

KIC 008264304

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})
008264304-01	OBS	No	368.339254	356.986671	592.2	10.567	8.3	6.7	1.54	7286	3.90	4.67
008264304-02	OBS	No	0.691326	131.516202	392.0	2.500	8.1	-1.0	1.54	7286	3.10	20168.04

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008264304-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—INCONSISTENT_TRANS—CENT_FEW_DIFFS
008264304-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—CENT_NOFITS

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

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

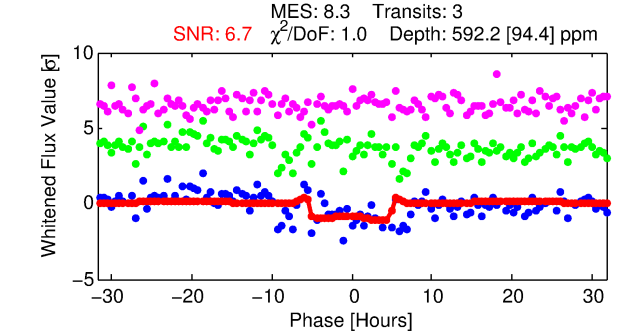
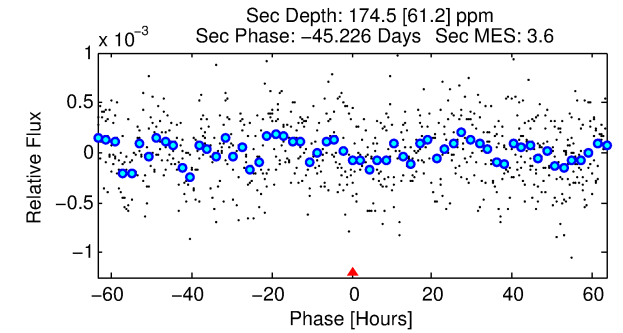
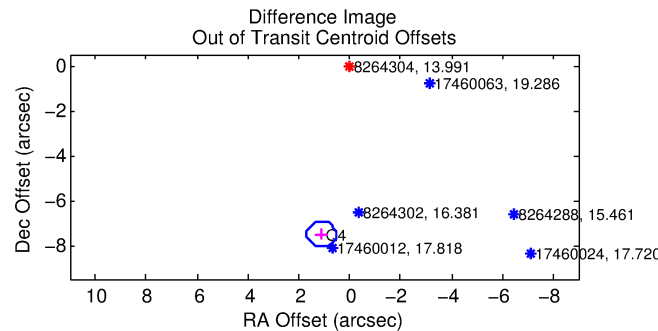
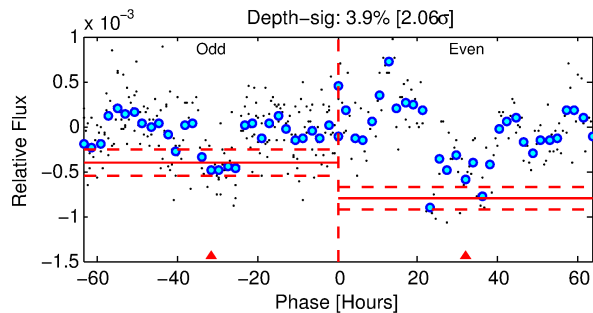
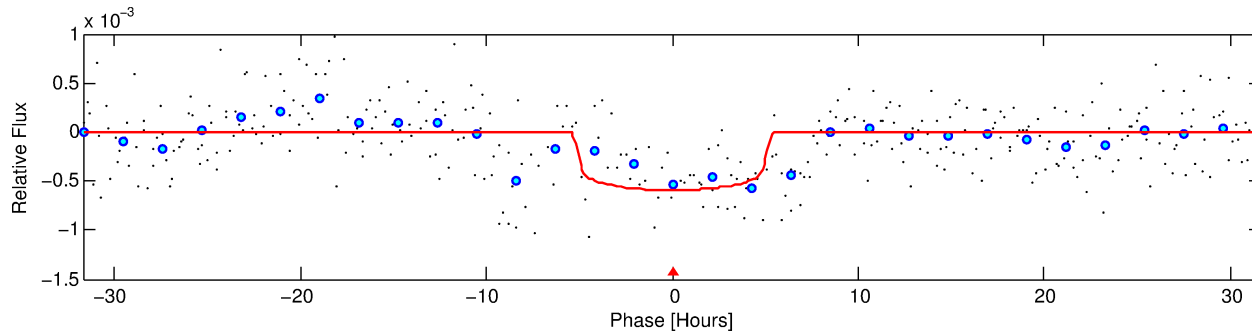
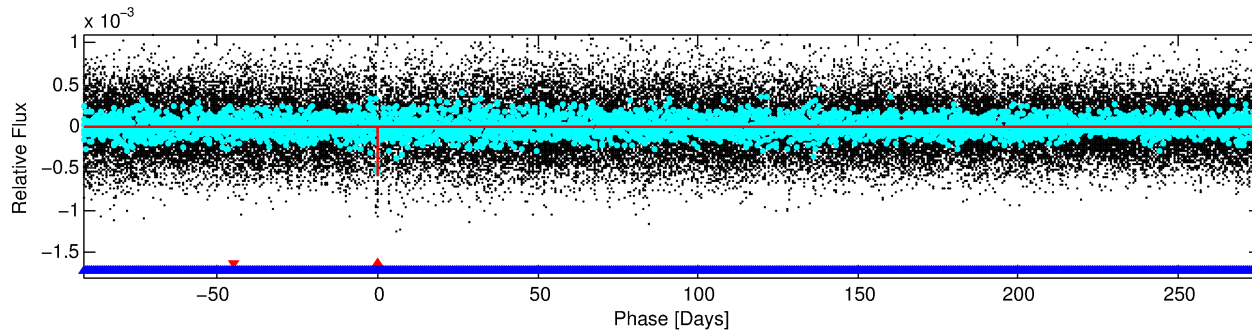
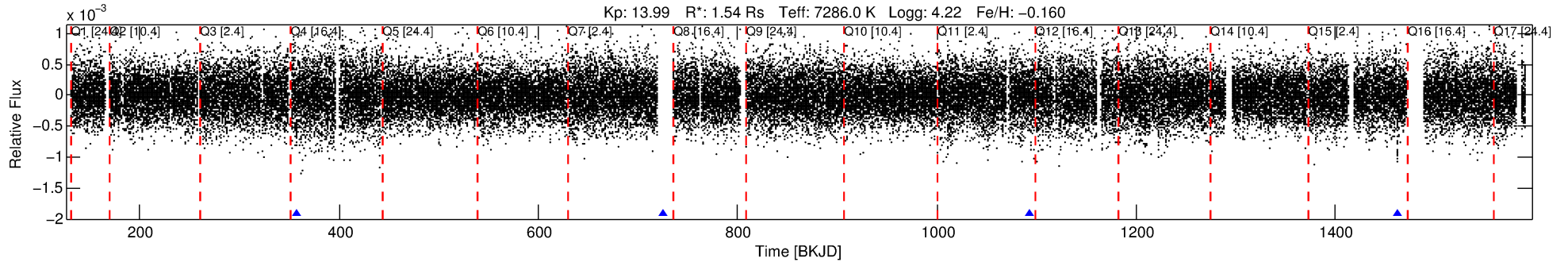
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008264304-01

No Significant Match Found

DV One-Page Summary

KIC: 8264304 Candidate: 1 of 2 Period: 368.339 d



DV Fit Results:

Period = 368.33925 [0.00600] d
Epoch = 356.9867 [0.0118] BKJD
Rp/R* = 0.0232 [0.0099]
a/R* = 235.64 [588.57]
b = 0.51 [3.58]
Seff = 4.67 [2.03]
Teq = 375 [41] K
Rp = 3.90 [2.14] Re
a = 1.1339 [0.3181] AU
Ag = 8110.90 [8128.87] [1.00σ]
Teffp = 5500 [1290] K [3.97σ]

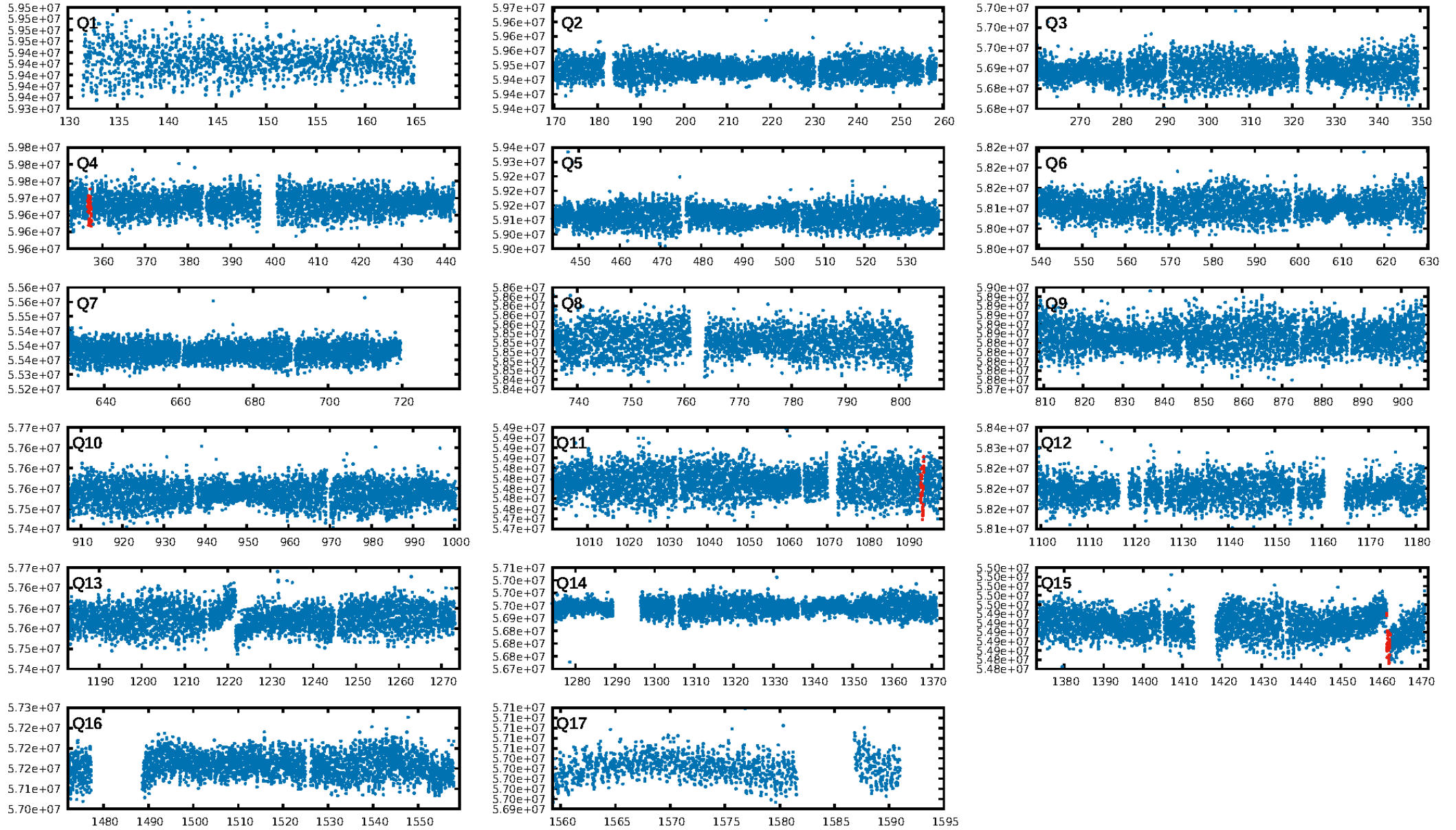
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [812.55σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 15.4%
ModelChiSquareGof-sig: 99.9%
Bootstrap-pfa: 3.41e-13
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -2.385
Centroid-sig: 6.3%
Centroid-so: 1.989 arcsec [1.04σ]
OotOffset-rm: 7.586 arcsec [39.72σ]
KicOffset-rm: 7.915 arcsec [41.49σ]
OotOffset-st: 0/0/1/0 [1]
KicOffset-st: 0/0/1/0 [1]
DiffImageQuality-fgm: 1.00 [1/1]
DiffImageOverlap-fno: 0.00 [0/2]

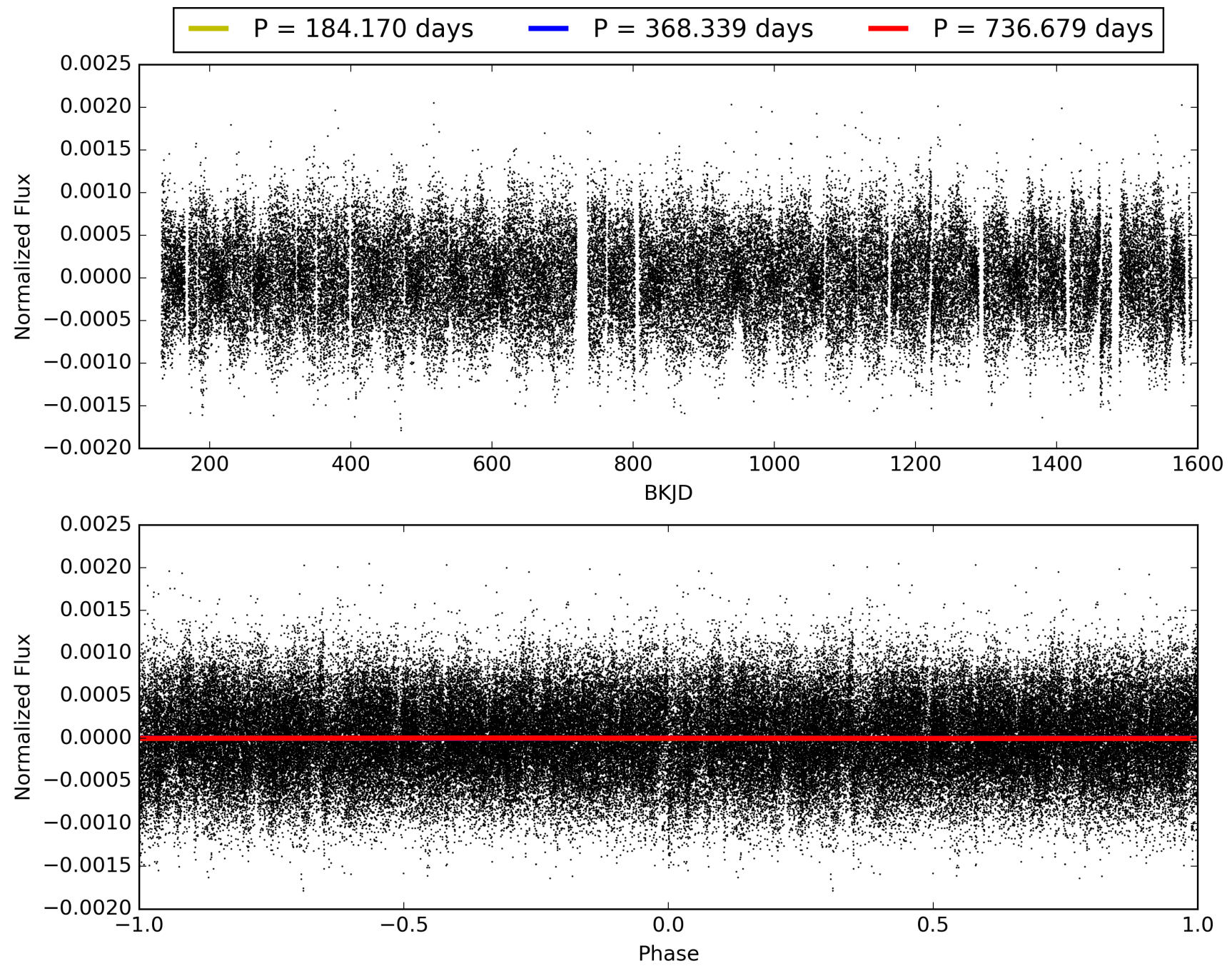
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 04:13:15 Z

