

KIC 004825832

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})
004825832-02	OBS	No	328.136003	156.719056	188.8	3.824	18.7	4.2	113.37	3429	197.42	1658.94
004825832-03	OBS	No	564.033389	445.889189	3671.4	5.576	17.5	7.8	113.37	3429	629.84	805.68
004825832-04	OBS	No	347.213183	456.775855	453.8	3.000	14.1	-1.0	113.37	3429	222.20	1538.53

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004825832-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
004825832-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
004825832-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—ALL_TRANS_CHASES—CENT_NOFITS

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.

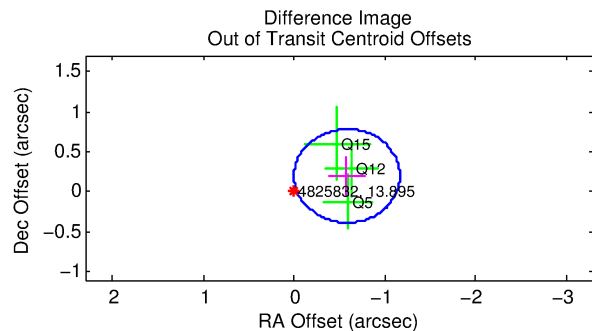
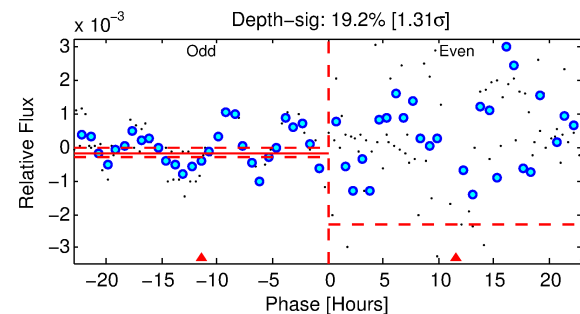
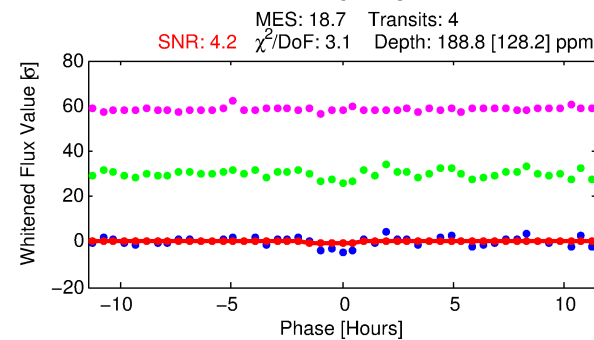
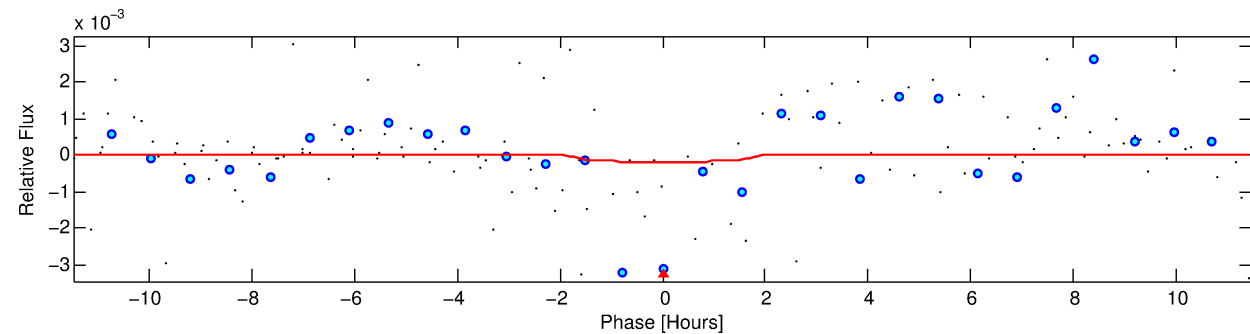
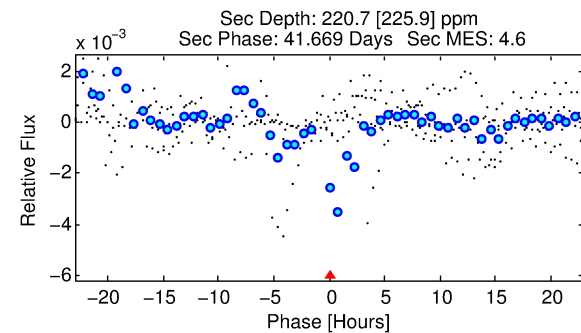
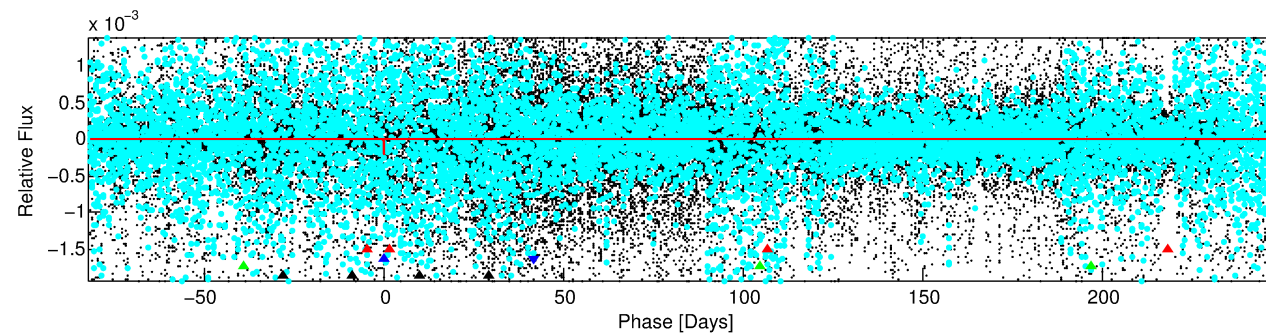
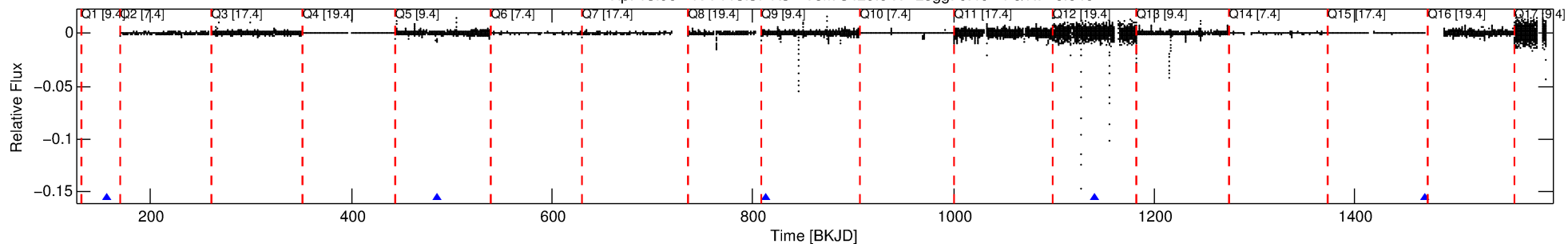
Ephemeris Match Information For 004825832-02

No Significant Match Found

DV One-Page Summary

KIC: 4825832 Candidate: 2 of 4 Period: 328.136 d

Kp: 13.90 R*: 113.37 Rs Teff: 3429.0 K Logg: 0.40 Fe/H: -0.040



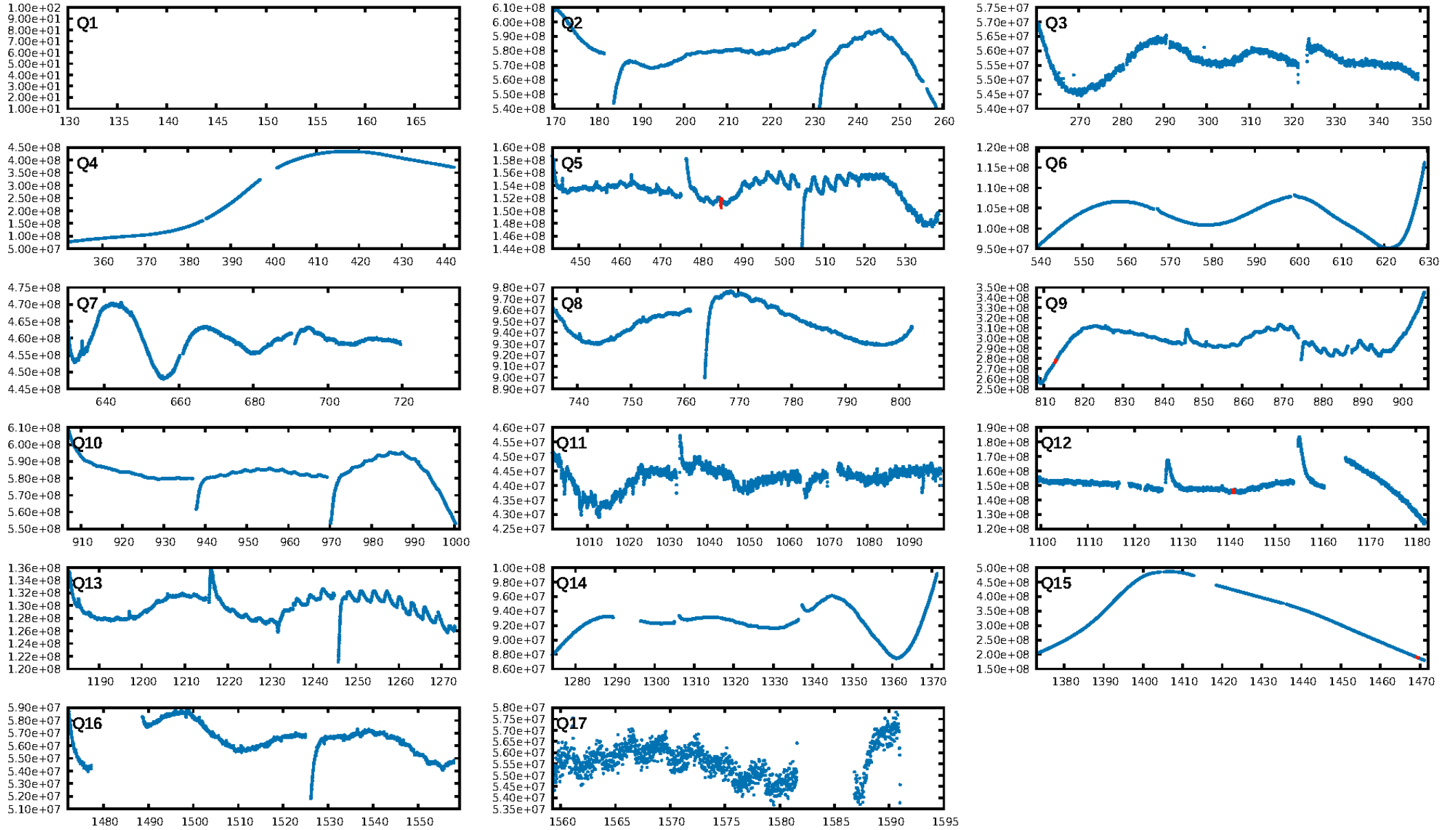
DV Fit Results:

Period = 328.13600 [0.03614] d
Epoch = 156.7191 [0.1161] BKJD
Rp/R* = 0.0160 [0.0659]
a/R* = 319.65 [4042.71]
b = 0.89 [2.98]
Seff = 1658.94 [780.30]
Teq = 1627 [191] K
Rp = 197.42 [816.44] Re
a = 0.9796 [0.2661] AU
Ag = 2.99 [24.90] [0.08σ]
Teffp = 3309 [6881] K [0.24σ]

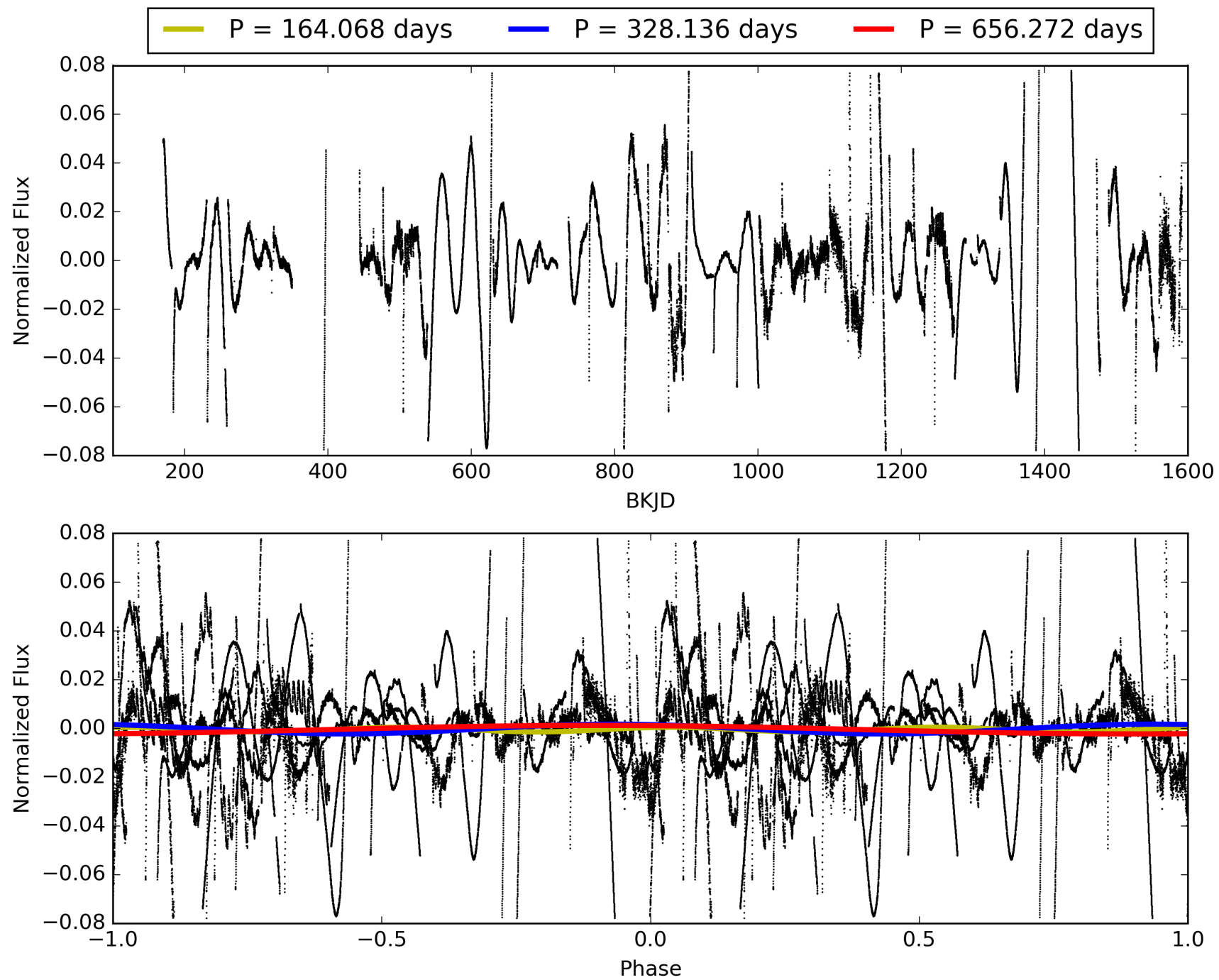
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [94.20σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 5.1%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: -0.3678
Centroid-sig: 79.7%
Centroid-so: 0.977 arcsec [0.53σ]
OotOffset-rm: 0.613 arcsec [3.16σ]
KicOffset-rm: 0.800 arcsec [4.21σ]
OotOffset-st: 0/1/1/1 [3]
KicOffset-st: 0/1/1/1 [3]
DiffImageQuality-fgm: 0.33 [1/3]
DiffImageOverlap-fno: 1.00 [4/4]

