

KIC 008180361

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})
008180361-01	OBS	No	518.235501	193.152130	0.2	1.240	15.0	0.0	1.19	6769	0.06	1.48
008180361-02	OBS	No	384.039669	423.472170	13186.2	13.949	12.0	10.8	1.19	6769	23.90	2.21
008180361-04	OBS	No	627.780264	193.336135	725.3	4.500	13.4	-1.0	1.19	6769	3.24	1.15

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008180361-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_FEW_DIFFS
008180361-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
008180361-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES—LPP_DV—ALL_TRANS_CHASES—NO_FITS—INCONSISTENT_TRANS—CENT_NOFITS

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

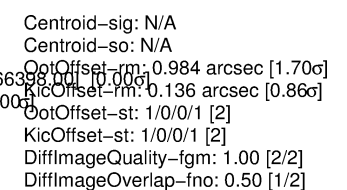
N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

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

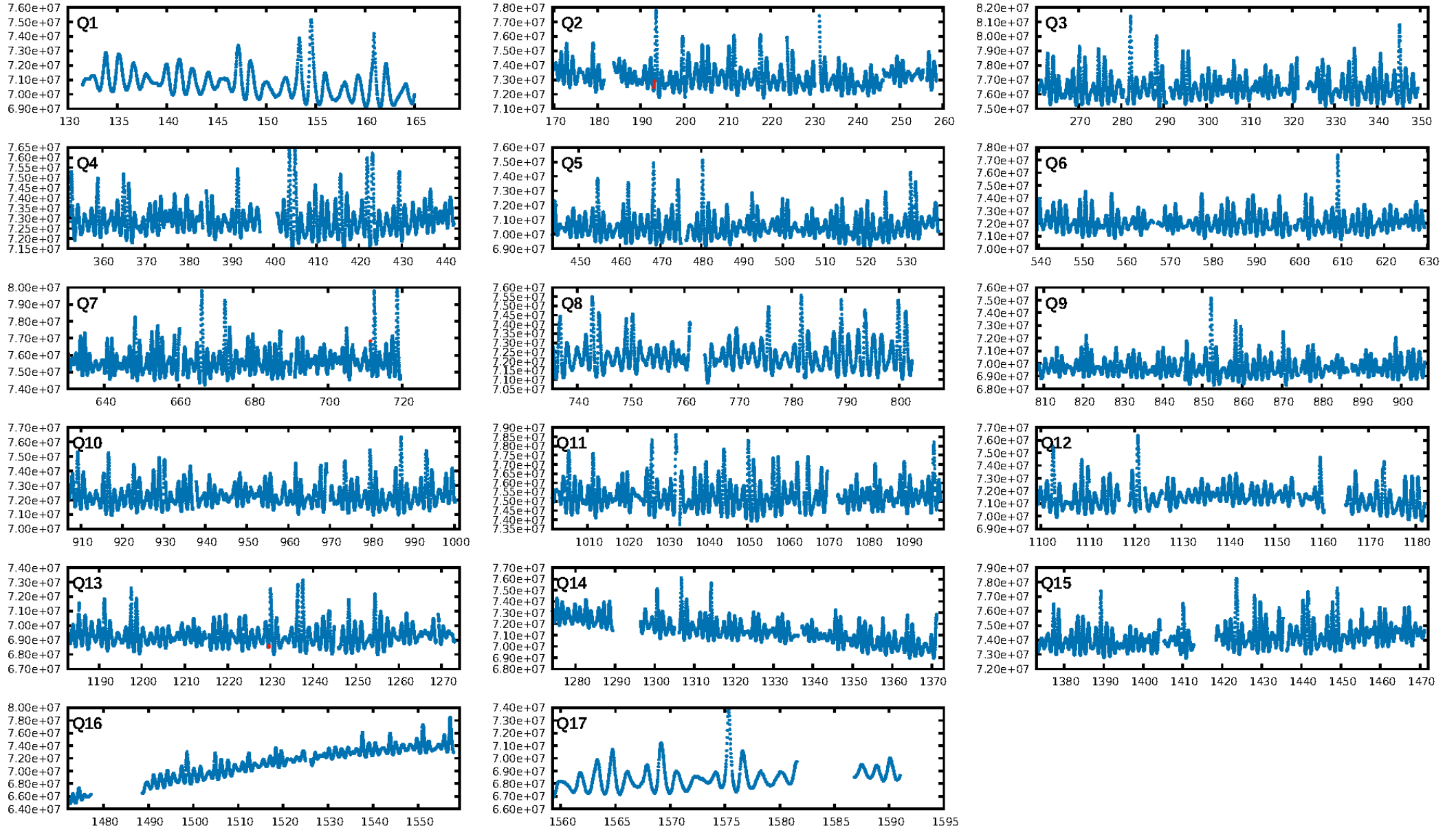
Ephemeris Match Information For 008180361-01

No Significant Match Found

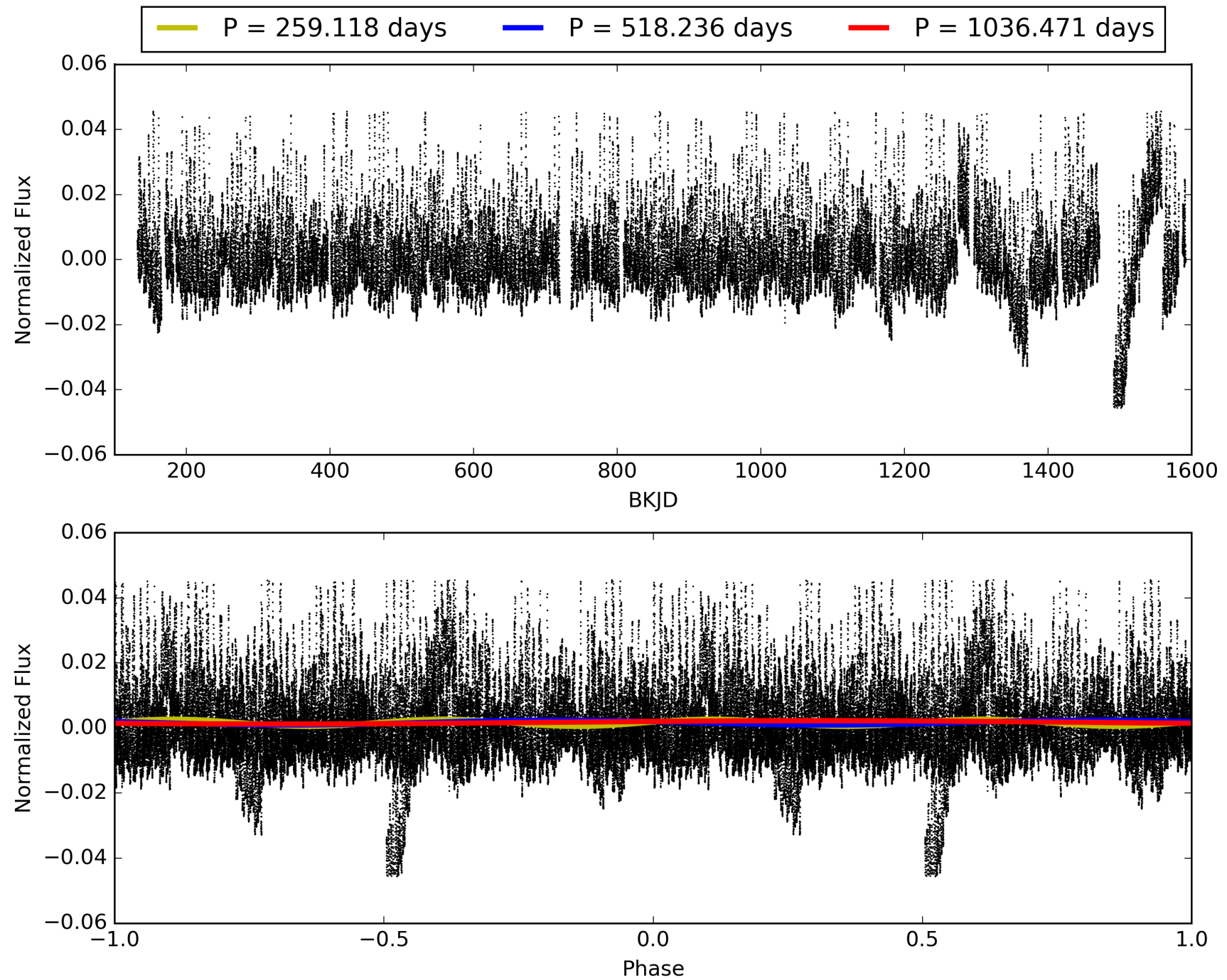
KIC: 8180361 Candidate: 1 of 4 Period: 518.236 d



TCE 008180361-01, PDC Light Curves

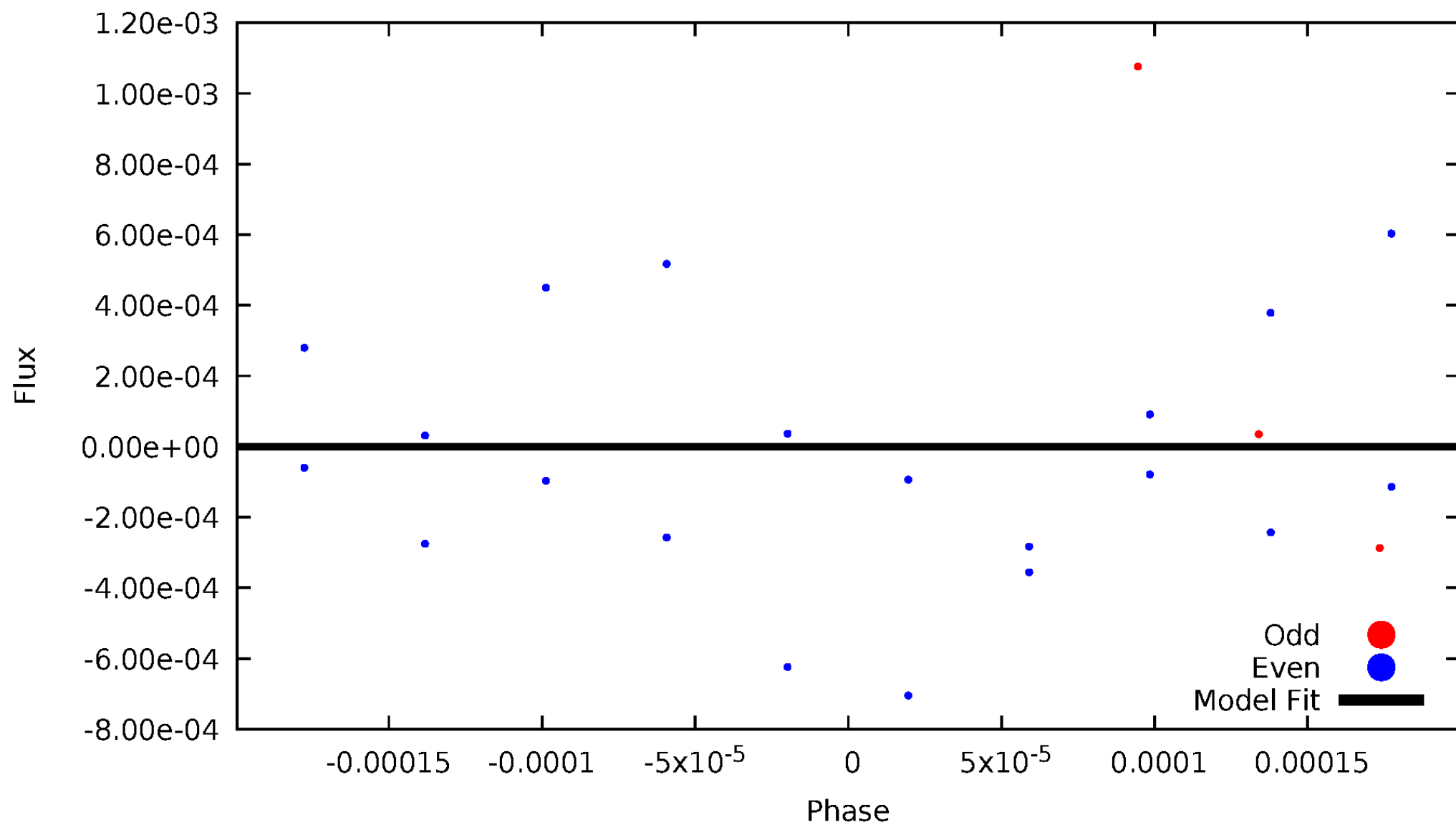


TCE 008180361-01



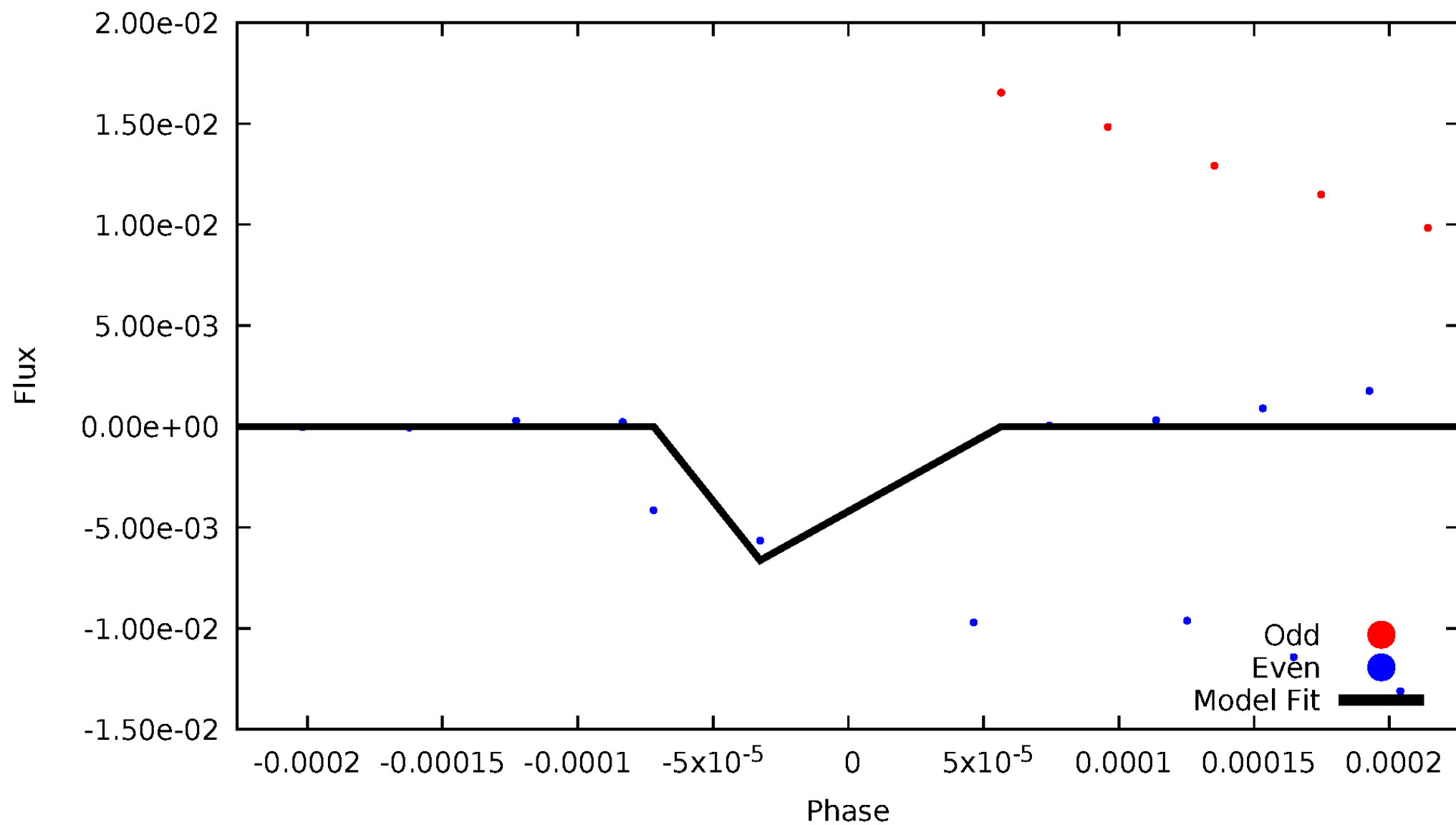
DV Odd/Even

TCE 008180361-01

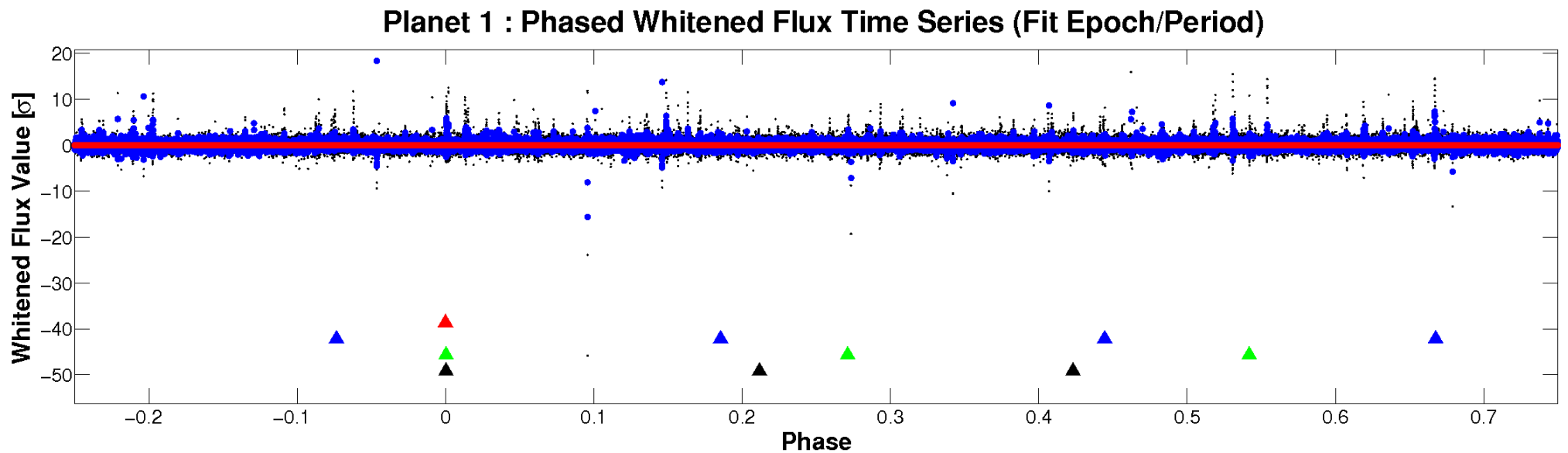
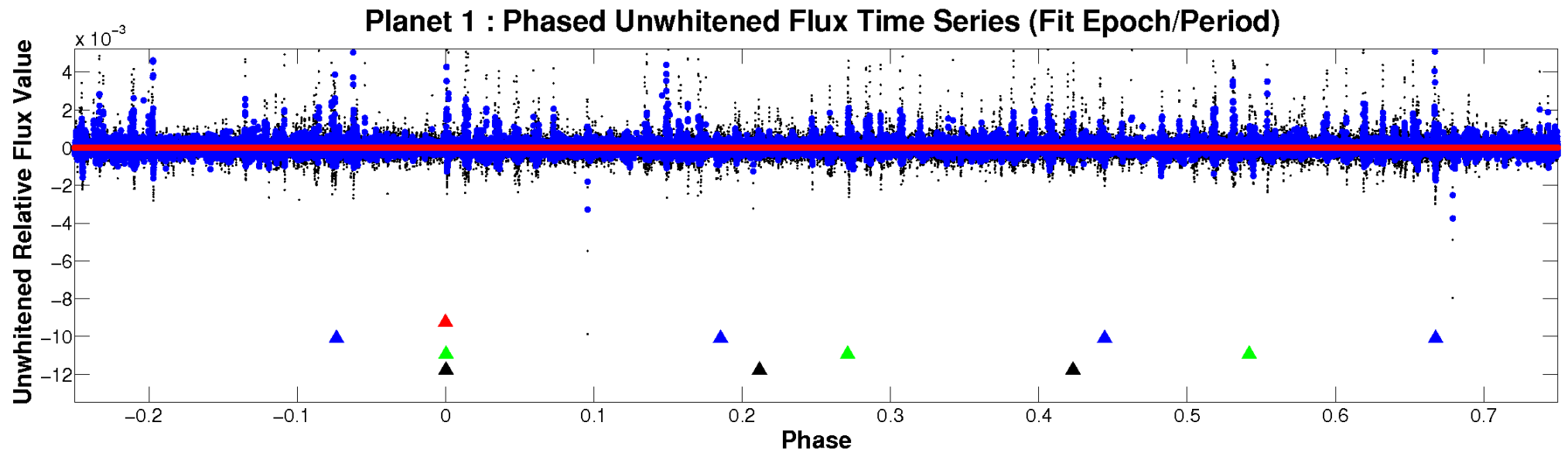


ALT Odd/Even

TCE 008180361-01

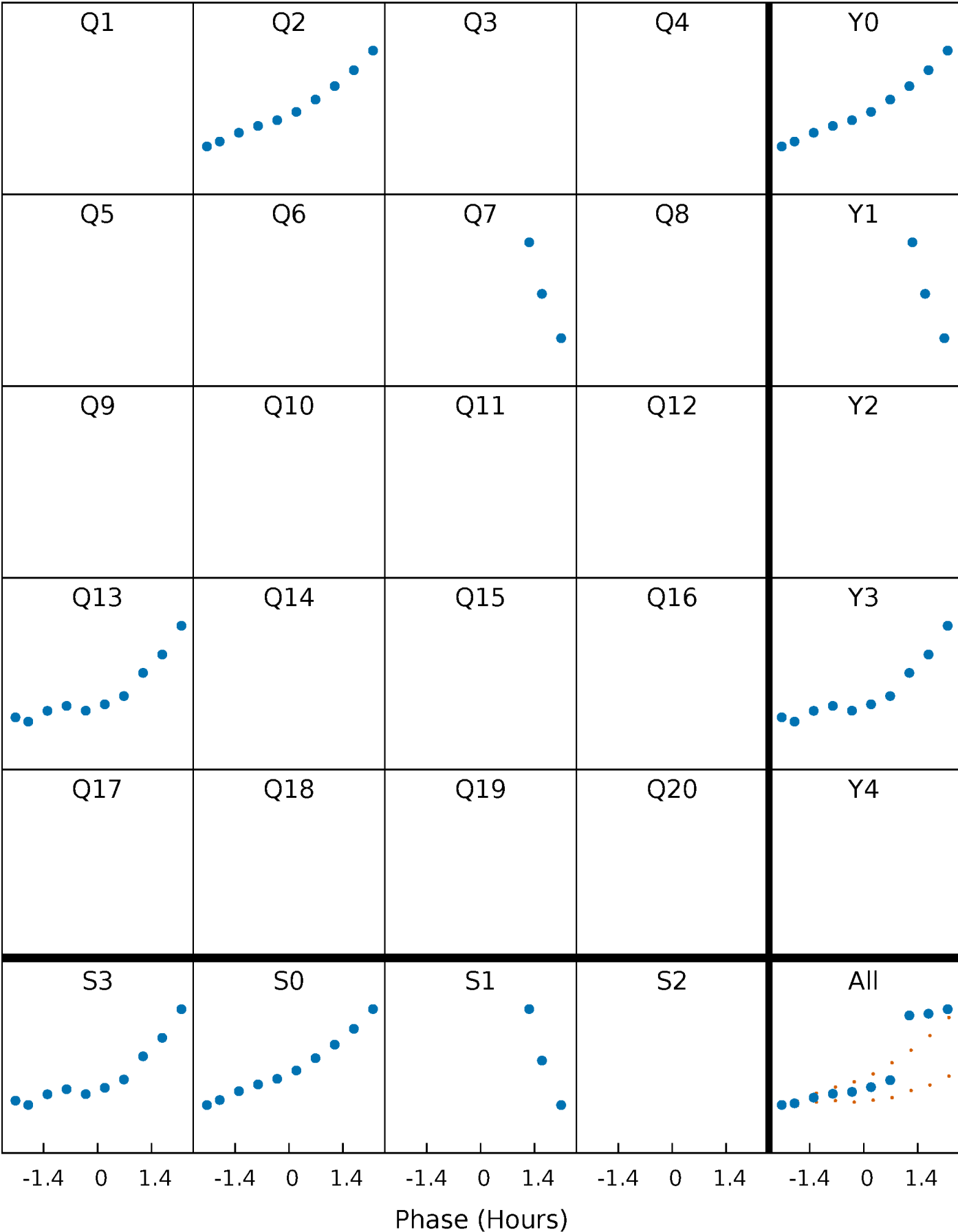


Non-Whitened Vs. Whitened Light Curve



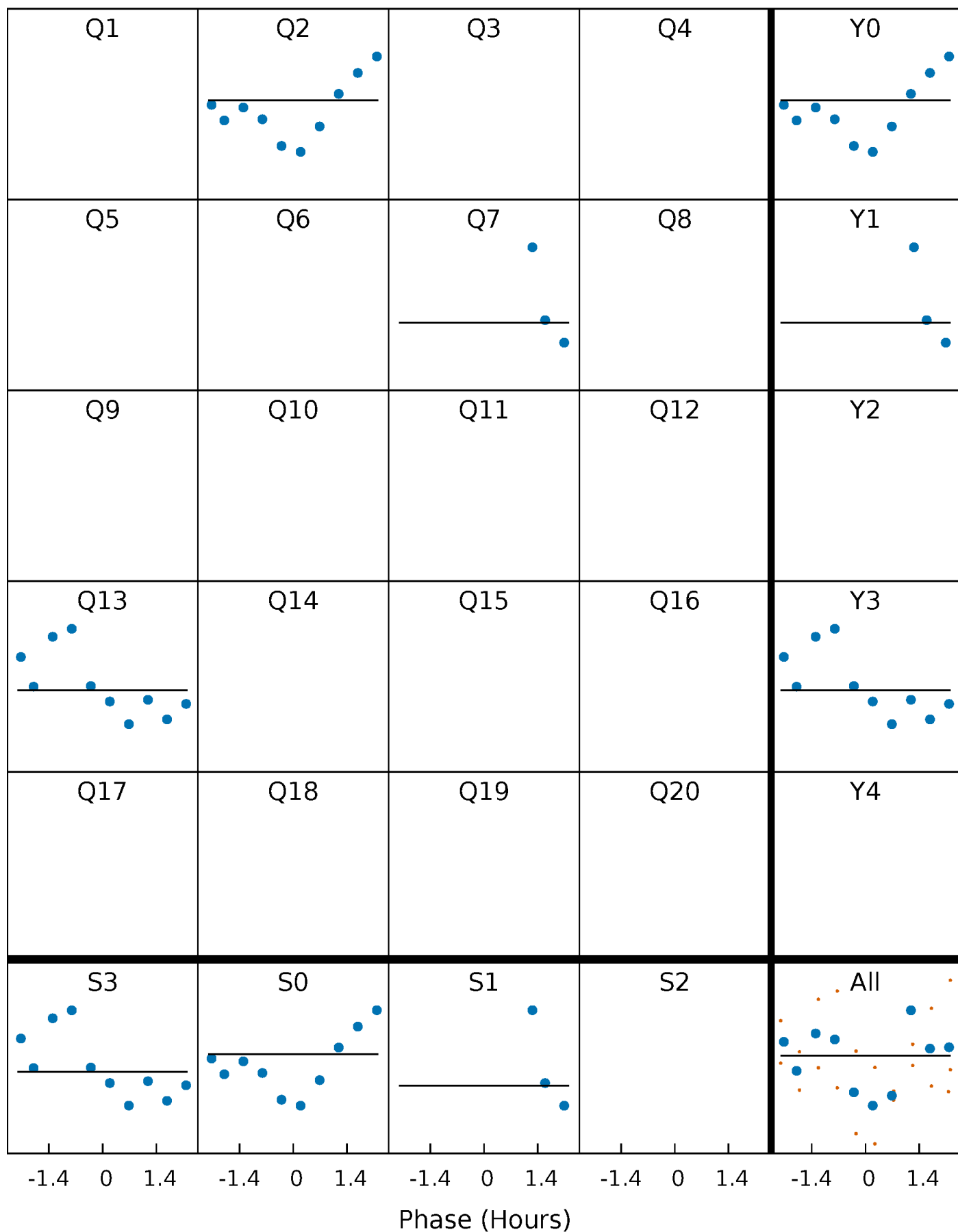
PDC Quarter-Phased Transit Curves

TCE 008180361-01 P=518.235502 Days T₀=193.152130 (BKJD)