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

TCE 008264304-01, PDC Light Curves

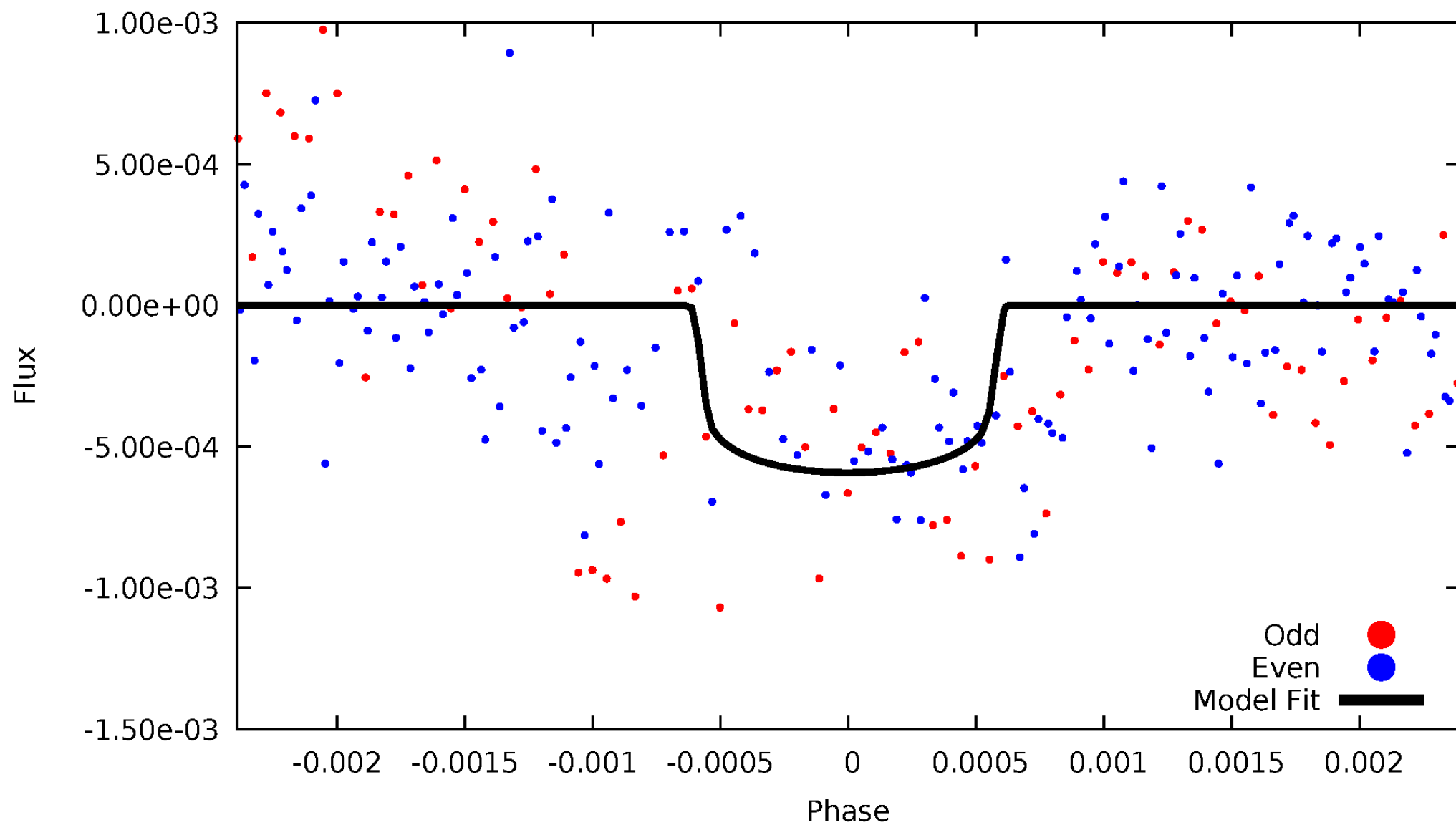


TCE 008264304-01



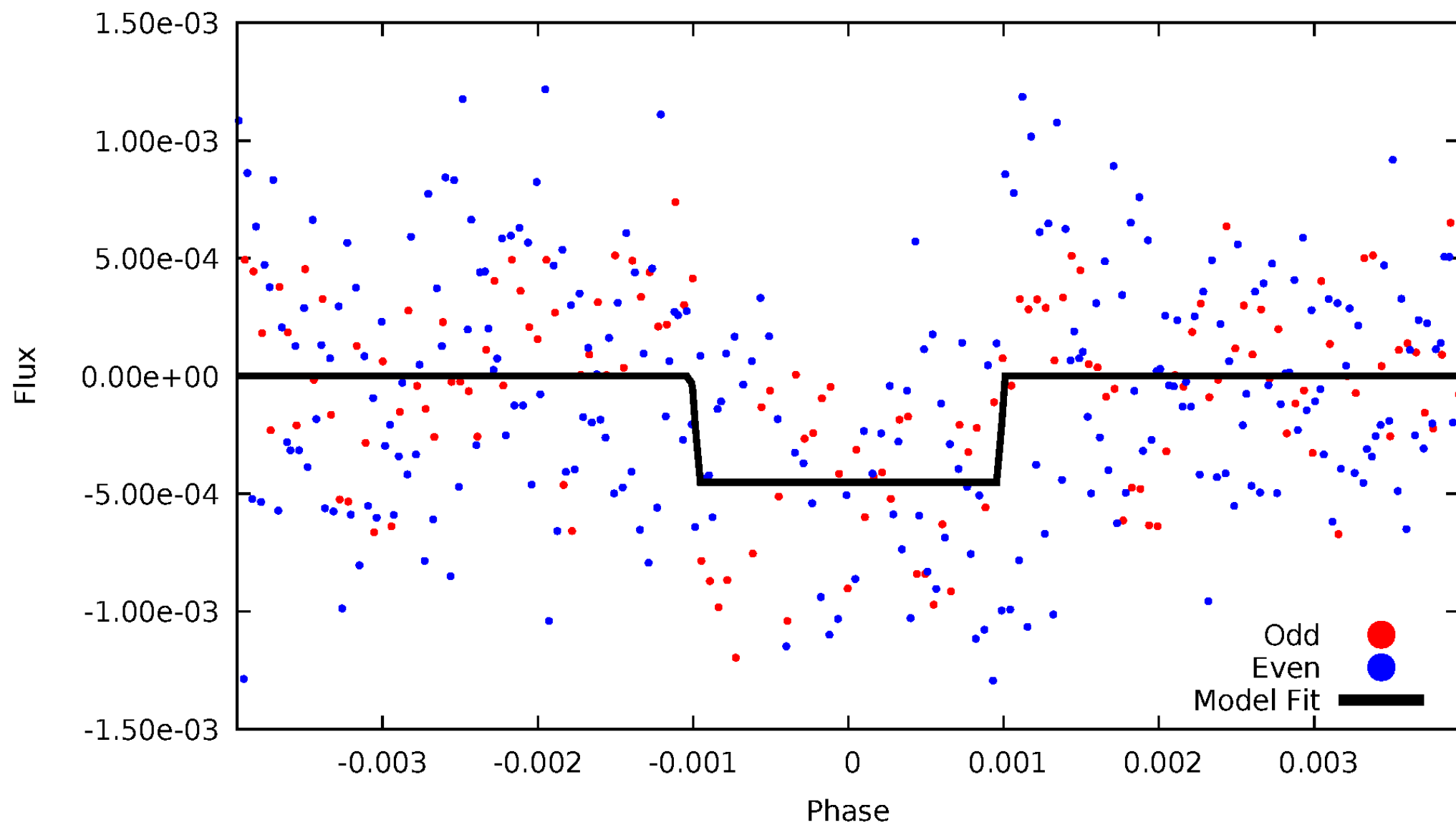
DV Odd/Even

TCE 008264304-01

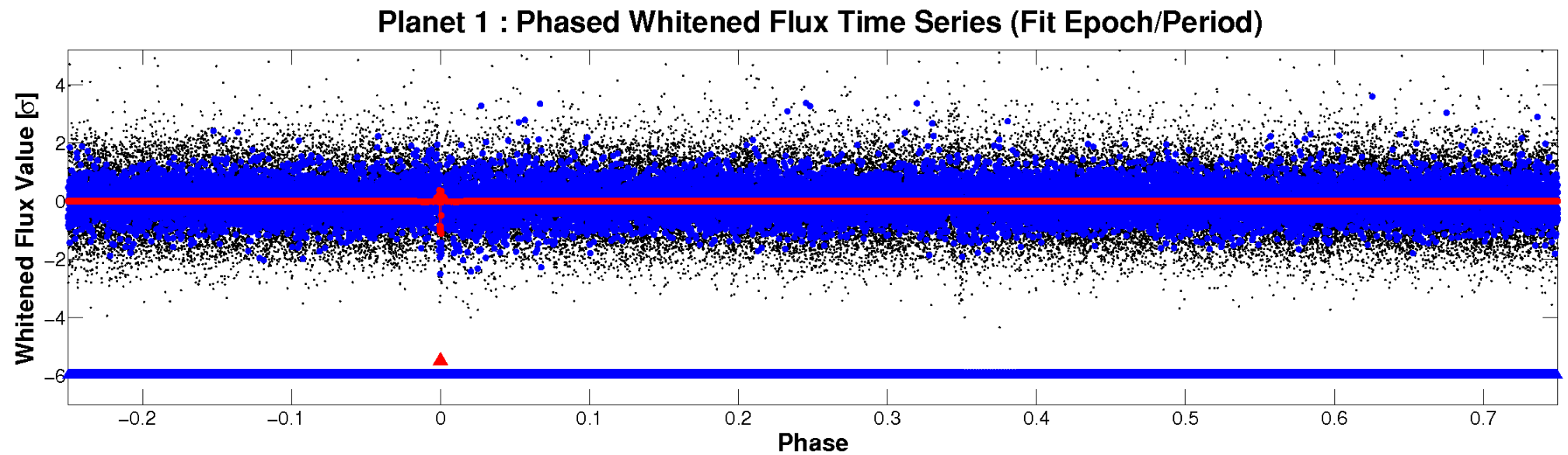
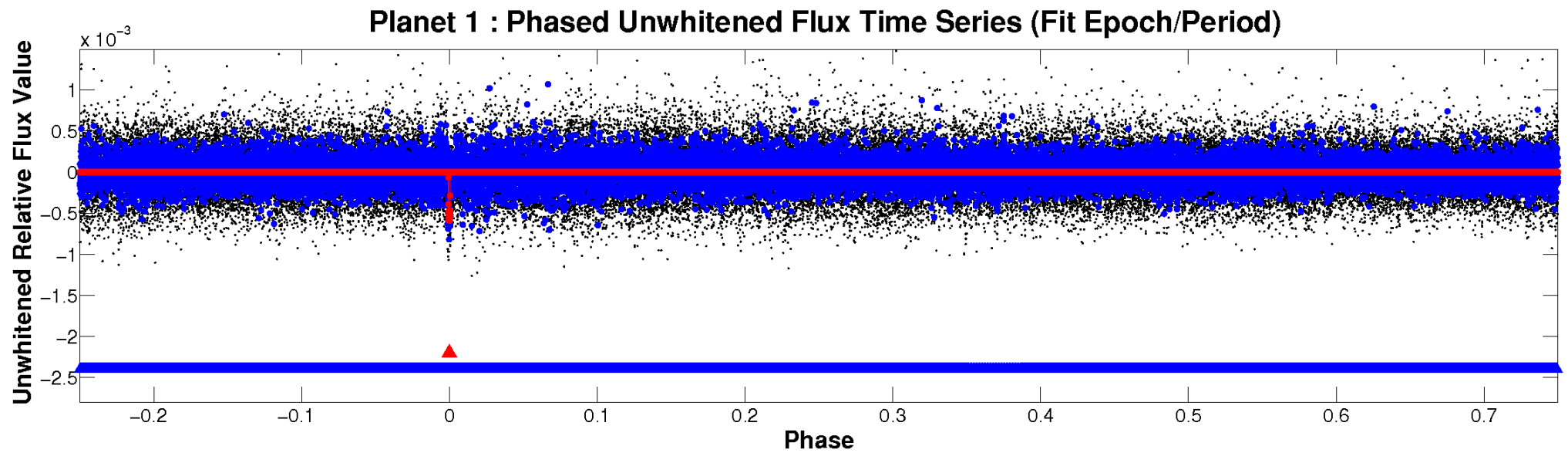


ALT Odd/Even

TCE 008264304-01

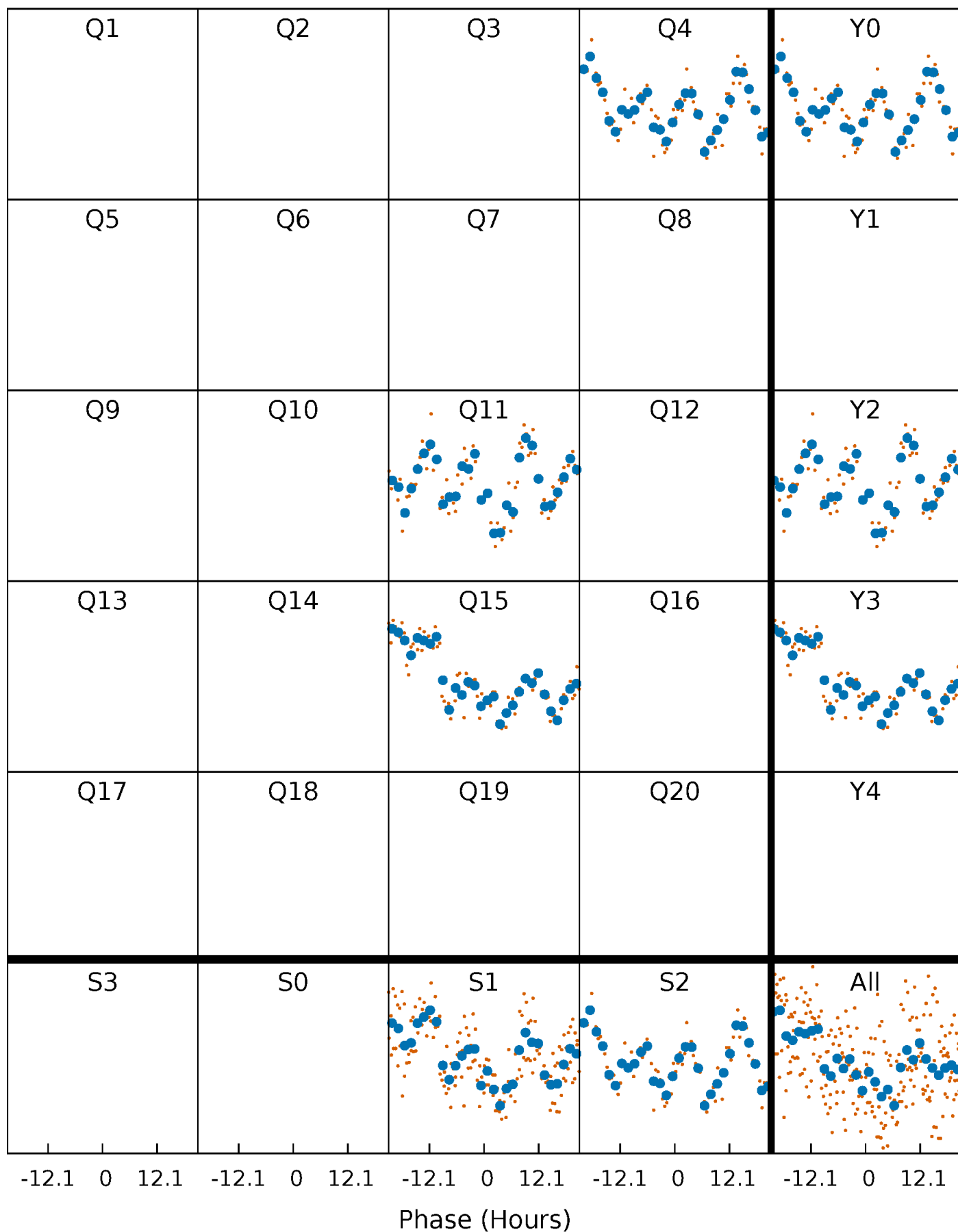


Non-Whitened Vs. Whitened Light Curve



PDC Quarter-Phased Transit Curves

TCE 008264304-01 P=368.339254 Days $T_0=356.986671$ (BKJD)



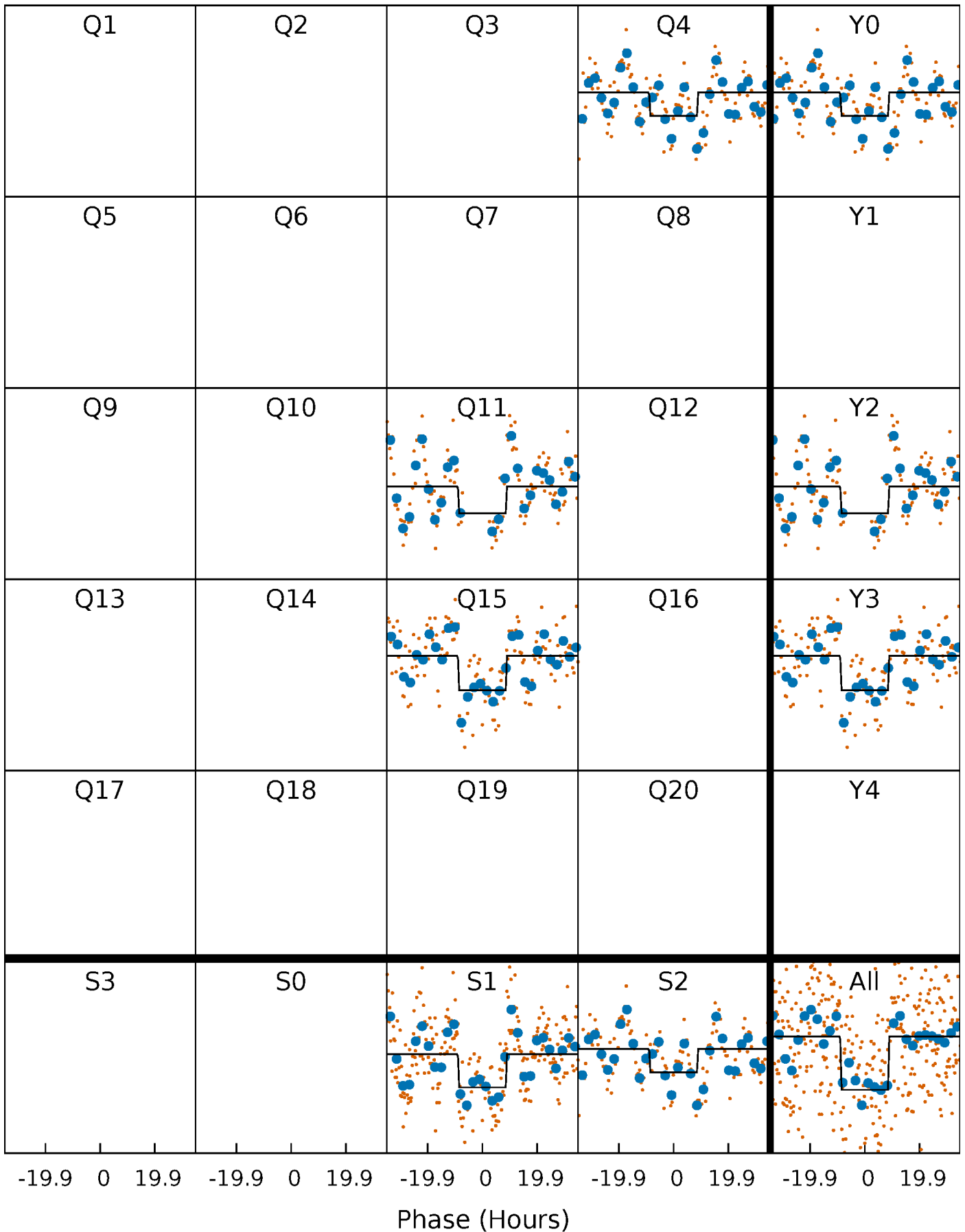
DV Quarter-Phased Transit Curves

TCE 008264304-01 P=368.339254 Days $T_0=356.986671$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

