

KIC 007868092

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})
007868092-01	OBS	No	657.812486	263.361806	80.0	14.288	10.2	9.4	2.67	6726	2.60	4.13
007868092-02	OBS	No	328.366470	413.518101	67.4	14.505	9.7	9.5	2.67	6726	2.41	10.43
007868092-03	OBS	No	638.777528	264.717332	47.0	20.765	8.2	7.9	2.67	6726	2.04	4.29

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007868092-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_SATURATED
007868092-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—INCONSISTENT_TRANS—CENT_SATURATED
007868092-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—MOD_TER_DV—CENT_SATURATED

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 007868092-01

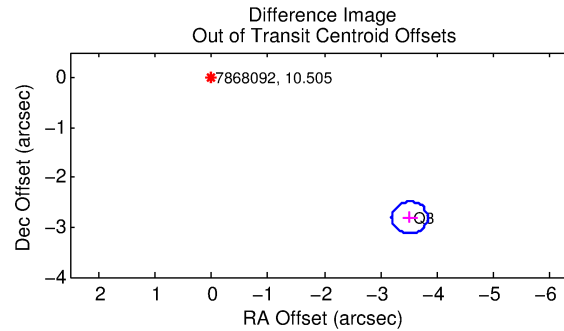
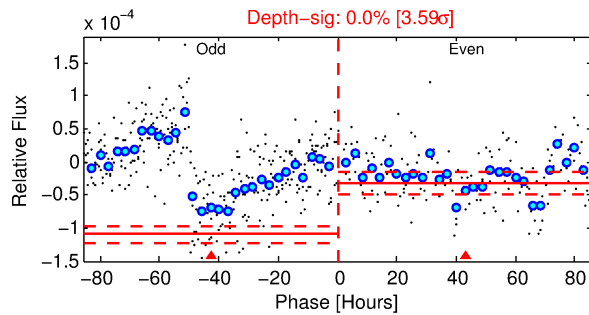
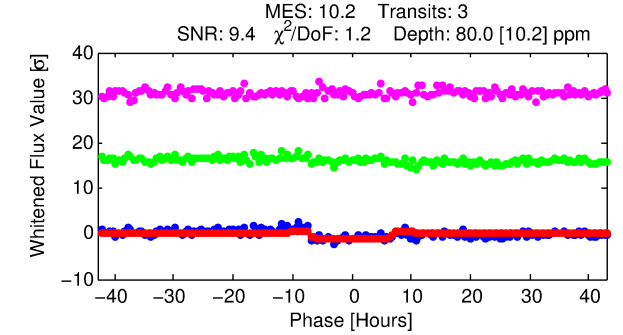
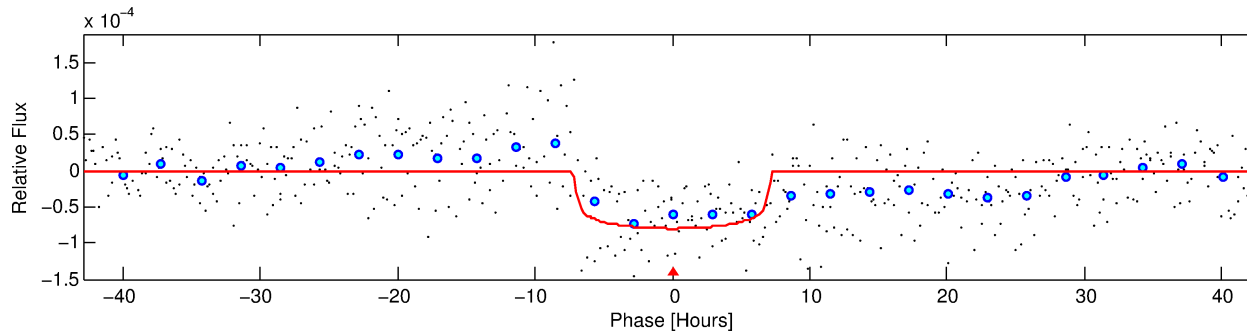
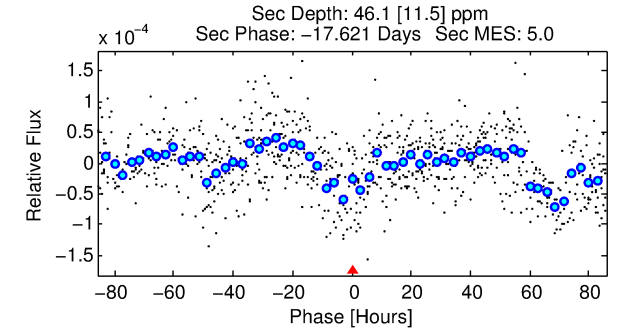
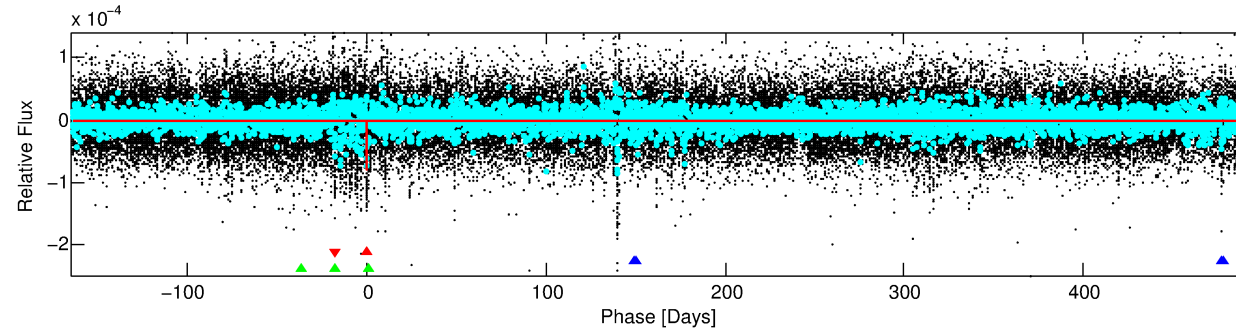
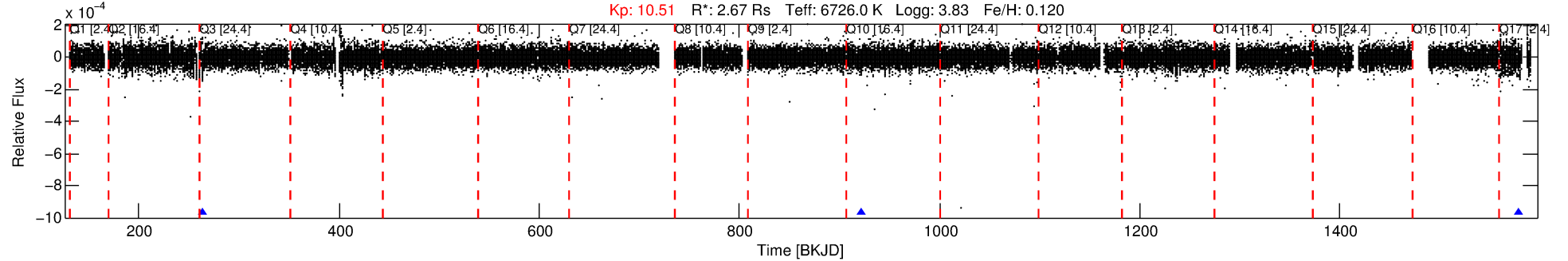
No Significant Match Found

DV One-Page Summary

KIC: 7868092 Candidate: 1 of 3 Period: 657.812 d

KOI: K03169 Corr: No Ephemeris Match

Kp: 10.51 R*: 2.67 Rs Teff: 6726.0 K Logg: 3.83 Fe/H: 0.120



DV Fit Results:

Period = 657.81249 [0.00888] d
Epoch = 263.3618 [0.0133] BKJD
Rp/R* = 0.0089 [0.0022]
a/R* = 233.05 [302.57]
b = 0.76 [0.72]
Seff = 4.13 [1.52]
Teq = 363 [33] K
Rp = 2.60 [0.93] Re
a = 1.7819 [0.4218] AU
Ag = 11884.88 [7805.79] [1.52σ]
Teffp = 5868 [806] K [6.83σ]

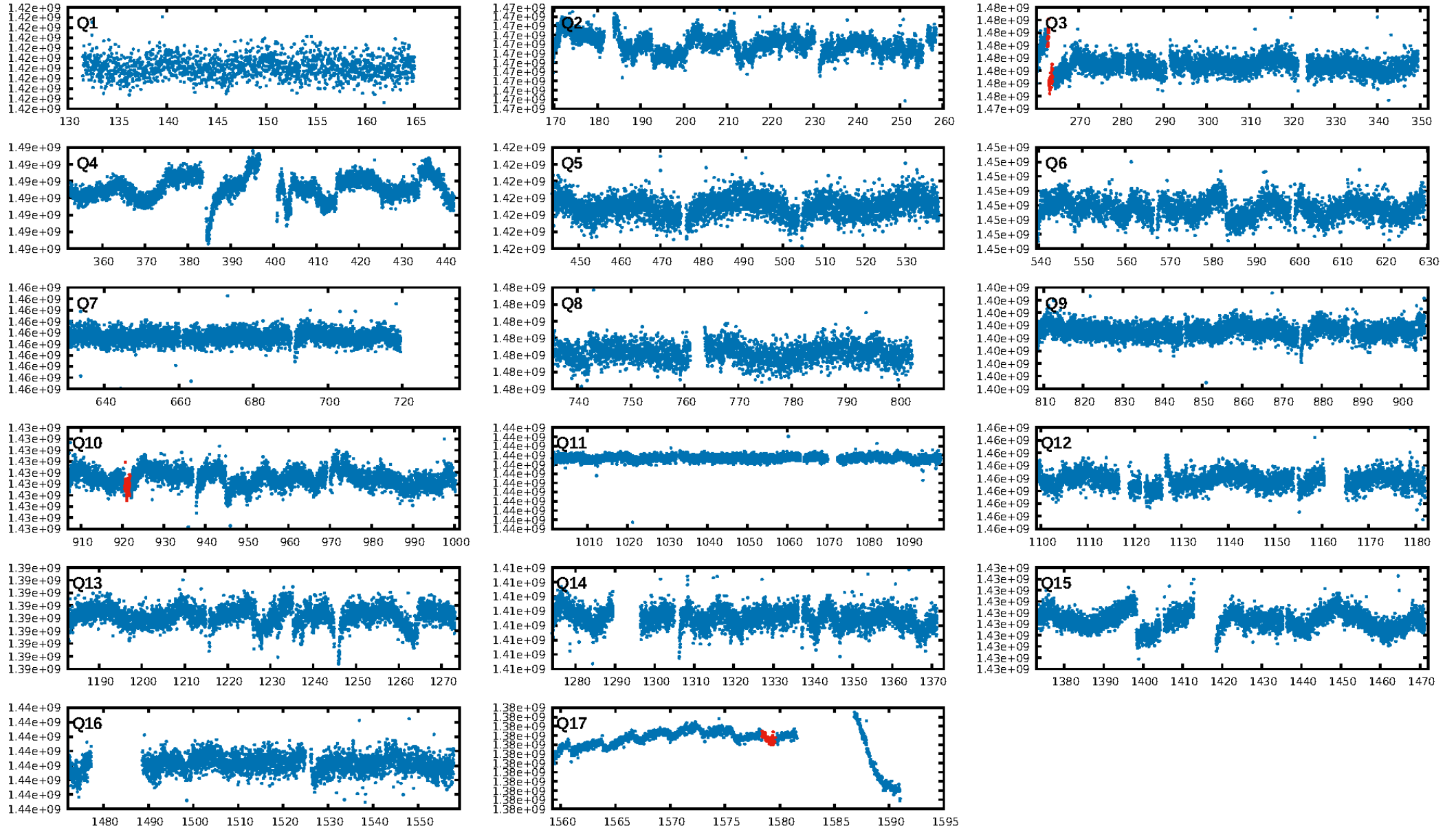
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [18.12σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.2%
ModelChiSquareGof-sig: 99.5%
Bootstrap-pfa: 2.37e-12
RollingBand-fgt: 1.00 [2/2]
GhostDiagnostic-chr: N/A
Centroid-sig: 67.8%
Centroid-so: 1.055 arcsec [0.52σ]
OotOffset-rm: 4.498 arcsec [42.31σ]
KicOffset-rm: 4.216 arcsec [39.29σ]
OotOffset-st: 0/1/0/0 [1]
KicOffset-st: 0/1/0/0 [1]
DiffImageQuality-fgm: 0.00 [0/1]
DiffImageOverlap-fno: 0.67 [2/3]

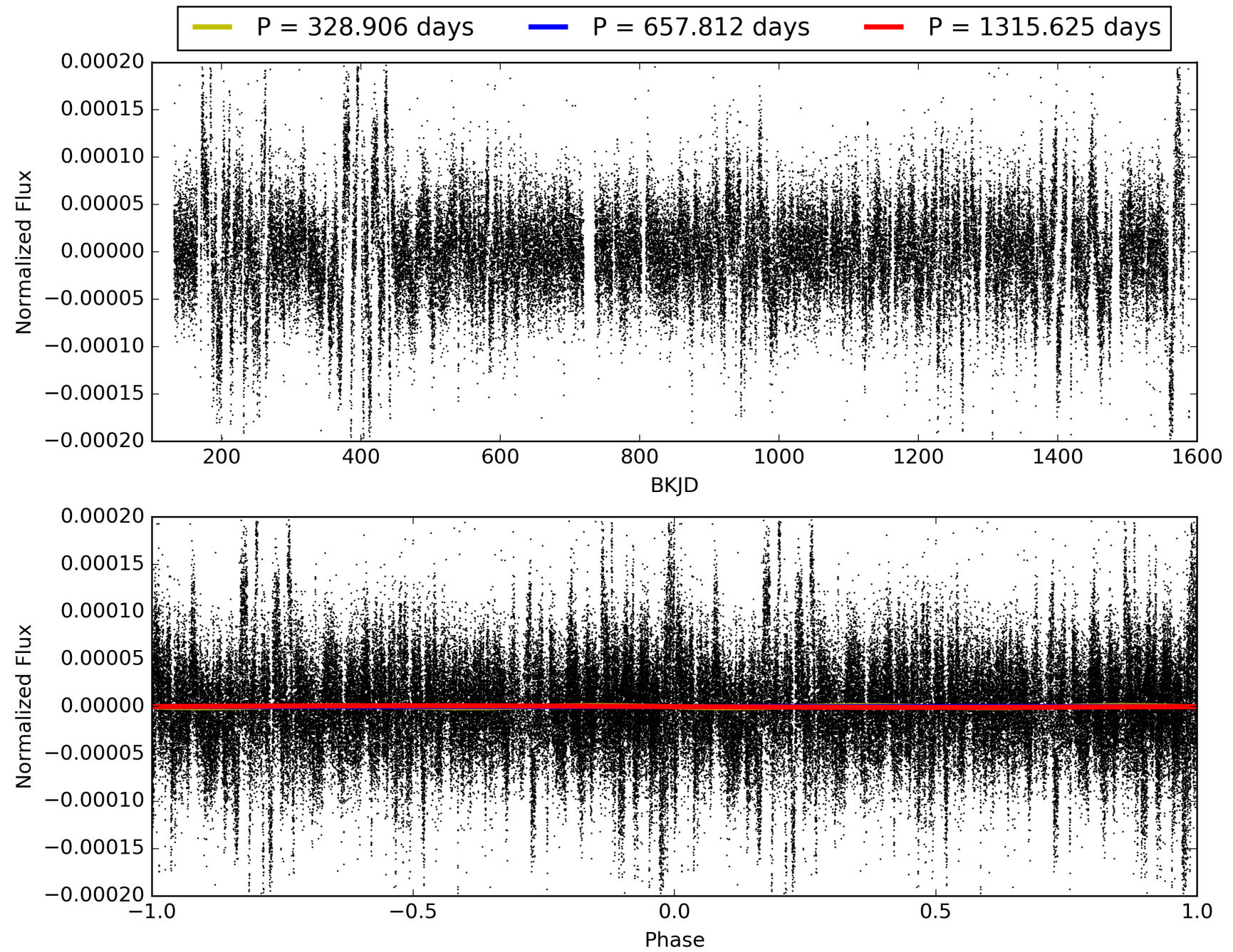
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 15:49:26 Z

