

KIC 007799701

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})
007799701-01	OBS	4903.01	386.821975	159.161416	1214.6	4.905	16.5	17.3	1.61	6384	9.56	3.15
007799701-02	OBS	No	368.405051	251.250299	1164.9	5.025	15.3	14.5	1.61	6384	7.80	3.37
007799701-03	OBS	No	386.826296	177.572419	1041.3	4.894	12.2	14.3	1.61	6384	6.54	3.15
007799701-04	OBS	No	294.729298	398.595623	728.3	4.405	9.6	9.3	1.61	6384	5.60	4.53

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007799701-01	OBS	FP	0.00	0	1	1	0	MOD_SEC_DV—DEEP_V_SHAPED—HAS_SEC_TCE—CENT_RESOLVED_OFFSET—HALO_GHOST
007799701-02	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_MARSHALL_SKYE—CENT_RESOLVED_OFFSET—HALO_GHOST
007799701-03	OBS	FP	0.00	1	1	1	0	IS_SEC_TCE—CENT_FEW_DIFFS—HALO_GHOST
007799701-04	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—INCONSISTENT_TRANS—CENT_RESOLVED_OFFSET

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 007799701-01

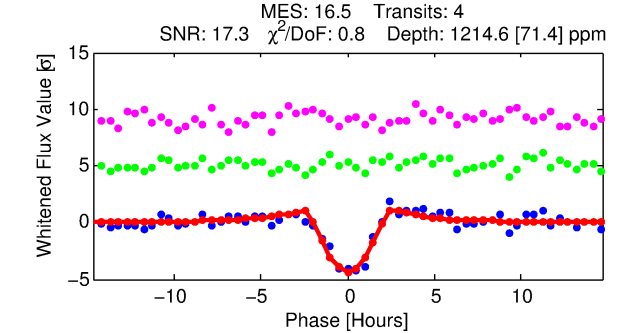
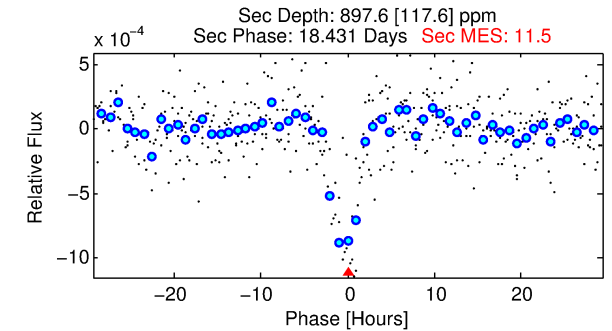
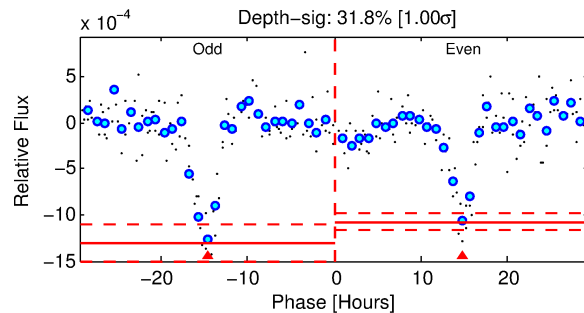
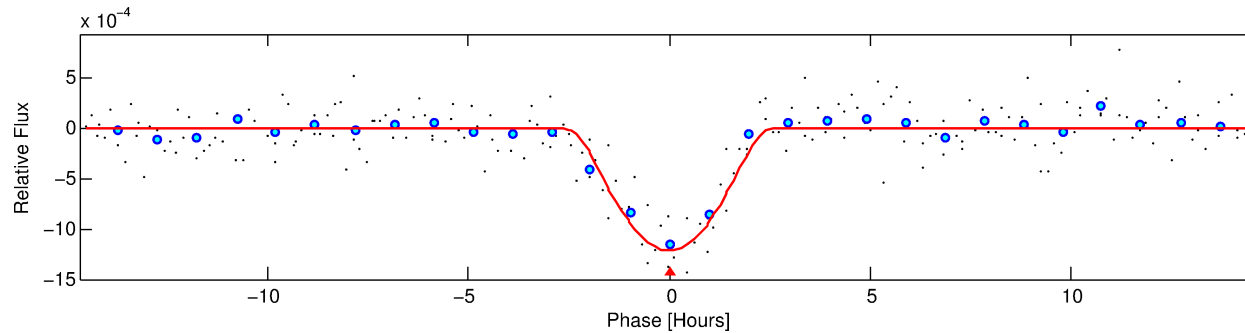
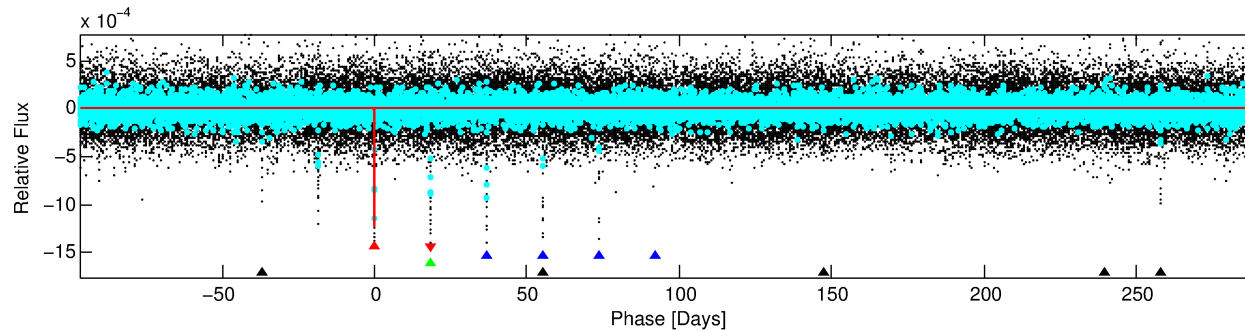
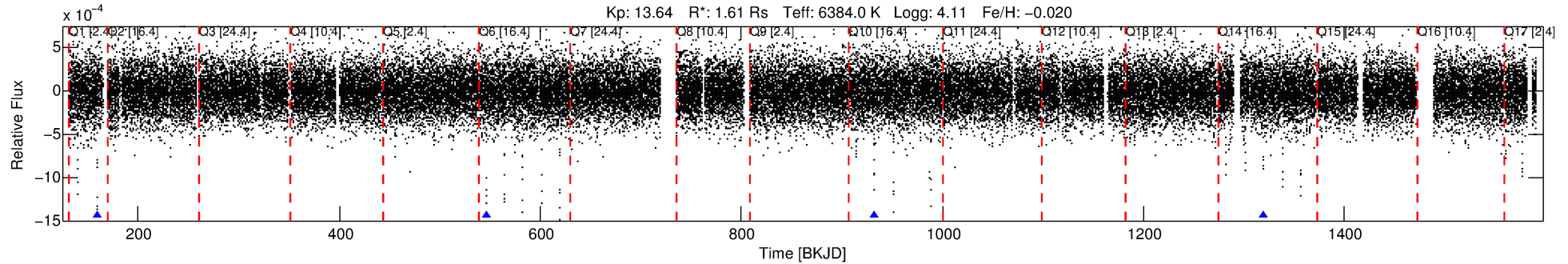
No Significant Match Found

DV One-Page Summary

KIC: 7799701 Candidate: 1 of 4 Period: 386.822 d

KOI: K04903 Corr: No Ephemeris Match

Kp: 13.64 R*: 1.61 Rs Teff: 6384.0 K Logg: 4.11 Fe/H: -0.020



DV Fit Results:

Period = 386.82197 [0.00240] d
Epoch = 159.1614 [0.0045] BKJD
Rp/R* = 0.0542 [0.0626]
a/R* = 217.51 [70.74]
b = 0.99 [0.10]
Seff = 3.15 [1.43]
Teq = 340 [38] K
Rp = 9.56 [11.37] Re
a = 1.1096 [0.3014] AU
Ag = 6656.73 [15642.45] [0.43σ]
Teffp = 4745 [2748] K [1.60σ]

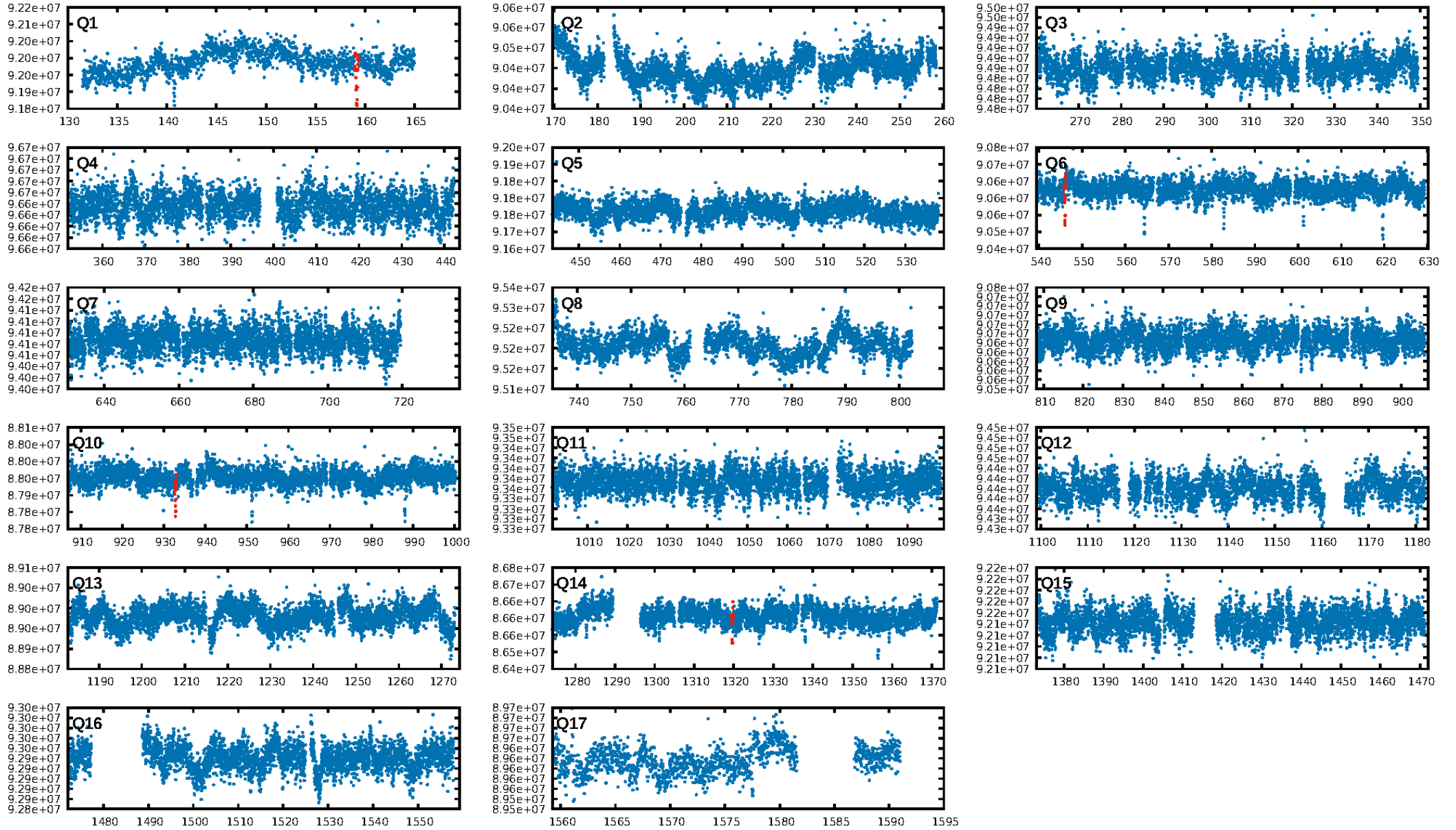
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [62.95σ]
LongPeriod-sig: 1.2% [0.01σ]
ModelChiSquare2-sig: 26.4%
ModelChiSquareGof-sig: 99.3%
Bootstrap-pfa: 2.03e-26
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 0.1967
Centroid-sig: 0.0%
Centroid-so: 20.990 arcsec [27.48σ]
OotOffset-rm: N/A
KicOffset-rm: N/A
OotOffset-st: 0/0/0/0 [0]
KicOffset-st: 0/0/0/0 [0]
DiffImageQuality-fgm: N/A
DiffImageOverlap-fno: 1.00 [4/4]

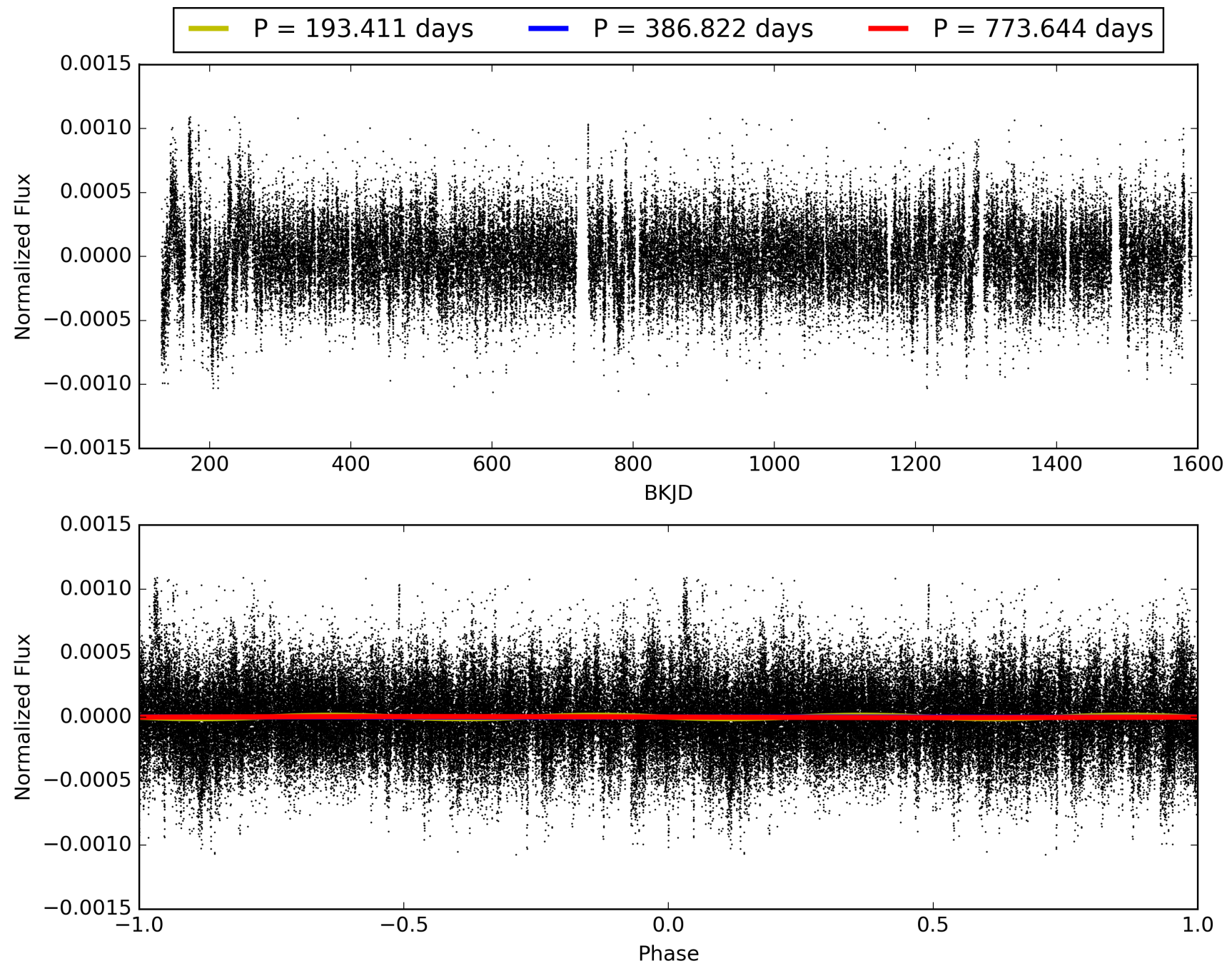
Software Revision: svn-ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 20:07:14 Z

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

TCE 007799701-01, PDC Light Curves

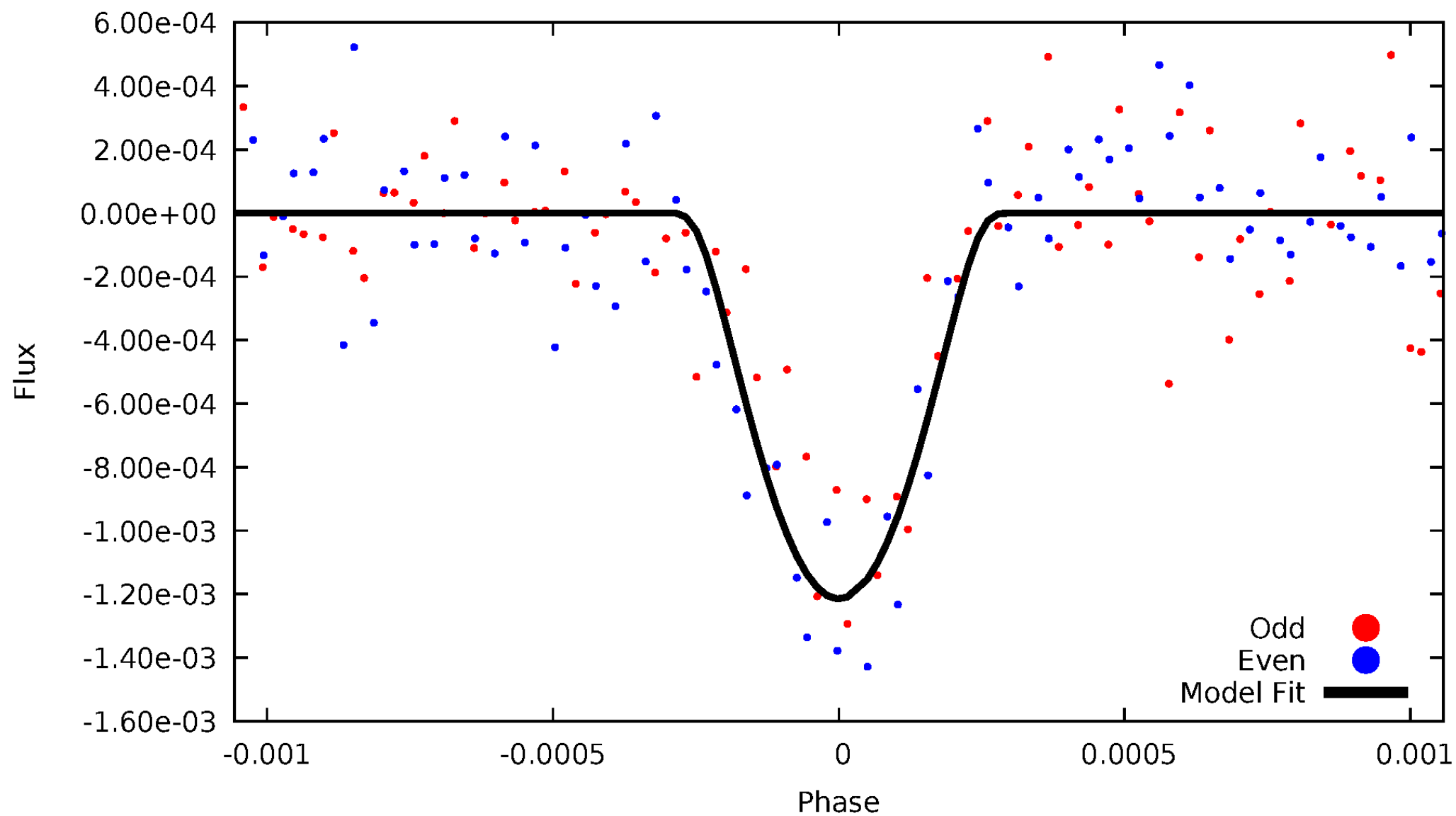


TCE 007799701-01



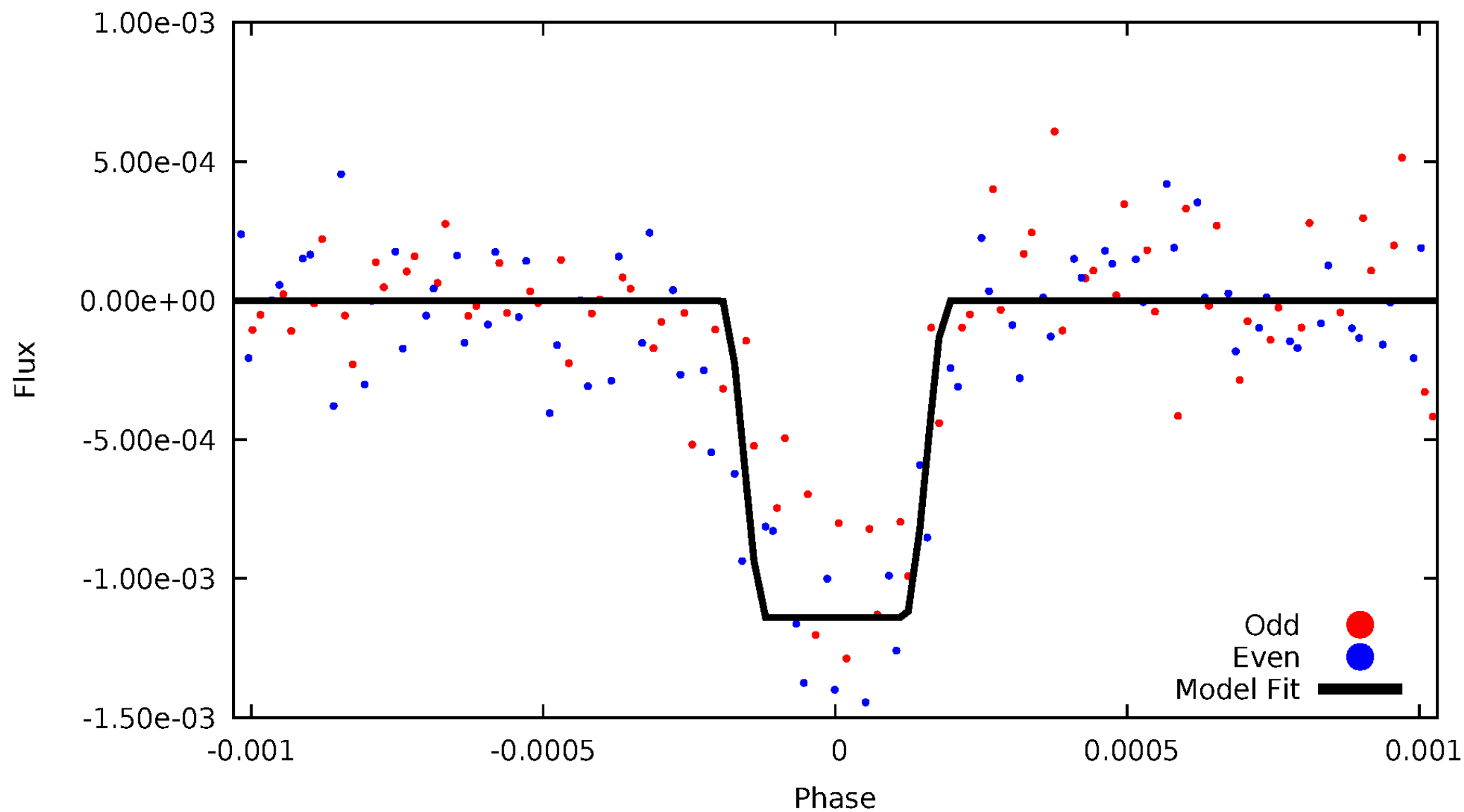
DV Odd/Even

TCE 007799701-01



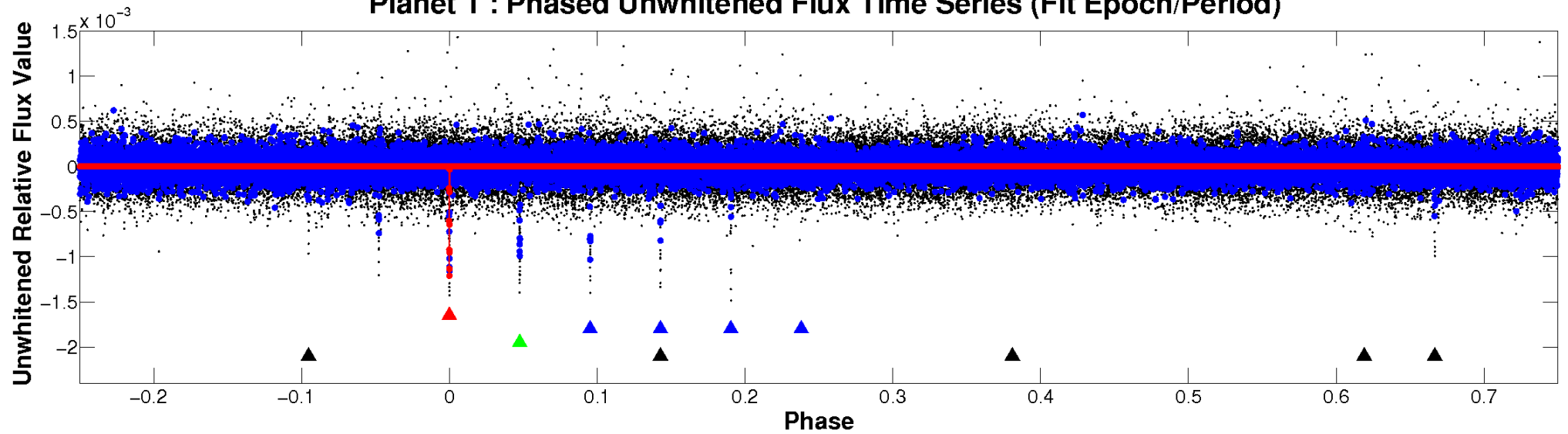
ALT Odd/Even

TCE 007799701-01

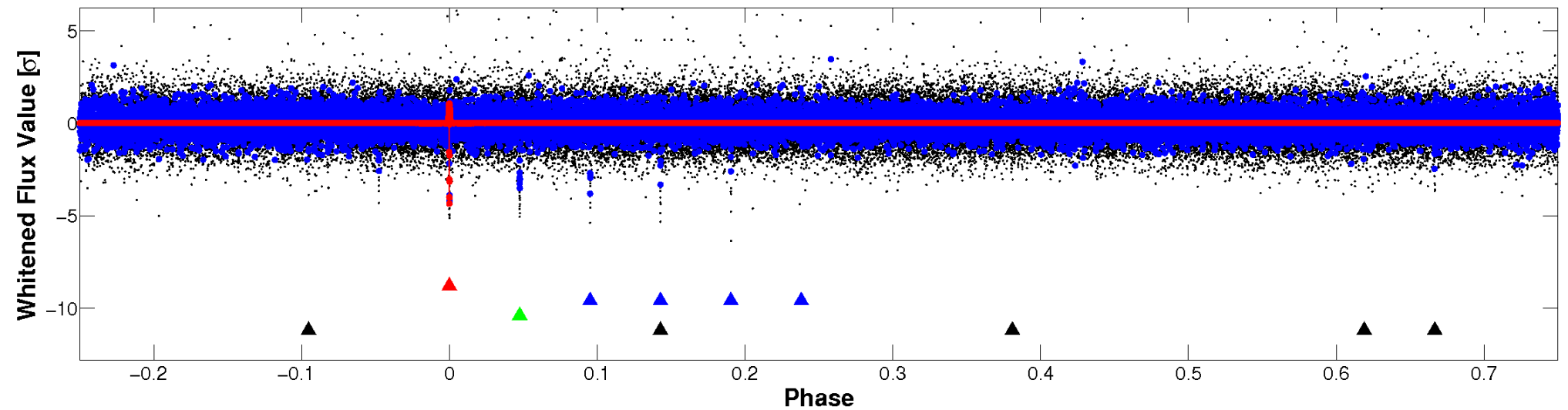


Non-Whitened Vs. Whitened Light Curve

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

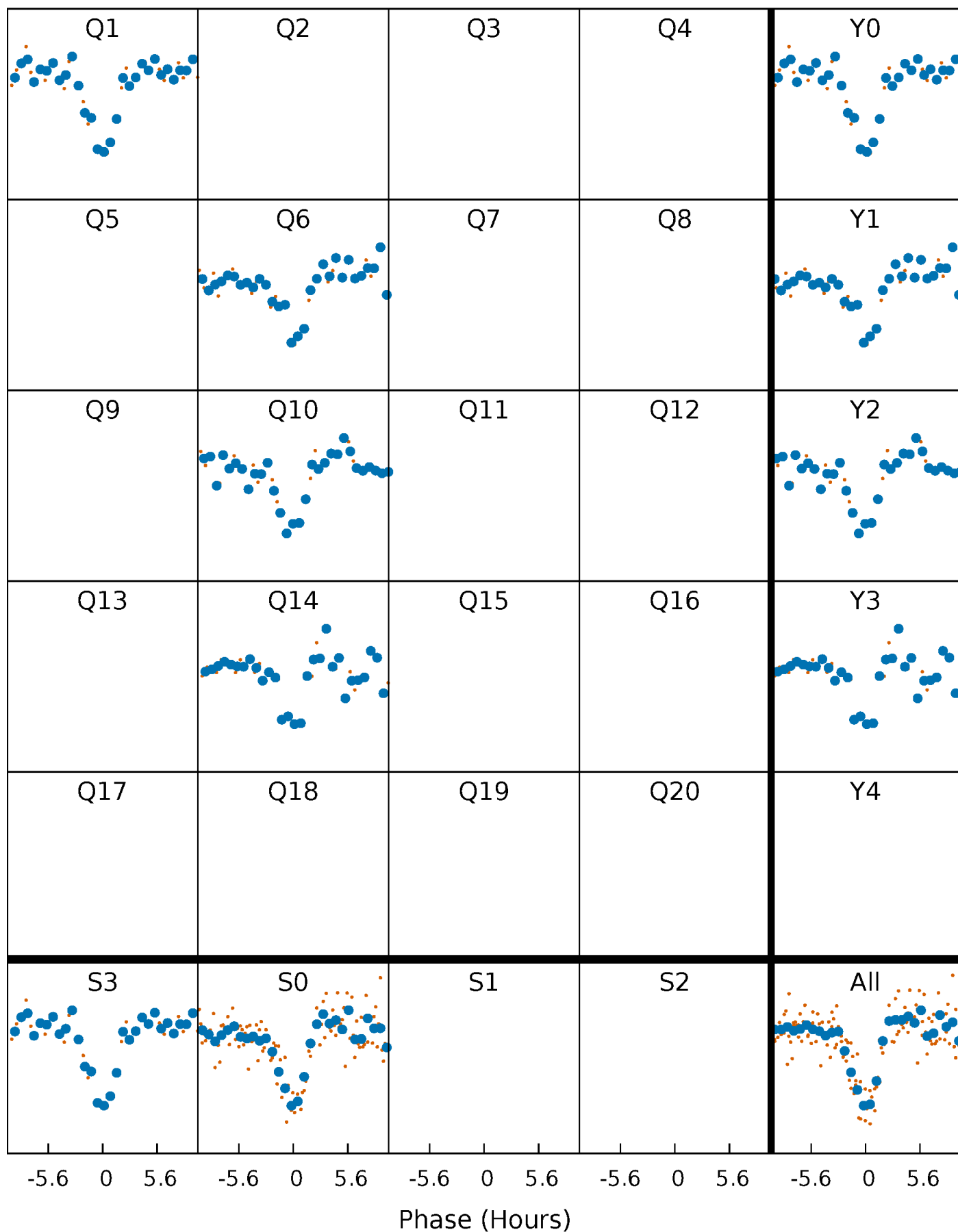


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



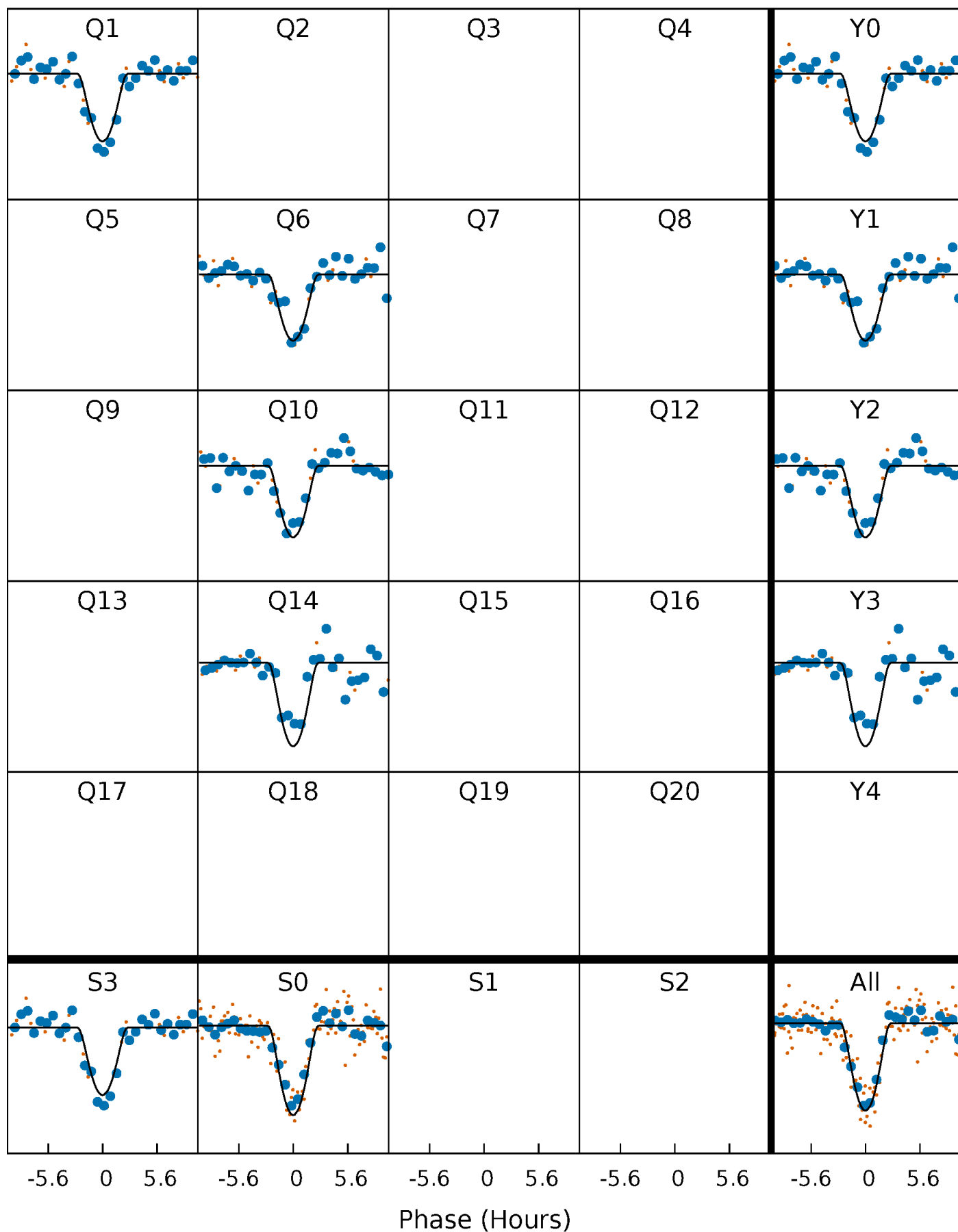
PDC Quarter-Phased Transit Curves

TCE 007799701-01 P=386.821975 Days $T_0=159.161416$ (BKJD)



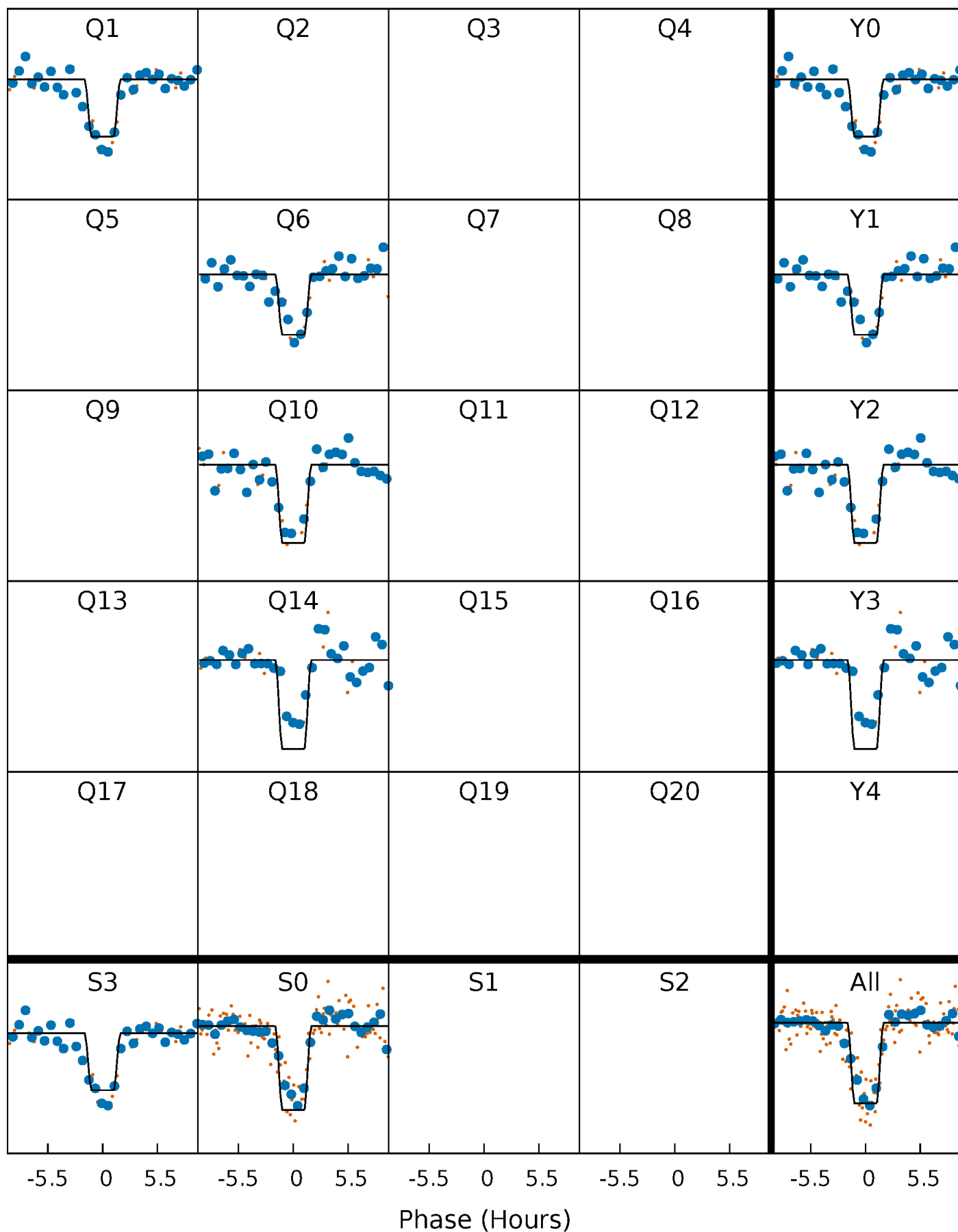
DV Quarter-Phased Transit Curves

TCE 007799701-01 P=386.821975 Days $T_0=159.161416$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

