

KIC 007841434

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})
007841434-01	OBS	No	606.174451	244.119674	683.0	5.925	10.0	9.2	2.62	7219	7.36	6.28
007841434-02	OBS	No	338.216466	443.152927	142.0	3.159	8.7	1.5	2.62	7219	3.57	13.68
007841434-03	OBS	No	338.188969	442.602179	430.3	10.739	8.7	7.8	2.62	7219	5.91	13.68

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007841434-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
007841434-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
007841434-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—SAME_NTL_PERIOD—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.

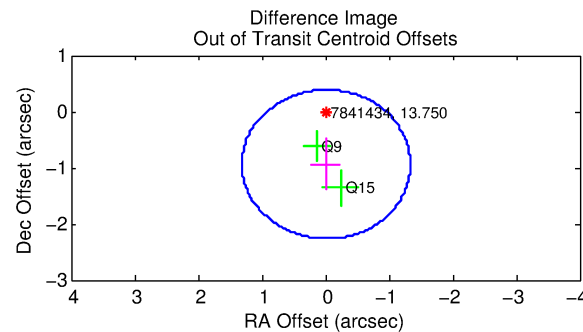
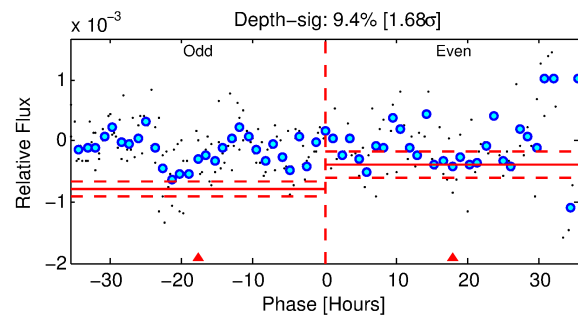
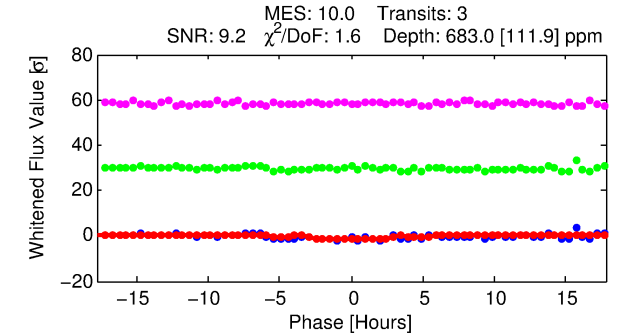
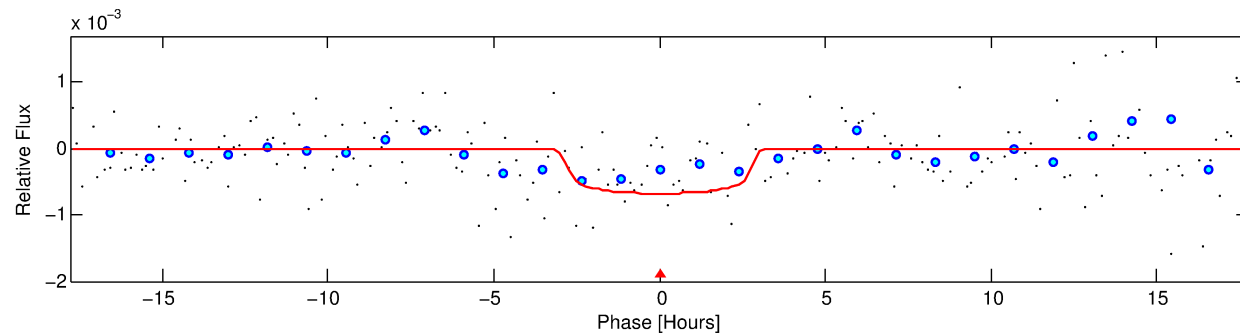
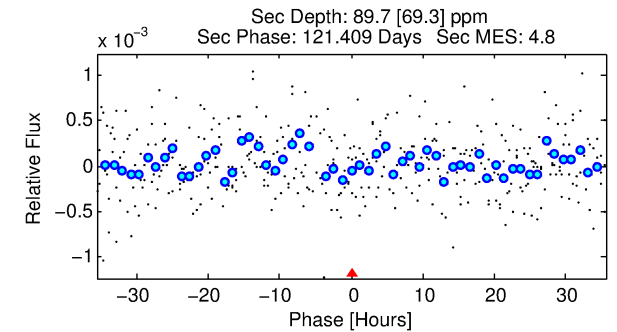
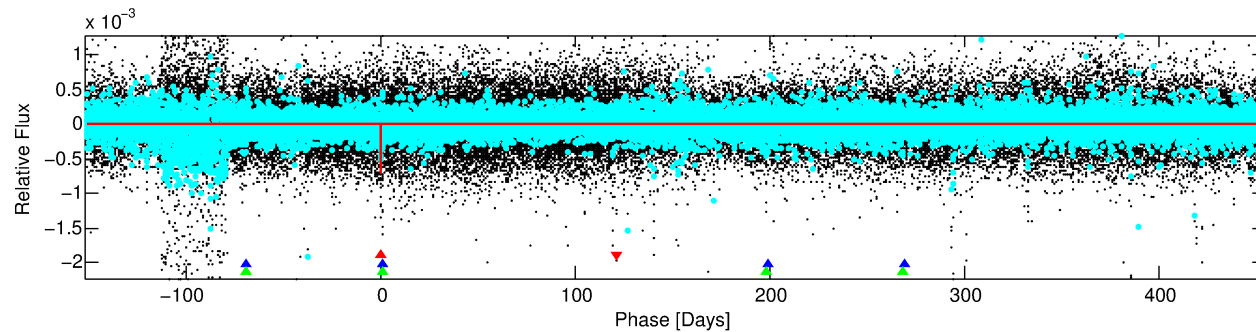
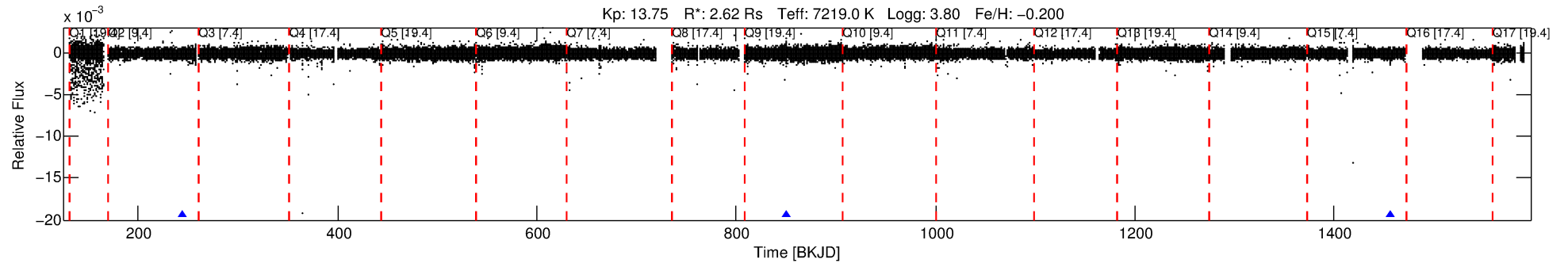
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007841434-01

No Significant Match Found

DV One-Page Summary

KIC: 7841434 Candidate: 1 of 3 Period: 606.174 d



DV Fit Results:

Period = 606.17445 [0.01102] d
Epoch = 244.1197 [0.0151] BKJD
Rp/R* = 0.0257 [0.0176]
a/R* = 580.56 [2129.74]
b = 0.71 [2.62]
Seff = 6.28 [4.31]
Teq = 404 [69] K
Rp = 7.36 [5.93] Re
a = 1.6337 [0.6779] AU
Ag = 2431.09 [4146.06] [0.59σ]
Teffp = 4383 [1730] K [2.30σ]

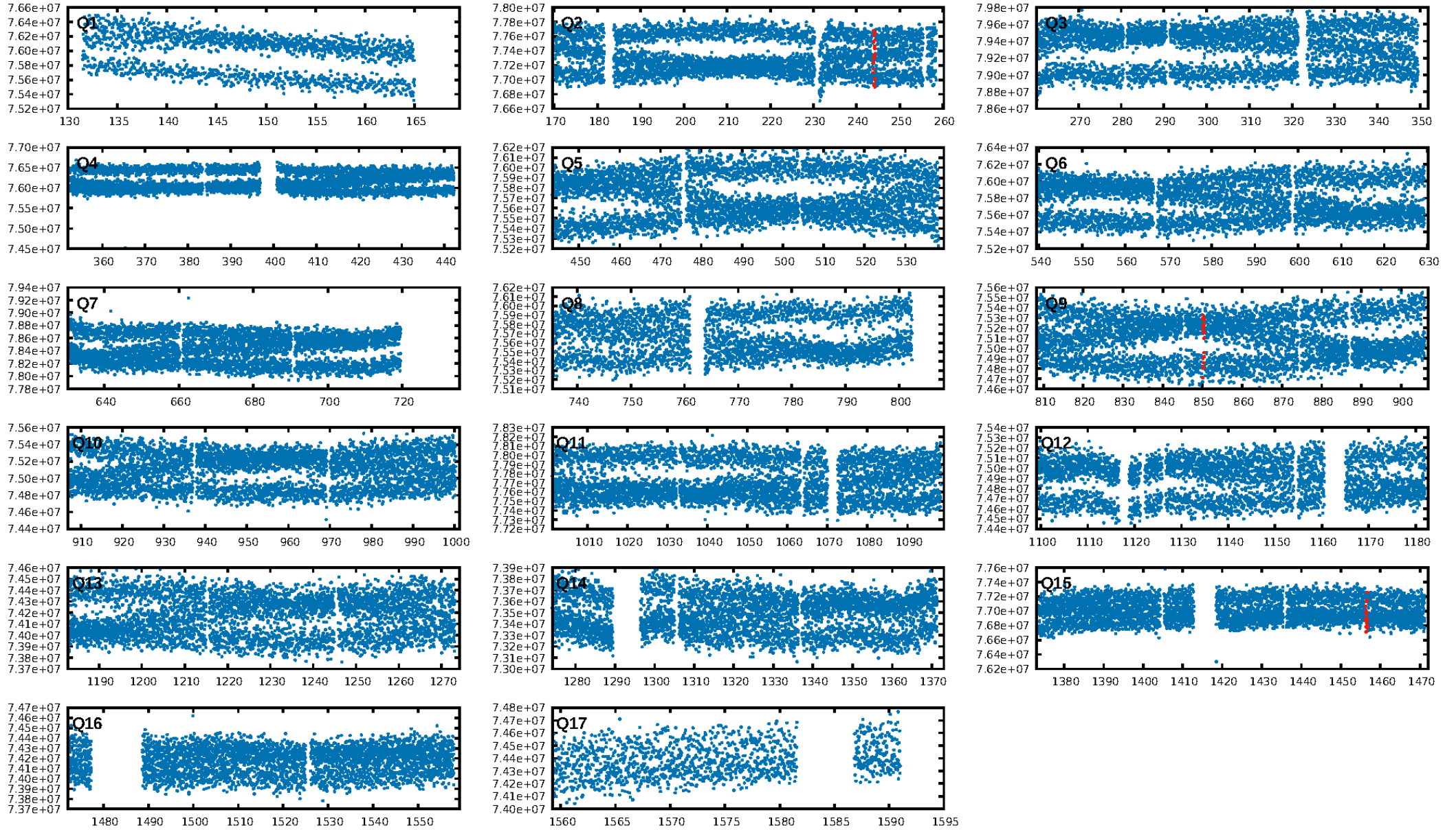
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [957.80σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.3%
ModelChiSquareGof-sig: 67.8%
Bootstrap-pfa: 2.39e-08
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -7.482
Centroid-sig: 17.2%
Centroid-so: 0.908 arcsec [1.41σ]
OotOffset-rm: 0.941 arcsec [2.13σ]
KicOffset-rm: 0.867 arcsec [2.03σ]
OotOffset-st: 0/1/0/1 [2]
KicOffset-st: 0/1/0/1 [2]
DiffImageQuality-fgm: 1.00 [2/2]
DiffImageOverlap-fno: 0.67 [2/3]

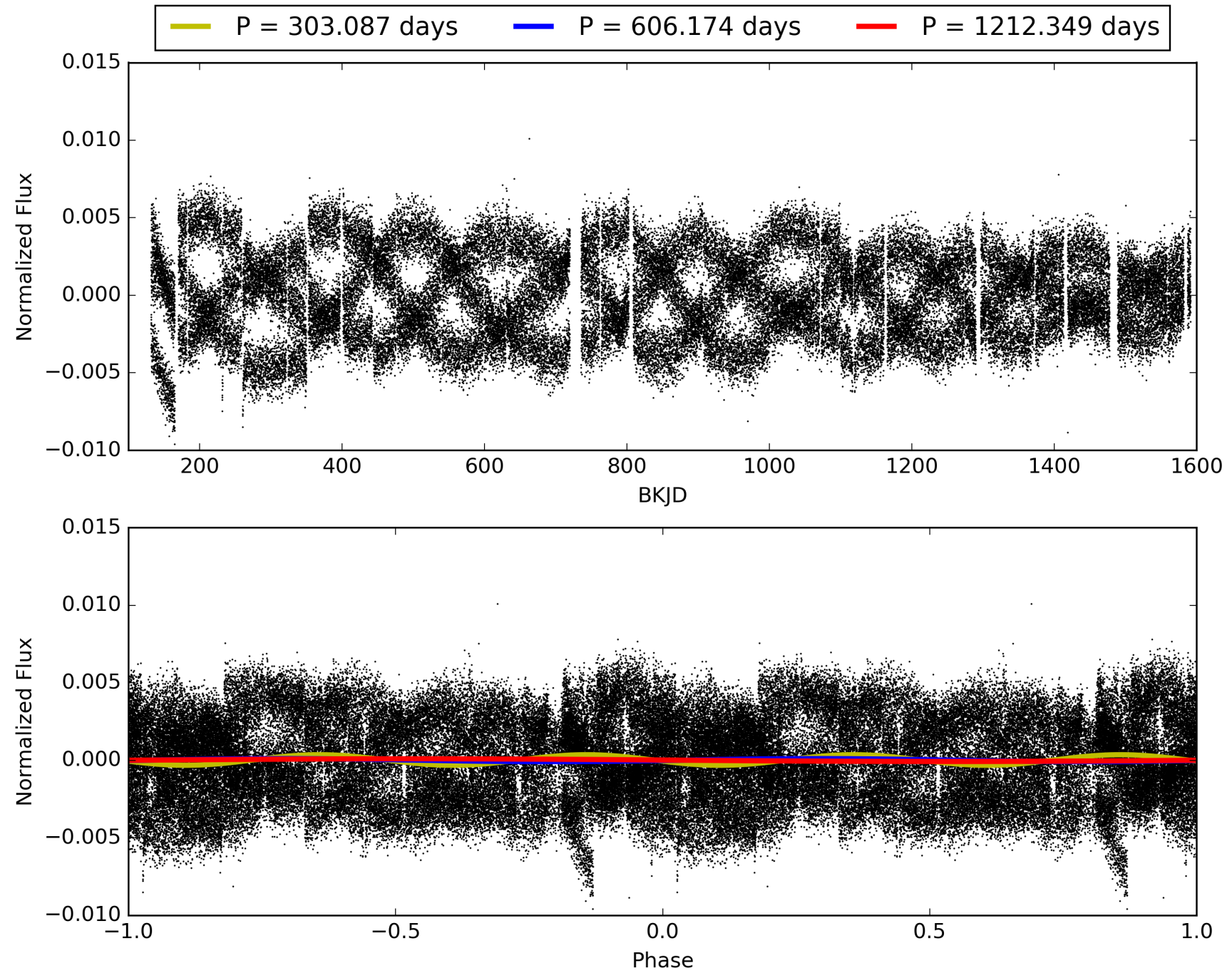
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 09:54:03 Z

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

TCE 007841434-01, PDC Light Curves

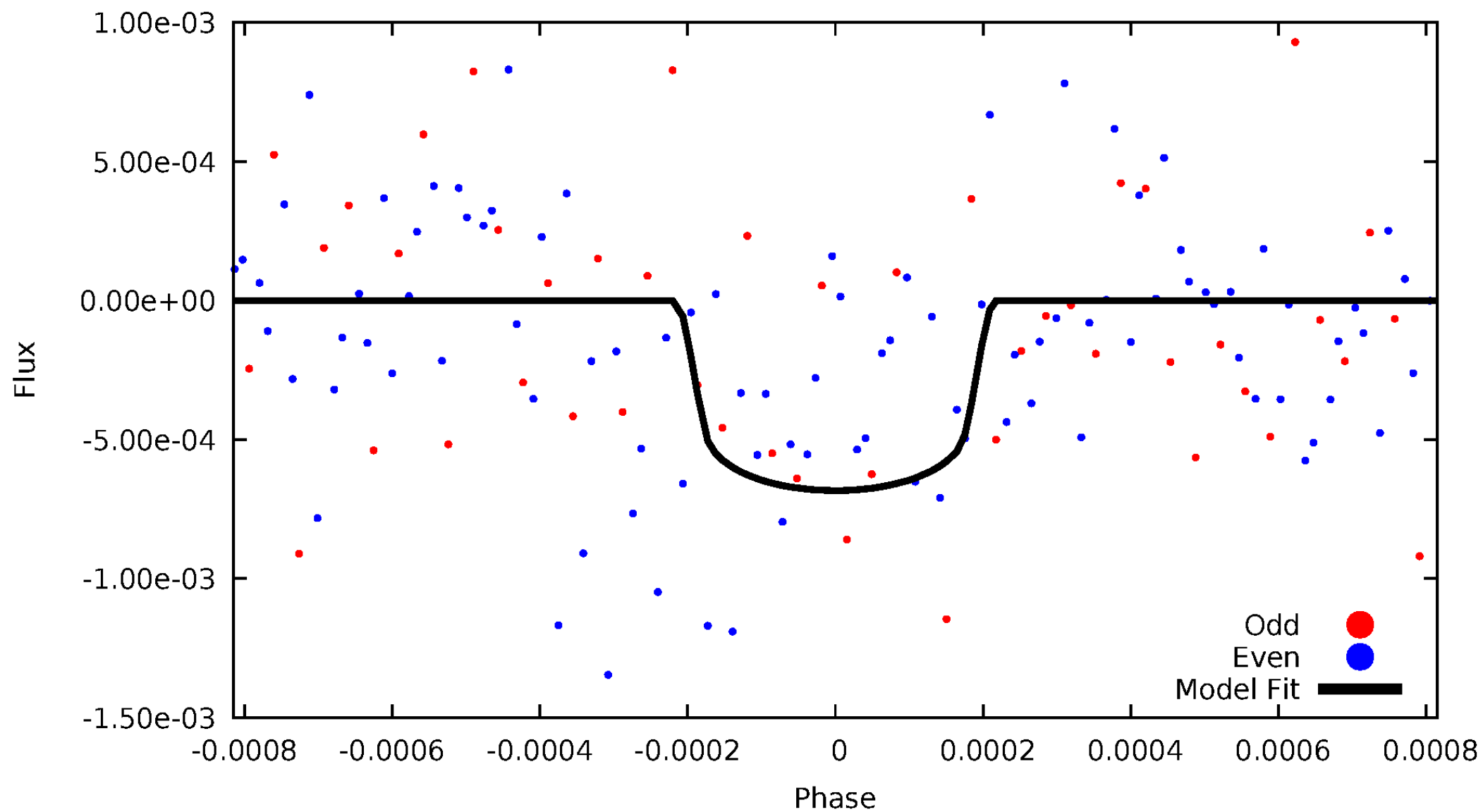


TCE 007841434-01



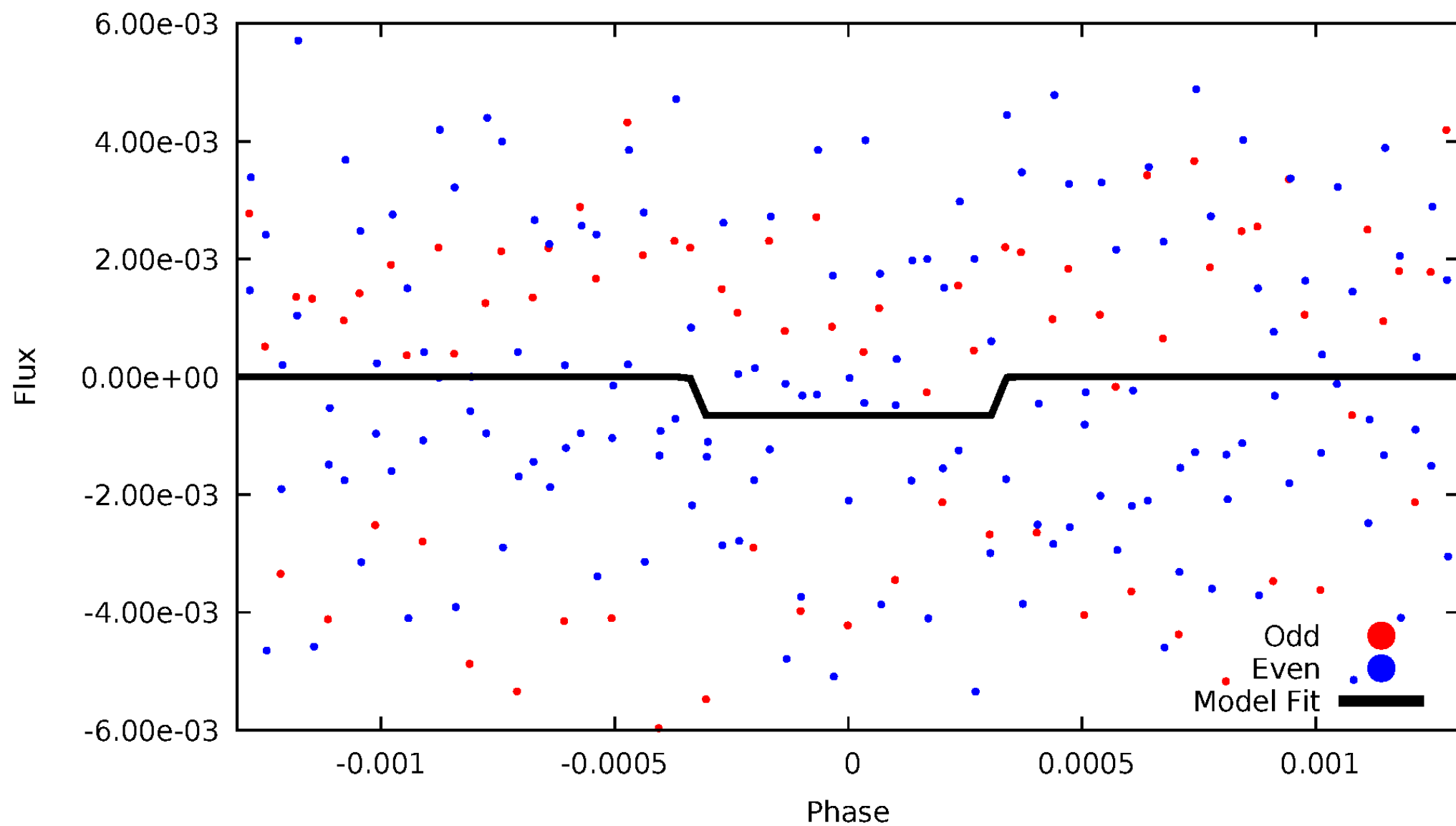
DV Odd/Even

TCE 007841434-01

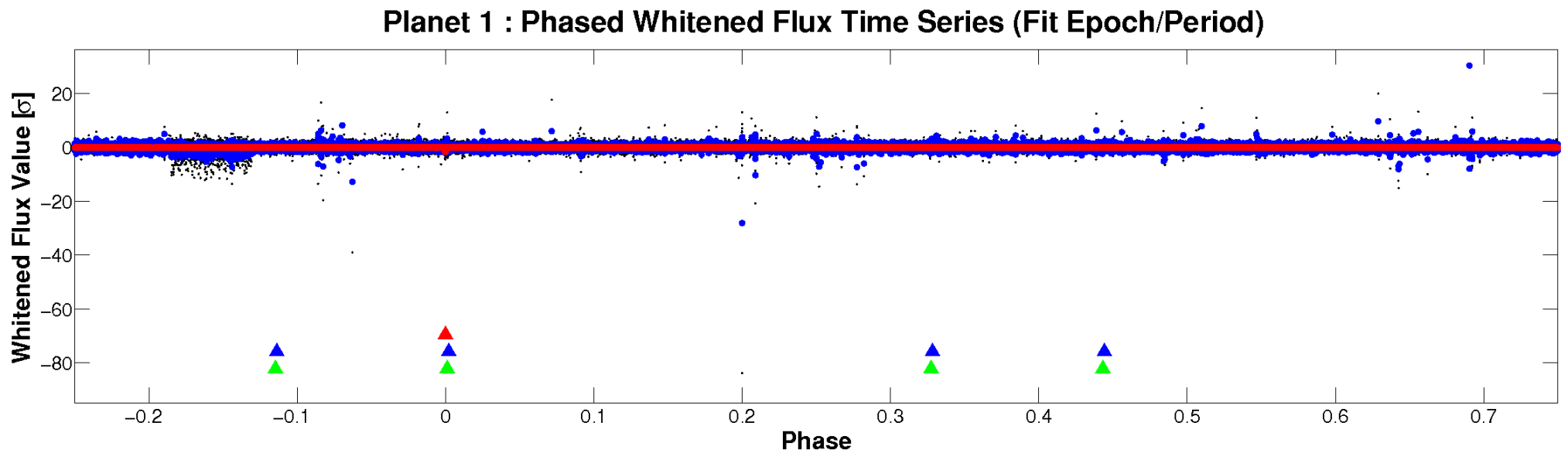
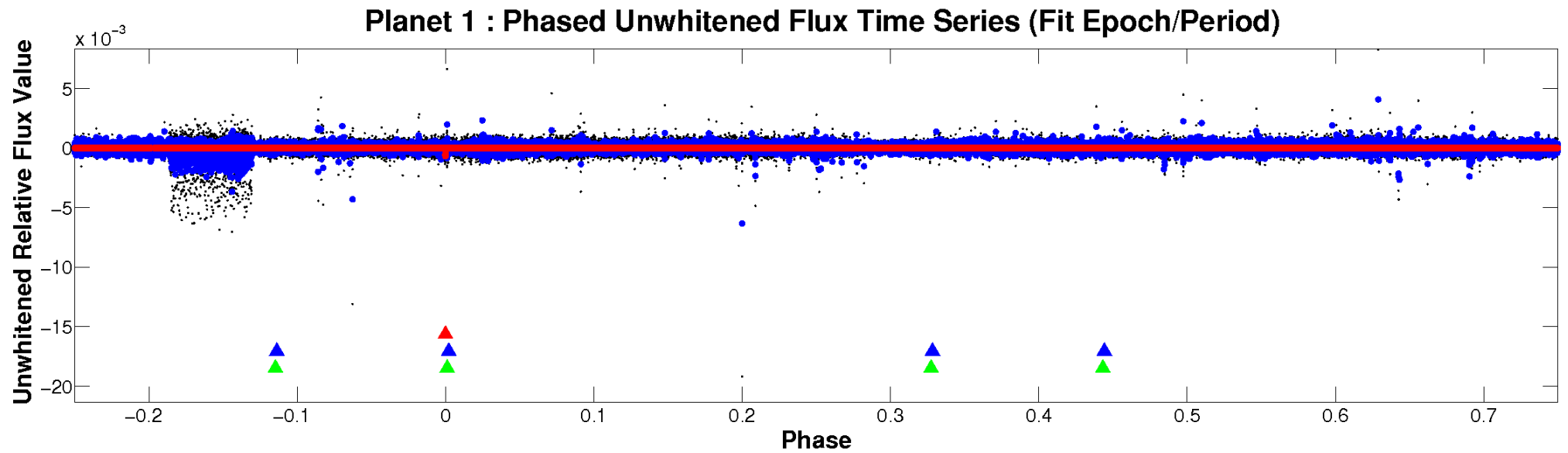