TCE 004825832-02, PDC Light Curves

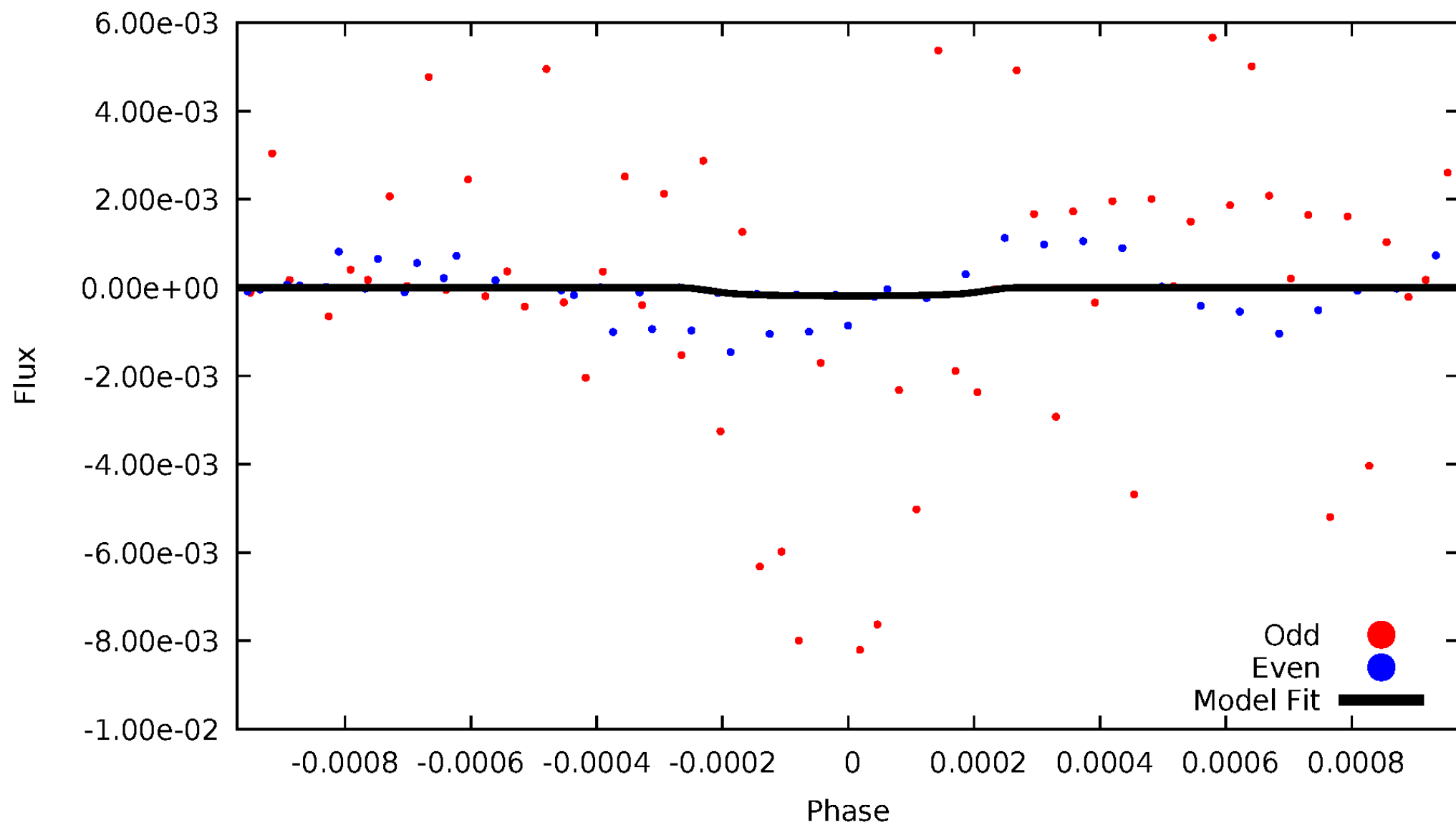


TCE 004825832-02



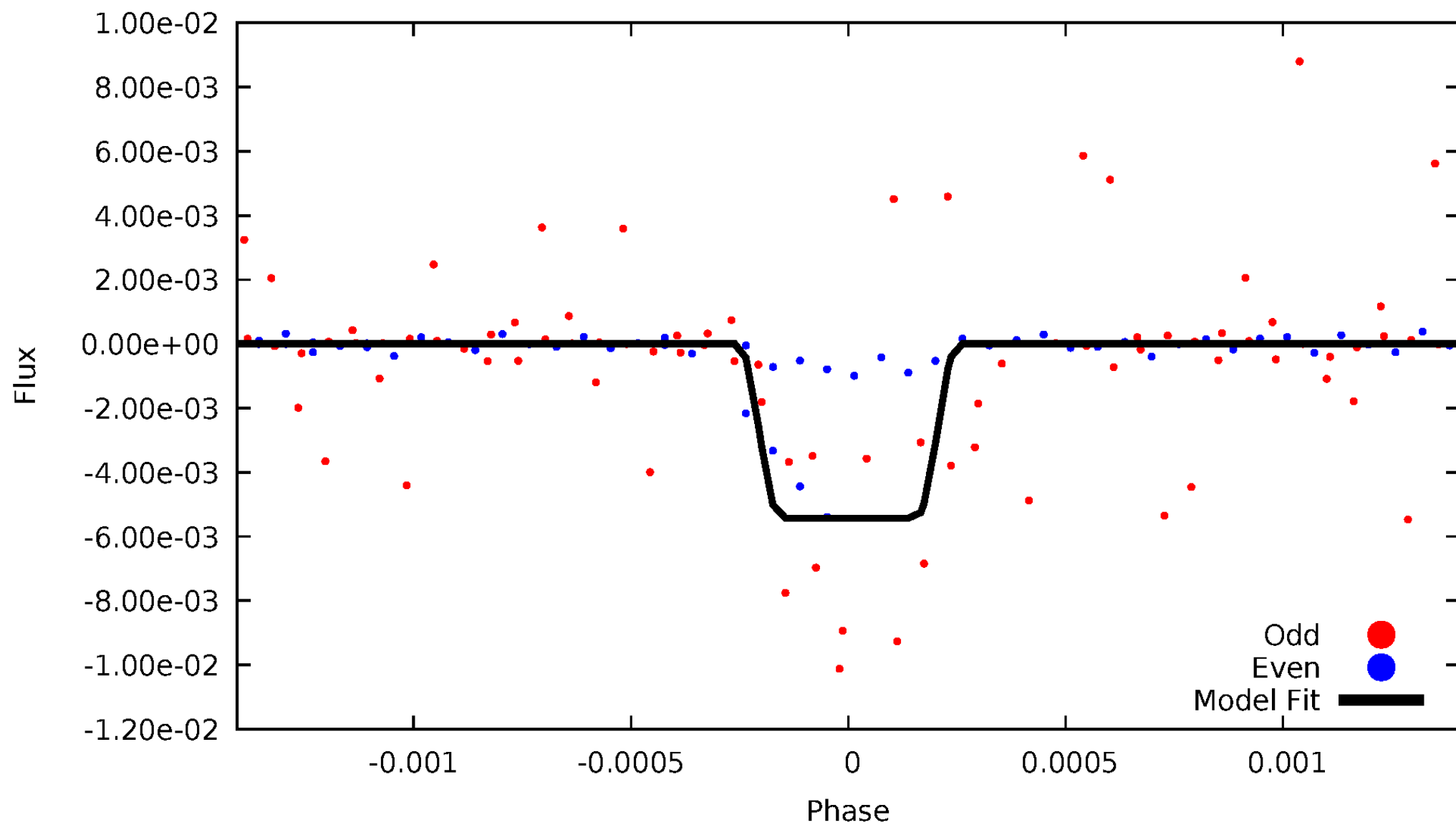
DV Odd/Even

TCE 004825832-02



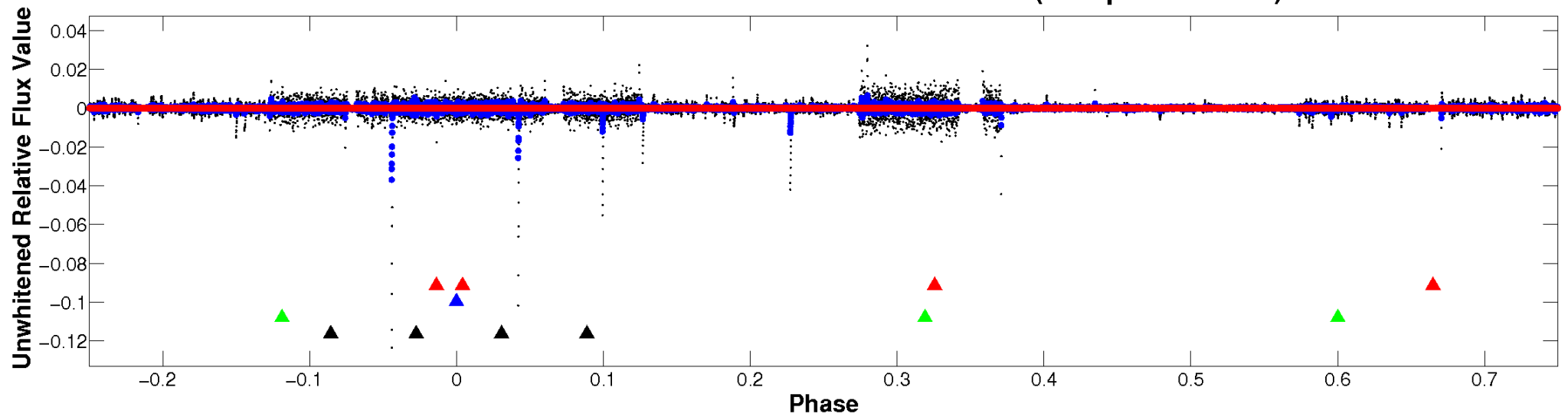
ALT Odd/Even

TCE 004825832-02

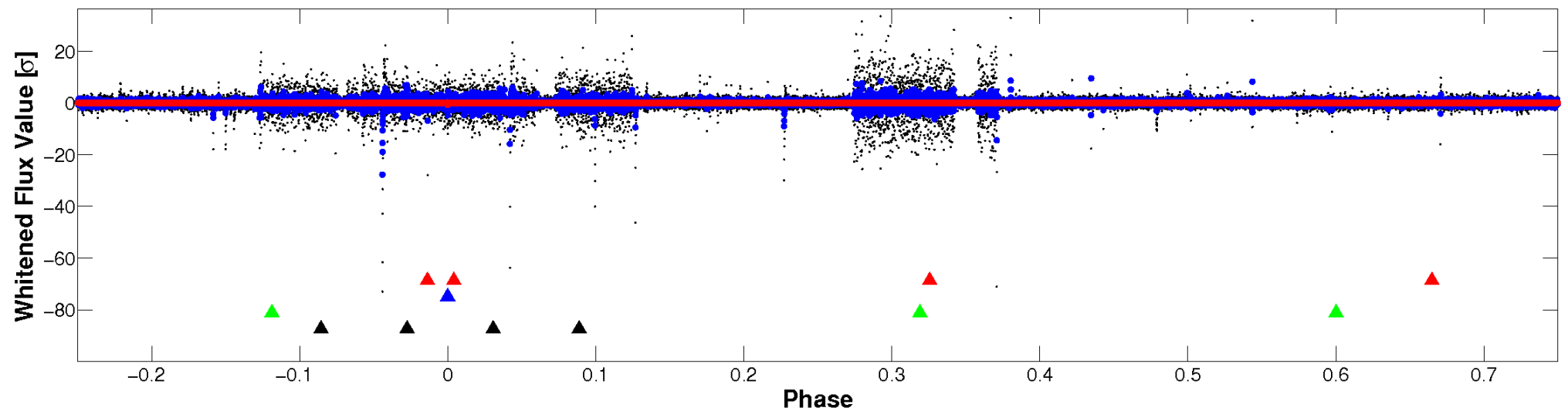


Non-Whitened Vs. Whitened Light Curve

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

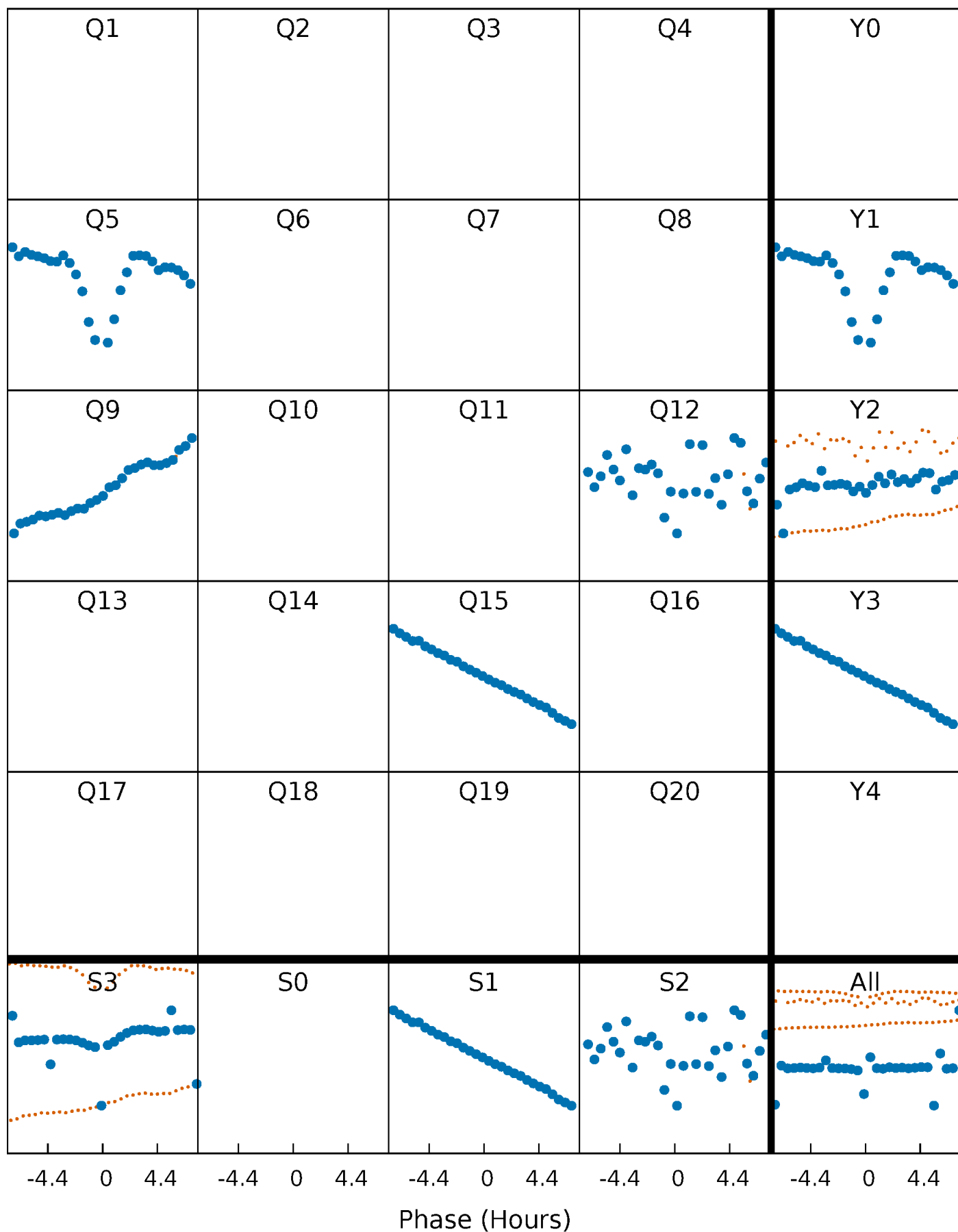


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



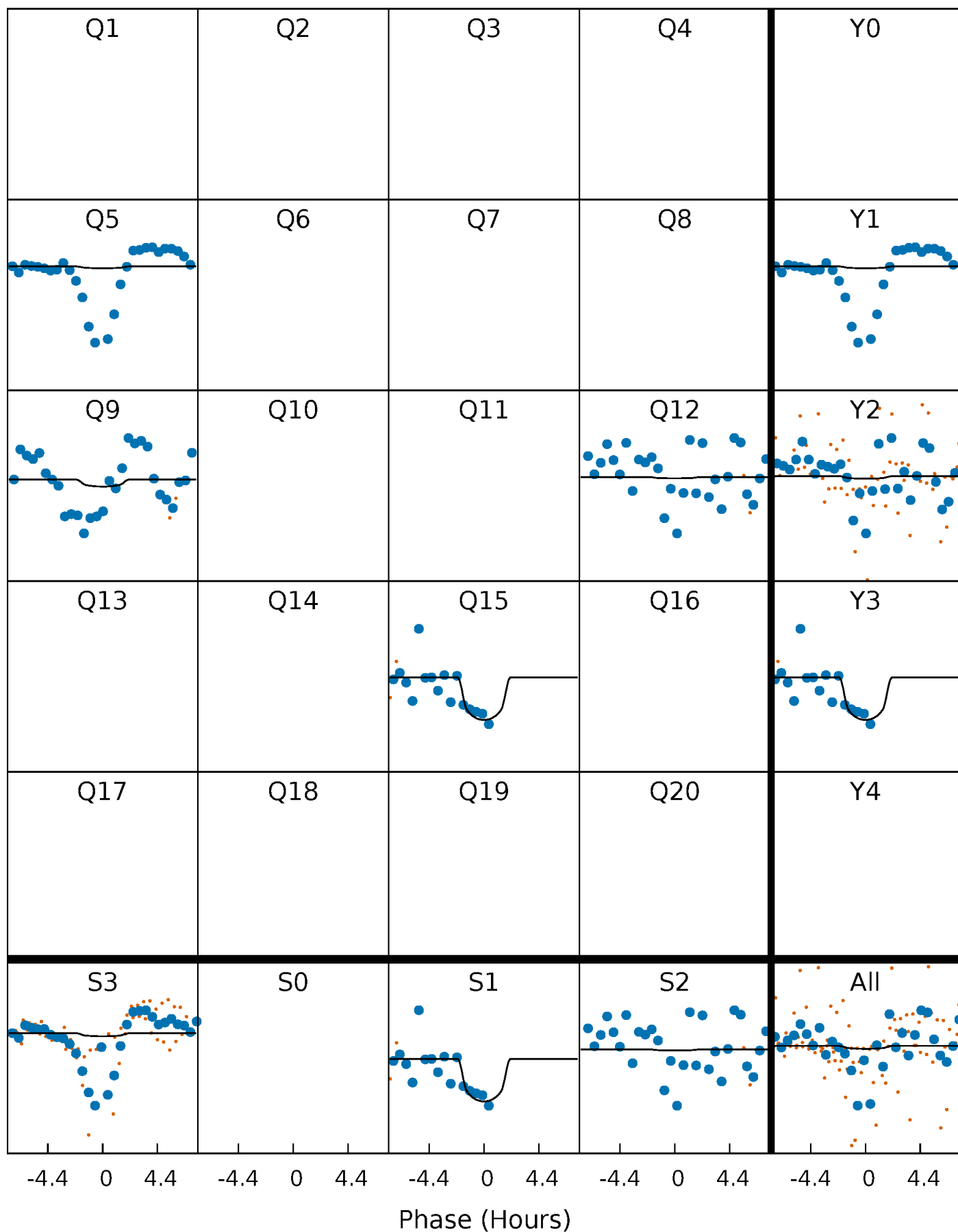
PDC Quarter-Phased Transit Curves

TCE 004825832-02 P=328.136003 Days $T_0=156.719056$ (BKJD)



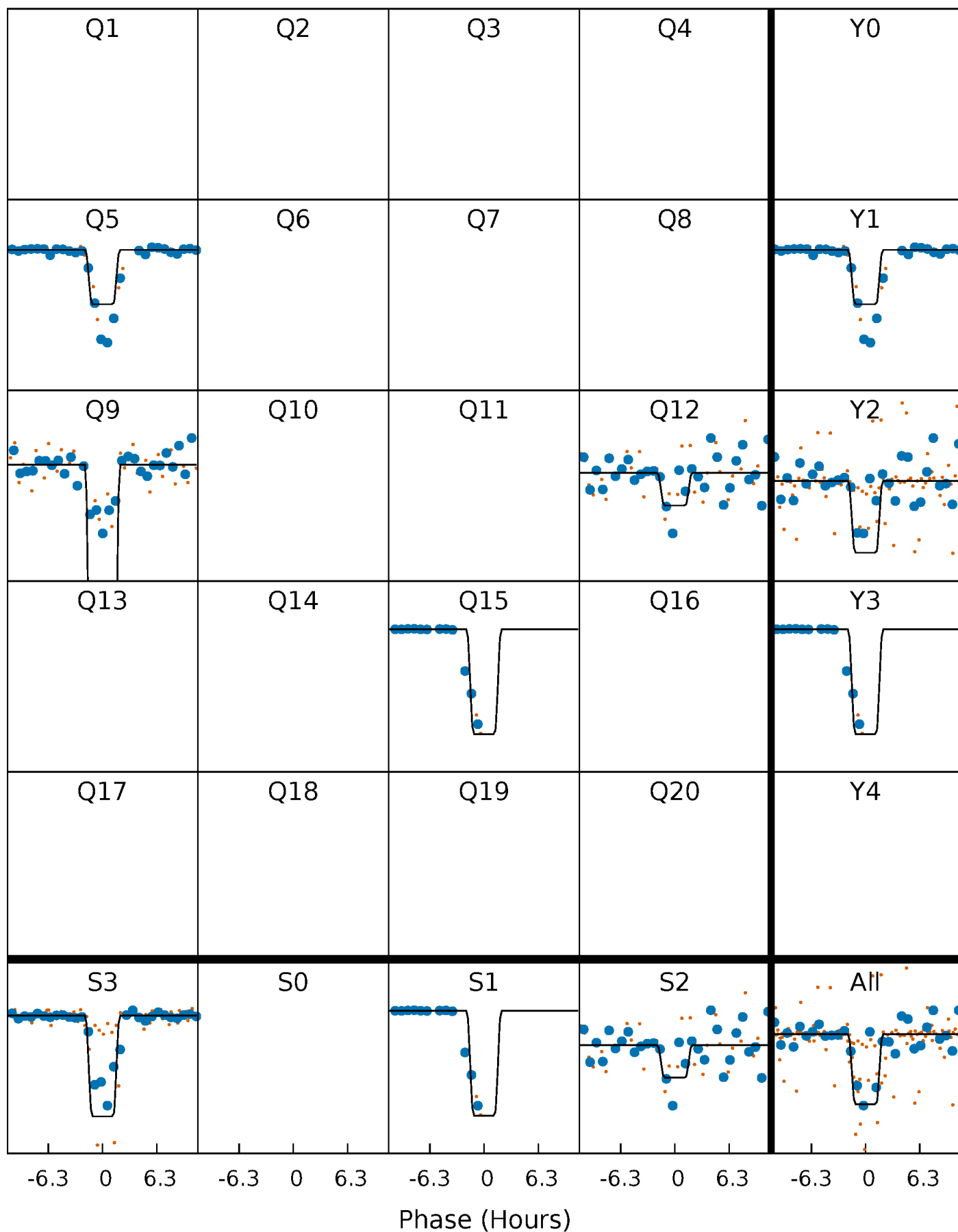
DV Quarter-Phased Transit Curves

TCE 004825832-02 P=328.136003 Days $T_0=156.719056$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

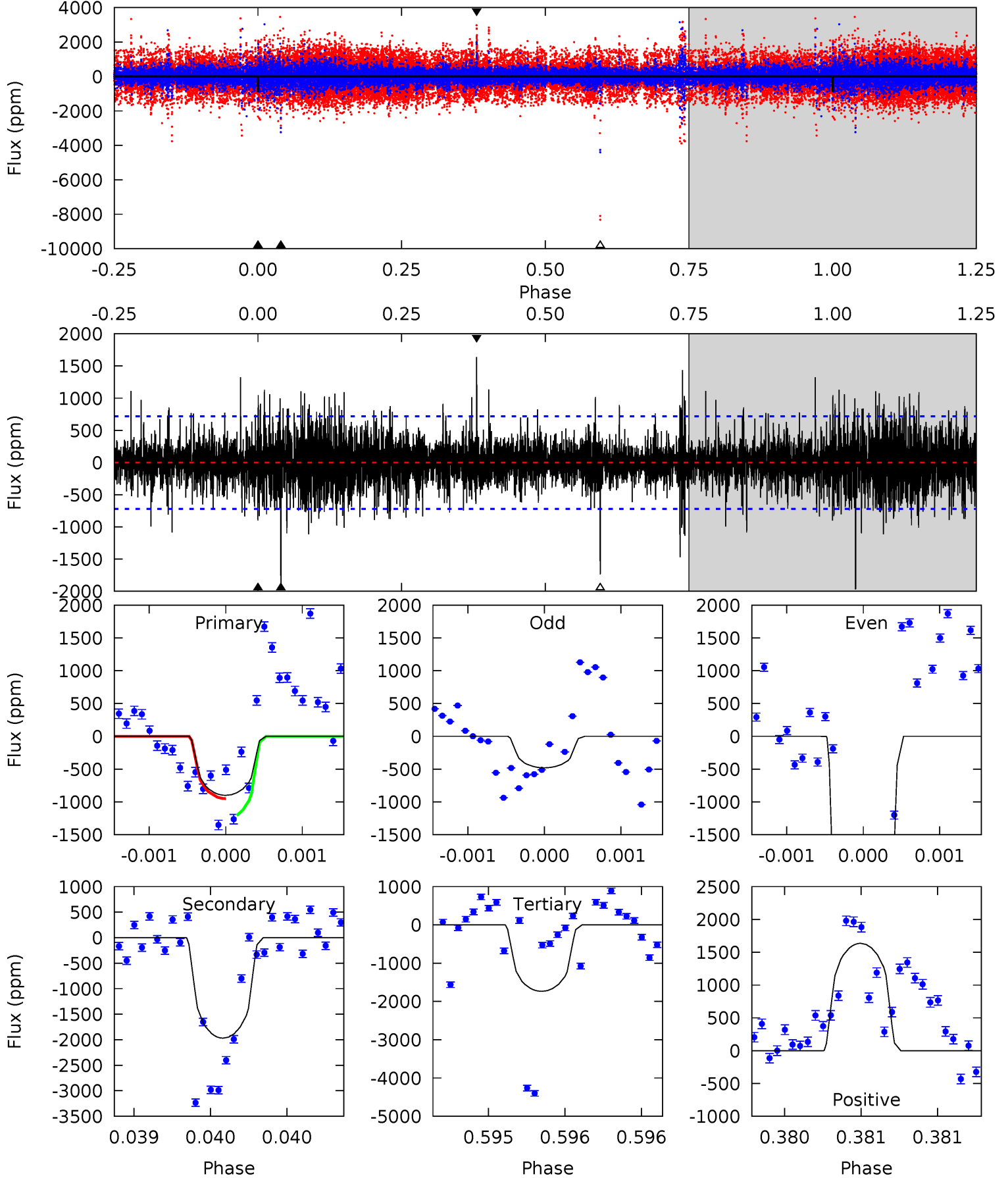
TCE 004825832-02 P=328.153178 Days $T_0=156.680190$ (BKJD)



DV Model-Shift Uniqueness Test

004825832-02, P = 328.136003 Days, E = 156.719056 Days

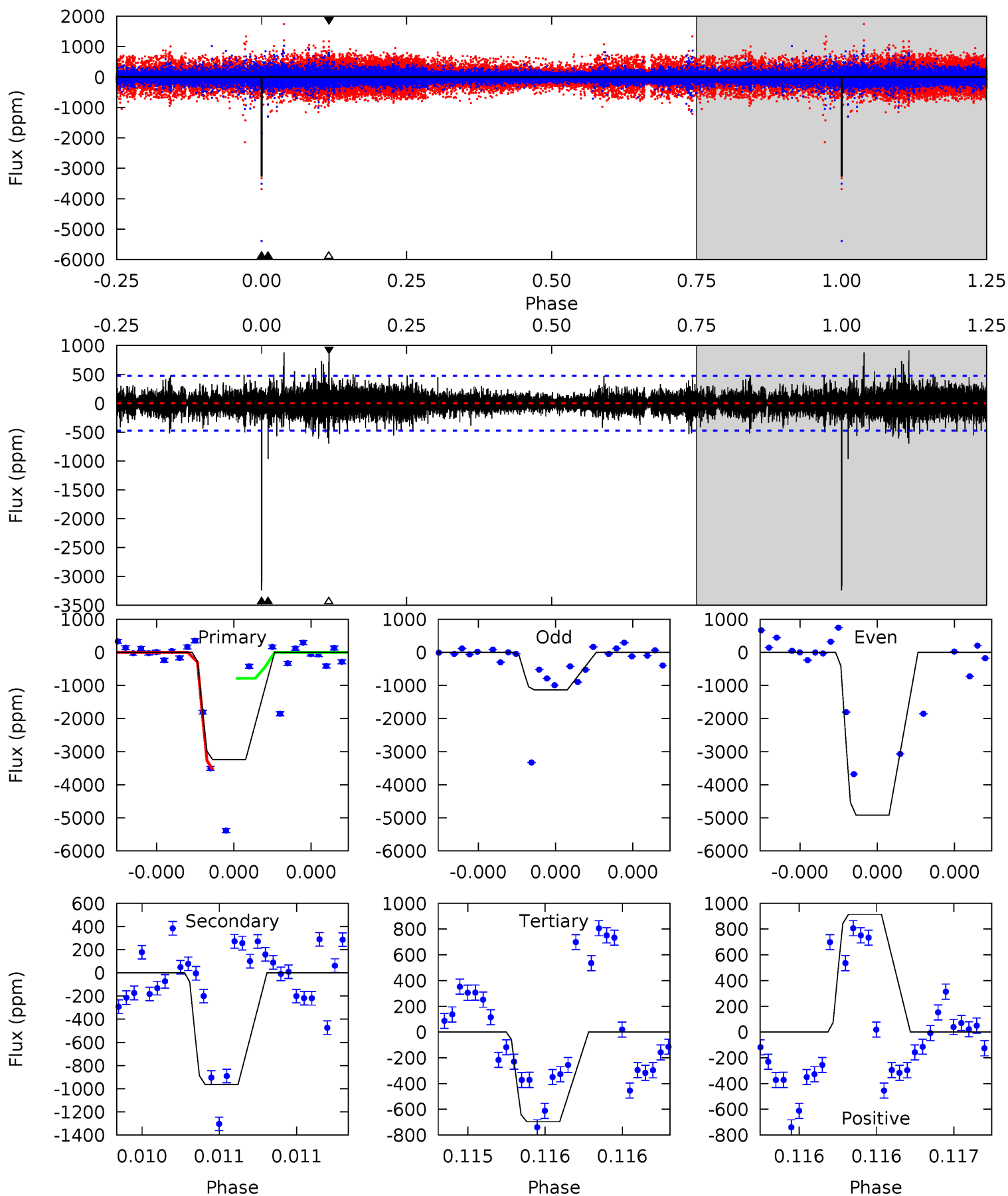
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.95	15.2	13.4	12.6	5.55	3.45	1.96	-6.45	-5.68	1.81	2.57	16.3	1.60	0.45	0.88



Alt Model-Shift Uniqueness Test

004825832-02, P = 328.153178 Days, E = 156.680190 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
38.1	11.3	8.17	10.7	5.57	3.48	1.26	29.9	27.3	3.14	0.57	15.8	0.97	0.22	0



Stellar Parameters For KIC 004825832

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	3429^{+117}_{-94}	$0.395^{+0.270}_{-0.180}$	$-0.040^{+0.250}_{-0.200}$	$113.372^{+27.146}_{-29.861}$	$1.164^{+0.295}_{-0.159}$	$0.000^{+0.000}_{-0.000}$
	+3%/-3%	+68%/-46%	+625%/-500%	+24%/-26%	+25%/-14%	+150%/-46%
Source	PHO54	PHO54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 004825832-02 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-1970 ± 130	$594.32^{+698.41}_{-432.82}$	2260^{+182}_{-182}	3264^{+2037}_{-769}	$2.954^{+37.631}_{-2.292}$
Alt.	-963 ± 85	$1019.43^{+736.73}_{-658.42}$	2255^{+184}_{-201}	2350^{+1047}_{-4595}	$0.530^{+3.366}_{-0.363}$

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 $A_{obs} \gg 1.0$

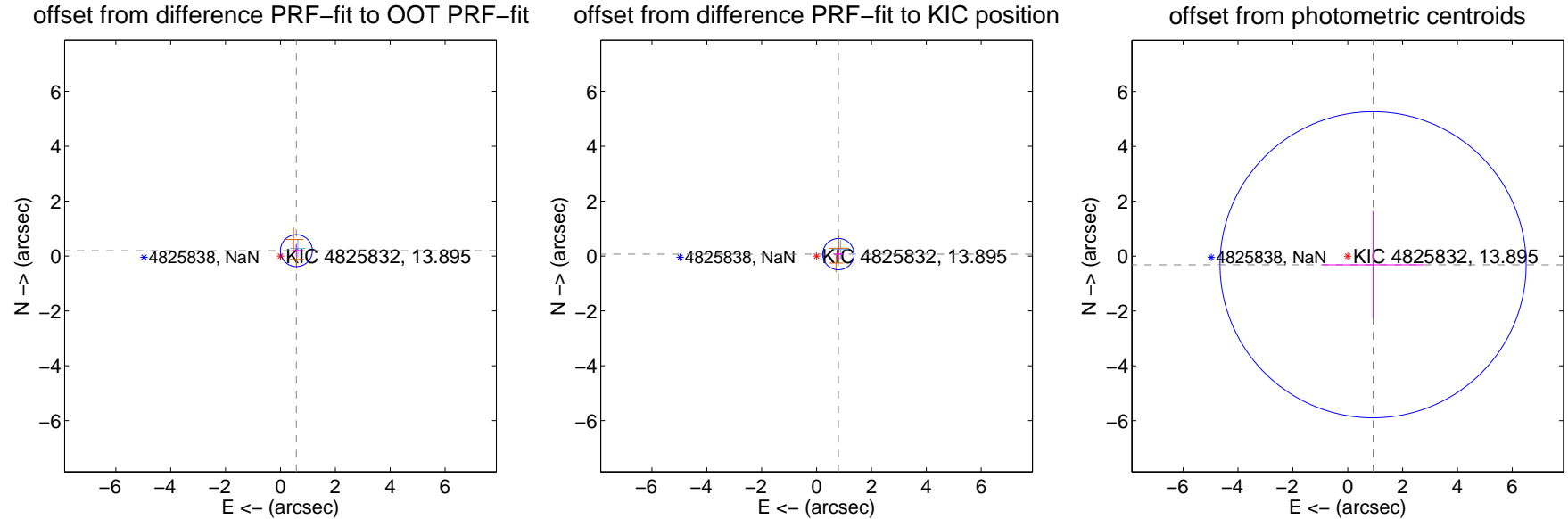
DV Centroid Data

Supplemental centroid analysis for 004825832-02. Kepler magnitude: 13.89. Transit SNR 4.16