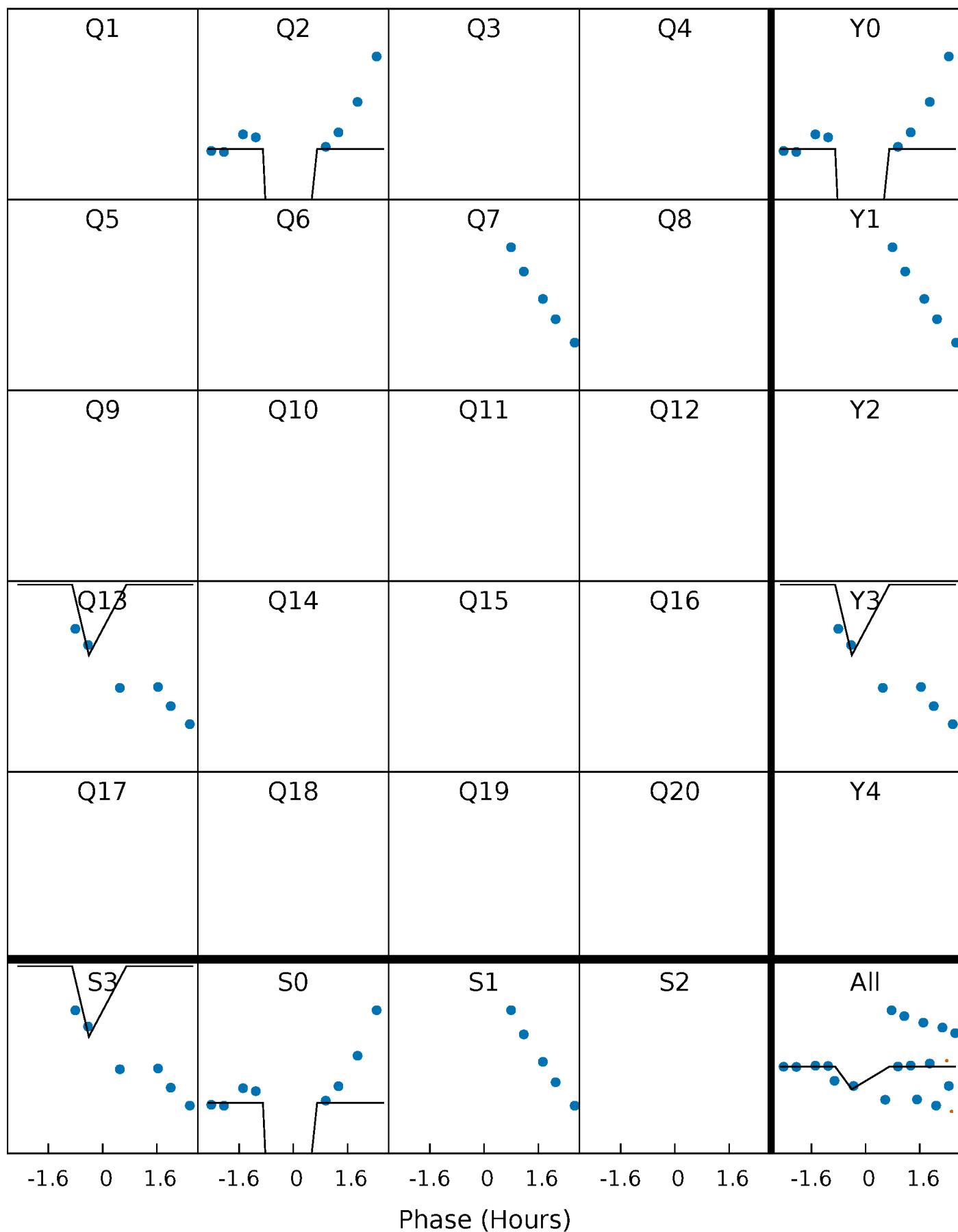
DV Quarter-Phased Transit Curves

TCE 008180361-01 P=518.235502 Days $T_0=193.152130$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

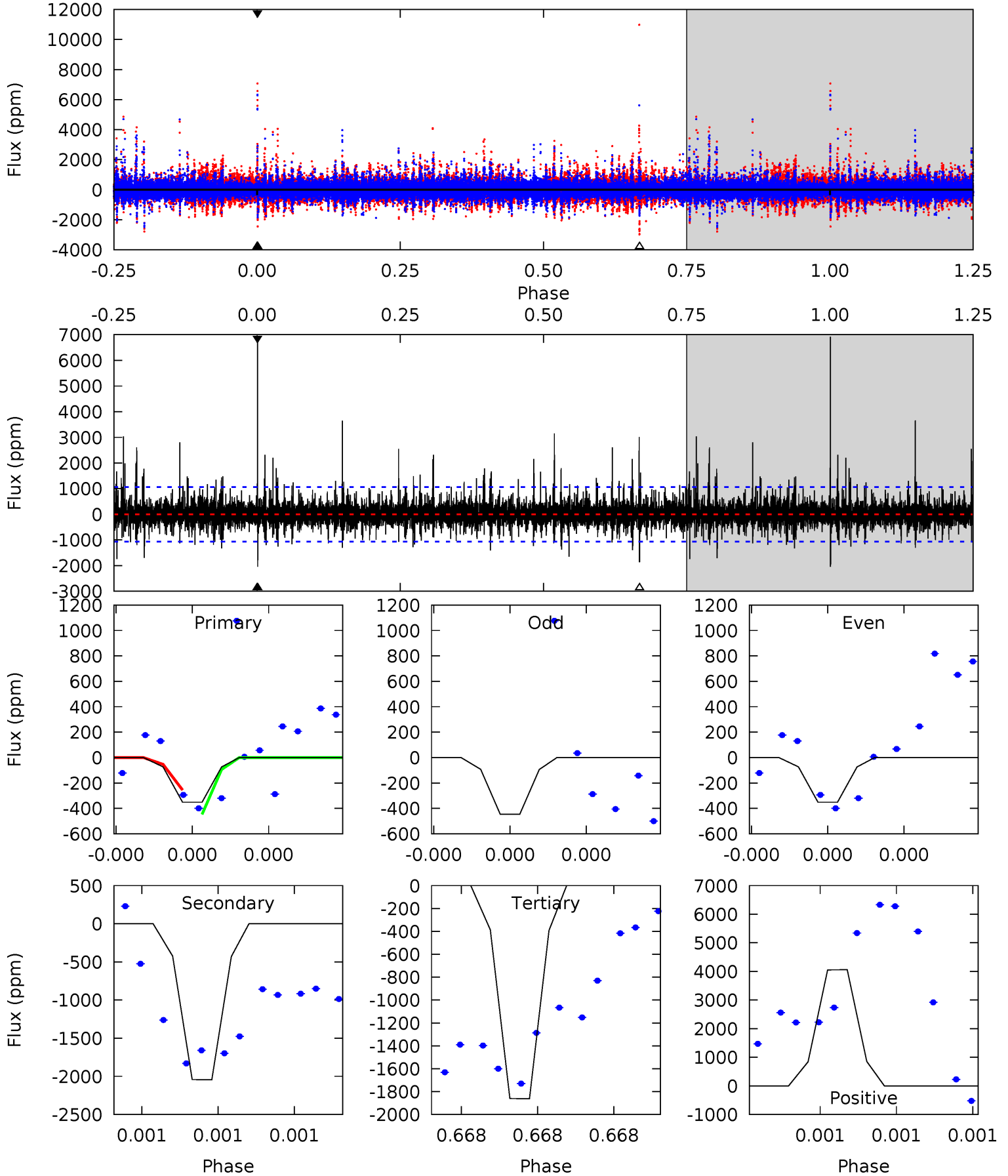
TCE 008180361-01 P=518.263193 Days $T_0=193.164627$ (BKJD)



DV Model-Shift Uniqueness Test

008180361-01, P = 518.235502 Days, E = 193.152130 Days

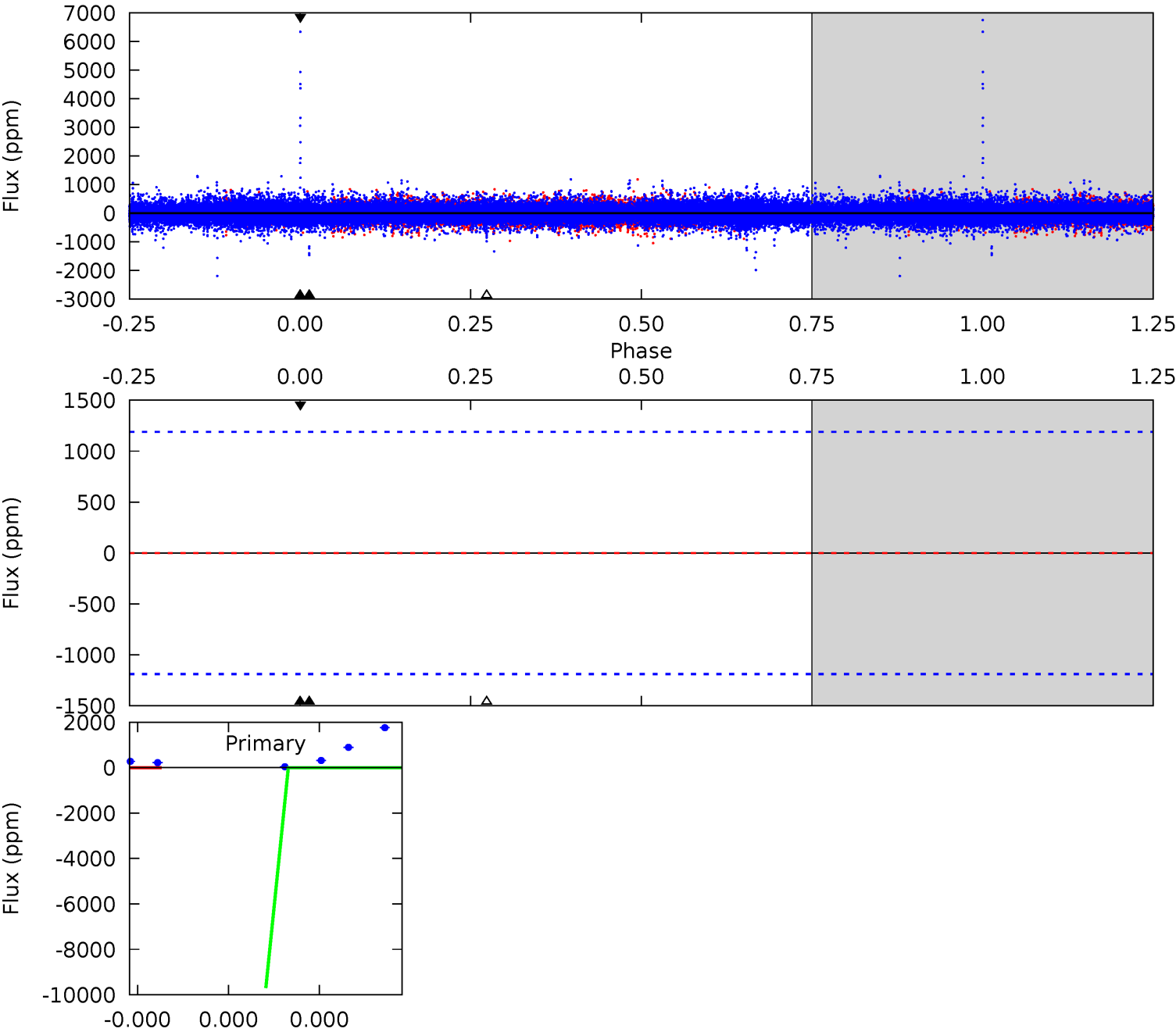
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.91	11.1	10.1	22.0	5.78	3.78	1.82	-8.21	-20.1	0.99	-10.9	0.32	1.00	0.77	0.49



Alt Model-Shift Uniqueness Test

008180361-01, P = 518.263193 Days, E = 193.164627 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
47.6	6.68	4.81	27.5	5.83	3.86	1.04	42.7	20.0	1.87	-20.9	0	1.00	0.47	0



Stellar Parameters For KIC 008180361

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6769^{+188}_{-258}	$4.366^{+0.056}_{-0.224}$	$-0.220^{+0.250}_{-0.300}$	$1.193^{+0.430}_{-0.143}$	$1.219^{+0.195}_{-0.160}$	$1.010^{+0.307}_{-0.556}$
	+3%/-4%	+1%/-5%	+114%/-136%	+36%/-12%	+16%/-13%	+30%/-55%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 008180361-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-2045 ± 184	$64326.53^{+63179.24}_{-44404.78}$	403^{+35}_{-25}	-1359^{+27}_{-35}	$0.000^{+0.004}_{-0.000}$
Alt.	-0 ± 204	$57184.70^{+66579.35}_{-40964.00}$	404^{+34}_{-25}	-1362^{+25}_{-33}	$0.000^{+0.000}_{-0.000}$

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 $A_{obs} \gg 1.0$

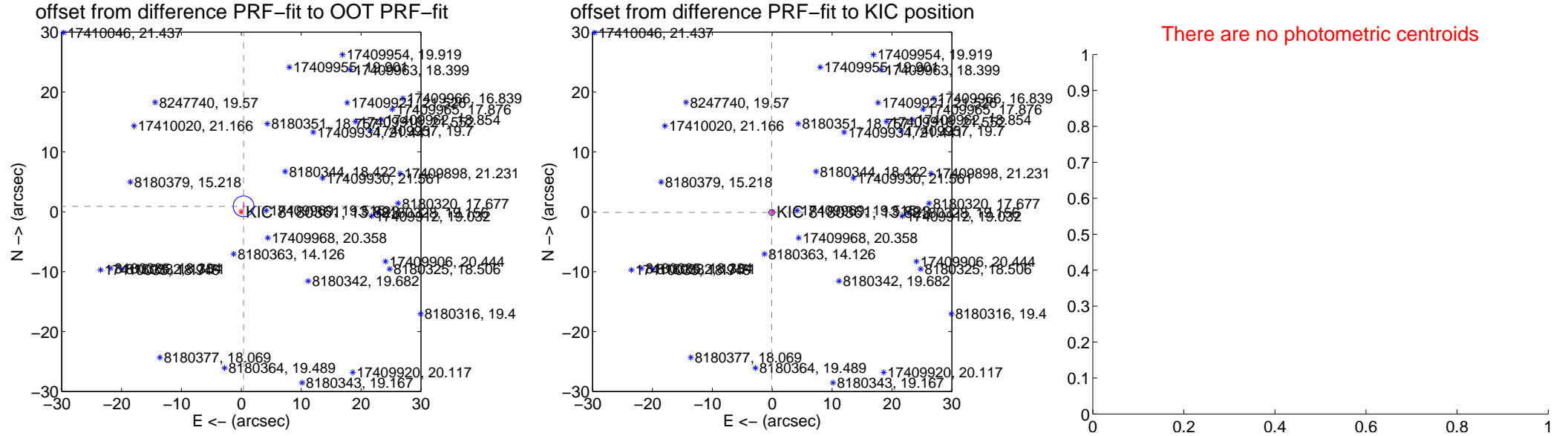
DV Centroid Data

Supplemental centroid analysis for 008180361-01. Kepler magnitude: 13.82. Transit SNR 0.00

There are 2 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.29 arcsec

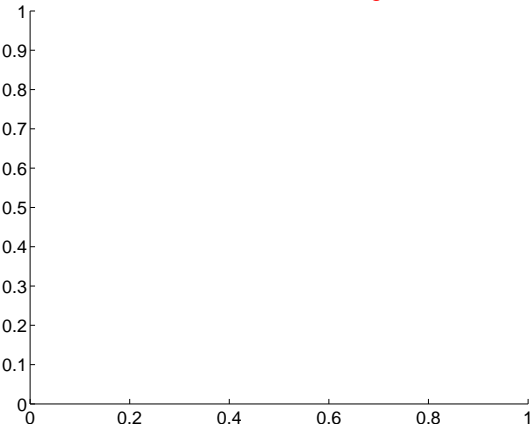
	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.984 ± 0.580	1.70	-0.380 ± 0.125	0.908 ± 0.626
PRF-fit source offset from KIC position	0.136 ± 0.159	0.86	0.082 ± 0.215	-0.109 ± 0.117
photometric centroid source offset	—	—	—	—



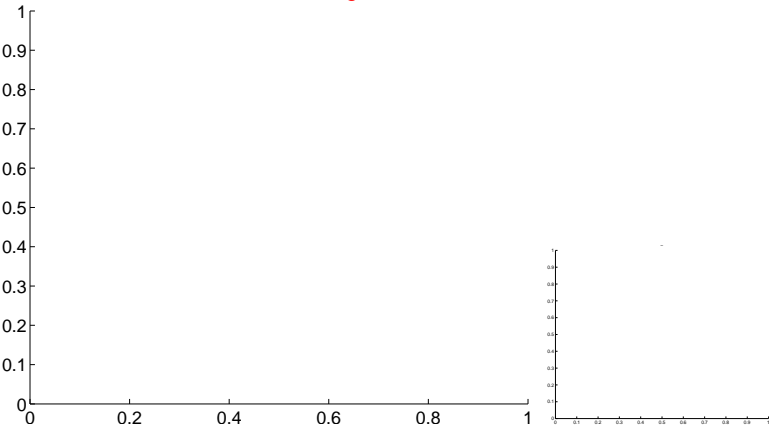
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

