

KIC 005545866

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})
005545866-01	OBS	No	231.439054	343.497226	3011.2	20.141	91.0	3.1	1.61	7223	9.84	9.20
005545866-02	OBS	No	249.851301	221.057700	1294.5	2.195	88.9	7.1	1.61	7223	5.89	8.30
005545866-03	OBS	No	328.875124	221.299129	15433.6	5.041	87.9	38.2	1.61	7223	34.73	5.76

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005545866-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
005545866-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_SKYE_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
005545866-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_SKYE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_TER_ALT—MOD_POS_ALT—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.

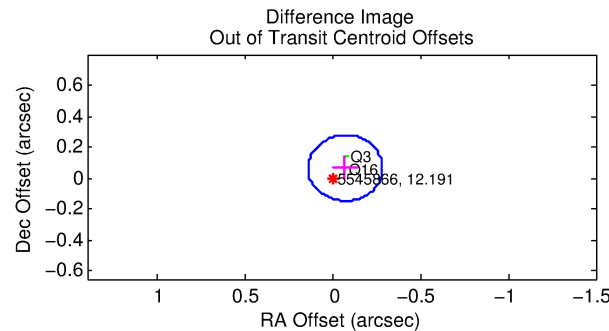
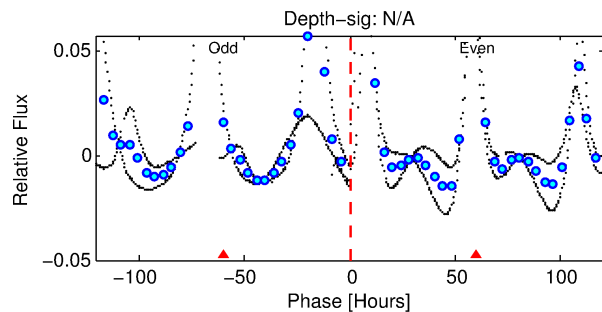
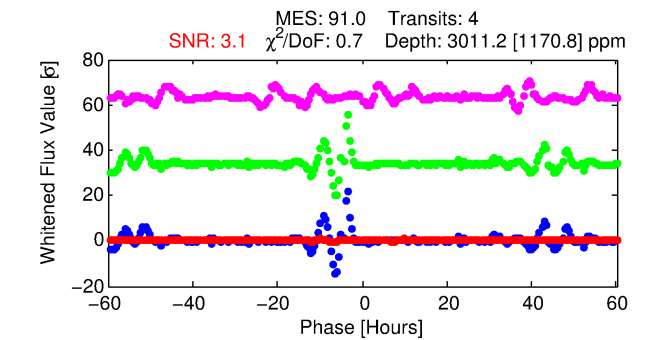
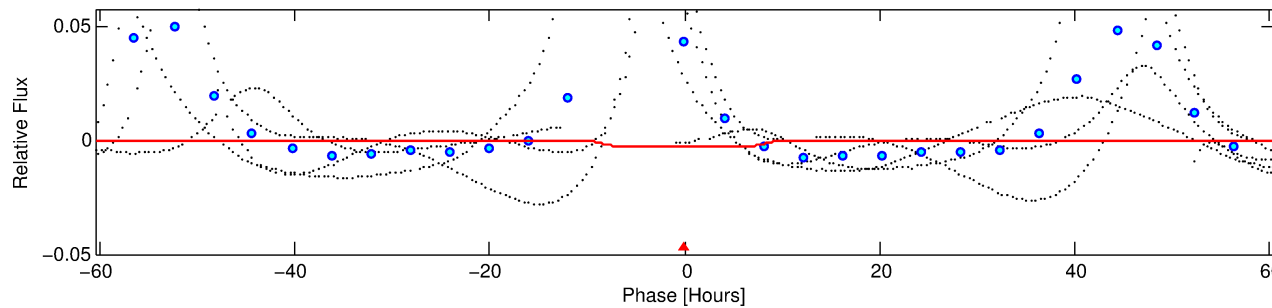
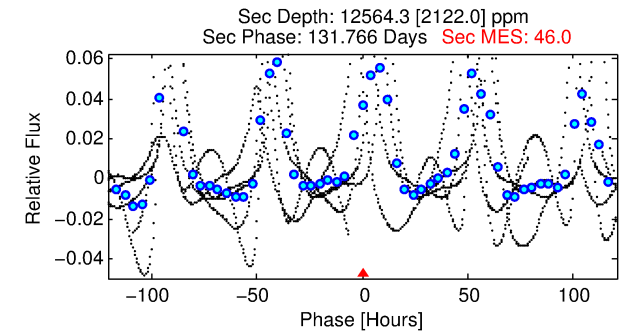
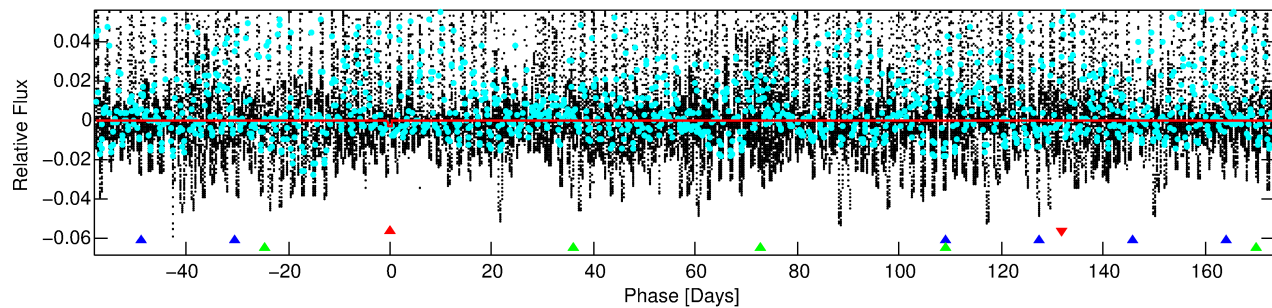
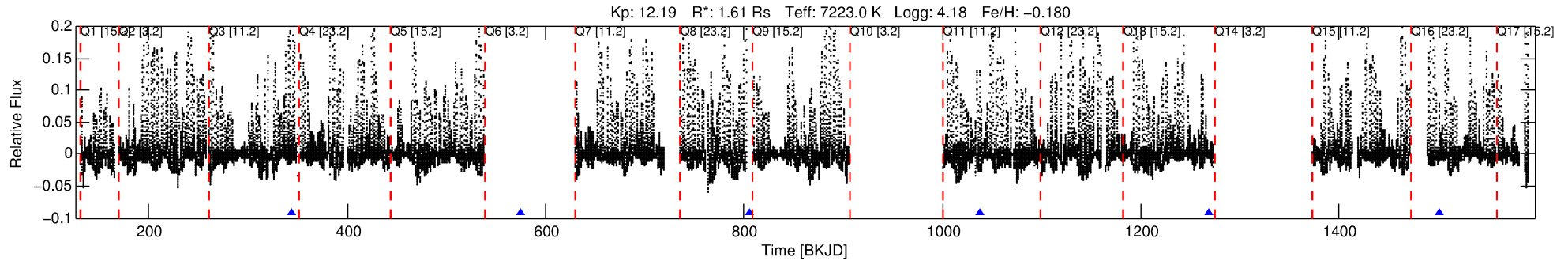
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005545866-01

No Significant Match Found

DV One-Page Summary

KIC: 5545866 Candidate: 1 of 3 Period: 231.439 d



DV Fit Results:

Period = 231.43905 [0.00581] d
Epoch = 343.4972 [0.0228] BKJD
Rp/R* = 0.0559 [0.0107]
a/R* = 58.25 [5.33]
b = 0.82 [0.04]
Seff = 9.20 [3.68]
Teff = 444 [44] K
Rp = 9.84 [3.65] Re
a = 0.8306 [0.2142] AU
Ag = 49230.97 [27234.39] [1.81σ]
Teffp = 10227 [1151] K [8.49σ]

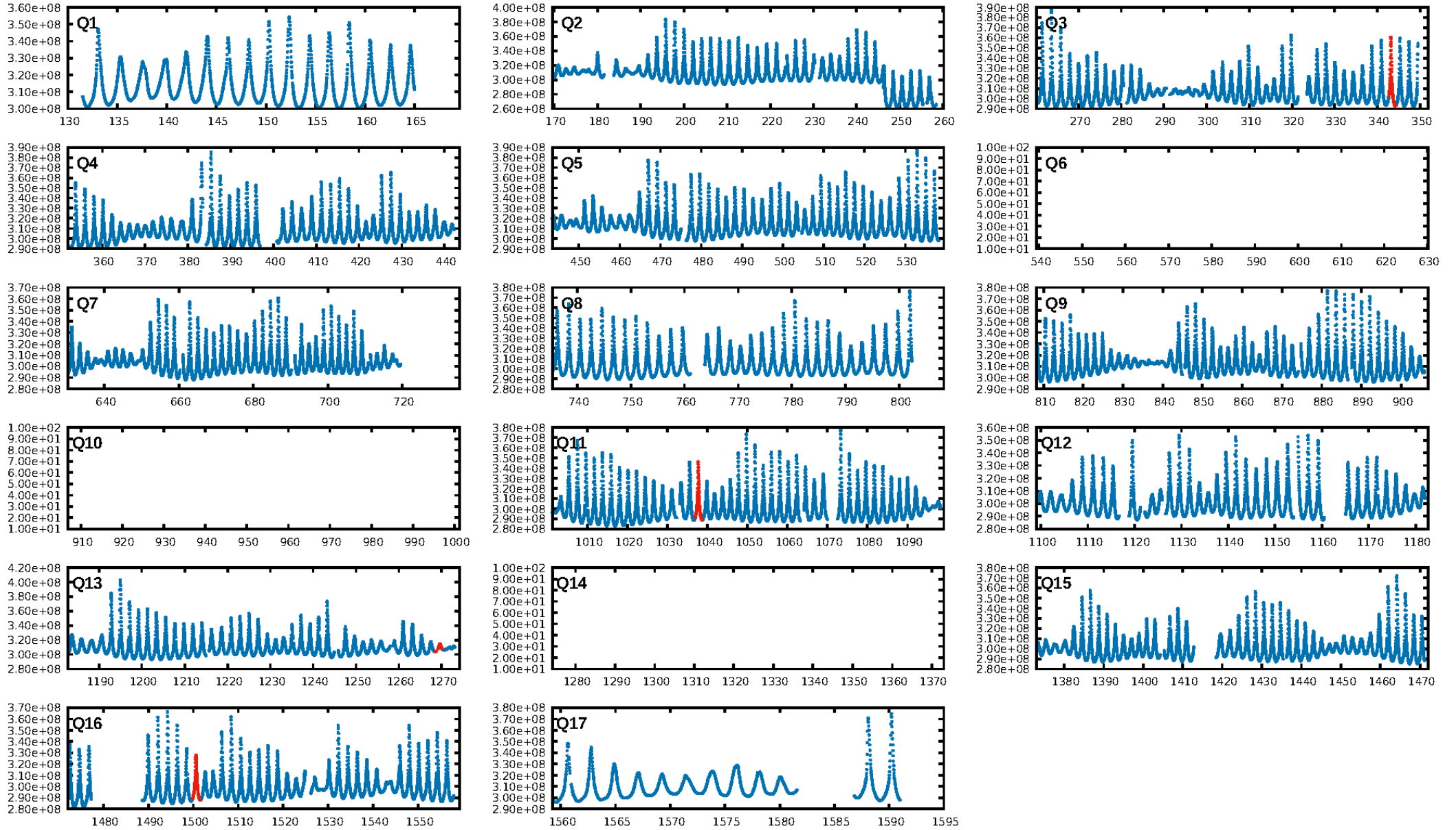
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [21.81σ]
ModelChiSquare2-sig: 40.6%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: -15.82
Centroid-sig: N/A
Centroid-so: 0.931 arcsec [2.85σ]
OotOffset-rm: 0.097 arcsec [1.37σ]
OotOffset-st: 0/1/1/0 [2]
KicOffset-rm: 0.367 arcsec [4.28σ]
KicOffset-st: 0/1/1/0 [2]
DiffImageQuality-fgm: 0.00 [0/2]
DiffImageOverlap-fno: 1.00 [2/2]

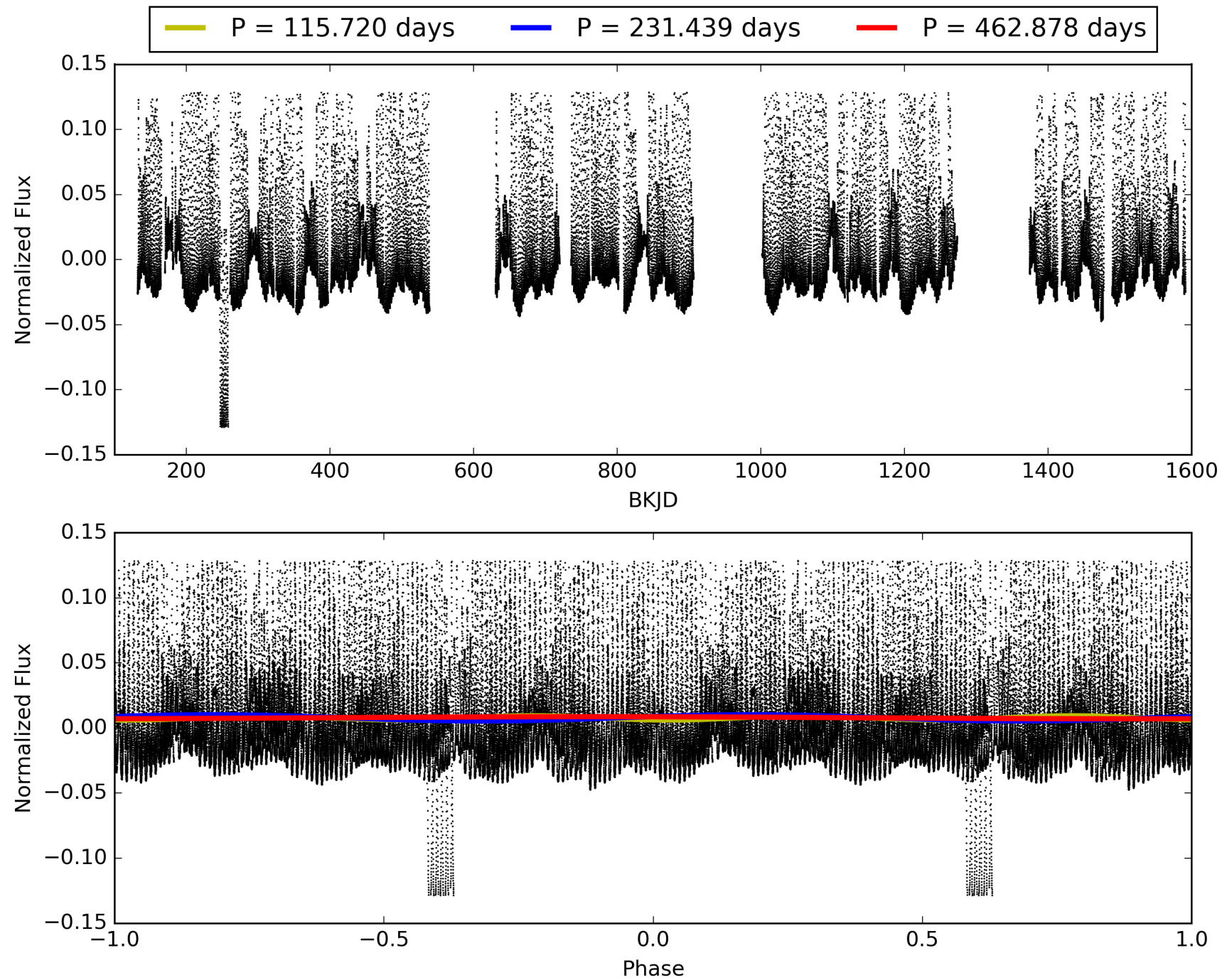
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 05:50:05 Z

