

KIC 003248019

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})
003248019-01	OBS	1759.01	1.334113	132.364314	58926.2	2.998	2790.9	2047.2	1.08	6319	28.92	2957.90
003248019-02	OBS	No	376.553006	381.947987	1593.3	7.673	9.4	6.6	1.08	6319	8.06	1.60

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003248019-01	OBS	FP	0.00	0	1	0	0	MOD_ODDEVEN_DV—MOD_ODDEVEN_ALT—CENT_KIC_POS
003248019-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—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.

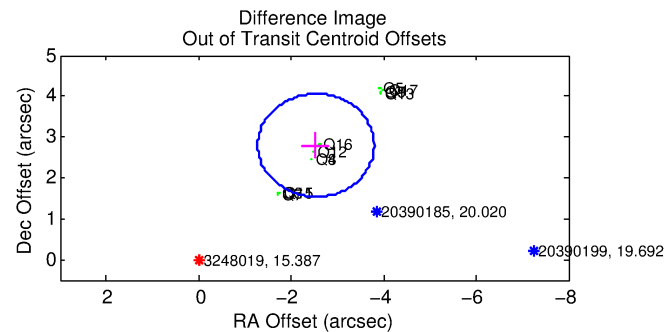
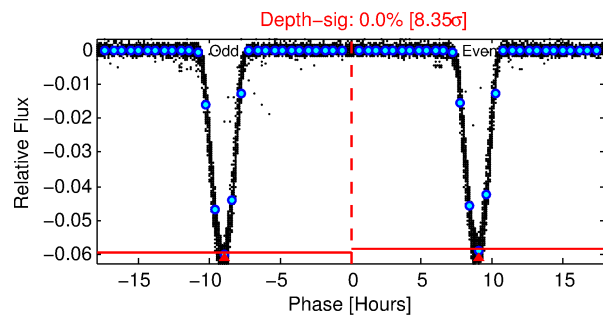
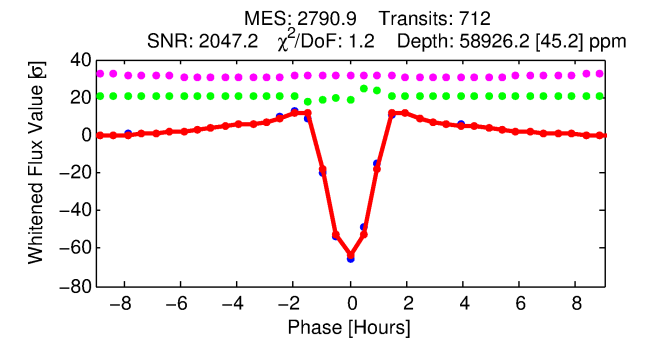
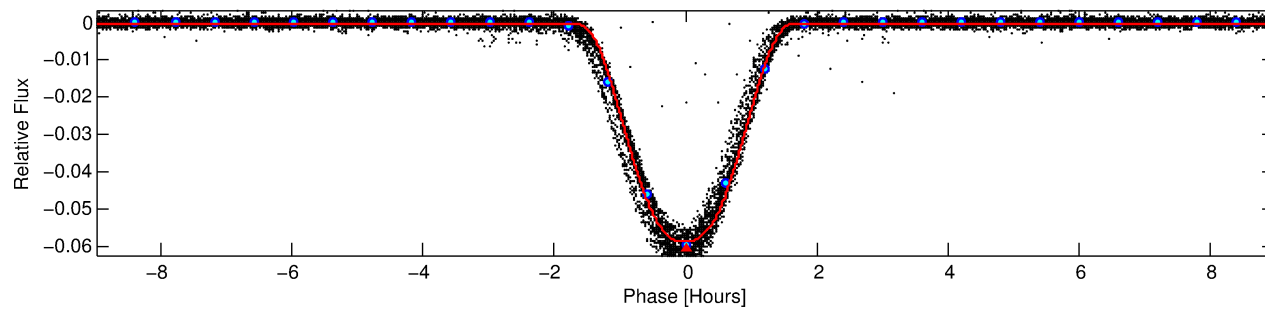
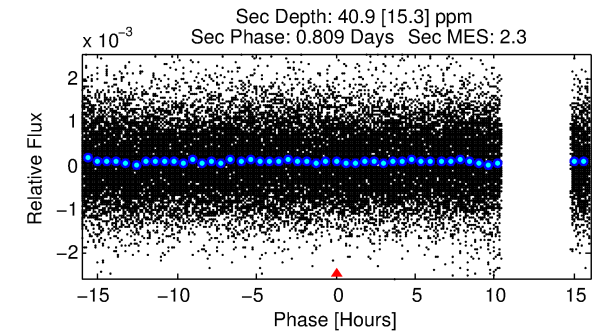
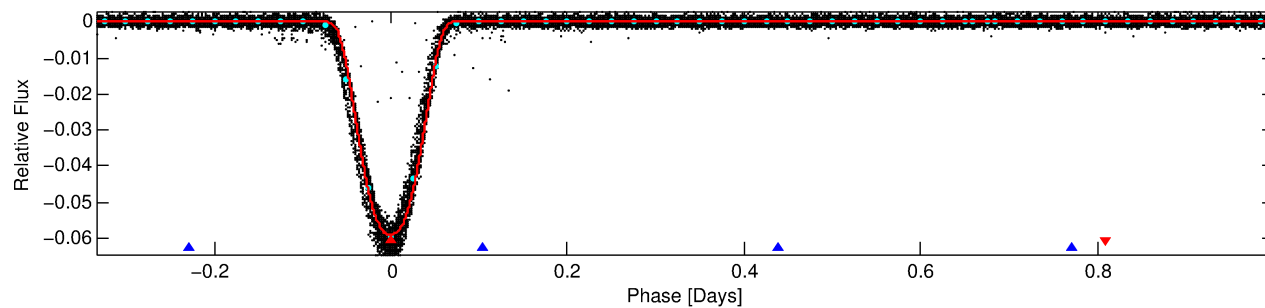
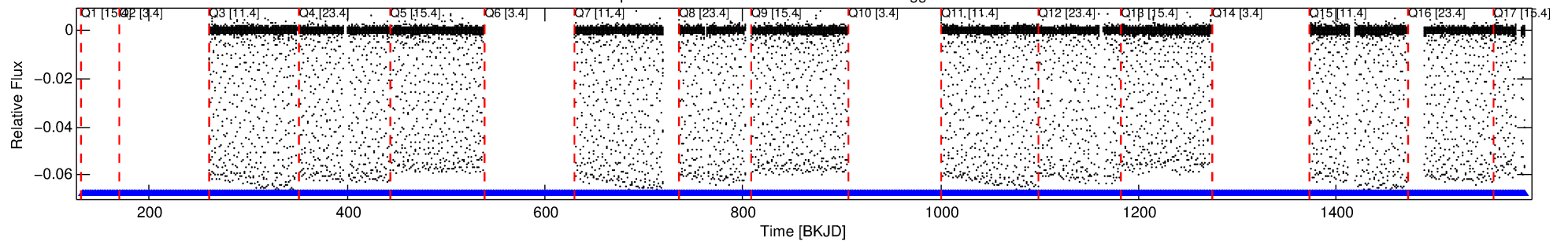
Ephemeris Match Information For 003248019-01

No Significant Match Found

DV One-Page Summary

KIC: 3248019 Candidate: 1 of 2 Period: 1.334 d
KOI: K01759.01 Corr: 0.975

Kp: 15.39 R*: 1.08 Rs Teff: 6319.0 K Logg: 4.37 Fe/H: -0.320



DV Fit Results:

Period = 1.33411 [0.00000] d
Epoch = 132.3643 [0.0000] BKJD
Rp/R* = 0.2447 [0.0002]
a/R* = 3.53 [0.00]
b = 0.74 [0.00]
Seff = 2957.90 [1170.58]
Teff = 1880 [186] K
Rp = 28.92 [9.05] Re
a = 0.0238 [0.0061] AU
Ag = 0.02 [0.01] [-123.75σ]
Teffp = 1022 [103] K [-4.04σ]

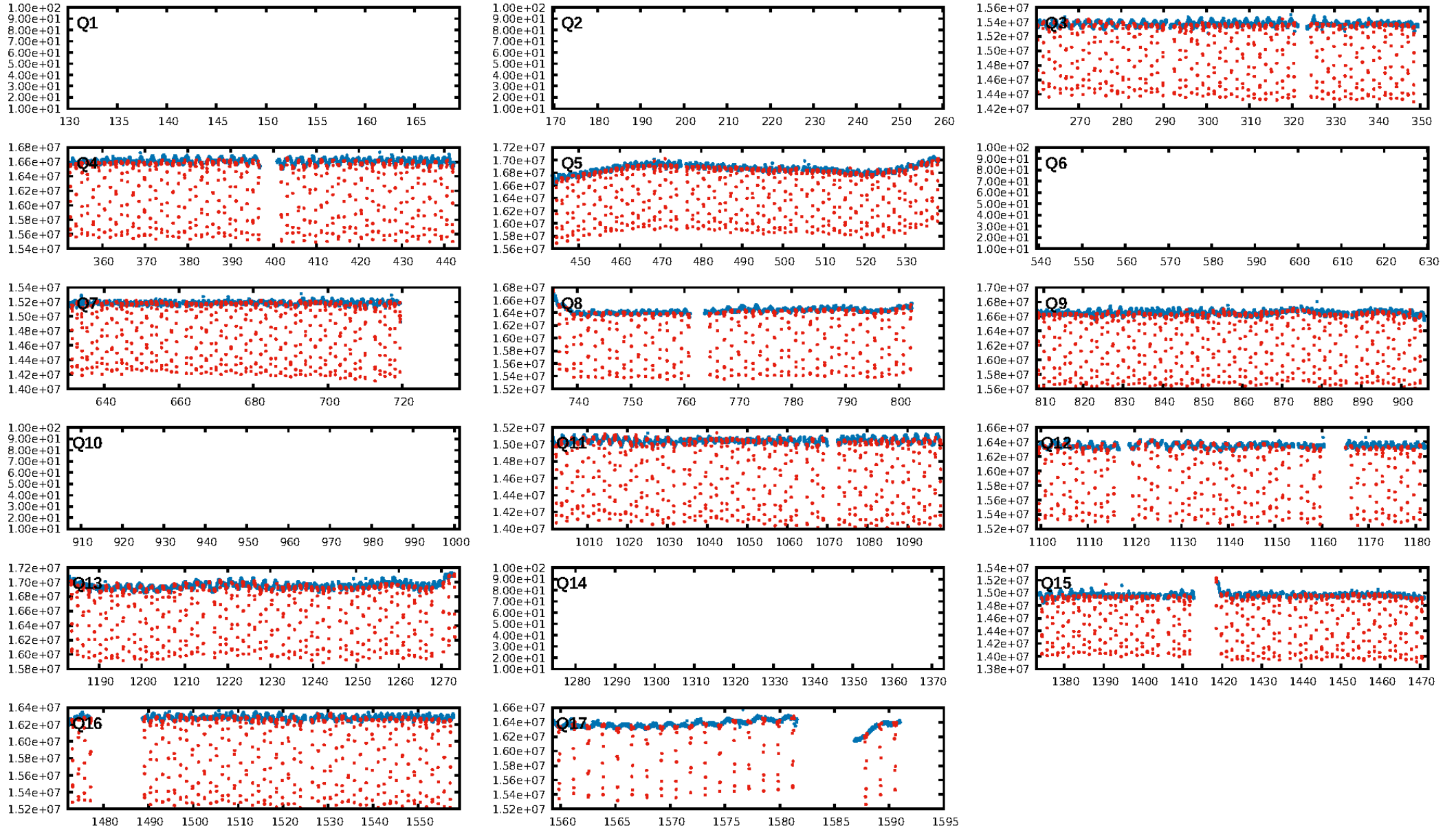
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [1093.15σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [692/692]
GhostDiagnostic-chr: 3.046
Centroid-sig: 0.0%
Centroid-so: 1.807 arcsec [815.97σ]
OotOffset-rm: 3.778 arcsec [9.00σ]
KicOffset-rm: 0.103 arcsec [1.51σ]
OotOffset-st: 0/4/4/4 [12]
KicOffset-st: 0/4/4/4 [12]
DiffImageQuality-fgm: 1.00 [12/12]
DiffImageOverlap-fno: 1.00 [12/12]

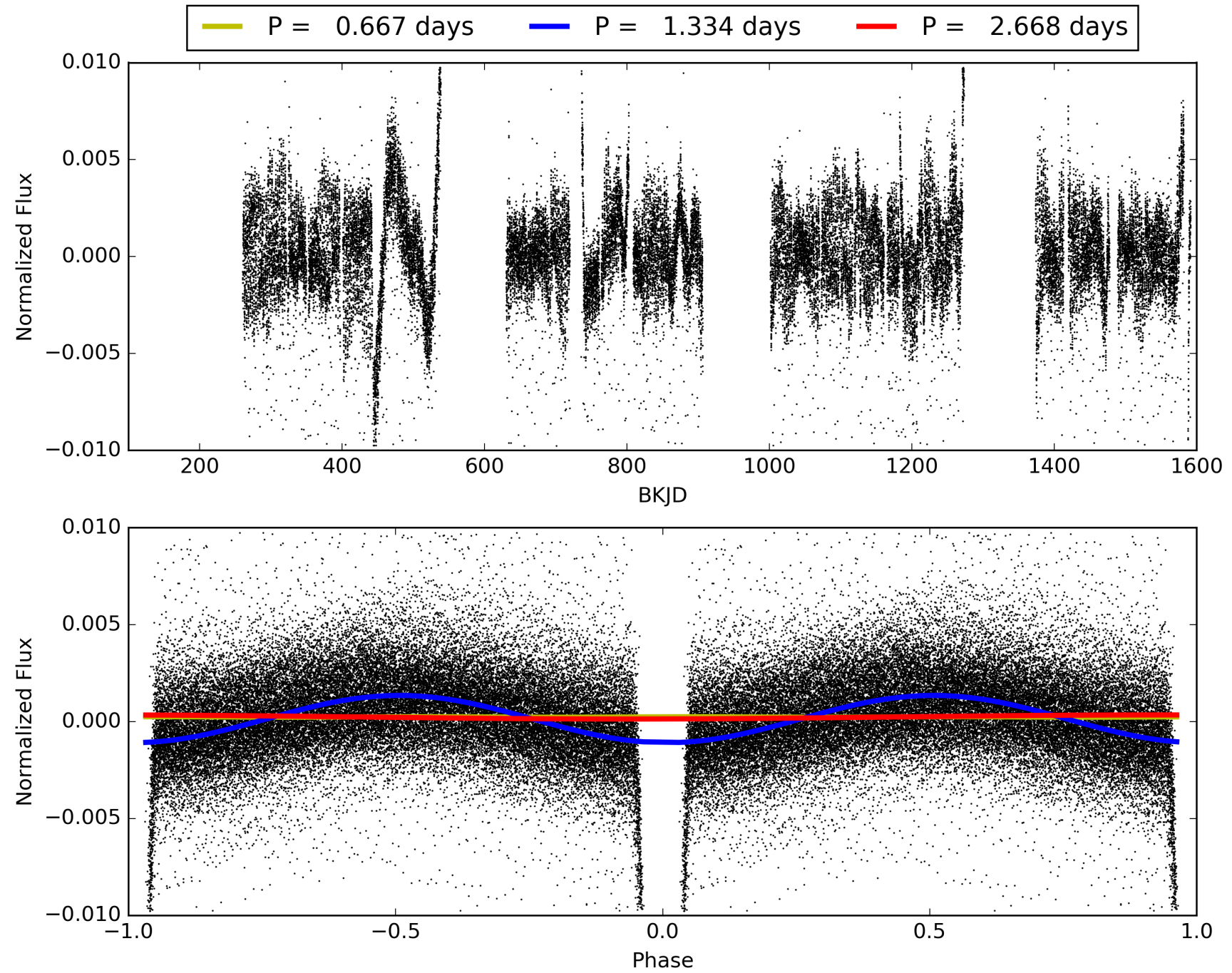
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This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 003248019-01, PDC Light Curves

