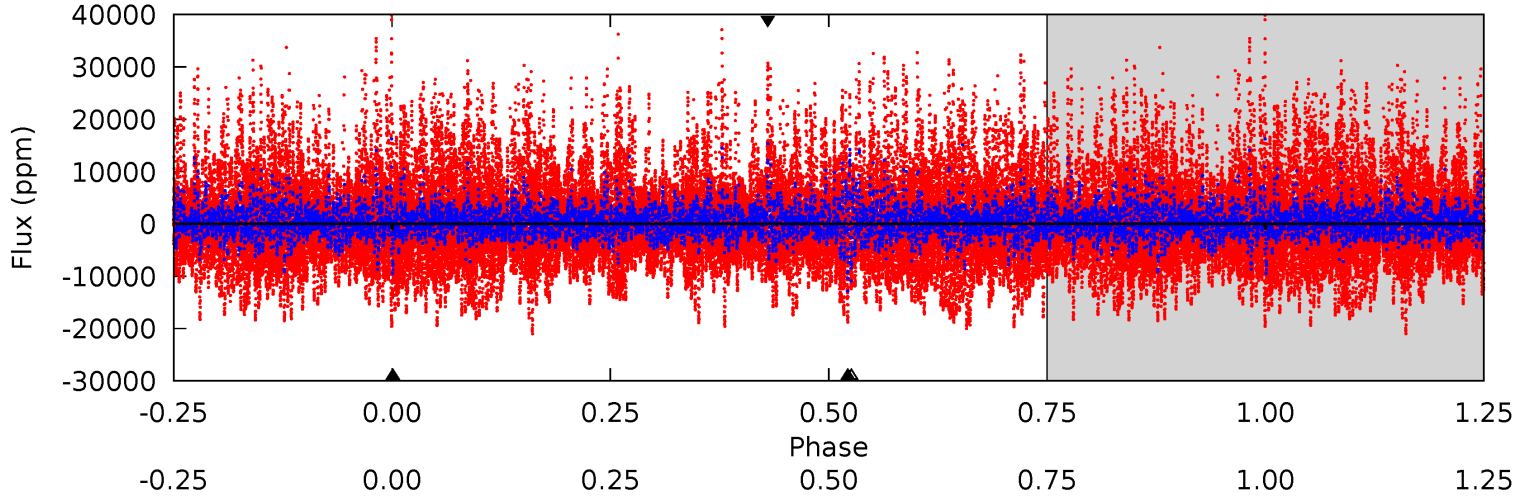
TCE 008522497-01 P=232.283363 Days $T_0=134.321985$ (BKJD)



DV Model-Shift Uniqueness Test

008522497-01, P = 232.279036 Days, E = 134.266347 Days

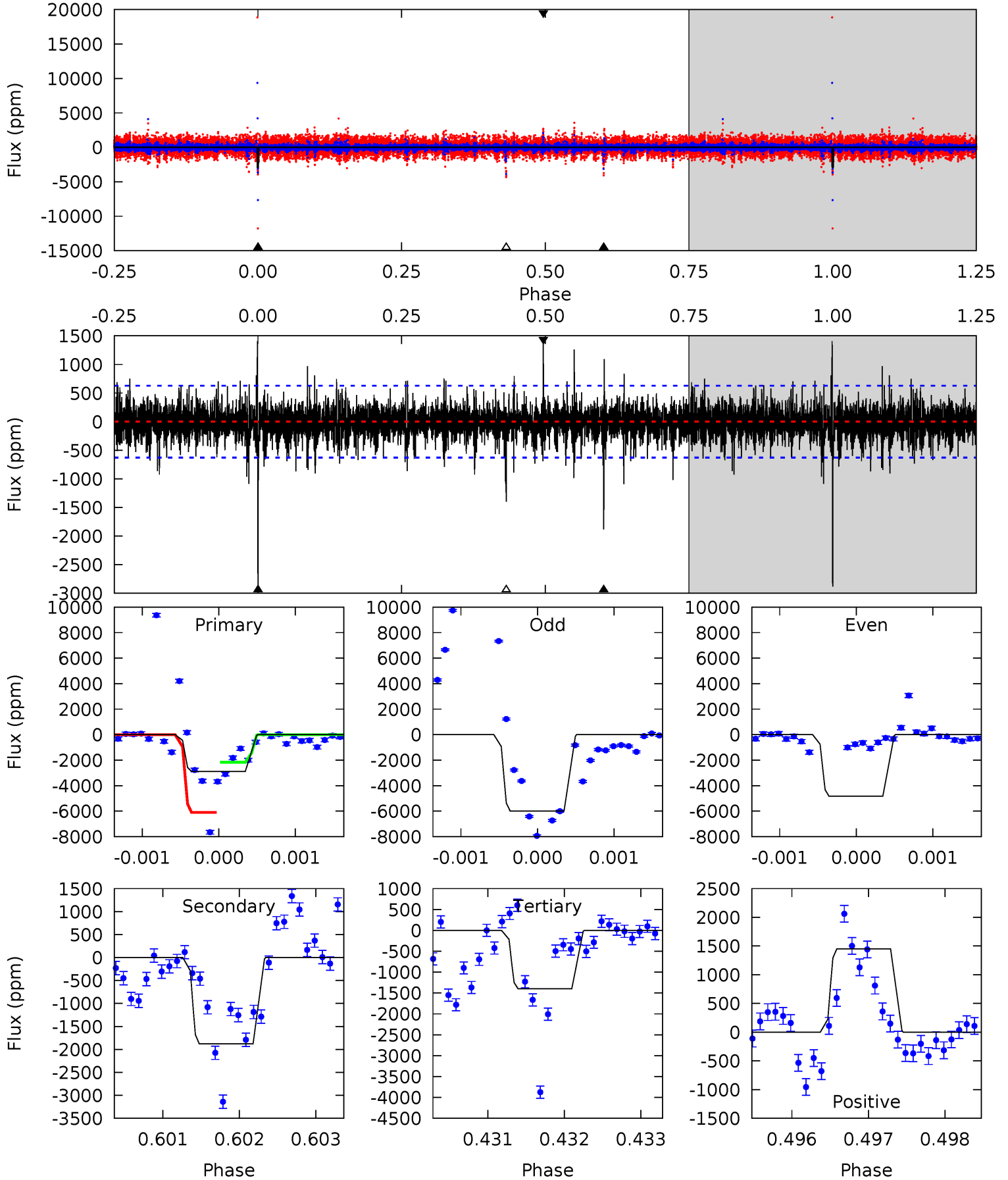
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0.89	1.31	1.12	1.30	5.40	3.20	0.30	-0.23	-0.41	0.19	0.01	1.32	1.02	0.52	0.87



Alt Model-Shift Uniqueness Test

008522497-01, P = 232.283363 Days, E = 134.321985 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
24.9	16.3	12.1	12.5	5.44	3.27	1.79	12.8	12.4	4.19	3.73	4.99	1.09	0.33	17.7



Stellar Parameters For KIC 008522497

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6576^{+158}_{-218}	$4.333^{+0.087}_{-0.203}$	$-0.240^{+0.250}_{-0.300}$	$1.214^{+0.389}_{-0.167}$	$1.162^{+0.180}_{-0.164}$	$0.914^{+0.408}_{-0.476}$
	+2%/-3%	+2%/-5%	+104%/-125%	+32%/-14%	+15%/-14%	+45%/-52%
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 008522497-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-1187 ± 906	$26.85^{+13.88}_{-14.03}$	513^{+40}_{-26}	3261^{+889}_{-657}	492^{+1809}_{-398}
Alt.	-1880 ± 116	$14.21^{+12.06}_{-9.37}$	515^{+40}_{-30}	4451^{+2912}_{-870}	3071^{+23931}_{-2174}

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 $A_{obs} \gg 1.0$

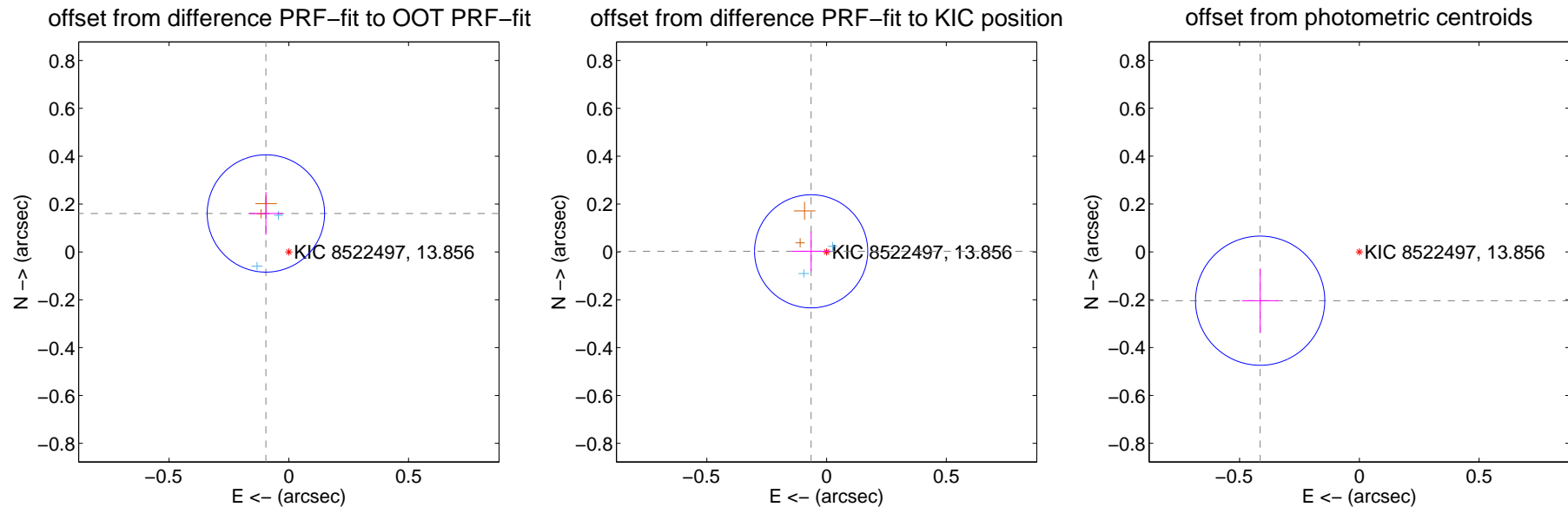
DV Centroid Data

Supplemental centroid analysis for 008522497-01. Kepler magnitude: 13.86. Transit SNR 13.54

There are 2 quarters with good PRF difference image offsets

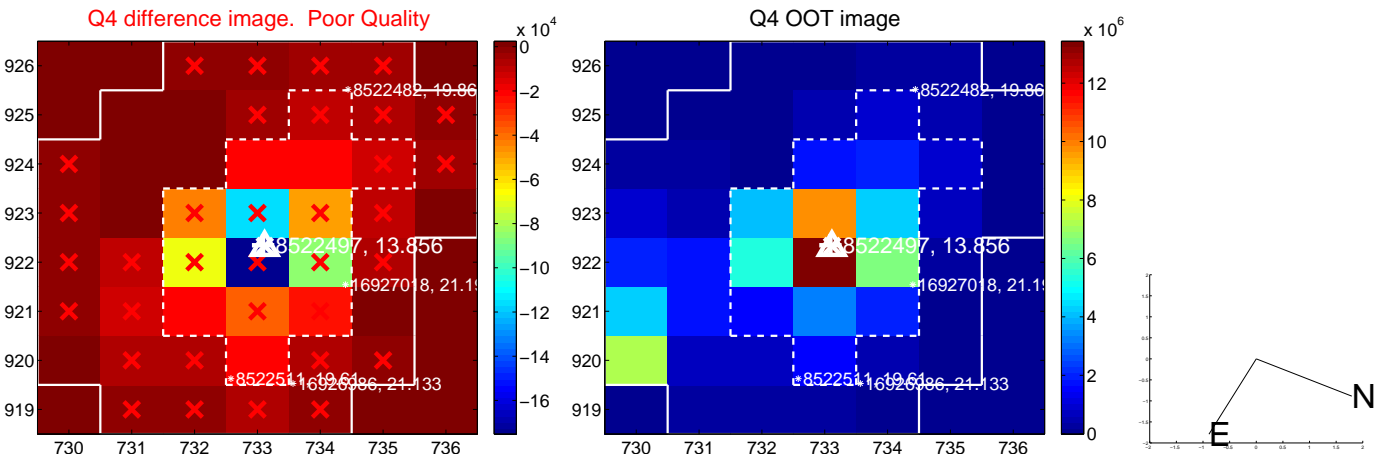
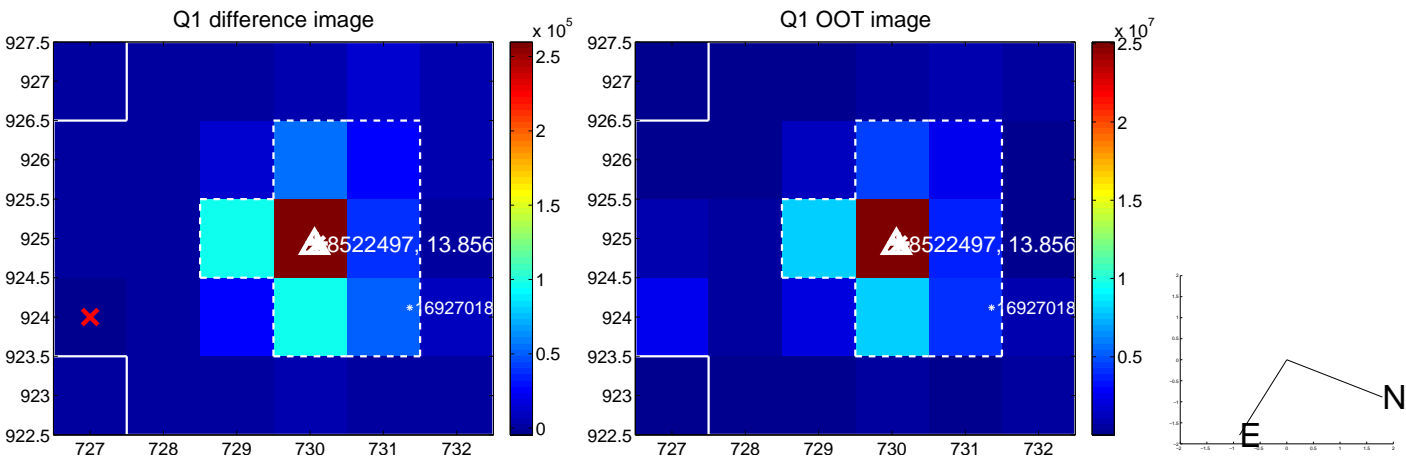
The direct PRF centroid is offset from the target star catalog position by about 0.15 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.187 ± 0.082	2.29	0.096 ± 0.070	0.161 ± 0.089
PRF-fit source offset from KIC position	0.064 ± 0.079	0.82	0.064 ± 0.079	0.003 ± 0.083
photometric centroid source offset	0.46 ± 0.09	5.13	0.41 ± 0.08	-0.20 ± 0.13



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.

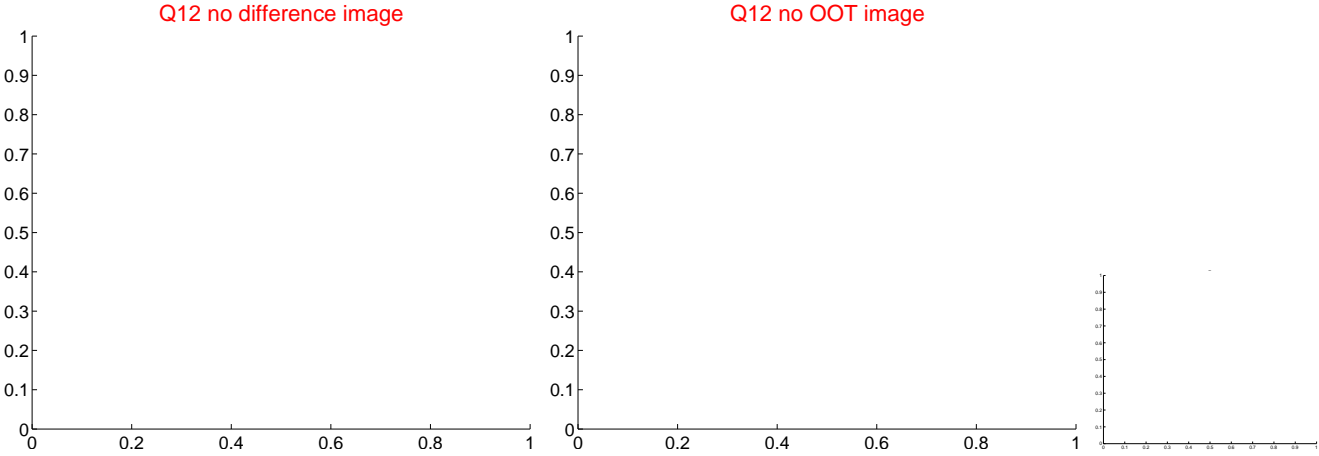
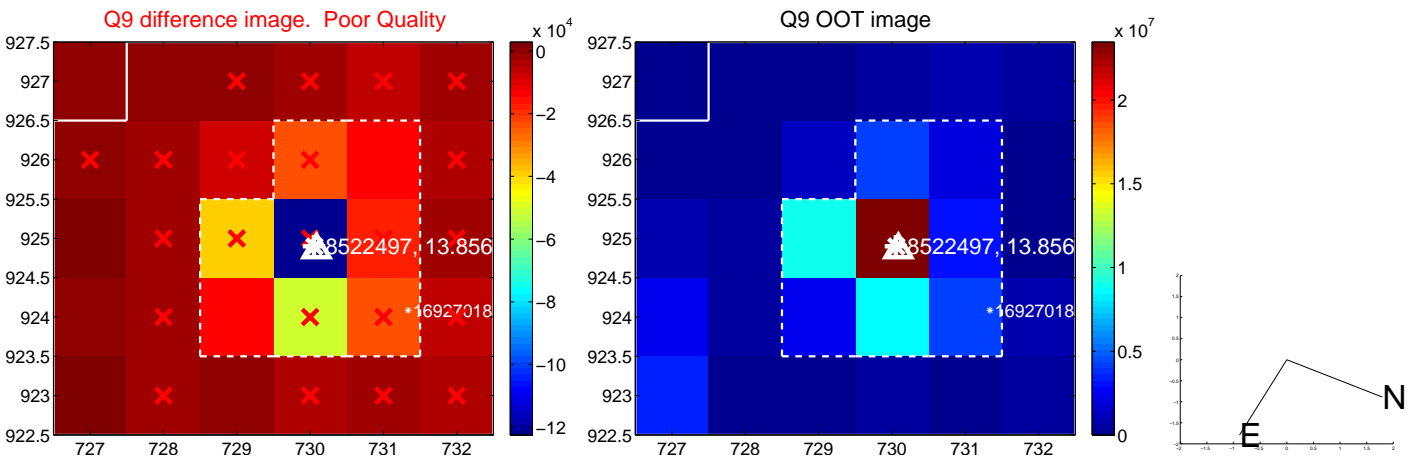
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



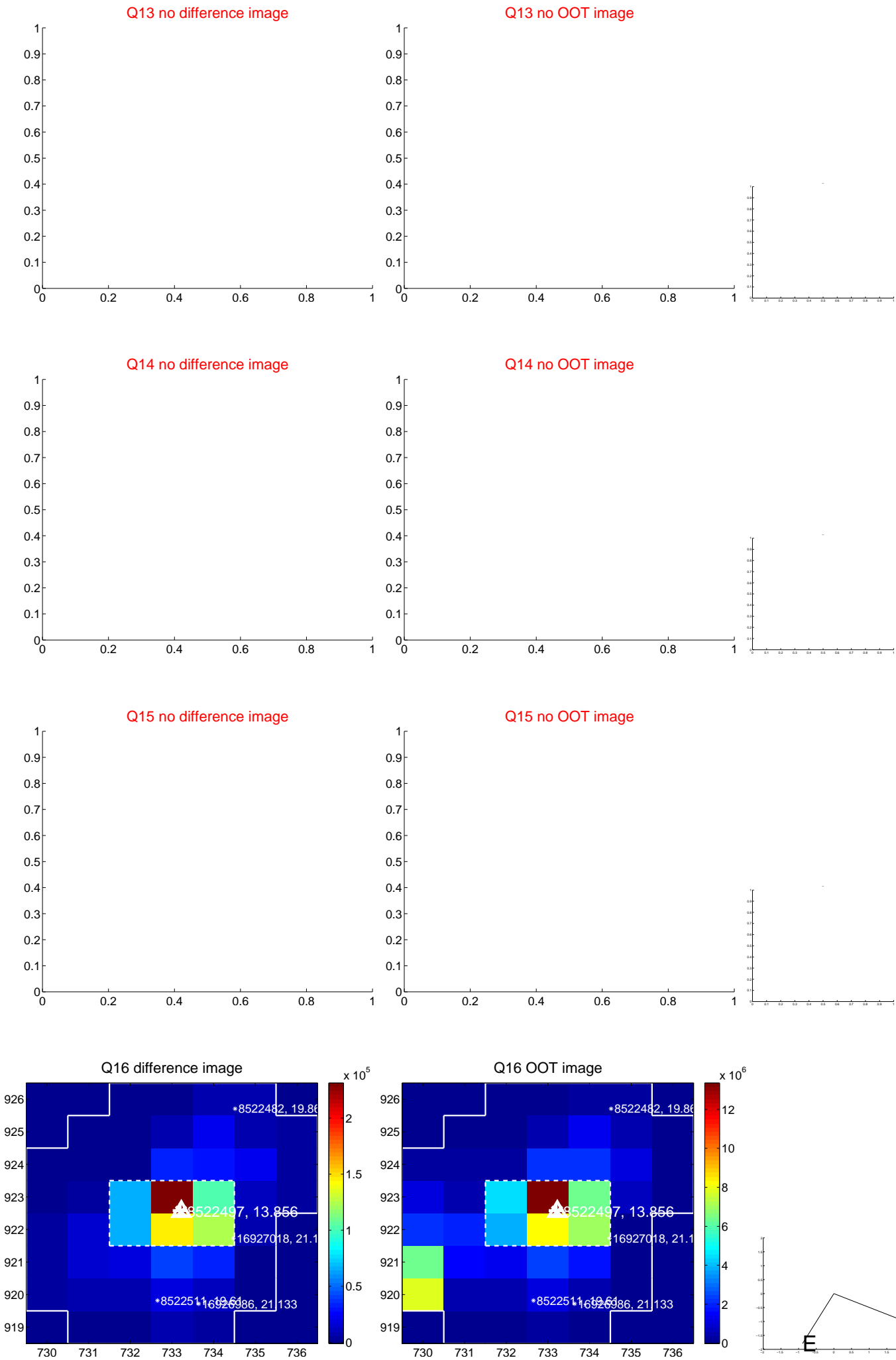
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