There are 1 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.47 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.613 ± 0.194	3.16	-0.581 ± 0.190	0.196 ± 0.229
PRF-fit source offset from KIC position	0.800 ± 0.190	4.21	-0.797 ± 0.190	0.070 ± 0.229
photometric centroid source offset	0.98 ± 1.86	0.53	-0.92 ± 1.85	-0.32 ± 1.96

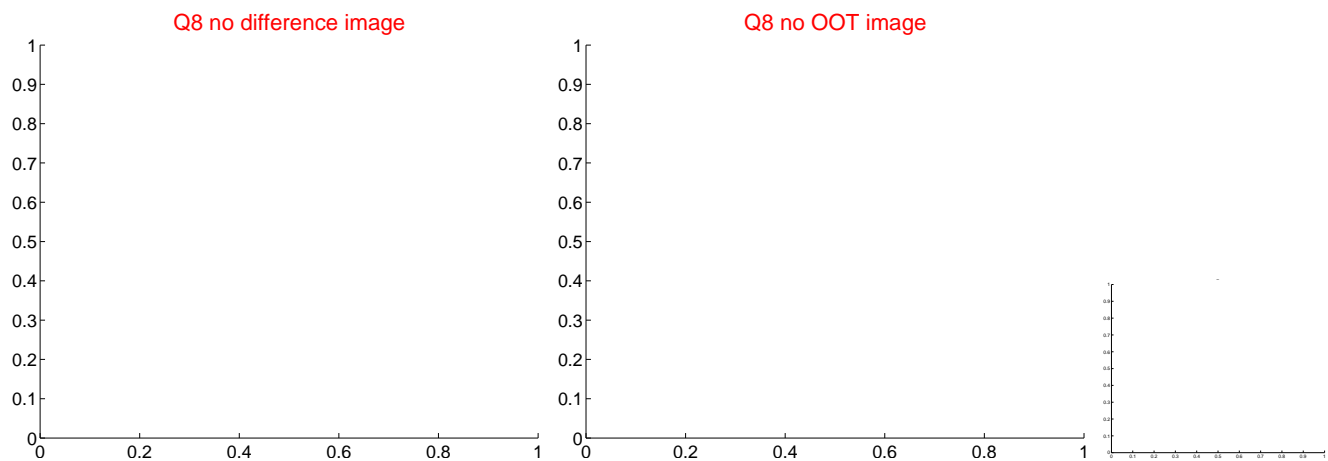
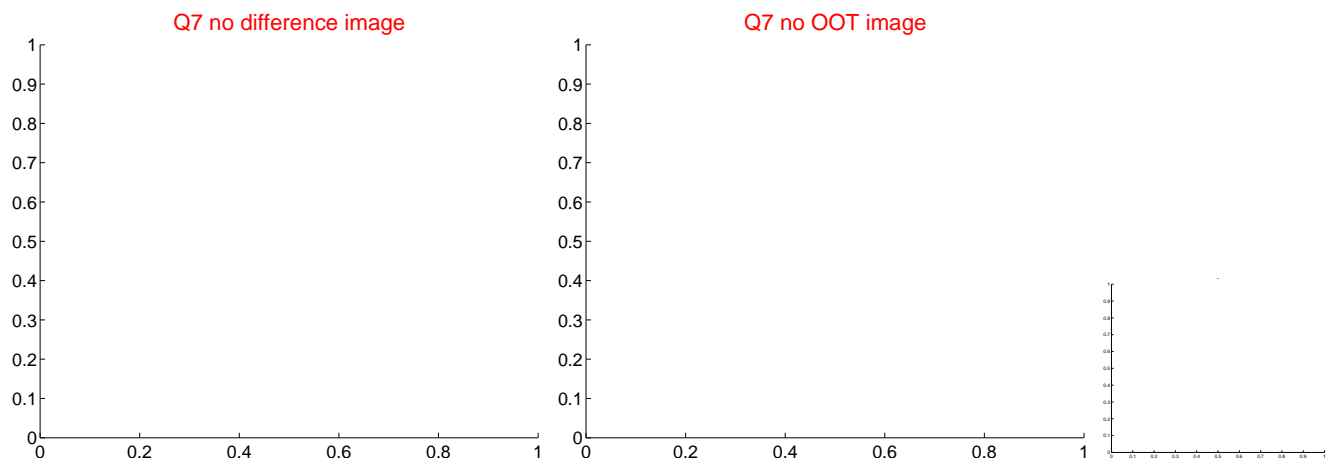
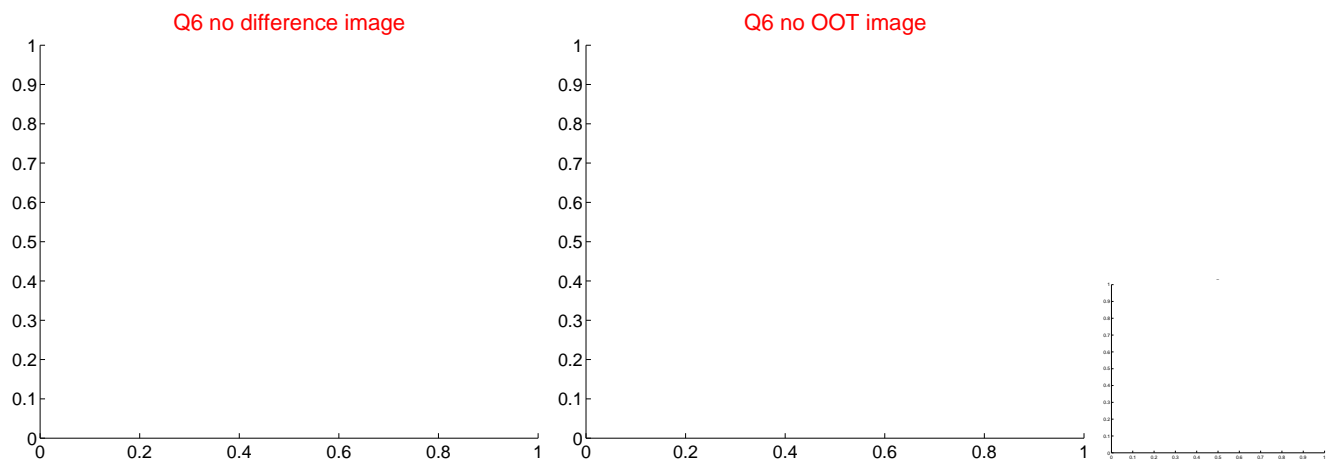
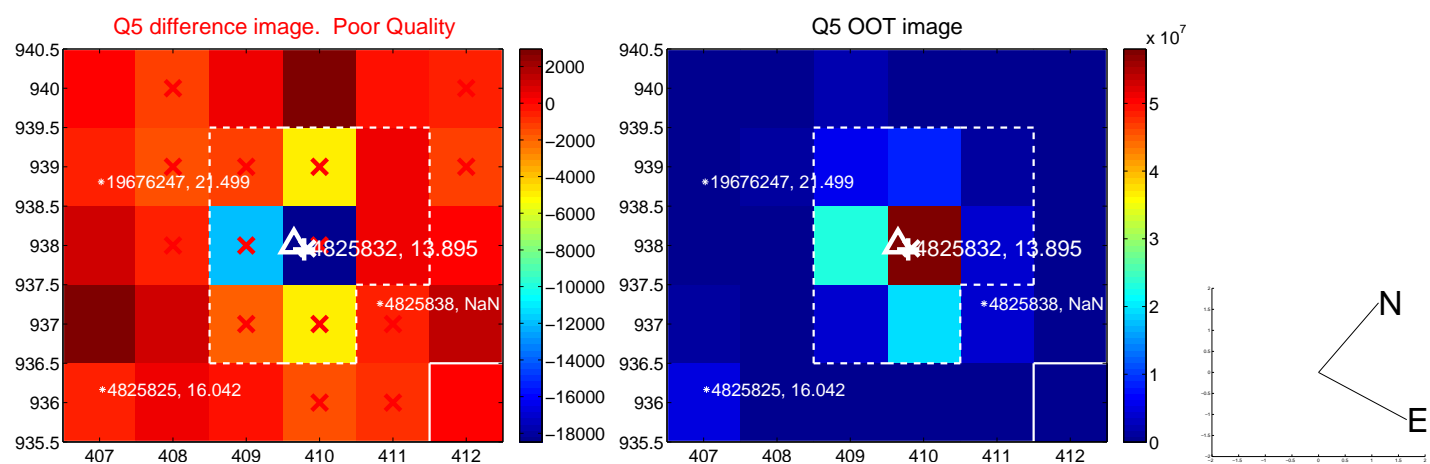


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

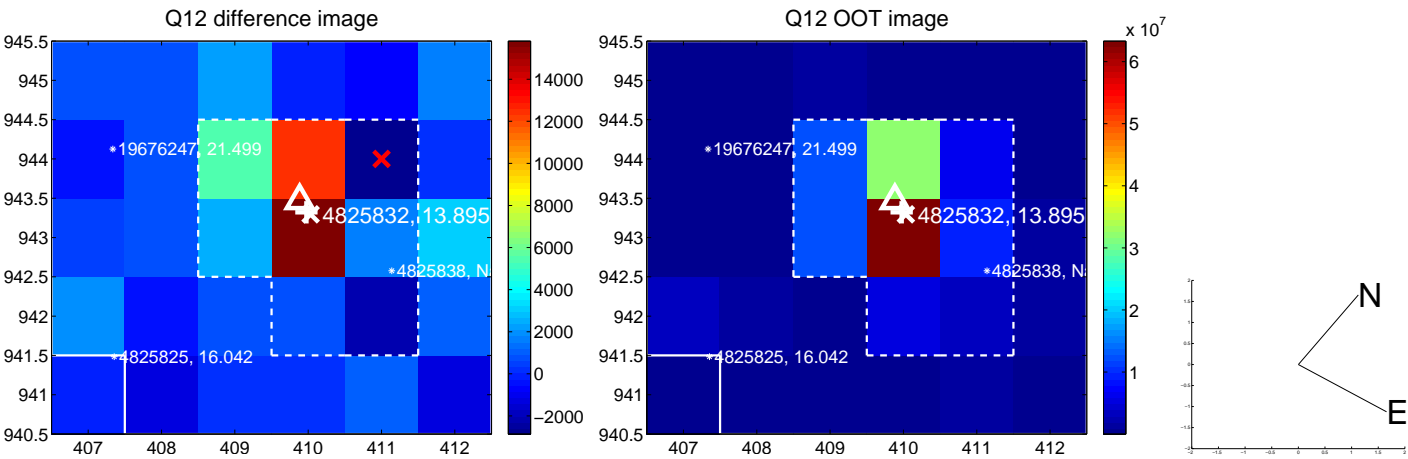
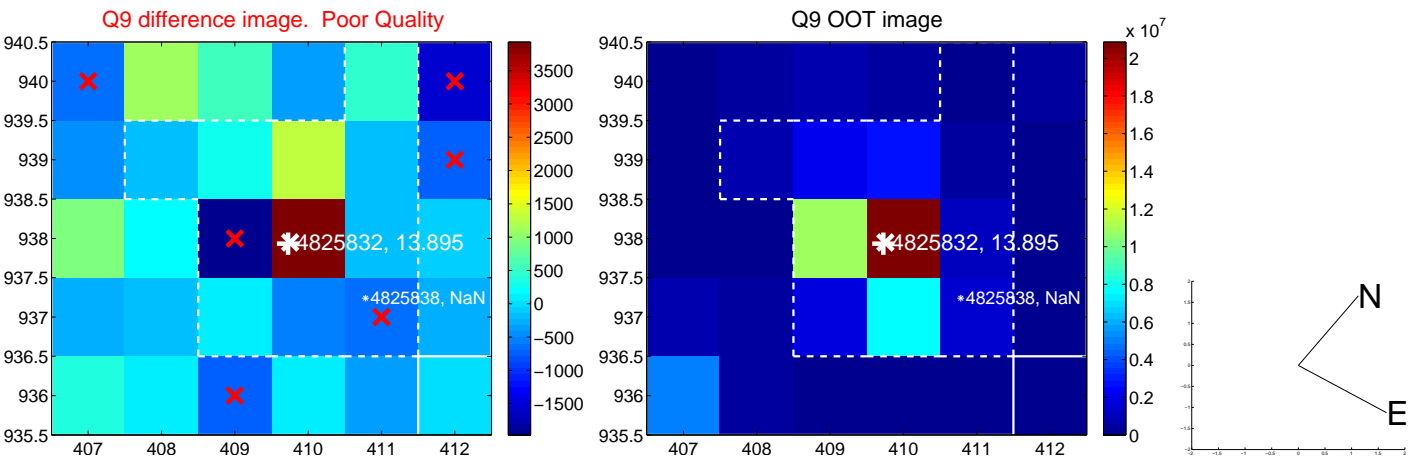
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



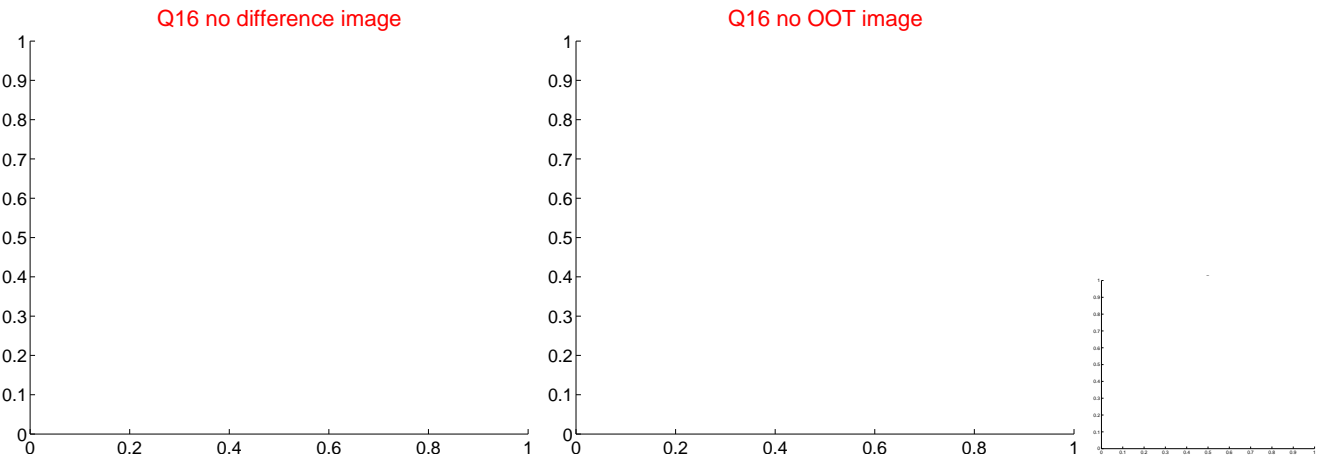
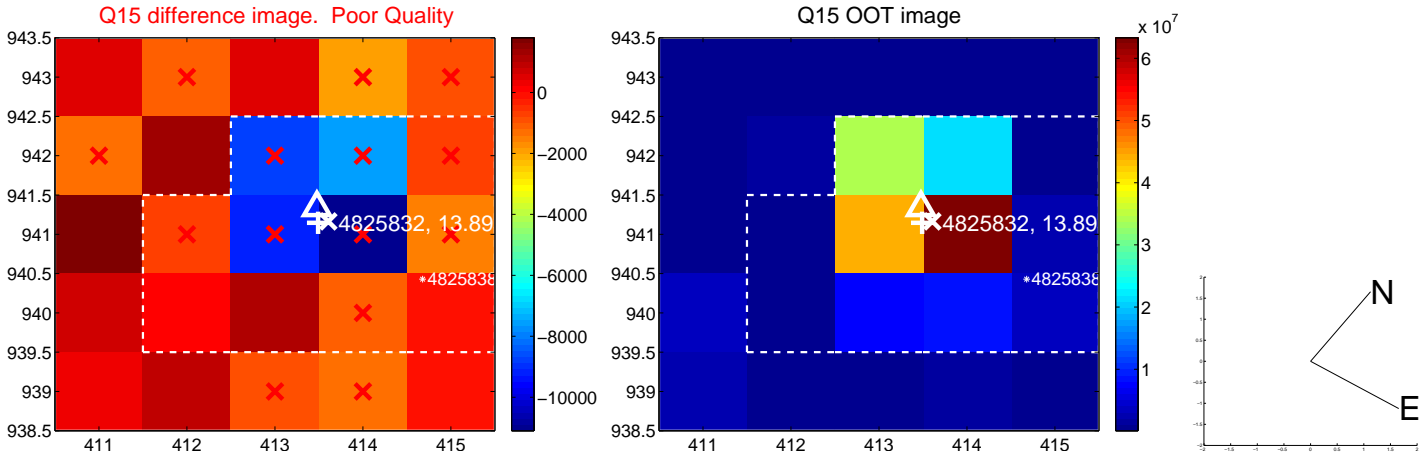
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



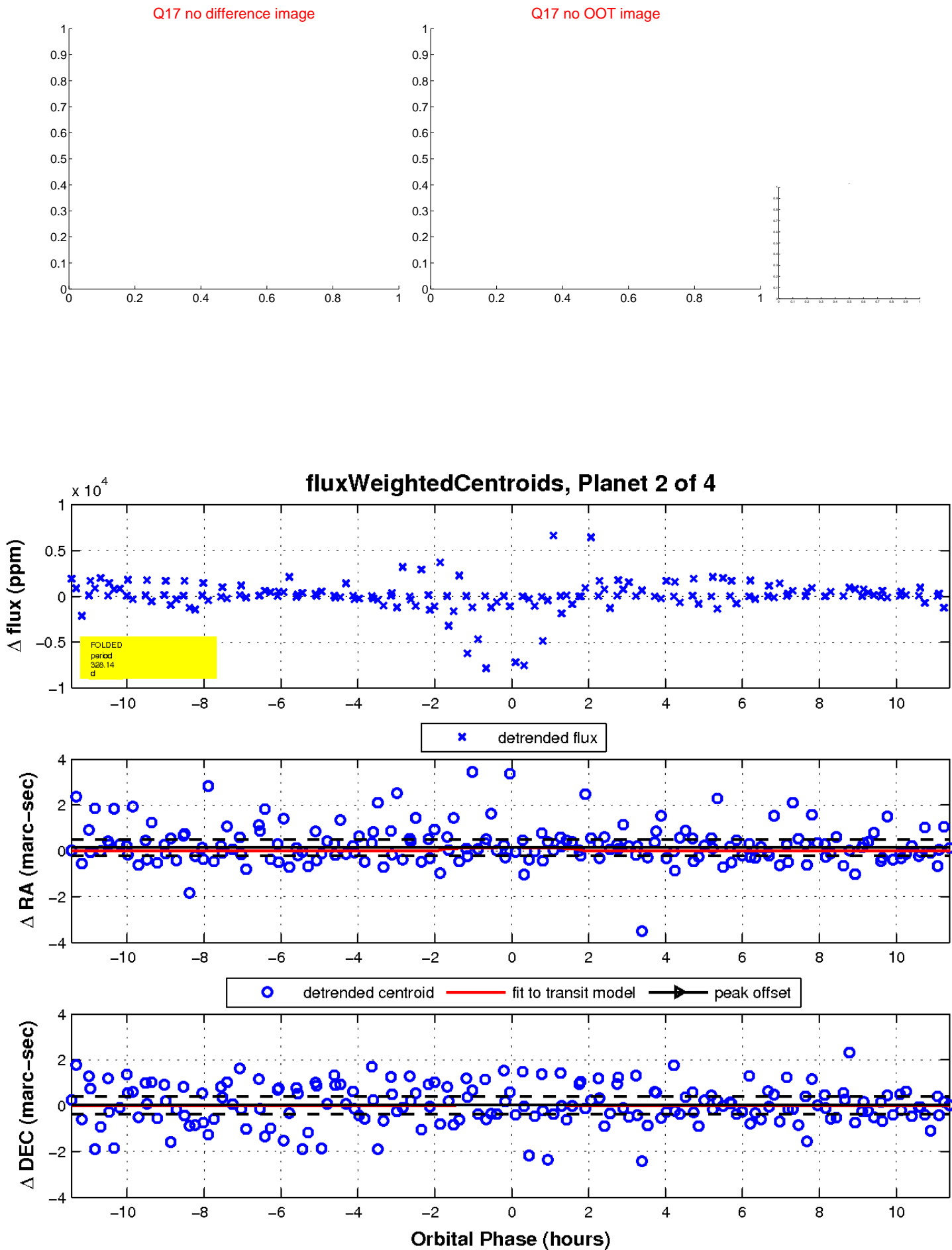
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



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

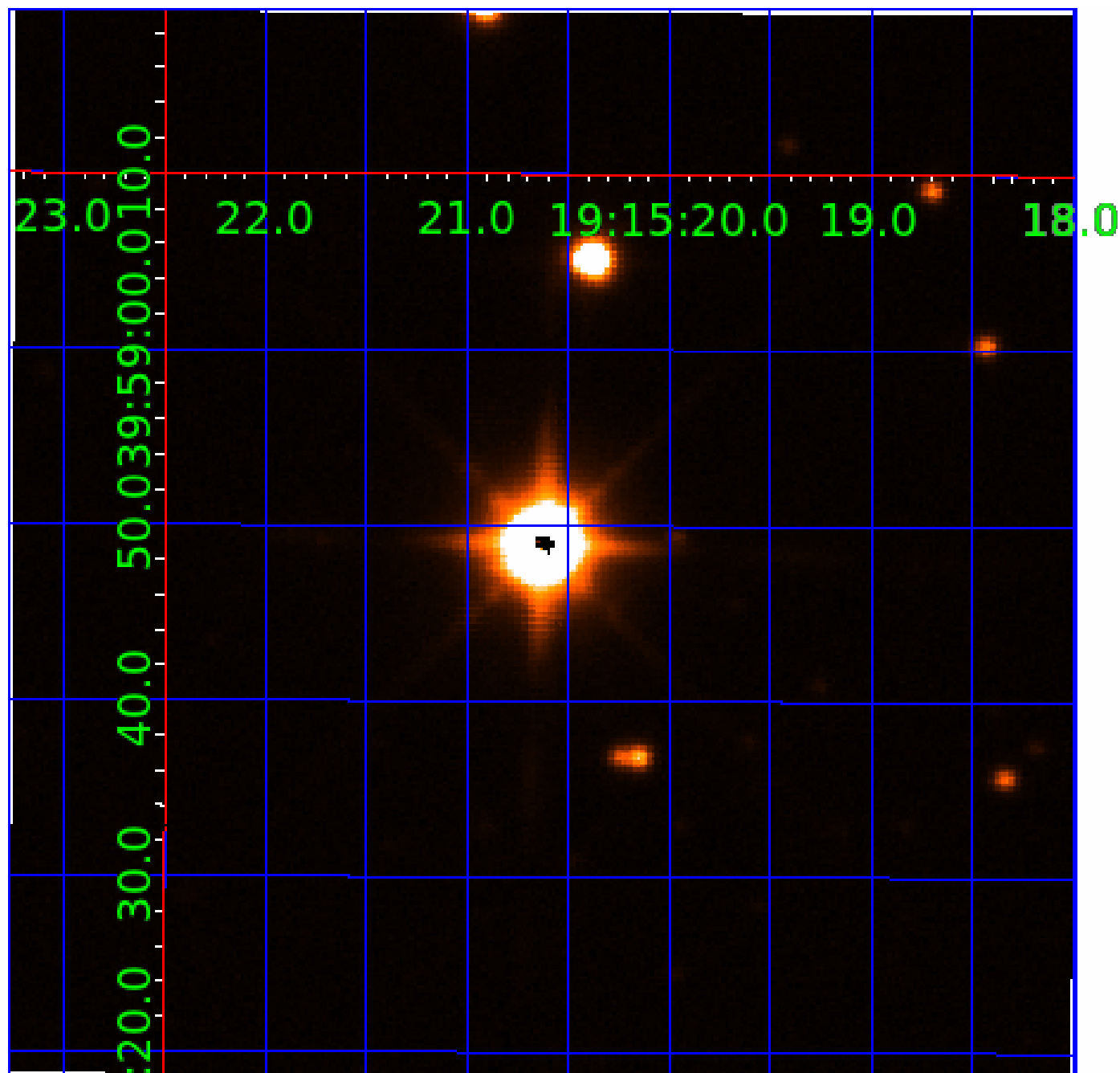


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 004825832

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})
004825832-02	OBS	No	328.136003	156.719056	188.8	3.824	18.7	4.2	113.37	3429	197.42	1658.94
004825832-03	OBS	No	564.033389	445.889189	3671.4	5.576	17.5	7.8	113.37	3429	629.84	805.68
004825832-04	OBS	No	347.213183	456.775855	453.8	3.000	14.1	-1.0	113.37	3429	222.20	1538.53

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004825832-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
004825832-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
004825832-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—ALL_TRANS_CHASES—CENT_NOFITS

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.