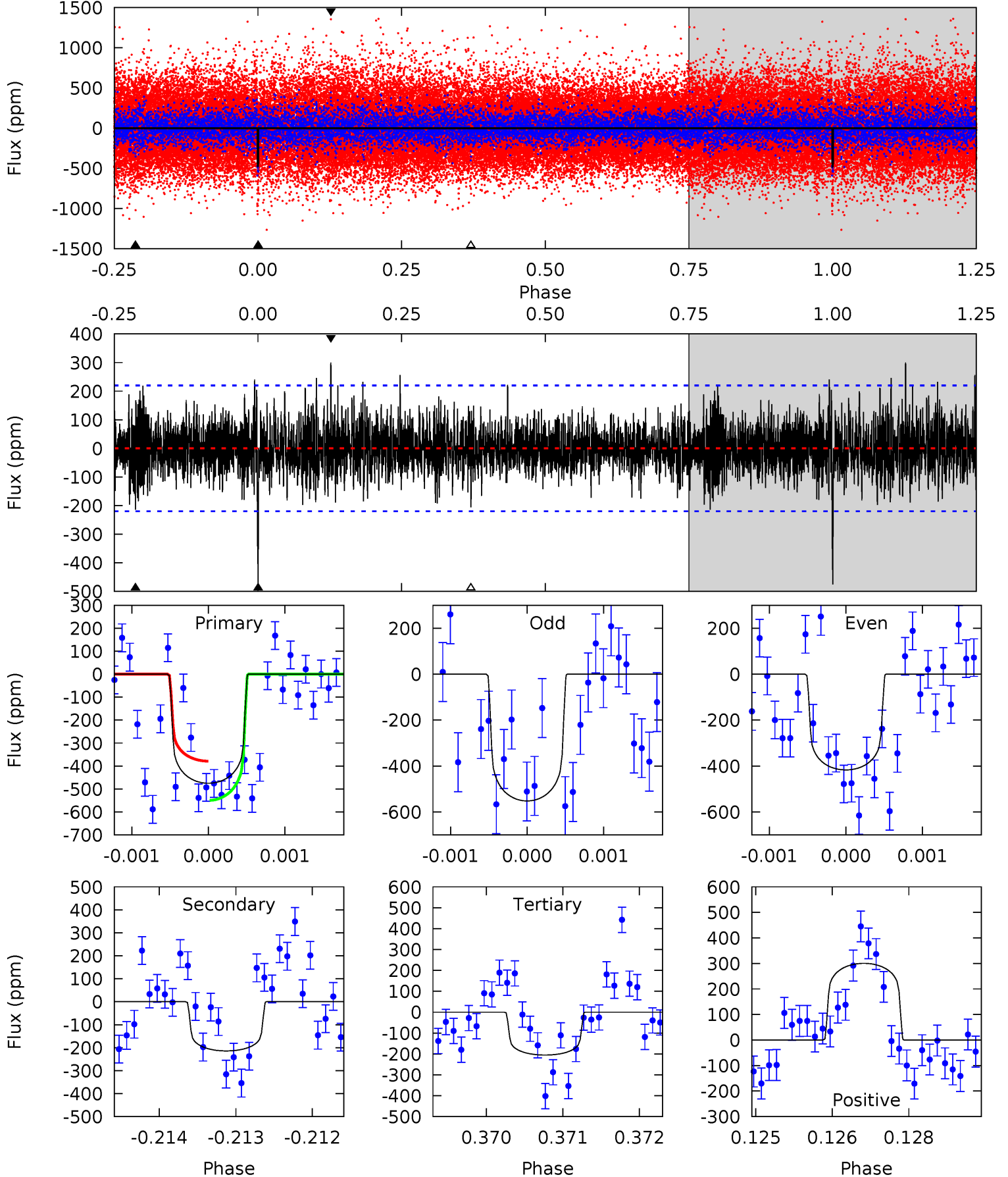
TCE 008264304-01 P=368.342164 Days $T_0=356.937696$ (BKJD)



DV Model-Shift Uniqueness Test

008264304-01, P = 368.339254 Days, E = 356.986671 Days

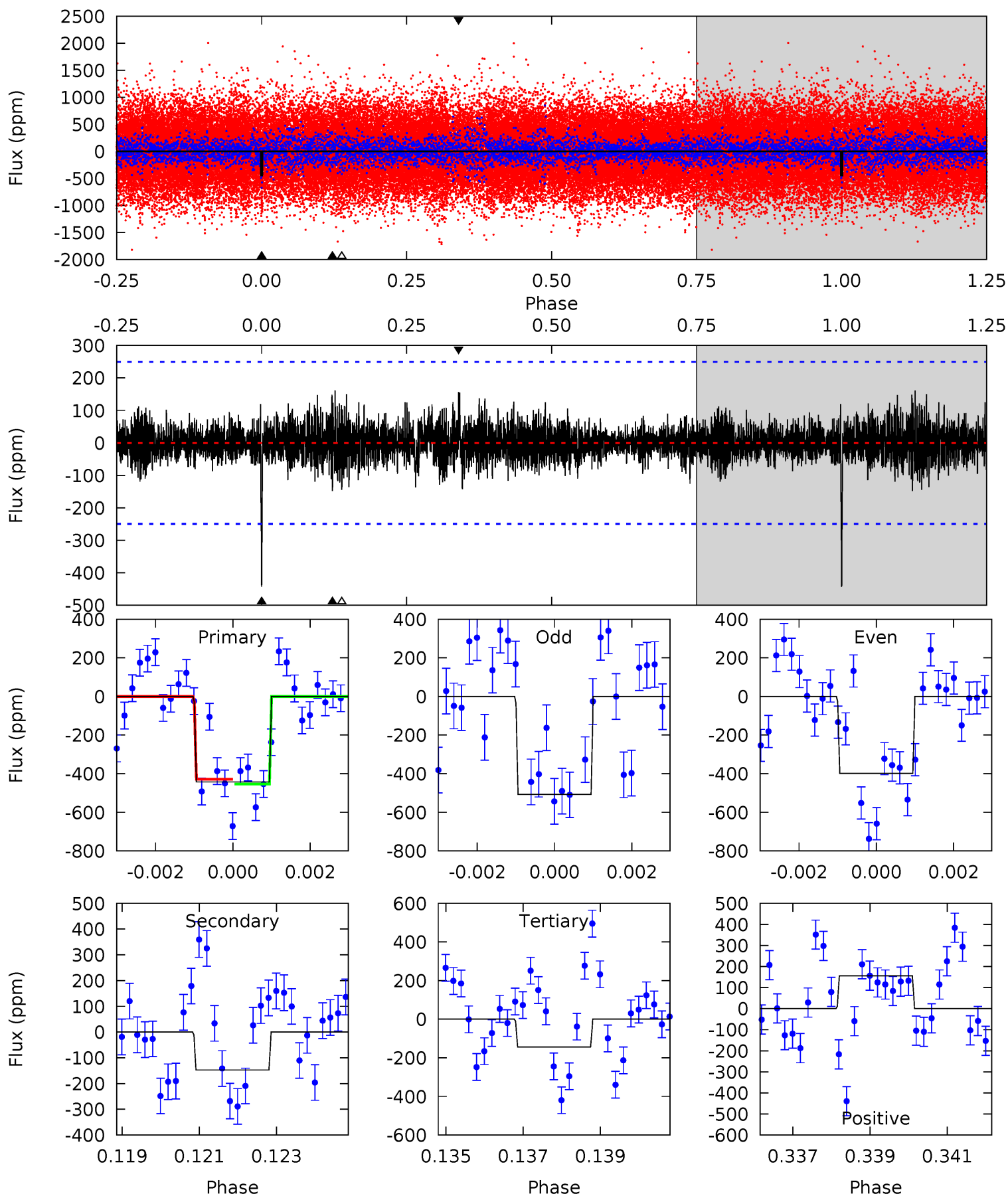
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.7	5.28	5.06	7.40	5.42	3.24	1.58	6.64	4.30	0.22	-2.12	1.66	0.90	0.39	2.09



Alt Model-Shift Uniqueness Test

008264304-01, P = 368.342164 Days, E = 356.937696 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.44	3.14	3.07	3.33	5.32	3.09	0.87	6.37	6.10	0.08	-0.19	1.16	0.90	0.27	0.27



Stellar Parameters For KIC 008264304

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7286^{+228}_{-330}	$4.218^{+0.105}_{-0.210}$	$-0.160^{+0.250}_{-0.350}$	$1.542^{+0.531}_{-0.286}$	$1.434^{+0.219}_{-0.219}$	$0.551^{+0.287}_{-0.298}$
	+3%/-5%	+2%/-5%	+156%/-219%	+34%/-19%	+15%/-15%	+52%/-54%
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 008264304-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-214 ± 41	$4.04^{+1.87}_{-1.70}$	533^{+44}_{-36}	5728^{+1863}_{-910}	9249^{+17843}_{-5226}
Alt.	-147 ± 47	$3.62^{+1.88}_{-1.59}$	530^{+41}_{-34}	5510^{+1837}_{-958}	7966^{+15739}_{-4857}

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 $A_{obs} \gg 1.0$

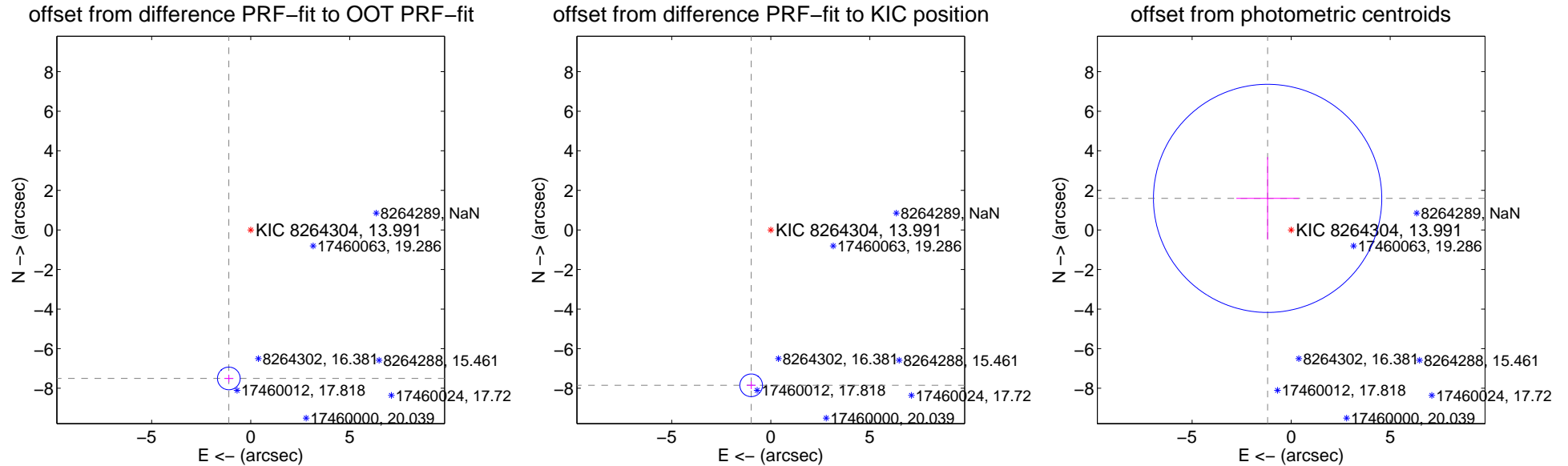
DV Centroid Data

Supplemental centroid analysis for 008264304-01. Kepler magnitude: 13.99. Transit SNR 6.71

There are 1 quarters with good PRF difference image offsets

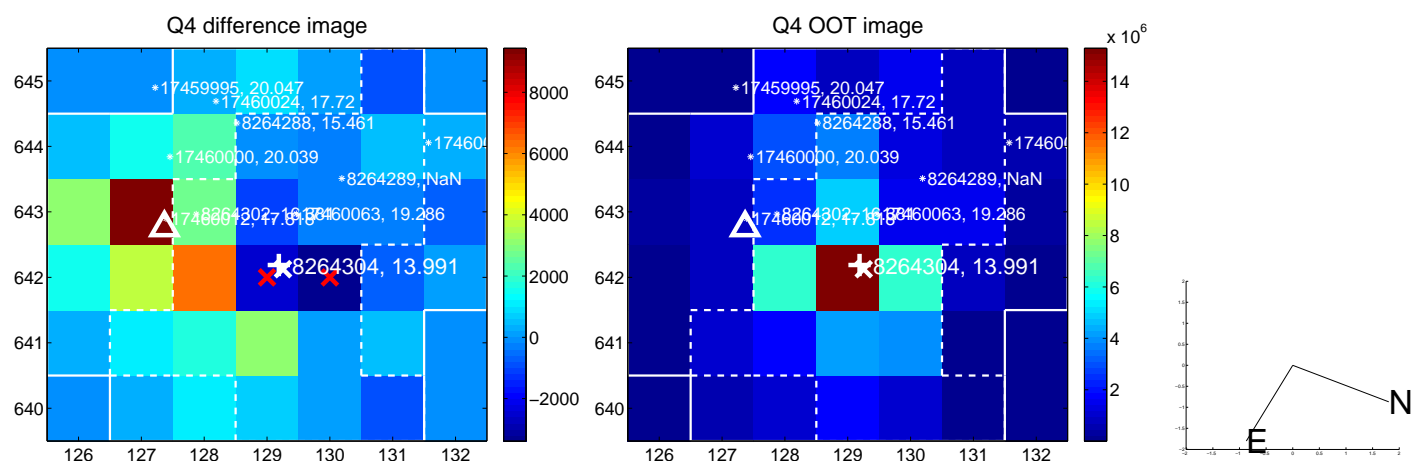
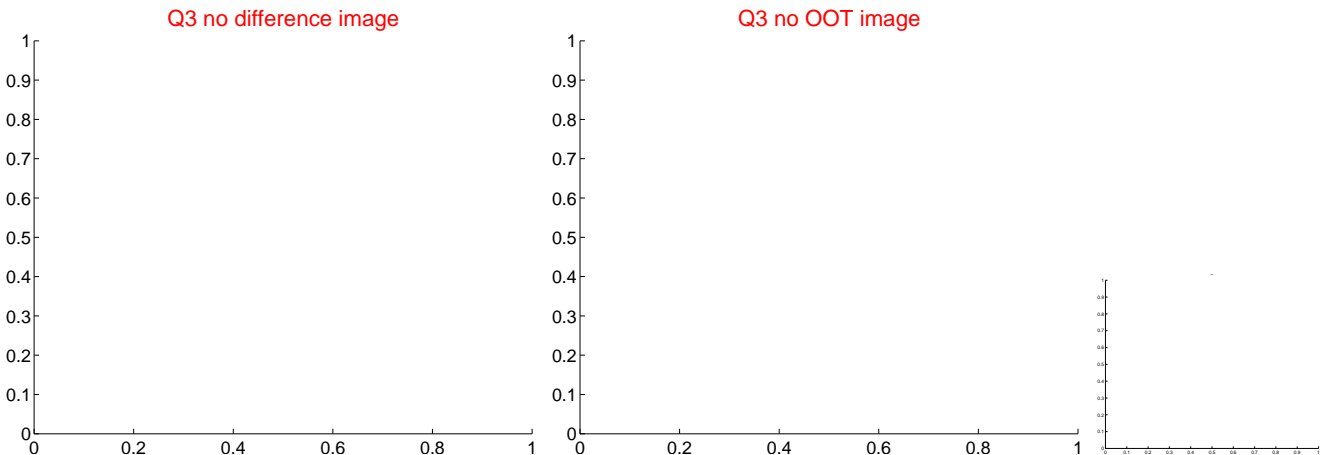
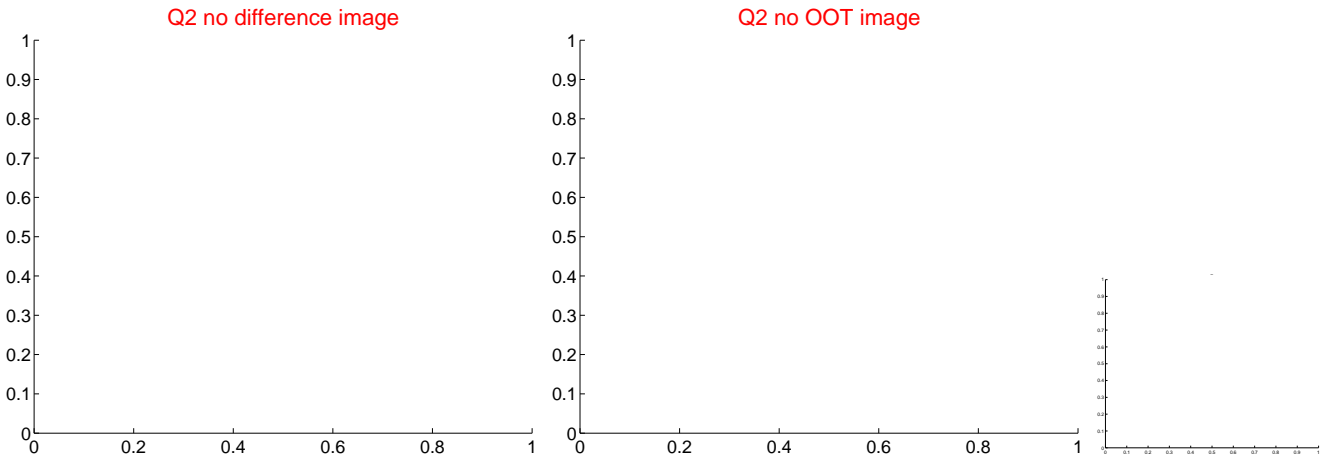
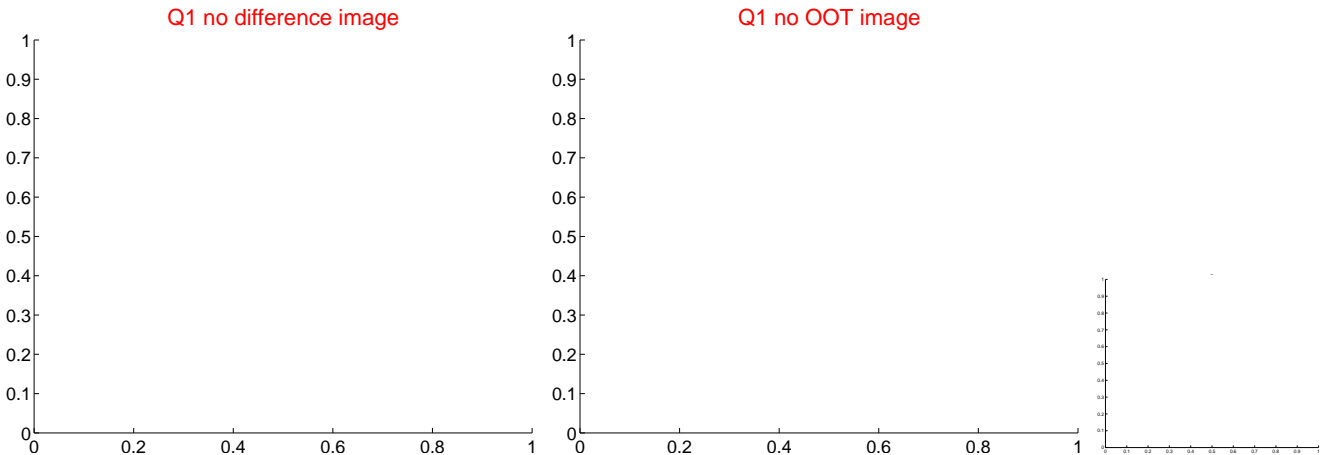
The direct PRF centroid is offset from the target star catalog position by about 0.37 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	7.586 ± 0.191	39.72	1.105 ± 0.227	-7.505 ± 0.190
PRF-fit source offset from KIC position	7.915 ± 0.191	41.49	0.990 ± 0.227	-7.853 ± 0.190
photometric centroid source offset	1.99 ± 1.92	1.04	1.19 ± 1.58	1.59 ± 2.09



