

KIC 003765091

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})
003765091-01	OBS	No	272.366235	327.305205	1460.1	1.915	11.7	7.0	0.53	4498	2.25	0.23
003765091-02	OBS	No	336.553238	344.650326	1779.9	4.682	13.0	9.1	0.53	4498	2.45	0.18
003765091-03	OBS	No	260.553349	305.280492	1745.5	2.020	10.8	8.3	0.53	4498	2.20	0.25
003765091-04	OBS	No	331.811770	244.712739	1681.8	6.100	13.8	6.3	0.53	4498	2.15	0.18
003765091-05	OBS	No	379.905582	478.402782	1732.1	3.995	11.3	7.7	0.53	4498	2.28	0.15

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003765091-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
003765091-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS
003765091-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
003765091-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS
003765091-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS

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

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

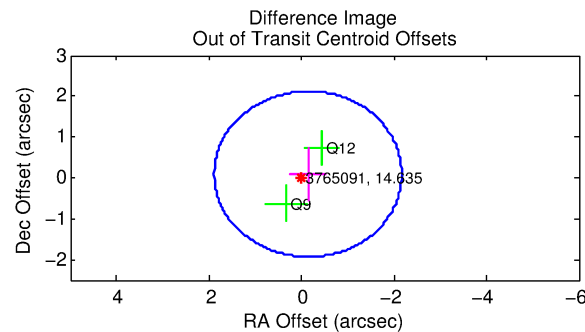
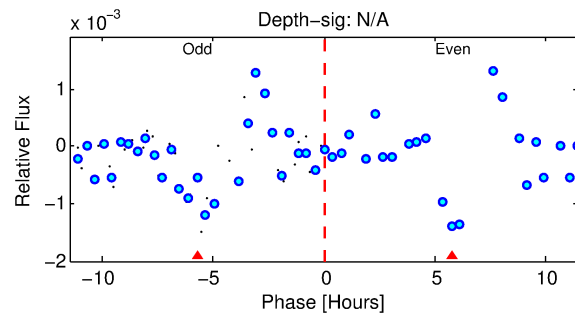
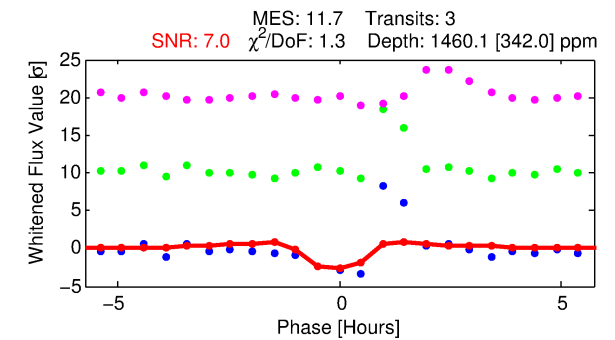
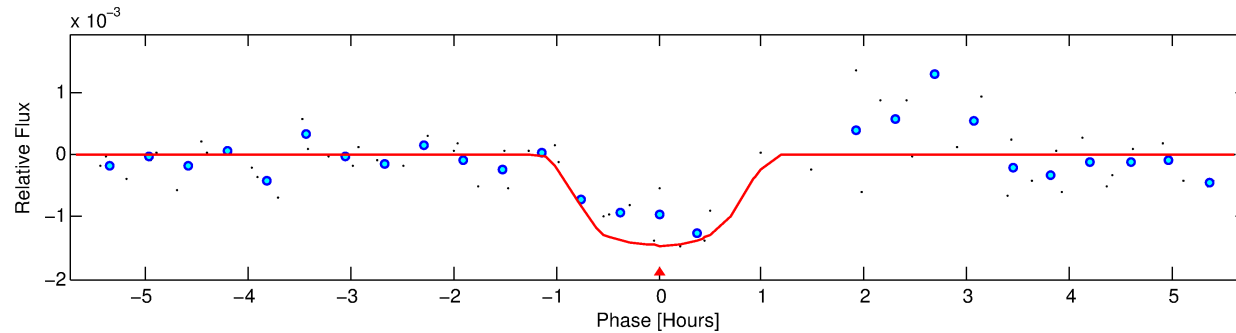
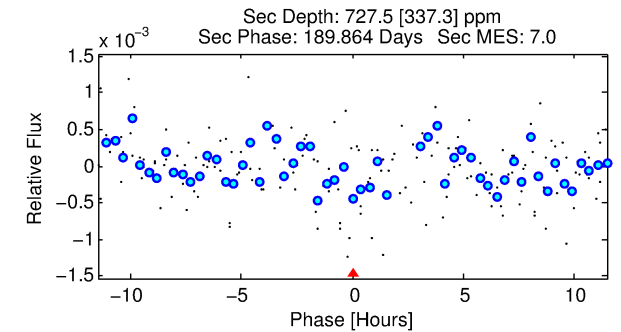
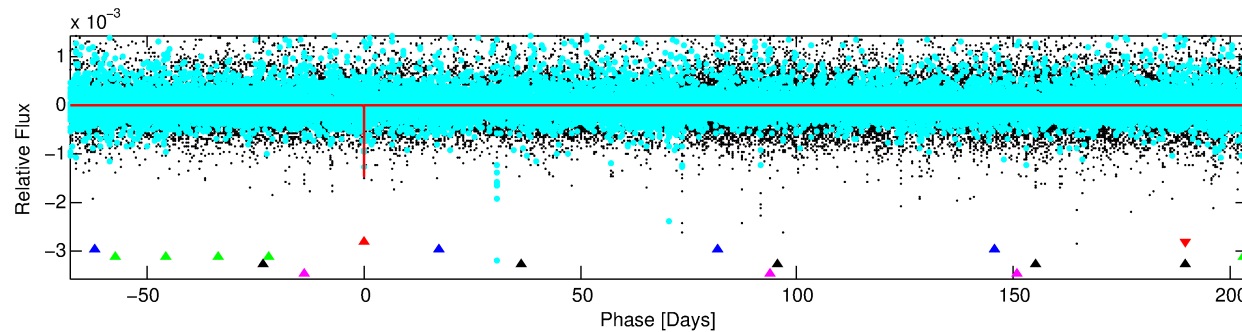
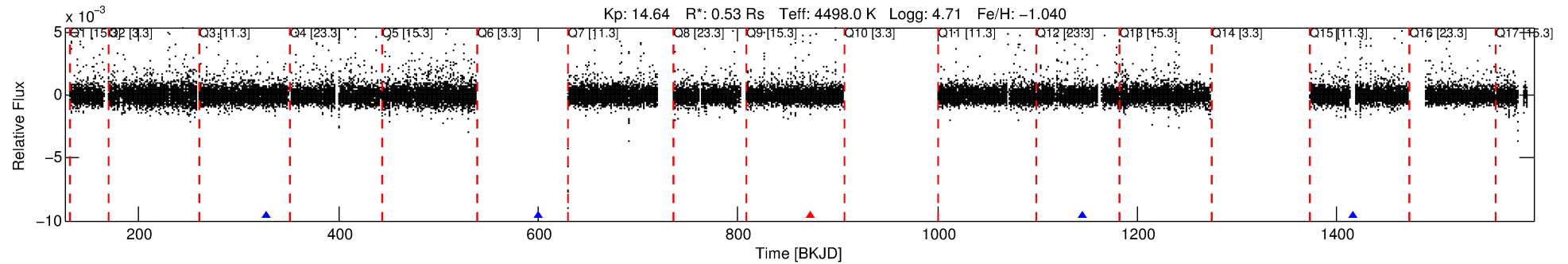
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003765091-01

No Significant Match Found

DV One-Page Summary

KIC: 3765091 Candidate: 1 of 5 Period: 272.366 d



DV Fit Results:

Period = 272.36624 [0.00429] d
Epoch = 327.3052 [0.0100] BKJD
Rp/R* = 0.0388 [0.1875]
a/R* = 746.14 [13550.98]
b = 0.78 [9.38]
Seff = 0.23 [0.03]
Teq = 177 [7] K
Rp = 2.25 [10.86] Re
a = 0.6651 [0.0401] AU
Ag = 35041.86 [339106.94] [0.10] σ
Teffp = 3751 [9075] K [0.39] σ

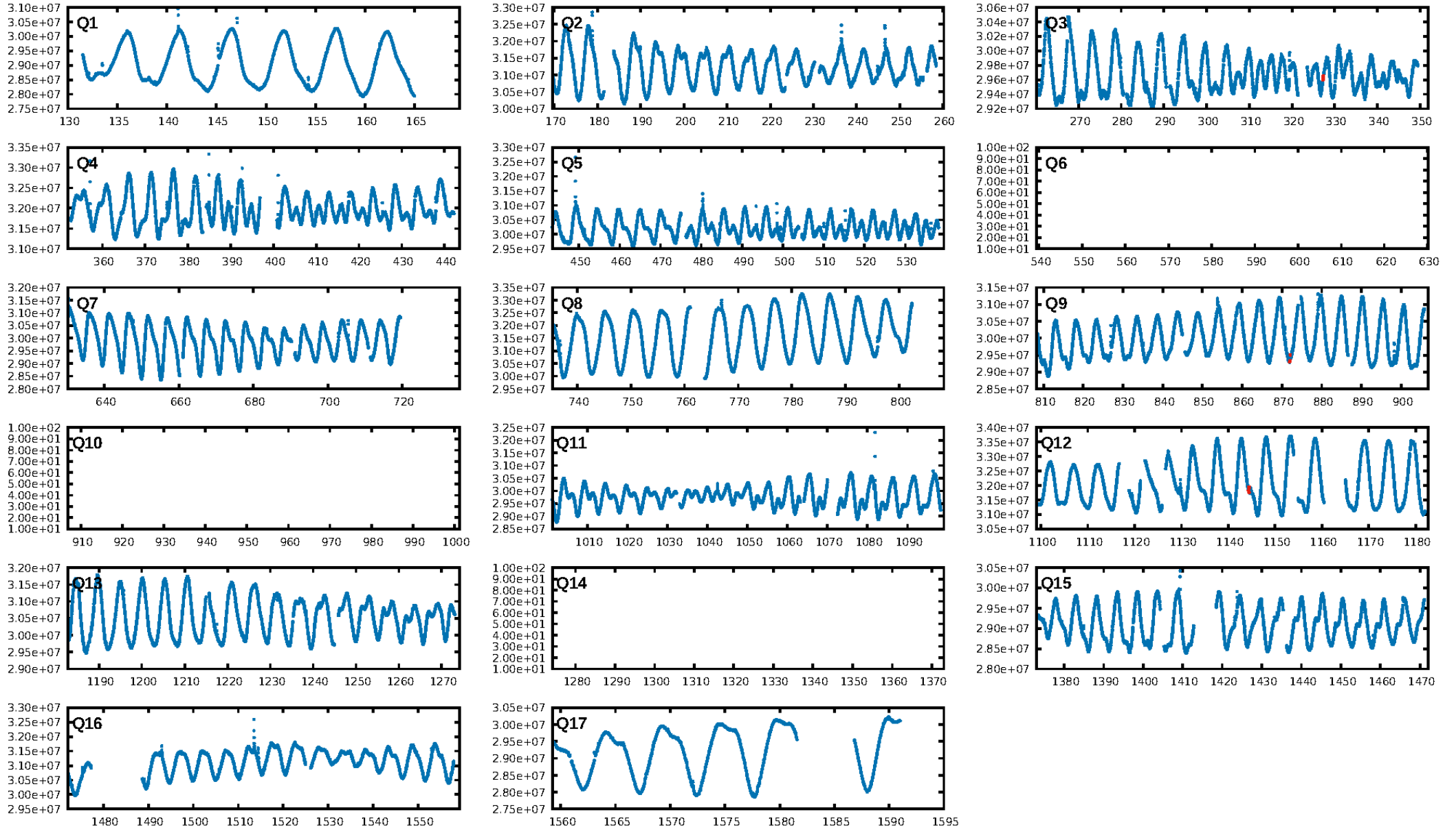
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [101.86] σ
LongPeriod-sig: 100.0% [223.16] σ
ModelChiSquare2-sig: 0.5%
ModelChiSquareGof-sig: 31.2%
Bootstrap-pfa: 1.05e-10
RollingBand-fgt: 0.67 [2/3]
GhostDiagnostic-chr: 6.38
Centroid-sig: 97.9%
Centroid-so: 0.641 arcsec [0.44] σ
OotOffset-rm: 0.166 arcsec [0.25] σ
KicOffset-rm: 0.159 arcsec [0.25] σ
OotOffset-st: 0/0/1/1 [2]
KicOffset-st: 0/0/1/1 [2]
DiffImageQuality-fgm: 1.00 [2/2]
DiffImageOverlap-fno: 1.00 [3/3]

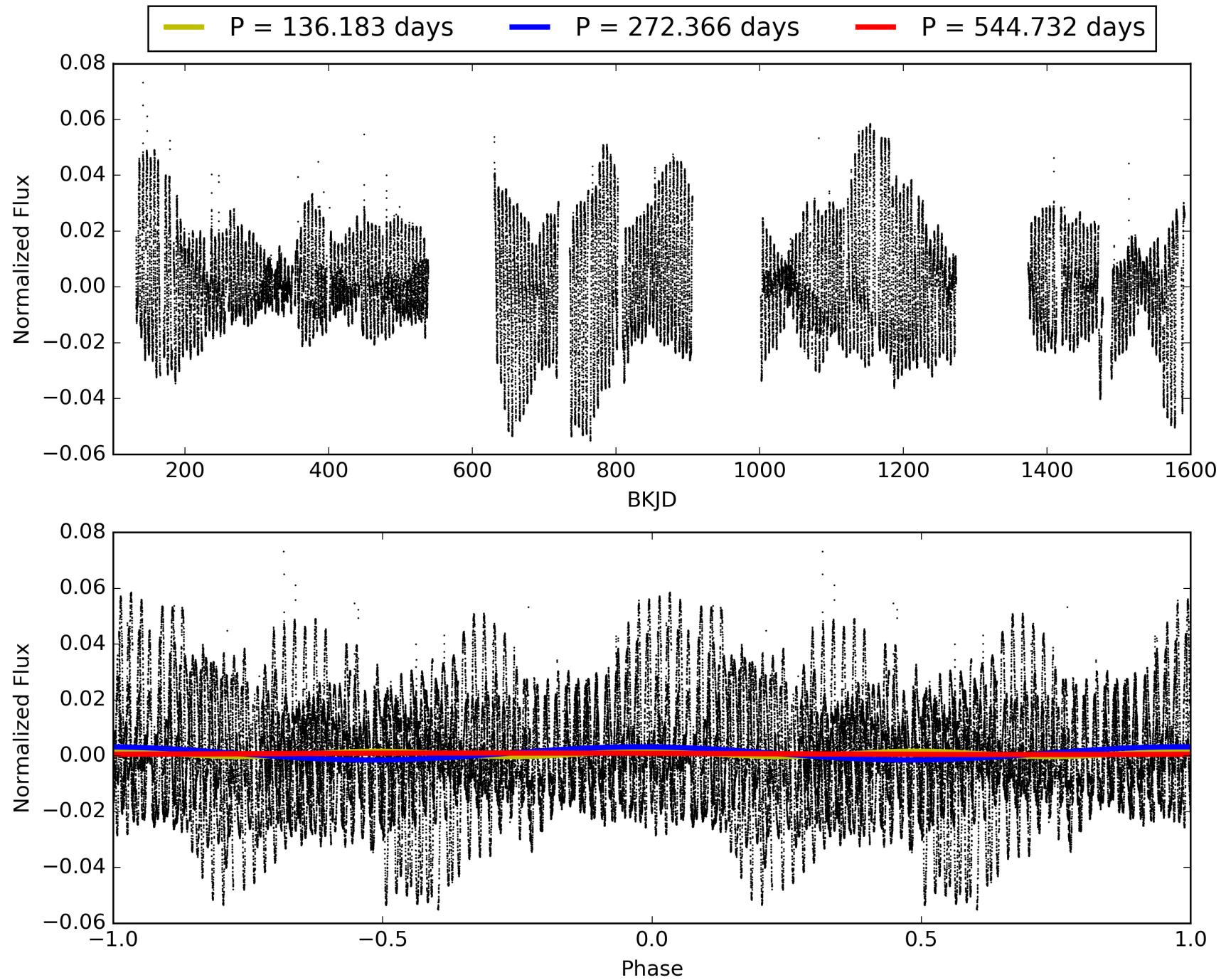
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 04:46:03 Z

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

TCE 003765091-01, PDC Light Curves

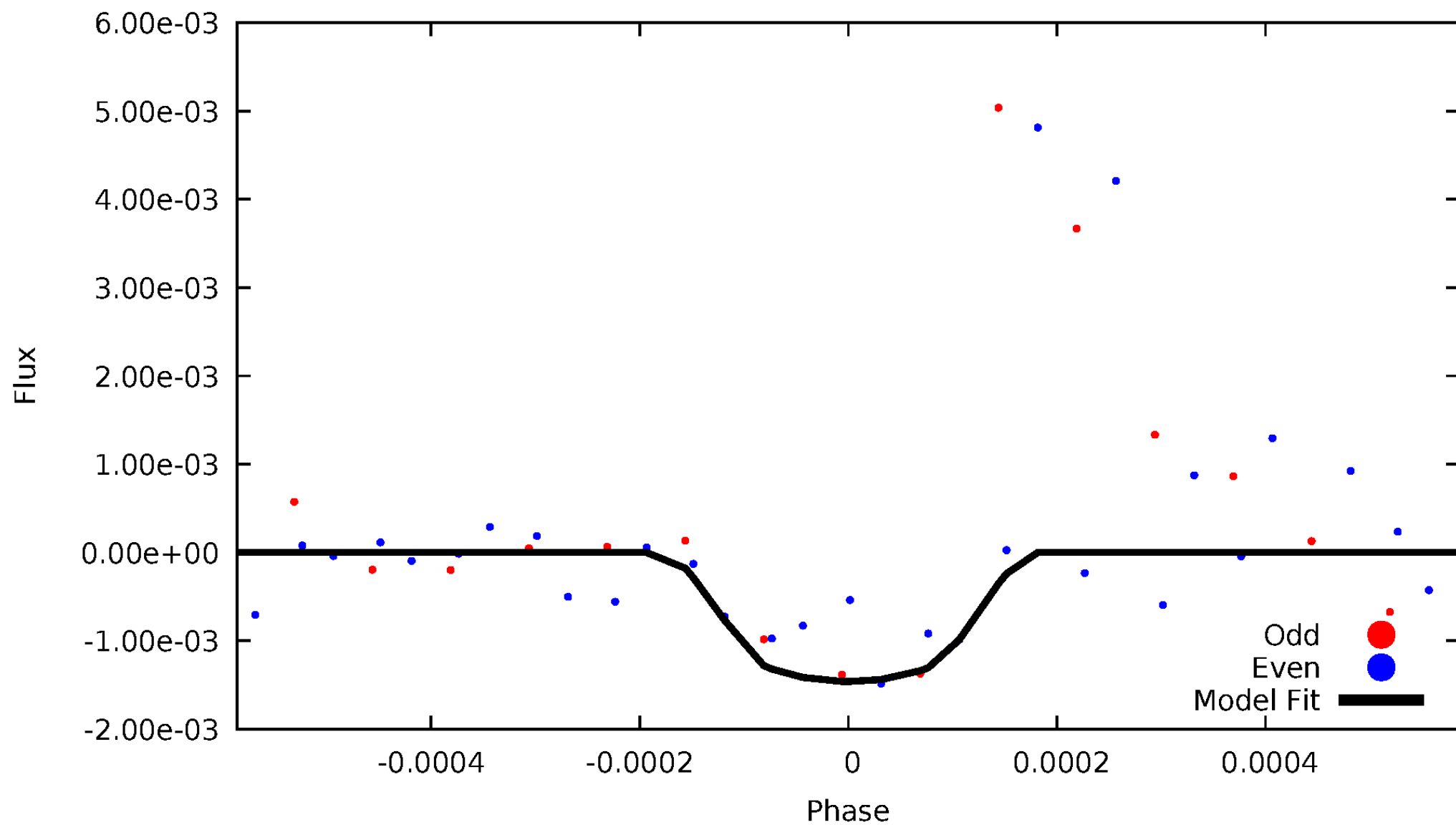


TCE 003765091-01



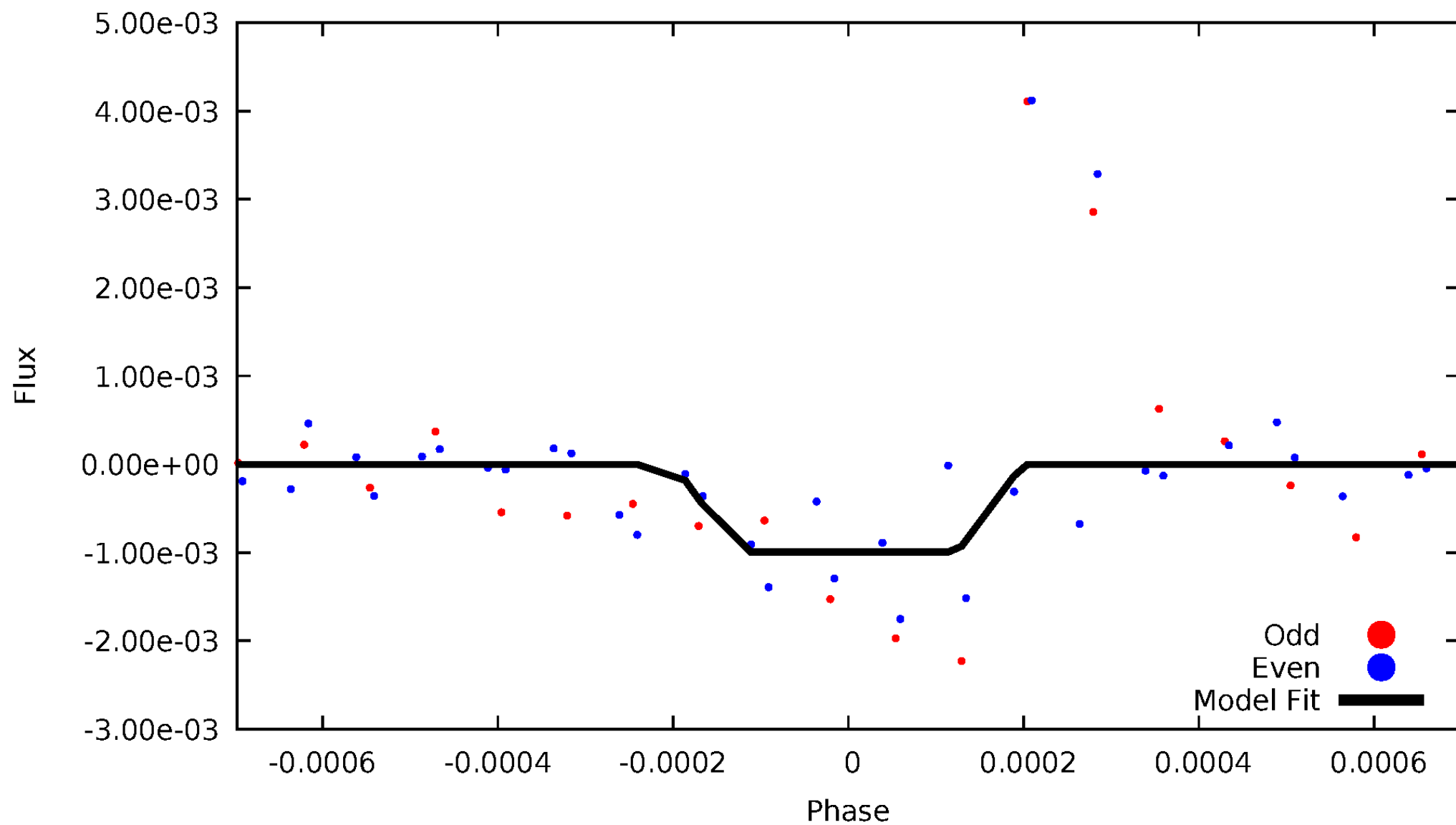
DV Odd/Even

TCE 003765091-01



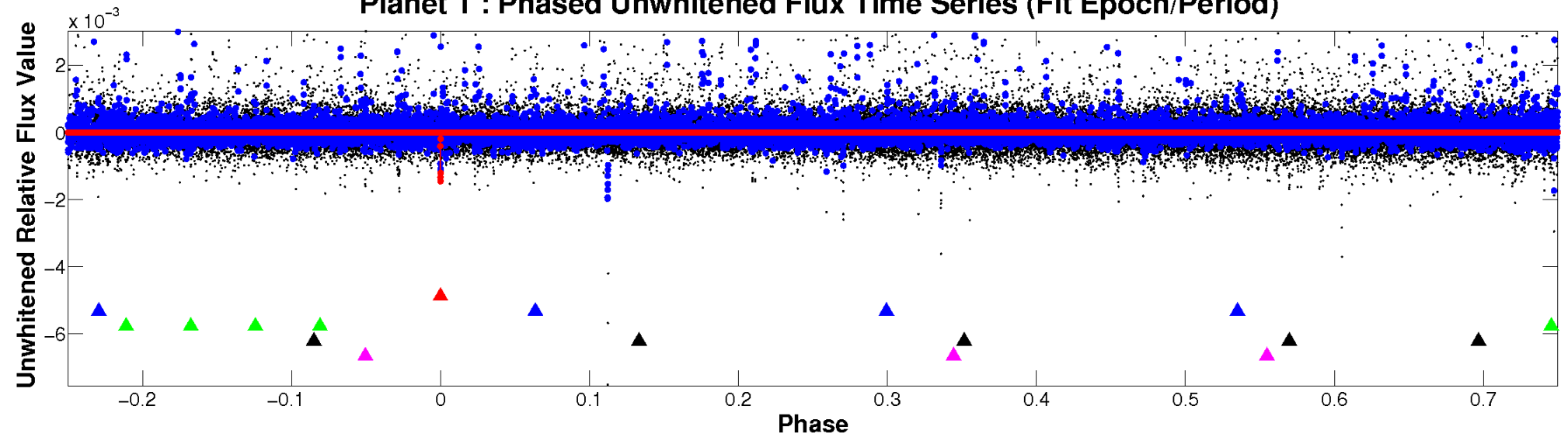
ALT Odd/Even

TCE 003765091-01

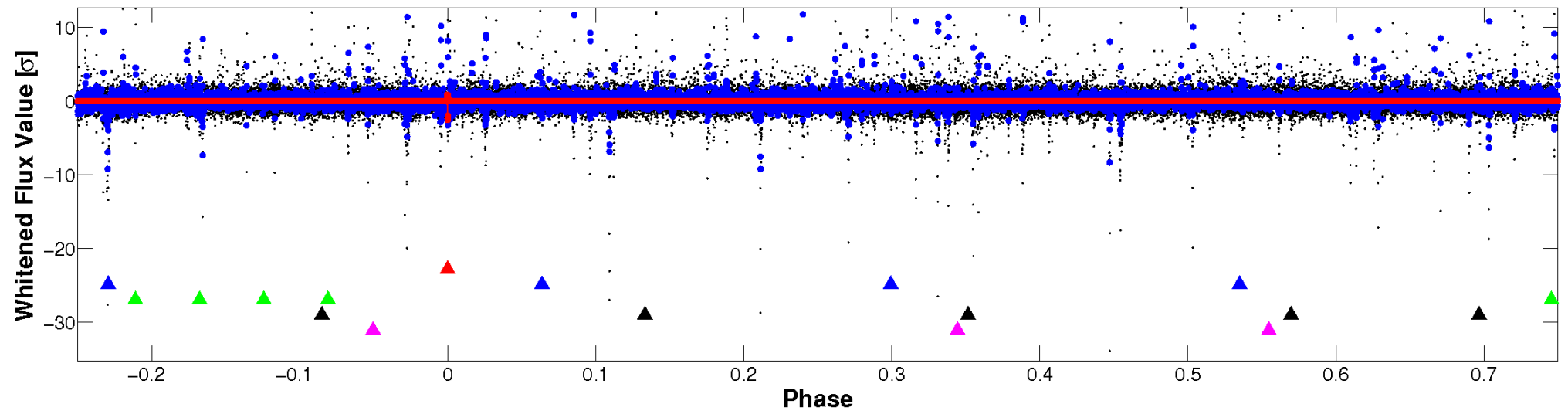


Non-Whitened Vs. Whitened Light Curve

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

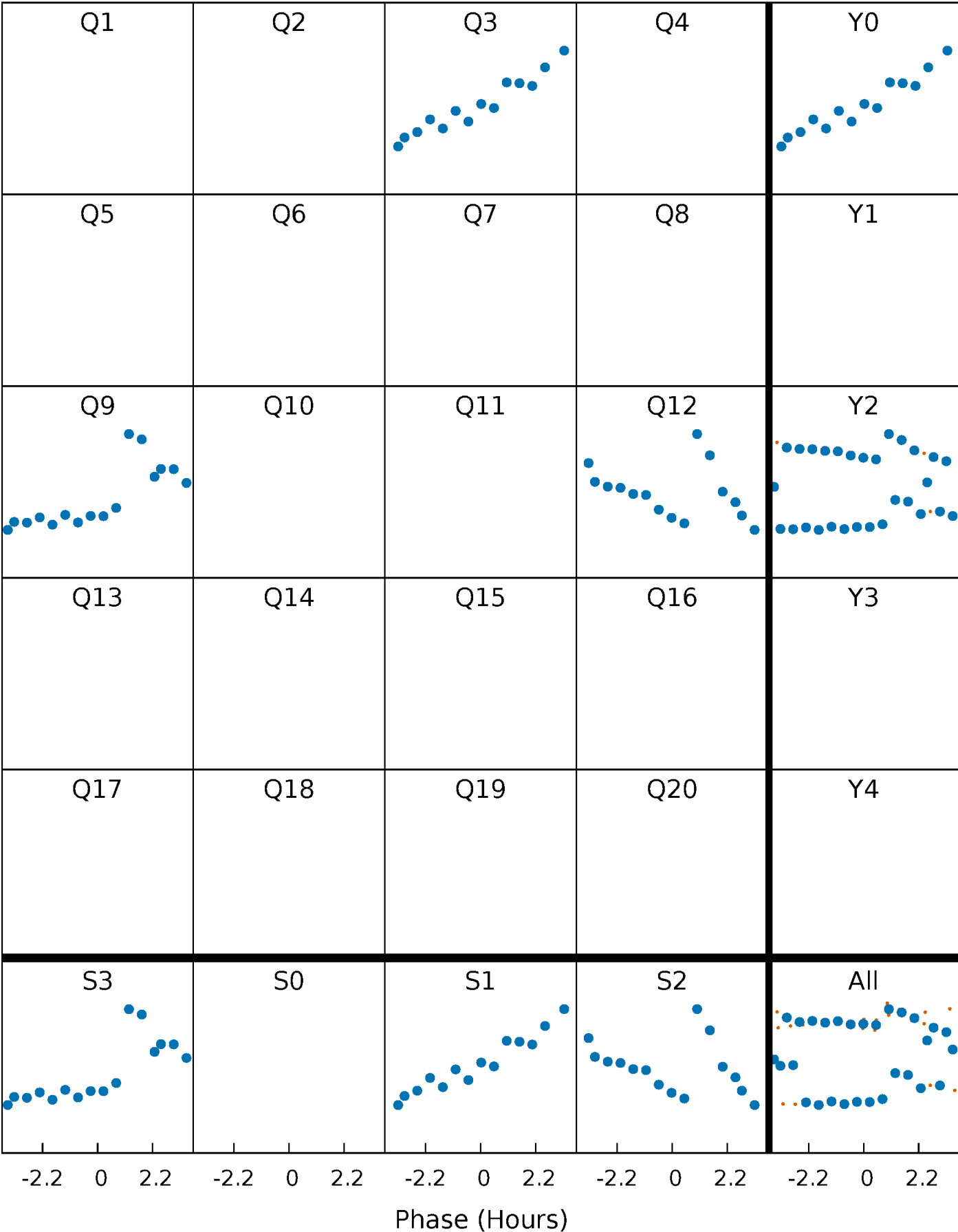


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



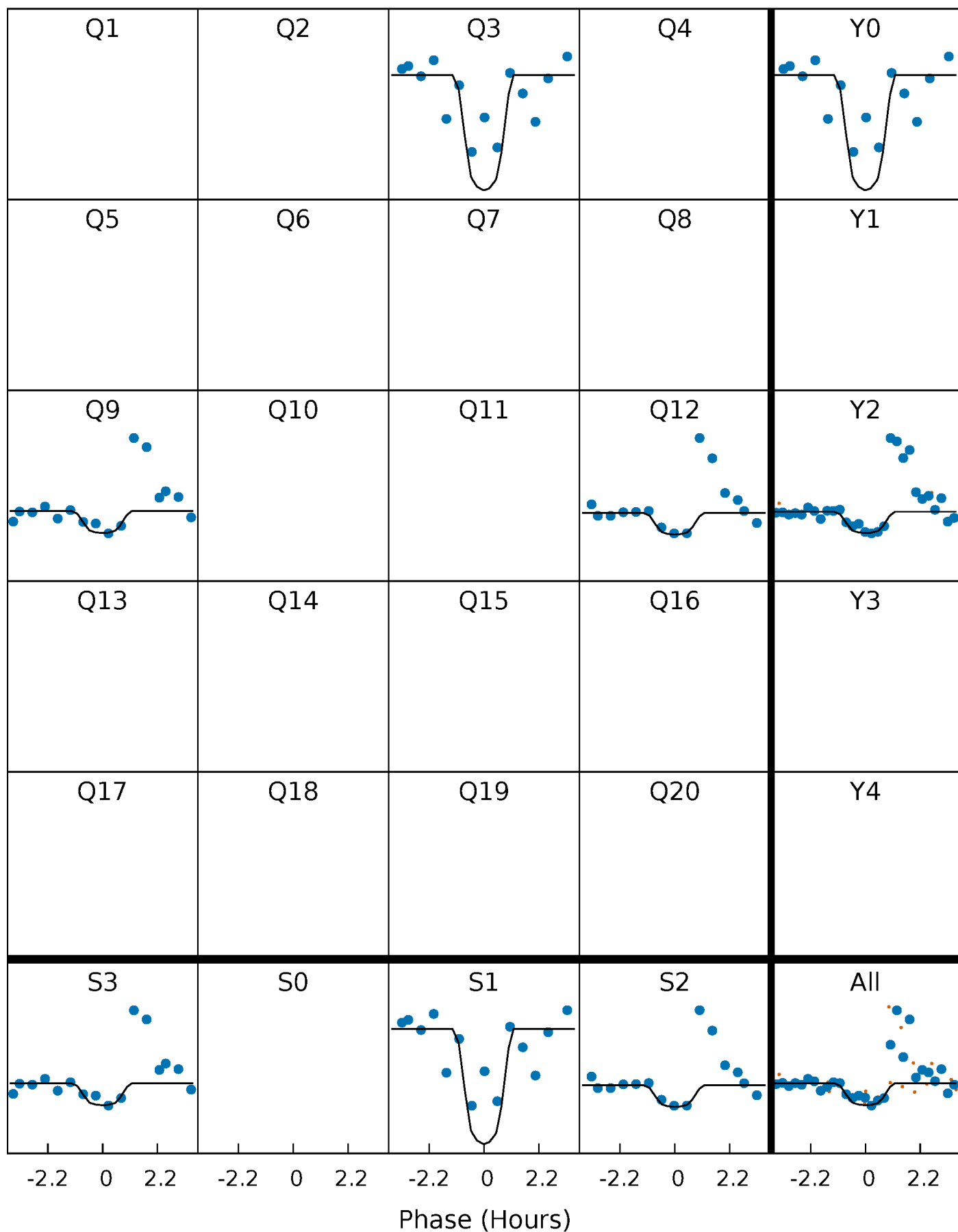
PDC Quarter-Phased Transit Curves

TCE 003765091-01 P=272.366235 Days $T_0=327.305205$ (BKJD)



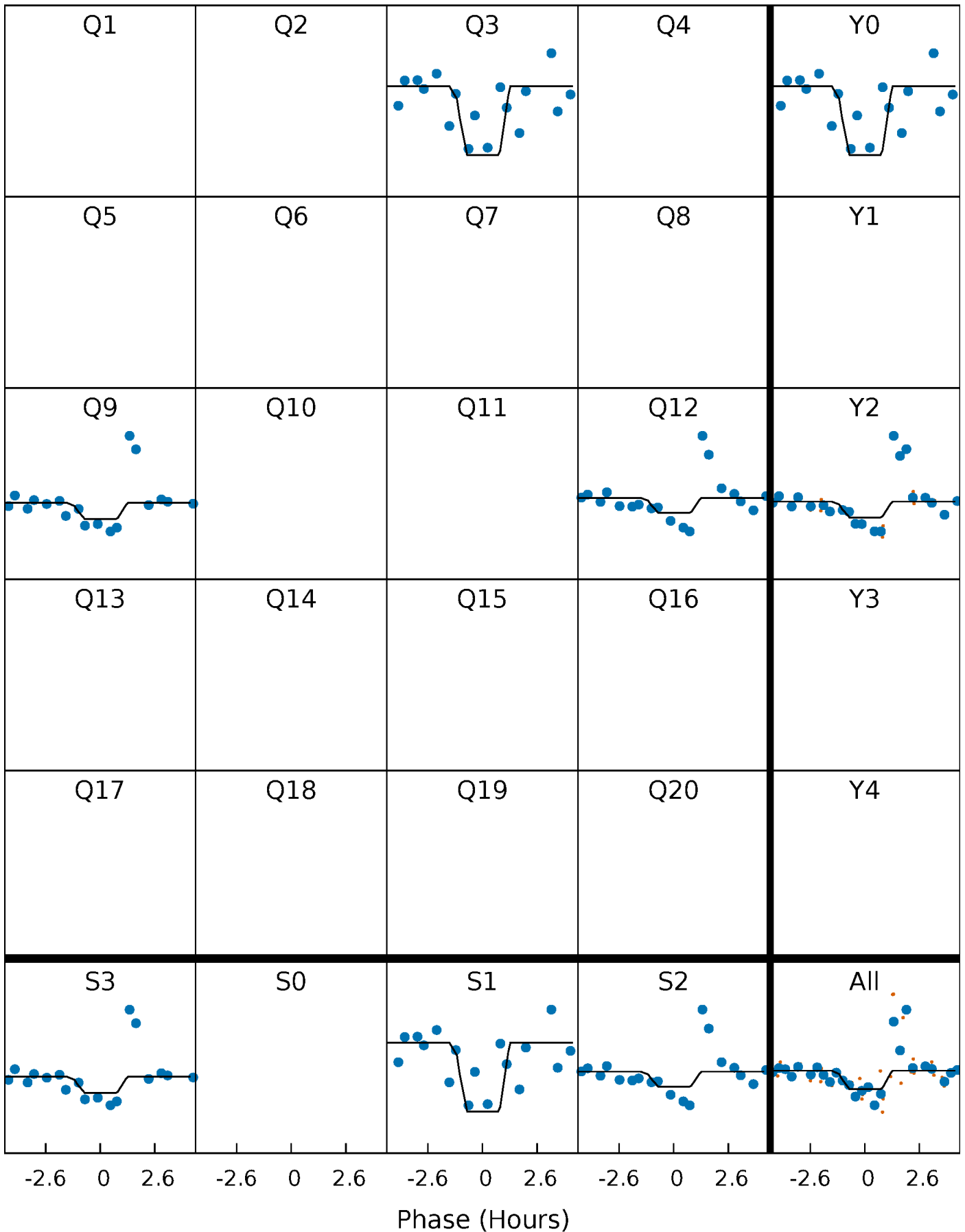
DV Quarter-Phased Transit Curves

TCE 003765091-01 P=272.366235 Days $T_0=327.305205$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

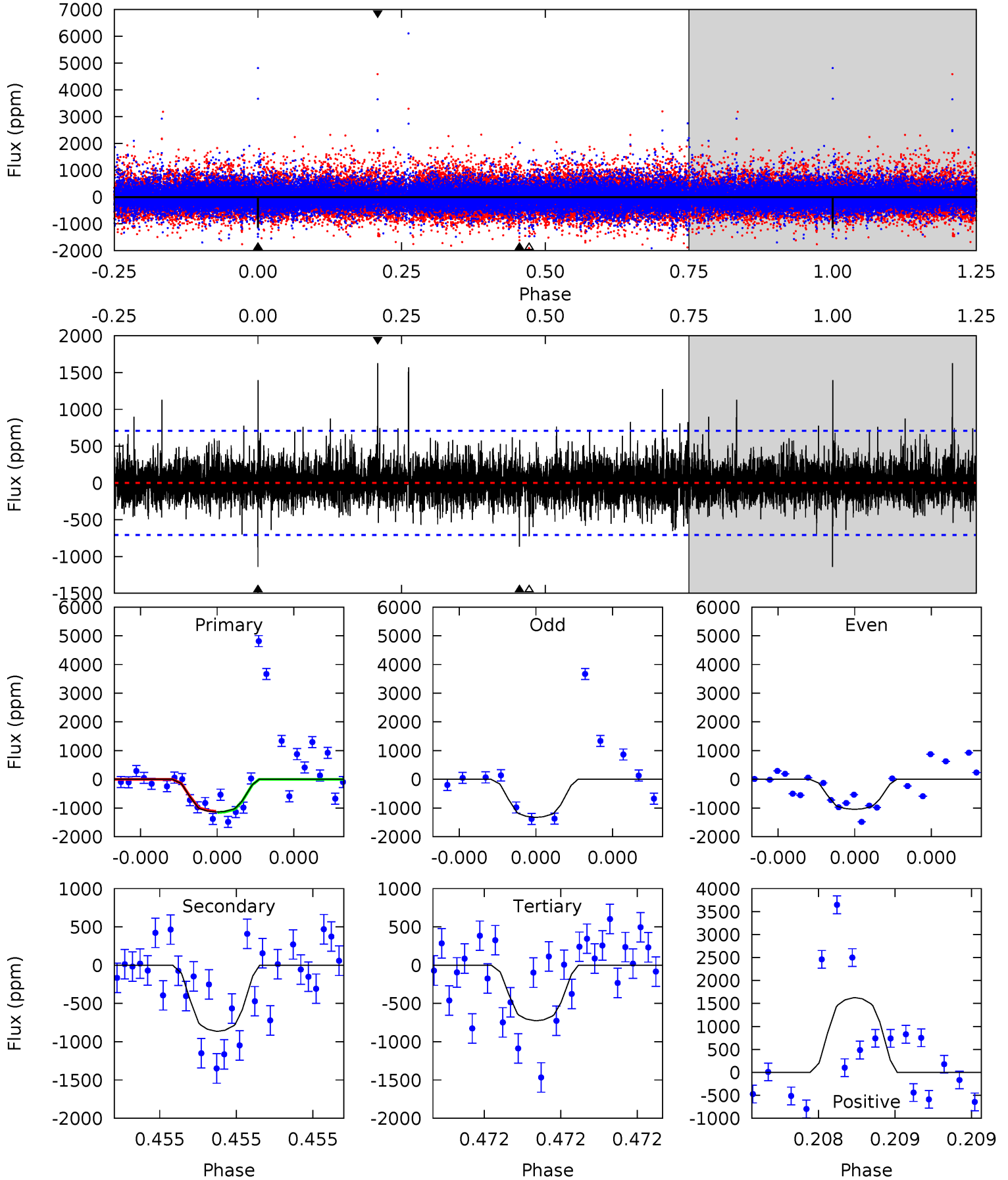
TCE 003765091-01 P=272.357331 Days $T_0=327.315467$ (BKJD)