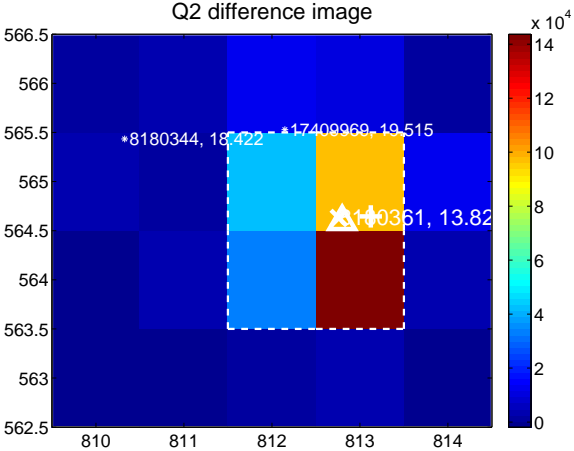
Q1 no difference image



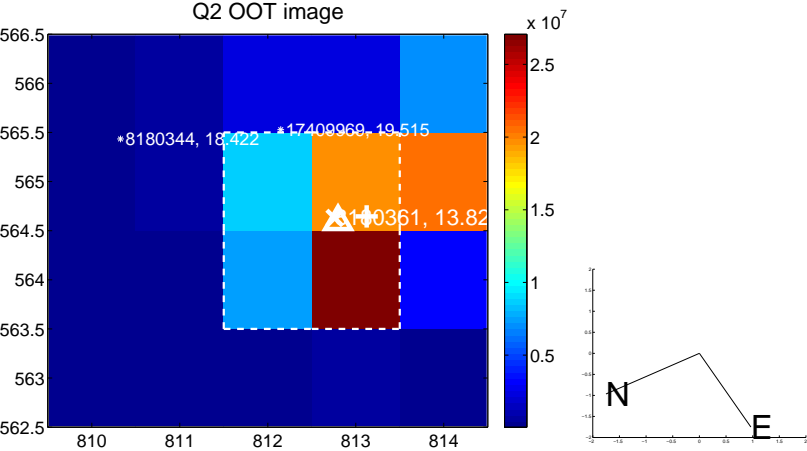
Q1 no OOT image



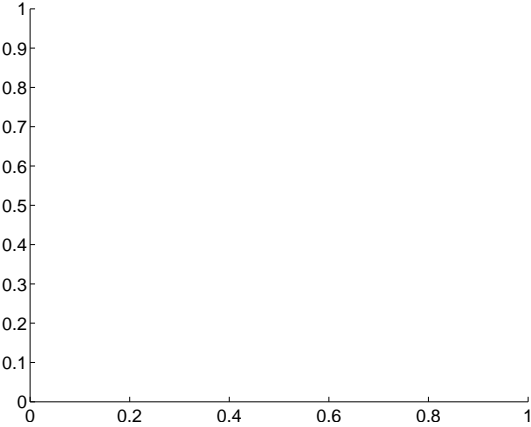
Q2 difference image



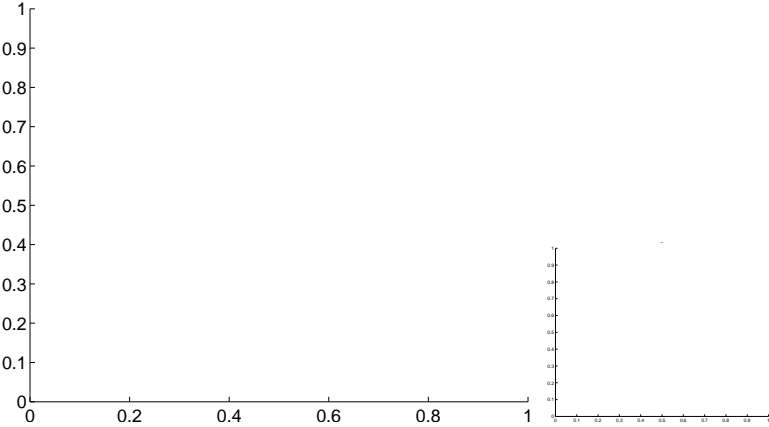
Q2 OOT image



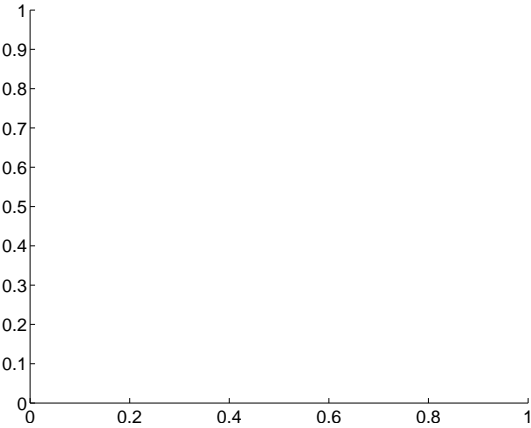
Q3 no difference image



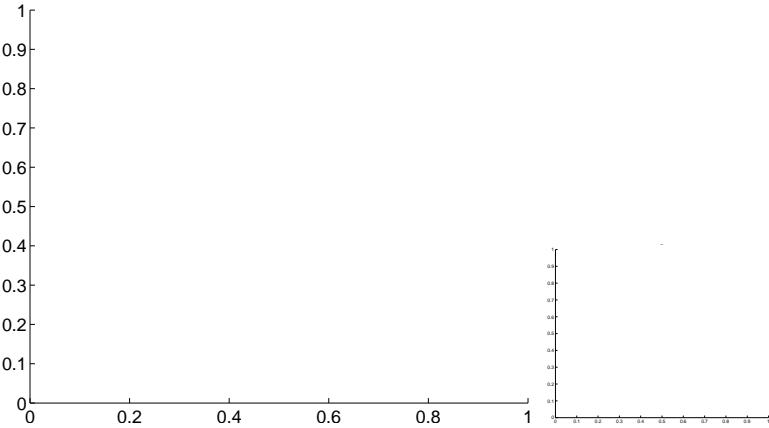
Q3 no OOT image



Q4 no difference image



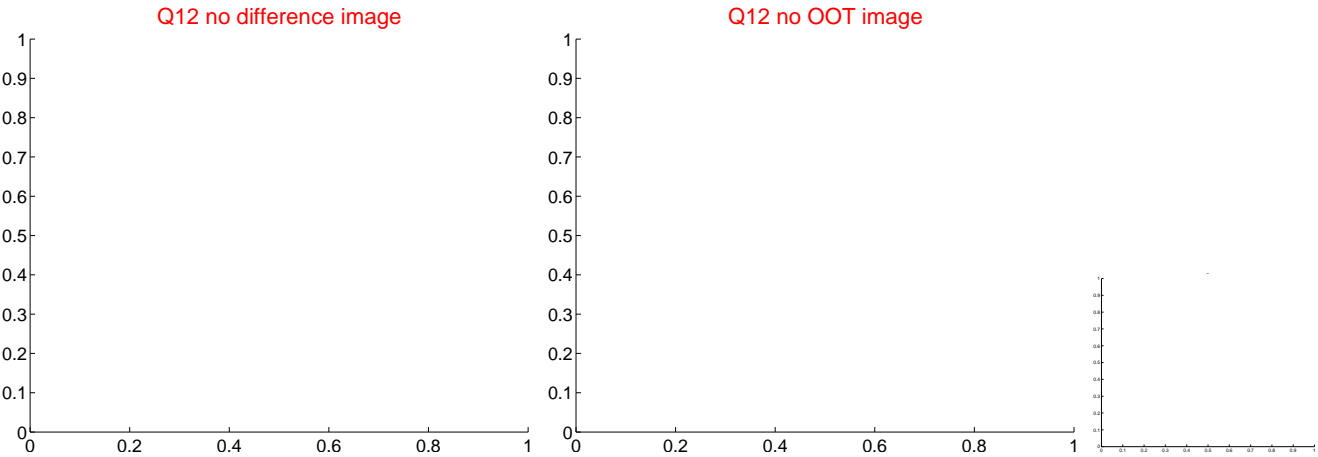
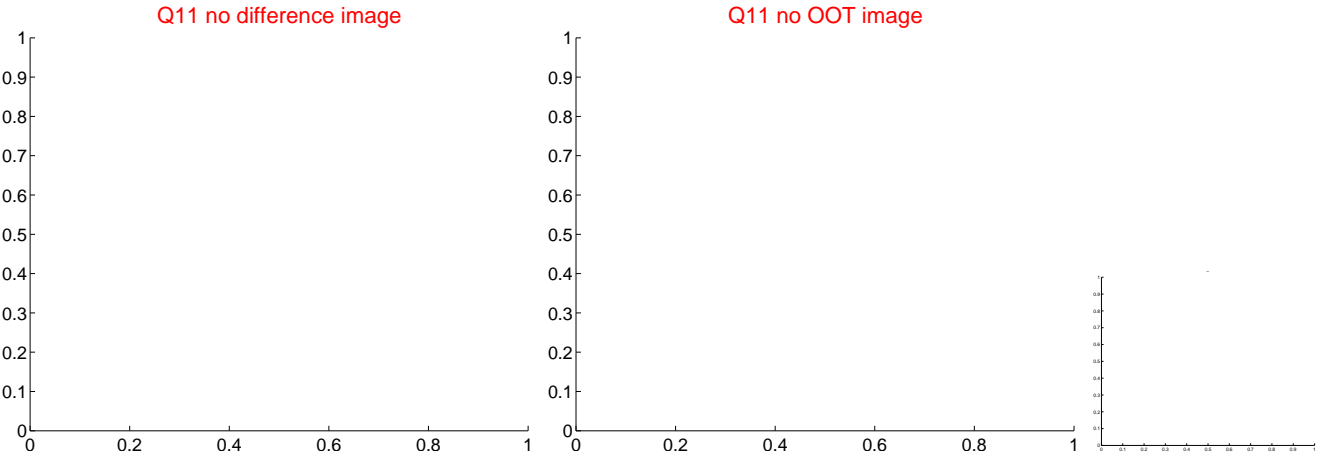
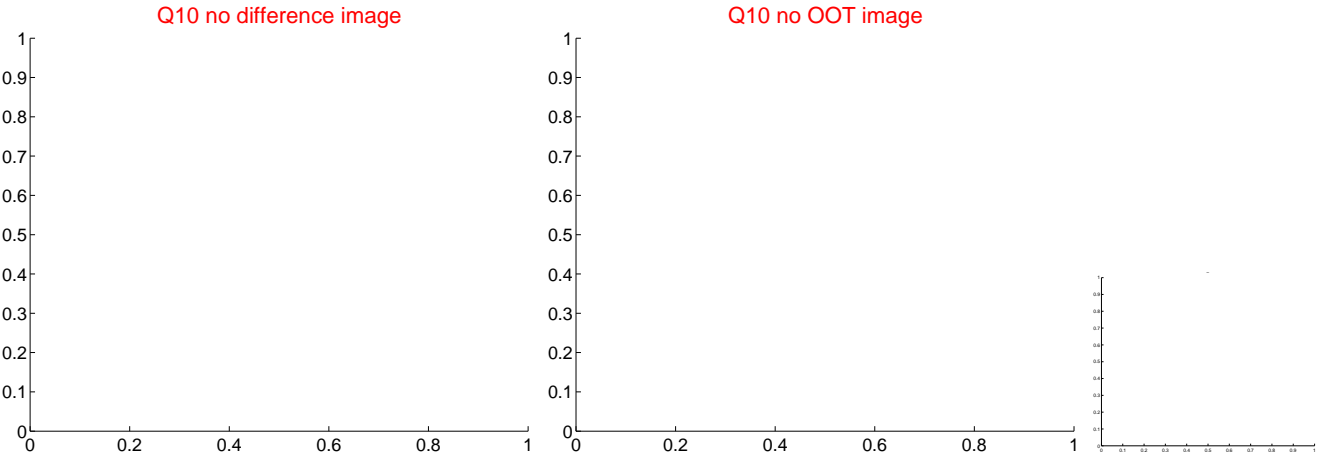
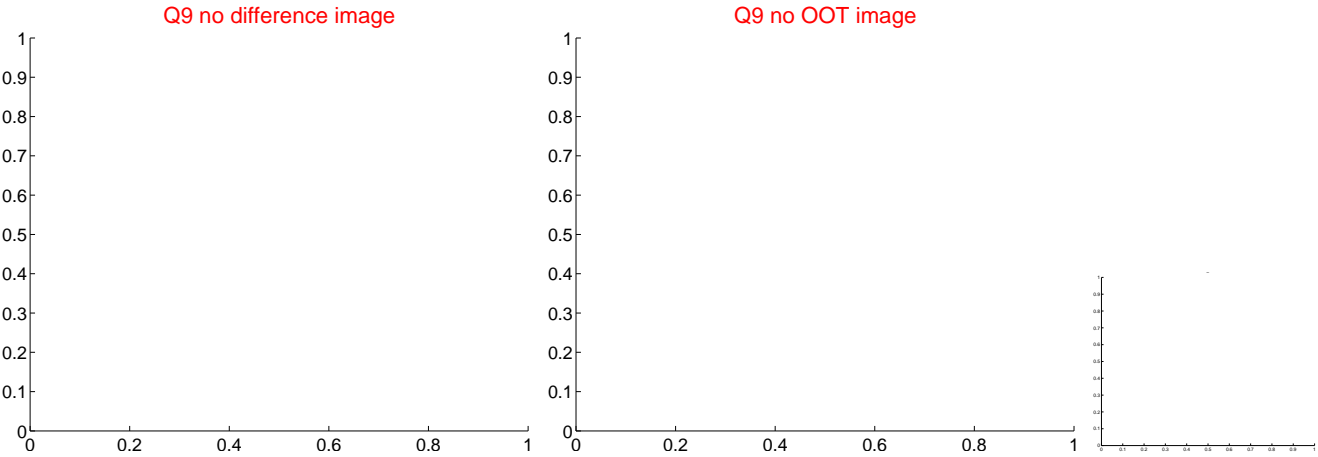
Q4 no OOT image



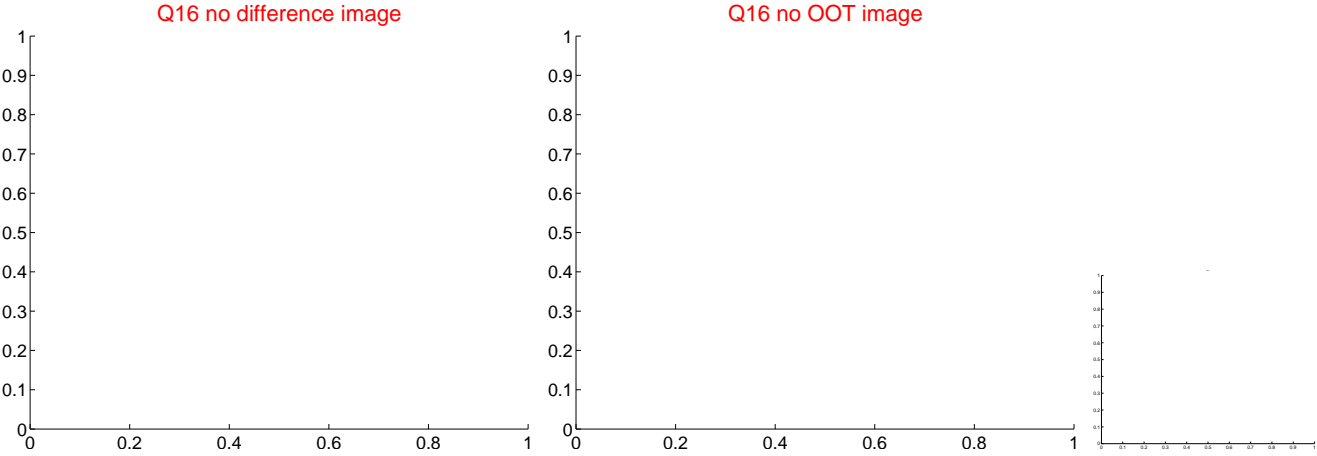
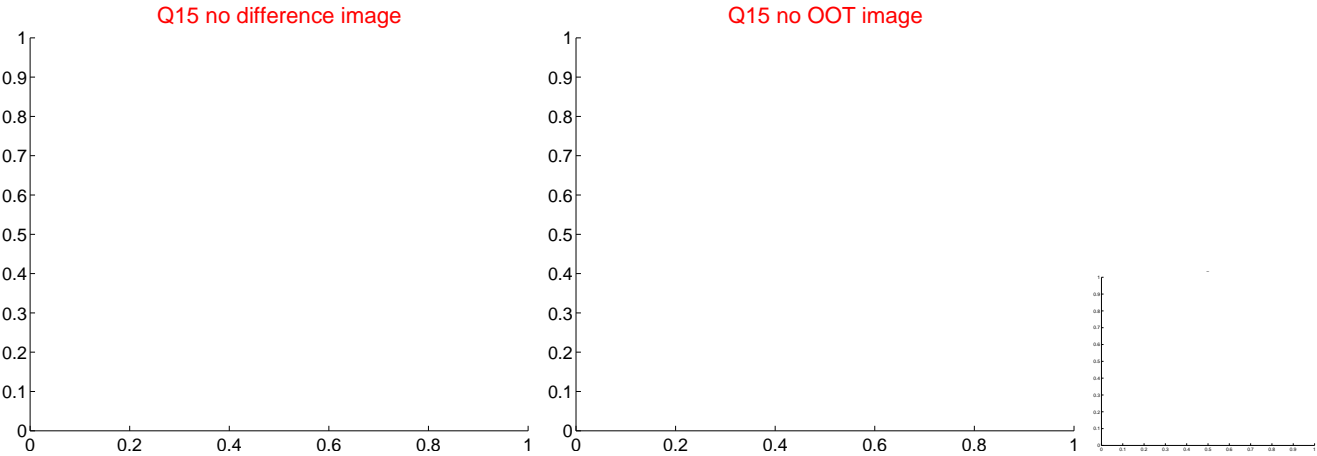
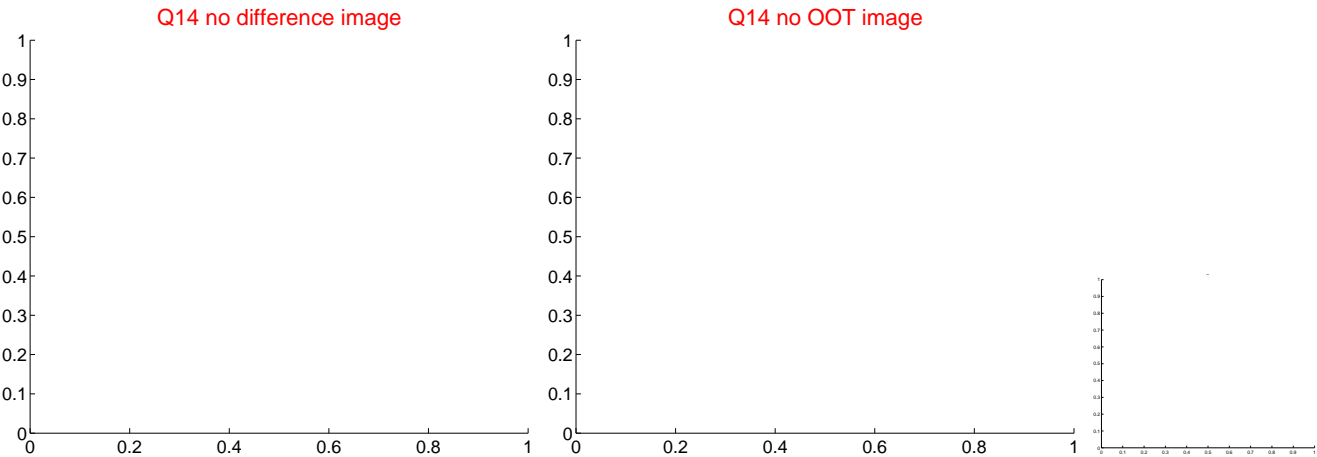
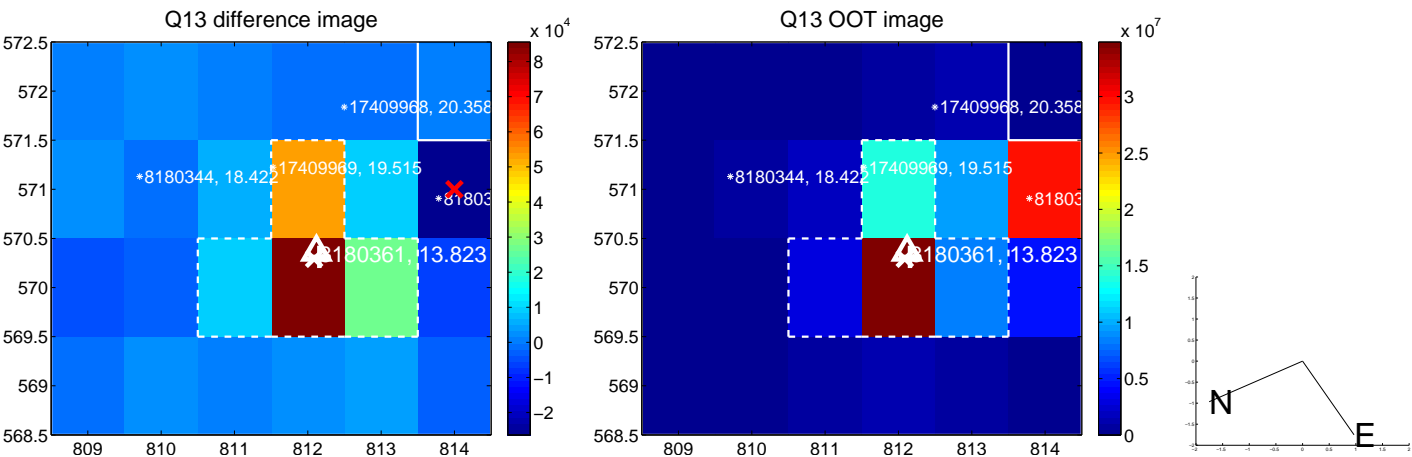
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



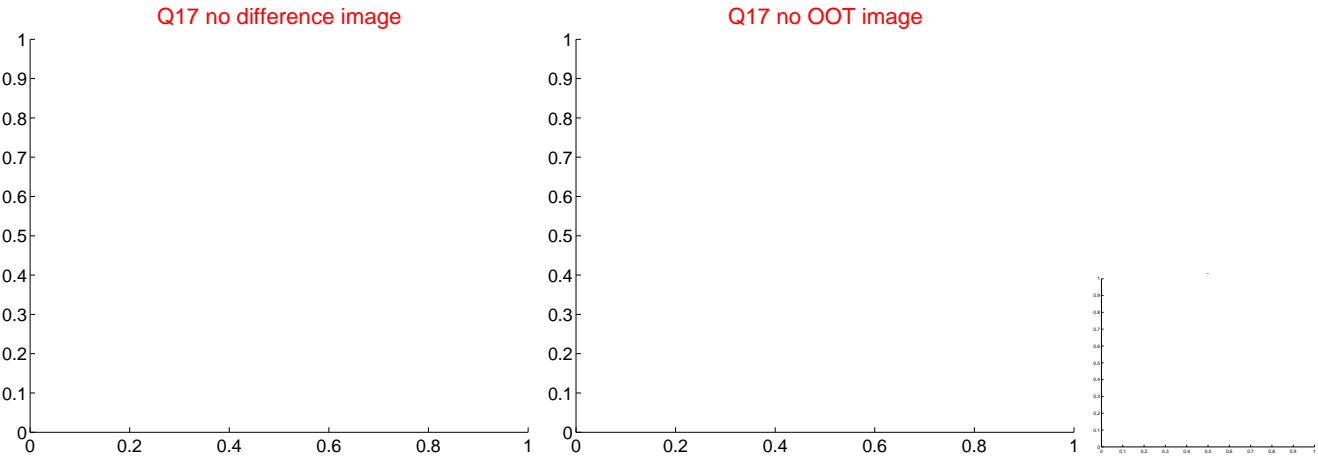
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



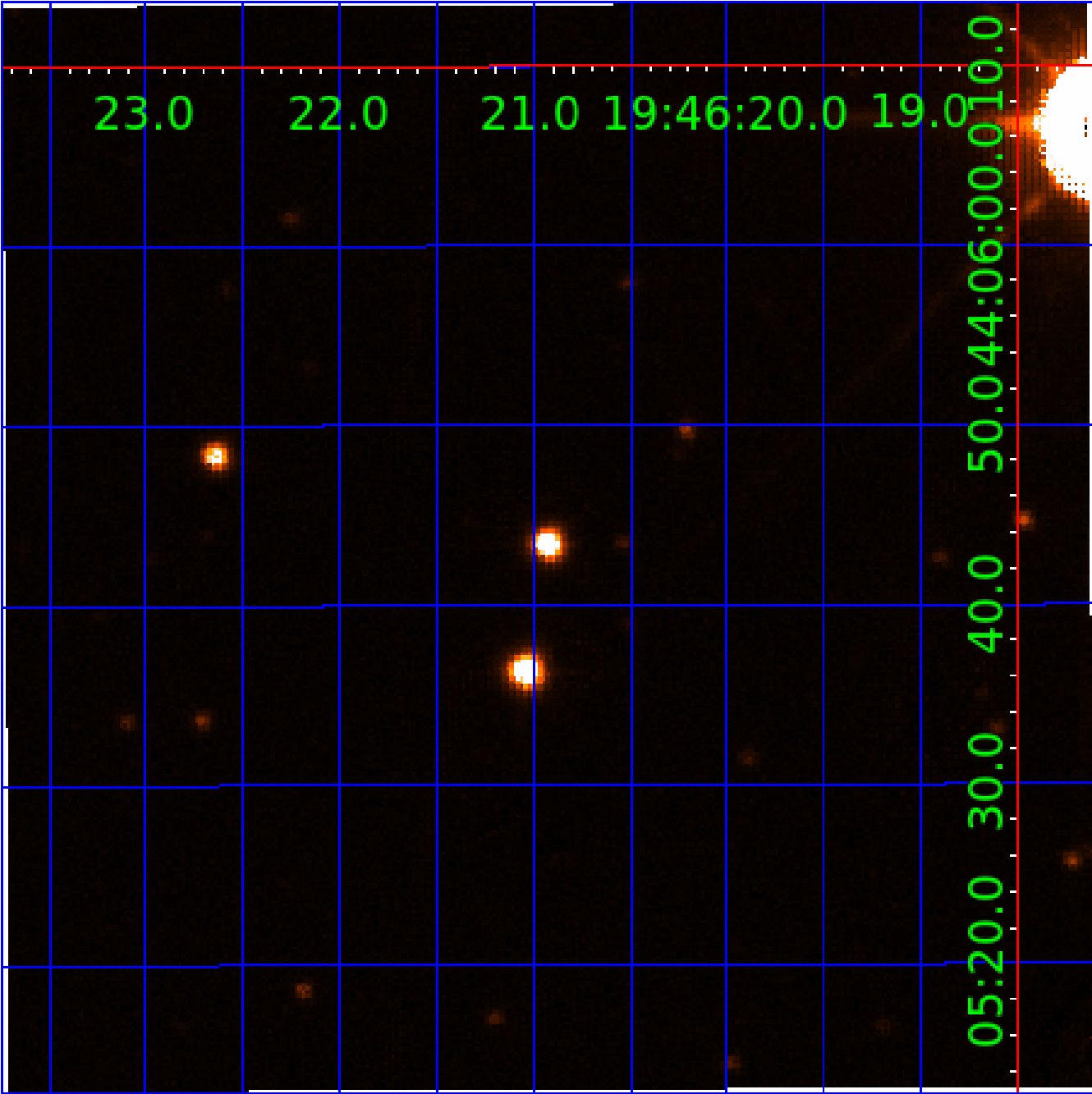
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



folded centroid time series figure for this object.

UKIRT Image

Declination



KIC 008180361

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})
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008180361-02	OBS	No	384.039669	423.472170	13186.2	13.949	12.0	10.8	1.19	6769	23.90	2.21
008180361-04	OBS	No	627.780264	193.336135	725.3	4.500	13.4	-1.0	1.19	6769	3.24	1.15

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008180361-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_FEW_DIFFS
008180361-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
008180361-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES—LPP_DV—ALL_TRANS_CHASES—NO_FITS—INCONSISTENT_TRANS—CENT_NOFITS

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

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

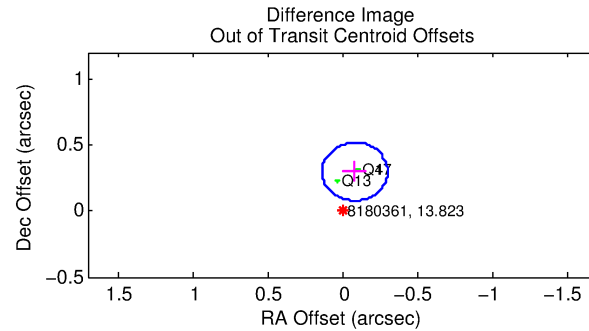
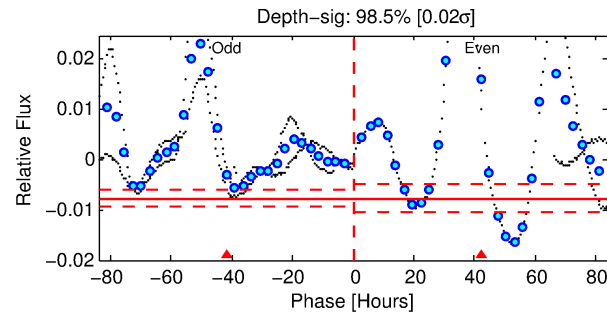
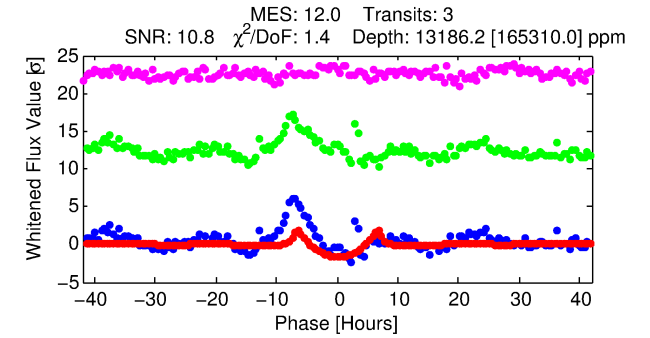
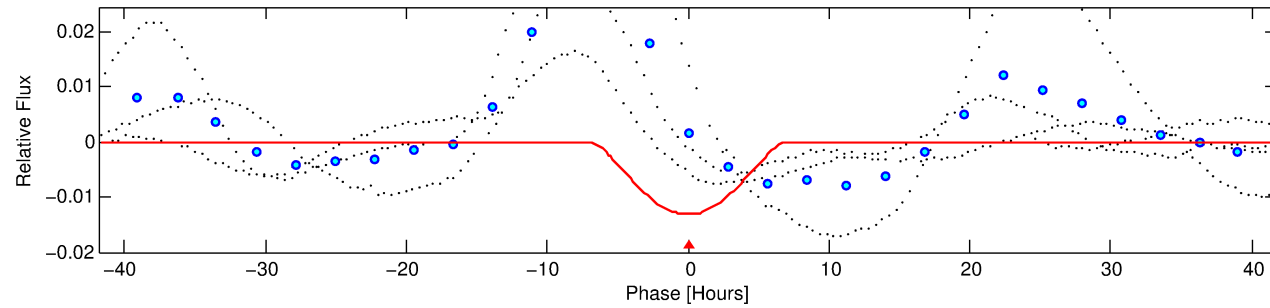
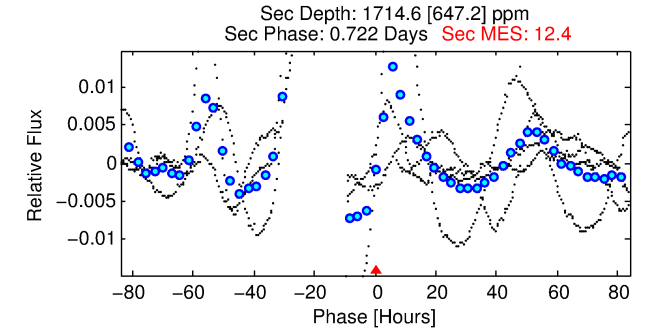
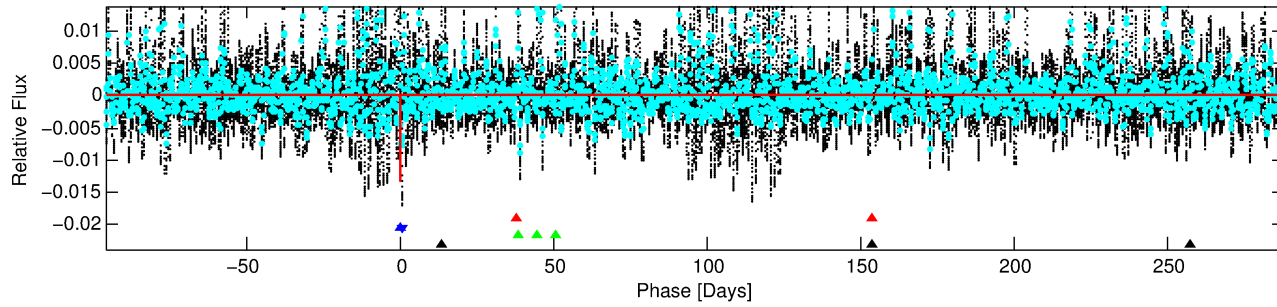
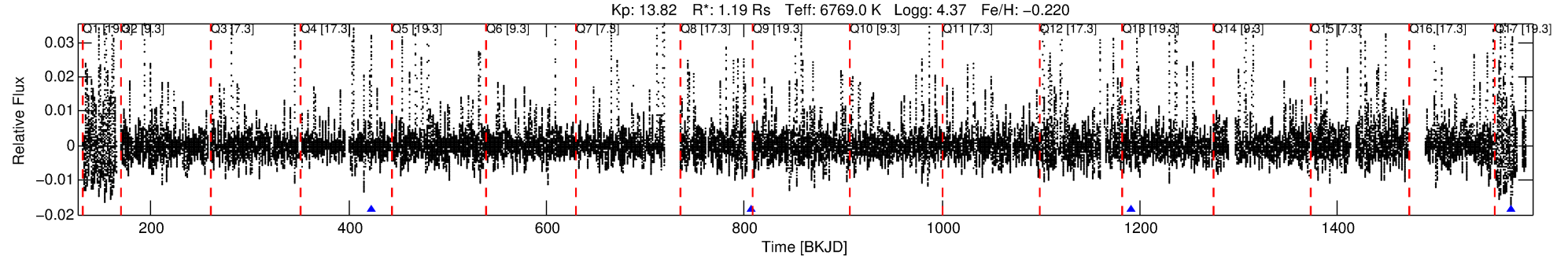
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008180361-02

No Significant Match Found

DV One-Page Summary

KIC: 8180361 Candidate: 2 of 4 Period: 384.040 d



DV Fit Results:

Period = 384.03967 [0.00571] d
Epoch = 423.4722 [0.0101] BKJD
Rp/R* = 0.1836 [0.1779]
a/R* = 133.18 [15.30]
b = 1.00 [1.29]
Seff = 2.21 [0.99]
Teq = 311 [35] K
Rp = 23.90 [24.71] Re
a = 1.1008 [0.3252] AU
Ag = 2000.82 [4038.12] [0.50 σ]
Teff = 3215 [1591] K [1.82 σ]