ALT Odd/Even

TCE 007841434-01

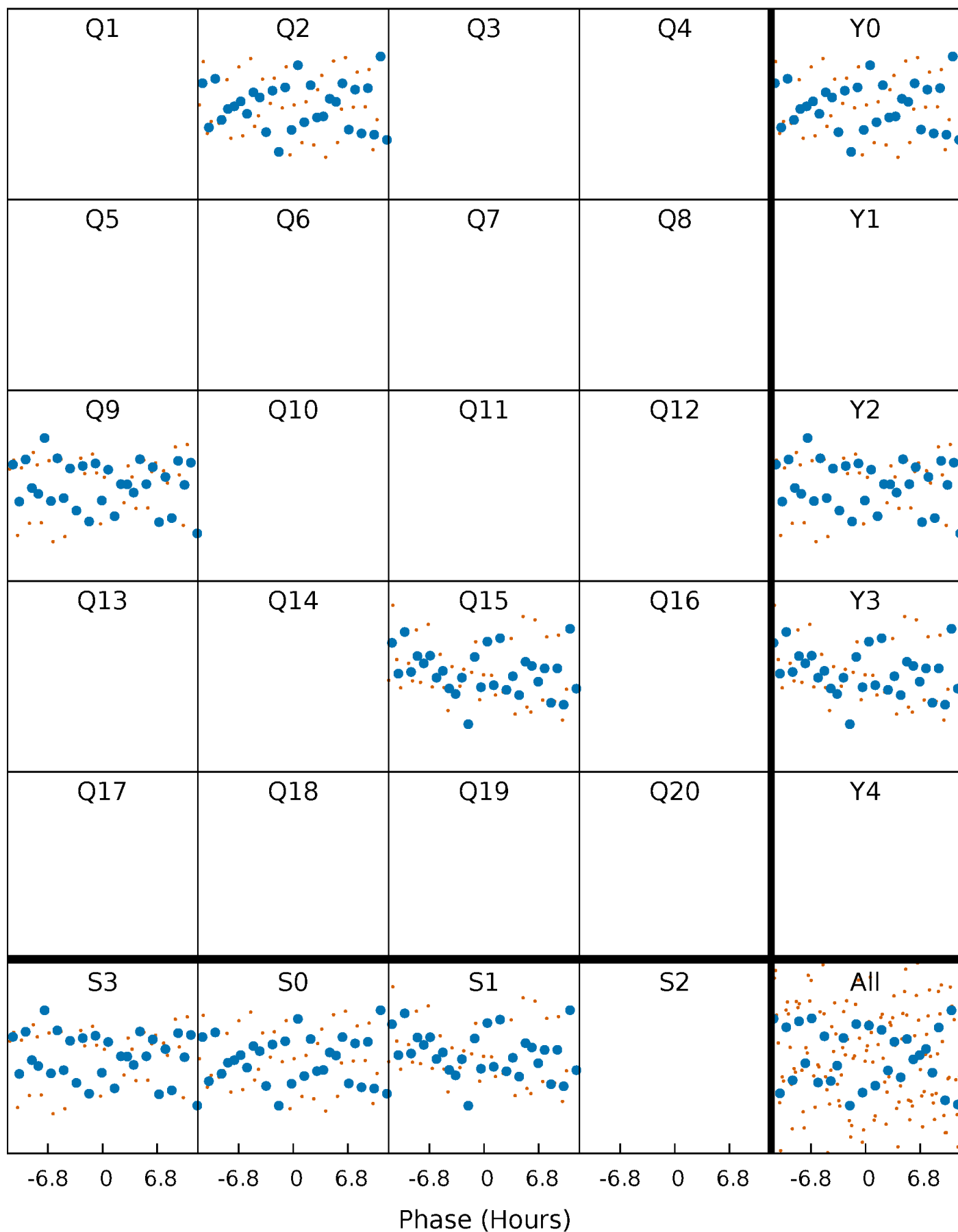


Non-Whitened Vs. Whitened Light Curve



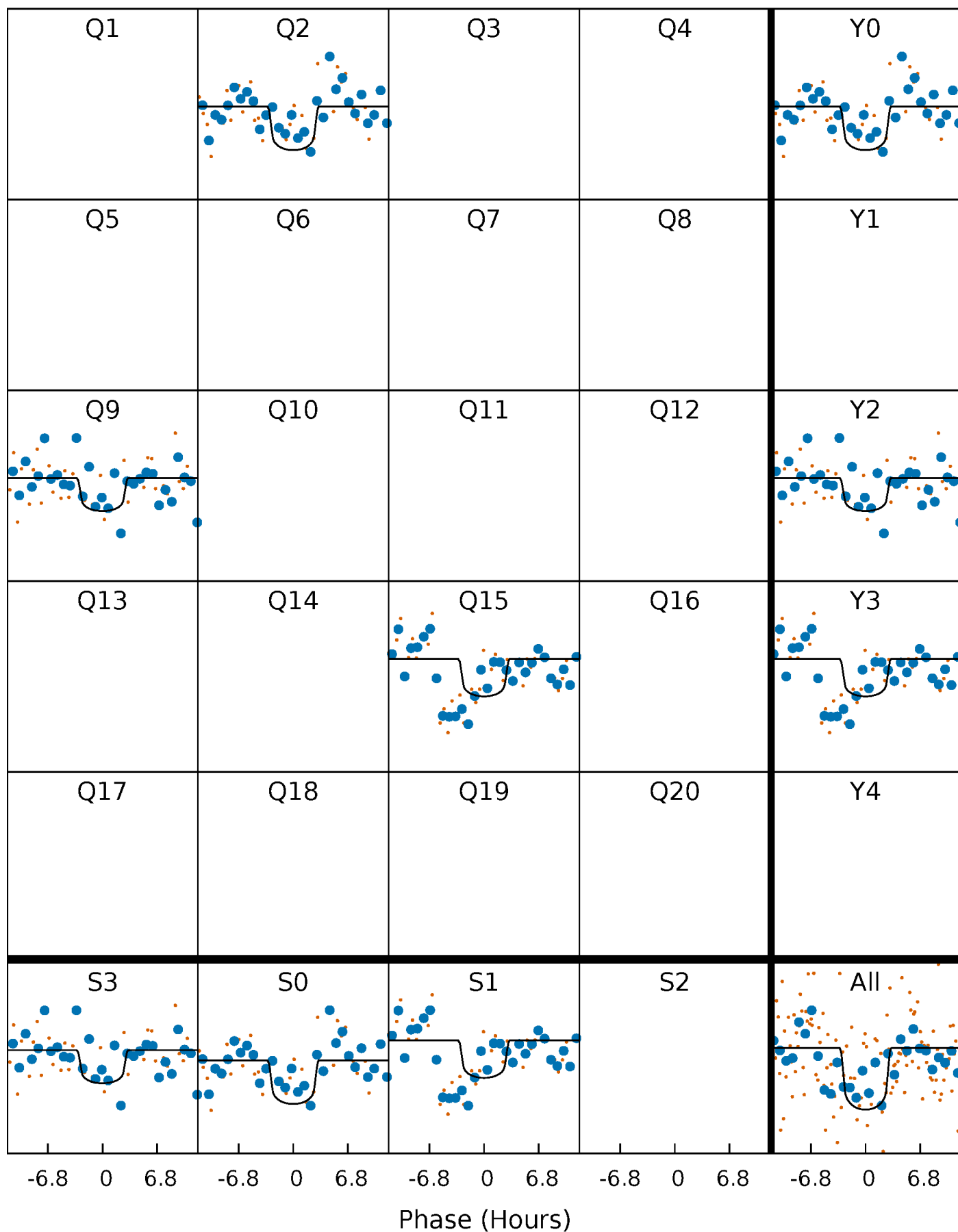
PDC Quarter-Phased Transit Curves

TCE 007841434-01 P=606.174451 Days $T_0=244.119674$ (BKJD)



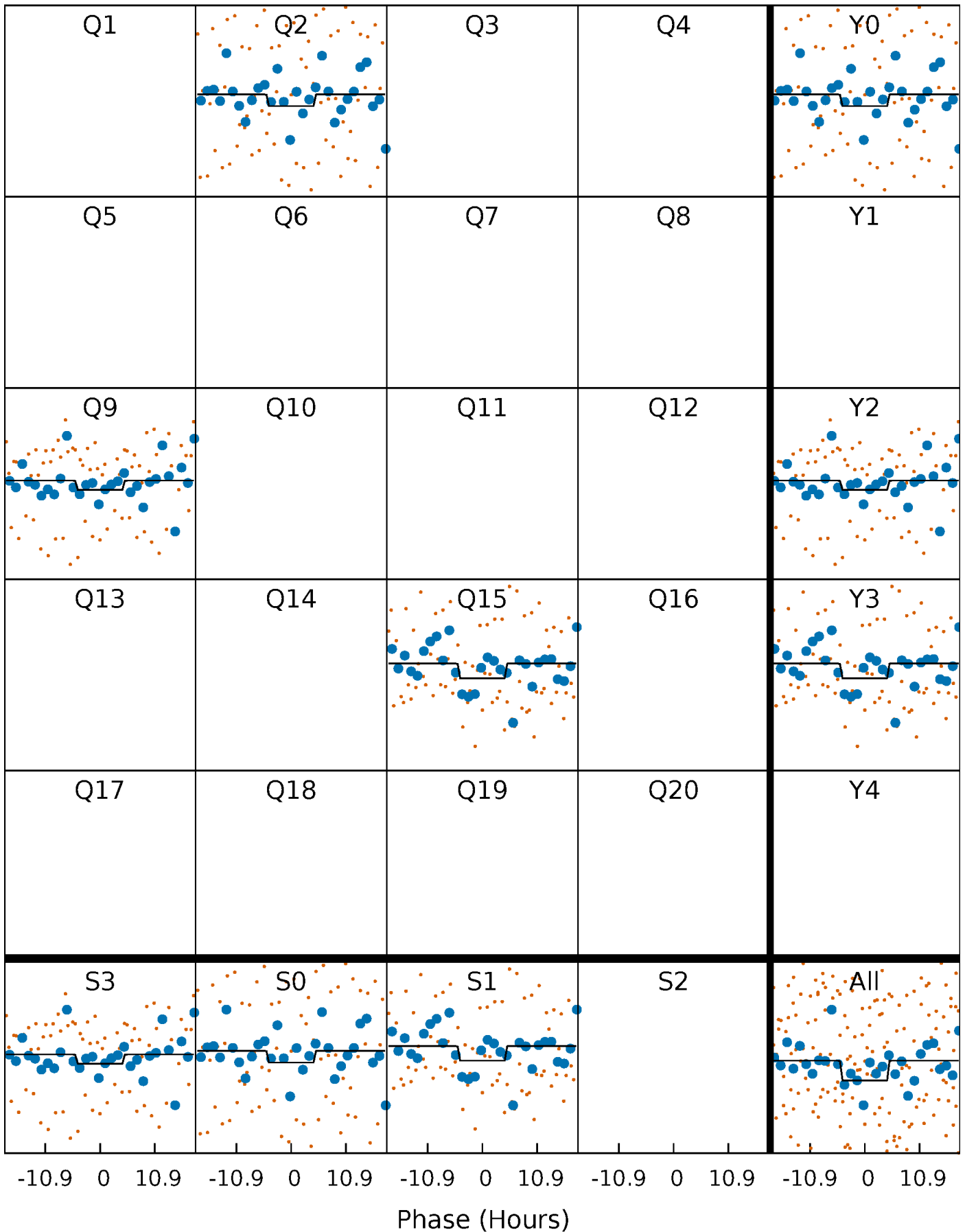
DV Quarter-Phased Transit Curves

TCE 007841434-01 P=606.174451 Days $T_0=244.119674$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

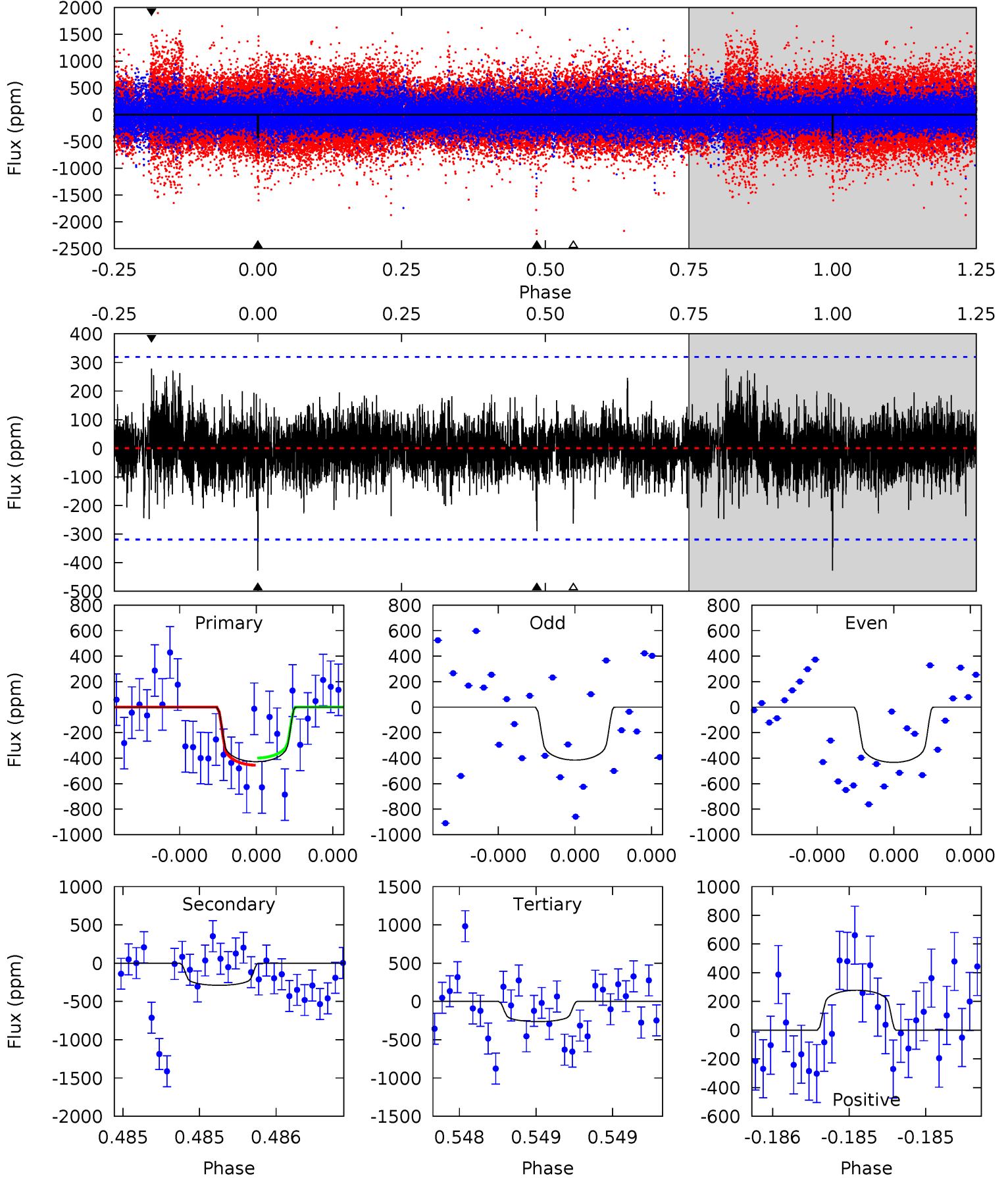
TCE 007841434-01 P=606.161557 Days $T_0=244.122320$ (BKJD)



DV Model-Shift Uniqueness Test

007841434-01, P = 606.174451 Days, E = 244.119674 Days

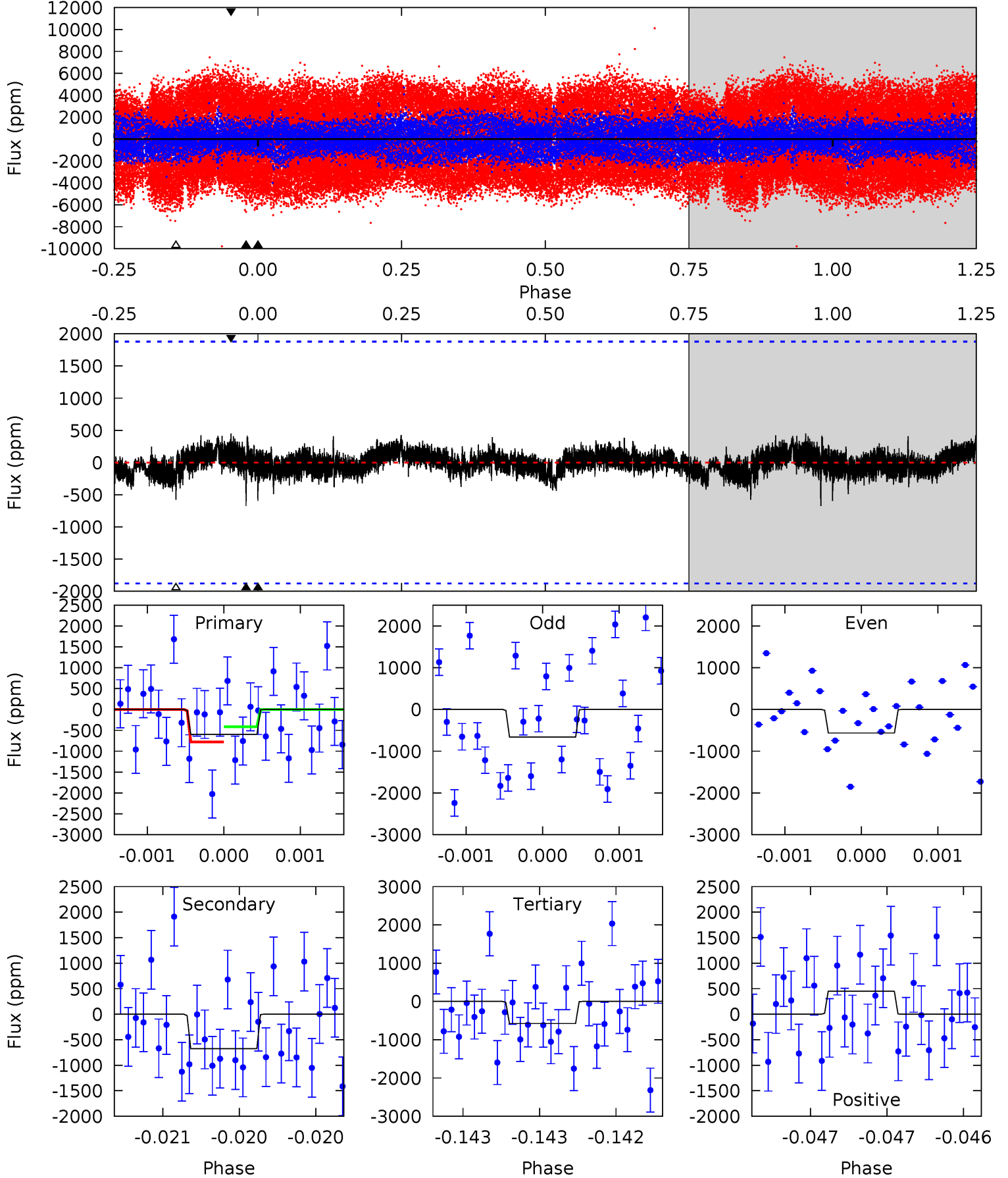
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.50	5.07	4.62	4.88	5.60	3.52	1.11	2.89	2.63	0.46	0.20	0.15	1.03	0.39	0.49



Alt Model-Shift Uniqueness Test

007841434-01, P = 606.161557 Days, E = 244.122320 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.75	1.97	1.69	1.32	5.51	3.39	0.36	0.06	0.43	0.28	0.66	0.13	0.90	0.40	0.54



Stellar Parameters For KIC 007841434

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	7219^{+224}_{-299}	$3.799^{+0.392}_{-0.098}$	$-0.200^{+0.250}_{-0.350}$	$2.625^{+0.482}_{-1.125}$	$1.584^{+0.217}_{-0.325}$	$0.123^{+0.405}_{-0.037}$
	+3%/-4%	+10%/-3%	+125%/-175%	+18%/-43%	+14%/-21%	+329%/-30%
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 007841434-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-289 ± 57	$7.07^{+4.90}_{-3.85}$	548^{+40}_{-63}	5630^{+3057}_{-1020}	8548^{+31356}_{-5590}
Alt.	-673 ± 341	$6.95^{+4.96}_{-4.20}$	545^{+39}_{-58}	6964^{+5911}_{-1826}	20532^{+94973}_{-15485}

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

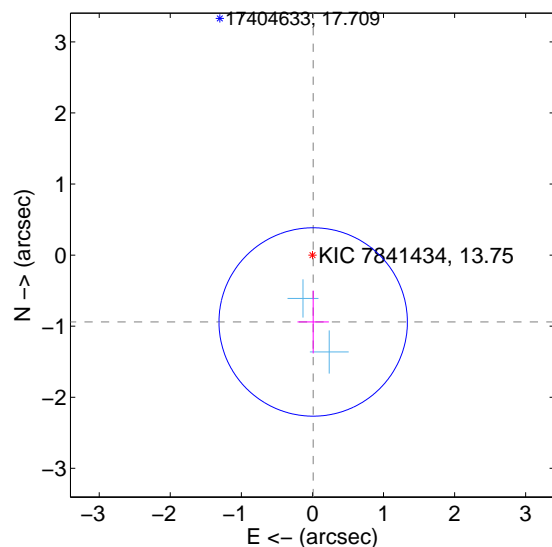
Supplemental centroid analysis for 007841434-01. Kepler magnitude: 13.75. Transit SNR 9.16

There are 2 quarters with good PRF difference image offsets

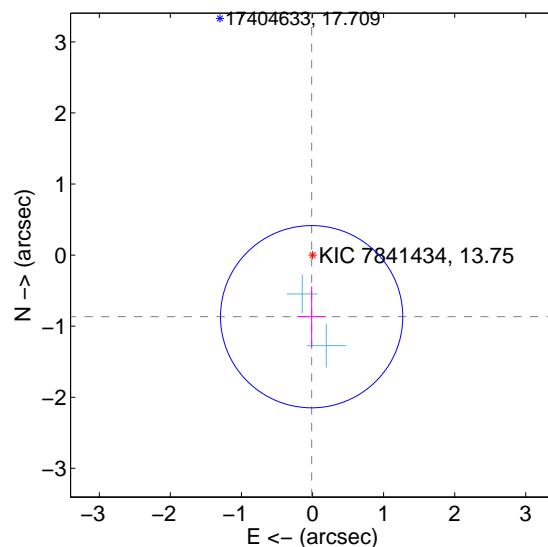
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.941 ± 0.442	2.13	-0.010 ± 0.220	-0.941 ± 0.442
PRF-fit source offset from KIC position	0.867 ± 0.427	2.03	0.012 ± 0.204	-0.867 ± 0.427
photometric centroid source offset	0.91 ± 0.64	1.41	-0.86 ± 0.64	-0.29 ± 0.68

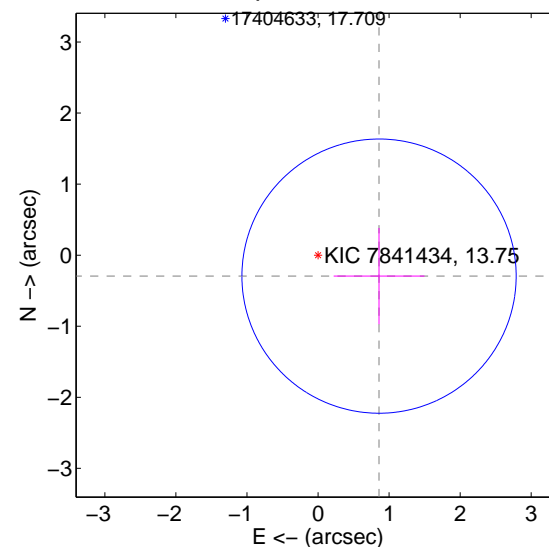
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position



offset from photometric centroids



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

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

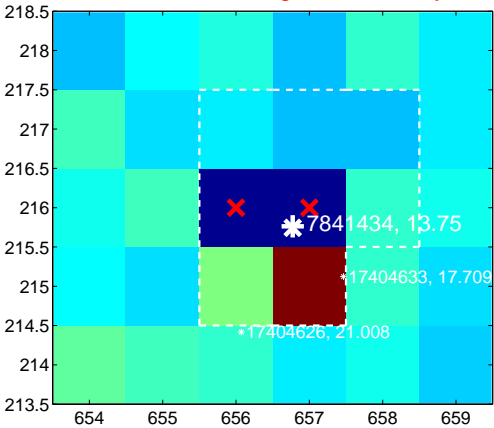
Q1 no difference image



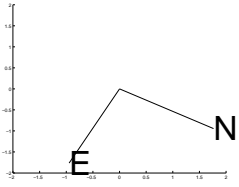
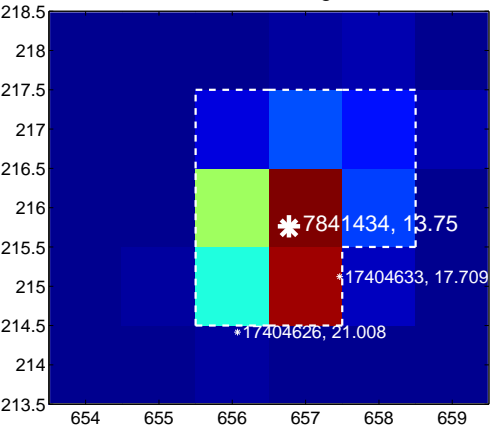
Q1 no OOT image