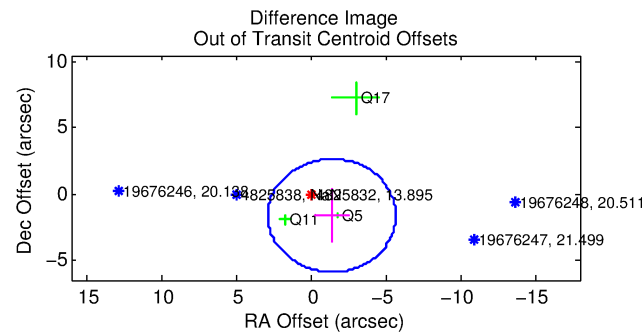
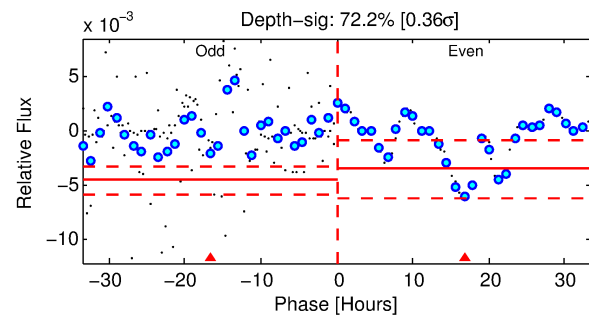
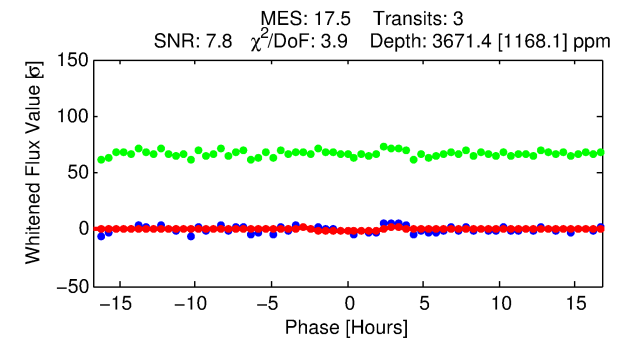
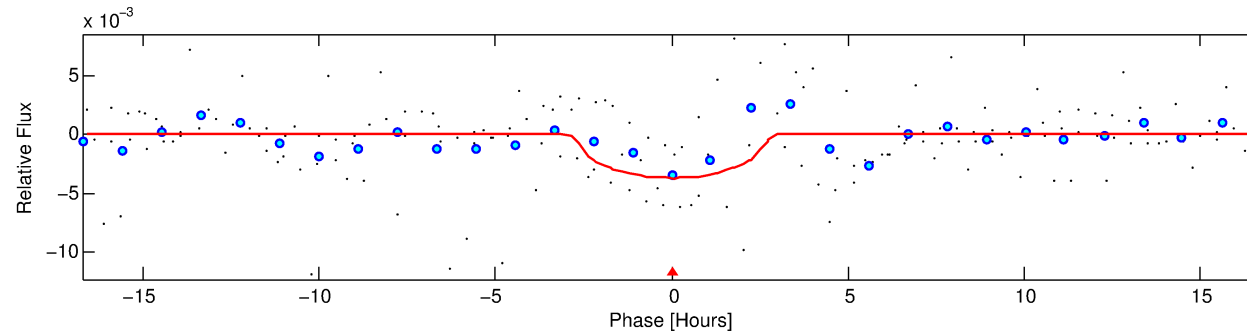
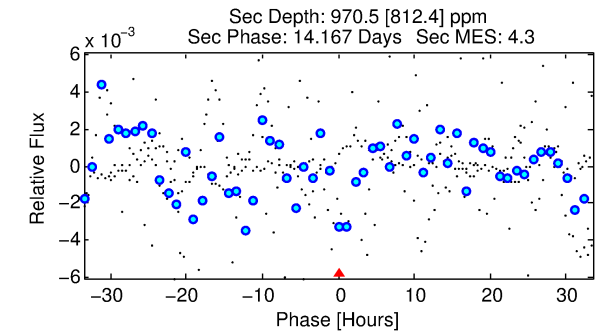
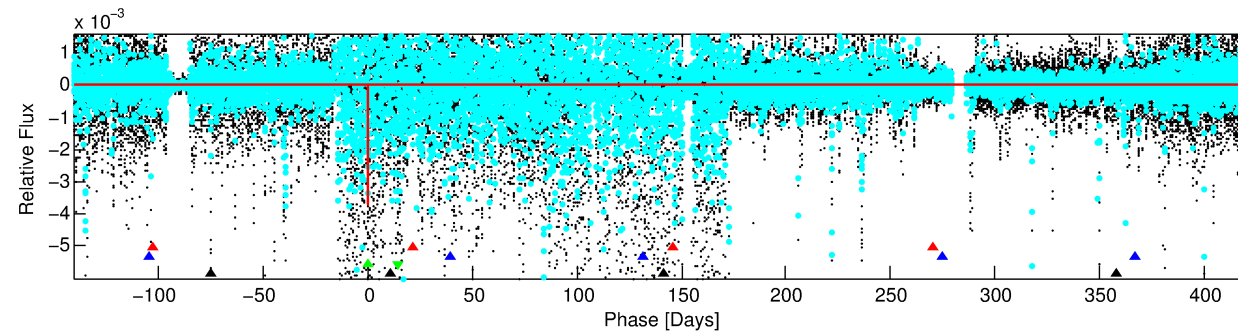
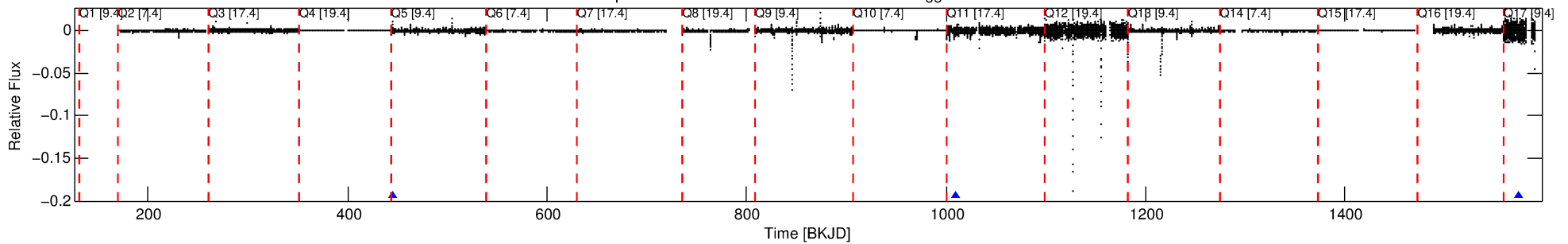
Ephemeris Match Information For 004825832-03

No Significant Match Found

DV One-Page Summary

KIC: 4825832 Candidate: 3 of 4 Period: 564.033 d

Kp: 13.90 R*: 113.37 Rs Teff: 3429.0 K Logg: 0.40 Fe/H: -0.040



DV Fit Results:

Period = 564.03339 [0.00886] d
Epoch = 445.8892 [0.0095] BKJD
Rp/R* = 0.0509 [0.0419]
a/R* = 811.73 [1363.83]
b = 0.03 [57.92]
Seff = 805.68 [378.96]
Teq = 1359 [160] K
Rp = 629.84 [543.78] Re
a = 1.4057 [0.3818] AU
Ag = 2.66 [5.05] [0.33σ]
Teffp = 2682 [1241] K [1.06σ]

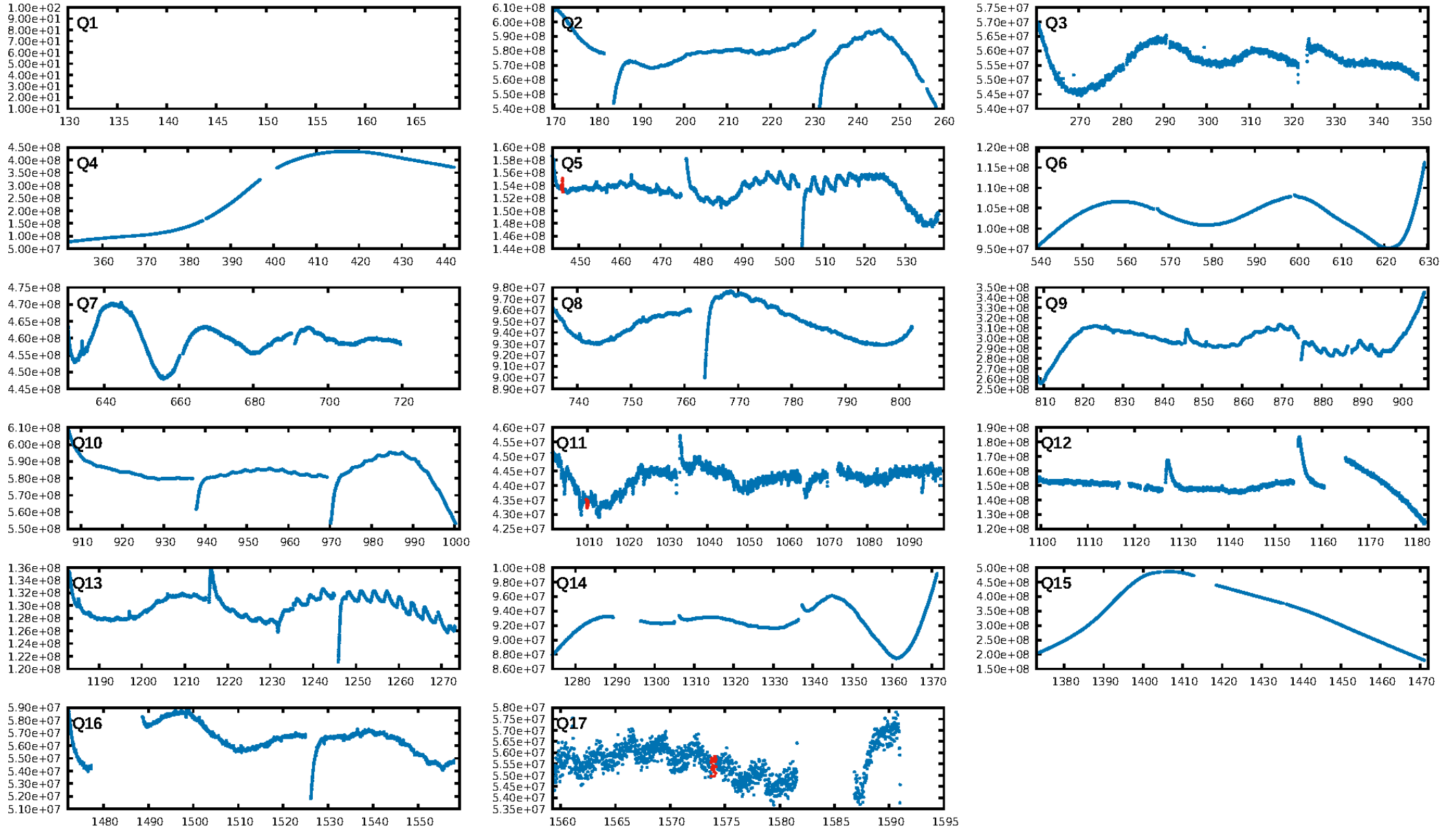
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [135.92σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 4.1%
ModelChiSquareGof-sig: 0.1%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [2/2]
GhostDiagnostic-chr: -1.029
Centroid-sig: 61.0%
Centroid-so: 0.221 arcsec [2.16σ]
OotOffset-rm: 2.156 arcsec [1.51σ]
OotOffset-st: 0/1/0/2 [3]
KicOffset-rm: 2.308 arcsec [3.20σ]
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DiffImageOverlap-fno: 1.00 [3/3]

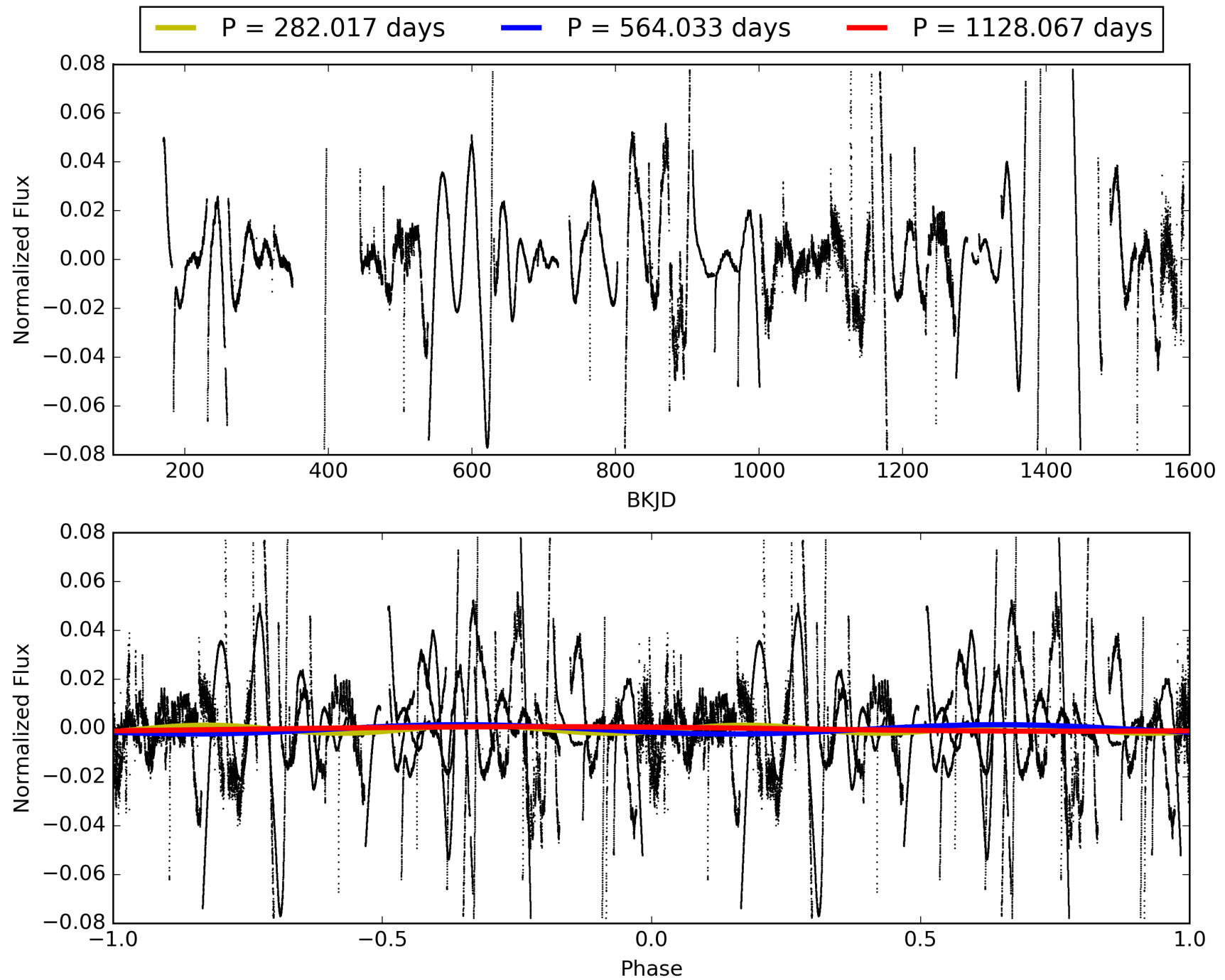
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 00:18:05 Z

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

TCE 004825832-03, PDC Light Curves

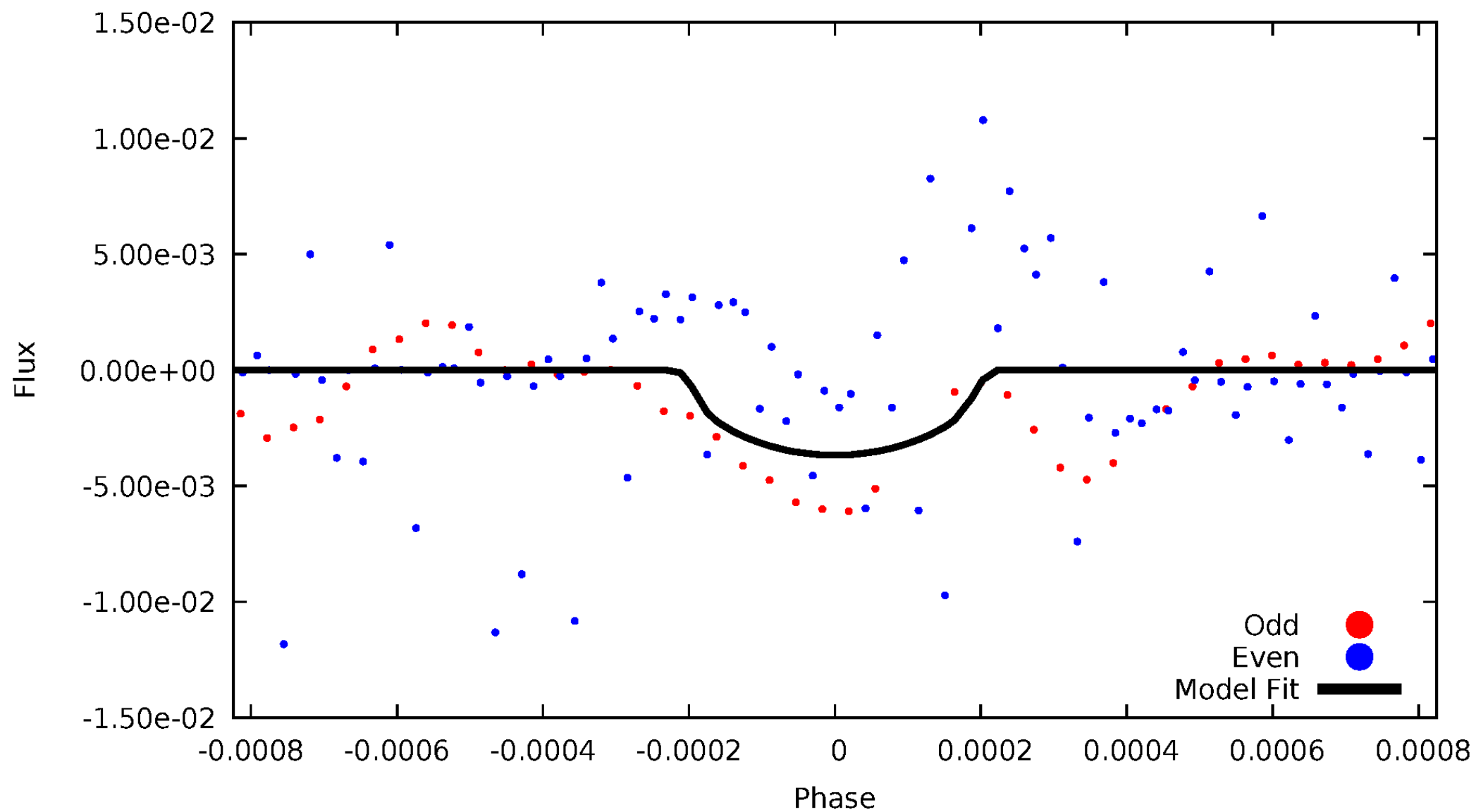


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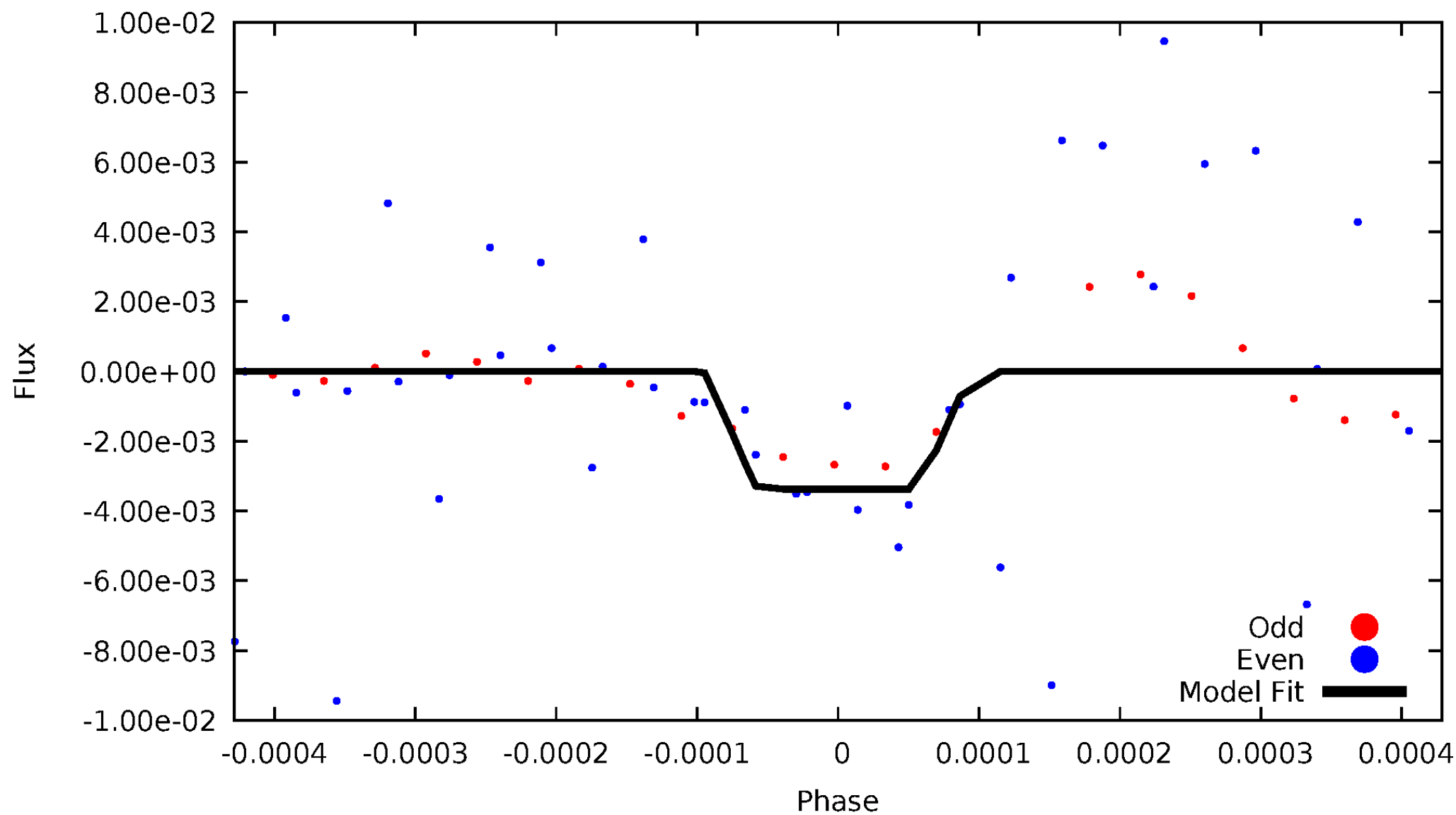
DV Odd/Even