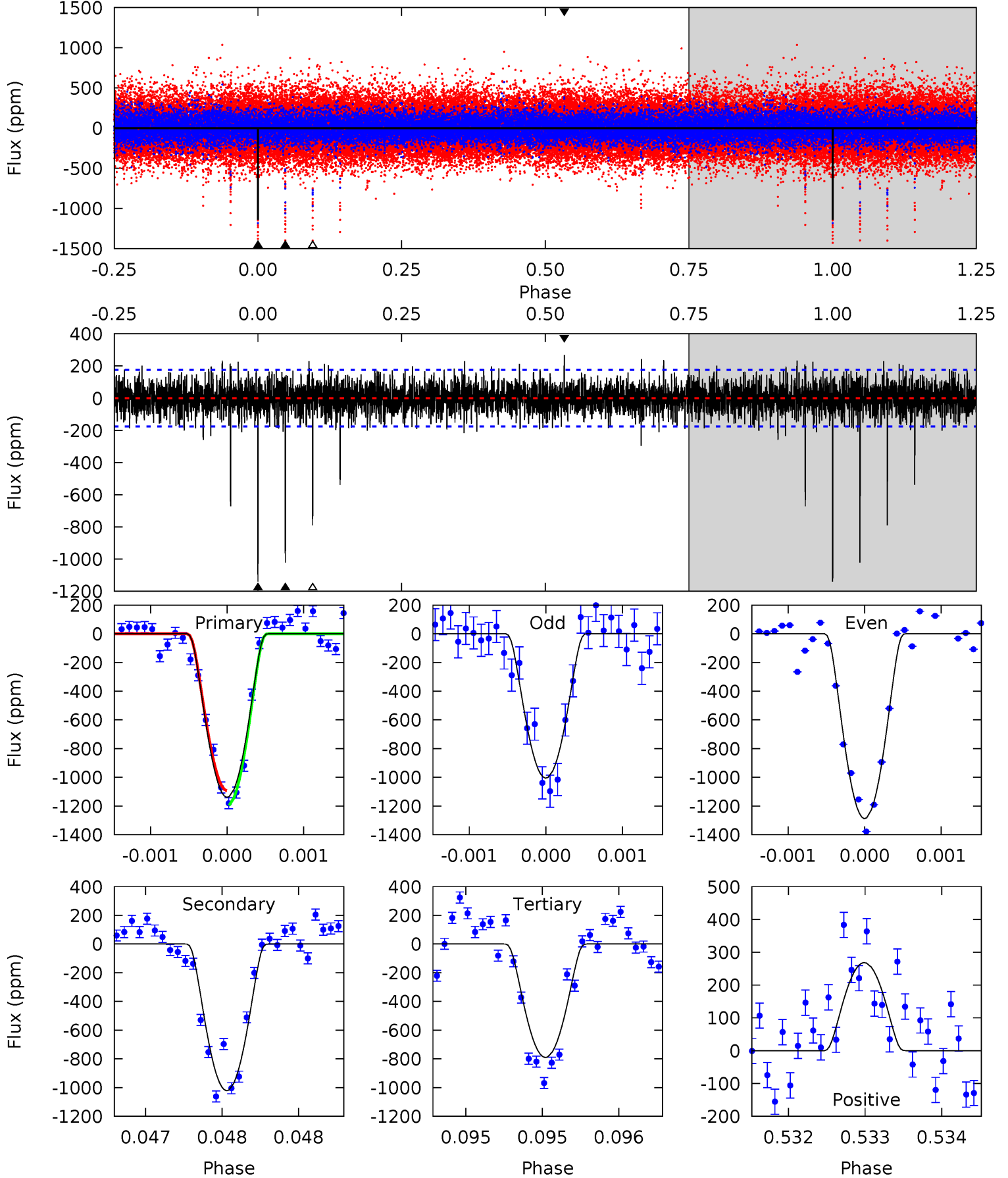
TCE 007799701-01 P=386.820913 Days $T_0=159.160826$ (BKJD)



DV Model-Shift Uniqueness Test

007799701-01, P = 386.821975 Days, E = 159.161416 Days

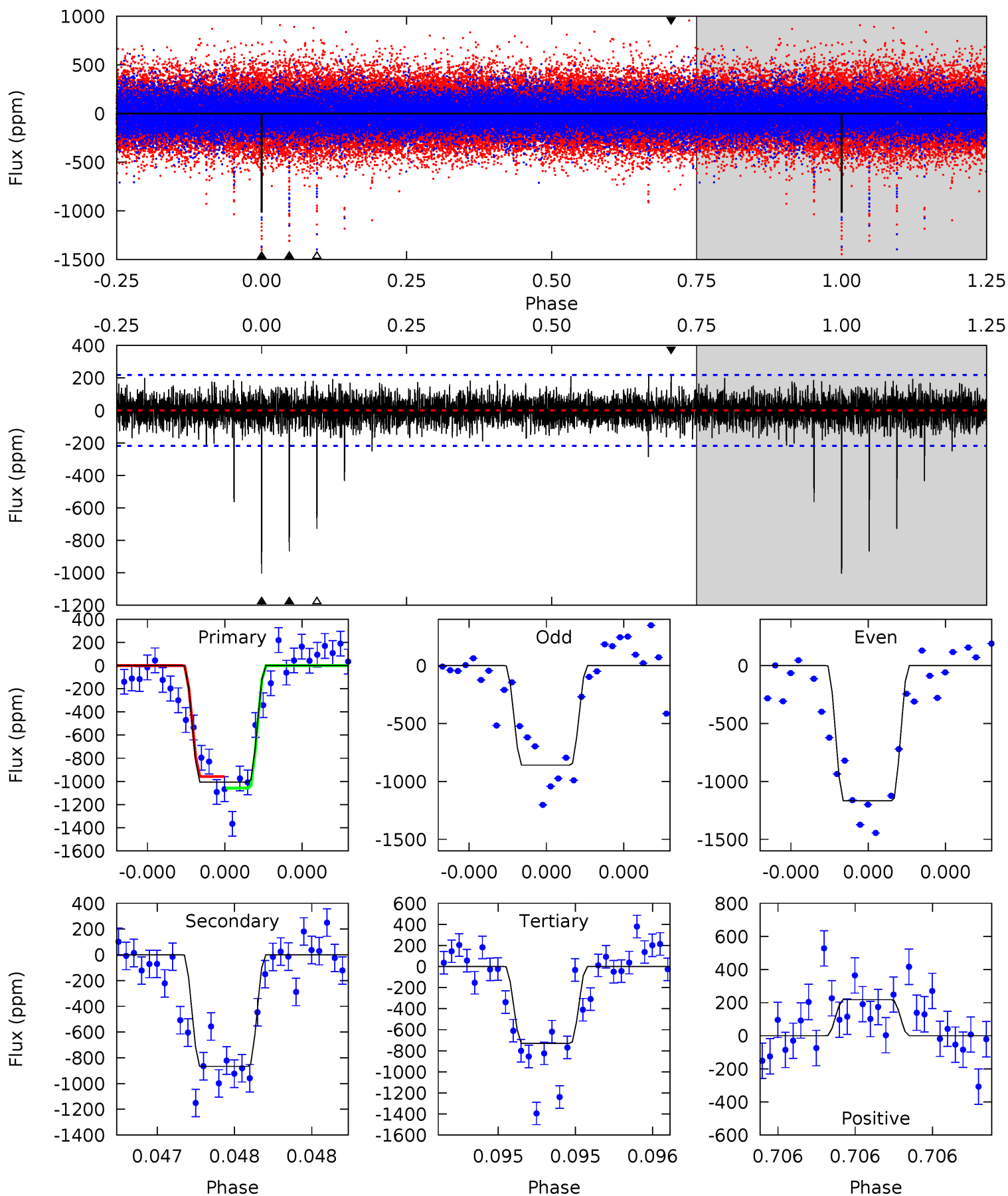
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
36.0	32.3	25.0	8.49	5.56	3.46	2.23	11.0	27.5	7.32	23.8	4.46	1.01	0.19	1.62



Alt Model-Shift Uniqueness Test

007799701-01, P = 386.820913 Days, E = 159.160826 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
25.9	22.4	18.8	5.62	5.63	3.56	1.55	7.13	20.3	3.56	16.7	3.94	1.02	0.18	1.27



Stellar Parameters For KIC 007799701

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6384^{+179}_{-247}	$4.107^{+0.246}_{-0.164}$	$-0.020^{+0.250}_{-0.300}$	$1.615^{+0.473}_{-0.426}$	$1.216^{+0.211}_{-0.192}$	$0.406^{+0.534}_{-0.200}$
	+3%/-4%	+6%/-4%	+1250%/-1500%	+29%/-26%	+17%/-16%	+131%/-49%
Source	PHO54	PHO54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 007799701-01 / KOI 4903.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-1022 ± 32	$11.81^{+10.51}_{-7.42}$	468^{+37}_{-40}	4465^{+2690}_{-848}	4933^{+30829}_{-3528}
Alt.	-867 ± 39	$9.95^{+9.17}_{-6.74}$	469^{+40}_{-36}	4715^{+3442}_{-1007}	5961^{+53088}_{-4338}

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

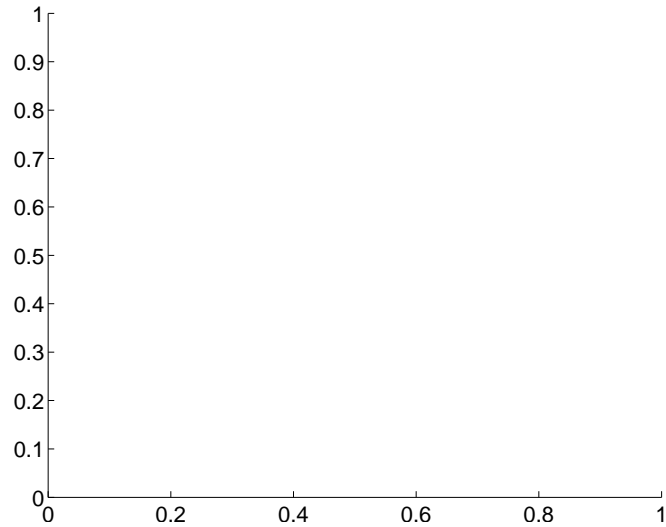
Supplemental centroid analysis for 007799701-01. Kepler magnitude: 13.64. Transit SNR 17.34

There are 0 quarters with good PRF difference image offsets

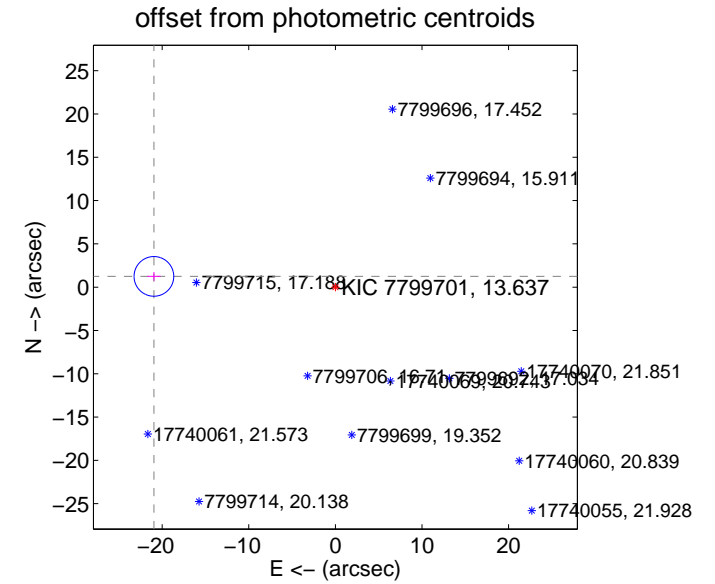
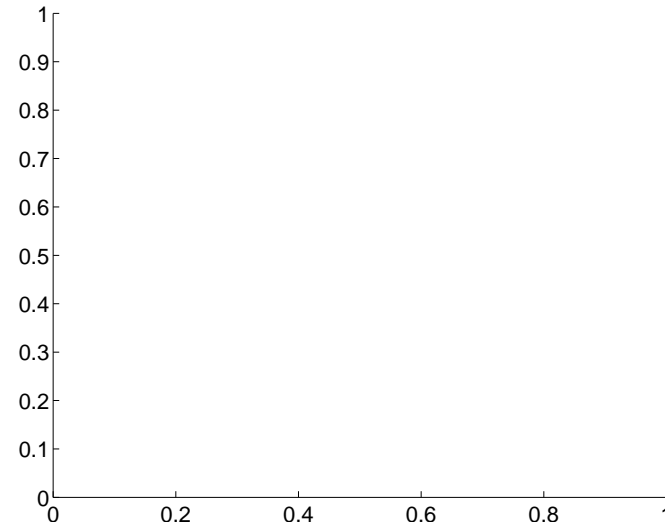
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	—	—	—	—
PRF-fit source offset from KIC position	—	—	—	—
photometric centroid source offset	20.99 ± 0.76	27.48	20.95 ± 0.76	1.24 ± 0.50

There is no PRF-fit offset from OOT-fit

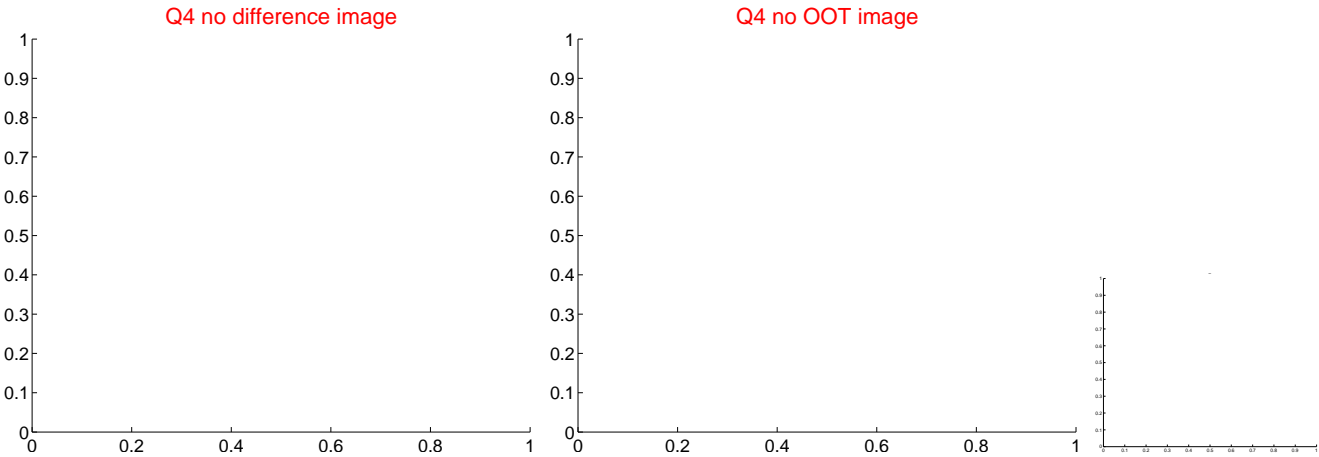
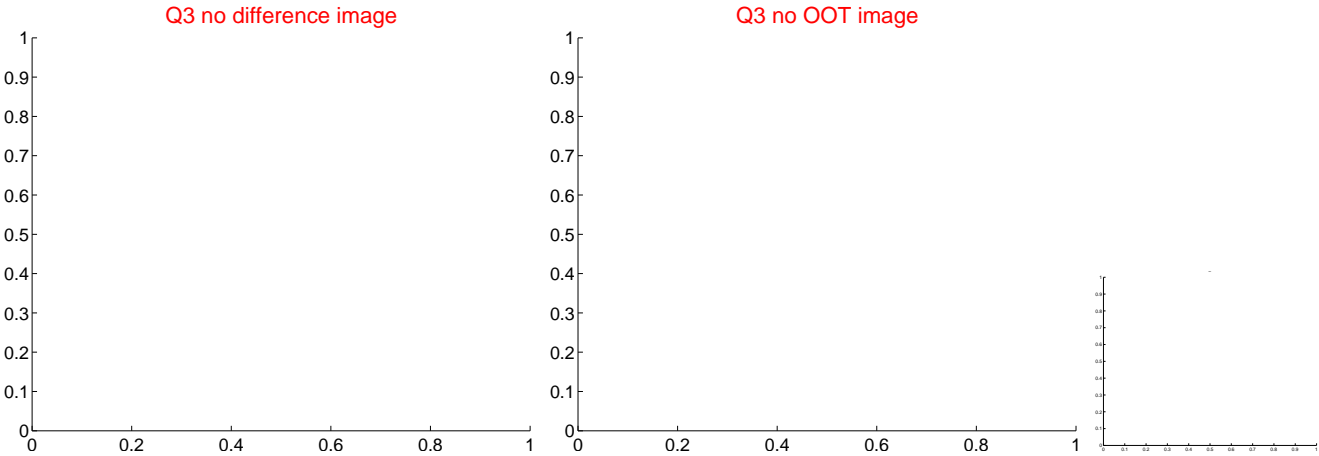
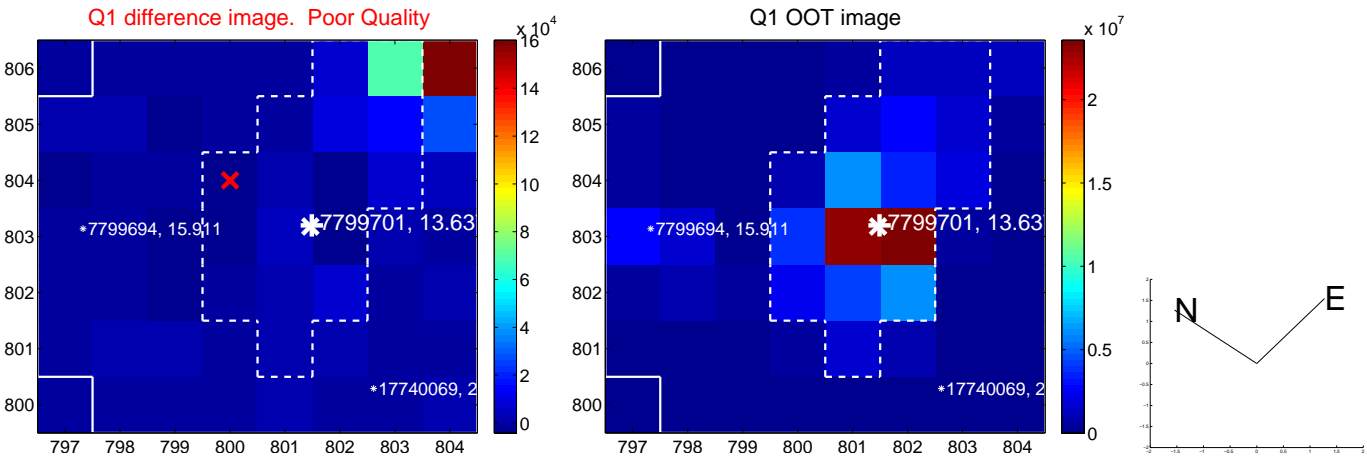


There is no PRF-fit offset from KIC

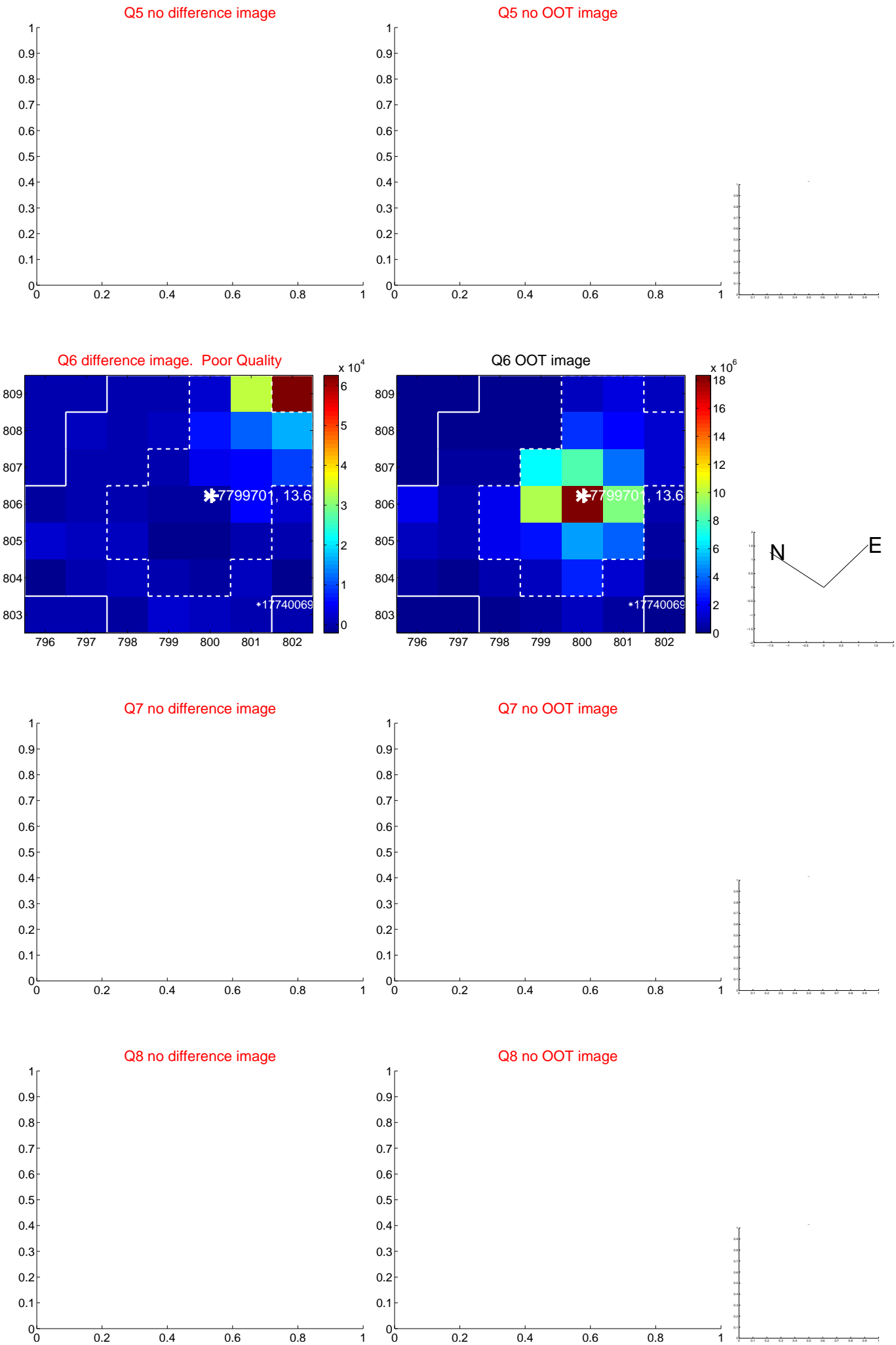


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

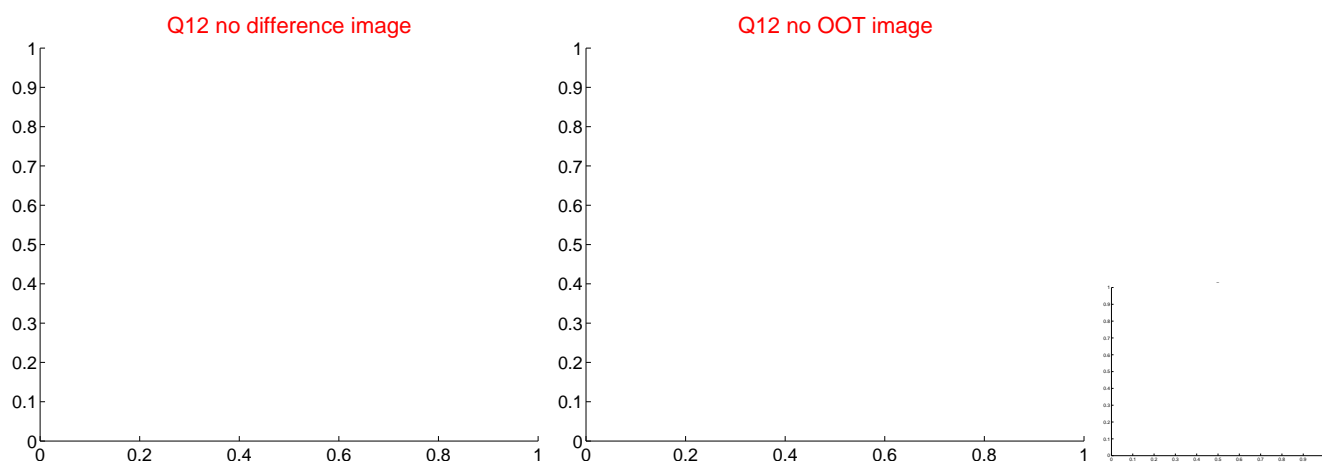
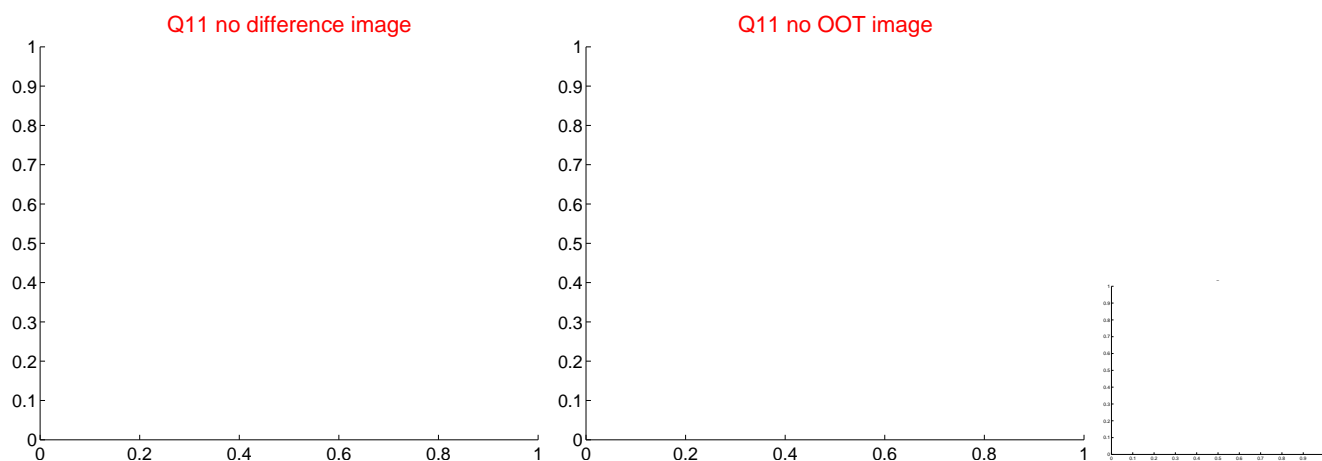
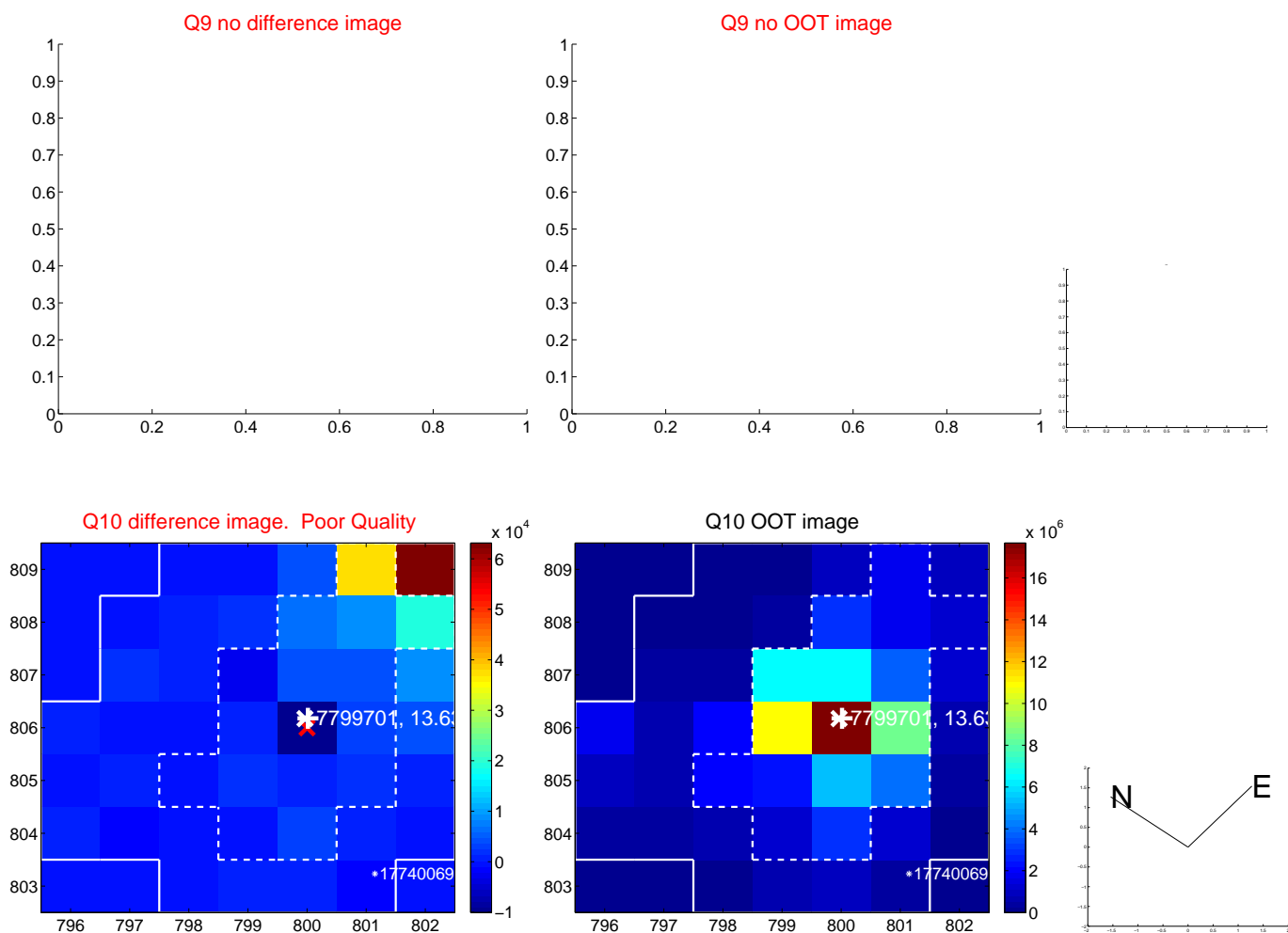
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



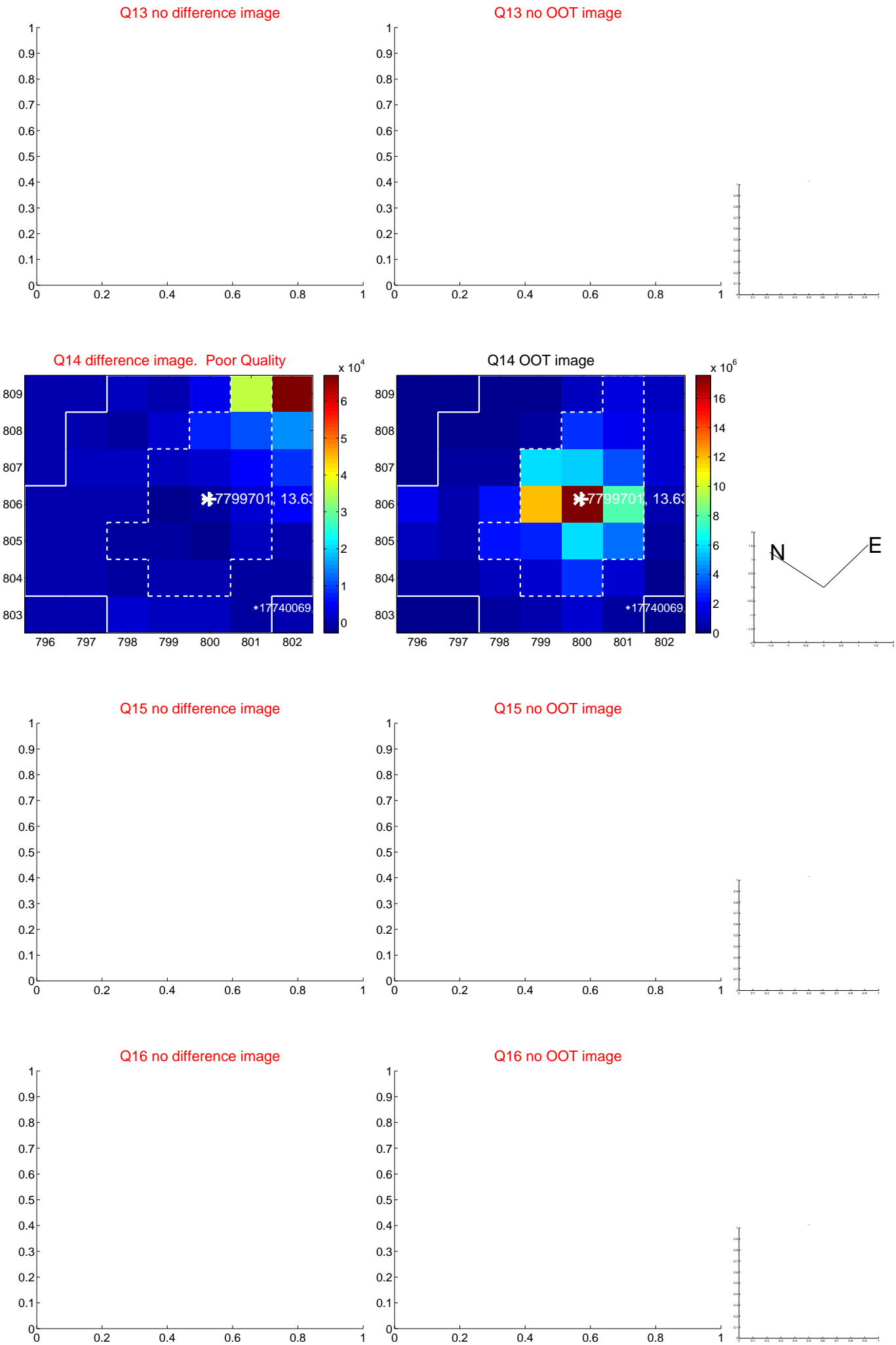
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