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

TCE 007868092-01, PDC Light Curves

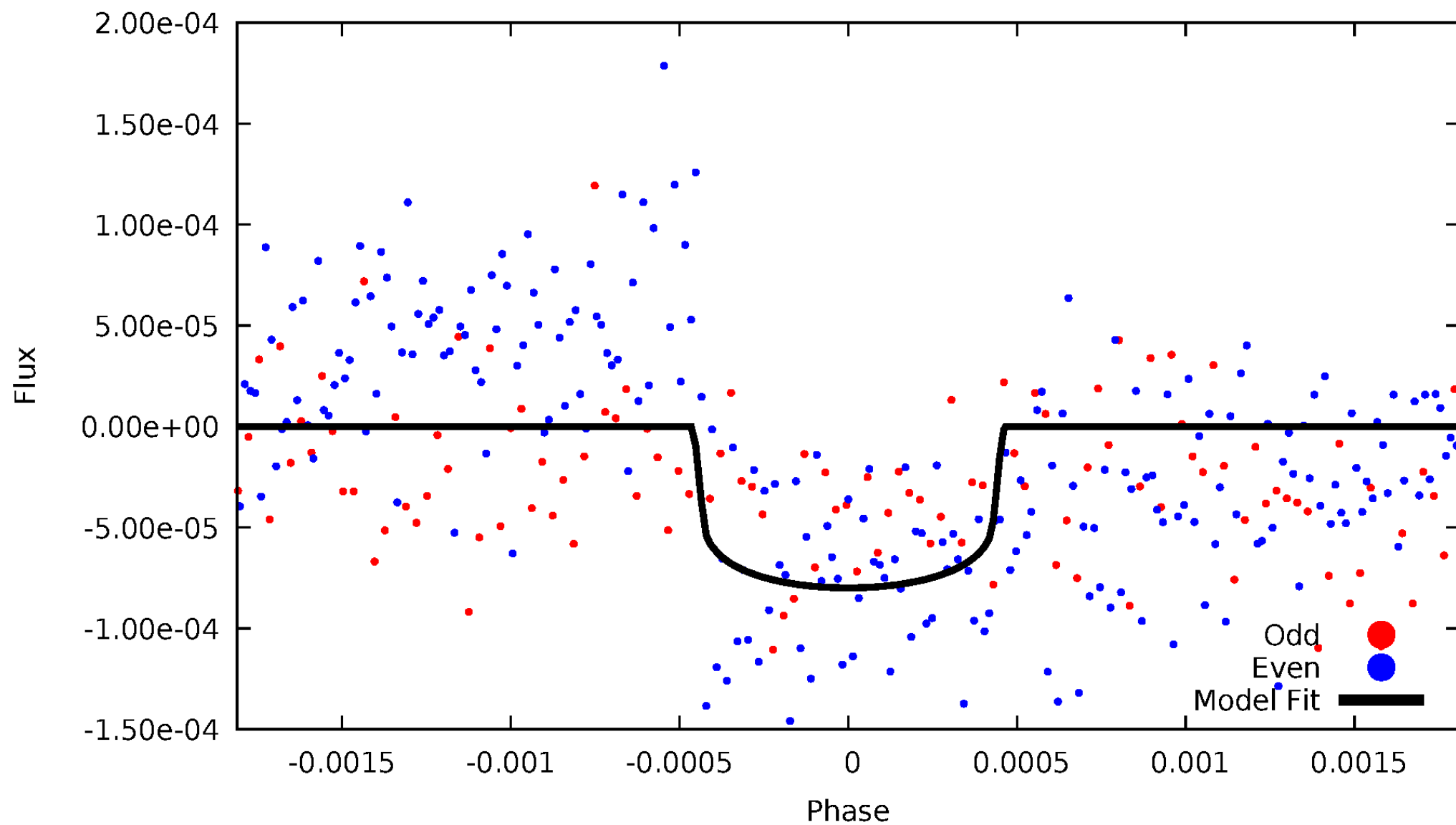


TCE 007868092-01



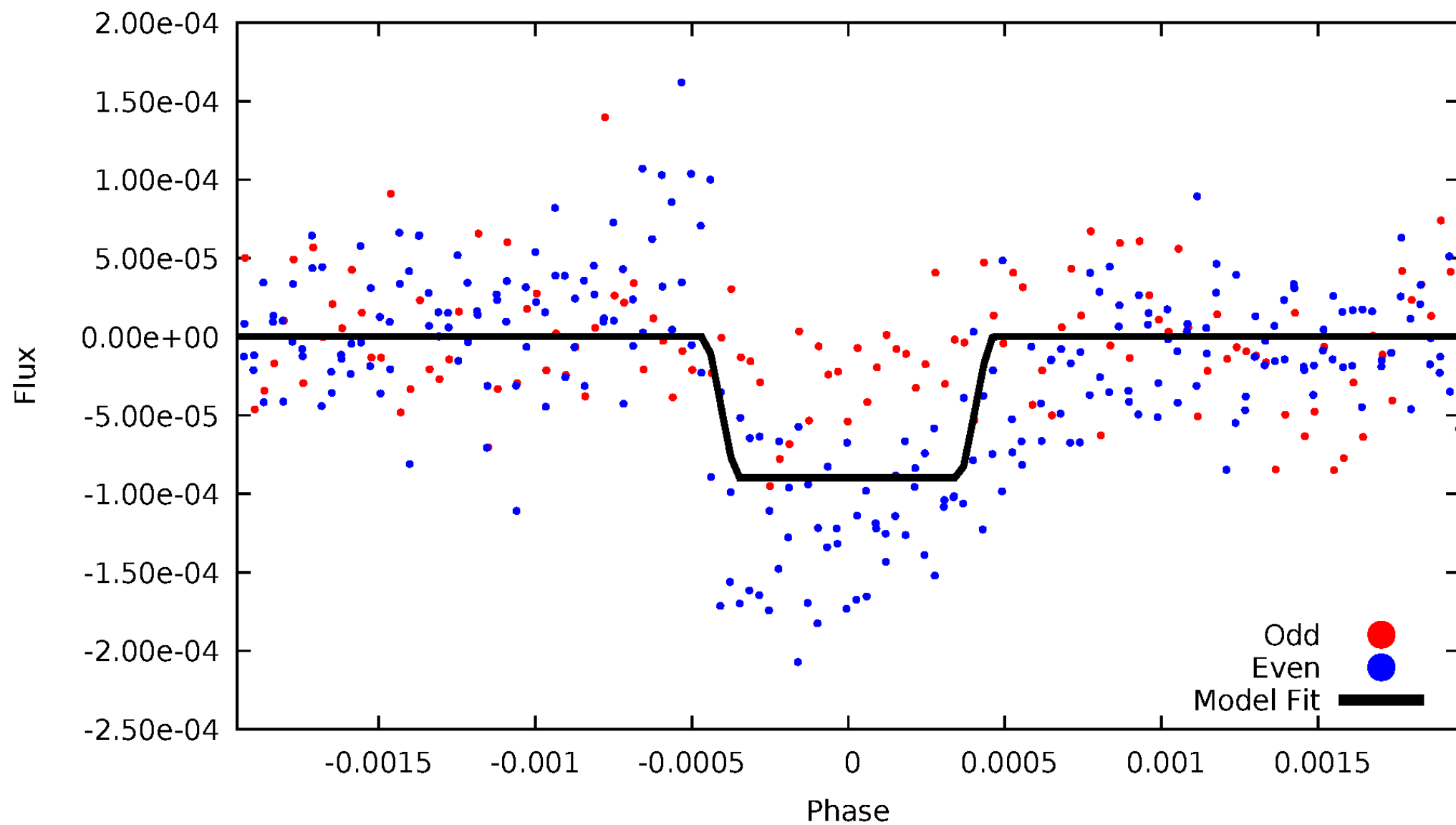
DV Odd/Even

TCE 007868092-01

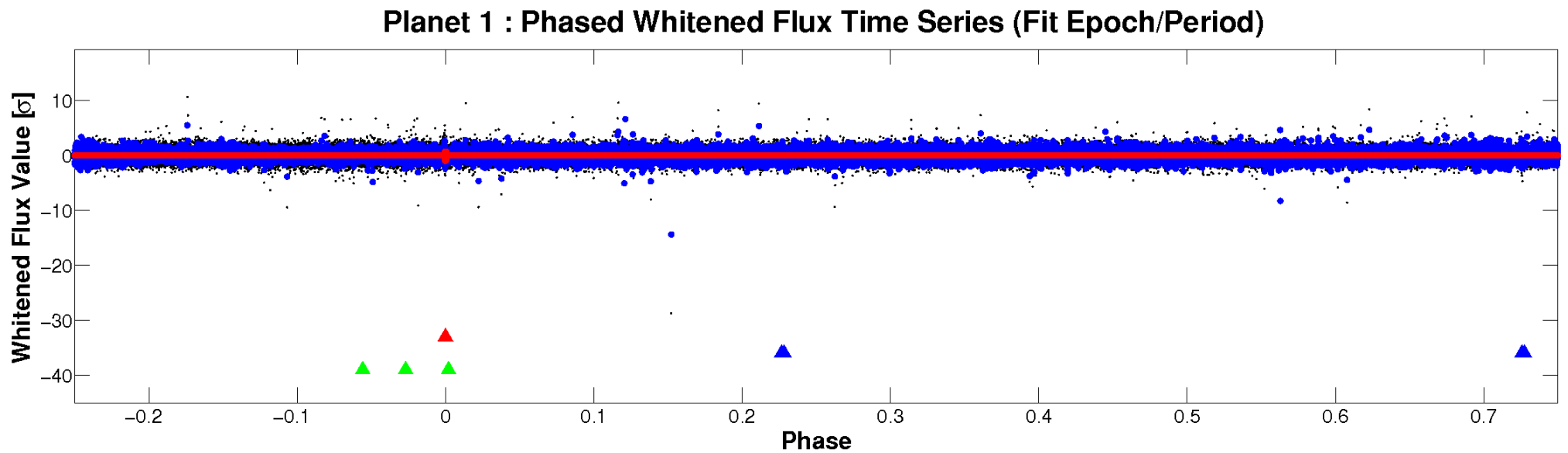
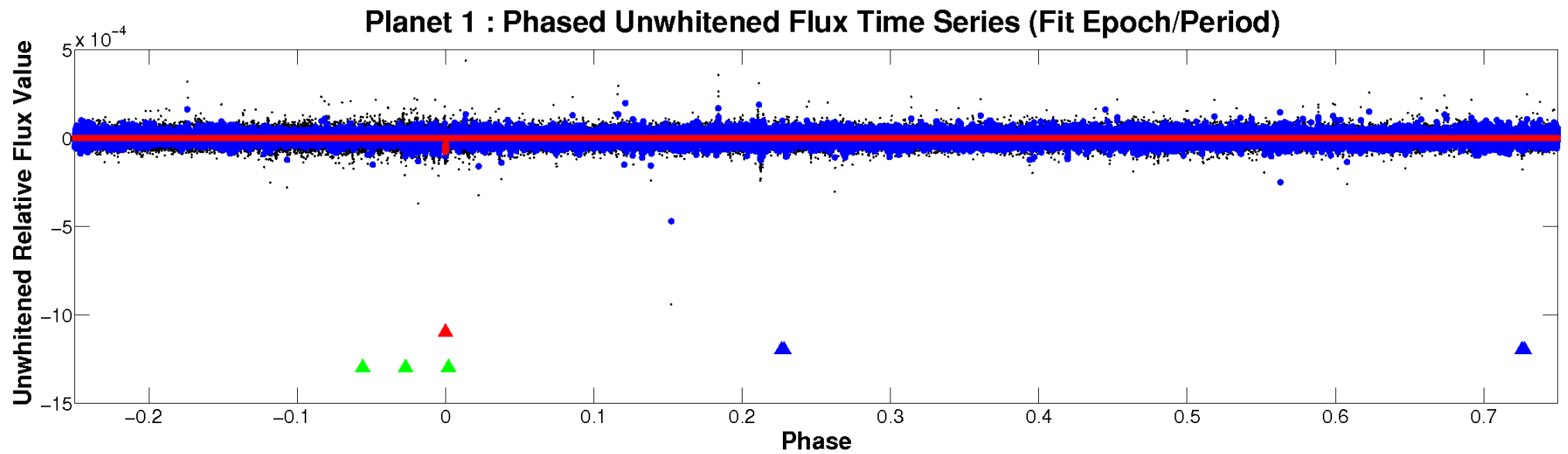


ALT Odd/Even

TCE 007868092-01

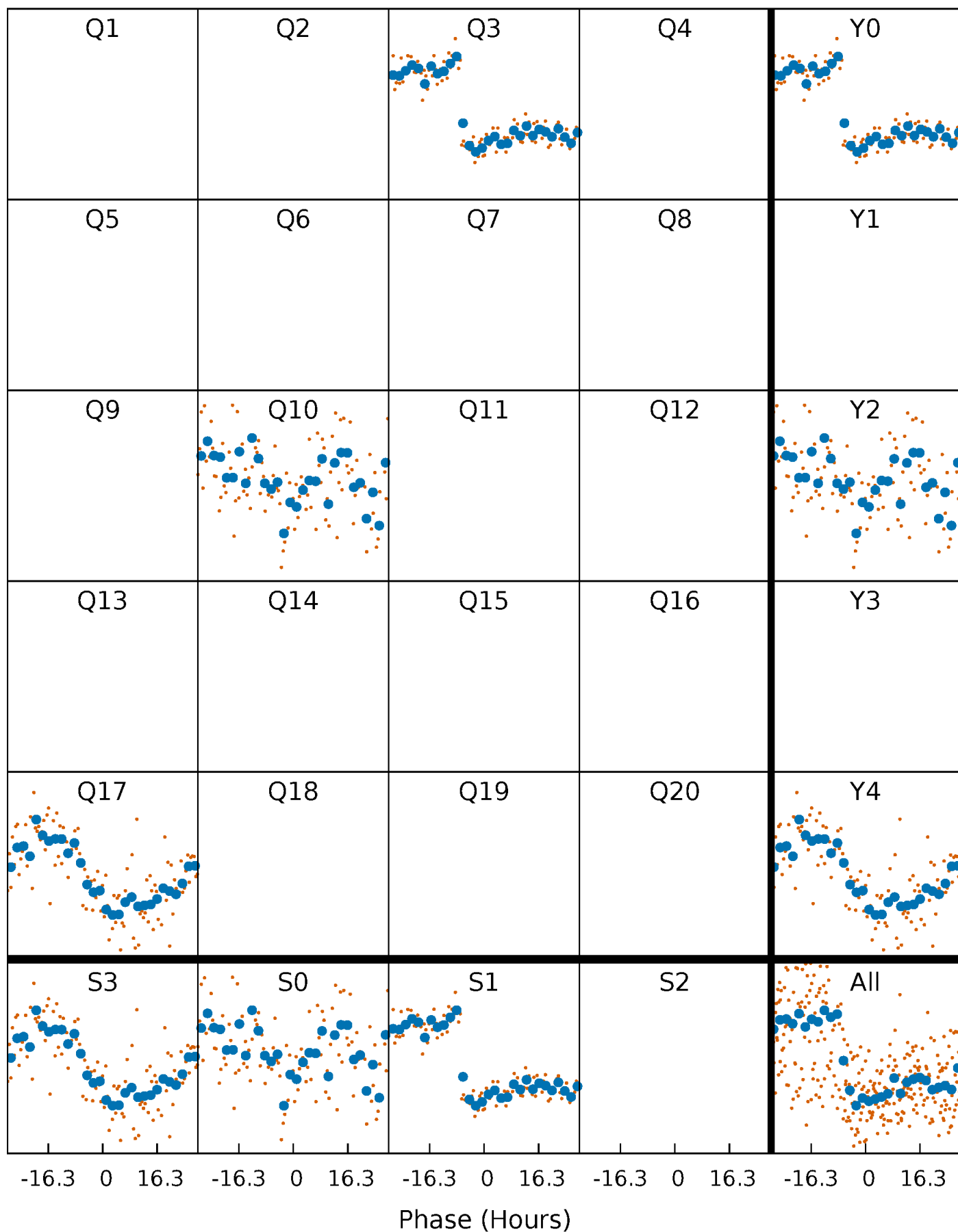


Non-Whitened Vs. Whitened Light Curve



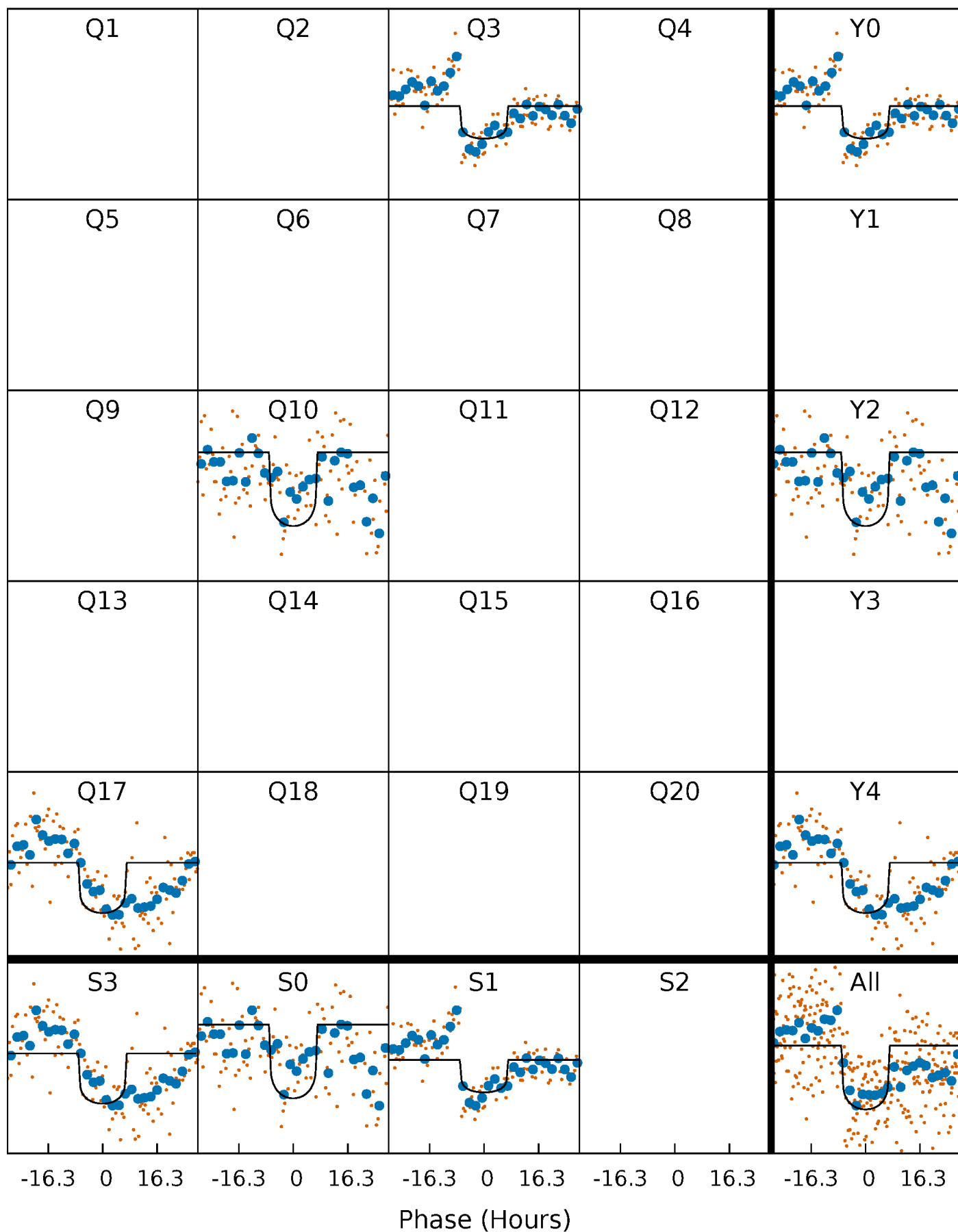
PDC Quarter-Phased Transit Curves

TCE 007868092-01 P=657.812486 Days $T_0=263.361806$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 007868092-01 P=657.812486 Days $T_0=263.361806$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

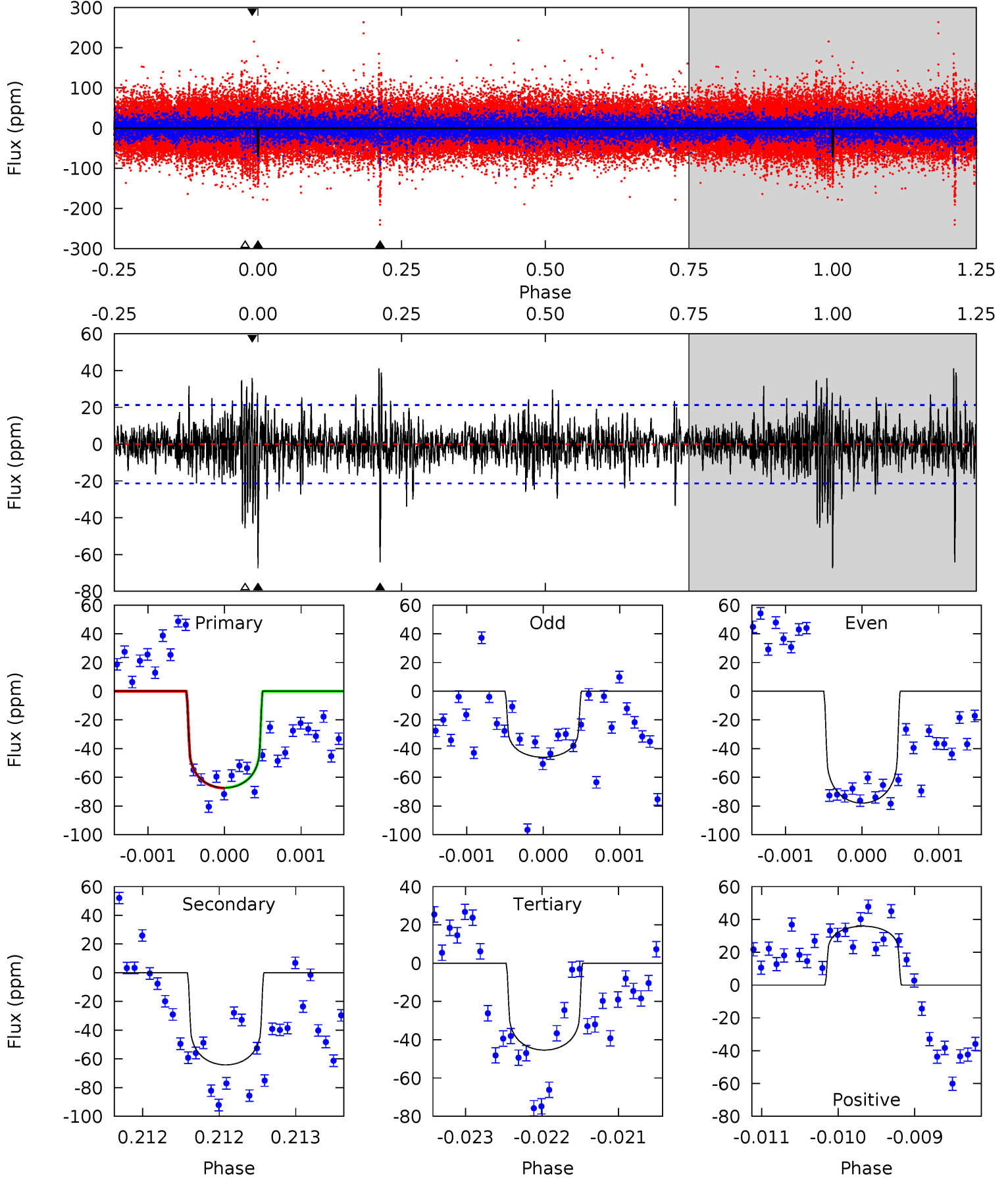
TCE 007868092-01 P=657.838031 Days $T_0=263.354037$ (BKJD)



DV Model-Shift Uniqueness Test

007868092-01, P = 657.812486 Days, E = 263.361806 Days

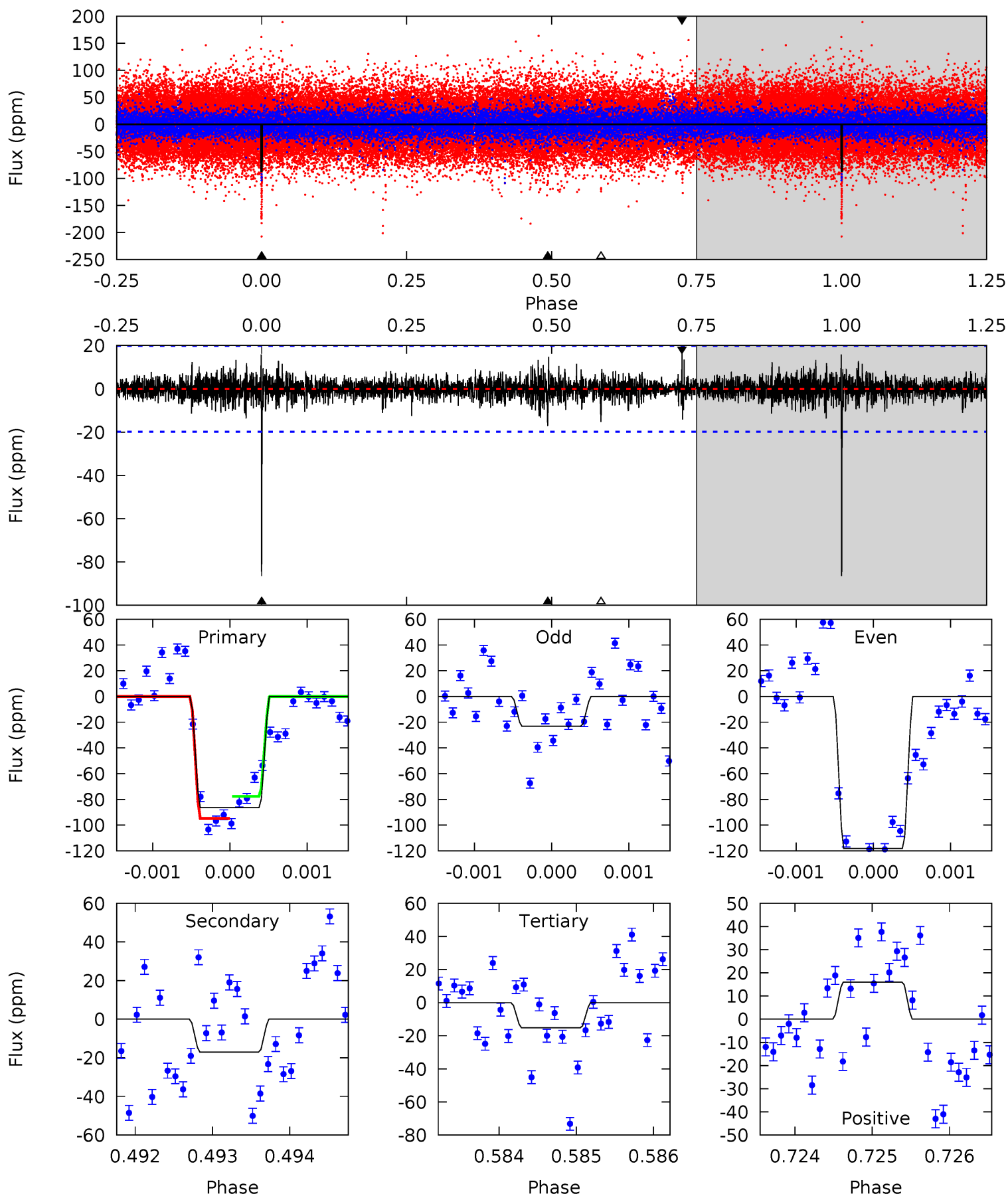
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17.3	16.5	11.6	9.20	5.46	3.31	2.26	5.63	8.08	4.81	7.26	3.92	1.05	0.38	0.04



Alt Model-Shift Uniqueness Test

007868092-01, P = 657.838031 Days, E = 263.354037 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
23.8	4.70	4.20	4.42	5.47	3.32	0.92	19.6	19.4	0.50	0.28	12.4	0.89	0.16	2.38



Stellar Parameters For KIC 007868092

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6726^{+73}_{-87}	$3.825^{+0.208}_{-0.112}$	$0.120^{+0.150}_{-0.150}$	$2.674^{+0.467}_{-0.701}$	$1.744^{+0.154}_{-0.231}$	$0.128^{+0.151}_{-0.044}$
	+1%/-1%	+5%/-3%	+125%/-125%	+17%/-26%	+9%/-13%	+118%/-34%
Source	SPE74	SPE74	SPE74	DSEP		

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

Secondary Eclipse Parameters for KIC 007868092-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-64 ± 4	$2.53^{+0.69}_{-0.71}$	504^{+25}_{-35}	6345^{+1105}_{-664}	17600^{+15582}_{-6679}
Alt.	-17 ± 4	$2.67^{+0.69}_{-0.71}$	505^{+25}_{-30}	4575^{+598}_{-343}	4072^{+3775}_{-1551}

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

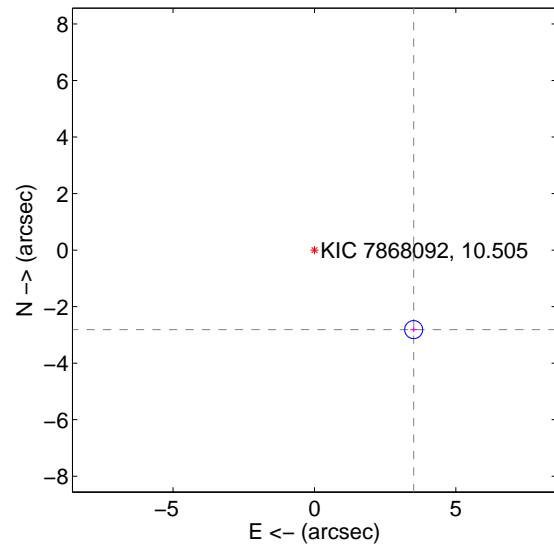
Supplemental centroid analysis for 007868092-01. **Kepler magnitude: 10.51.** Transit SNR 9.39

There are 0 quarters with good PRF difference image offsets

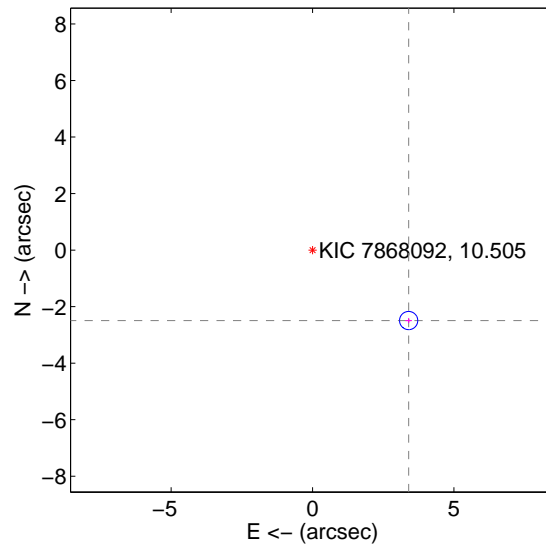
The direct PRF centroid is offset from the target star catalog position by about 0.34 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	4.498 ± 0.106	42.31	-3.509 ± 0.115	-2.813 ± 0.091
PRF-fit source offset from KIC position	4.216 ± 0.107	39.29	-3.400 ± 0.115	-2.492 ± 0.091
photometric centroid source offset	1.05 ± 2.03	0.52	-1.05 ± 2.03	-0.04 ± 1.38

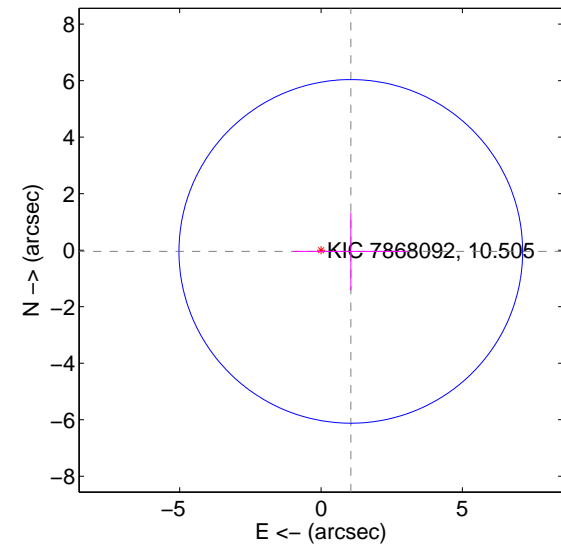
offset from difference PRF-fit to OOT PRF-fit



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.