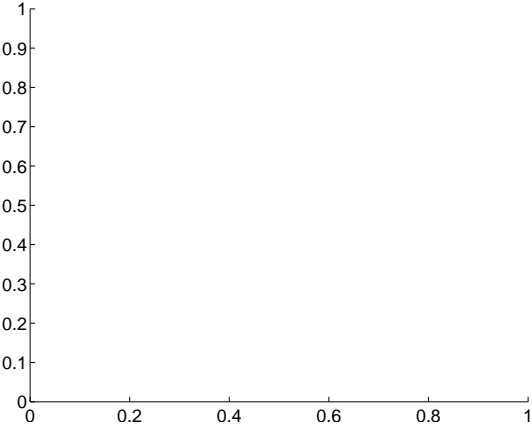
Q2 difference image. Poor Quality



Q2 OOT image



Q3 no difference image



Q3 no OOT image



Q4 no difference image



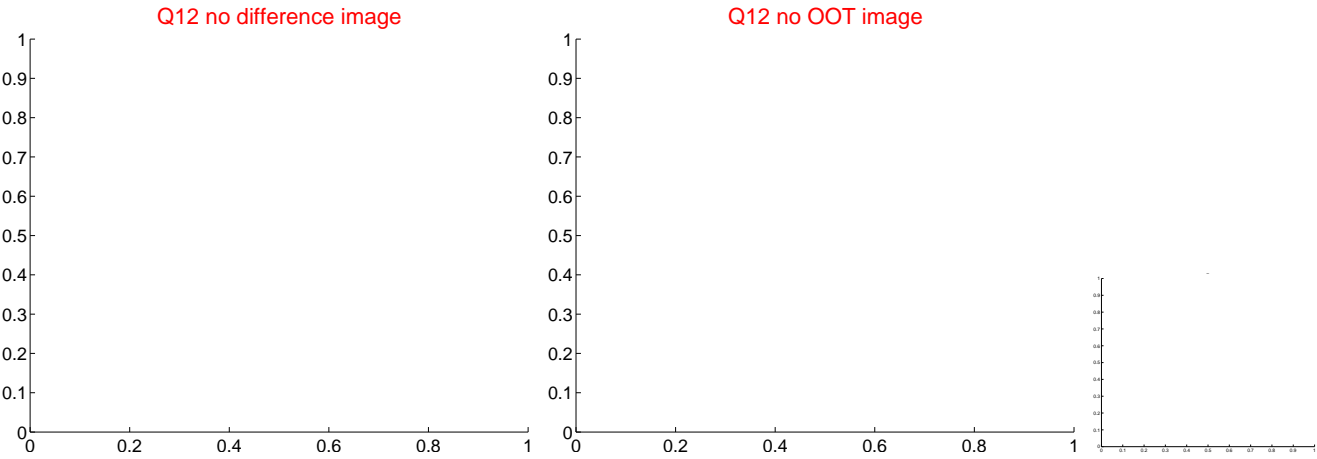
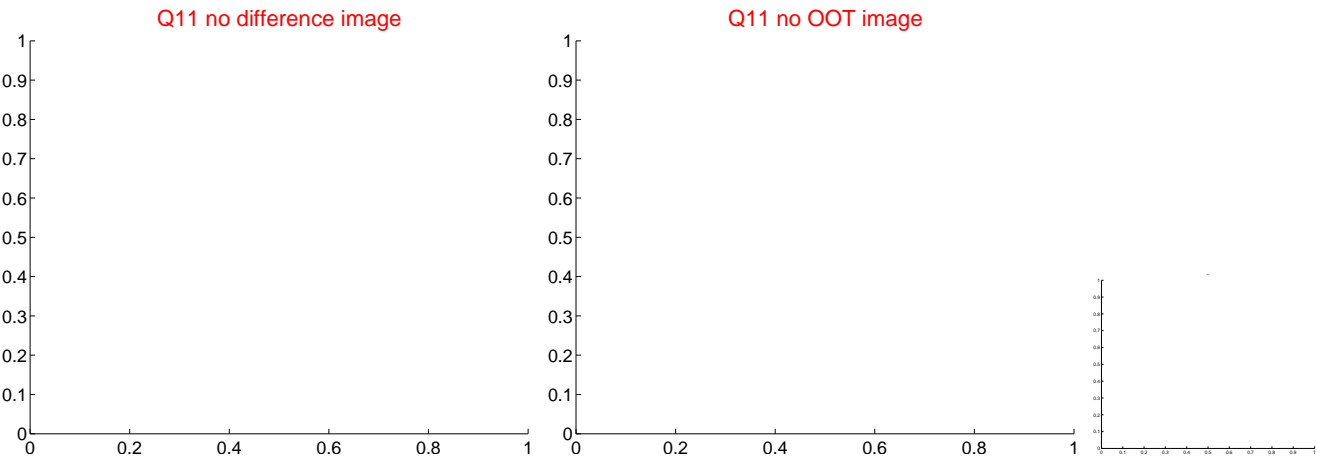
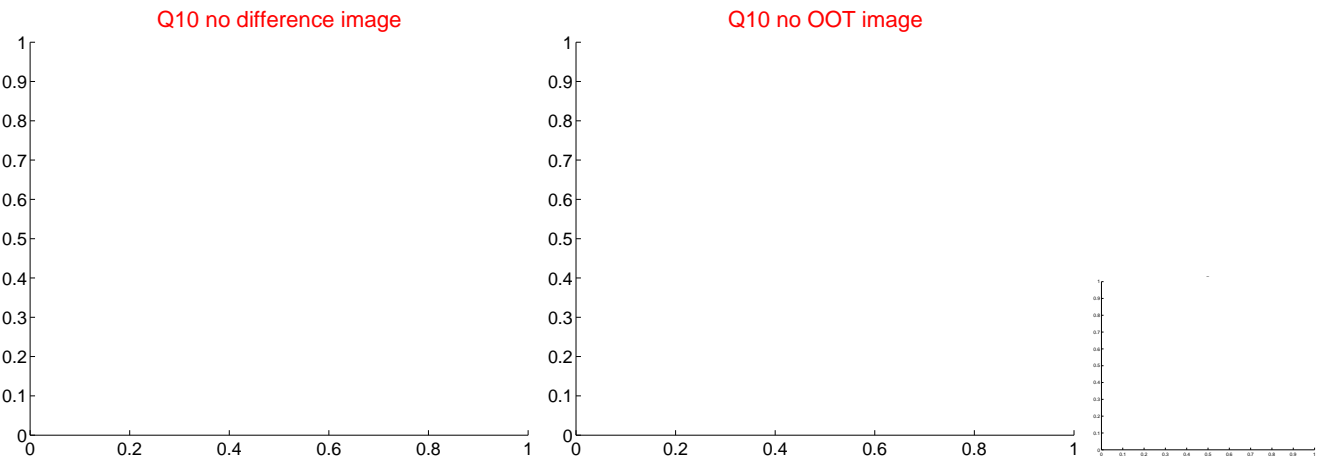
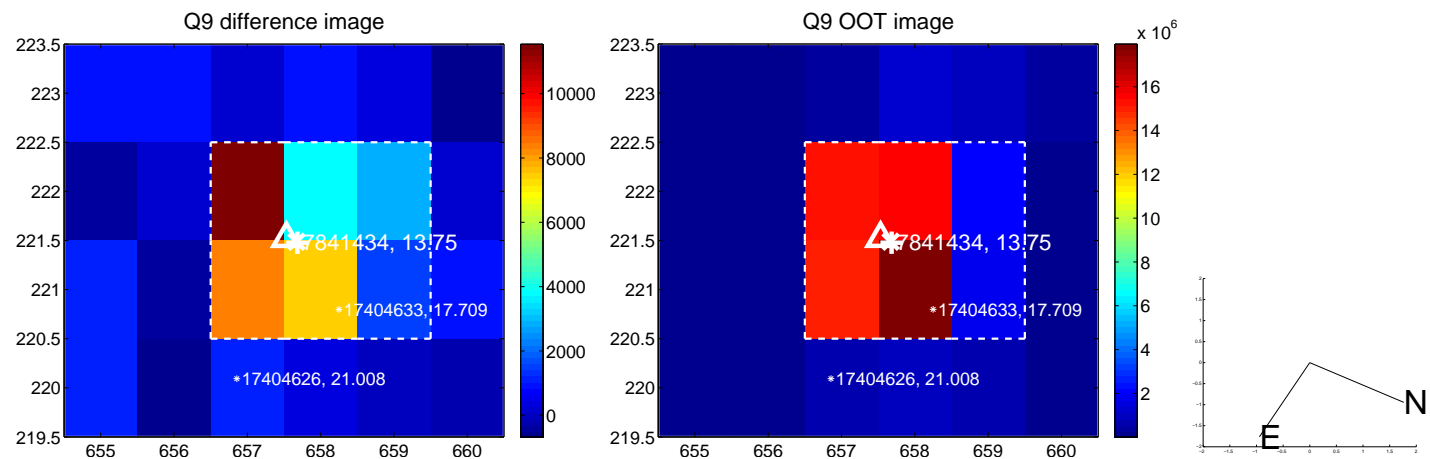
Q4 no OOT image



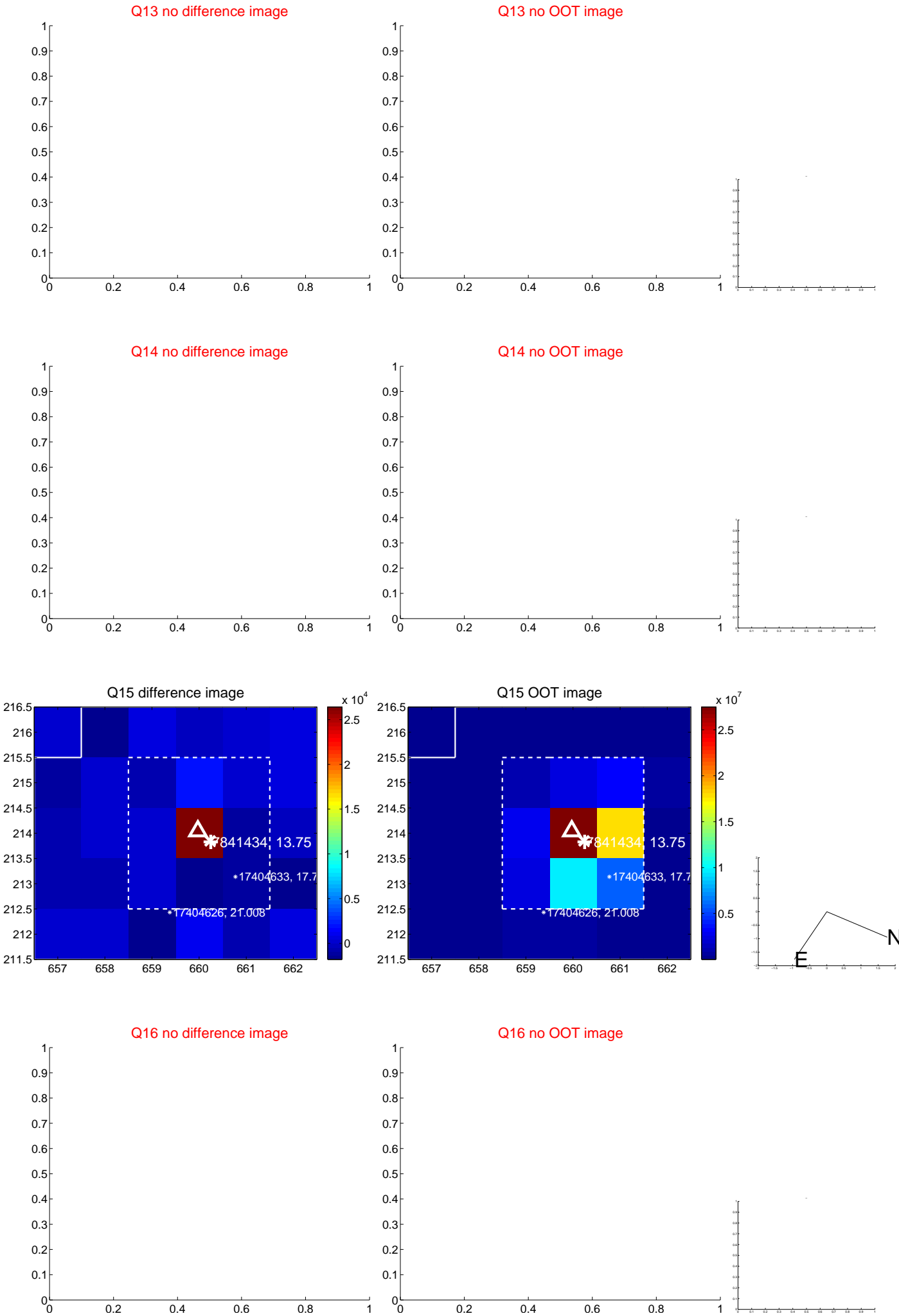
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



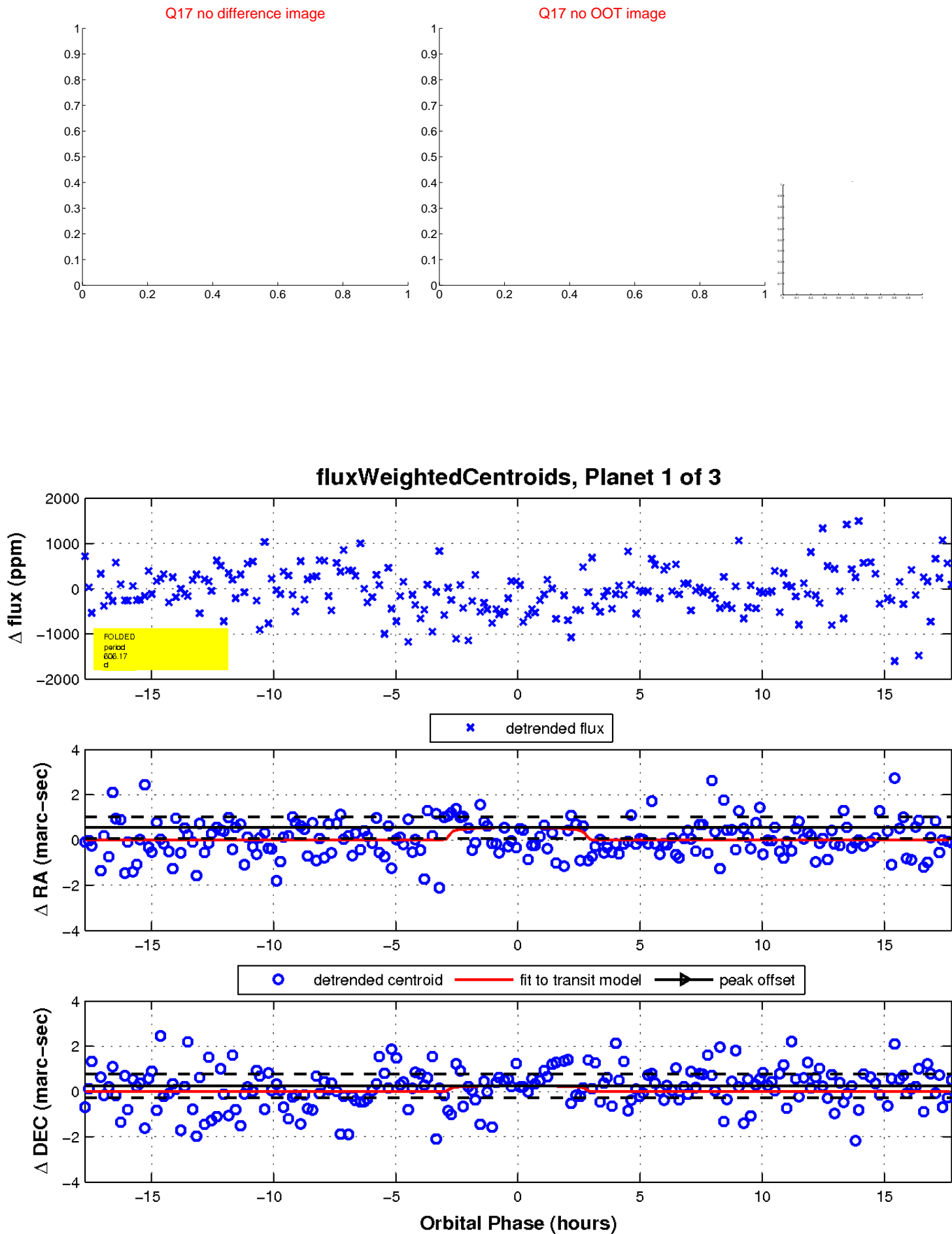
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



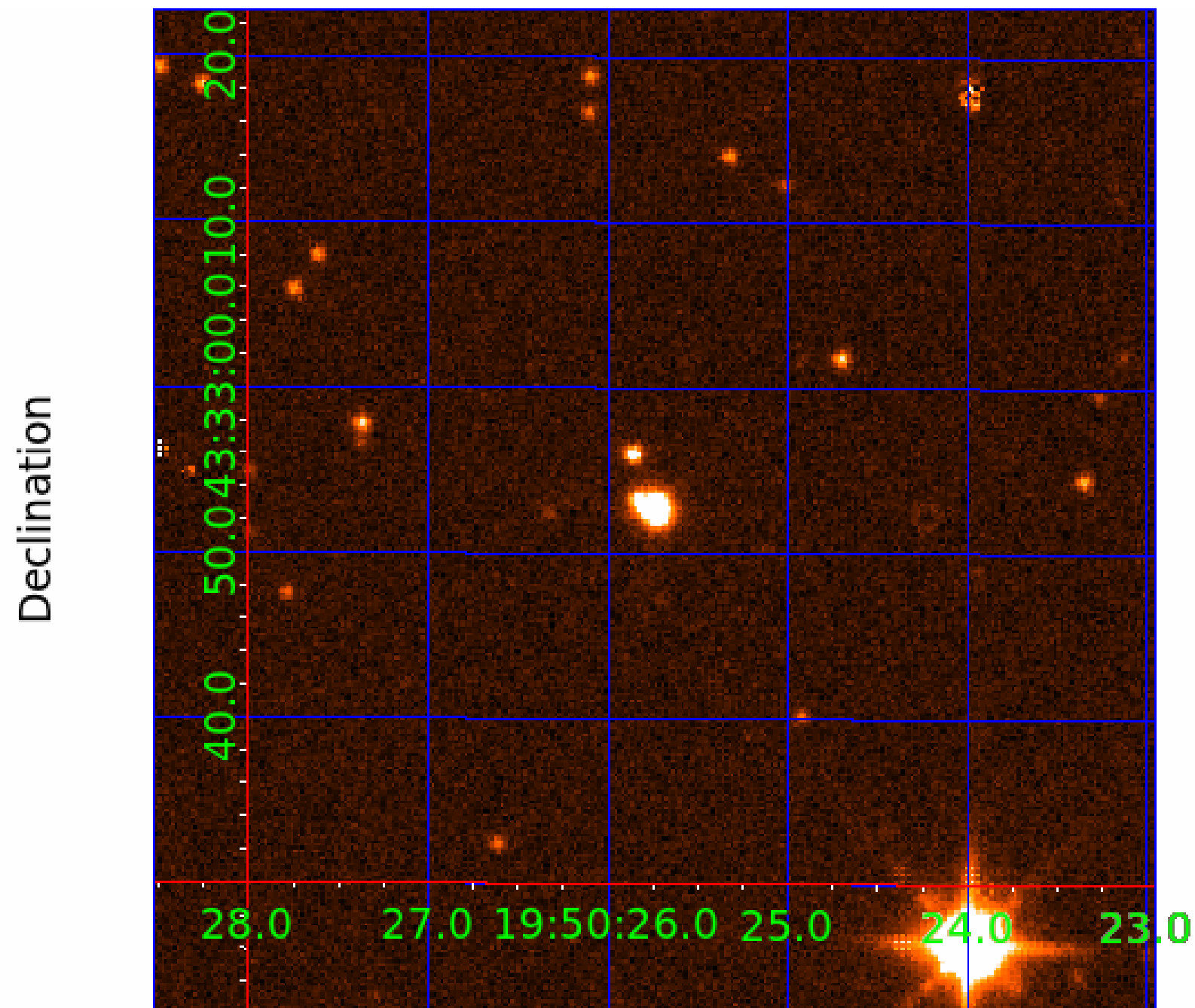
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image



KIC 007841434

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})
007841434-01	OBS	No	606.174451	244.119674	683.0	5.925	10.0	9.2	2.62	7219	7.36	6.28
007841434-02	OBS	No	338.216466	443.152927	142.0	3.159	8.7	1.5	2.62	7219	3.57	13.68
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Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
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007841434-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
007841434-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—SAME_NTL_PERIOD—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.

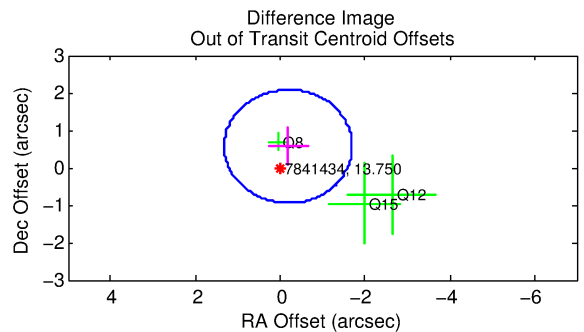
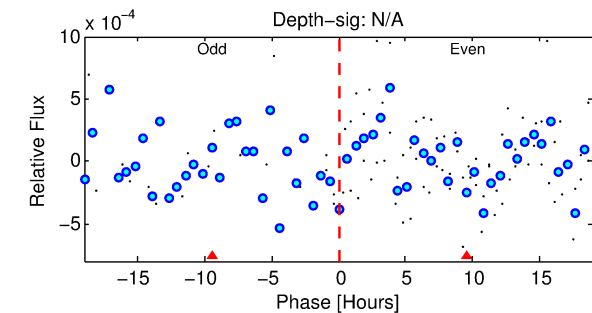
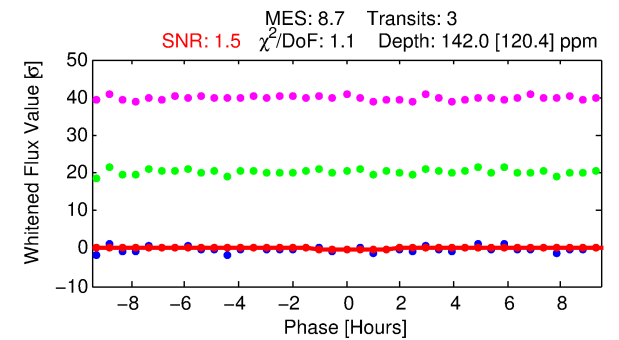
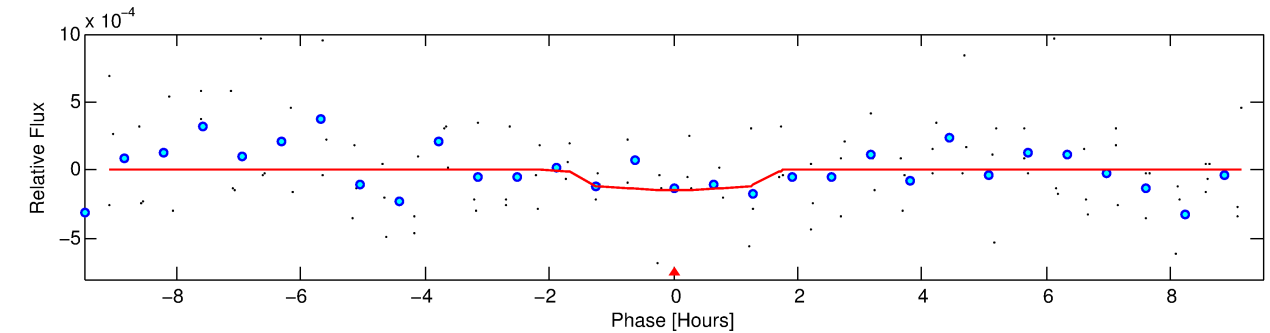
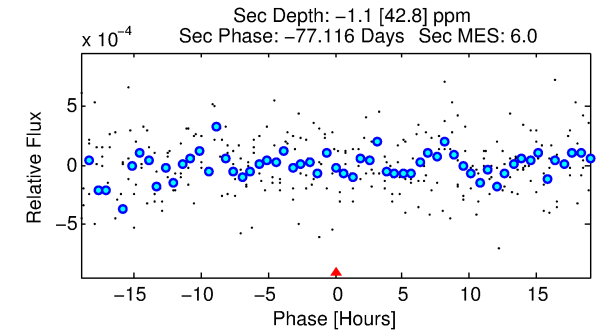
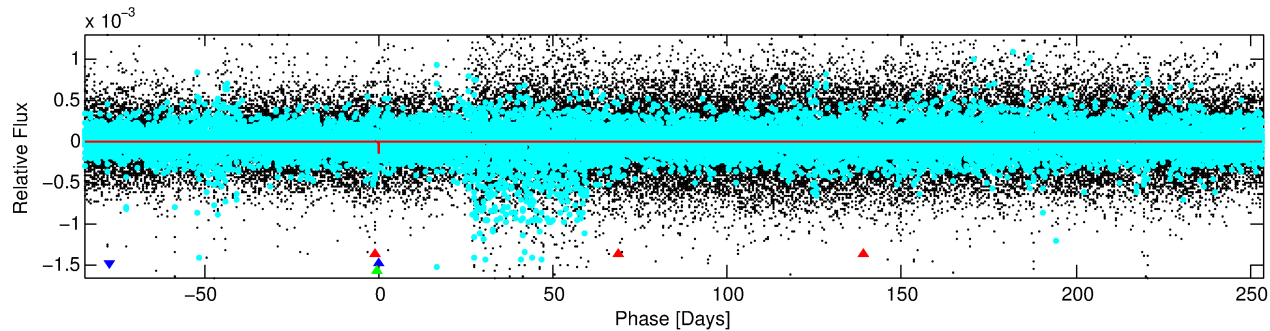
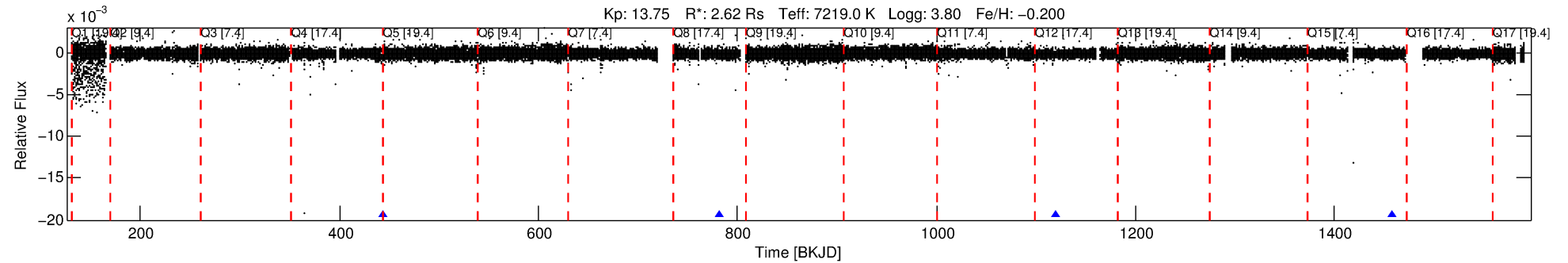
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007841434-02