TCE 004825832-03



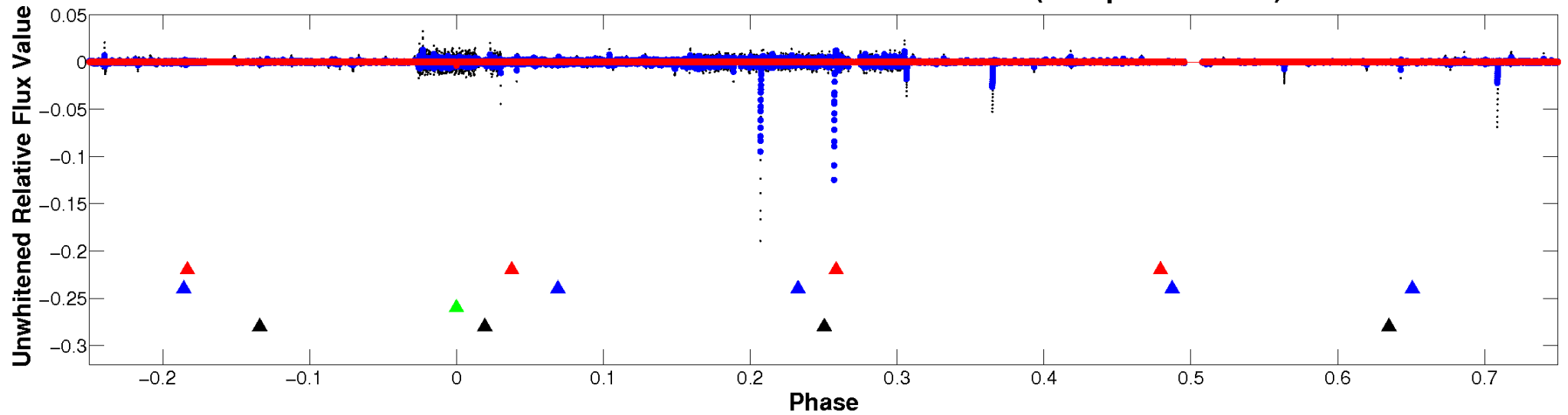
ALT Odd/Even

TCE 004825832-03

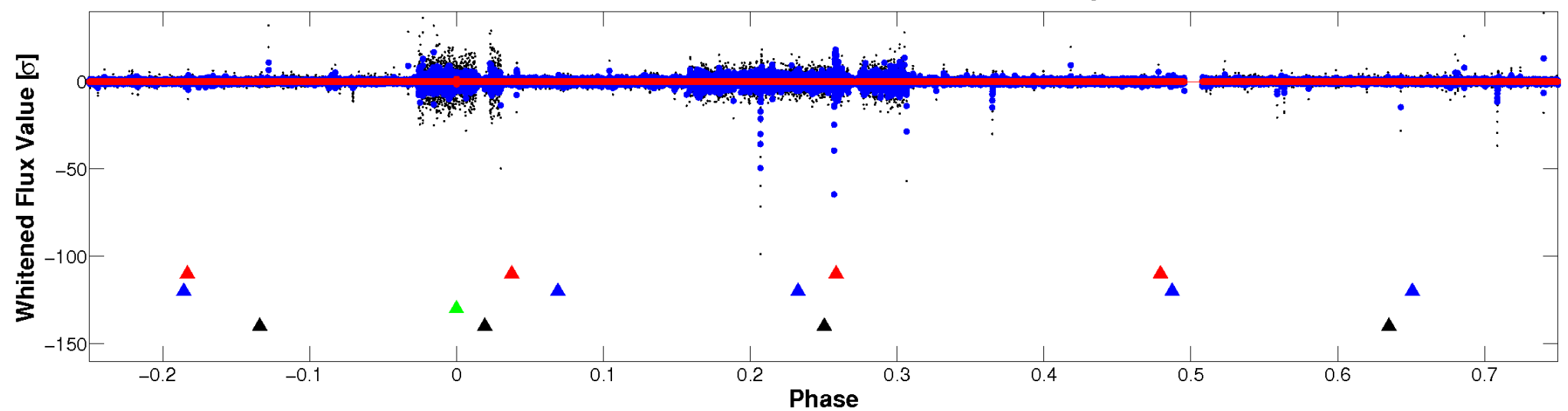


Non-Whitened Vs. Whitened Light Curve

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

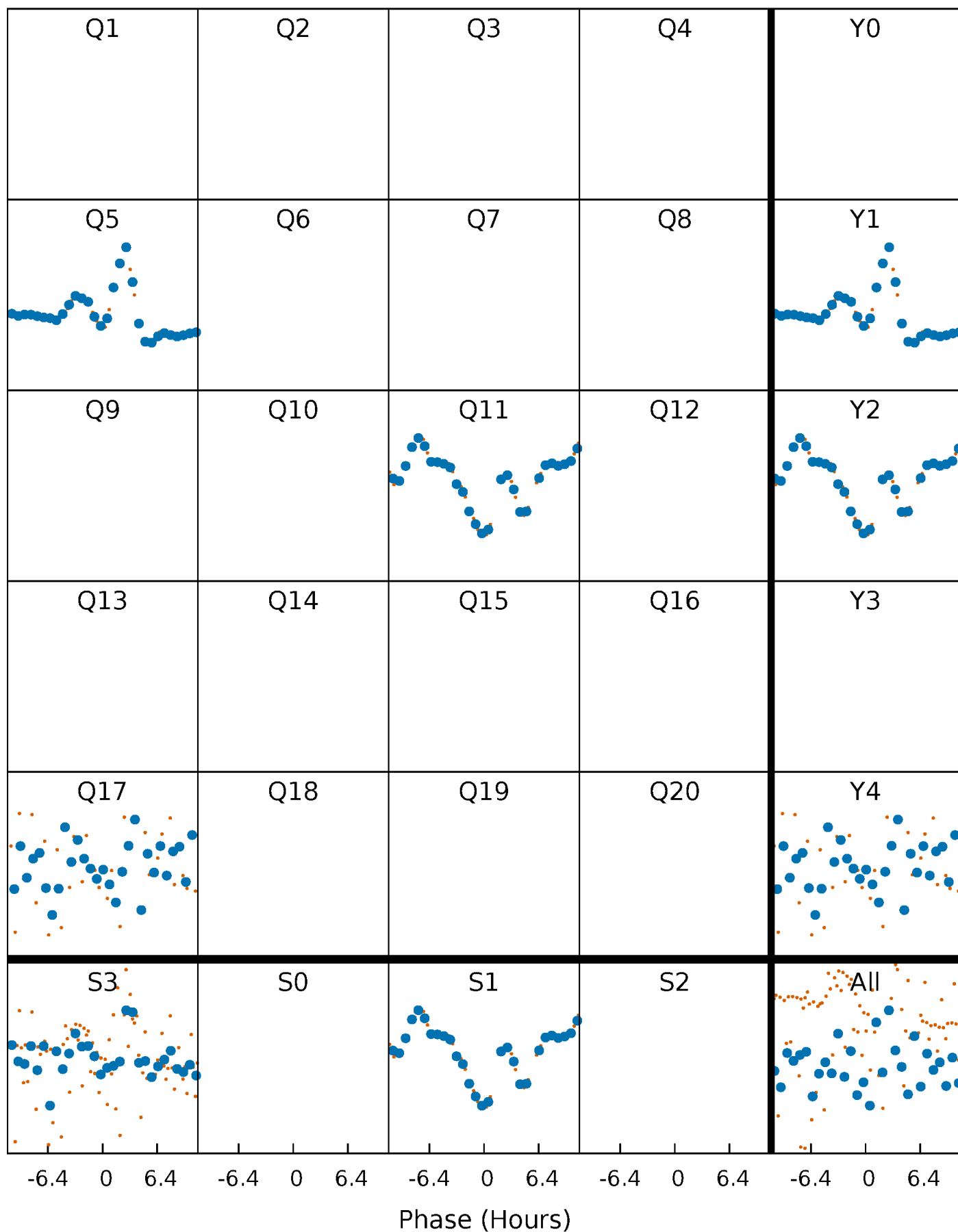


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



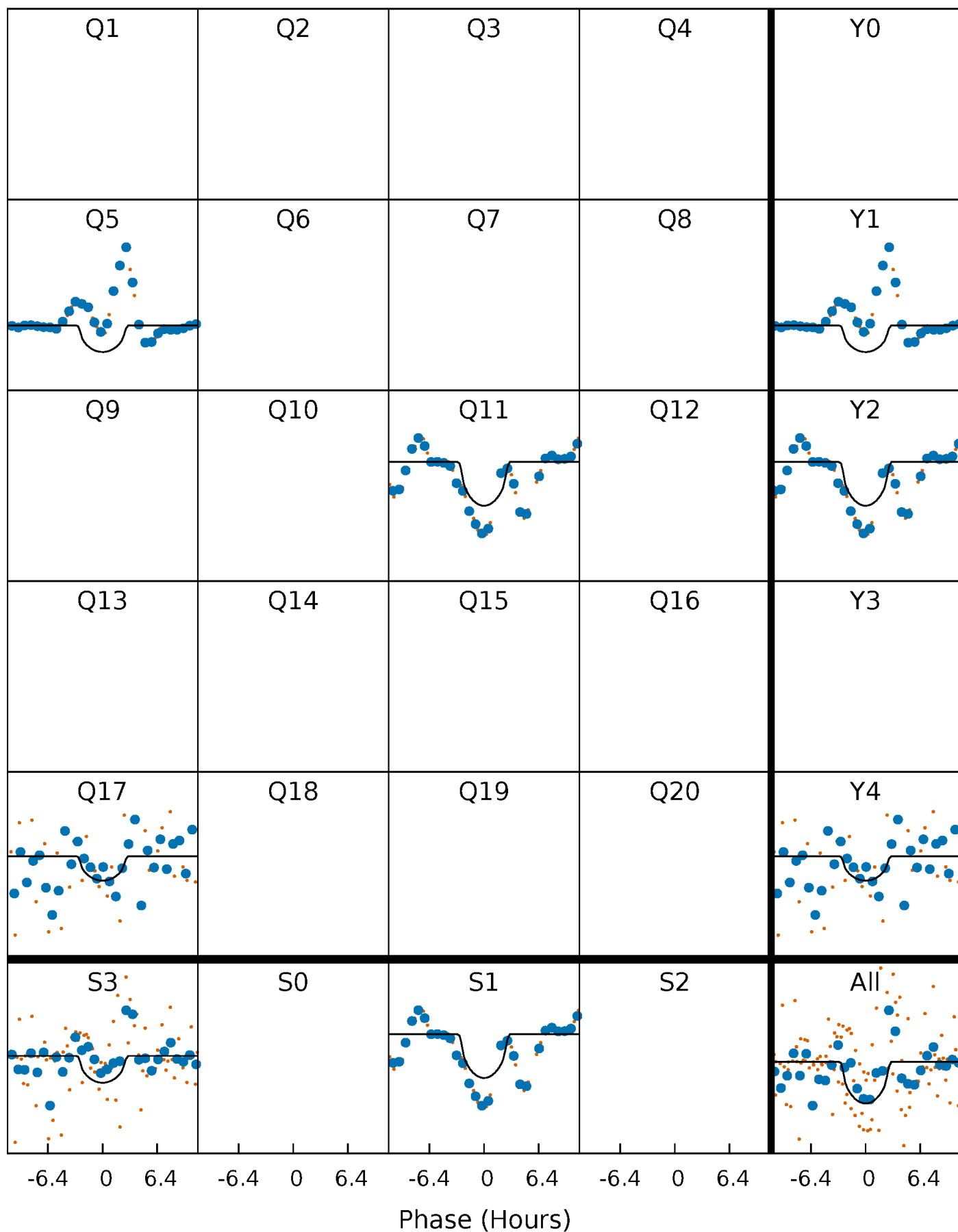
PDC Quarter-Phased Transit Curves

TCE 004825832-03 P=564.033389 Days $T_0=445.889189$ (BKJD)



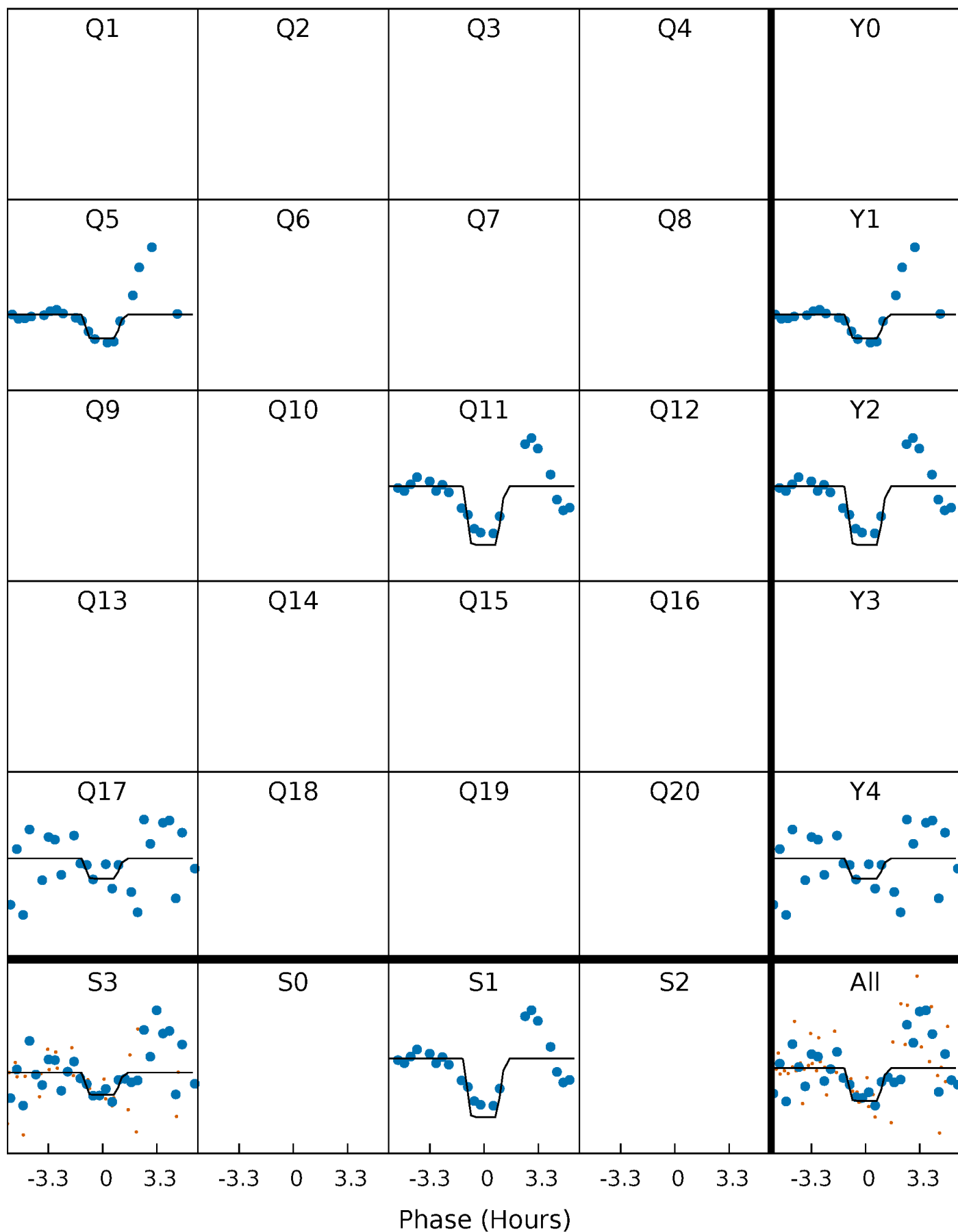
DV Quarter-Phased Transit Curves

TCE 004825832-03 $P=564.033389$ Days $T_0=445.889189$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

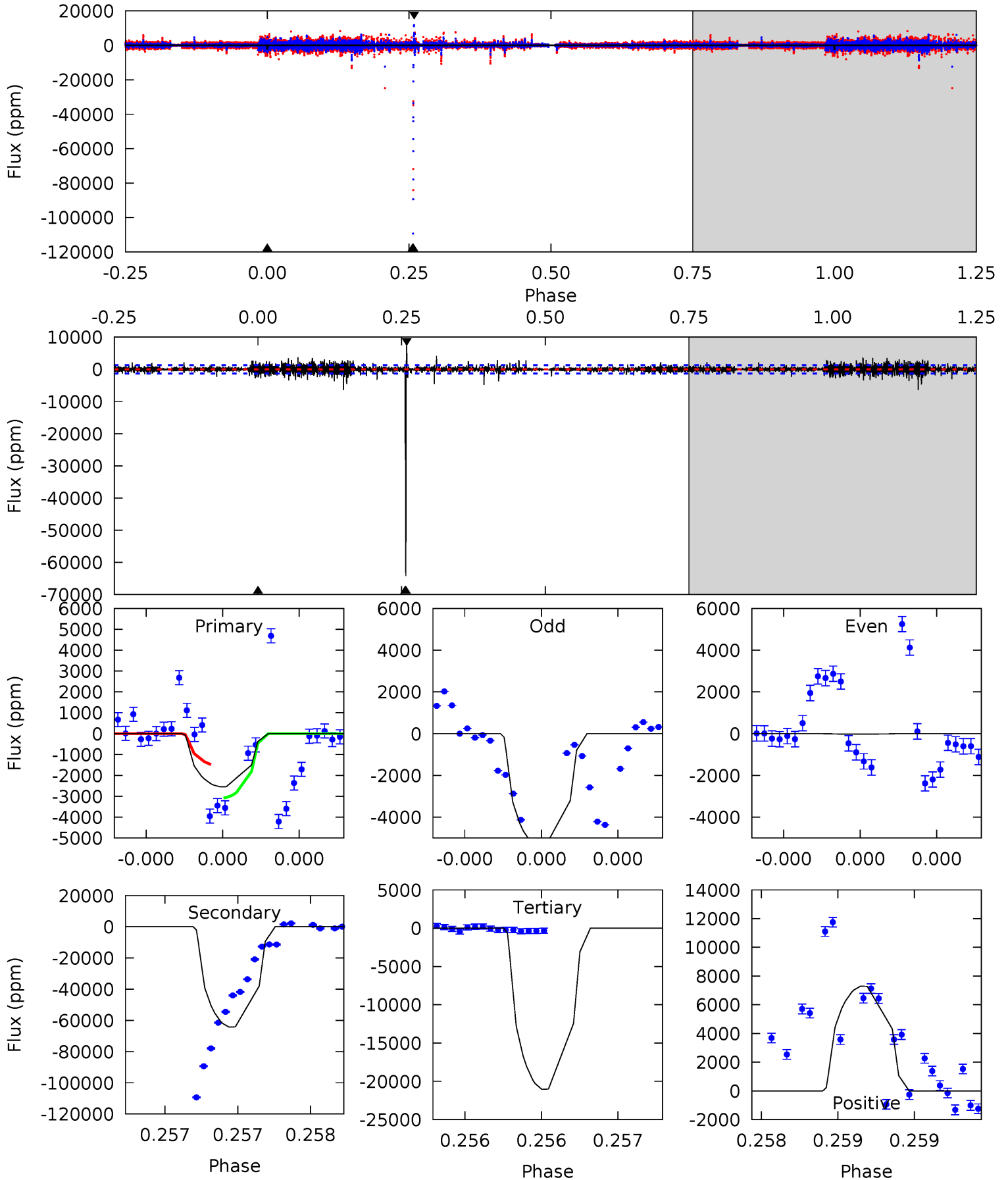
TCE 004825832-03 $P=564.041179$ Days $T_0=445.873176$ (BKJD)



DV Model-Shift Uniqueness Test

004825832-03, P = 564.033389 Days, E = 445.889189 Days

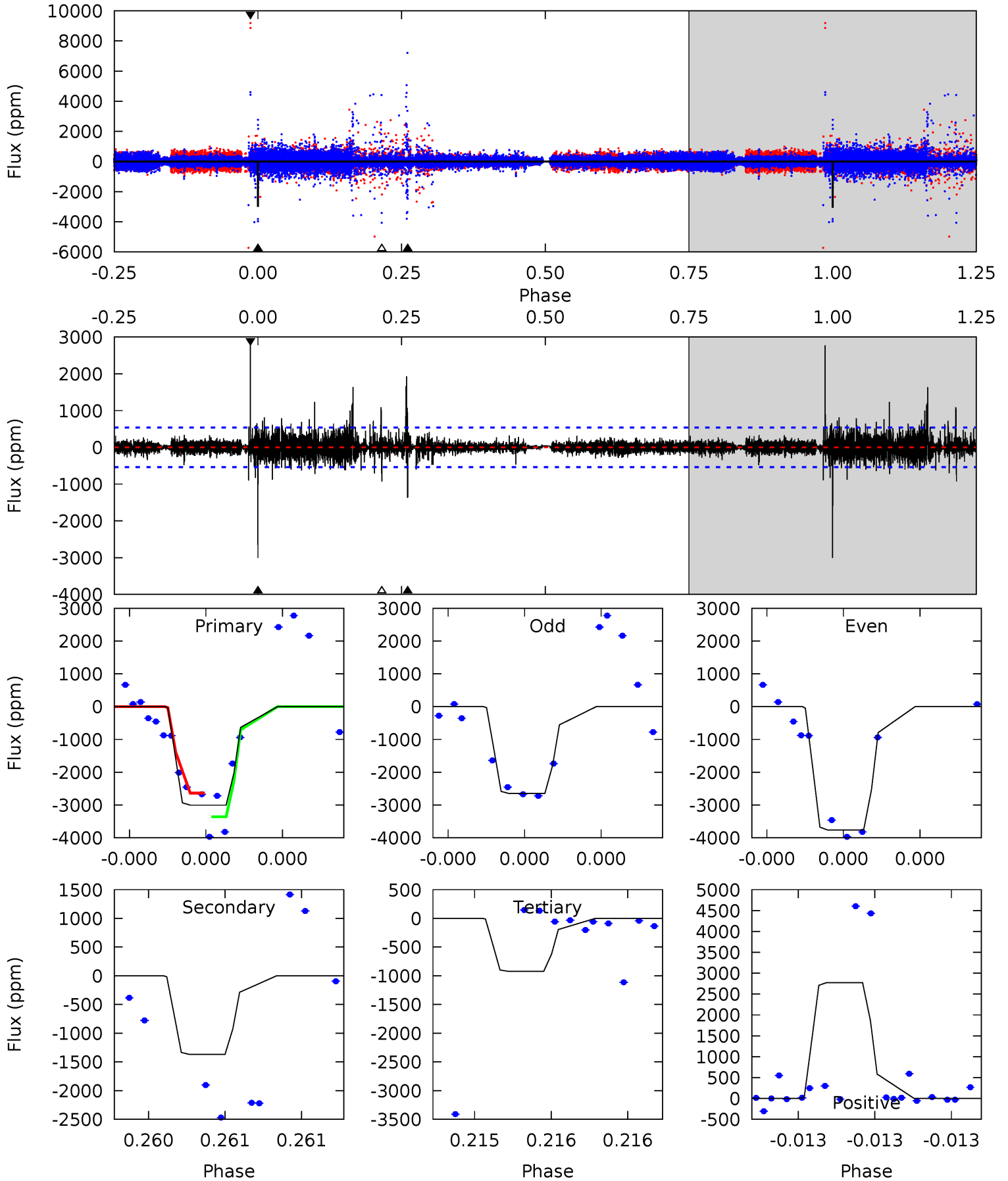
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.2	283.4	92.8	32.2	5.60	3.52	2.49	-81.6	-20.9	190.6	251.2	6.58	0.63	0.10	0



Alt Model-Shift Uniqueness Test

004825832-03, P = 564.041179 Days, E = 445.873176 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
32.1	14.6	9.84	29.6	5.74	3.73	1.28	22.2	2.45	4.77	-15.0	3.14	1.04	0.48	3.63



Stellar Parameters For KIC 004825832

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	3429^{+117}_{-94}	$0.395^{+0.270}_{-0.180}$	$-0.040^{+0.250}_{-0.200}$	$113.372^{+27.146}_{-29.861}$	$1.164^{+0.295}_{-0.159}$	$0.000^{+0.000}_{-0.000}$
	+3%/-3%	+68%/-46%	+625%/-500%	+24%/-26%	+25%/-14%	+150%/-46%
Source	PHO54	PHO54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 004825832-03 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-64174 ± 226	$686.34^{+489.27}_{-407.56}$	1888^{+146}_{-160}	6307^{+4750}_{-1473}	162^{+828}_{-108}
Alt.	-1368 ± 94	$773.55^{+564.86}_{-457.36}$	1899^{+140}_{-147}	2866^{+940}_{-450}	$2.544^{+12.445}_{-1.711}$

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 $A_{obs} \gg 1.0$

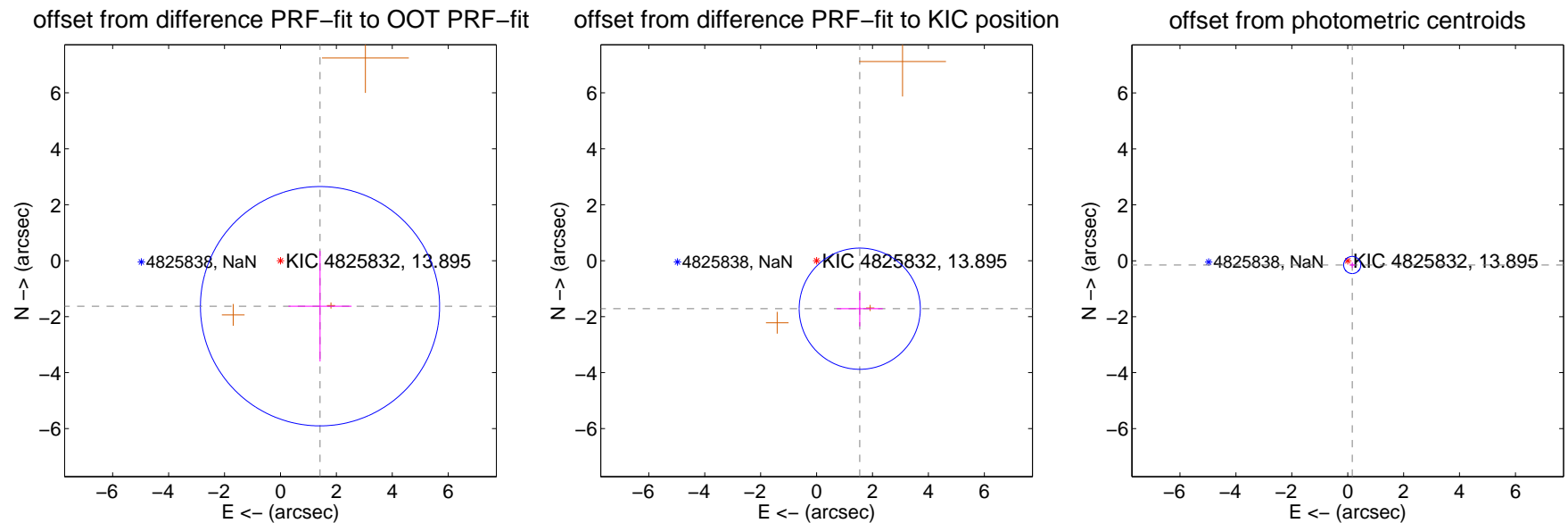
DV Centroid Data

Supplemental centroid analysis for 004825832-03. Kepler magnitude: 13.89. Transit SNR 7.83