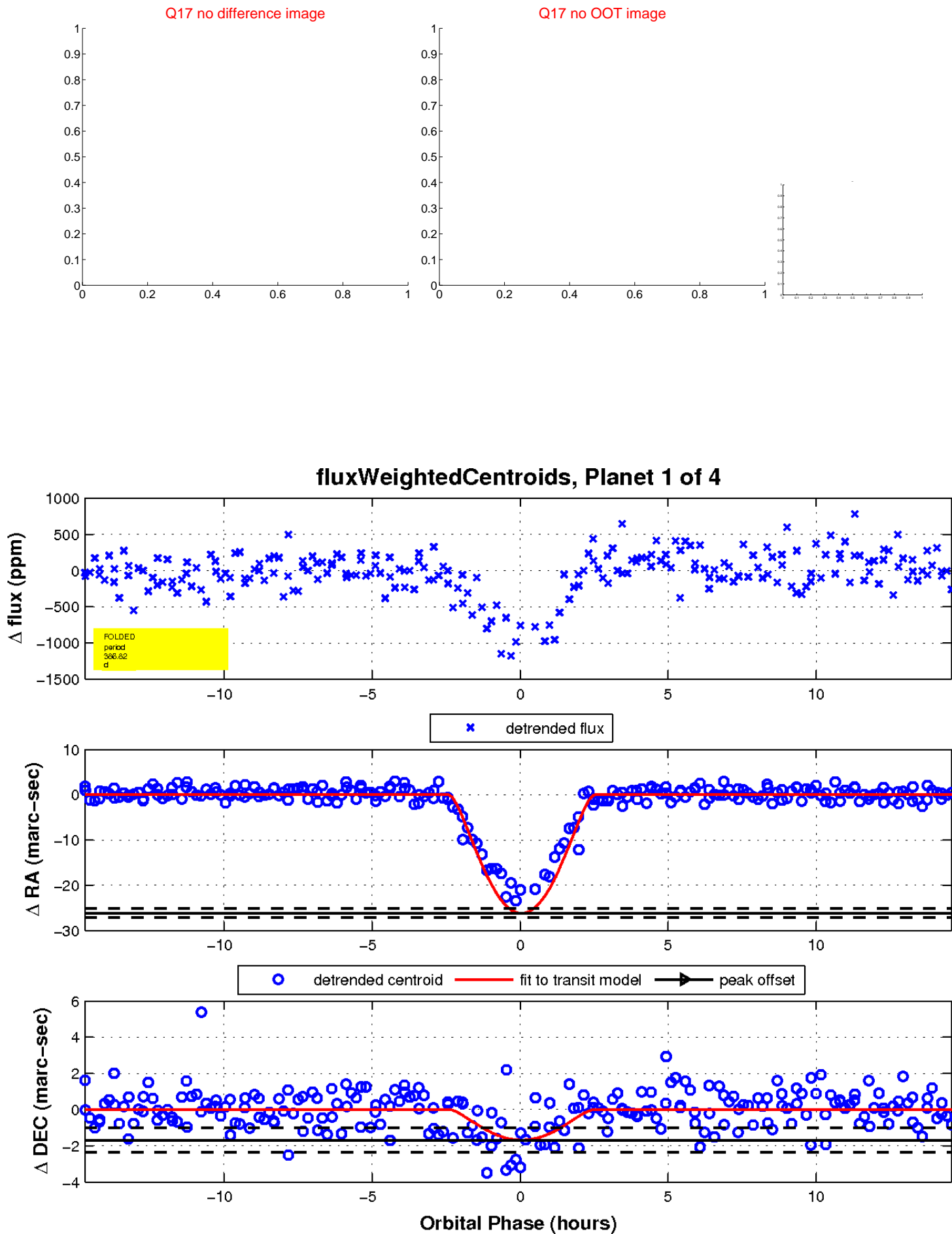
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



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

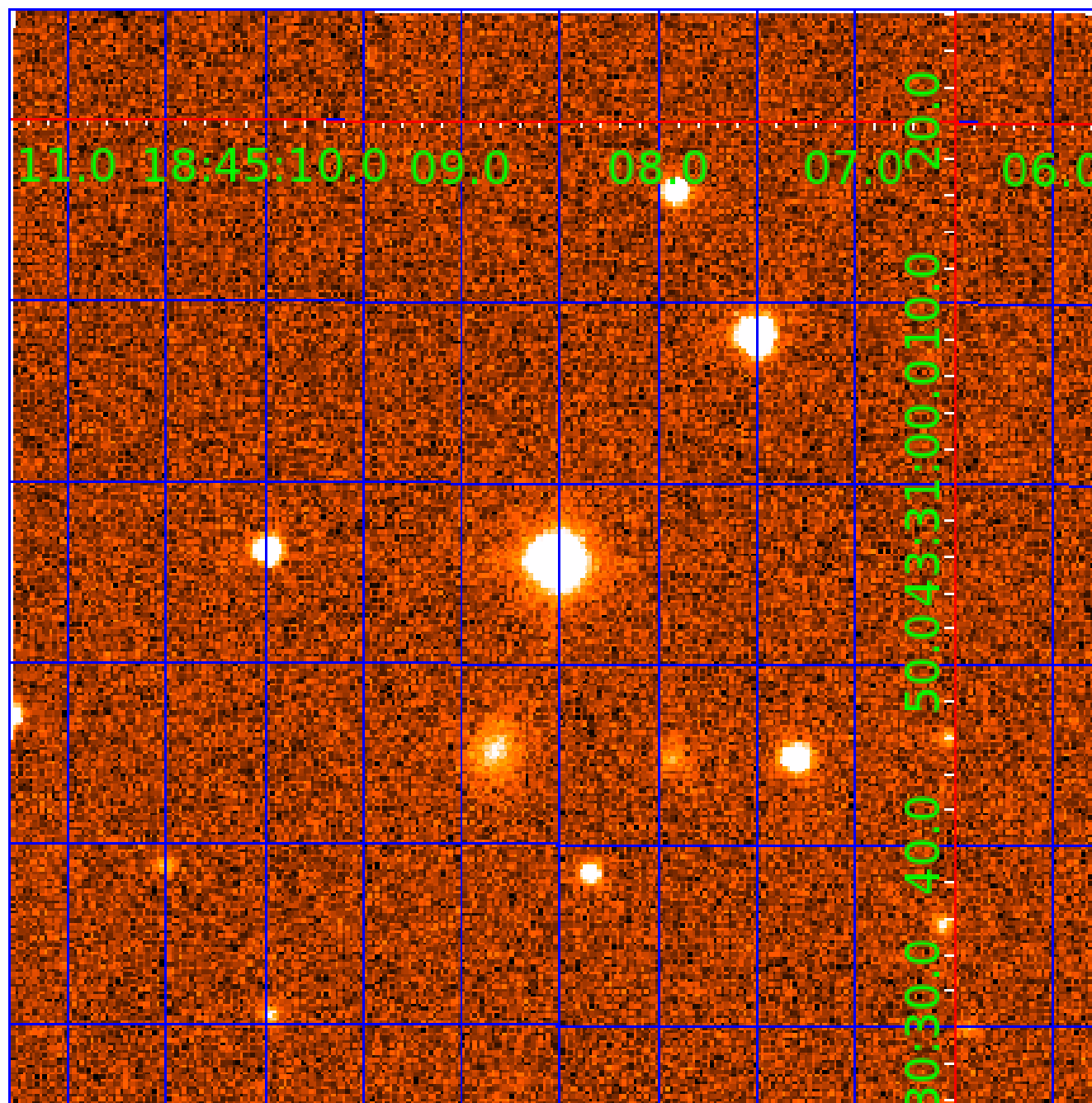


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 007799701

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})
007799701-01	OBS	4903.01	386.821975	159.161416	1214.6	4.905	16.5	17.3	1.61	6384	9.56	3.15
007799701-02	OBS	No	368.405051	251.250299	1164.9	5.025	15.3	14.5	1.61	6384	7.80	3.37
007799701-03	OBS	No	386.826296	177.572419	1041.3	4.894	12.2	14.3	1.61	6384	6.54	3.15
007799701-04	OBS	No	294.729298	398.595623	728.3	4.405	9.6	9.3	1.61	6384	5.60	4.53

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007799701-01	OBS	FP	0.00	0	1	1	0	MOD_SEC_DV—DEEP_V_SHAPED—HAS_SEC_TCE—CENT_RESOLVED_OFFSET—HALO_GHOST
007799701-02	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_MARSHALL_SKYE—CENT_RESOLVED_OFFSET—HALO_GHOST
007799701-03	OBS	FP	0.00	1	1	1	0	IS_SEC_TCE—CENT_FEW_DIFFS—HALO_GHOST
007799701-04	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—INCONSISTENT_TRANS—CENT_RESOLVED_OFFSET

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 007799701-02

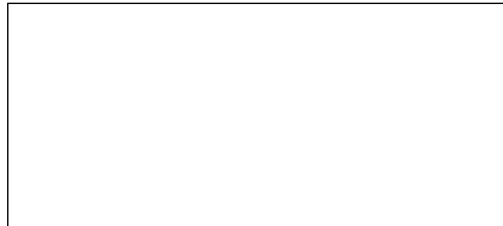
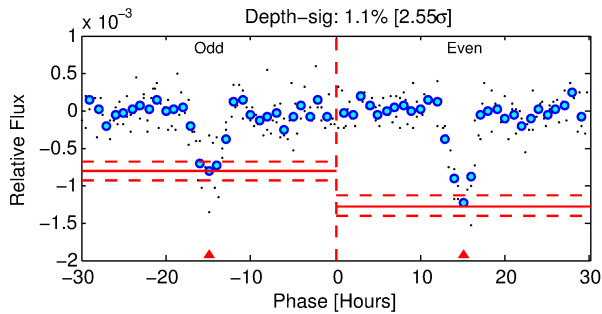
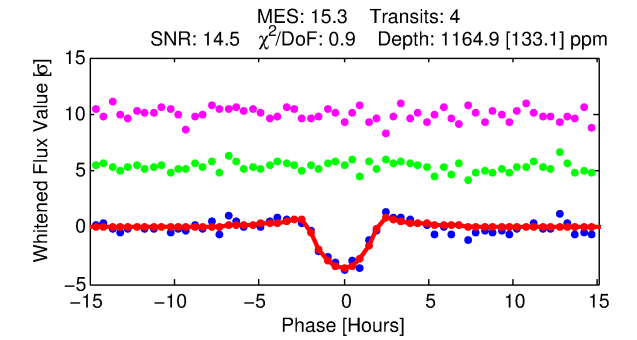
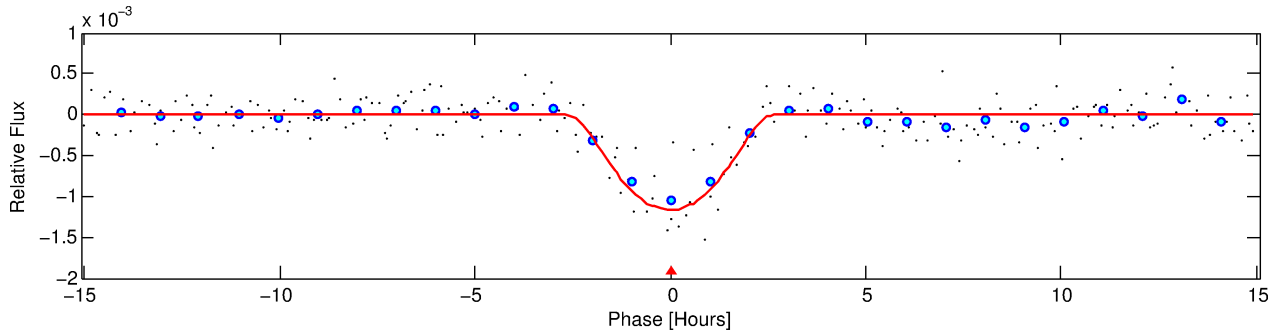
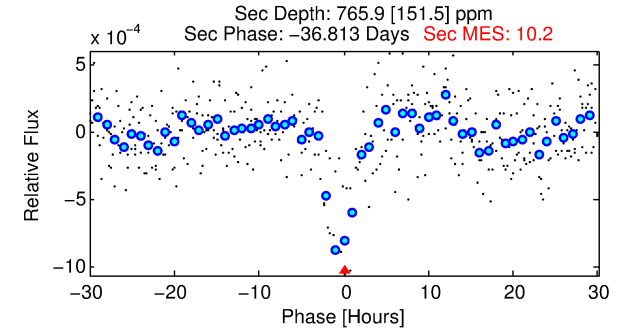
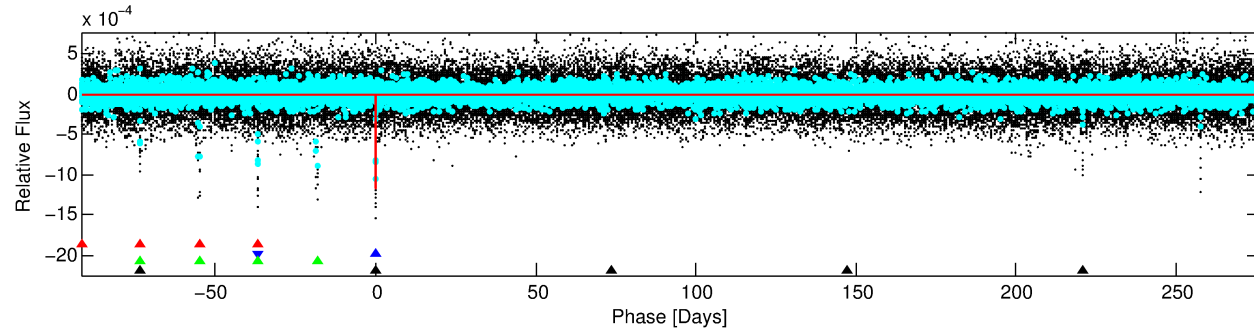
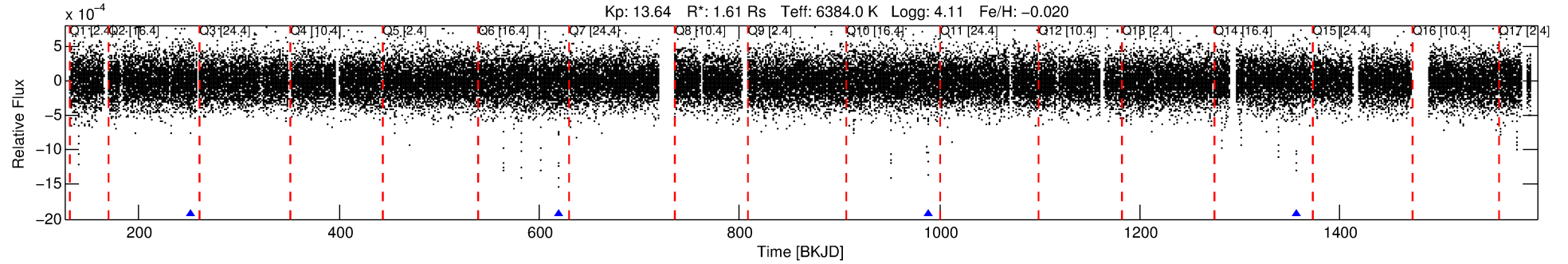
No Significant Match Found

DV One-Page Summary

KIC: 7799701 Candidate: 2 of 4 Period: 368.405 d

KOI: K04903 Corr: No Ephemeris Match

Kp: 13.64 R*: 1.61 Rs Teff: 6384.0 K Logg: 4.11 Fe/H: -0.020



DV Fit Results:

Period = 368.40505 [0.00300] d
Epoch = 251.2503 [0.0057] BKJD
Rp/R* = 0.0443 [0.0196]
a/R* = 211.04 [44.74]
b = 0.97 [0.04]
Seff = 3.36 [1.52]
Teq = 345 [39] K
Rp = 7.80 [4.14] Re
a = 1.0741 [0.2917] AU
Ag = 7983.65 [7993.73] [1.00σ]
Teffp = 5047 [1160] K [4.05σ]

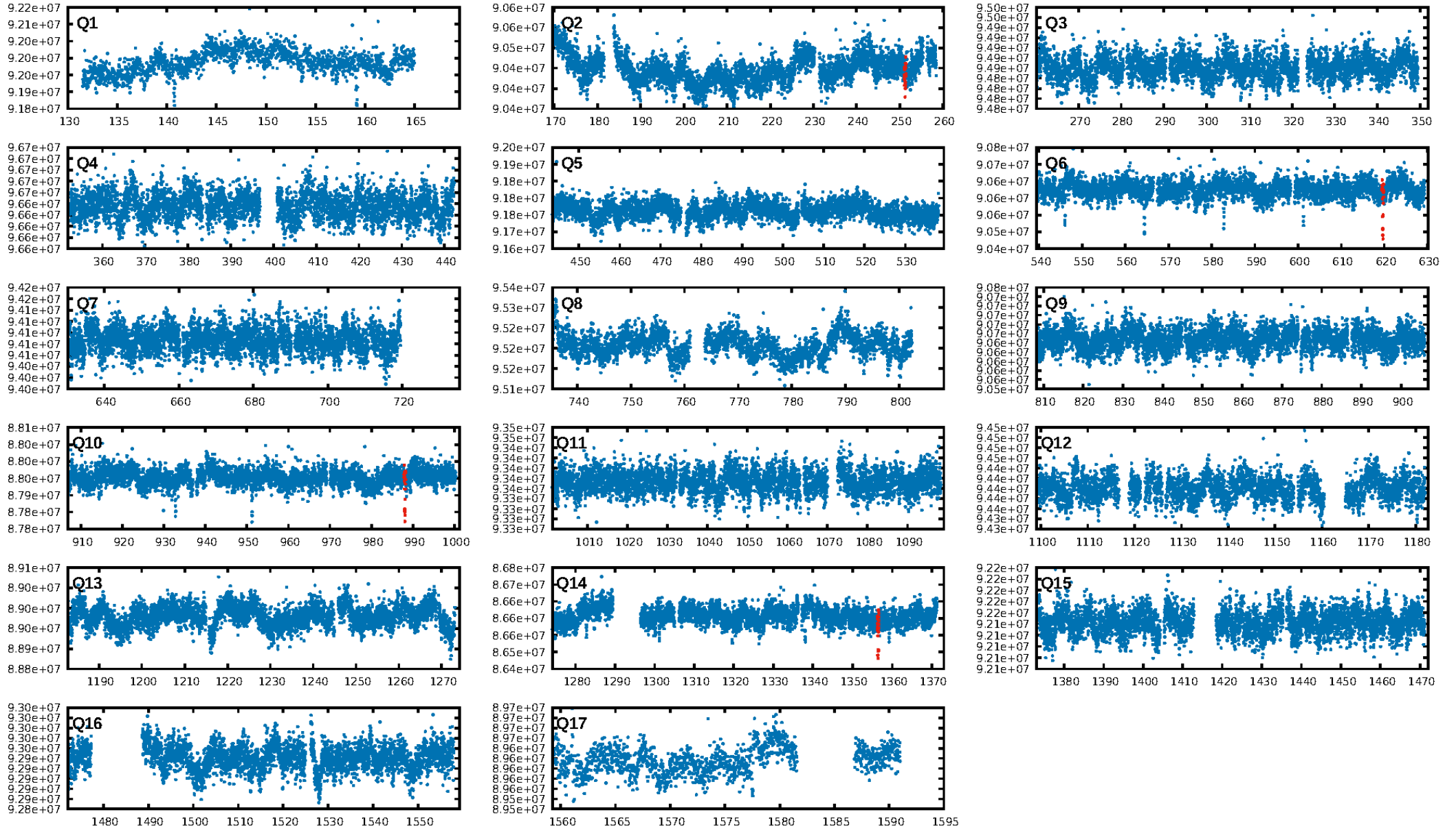
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [264.60σ]
LongPeriod-sig: 100.0% [62.95σ]
ModelChiSquare2-sig: 0.3%
ModelChiSquareGof-sig: 96.1%
Bootstrap-pfa: 2.15e-26
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: -0.03703
Centroid-sig: 0.0%
Centroid-so: 22.492 arcsec [29.86σ]
OotOffset-rm: N/A
KicOffset-rm: N/A
OotOffset-st: 0/0/0 [0]
KicOffset-st: 0/0/0 [0]
DiffImageQuality-fgm: N/A
DiffImageOverlap-fno: 0.75 [3/4]

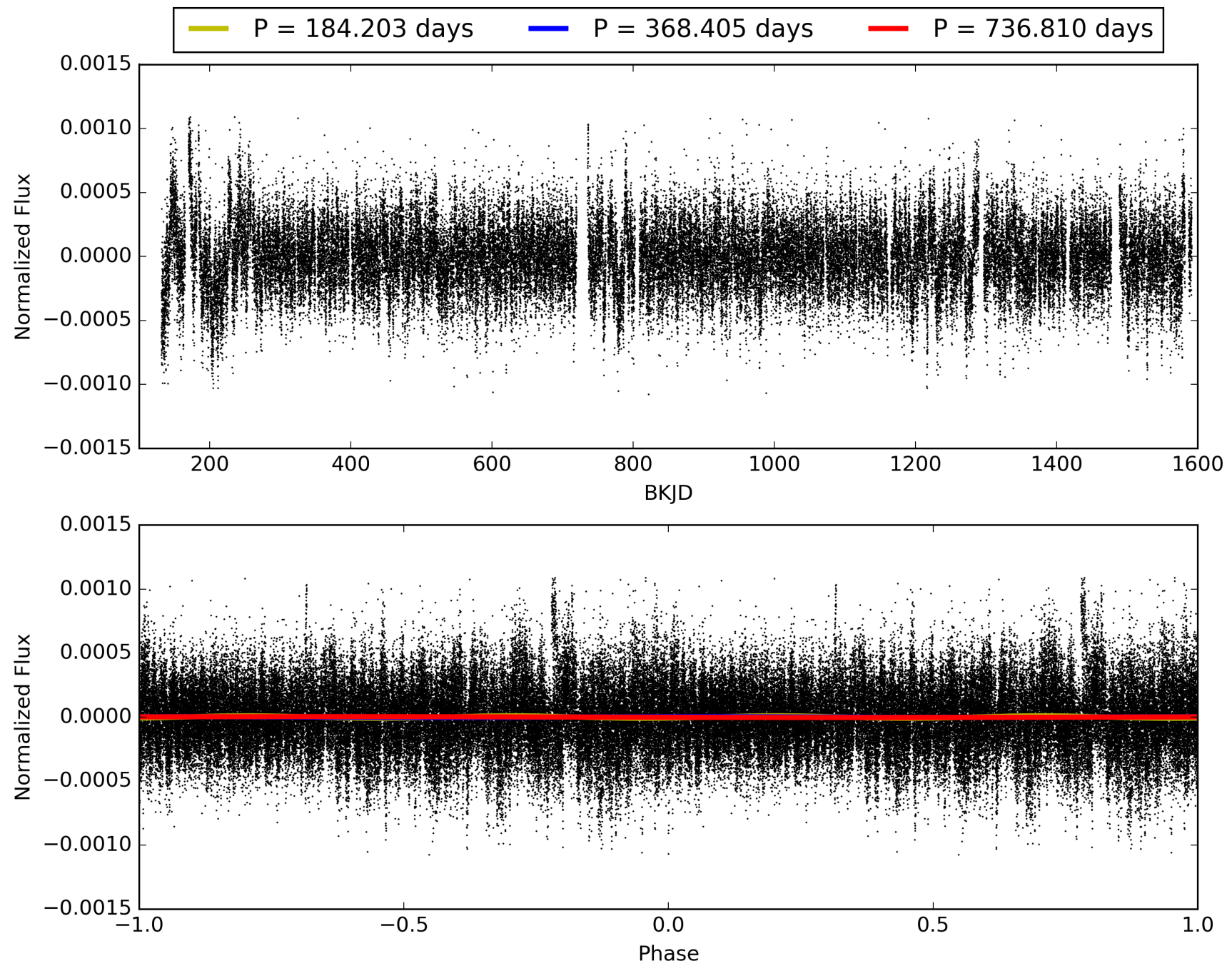
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 20:07:27 Z

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

TCE 007799701-02, PDC Light Curves

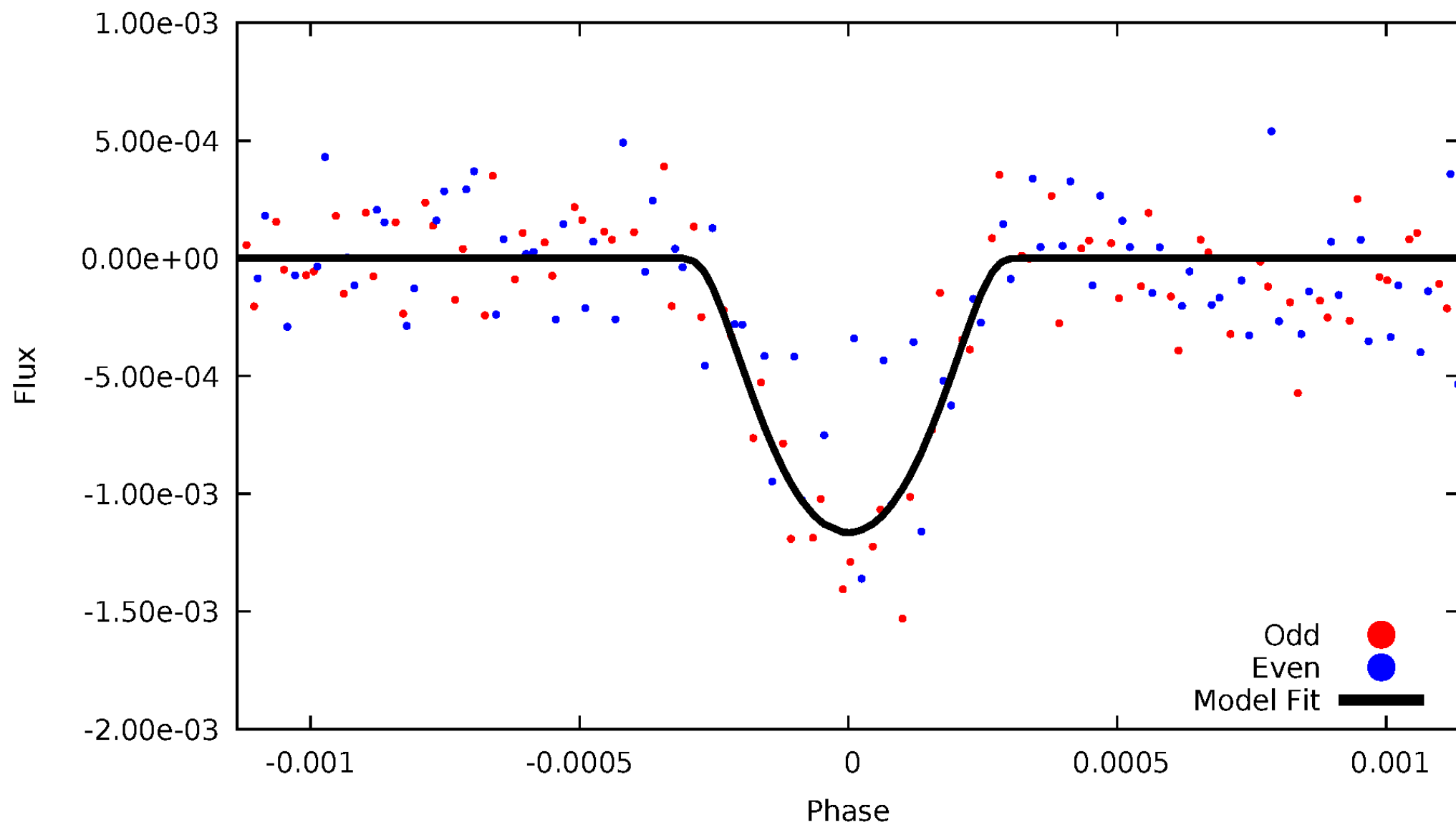


TCE 007799701-02



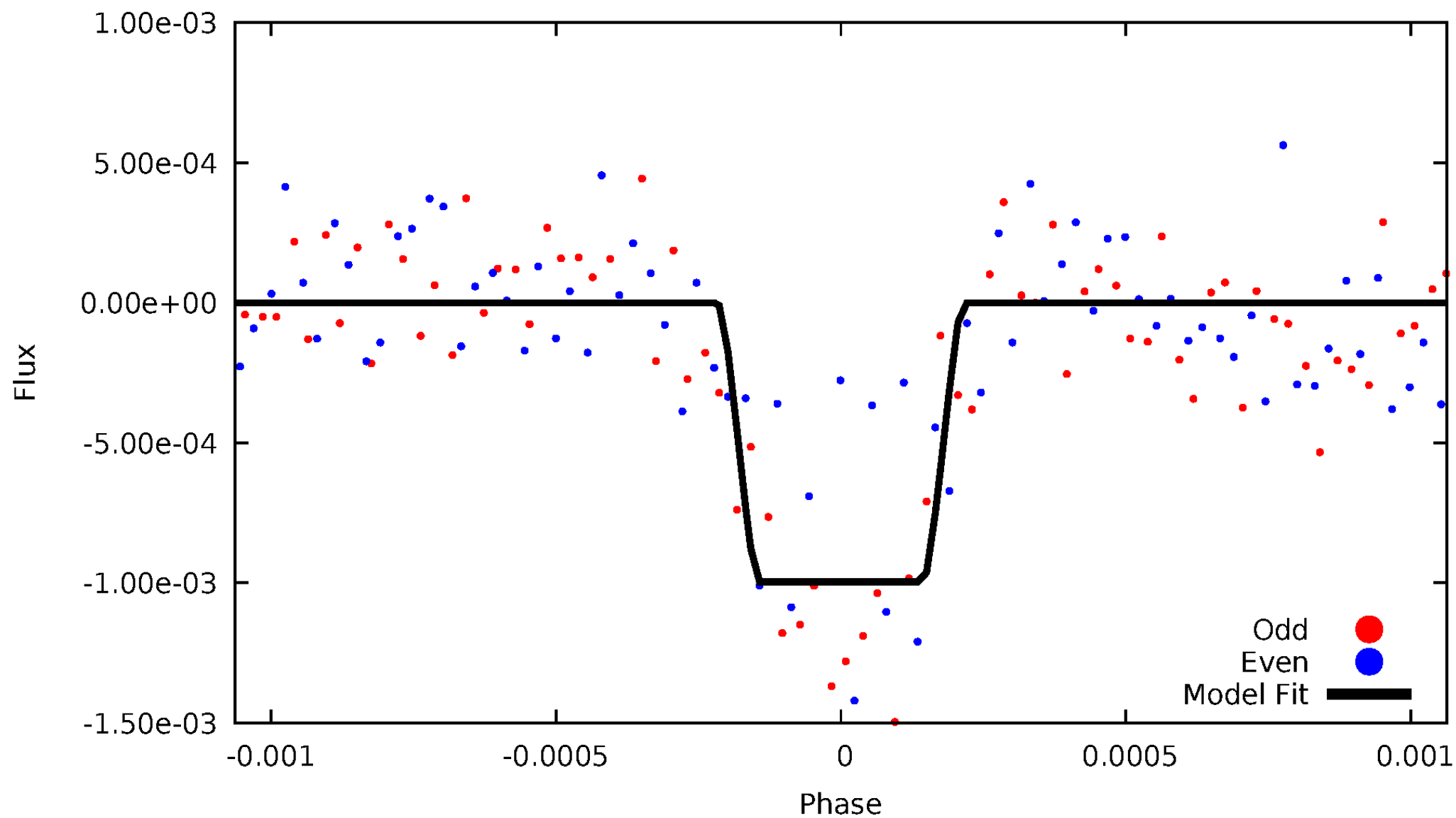
DV Odd/Even

TCE 007799701-02



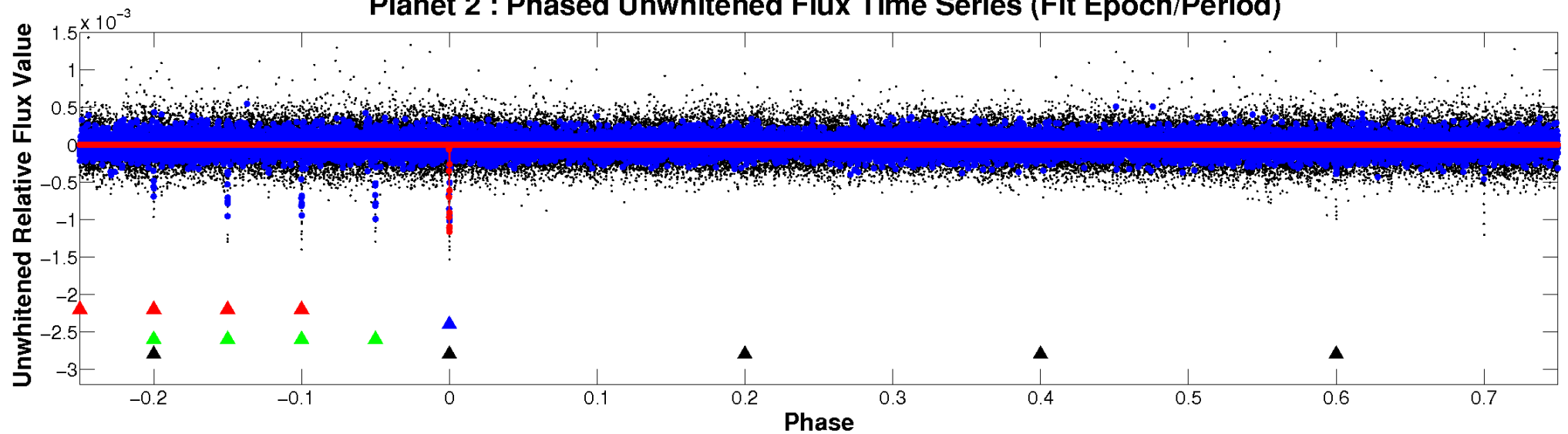
ALT Odd/Even

TCE 007799701-02

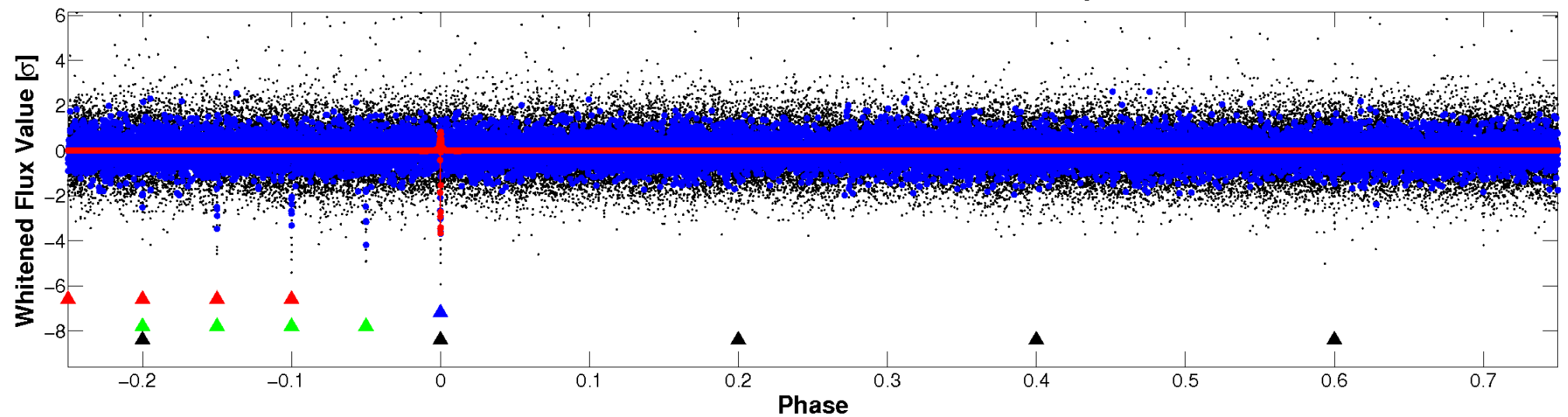


Non-Whitened Vs. Whitened Light Curve

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

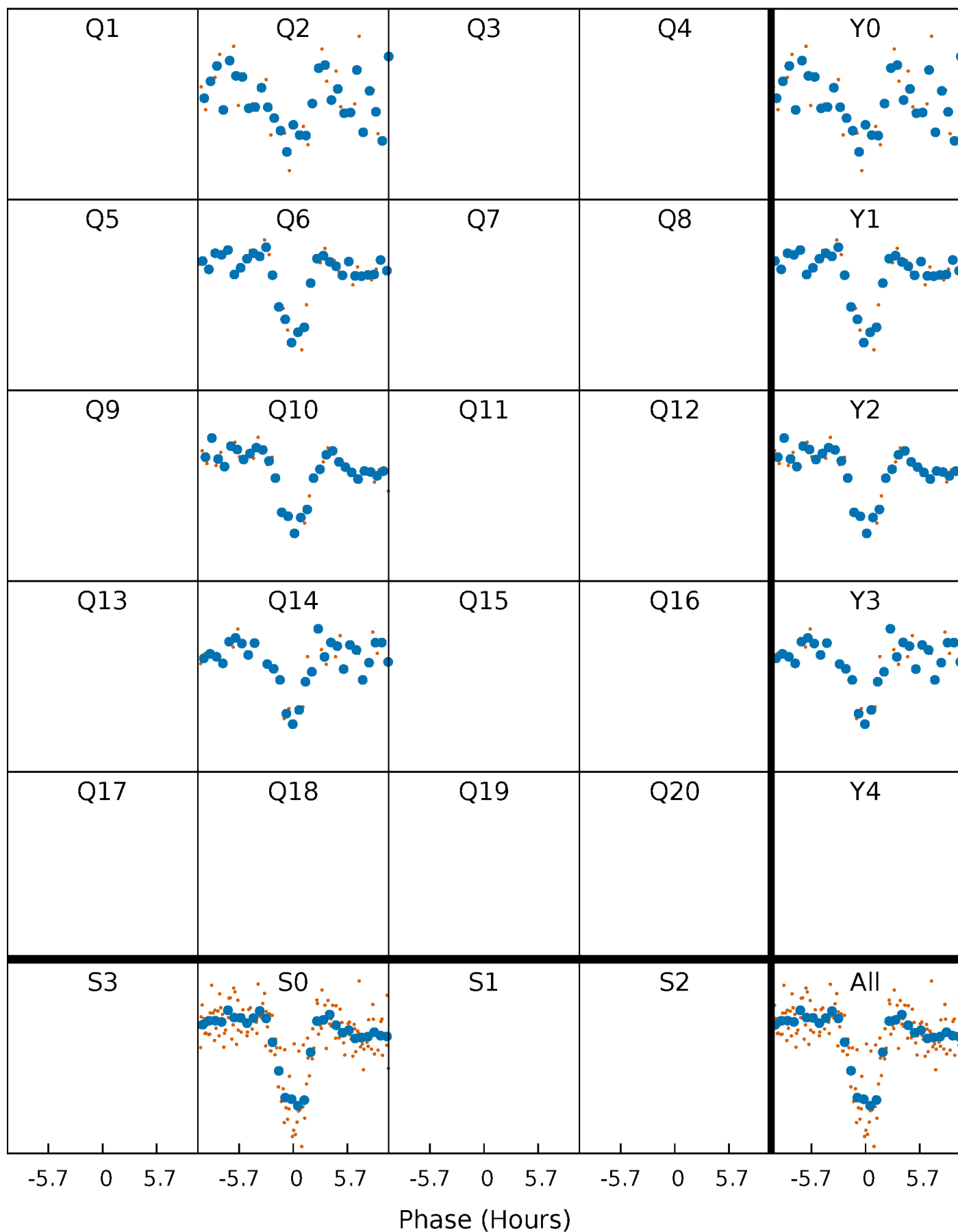


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



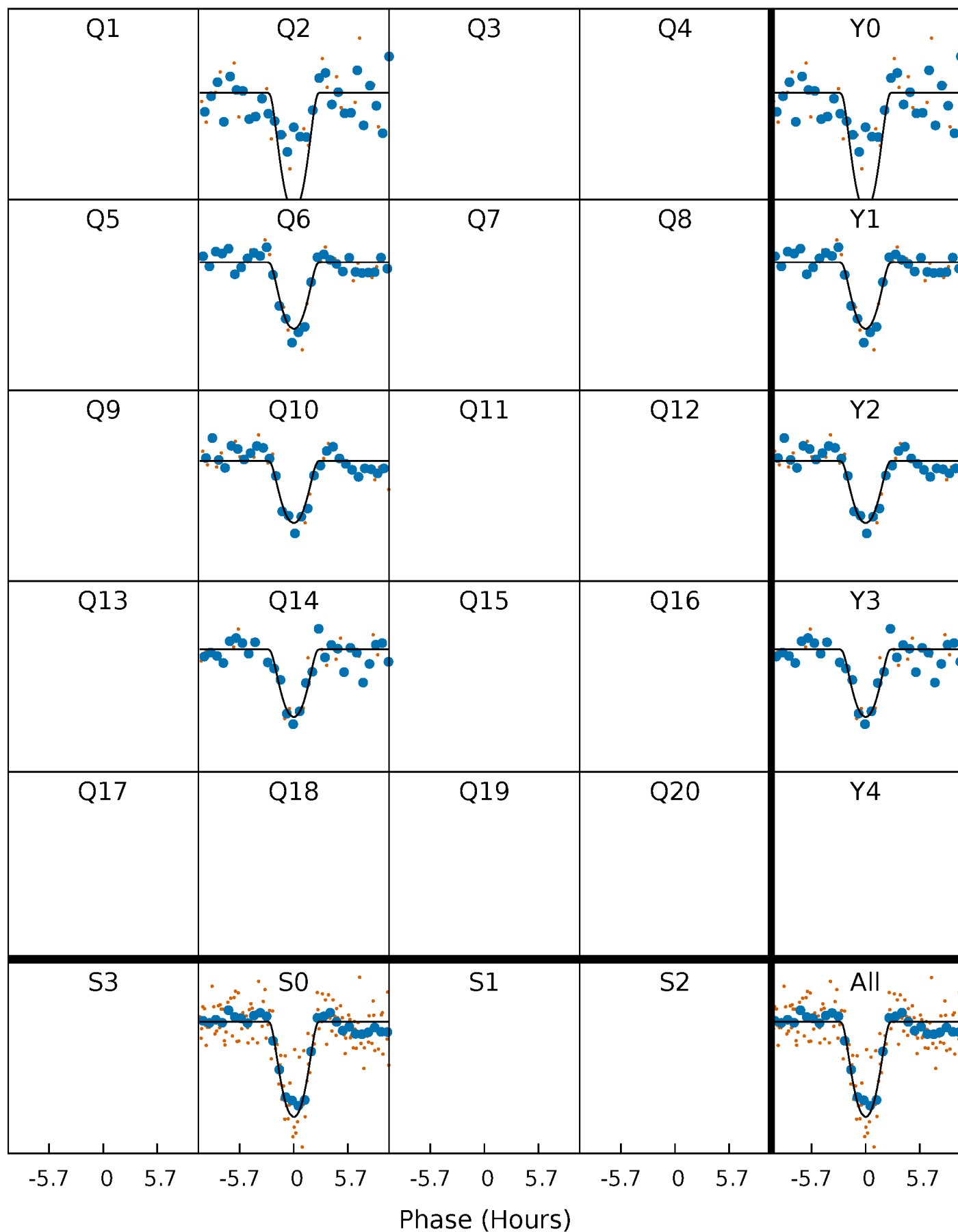
PDC Quarter-Phased Transit Curves

TCE 007799701-02 $P=368.405051$ Days $T_0=251.250299$ (BKJD)