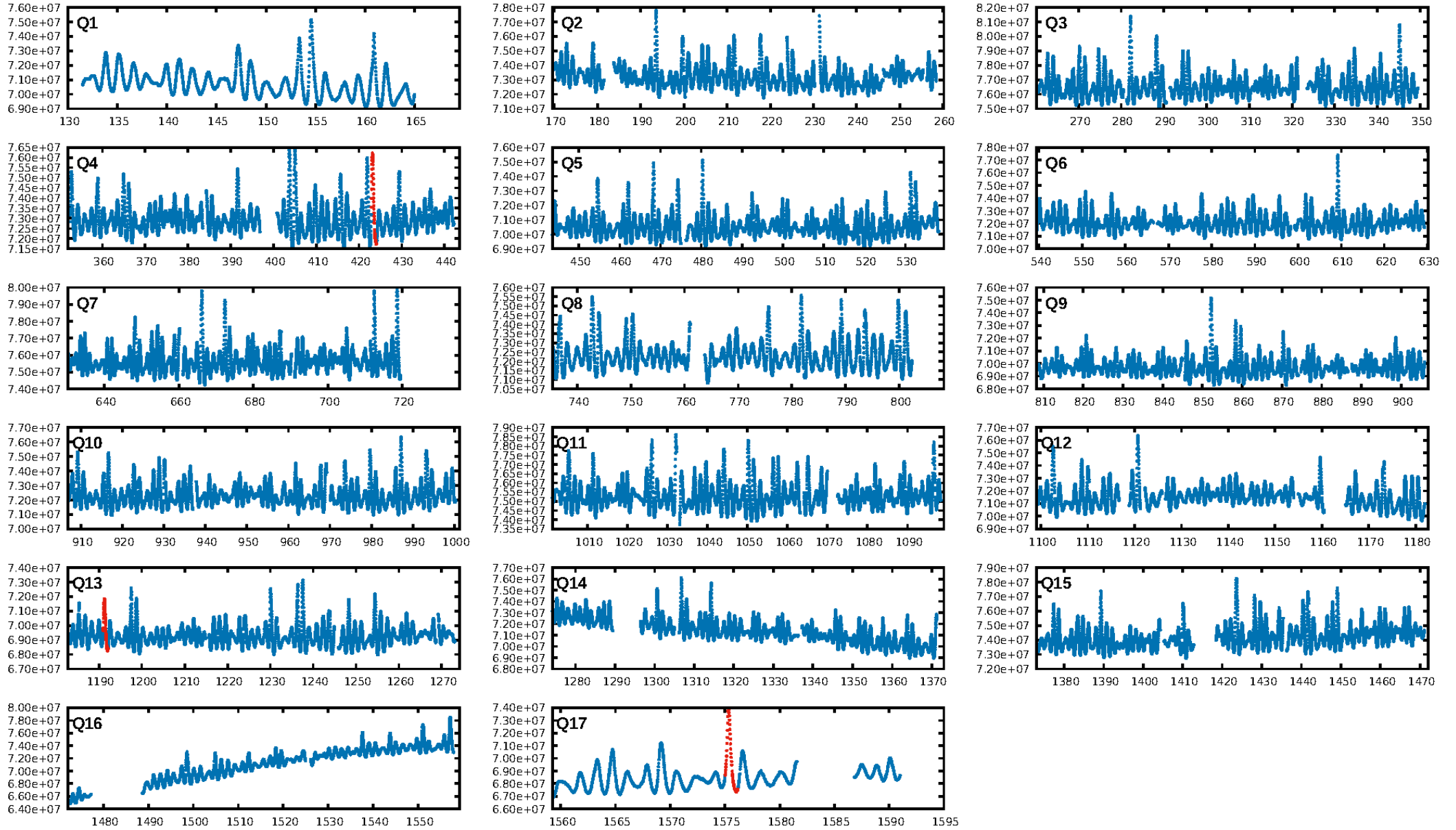
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [7.63 σ]
LongPeriod-sig: 100.0% [229.99 σ]
ModelChiSquare2-sig: 24.1%
ModelChiSquareGof-sig: 99.9%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [2/2]
GhostDiagnostic-chr: -0.5356
Centroid-sig: 0.2%
Centroid-so: 1.162 arcsec [2.24 σ]
OotOffset-rm: 0.309 arcsec [4.23 σ]
KicOffset-rm: 0.010 arcsec [0.13 σ]
OotOffset-st: 0/0/1/2 [3]
KicOffset-st: 0/0/1/2 [3]
DiffImageQuality-fgm: 0.00 [0/3]
DiffImageOverlap-fno: 1.00 [3/3]

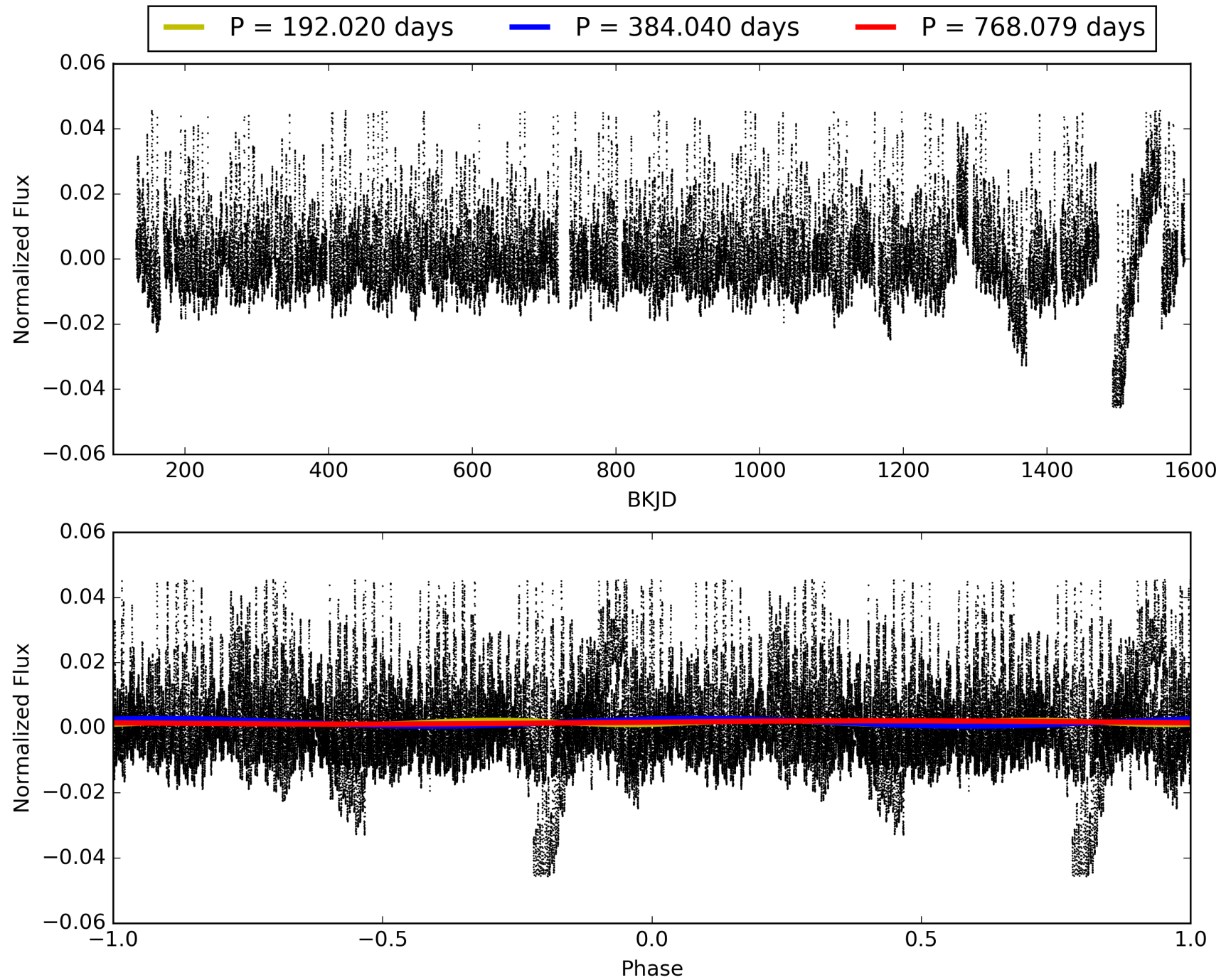
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 23:22:07 Z

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

TCE 008180361-02, PDC Light Curves

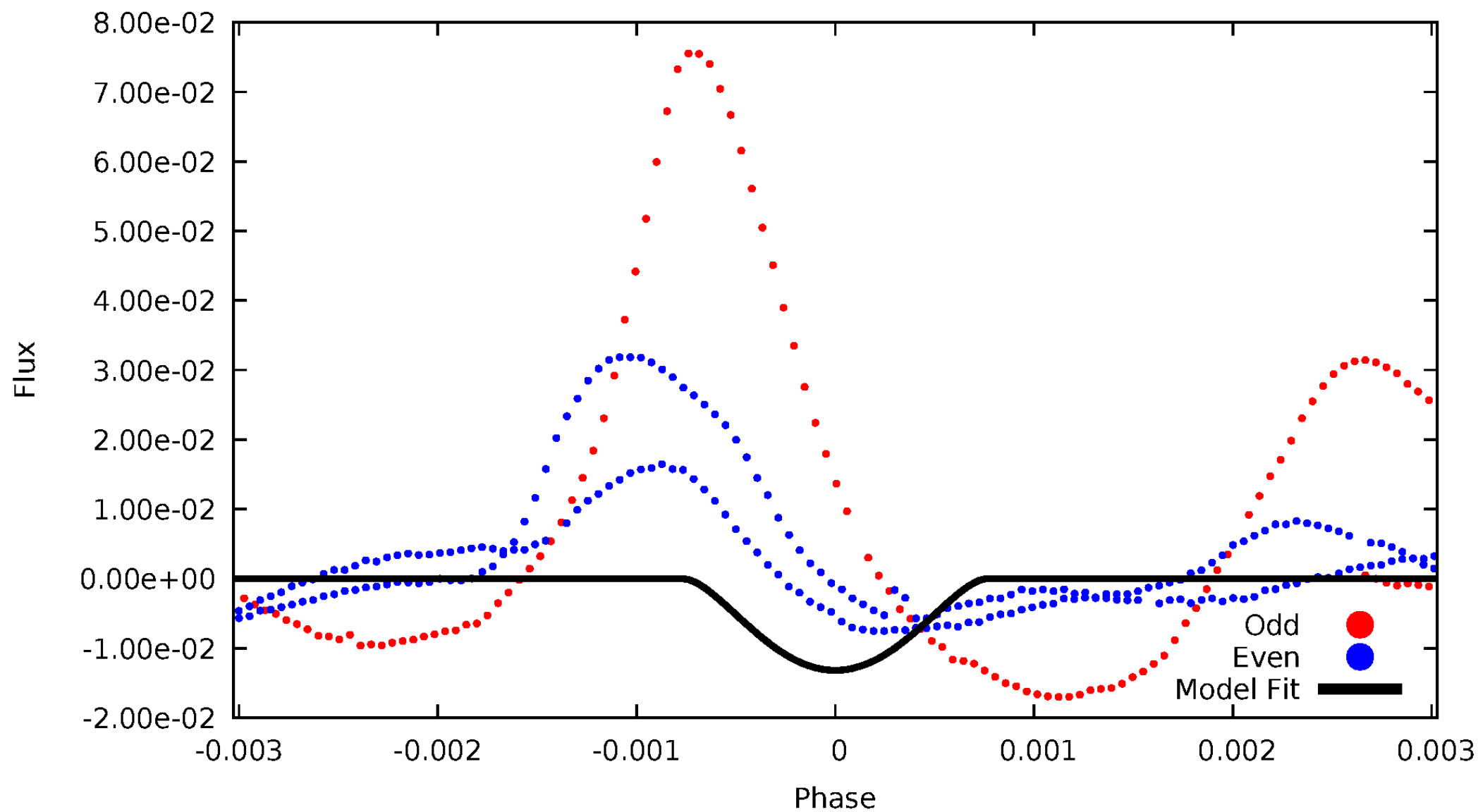


TCE 008180361-02



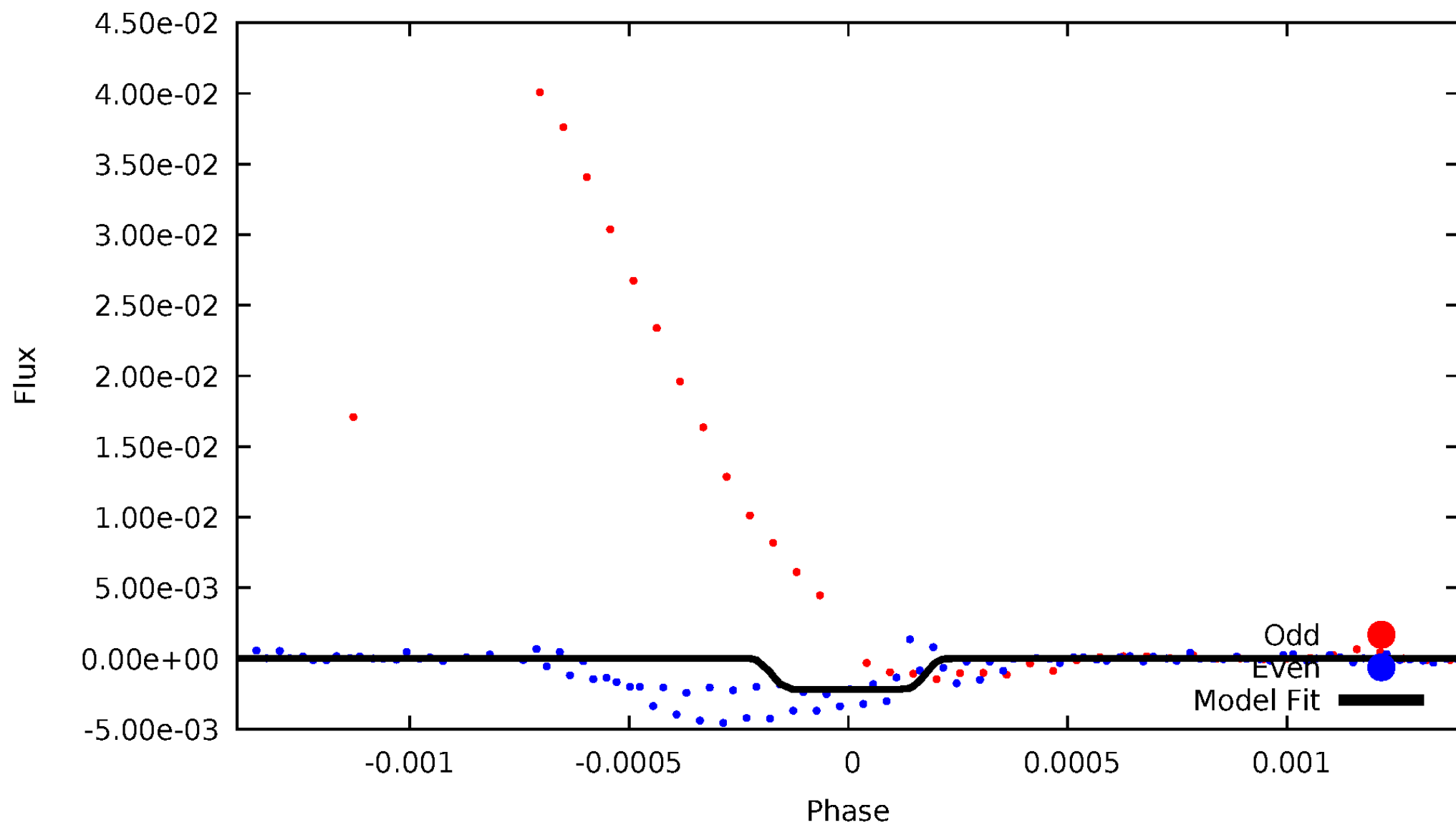
DV Odd/Even

TCE 008180361-02



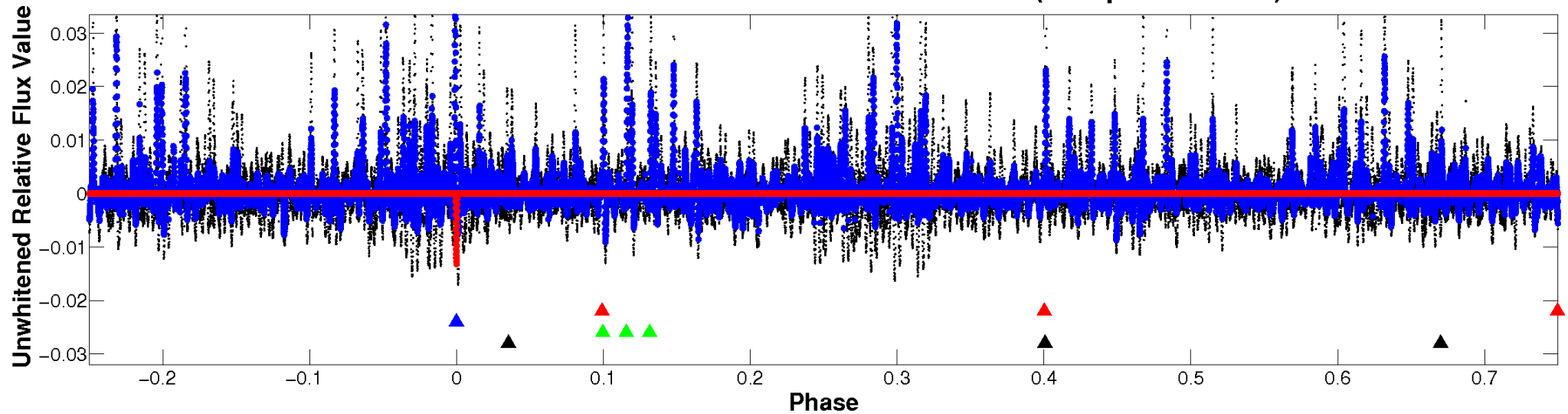
ALT Odd/Even

TCE 008180361-02

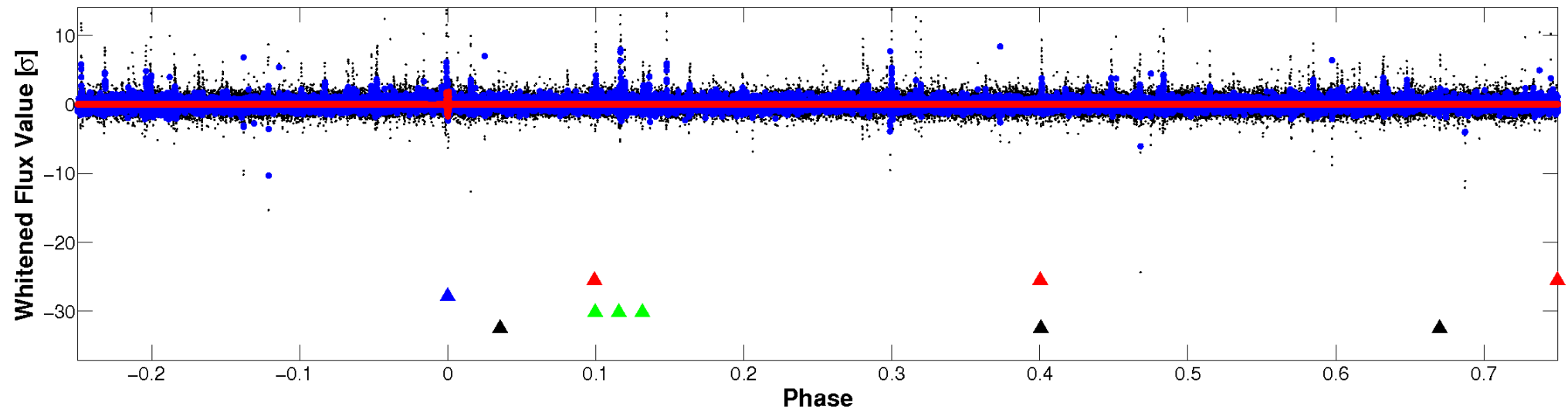


Non-Whitened Vs. Whitened Light Curve

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

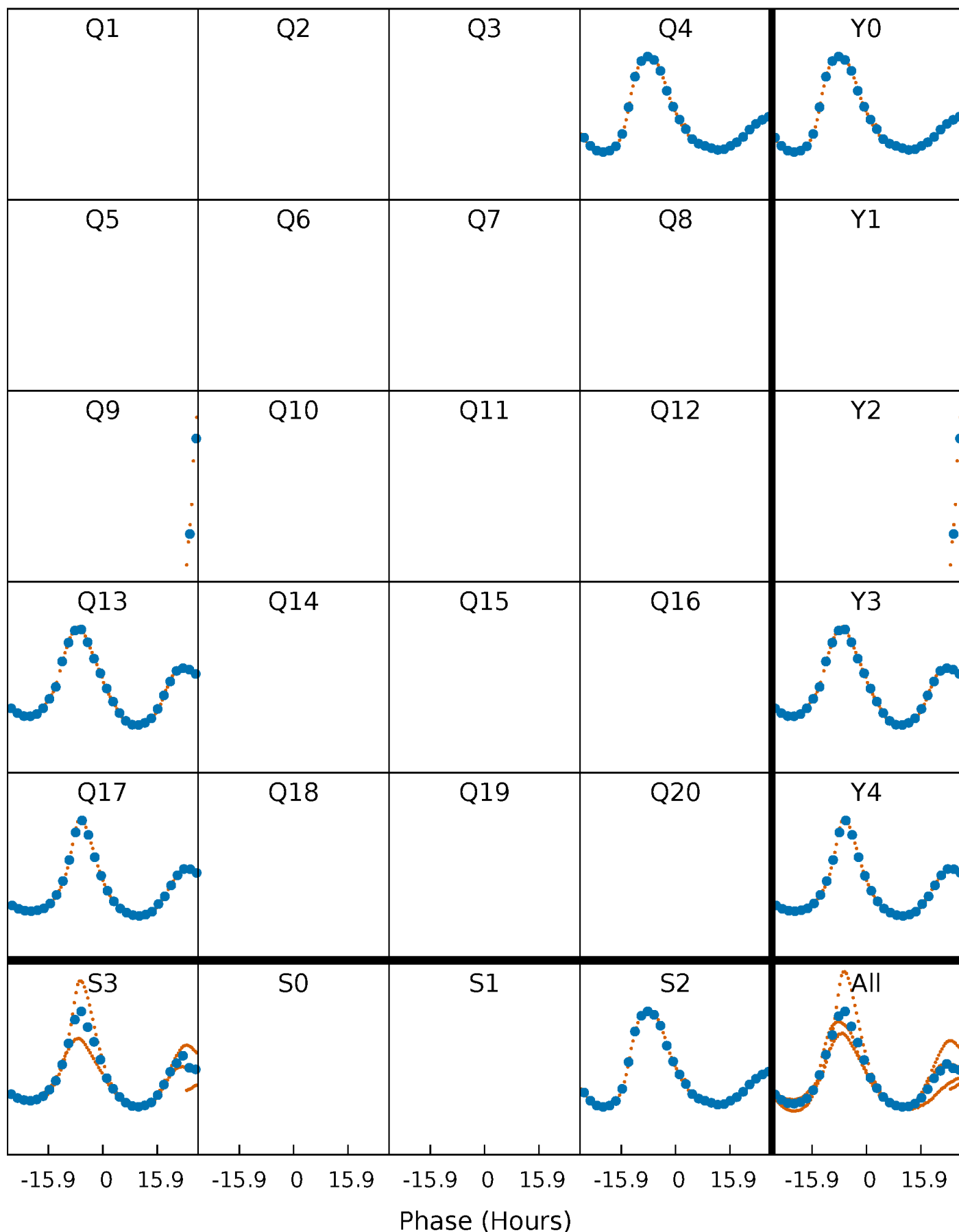


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



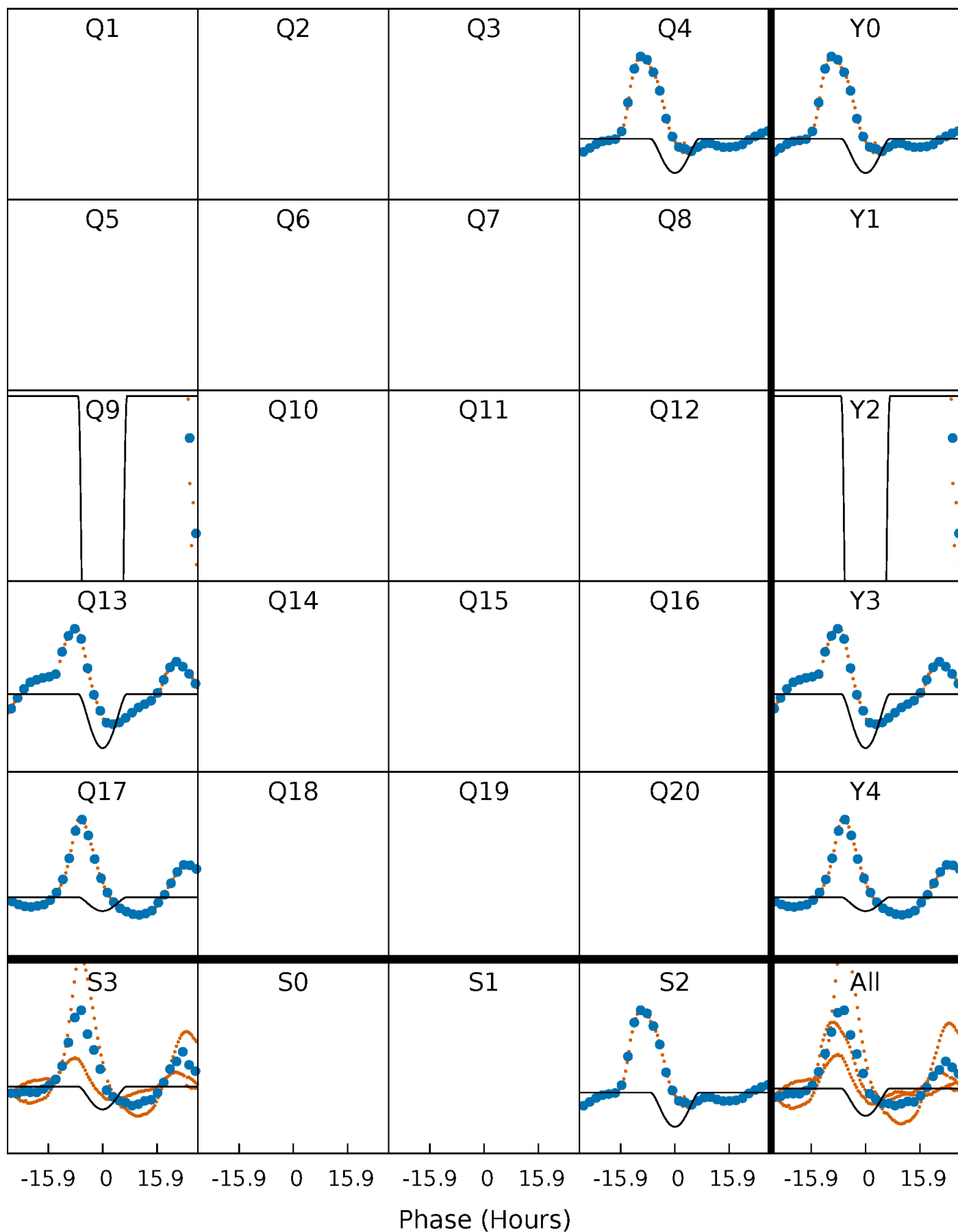
PDC Quarter-Phased Transit Curves

TCE 008180361-02 $P=384.039669$ Days $T_0=423.472170$ (BKJD)