DV Model-Shift Uniqueness Test

003765091-01, P = 272.366235 Days, E = 54.938970 Days

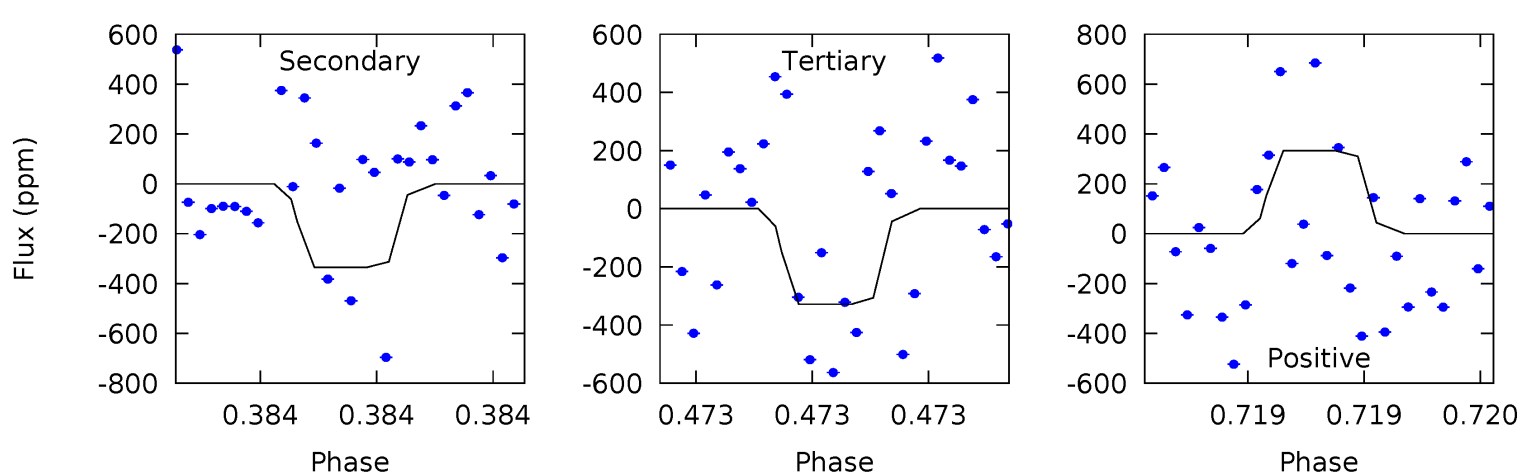
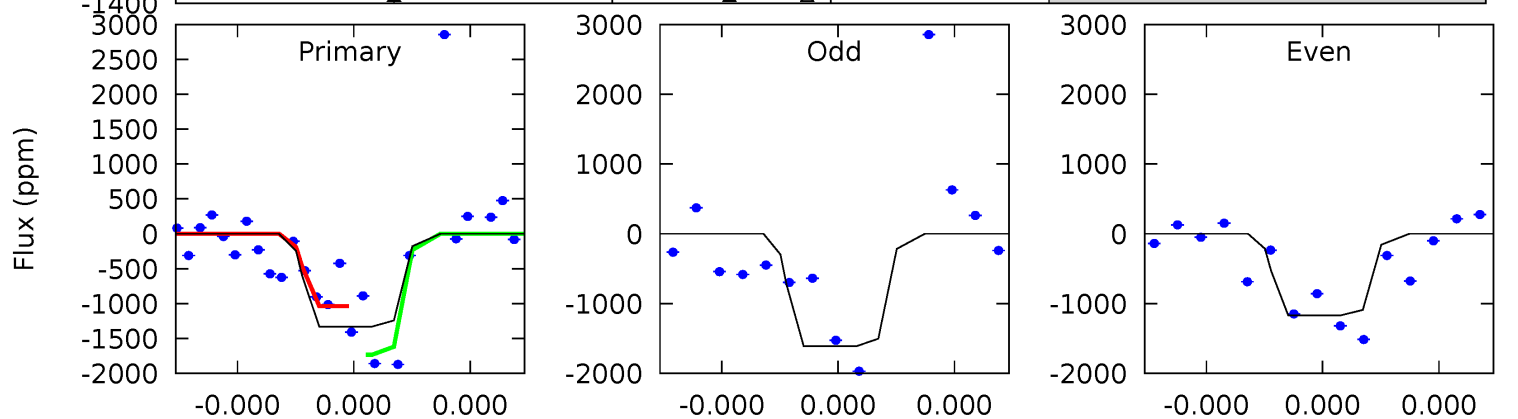
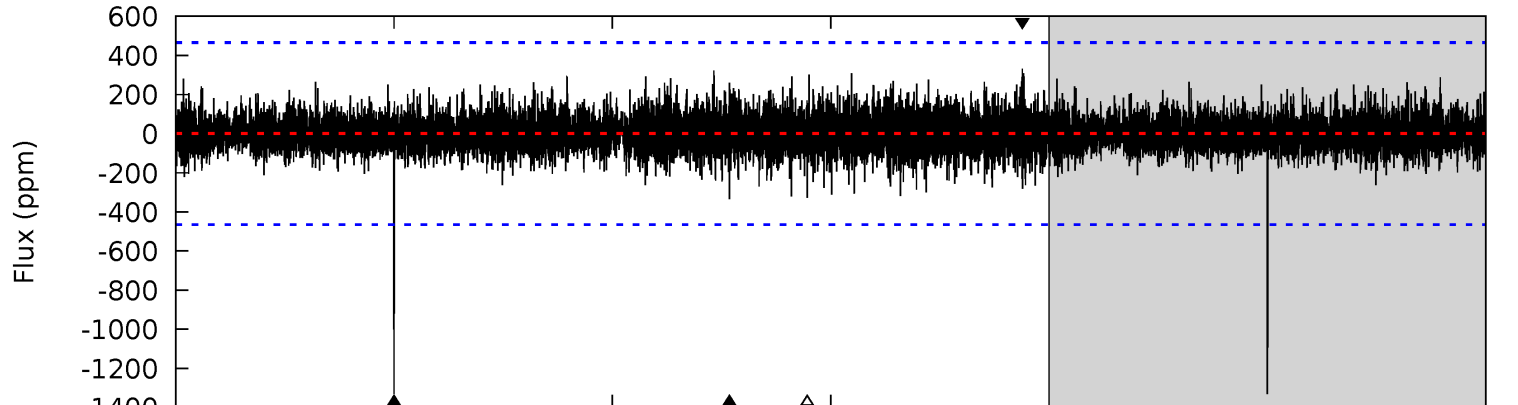
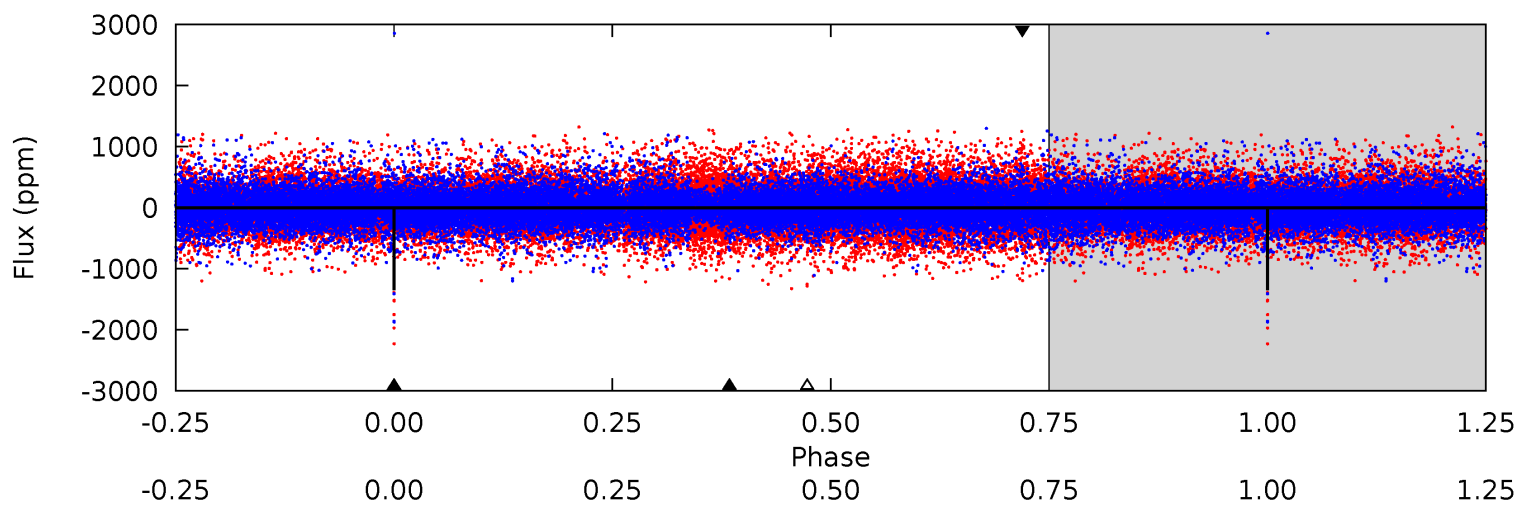
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.06	6.87	5.77	12.9	5.65	3.59	1.40	3.29	-3.89	1.10	-6.08	0.87	1.16	0.59	0.16



Alt Model-Shift Uniqueness Test

003765091-01, P = 272.357331 Days, E = 54.958136 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.1	4.04	3.96	4.01	5.62	3.56	0.88	12.1	12.0	0.08	0.03	2.54	0.82	0.20	4.12



Stellar Parameters For KIC 003765091

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	4498^{+134}_{-134}	$4.711^{+0.048}_{-0.032}$	$-1.040^{+0.300}_{-0.300}$	$0.531^{+0.038}_{-0.038}$	$0.529^{+0.045}_{-0.026}$	$4.974^{+1.066}_{-0.675}$
	+3%/-3%	+1%/-1%	+29%/-29%	+7%/-7%	+9%/-5%	+21%/-14%
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 003765091-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-864 ± 126	$8.30^{+8.30}_{-5.80}$	247^{+8}_{-8}	2720^{+1151}_{-413}	3138^{+28746}_{-2351}
Alt.	-335 ± 83	$7.92^{+8.09}_{-5.59}$	247^{+8}_{-8}	2450^{+915}_{-370}	1287^{+12844}_{-977}

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 $A_{obs} \gg 1.0$

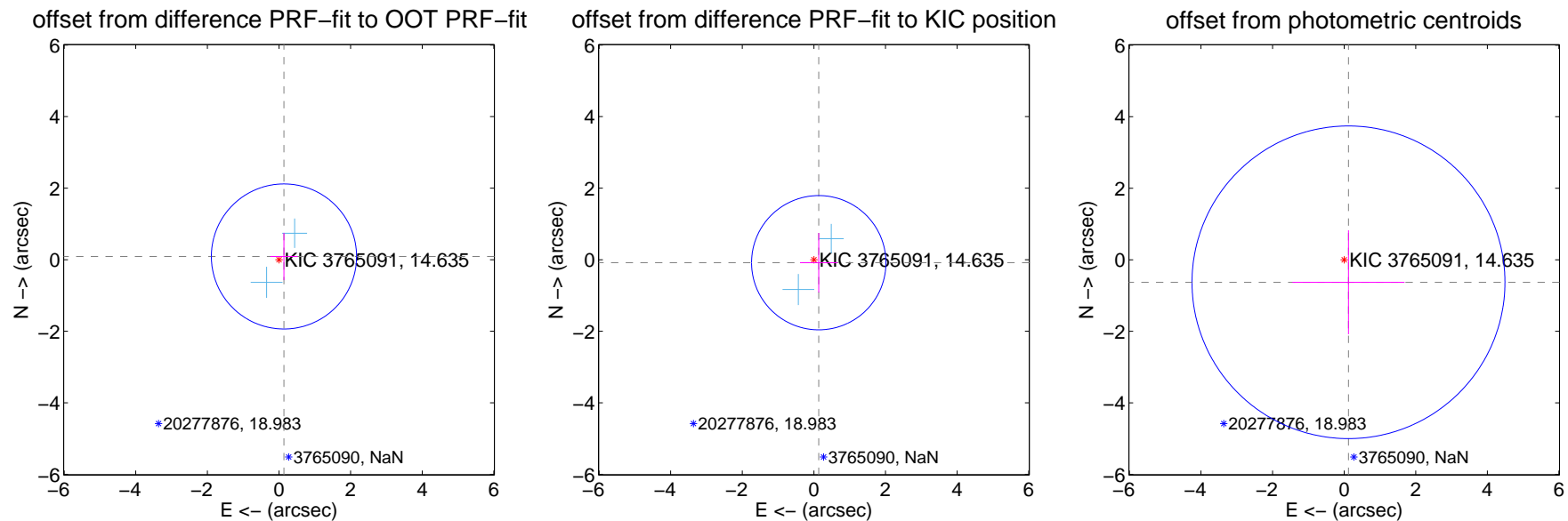
DV Centroid Data

Supplemental centroid analysis for 003765091-01. Kepler magnitude: 14.63. Transit SNR 6.99

There are 2 quarters with good PRF difference image offsets

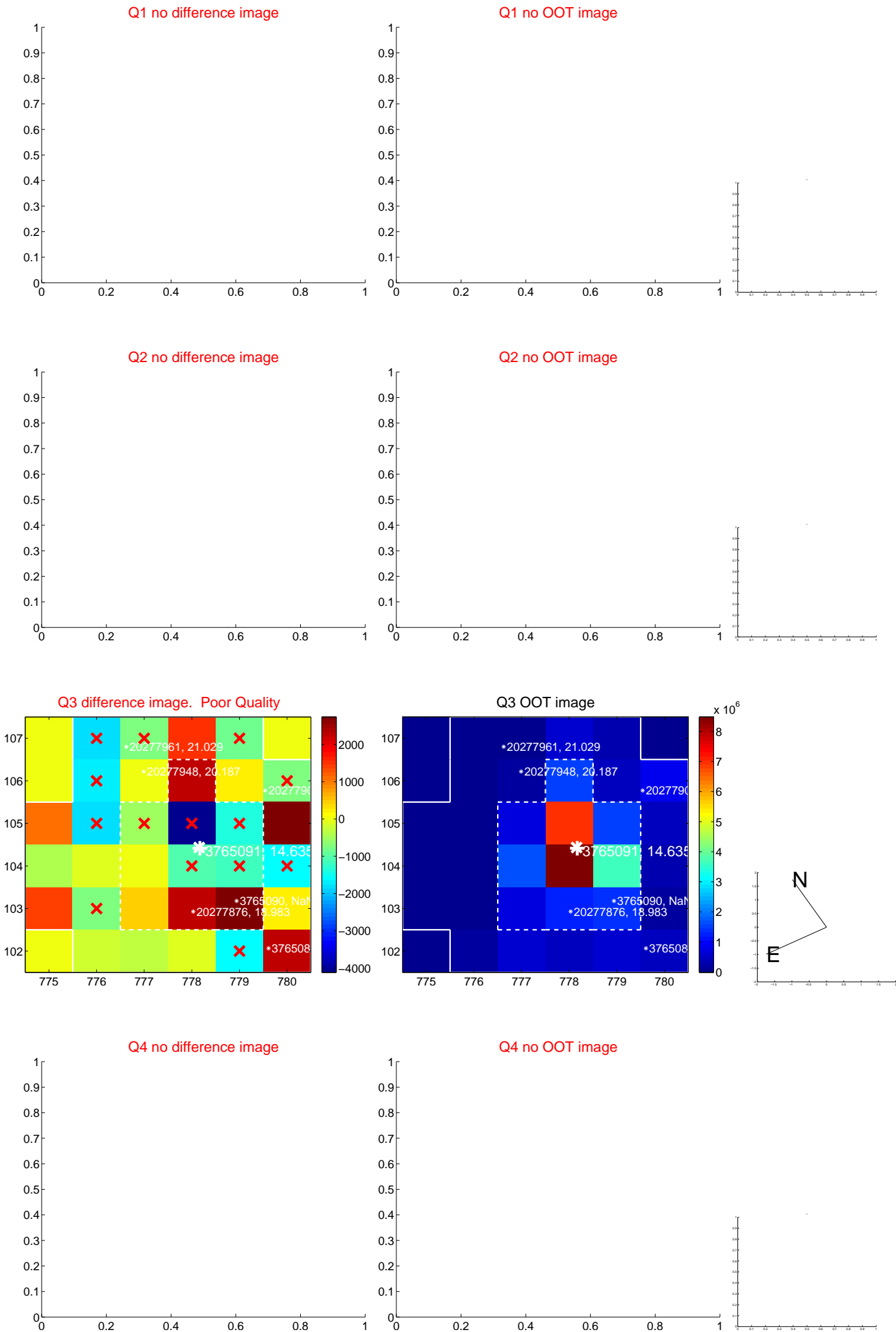
The direct PRF centroid is offset from the target star catalog position by about 0.16 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.166 ± 0.676	0.25	-0.139 ± 0.381	0.091 ± 0.660
PRF-fit source offset from KIC position	0.159 ± 0.626	0.25	-0.136 ± 0.525	-0.084 ± 0.832
photometric centroid source offset	0.64 ± 1.46	0.44	-0.12 ± 1.56	-0.63 ± 1.45



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.

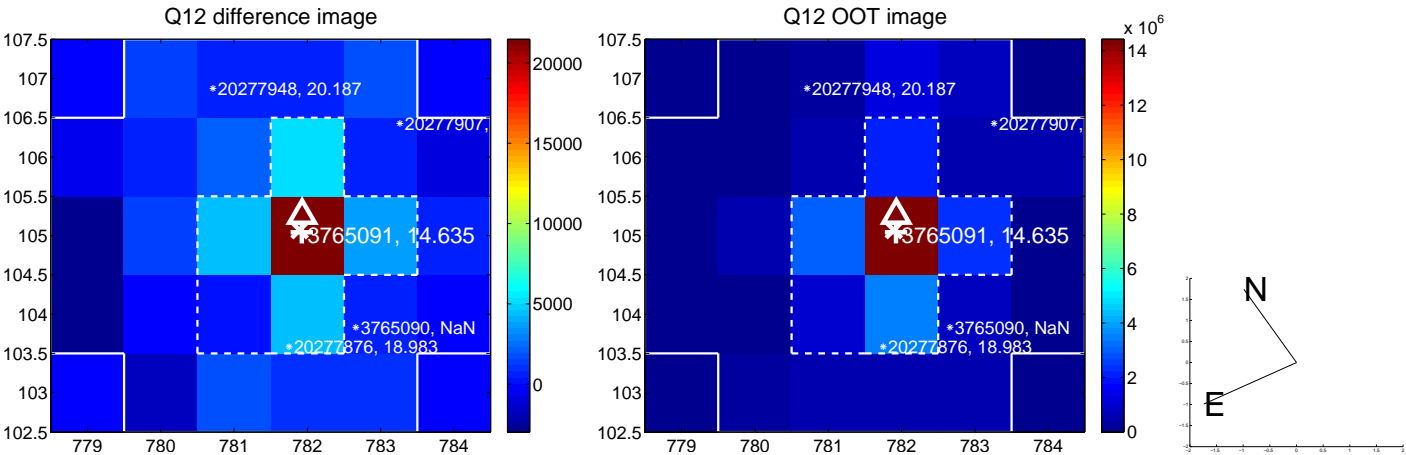
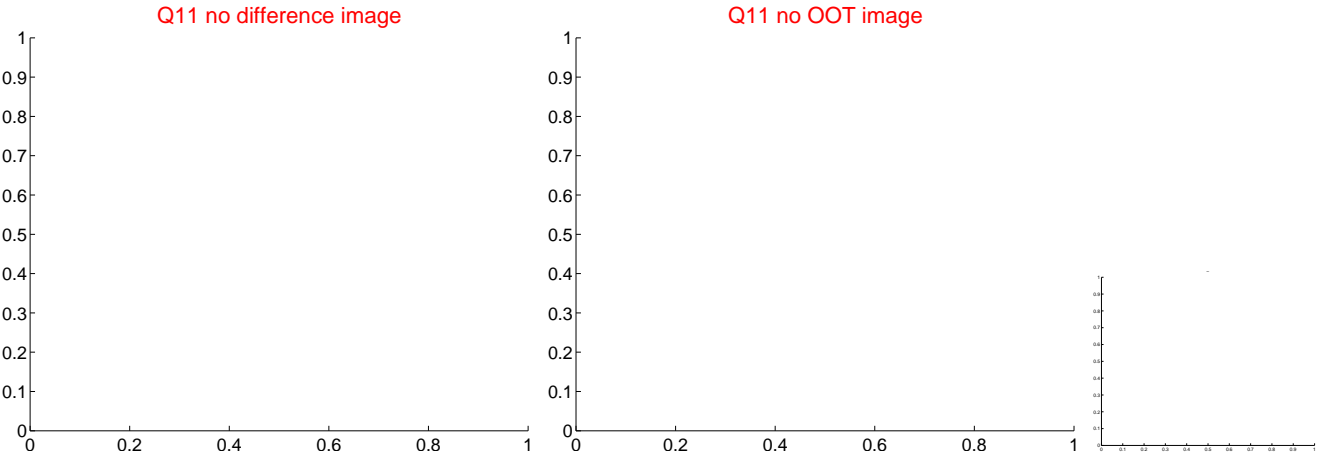
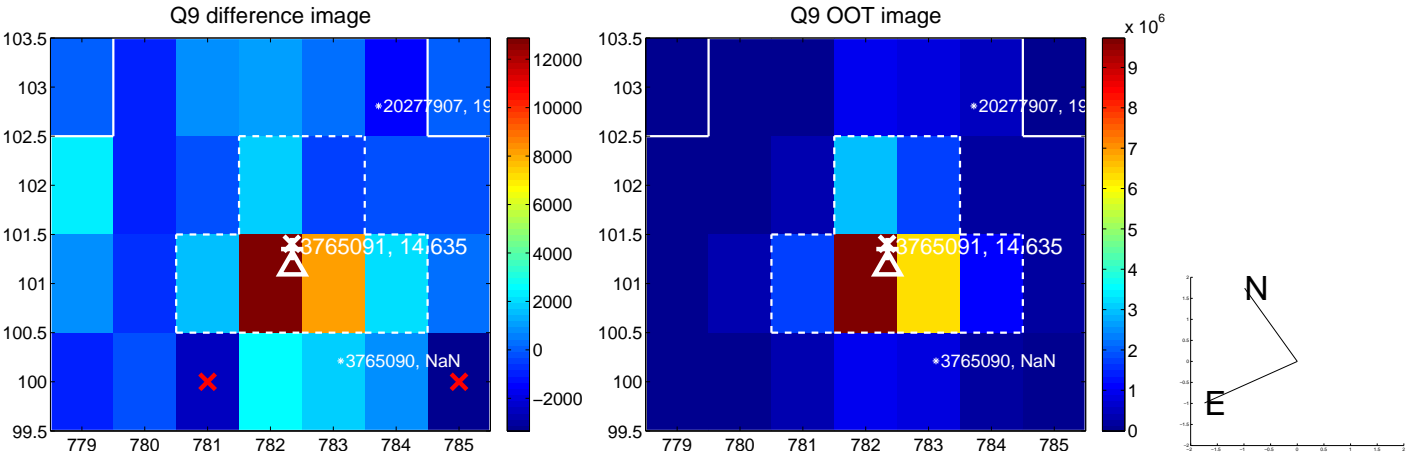
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



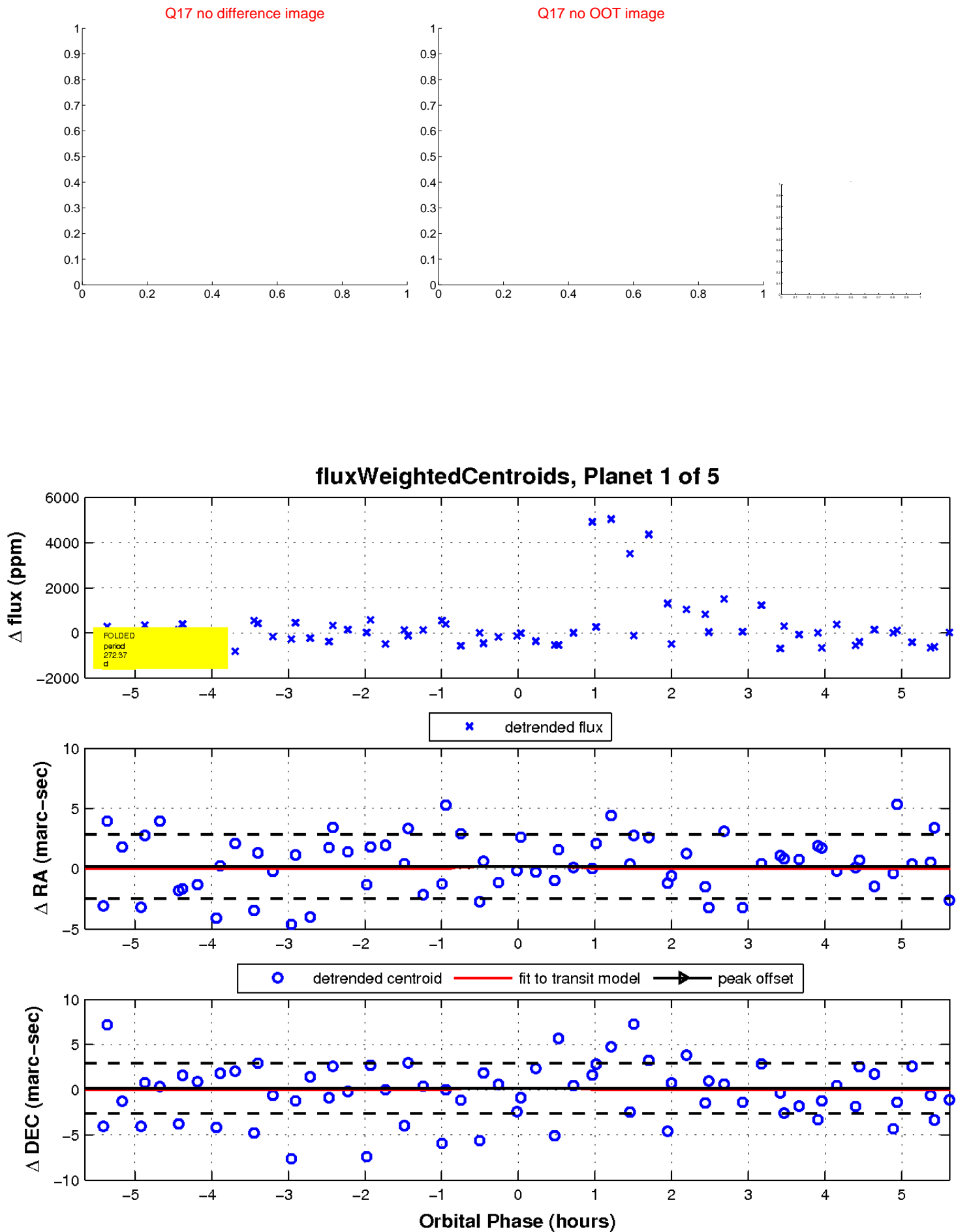
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



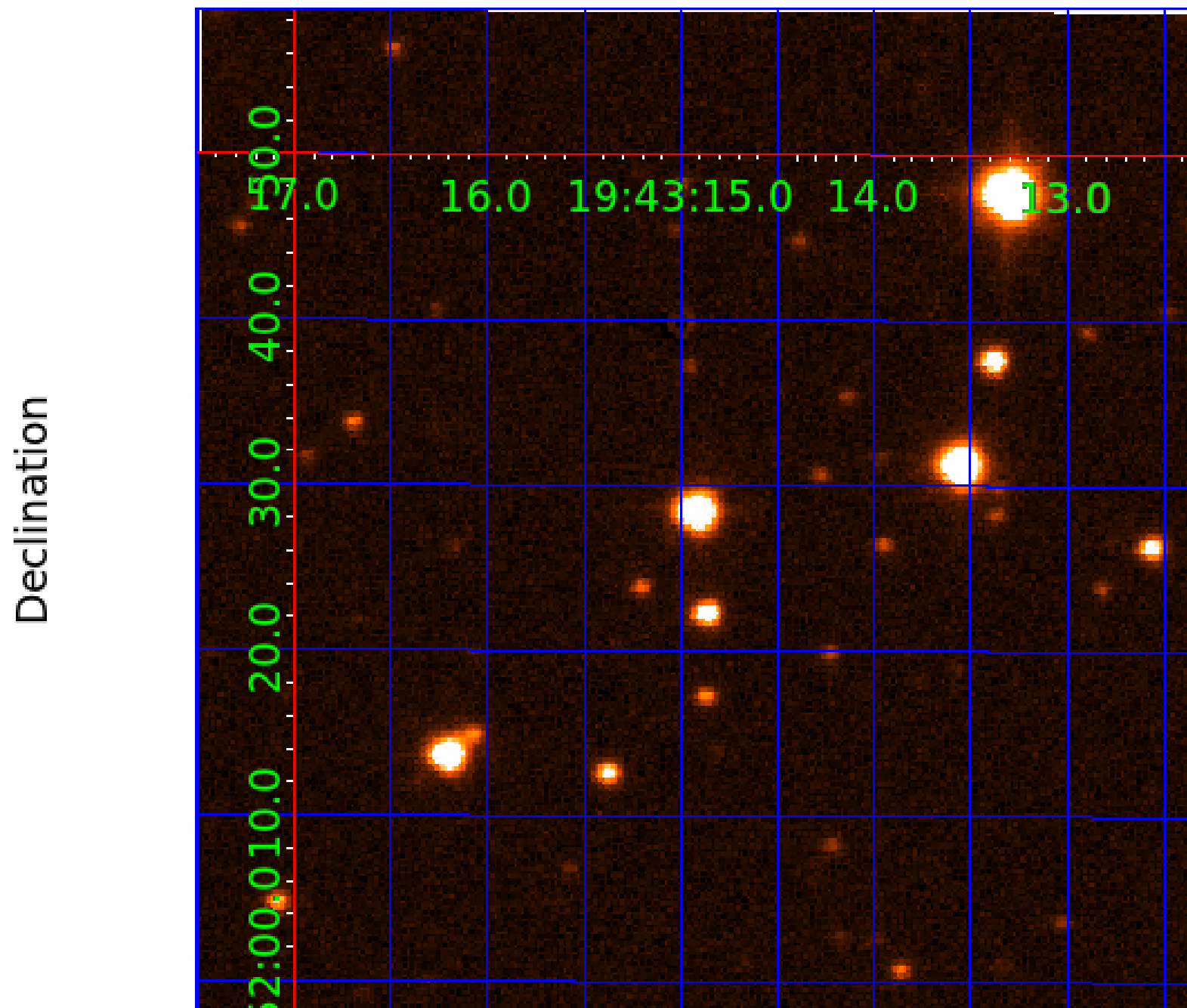
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image



KIC 003765091

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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Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003765091-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
003765091-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS
003765091-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
003765091-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS
003765091-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS

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

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

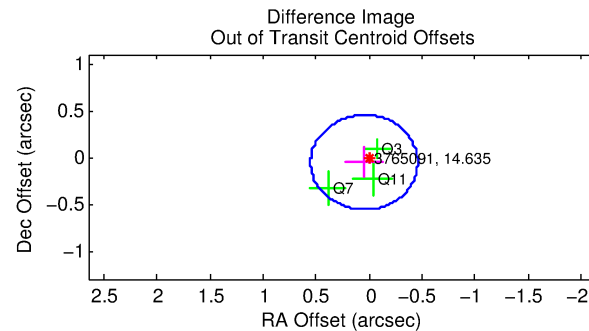
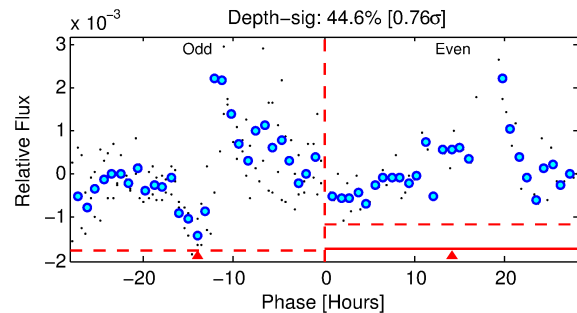
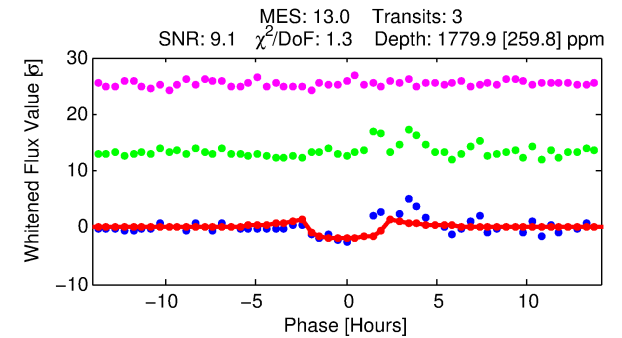
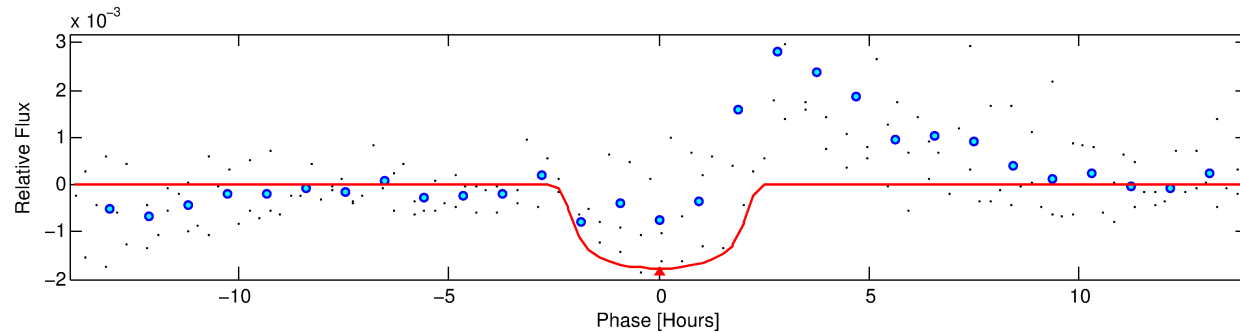
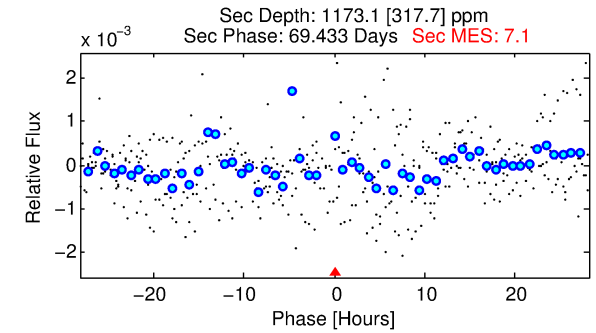
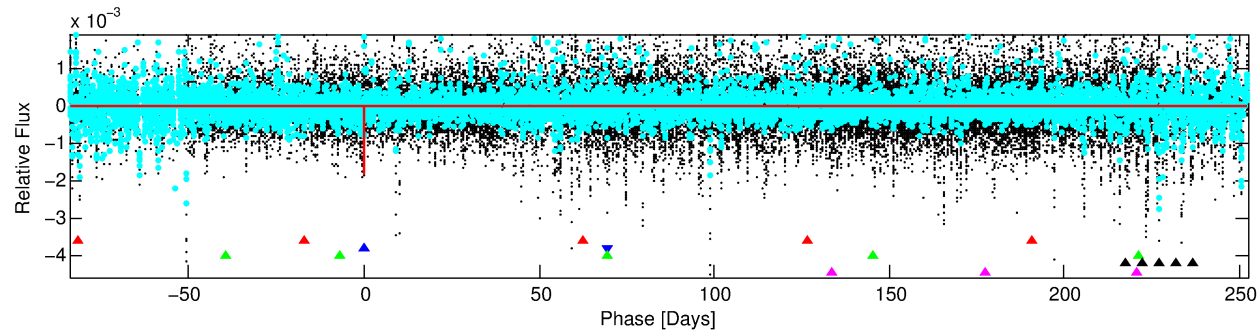
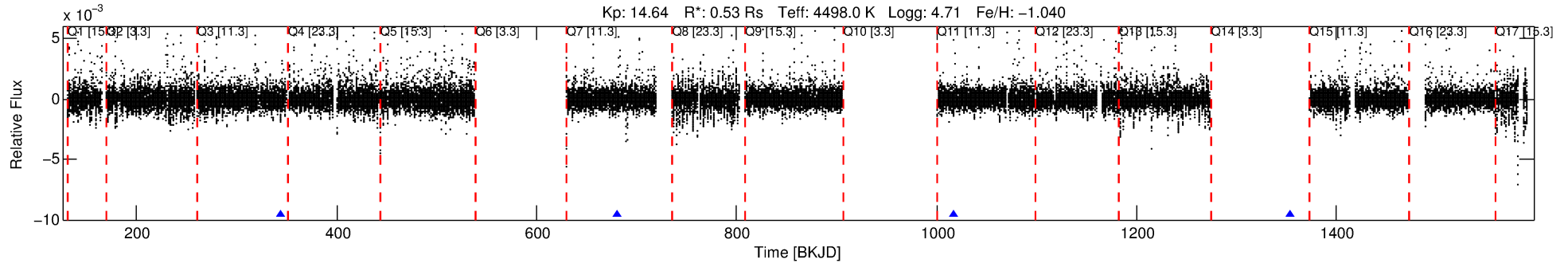
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003765091-02

No Significant Match Found

DV One-Page Summary

KIC: 3765091 Candidate: 2 of 5 Period: 336.553 d



DV Fit Results:

Period = 336.55324 [0.00527] d
Epoch = 344.6503 [0.0076] BKJD
Rp/R* = 0.0423 [0.0149]
a/R* = 392.11 [488.09]
b = 0.76 [0.70]
Seff = 0.18 [0.03]
Teq = 165 [6] K
Rp = 2.45 [0.88] Re
a = 0.7658 [0.0462] AU
Ag = 63056.82 [47949.52] [1.32 σ]
Teffp = 4048 [774] K [5.02 σ]

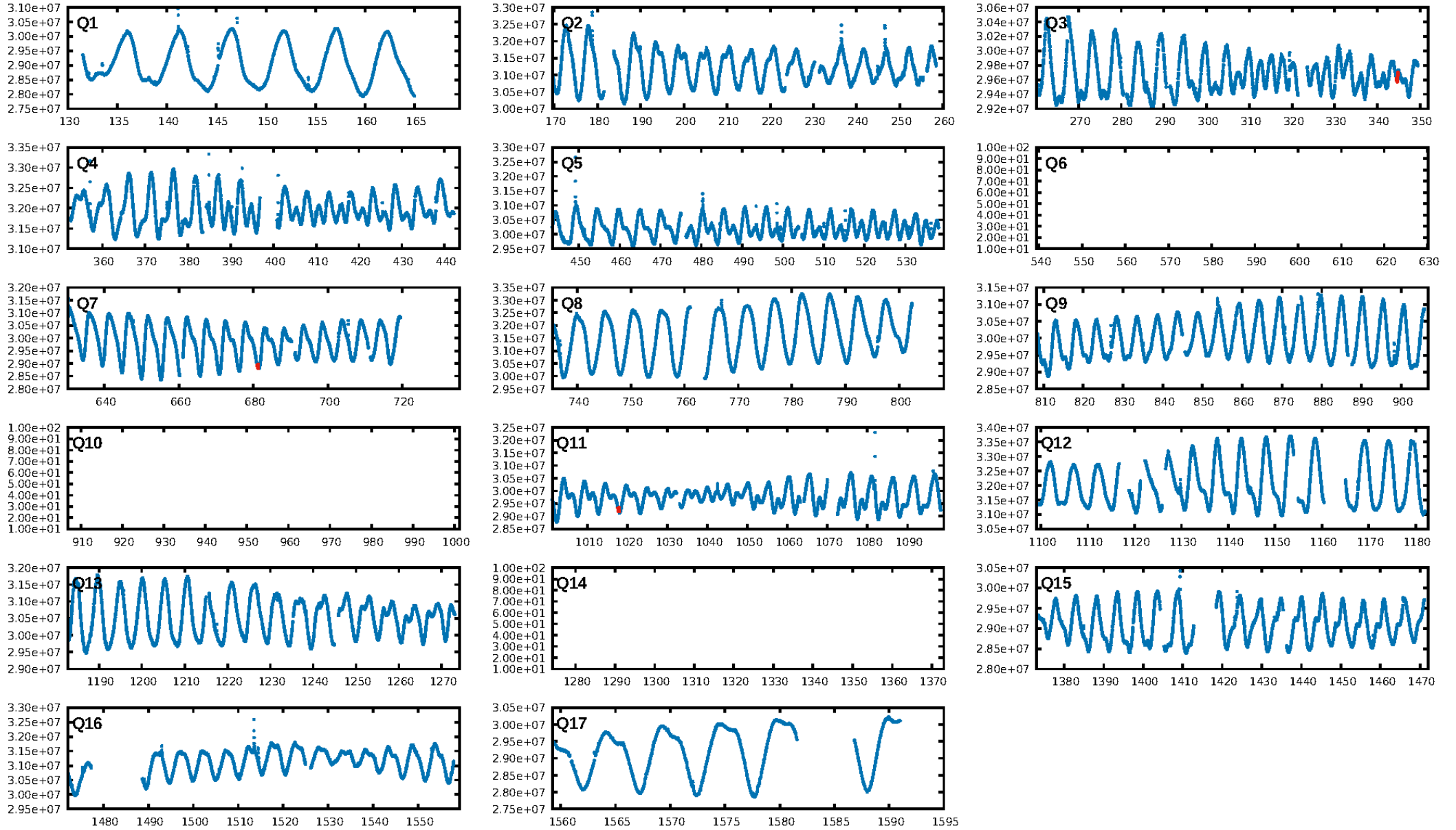
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [14.80 σ]
LongPeriod-sig: 100.0% [169.05 σ]
ModelChiSquare2-sig: 3.5%
ModelChiSquareGoF-sig: 83.5%
Bootstrap-pfa: 1.11e-11
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 21.17
Centroid-sig: 76.1%
Centroid-so: 0.163 arcsec [0.16 σ]
OotOffset-rm: 0.072 arcsec [0.43 σ]
OotOffset-st: 0/3/0/0 [3]
KicOffset-rm: 0.166 arcsec [0.82 σ]
KicOffset-st: 0/3/0/0 [3]
DiffImageQuality-fgm: 1.00 [3/3]
DiffImageOverlap-fno: 1.00 [3/3]

