

KIC 006692320

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})
006692320-01	OBS	No	403.250591	306.869164	2455.5	6.885	15.9	7.8	0.36	3454	1.75	0.03
006692320-02	OBS	No	264.980347	263.522938	1397.9	3.408	10.2	6.3	0.36	3454	1.32	0.05
006692320-03	OBS	No	195.231846	135.877125	1427.0	3.810	9.9	6.4	0.36	3454	1.43	0.07
006692320-04	OBS	No	305.975665	314.094292	1192.4	4.930	9.8	5.1	0.36	3454	1.23	0.04

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006692320-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006692320-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—CENT_FEW_DIFFS
006692320-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006692320-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—LPP_DV—MOD_POS_DV—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.

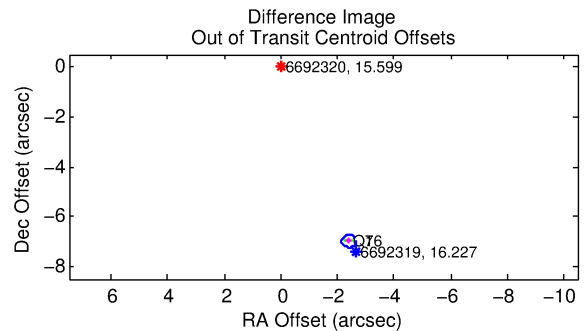
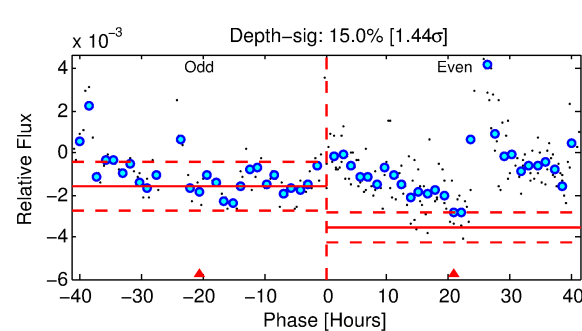
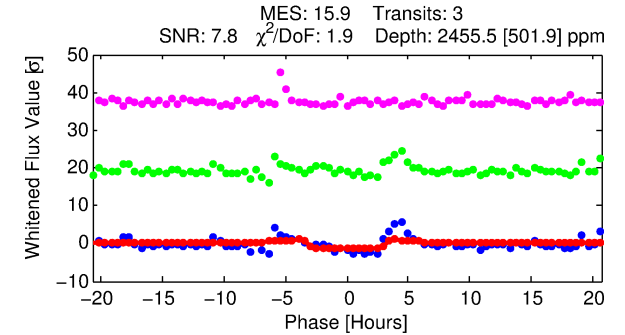
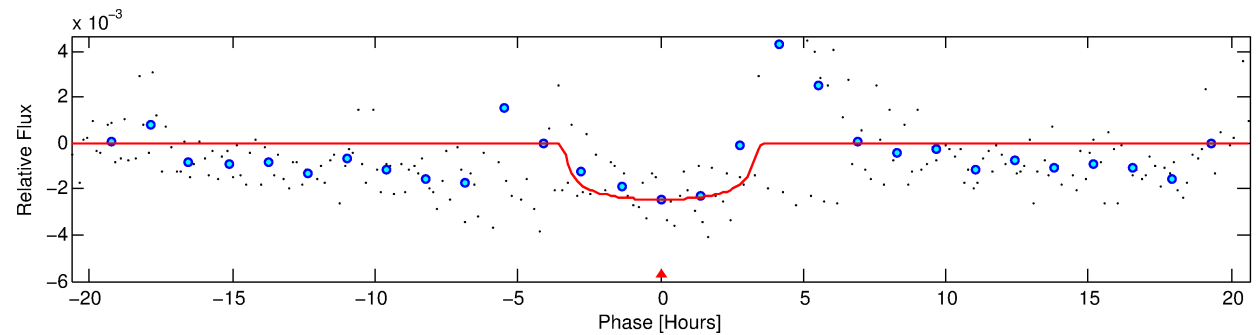
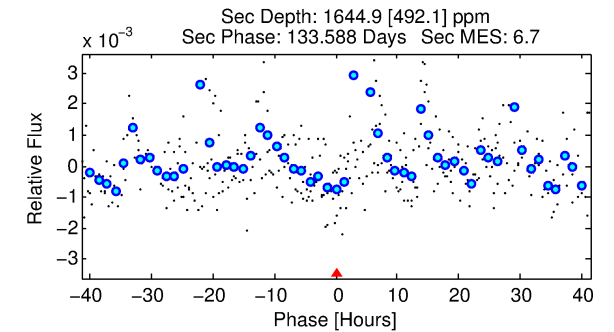
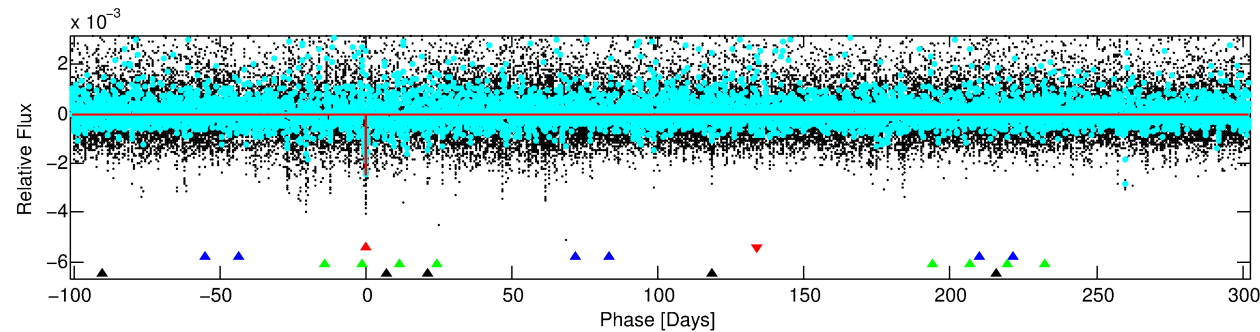
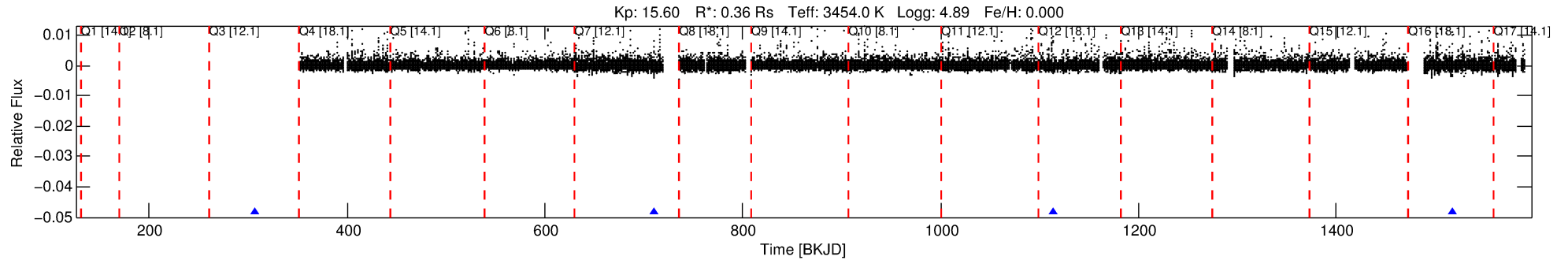
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006692320-01

No Significant Match Found

DV One-Page Summary

KIC: 6692320 Candidate: 1 of 4 Period: 403.251 d



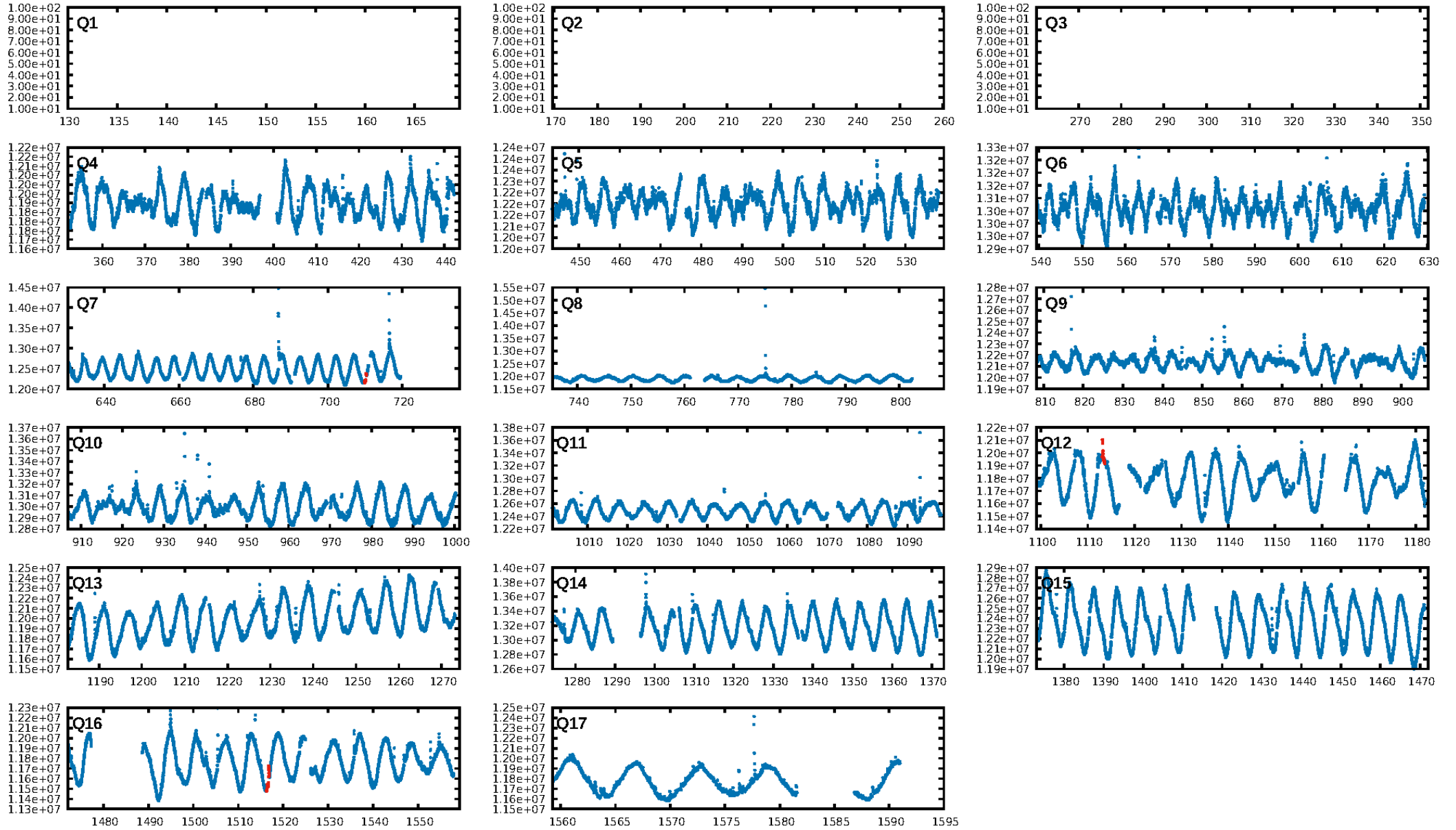
DV Fit Results:

Period = 403.25059 [0.00986] d
Epoch = 306.8692 [0.0208] BKJD
Rp/R* = 0.0450 [0.0398]
a/R* = 455.45 [1671.88]
b = 0.24 [14.66]
Seff = 0.03 [0.00]
Teq = 104 [4] K
Rp = 1.75 [1.58] Re
a = 0.7618 [0.0911] AU
Ag = 170761.64 [307372.19] [0.56σ]
Teffp = 3278 [1472] K [2.16σ]

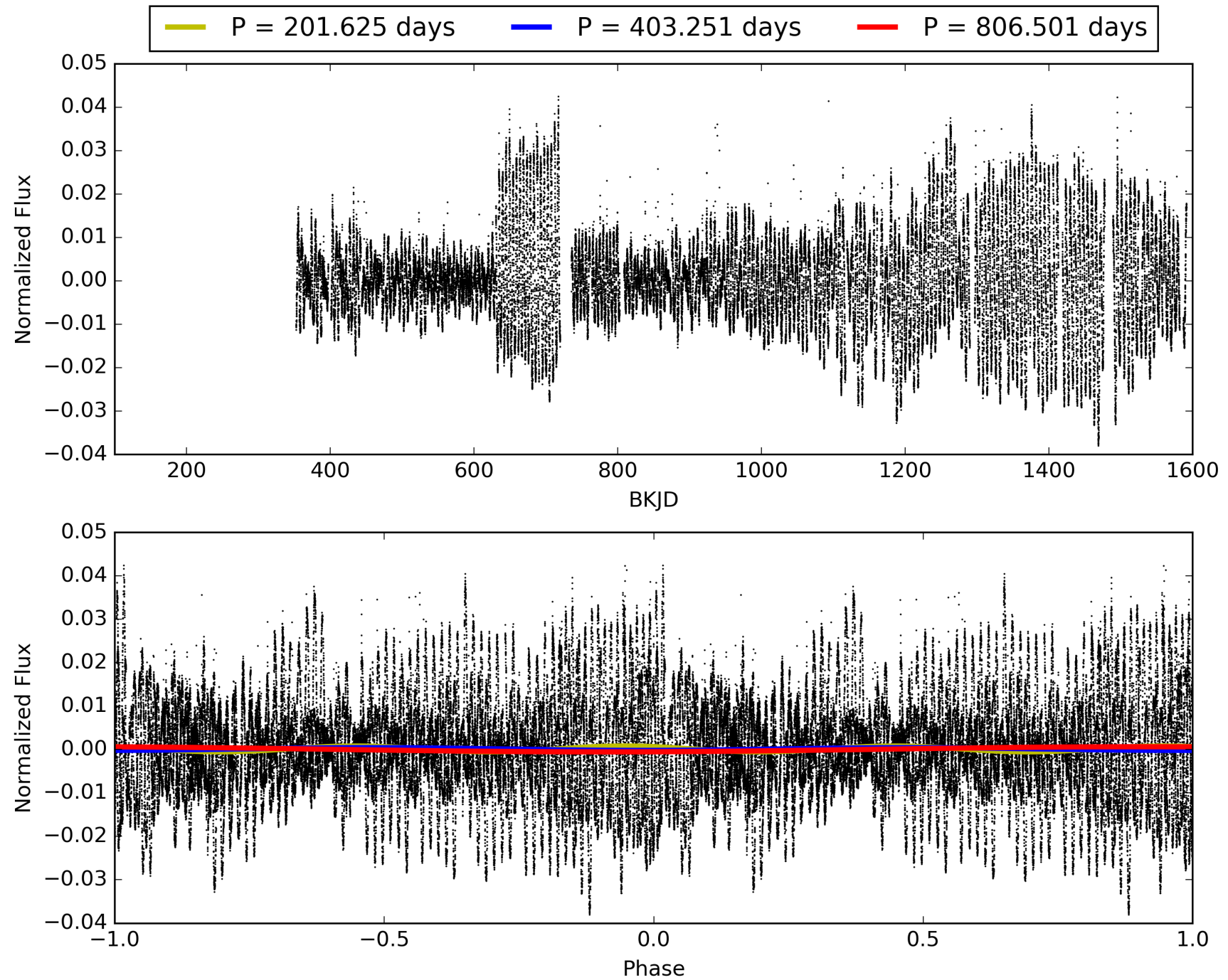
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [275.71σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 3.5%
ModelChiSquareGof-sig: 23.7%
Bootstrap-pfa: 2.44e-20
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 2.688
Centroid-sig: 18.4%
Centroid-so: 4.274 arcsec [1.17σ]
OotOffset-rm: 7.392 arcsec [89.65σ]
KicOffset-rm: 7.997 arcsec [80.78σ]
OotOffset-st: 0/1/1/0 [2]
KicOffset-st: 0/1/1/0 [2]
DiffImageQuality-fgm: 1.00 [2/2]
DiffImageOverlap-fno: 1.00 [2/2]

TCE 006692320-01, PDC Light Curves

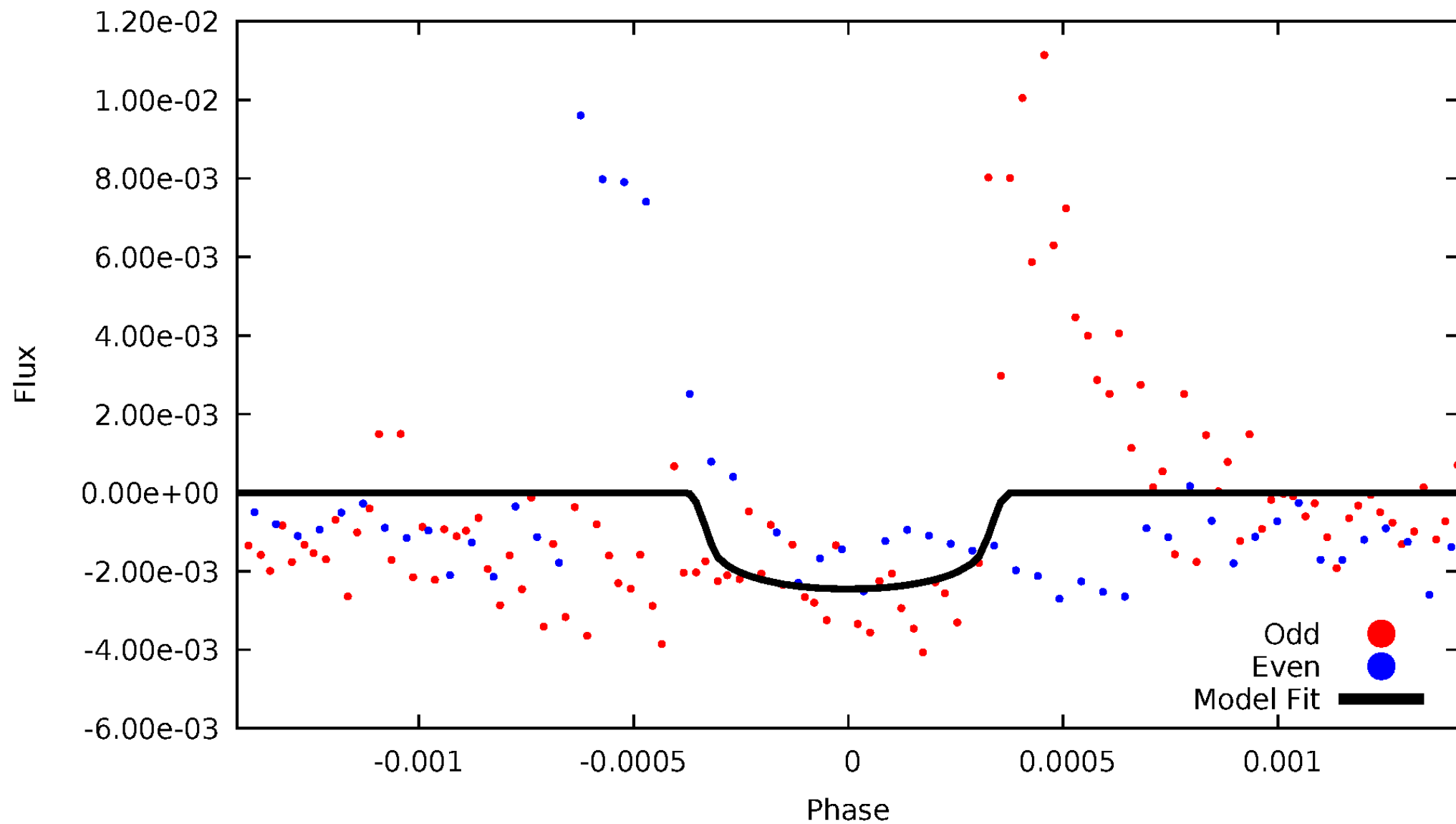


TCE 006692320-01



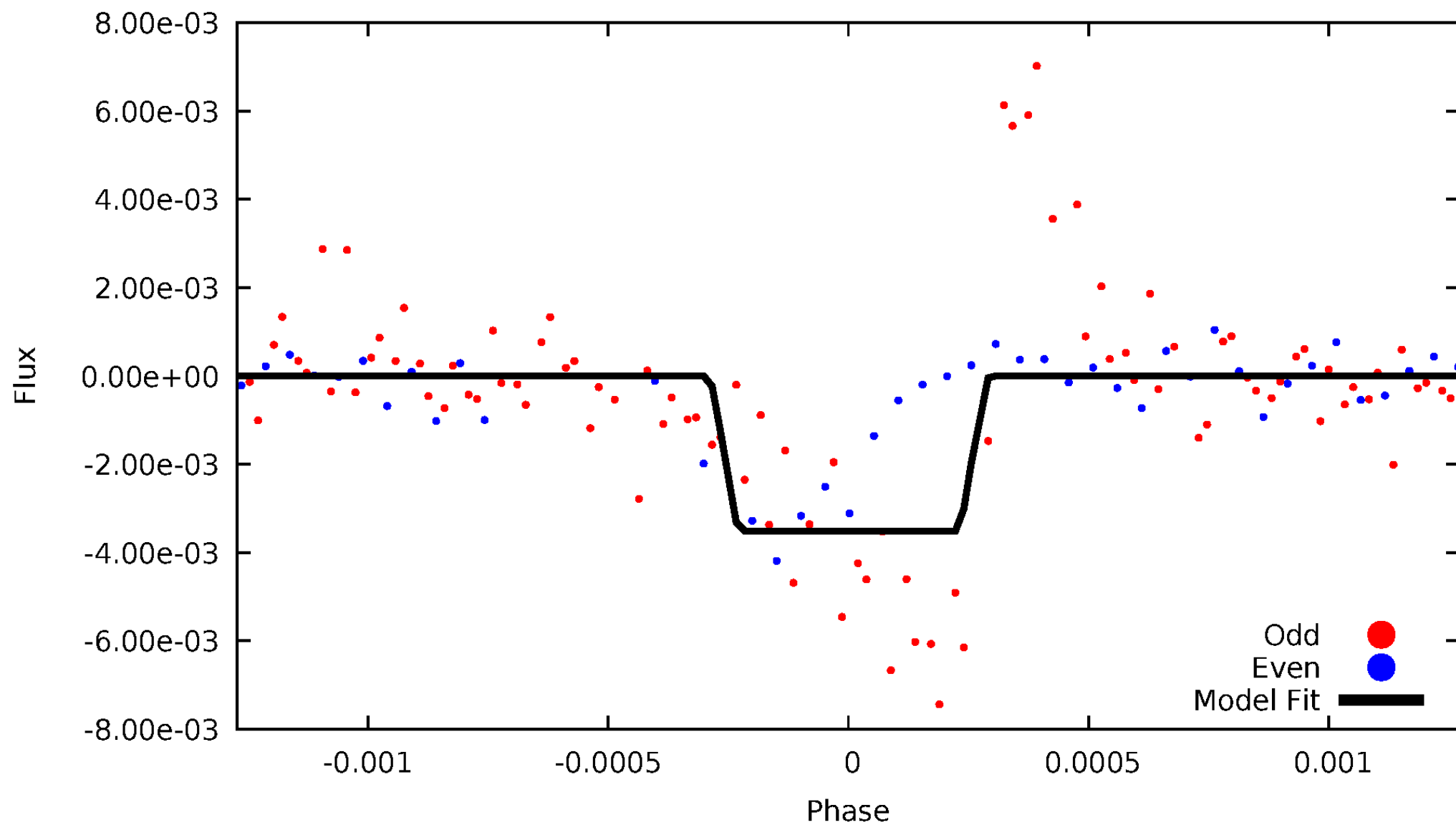
DV Odd/Even

TCE 006692320-01

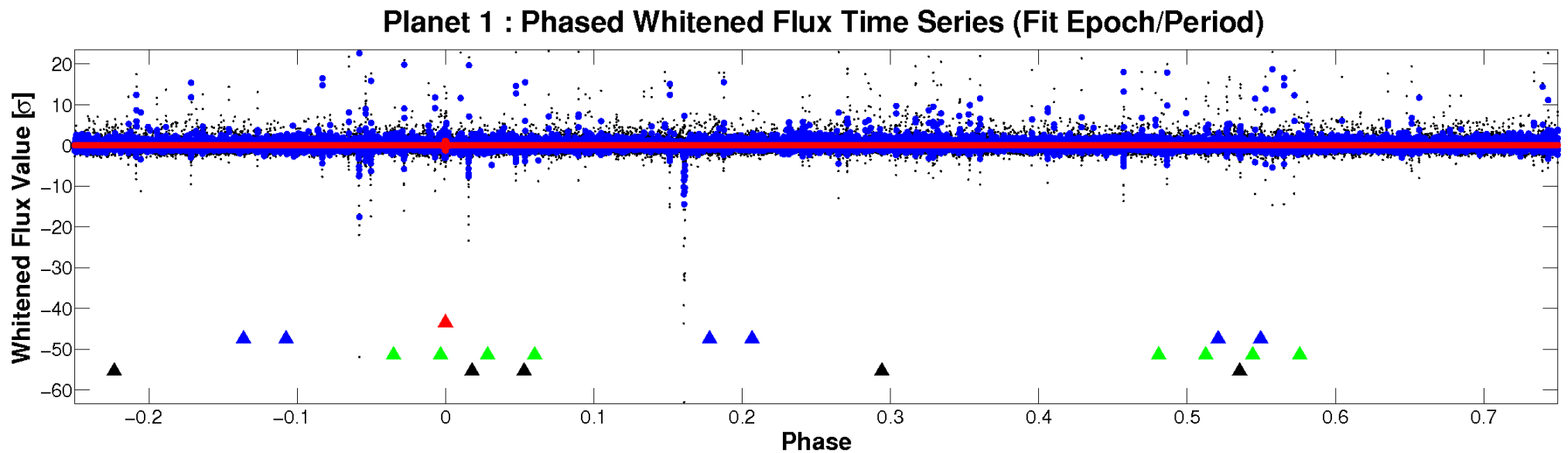
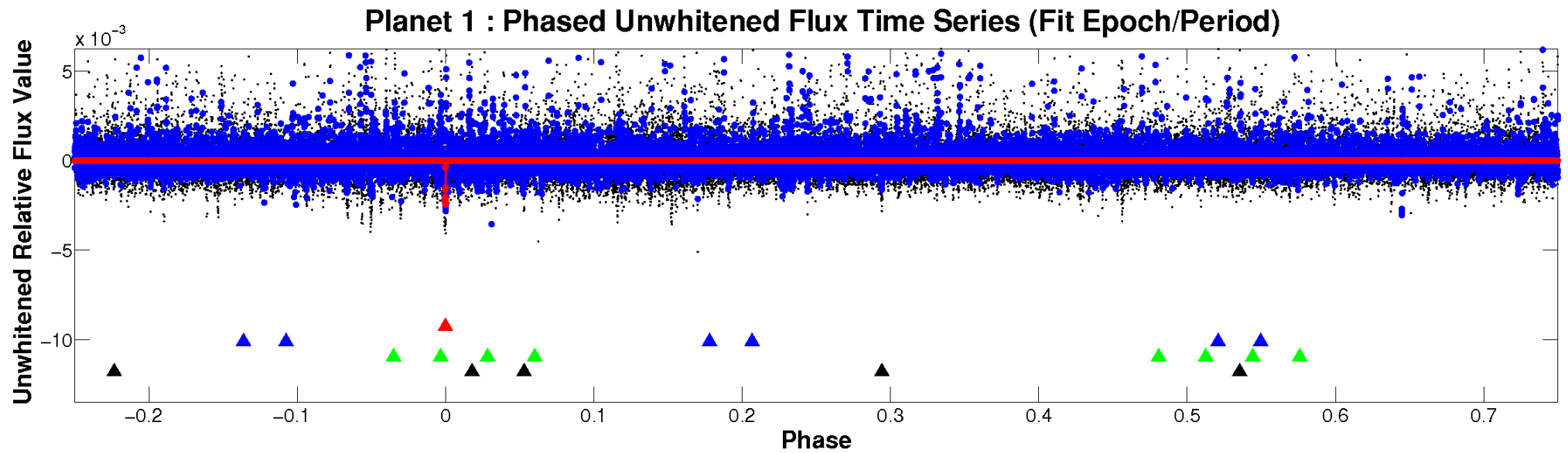


ALT Odd/Even

TCE 006692320-01

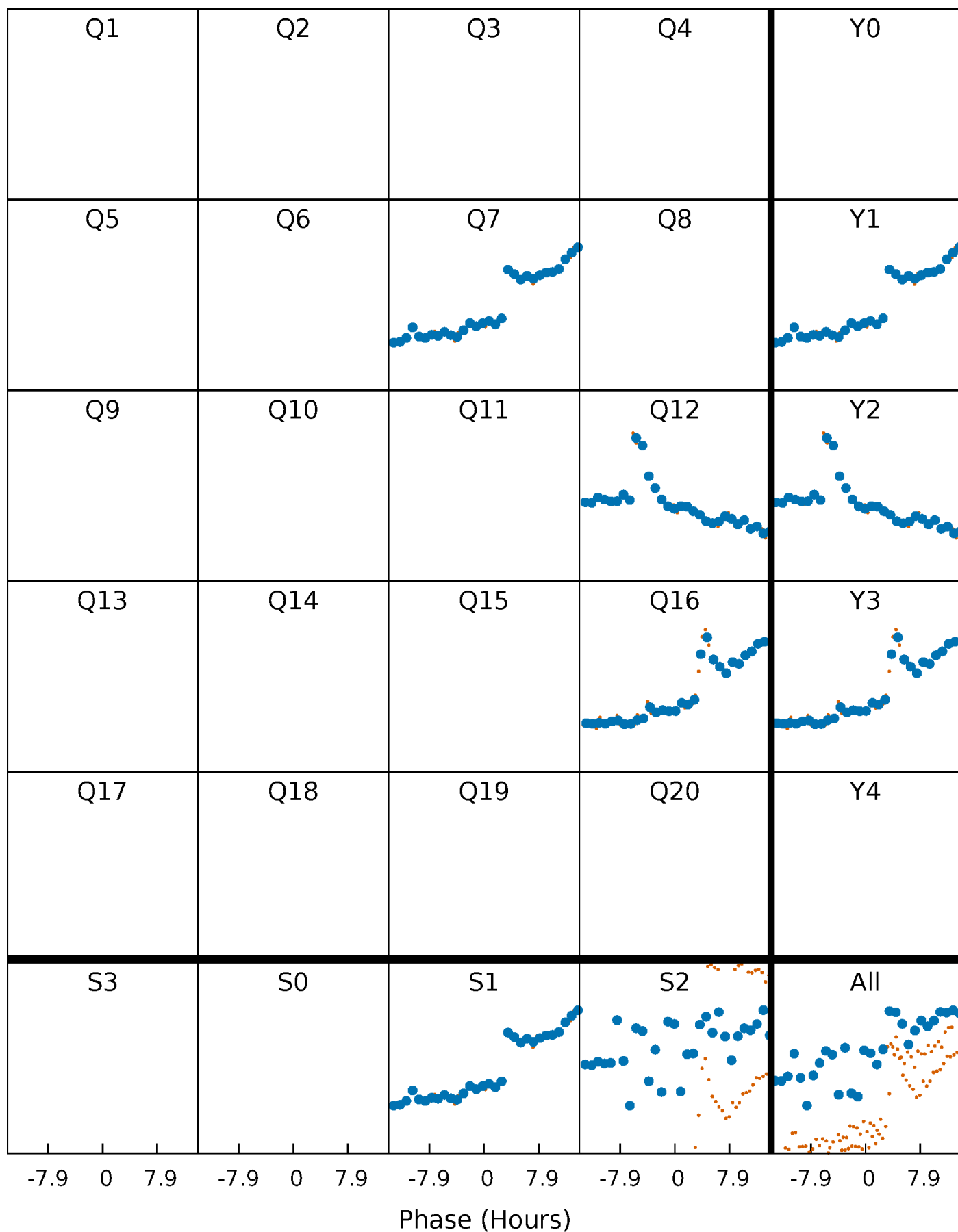


Non-Whitened Vs. Whitened Light Curve



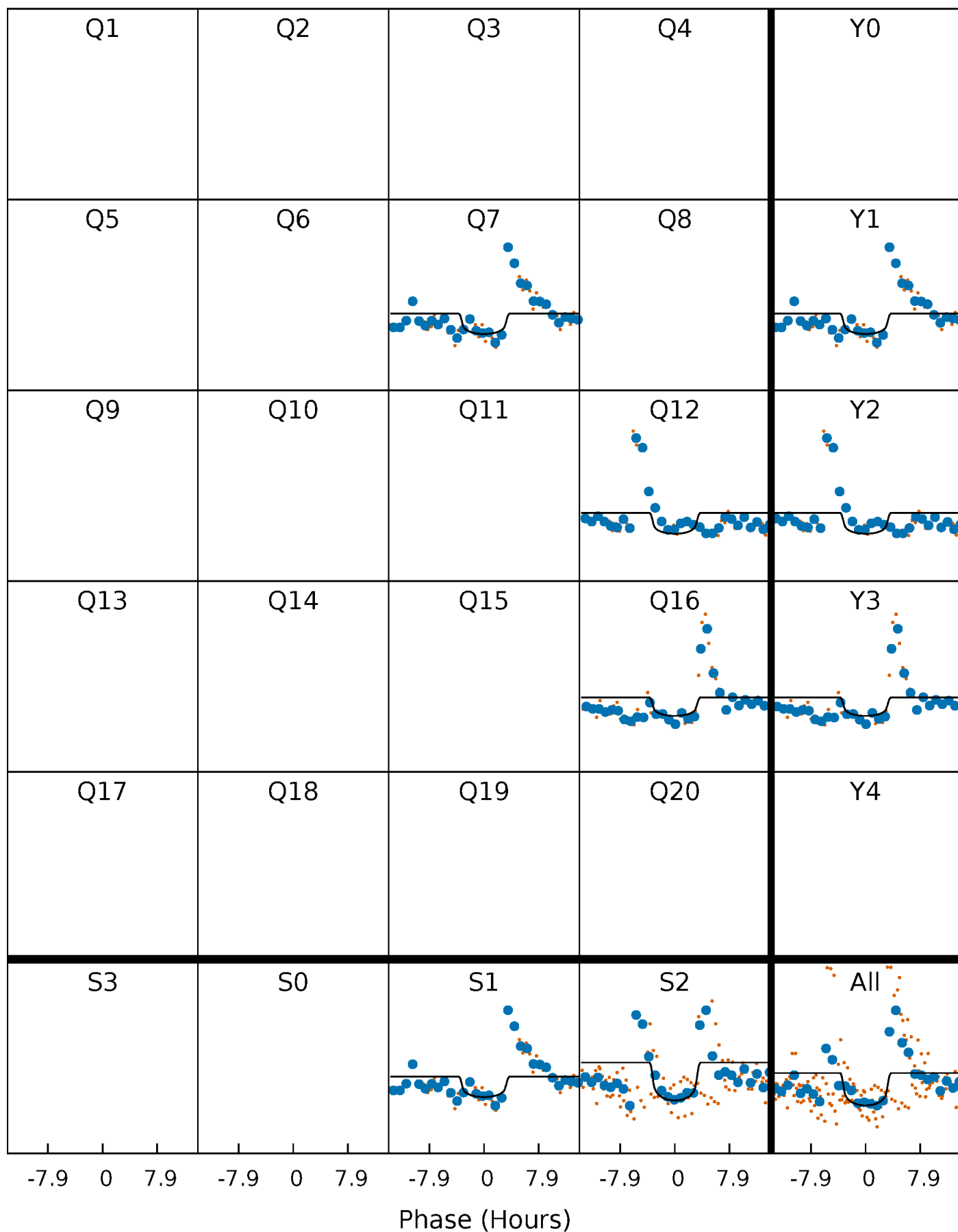
PDC Quarter-Phased Transit Curves

TCE 006692320-01 P=403.250591 Days $T_0=306.869164$ (BKJD)



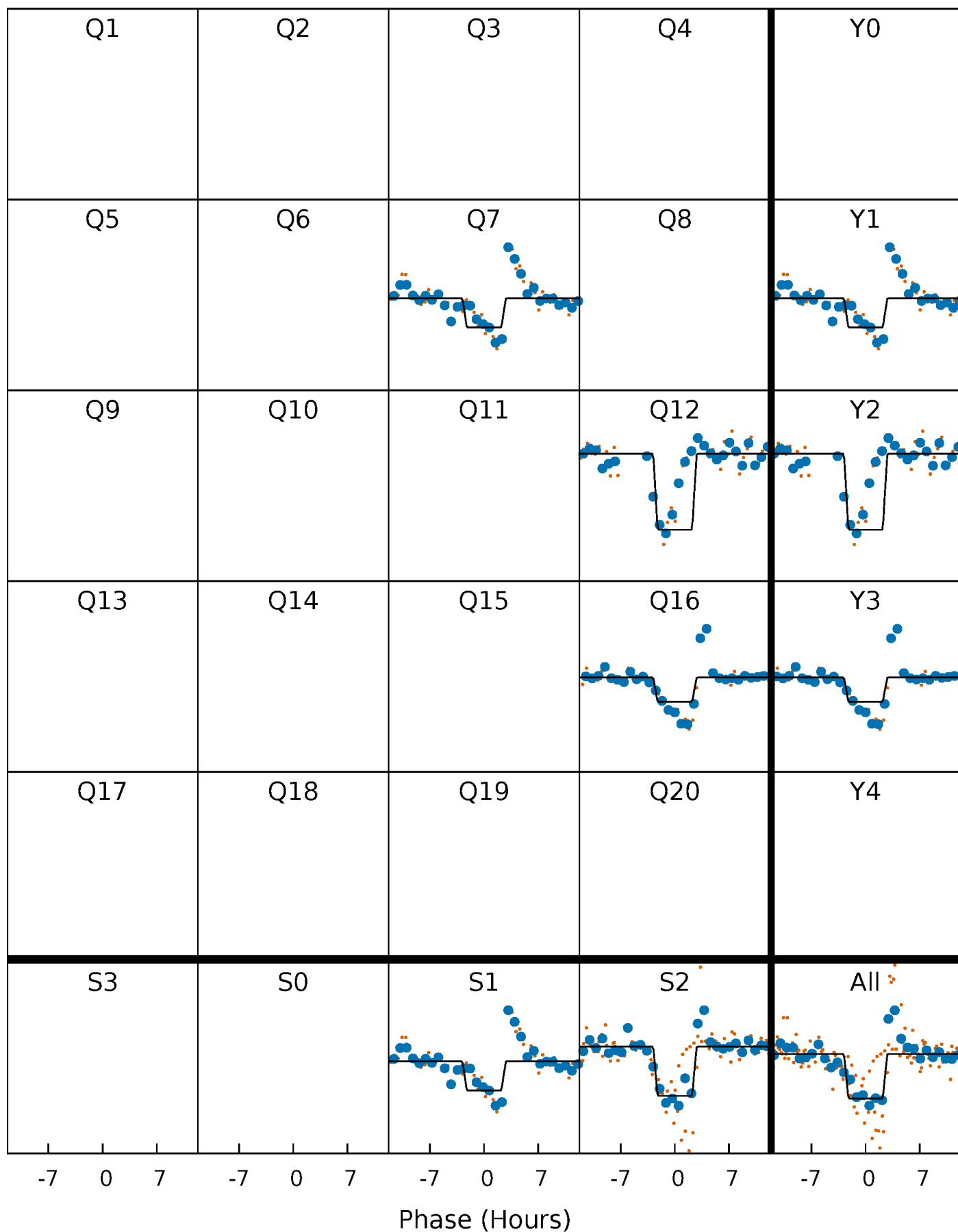
DV Quarter-Phased Transit Curves

TCE 006692320-01 P=403.250591 Days $T_0=306.869164$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