Q1 no difference image



Q1 no OOT image



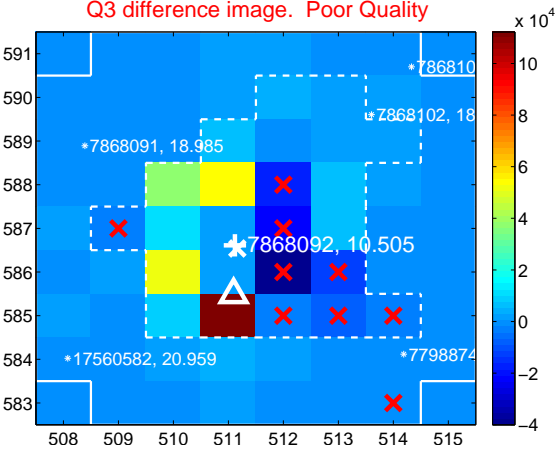
Q2 no difference image



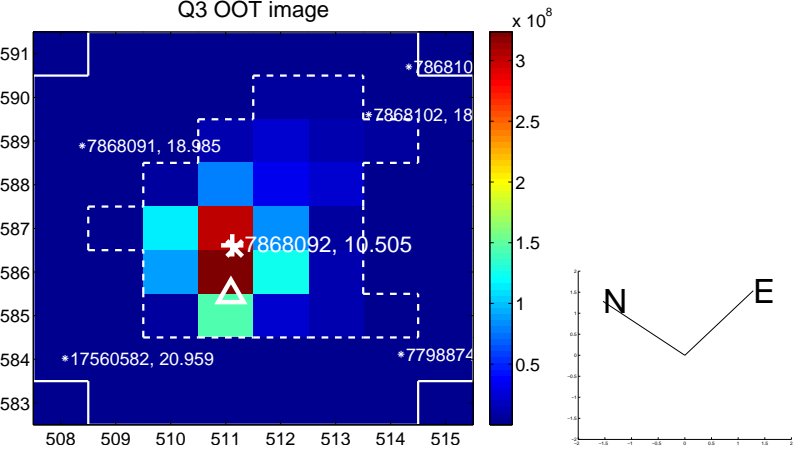
Q2 no OOT image



Q3 difference image. Poor Quality



Q3 OOT image



Q4 no difference image



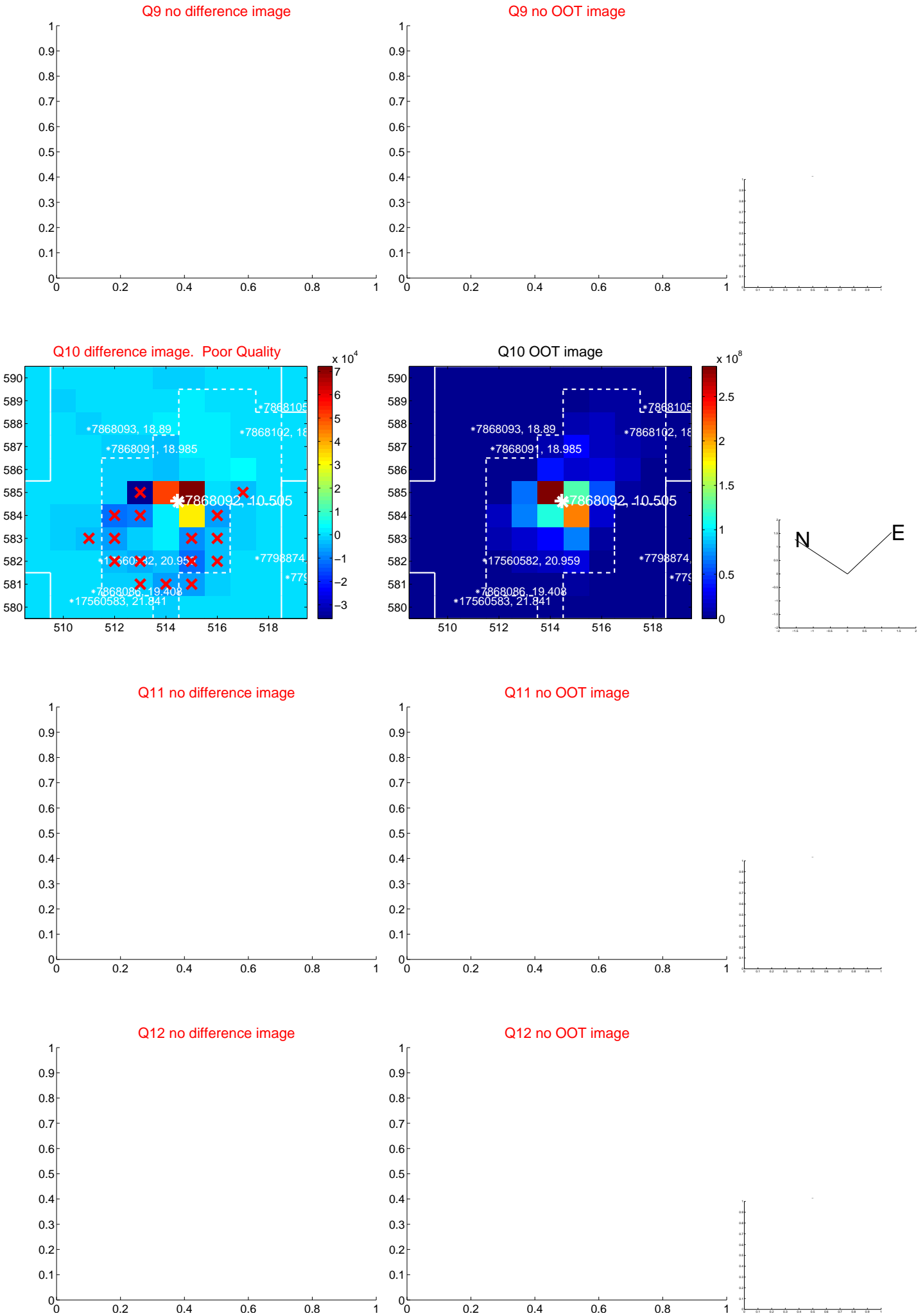
Q4 no OOT image



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



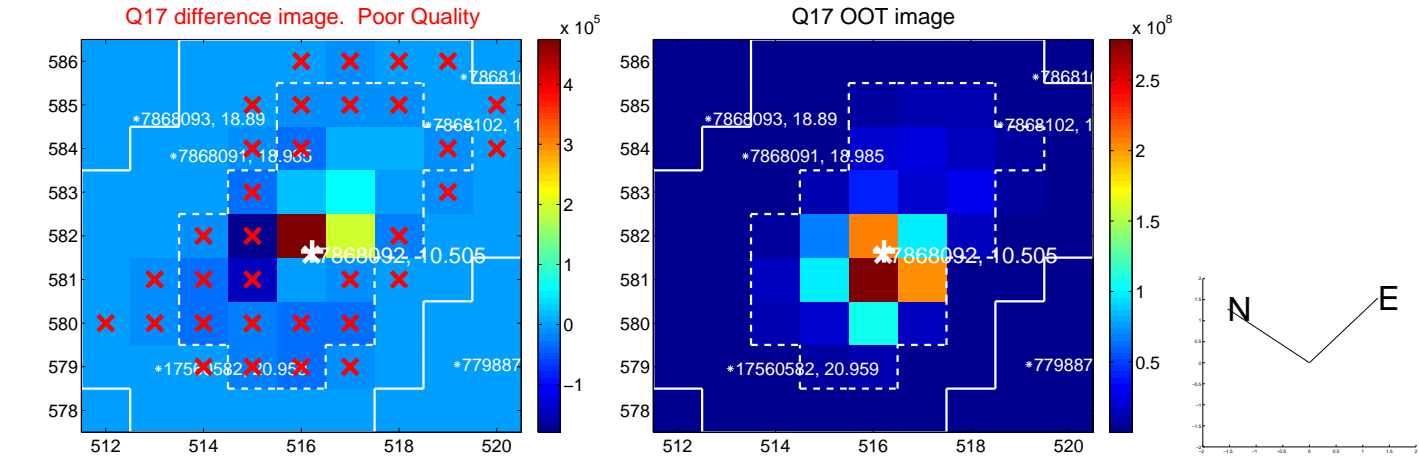
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



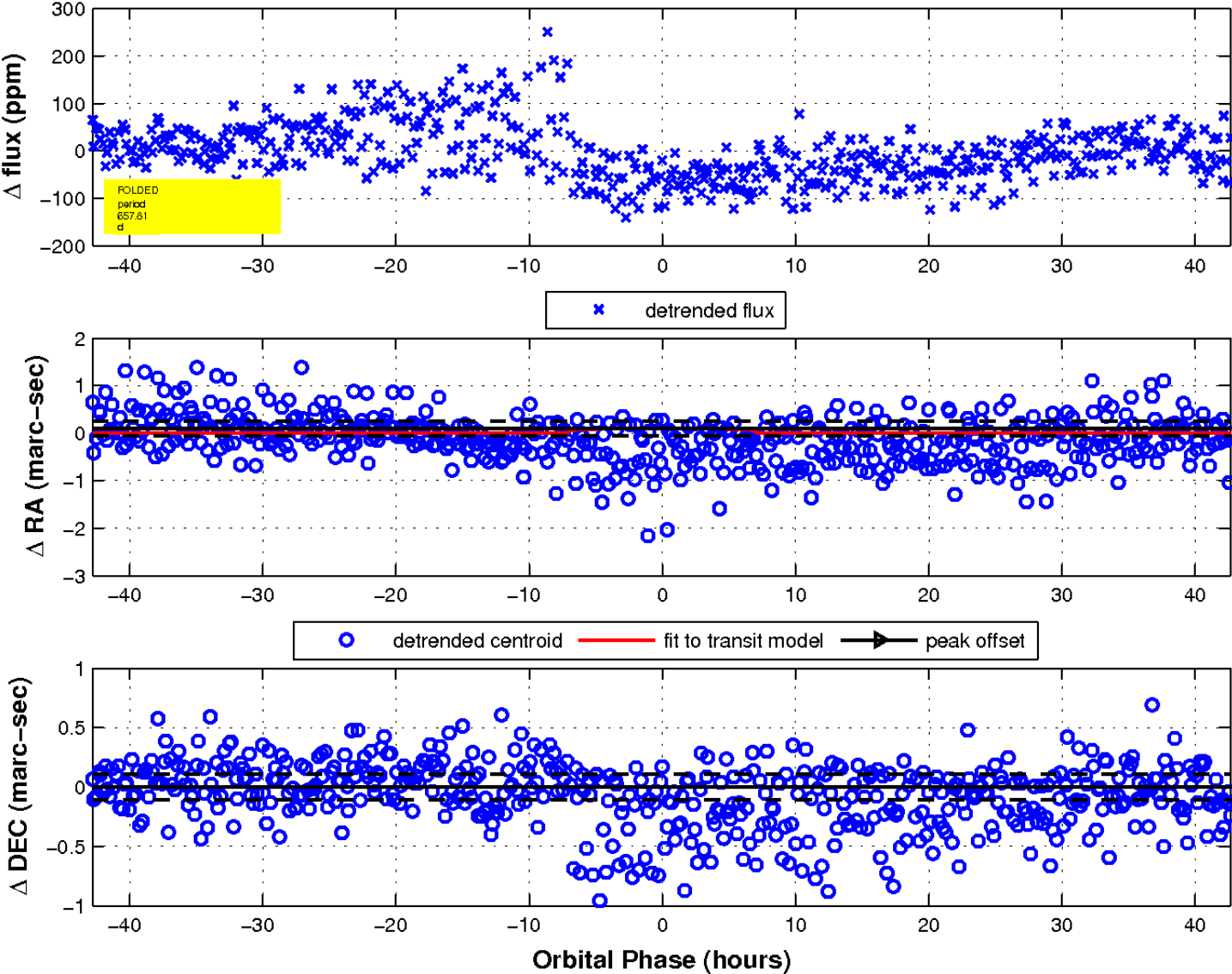
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

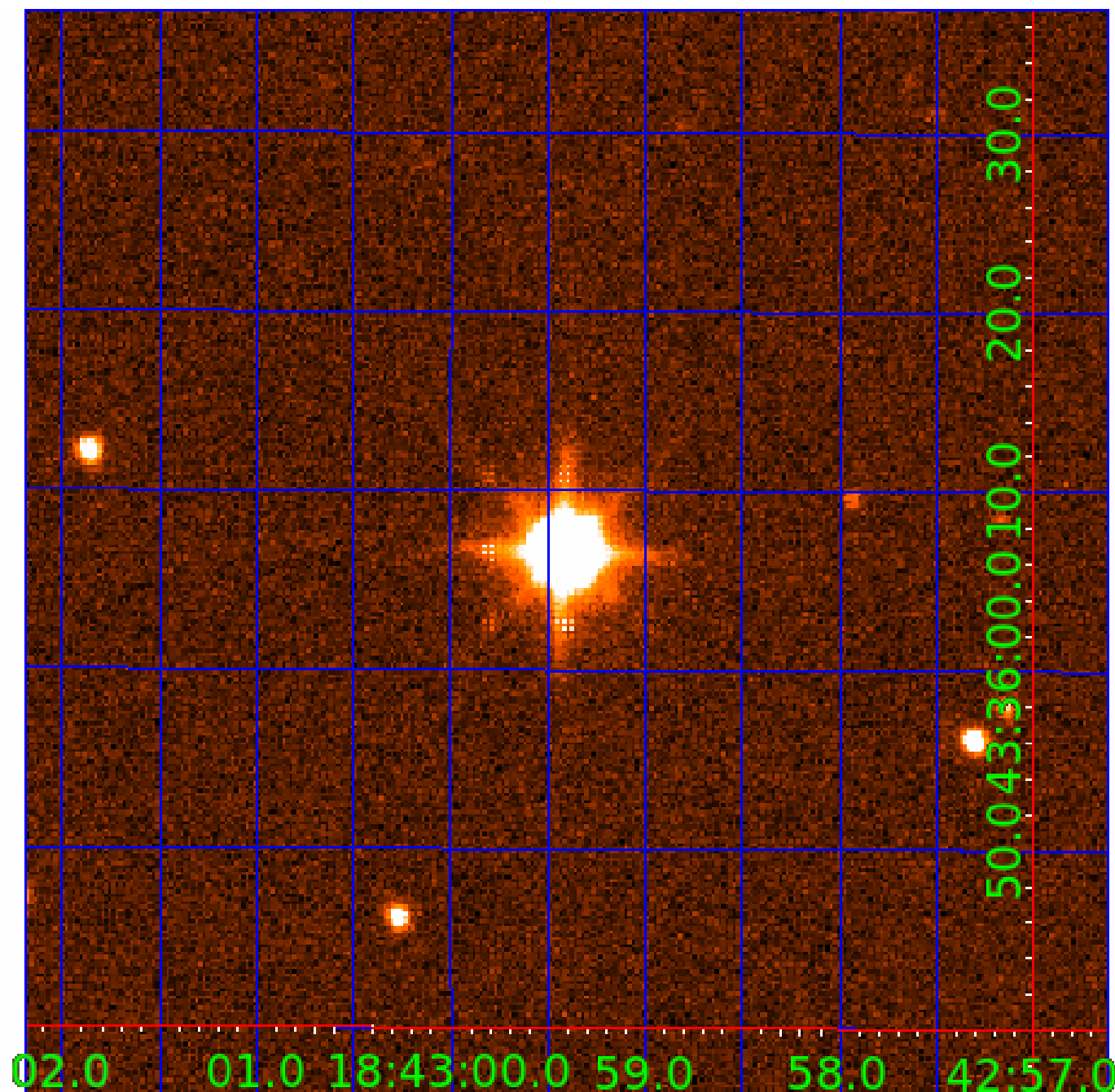


fluxWeightedCentroids, Planet 1 of 3



UKIRT Image

Declination



KIC 007868092

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})
007868092-01	OBS	No	657.812486	263.361806	80.0	14.288	10.2	9.4	2.67	6726	2.60	4.13
007868092-02	OBS	No	328.366470	413.518101	67.4	14.505	9.7	9.5	2.67	6726	2.41	10.43
007868092-03	OBS	No	638.777528	264.717332	47.0	20.765	8.2	7.9	2.67	6726	2.04	4.29

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007868092-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_SATURATED
007868092-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—INCONSISTENT_TRANS—CENT_SATURATED
007868092-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—MOD_TER_DV—CENT_SATURATED

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.