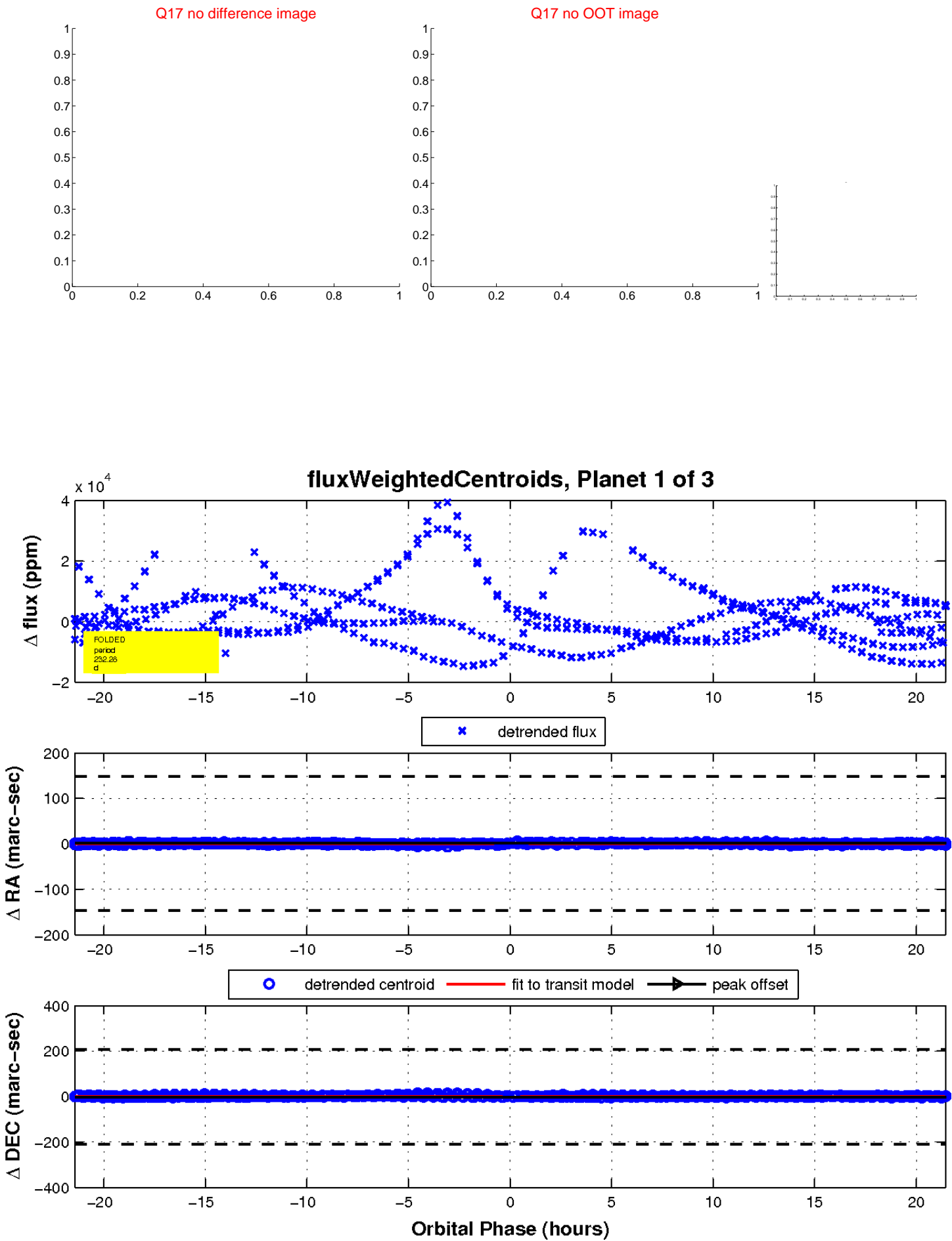
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

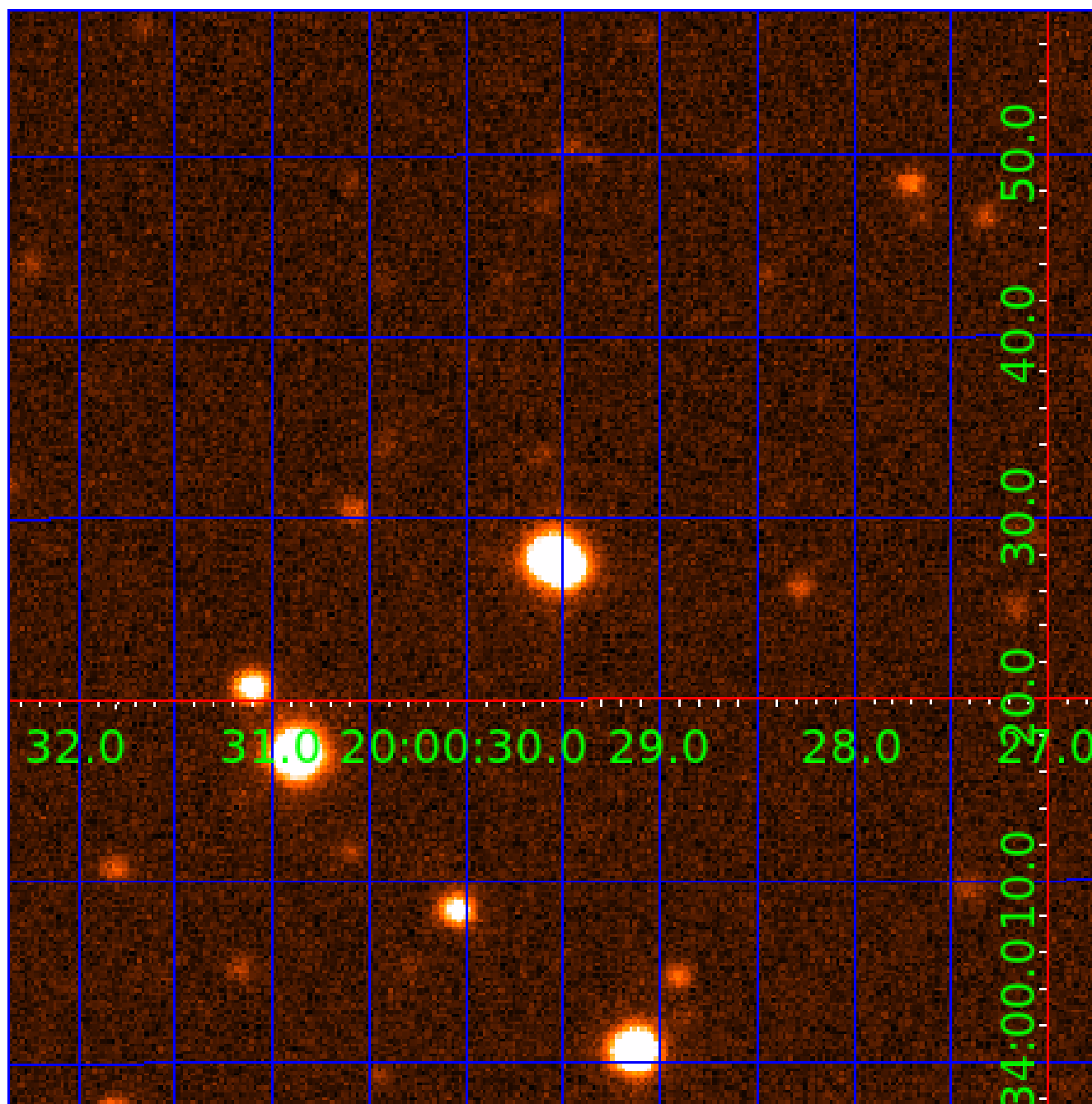


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 008522497

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})
008522497-01	OBS	No	232.279036	134.266347	13851.9	7.156	23.4	13.5	1.21	6576	24.99	4.09
008522497-02	OBS	No	490.632014	333.800224	13149.4	7.621	17.7	10.3	1.21	6576	24.37	1.51
008522497-03	OBS	No	360.569087	361.478476	1909.1	3.333	16.3	3.3	1.21	6576	9.84	2.28

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008522497-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
008522497-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
008522497-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS

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.

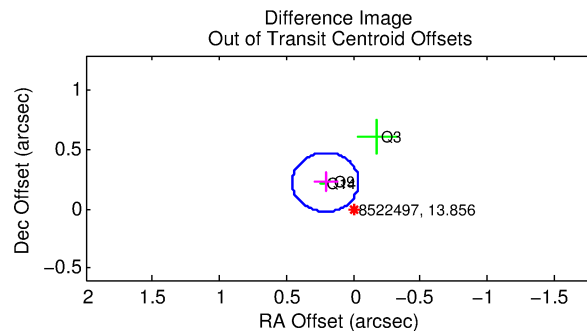
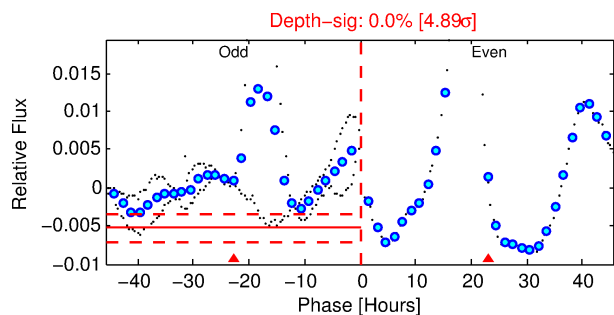
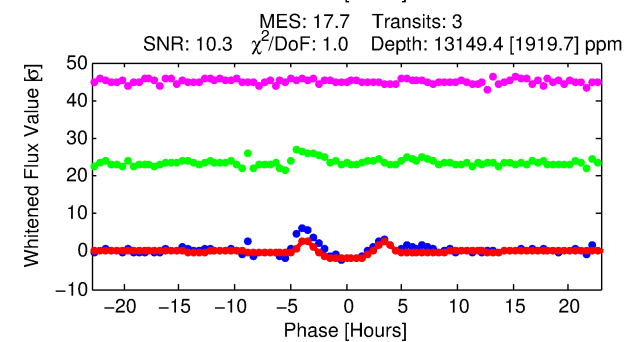
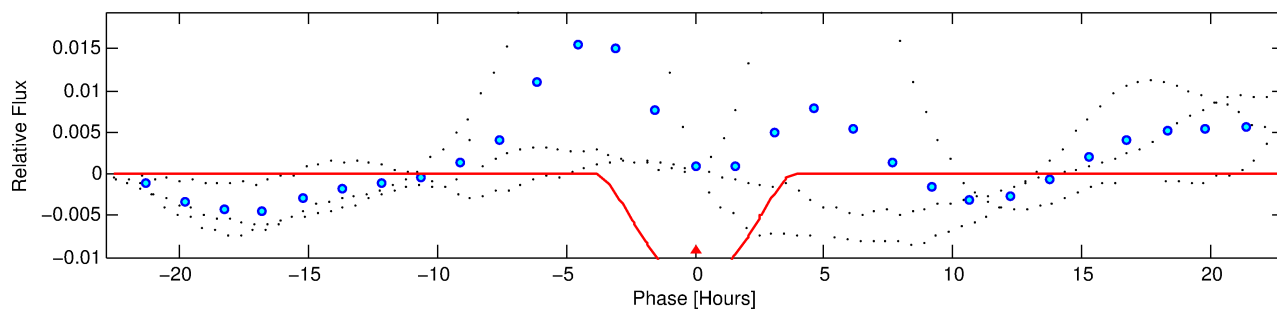
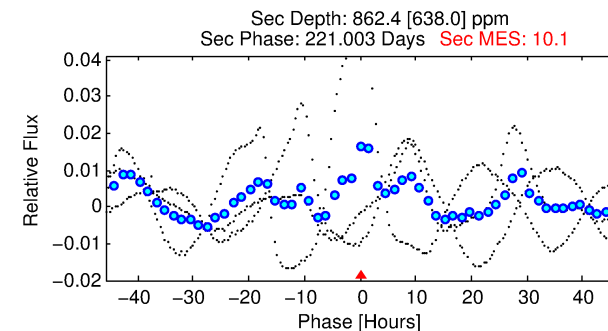
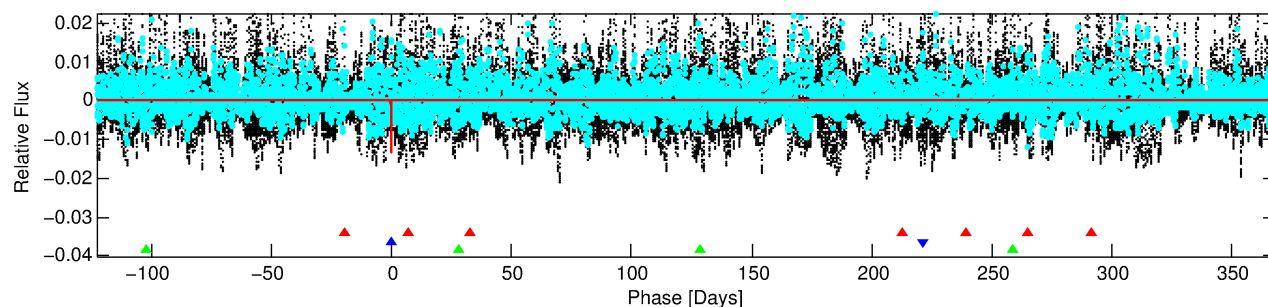
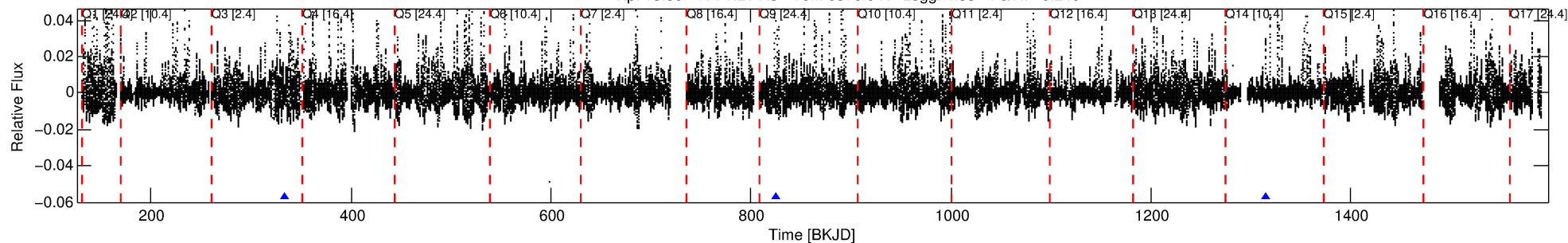
Ephemeris Match Information For 008522497-02

No Significant Match Found

DV One-Page Summary

KIC: 8522497 Candidate: 2 of 3 Period: 490.632 d

Kp: 13.86 R*: 1.21 Rs Teff: 6576.0 K Logg: 4.33 Fe/H: -0.240



DV Fit Results:

Period = 490.63201 [0.00426] d
Epoch = 333.8002 [0.0056] BKJD
Rp/R* = 0.1839 [0.1283]
a/R* = 311.77 [25.87]
b = 1.00 [0.17]
Seff = 1.51 [0.60]
Teq = 283 [28] K
Rp = 24.37 [18.70] Re
a = 1.2784 [0.3380] AU
Ag = 1306.09 [2120.14] [0.62σ]
Teff = 2628 [1041] K [2.25σ]

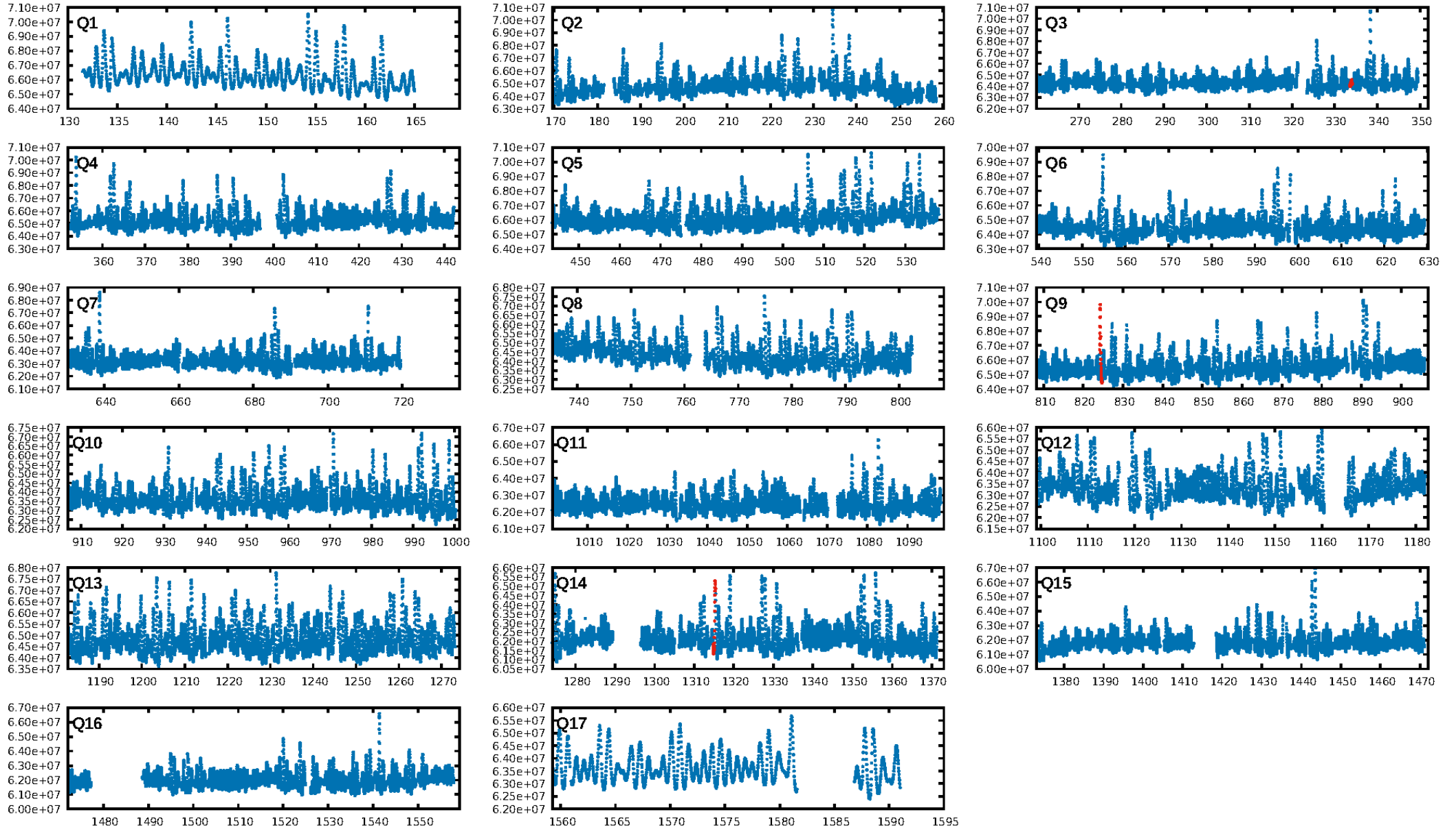
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [375.27σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.8%
ModelChiSquareGof-sig: 91.0%
Bootstrap-pfa: 2.46e-10
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 2.719
Centroid-sig: 0.7%
Centroid-so: 0.452 arcsec [5.05σ]
OotOffset-rm: 0.310 arcsec [3.73σ]
KicOffset-rm: 0.174 arcsec [2.11σ]
OotOffset-st: 1/1/0/1 [3]
KicOffset-st: 1/1/0/1 [3]
DiffImageQuality-fgm: 0.33 [1/3]
DiffImageOverlap-fno: 1.00 [3/3]

