

KIC 006230245

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})
006230245-01	OBS	No	395.047681	203.700752	571.6	4.445	10.8	5.3	1.48	5934	3.73	2.58
006230245-02	OBS	No	421.345551	521.936596	600.0	3.414	10.3	6.5	1.48	5934	3.86	2.37
006230245-03	OBS	No	399.185457	479.271514	546.6	3.490	17.7	5.5	1.48	5934	3.77	2.54

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006230245-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006230245-02	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS
006230245-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_SKYE—LPP_DV—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.

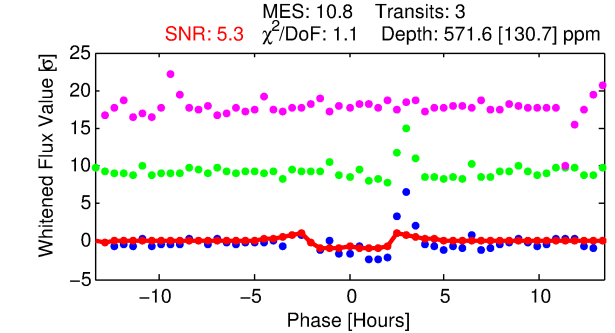
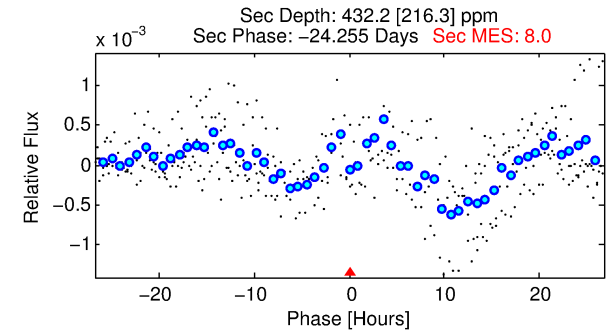
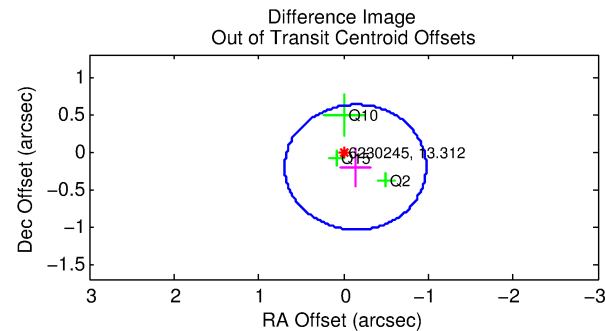
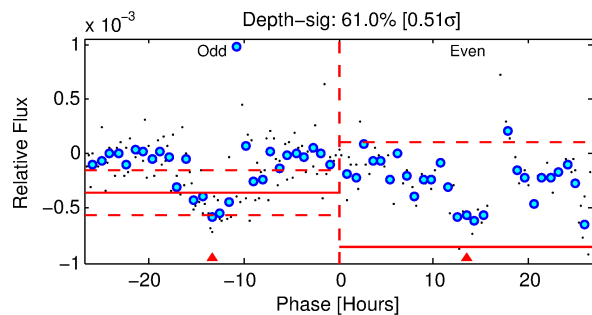
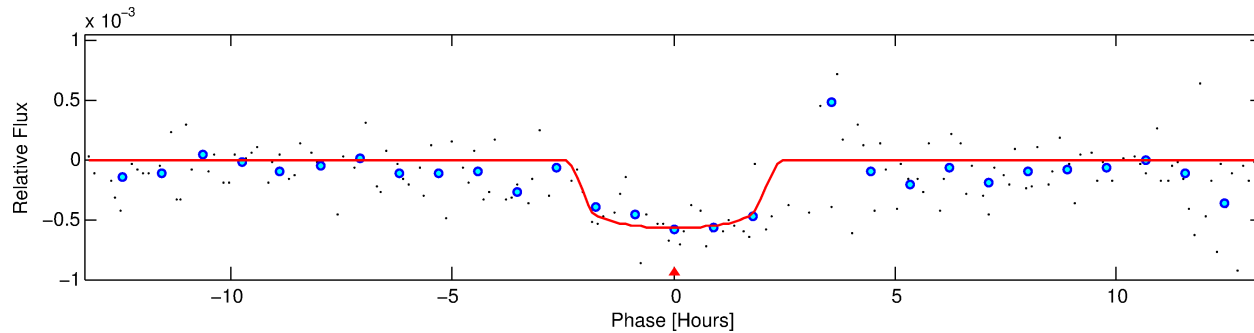
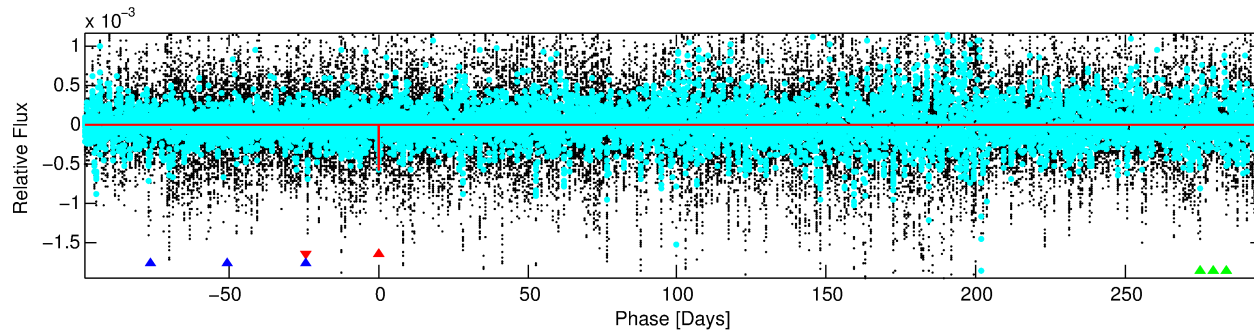
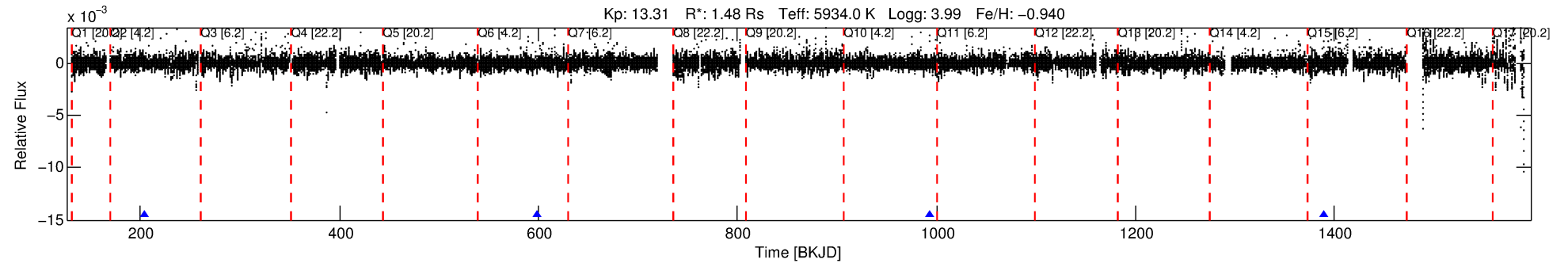
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006230245-01

No Significant Match Found

DV One-Page Summary

KIC: 6230245 Candidate: 1 of 3 Period: 395.048 d



DV Fit Results:

Period = 395.04768 [0.00419] d
Epoch = 203.7008 [0.0089] BKJD
Rp/R* = 0.0231 [0.0286]
a/R* = 544.99 [3486.04]
b = 0.63 [6.07]
Seff = 2.58 [2.34]
Teq = 323 [73] K
Rp = 3.73 [4.94] Re
a = 0.9712 [0.5104] AU
Ag = 16123.63 [43199.23] [0.37 σ]
Teffp = 5630 [3559] K [1.49 σ]

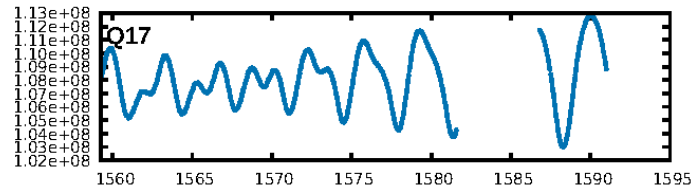
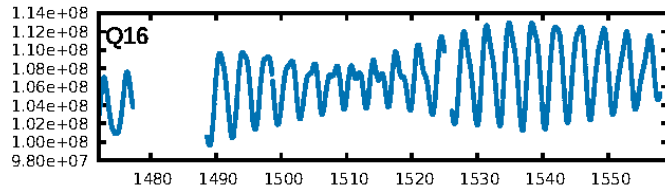
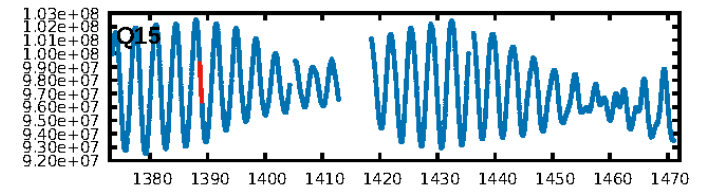
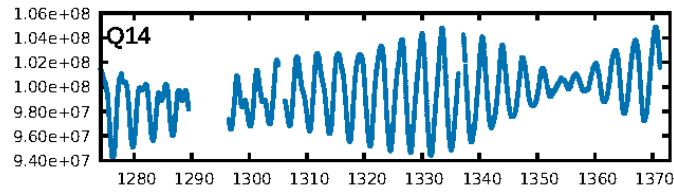
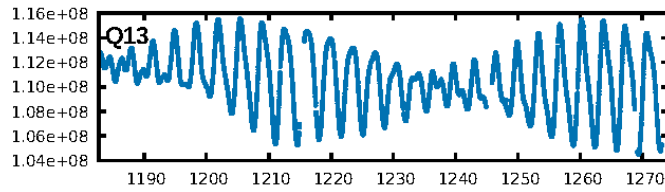
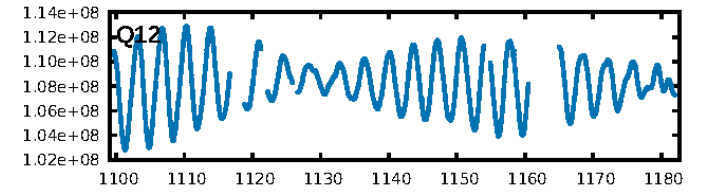
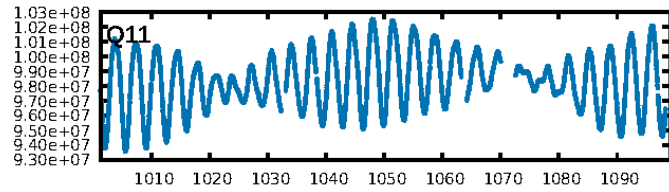
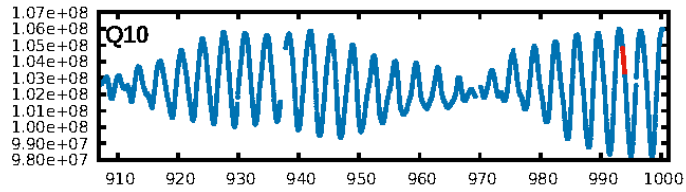
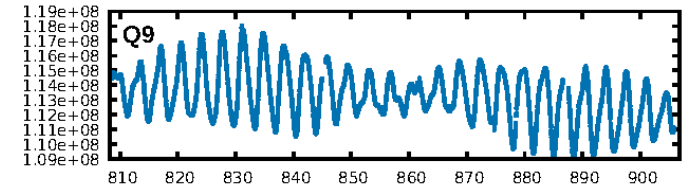
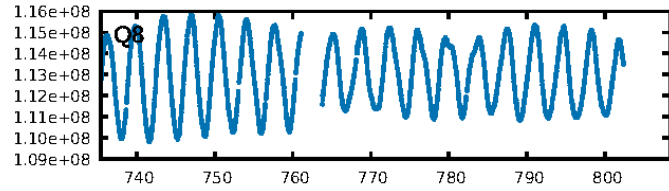
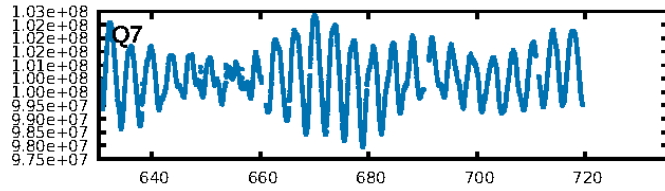
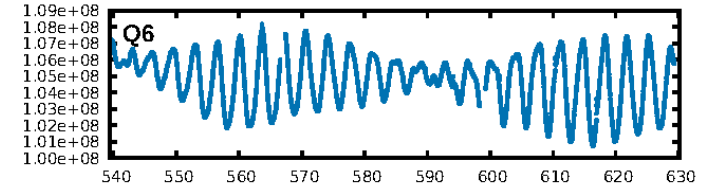
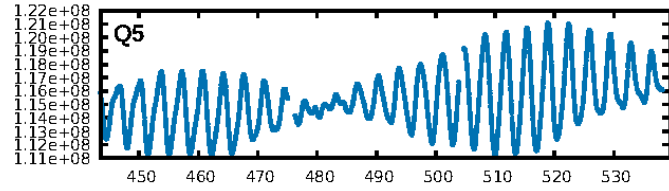
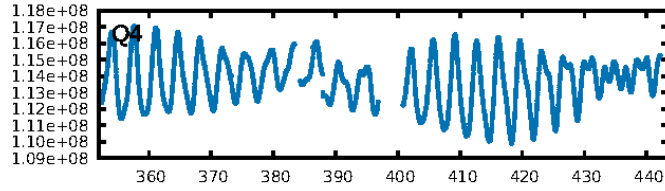
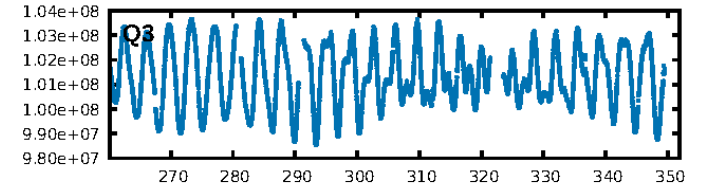
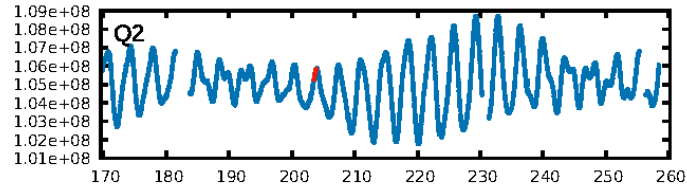
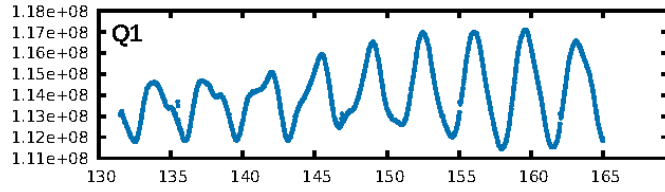
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [17.57 σ]
ModelChiSquare2-sig: 3.5%
ModelChiSquareGof-sig: 79.7%
Bootstrap-pfa: 9.00e-09
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 6.914
Centroid-sig: 35.3%
Centroid-so: 0.760 arcsec [0.58 σ]
OotOffset-rm: 0.251 arcsec [0.90 σ]
KicOffset-rm: 0.387 arcsec [1.41 σ]
OotOffset-st: 2/1/0/0 [3]
KicOffset-st: 2/1/0/0 [3]
DiffImageQuality-fgm: 0.33 [1/3]
DiffImageOverlap-fno: 1.00 [3/3]

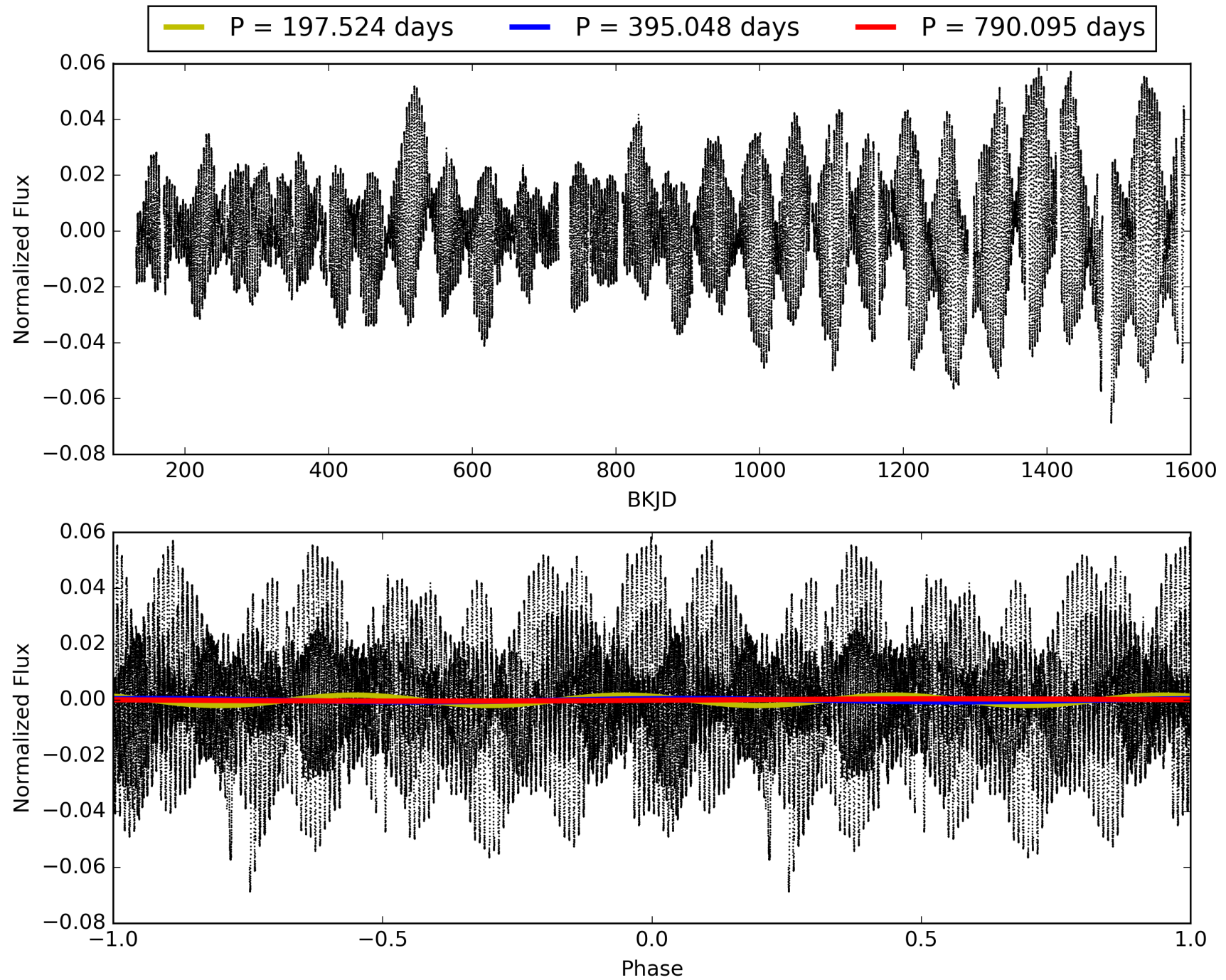
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 14:09:48 Z

