

KIC 007464361

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})
007464361-01	OBS	No	1.789161	133.328712	0.0	9.632	7.2	0.0	1.68	6643	0.02	5200.39
007464361-02	OBS	No	169.264828	158.040274	278.8	2.261	13.3	5.8	1.68	6643	3.23	12.06
007464361-03	OBS	No	143.939995	216.287378	293.7	13.767	12.3	10.1	1.68	6643	3.04	14.97

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007464361-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_FEW_DIFFS
007464361-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
007464361-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS

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

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

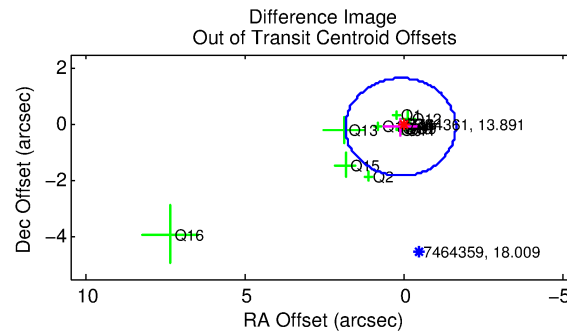
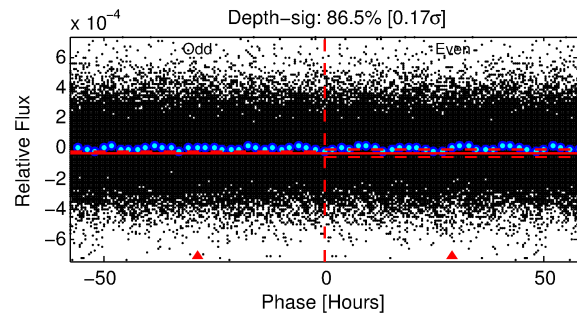
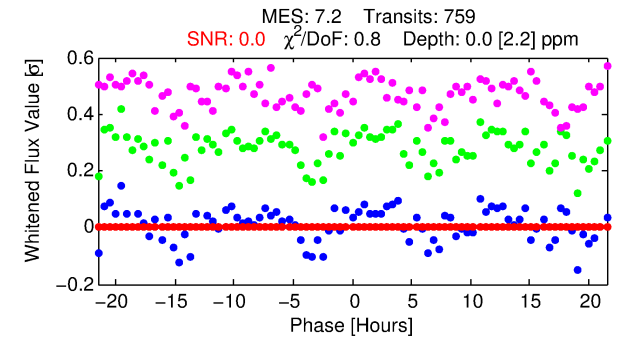
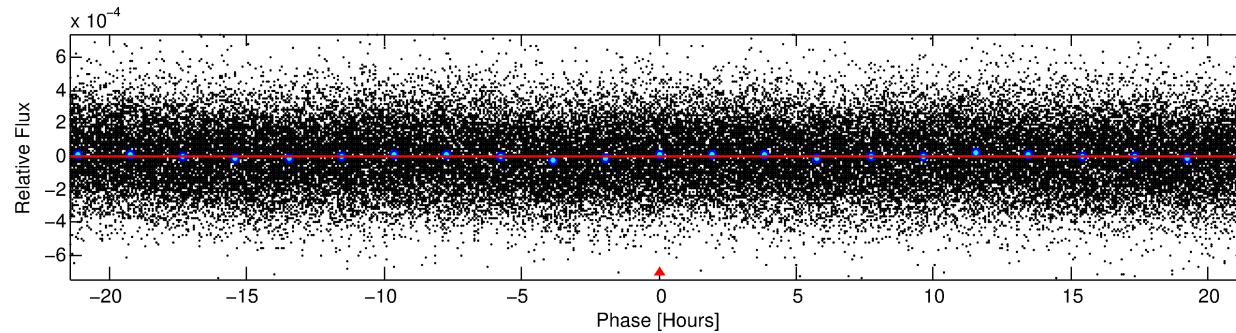
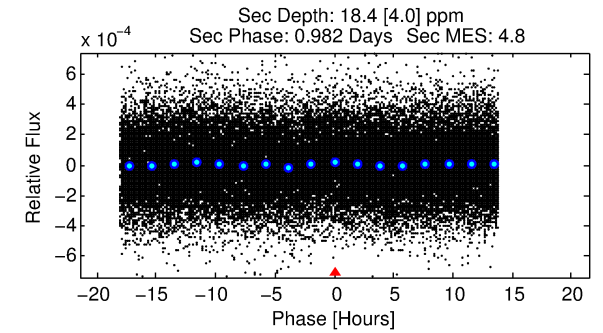
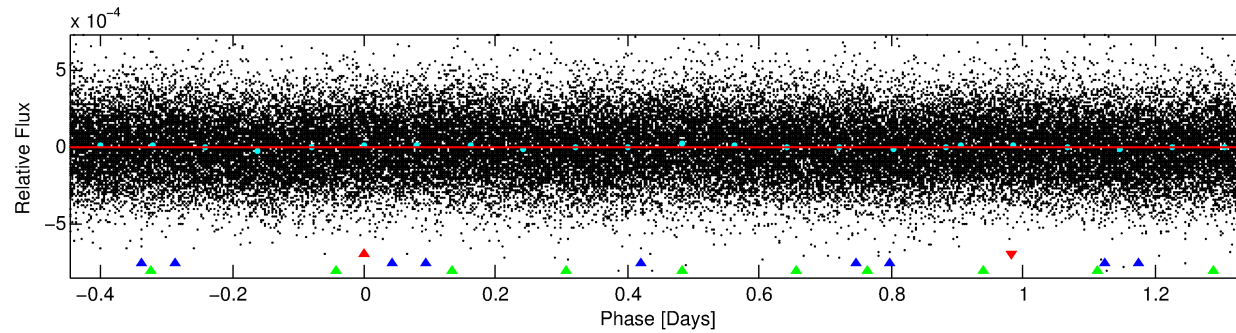
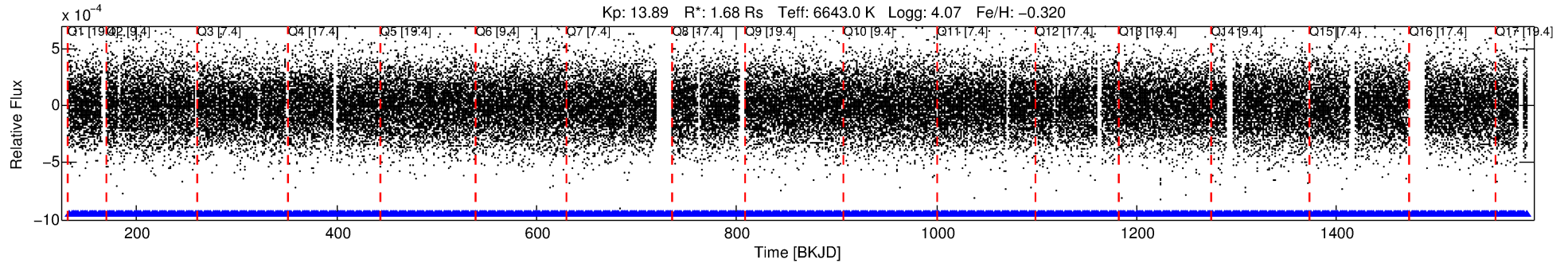
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007464361-01

No Significant Match Found

DV One-Page Summary

KIC: 7464361 Candidate: 1 of 3 Period: 1.789 d



DV Fit Results:

Period = 1.78916 [0.05630] d
Epoch = 133.3287 [15.2414] BKJD
Rp/R* = 0.0001 [0.0105]
a/R* = 1.34 [22.93]
b = 0.65 [42.16]
Seff = 5200.39 [2471.28]
Teff = 2165 [257] K
Rp = 0.02 [1.93] Re
a = 0.0308 [0.0090] AU
Ag = 28035.16 [5834237.61] [0.00σ]
Teffp = 43321 [2253930] K [0.02σ]

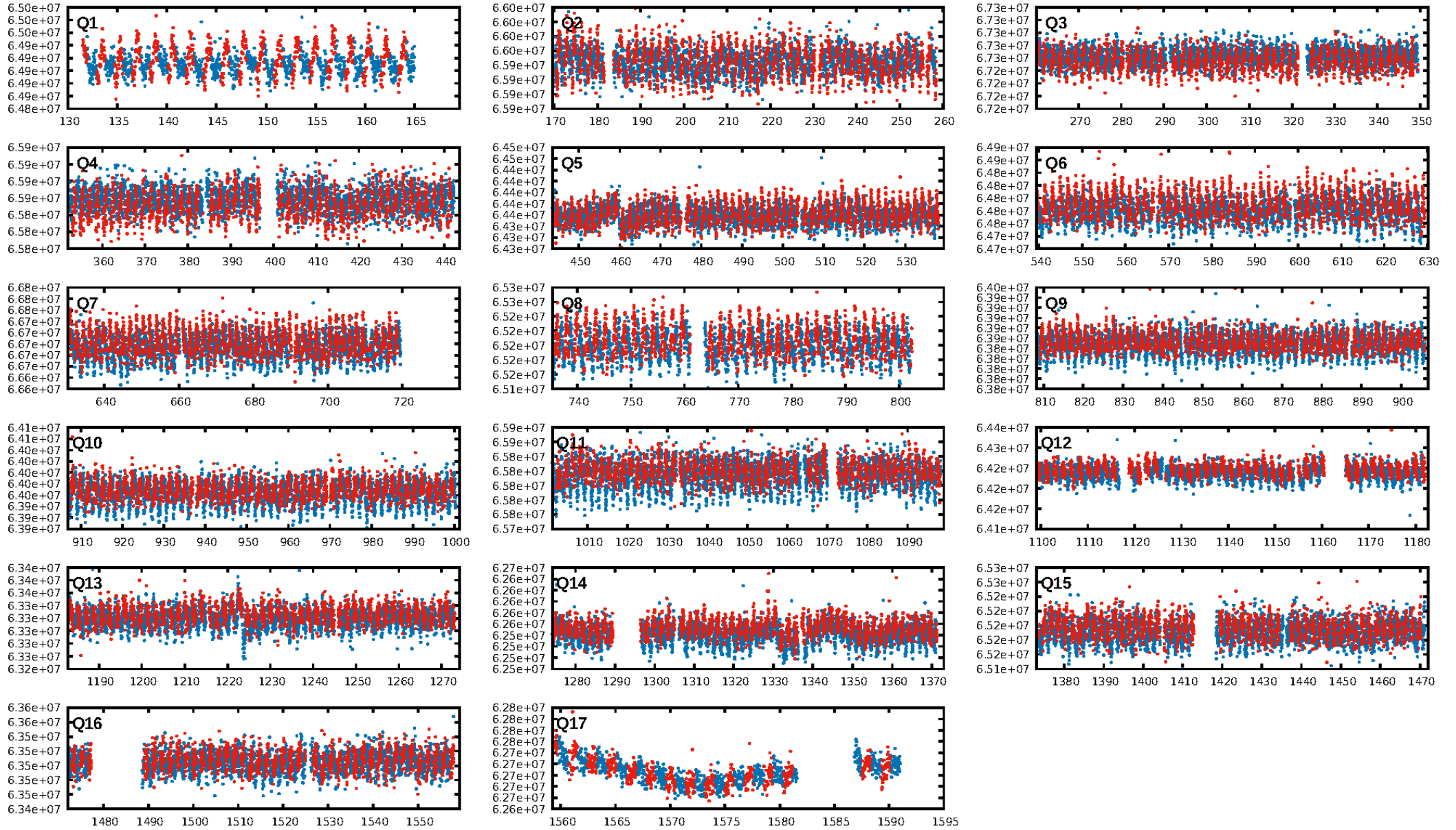
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [203.05σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 8.01e-08
RollingBand-fgt: 1.00 [725/725]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 0.146 arcsec [0.25σ]
KicOffset-rm: 0.191 arcsec [0.36σ]
OotOffset-st: 4/3/4/4 [15]
KicOffset-st: 4/3/4/4 [15]
DiffImageQuality-fgm: 0.00 [0/15]
DiffImageOverlap-fno: 1.00 [17/17]

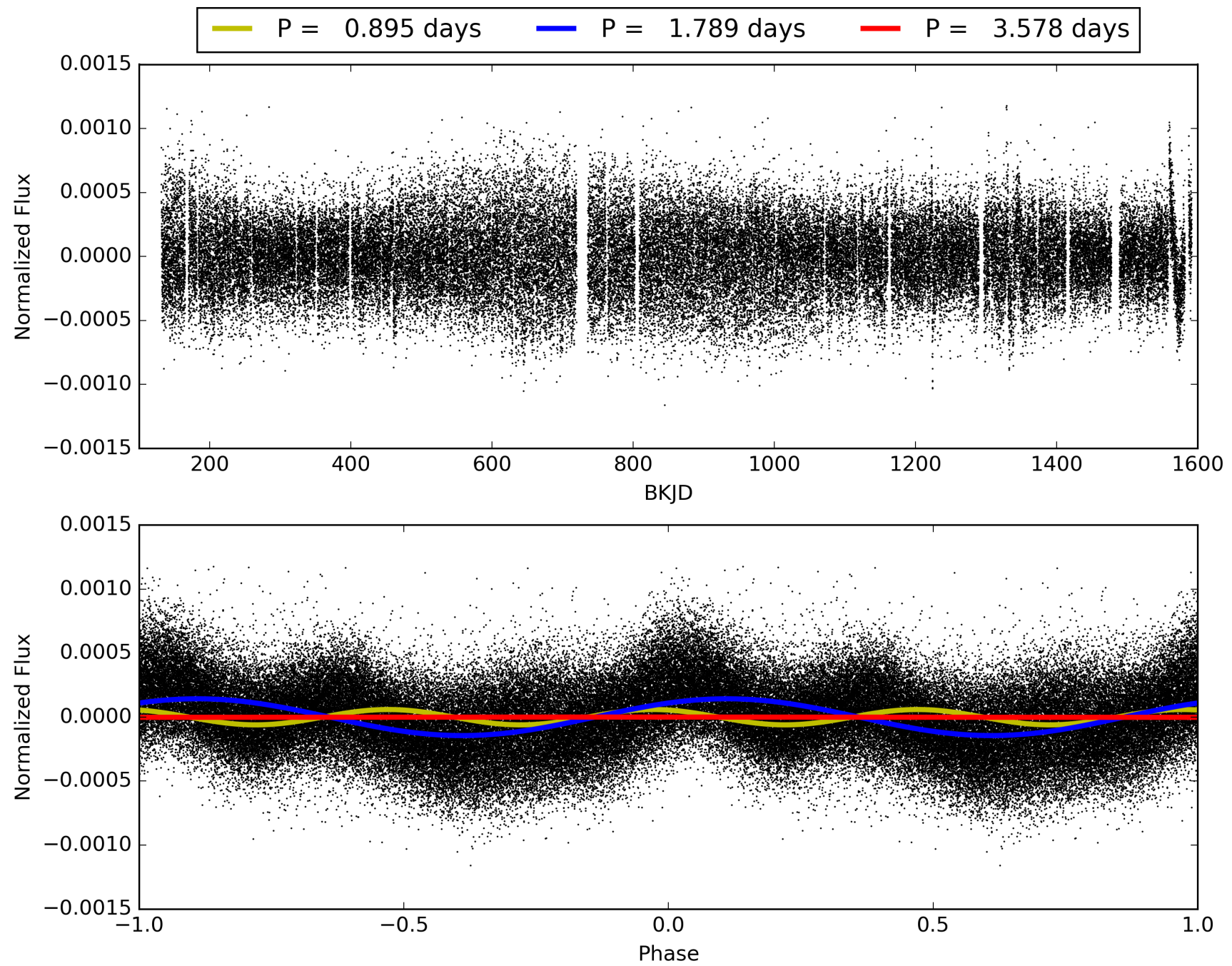
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This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 007464361-01, PDC Light Curves

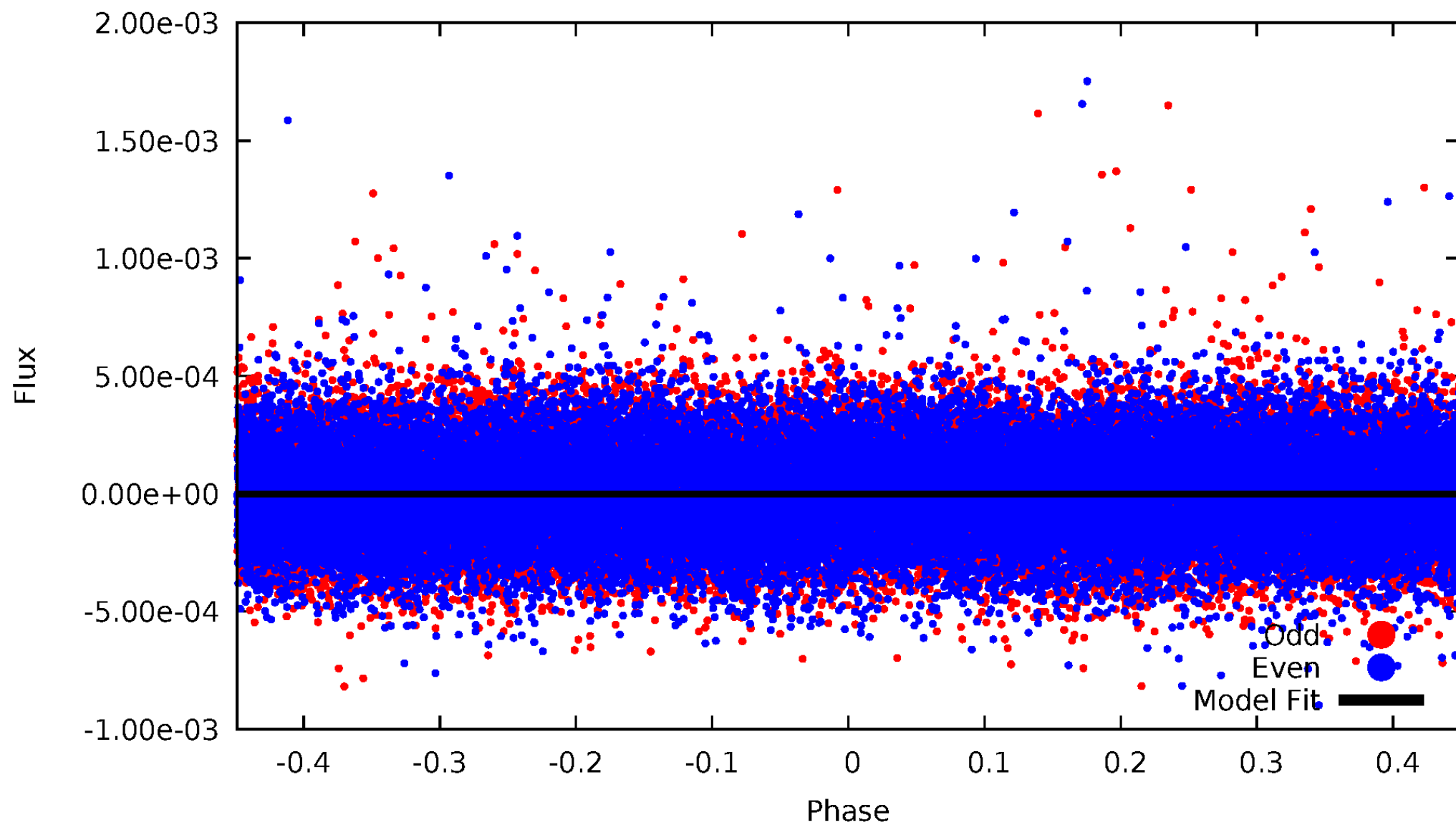


TCE 007464361-01



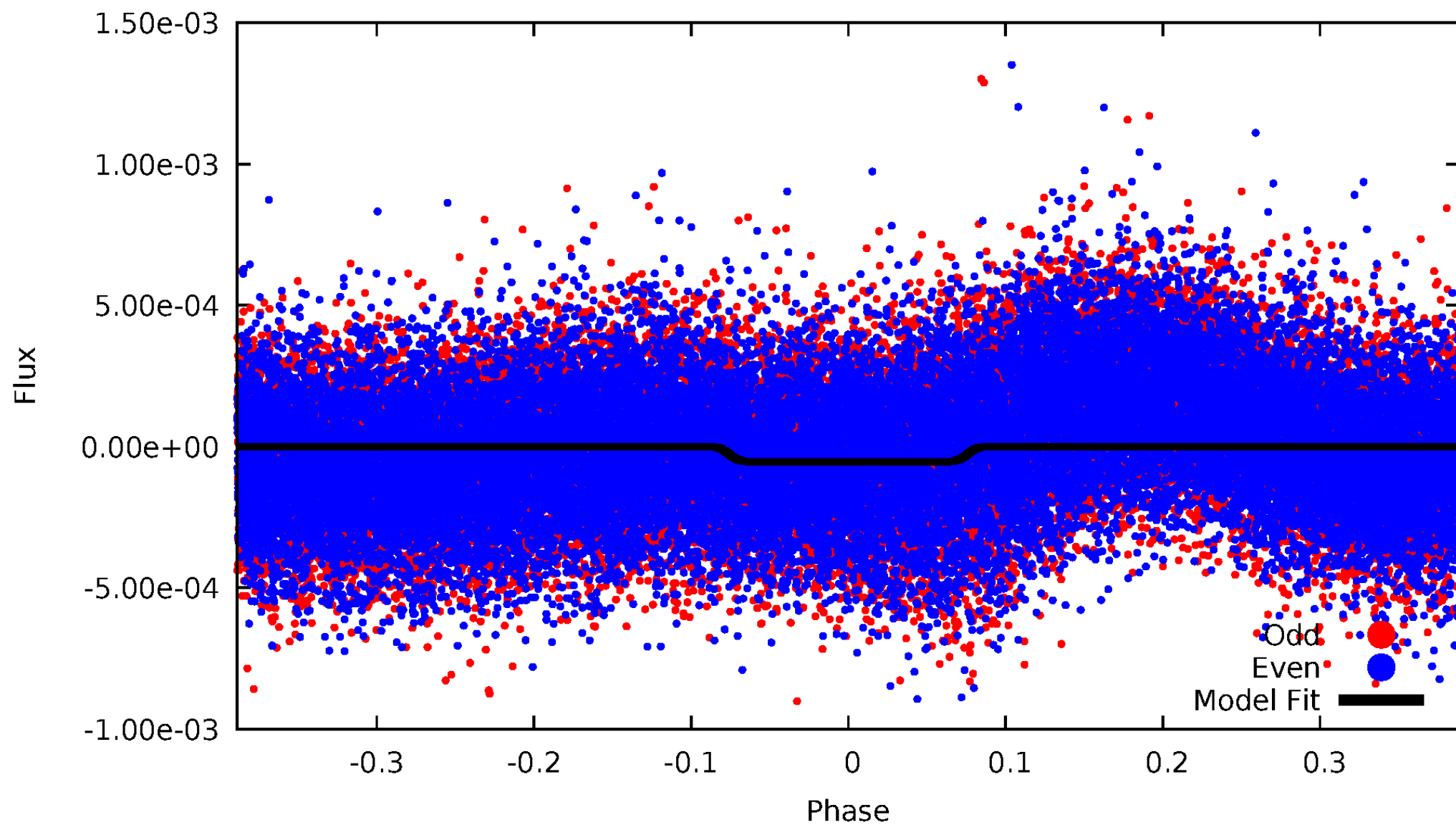
DV Odd/Even

TCE 007464361-01

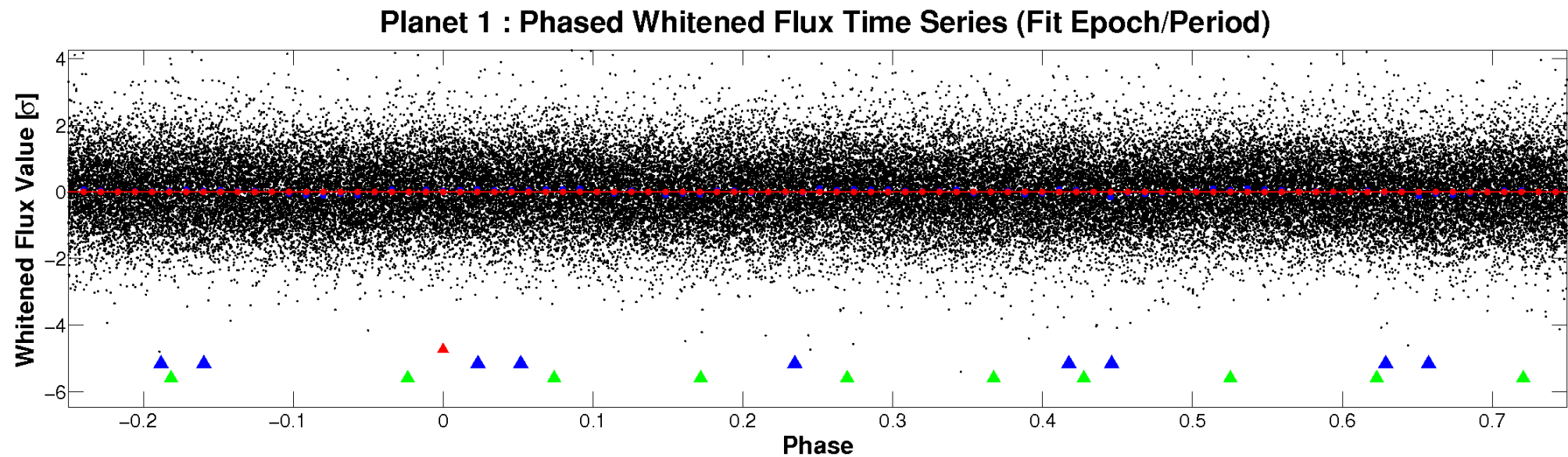
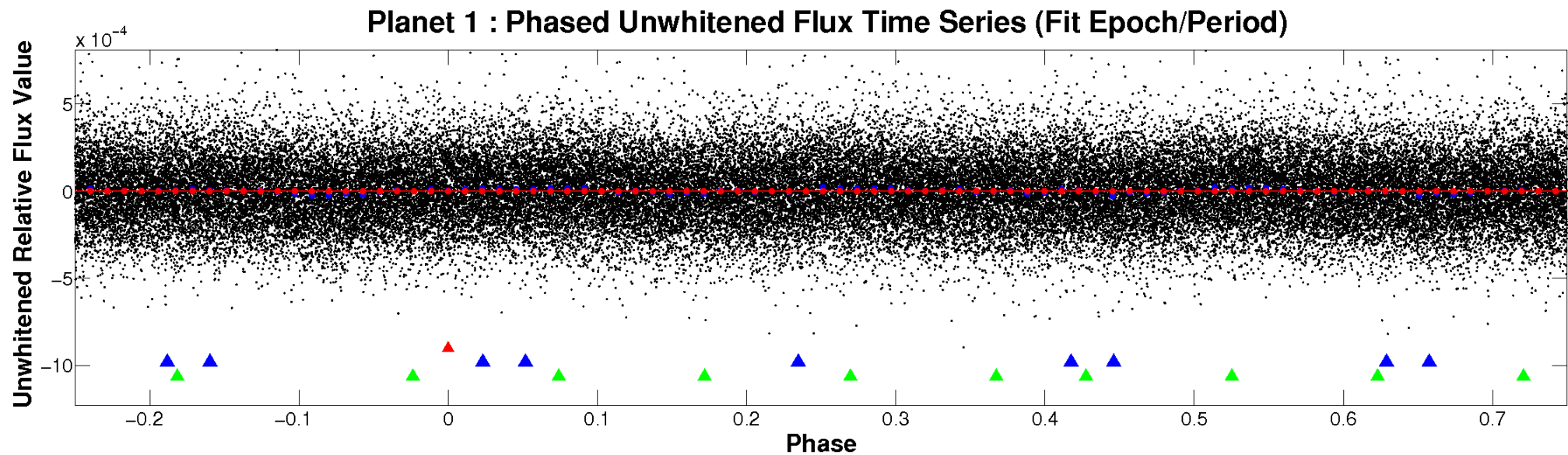


ALT Odd/Even

TCE 007464361-01

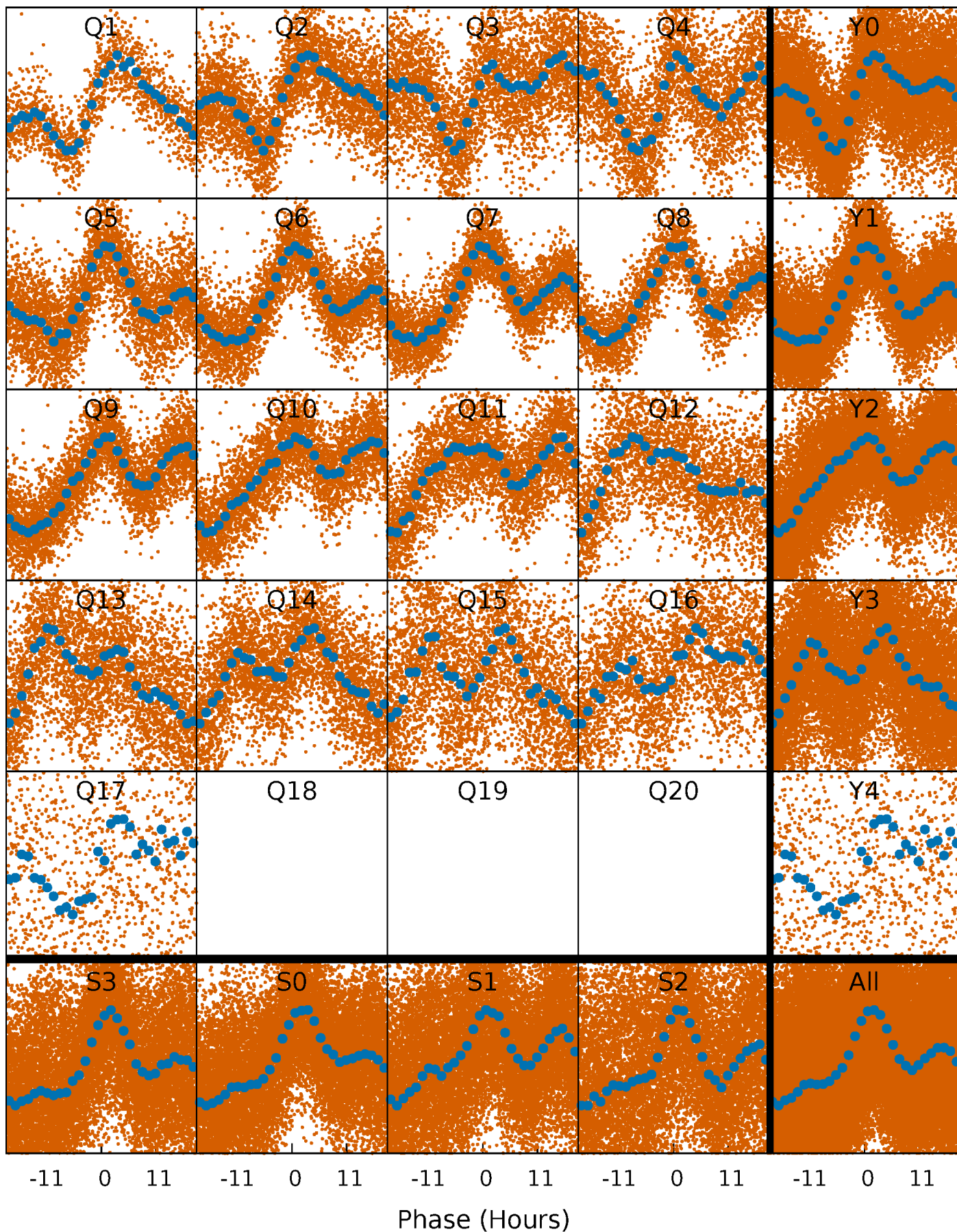


Non-Whitened Vs. Whitened Light Curve



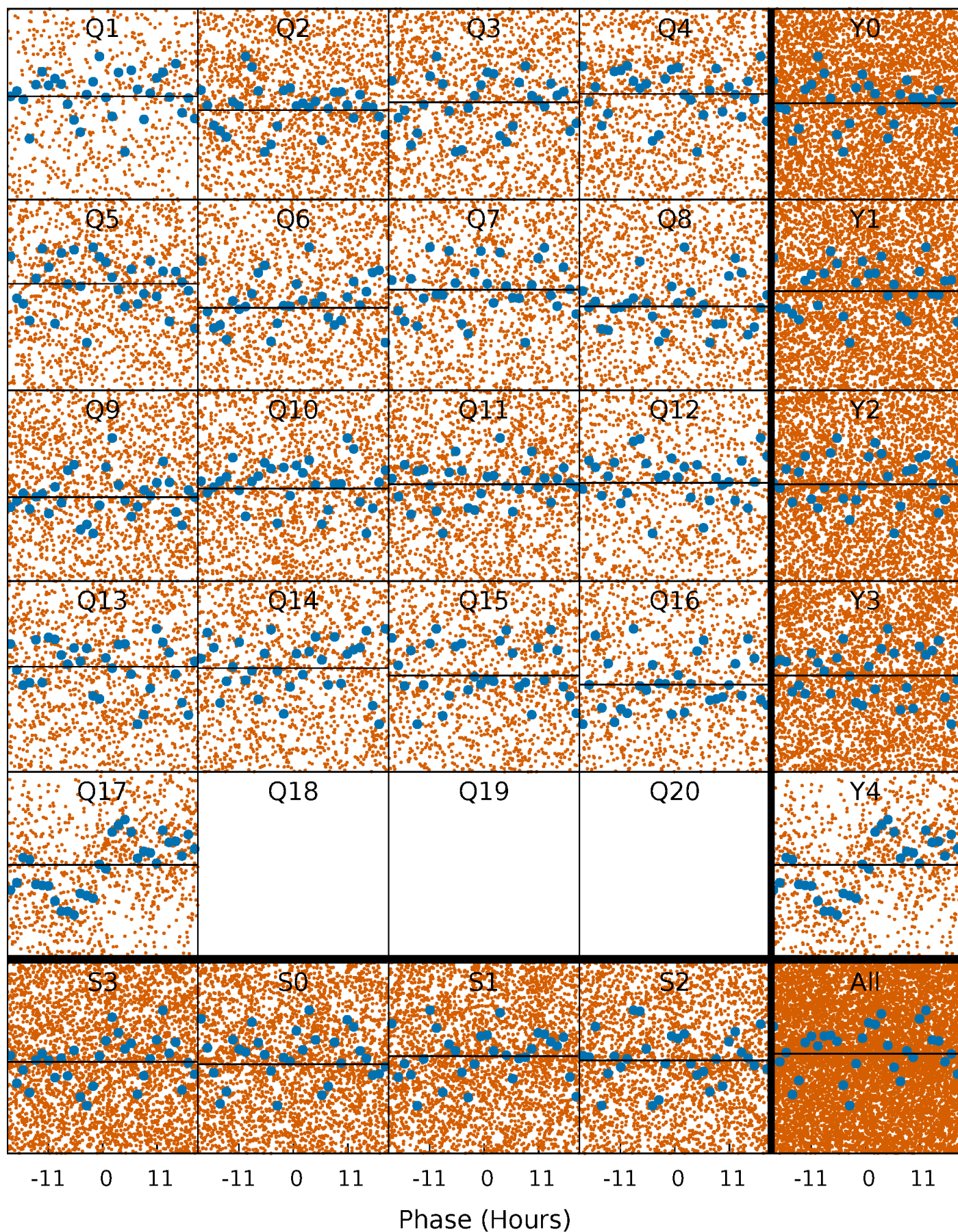
PDC Quarter-Phased Transit Curves

TCE 007464361-01 P= 1.789161 Days $T_0=133.328712$ (BKJD)