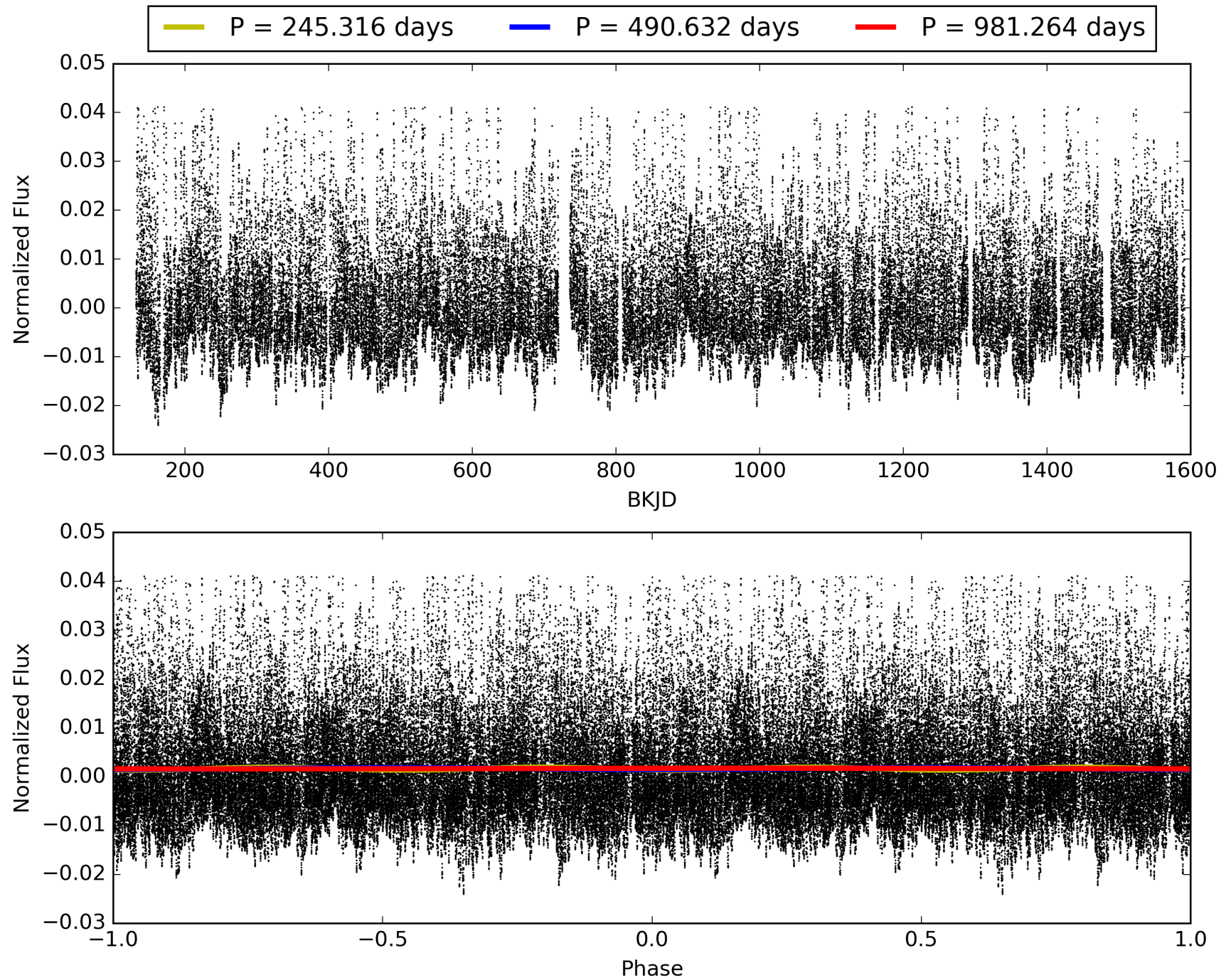
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 05:13:46 Z

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

TCE 008522497-02, PDC Light Curves

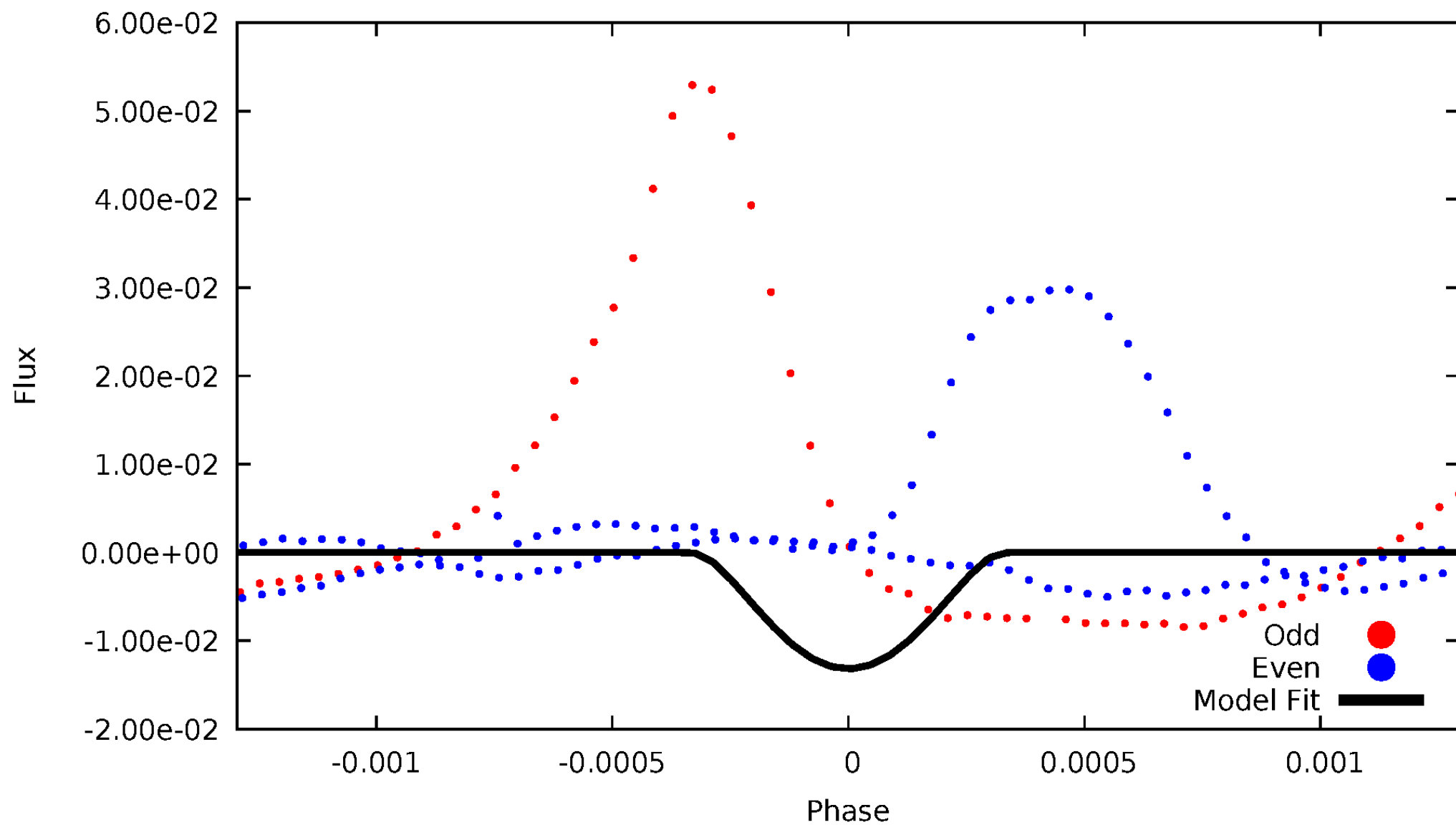


TCE 008522497-02



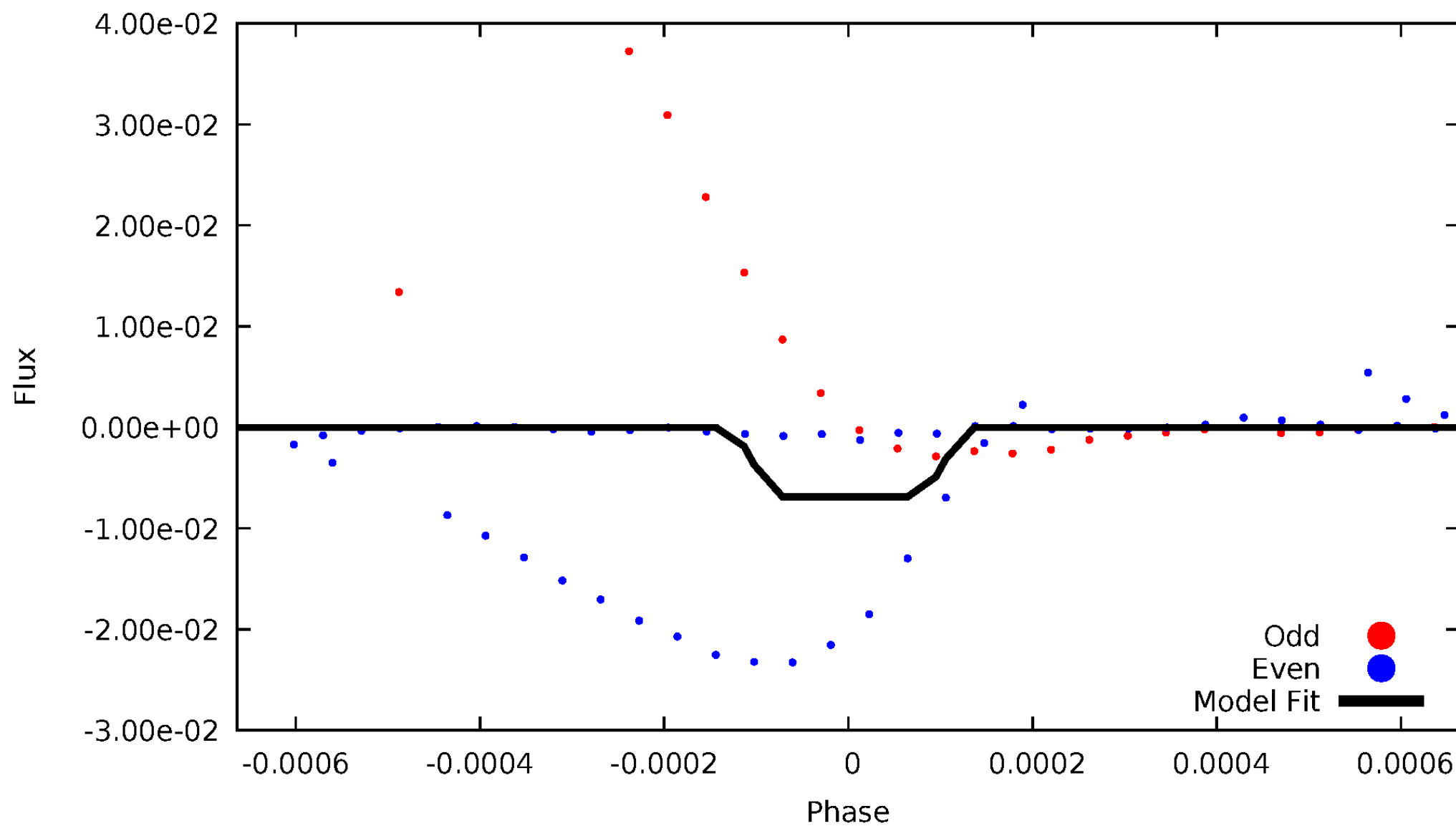
DV Odd/Even

TCE 008522497-02



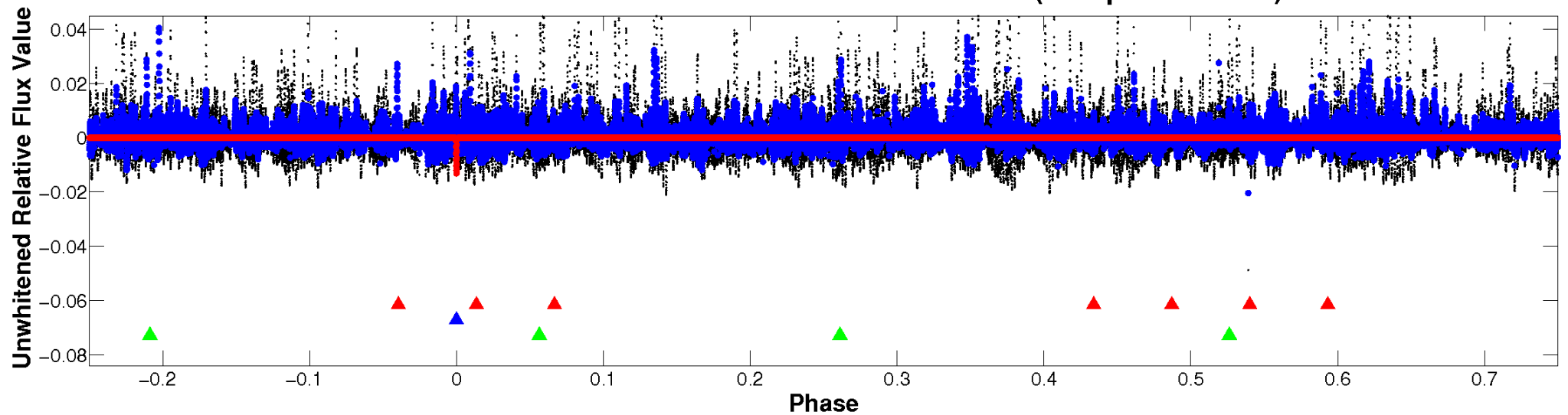
ALT Odd/Even

TCE 008522497-02

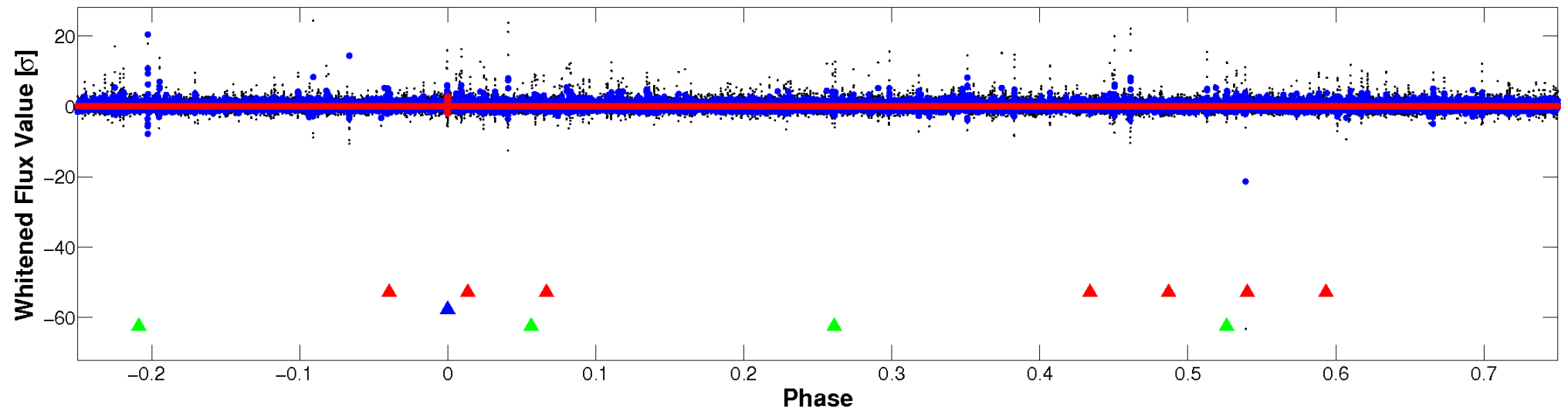


Non-Whitened Vs. Whitened Light Curve

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

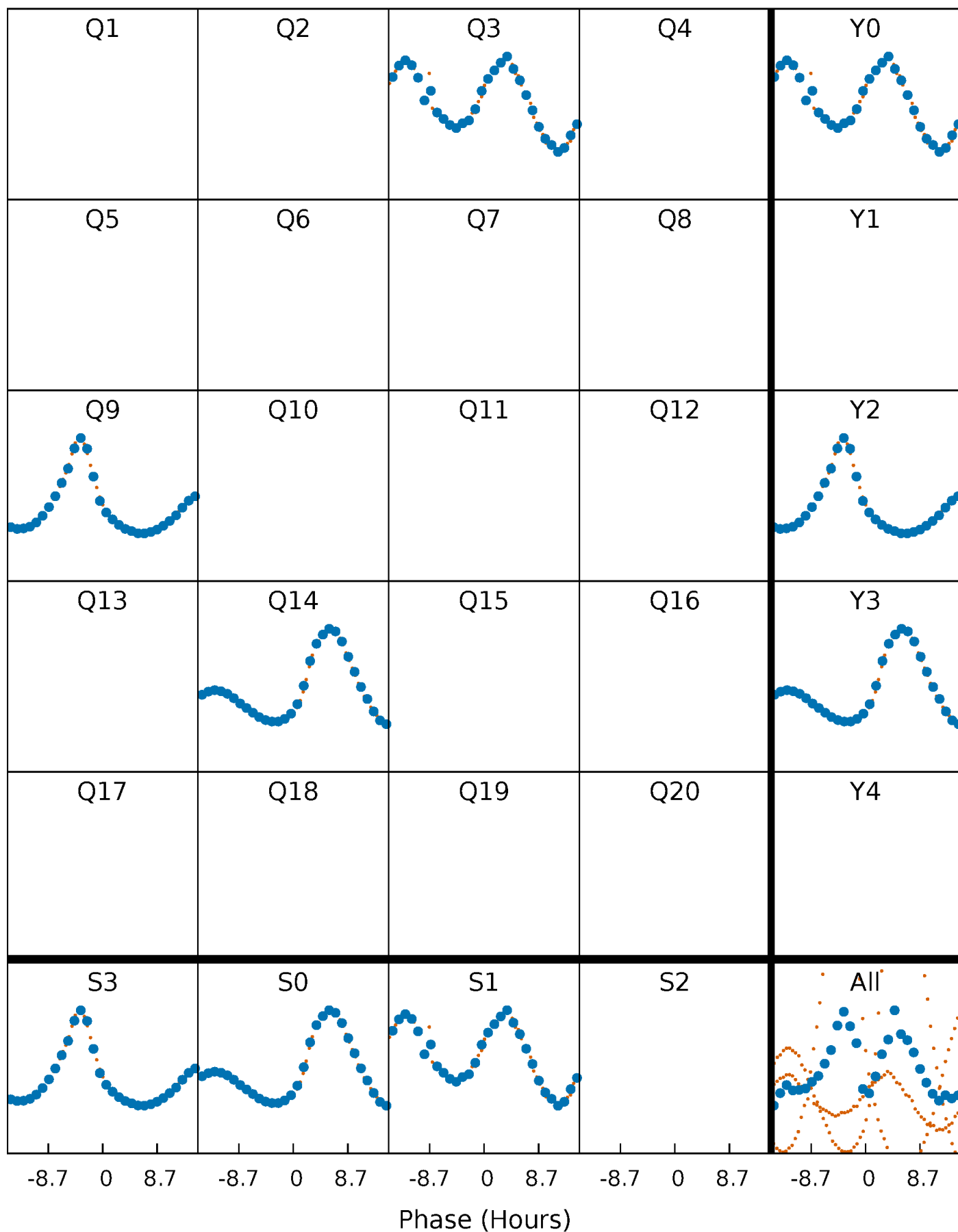


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



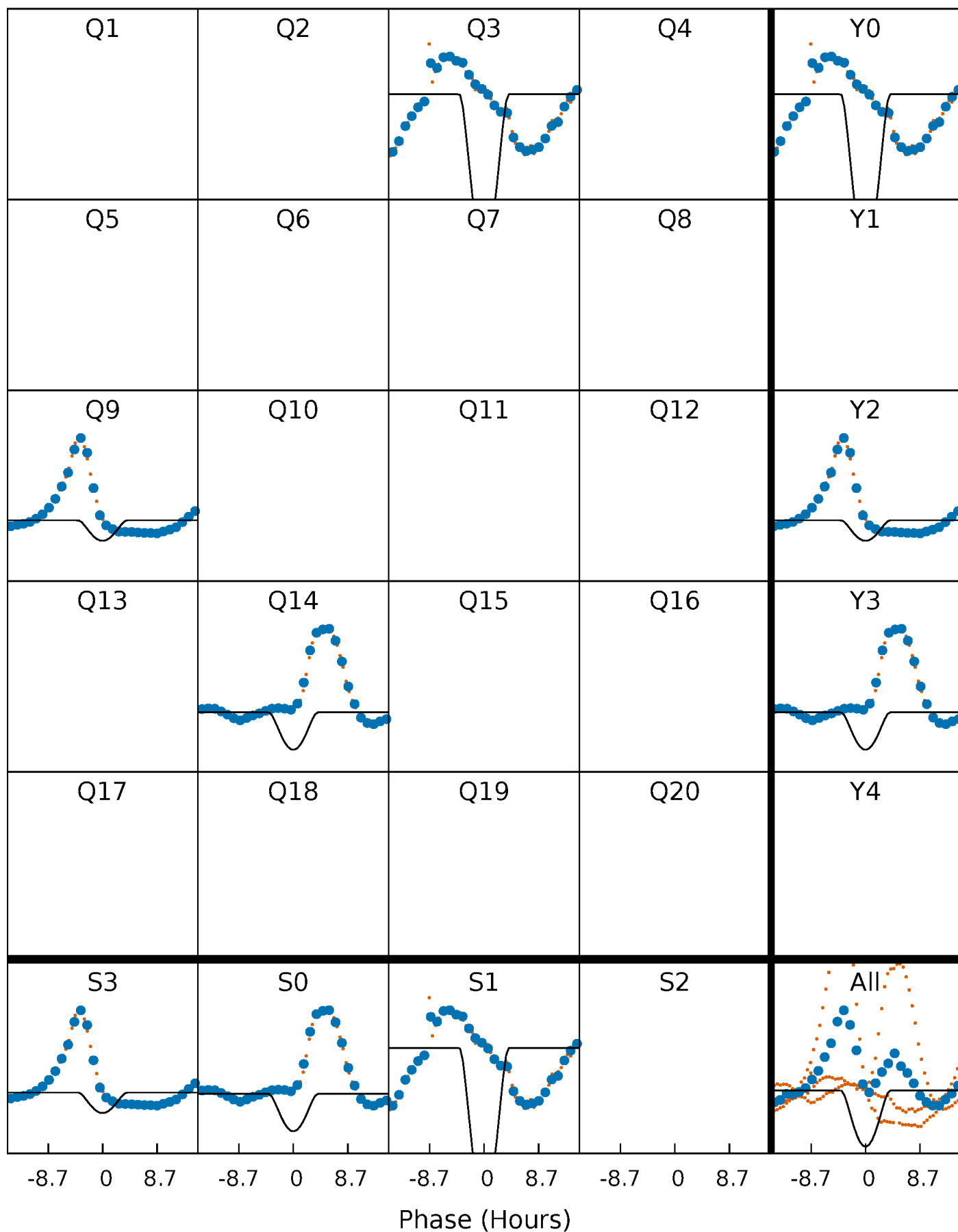
PDC Quarter-Phased Transit Curves

TCE 008522497-02 $P=490.632014$ Days $T_0=333.800224$ (BKJD)