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

TCE 005545866-01, PDC Light Curves

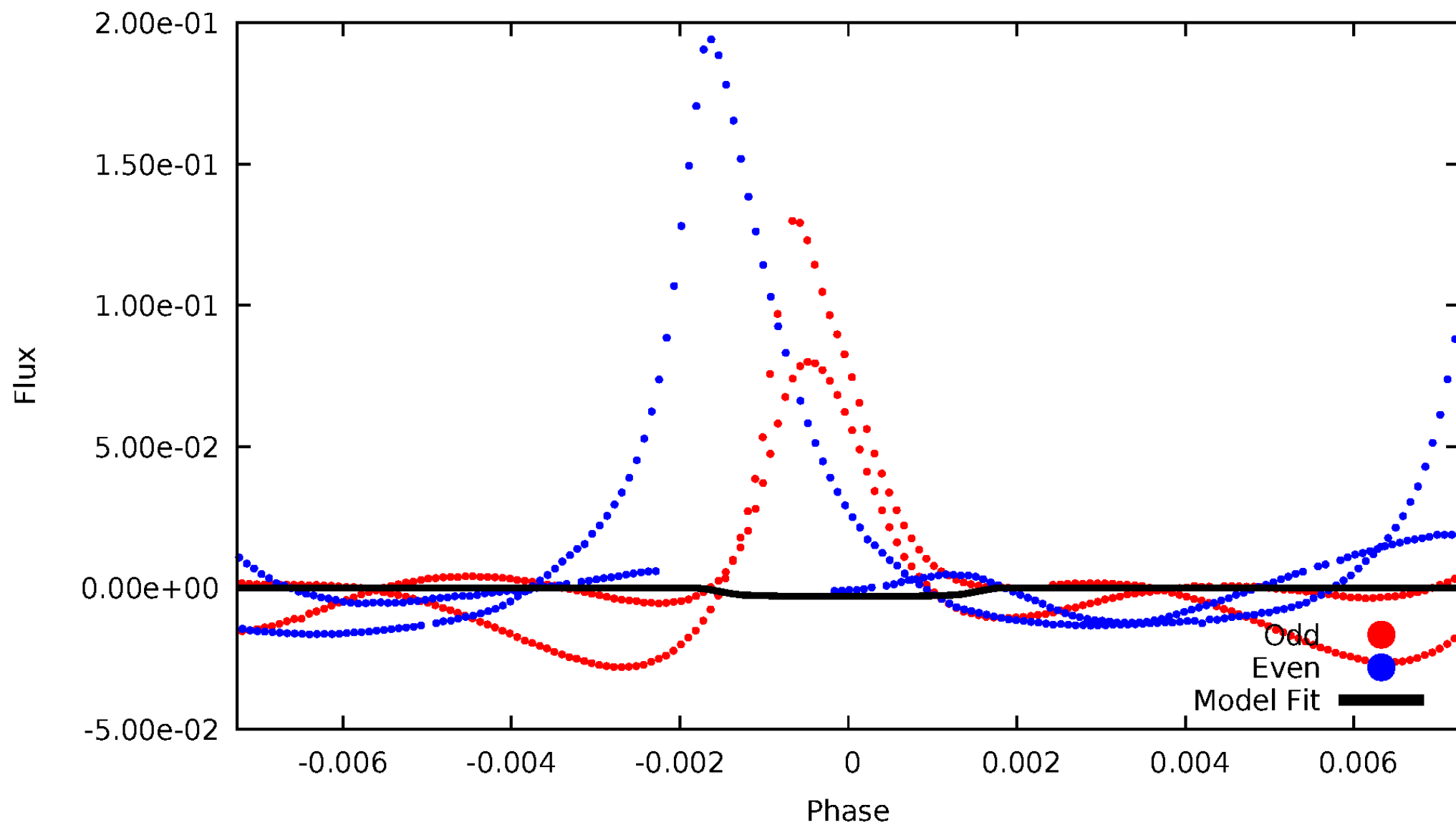


TCE 005545866-01



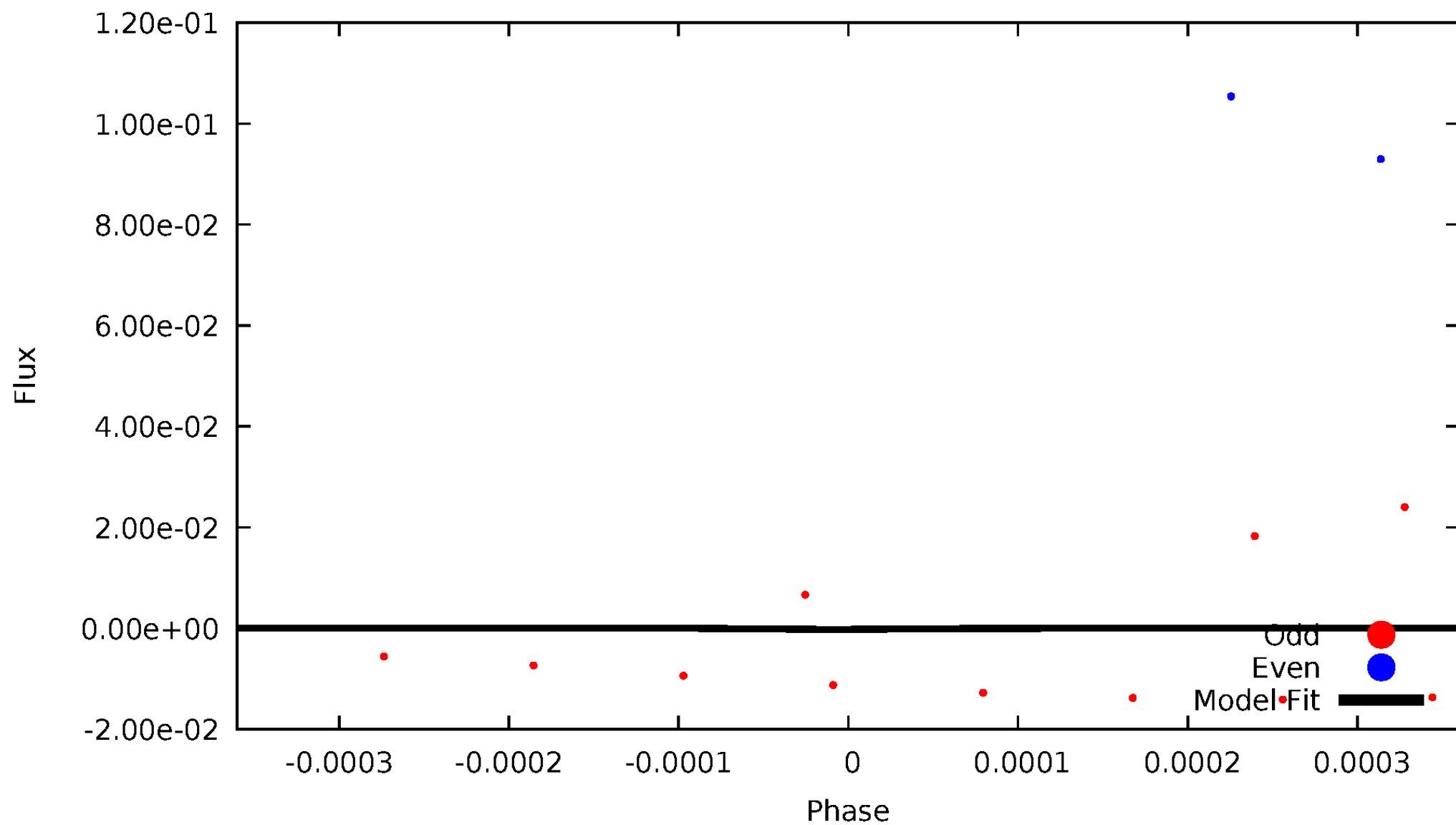
DV Odd/Even

TCE 005545866-01



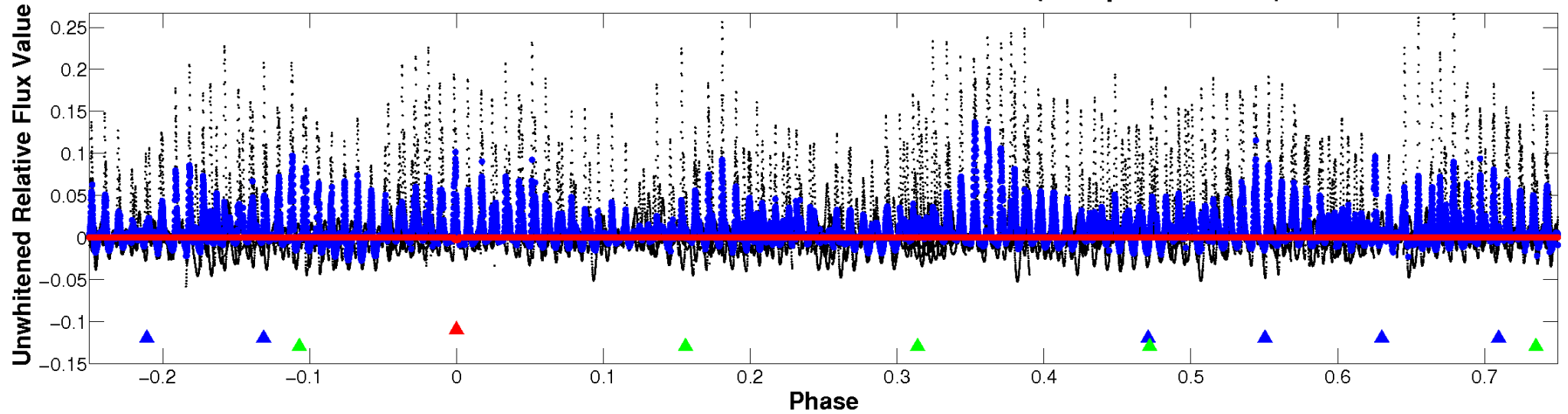
ALT Odd/Even

TCE 005545866-01

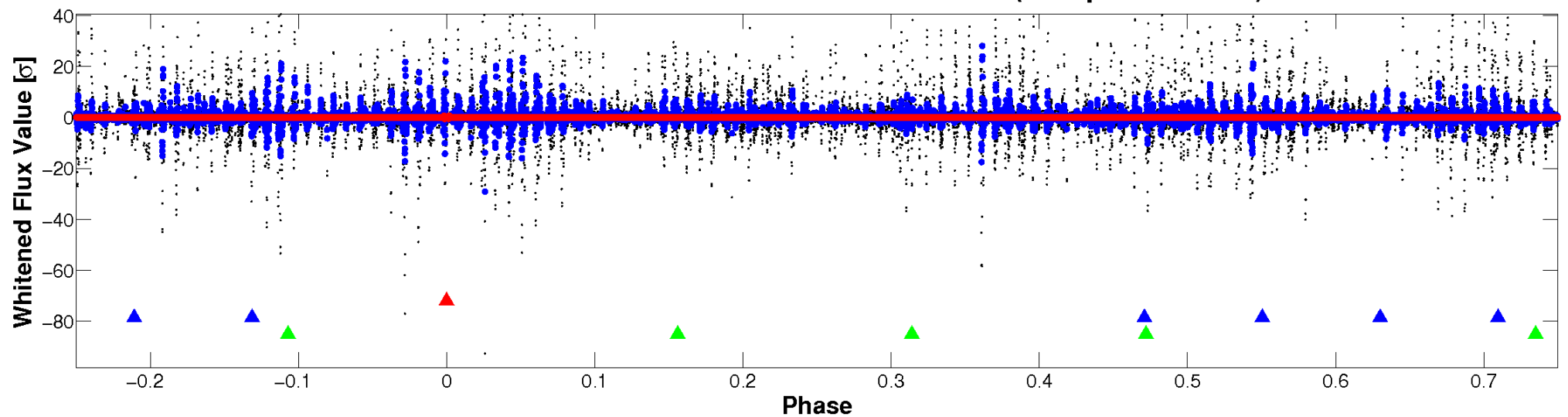


Non-Whitened Vs. Whitened Light Curve

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

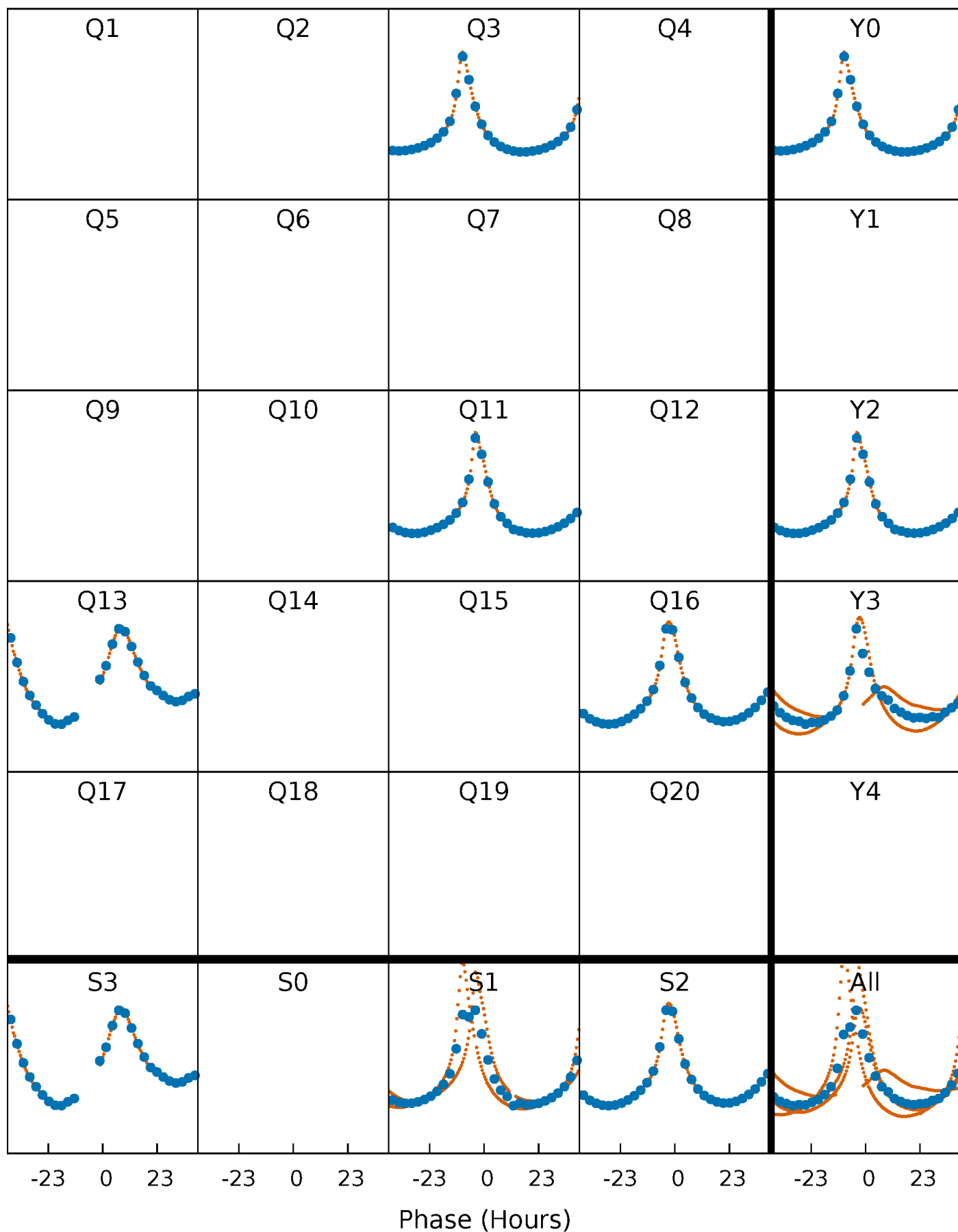


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



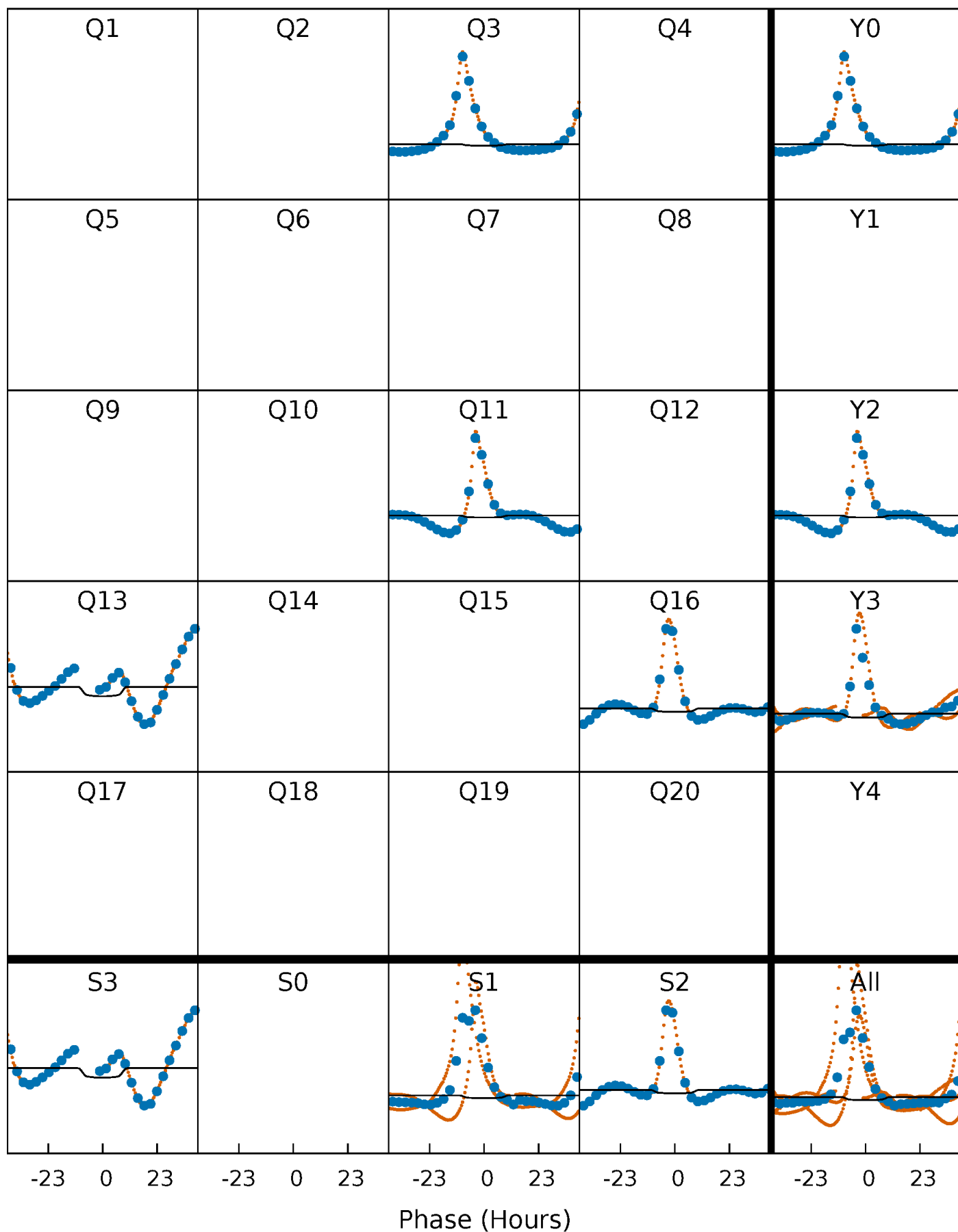
PDC Quarter-Phased Transit Curves

TCE 005545866-01 P=231.439054 Days $T_0=343.497226$ (BKJD)



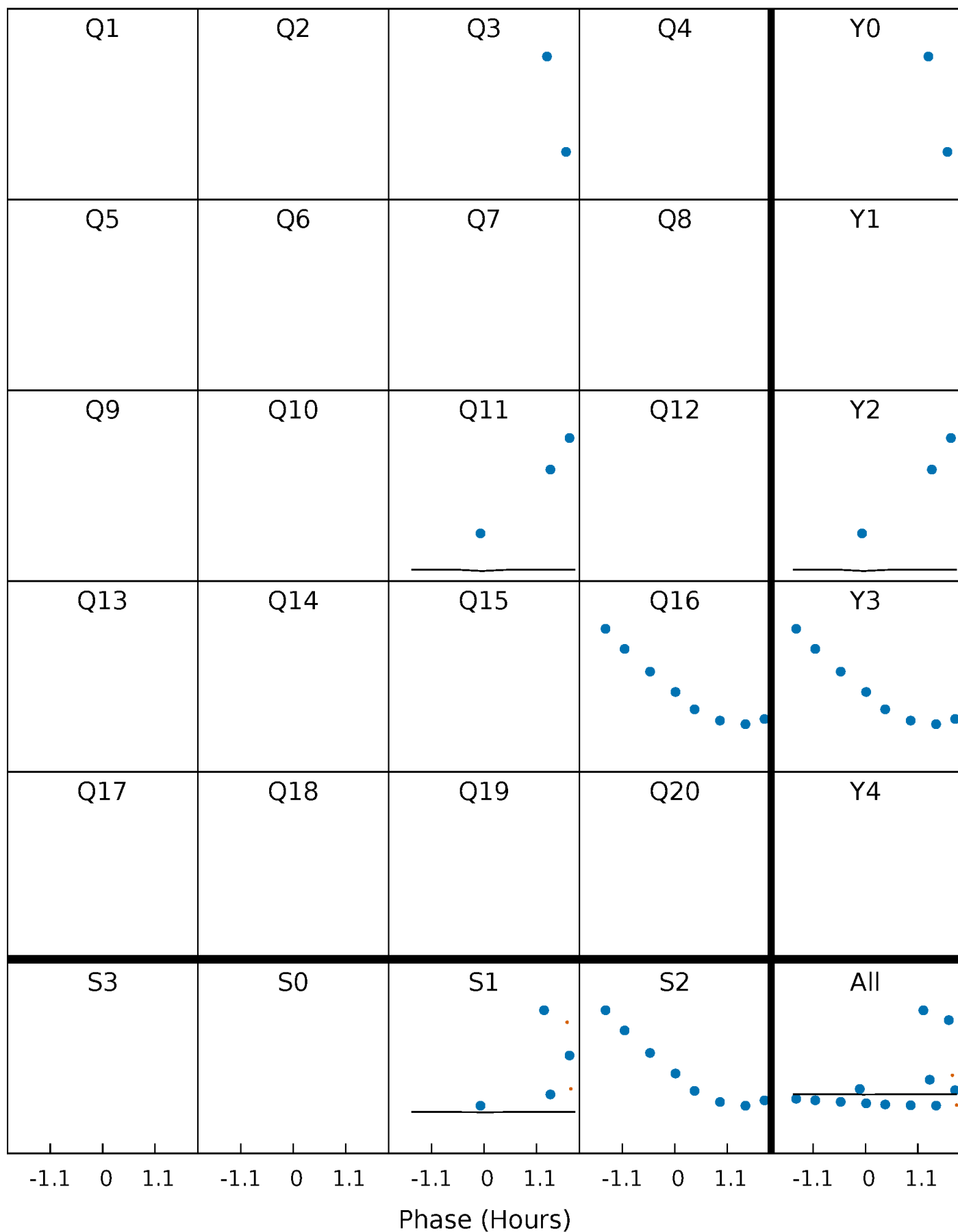
DV Quarter-Phased Transit Curves

TCE 005545866-01 P=231.439054 Days $T_0=343.497226$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

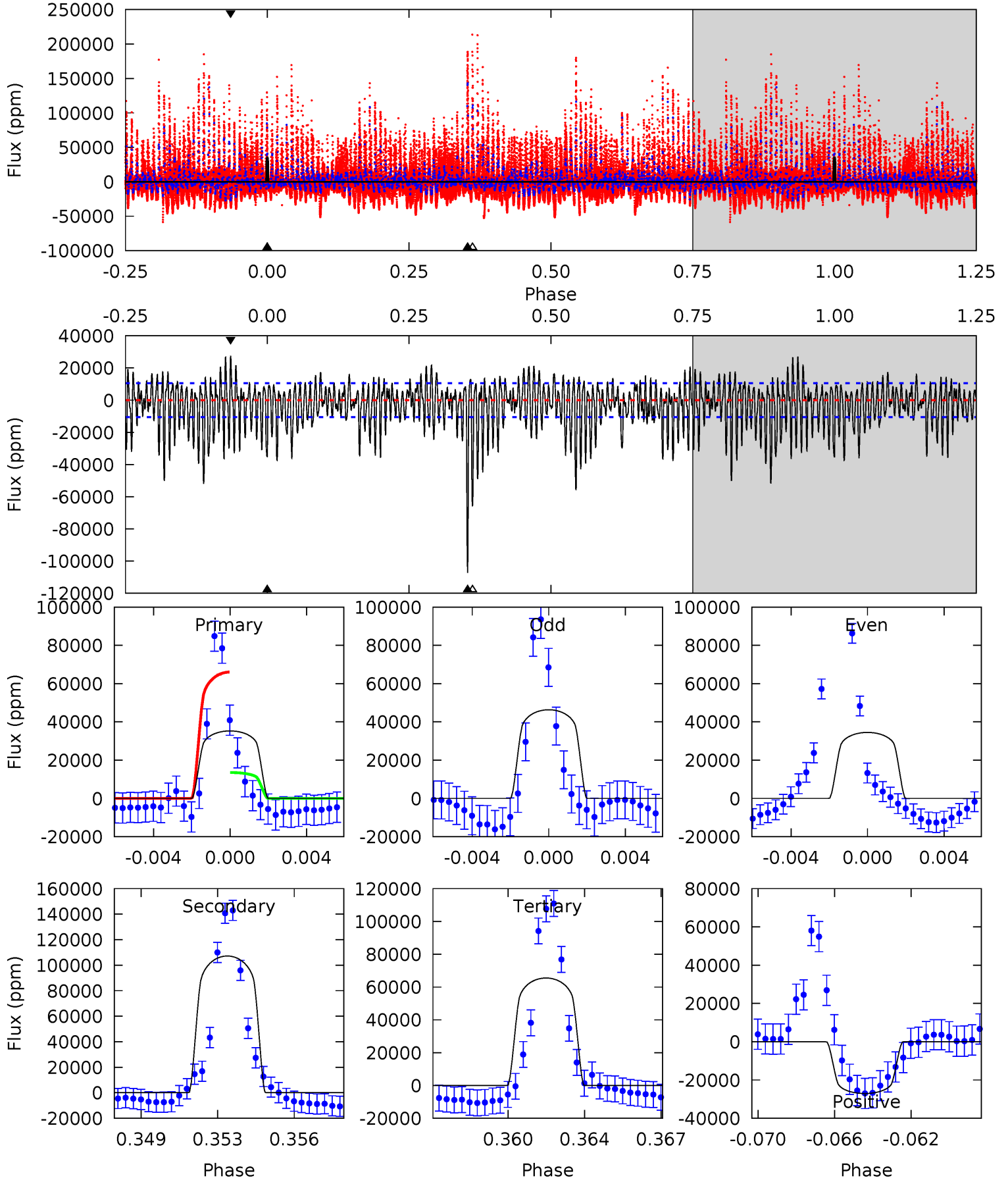
TCE 005545866-01 P=231.437460 Days $T_0=343.129687$ (BKJD)



DV Model-Shift Uniqueness Test

005545866-01, P = 231.439054 Days, E = 112.058172 Days

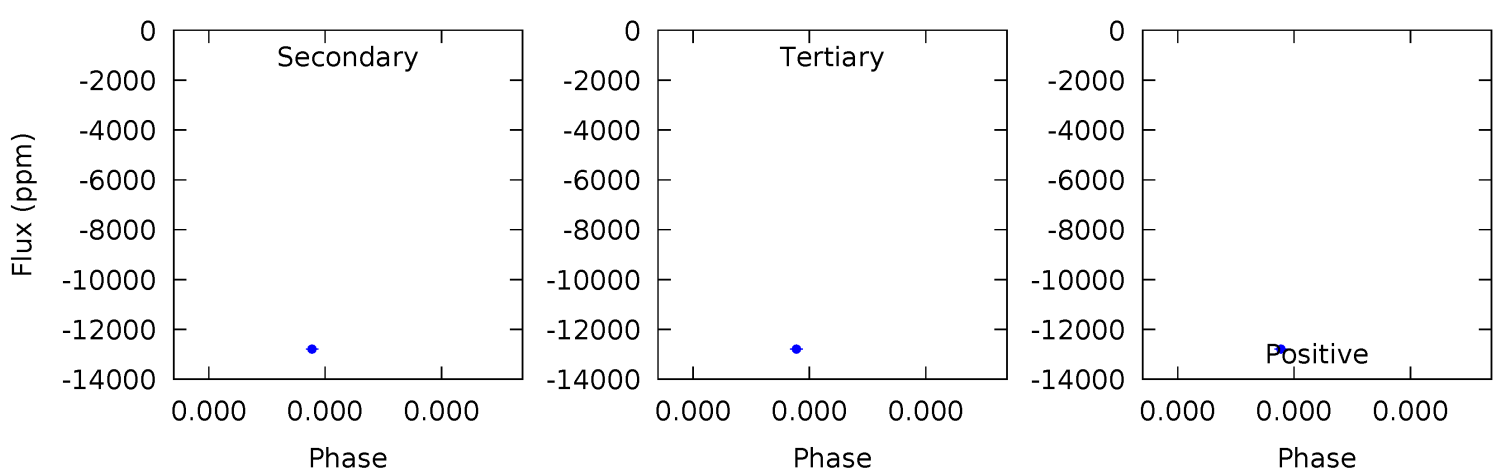
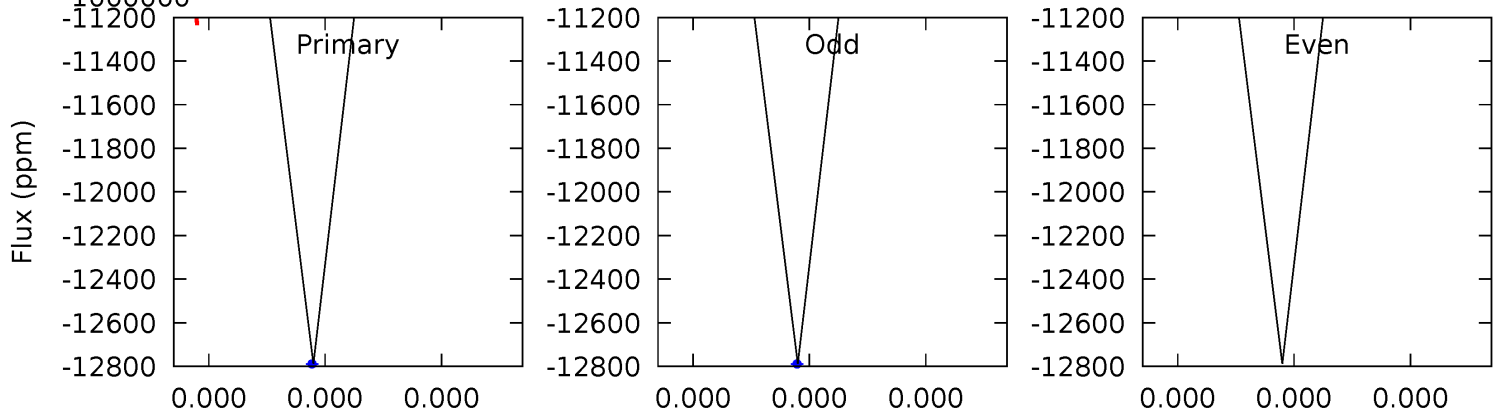
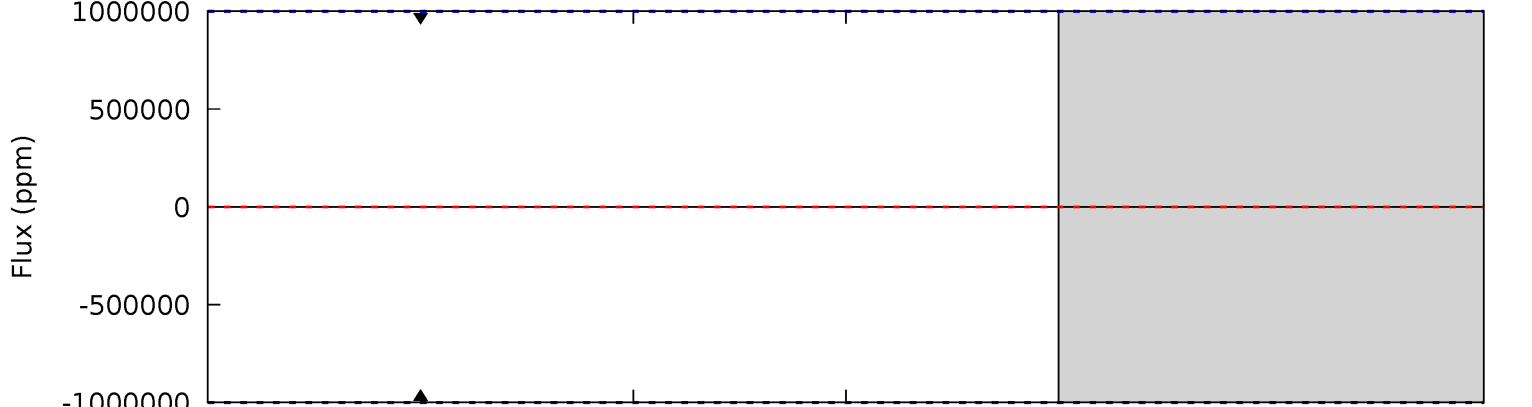
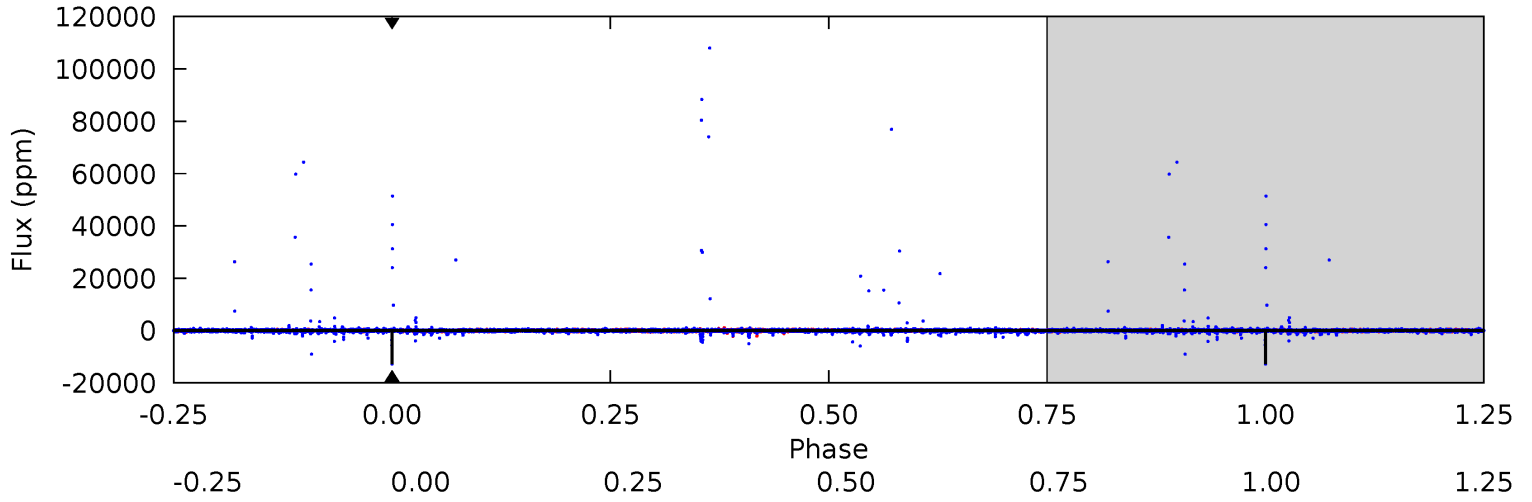
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17.5	53.1	32.4	13.4	5.22	2.90	6.22	-15.0	4.07	20.6	39.7	2.21	0.82	0.20	12.7



Alt Model-Shift Uniqueness Test

005545866-01, P = 231.437460 Days, E = 111.692227 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	0	0	0