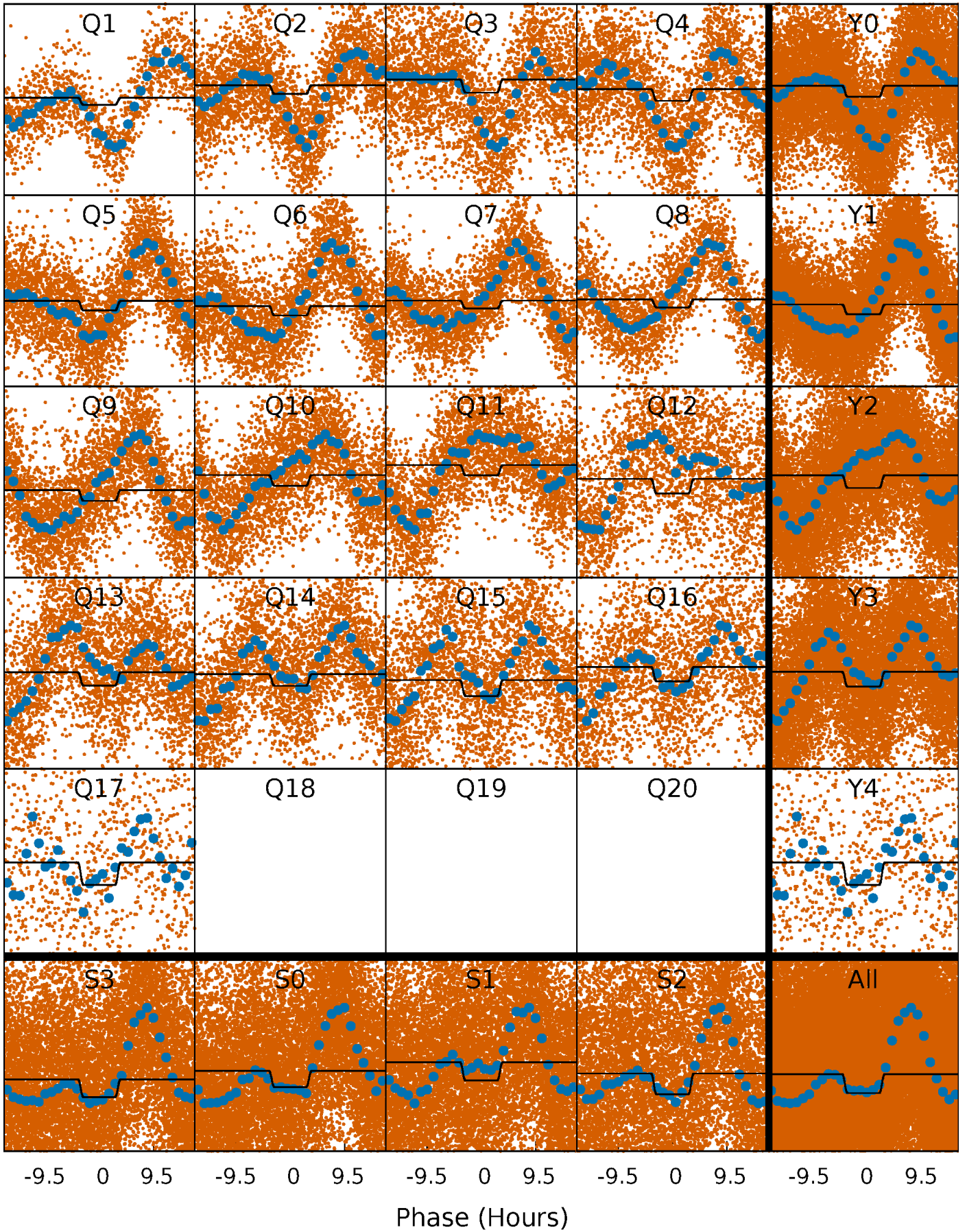
DV Quarter-Phased Transit Curves

TCE 007464361-01 P= 1.789161 Days $T_0=133.328712$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

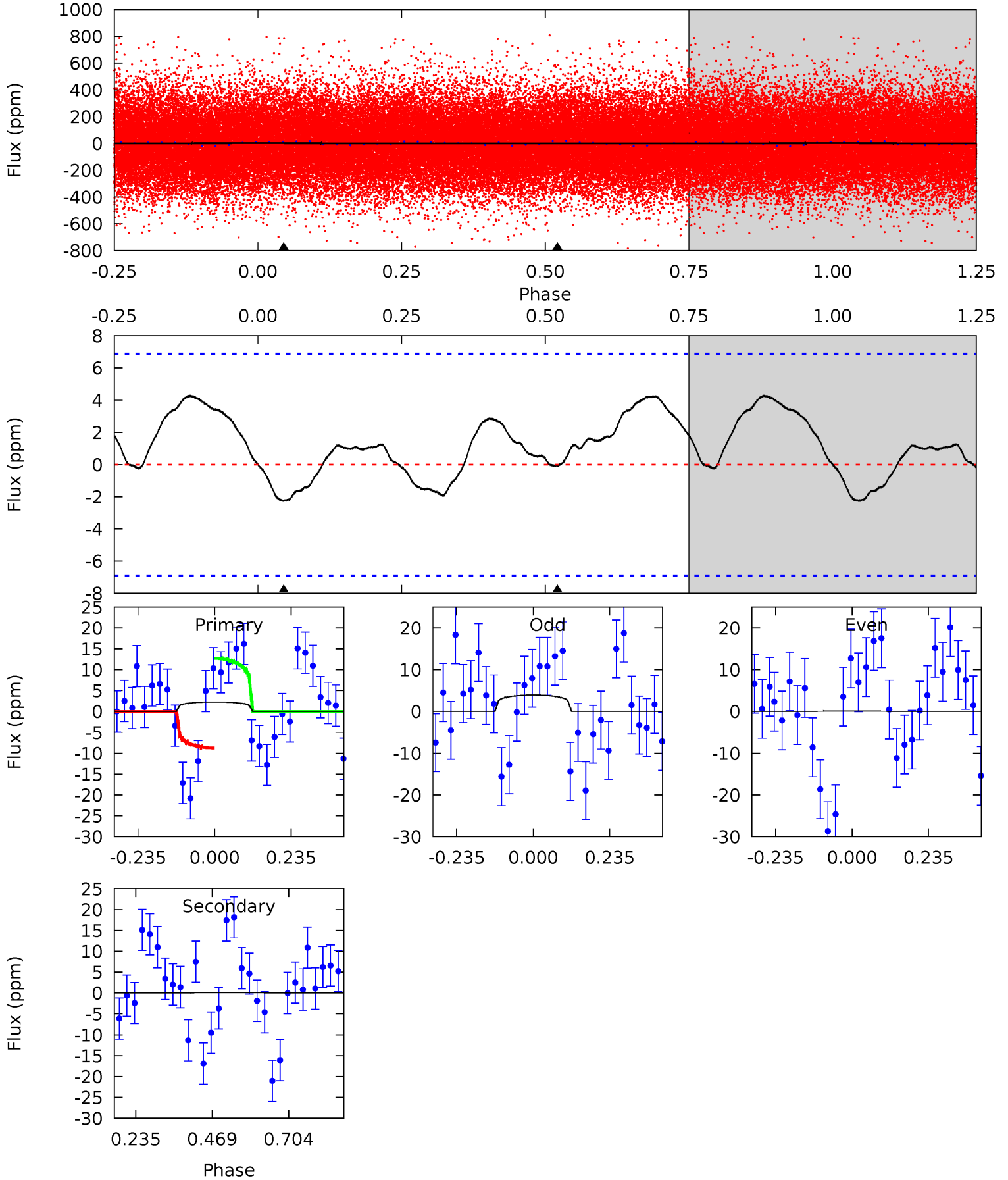
TCE 007464361-01 P= 1.789396 Days $T_0=132.975022$ (BKJD)



DV Model-Shift Uniqueness Test

007464361-01, P = 1.789161 Days, E = 129.750390 Days

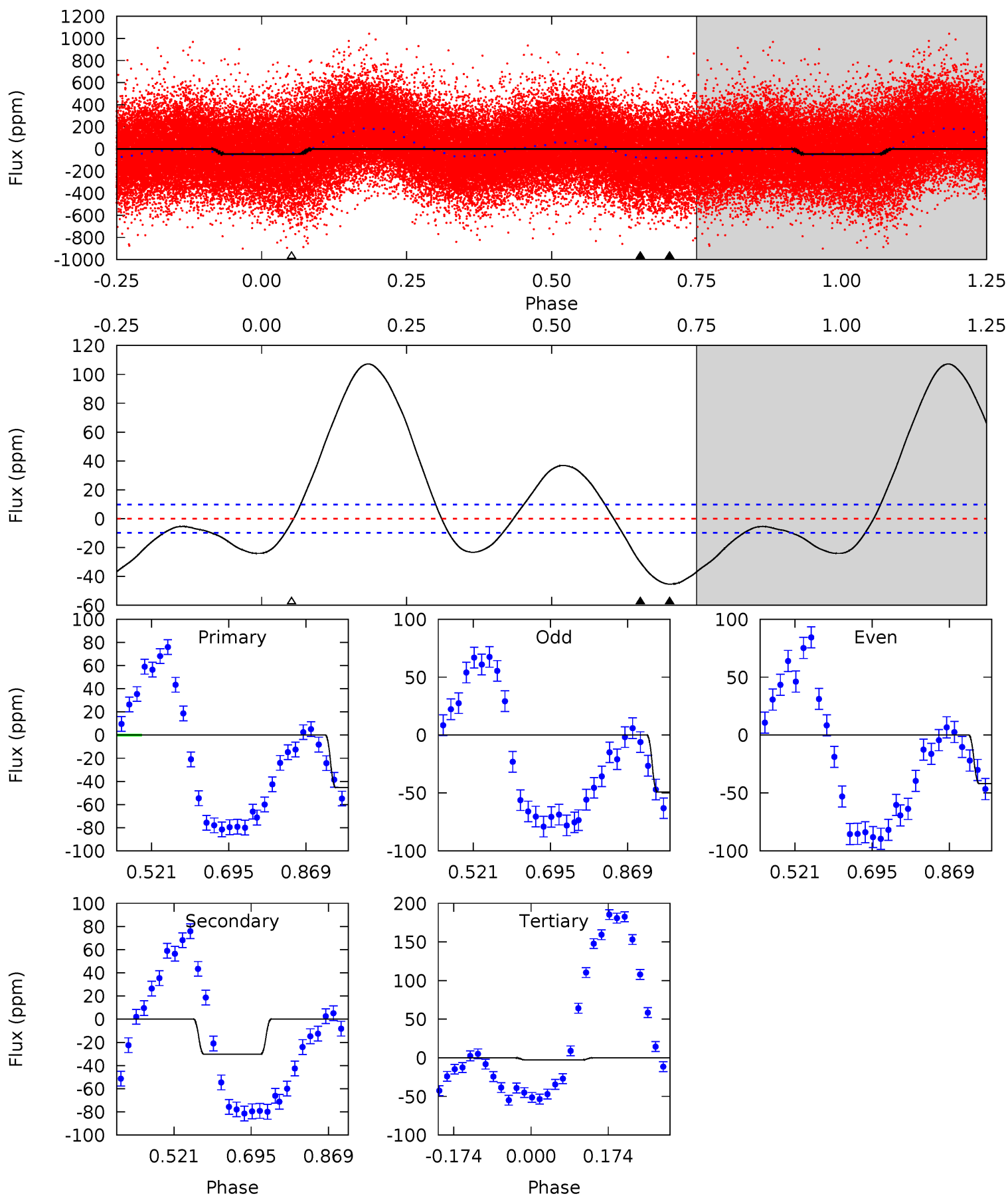
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.43	0.05	0	0	4.38	1.19	0.69	1.43	1.43	0.05	0.05	1.24	0.78	0.66	1.26



Alt Model-Shift Uniqueness Test

007464361-01, $P = 1.789396$ Days, $E = 131.185626$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
20.7	13.8	1.18	0	4.45	1.36	19.8	19.5	20.7	12.6	13.8	1.66	1.82	0.70	0.73



Stellar Parameters For KIC 007464361

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6643^{+181}_{-242}	$4.072^{+0.258}_{-0.172}$	$-0.320^{+0.250}_{-0.300}$	$1.682^{+0.492}_{-0.541}$	$1.222^{+0.183}_{-0.204}$	$0.361^{+0.595}_{-0.173}$
	+3%/-4%	+6%/-4%	+78%/-94%	+29%/-32%	+15%/-17%	+165%/-48%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 007464361-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-0 ± 2	$1.20^{+1.33}_{-0.83}$	2993^{+256}_{-255}	-3094^{+6479}_{-720}	$0.004^{+0.859}_{-0.914}$
Alt.	-30 ± 2	$1.93^{+1.63}_{-1.27}$	3012^{+251}_{-238}	4774^{+4018}_{-1089}	$4.173^{+34.623}_{-2.917}$

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 $A_{obs} \gg 1.0$

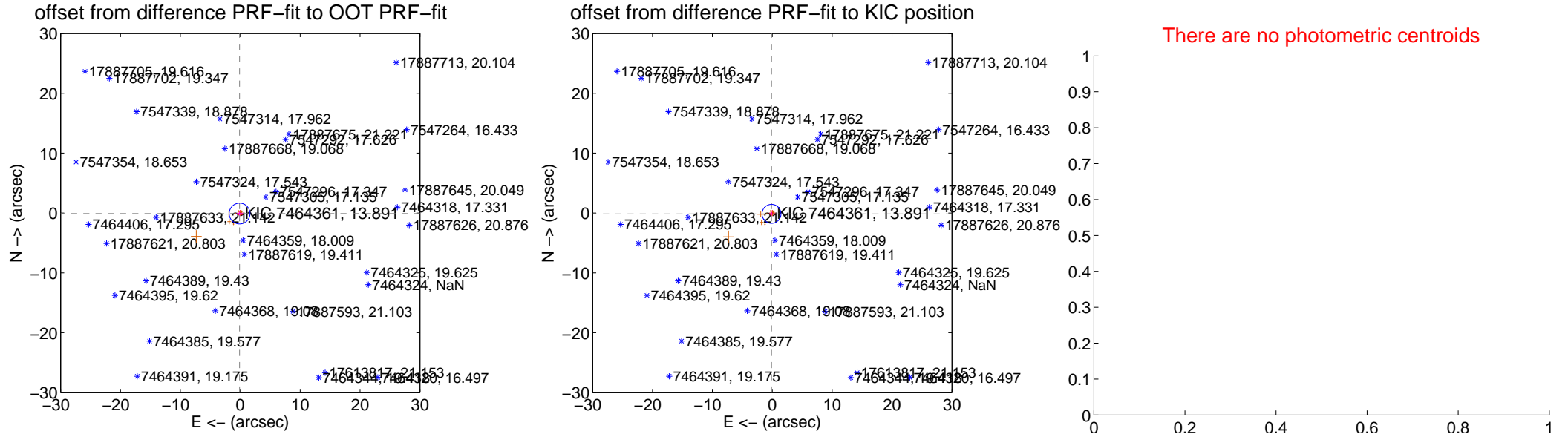
DV Centroid Data

Supplemental centroid analysis for 007464361-01. Kepler magnitude: 13.89. Transit SNR 0.00

There are 0 quarters with good PRF difference image offsets

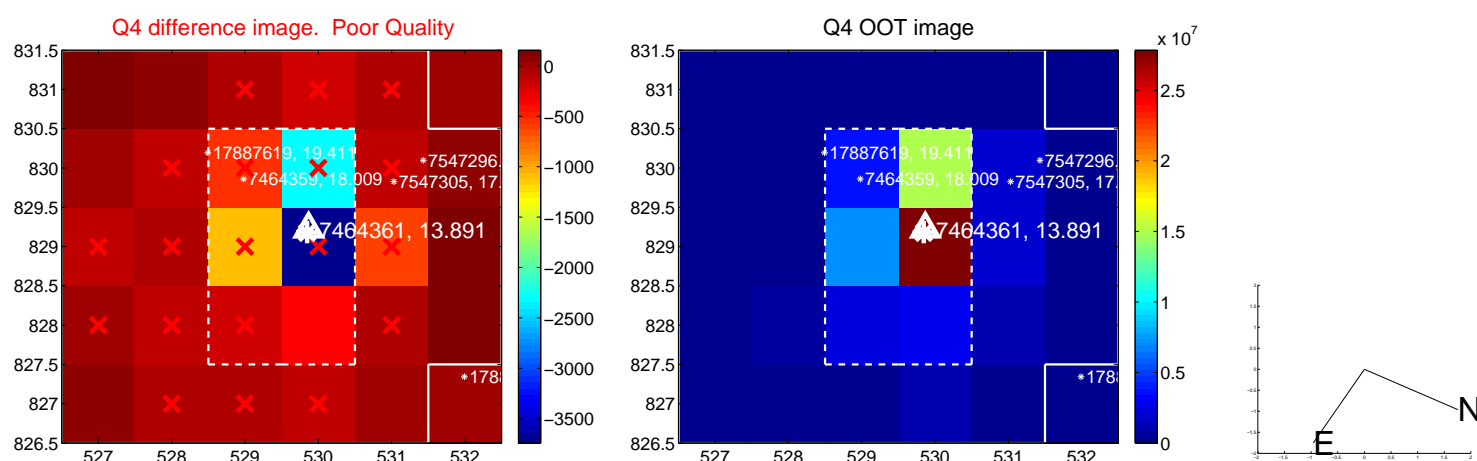
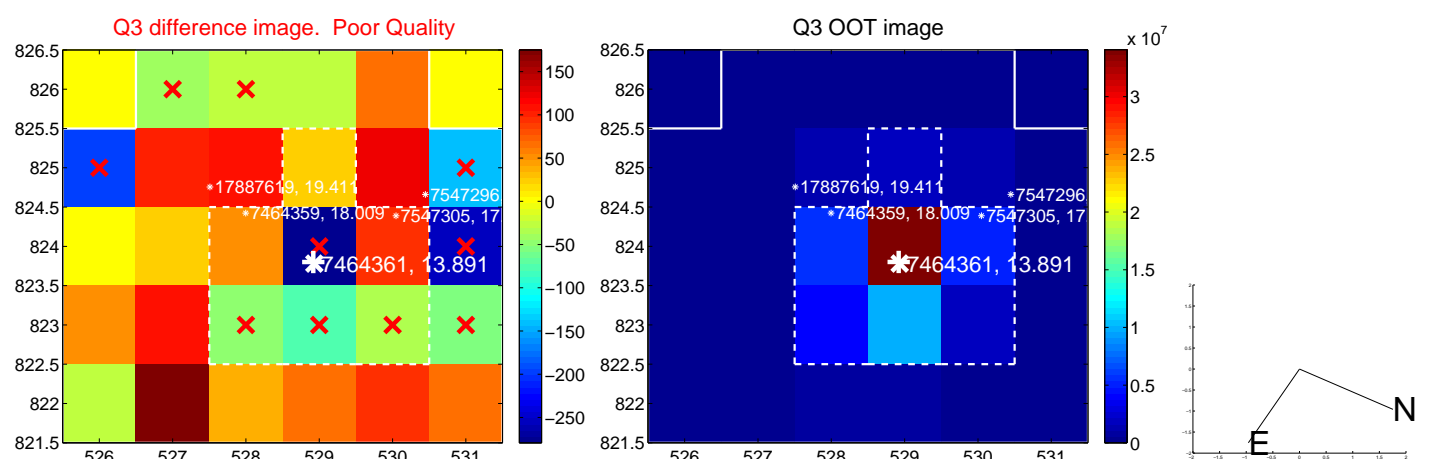
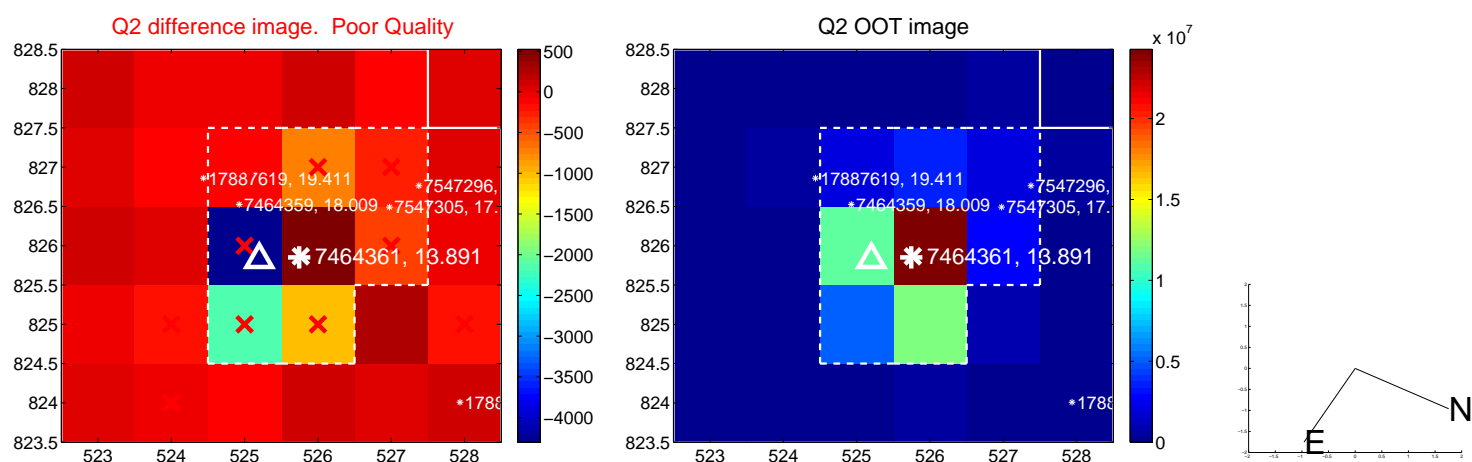
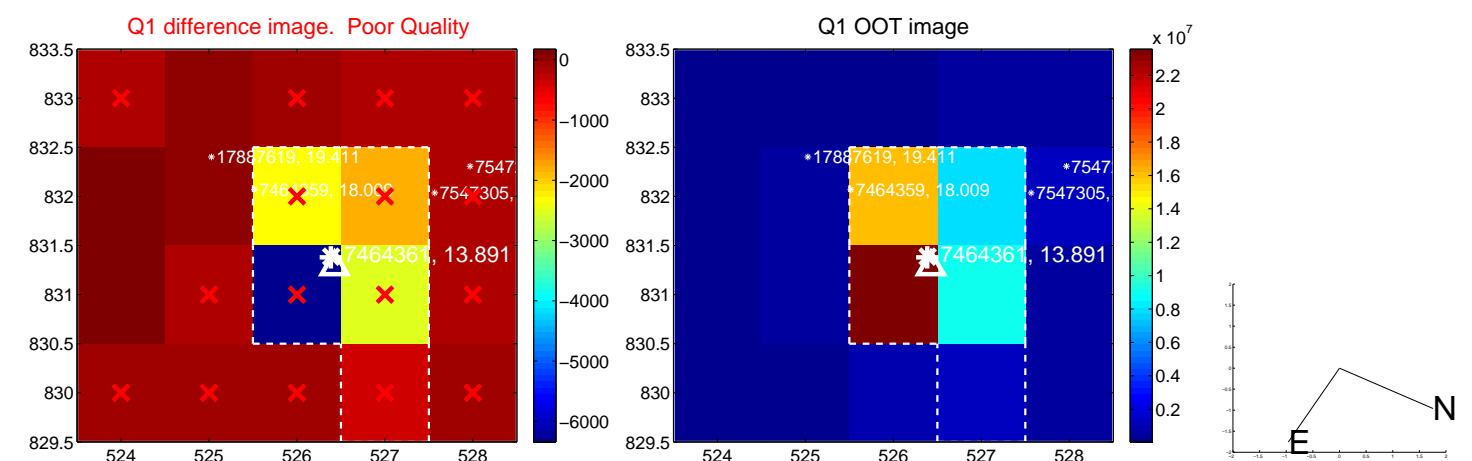
The direct PRF centroid is offset from the target star catalog position by about 0.09 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.146 ± 0.579	0.25	0.114 ± 0.513	-0.091 ± 0.307
PRF-fit source offset from KIC position	0.191 ± 0.527	0.36	0.127 ± 0.491	-0.143 ± 0.290
photometric centroid source offset	—	—	—	—

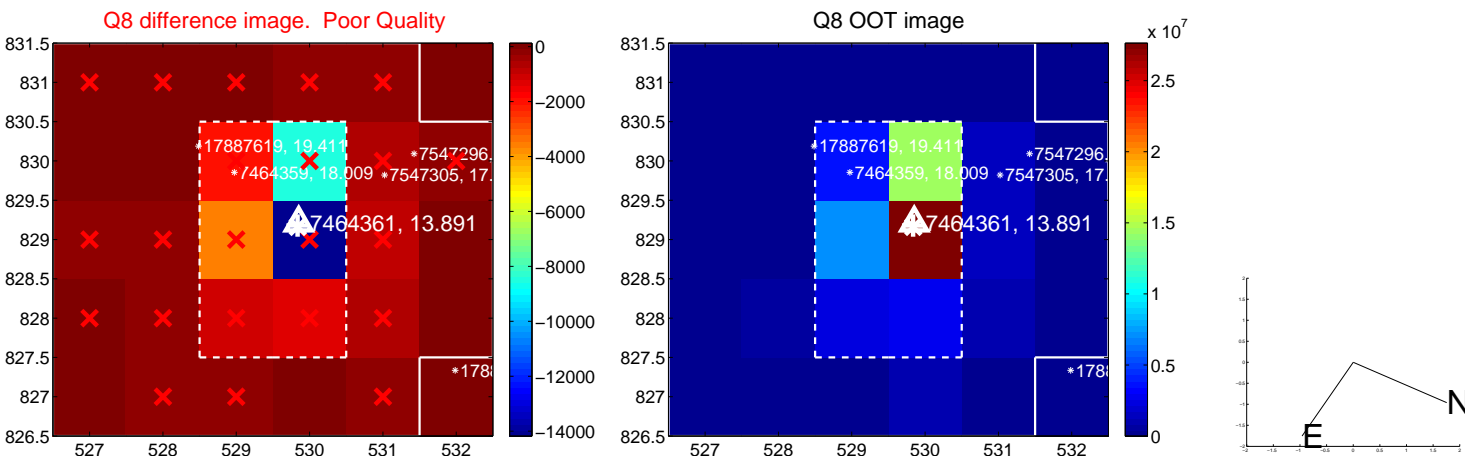
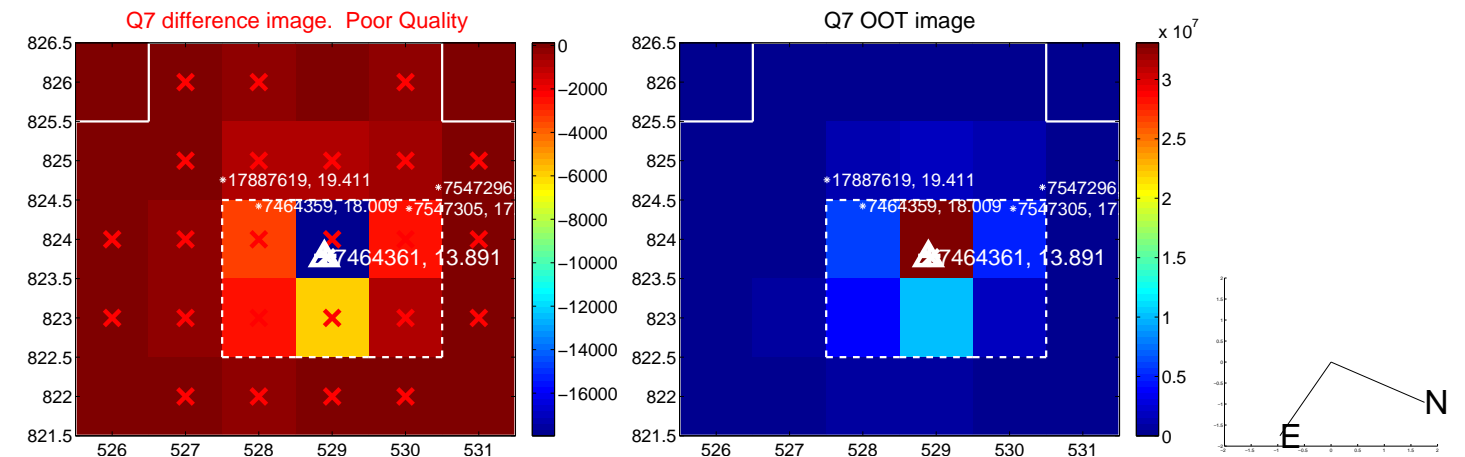
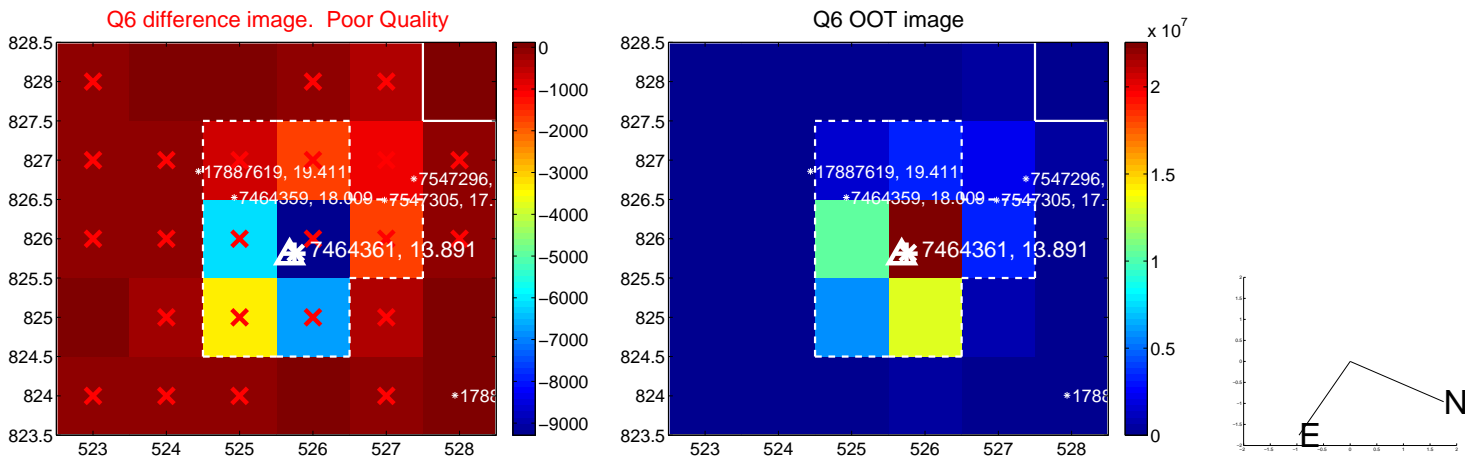
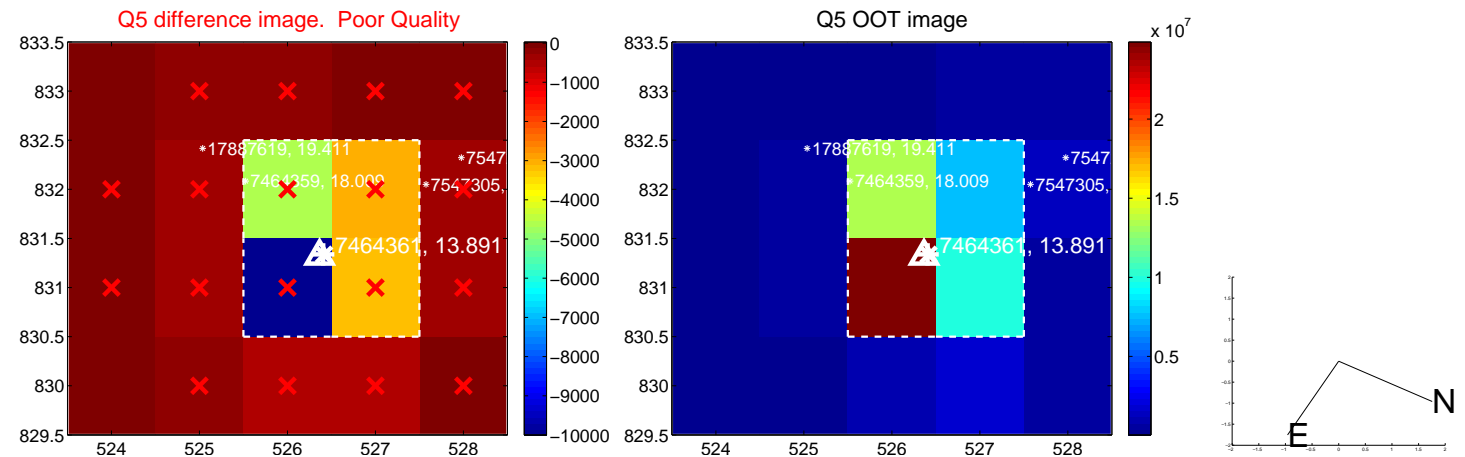