There are 0 quarters with good PRF difference image offsets

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

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.156 ± 1.425	1.51	-1.415 ± 1.129	-1.627 ± 1.975
PRF-fit source offset from KIC position	2.308 ± 0.722	3.20	-1.544 ± 0.822	-1.716 ± 0.630
photometric centroid source offset	0.22 ± 0.10	2.16	-0.16 ± 0.10	-0.15 ± 0.10

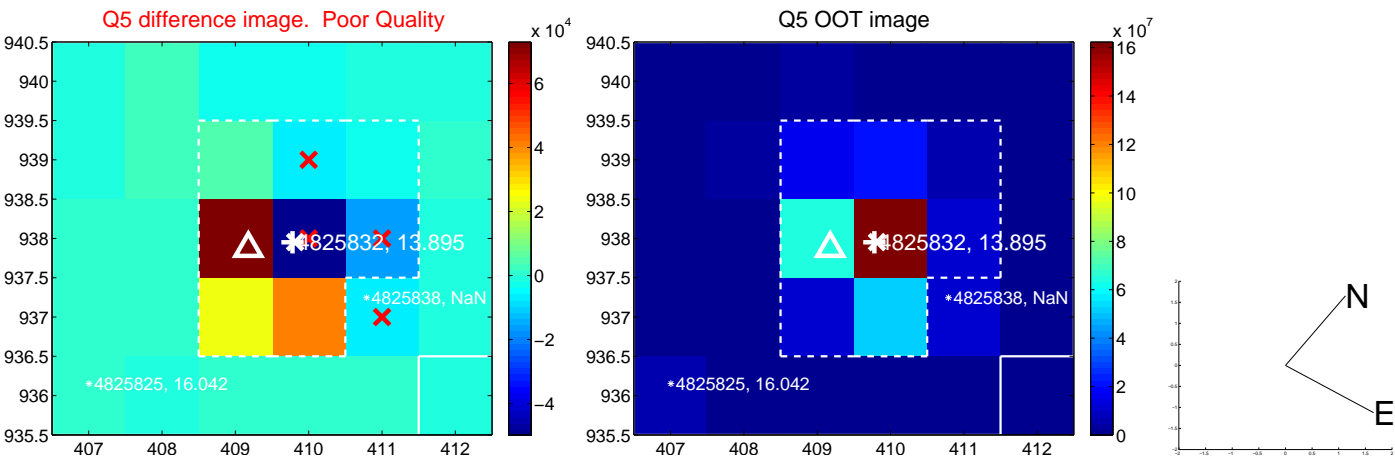


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

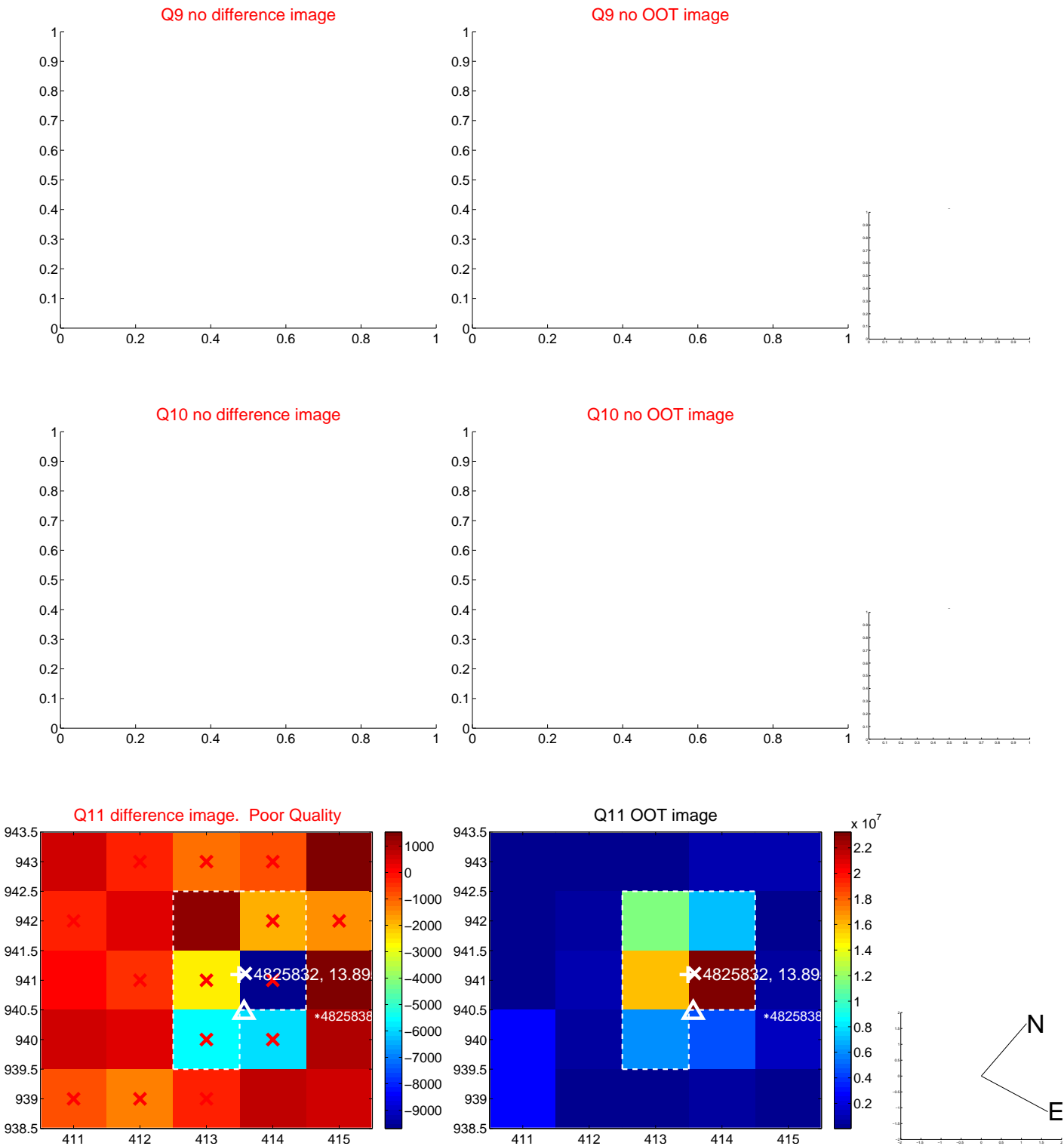
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



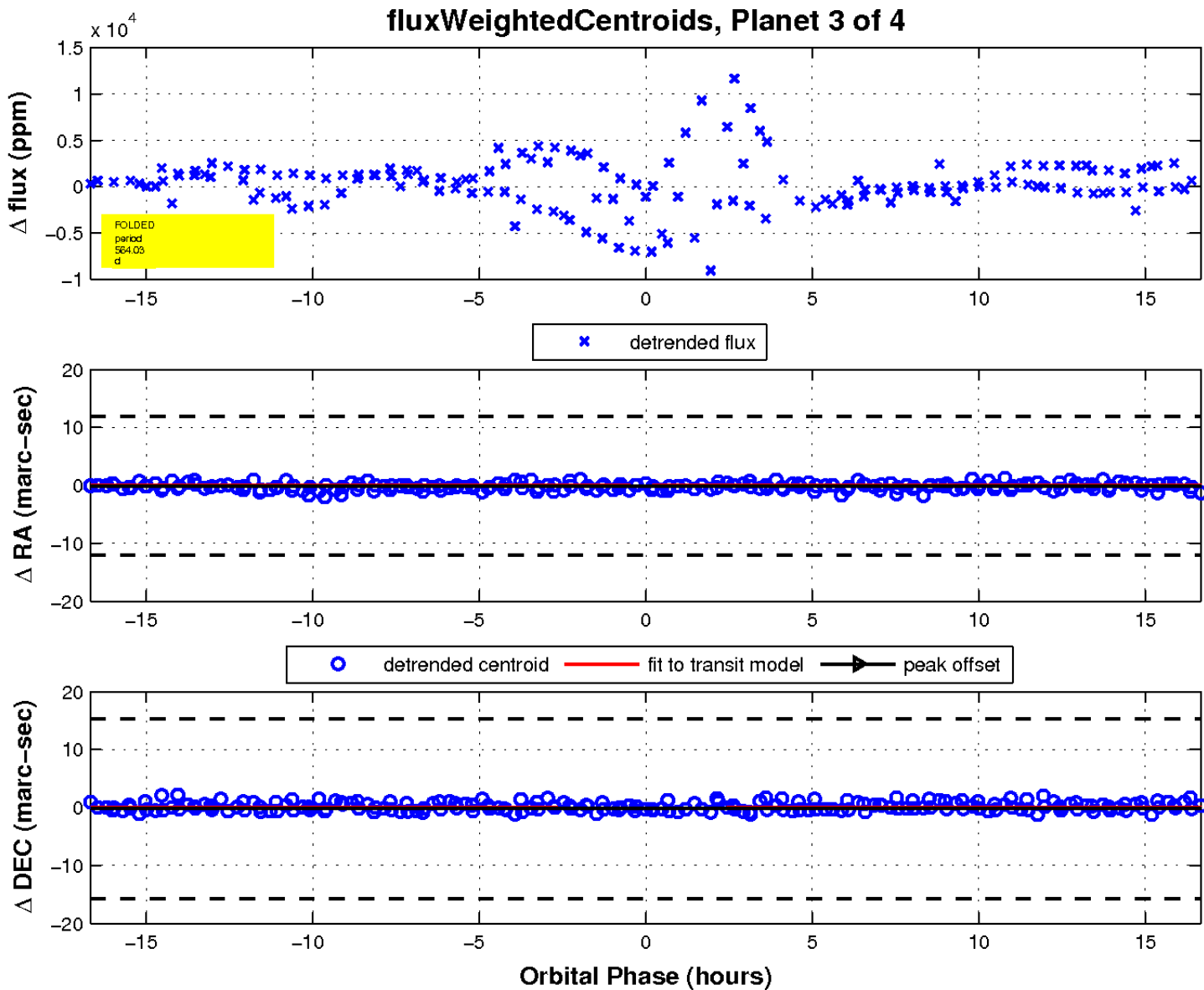
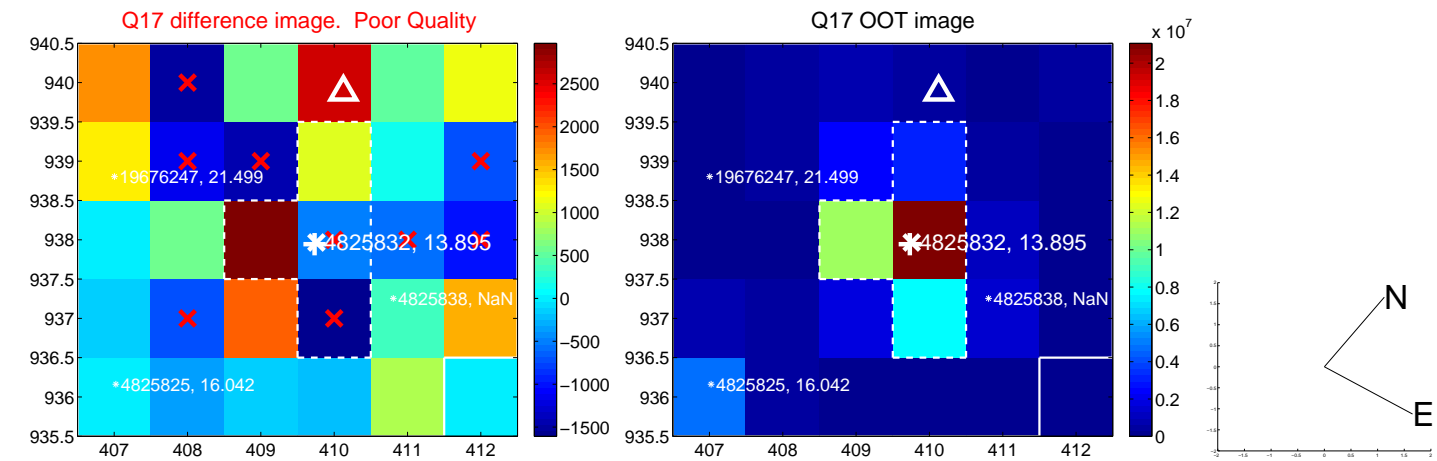
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



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

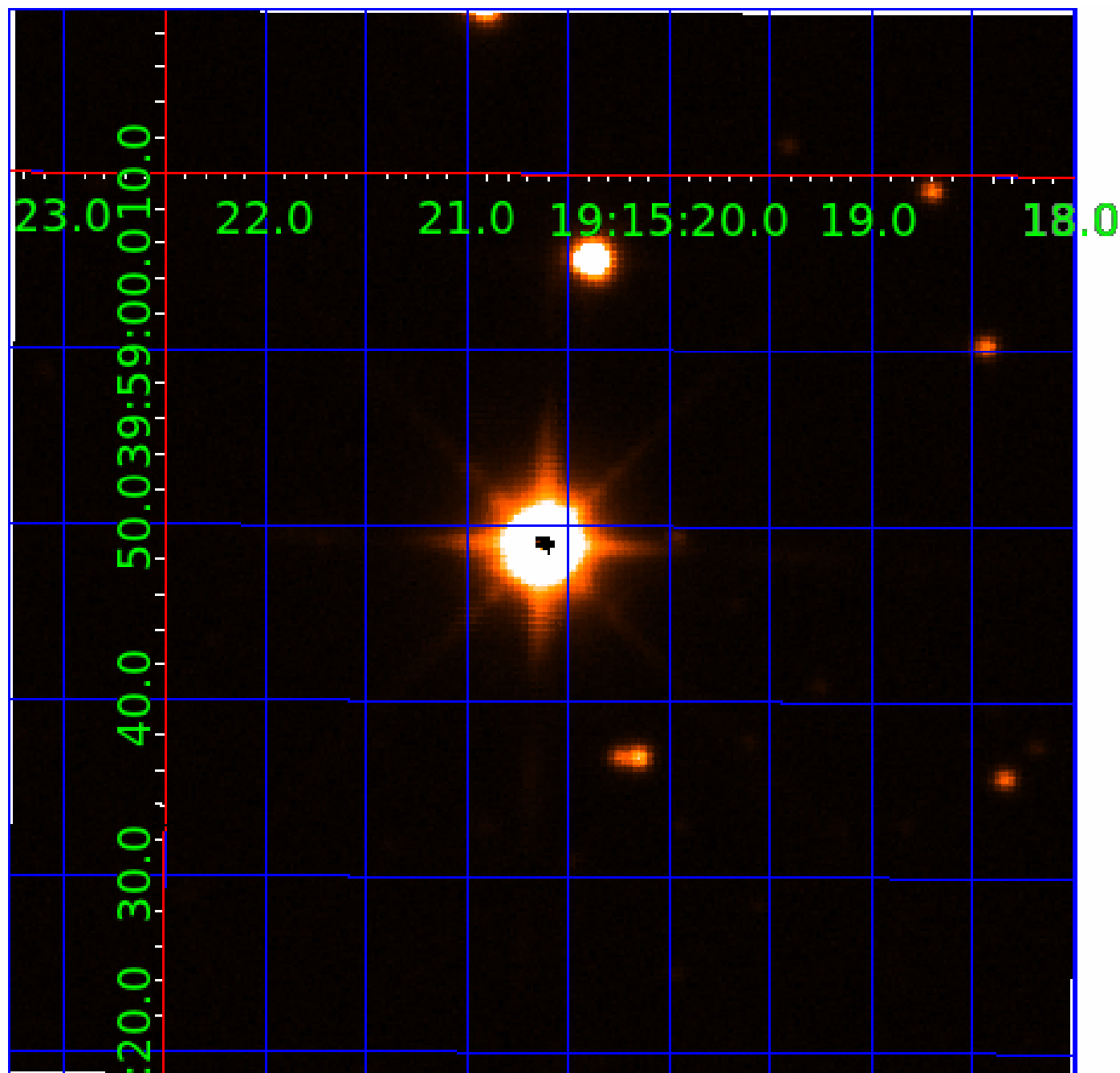


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 004825832

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})
004825832-02	OBS	No	328.136003	156.719056	188.8	3.824	18.7	4.2	113.37	3429	197.42	1658.94
004825832-03	OBS	No	564.033389	445.889189	3671.4	5.576	17.5	7.8	113.37	3429	629.84	805.68
004825832-04	OBS	No	347.213183	456.775855	453.8	3.000	14.1	-1.0	113.37	3429	222.20	1538.53

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004825832-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
004825832-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
004825832-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—ALL_TRANS_CHASES—CENT_NOFITS

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.

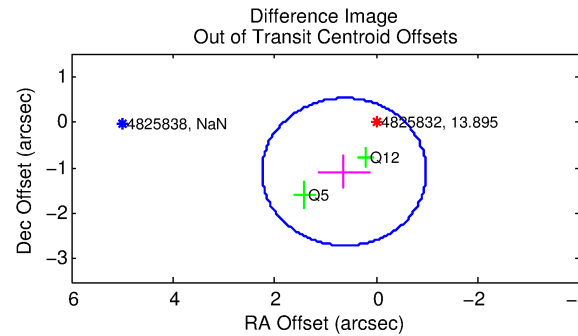
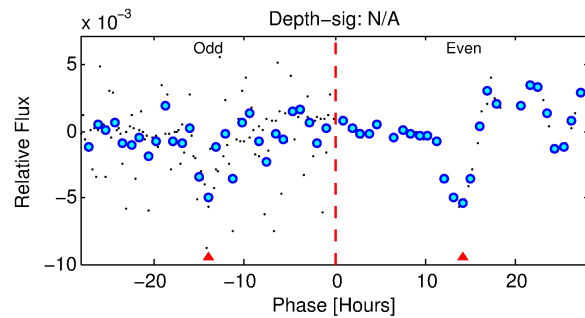
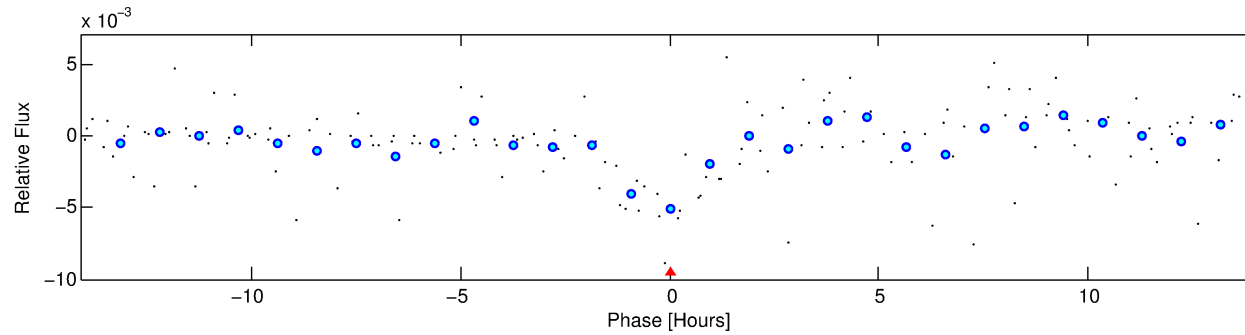
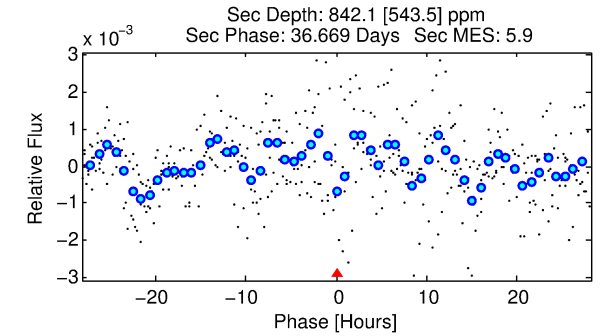
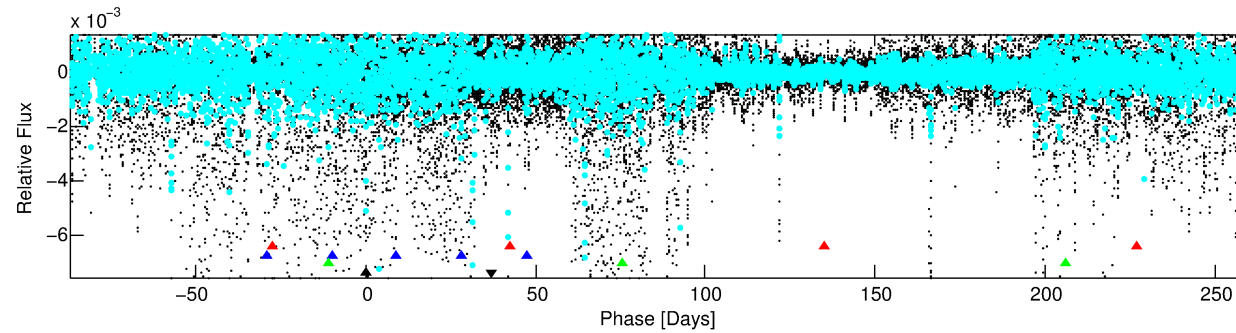
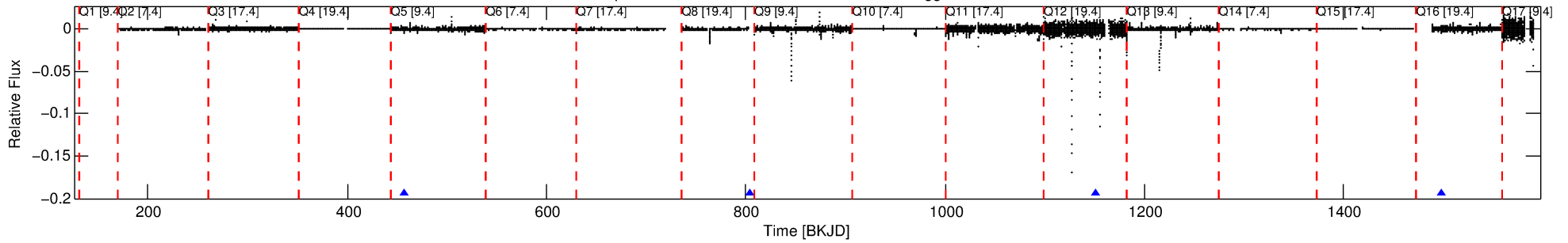
Ephemeris Match Information For 004825832-04

No Significant Match Found

DV One-Page Summary

KIC: 4825832 Candidate: 4 of 4 Period: 347.213 d

Kp: 13.90 R*: 113.37 Rs Teff: 3429.0 K Logg: 0.40 Fe/H: -0.040



TPS TCE Results:

Period = 347.21318 d
Epoch = 456.7759 BKJD

DV fit results are unavailable

DV Diagnostic Results:

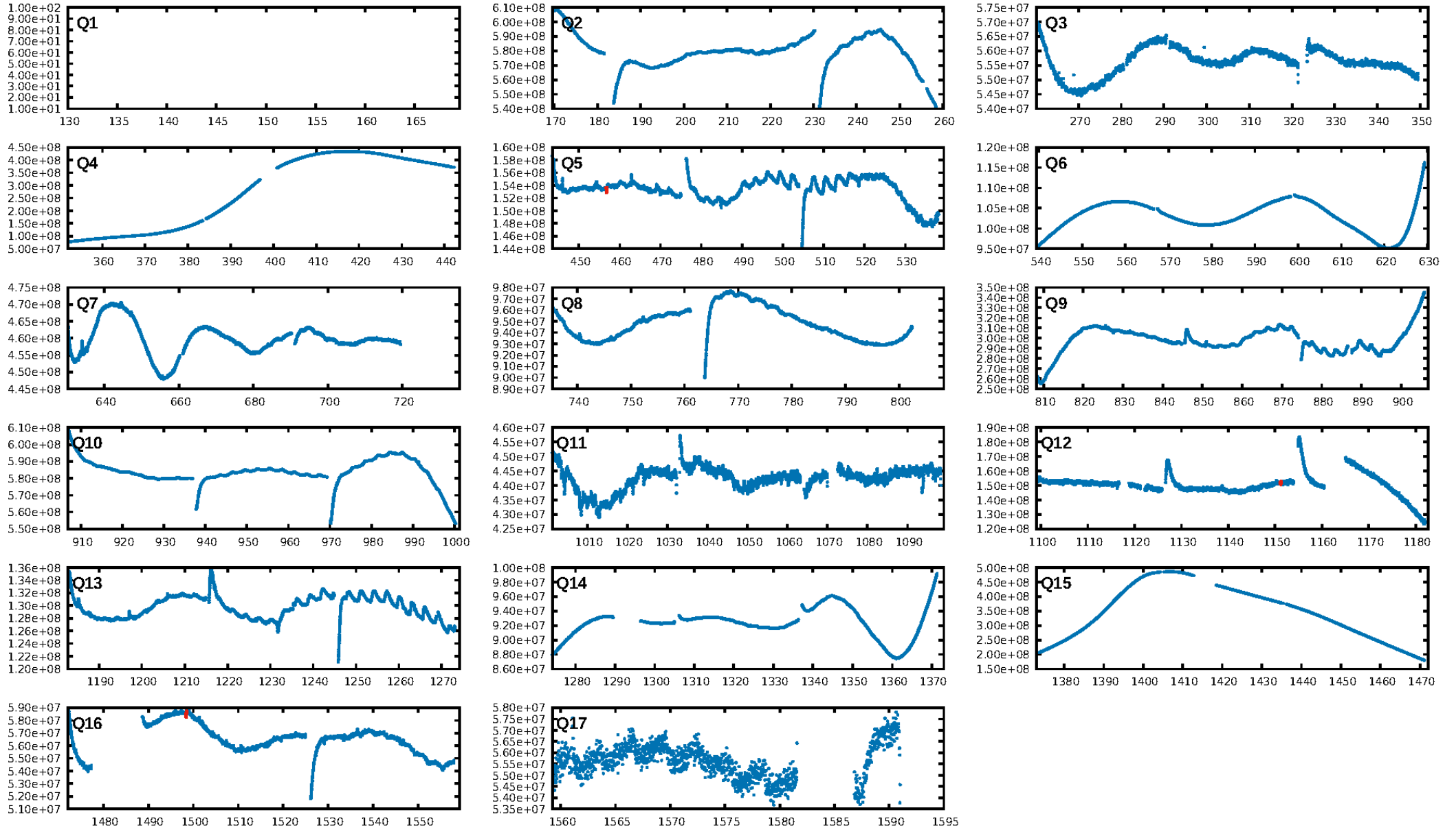
ShortPeriod-sig: 100.0% [94.20σ]
LongPeriod-sig: 100.0% [103.03σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 1.387