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

TCE 006230245-01, PDC Light Curves

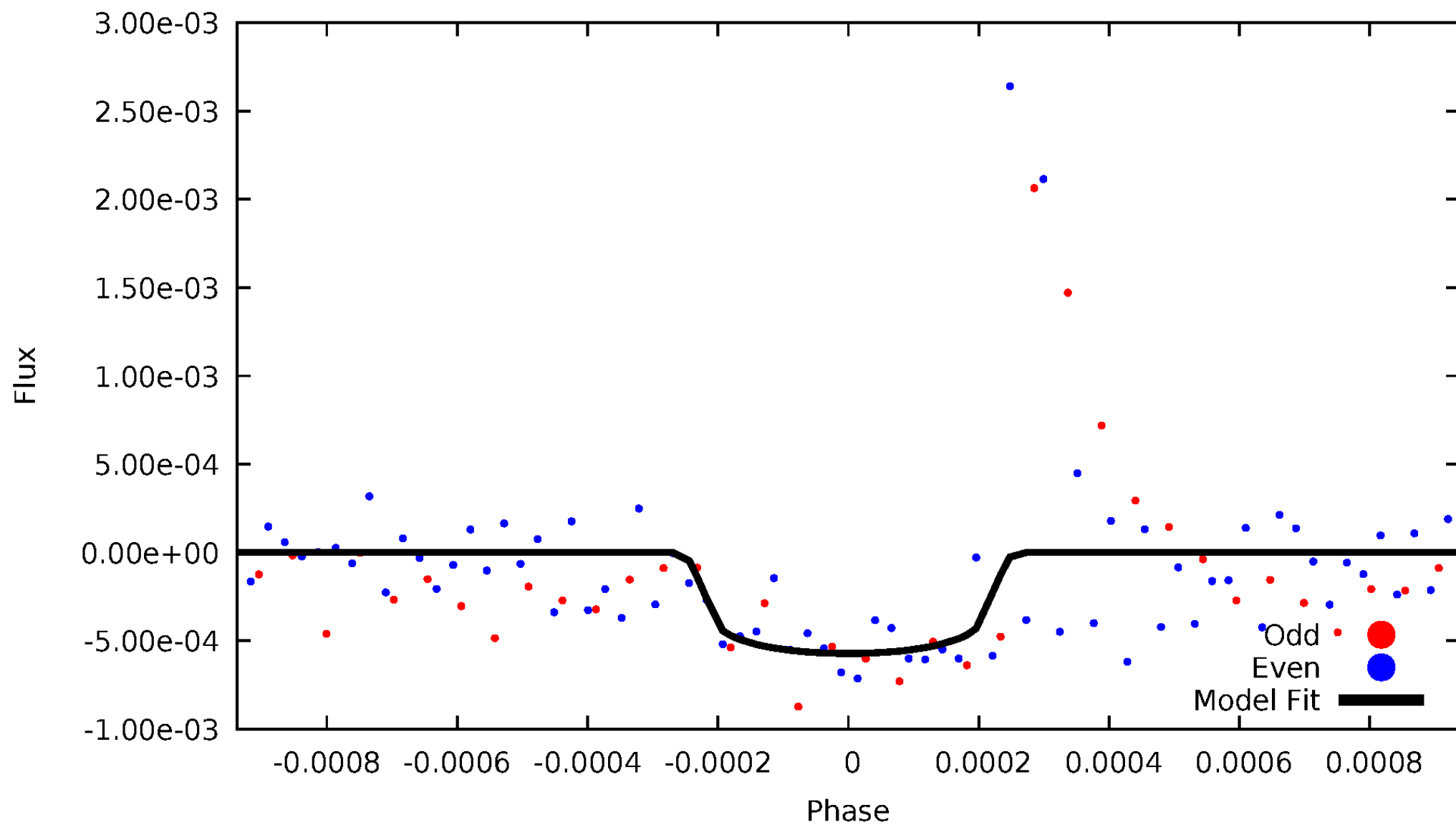


TCE 006230245-01



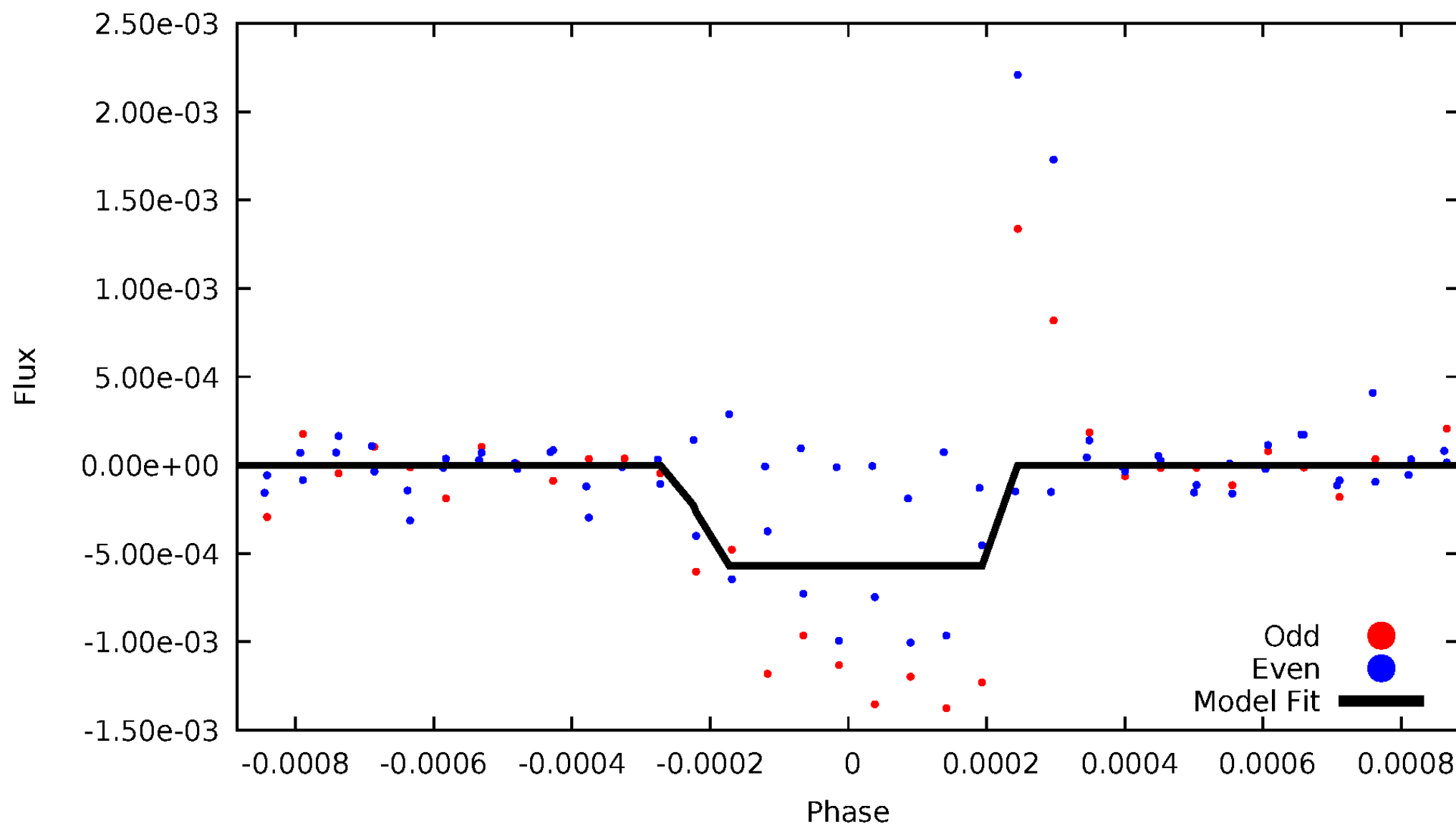
DV Odd/Even

TCE 006230245-01



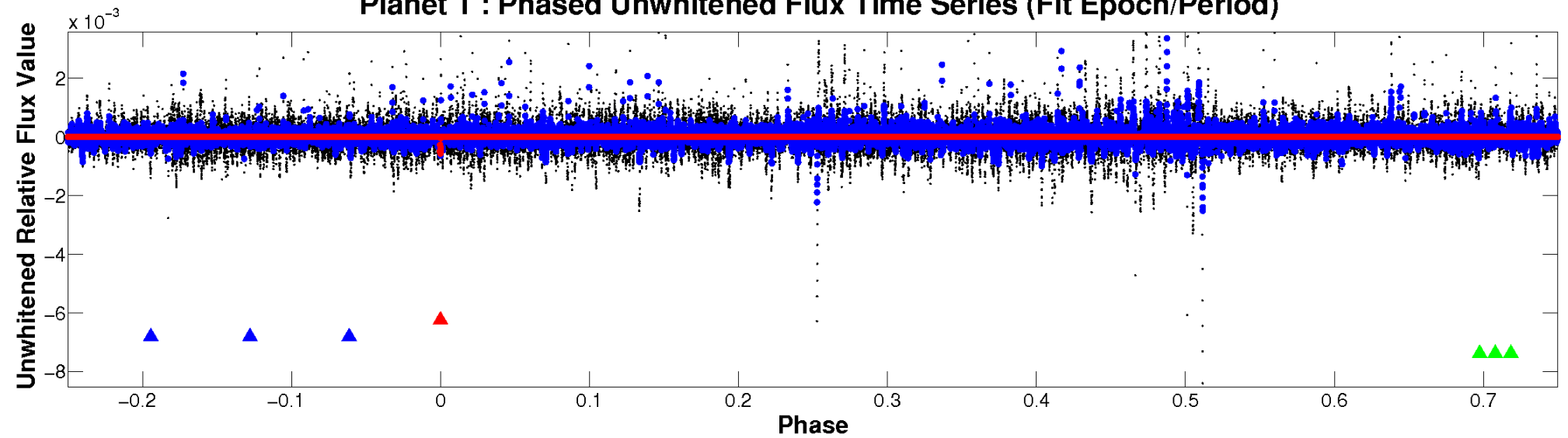
ALT Odd/Even

TCE 006230245-01

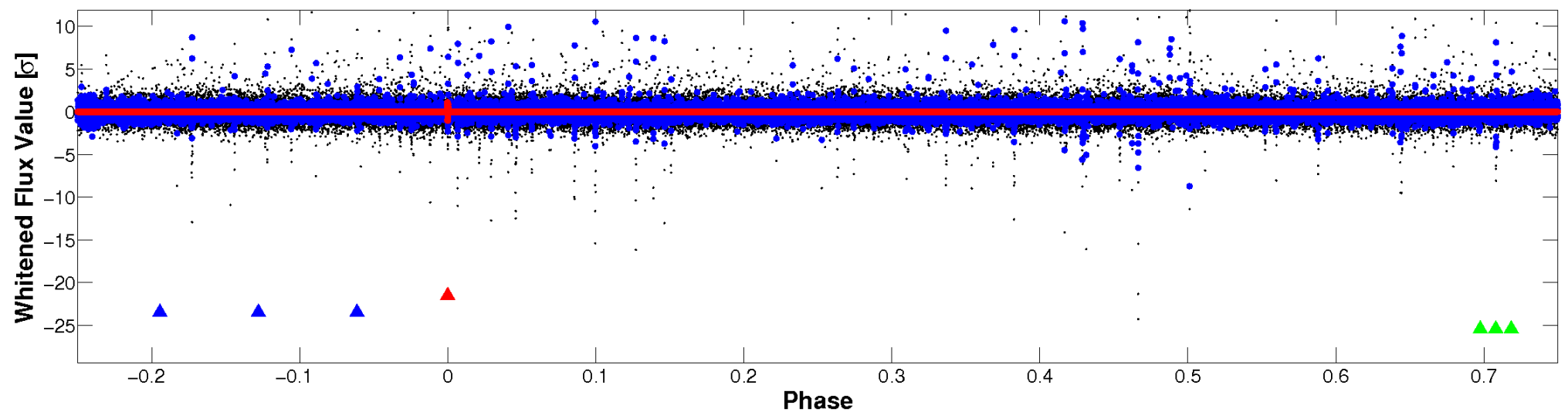


Non-Whitened Vs. Whitened Light Curve

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

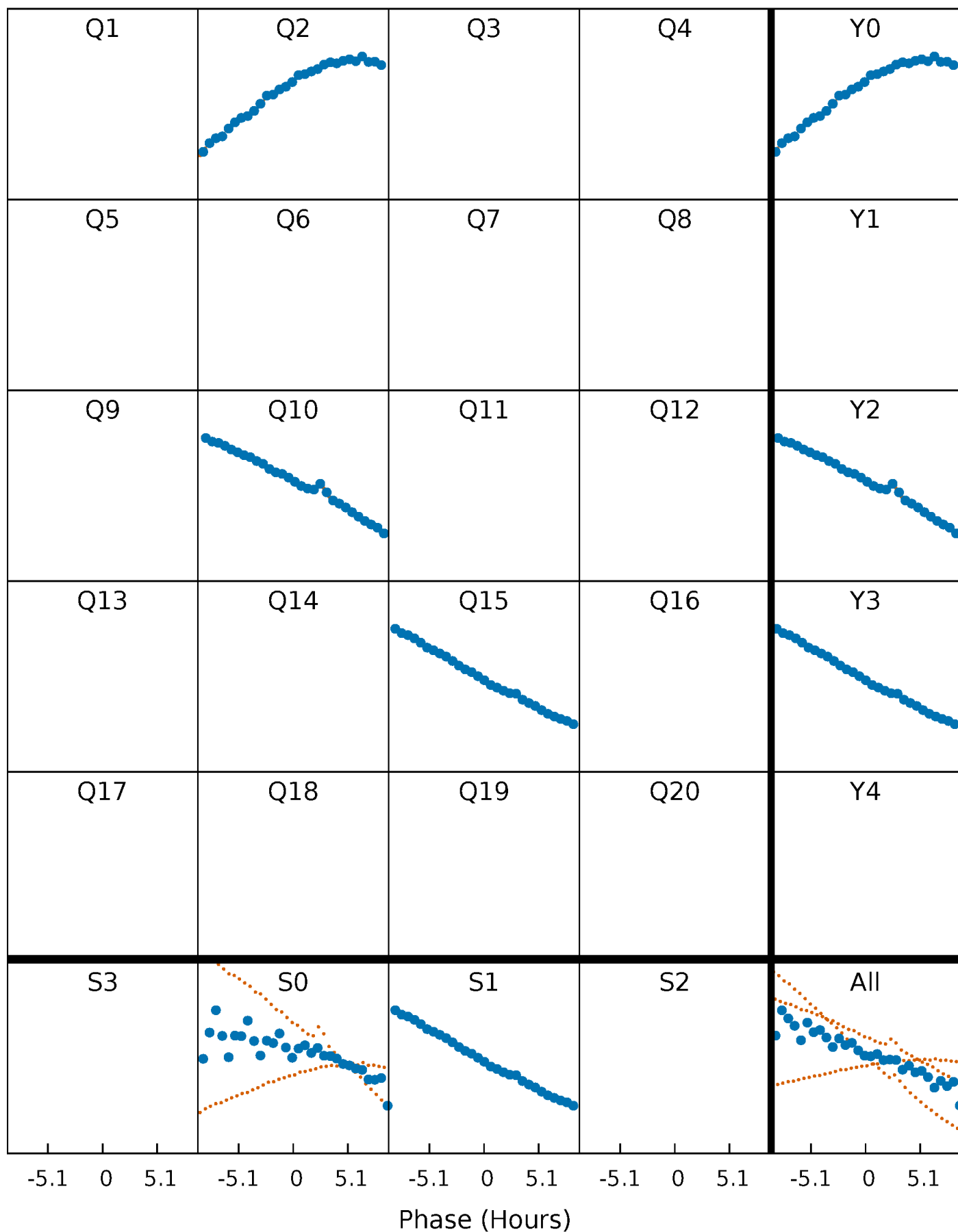


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



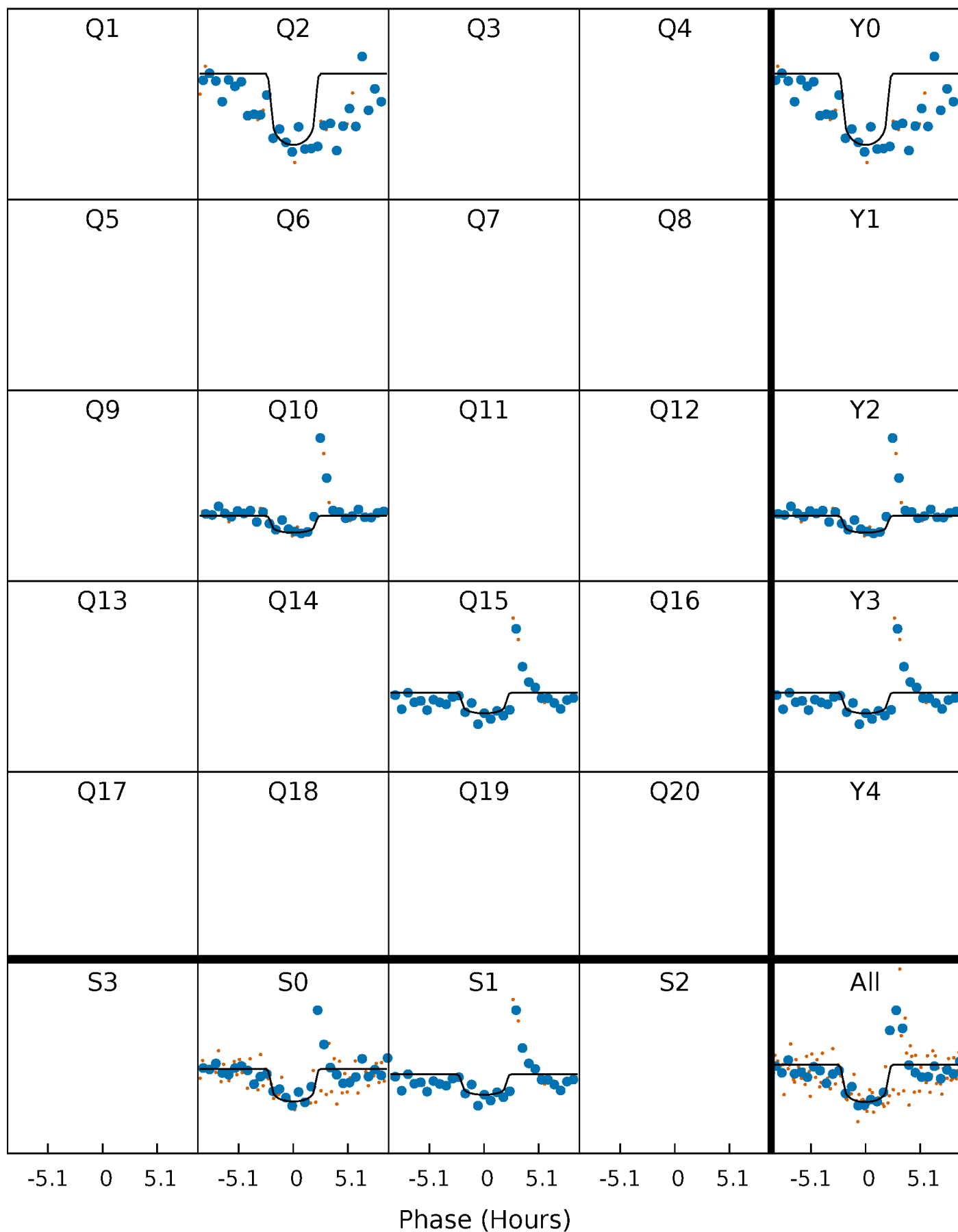
PDC Quarter-Phased Transit Curves

TCE 006230245-01 P=395.047681 Days $T_0=203.700752$ (BKJD)



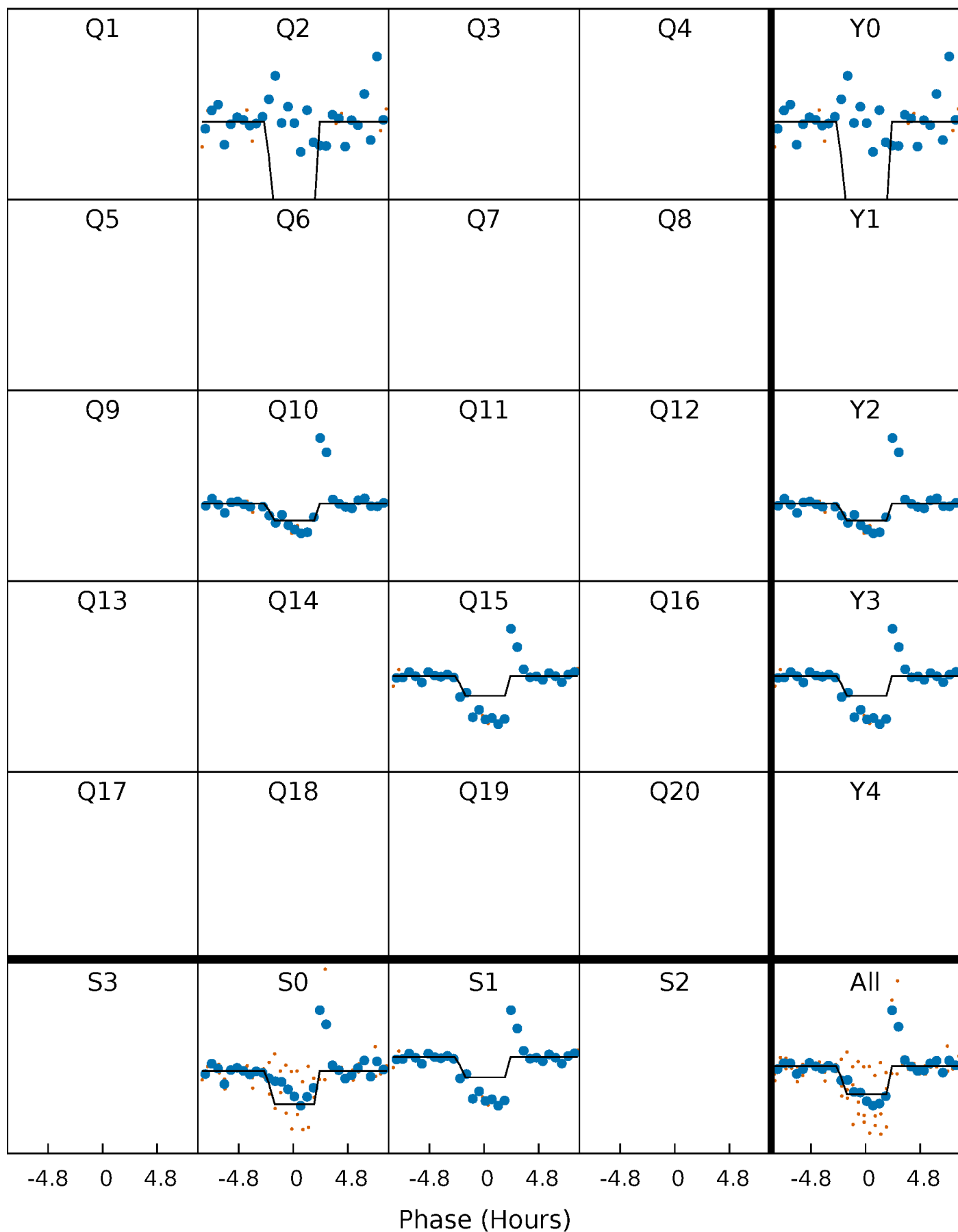
DV Quarter-Phased Transit Curves

TCE 006230245-01 P=395.047681 Days $T_0=203.700752$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

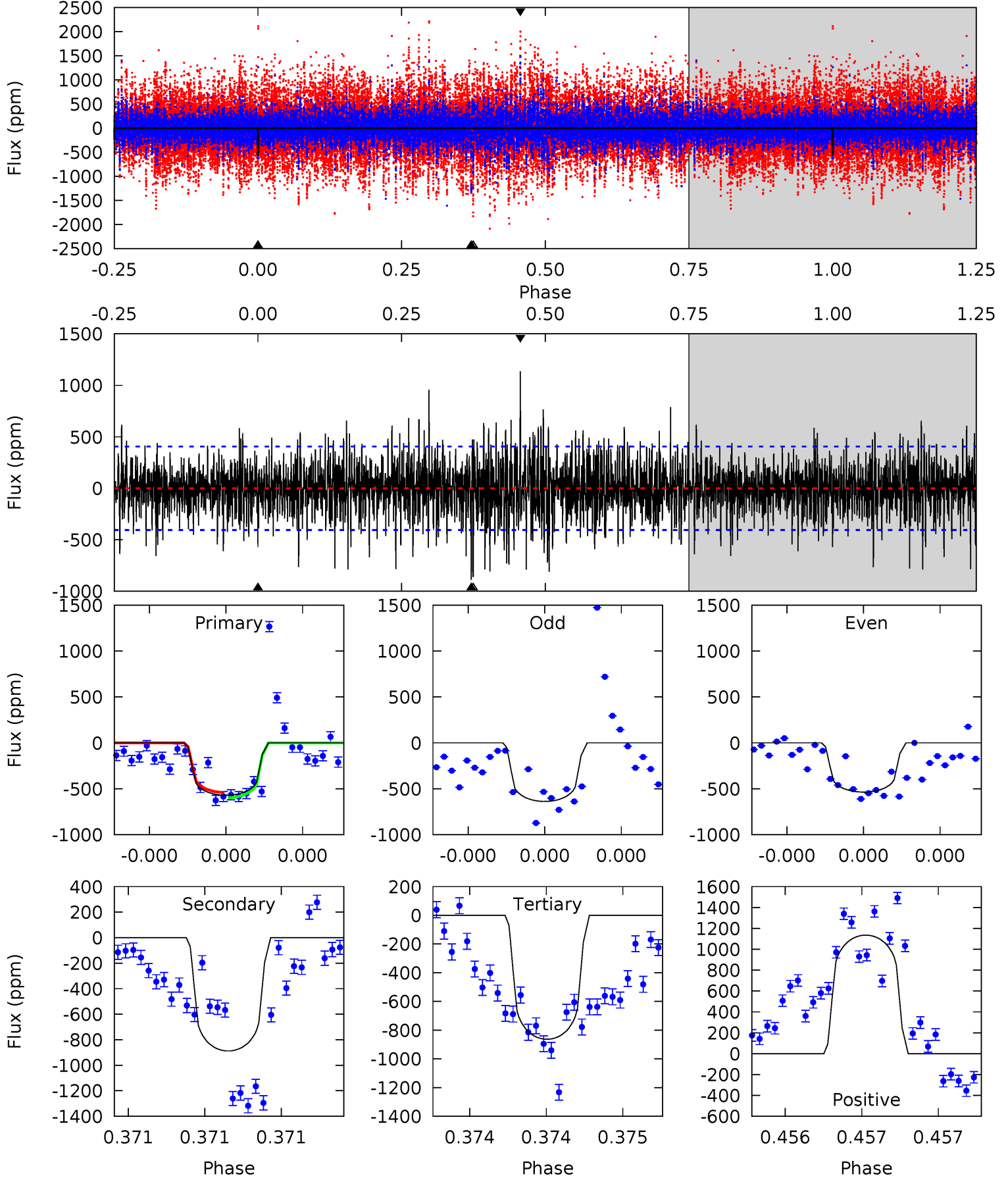
TCE 006230245-01 P=395.062449 Days $T_0=203.672224$ (BKJD)



DV Model-Shift Uniqueness Test

006230245-01, P = 395.047681 Days, E = 203.700752 Days

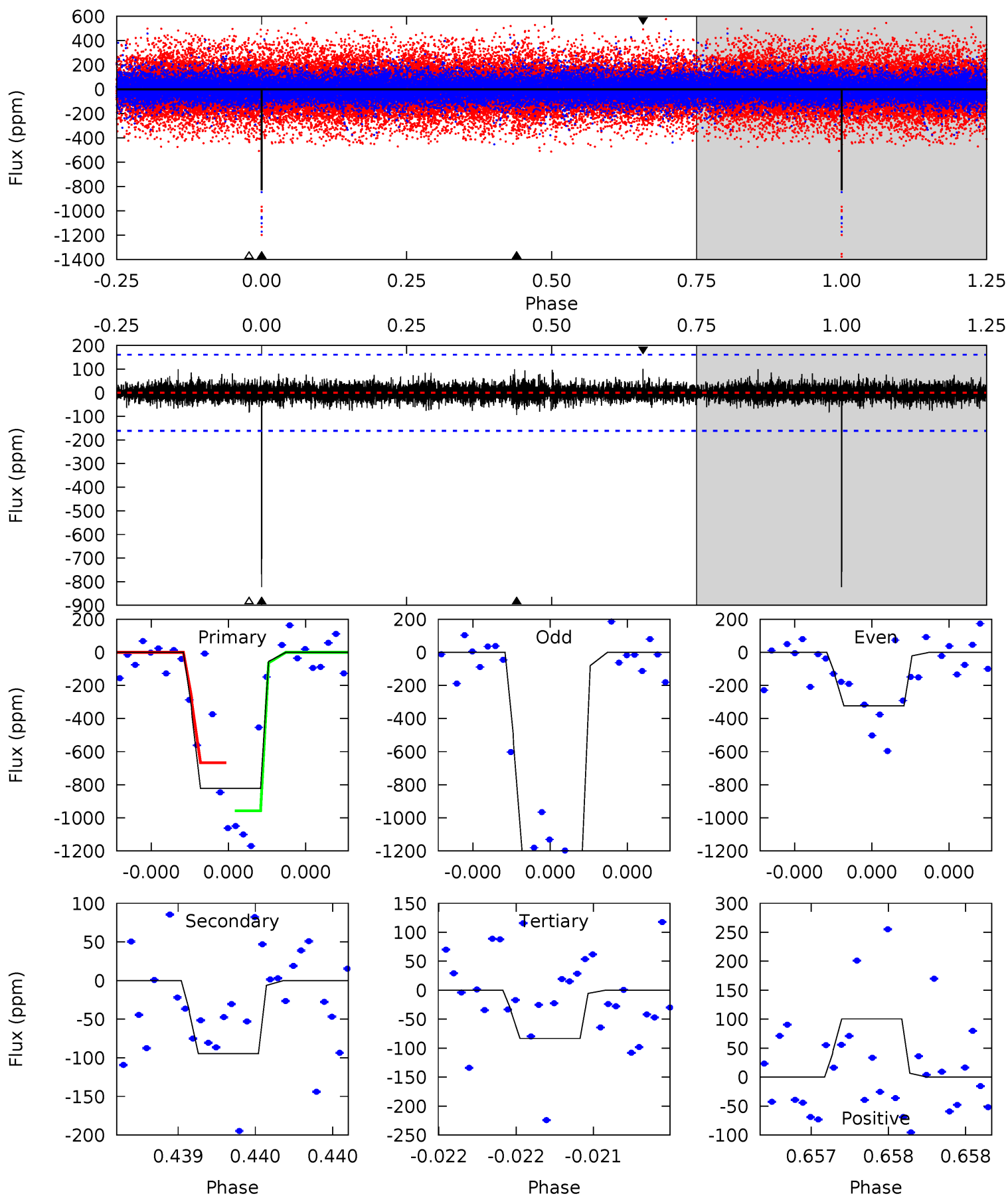
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.83	12.2	11.9	15.6	5.58	3.49	2.82	-4.02	-7.76	0.34	-3.39	0.59	0.92	0.56	0.40



Alt Model-Shift Uniqueness Test

006230245-01, P = 395.062449 Days, E = 203.672224 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
28.6	3.28	2.89	3.48	5.59	3.50	0.66	25.7	25.1	0.39	-0.20	17.0	0.83	0.11	4.88



Stellar Parameters For KIC 006230245

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5934^{+197}_{-161}	$3.991^{+0.546}_{-0.234}$	$-0.940^{+0.350}_{-0.300}$	$1.480^{+0.576}_{-0.704}$	$0.784^{+0.085}_{-0.062}$	$0.340^{+1.860}_{-0.206}$
	+3%/-3%	+14%/-6%	+37%/-32%	+39%/-48%	+11%/-8%	+547%/-61%
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 006230245-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-888 ± 73	$4.90^{+4.50}_{-3.26}$	447^{+55}_{-61}	5803^{+4930}_{-1360}	$19667^{+148057}_{-14455}$
Alt.	-95 ± 29	$4.42^{+4.82}_{-2.85}$	446^{+51}_{-65}	3708^{+1961}_{-640}	2417^{+16961}_{-1834}

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

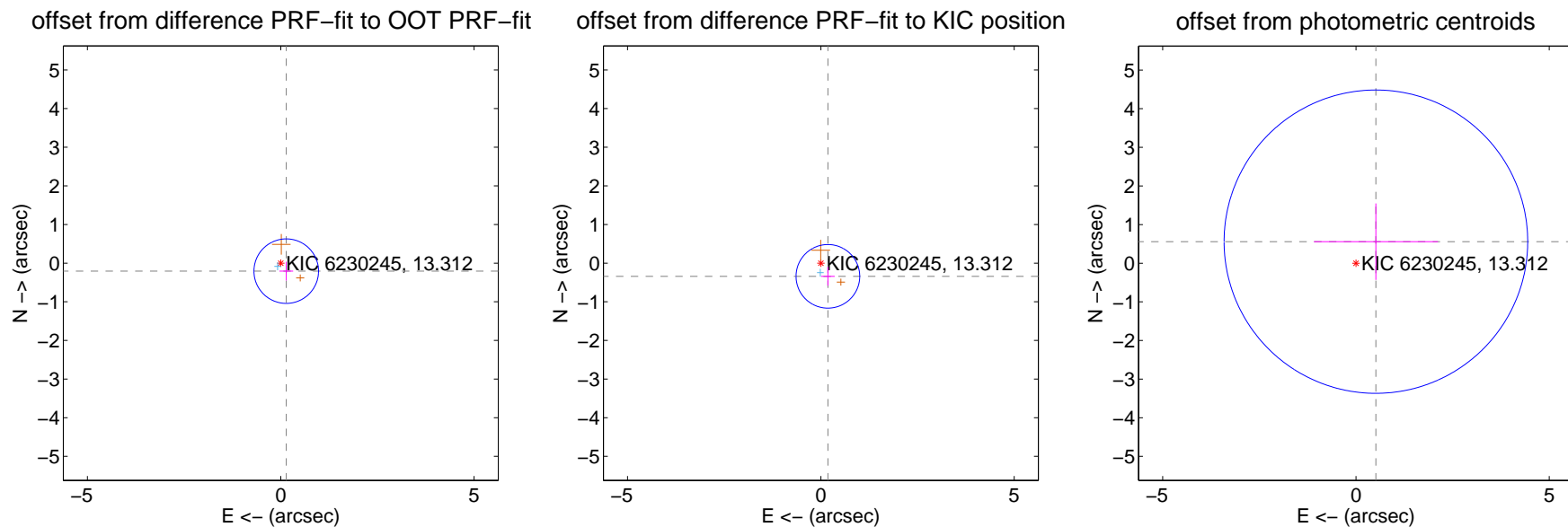
DV Centroid Data

Supplemental centroid analysis for 006230245-01. Kepler magnitude: 13.31. Transit SNR 5.28

There are 1 quarters with good PRF difference image offsets

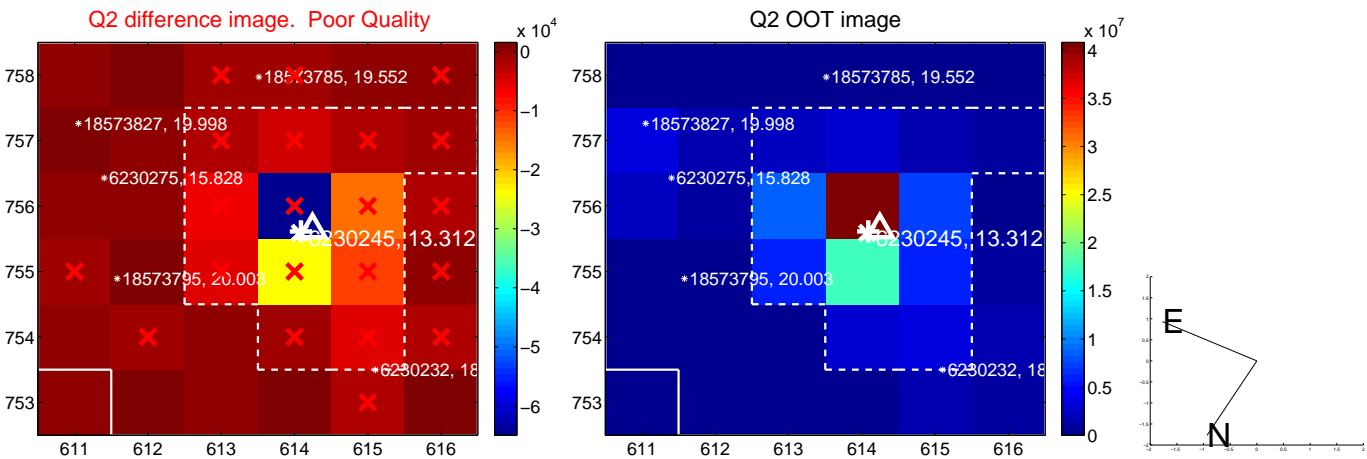
The direct PRF centroid is offset from the target star catalog position by about 0.18 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.251 ± 0.278	0.90	-0.142 ± 0.178	-0.207 ± 0.243
PRF-fit source offset from KIC position	0.387 ± 0.274	1.41	-0.182 ± 0.176	-0.341 ± 0.240
photometric centroid source offset	0.76 ± 1.31	0.58	-0.52 ± 1.60	0.56 ± 0.99



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.