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

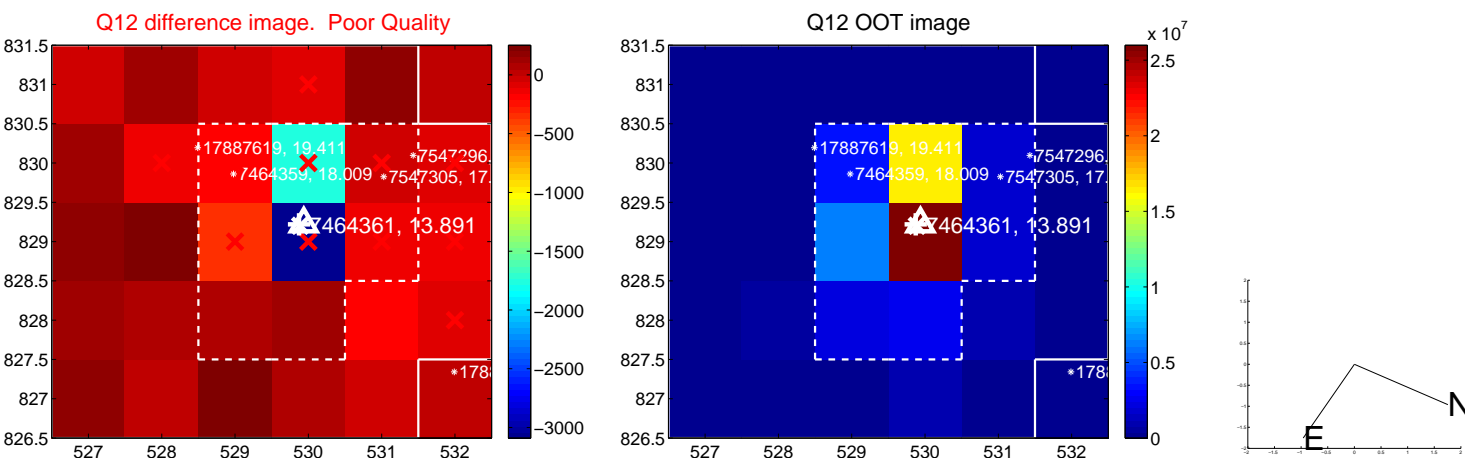
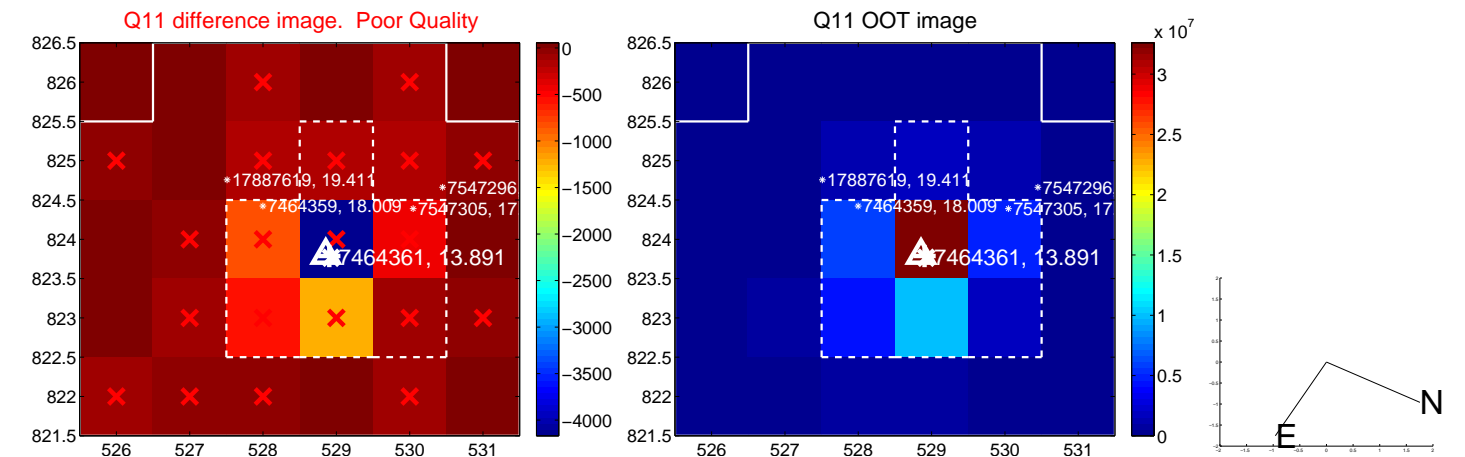
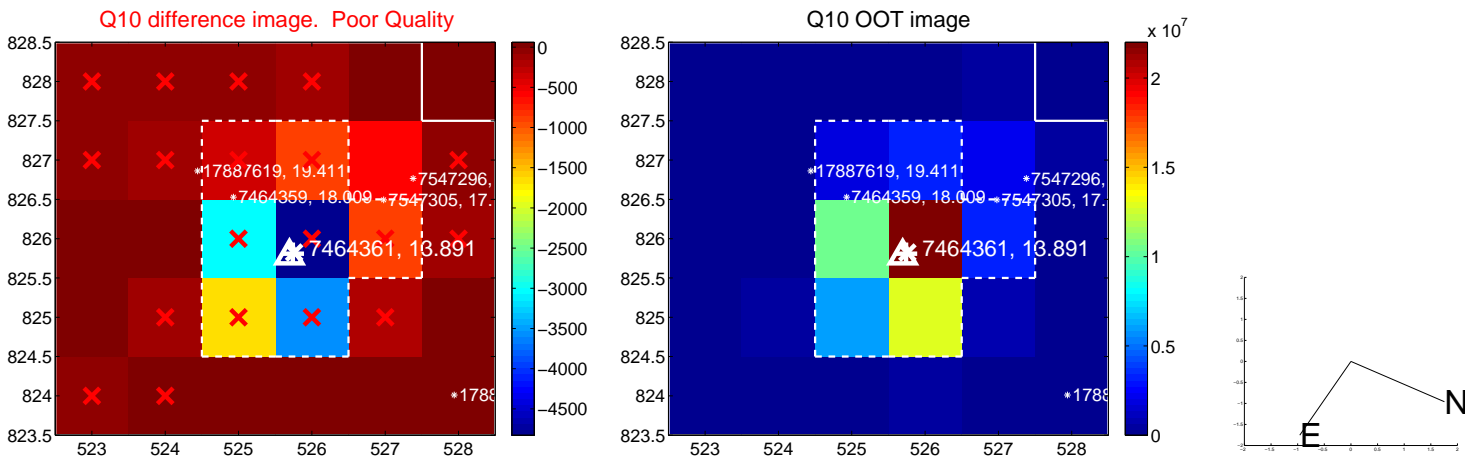
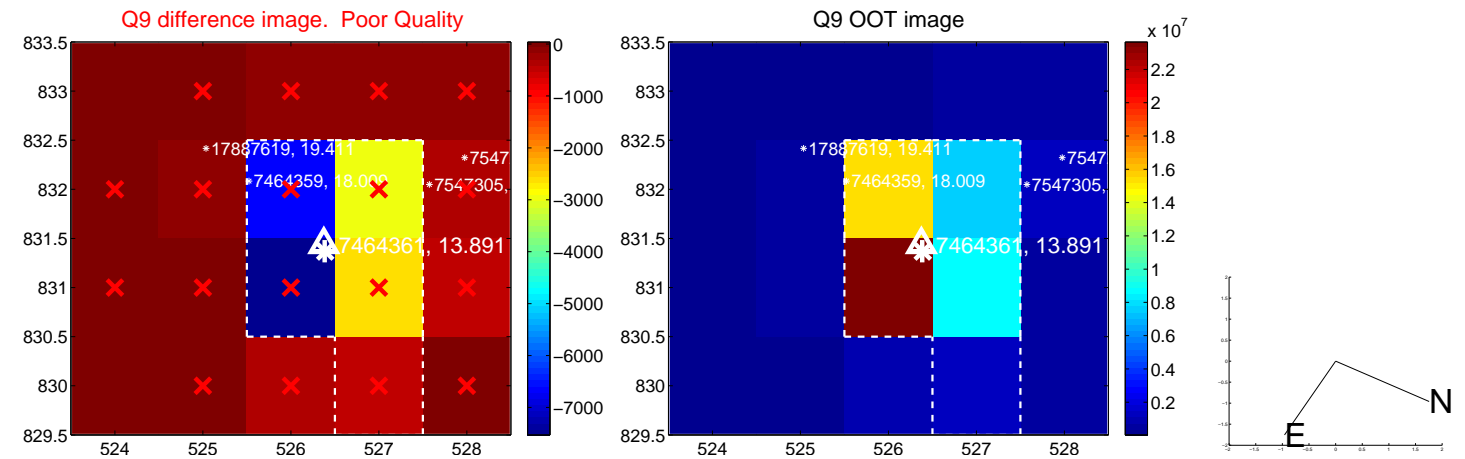
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



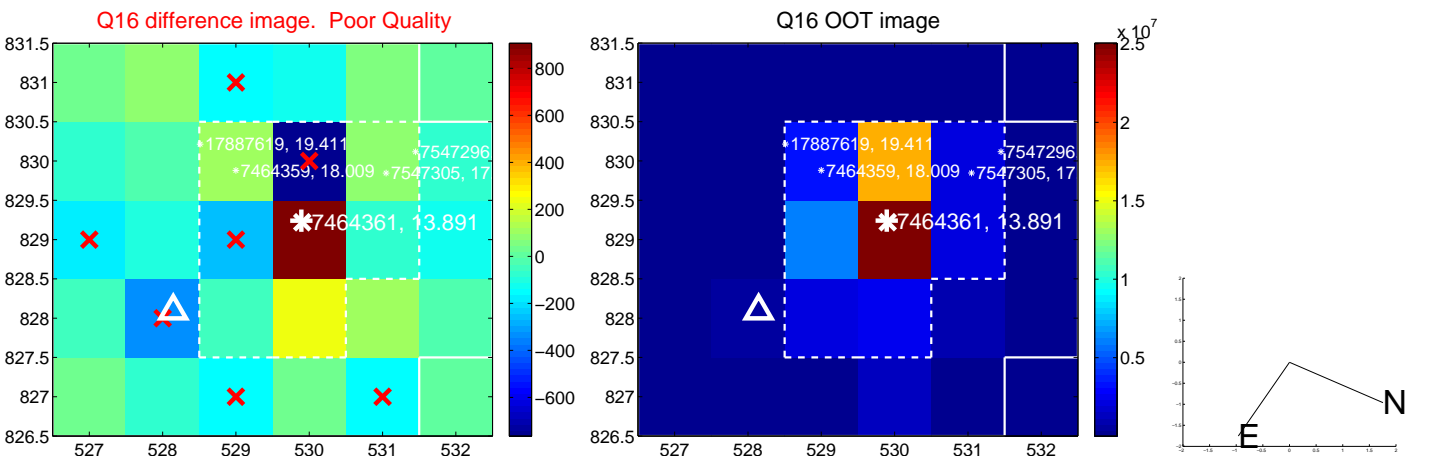
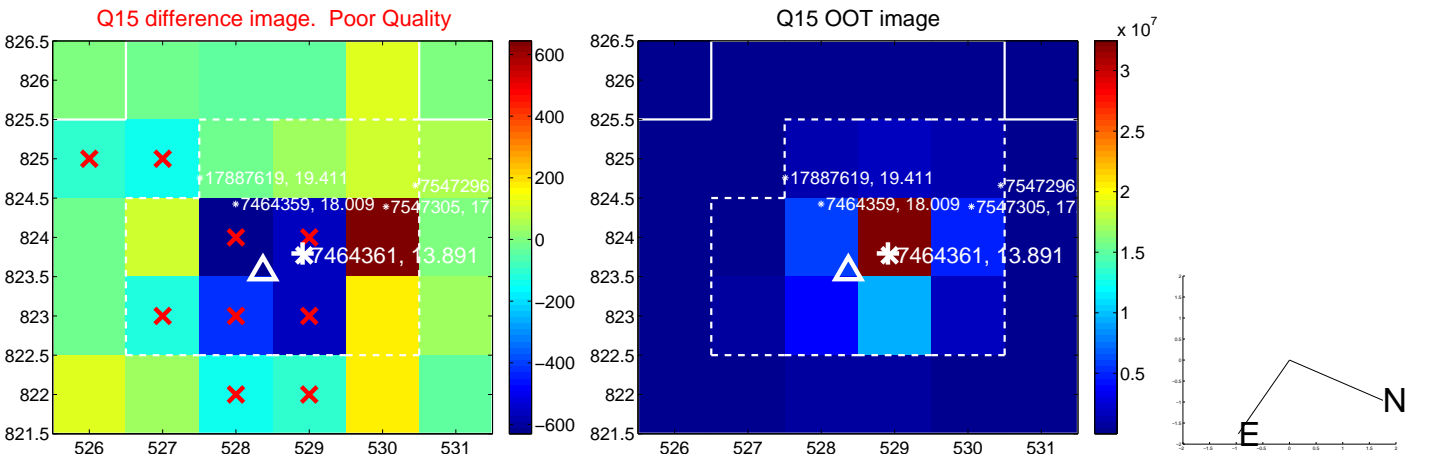
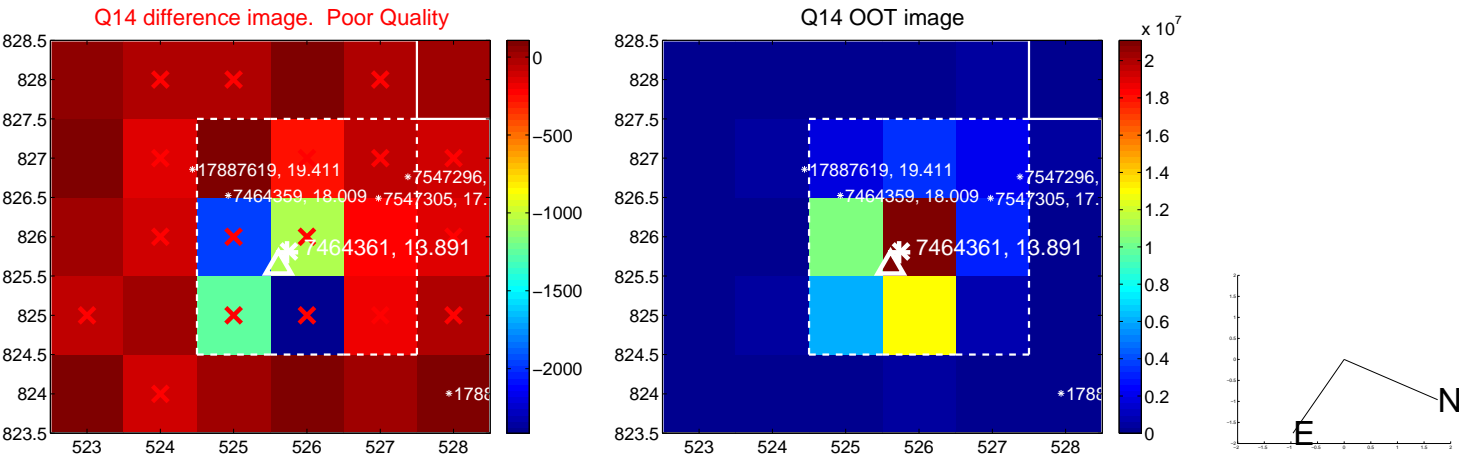
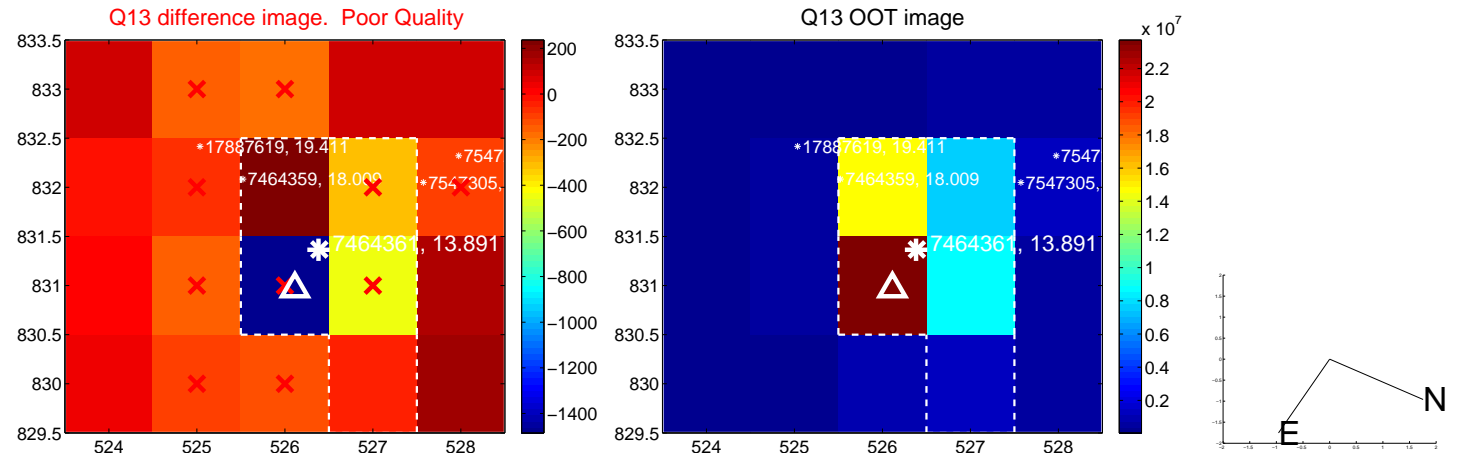
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



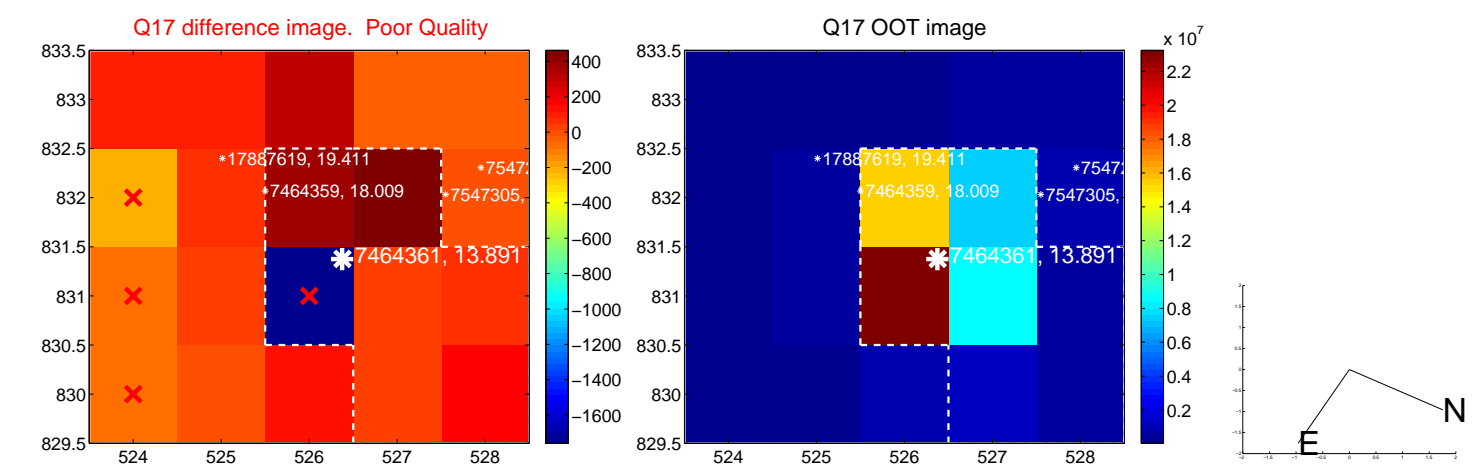
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



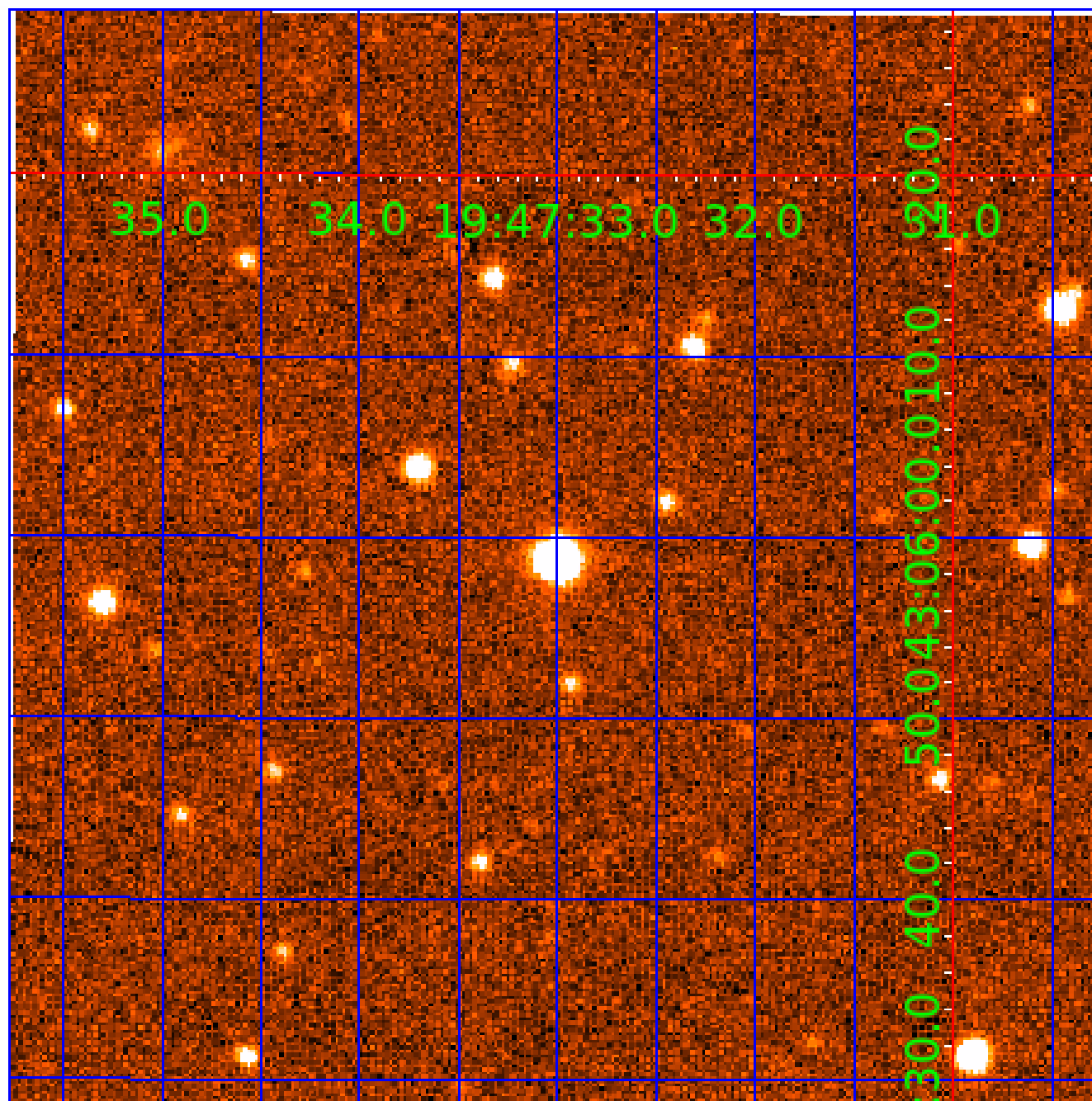
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



folded centroid time series figure for this object.

UKIRT Image

Declination



KIC 007464361

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})
007464361-01	OBS	No	1.789161	133.328712	0.0	9.632	7.2	0.0	1.68	6643	0.02	5200.39
007464361-02	OBS	No	169.264828	158.040274	278.8	2.261	13.3	5.8	1.68	6643	3.23	12.06
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TCE	Run Type	Disp	Score	N	S	C	E	Comments
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007464361-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
007464361-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS

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

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

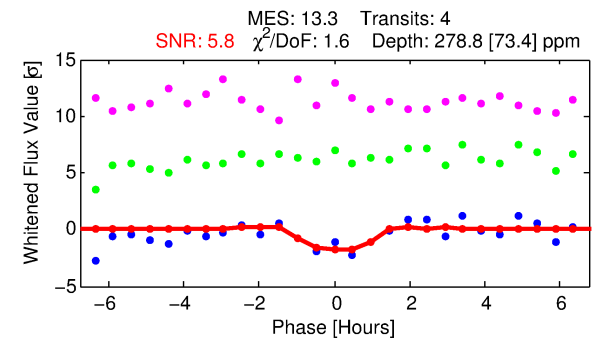
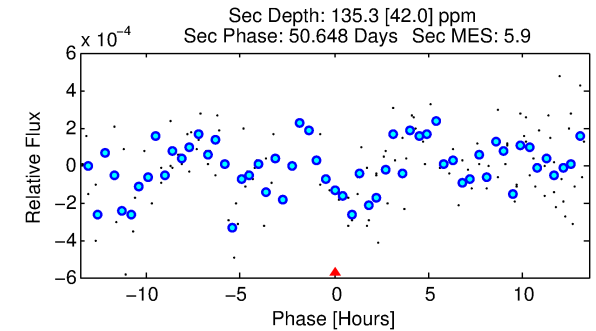
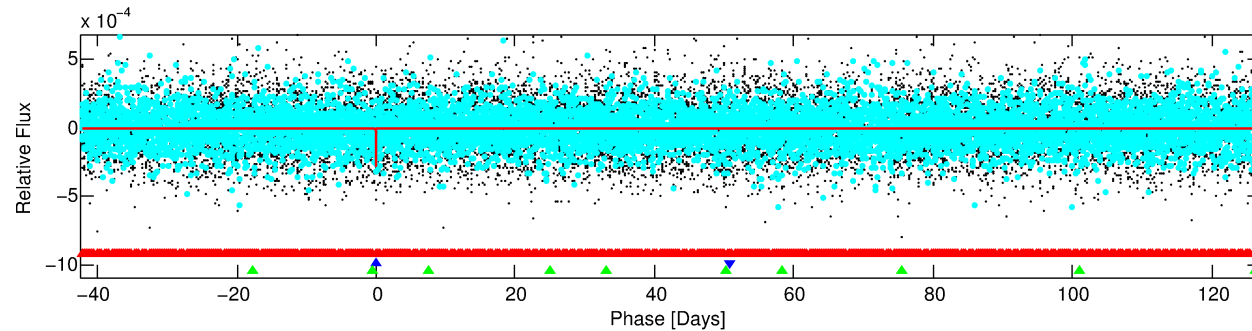
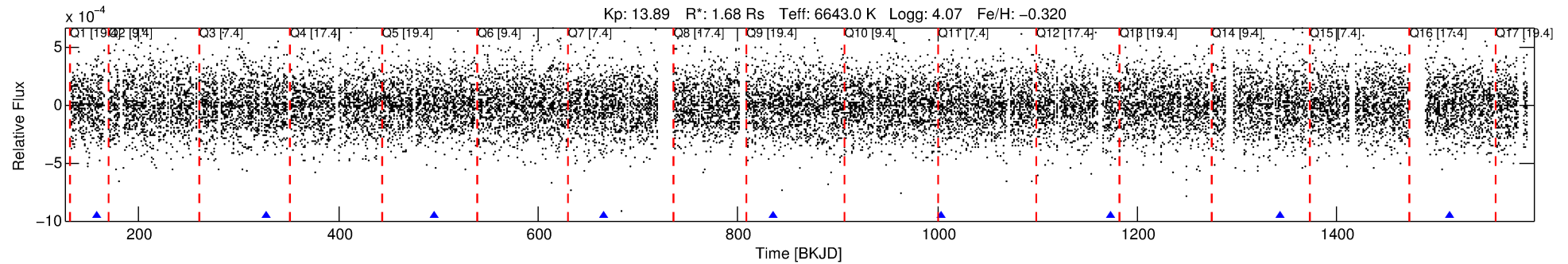
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007464361-02