No Significant Match Found

DV One-Page Summary

KIC: 7841434 Candidate: 2 of 3 Period: 338.216 d



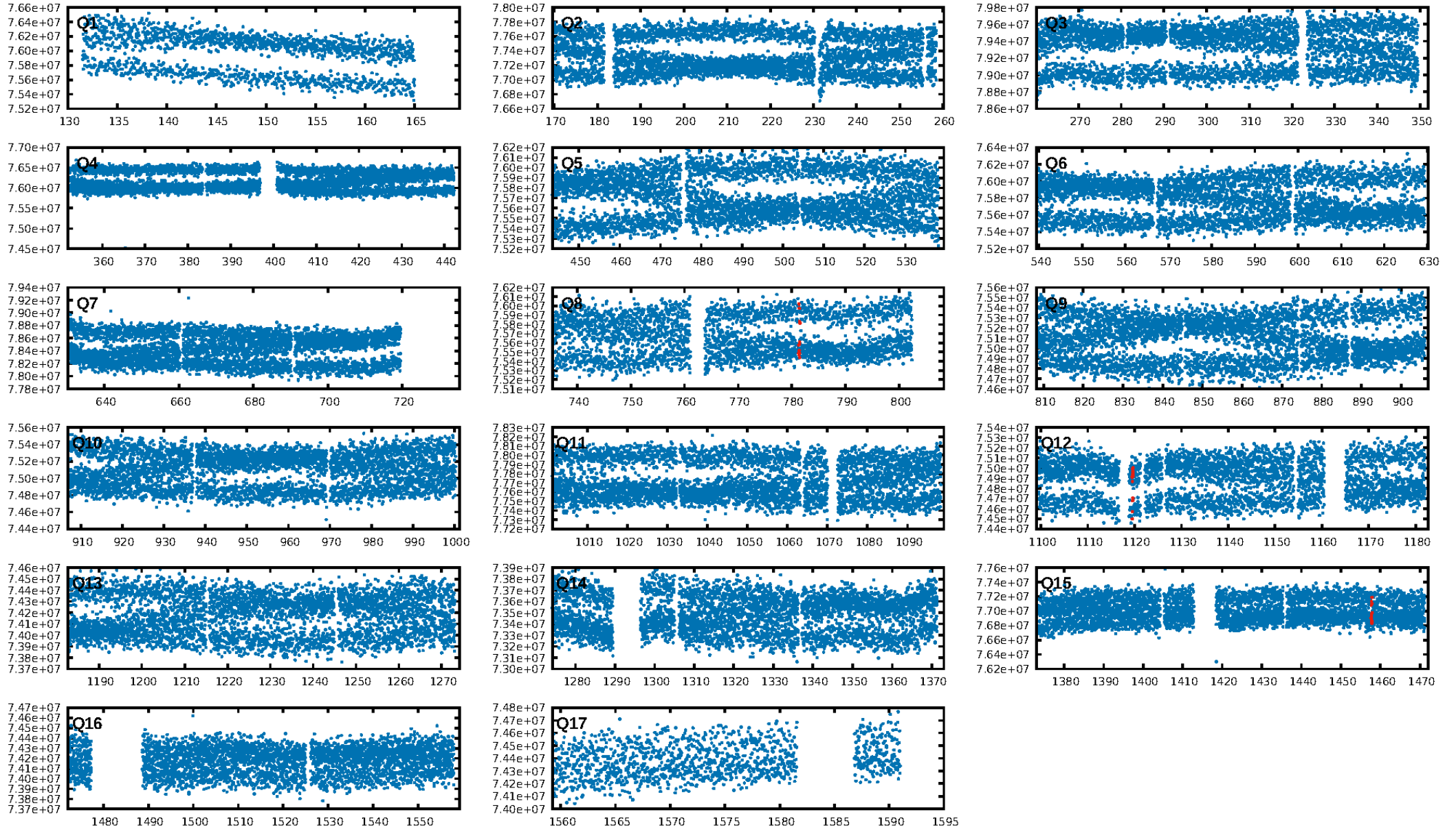
DV Fit Results:

Period = 338.21647 [0.03467] d
Epoch = 443.1529 [0.0771] BKJD
Rp/R* = 0.0125 [0.0588]
a/R* = 431.94 [11566.57]
b = 0.86 [8.01]
Seff = 13.68 [9.39]
Teq = 490 [84] K
Rp = 3.57 [16.92] Re
a = 1.1073 [0.4594] AU
Ag = N/A
Teffp = N/A

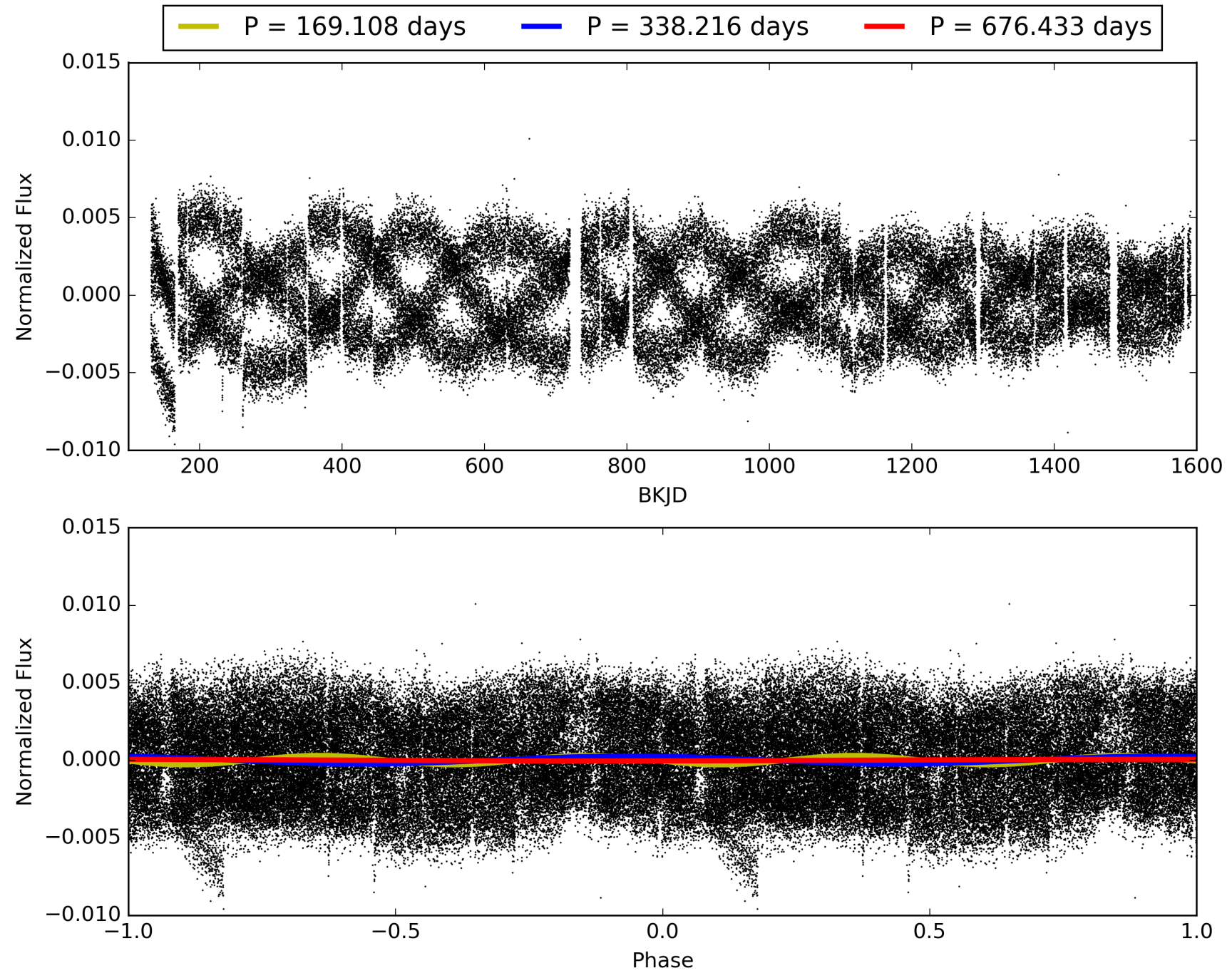
DV Diagnostic Results:

ShortPeriod-sig: 4.7% [0.06σ]
LongPeriod-sig: 100.0% [957.80σ]
ModelChiSquare2-sig: 30.8%
ModelChiSquareGof-sig: 97.1%
Bootstrap-pfa: 3.03e-09
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 0.3562
Centroid-sig: 53.1%
Centroid-so: 2.682 arcsec [0.63σ]
OotOffset-rm: 0.598 arcsec [1.19σ]
KicOffset-rm: 0.696 arcsec [1.38σ]
OotOffset-st: 0/1/2/0 [3]
KicOffset-st: 0/1/2/0 [3]
DiffImageQuality-fgm: 0.67 [2/3]
DiffImageOverlap-fno: 1.00 [3/3]

TCE 007841434-02, PDC Light Curves

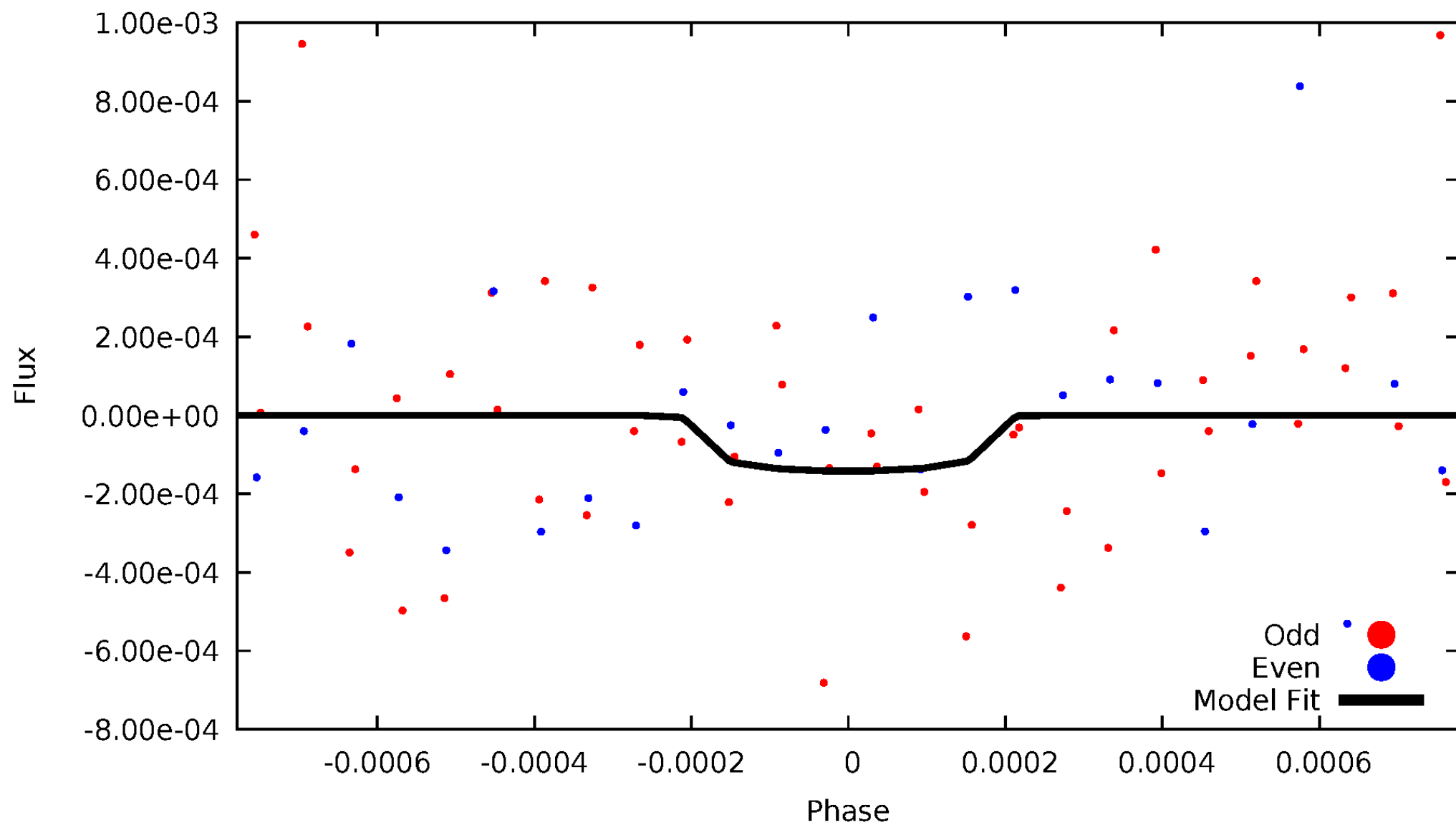


TCE 007841434-02



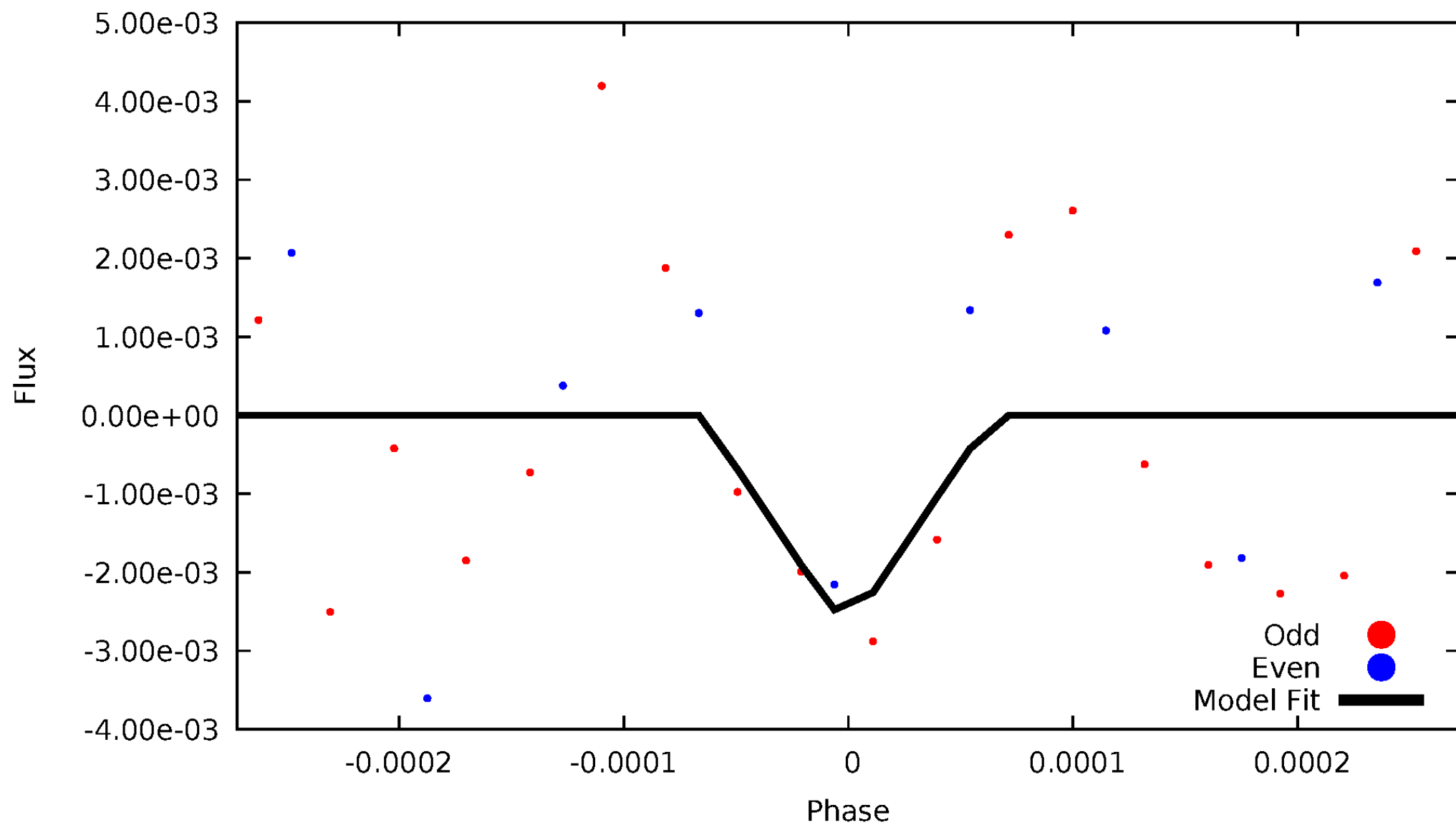
DV Odd/Even

TCE 007841434-02



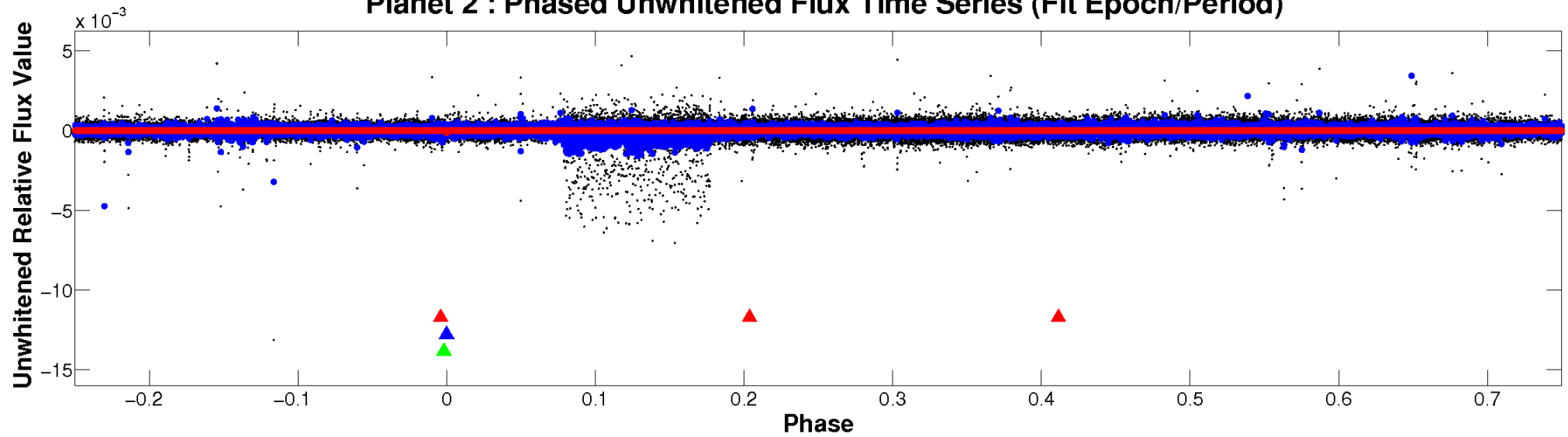
ALT Odd/Even

TCE 007841434-02

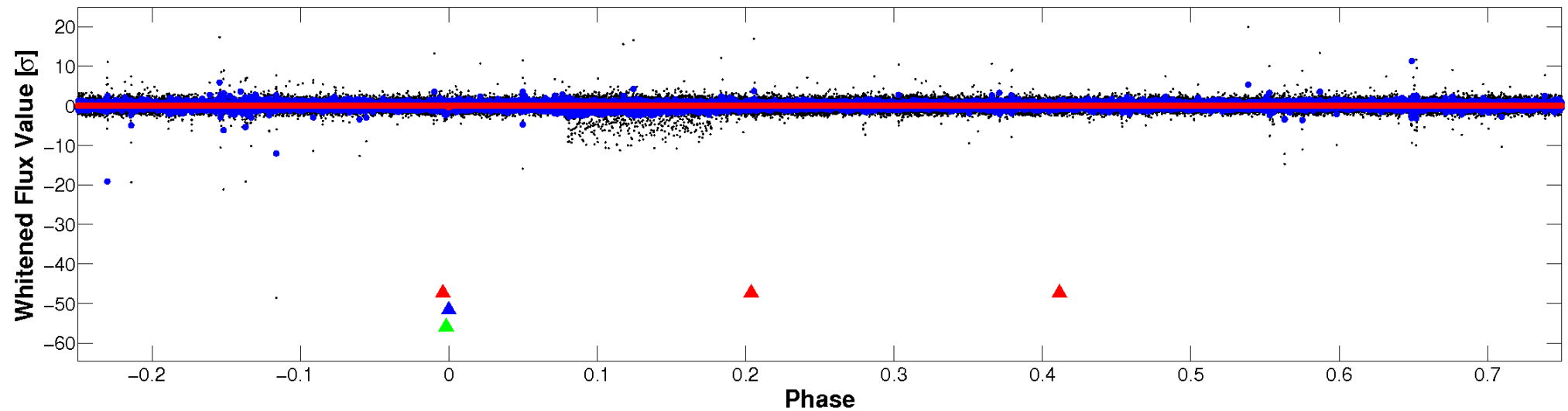


Non-Whitened Vs. Whitened Light Curve

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

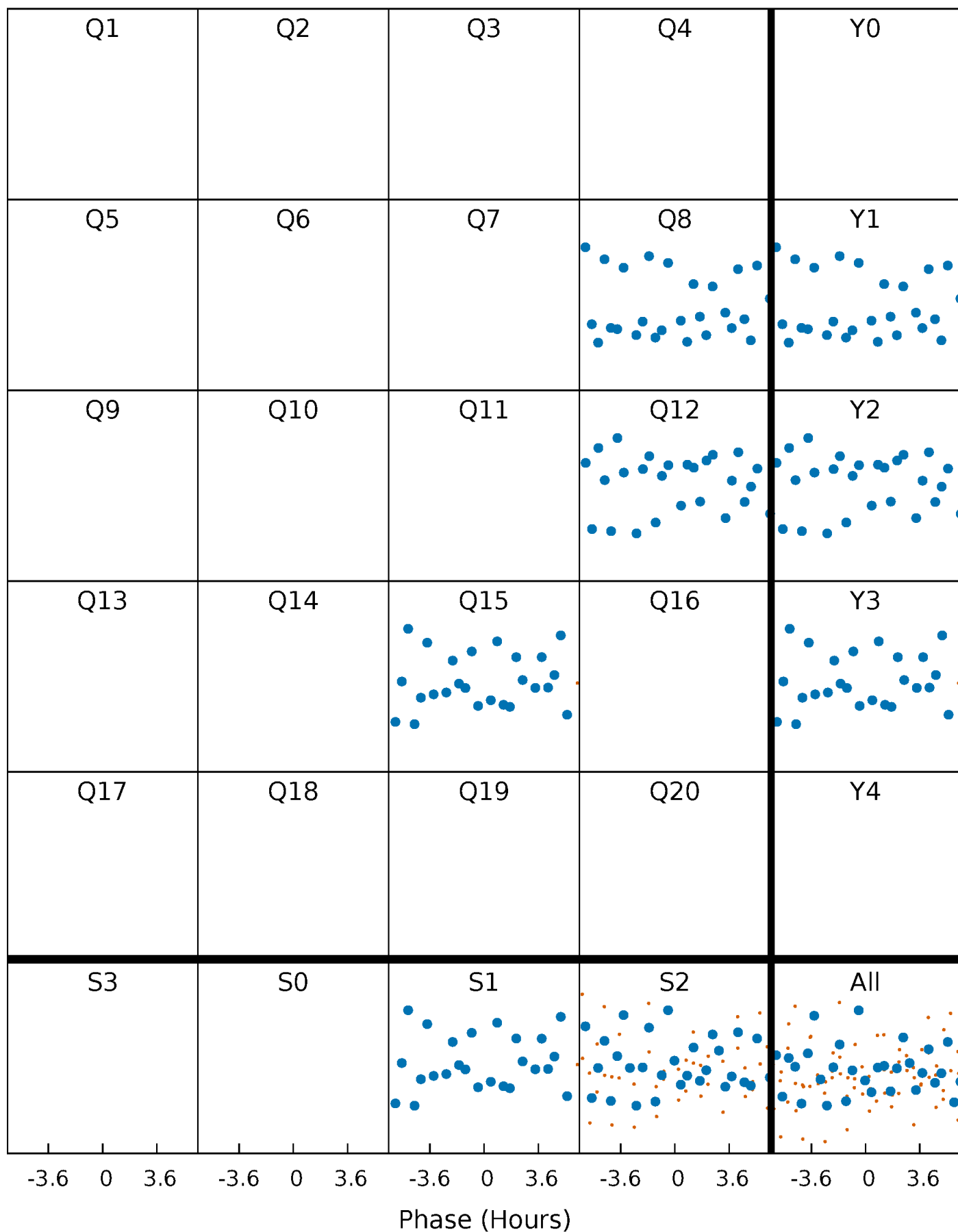


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



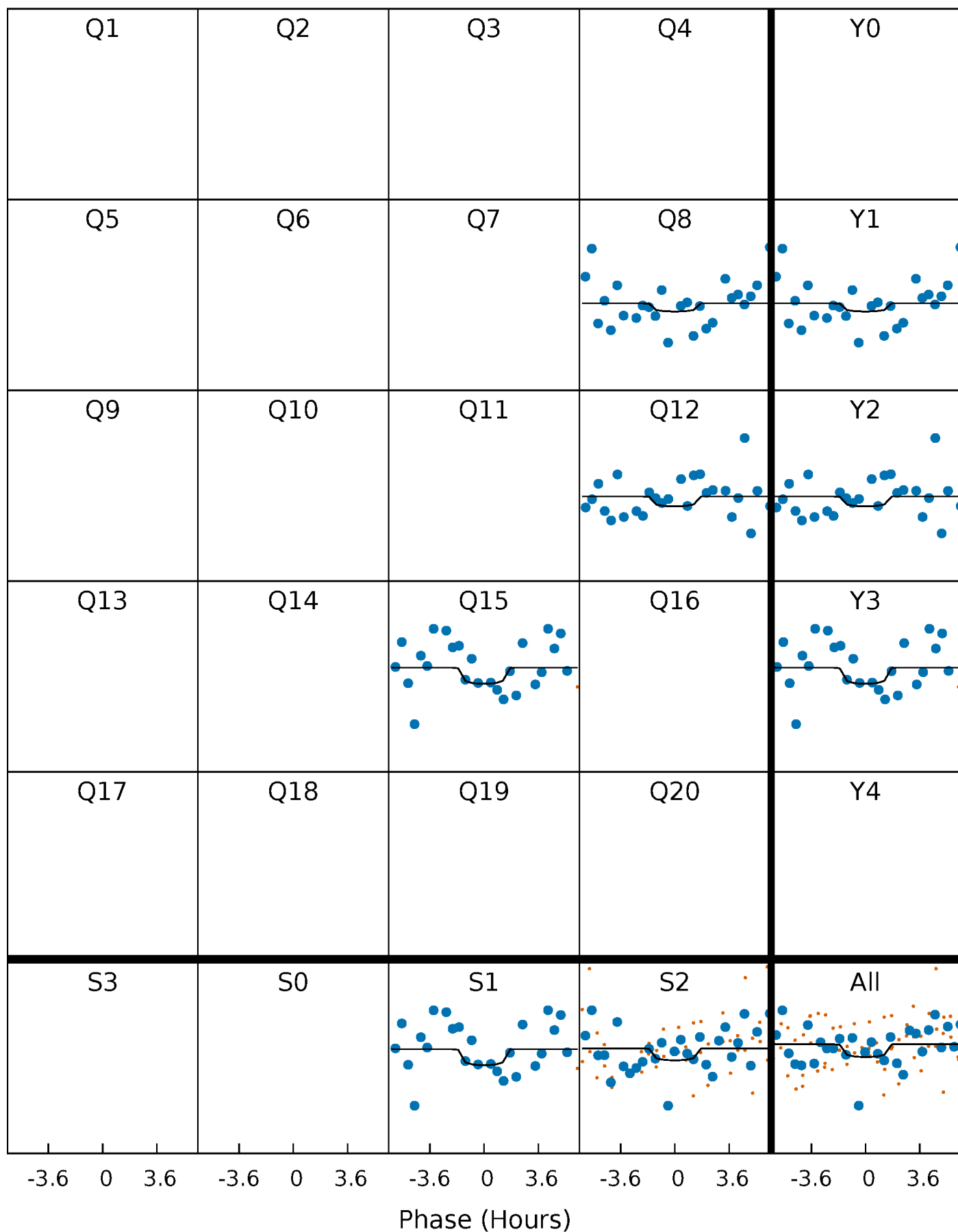
PDC Quarter-Phased Transit Curves

TCE 007841434-02 P=338.216467 Days $T_0=443.152927$ (BKJD)