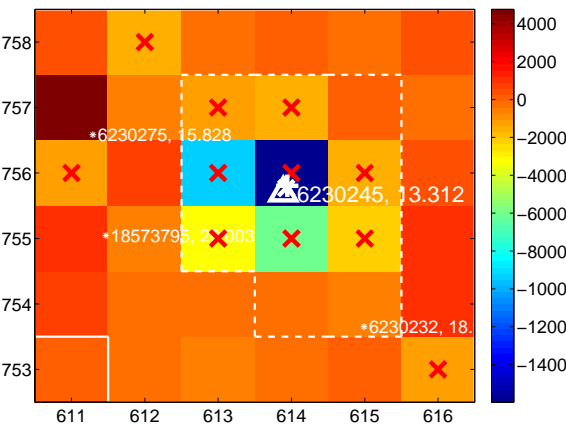
Q9 no difference image



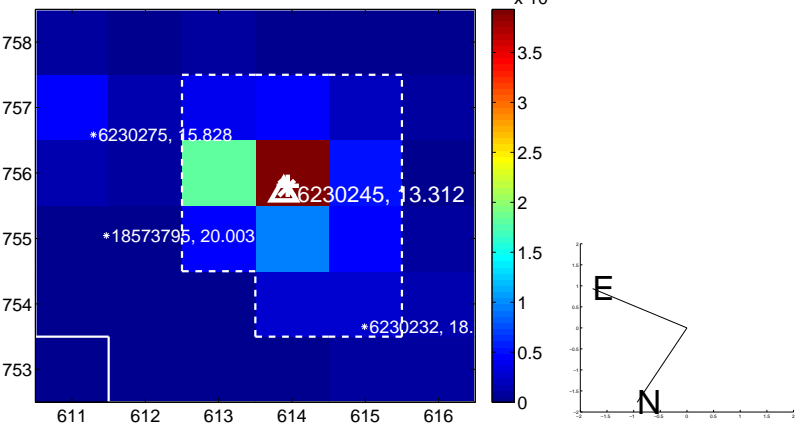
Q9 no OOT image



Q10 difference image. Poor Quality



Q10 OOT image



Q11 no difference image



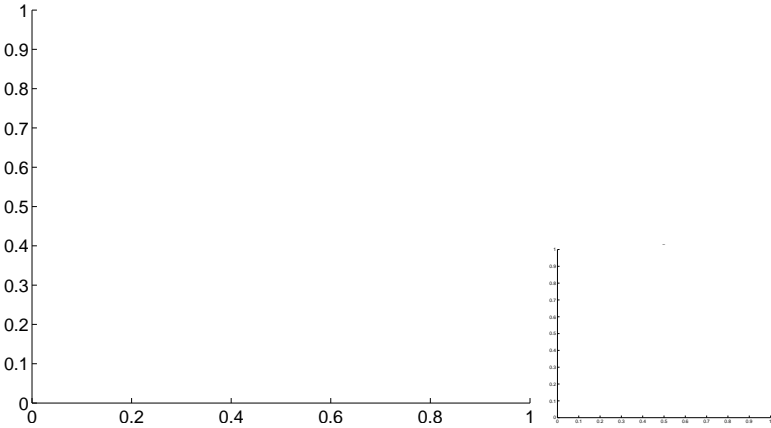
Q11 no OOT image



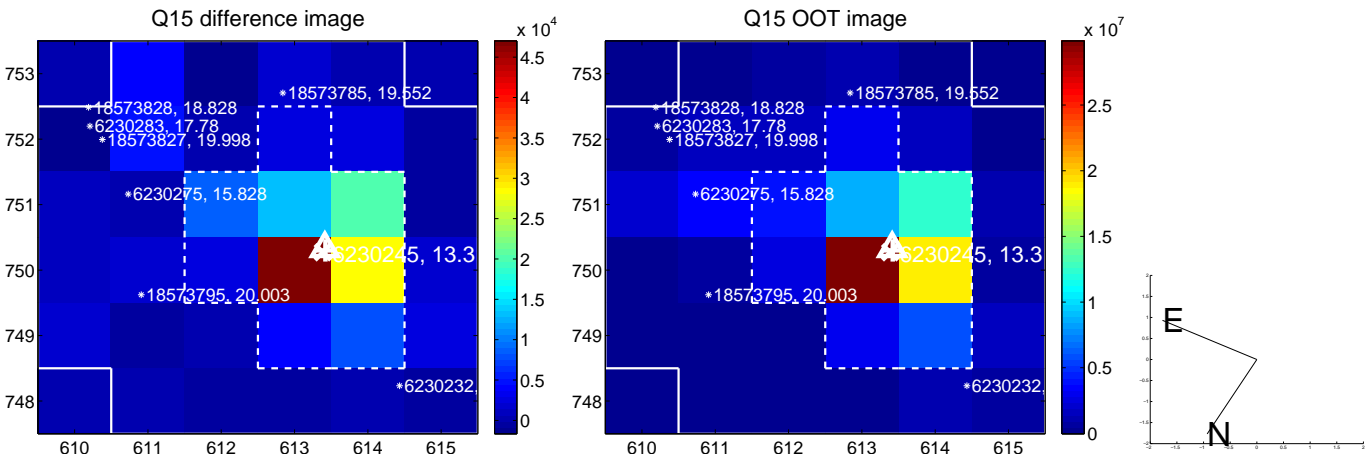
Q12 no difference image



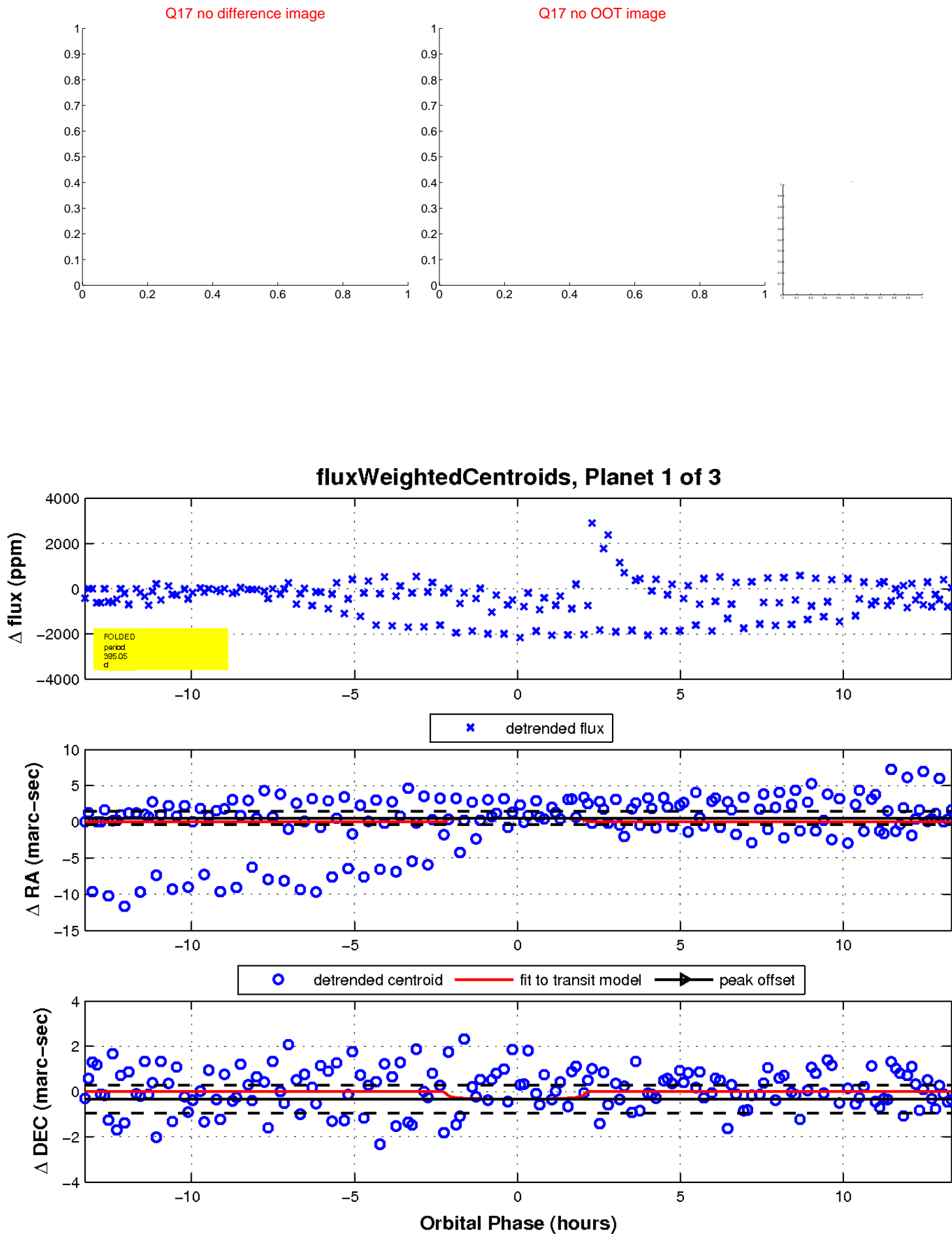
Q12 no OOT image



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

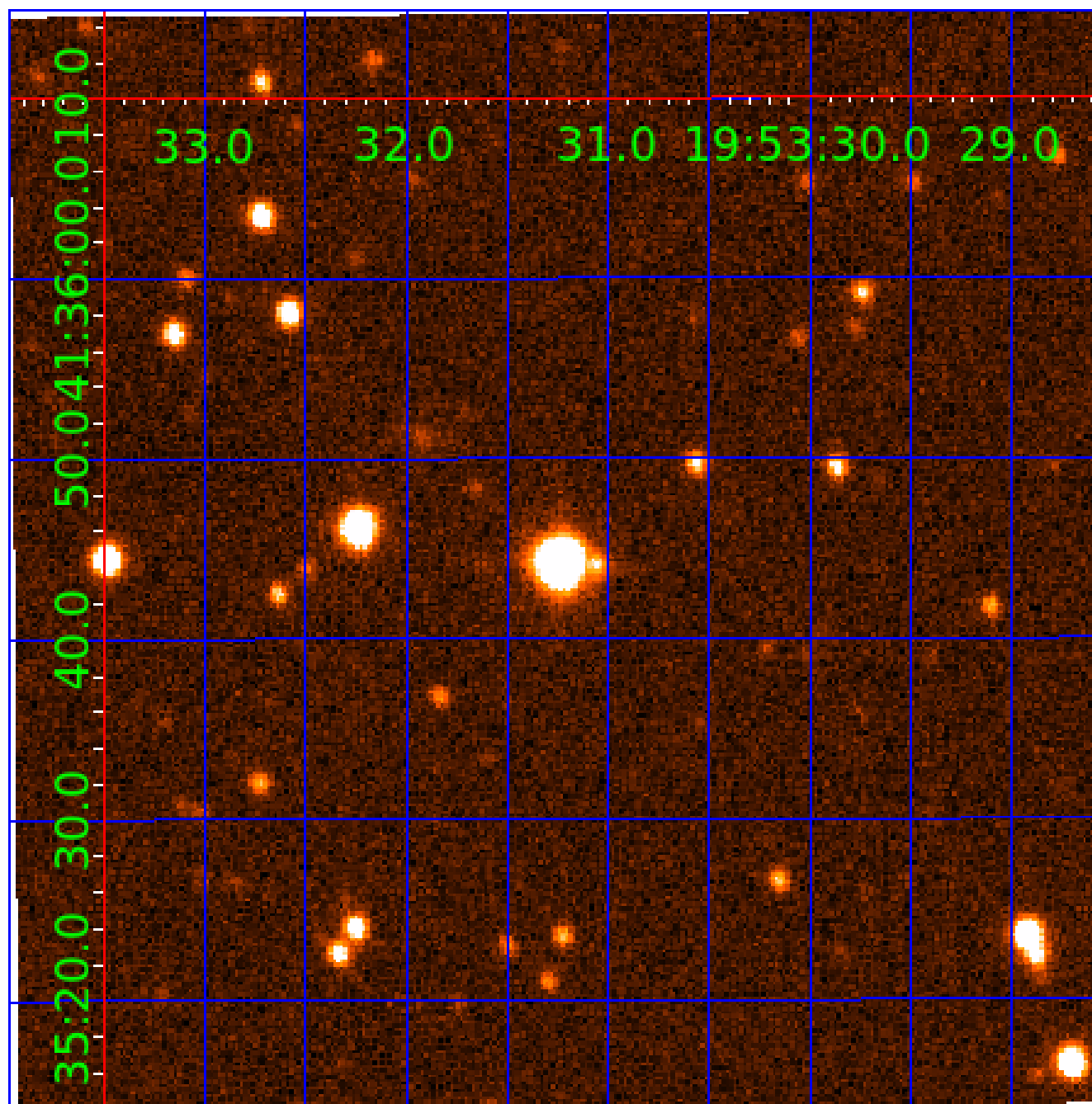


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 006230245

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})
006230245-01	OBS	No	395.047681	203.700752	571.6	4.445	10.8	5.3	1.48	5934	3.73	2.58
006230245-02	OBS	No	421.345551	521.936596	600.0	3.414	10.3	6.5	1.48	5934	3.86	2.37
006230245-03	OBS	No	399.185457	479.271514	546.6	3.490	17.7	5.5	1.48	5934	3.77	2.54

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006230245-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006230245-02	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS
006230245-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_SKYE—LPP_DV—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.

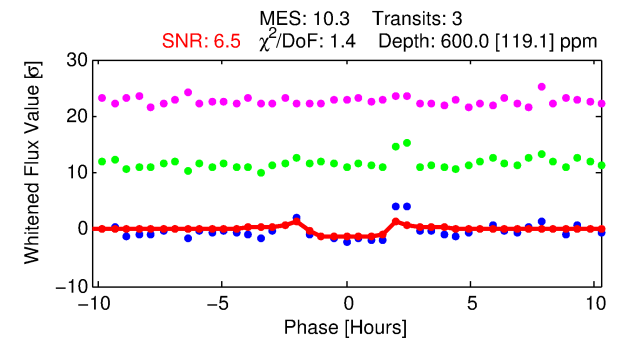
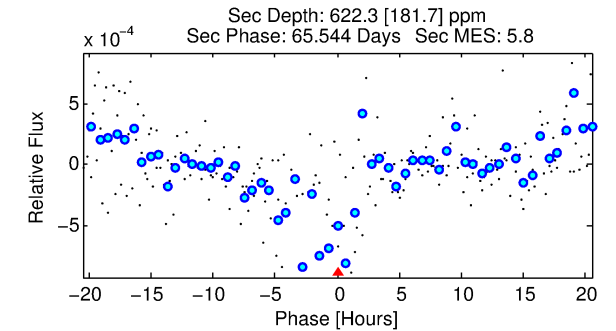
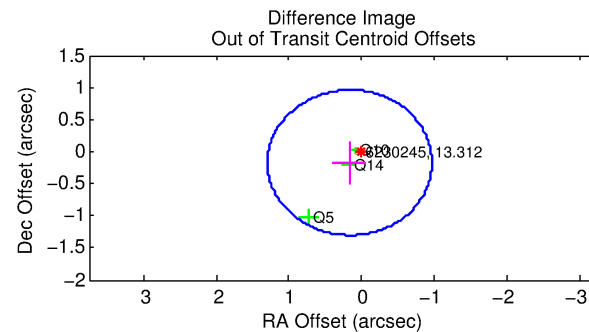
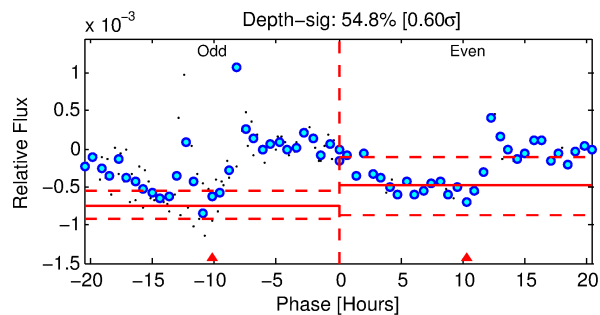
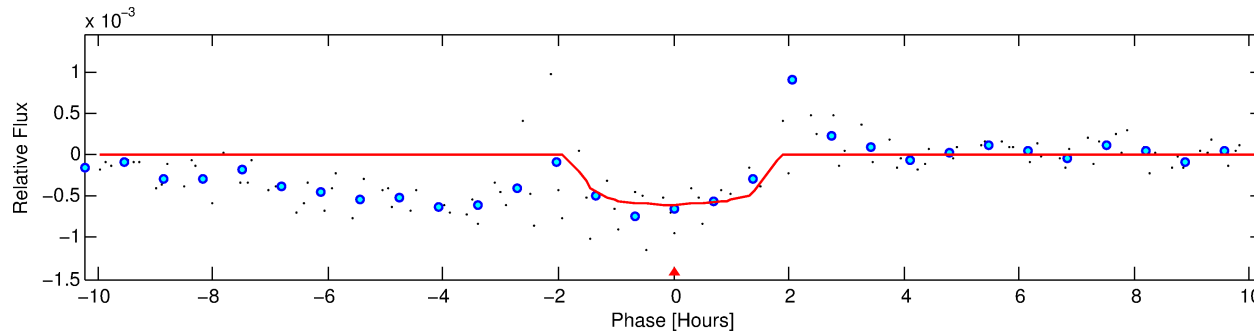
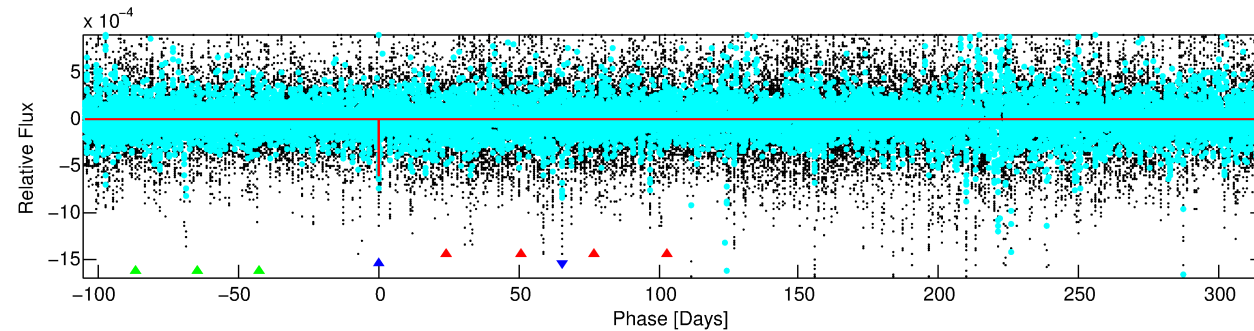
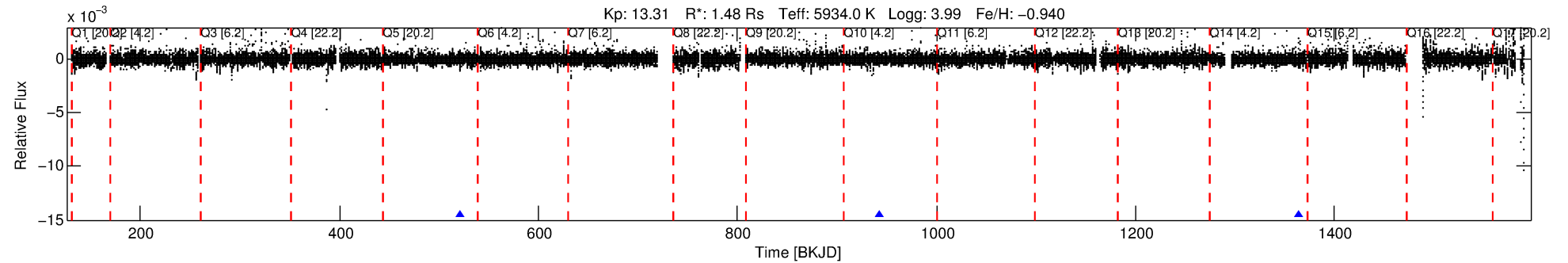
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006230245-02

No Significant Match Found

DV One-Page Summary

KIC: 6230245 Candidate: 2 of 3 Period: 421.346 d



DV Fit Results:

Period = 421.34555 [0.00494] d
Epoch = 521.9366 [0.0060] BKJD
Rp/R* = 0.0239 [0.0337]
a/R* = 725.69 [5324.33]
b = 0.68 [5.95]
Seff = 2.37 [2.14]
Teq = 316 [72] K
Rp = 3.86 [5.75] Re
a = 1.0138 [0.5328] AU
Ag = 23659.49 [70438.70] [0.34 σ]
Teffp = 6065 [4310] K [1.33 σ]

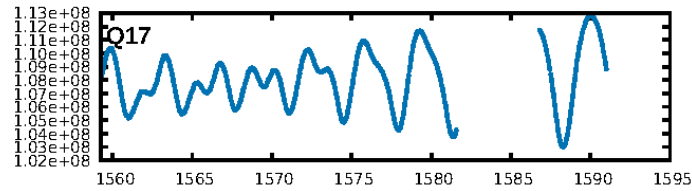
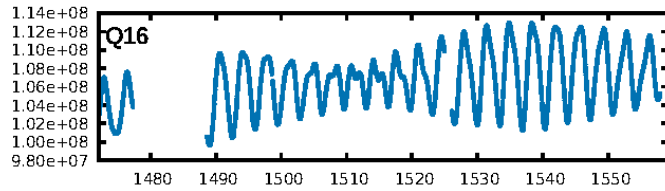
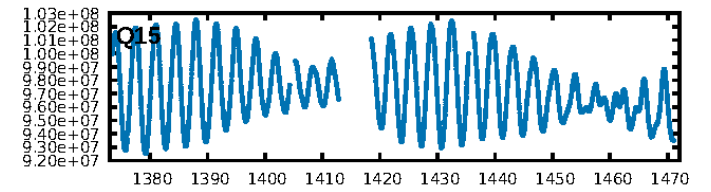
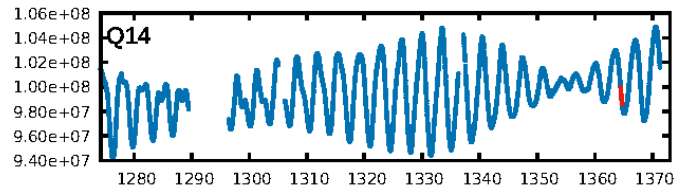
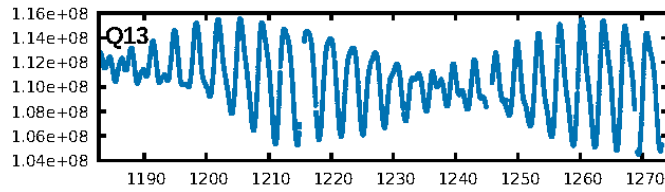
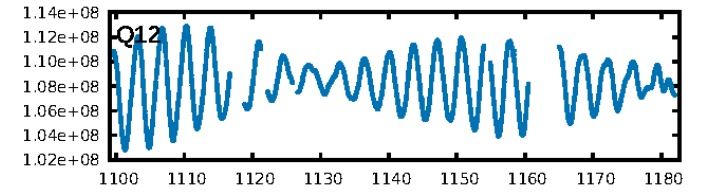
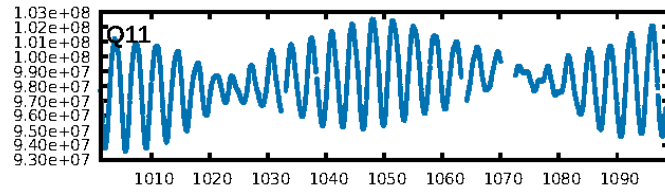
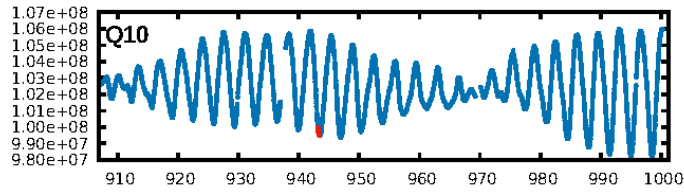
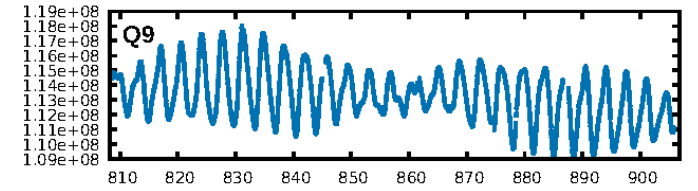
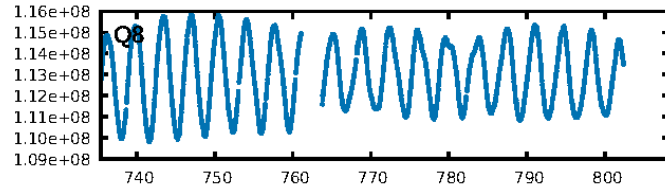
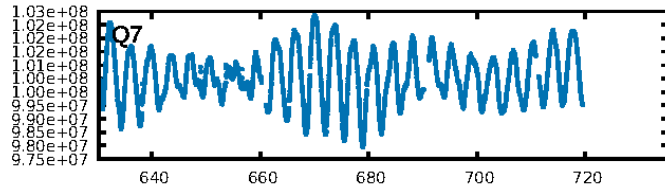
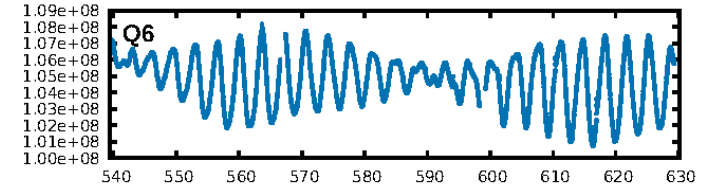
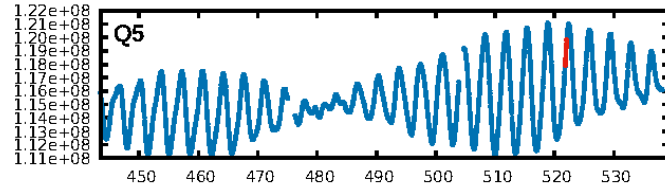
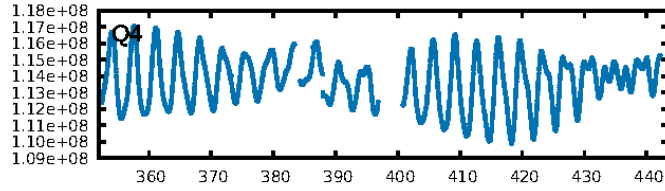
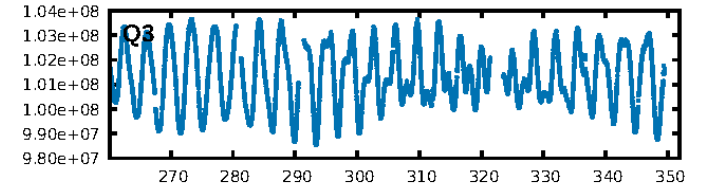
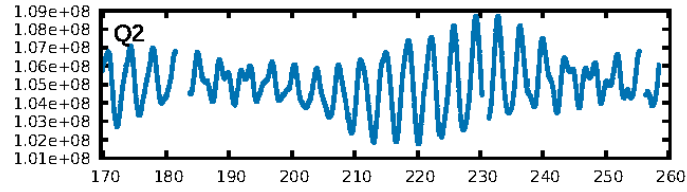
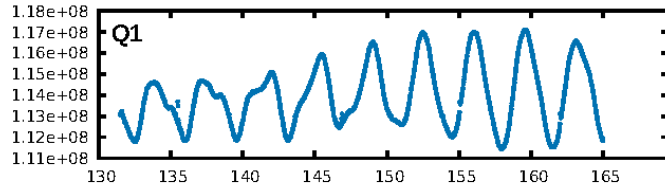
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [108.95 σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 7.5%
ModelChiSquareGof-sig: 76.6%
Bootstrap-pfa: 8.52e-08
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 0.4737
Centroid-sig: 100.0%
Centroid-so: 0.386 arcsec [0.25 σ]
OotOffset-rm: 0.238 arcsec [0.63 σ]
KicOffset-rm: 0.401 arcsec [1.25 σ]
OotOffset-st: 2/0/0/1 [3]
KicOffset-st: 2/0/0/1 [3]
DiffImageQuality-fgm: 1.00 [3/3]
DiffImageOverlap-fno: 1.00 [3/3]