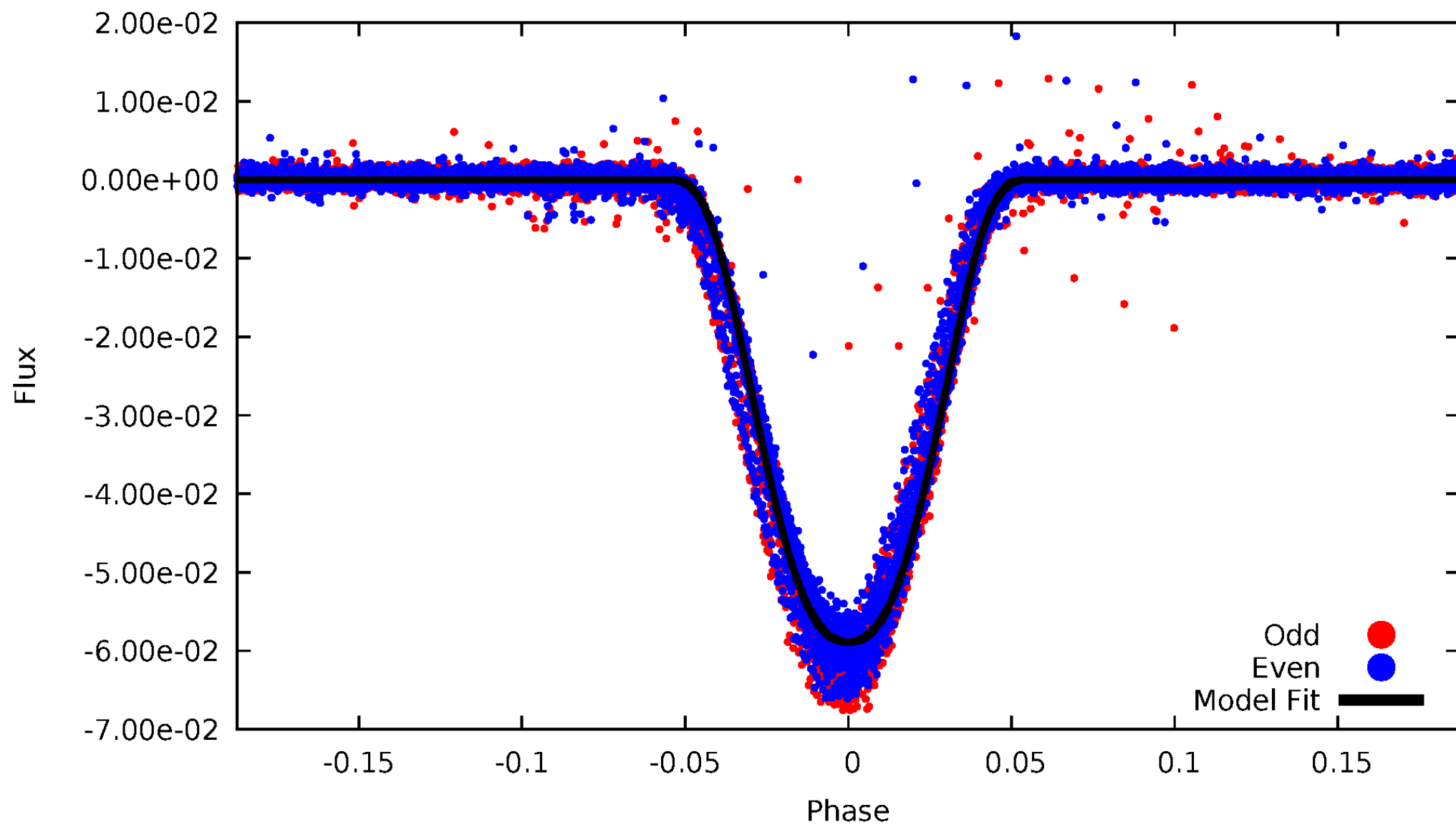


TCE 003248019-01



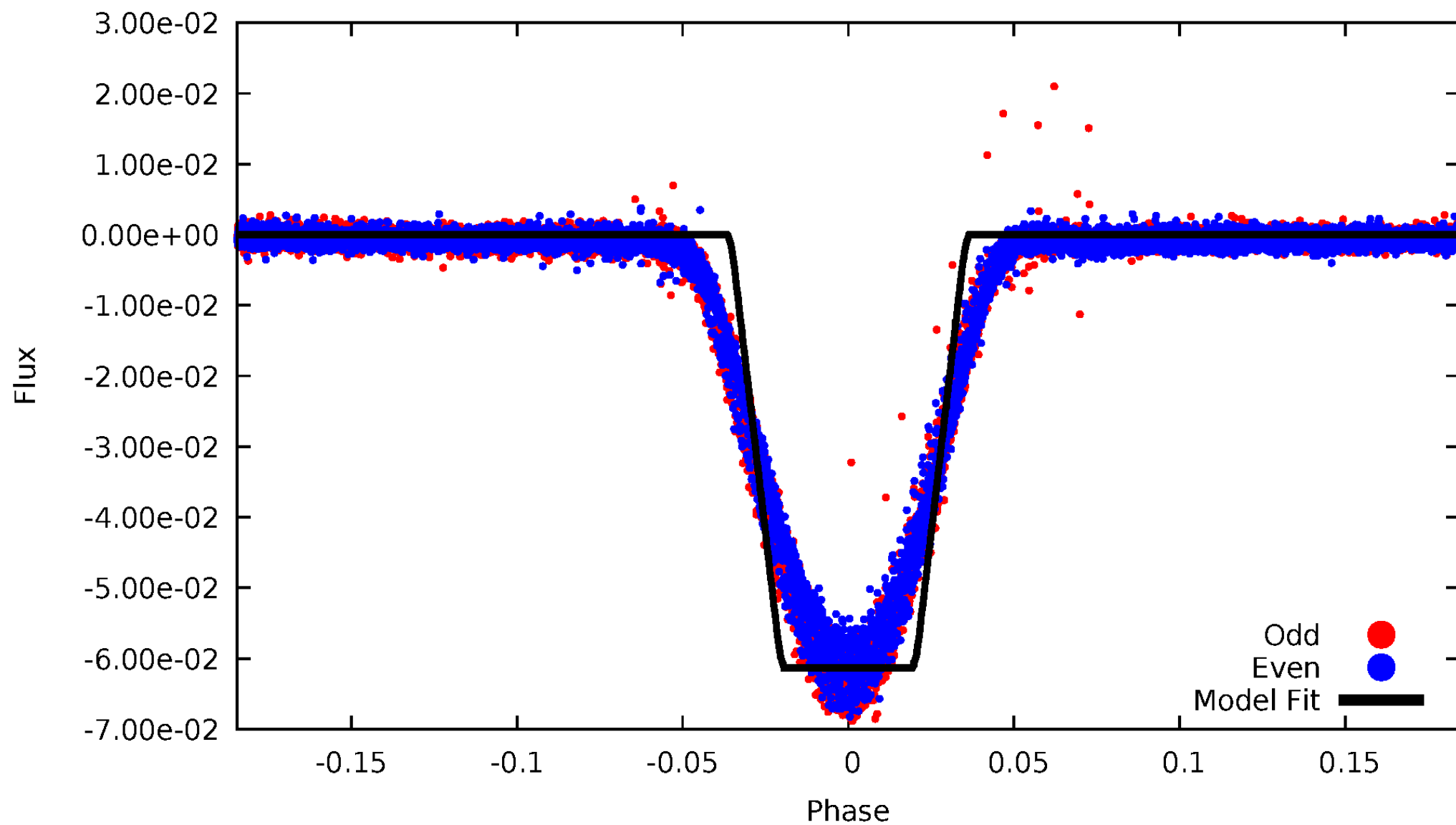
DV Odd/Even

TCE 003248019-01



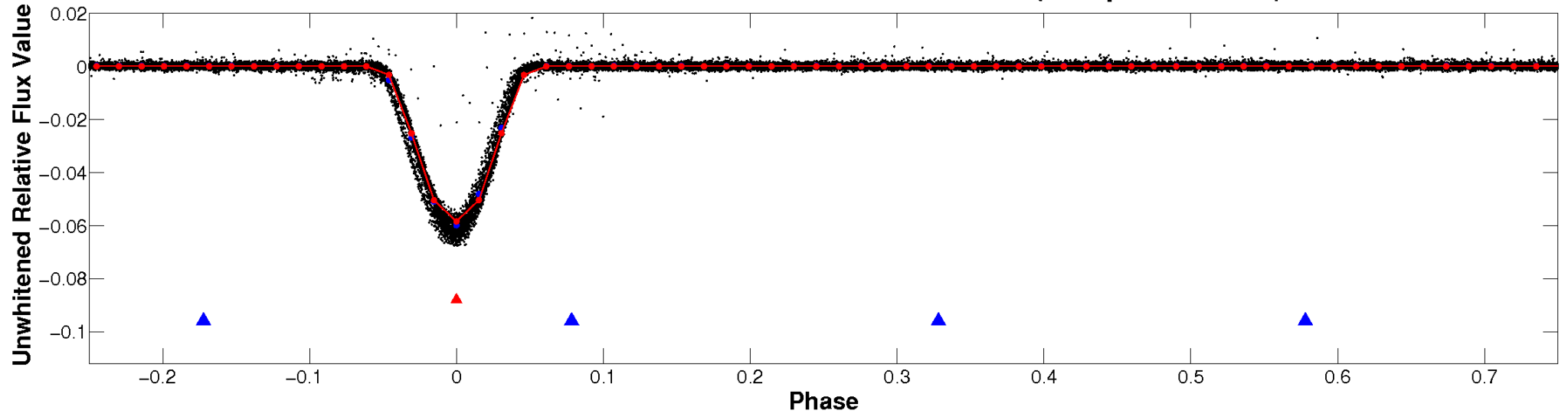
ALT Odd/Even

TCE 003248019-01

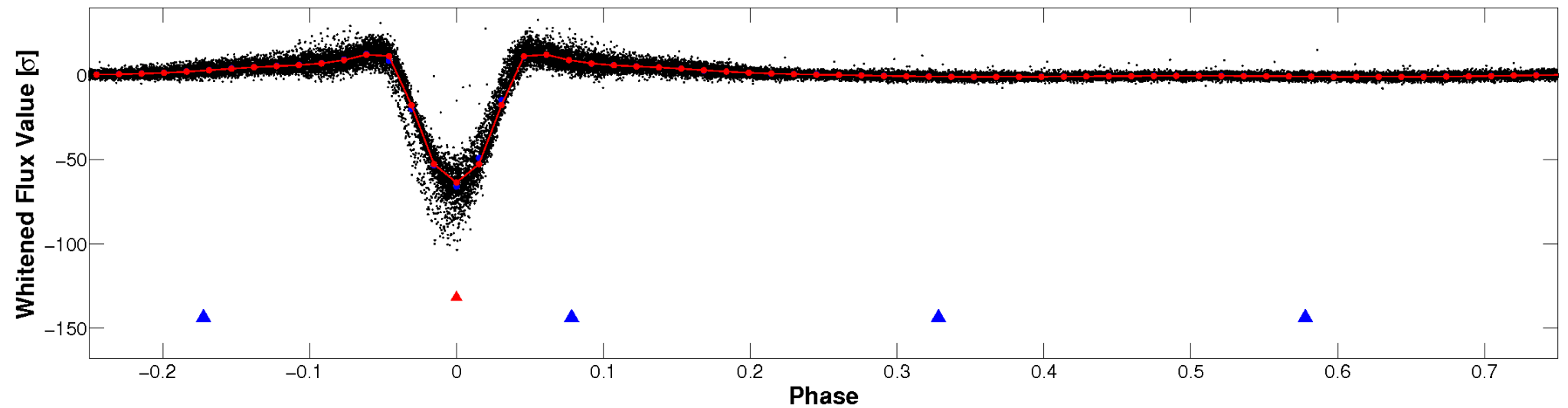


Non-Whitened Vs. Whitened Light Curve

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

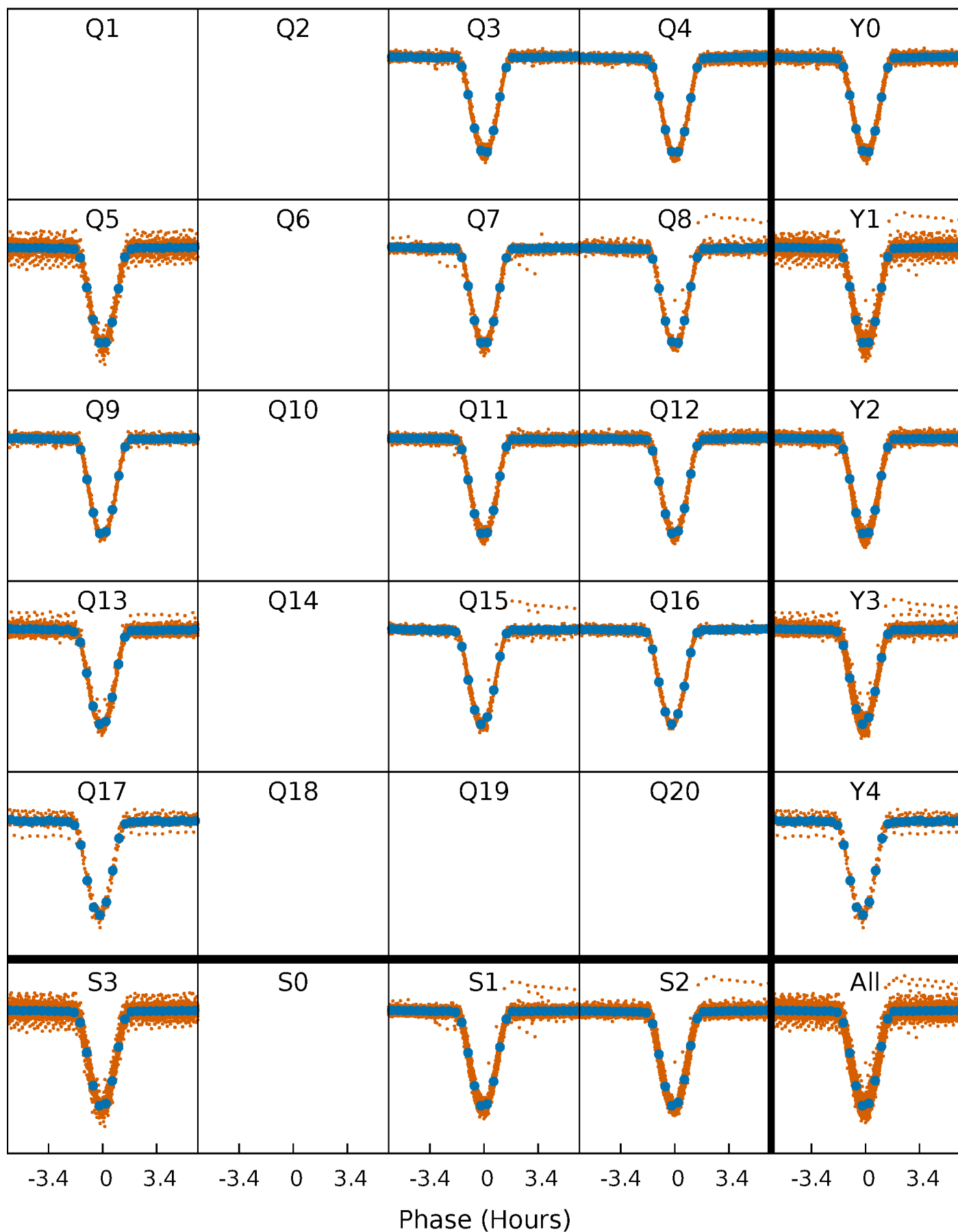


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



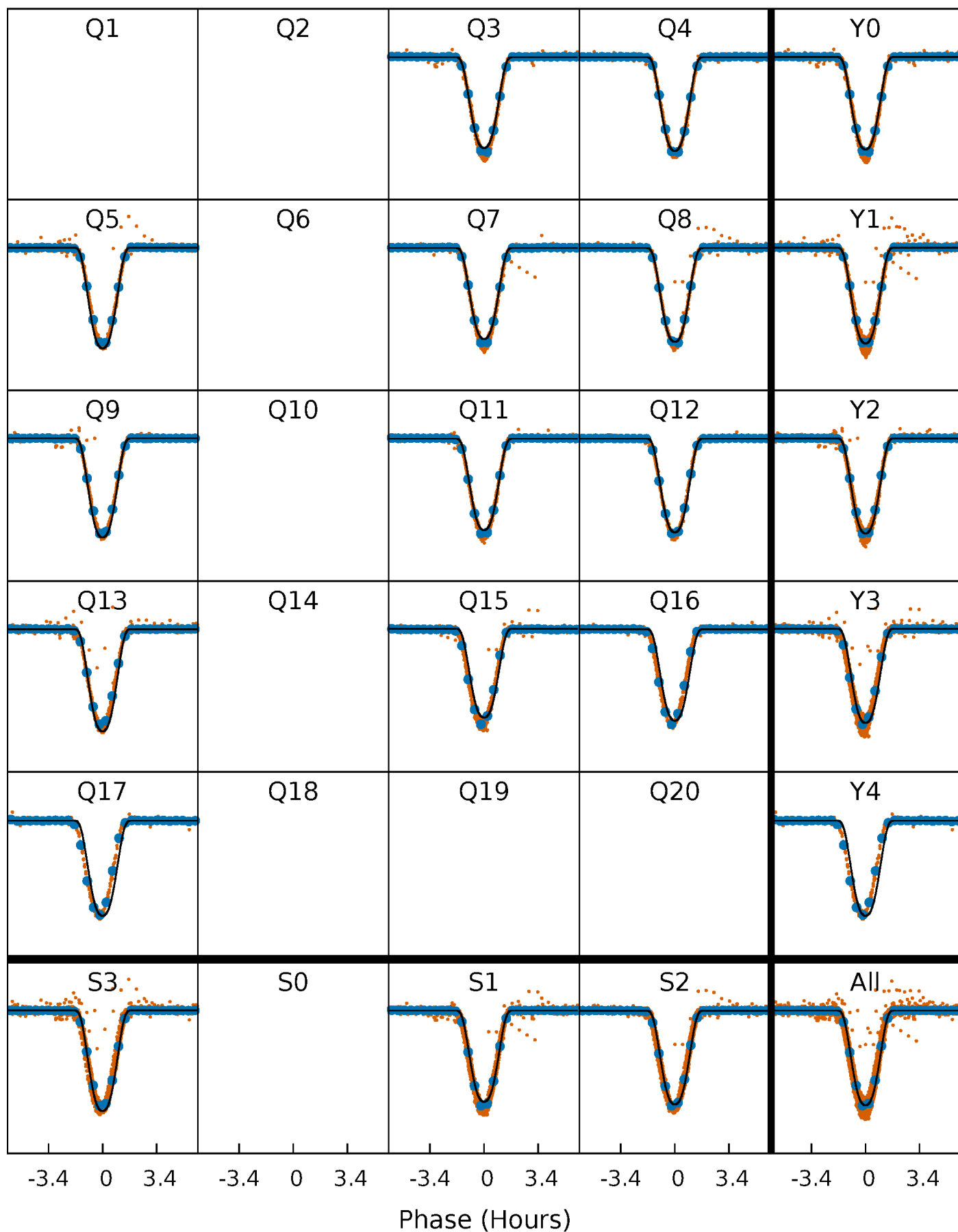
PDC Quarter-Phased Transit Curves

TCE 003248019-01 P= 1.334113 Days $T_0=132.364314$ (BKJD)



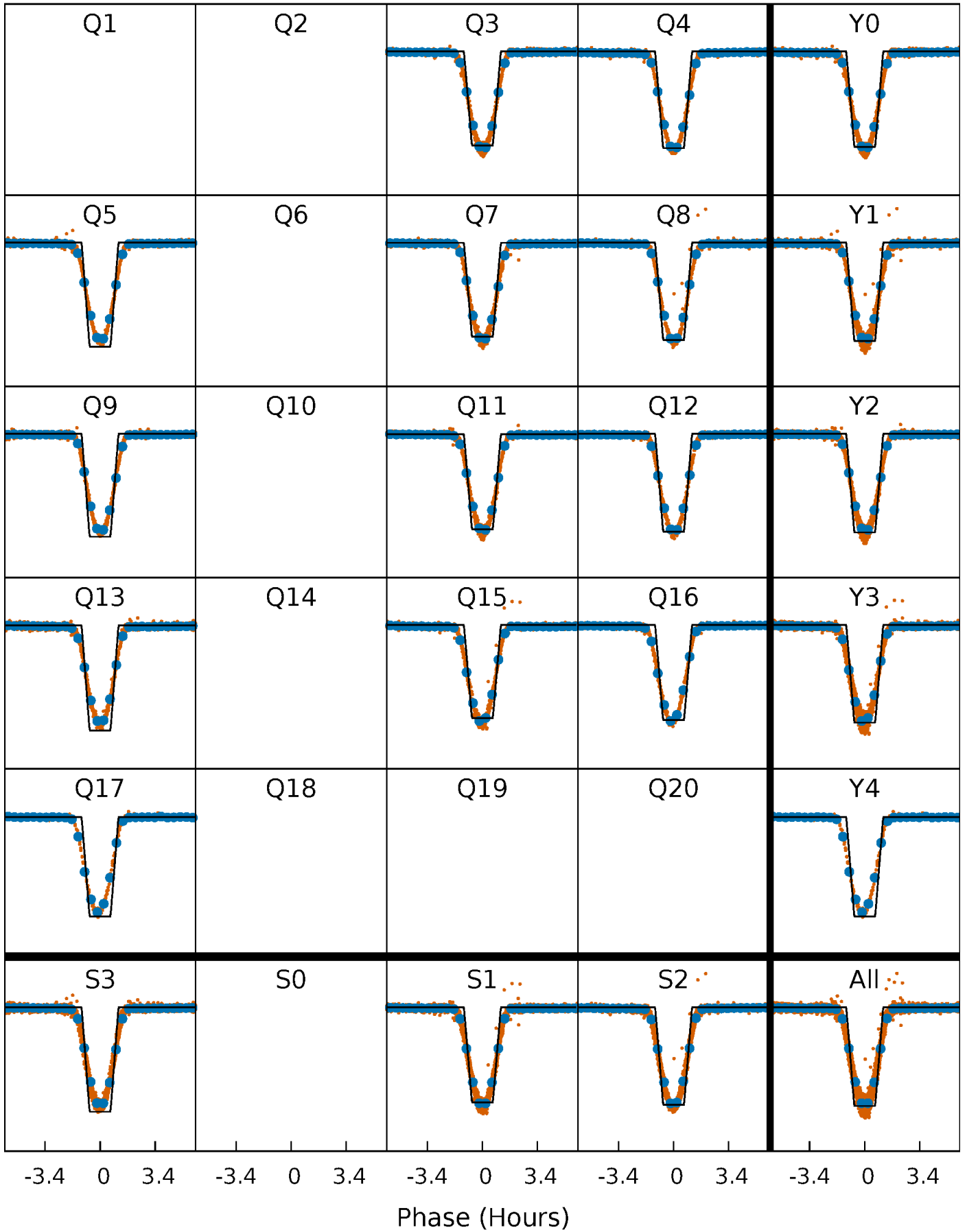
DV Quarter-Phased Transit Curves

TCE 003248019-01 P= 1.334113 Days $T_0=132.364314$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