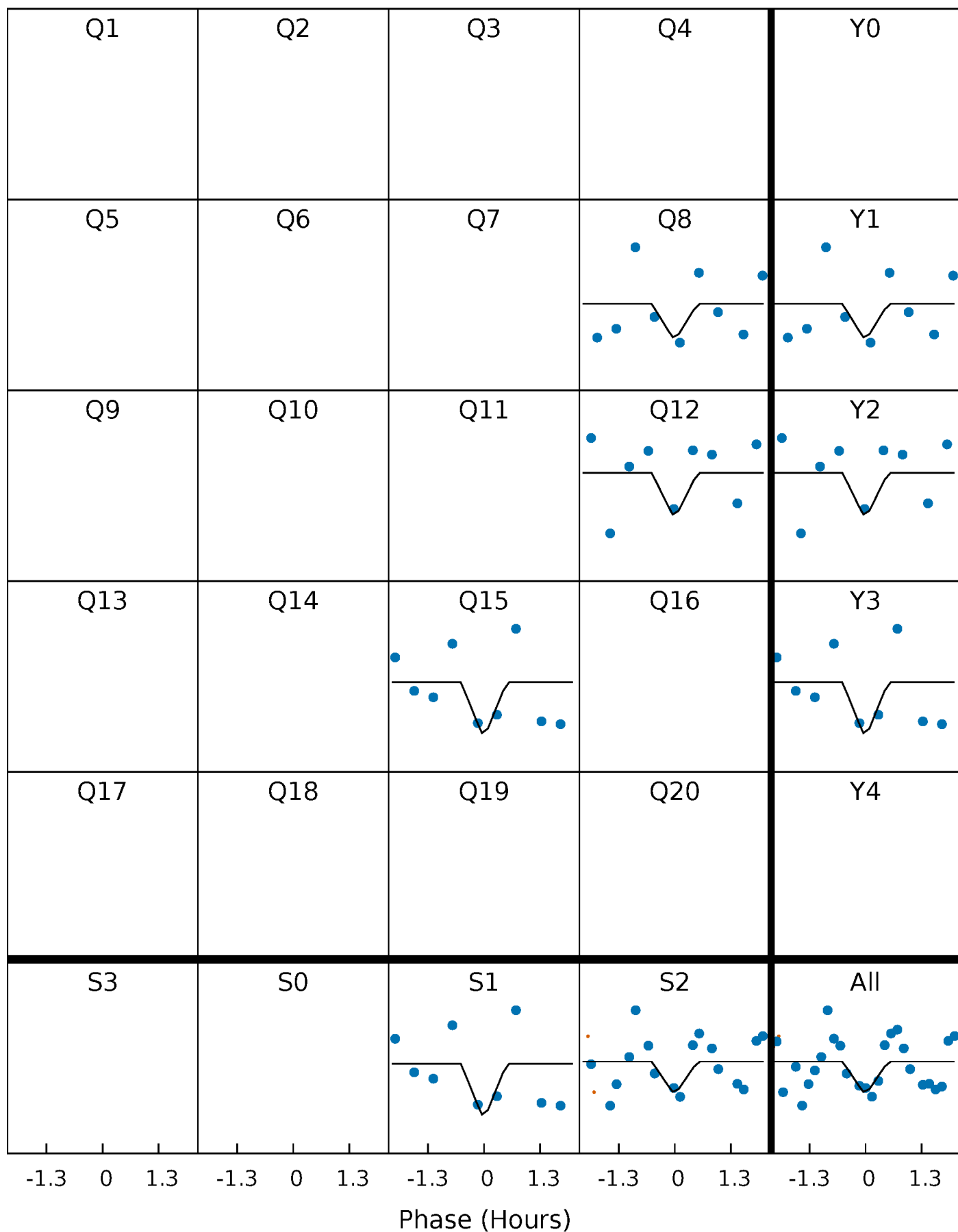
DV Quarter-Phased Transit Curves

TCE 007841434-02 P=338.216467 Days $T_0=443.152927$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

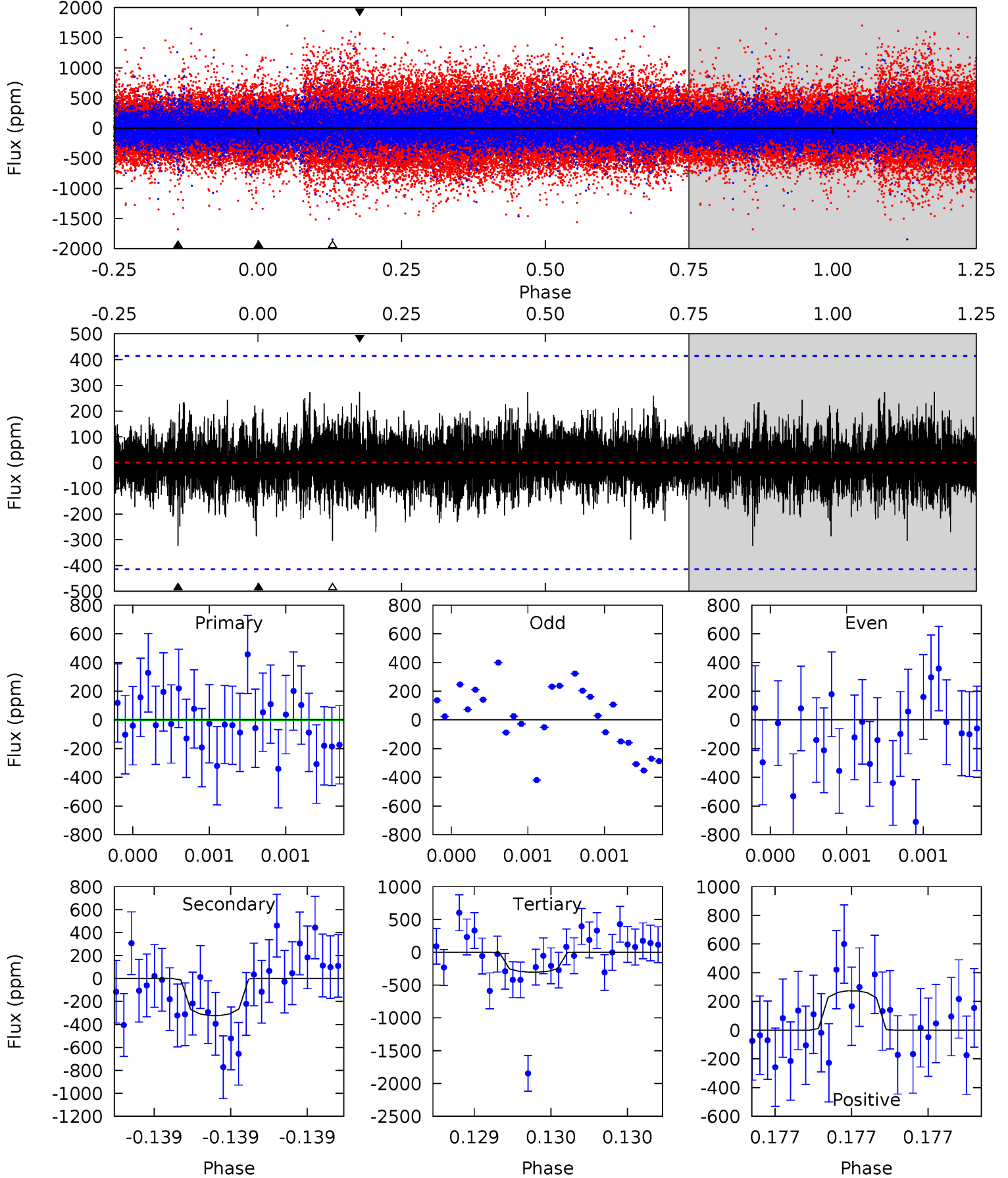
TCE 007841434-02 P=338.202663 Days $T_0=443.193281$ (BKJD)



DV Model-Shift Uniqueness Test

007841434-02, P = 338.216467 Days, E = 104.936460 Days

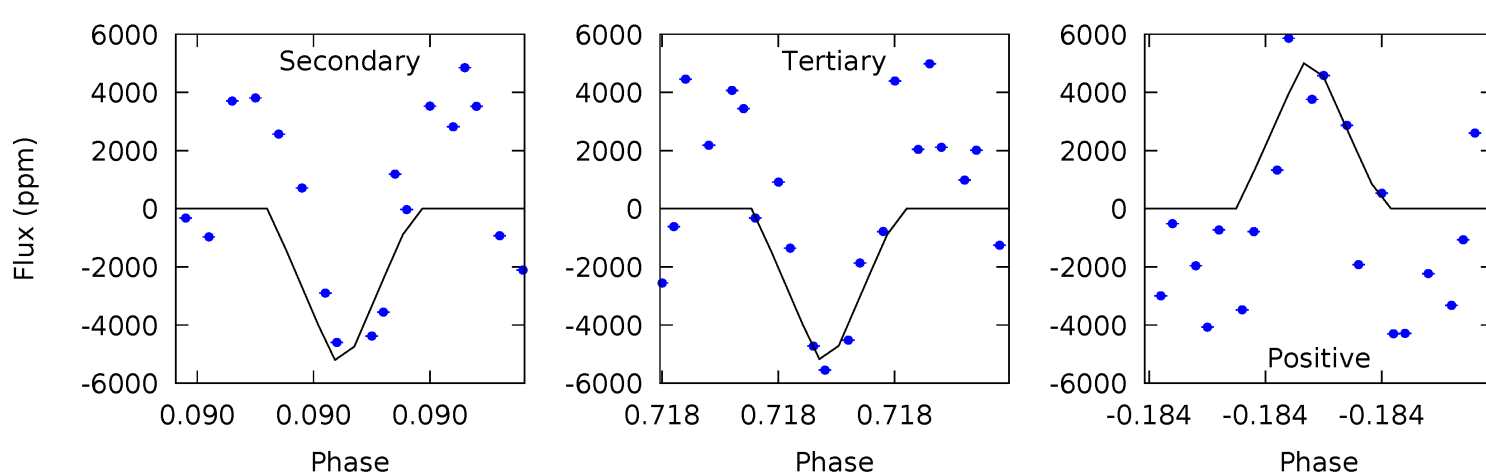
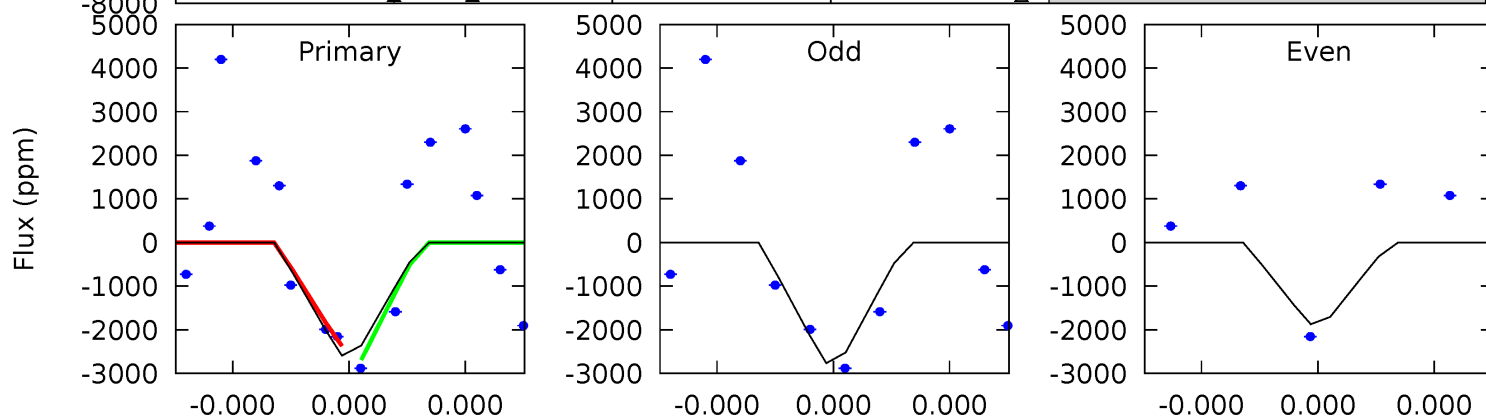
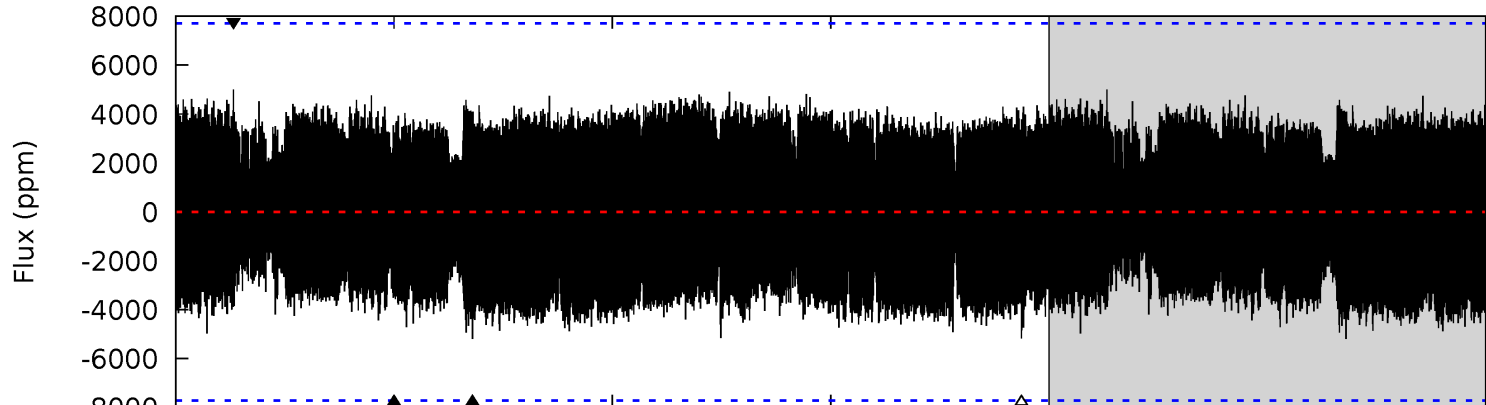
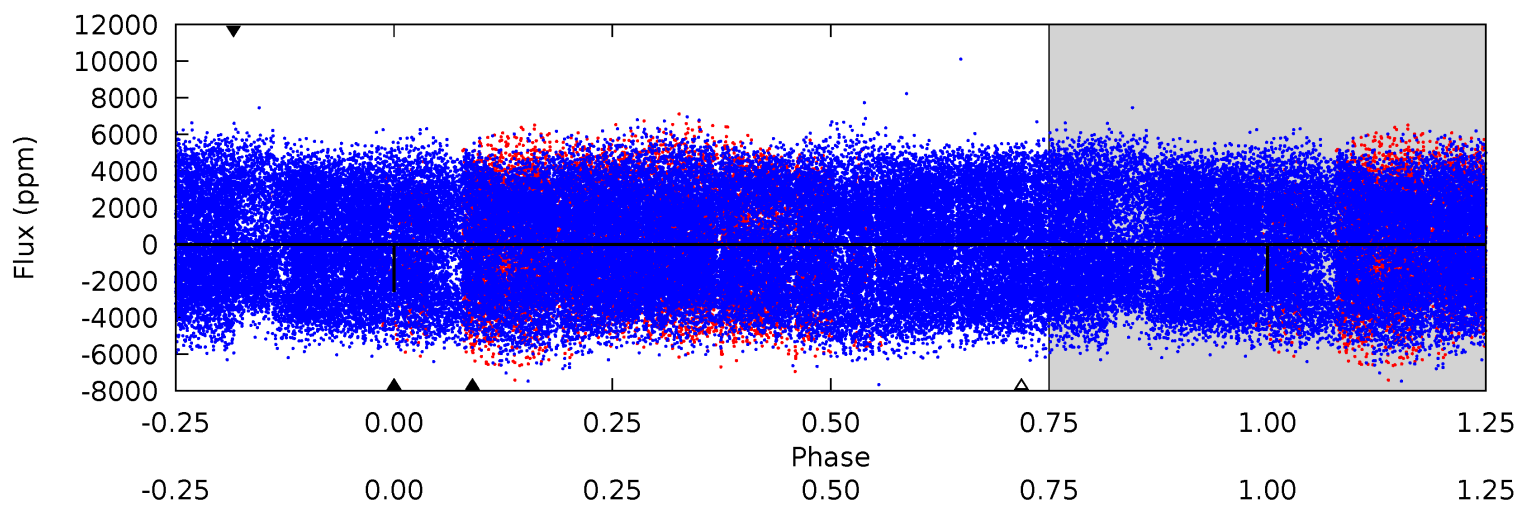
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.37	4.35	4.08	3.69	5.58	3.49	0.94	-2.71	-2.32	0.27	0.66	0.82	0.80	0.46	0.21



Alt Model-Shift Uniqueness Test

007841434-02, P = 338.202663 Days, E = 104.990618 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.96	3.94	3.92	3.79	5.84	3.88	1.71	-1.95	-1.82	0.02	0.15	0.29	0.92	0.49	0.12



Stellar Parameters For KIC 007841434

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	7219^{+224}_{-299}	$3.799^{+0.392}_{-0.098}$	$-0.200^{+0.250}_{-0.350}$	$2.625^{+0.482}_{-1.125}$	$1.584^{+0.217}_{-0.325}$	$0.123^{+0.405}_{-0.037}$
	+3%/-4%	+10%/-3%	+125%/-175%	+18%/-43%	+14%/-21%	+329%/-30%
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 007841434-02 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-323 ± 74	$11.99^{+12.53}_{-8.26}$	665^{+51}_{-71}	4633^{+3471}_{-1074}	1578^{+13083}_{-1229}
Alt.	-5199 ± 1320	$17.56^{+15.03}_{-11.05}$	664^{+50}_{-71}	7364^{+8893}_{-1885}	11150^{+73202}_{-7909}

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

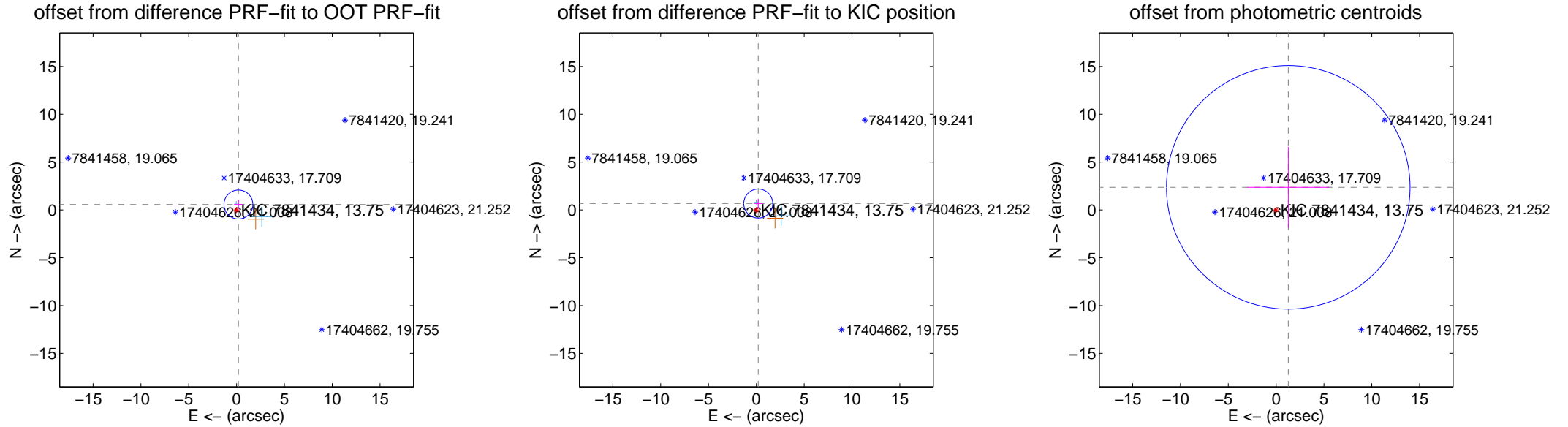
DV Centroid Data

Supplemental centroid analysis for 007841434-02. Kepler magnitude: 13.75. Transit SNR 1.50

There are 2 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.598 ± 0.504	1.19	-0.193 ± 0.456	0.566 ± 0.509
PRF-fit source offset from KIC position	0.696 ± 0.505	1.38	-0.201 ± 0.456	0.666 ± 0.509
photometric centroid source offset	2.68 ± 4.24	0.63	-1.27 ± 4.27	2.36 ± 4.23

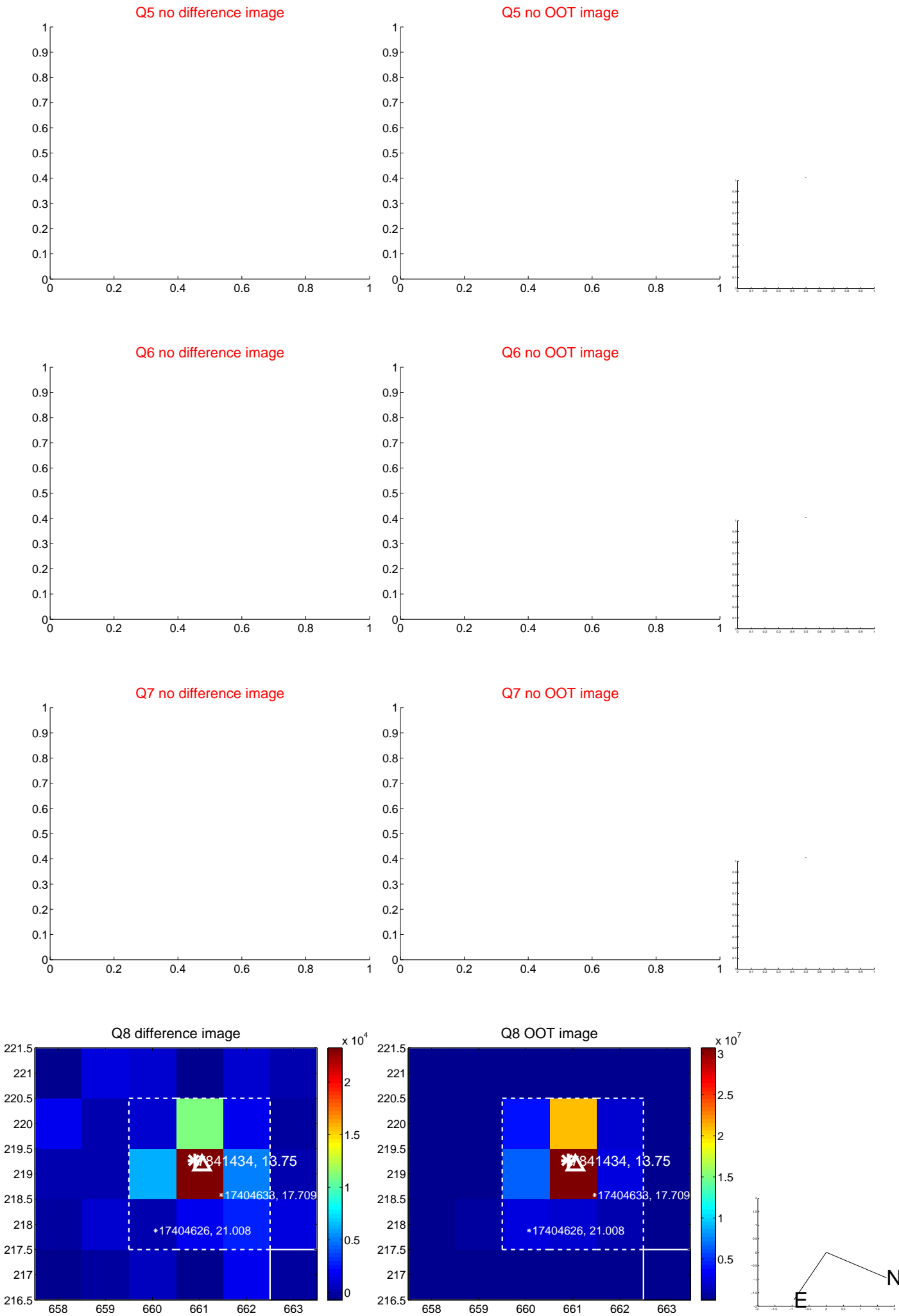


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

Q9 no difference image



Q9 no OOT image



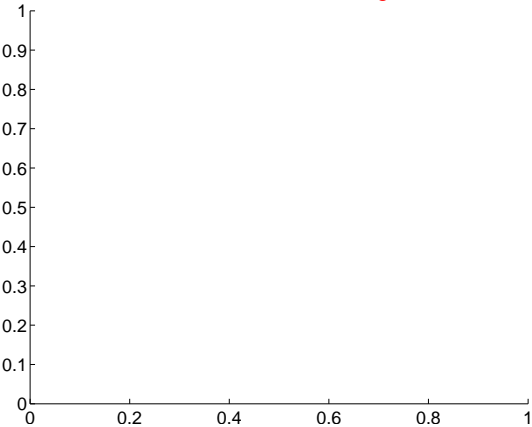
Q10 no difference image



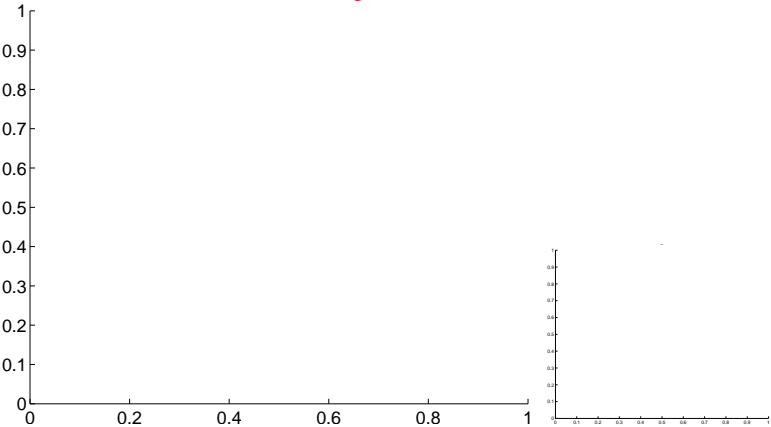
Q10 no OOT image



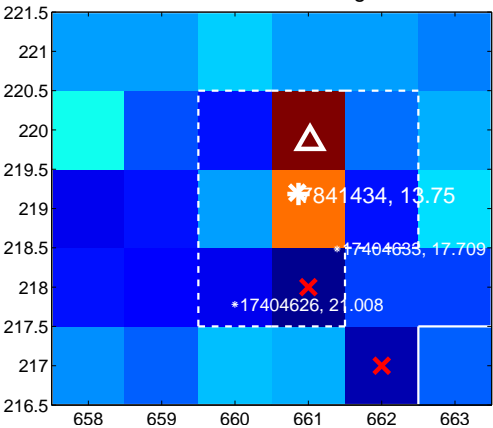
Q11 no difference image



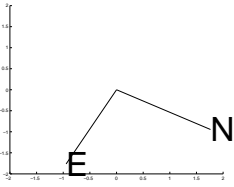
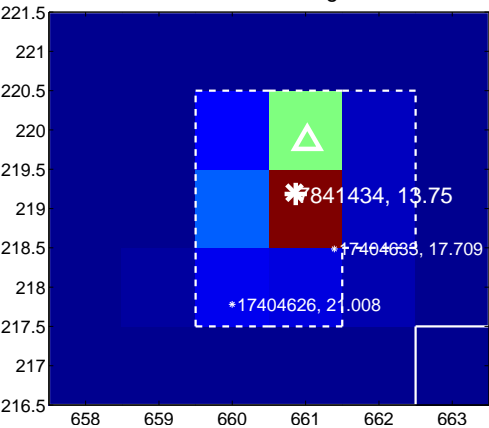
Q11 no OOT image