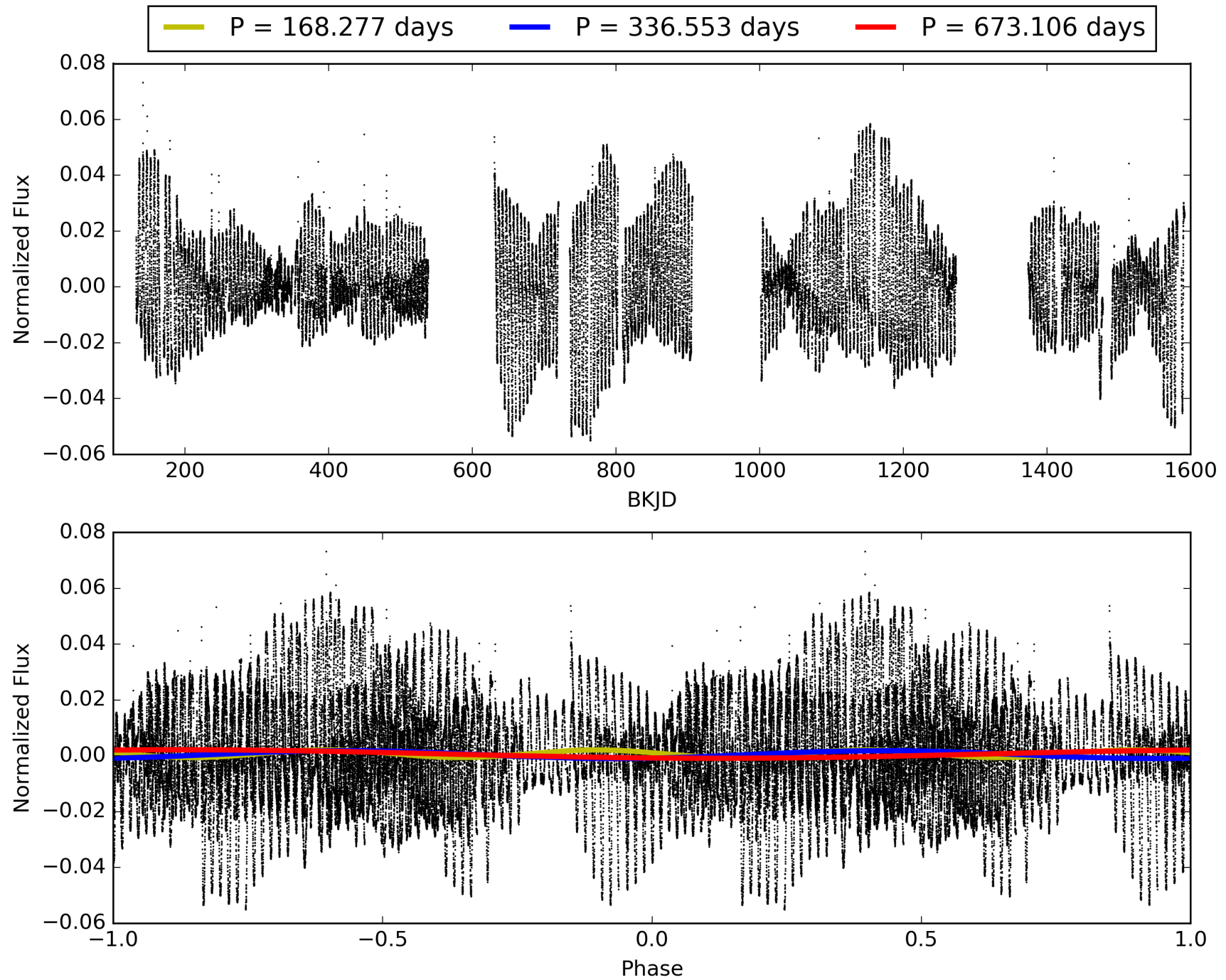
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 04:46:14 Z

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

TCE 003765091-02, PDC Light Curves

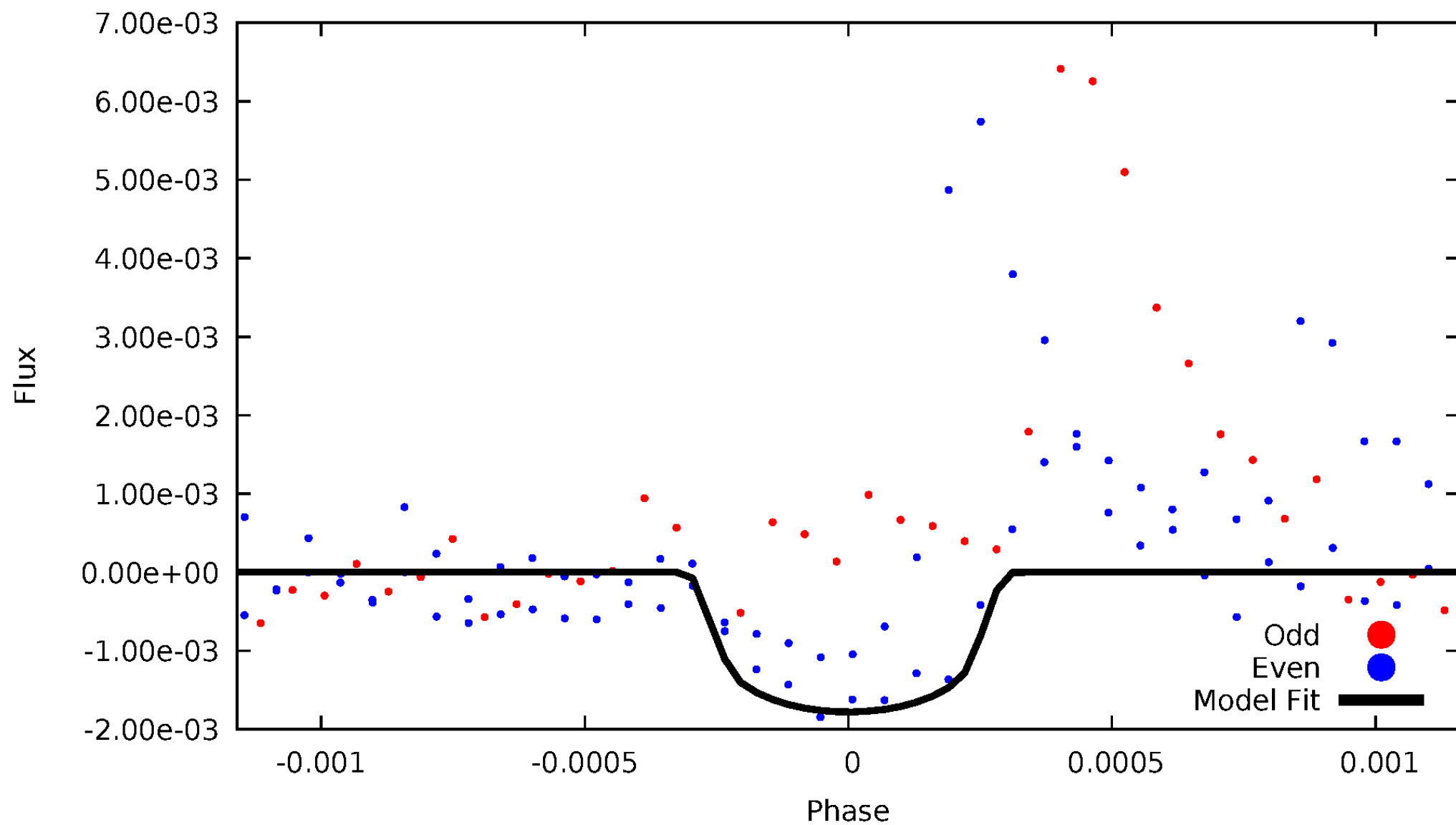


TCE 003765091-02



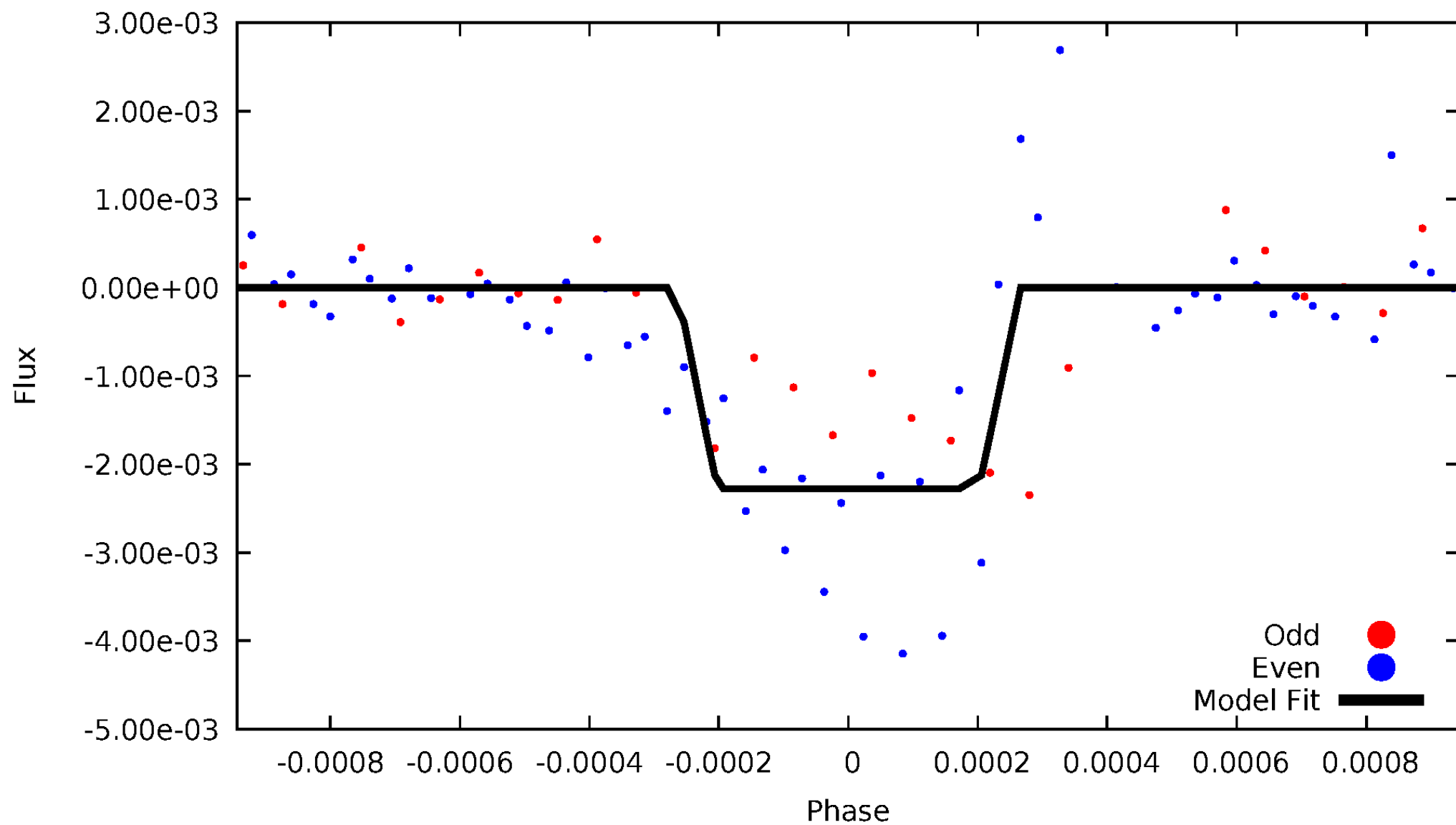
DV Odd/Even

TCE 003765091-02



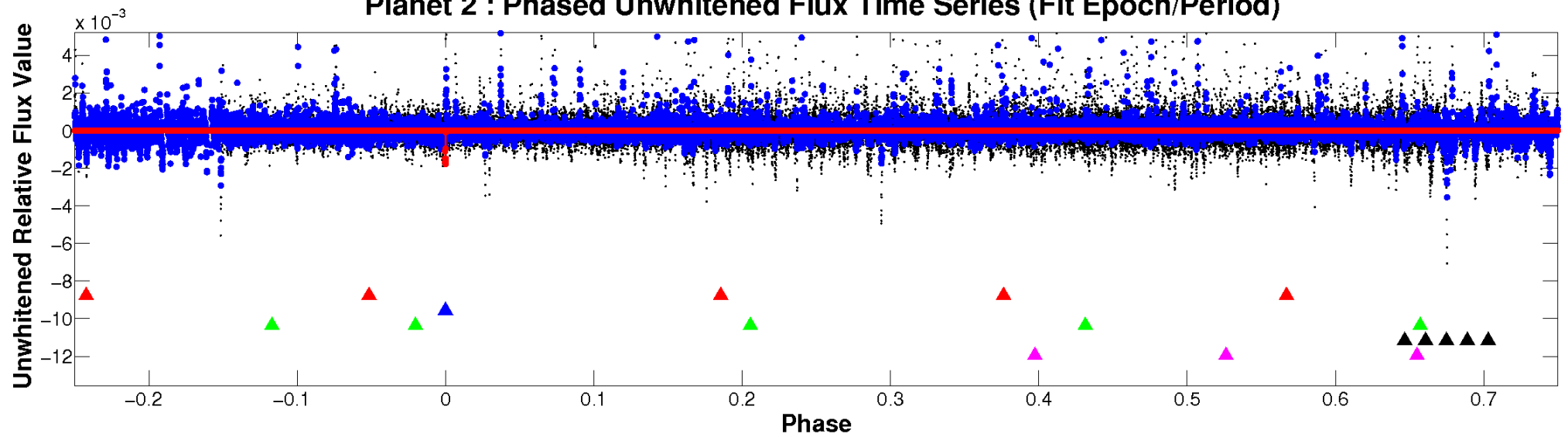
ALT Odd/Even

TCE 003765091-02

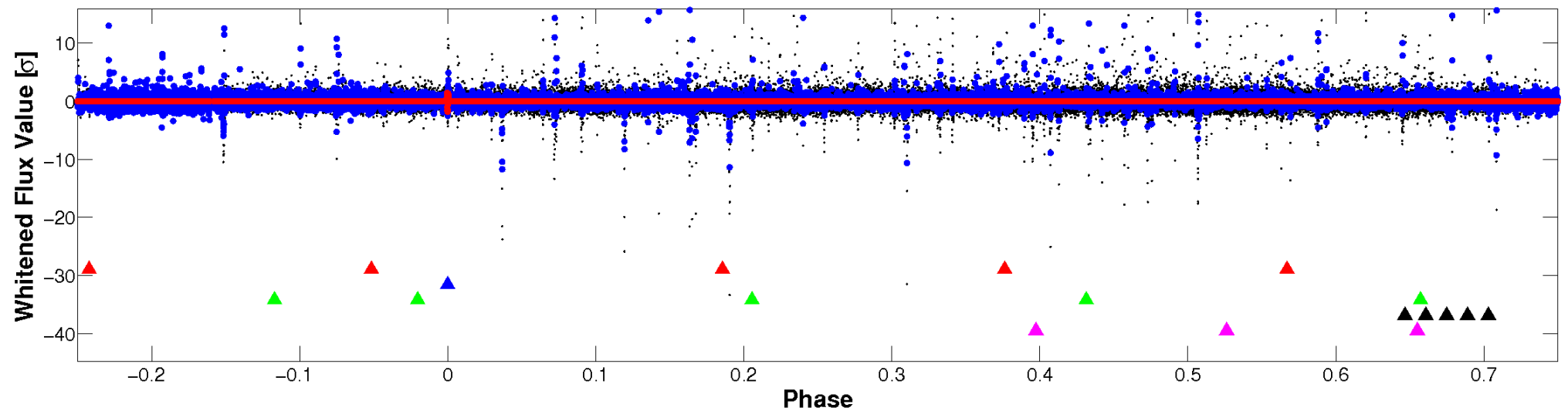


Non-Whitened Vs. Whitened Light Curve

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

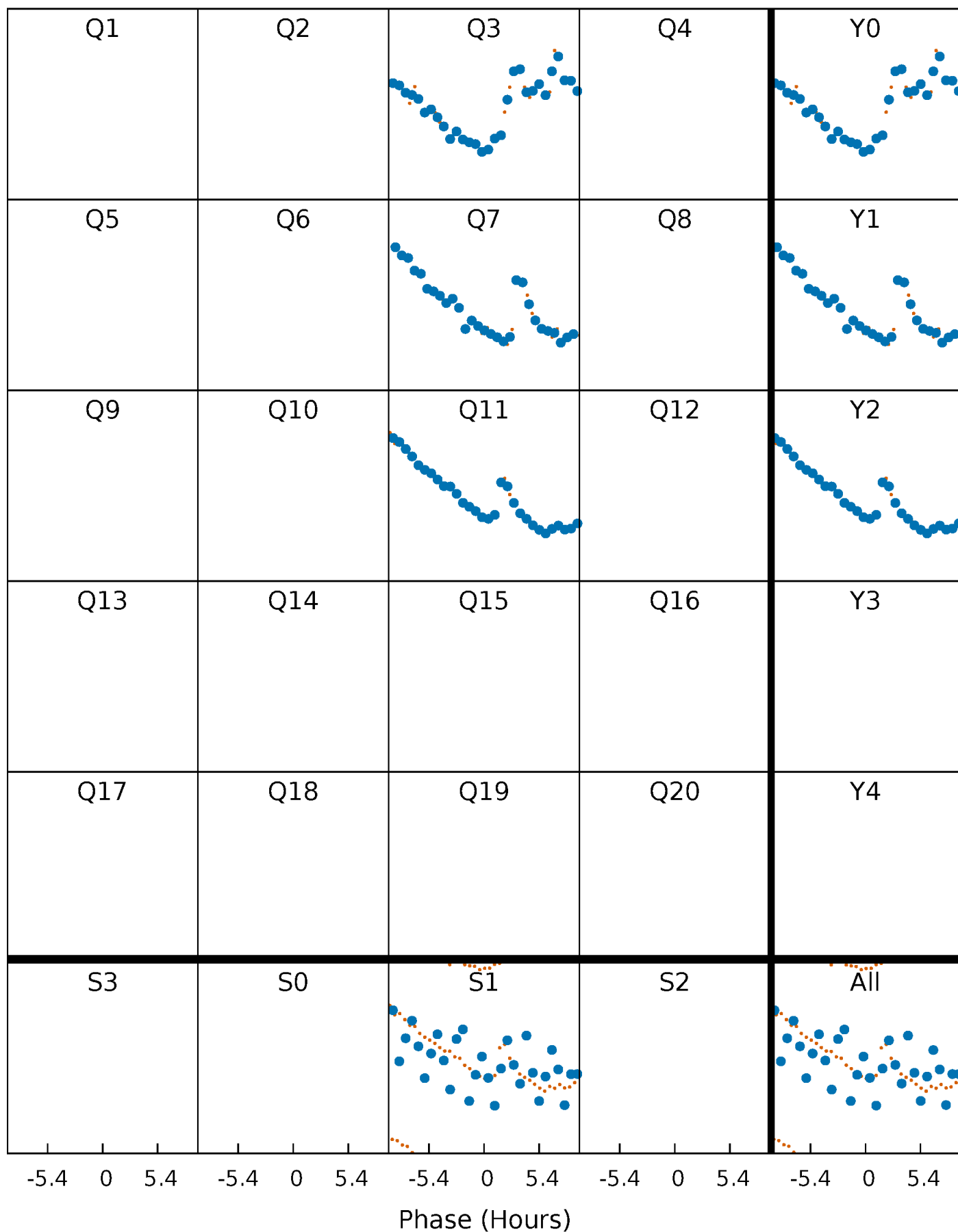


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



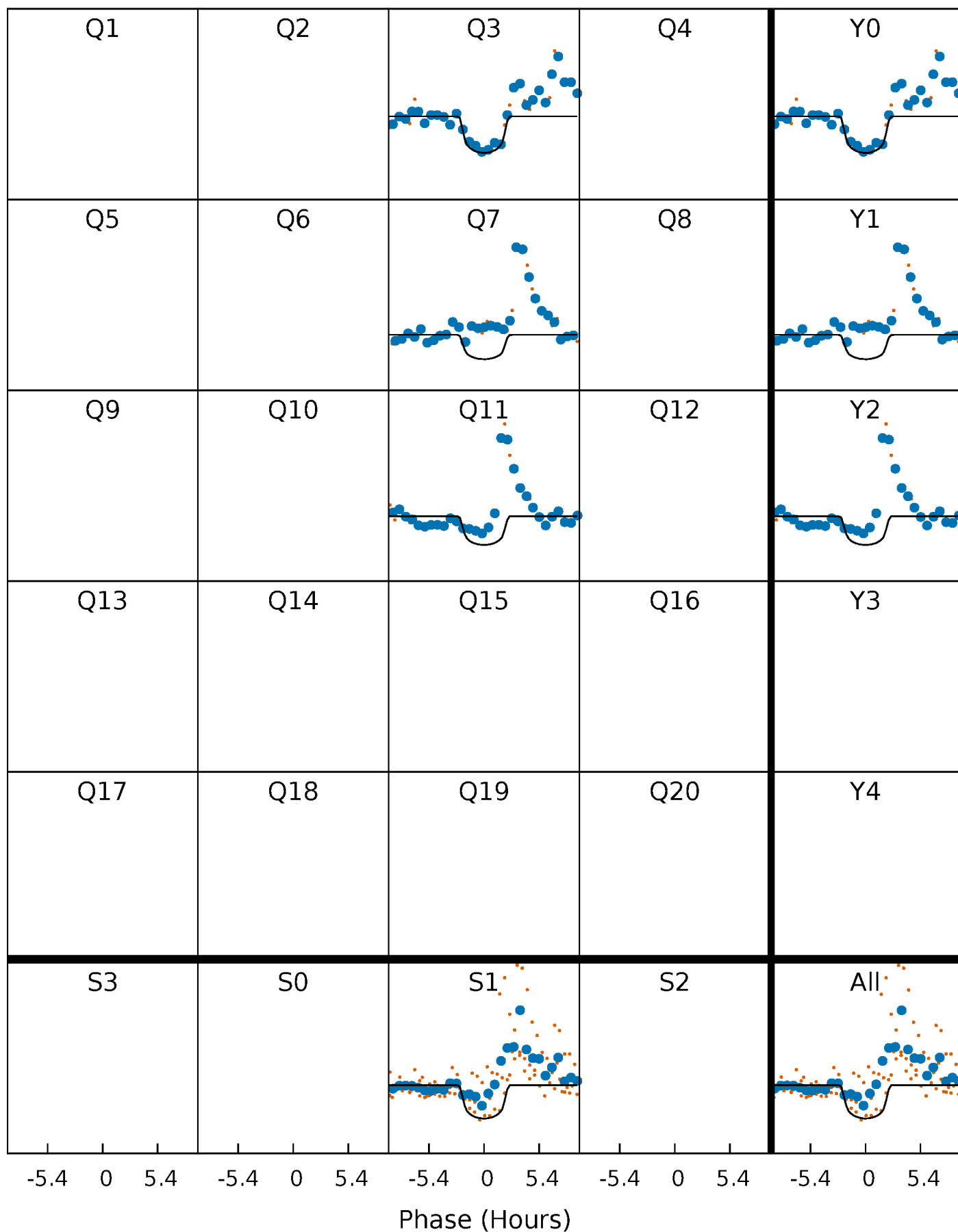
PDC Quarter-Phased Transit Curves

TCE 003765091-02 $P=336.553238$ Days $T_0=344.650326$ (BKJD)



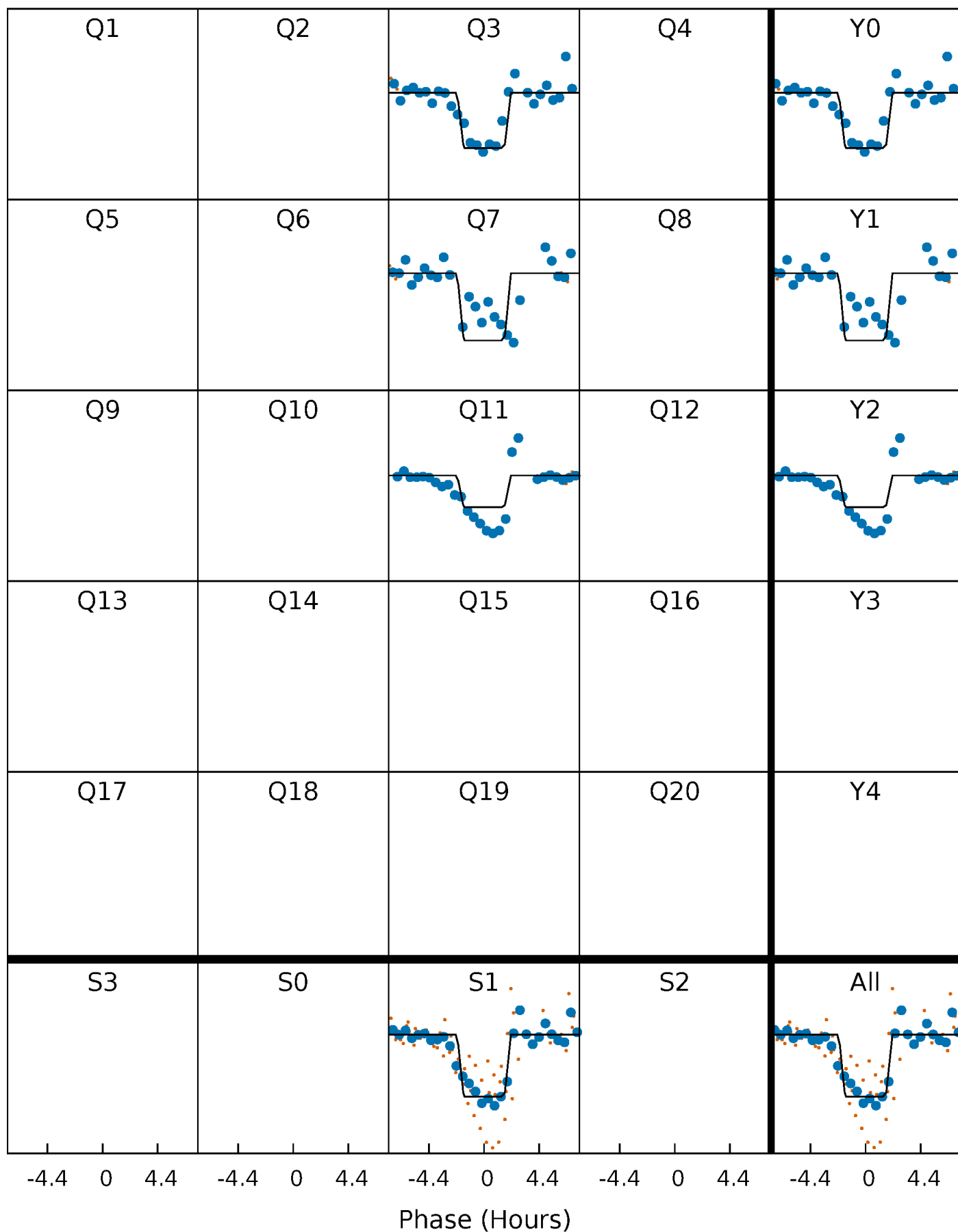
DV Quarter-Phased Transit Curves

TCE 003765091-02 $P=336.553238$ Days $T_0=344.650326$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

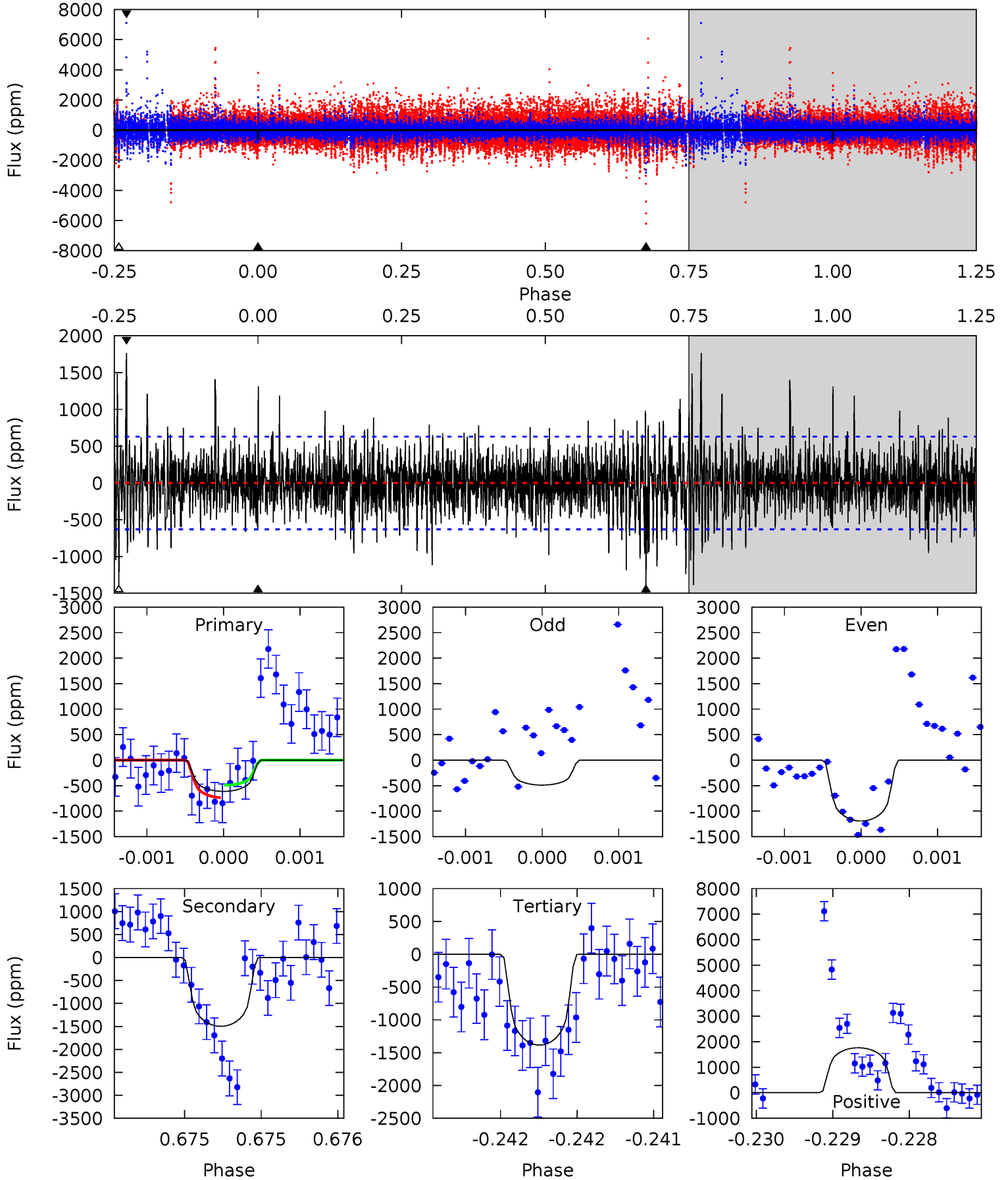
TCE 003765091-02 $P=336.527111$ Days $T_0=344.677026$ (BKJD)



DV Model-Shift Uniqueness Test

003765091-02, P = 336.553238 Days, E = 8.097088 Days

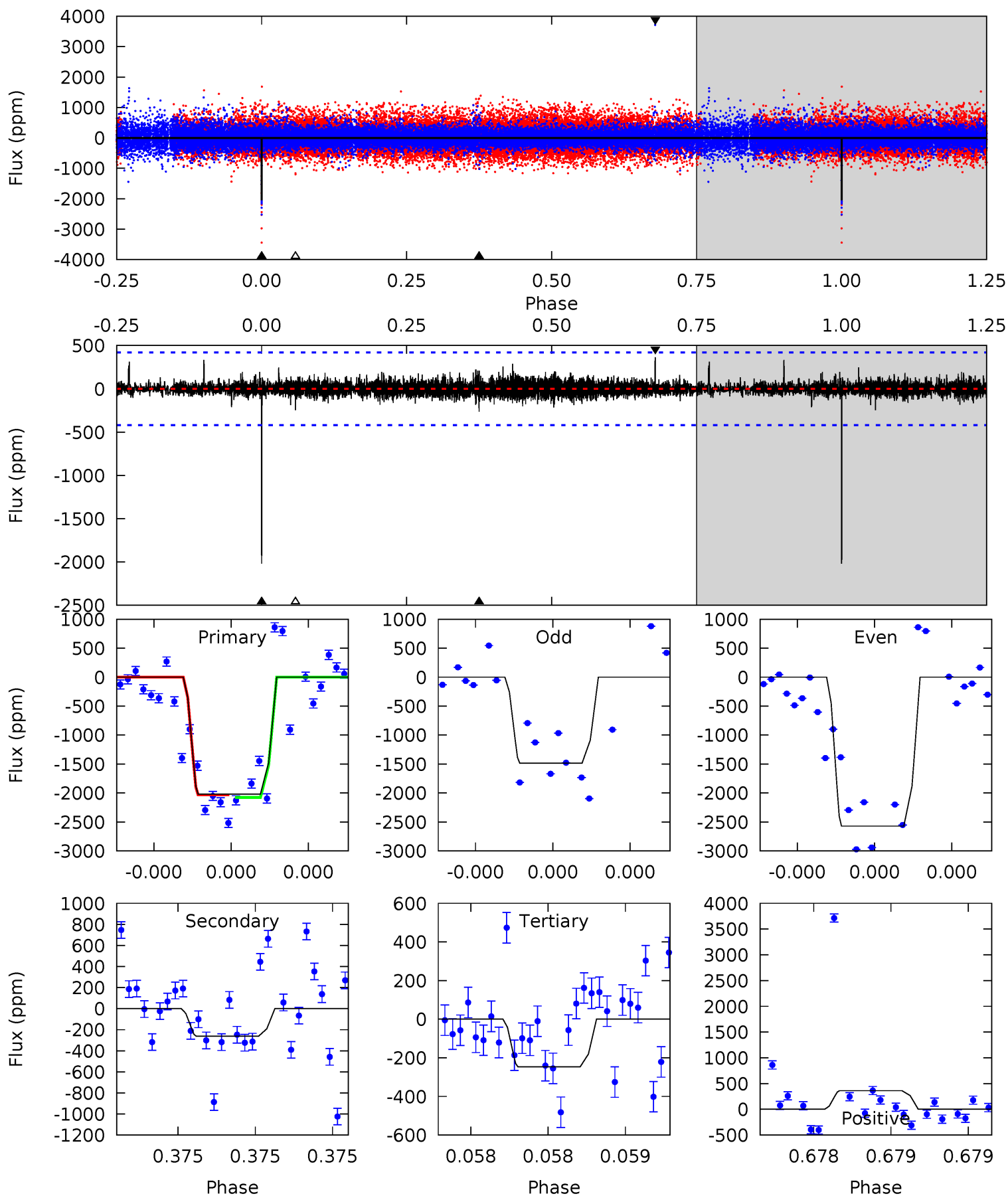
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.37	13.1	12.2	15.5	5.53	3.42	2.41	-6.78	-10.1	0.99	-2.34	2.59	-0.85	0.54	1.05



Alt Model-Shift Uniqueness Test

003765091-02, P = 336.527111 Days, E = 8.149915 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
27.0	3.50	3.29	4.84	5.59	3.51	0.68	23.7	22.1	0.21	-1.34	8.08	1.21	0.15	0.30



Stellar Parameters For KIC 003765091

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	4498^{+134}_{-134}	$4.711^{+0.048}_{-0.032}$	$-1.040^{+0.300}_{-0.300}$	$0.531^{+0.038}_{-0.038}$	$0.529^{+0.045}_{-0.026}$	$4.974^{+1.066}_{-0.675}$
	+3%/-3%	+1%/-1%	+29%/-29%	+7%/-7%	+9%/-5%	+21%/-14%
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 003765091-02 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-1498 ± 114	$2.45^{+0.89}_{-0.87}$	230^{+8}_{-7}	4353^{+874}_{-478}	$81065^{+114597}_{-37000}$
Alt.	-262 ± 75	$2.76^{+0.83}_{-0.94}$	231^{+7}_{-8}	3132^{+433}_{-294}	11119^{+14690}_{-5404}

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

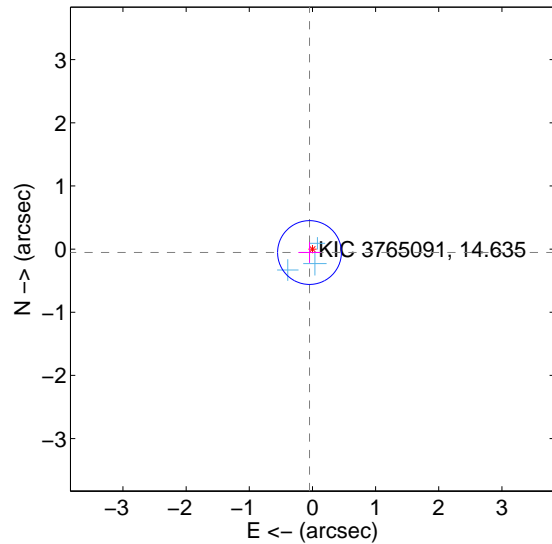
Supplemental centroid analysis for 003765091-02. Kepler magnitude: 14.63. Transit SNR 9.10

There are 3 quarters with good PRF difference image offsets

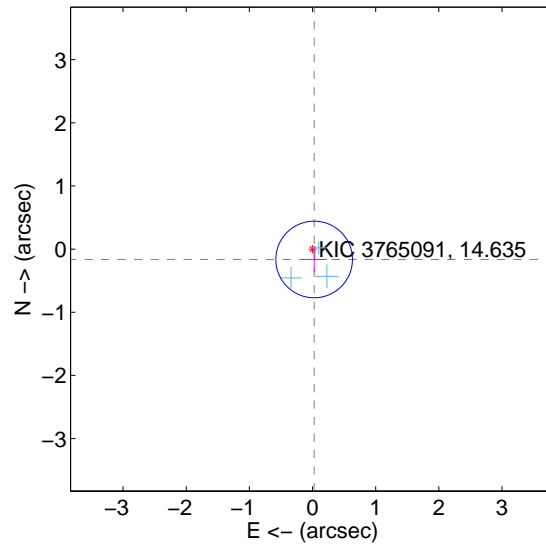
The direct PRF centroid is offset from the target star catalog position by about 0.28 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.072 ± 0.168	0.43	0.047 ± 0.175	-0.054 ± 0.163
PRF-fit source offset from KIC position	0.166 ± 0.202	0.82	-0.025 ± 0.198	-0.164 ± 0.202
photometric centroid source offset	0.16 ± 1.01	0.16	0.13 ± 0.94	-0.09 ± 1.14

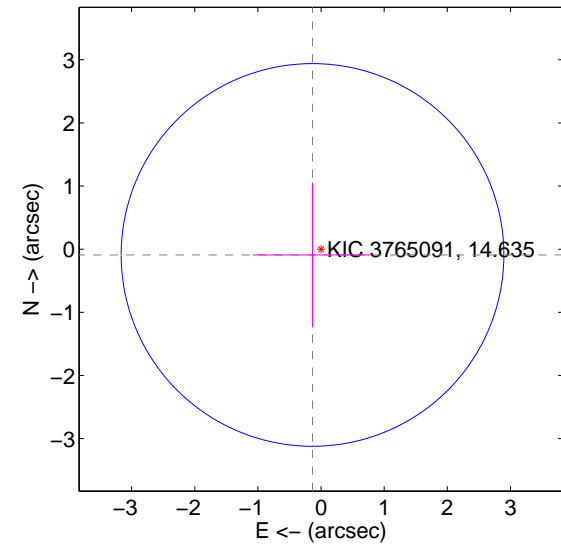
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

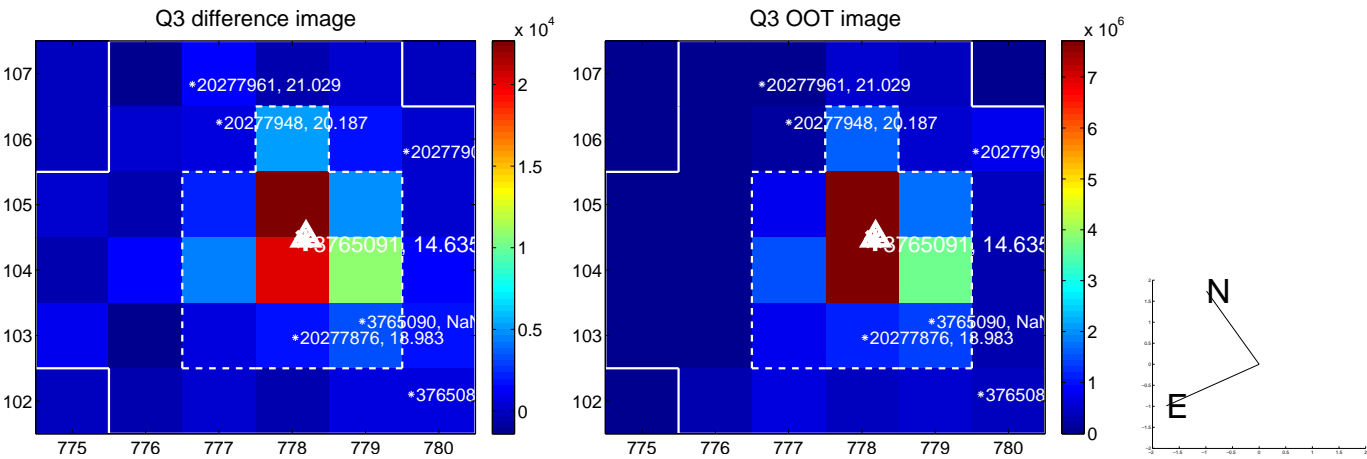


offset from photometric centroids

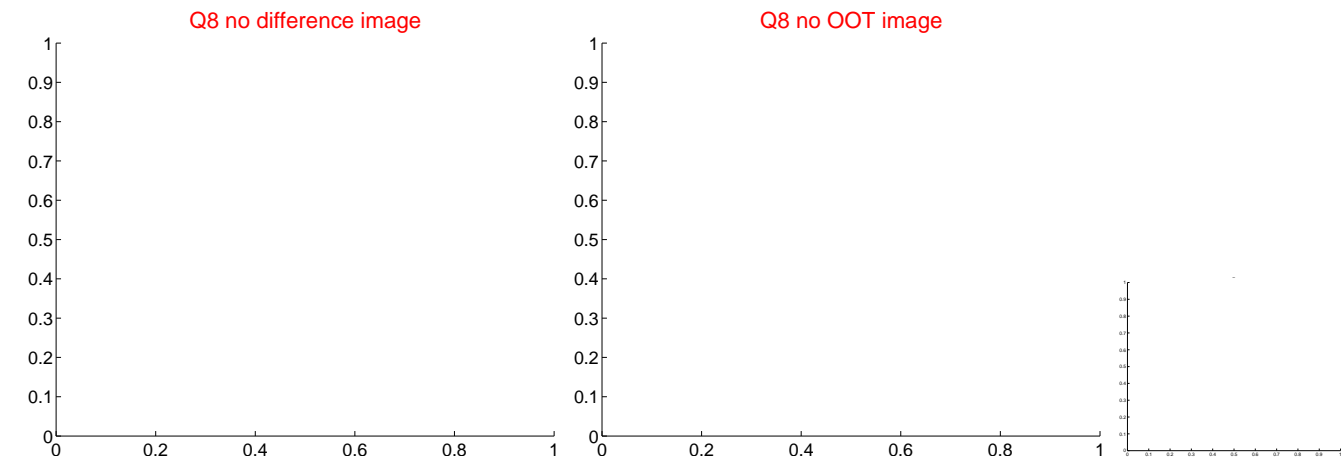
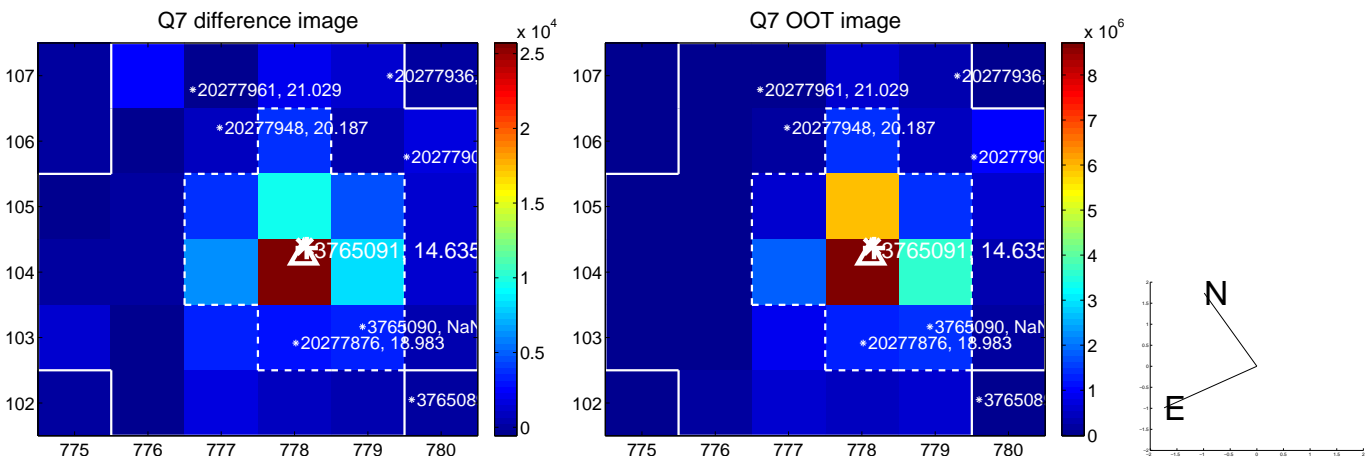