Centroid-sig: 34.2%
Centroid-so: 0.327 arcsec [4.95σ]
OotOffset-rm: 1.261 arcsec [2.34σ]
KicOffset-rm: 1.231 arcsec [1.96σ]
OotOffset-st: 0/0/1/1 [2]
KicOffset-st: 0/0/1/1 [2]
DiffImageQuality-fgm: 1.00 [2/2]
DiffImageOverlap-fno: 1.00 [2/2]

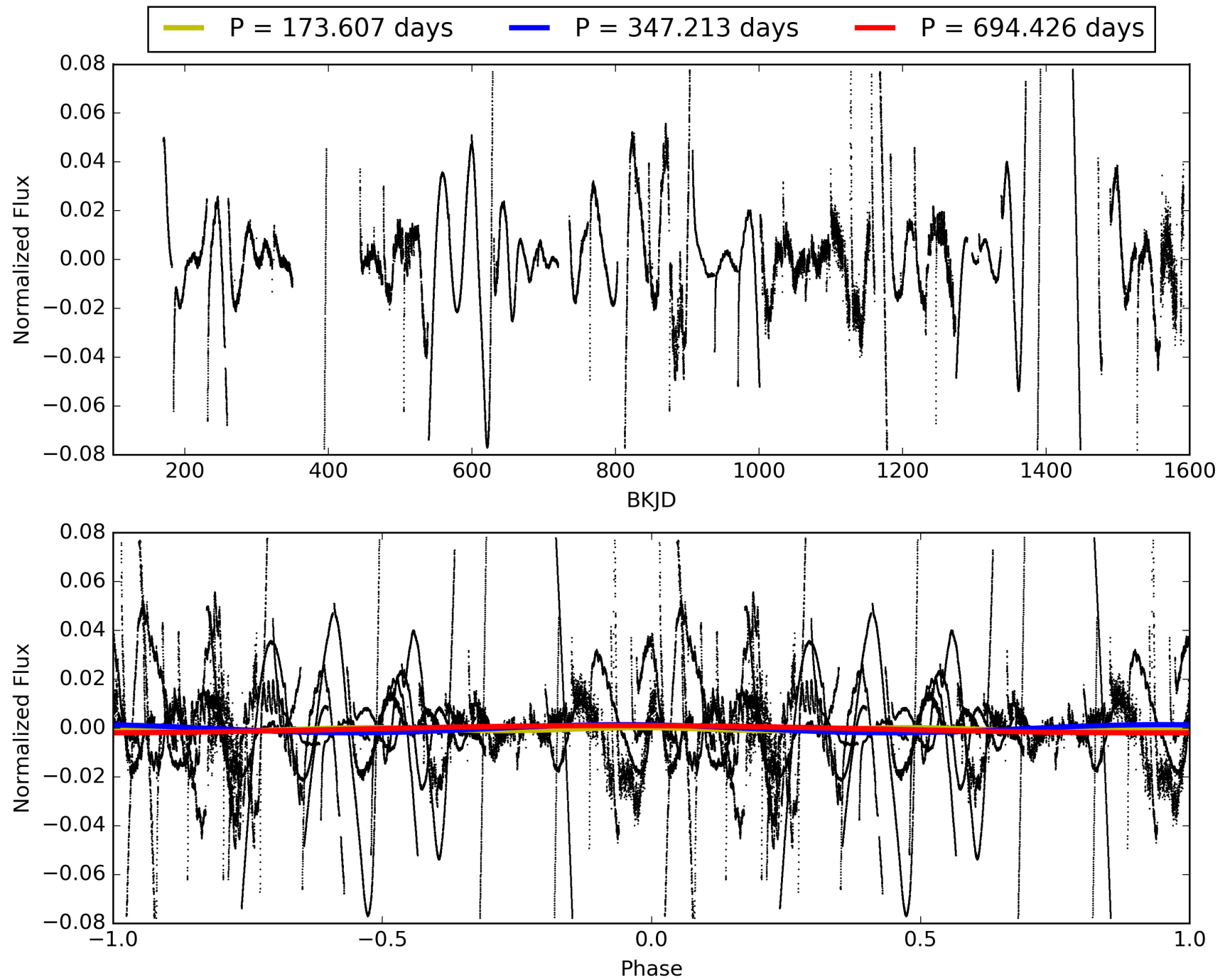
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 00:18:17 Z

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

TCE 004825832-04, PDC Light Curves

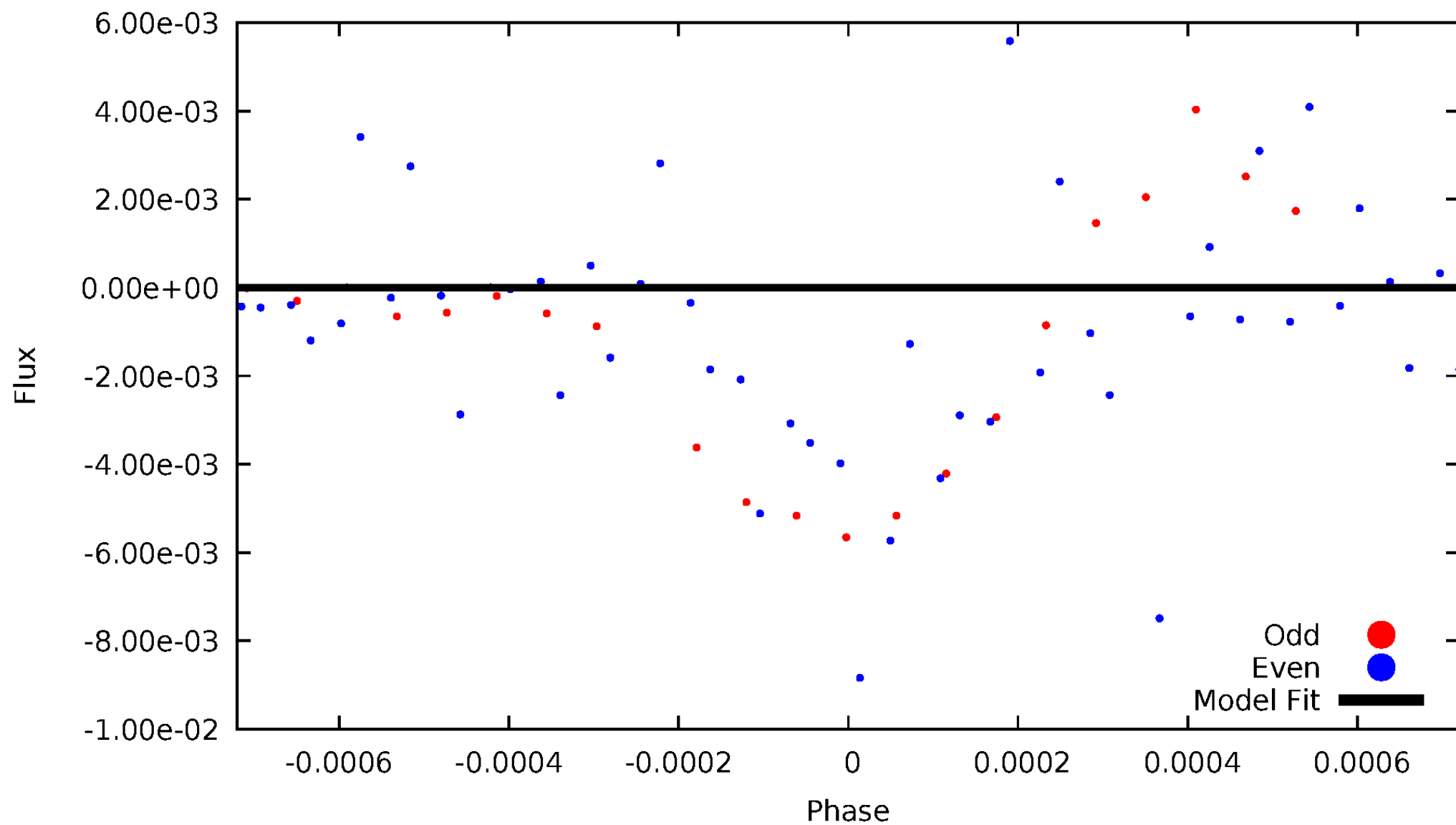


TCE 004825832-04



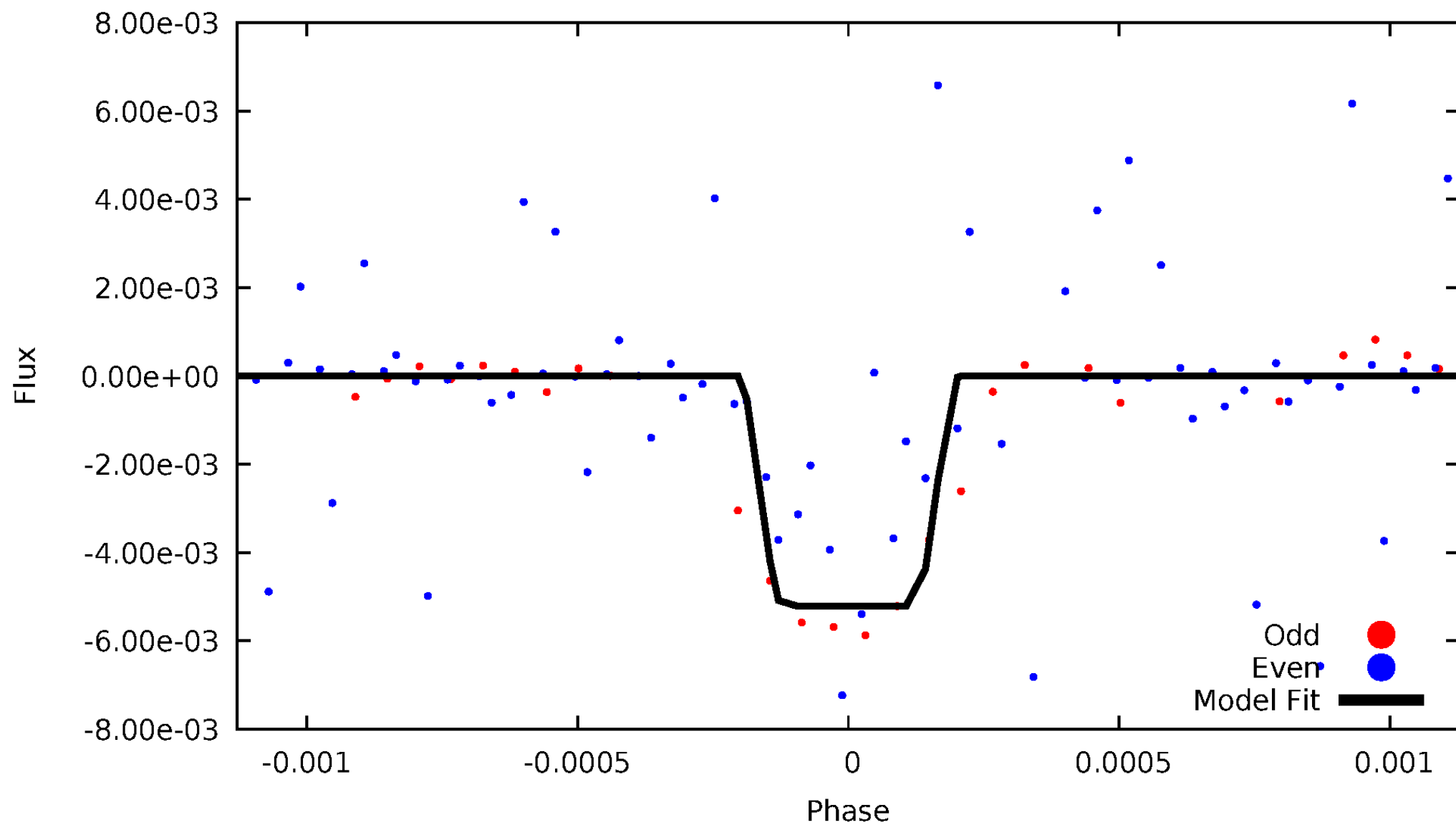
DV Odd/Even

TCE 004825832-04



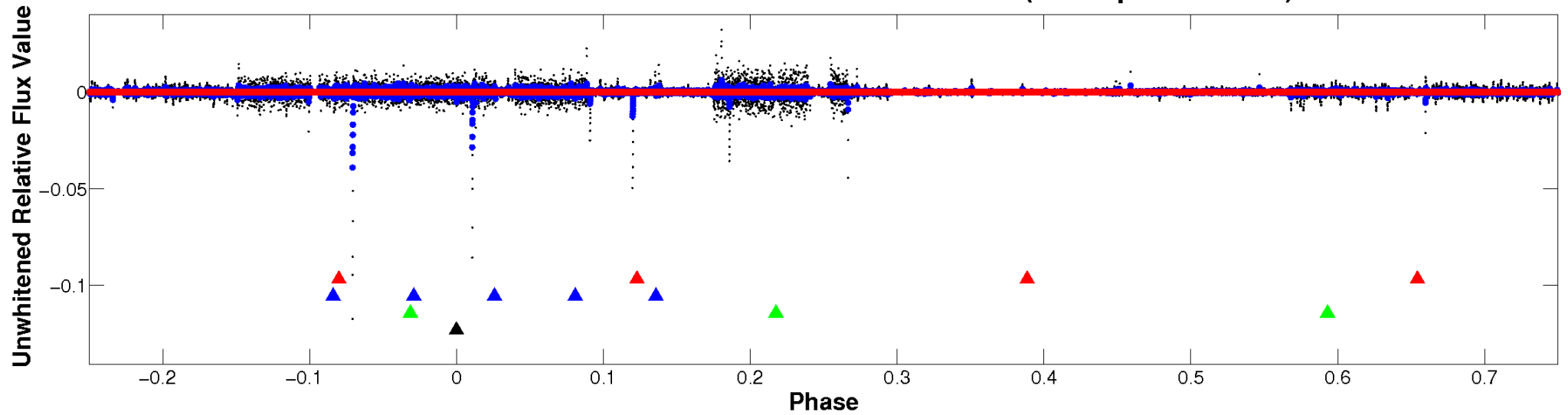
ALT Odd/Even

TCE 004825832-04



Non-Whitened Vs. Whitened Light Curve

Planet 4 : Phased Unwhitened Flux Time Series (TPS Epoch/Period)

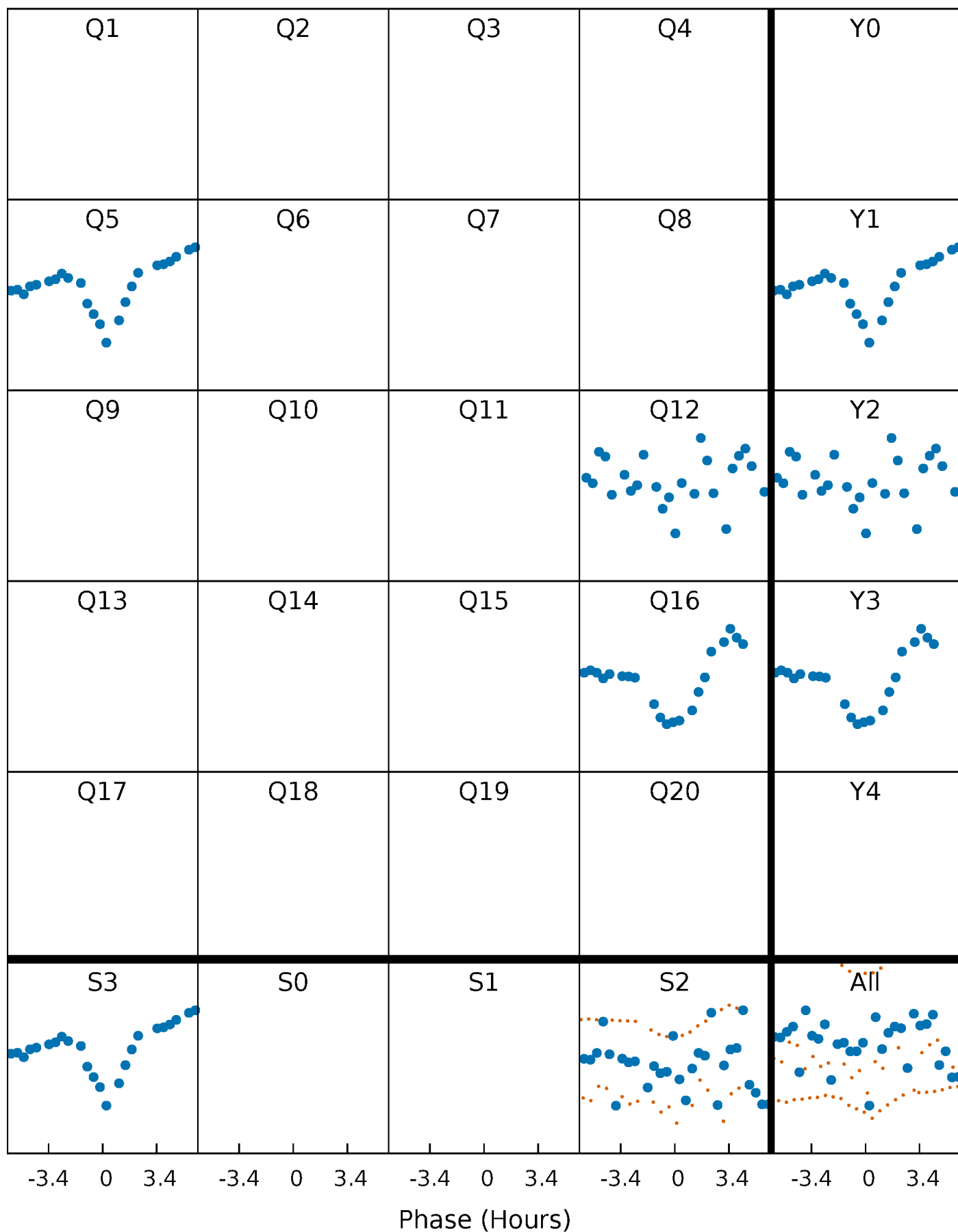


Planet 4 : Phased Whitened Flux Time Series (TPS Epoch/Period)



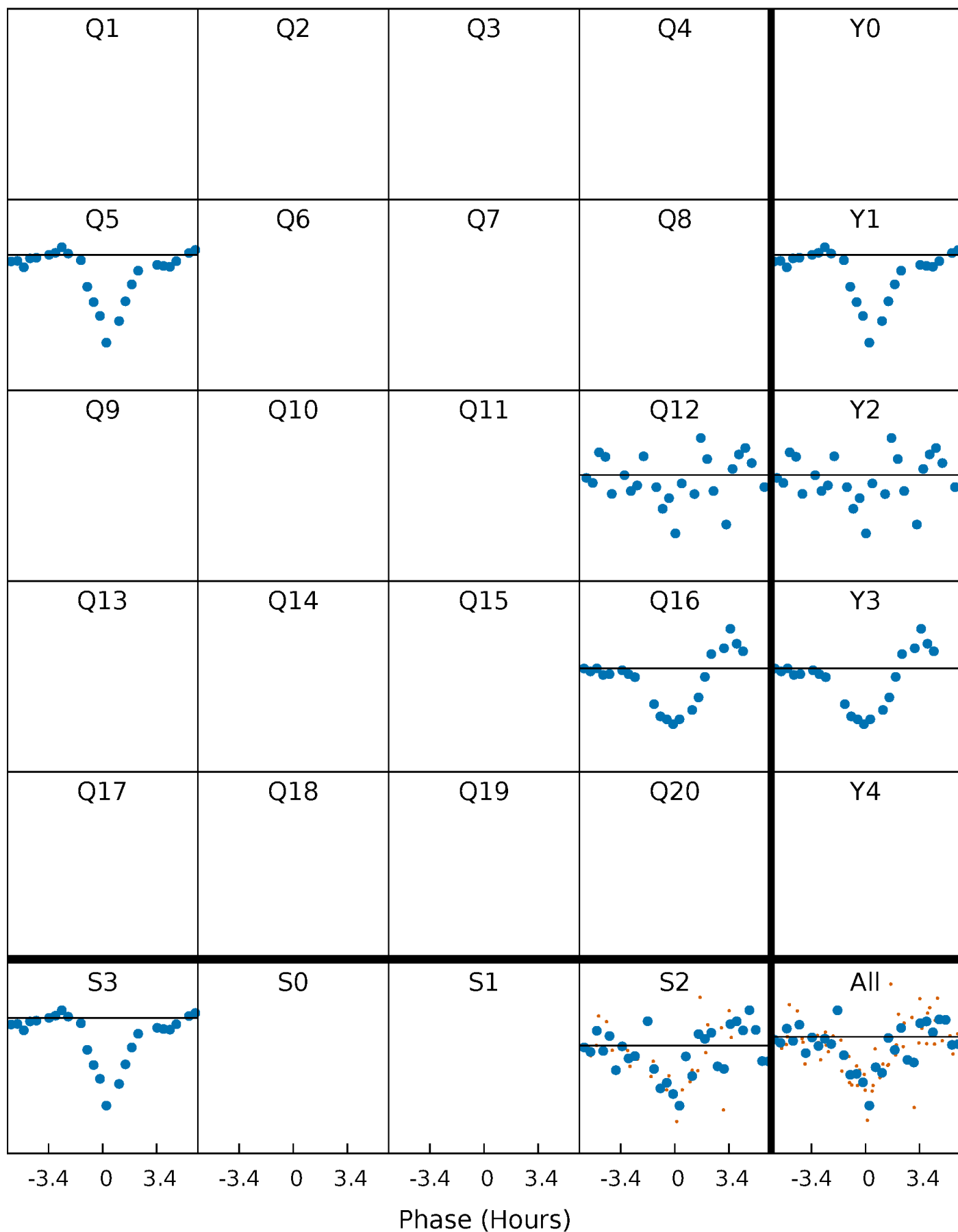
PDC Quarter-Phased Transit Curves

TCE 004825832-04 $P=347.213183$ Days $T_0=456.775855$ (BKJD)