Stellar Parameters For KIC 005545866

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7223^{+228}_{-304}	$4.177^{+0.128}_{-0.192}$	$-0.180^{+0.250}_{-0.350}$	$1.613^{+0.512}_{-0.341}$	$1.429^{+0.219}_{-0.241}$	$0.480^{+0.307}_{-0.250}$
	+3%/-4%	+3%/-5%	+139%/-194%	+32%/-21%	+15%/-17%	+64%/-52%
Source	KIC0	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 005545866-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-107180 ± 2020	$10.16^{+2.53}_{-2.43}$	626^{+47}_{-40}	40829^{+16595}_{-9528}	$444760^{+285526}_{-165275}$
Alt.	-0 ± 1000000	$2.98^{+1.94}_{-1.57}$	624^{+47}_{-41}	$-11749^{+503650}_{-321978}$	$-48904.256^{+7305593.928}_{-5062599.292}$

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

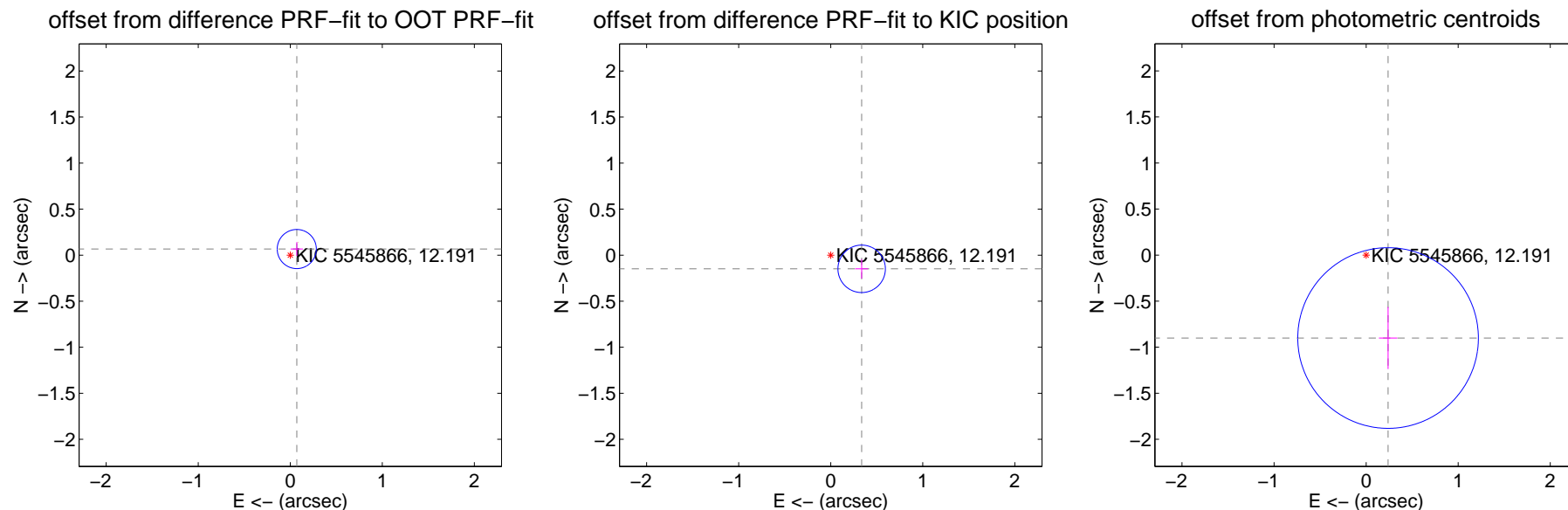
DV Centroid Data

Supplemental centroid analysis for 005545866-01. Kepler magnitude: 12.19. Transit SNR 3.11

There are 0 quarters with good PRF difference image offsets

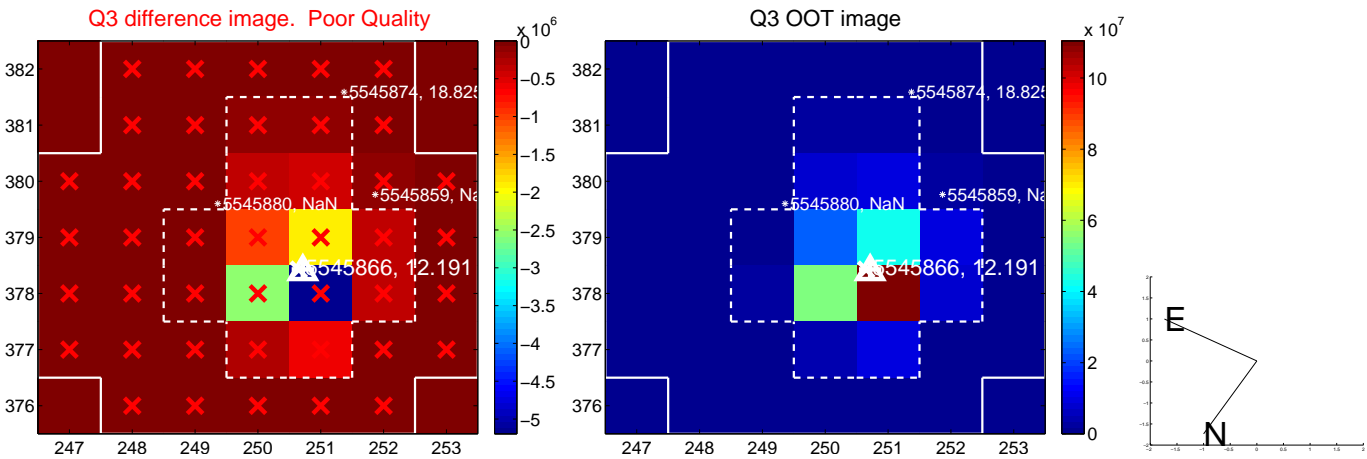
The direct PRF centroid is offset from the target star catalog position by about 0.35 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.097 ± 0.071	1.37	-0.071 ± 0.067	0.066 ± 0.075
PRF-fit source offset from KIC position	0.367 ± 0.086	4.28	-0.336 ± 0.071	-0.148 ± 0.105
photometric centroid source offset	0.93 ± 0.33	2.85	-0.24 ± 0.10	-0.90 ± 0.34



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.



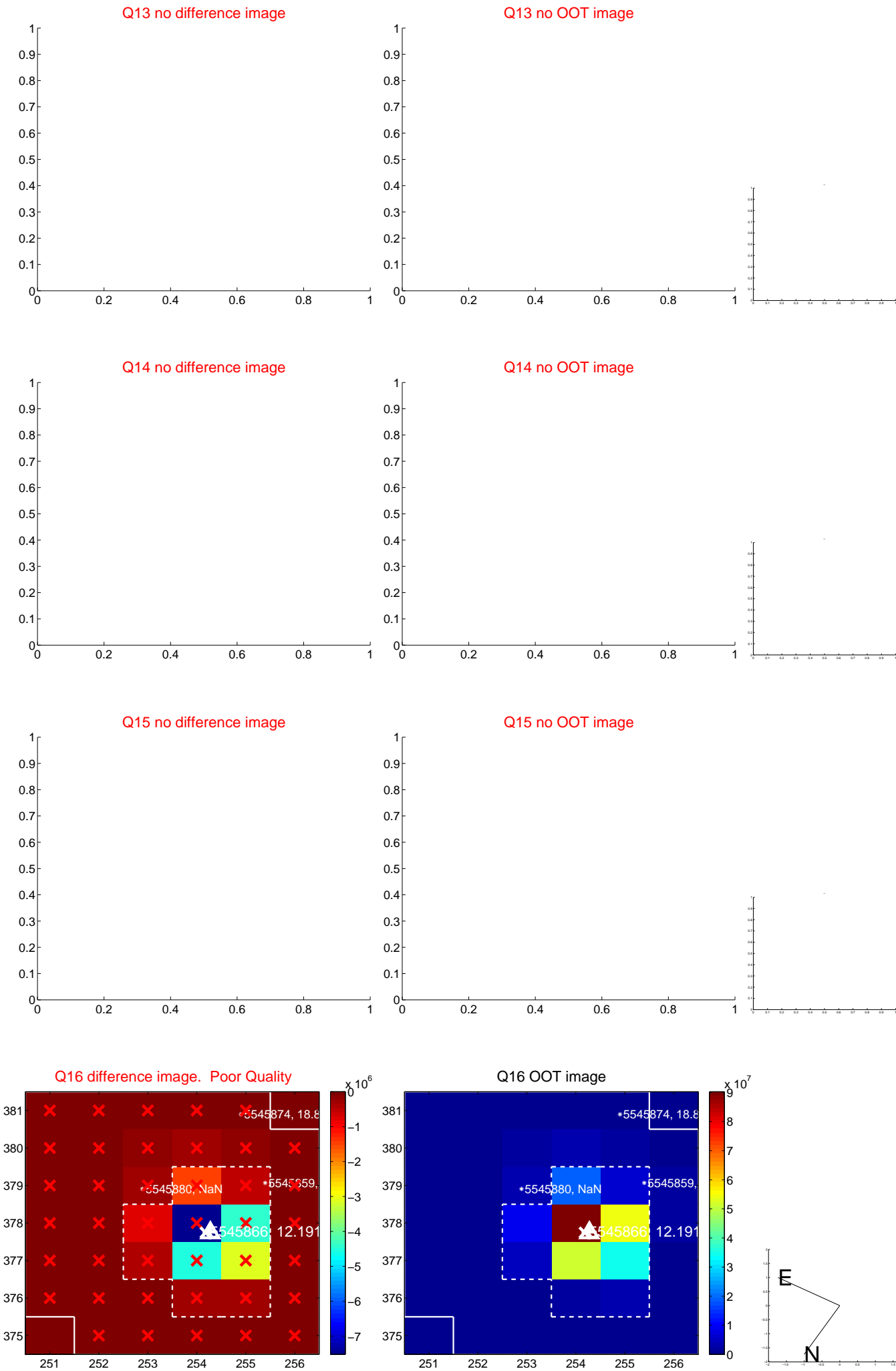
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



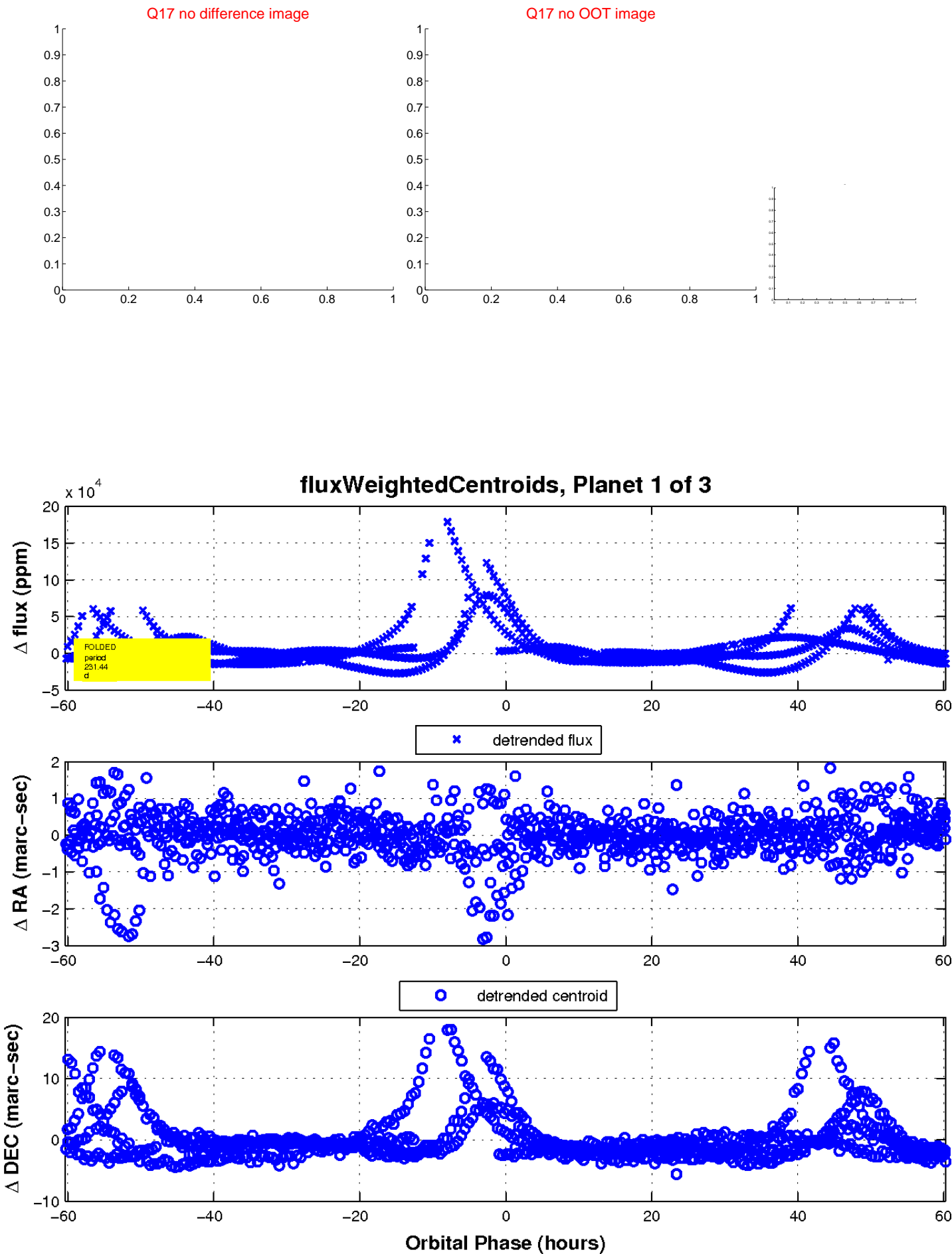
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

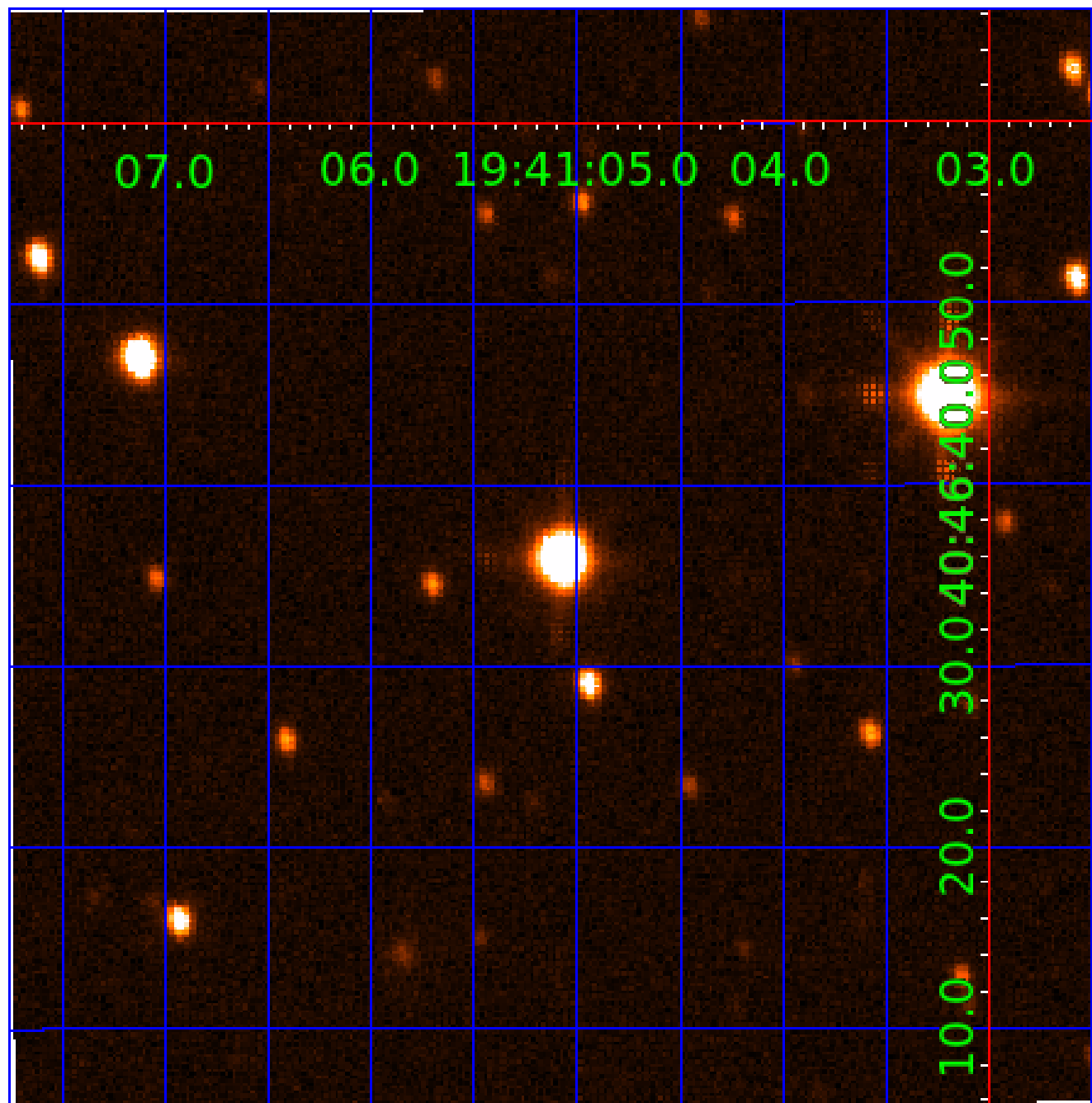


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 005545866

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})
005545866-01	OBS	No	231.439054	343.497226	3011.2	20.141	91.0	3.1	1.61	7223	9.84	9.20
005545866-02	OBS	No	249.851301	221.057700	1294.5	2.195	88.9	7.1	1.61	7223	5.89	8.30
005545866-03	OBS	No	328.875124	221.299129	15433.6	5.041	87.9	38.2	1.61	7223	34.73	5.76

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005545866-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
005545866-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_SKYE_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
005545866-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_SKYE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_TER_ALT—MOD_POS_ALT—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.

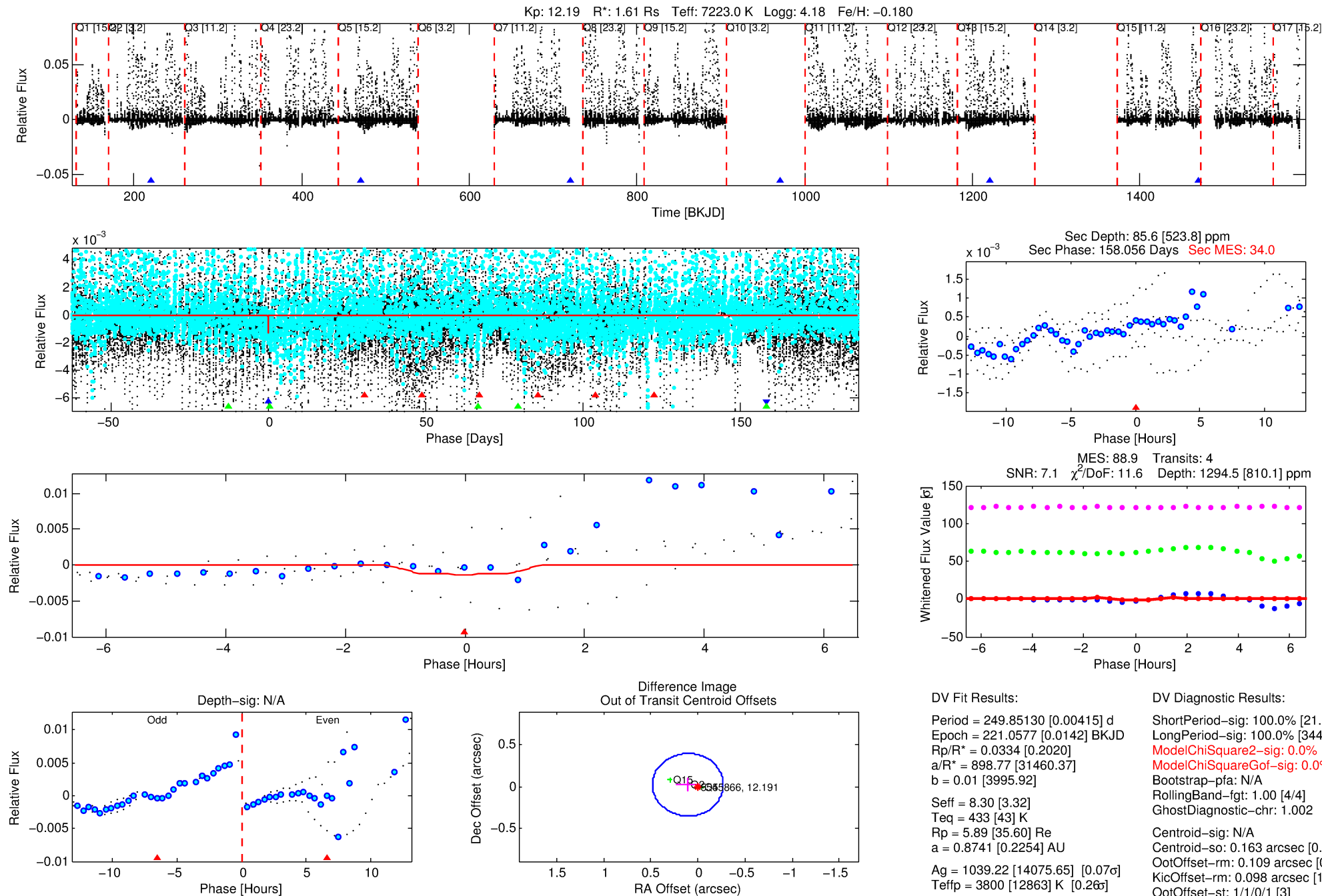
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005545866-02

No Significant Match Found

DV One-Page Summary

KIC: 5545866 Candidate: 2 of 3 Period: 249.851 d



DV Fit Results:

Period = 249.85130 [0.00415] d
Epoch = 221.0577 [0.0142] BKJD
Rp/R* = 0.0334 [0.020]
a/R* = 898.77 [31460.37]
b = 0.01 [3995.92]
Seff = 8.30 [3.32]
Teq = 433 [43] K
Rp = 5.89 [35.60] Re
a = 0.8741 [0.2254] AU
Ag = 1039.22 [14075.65] [0.07] σ
Teff = 3800 [12863] K [0.26] σ

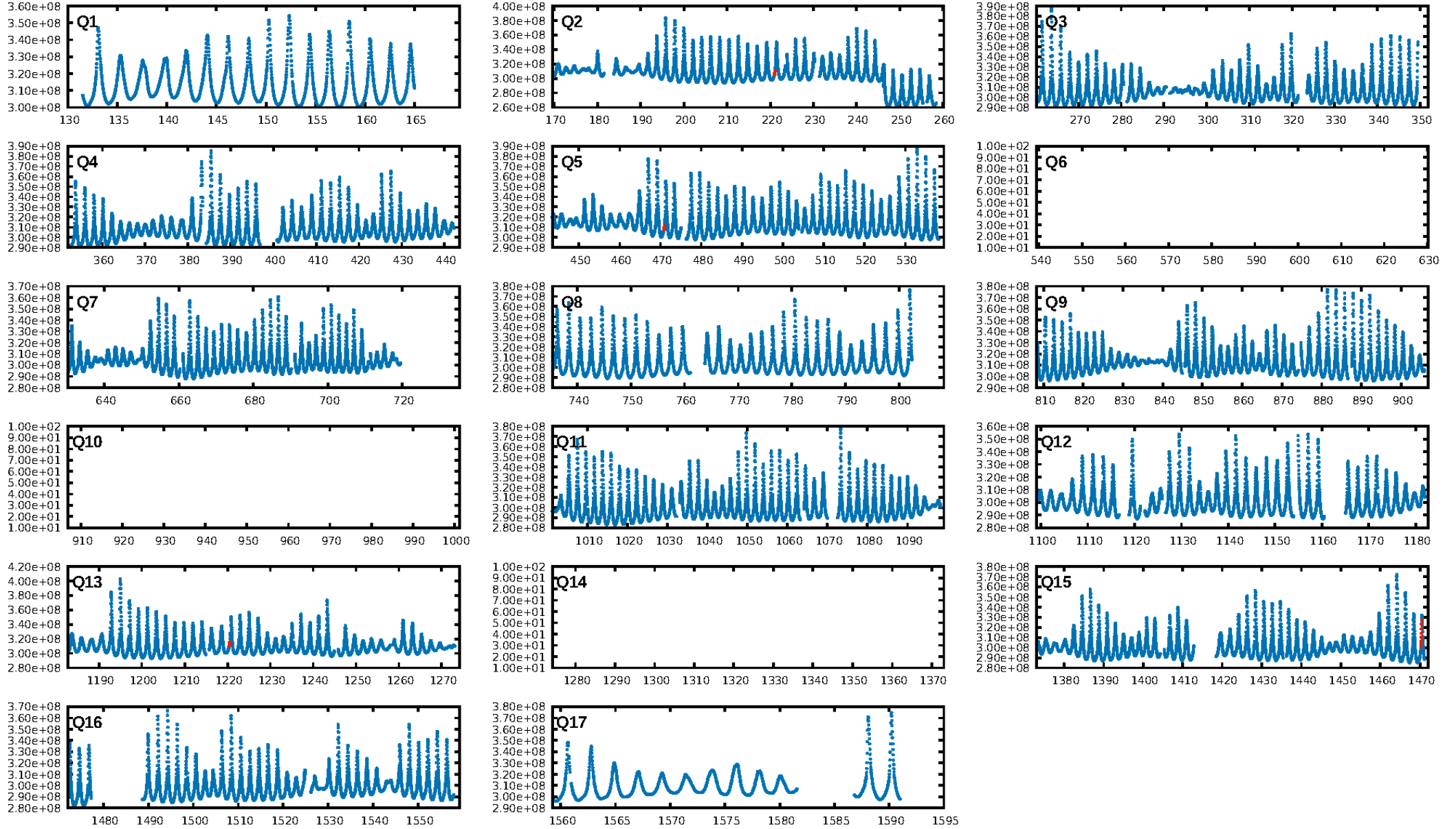
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [21.81 σ]
LongPeriod-sig: 100.0% [344.93 σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 0.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: 1.002
Centroid-sig: N/A
Centroid-so: 0.163 arcsec [0.49 σ]
OotOffset-rm: 0.109 arcsec [0.87 σ]
KicOffset-rm: 0.098 arcsec [1.23 σ]
OotOffset-st: 1/1/0/1 [3]
KicOffset-st: 1/1/0/1 [3]
DiffImageQuality-fgm: 1.00 [3/3]
DiffImageOverlap-fno: 0.67 [2/3]