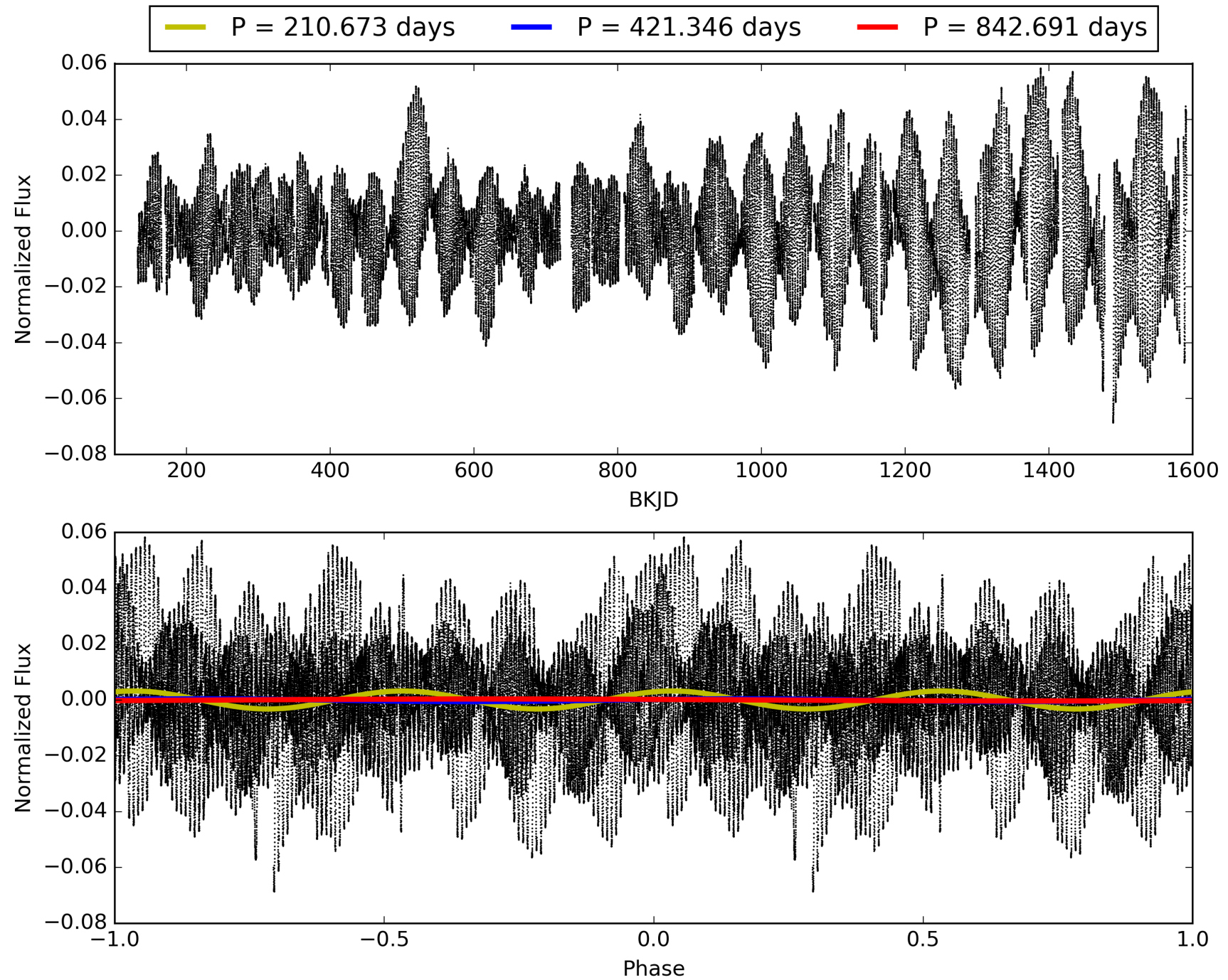
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 14:10:05 Z

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

TCE 006230245-02, PDC Light Curves

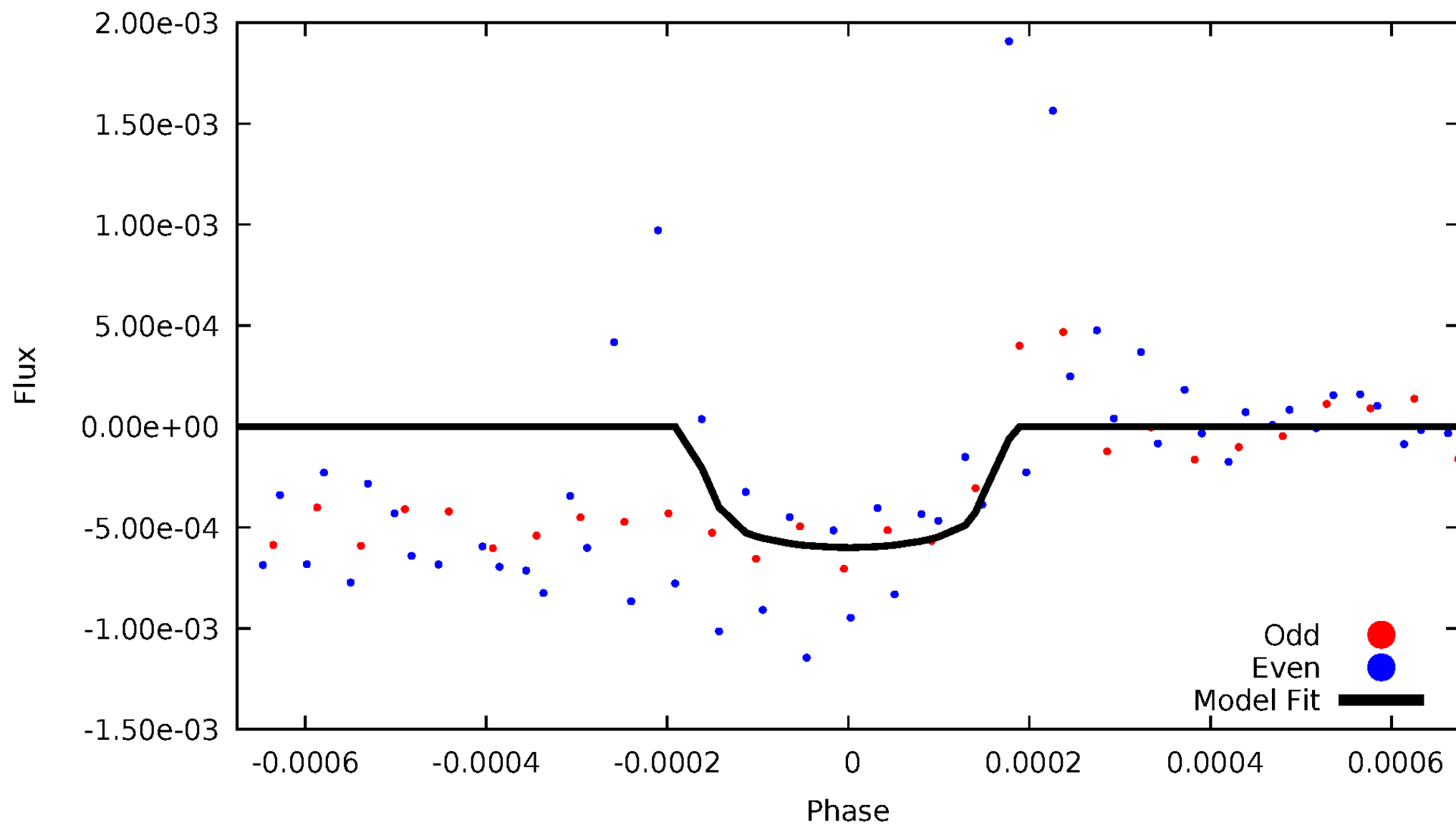


TCE 006230245-02



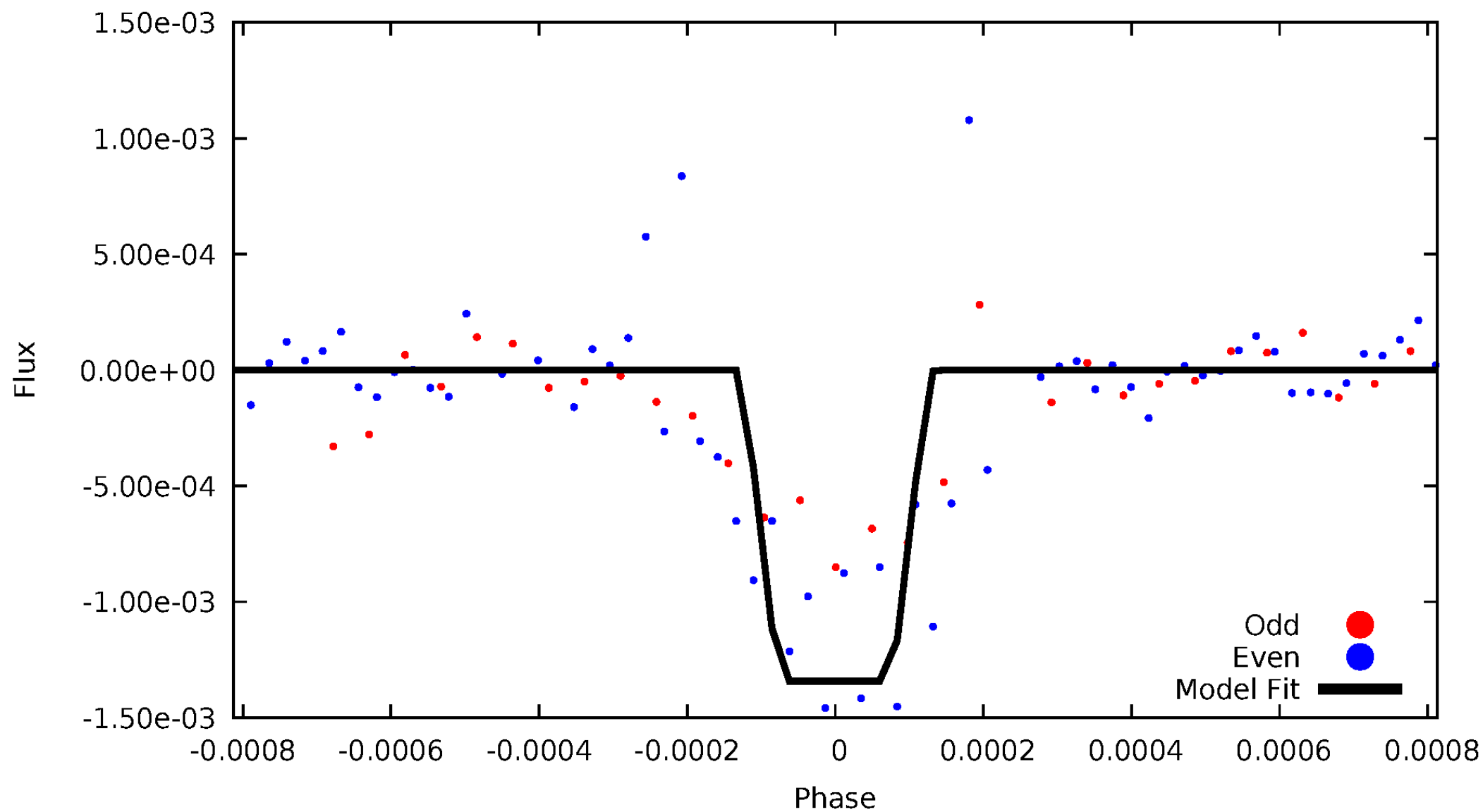
DV Odd/Even

TCE 006230245-02



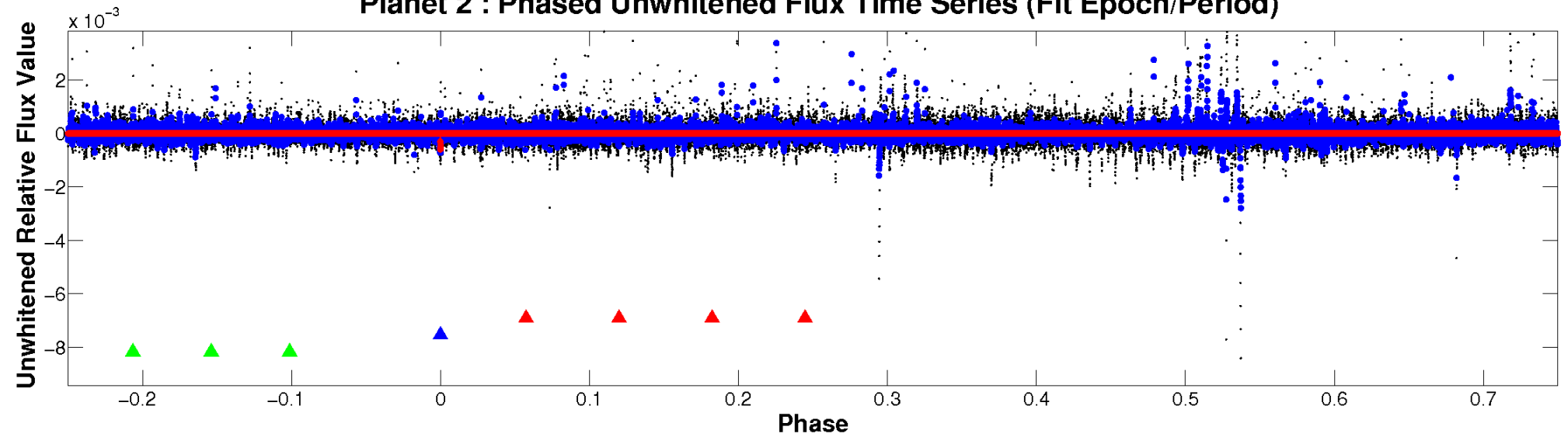
ALT Odd/Even

TCE 006230245-02

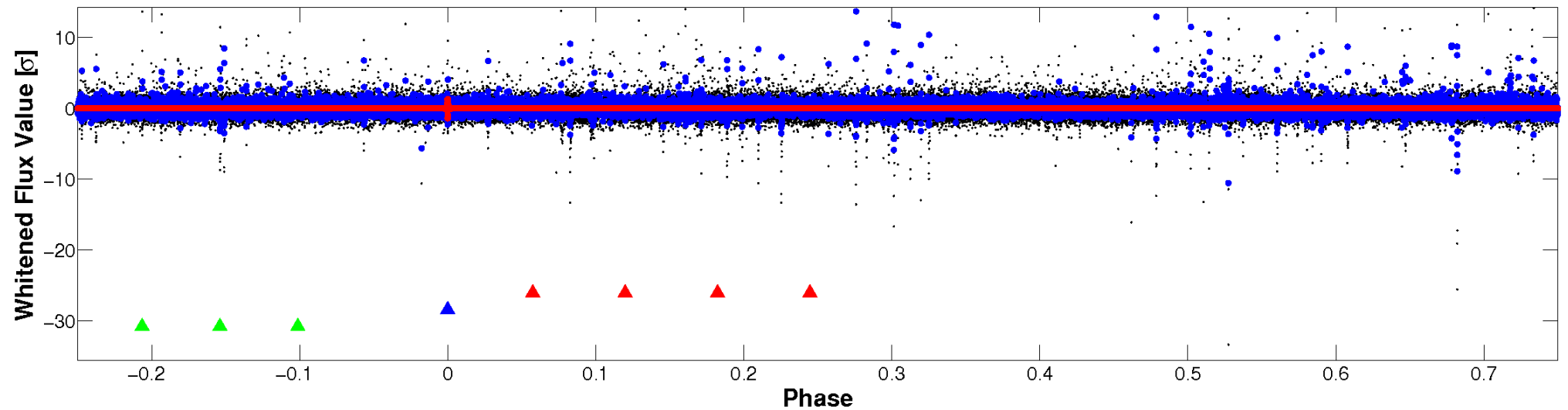


Non-Whitened Vs. Whitened Light Curve

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

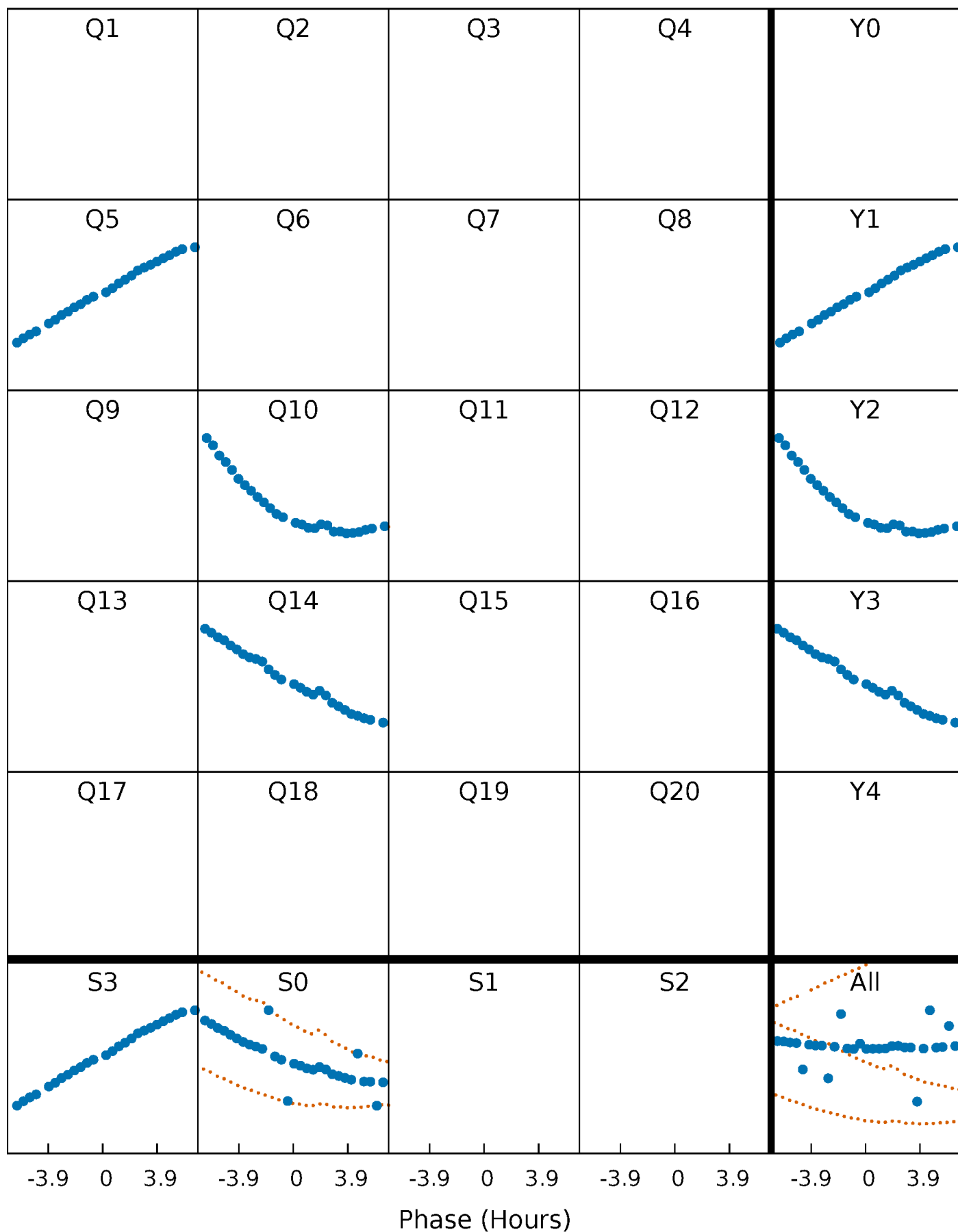


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



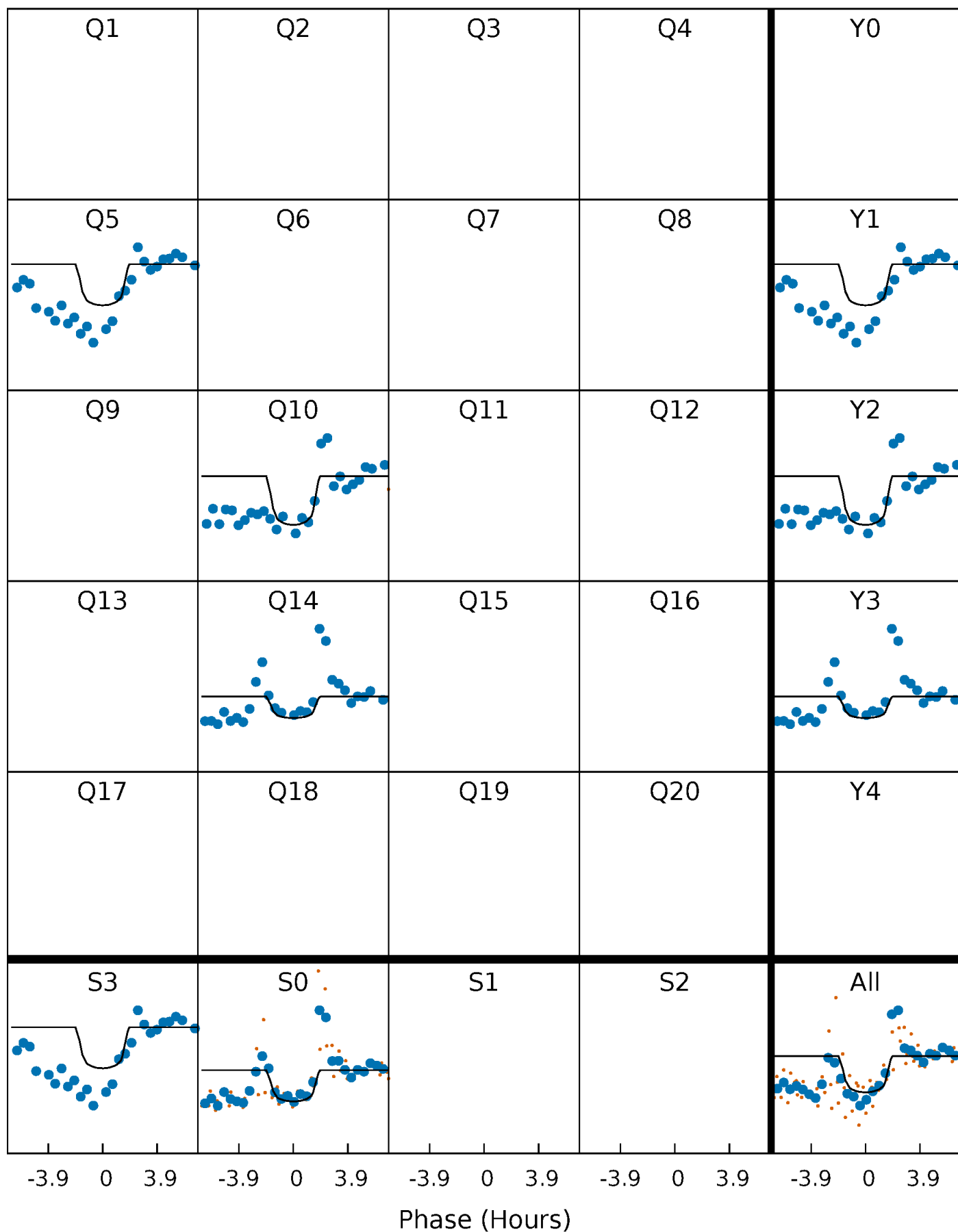
PDC Quarter-Phased Transit Curves

TCE 006230245-02 P=421.345551 Days $T_0=521.936596$ (BKJD)