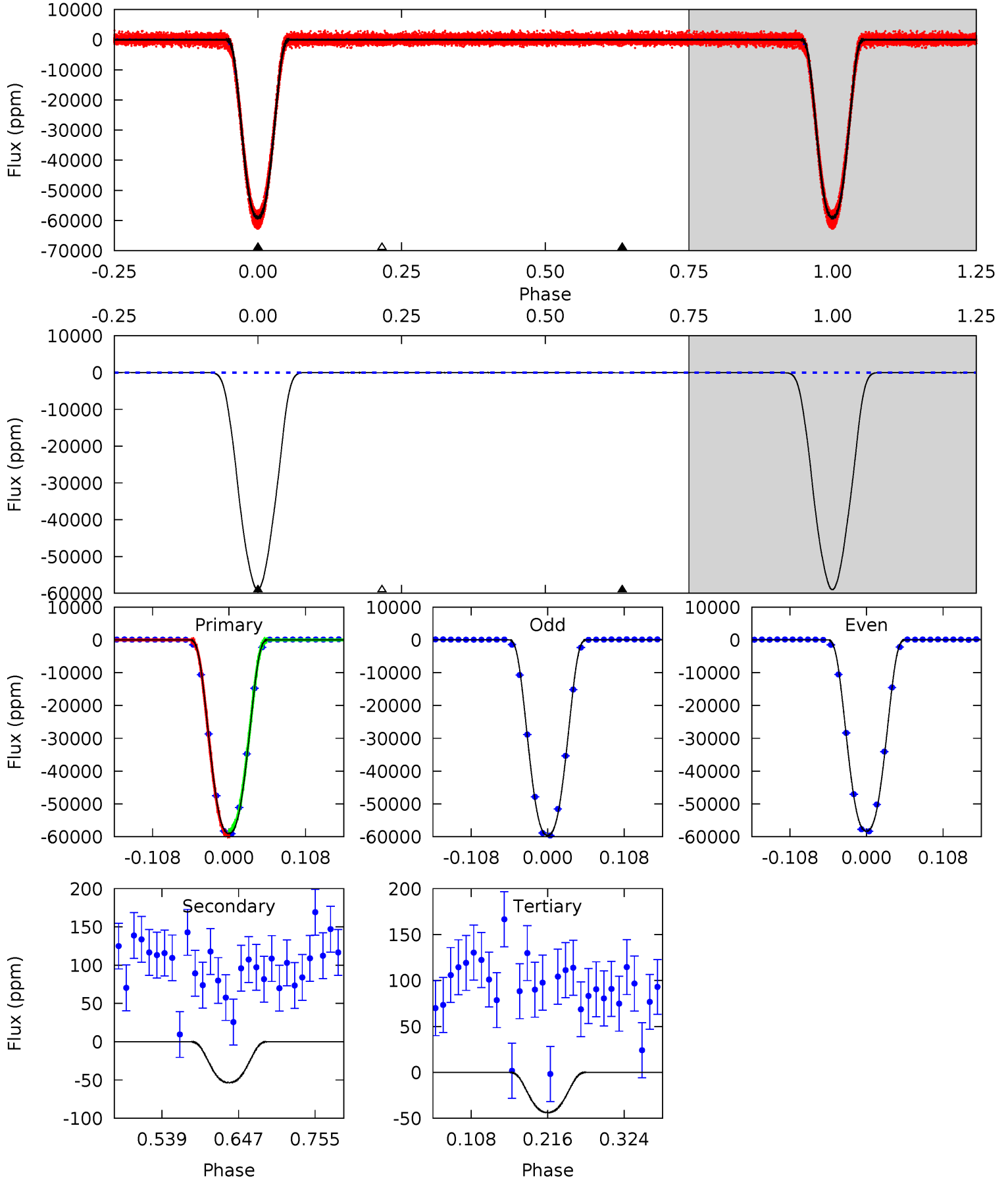
TCE 003248019-01 P= 1.334109 Days $T_0=132.365144$ (BKJD)



DV Model-Shift Uniqueness Test

003248019-01, P = 1.334113 Days, E = 132.364314 Days

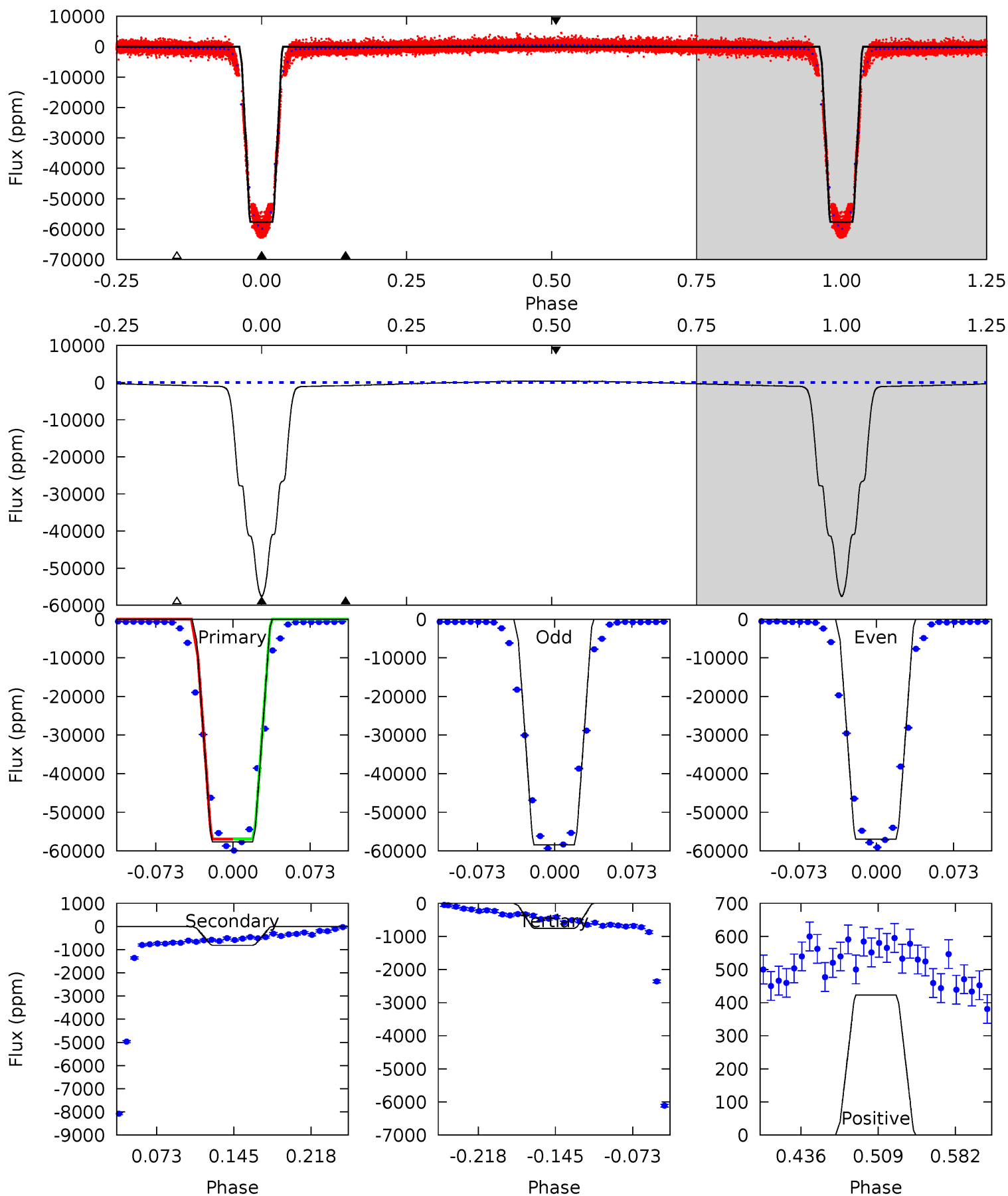
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5002	4.53	3.70	0	4.55	1.61	1.88	4999	5002	0.83	4.53	54.6	0.99	0.00	63.4



Alt Model-Shift Uniqueness Test

003248019-01, P = 1.334109 Days, E = 132.365144 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2656	37.5	34.8	19.5	4.63	1.79	19.0	2621	2636	2.71	18.0	33.8	1.00	0.01	0



Stellar Parameters For KIC 003248019

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6319^{+198}_{-242}	$4.373^{+0.105}_{-0.195}$	$-0.320^{+0.250}_{-0.300}$	$1.083^{+0.339}_{-0.169}$	$1.007^{+0.158}_{-0.115}$	$1.117^{+0.528}_{-0.573}$
	+3%/-4%	+2%/-4%	+78%/-94%	+31%/-16%	+16%/-11%	+47%/-51%
Source	KIC0	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 003248019-01 / KOI 1759.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-53 ± 12	$28.97^{+4.97}_{-2.35}$	2644^{+189}_{-151}	-2857^{+90}_{-115}	$0.019^{+0.007}_{-0.005}$
Alt.	-814 ± 22	$29.72^{+5.17}_{-2.95}$	2664^{+197}_{-169}	-2038^{+4282}_{-507}	$0.284^{+0.067}_{-0.069}$

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

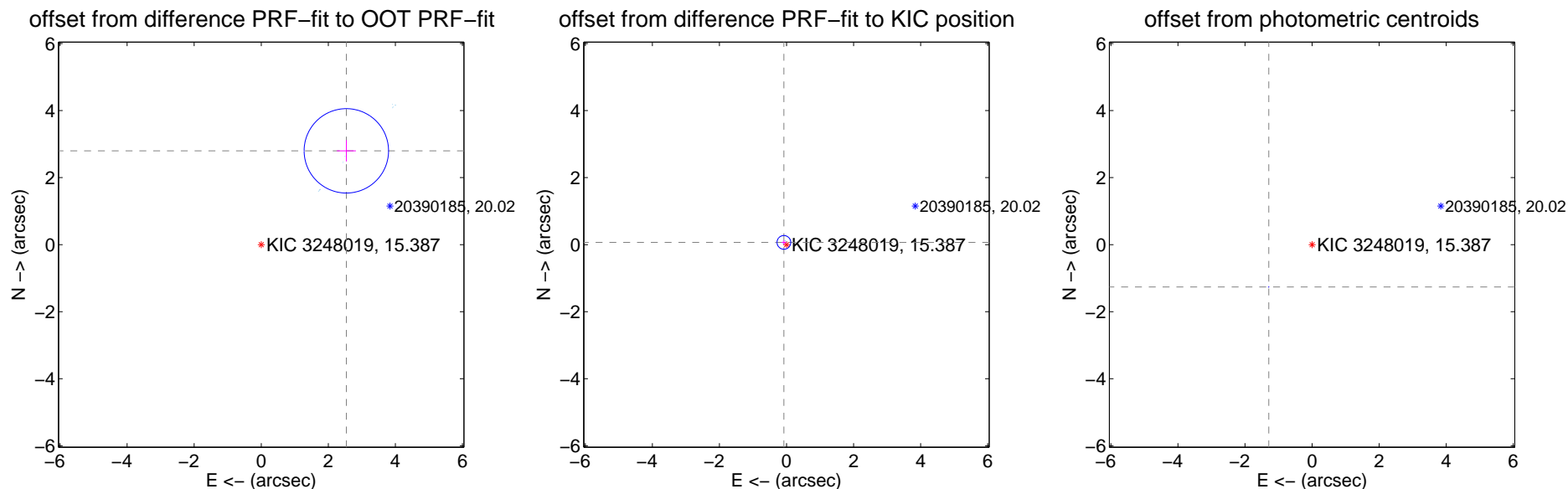
DV Centroid Data

Supplemental centroid analysis for 003248019-01. Kepler magnitude: 15.39. Transit SNR 2047.23

There are 12 quarters with good PRF difference image offsets

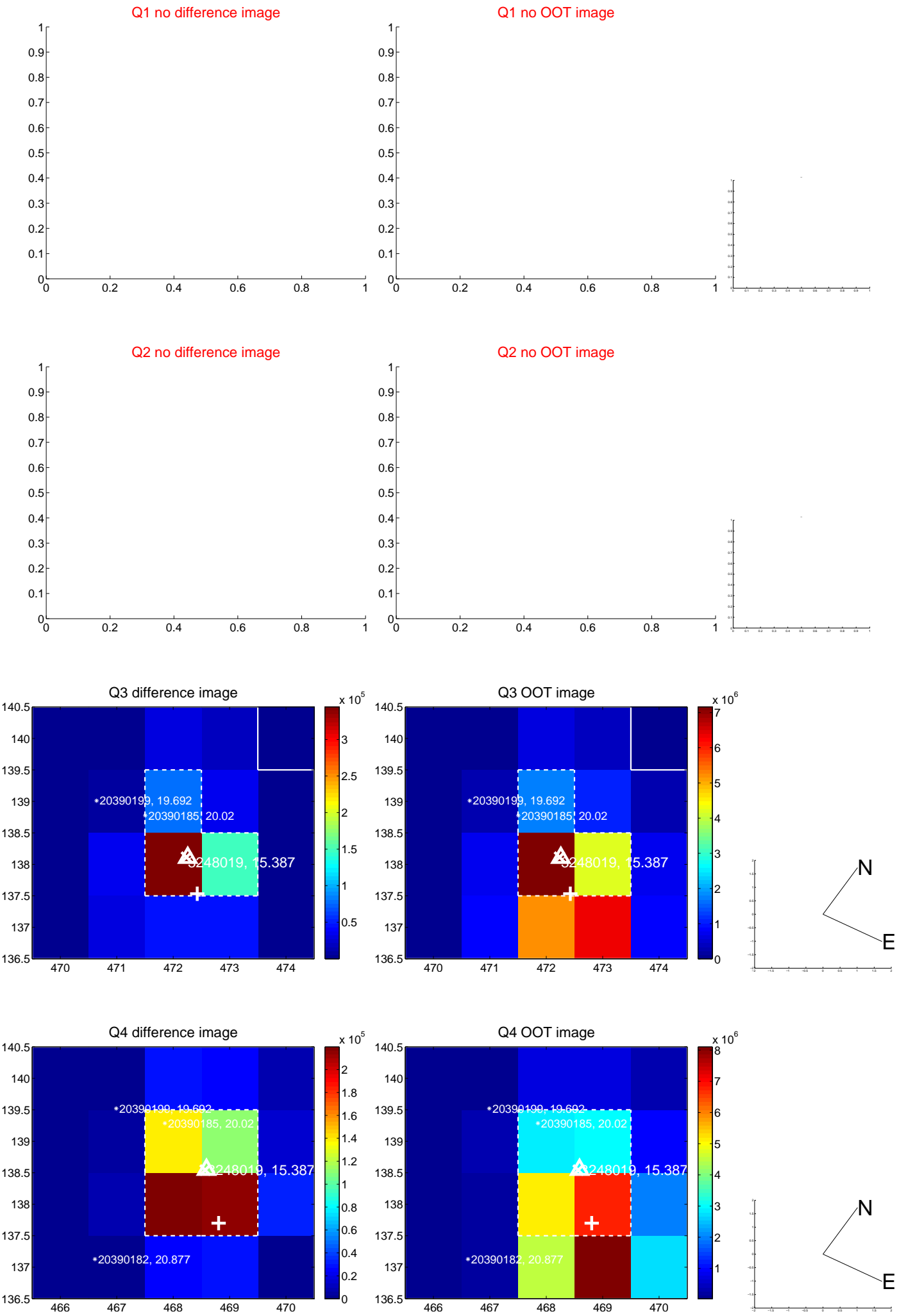
The OOT PRF centroid is offset from the target star catalog position by about 5.72 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.778 ± 0.420	9.00	-2.538 ± 0.283	2.798 ± 0.317
PRF-fit source offset from KIC position	0.103 ± 0.068	1.51	0.078 ± 0.069	0.067 ± 0.068
photometric centroid source offset	1.81 ± 0.00	815.97	1.29 ± 0.00	-1.26 ± 0.00

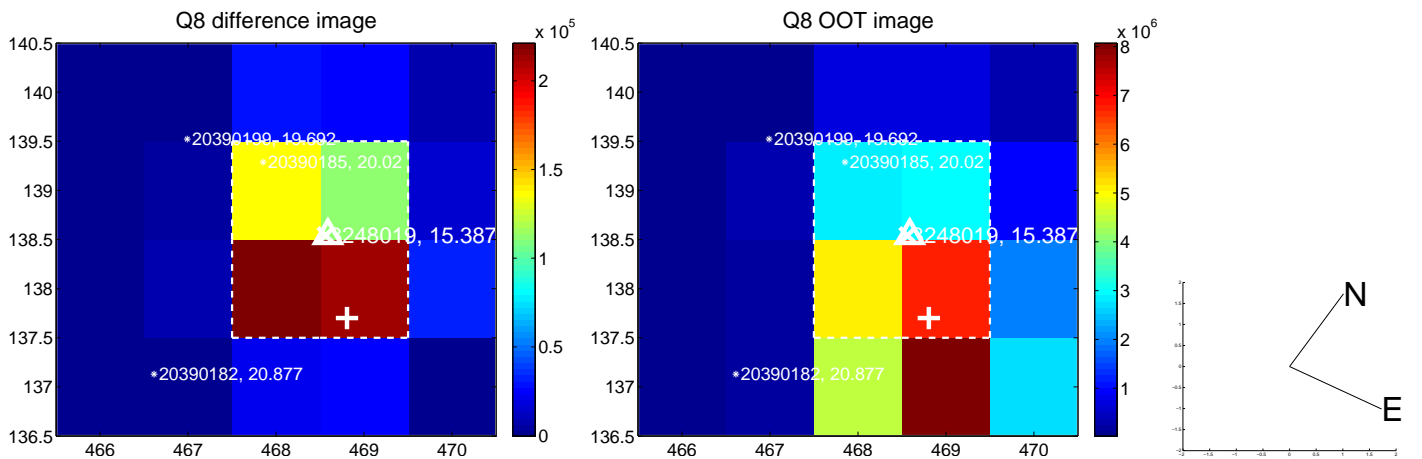
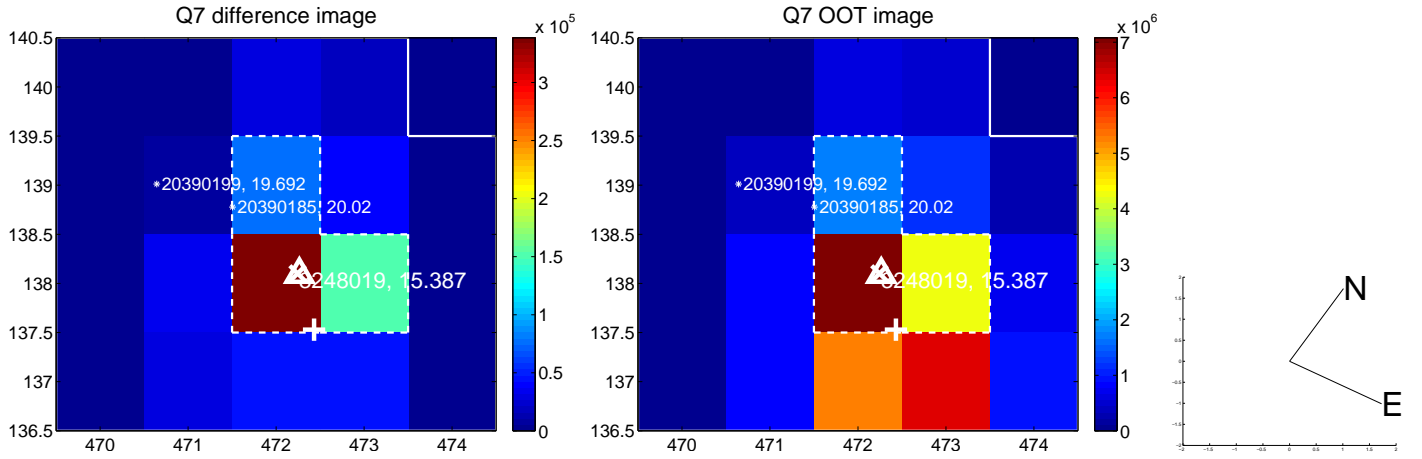
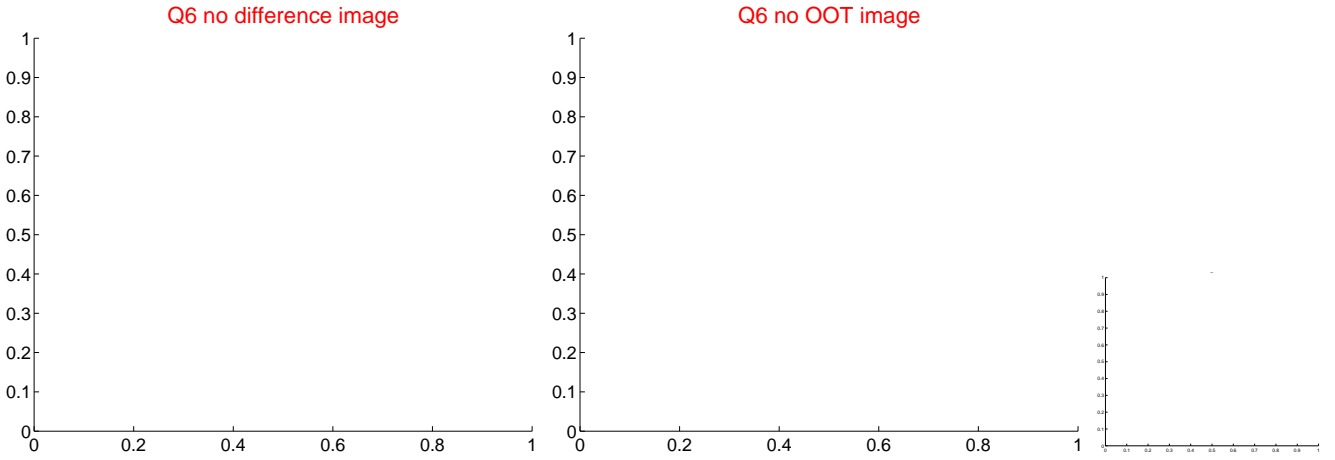
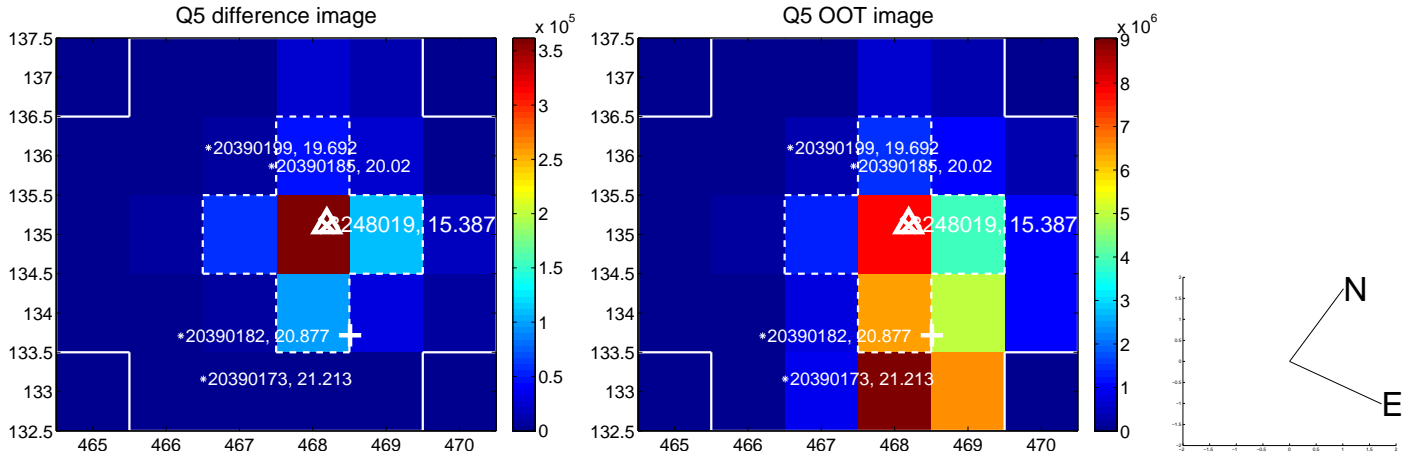