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

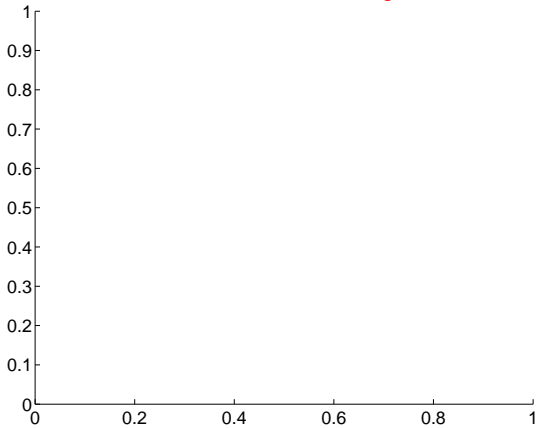
Q13 no difference image



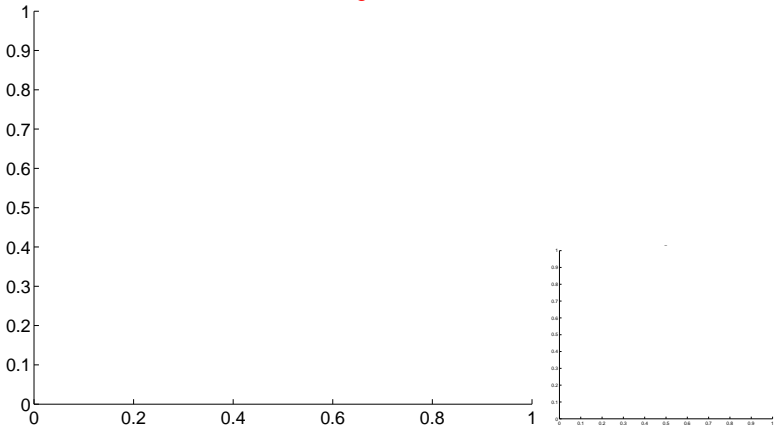
Q13 no OOT image



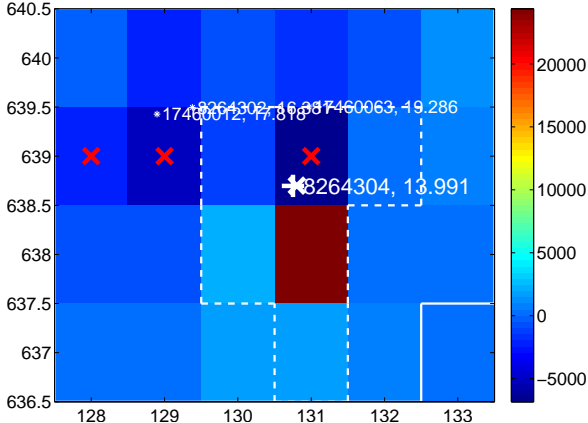
Q14 no difference image



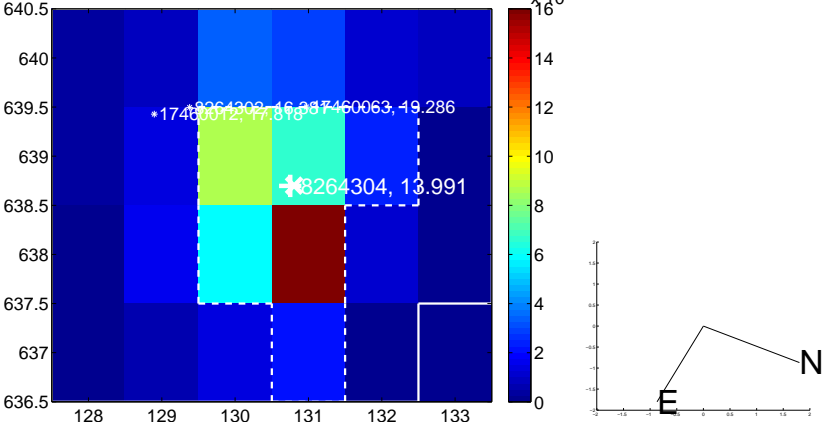
Q14 no OOT image



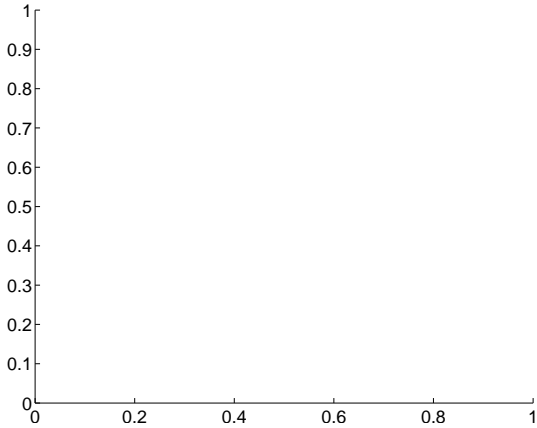
Q15 difference image. Poor Quality



Q15 OOT image



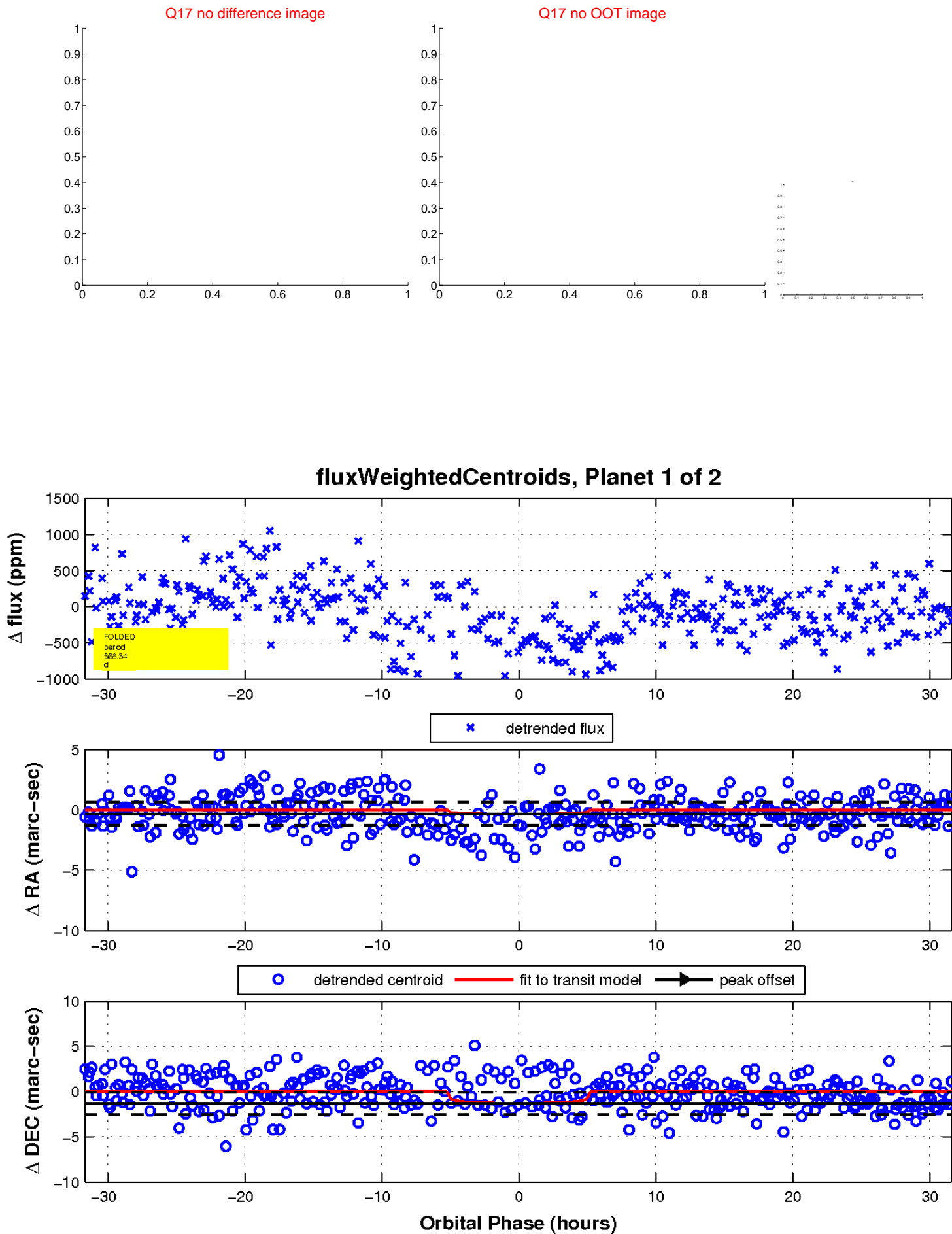
Q16 no difference image



Q16 no OOT image

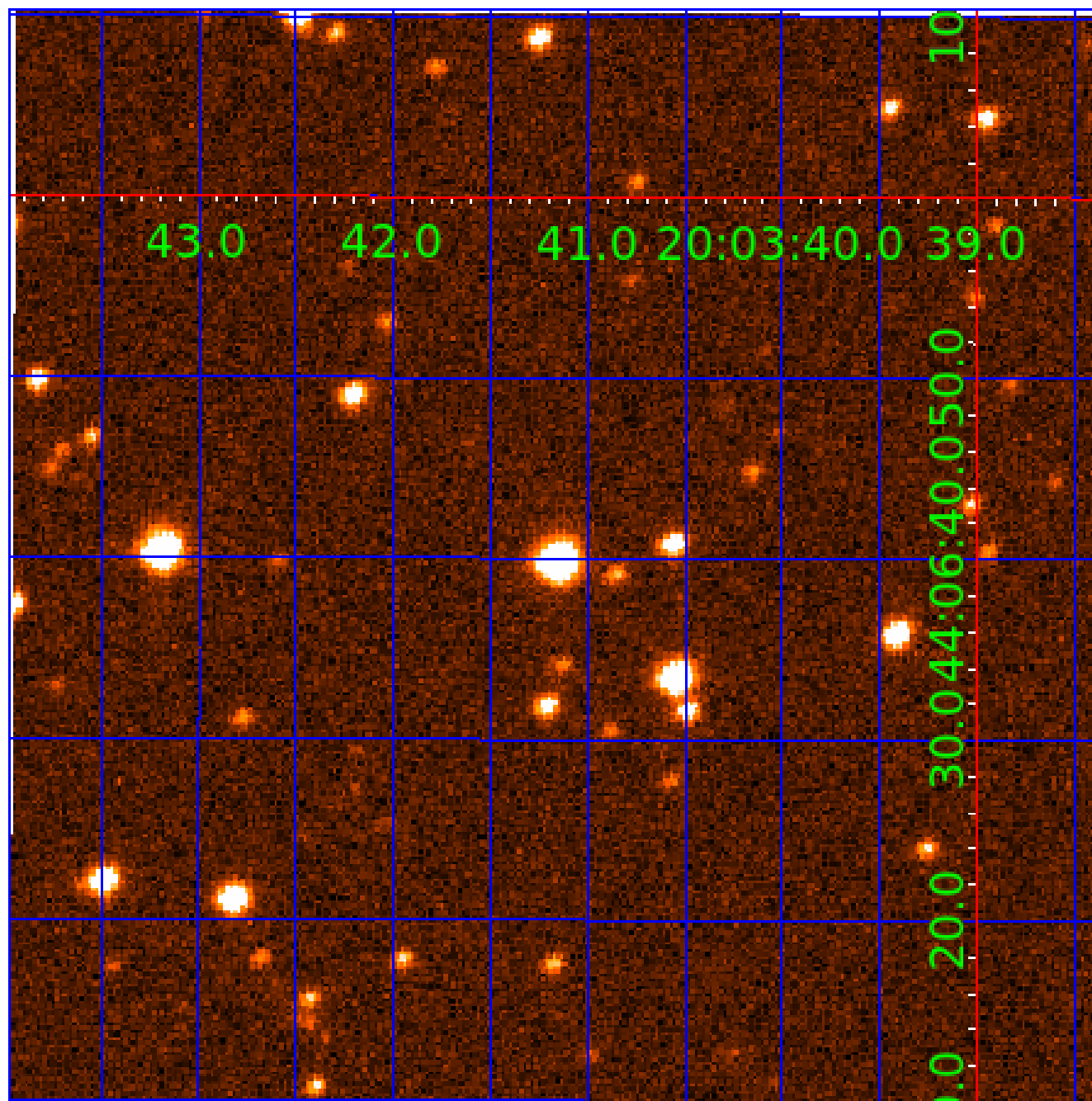


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 008264304

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})
008264304-01	OBS	No	368.339254	356.986671	592.2	10.567	8.3	6.7	1.54	7286	3.90	4.67
008264304-02	OBS	No	0.691326	131.516202	392.0	2.500	8.1	-1.0	1.54	7286	3.10	20168.04

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008264304-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—INCONSISTENT_TRANS—CENT_FEW_DIFFS
008264304-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—CENT_NOFITS

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

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

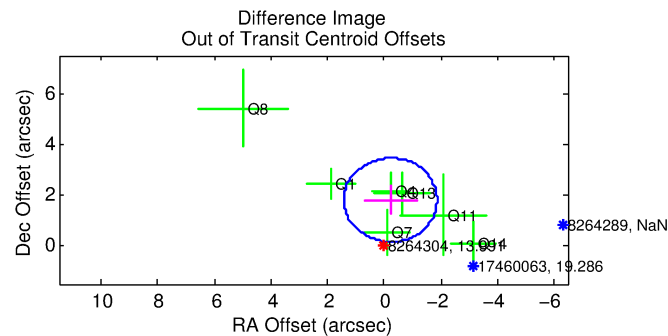
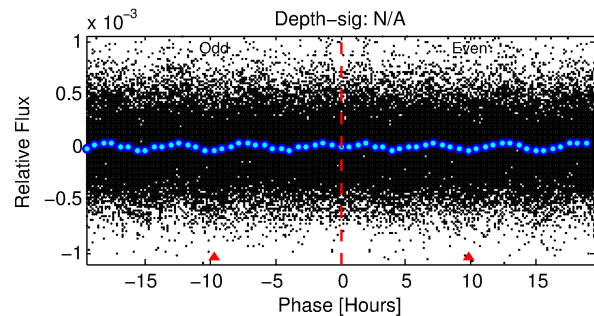
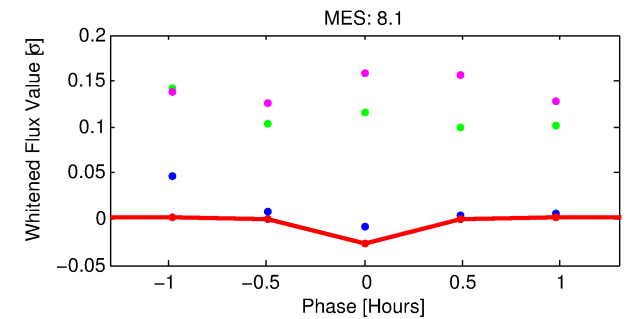
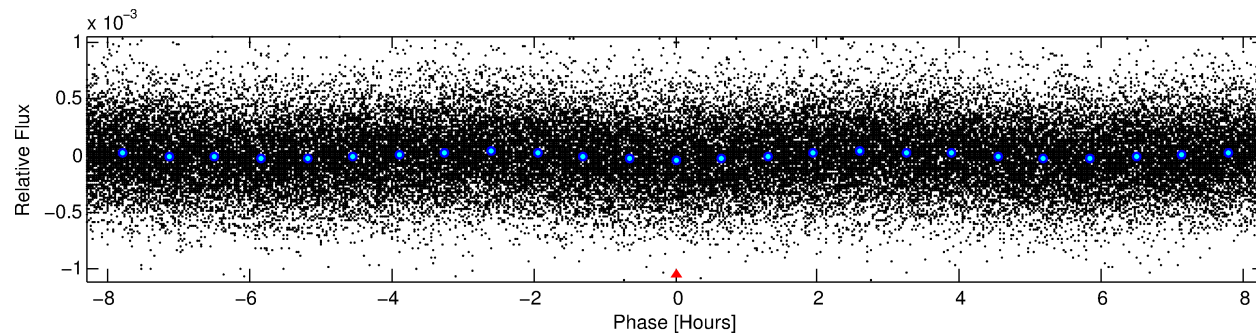
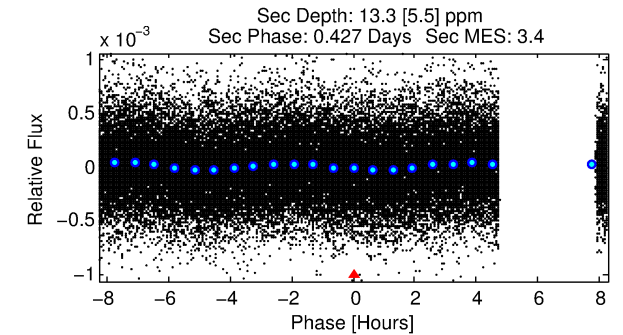
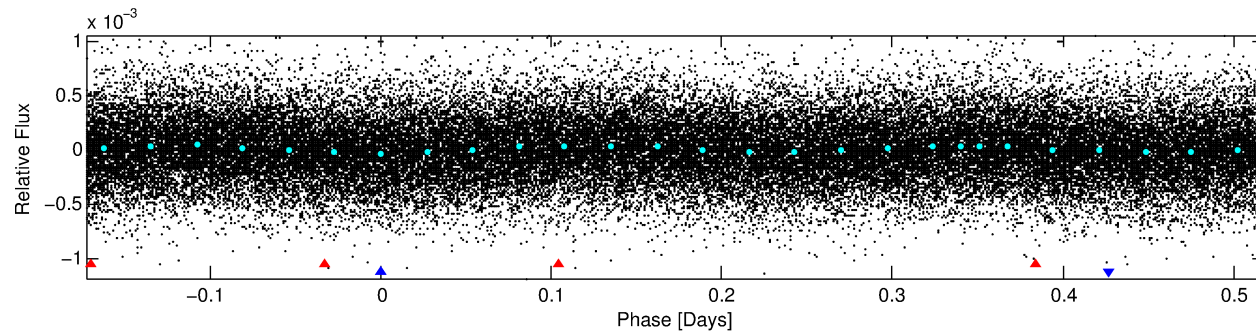
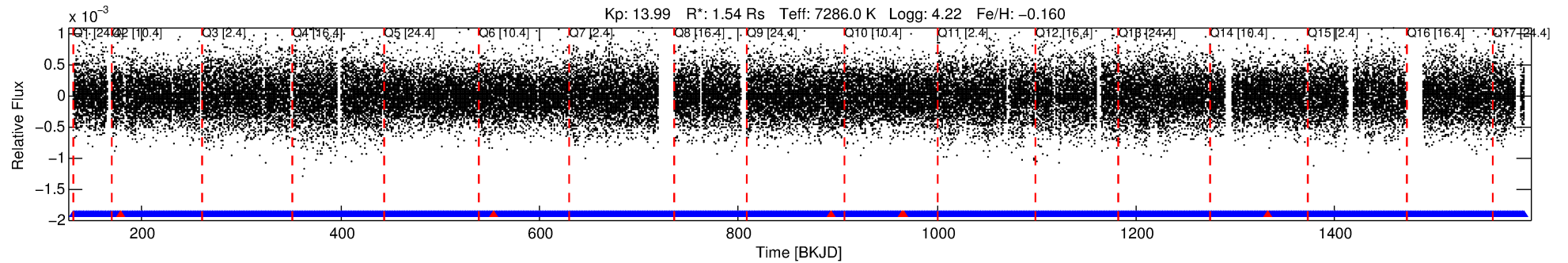
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008264304-02