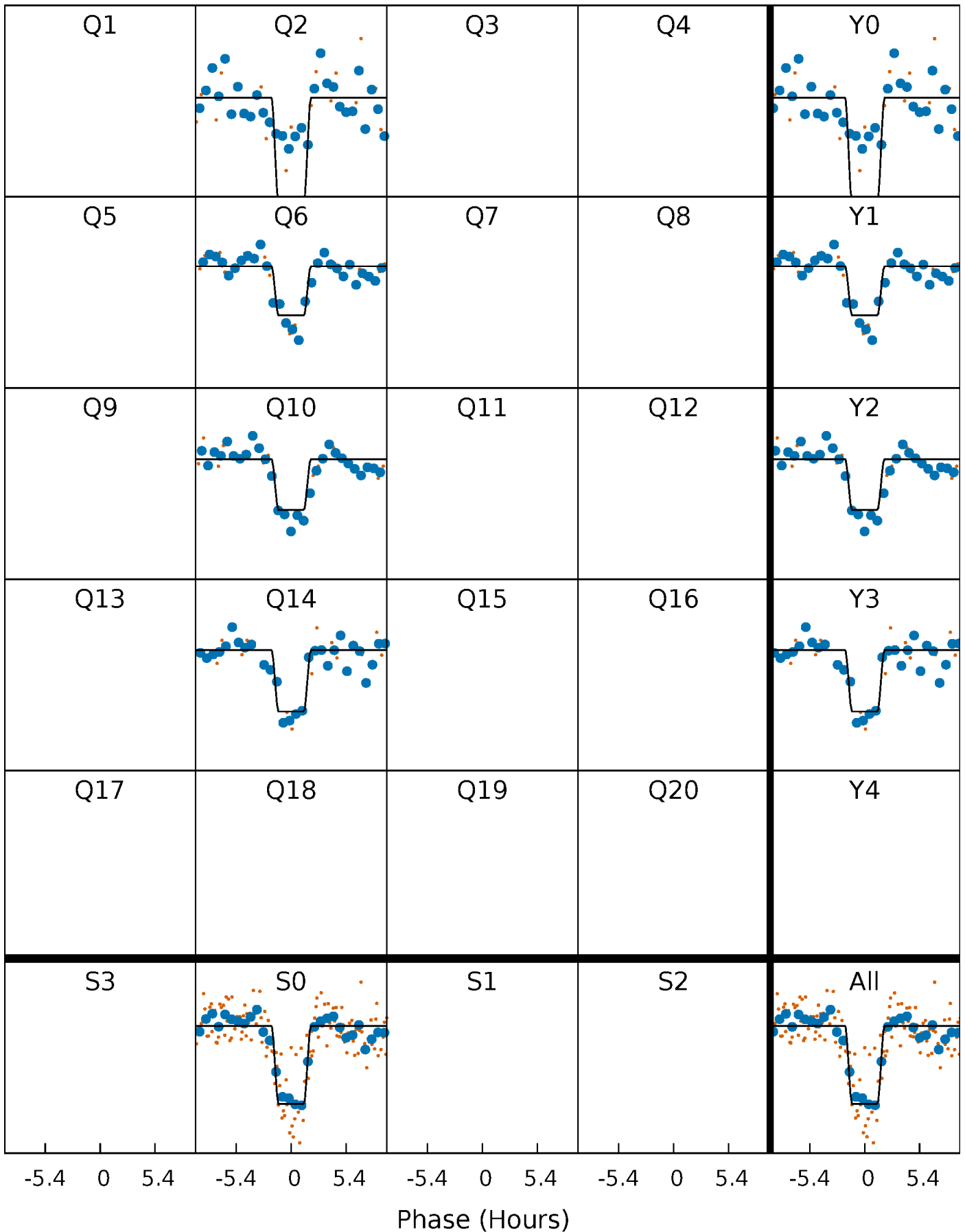
DV Quarter-Phased Transit Curves

TCE 007799701-02 P=368.405051 Days $T_0=251.250299$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

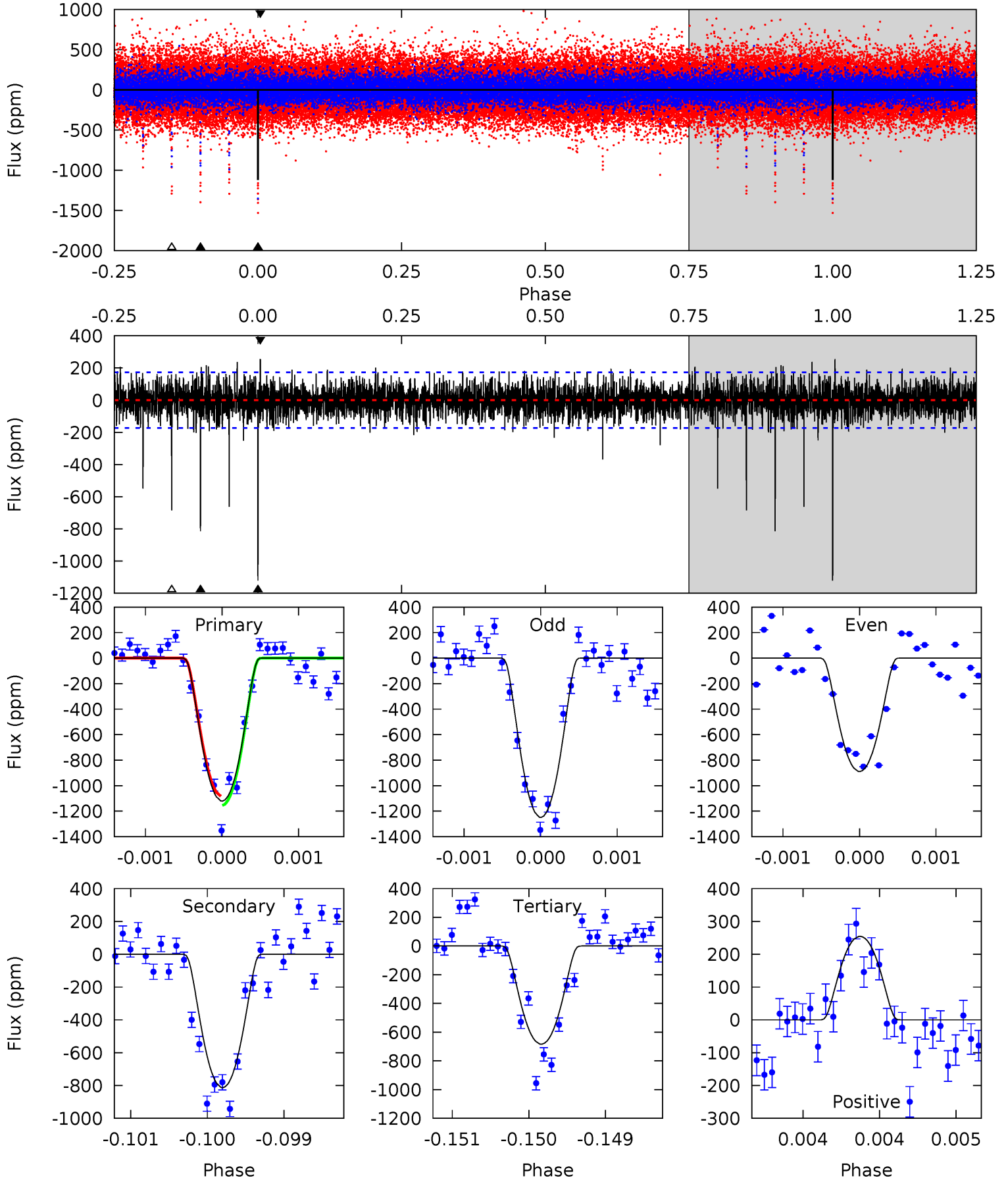
TCE 007799701-02 P=368.403188 Days $T_0=251.254346$ (BKJD)



DV Model-Shift Uniqueness Test

007799701-02, P = 368.405051 Days, E = 251.250299 Days

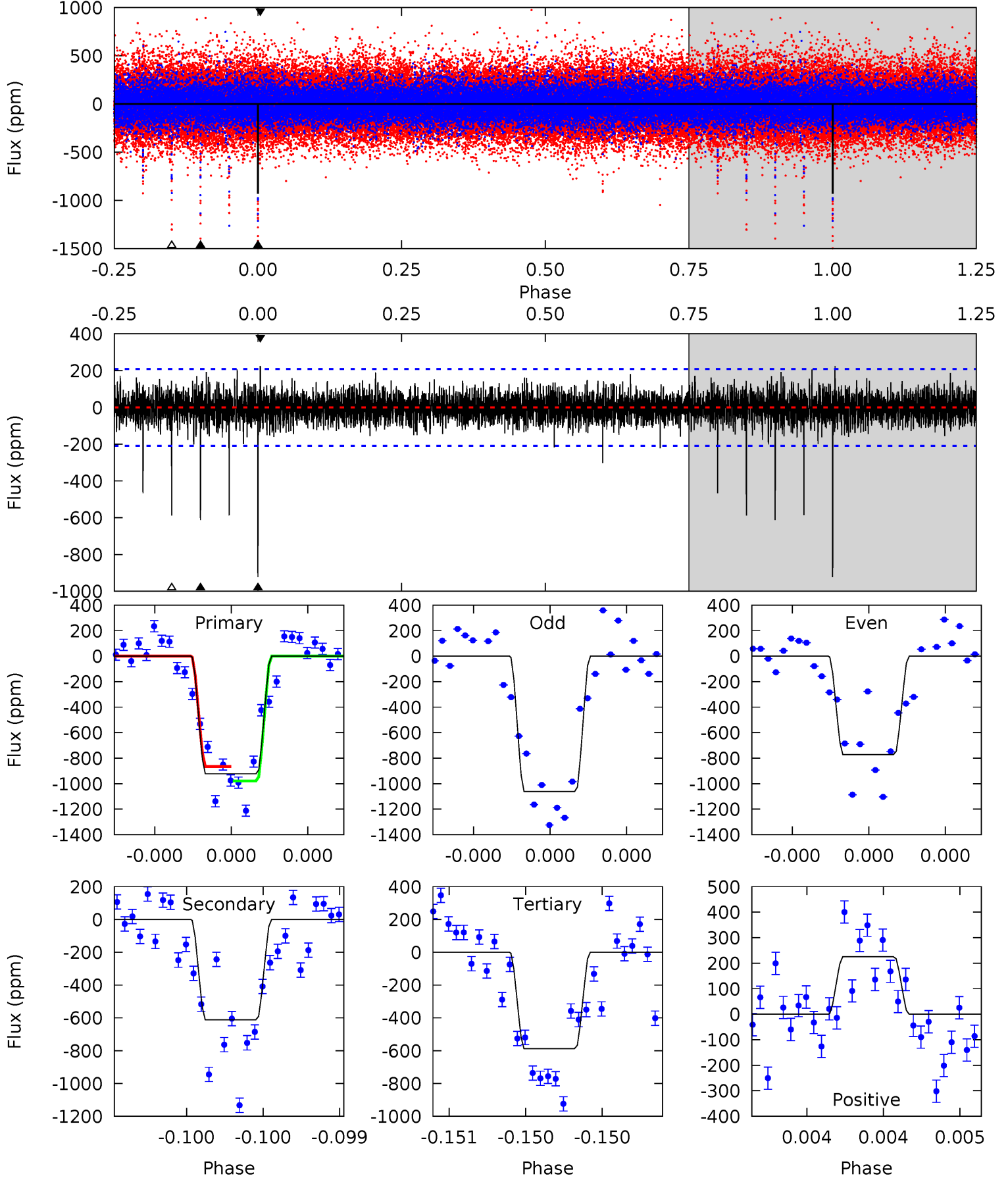
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
36.0	26.1	21.9	8.16	5.54	3.43	2.20	14.0	27.8	4.15	17.9	5.84	0.89	0.19	1.16



Alt Model-Shift Uniqueness Test

007799701-02, P = 368.403188 Days, E = 251.254346 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
24.7	16.4	15.7	6.03	5.60	3.53	1.49	8.98	18.7	0.64	10.3	3.88	0.88	0.20	1.51



Stellar Parameters For KIC 007799701

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} \text{ (g}\cdot\text{cm}^{-3}\text{)}$
	6384^{+179}_{-247}	$4.107^{+0.246}_{-0.164}$	$-0.020^{+0.250}_{-0.300}$	$1.615^{+0.473}_{-0.426}$	$1.216^{+0.211}_{-0.192}$	$0.406^{+0.534}_{-0.200}$
	+3%/-4%	+6%/-4%	+1250%/-1500%	+29%/-26%	+17%/-16%	+131%/-49%
Source	PHO54	PHO54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 007799701-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} \text{ (K)}$	$T_{obs} \text{ (K)}$	A_{obs}
DV	-813 ± 31	$7.38^{+4.06}_{-3.17}$	474^{+38}_{-38}	5211^{+1525}_{-790}	9420^{+19870}_{-5417}
Alt.	-611 ± 37	$5.77^{+3.37}_{-3.23}$	474^{+40}_{-34}	5482^{+3020}_{-900}	11856^{+49210}_{-7308}

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

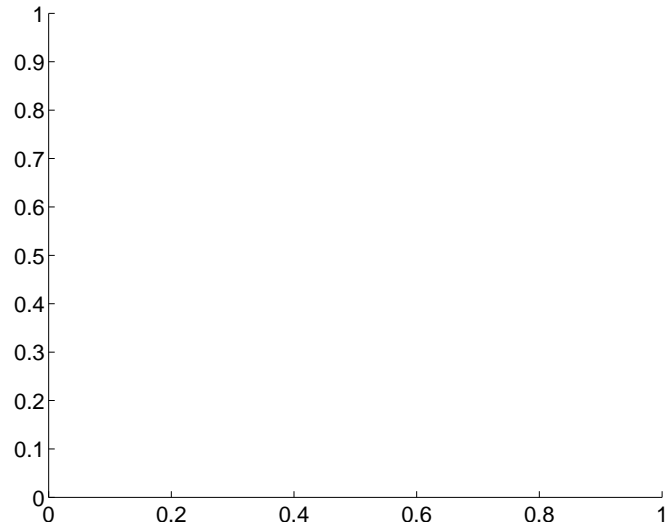
Supplemental centroid analysis for 007799701-02. Kepler magnitude: 13.64. Transit SNR 14.51

There are 0 quarters with good PRF difference image offsets

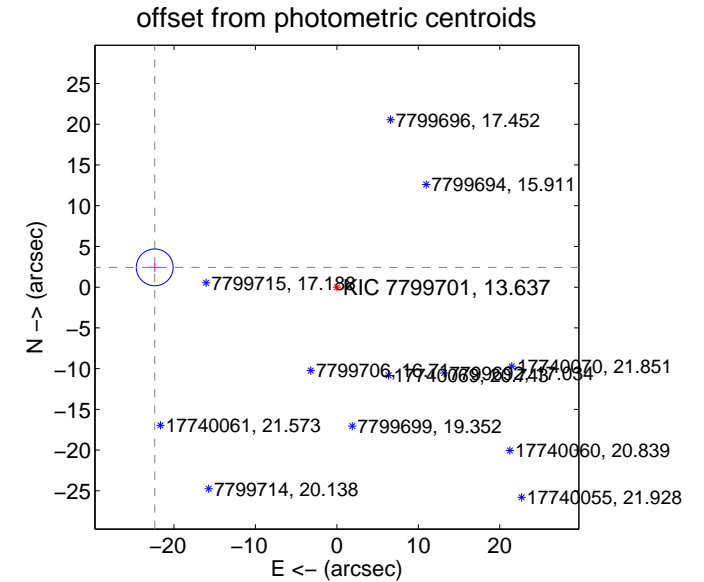
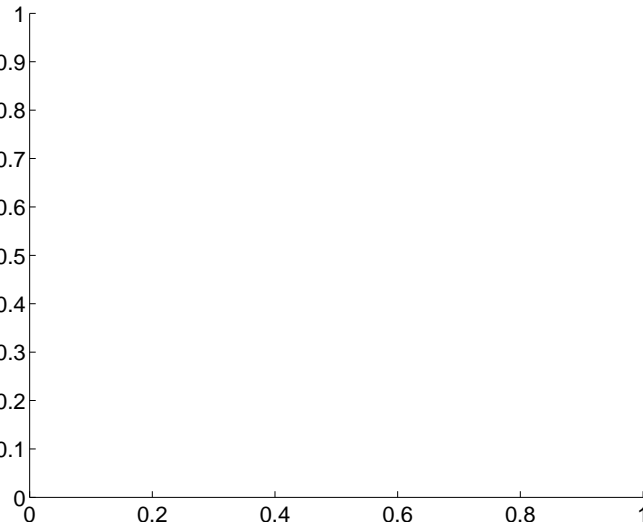
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	—	—	—	—
PRF-fit source offset from KIC position	—	—	—	—
photometric centroid source offset	22.49 ± 0.75	29.86	22.36 ± 0.76	2.43 ± 0.54

There is no PRF-fit offset from OOT-fit

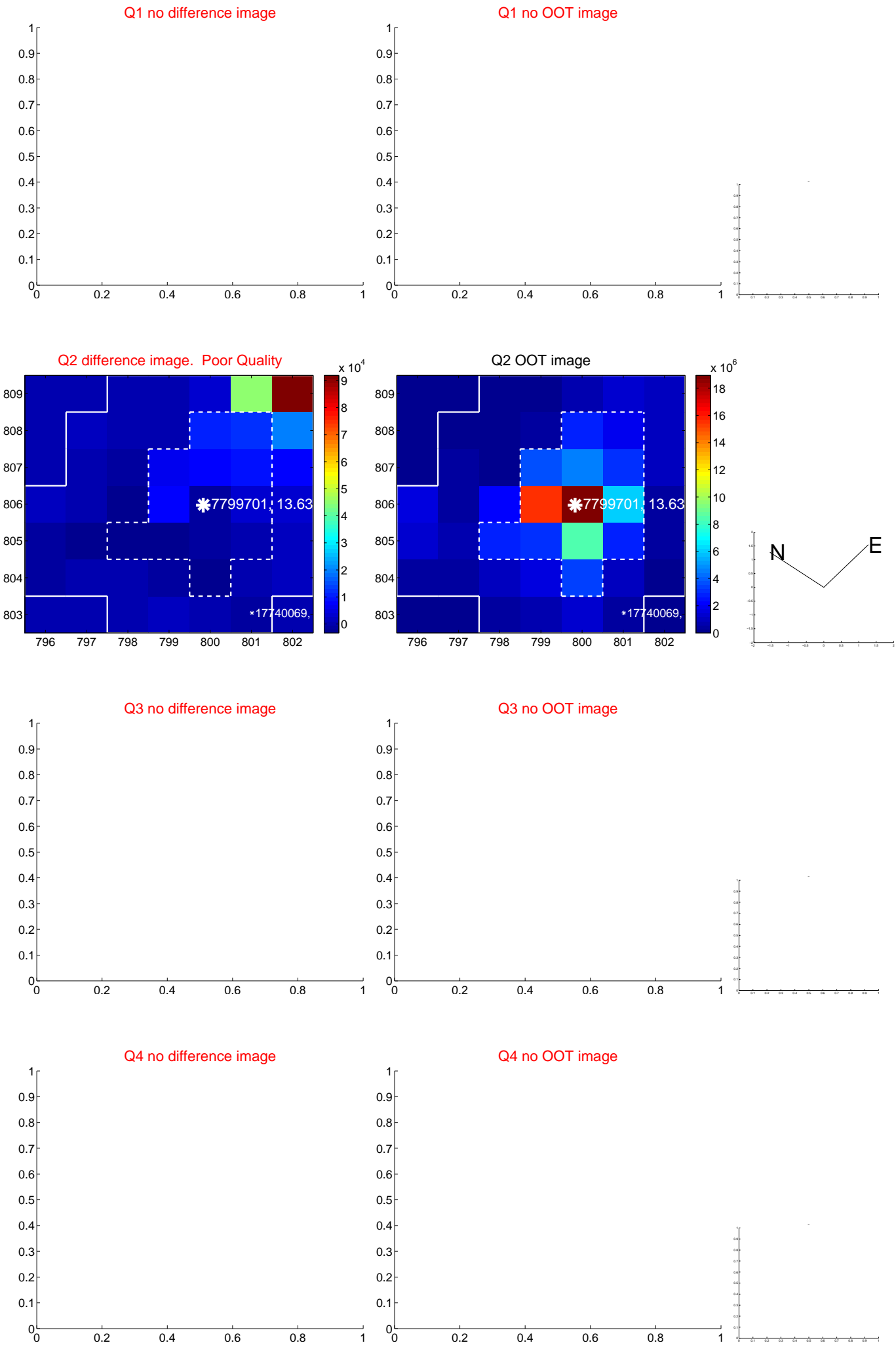


There is no PRF-fit offset from KIC

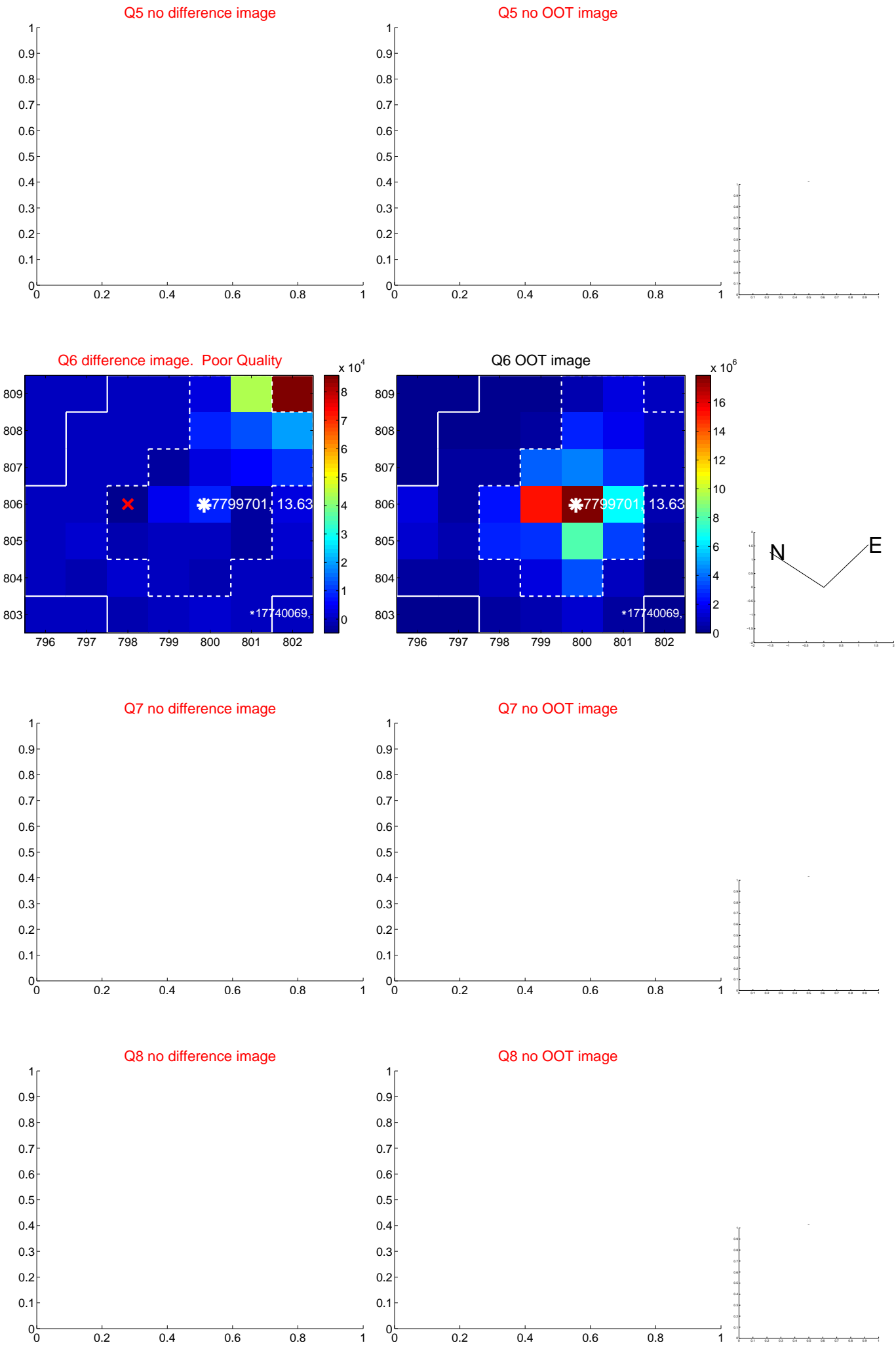


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

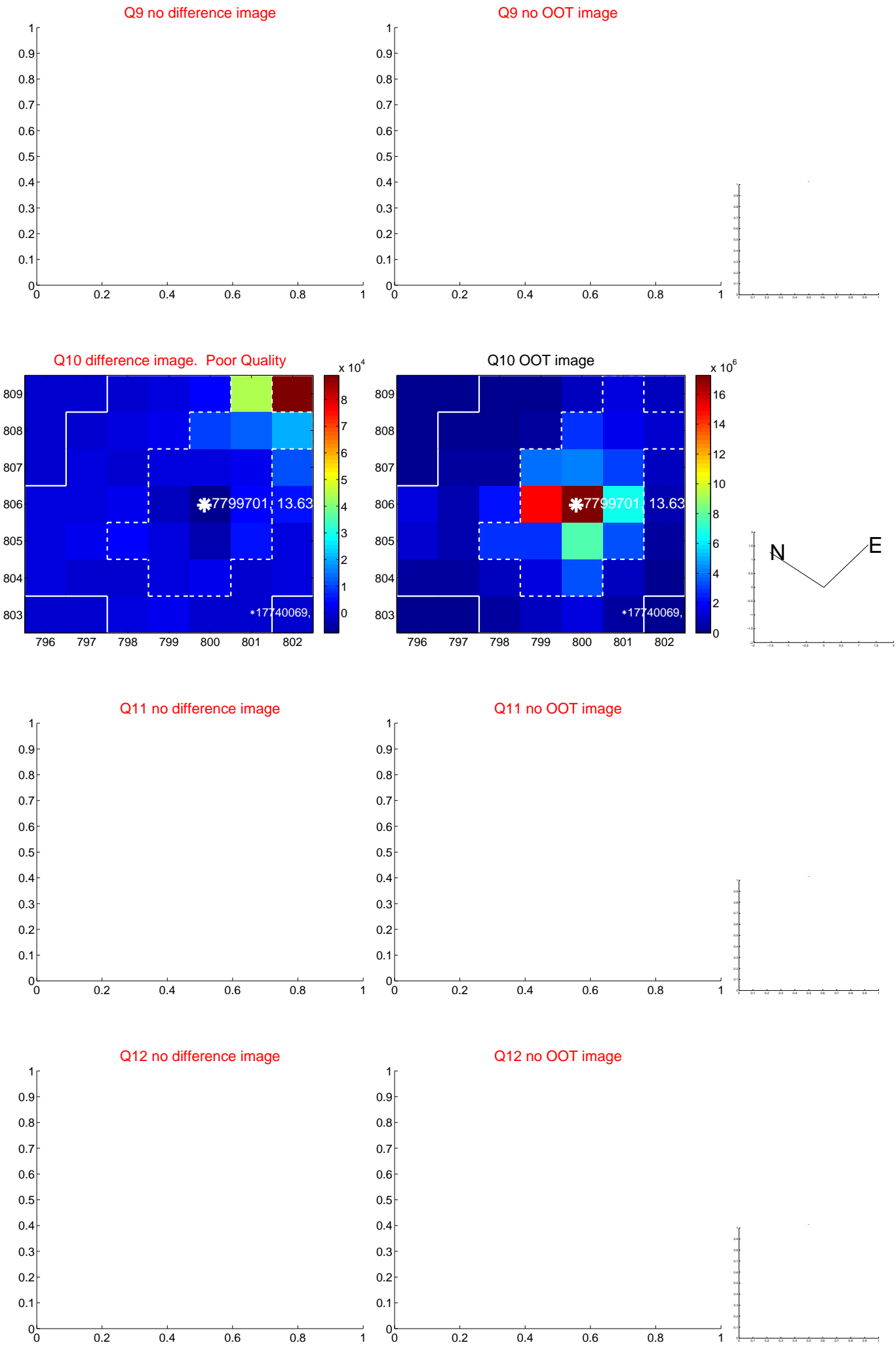
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



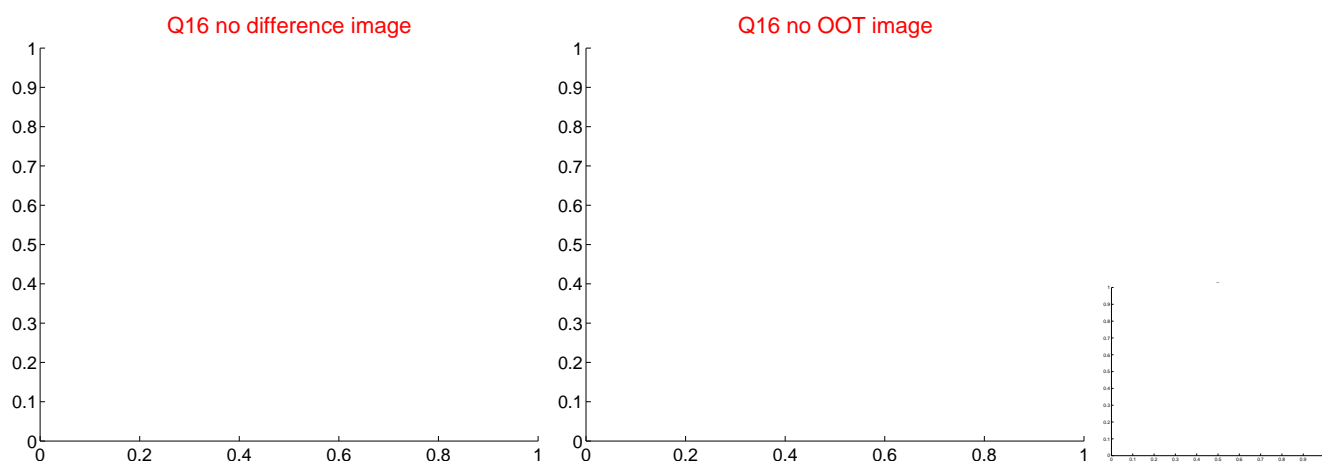
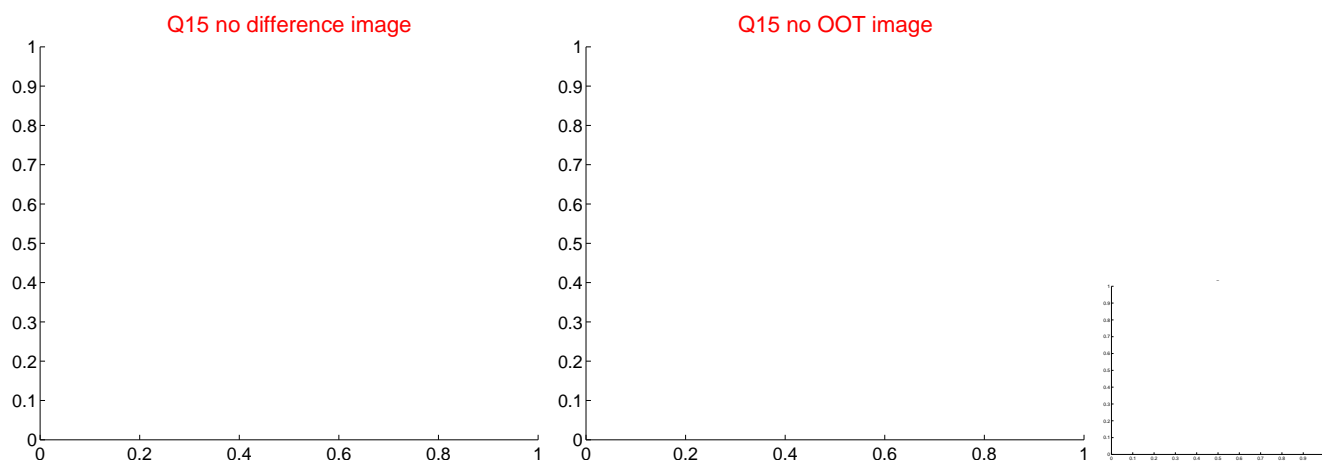
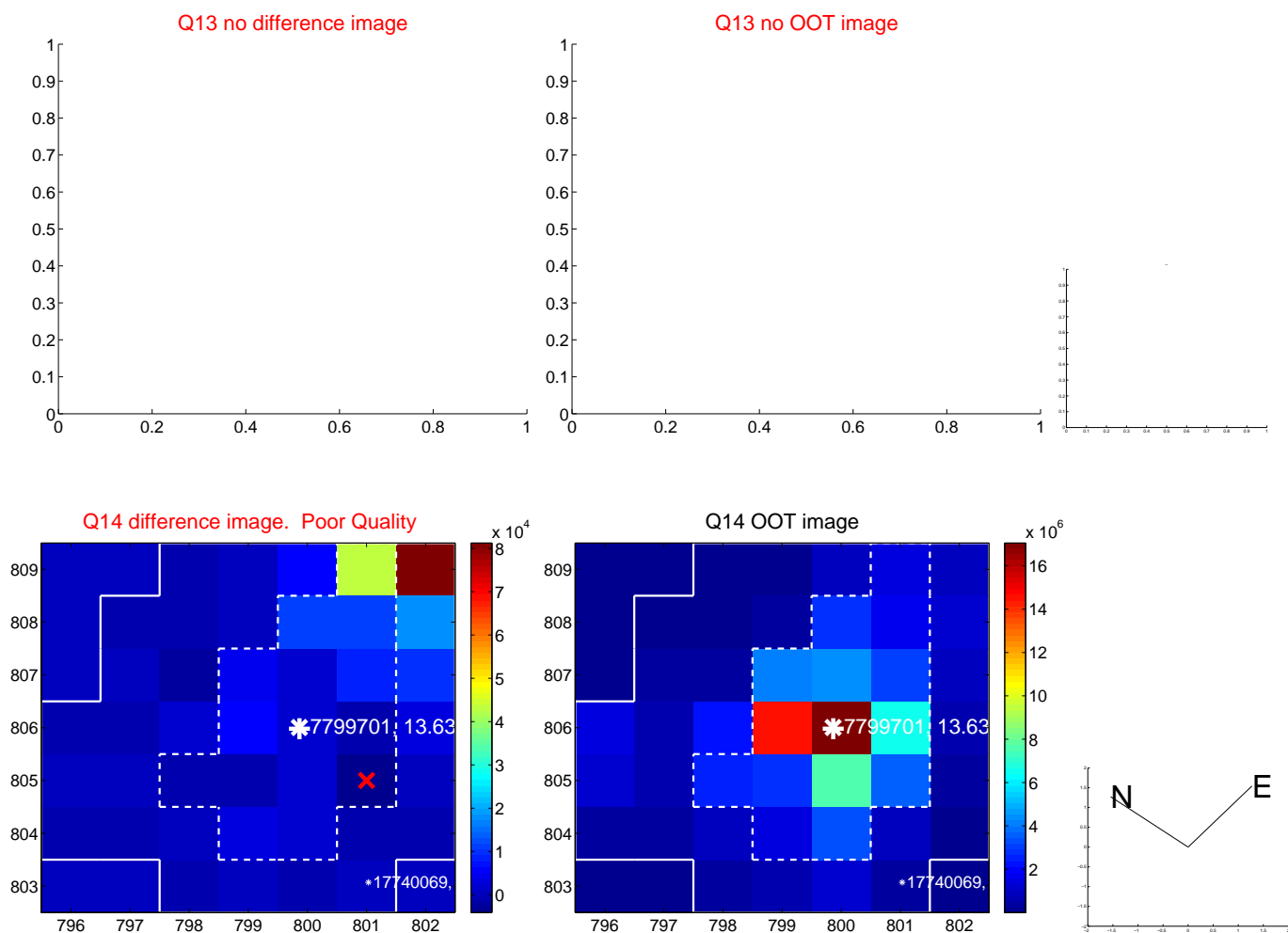
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