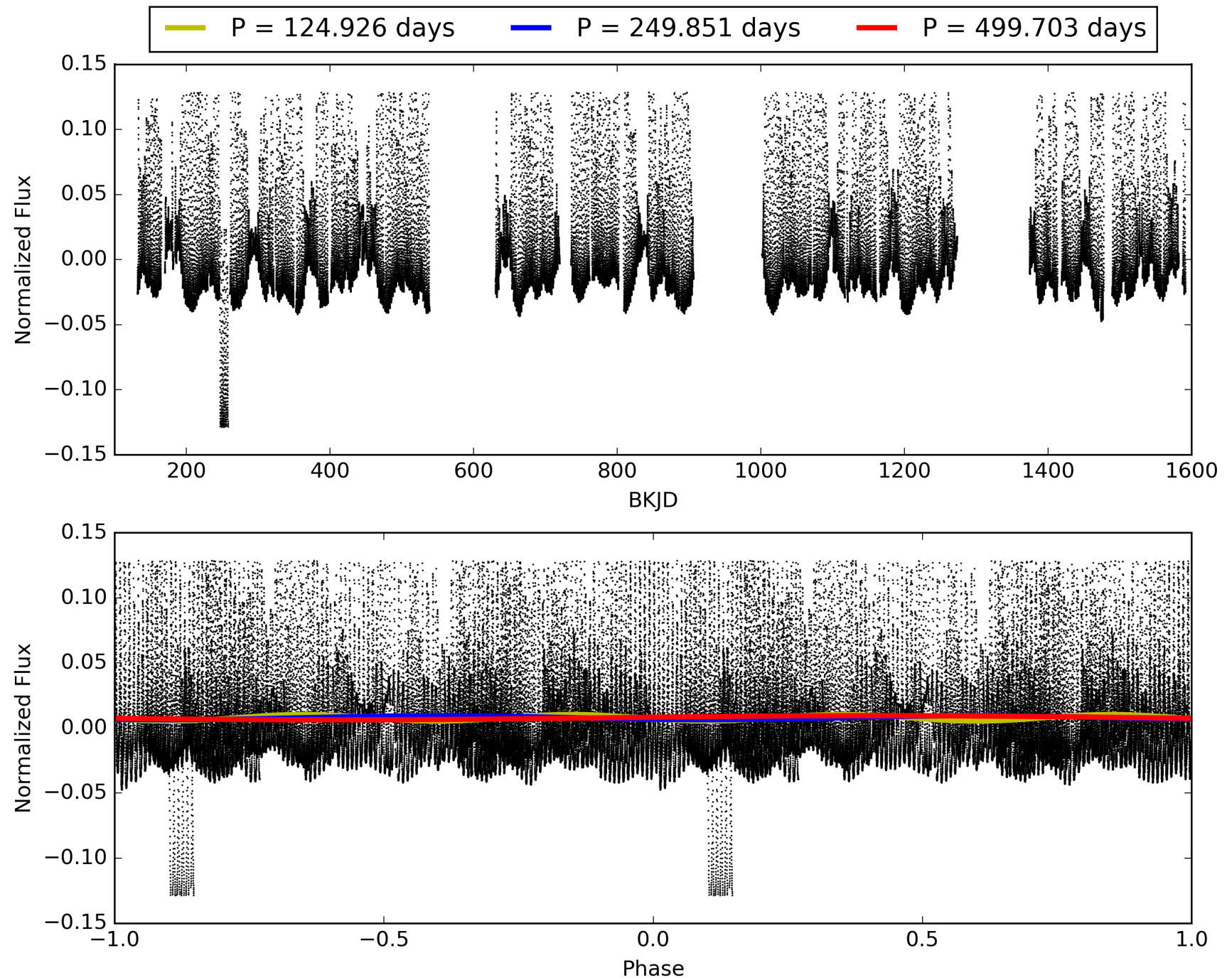
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 05:50:19 Z

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

TCE 005545866-02, PDC Light Curves

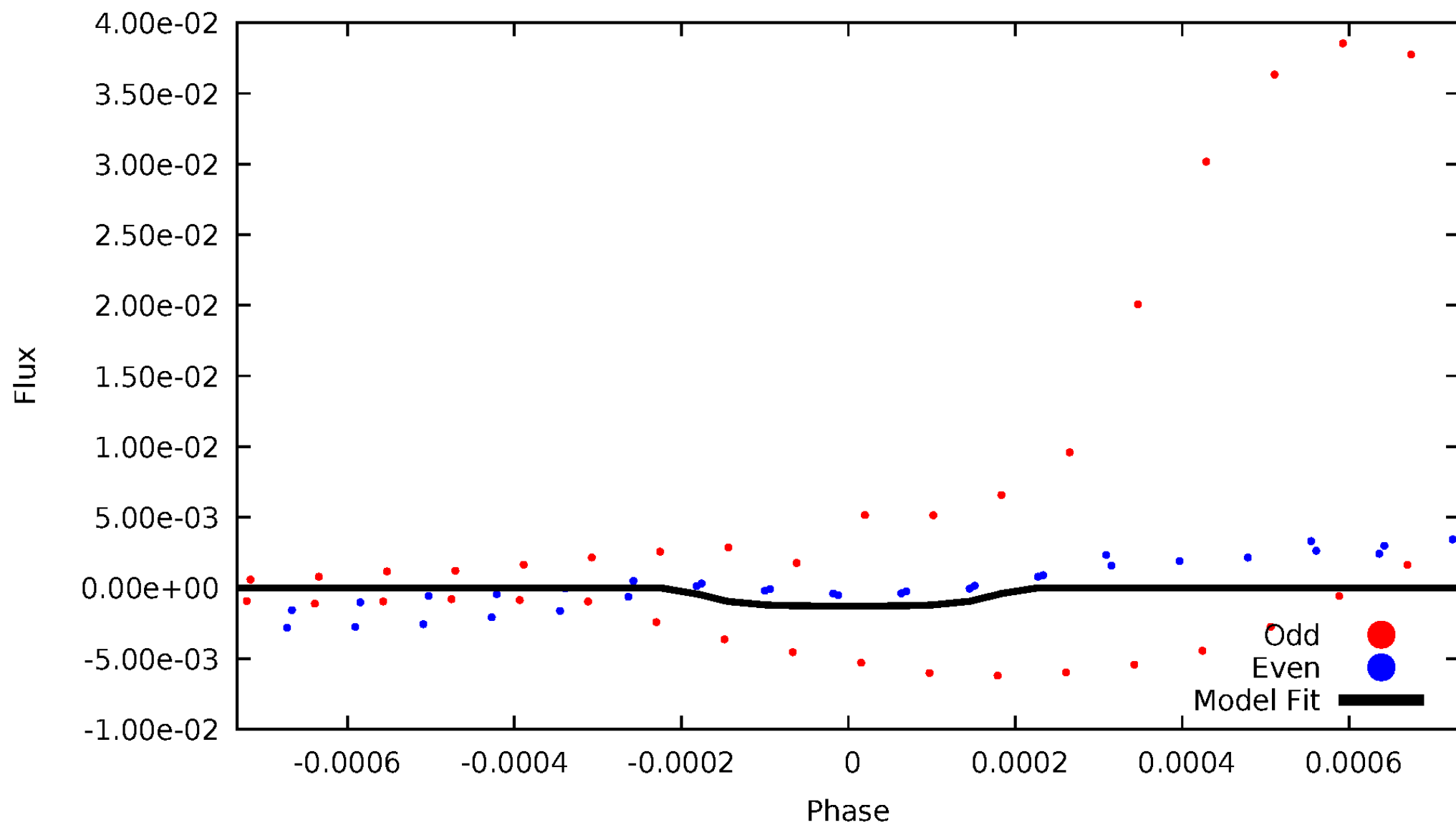


TCE 005545866-02



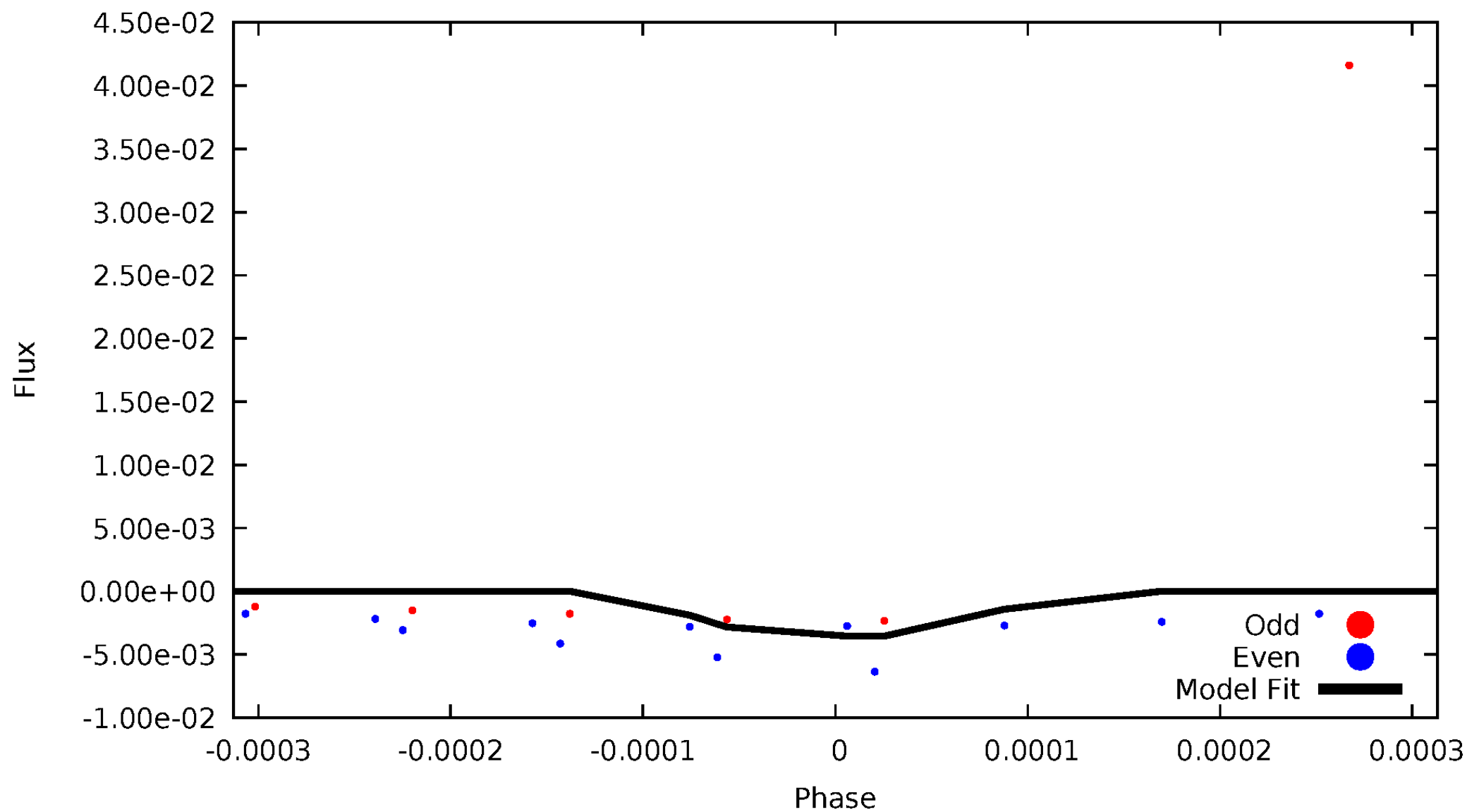
DV Odd/Even

TCE 005545866-02



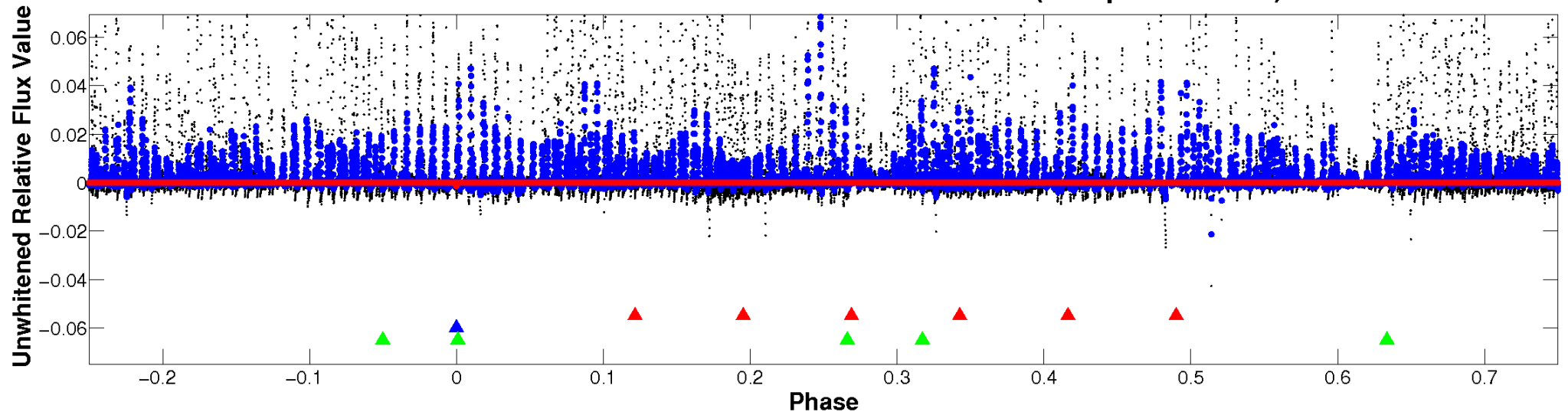
ALT Odd/Even

TCE 005545866-02

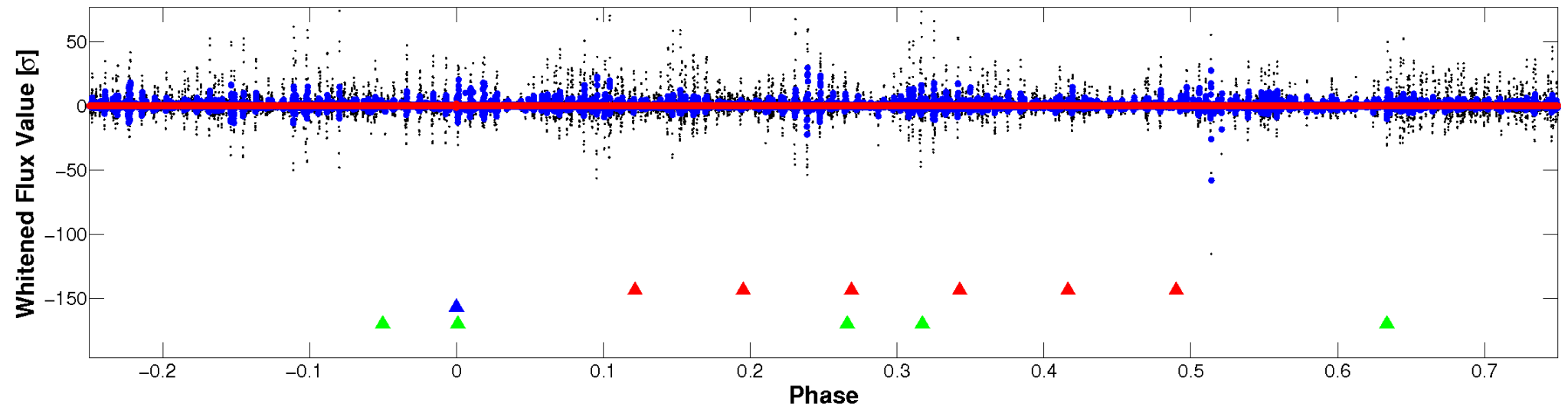


Non-Whitened Vs. Whitened Light Curve

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

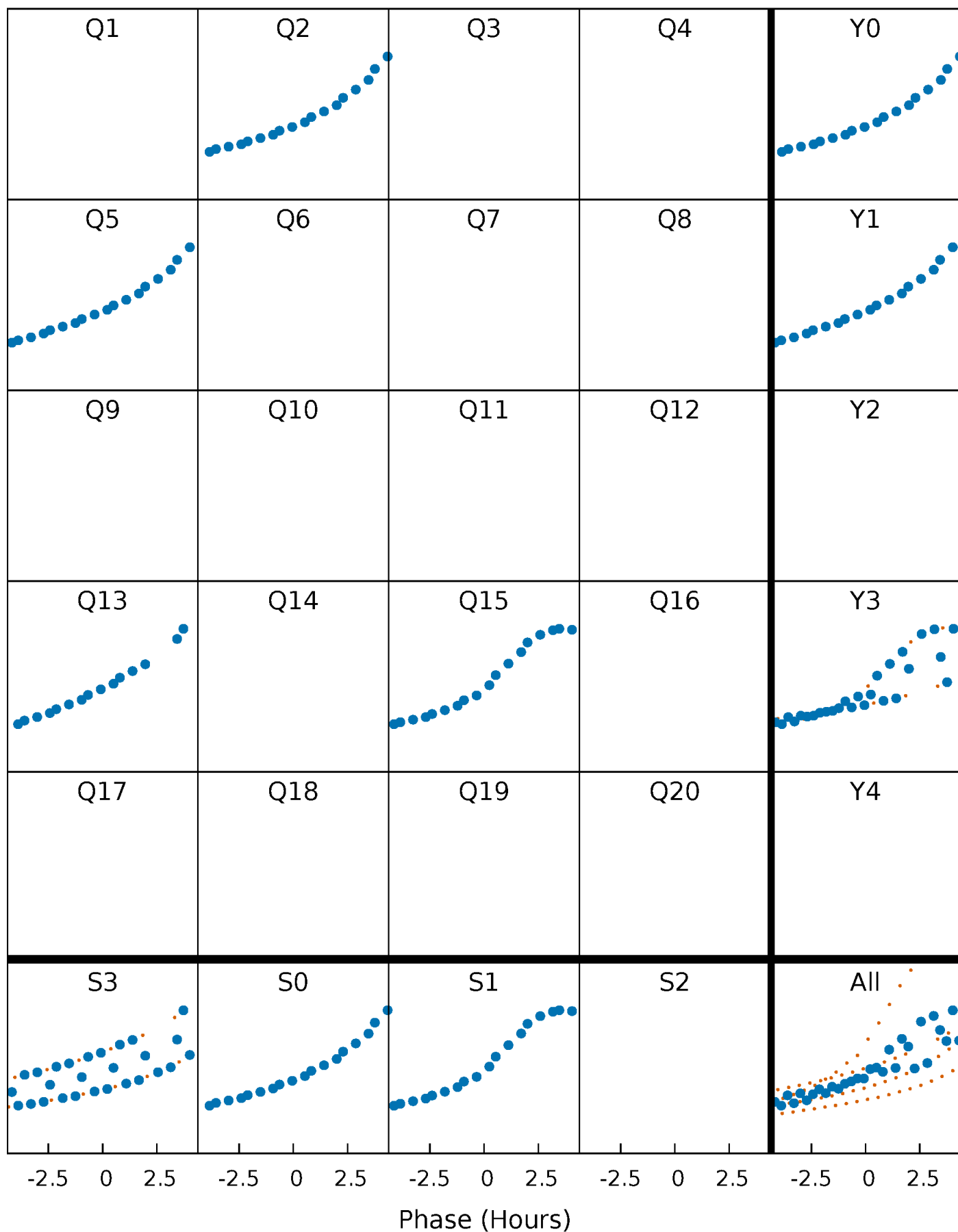


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



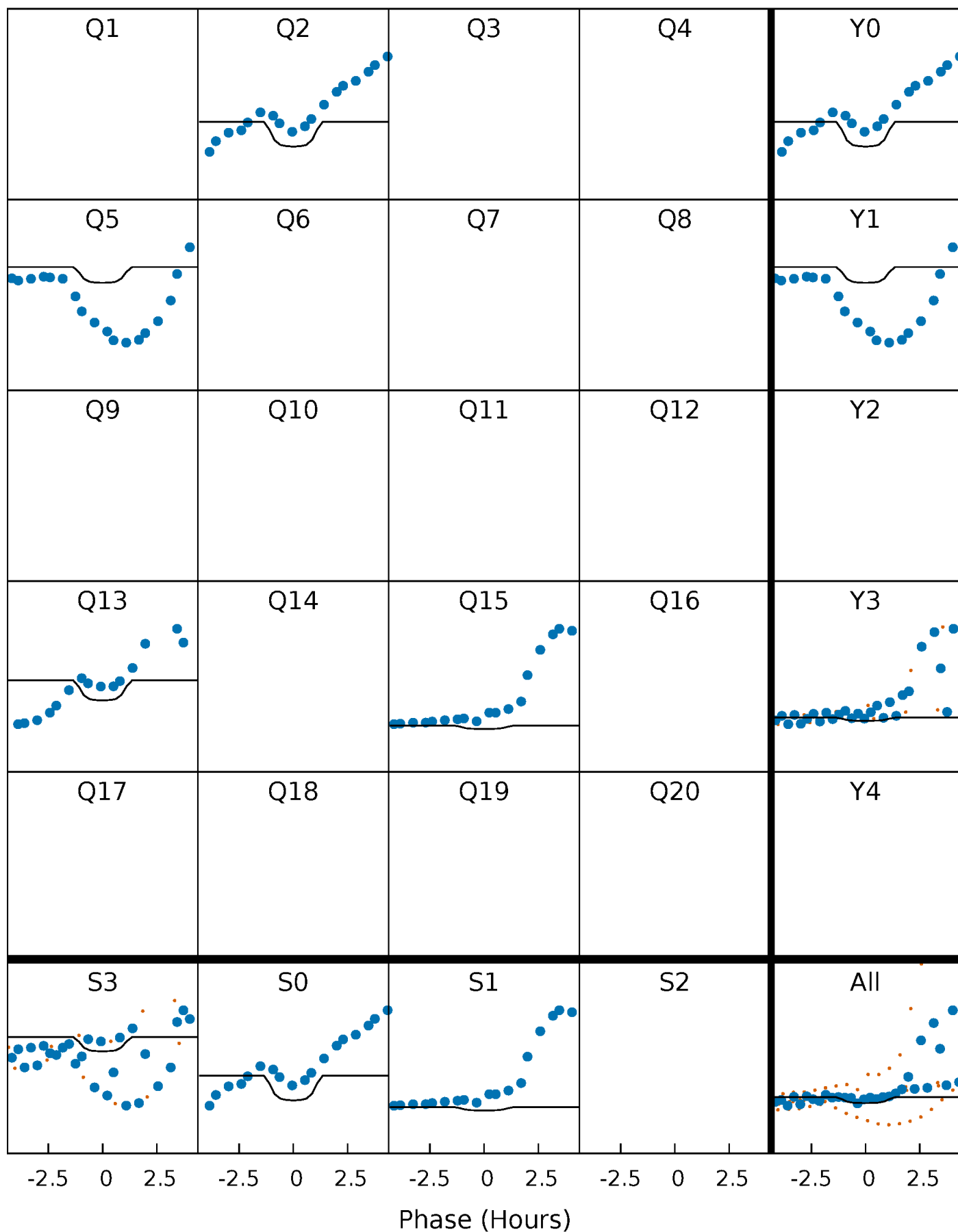
PDC Quarter-Phased Transit Curves

TCE 005545866-02 P=249.851301 Days $T_0=221.057700$ (BKJD)



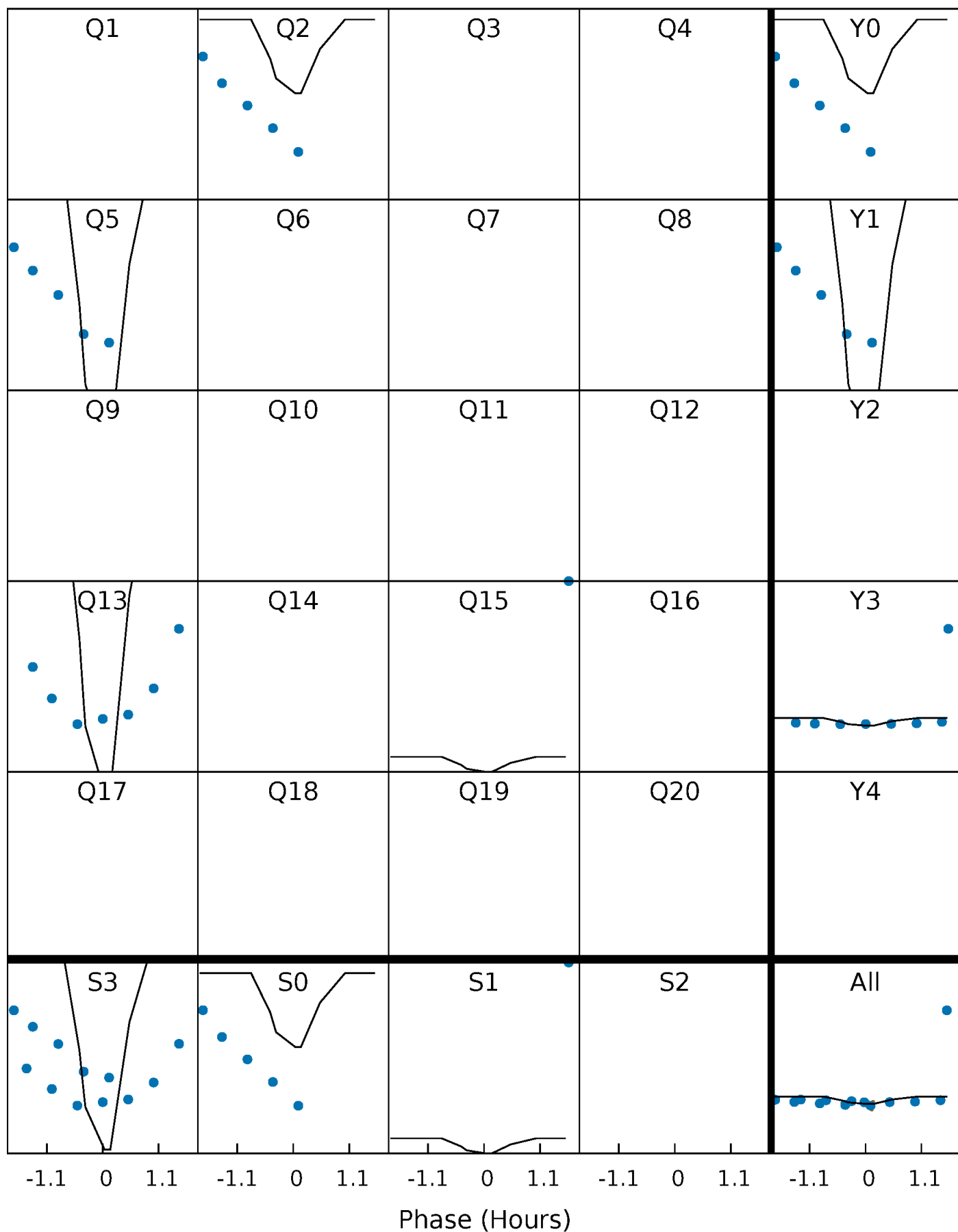
DV Quarter-Phased Transit Curves

TCE 005545866-02 P=249.851301 Days $T_0=221.057700$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