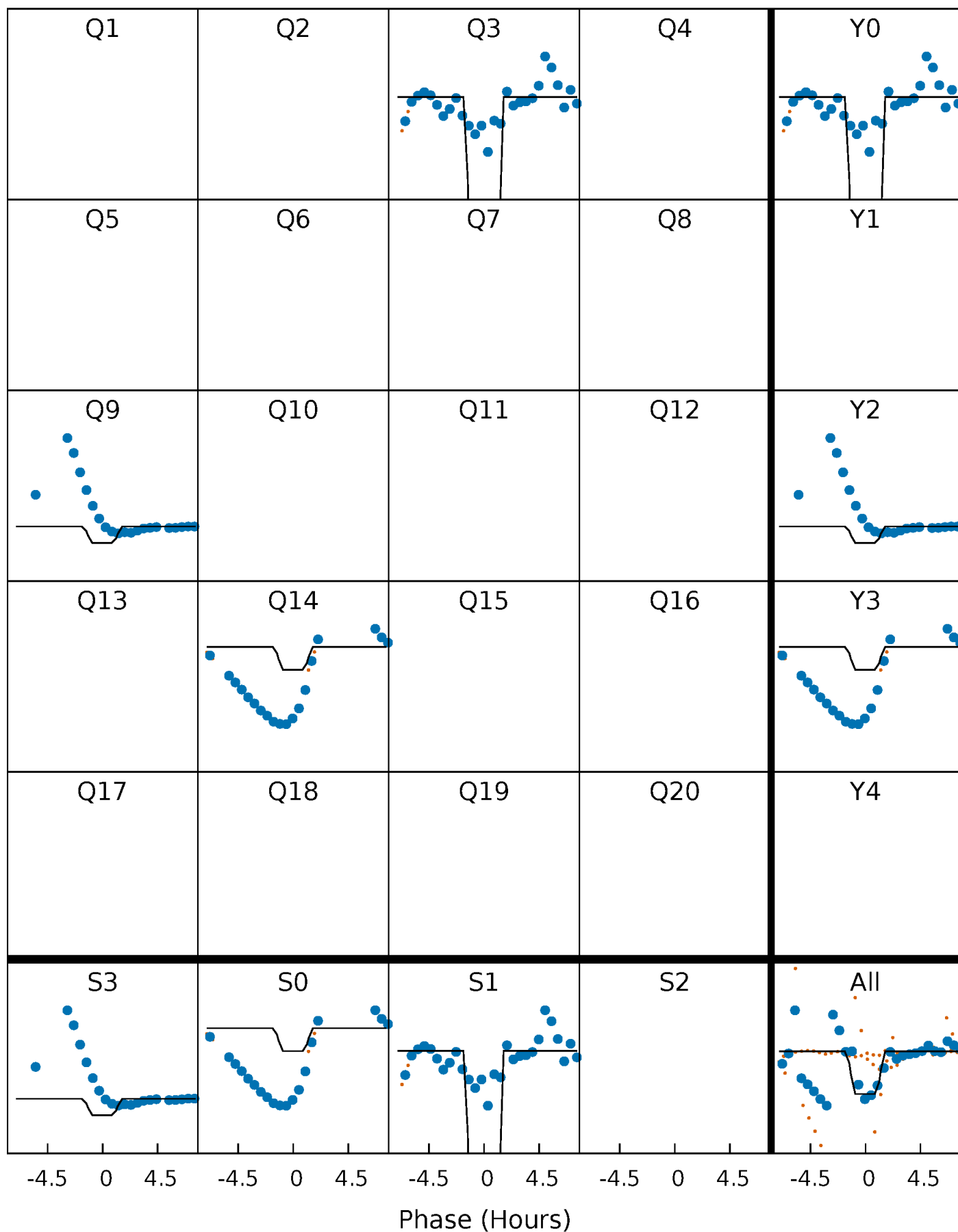
DV Quarter-Phased Transit Curves

TCE 008522497-02 $P=490.632014$ Days $T_0=333.800224$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

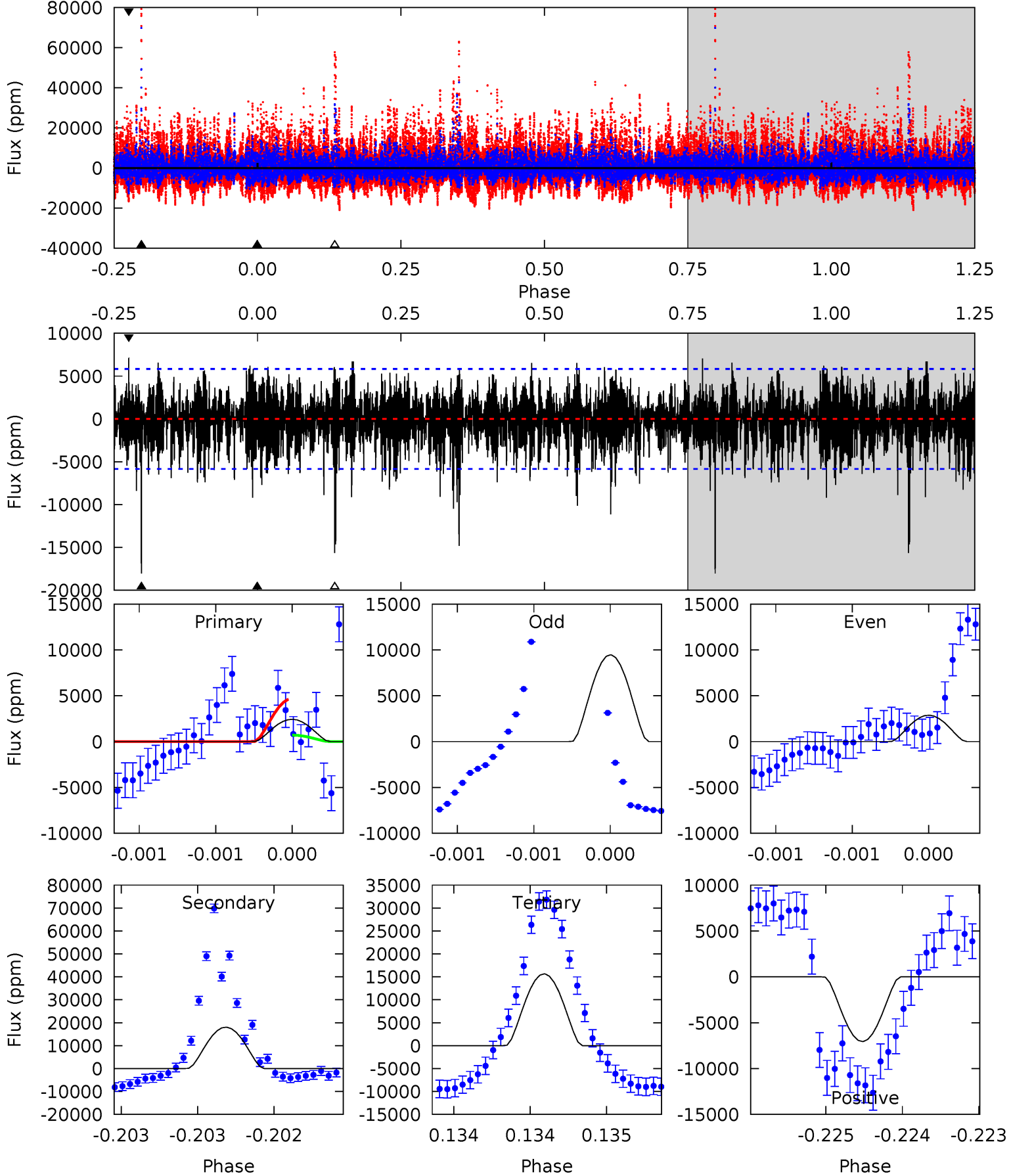
TCE 008522497-02 P=490.691510 Days $T_0=333.736209$ (BKJD)



DV Model-Shift Uniqueness Test

008522497-02, P = 490.632014 Days, E = 333.800224 Days

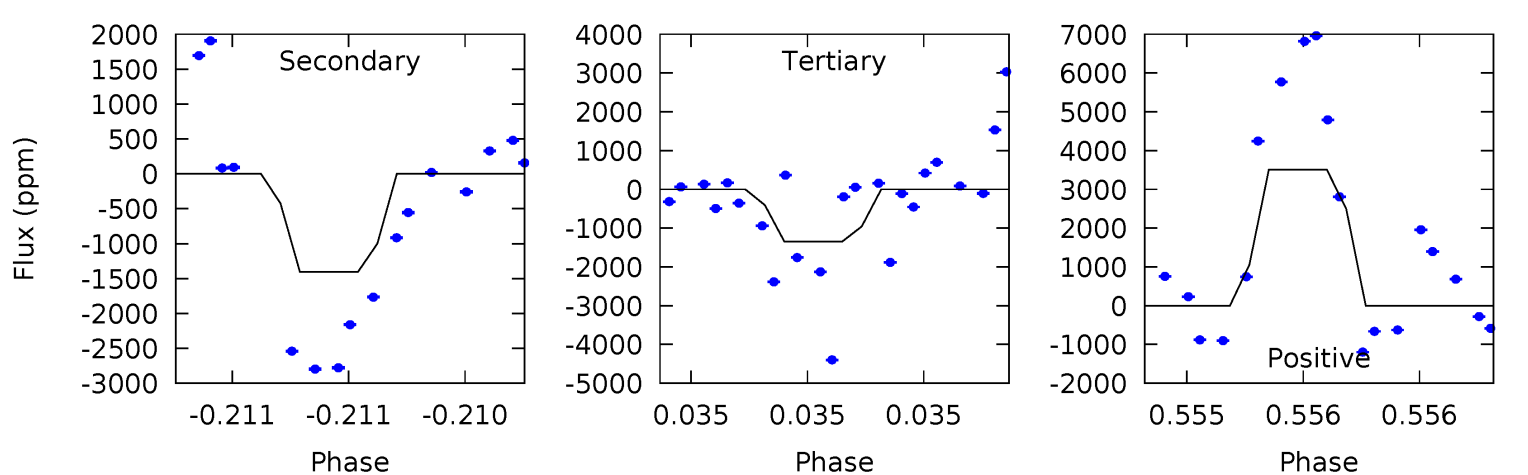
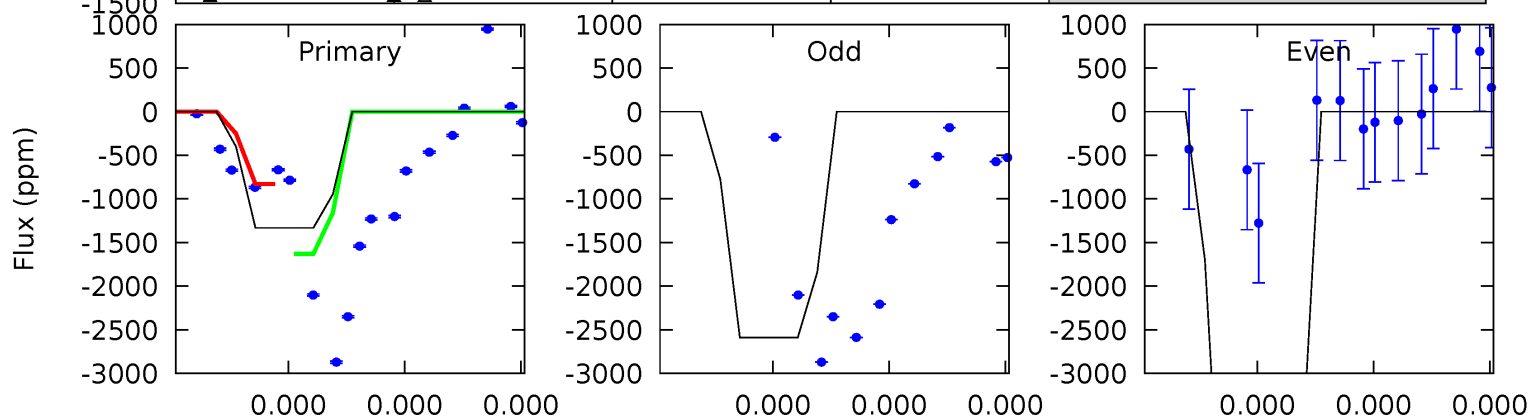
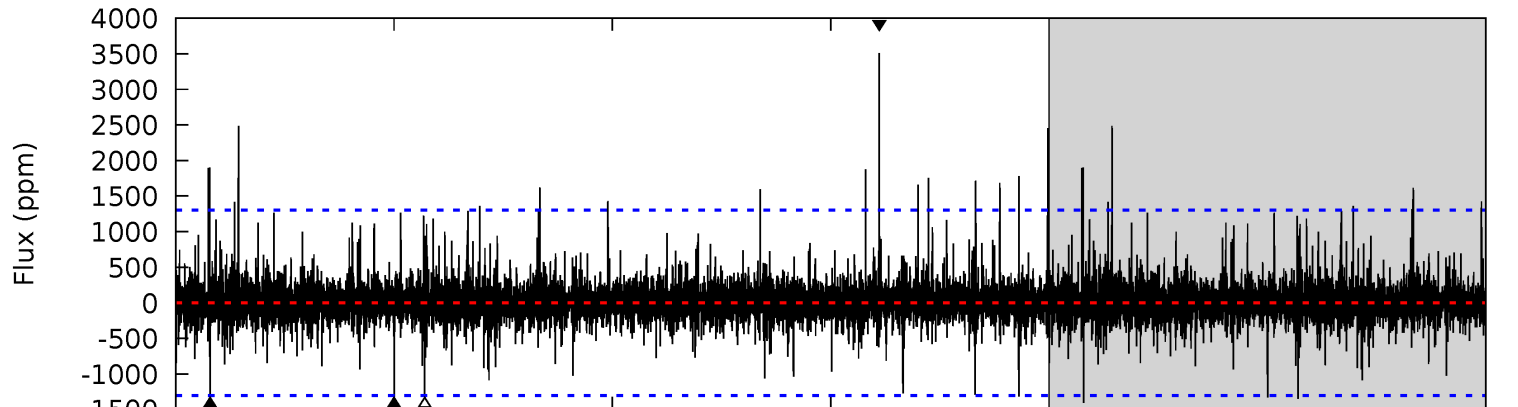
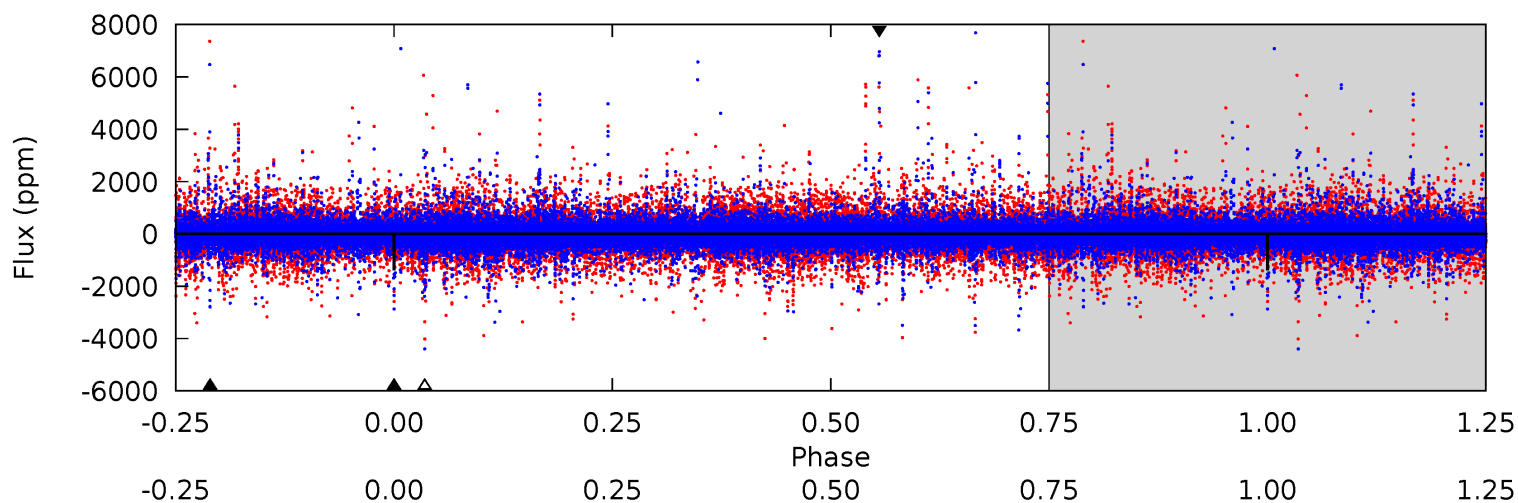
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.30	17.1	14.8	6.68	5.52	3.40	2.36	-12.5	-4.38	2.26	10.4	2.88	0.93	0.28	1.86



Alt Model-Shift Uniqueness Test

008522497-02, P = 490.691510 Days, E = 333.736209 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.82	6.15	5.88	15.3	5.69	3.66	0.92	-0.06	-9.52	0.27	-9.18	5.14	7.16	0.71	0



Stellar Parameters For KIC 008522497

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6576^{+158}_{-218}	$4.333^{+0.087}_{-0.203}$	$-0.240^{+0.250}_{-0.300}$	$1.214^{+0.389}_{-0.167}$	$1.162^{+0.180}_{-0.164}$	$0.914^{+0.408}_{-0.476}$
	+2%/-3%	+2%/-5%	+104%/-125%	+32%/-14%	+15%/-14%	+45%/-52%
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 008522497-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-18031±1057	$27.86^{+17.46}_{-15.60}$	399^{+29}_{-20}	5403^{+2708}_{-979}	21407^{+86107}_{-13478}
Alt.	-1408±229	$16.53^{+16.90}_{-11.17}$	400^{+28}_{-22}	3969^{+2336}_{-777}	4453^{+36506}_{-3339}

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

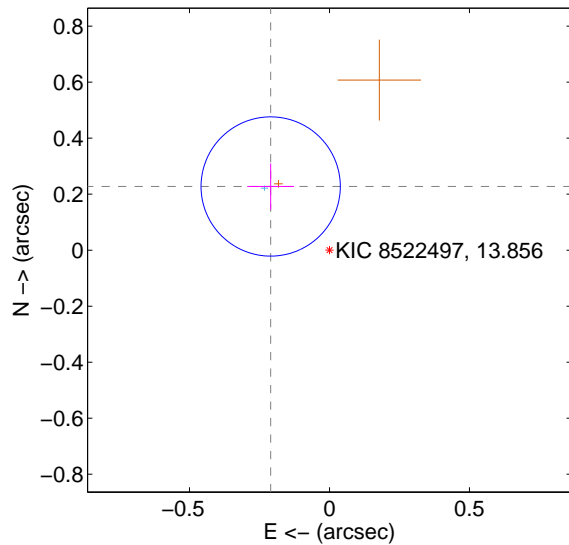
Supplemental centroid analysis for 008522497-02. Kepler magnitude: 13.86. Transit SNR 10.33

There are 1 quarters with good PRF difference image offsets

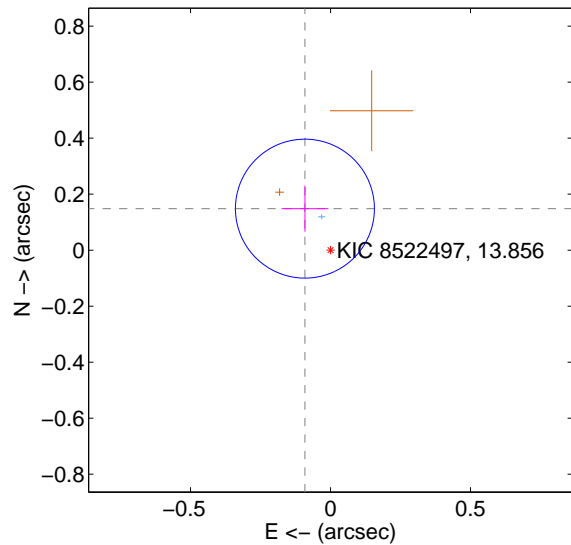
The direct PRF centroid is offset from the target star catalog position by about 0.23 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.310 ± 0.083	3.73	0.210 ± 0.083	0.227 ± 0.082
PRF-fit source offset from KIC position	0.174 ± 0.083	2.11	0.091 ± 0.083	0.148 ± 0.082
photometric centroid source offset	0.45 ± 0.09	5.05	0.44 ± 0.09	-0.09 ± 0.15