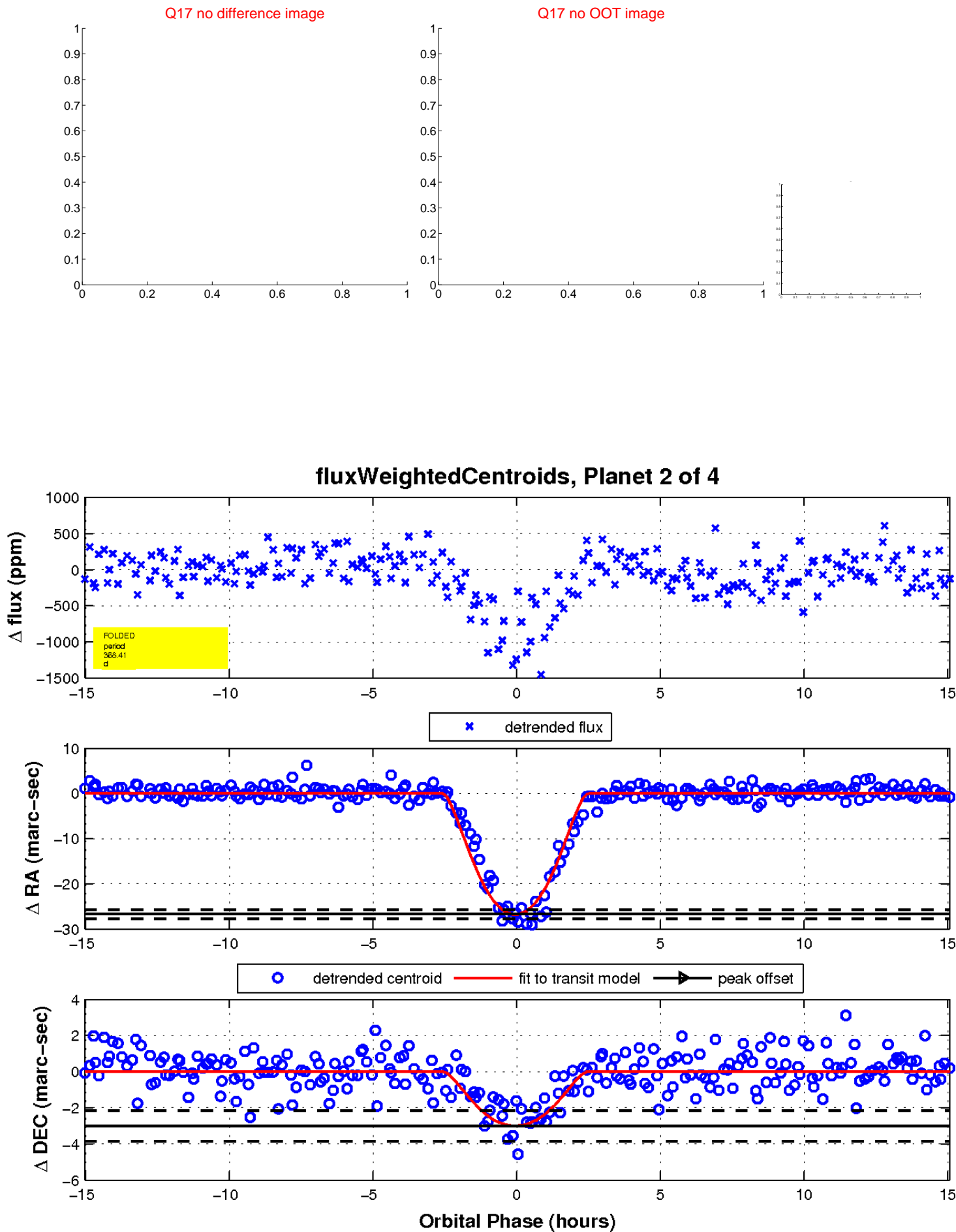
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

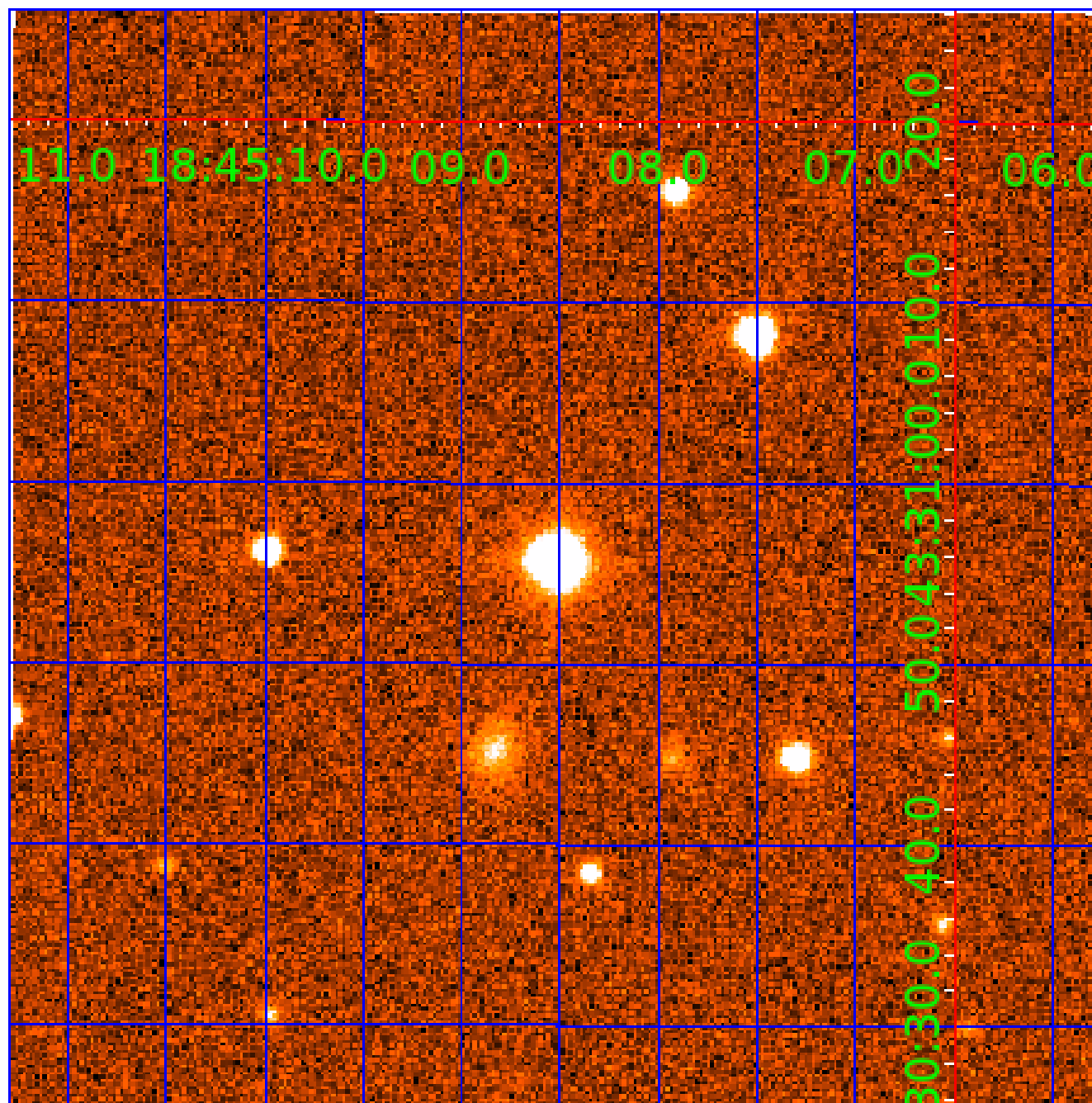


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 007799701

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})
007799701-01	OBS	4903.01	386.821975	159.161416	1214.6	4.905	16.5	17.3	1.61	6384	9.56	3.15
007799701-02	OBS	No	368.405051	251.250299	1164.9	5.025	15.3	14.5	1.61	6384	7.80	3.37
007799701-03	OBS	No	386.826296	177.572419	1041.3	4.894	12.2	14.3	1.61	6384	6.54	3.15
007799701-04	OBS	No	294.729298	398.595623	728.3	4.405	9.6	9.3	1.61	6384	5.60	4.53

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007799701-01	OBS	FP	0.00	0	1	1	0	MOD_SEC_DV—DEEP_V_SHAPED—HAS_SEC_TCE—CENT_RESOLVED_OFFSET—HALO_GHOST
007799701-02	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_MARSHALL_SKYE—CENT_RESOLVED_OFFSET—HALO_GHOST
007799701-03	OBS	FP	0.00	1	1	1	0	IS_SEC_TCE—CENT_FEW_DIFFS—HALO_GHOST
007799701-04	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—INCONSISTENT_TRANS—CENT_RESOLVED_OFFSET

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

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

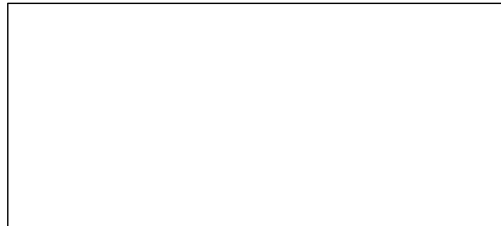
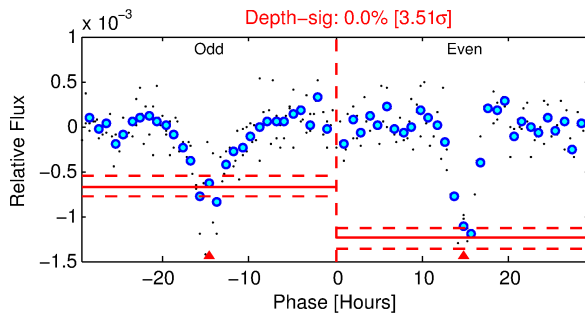
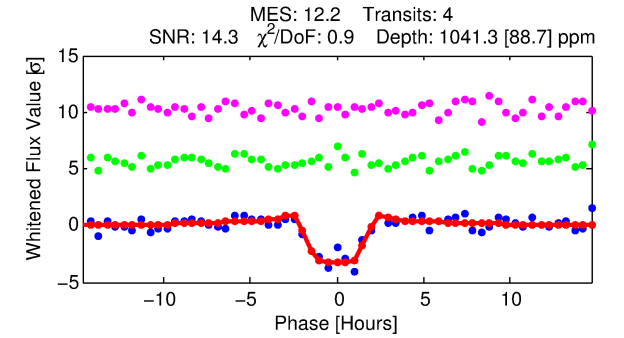
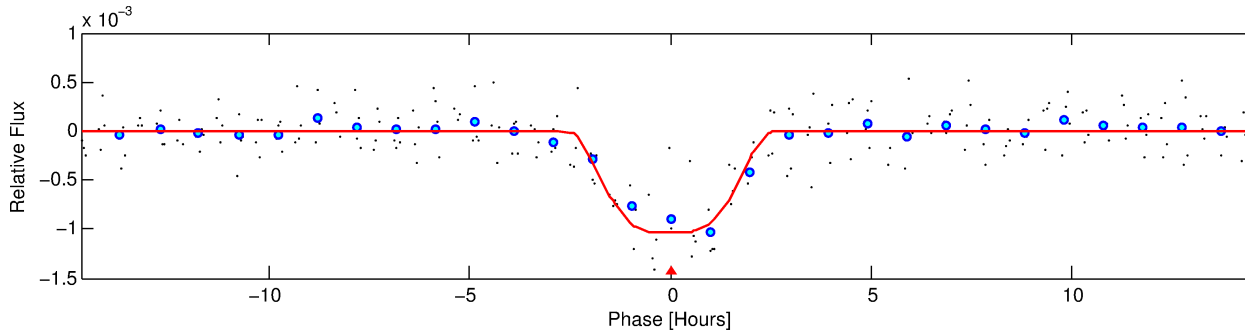
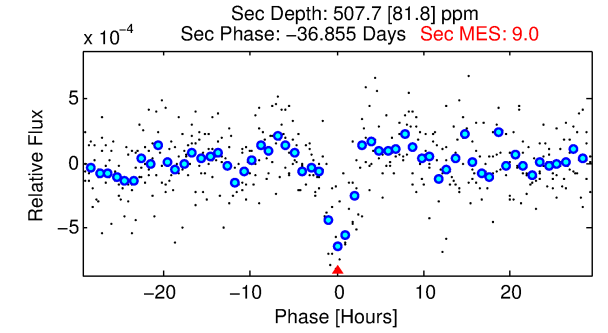
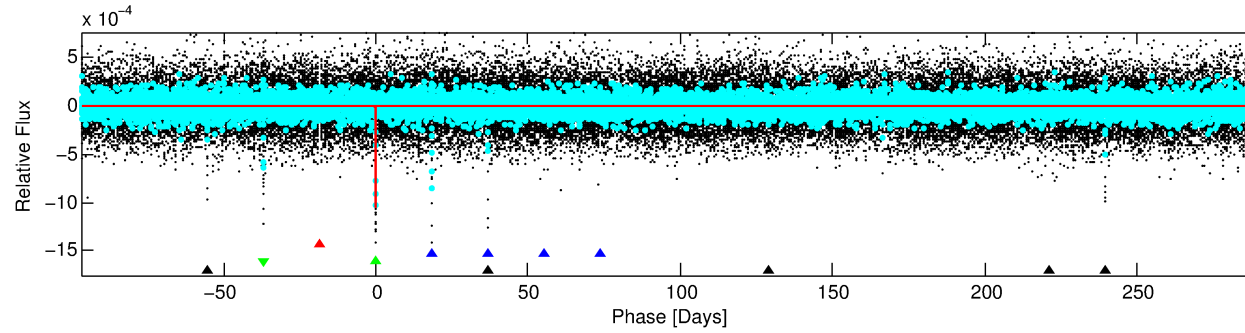
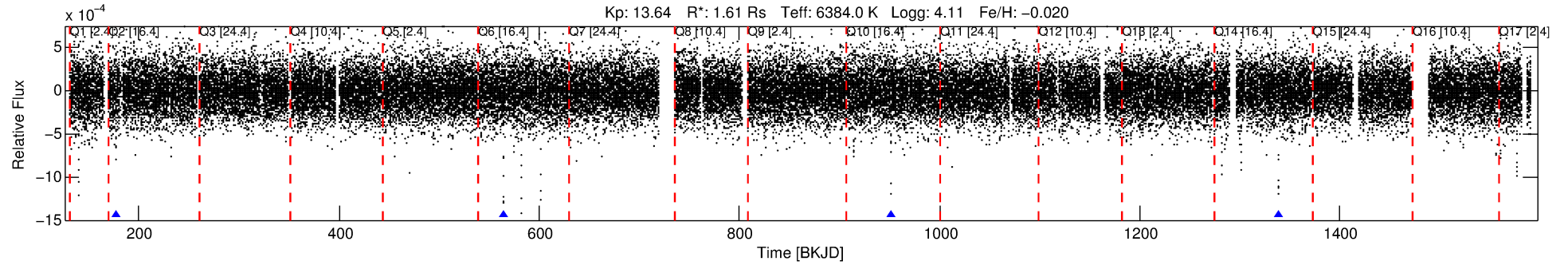
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007799701-03

No Significant Match Found

DV One-Page Summary

KIC: 7799701 Candidate: 3 of 4 Period: 386.826 d
KOI: K04903.01 Corr: 0.890



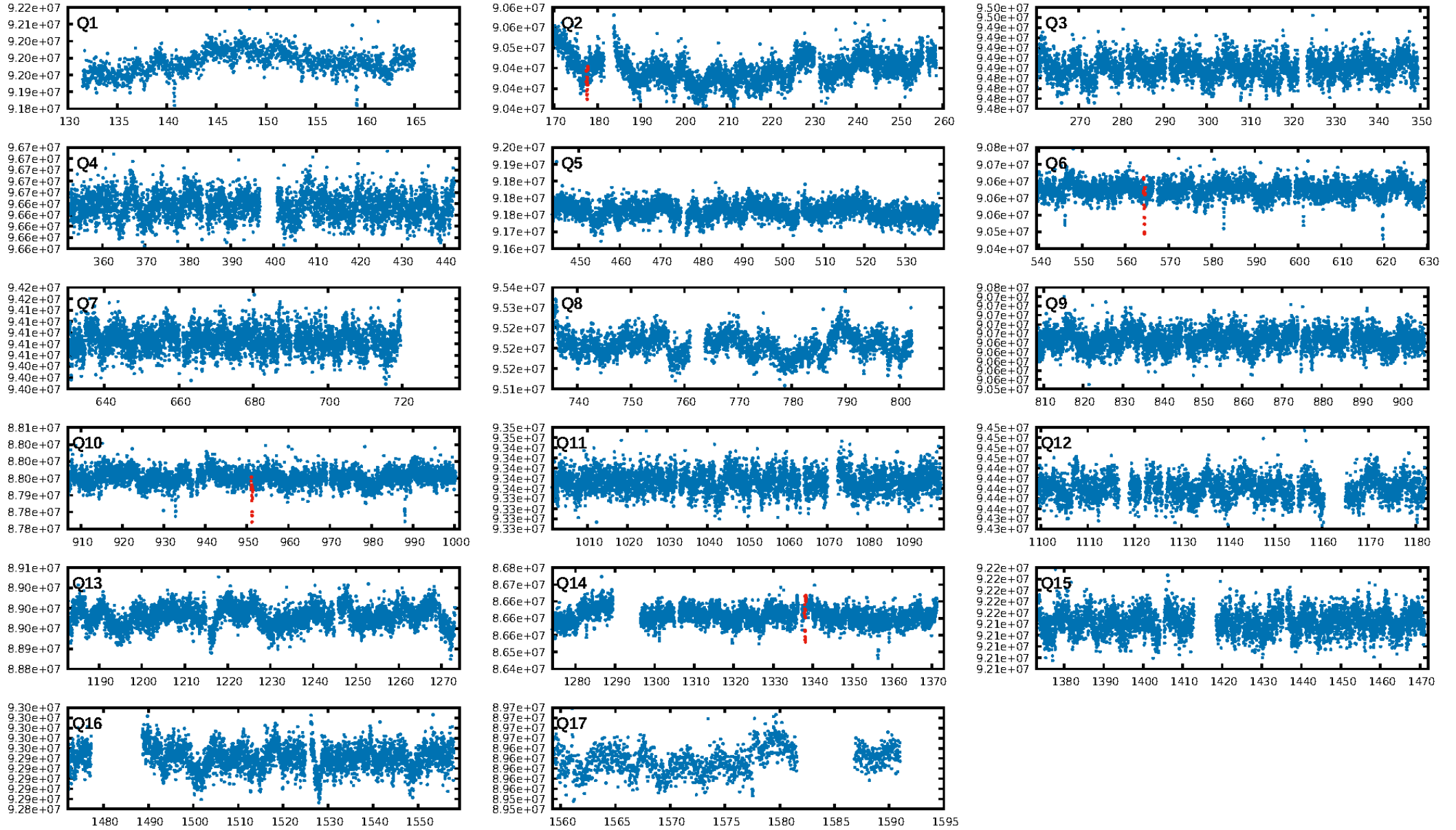
DV Fit Results:

Period = 386.82630 [0.00281] d
Epoch = 177.5724 [0.0056] BKJD
Rp/R* = 0.0371 [0.0021]
a/R* = 245.64 [28.50]
b = 0.95 [0.01]
Seff = 3.15 [1.43]
Teq = 340 [38] K
Rp = 6.54 [1.95] Re
a = 1.1096 [0.3014] AU
Ag = 8028.85 [3762.64] [2.13σ]
Teffp = 4973 [312] K [14.75σ]

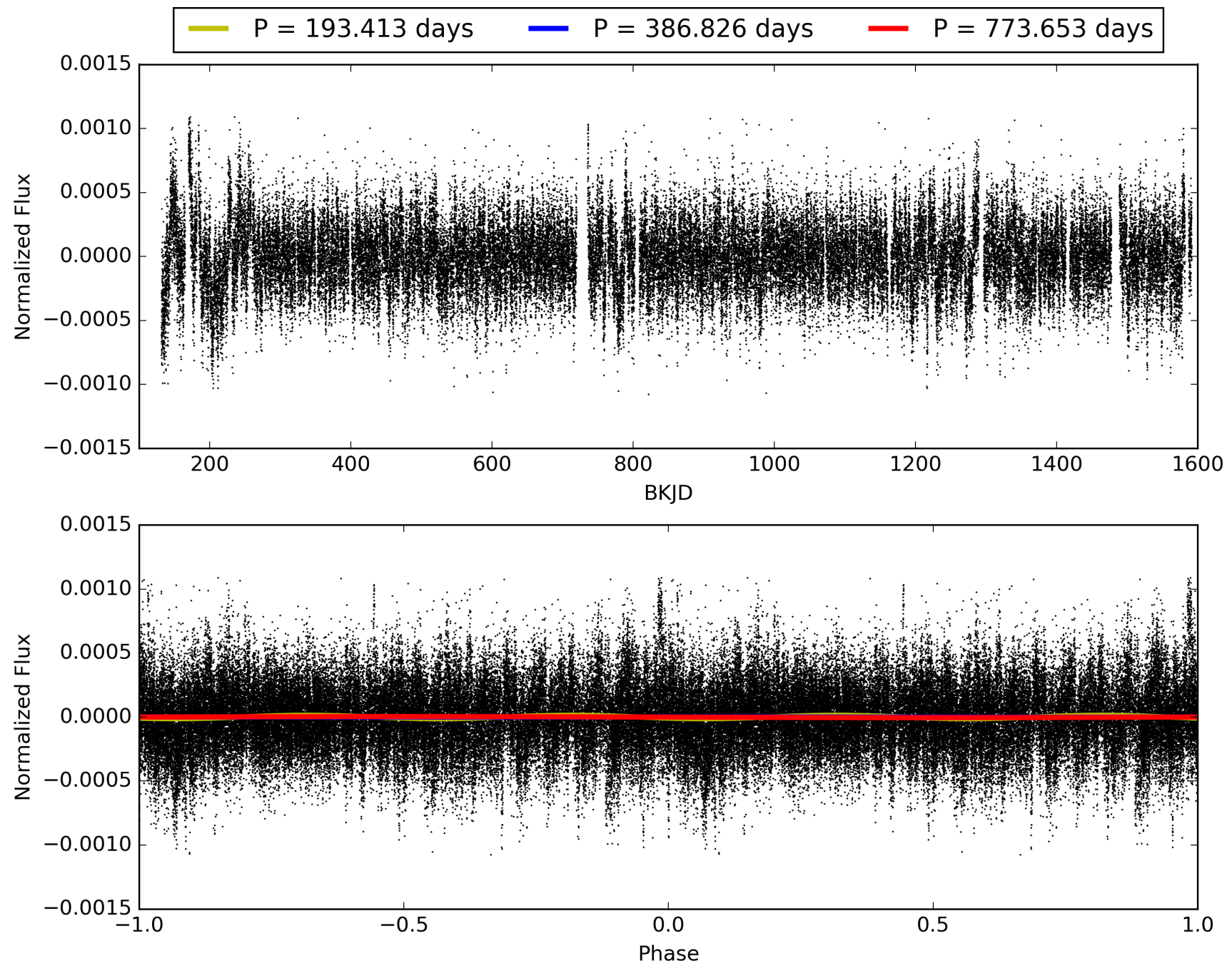
DV Diagnostic Results:

ShortPeriod-sig: 1.2% [0.01σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 1.1%
ModelChiSquareGof-sig: 96.0%
Bootstrap-pfa: 4.26e-17
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: 0.0686
Centroid-sig: 0.0%
Centroid-so: 17.241 arcsec [22.33σ]
OotOffset-rm: N/A
KicOffset-rm: N/A
OotOffset-st: 0/0/0/0 [0]
KicOffset-st: 0/0/0/0 [0]
DiffImageQuality-fgm: N/A
DiffImageOverlap-fno: 1.00 [3/3]

TCE 007799701-03, PDC Light Curves

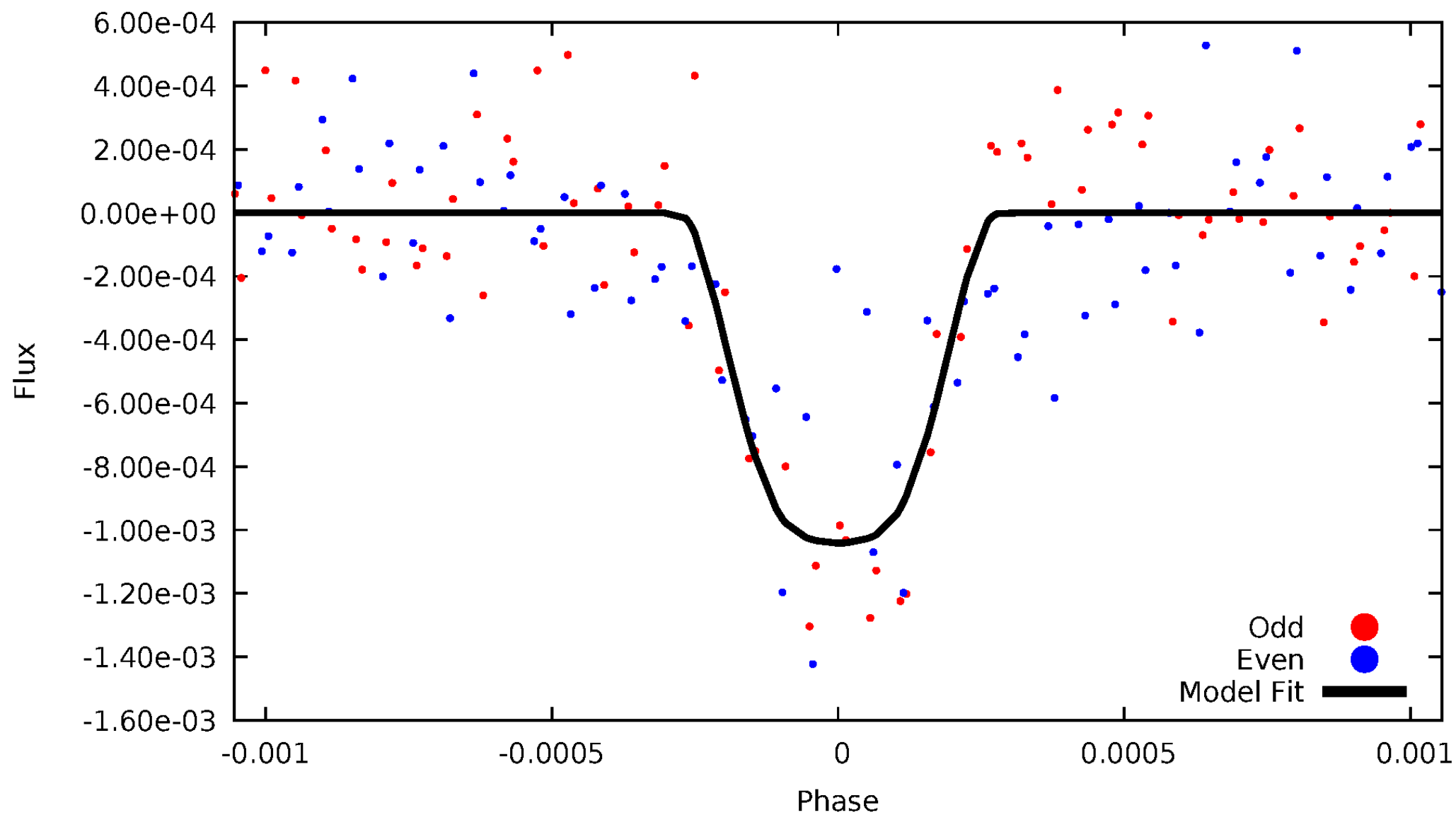


TCE 007799701-03



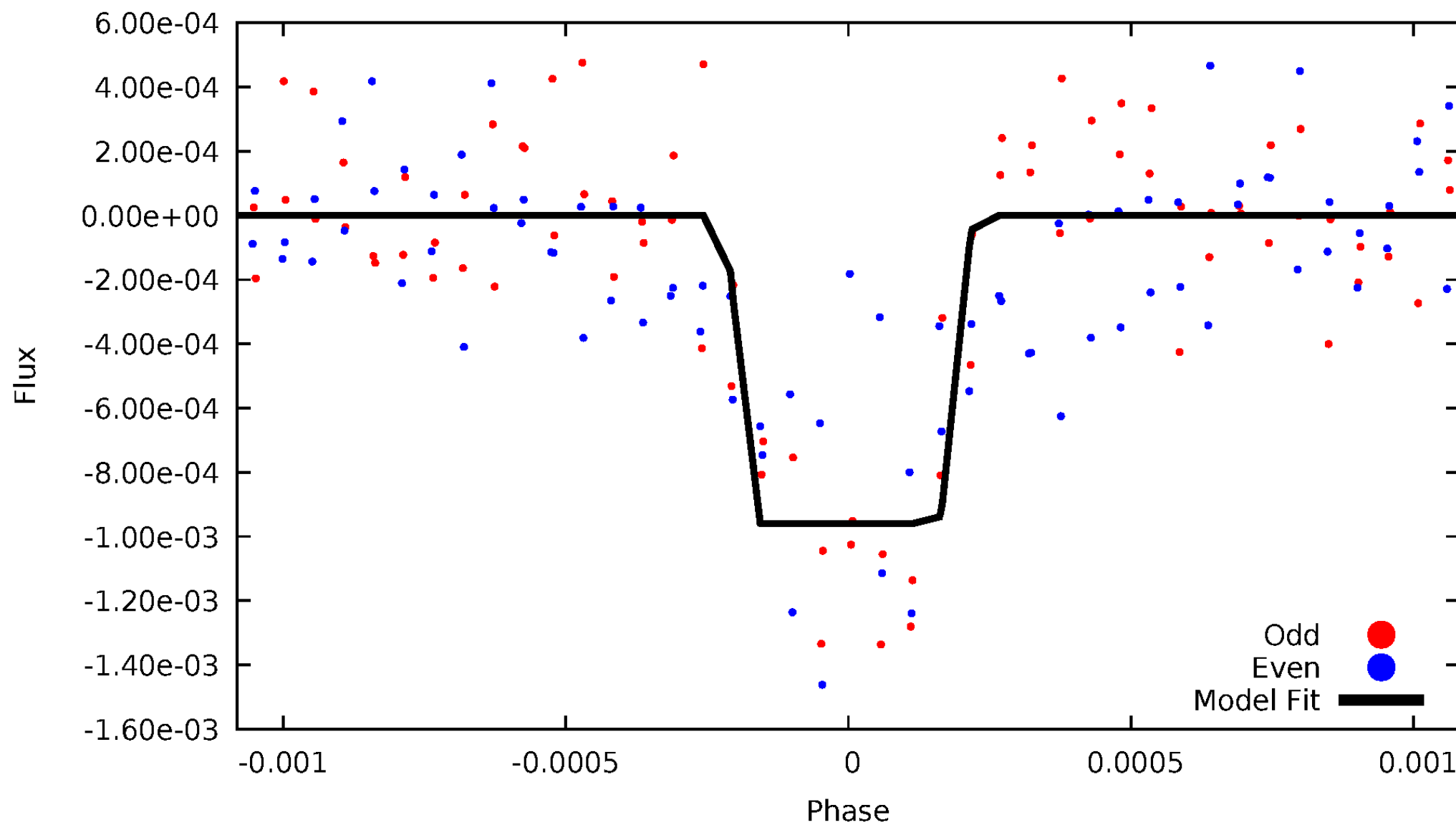
DV Odd/Even

TCE 007799701-03

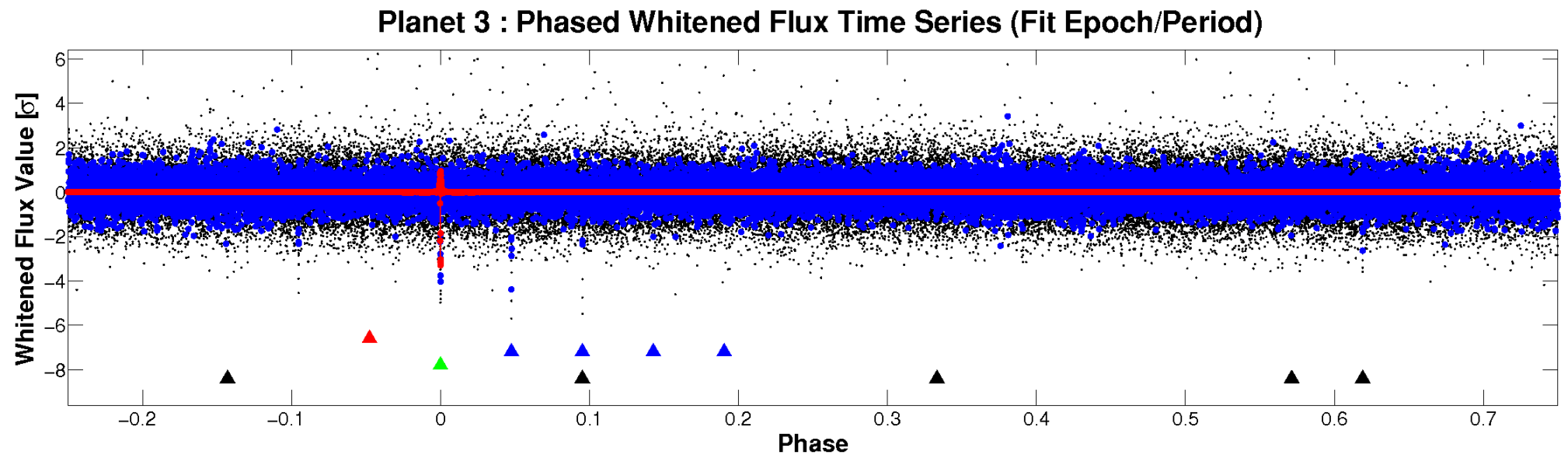
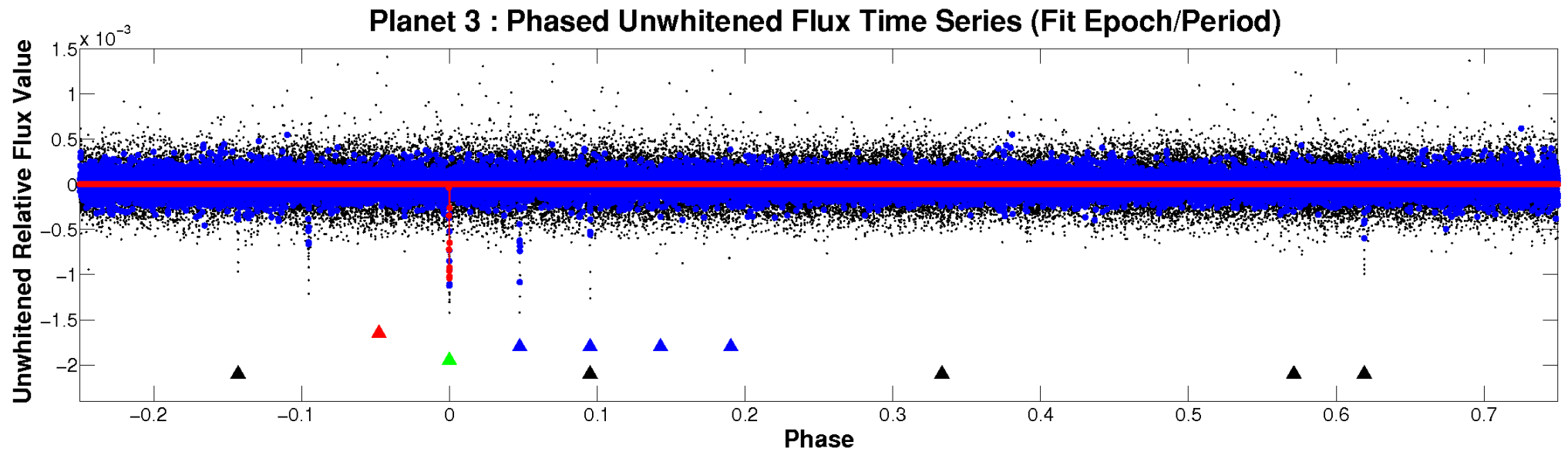