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

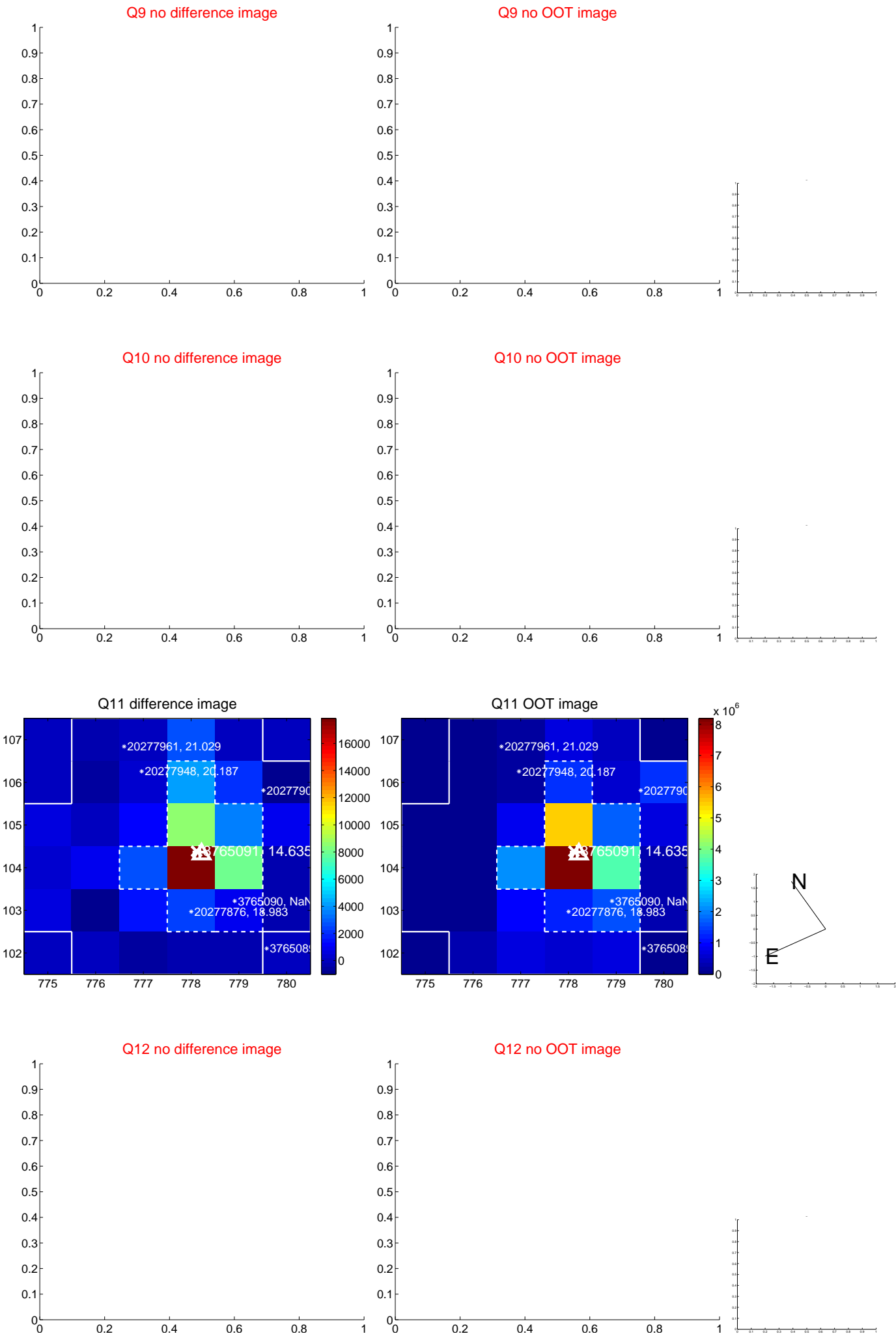
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



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



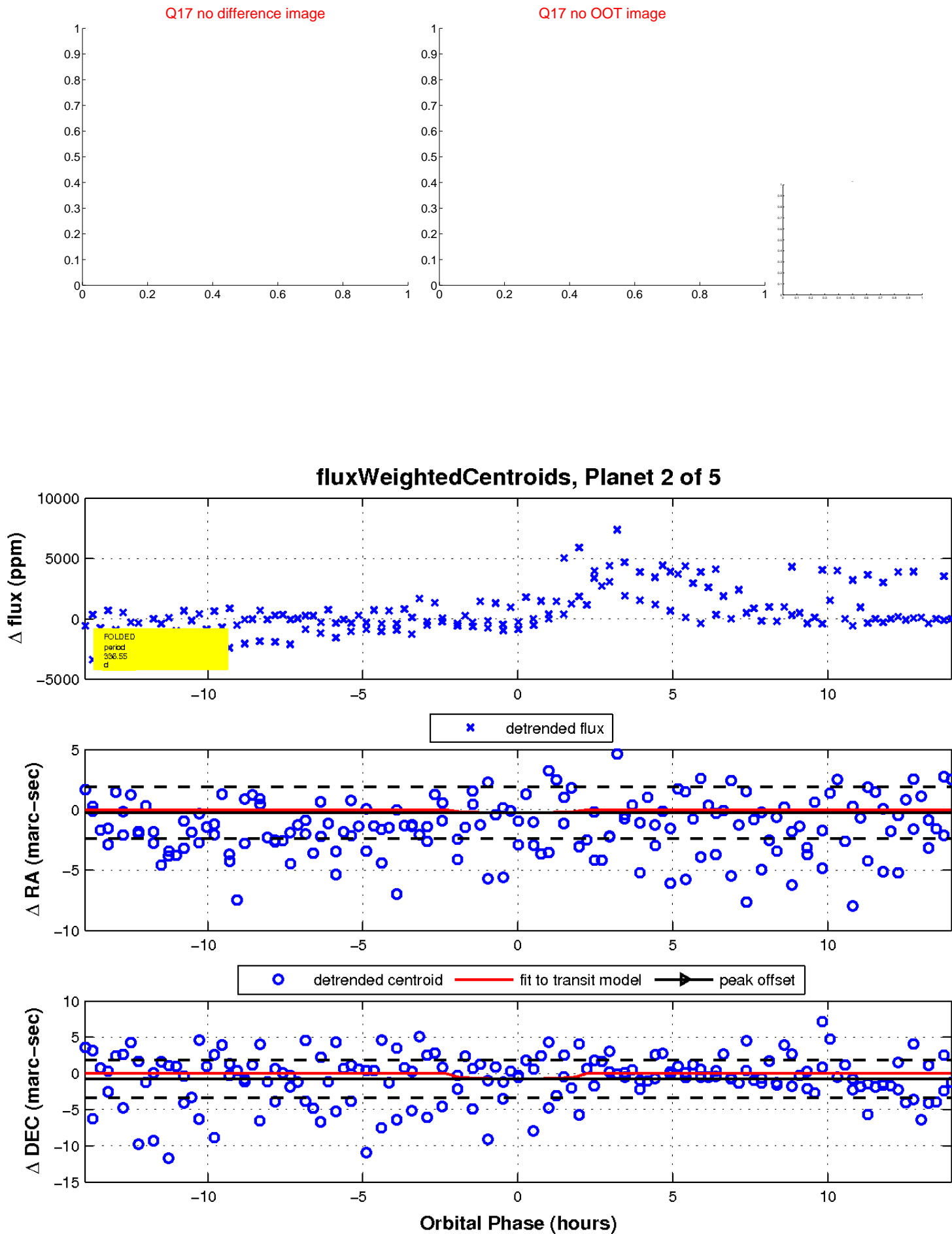
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



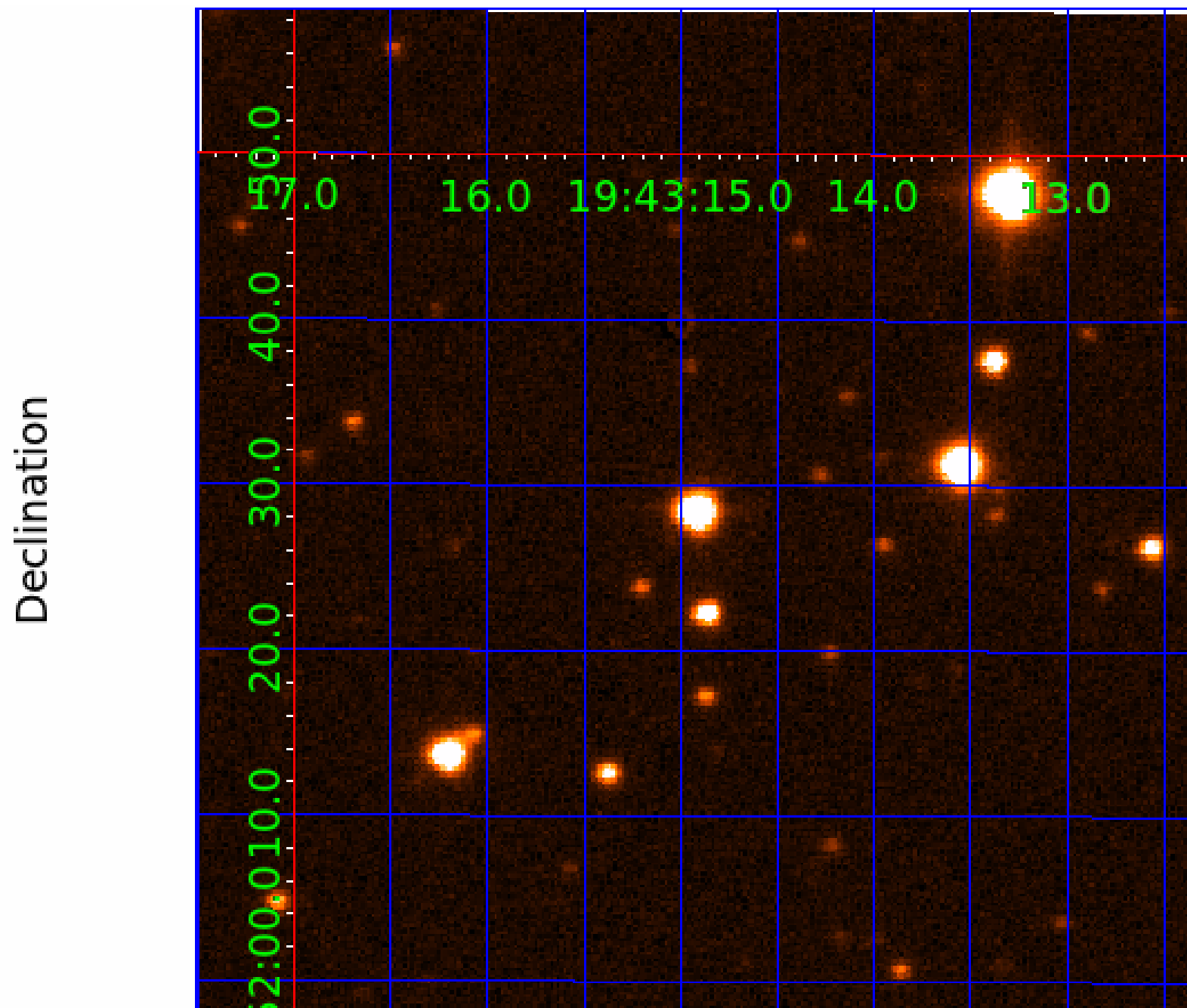
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image



KIC 003765091

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})
003765091-01	OBS	No	272.366235	327.305205	1460.1	1.915	11.7	7.0	0.53	4498	2.25	0.23
003765091-02	OBS	No	336.553238	344.650326	1779.9	4.682	13.0	9.1	0.53	4498	2.45	0.18
003765091-03	OBS	No	260.553349	305.280492	1745.5	2.020	10.8	8.3	0.53	4498	2.20	0.25
003765091-04	OBS	No	331.811770	244.712739	1681.8	6.100	13.8	6.3	0.53	4498	2.15	0.18
003765091-05	OBS	No	379.905582	478.402782	1732.1	3.995	11.3	7.7	0.53	4498	2.28	0.15

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003765091-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
003765091-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS
003765091-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
003765091-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS
003765091-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS

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

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

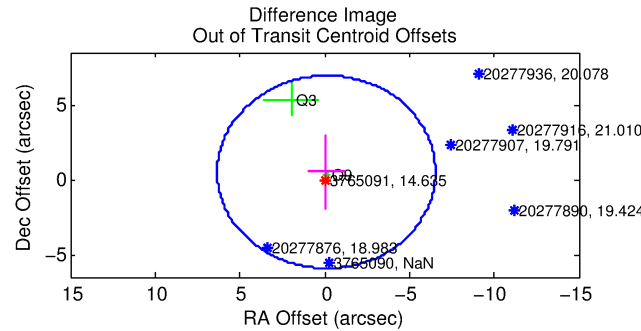
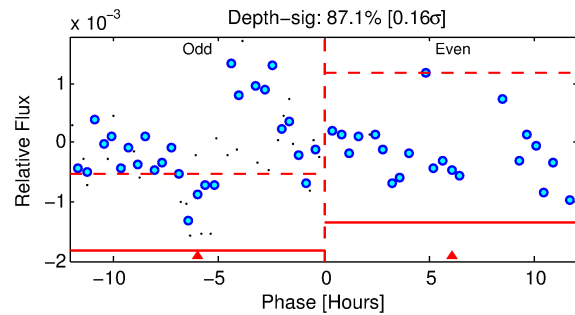
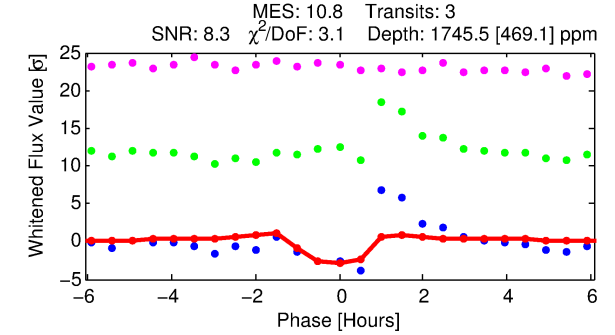
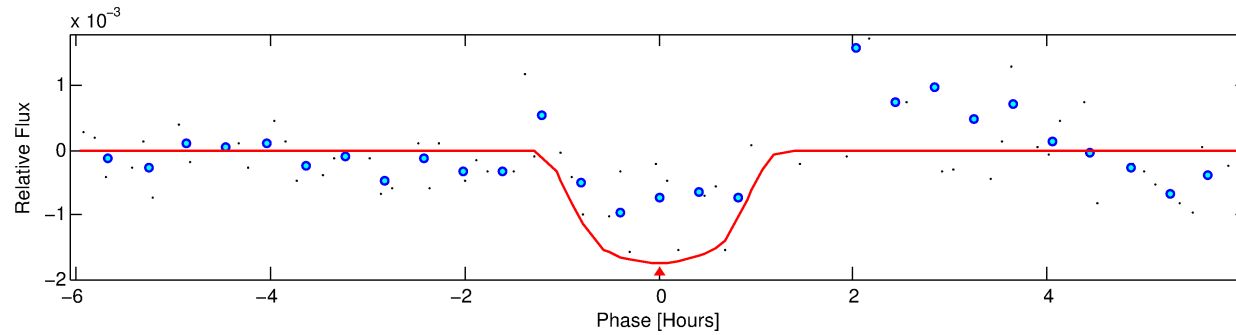
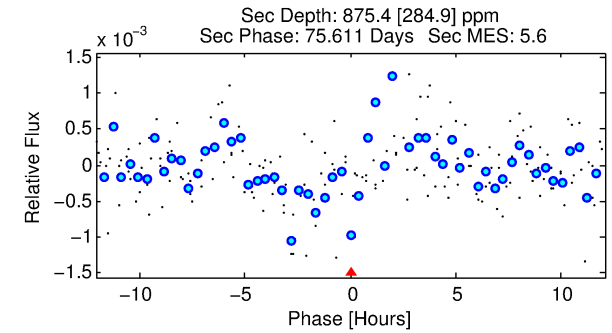
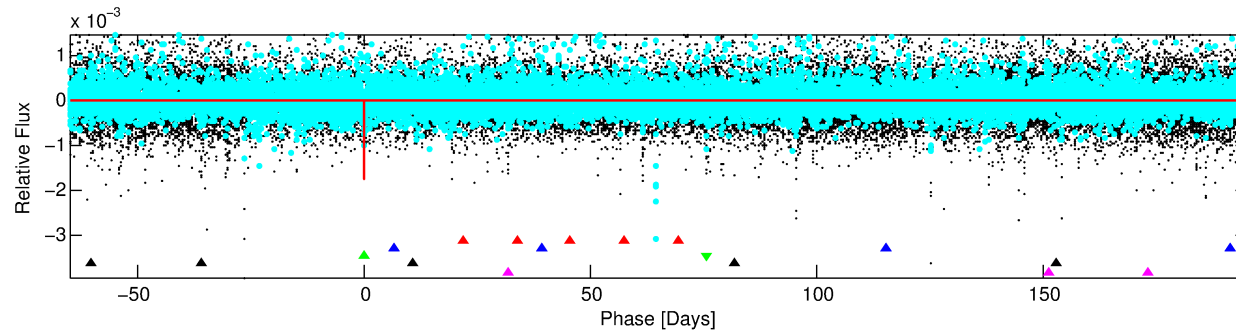
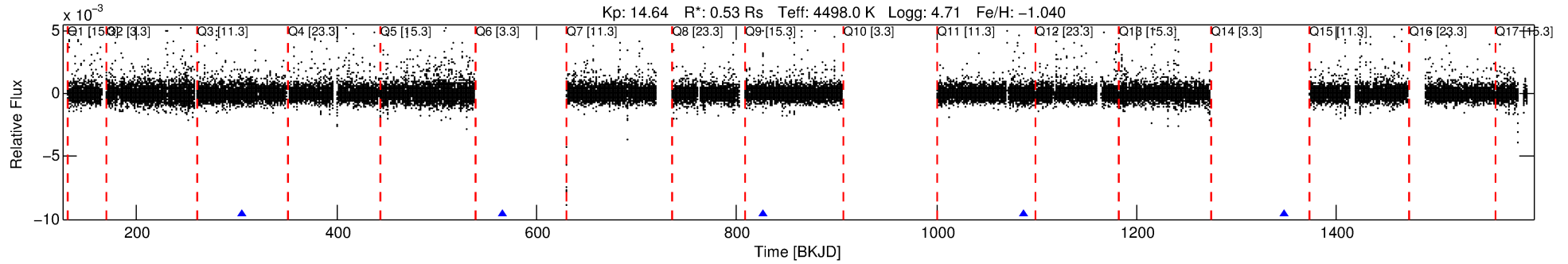
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003765091-03

No Significant Match Found

DV One-Page Summary

KIC: 3765091 Candidate: 3 of 5 Period: 260.553 d



DV Fit Results:

Period = 260.55335 [0.00509] d
Epoch = 305.2805 [0.0111] BKJD
Rp/R* = 0.0380 [0.2489]
a/R* = 967.78 [22844.76]
b = 0.34 [63.53]
Seff = 0.25 [0.04]
Teq = 180 [7] K
Rp = 2.20 [14.43] Re
a = 0.6457 [0.0389] AU
Ag = 41458.98 [543687.64] [0.08σ]
Teffp = 3970 [13016] K [0.29σ]

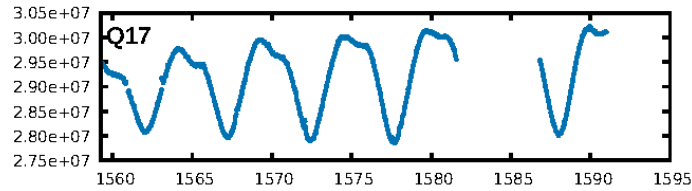
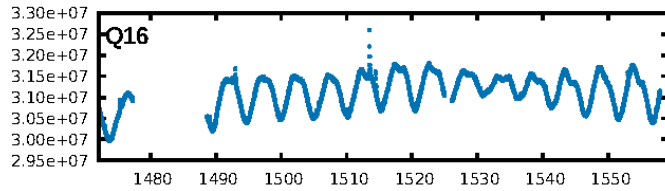
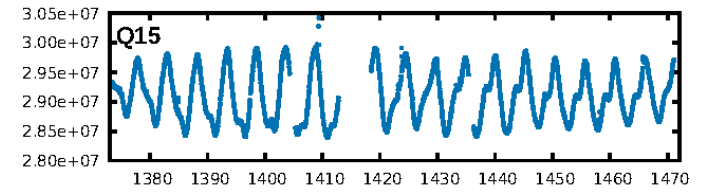
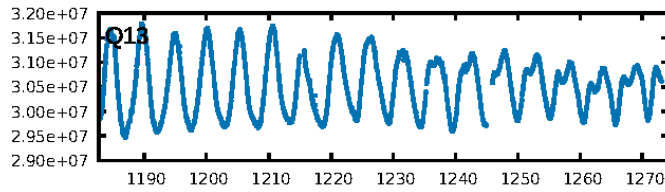
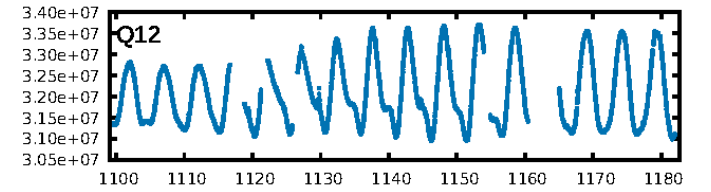
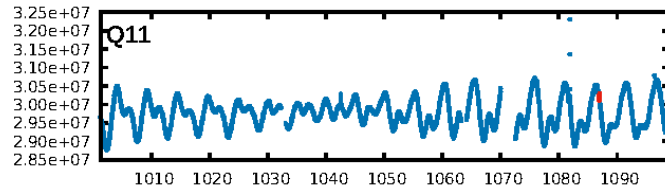
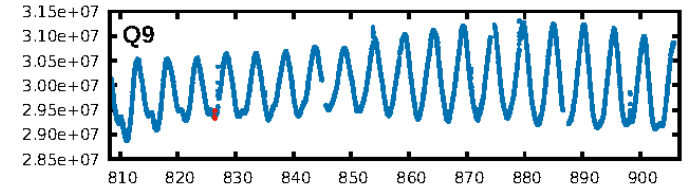
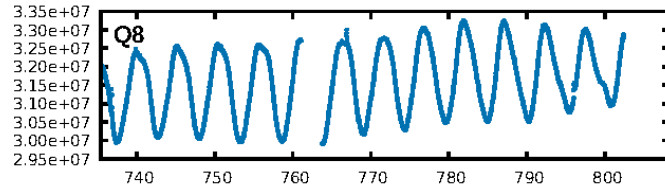
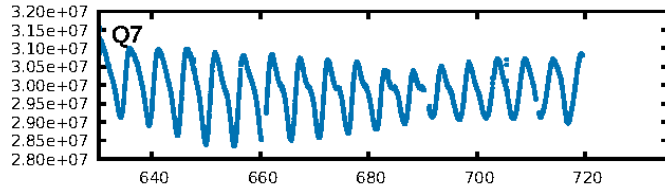
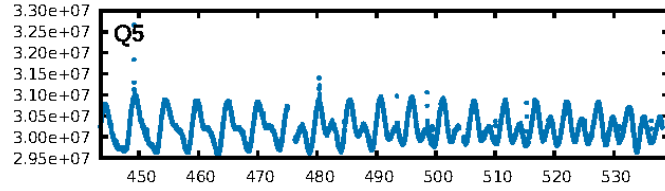
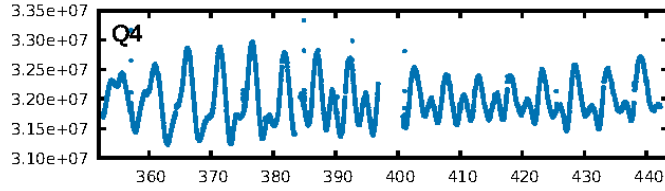
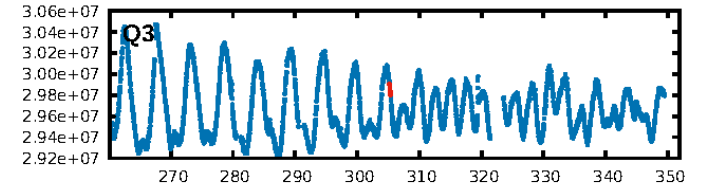
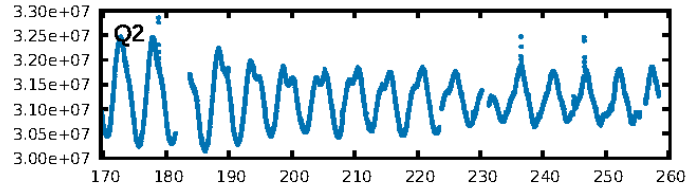
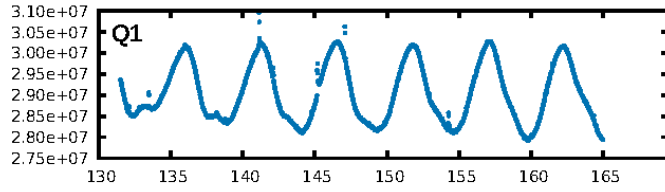
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [101.86σ]
ModelChiSquare2-sig: 0.1%
ModelChiSquareGof-sig: 17.9%
Bootstrap-pfa: 6.44e-10
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 0.7432
Centroid-sig: 82.3%
Centroid-so: 0.929 arcsec [0.72σ]
OotOffset-rm: 0.515 arcsec [0.24σ]
OotOffset-st: 0/1/0/1 [2]
KicOffset-rm: 0.384 arcsec [0.18σ]
KicOffset-st: 0/1/0/1 [2]
DiffImageQuality-fgm: 0.50 [1/2]
DiffImageOverlap-fno: 1.00 [3/3]

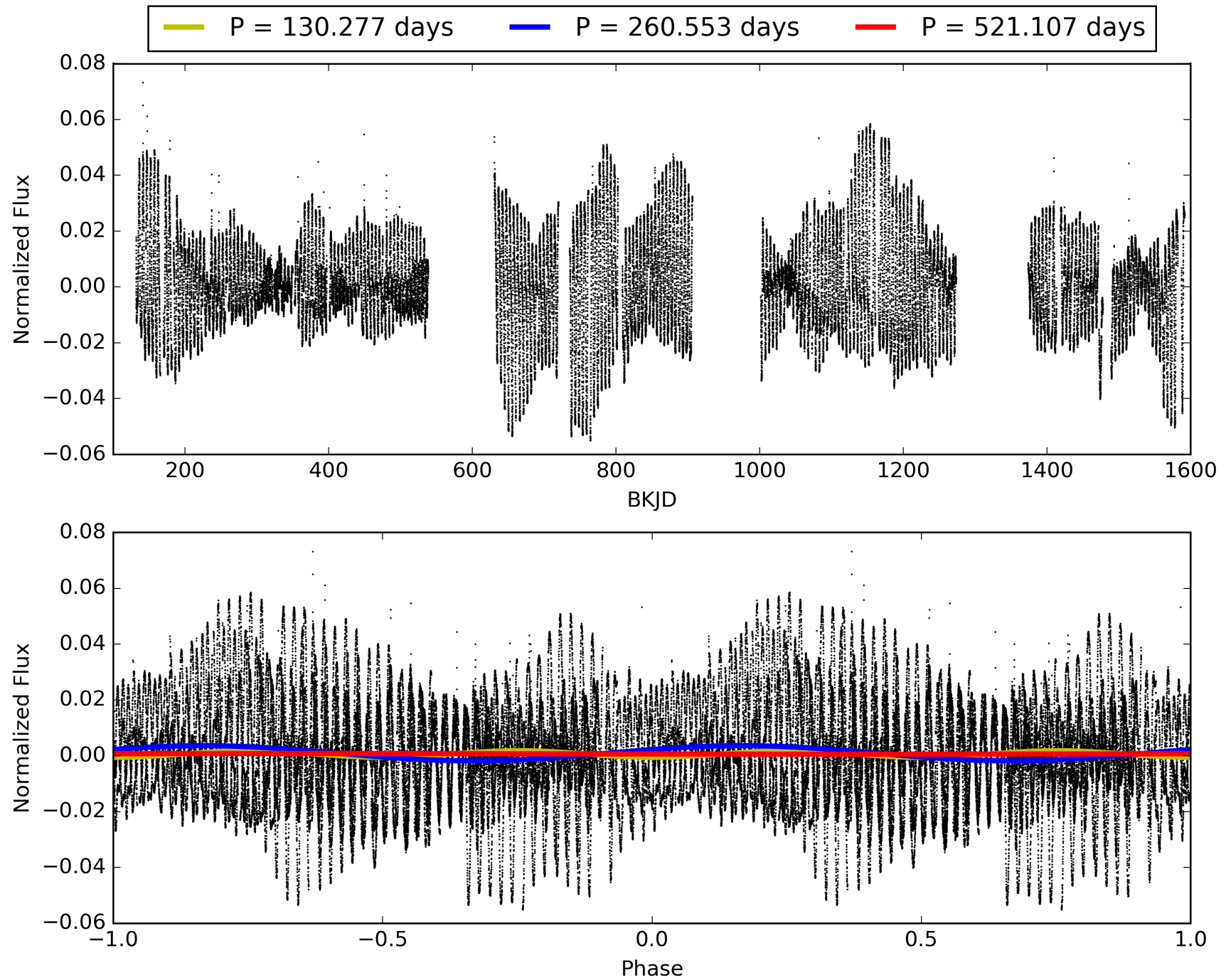
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 04:46:30 Z

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

TCE 003765091-03, PDC Light Curves

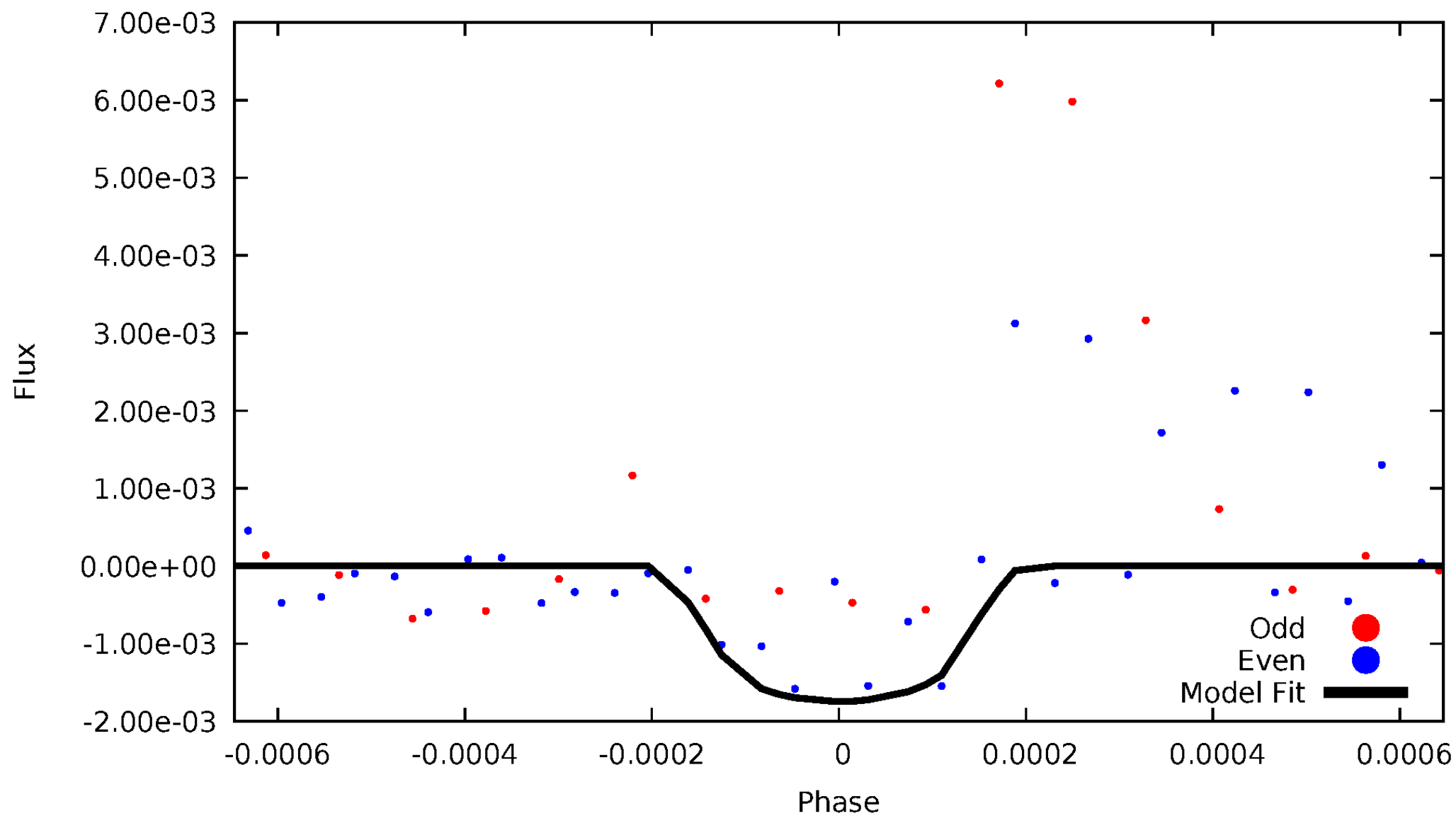


TCE 003765091-03



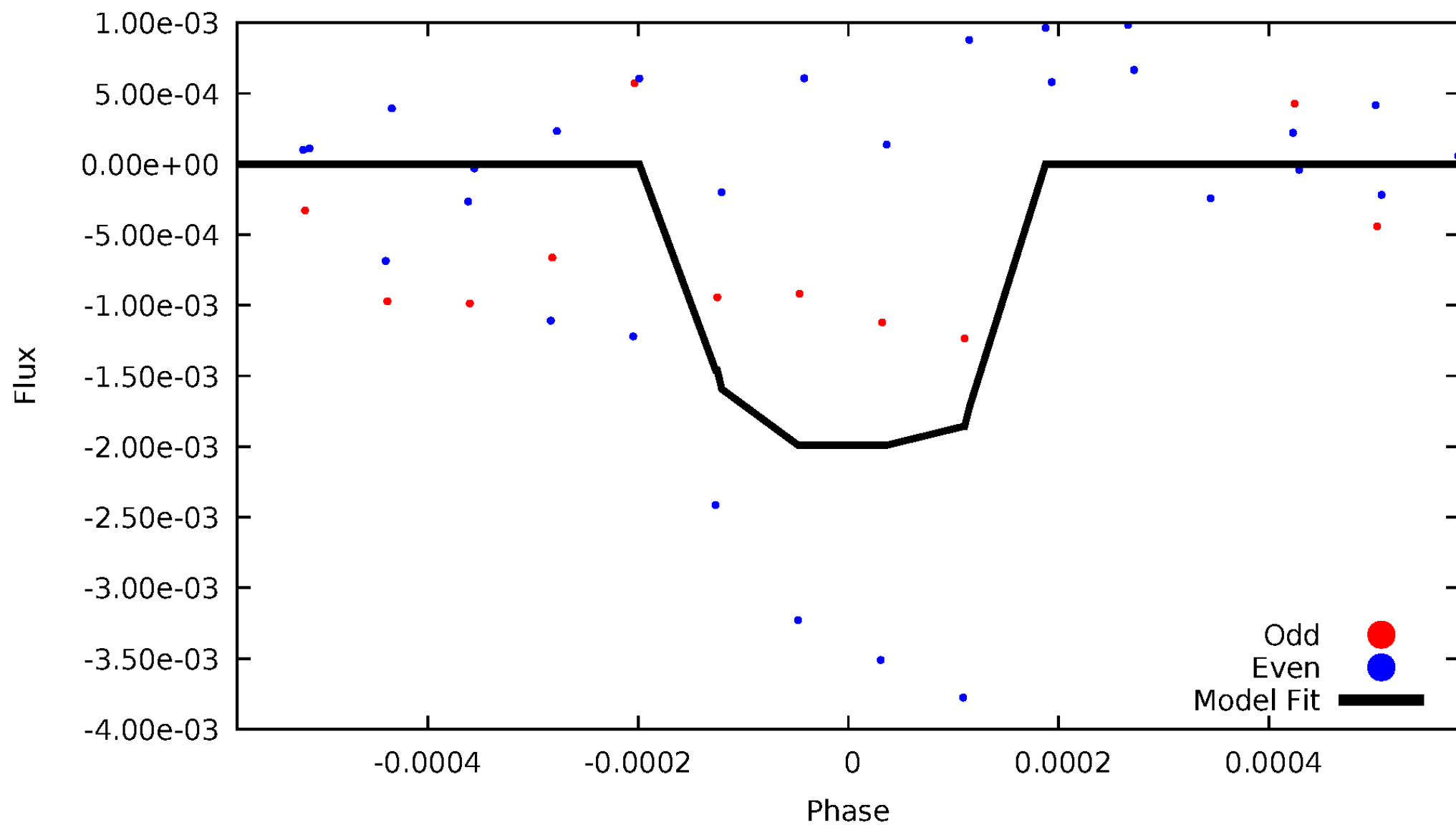
DV Odd/Even

TCE 003765091-03



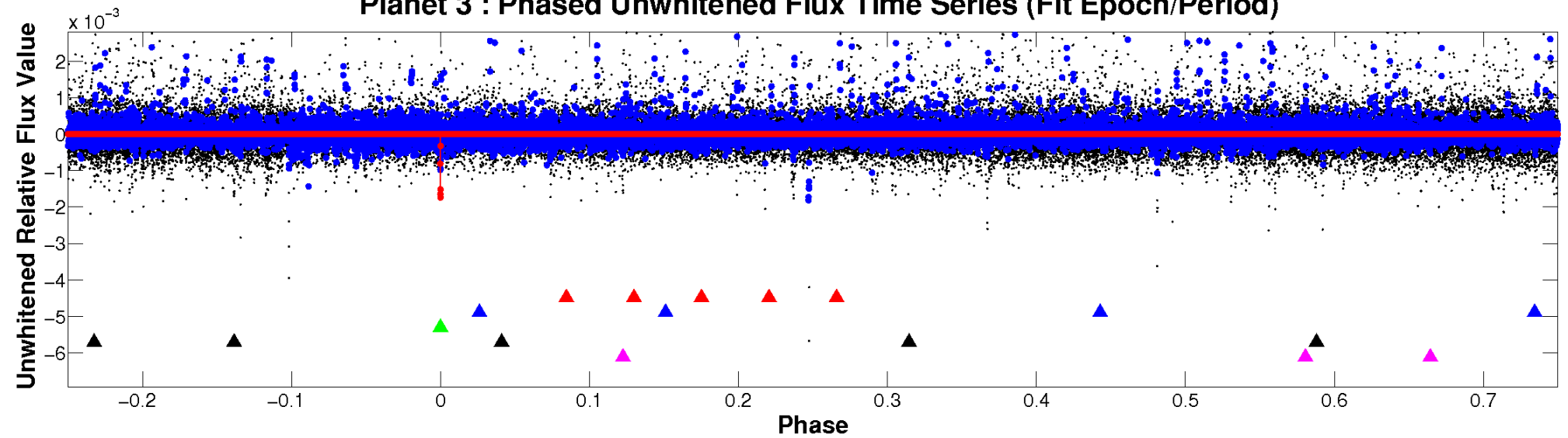
ALT Odd/Even

TCE 003765091-03

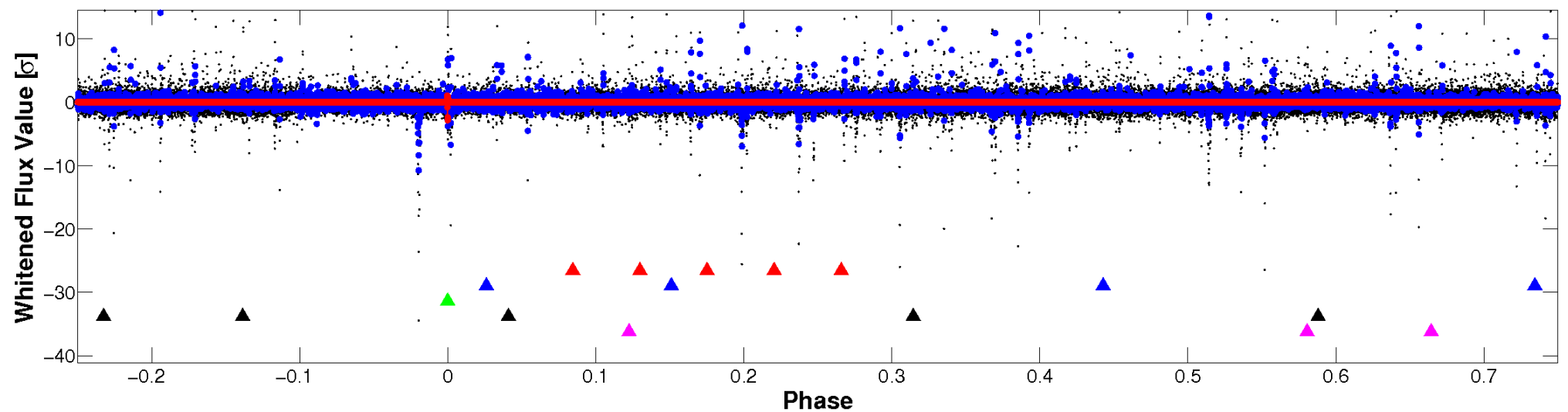


Non-Whitened Vs. Whitened Light Curve

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

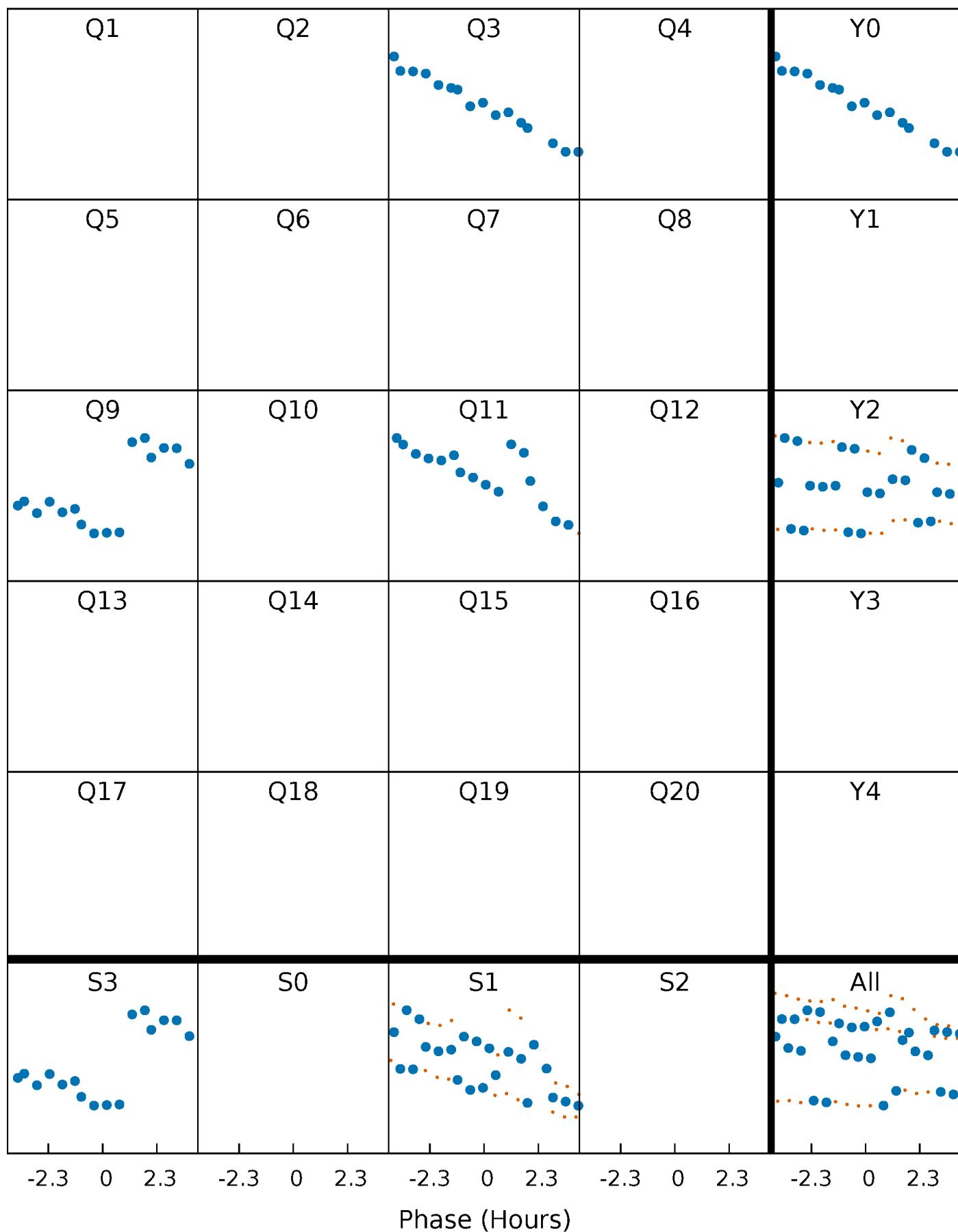


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



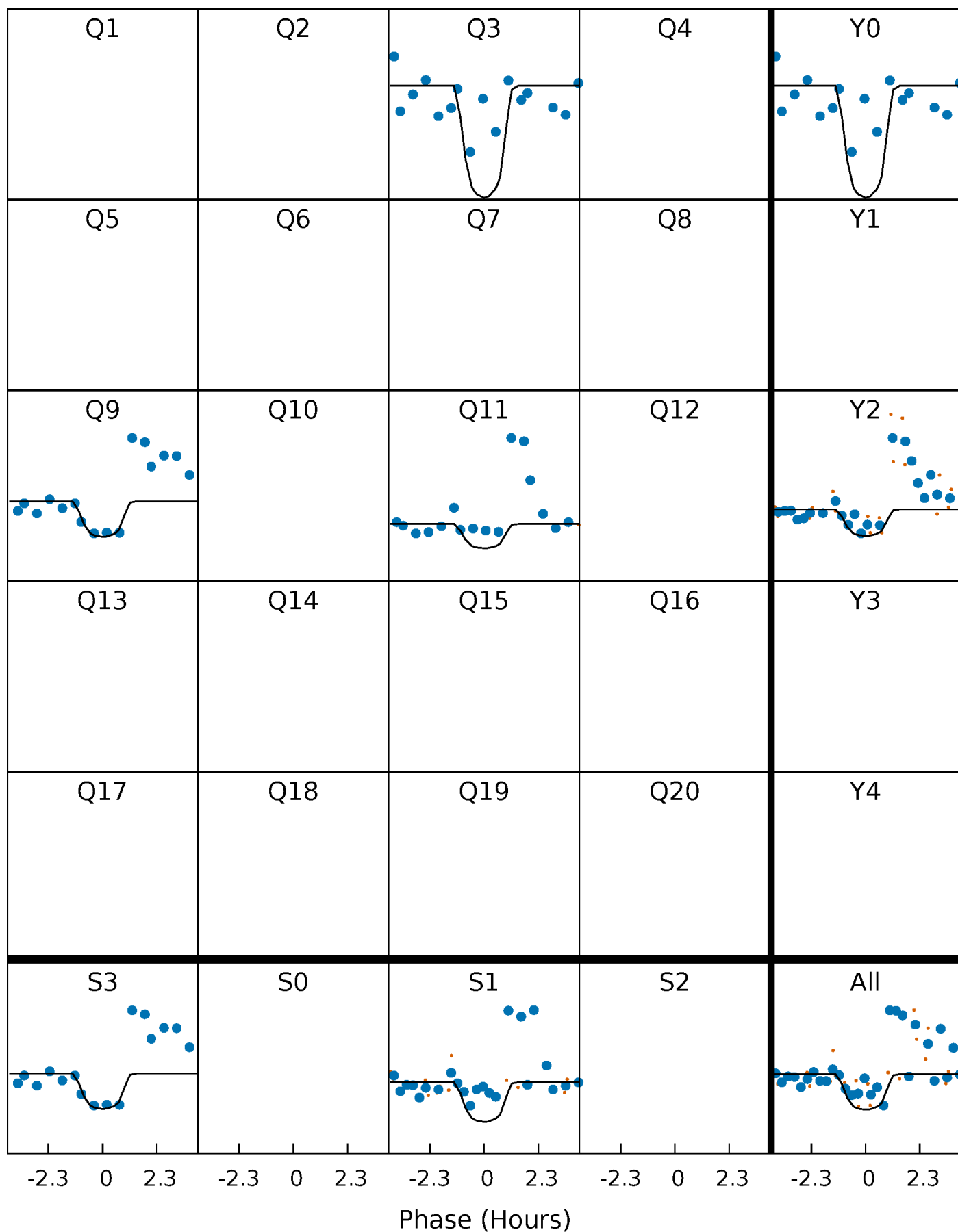
PDC Quarter-Phased Transit Curves

TCE 003765091-03 $P=260.553349$ Days $T_0=305.280492$ (BKJD)