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

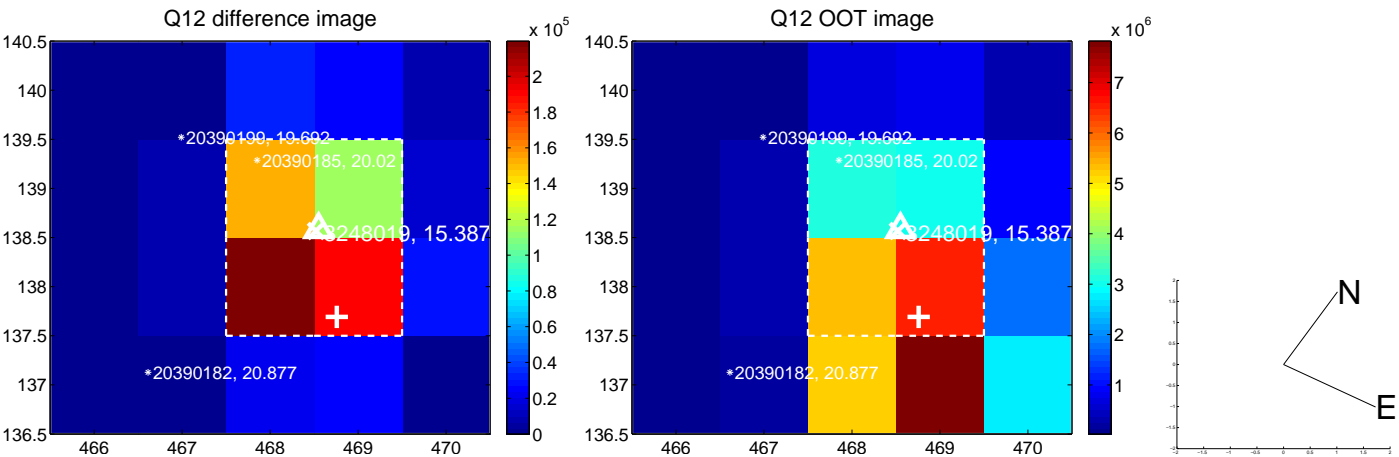
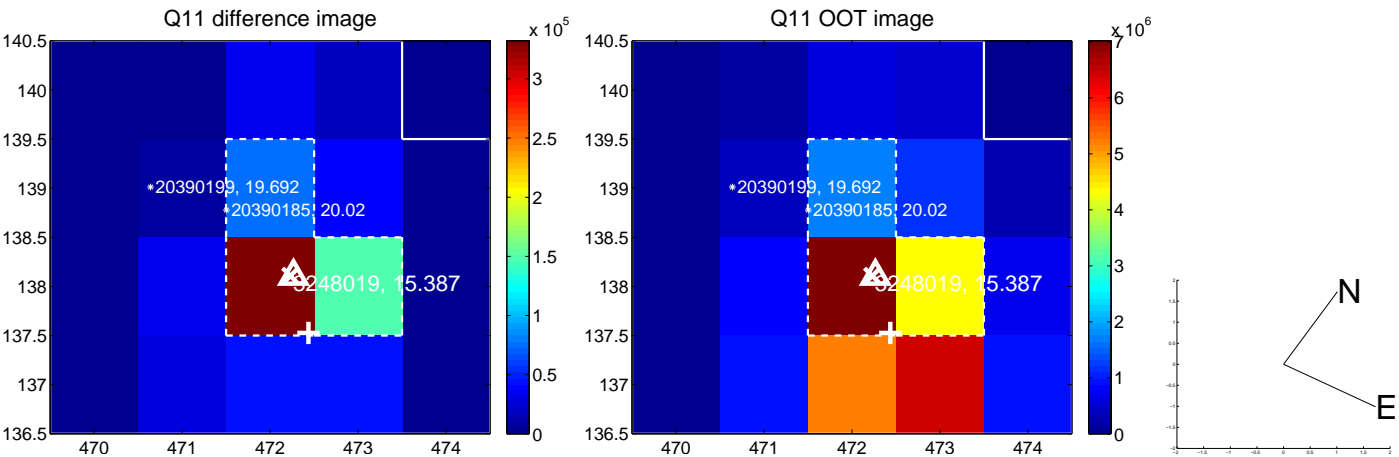
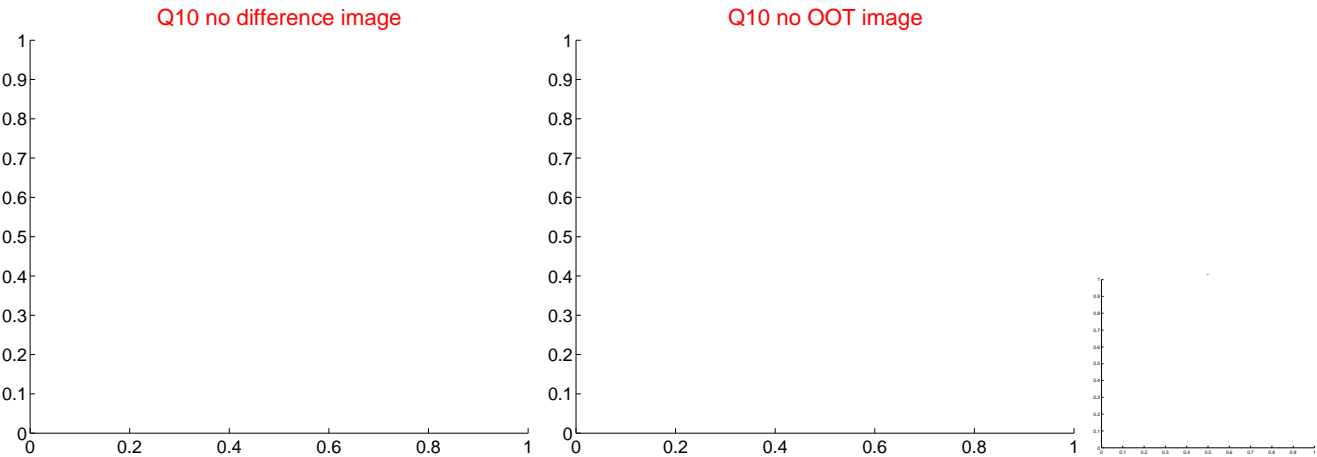
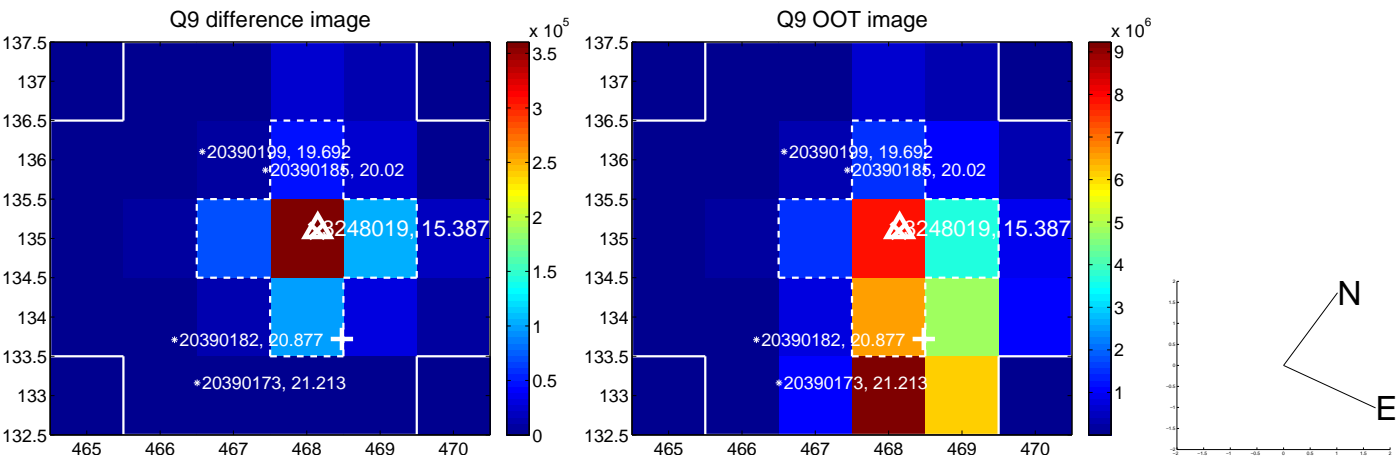
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



