

KIC 011442444

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})
011442444-01	OBS	No	618.425753	221.145634	2387.1	5.132	15.2	7.5	0.77	5501	3.93	0.27
011442444-02	OBS	No	352.281436	238.642649	2158.6	6.590	15.1	7.3	0.77	5501	3.59	0.57
011442444-03	OBS	No	651.494671	263.057994	2454.4	4.401	13.2	7.7	0.77	5501	3.79	0.25
011442444-04	OBS	No	376.159227	182.351632	1367.2	3.134	12.2	5.4	0.77	5501	2.96	0.53
011442444-06	OBS	No	562.394418	270.784485	2836.3	7.037	12.7	8.9	0.77	5501	4.06	0.31
011442444-07	OBS	No	398.363012	236.131466	1250.4	3.396	7.6	5.2	0.77	5501	2.92	0.49
011442444-08	OBS	No	395.653194	189.819541	2075.1	3.000	10.5	-1.0	0.77	5501	3.48	0.49

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011442444-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_FEW_DIFFS
011442444-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—LPP_ALT—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
011442444-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV
011442444-04	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS—HALO_GHOST
011442444-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV
011442444-07	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS—HALO_GHOST
011442444-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_NOFITS

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

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

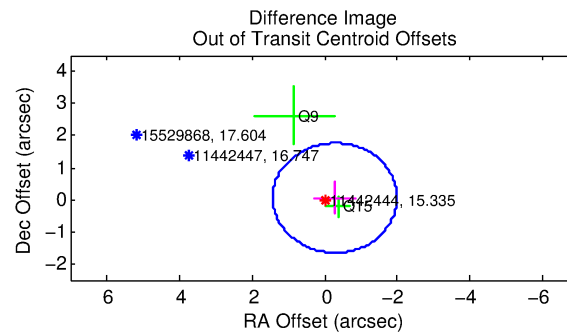
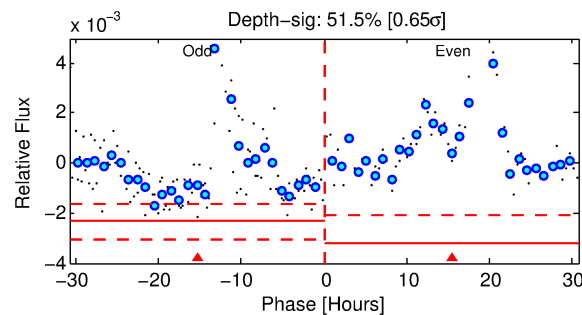
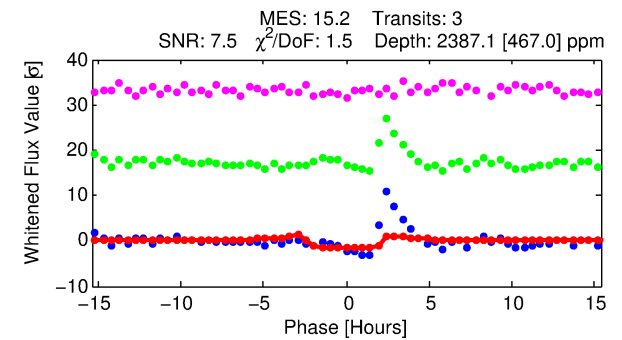
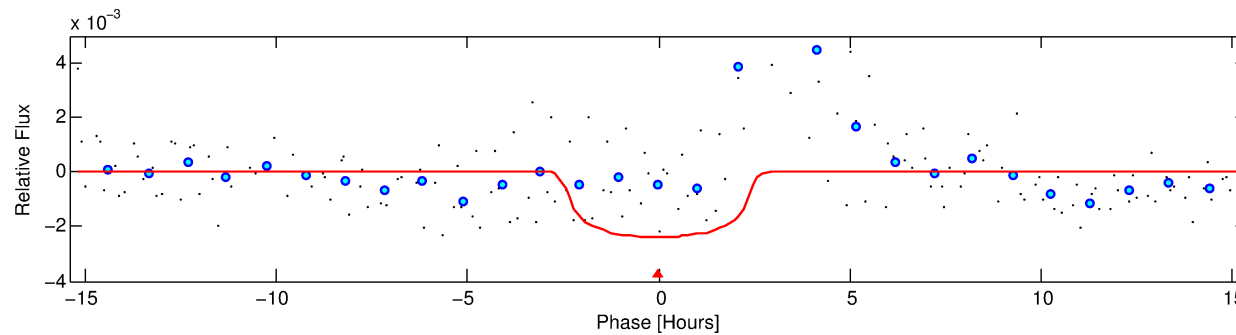
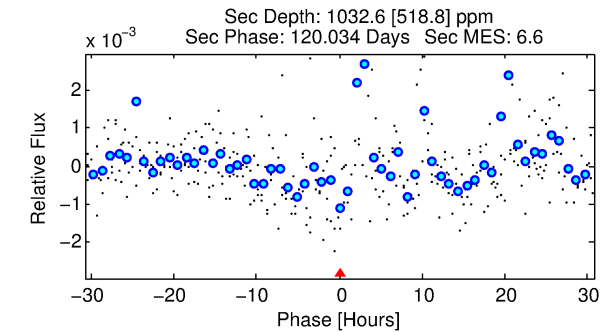
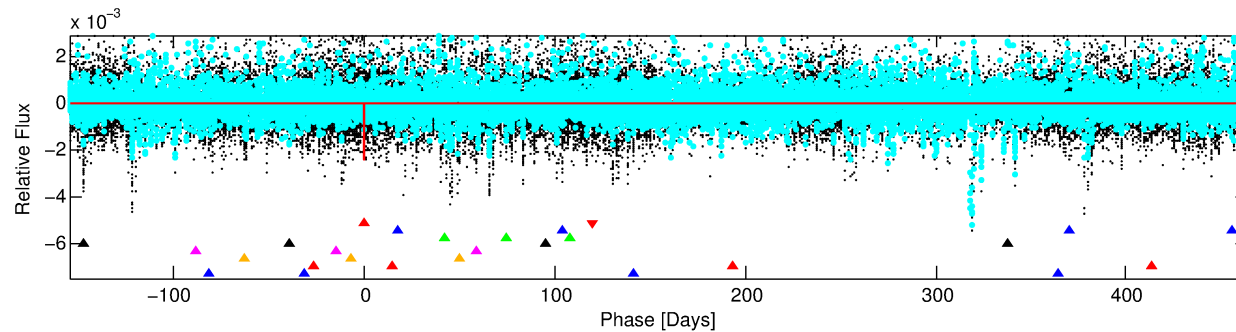
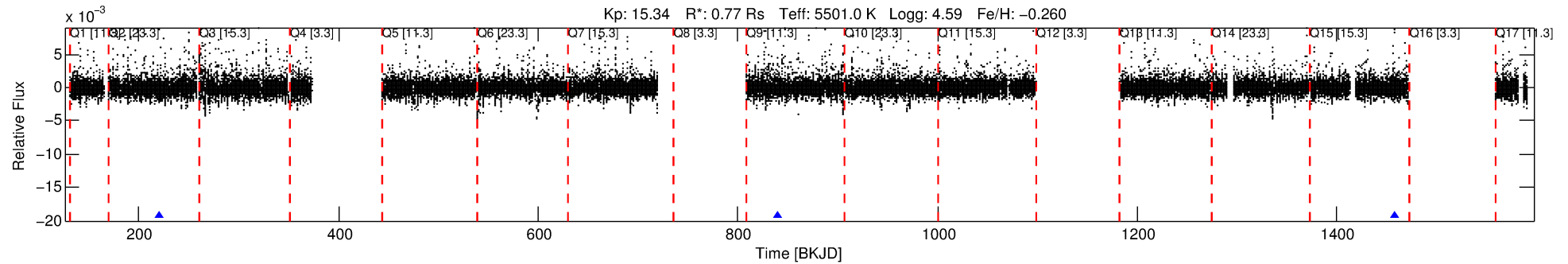
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011442444-01

No Significant Match Found

DV One-Page Summary

KIC: 11442444 Candidate: 1 of 8 Period: 618.426 d



DV Fit Results:

Period = 618.42575 [0.00690] d
Epoch = 221.1456 [0.0097] BKJD
Rp/R* = 0.0465 [0.0295]
a/R* = 791.04 [1987.97]
b = 0.60 [2.73]
Seff = 0.27 [0.08]
Teq = 184 [13] K
Rp = 3.93 [2.62] Re
a = 1.3450 [0.2356] AU
Ag = 66646.15 [92403.63] [0.72 σ]
Teffp = 4573 [1565] K [2.80 σ]

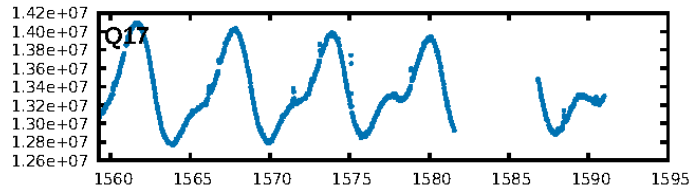
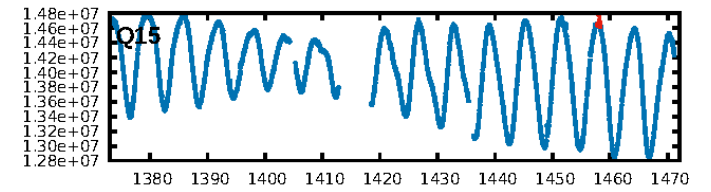
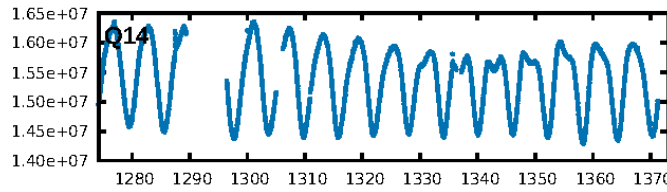
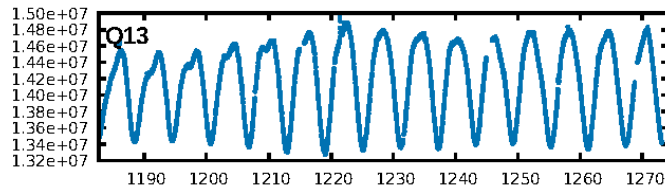
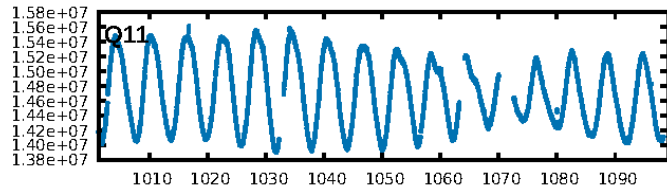
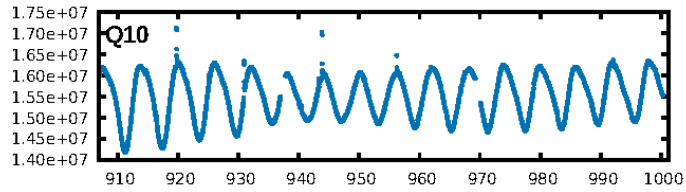
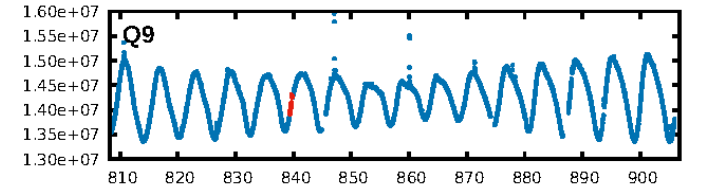
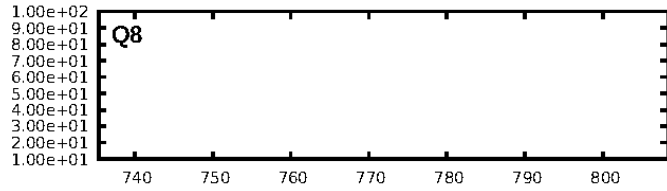
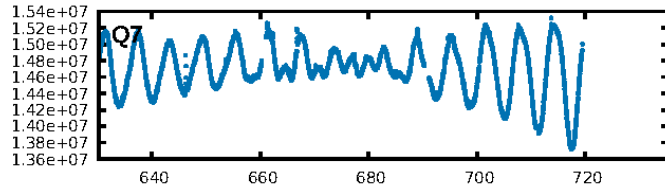
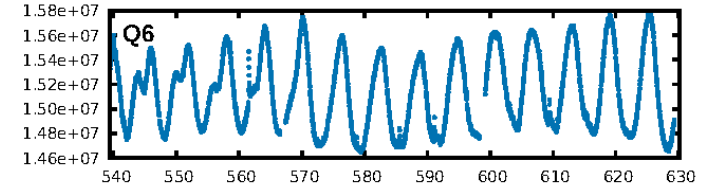
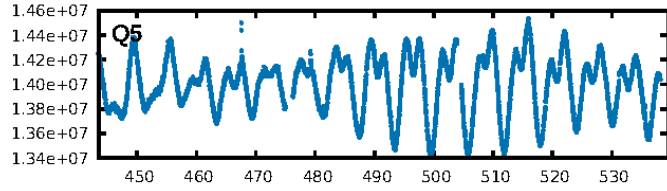
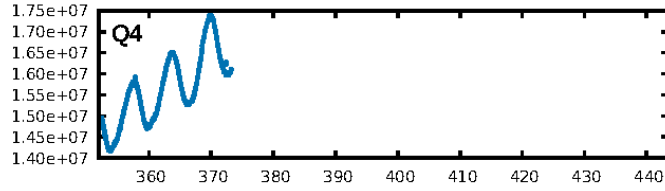
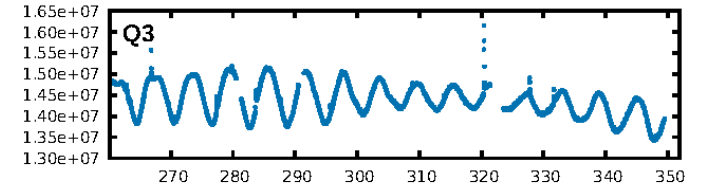
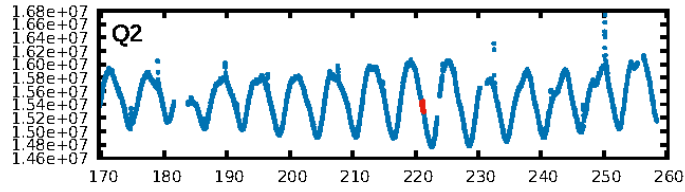
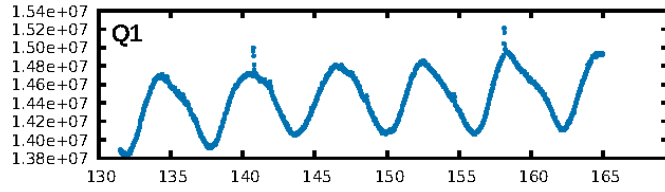
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [154.40 σ]
LongPeriod-sig: 100.0% [117.39 σ]
ModelChiSquare2-sig: 47.1%
ModelChiSquareGof-sig: 56.9%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 1.816
Centroid-sig: 19.8%
Centroid-so: 1.021 arcsec [0.91 σ]
OotOffset-rm: 0.283 arcsec [0.50 σ]
OotOffset-st: 0/1/0/1 [2]
KicOffset-rm: 0.180 arcsec [0.26 σ]
KicOffset-st: 0/1/0/1 [2]
DiffImageQuality-fgm: 0.00 [0/2]
DiffImageOverlap-fno: 1.00 [3/3]

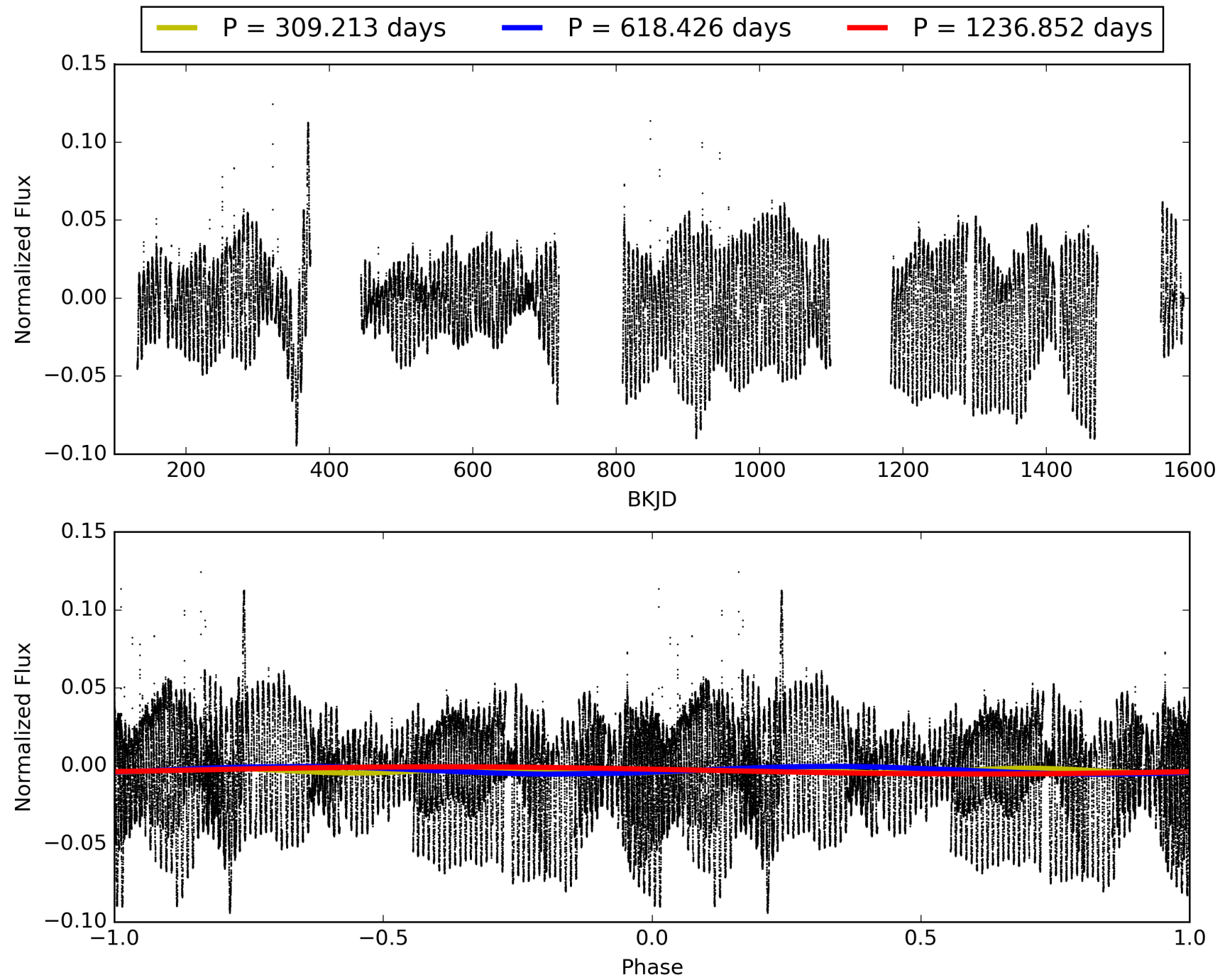
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 05:34:08 Z