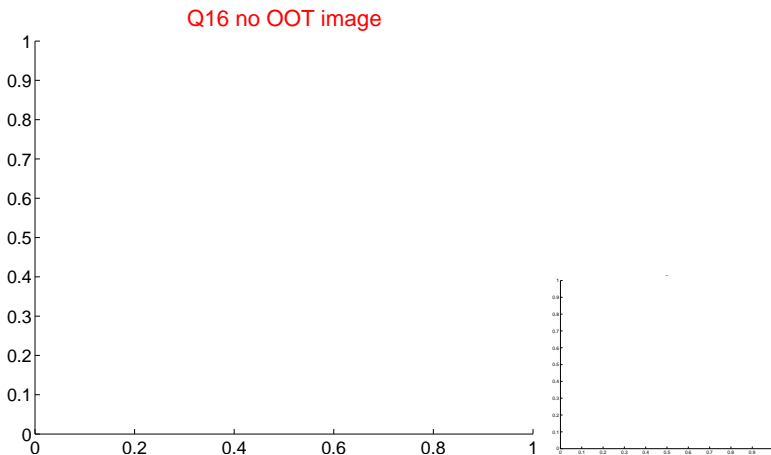
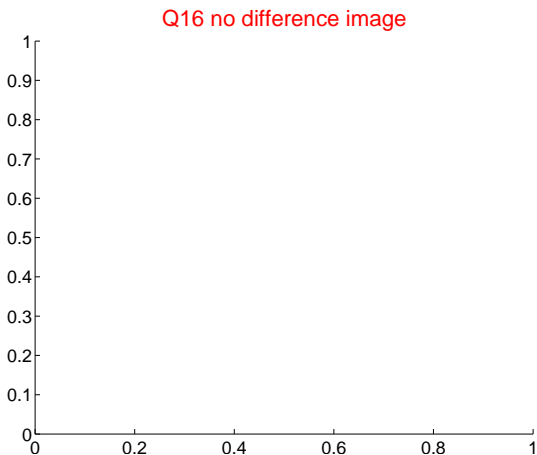
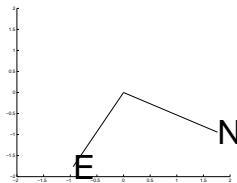
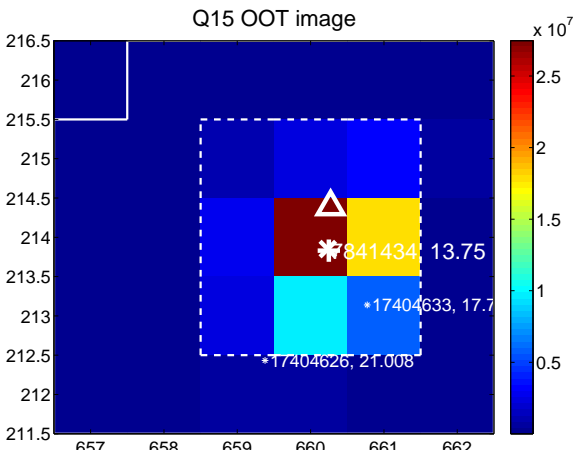
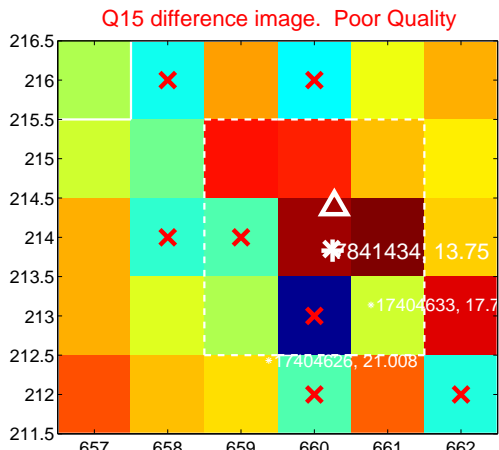
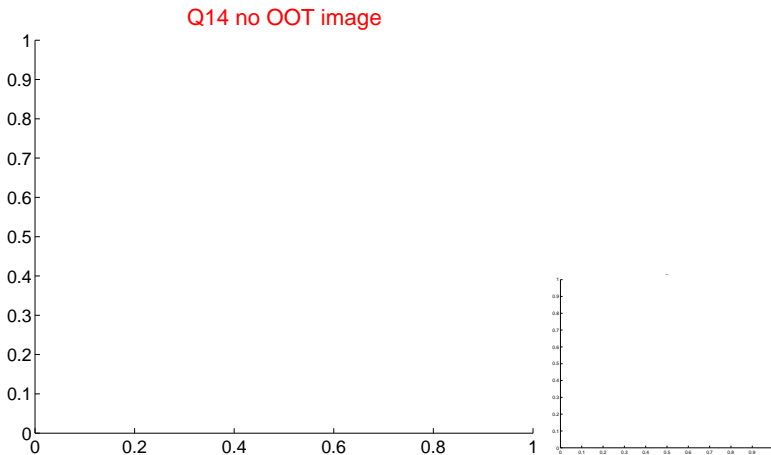
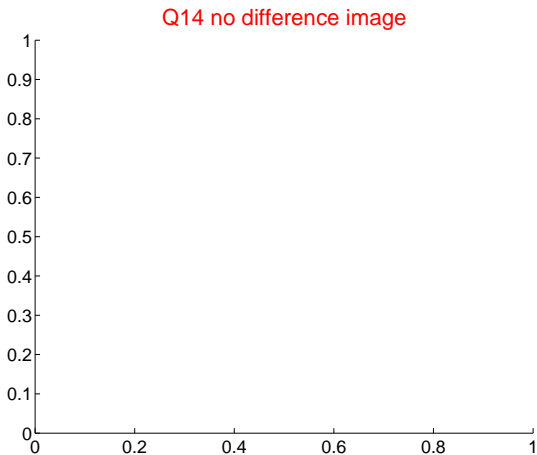
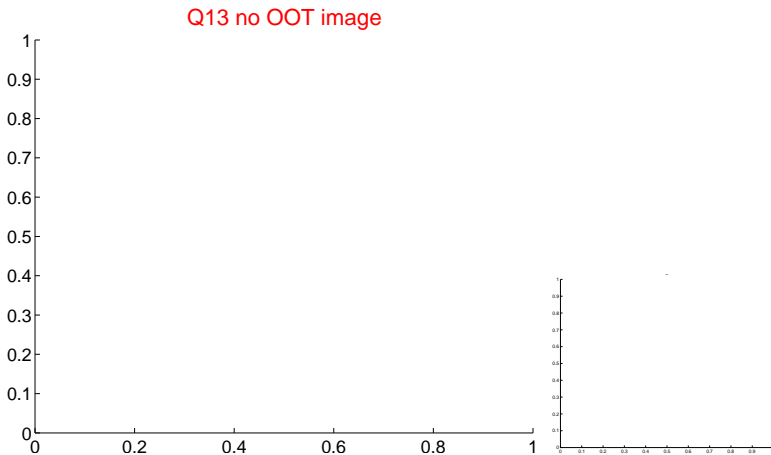
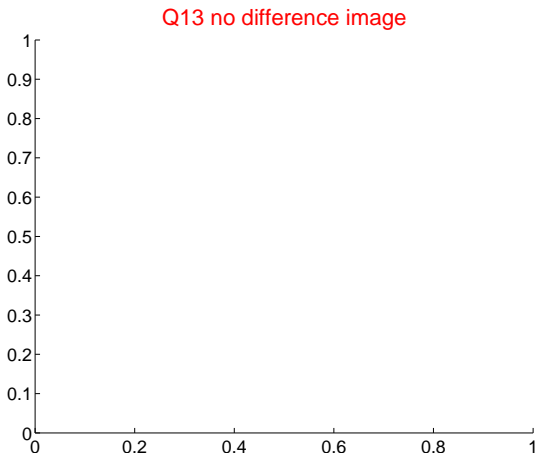
Q12 difference image



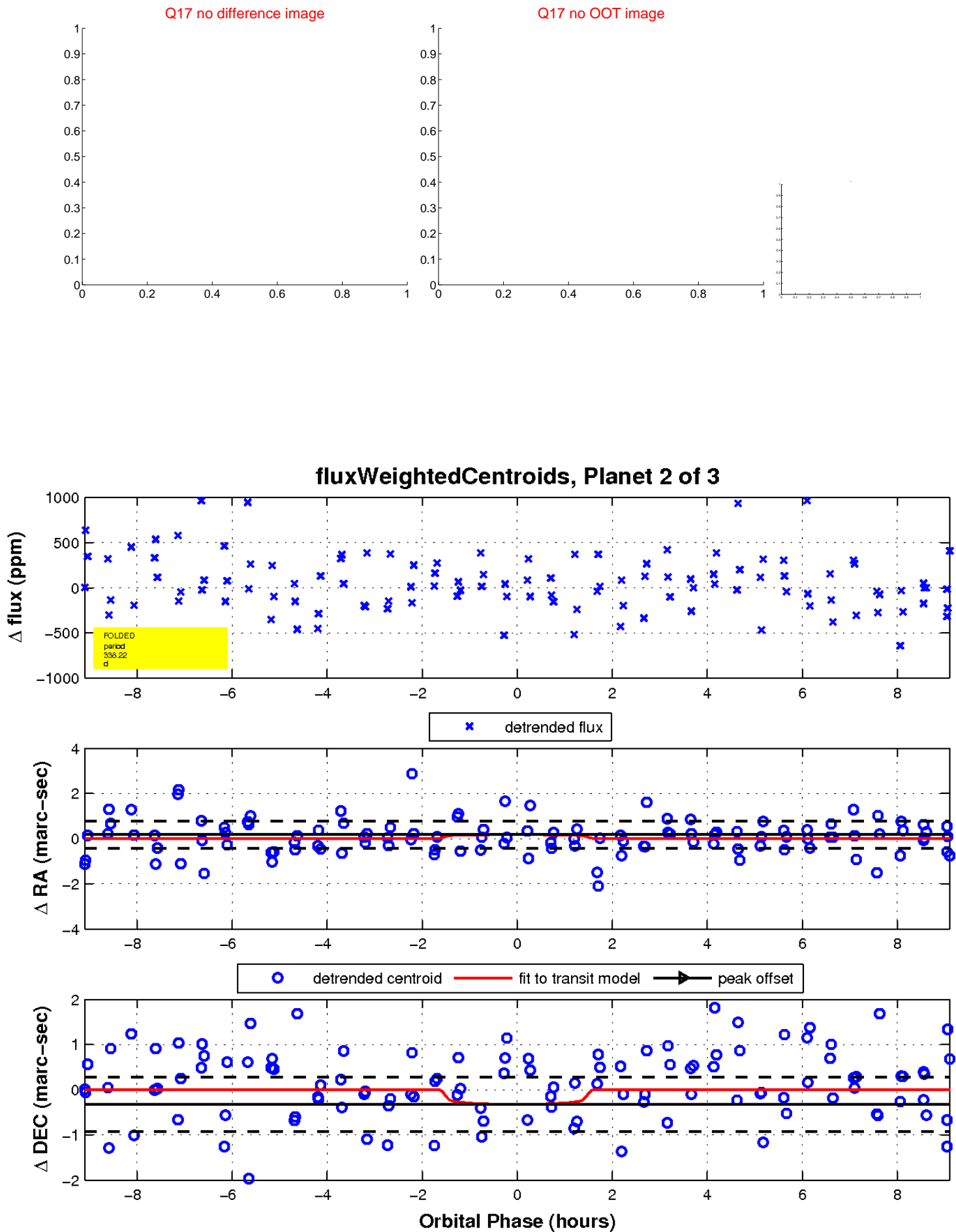
Q12 OOT image



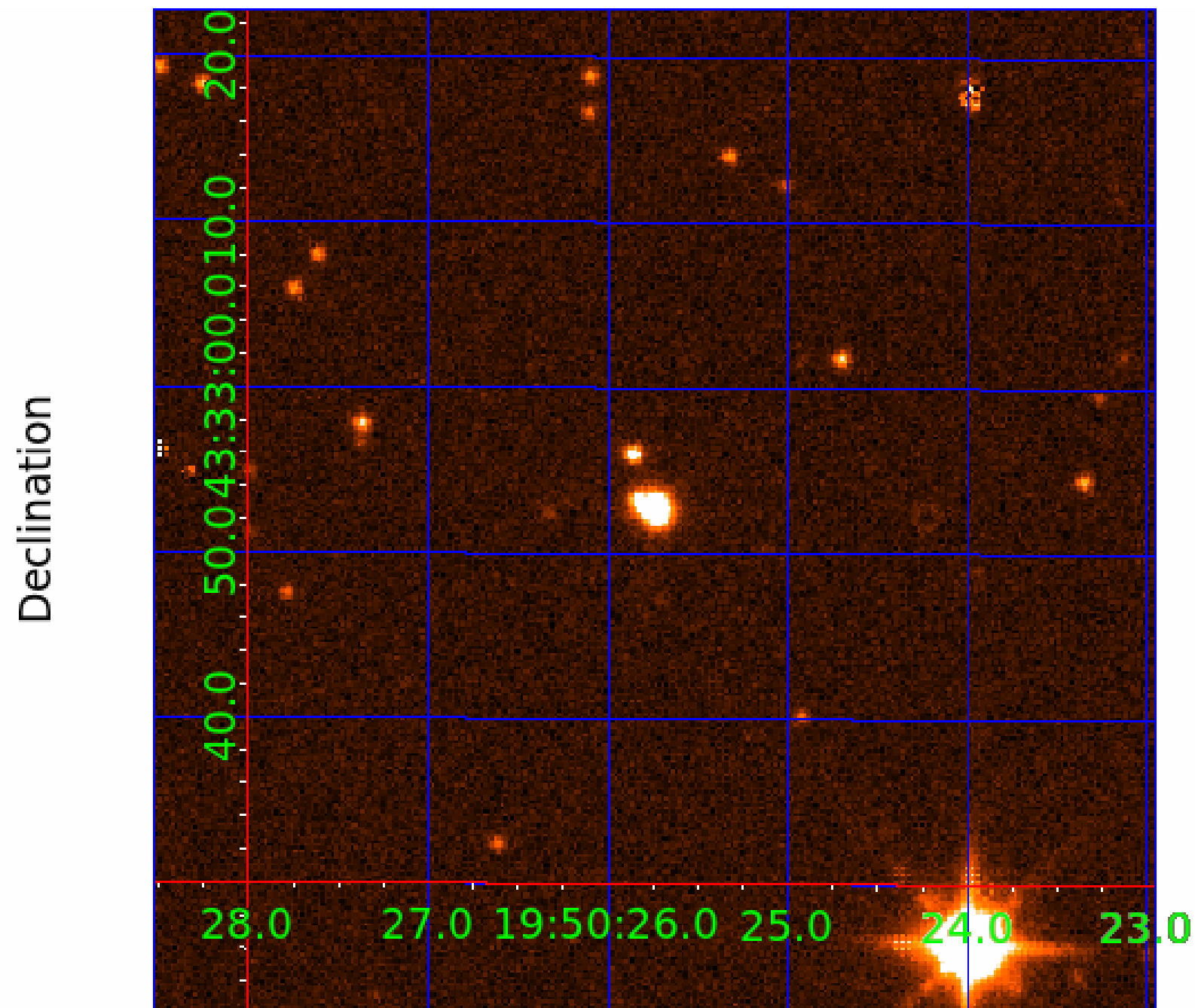
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



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



UKIRT Image



KIC 007841434

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})
007841434-01	OBS	No	606.174451	244.119674	683.0	5.925	10.0	9.2	2.62	7219	7.36	6.28
007841434-02	OBS	No	338.216466	443.152927	142.0	3.159	8.7	1.5	2.62	7219	3.57	13.68
007841434-03	OBS	No	338.188969	442.602179	430.3	10.739	8.7	7.8	2.62	7219	5.91	13.68

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007841434-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
007841434-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
007841434-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—SAME_NTL_PERIOD—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.

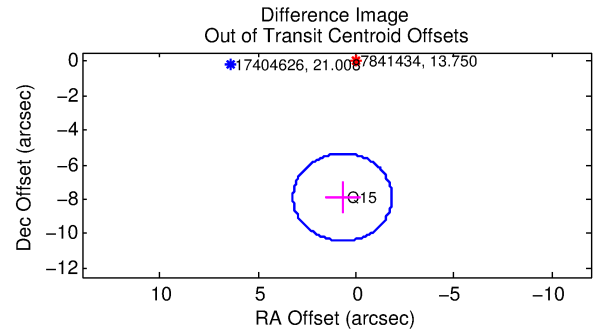
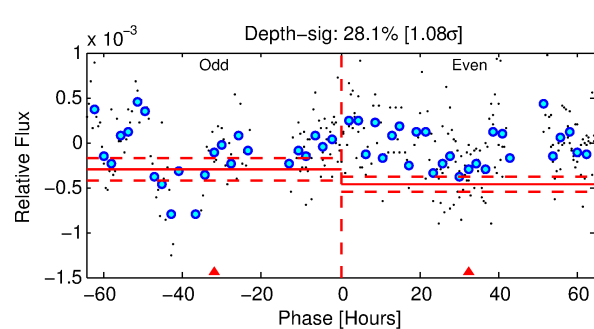
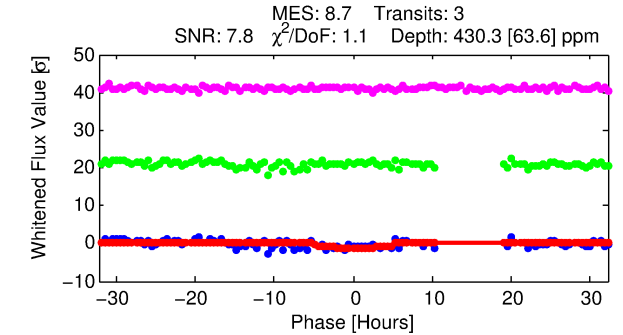
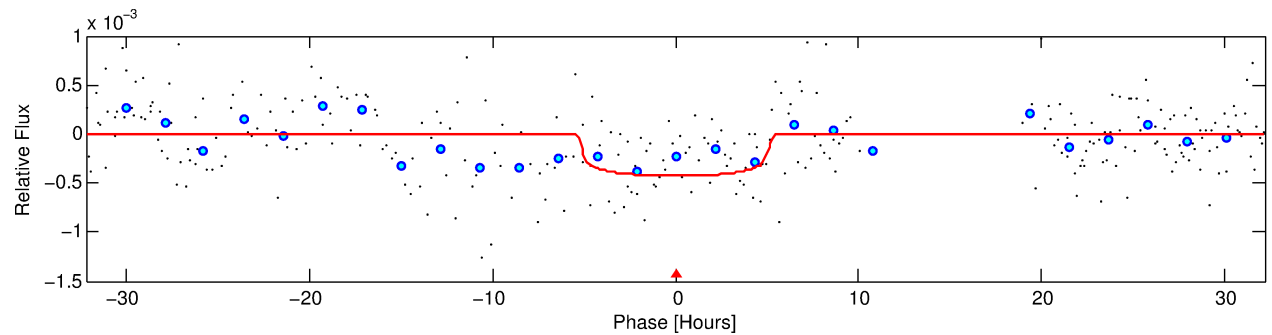
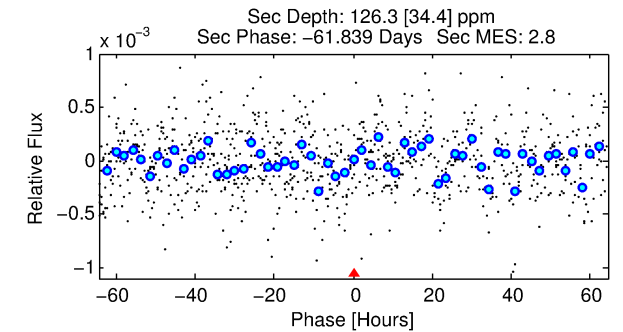
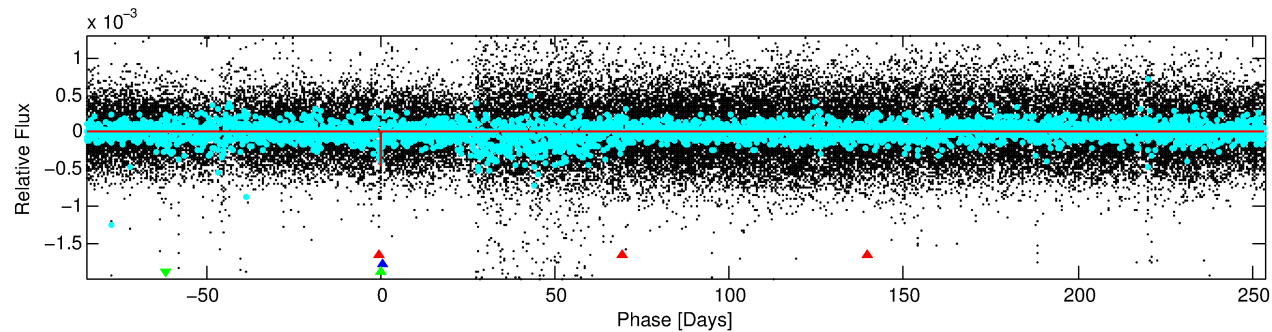
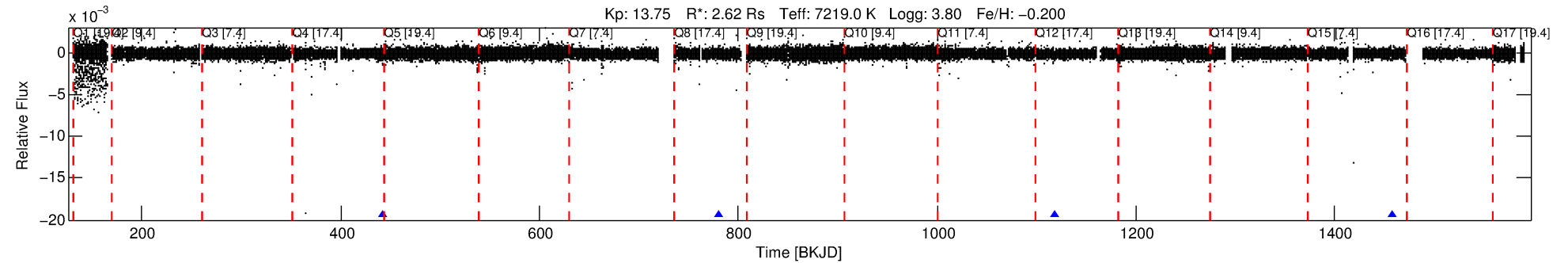
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007841434-03

No Significant Match Found

DV One-Page Summary

KIC: 7841434 Candidate: 3 of 3 Period: 338.189 d



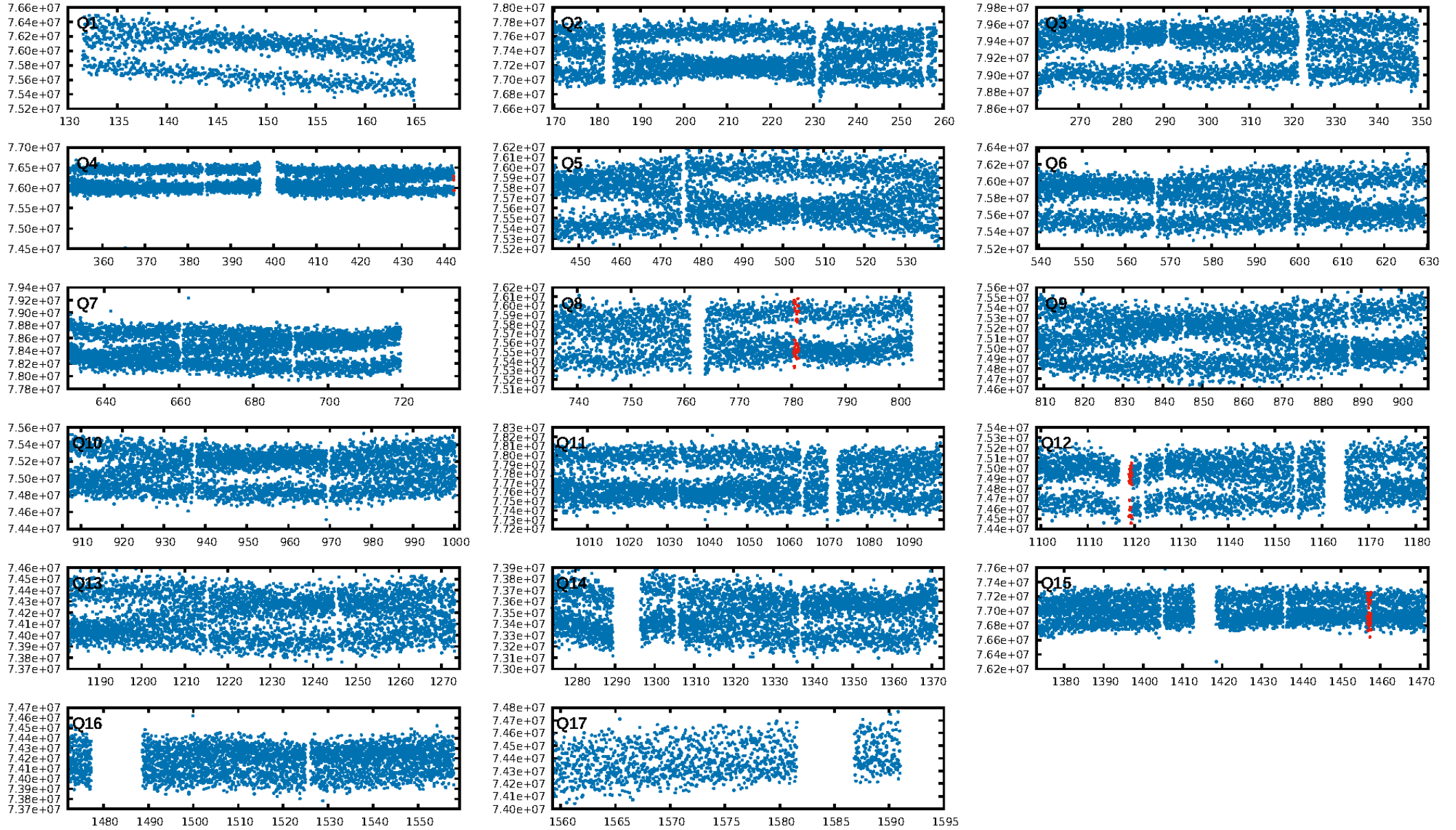
DV Fit Results:

Period = 338.18897 [0.01252] d
Epoch = 442.6022 [0.0293] BKJD
Rp/R* = 0.0206 [0.0091]
a/R* = 166.19 [401.09]
b = 0.75 [1.40]
Seff = 13.68 [9.39]
Teq = 490 [84] K
Rp = 5.91 [3.63] Re
a = 1.1072 [0.4594] AU
Ag = 2436.34 [2770.08] [0.88σ]
Teffp = 5327 [1247] K [3.87σ]