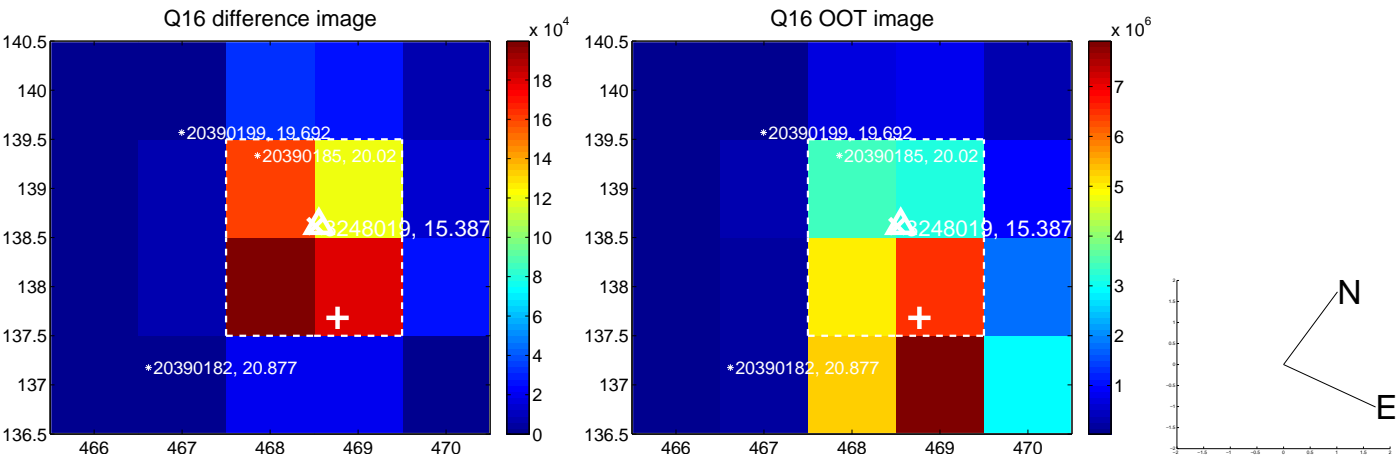
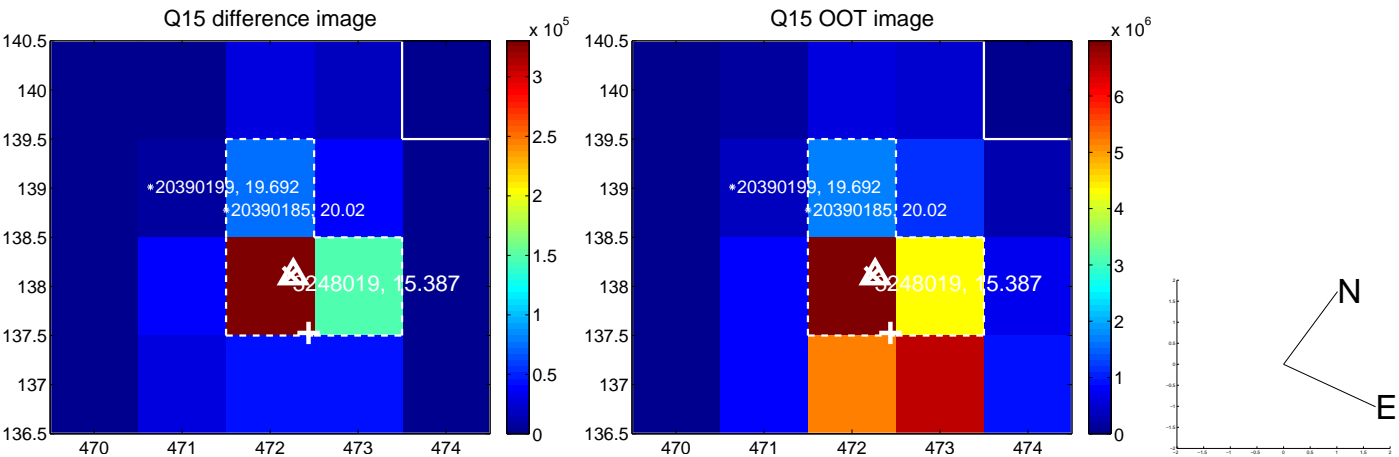
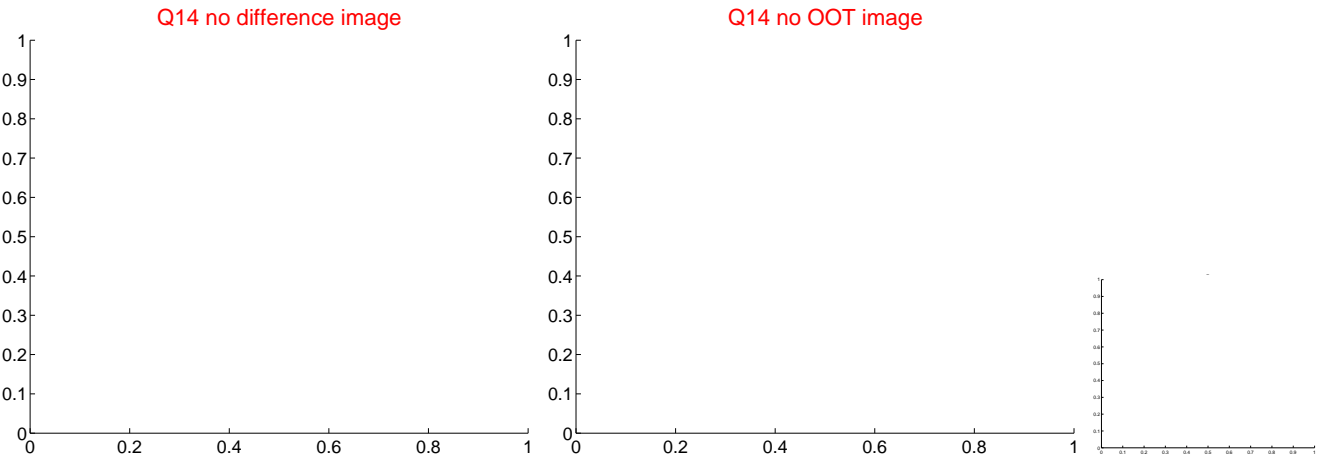
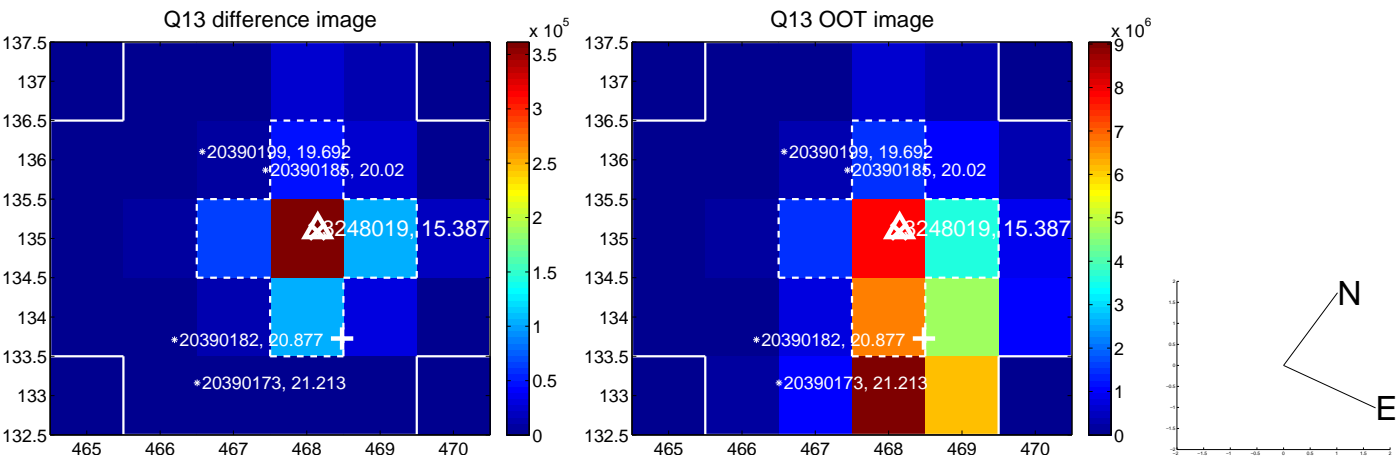
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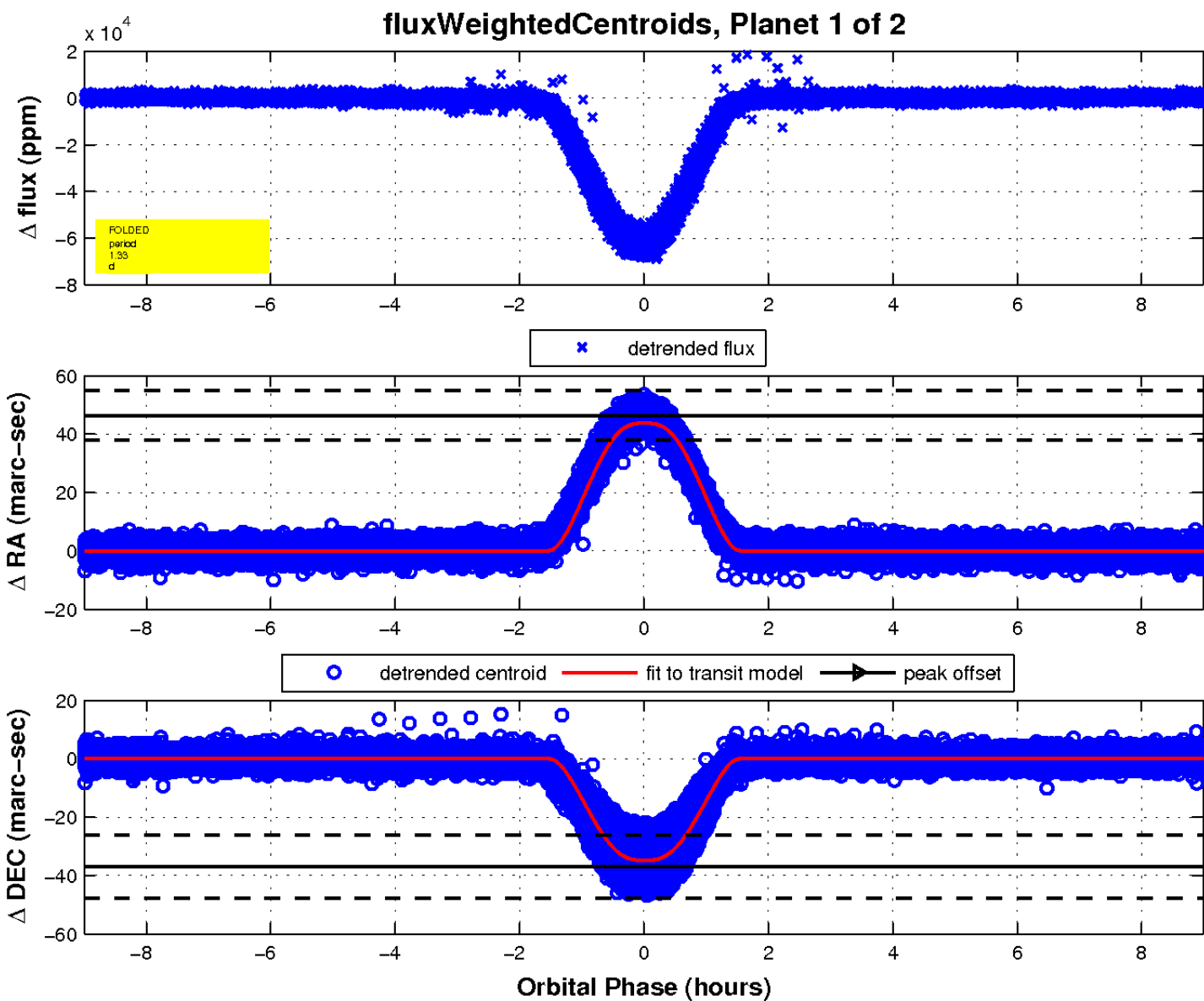
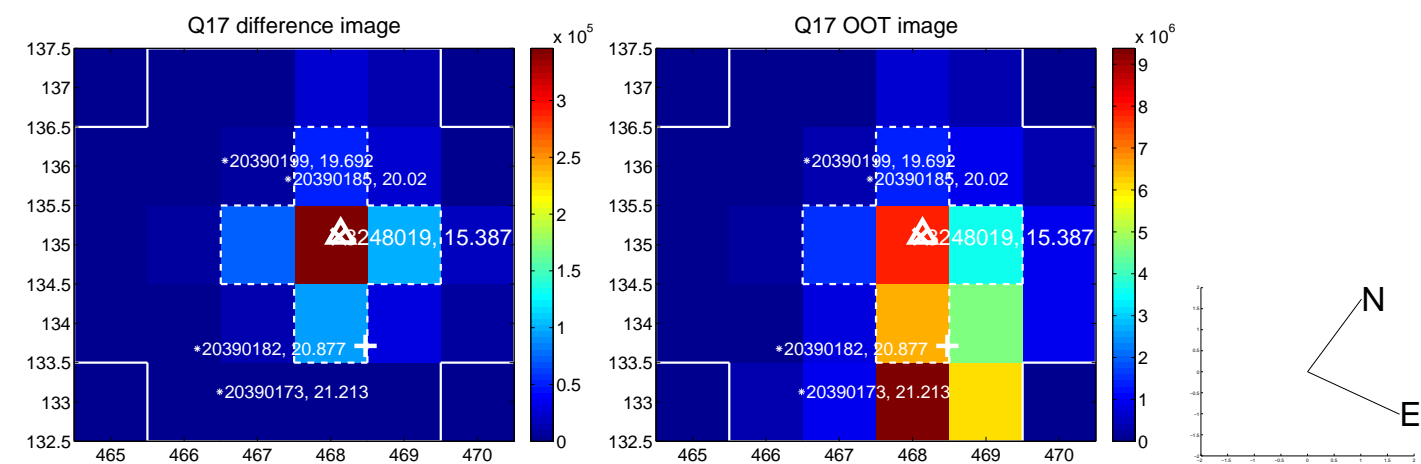
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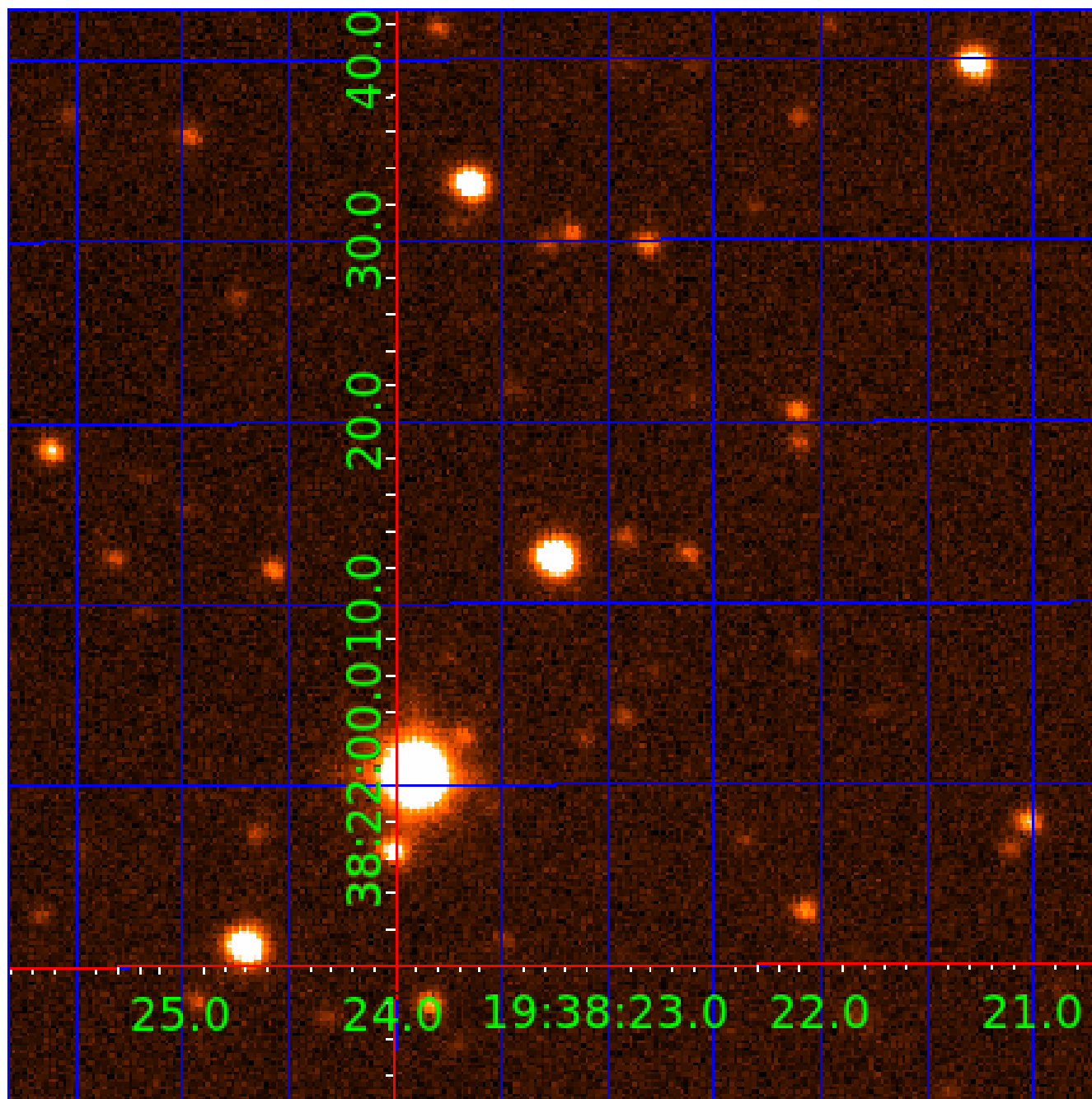


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 003248019

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

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003248019-01	OBS	FP	0.00	0	1	0	0	MOD_ODDEVEN_DV—MOD_ODDEVEN_ALT—CENT_KIC_POS
003248019-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—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.

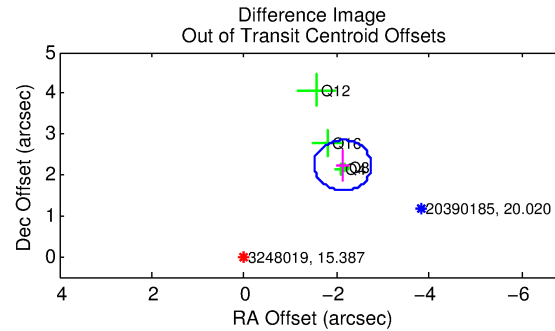
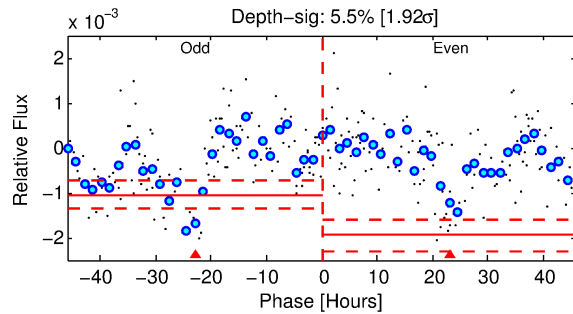
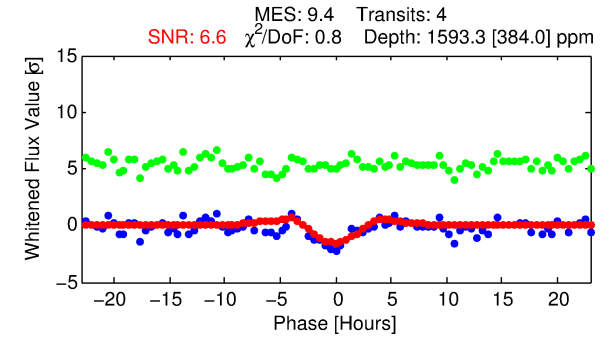
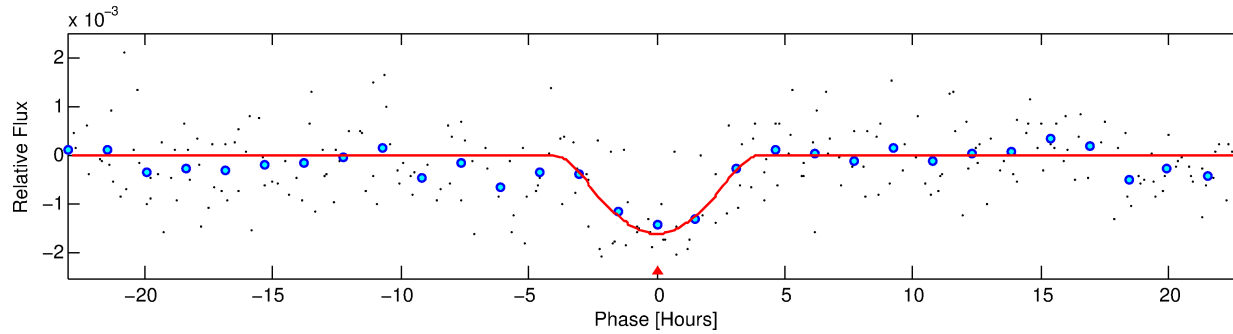
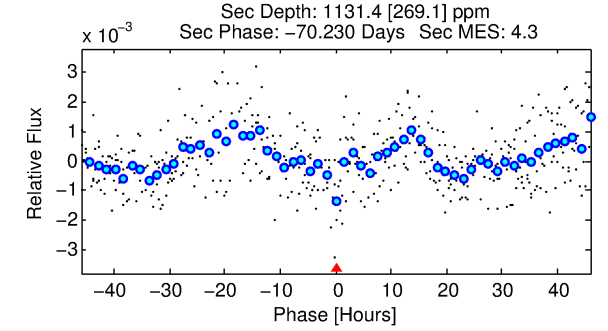
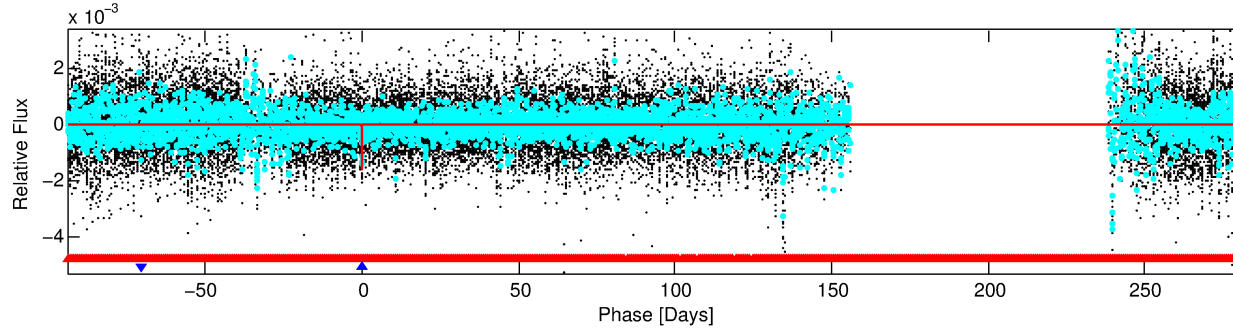
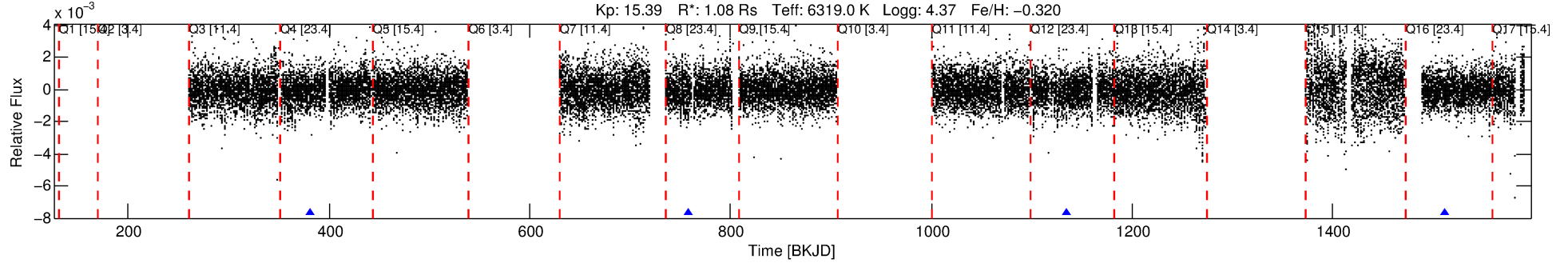
Ephemeris Match Information For 003248019-02

No Significant Match Found

DV One-Page Summary

KIC: 3248019 Candidate: 2 of 2 Period: 376.553 d
KOI: K01759 Corr: No Ephemeris Match

Kp: 15.39 R*: 1.08 Rs Teff: 6319.0 K Logg: 4.37 Fe/H: -0.320



DV Fit Results:

Period = 376.55301 [0.01306] d
Epoch = 381.9480 [0.0241] BKJD
Rp/R* = 0.0682 [0.2875]
a/R* = 141.09 [137.63]
b = 1.00 [0.41]
Seff = 1.60 [0.63]
Teq = 287 [28] K
Rp = 8.06 [34.07] Re
a = 1.0241 [0.2630] AU
Ag = 10050.11 [84849.91] [0.12σ]
Teff = 4438 [9360] K [0.44σ]

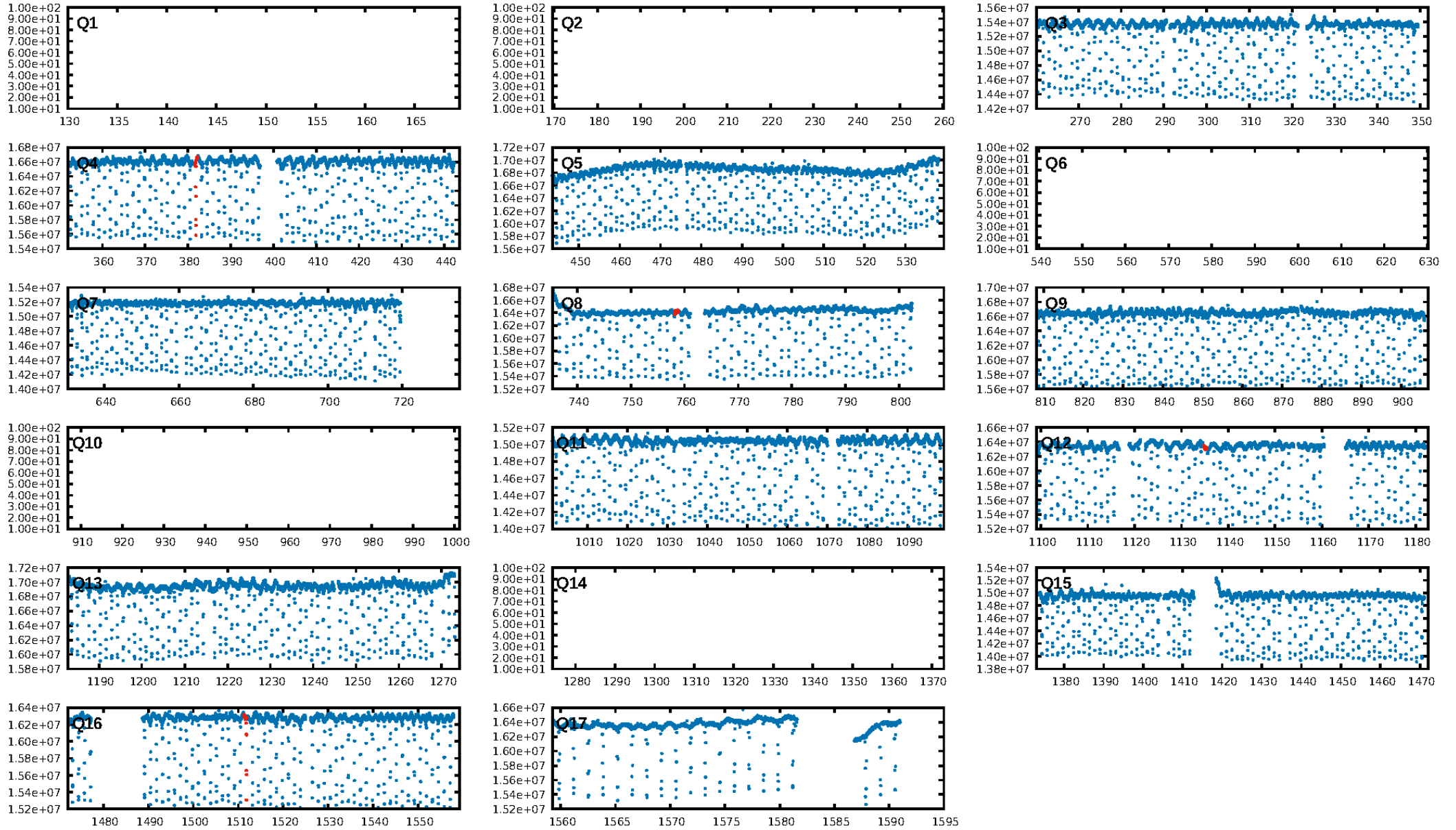
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [1093.15σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 61.7%
ModelChiSquareGoF-sig: 100.0%
Bootstrap-pfa: 7.62e-18
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: -0.463
Centroid-sig: 44.5%
Centroid-so: 2.223 arcsec [2.97σ]
OotOffset-rm: 3.083 arcsec [14.94σ]
KicOffset-rm: 0.224 arcsec [1.08σ]
OotOffset-st: 0/0/4/0 [4]
KicOffset-st: 0/0/4/0 [4]
DiffImageQuality-fgm: 0.25 [1/4]
DiffImageOverlap-fno: 0.00 [0/4]