ALT Odd/Even

TCE 007799701-03

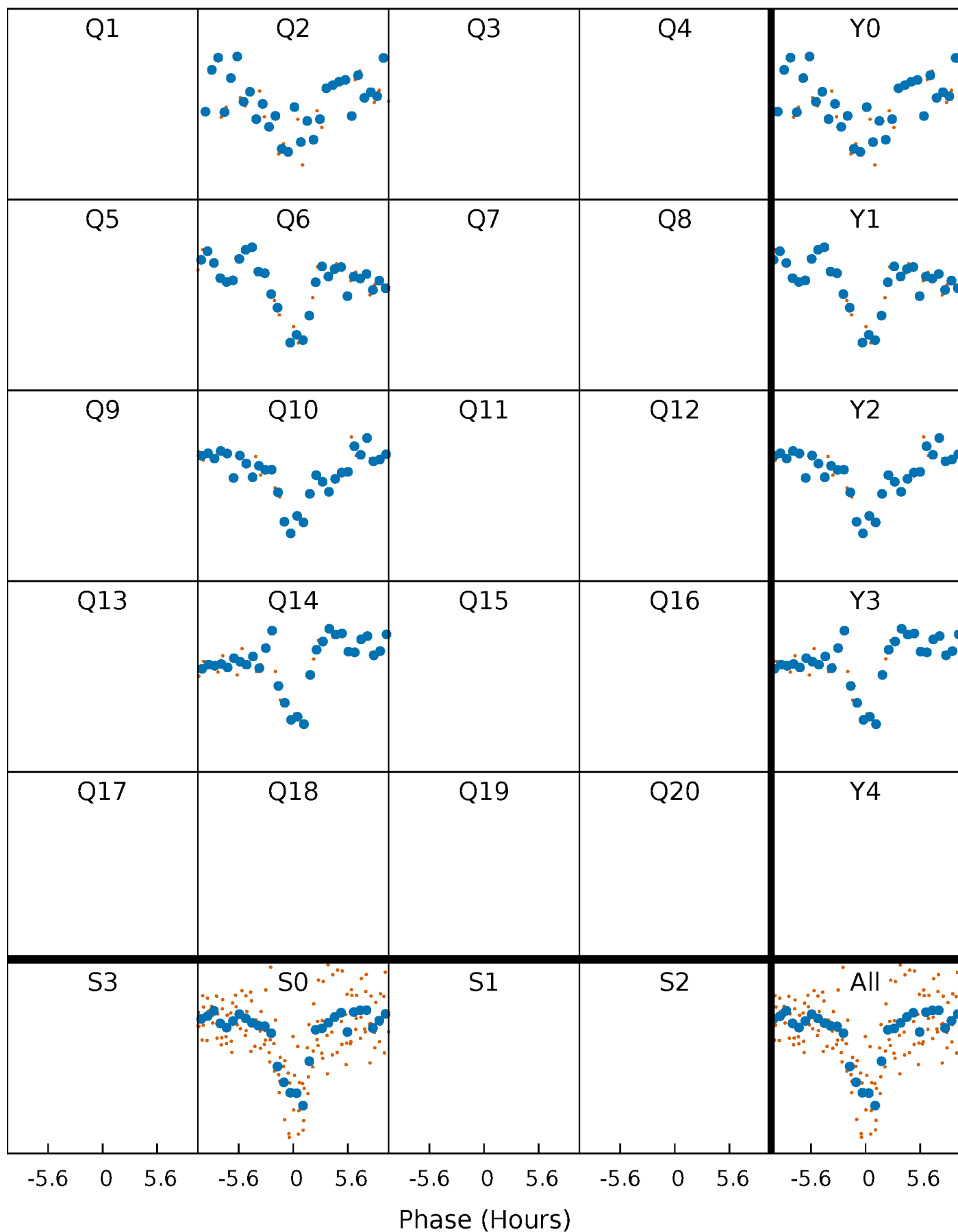


Non-Whitened Vs. Whitened Light Curve



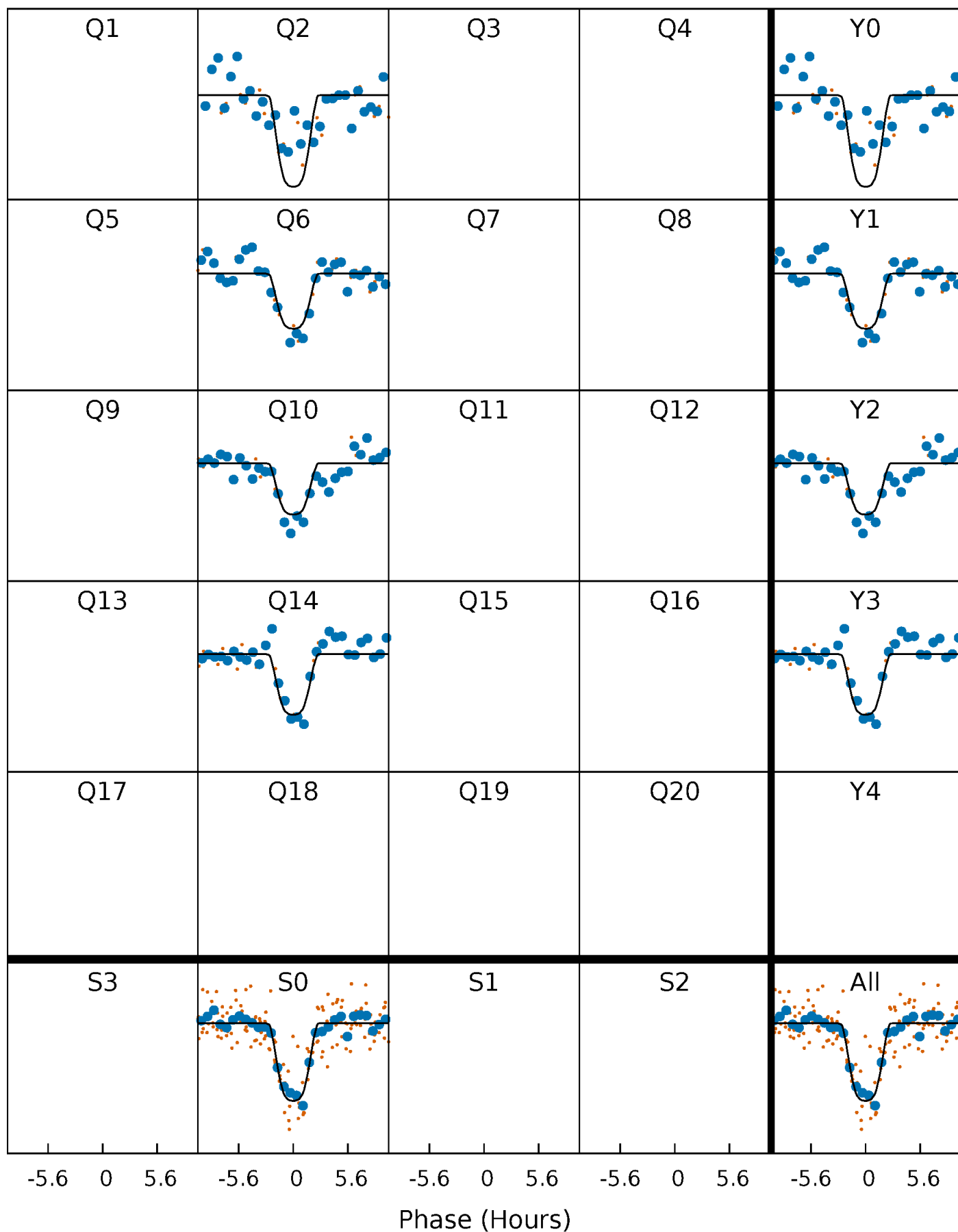
PDC Quarter-Phased Transit Curves

TCE 007799701-03 $P=386.826296$ Days $T_0=177.572419$ (BKJD)



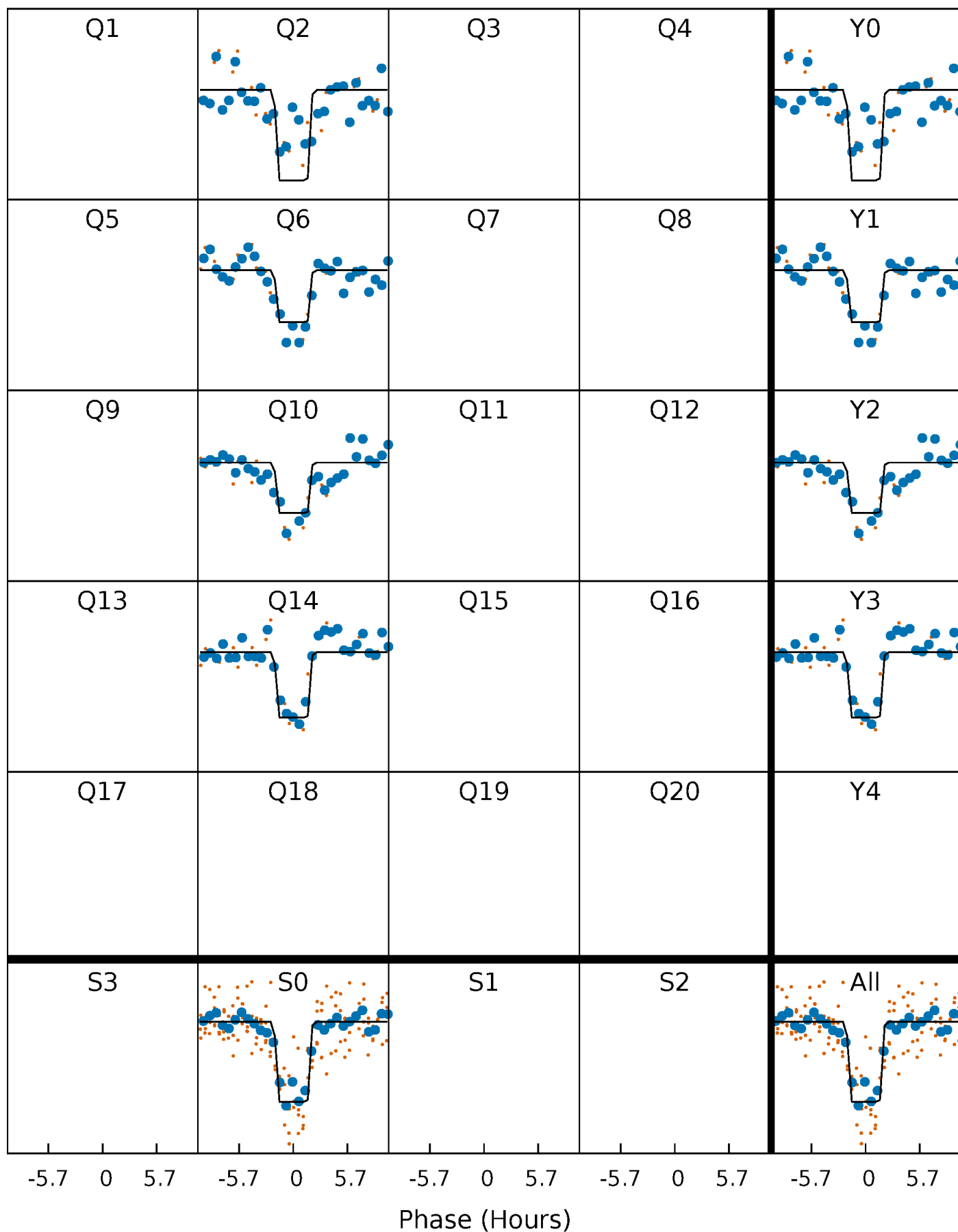
DV Quarter-Phased Transit Curves

TCE 007799701-03 $P=386.826296$ Days $T_0=177.572419$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

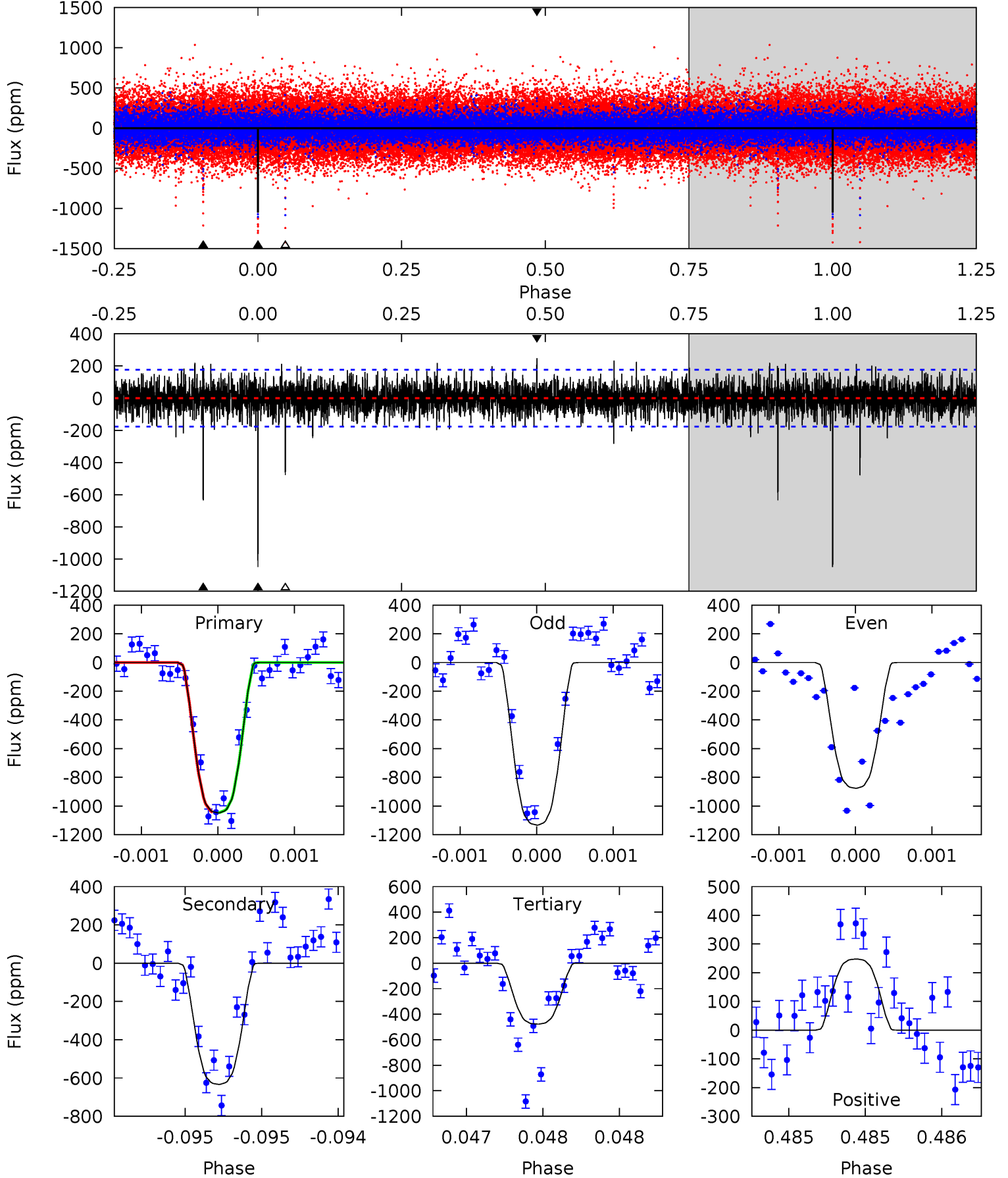
TCE 007799701-03 $P=386.827724$ Days $T_0=177.570434$ (BKJD)



DV Model-Shift Uniqueness Test

007799701-03, P = 386.826296 Days, E = 177.572419 Days

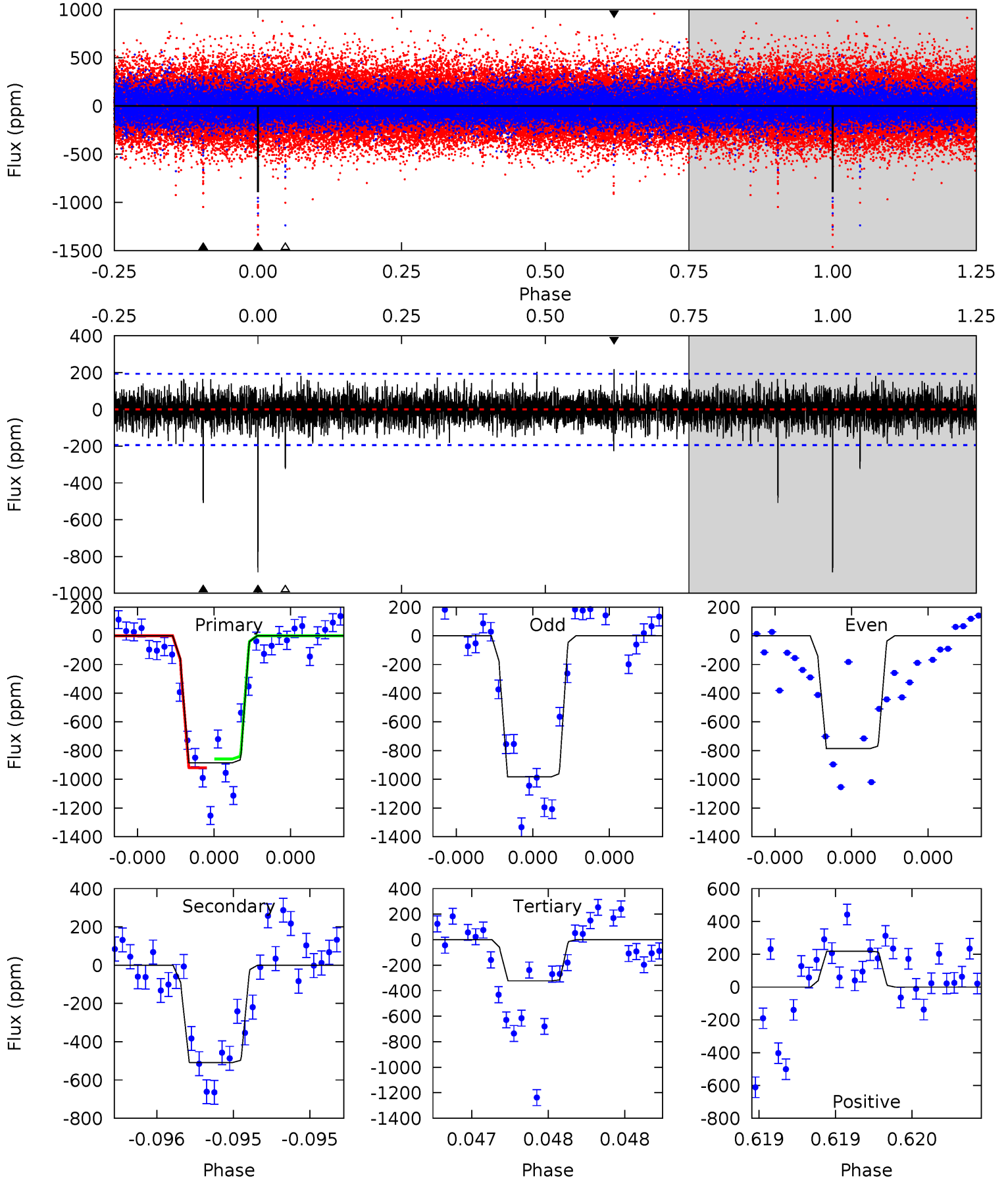
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
33.0	19.9	15.0	7.81	5.55	3.44	1.99	18.0	25.2	4.90	12.1	4.09	0.90	0.19	0



Alt Model-Shift Uniqueness Test

007799701-03, P = 386.827724 Days, E = 177.570434 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
25.5	14.7	9.31	6.30	5.58	3.50	1.52	16.2	19.2	5.34	8.35	2.88	0.92	0.20	0.86



Stellar Parameters For KIC 007799701

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6384^{+179}_{-247}	$4.107^{+0.246}_{-0.164}$	$-0.020^{+0.250}_{-0.300}$	$1.615^{+0.473}_{-0.426}$	$1.216^{+0.211}_{-0.192}$	$0.406^{+0.534}_{-0.200}$
	+3%/-4%	+6%/-4%	+1250%/-1500%	+29%/-26%	+17%/-16%	+131%/-49%
Source	PHO54	PHO54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 007799701-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-634 ± 32	$6.47^{+1.06}_{-0.98}$	470^{+35}_{-36}	5284^{+218}_{-215}	10177^{+3830}_{-2461}
Alt.	-508 ± 35	$5.44^{+0.97}_{-0.88}$	471^{+36}_{-38}	5451^{+247}_{-242}	11743^{+4521}_{-3165}

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

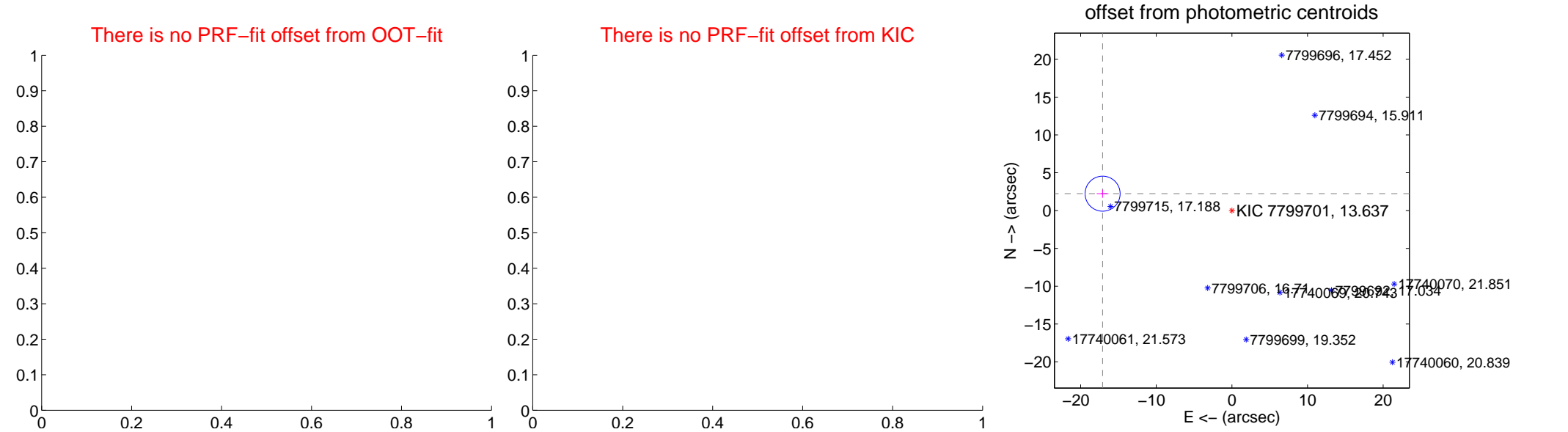
DV Centroid Data

Supplemental centroid analysis for 007799701-03. Kepler magnitude: 13.64. Transit SNR 14.33

There are 0 quarters with good PRF difference image offsets

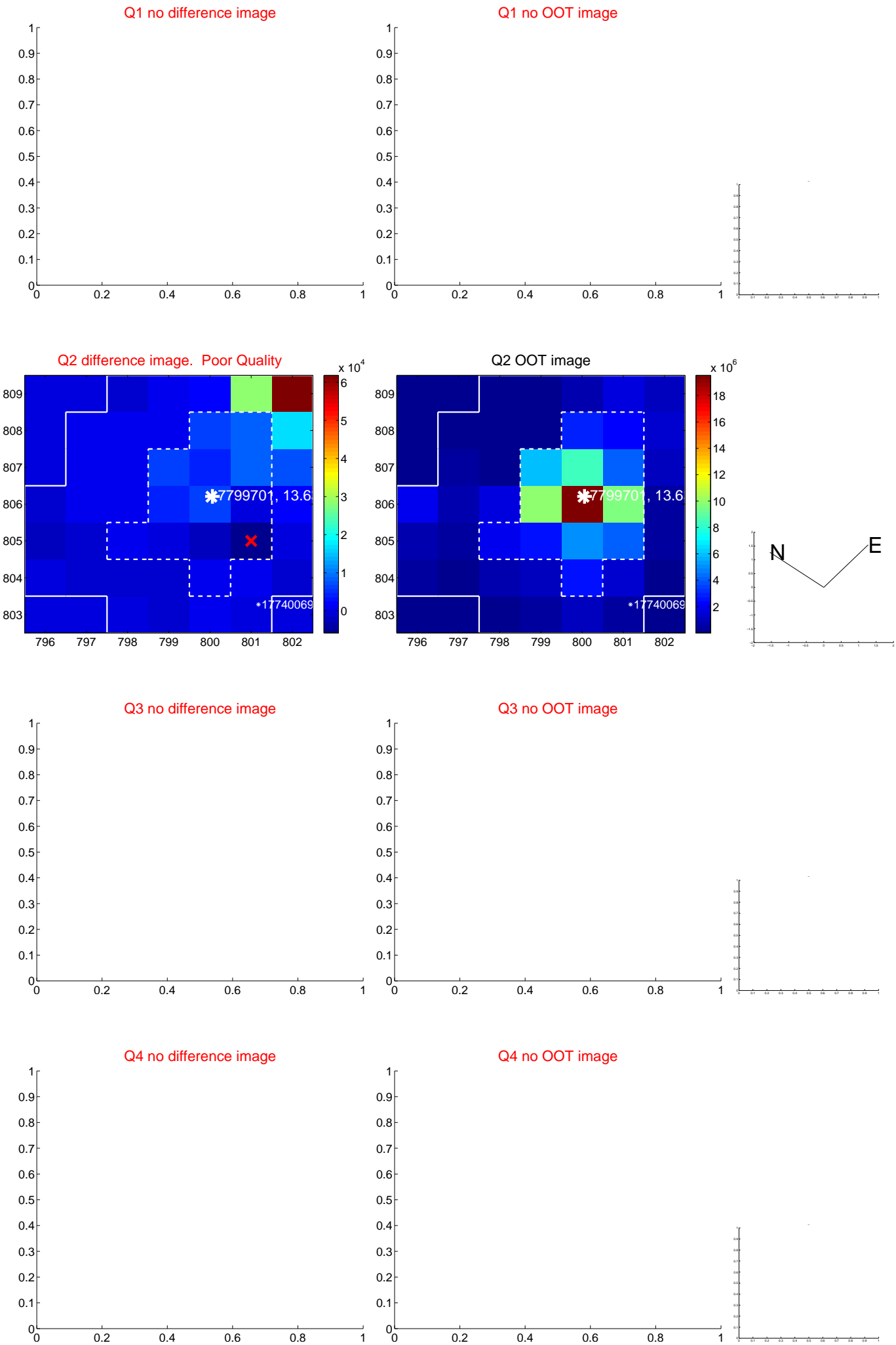
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	—	—	—	—
PRF-fit source offset from KIC position	—	—	—	—
photometric centroid source offset	17.24 ± 0.77	22.33	17.10 ± 0.78	2.23 ± 0.54

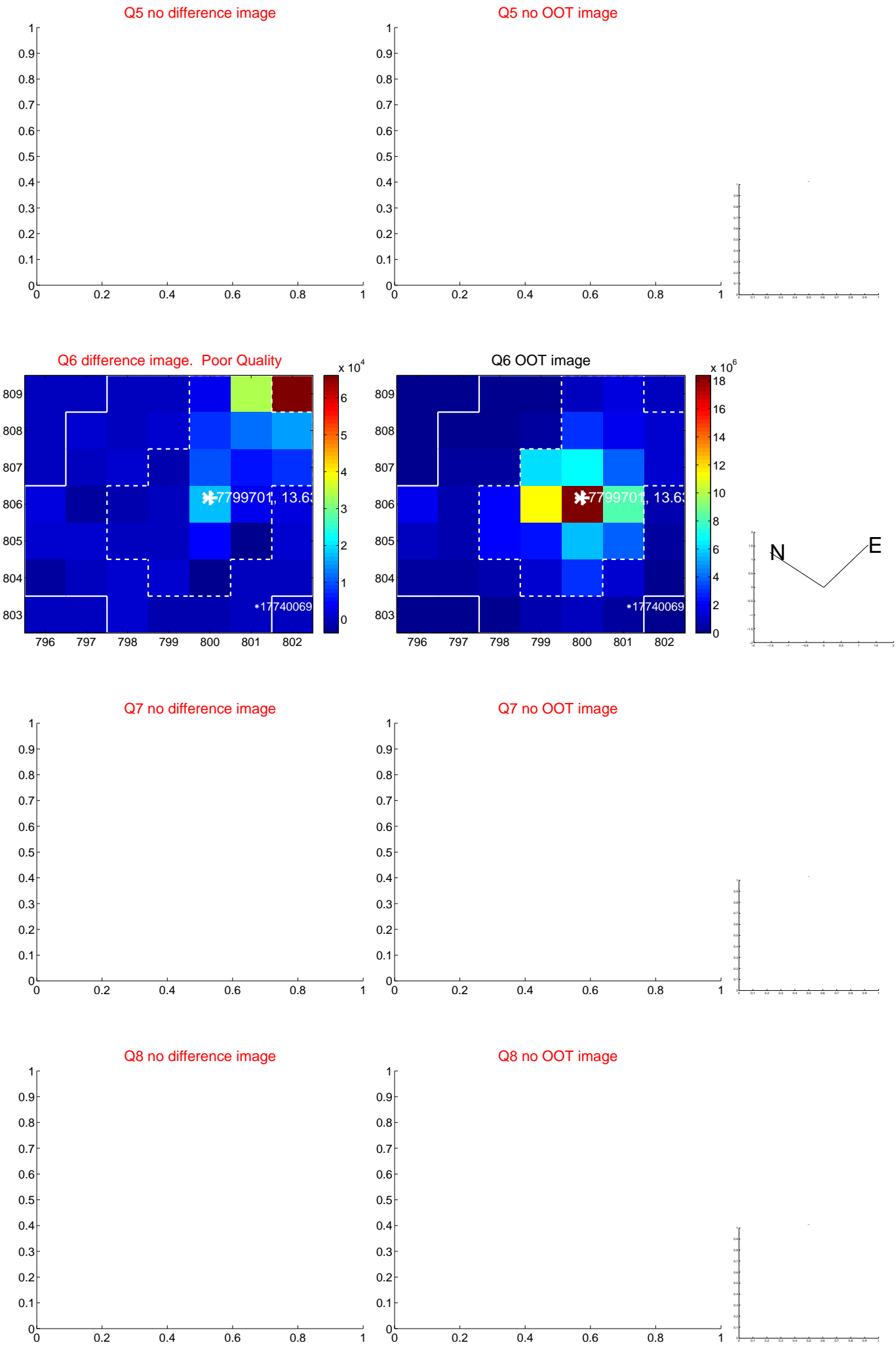


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

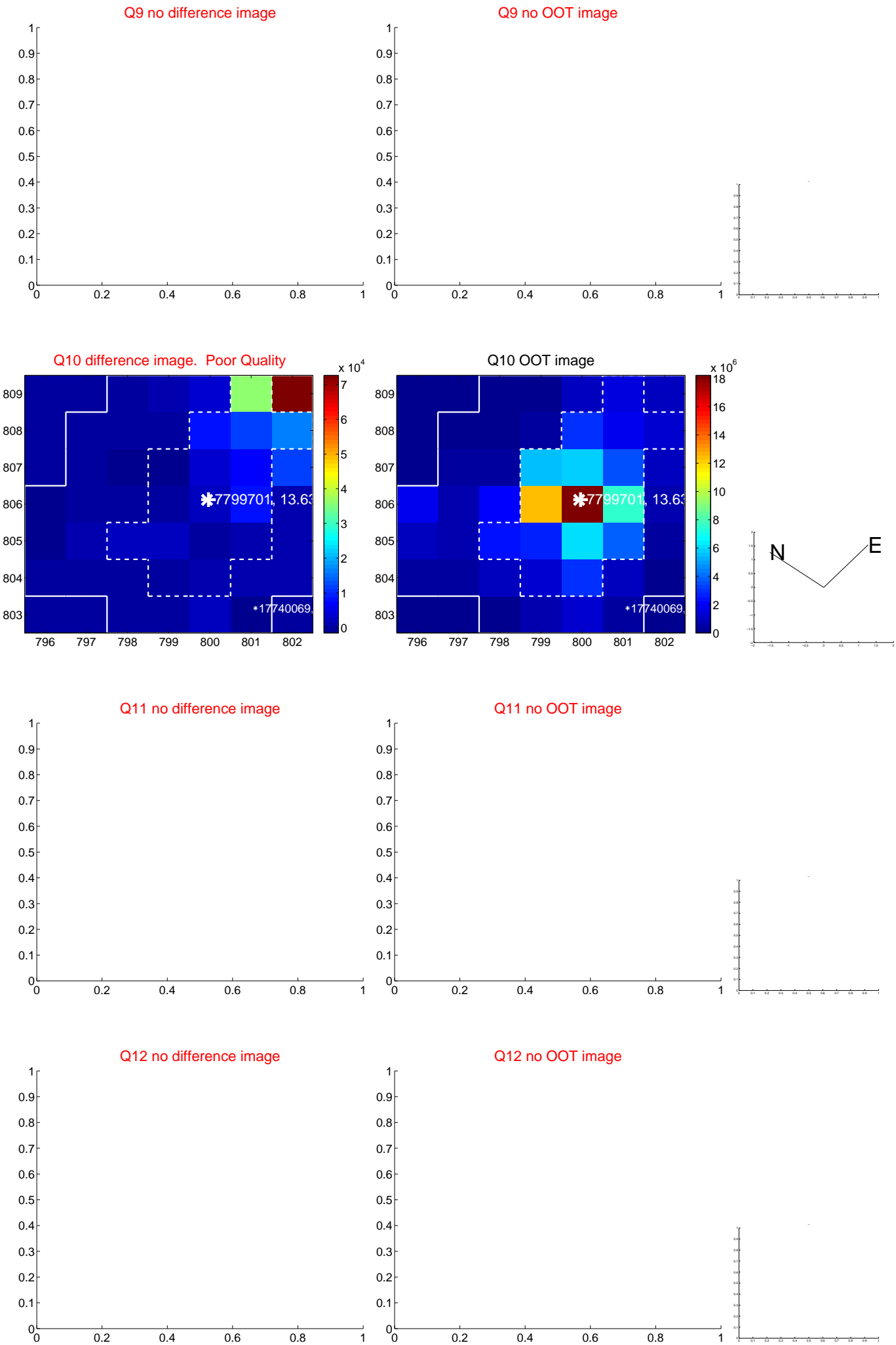
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