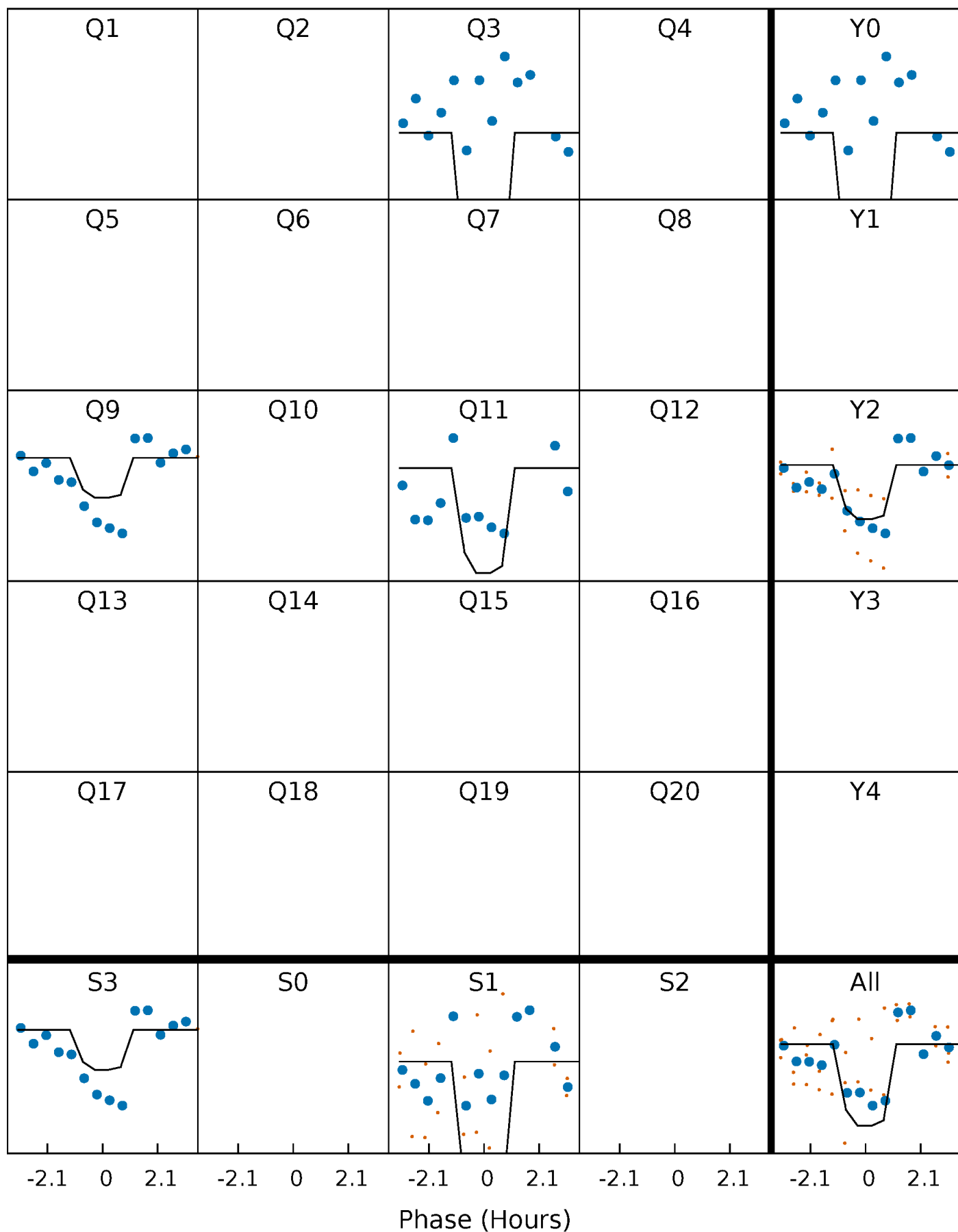
DV Quarter-Phased Transit Curves

TCE 003765091-03 $P=260.553349$ Days $T_0=305.280492$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

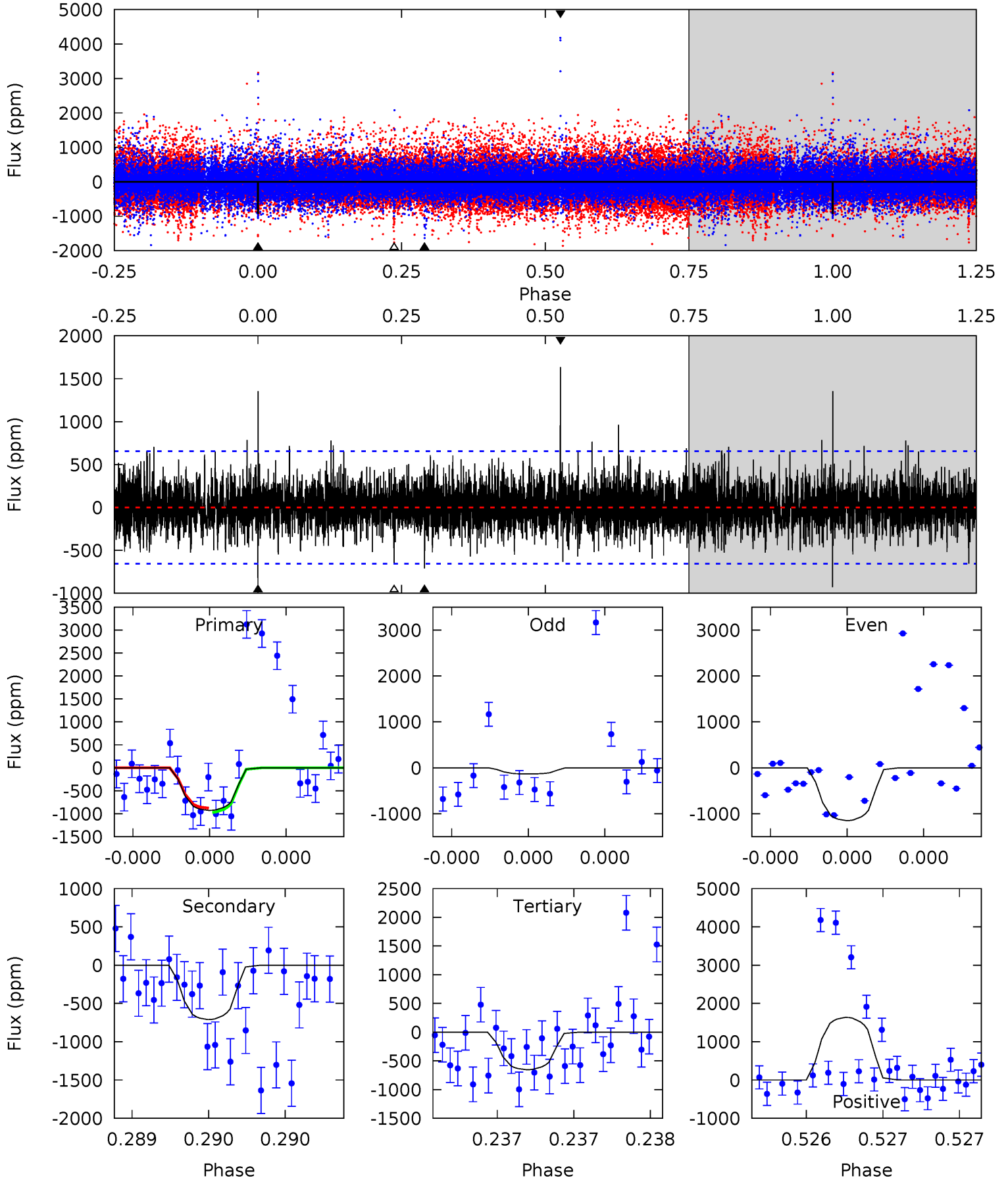
TCE 003765091-03 $P=260.548548$ Days $T_0=305.290282$ (BKJD)



DV Model-Shift Uniqueness Test

003765091-03, P = 260.553349 Days, E = 44.727143 Days

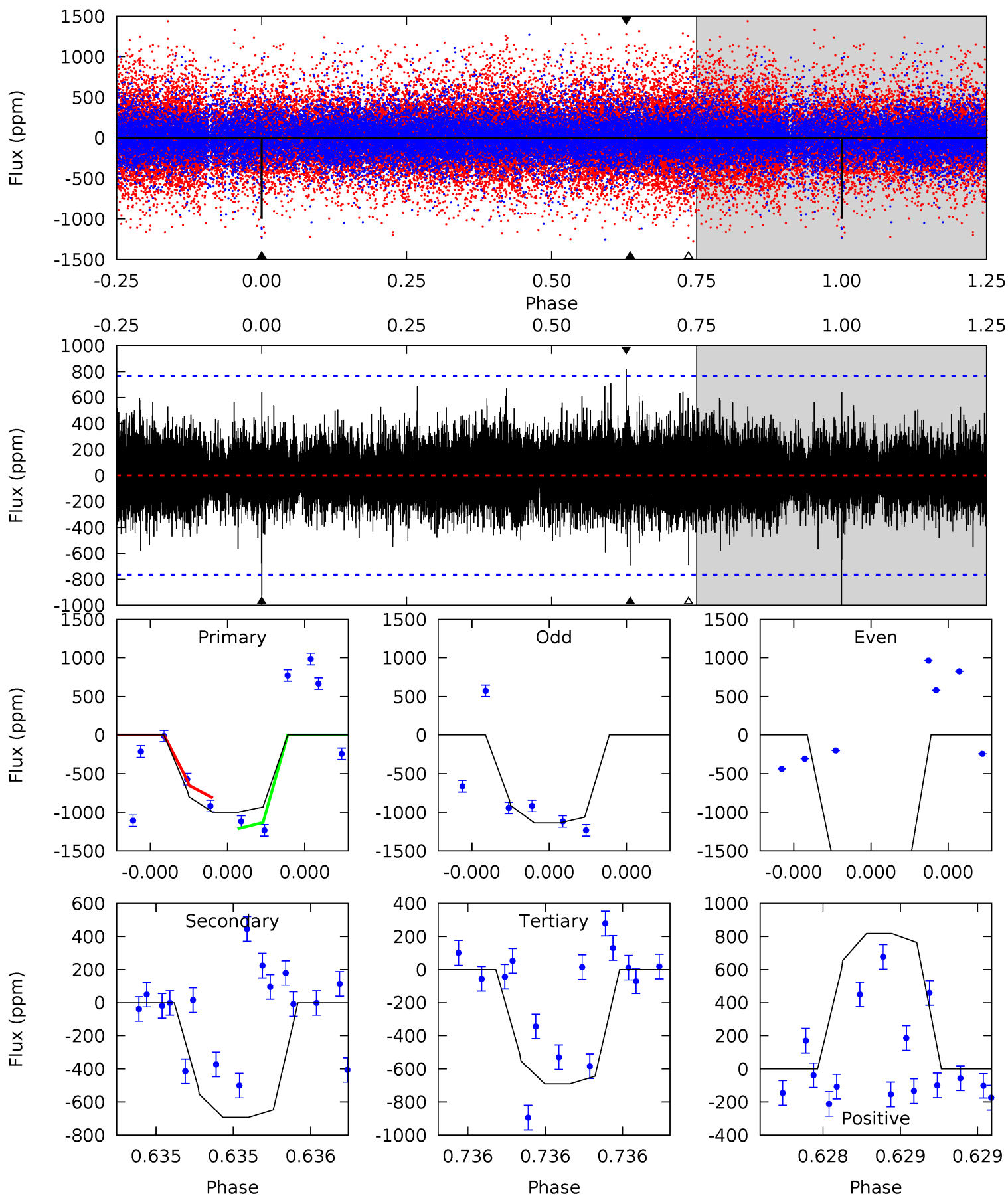
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.94	6.08	5.59	14.0	5.62	3.55	1.48	2.35	-6.08	0.49	-7.93	3.38	1.28	0.64	0.40



Alt Model-Shift Uniqueness Test

003765091-03, P = 260.548548 Days, E = 44.741734 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.44	5.17	5.15	6.10	5.70	3.67	1.09	2.29	1.34	0.02	-0.93	4.07	1.25	0.45	0



Stellar Parameters For KIC 003765091

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	4498^{+134}_{-134}	$4.711^{+0.048}_{-0.032}$	$-1.040^{+0.300}_{-0.300}$	$0.531^{+0.038}_{-0.038}$	$0.529^{+0.045}_{-0.026}$	$4.974^{+1.066}_{-0.675}$
	+3%/-3%	+1%/-1%	+29%/-29%	+7%/-7%	+9%/-5%	+21%/-14%
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 003765091-03 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-710 ± 117	$10.61^{+11.48}_{-7.13}$	251^{+8}_{-9}	2491^{+924}_{-376}	1450^{+12228}_{-1115}
Alt.	-693 ± 134	$10.37^{+10.21}_{-7.03}$	251^{+9}_{-9}	2518^{+879}_{-383}	1521^{+12793}_{-1147}

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 $A_{obs} \gg 1.0$

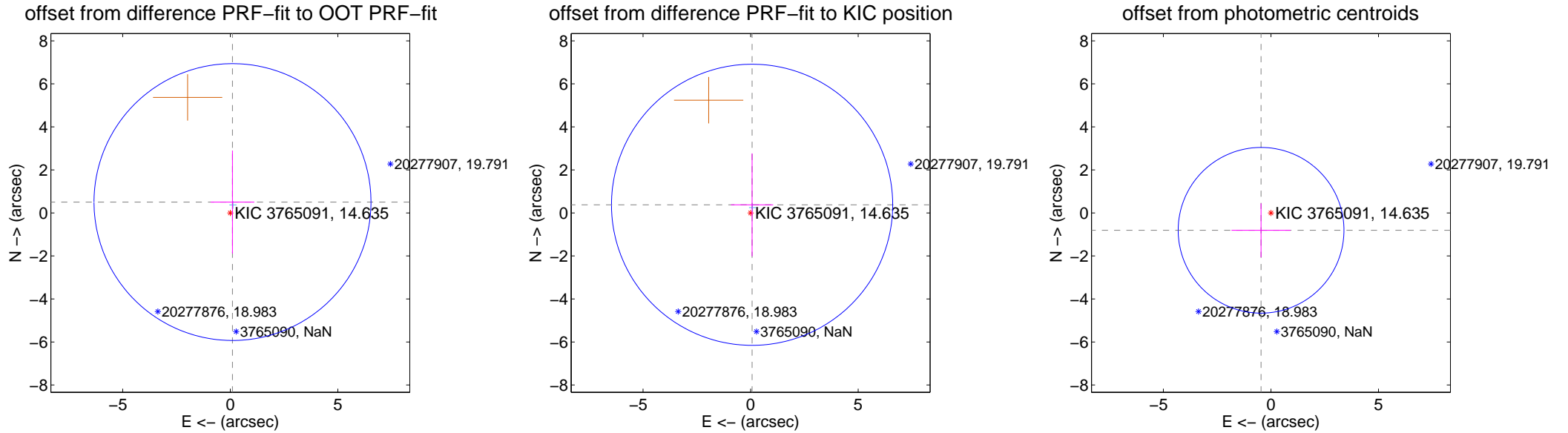
DV Centroid Data

Supplemental centroid analysis for 003765091-03. Kepler magnitude: 14.63. Transit SNR 8.34

There are 1 quarters with good PRF difference image offsets

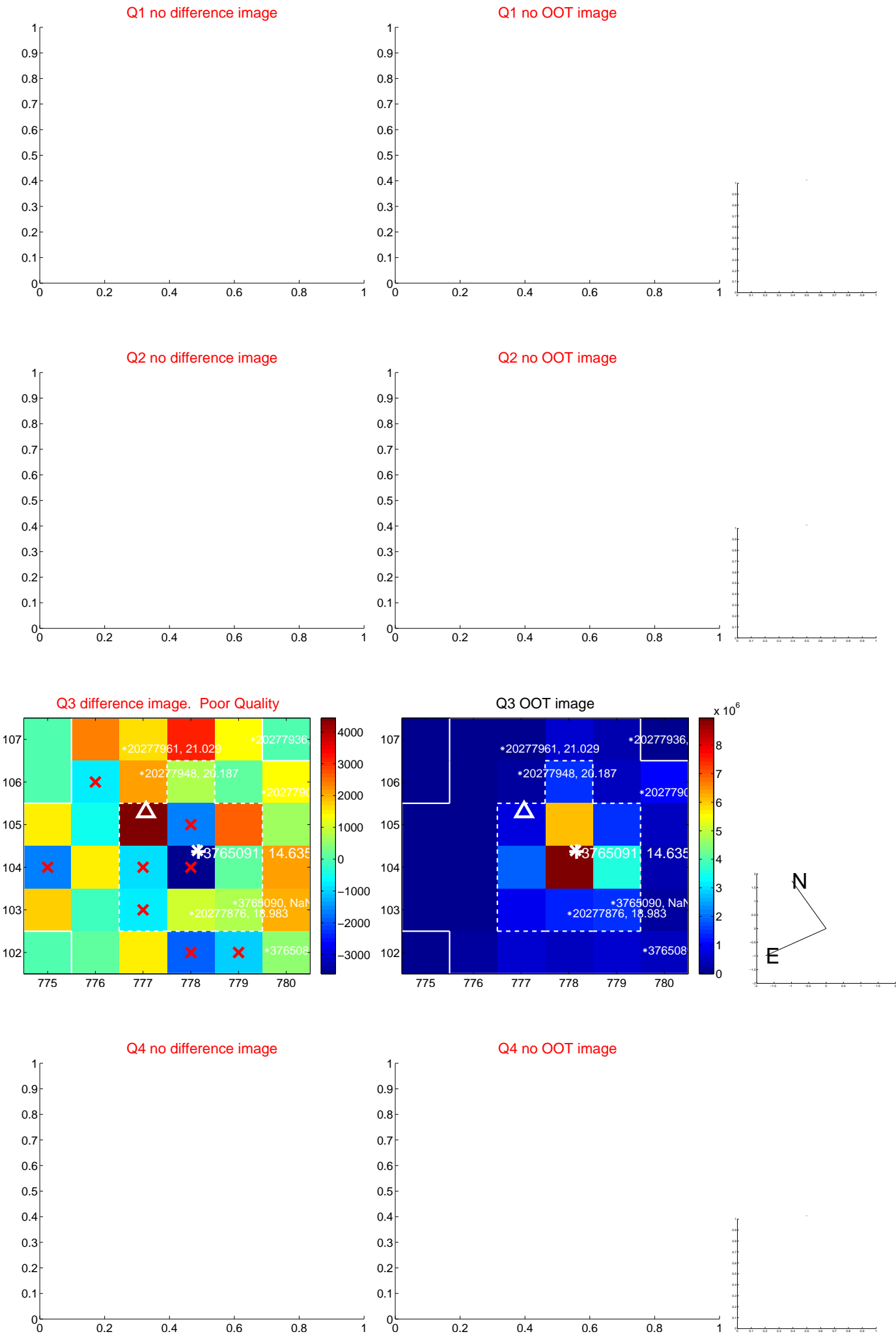
The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.515 ± 2.145	0.24	-0.102 ± 1.011	0.505 ± 2.393
PRF-fit source offset from KIC position	0.384 ± 2.178	0.18	-0.069 ± 0.978	0.378 ± 2.392
photometric centroid source offset	0.93 ± 1.28	0.72	0.46 ± 1.37	-0.81 ± 1.25



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

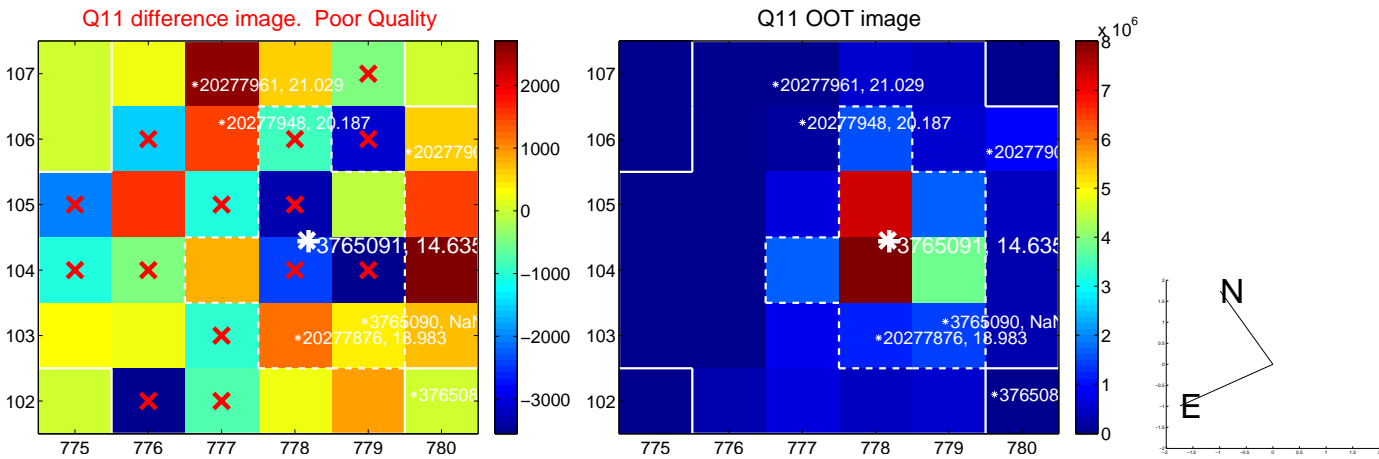
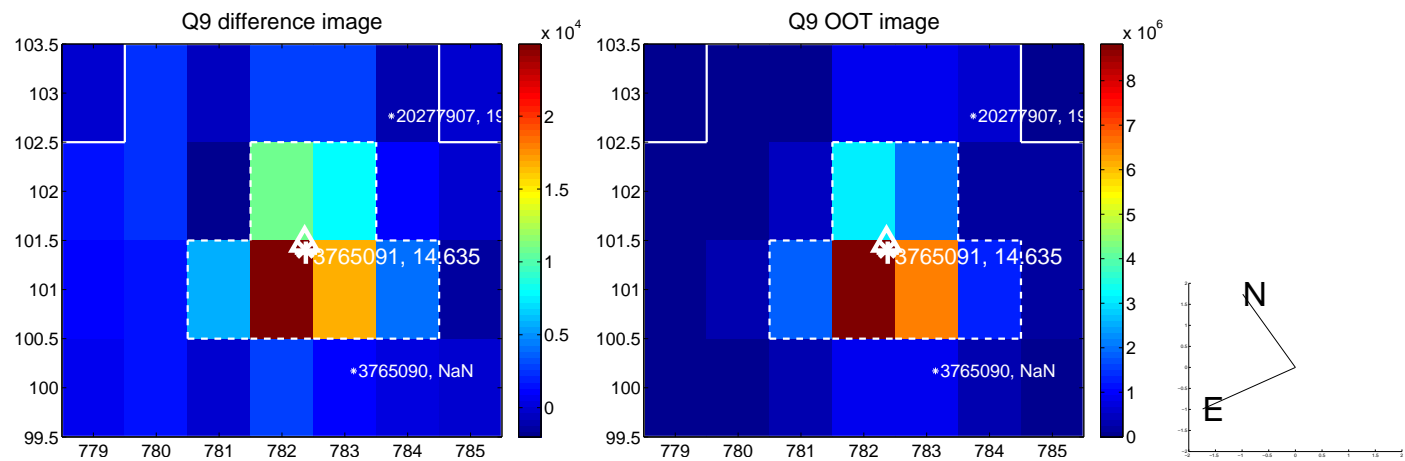
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



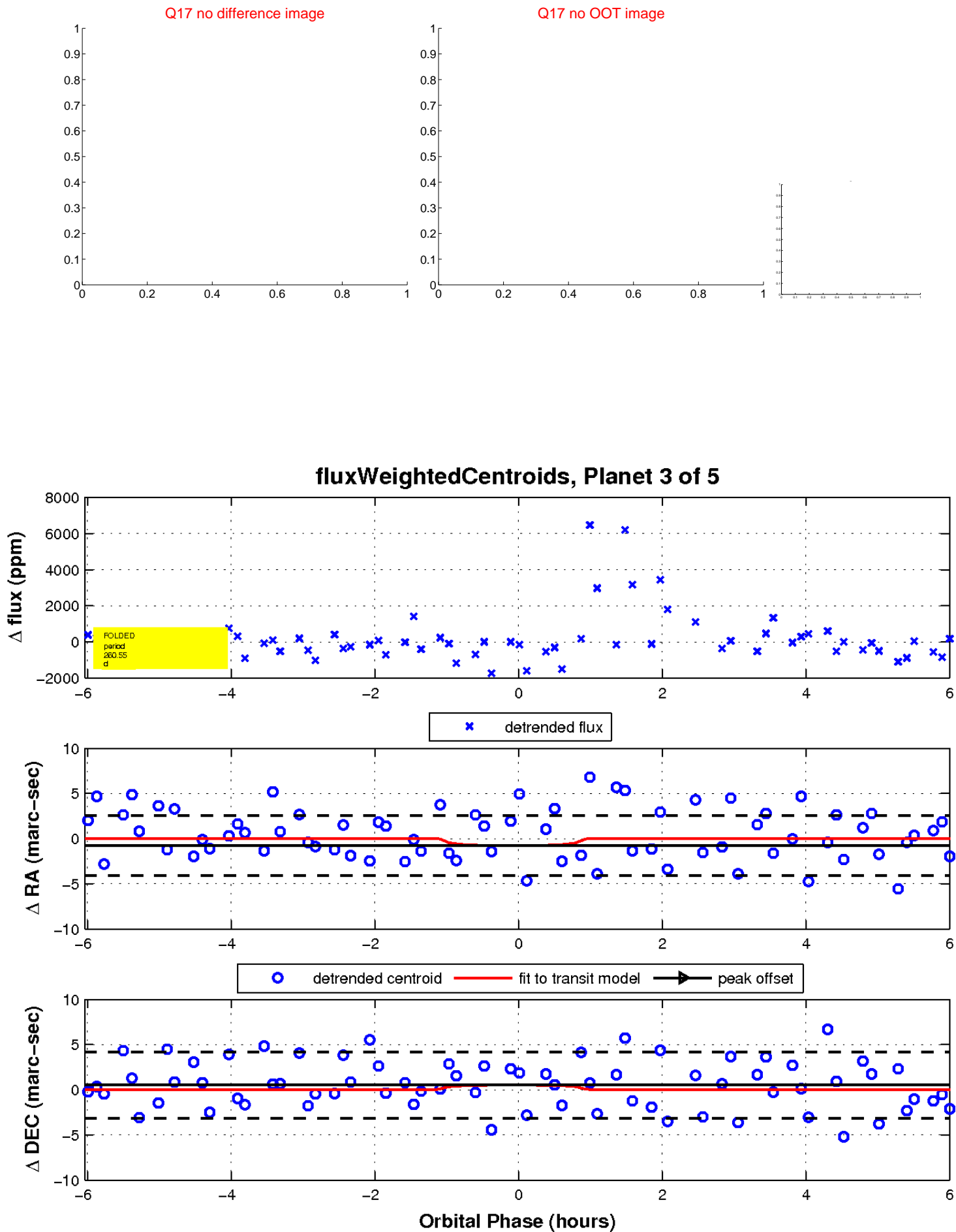
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



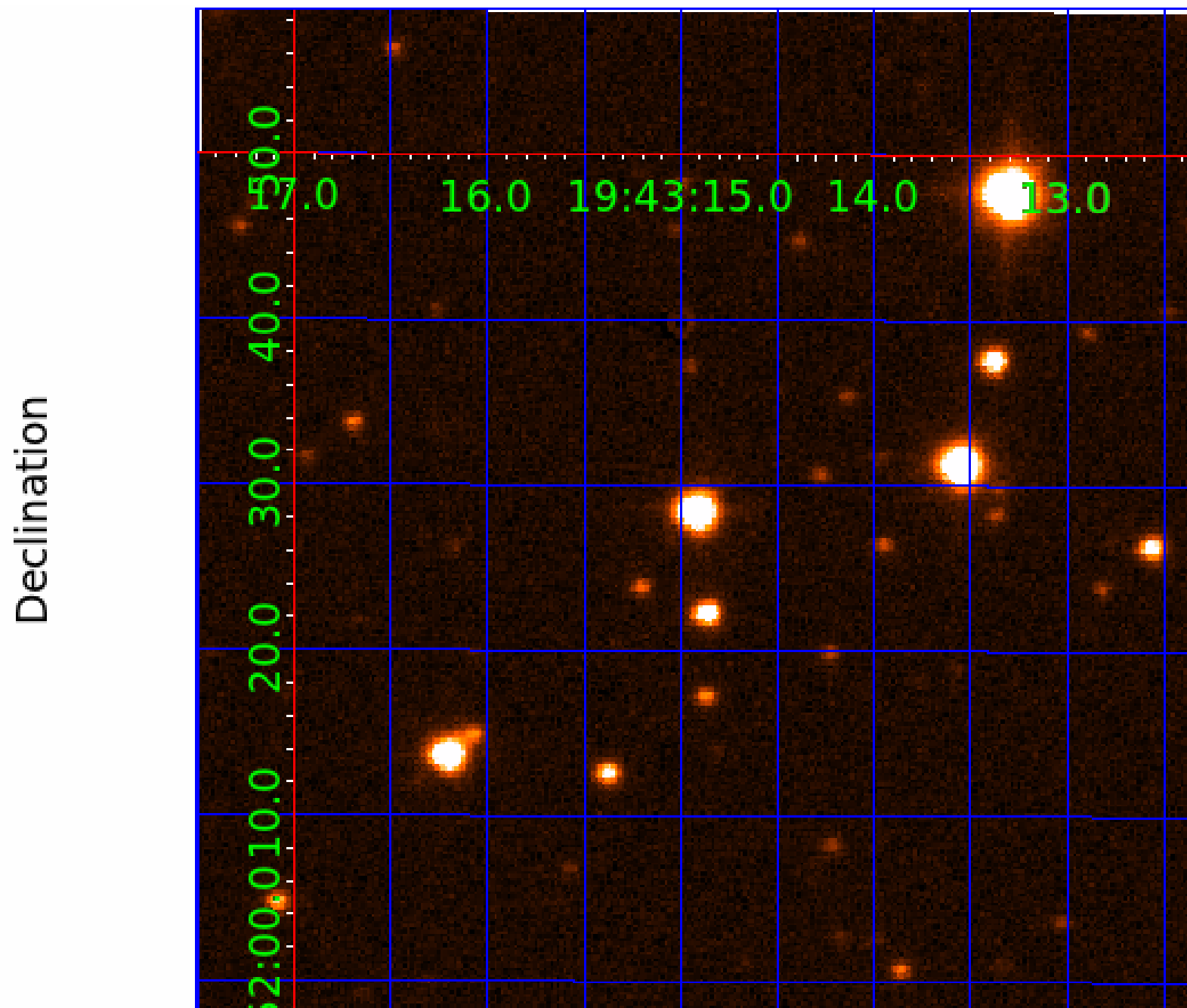
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image



KIC 003765091

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})
003765091-01	OBS	No	272.366235	327.305205	1460.1	1.915	11.7	7.0	0.53	4498	2.25	0.23
003765091-02	OBS	No	336.553238	344.650326	1779.9	4.682	13.0	9.1	0.53	4498	2.45	0.18
003765091-03	OBS	No	260.553349	305.280492	1745.5	2.020	10.8	8.3	0.53	4498	2.20	0.25
003765091-04	OBS	No	331.811770	244.712739	1681.8	6.100	13.8	6.3	0.53	4498	2.15	0.18
003765091-05	OBS	No	379.905582	478.402782	1732.1	3.995	11.3	7.7	0.53	4498	2.28	0.15

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003765091-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
003765091-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS
003765091-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
003765091-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS
003765091-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS

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

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

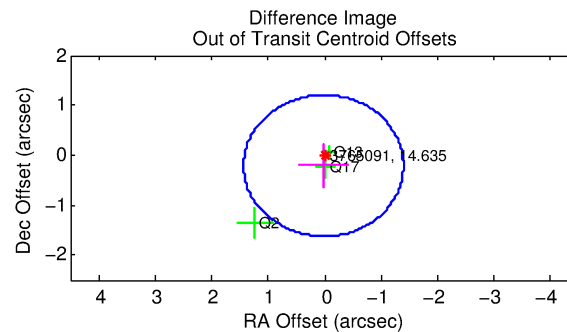
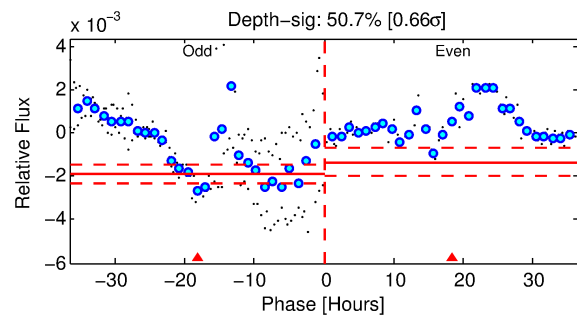
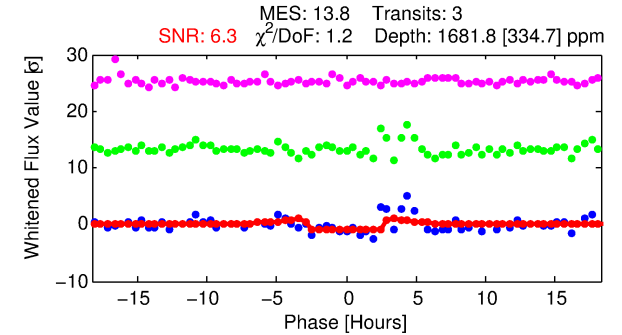
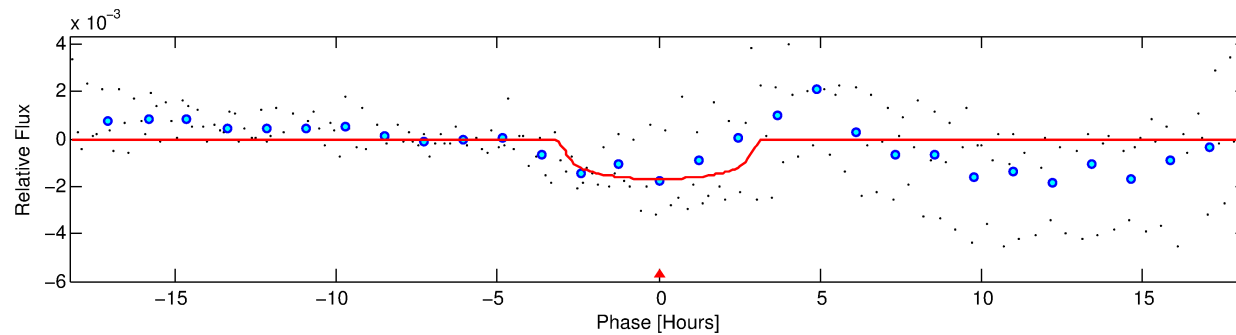
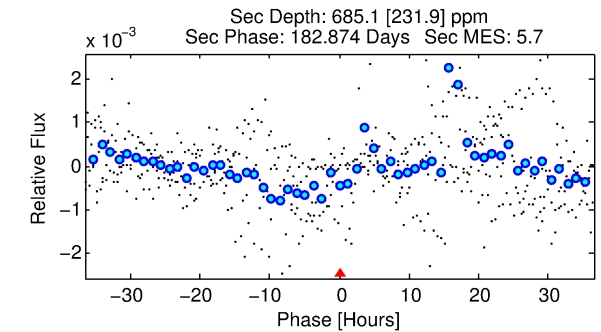
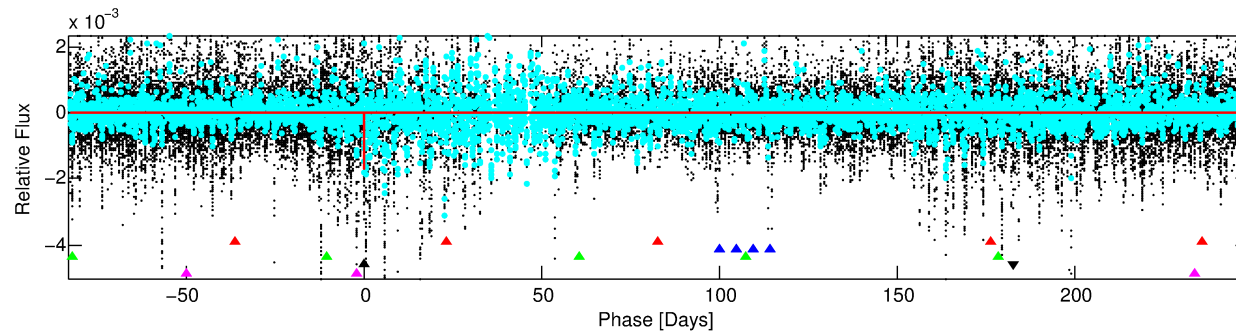
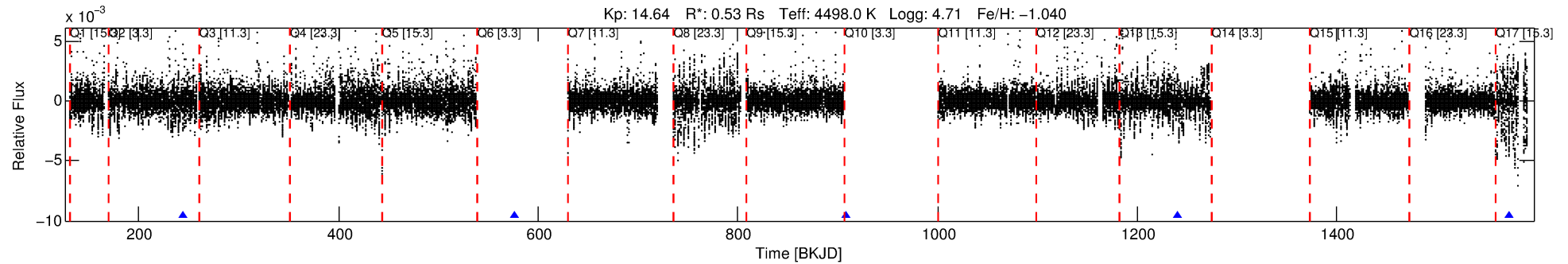
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003765091-04

No Significant Match Found

DV One-Page Summary

KIC: 3765091 Candidate: 4 of 5 Period: 331.812 d



DV Fit Results:

Period = 331.81177 [0.00288] d
Epoch = 244.7127 [0.0087] BKJD
Rp/R* = 0.0370 [0.0468]
a/R* = 412.73 [1866.93]
b = 0.30 [13.98]
Seff = 0.18 [0.03]
Teq = 166 [6] K
Rp = 2.15 [2.71] Re
a = 0.7586 [0.0457] AU
Ag = 47072.93 [120004.95] [0.39 σ]
Teffp = 3781 [2411] K [1.50 σ]

