

KIC 005738506

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})
005738506-01	OBS	No	9.501509	137.661495	466305.8	4.500	887.6	-1.0	1.00	5780	54.56	129.68
005738506-02	OBS	3676.01	9.501567	131.974155	472927.4	3.500	812.7	-1.0	1.00	5780	54.56	129.68

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005738506-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_NOFITS
005738506-02	OBS	FP	0.00	1	0	0	0	SAME_NTL_PERIOD—CENT_NOFITS

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

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

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

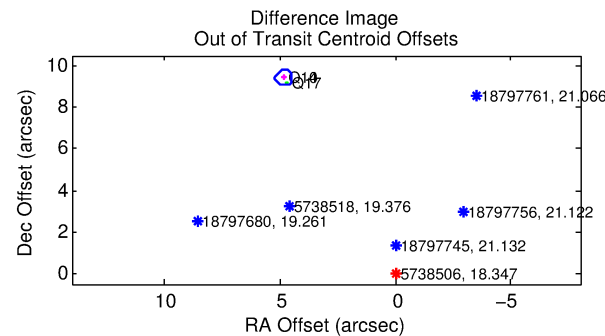
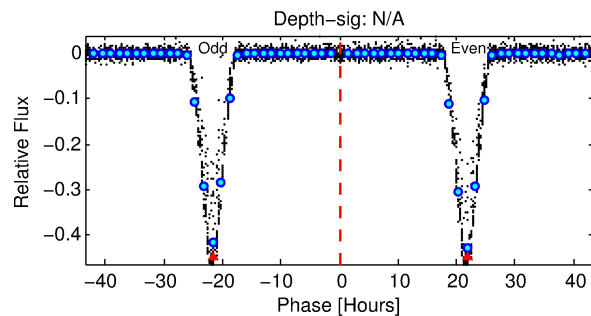
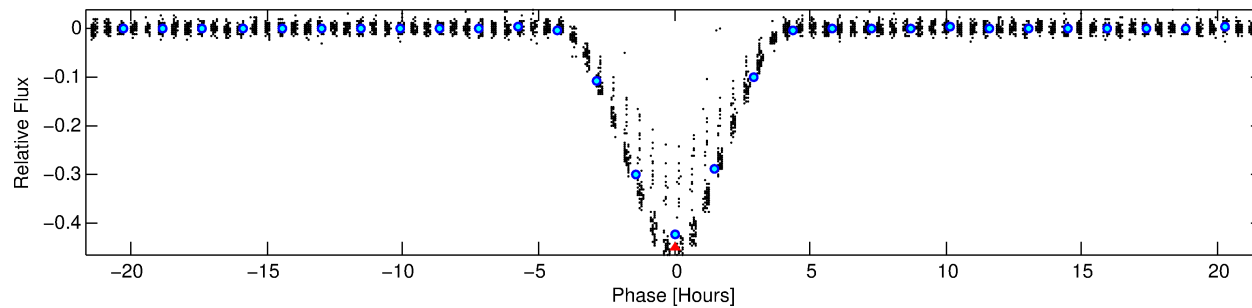
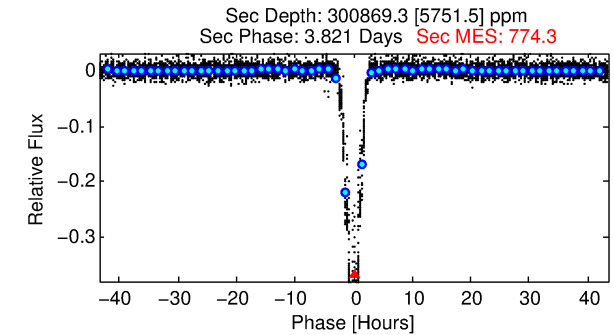
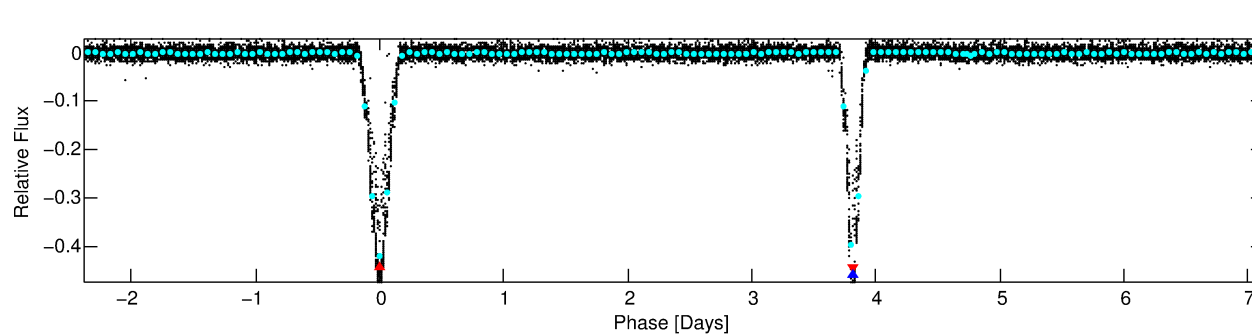
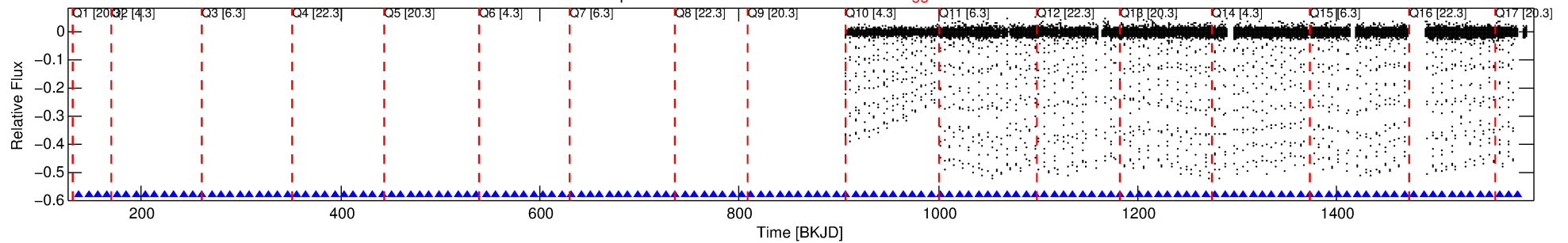
Ephemeris Match Information For 005738506-01

No Significant Match Found

DV One-Page Summary

KIC: 5738506 Candidate: 1 of 2 Period: 9.502 d
KOI: K03676 Corr: No Ephemeris Match

Kp: 18.35 R*: 1.00 Rs Teff: 5780.0 K Logg: 4.44 Fe/H: 0.000



TPS TCE Results:

Period = 9.50151 d
Epoch = 137.6615 BKJD

DV fit results are unavailable

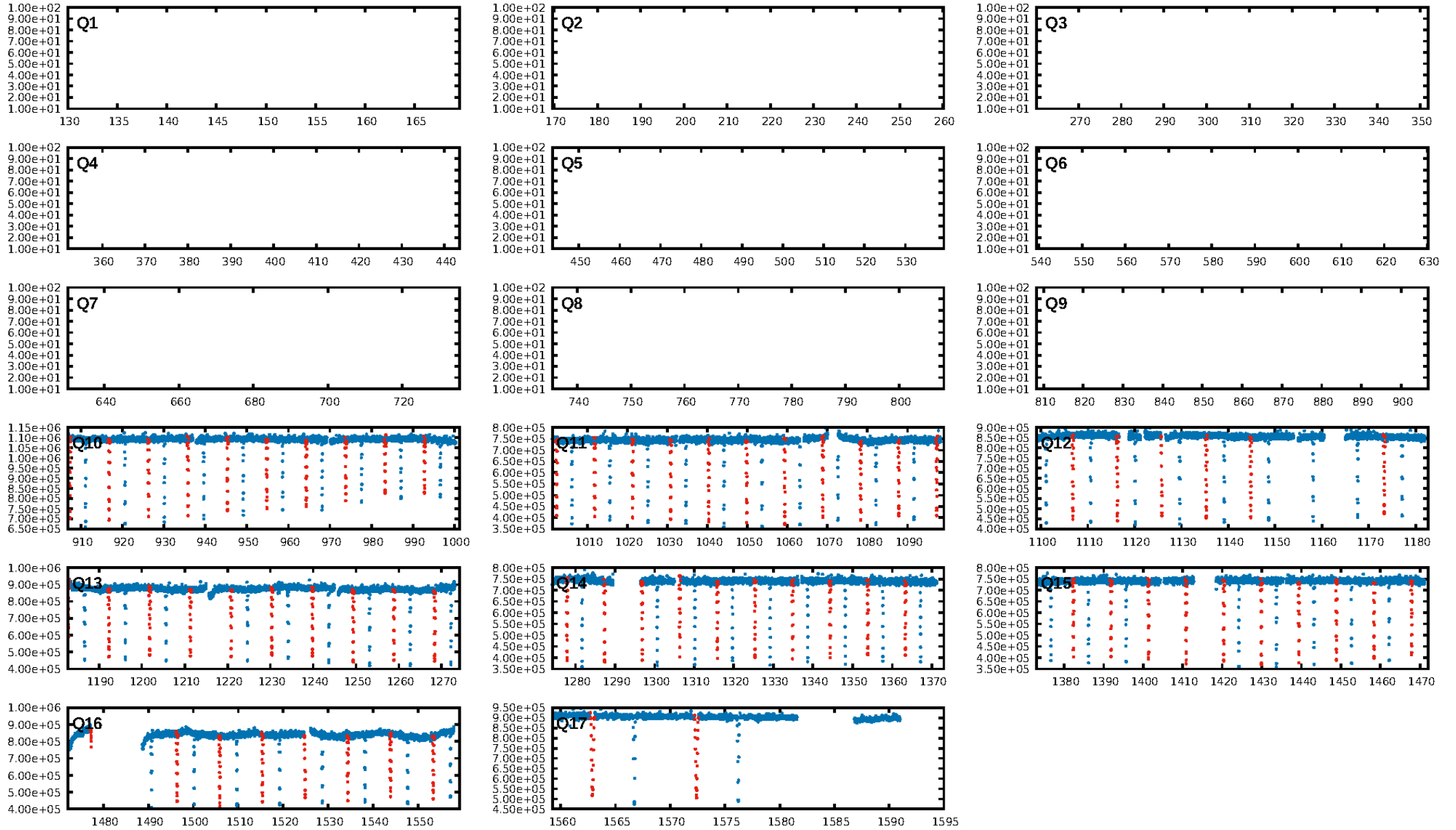
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 0.0% [0.00σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [64/64]
GhostDiagnostic-chr: 2.045
Centroid-sig: 0.0%
Centroid-so: 3.188 arcsec [759.12σ]
OotOffset-rm: 10.610 arcsec [86.84σ]
KicOffset-rm: 0.508 arcsec [7.27σ]
OotOffset-st: 2/0/0/1 [3]
KicOffset-st: 2/2/2/2 [8]
DiffImageQuality-fgm: 1.00 [8/8]
DiffImageOverlap-fno: 1.00 [8/8]

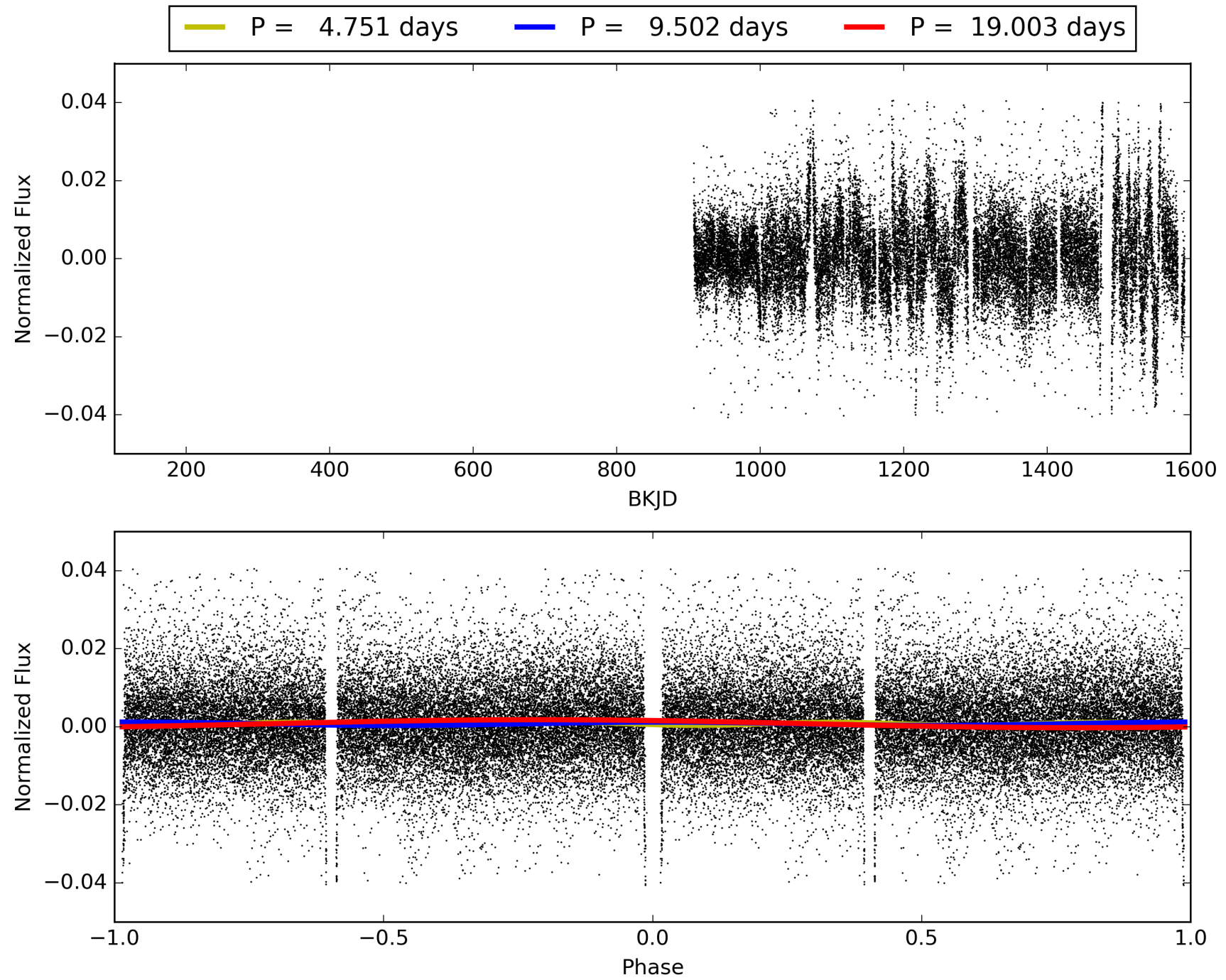
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 13:38:43 Z