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

TCE 011442444-01, PDC Light Curves

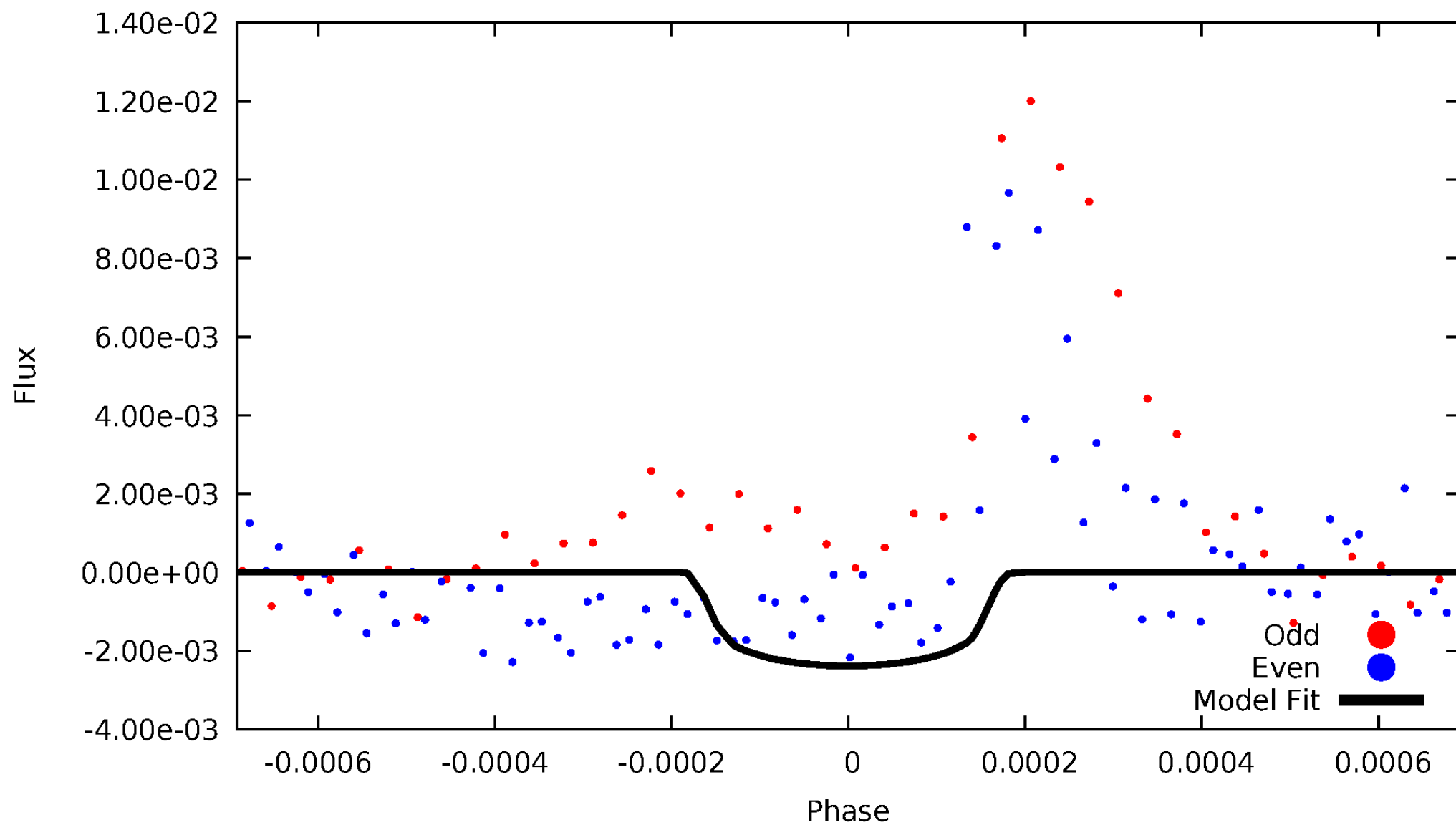


TCE 011442444-01



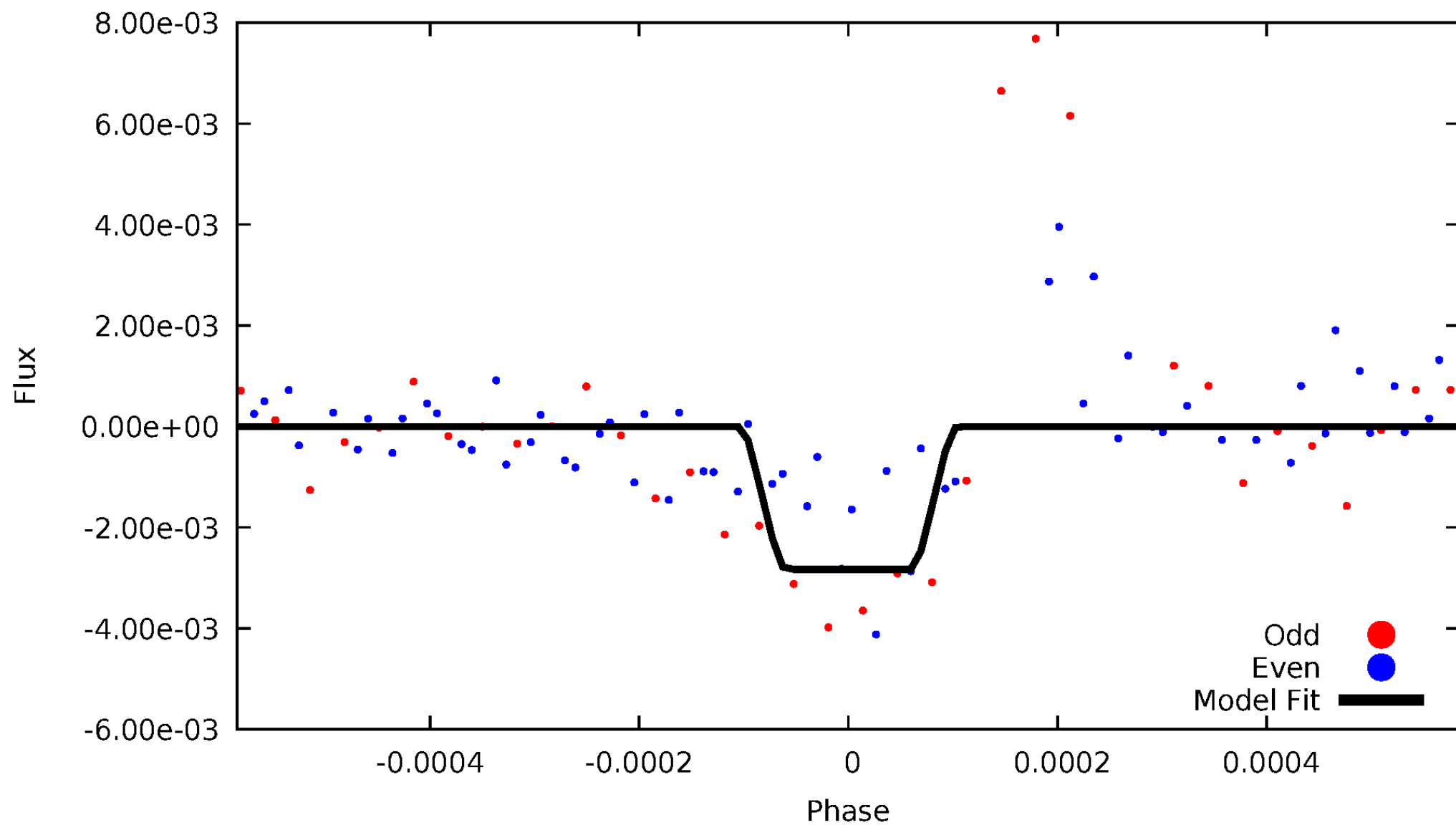
DV Odd/Even

TCE 011442444-01

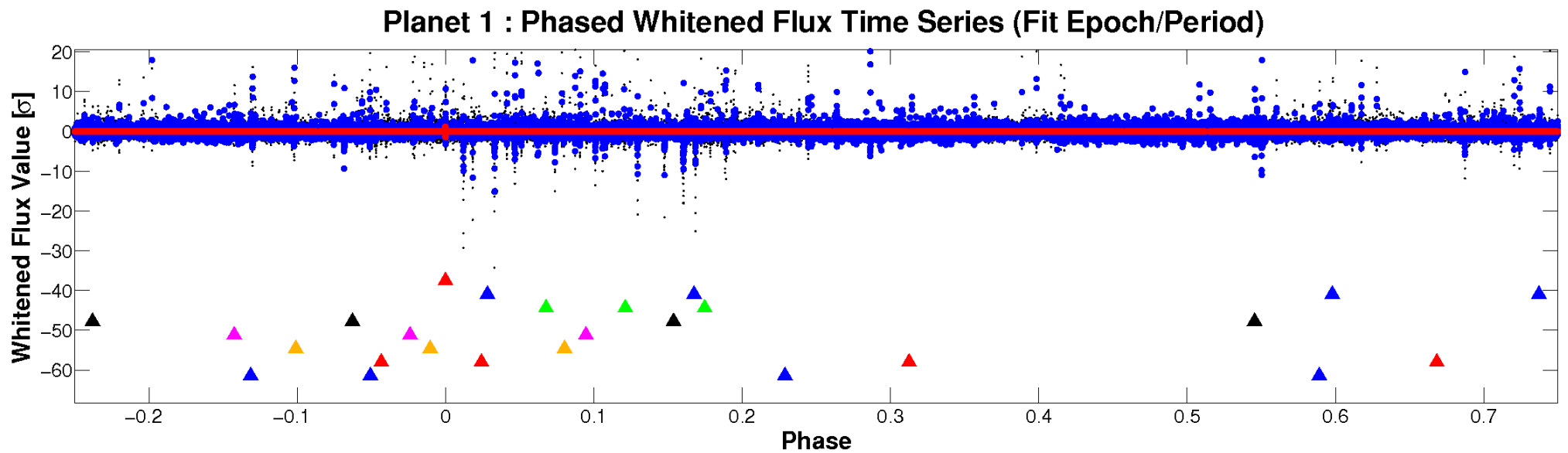
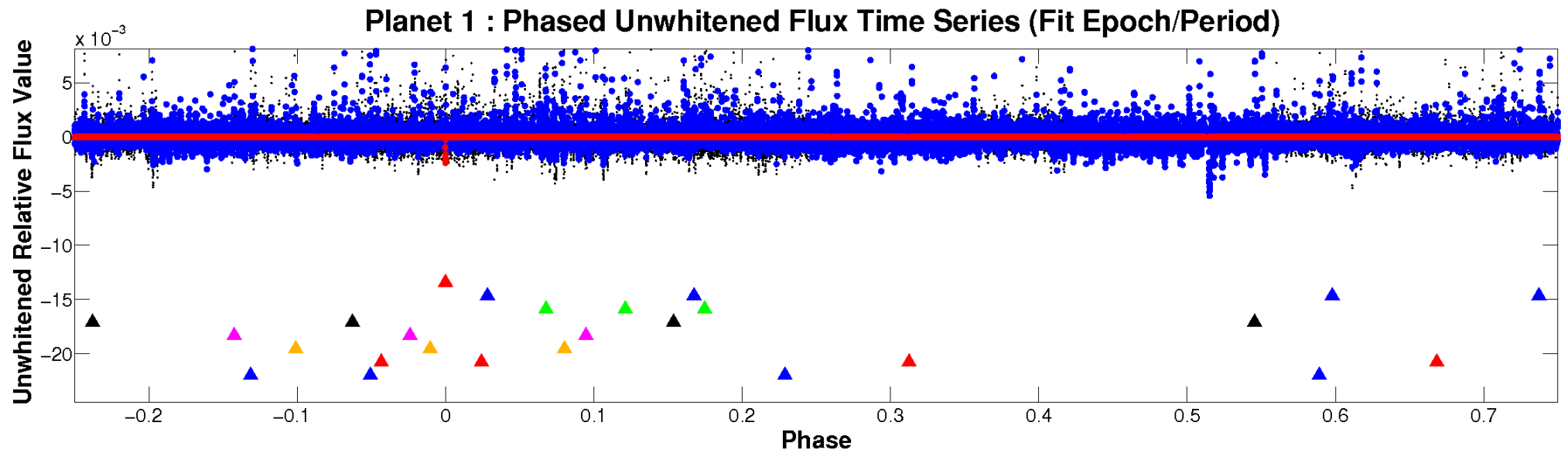


ALT Odd/Even

TCE 011442444-01

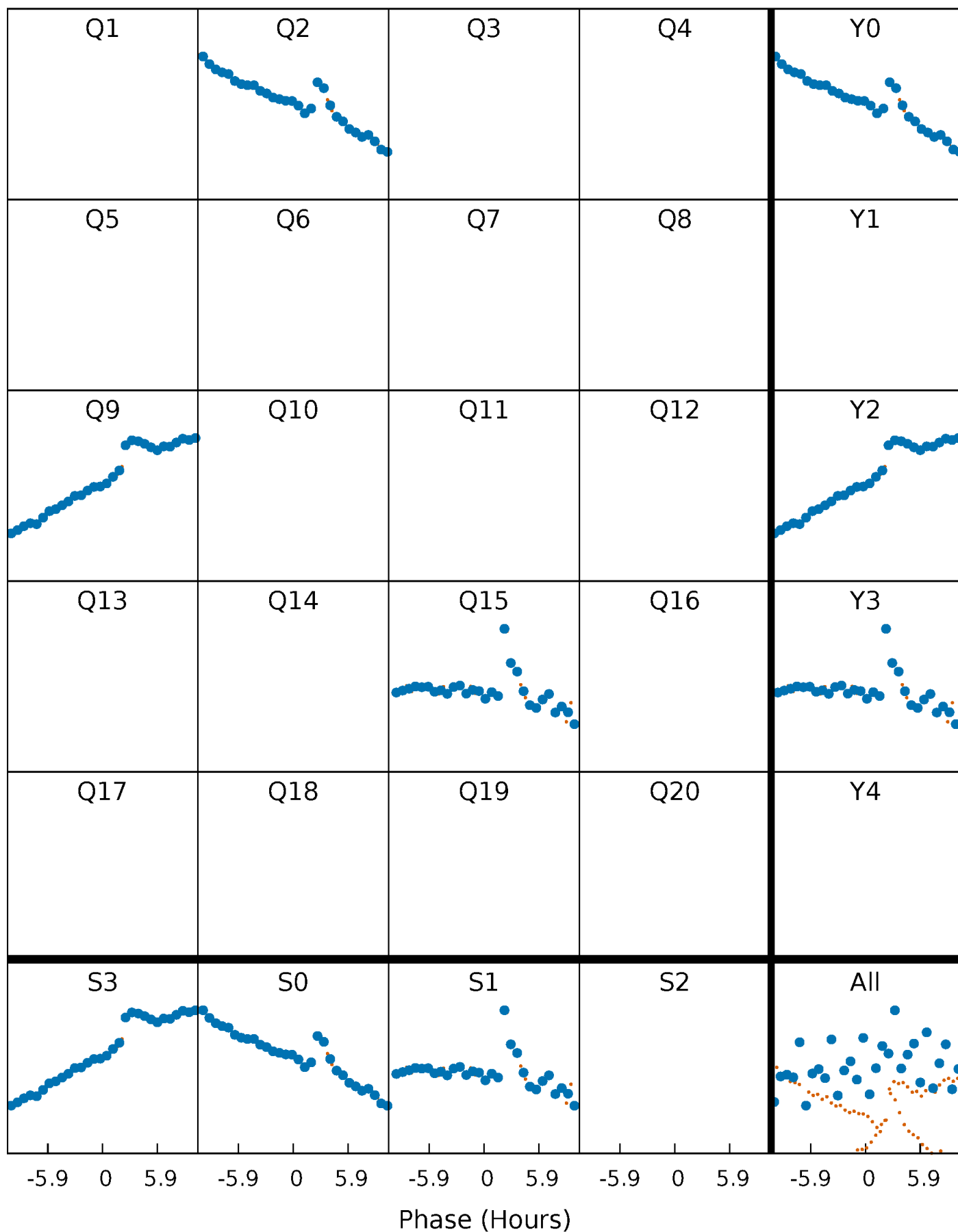


Non-Whitened Vs. Whitened Light Curve



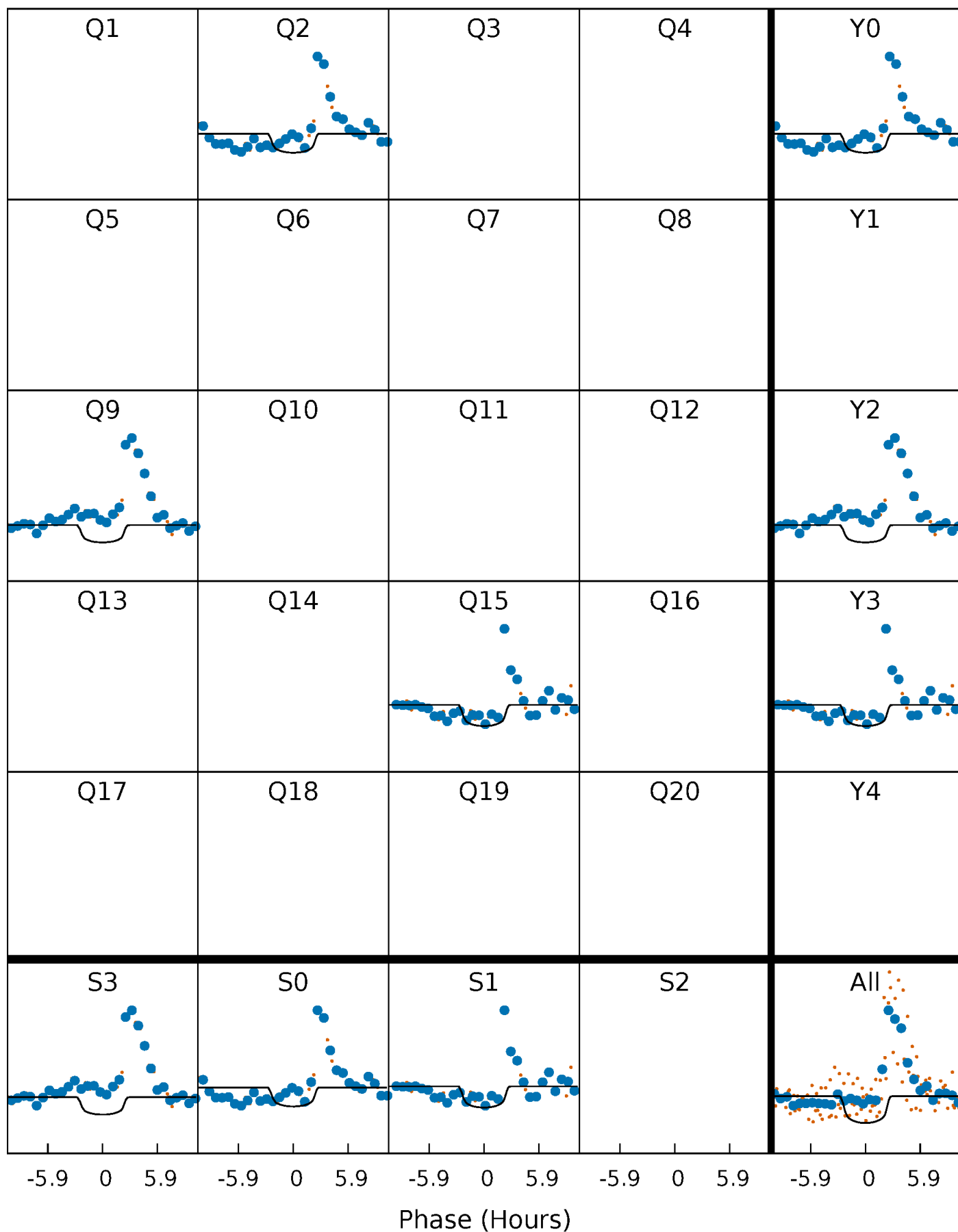
PDC Quarter-Phased Transit Curves

TCE 011442444-01 P=618.425753 Days $T_0=221.145634$ (BKJD)



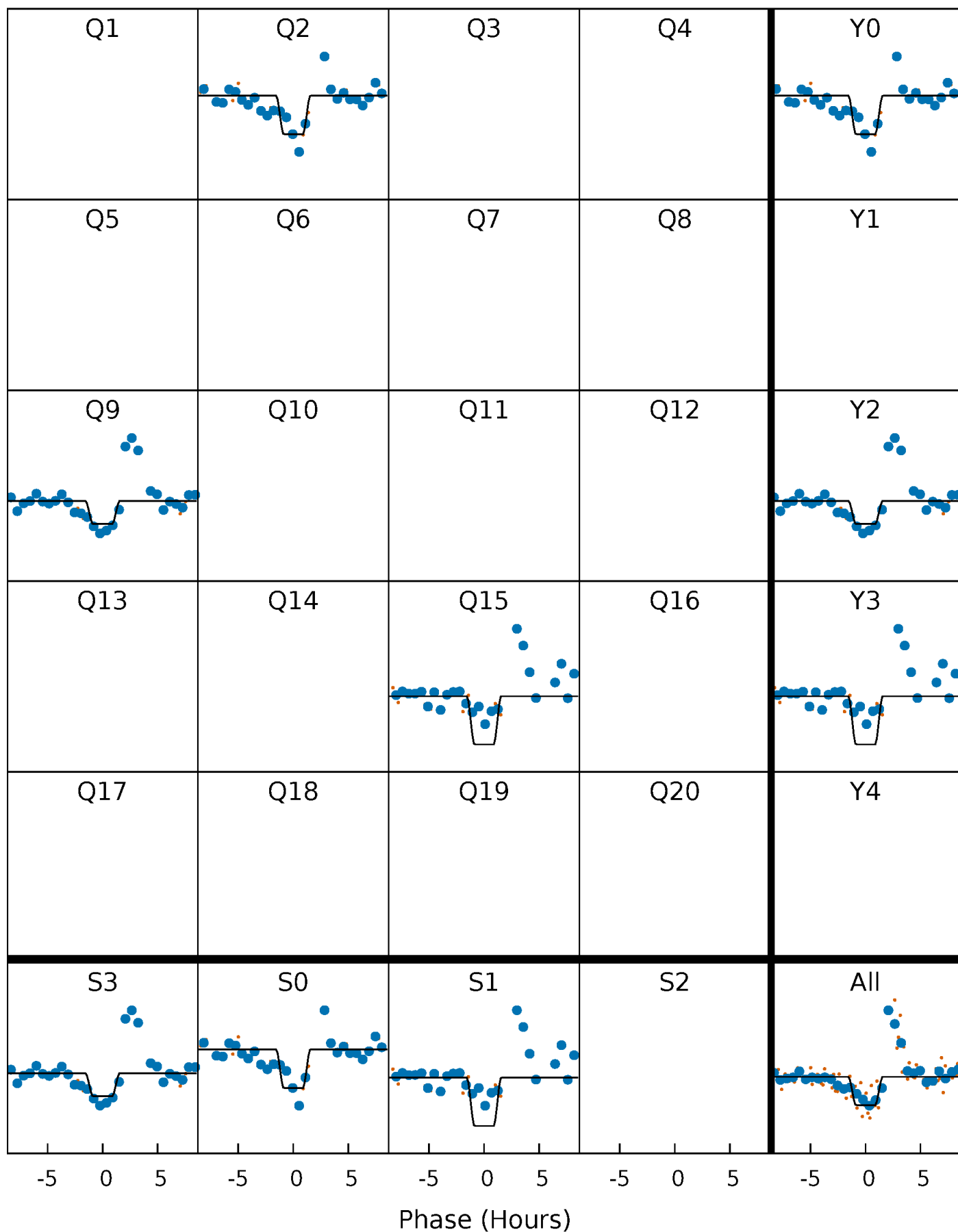
DV Quarter-Phased Transit Curves

TCE 011442444-01 P=618.425753 Days $T_0=221.145634$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