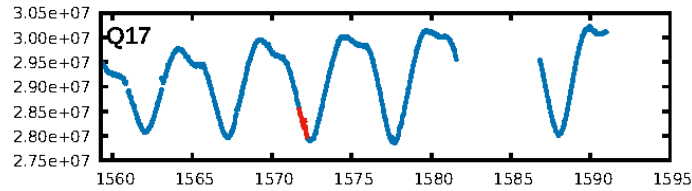
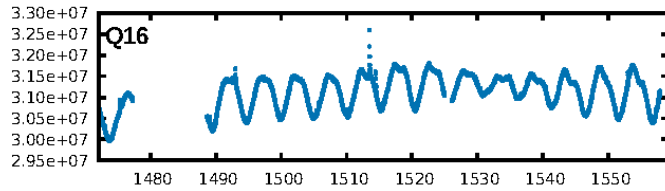
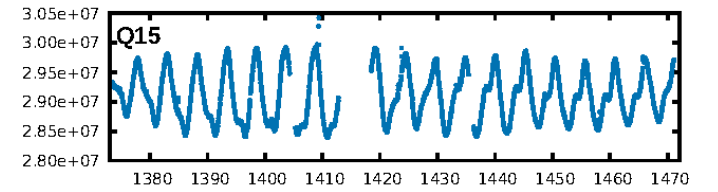
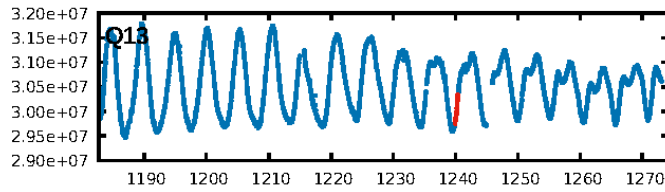
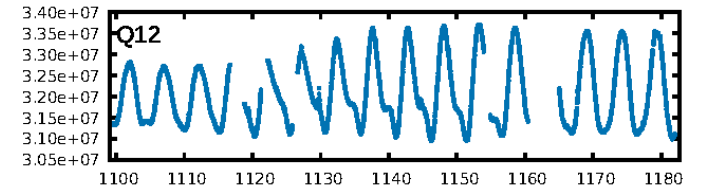
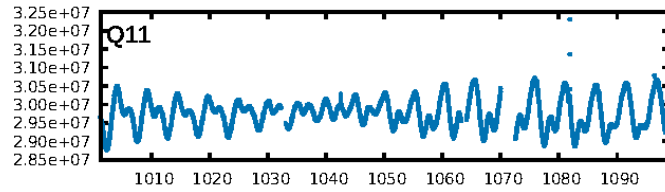
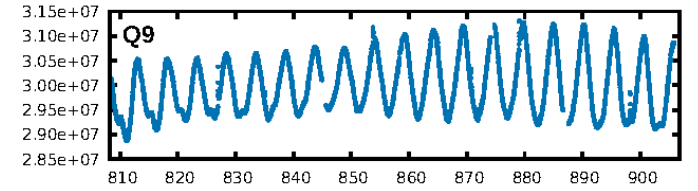
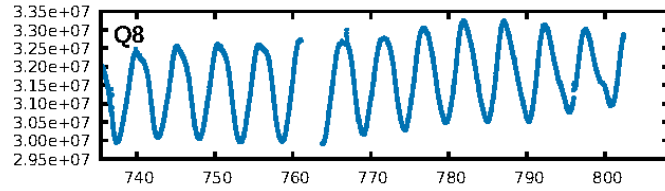
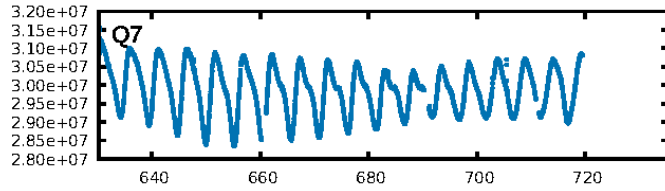
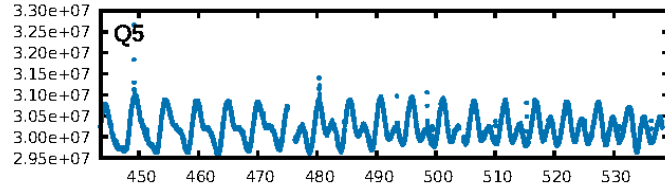
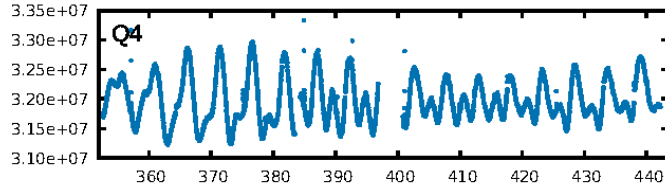
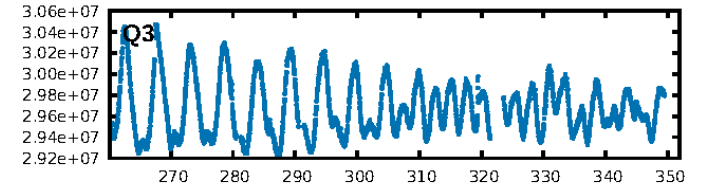
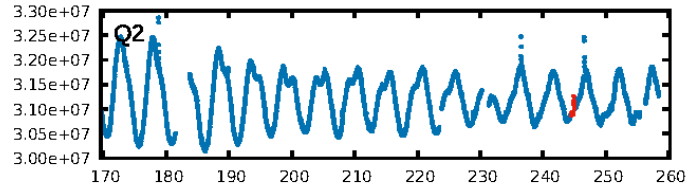
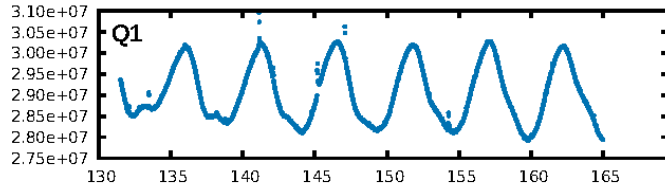
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [223.16 σ]
LongPeriod-sig: 100.0% [14.80 σ]
ModelChiSquare2-sig: 9.9%
ModelChiSquareGof-sig: 76.9%
Bootstrap-pfa: 6.28e-13
RollingBand-fgt: 1.00 [2/2]
GhostDiagnostic-chr: 0.4237
Centroid-sig: 47.0%
Centroid-so: 0.149 arcsec [0.19 σ]
OotOffset-rm: 0.212 arcsec [0.45 σ]
OotOffset-st: 1/0/0/2 [3]
KicOffset-rm: 0.424 arcsec [1.31 σ]
KicOffset-st: 1/0/0/2 [3]
DiffImageQuality-fgm: 1.00 [3/3]
DiffImageOverlap-fno: 1.00 [3/3]

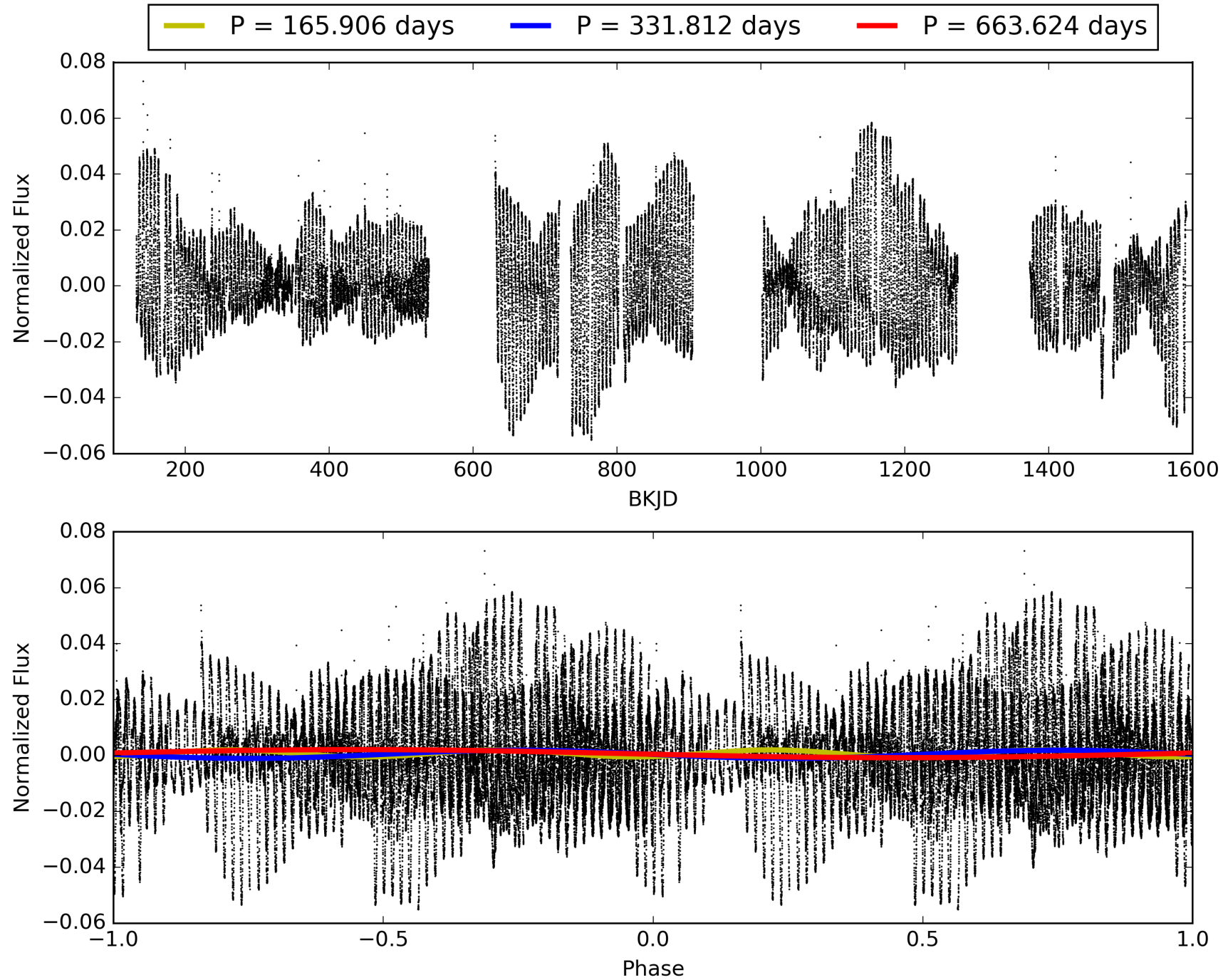
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 04:46:40 Z

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

TCE 003765091-04, PDC Light Curves

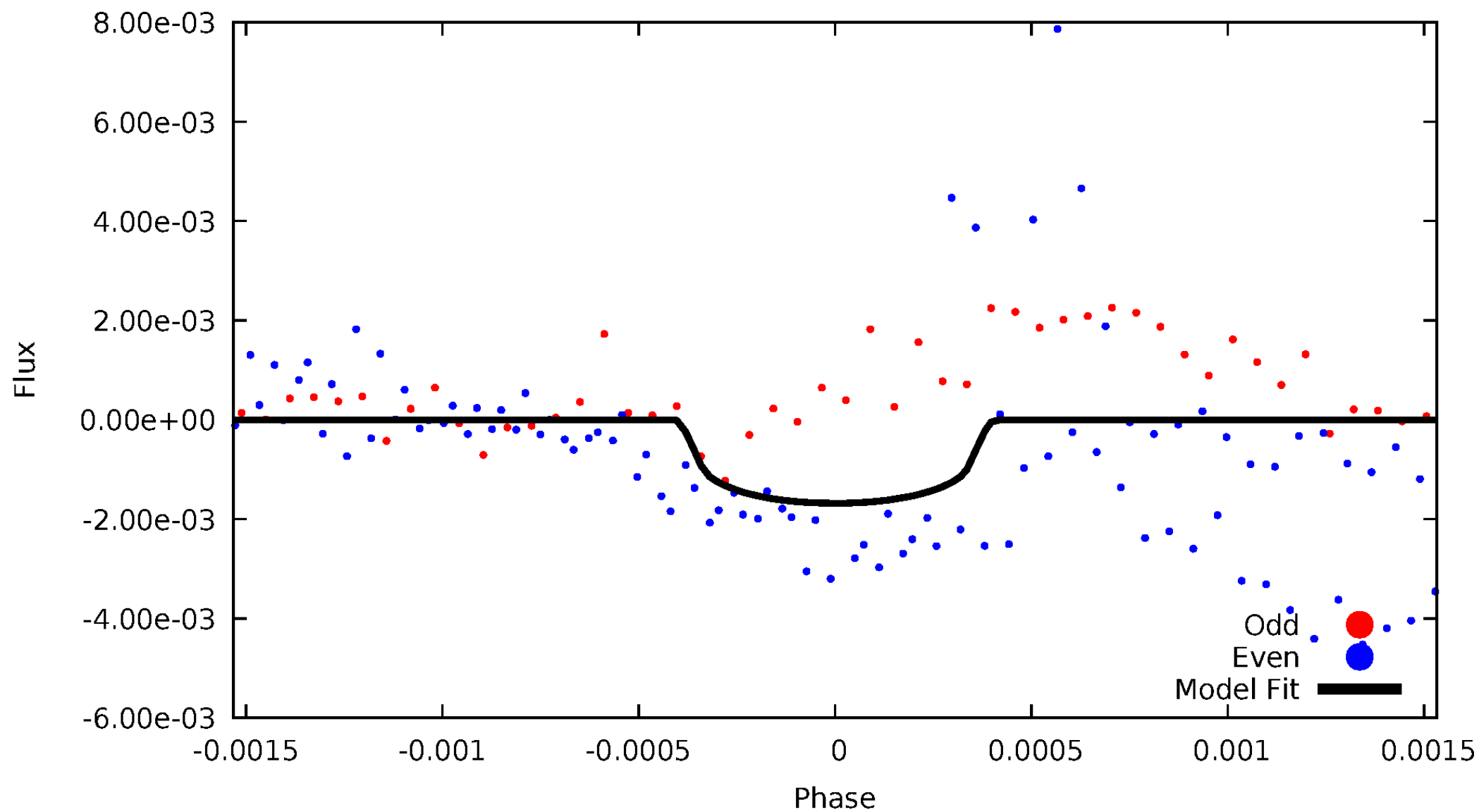


TCE 003765091-04



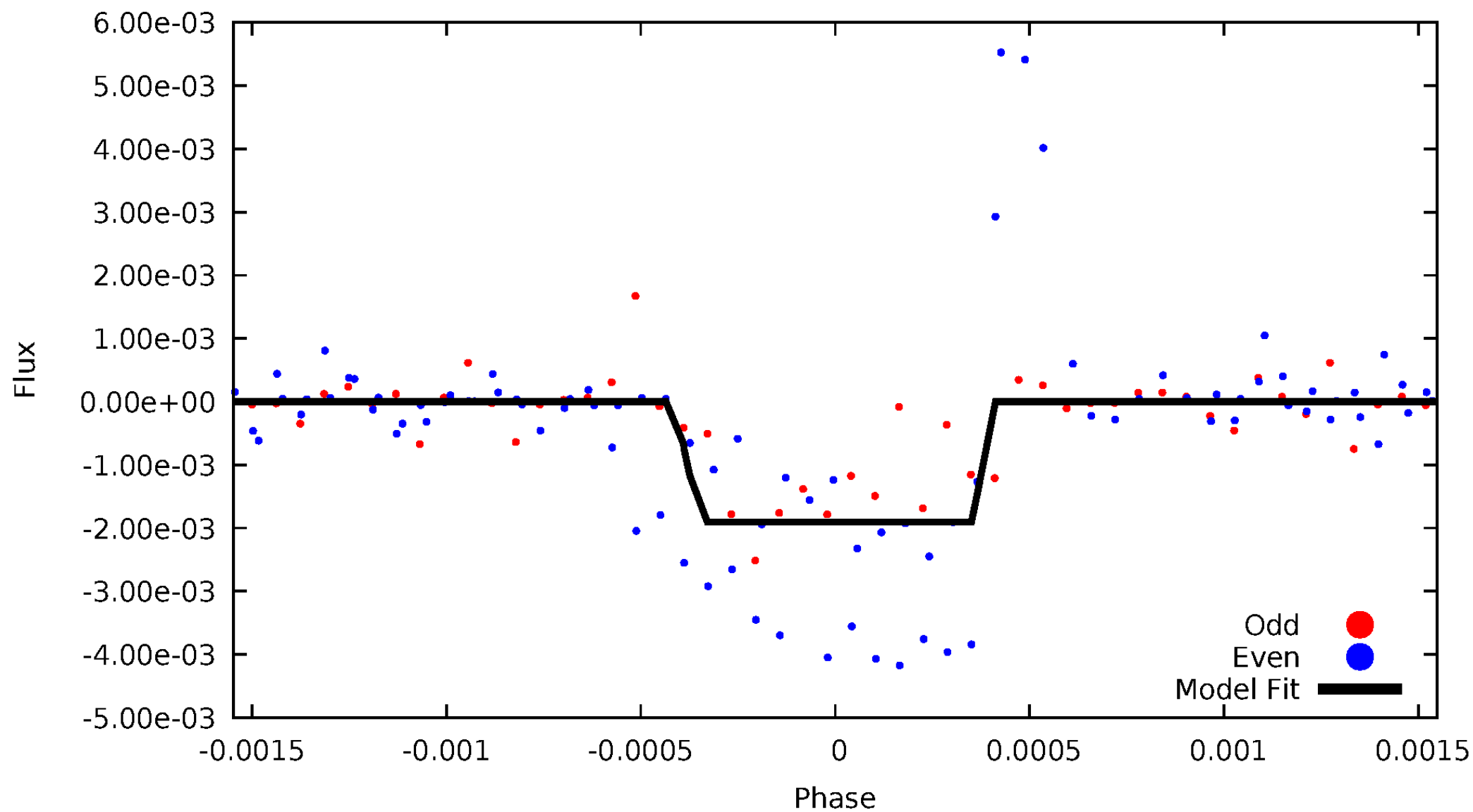
DV Odd/Even

TCE 003765091-04



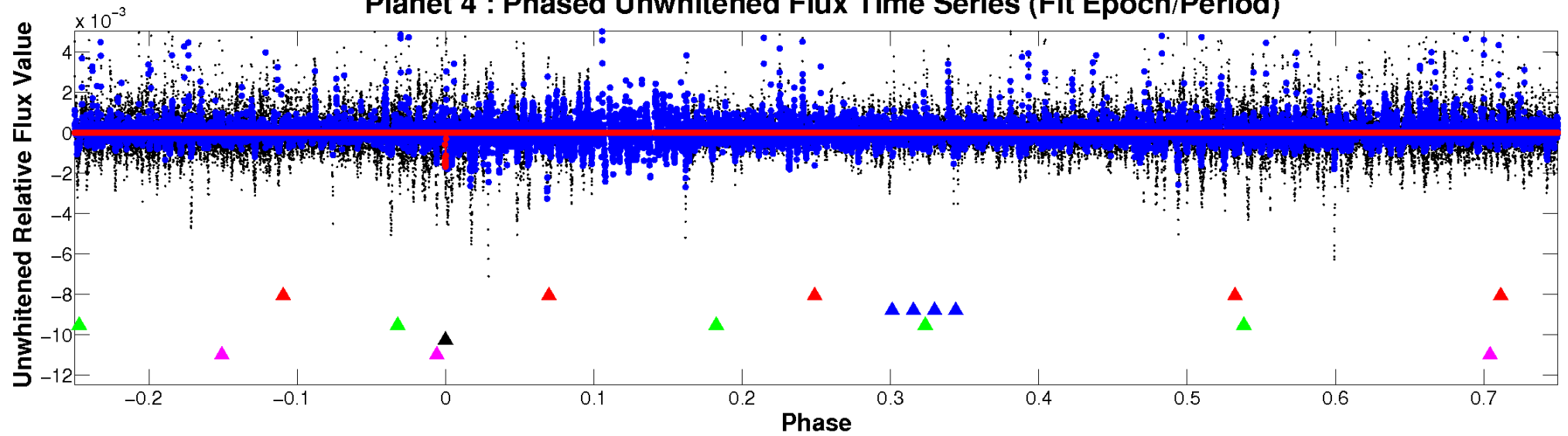
ALT Odd/Even

TCE 003765091-04

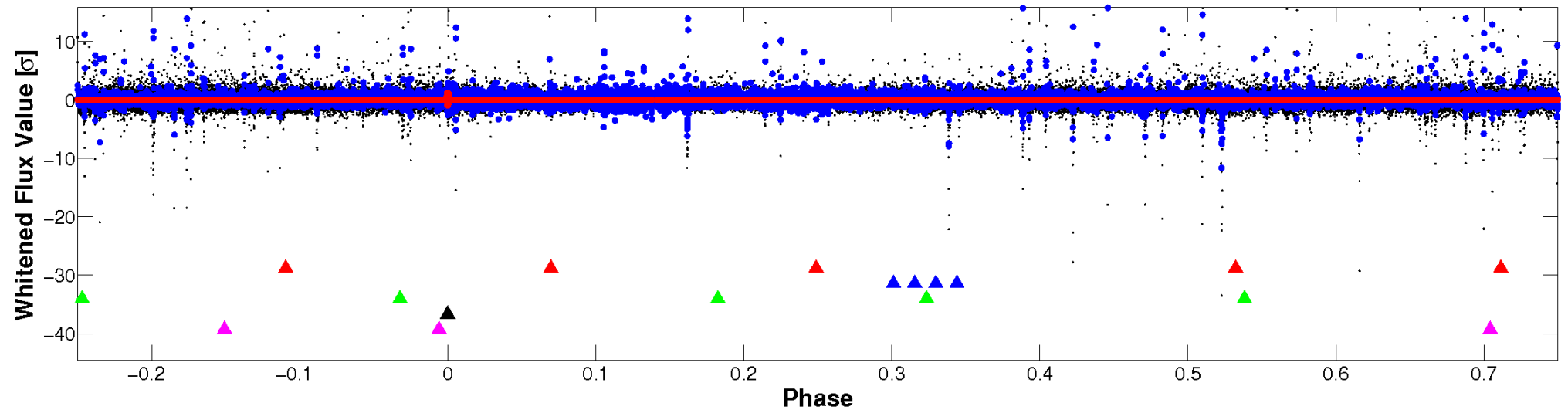


Non-Whitened Vs. Whitened Light Curve

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

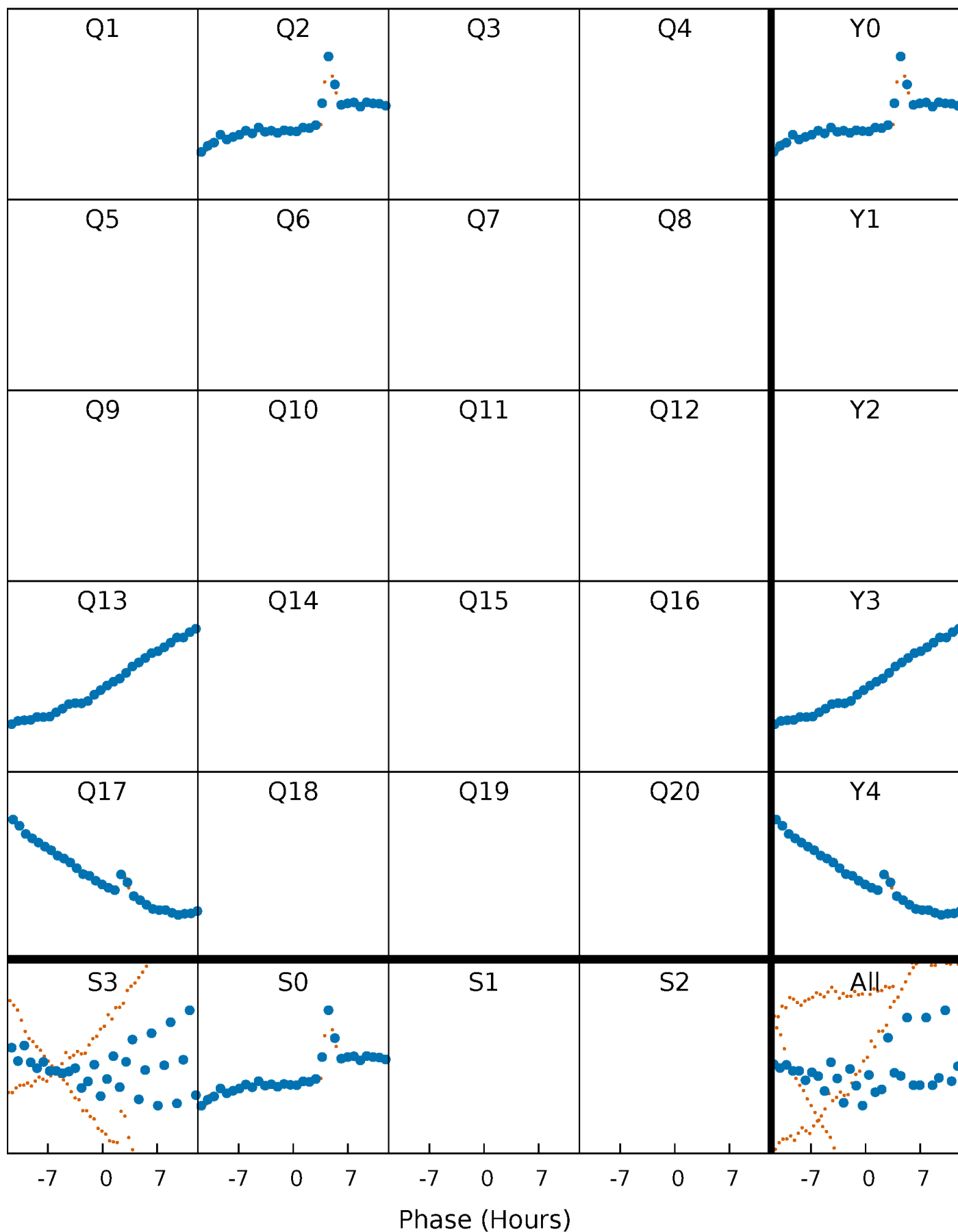


Planet 4 : Phased Whitened Flux Time Series (Fit Epoch/Period)



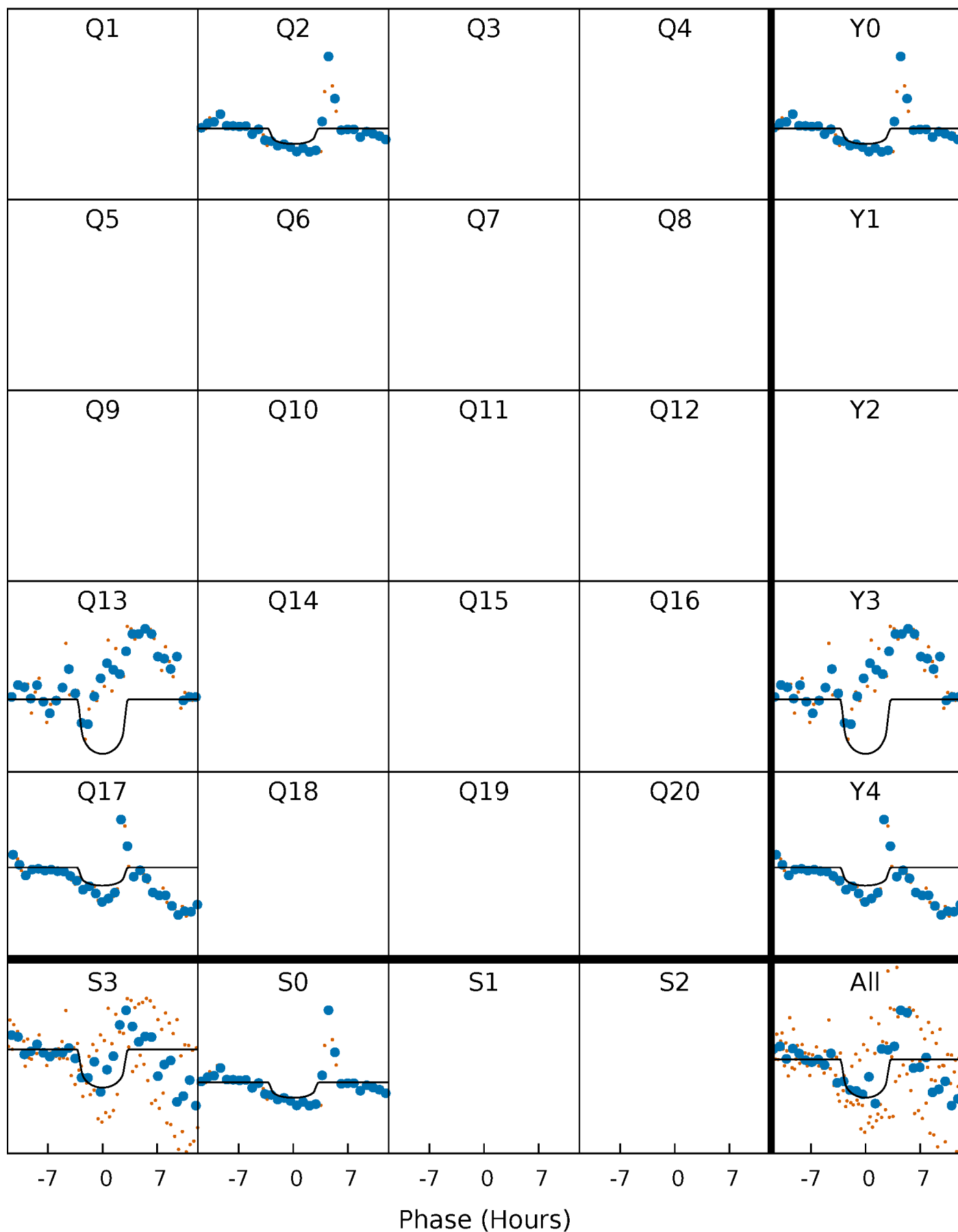
PDC Quarter-Phased Transit Curves

TCE 003765091-04 $P=331.811770$ Days $T_0=244.712739$ (BKJD)



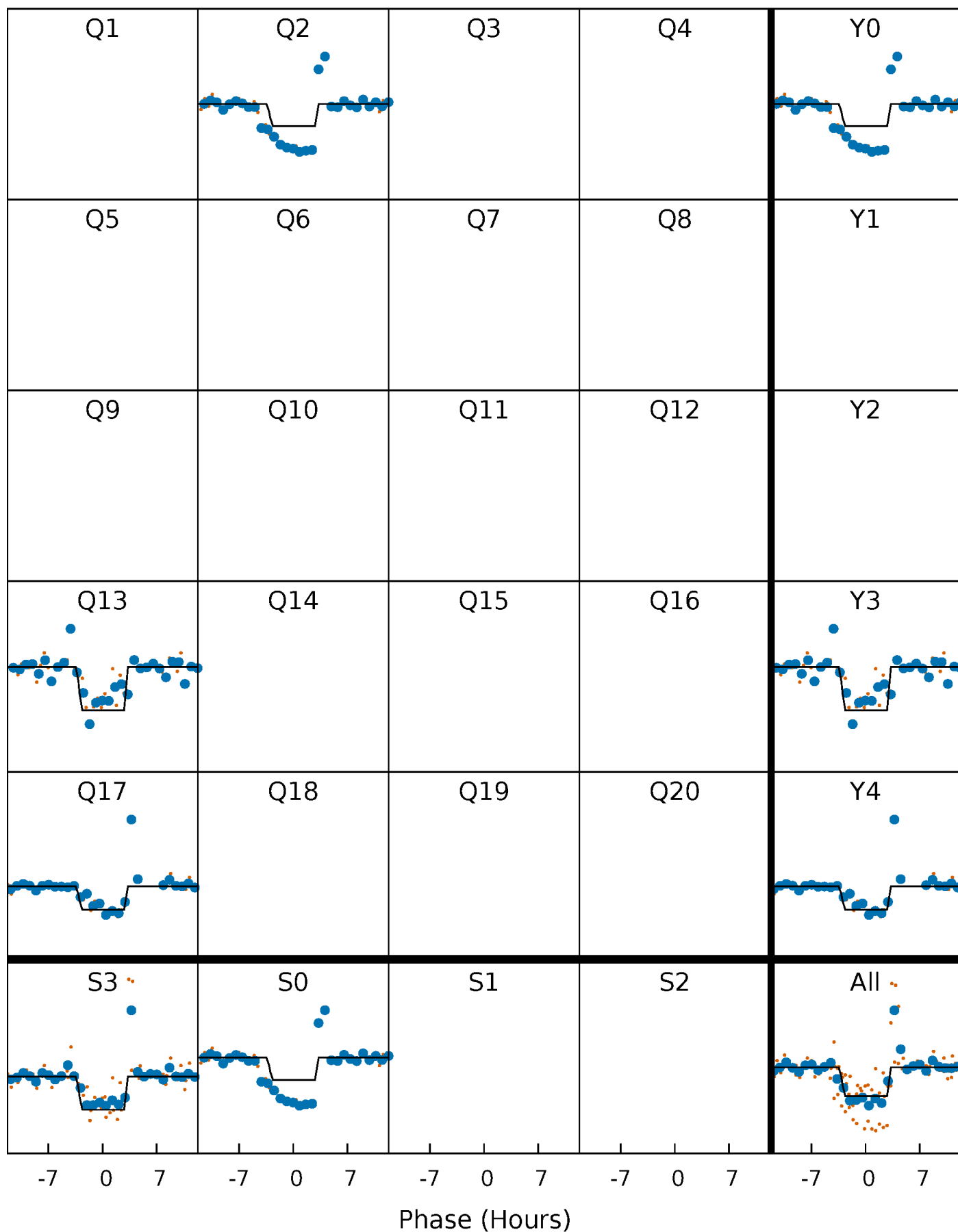
DV Quarter-Phased Transit Curves

TCE 003765091-04 $P=331.811770$ Days $T_0=244.712739$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

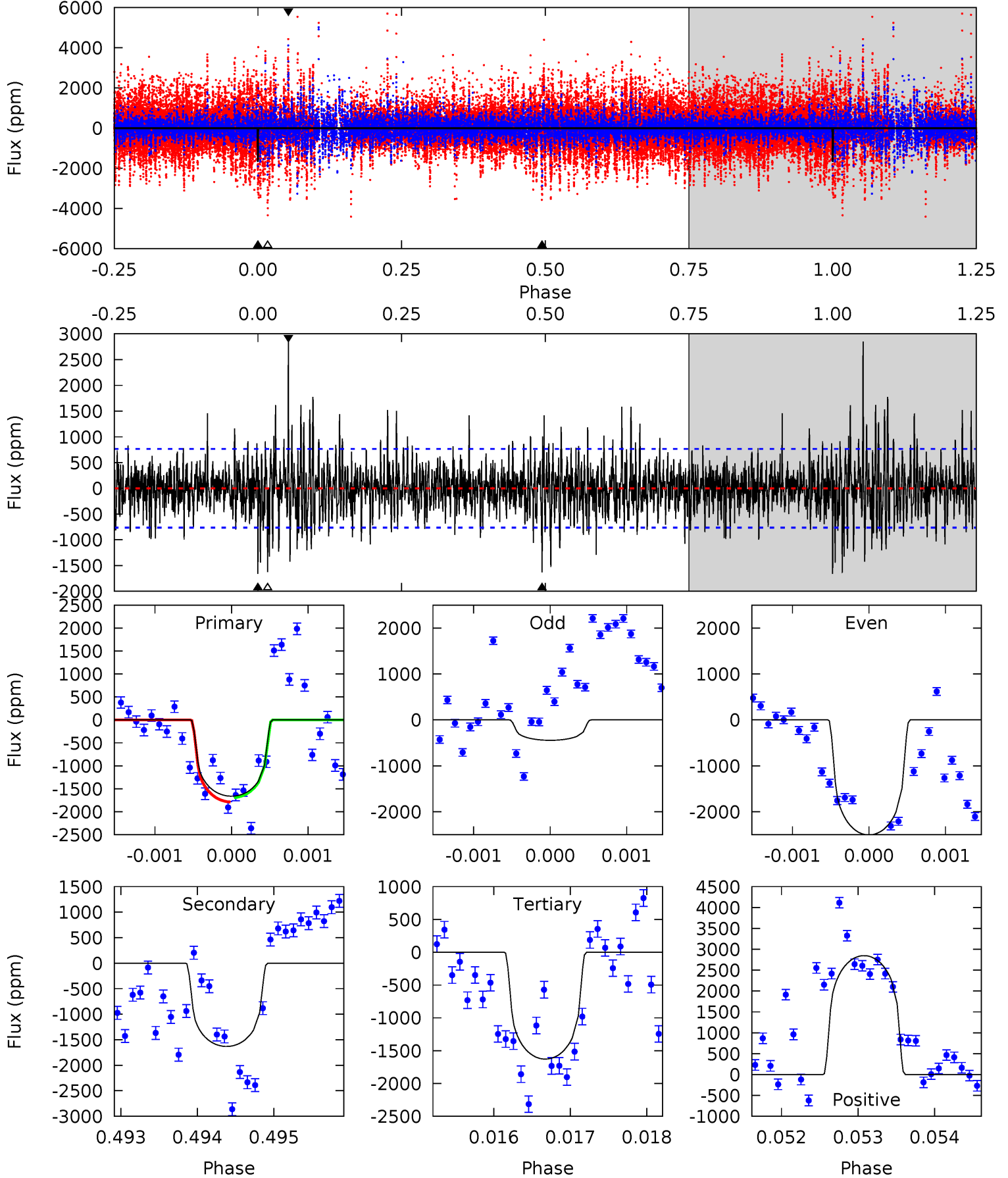
TCE 003765091-04 P=331.793336 Days $T_0=244.743398$ (BKJD)



DV Model-Shift Uniqueness Test

003765091-04, P = 331.811770 Days, E = 244.712739 Days

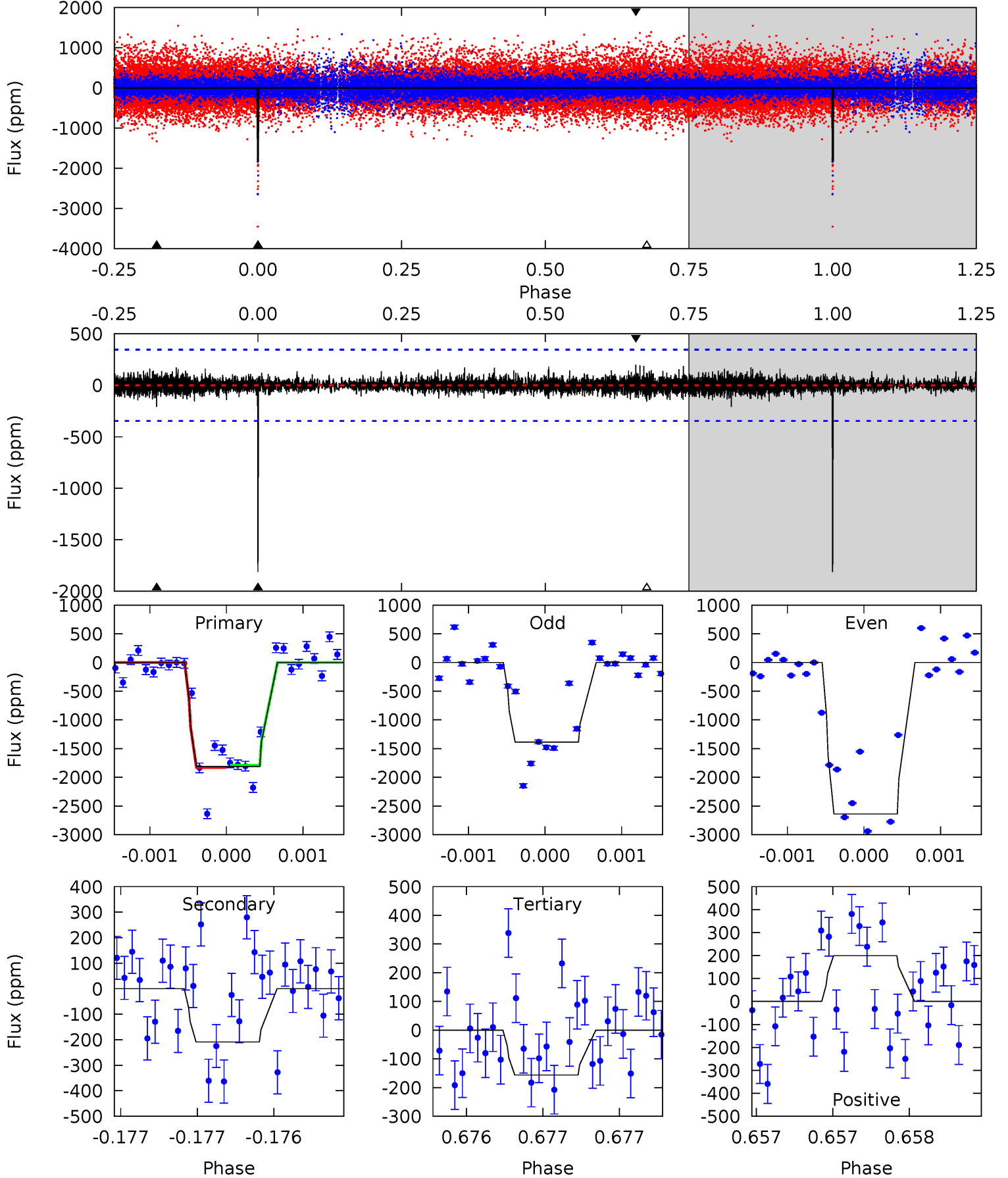
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.9	11.7	11.7	20.5	5.50	3.36	2.69	0.24	-8.52	0.02	-8.73	6.25	0.66	0.63	0.33



Alt Model-Shift Uniqueness Test

003765091-04, P = 331.793336 Days, E = 244.743398 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
28.8	3.31	2.48	3.16	5.49	3.35	0.62	26.3	25.6	0.83	0.15	10.5	1.35	0.10	0.33



Stellar Parameters For KIC 003765091

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4498^{+134}_{-134}	$4.711^{+0.048}_{-0.032}$	$-1.040^{+0.300}_{-0.300}$	$0.531^{+0.038}_{-0.038}$	$0.529^{+0.045}_{-0.026}$	$4.974^{+1.066}_{-0.675}$
	+3%/-3%	+1%/-1%	+29%/-29%	+7%/-7%	+9%/-5%	+21%/-14%
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 003765091-04 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-1631 ± 139	$2.71^{+2.38}_{-1.67}$	231^{+8}_{-8}	4259^{+2261}_{-846}	$70183^{+426394}_{-50229}$
Alt.	-209 ± 63	$3.16^{+2.49}_{-2.04}$	231^{+7}_{-8}	2902^{+1158}_{-422}	6634^{+47833}_{-4686}

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

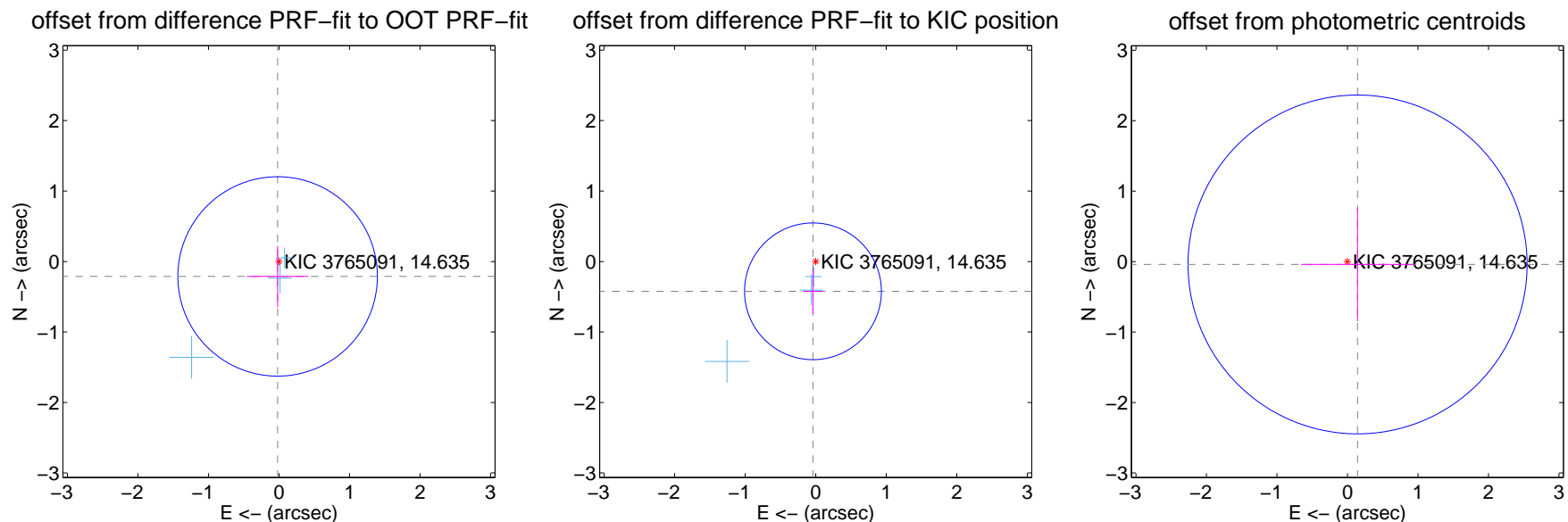
DV Centroid Data

Supplemental centroid analysis for 003765091-04. Kepler magnitude: 14.63. Transit SNR 6.32