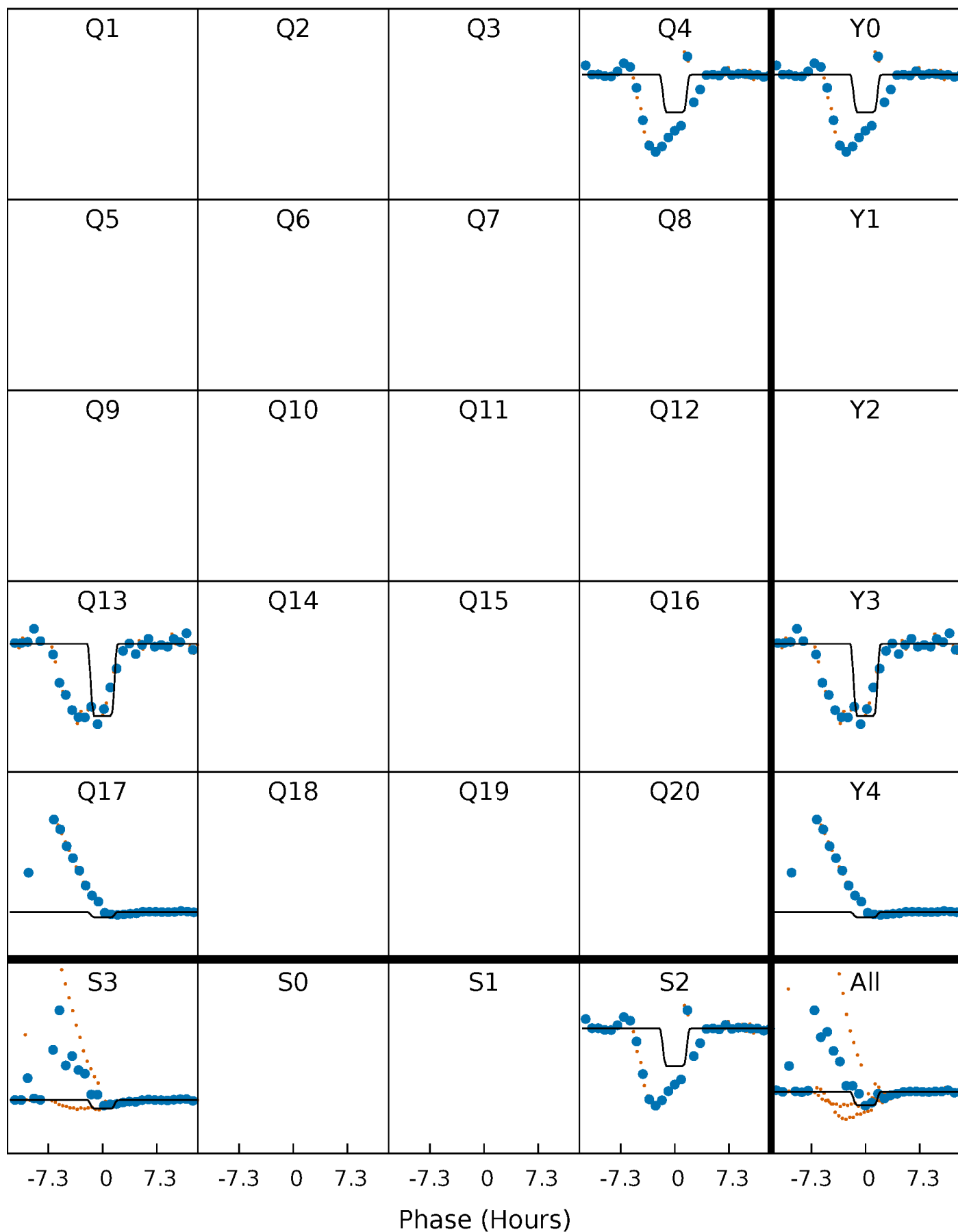
DV Quarter-Phased Transit Curves

TCE 008180361-02 $P=384.039669$ Days $T_0=423.472170$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

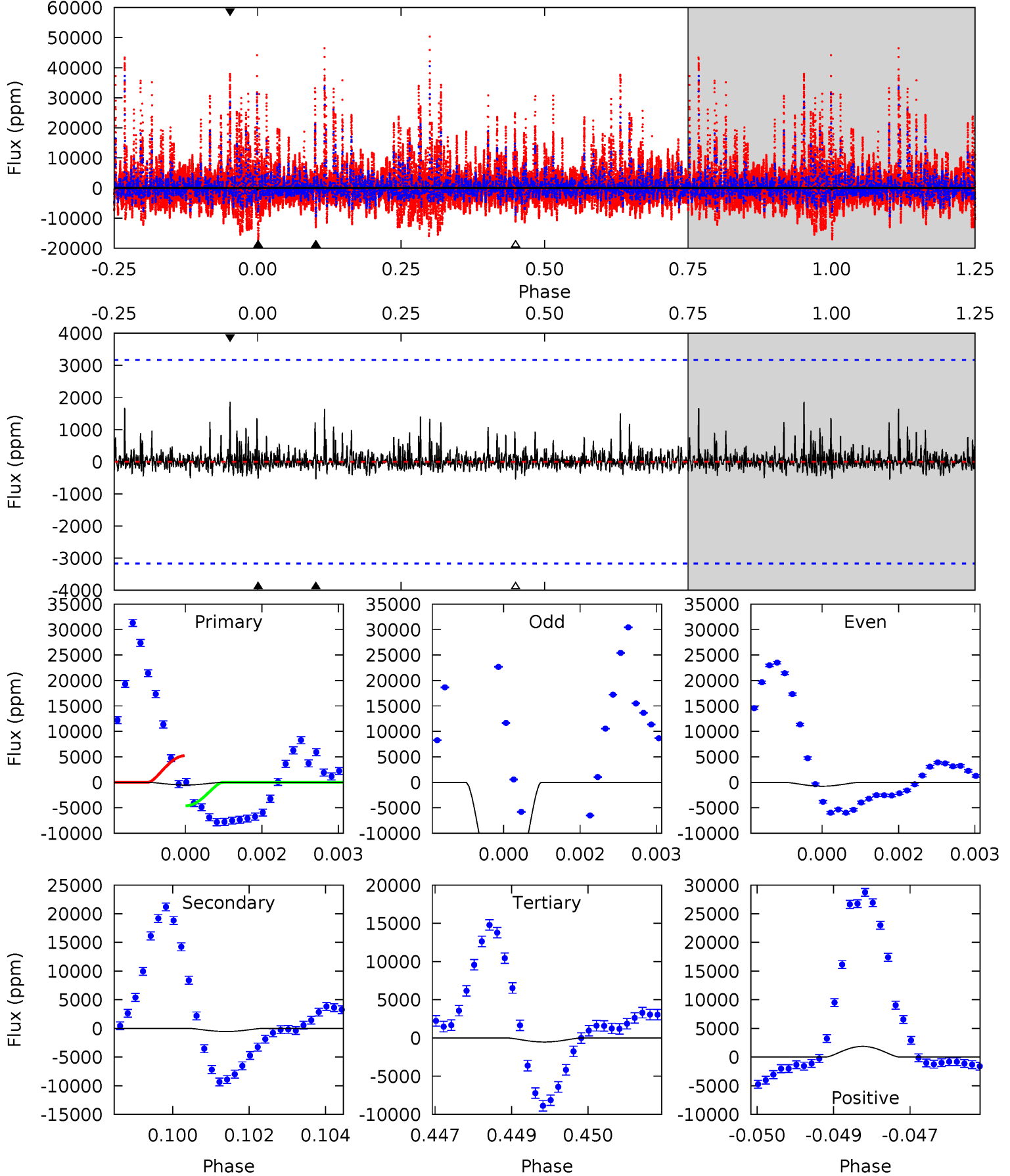
TCE 008180361-02 $P=384.035138$ Days $T_0=423.533258$ (BKJD)



DV Model-Shift Uniqueness Test

008180361-02, P = 384.039669 Days, E = 39.432501 Days

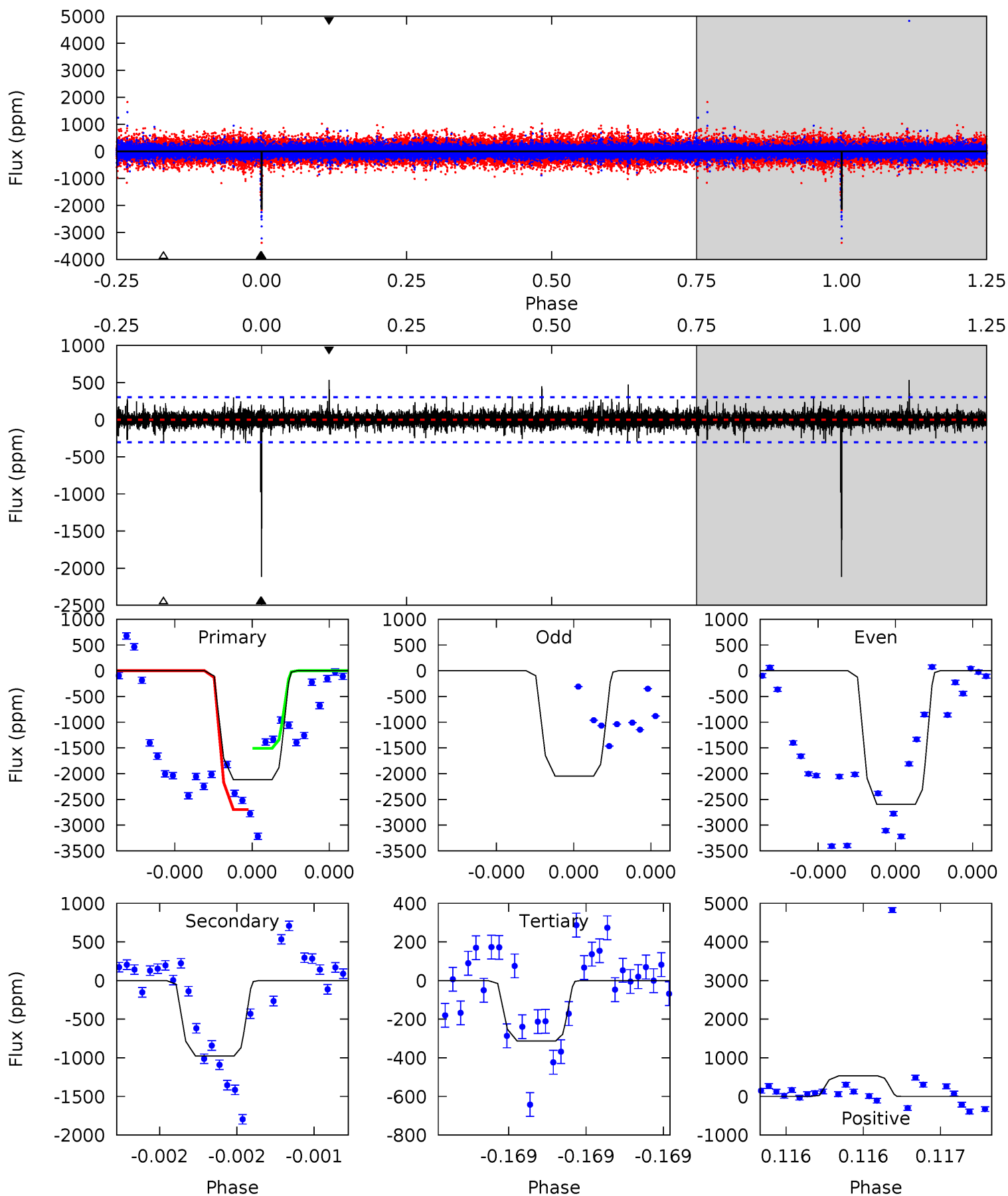
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0.88	0.91	0.89	3.16	5.37	3.16	0.39	-0.01	-2.28	0.02	-2.25	19.1	2.85	0.78	0.54



Alt Model-Shift Uniqueness Test

008180361-02, P = 384.035138 Days, E = 39.498120 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
39.1	18.0	5.77	9.85	5.60	3.52	1.08	33.3	29.2	12.3	8.18	5.07	0.39	0.20	9.87



Stellar Parameters For KIC 008180361

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6769^{+188}_{-258}	$4.366^{+0.056}_{-0.224}$	$-0.220^{+0.250}_{-0.300}$	$1.193^{+0.430}_{-0.143}$	$1.219^{+0.195}_{-0.160}$	$1.010^{+0.307}_{-0.556}$
	+3%/-4%	+1%/-5%	+114%/-136%	+36%/-12%	+16%/-13%	+30%/-55%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 008180361-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-538 ± 590	$30.20^{+22.48}_{-19.30}$	444^{+36}_{-25}	2784^{+955}_{-5008}	280^{+2006}_{-329}
Alt.	-977 ± 54	$18.34^{+21.47}_{-12.39}$	443^{+34}_{-23}	3684^{+2063}_{-767}	1936^{+15978}_{-1516}

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

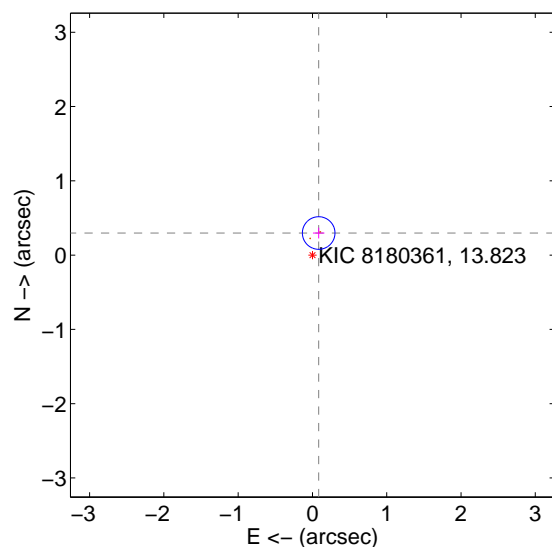
Supplemental centroid analysis for 008180361-02. Kepler magnitude: 13.82. Transit SNR 10.83

There are 0 quarters with good PRF difference image offsets

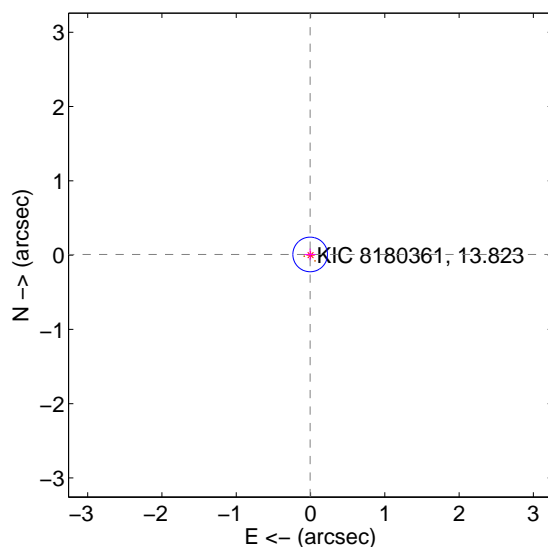
The direct PRF centroid is offset from the target star catalog position by about 0.28 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.309 \pm 0.073	4.23	-0.084 \pm 0.078	0.297 \pm 0.073
PRF-fit source offset from KIC position	0.010 \pm 0.078	0.13	0.005 \pm 0.074	0.009 \pm 0.079
photometric centroid source offset	1.16 \pm 0.52	2.24	0.09 \pm 0.06	-1.16 \pm 0.52

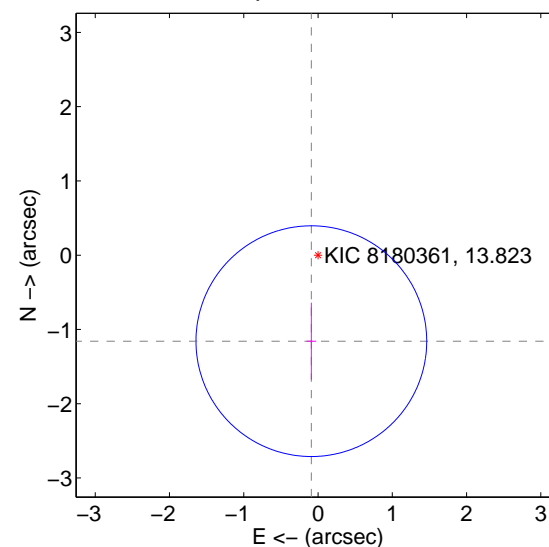
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

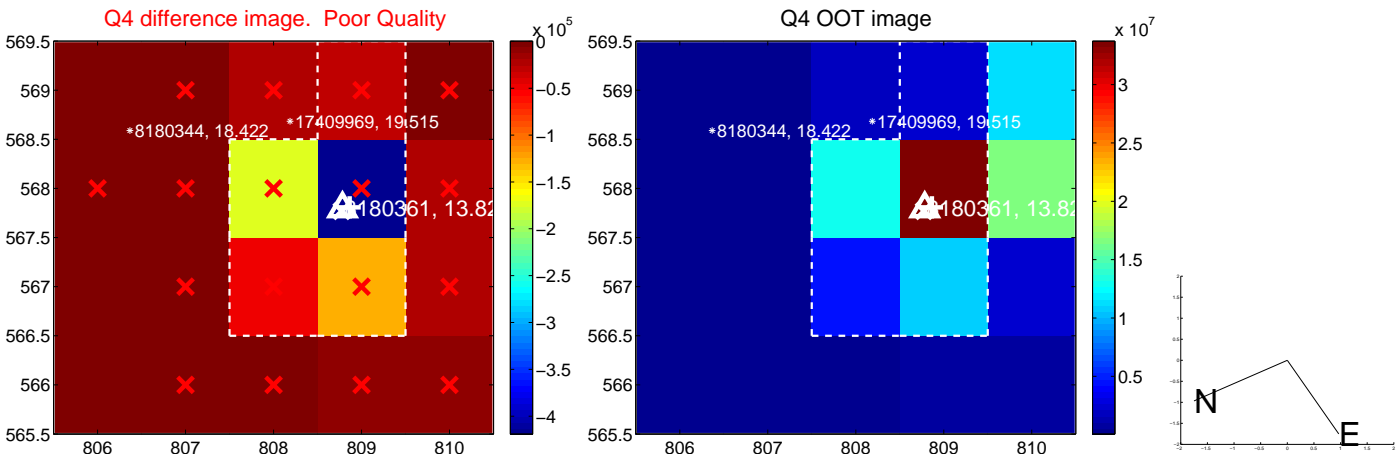
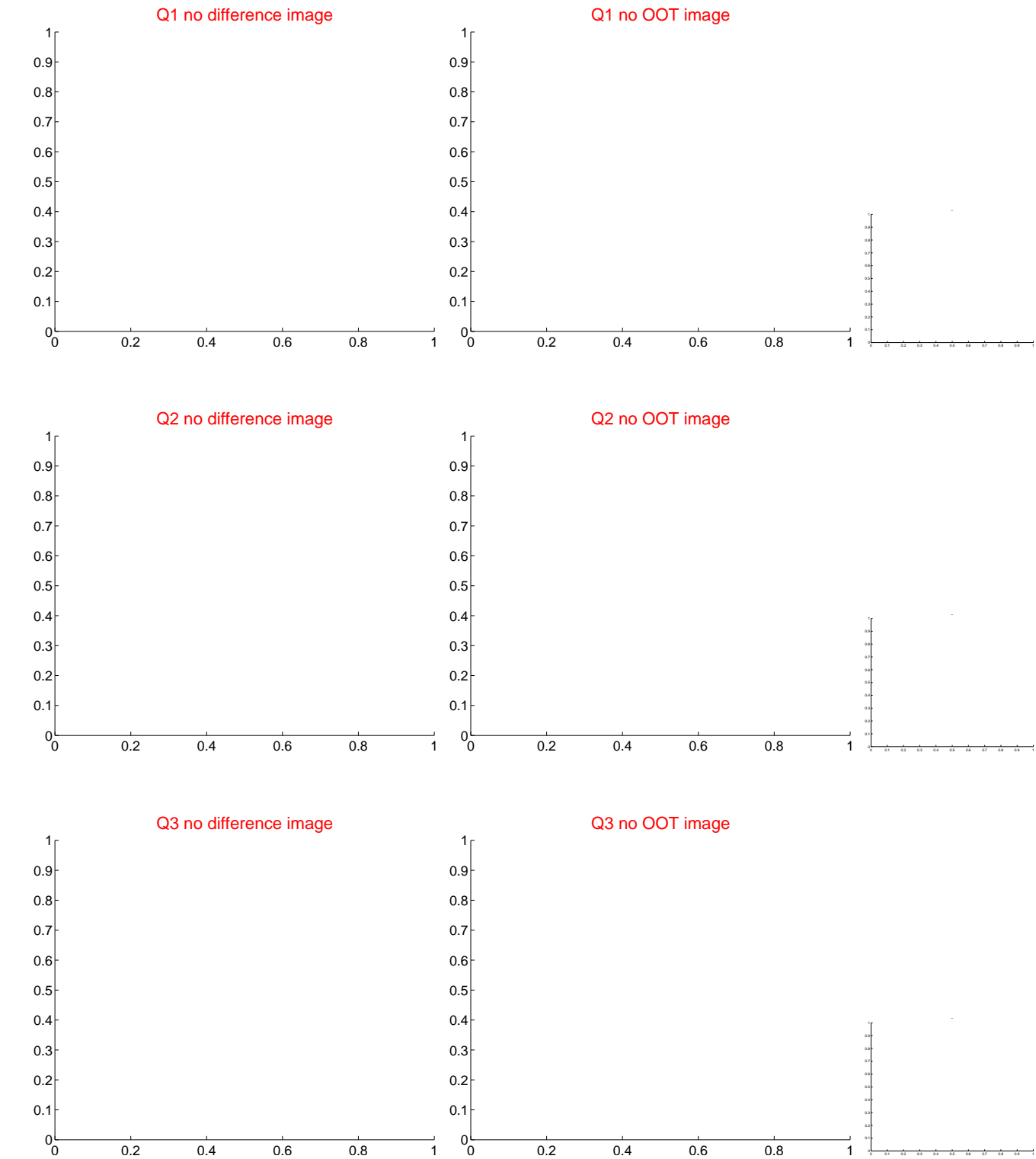


offset from photometric centroids



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.

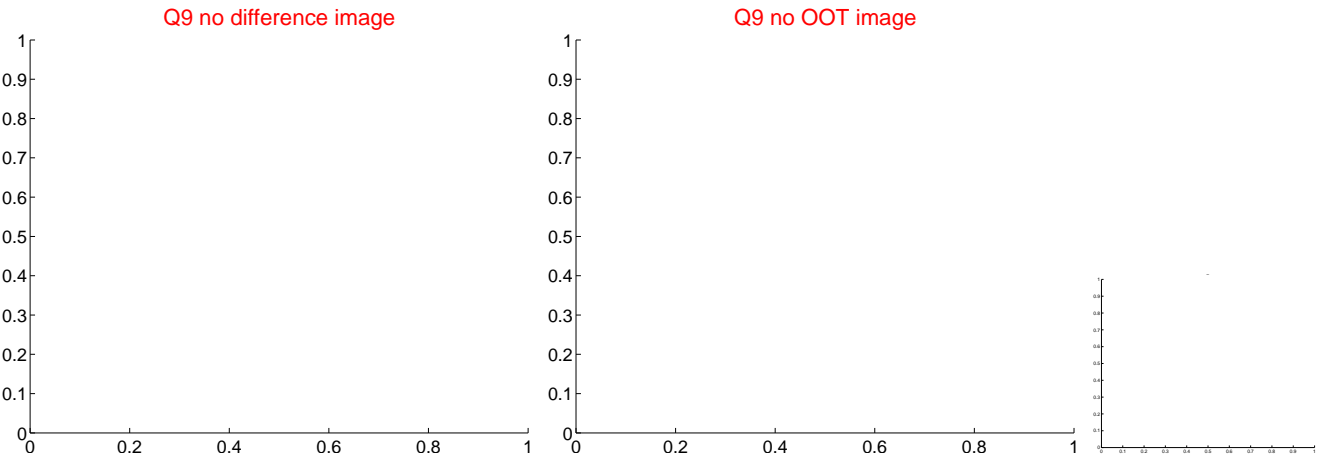
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