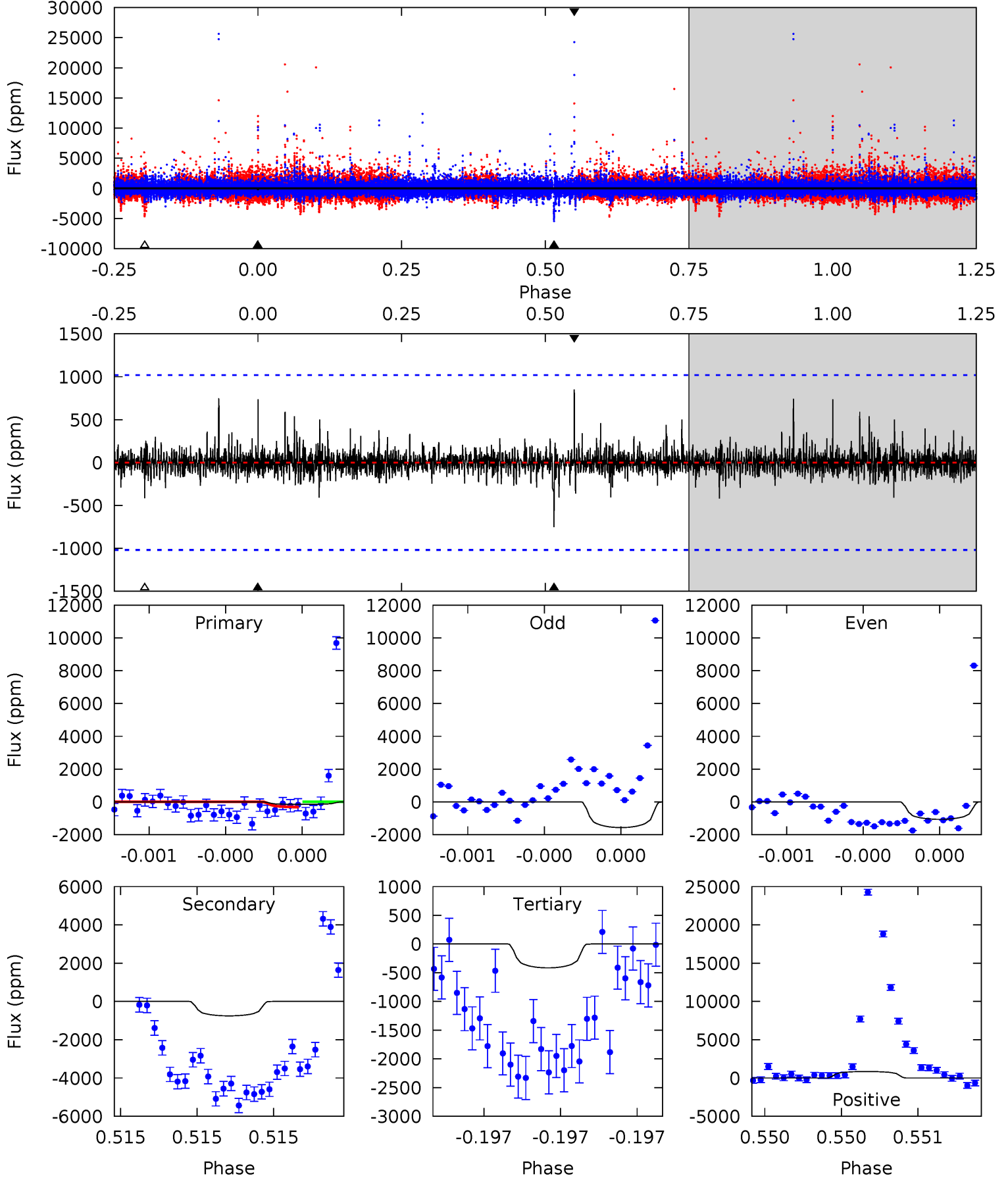
TCE 011442444-01 P=618.408071 Days $T_0=221.180218$ (BKJD)



DV Model-Shift Uniqueness Test

011442444-01, P = 618.425753 Days, E = 221.145634 Days

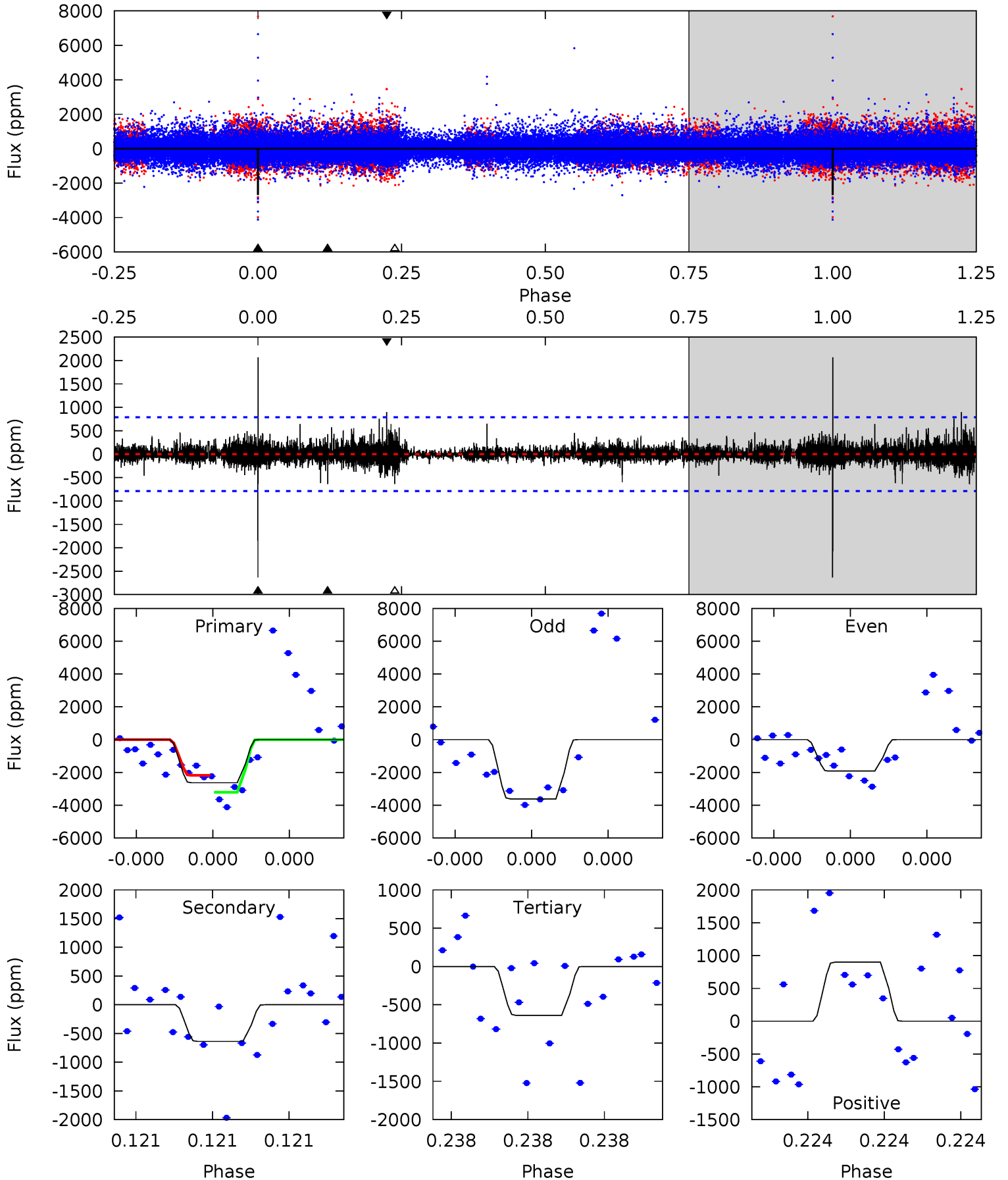
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0.84	4.16	2.29	4.70	5.63	3.57	0.51	-1.46	-3.87	1.86	-0.55	0.94	-0.63	0.53	0.87



Alt Model-Shift Uniqueness Test

011442444-01, P = 618.408071 Days, E = 221.180218 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
19.2	4.65	4.65	6.56	5.74	3.74	0.76	14.6	12.7	0.00	-1.91	5.88	0.90	0.44	3.76



Stellar Parameters For KIC 011442444

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5501^{+166}_{-149}	$4.589^{+0.036}_{-0.135}$	$-0.260^{+0.300}_{-0.300}$	$0.774^{+0.164}_{-0.070}$	$0.864^{+0.083}_{-0.100}$	$2.619^{+0.469}_{-1.017}$
	+3%/-3%	+1%/-3%	+115%/-115%	+21%/-9%	+10%/-12%	+18%/-39%
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 011442444-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-753 ± 181	$4.12^{+2.61}_{-2.16}$	262^{+13}_{-10}	4370^{+1732}_{-718}	$42668^{+143458}_{-27208}$
Alt.	-638 ± 137	$4.76^{+2.45}_{-2.34}$	262^{+12}_{-10}	4040^{+1258}_{-551}	28235^{+82313}_{-16728}

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 $A_{obs} \gg 1.0$

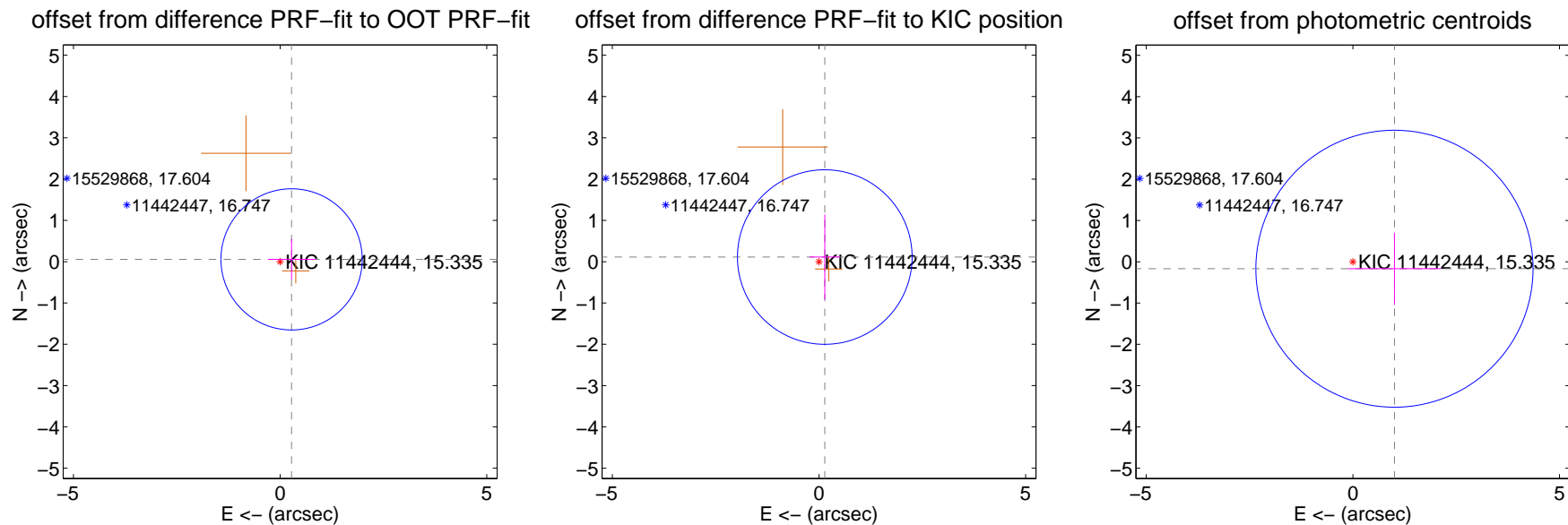
DV Centroid Data

Supplemental centroid analysis for 011442444-01. Kepler magnitude: 15.34. Transit SNR 7.48

There are 0 quarters with good PRF difference image offsets

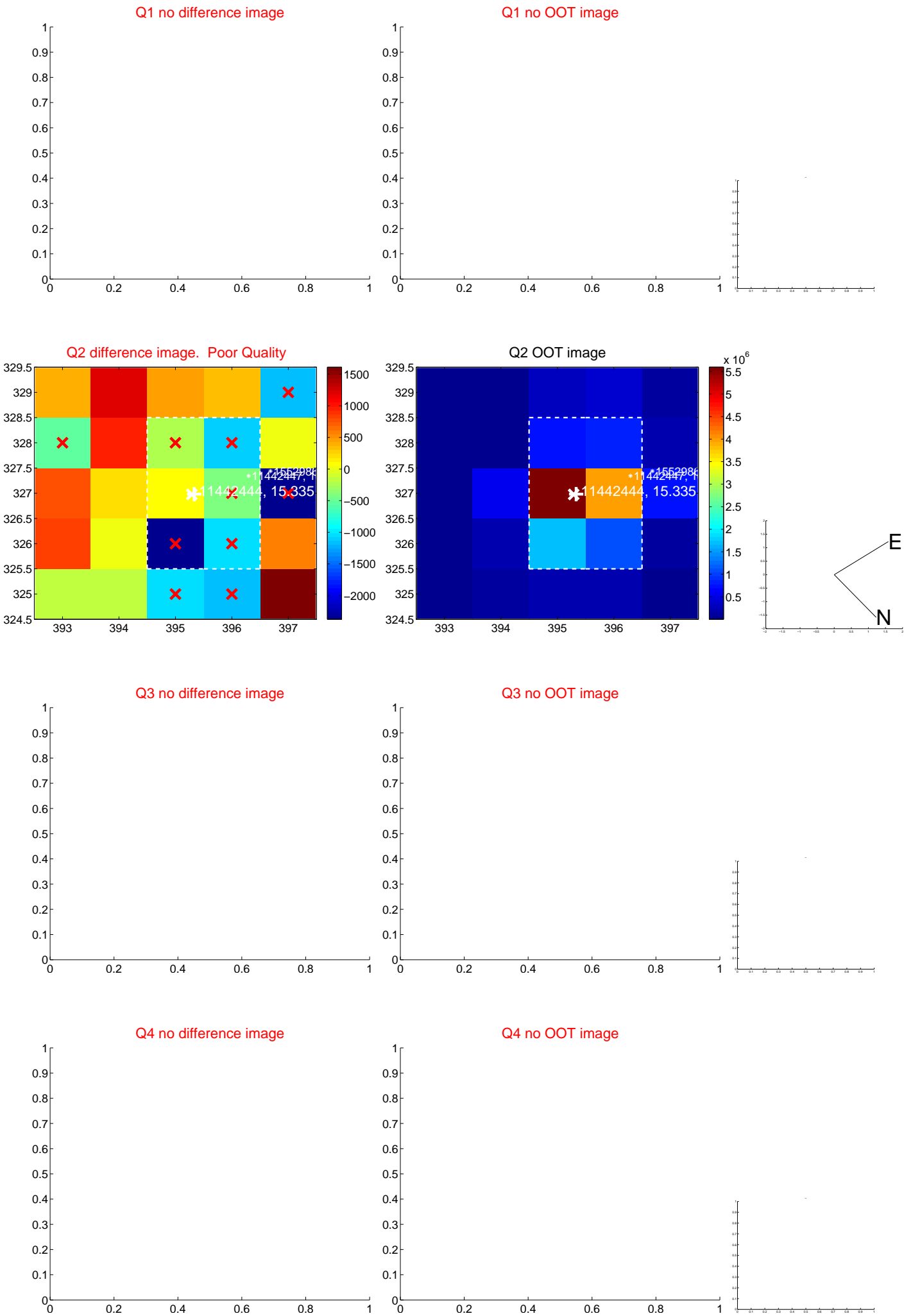
The direct PRF centroid is offset from the target star catalog position by about 0.15 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.283 ± 0.570	0.50	-0.278 ± 0.573	0.056 ± 0.488
PRF-fit source offset from KIC position	0.180 ± 0.705	0.26	-0.140 ± 0.368	0.113 ± 1.028
photometric centroid source offset	1.02 ± 1.12	0.91	-1.01 ± 1.12	-0.17 ± 0.87



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.

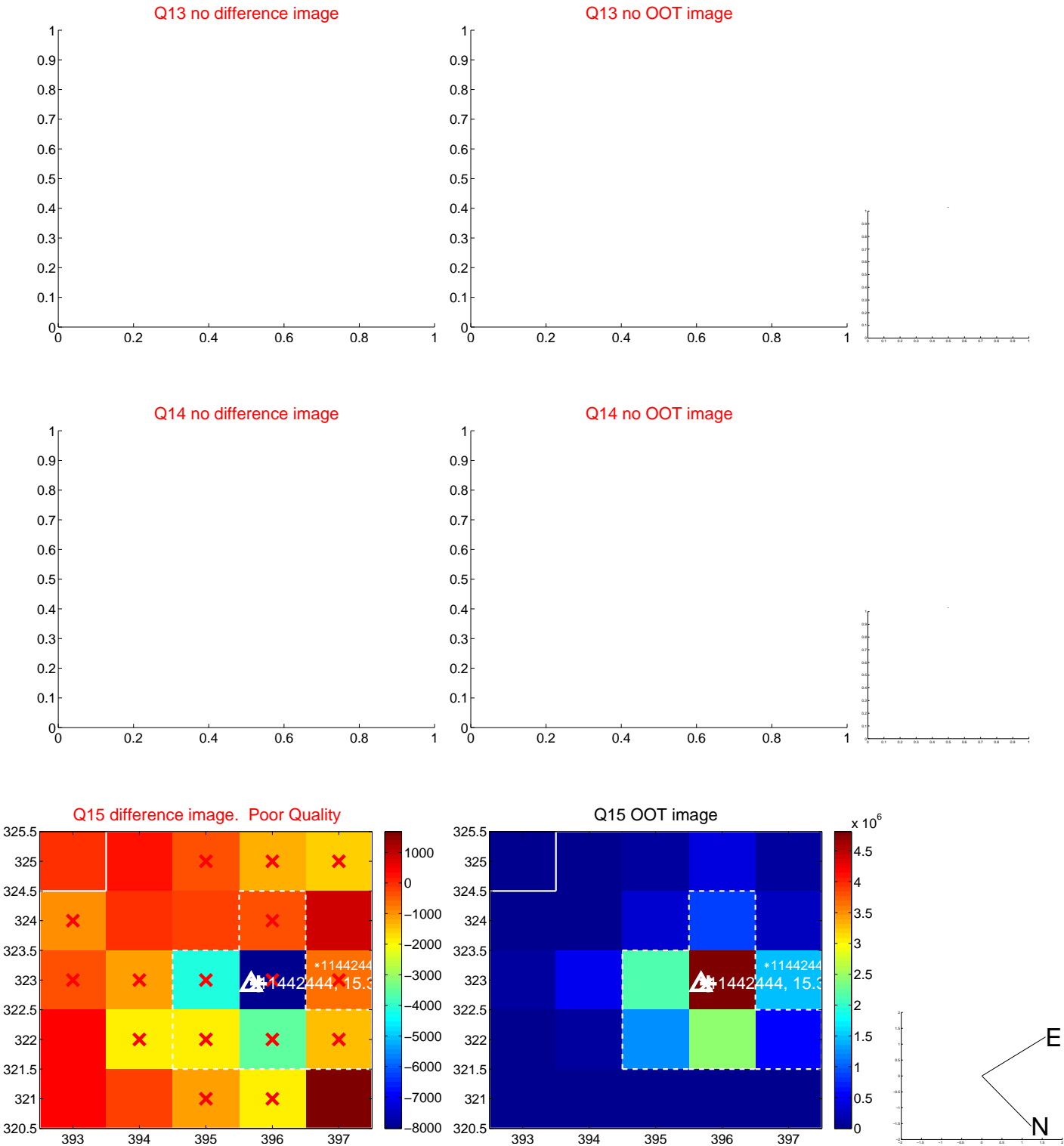
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