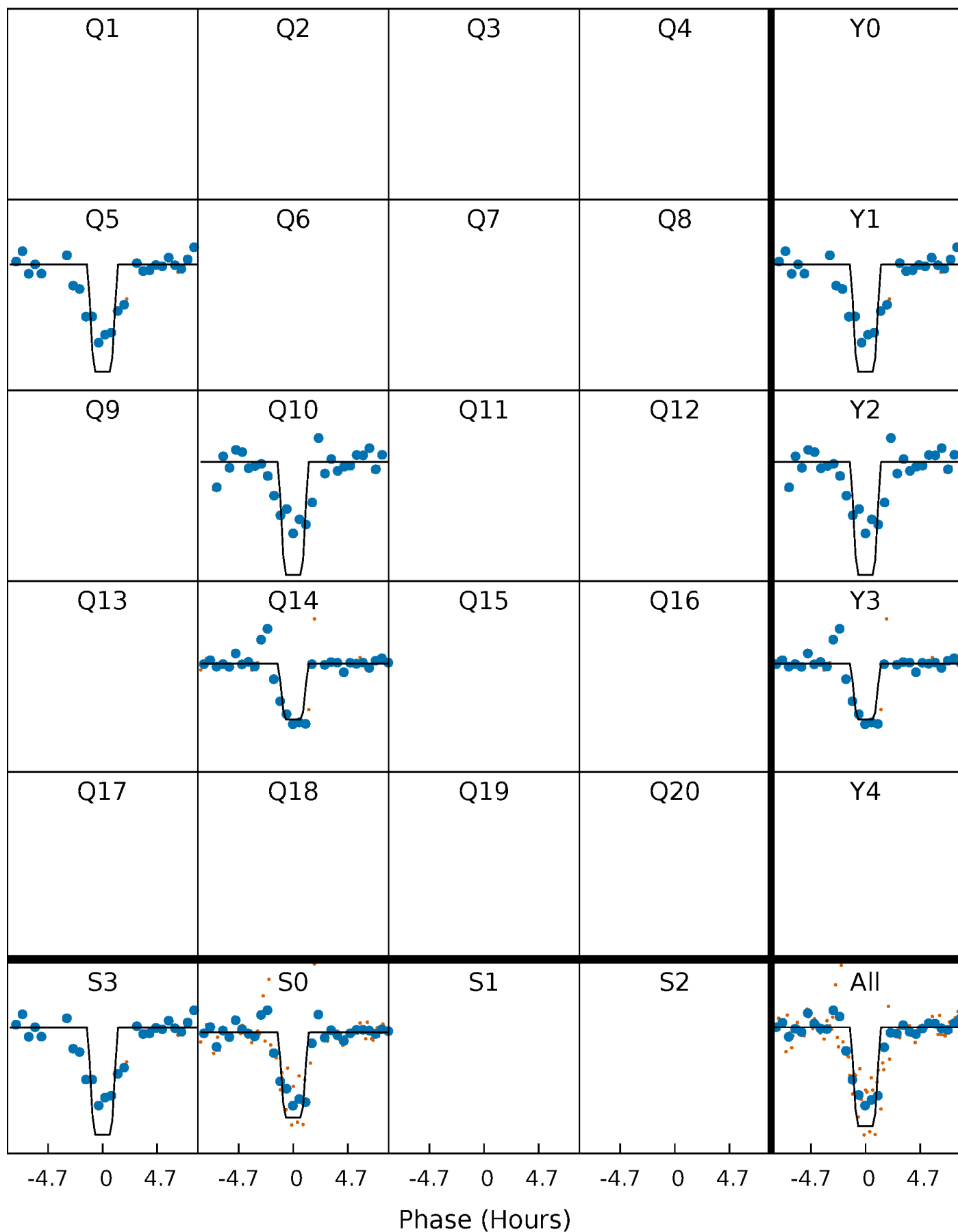
DV Quarter-Phased Transit Curves

TCE 006230245-02 P=421.345551 Days $T_0=521.936596$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

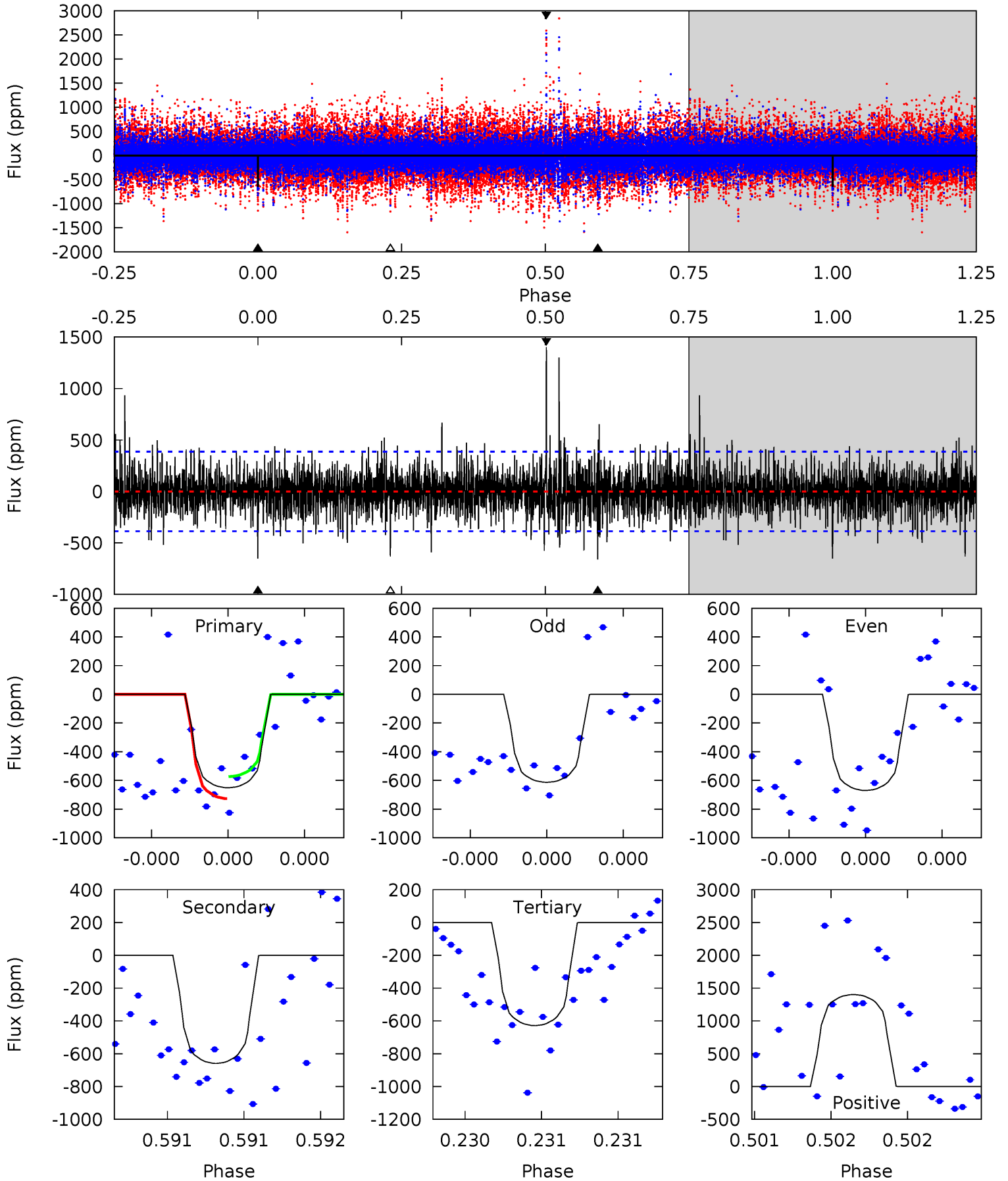
TCE 006230245-02 P=421.346818 Days $T_0=521.932830$ (BKJD)



DV Model-Shift Uniqueness Test

006230245-02, P = 421.345551 Days, E = 100.591045 Days

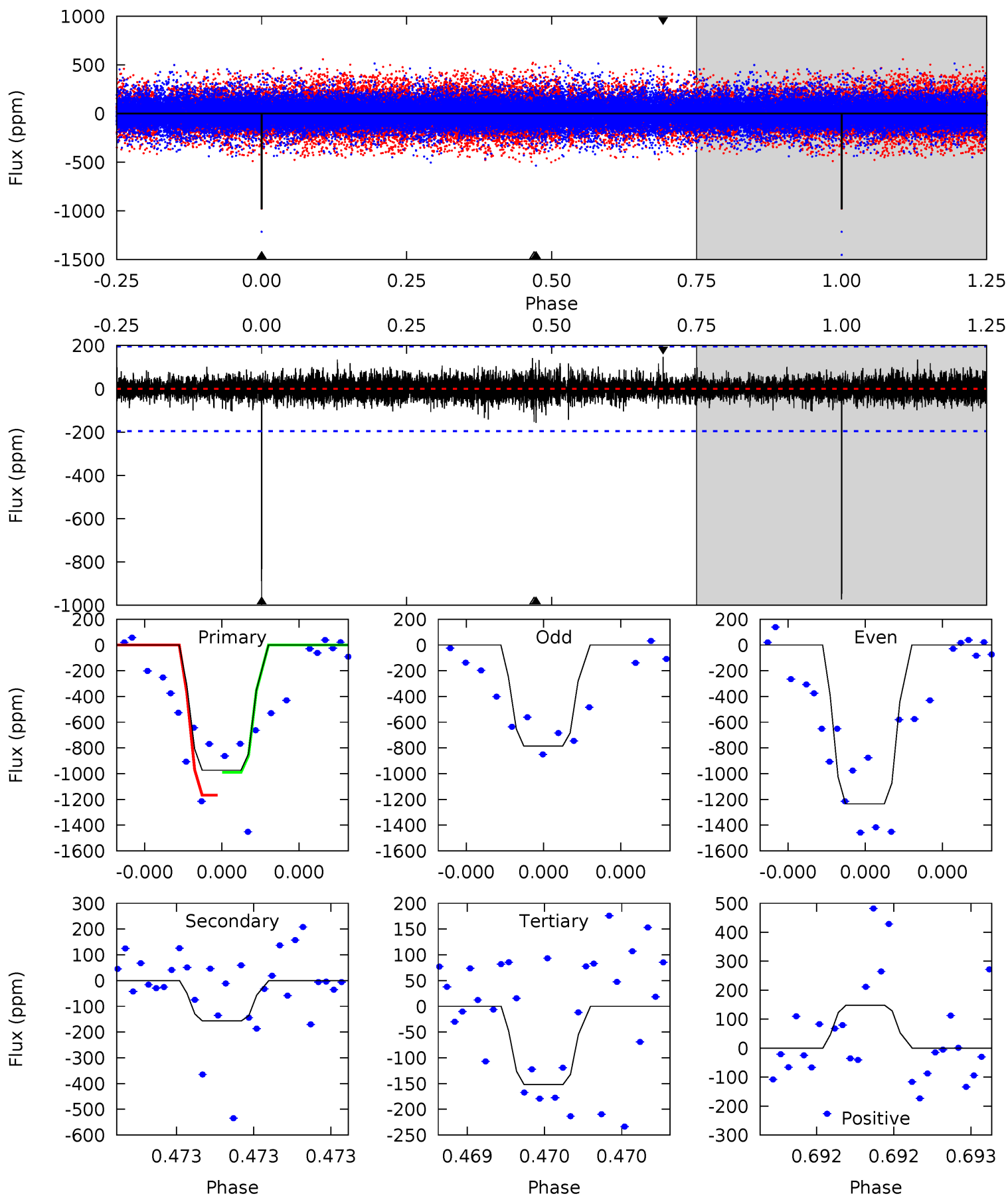
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.50	9.62	9.17	20.4	5.64	3.58	2.17	0.33	-10.9	0.45	-10.8	0.35	1.04	0.68	1.12



Alt Model-Shift Uniqueness Test

006230245-02, P = 421.346818 Days, E = 100.586012 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
28.4	4.58	4.43	4.31	5.70	3.67	0.81	23.9	24.1	0.14	0.27	6.68	1.16	0.13	2.60



Stellar Parameters For KIC 006230245

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5934^{+197}_{-161}	$3.991^{+0.546}_{-0.234}$	$-0.940^{+0.350}_{-0.300}$	$1.480^{+0.576}_{-0.704}$	$0.784^{+0.085}_{-0.062}$	$0.340^{+1.860}_{-0.206}$
	+3%/-3%	+14%/-6%	+37%/-32%	+39%/-48%	+11%/-8%	+547%/-61%
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 006230245-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-659 ± 69	$4.94^{+5.16}_{-3.37}$	436^{+46}_{-64}	5228^{+4824}_{-1125}	$15102^{+137133}_{-11475}$
Alt.	-157 ± 34	$6.29^{+5.40}_{-3.87}$	439^{+44}_{-63}	3641^{+1441}_{-571}	2171^{+13179}_{-1532}

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

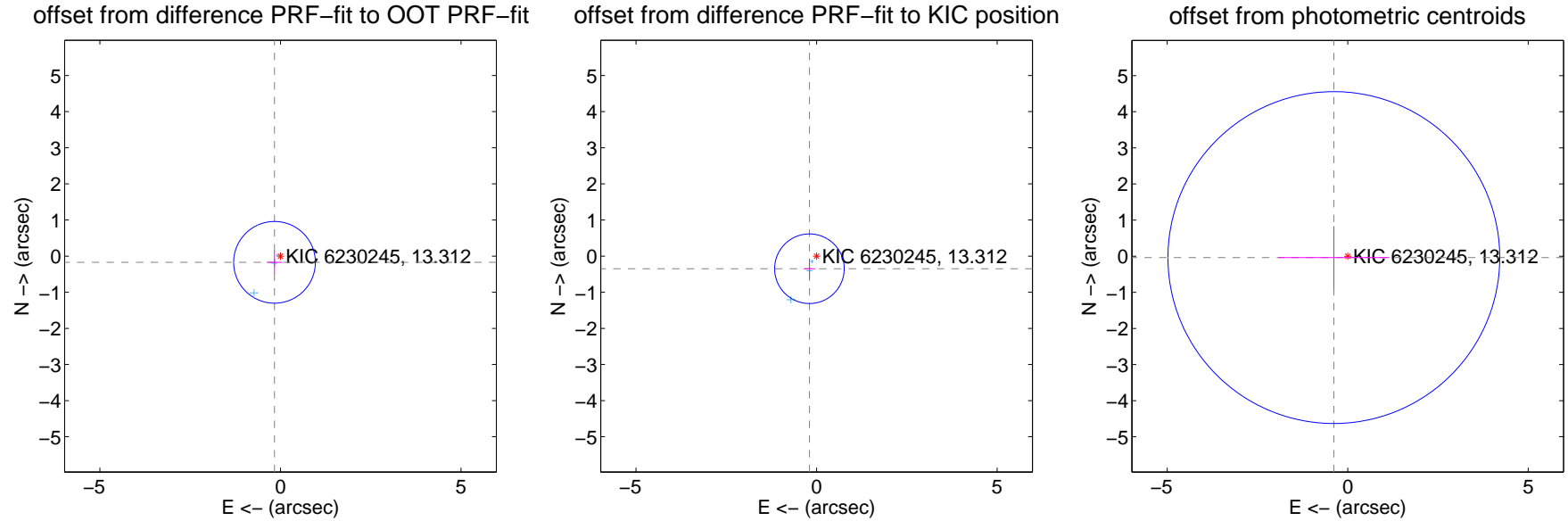
DV Centroid Data

Supplemental centroid analysis for 006230245-02. Kepler magnitude: 13.31. Transit SNR 6.47

There are 3 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.21 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.238 ± 0.377	0.63	0.164 ± 0.215	-0.172 ± 0.325
PRF-fit source offset from KIC position	0.401 ± 0.321	1.25	0.198 ± 0.166	-0.348 ± 0.283
photometric centroid source offset	0.39 ± 1.53	0.25	0.38 ± 1.54	-0.04 ± 0.87

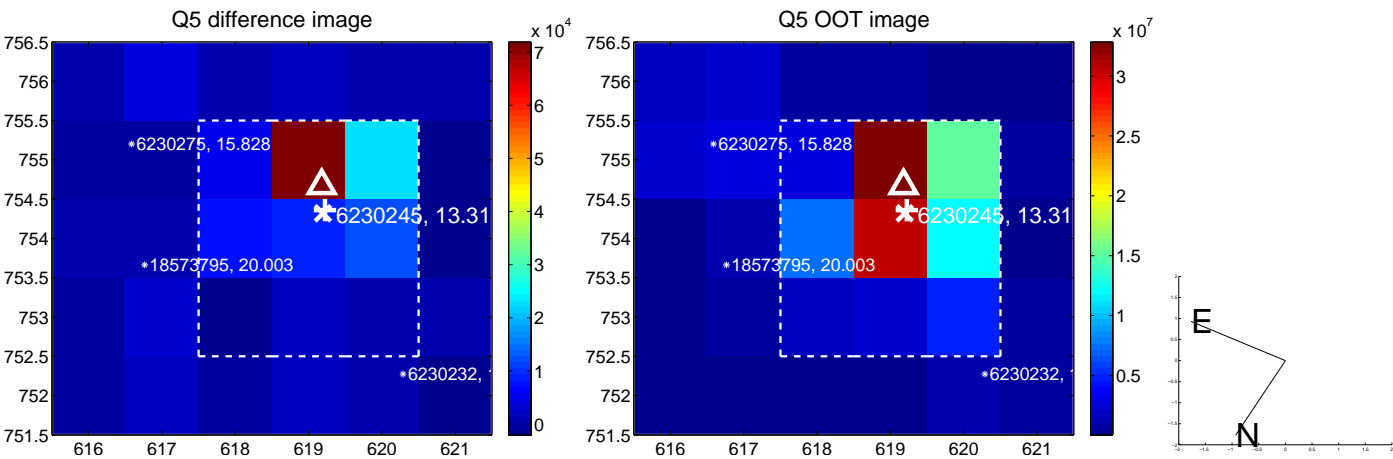


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

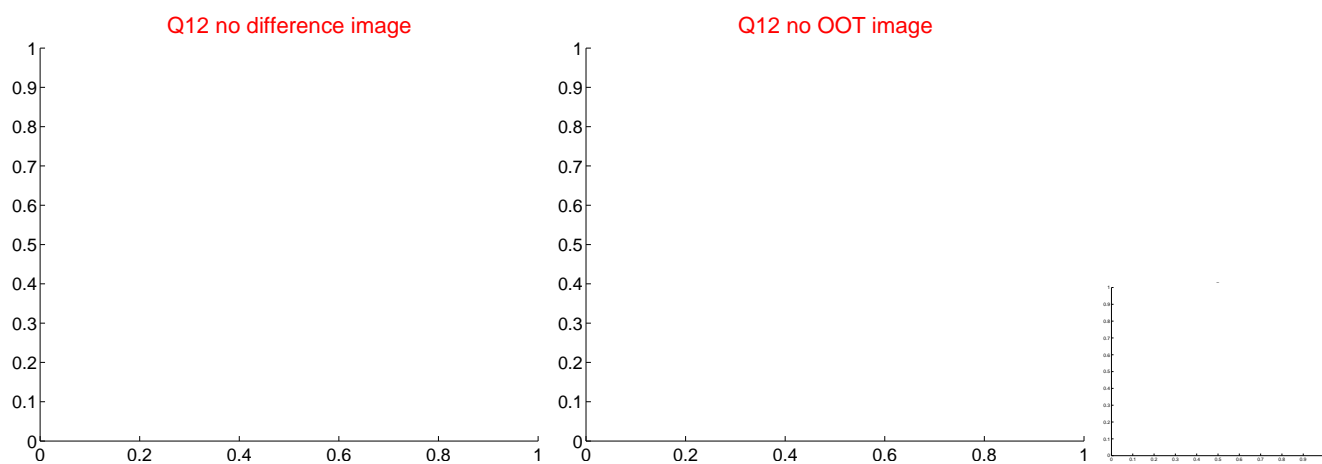
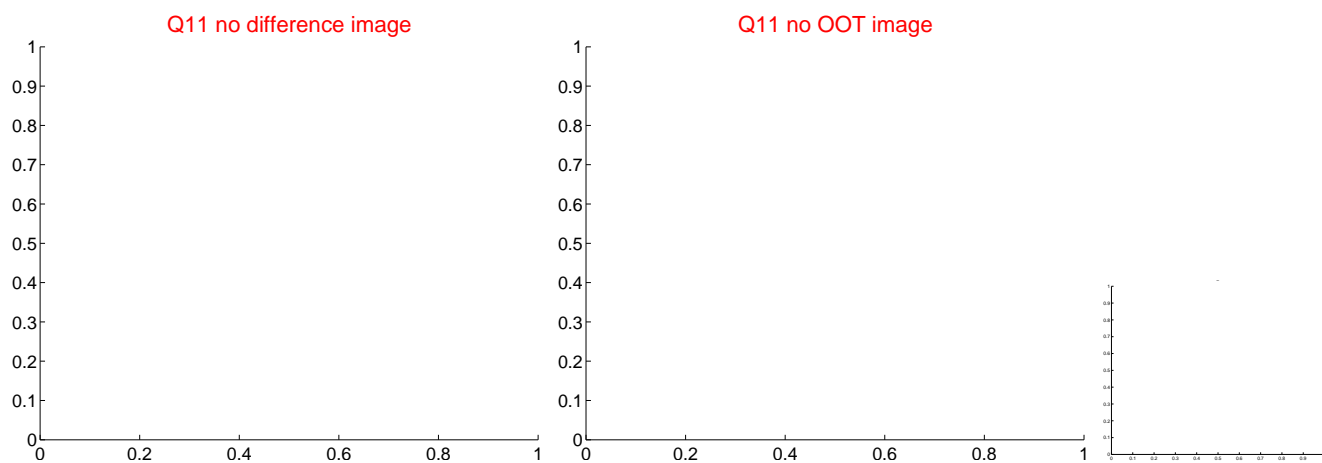
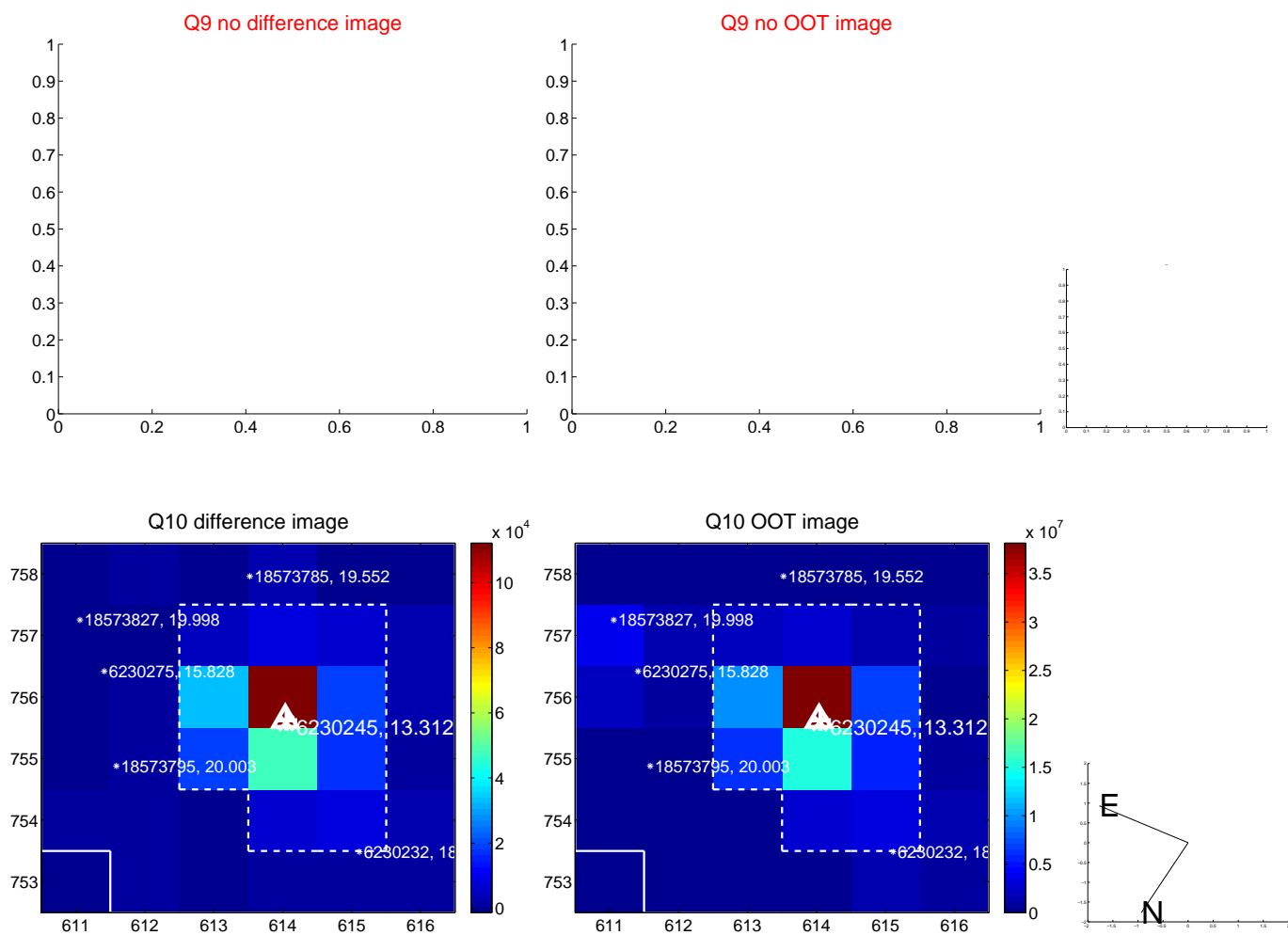
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