No Significant Match Found

DV One-Page Summary

KIC: 8264304 Candidate: 2 of 2 Period: 0.691 d



TPS TCE Results:

Period = 0.69133 d
Epoch = 131.5162 BKJD

DV fit results are unavailable

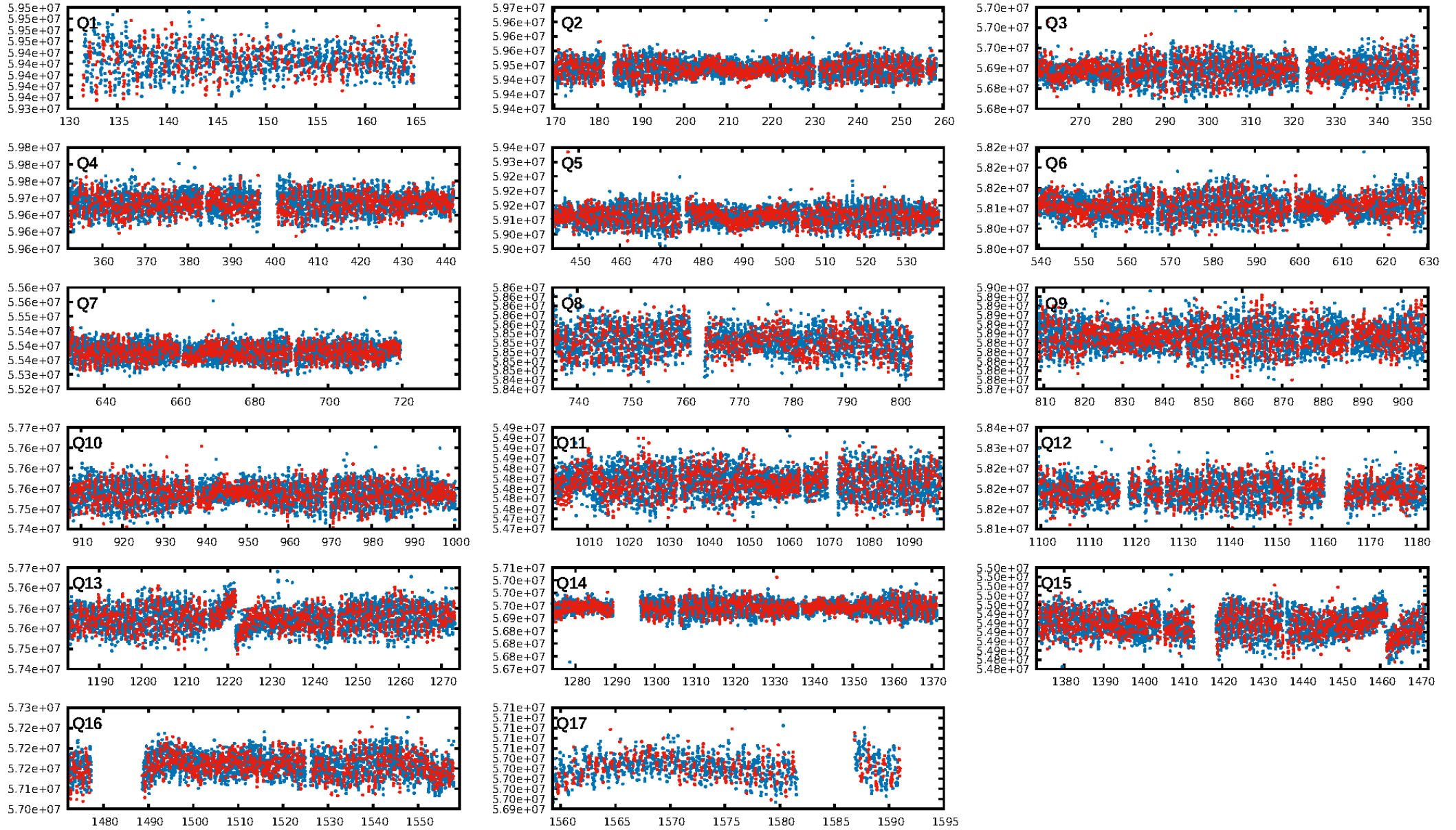
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [812.55σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.79e-13
RollingBand-fgt: 1.00 [1841/1847]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OOTOffset-rm: 1.824 arcsec [3.32σ]
KicOffset-rm: 1.626 arcsec [2.94σ]
OOTOffset-st: 1/2/2/2 [7]
KicOffset-st: 1/2/2/2 [7]
DiffImageQuality-fgm: 0.43 [3/7]
DiffImageOverlap-fno: 1.00 [17/17]

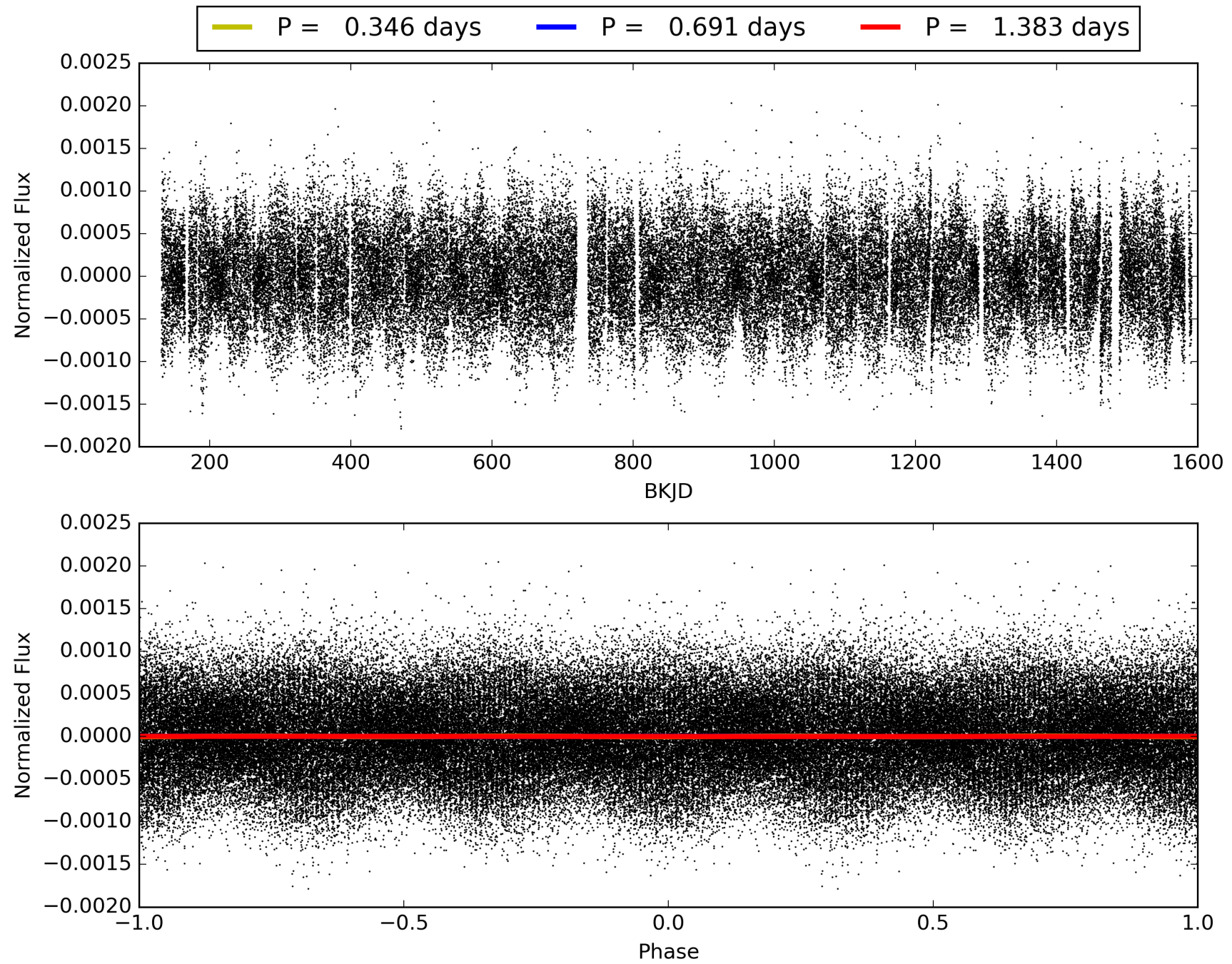
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 04:13:23 Z