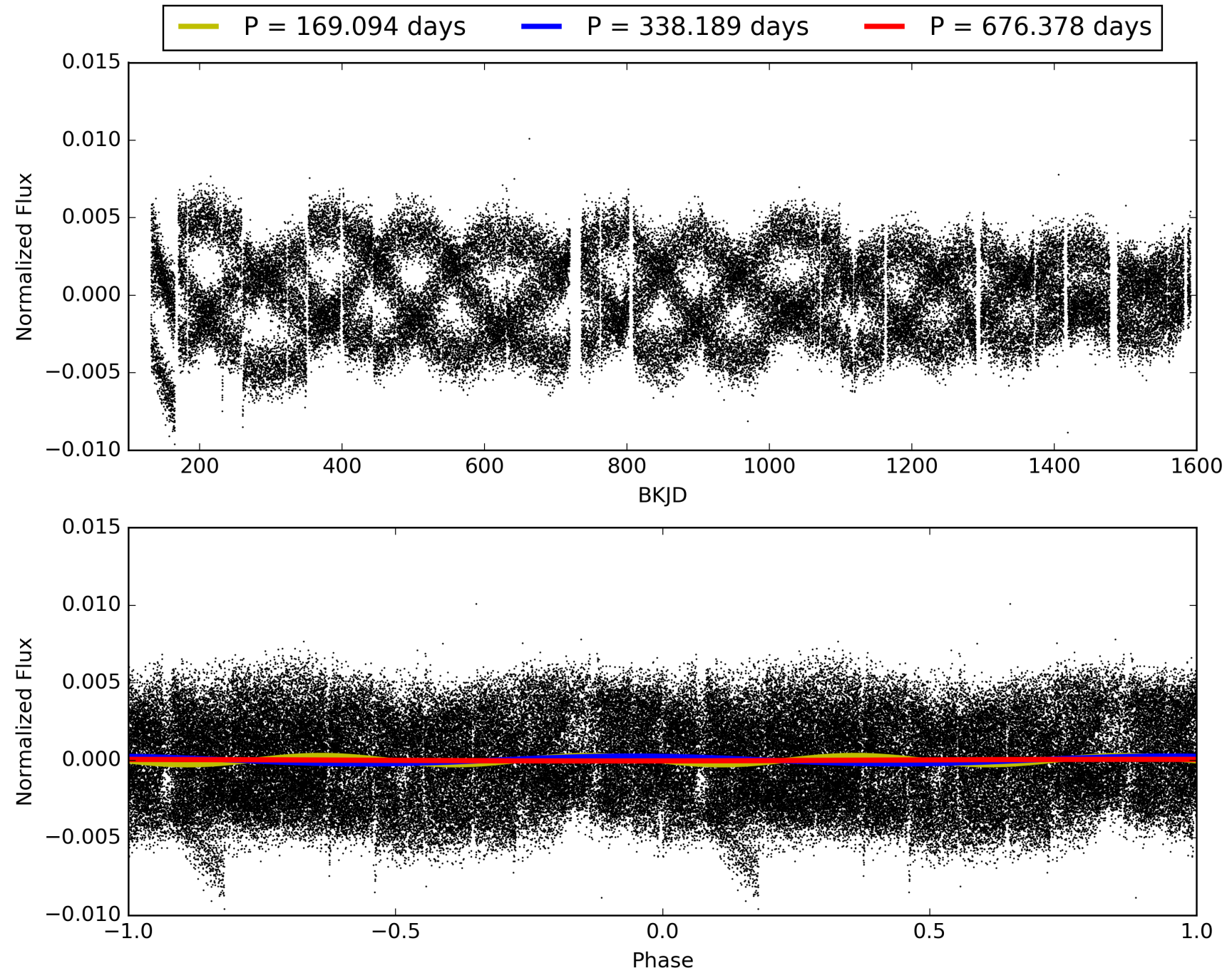
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 4.7% [0.06σ]
ModelChiSquare2-sig: 26.3%
ModelChiSquareGof-sig: 96.1%
Bootstrap-pfa: 2.93e-09
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 1.073
Centroid-sig: 53.8%
Centroid-so: 0.646 arcsec [0.77σ]
OotOffset-rm: 7.918 arcsec [9.39σ]
KicOffset-rm: 7.833 arcsec [9.29σ]
OotOffset-st: 0/1/0/0 [1]
KicOffset-st: 0/1/0/0 [1]
DiffImageQuality-fgm: 0.00 [0/1]
DiffImageOverlap-fno: 0.00 [0/2]

TCE 007841434-03, PDC Light Curves

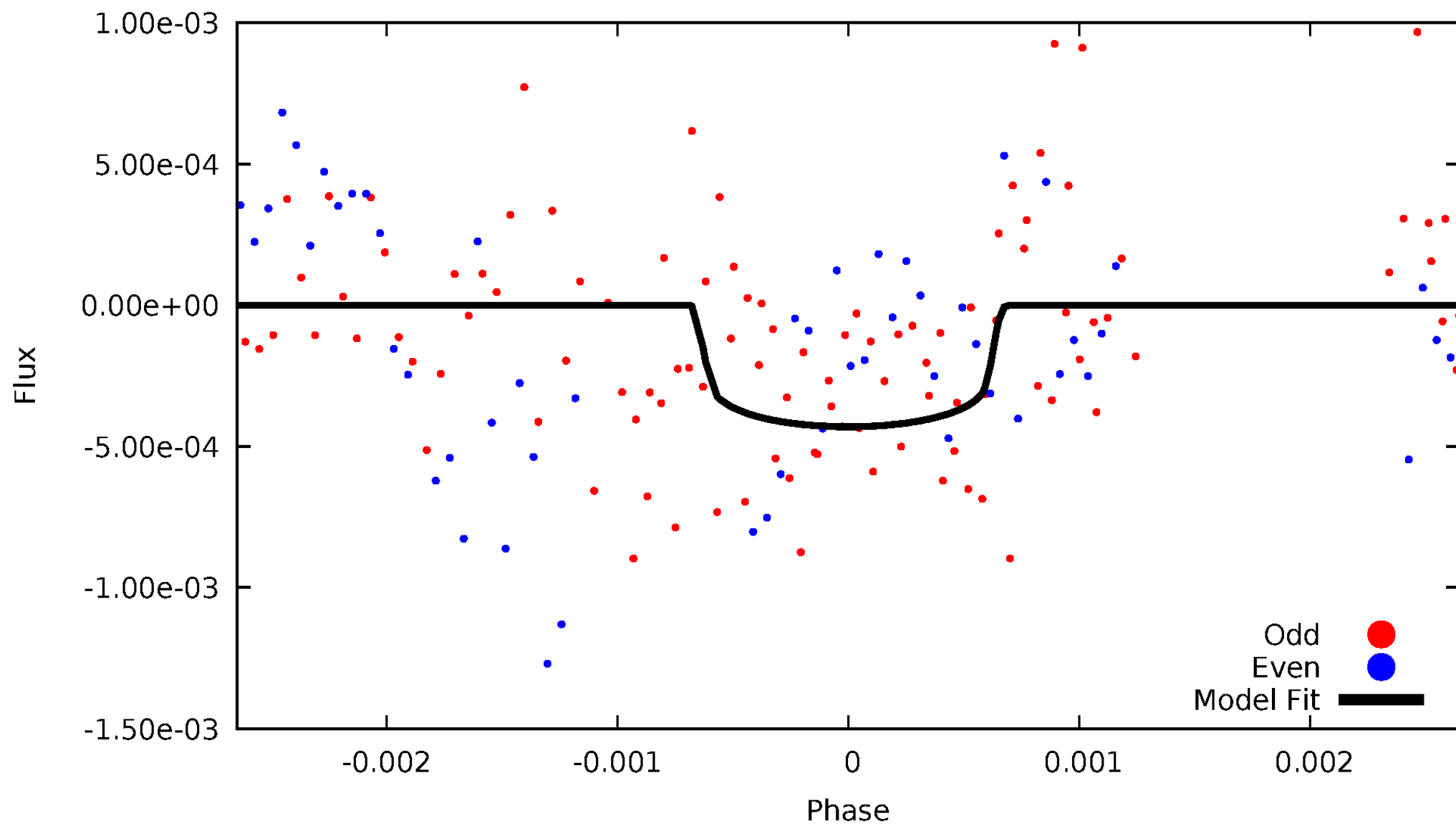


TCE 007841434-03



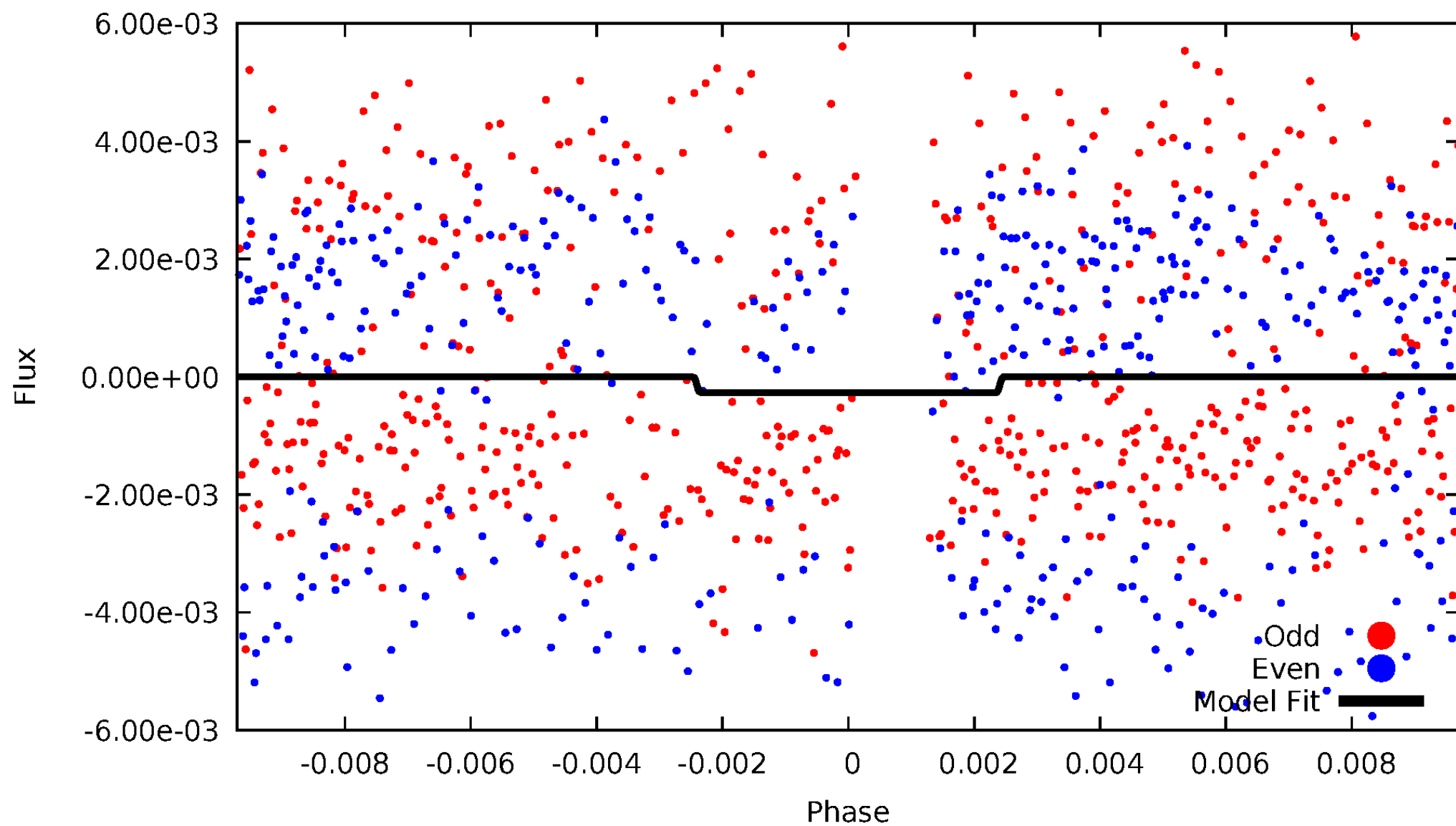
DV Odd/Even

TCE 007841434-03



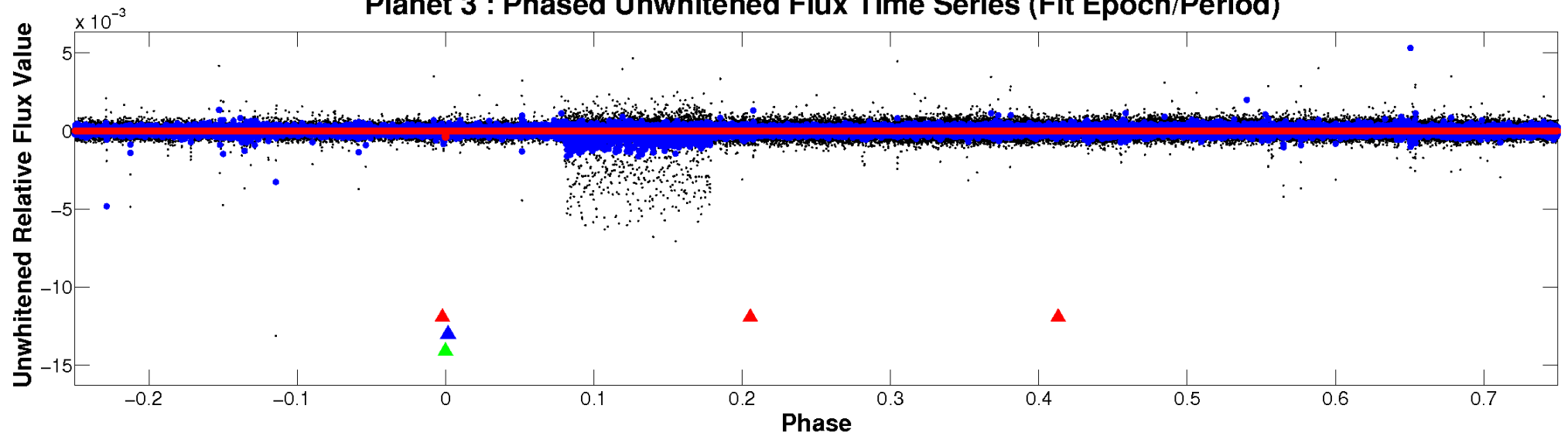
ALT Odd/Even

TCE 007841434-03

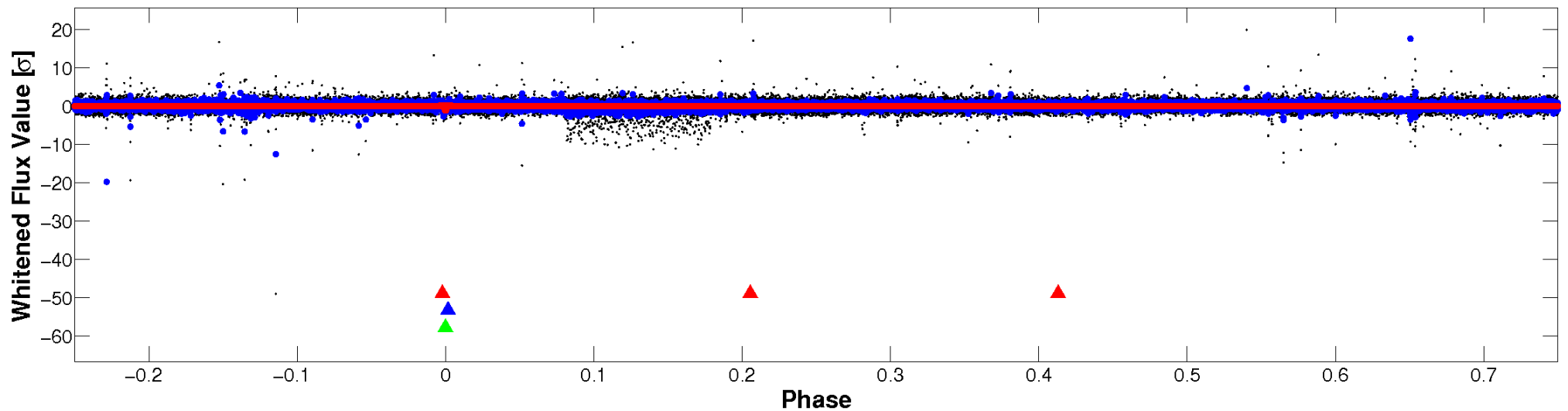


Non-Whitened Vs. Whitened Light Curve

Planet 3 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

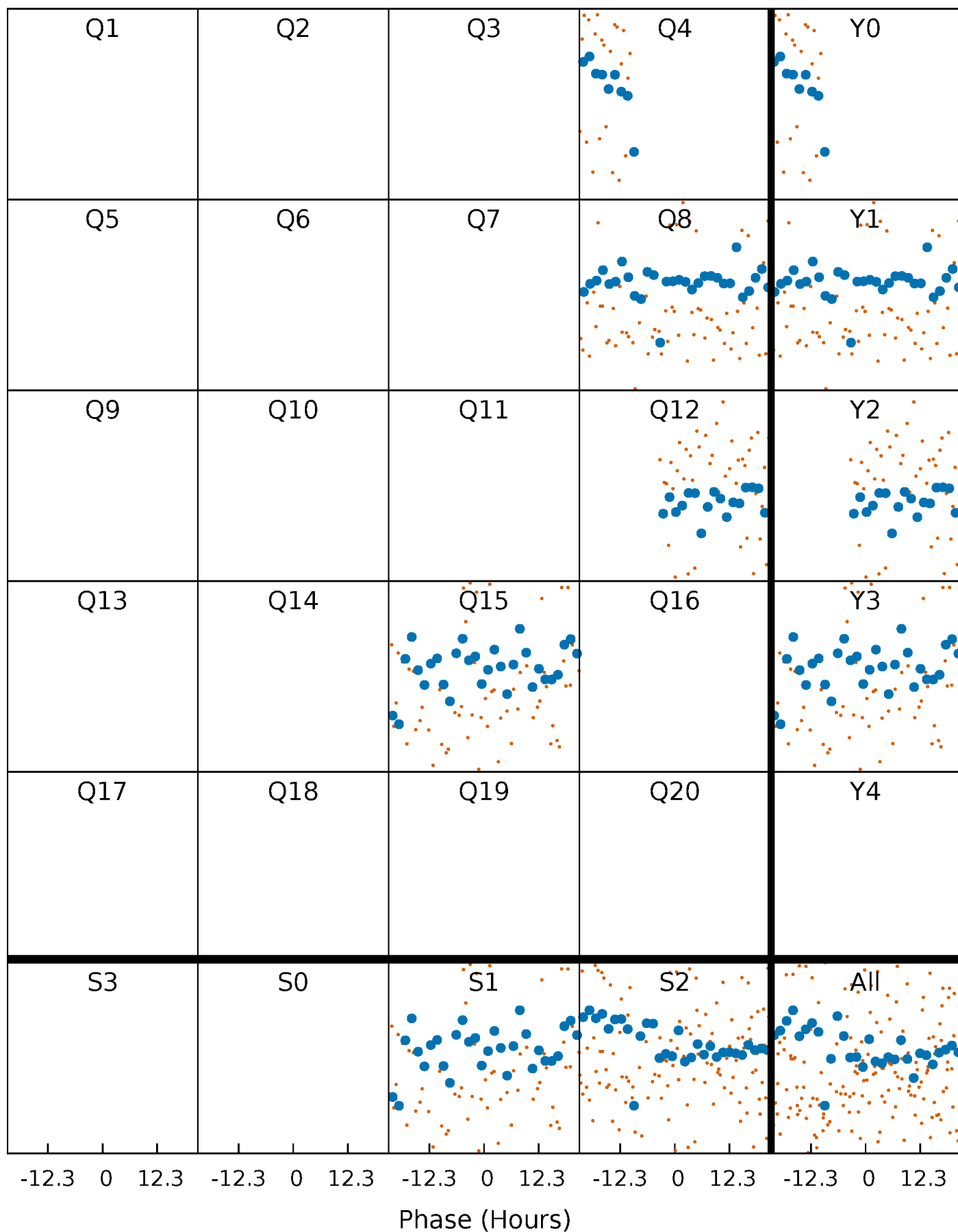


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



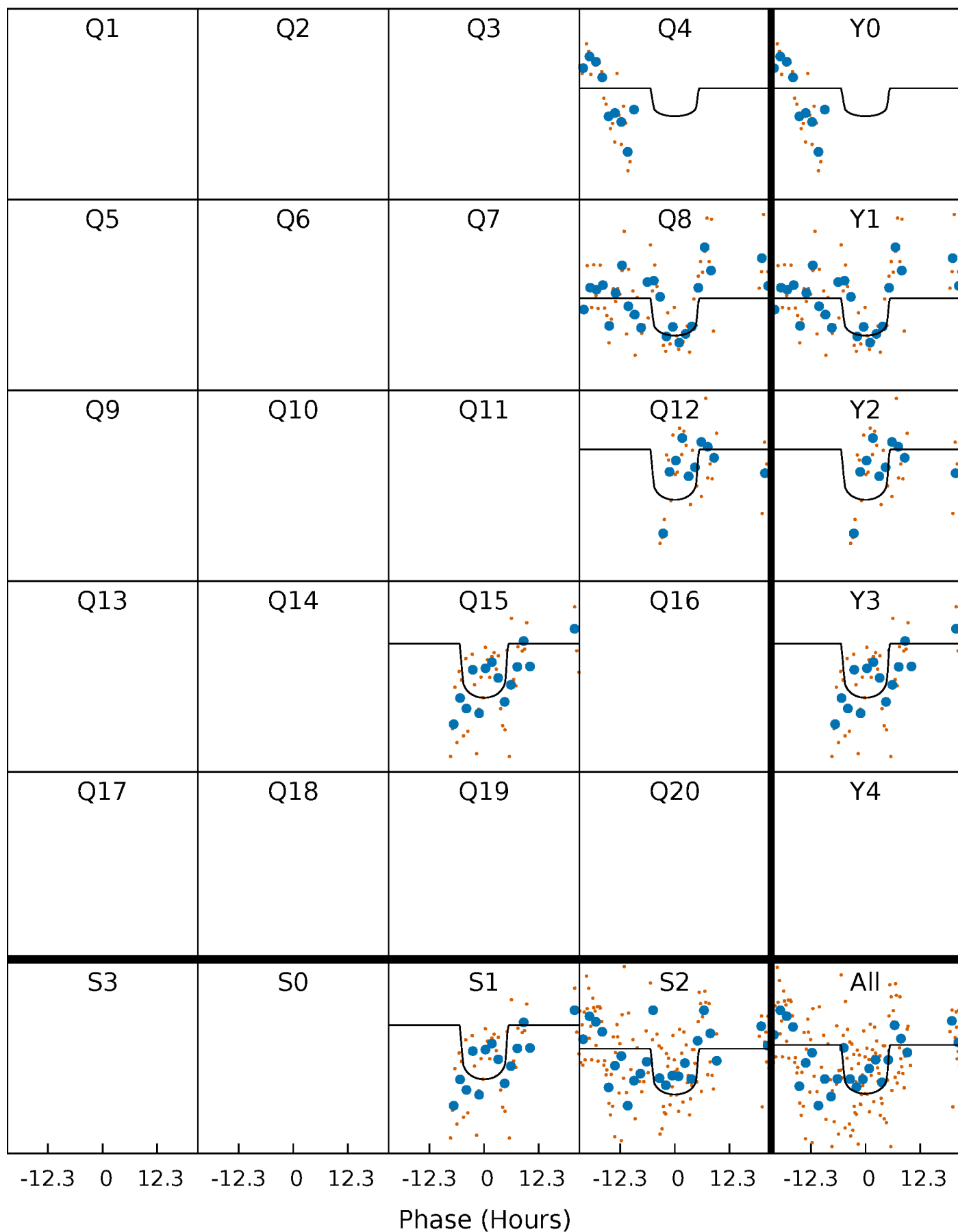
PDC Quarter-Phased Transit Curves

TCE 007841434-03 P=338.188969 Days $T_0=442.602179$ (BKJD)



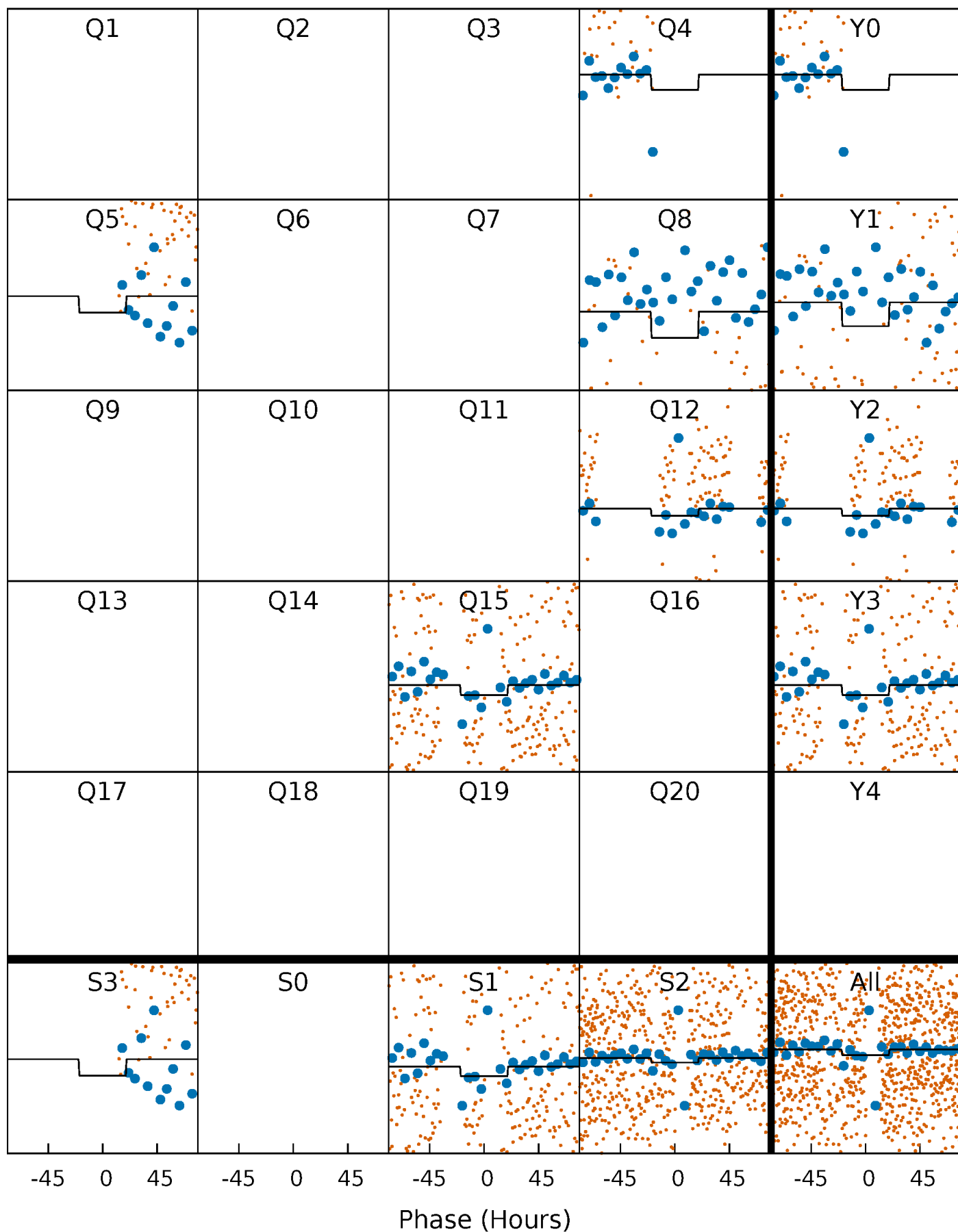
DV Quarter-Phased Transit Curves

TCE 007841434-03 $P=338.188969$ Days $T_0=442.602179$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