There are 3 quarters with good PRF difference image offsets

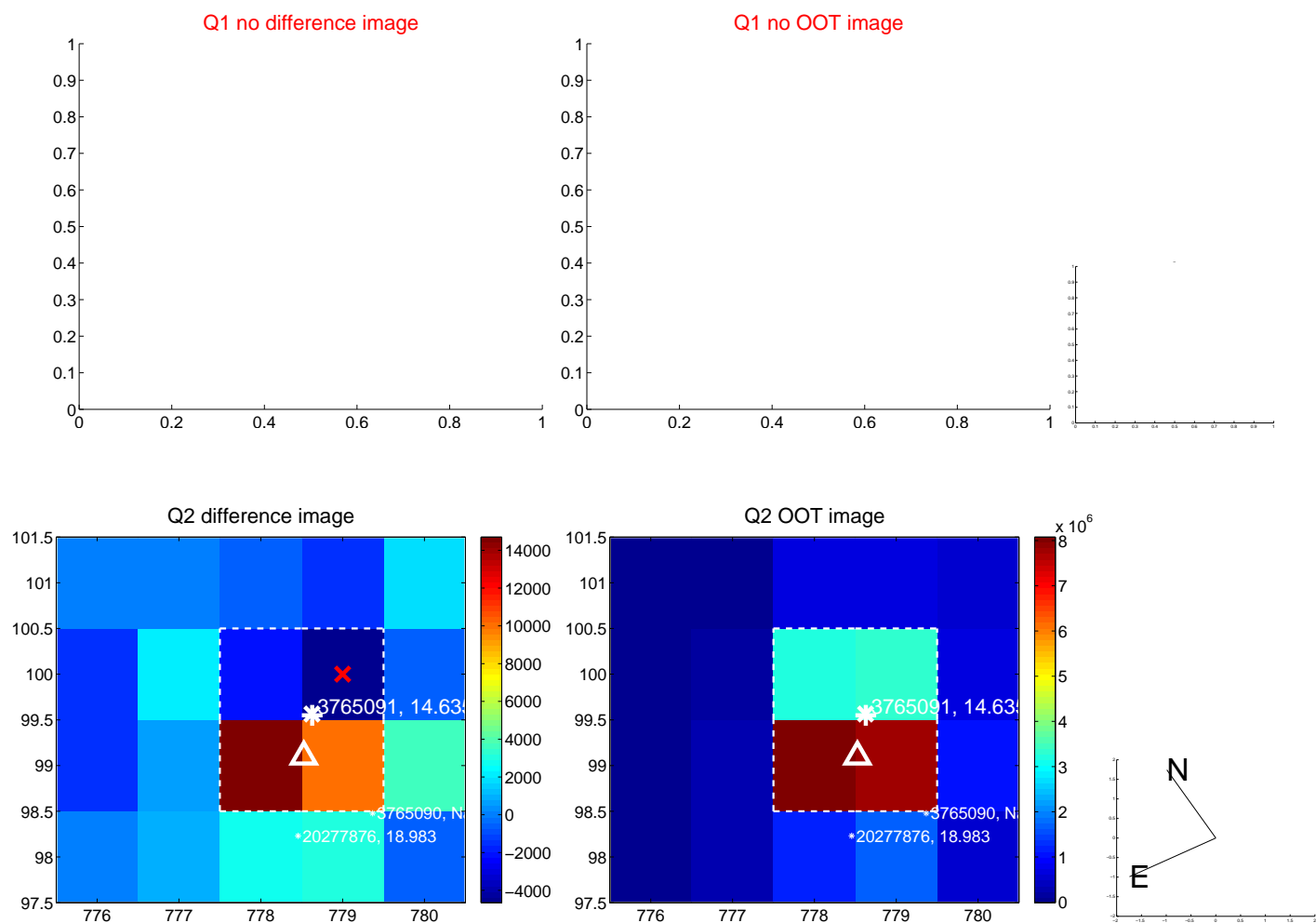
The direct PRF centroid is offset from the target star catalog position by about 0.19 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.212 ± 0.471	0.45	0.019 ± 0.435	-0.211 ± 0.435
PRF-fit source offset from KIC position	0.424 ± 0.323	1.31	0.039 ± 0.138	-0.422 ± 0.324
photometric centroid source offset	0.15 ± 0.80	0.19	-0.14 ± 0.80	-0.04 ± 0.81



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



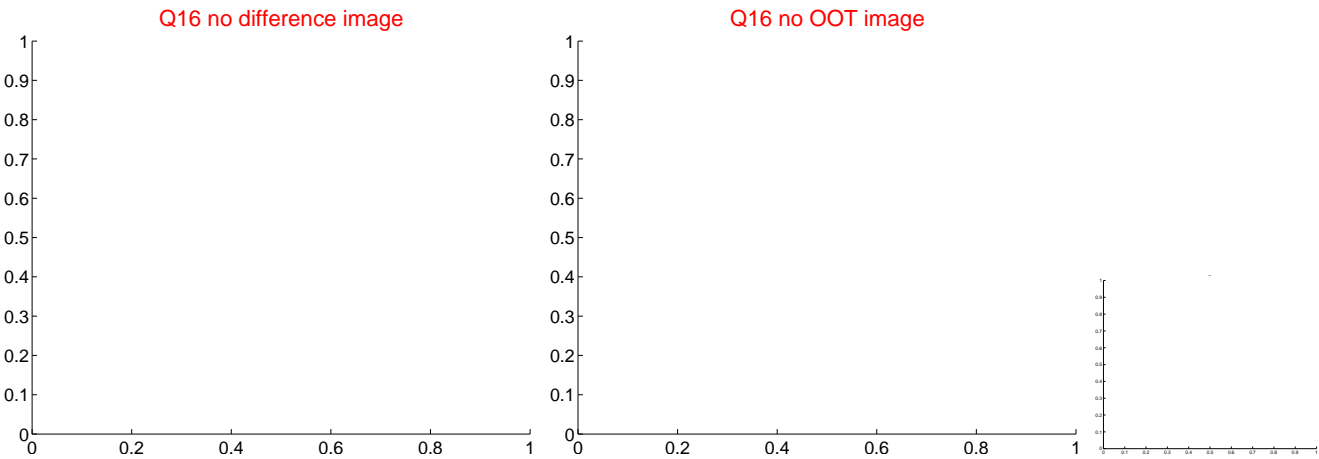
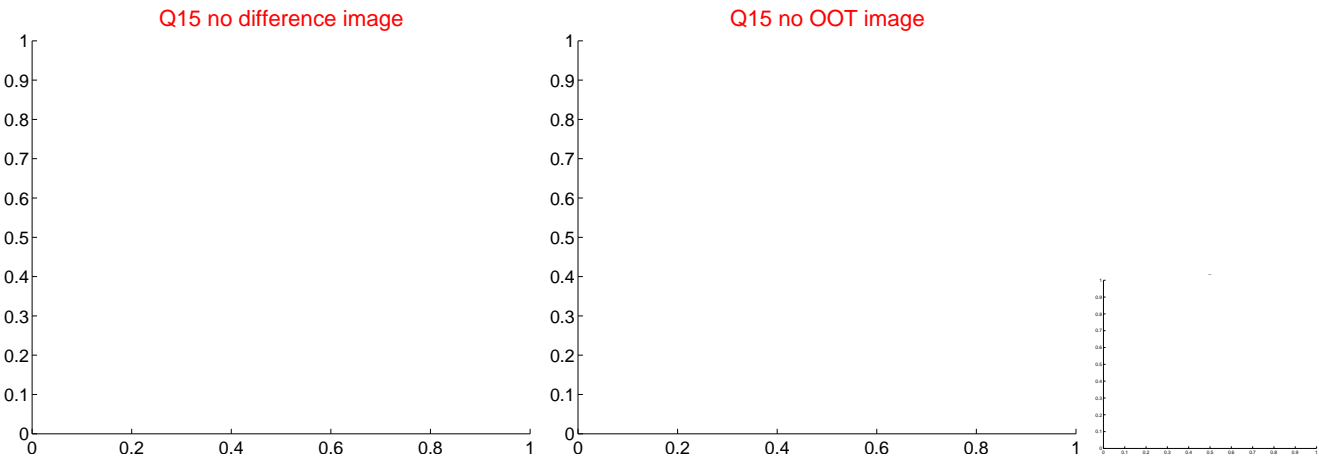
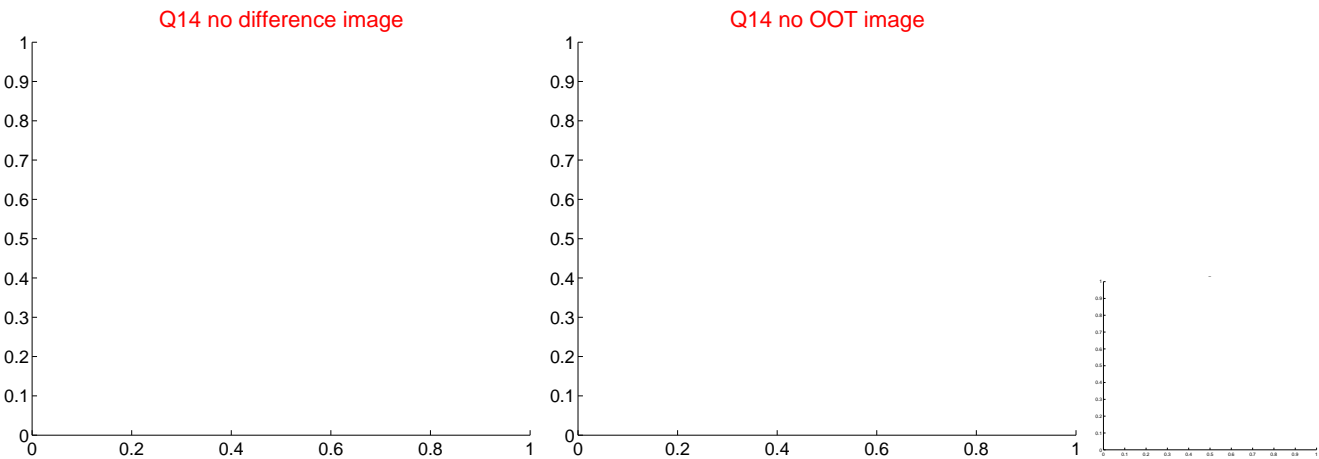
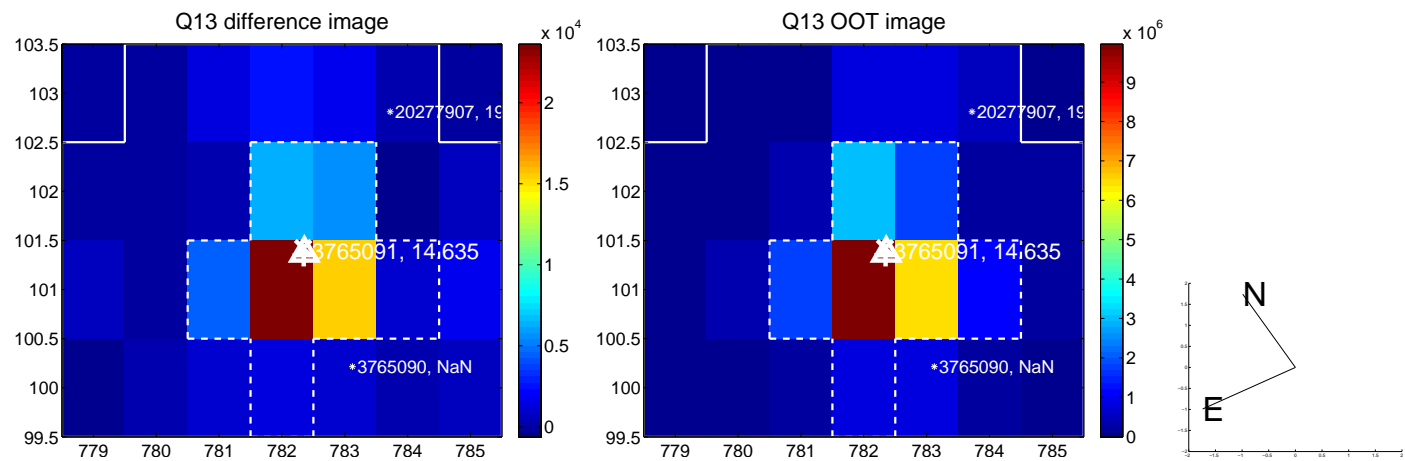
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



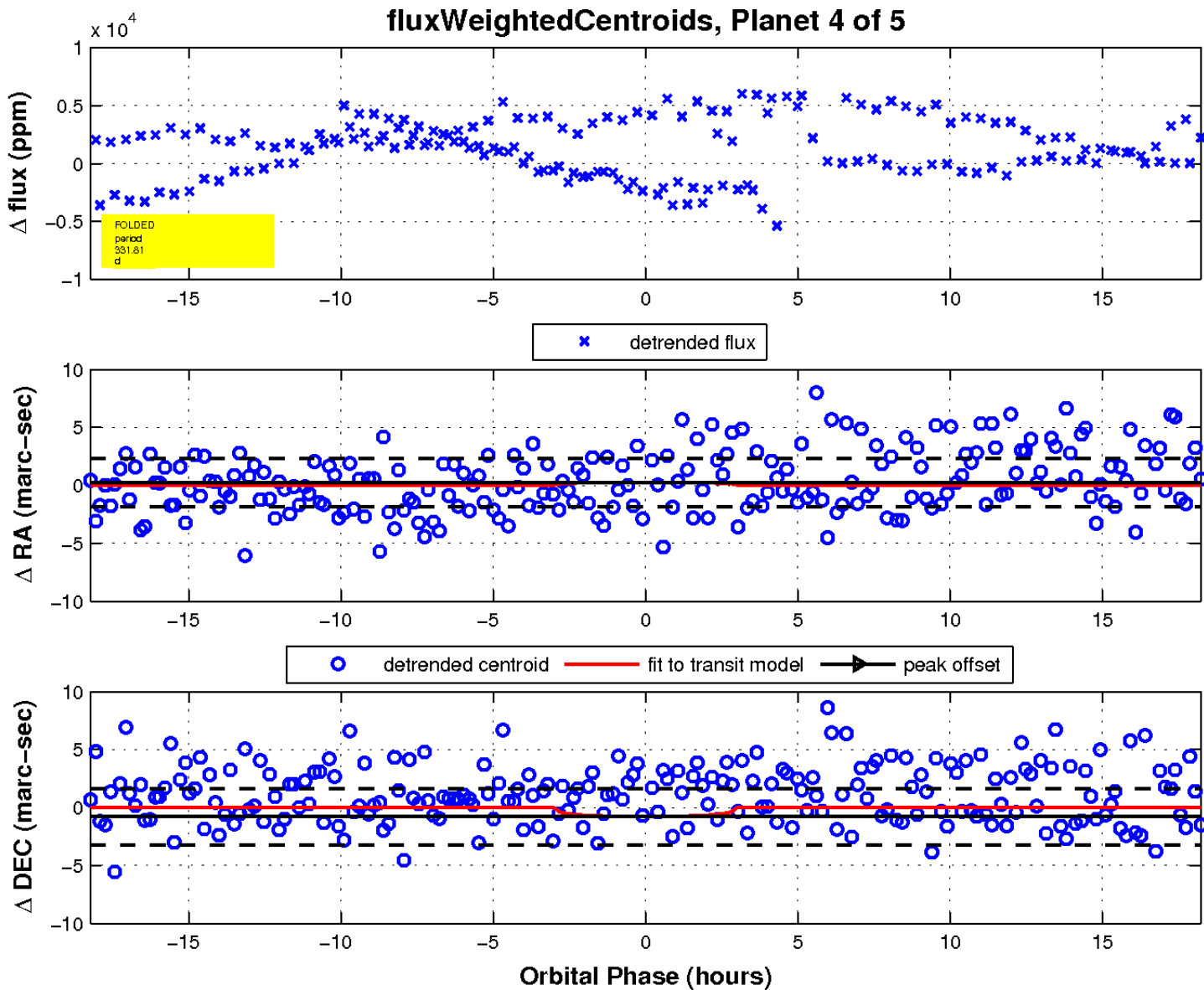
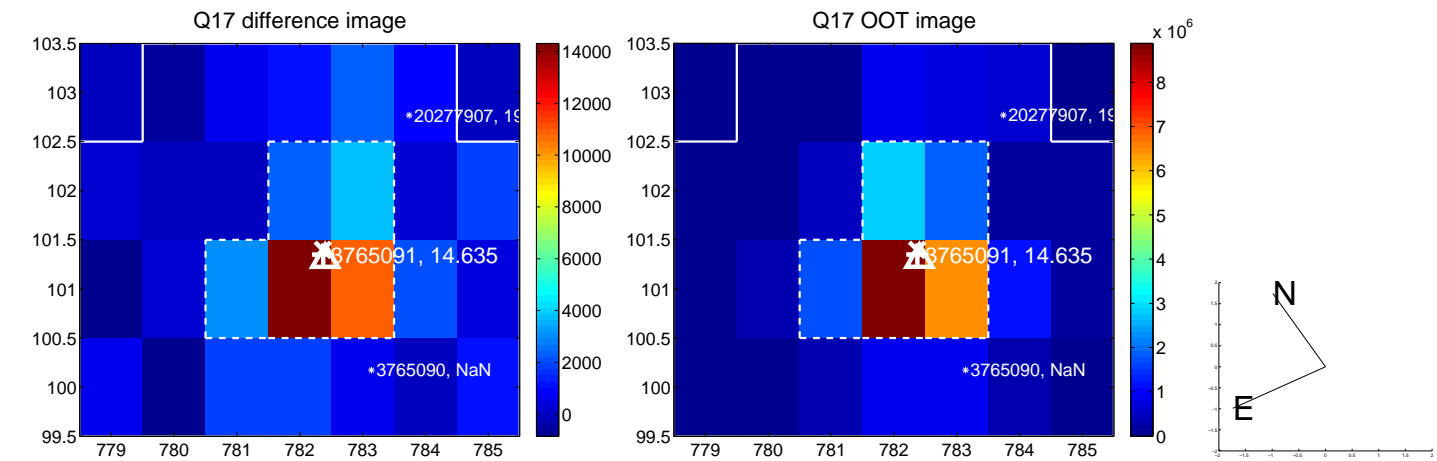
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



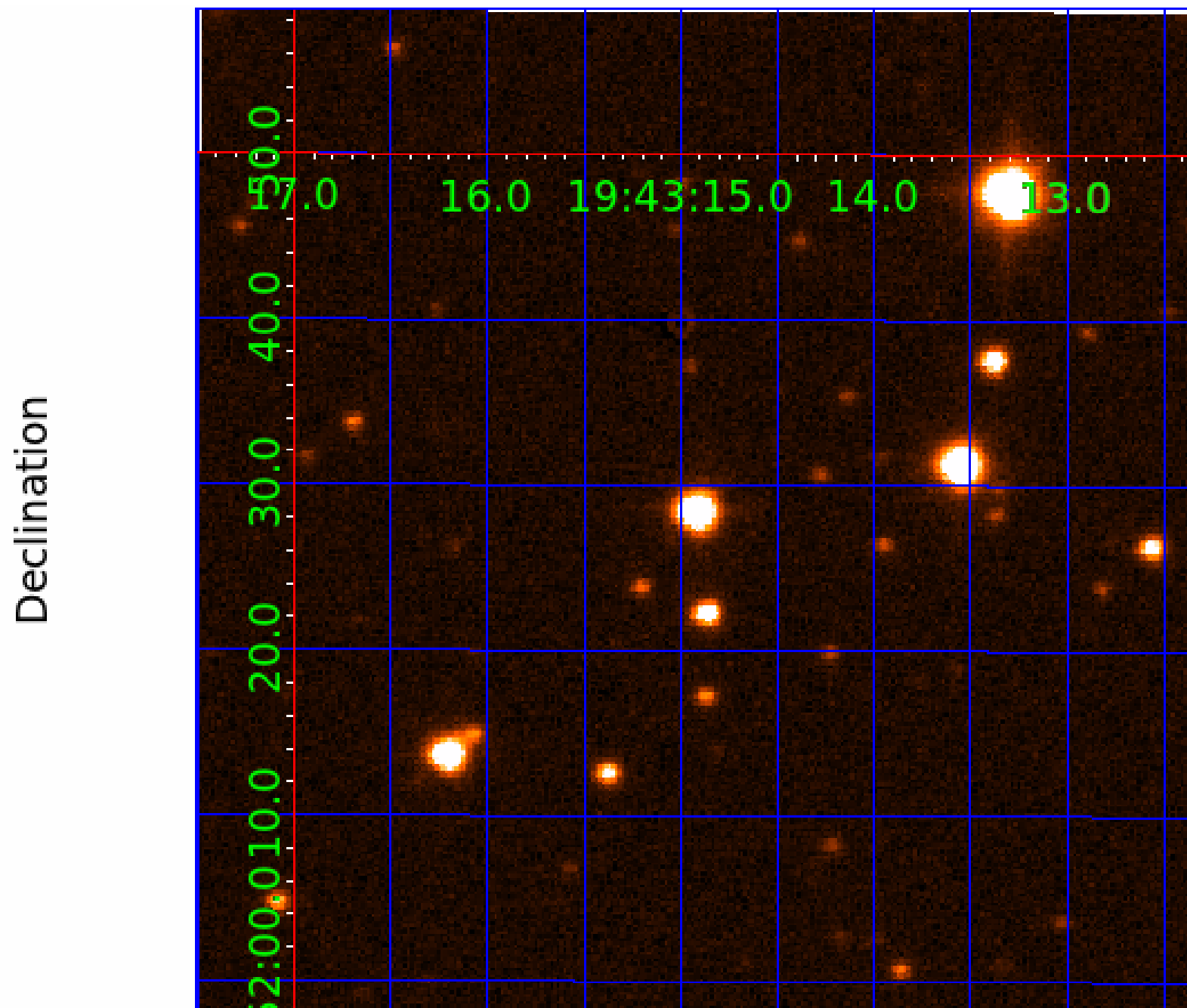
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image



KIC 003765091

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})
003765091-01	OBS	No	272.366235	327.305205	1460.1	1.915	11.7	7.0	0.53	4498	2.25	0.23
003765091-02	OBS	No	336.553238	344.650326	1779.9	4.682	13.0	9.1	0.53	4498	2.45	0.18
003765091-03	OBS	No	260.553349	305.280492	1745.5	2.020	10.8	8.3	0.53	4498	2.20	0.25
003765091-04	OBS	No	331.811770	244.712739	1681.8	6.100	13.8	6.3	0.53	4498	2.15	0.18
003765091-05	OBS	No	379.905582	478.402782	1732.1	3.995	11.3	7.7	0.53	4498	2.28	0.15

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003765091-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
003765091-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS
003765091-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
003765091-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS
003765091-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS

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

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

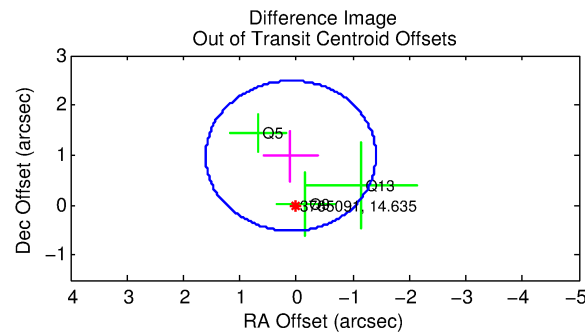
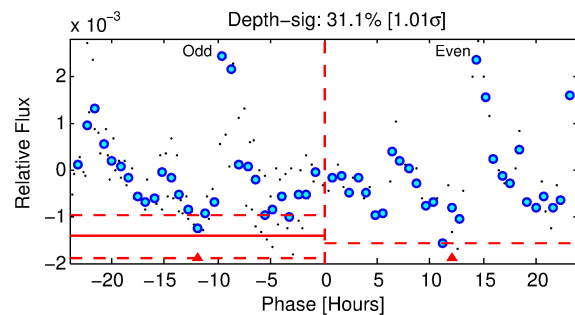
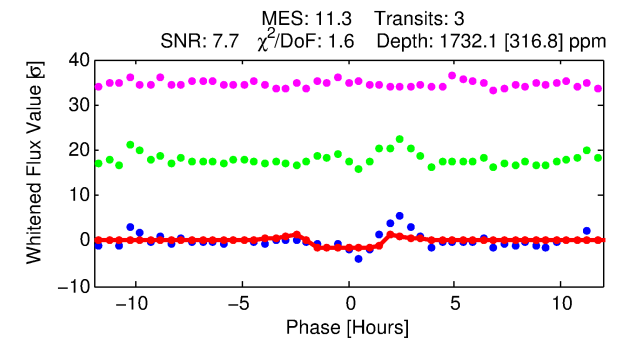
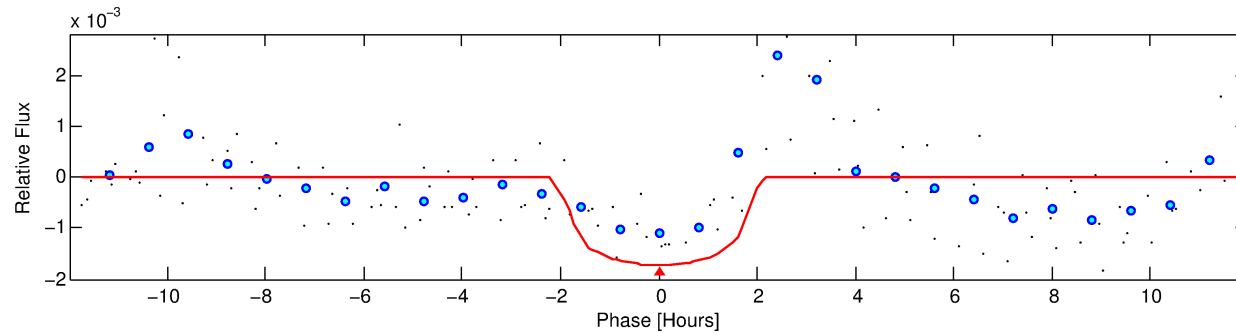
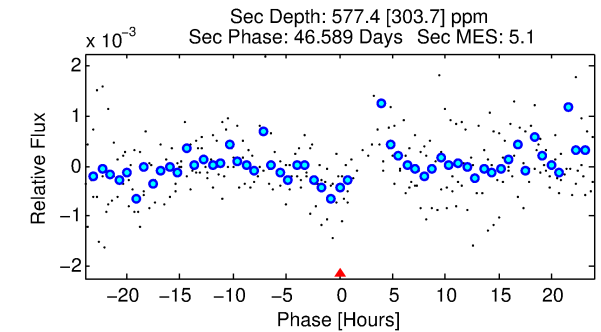
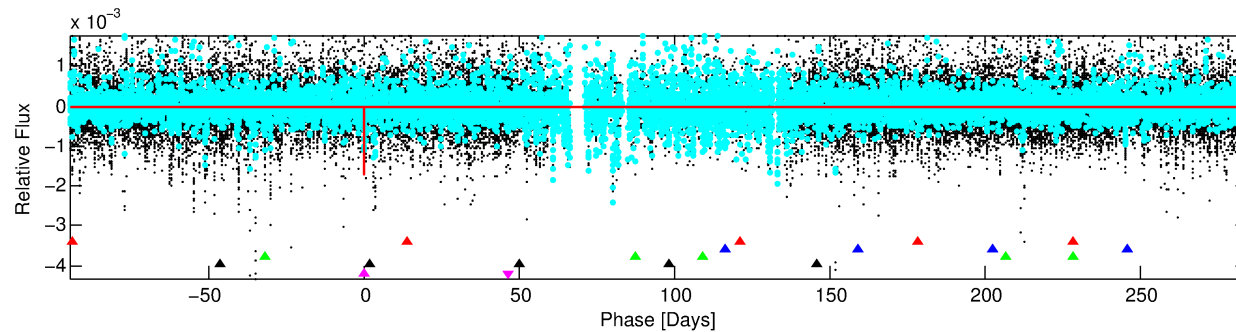
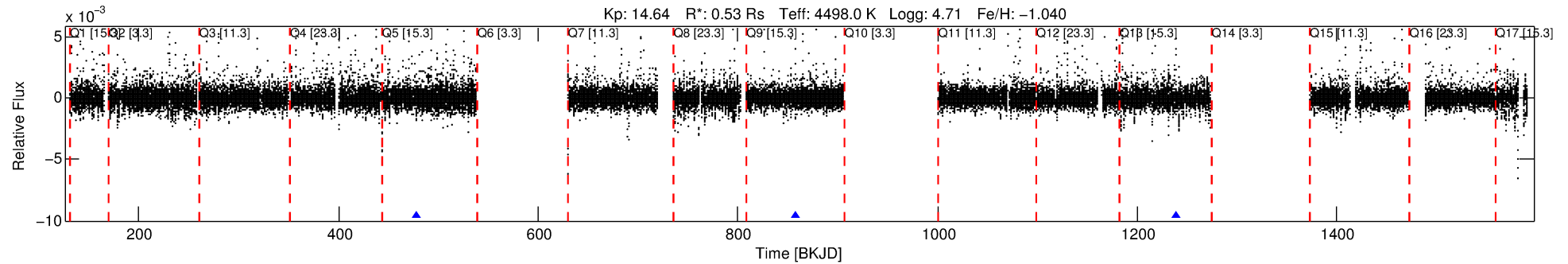
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003765091-05

No Significant Match Found

DV One-Page Summary

KIC: 3765091 Candidate: 5 of 5 Period: 379.906 d



DV Fit Results:

Period = 379.90558 [0.00532] d
Epoch = 478.4028 [0.0068] BKJD
Rp/R* = 0.0394 [0.0441]
a/R* = 620.61 [2510.12]
b = 0.59 [4.49]
Seff = 0.15 [0.02]
Teq = 159 [6] K
Rp = 2.28 [2.56] Re
a = 0.8303 [0.0500] AU
Ag = 42038.23 [96731.94] [0.43 σ]
Teffp = 3513 [2022] K [1.66 σ]

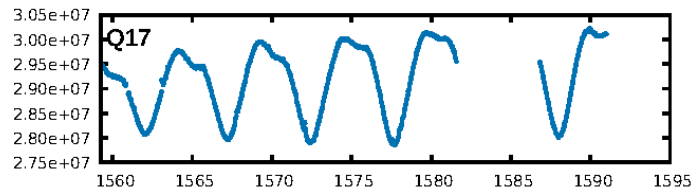
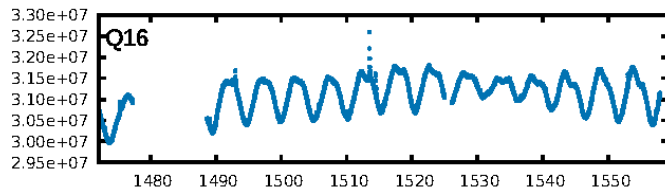
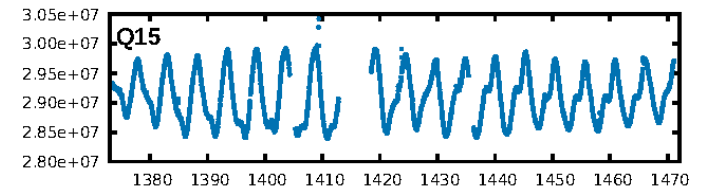
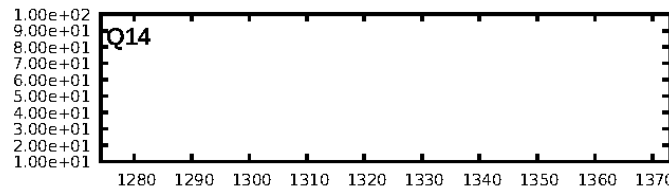
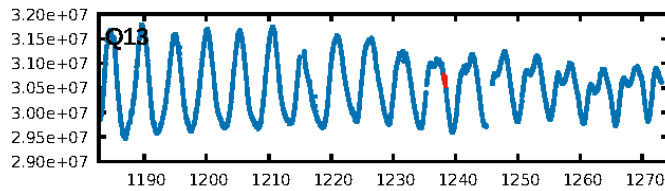
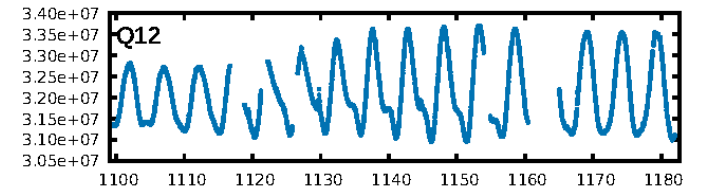
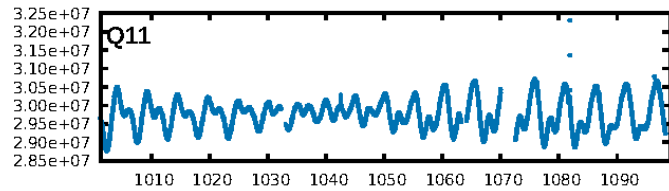
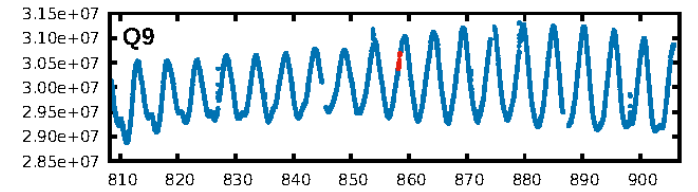
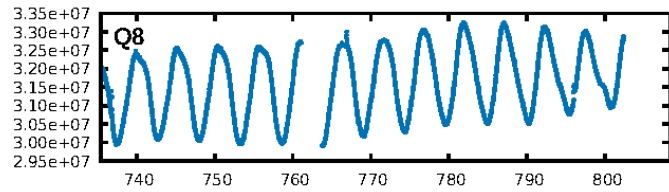
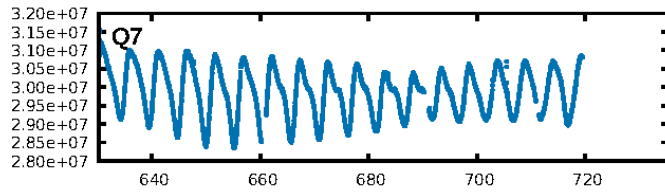
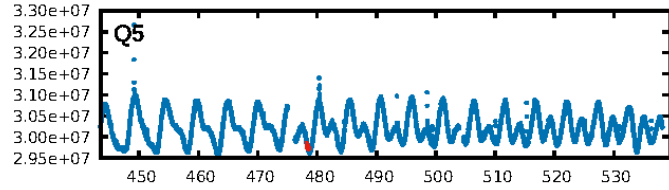
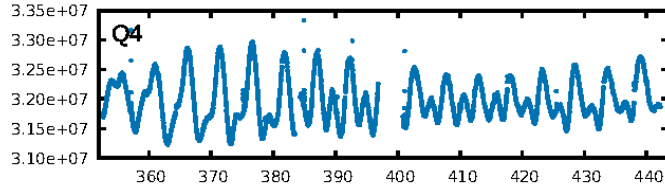
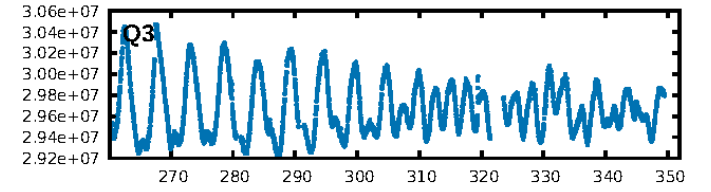
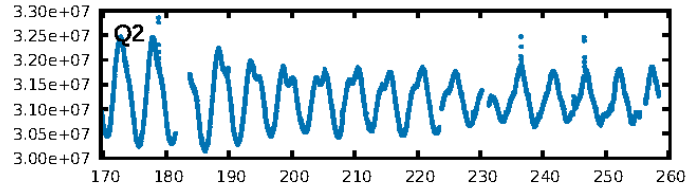
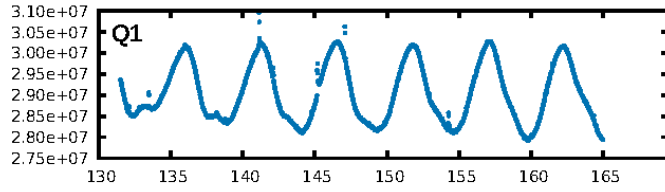
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [169.05 σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 13.9%
ModelChiSquareGof-sig: 54.3%
Bootstrap-pfa: 7.24e-09
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 1.124
Centroid-sig: 38.8%
Centroid-so: 1.057 arcsec [1.17 σ]
OotOffset-rm: 0.990 arcsec [1.97 σ]
OotOffset-st: 0/0/0/3 [3]
KicOffset-rm: 0.838 arcsec [1.62 σ]
KicOffset-st: 0/0/0/3 [3]
DiffImageQuality-fgm: 0.67 [2/3]
DiffImageOverlap-fno: 1.00 [3/3]

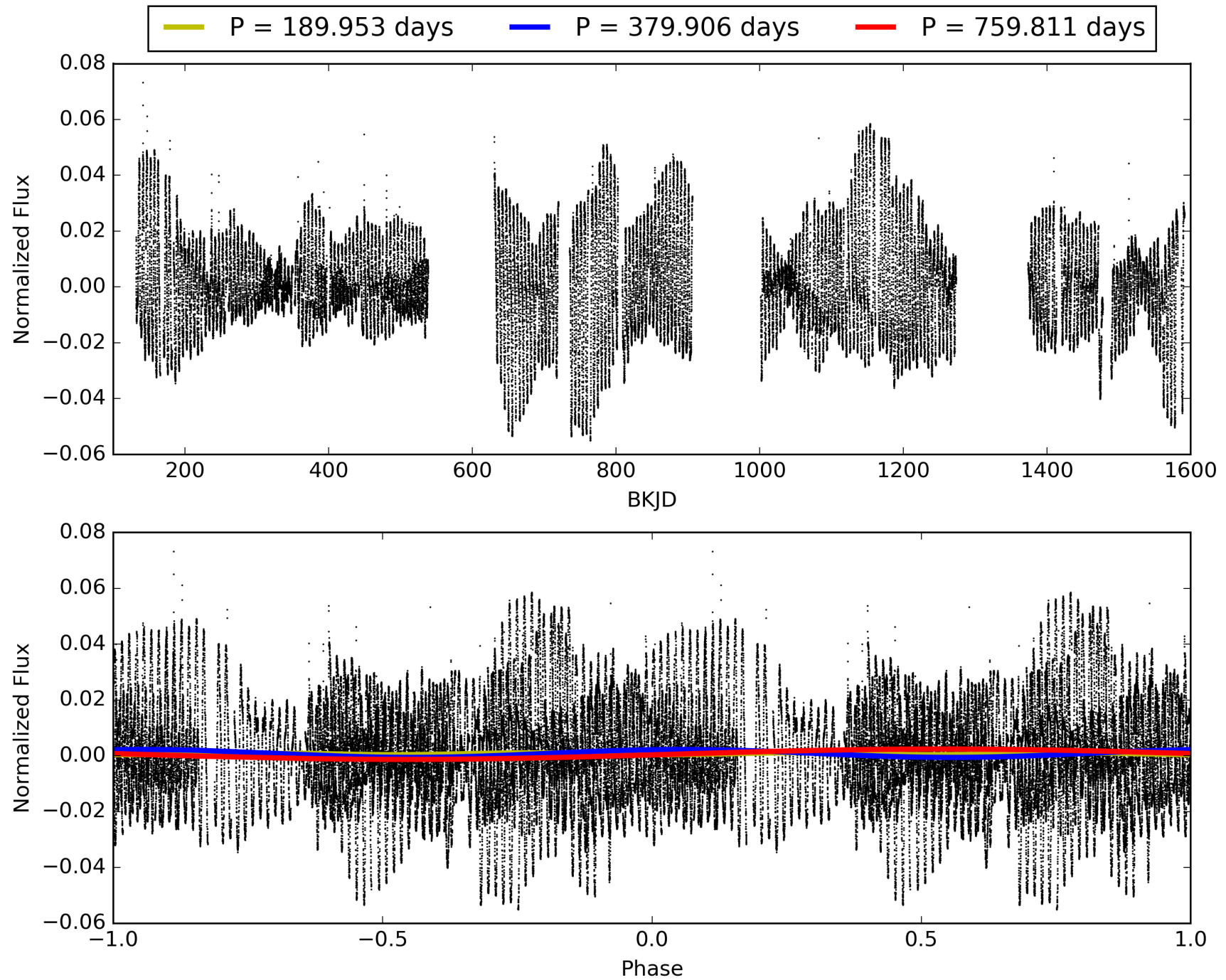
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 04:46:54 Z