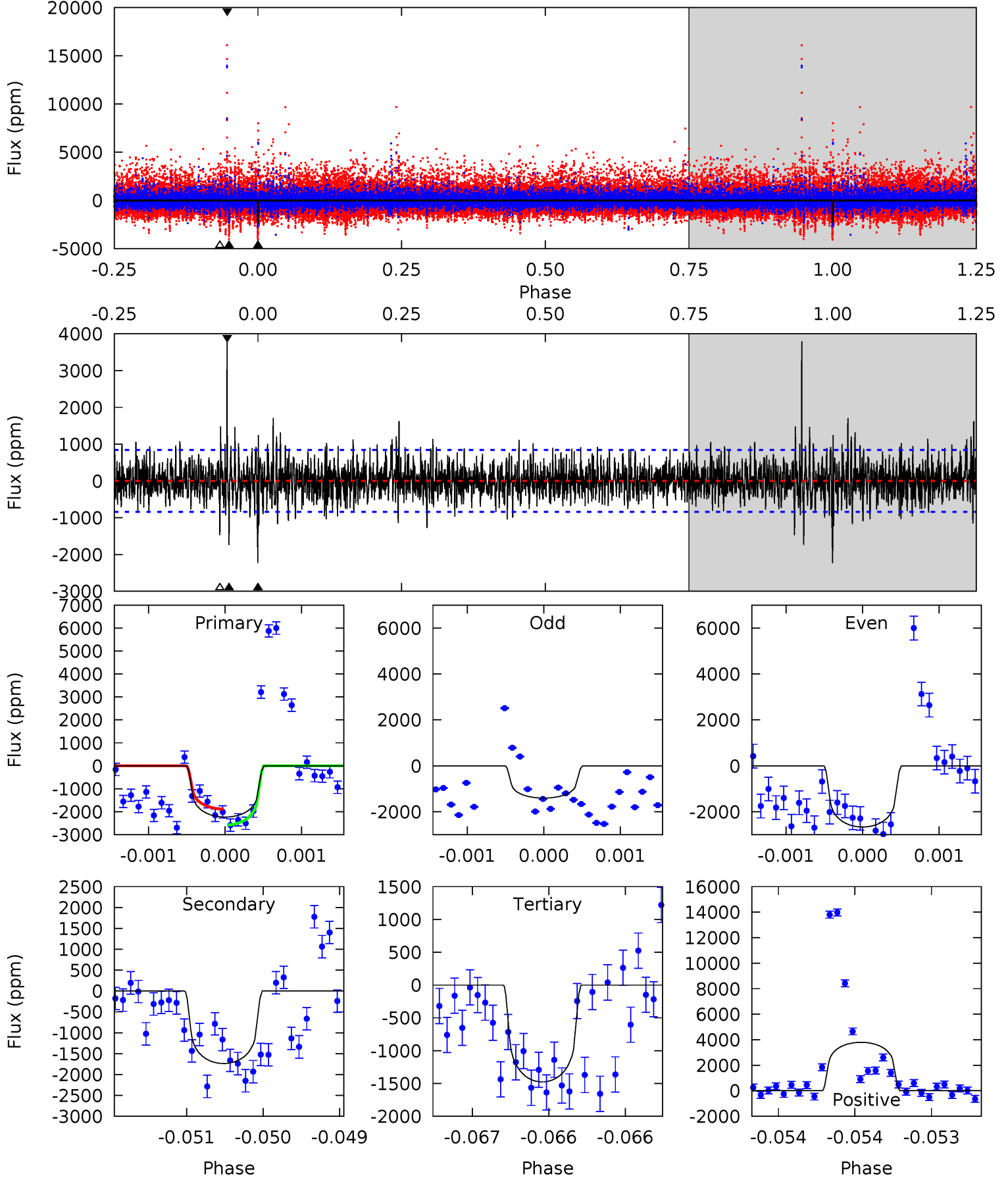
TCE 006692320-01 P=403.263118 Days $T_0=306.857333$ (BKJD)



DV Model-Shift Uniqueness Test

006692320-01, P = 403.250591 Days, E = 306.869164 Days

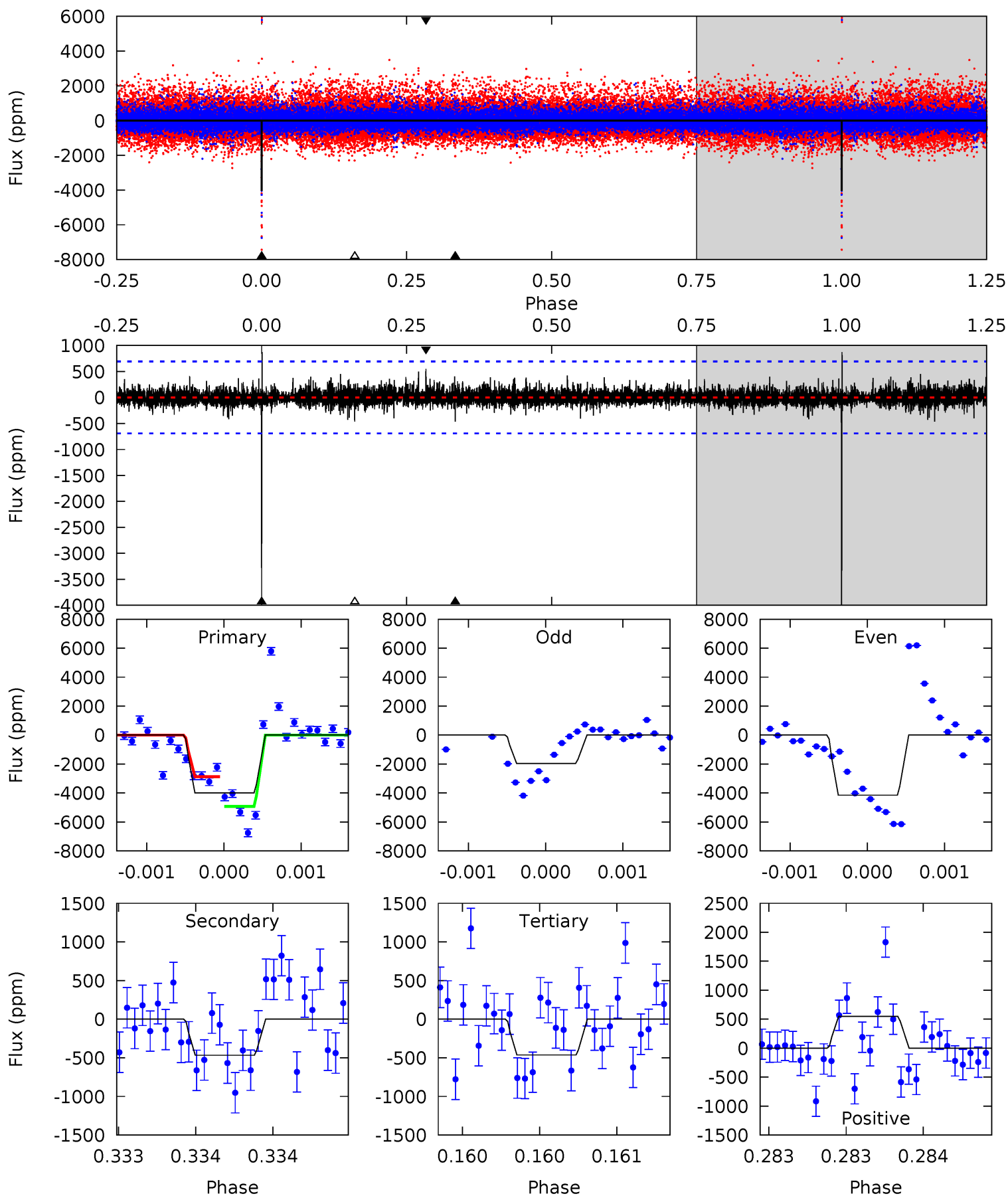
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.6	11.3	9.64	24.8	5.50	3.37	2.36	4.93	-10.2	1.70	-13.5	2.97	1.06	0.63	2.29



Alt Model-Shift Uniqueness Test

006692320-01, P = 403.263118 Days, E = 306.857333 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
32.0	3.74	3.71	4.39	5.55	3.44	0.75	28.3	27.6	0.02	-0.65	9.11	1.09	0.18	0



Stellar Parameters For KIC 006692320

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	3454^{+69}_{-76}	$4.892^{+0.066}_{-0.044}$	$0.000^{+0.100}_{-0.100}$	$0.357^{+0.048}_{-0.058}$	$0.362^{+0.057}_{-0.069}$	$11.240^{+4.210}_{-2.149}$
	+2%/-2%	+1%/-1%	+inf%/-inf%	+13%/-16%	+16%/-19%	+37%/-19%
Source	PHO2	PHO2	PHO2	DSEP		

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

Secondary Eclipse Parameters for KIC 006692320-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-1736 ± 153	$2.01^{+1.41}_{-1.28}$	145^{+5}_{-5}	3228^{+1300}_{-457}	$136803^{+882241}_{-90695}$
Alt.	-466 ± 125	$2.42^{+1.46}_{-1.31}$	145^{+5}_{-5}	2561^{+617}_{-292}	$26287^{+100730}_{-17188}$

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

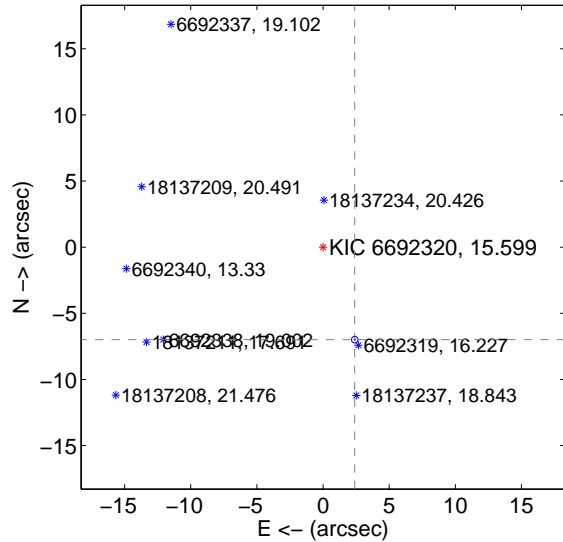
Supplemental centroid analysis for 006692320-01. Kepler magnitude: 15.60. Transit SNR 7.81

There are 2 quarters with good PRF difference image offsets

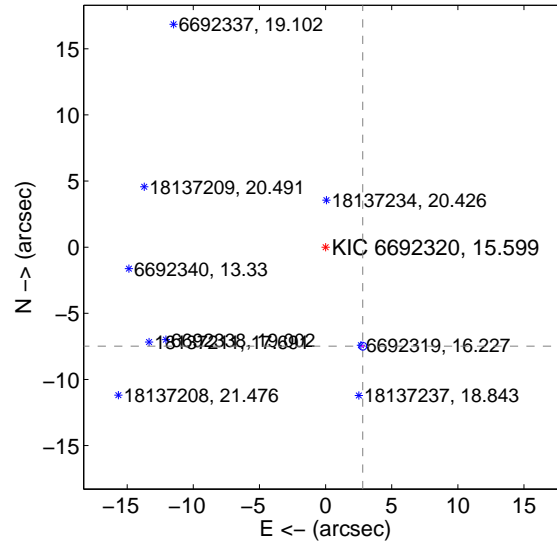
The direct PRF centroid is offset from the target star catalog position by about 0.41 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	7.392 ± 0.082	89.65	-2.396 ± 0.089	-6.993 ± 0.082
PRF-fit source offset from KIC position	7.997 ± 0.099	80.78	-2.812 ± 0.098	-7.486 ± 0.084
photometric centroid source offset	4.27 ± 3.66	1.17	-3.89 ± 2.82	-1.78 ± 6.27

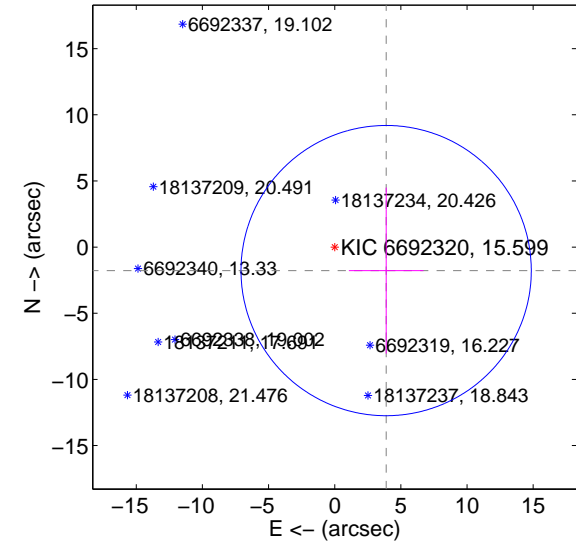
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

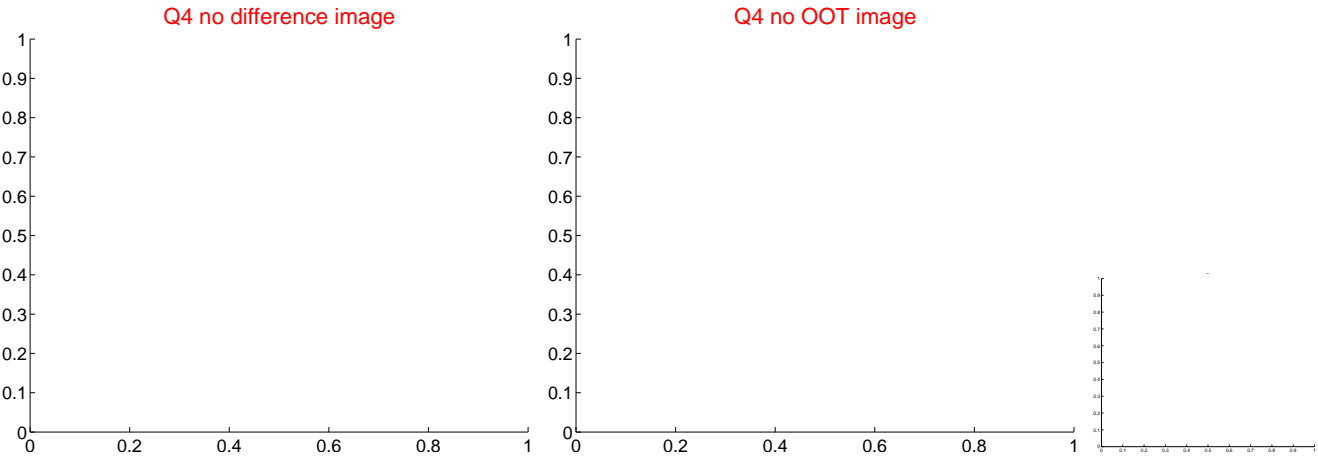
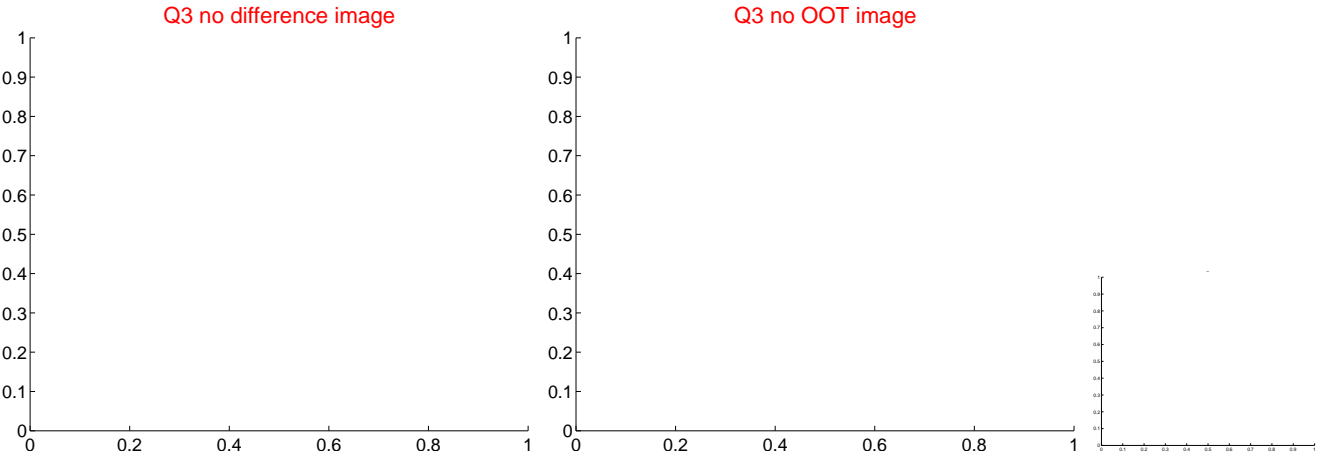
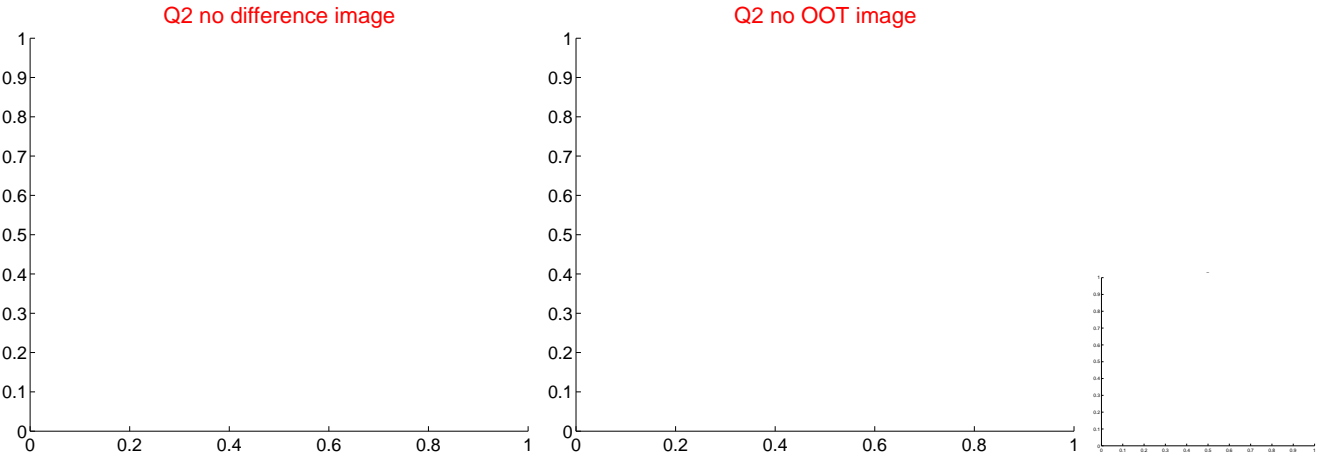
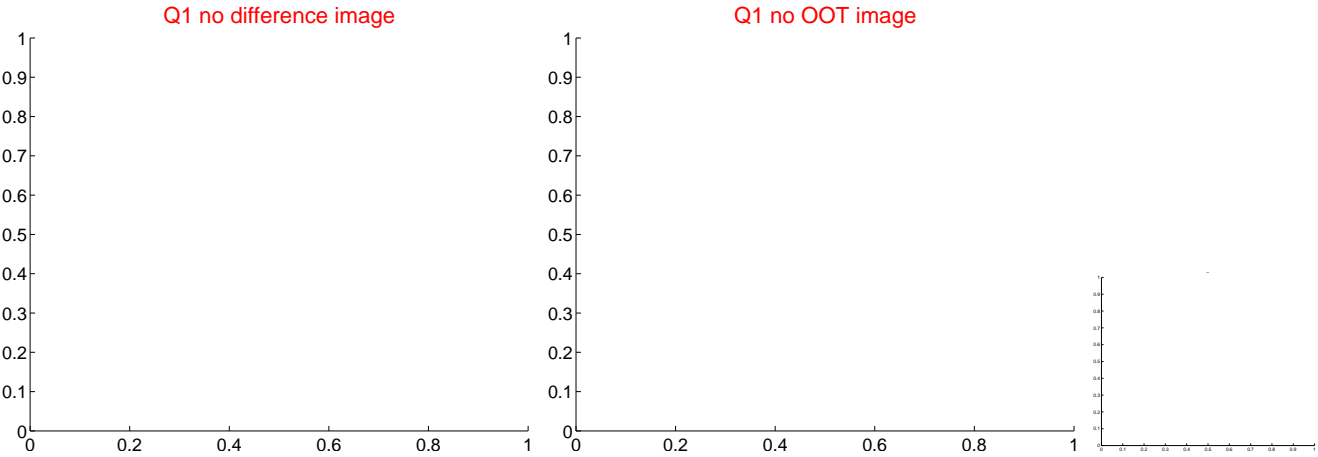


offset from photometric centroids

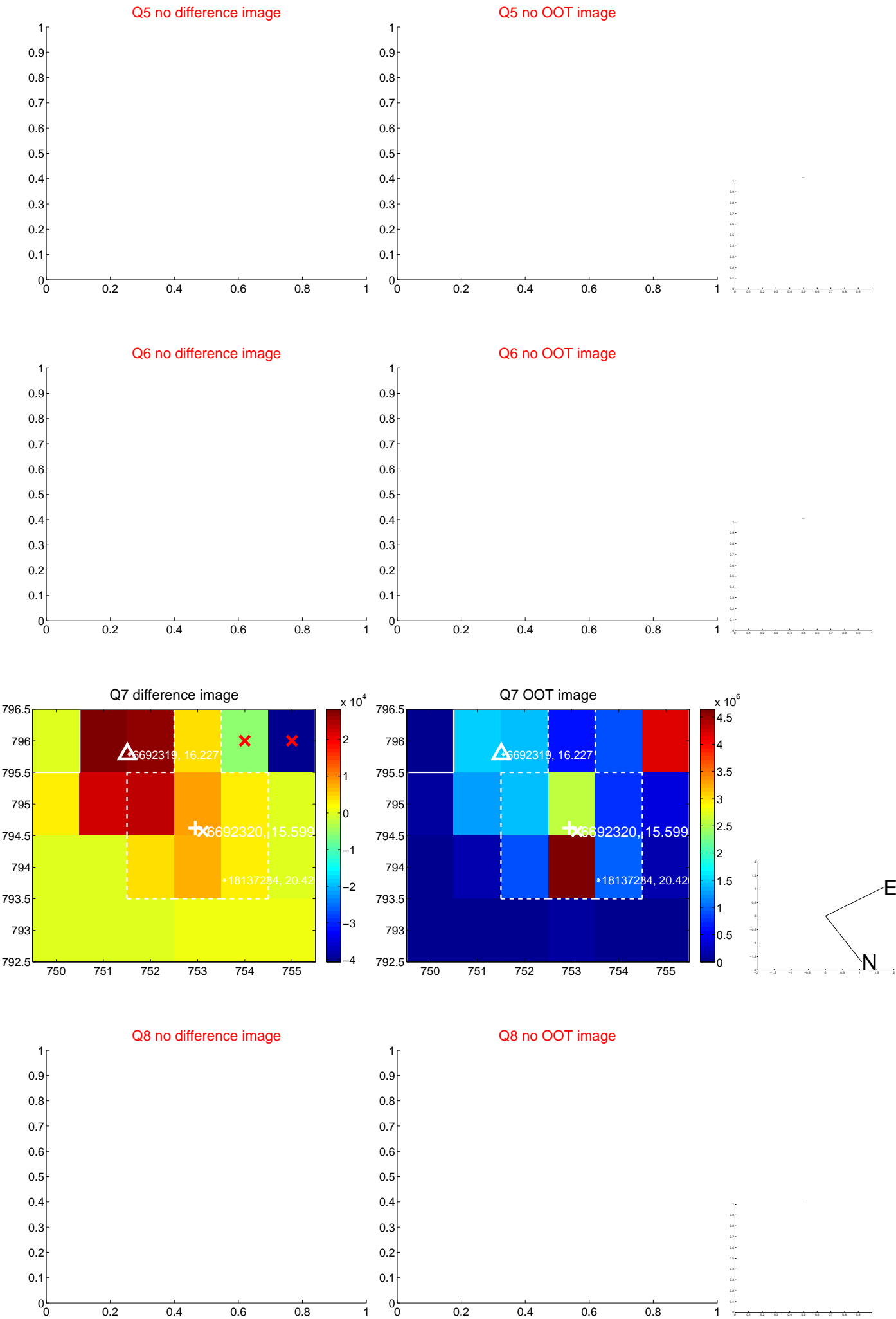


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

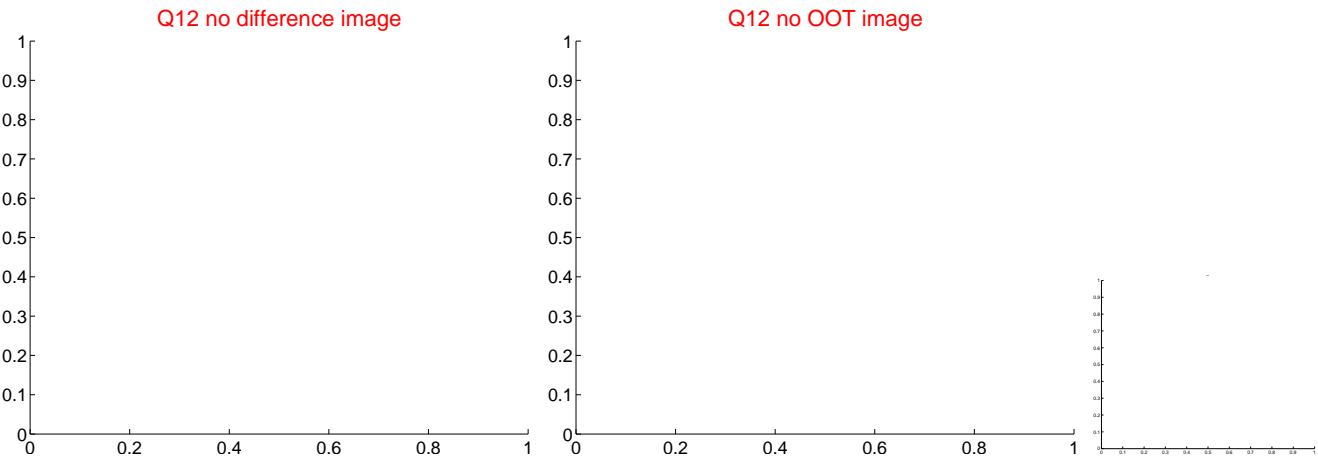
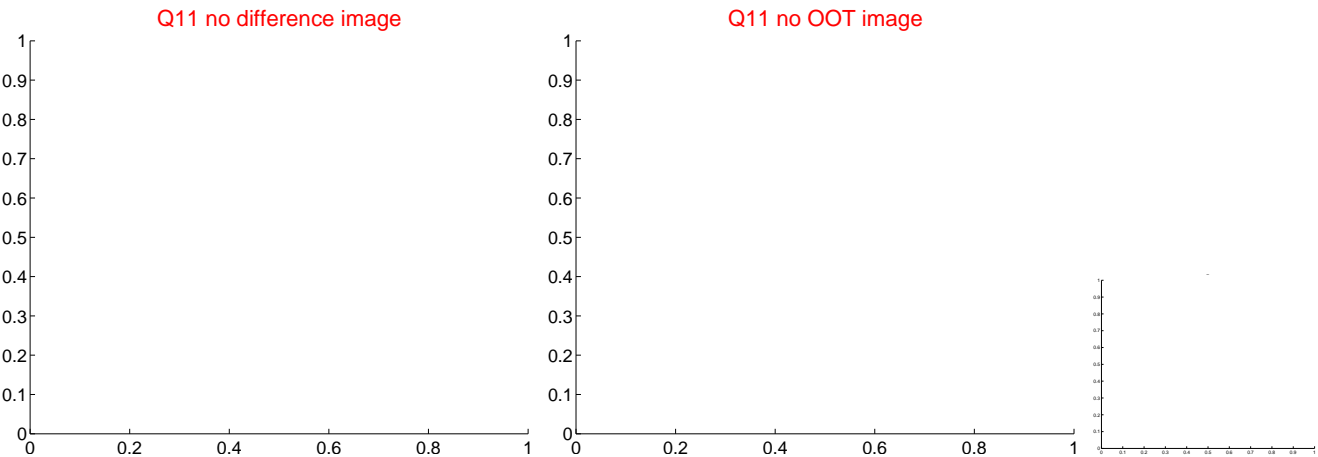
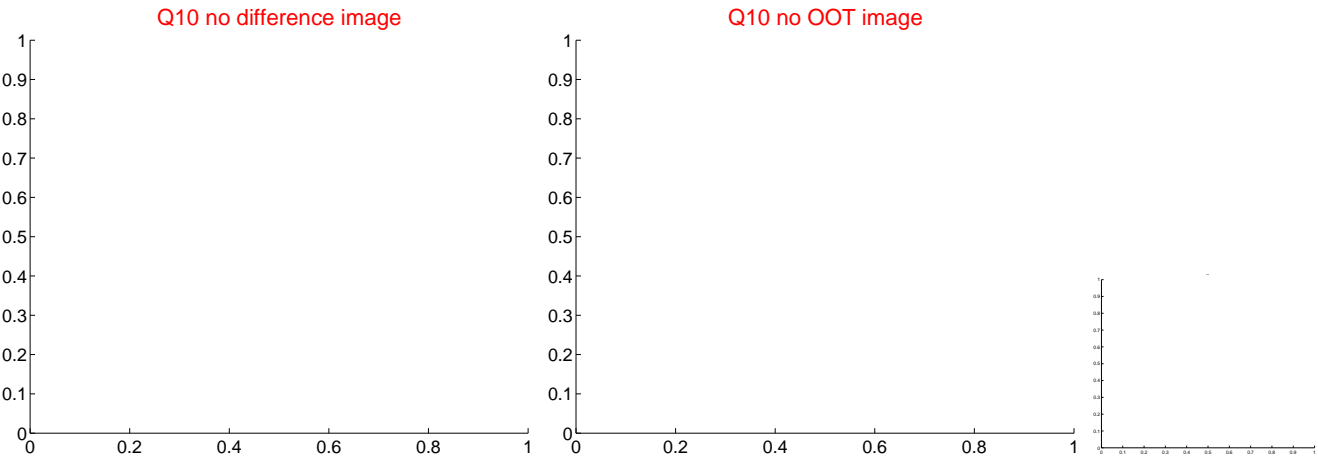
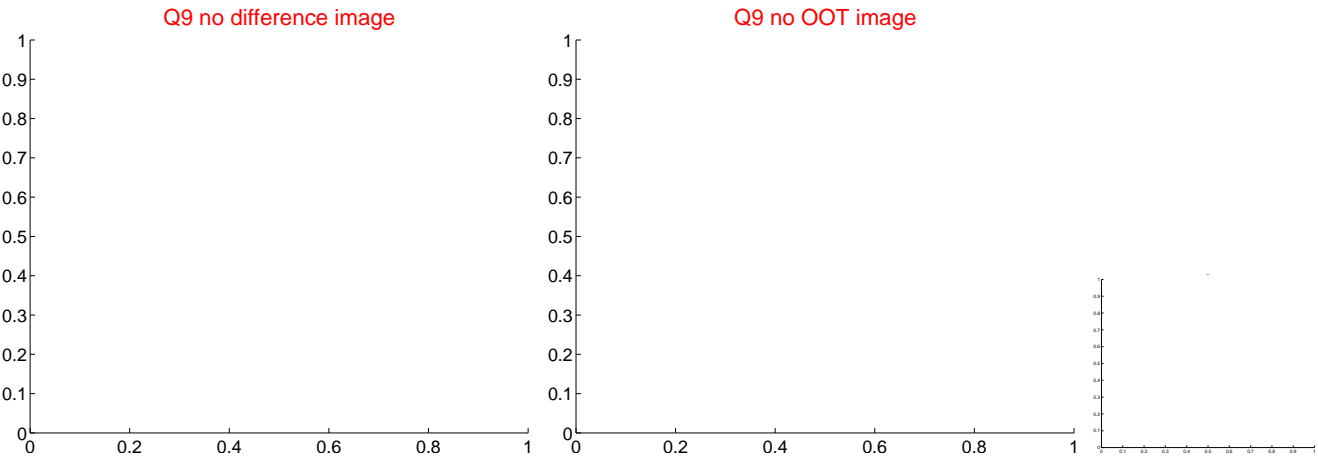
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



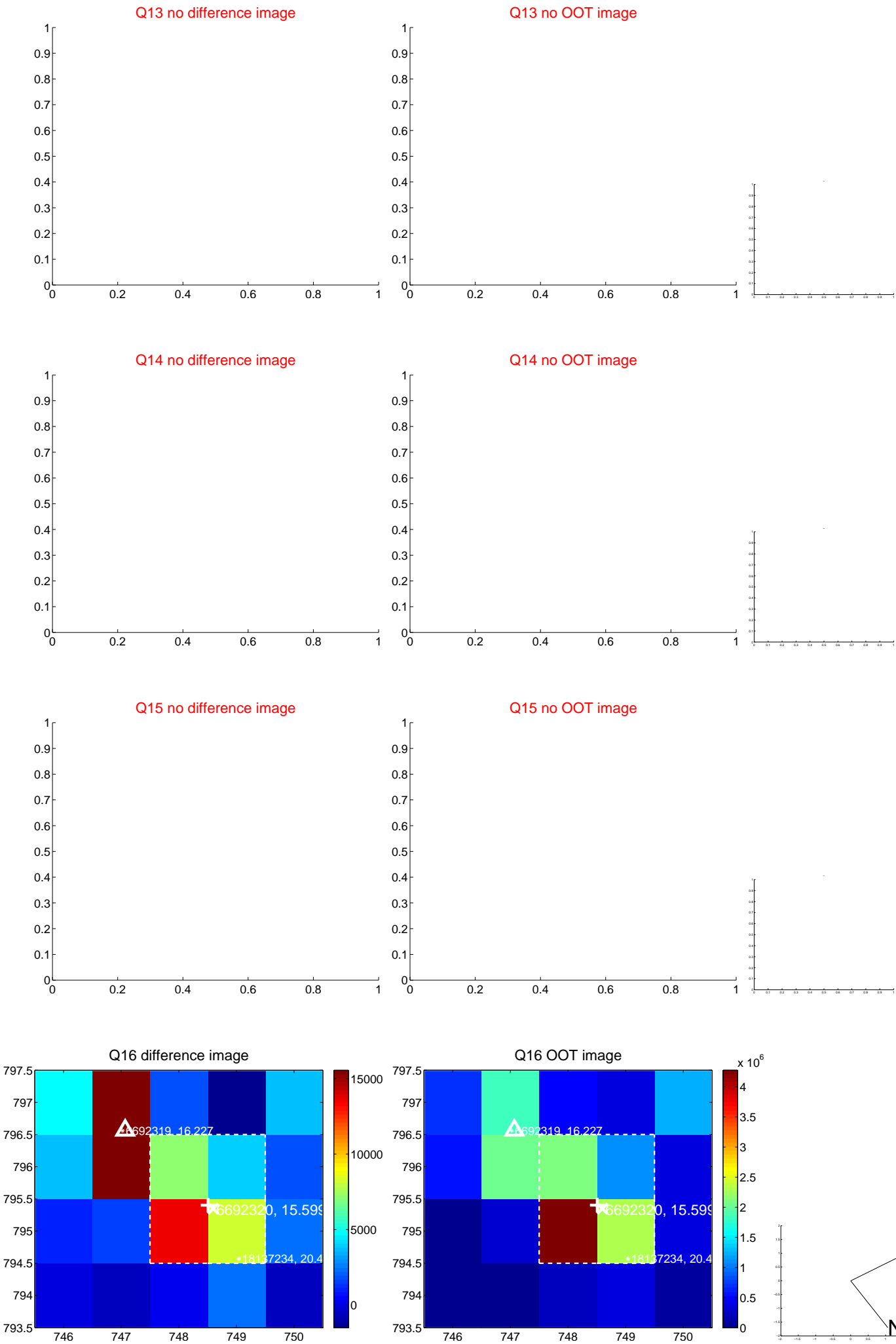
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



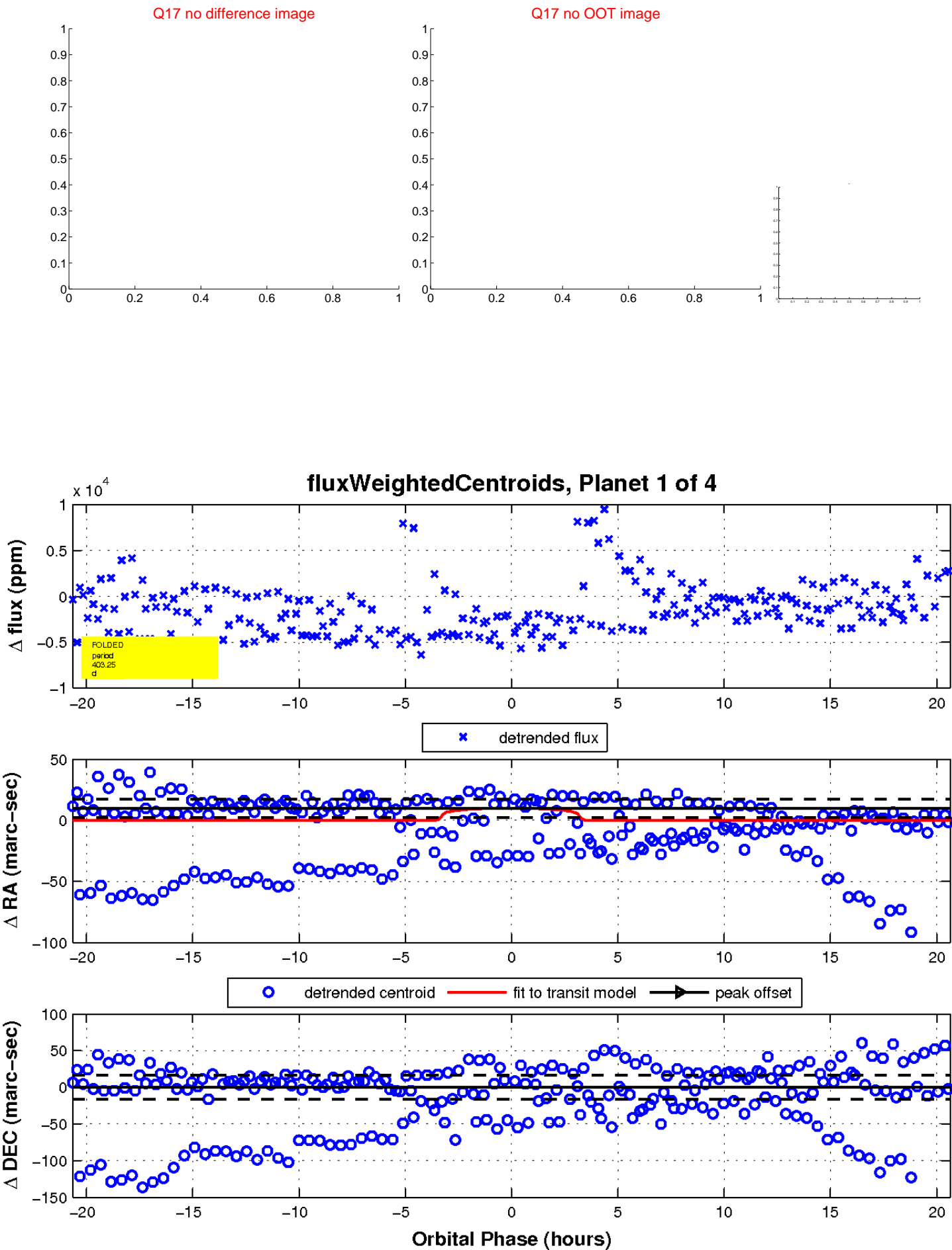
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

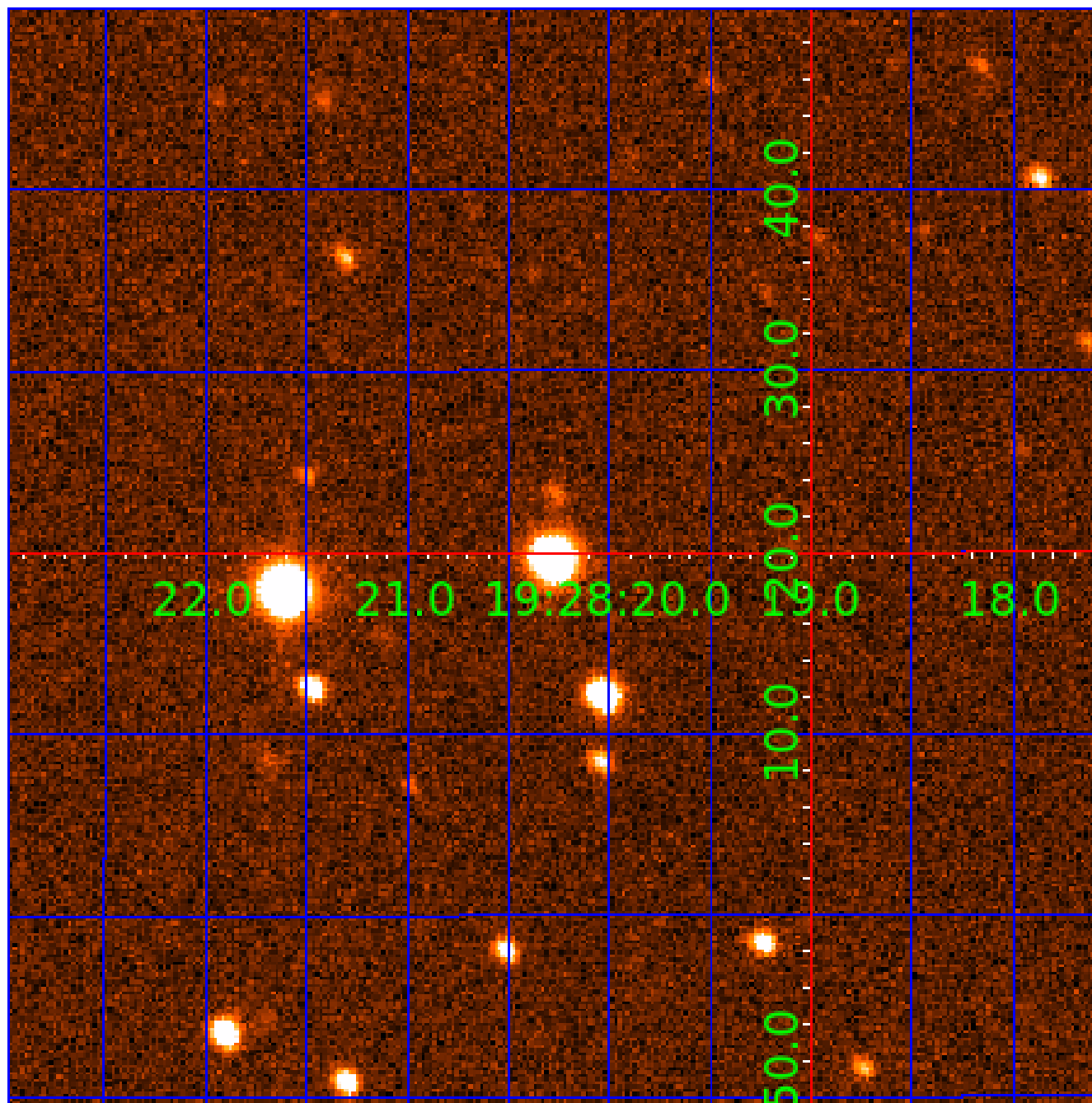


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 006692320

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})
006692320-01	OBS	No	403.250591	306.869164	2455.5	6.885	15.9	7.8	0.36	3454	1.75	0.03
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006692320-04	OBS	No	305.975665	314.094292	1192.4	4.930	9.8	5.1	0.36	3454	1.23	0.04

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006692320-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006692320-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—CENT_FEW_DIFFS
006692320-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006692320-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—LPP_DV—MOD_POS_DV—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.