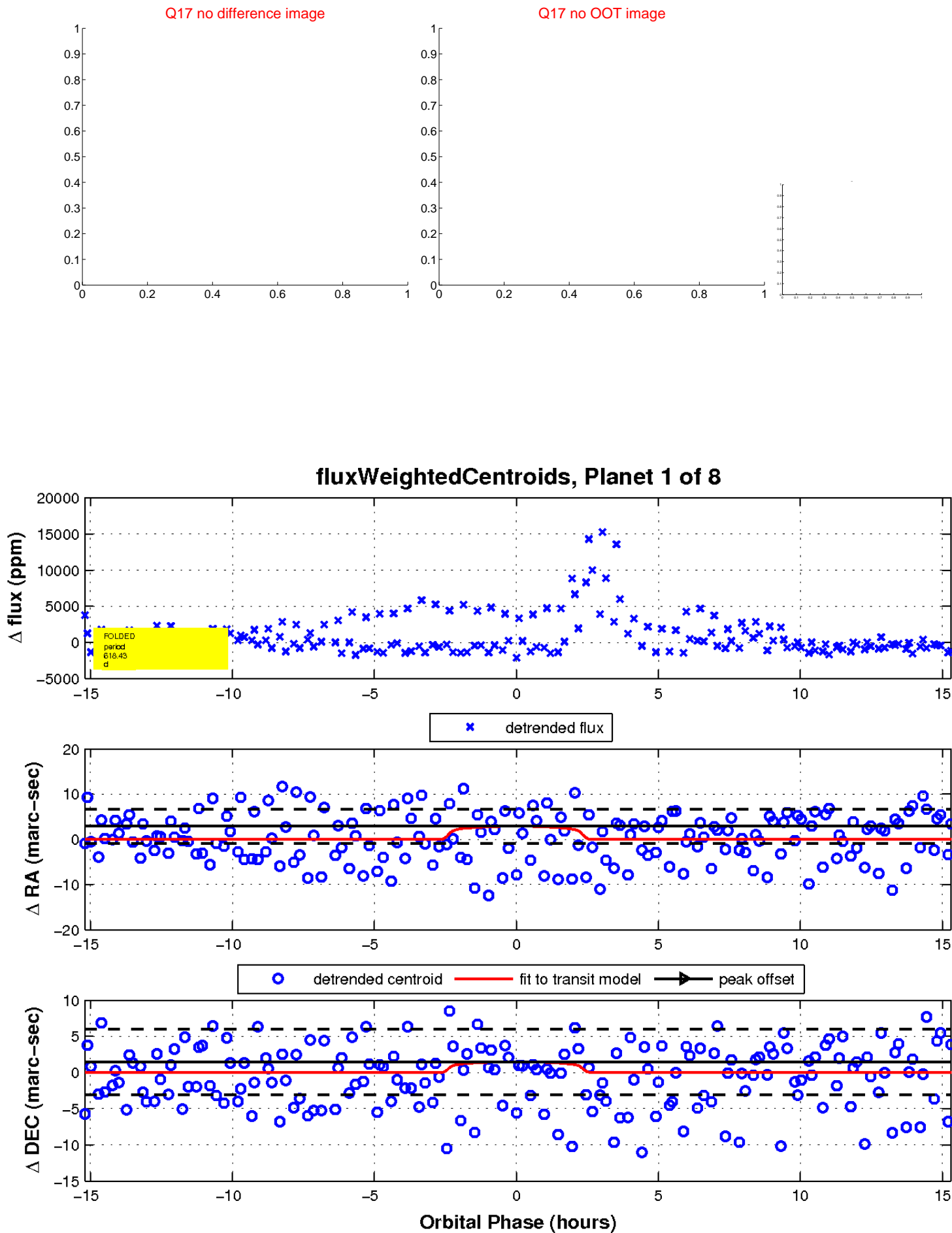
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



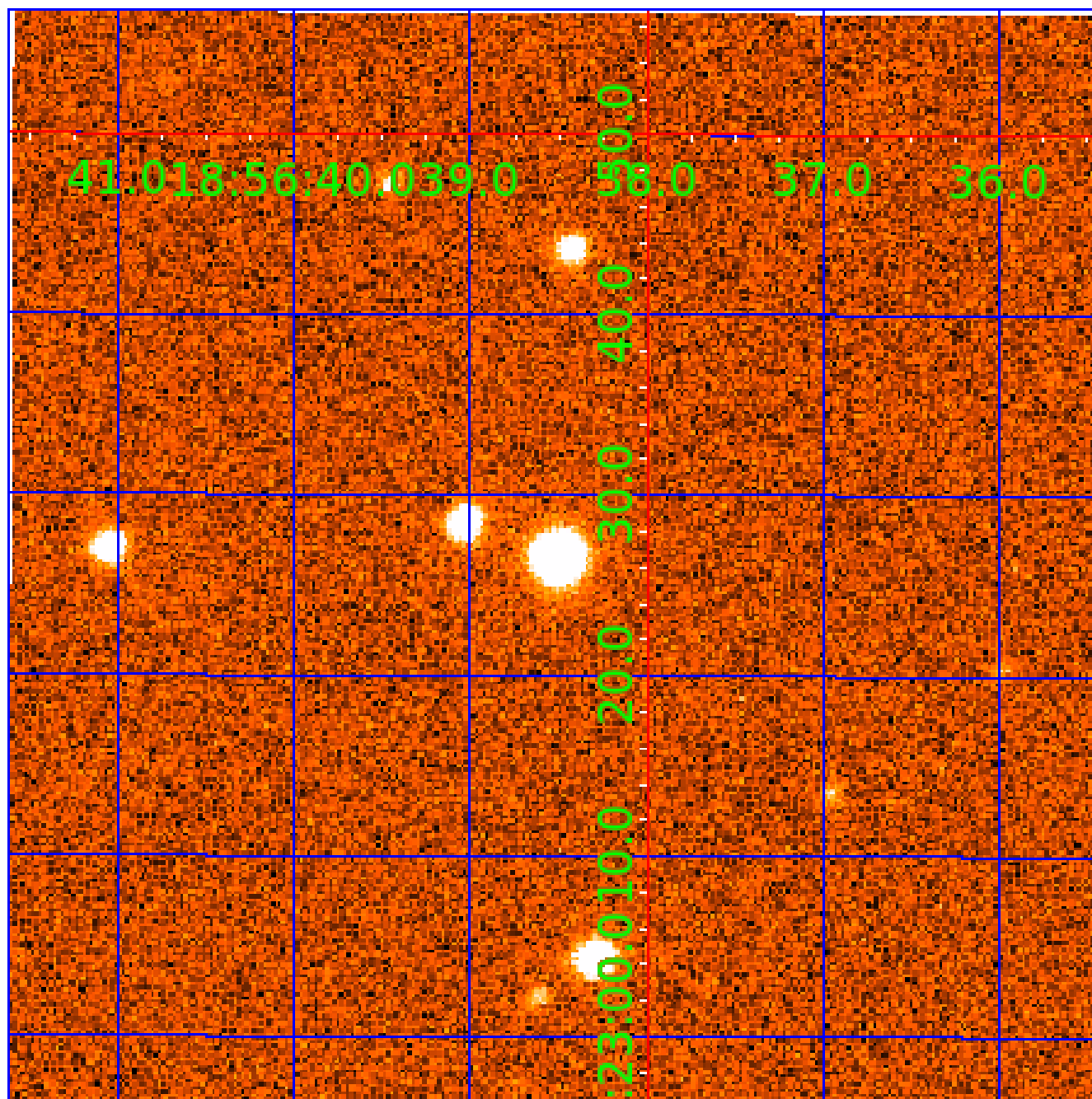
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



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



UKIRT Image



KIC 011442444

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
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Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011442444-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_FEW_DIFFS
011442444-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—LPP_ALT—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
011442444-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV
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011442444-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV
011442444-07	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS—HALO_GHOST
011442444-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_NOFITS

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

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

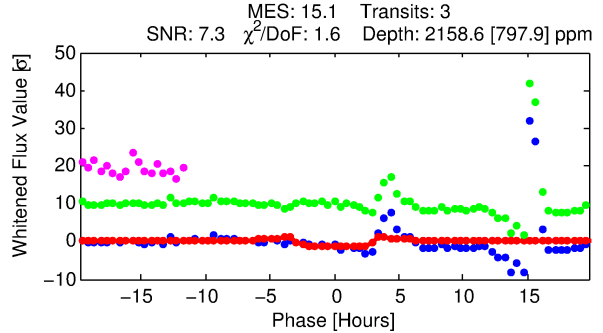
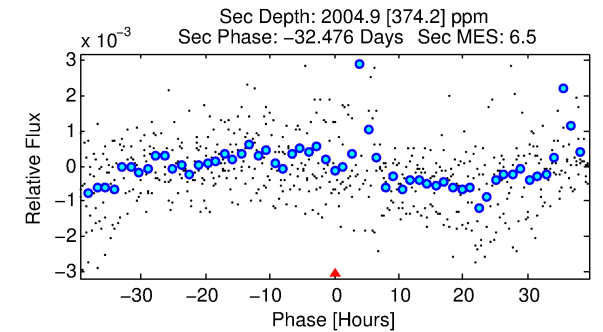
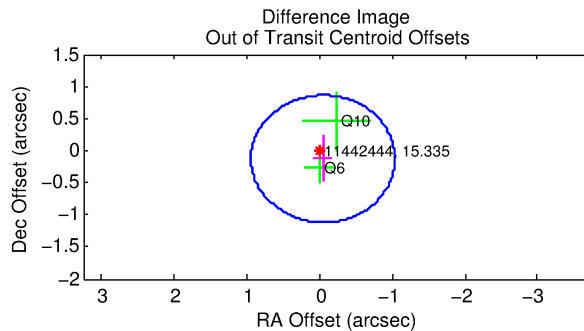
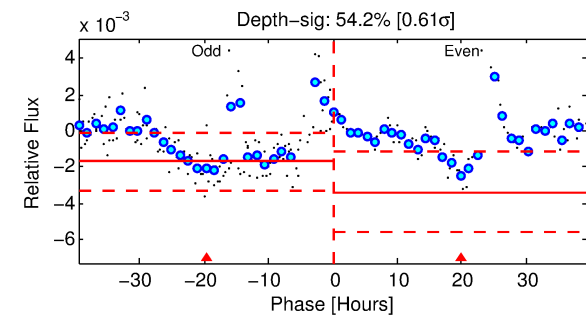
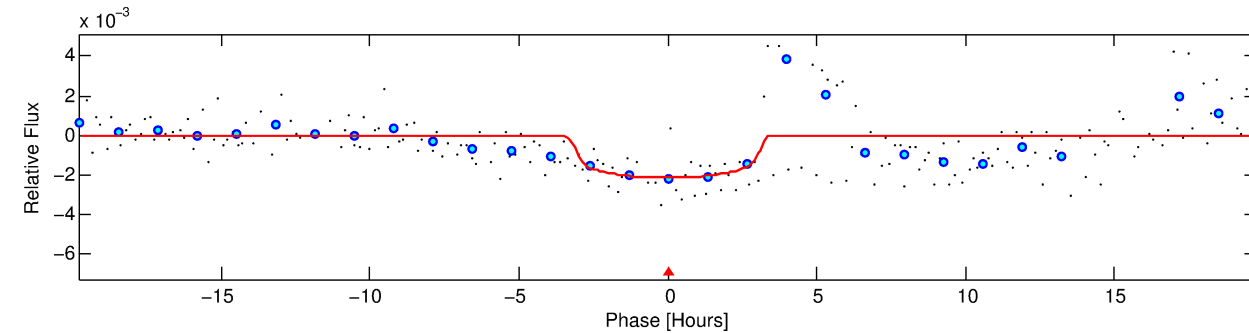
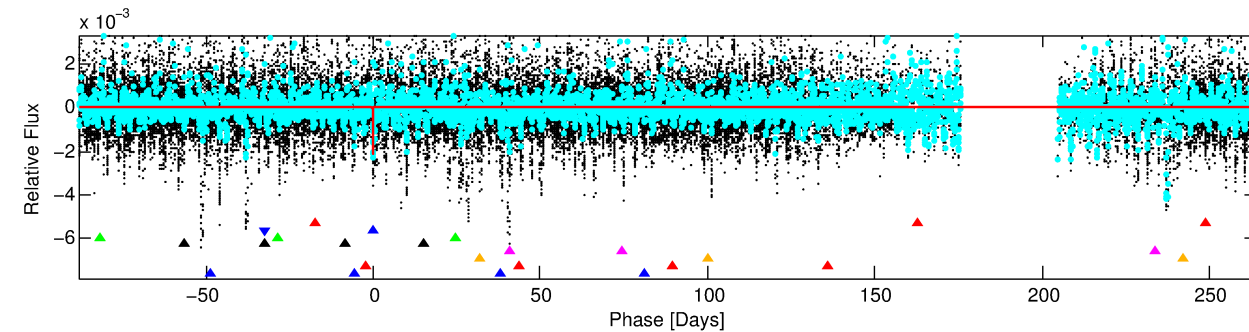
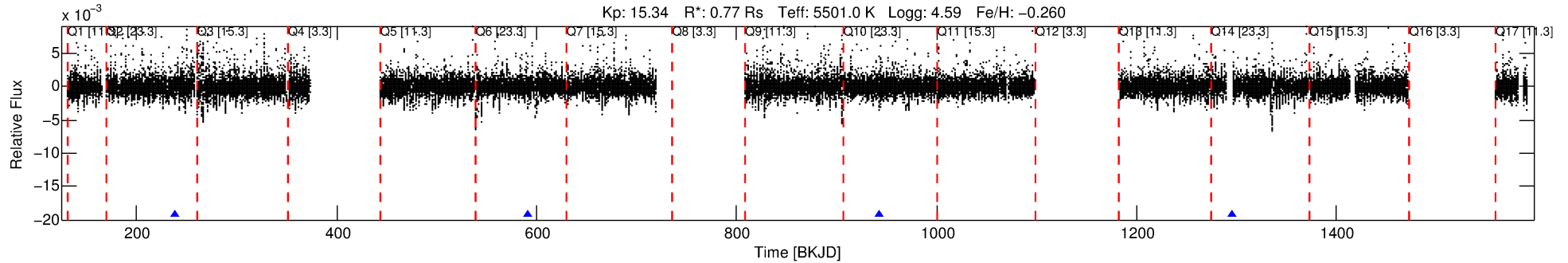
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011442444-02

No Significant Match Found

DV One-Page Summary

KIC: 11442444 Candidate: 2 of 8 Period: 352.281 d



DV Fit Results:

Period = 352.28144 [0.01537] d
Epoch = 238.6426 [0.0211] BKJD
Rp/R* = 0.0425 [0.0694]
a/R* = 404.90 [2678.51]
b = 0.32 [18.56]
Seff = 0.58 [0.16]
Teq = 222 [15] K
Rp = 3.59 [5.91] Re
a = 0.9242 [0.1619] AU
Ag = 73138.09 [240029.33] [0.30 σ]
Teffp = 5647 [4623] K [1.17 σ]

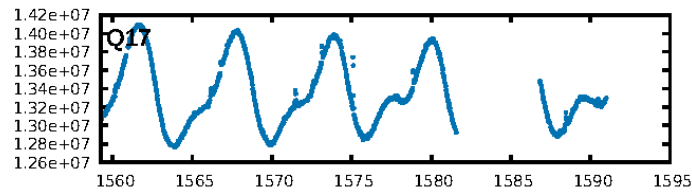
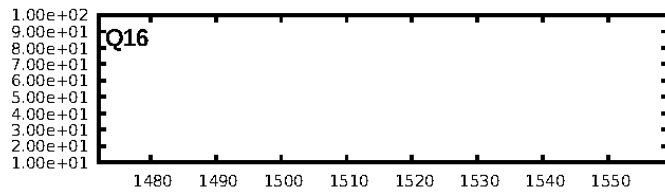
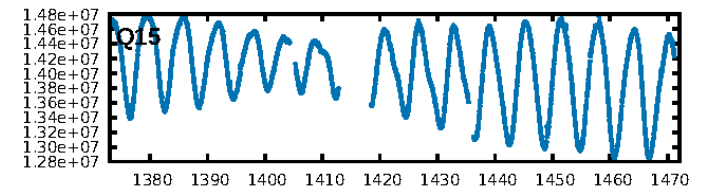
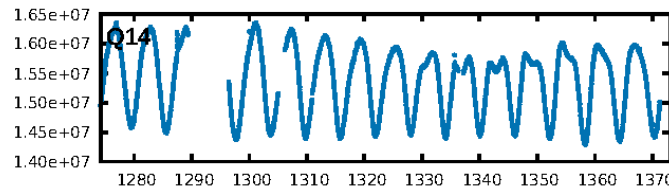
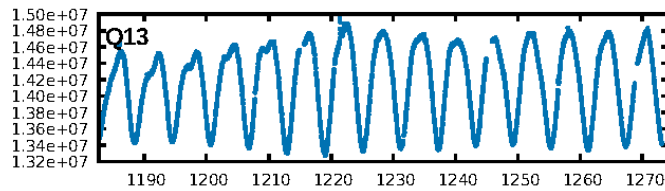
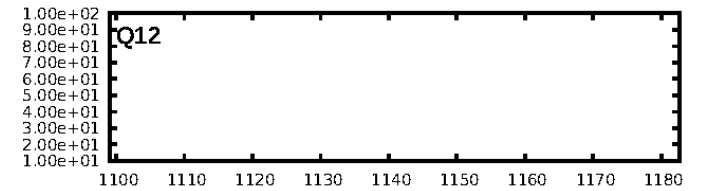
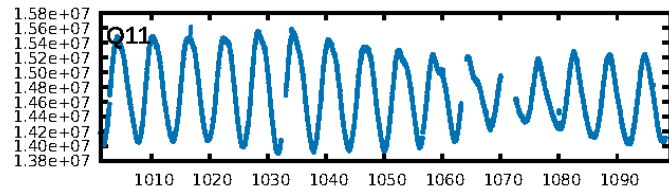
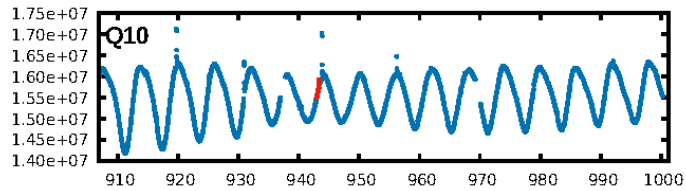
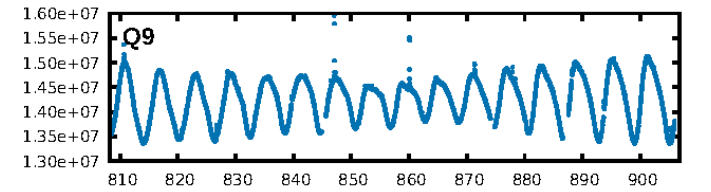
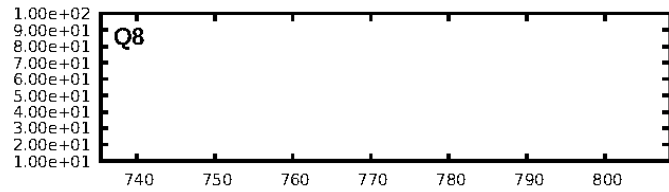
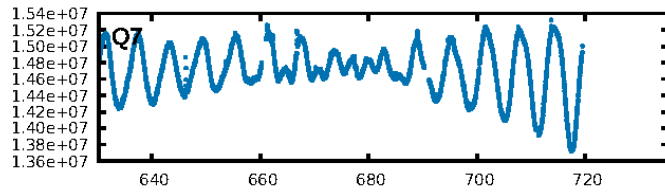
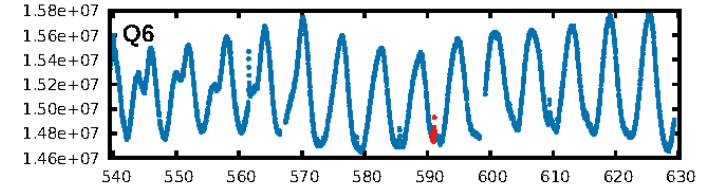
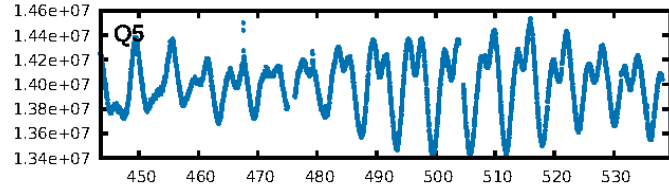
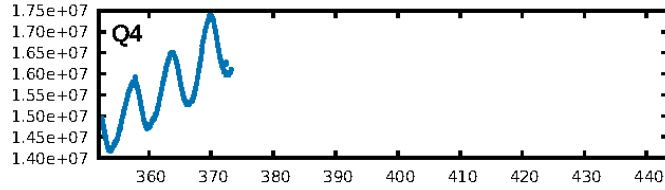
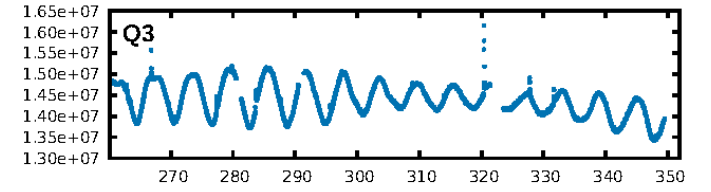
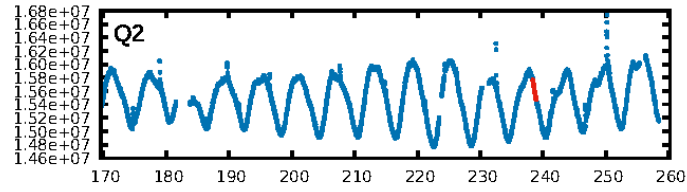
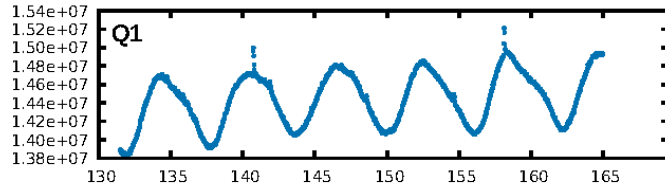
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [78.53 σ]
ModelChiSquare2-sig: 0.1%
ModelChiSquareGof-sig: 24.1%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 1.755
Centroid-sig: 1.0%
Centroid-so: 2.906 arcsec [2.80 σ]
OotOffset-rm: 0.136 arcsec [0.41 σ]
OotOffset-st: 2/0/0/0 [2]
KicOffset-rm: 0.082 arcsec [0.31 σ]
KicOffset-st: 2/0/0/0 [2]
DiffImageQuality-fgm: 1.00 [2/2]
DiffImageOverlap-fno: 1.00 [3/3]