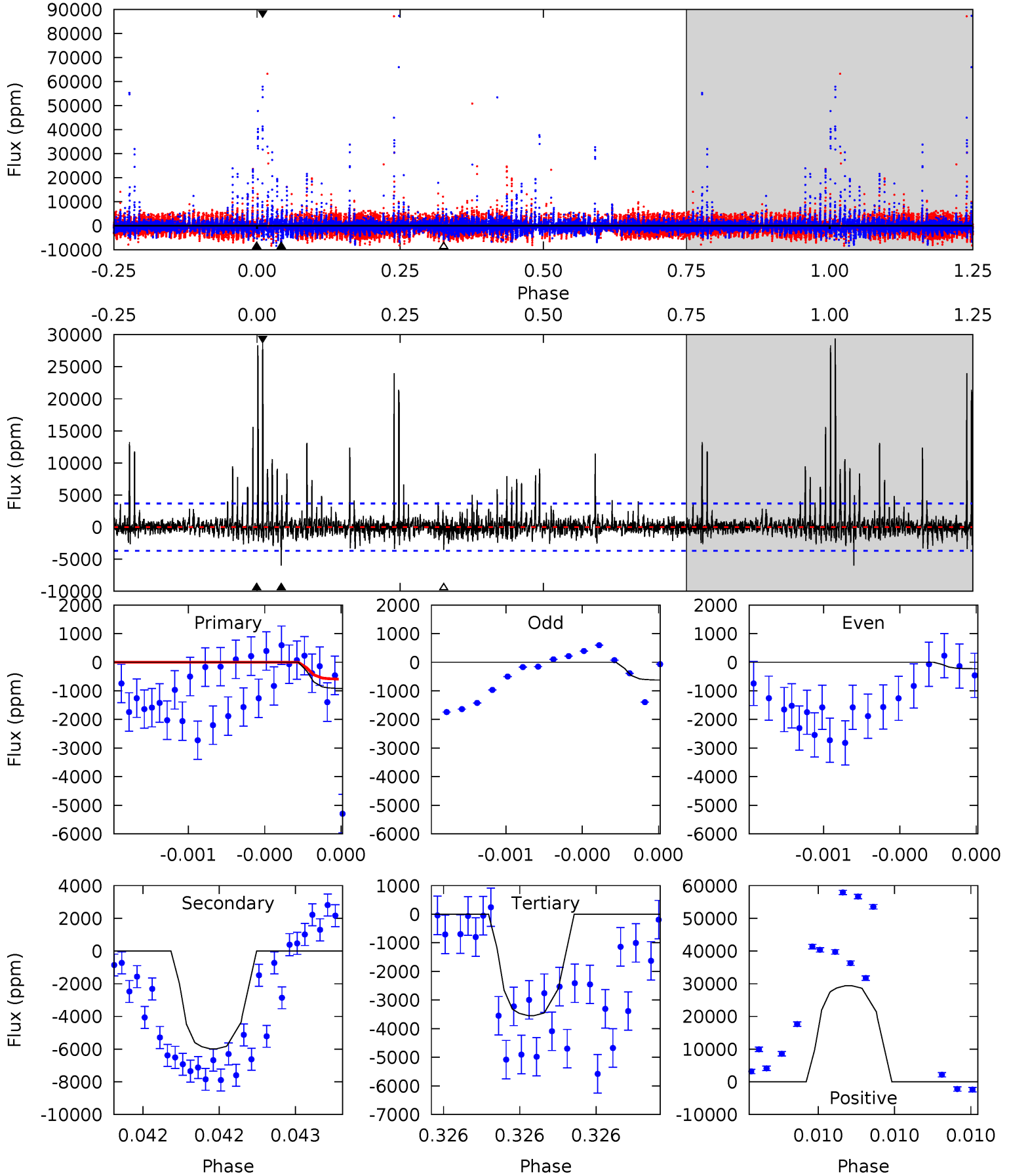
TCE 005545866-02 P=249.836493 Days $T_0=221.110855$ (BKJD)



DV Model-Shift Uniqueness Test

005545866-02, P = 249.851301 Days, E = 221.057700 Days

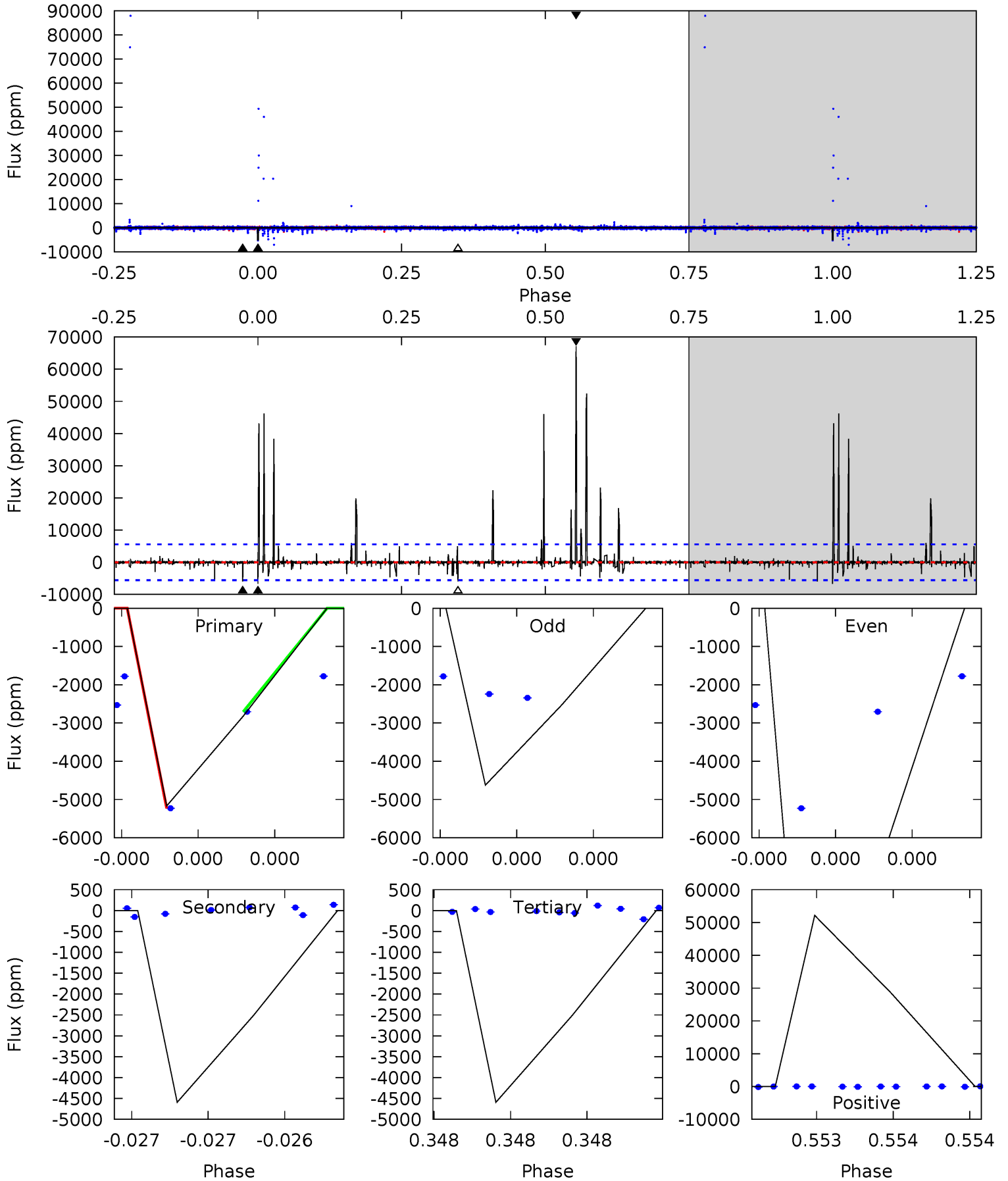
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.40	9.09	5.38	44.6	5.61	3.54	1.98	-3.99	-43.2	3.71	-35.6	0.17	1.93	0.83	0.10



Alt Model-Shift Uniqueness Test

005545866-02, P = 249.836493 Days, E = 221.110855 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.90	6.14	6.13	69.7	5.78	3.79	1.32	0.77	-62.8	0.00	-63.5	1.75	1.16	0.91	0



Stellar Parameters For KIC 005545866

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7223^{+228}_{-304}	$4.177^{+0.128}_{-0.192}$	$-0.180^{+0.250}_{-0.350}$	$1.613^{+0.512}_{-0.341}$	$1.429^{+0.219}_{-0.241}$	$0.480^{+0.307}_{-0.250}$
	+3%/-4%	+3%/-5%	+139%/-194%	+32%/-21%	+15%/-17%	+64%/-52%
Source	KIC0	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 005545866-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-5988 ± 659	$28.44^{+27.91}_{-19.19}$	609^{+50}_{-40}	5107^{+4171}_{-1226}	3101^{+25704}_{-2326}
Alt.	-2505 ± 963	$29.26^{+27.82}_{-19.60}$	609^{+47}_{-42}	4131^{+2591}_{-847}	1128^{+9331}_{-873}

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

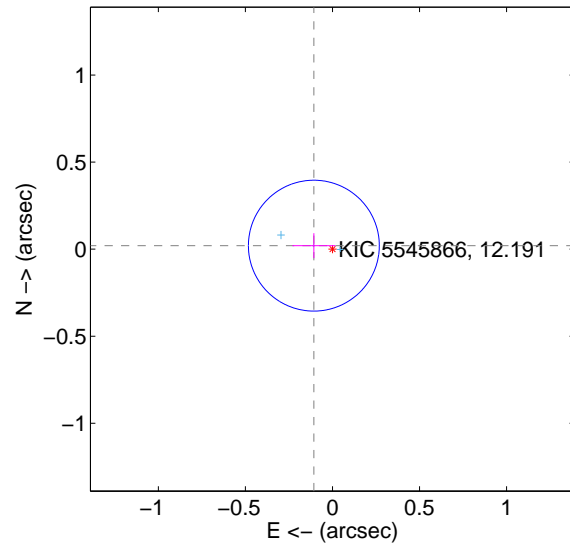
Supplemental centroid analysis for 005545866-02. Kepler magnitude: 12.19. Transit SNR 7.11

There are 3 quarters with good PRF difference image offsets

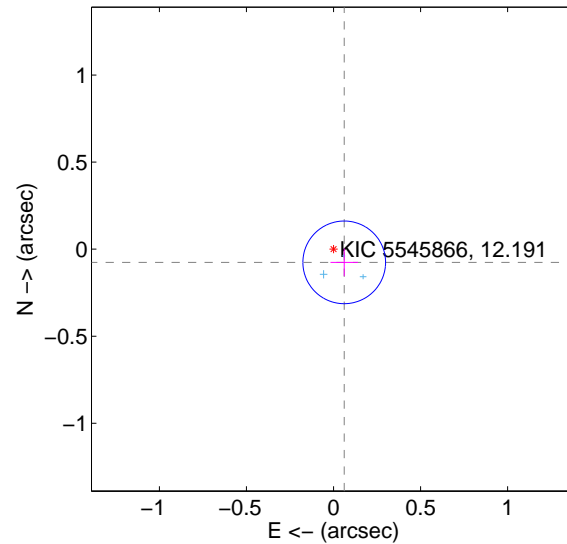
The direct PRF centroid is offset from the target star catalog position by about 0.33 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.109 ± 0.125	0.87	0.107 ± 0.123	0.020 ± 0.072
PRF-fit source offset from KIC position	0.098 ± 0.079	1.23	-0.062 ± 0.079	-0.076 ± 0.079
photometric centroid source offset	0.16 ± 0.33	0.49	-0.13 ± 0.26	-0.09 ± 0.44

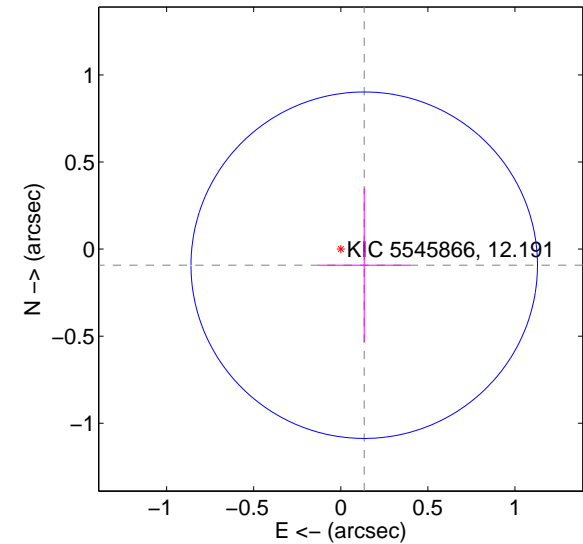
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

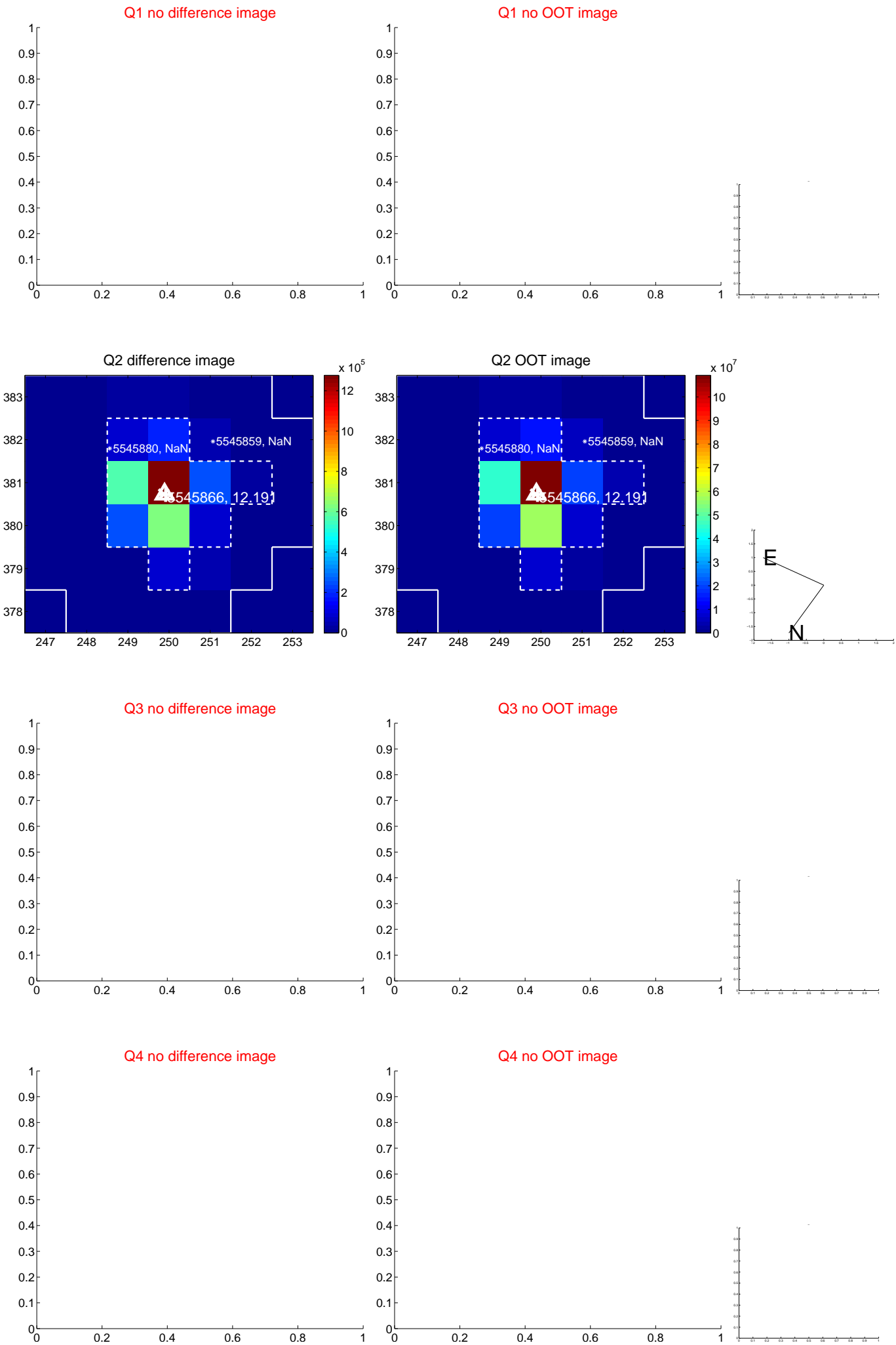


offset from photometric centroids

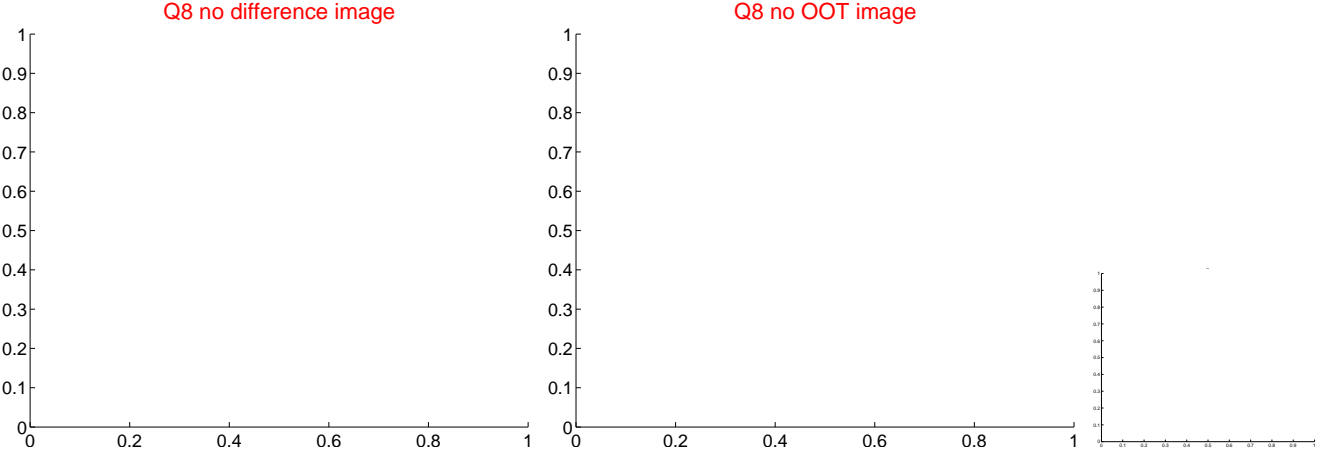
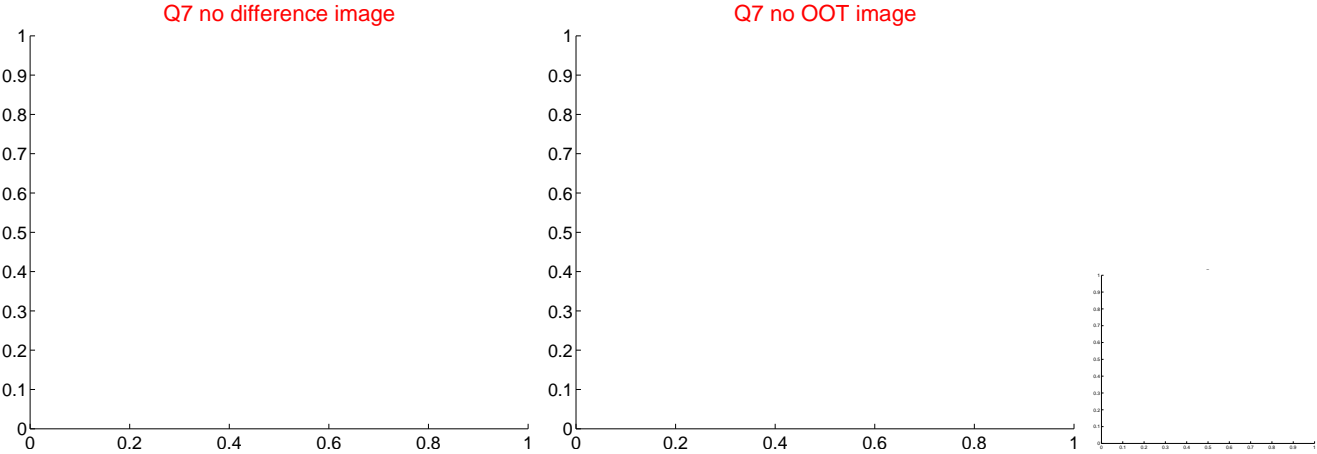
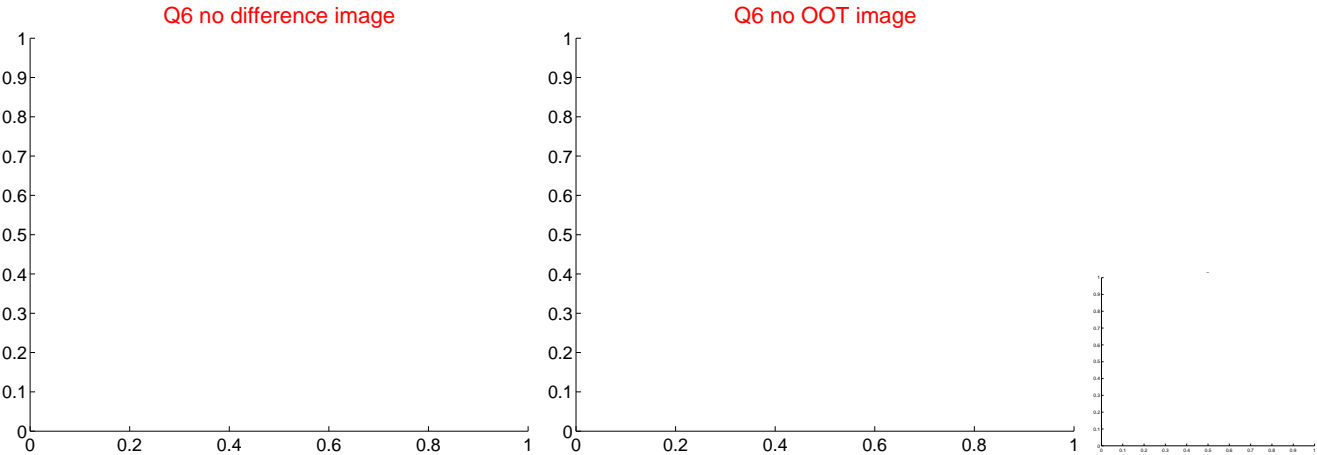
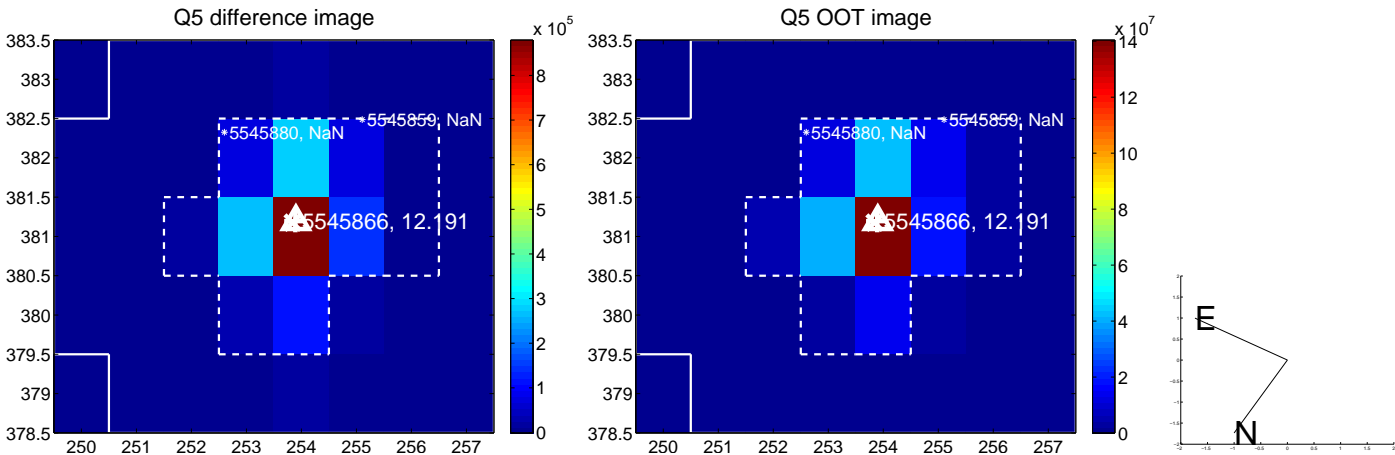