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

TCE 005738506-01, PDC Light Curves

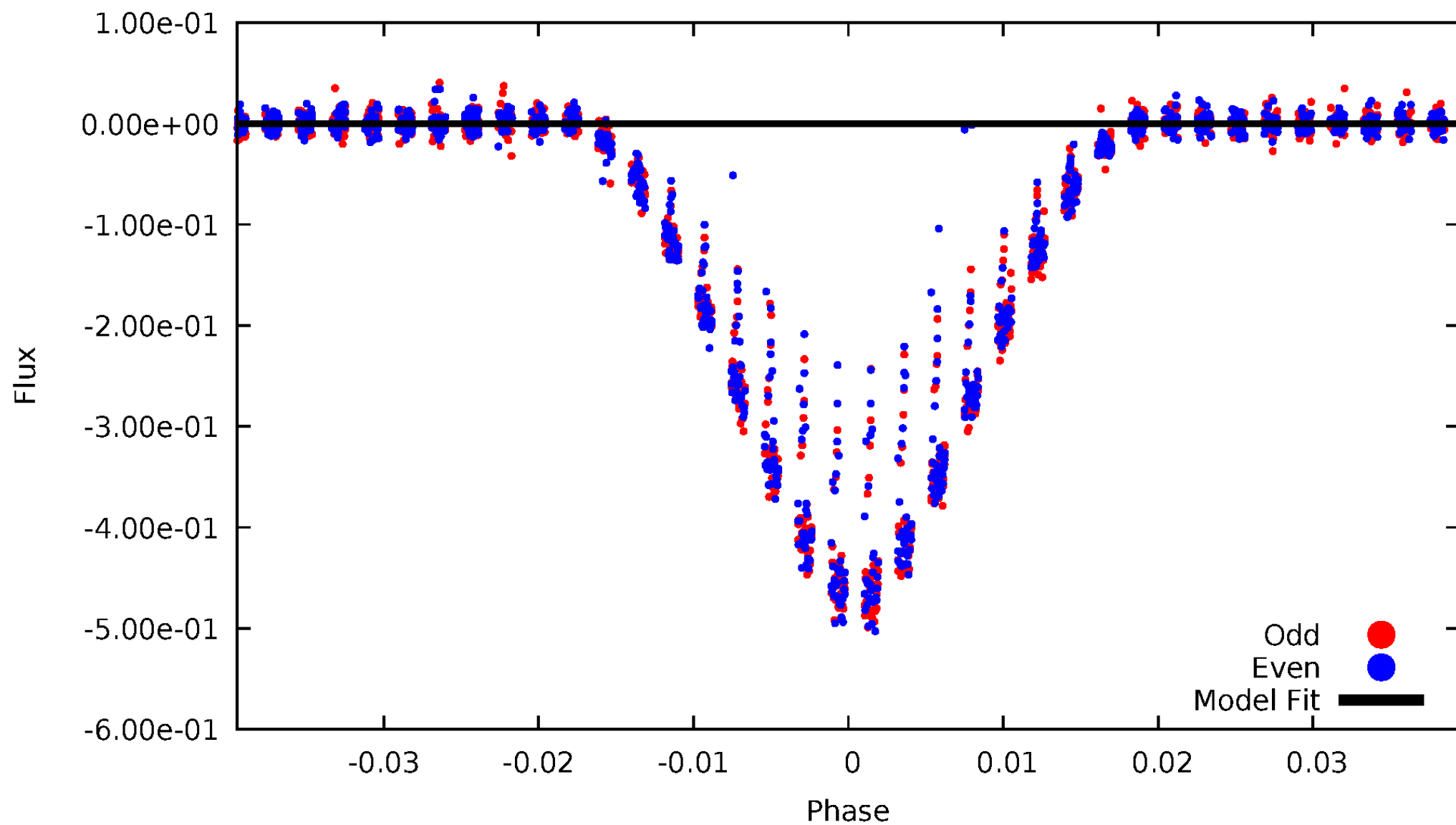


TCE 005738506-01



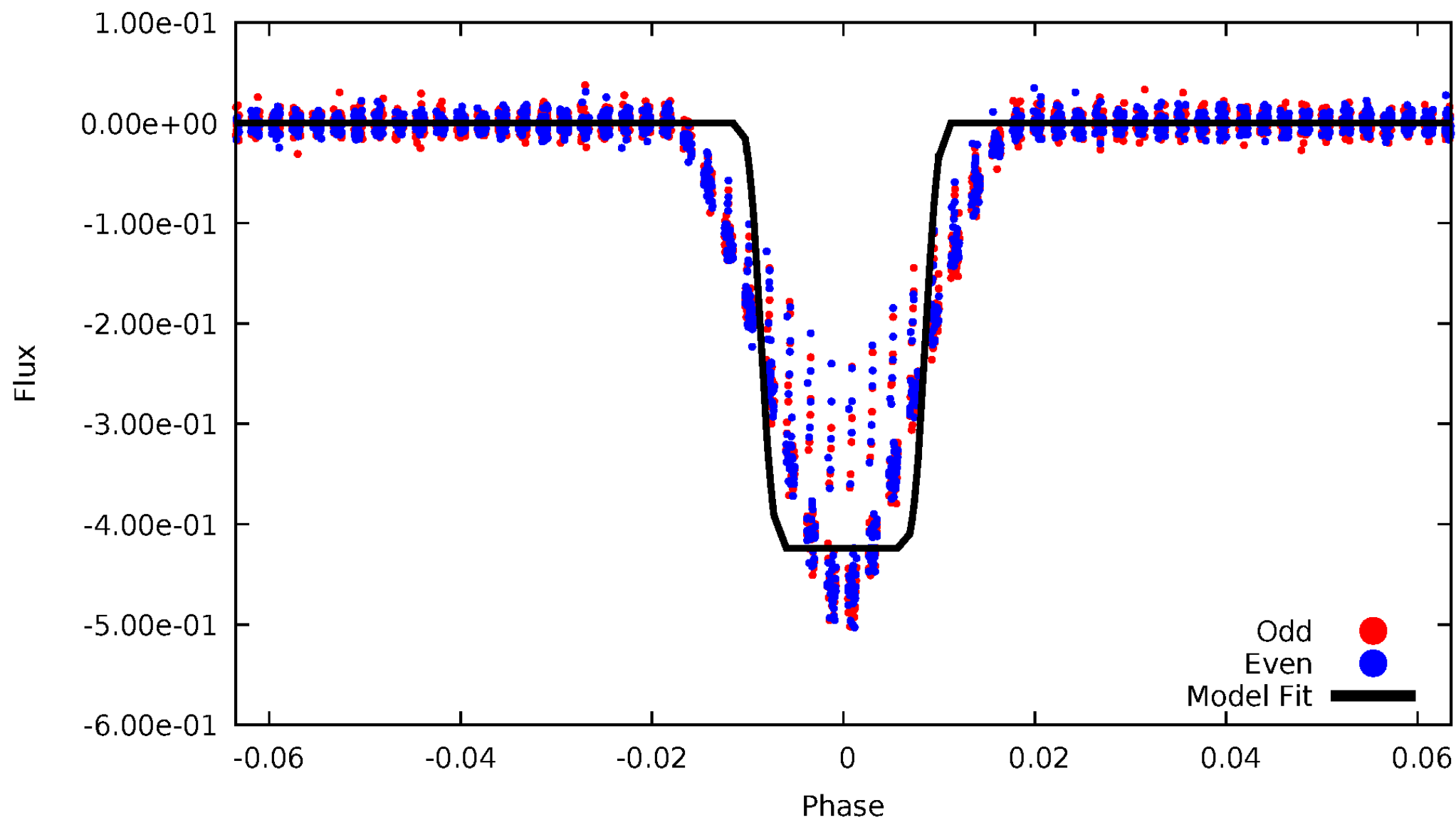
DV Odd/Even

TCE 005738506-01



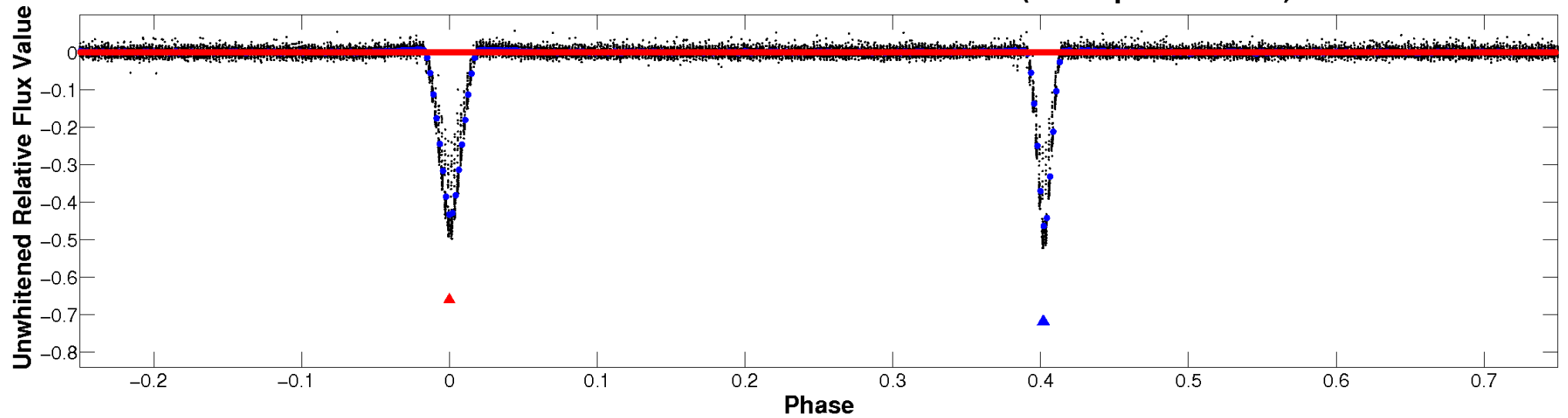
ALT Odd/Even

TCE 005738506-01



Non-Whitened Vs. Whitened Light Curve

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

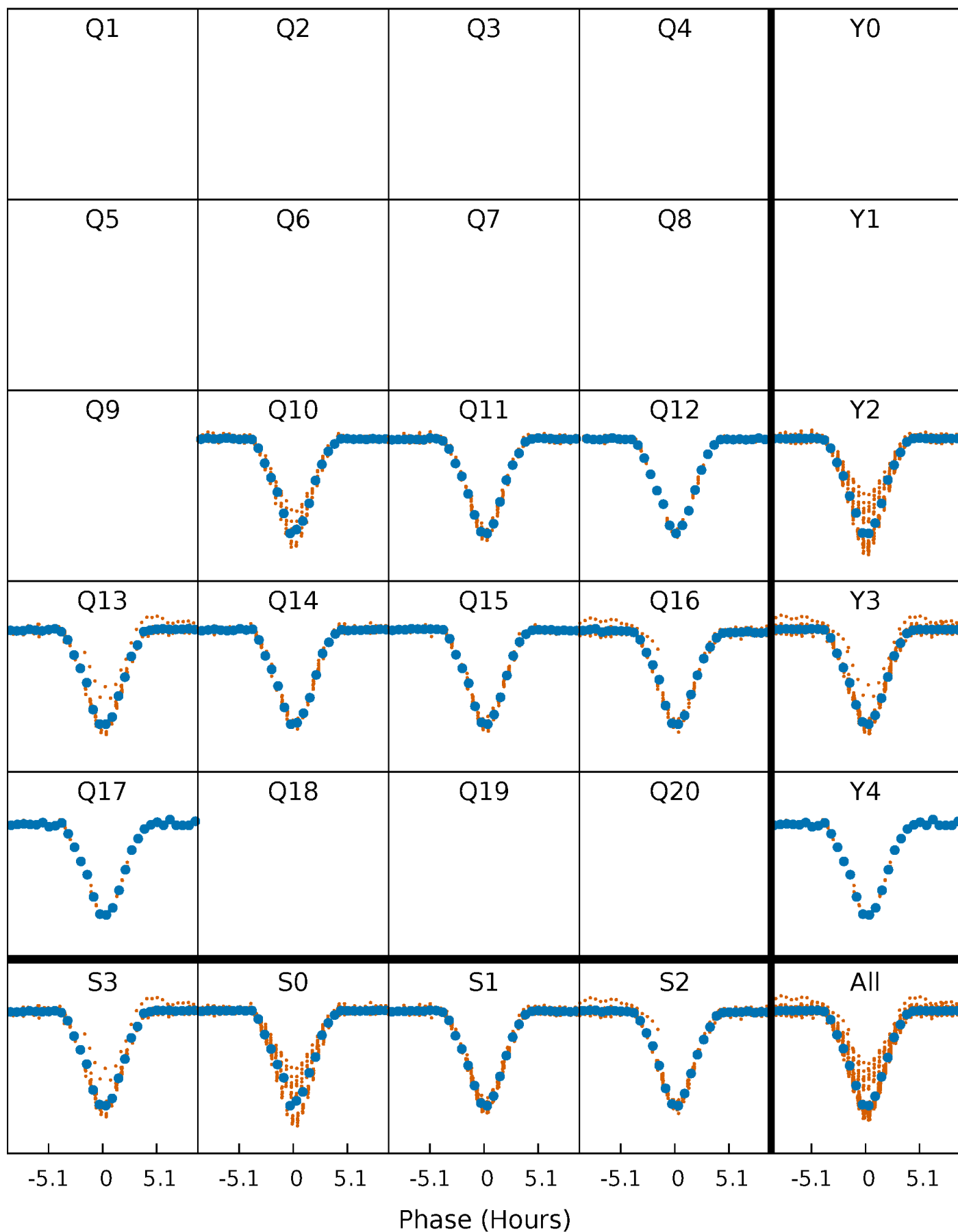


Planet 1 : Phased Whitened Flux Time Series (TPS Epoch/Period)



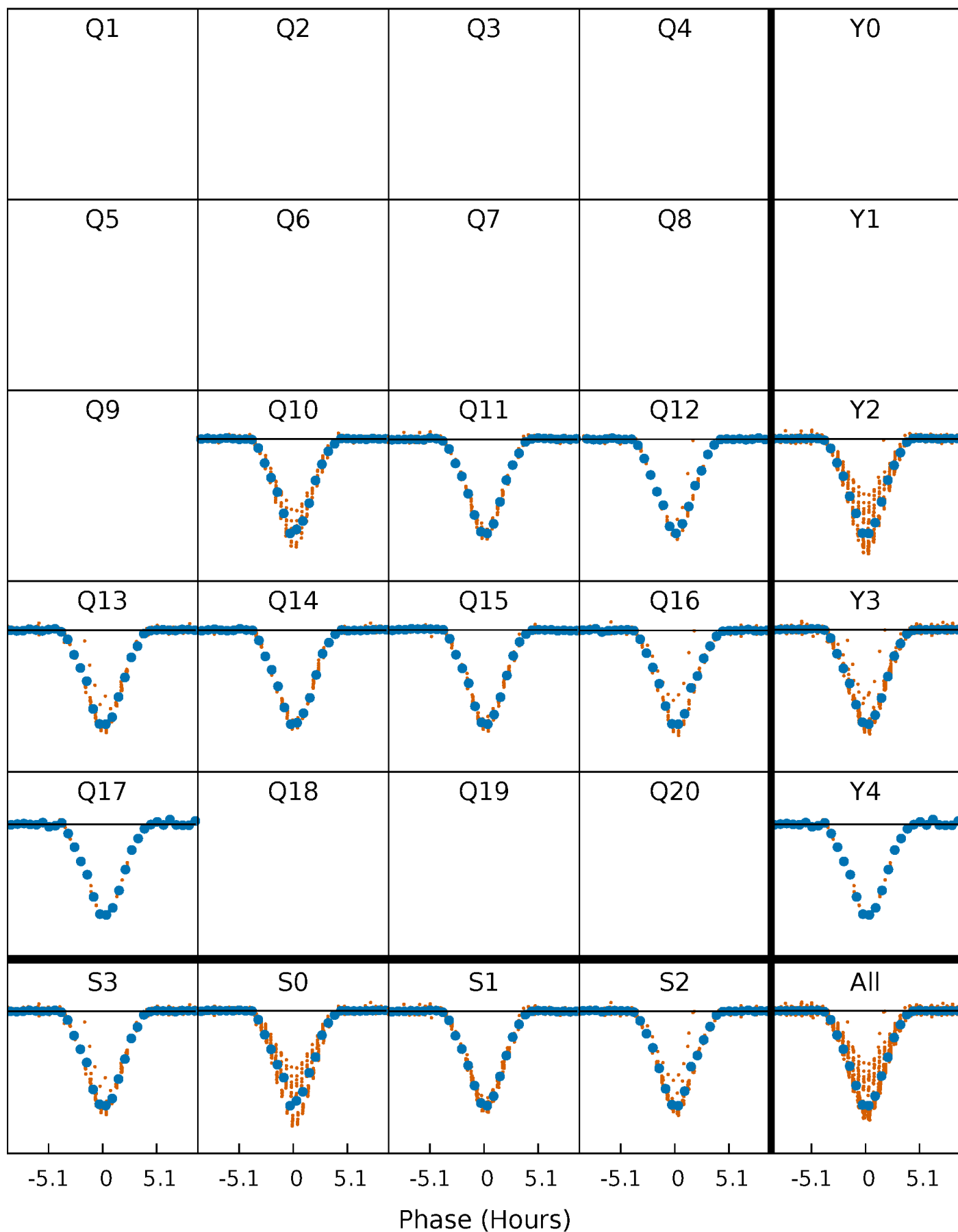
PDC Quarter-Phased Transit Curves

TCE 005738506-01 P= 9.501509 Days $T_0=137.661495$ (BKJD)



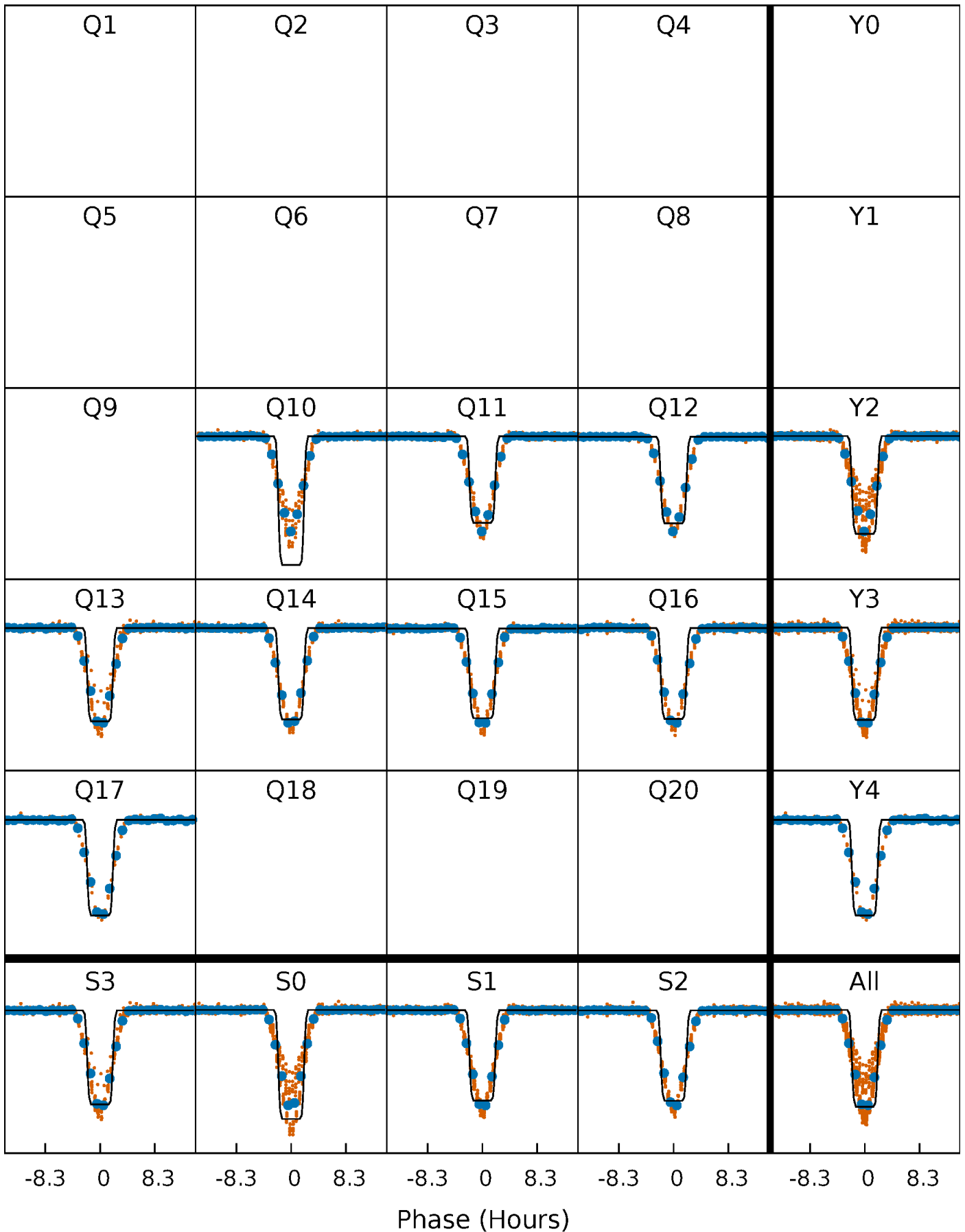
DV Quarter-Phased Transit Curves

TCE 005738506-01 P= 9.501509 Days $T_0=137.661495$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