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

TCE 008264304-02, PDC Light Curves

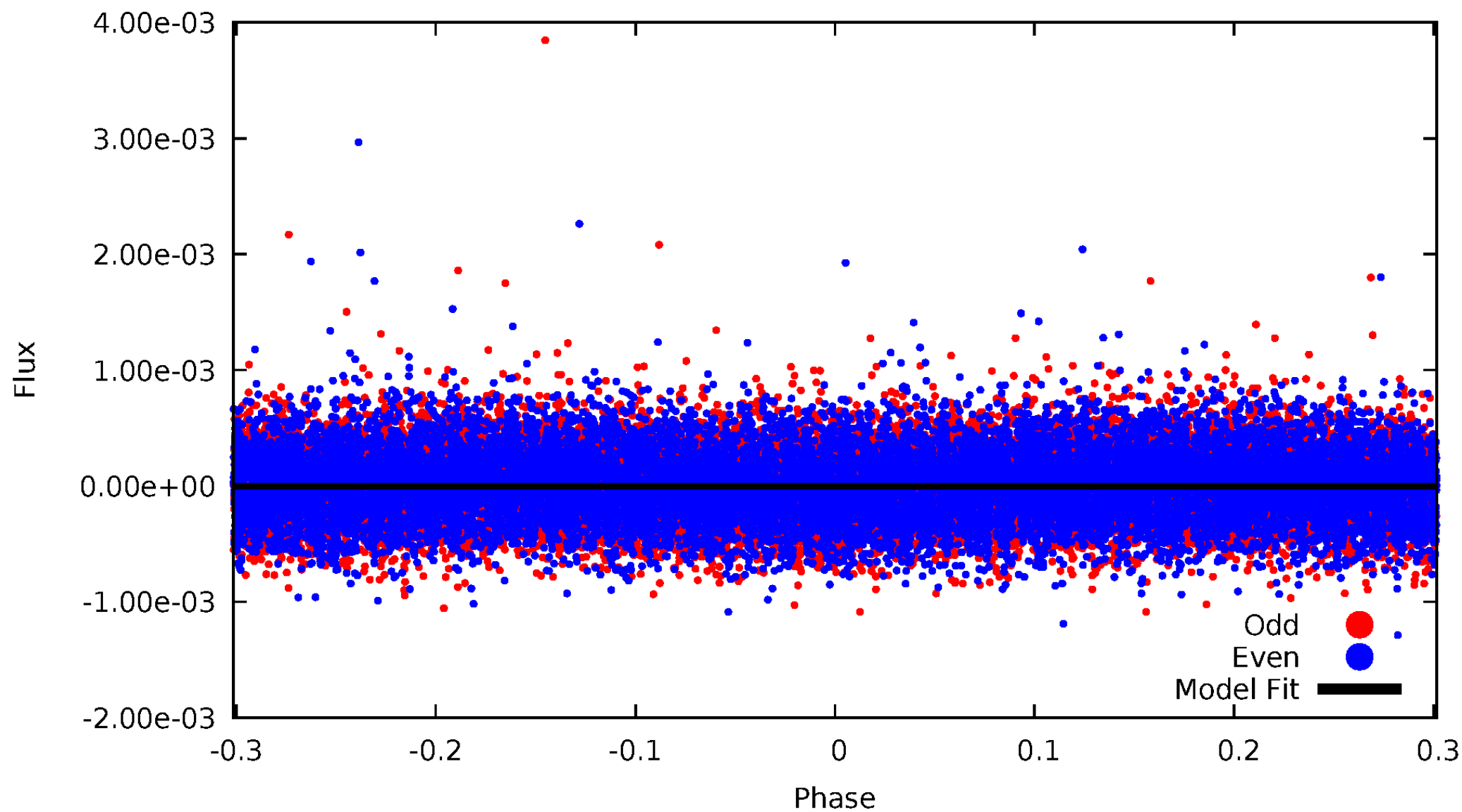


TCE 008264304-02



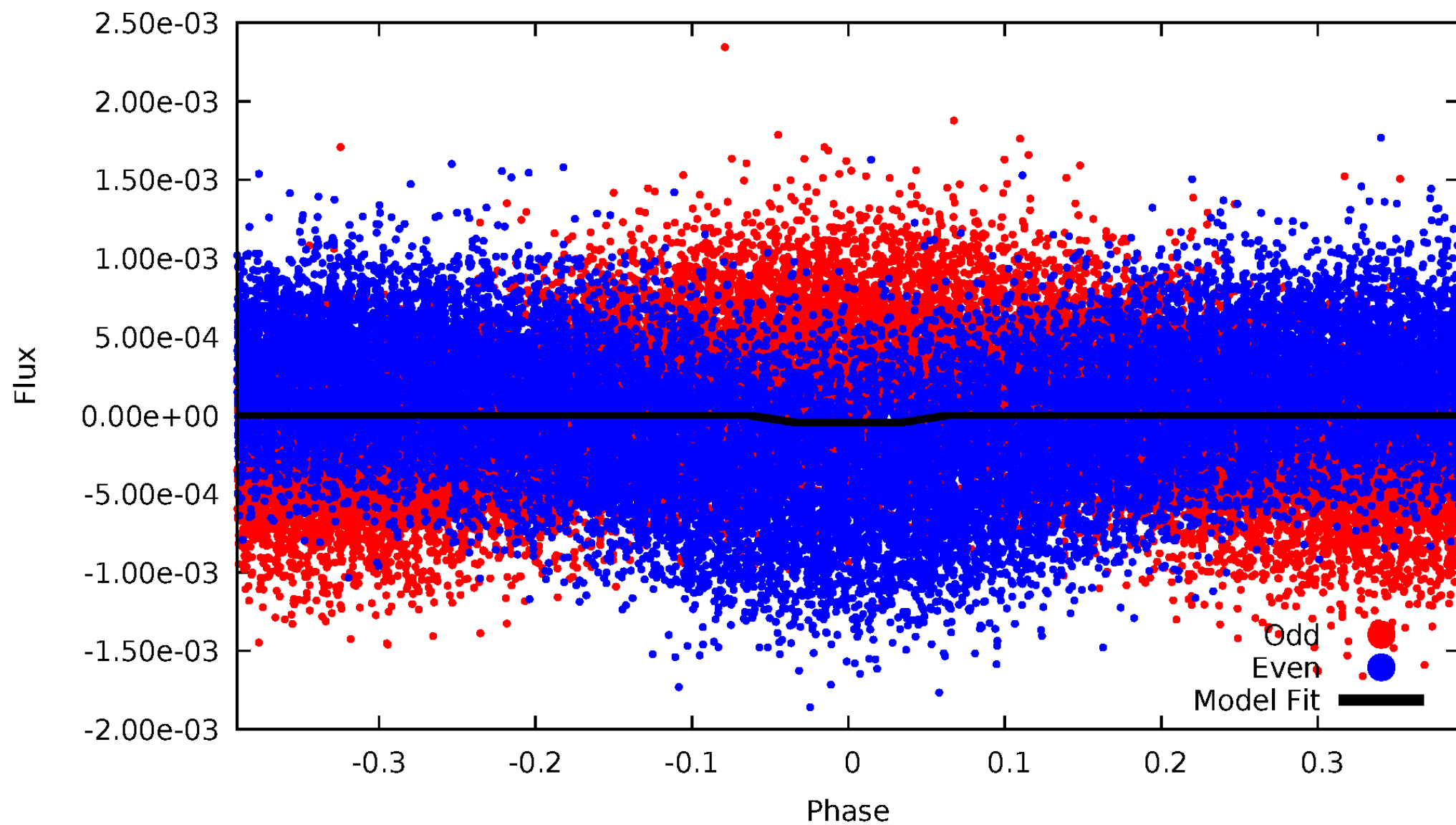
DV Odd/Even

TCE 008264304-02



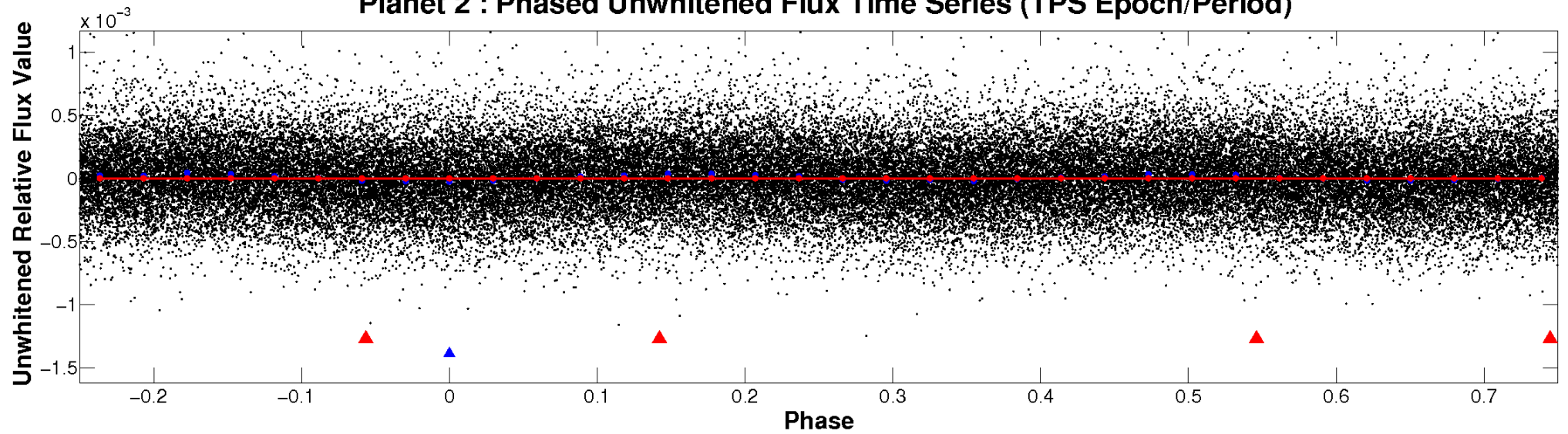
ALT Odd/Even

TCE 008264304-02

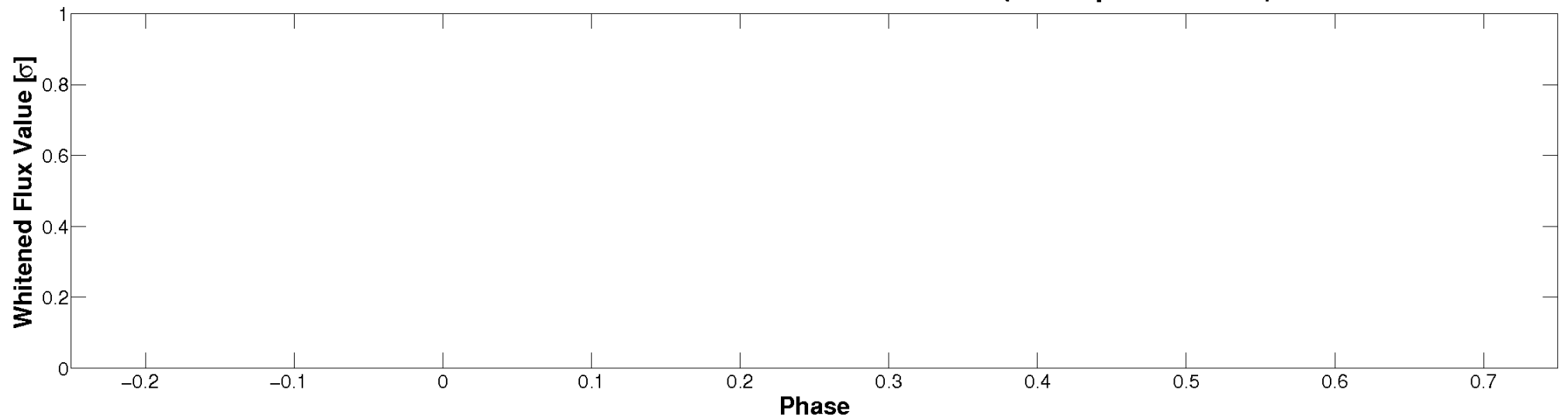


Non-Whitened Vs. Whitened Light Curve

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

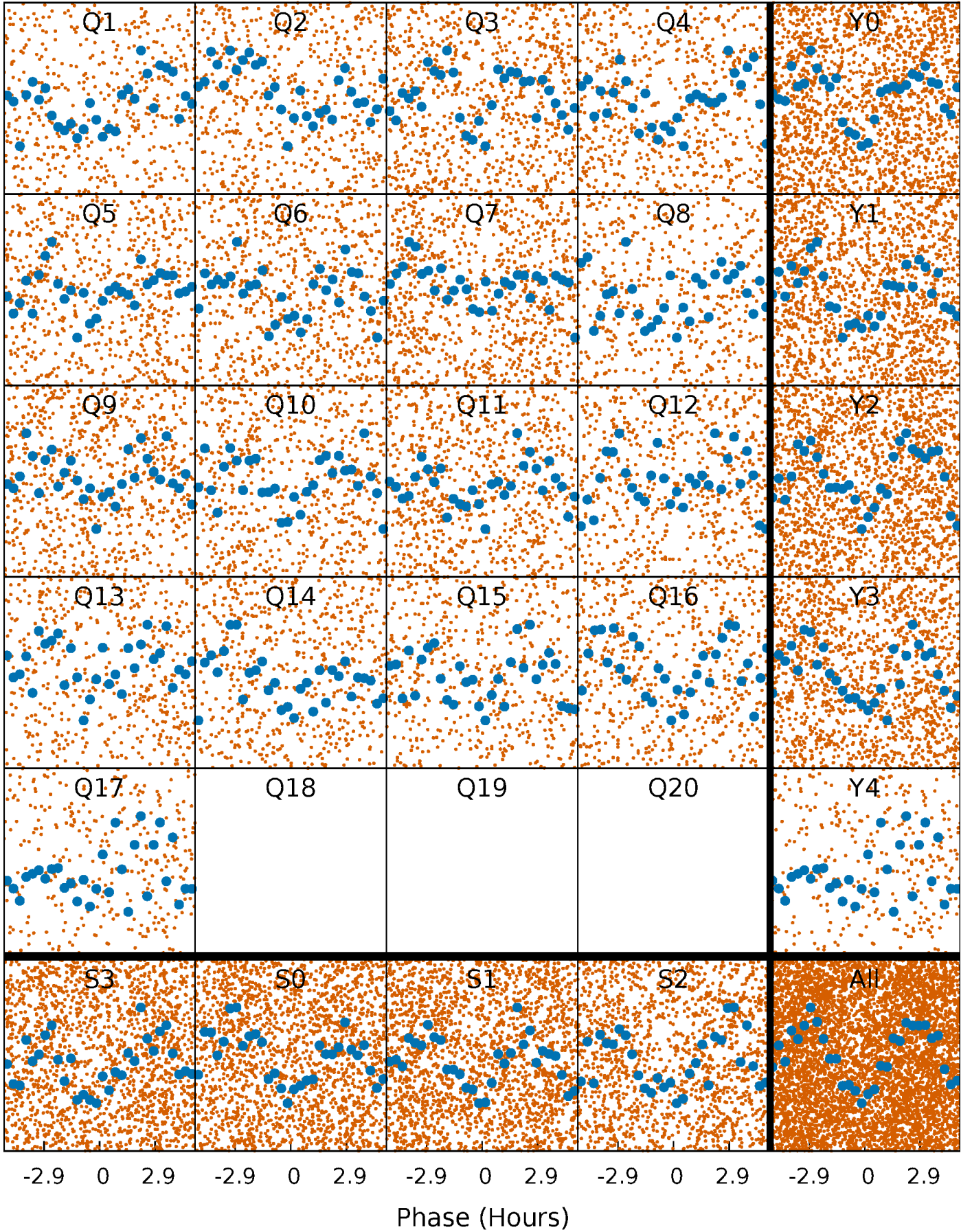


Planet 2 : Phased Whitened Flux Time Series (TPS Epoch/Period)



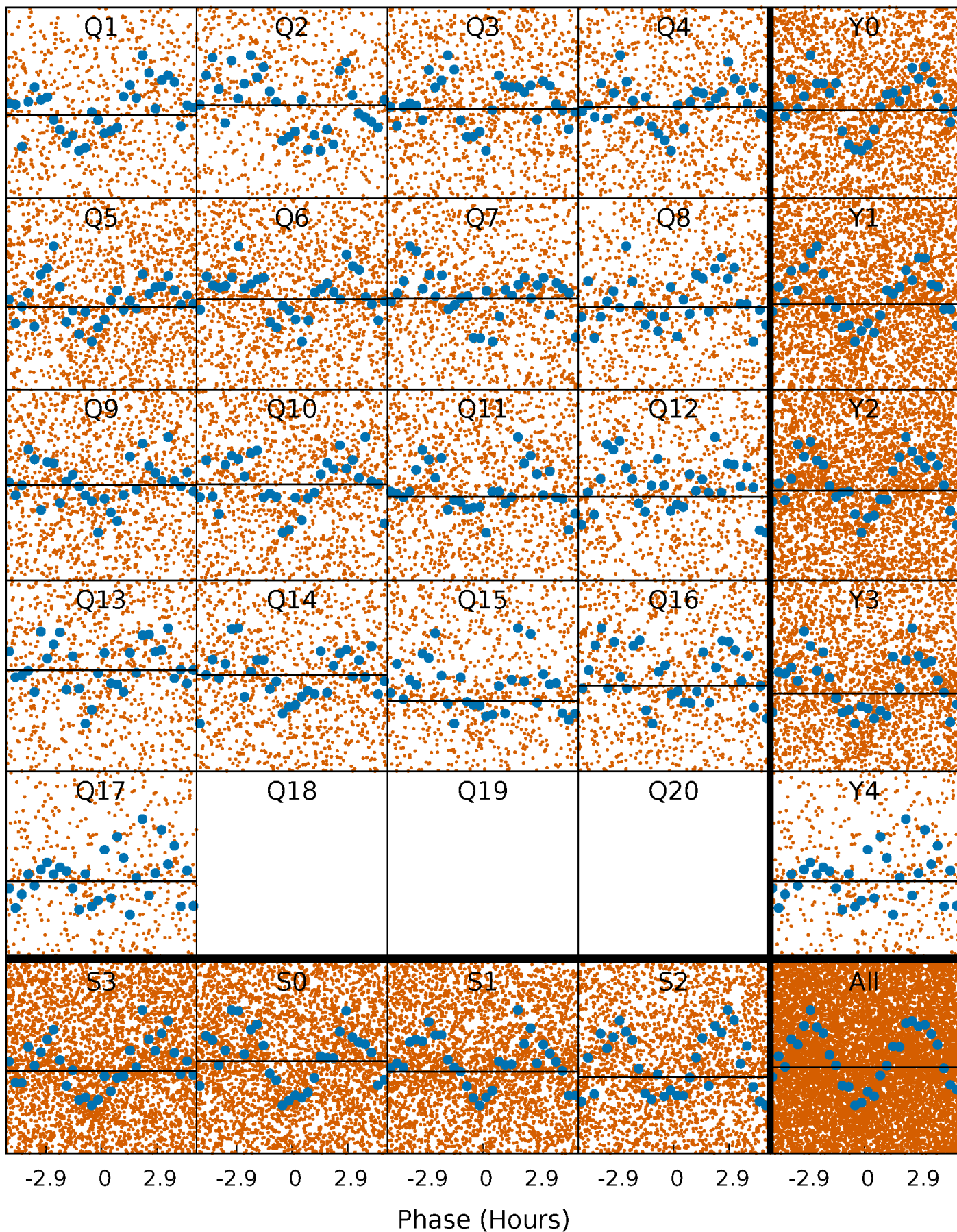
PDC Quarter-Phased Transit Curves

TCE 008264304-02 P= 0.691326 Days $T_0=131.516202$ (BKJD)



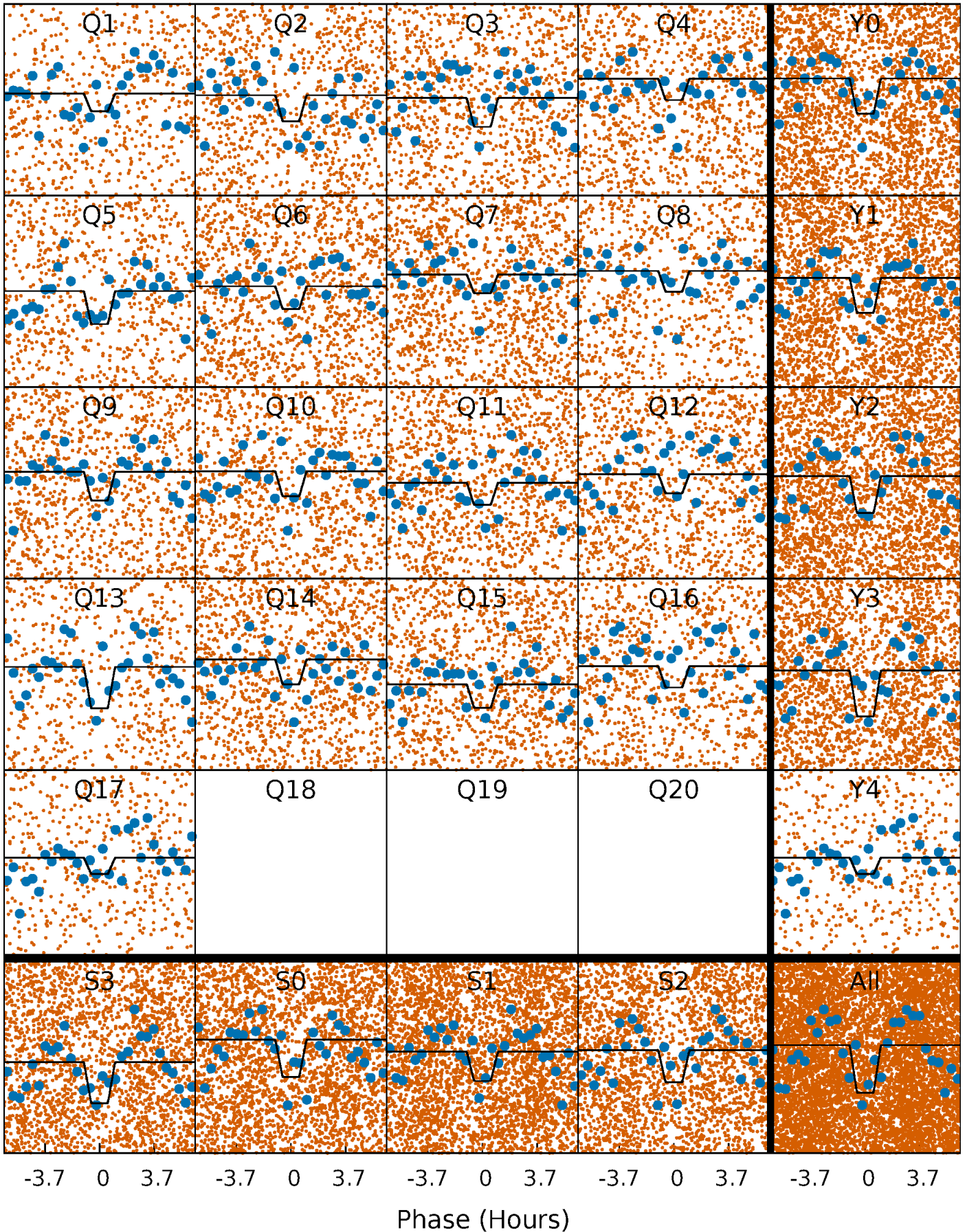
DV Quarter-Phased Transit Curves

TCE 008264304-02 P= 0.691326 Days $T_0=131.516202$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

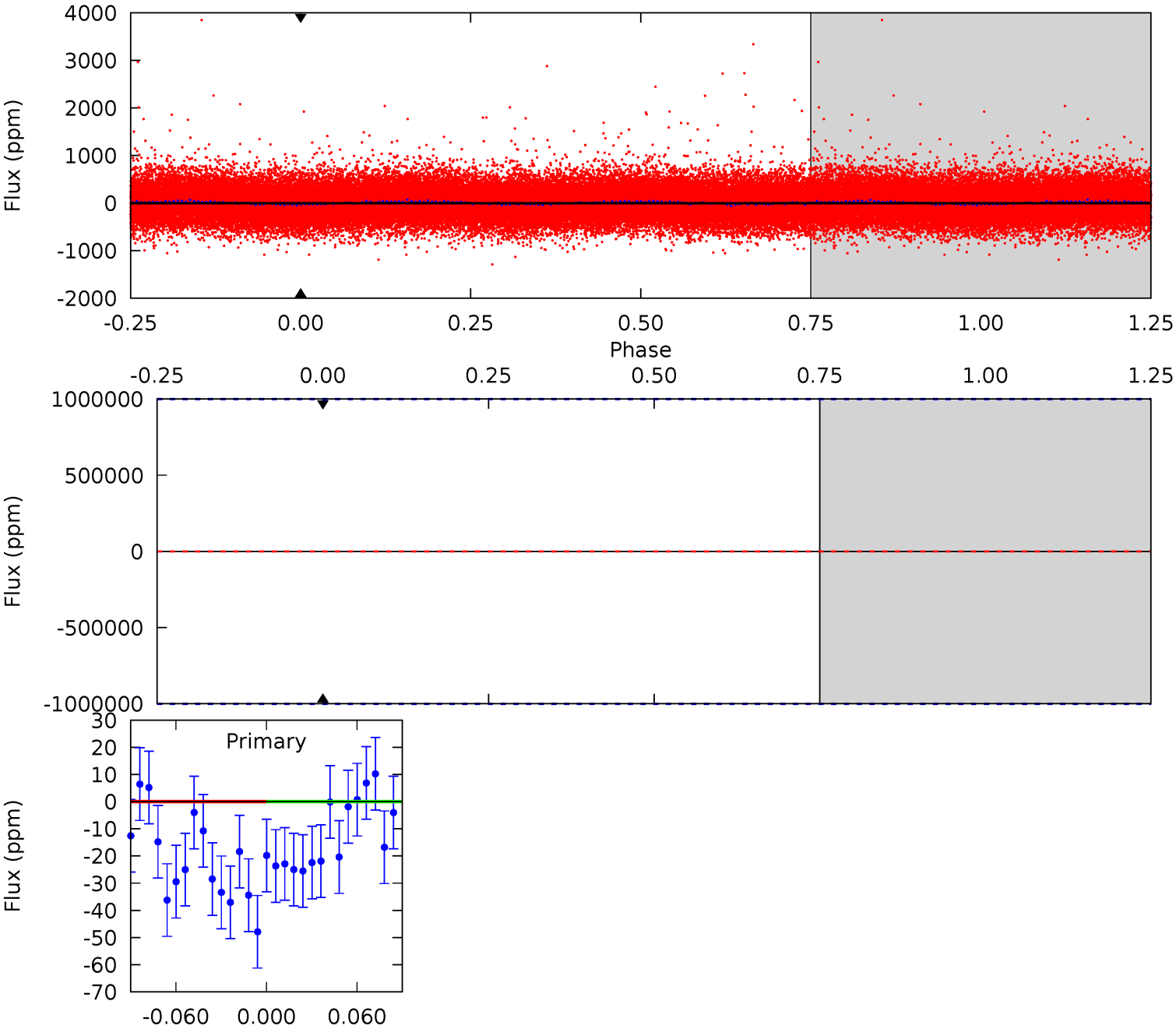
TCE 008264304-02 P= 0.691326 Days $T_0=131.509774$ (BKJD)