No Significant Match Found

DV One-Page Summary

KIC: 7464361 Candidate: 2 of 3 Period: 169.265 d

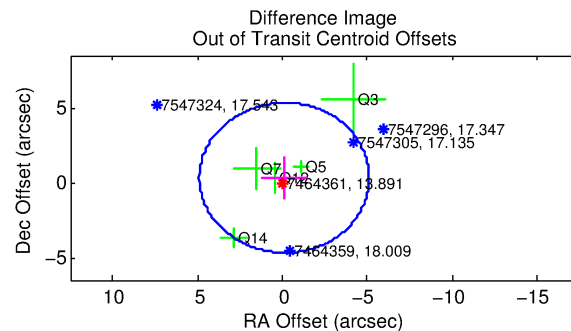
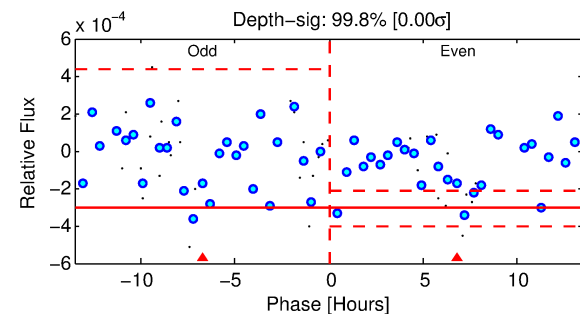
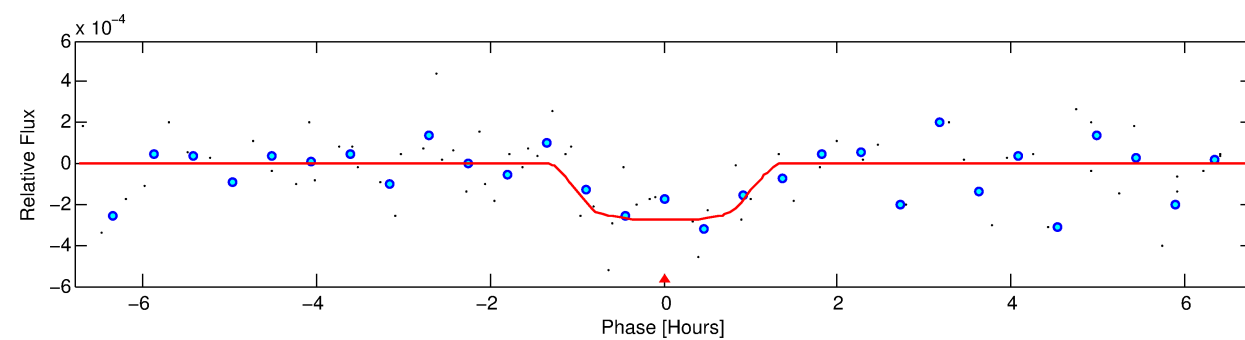


DV Fit Results:

Period = 169.26483 [0.00264] d
Epoch = 158.0403 [0.0110] BKJD
Rp/R* = 0.0176 [0.0219]
a/R* = 293.05 [2102.64]
b = 0.88 [1.87]
Seff = 12.06 [5.71]
Teff = 475 [56] K
Rp = 3.23 [4.15] Re
a = 0.6397 [0.1867] AU
Ag = 2921.88 [7454.15] [0.39] σ
Teffp = 5402 [3397] K [1.45] σ

DV Diagnostic Results:

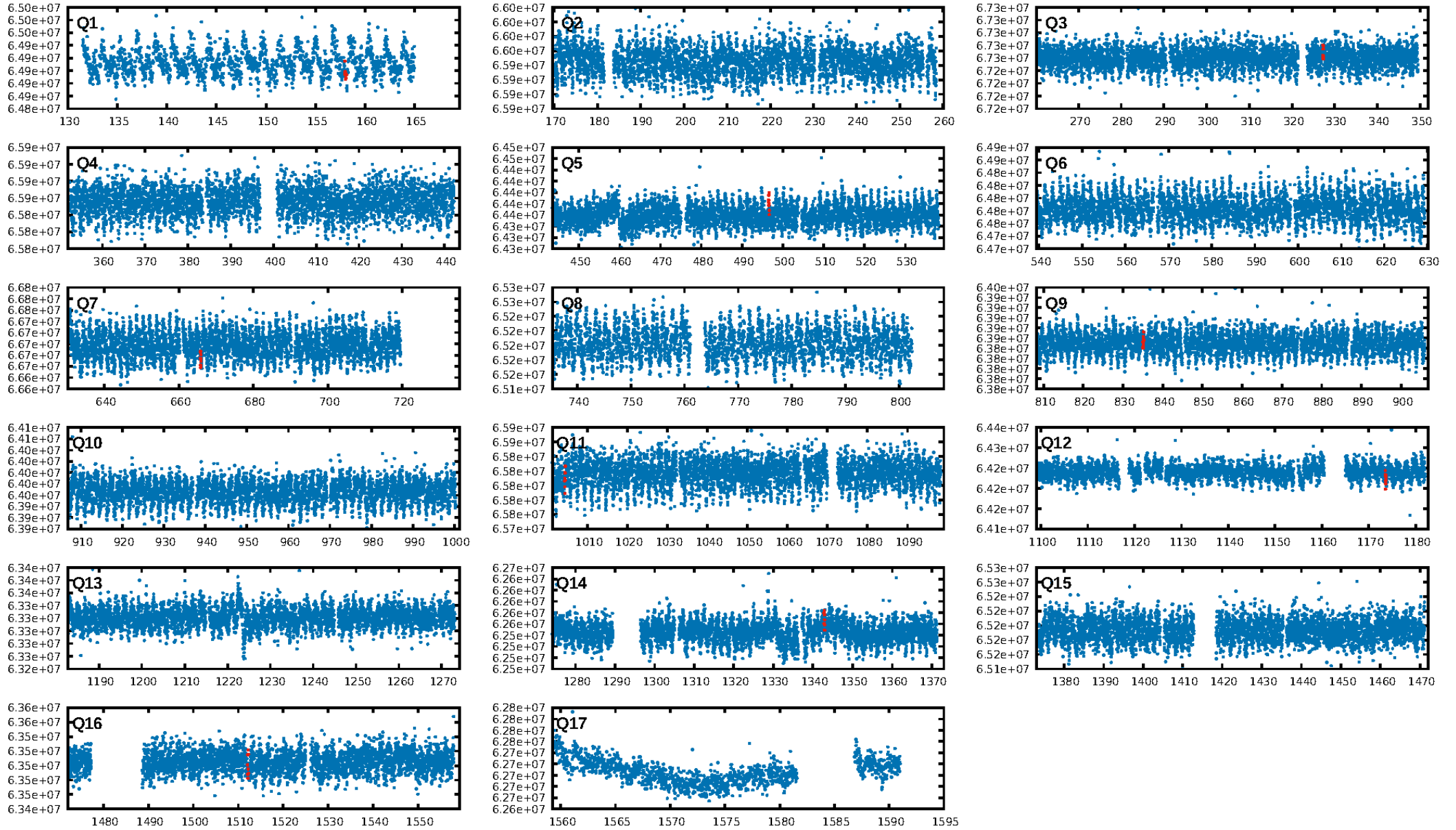
ShortPeriod-sig: 100.0% [43.56] σ
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.3%
ModelChiSquareGof-sig: 37.6%
Bootstrap-pfa: 3.31e-23
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: -3.491
Centroid-sig: 94.1%
Centroid-so: 0.301 arcsec [0.21] σ
OotOffset-rm: 0.342 arcsec [0.20] σ
KicOffset-rm: 0.300 arcsec [0.22] σ
OotOffset-st: 1/2/1/1 [5]
KicOffset-st: 1/2/1/1 [5]
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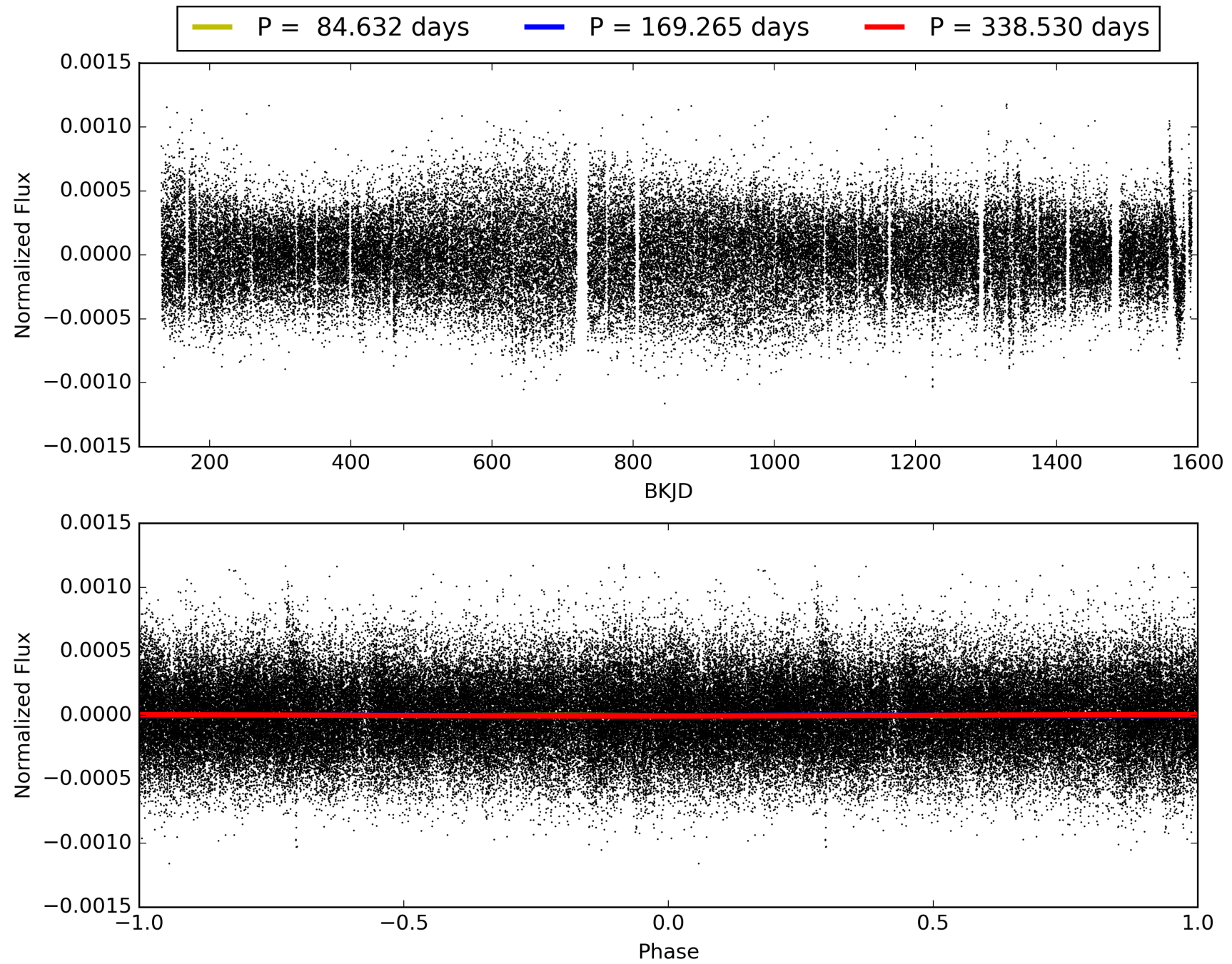
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 07:41:17 Z

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

TCE 007464361-02, PDC Light Curves

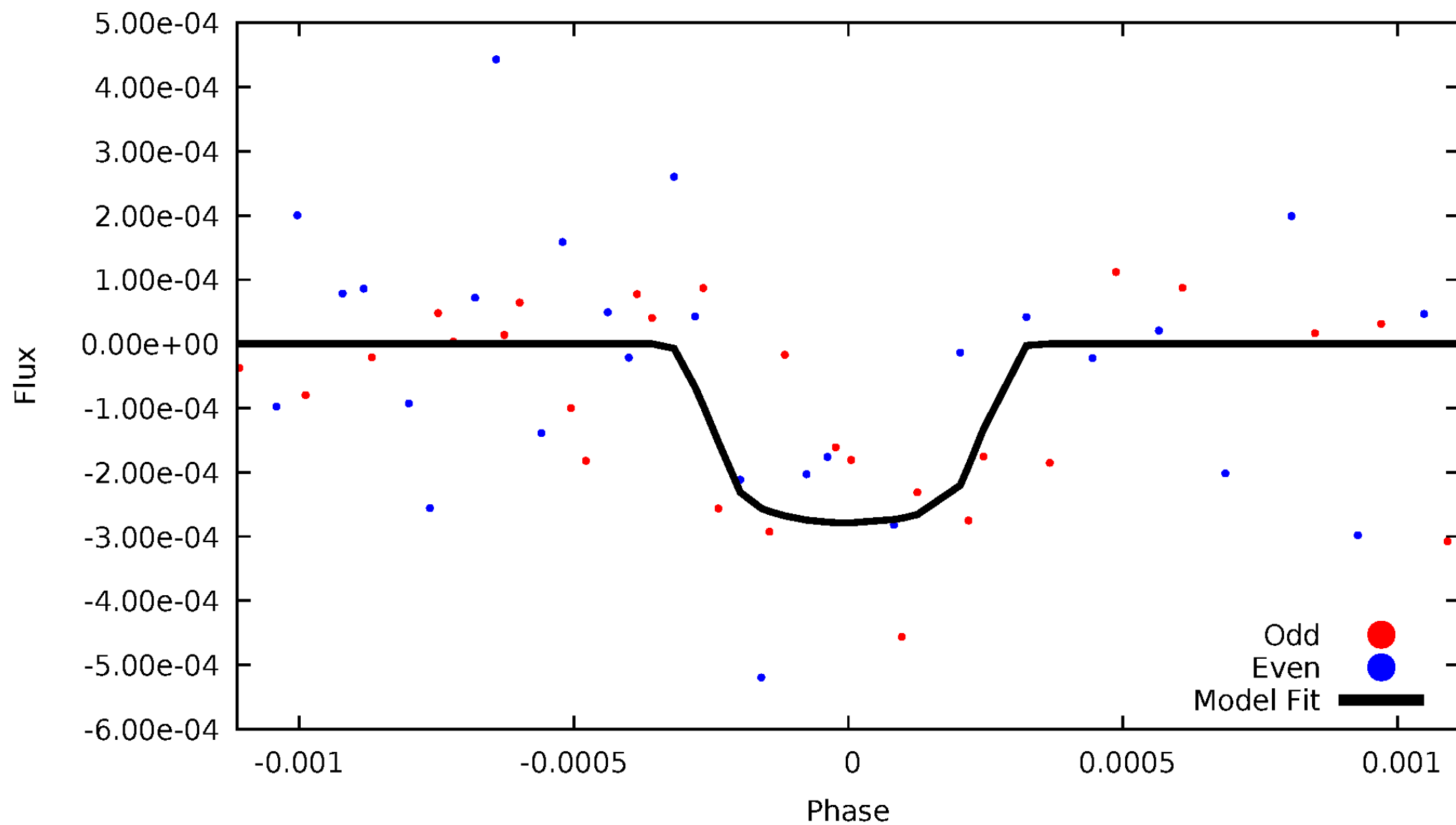


TCE 007464361-02



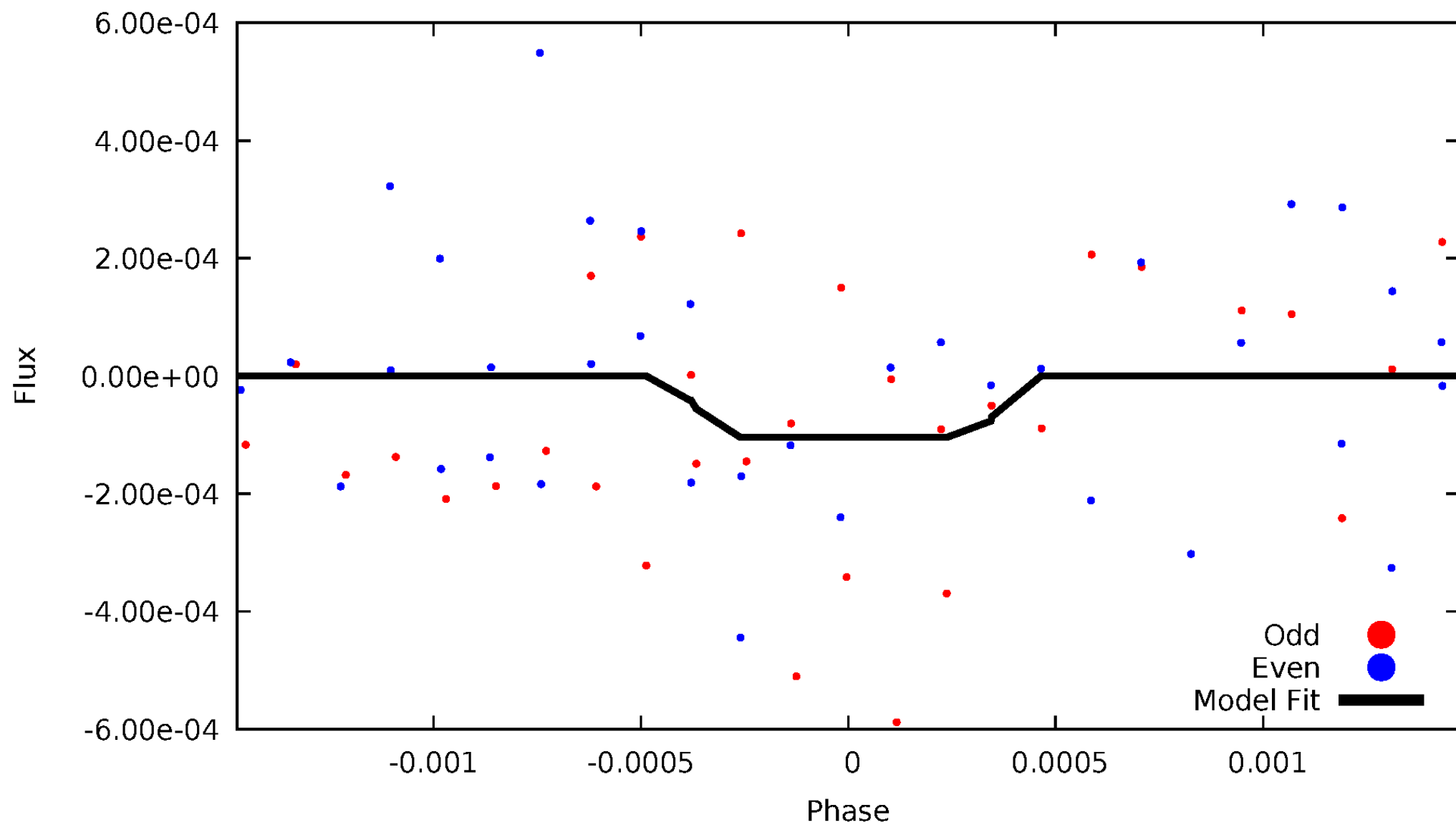
DV Odd/Even

TCE 007464361-02



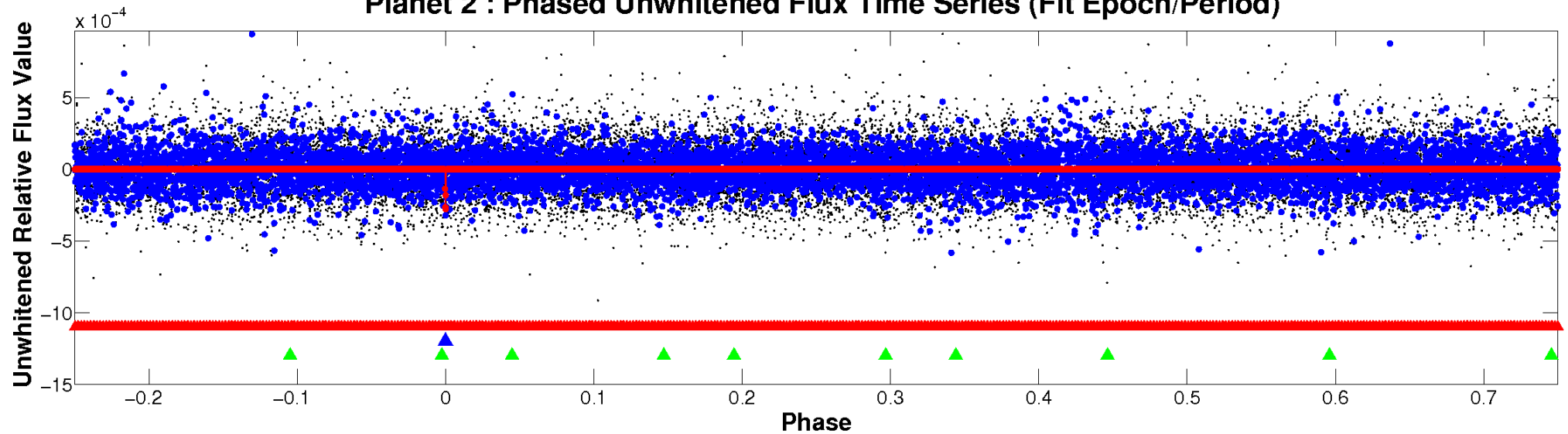
ALT Odd/Even

TCE 007464361-02

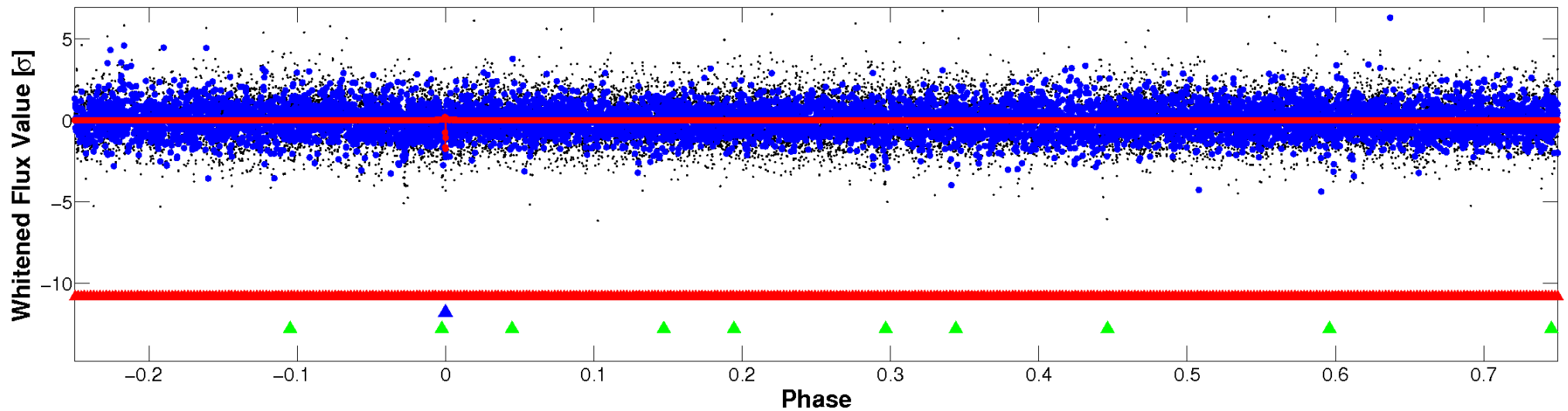


Non-Whitened Vs. Whitened Light Curve

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

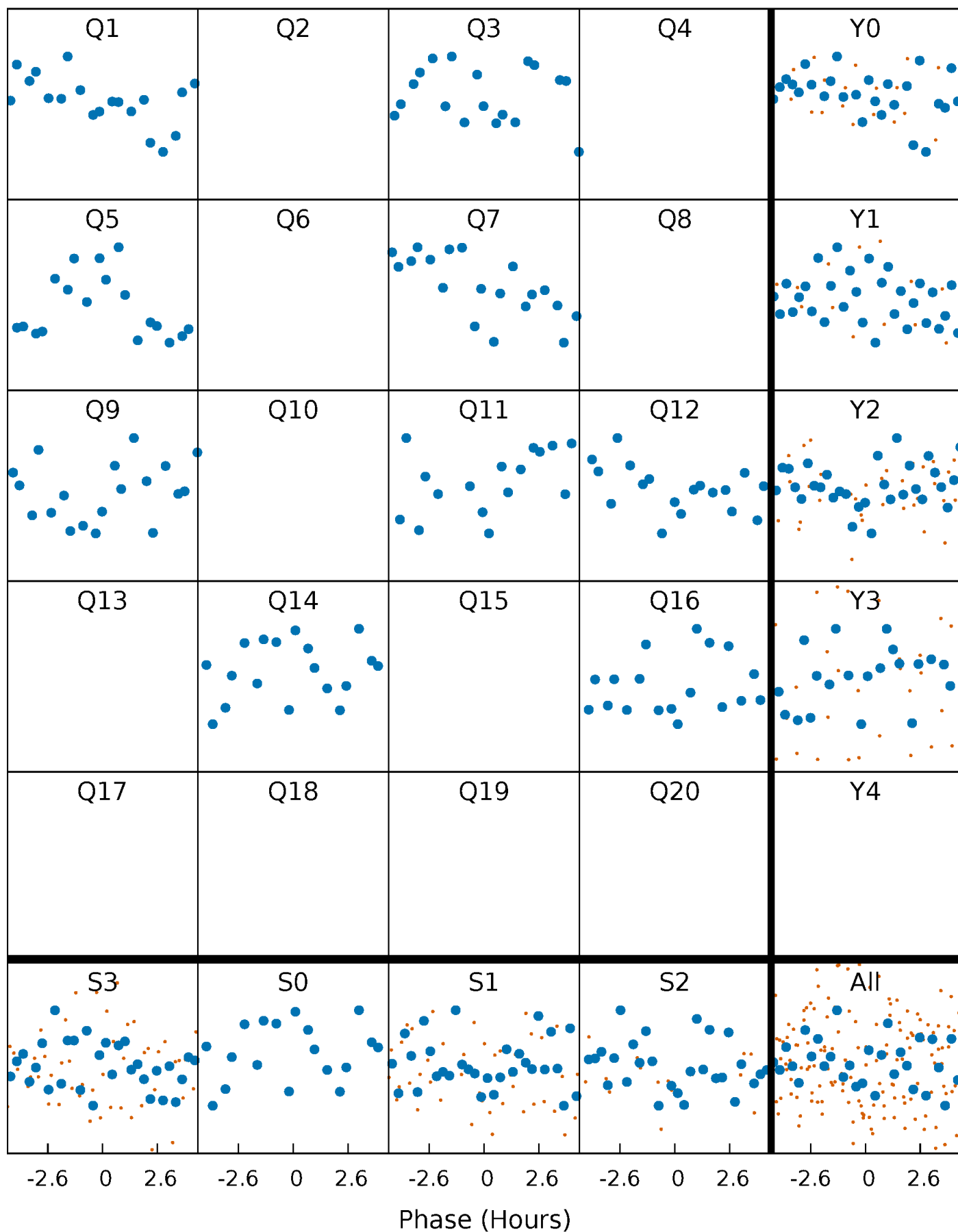


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



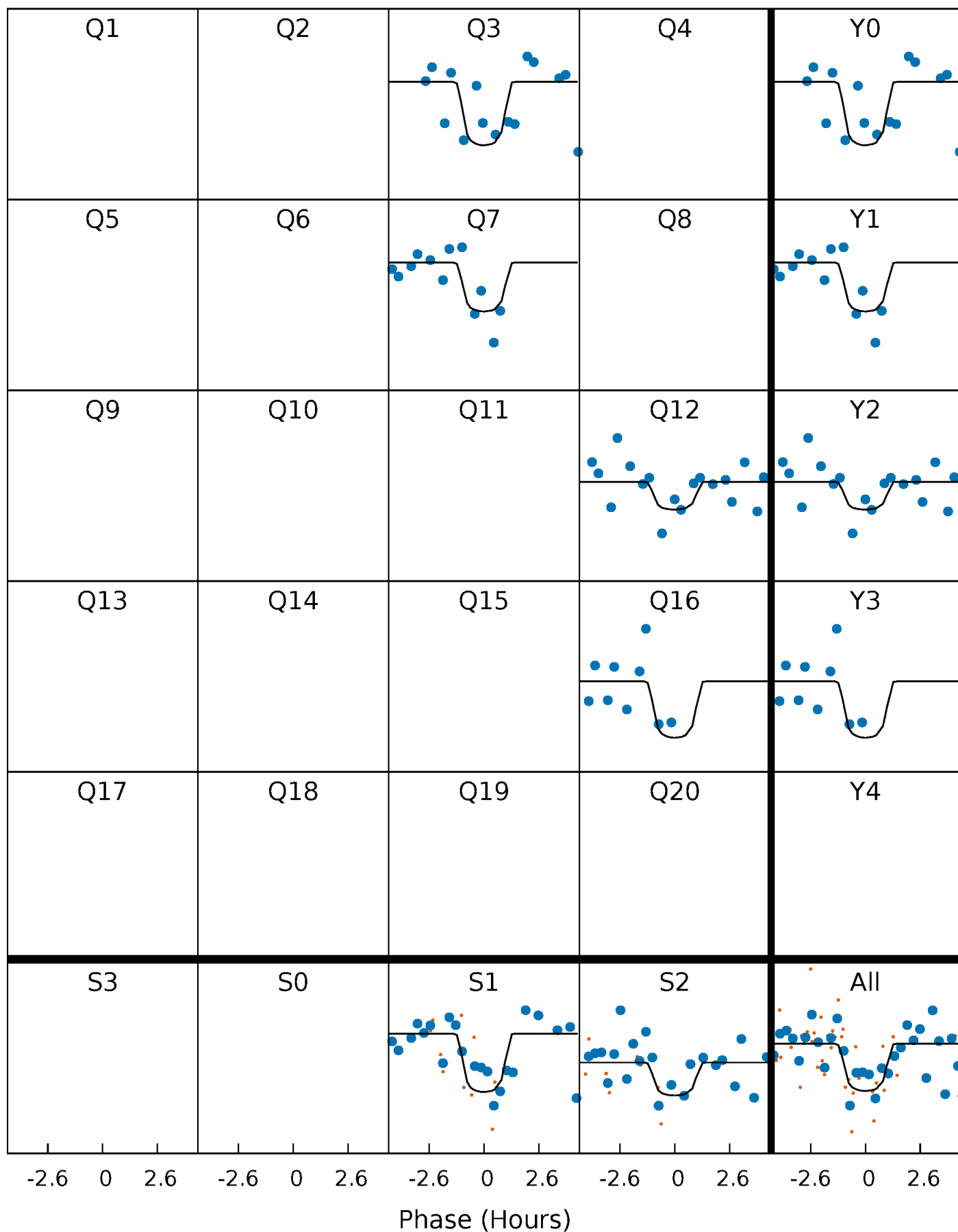
PDC Quarter-Phased Transit Curves

TCE 007464361-02 P=169.264828 Days $T_0=158.040274$ (BKJD)



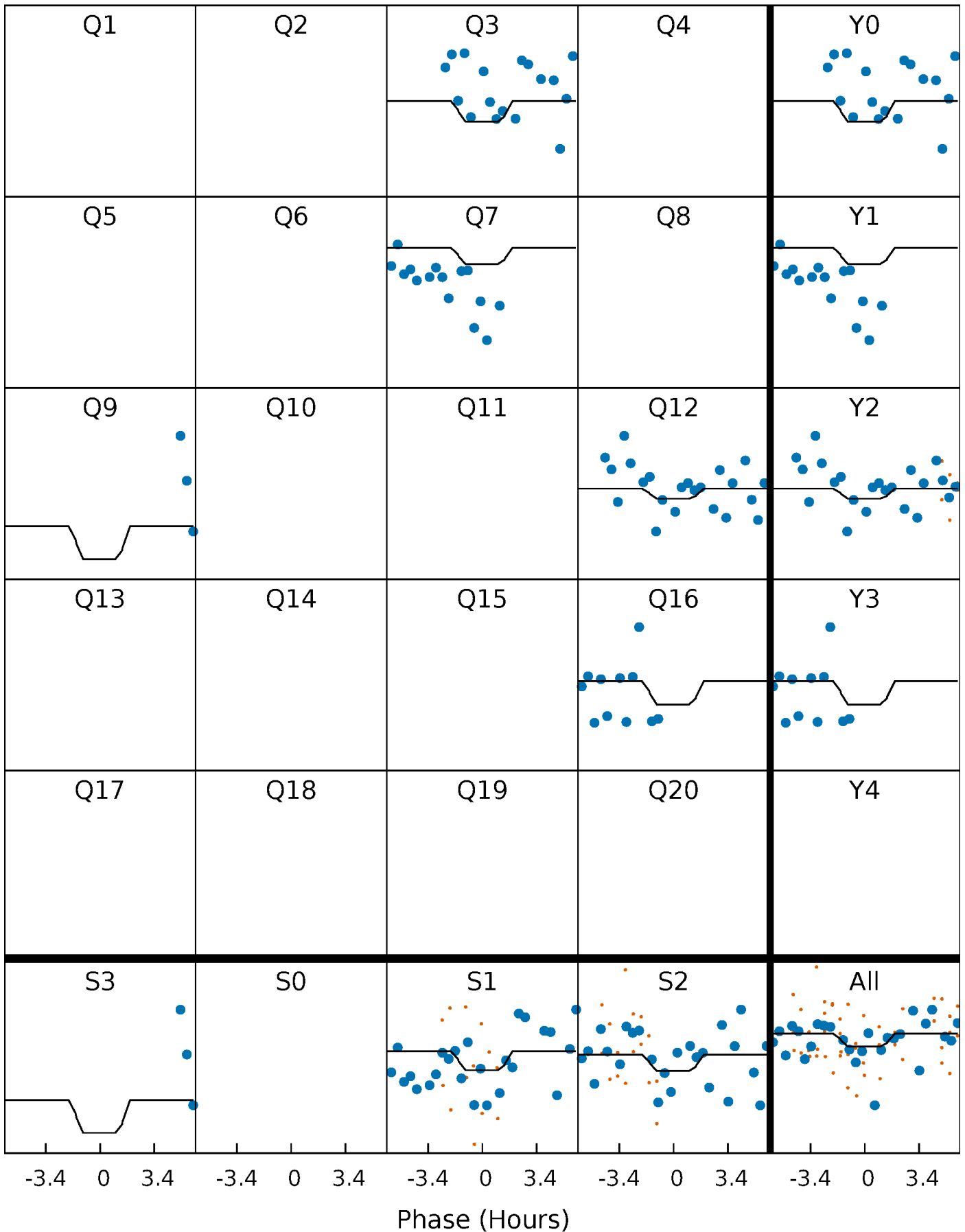
DV Quarter-Phased Transit Curves

TCE 007464361-02 P=169.264828 Days $T_0=158.040274$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