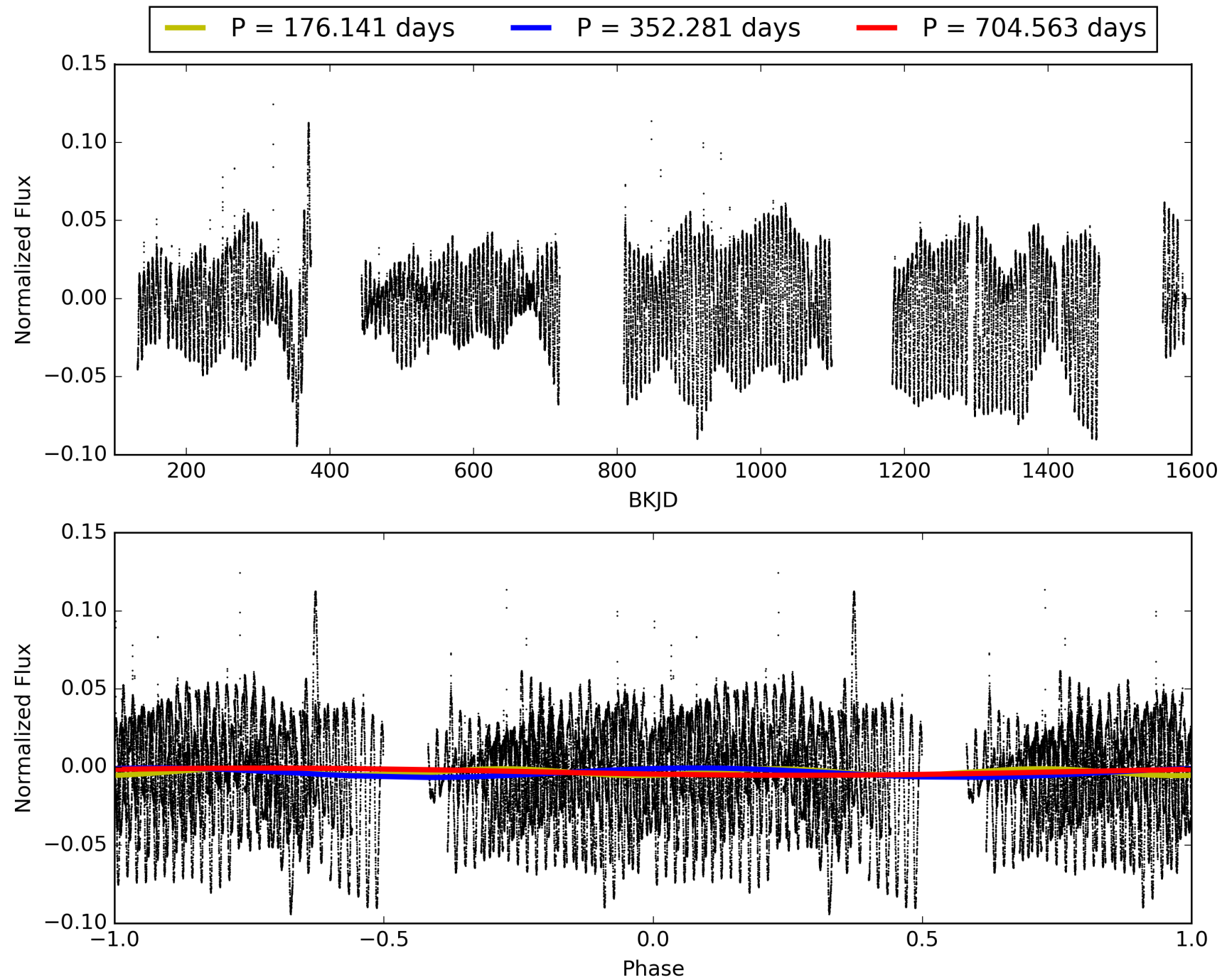
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 05:34:18 Z

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

TCE 011442444-02, PDC Light Curves

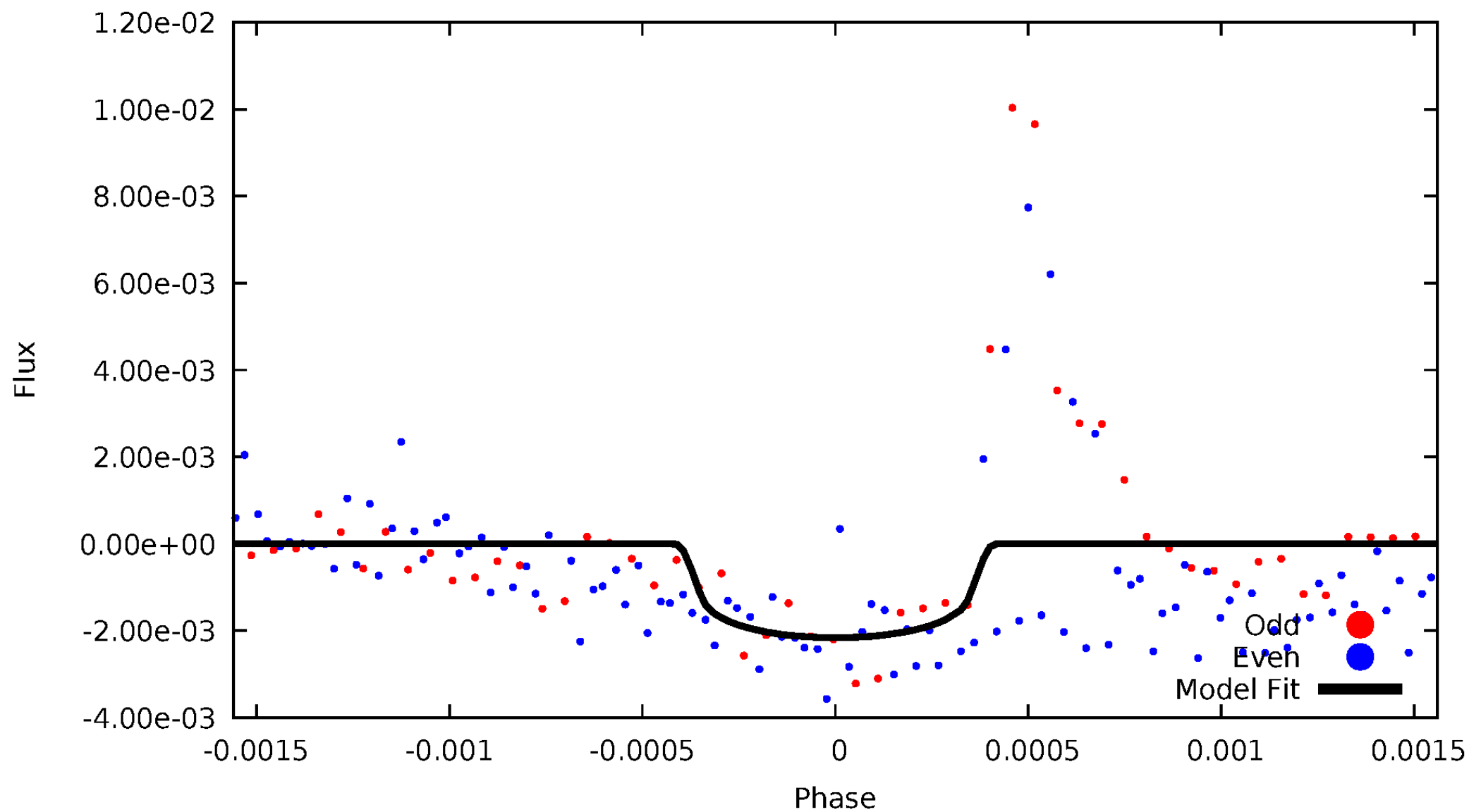


TCE 011442444-02



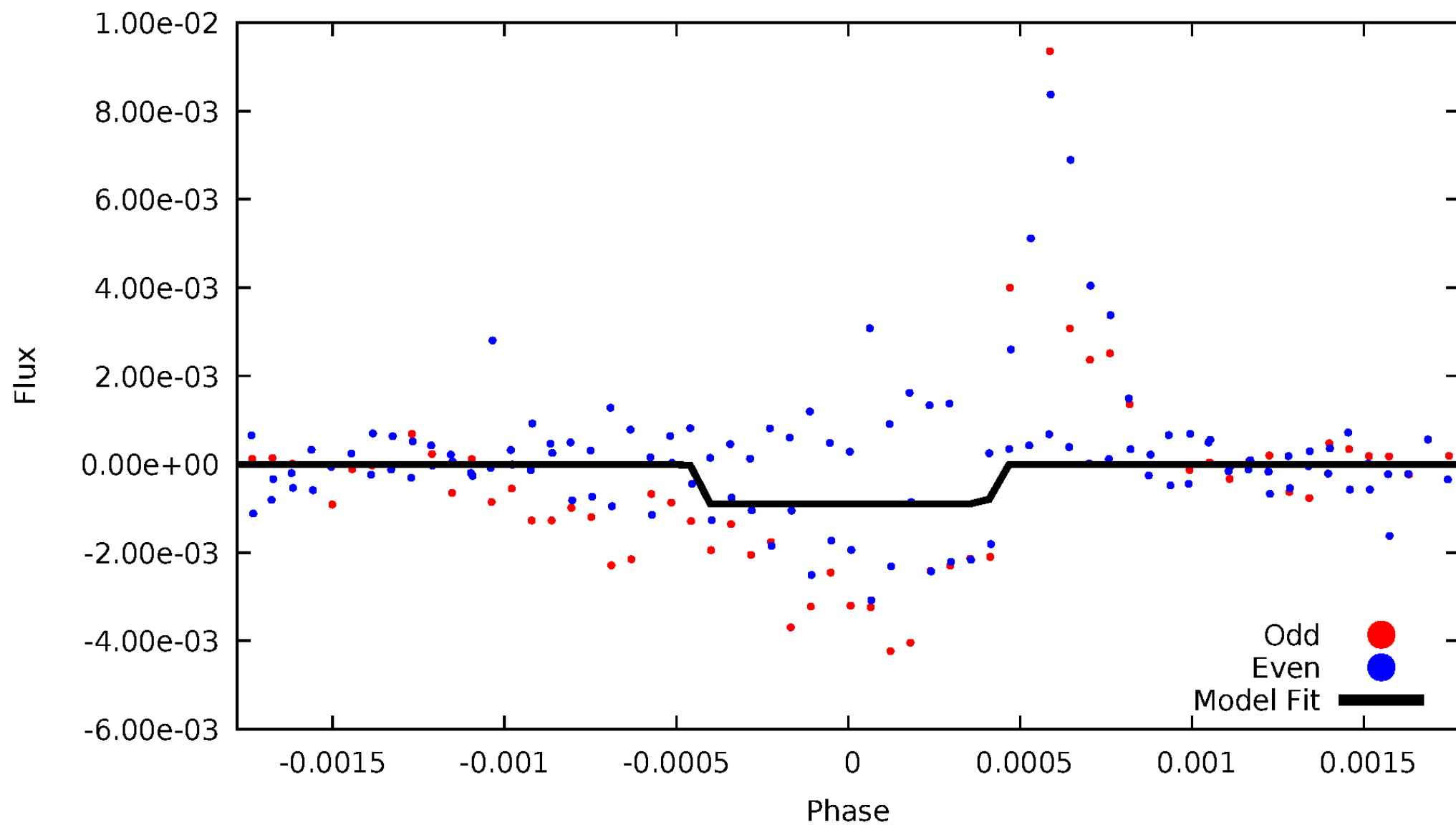
DV Odd/Even

TCE 011442444-02



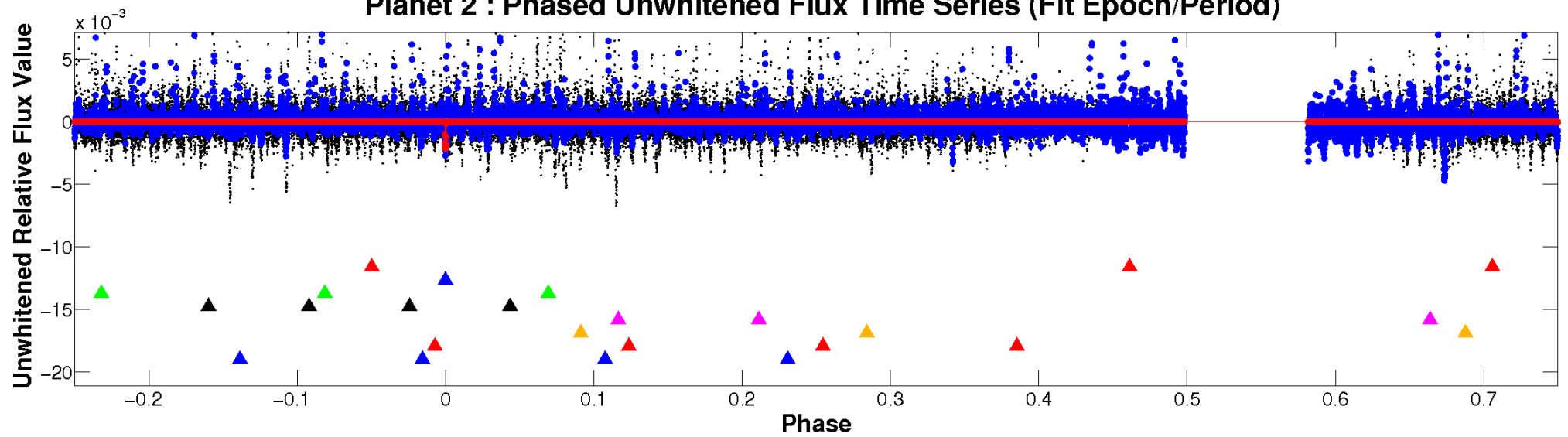
ALT Odd/Even

TCE 011442444-02

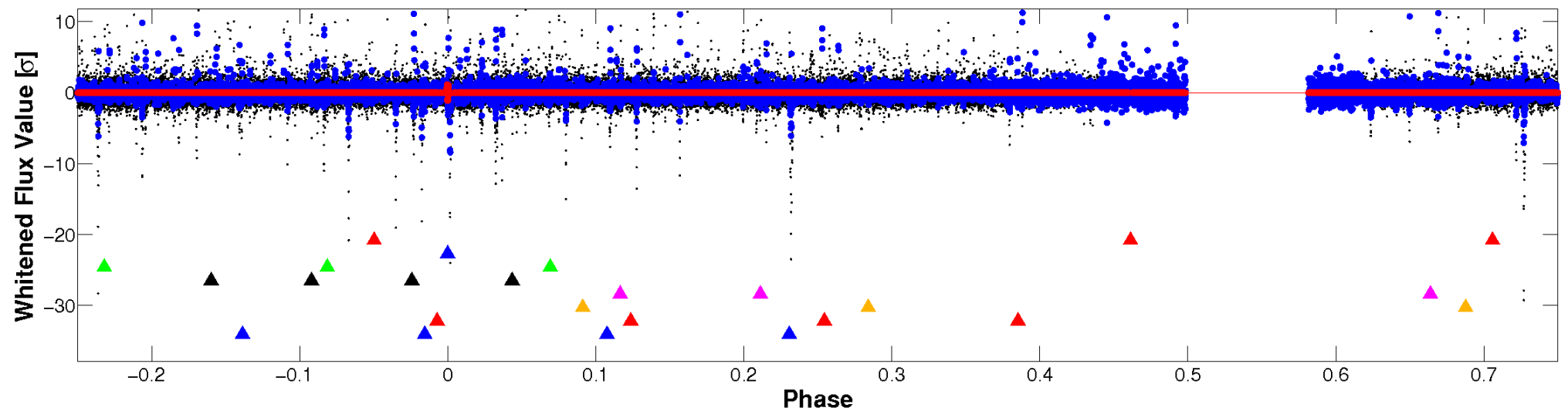


Non-Whitened Vs. Whitened Light Curve

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

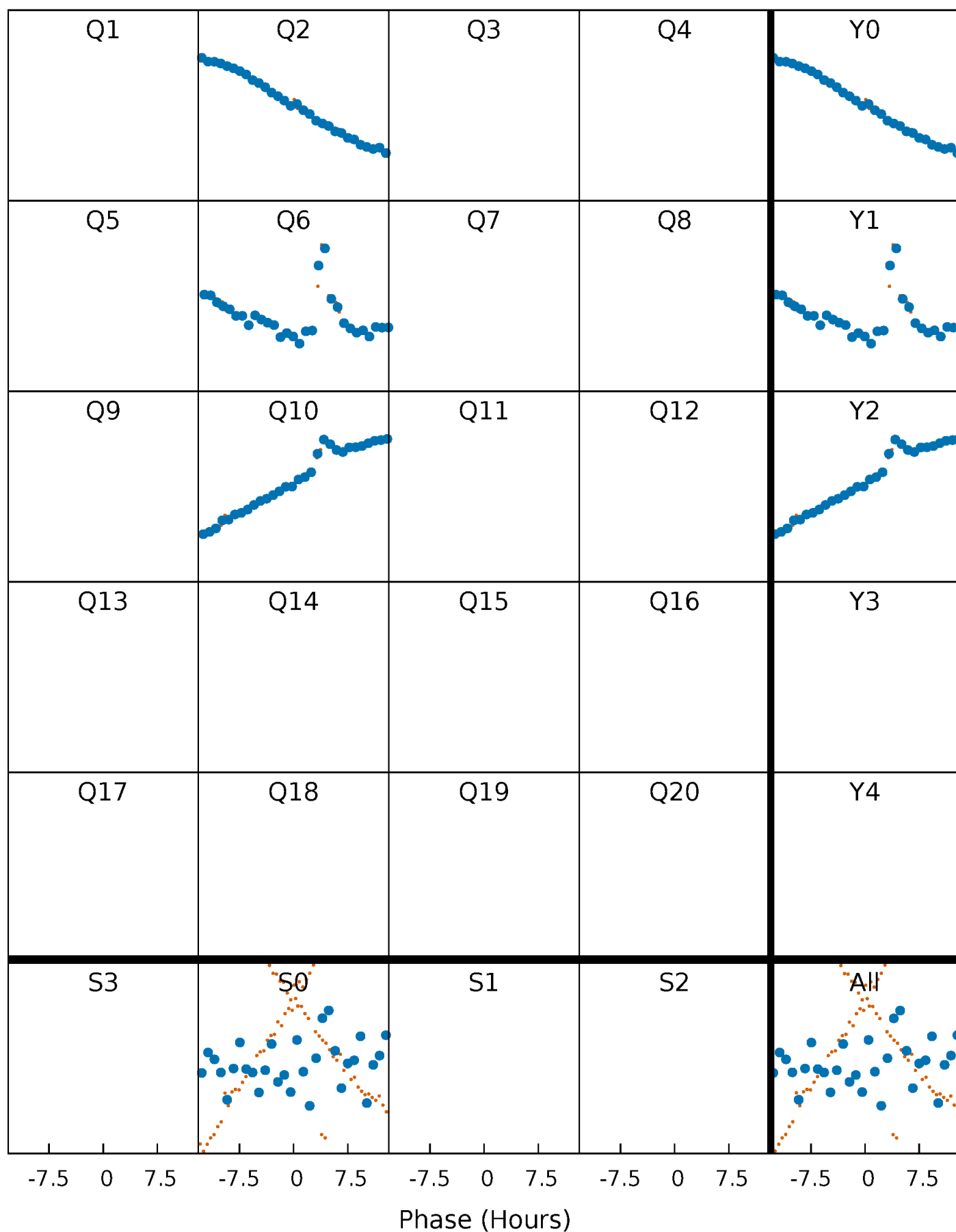


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



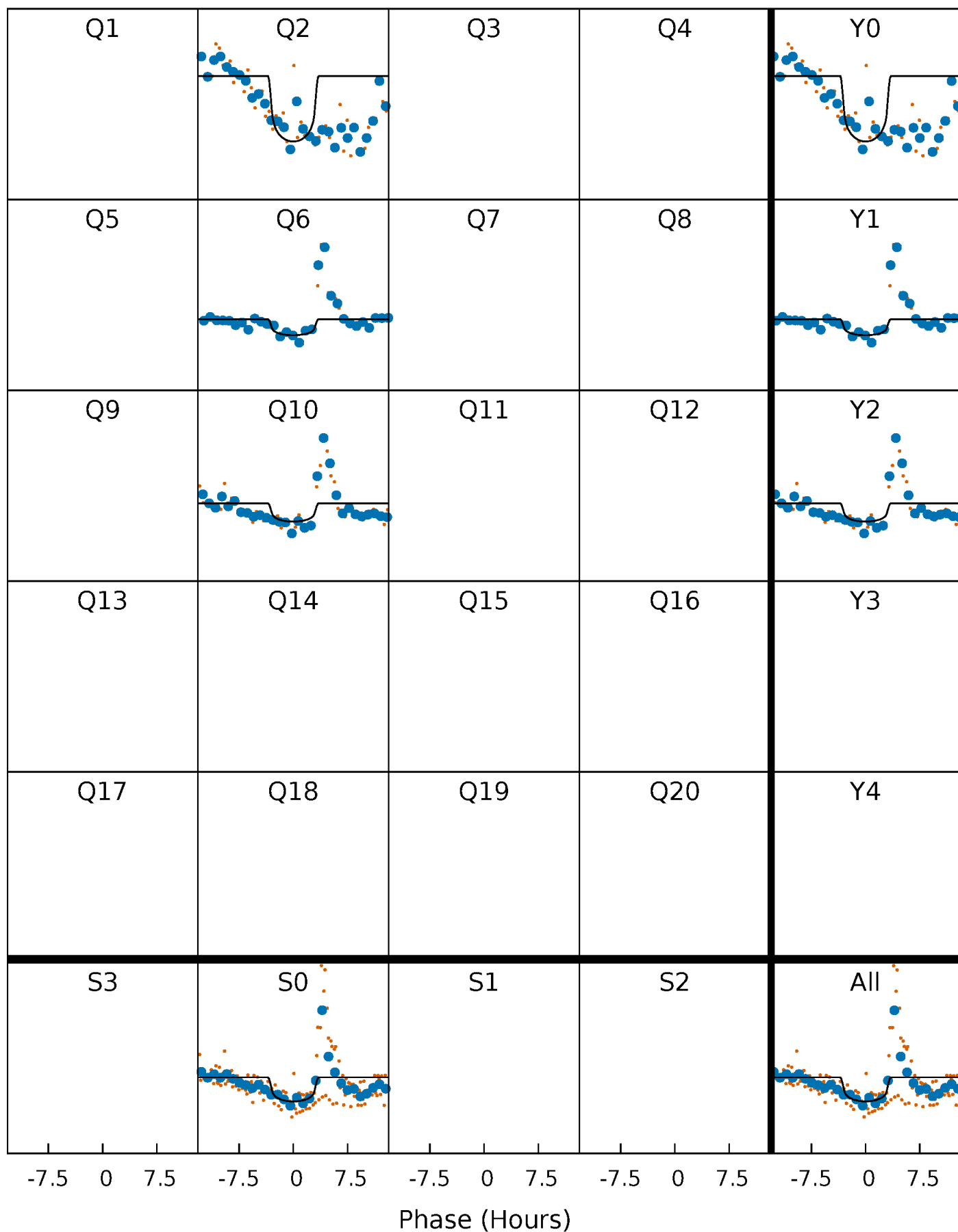
PDC Quarter-Phased Transit Curves

TCE 011442444-02 P=352.281436 Days $T_0=238.642649$ (BKJD)