DV Model-Shift Uniqueness Test

008264304-02, P = 0.691326 Days, E = 130.824876 Days

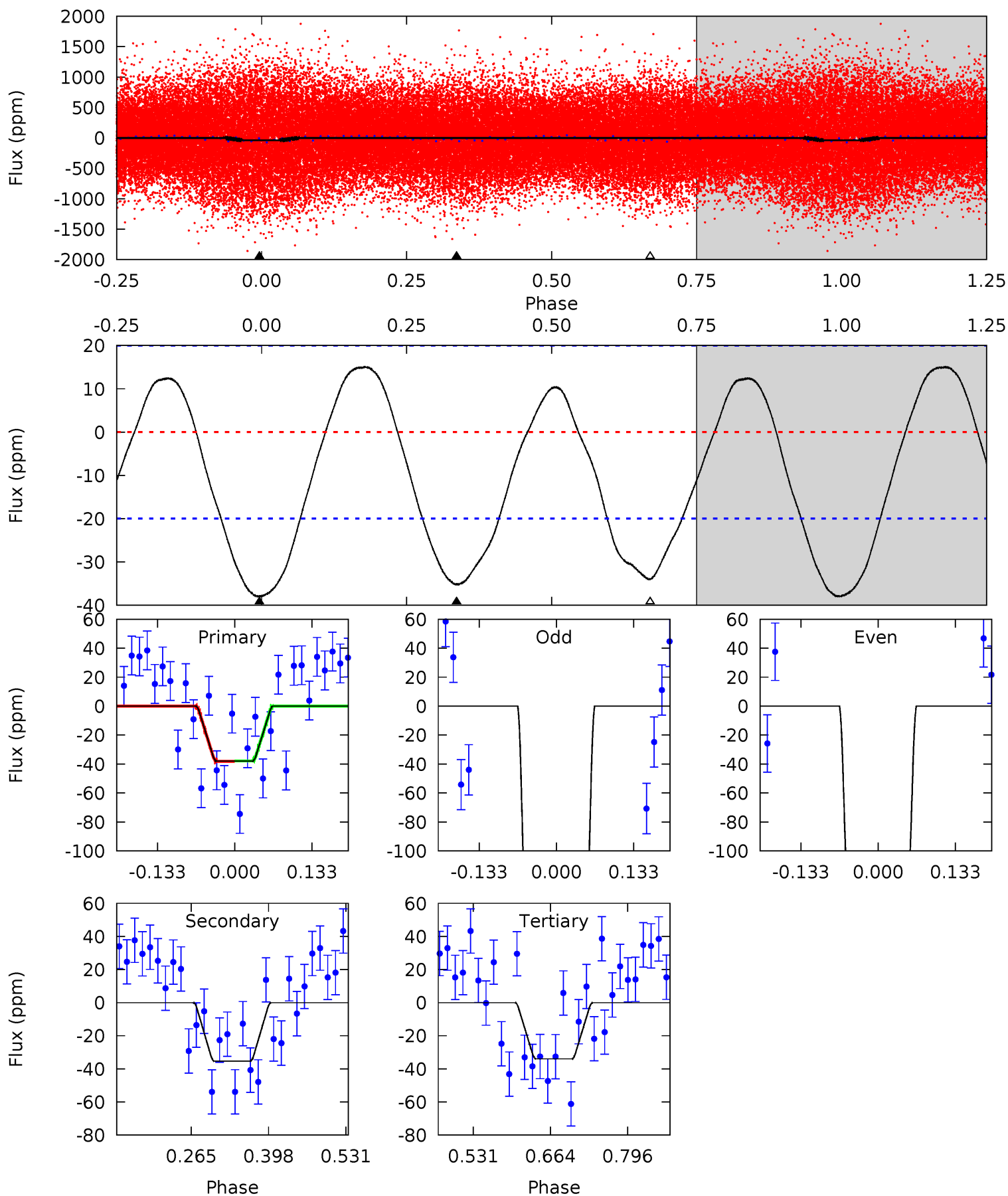
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

008264304-02, P = 0.691326 Days, E = 131.509774 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.58	7.97	7.68	0	4.51	1.50	3.84	0.91	8.58	0.29	7.97	7.84	1.04	0.28	0.04



Stellar Parameters For KIC 008264304

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7286^{+228}_{-330}	$4.218^{+0.105}_{-0.210}$	$-0.160^{+0.250}_{-0.350}$	$1.542^{+0.531}_{-0.286}$	$1.434^{+0.219}_{-0.219}$	$0.551^{+0.287}_{-0.298}$
	+3%/-5%	+2%/-5%	+156%/-219%	+34%/-19%	+15%/-15%	+52%/-54%
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 008264304-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	0 ± 1000000	$12.69^{+12.89}_{-8.97}$	4294^{+375}_{-264}	4180^{+37289}_{-37252}	$0.627^{+194.636}_{-161.915}$
Alt.	-35 ± 4	$12.42^{+13.66}_{-9.01}$	4316^{+380}_{-291}	-3701^{+7277}_{-271}	$0.035^{+0.466}_{-0.027}$

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 $A_{obs} \gg 1.0$

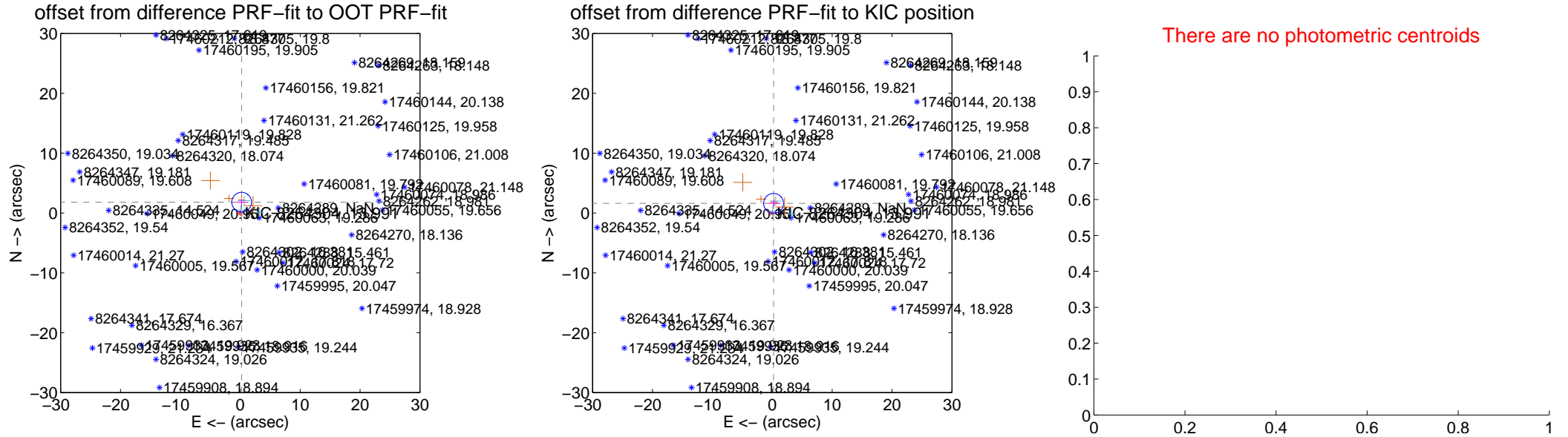
DV Centroid Data

Supplemental centroid analysis for 008264304-02. Kepler magnitude: 13.99. Transit SNR -1.00

There are 3 quarters with good PRF difference image offsets

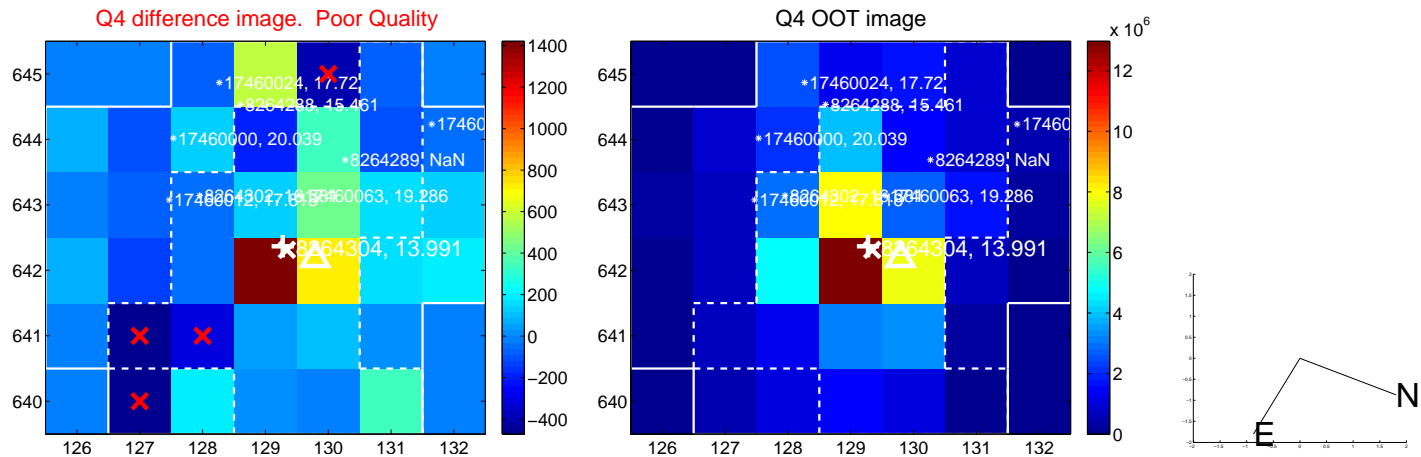
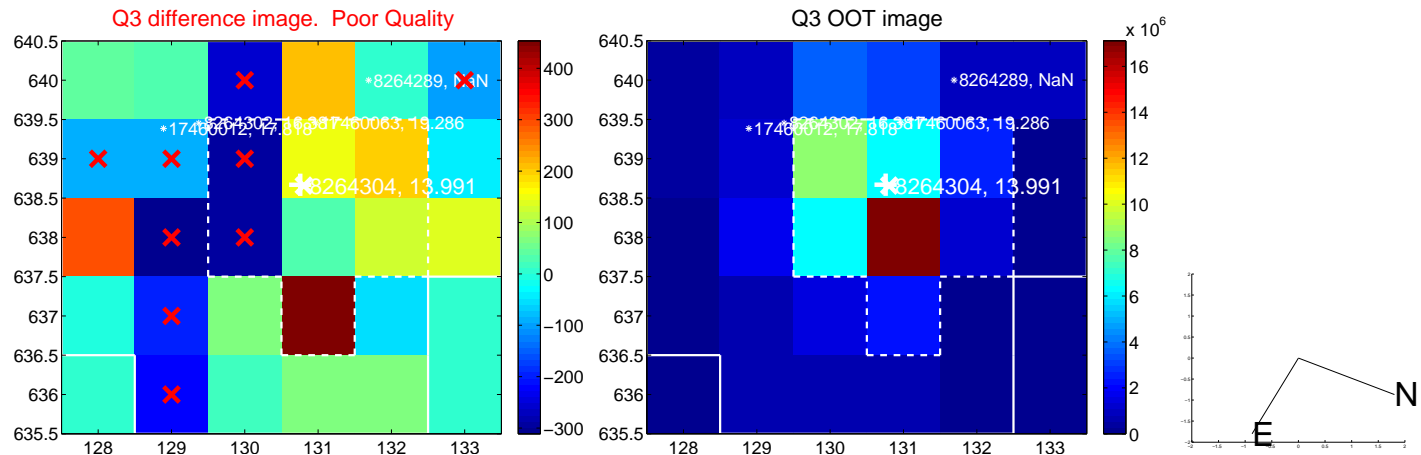
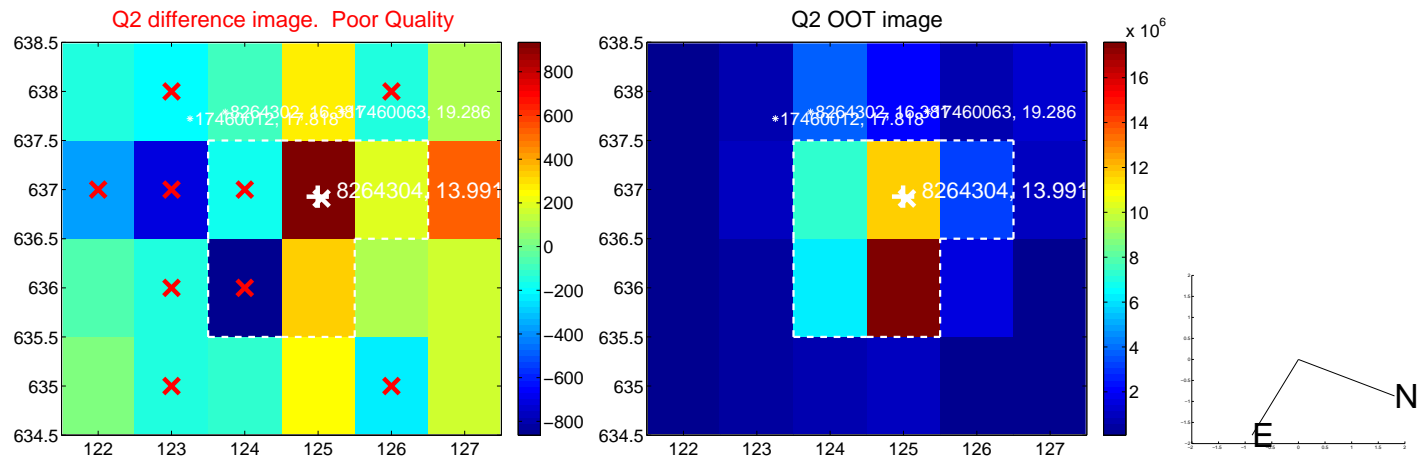
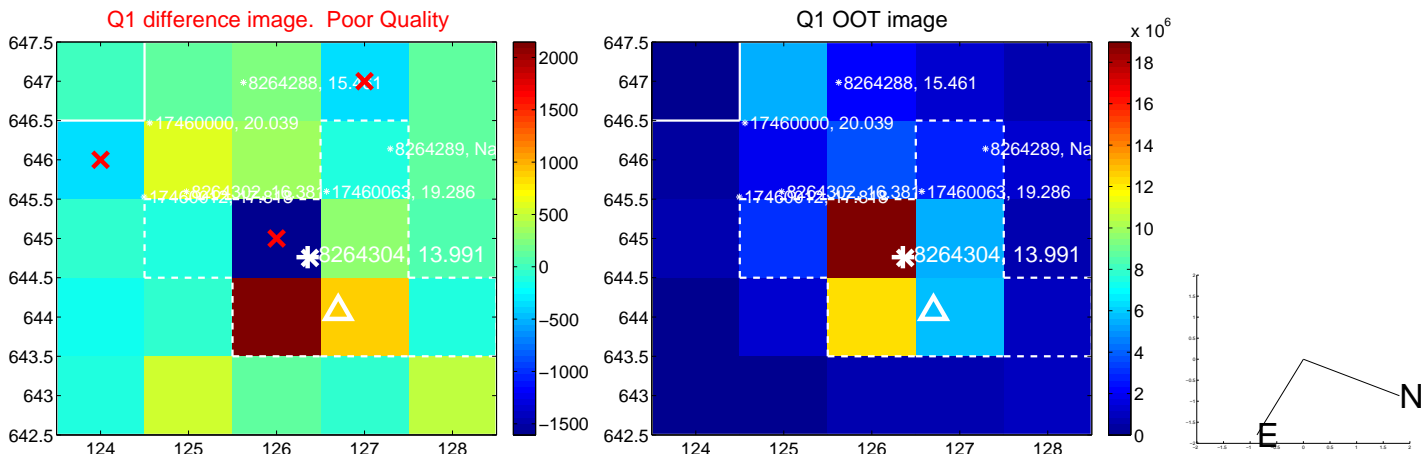
The direct PRF centroid is offset from the target star catalog position by about 0.28 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.824 \pm 0.550	3.32	-0.226 \pm 0.939	1.810 \pm 0.542
PRF-fit source offset from KIC position	1.626 \pm 0.553	2.94	-0.220 \pm 0.946	1.611 \pm 0.543
photometric centroid source offset	—	—	—	—