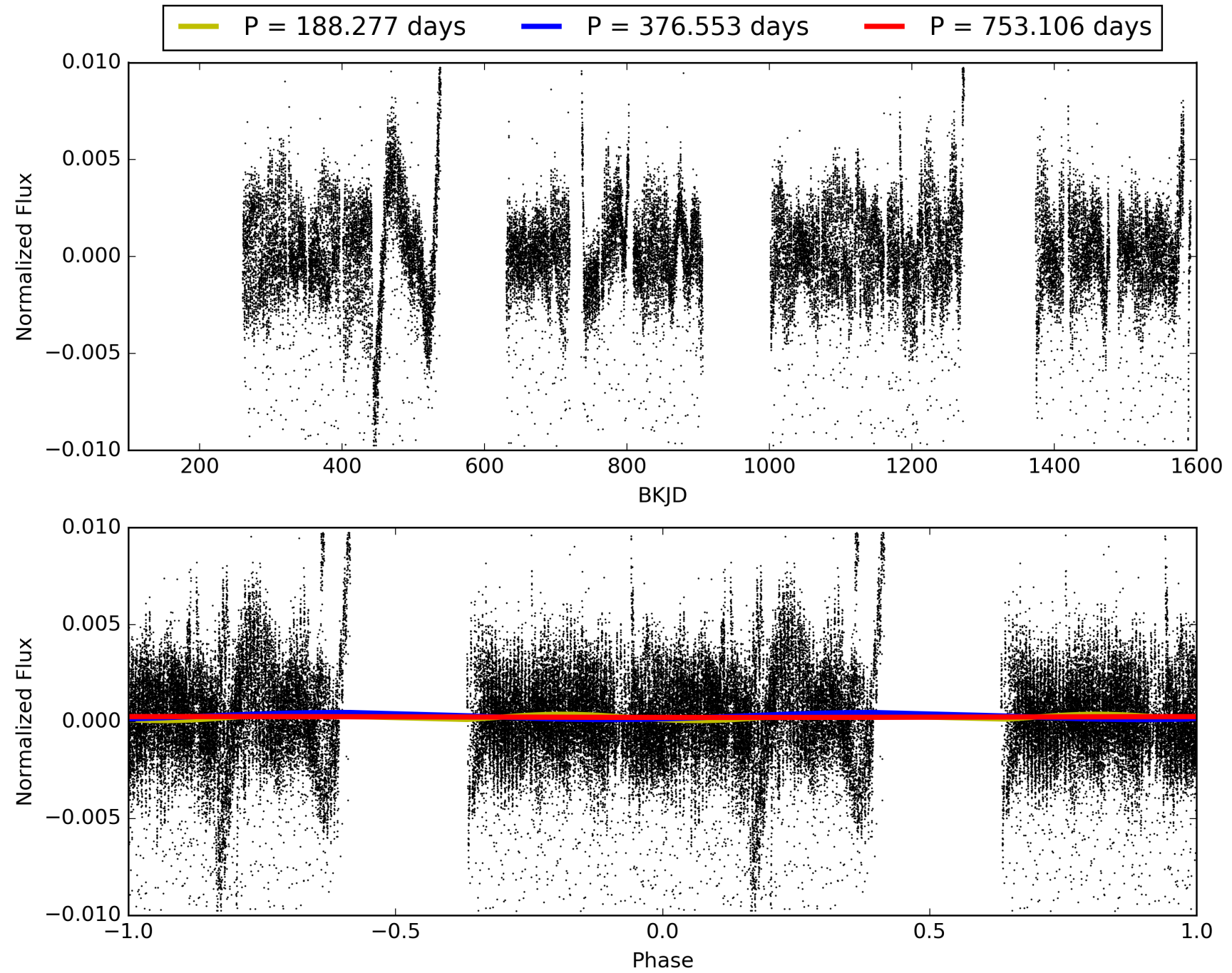
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 07:58:07 Z