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

TCE 003765091-05, PDC Light Curves

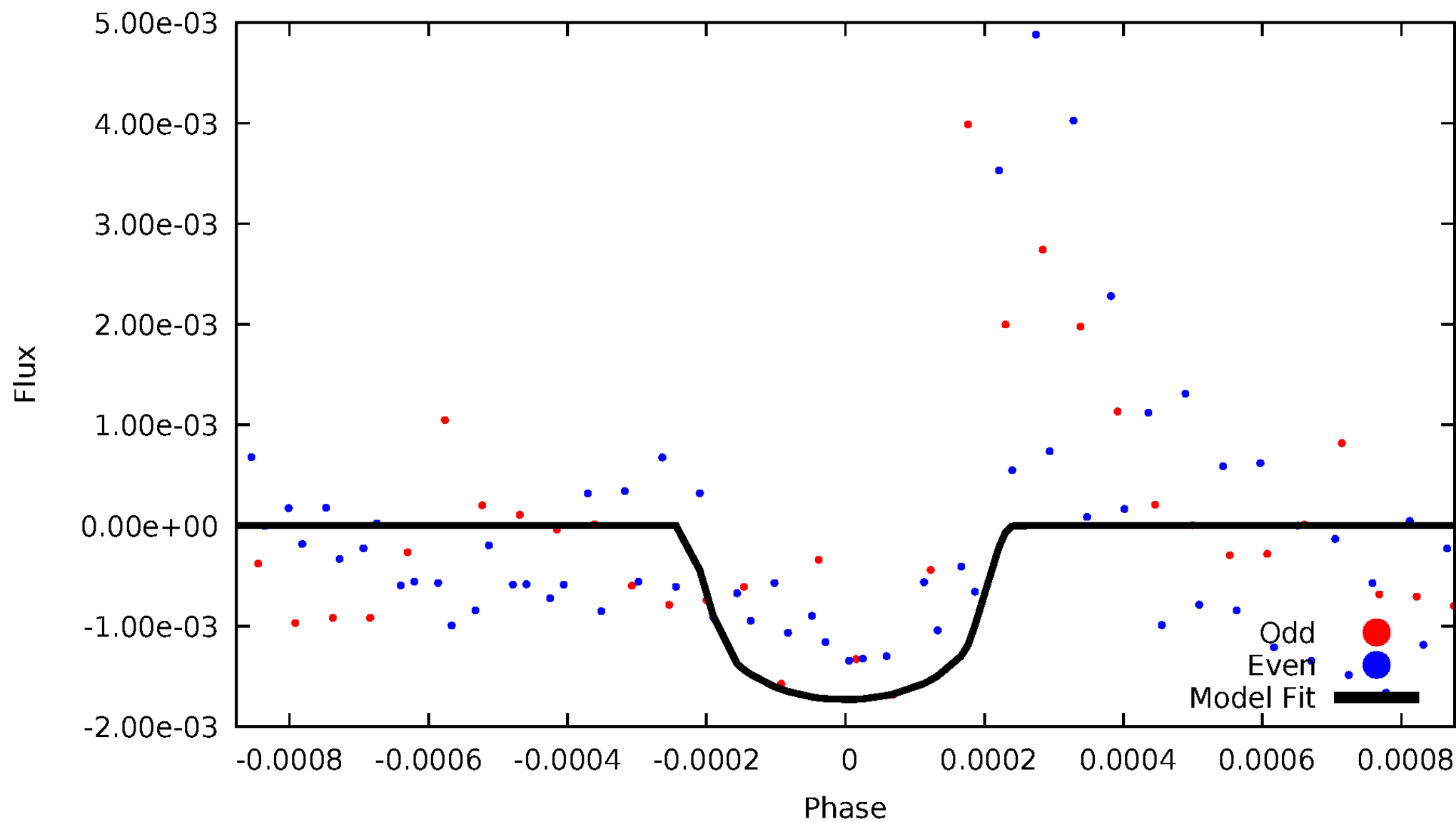


TCE 003765091-05



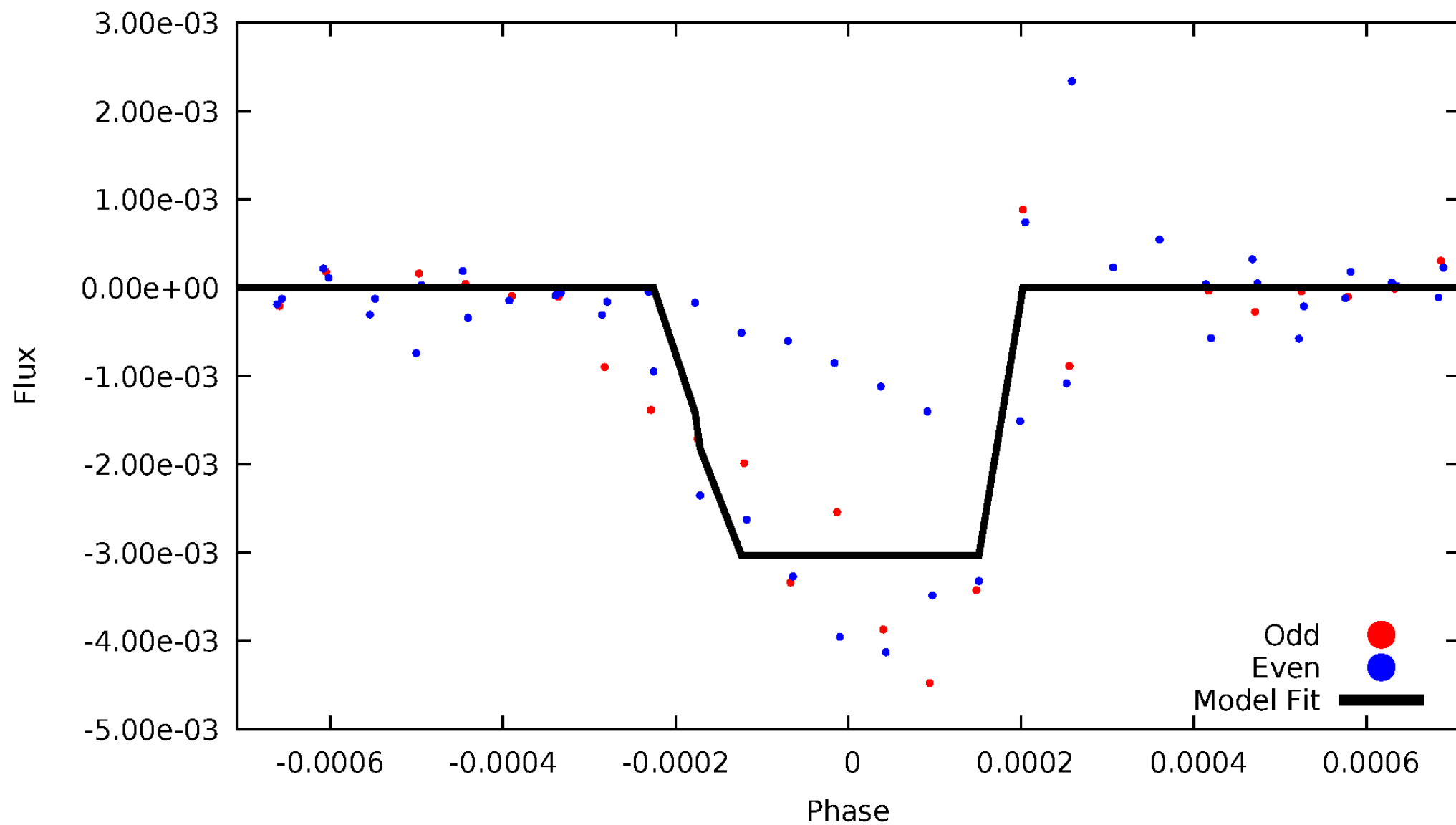
DV Odd/Even

TCE 003765091-05



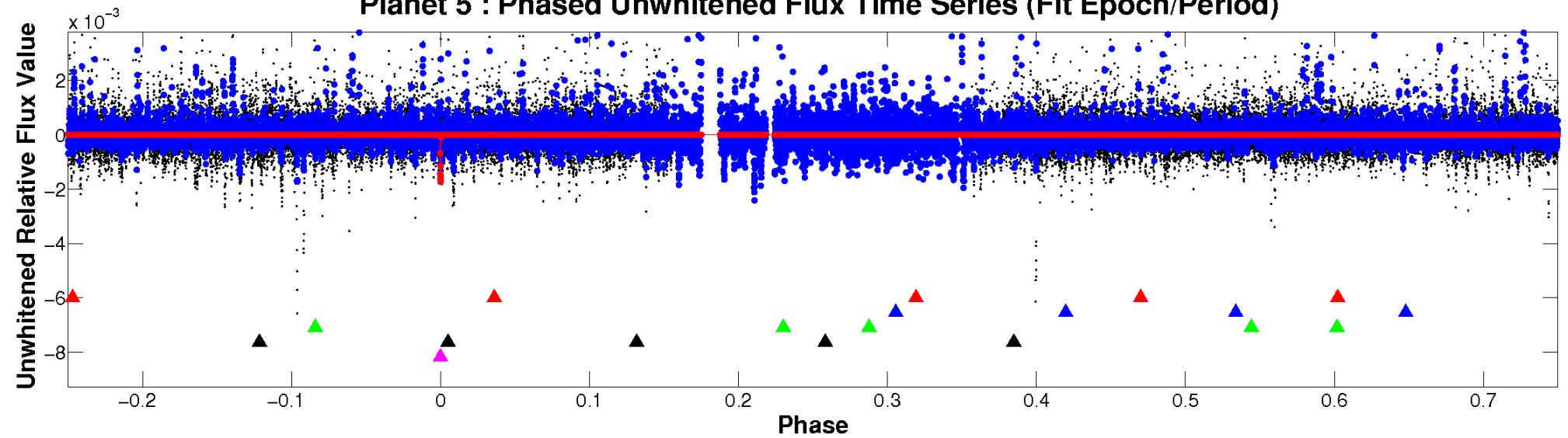
ALT Odd/Even

TCE 003765091-05

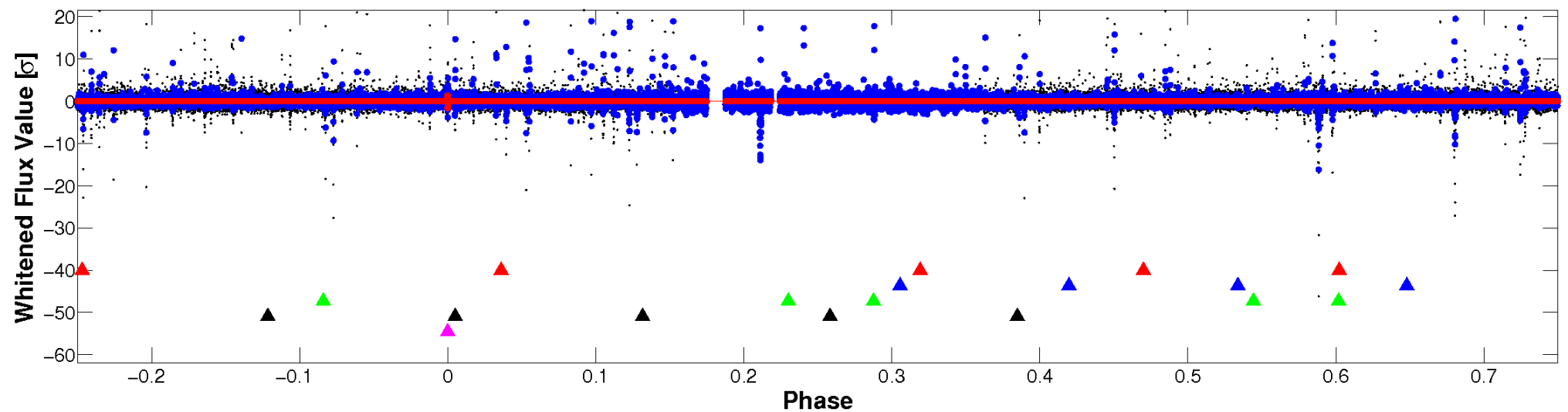


Non-Whitened Vs. Whitened Light Curve

Planet 5 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

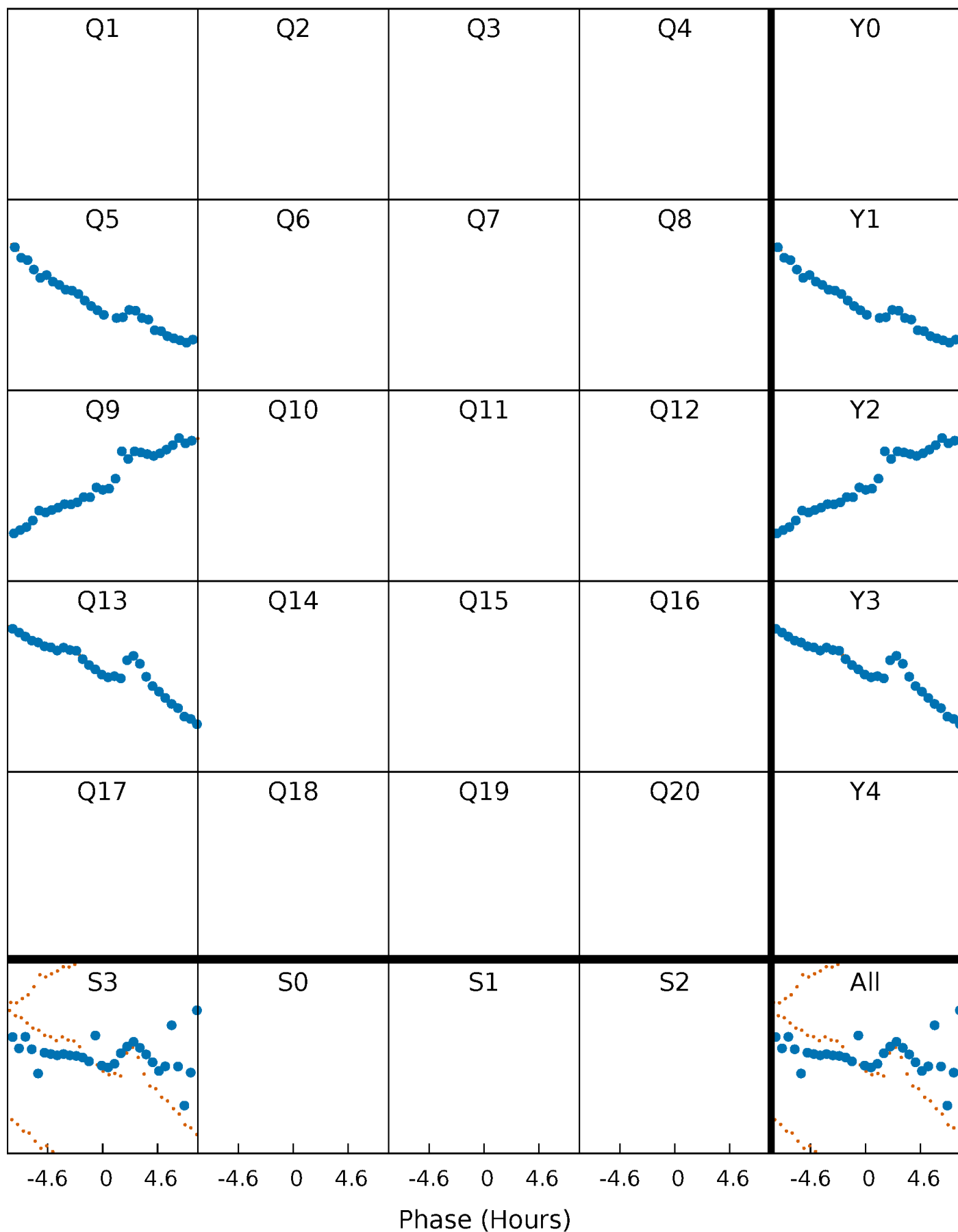


Planet 5 : Phased Whitened Flux Time Series (Fit Epoch/Period)



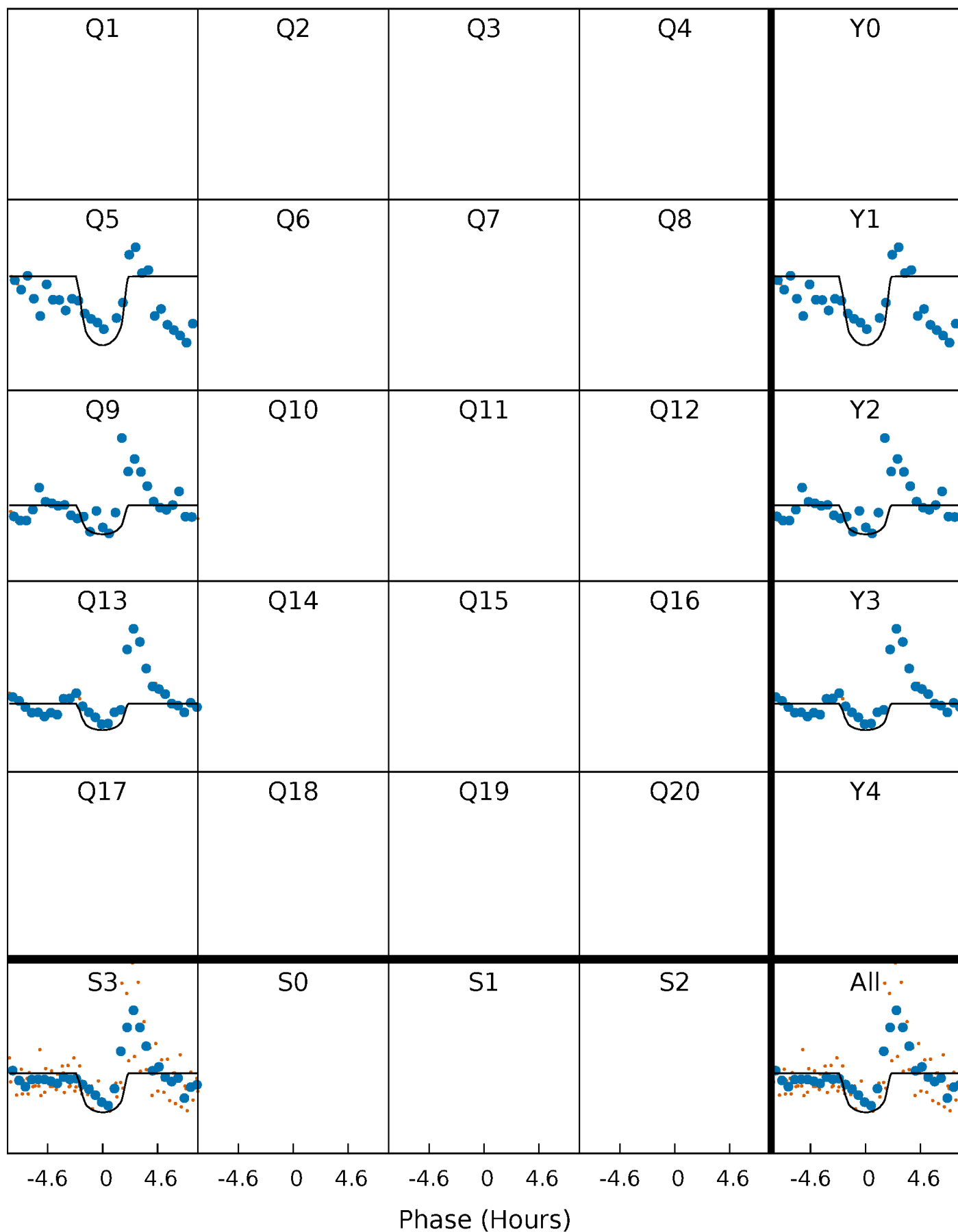
PDC Quarter-Phased Transit Curves

TCE 003765091-05 $P=379.905582$ Days $T_0=478.402782$ (BKJD)



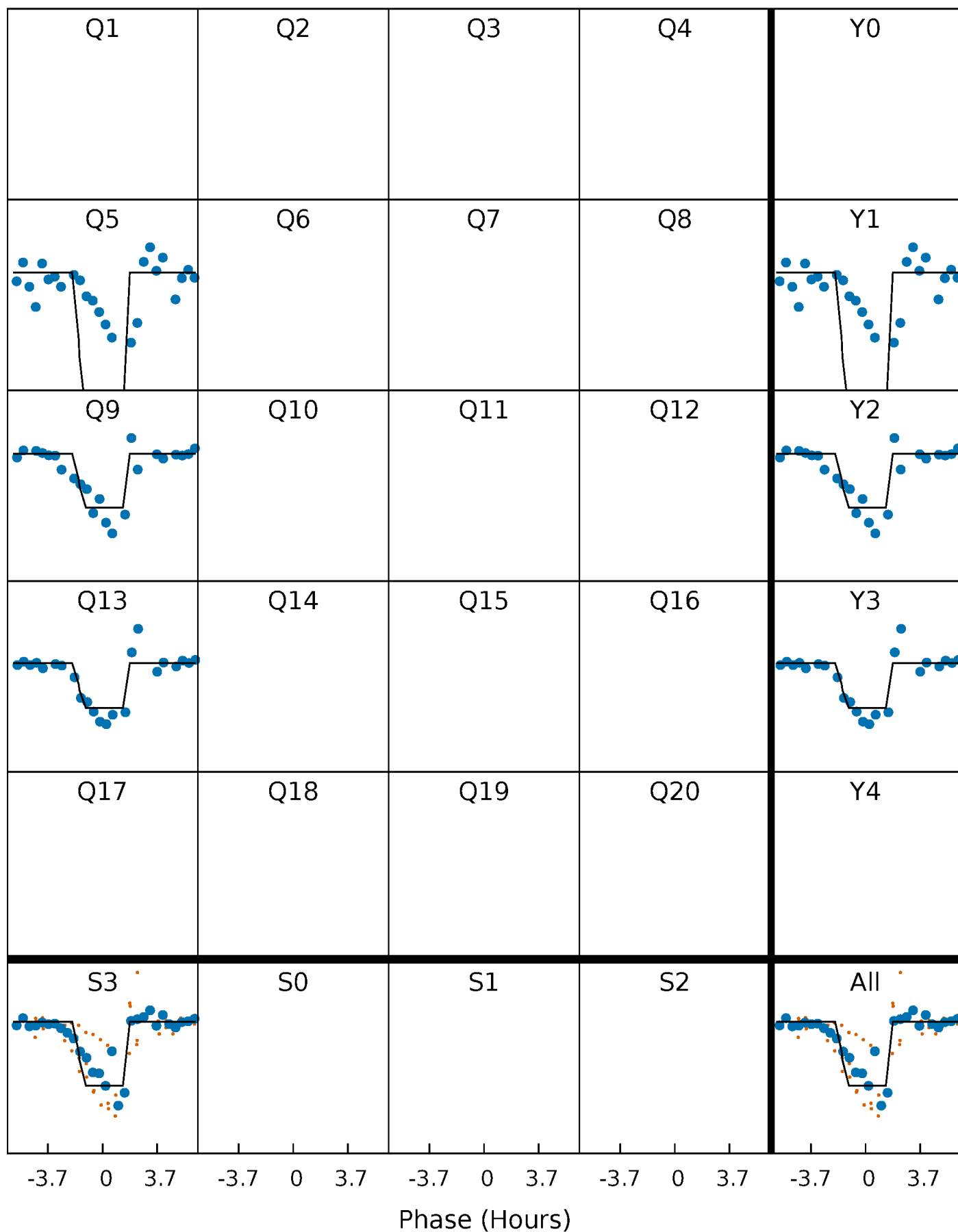
DV Quarter-Phased Transit Curves

TCE 003765091-05 $P=379.905582$ Days $T_0=478.402782$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

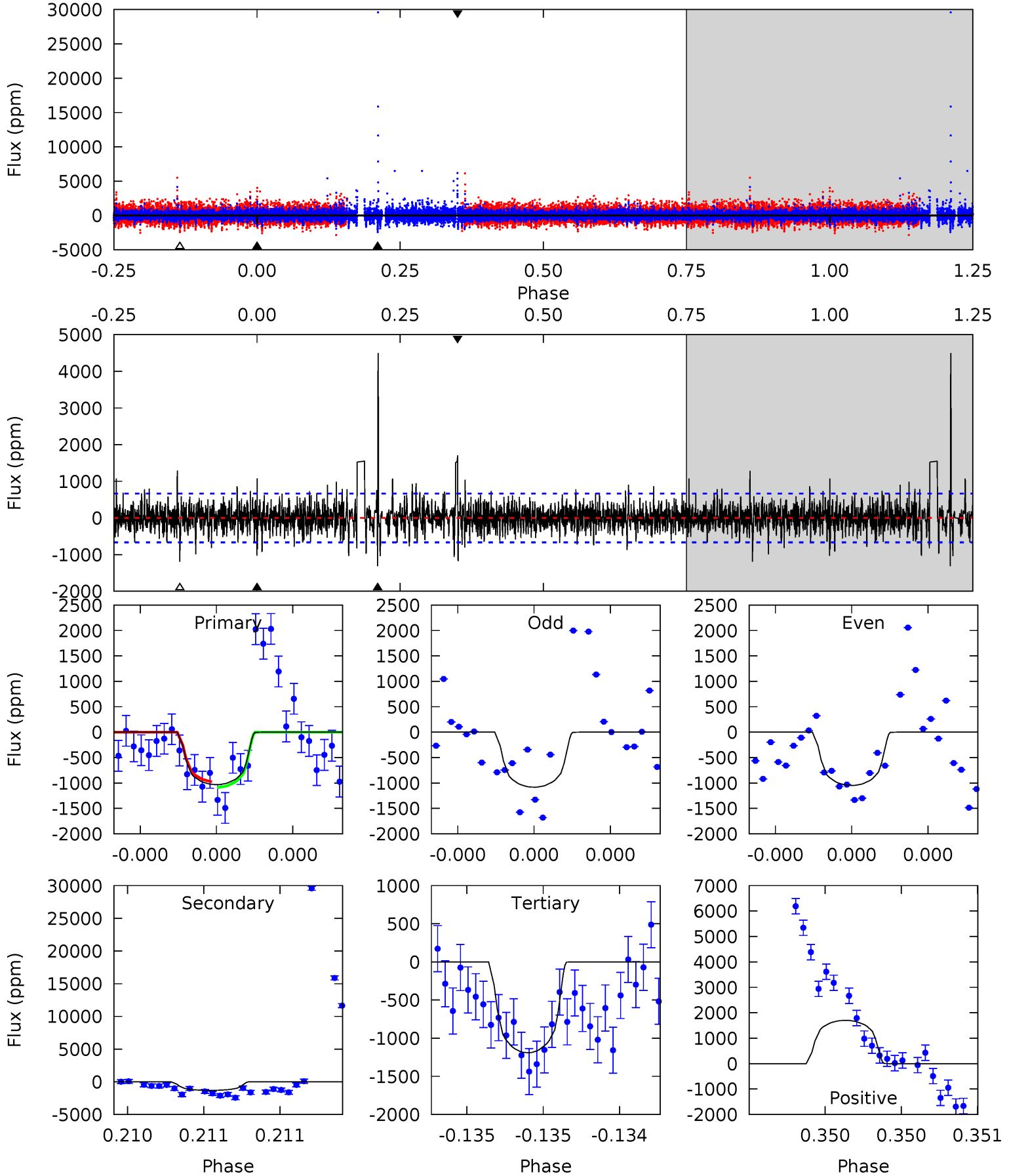
TCE 003765091-05 $P=379.921181$ Days $T_0=478.377545$ (BKJD)



DV Model-Shift Uniqueness Test

003765091-05, P = 379.905582 Days, E = 98.497200 Days

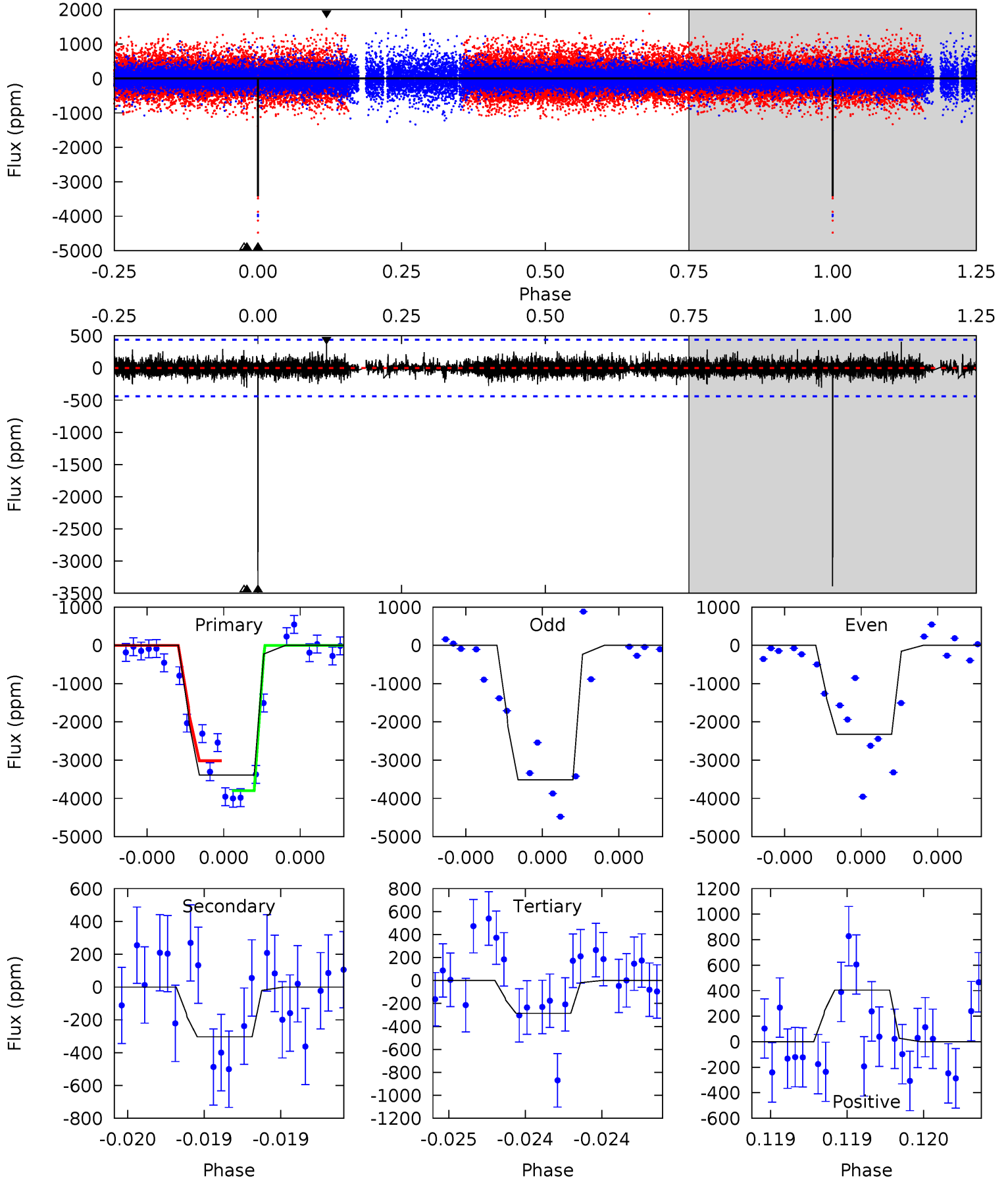
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.67	11.0	10.0	14.3	5.58	3.49	2.10	-1.34	-5.64	1.00	-3.30	0.10	1.04	0.77	0.47



Alt Model-Shift Uniqueness Test

003765091-05, P = 379.921181 Days, E = 98.456364 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
43.4	3.89	3.65	5.18	5.62	3.55	0.80	39.7	38.2	0.23	-1.30	8.12	0.78	0.11	4.93



Stellar Parameters For KIC 003765091

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	4498^{+134}_{-134}	$4.711^{+0.048}_{-0.032}$	$-1.040^{+0.300}_{-0.300}$	$0.531^{+0.038}_{-0.038}$	$0.529^{+0.045}_{-0.026}$	$4.974^{+1.066}_{-0.675}$
	+3%/-3%	+1%/-1%	+29%/-29%	+7%/-7%	+9%/-5%	+21%/-14%
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 003765091-05 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-1311 ± 119	$2.92^{+2.24}_{-1.90}$	221^{+7}_{-7}	3973^{+2206}_{-703}	$59457^{+416054}_{-40533}$
Alt.	-304 ± 78	$3.41^{+2.53}_{-2.01}$	221^{+7}_{-7}	2991^{+1001}_{-404}	9711^{+49128}_{-6438}

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

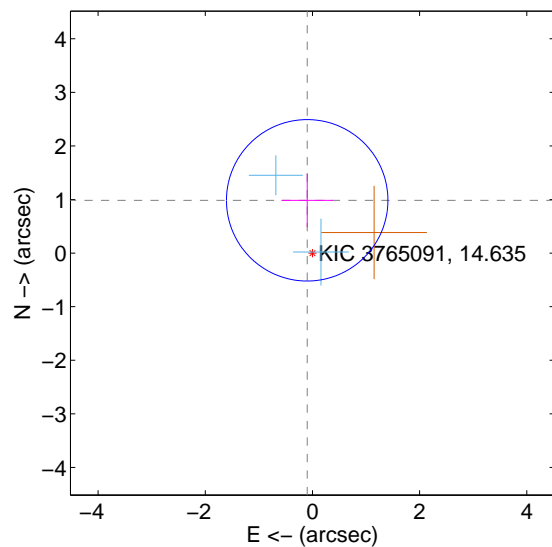
Supplemental centroid analysis for 003765091-05. Kepler magnitude: 14.63. Transit SNR 7.68

There are 2 quarters with good PRF difference image offsets

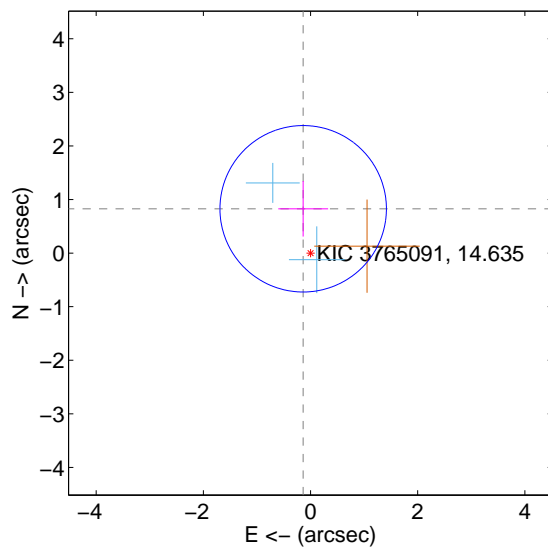
The direct PRF centroid is offset from the target star catalog position by about 0.27 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.990 ± 0.502	1.97	0.098 ± 0.481	0.985 ± 0.502
PRF-fit source offset from KIC position	0.838 ± 0.518	1.62	0.137 ± 0.465	0.827 ± 0.519
photometric centroid source offset	1.06 ± 0.90	1.17	-0.60 ± 1.04	-0.87 ± 0.83

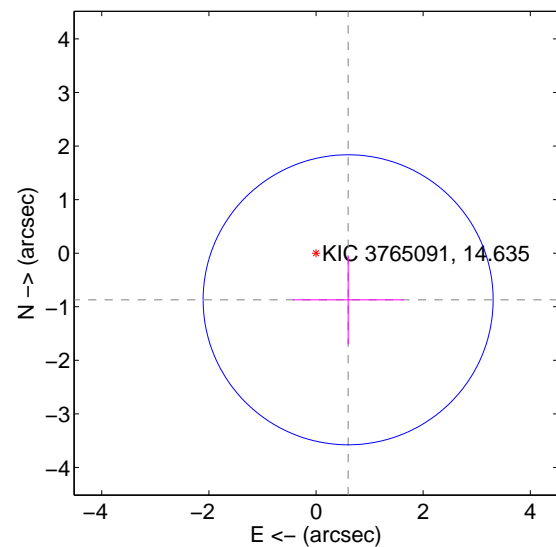
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position



offset from photometric centroids

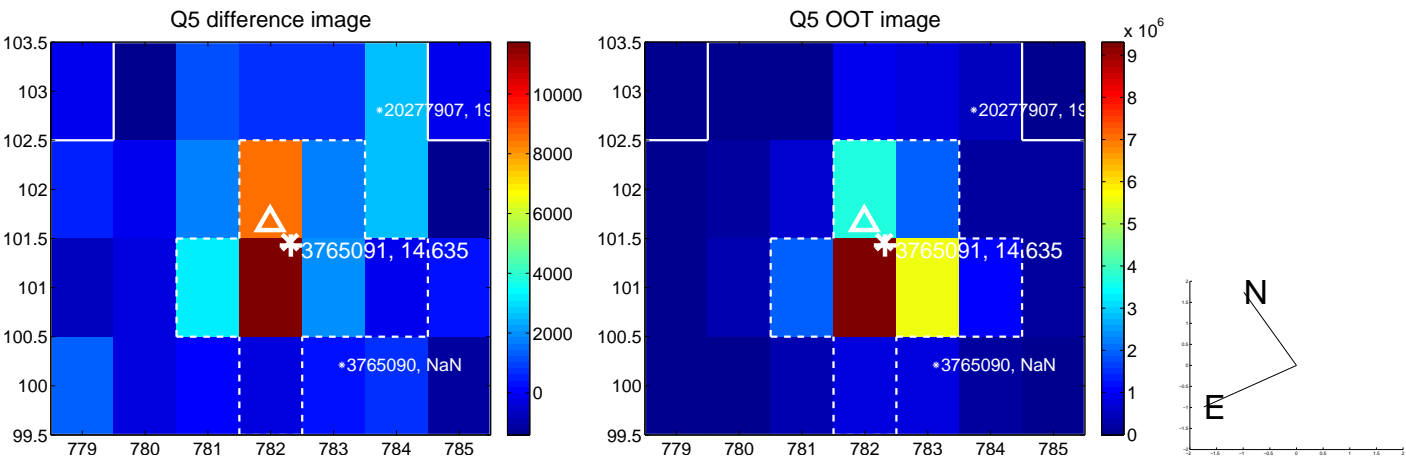


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

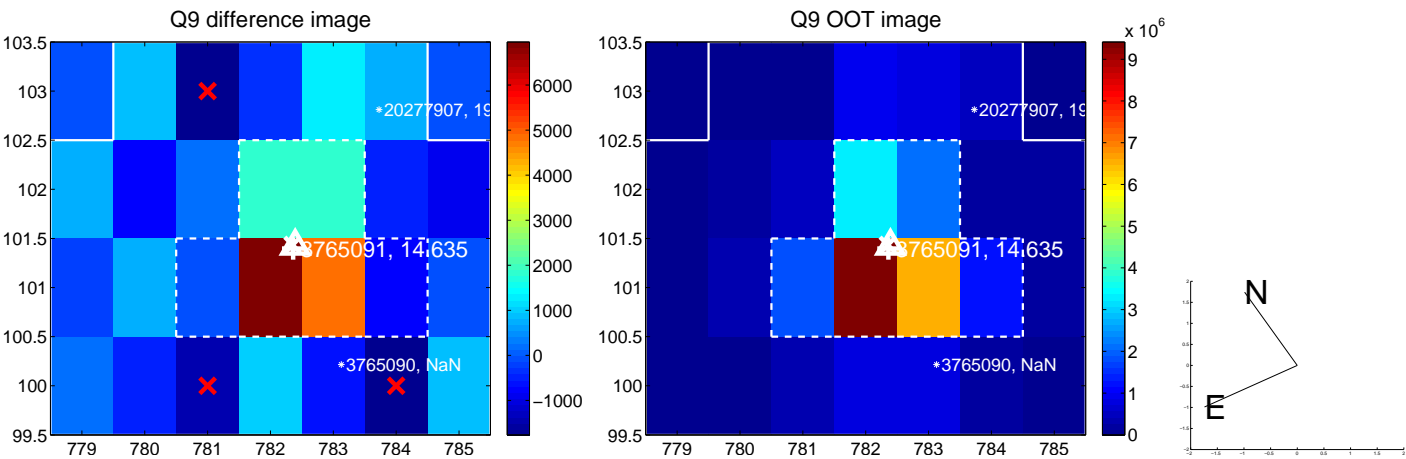
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



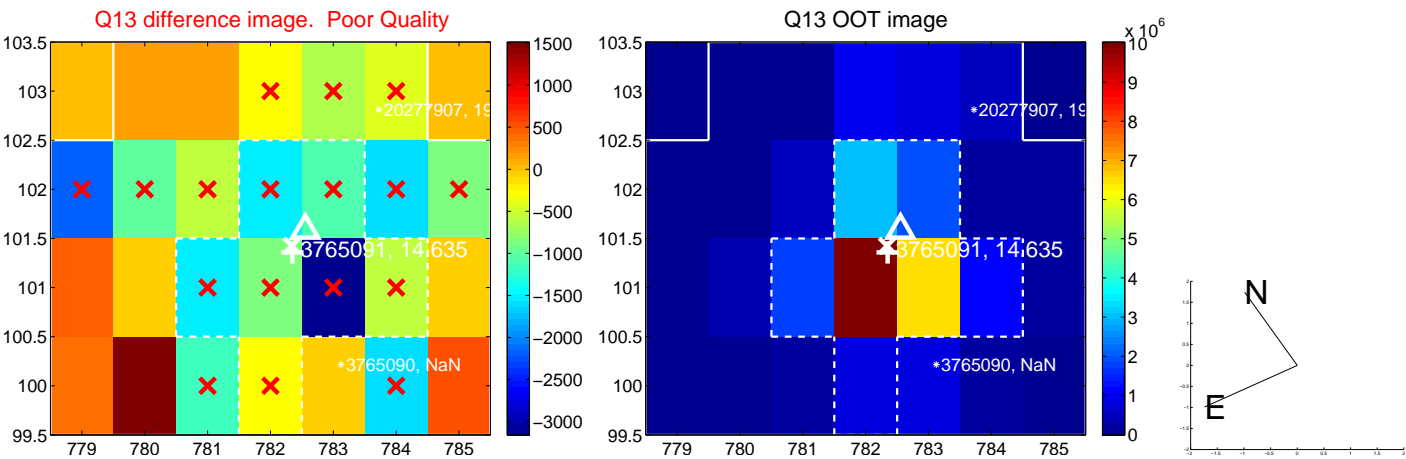
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



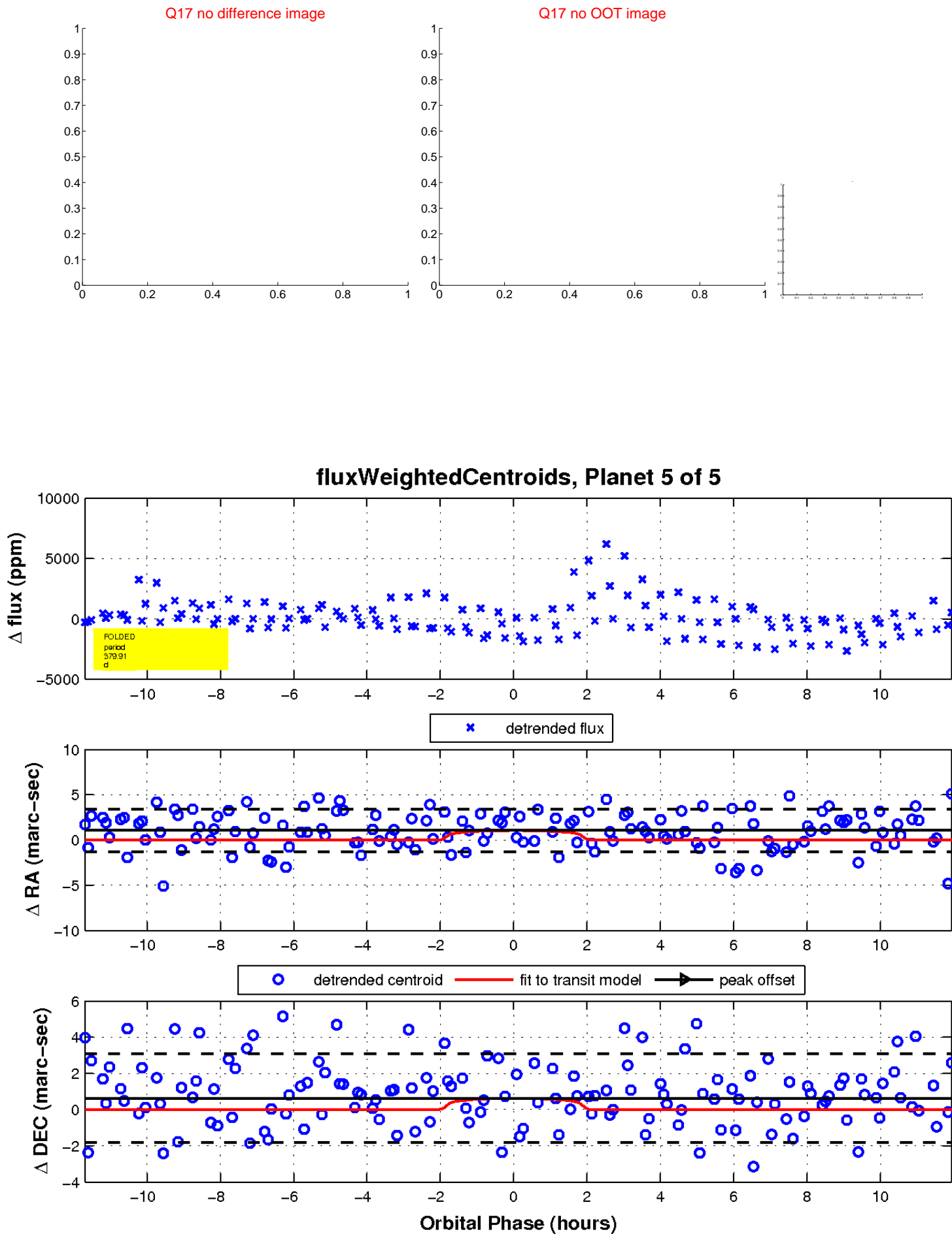
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