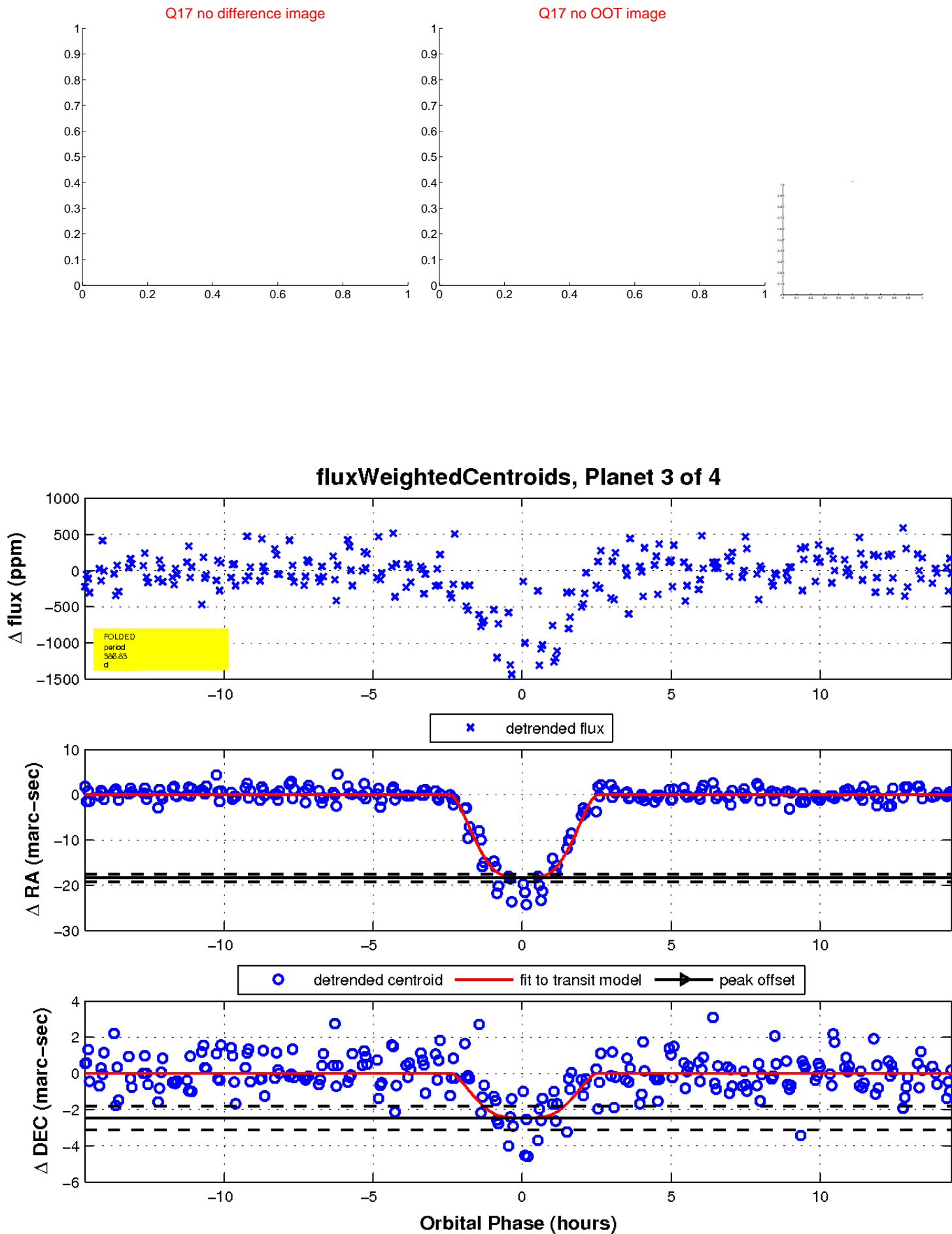
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

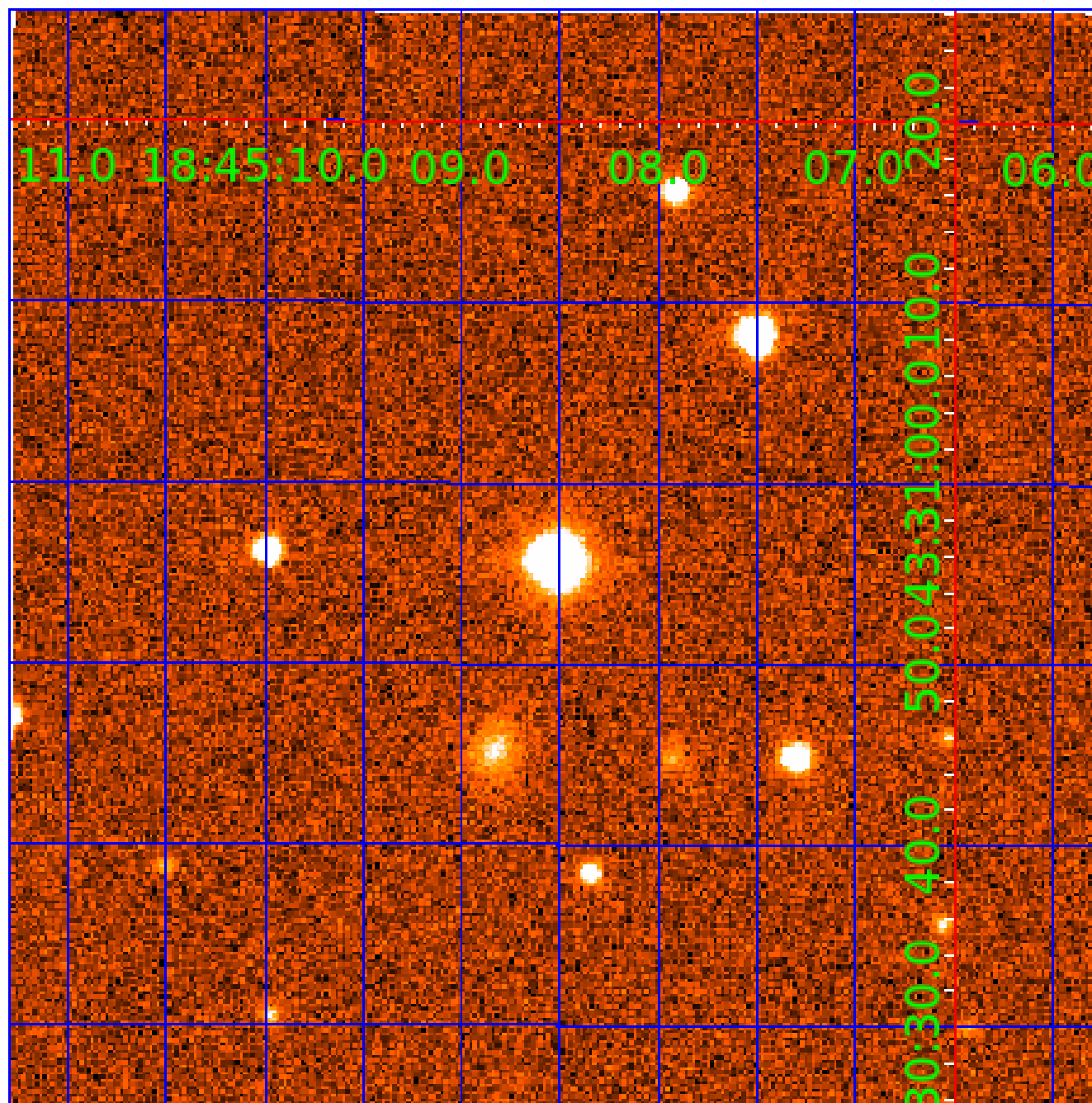


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 007799701

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})
007799701-01	OBS	4903.01	386.821975	159.161416	1214.6	4.905	16.5	17.3	1.61	6384	9.56	3.15
007799701-02	OBS	No	368.405051	251.250299	1164.9	5.025	15.3	14.5	1.61	6384	7.80	3.37
007799701-03	OBS	No	386.826296	177.572419	1041.3	4.894	12.2	14.3	1.61	6384	6.54	3.15
007799701-04	OBS	No	294.729298	398.595623	728.3	4.405	9.6	9.3	1.61	6384	5.60	4.53

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007799701-01	OBS	FP	0.00	0	1	1	0	MOD_SEC_DV—DEEP_V_SHAPED—HAS_SEC_TCE—CENT_RESOLVED_OFFSET—HALO_GHOST
007799701-02	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_MARSHALL_SKYE—CENT_RESOLVED_OFFSET—HALO_GHOST
007799701-03	OBS	FP	0.00	1	1	1	0	IS_SEC_TCE—CENT_FEW_DIFFS—HALO_GHOST
007799701-04	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—INCONSISTENT_TRANS—CENT_RESOLVED_OFFSET

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

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

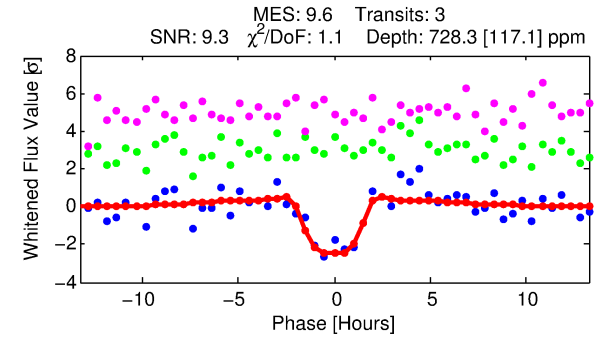
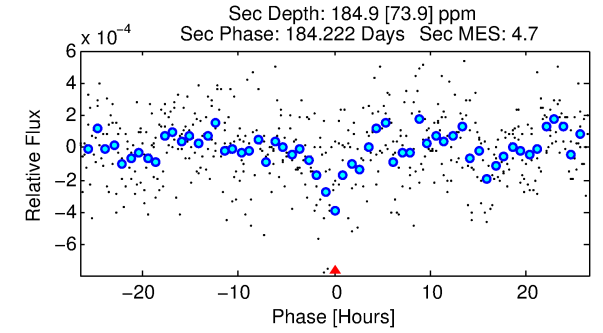
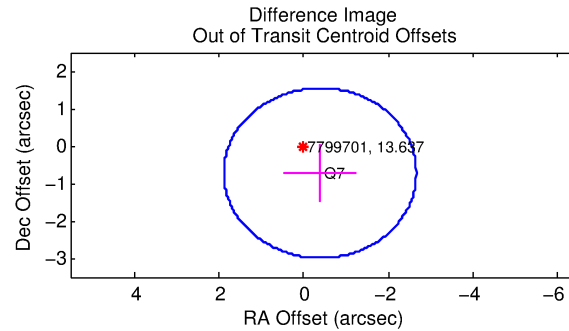
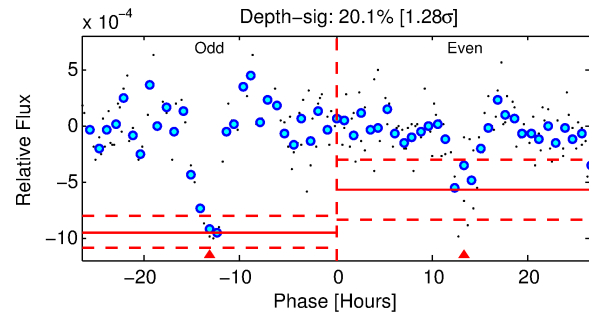
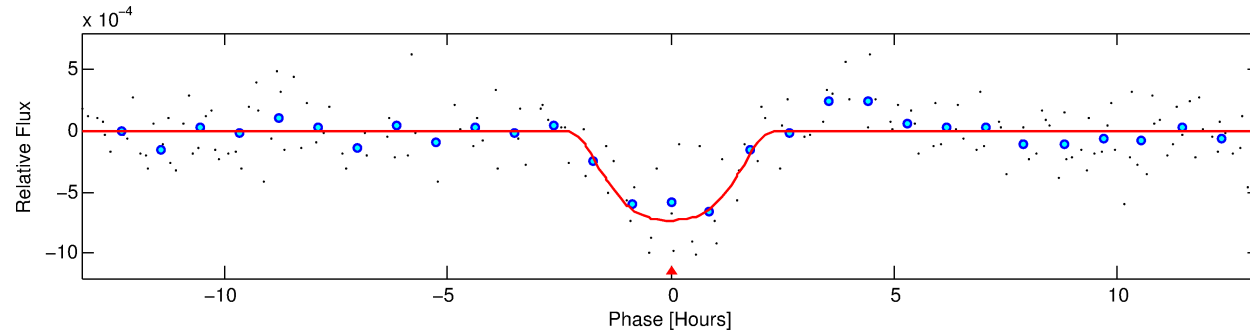
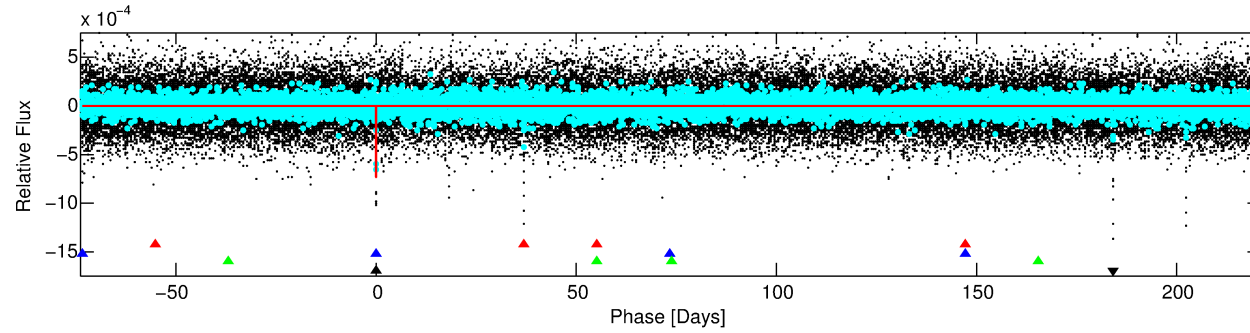
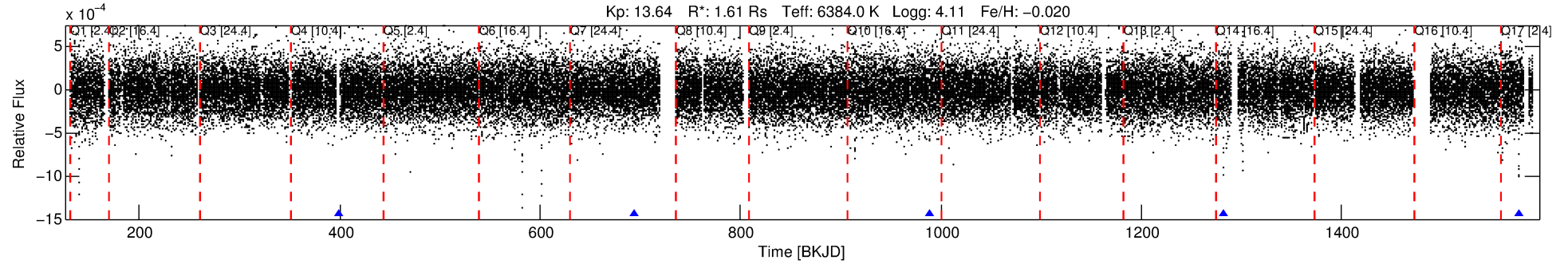
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007799701-04

No Significant Match Found

DV One-Page Summary

KIC: 7799701 Candidate: 4 of 4 Period: 294.729 d
KOI: K04903 Corr: No Ephemeris Match



DV Fit Results:

Period = 294.72930 [0.00445] d
Epoch = 398.5956 [0.0131] BKJD
Rp/R* = 0.0318 [0.0036]
a/R* = 186.78 [37.87]
b = 0.96 [0.02]
Seff = 4.53 [2.05]
Teq = 372 [42] K
Rp = 5.60 [1.76] Re
a = 0.9256 [0.2514] AU
Ag = 2779.24 [1737.35] [1.60 σ]
Teffp = 4176 [505] K [7.51 σ]

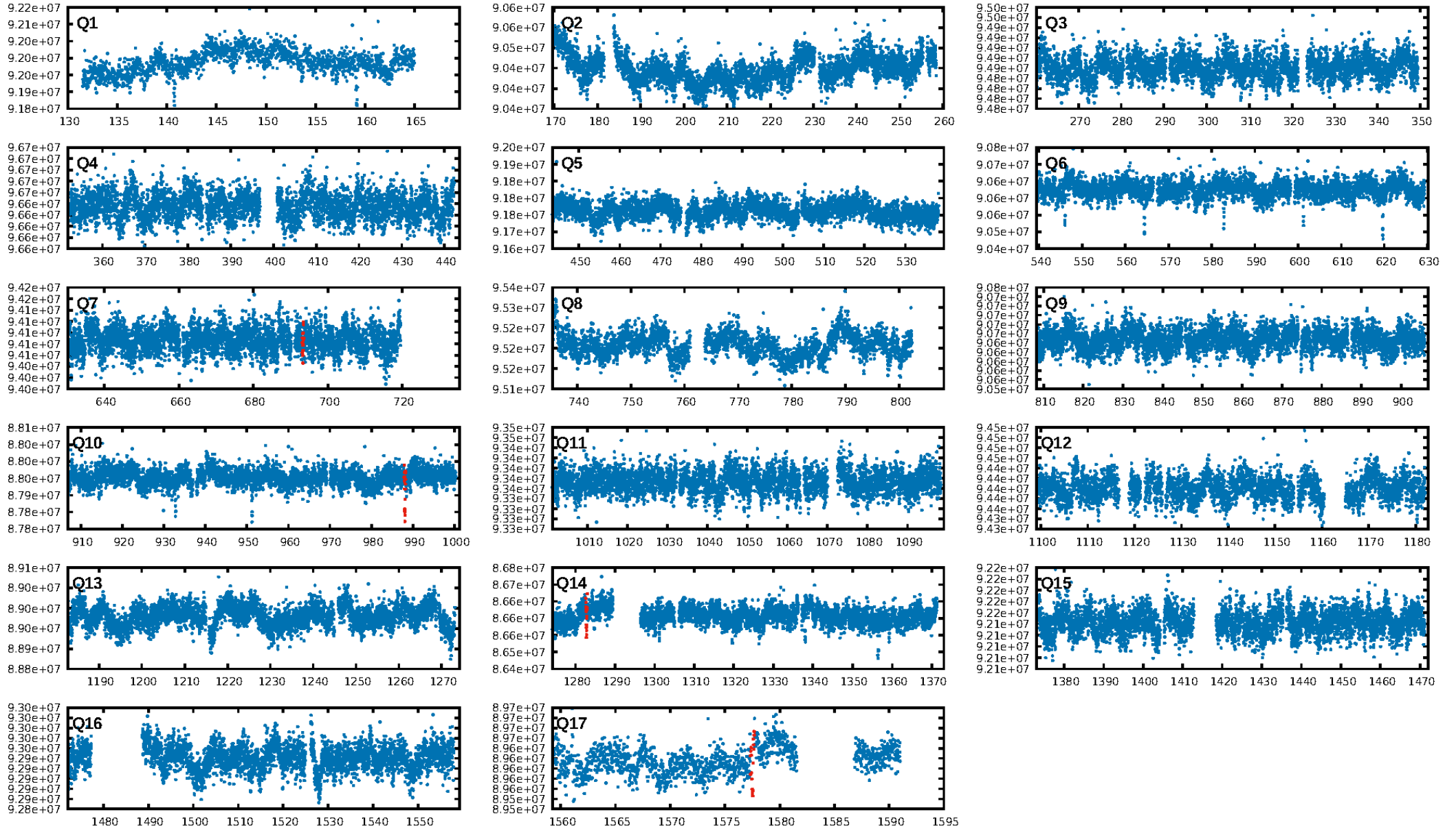
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [264.60 σ]
ModelChiSquare2-sig: 0.3%
ModelChiSquareGof-sig: 83.3%
Bootstrap-pfa: 5.80e-13
RollingBand-fgt: 1.00 [2/2]
GhostDiagnostic-chr: 0.5611
Centroid-sig: 0.0%
Centroid-so: 5.565 arcsec [5.69 σ]
OotOffset-rm: 0.824 arcsec [1.09 σ]
KicOffset-rm: 0.818 arcsec [1.09 σ]
OotOffset-st: 0/1/0/0 [1]
KicOffset-st: 0/1/0/0 [1]
DiffImageQuality-fgm: 0.00 [0/1]
DiffImageOverlap-fno: 0.75 [3/4]

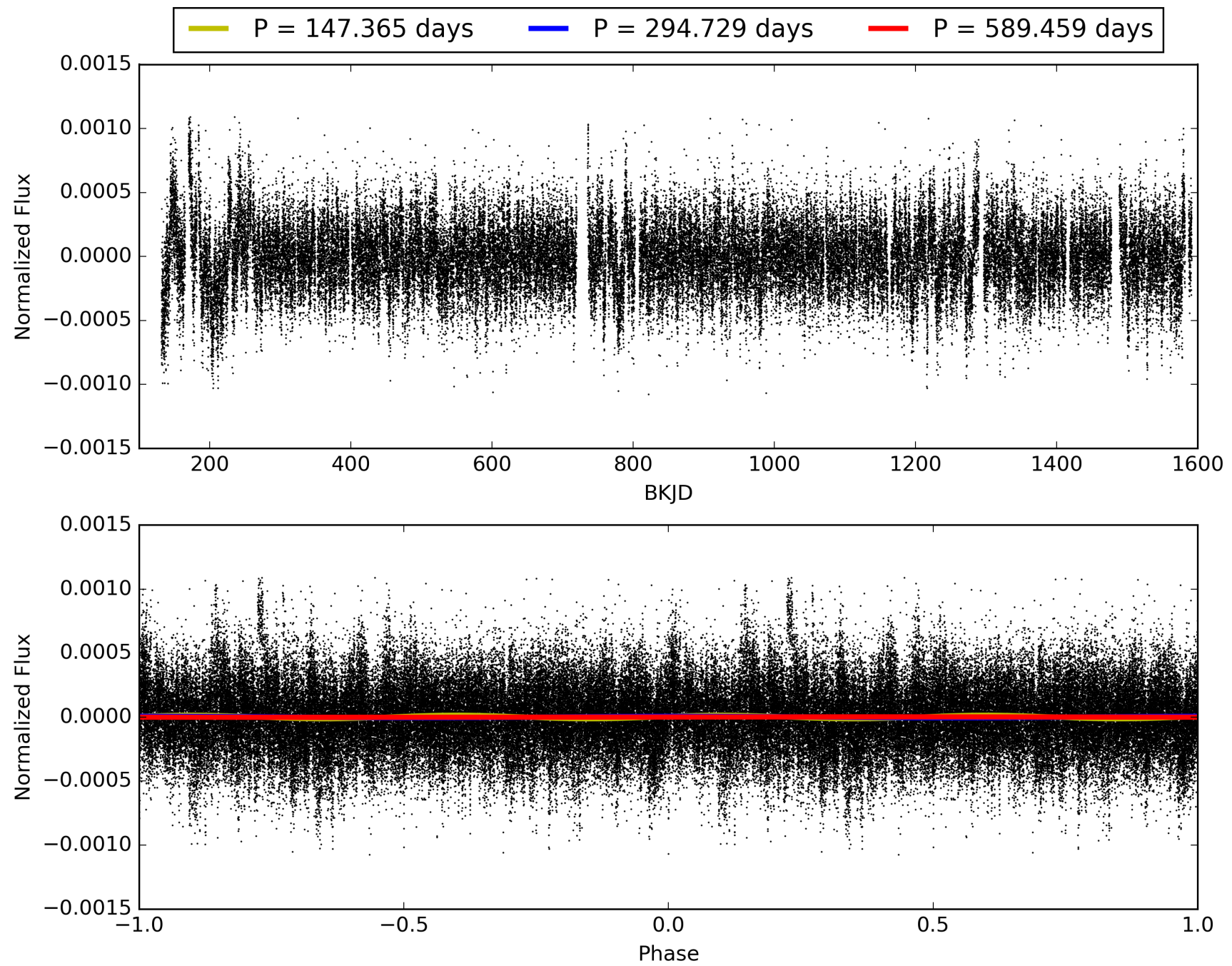
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 20:08:01 Z

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

TCE 007799701-04, PDC Light Curves

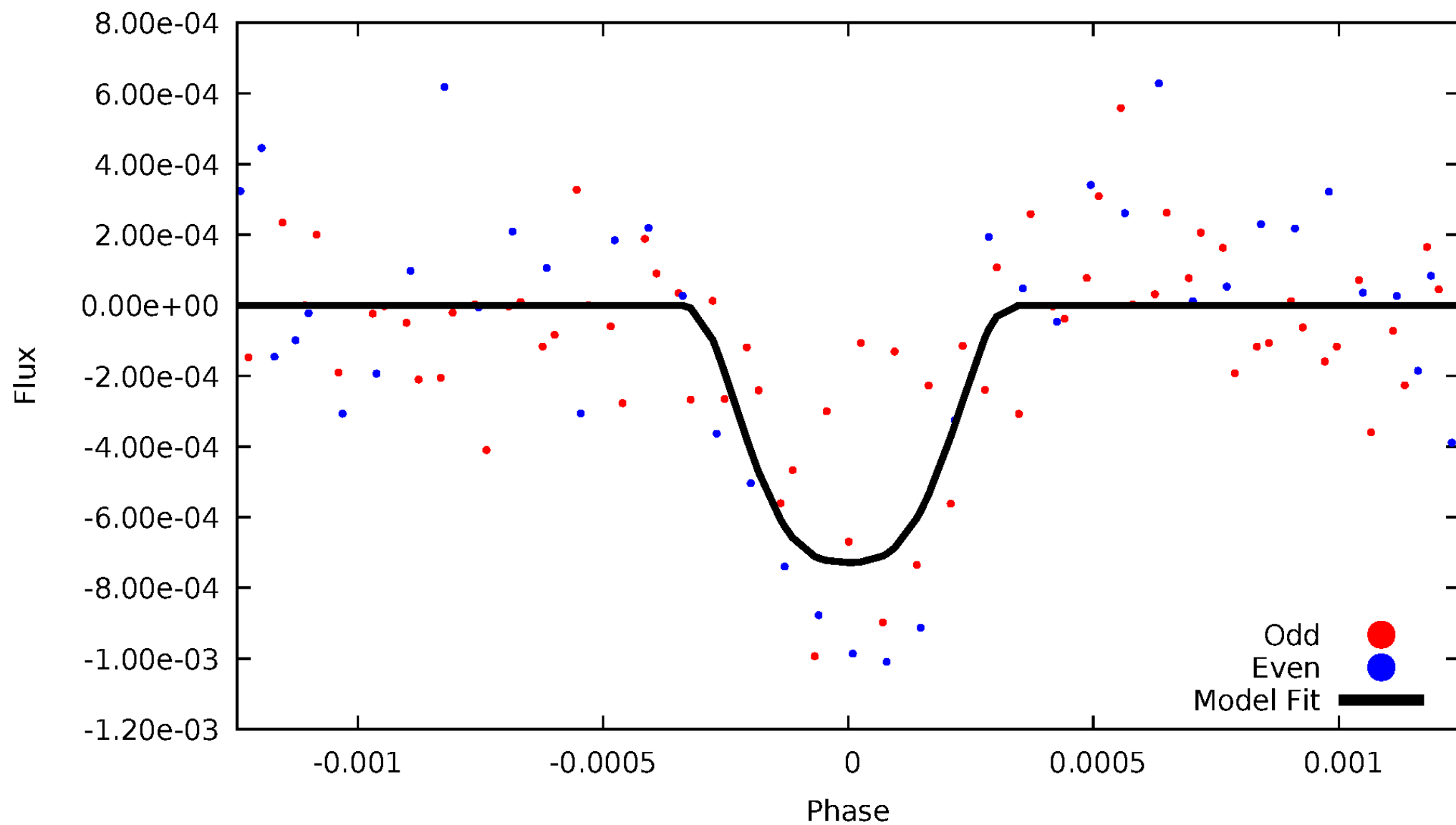


TCE 007799701-04



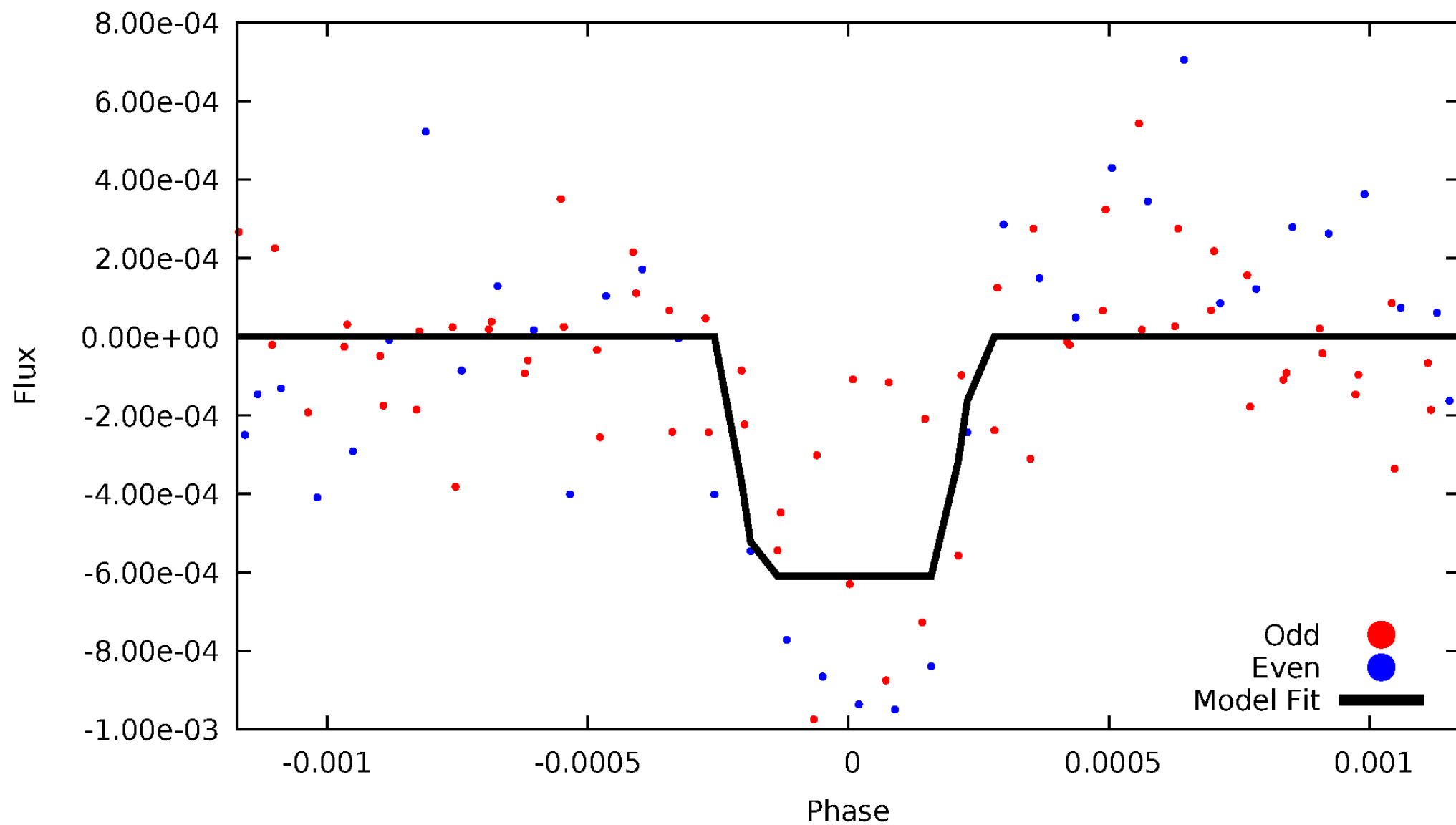
DV Odd/Even

TCE 007799701-04



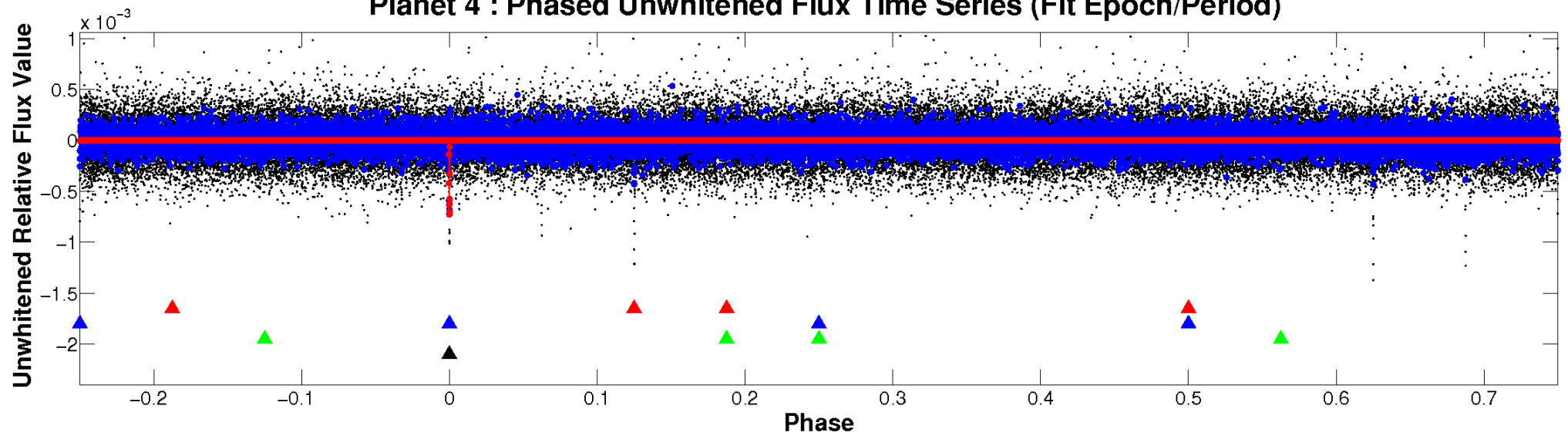
ALT Odd/Even

TCE 007799701-04

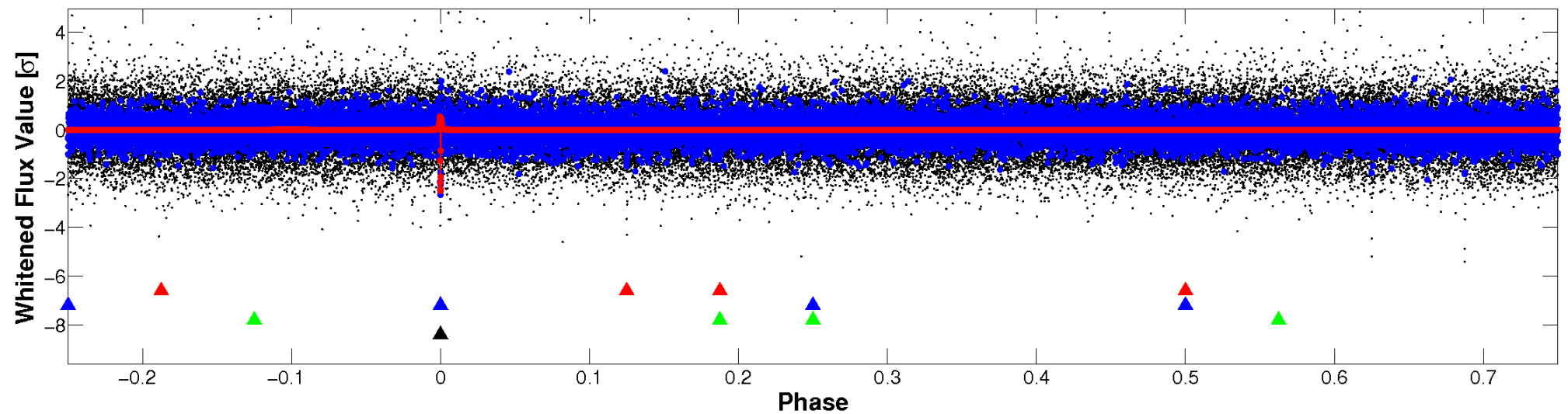


Non-Whitened Vs. Whitened Light Curve

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

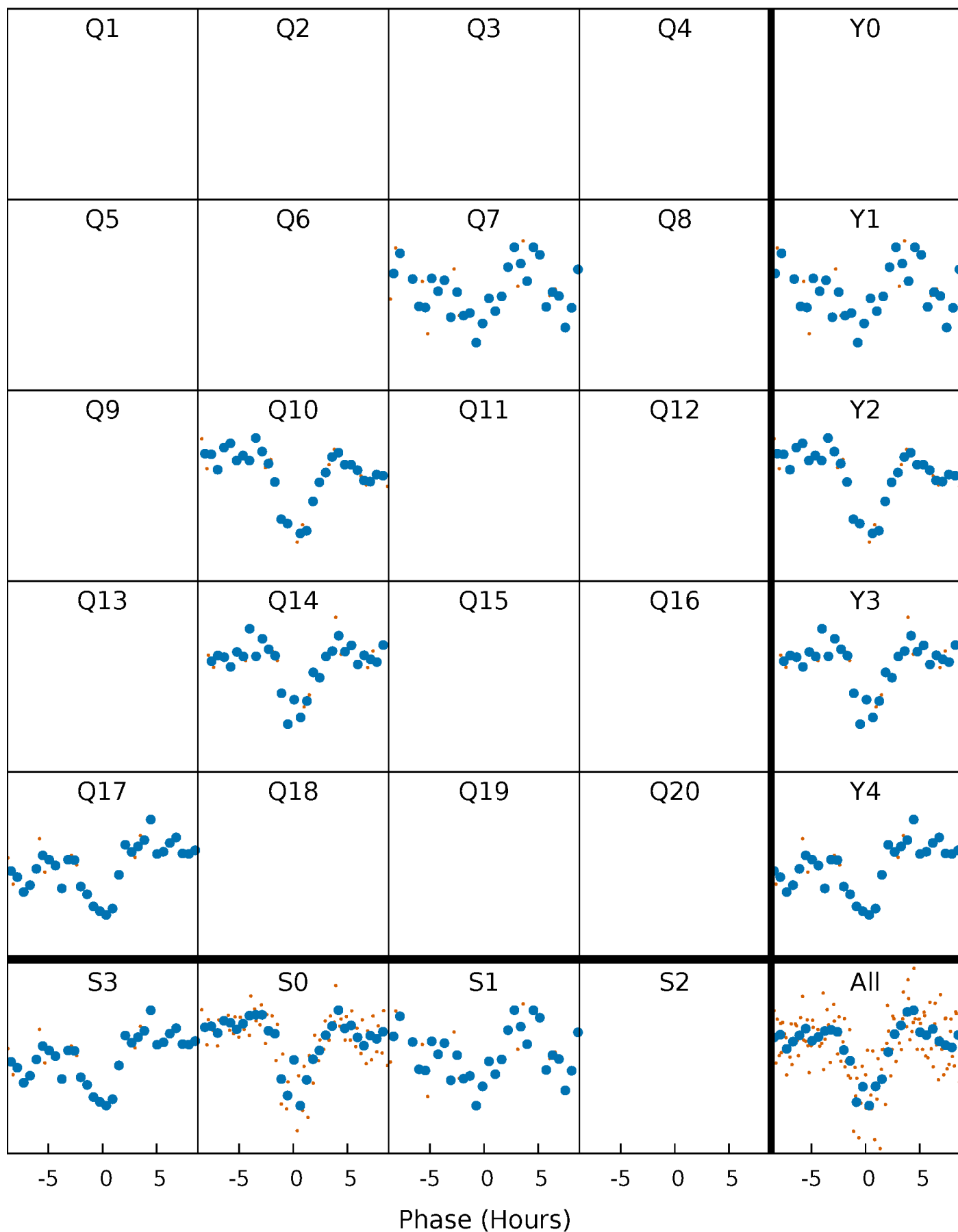


Planet 4 : Phased Whitened Flux Time Series (Fit Epoch/Period)