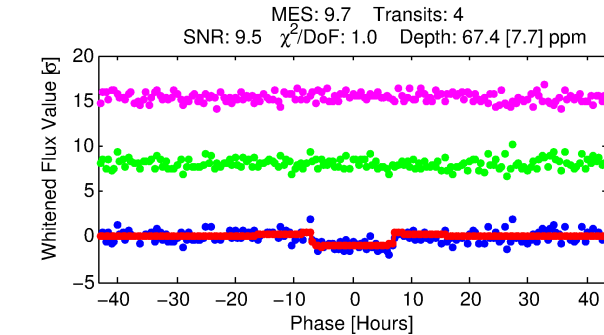
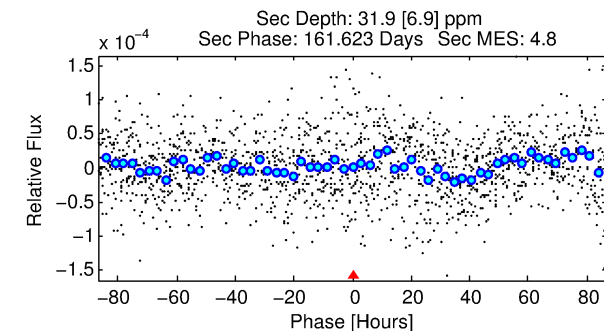
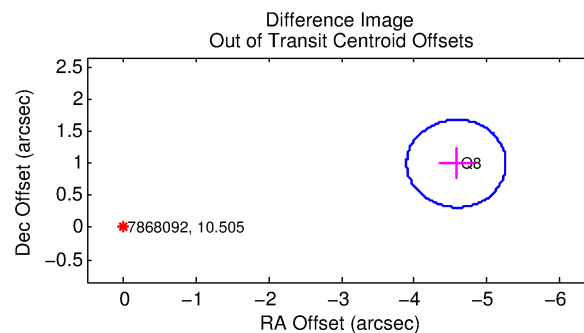
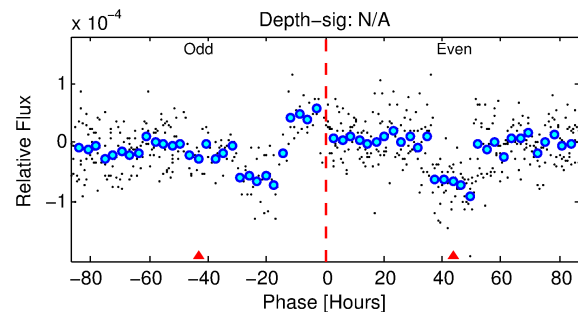
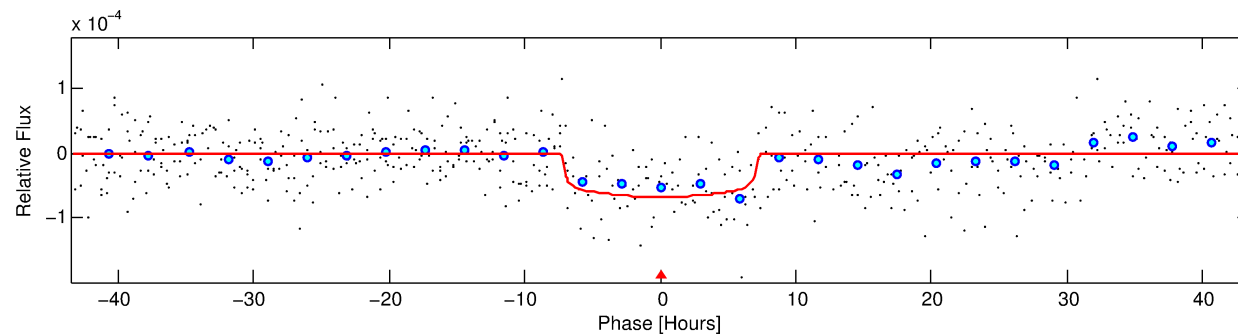
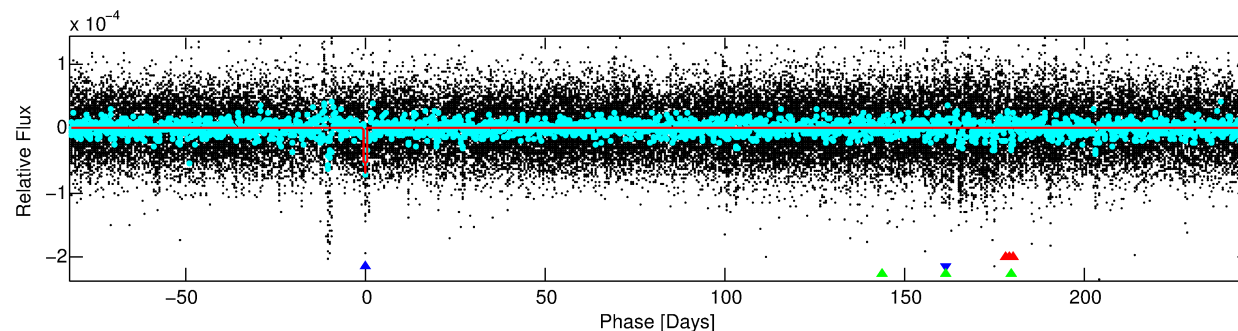
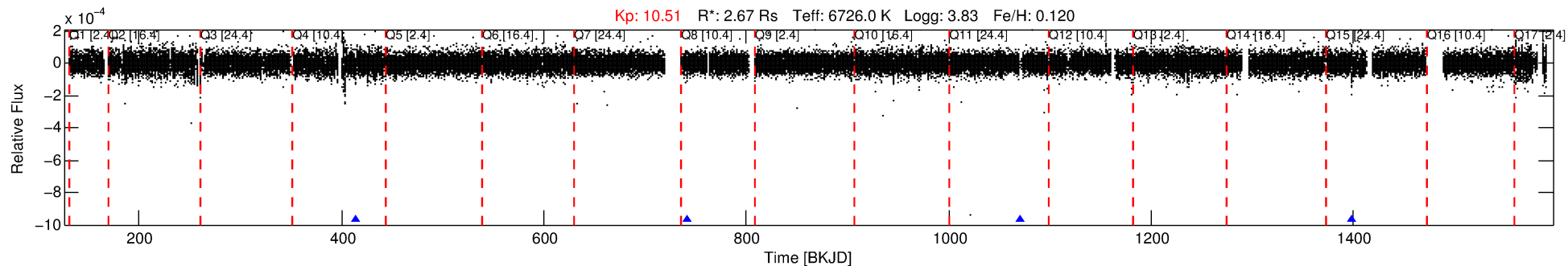
Ephemeris Match Information For 007868092-02

No Significant Match Found

DV One-Page Summary

KIC: 7868092 Candidate: 2 of 3 Period: 328.366 d

KOI: K03169 Corr: No Ephemeris Match



DV Fit Results:

Period = 328.36647 [0.00701] d
Epoch = 413.5181 [0.0127] BKJD
Rp/R* = 0.0082 [0.0017]
a/R* = 110.26 [118.72]
b = 0.78 [0.54]
Seff = 10.43 [3.83]
Teq = 458 [42] K
Rp = 2.41 [0.80] Re
a = 1.1213 [0.2654] AU
Ag = 3806.78 [2225.78] [1.71σ]
Teffp = 5565 [641] K [7.95σ]

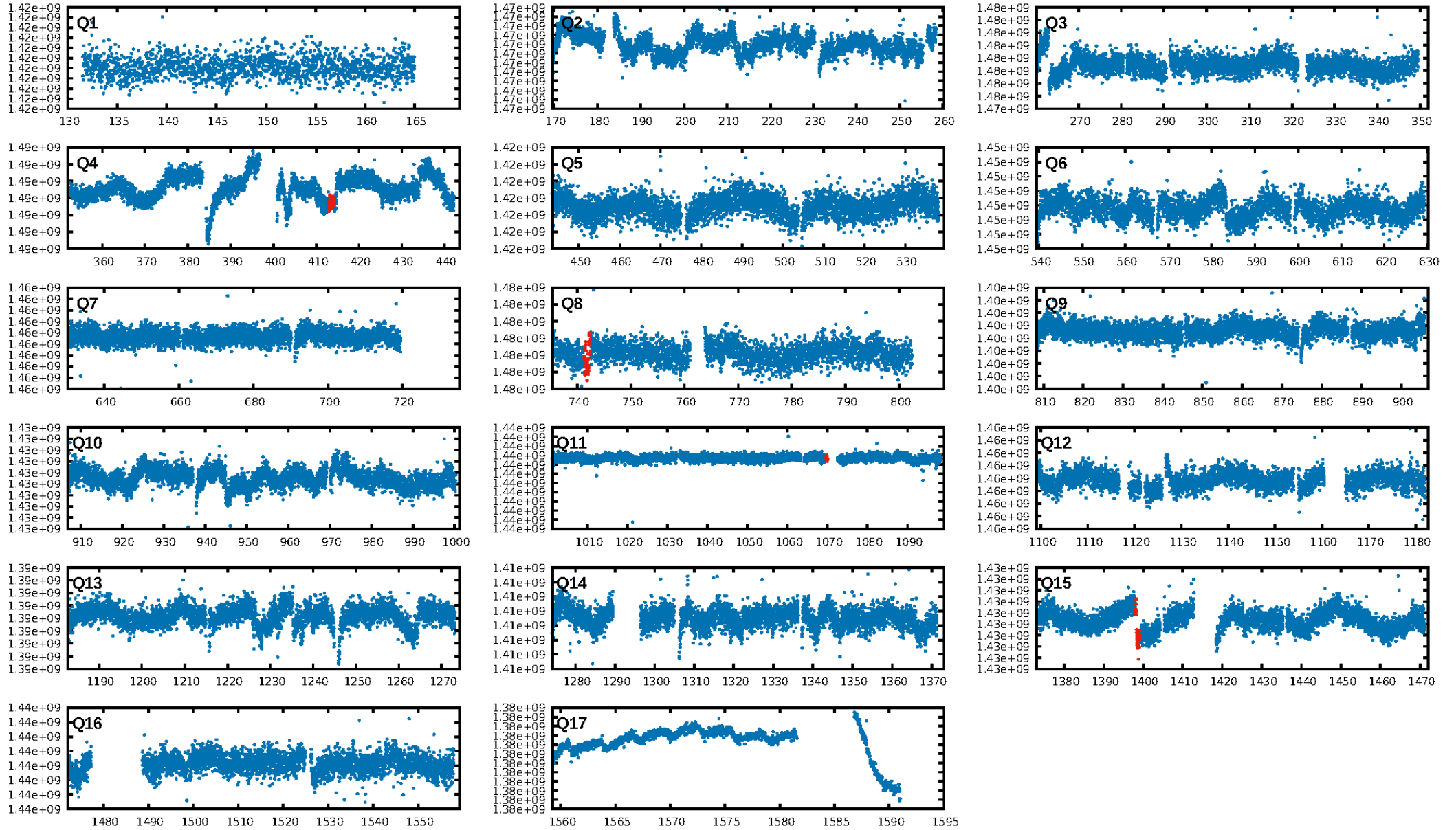
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [294.11σ]
ModelChiSquare2-sig: 1.1%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.75e-12
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: N/A
Centroid-sig: 22.4%
Centroid-so: 3.256 arcsec [1.07σ]
OotOffset-rm: 4.687 arcsec [20.59σ]
KicOffset-rm: 3.417 arcsec [14.98σ]
OotOffset-st: 0/0/1/0 [1]
KicOffset-st: 0/0/1/0 [1]
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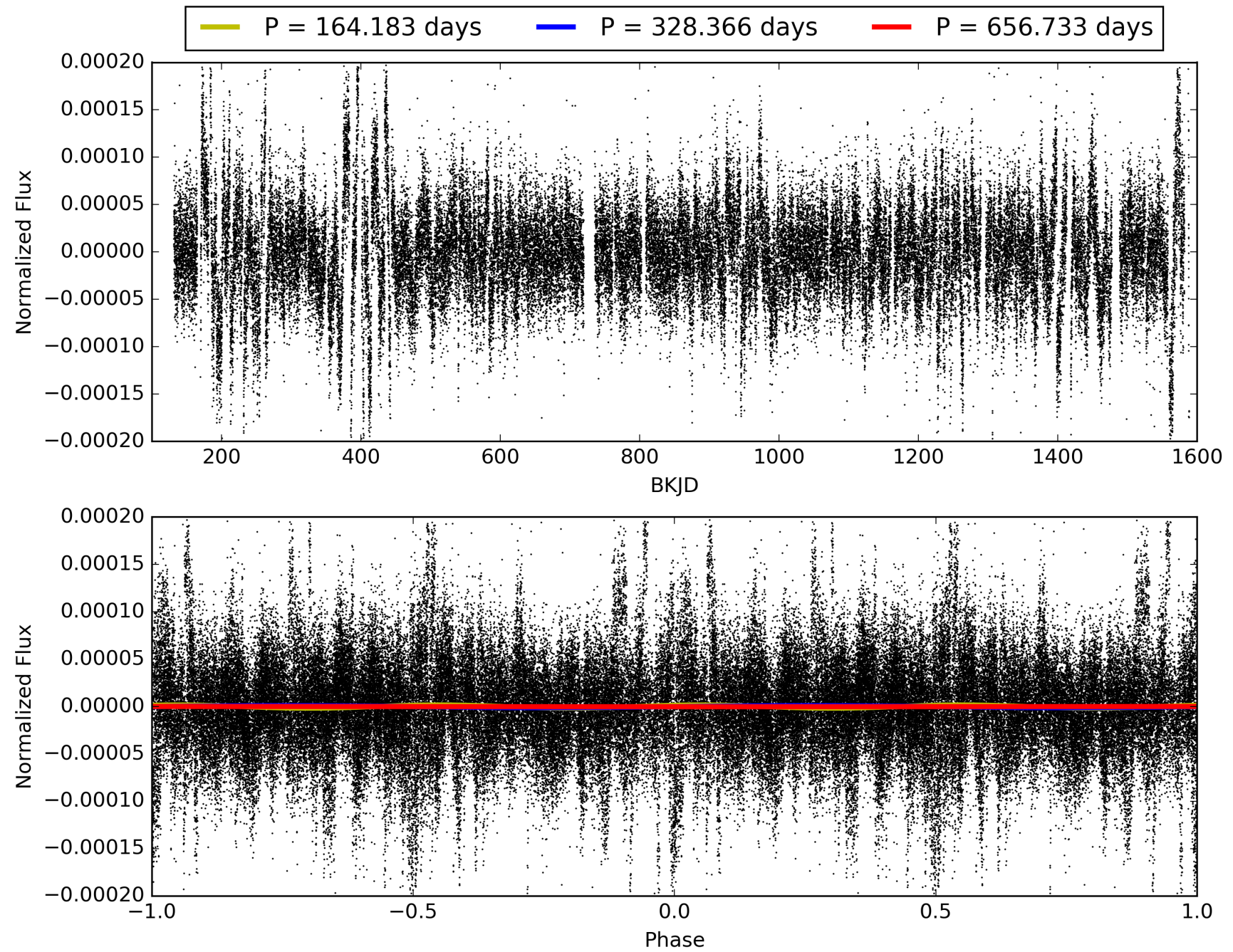
Software Revision: svn-ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 15:49:34 Z