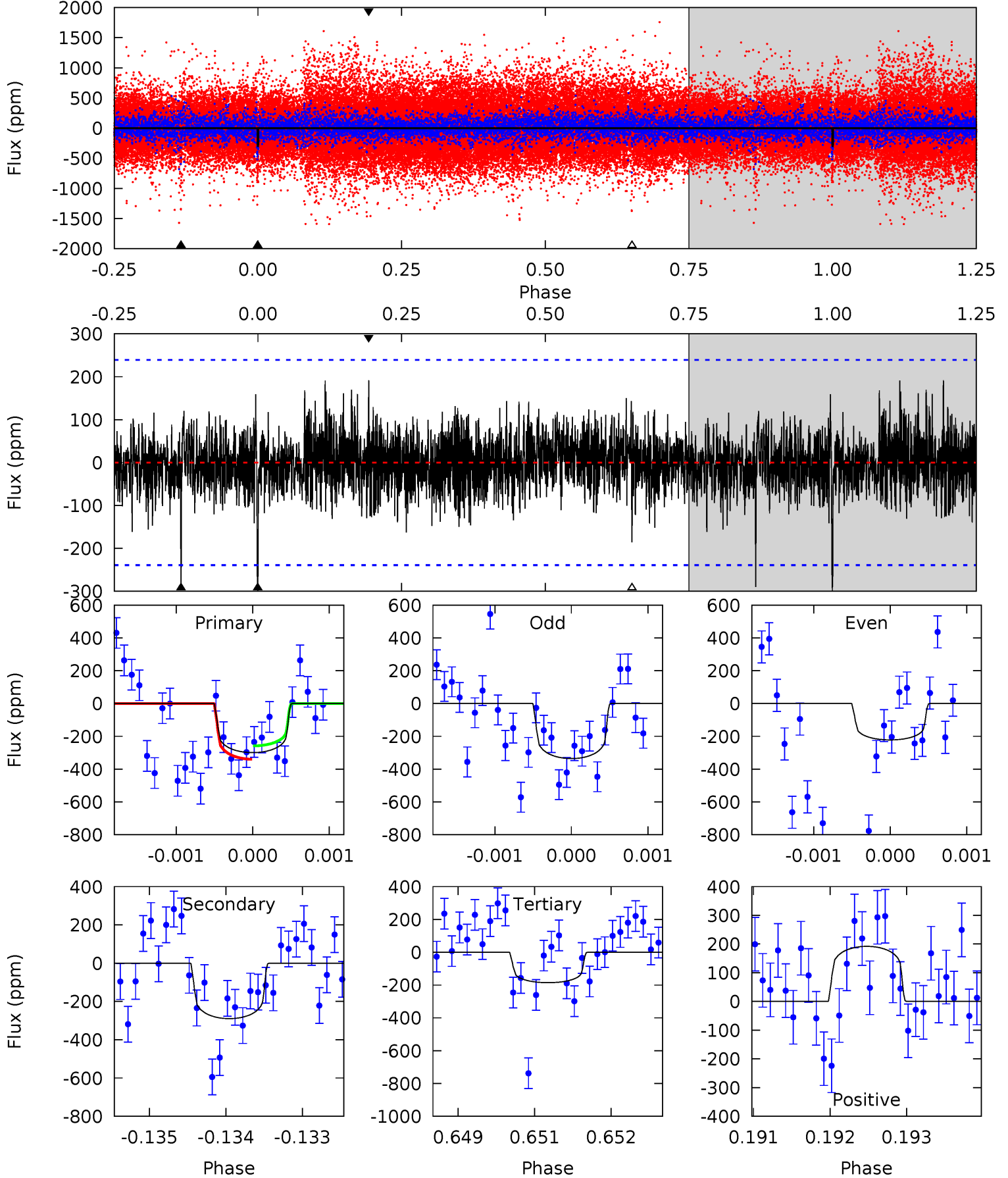
TCE 007841434-03 P=338.202663 Days $T_0=442.942293$ (BKJD)



DV Model-Shift Uniqueness Test

007841434-03, P = 338.188969 Days, E = 104.413210 Days

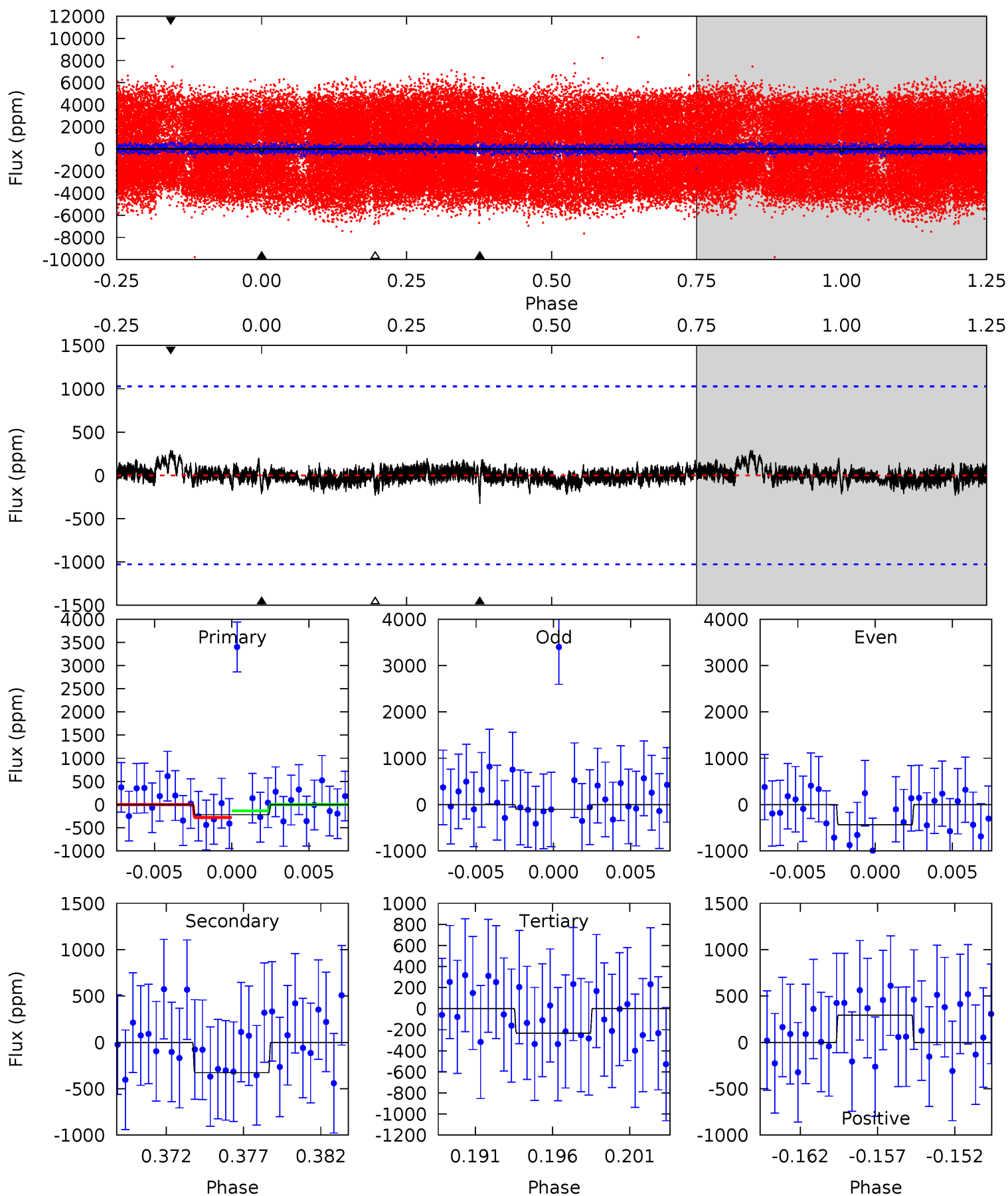
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.76	6.54	4.19	4.33	5.40	3.20	1.10	2.57	2.42	2.35	2.21	1.20	0.99	0.39	0.93



Alt Model-Shift Uniqueness Test

007841434-03, P = 338.202663 Days, E = 104.739630 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.10	1.64	1.18	1.47	5.16	2.81	0.33	-0.08	-0.37	0.47	0.17	0.80	0.78	0.47	0.36



Stellar Parameters For KIC 007841434

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	7219^{+224}_{-299}	$3.799^{+0.392}_{-0.098}$	$-0.200^{+0.250}_{-0.350}$	$2.625^{+0.482}_{-1.125}$	$1.584^{+0.217}_{-0.325}$	$0.123^{+0.405}_{-0.037}$
	+3%/-4%	+10%/-3%	+125%/-175%	+18%/-43%	+14%/-21%	+329%/-30%
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 007841434-03 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-290 ± 44	$5.33^{+2.99}_{-2.35}$	666^{+45}_{-77}	6446^{+2540}_{-1083}	6676^{+15616}_{-3858}
Alt.	-327 ± 199	$4.29^{+2.71}_{-2.28}$	666^{+47}_{-71}	7326^{+4728}_{-1876}	11039^{+36796}_{-8038}

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

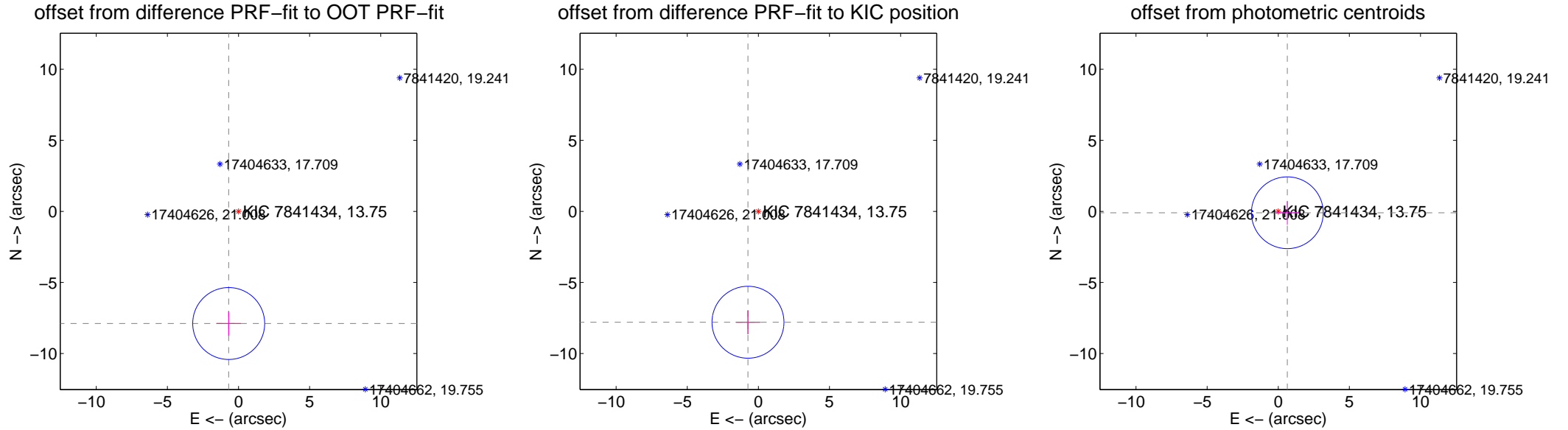
DV Centroid Data

Supplemental centroid analysis for 007841434-03. Kepler magnitude: 13.75. Transit SNR 7.79

There are 0 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	7.918 ± 0.843	9.39	0.689 ± 0.861	-7.888 ± 0.843
PRF-fit source offset from KIC position	7.833 ± 0.843	9.29	0.731 ± 0.861	-7.798 ± 0.843
photometric centroid source offset	0.65 ± 0.84	0.77	-0.64 ± 0.84	-0.10 ± 0.84

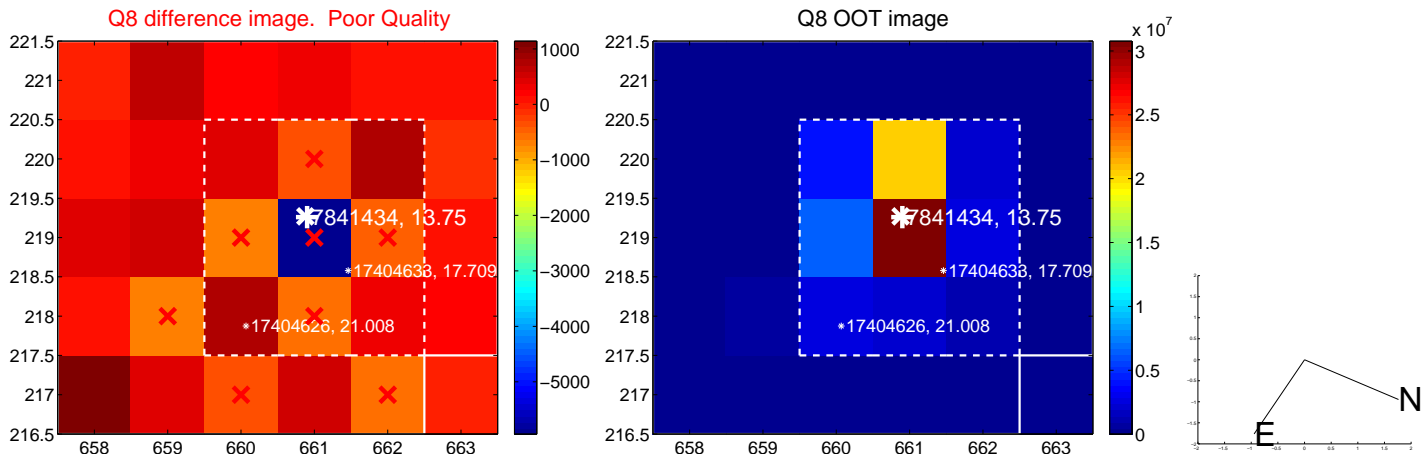
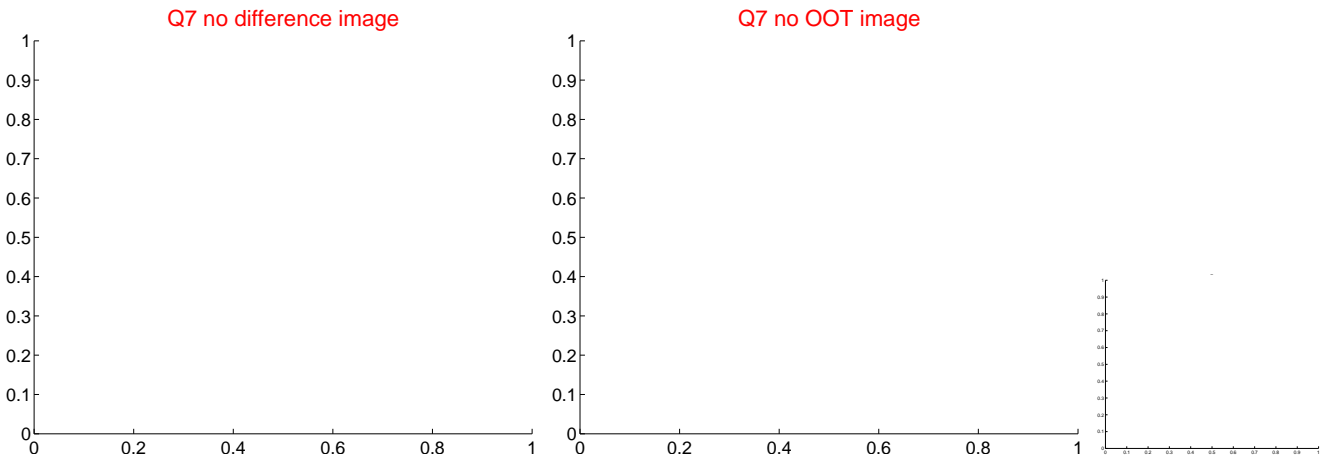
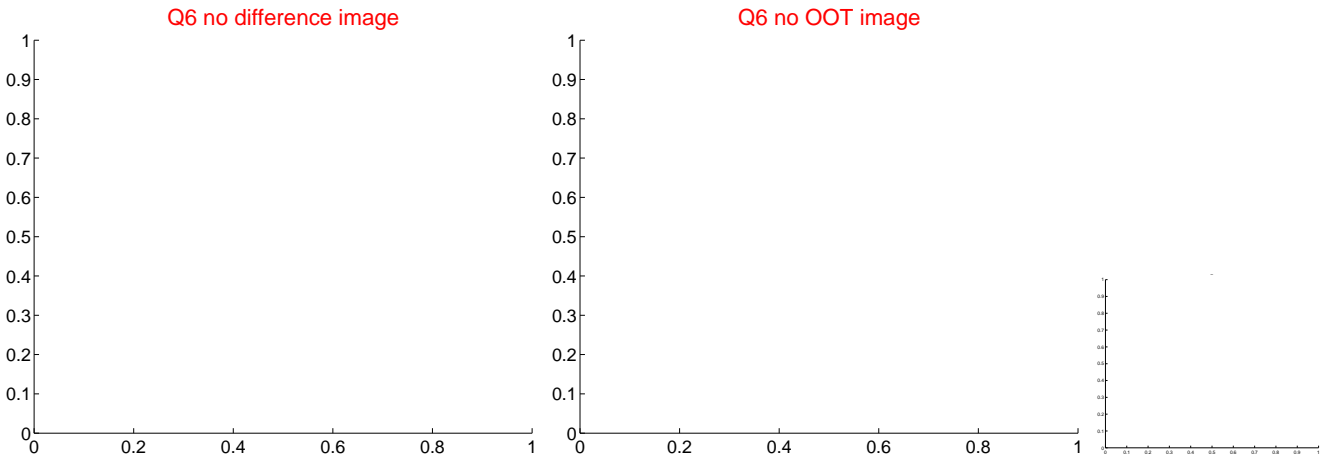
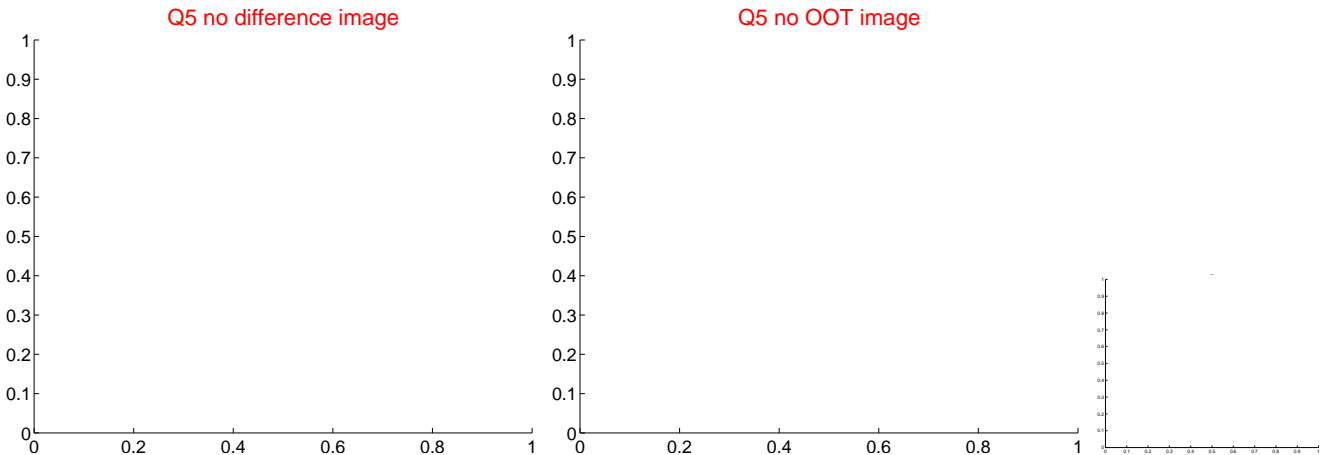


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

Q13 no difference image



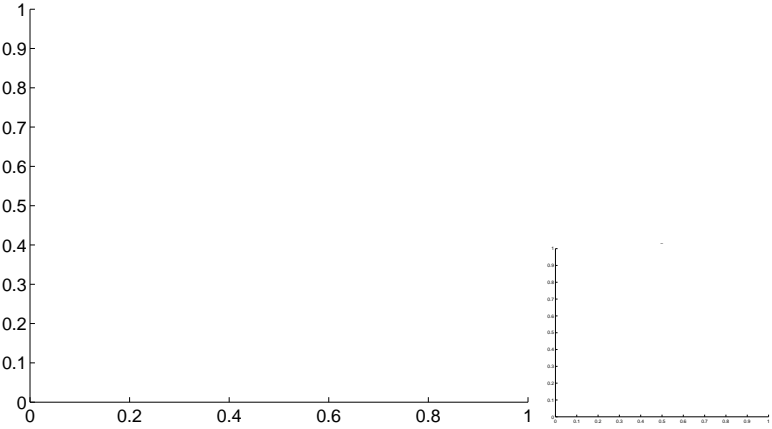
Q13 no OOT image



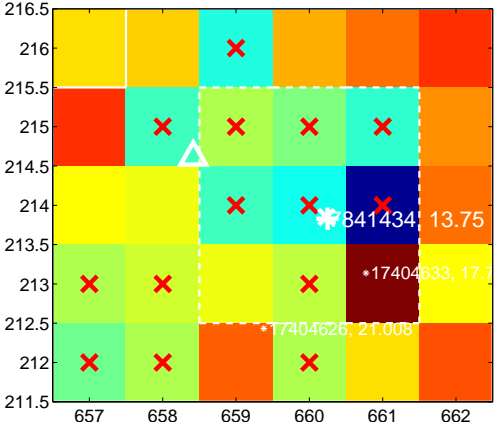
Q14 no difference image



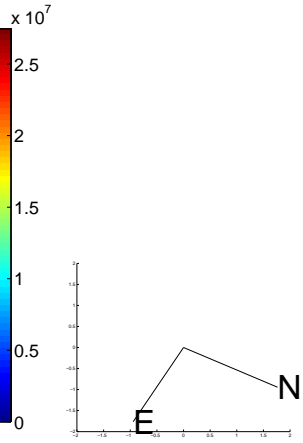
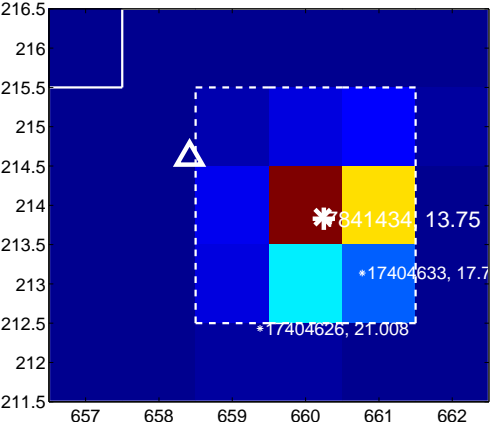
Q14 no OOT image



Q15 difference image. Poor Quality



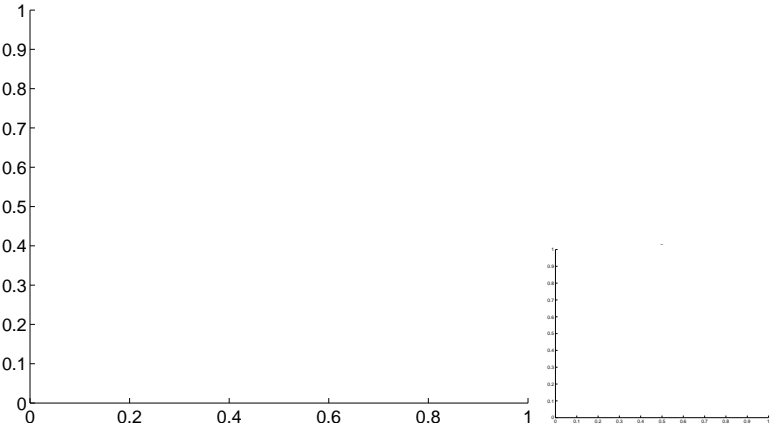
Q15 OOT image



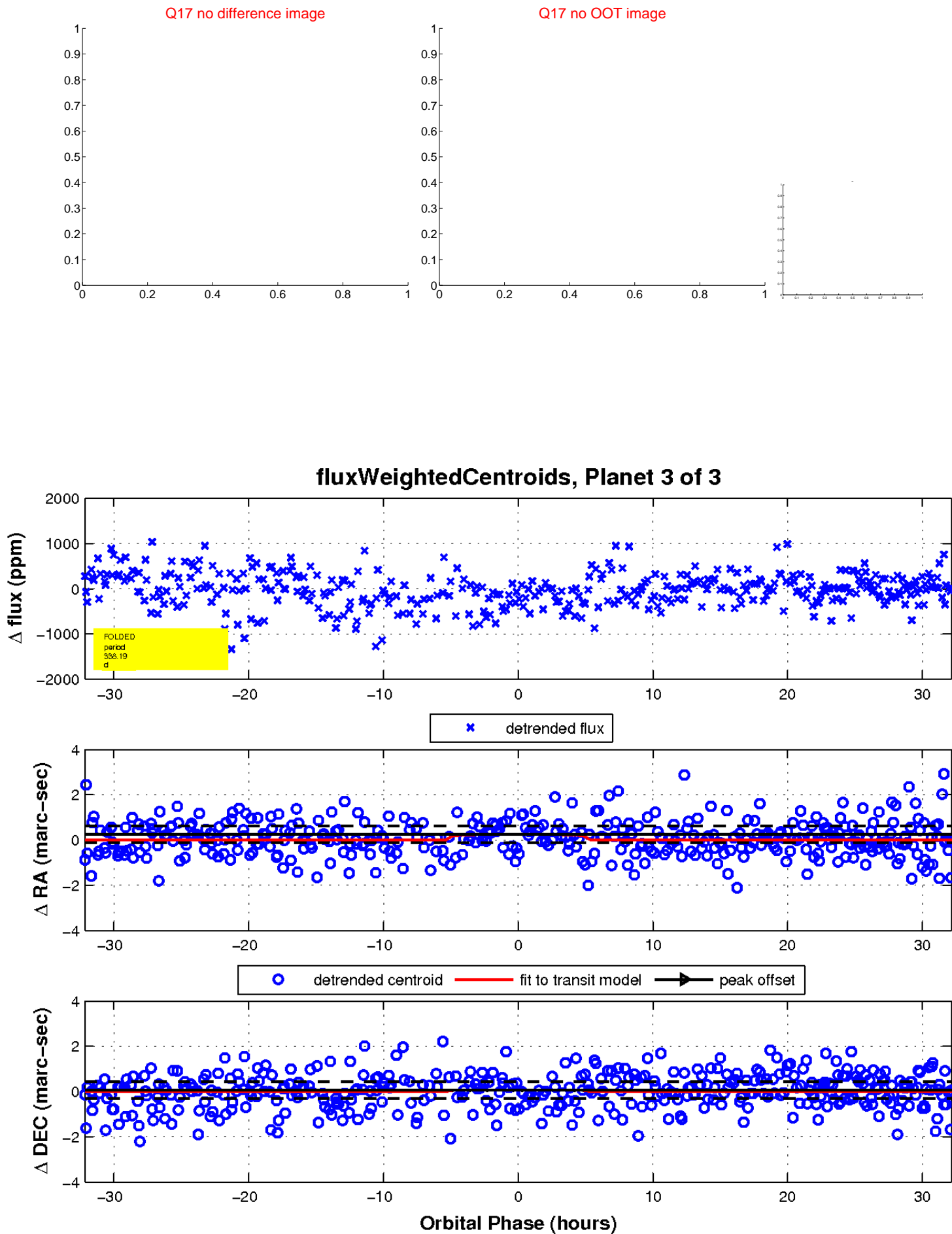
Q16 no difference image



Q16 no OOT image



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



UKIRT Image