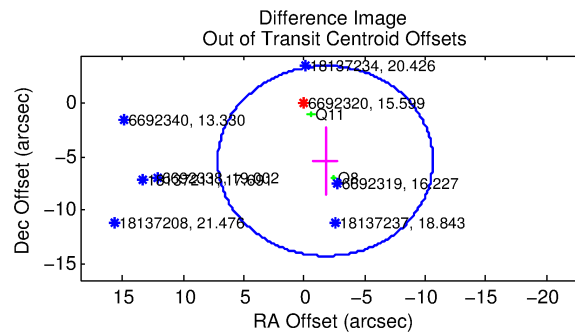
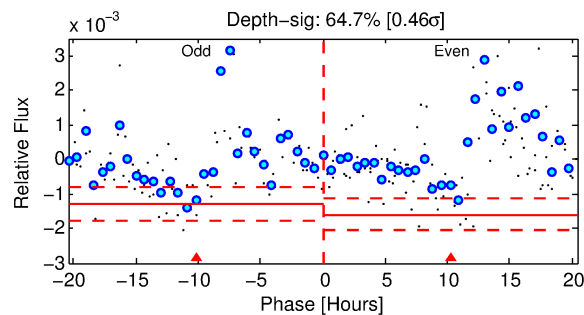
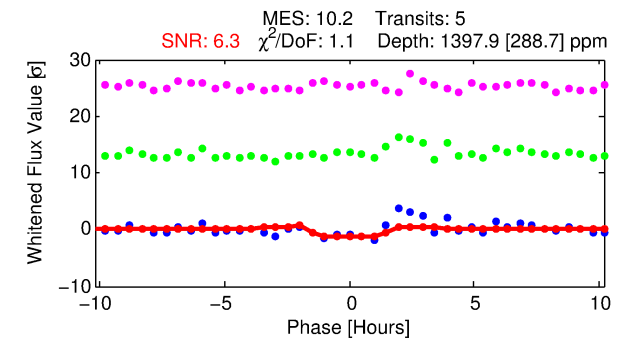
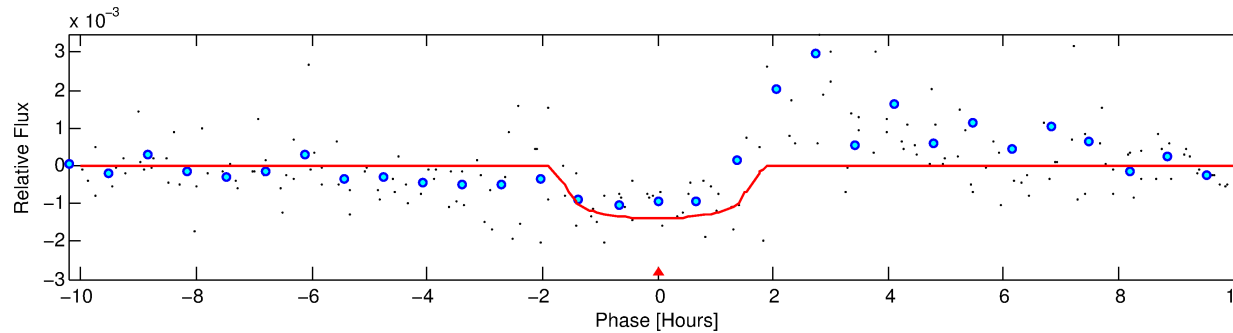
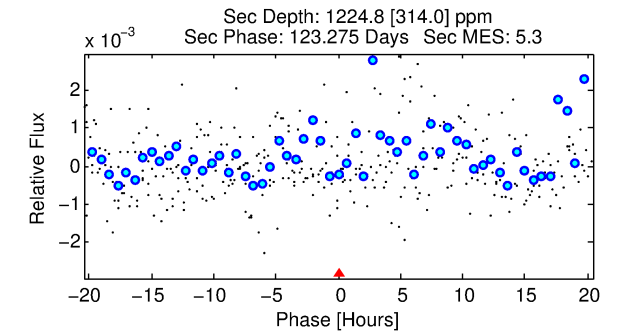
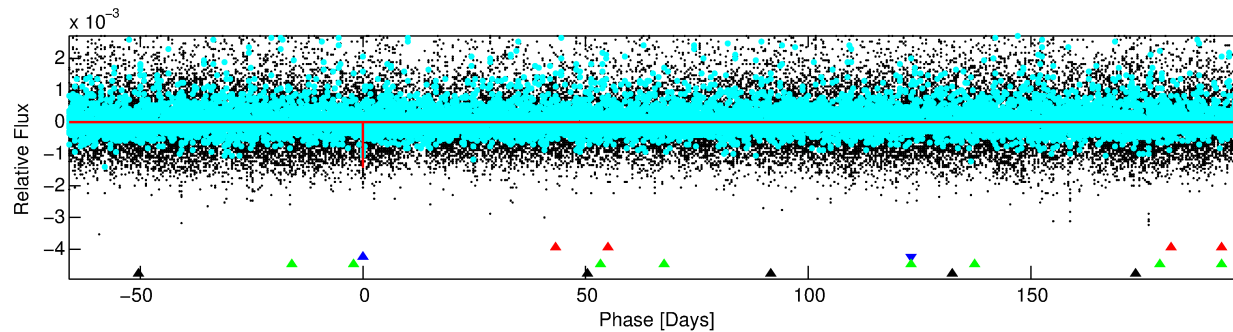
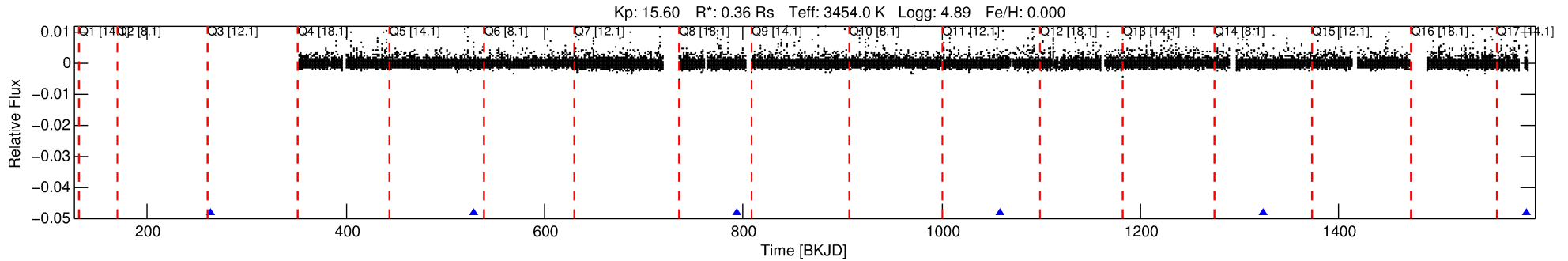
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006692320-02

No Significant Match Found

DV One-Page Summary

KIC: 6692320 Candidate: 2 of 4 Period: 264.980 d



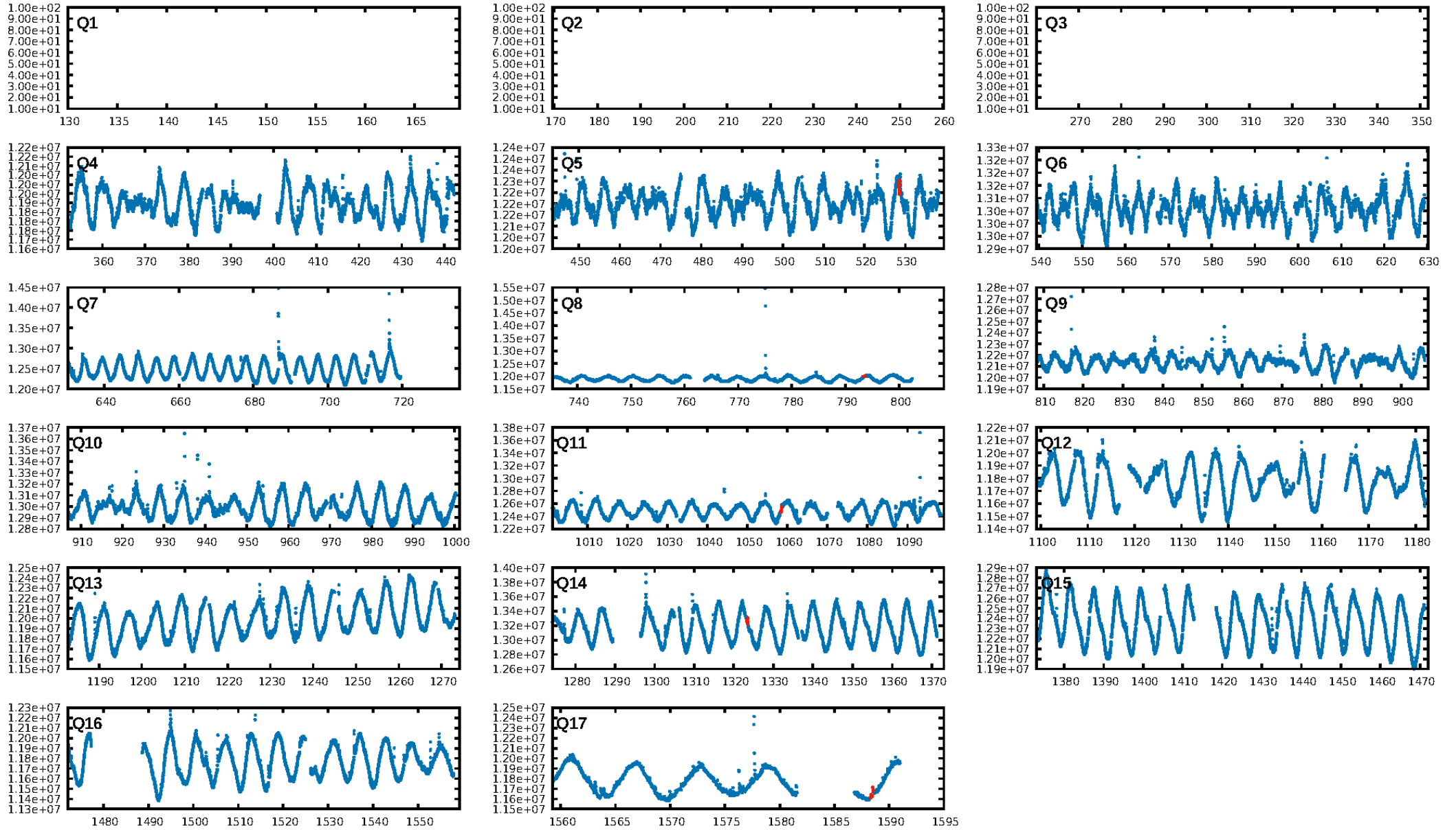
DV Fit Results:

Period = 264.98035 [0.00331] d
Epoch = 263.5229 [0.0122] BKJD
Rp/R* = 0.0338 [0.0665]
a/R* = 613.20 [5138.04]
b = 0.05 [161.47]
Seff = 0.05 [0.01]
Teq = 120 [5] K
Rp = 1.32 [2.60] Re
a = 0.5758 [0.0689] AU
Ag = 129035.75 [509213.35] [0.25σ]
Teffp = 3516 [3467] K [0.98σ]

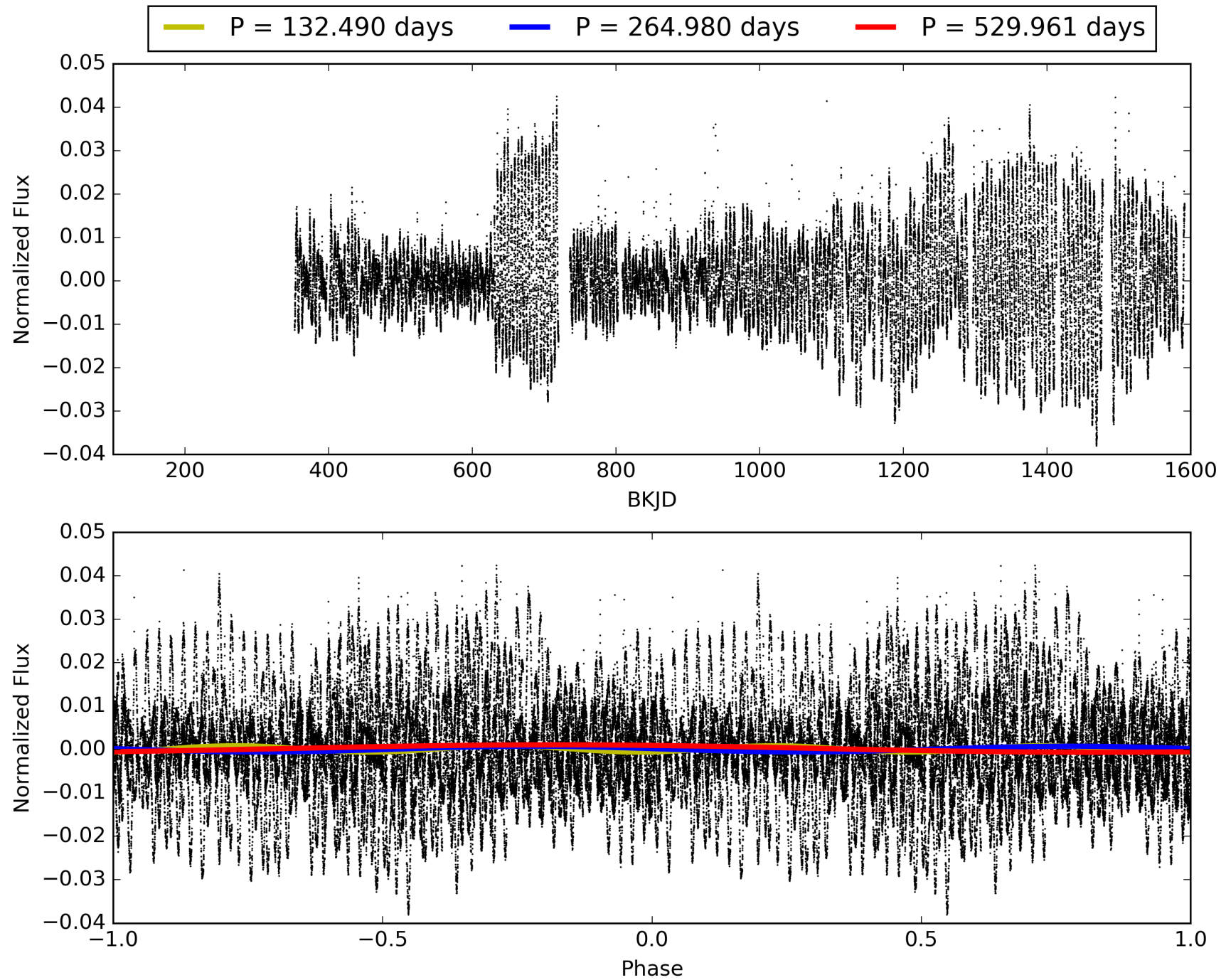
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [327.44σ]
LongPeriod-sig: 100.0% [164.16σ]
ModelChiSquare2-sig: 16.3%
ModelChiSquareGof-sig: 97.7%
Bootstrap-pfa: 8.41e-12
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: -2.881
Centroid-sig: 0.0%
Centroid-so: 12.602 arcsec [2.72σ]
OotOffset-rm: 5.652 arcsec [1.91σ]
KicOffset-rm: 6.252 arcsec [2.16σ]
OotOffset-st: 0/1/1/0 [2]
KicOffset-st: 0/1/1/0 [2]
DiffImageQuality-fgm: 0.00 [0/2]
DiffImageOverlap-fno: 1.00 [5/5]

TCE 006692320-02, PDC Light Curves

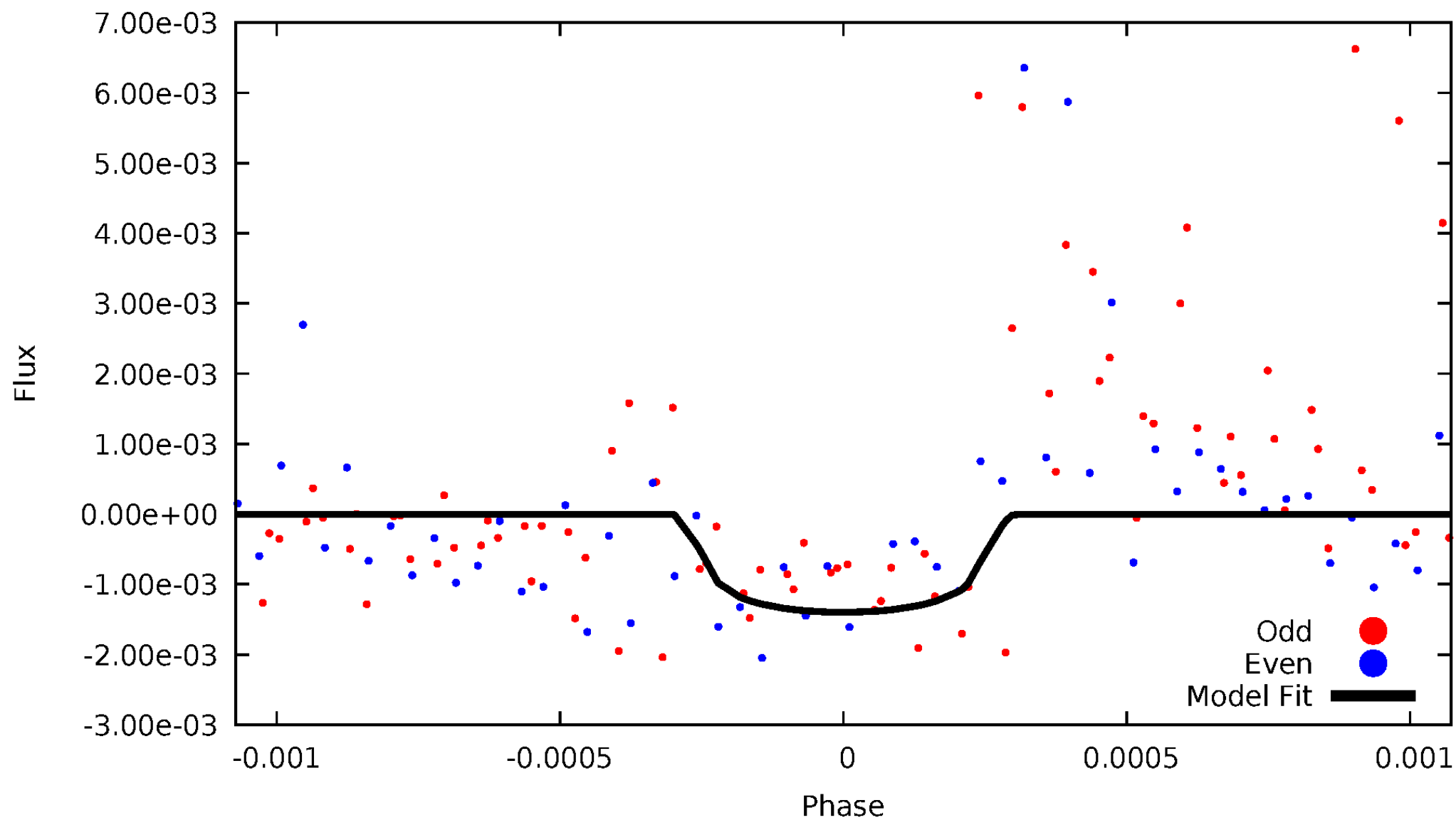


TCE 006692320-02



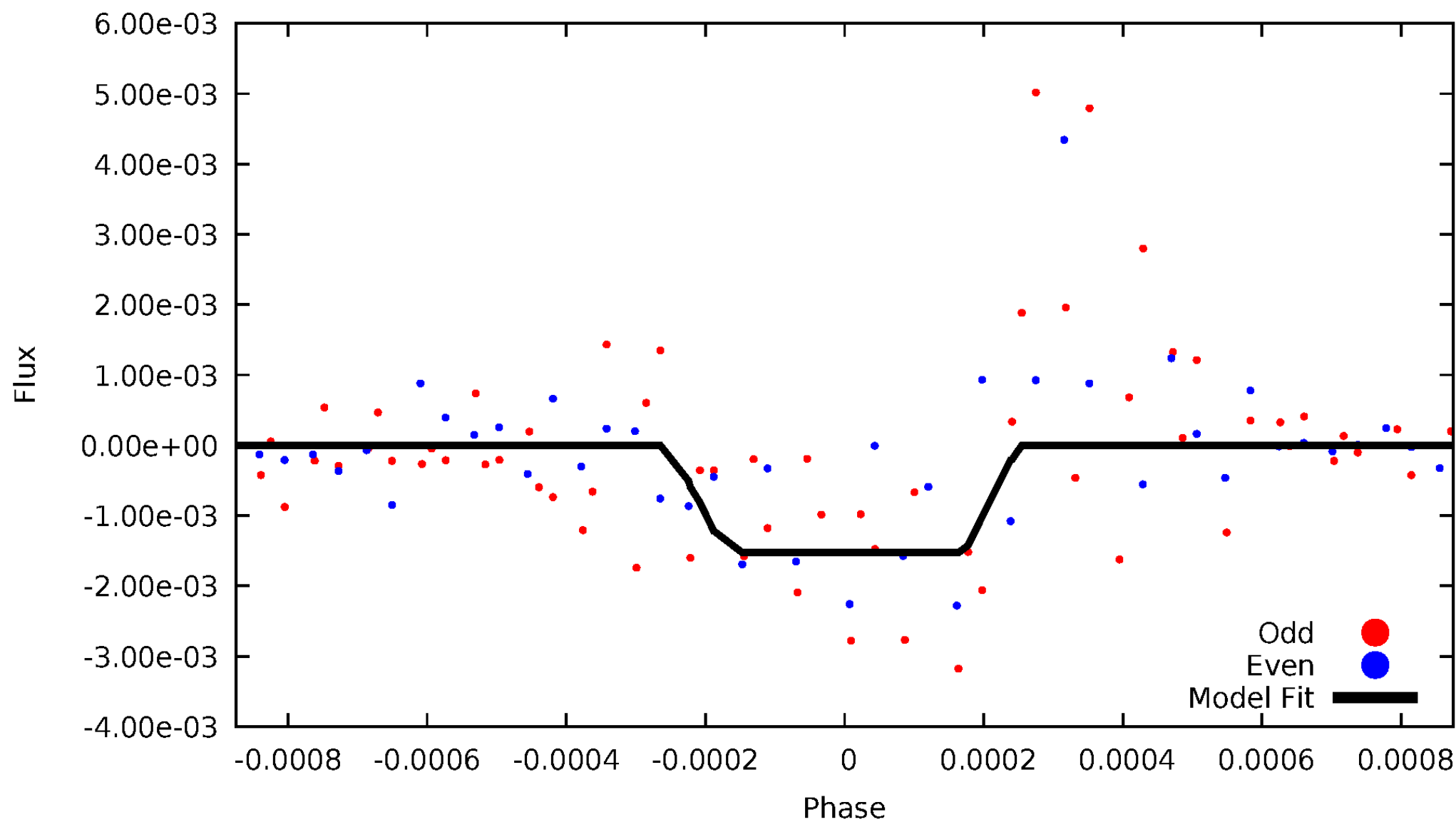
DV Odd/Even

TCE 006692320-02



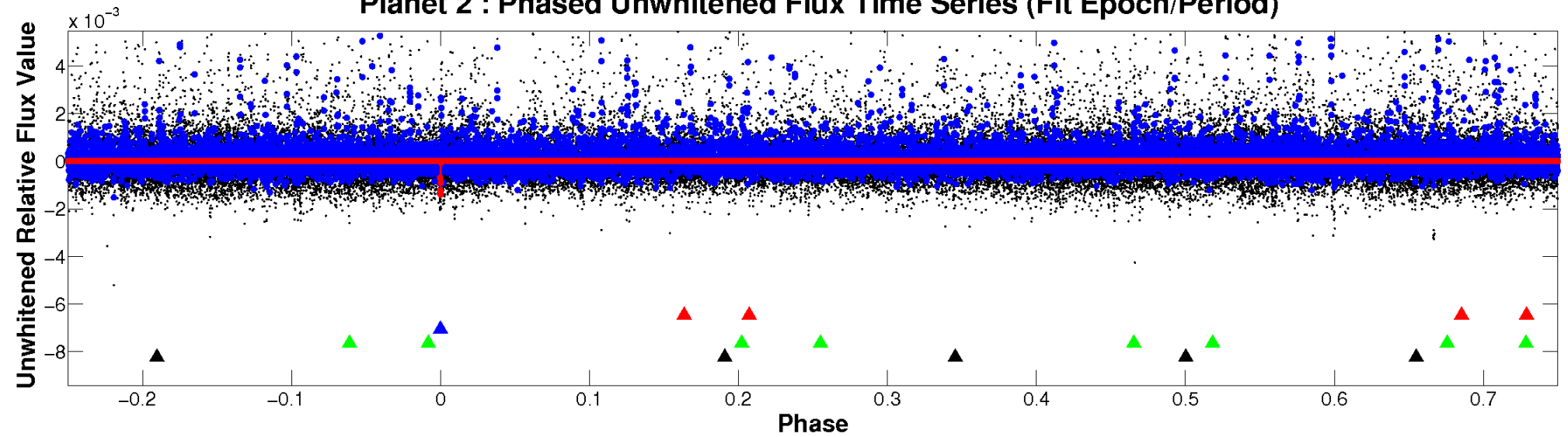
ALT Odd/Even

TCE 006692320-02

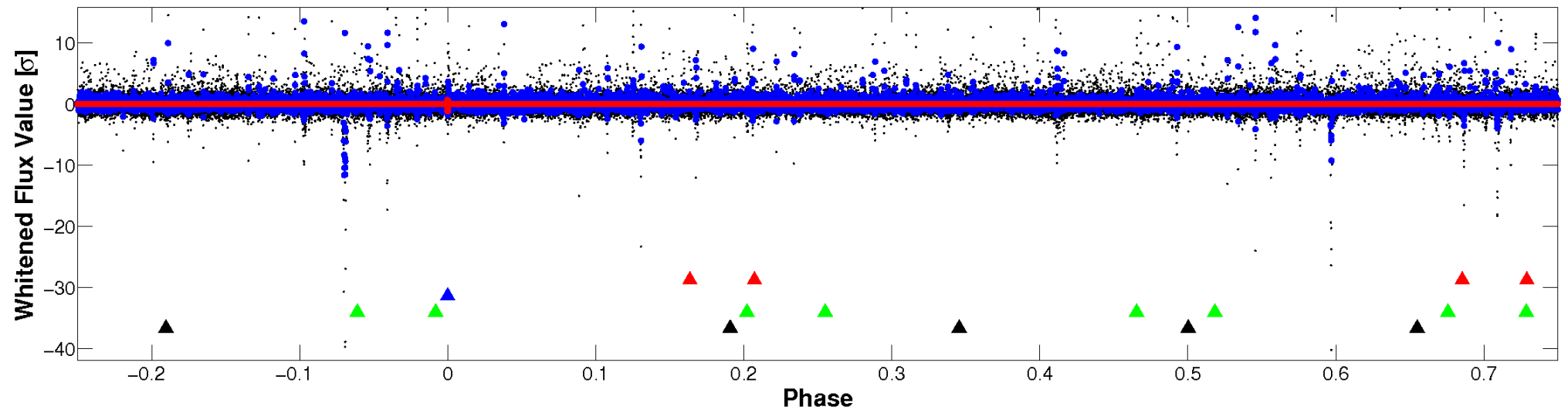


Non-Whitened Vs. Whitened Light Curve

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

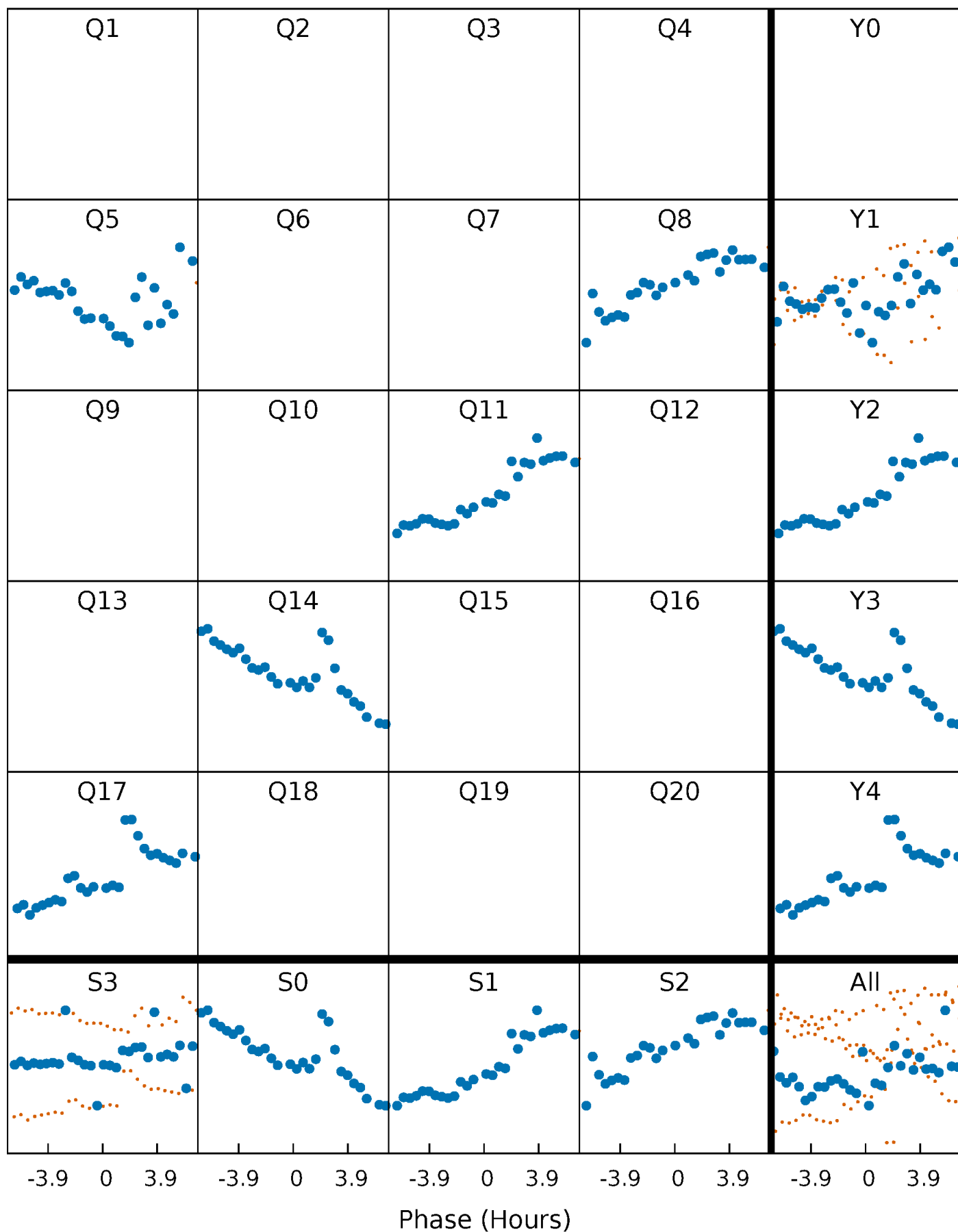


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



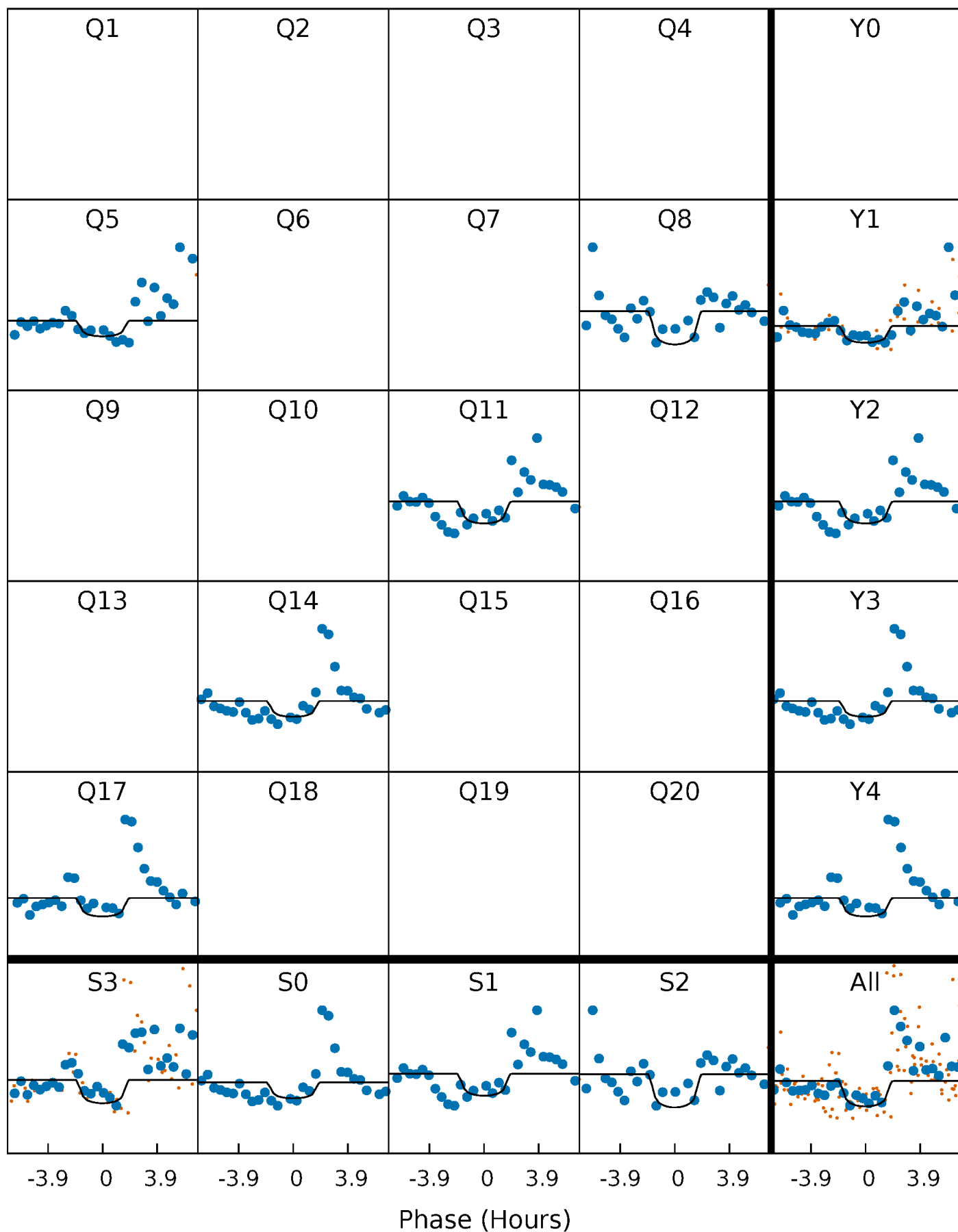
PDC Quarter-Phased Transit Curves

TCE 006692320-02 $P=264.980347$ Days $T_0=263.522938$ (BKJD)



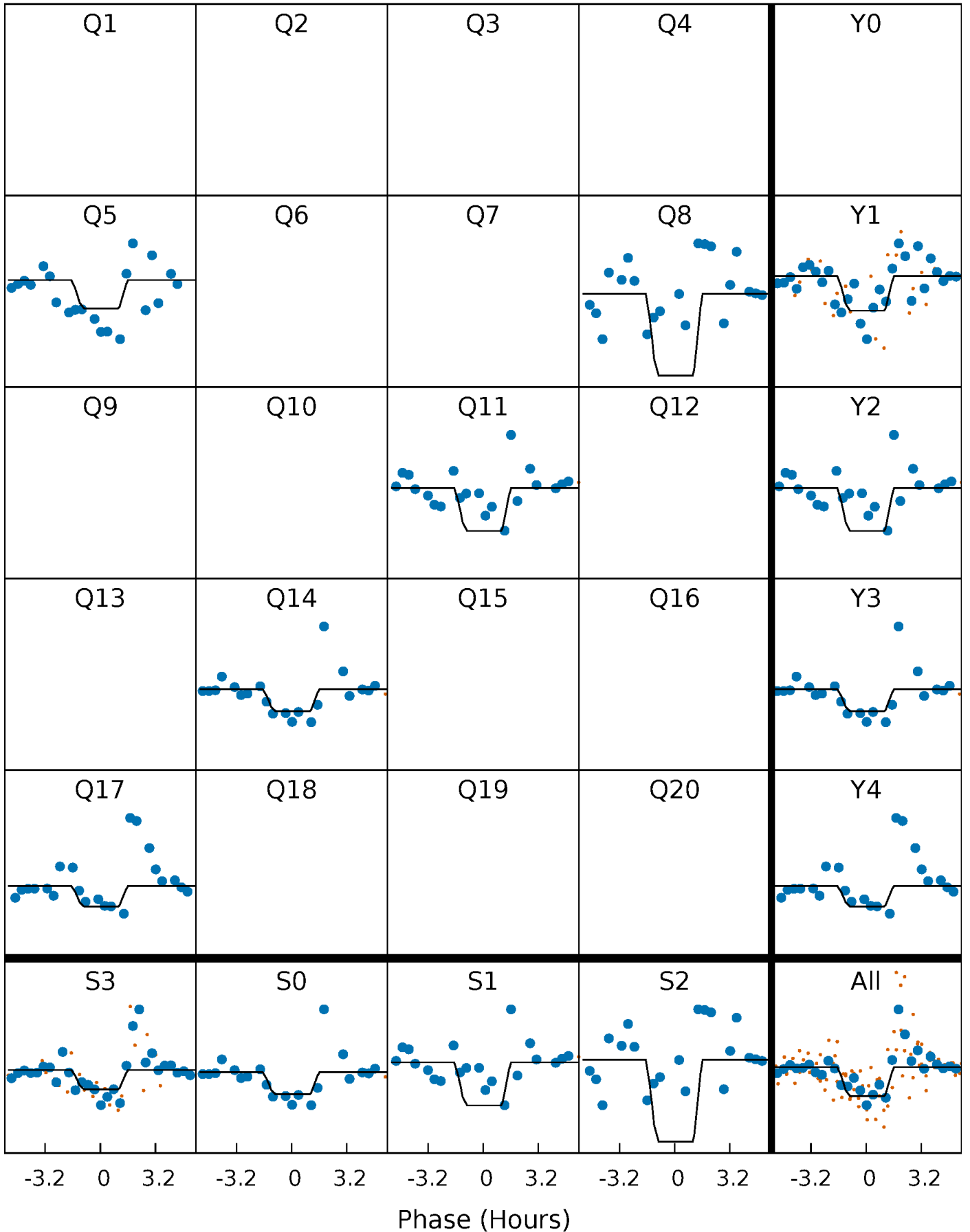
DV Quarter-Phased Transit Curves

TCE 006692320-02 P=264.980347 Days $T_0=263.522938$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