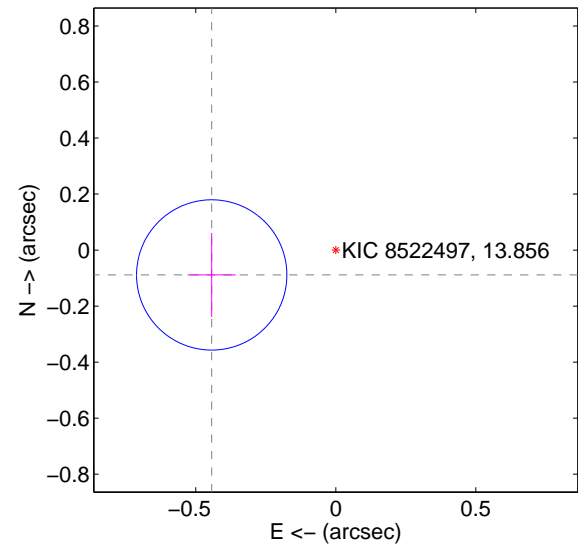
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

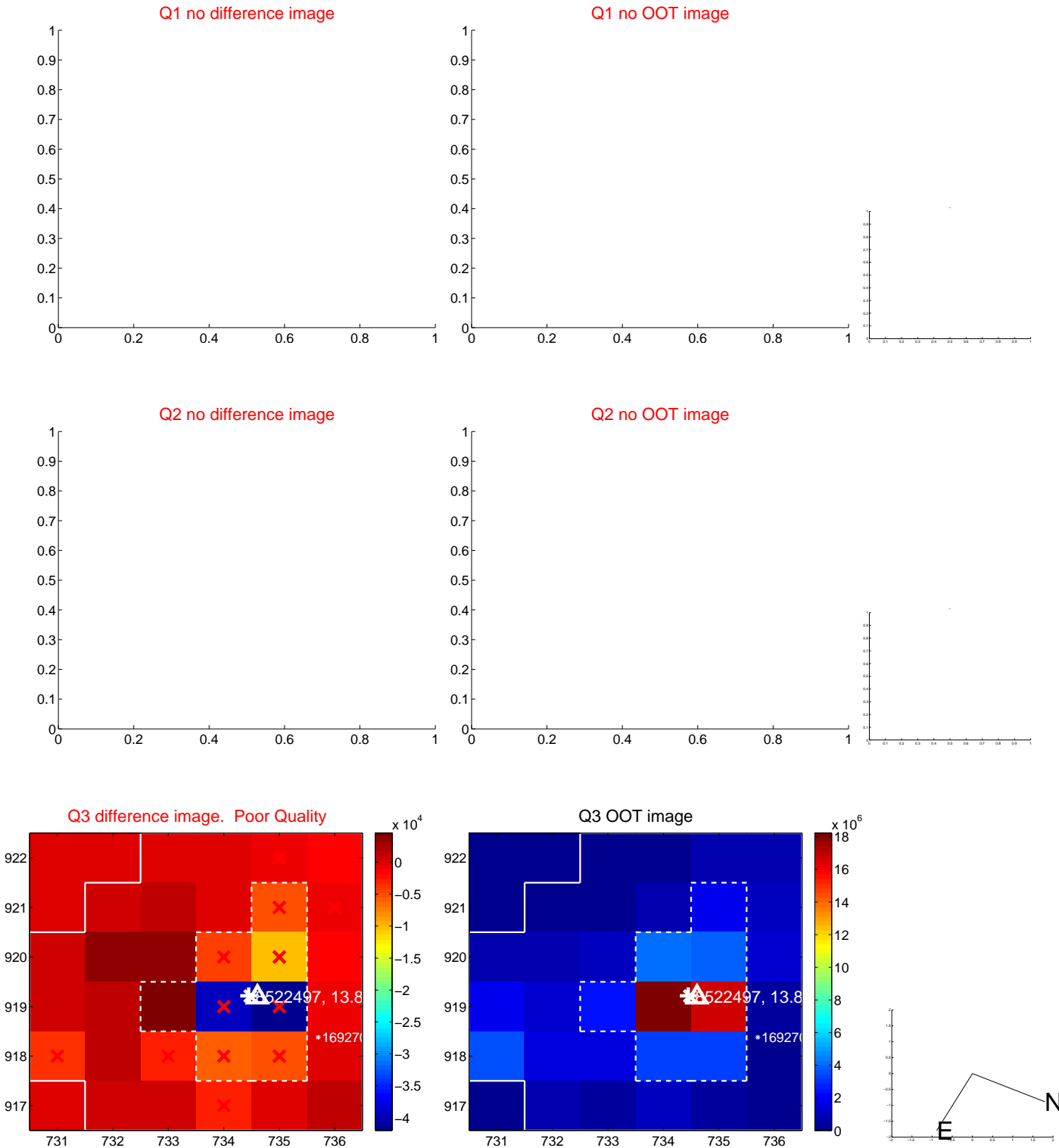


offset from photometric centroids



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.

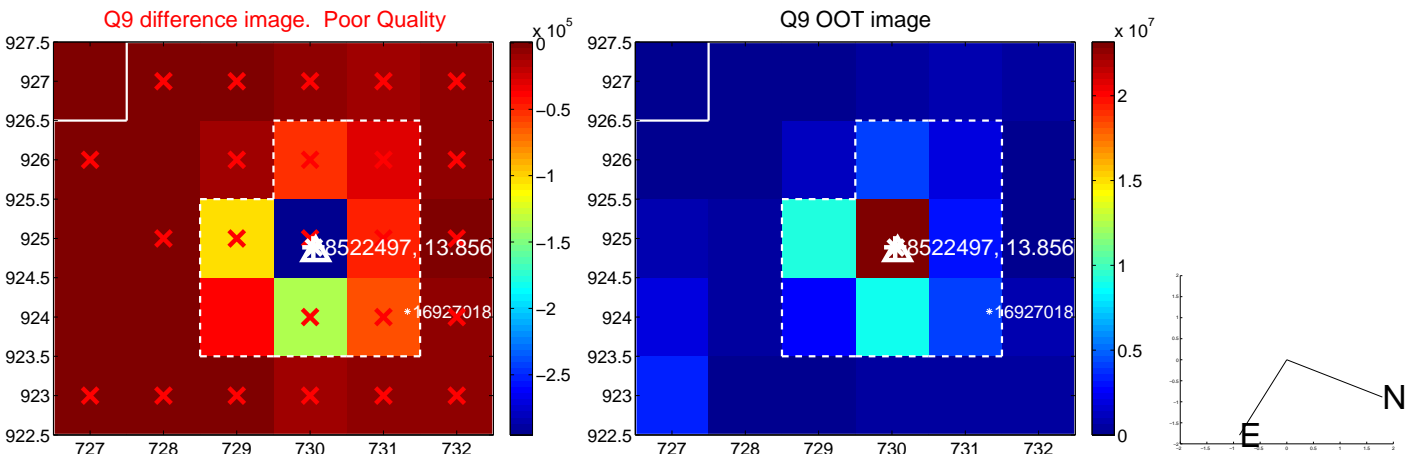
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



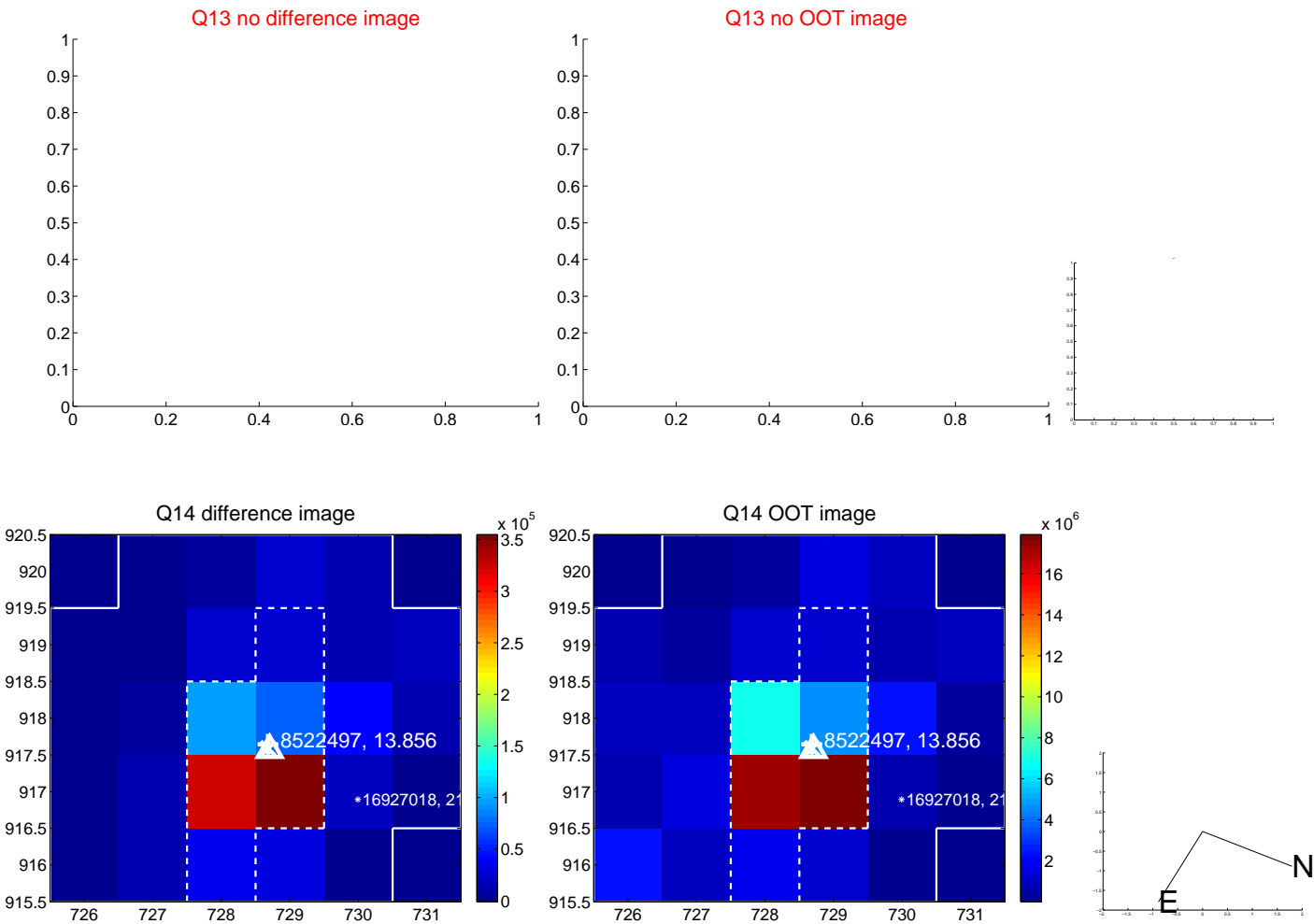
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



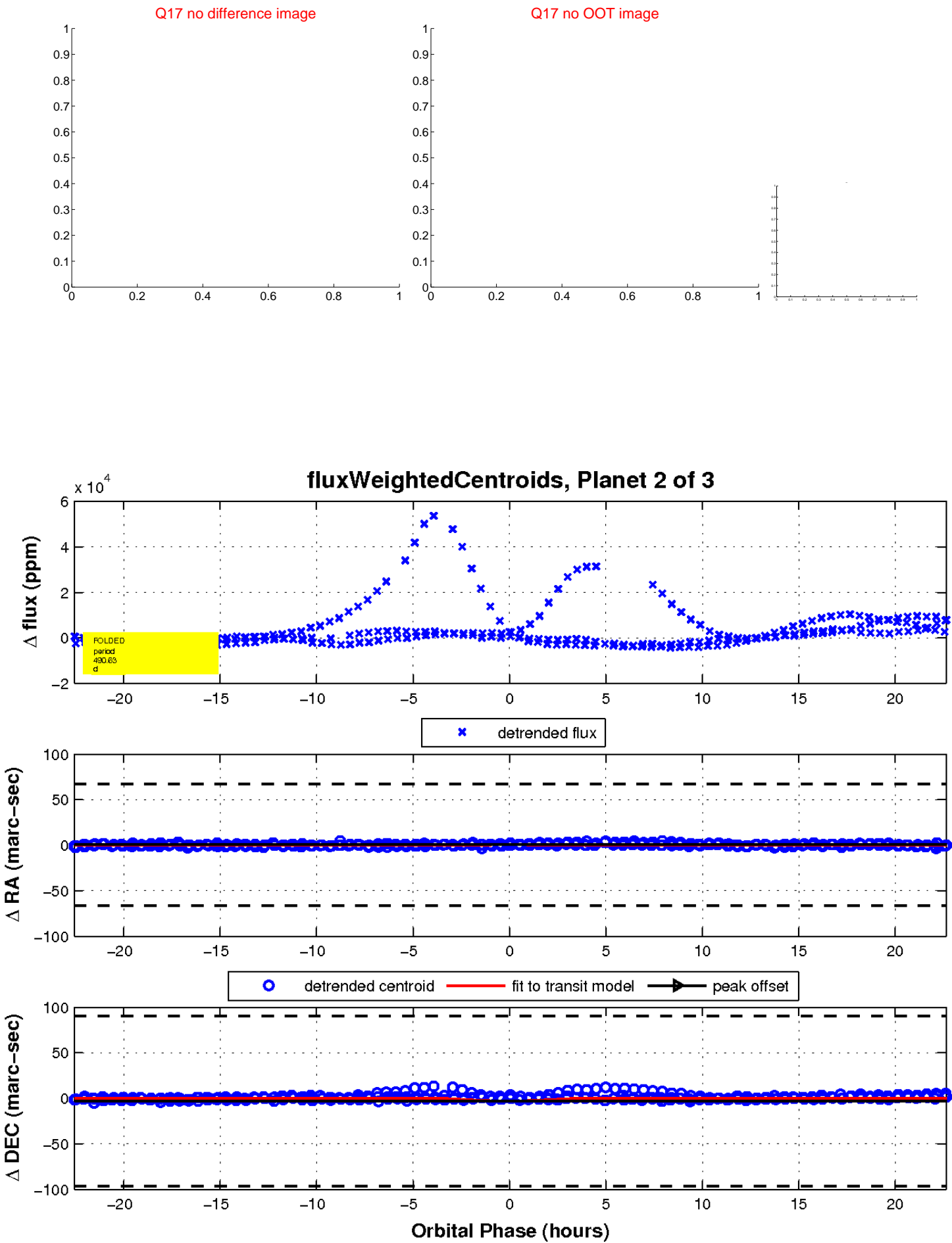
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

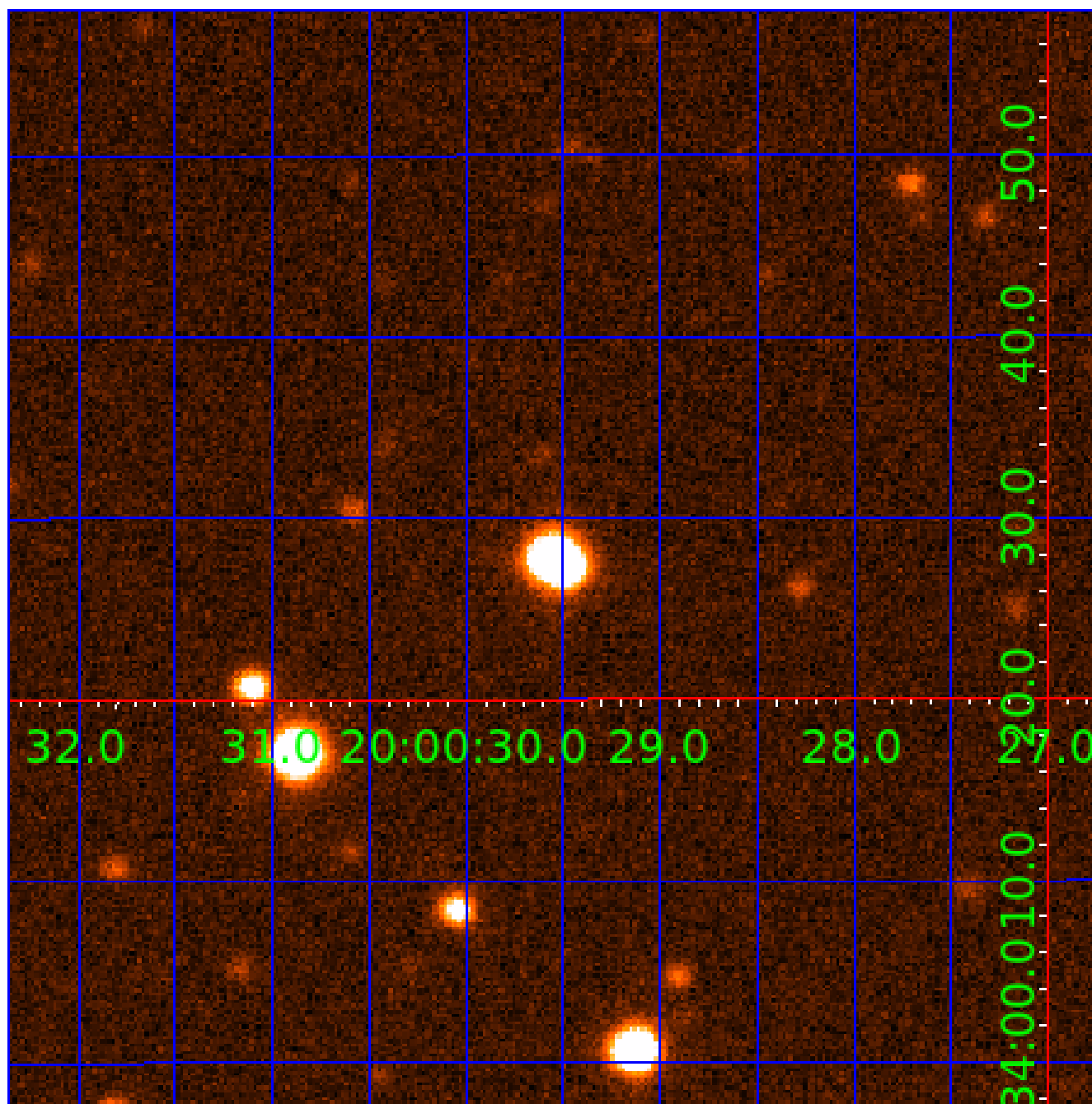


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 008522497

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})
008522497-01	OBS	No	232.279036	134.266347	13851.9	7.156	23.4	13.5	1.21	6576	24.99	4.09
008522497-02	OBS	No	490.632014	333.800224	13149.4	7.621	17.7	10.3	1.21	6576	24.37	1.51
008522497-03	OBS	No	360.569087	361.478476	1909.1	3.333	16.3	3.3	1.21	6576	9.84	2.28

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008522497-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
008522497-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
008522497-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS