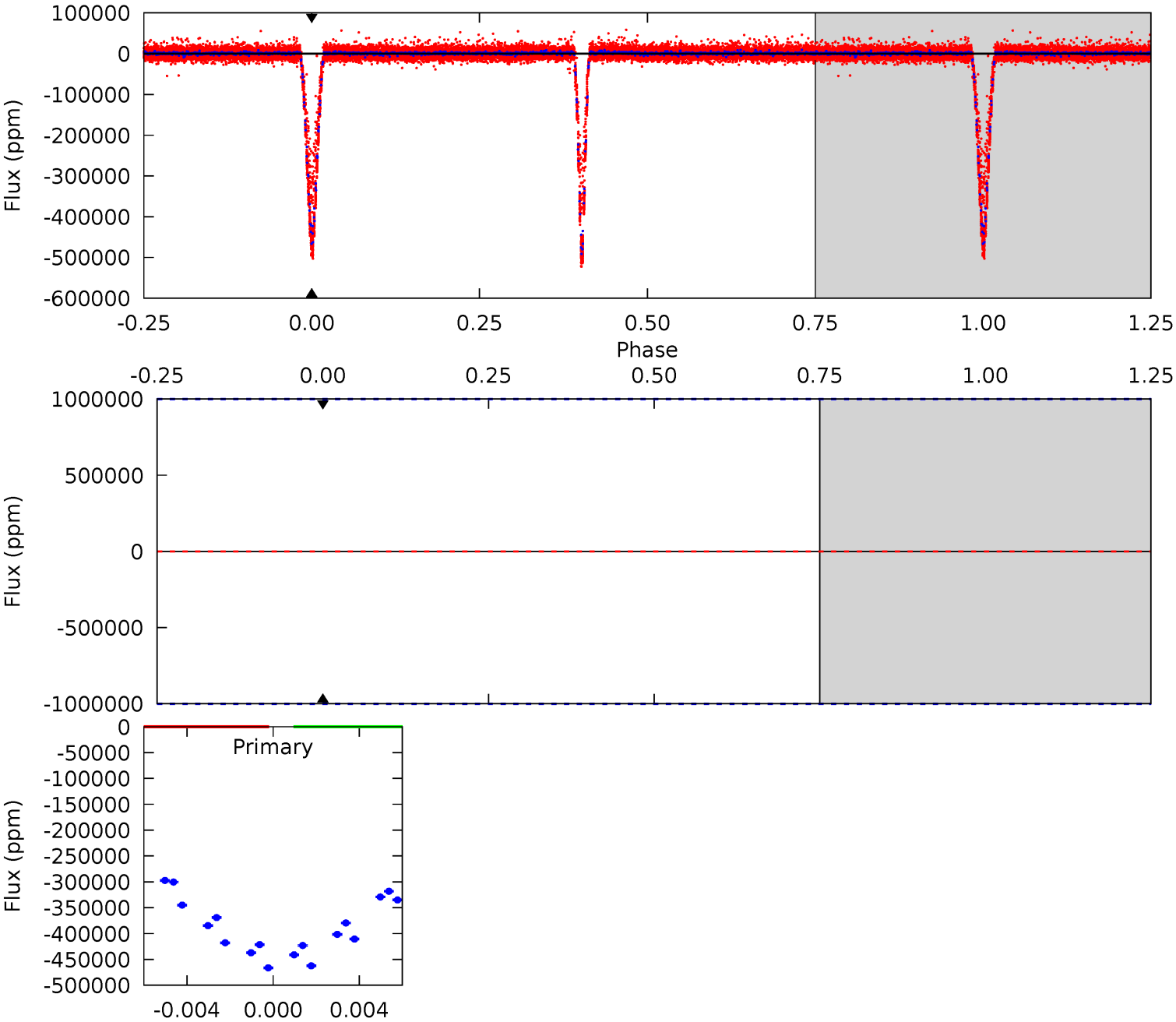
TCE 005738506-01 P= 9.501509 Days $T_0=137.666822$ (BKJD)



DV Model-Shift Uniqueness Test

005738506-01, P = 9.501509 Days, E = 137.661495 Days

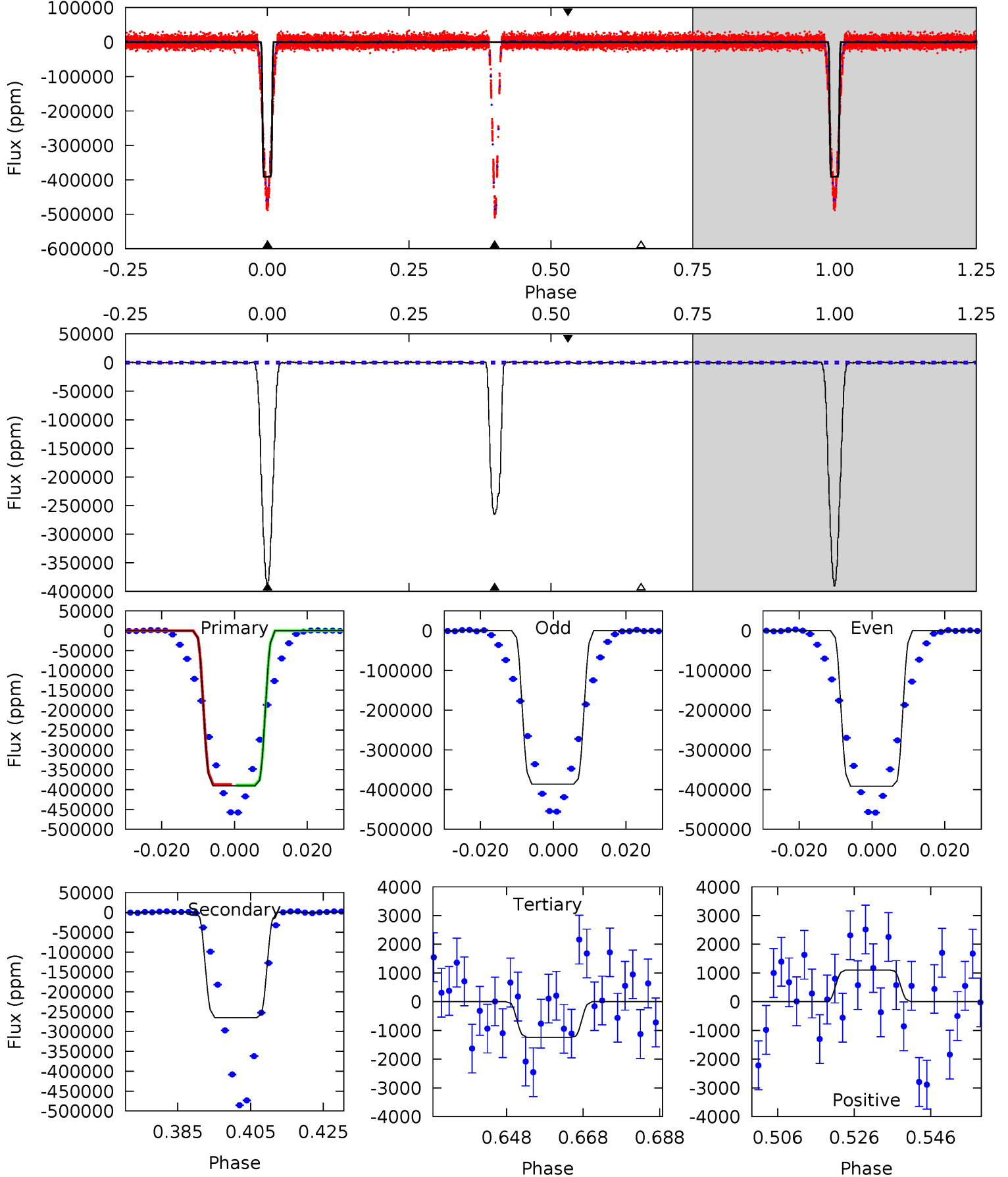
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

005738506-01, P = 9.501509 Days, E = 137.666822 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1042	707.8	3.30	2.95	4.89	2.32	1.69	1039	1039	704.5	704.9	6.91	0.96	0.00	2.18



Stellar Parameters For KIC 005738506

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5780^{+1}_{-1}	$4.438^{+1.000}_{-1.000}$	$0.000^{+1.000}_{-1.000}$	$1.000^{+1.000}_{-1.000}$	$-1.000^{+1.000}_{-1.000}$	$-1.000^{+1.000}_{-1.000}$
	+0%/-0%	+23%/-23%	+inf%/-inf%	+100%/-100%	+100%/-100%	+100%/-100%
Source	Solar	Solar	Solar	Solar		

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

Secondary Eclipse Parameters for KIC 005738506-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	0 ± 1000000	$54.84^{+11.78}_{-11.65}$	1202^{+55}_{-58}	2548^{+2353}_{-7179}	$2.841^{+166.060}_{-132.332}$
Alt.	-265280 ± 375	$70.41^{+12.63}_{-11.38}$	1200^{+57}_{-59}	5562^{+525}_{-377}	305^{+129}_{-83}

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

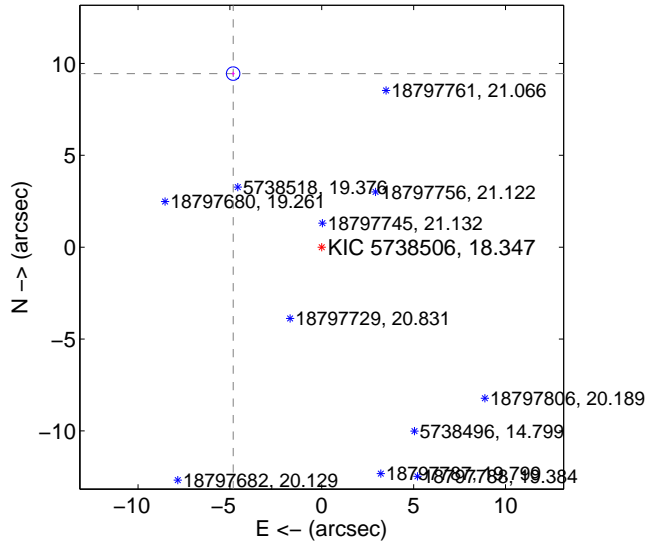
Supplemental centroid analysis for 005738506-01. Kepler magnitude: 18.35. Transit SNR -1.00

There are 8 quarters with good PRF difference image offsets

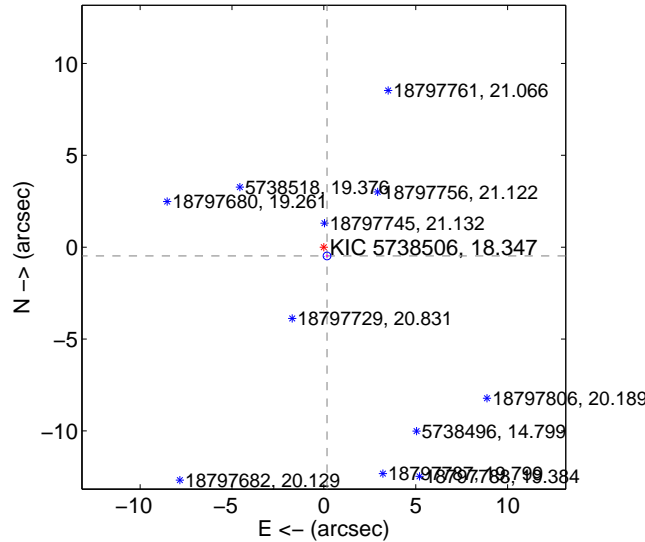
The OOT PRF centroid is offset from the target star catalog position by about 10.79 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	10.610 ± 0.122	86.84	4.824 ± 0.084	9.449 ± 0.111
PRF-fit source offset from KIC position	0.508 ± 0.070	7.27	-0.171 ± 0.073	-0.479 ± 0.070
photometric centroid source offset	3.19 ± 0.00	759.12	0.75 ± 0.00	-3.10 ± 0.00

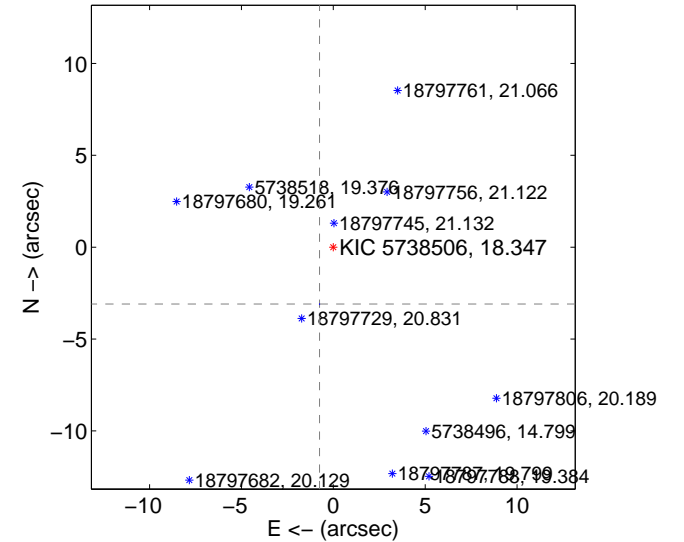
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position



offset from photometric centroids



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

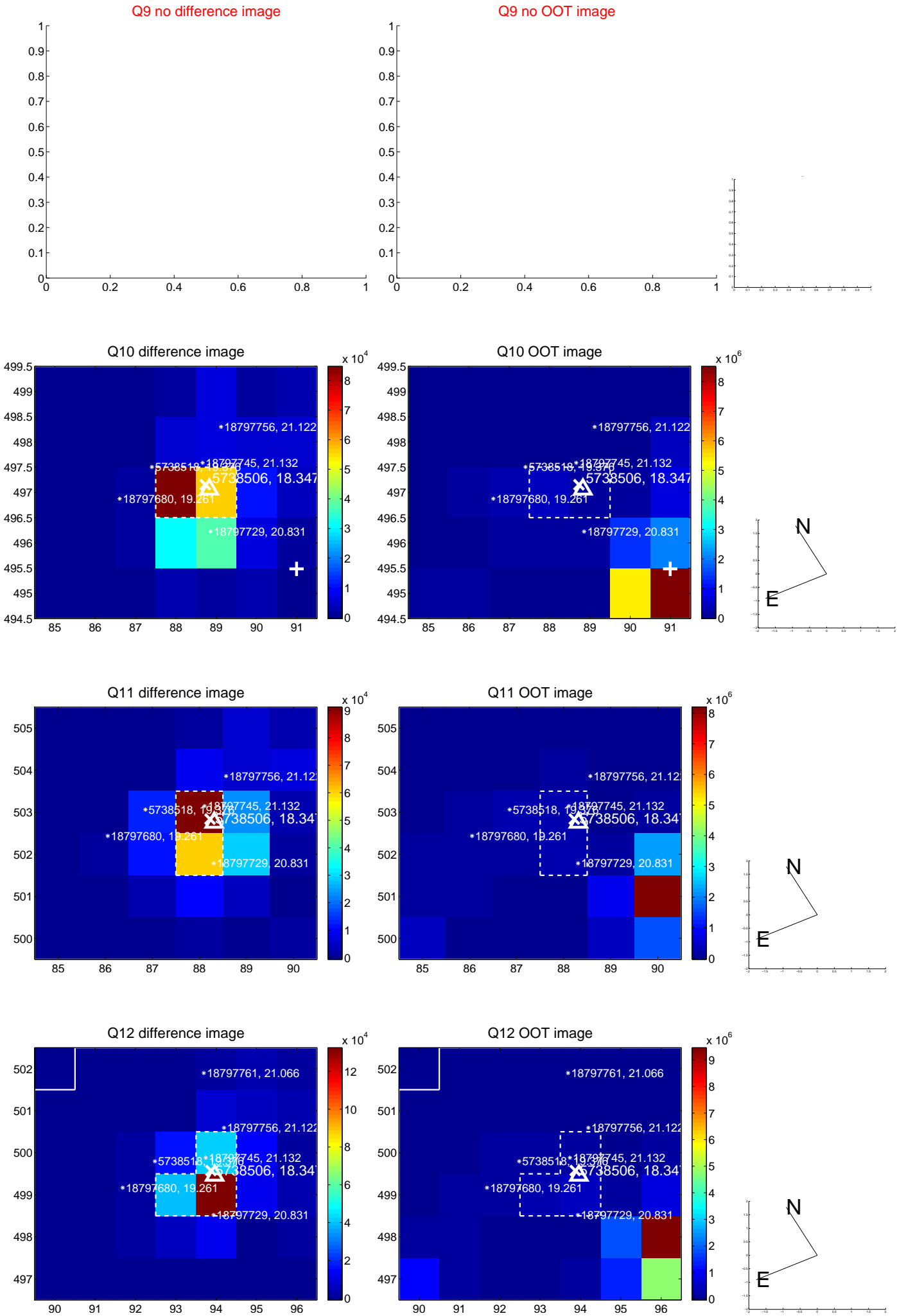
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