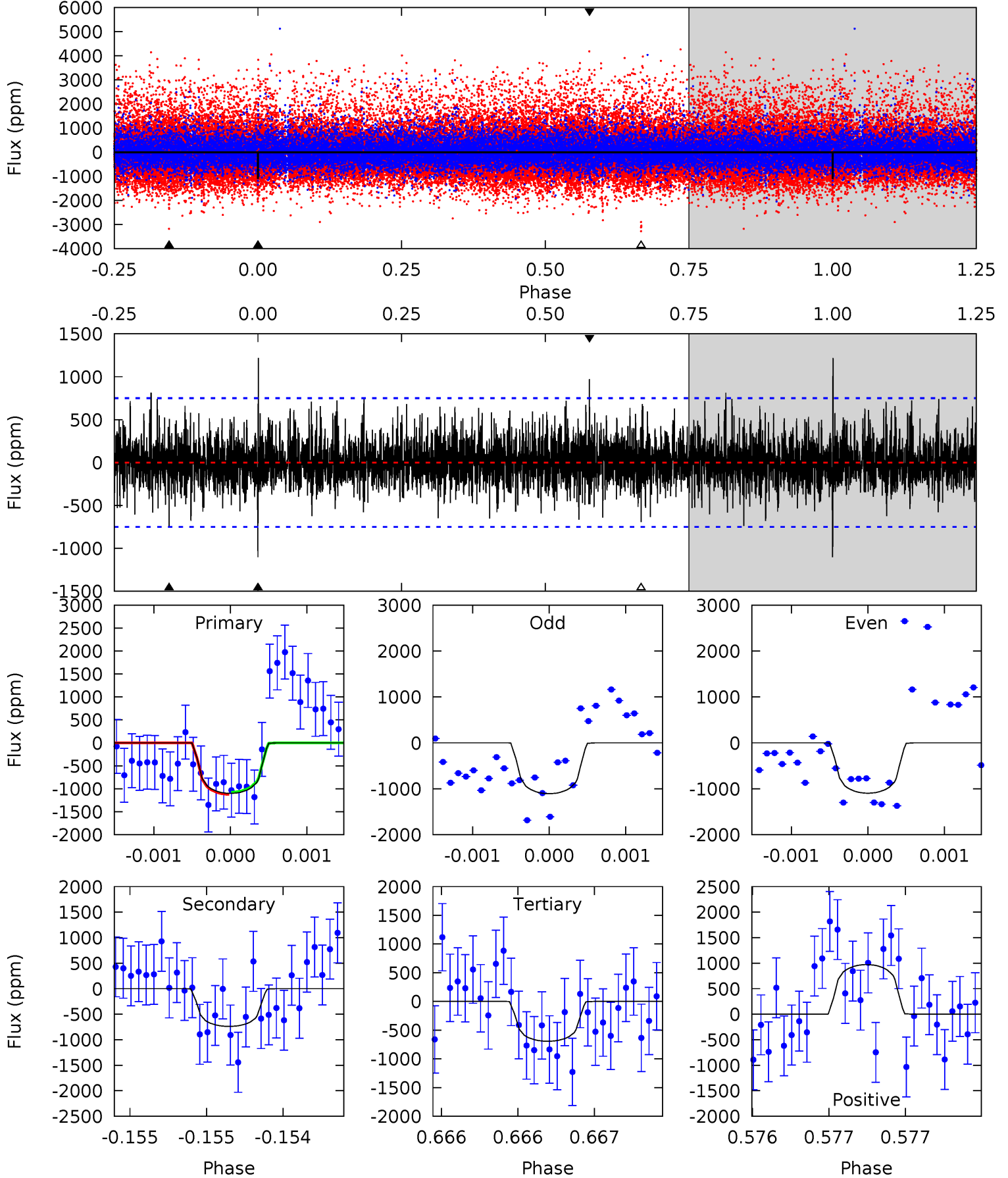
TCE 006692320-02 $P=264.969830$ Days $T_0=263.565937$ (BKJD)



DV Model-Shift Uniqueness Test

006692320-02, P = 264.980347 Days, E = 263.522938 Days

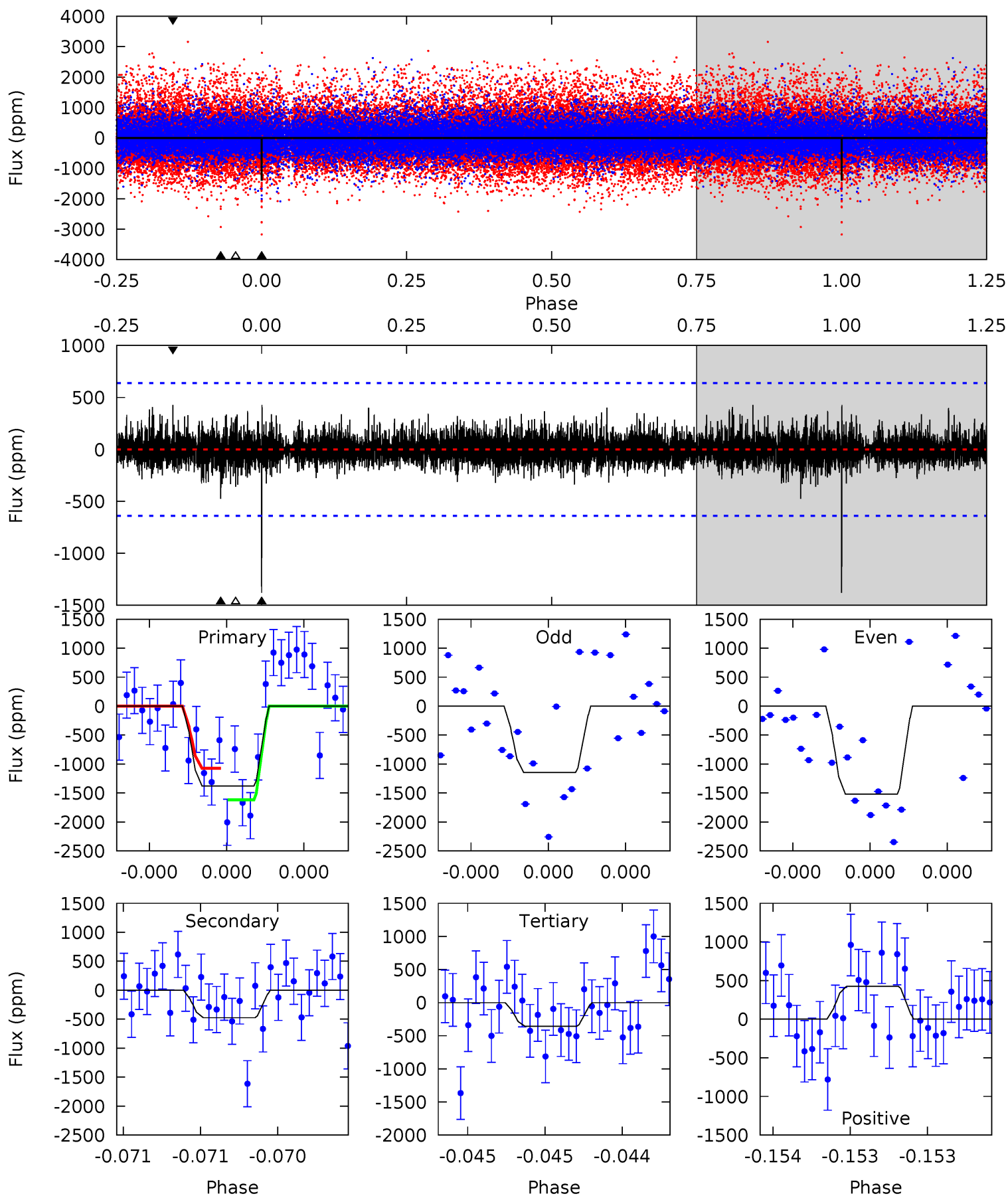
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.13	5.46	5.12	7.18	5.54	3.43	1.55	3.00	0.94	0.33	-1.72	0.03	0.87	0.52	0.17



Alt Model-Shift Uniqueness Test

006692320-02, P = 264.969830 Days, E = 263.565937 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.1	4.14	3.12	3.72	5.59	3.50	0.86	8.94	8.34	1.02	0.42	1.58	0.99	0.24	2.37



Stellar Parameters For KIC 006692320

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	3454^{+69}_{-76}	$4.892^{+0.066}_{-0.044}$	$0.000^{+0.100}_{-0.100}$	$0.357^{+0.048}_{-0.058}$	$0.362^{+0.057}_{-0.069}$	$11.240^{+4.210}_{-2.149}$
	+2%/-2%	+1%/-1%	+inf%/-inf%	+13%/-16%	+16%/-19%	+37%/-19%
Source	PHO2	PHO2	PHO2	DSEP		

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

Secondary Eclipse Parameters for KIC 006692320-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-739 ± 135	$2.26^{+2.01}_{-1.59}$	167^{+6}_{-6}	2761^{+1249}_{-397}	$26462^{+273795}_{-19145}$
Alt.	-474 ± 114	$2.32^{+2.14}_{-1.46}$	167^{+5}_{-6}	2584^{+894}_{-362}	$15532^{+112742}_{-11431}$

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 $A_{obs} \gg 1.0$

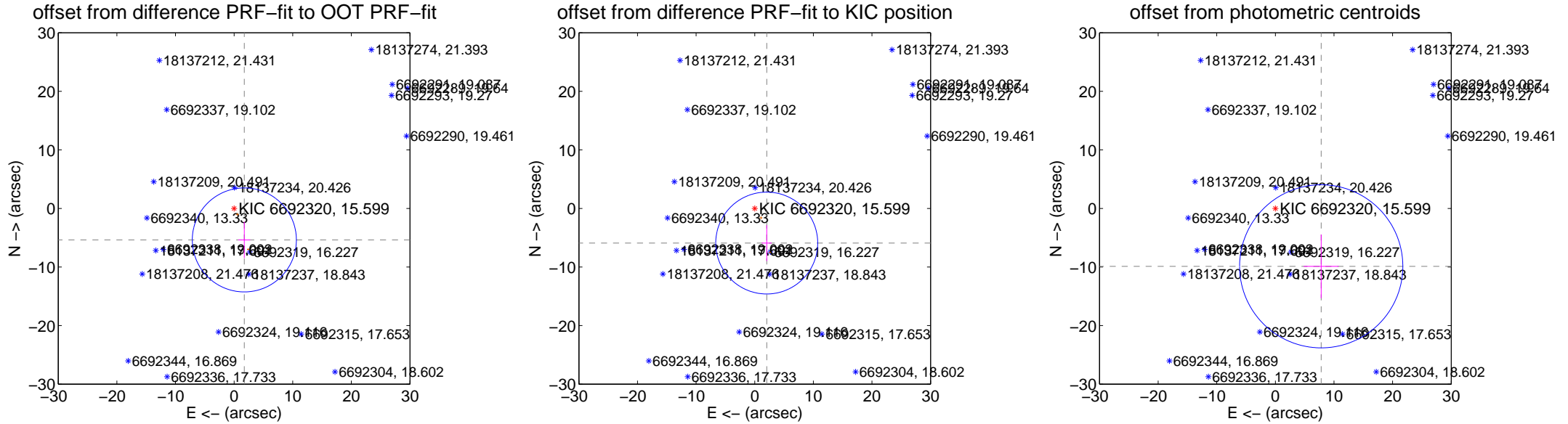
DV Centroid Data

Supplemental centroid analysis for 006692320-02. Kepler magnitude: 15.60. Transit SNR 6.27

There are 0 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.77 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	5.652 ± 2.959	1.91	-1.746 ± 1.022	-5.376 ± 3.094
PRF-fit source offset from KIC position	6.252 ± 2.899	2.16	-2.044 ± 0.845	-5.908 ± 3.054
photometric centroid source offset	12.60 ± 4.64	2.72	-7.82 ± 2.98	-9.88 ± 5.43

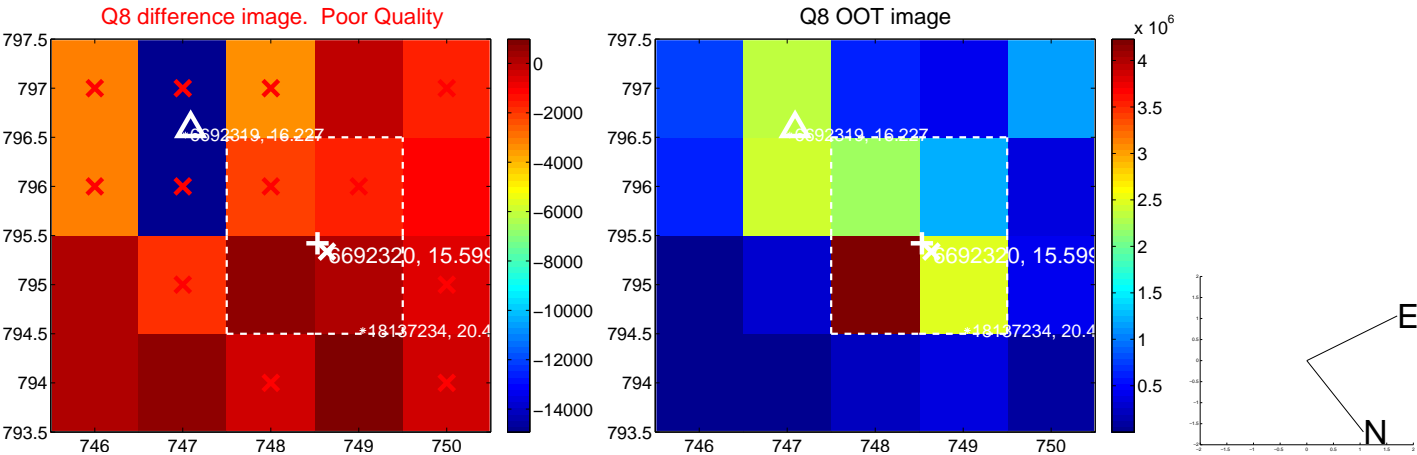
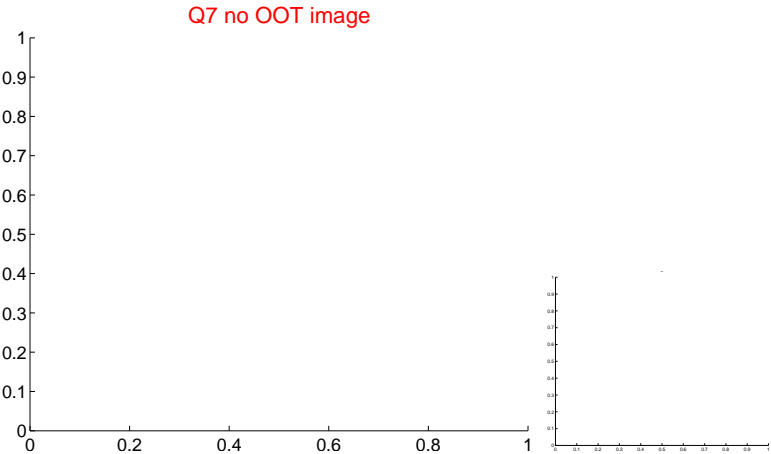
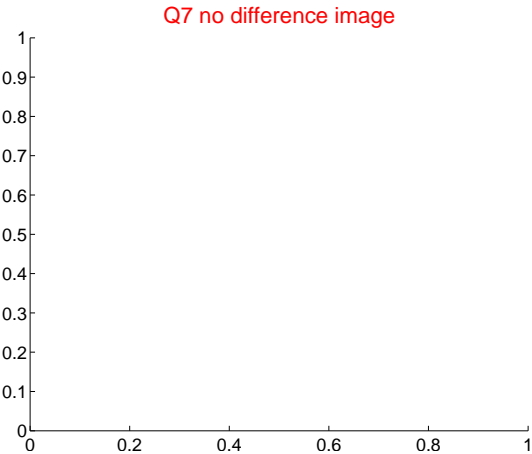
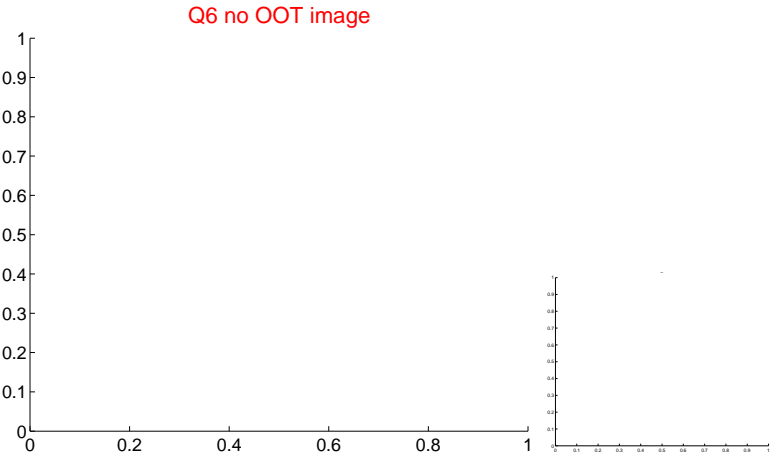
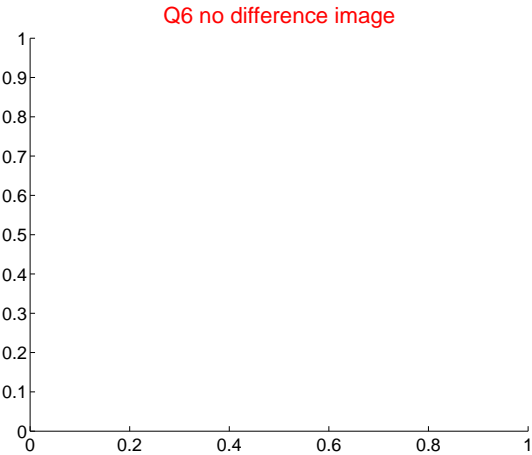
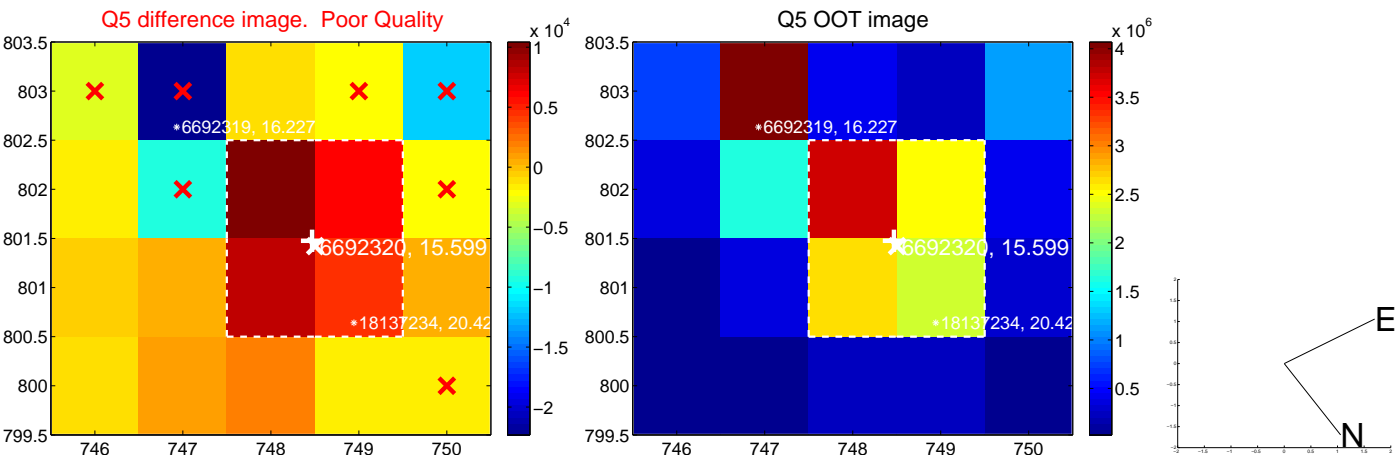


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000 are from the UKIRT catalog.

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

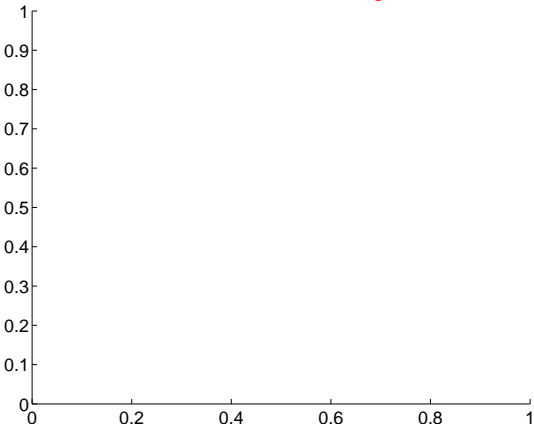


white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

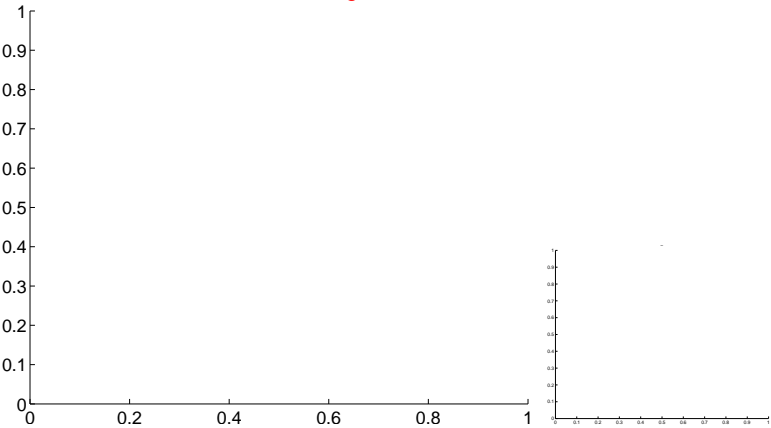


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

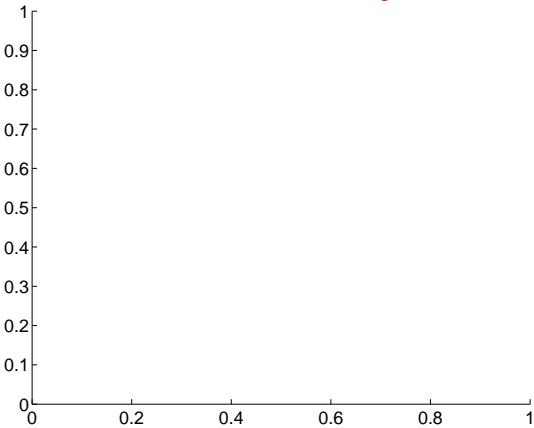
Q9 no difference image



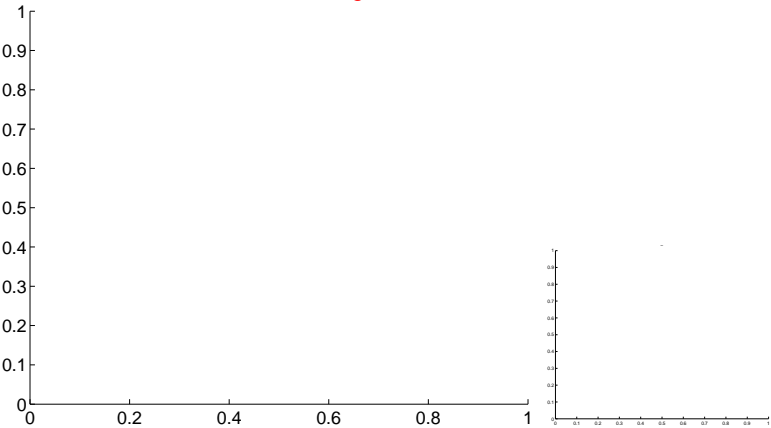
Q9 no OOT image



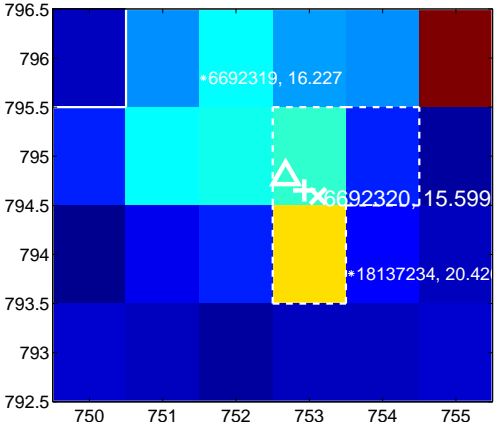
Q10 no difference image



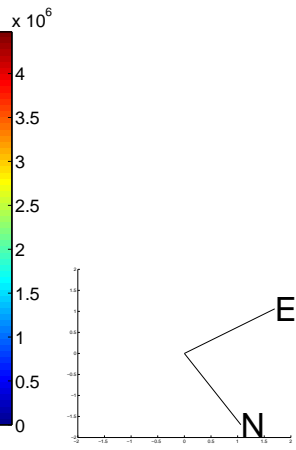
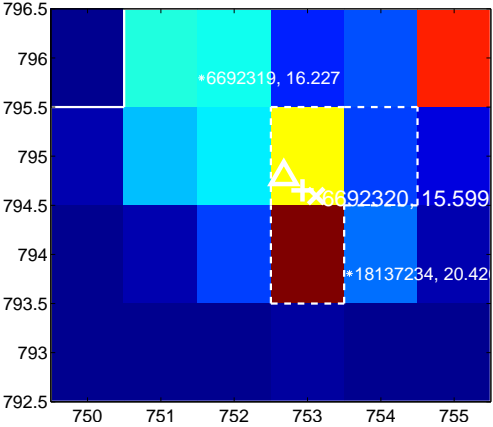
Q10 no OOT image



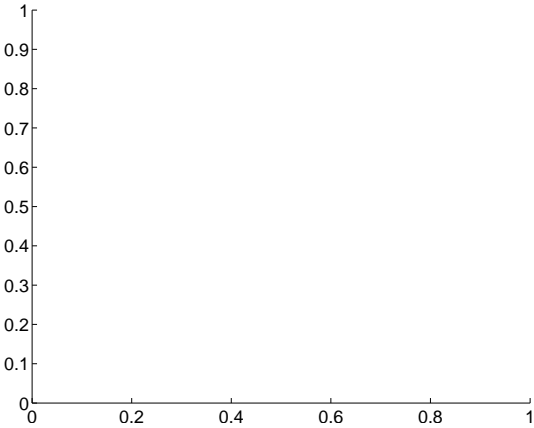
Q11 difference image. Poor Quality



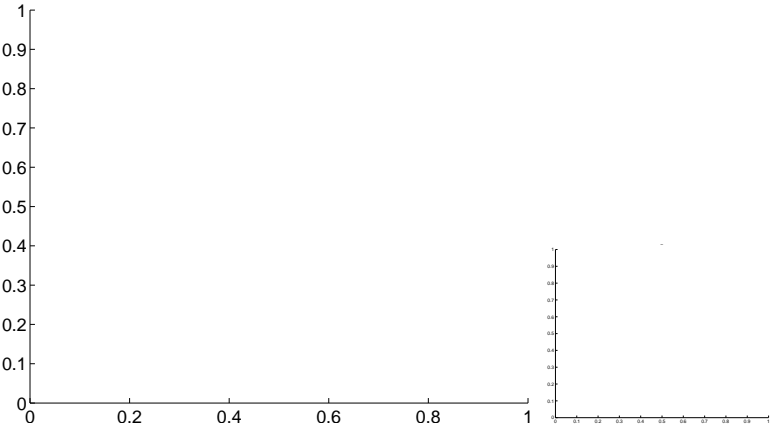
Q11 OOT image



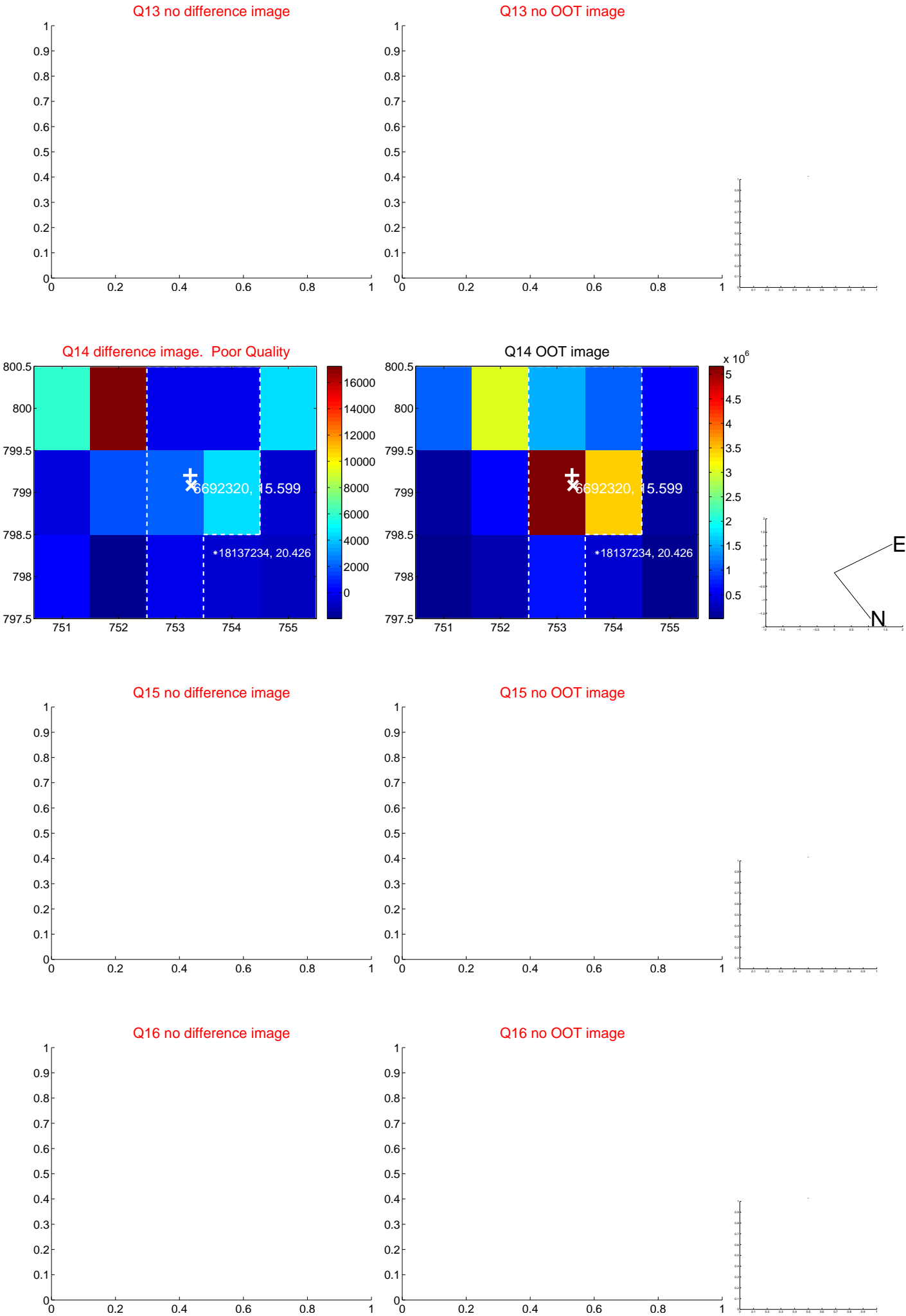
Q12 no difference image



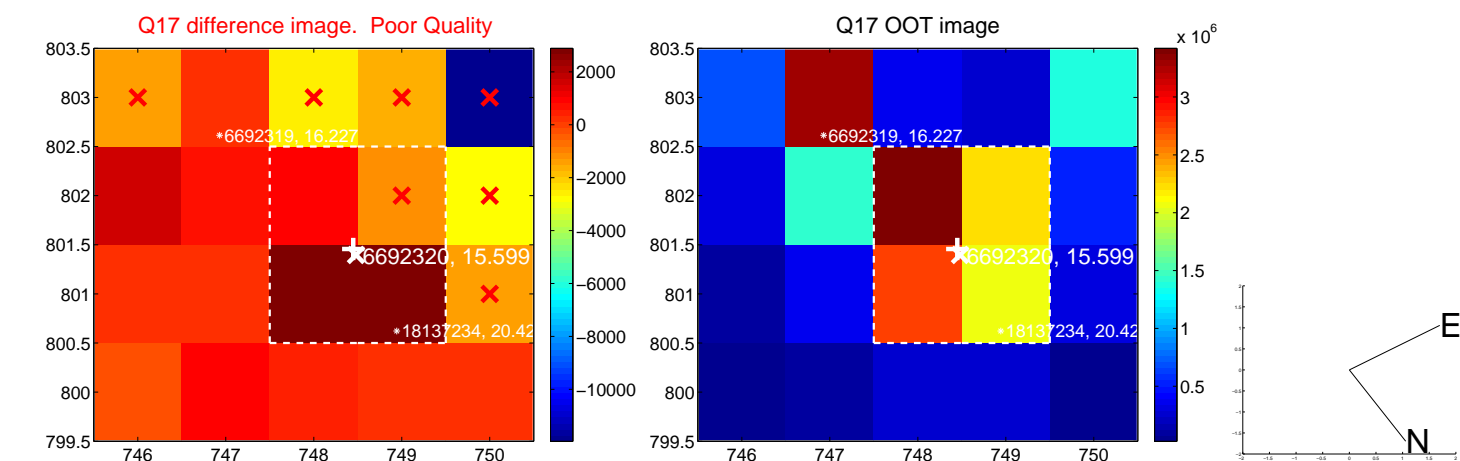
Q12 no OOT image



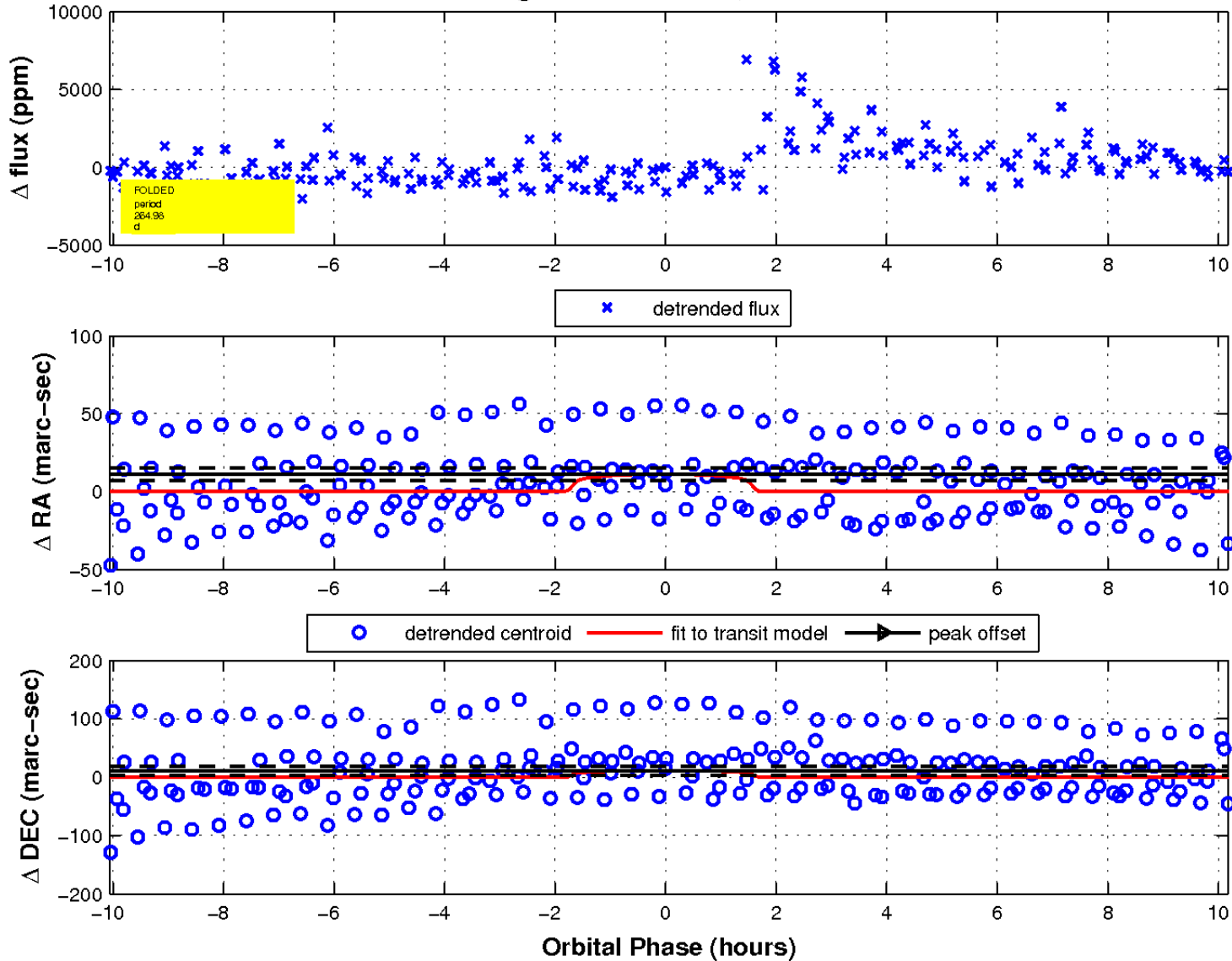
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

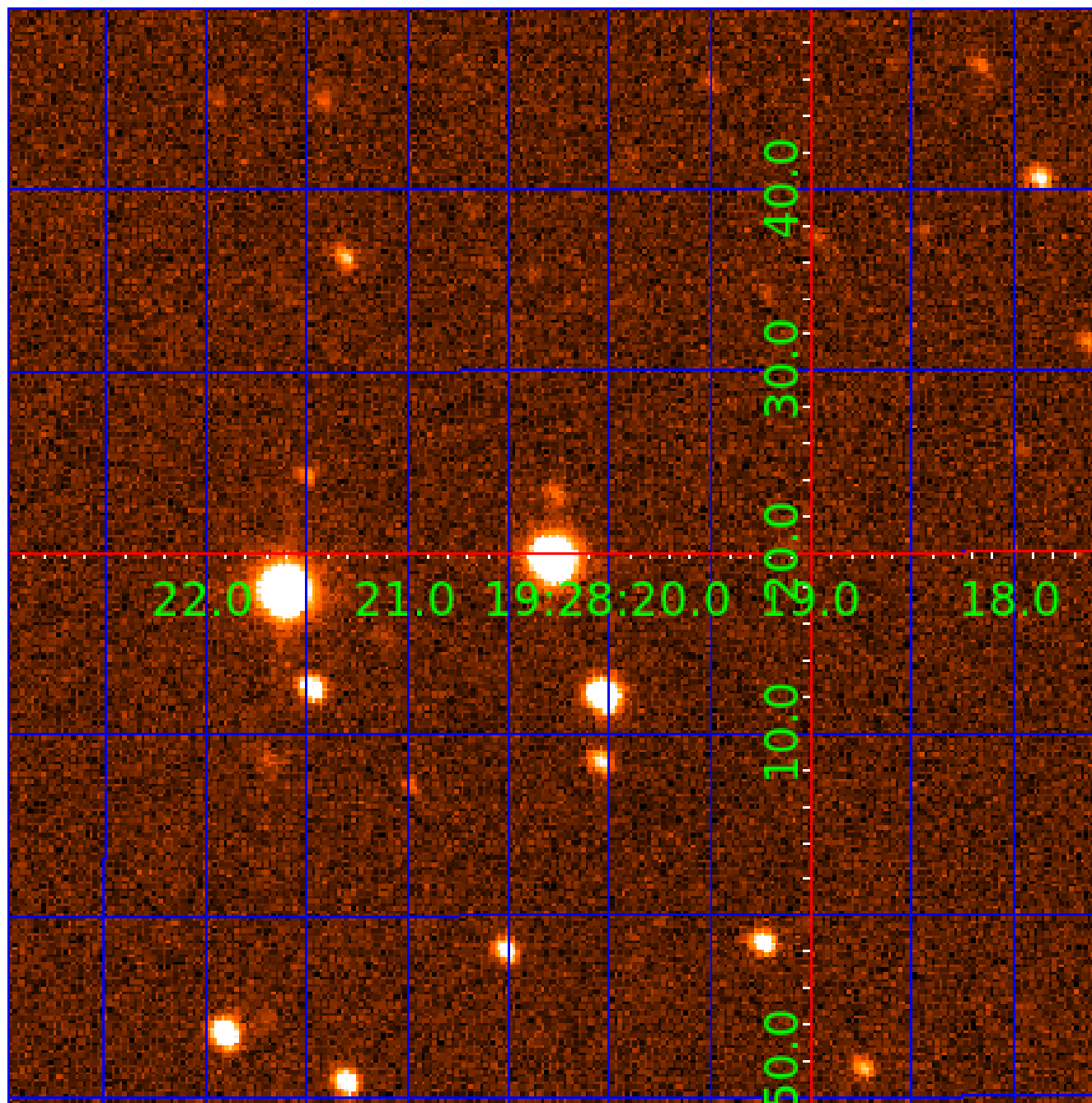


fluxWeightedCentroids, Planet 2 of 4



UKIRT Image

Declination



KIC 006692320

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})
006692320-01	OBS	No	403.250591	306.869164	2455.5	6.885	15.9	7.8	0.36	3454	1.75	0.03
006692320-02	OBS	No	264.980347	263.522938	1397.9	3.408	10.2	6.3	0.36	3454	1.32	0.05
006692320-03	OBS	No	195.231846	135.877125	1427.0	3.810	9.9	6.4	0.36	3454	1.43	0.07
006692320-04	OBS	No	305.975665	314.094292	1192.4	4.930	9.8	5.1	0.36	3454	1.23	0.04

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006692320-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006692320-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—CENT_FEW_DIFFS
006692320-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006692320-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—LPP_DV—MOD_POS_DV—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.