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

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

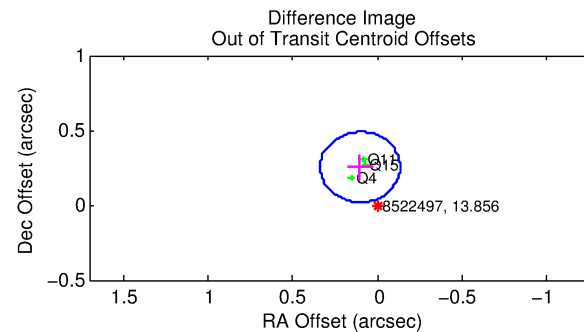
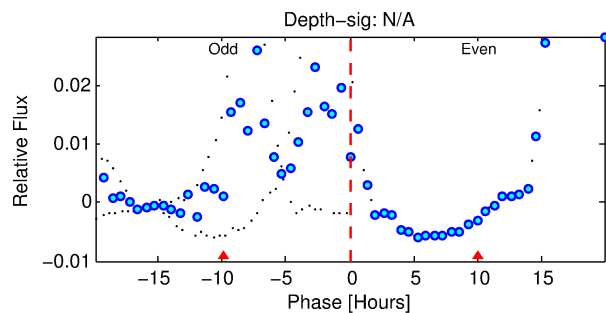
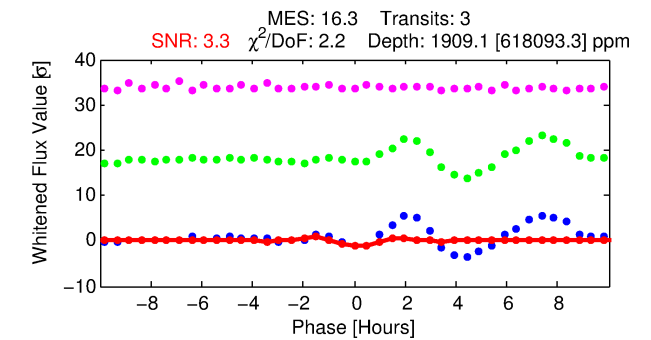
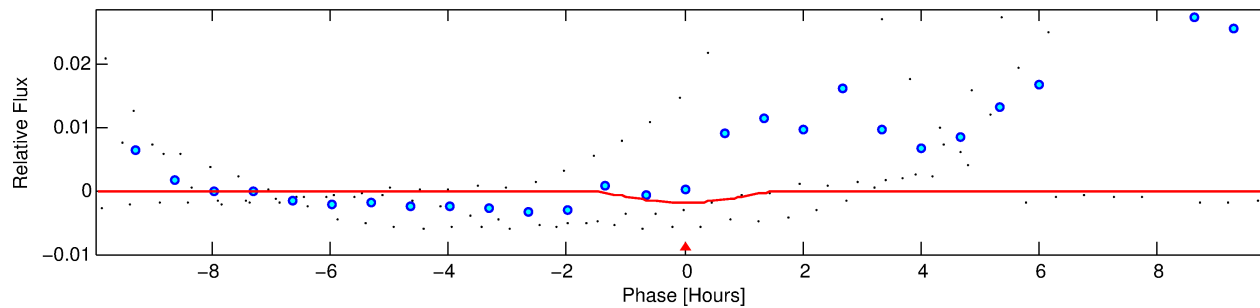
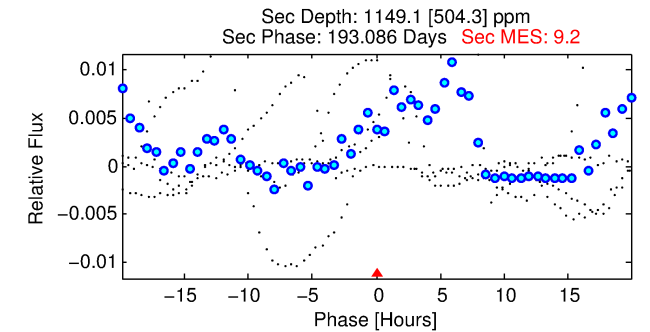
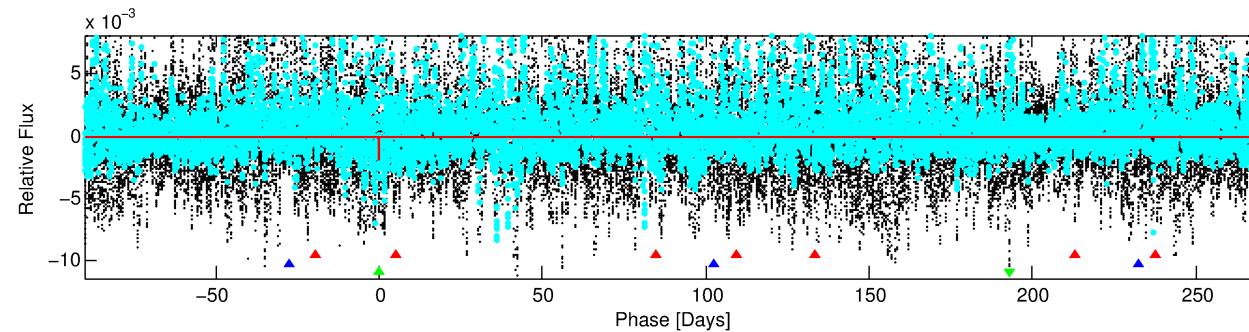
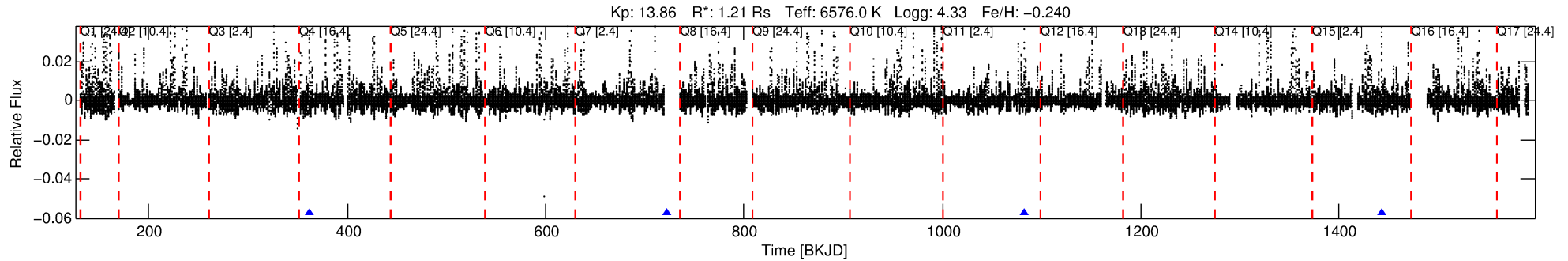
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008522497-03

No Significant Match Found

DV One-Page Summary

KIC: 8522497 Candidate: 3 of 3 Period: 360.569 d



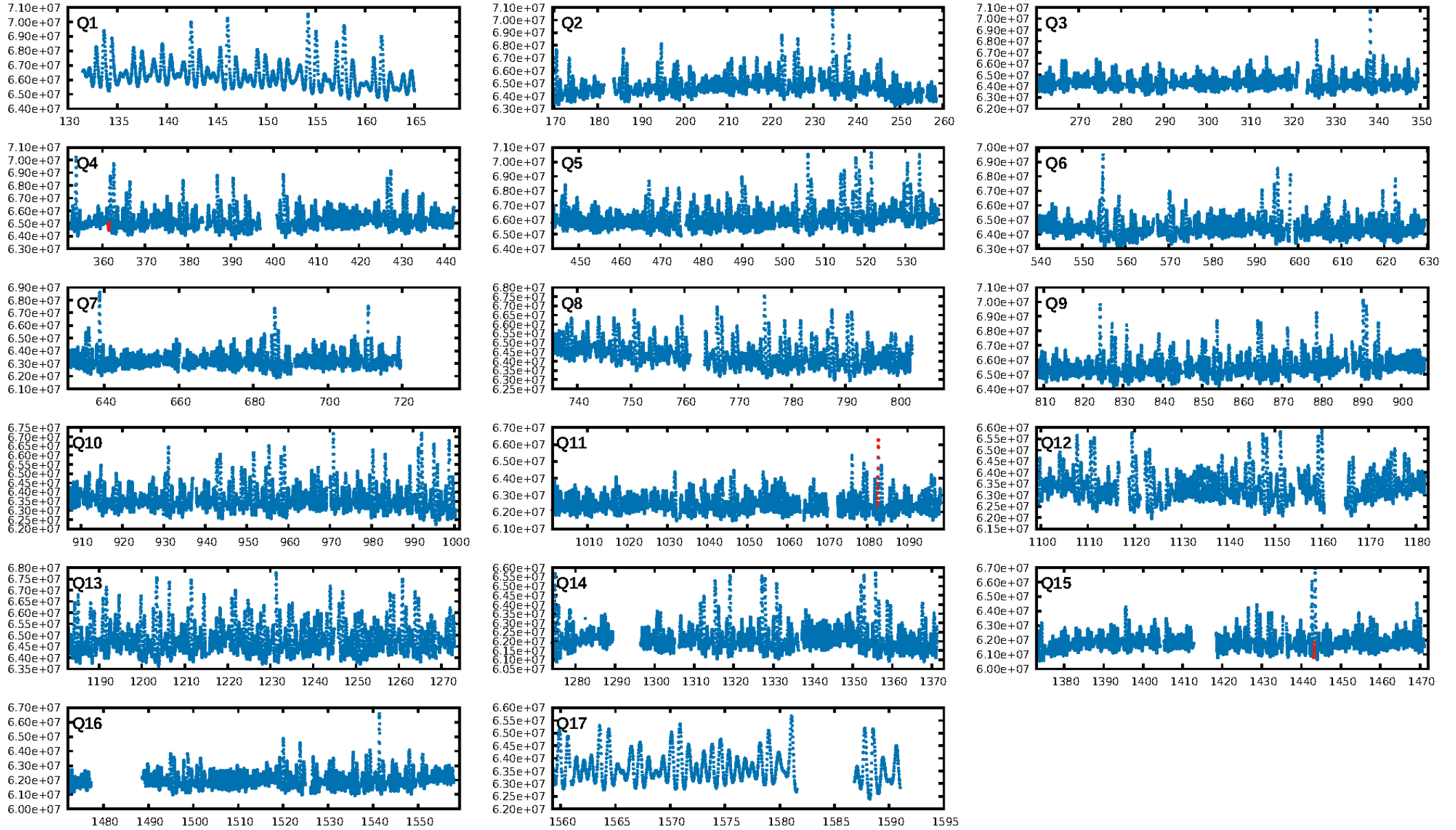
DV Fit Results:

Period = 360.56909 [0.01299] d
Epoch = 361.4785 [0.0239] BKJD
Rp/R* = 0.0743 [0.8353]
a/R* = 324.41 [829.07]
b = 1.00 [15.03]
Seff = 2.28 [0.91]
Teq = 313 [31] K
Rp = 9.84 [110.71] Re
a = 1.0411 [0.2753] AU
Ag = 7074.03 [159127.10] [0.04σ]
Teffp = 4442 [24977] K [0.17σ]

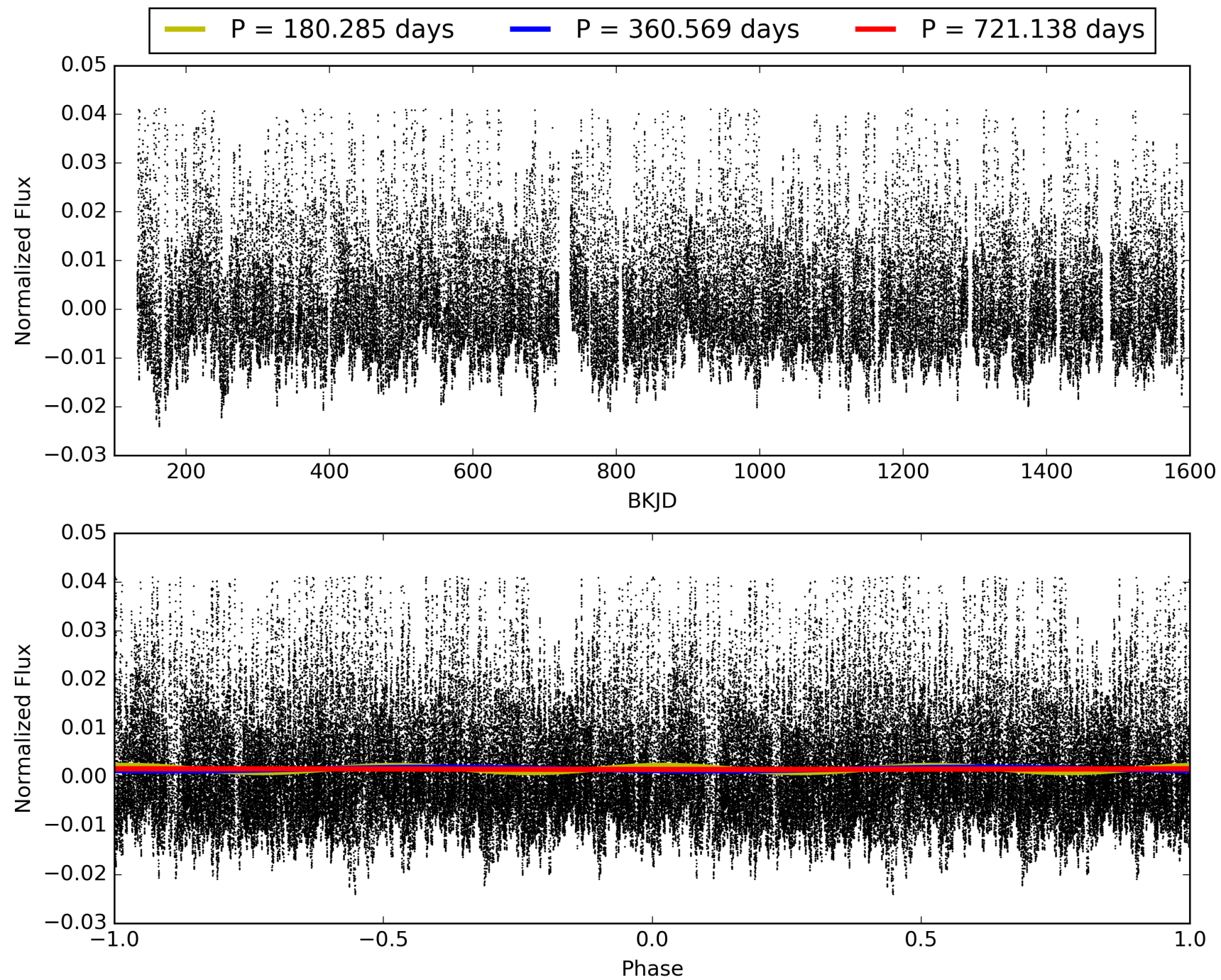
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [390.02σ]
LongPeriod-sig: 100.0% [375.27σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 9.9%
Bootstrap-pfa: 3.01e-11
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -3.347
Centroid-sig: 19.3%
Centroid-so: 1.806 arcsec [1.80σ]
OotOffset-rm: 0.274 arcsec [3.49σ]
KicOffset-rm: 0.174 arcsec [2.13σ]
OotOffset-st: 0/2/1/0 [3]
KicOffset-st: 0/2/1/0 [3]
DiffImageQuality-fgm: 0.67 [2/3]
DiffImageOverlap-fno: 1.00 [3/3]