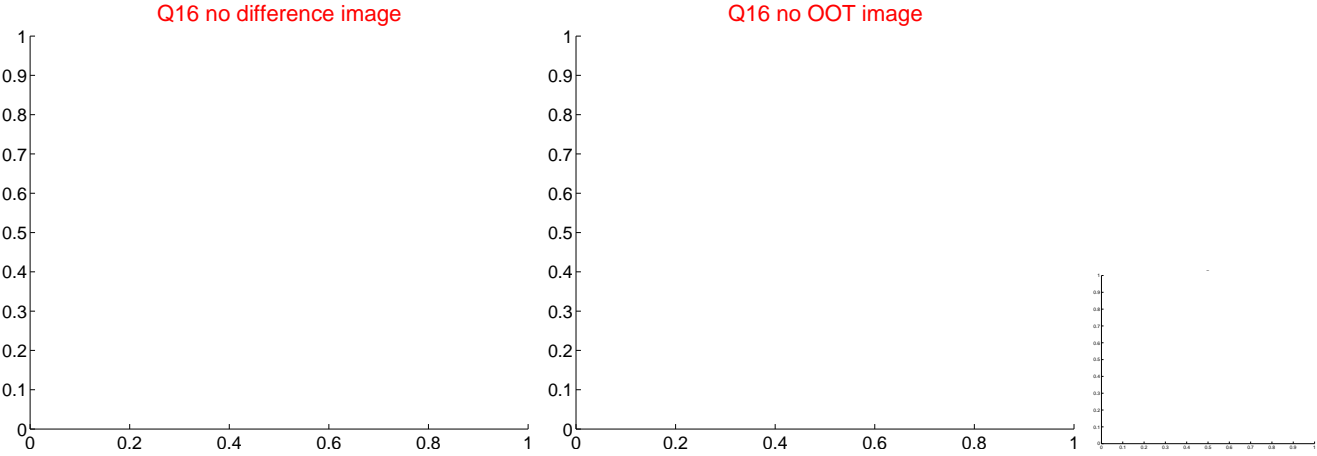
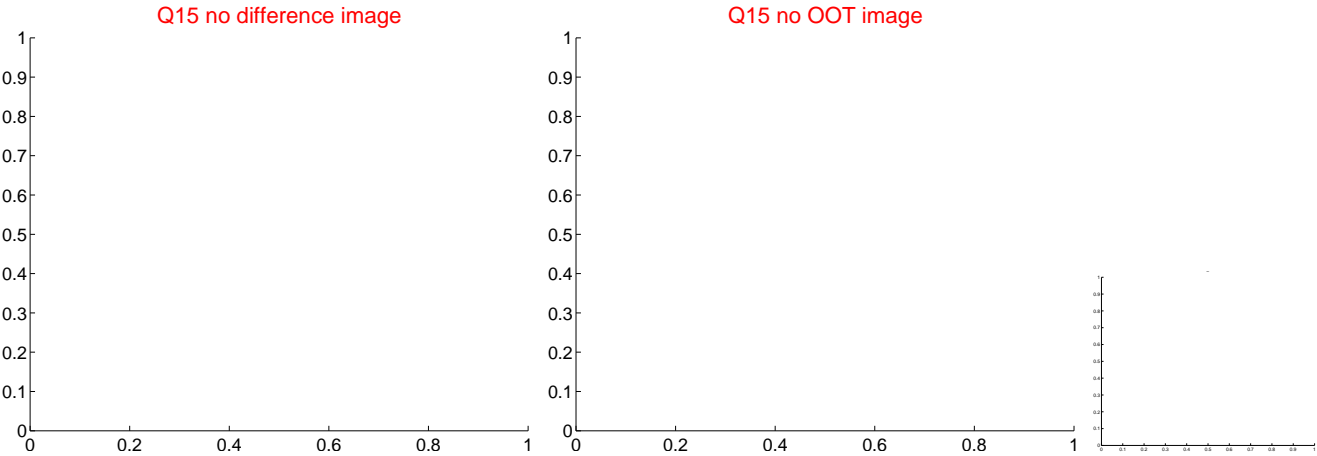
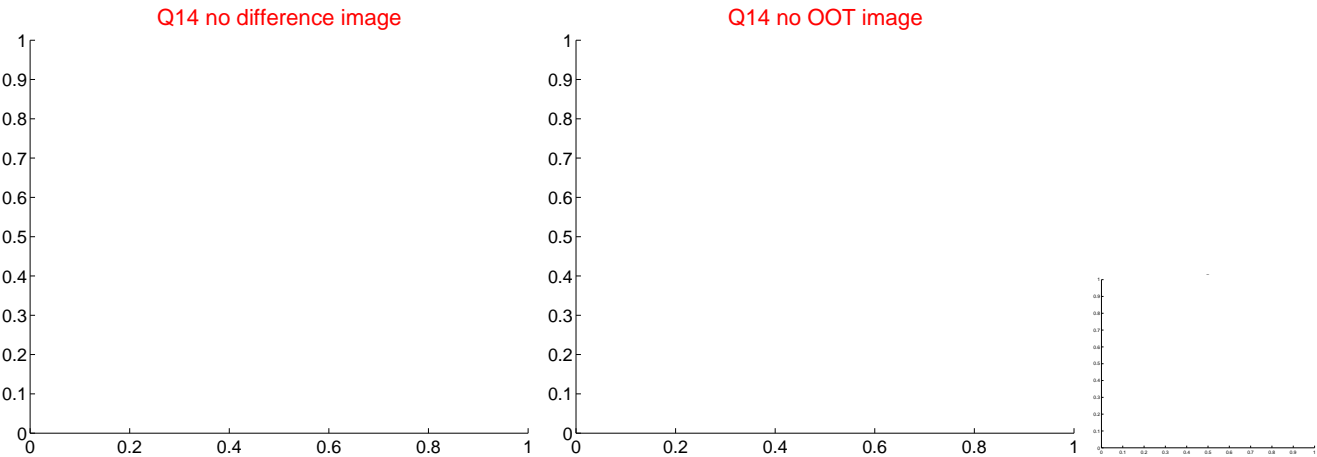
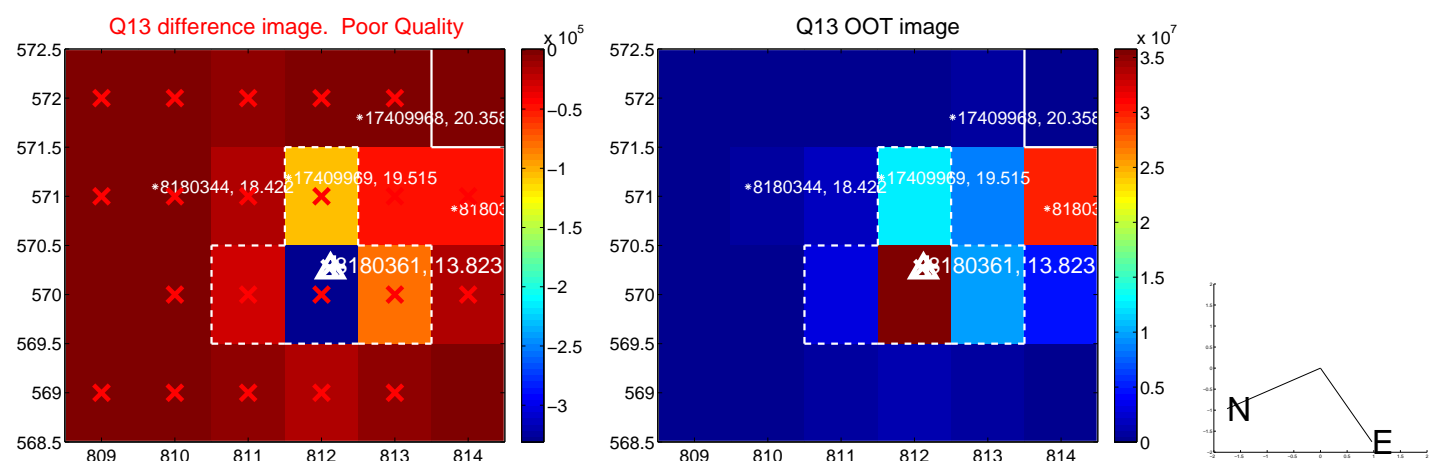
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



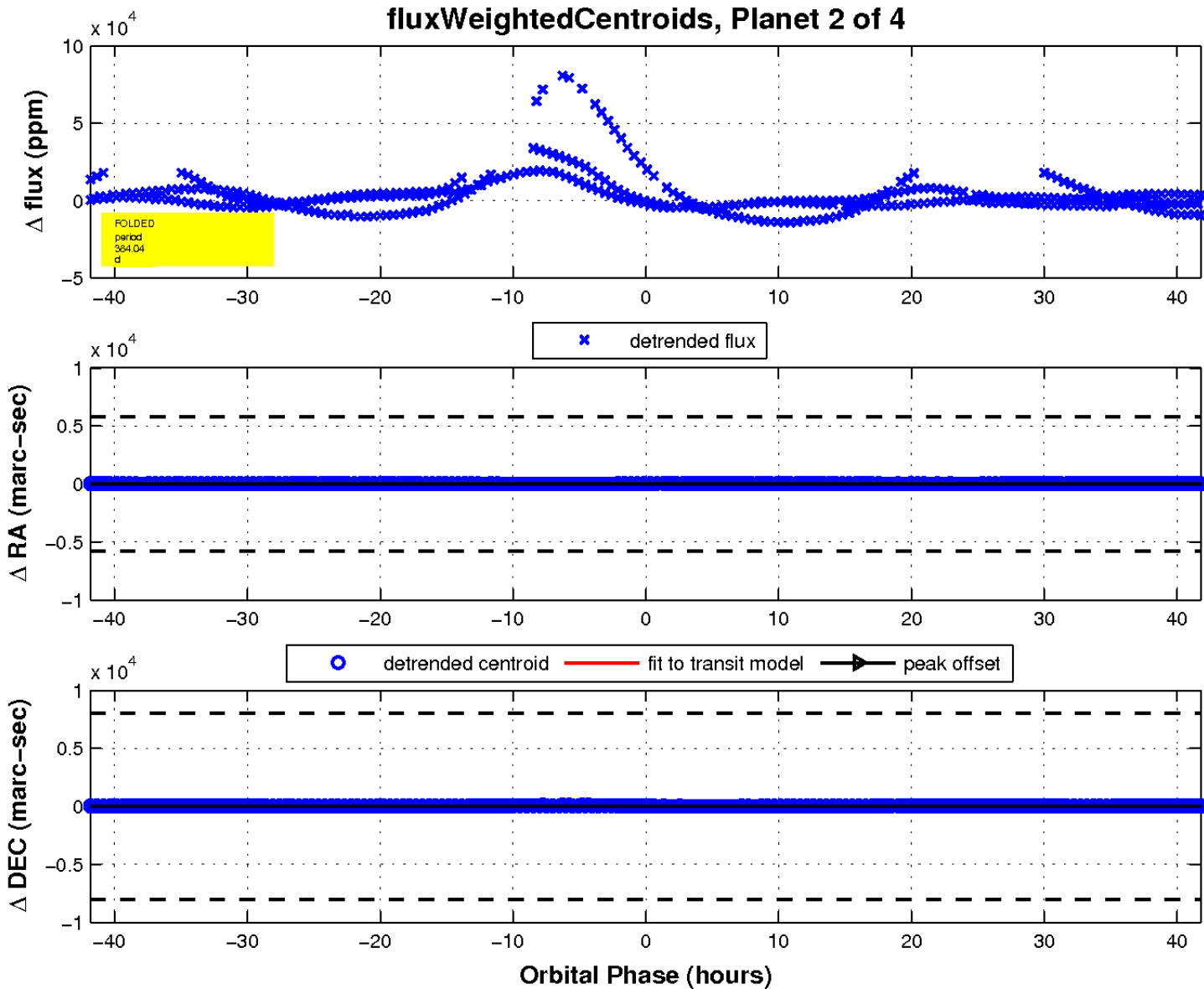
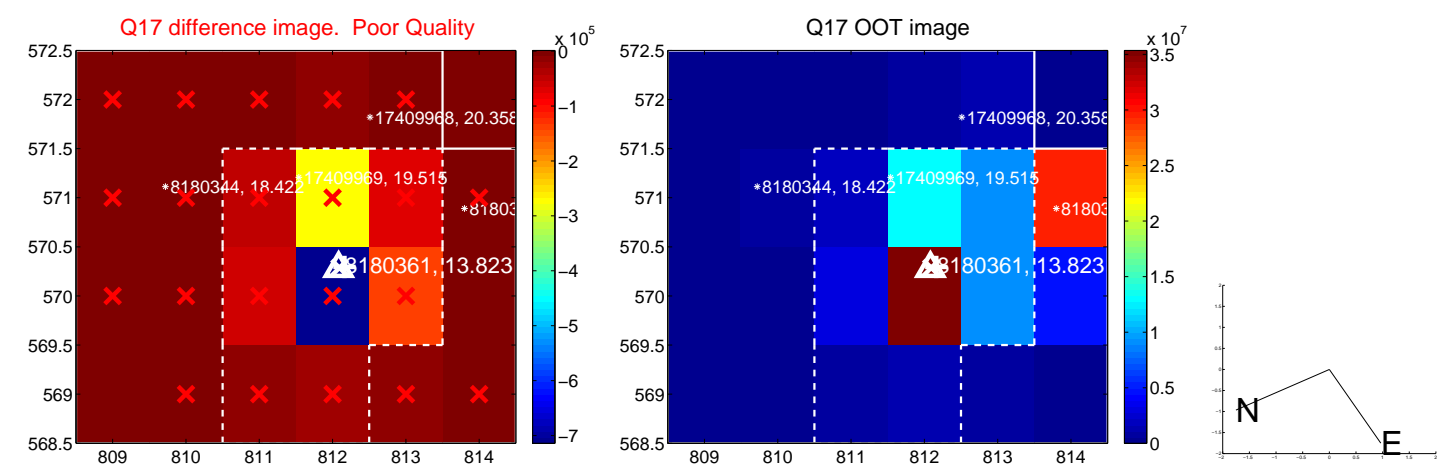
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

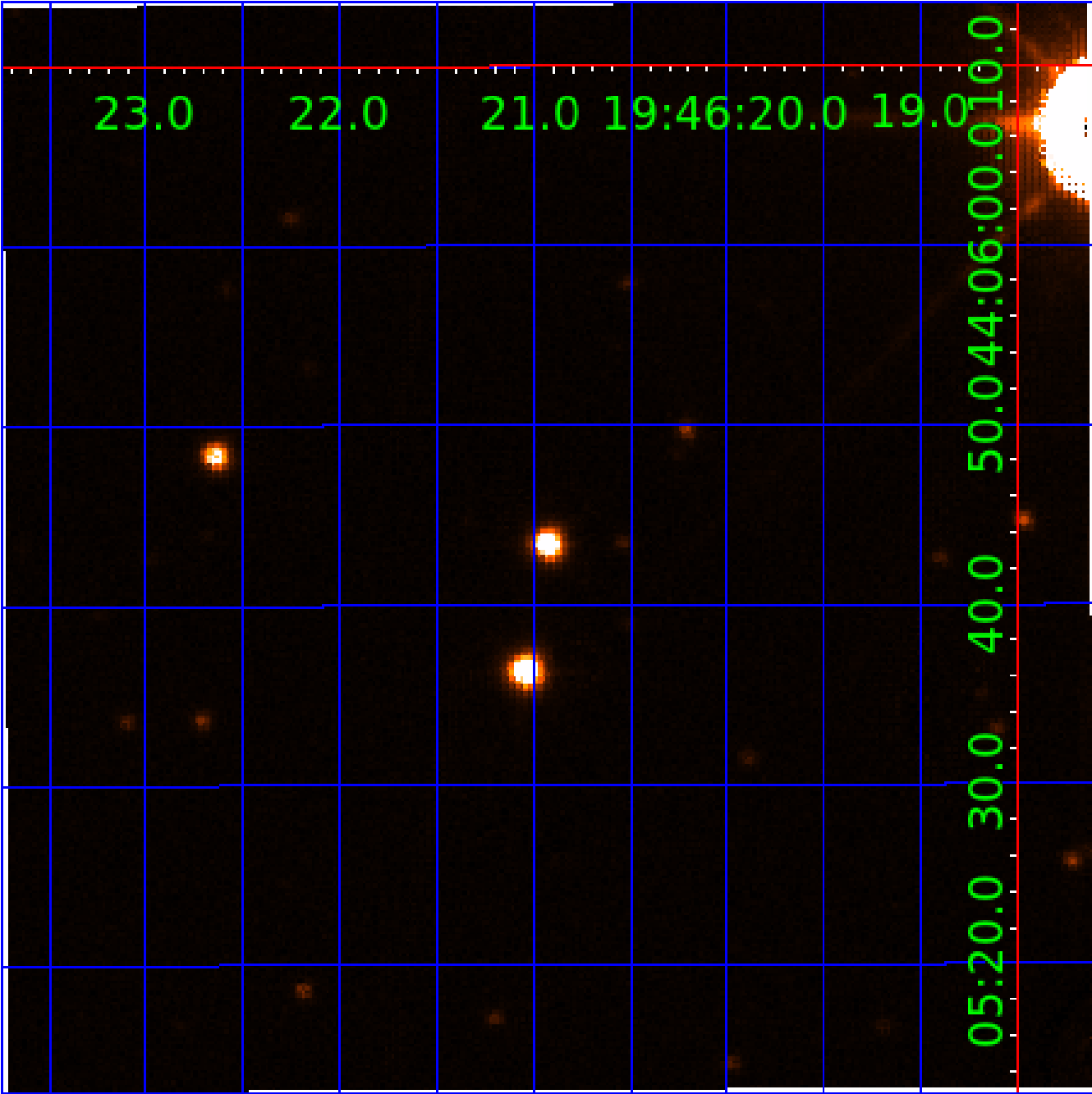


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 008180361

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})
008180361-01	OBS	No	518.235501	193.152130	0.2	1.240	15.0	0.0	1.19	6769	0.06	1.48
008180361-02	OBS	No	384.039669	423.472170	13186.2	13.949	12.0	10.8	1.19	6769	23.90	2.21
008180361-04	OBS	No	627.780264	193.336135	725.3	4.500	13.4	-1.0	1.19	6769	3.24	1.15

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008180361-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_FEW_DIFFS
008180361-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
008180361-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES—LPP_DV—ALL_TRANS_CHASES—NO_FITS—INCONSISTENT_TRANS—CENT_NOFITS

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

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

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

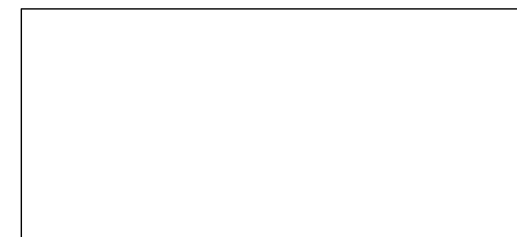
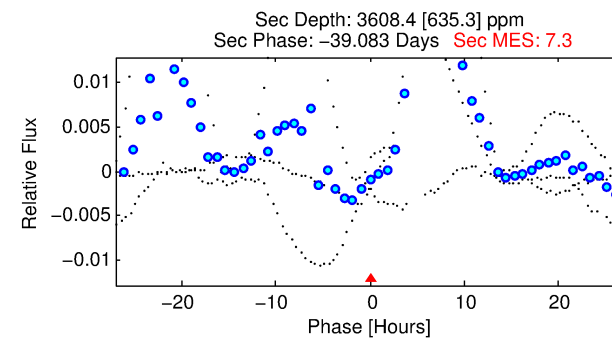
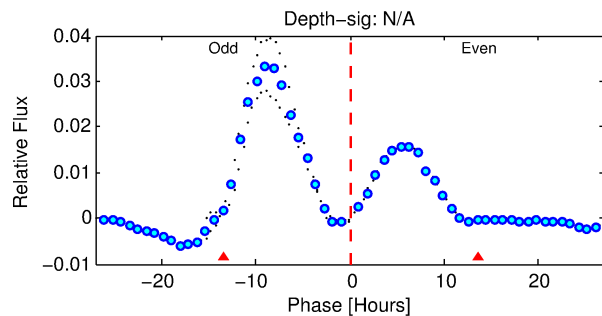
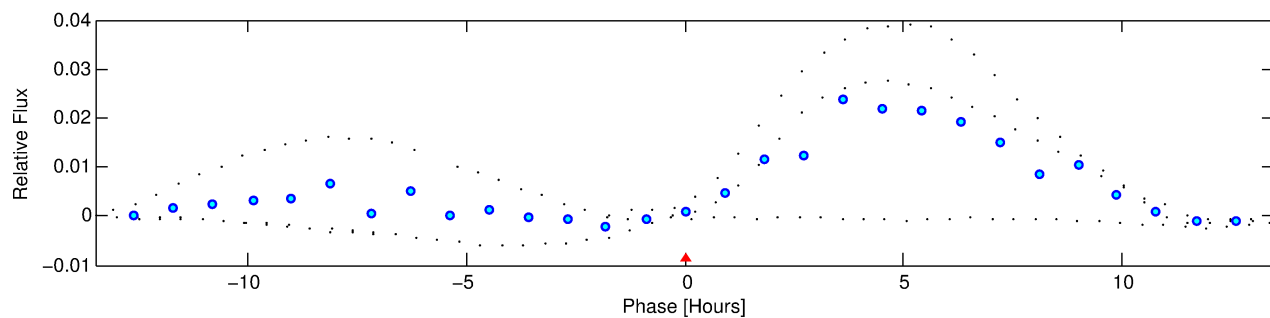
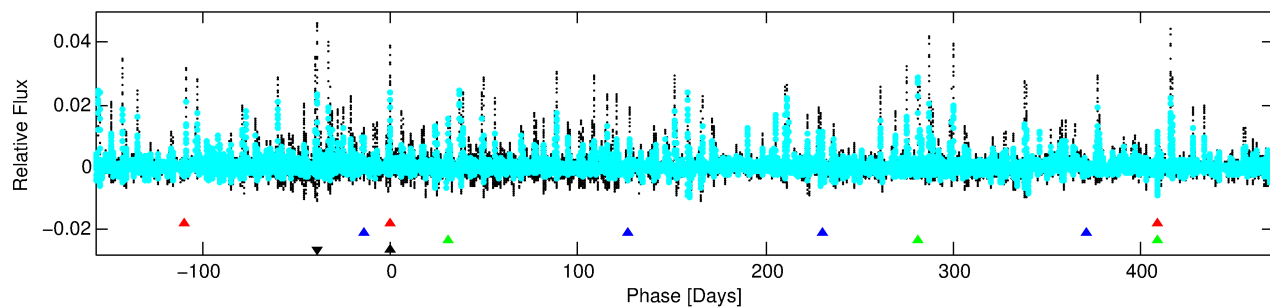
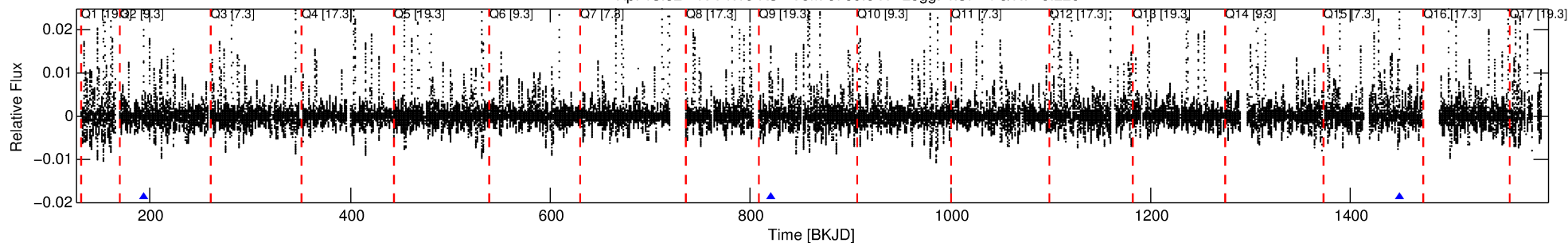
Ephemeris Match Information For 008180361-04

No Significant Match Found

DV One-Page Summary

KIC: 8180361 Candidate: 4 of 4 Period: 627.780 d

Kp: 13.82 R*: 1.19 Rs Teff: 6769.0 K Logg: 4.37 Fe/H: -0.220



TPS TCE Results:

Period = 627.78026 d
Epoch = 193.3361 BKJD

DV fit results are unavailable

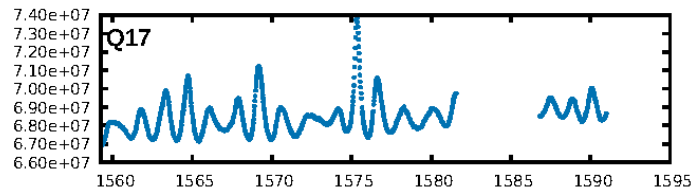
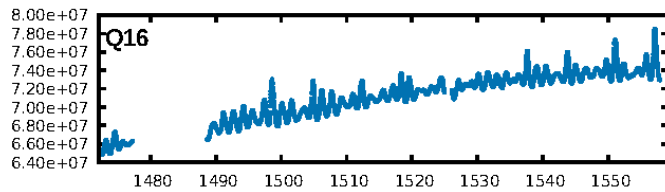
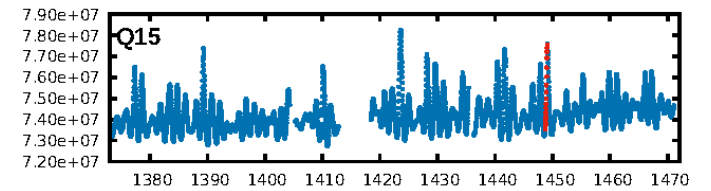
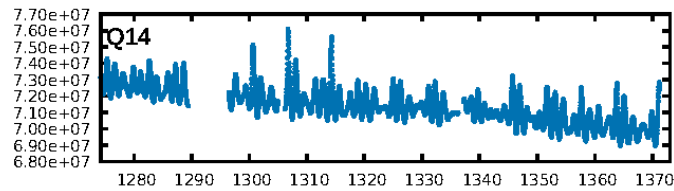
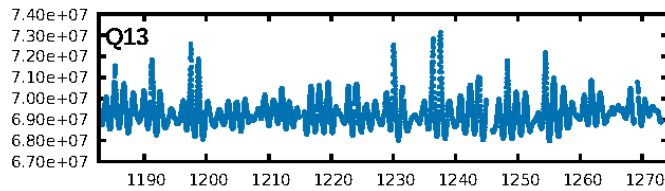
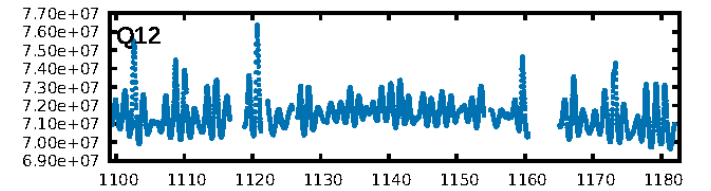
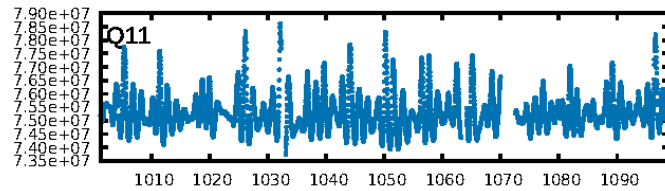
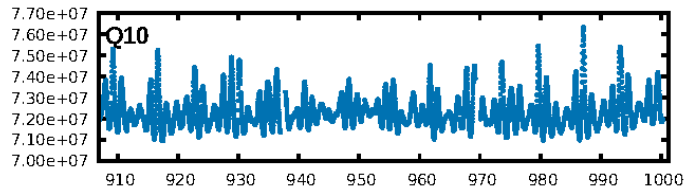
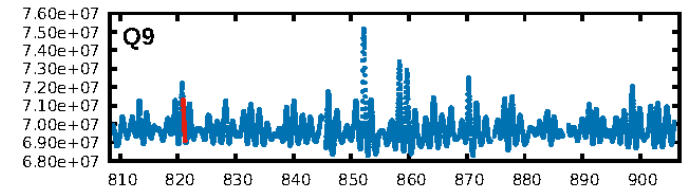
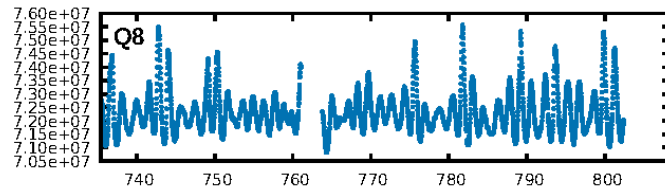
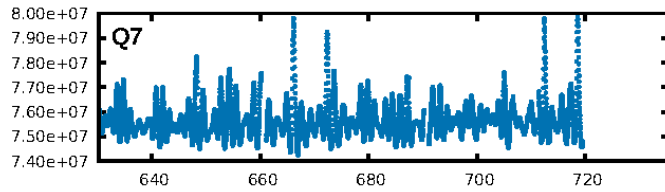
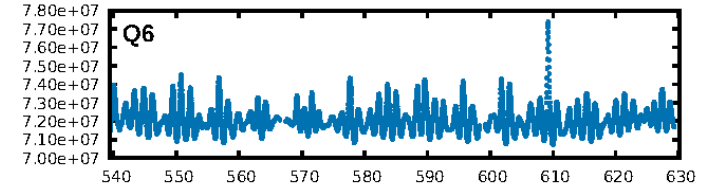
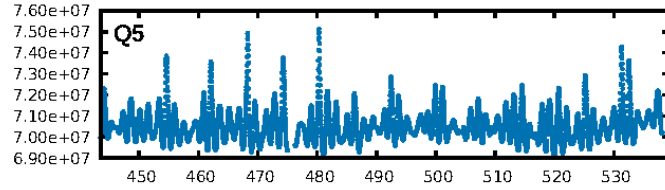
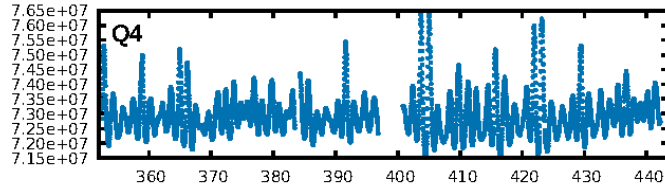
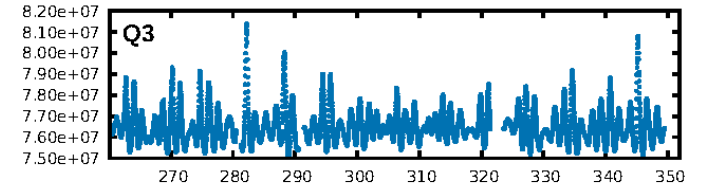
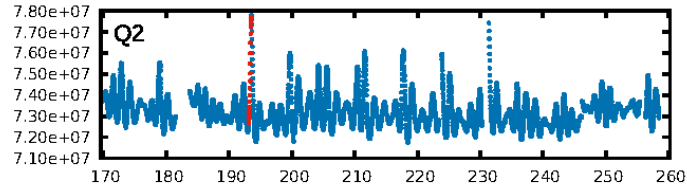
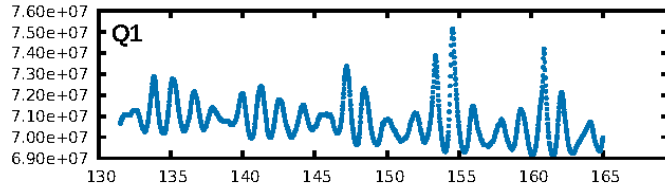
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [563.23σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: N/A
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
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: N/A