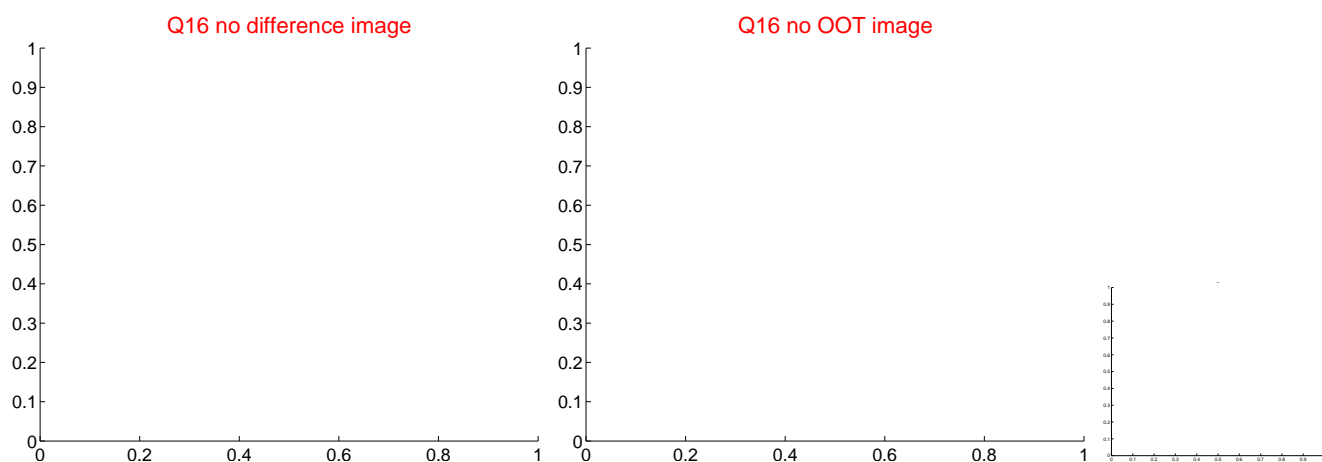
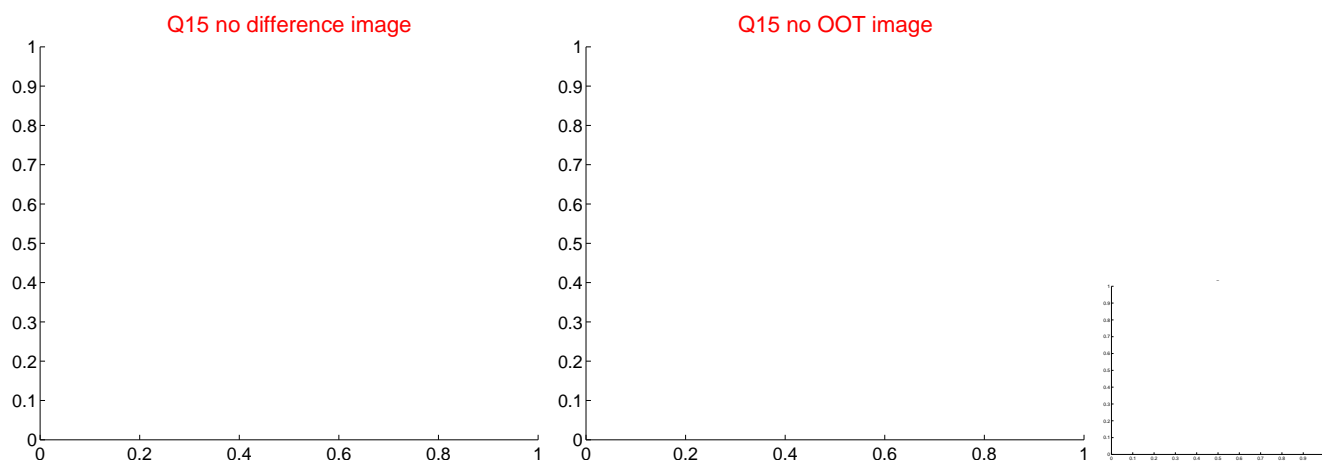
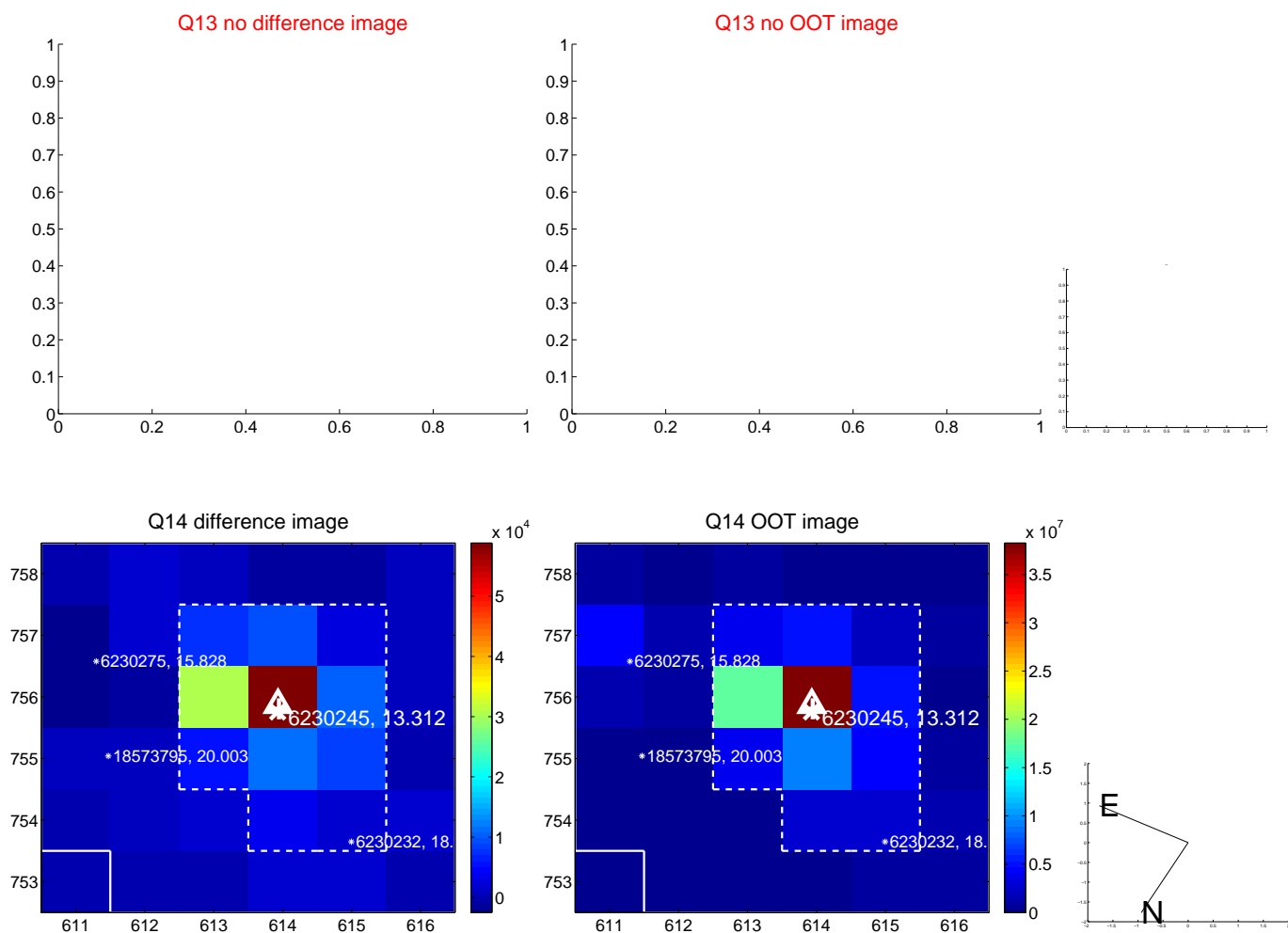
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



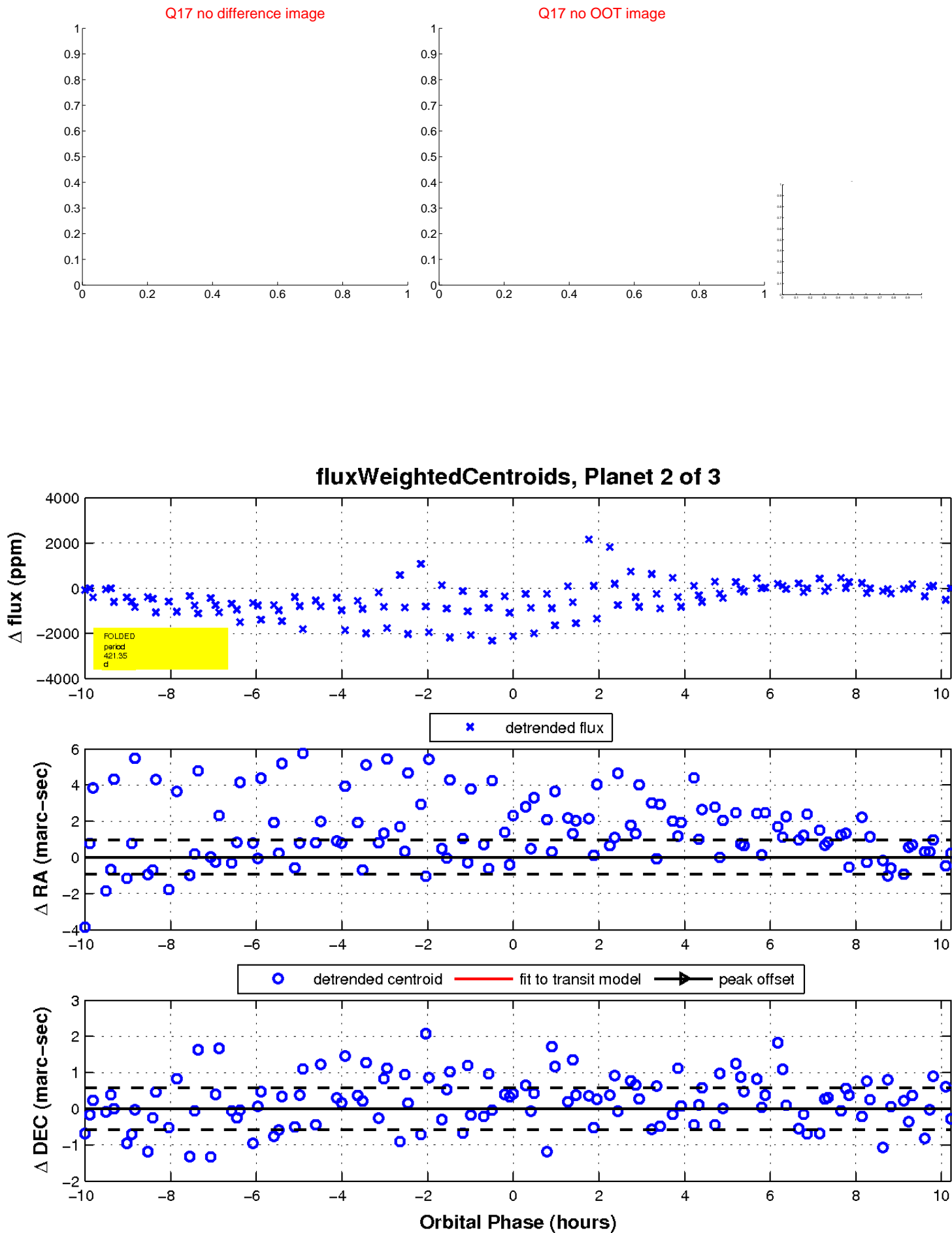
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



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

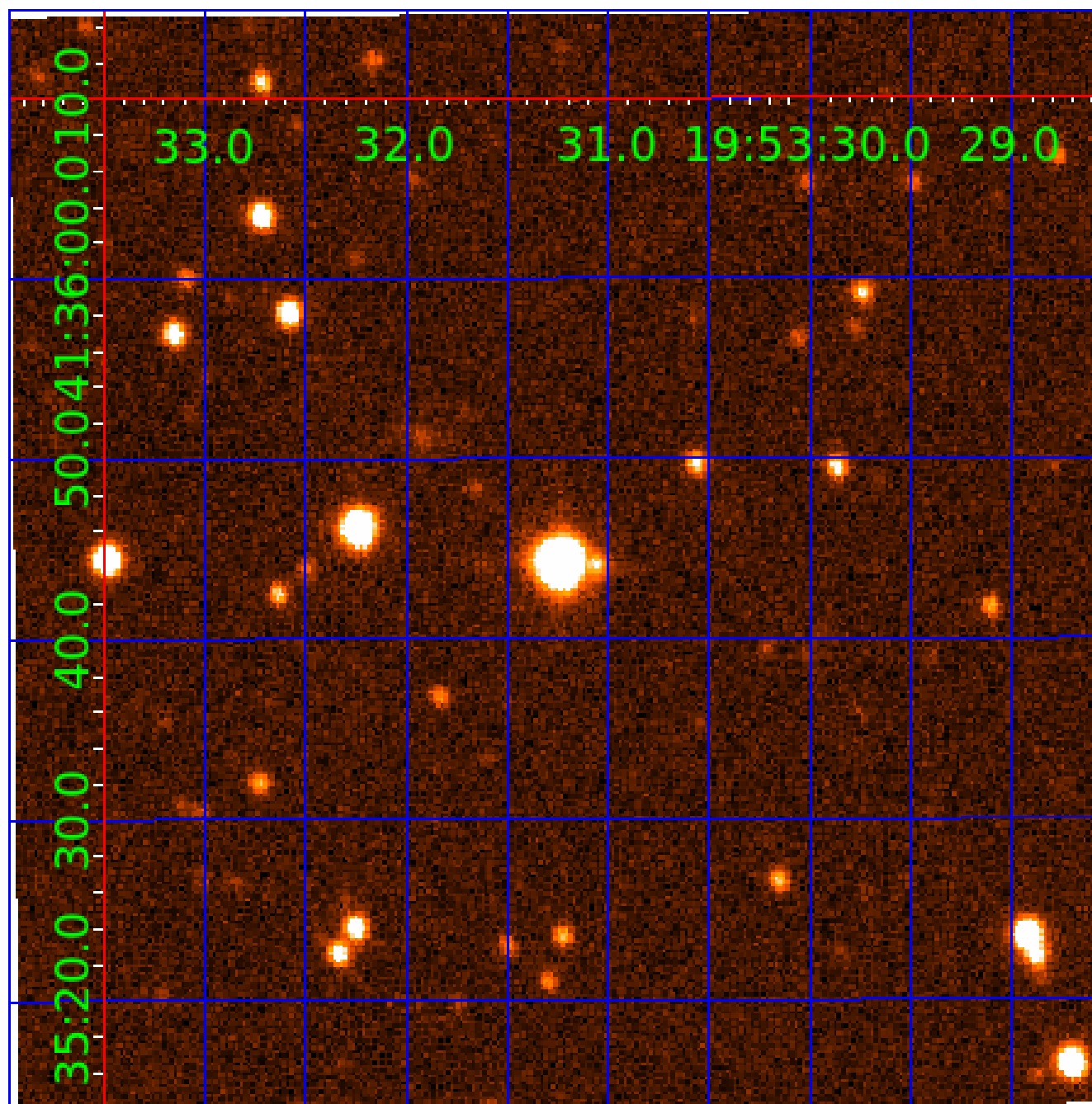


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 006230245

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})
006230245-01	OBS	No	395.047681	203.700752	571.6	4.445	10.8	5.3	1.48	5934	3.73	2.58
006230245-02	OBS	No	421.345551	521.936596	600.0	3.414	10.3	6.5	1.48	5934	3.86	2.37
006230245-03	OBS	No	399.185457	479.271514	546.6	3.490	17.7	5.5	1.48	5934	3.77	2.54

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006230245-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006230245-02	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS
006230245-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_SKYE—LPP_DV—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.

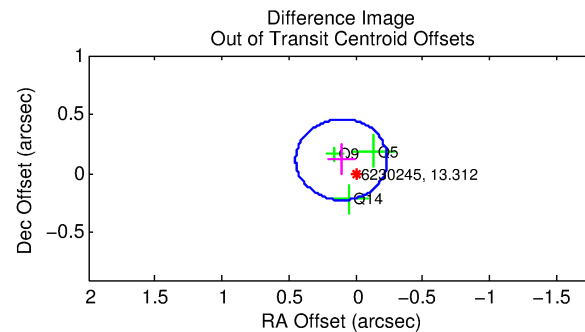
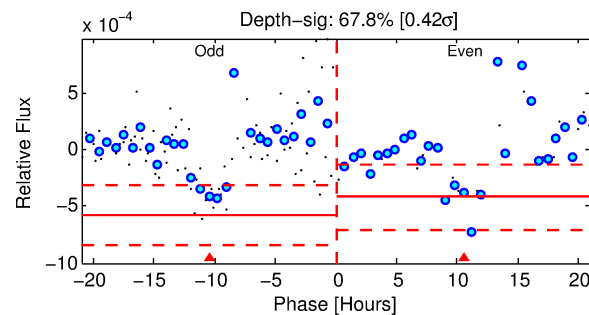
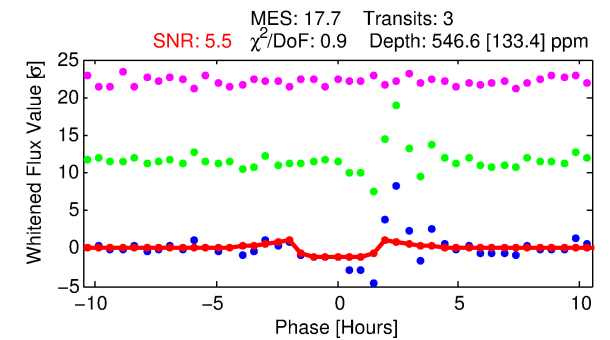
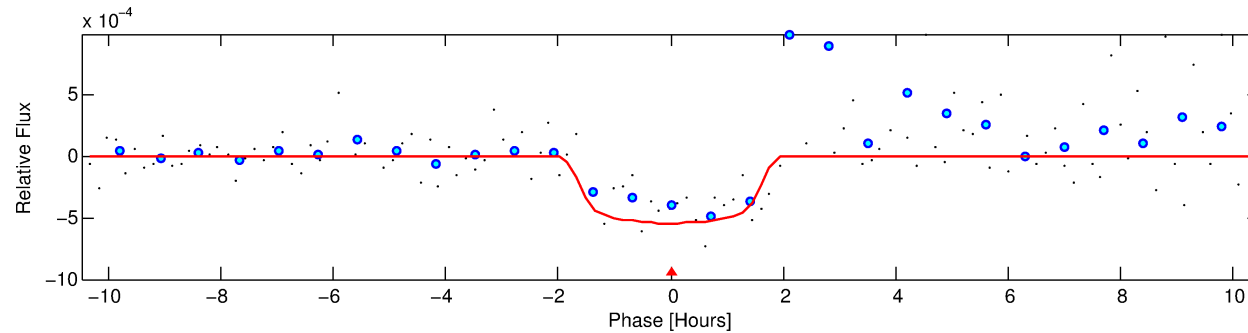
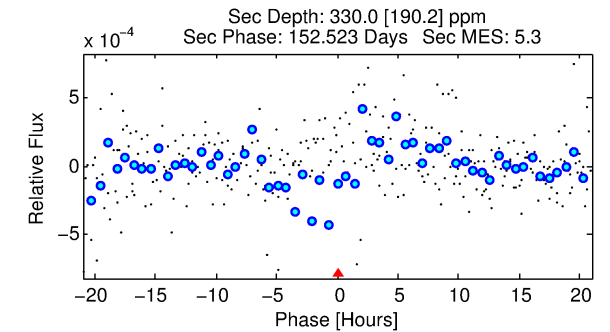
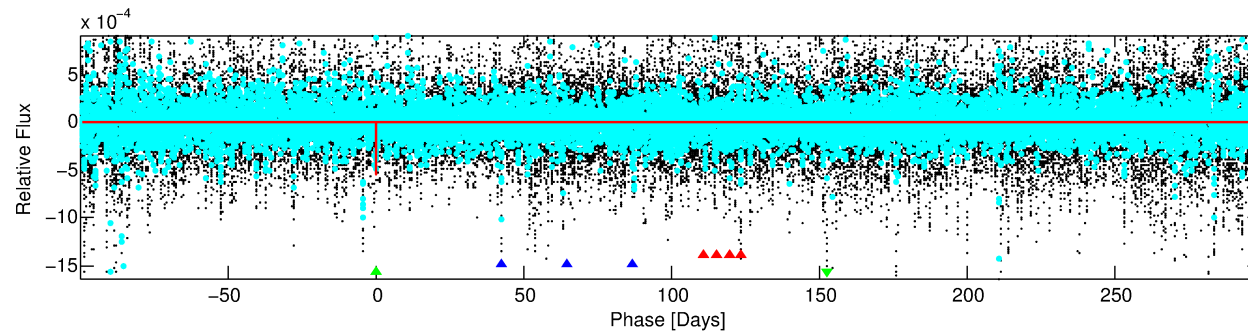
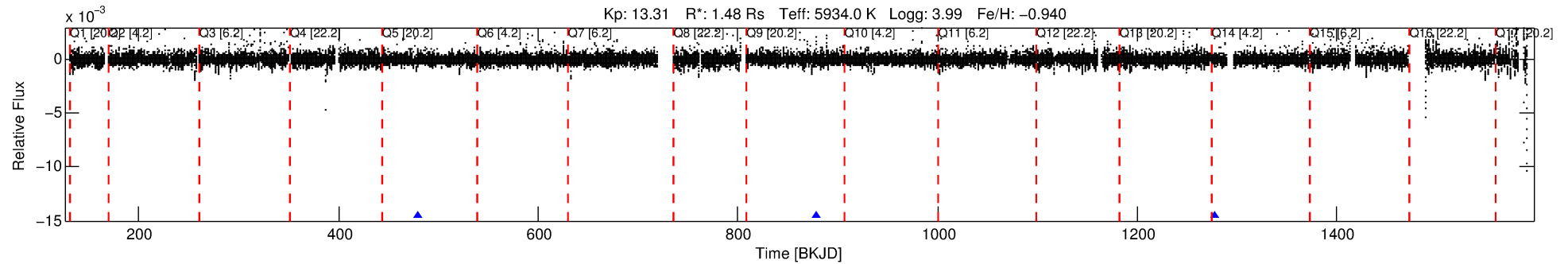
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006230245-03

No Significant Match Found

DV One-Page Summary

KIC: 6230245 Candidate: 3 of 3 Period: 399.185 d



DV Fit Results:

Period = 399.18546 [0.00709] d
Epoch = 479.2715 [0.0087] BKJD
Rp/R* = 0.0233 [0.0207]
a/R* = 602.54 [2724.88]
b = 0.76 [2.59]
Seff = 2.54 [2.30]
Teq = 322 [73] K
Rp = 3.76 [3.79] Re
a = 0.9780 [0.5139] AU
Ag = 12249.75 [25370.83] [0.48 σ]
Teffp = 5238 [2451] K [2.00 σ]

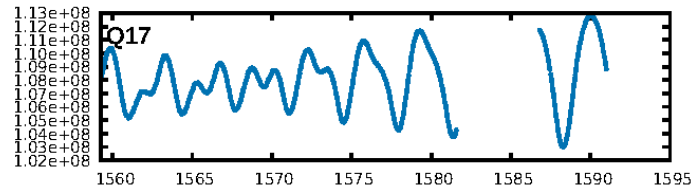
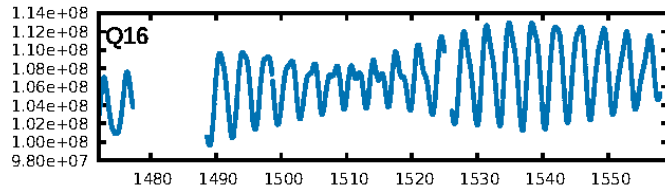
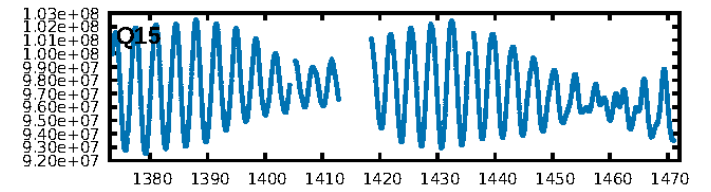
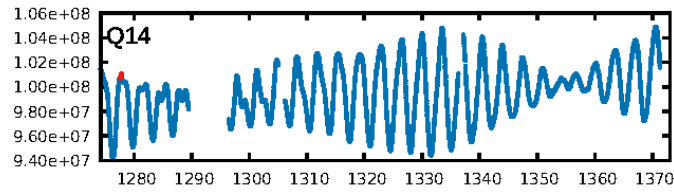
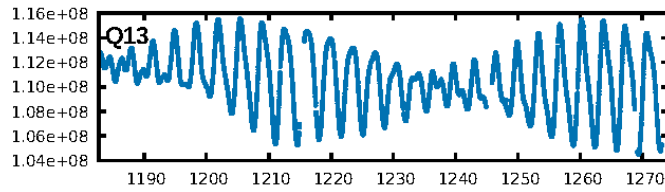
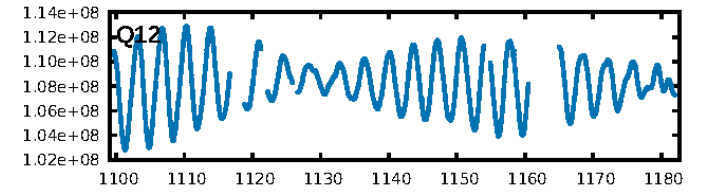
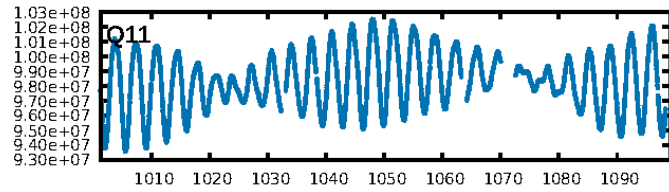
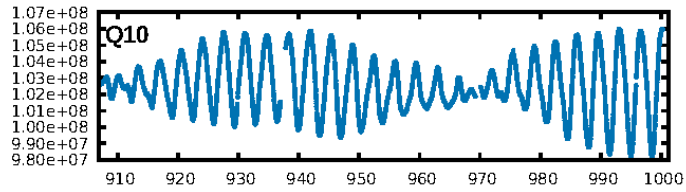
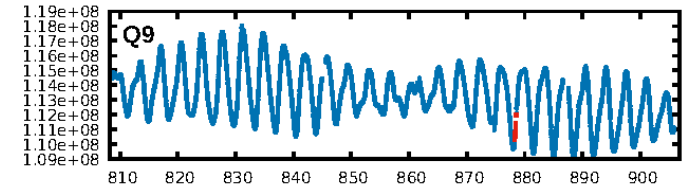
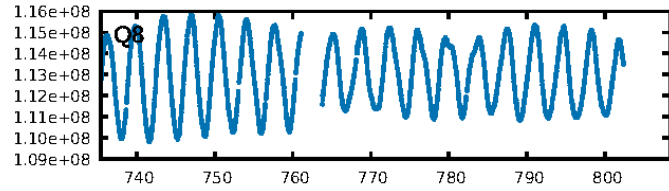
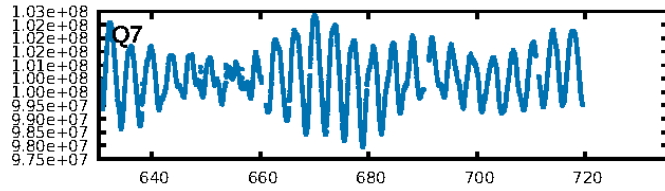
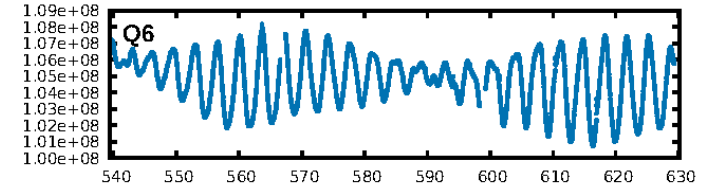
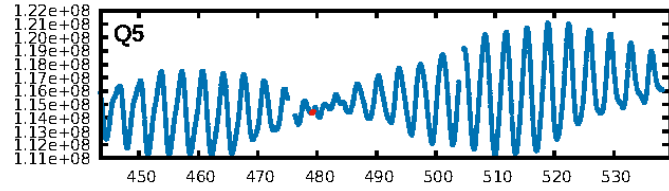
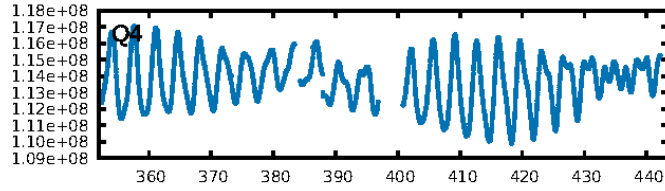
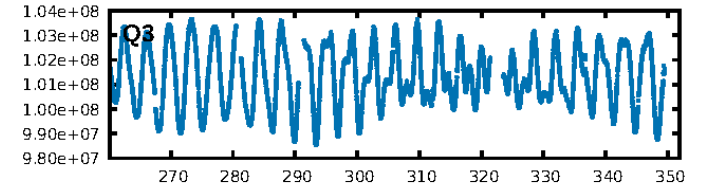
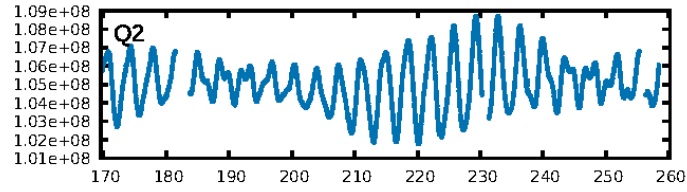
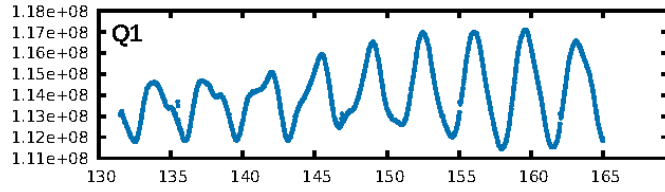
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [17.57 σ]
LongPeriod-sig: 100.0% [108.95 σ]
ModelChiSquare2-sig: 15.3%
ModelChiSquareGof-sig: 96.4%
Bootstrap-pfa: 6.27e-13
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 1.306
Centroid-sig: 56.7%
Centroid-so: 0.938 arcsec [0.57 σ]
OotOffset-rm: 0.160 arcsec [1.40 σ]
KicOffset-rm: 0.106 arcsec [0.81 σ]
OotOffset-st: 1/0/0/2 [3]
KicOffset-st: 1/0/0/2 [3]
DiffImageQuality-fgm: 0.67 [2/3]
DiffImageOverlap-fno: 1.00 [3/3]