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

TCE 007868092-02, PDC Light Curves

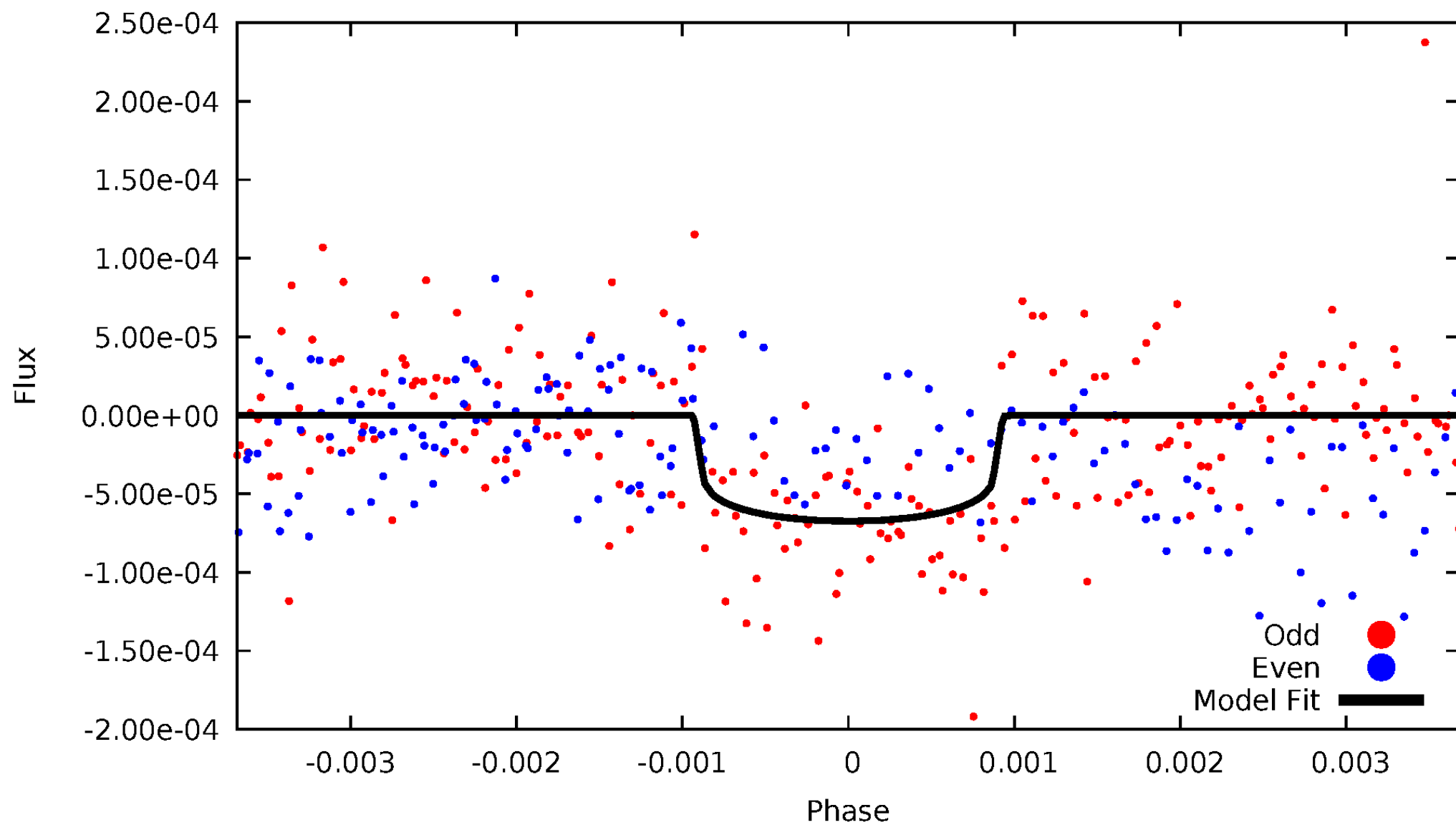


TCE 007868092-02



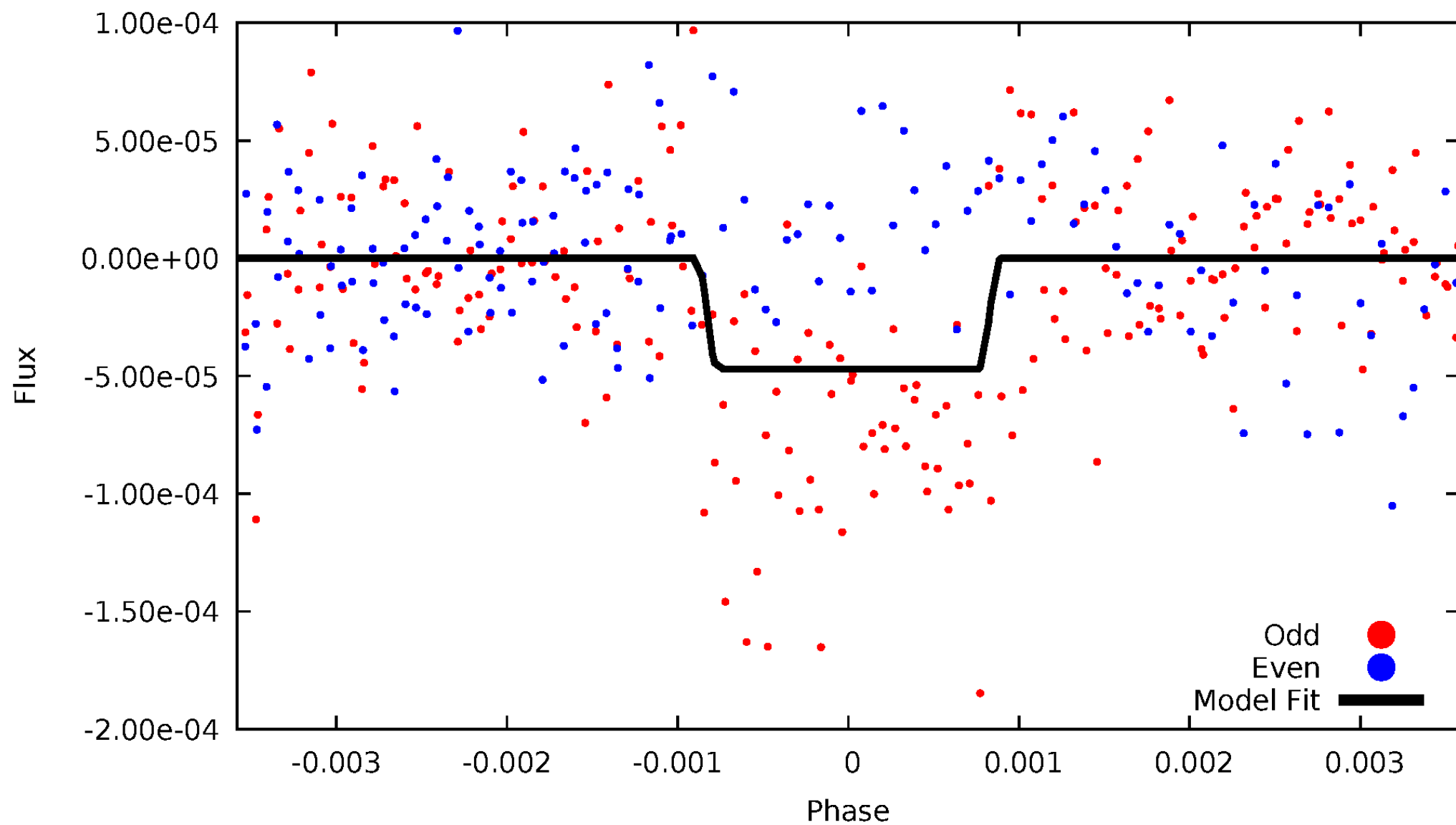
DV Odd/Even

TCE 007868092-02



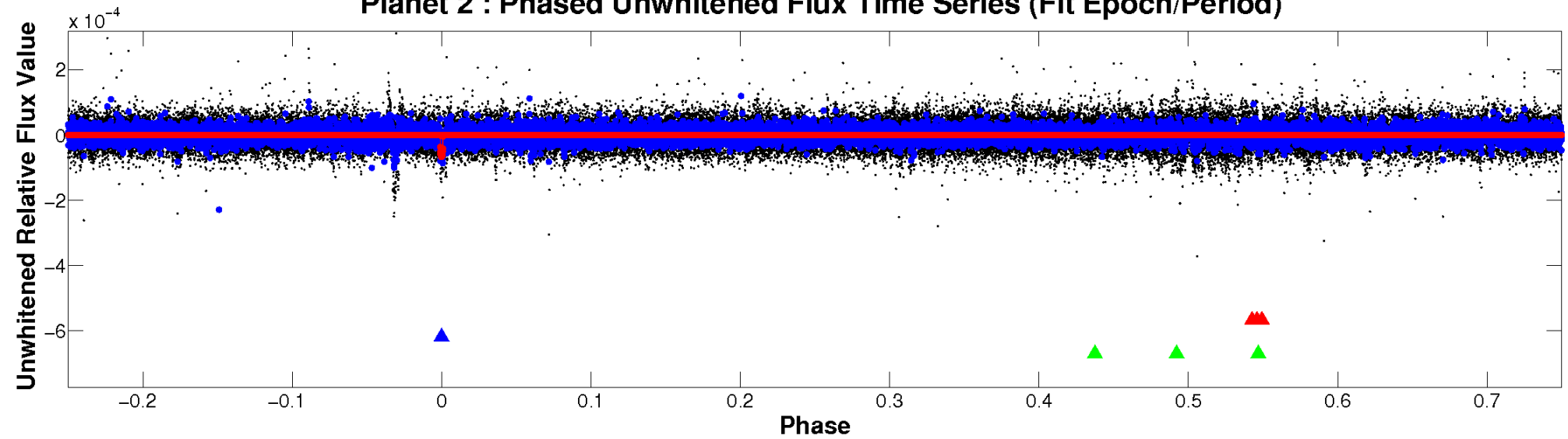
ALT Odd/Even

TCE 007868092-02

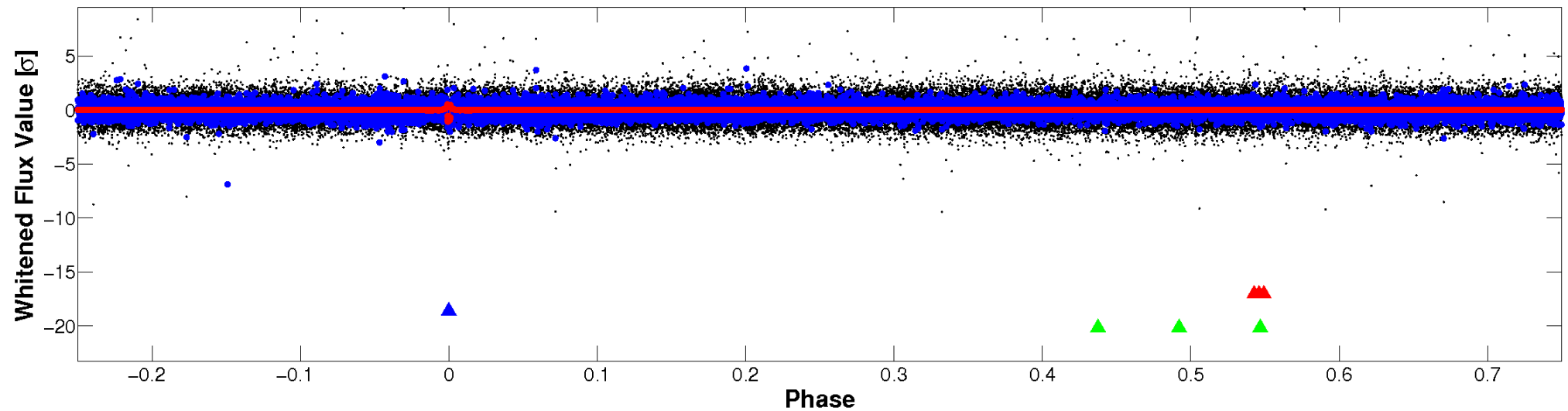


Non-Whitened Vs. Whitened Light Curve

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



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



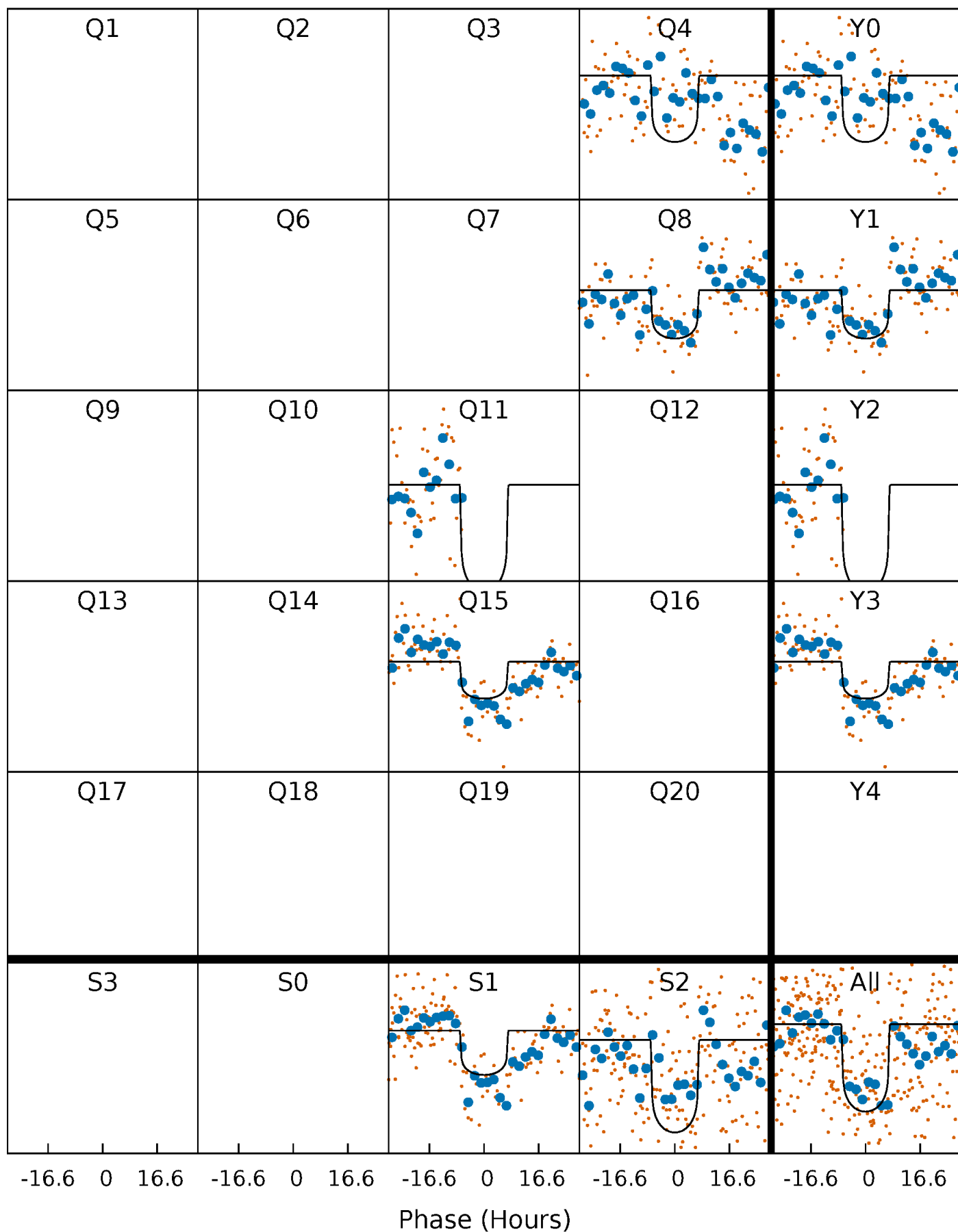
PDC Quarter-Phased Transit Curves

TCE 007868092-02 P=328.366470 Days $T_0=413.518101$ (BKJD)



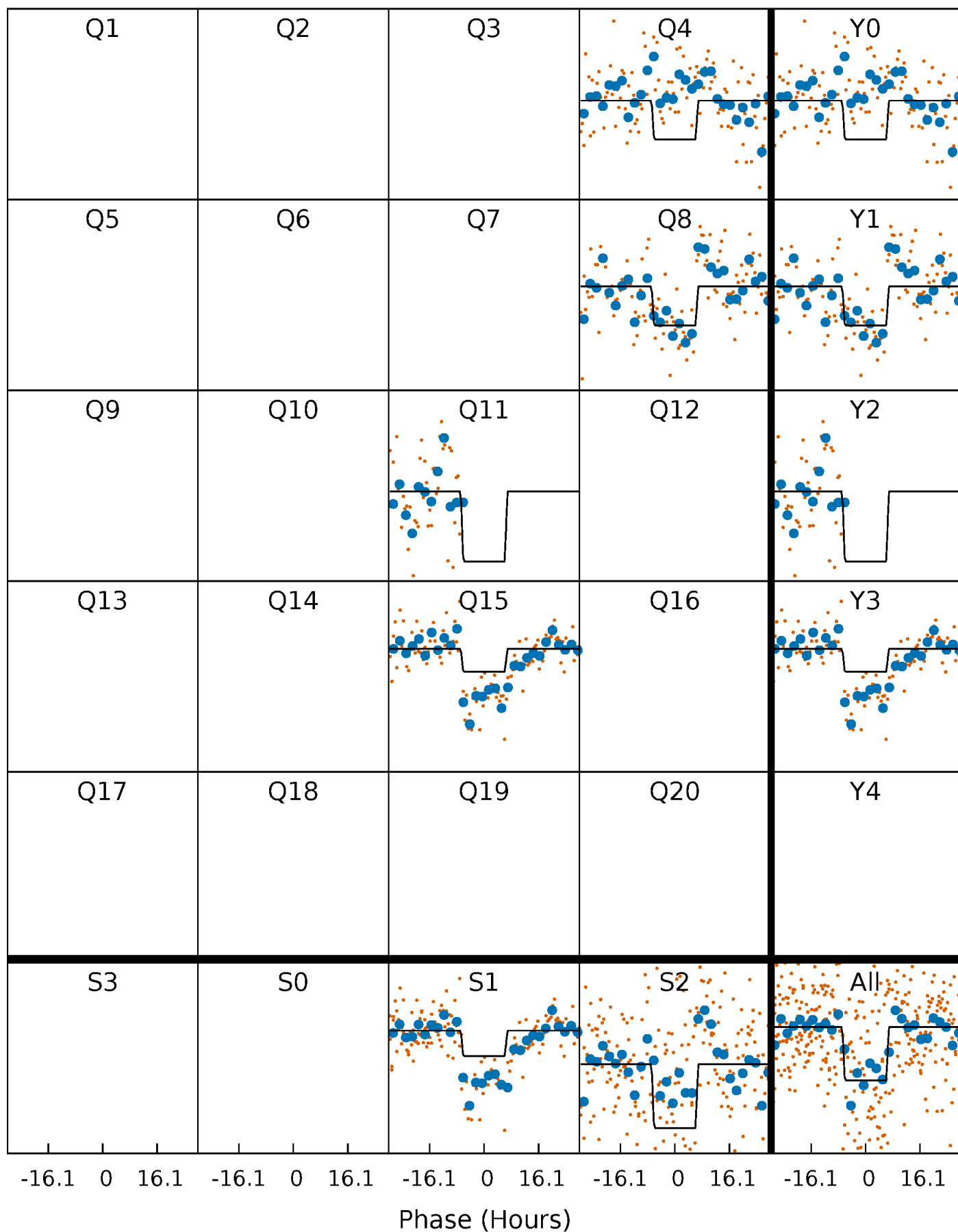
DV Quarter-Phased Transit Curves

TCE 007868092-02 P=328.366470 Days $T_0=413.518101$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

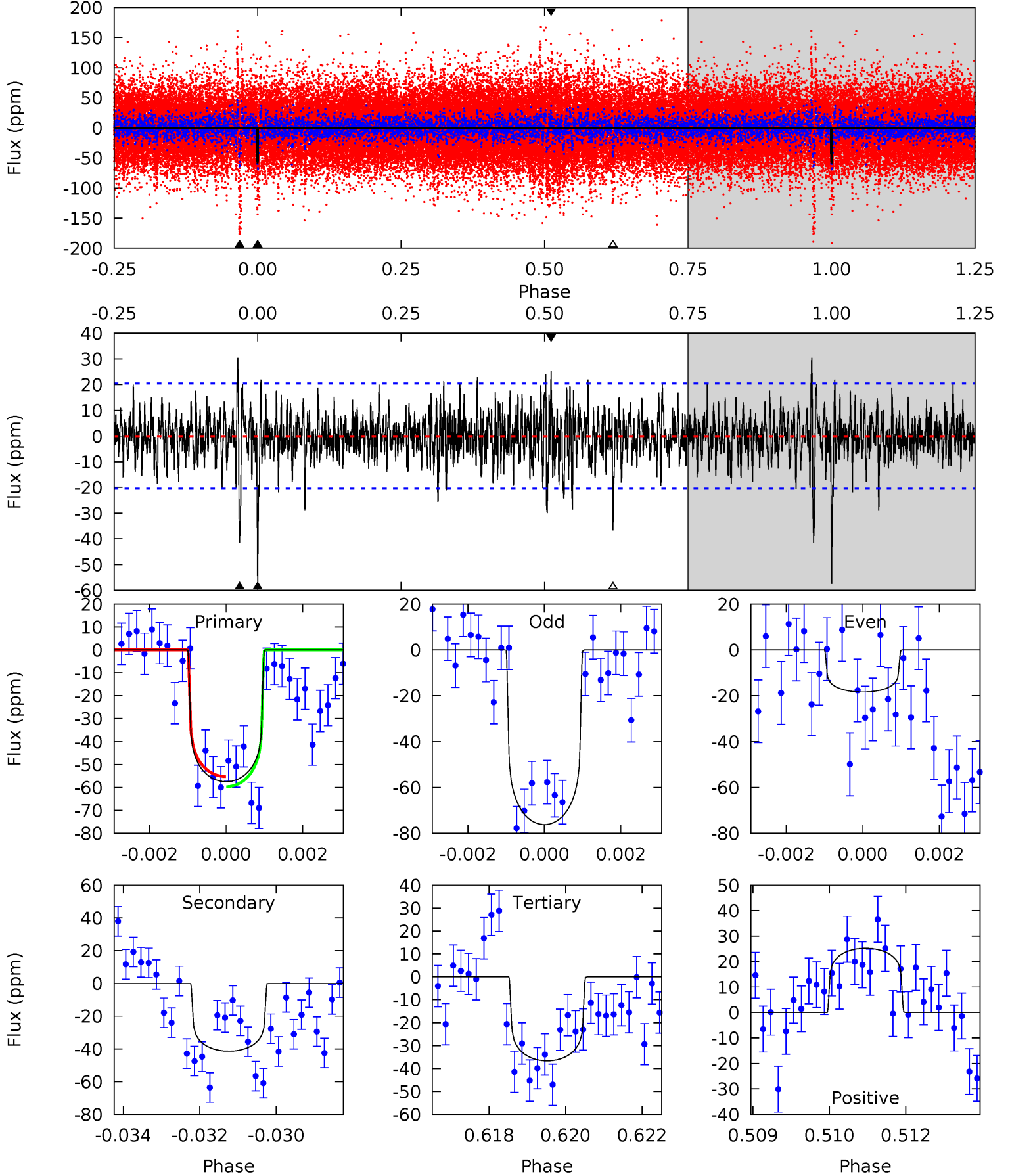
TCE 007868092-02 $P=328.346876$ Days $T_0=413.570739$ (BKJD)



DV Model-Shift Uniqueness Test

007868092-02, P = 328.366470 Days, E = 85.151631 Days

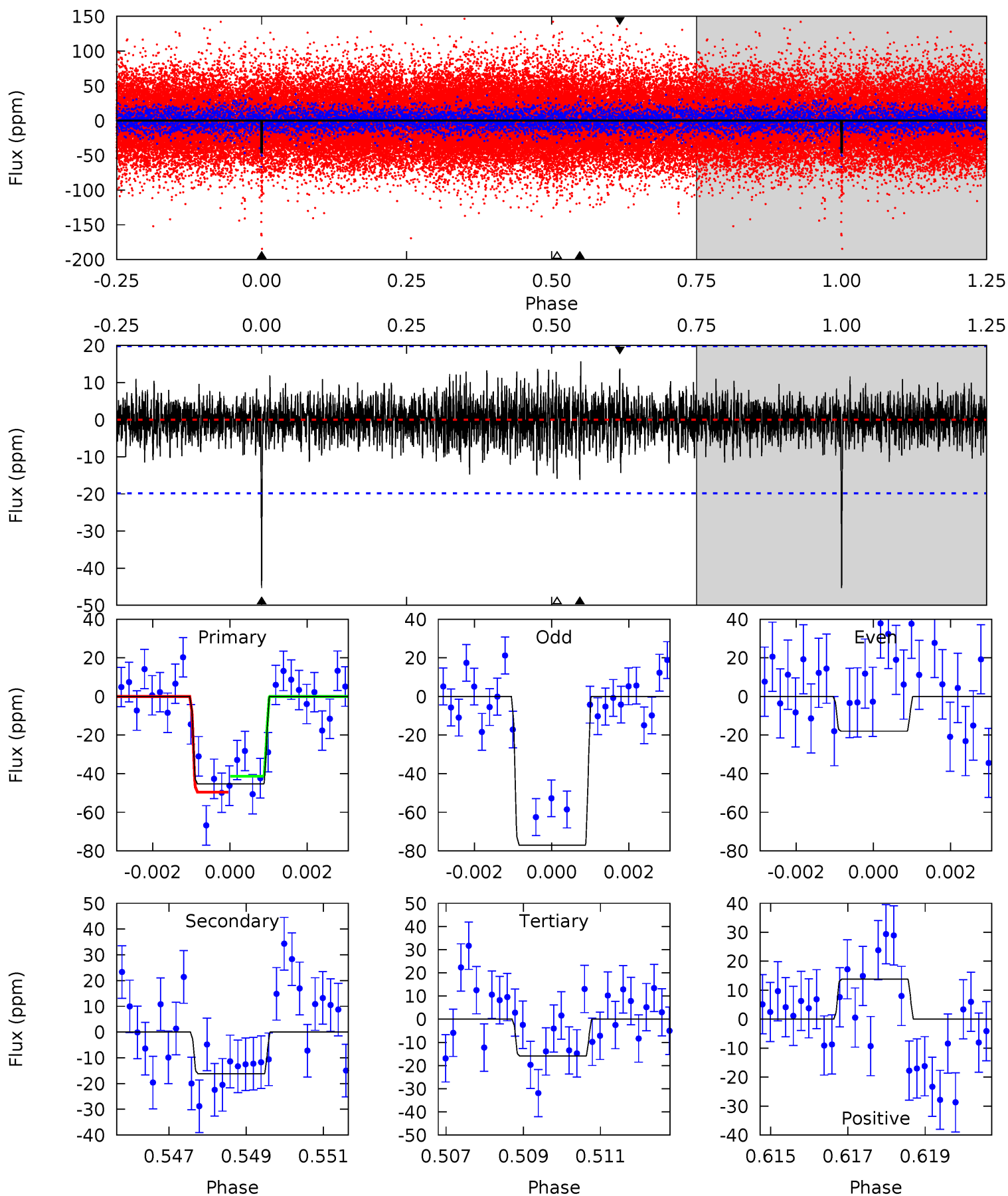
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.0	10.8	9.55	6.57	5.34	3.11	1.98	5.43	8.41	1.24	4.22	7.06	1.22	0.35	0.57



Alt Model-Shift Uniqueness Test

007868092-02, P = 328.346876 Days, E = 85.223863 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.3	4.37	4.29	3.72	5.35	3.13	1.09	7.96	8.53	0.08	0.65	7.57	0.94	0.26	1.12



Stellar Parameters For KIC 007868092

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6726^{+73}_{-87}	$3.825^{+0.208}_{-0.112}$	$0.120^{+0.150}_{-0.150}$	$2.674^{+0.467}_{-0.701}$	$1.744^{+0.154}_{-0.231}$	$0.128^{+0.151}_{-0.044}$
	+1%/-1%	+5%/-3%	+125%/-125%	+17%/-26%	+9%/-13%	+118%/-34%
Source	SPE74	SPE74	SPE74	DSEP		

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

Secondary Eclipse Parameters for KIC 007868092-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-41 ± 4	$2.39^{+0.56}_{-0.60}$	636^{+29}_{-41}	5881^{+781}_{-517}	5068^{+3733}_{-1813}
Alt.	-16 ± 4	$1.93^{+0.55}_{-0.47}$	635^{+30}_{-41}	5168^{+705}_{-519}	2862^{+2566}_{-1202}

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

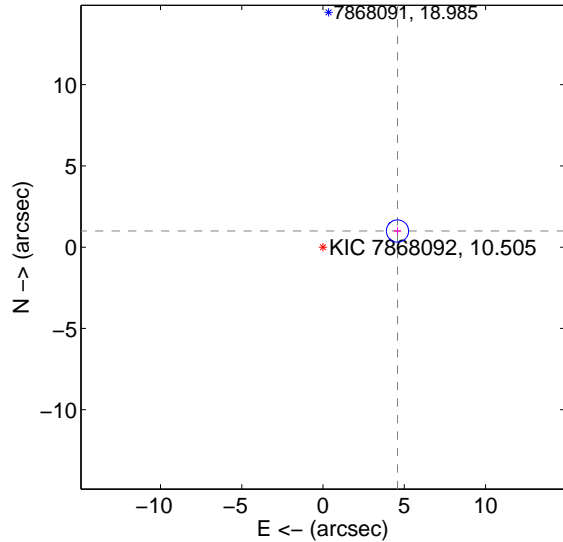
Supplemental centroid analysis for 007868092-02. **Kepler magnitude: 10.51.** Transit SNR 9.54

There are 0 quarters with good PRF difference image offsets

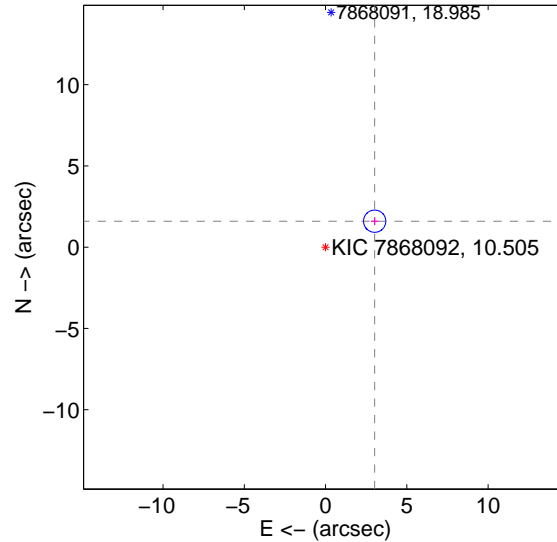
The direct PRF centroid is offset from the target star catalog position by about 1.67 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	4.687 \pm 0.228	20.59	-4.581 \pm 0.227	0.995 \pm 0.230
PRF-fit source offset from KIC position	3.417 \pm 0.228	14.98	-3.020 \pm 0.227	1.599 \pm 0.230
photometric centroid source offset	3.26 \pm 3.05	1.07	-3.20 \pm 3.10	-0.61 \pm 1.24

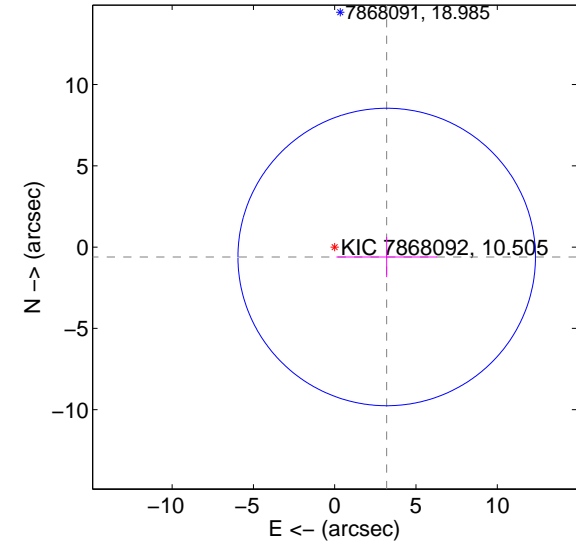
offset from difference PRF-fit to OOT PRF-fit



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.