TCE 008522497-03, PDC Light Curves

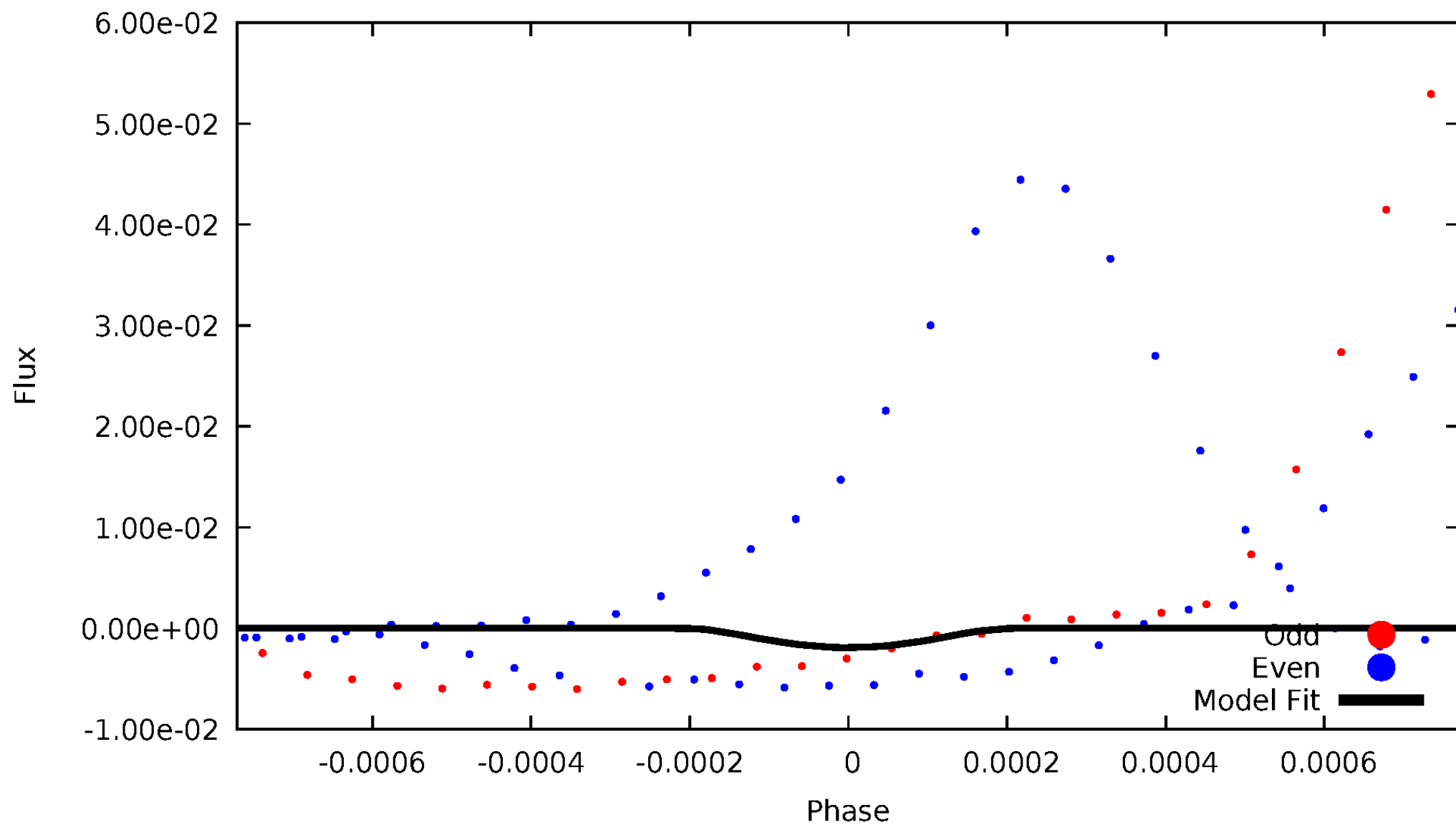


TCE 008522497-03



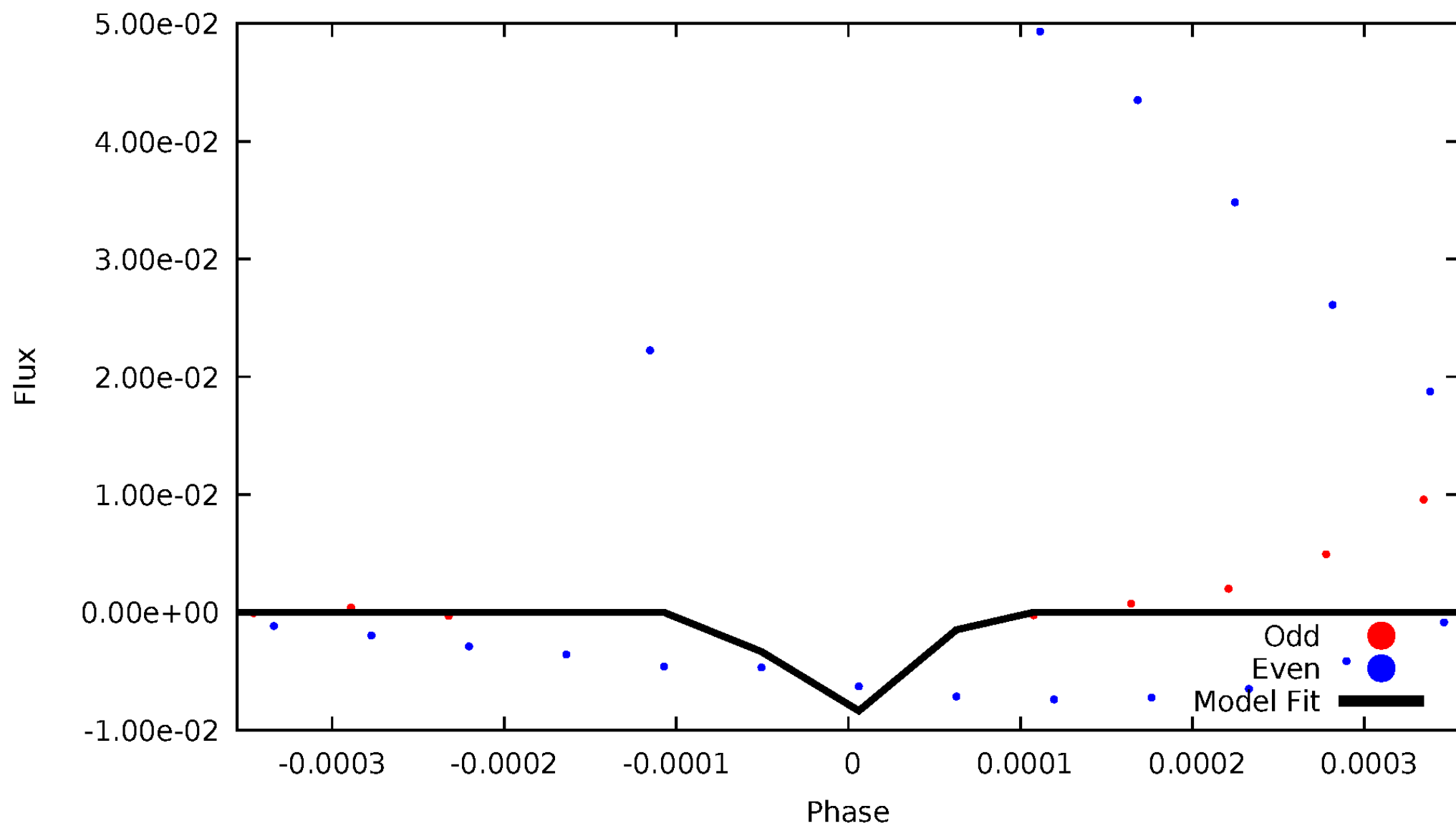
DV Odd/Even

TCE 008522497-03



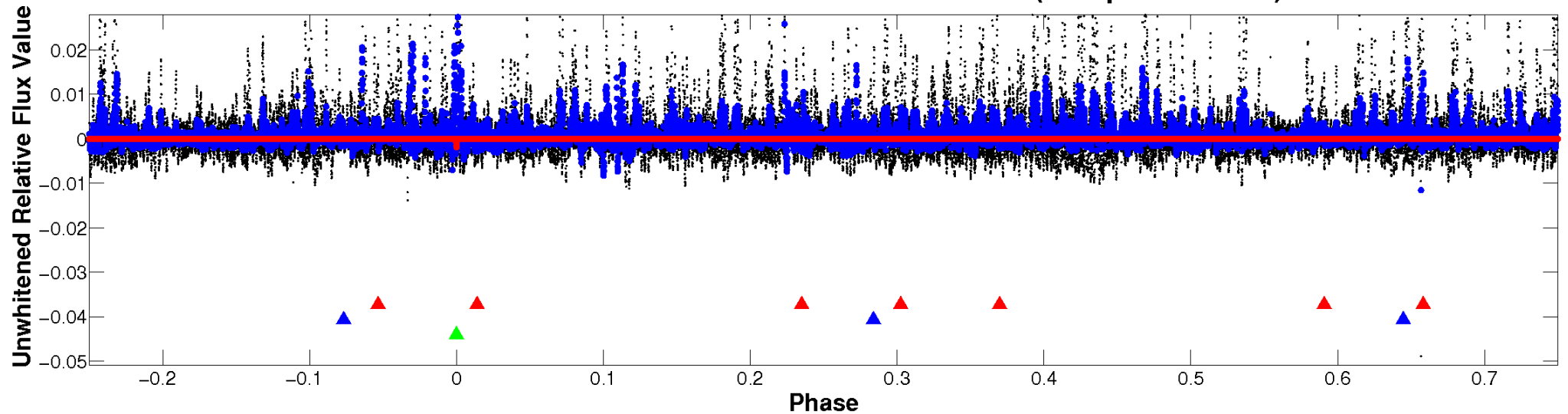
ALT Odd/Even

TCE 008522497-03

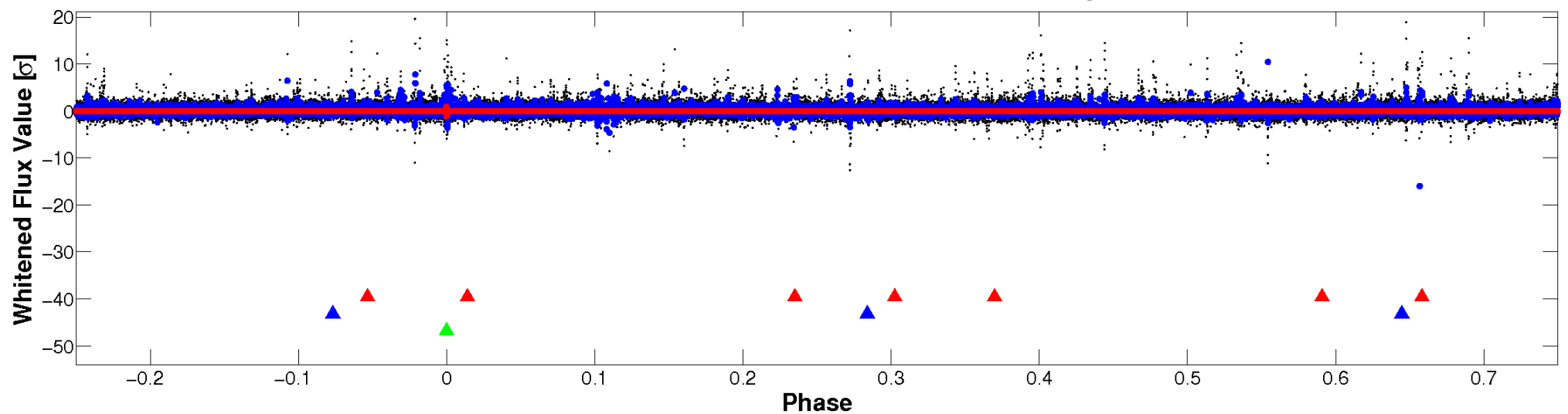


Non-Whitened Vs. Whitened Light Curve

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

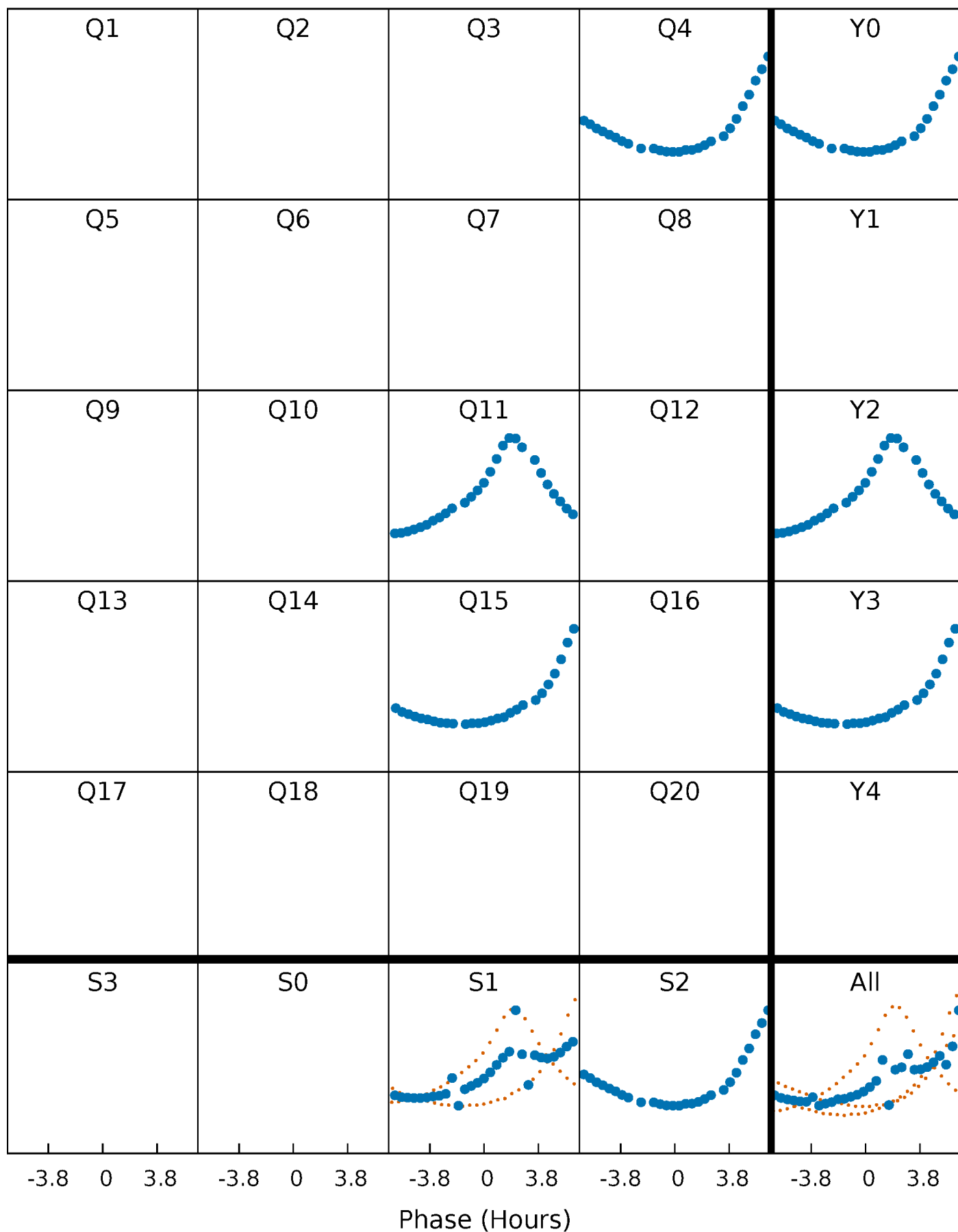


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



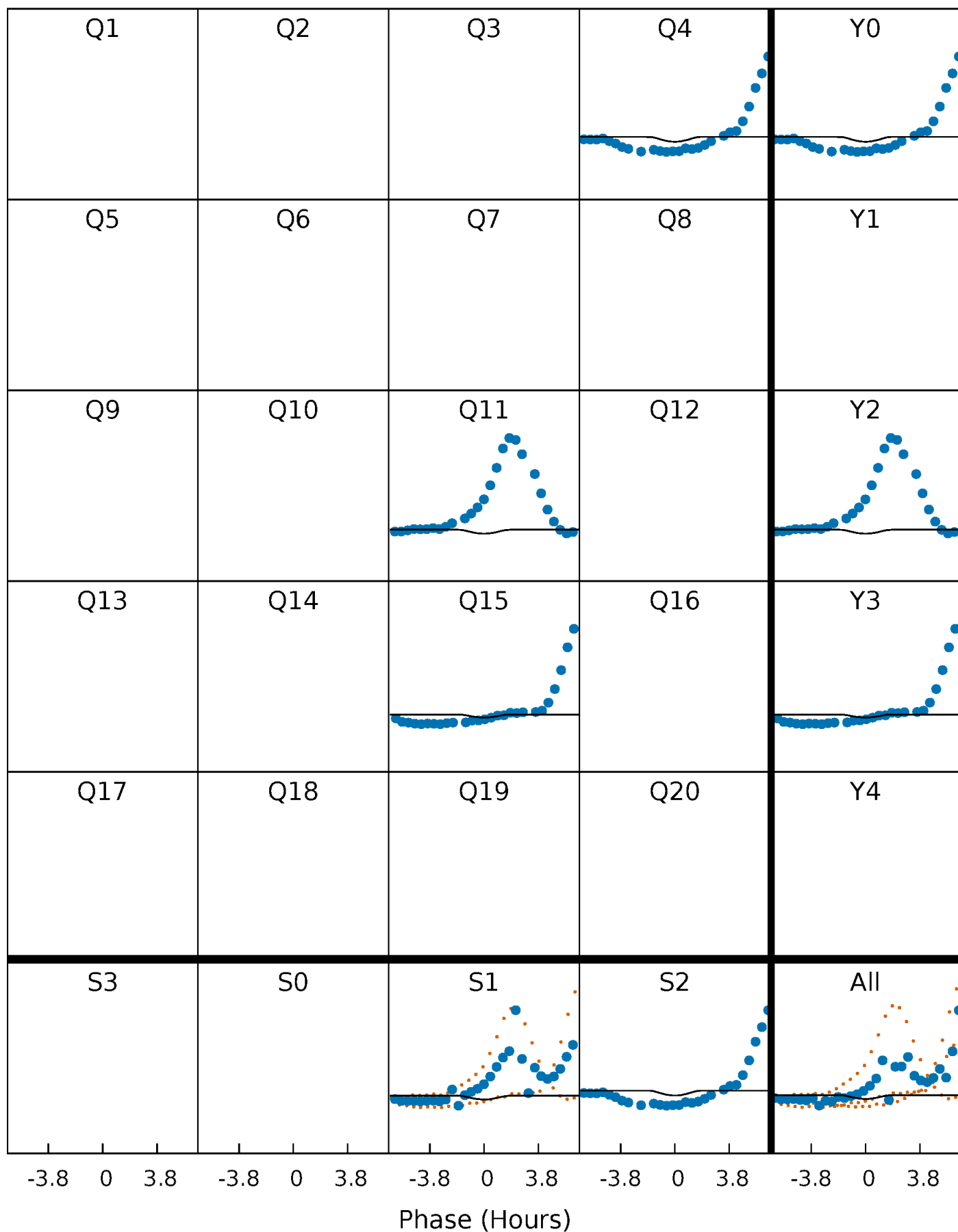
PDC Quarter-Phased Transit Curves

TCE 008522497-03 $P=360.569087$ Days $T_0=361.478476$ (BKJD)



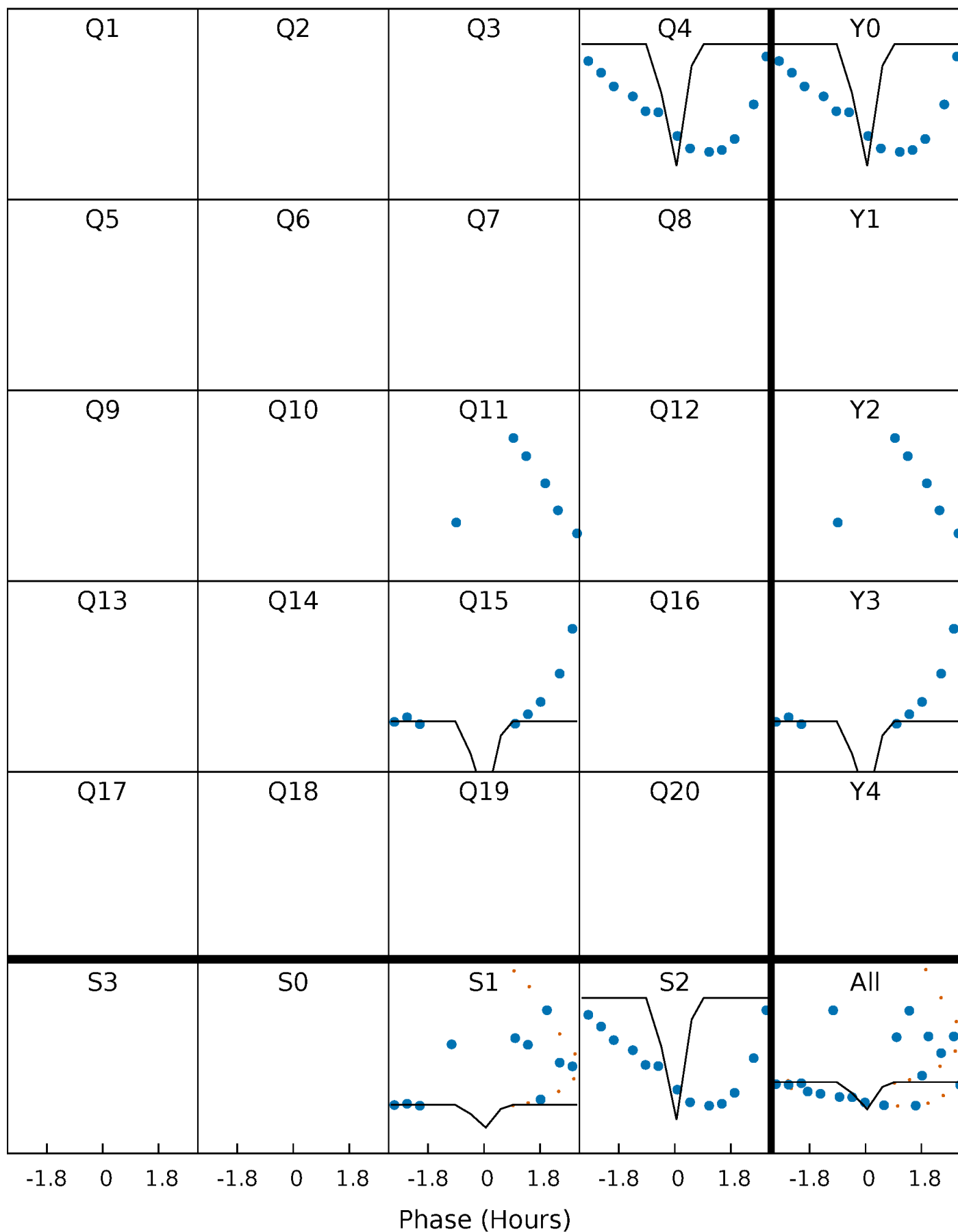
DV Quarter-Phased Transit Curves

TCE 008522497-03 $P=360.569087$ Days $T_0=361.478476$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

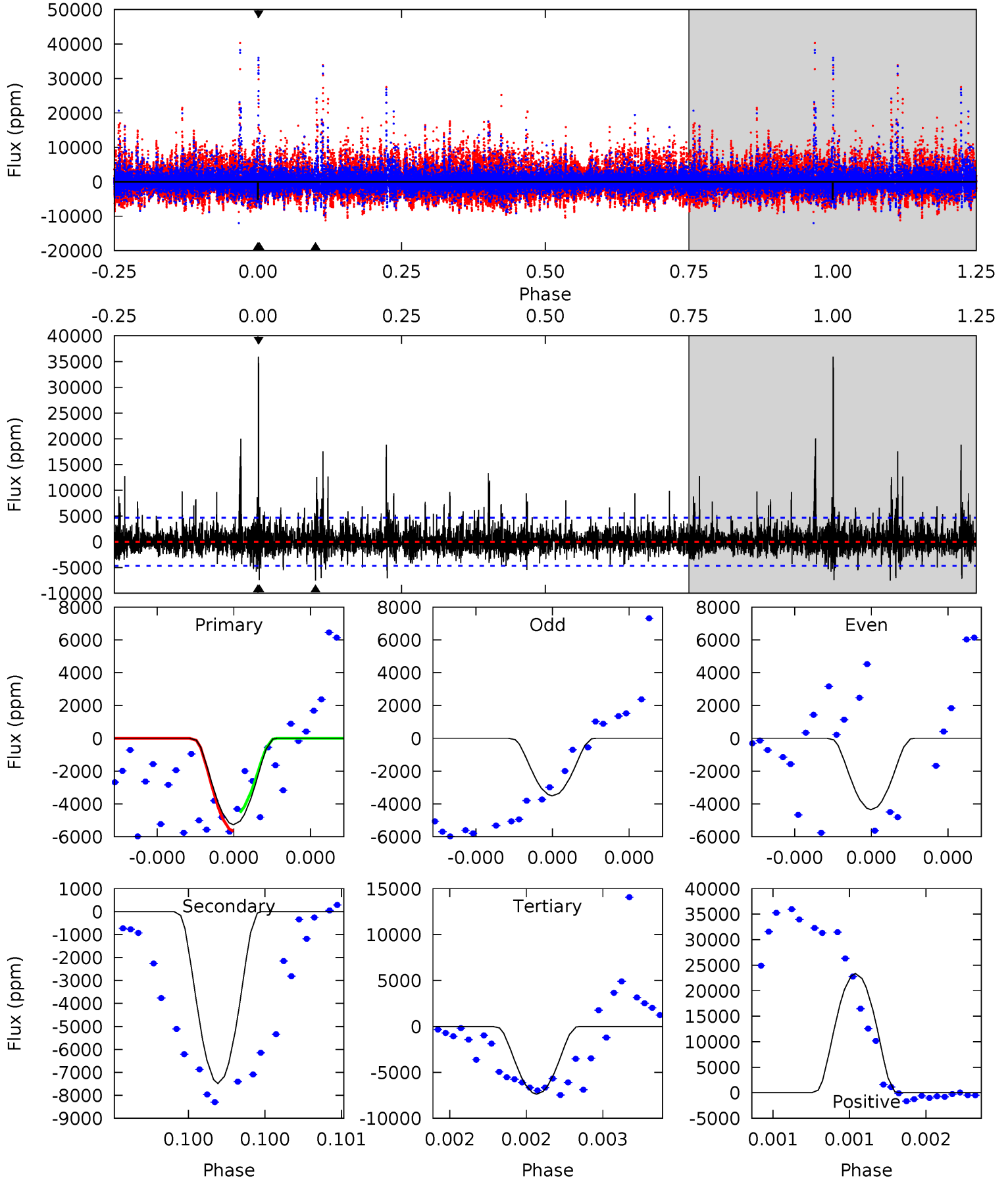
TCE 008522497-03 $P=360.573186$ Days $T_0=361.528800$ (BKJD)



DV Model-Shift Uniqueness Test

008522497-03, P = 360.569087 Days, E = 0.909389 Days

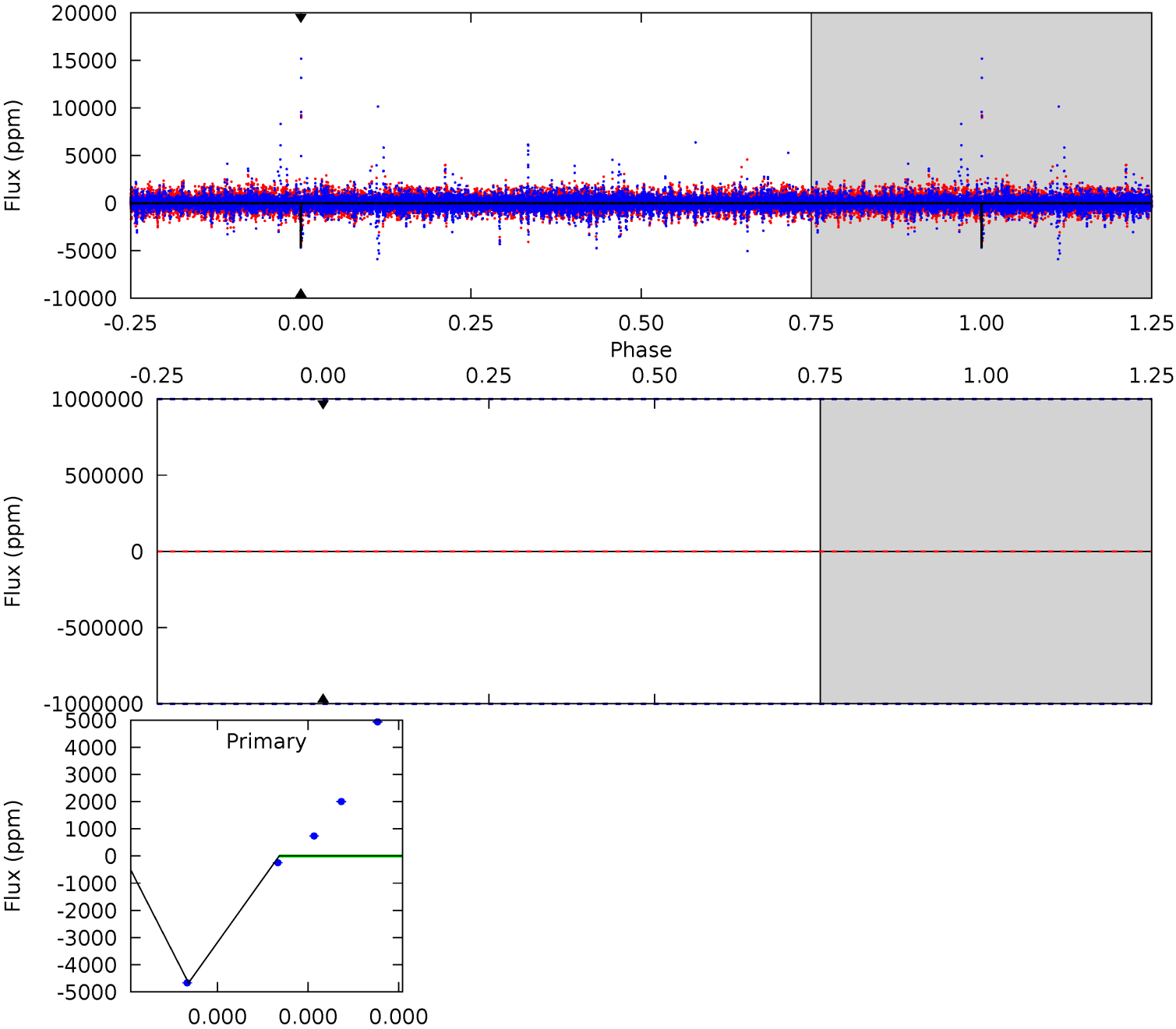
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.37	9.03	8.90	28.2	5.61	3.54	2.25	-2.54	-21.9	0.13	-19.2	0.36	-1.20	0.83	0.69