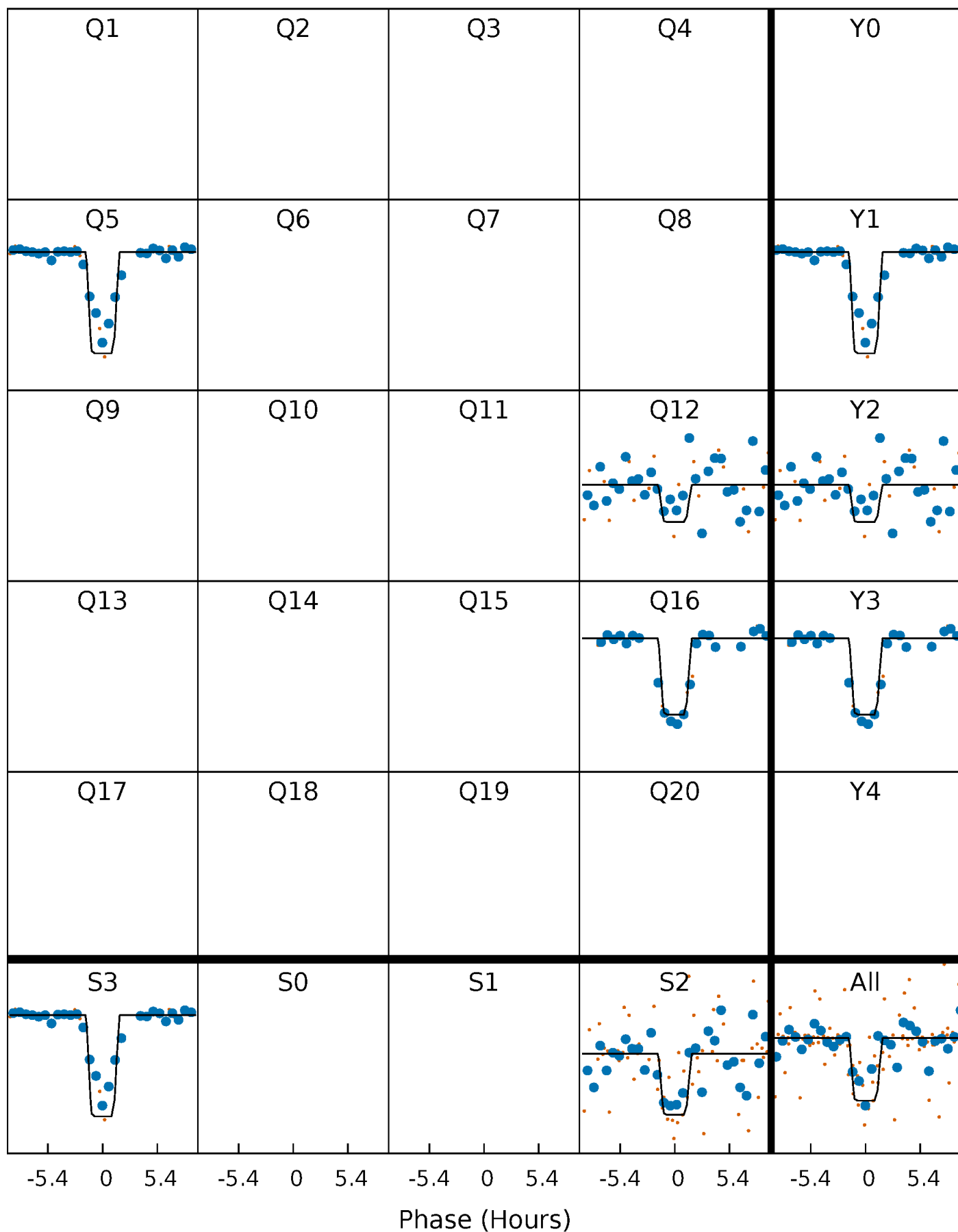
DV Quarter-Phased Transit Curves

TCE 004825832-04 $P=347.213183$ Days $T_0=456.775855$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

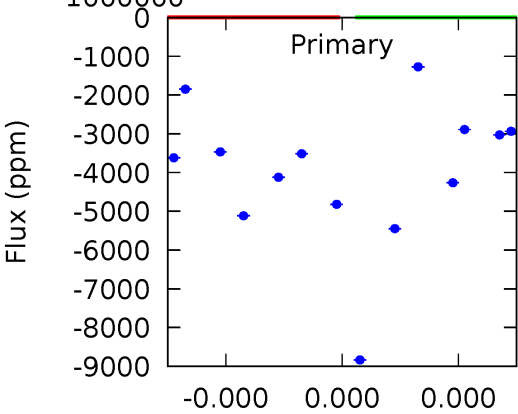
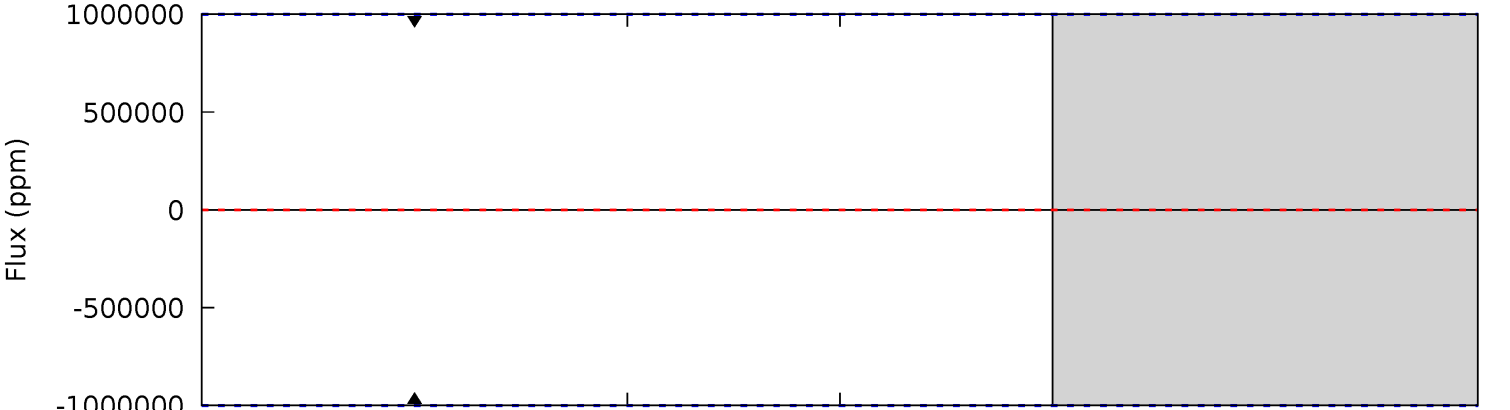
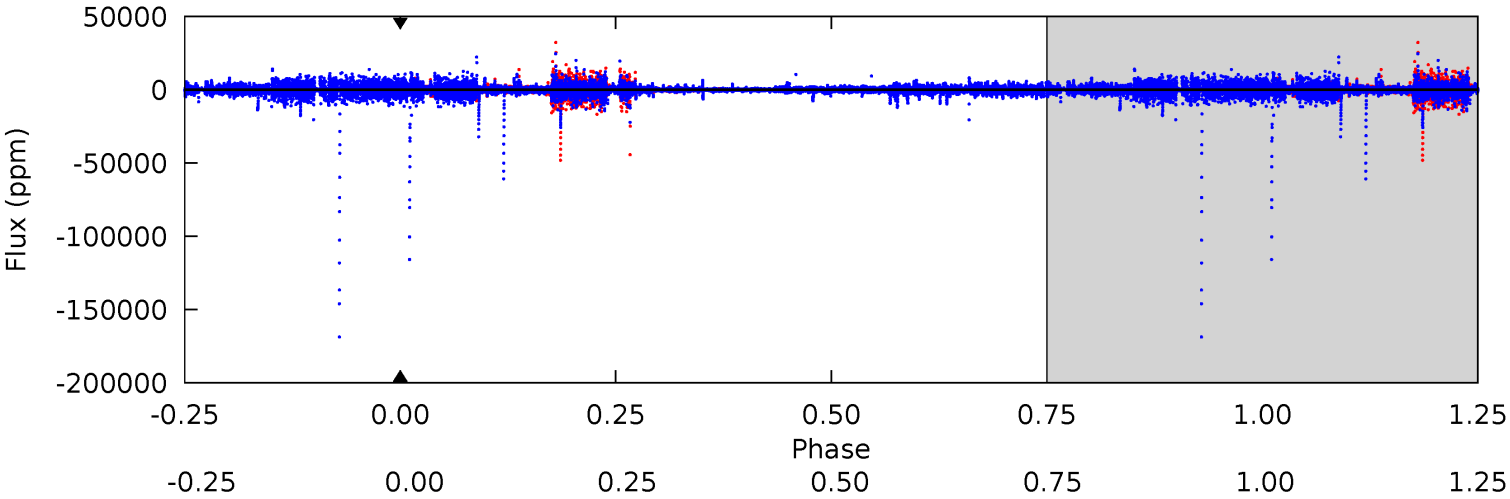
TCE 004825832-04 $P=347.213183$ Days $T_0=456.784489$ (BKJD)



DV Model-Shift Uniqueness Test

004825832-04, P = 347.213183 Days, E = 109.562672 Days

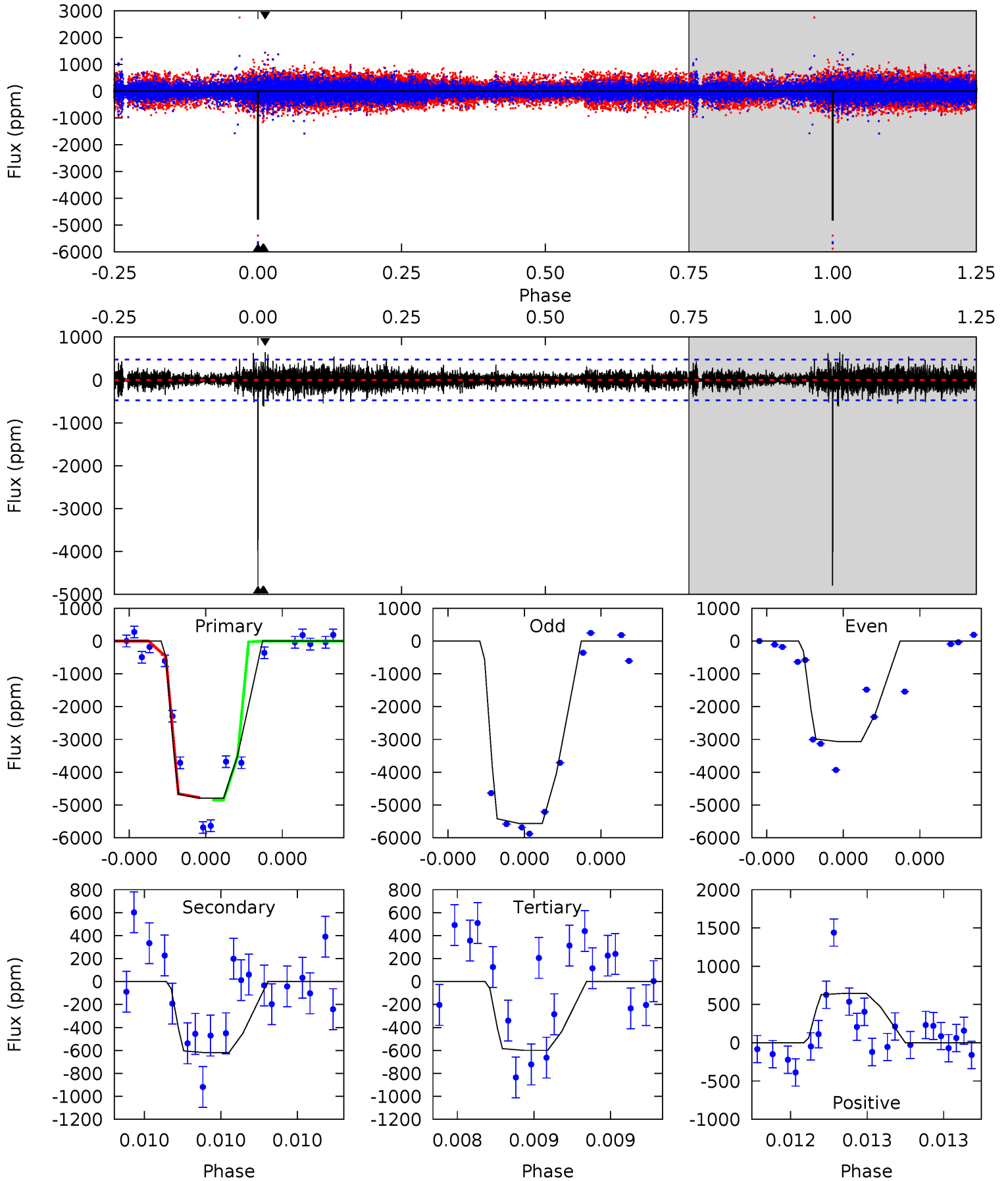
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

004825832-04, P = 347.213183 Days, E = 109.571306 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
56.9	7.34	7.11	7.65	5.63	3.57	1.12	49.7	49.2	0.24	-0.30	11.1	1.01	0.12	0



Stellar Parameters For KIC 004825832

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	3429^{+117}_{-94}	$0.395^{+0.270}_{-0.180}$	$-0.040^{+0.250}_{-0.200}$	$113.372^{+27.146}_{-29.861}$	$1.164^{+0.295}_{-0.159}$	$0.000^{+0.000}_{-0.000}$
	+3%/-3%	+68%/-46%	+625%/-500%	+24%/-26%	+25%/-14%	+150%/-46%
Source	PHO54	PHO54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 004825832-04 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	0 ± 1000000	$891.49^{+1001.02}_{-565.27}$	2234^{+163}_{-180}	-2638^{+9342}_{-4448}	$-0.286^{+106.815}_{-120.579}$
Alt.	-619 ± 84	$1227.74^{+1189.90}_{-735.53}$	2216^{+187}_{-181}	-2012^{+4882}_{-386}	$0.227^{+1.247}_{-0.165}$

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

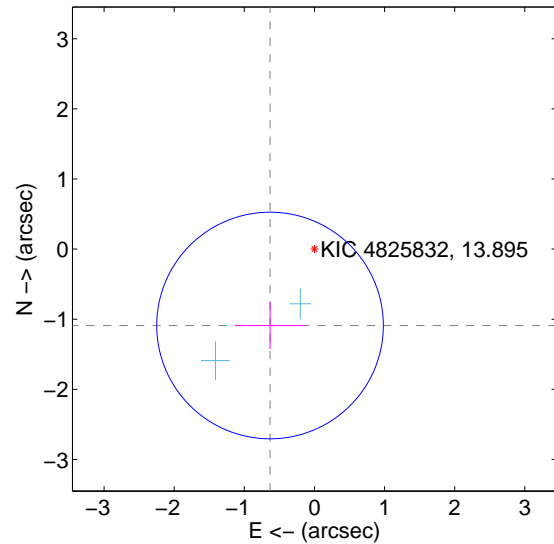
Supplemental centroid analysis for 004825832-04. Kepler magnitude: 13.89. Transit SNR -1.00

There are 2 quarters with good PRF difference image offsets

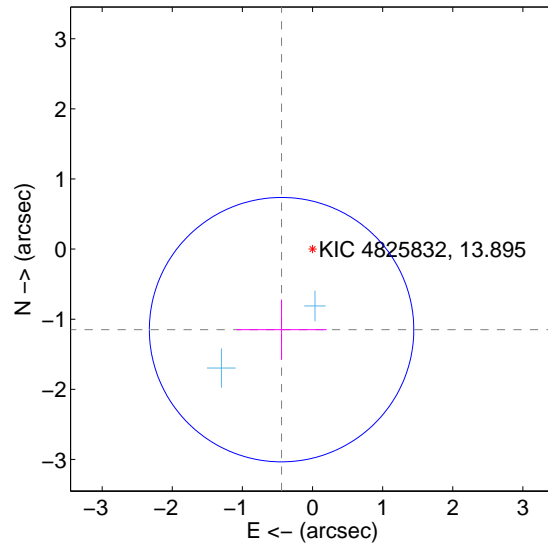
The direct PRF centroid is offset from the target star catalog position by about 0.24 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.261 ± 0.539	2.34	0.634 ± 0.499	-1.090 ± 0.338
PRF-fit source offset from KIC position	1.231 ± 0.629	1.96	0.442 ± 0.643	-1.149 ± 0.429
photometric centroid source offset	0.33 ± 0.07	4.95	-0.22 ± 0.07	-0.24 ± 0.06

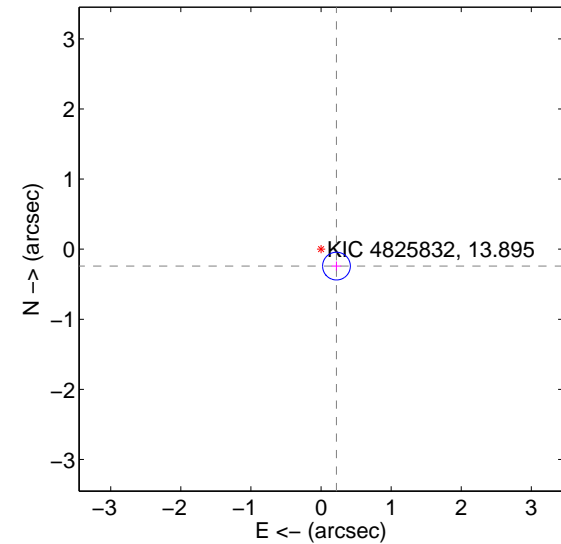
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position



offset from photometric centroids

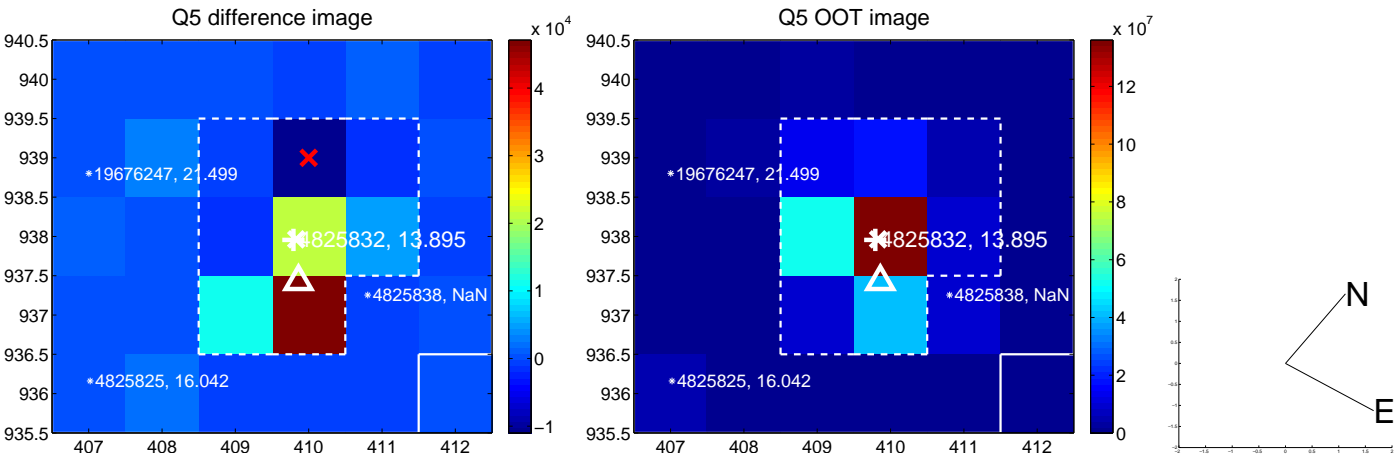


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

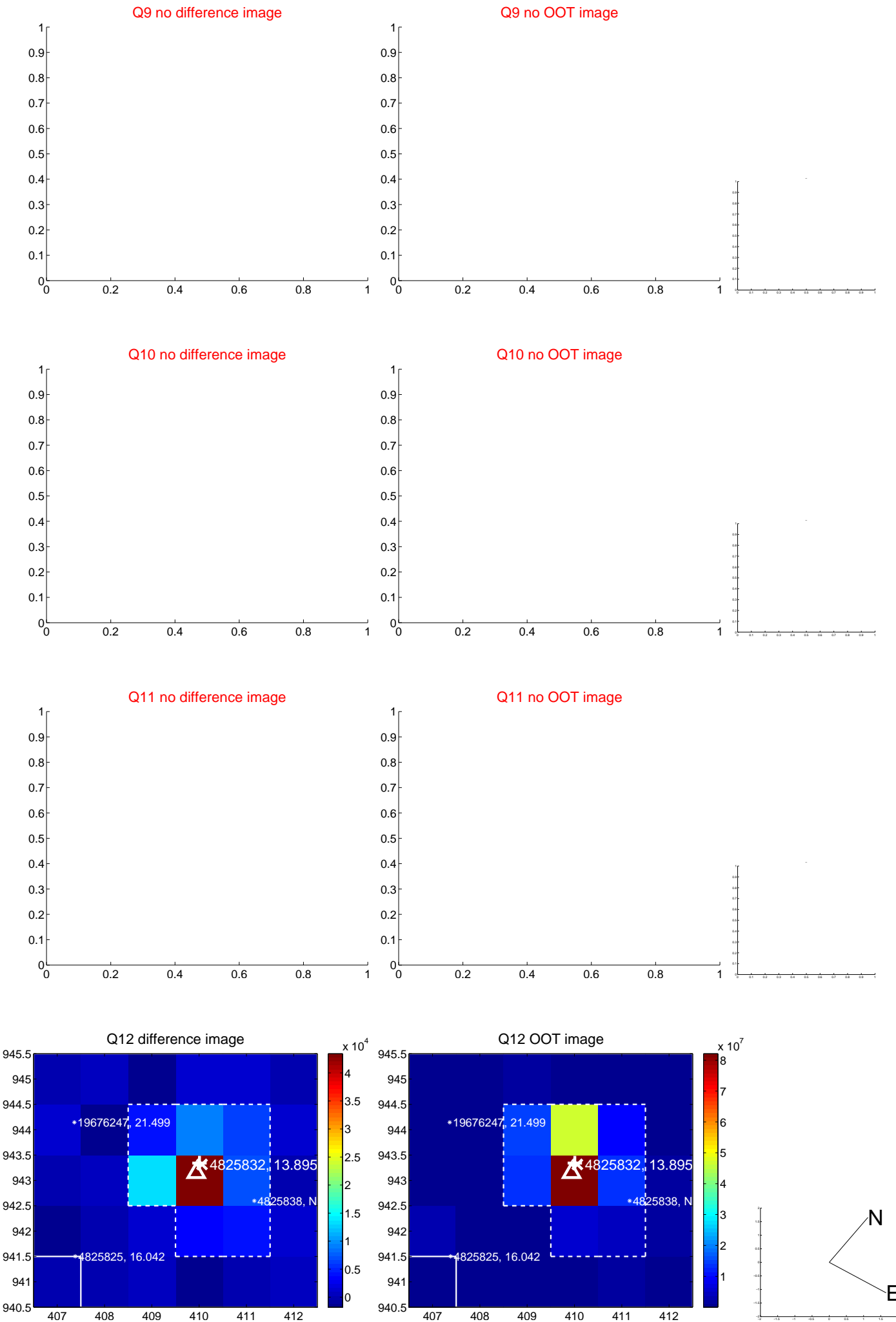
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



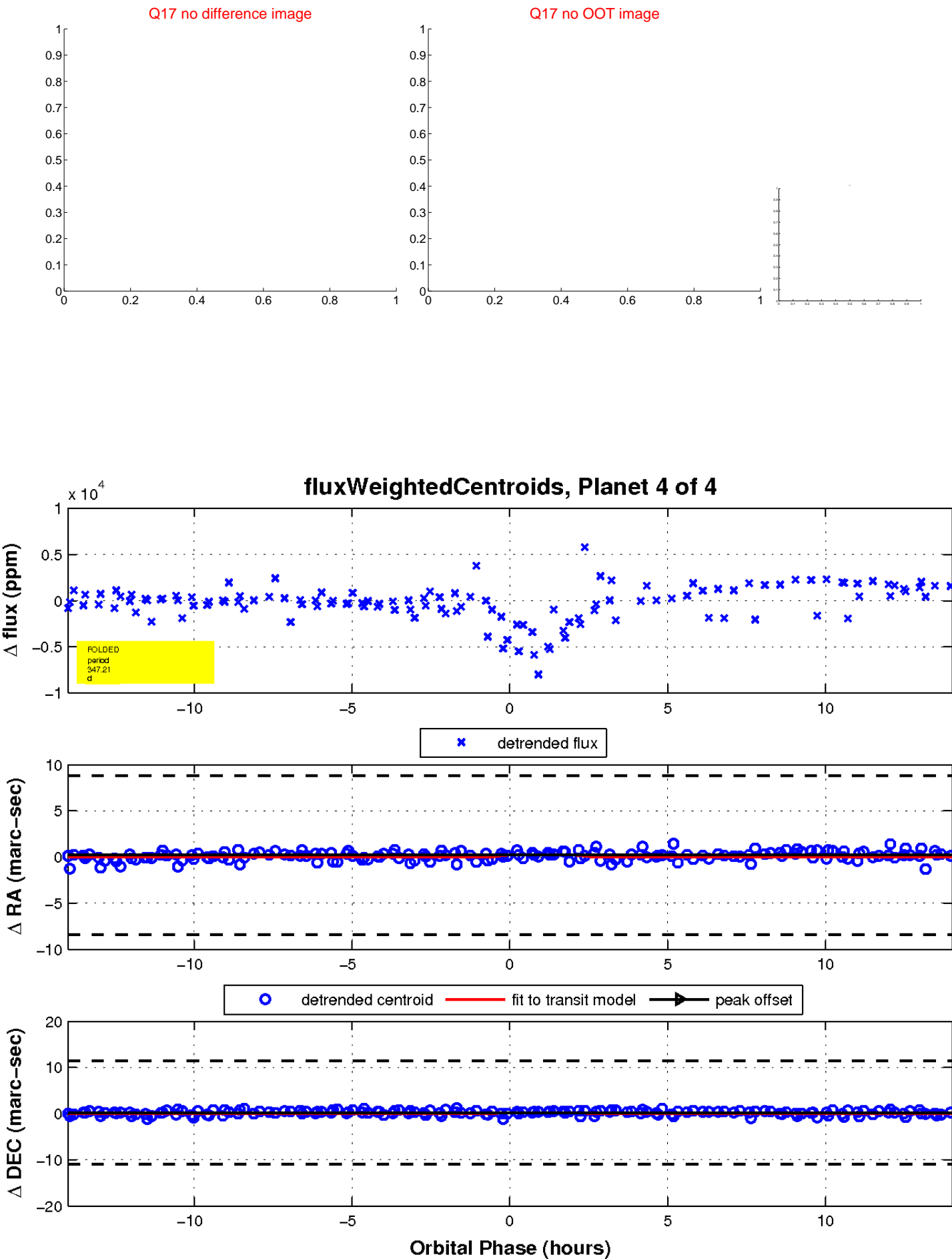
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