Q1 no difference image



Q1 no OOT image



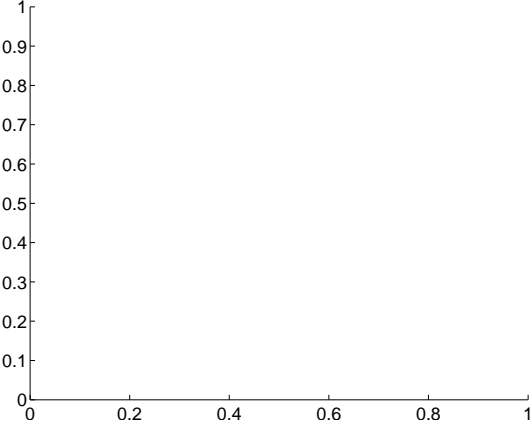
Q2 no difference image



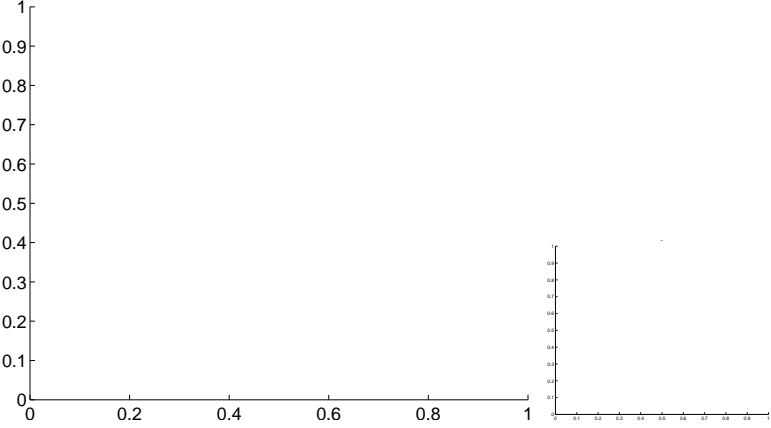
Q2 no OOT image



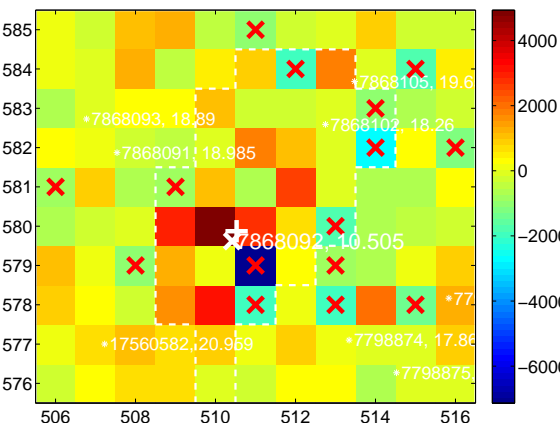
Q3 no difference image



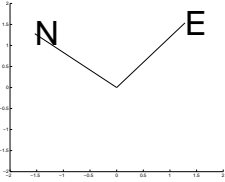
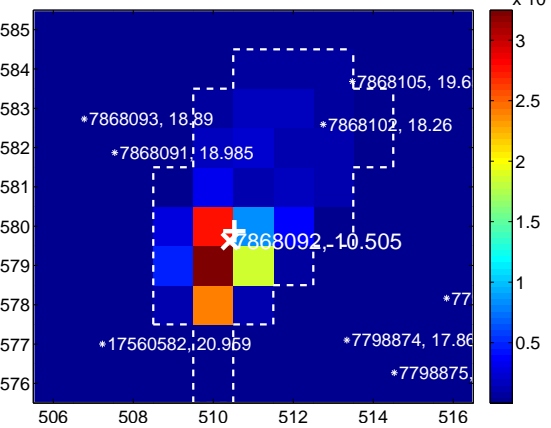
Q3 no OOT image



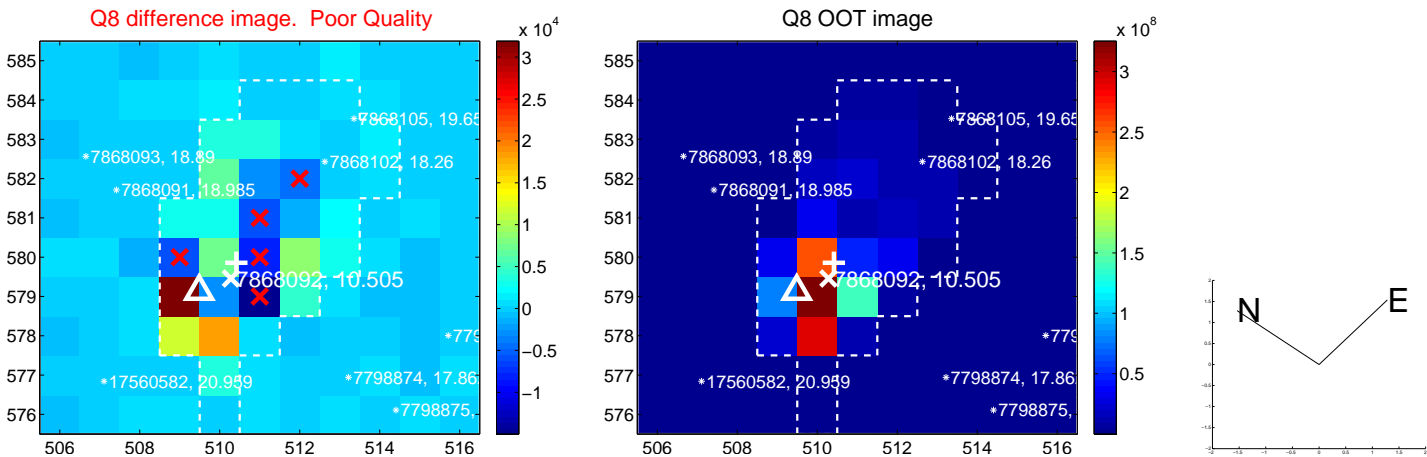
Q4 difference image. Poor Quality



Q4 OOT image



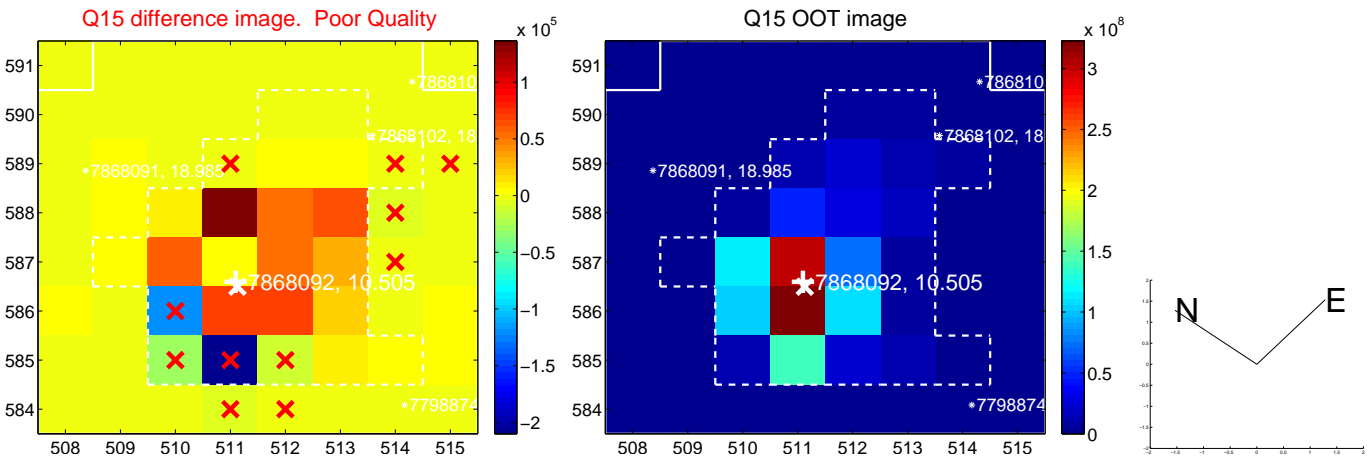
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



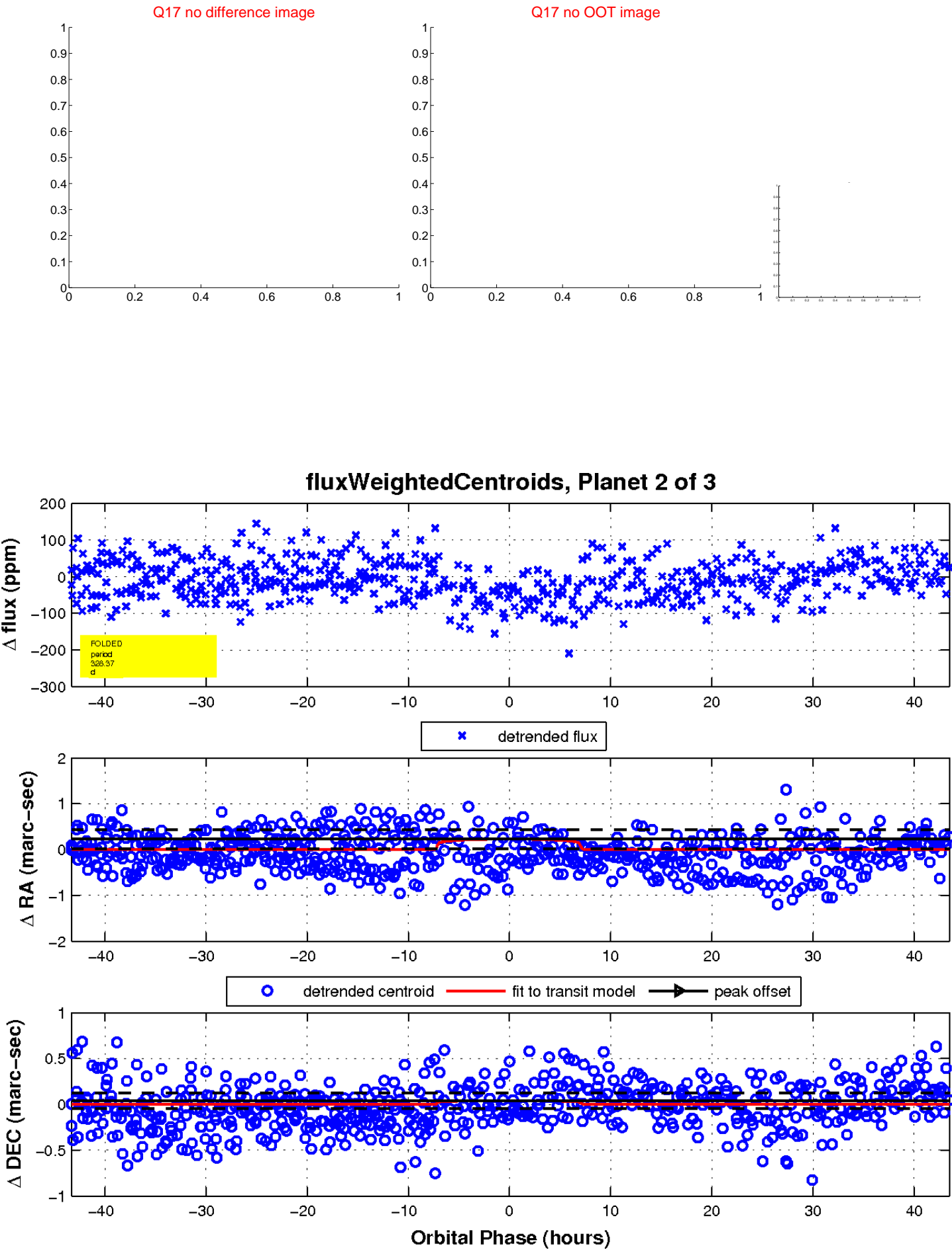
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

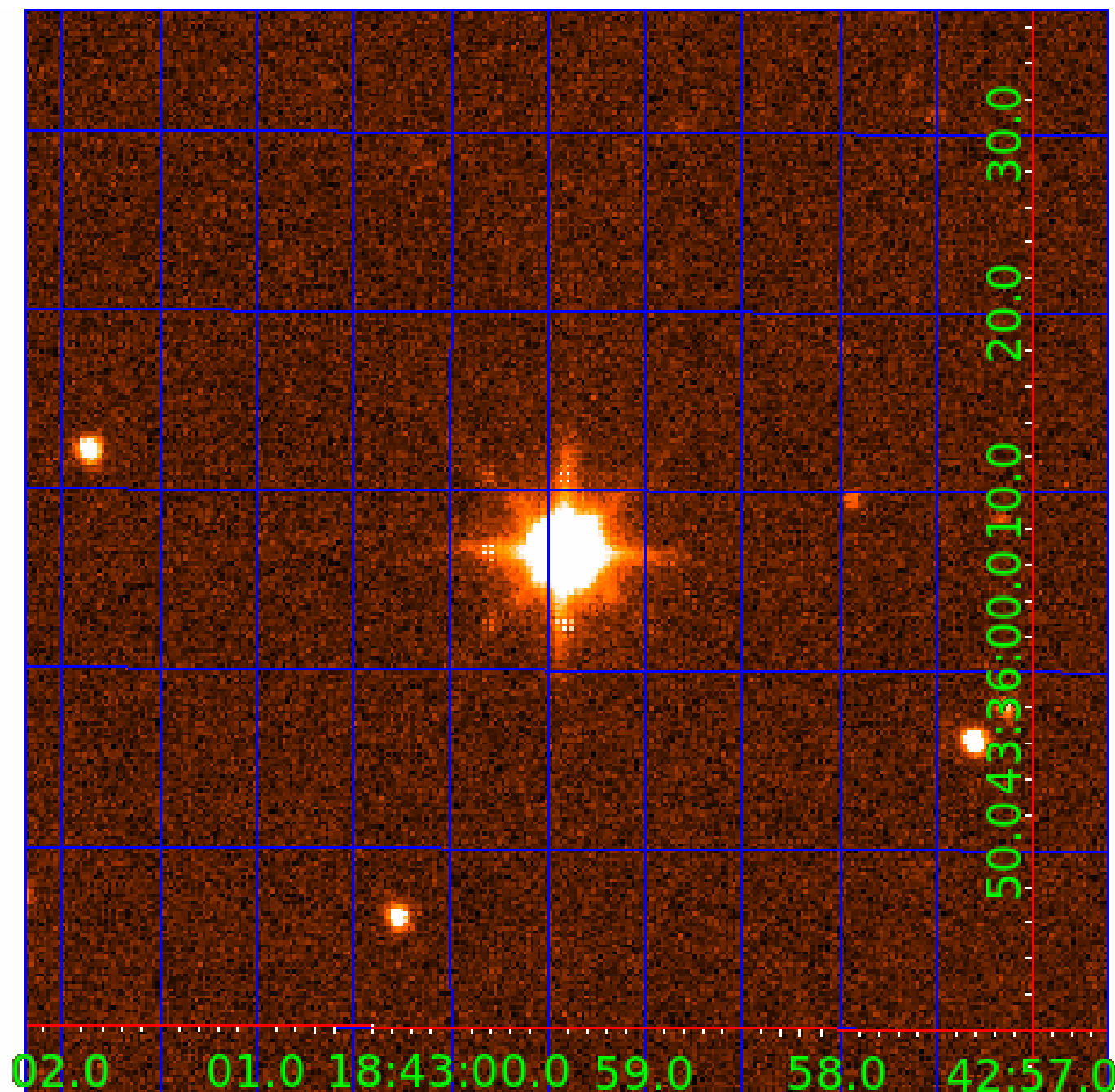


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 007868092

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})
007868092-01	OBS	No	657.812486	263.361806	80.0	14.288	10.2	9.4	2.67	6726	2.60	4.13
007868092-02	OBS	No	328.366470	413.518101	67.4	14.505	9.7	9.5	2.67	6726	2.41	10.43
007868092-03	OBS	No	638.777528	264.717332	47.0	20.765	8.2	7.9	2.67	6726	2.04	4.29

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007868092-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_SATURATED
007868092-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—INCONSISTENT_TRANS—CENT_SATURATED
007868092-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—MOD_TER_DV—CENT_SATURATED

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 007868092-03

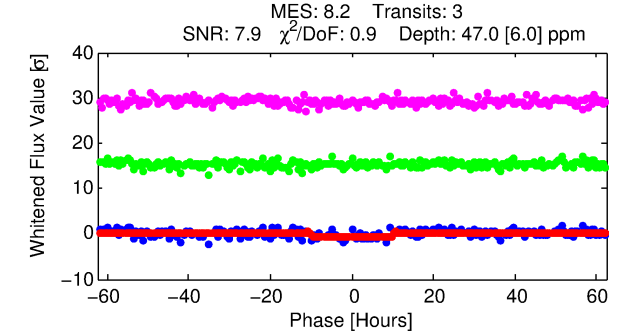
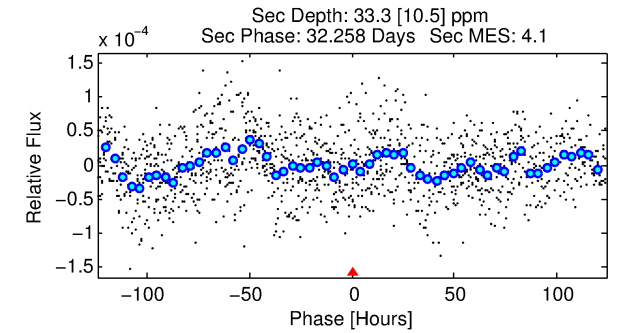
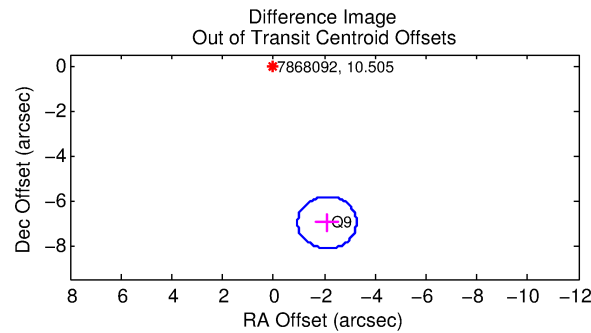
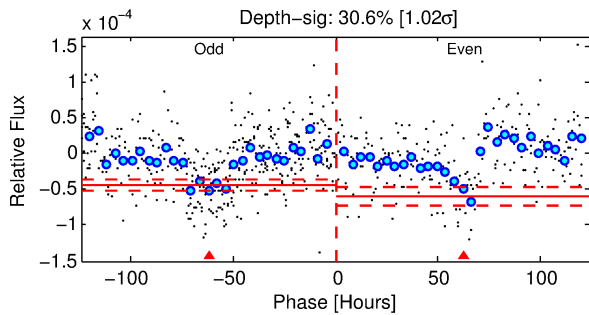
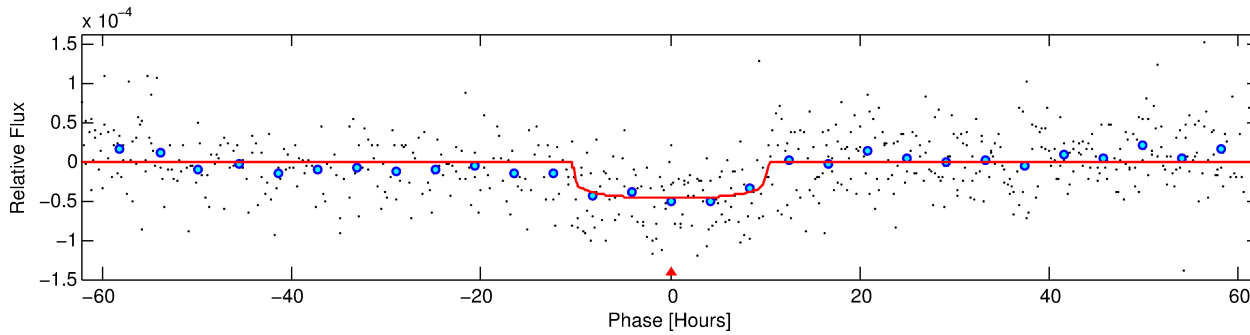
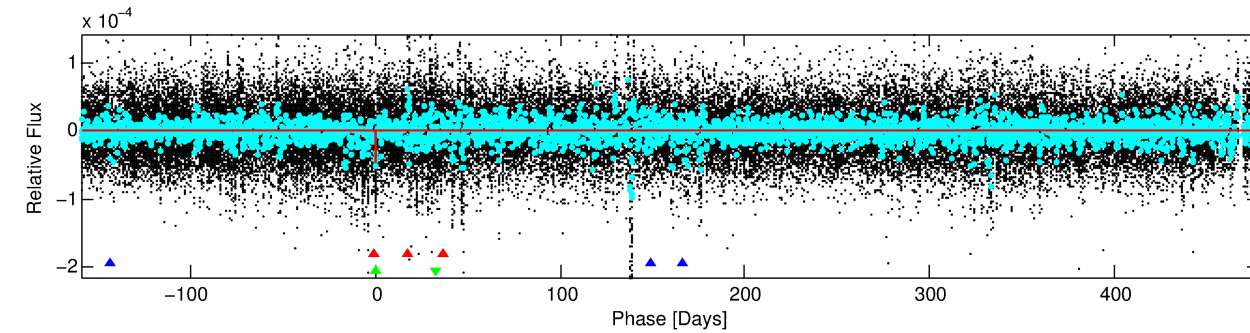
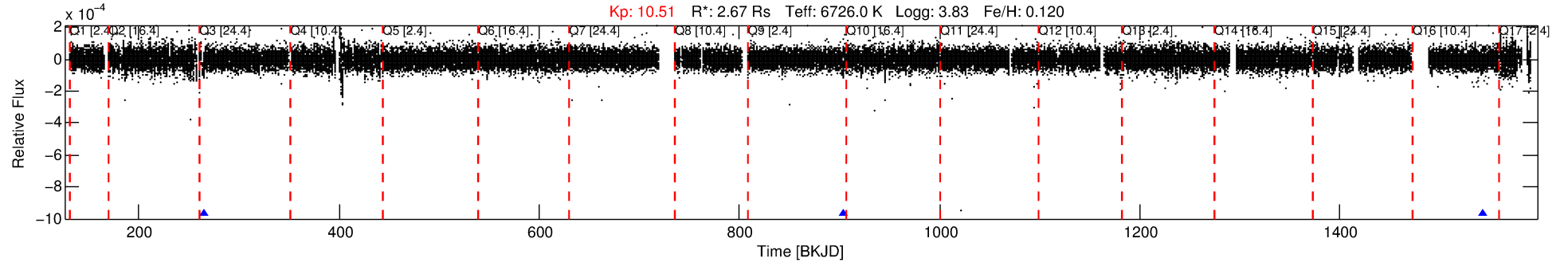
No Significant Match Found

DV One-Page Summary

KIC: 7868092 Candidate: 3 of 3 Period: 638.778 d

KOI: K03169 Corr: No Ephemeris Match

Kp: 10.51 R*: 2.67 Rs Teff: 6726.0 K Logg: 3.83 Fe/H: 0.120



DV Fit Results:

Period = 638.77753 [0.01399] d
Epoch = 264.7173 [0.0185] BKJD
Rp/R* = 0.0070 [0.0010]
a/R* = 135.68 [95.42]
b = 0.83 [0.28]
Seff = 4.29 [1.58]
Teq = 367 [34] K
Rp = 2.04 [0.61] Re
a = 1.7473 [0.4136] AU
Ag = 13374.33 [7500.97] [1.78σ]
Teffp = 6103 [656] K [8.74σ]