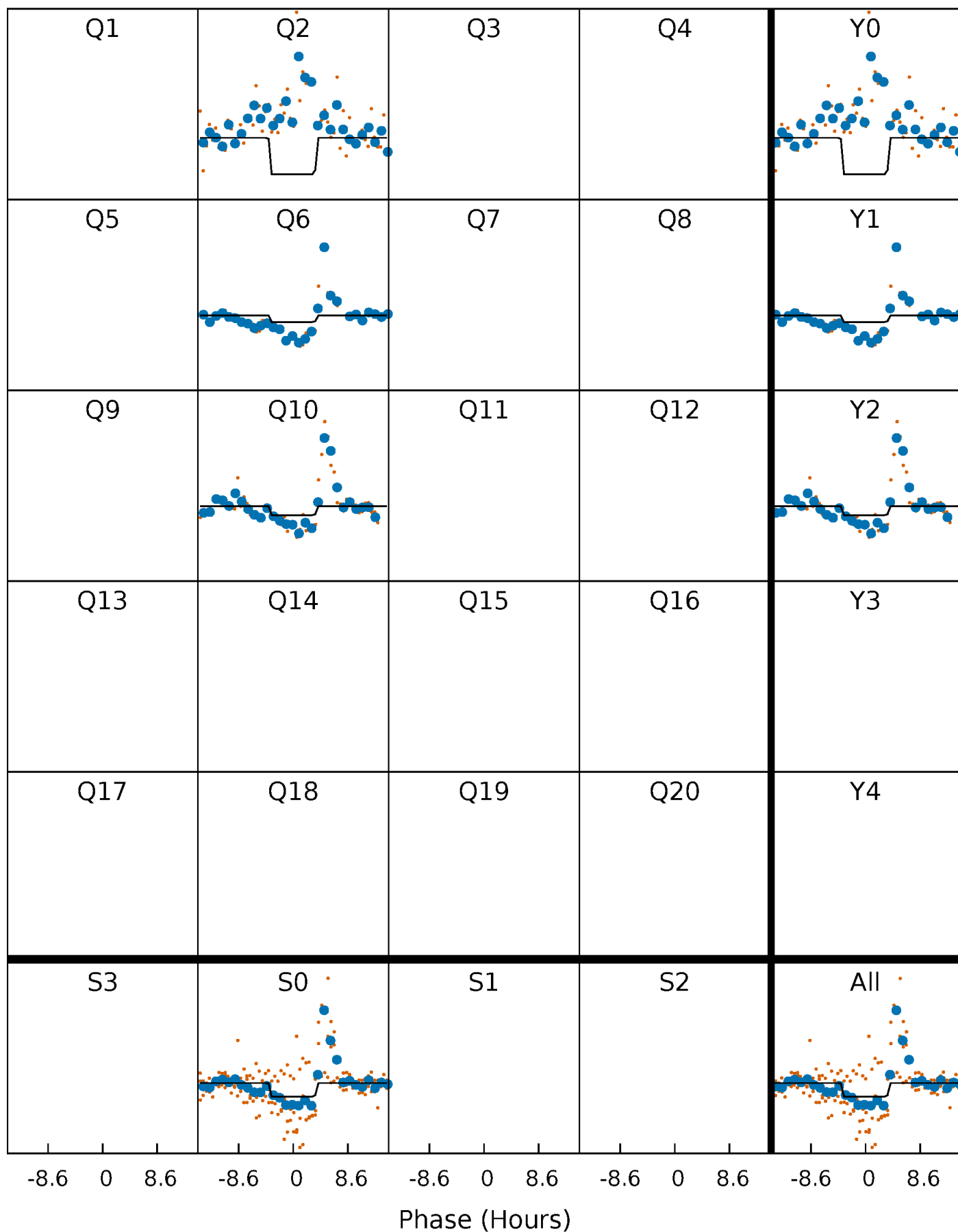
DV Quarter-Phased Transit Curves

TCE 011442444-02 P=352.281436 Days $T_0=238.642649$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

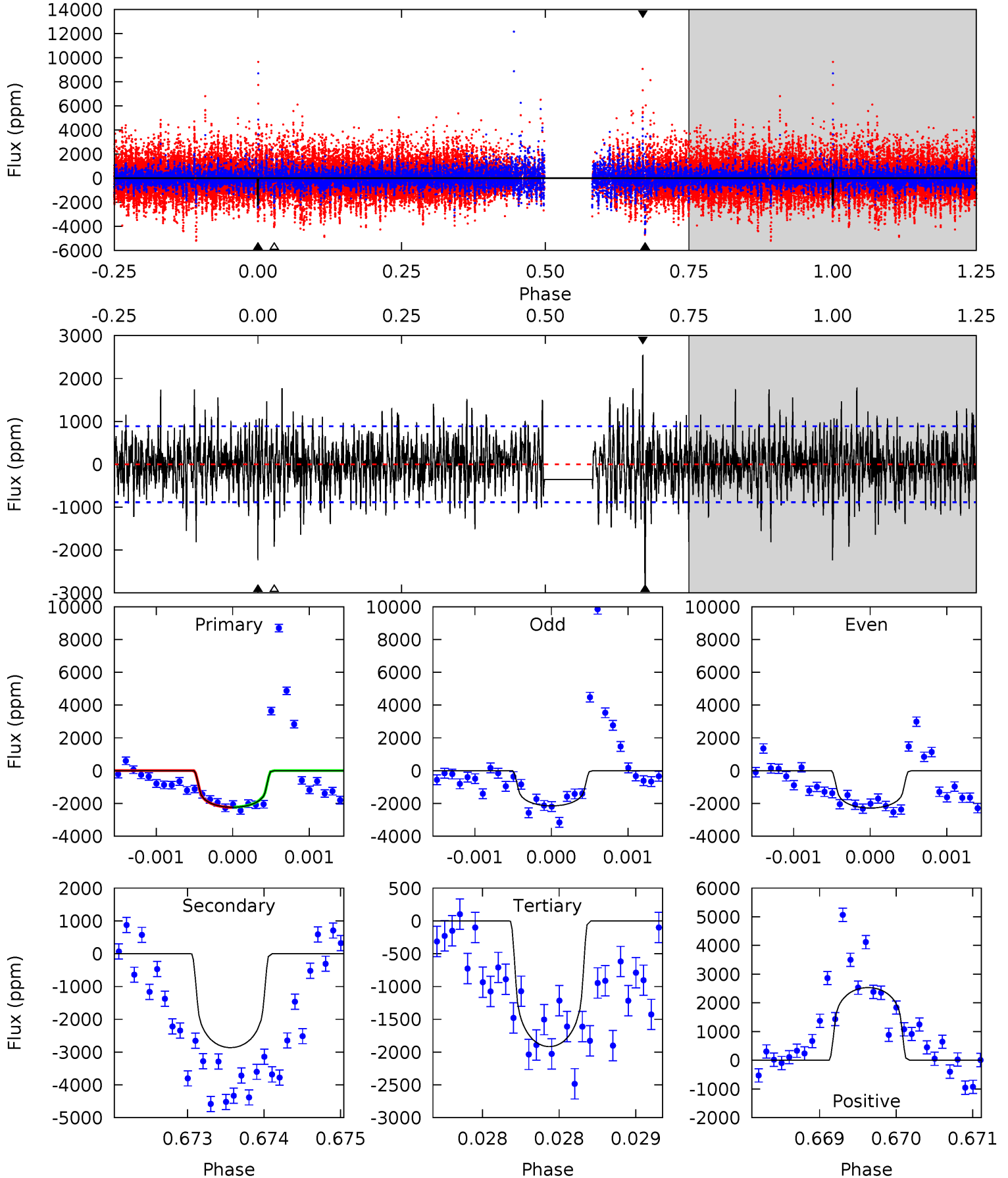
TCE 011442444-02 P=352.274574 Days $T_0=238.624862$ (BKJD)



DV Model-Shift Uniqueness Test

011442444-02, P = 352.281436 Days, E = 238.642649 Days

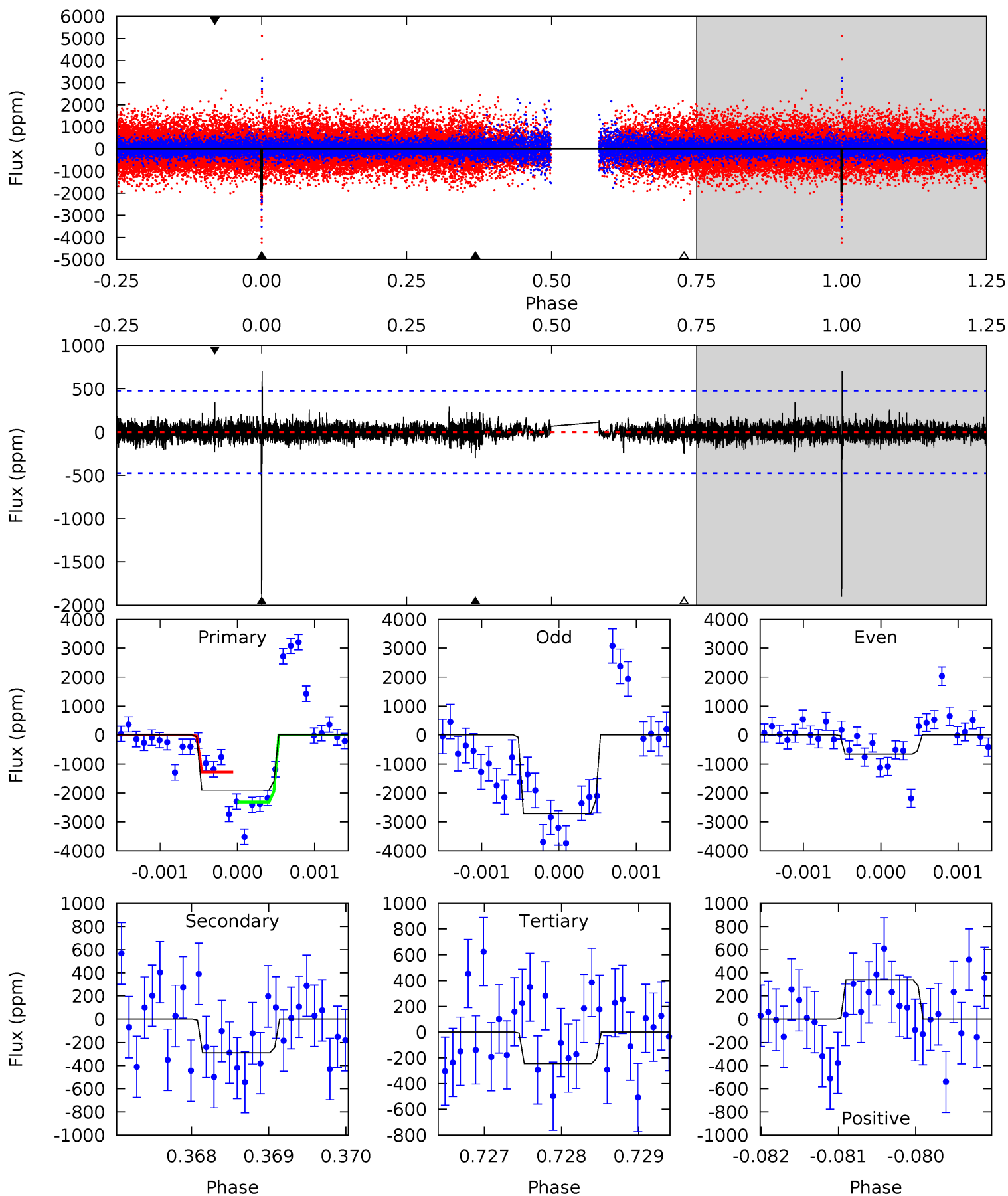
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.9	17.7	11.9	15.7	5.49	3.35	2.92	1.97	-1.84	5.87	2.06	0.34	1.04	0.47	0.06



Alt Model-Shift Uniqueness Test

011442444-02, P = 352.274574 Days, E = 238.624862 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
21.8	3.33	2.81	3.92	5.48	3.33	0.64	19.0	17.9	0.51	-0.59	12.7	0.66	0.27	5.93



Stellar Parameters For KIC 011442444

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5501^{+166}_{-149}	$4.589^{+0.036}_{-0.135}$	$-0.260^{+0.300}_{-0.300}$	$0.774^{+0.164}_{-0.070}$	$0.864^{+0.083}_{-0.100}$	$2.619^{+0.469}_{-1.017}$
	+3%/-3%	+1%/-3%	+115%/-115%	+21%/-9%	+10%/-12%	+18%/-39%
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 011442444-02 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-2864 ± 161	$5.66^{+4.86}_{-3.79}$	317^{+16}_{-13}	5037^{+3959}_{-1041}	$40835^{+335779}_{-28714}$
Alt.	-290 ± 87	$5.29^{+5.05}_{-3.43}$	316^{+17}_{-12}	3410^{+1681}_{-623}	4796^{+36010}_{-3657}

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

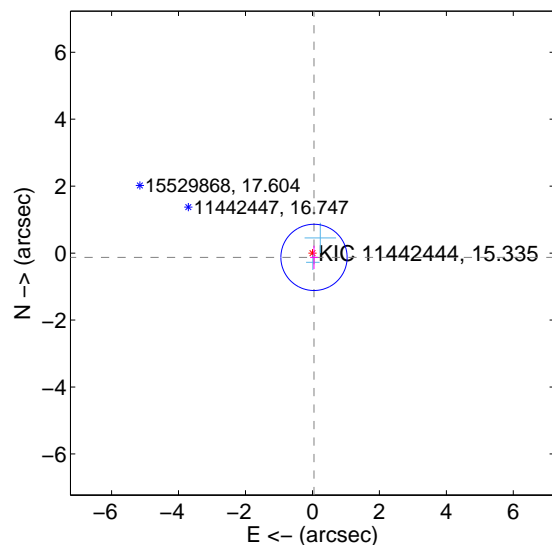
Supplemental centroid analysis for 011442444-02. Kepler magnitude: 15.34. Transit SNR 7.33

There are 2 quarters with good PRF difference image offsets

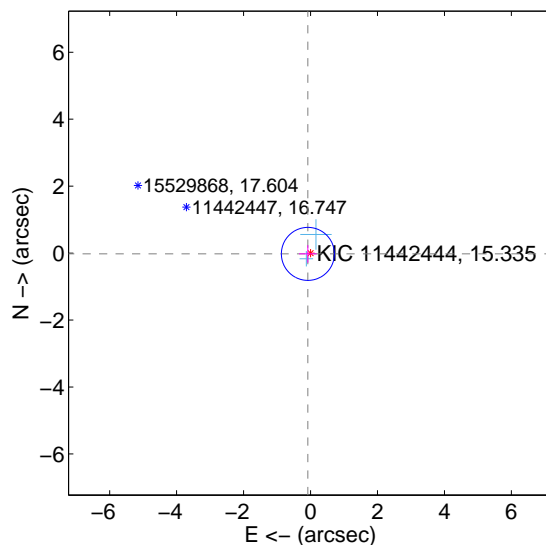
The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.136 ± 0.330	0.41	-0.047 ± 0.116	-0.128 ± 0.348
PRF-fit source offset from KIC position	0.082 ± 0.264	0.31	0.079 ± 0.264	-0.023 ± 0.263
photometric centroid source offset	2.91 ± 1.04	2.80	-2.88 ± 1.04	0.41 ± 0.99

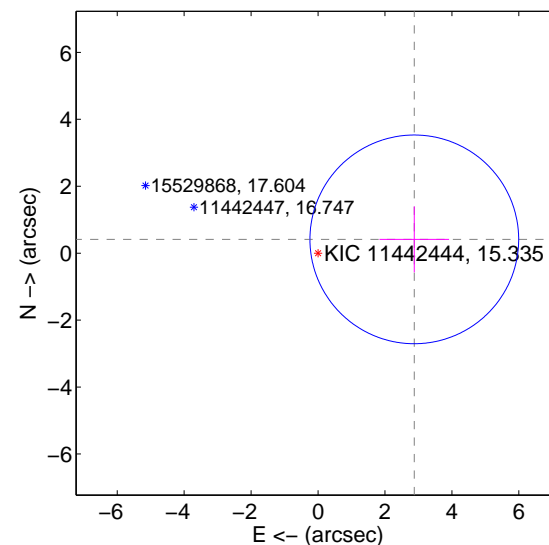
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