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



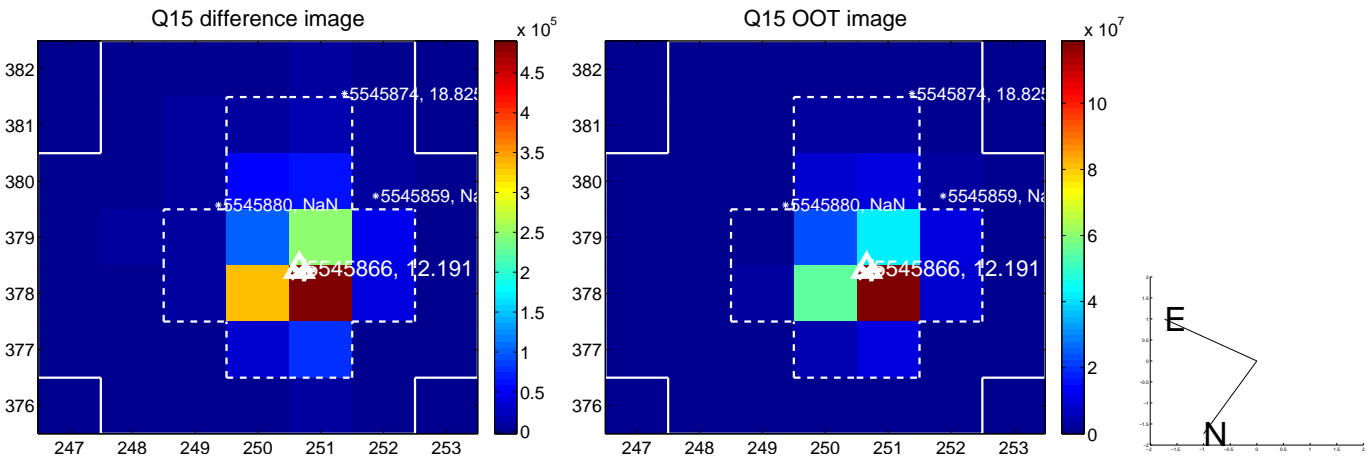
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



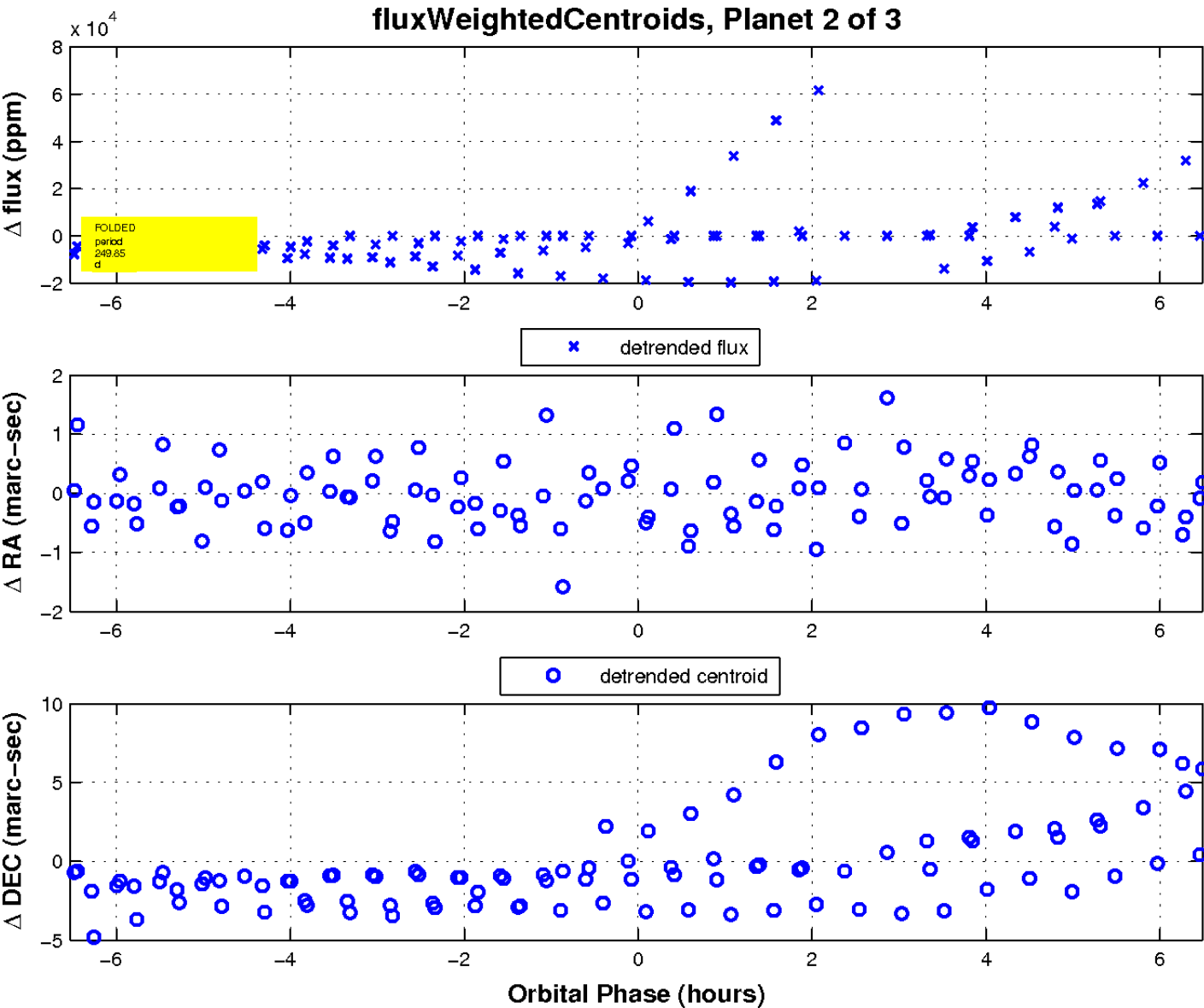
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

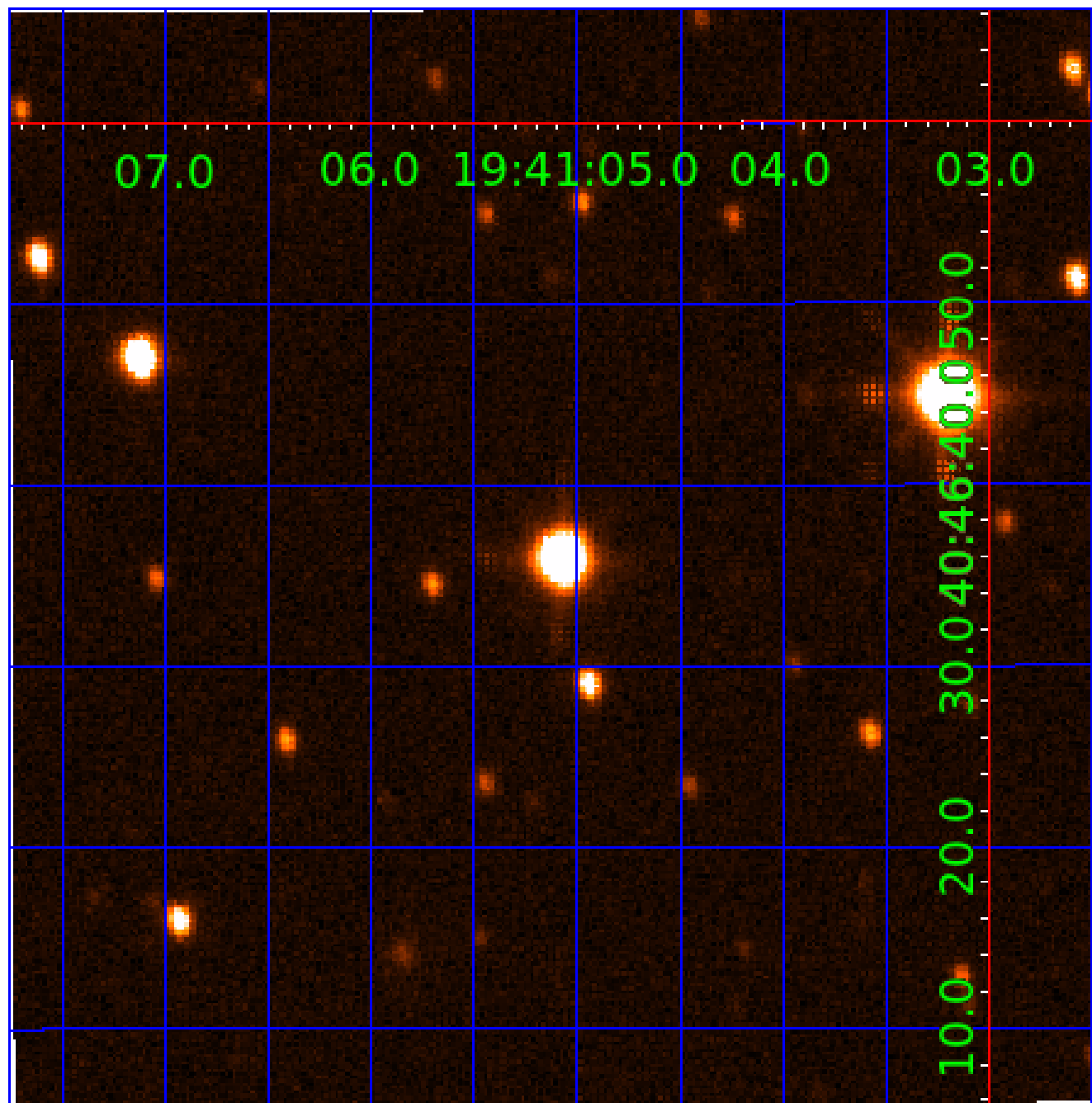


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 005545866

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})
005545866-01	OBS	No	231.439054	343.497226	3011.2	20.141	91.0	3.1	1.61	7223	9.84	9.20
005545866-02	OBS	No	249.851301	221.057700	1294.5	2.195	88.9	7.1	1.61	7223	5.89	8.30
005545866-03	OBS	No	328.875124	221.299129	15433.6	5.041	87.9	38.2	1.61	7223	34.73	5.76

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005545866-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
005545866-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_SKYE_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
005545866-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_SKYE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_TER_ALT—MOD_POS_ALT—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.

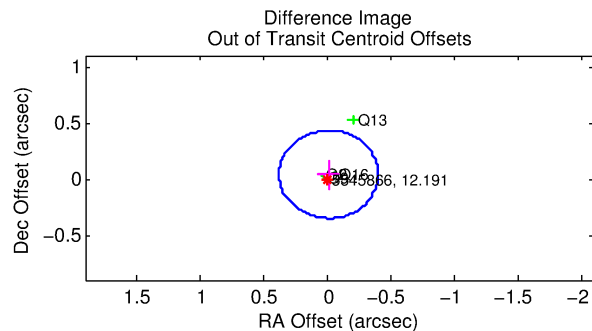
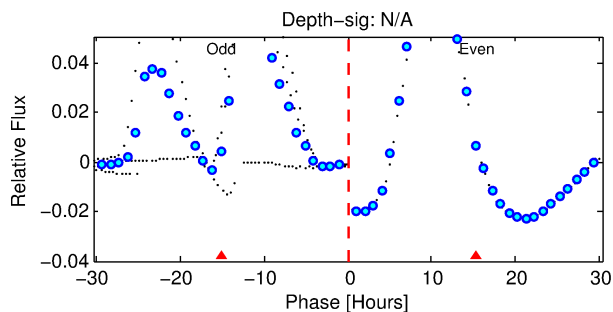
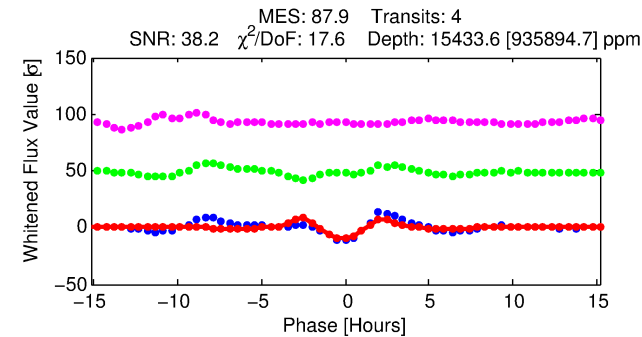
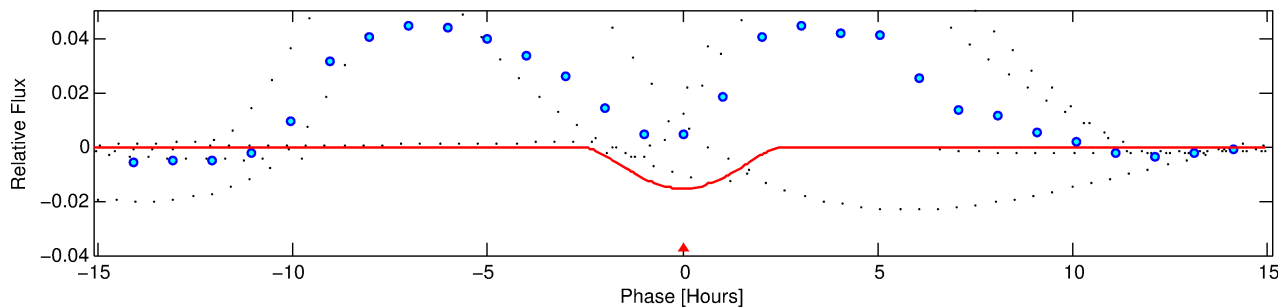
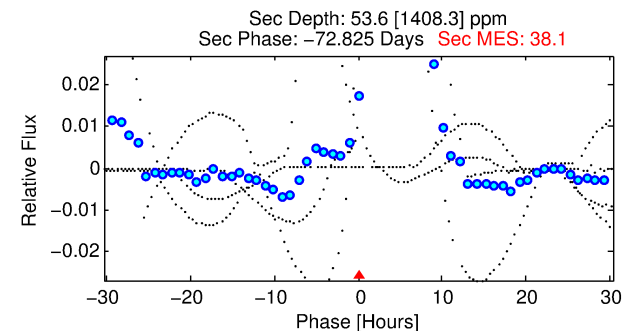
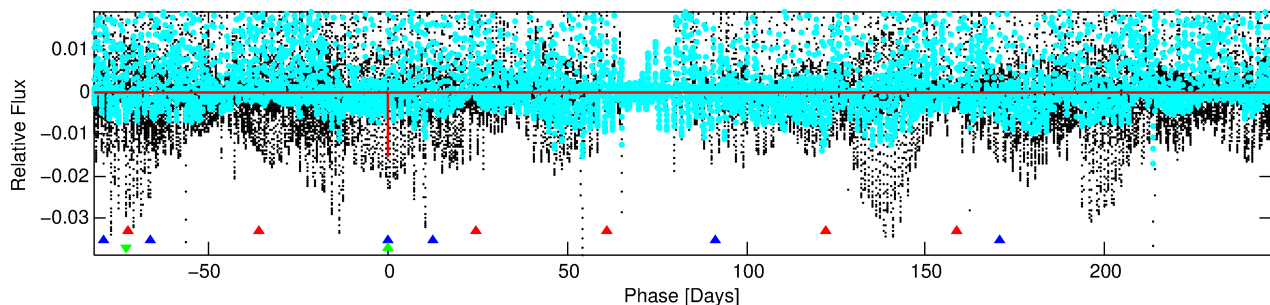
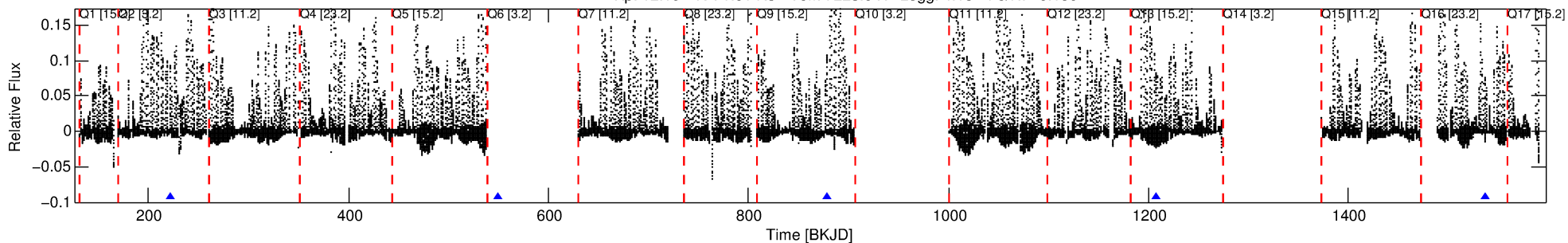
Ephemeris Match Information For 005545866-03

No Significant Match Found

DV One-Page Summary

KIC: 5545866 Candidate: 3 of 3 Period: 328.875 d

Kp: 12.19 R*: 1.61 Rs Teff: 7223.0 K Logg: 4.18 Fe/H: -0.180



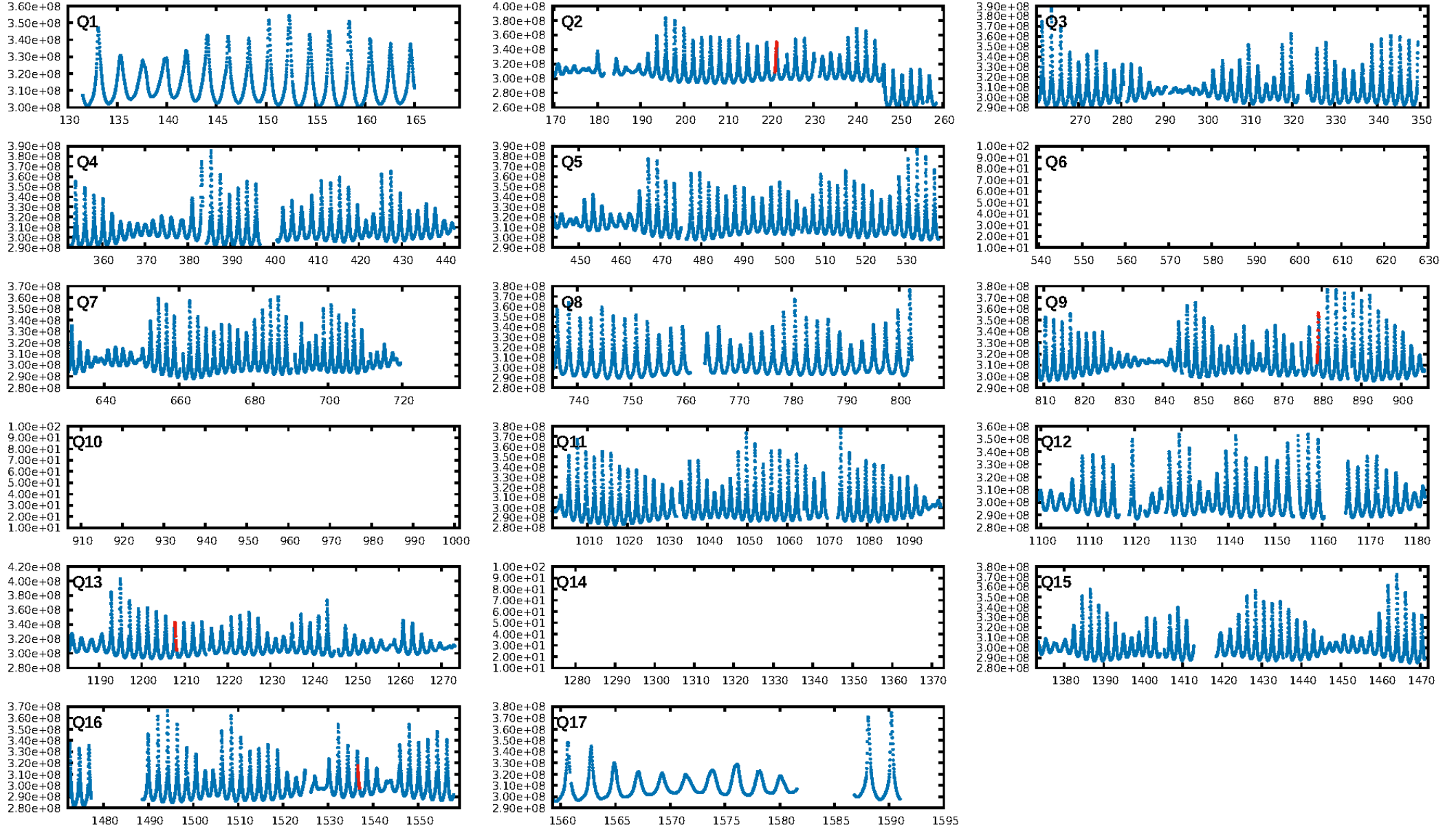
DV Fit Results:

Period = 328.87512 [0.00286] d
Epoch = 221.2991 [0.0077] BKJD
Rp/R* = 0.1973 [0.3923]
a/R* = 328.15 [85.46]
b = 1.00 [7.47]
Seff = 5.76 [2.30]
Teq = 395 [39] K
Rp = 34.73 [69.93] Re
a = 1.0499 [0.2707] AU
Ag = 26.94 [716.10] [0.04σ]
Teffp = 1391 [9245] K [0.11σ]

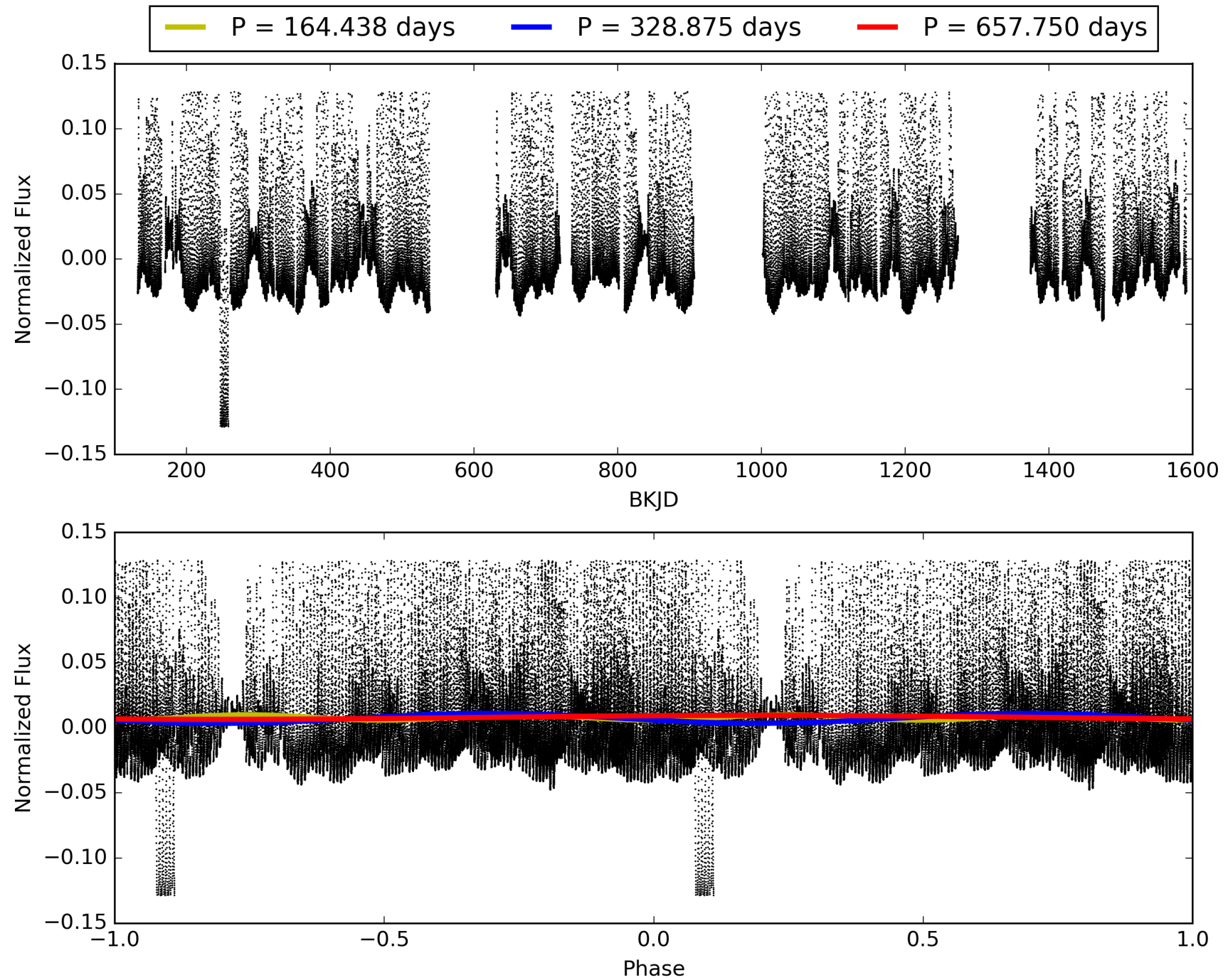
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [344.93σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 0.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: 0.5499
Centroid-sig: N/A
Centroid-so: 0.381 arcsec [12.08σ]
OotOffset-rm: 0.042 arcsec [0.32σ]
KicOffset-rm: 0.273 arcsec [2.80σ]
OotOffset-st: 1/0/1/2 [4]
KicOffset-st: 1/0/1/2 [4]
DiffImageQuality-fgm: 0.25 [1/4]
DiffImageOverlap-fno: 0.75 [3/4]