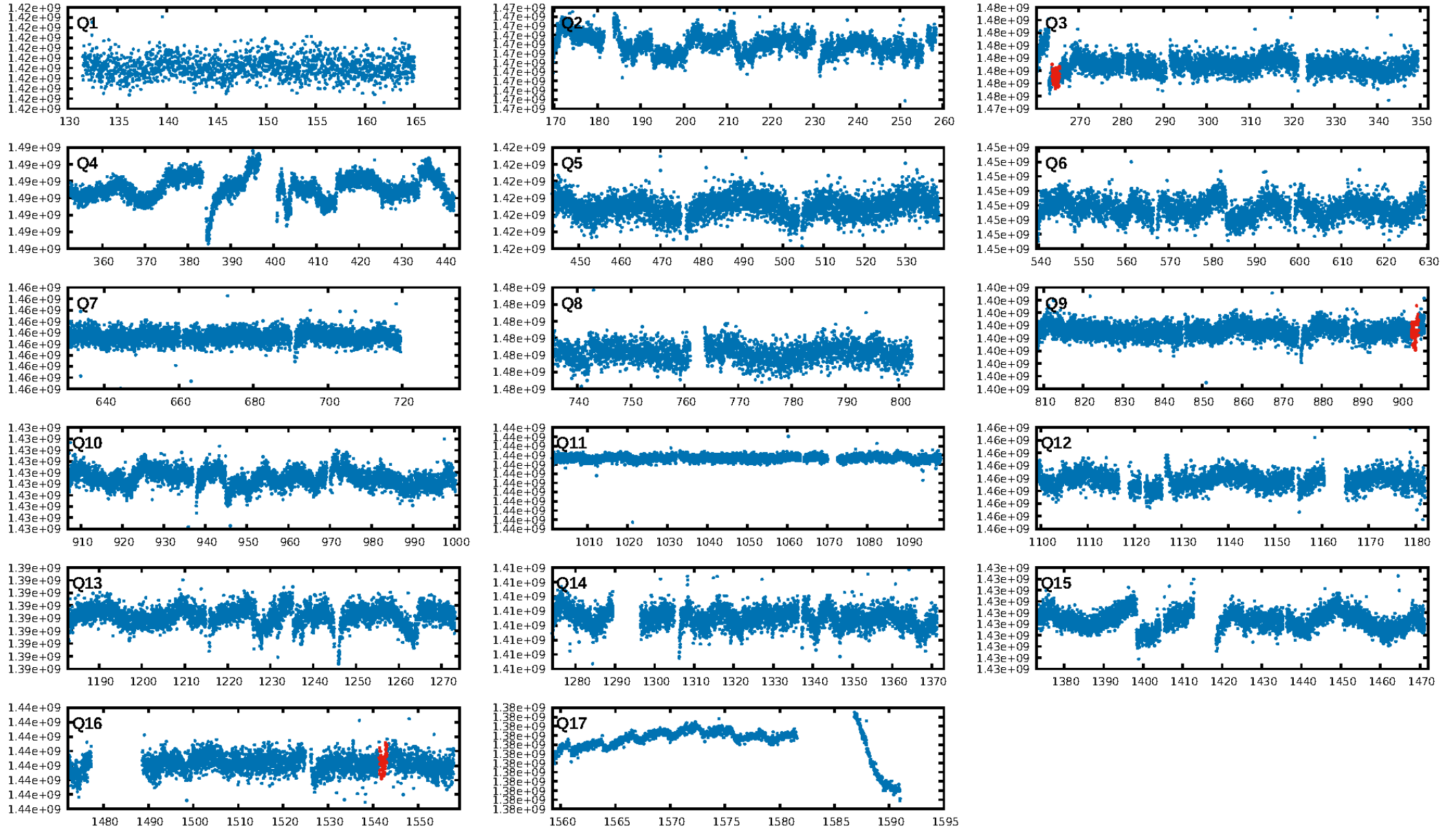
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [294.11σ]
LongPeriod-sig: 100.0% [18.12σ]
ModelChiSquare2-sig: 19.8%
ModelChiSquareGof-sig: 99.8%
Bootstrap-pfa: 5.41e-09
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: N/A
Centroid-sig: 0.5%
Centroid-so: 4.901 arcsec [1.73σ]
OotOffset-rm: 7.304 arcsec [18.97σ]
KicOffset-rm: 7.013 arcsec [18.32σ]
OotOffset-st: 0/0/0/1 [1]
KicOffset-st: 0/0/0/1 [1]
DiffImageQuality-fgm: 0.00 [0/1]
DiffImageOverlap-fno: 0.67 [2/3]

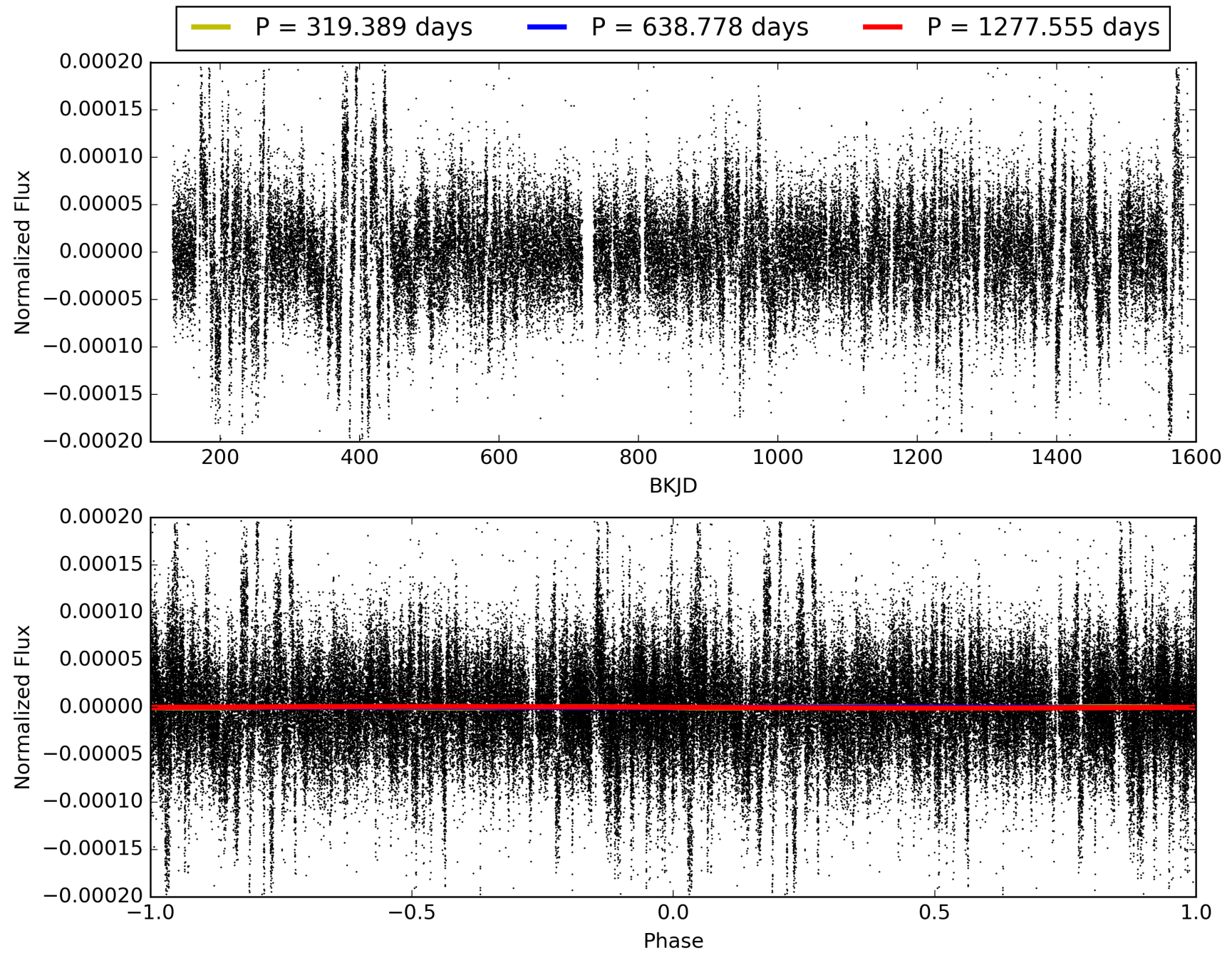
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 15:49:43 Z

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

TCE 007868092-03, PDC Light Curves

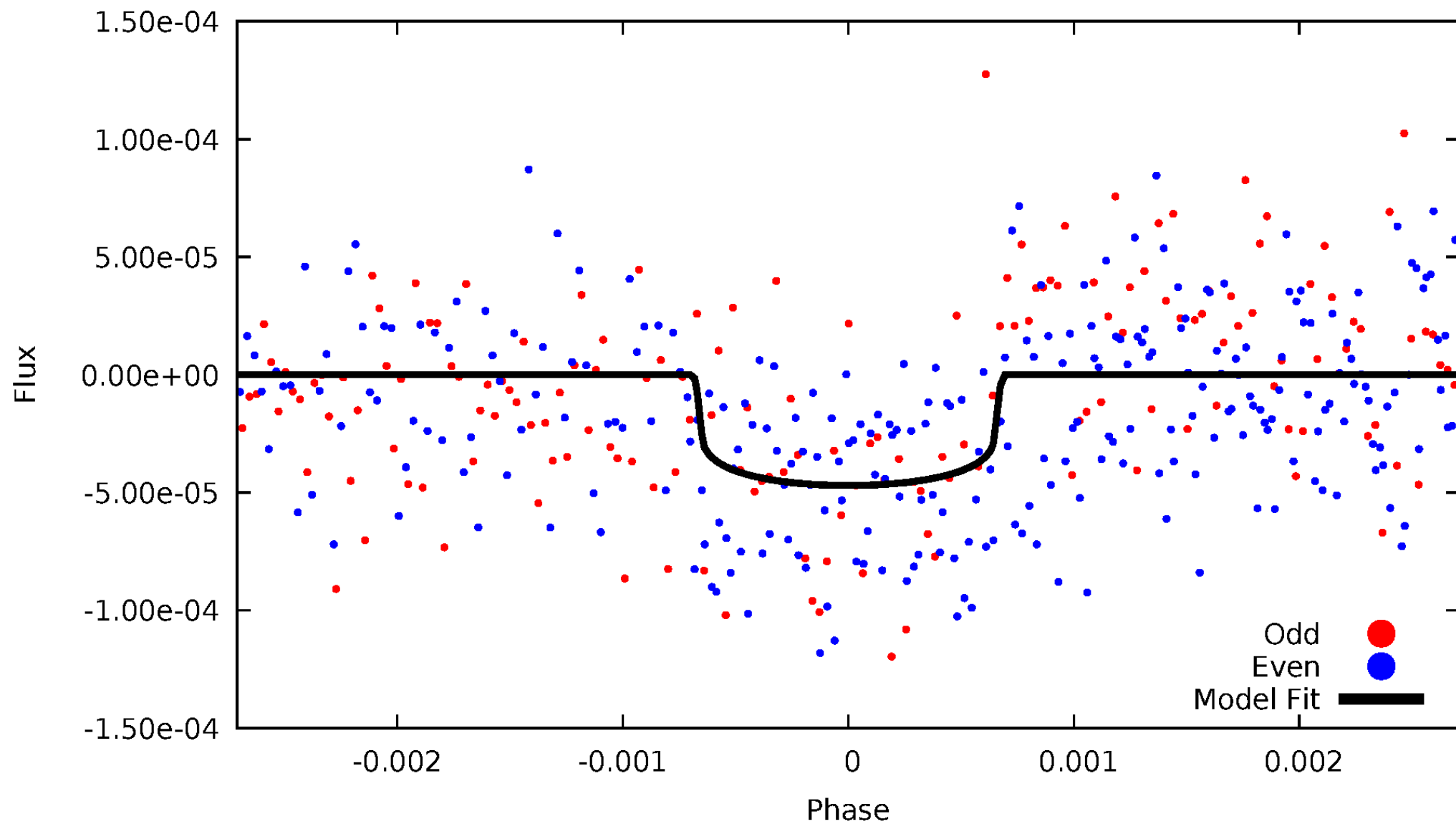


TCE 007868092-03



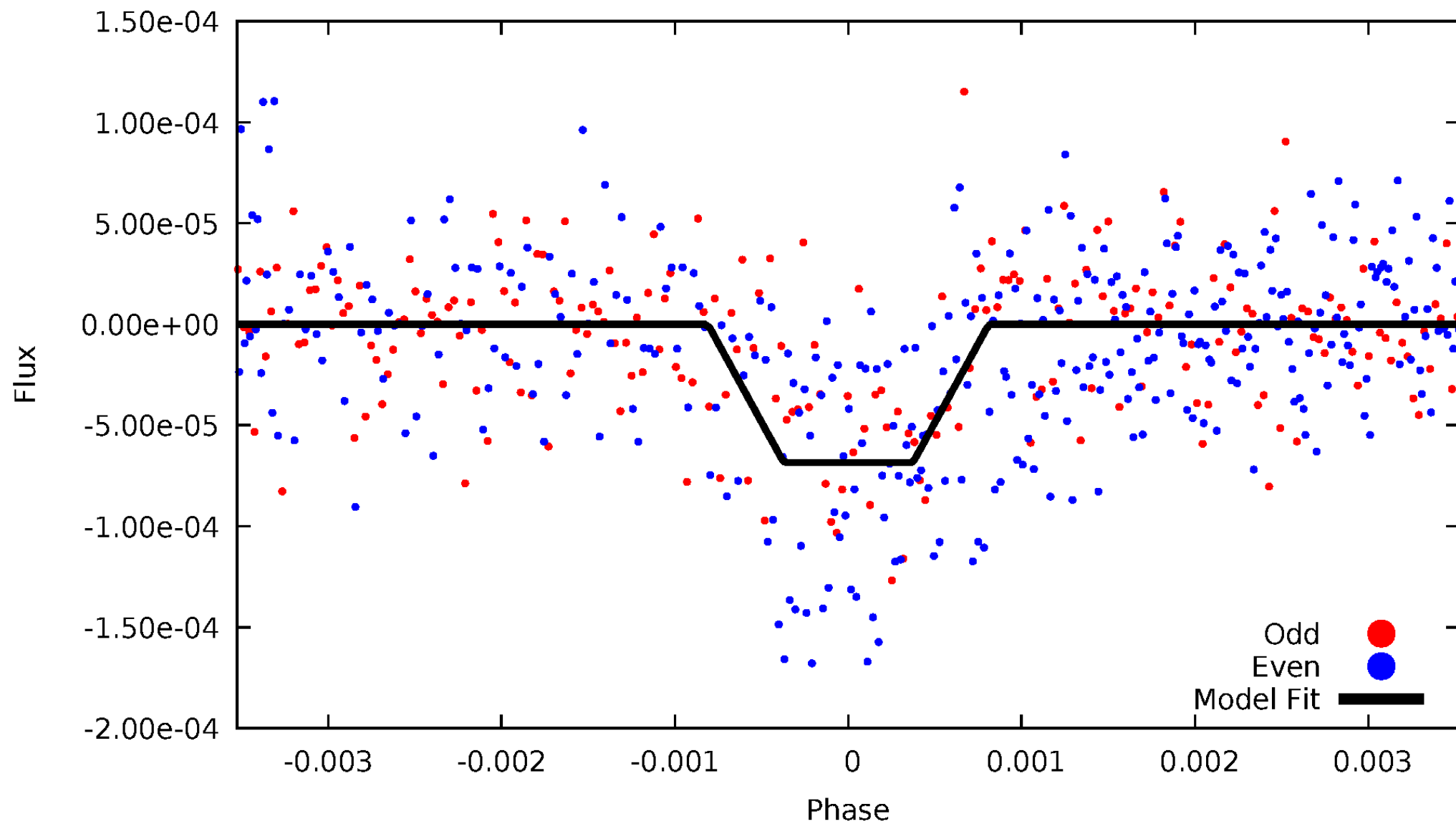
DV Odd/Even

TCE 007868092-03



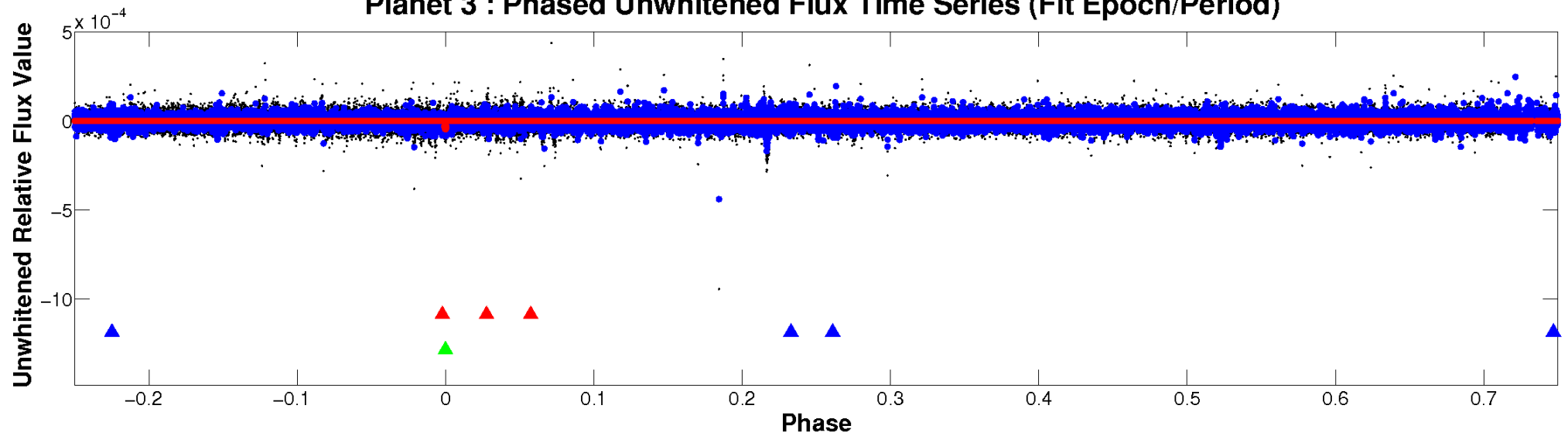
ALT Odd/Even

TCE 007868092-03

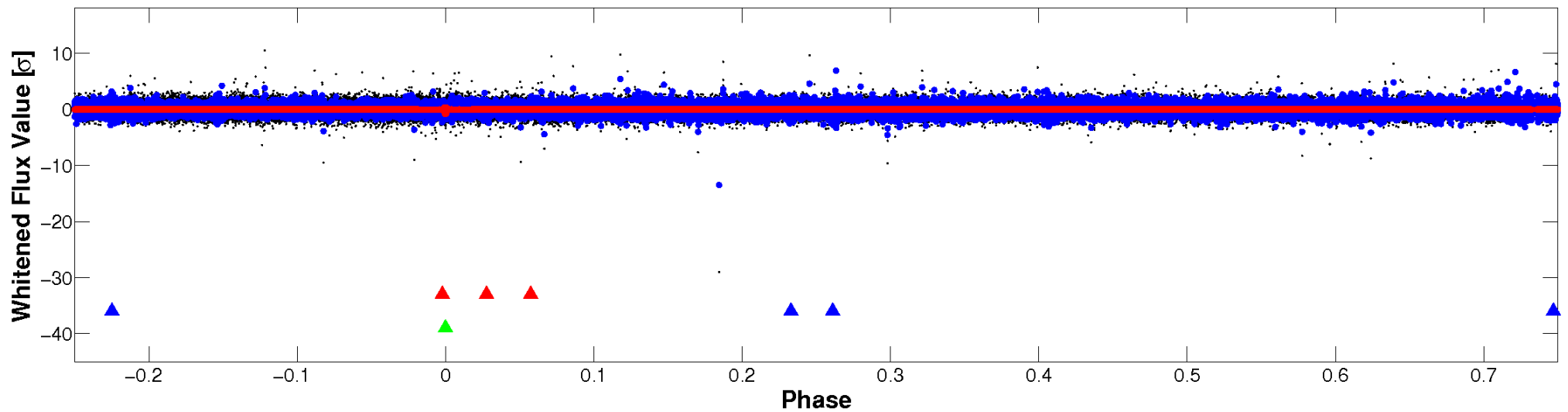


Non-Whitened Vs. Whitened Light Curve

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 007868092-03 $P=638.777528$ Days $T_0=264.717332$ (BKJD)



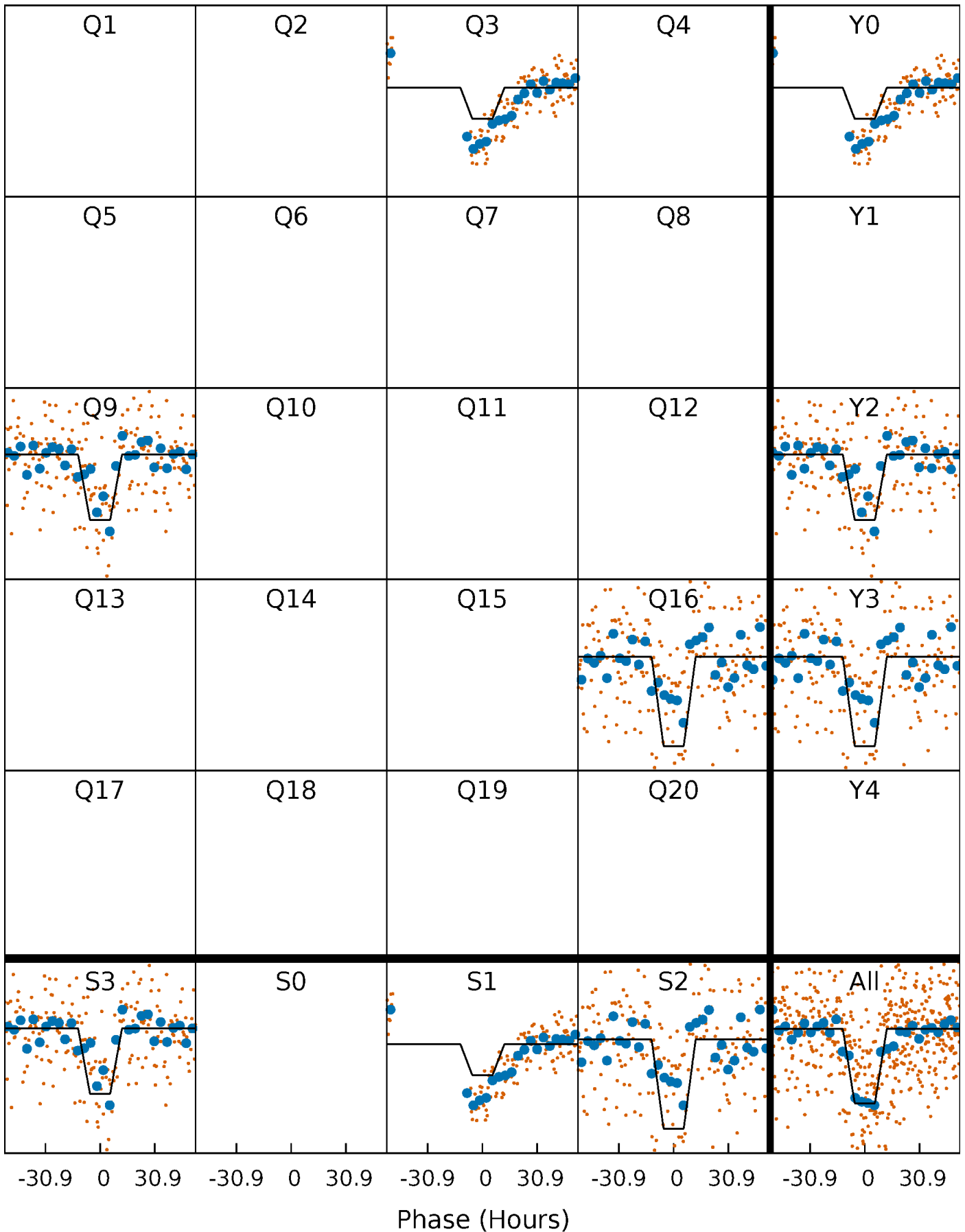
DV Quarter-Phased Transit Curves

TCE 007868092-03 $P=638.777528$ Days $T_0=264.717332$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