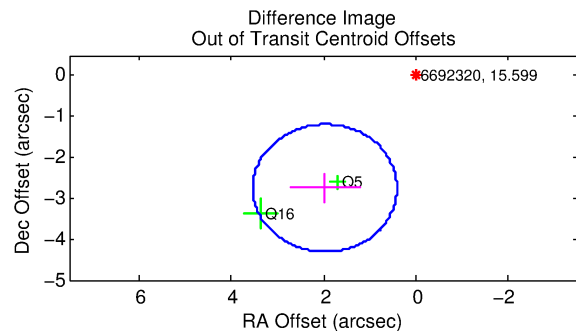
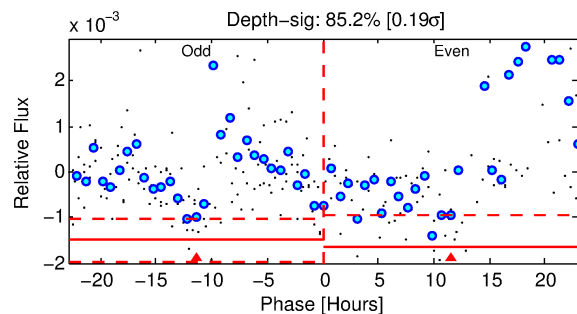
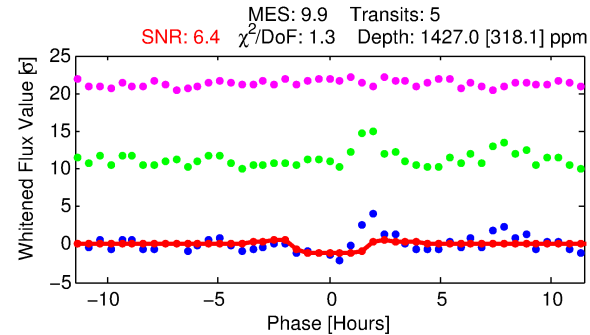
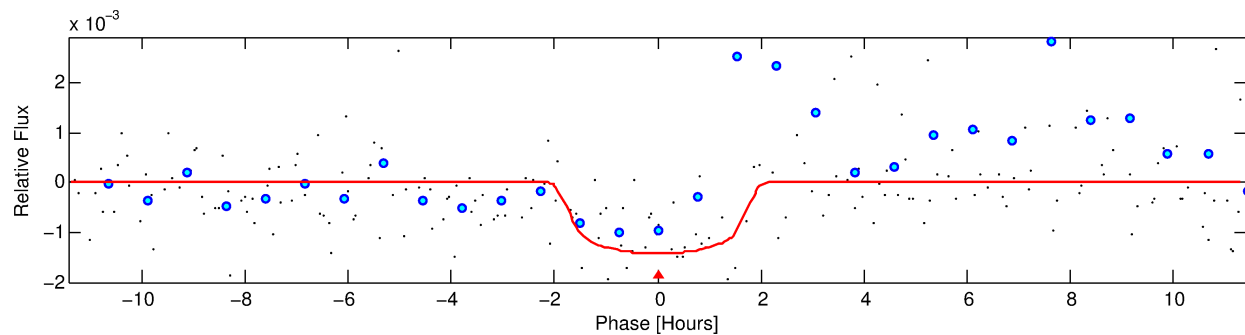
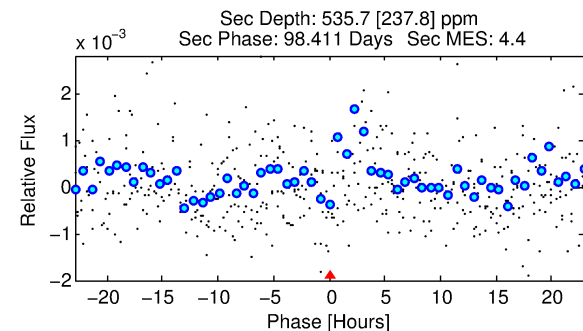
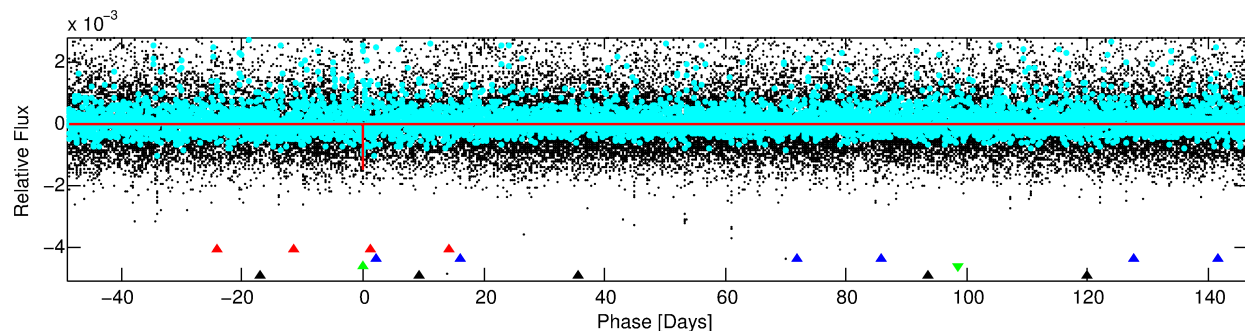
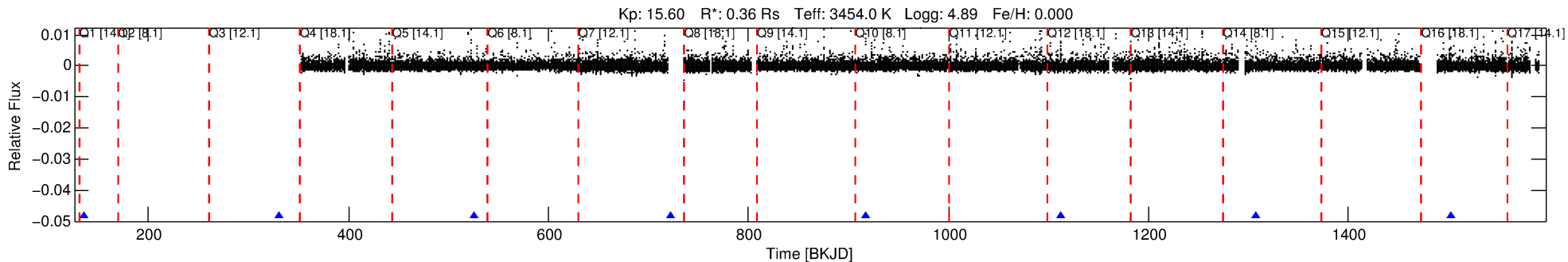
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006692320-03

No Significant Match Found

DV One-Page Summary

KIC: 6692320 Candidate: 3 of 4 Period: 195.232 d



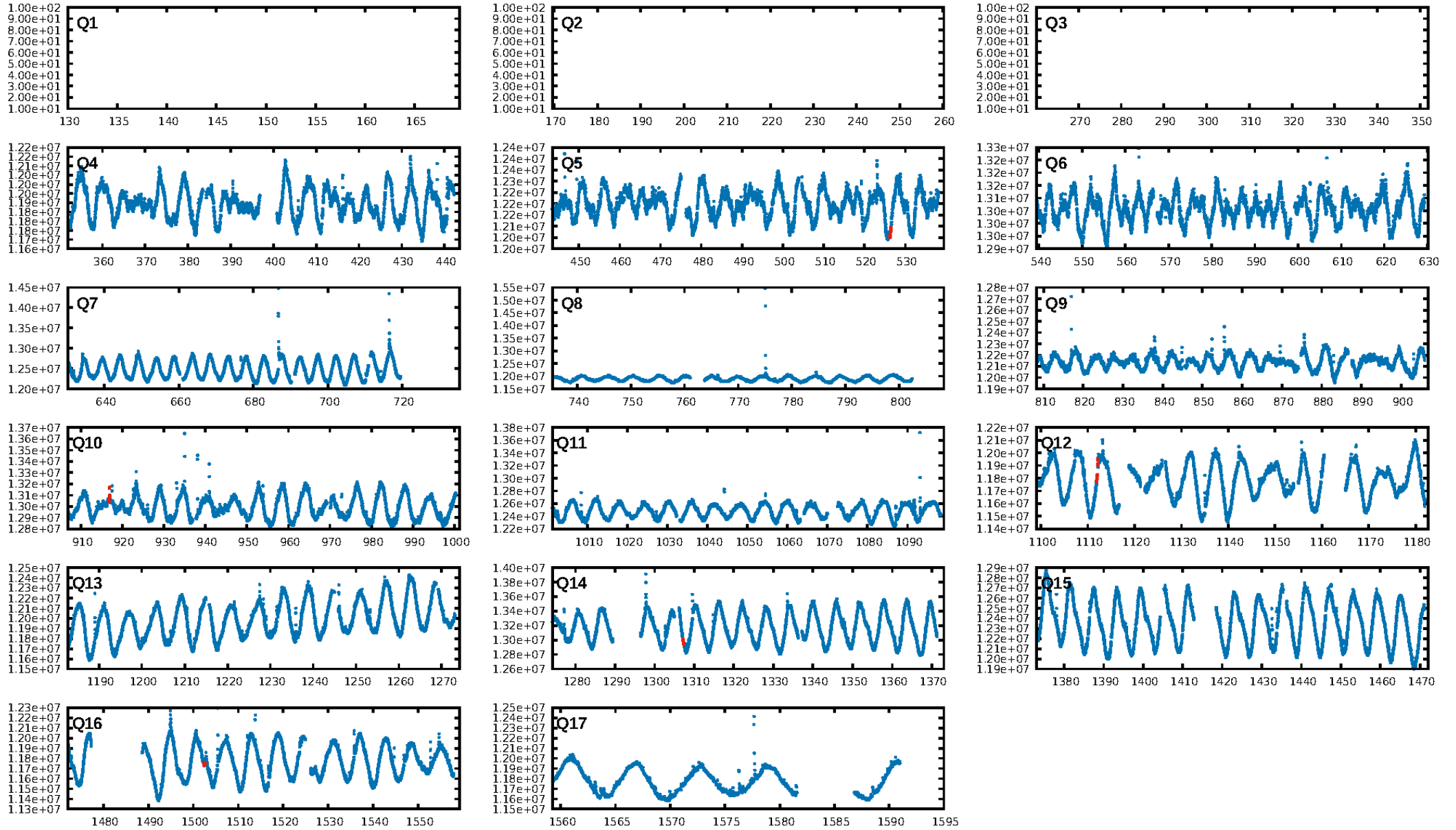
DV Fit Results:

Period = 195.23185 [0.00355] d
Epoch = 135.8771 [0.0175] BKJD
Rp/R* = 0.0368 [0.0370]
a/R* = 302.47 [1249.86]
b = 0.69 [3.14]
Seff = 0.07 [0.01]
Teq = 133 [6] K
Rp = 1.43 [1.46] Re
a = 0.4697 [0.0562] AU
Ag = 31672.66 [65448.57] [0.48σ]
Teffp = 2740 [1413] K [1.84σ]

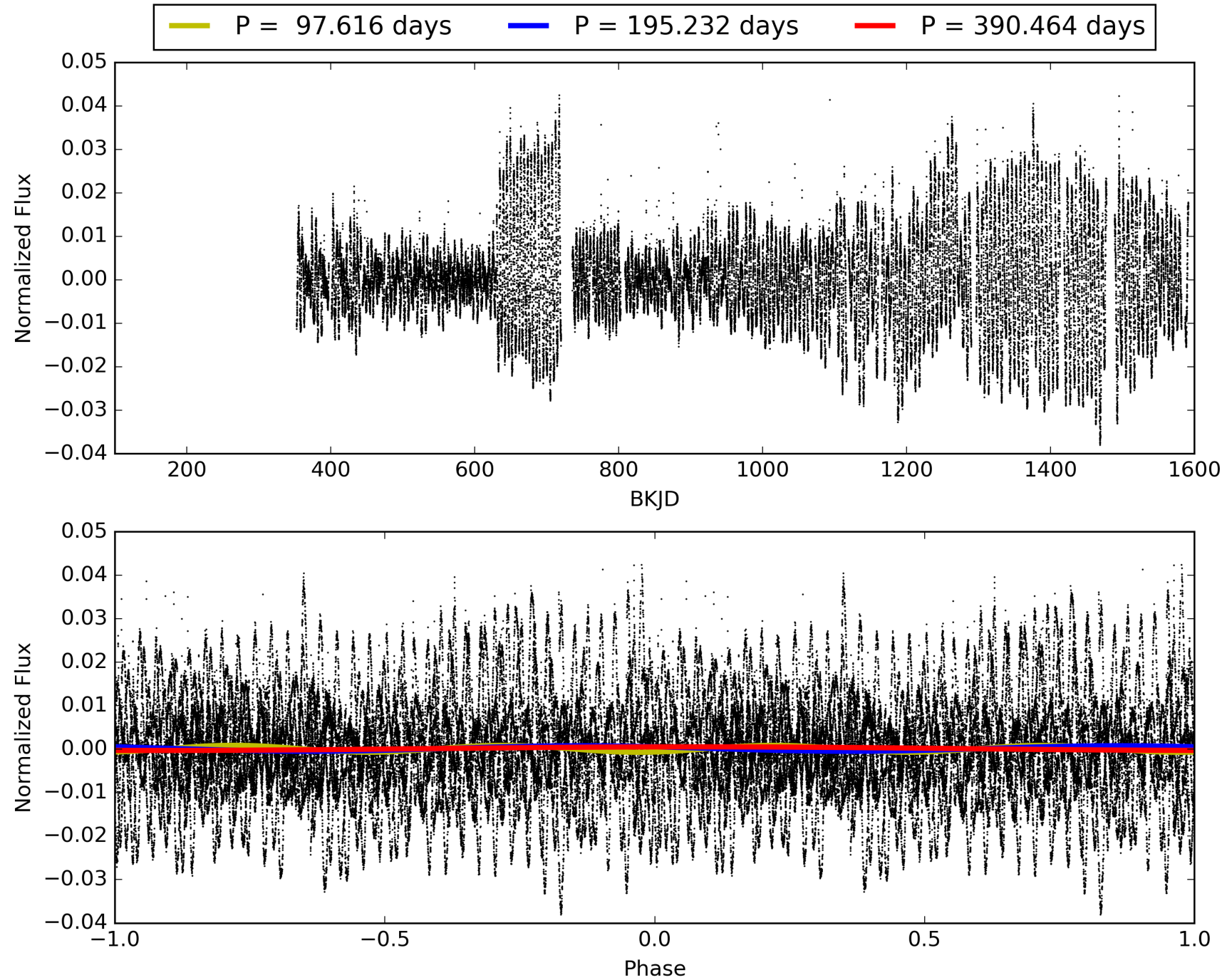
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [327.44σ]
ModelChiSquare2-sig: 8.6%
ModelChiSquareGof-sig: 90.8%
Bootstrap-pfa: 3.59e-12
RollingBand-fgt: 1.00 [5/5]
GhostDiagnostic-chr: -1.132
Centroid-sig: 0.3%
Centroid-so: 7.715 arcsec [1.55σ]
OotOffset-rm: 3.385 arcsec [6.51σ]
KicOffset-rm: 3.581 arcsec [7.25σ]
OotOffset-st: 0/0/1/1 [2]
KicOffset-st: 0/0/1/1 [2]
DiffImageQuality-fgm: 0.00 [0/2]
DiffImageOverlap-fno: 1.00 [4/4]

TCE 006692320-03, PDC Light Curves

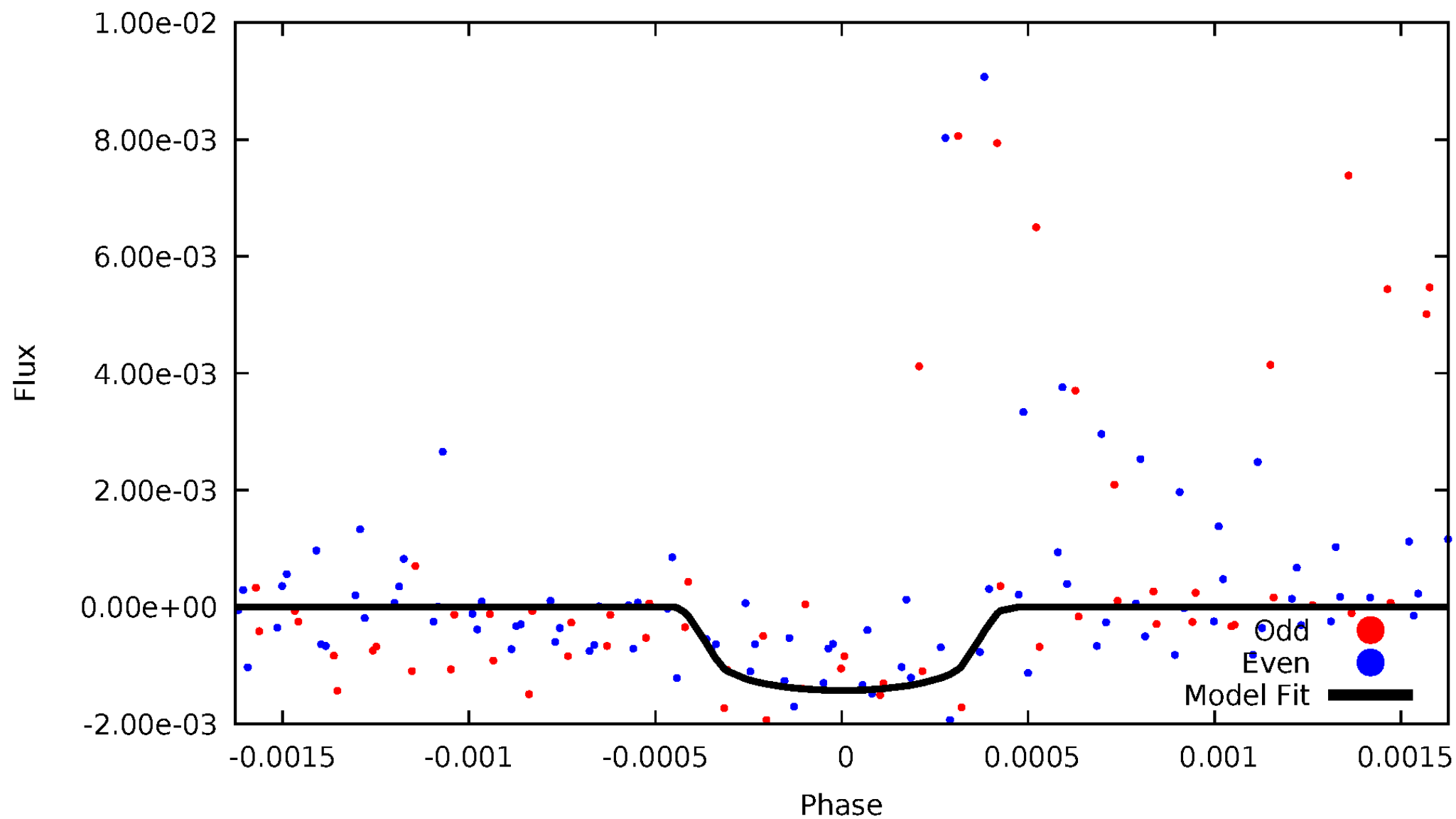


TCE 006692320-03



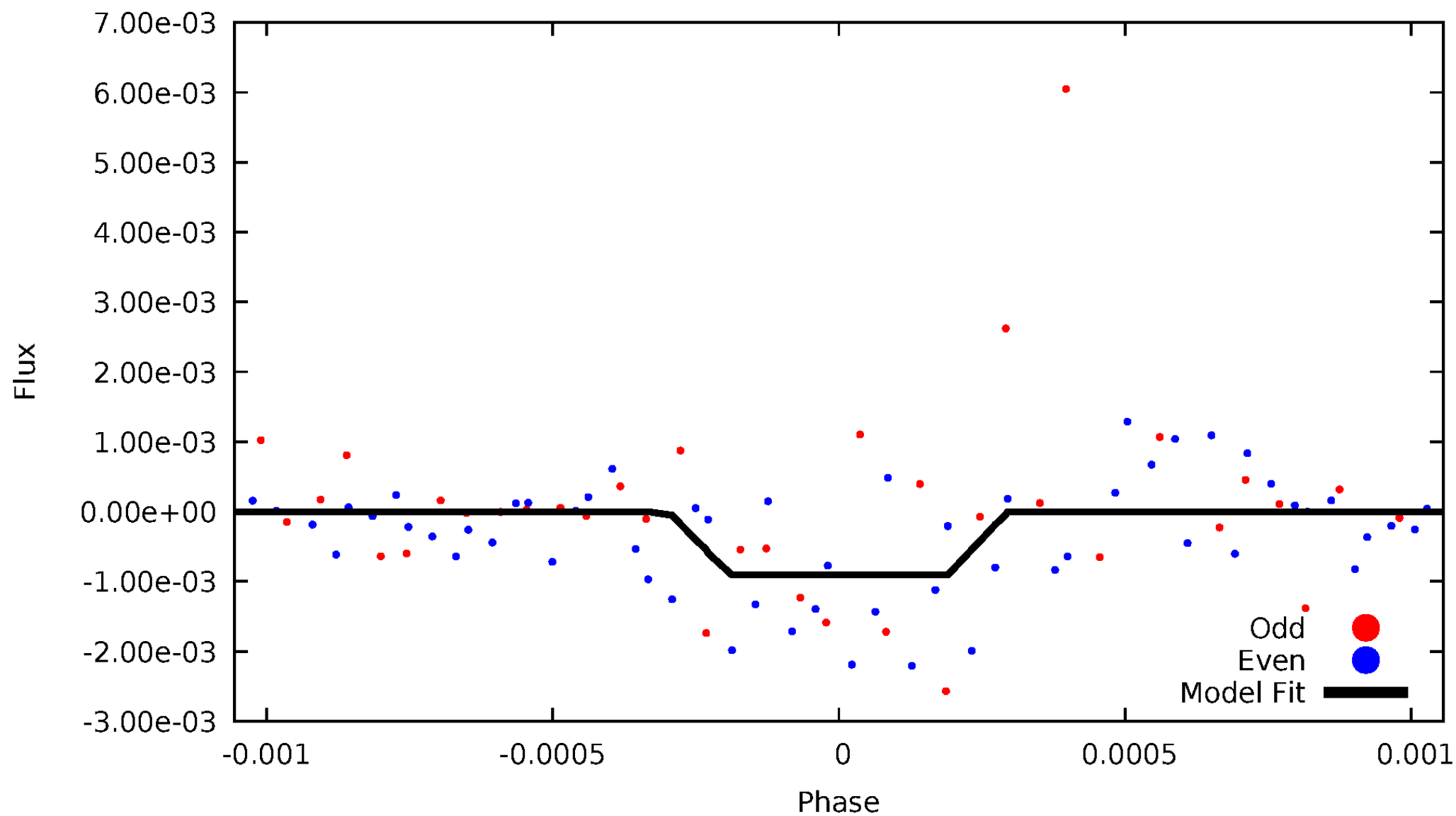
DV Odd/Even

TCE 006692320-03



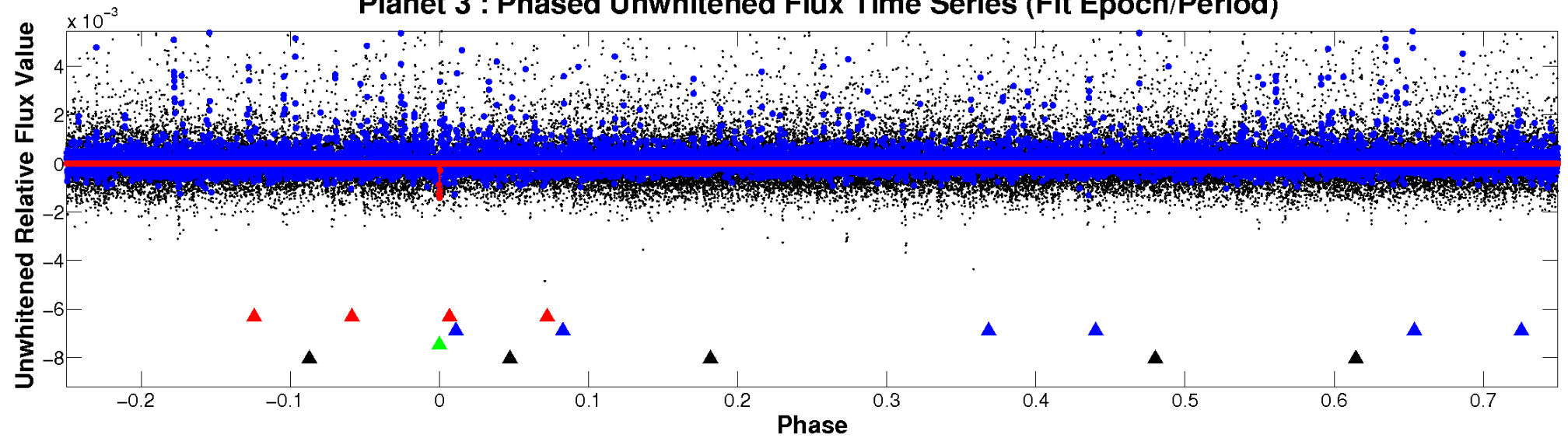
ALT Odd/Even

TCE 006692320-03

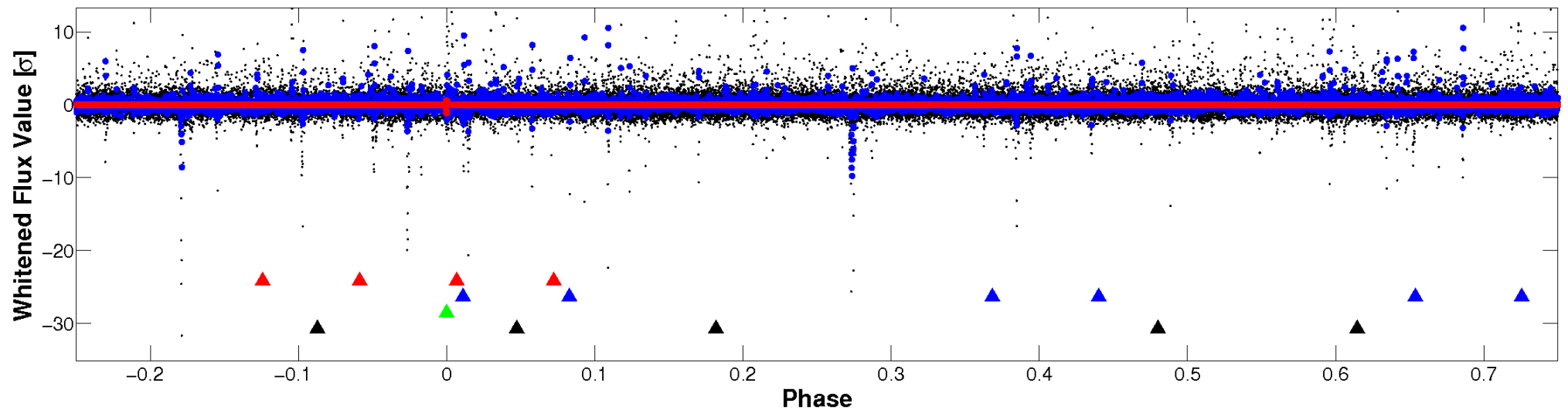


Non-Whitened Vs. Whitened Light Curve

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

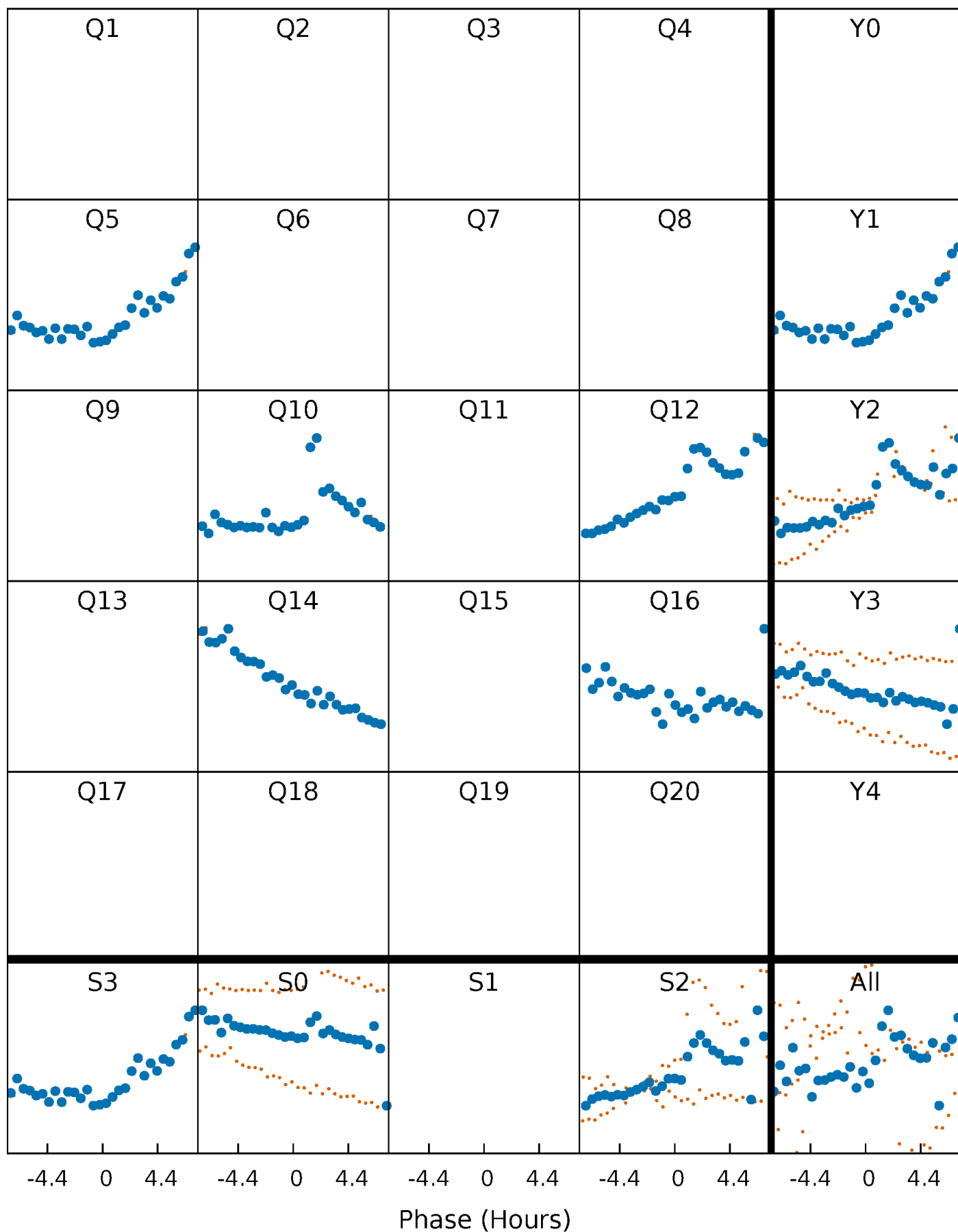


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



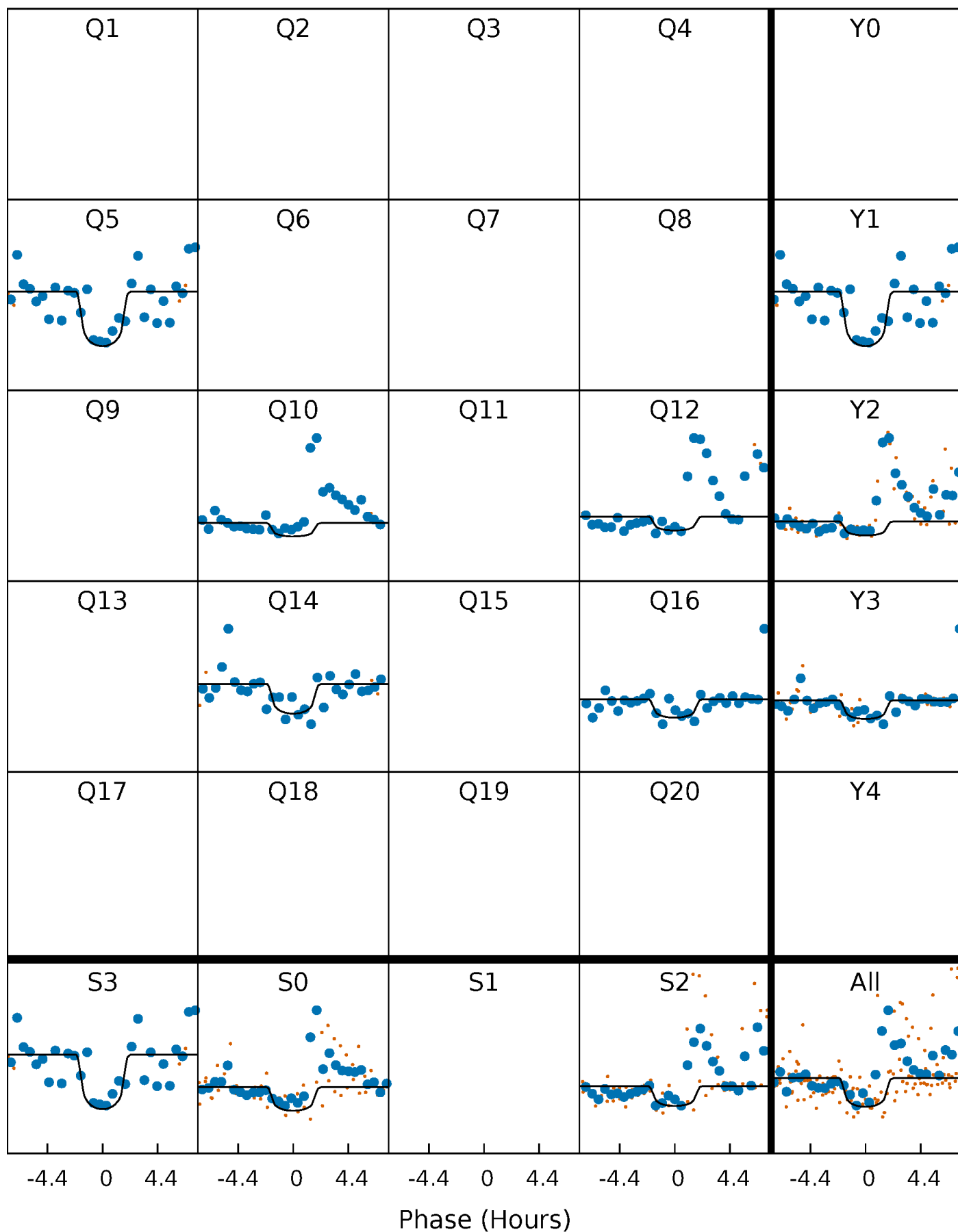
PDC Quarter-Phased Transit Curves

TCE 006692320-03 P=195.231846 Days $T_0=135.877125$ (BKJD)