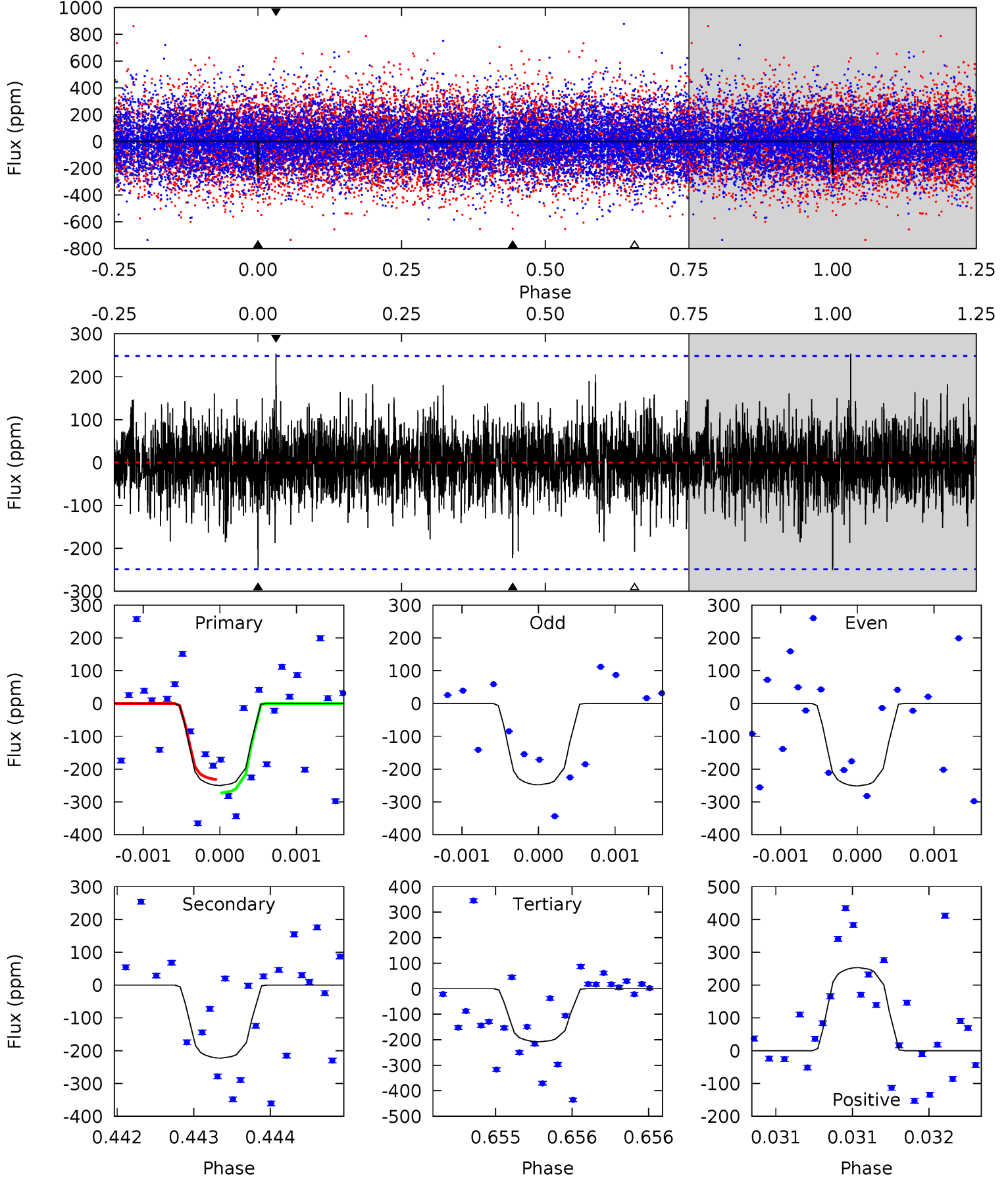
TCE 007464361-02 P=169.271611 Days $T_0=158.016780$ (BKJD)



DV Model-Shift Uniqueness Test

007464361-02, P = 169.264828 Days, E = 158.040274 Days

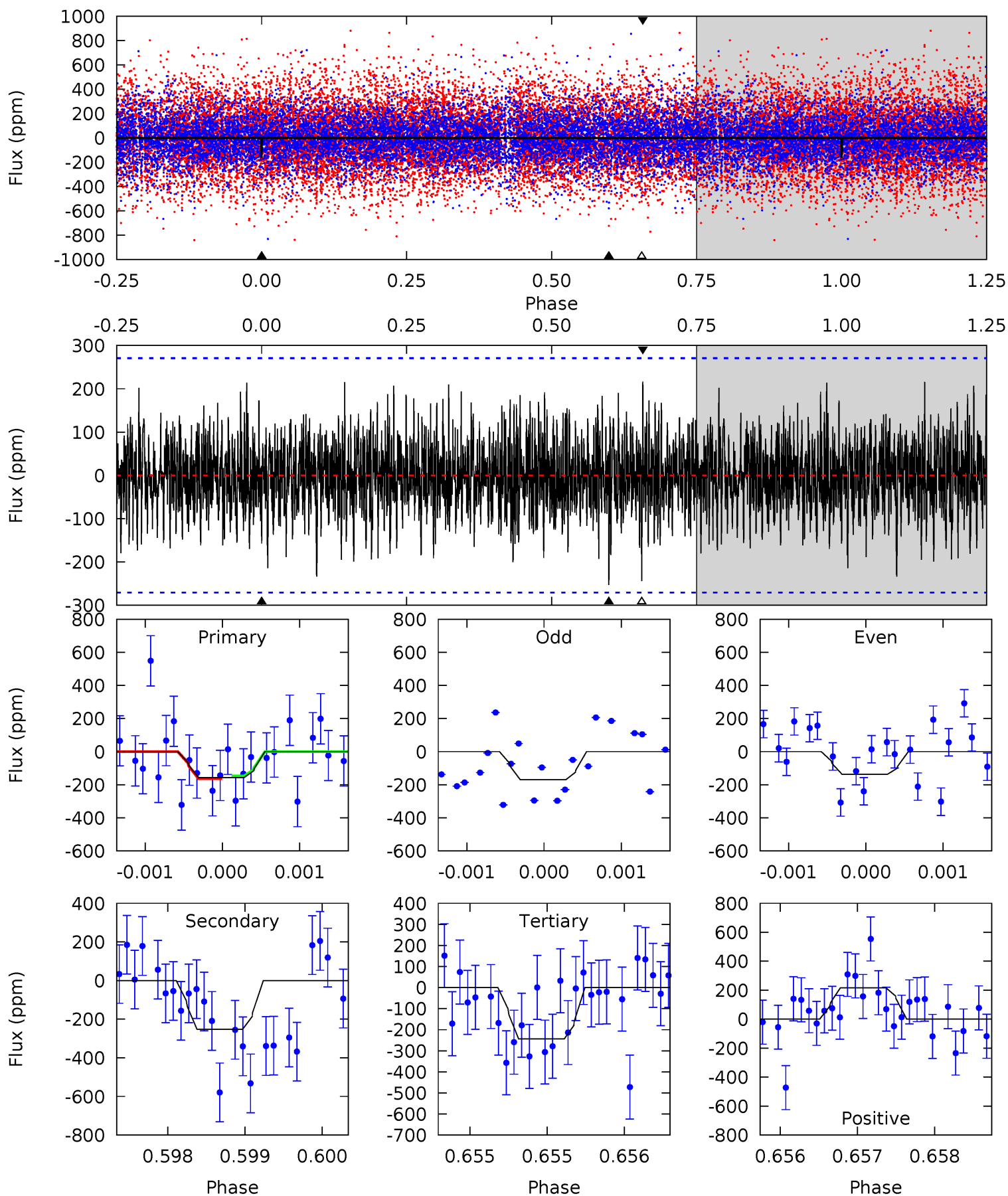
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.57	4.96	4.63	5.65	5.54	3.43	1.21	0.94	-0.08	0.33	-0.68	0.04	1.01	0.50	0.46



Alt Model-Shift Uniqueness Test

007464361-02, P = 169.271611 Days, E = 158.016780 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.18	5.12	4.94	4.39	5.48	3.34	1.41	-1.75	-1.21	0.18	0.73	0.33	1.03	0.46	0.16



Stellar Parameters For KIC 007464361

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6643^{+181}_{-242}	$4.072^{+0.258}_{-0.172}$	$-0.320^{+0.250}_{-0.300}$	$1.682^{+0.492}_{-0.541}$	$1.222^{+0.183}_{-0.204}$	$0.361^{+0.595}_{-0.173}$
	+3%/-4%	+6%/-4%	+78%/-94%	+29%/-32%	+15%/-17%	+165%/-48%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 007464361-02 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-223 ± 45	$4.26^{+3.85}_{-2.85}$	661^{+50}_{-54}	5315^{+4374}_{-1168}	2777^{+22129}_{-2008}
Alt.	-253 ± 49	$3.49^{+3.61}_{-2.48}$	659^{+53}_{-57}	5887^{+7823}_{-1474}	4698^{+51007}_{-3609}

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 $A_{obs} \gg 1.0$

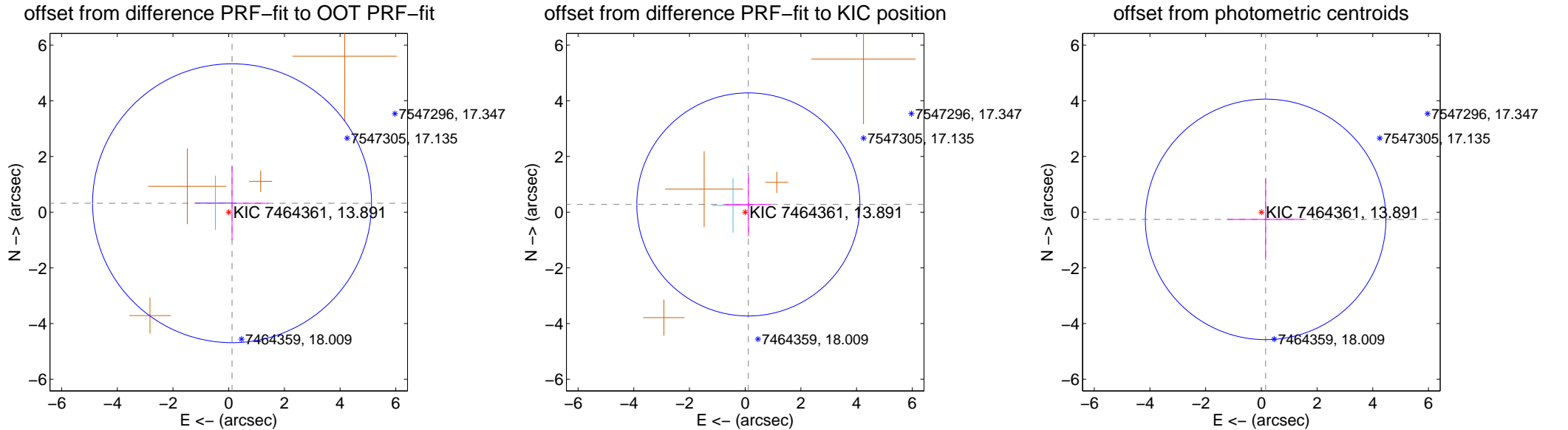
DV Centroid Data

Supplemental centroid analysis for 007464361-02. Kepler magnitude: 13.89. Transit SNR 5.77

There are 1 quarters with good PRF difference image offsets

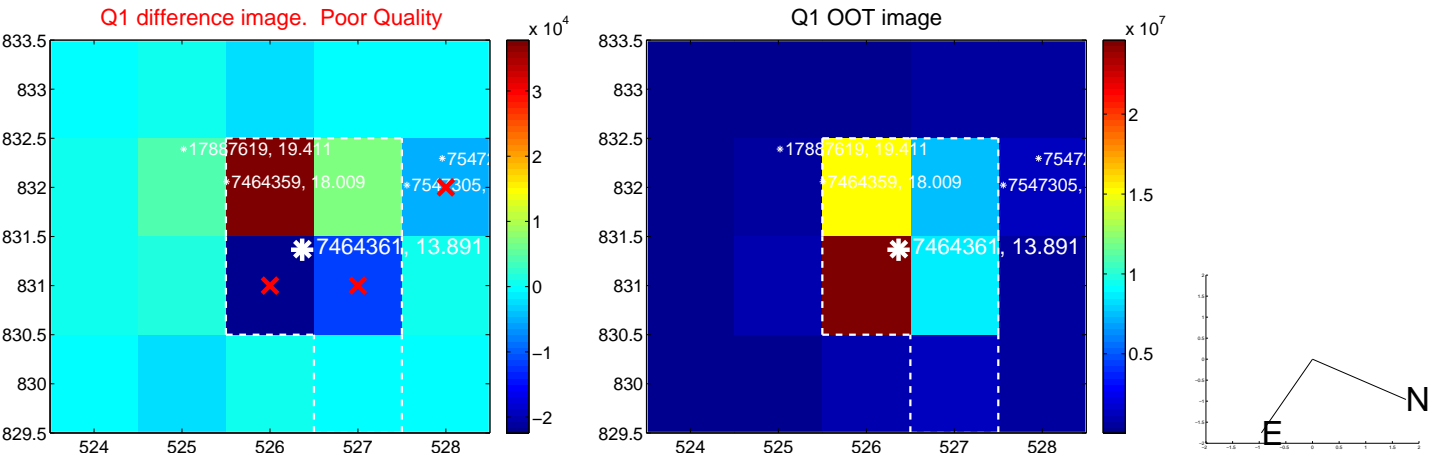
The direct PRF centroid is offset from the target star catalog position by about 0.12 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.342 ± 1.670	0.20	-0.119 ± 1.312	0.321 ± 1.332
PRF-fit source offset from KIC position	0.300 ± 1.336	0.22	-0.114 ± 0.828	0.277 ± 1.141
photometric centroid source offset	0.30 ± 1.44	0.21	-0.15 ± 1.38	-0.26 ± 1.46

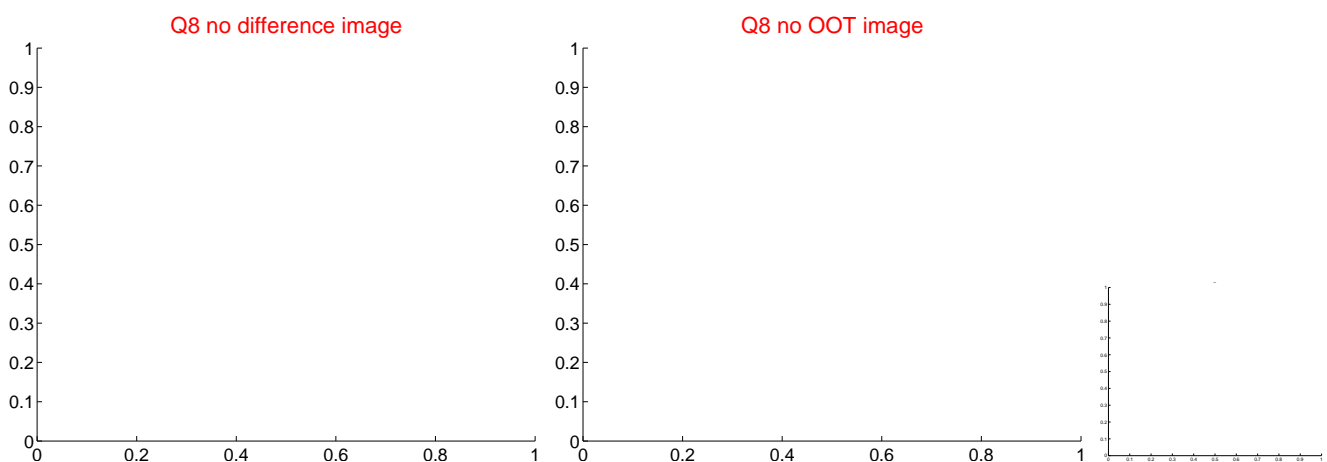
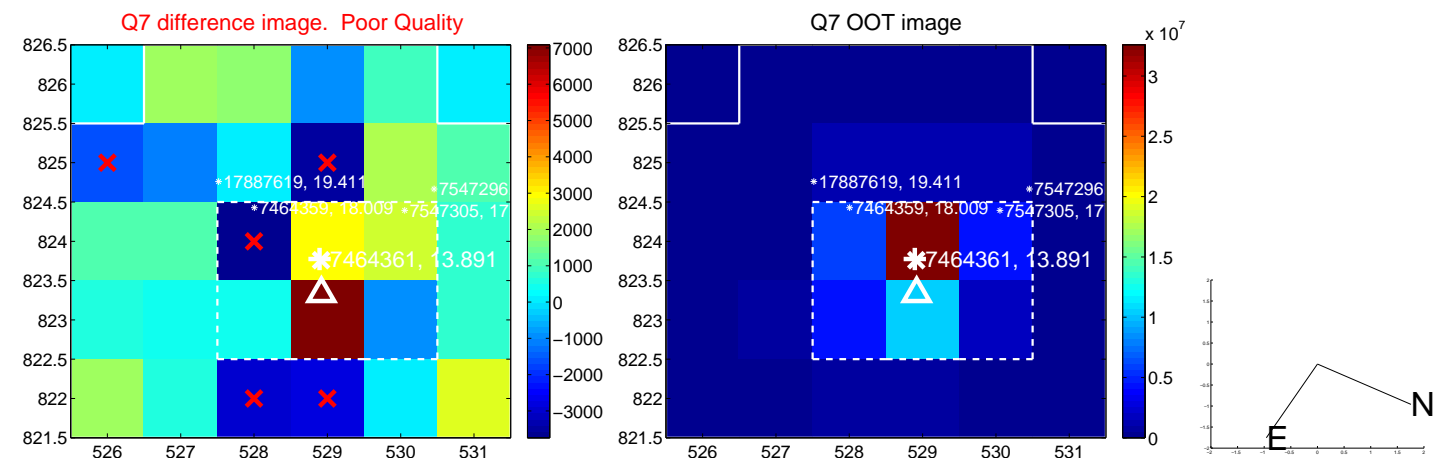
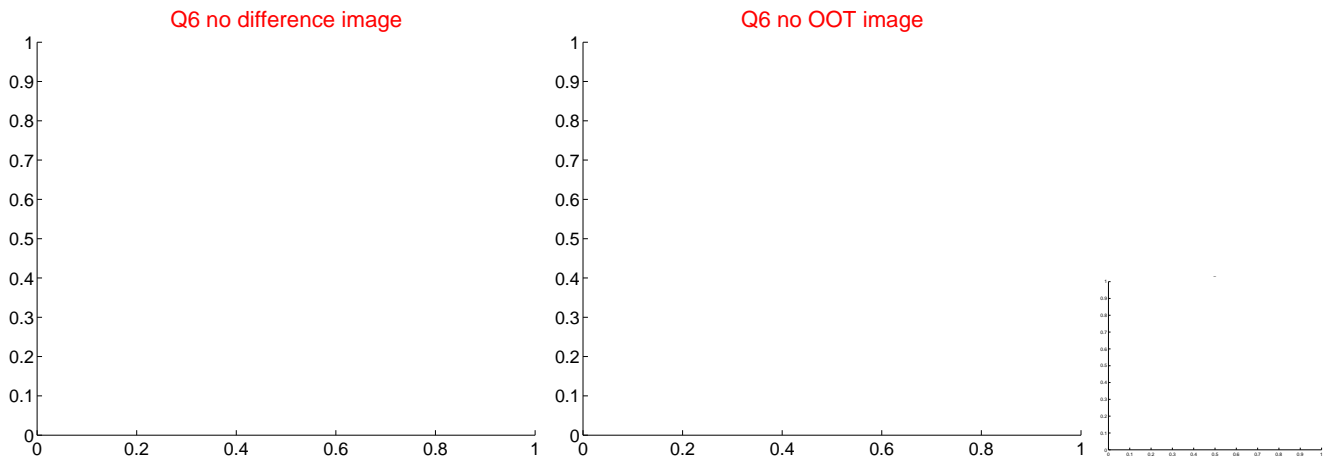
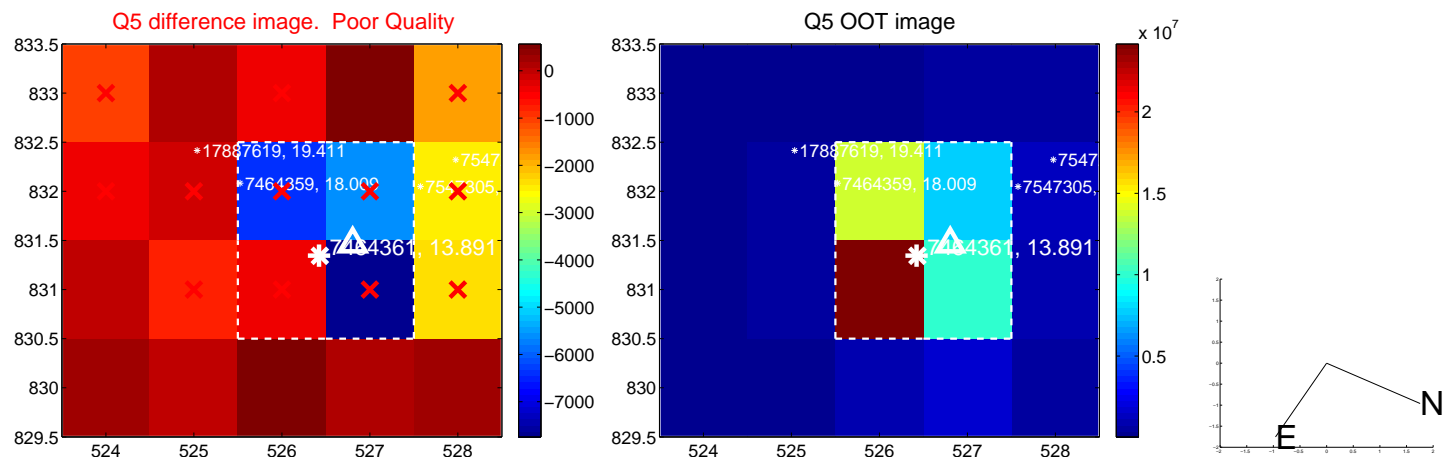


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

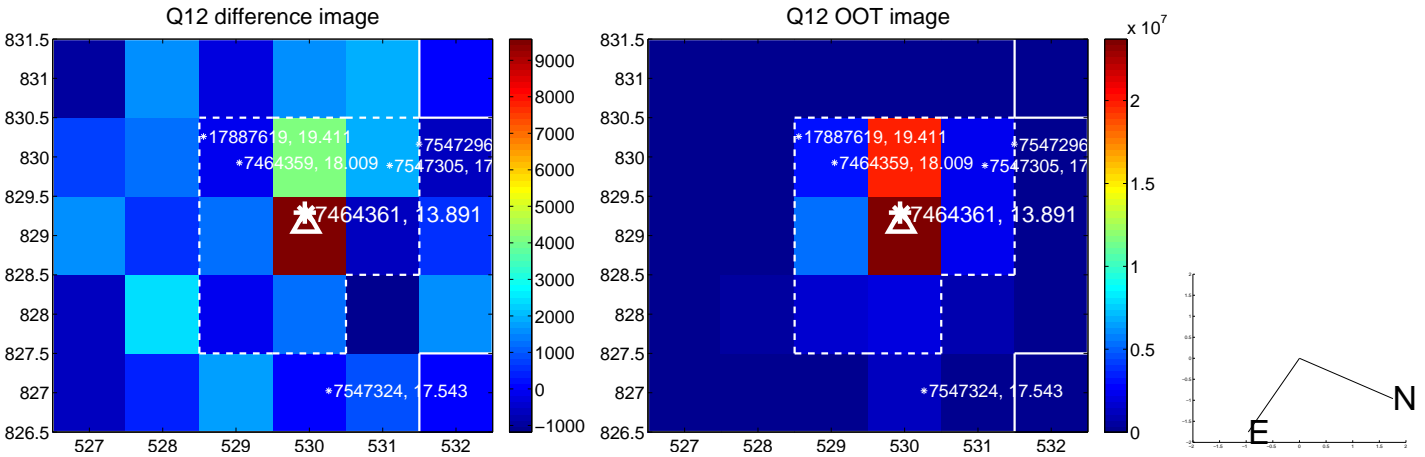
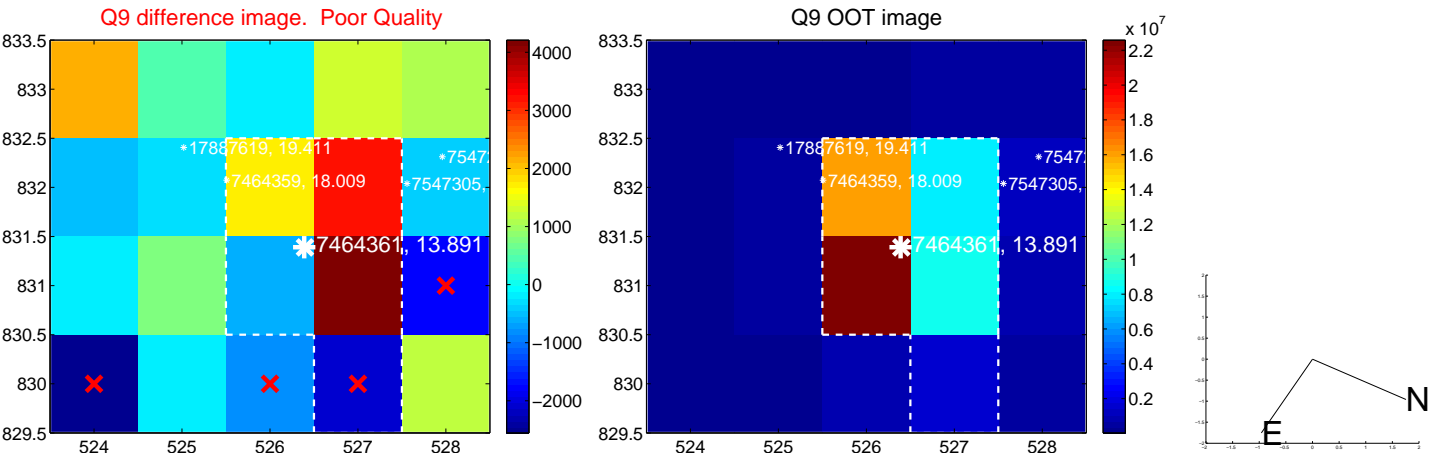
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