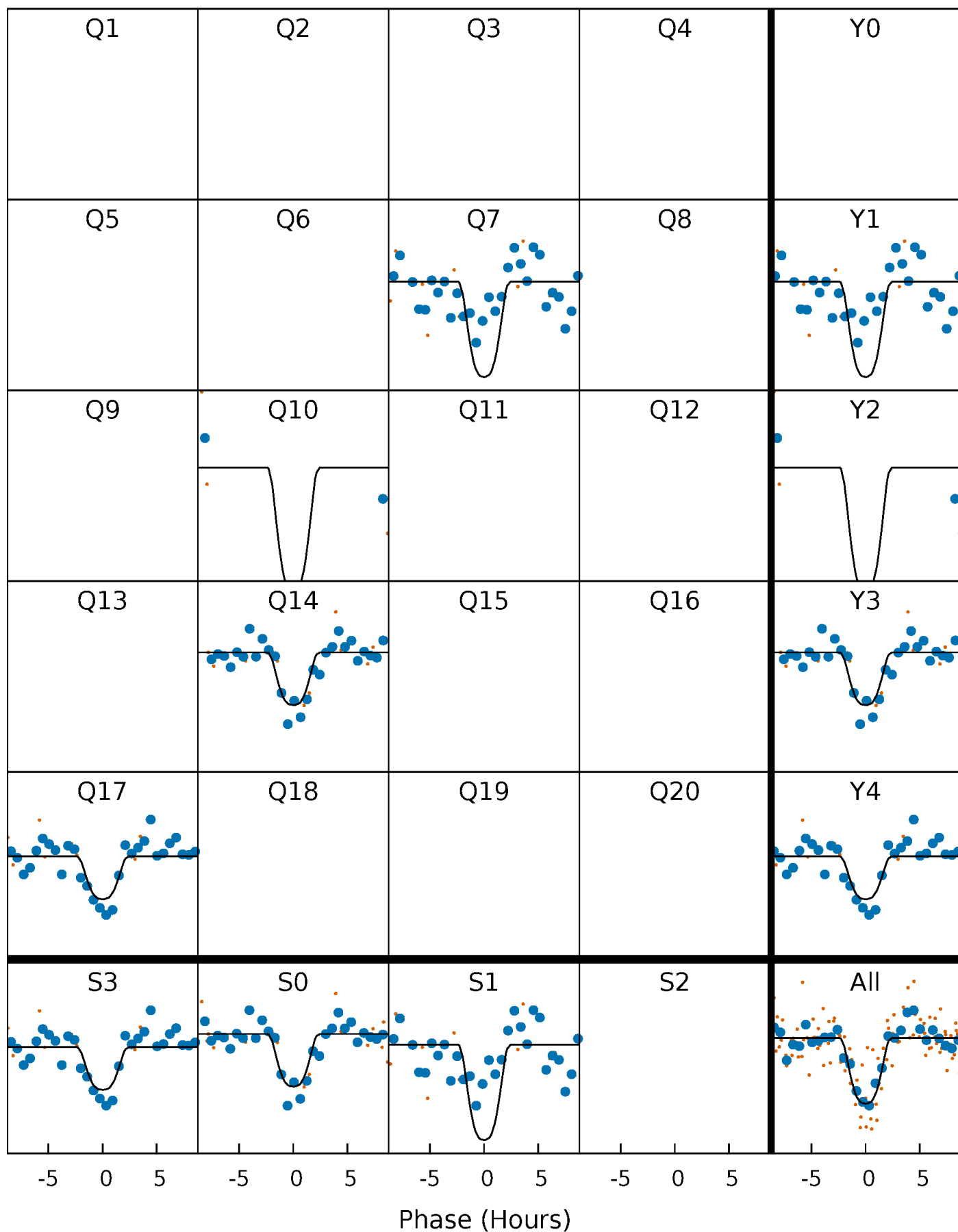
PDC Quarter-Phased Transit Curves

TCE 007799701-04 $P=294.729297$ Days $T_0=398.595623$ (BKJD)



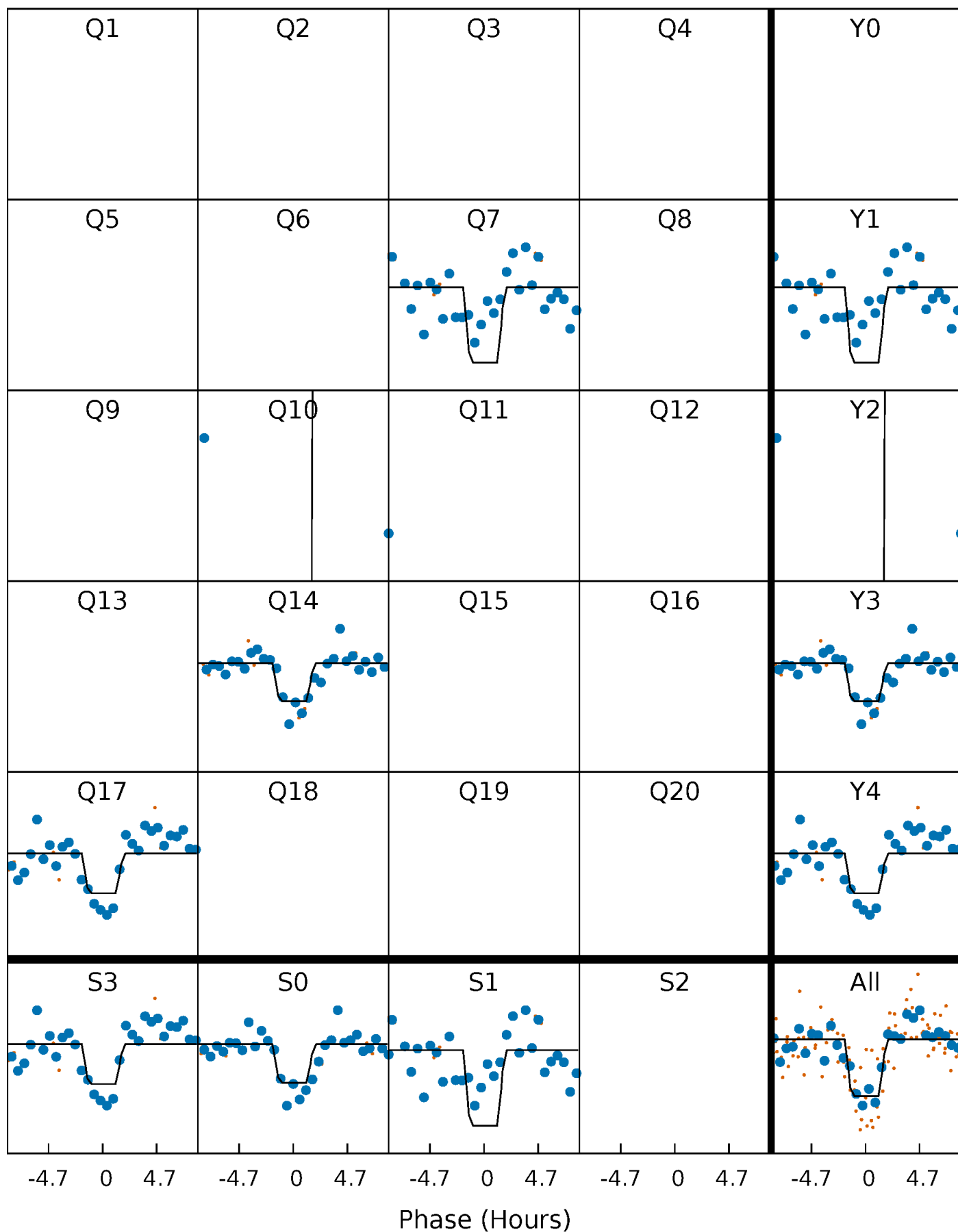
DV Quarter-Phased Transit Curves

TCE 007799701-04 $P=294.729297$ Days $T_0=398.595623$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

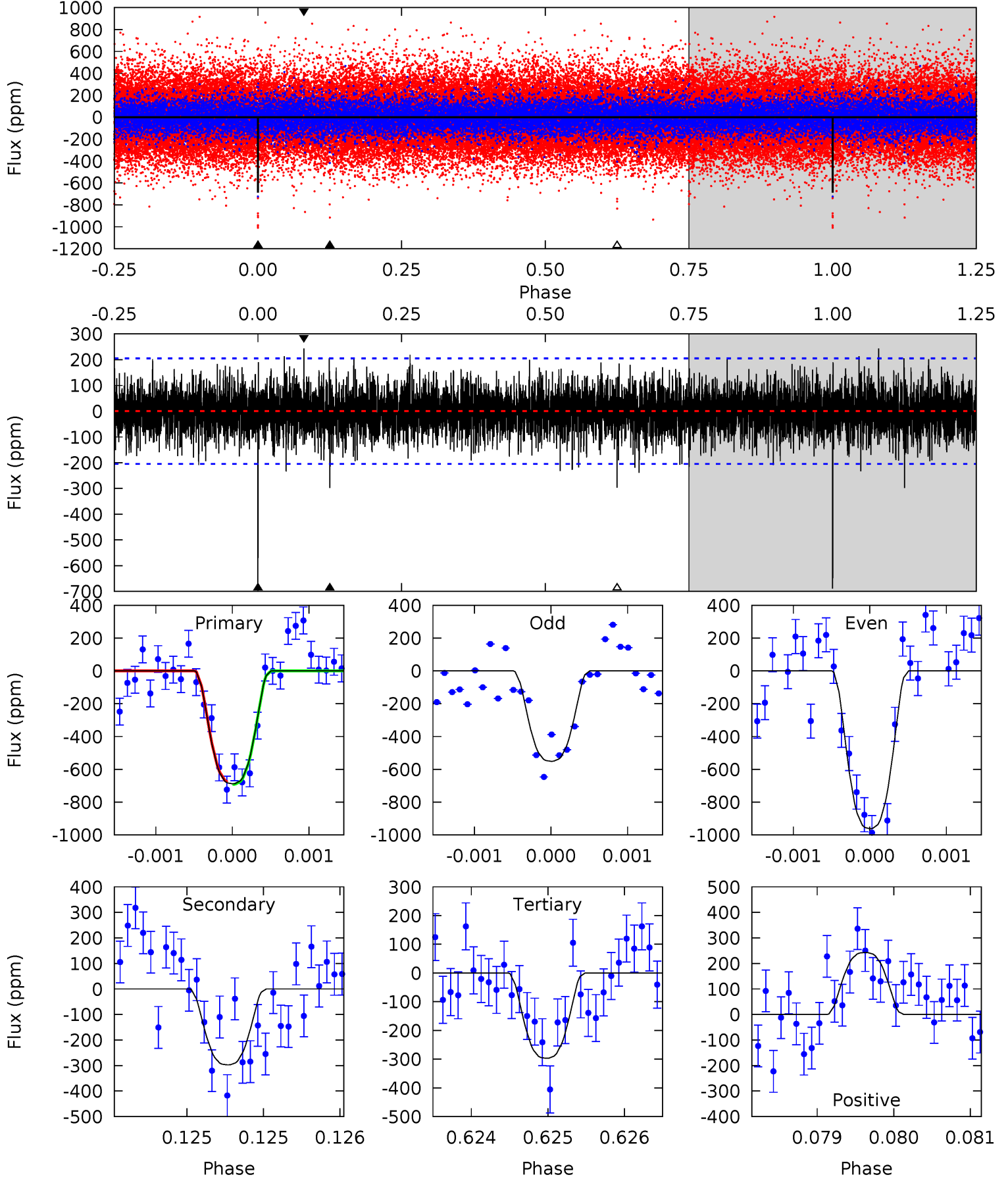
TCE 007799701-04 $P=294.726563$ Days $T_0=398.603184$ (BKJD)



DV Model-Shift Uniqueness Test

007799701-04, P = 294.729297 Days, E = 103.866326 Days

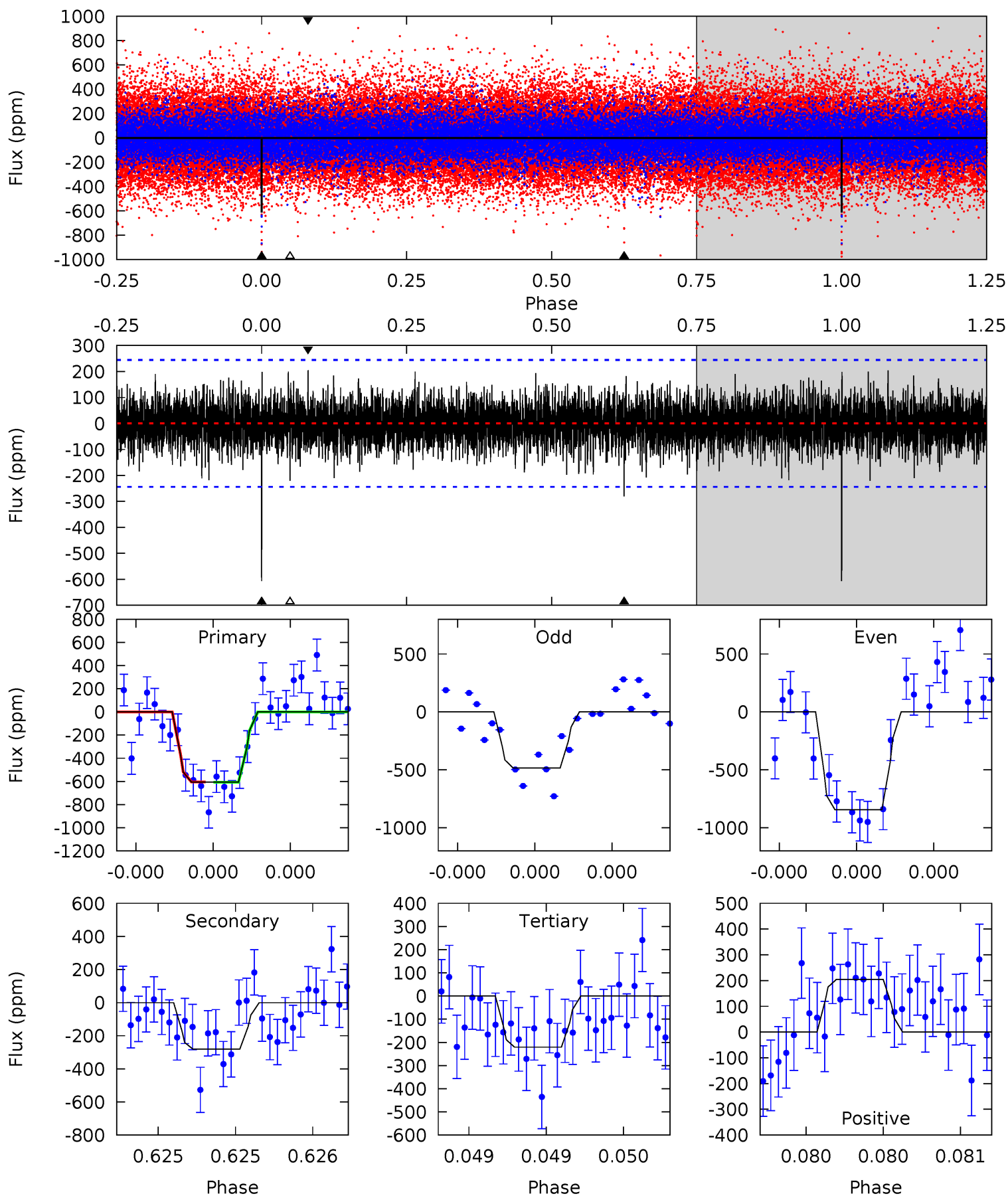
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
18.5	8.02	8.00	6.55	5.52	3.40	1.70	10.5	12.0	0.01	1.46	5.37	0.84	0.26	0.20



Alt Model-Shift Uniqueness Test

007799701-04, P = 294.726563 Days, E = 103.876621 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.8	6.41	5.04	4.66	5.58	3.49	1.29	8.81	9.19	1.37	1.75	3.91	0.83	0.25	0.02



Stellar Parameters For KIC 007799701

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6384^{+179}_{-247}	$4.107^{+0.246}_{-0.164}$	$-0.020^{+0.250}_{-0.300}$	$1.615^{+0.473}_{-0.426}$	$1.216^{+0.211}_{-0.192}$	$0.406^{+0.534}_{-0.200}$
	+3%/-4%	+6%/-4%	+1250%/-1500%	+29%/-26%	+17%/-16%	+131%/-49%
Source	PHO54	PHO54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 007799701-04 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-298 ± 37	$5.51^{+1.08}_{-1.02}$	514^{+38}_{-44}	4801^{+302}_{-265}	4708^{+2230}_{-1523}
Alt.	-281 ± 44	$4.28^{+0.95}_{-0.84}$	513^{+38}_{-40}	5273^{+408}_{-352}	7179^{+4166}_{-2360}

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 $A_{obs} \gg 1.0$

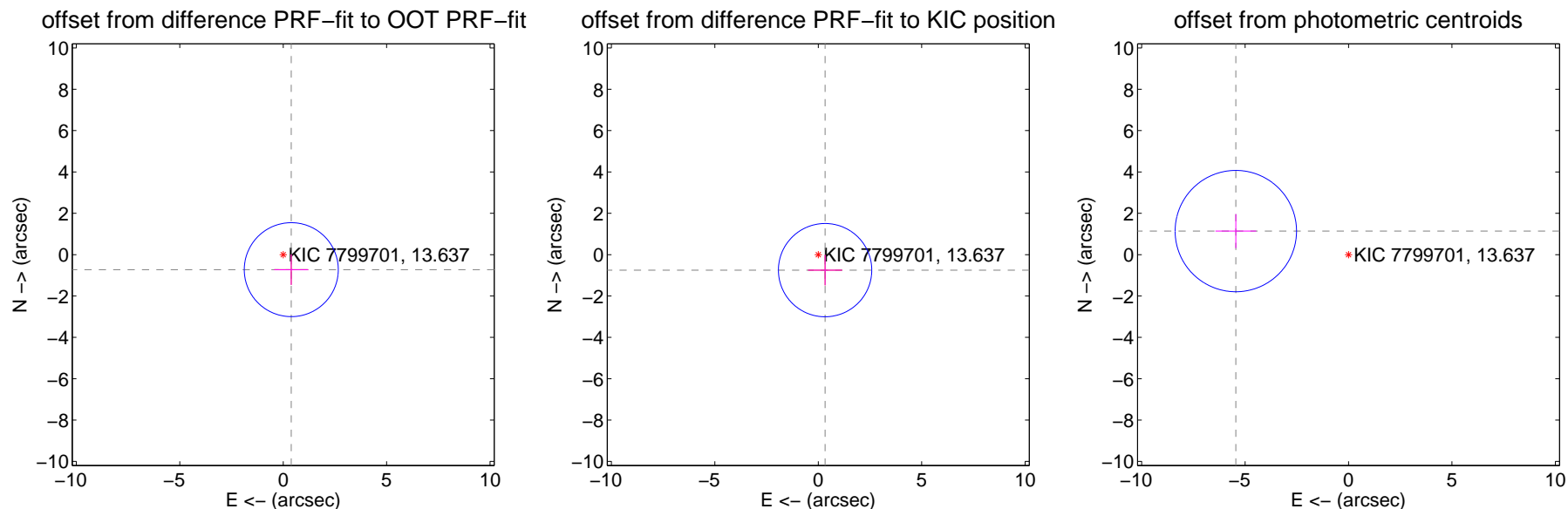
DV Centroid Data

Supplemental centroid analysis for 007799701-04. Kepler magnitude: 13.64. Transit SNR 9.31

There are 0 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.06 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.824 ± 0.757	1.09	-0.391 ± 0.822	-0.726 ± 0.737
PRF-fit source offset from KIC position	0.818 ± 0.752	1.09	-0.330 ± 0.822	-0.749 ± 0.737
photometric centroid source offset	5.56 ± 0.98	5.69	5.45 ± 0.98	1.14 ± 0.82

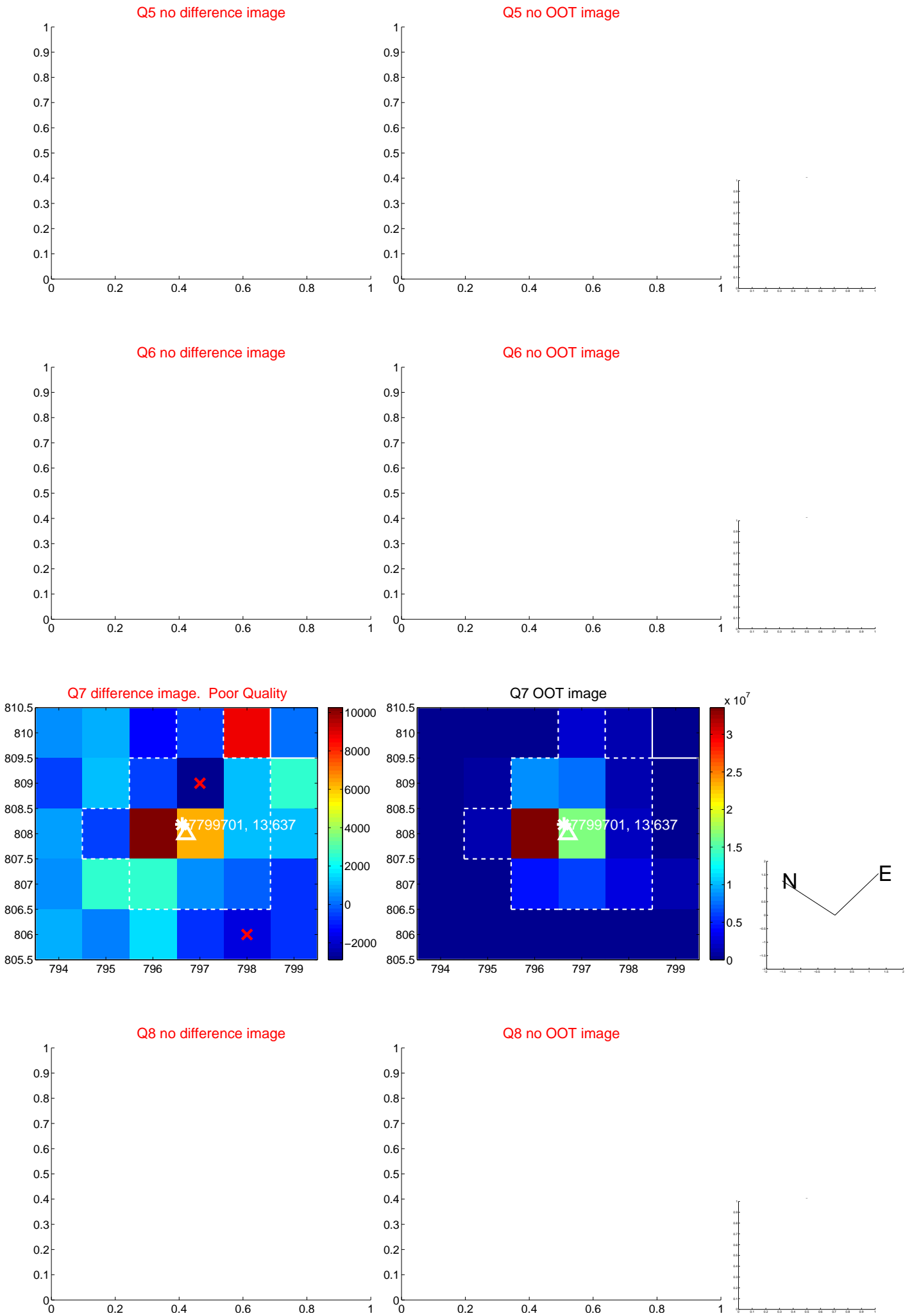


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

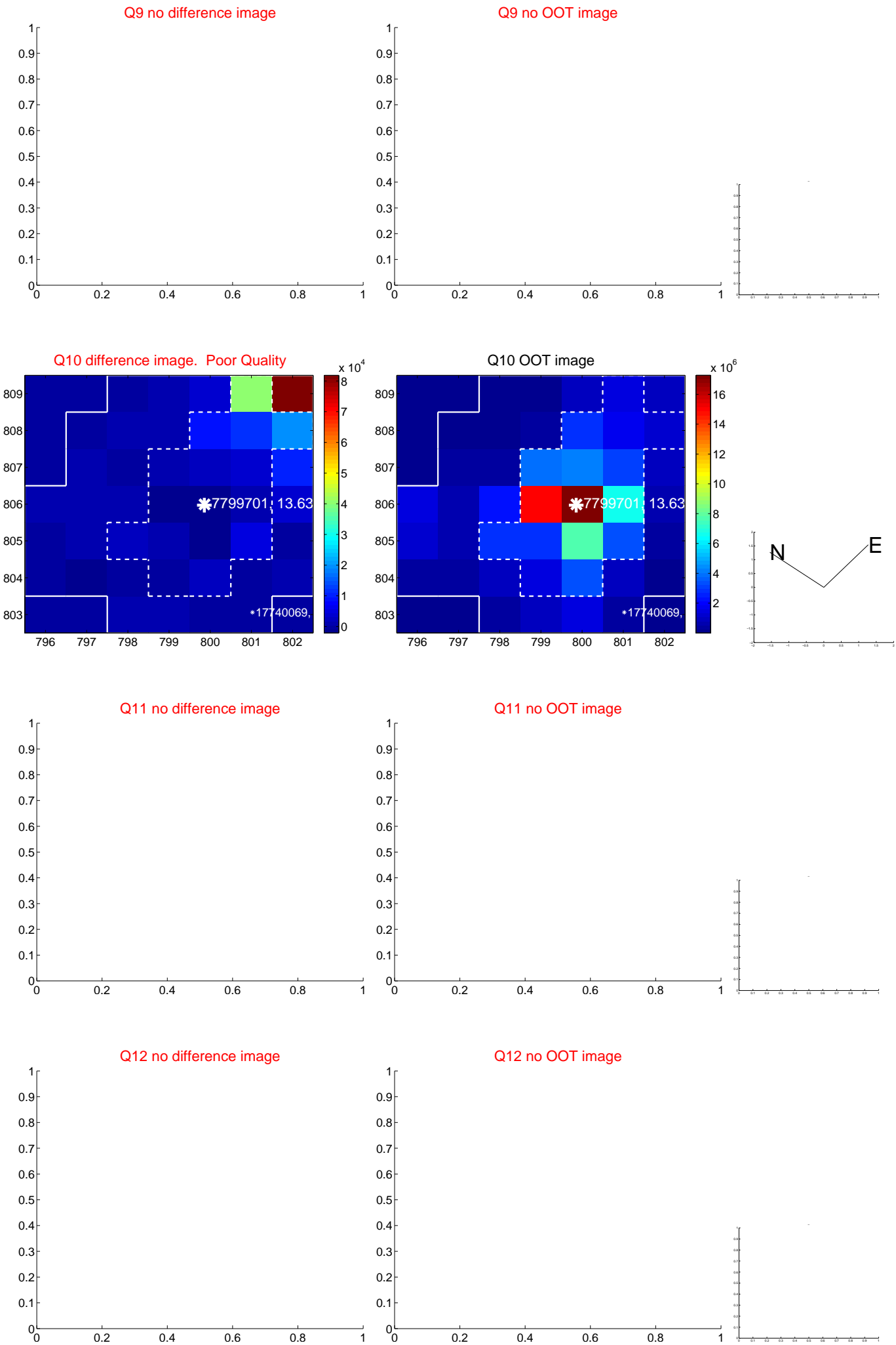
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



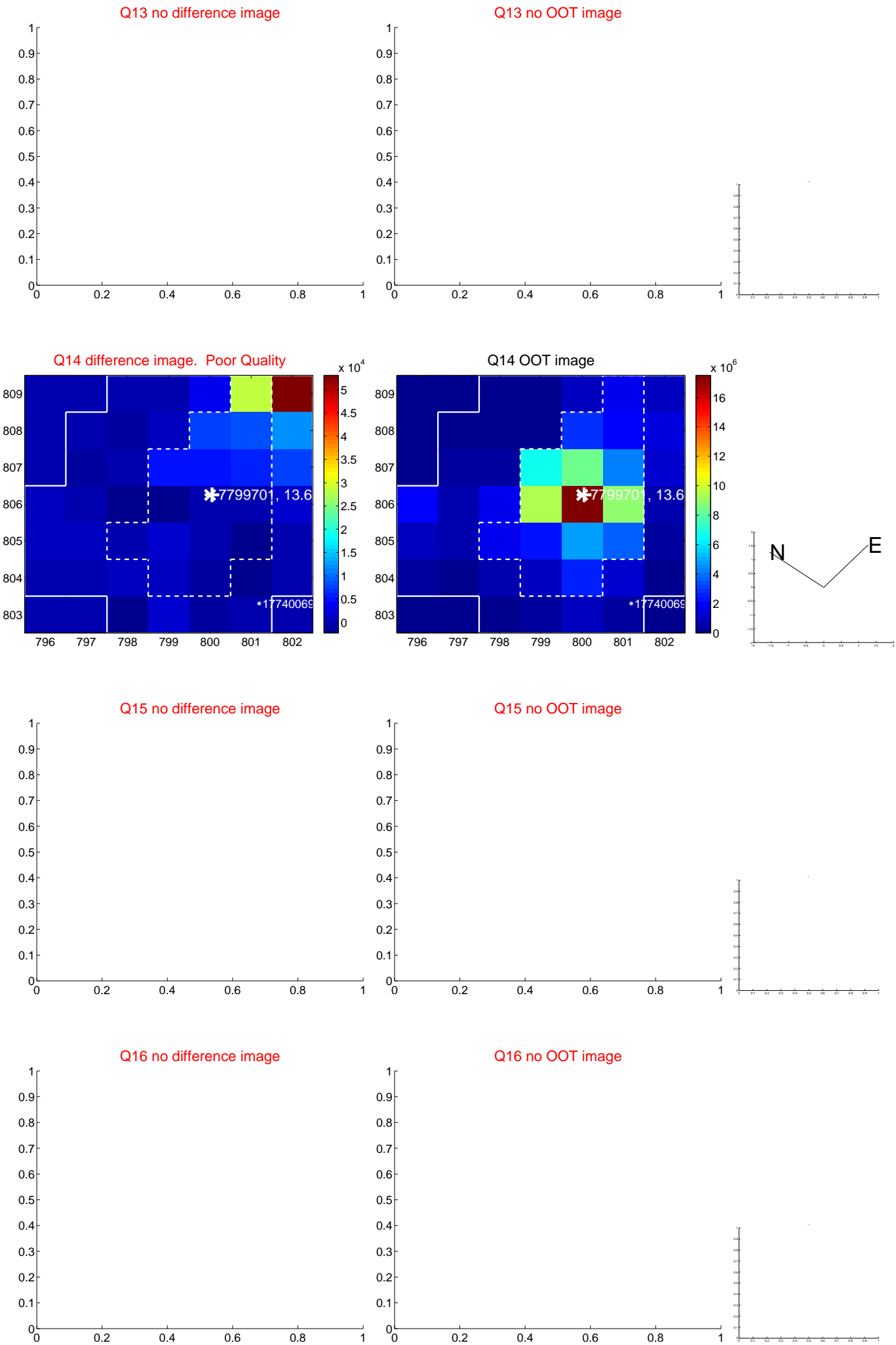
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



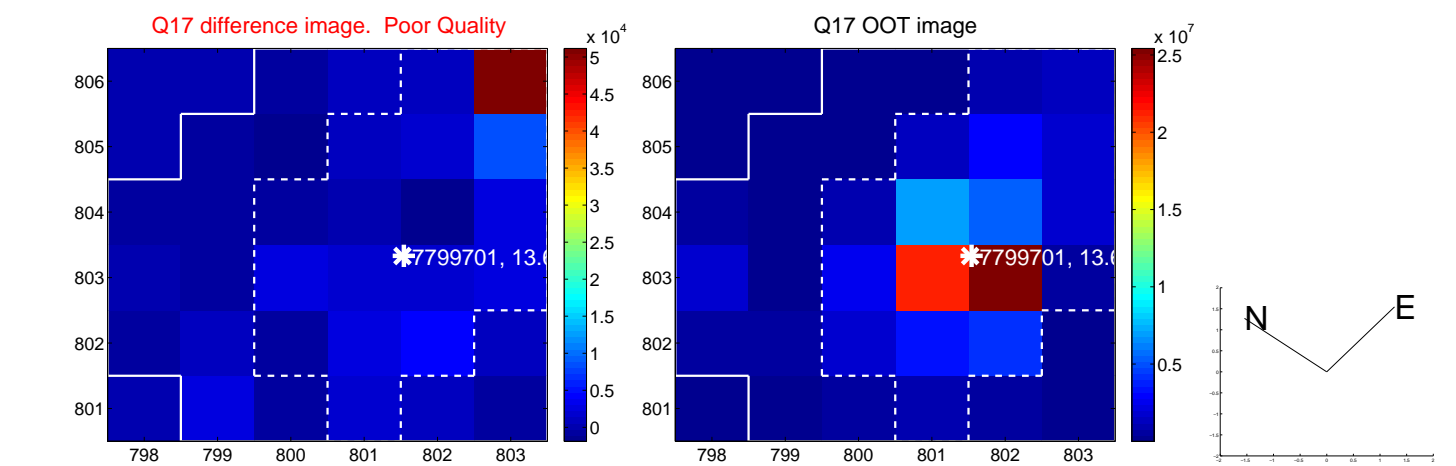
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



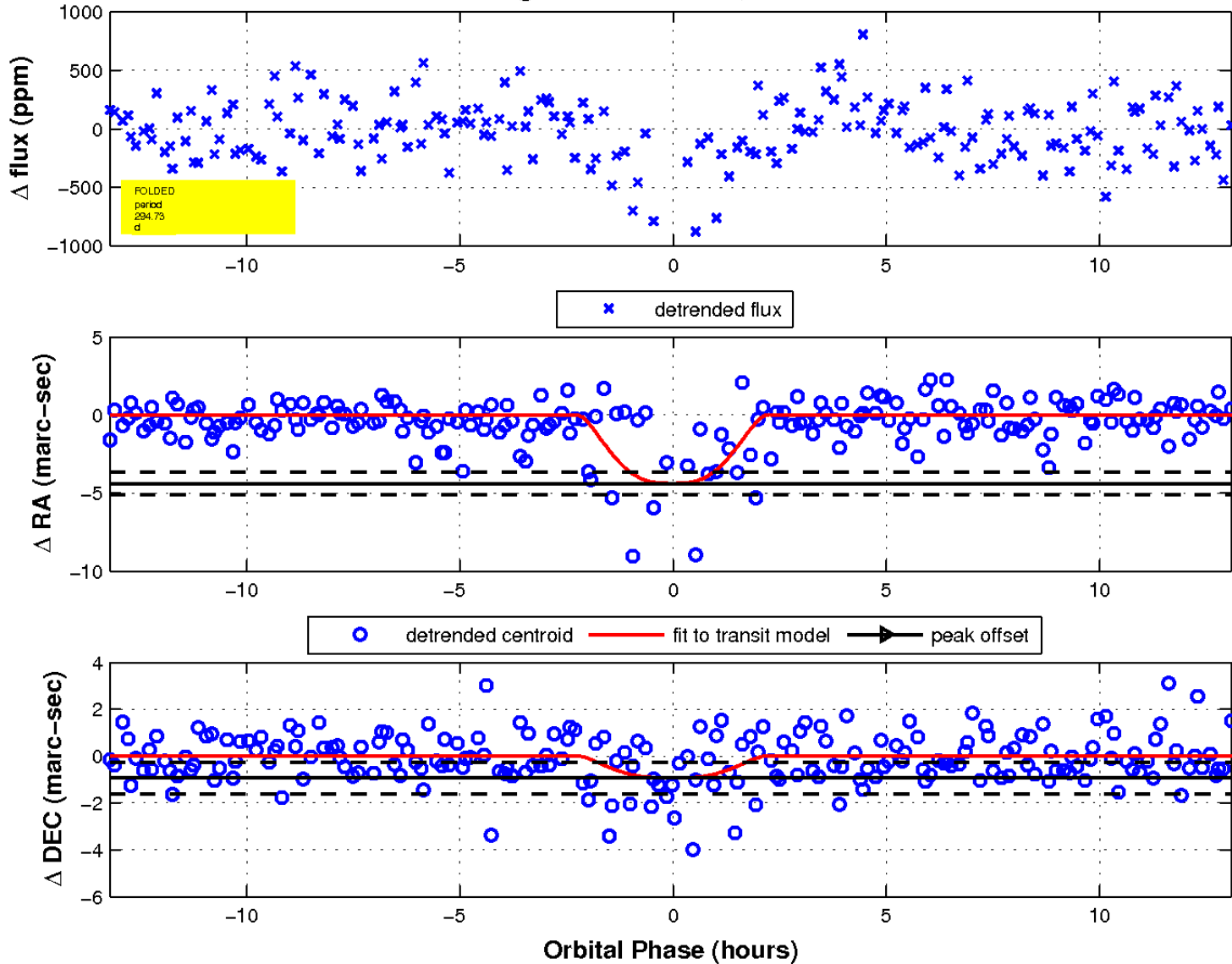
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 4 of 4



UKIRT Image

Declination