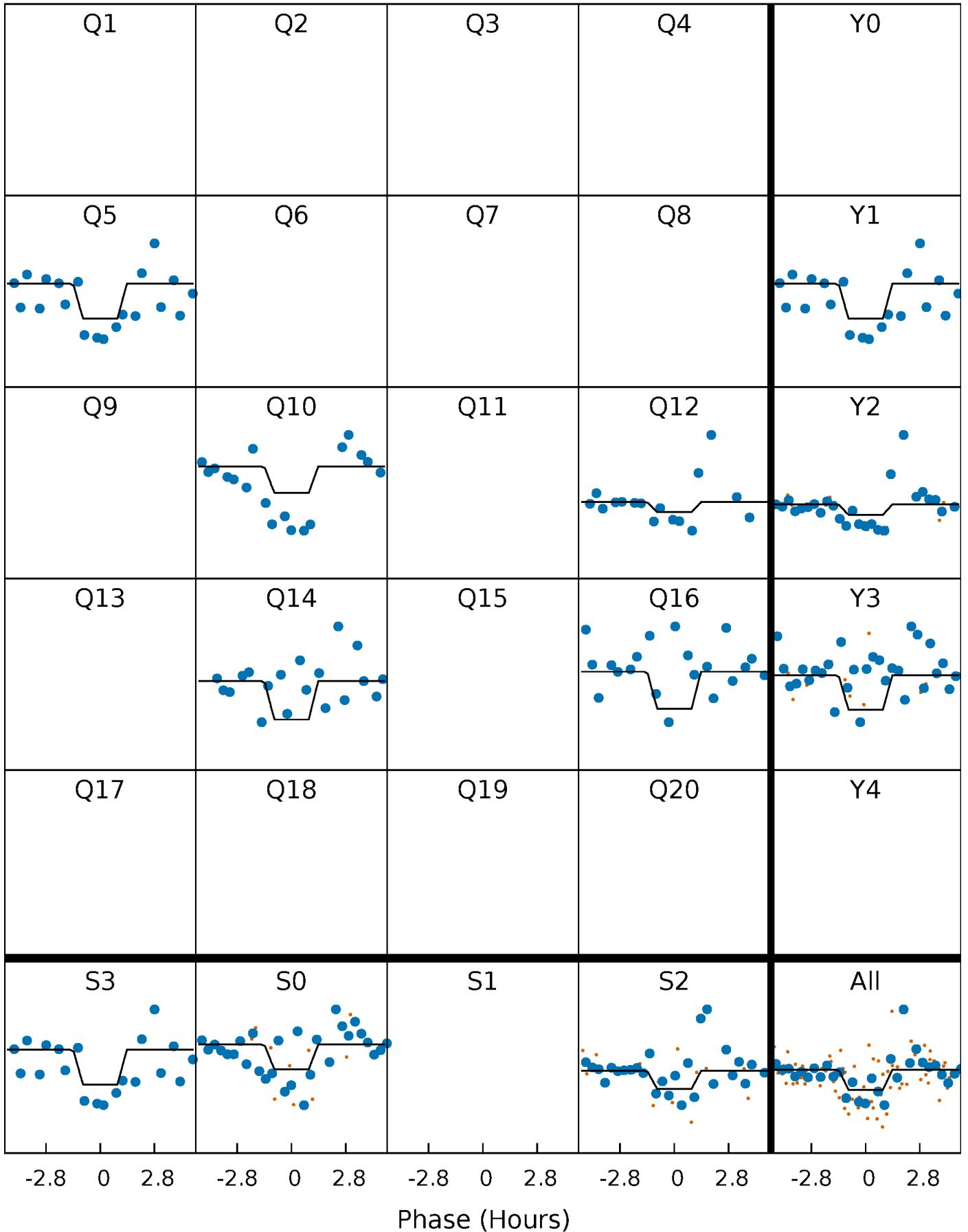
DV Quarter-Phased Transit Curves

TCE 006692320-03 $P=195.231846$ Days $T_0=135.877125$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

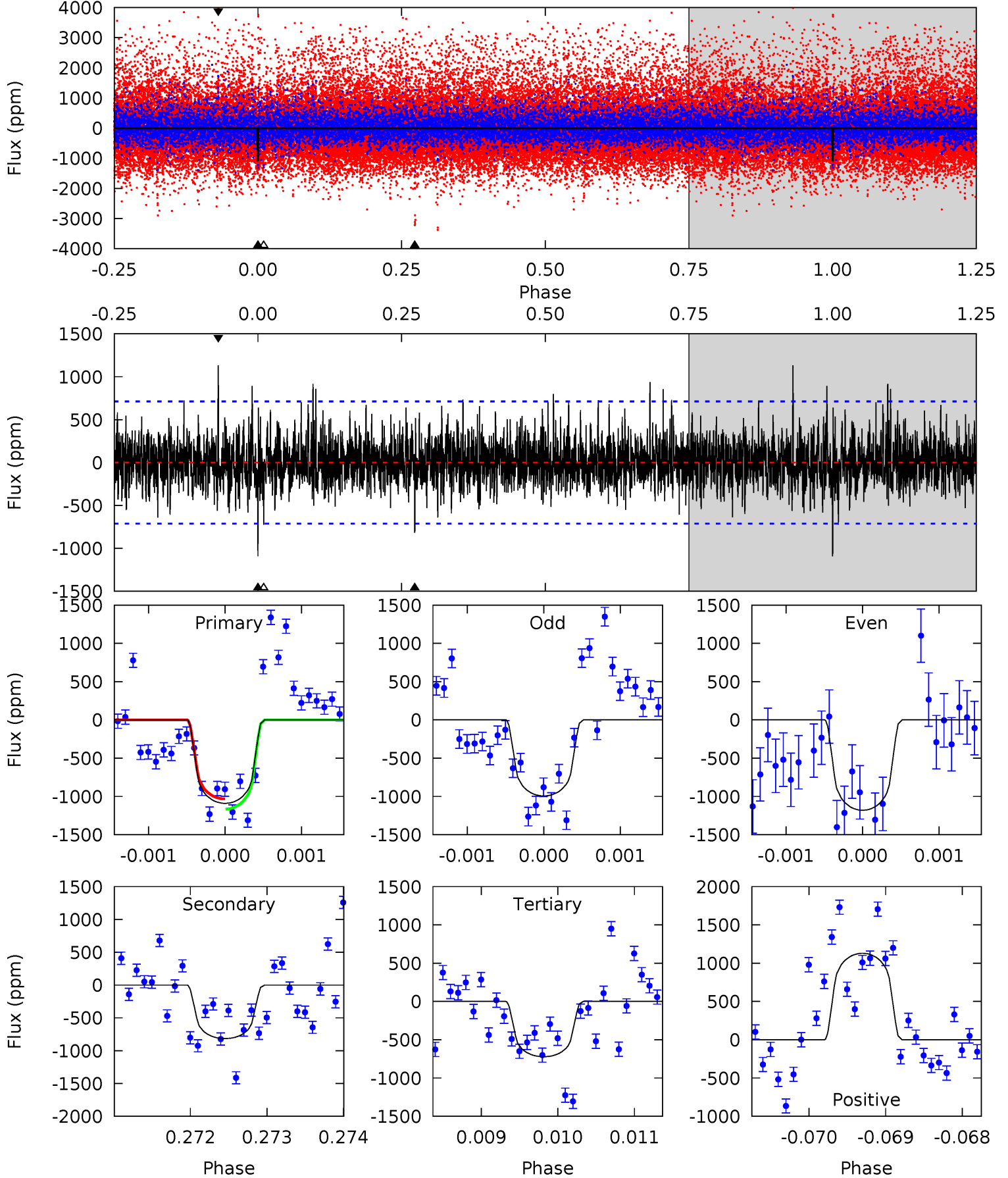
TCE 006692320-03 P=195.226886 Days $T_0=135.885553$ (BKJD)



DV Model-Shift Uniqueness Test

006692320-03, P = 195.231846 Days, E = 135.877125 Days

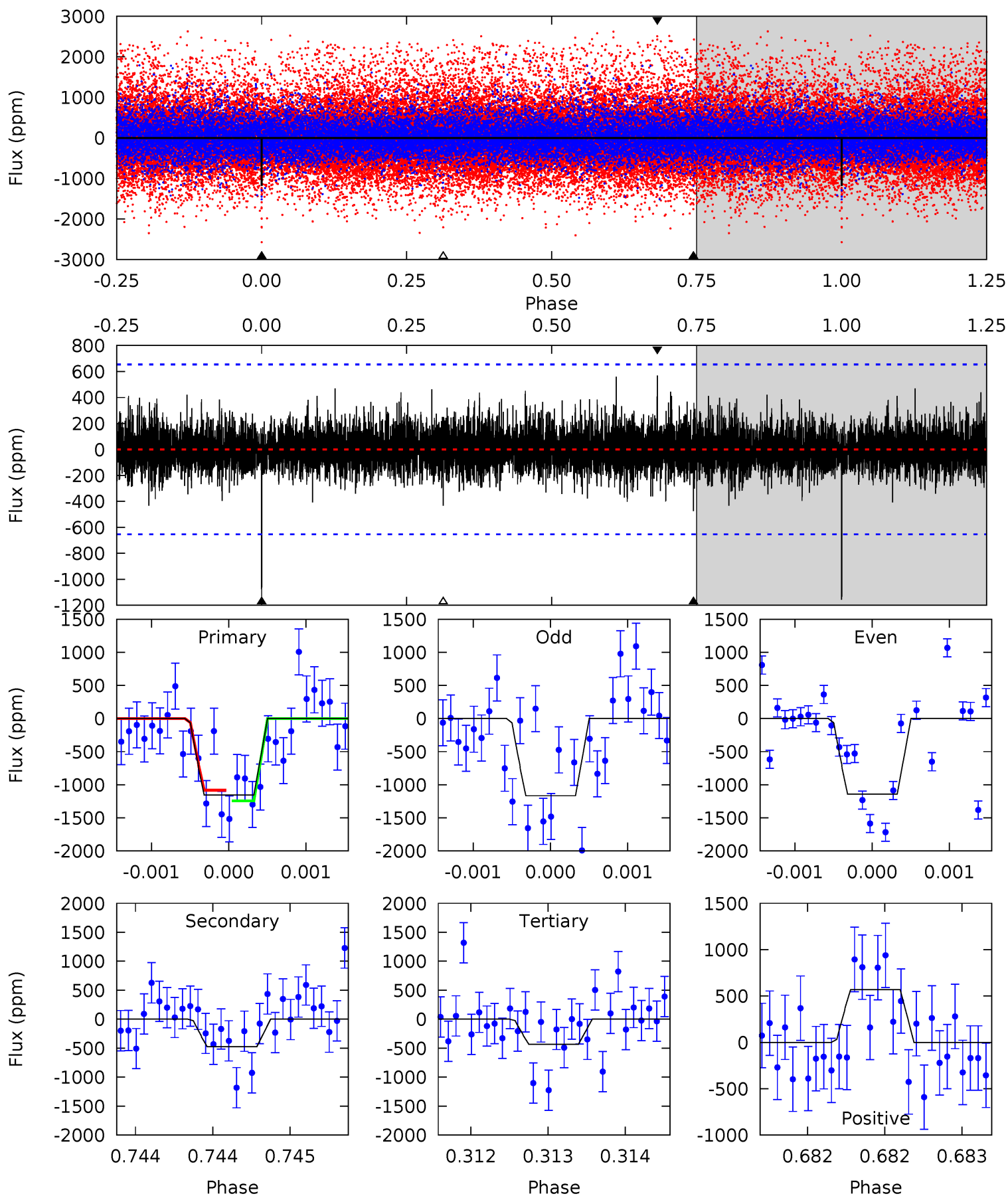
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.38	6.27	5.55	8.68	5.47	3.31	1.62	2.83	-0.30	0.72	-2.41	0.67	0.30	0.51	0.51



Alt Model-Shift Uniqueness Test

006692320-03, P = 195.226886 Days, E = 135.885553 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.82	4.04	3.67	4.82	5.55	3.44	1.01	6.14	5.00	0.36	-0.78	0.10	0.82	0.33	0.69



Stellar Parameters For KIC 006692320

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	3454^{+69}_{-76}	$4.892^{+0.066}_{-0.044}$	$0.000^{+0.100}_{-0.100}$	$0.357^{+0.048}_{-0.058}$	$0.362^{+0.057}_{-0.069}$	$11.240^{+4.210}_{-2.149}$
	+2%/-2%	+1%/-1%	+inf%/-inf%	+13%/-16%	+16%/-19%	+37%/-19%
Source	PHO2	PHO2	PHO2	DSEP		

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

Secondary Eclipse Parameters for KIC 006692320-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-816 ± 130	$1.72^{+1.24}_{-1.05}$	185^{+6}_{-7}	3017^{+1156}_{-406}	$32924^{+209865}_{-21902}$
Alt.	-476 ± 118	$1.53^{+1.28}_{-1.01}$	185^{+6}_{-7}	2886^{+1208}_{-429}	$24377^{+208753}_{-17507}$

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 $A_{obs} \gg 1.0$

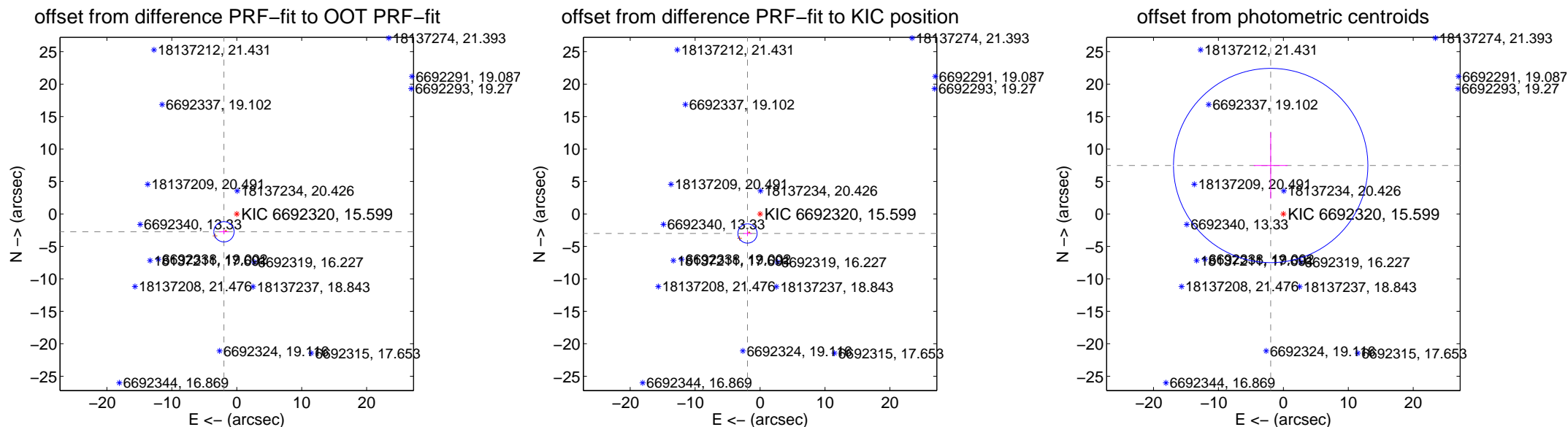
DV Centroid Data

Supplemental centroid analysis for 006692320-03. Kepler magnitude: 15.60. Transit SNR 6.42

There are 0 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.41 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.385 ± 0.520	6.51	1.971 ± 0.742	-2.751 ± 0.356
PRF-fit source offset from KIC position	3.581 ± 0.494	7.25	1.935 ± 0.657	-3.013 ± 0.408
photometric centroid source offset	7.71 ± 4.99	1.55	1.95 ± 2.60	7.46 ± 5.11

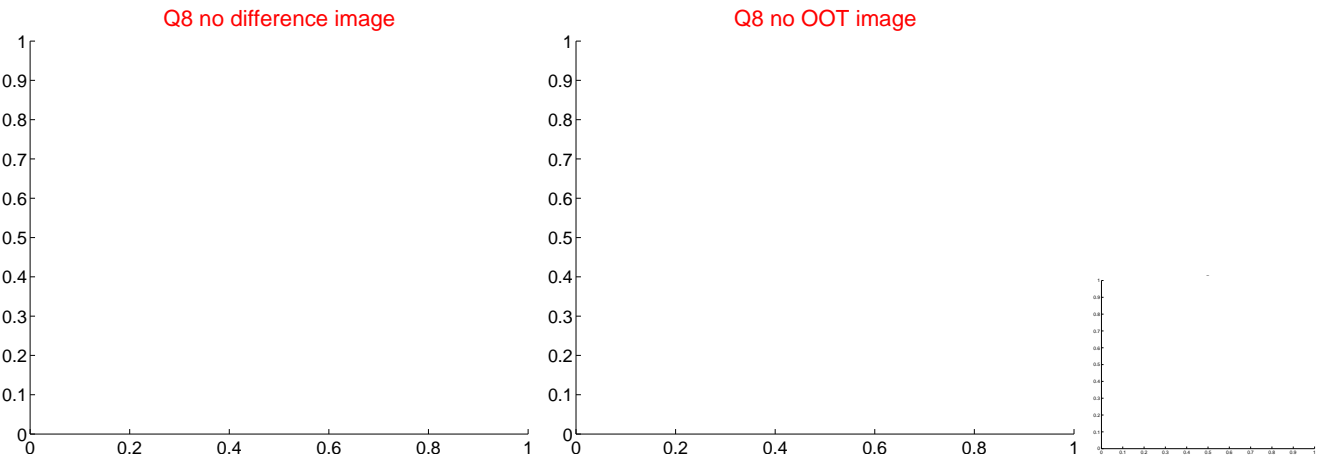
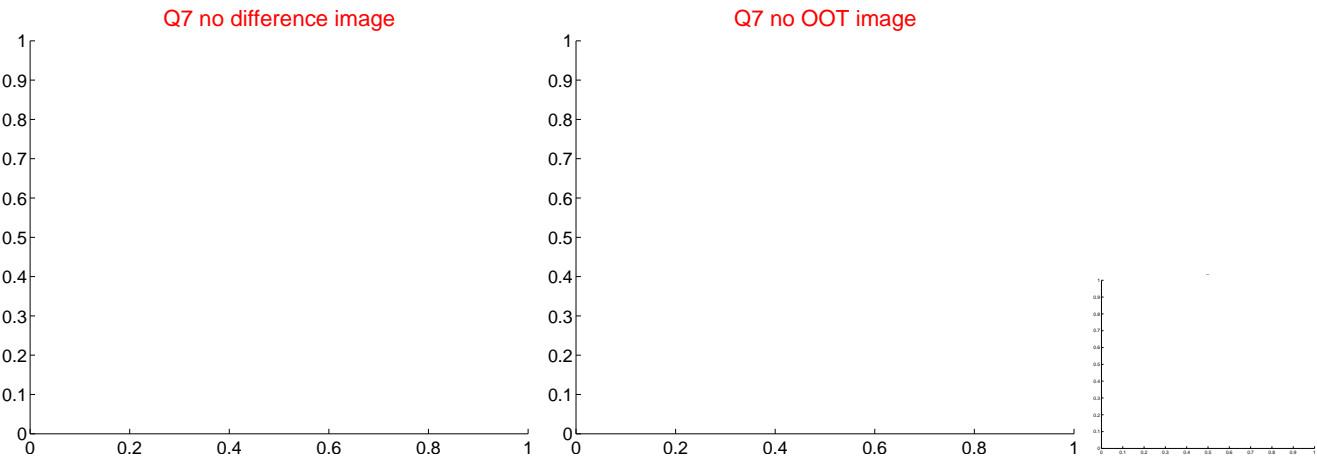
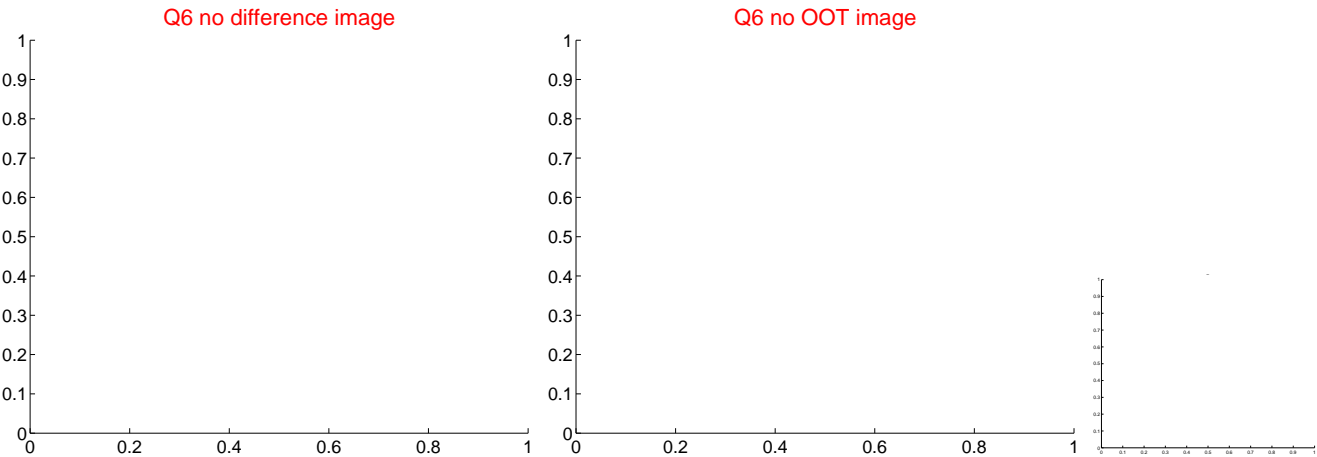
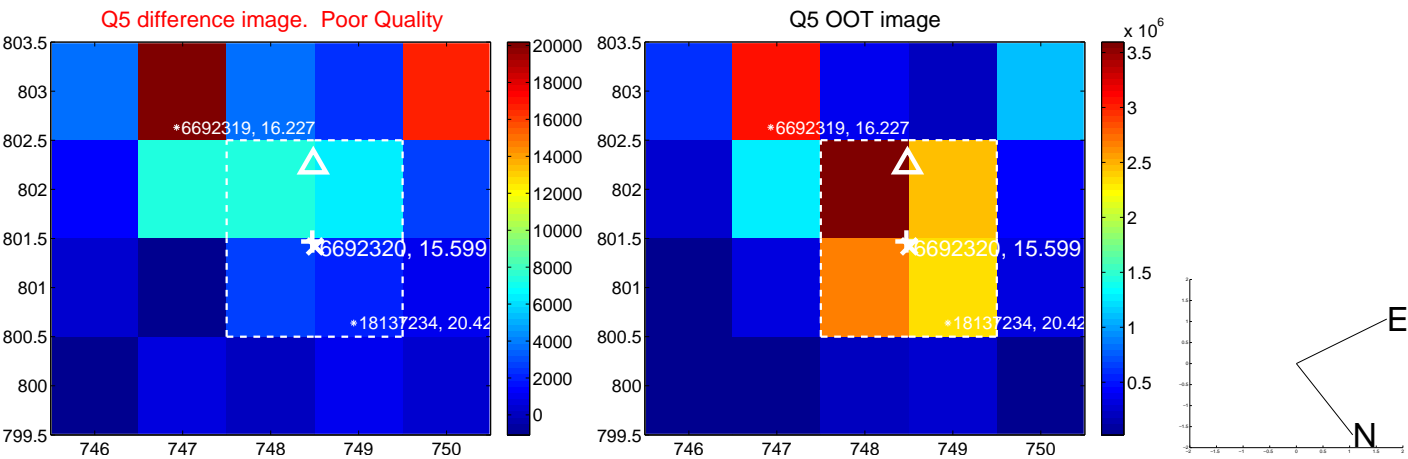


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

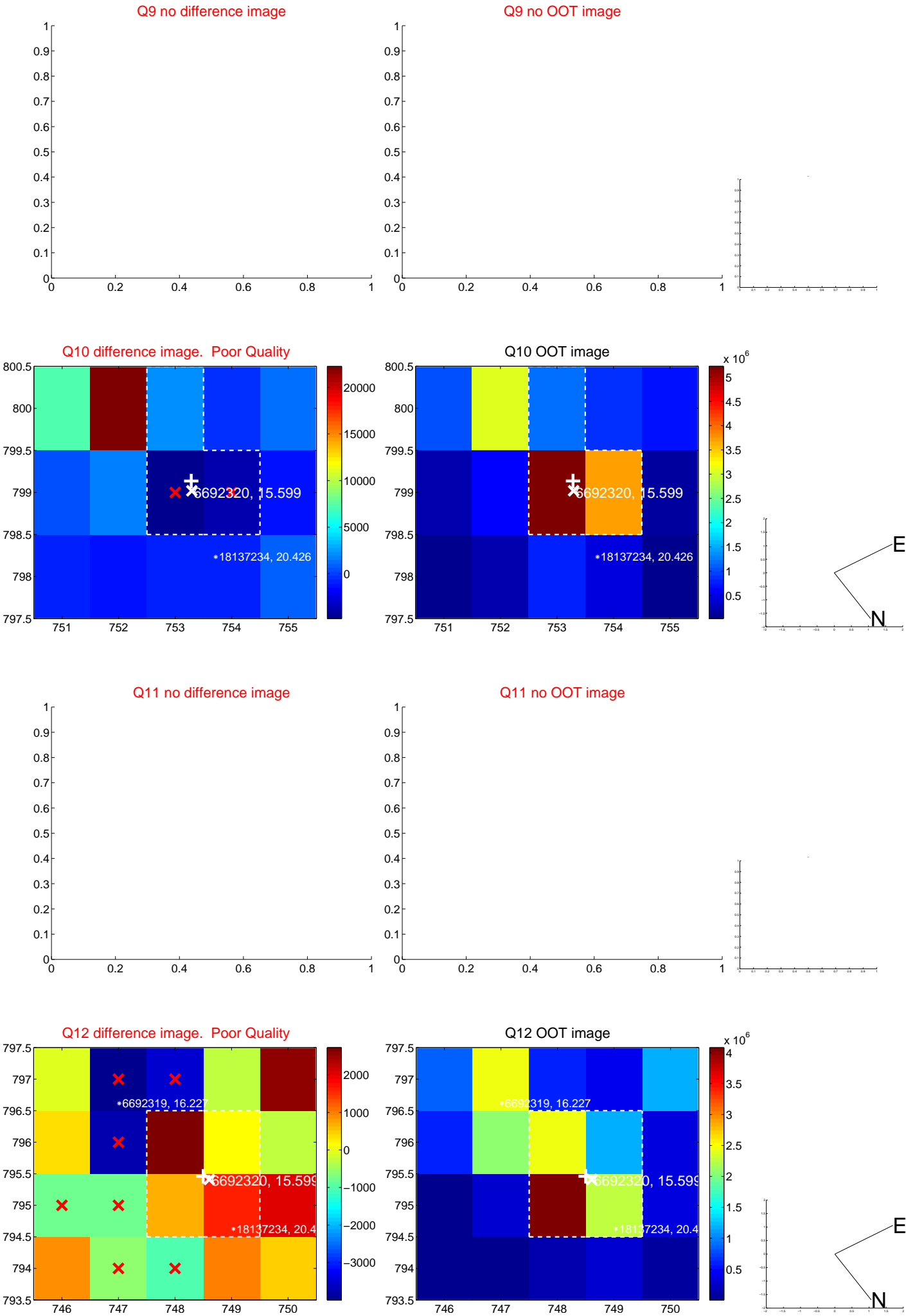
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



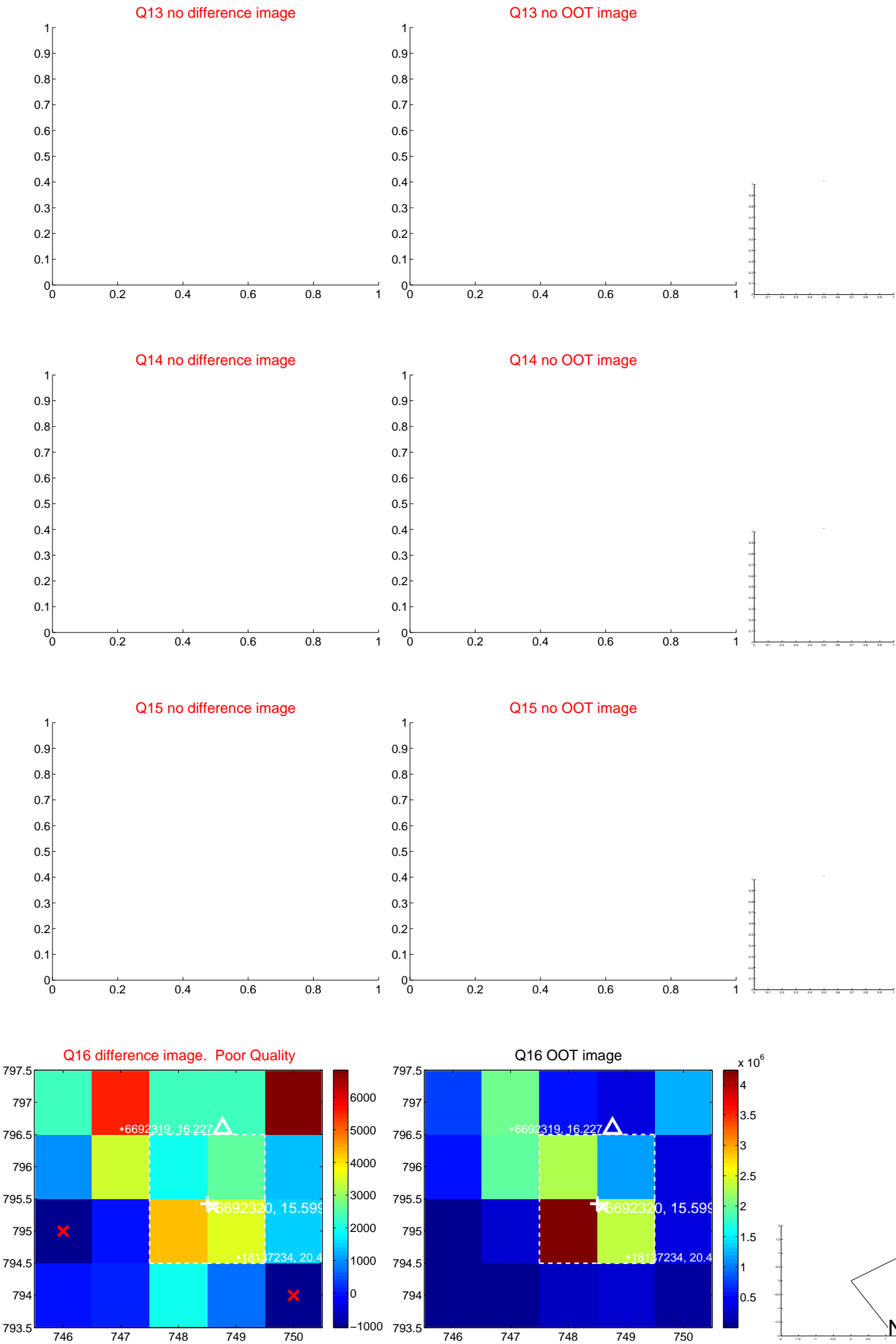
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



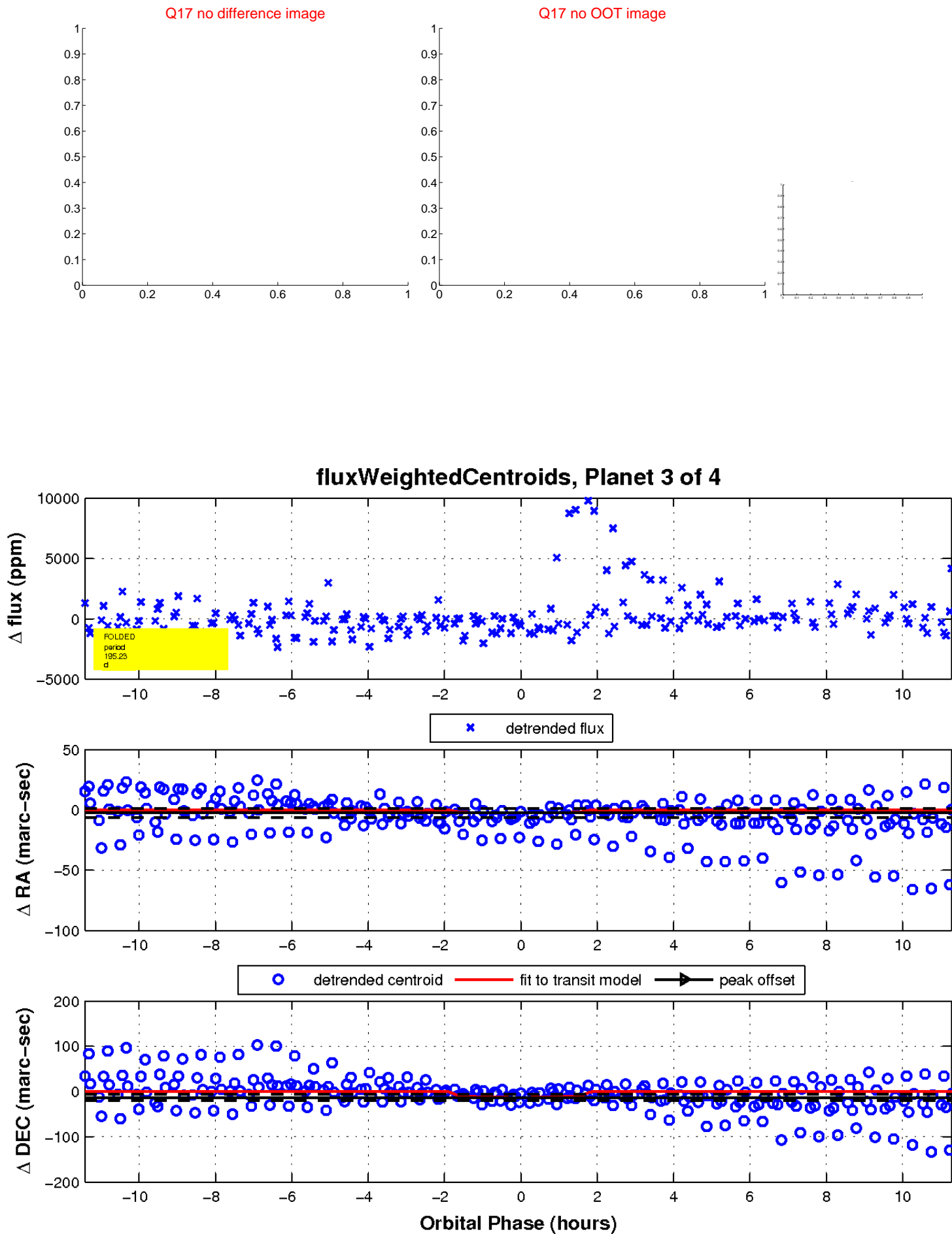
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

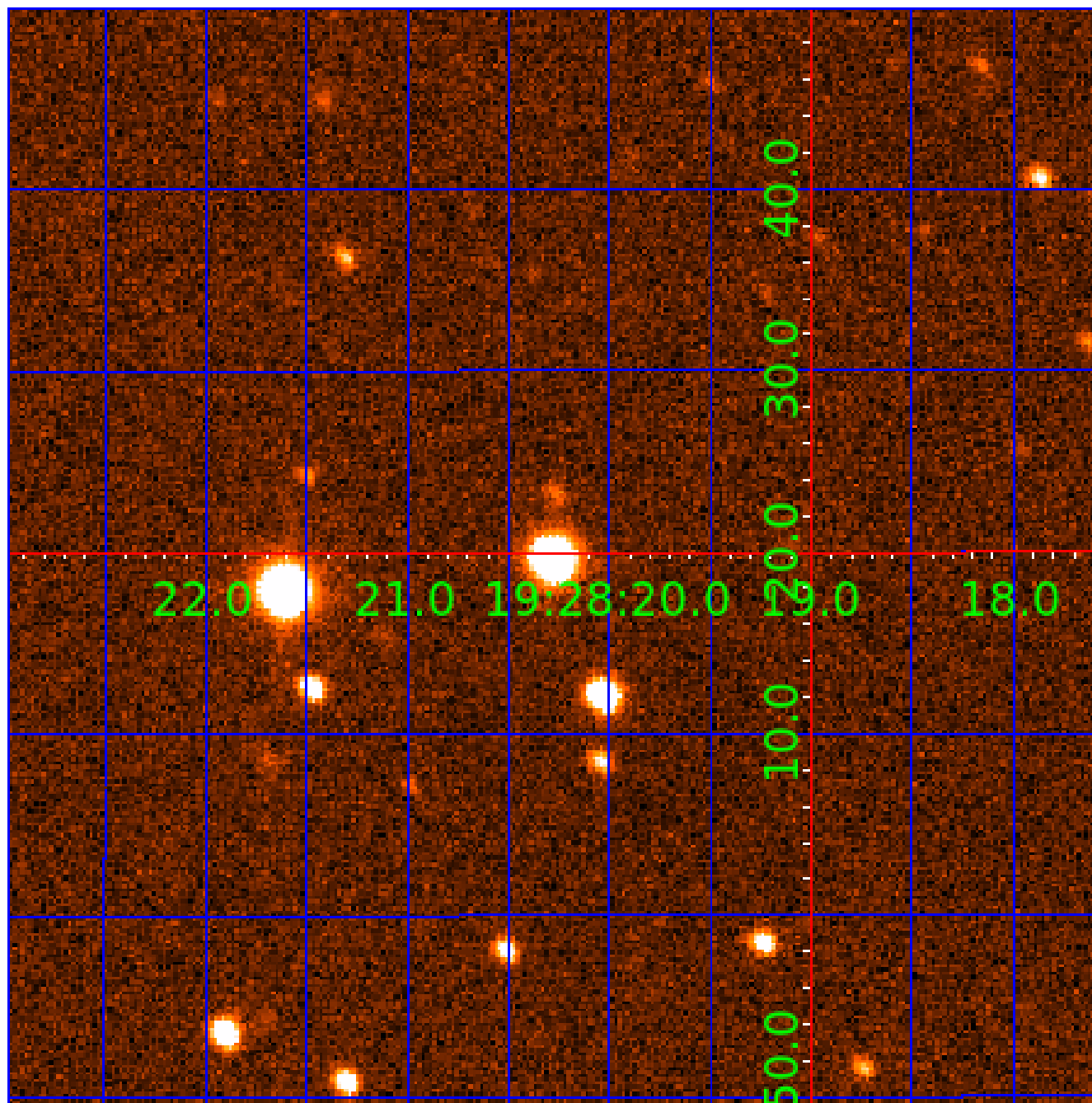


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 006692320

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})
006692320-01	OBS	No	403.250591	306.869164	2455.5	6.885	15.9	7.8	0.36	3454	1.75	0.03
006692320-02	OBS	No	264.980347	263.522938	1397.9	3.408	10.2	6.3	0.36	3454	1.32	0.05
006692320-03	OBS	No	195.231846	135.877125	1427.0	3.810	9.9	6.4	0.36	3454	1.43	0.07
006692320-04	OBS	No	305.975665	314.094292	1192.4	4.930	9.8	5.1	0.36	3454	1.23	0.04

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006692320-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006692320-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—CENT_FEW_DIFFS
006692320-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006692320-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—LPP_DV—MOD_POS_DV—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.