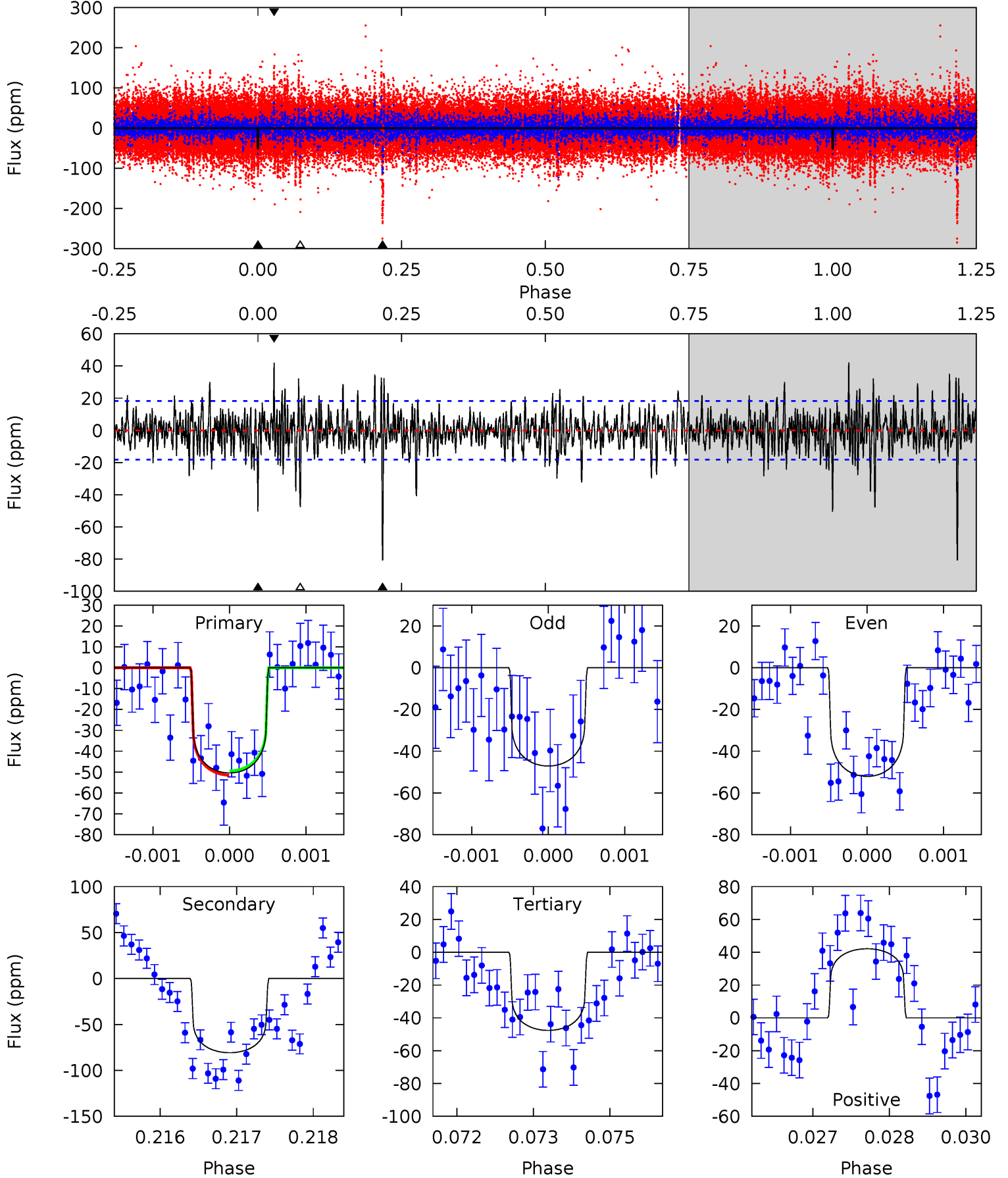
TCE 007868092-03 P=638.889309 Days $T_0=264.567093$ (BKJD)



DV Model-Shift Uniqueness Test

007868092-03, P = 638.777528 Days, E = 264.717332 Days

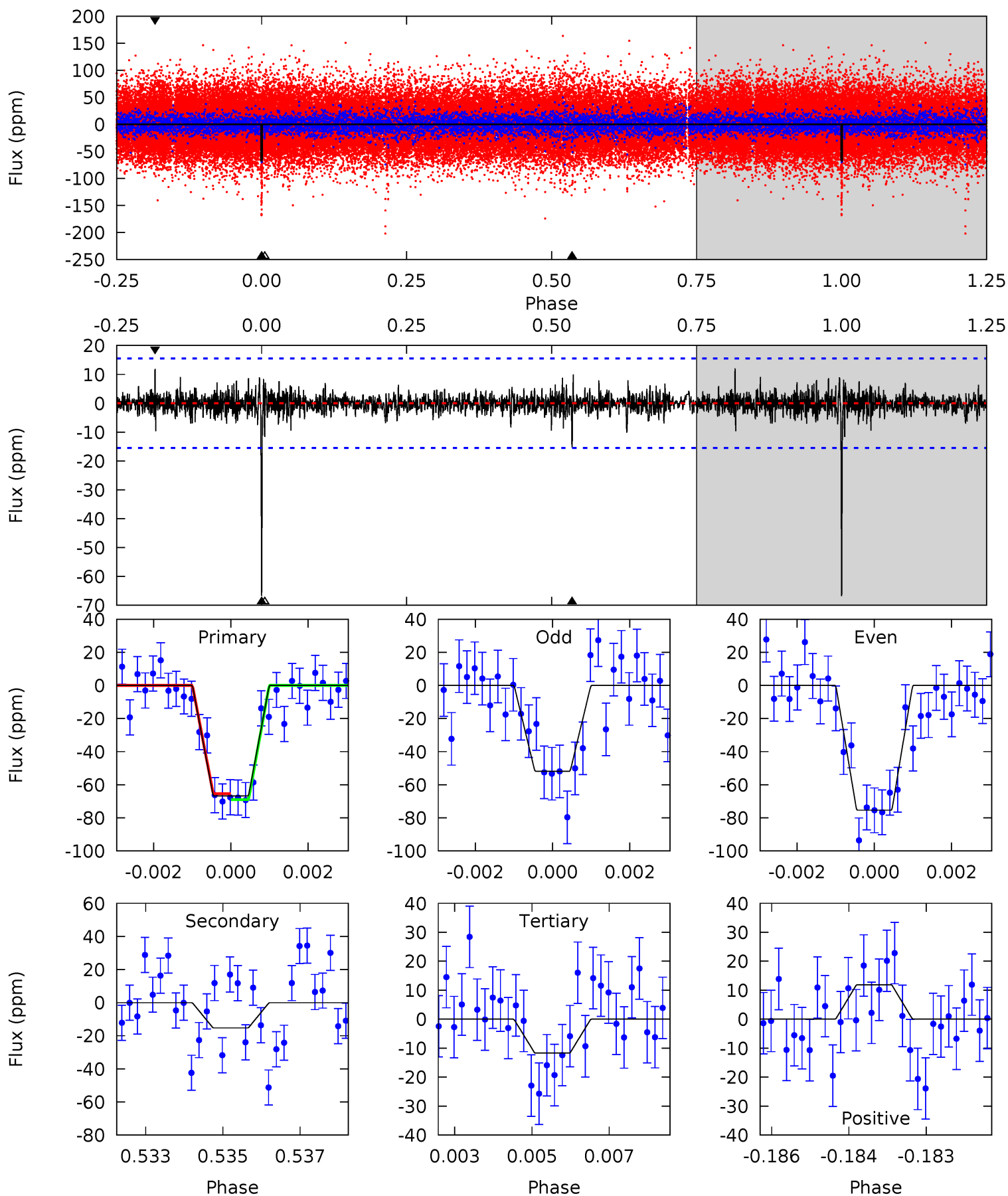
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.9	23.9	14.1	12.5	5.40	3.20	2.74	0.83	2.46	9.82	11.4	0.71	1.13	0.34	0.30



Alt Model-Shift Uniqueness Test

007868092-03, P = 638.889309 Days, E = 264.567093 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
23.1	5.29	4.04	4.11	5.36	3.15	0.83	19.1	19.0	1.24	1.18	3.91	1.35	0.15	0.63



Stellar Parameters For KIC 007868092

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6726^{+73}_{-87}	$3.825^{+0.208}_{-0.112}$	$0.120^{+0.150}_{-0.150}$	$2.674^{+0.467}_{-0.701}$	$1.744^{+0.154}_{-0.231}$	$0.128^{+0.151}_{-0.044}$
	+1%/-1%	+5%/-3%	+125%/-125%	+17%/-26%	+9%/-13%	+118%/-34%
Source	SPE74	SPE74	SPE74	DSEP		

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

Secondary Eclipse Parameters for KIC 007868092-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-81 ± 3	$1.98^{+0.41}_{-0.39}$	511^{+23}_{-35}	7751^{+827}_{-582}	34147^{+19035}_{-10221}
Alt.	-15 ± 3	$2.37^{+0.39}_{-0.39}$	511^{+24}_{-33}	4756^{+318}_{-297}	4672^{+2205}_{-1491}

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

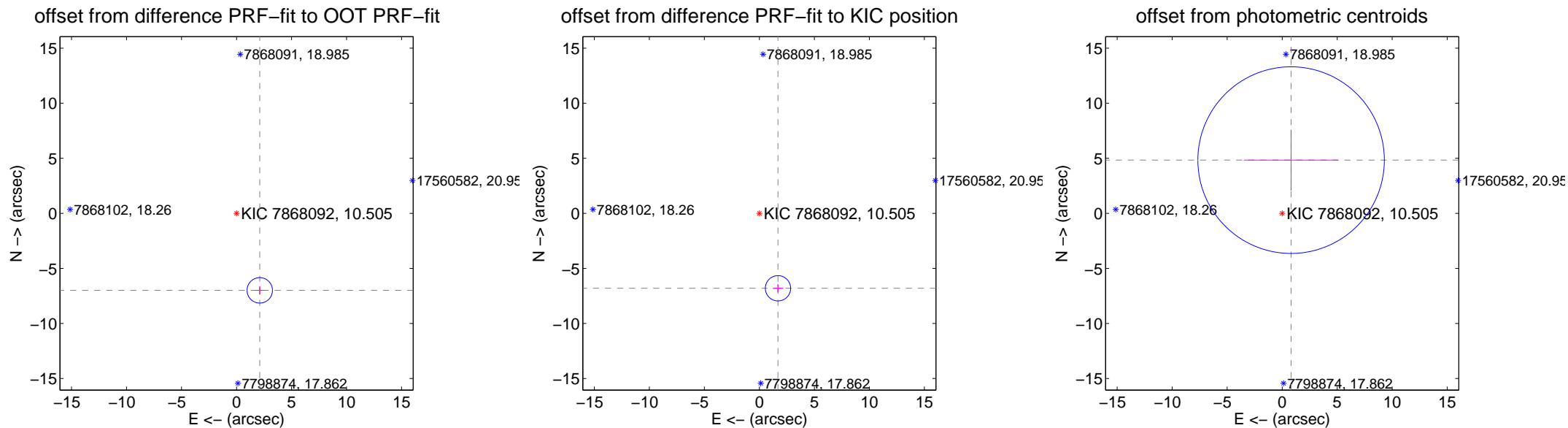
DV Centroid Data

Supplemental centroid analysis for 007868092-03. **Kepler magnitude: 10.51.** Transit SNR 7.93

There are 0 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.46 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	7.304 ± 0.385	18.97	-2.110 ± 0.461	-6.993 ± 0.377
PRF-fit source offset from KIC position	7.013 ± 0.383	18.32	-1.693 ± 0.461	-6.806 ± 0.377
photometric centroid source offset	4.90 ± 2.82	1.73	-0.81 ± 4.30	4.83 ± 2.77



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



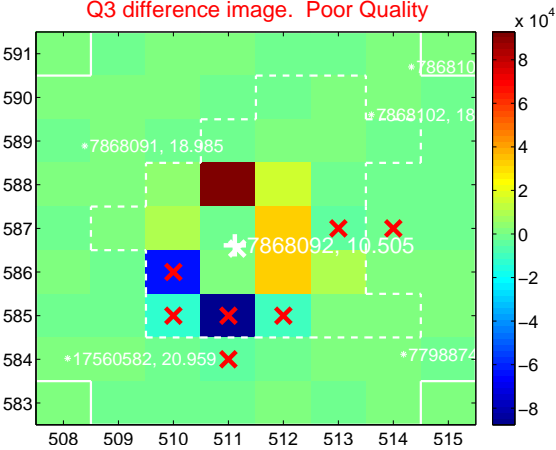
Q2 no difference image



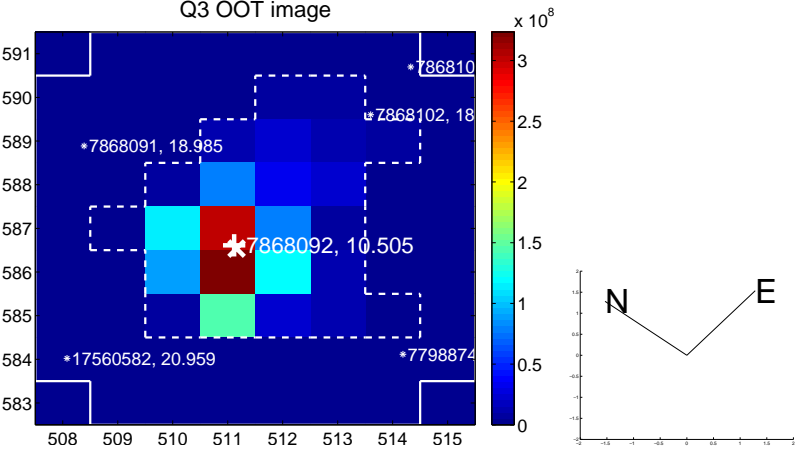
Q2 no OOT image



Q3 difference image. Poor Quality



Q3 OOT image



Q4 no difference image



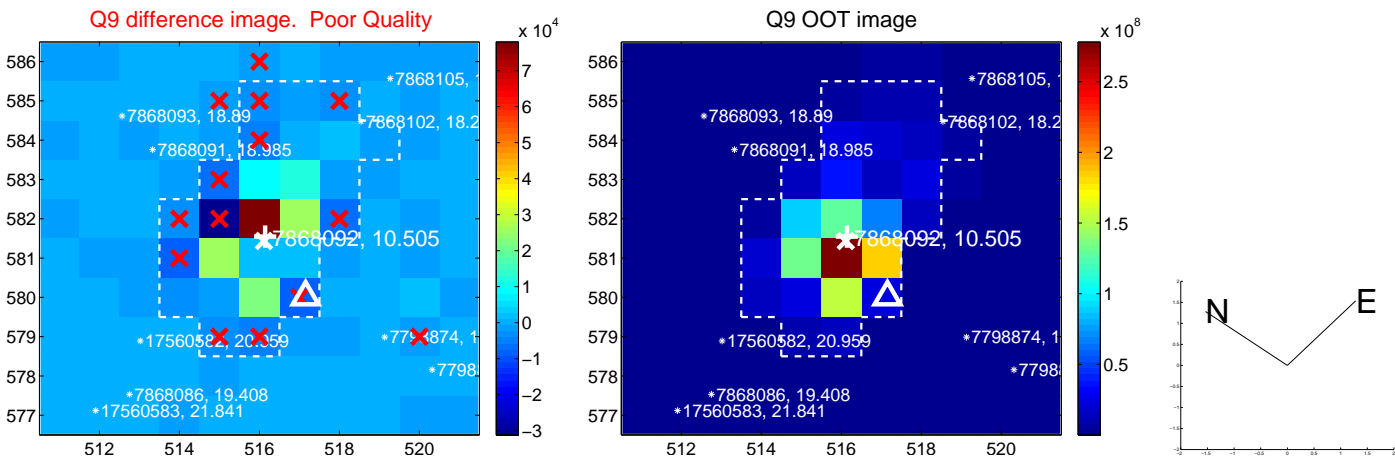
Q4 no OOT image



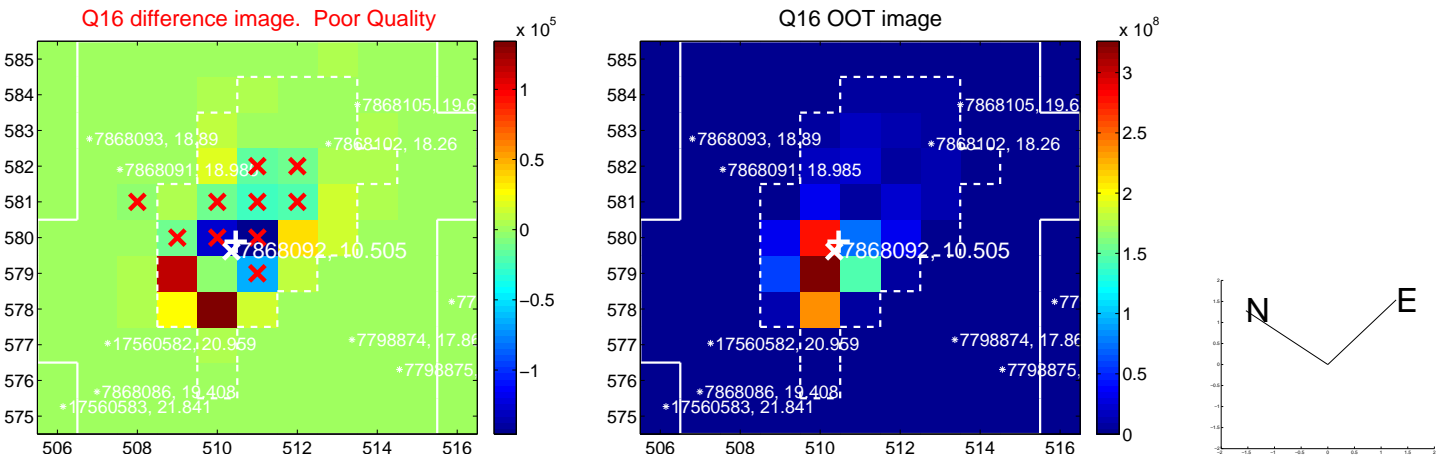
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



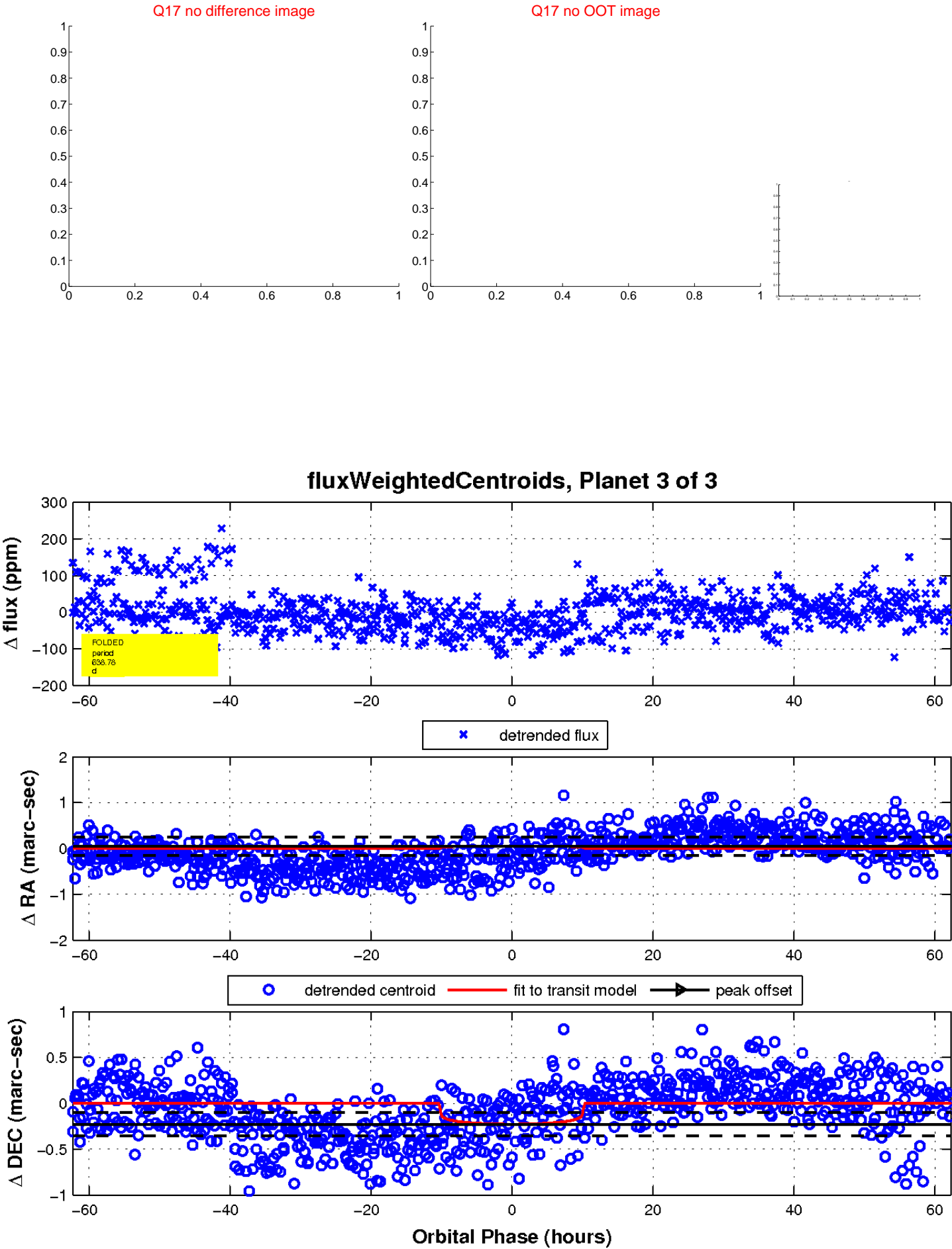
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



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

Declination