TCE 005545866-03, PDC Light Curves

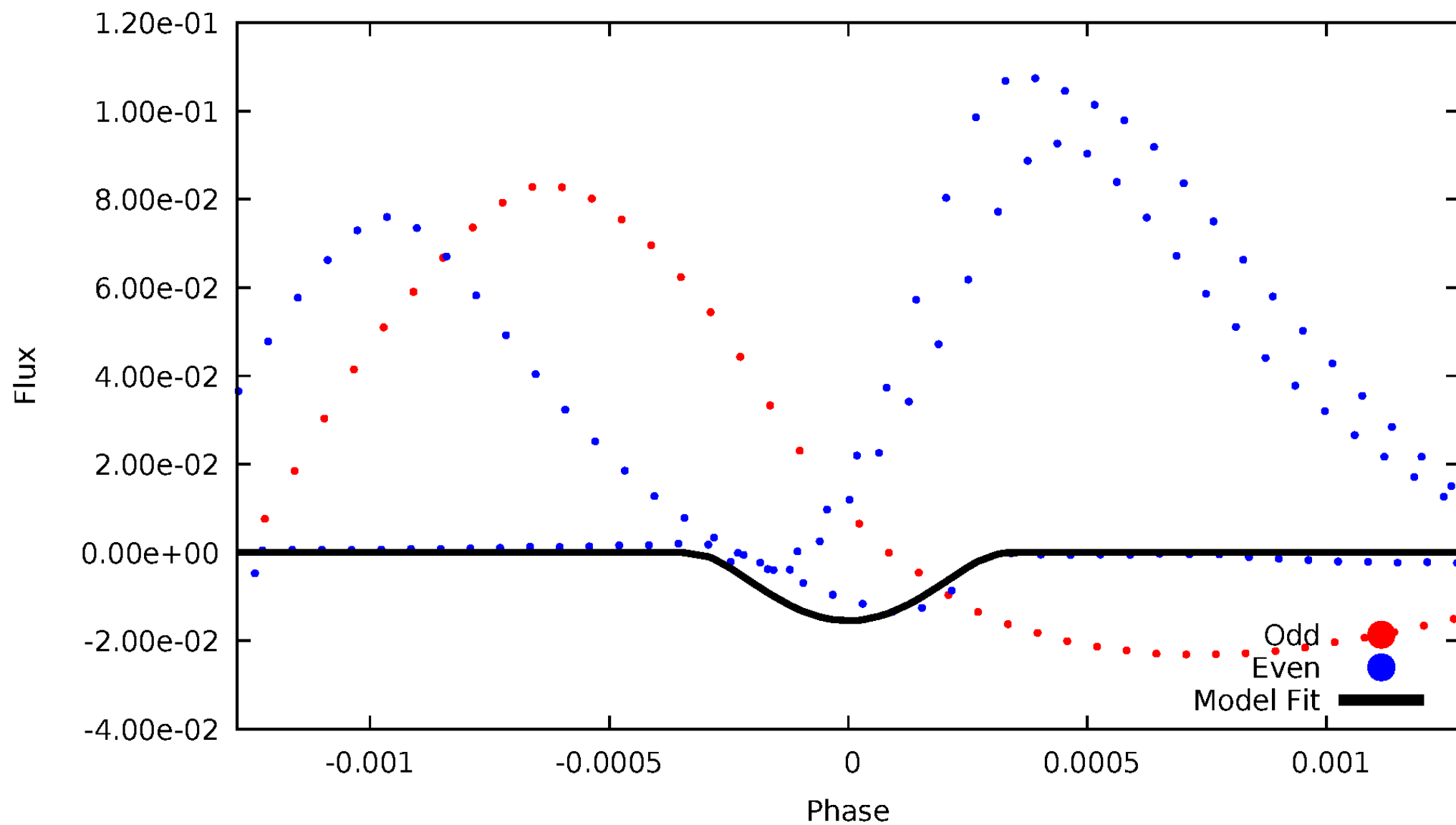


TCE 005545866-03



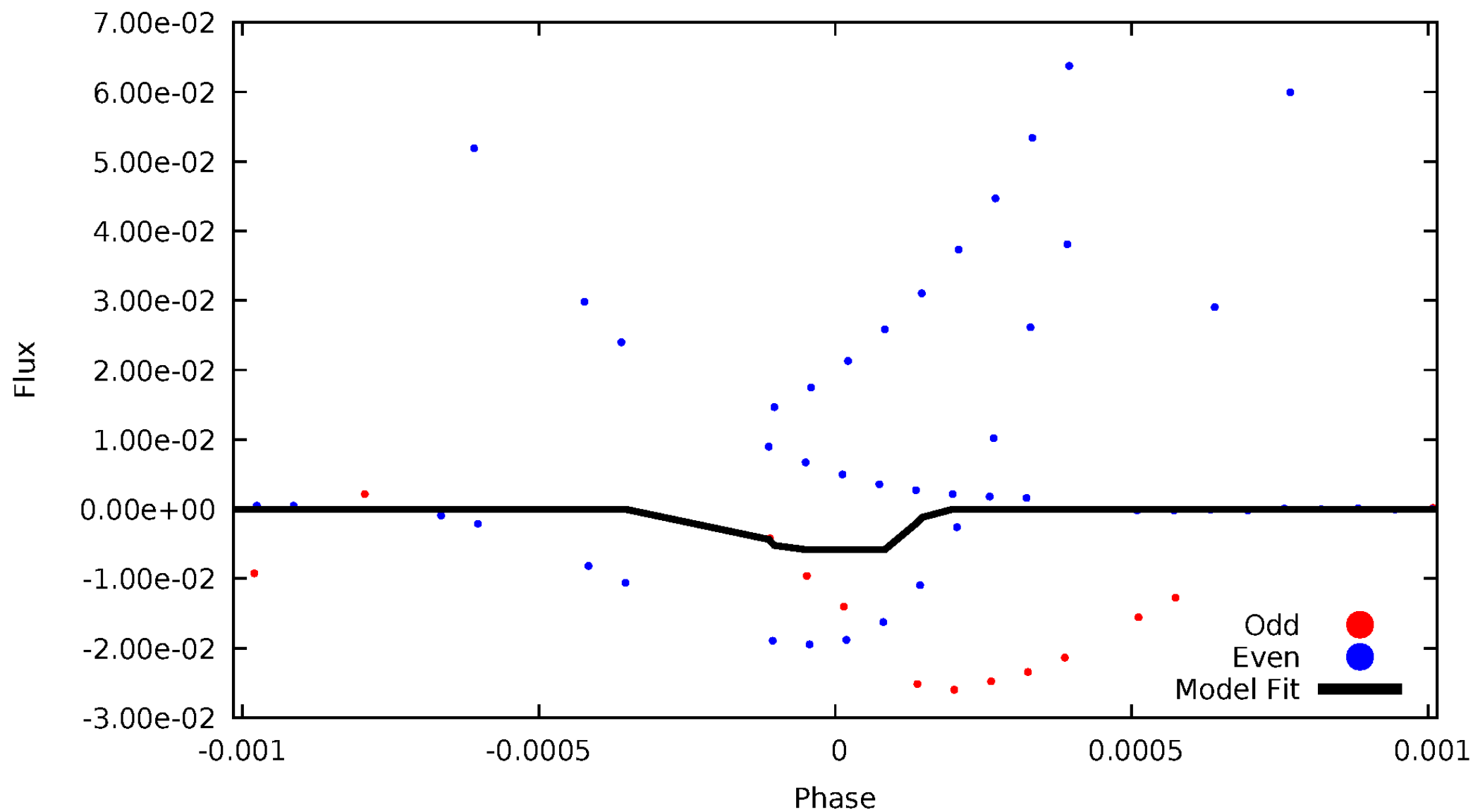
DV Odd/Even

TCE 005545866-03



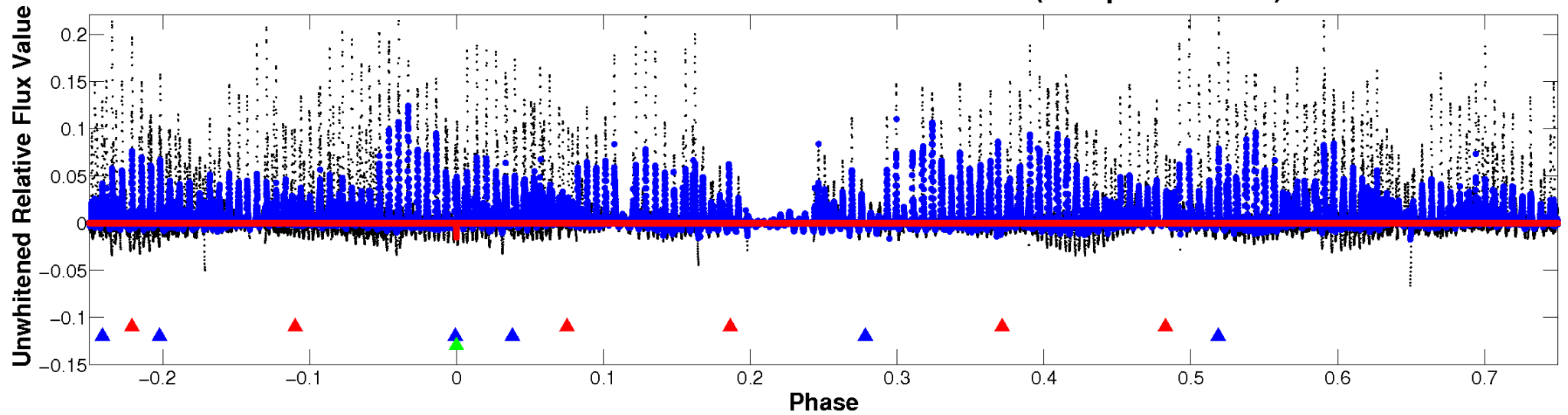
ALT Odd/Even

TCE 005545866-03

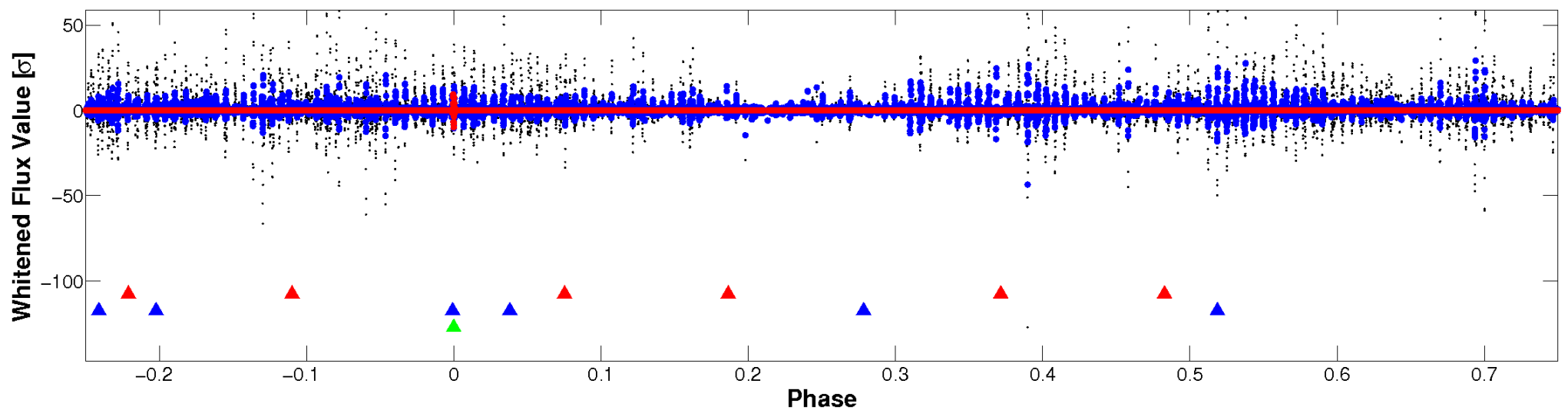


Non-Whitened Vs. Whitened Light Curve

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

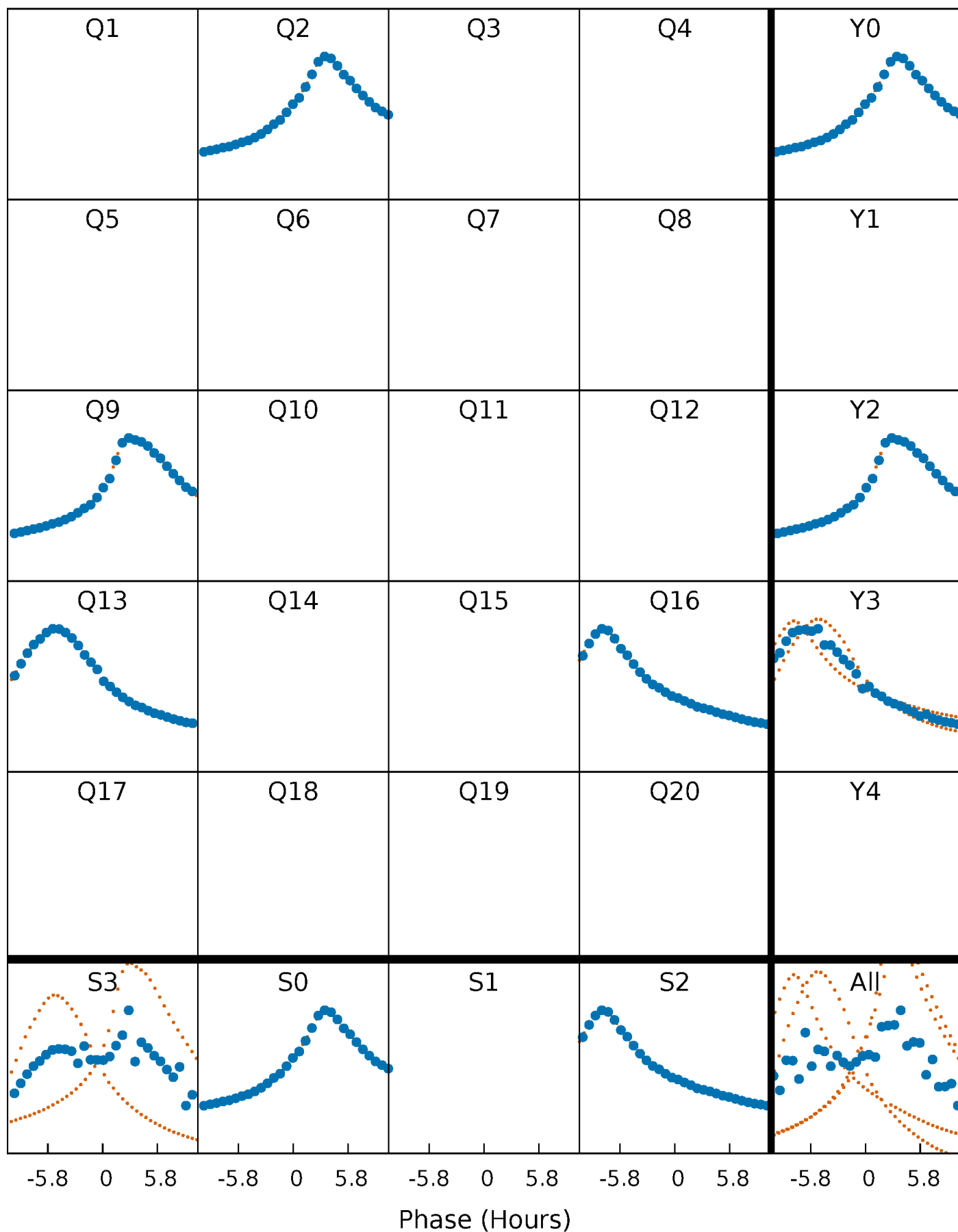


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



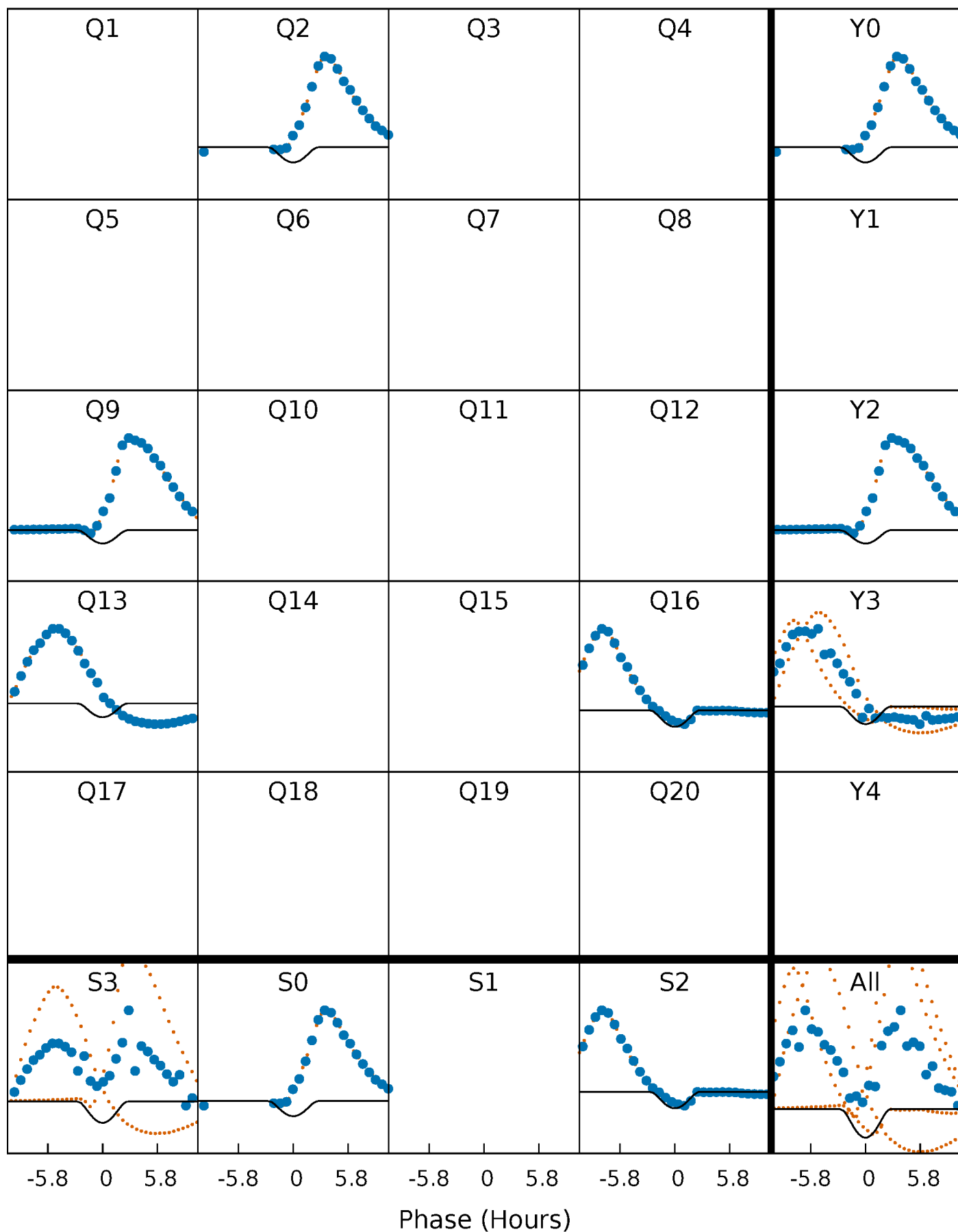
PDC Quarter-Phased Transit Curves

TCE 005545866-03 P=328.875125 Days $T_0=221.299129$ (BKJD)



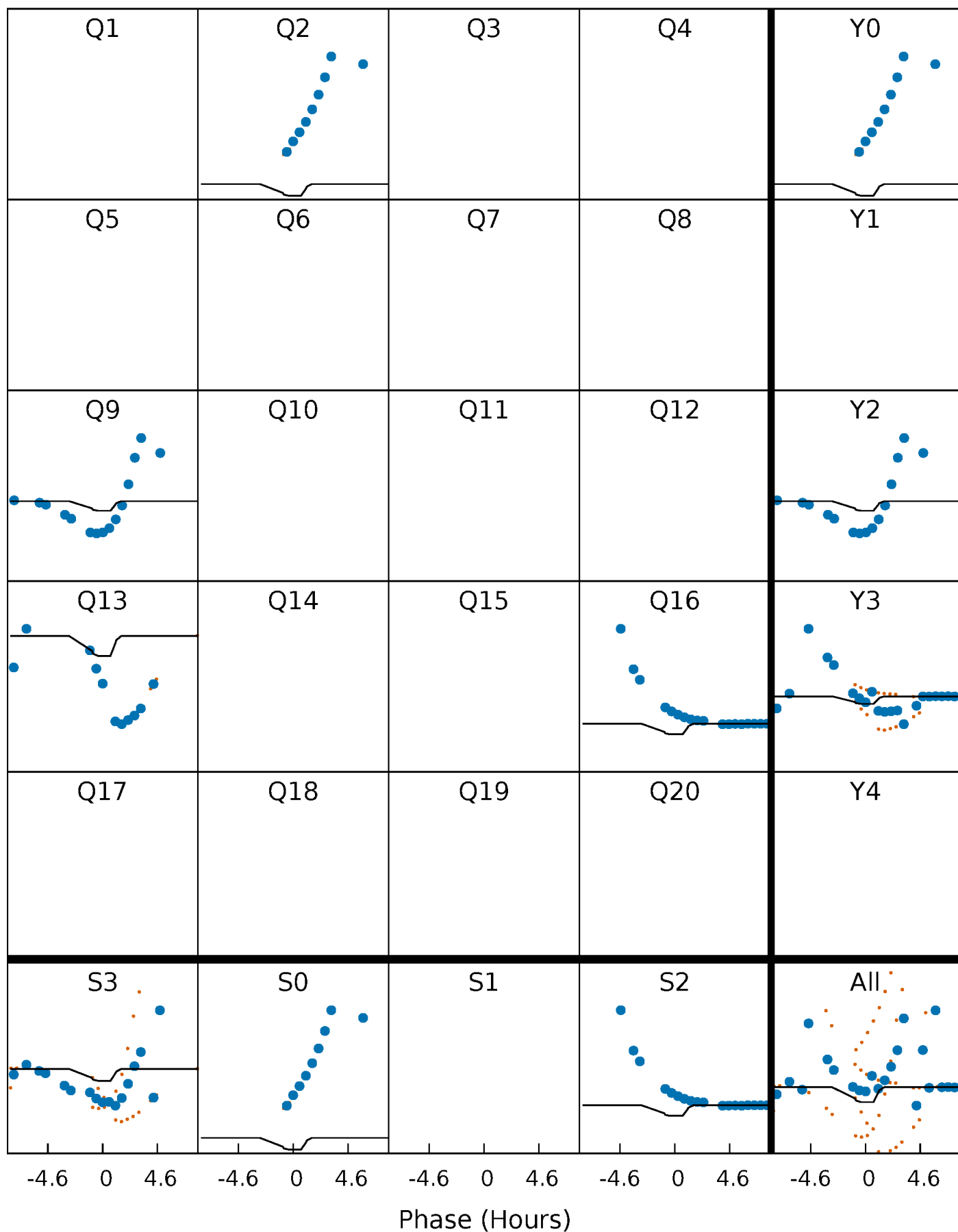
DV Quarter-Phased Transit Curves

TCE 005545866-03 $P=328.875125$ Days $T_0=221.299129$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

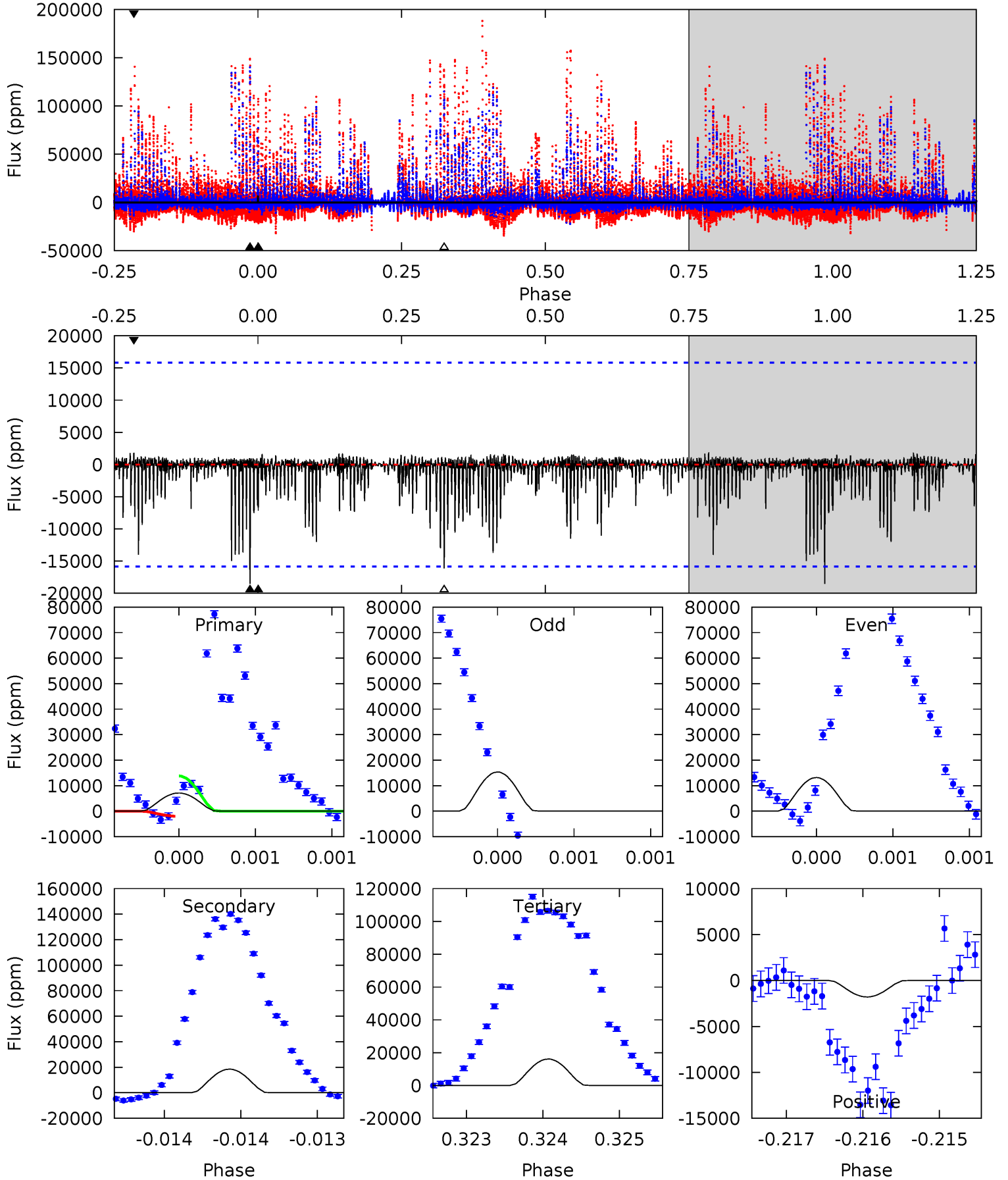
TCE 005545866-03 P=328.878178 Days $T_0=221.251865$ (BKJD)