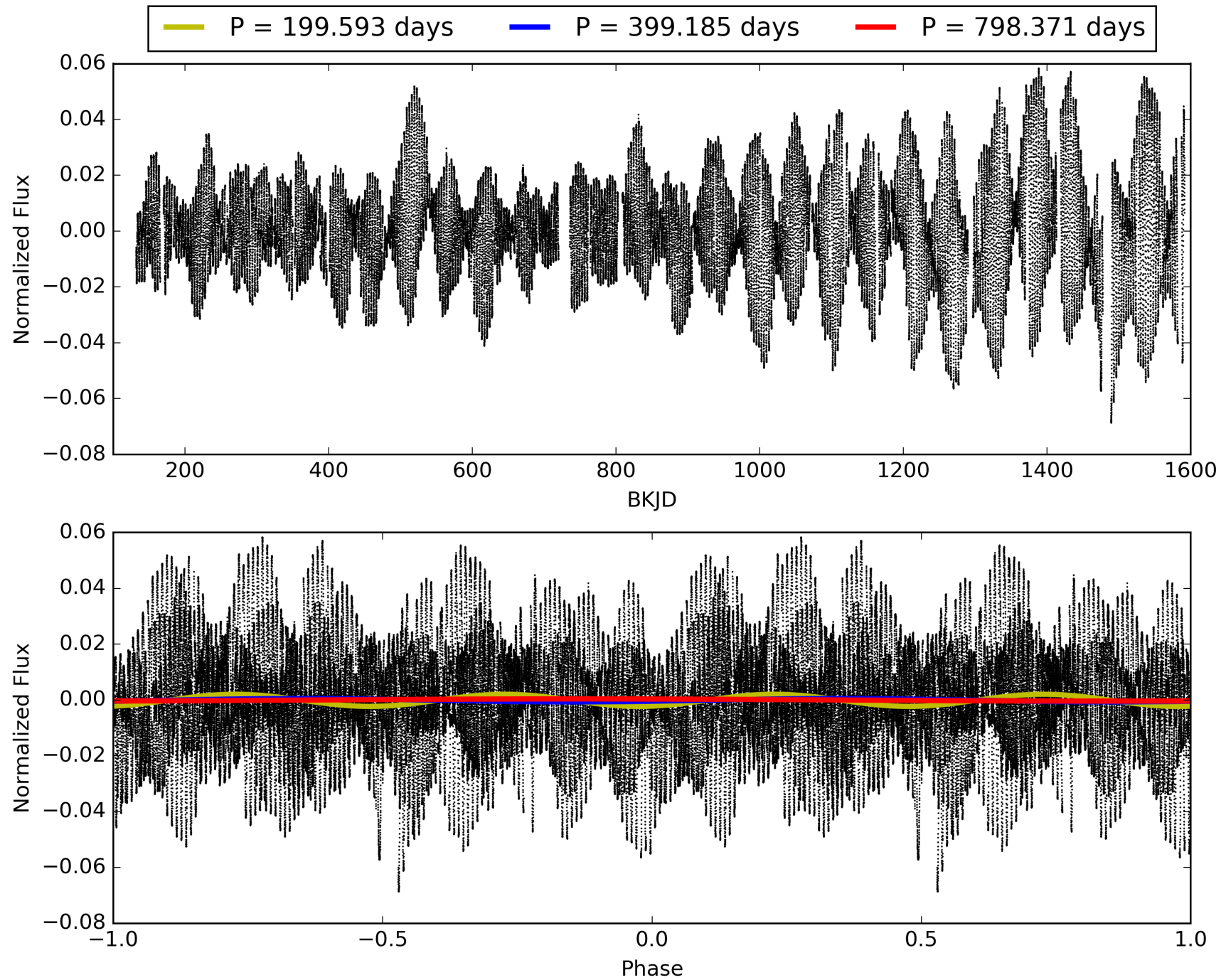
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 14:10:22 Z

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

TCE 006230245-03, PDC Light Curves

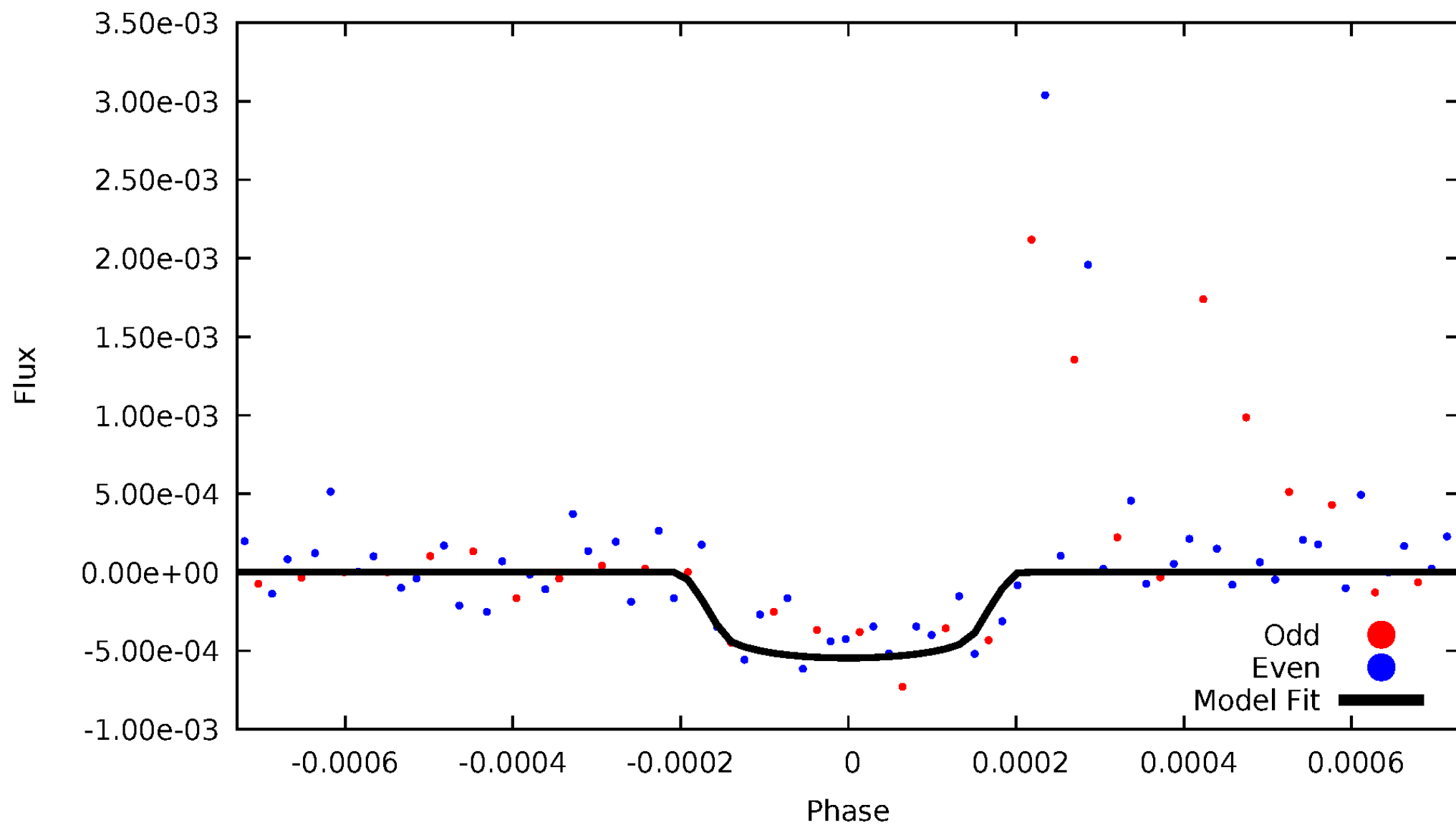


TCE 006230245-03



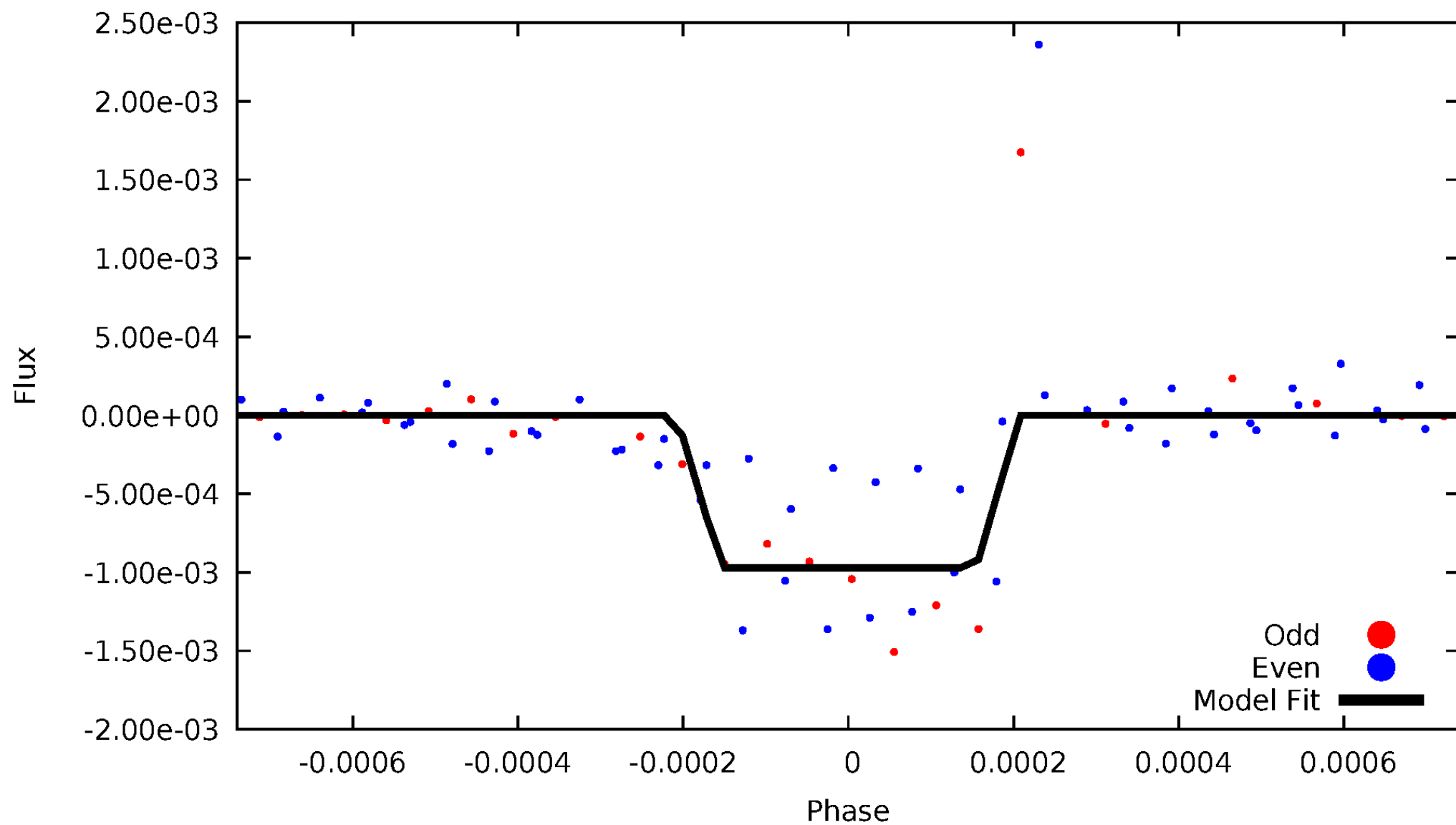
DV Odd/Even

TCE 006230245-03



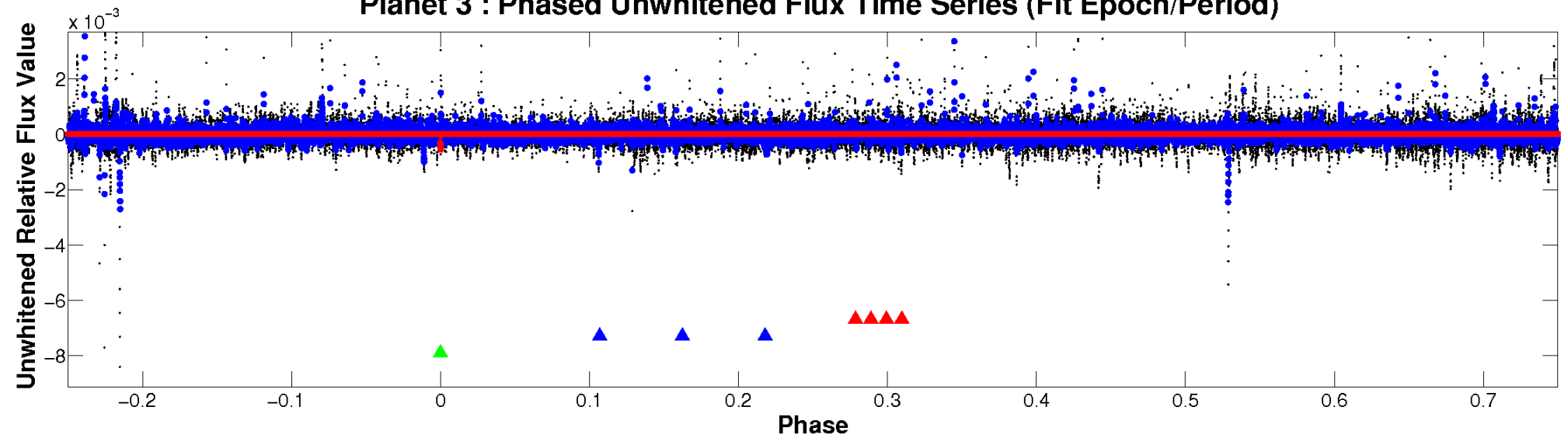
ALT Odd/Even

TCE 006230245-03

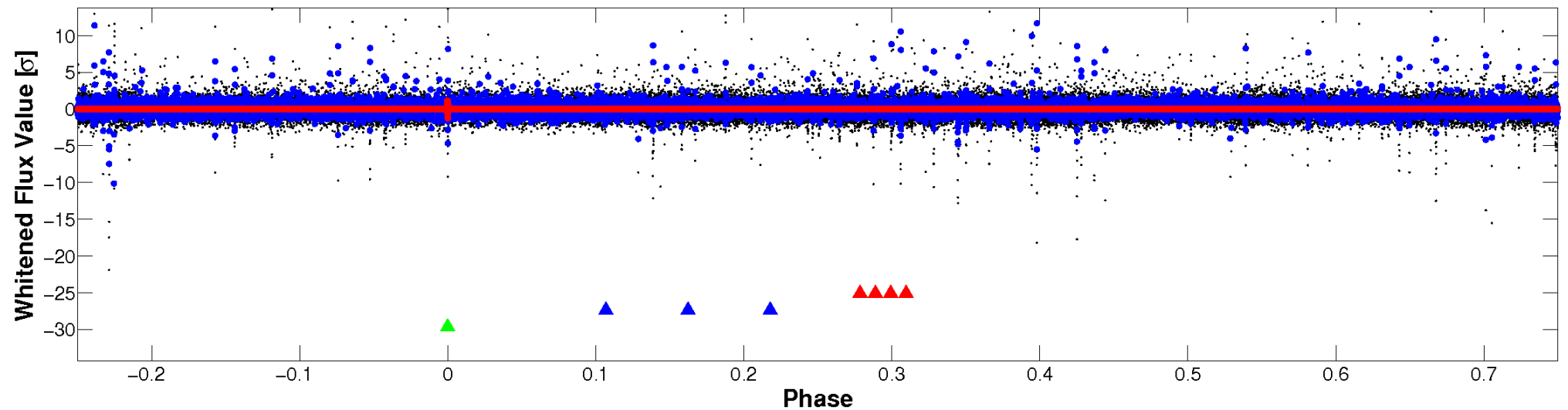


Non-Whitened Vs. Whitened Light Curve

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

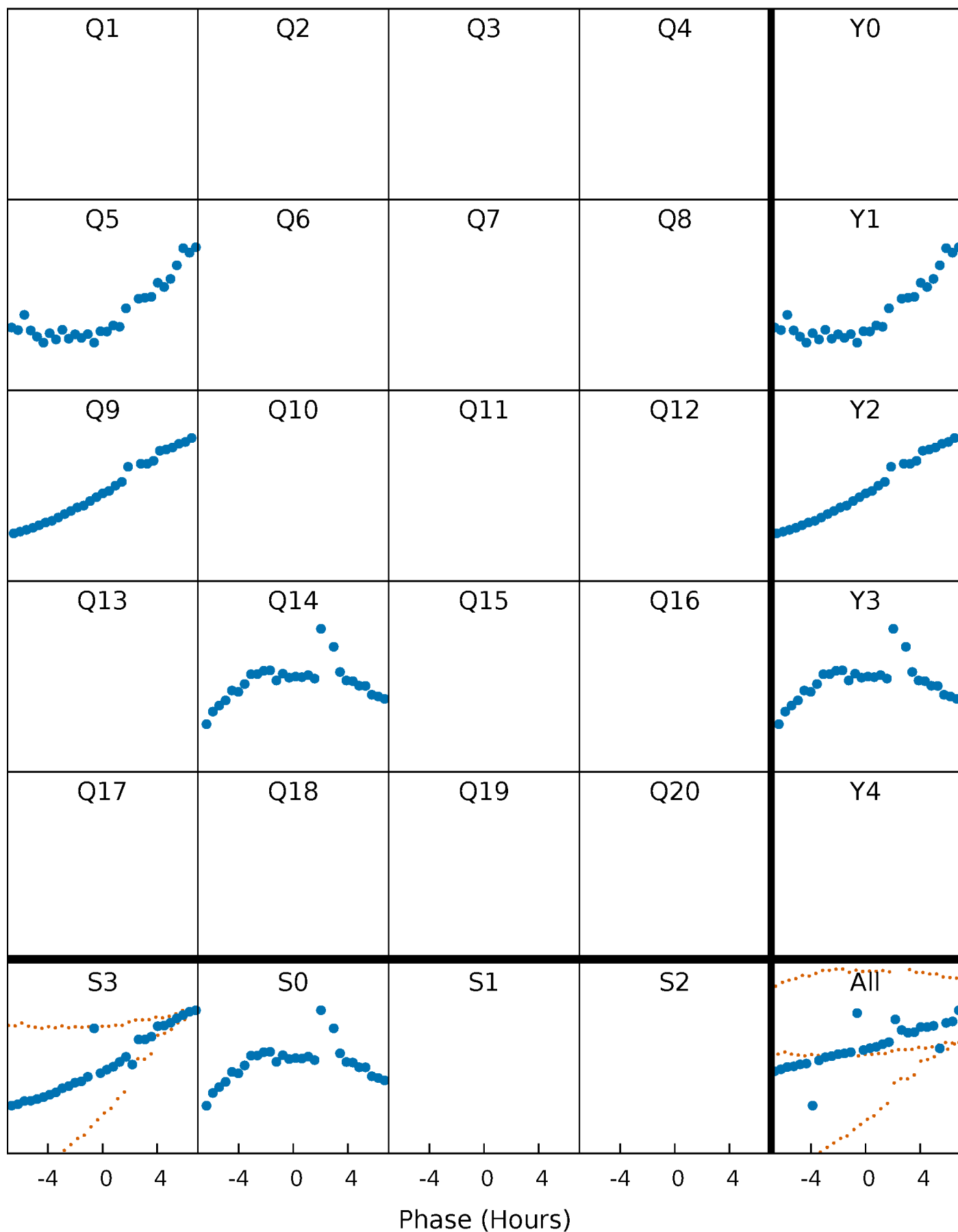


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



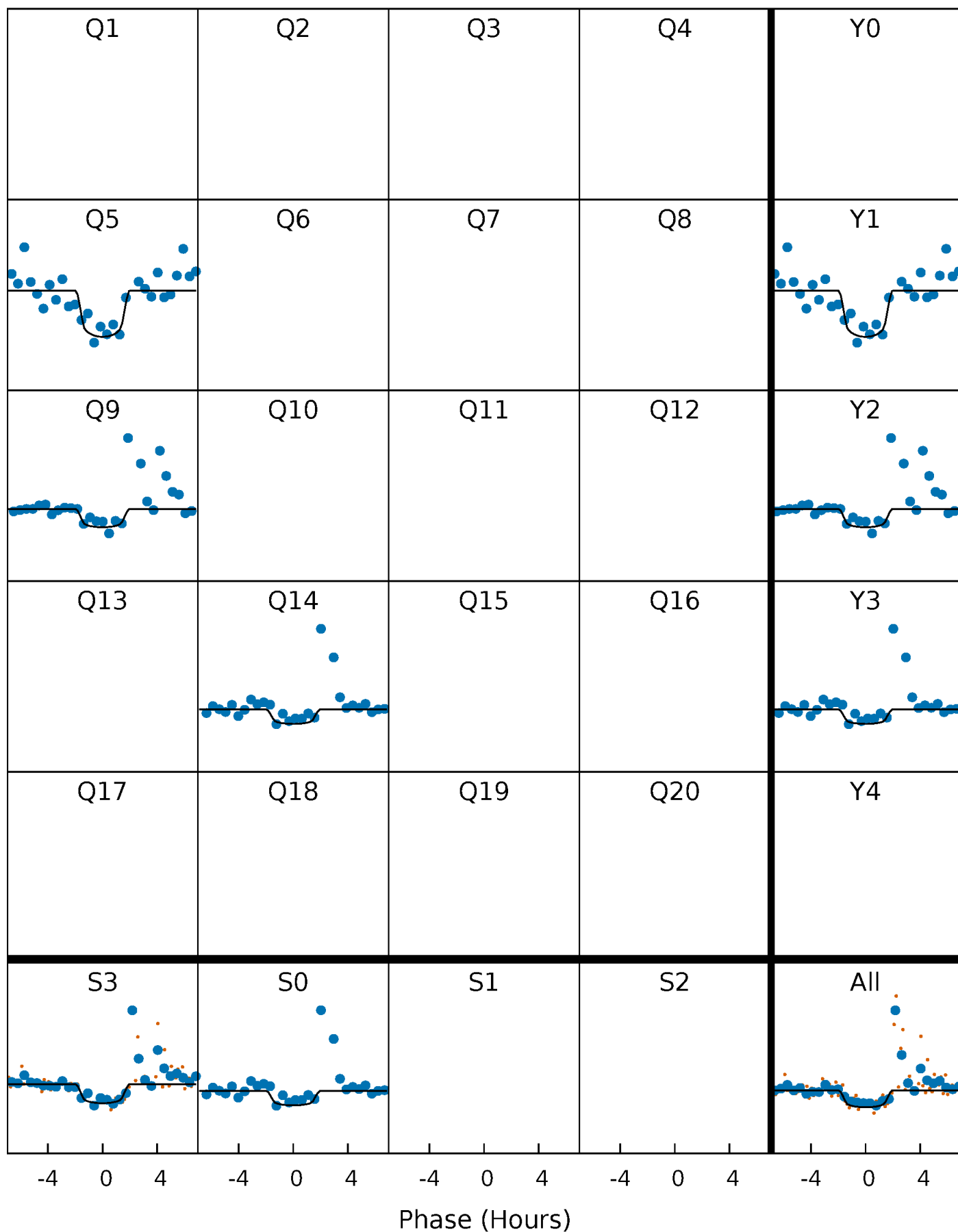
PDC Quarter-Phased Transit Curves

TCE 006230245-03 $P=399.185457$ Days $T_0=479.271514$ (BKJD)



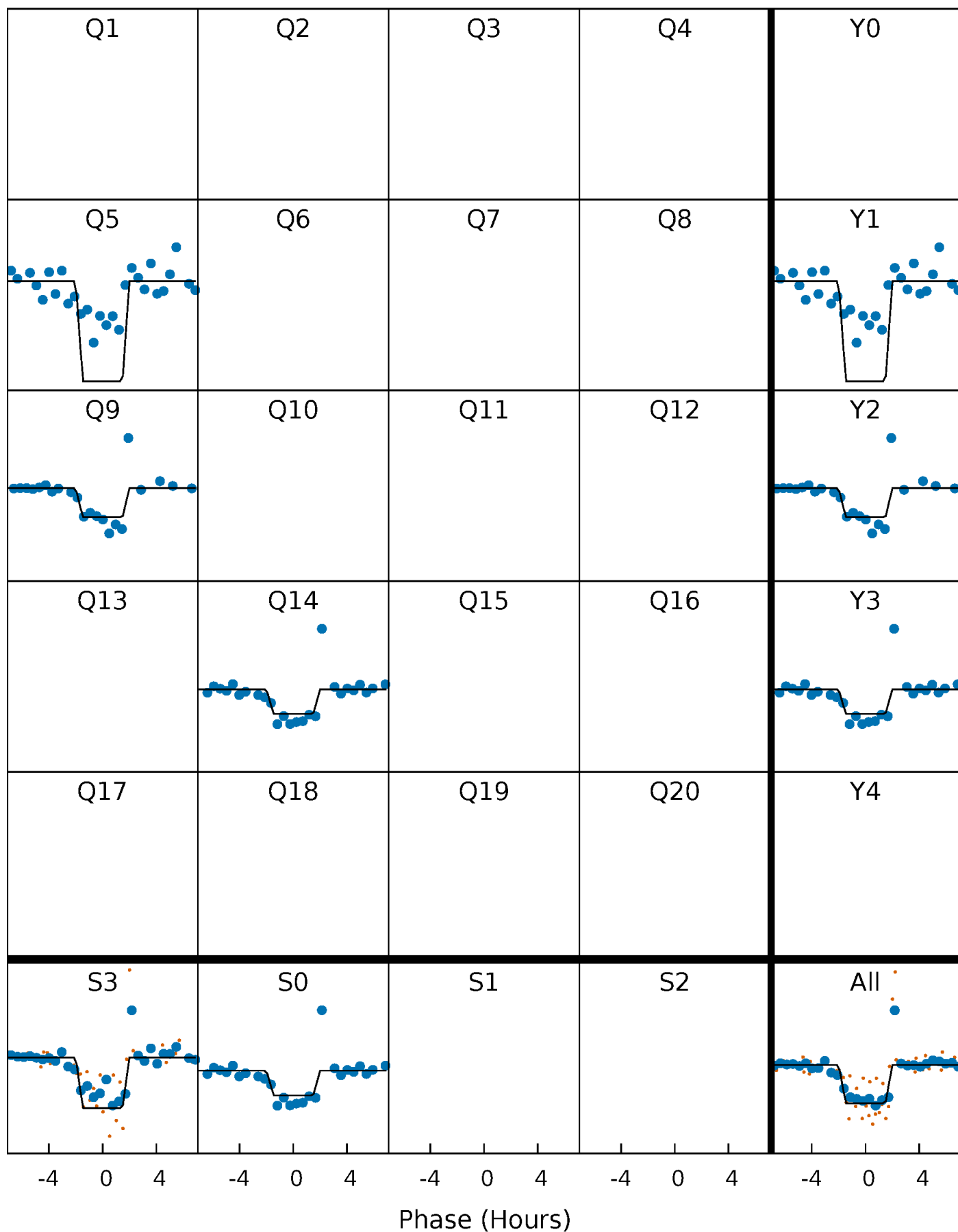
DV Quarter-Phased Transit Curves

TCE 006230245-03 $P=399.185457$ Days $T_0=479.271514$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