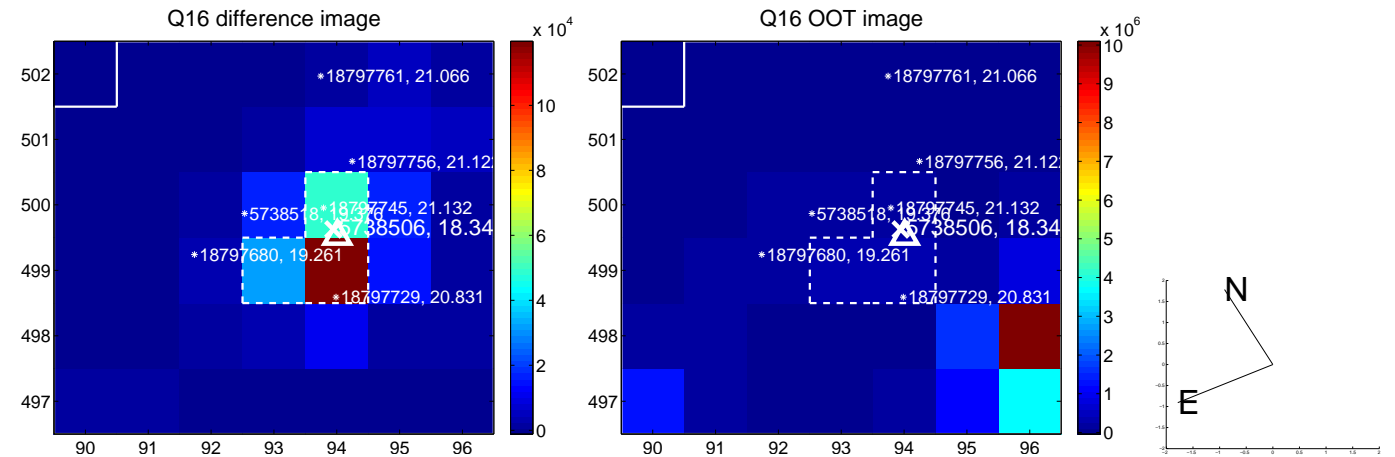
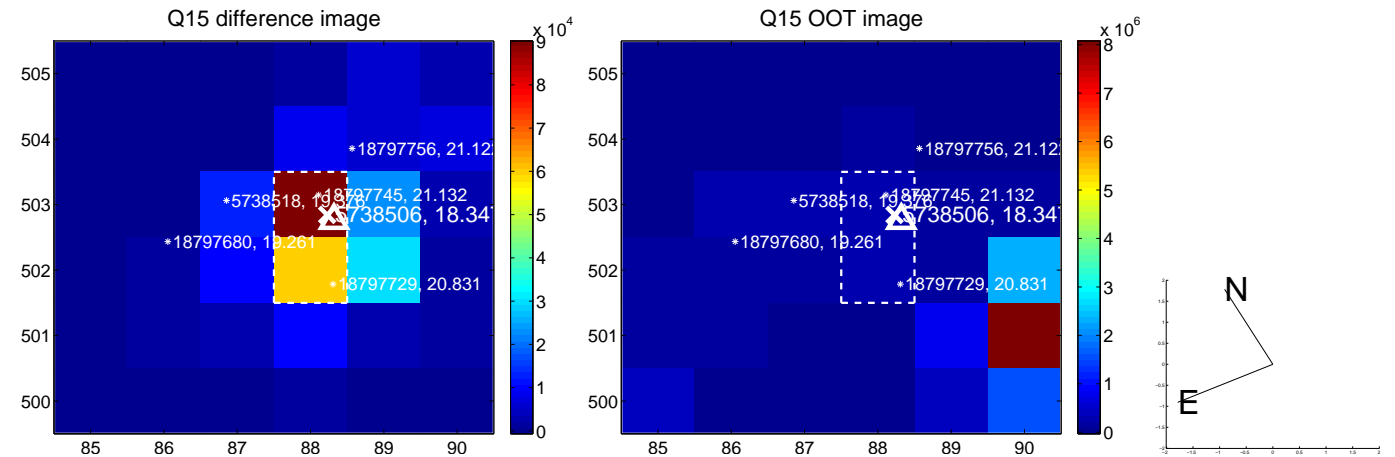
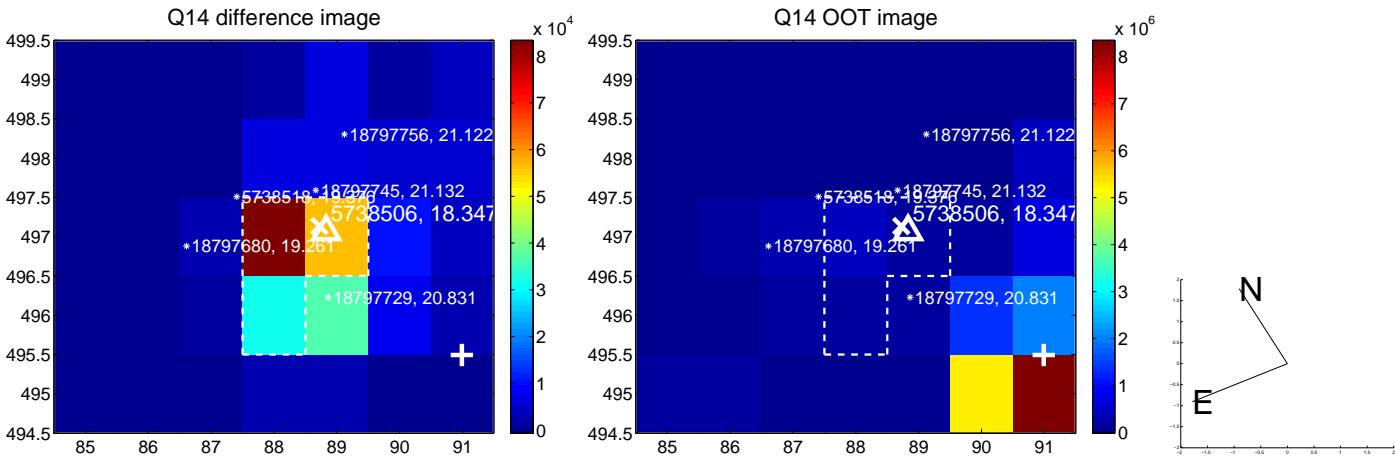
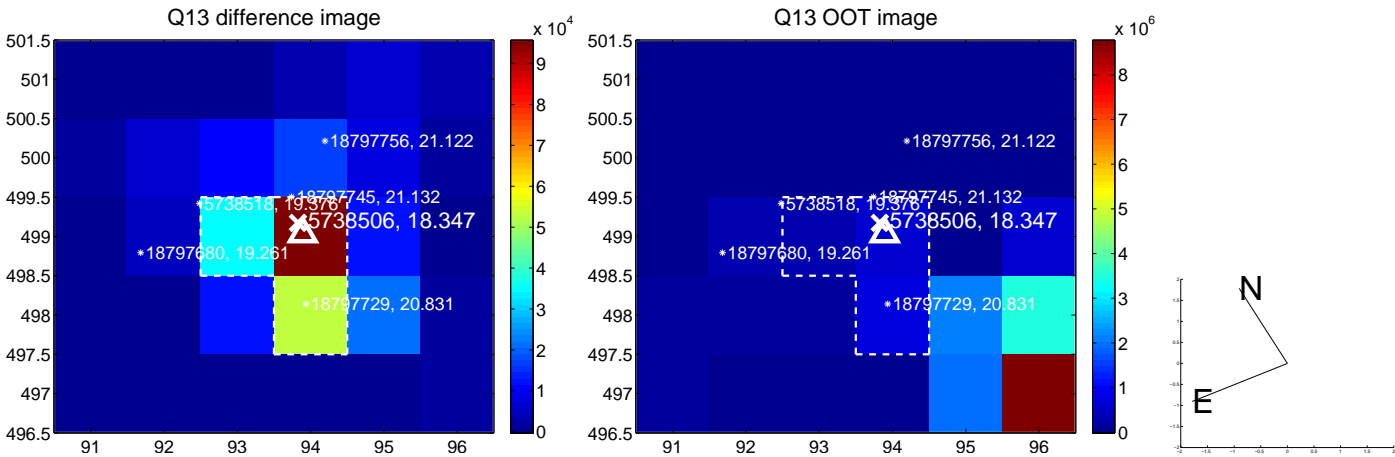
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



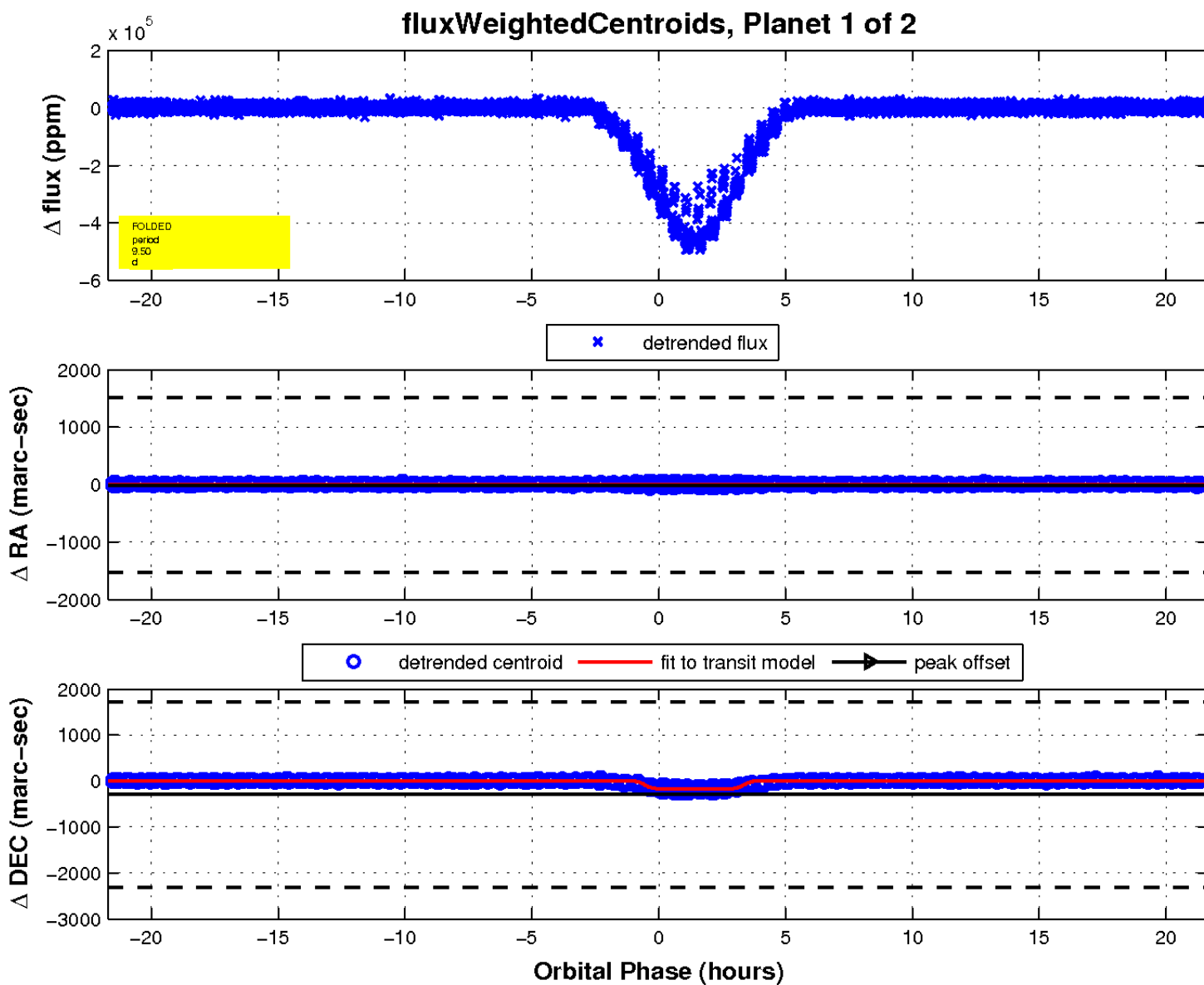
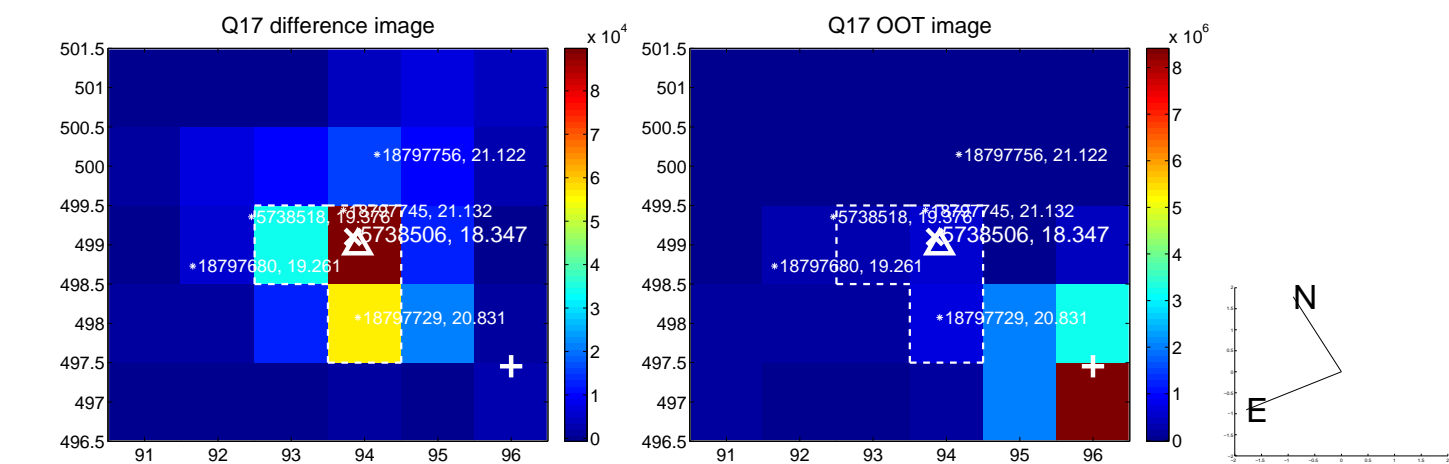
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