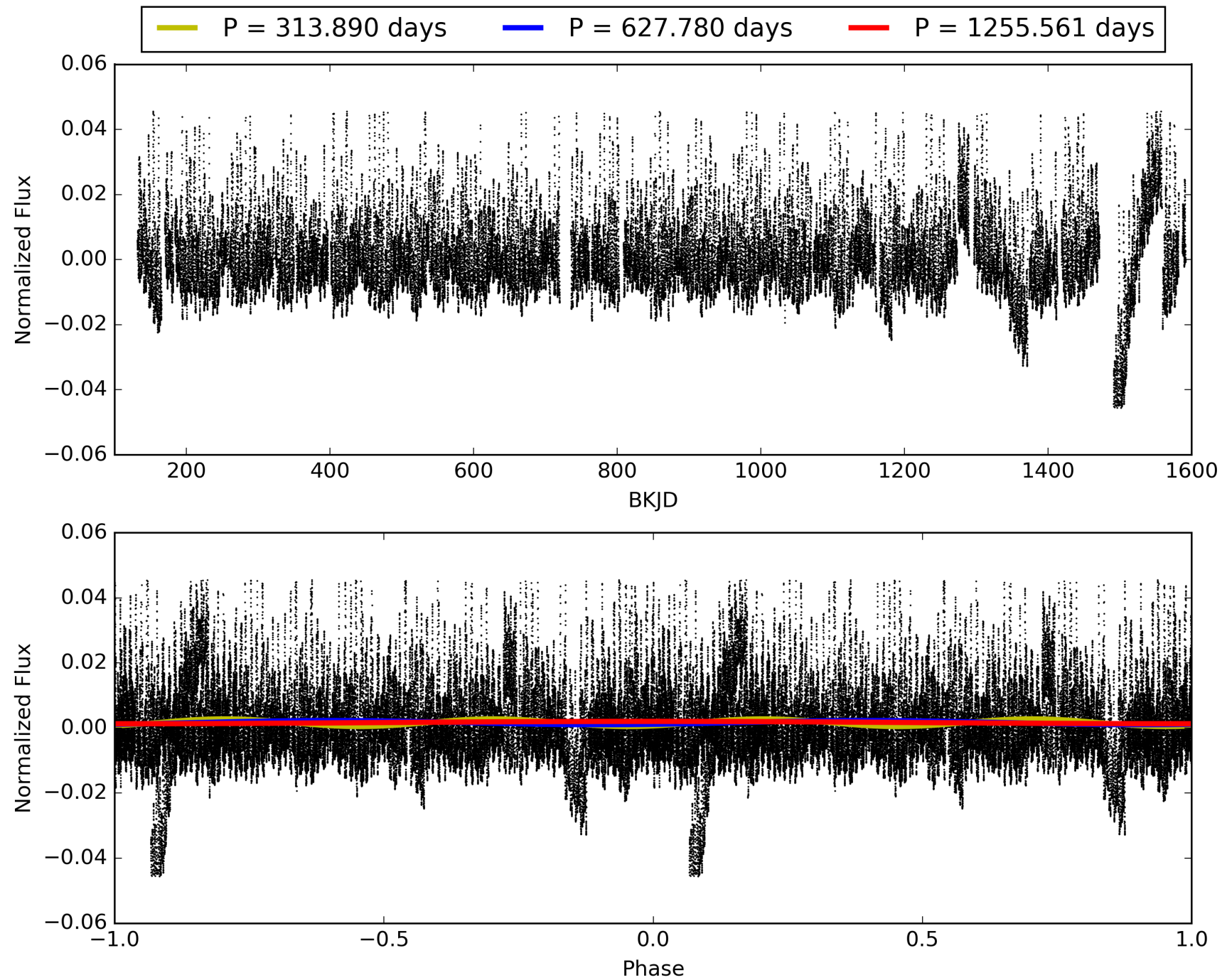
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 23:22:34 Z

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

TCE 008180361-04, PDC Light Curves

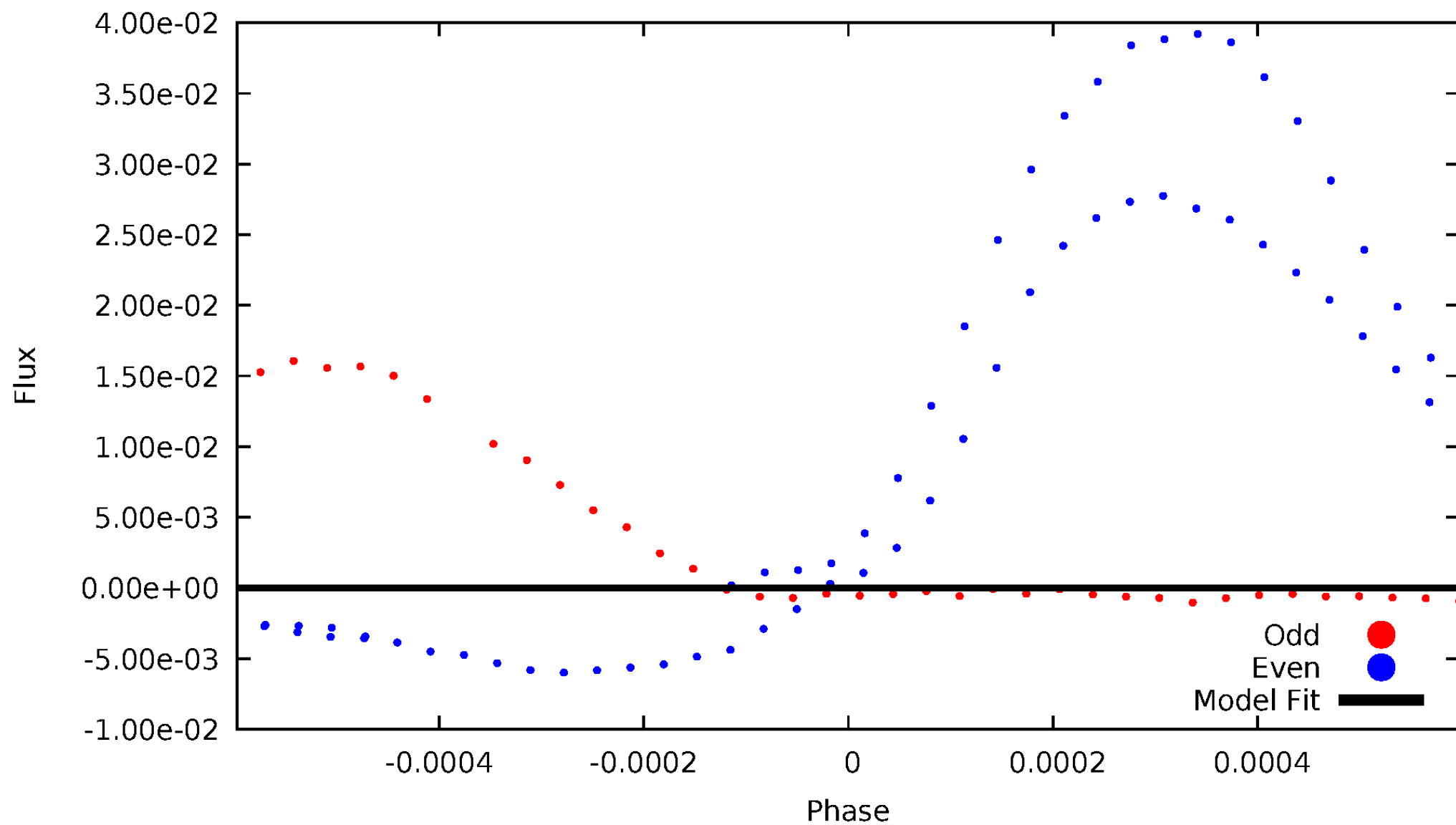


TCE 008180361-04



DV Odd/Even

TCE 008180361-04

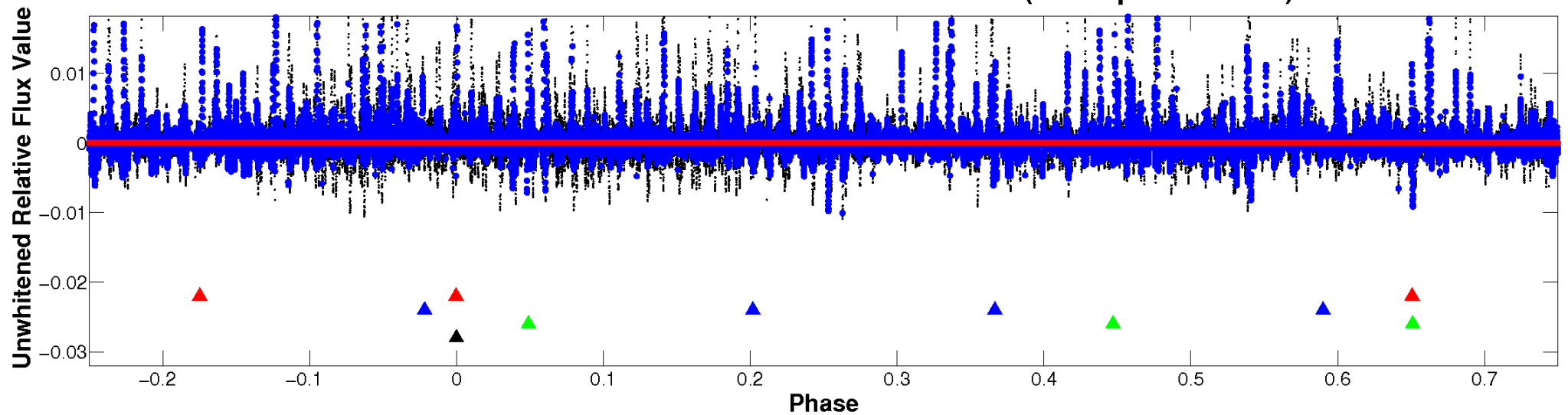


ALT Odd/Even

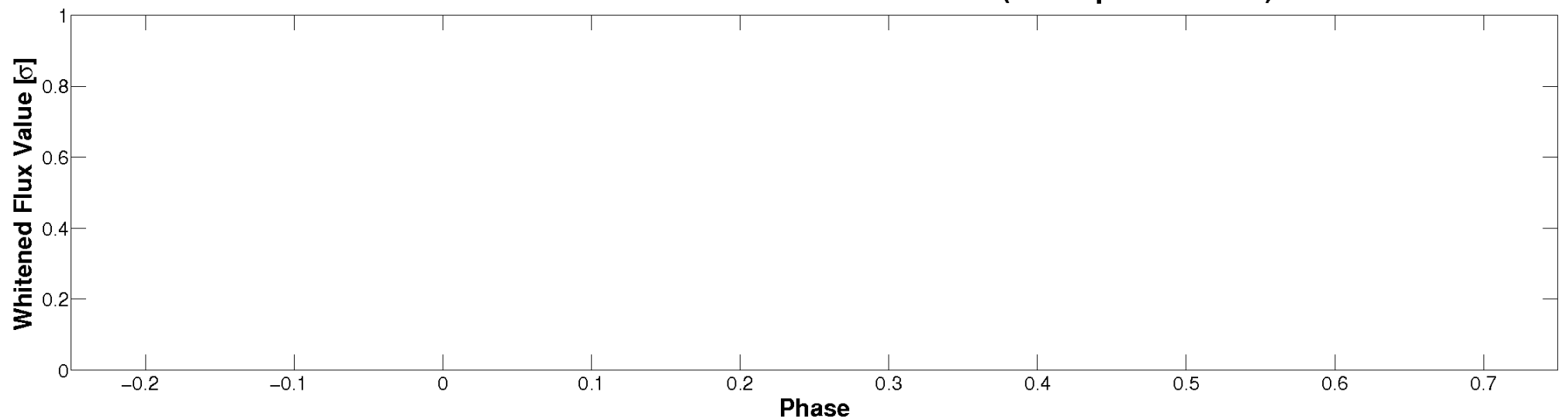
This plot does not exist for this TCE.

Non-Whitened Vs. Whitened Light Curve

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

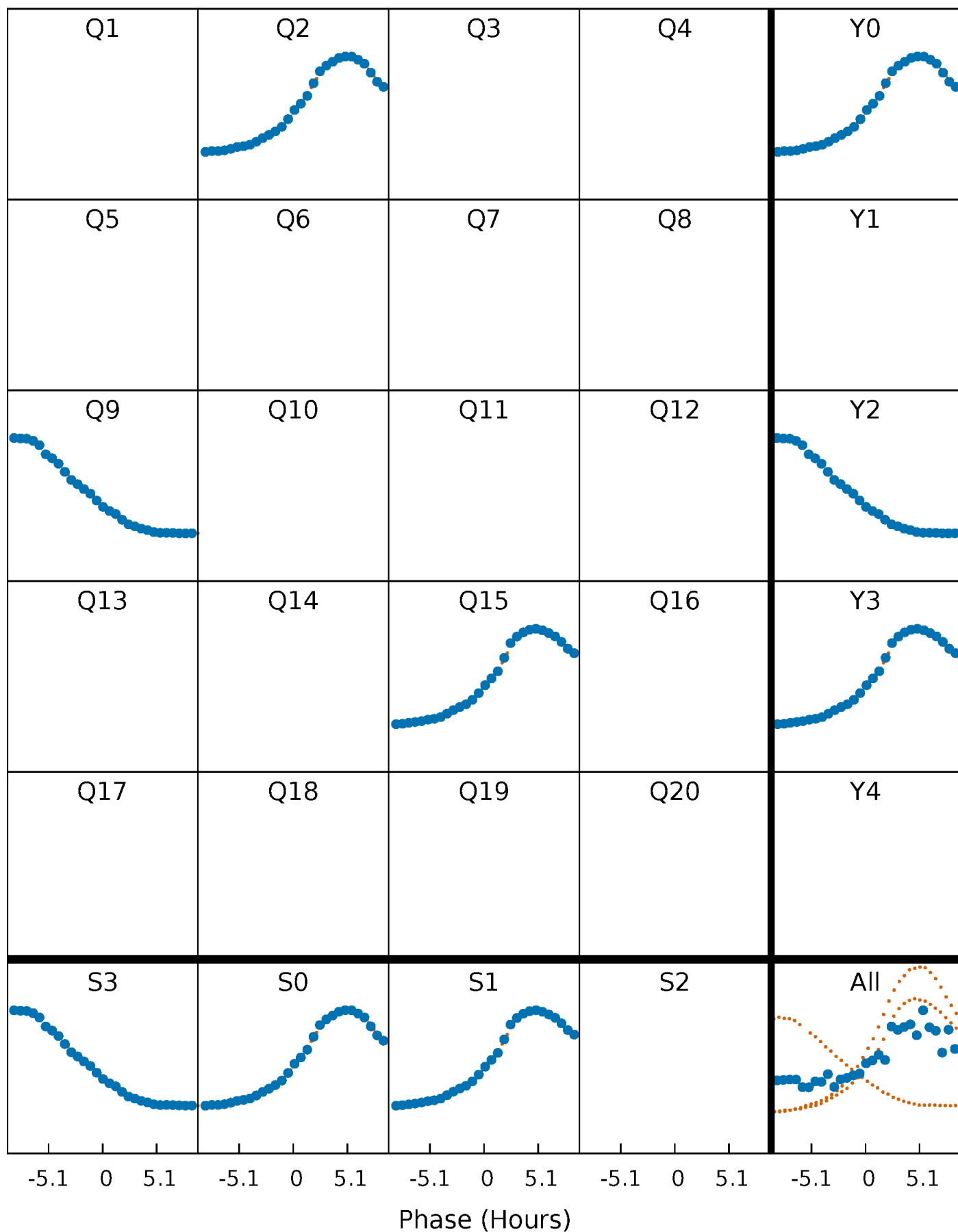


Planet 4 : Phased Whitened Flux Time Series (TPS Epoch/Period)



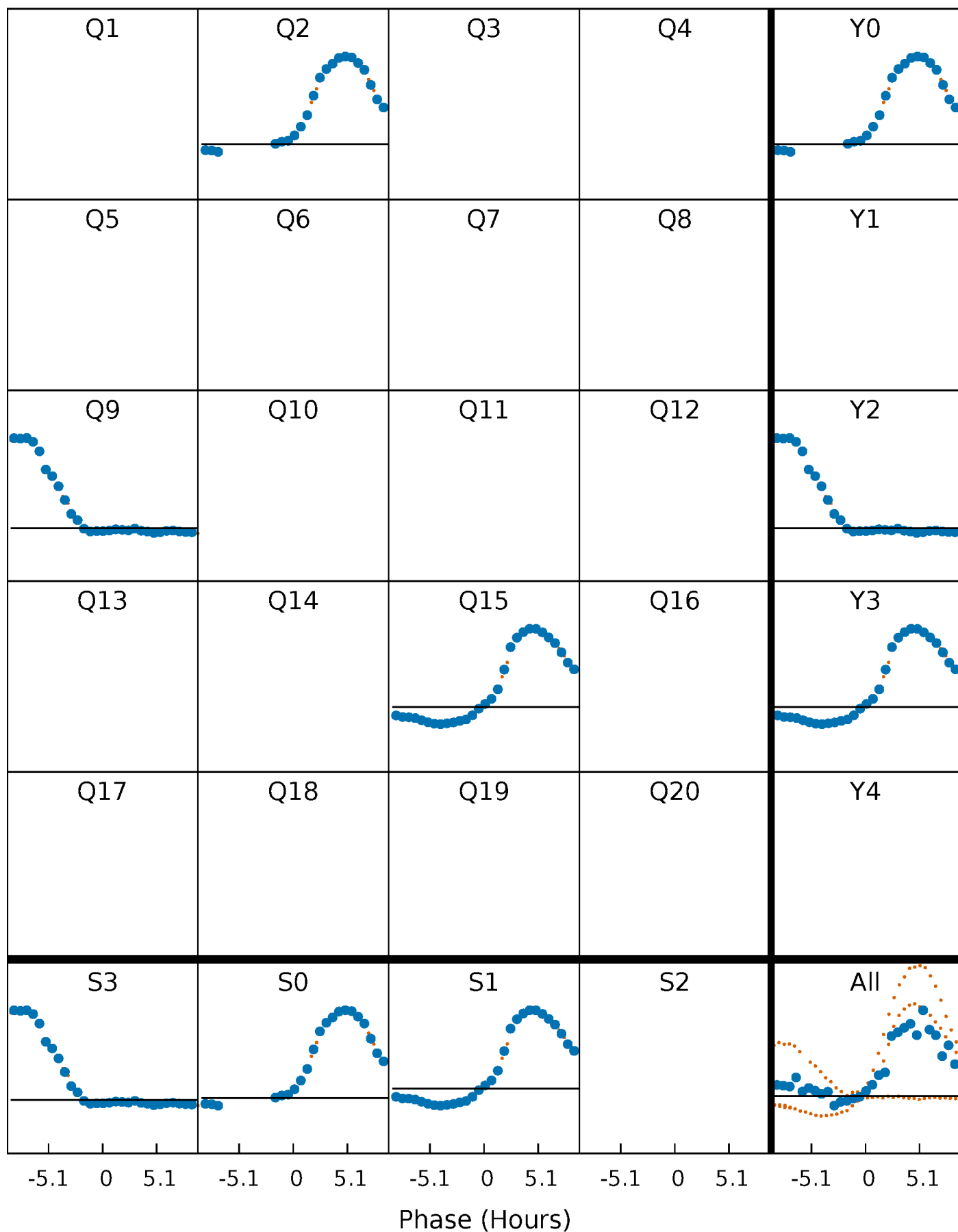
PDC Quarter-Phased Transit Curves

TCE 008180361-04 P=627.780264 Days $T_0=193.336135$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 008180361-04 P=627.780264 Days $T_0=193.336135$ (BKJD)

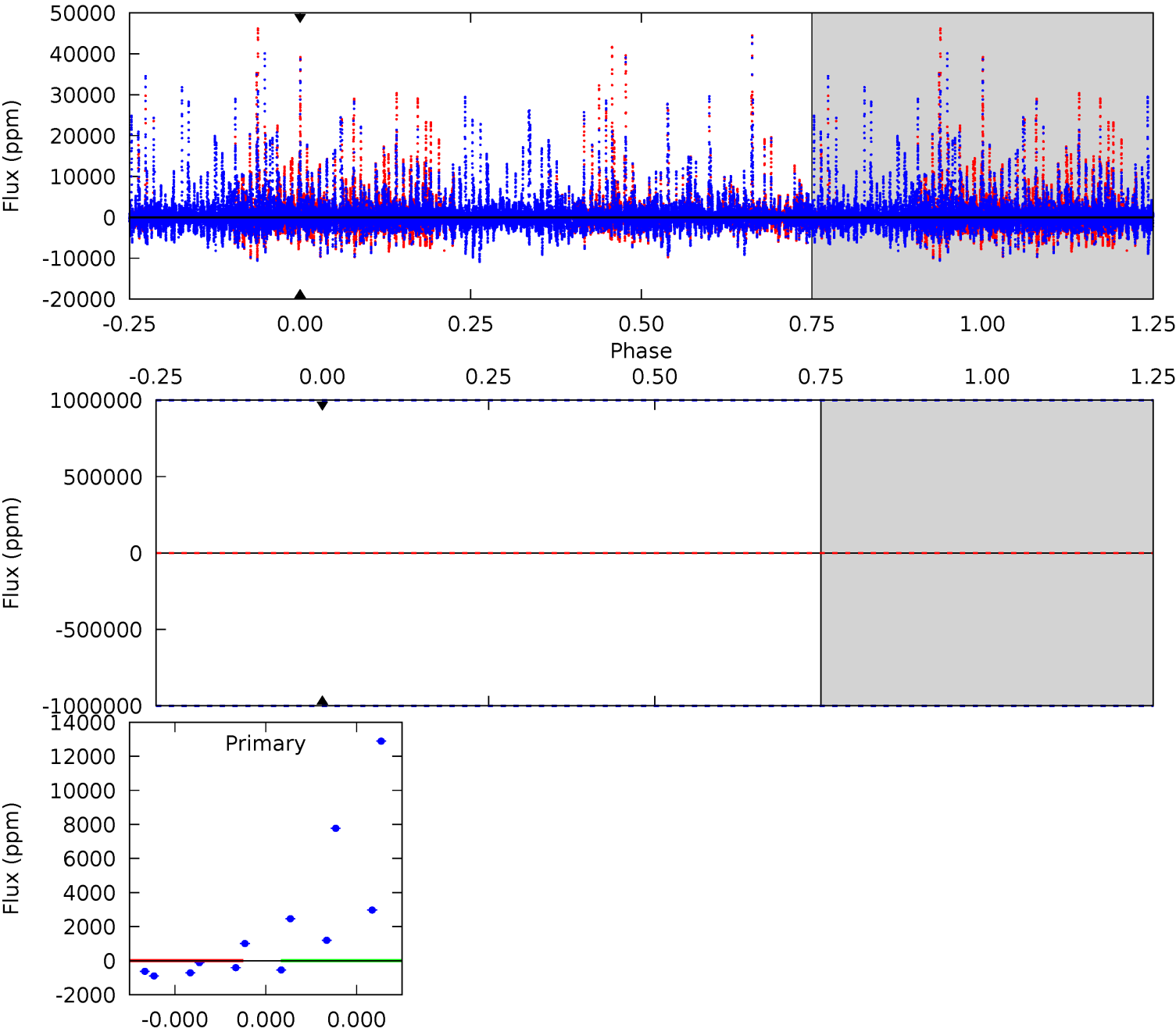


This plot does not exist for this TCE.

DV Model-Shift Uniqueness Test

008180361-04, P = 627.780264 Days, E = 193.336135 Days

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



Alt Model-Shift Uniqueness Test

This plot does not exist for this TCE.