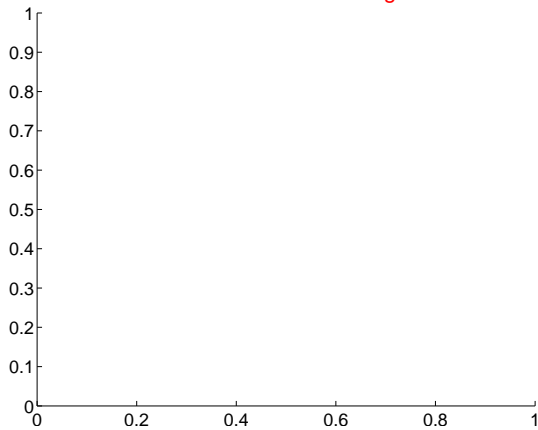


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

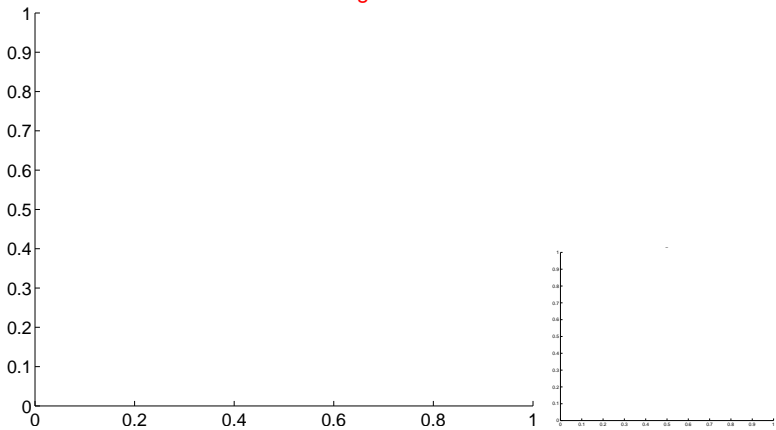


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

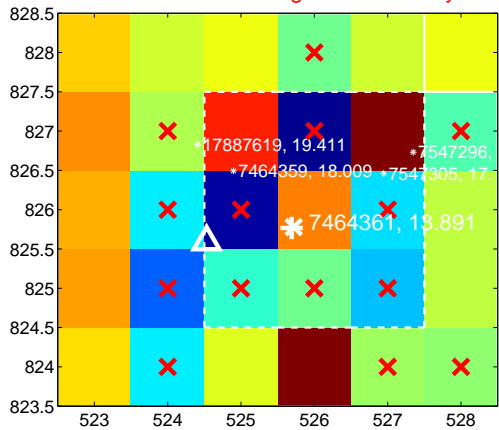
Q13 no difference image



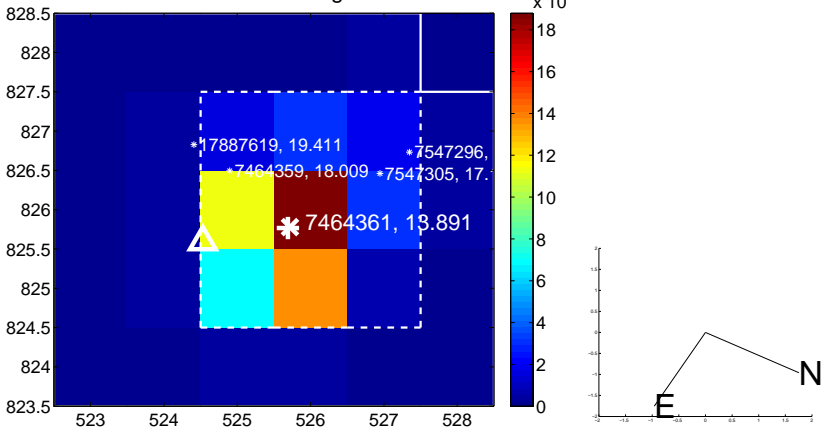
Q13 no OOT image



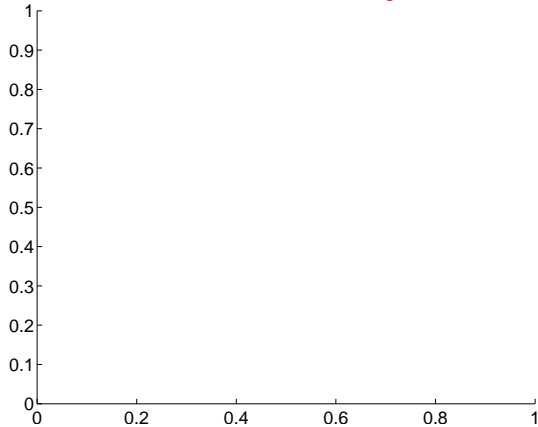
Q14 difference image. Poor Quality



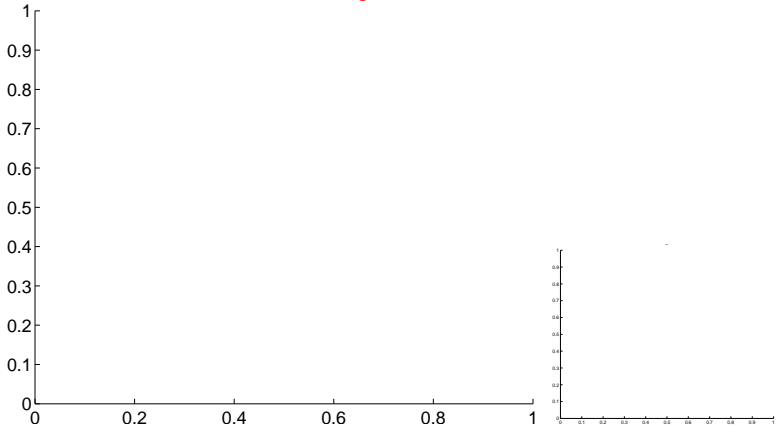
Q14 OOT image



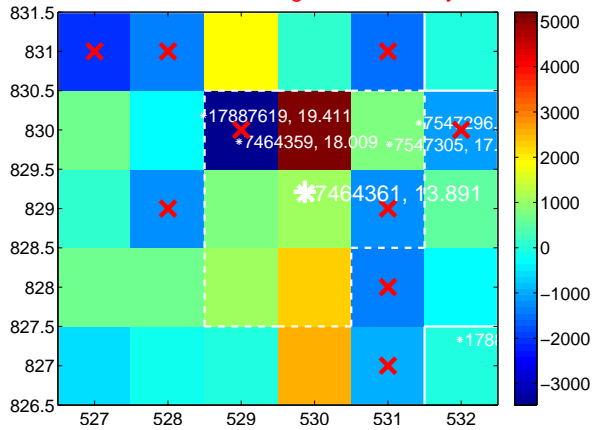
Q15 no difference image



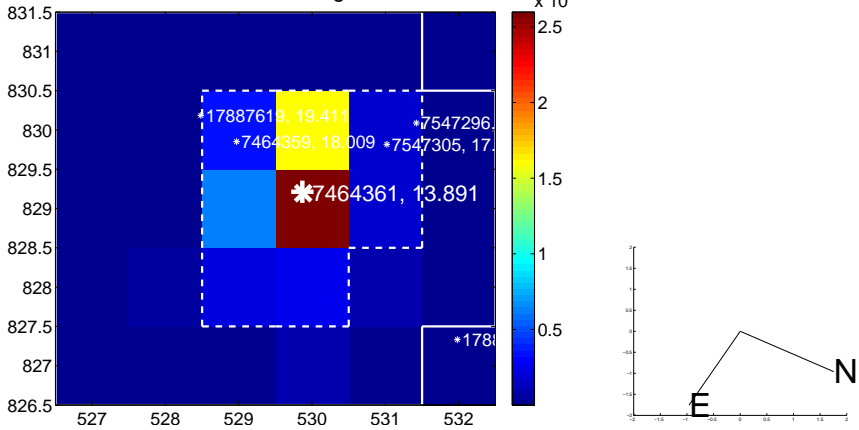
Q15 no OOT image



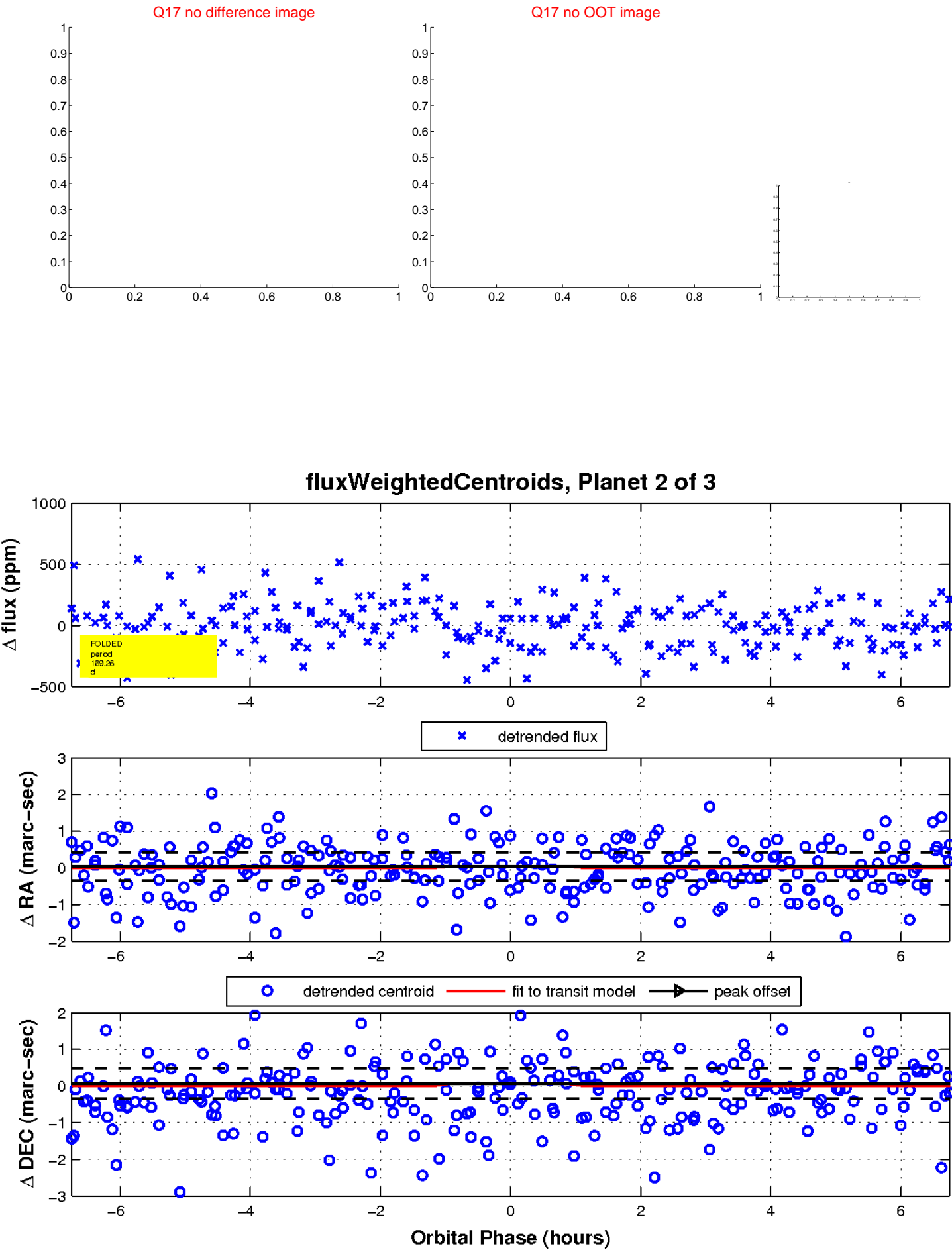
Q16 difference image. Poor Quality



Q16 OOT image

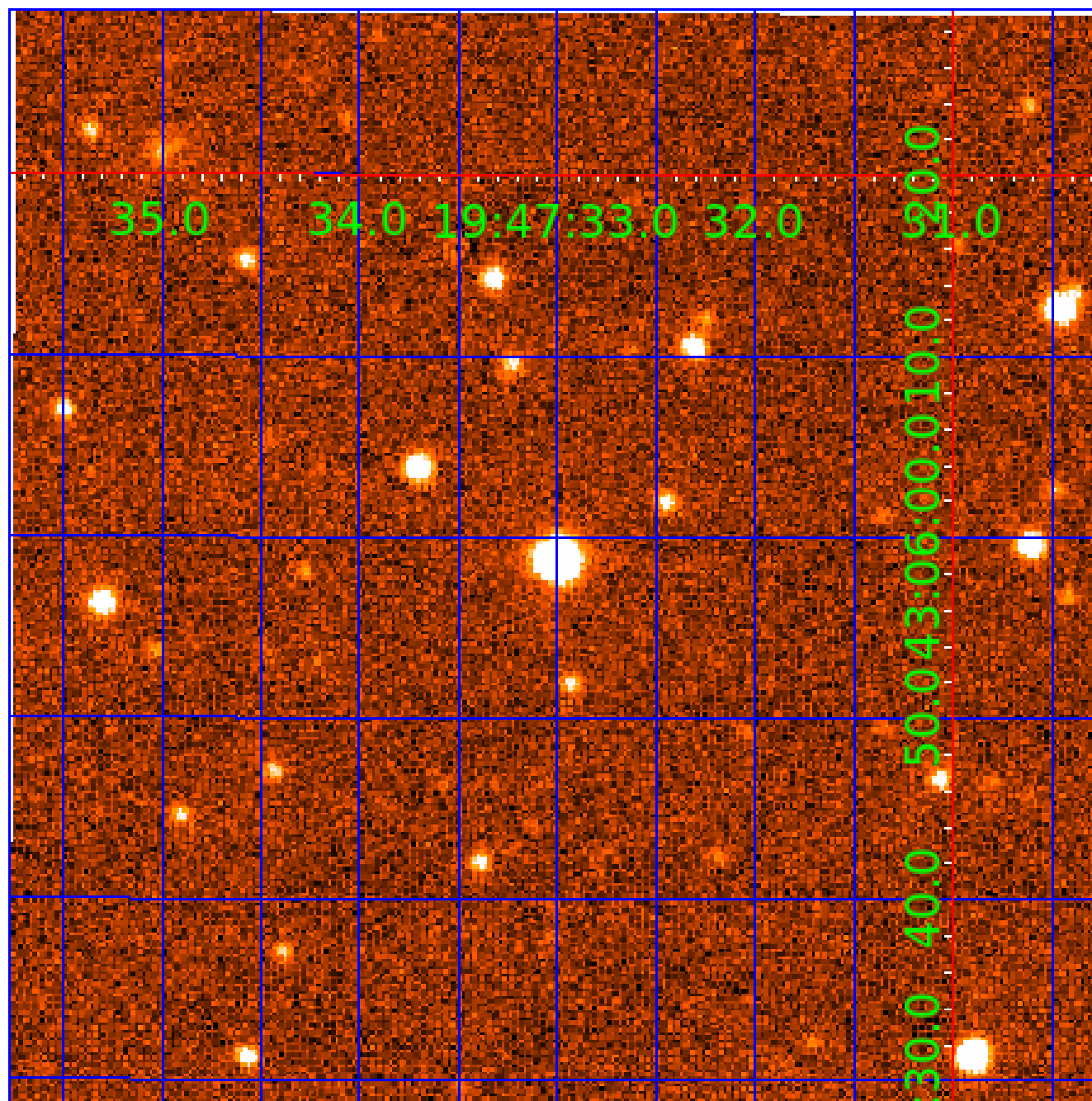


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 007464361

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})
007464361-01	OBS	No	1.789161	133.328712	0.0	9.632	7.2	0.0	1.68	6643	0.02	5200.39
007464361-02	OBS	No	169.264828	158.040274	278.8	2.261	13.3	5.8	1.68	6643	3.23	12.06
007464361-03	OBS	No	143.939995	216.287378	293.7	13.767	12.3	10.1	1.68	6643	3.04	14.97

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007464361-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_FEW_DIFFS
007464361-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
007464361-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS

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

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

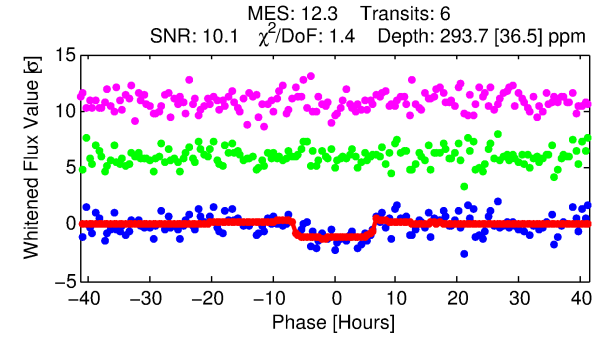
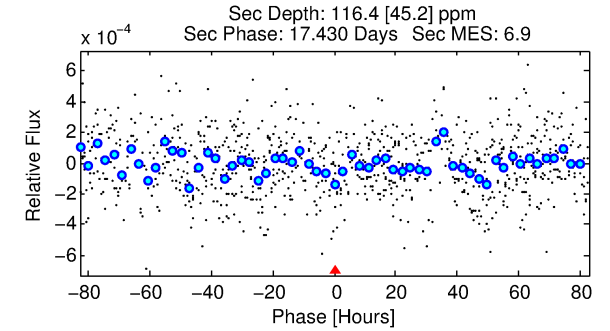
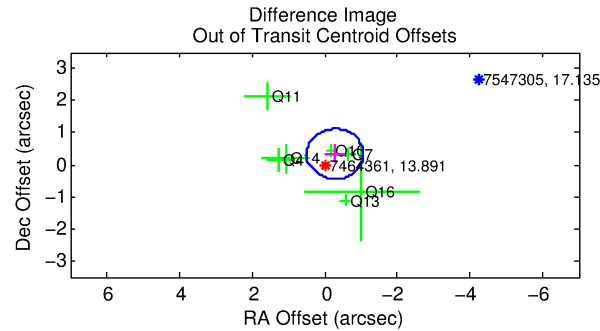
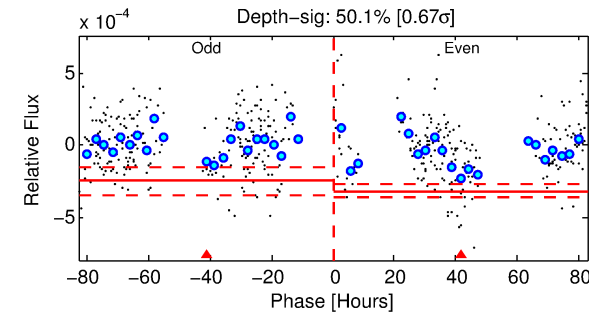
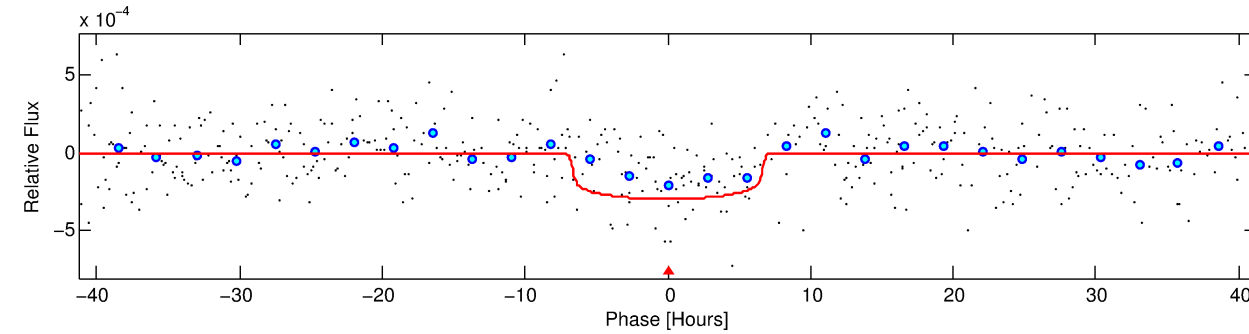
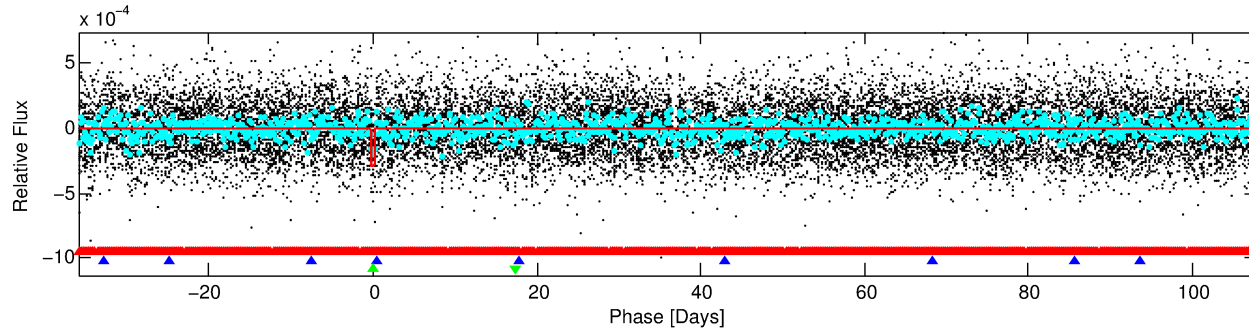
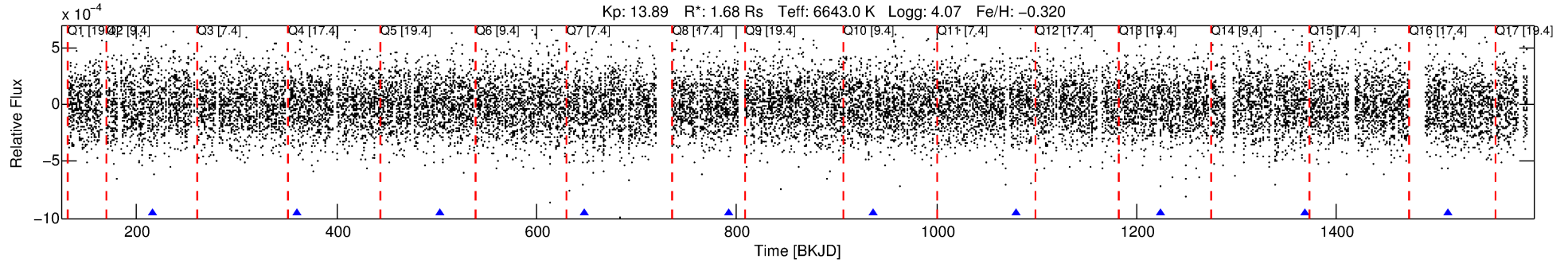
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007464361-03

No Significant Match Found

DV One-Page Summary

KIC: 7464361 Candidate: 3 of 3 Period: 143.940 d



DV Fit Results:

Period = 143.94000 [0.01097] d
Epoch = 216.2874 [0.0295] BKJD
Rp/R* = 0.0165 [0.0057]
a/R* = 64.27 [122.31]
b = 0.62 [1.89]
Seff = 14.97 [7.09]
Teq = 502 [59] K
Rp = 3.04 [1.44] Re
a = 0.5742 [0.1676] AU
Ag = 2291.36 [2094.41] [1.09σ]
Teffp = 5366 [1085] K [4.48σ]

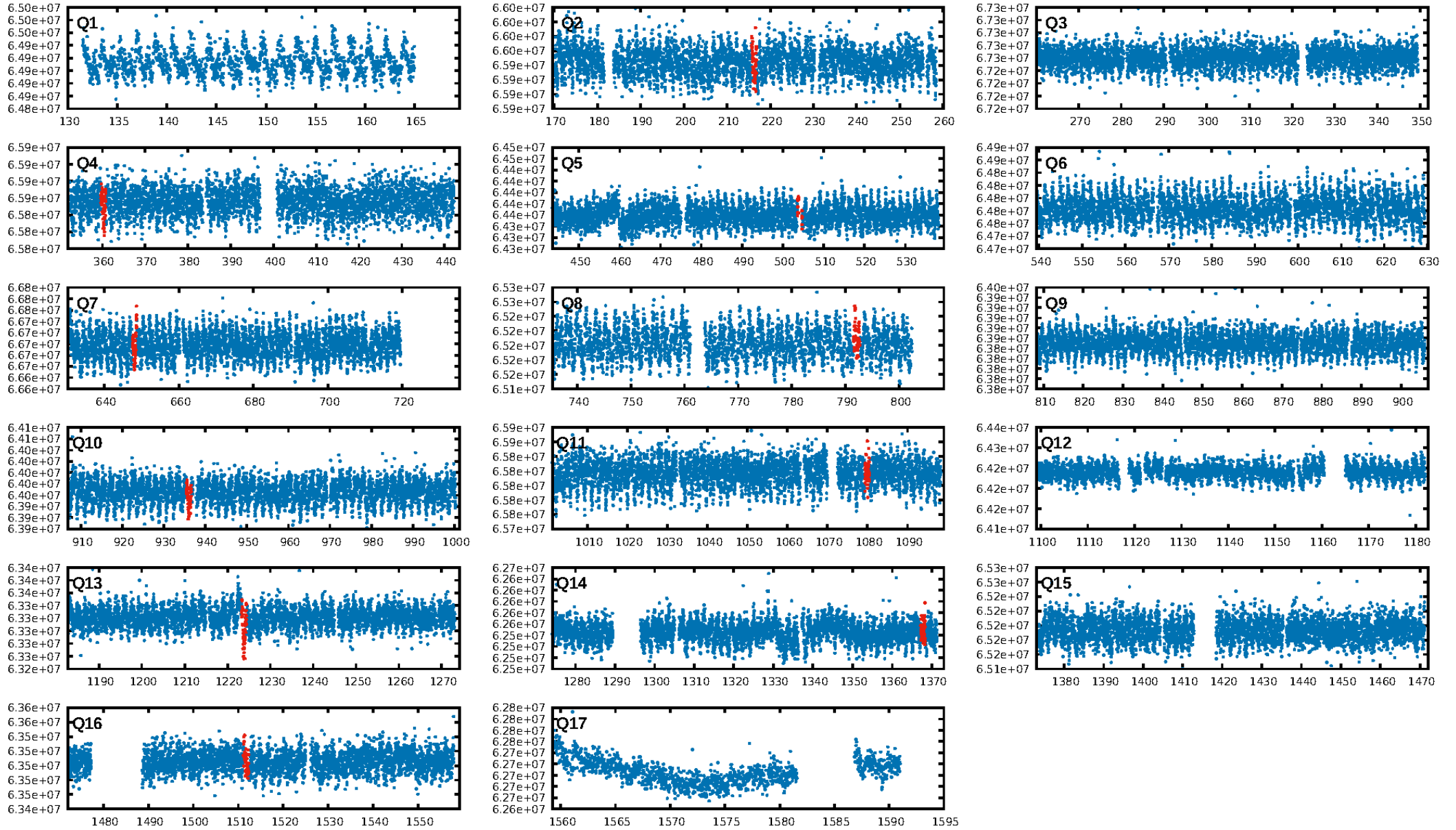
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [203.05σ]
LongPeriod-sig: 100.0% [43.56σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.30e-20
RollingBand-fgt: 1.00 [6/6]
GhostDiagnostic-chr: -0.5482
Centroid-sig: 1.6%
Centroid-so: 1.118 arcsec [1.74σ]
OotOffset-rm: 0.438 arcsec [1.68σ]
OotOffset-st: 2/2/2/1 [7]
KicOffset-rm: 0.400 arcsec [1.55σ]
KicOffset-st: 2/2/2/1 [7]
DiffImageQuality-fgm: 0.57 [4/7]
DiffImageOverlap-fno: 0.00 [0/9]

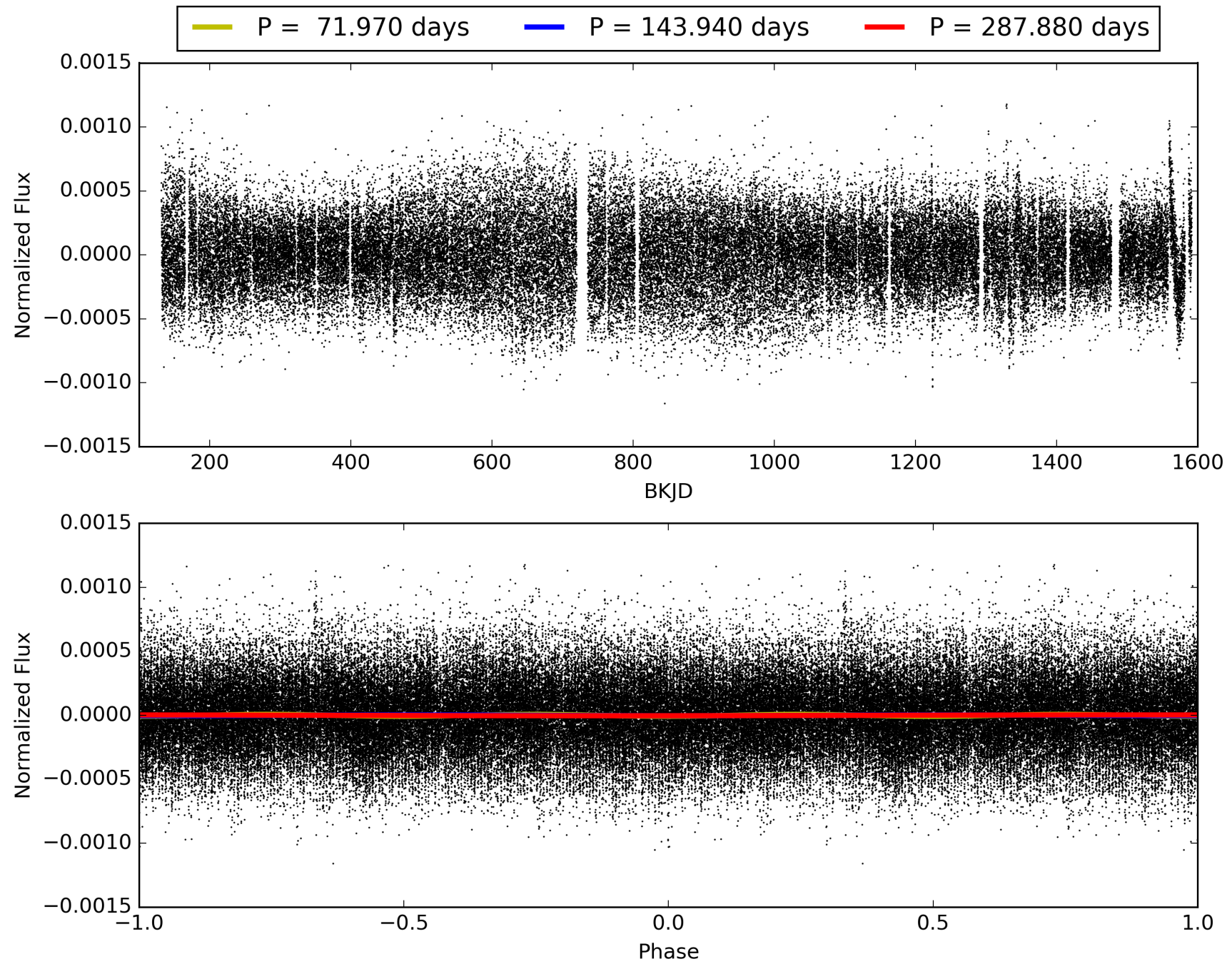
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 07:41:22 Z