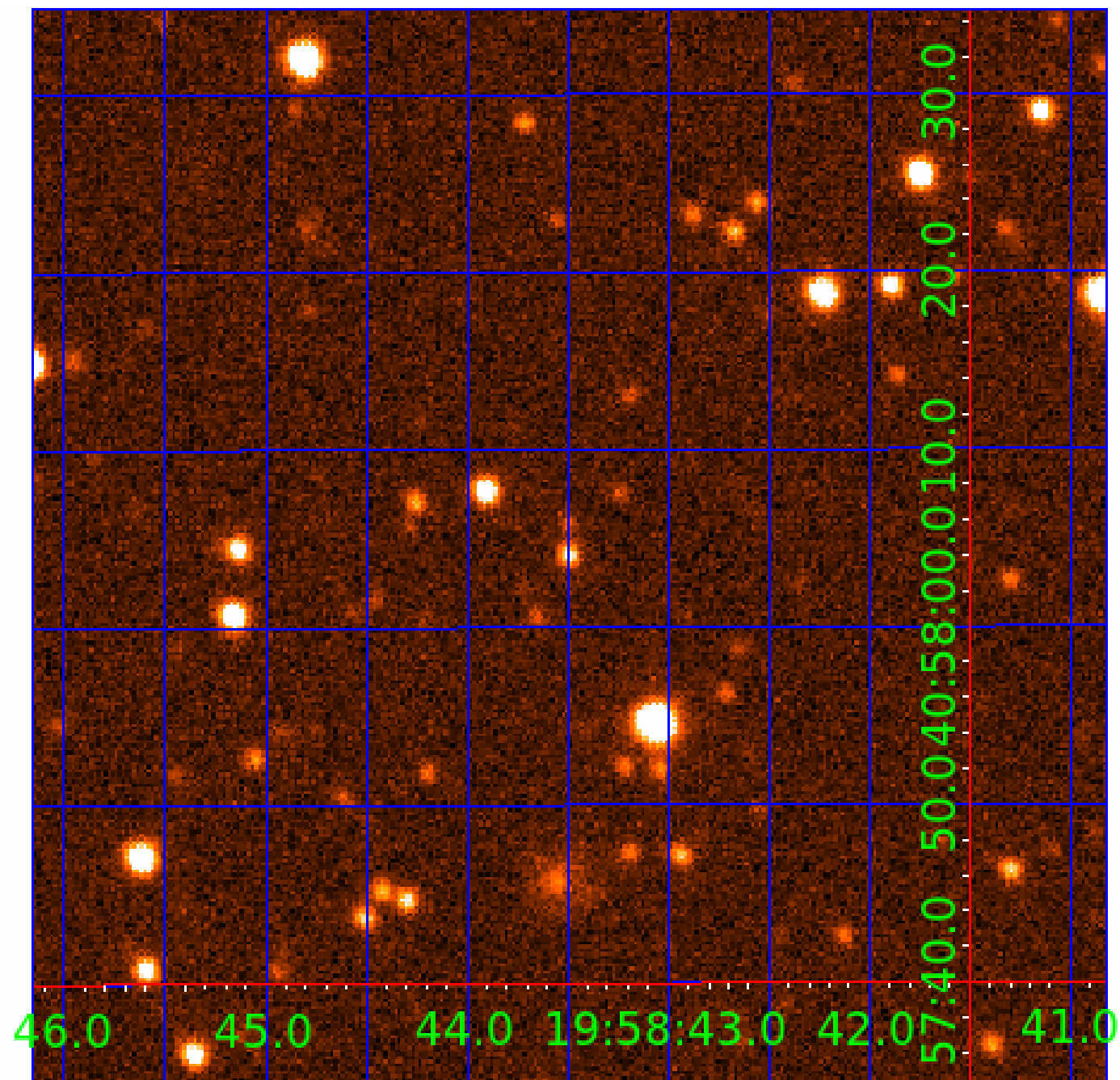


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 005738506

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})
005738506-01	OBS	No	9.501509	137.661495	466305.8	4.500	887.6	-1.0	1.00	5780	54.56	129.68
005738506-02	OBS	3676.01	9.501567	131.974155	472927.4	3.500	812.7	-1.0	1.00	5780	54.56	129.68

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005738506-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_NOFITS
005738506-02	OBS	FP	0.00	1	0	0	0	SAME_NTL_PERIOD—CENT_NOFITS

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

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

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

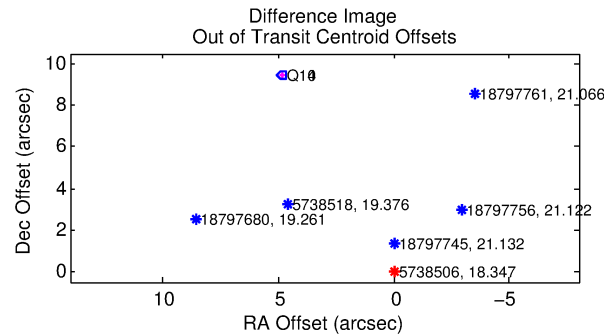
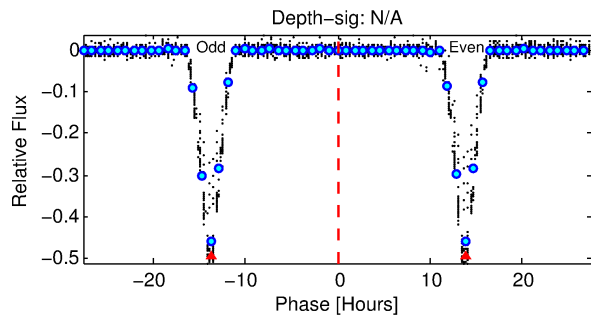
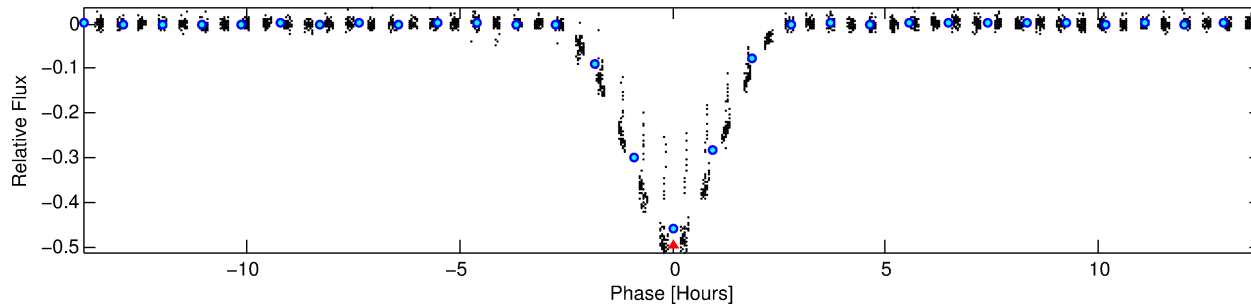
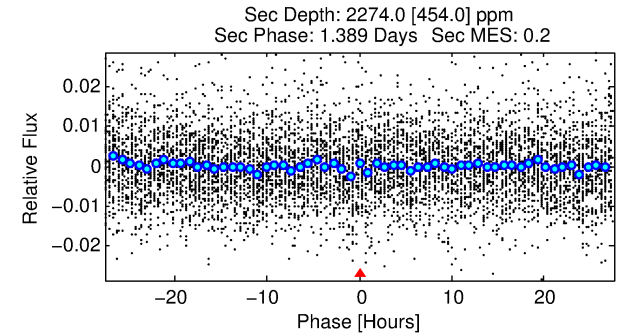
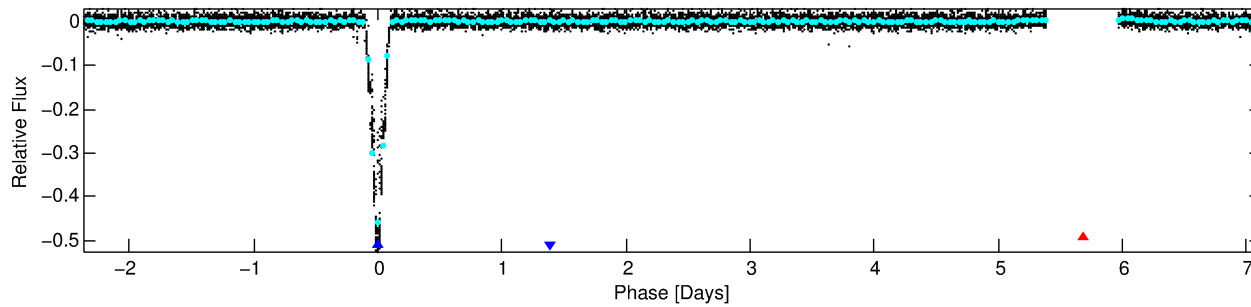
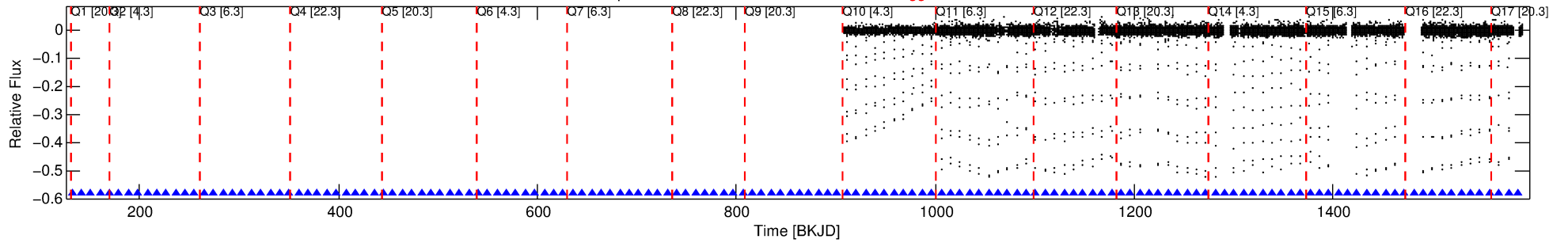
Ephemeris Match Information For 005738506-02

No Significant Match Found

DV One-Page Summary

KIC: 5738506 Candidate: 2 of 2 Period: 9.502 d
KOI: K03676.01 Corr: 0.827

Kp: 18.35 R*: 1.00 Rs Teff: 5780.0 K Logg: 4.44 Fe/H: 0.000



TPS TCE Results:

Period = 9.50157 d
Epoch = 131.9742 BKJD

DV fit results are unavailable

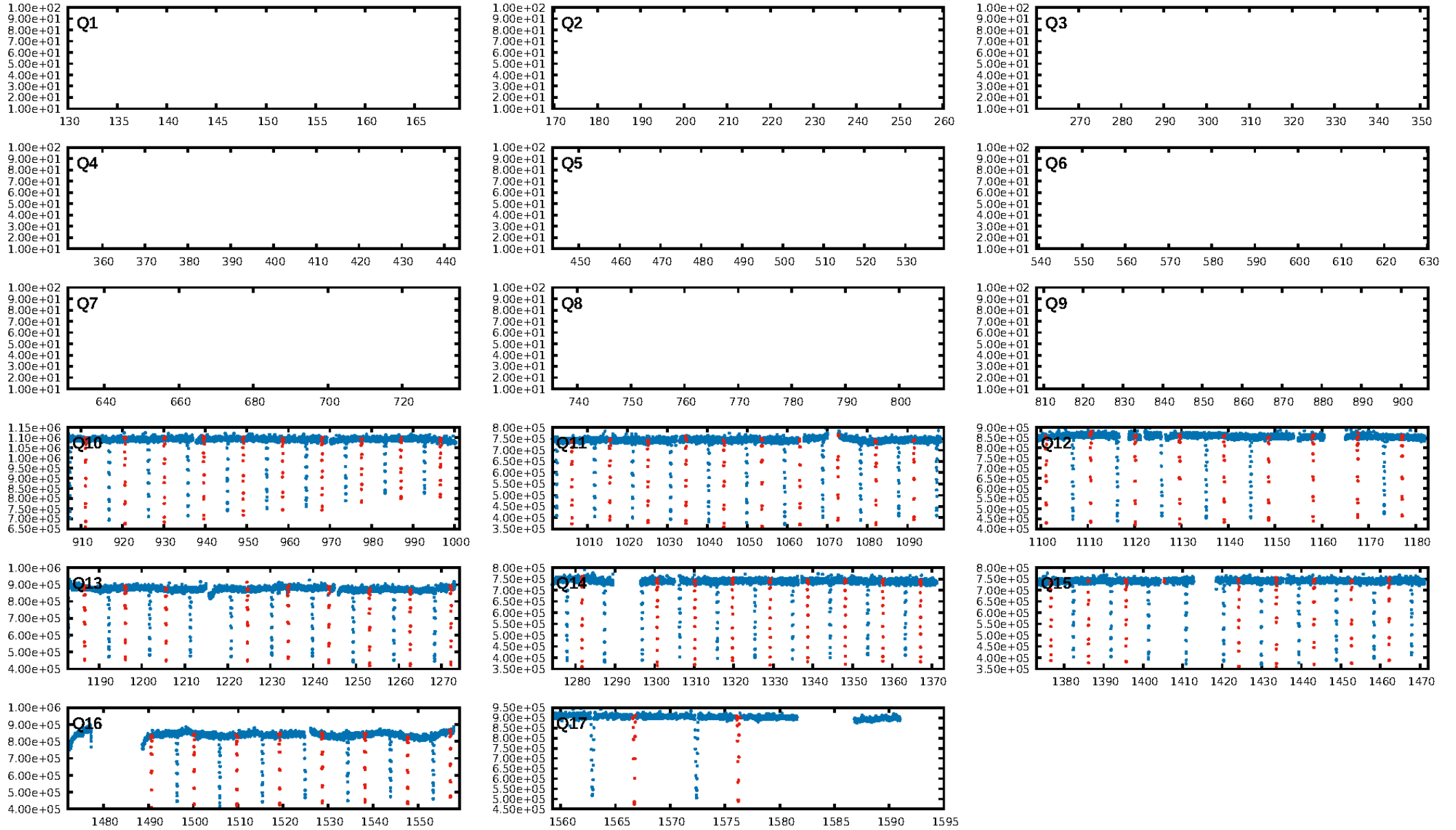
DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [63/63]
GhostDiagnostic-chr: 2.067
Centroid-sig: 0.0%
Centroid-so: 3.205 arcsec [701.63σ]
OotOffset-rm: 10.628 arcsec [158.59σ]
KicOffset-rm: 0.521 arcsec [7.24σ]
OotOffset-st: 2/0/0/0 [2]
KicOffset-st: 2/2/2/2 [8]
DiffImageQuality-fgm: 1.00 [8/8]
DiffImageOverlap-fno: 1.00 [8/8]

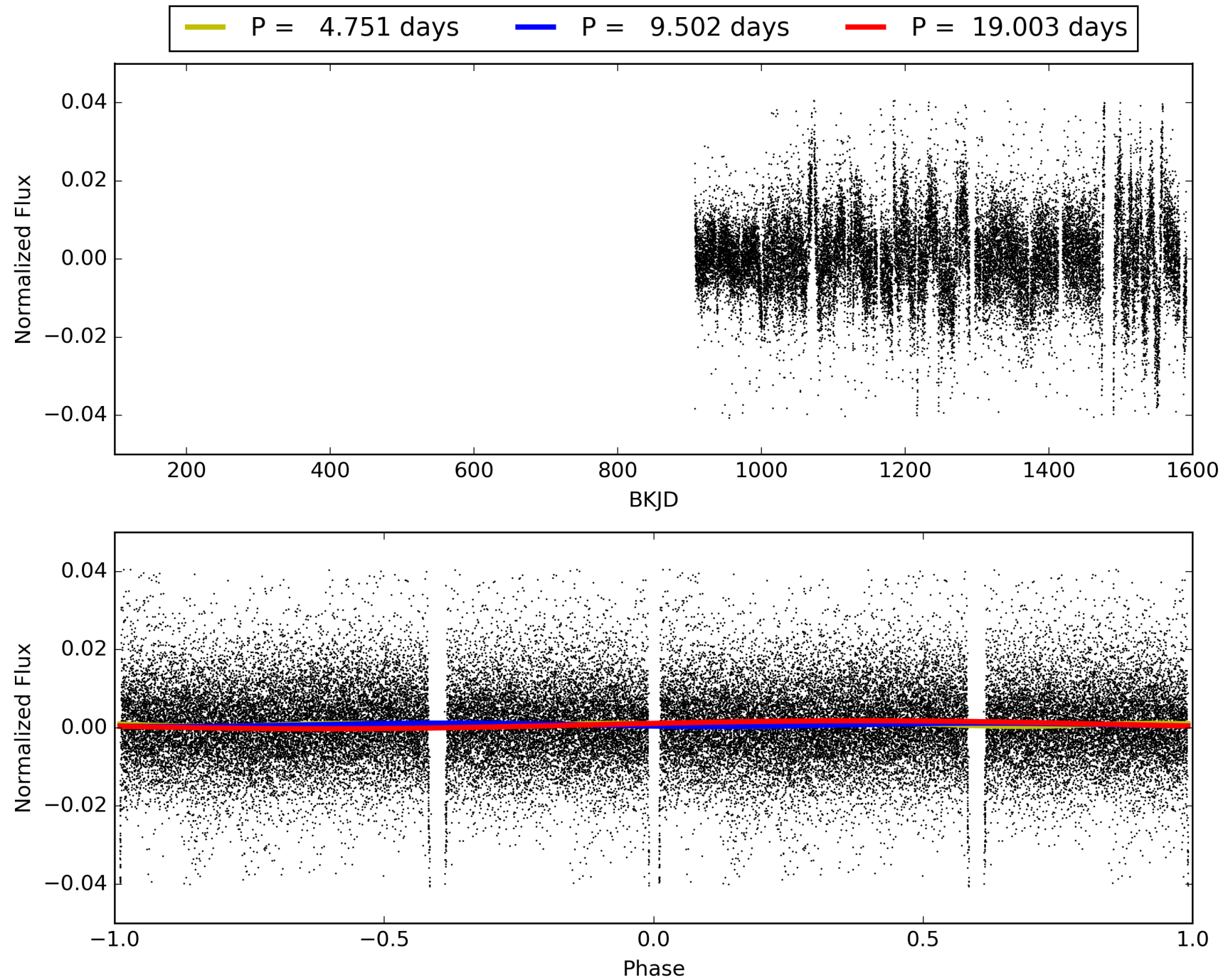
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 13:38:47 Z