Stellar Parameters For KIC 008180361

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6769^{+188}_{-258}	$4.366^{+0.056}_{-0.224}$	$-0.220^{+0.250}_{-0.300}$	$1.193^{+0.430}_{-0.143}$	$1.219^{+0.195}_{-0.160}$	$1.010^{+0.307}_{-0.556}$
	+3%/-4%	+1%/-5%	+114%/-136%	+36%/-12%	+16%/-13%	+30%/-55%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 008180361-04 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	0 ± 1000000	$10.86^{+10.58}_{-7.59}$	378^{+26}_{-20}	2811^{+28574}_{-27723}	$482^{+2229765}_{-1557863}$
Alt.	N/A	N/A	N/A	N/A	N/A

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 $A_{obs} \gg 1.0$

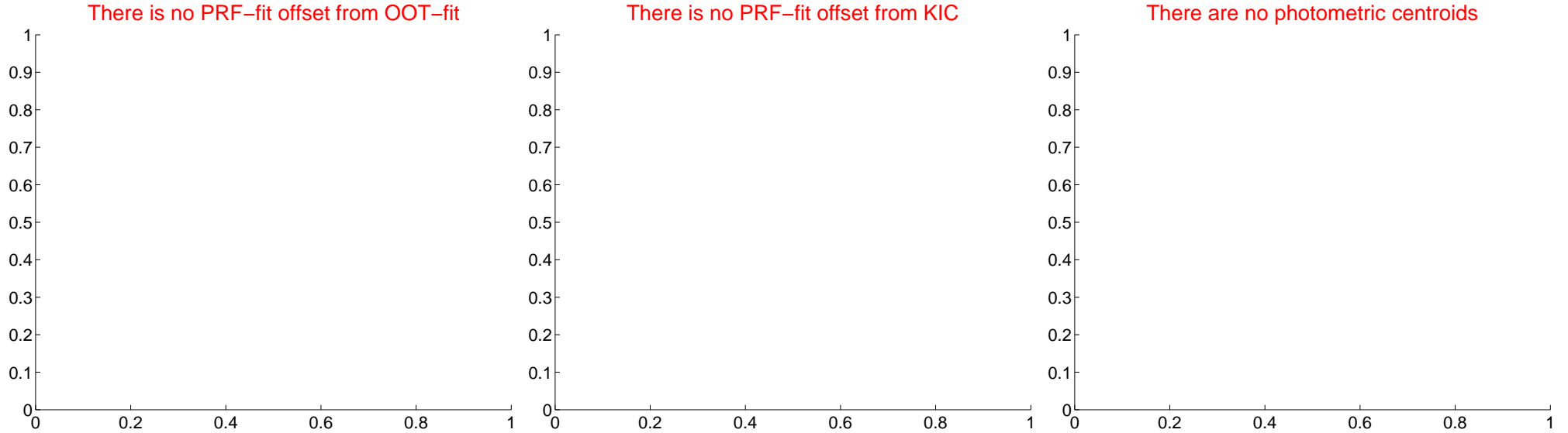
DV Centroid Data

Supplemental centroid analysis for 008180361-04. Kepler magnitude: 13.82. Transit SNR -1.00

There are 0 quarters with good PRF difference image offsets

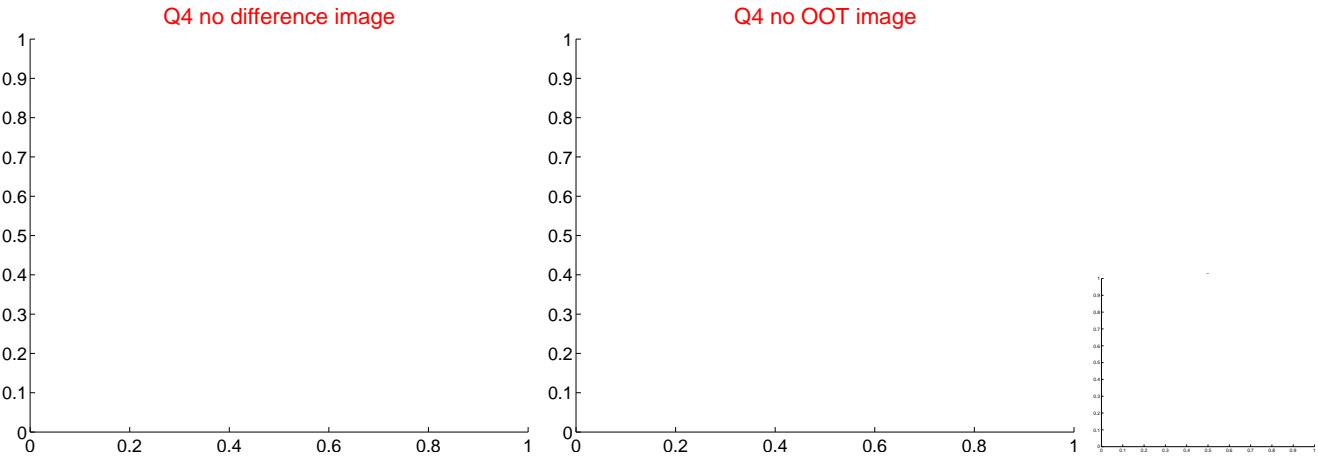
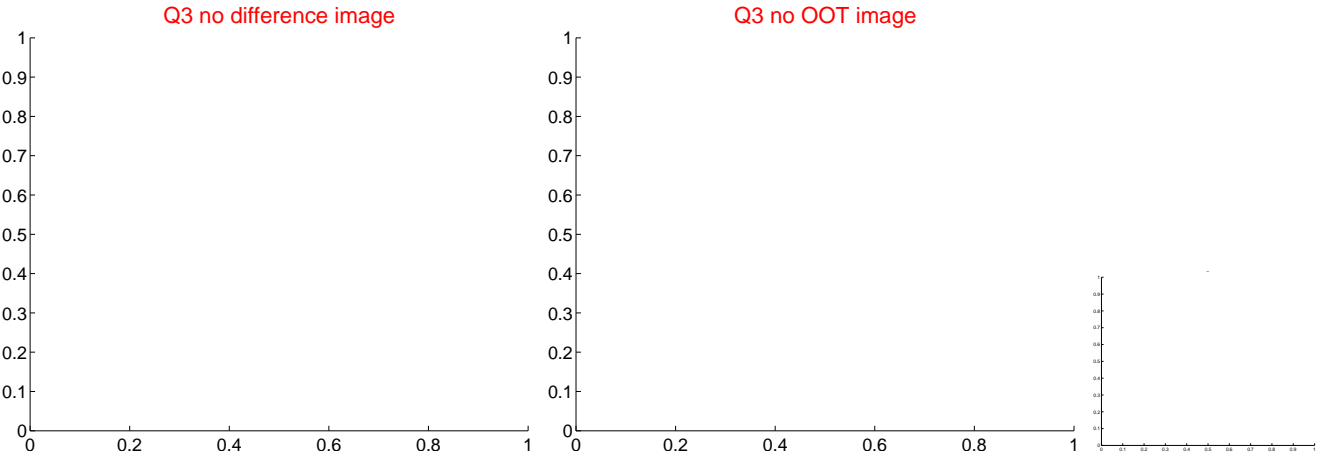
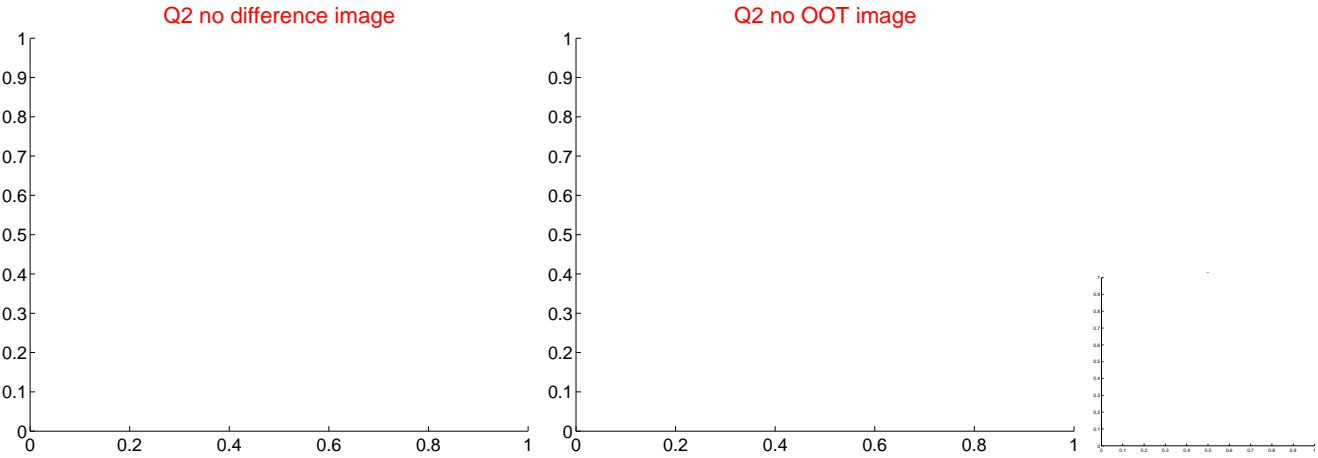
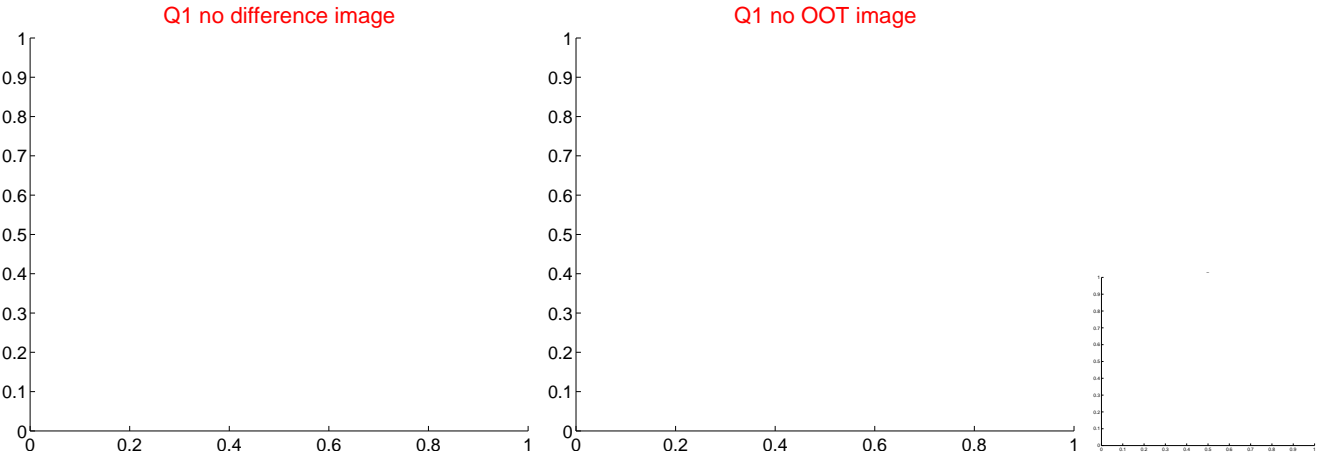
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	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	—	—	—	—

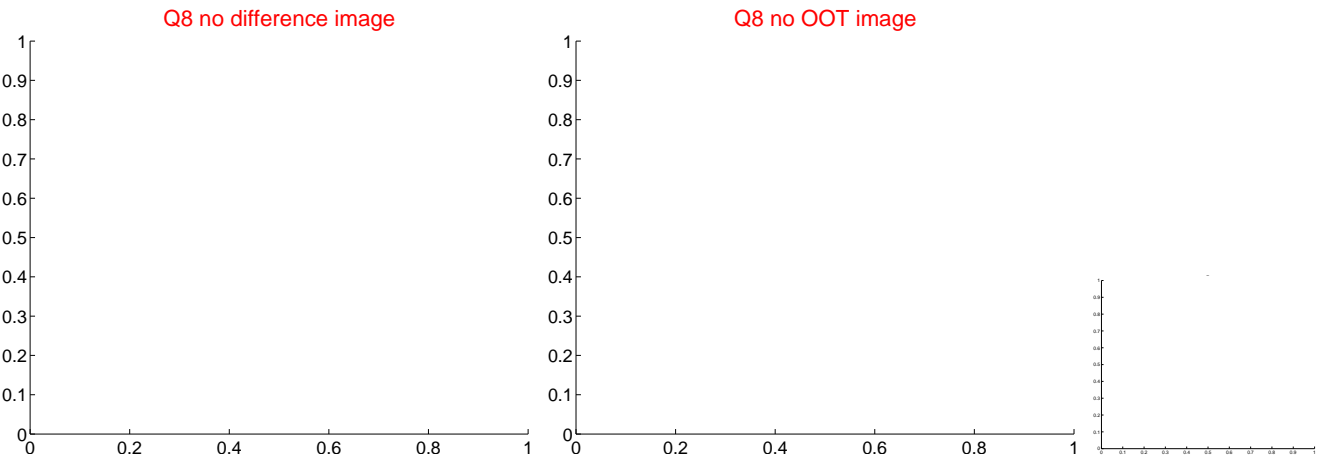
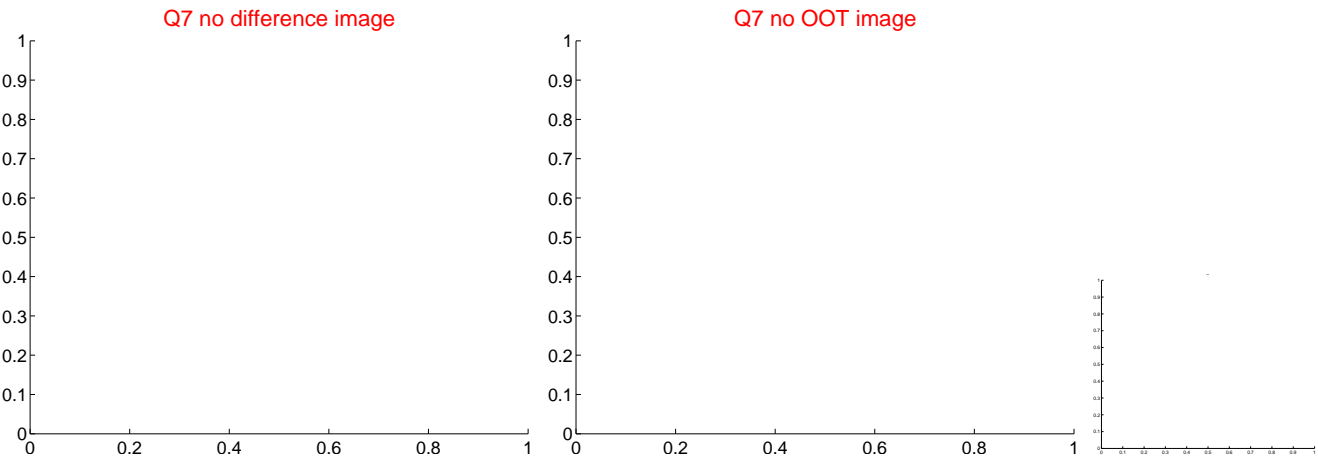
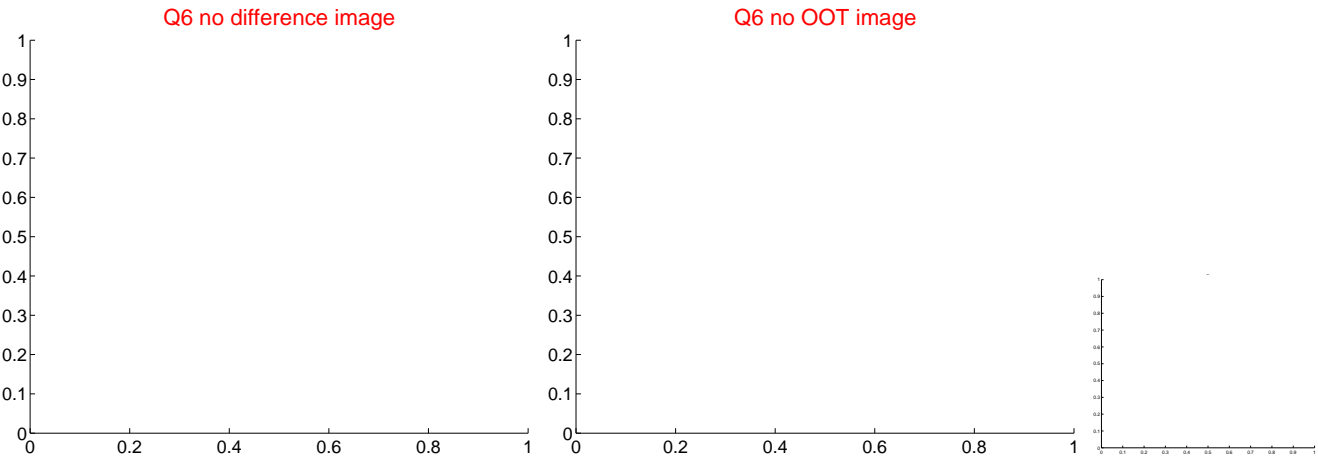
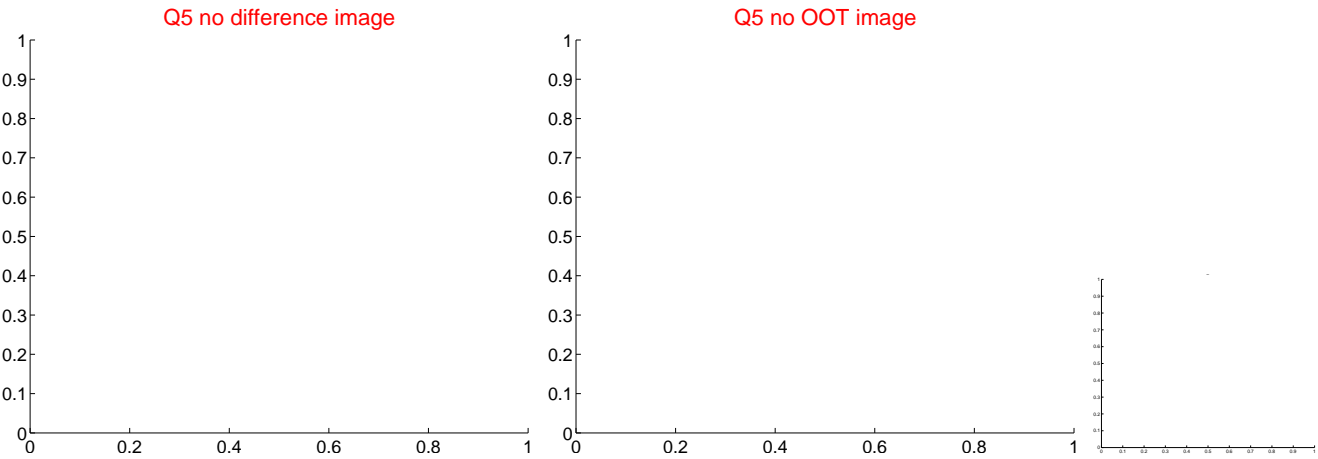


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



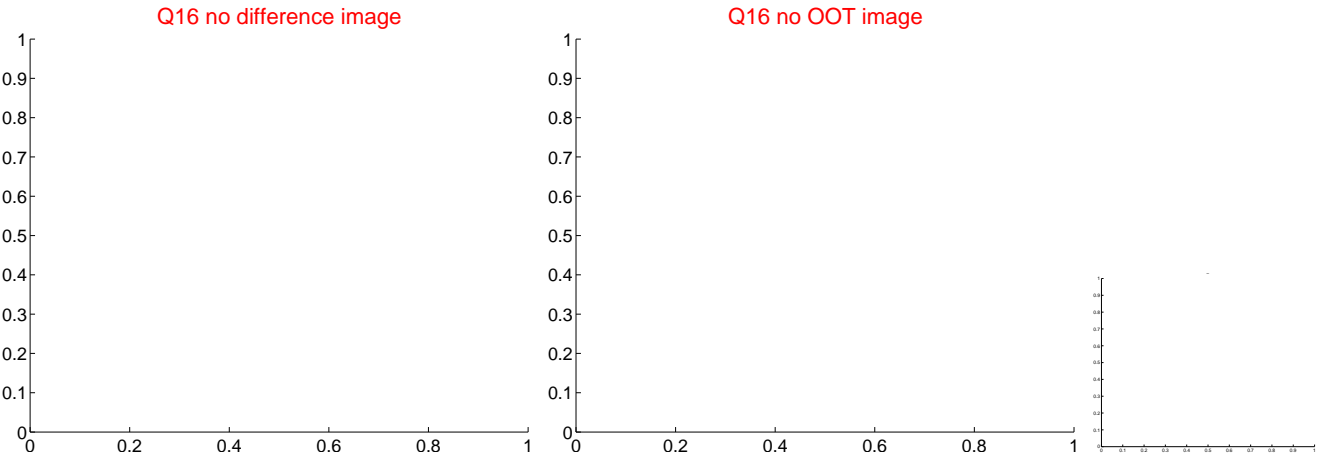
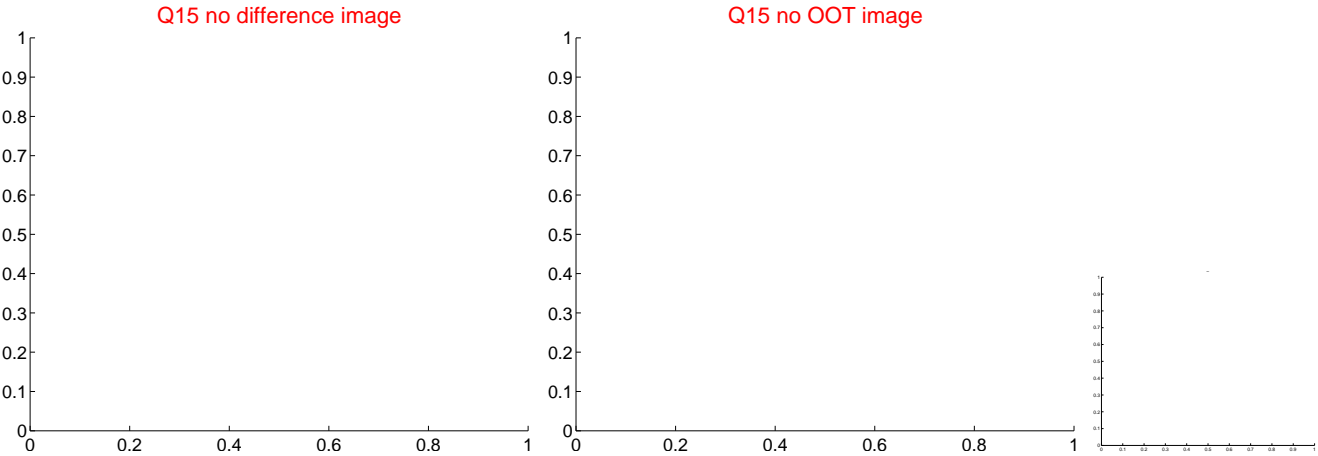
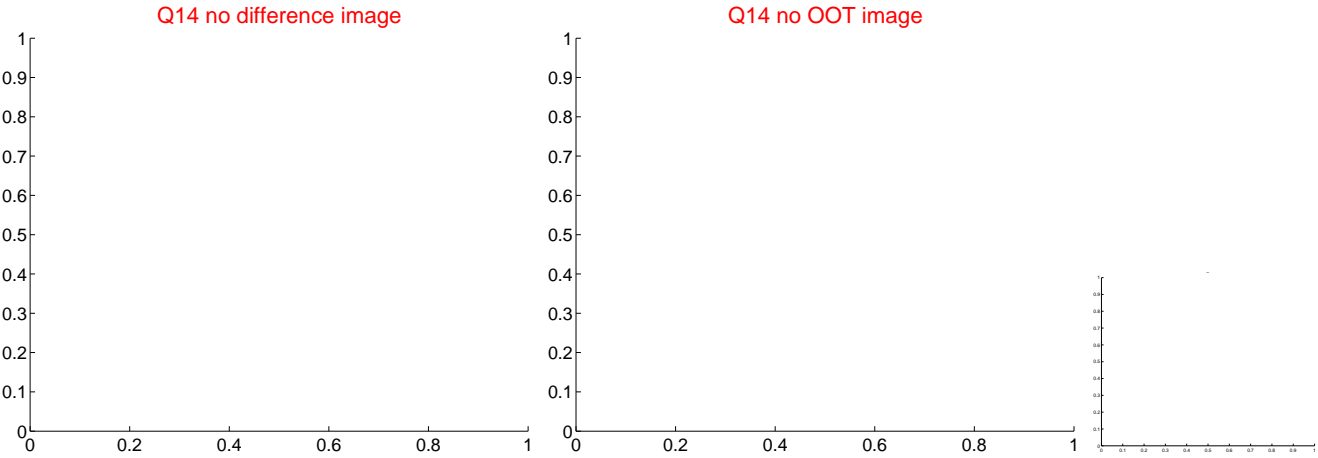
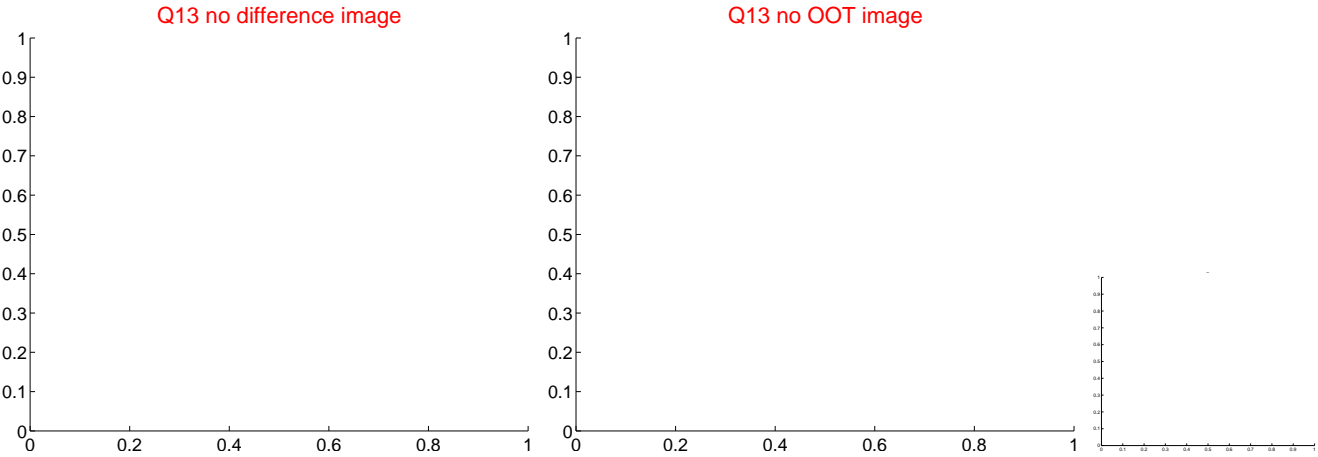
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



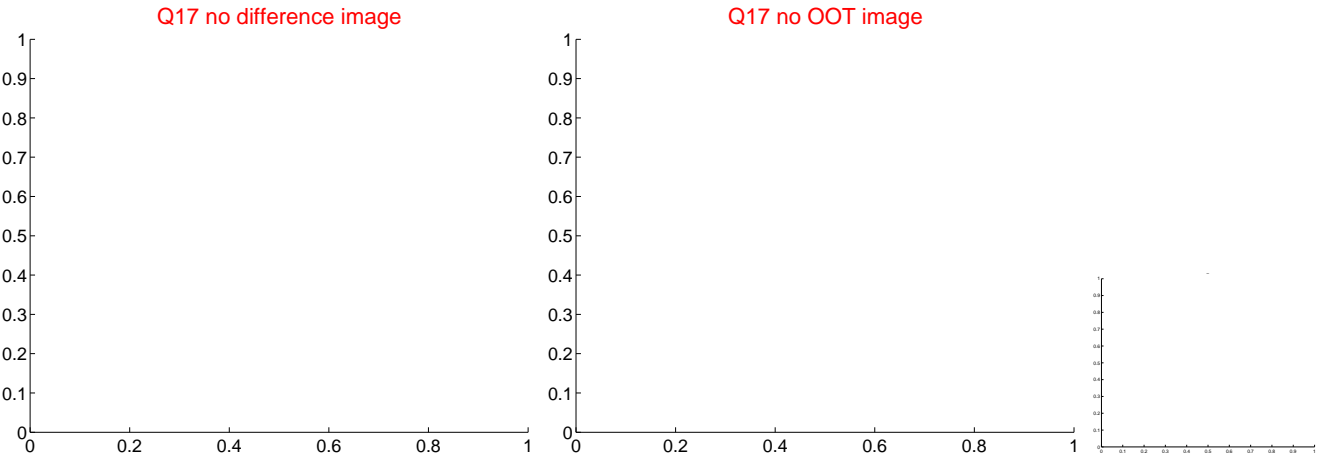
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



folded centroid time series figure for this object.

UKIRT Image

Declination