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

TCE 007464361-03, PDC Light Curves

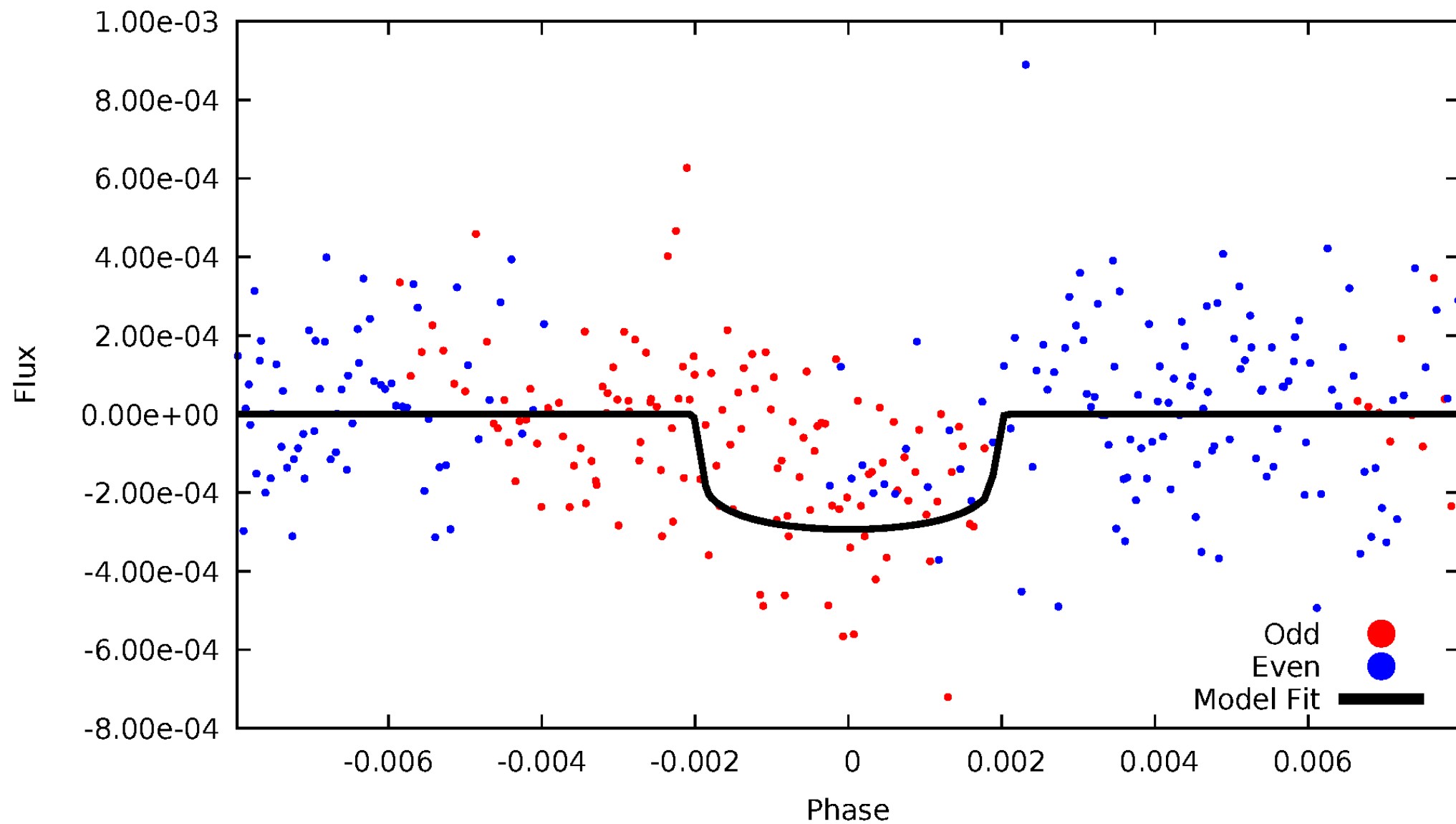


TCE 007464361-03



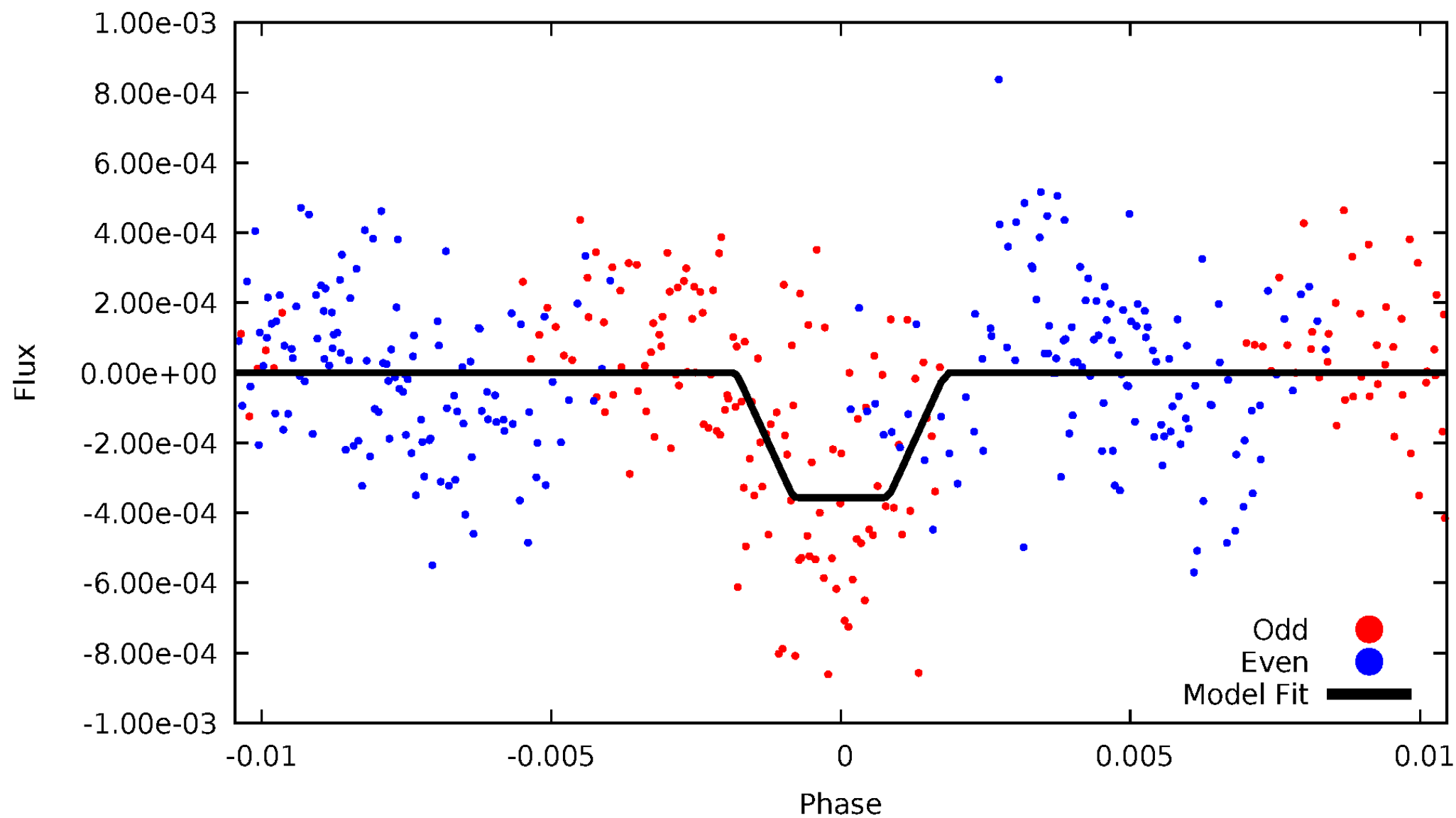
DV Odd/Even

TCE 007464361-03

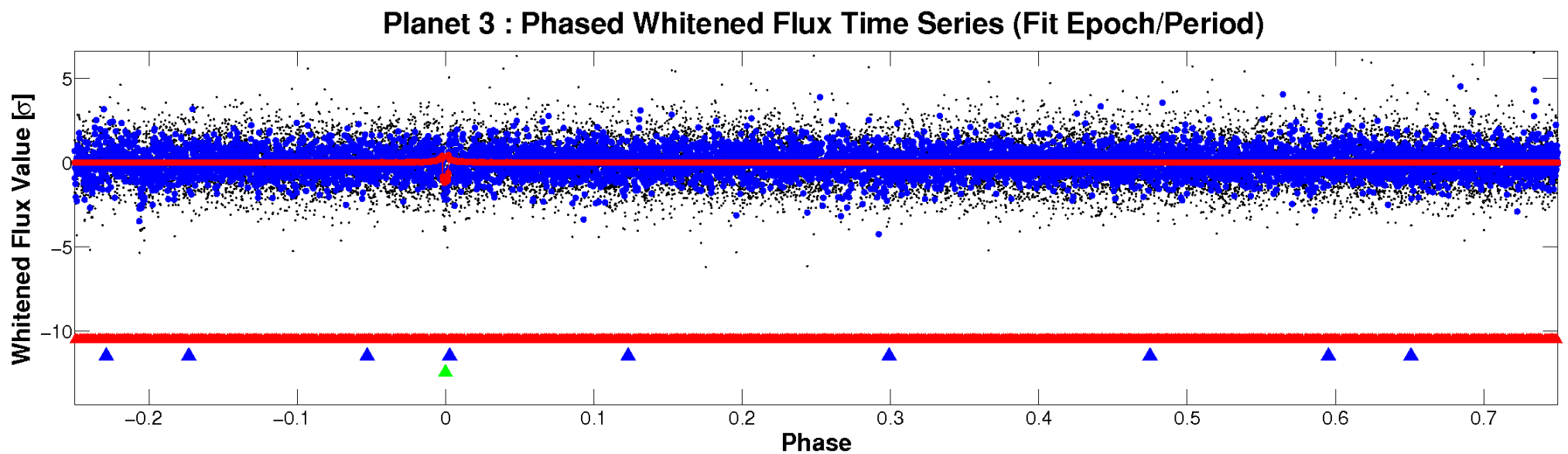
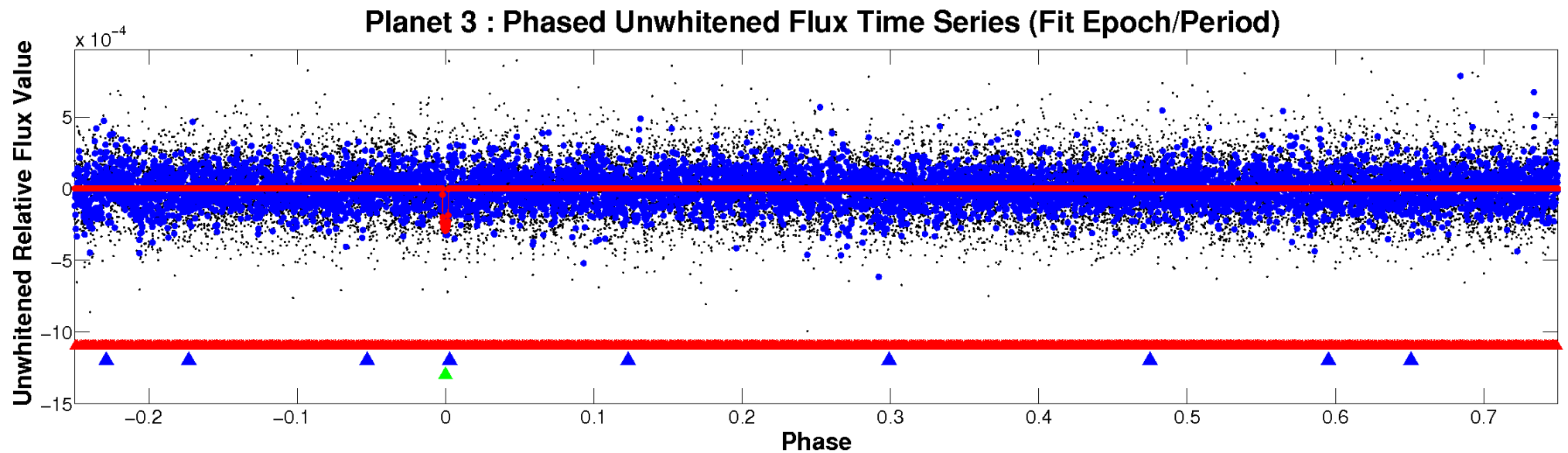


ALT Odd/Even

TCE 007464361-03

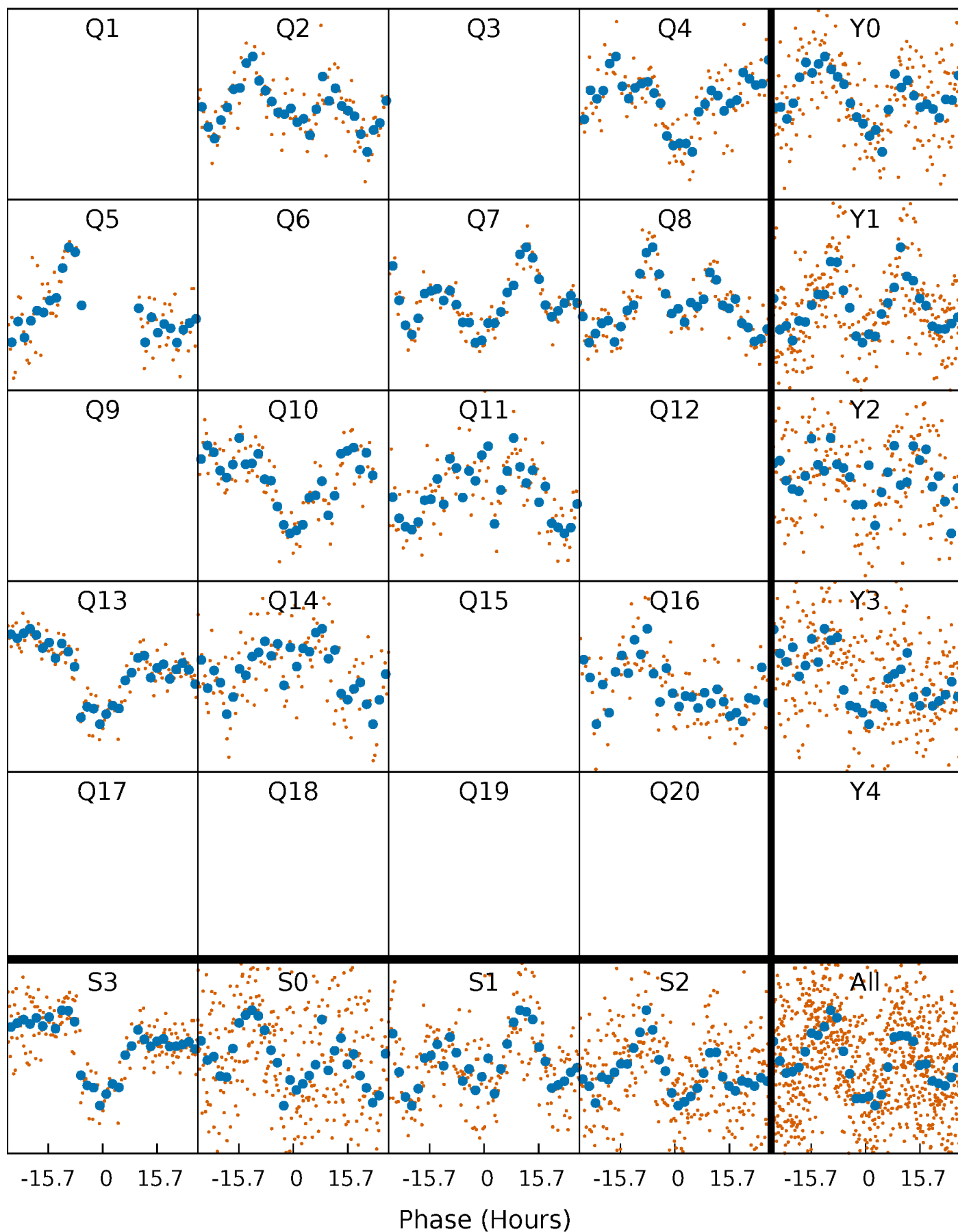


Non-Whitened Vs. Whitened Light Curve



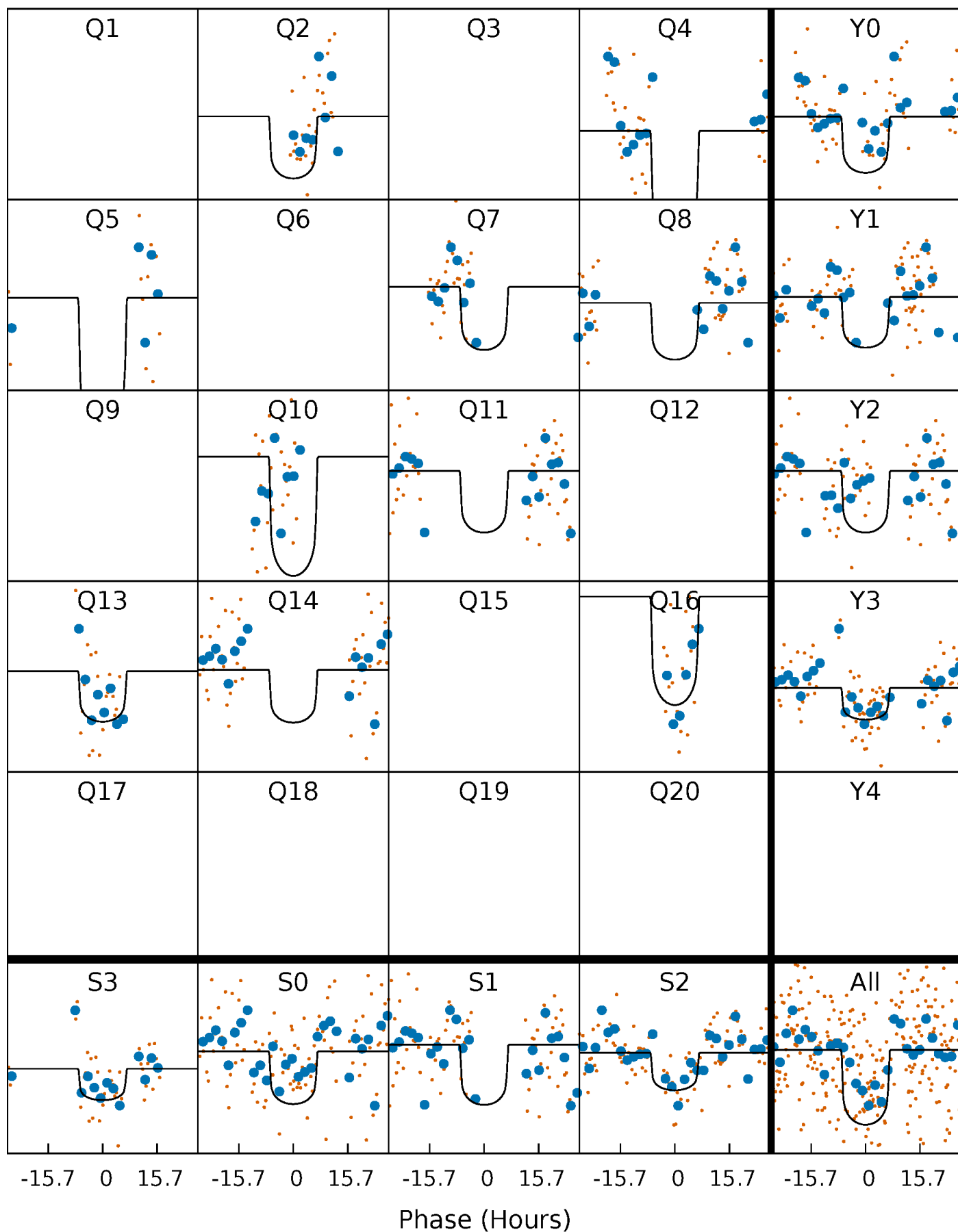
PDC Quarter-Phased Transit Curves

TCE 007464361-03 P=143.939995 Days $T_0=216.287378$ (BKJD)



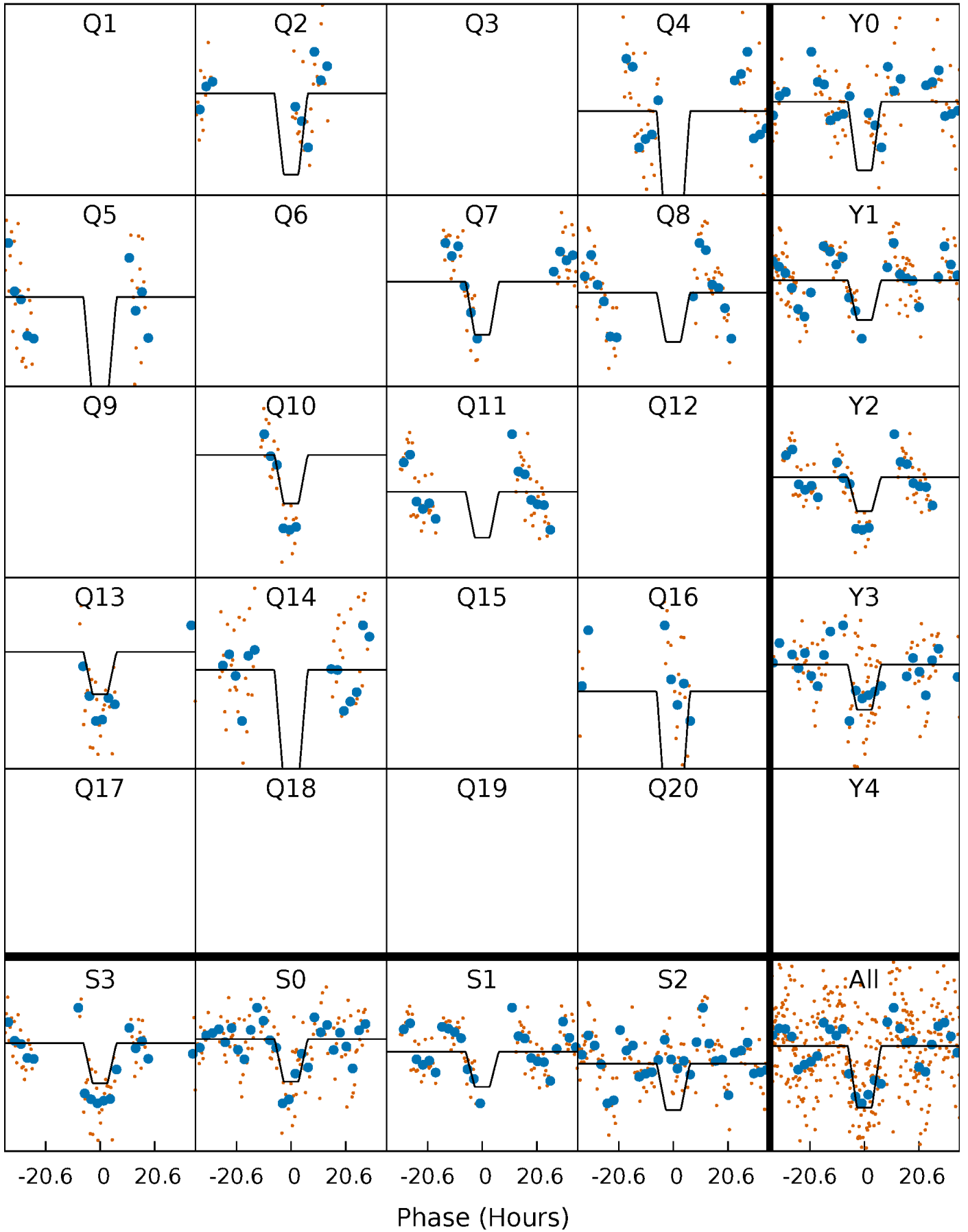
DV Quarter-Phased Transit Curves

TCE 007464361-03 P=143.939995 Days $T_0=216.287378$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

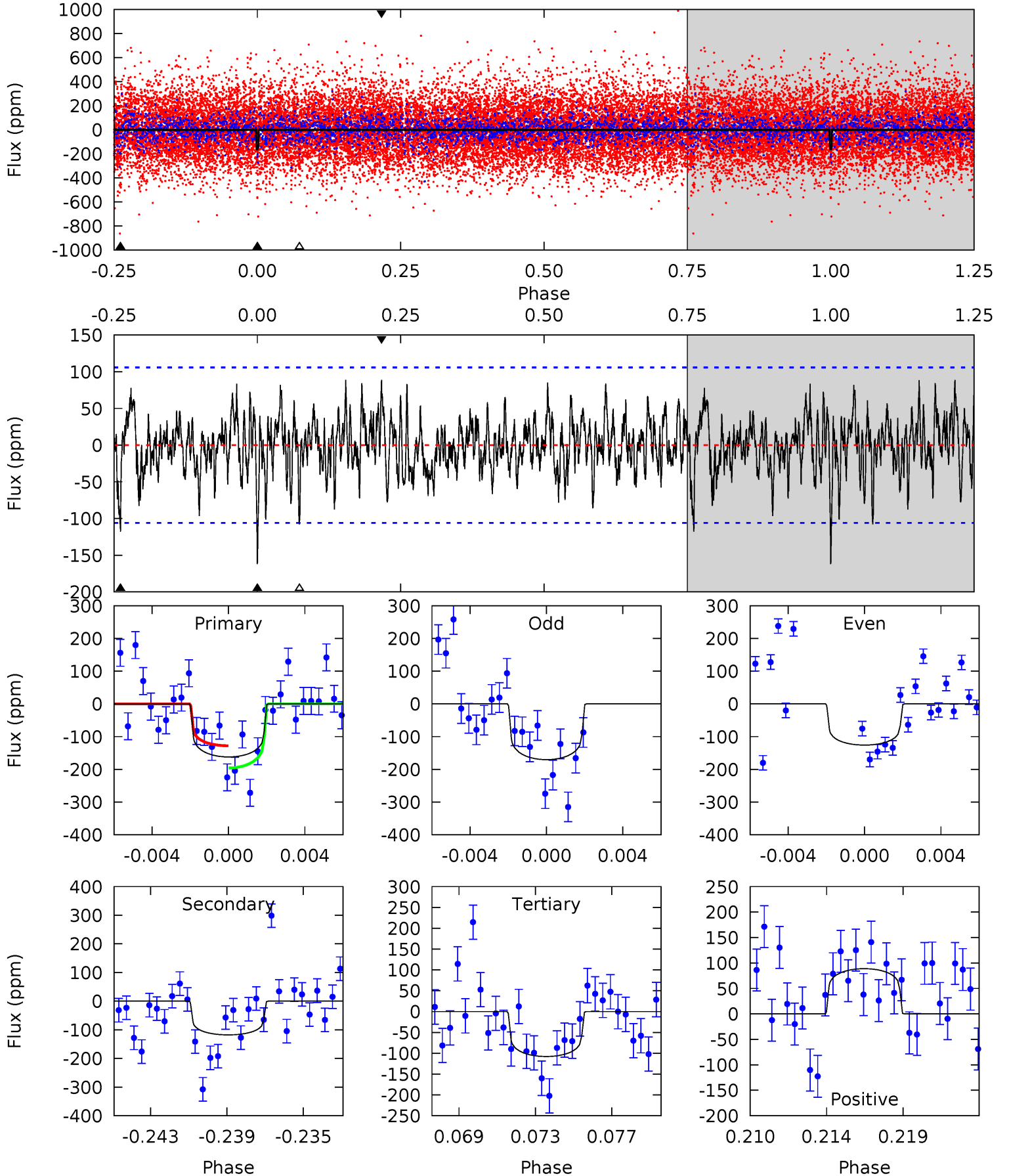
TCE 007464361-03 P=143.947619 Days $T_0=216.228216$ (BKJD)



DV Model-Shift Uniqueness Test

007464361-03, $P = 143.939995$ Days, $E = 72.347383$ Days

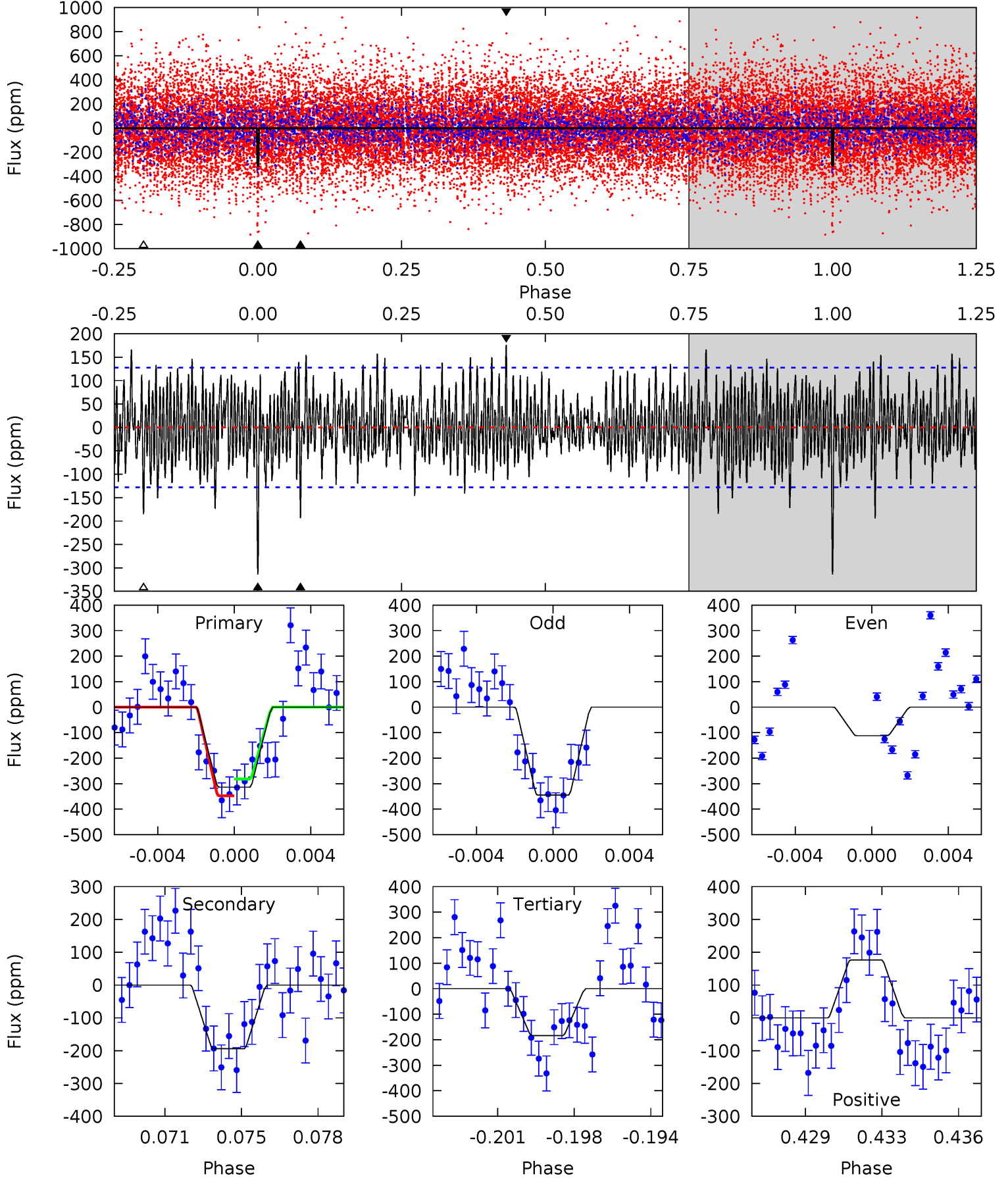
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.96	5.78	5.29	4.36	5.20	2.87	1.54	2.66	3.60	0.49	1.42	0.85	1.12	0.35	1.67



Alt Model-Shift Uniqueness Test

007464361-03, P = 143.947619 Days, E = 72.280597 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.8	7.91	7.48	7.19	5.21	2.90	2.38	5.31	5.60	0.43	0.72	3.44	0.61	0.36	1.33



Stellar Parameters For KIC 007464361

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6643^{+181}_{-242}	$4.072^{+0.258}_{-0.172}$	$-0.320^{+0.250}_{-0.300}$	$1.682^{+0.492}_{-0.541}$	$1.222^{+0.183}_{-0.204}$	$0.361^{+0.595}_{-0.173}$
	+3%/-4%	+6%/-4%	+78%/-94%	+29%/-32%	+15%/-17%	+165%/-48%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 007464361-03 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-118 ± 20	$3.01^{+1.23}_{-1.12}$	695^{+63}_{-59}	5387^{+1164}_{-705}	2361^{+3418}_{-1212}
Alt.	-194 ± 25	$3.34^{+1.30}_{-1.10}$	694^{+53}_{-62}	5693^{+1066}_{-689}	3088^{+3637}_{-1446}

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 $A_{obs} \gg 1.0$

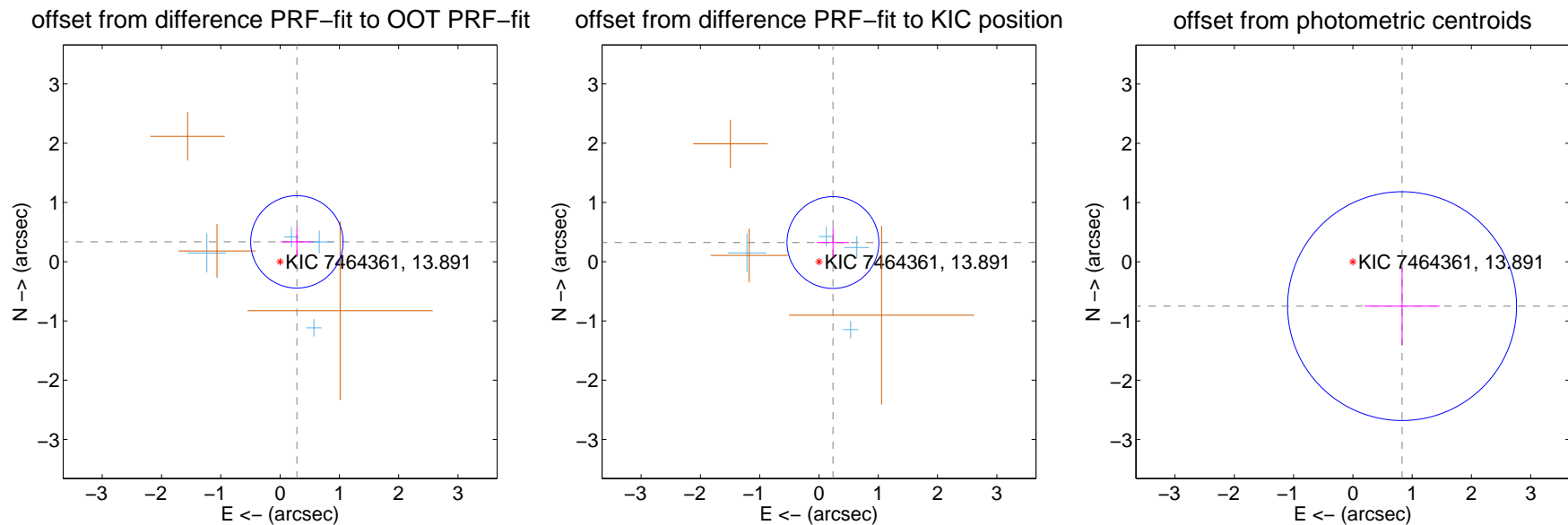
DV Centroid Data

Supplemental centroid analysis for 007464361-03. Kepler magnitude: 13.89. Transit SNR 10.06