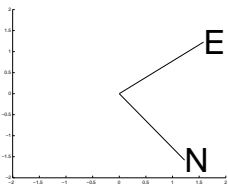
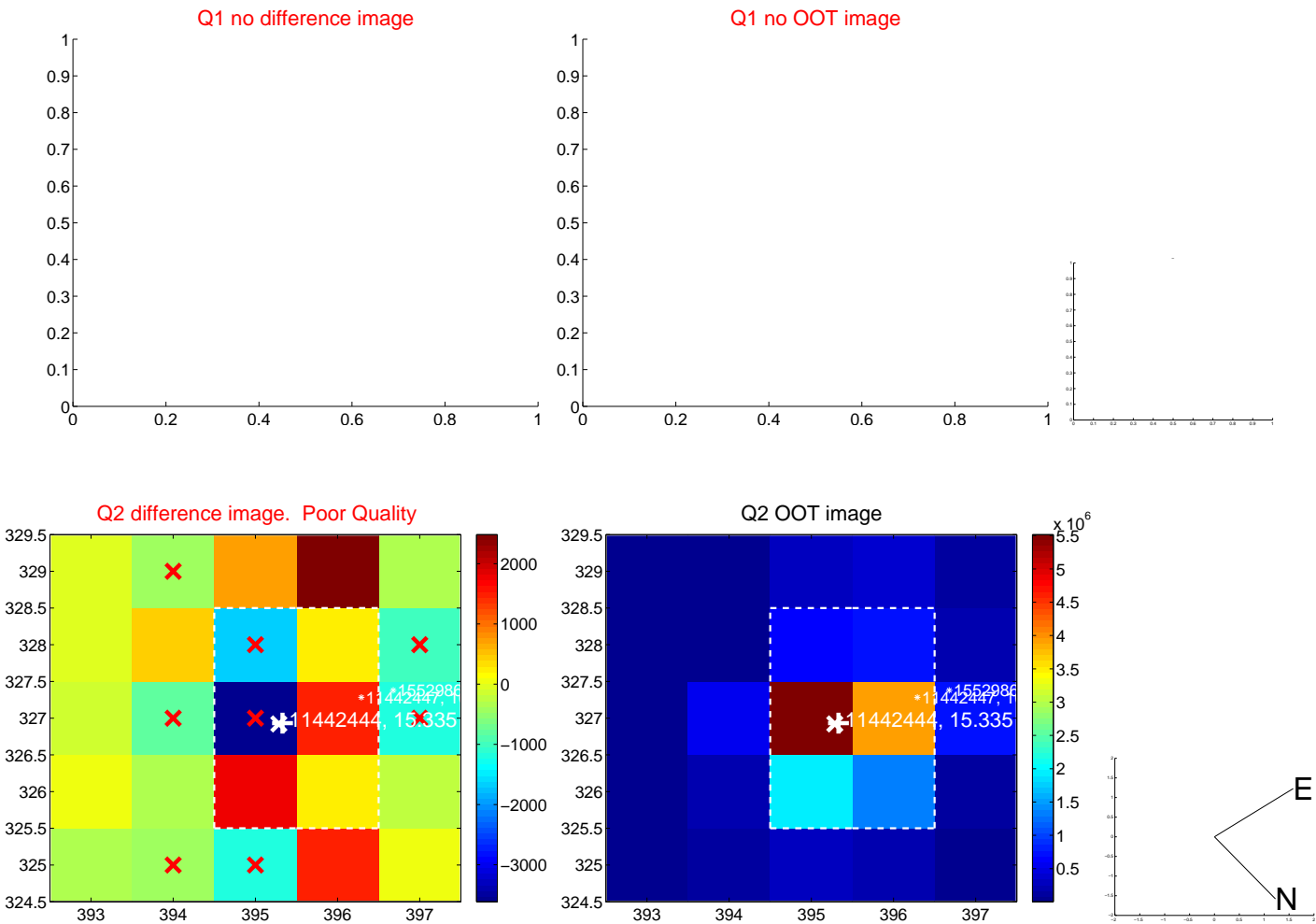


offset from photometric centroids

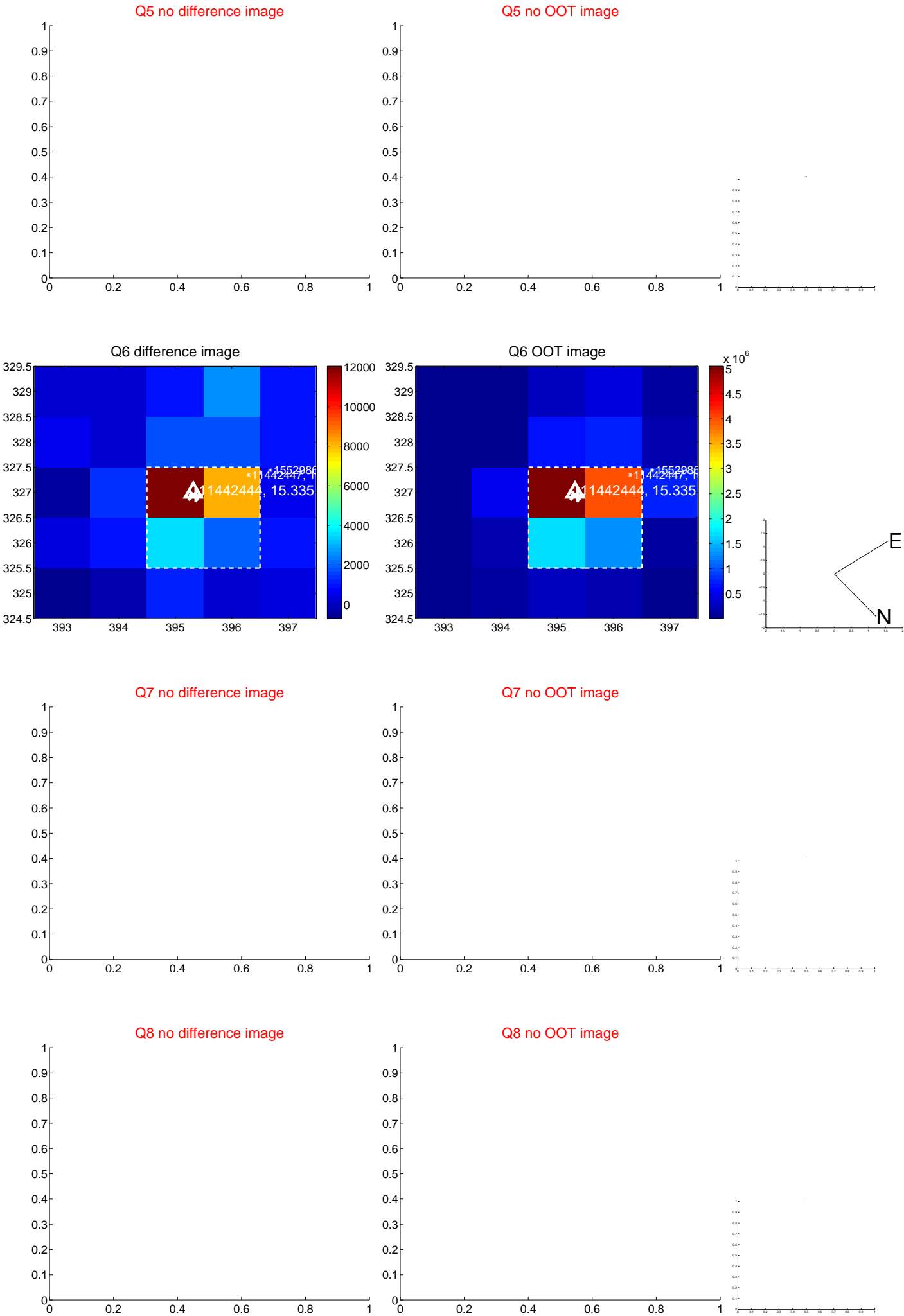


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

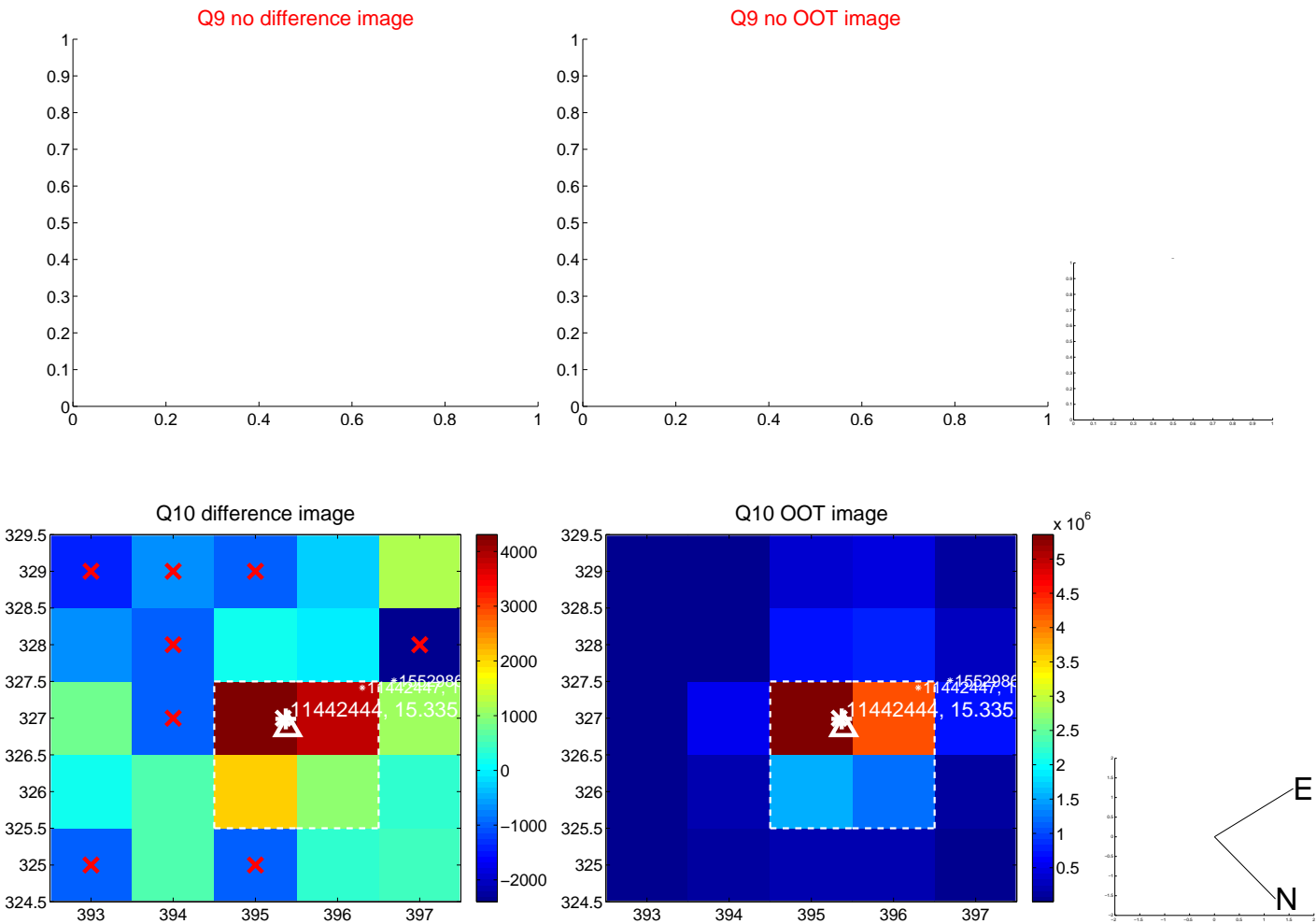
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



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



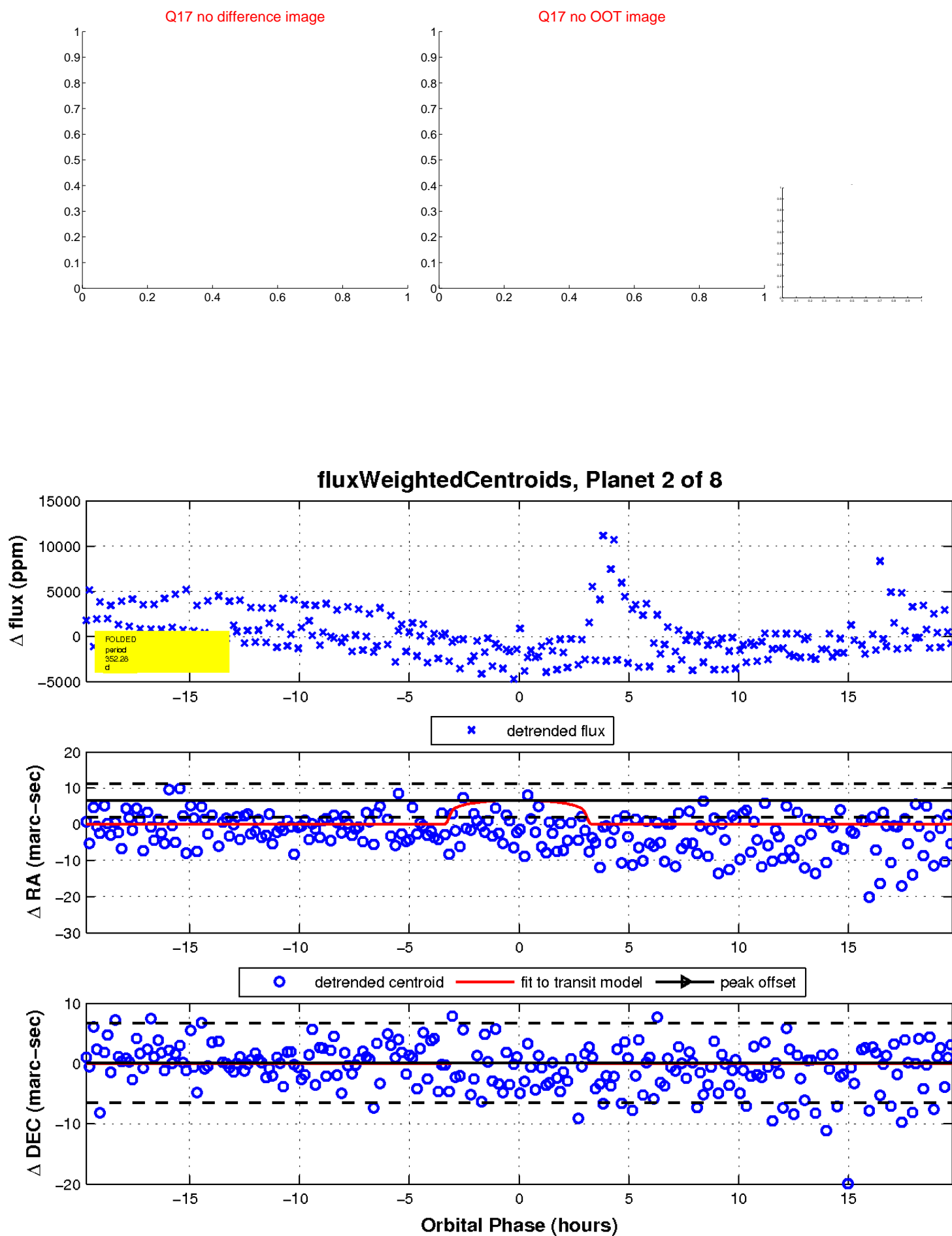
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



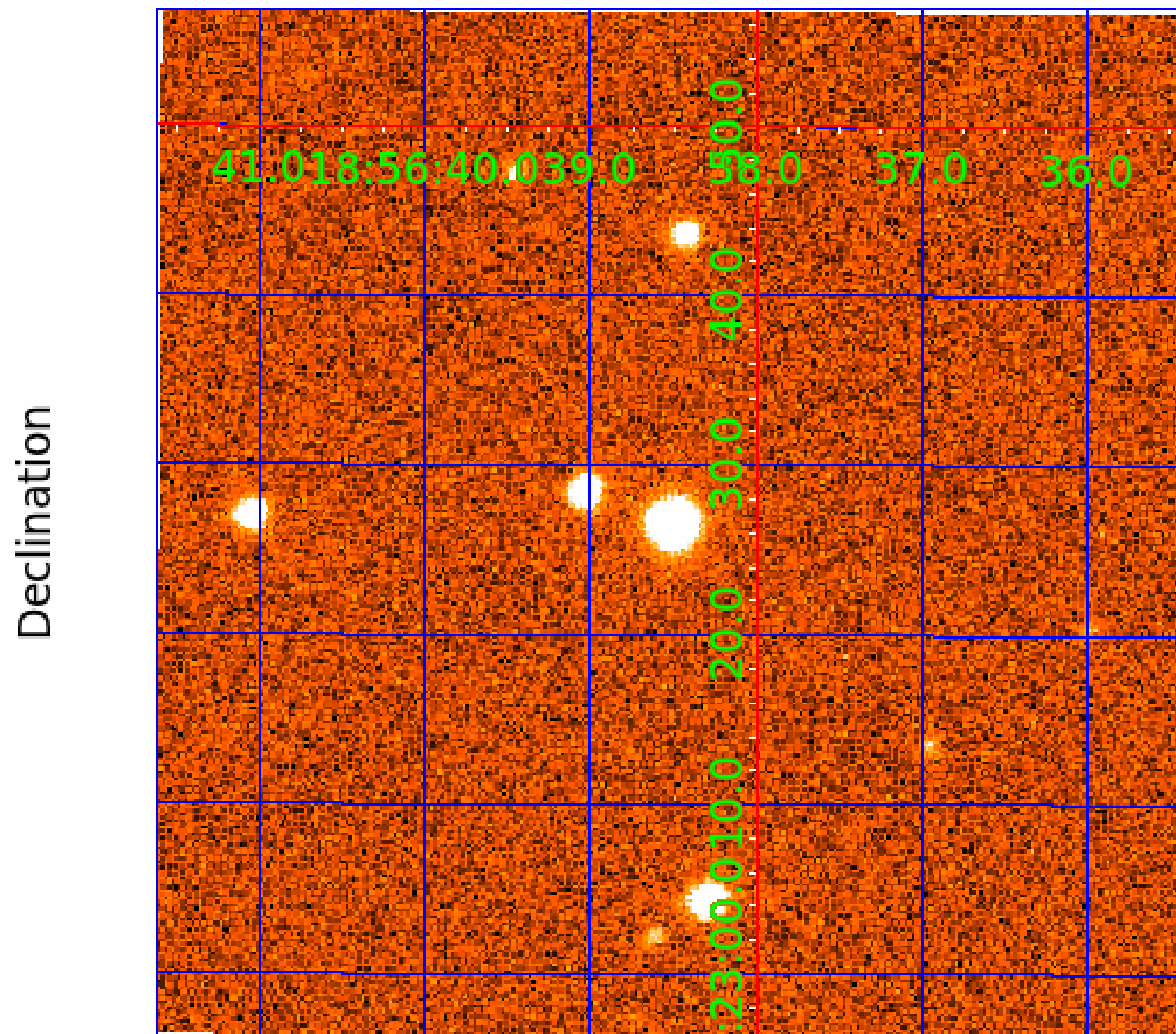
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image



KIC 011442444

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})
011442444-01	OBS	No	618.425753	221.145634	2387.1	5.132	15.2	7.5	0.77	5501	3.93	0.27
011442444-02	OBS	No	352.281436	238.642649	2158.6	6.590	15.1	7.3	0.77	5501	3.59	0.57
011442444-03	OBS	No	651.494671	263.057994	2454.4	4.401	13.2	7.7	0.77	5501	3.79	0.25
011442444-04	OBS	No	376.159227	182.351632	1367.2	3.134	12.2	5.4	0.77	5501	2.96	0.53
011442444-06	OBS	No	562.394418	270.784485	2836.3	7.037	12.7	8.9	0.77	5501	4.06	0.31
011442444-07	OBS	No	398.363012	236.131466	1250.4	3.396	7.6	5.2	0.77	5501	2.92	0.49
011442444-08	OBS	No	395.653194	189.819541	2075.1	3.000	10.5	-1.0	0.77	5501	3.48	0.49

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011442444-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_FEW_DIFFS
011442444-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—LPP_ALT—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
011442444-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV
011442444-04	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS—HALO_GHOST
011442444-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV
011442444-07	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS—HALO_GHOST
011442444-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_NOFITS

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

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

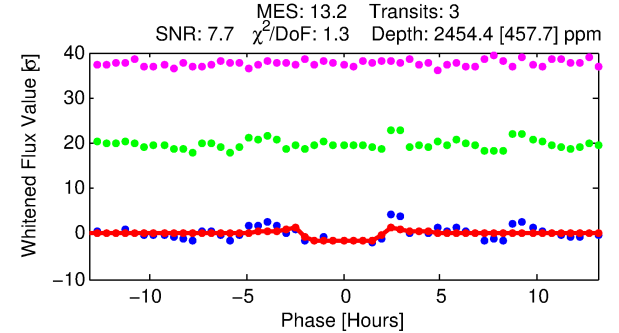
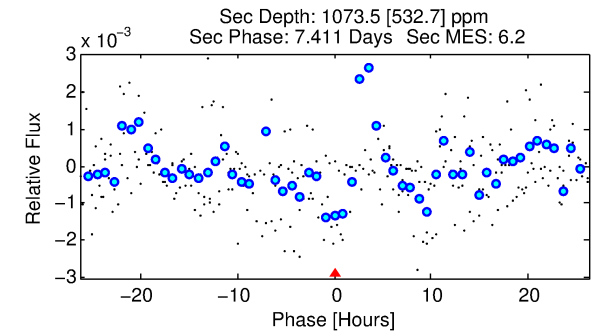
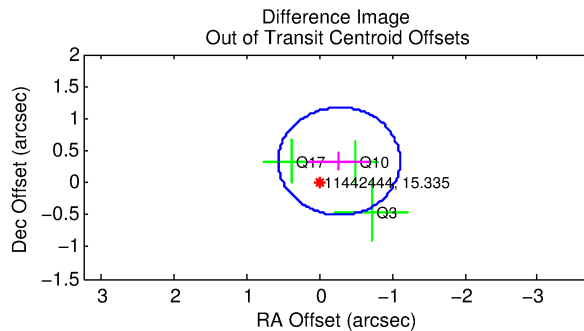
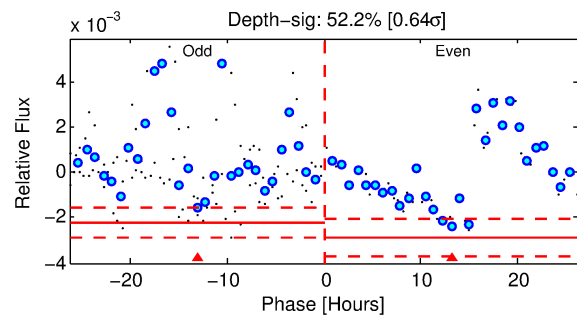
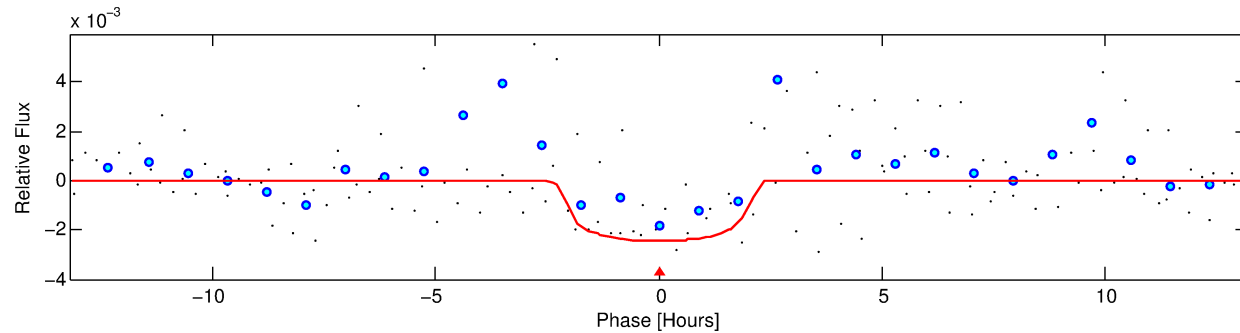
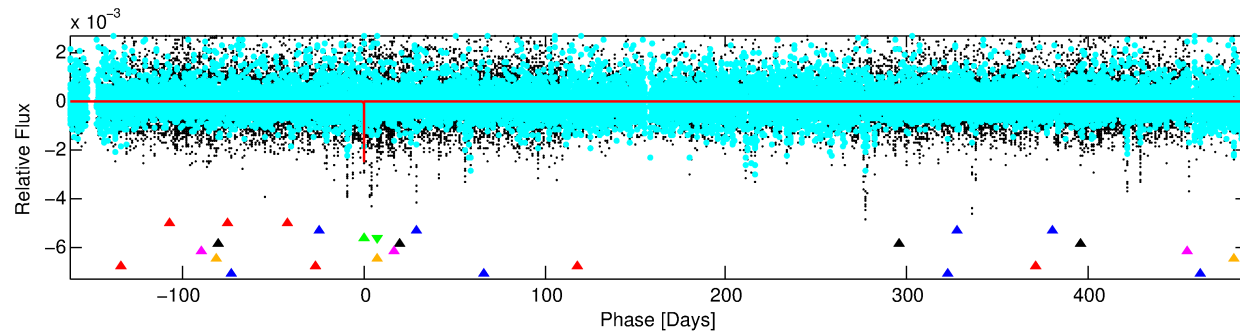
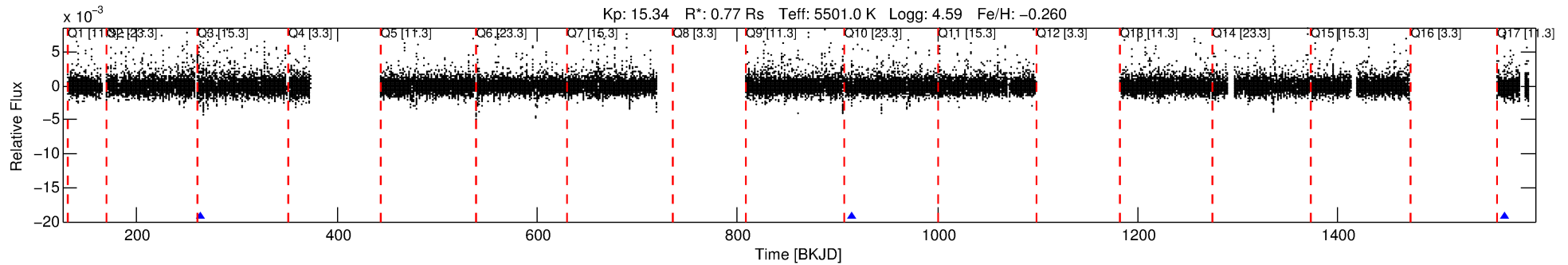
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011442444-03