Alt Model-Shift Uniqueness Test

008522497-03, P = 360.573186 Days, E = 0.955614 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	1.00	0	0



Stellar Parameters For KIC 008522497

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6576^{+158}_{-218}	$4.333^{+0.087}_{-0.203}$	$-0.240^{+0.250}_{-0.300}$	$1.214^{+0.389}_{-0.167}$	$1.162^{+0.180}_{-0.164}$	$0.914^{+0.408}_{-0.476}$
	+2%/-3%	+2%/-5%	+104%/-125%	+32%/-14%	+15%/-14%	+45%/-52%
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 008522497-03 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-7488 ± 829	$81.64^{+87.47}_{-57.55}$	441^{+33}_{-22}	3143^{+1564}_{-569}	696^{+6894}_{-542}
Alt.	-0 ± 1000000	$81.48^{+89.69}_{-56.95}$	443^{+32}_{-23}	2743^{+2909}_{-8121}	237^{+16663}_{-14132}

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

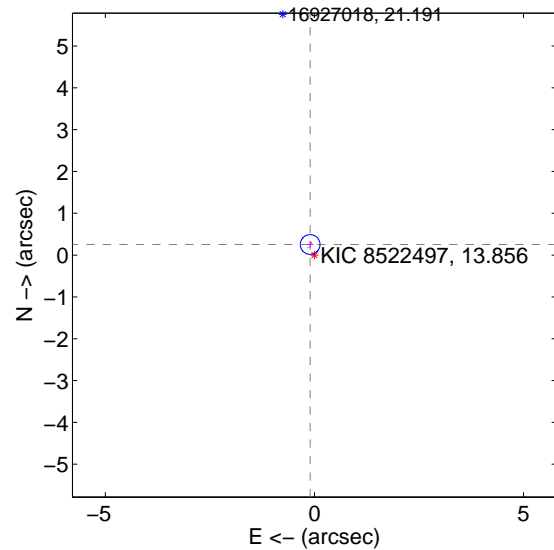
Supplemental centroid analysis for 008522497-03. Kepler magnitude: 13.86. Transit SNR 3.35

There are 2 quarters with good PRF difference image offsets

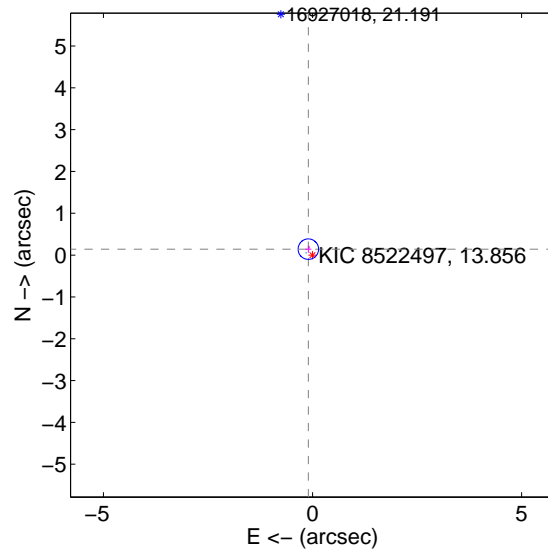
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.274 ± 0.078	3.49	0.102 ± 0.073	0.254 ± 0.079
PRF-fit source offset from KIC position	0.174 ± 0.082	2.13	0.100 ± 0.074	0.142 ± 0.085
photometric centroid source offset	1.81 ± 1.01	1.80	1.52 ± 0.97	-0.97 ± 1.08

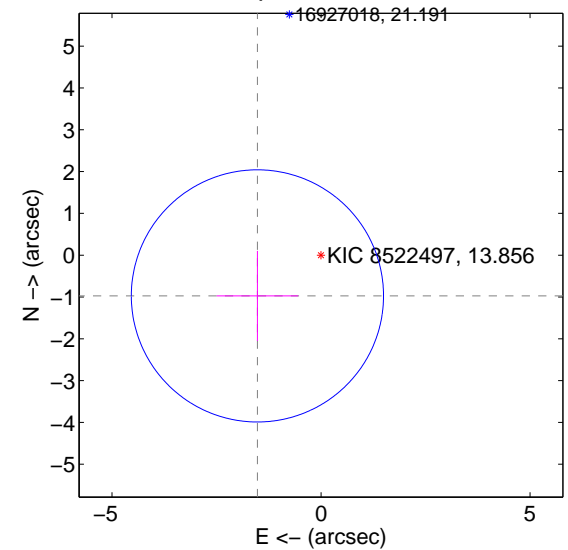
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

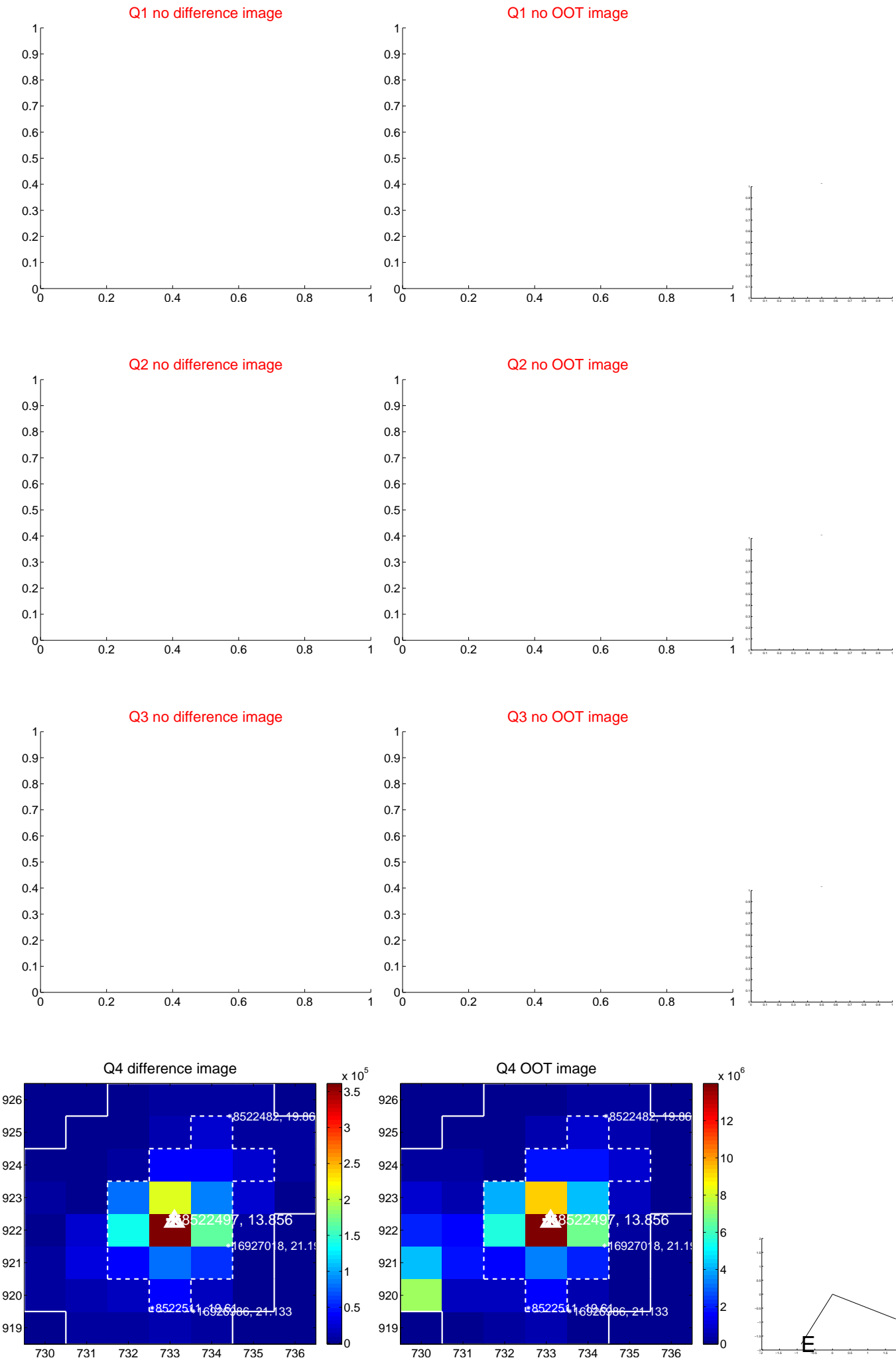


offset from photometric centroids



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.

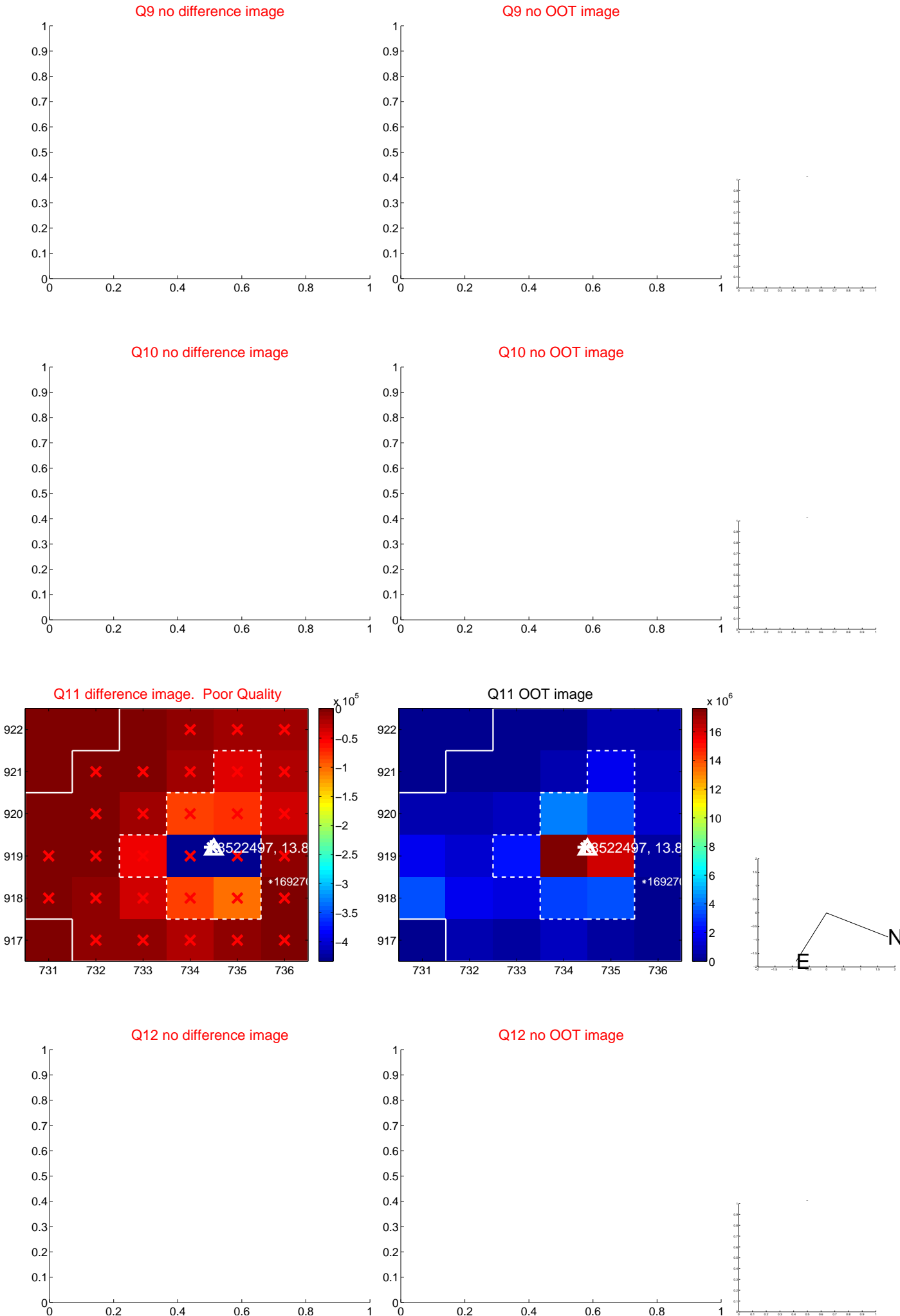
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



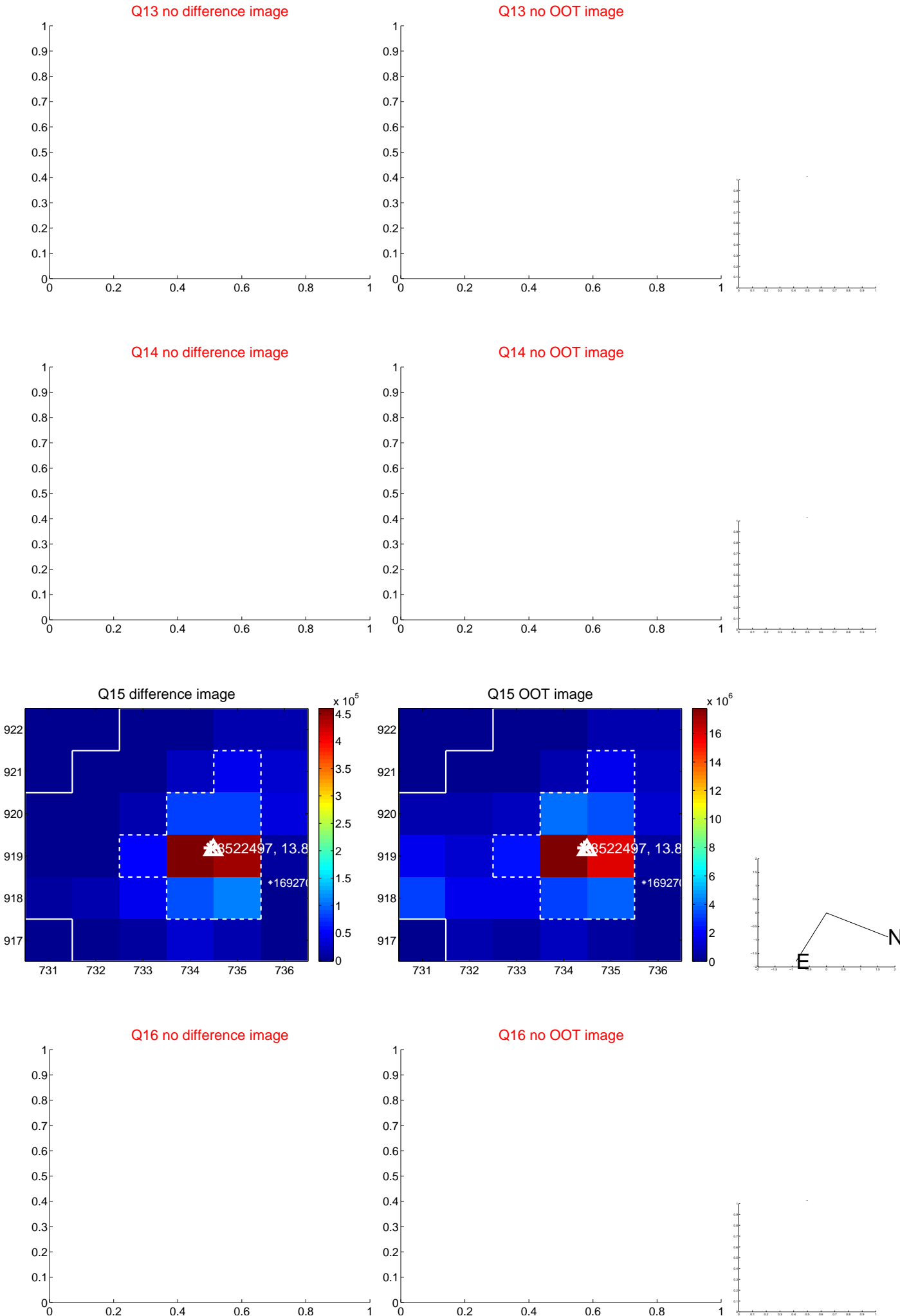
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



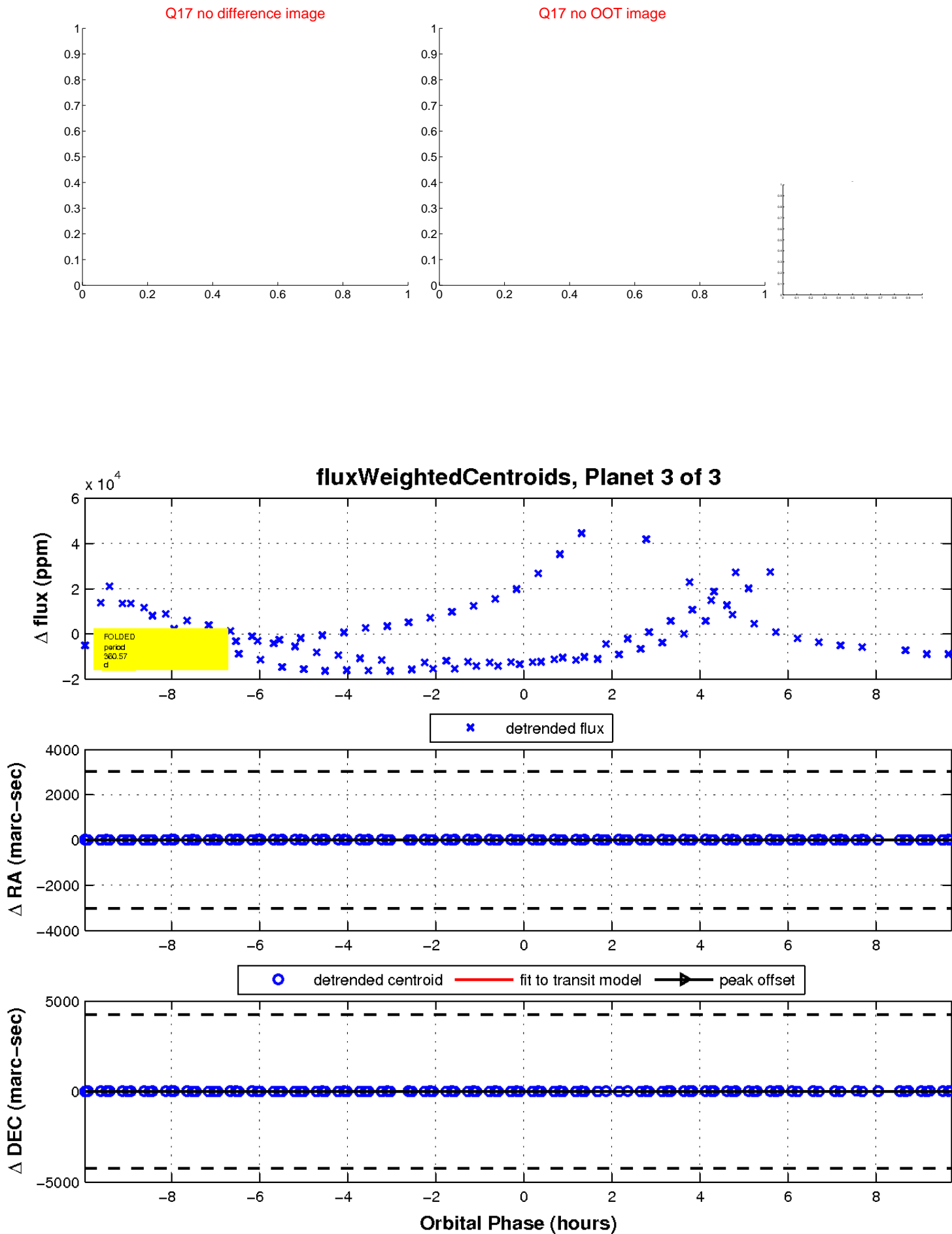
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