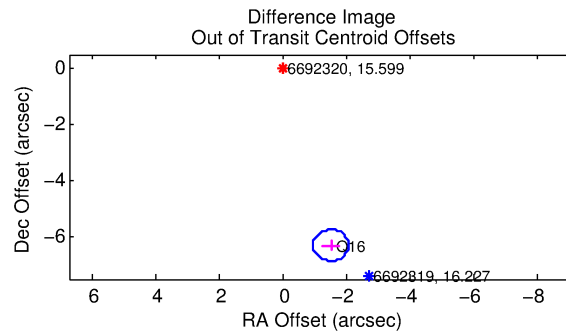
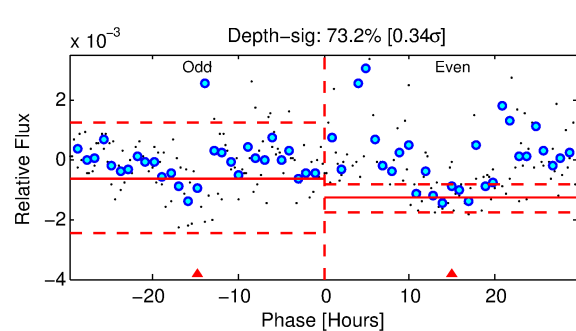
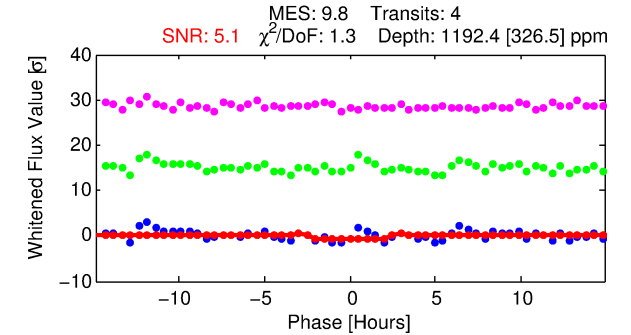
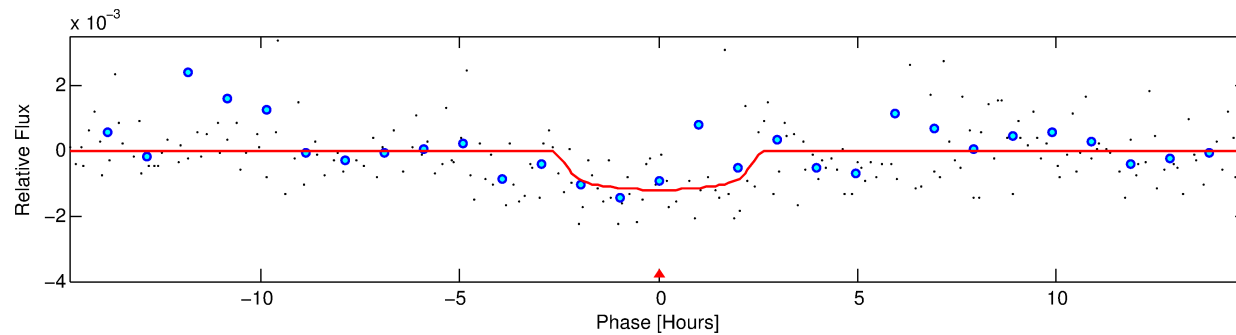
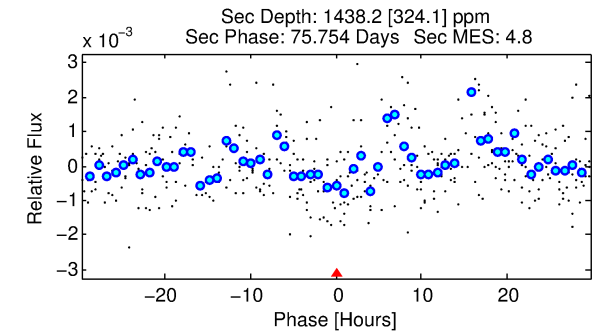
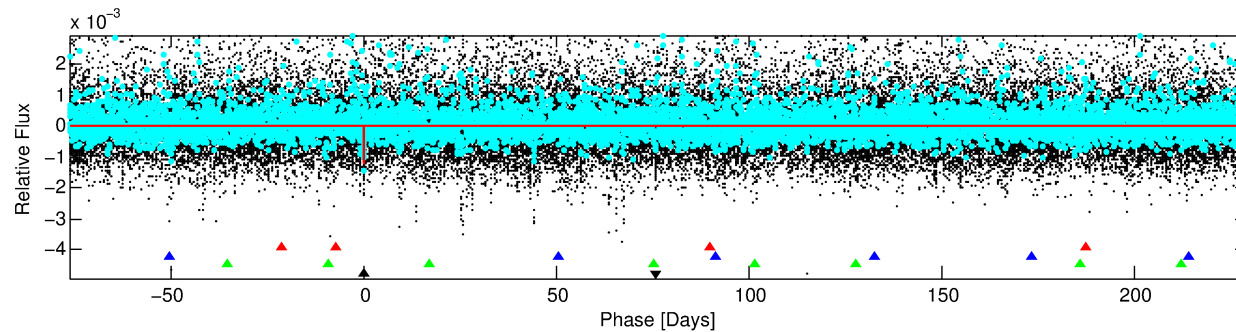
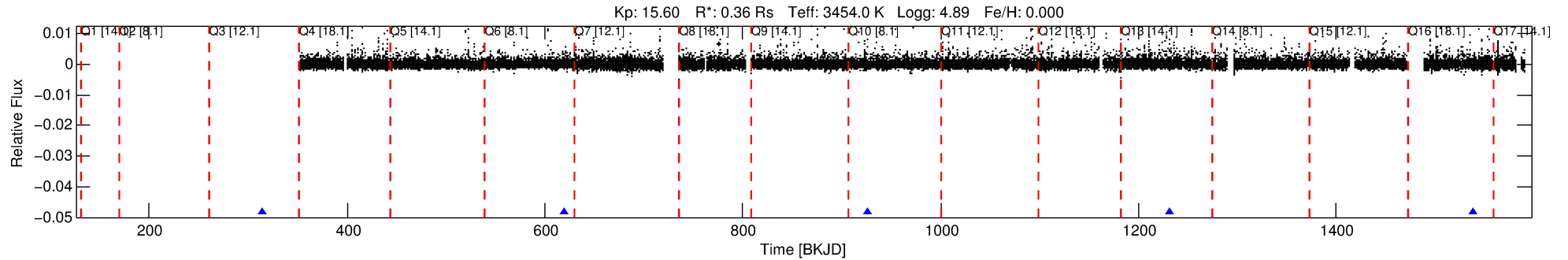
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006692320-04

No Significant Match Found

DV One-Page Summary

KIC: 6692320 Candidate: 4 of 4 Period: 305.976 d



DV Fit Results:

Period = 305.97567 [0.00798] d
Epoch = 314.0943 [0.0211] BKJD
Rp/R* = 0.0317 [0.0988]
a/R* = 457.65 [6059.83]
b = 0.36 [31.62]
Seff = 0.04 [0.01]
Teq = 114 [5] K
Rp = 1.23 [3.85] Re
a = 0.6338 [0.0758] AU
Ag = 208575.77 [1301908.28] [0.16σ]
Teffp = 3779 [5896] K [0.62σ]

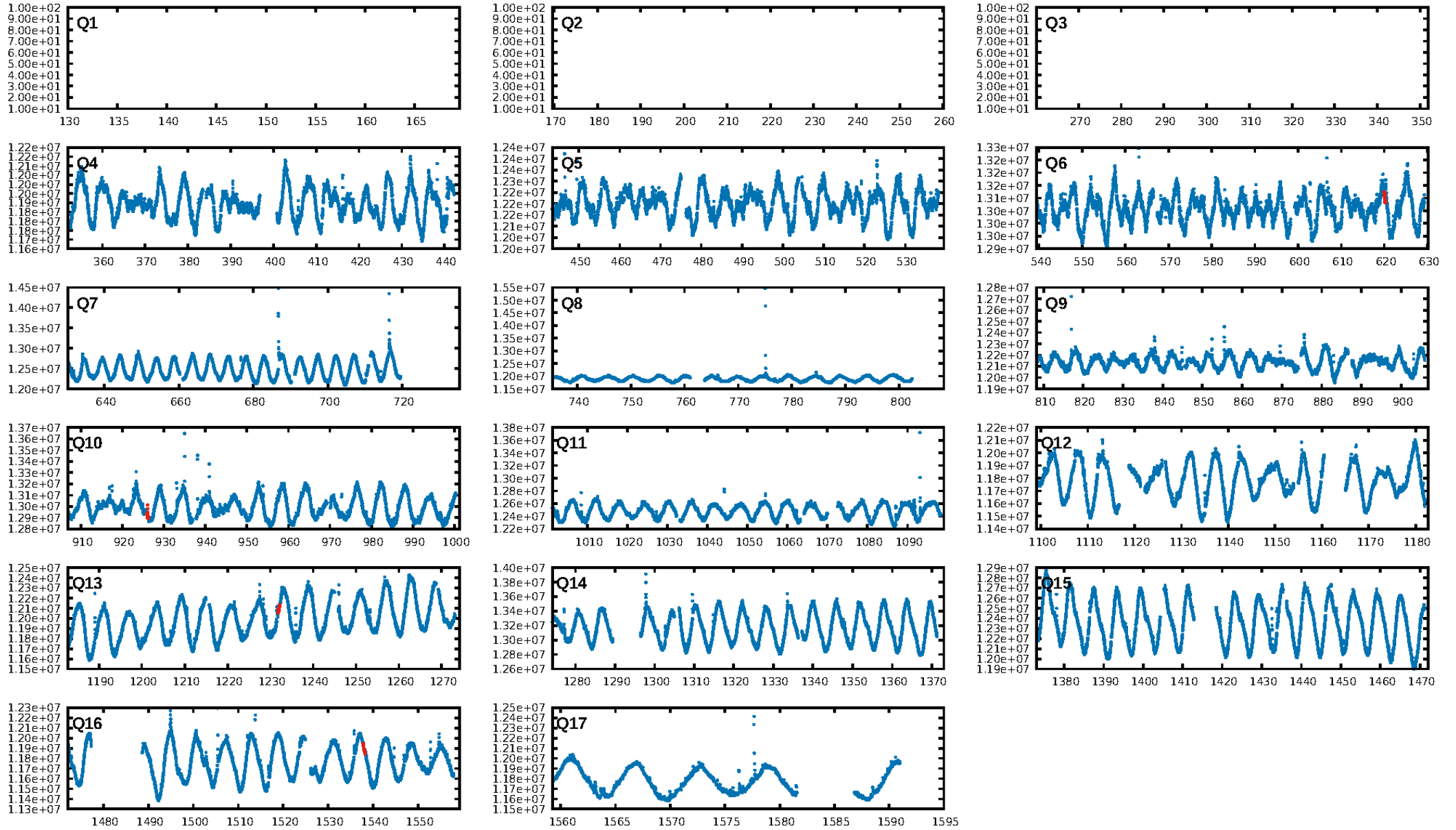
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [164.16σ]
LongPeriod-sig: 100.0% [275.71σ]
ModelChiSquare2-sig: 75.0%
ModelChiSquareGof-sig: 96.3%
Bootstrap-pfa: 4.38e-09
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: -0.6871
Centroid-sig: 5.8%
Centroid-so: 6.814 arcsec [1.51σ]
OotOffset-rm: 6.474 arcsec [34.68σ]
KicOffset-rm: 6.901 arcsec [36.88σ]
OotOffset-st: 0/0/1/0 [1]
KicOffset-st: 0/0/1/0 [1]
DiffImageQuality-fgm: 1.00 [1/1]
DiffImageOverlap-fno: 1.00 [3/3]

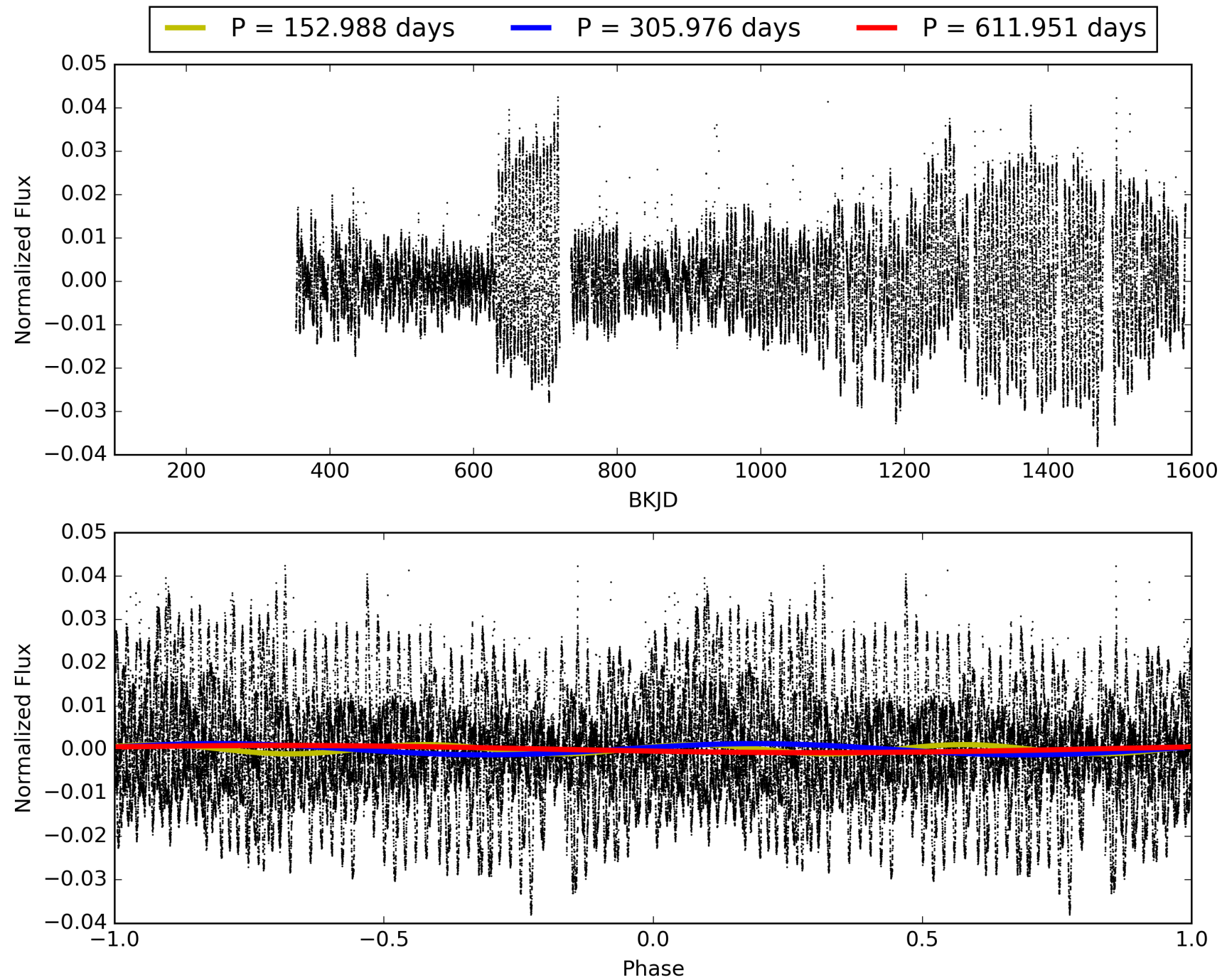
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 07:57:31 Z

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

TCE 006692320-04, PDC Light Curves

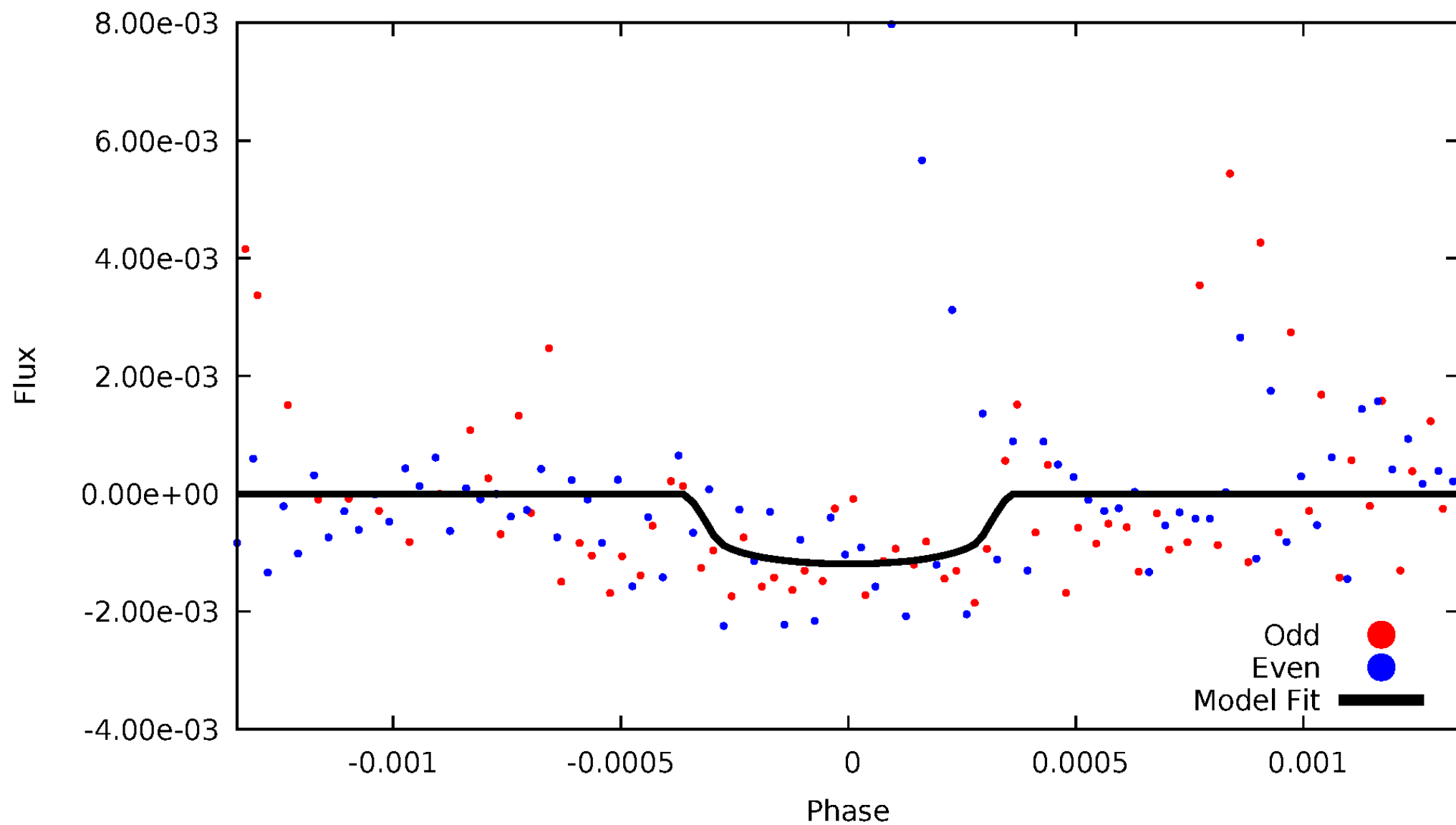


TCE 006692320-04



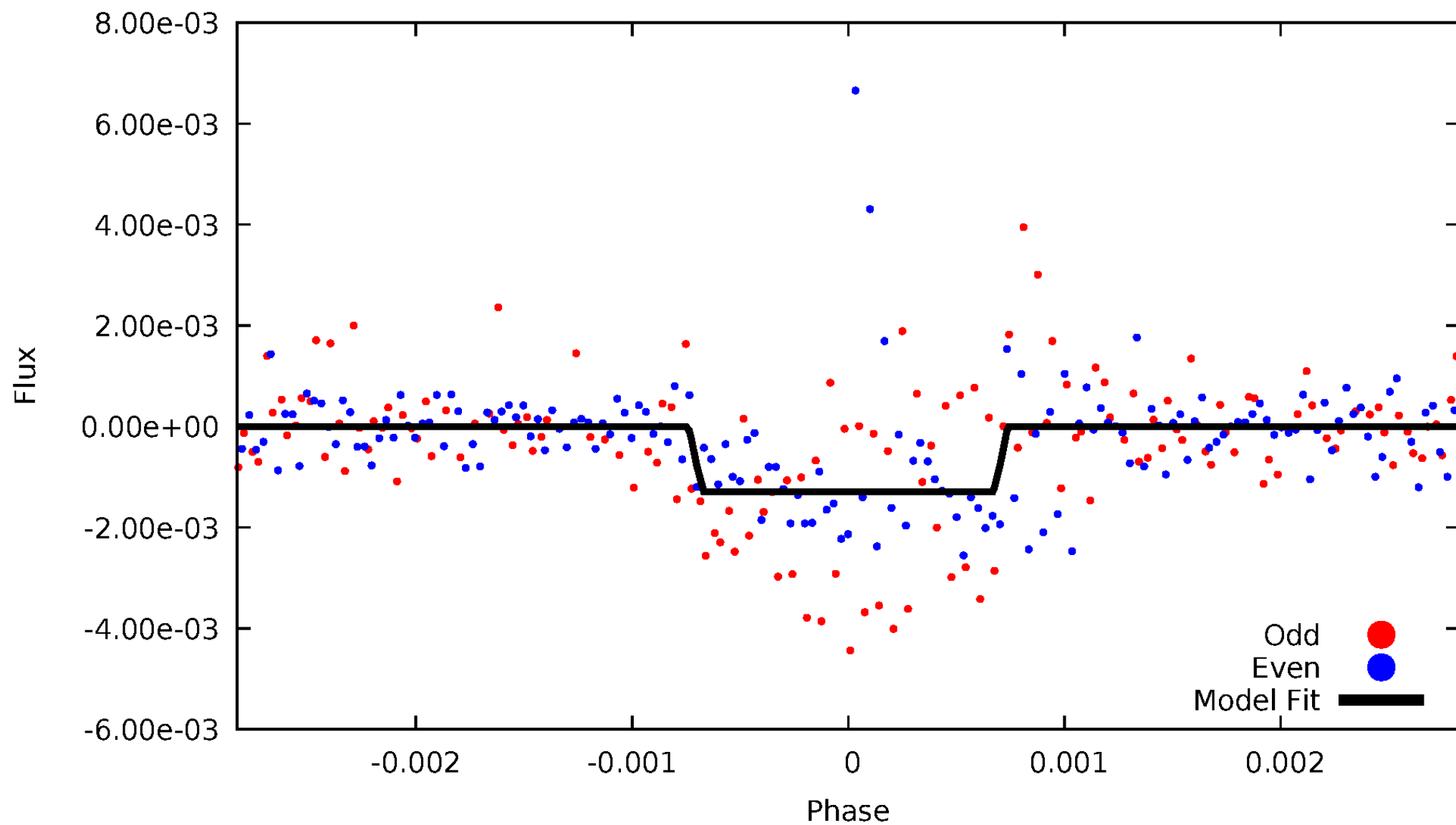
DV Odd/Even

TCE 006692320-04



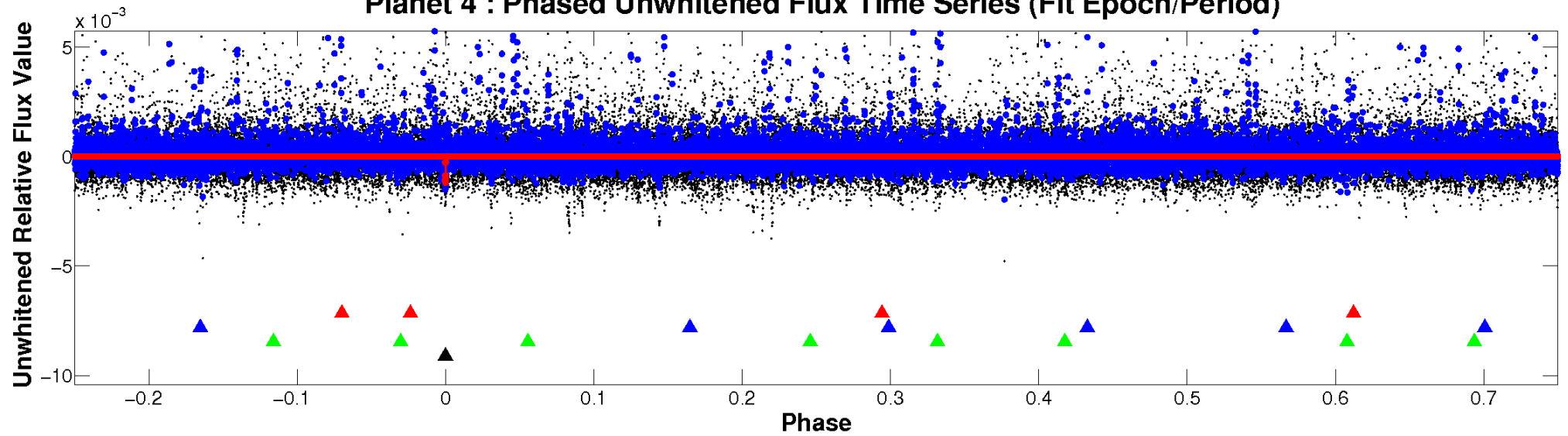
ALT Odd/Even

TCE 006692320-04

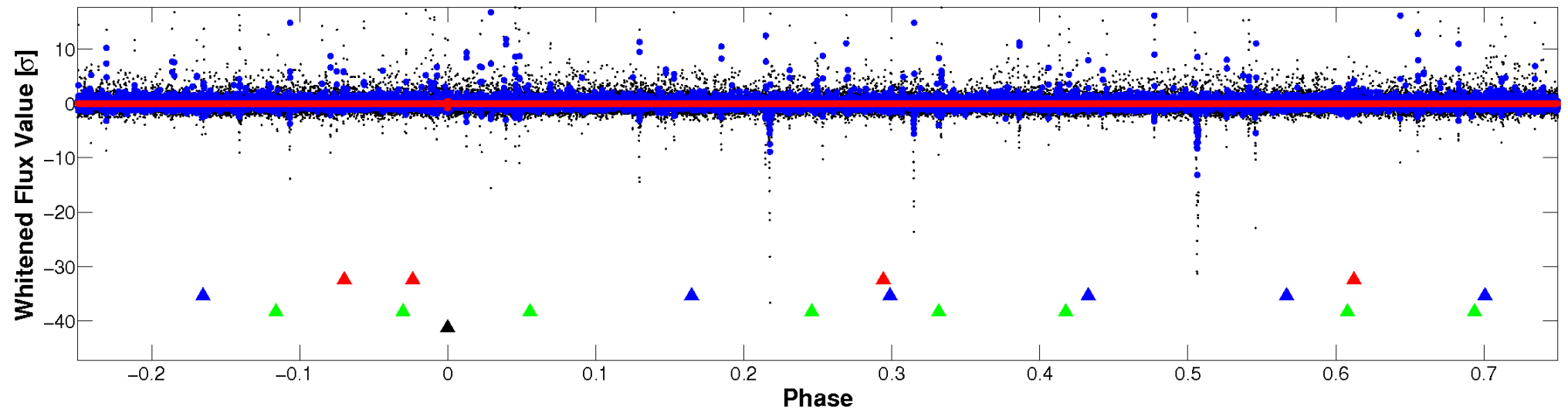


Non-Whitened Vs. Whitened Light Curve

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

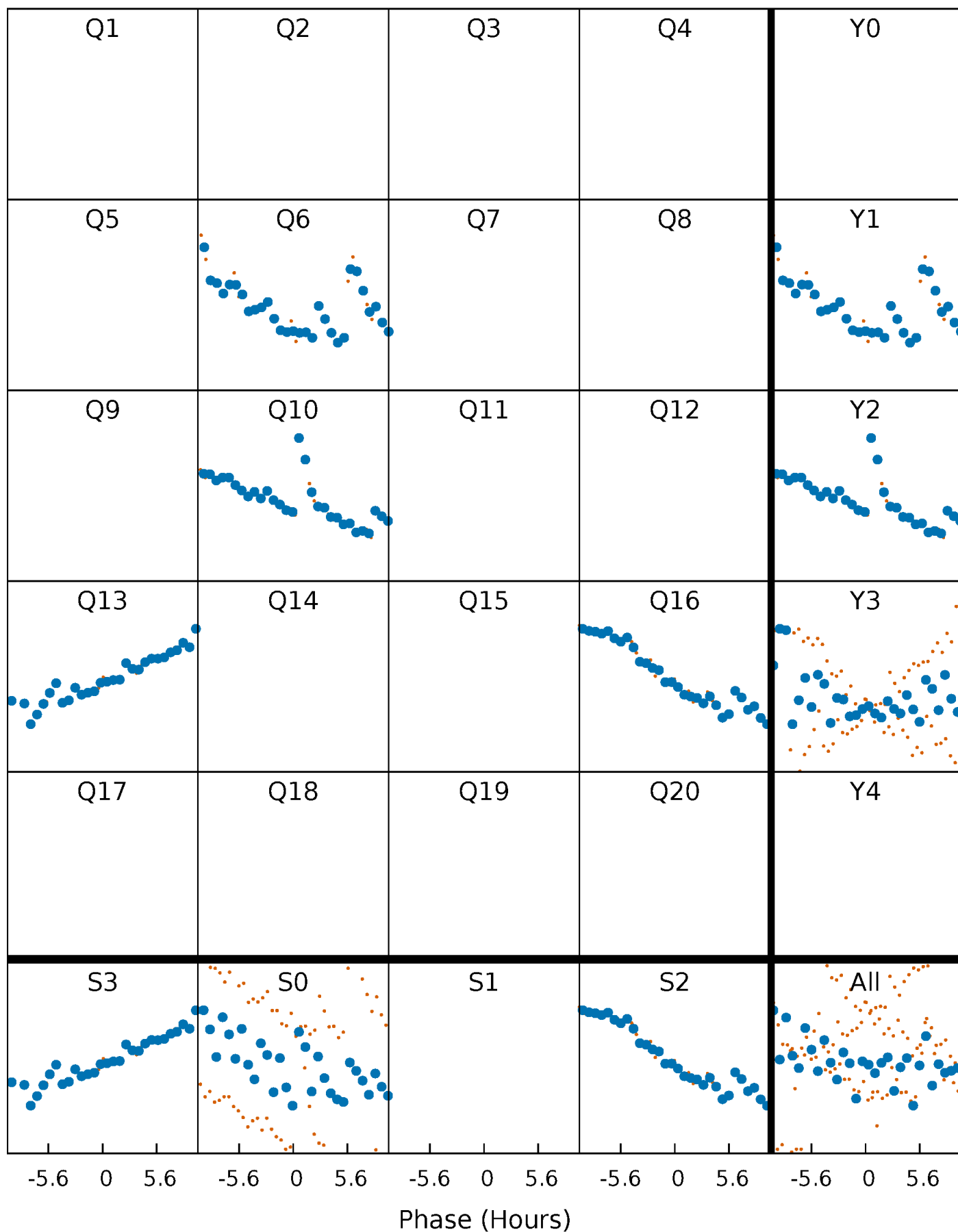


Planet 4 : Phased Whitened Flux Time Series (Fit Epoch/Period)



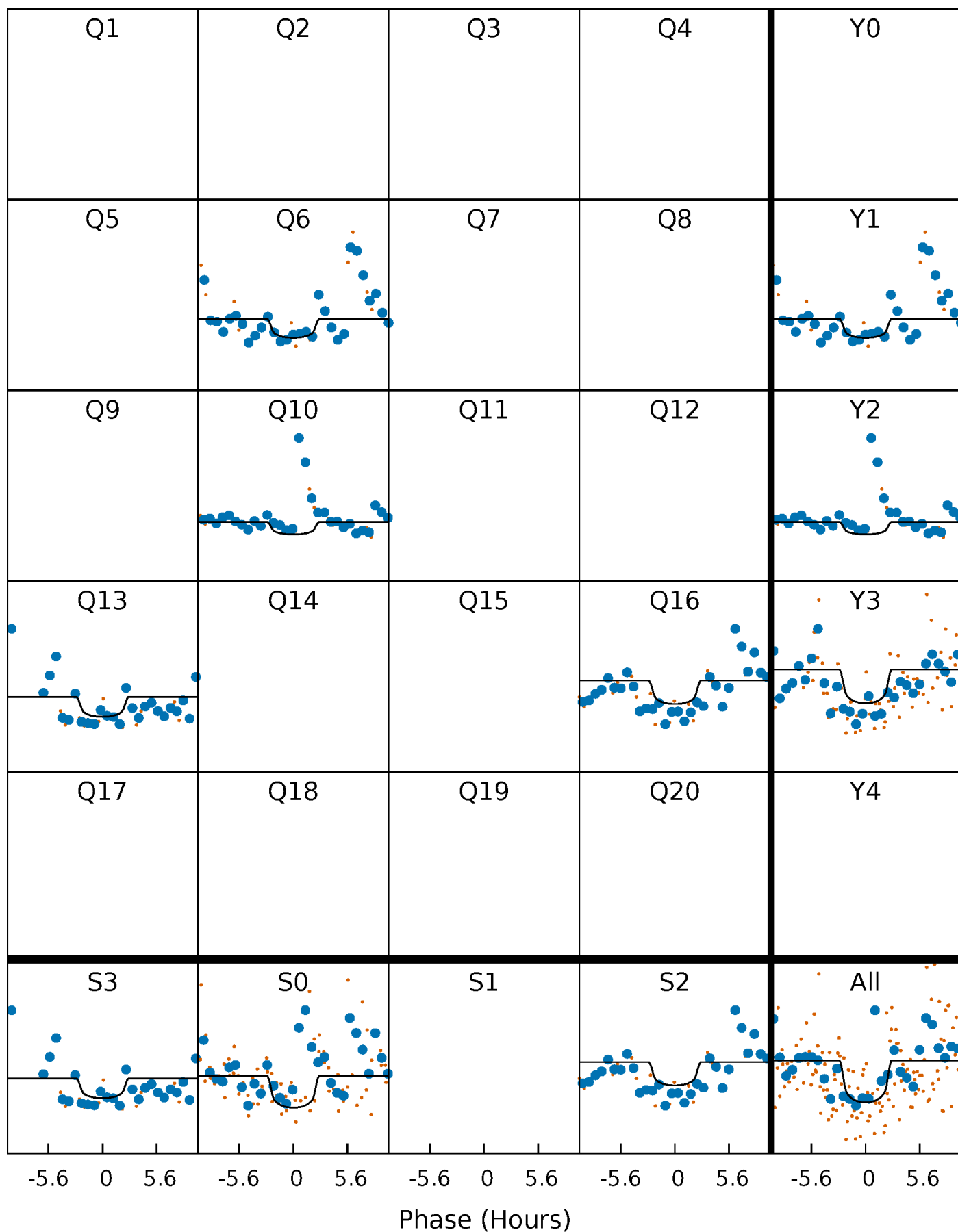
PDC Quarter-Phased Transit Curves

TCE 006692320-04 $P=305.975665$ Days $T_0=314.094292$ (BKJD)



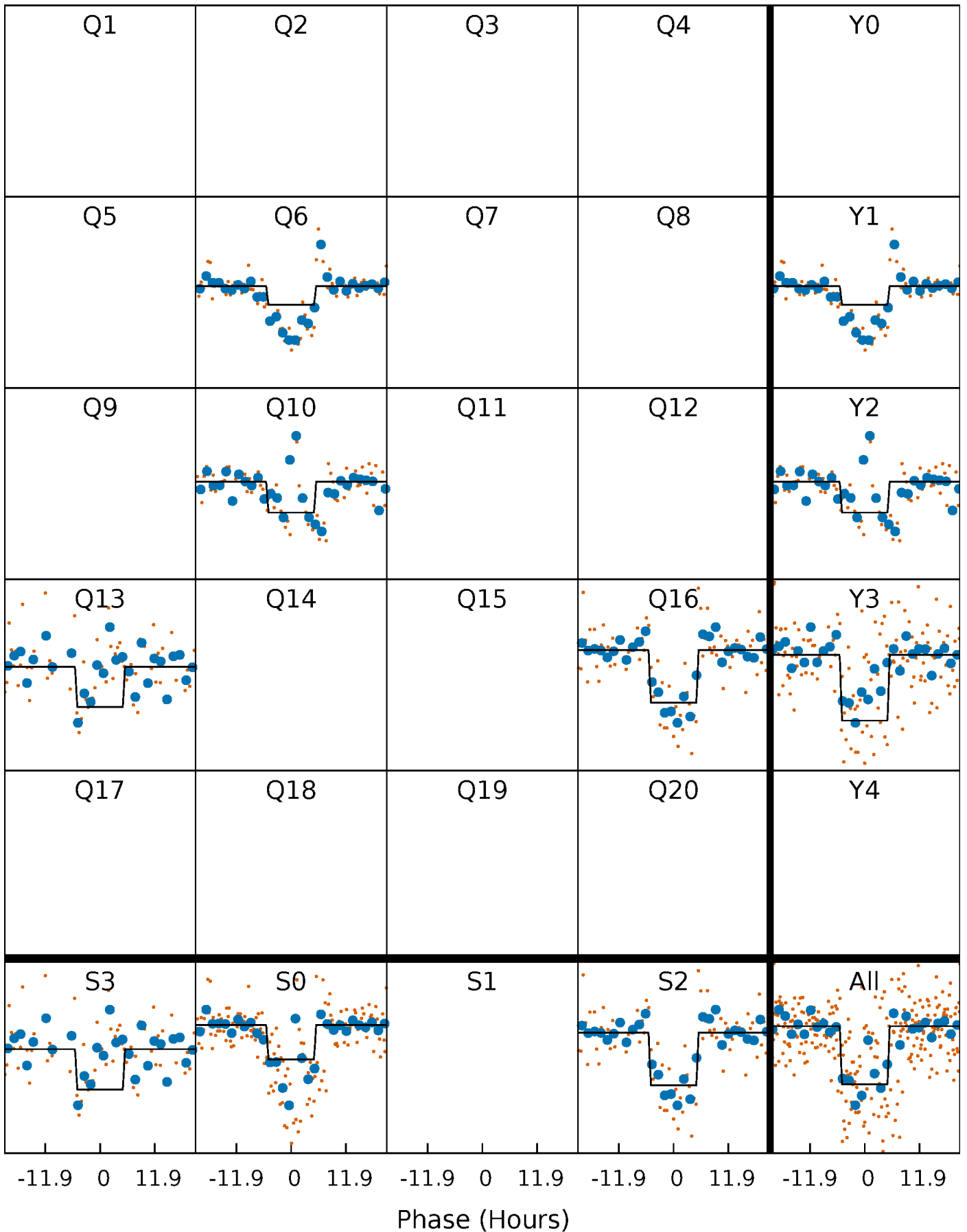
DV Quarter-Phased Transit Curves

TCE 006692320-04 $P=305.975665$ Days $T_0=314.094292$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

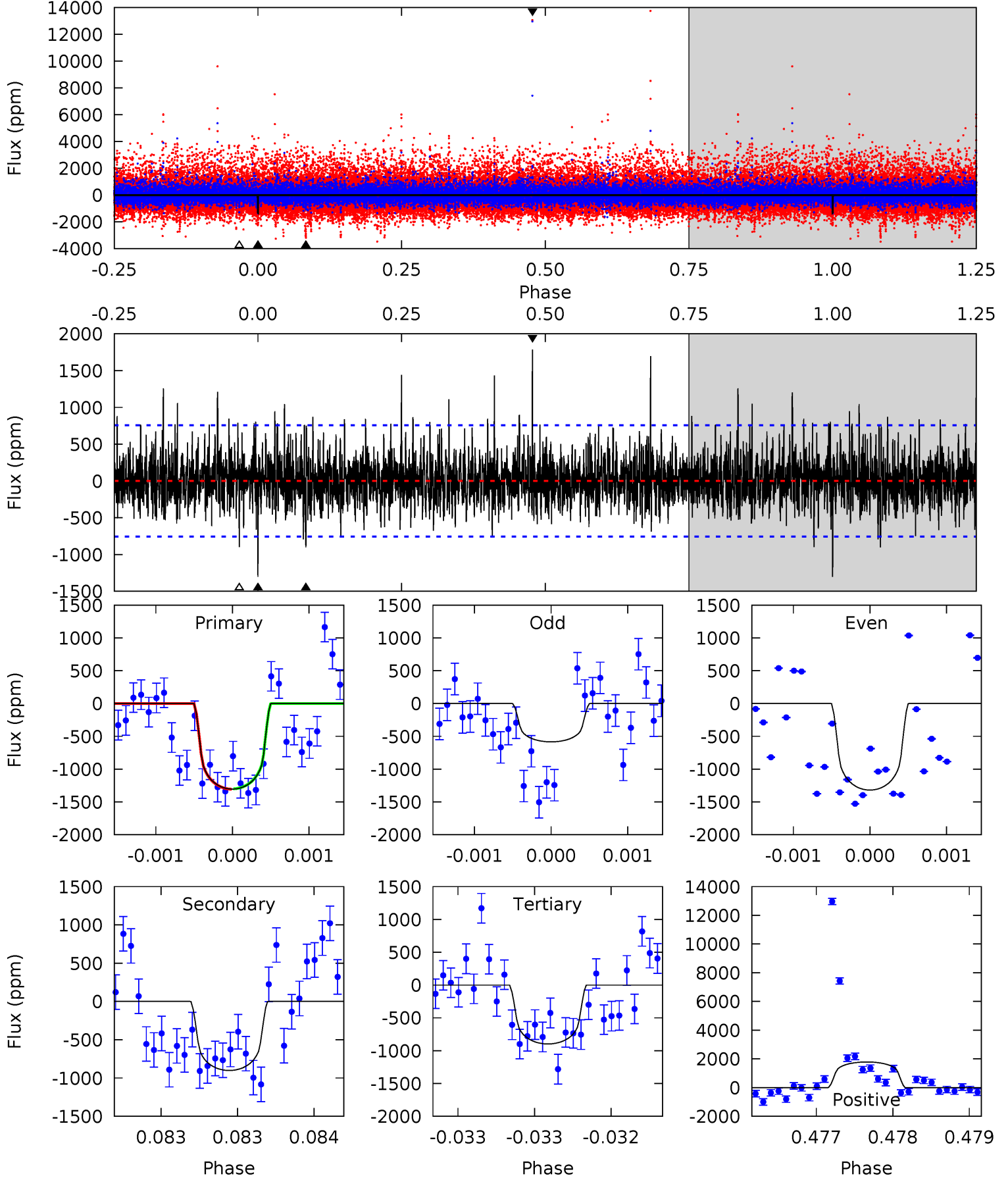
TCE 006692320-04 P=305.985750 Days $T_0=314.092942$ (BKJD)