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

TCE 003248019-02, PDC Light Curves

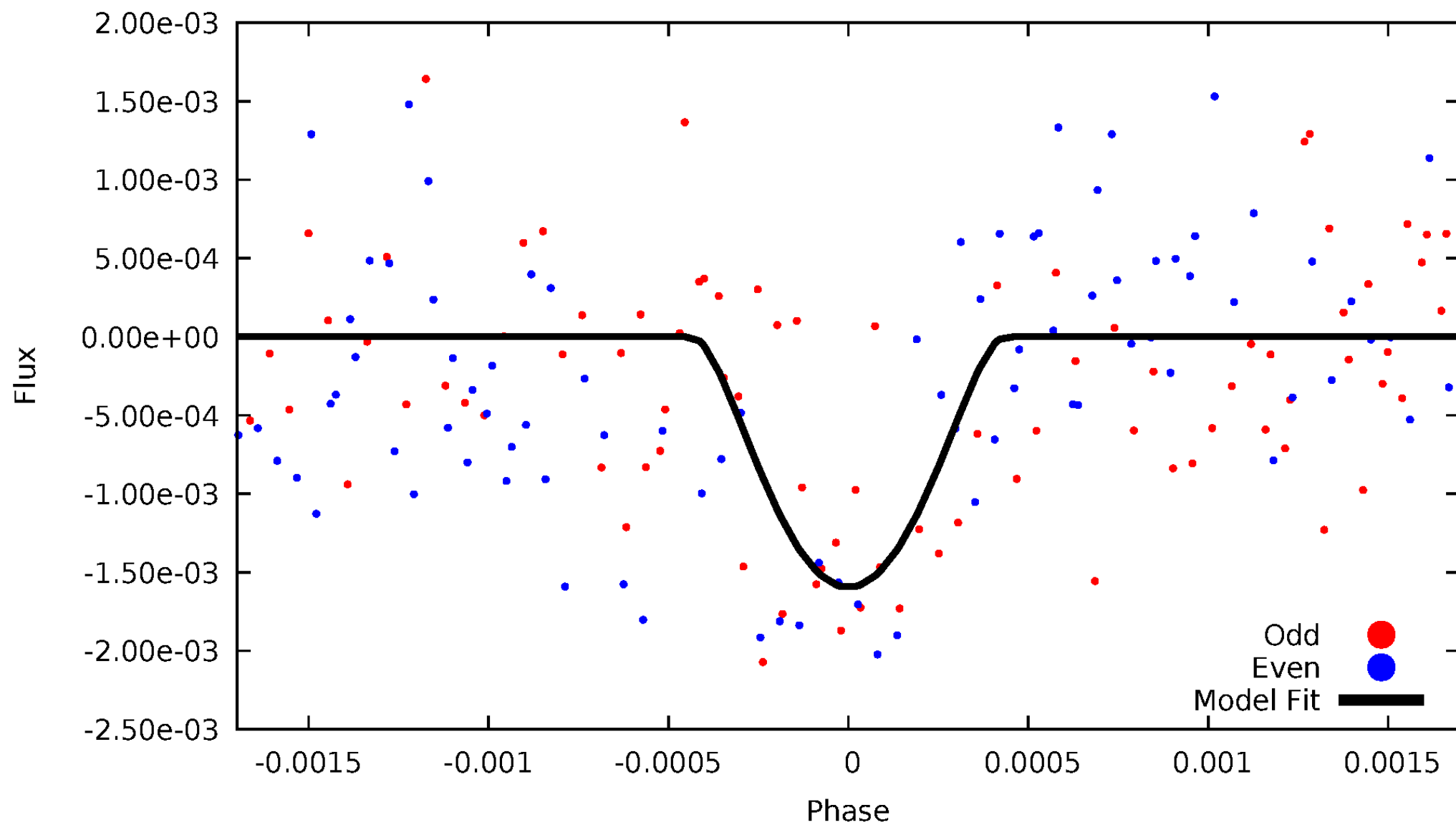


TCE 003248019-02



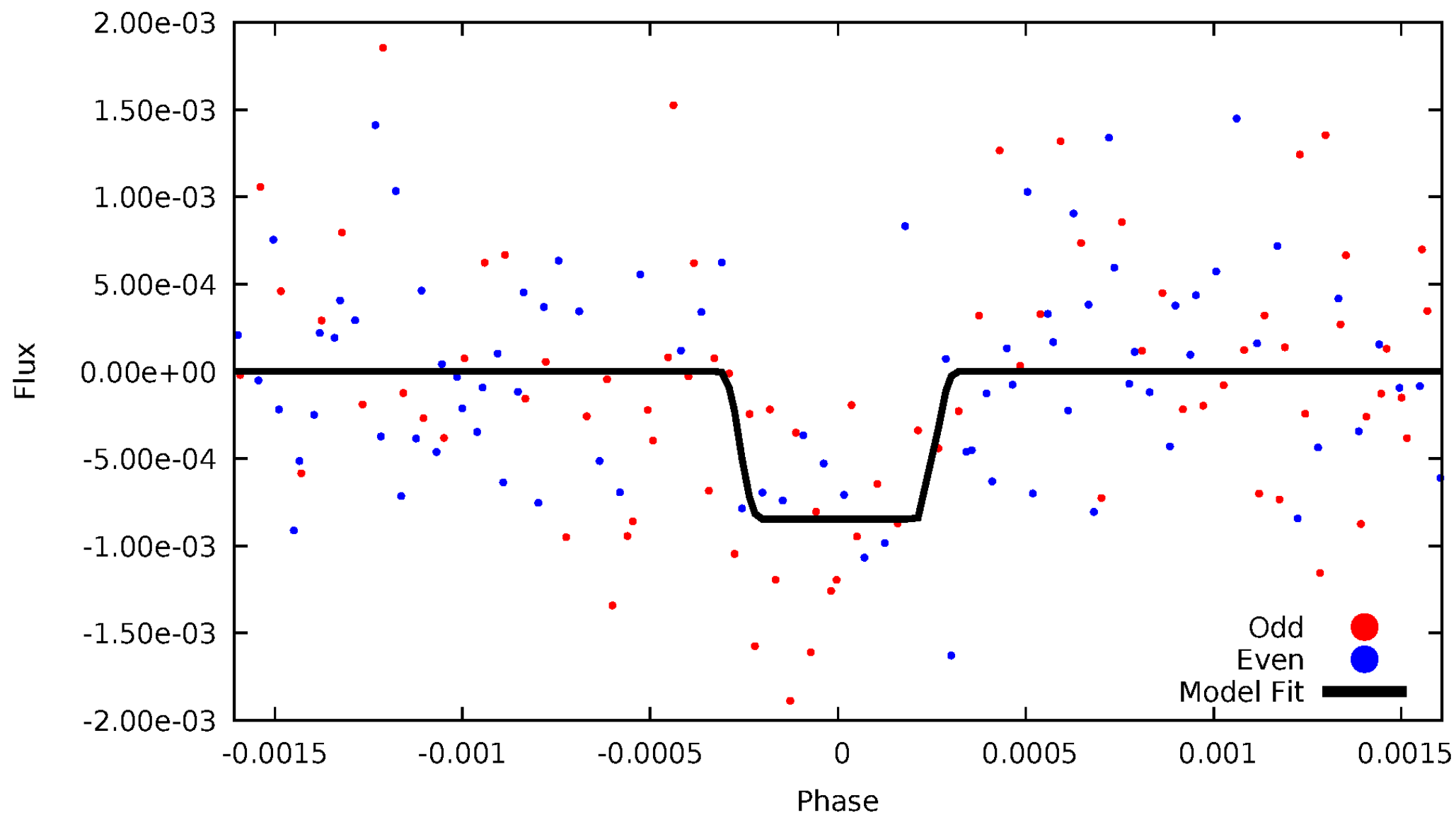
DV Odd/Even

TCE 003248019-02



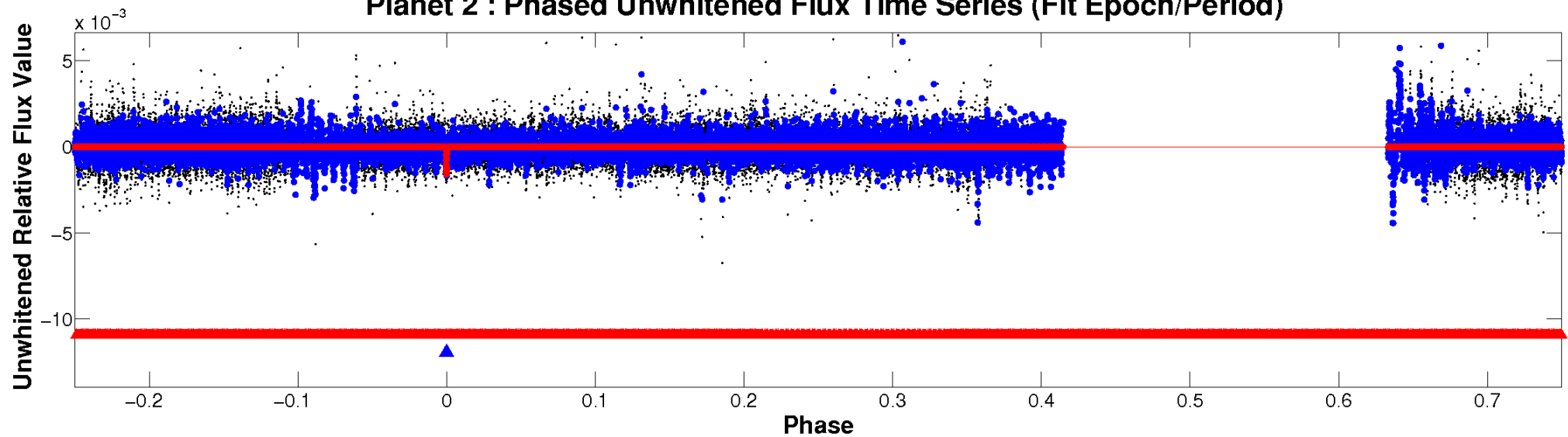
ALT Odd/Even

TCE 003248019-02

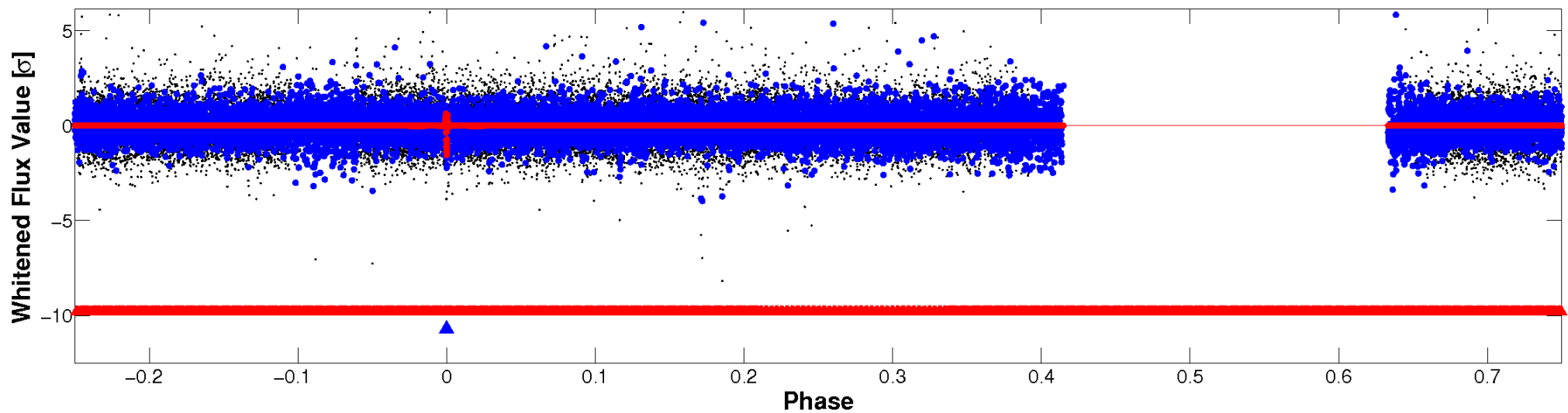


Non-Whitened Vs. Whitened Light Curve

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

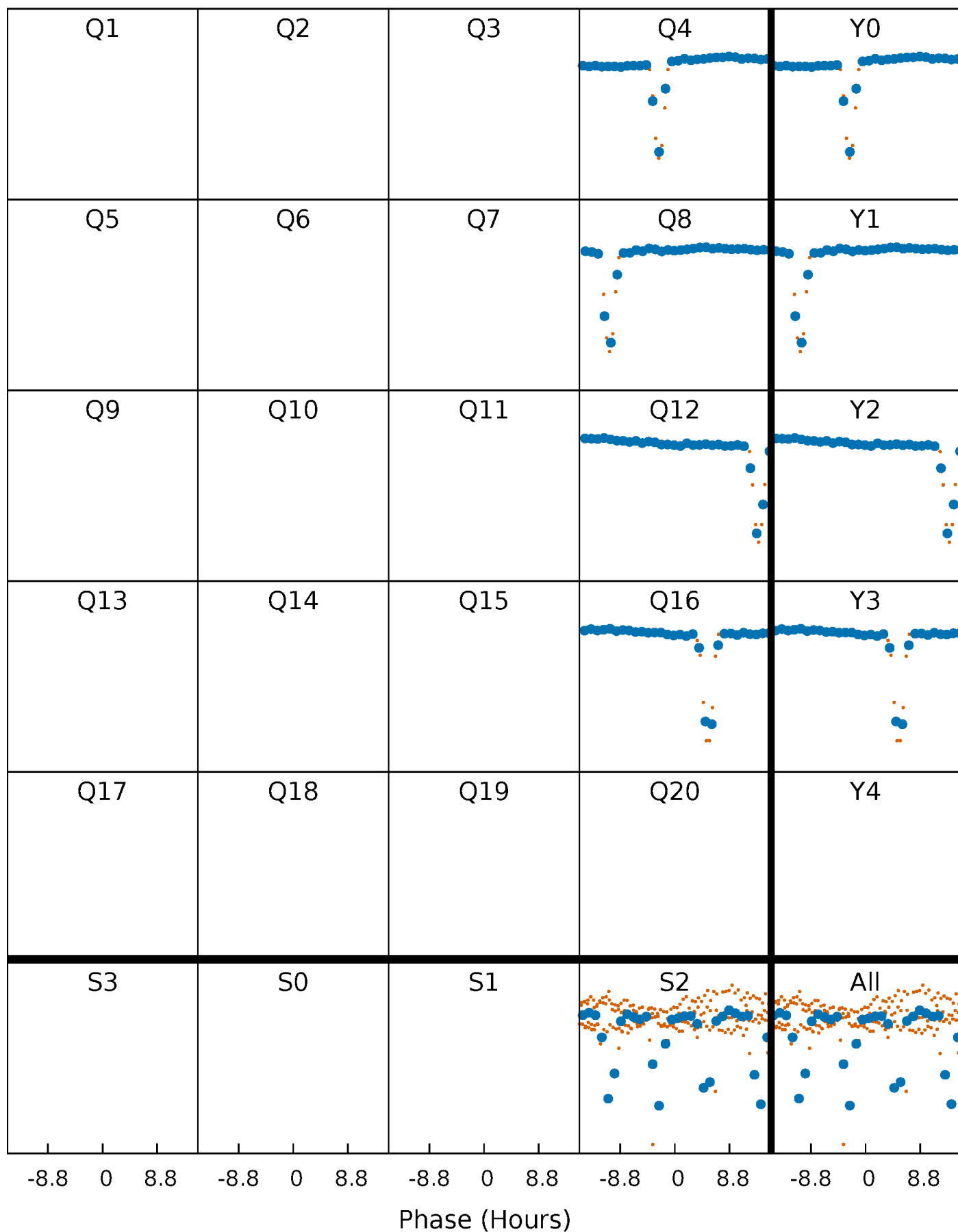


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



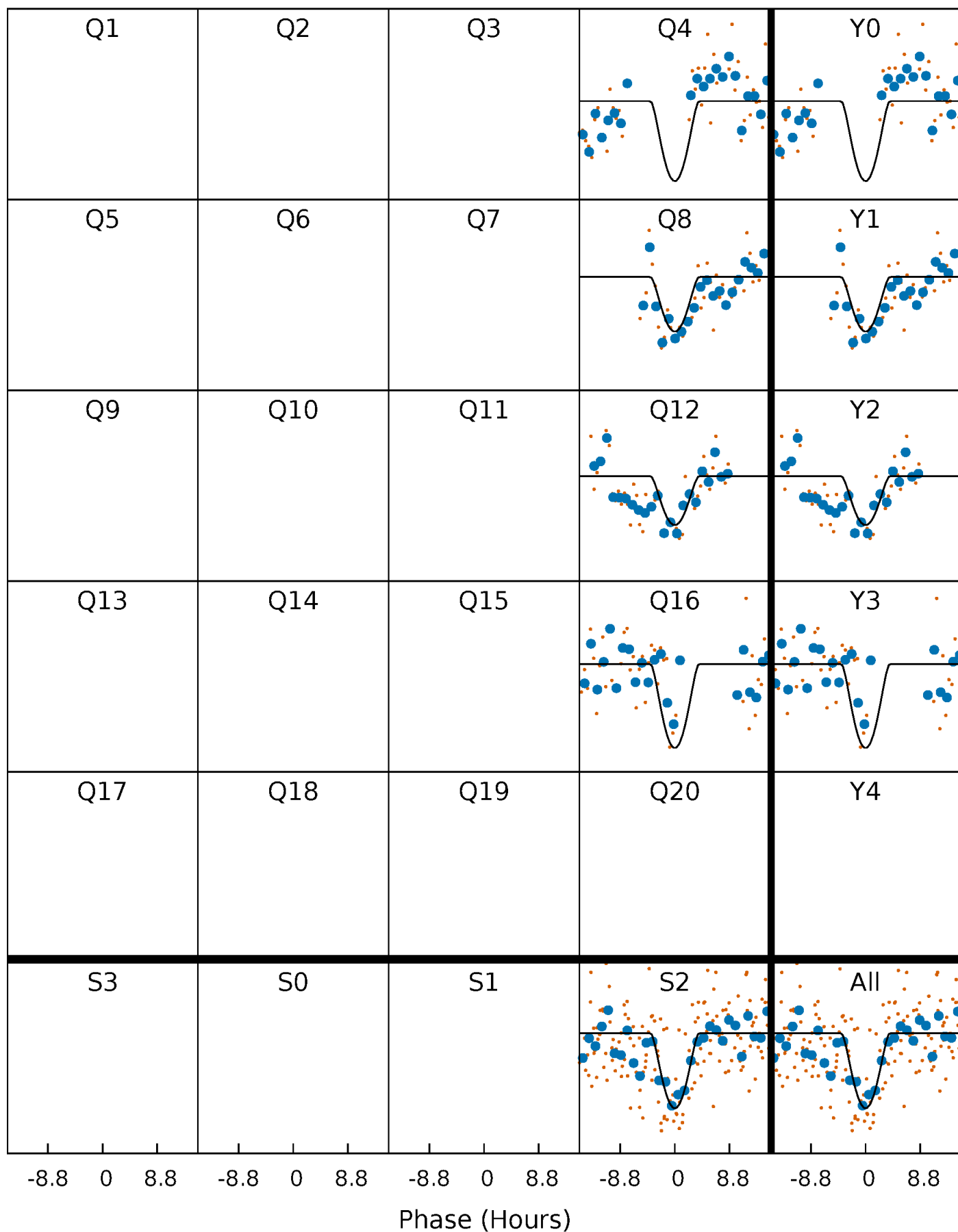
PDC Quarter-Phased Transit Curves

TCE 003248019-02 P=376.553006 Days $T_0=381.947987$ (BKJD)



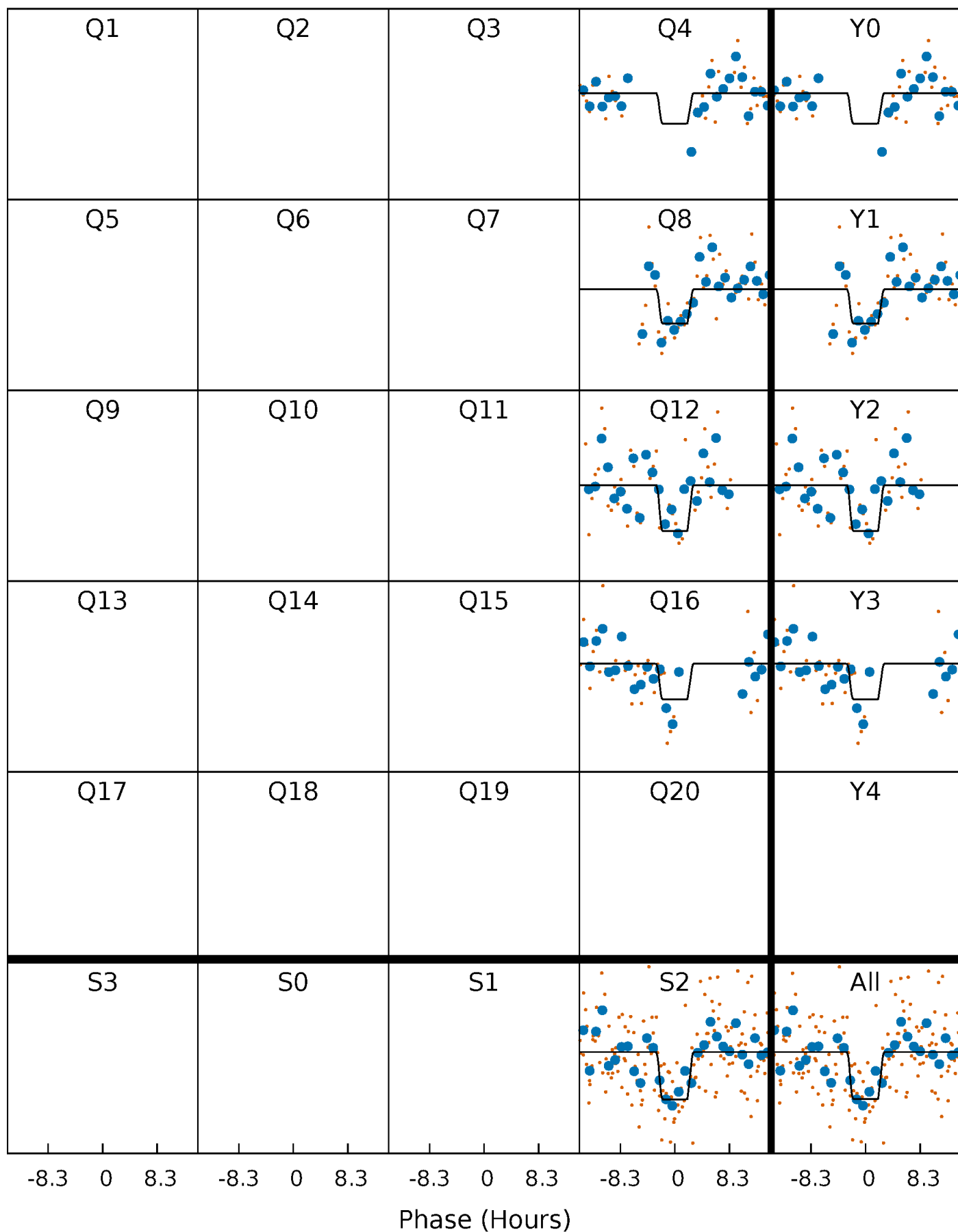
DV Quarter-Phased Transit Curves

TCE 003248019-02 P=376.553006 Days $T_0=381.947987$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

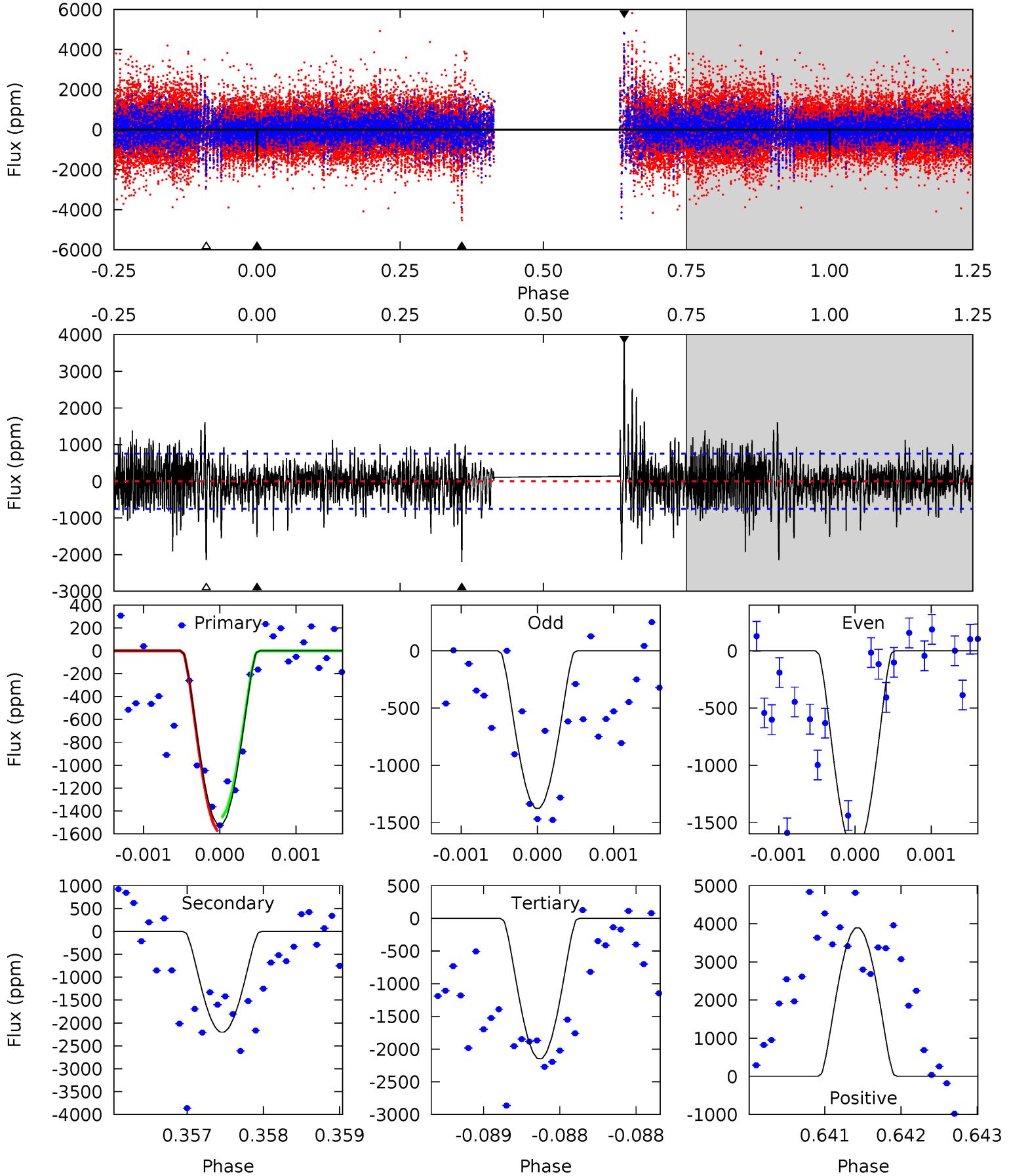
TCE 003248019-02 P=376.563266 Days $T_0=381.931579$ (BKJD)



DV Model-Shift Uniqueness Test

003248019-02, P = 376.553006 Days, E = 5.394981 Days

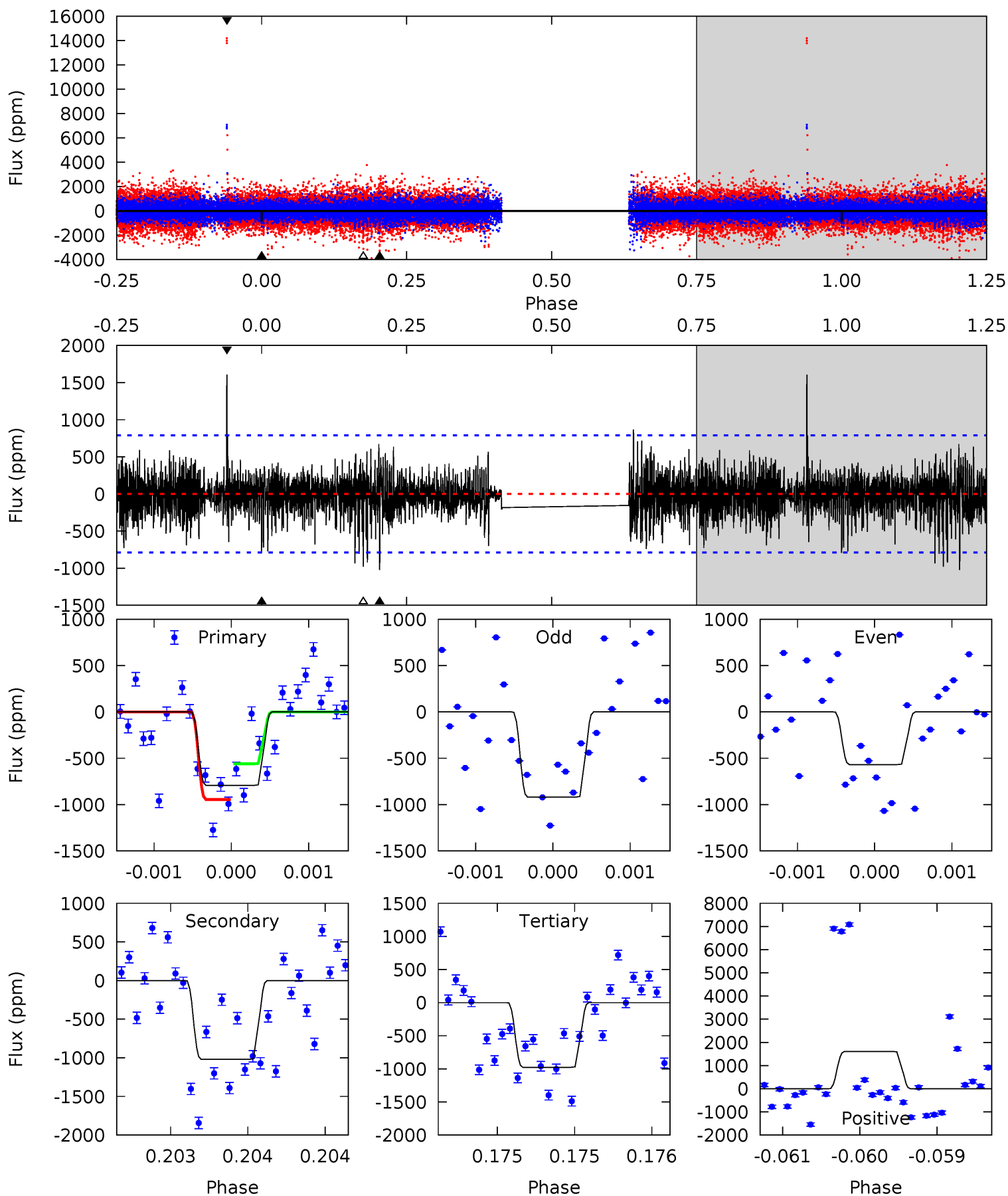
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.1	16.0	15.6	28.3	5.47	3.33	3.45	-4.55	-17.2	0.38	-12.3	1.40	0.86	0.64	0.44



Alt Model-Shift Uniqueness Test

003248019-02, P = 376.563266 Days, E = 5.368313 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.57	7.16	6.86	11.3	5.54	3.43	1.49	-1.29	-5.71	0.30	-4.11	1.15	0.88	0.61	1.34



Stellar Parameters For KIC 003248019

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6319^{+198}_{-242}	$4.373^{+0.105}_{-0.195}$	$-0.320^{+0.250}_{-0.300}$	$1.083^{+0.339}_{-0.169}$	$1.007^{+0.158}_{-0.115}$	$1.117^{+0.528}_{-0.573}$
	+3%/-4%	+2%/-4%	+78%/-94%	+31%/-16%	+16%/-11%	+47%/-51%
Source	KIC0	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 003248019-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-2200 ± 138	$28.44^{+29.76}_{-19.79}$	403^{+33}_{-23}	3338^{+1962}_{-581}	1607^{+15498}_{-1229}
Alt.	-1021 ± 142	$24.93^{+26.94}_{-17.53}$	405^{+29}_{-25}	3131^{+1582}_{-610}	937^{+9598}_{-722}

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

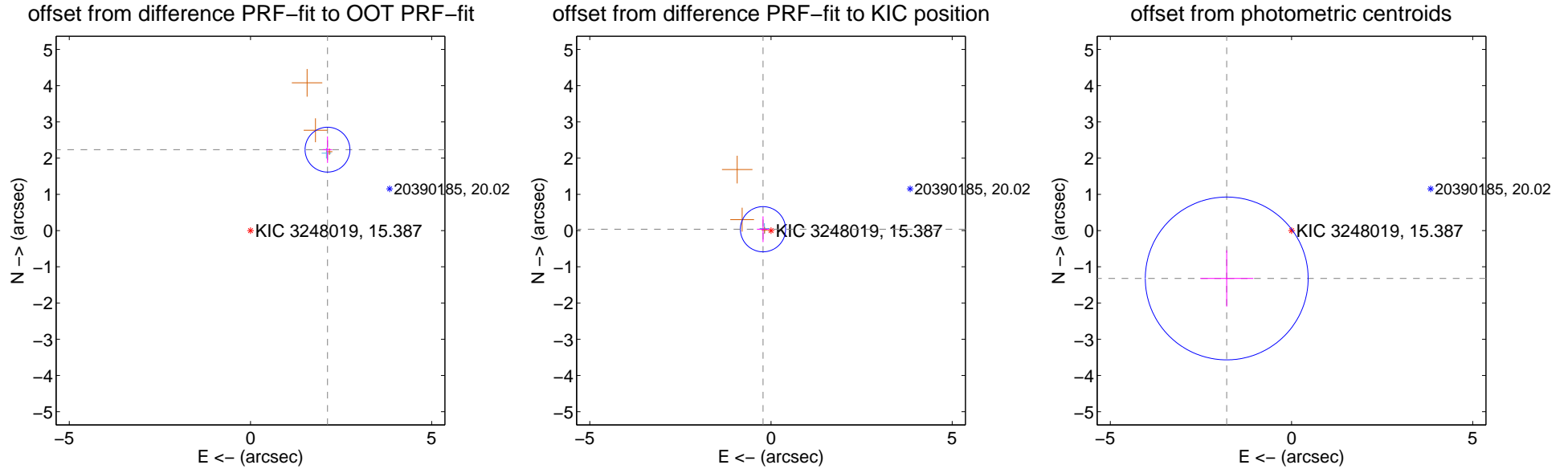
DV Centroid Data

Supplemental centroid analysis for 003248019-02. Kepler magnitude: 15.39. Transit SNR 6.58