There are 4 quarters with good PRF difference image offsets

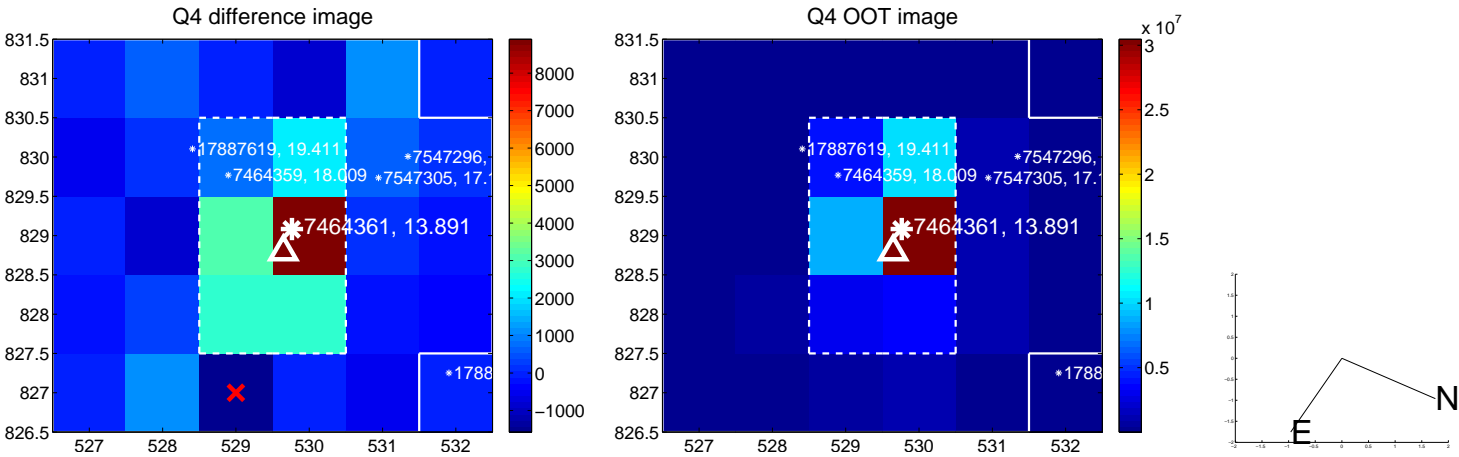
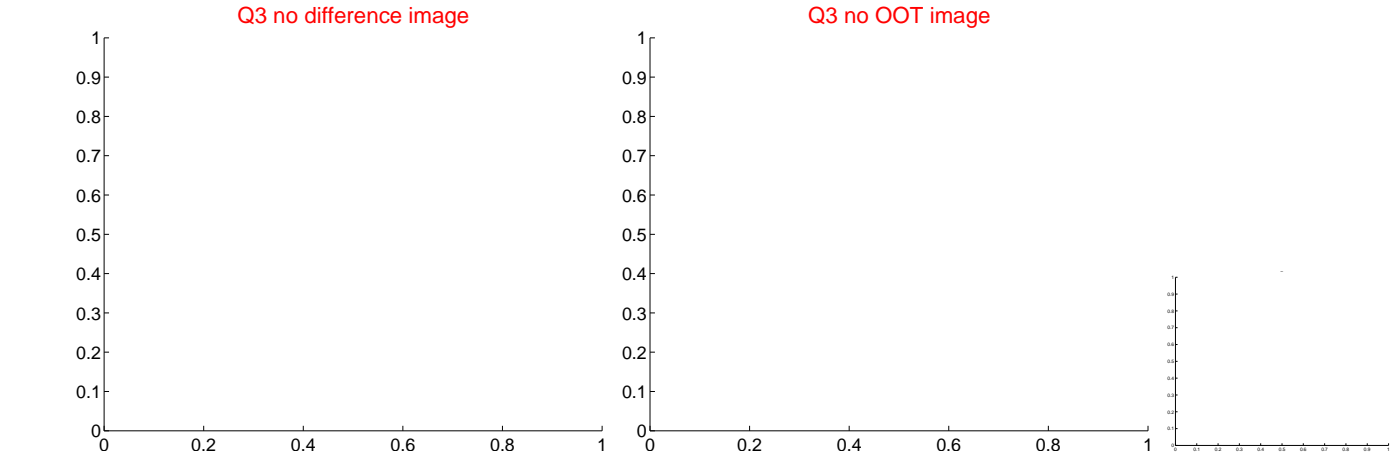
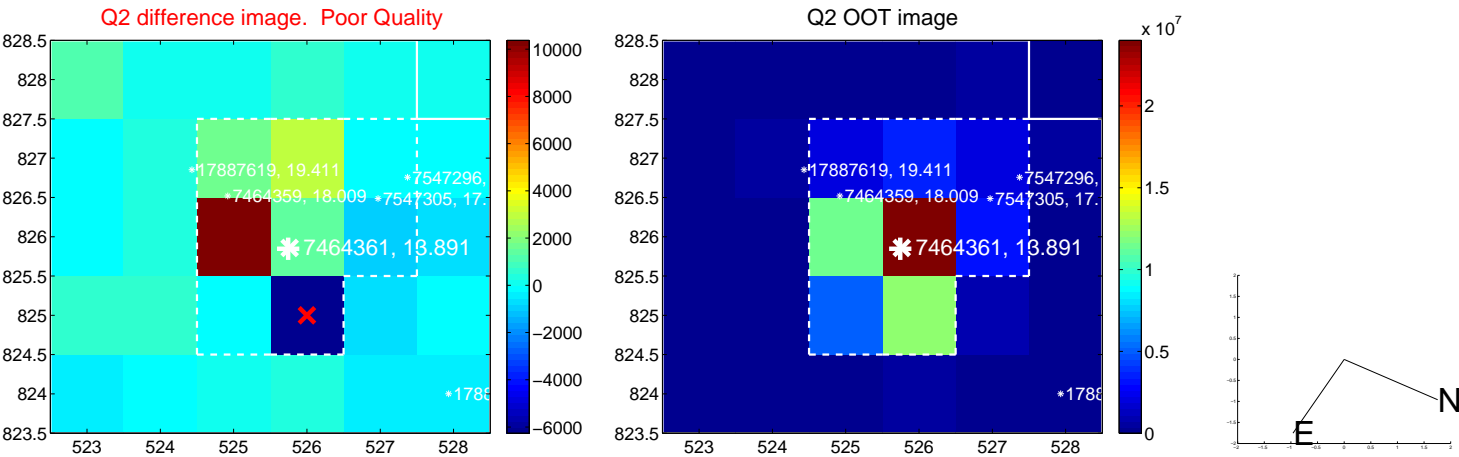
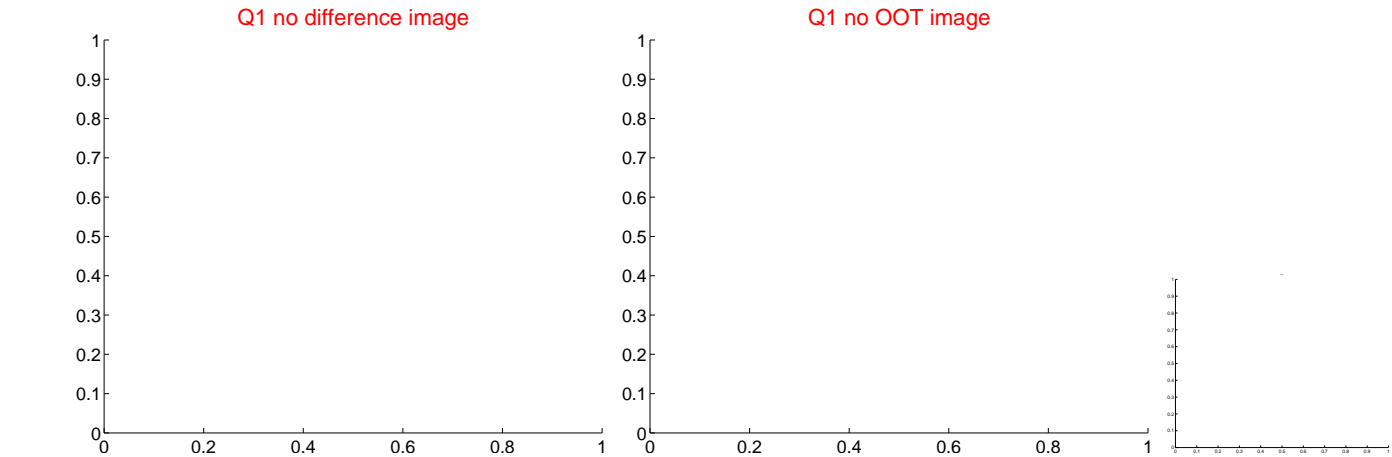
The direct PRF centroid is offset from the target star catalog position by about 0.09 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.438 ± 0.260	1.68	-0.283 ± 0.273	0.334 ± 0.250
PRF-fit source offset from KIC position	0.400 ± 0.258	1.55	-0.236 ± 0.273	0.323 ± 0.250
photometric centroid source offset	1.12 ± 0.64	1.74	-0.83 ± 0.63	-0.75 ± 0.66



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.

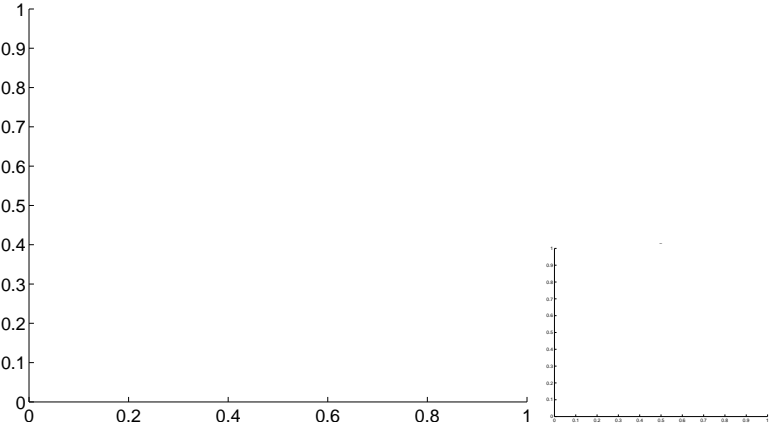


white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

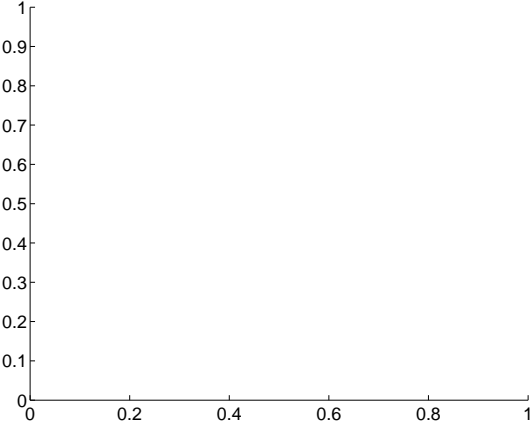
Q5 no difference image



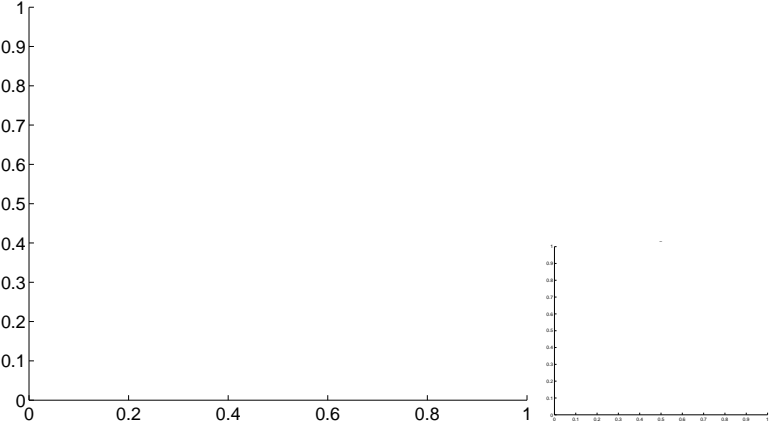
Q5 no OOT image



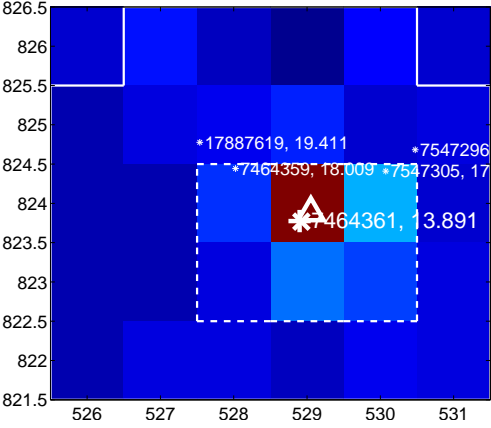
Q6 no difference image



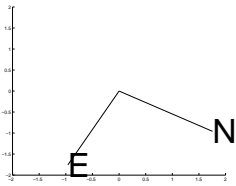
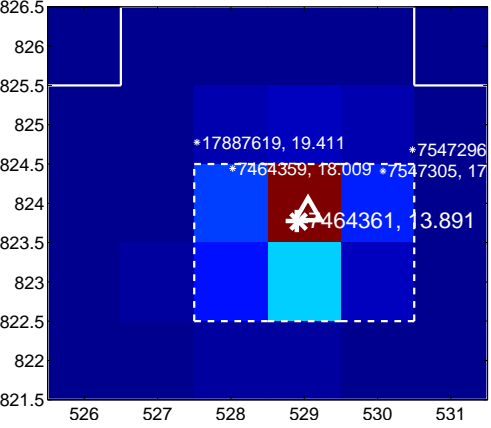
Q6 no OOT image



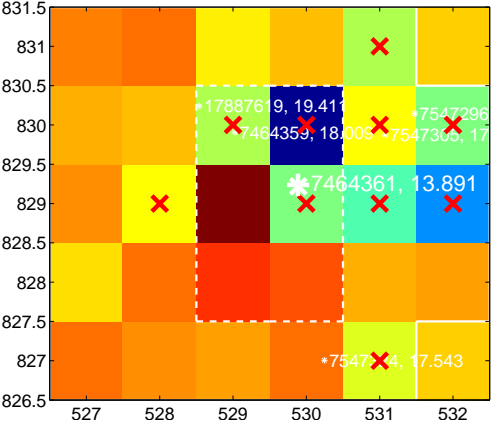
Q7 difference image



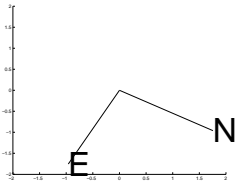
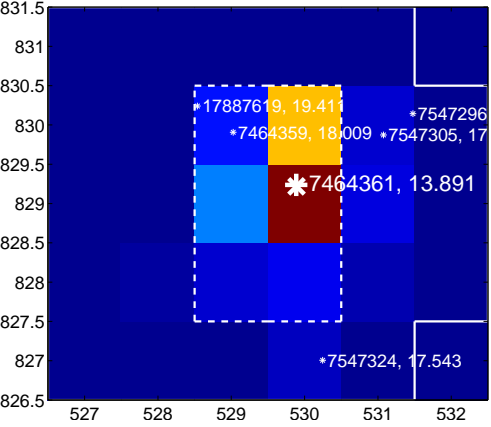
Q7 OOT image



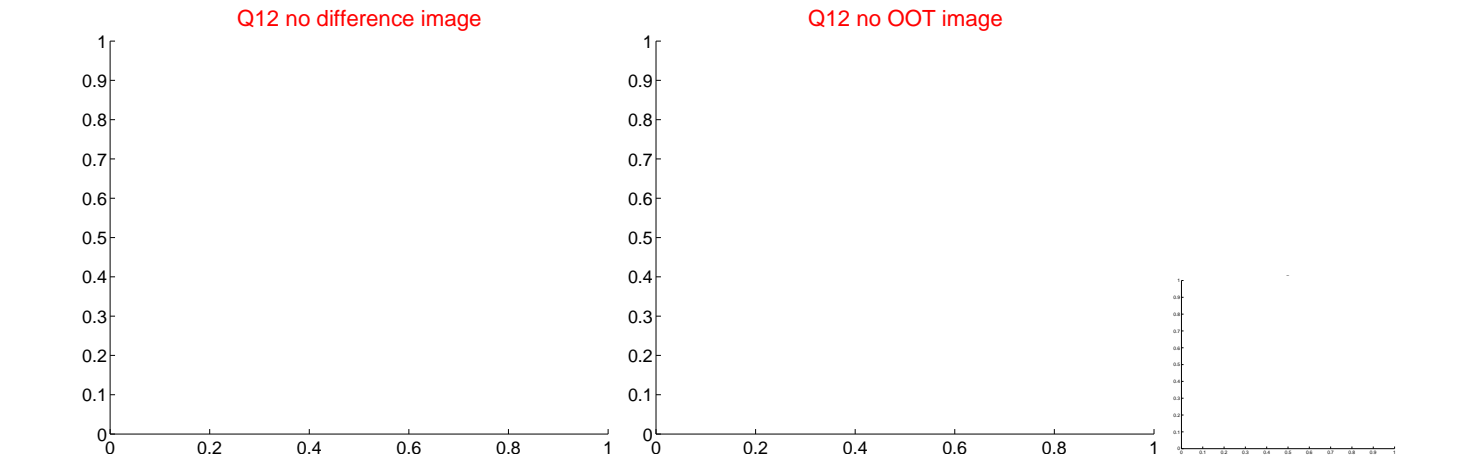
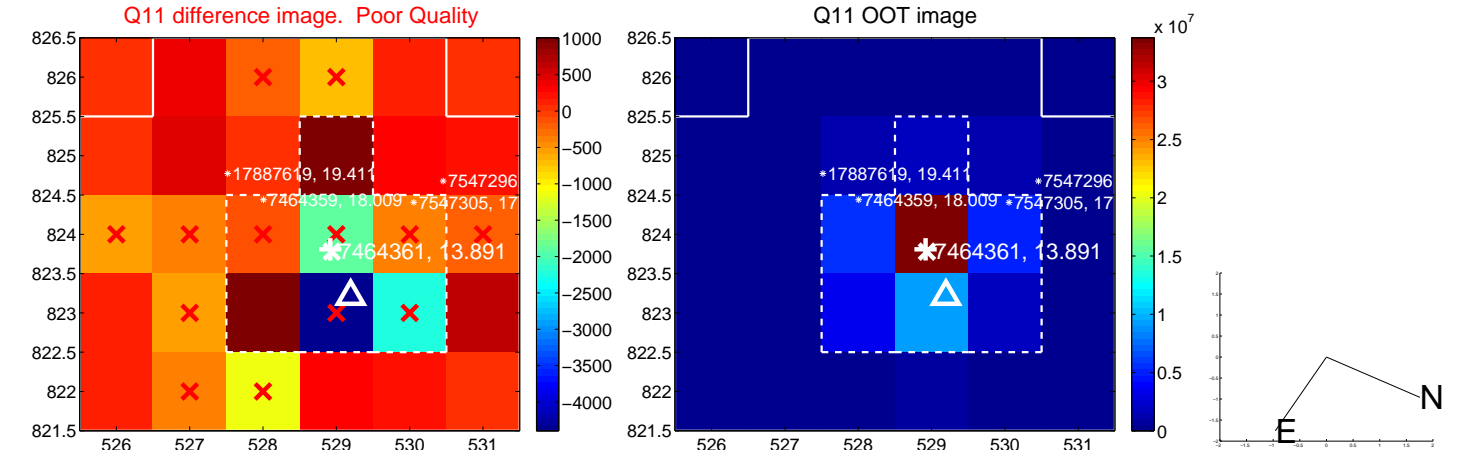
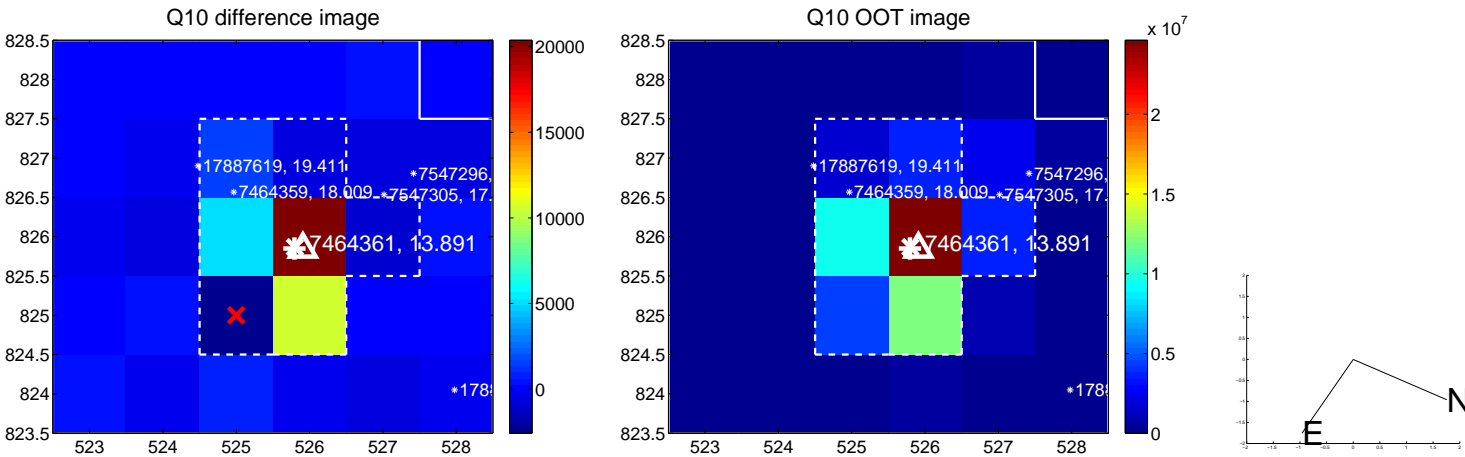
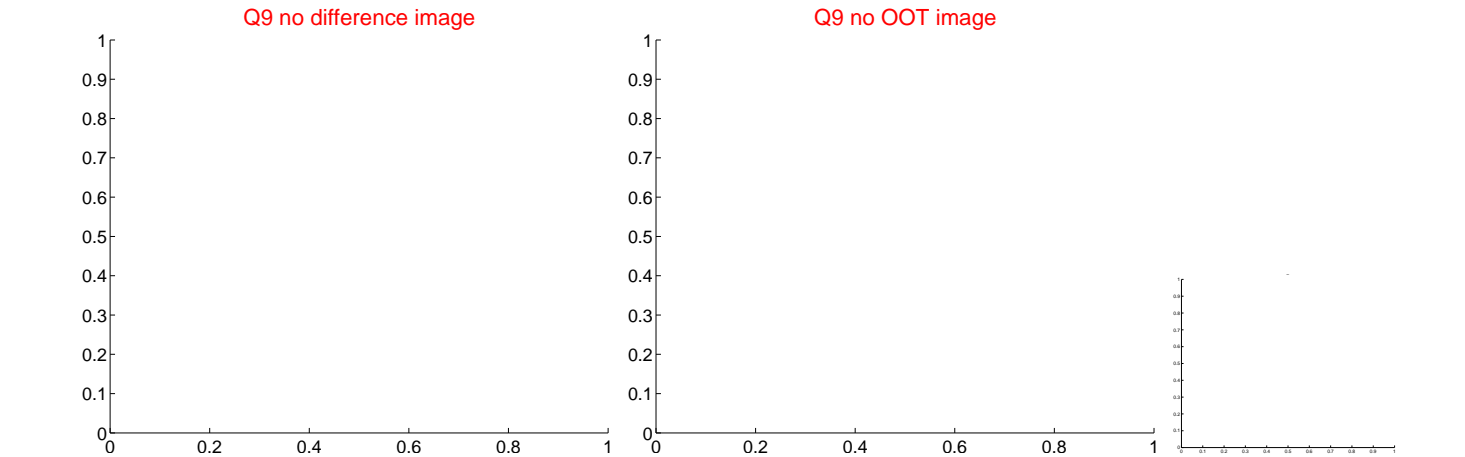
Q8 difference image. Poor Quality



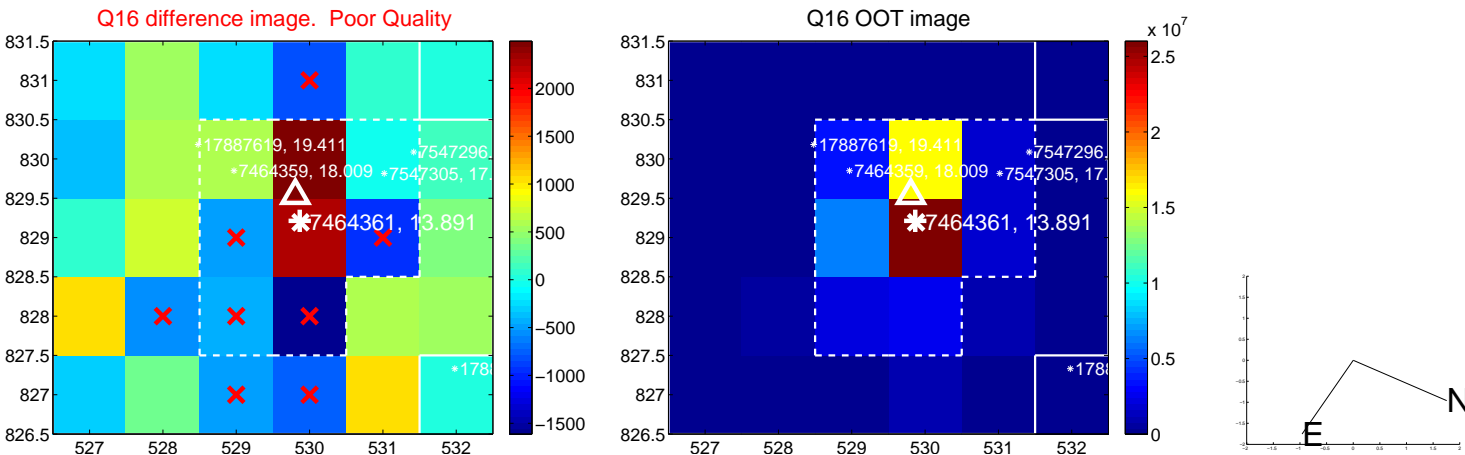
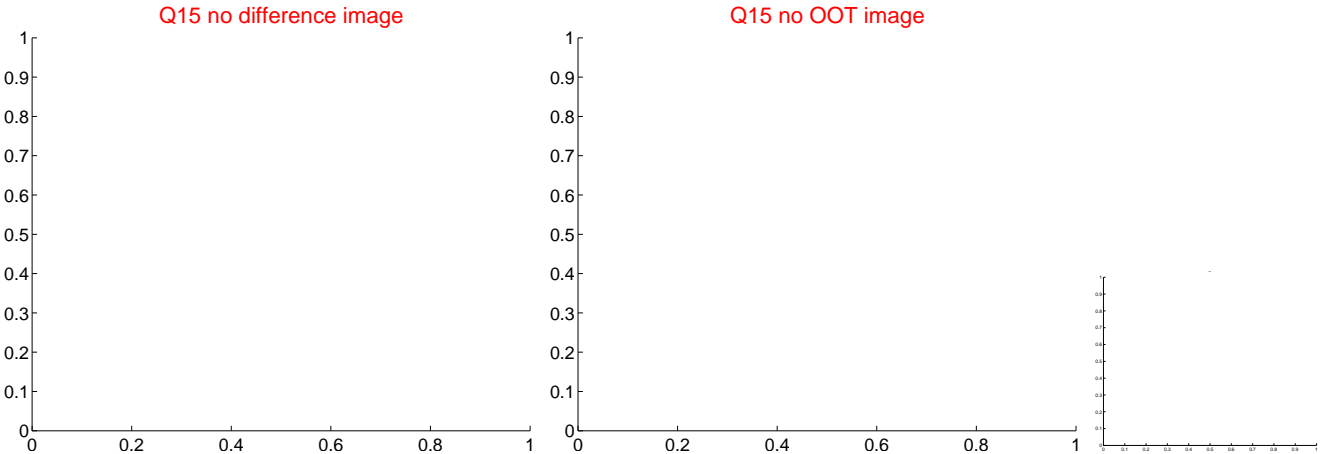
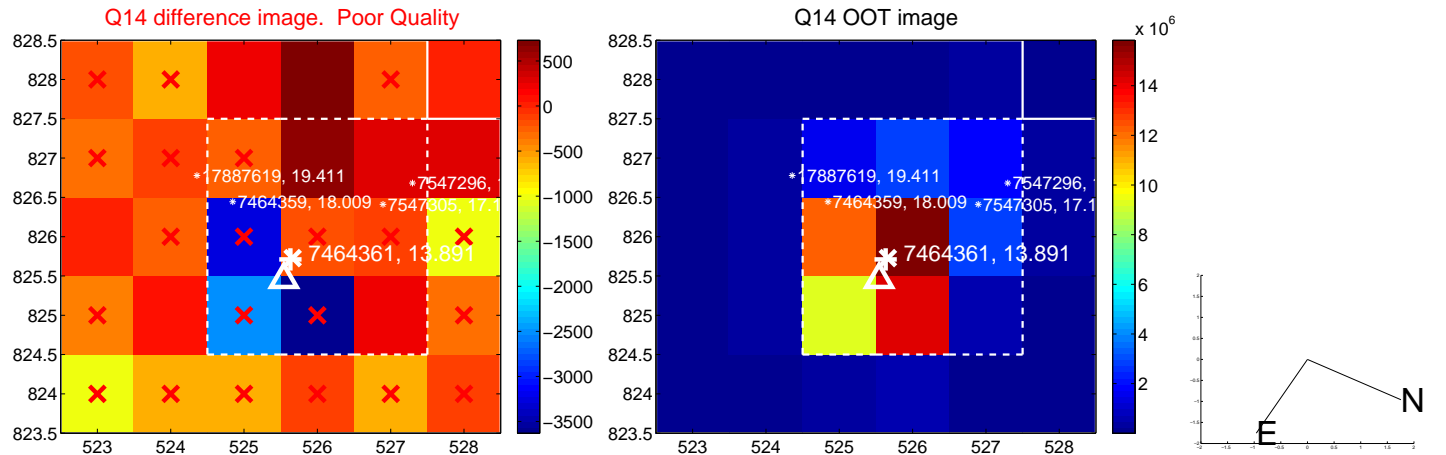
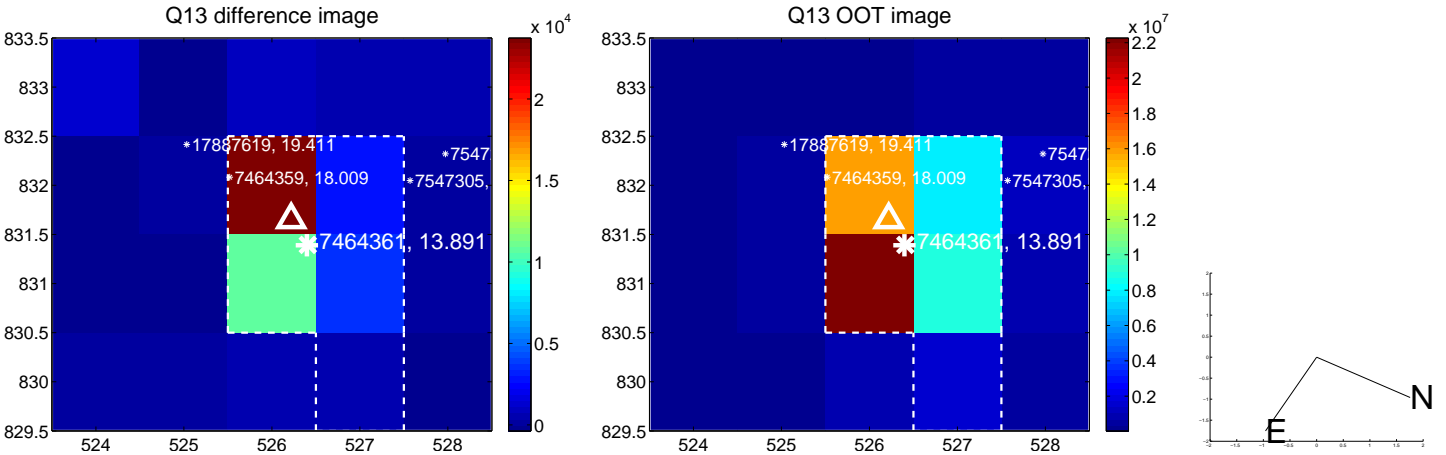
Q8 OOT image



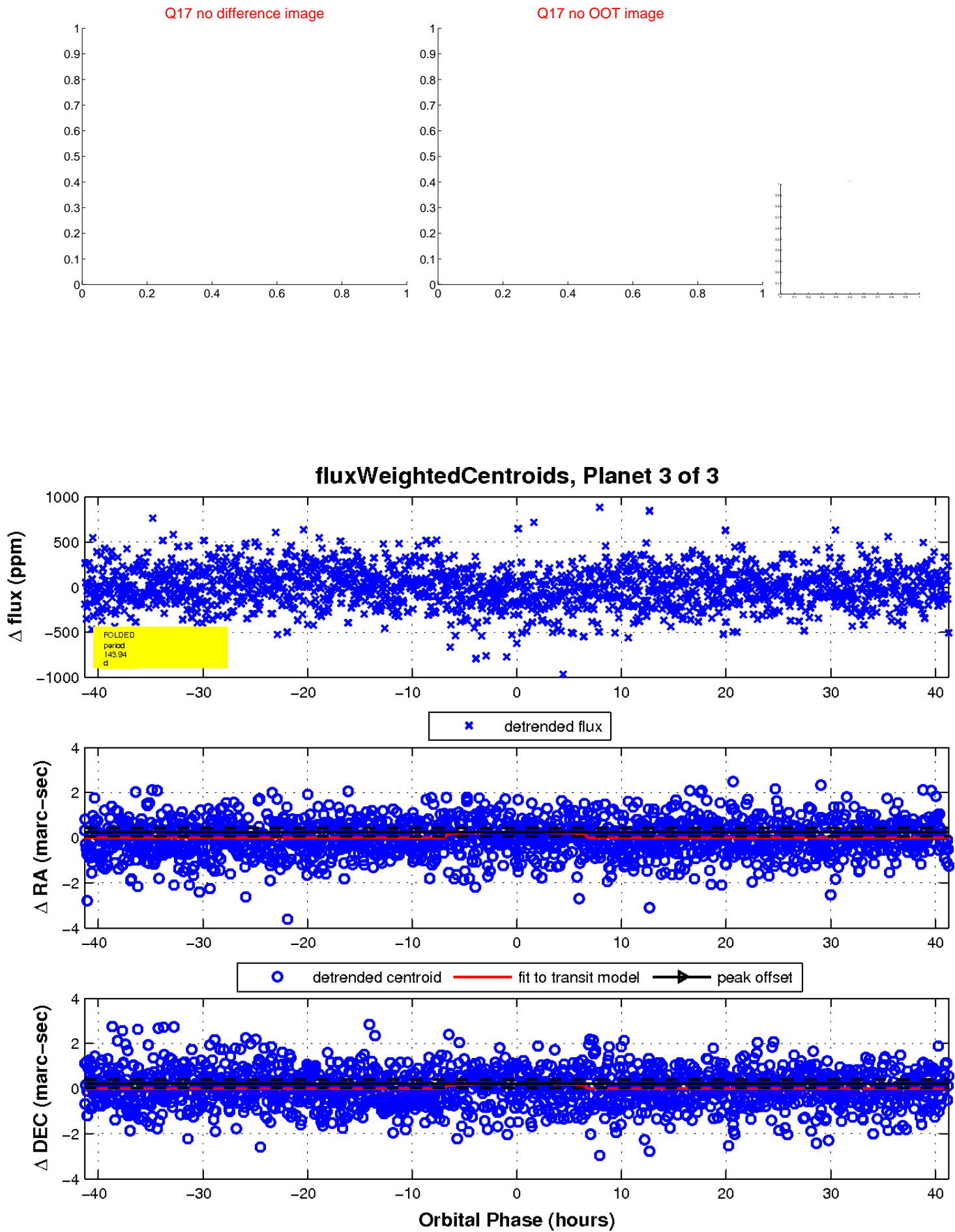
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



UKIRT Image

Declination