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

TCE 005738506-02, PDC Light Curves

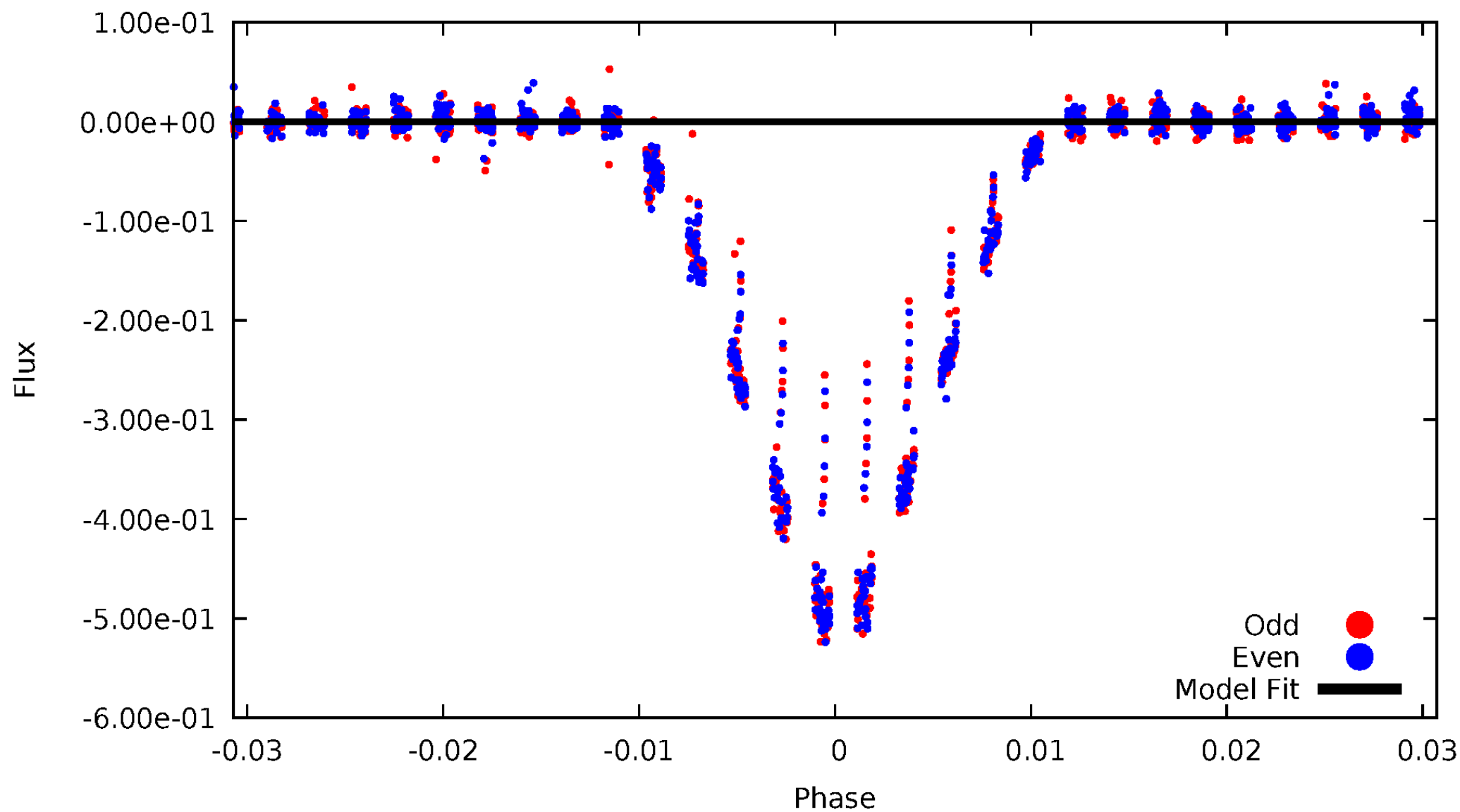


TCE 005738506-02



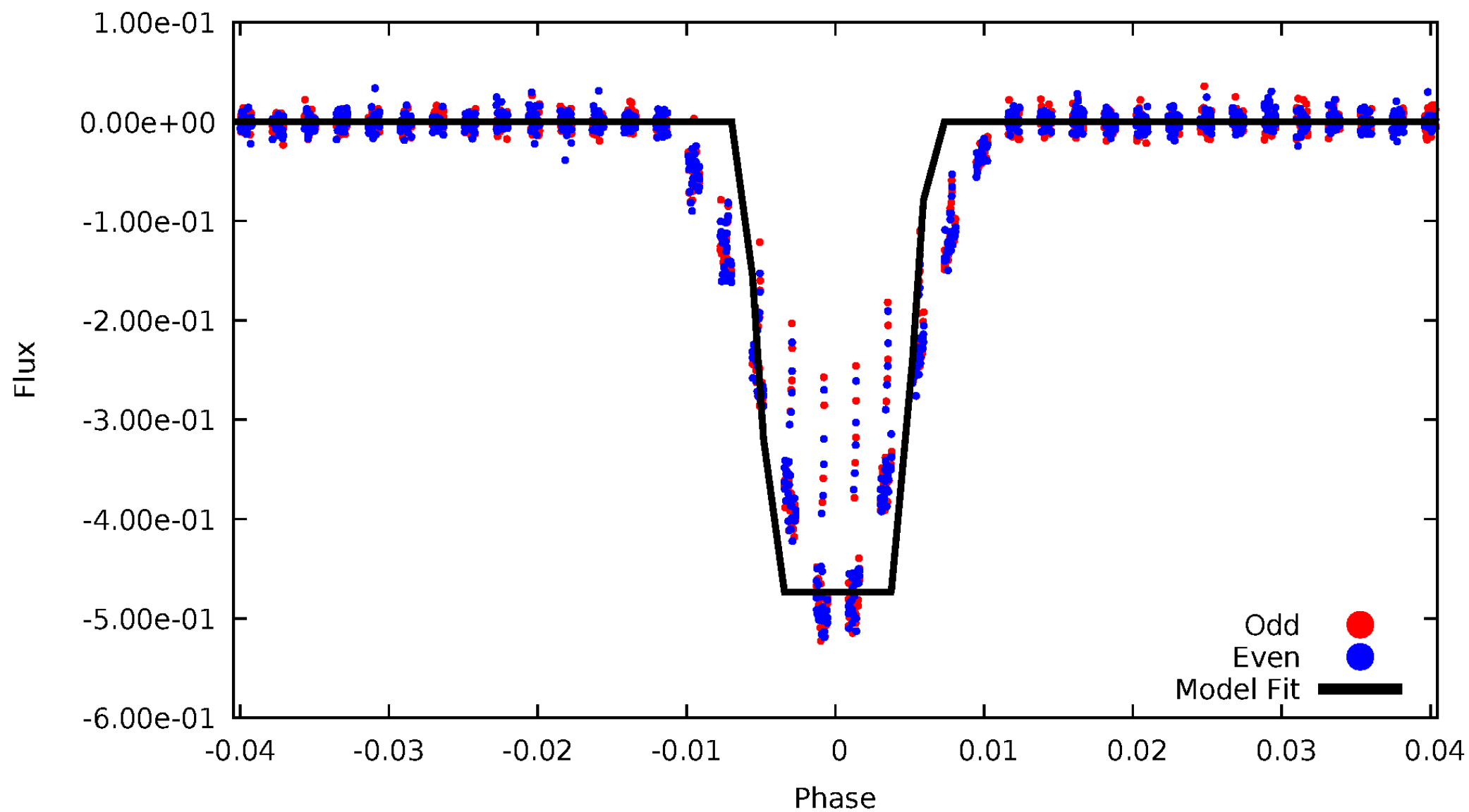
DV Odd/Even

TCE 005738506-02



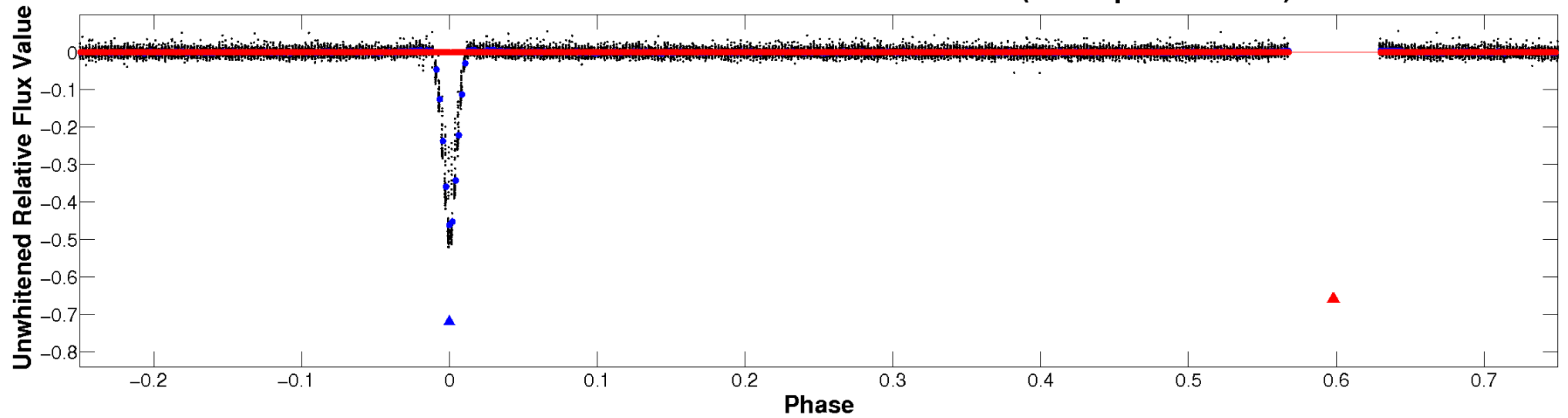
ALT Odd/Even

TCE 005738506-02



Non-Whitened Vs. Whitened Light Curve

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

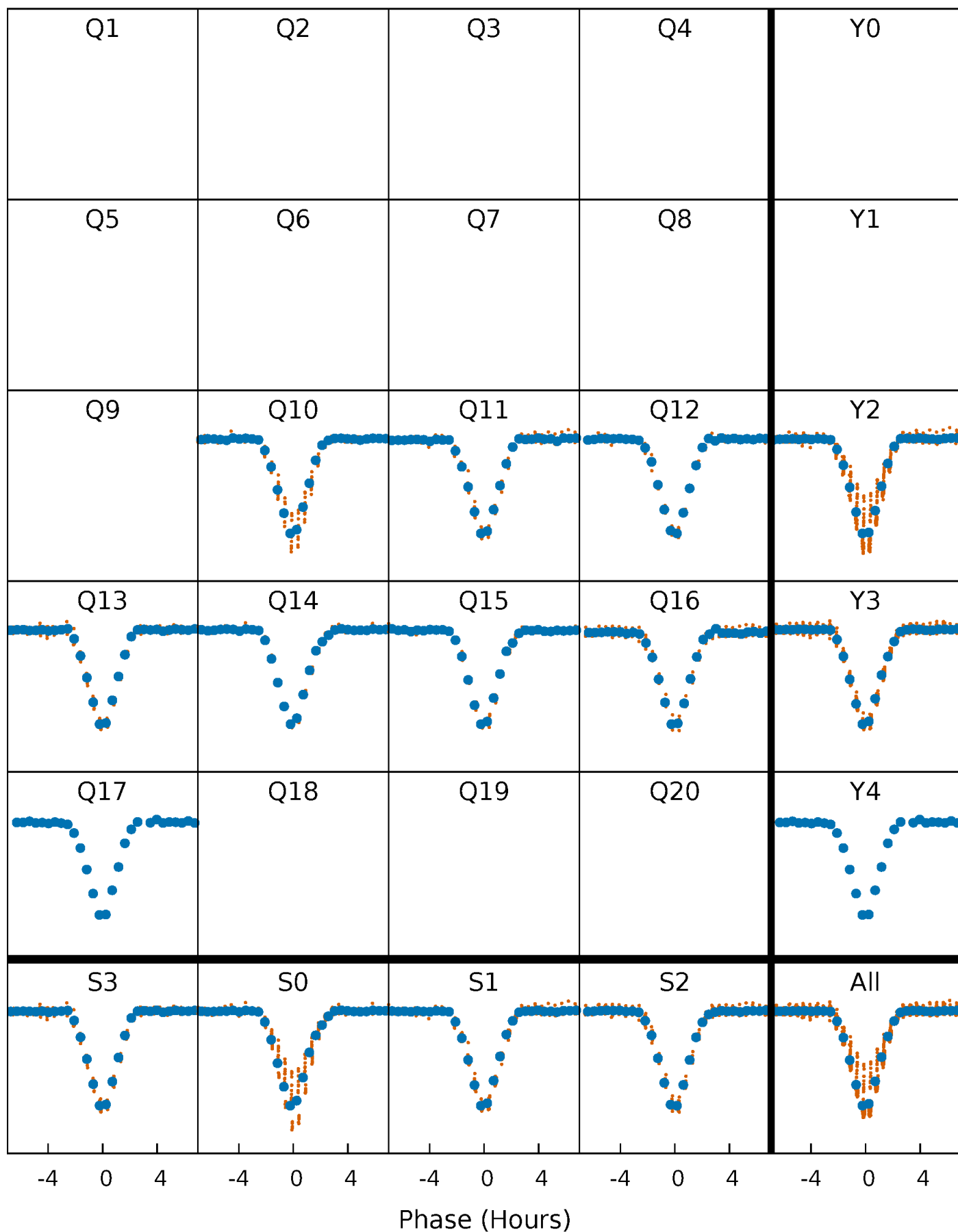


Planet 2 : Phased Whitened Flux Time Series (TPS Epoch/Period)



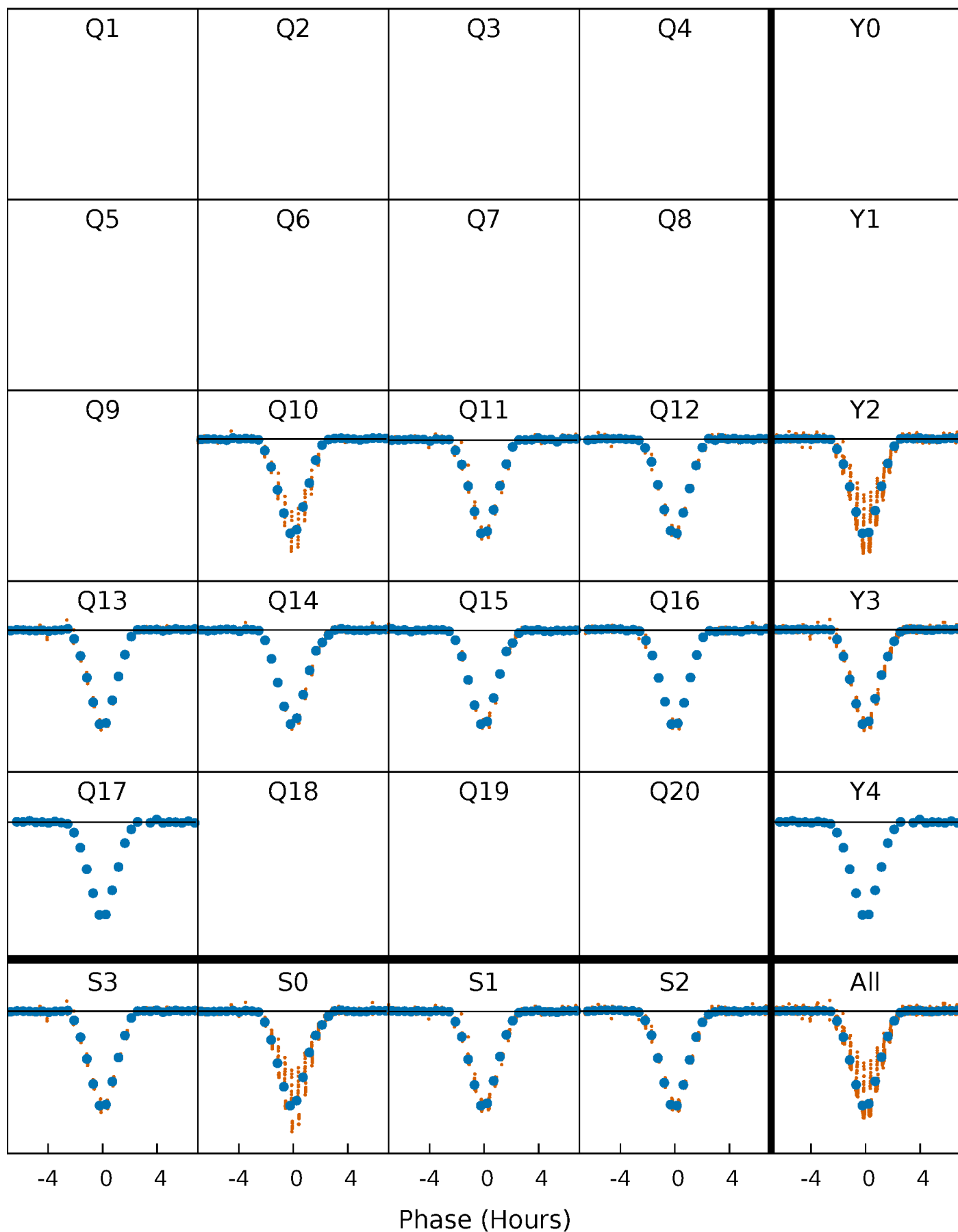
PDC Quarter-Phased Transit Curves

TCE 005738506-02 P= 9.501567 Days $T_0=131.974154$ (BKJD)