DV Model-Shift Uniqueness Test

005545866-03, P = 328.875125 Days, E = 221.299129 Days

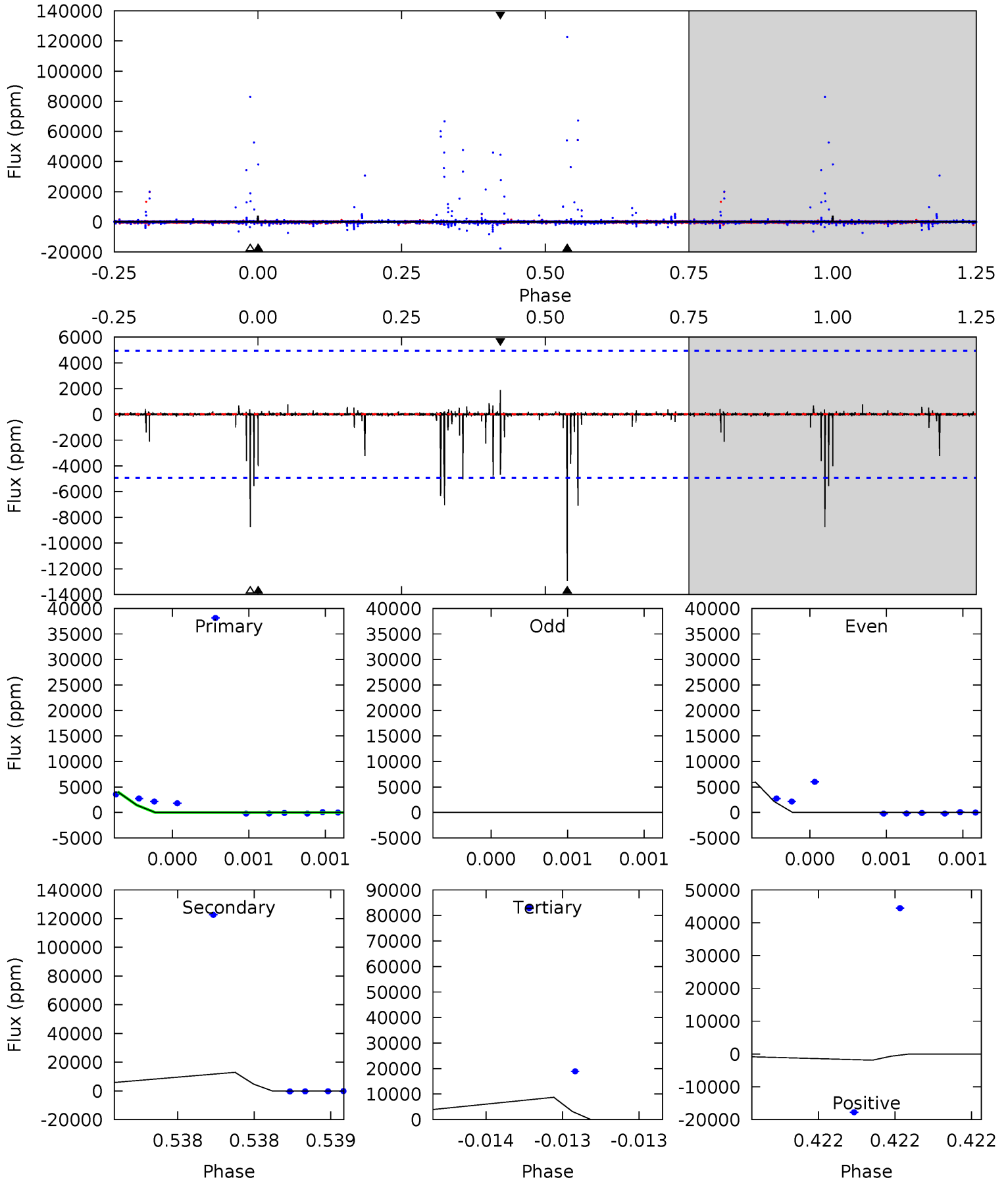
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.48	6.46	5.63	0.63	5.52	3.40	0.60	-3.14	1.86	0.83	5.83	0.22	0.80	0.09	1.96



Alt Model-Shift Uniqueness Test

005545866-03, P = 328.878178 Days, E = 221.251865 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.64	14.9	10.1	2.16	5.69	3.66	0.15	-5.44	2.47	4.83	12.8	0	0.31	0.13	0



Stellar Parameters For KIC 005545866

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7223^{+228}_{-304}	$4.177^{+0.128}_{-0.192}$	$-0.180^{+0.250}_{-0.350}$	$1.613^{+0.512}_{-0.341}$	$1.429^{+0.219}_{-0.241}$	$0.480^{+0.307}_{-0.250}$
	+3%/-4%	+3%/-5%	+139%/-194%	+32%/-21%	+15%/-17%	+64%/-52%
Source	KIC0	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 005545866-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-18529 ± 2870	$61.68^{+61.56}_{-42.05}$	558^{+42}_{-38}	4679^{+3541}_{-1044}	2992^{+25695}_{-2210}
Alt.	-12943 ± 868	$52.64^{+58.41}_{-38.55}$	556^{+41}_{-38}	4658^{+4201}_{-1131}	2866^{+34680}_{-2254}

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 $A_{obs} \gg 1.0$

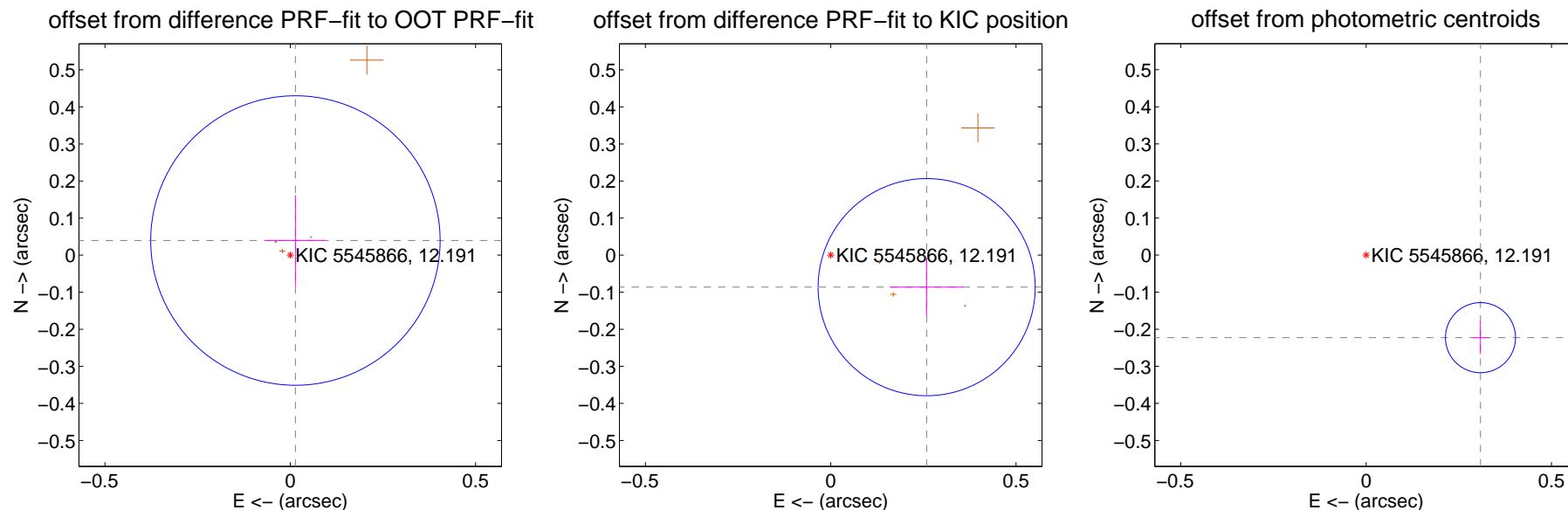
DV Centroid Data

Supplemental centroid analysis for 005545866-03. Kepler magnitude: 12.19. Transit SNR 38.18

There are 1 quarters with good PRF difference image offsets

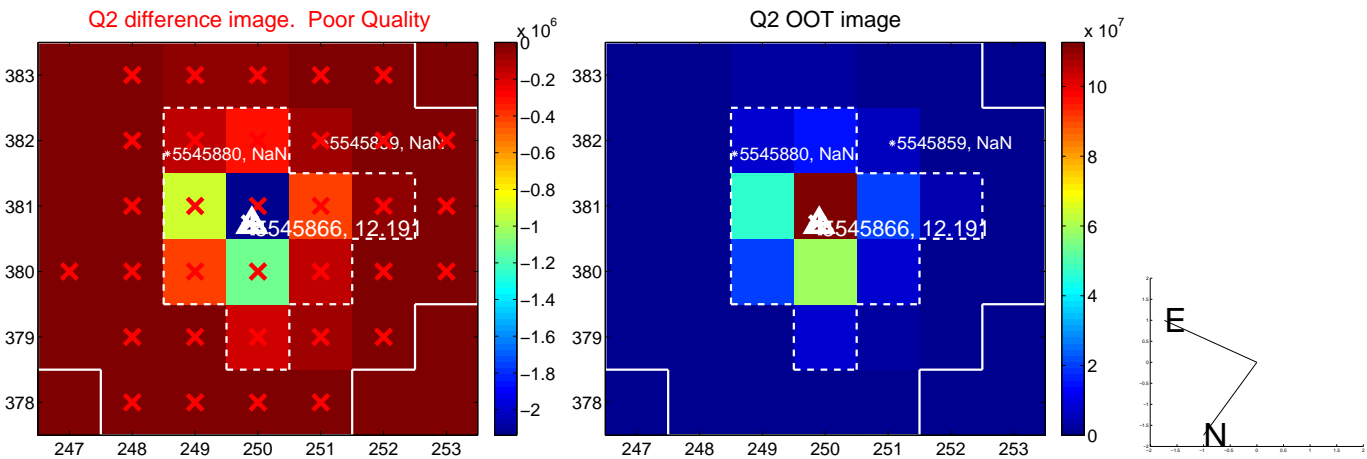
The direct PRF centroid is offset from the target star catalog position by about 0.36 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.042 ± 0.130	0.32	-0.014 ± 0.082	0.039 ± 0.123
PRF-fit source offset from KIC position	0.273 ± 0.098	2.80	-0.259 ± 0.100	-0.086 ± 0.077
photometric centroid source offset	0.38 ± 0.03	12.08	-0.31 ± 0.02	-0.22 ± 0.04



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.

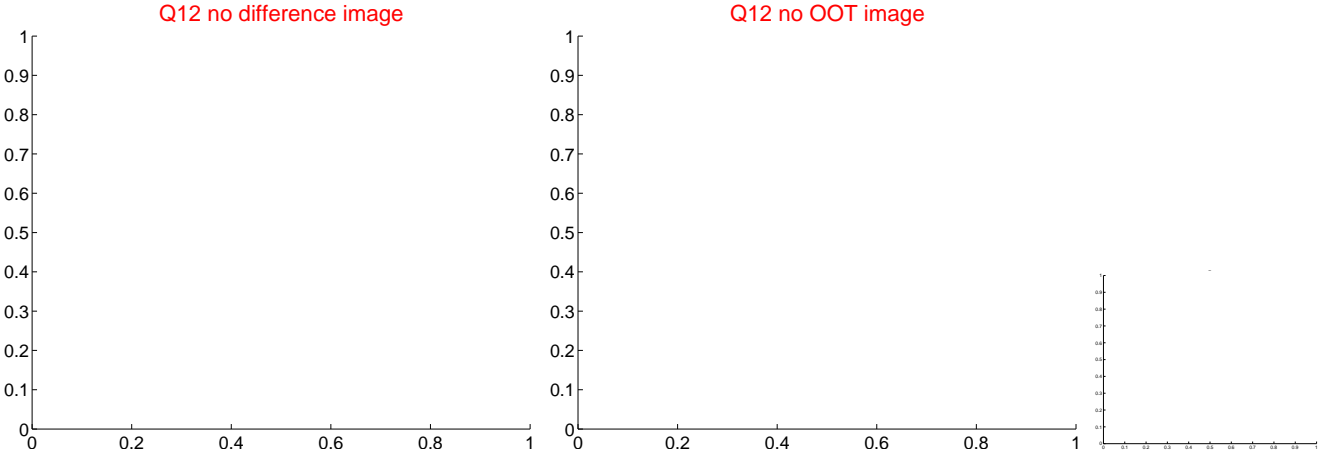
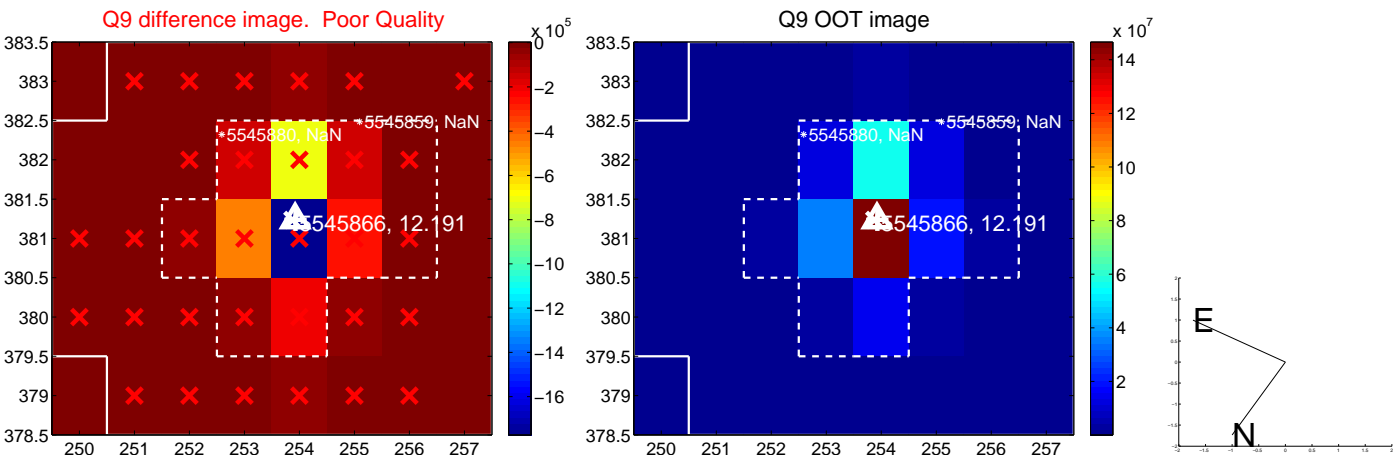
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



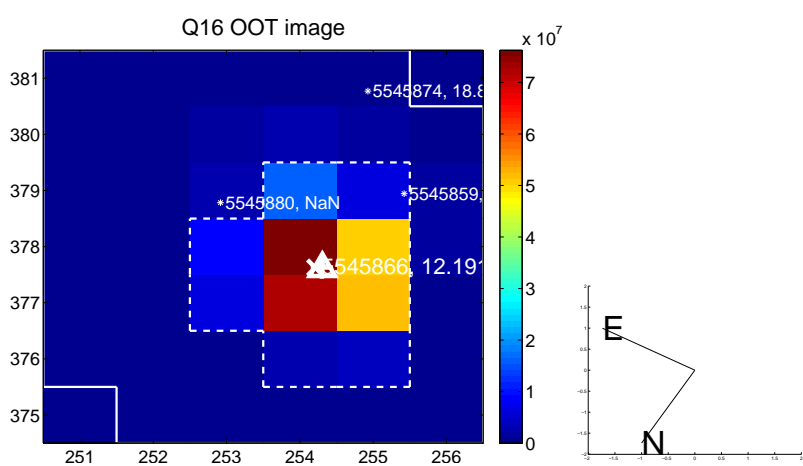
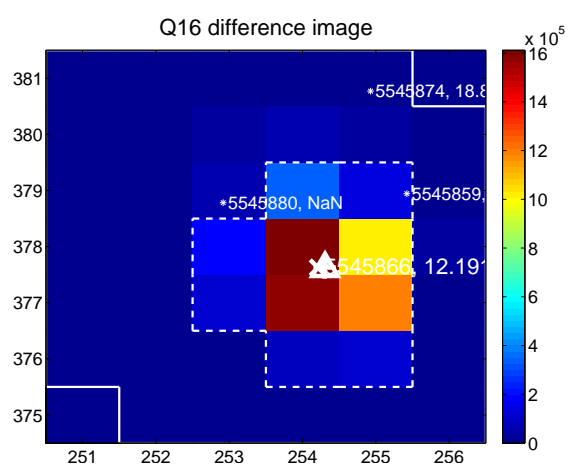
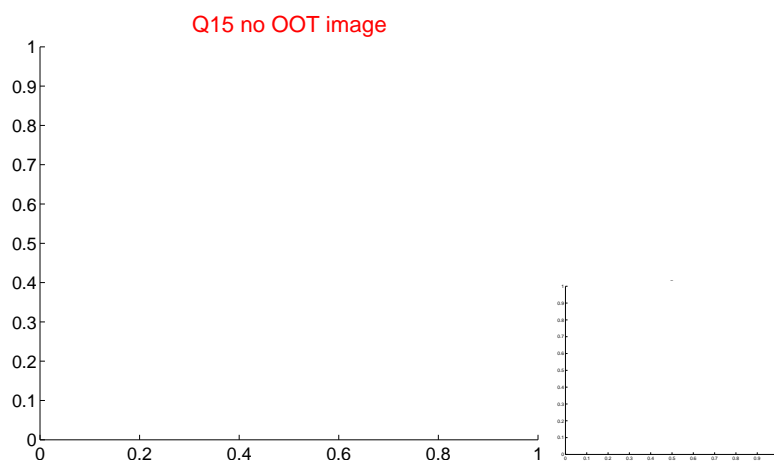
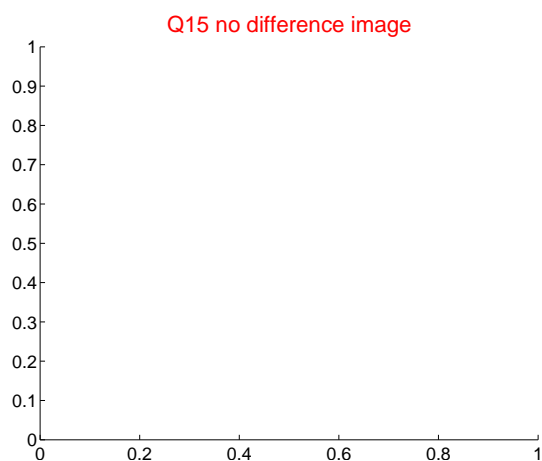
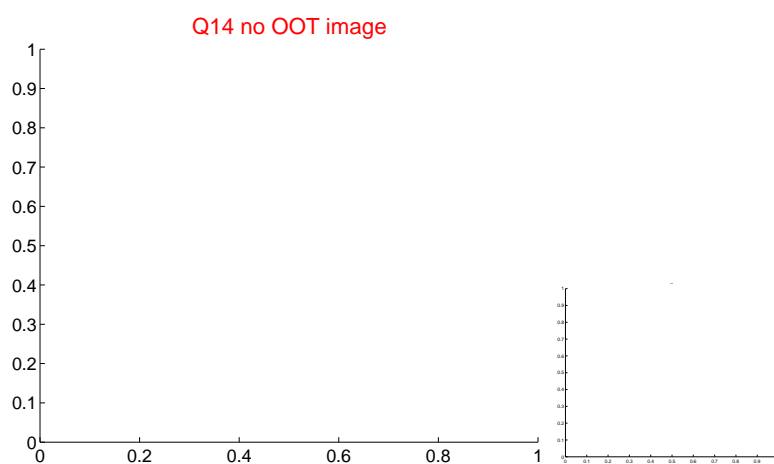
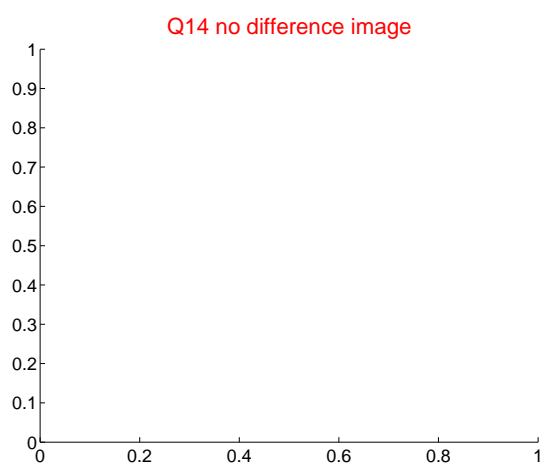
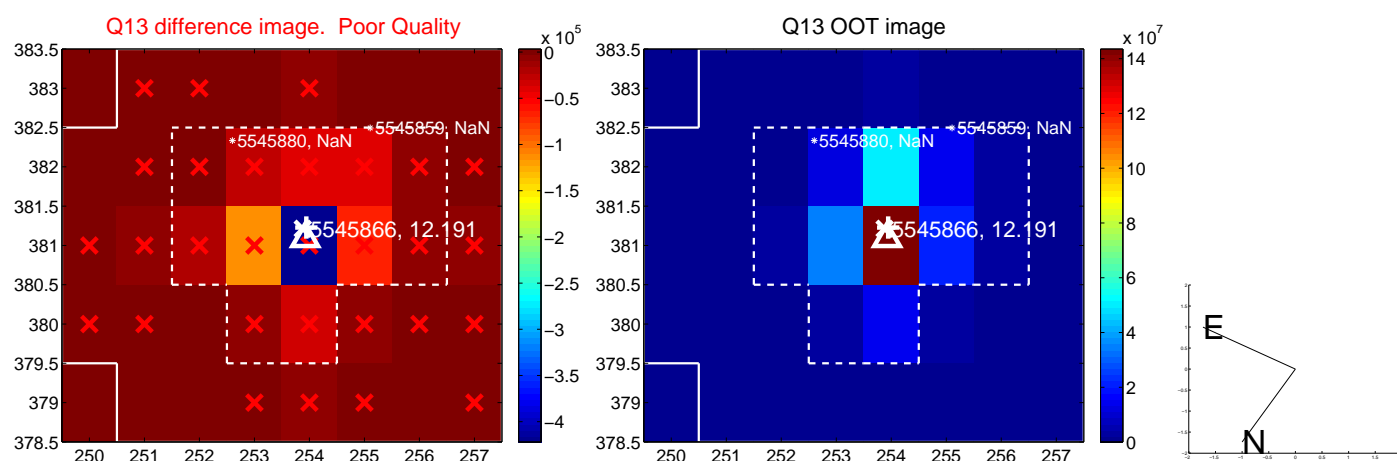
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



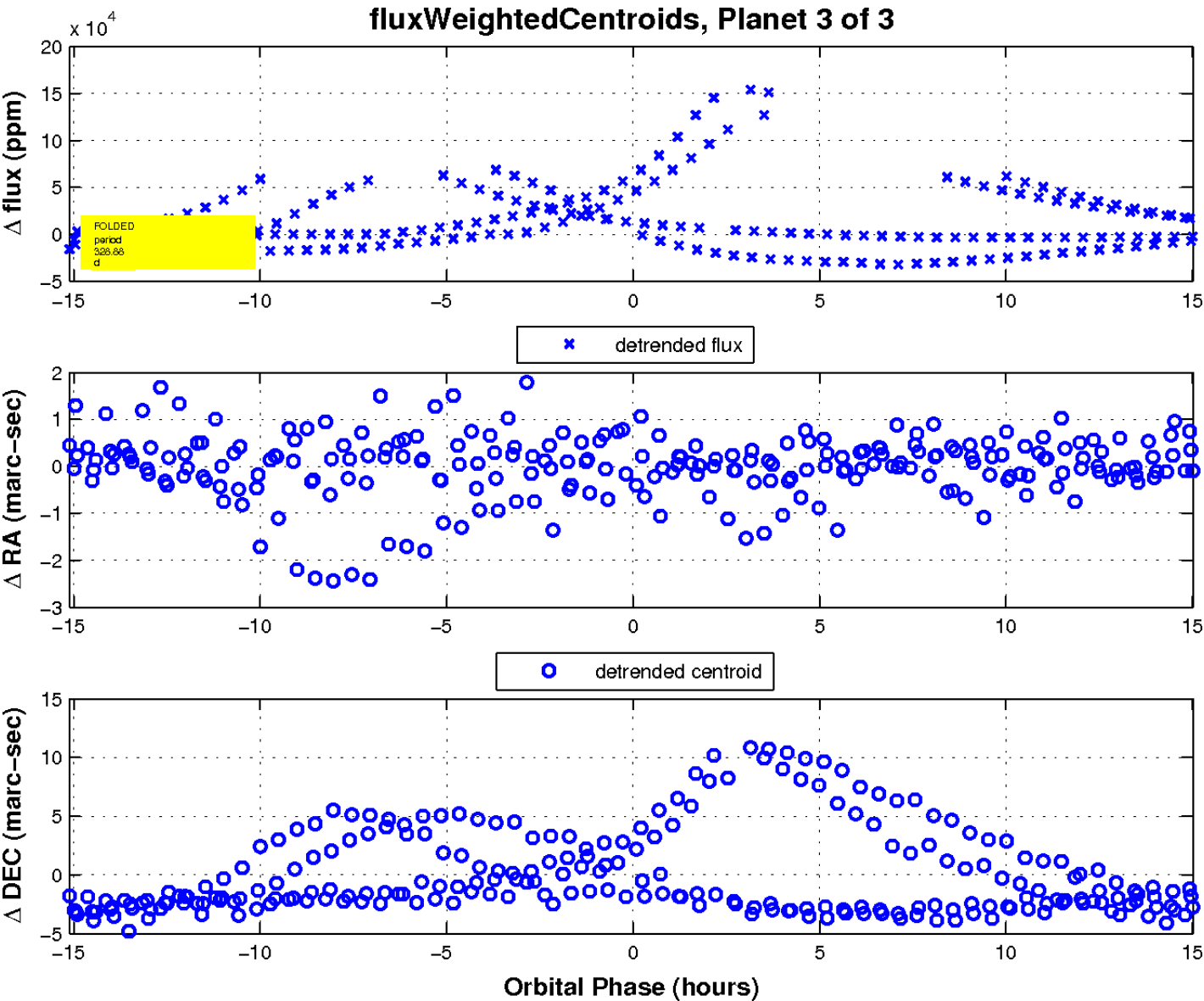
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