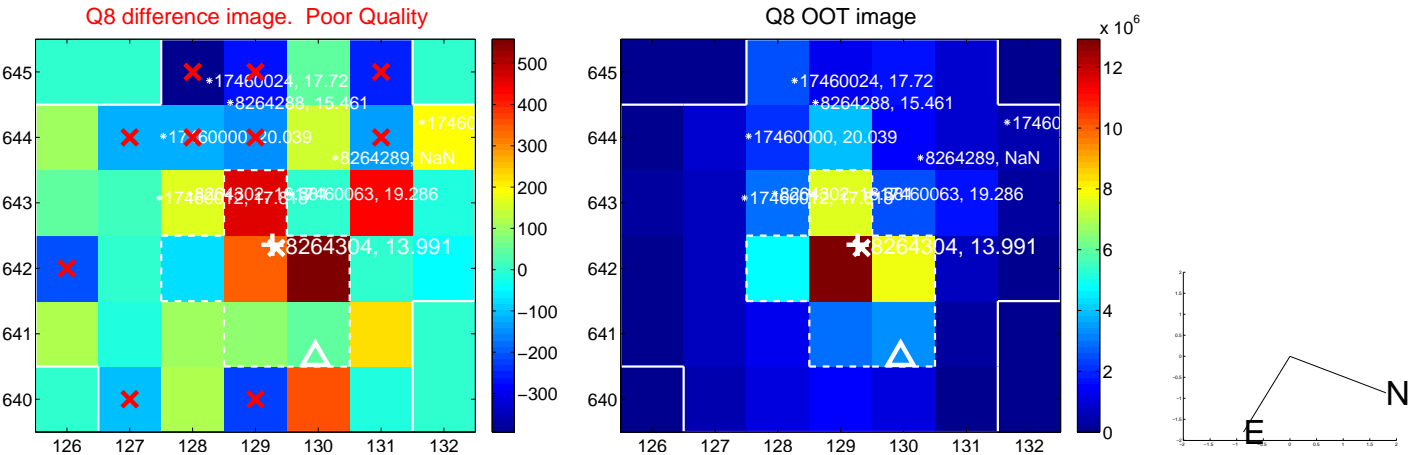
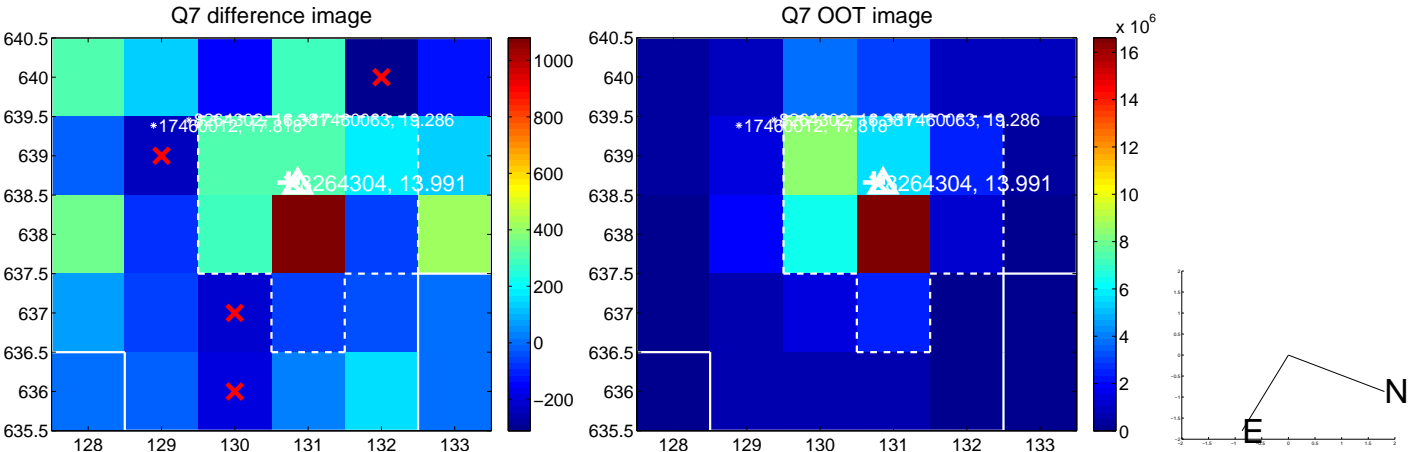
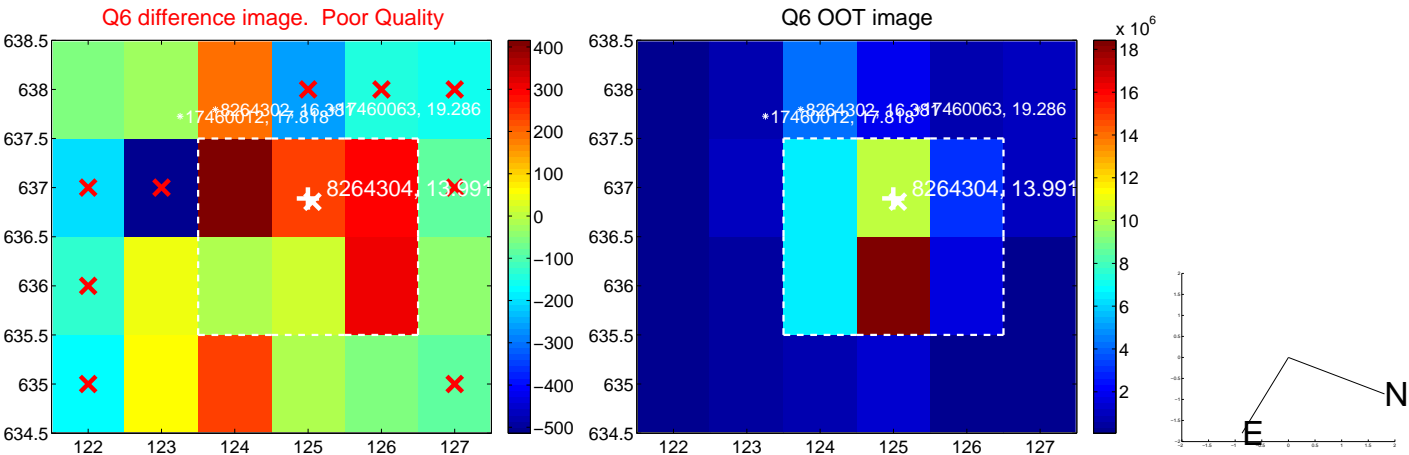
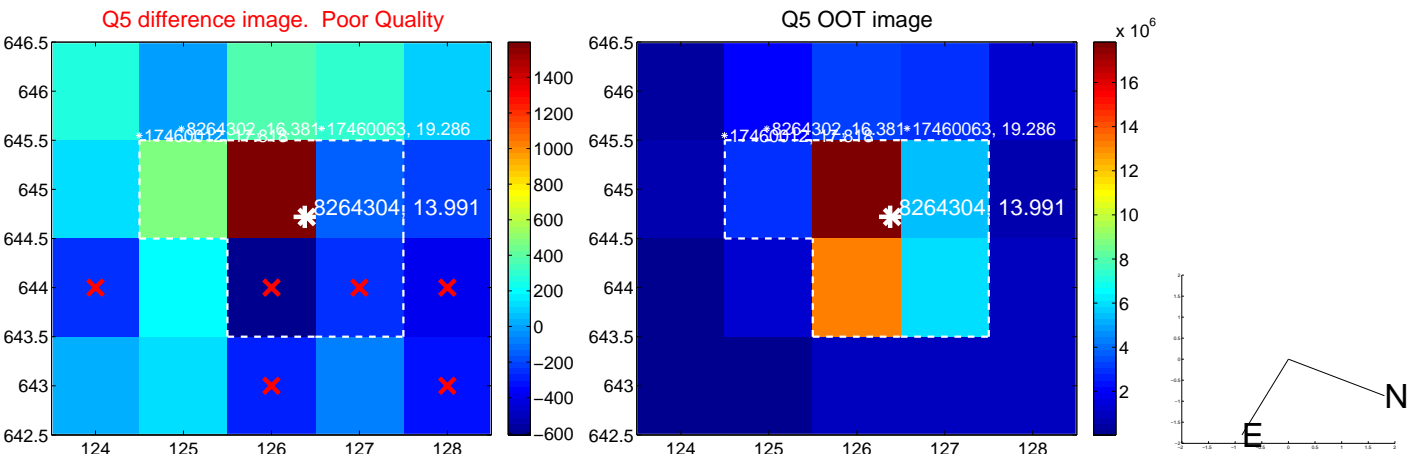


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

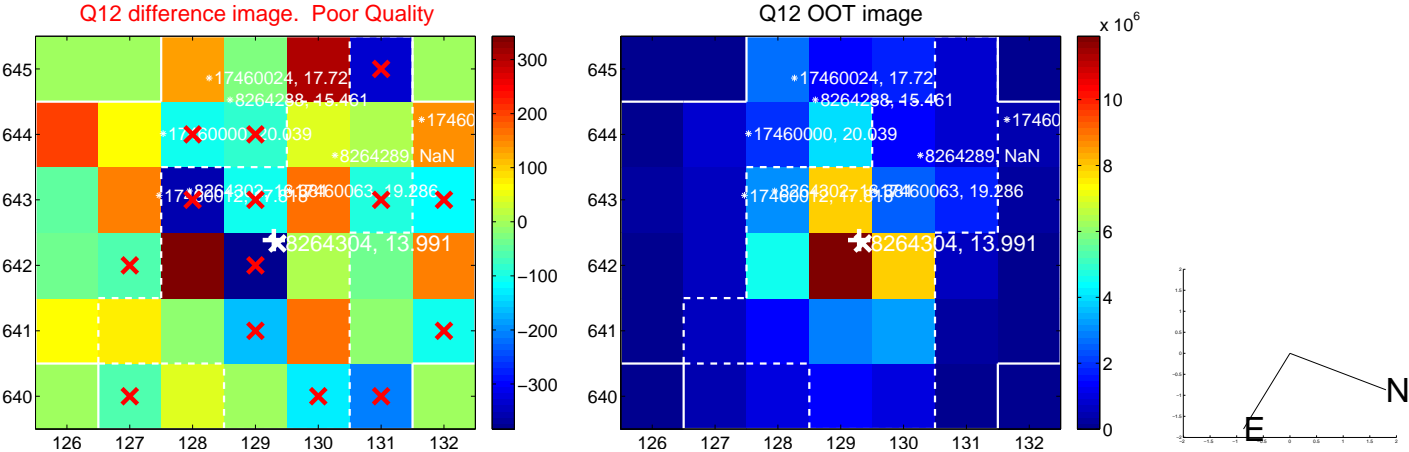
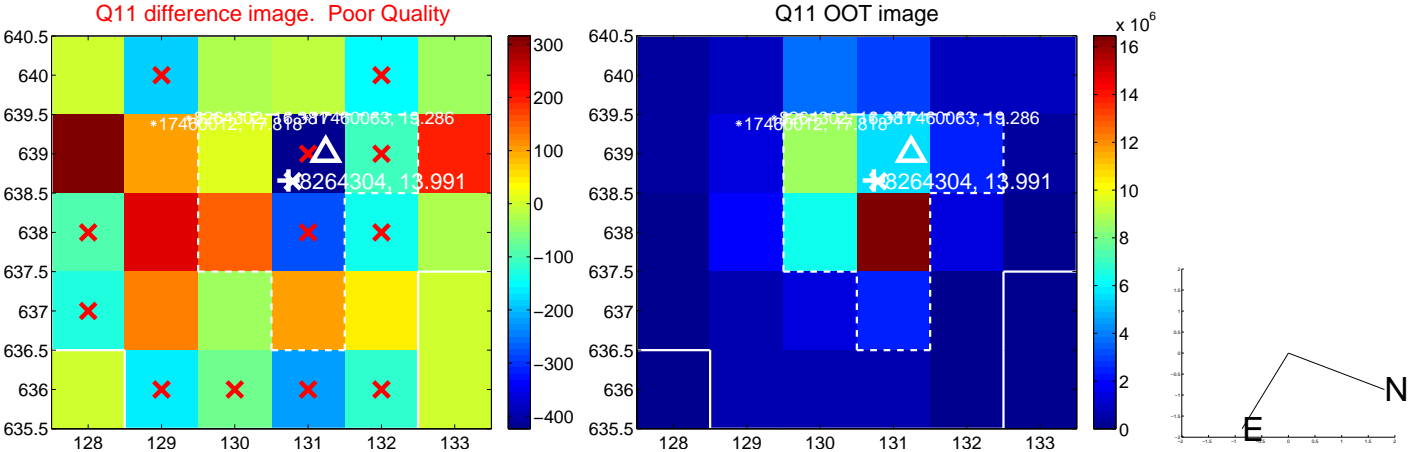
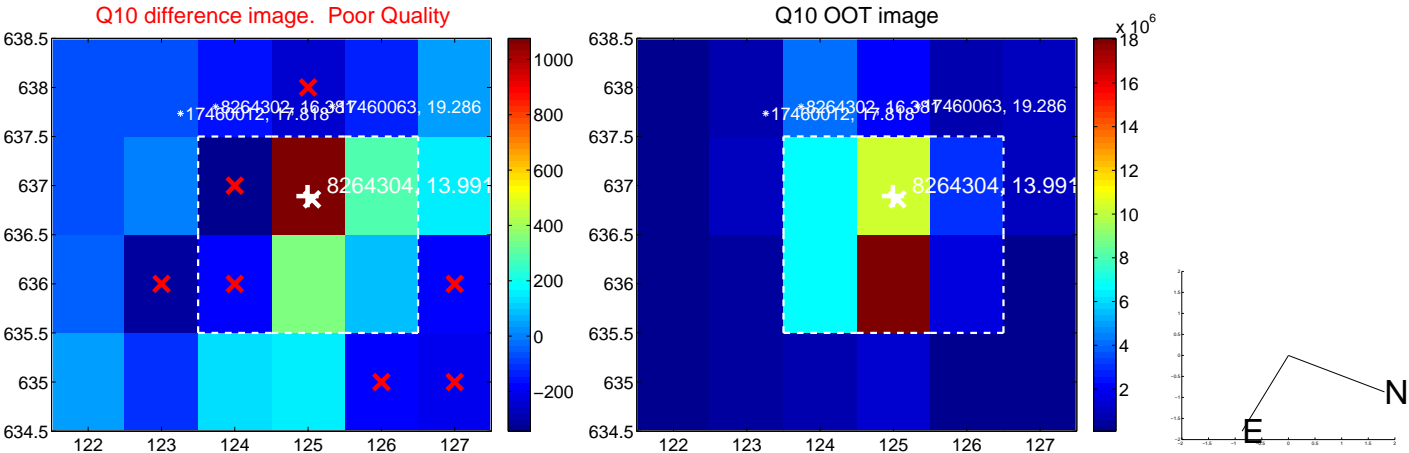
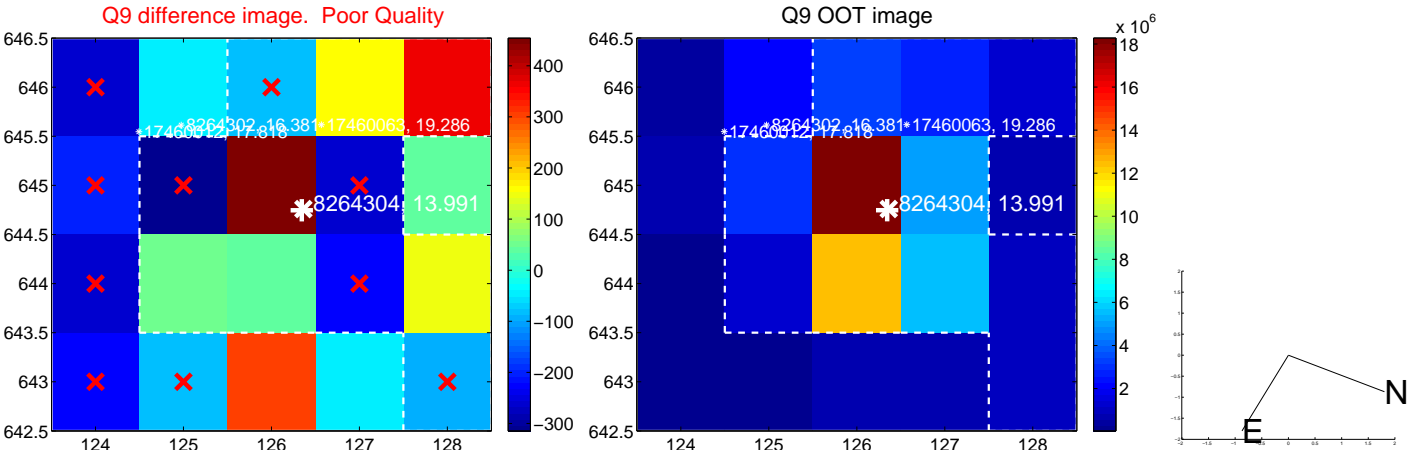
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



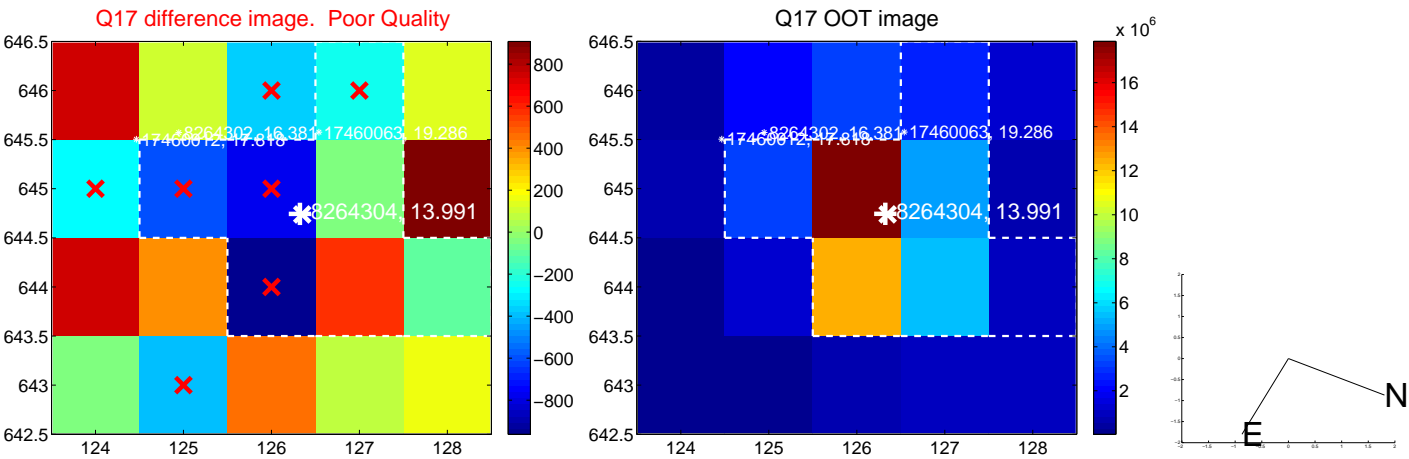
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



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.



folded centroid time series figure for this object.

UKIRT Image

Declination