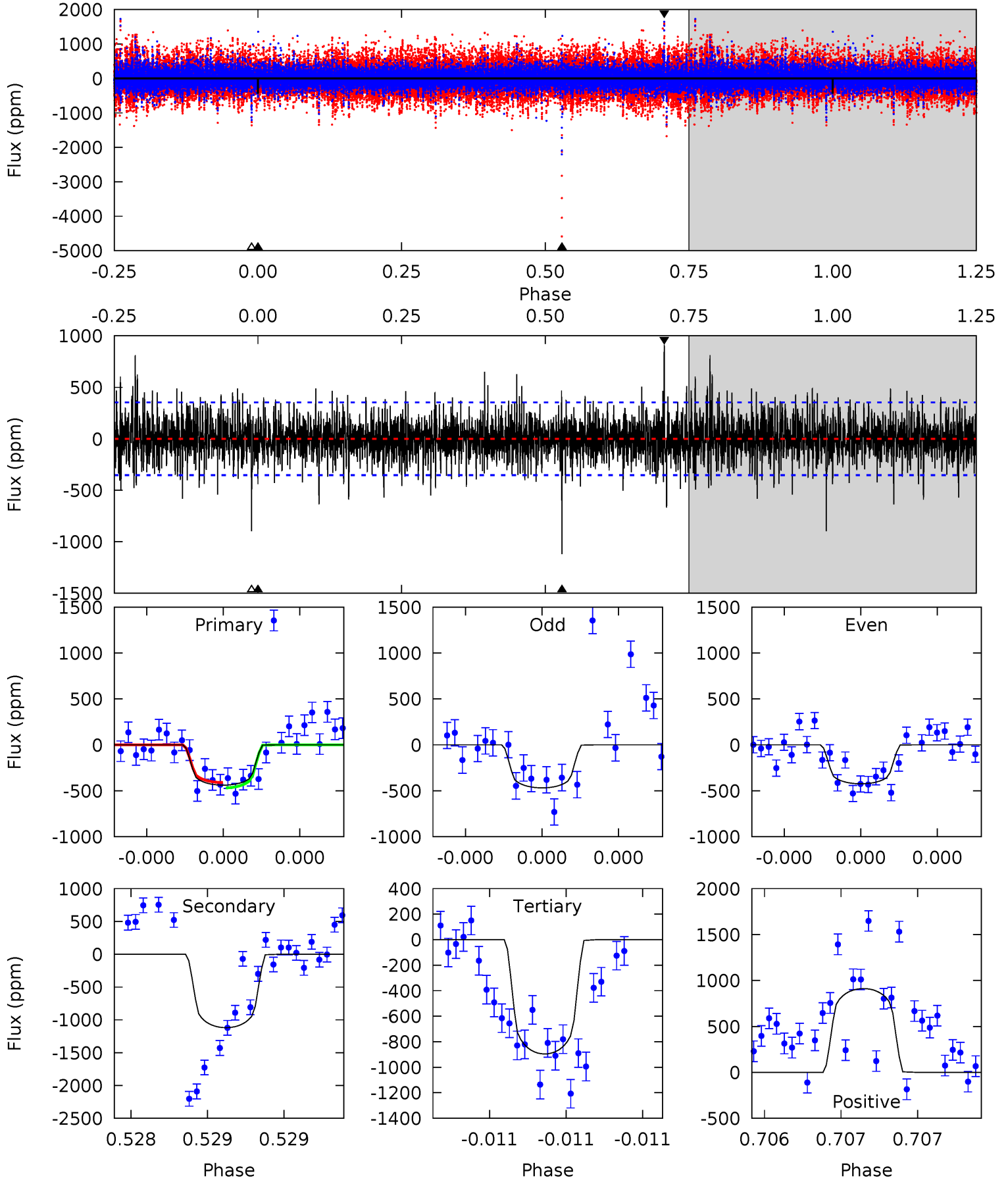
TCE 006230245-03 P=399.183217 Days $T_0=479.277576$ (BKJD)



DV Model-Shift Uniqueness Test

006230245-03, P = 399.185457 Days, E = 80.086057 Days

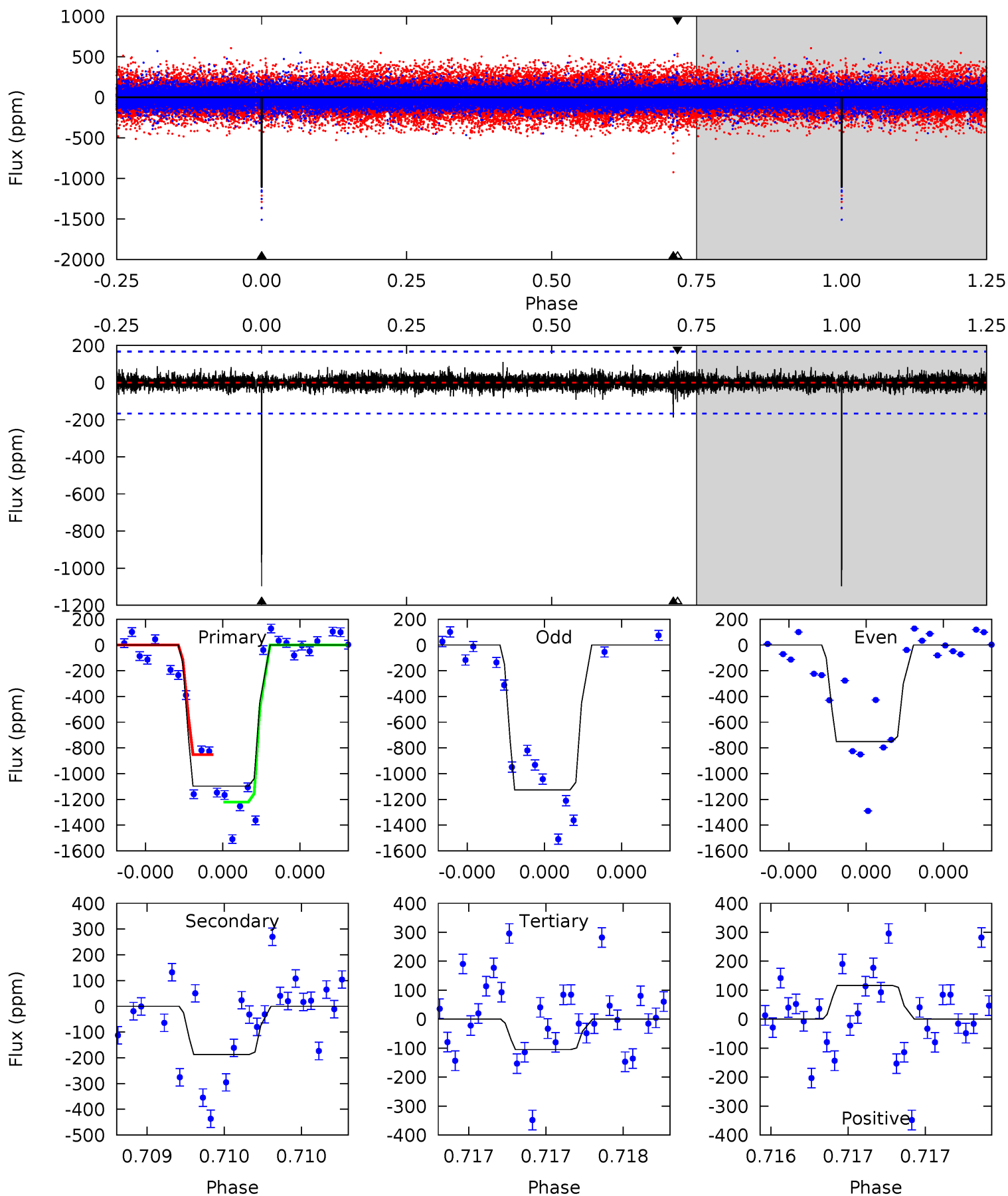
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.98	17.8	14.3	14.5	5.62	3.54	2.34	-7.28	-7.53	3.56	3.30	0.29	0.94	0.45	0.47



Alt Model-Shift Uniqueness Test

006230245-03, P = 399.183217 Days, E = 80.094359 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
36.9	6.30	3.53	3.91	5.62	3.55	0.66	33.3	33.0	2.77	2.40	6.72	0.82	0.10	0



Stellar Parameters For KIC 006230245

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5934^{+197}_{-161}	$3.991^{+0.546}_{-0.234}$	$-0.940^{+0.350}_{-0.300}$	$1.480^{+0.576}_{-0.704}$	$0.784^{+0.085}_{-0.062}$	$0.340^{+1.860}_{-0.206}$
	+3%/-3%	+14%/-6%	+37%/-32%	+39%/-48%	+11%/-8%	+547%/-61%
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 006230245-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-1120 ± 63	$4.00^{+3.33}_{-2.42}$	445^{+52}_{-63}	6669^{+5989}_{-1549}	$36843^{+201536}_{-25808}$
Alt.	-187 ± 30	$5.00^{+3.61}_{-2.91}$	449^{+46}_{-65}	4083^{+1574}_{-582}	3989^{+19345}_{-2648}

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 $A_{obs} \gg 1.0$

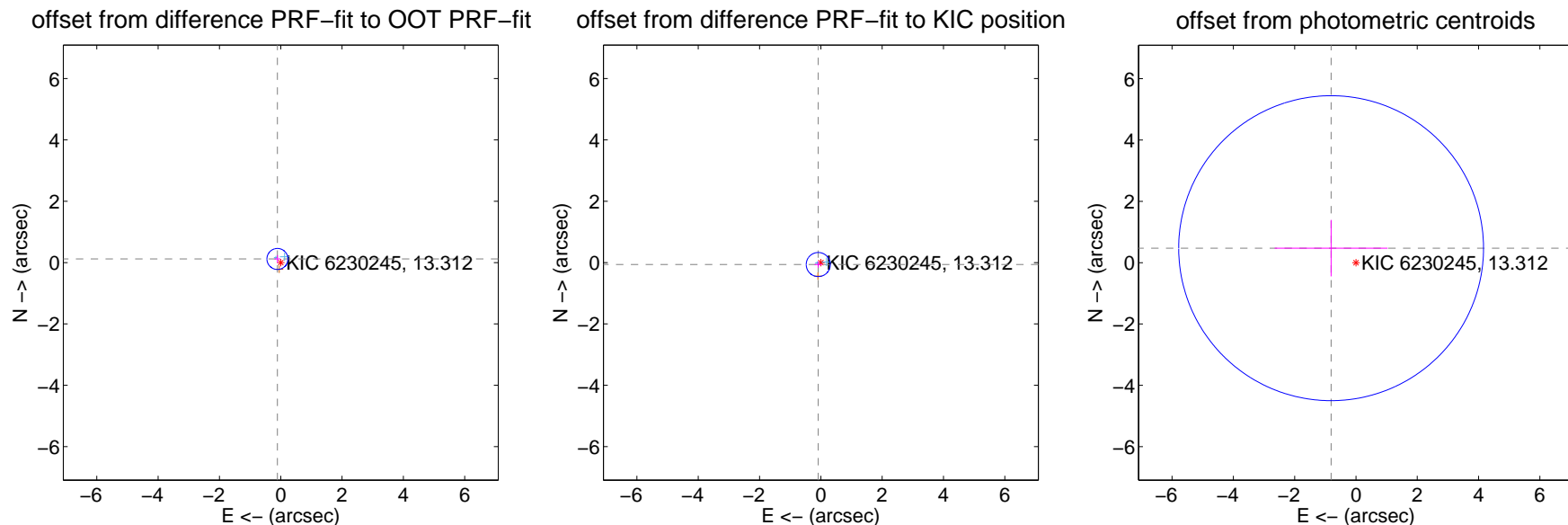
DV Centroid Data

Supplemental centroid analysis for 006230245-03. Kepler magnitude: 13.31. Transit SNR 5.50

There are 2 quarters with good PRF difference image offsets

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

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.160 ± 0.114	1.40	0.108 ± 0.099	0.118 ± 0.126
PRF-fit source offset from KIC position	0.106 ± 0.131	0.81	0.085 ± 0.120	-0.063 ± 0.102
photometric centroid source offset	0.94 ± 1.66	0.57	0.81 ± 1.84	0.47 ± 0.92

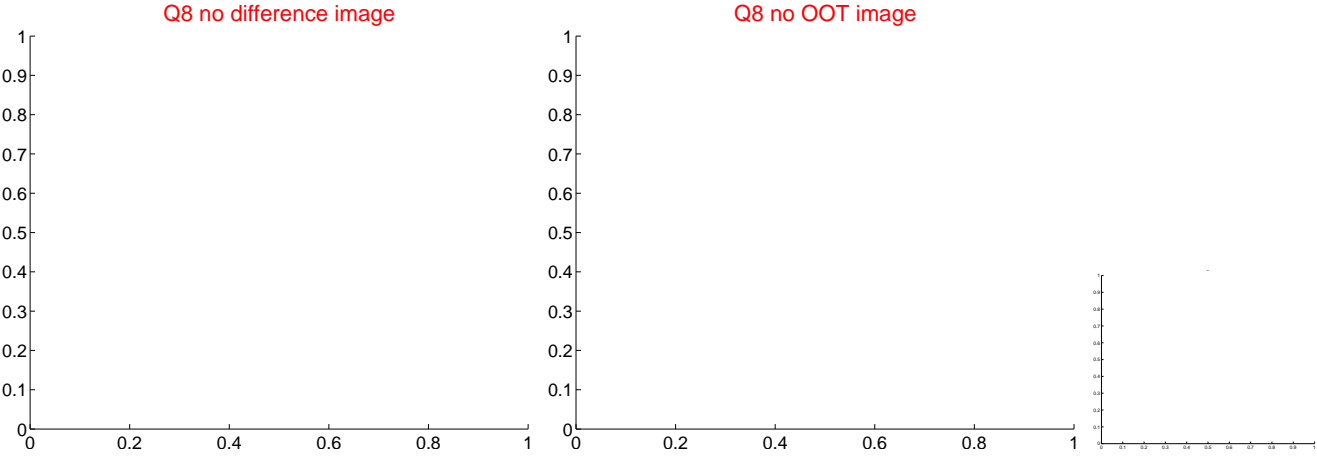
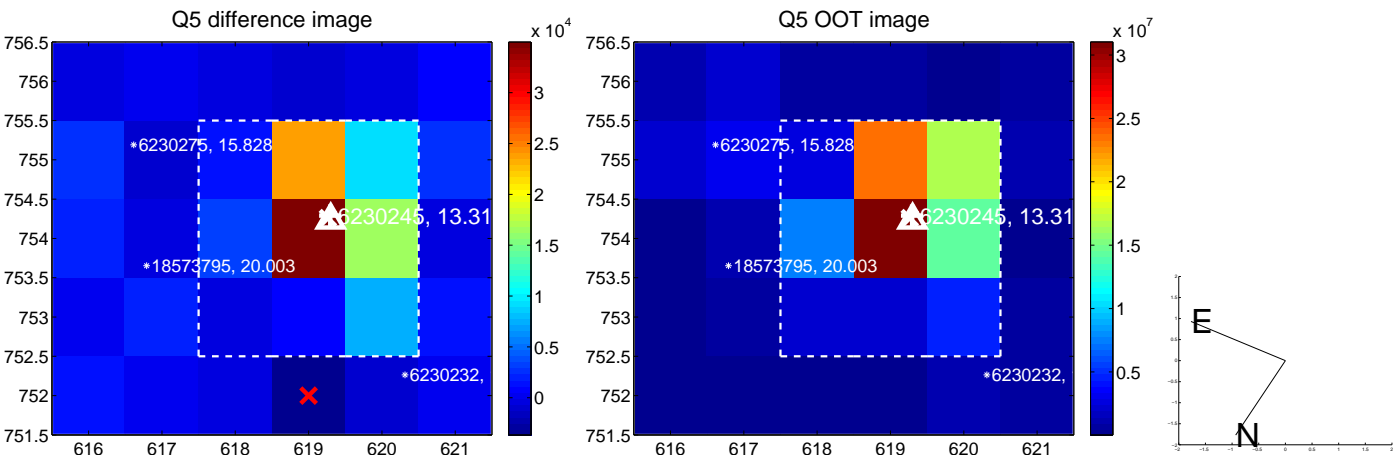


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

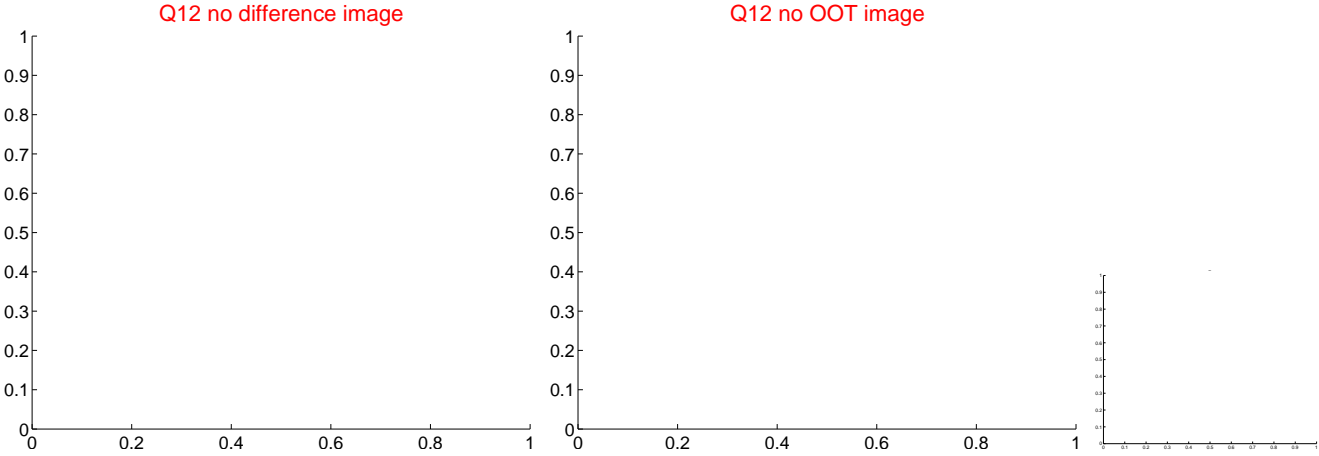
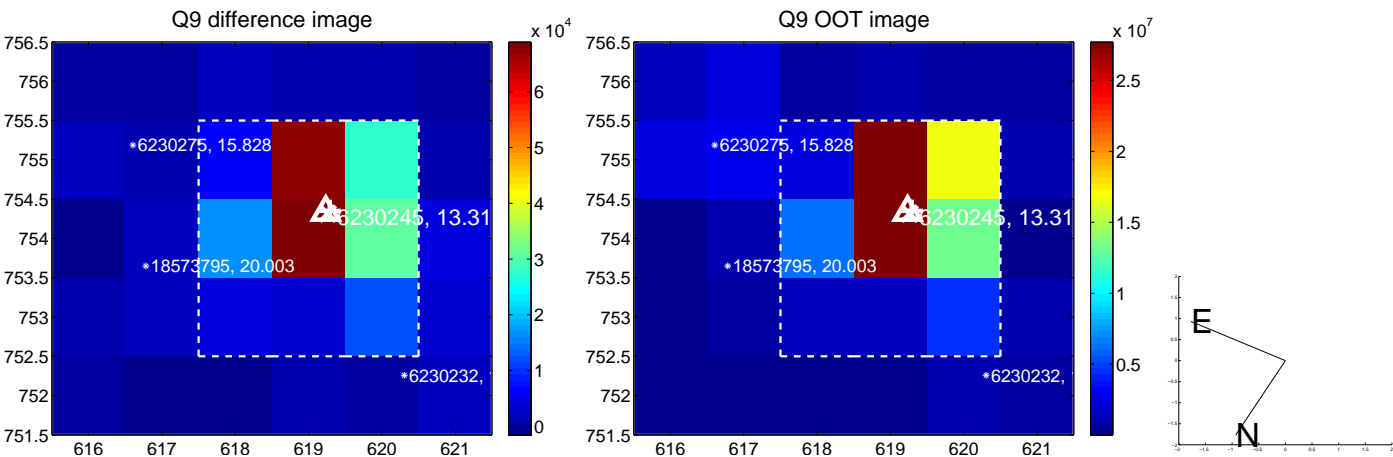
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



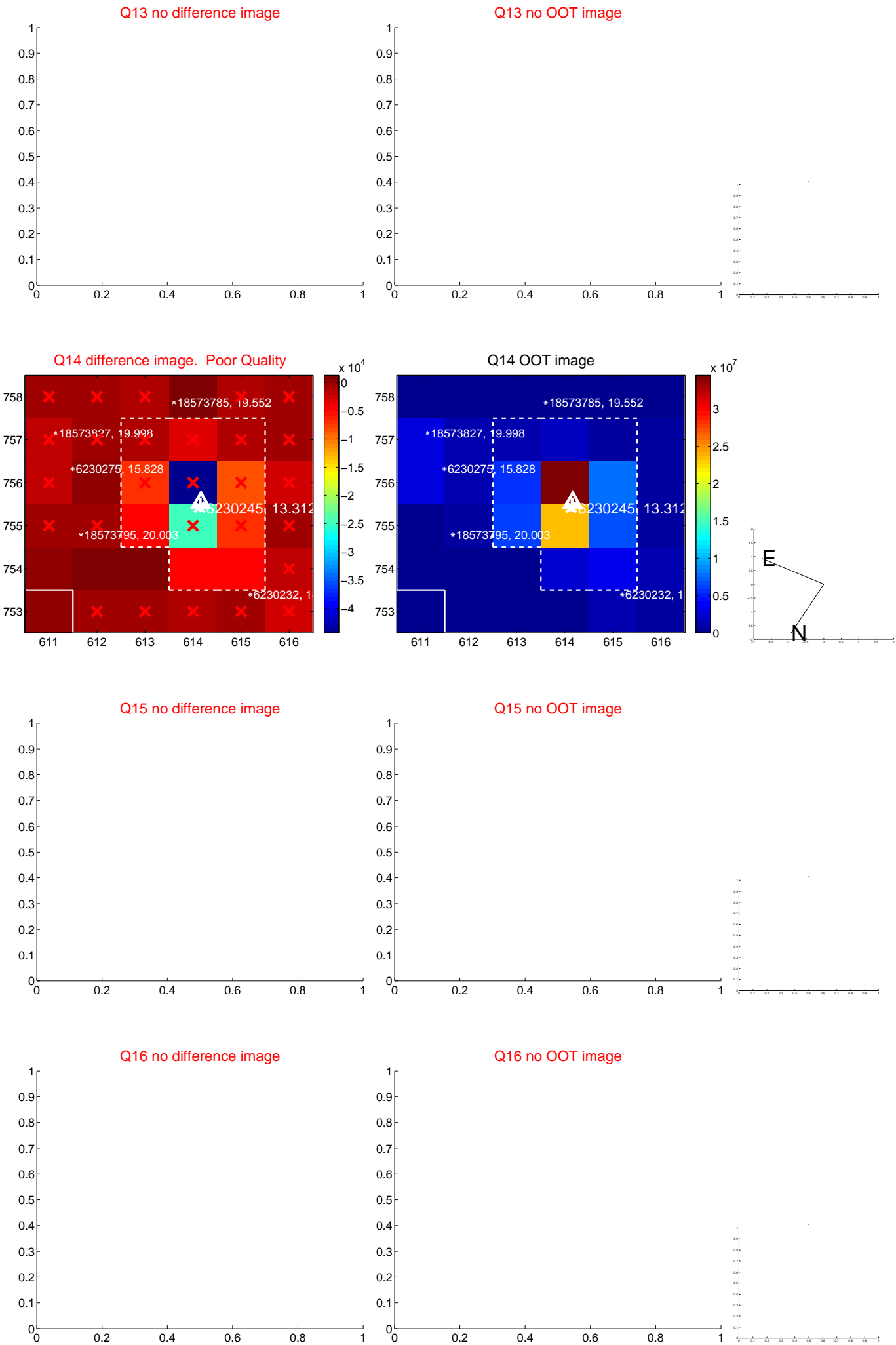
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



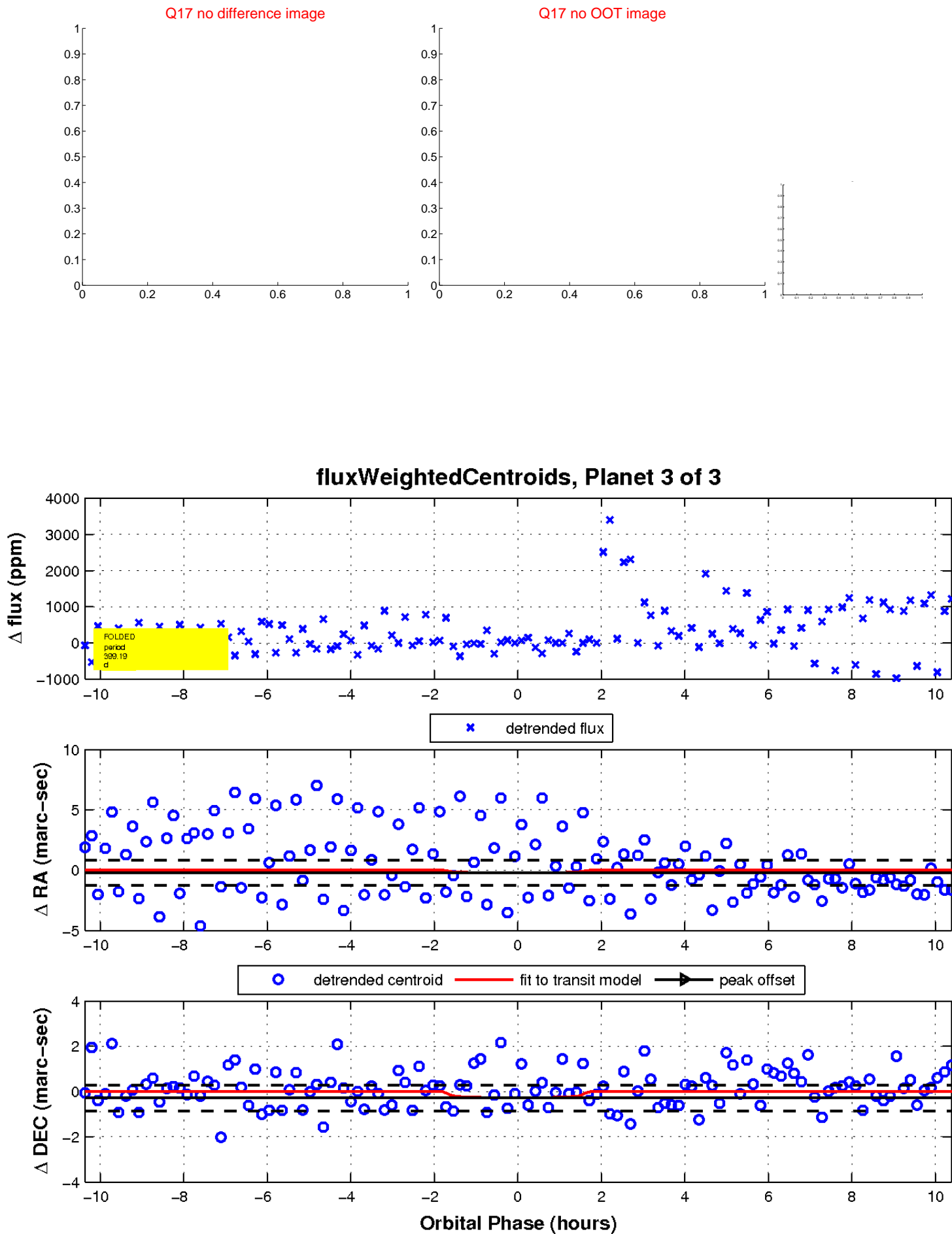
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