DV Model-Shift Uniqueness Test

006692320-04, P = 305.975665 Days, E = 314.094292 Days

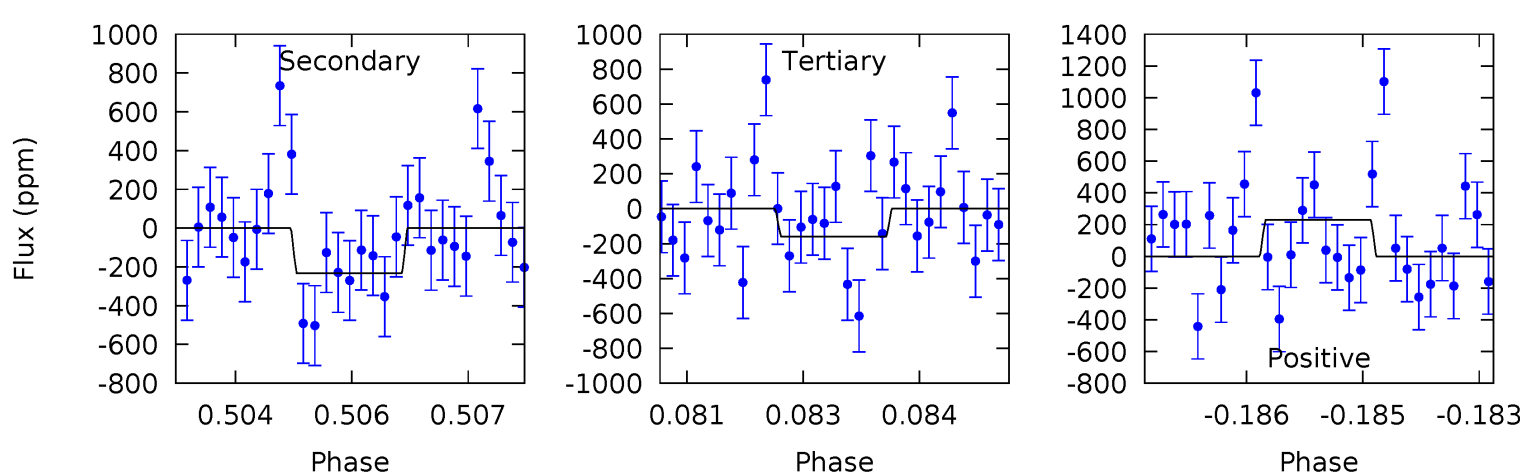
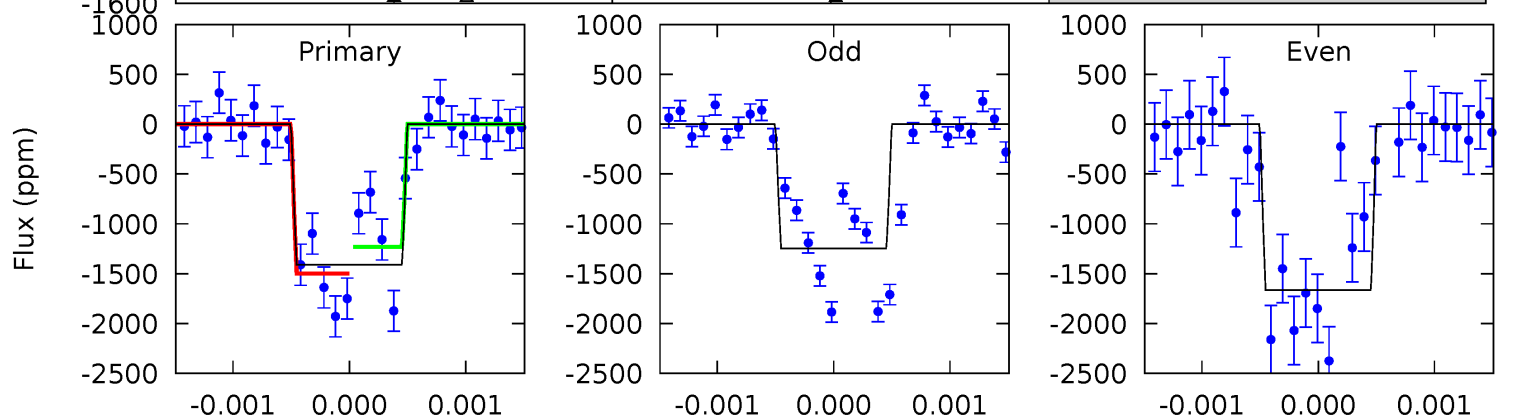
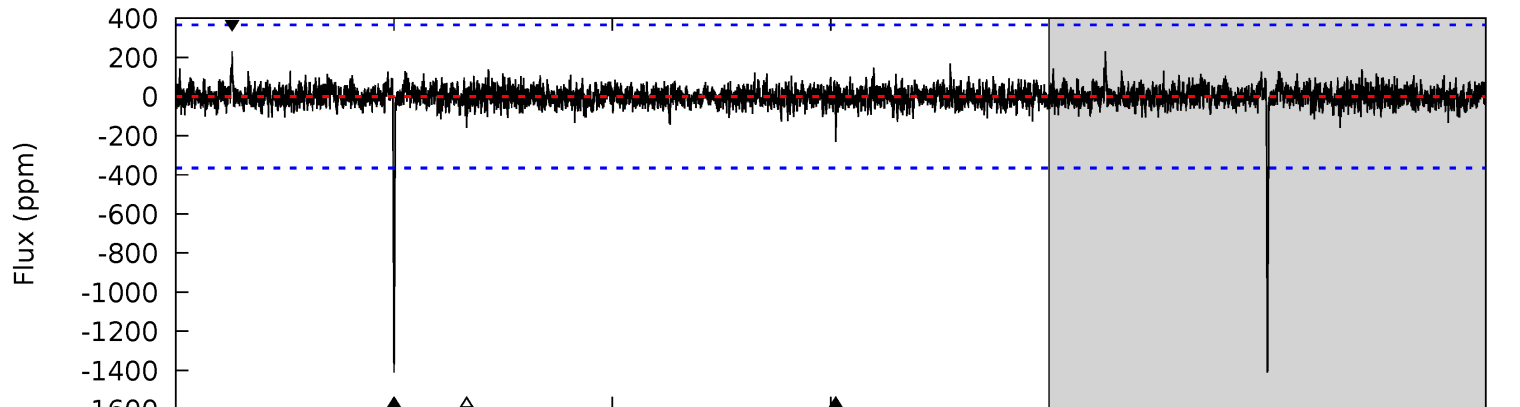
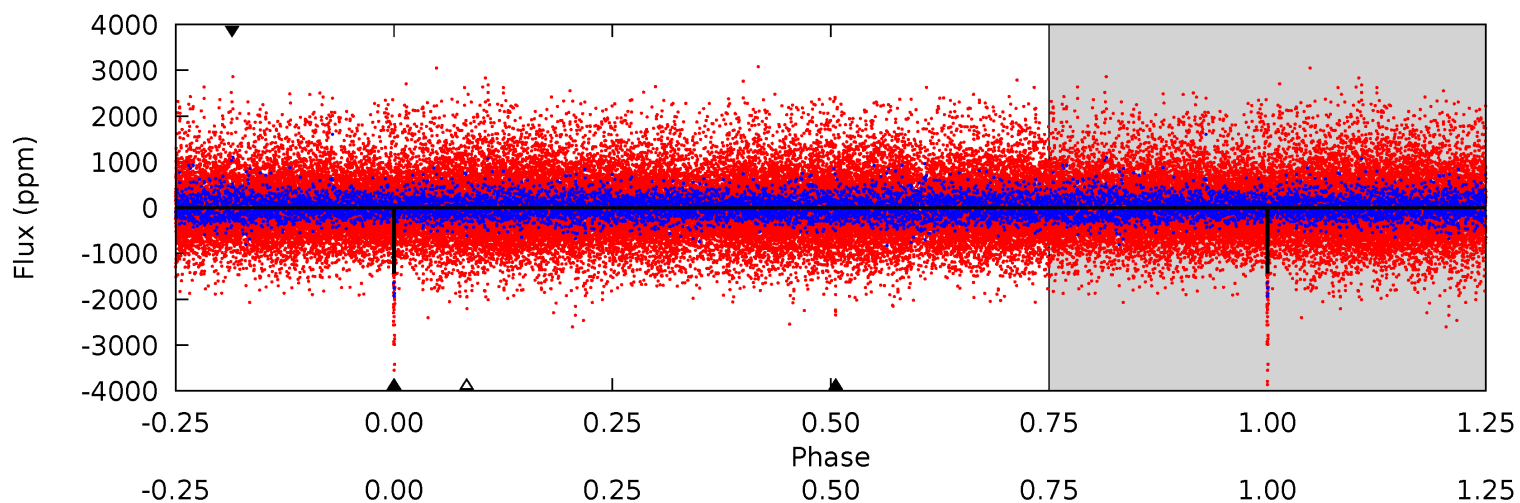
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.48	6.55	6.53	13.0	5.51	3.38	1.94	2.96	-3.49	0.03	-6.42	2.35	0.51	0.58	0.03



Alt Model-Shift Uniqueness Test

006692320-04, P = 305.985750 Days, E = 314.092942 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
20.7	3.41	2.34	3.38	5.38	3.18	0.54	18.4	17.4	1.06	0.03	3.13	1.38	0.14	1.95



Stellar Parameters For KIC 006692320

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	3454^{+69}_{-76}	$4.892^{+0.066}_{-0.044}$	$0.000^{+0.100}_{-0.100}$	$0.357^{+0.048}_{-0.058}$	$0.362^{+0.057}_{-0.069}$	$11.240^{+4.210}_{-2.149}$
	+2%/-2%	+1%/-1%	+inf%/-inf%	+13%/-16%	+16%/-19%	+37%/-19%
Source	PHO2	PHO2	PHO2	DSEP		

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

Secondary Eclipse Parameters for KIC 006692320-04 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-901 ± 138	$3.32^{+2.88}_{-2.30}$	159^{+5}_{-6}	2565^{+1015}_{-350}	$18195^{+169880}_{-13084}$
Alt.	-232 ± 68	$3.20^{+3.20}_{-2.34}$	159^{+5}_{-5}	2213^{+827}_{-311}	4803^{+60986}_{-3606}

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 $A_{obs} \gg 1.0$

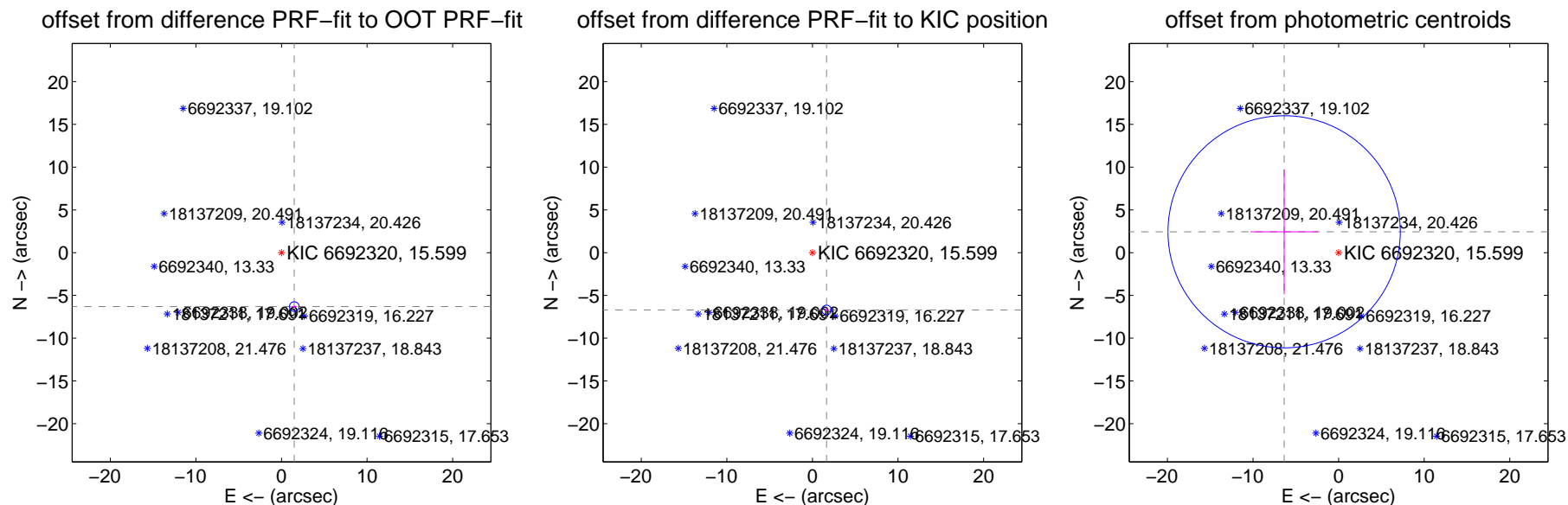
DV Centroid Data

Supplemental centroid analysis for 006692320-04. Kepler magnitude: 15.60. Transit SNR 5.10

There are 1 quarters with good PRF difference image offsets

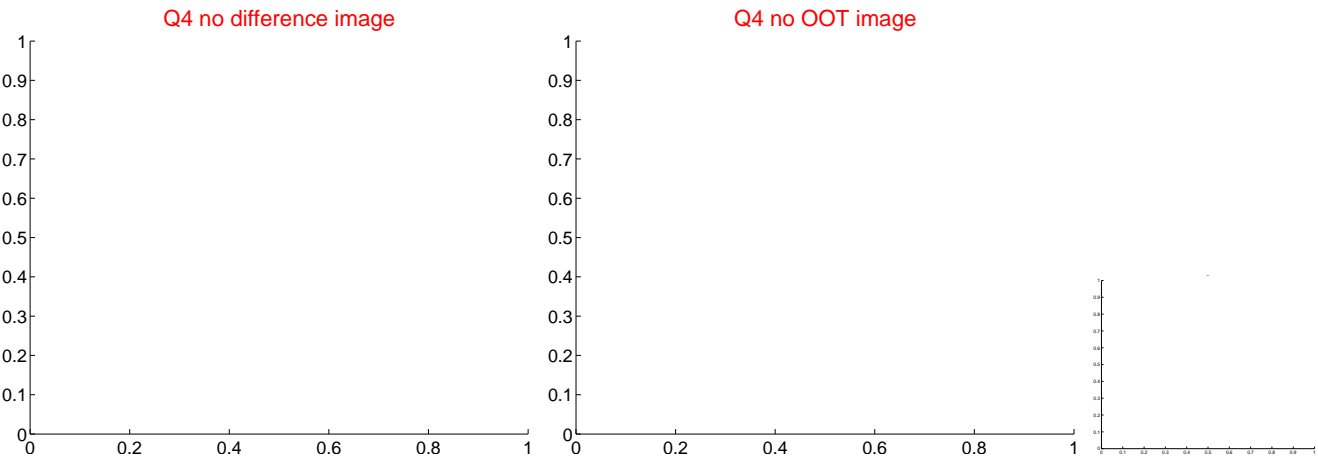
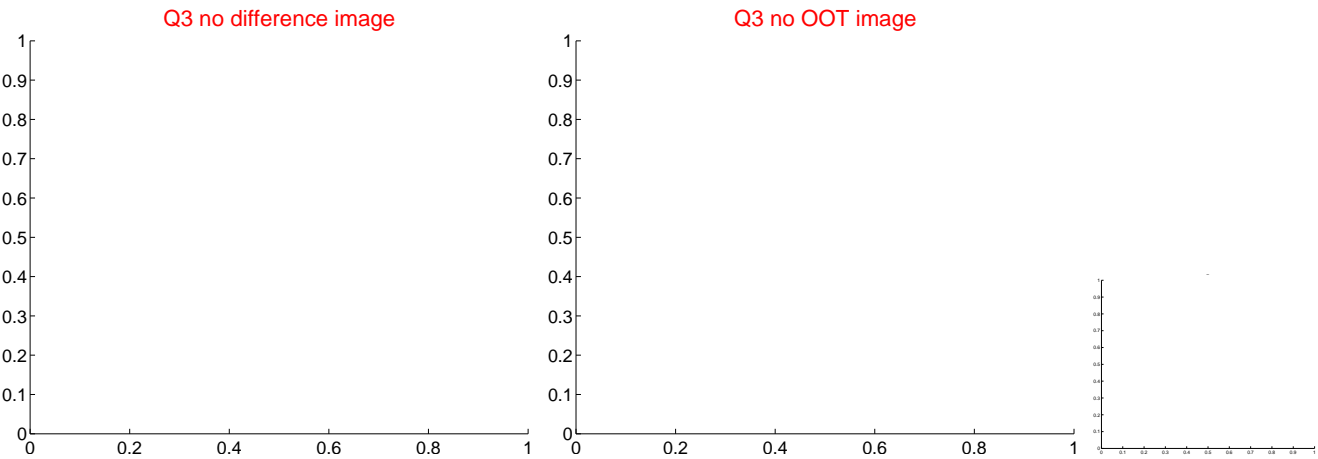
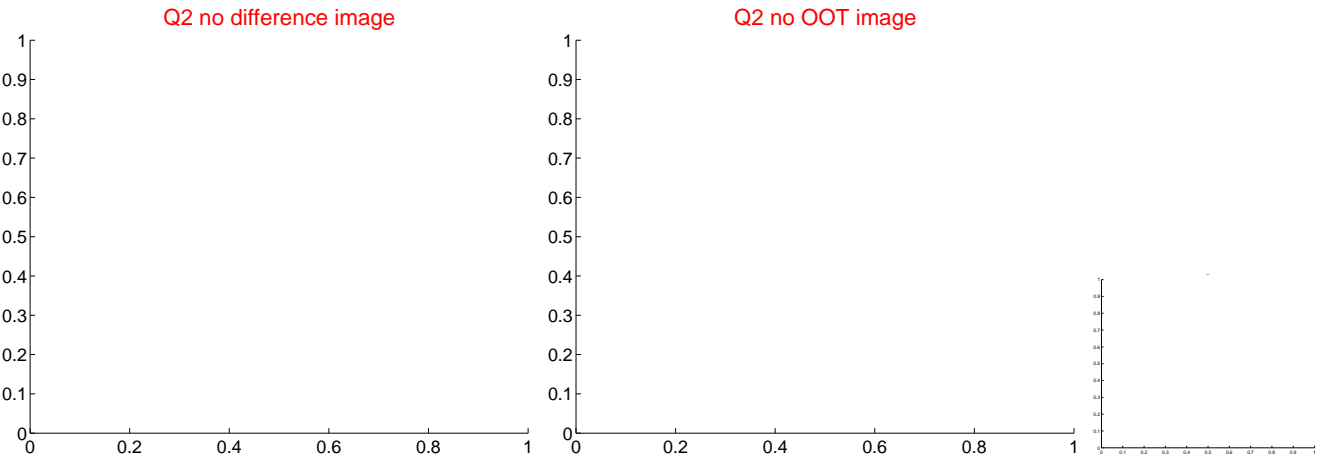
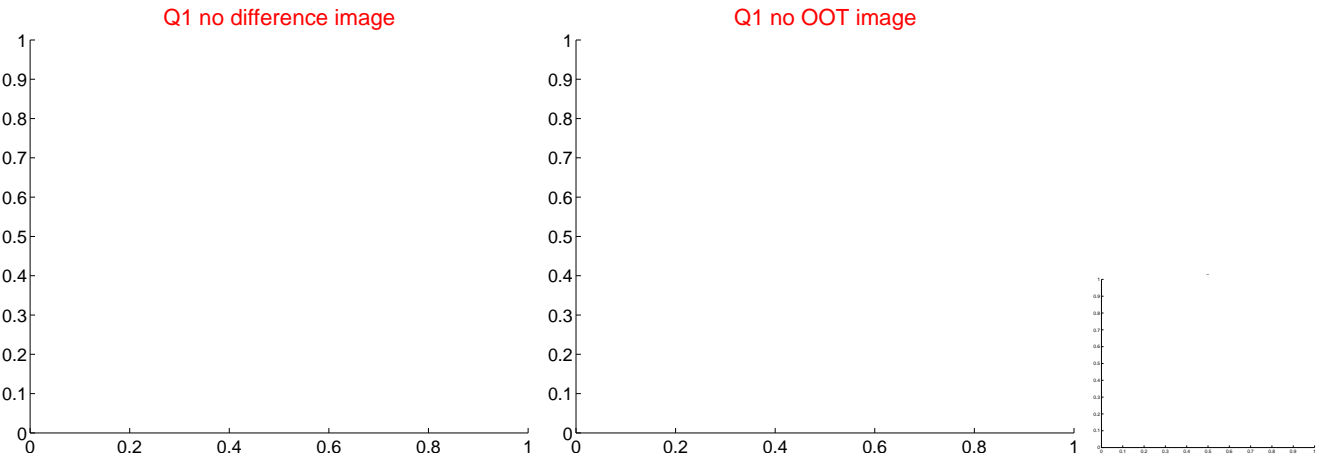
The direct PRF centroid is offset from the target star catalog position by about 0.43 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	6.474 ± 0.187	34.68	-1.491 ± 0.268	-6.300 ± 0.181
PRF-fit source offset from KIC position	6.901 ± 0.187	36.88	-1.650 ± 0.268	-6.701 ± 0.181
photometric centroid source offset	6.81 ± 4.52	1.51	6.36 ± 3.95	2.44 ± 7.31

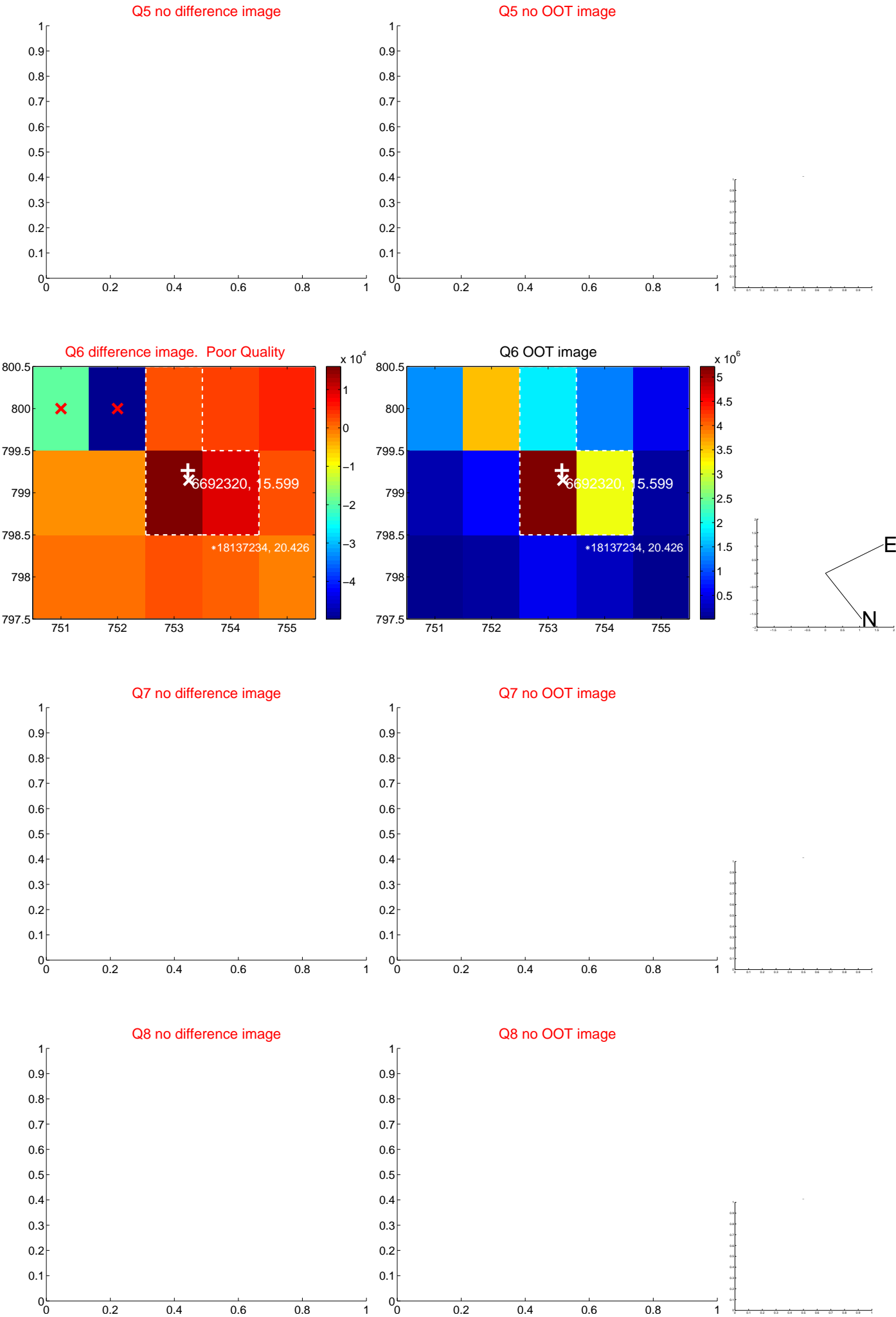


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

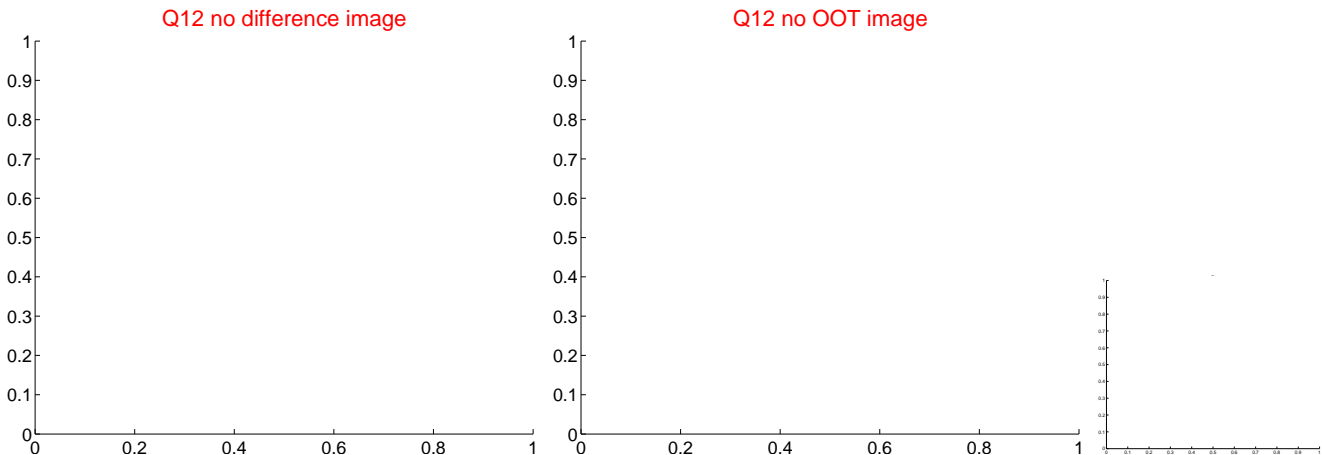
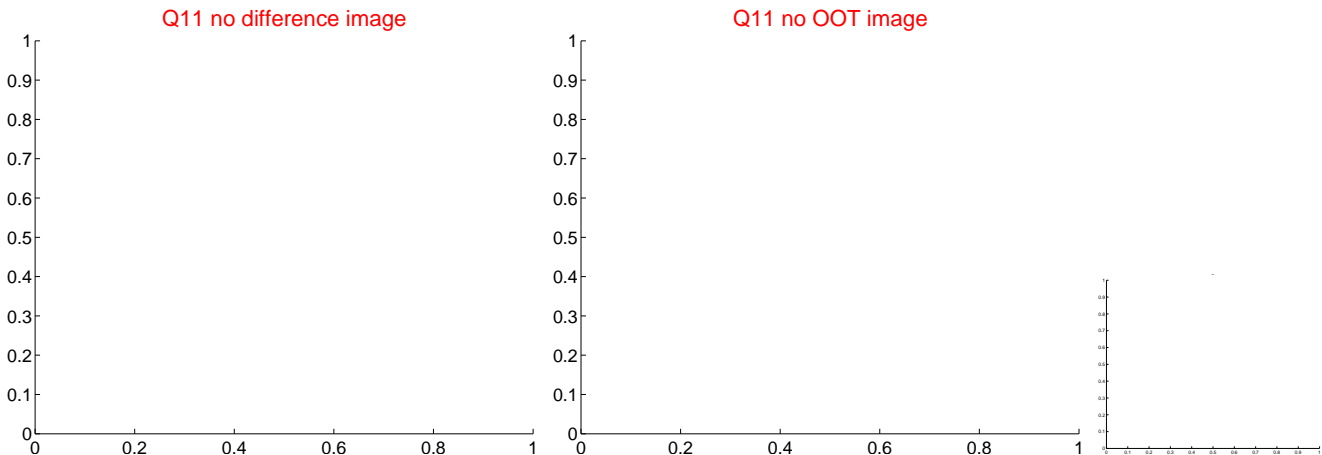
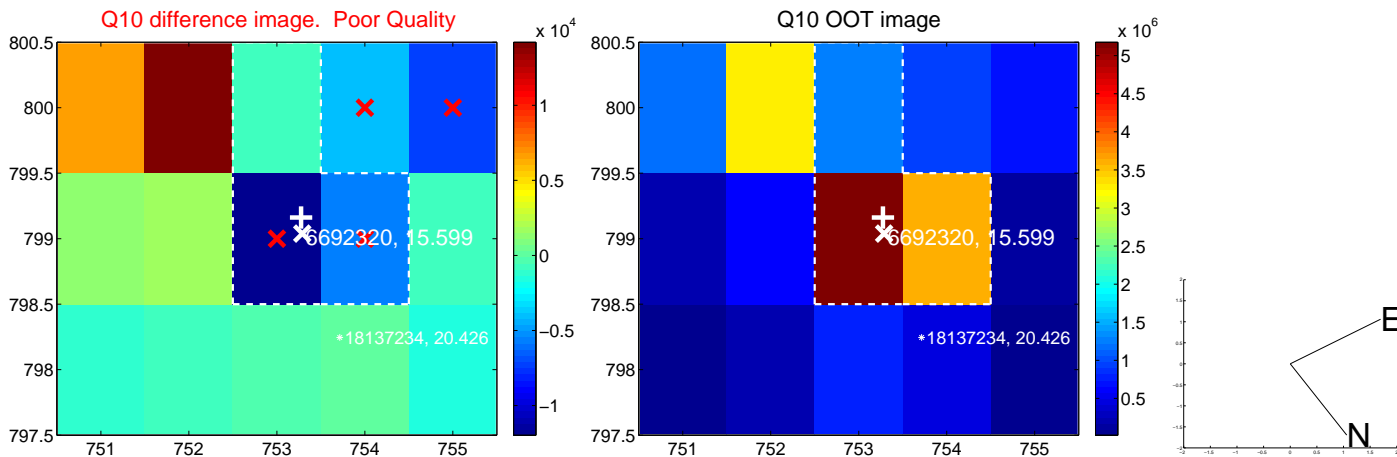
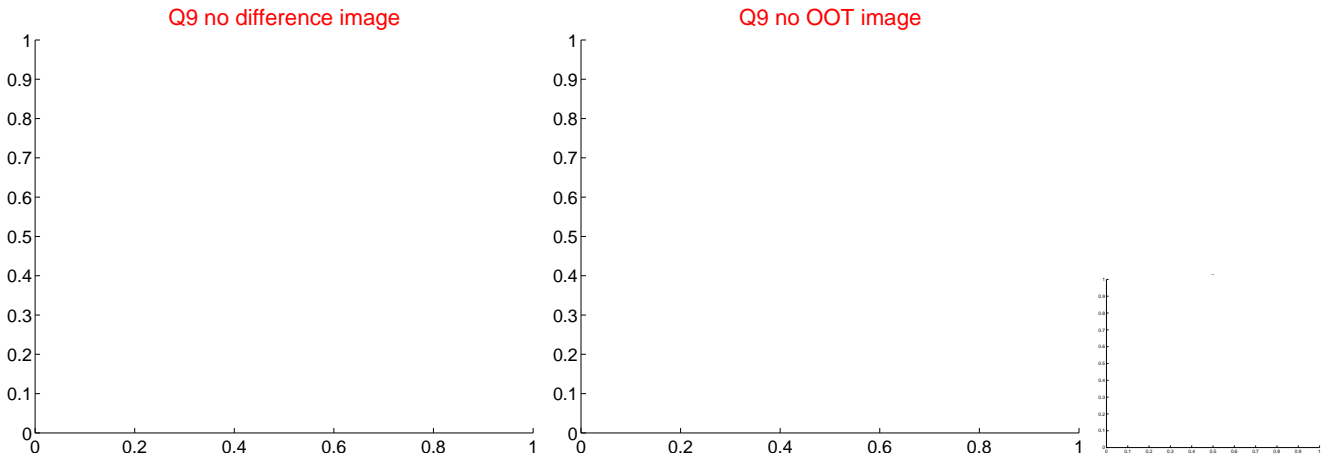
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



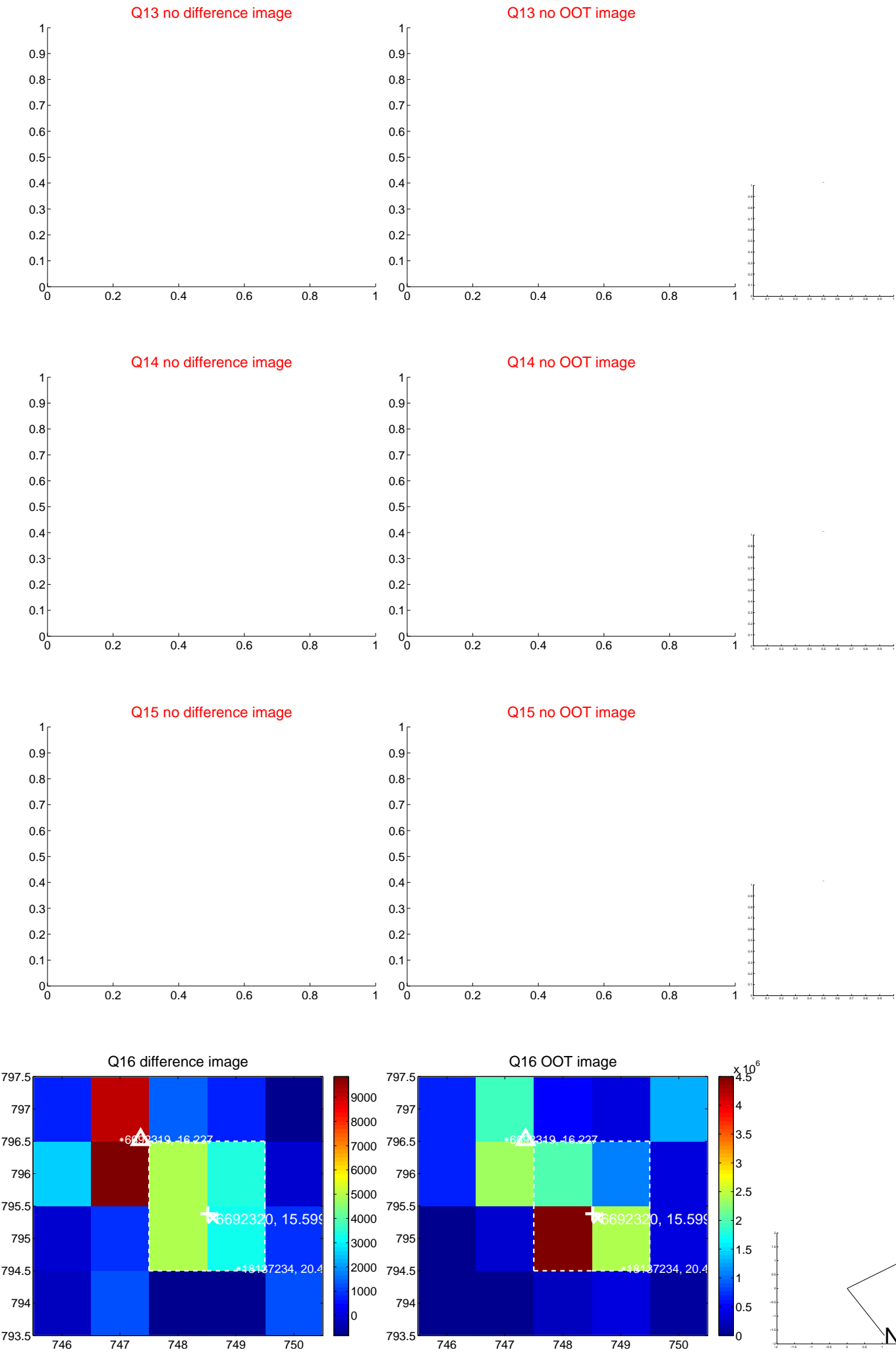
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



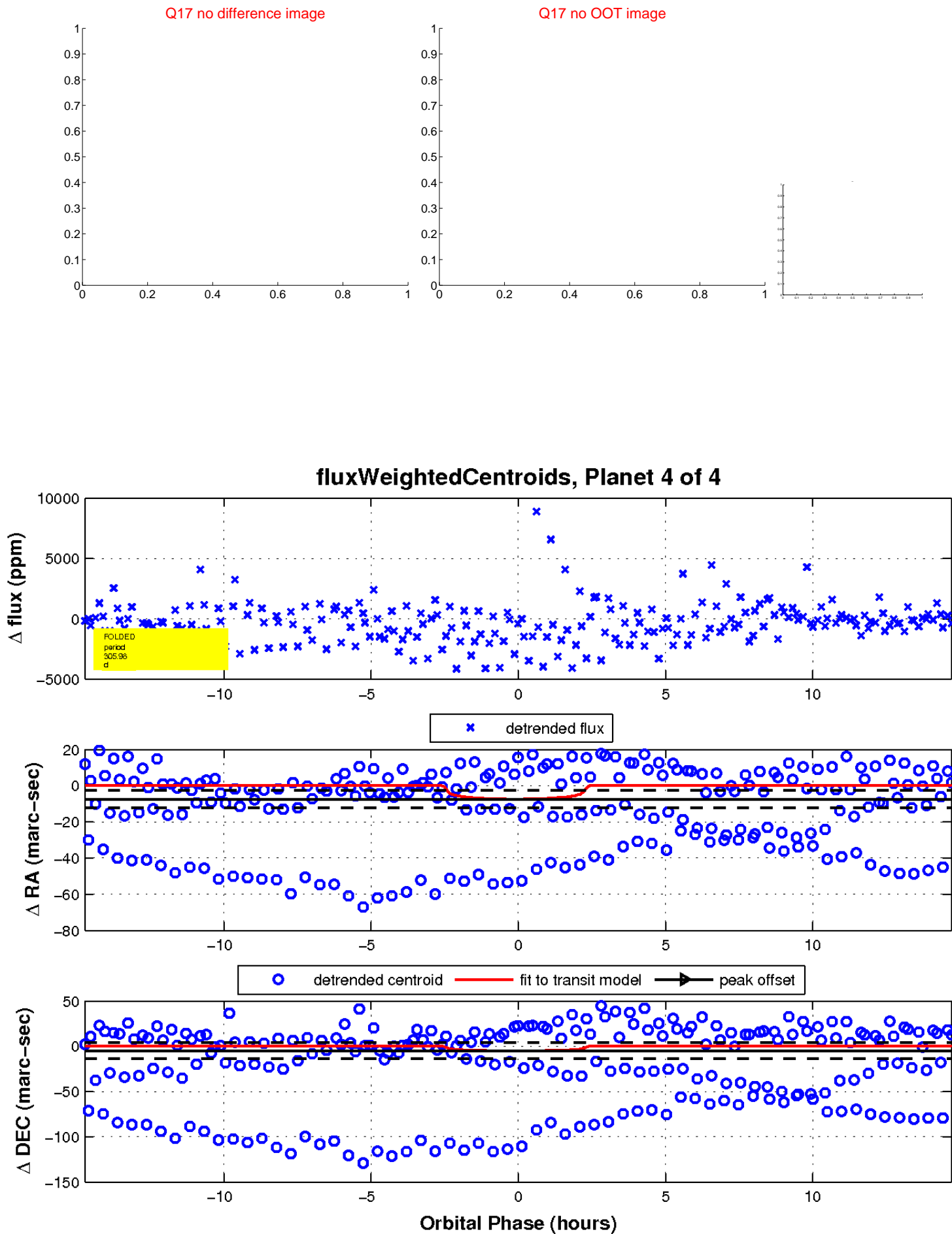
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



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



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



UKIRT Image

Declination