There are 1 quarters with good PRF difference image offsets

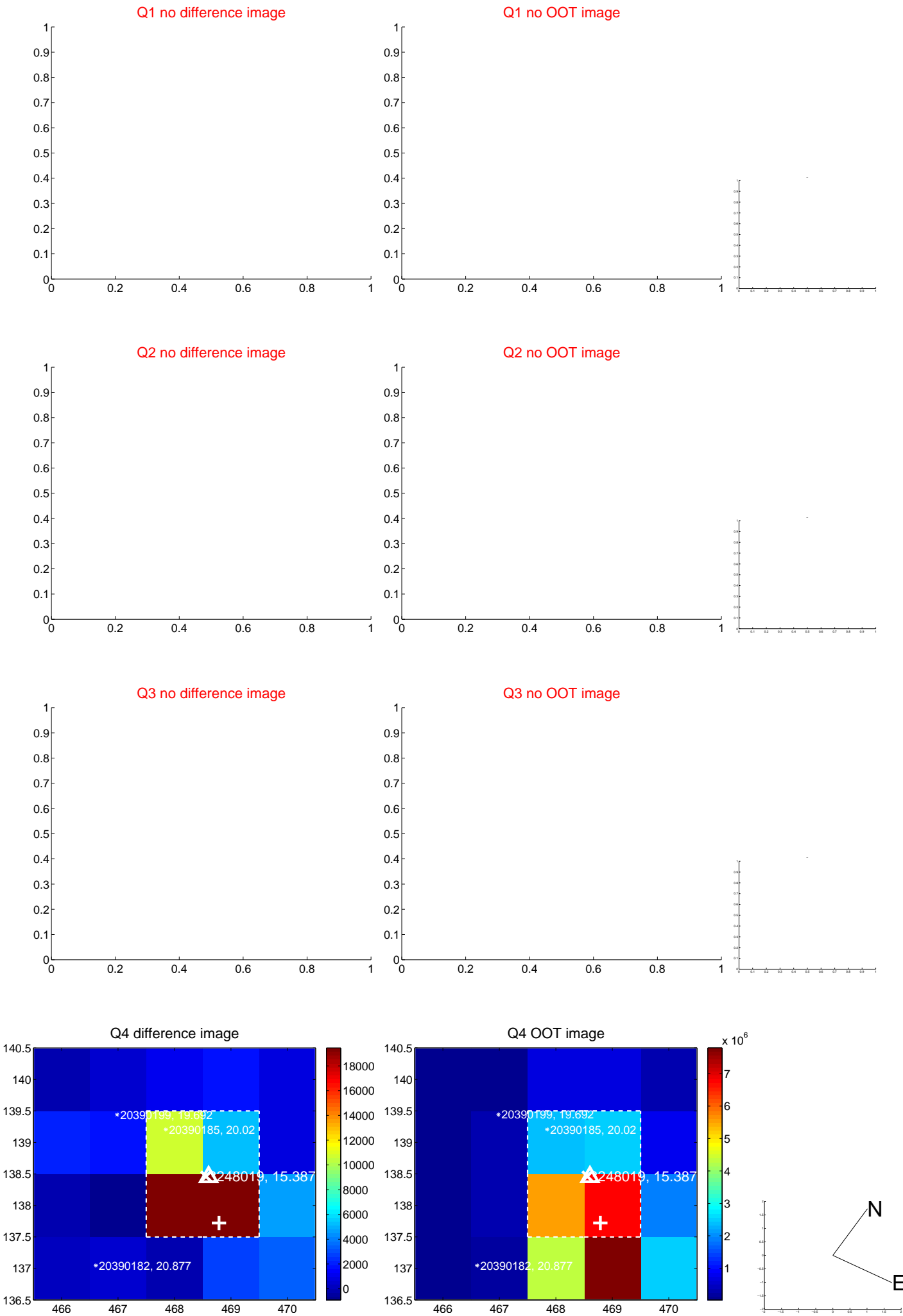
The OOT PRF centroid is offset from the target star catalog position by about 3.58 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.083 ± 0.206	14.94	-2.125 ± 0.125	2.233 ± 0.366
PRF-fit source offset from KIC position	0.224 ± 0.208	1.08	0.221 ± 0.167	0.037 ± 0.355
photometric centroid source offset	2.22 ± 0.75	2.97	1.79 ± 0.73	-1.32 ± 0.78

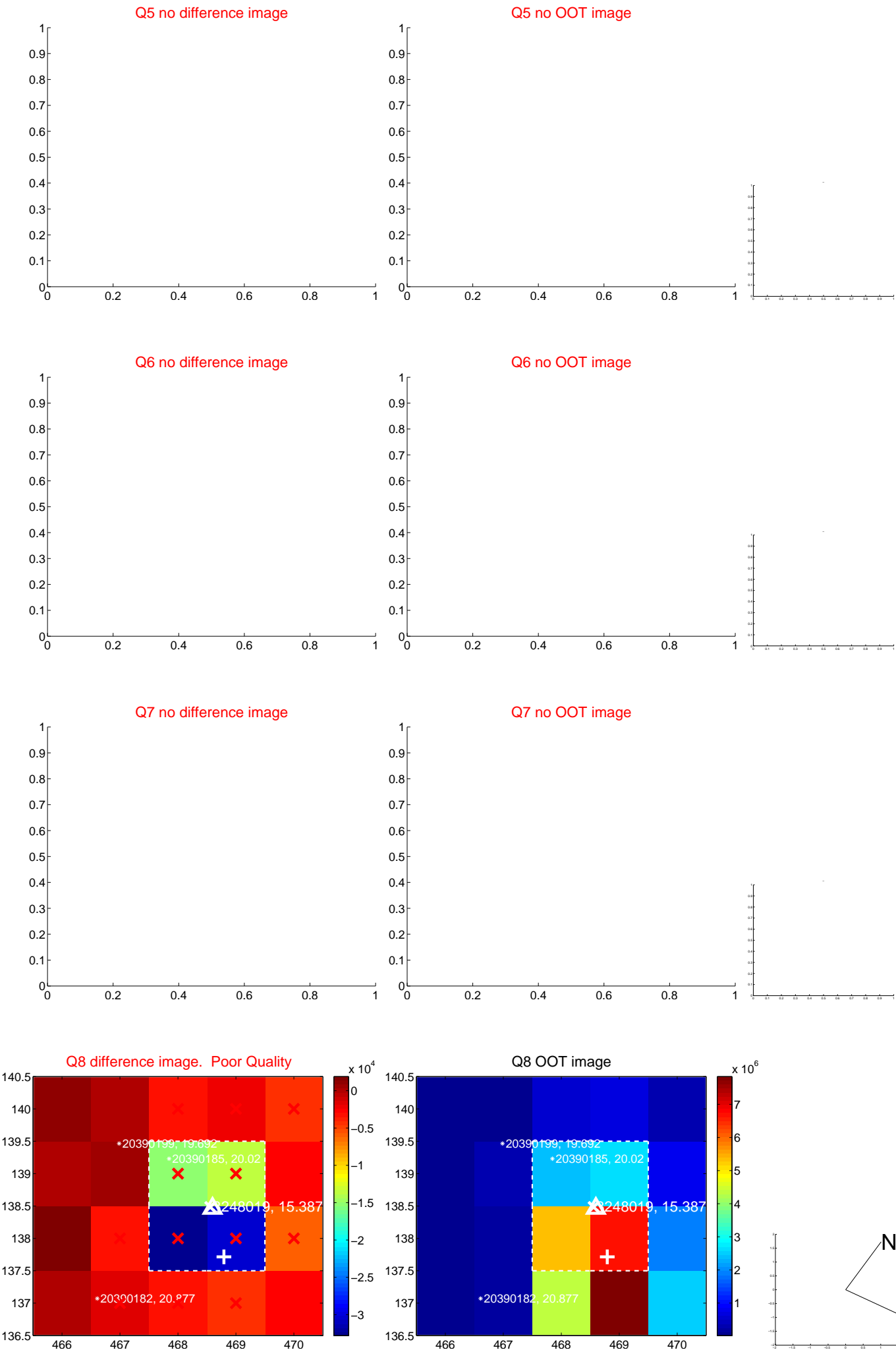


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

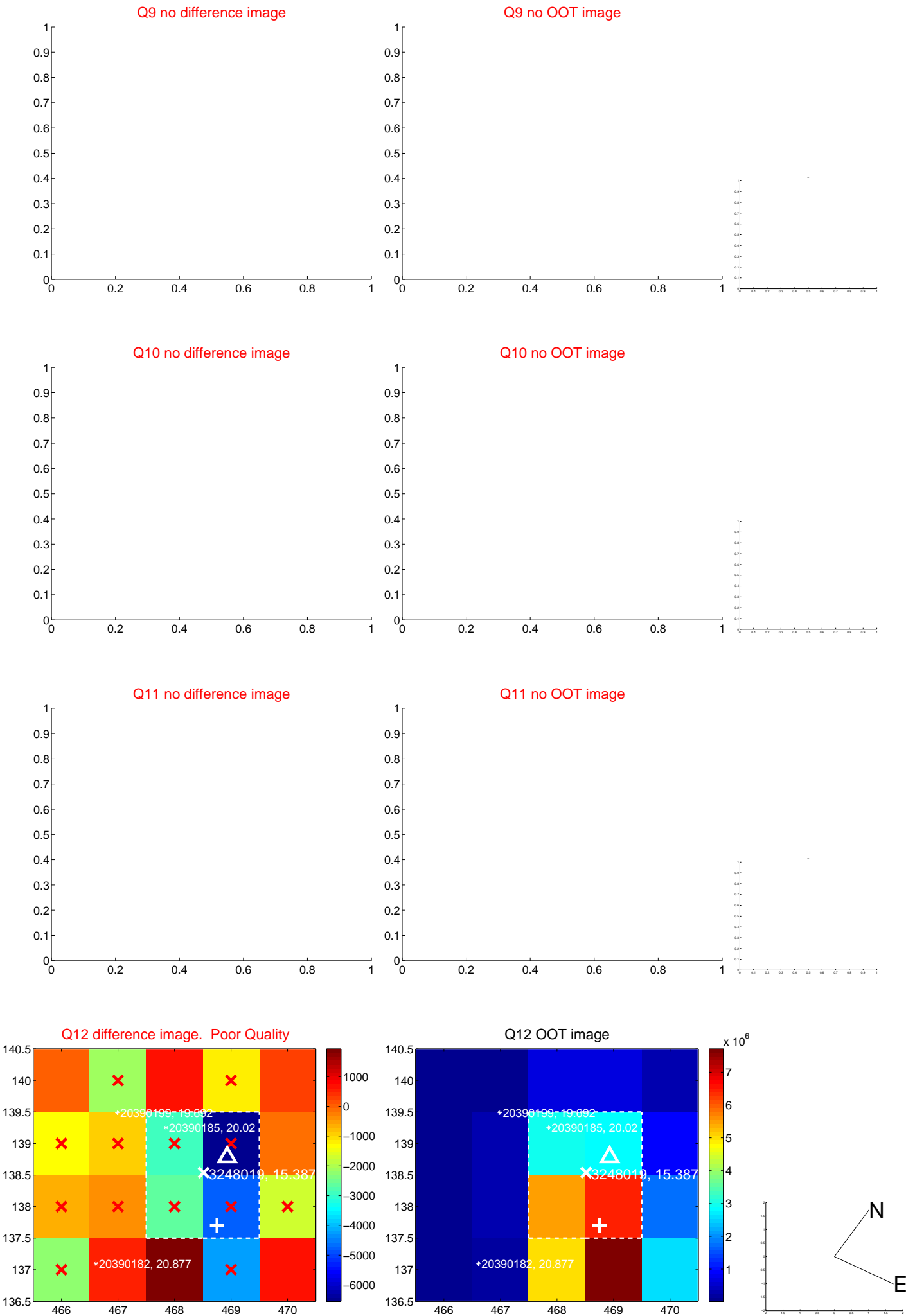
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



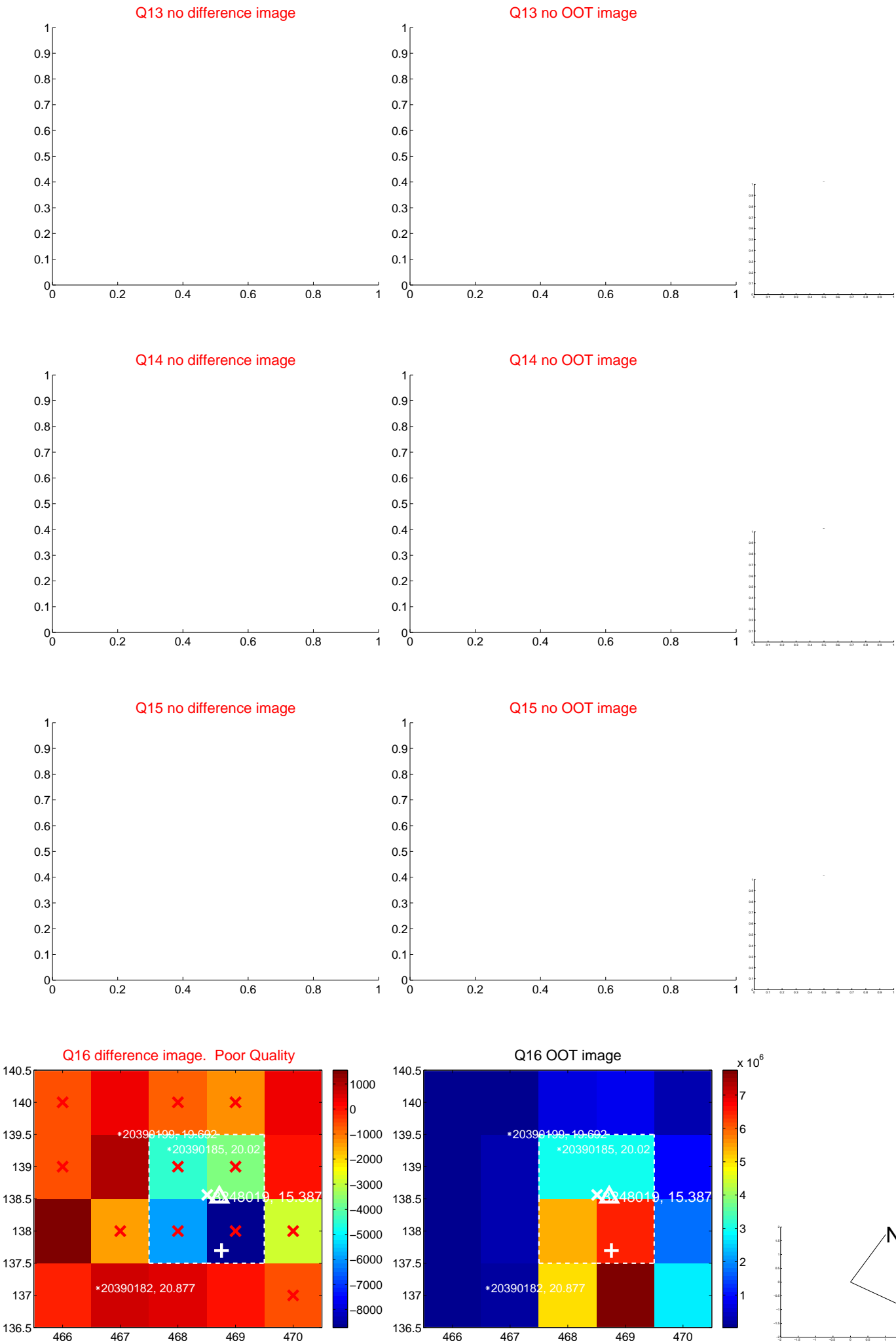
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



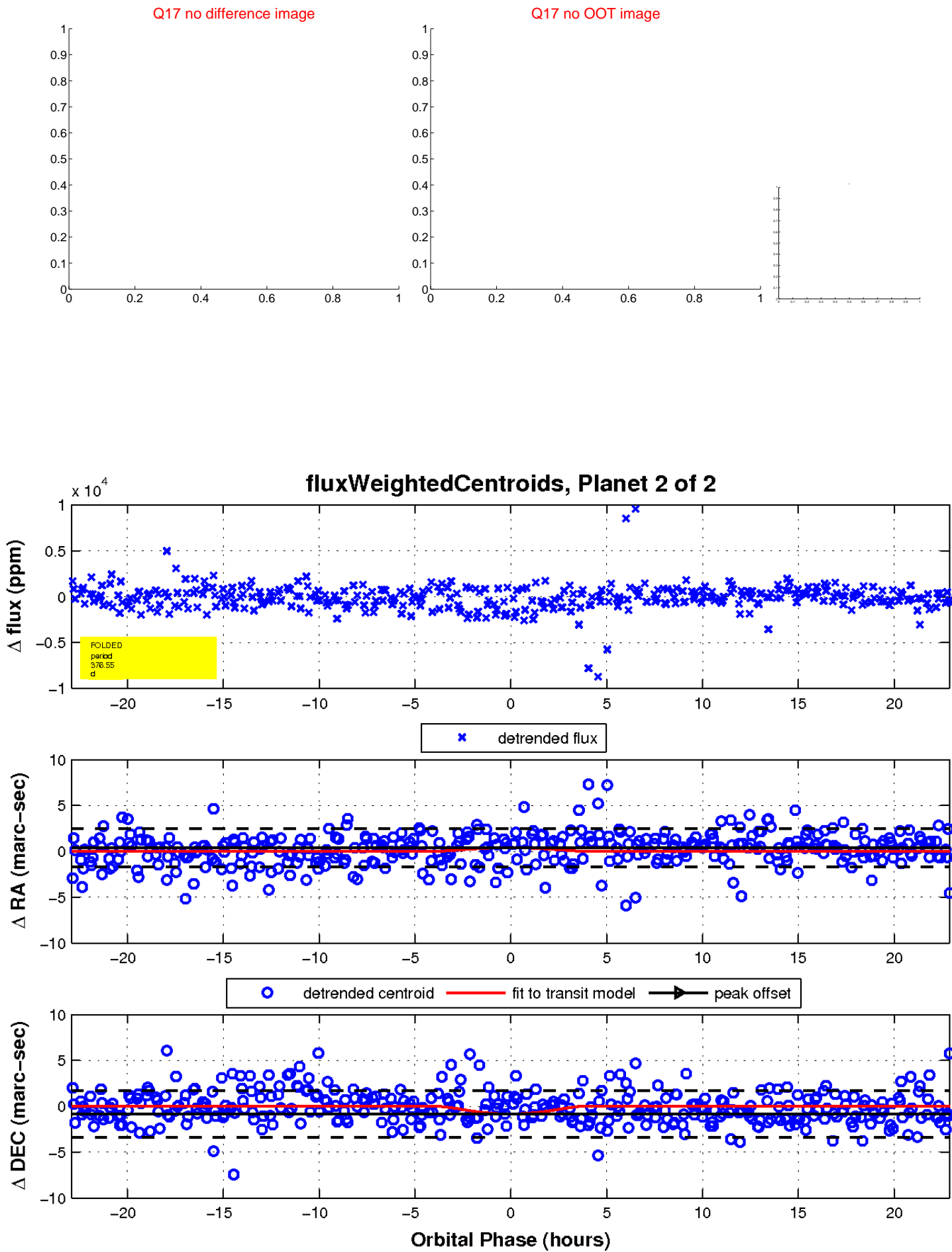
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