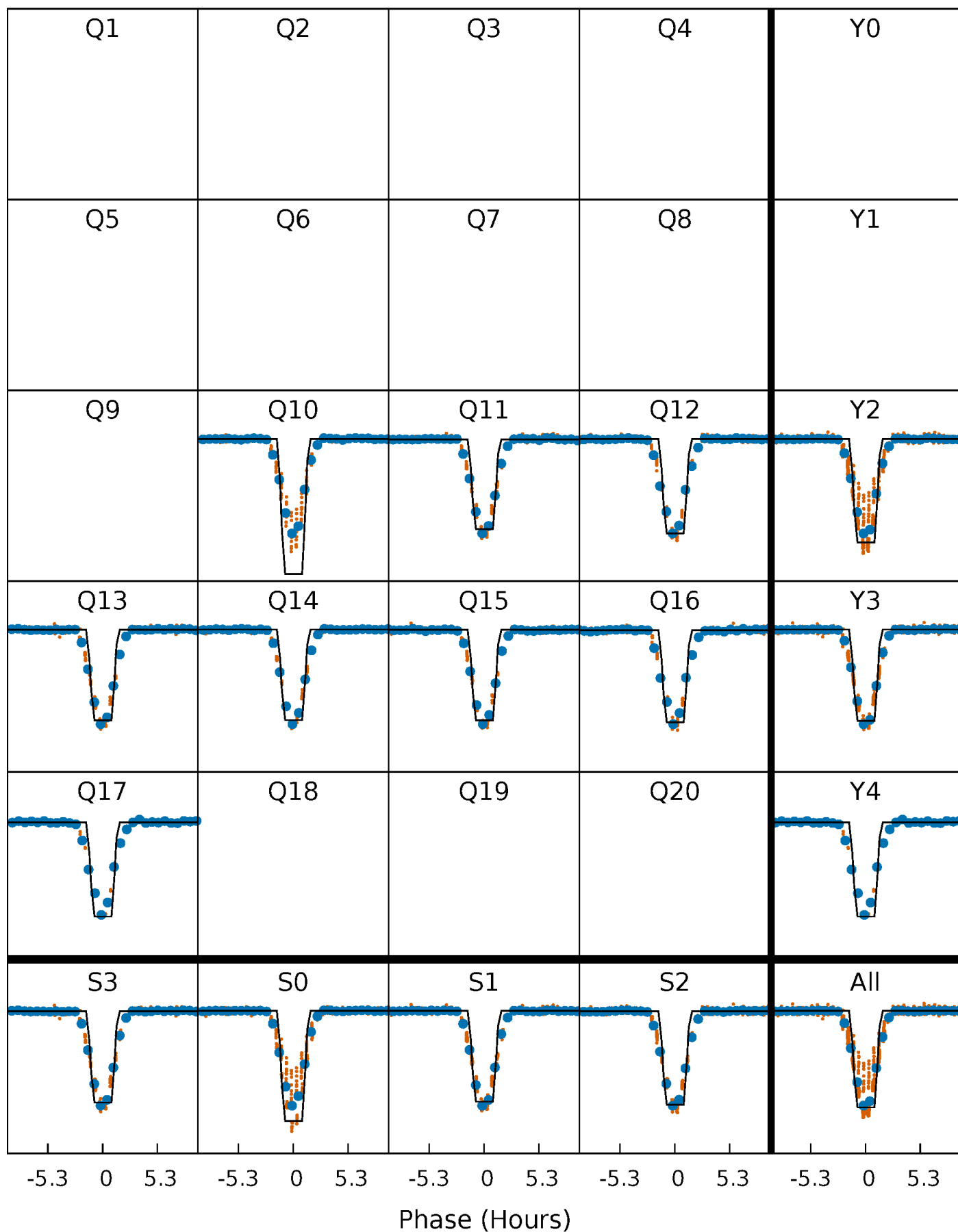
DV Quarter-Phased Transit Curves

TCE 005738506-02 P= 9.501567 Days $T_0=131.974154$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

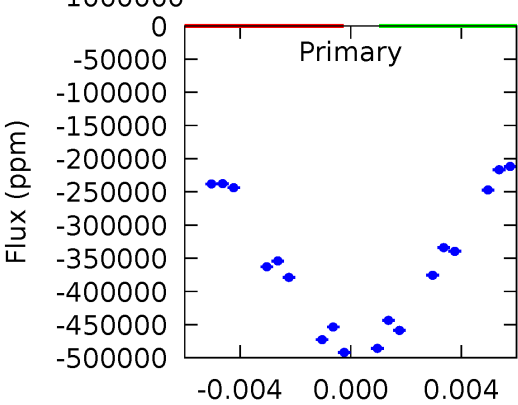
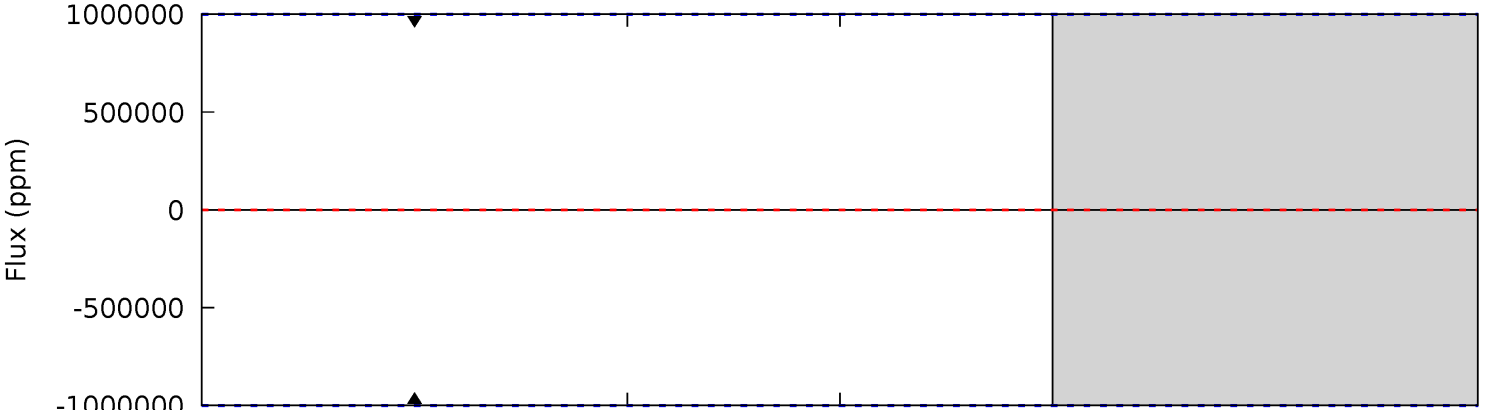
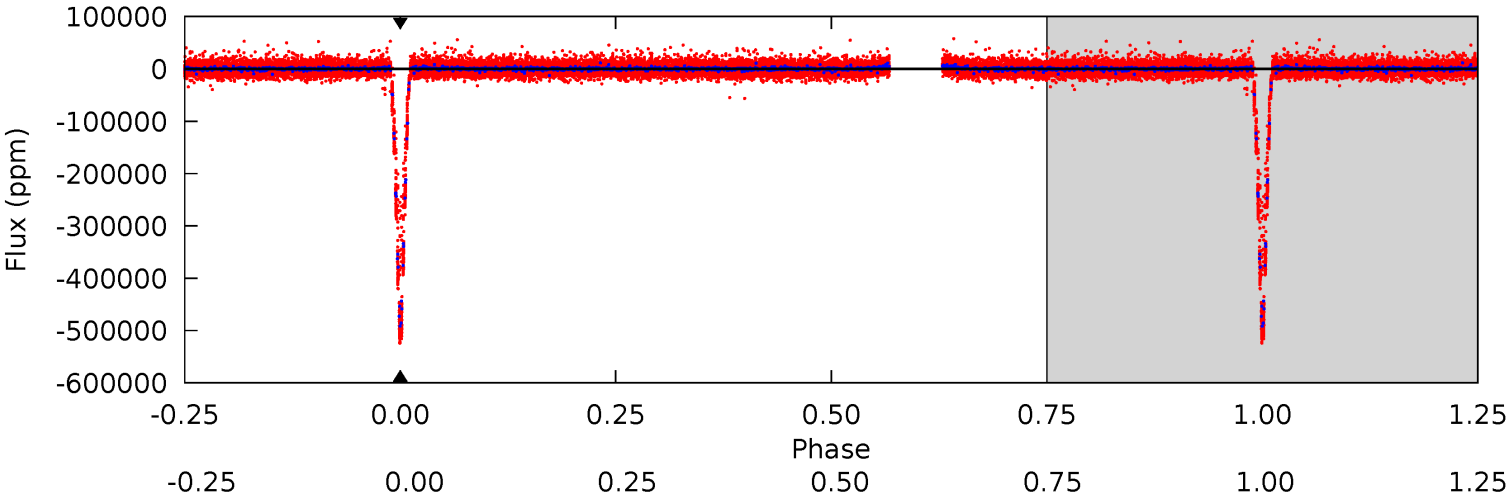
TCE 005738506-02 P= 9.501567 Days $T_0=131.976514$ (BKJD)



DV Model-Shift Uniqueness Test

005738506-02, P = 9.501567 Days, E = 131.974154 Days

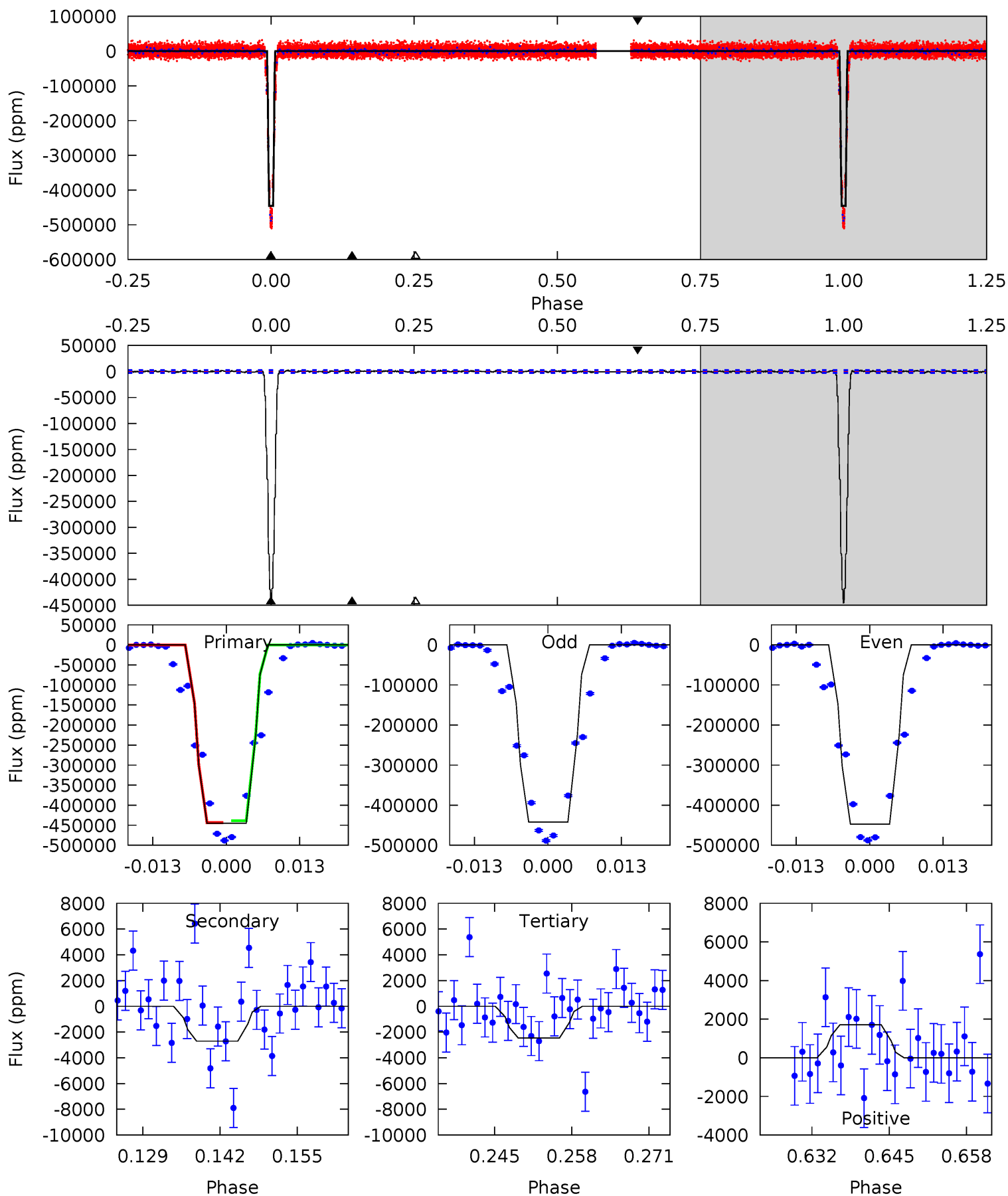
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

005738506-02, P = 9.501567 Days, E = 131.976514 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
836.2	5.08	4.62	3.21	4.98	2.49	1.48	831.5	833.0	0.46	1.87	4.93	0.97	0.00	4.44



Stellar Parameters For KIC 005738506

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5780^{+1}_{-1}	$4.438^{+1.000}_{-1.000}$	$0.000^{+1.000}_{-1.000}$	$1.000^{+1.000}_{-1.000}$	$-1.000^{+1.000}_{-1.000}$	$-1.000^{+1.000}_{-1.000}$
	+0%/-0%	+23%/-23%	+inf%/-inf%	+100%/-100%	+100%/-100%	+100%/-100%
Source	Solar	Solar	Solar	Solar		

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

Secondary Eclipse Parameters for KIC 005738506-02 / KOI 3676.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	0 ± 1000000	$55.25^{+11.65}_{-11.60}$	1209^{+53}_{-61}	-2626^{+7394}_{-2049}	$-3.275^{+161.088}_{-122.479}$
Alt.	-2707 ± 533	$75.22^{+12.56}_{-12.58}$	1201^{+58}_{-57}	2408^{+128}_{-119}	$2.039^{+0.957}_{-0.643}$

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 $A_{obs} \gg 1.0$

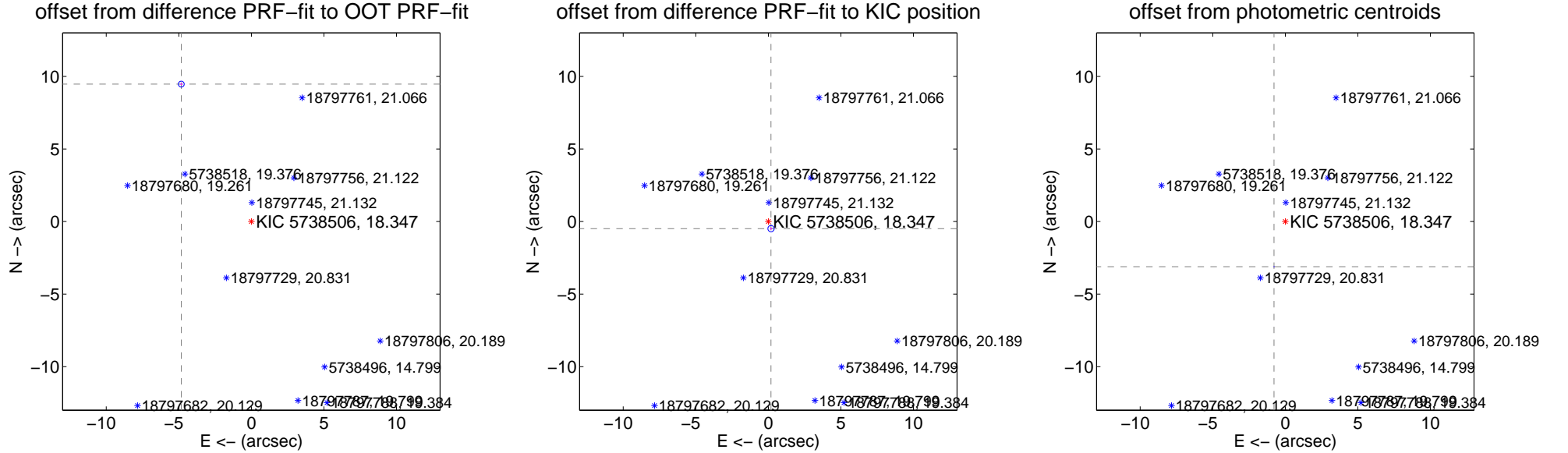
DV Centroid Data

Supplemental centroid analysis for 005738506-02. Kepler magnitude: 18.35. Transit SNR -1.00

There are 8 quarters with good PRF difference image offsets

The OOT PRF centroid is offset from the target star catalog position by about 11.14 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	10.628 ± 0.067	158.59	4.827 ± 0.067	9.469 ± 0.067
PRF-fit source offset from KIC position	0.521 ± 0.072	7.24	-0.183 ± 0.074	-0.487 ± 0.072
photometric centroid source offset	3.20 ± 0.00	701.63	0.78 ± 0.00	-3.11 ± 0.00



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.

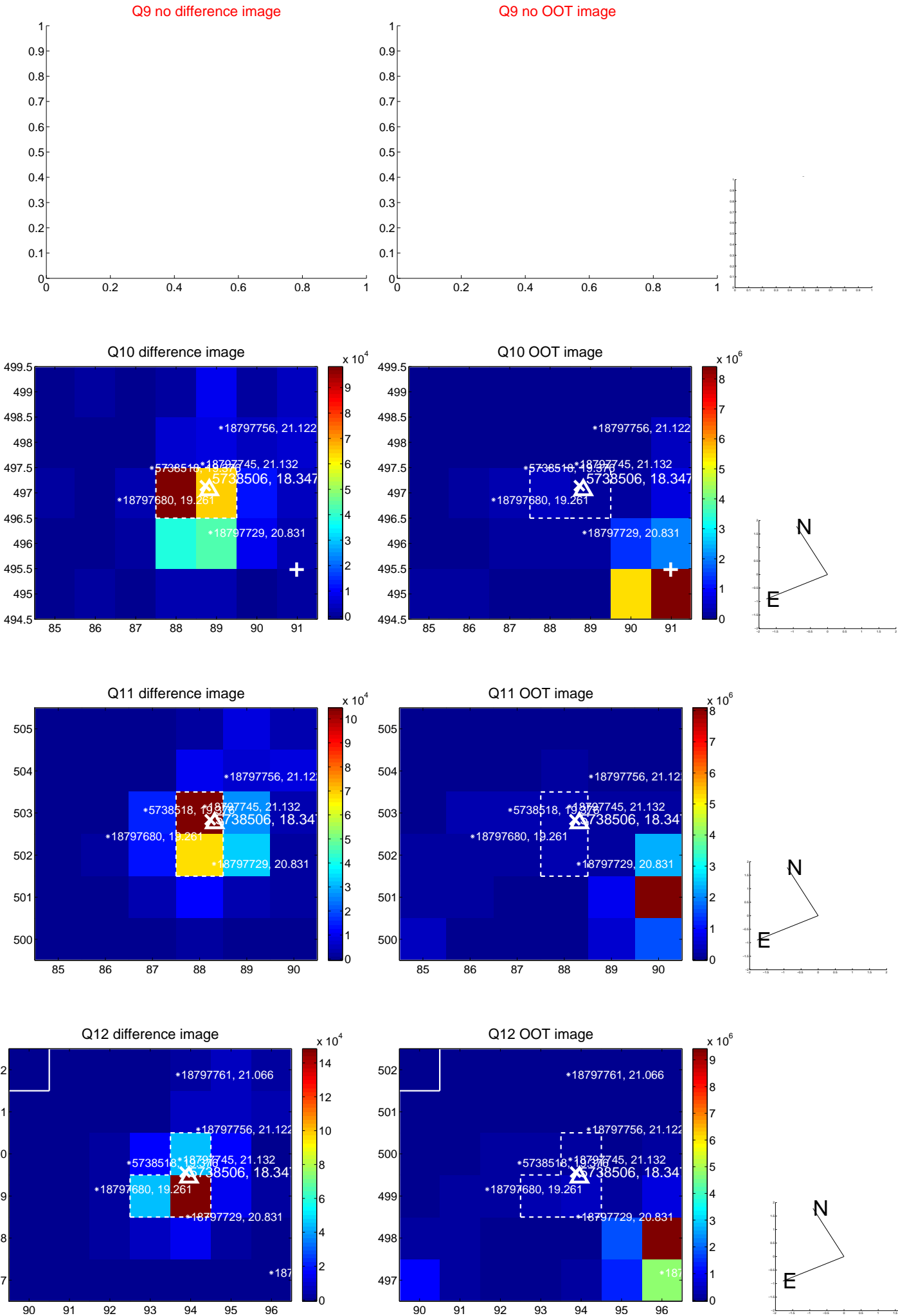
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



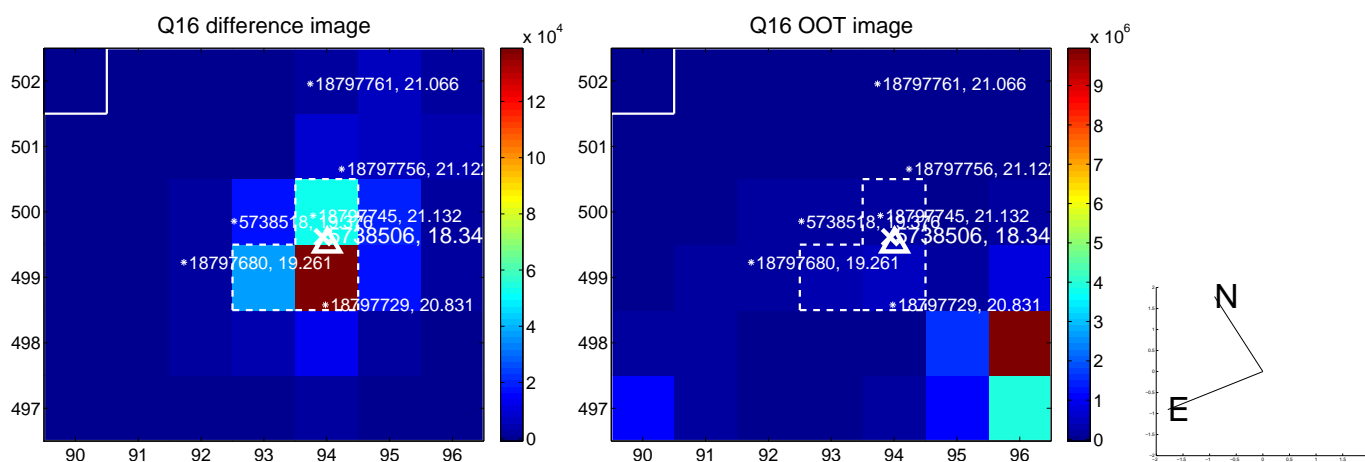
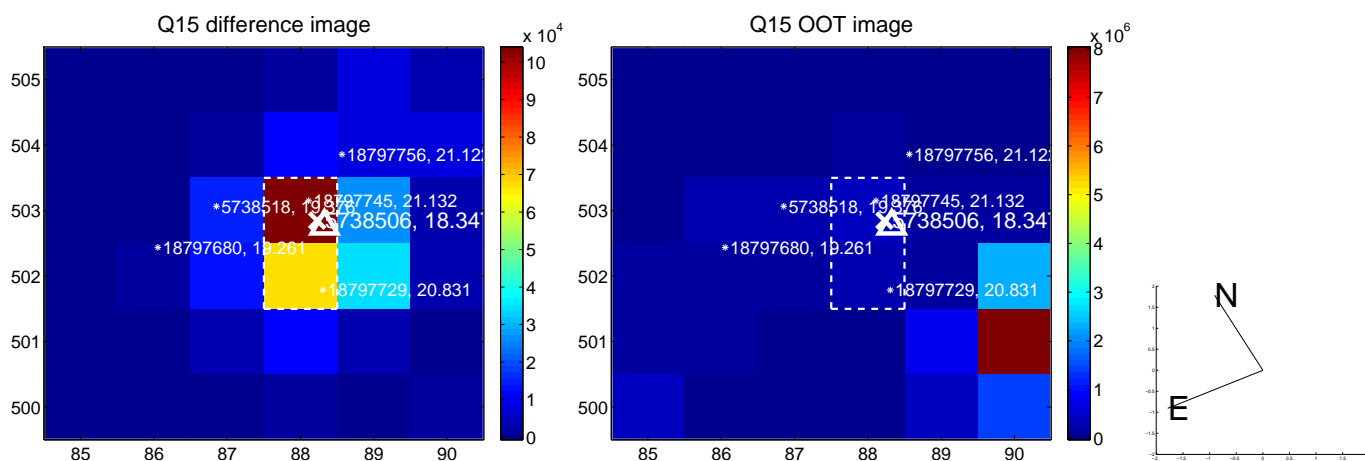
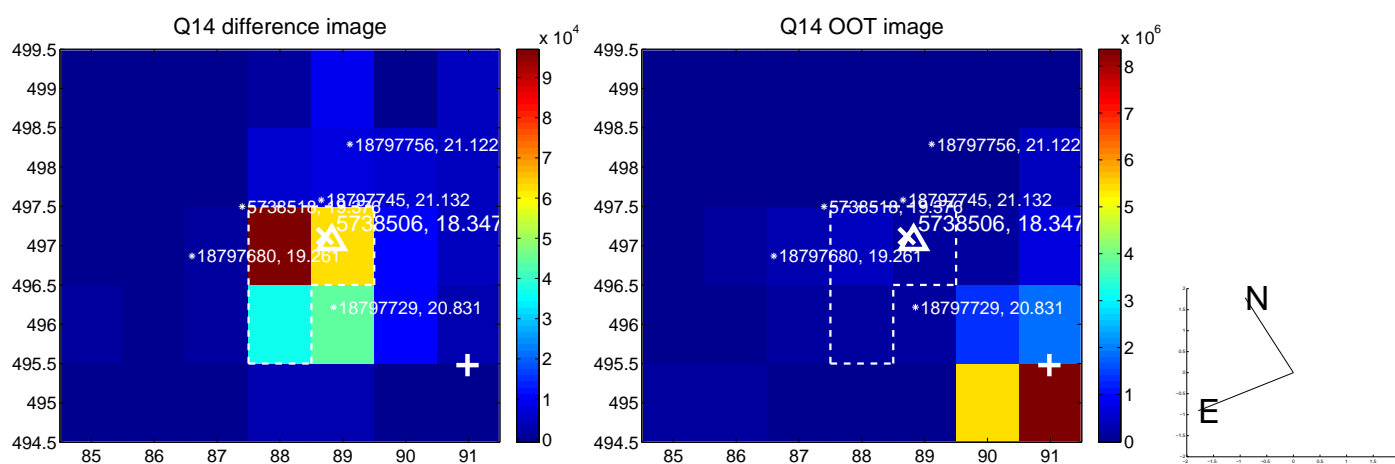
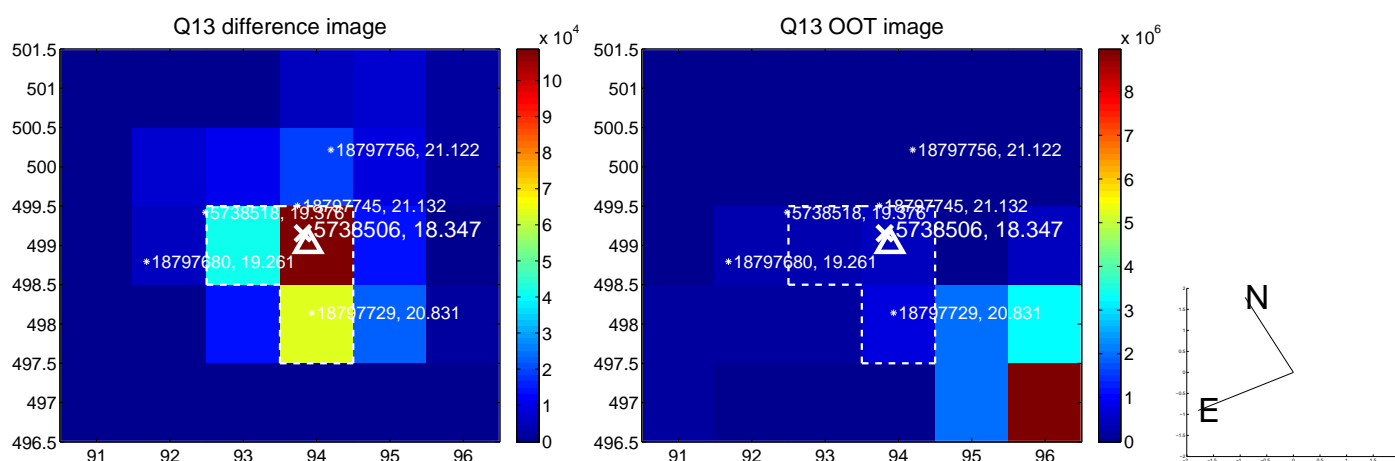
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



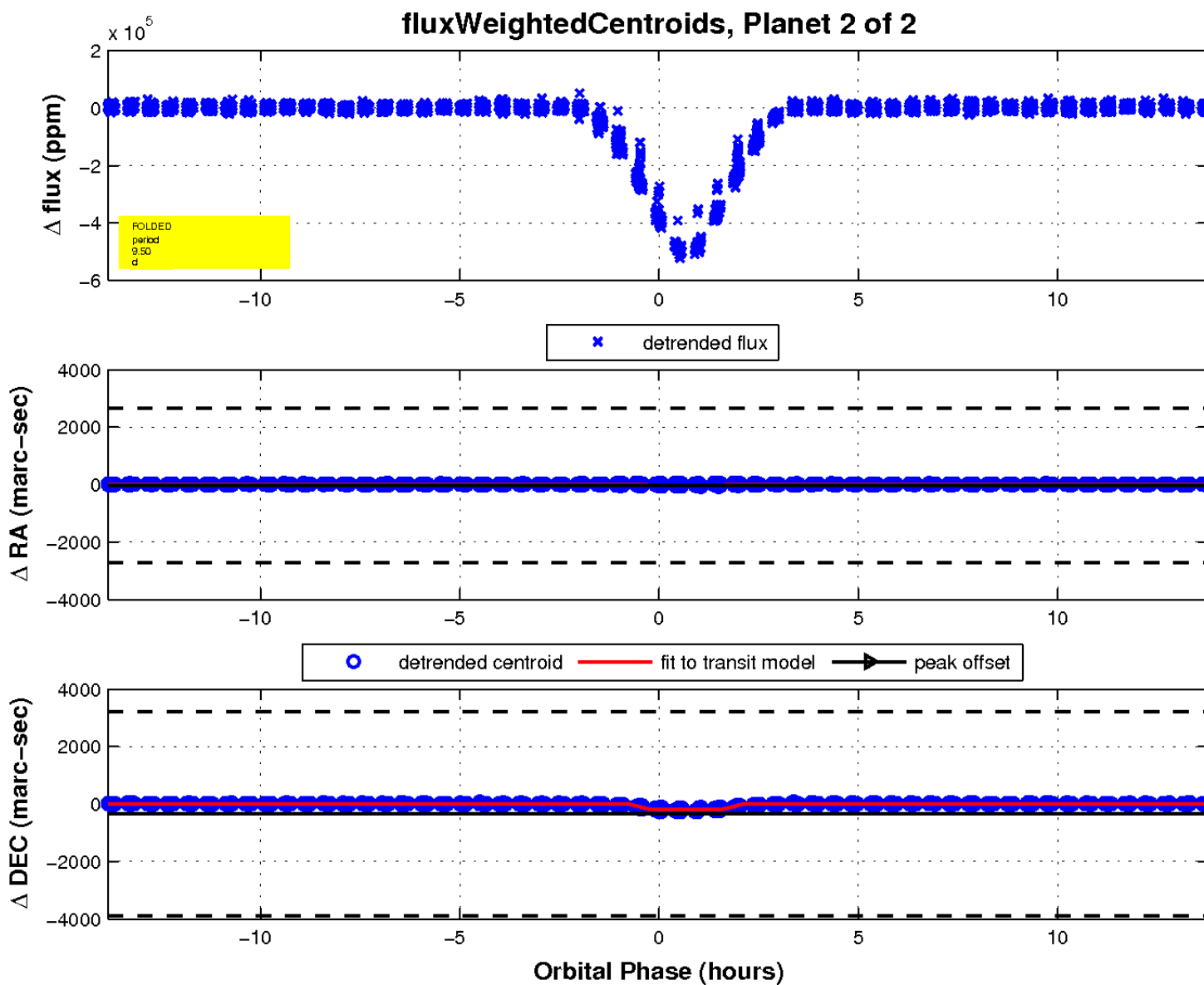
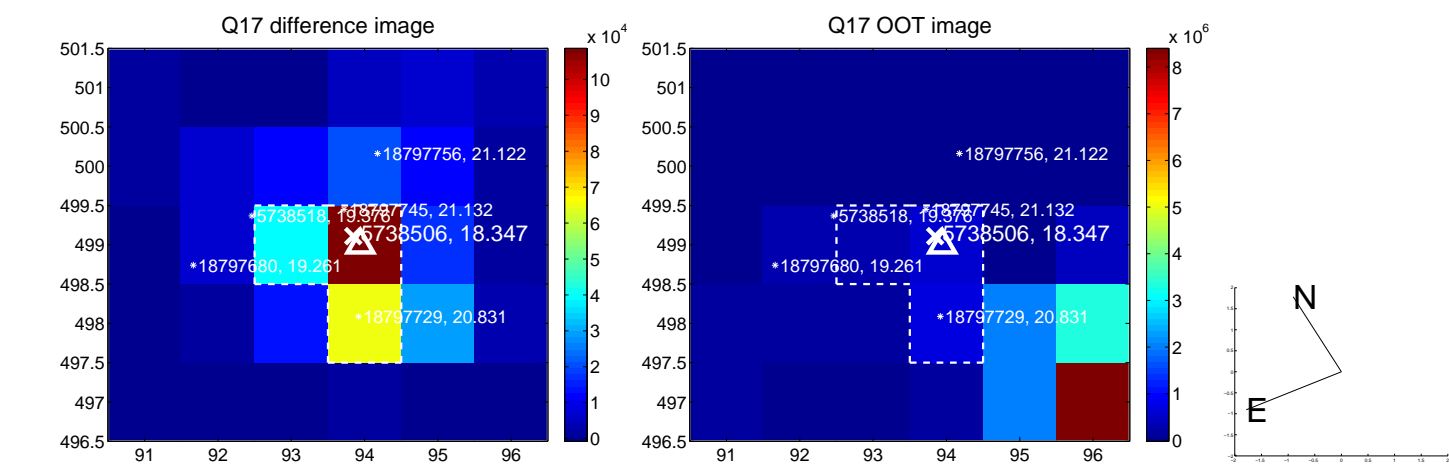
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