No Significant Match Found

DV One-Page Summary

KIC: 11442444 Candidate: 3 of 8 Period: 651.495 d



DV Fit Results:

Period = 651.49467 [0.00651] d
Epoch = 263.0580 [0.0091] BKJD
Rp/R* = 0.0448 [0.0455]
a/R* = 1173.67 [4871.59]
b = 0.12 [34.19]
Seff = 0.25 [0.07]
Teq = 181 [13] K
Rp = 3.79 [3.93] Re
a = 1.3925 [0.2439] AU
Ag = 79868.92 [168210.05] [0.47 σ]
Teffp = 4703 [2463] K [1.84 σ]

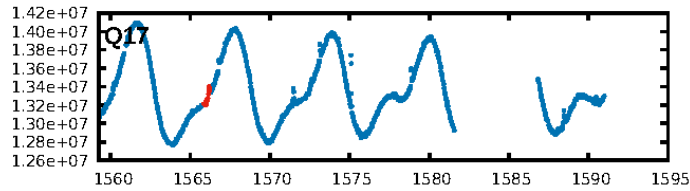
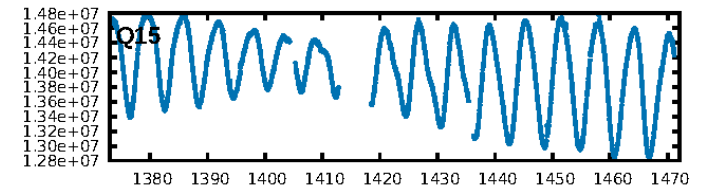
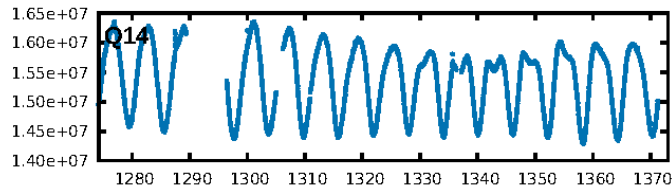
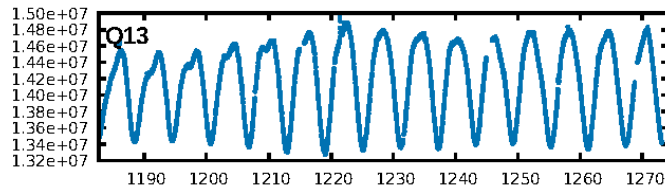
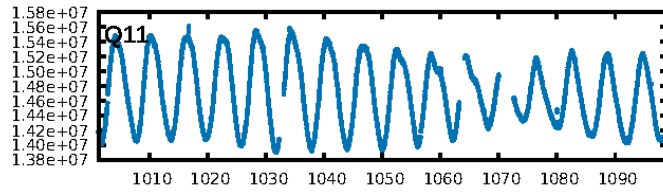
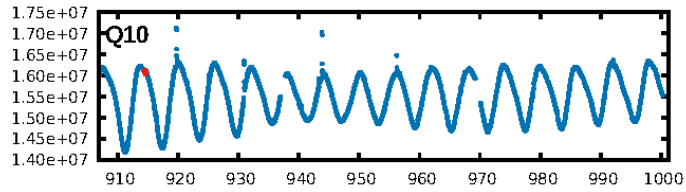
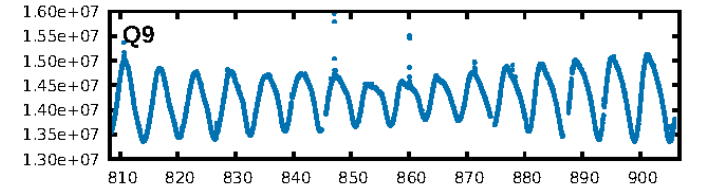
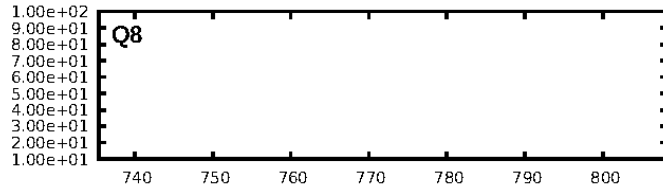
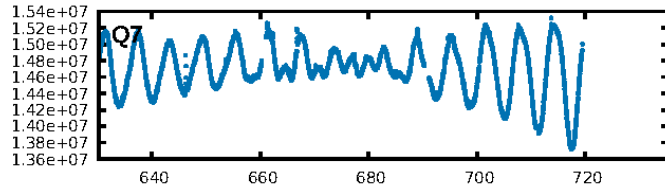
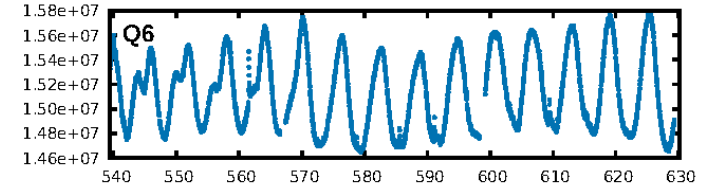
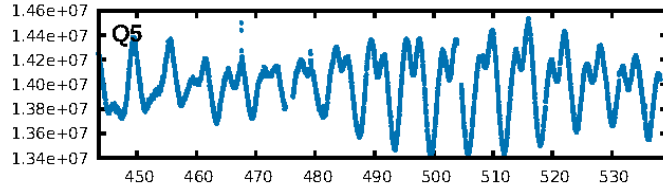
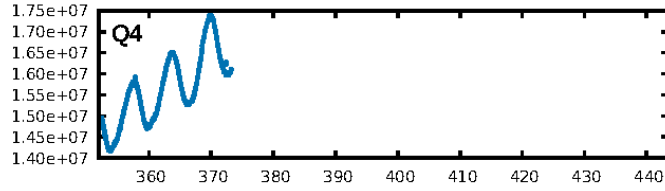
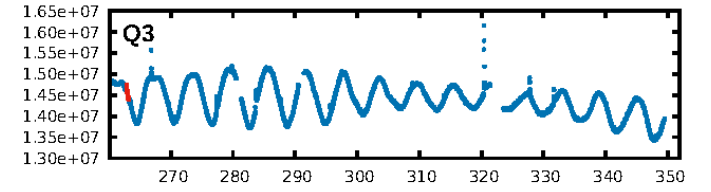
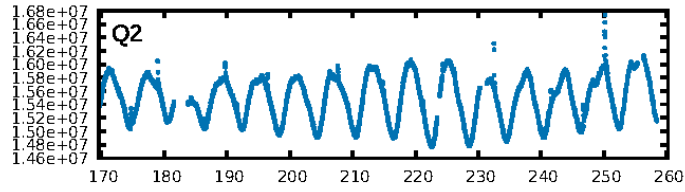
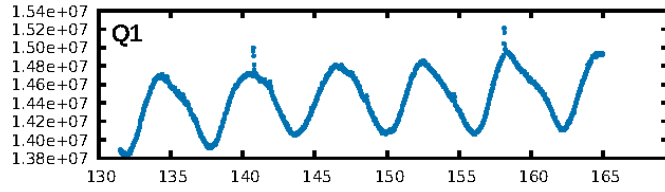
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [117.39 σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 98.4%
ModelChiSquareGof-sig: 90.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [2/2]
GhostDiagnostic-chr: 3.255
Centroid-sig: 11.1%
Centroid-so: 0.881 arcsec [0.86 σ]
OotOffset-rm: 0.430 arcsec [1.54 σ]
OotOffset-st: 1/1/0/1 [3]
KicOffset-rm: 0.458 arcsec [2.00 σ]
KicOffset-st: 1/1/0/1 [3]
DiffImageQuality-fgm: 1.00 [3/3]
DiffImageOverlap-fno: 1.00 [3/3]

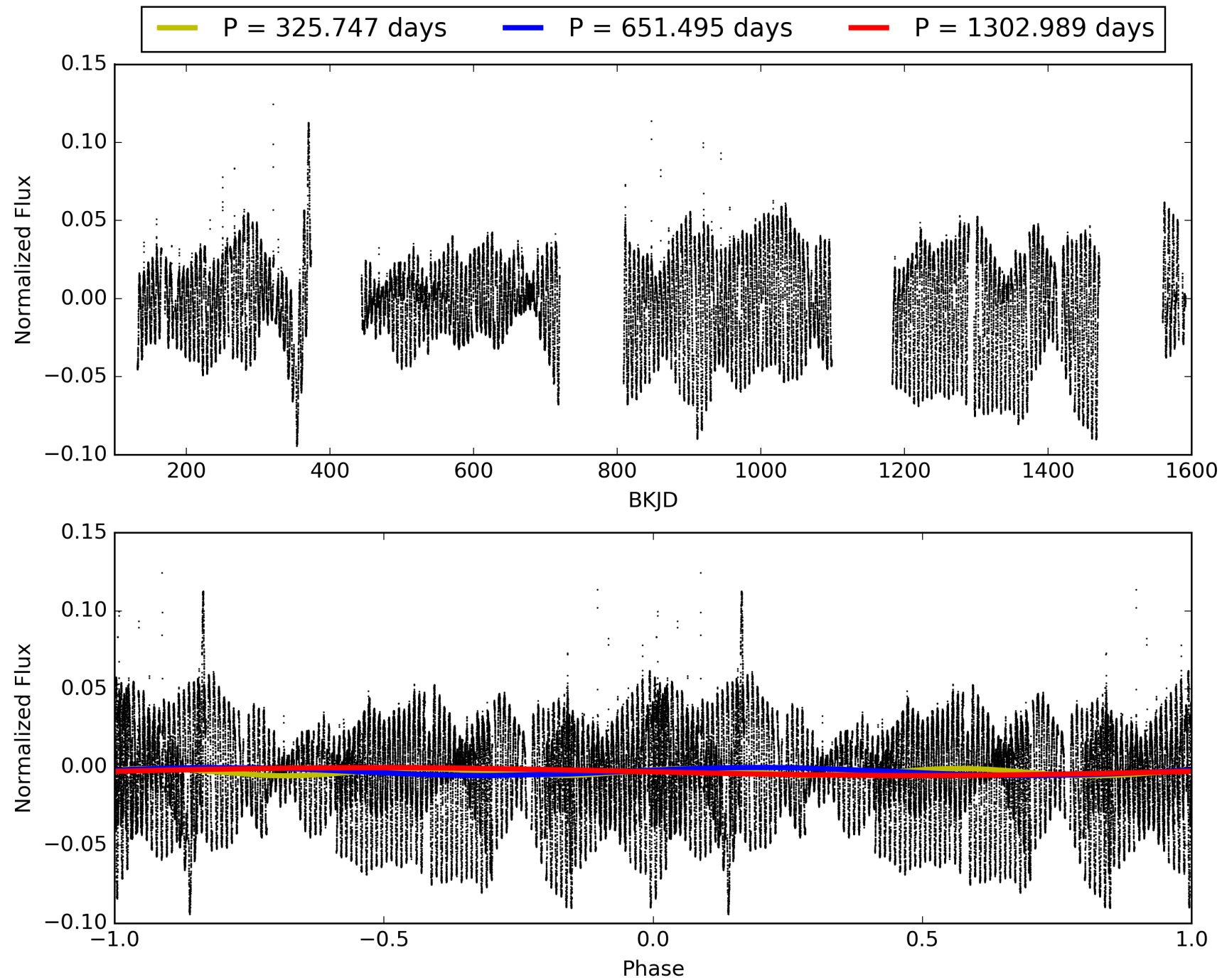
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 05:34:35 Z

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

TCE 011442444-03, PDC Light Curves

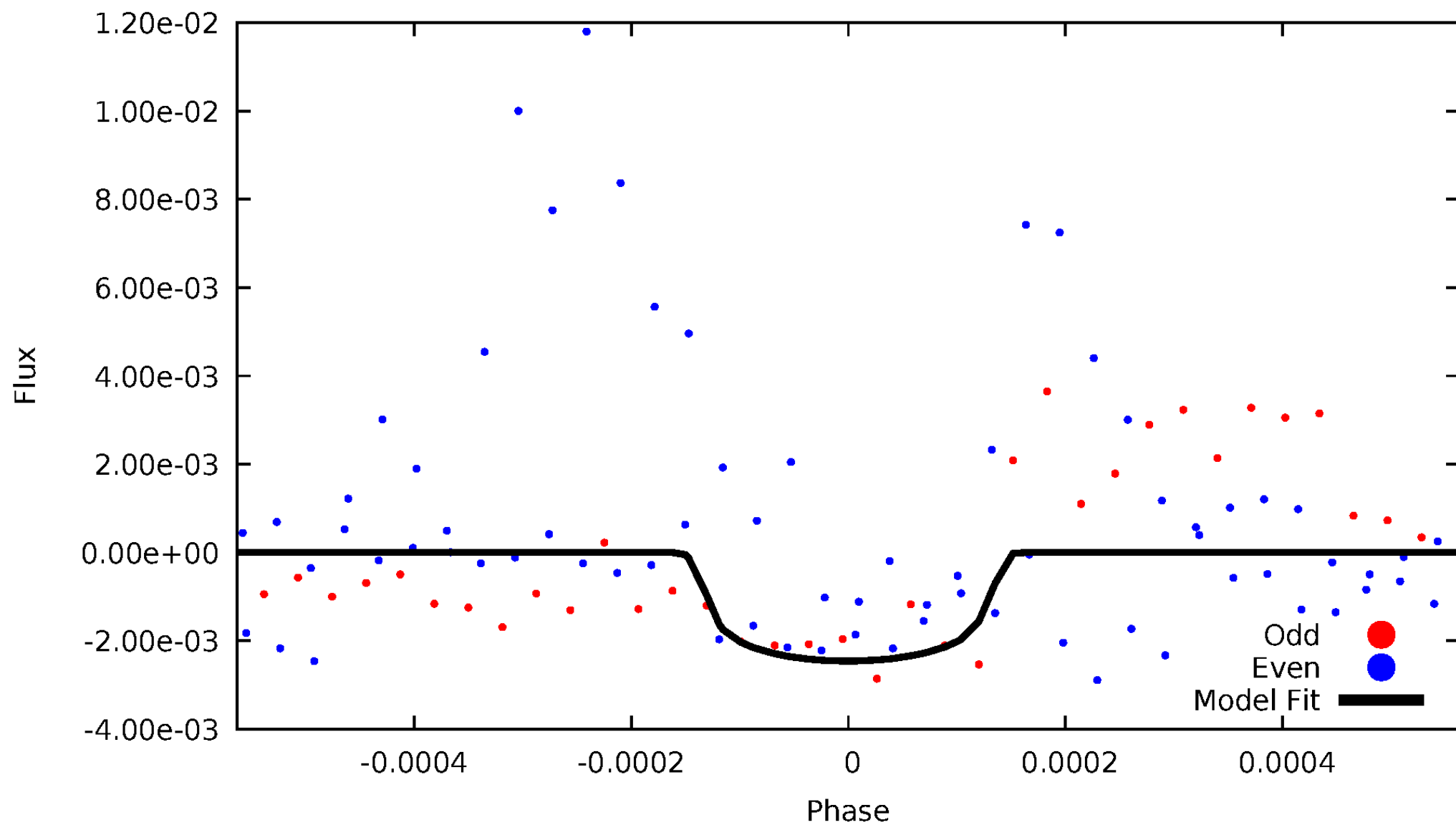


TCE 011442444-03



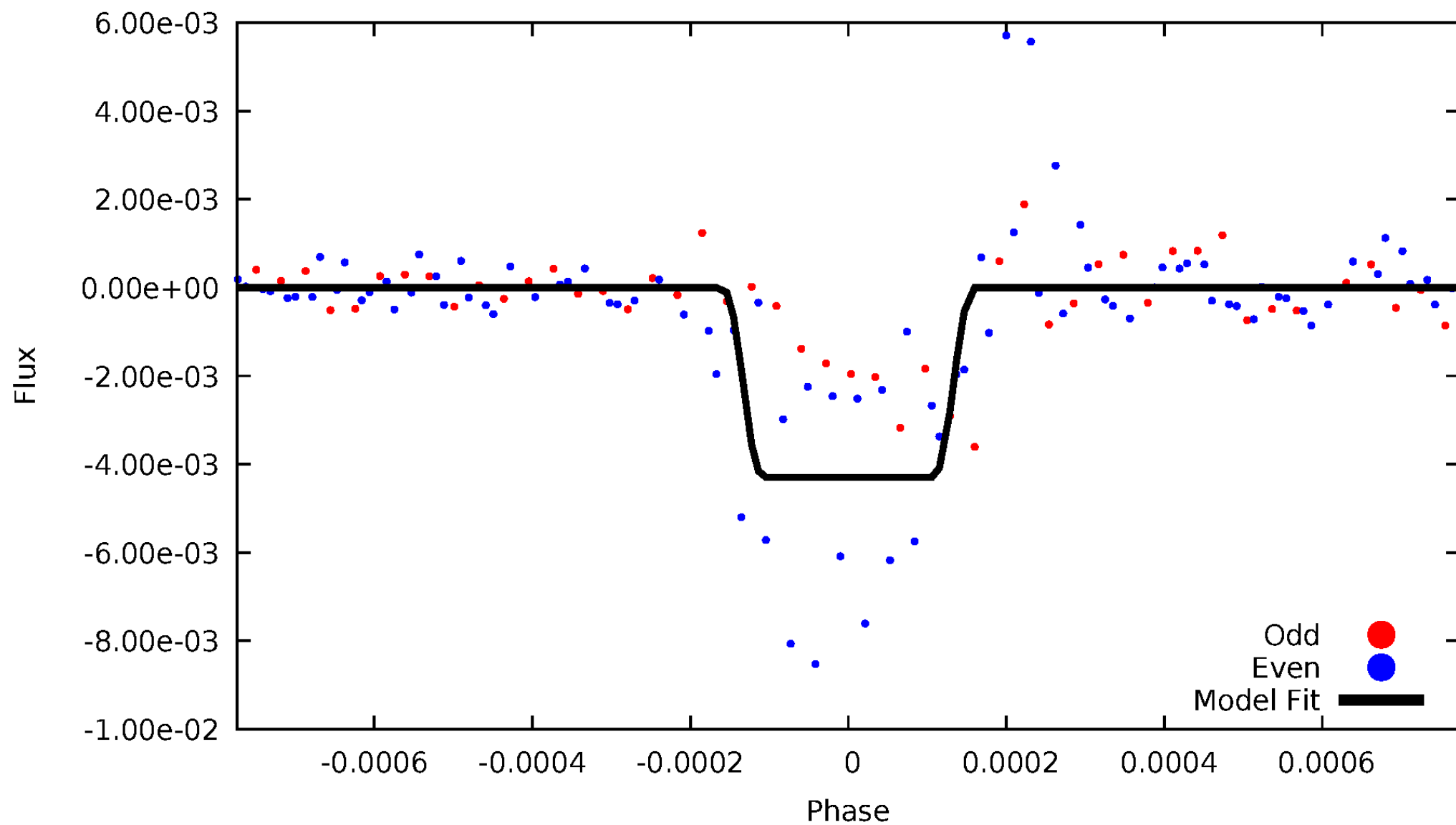
DV Odd/Even

TCE 011442444-03



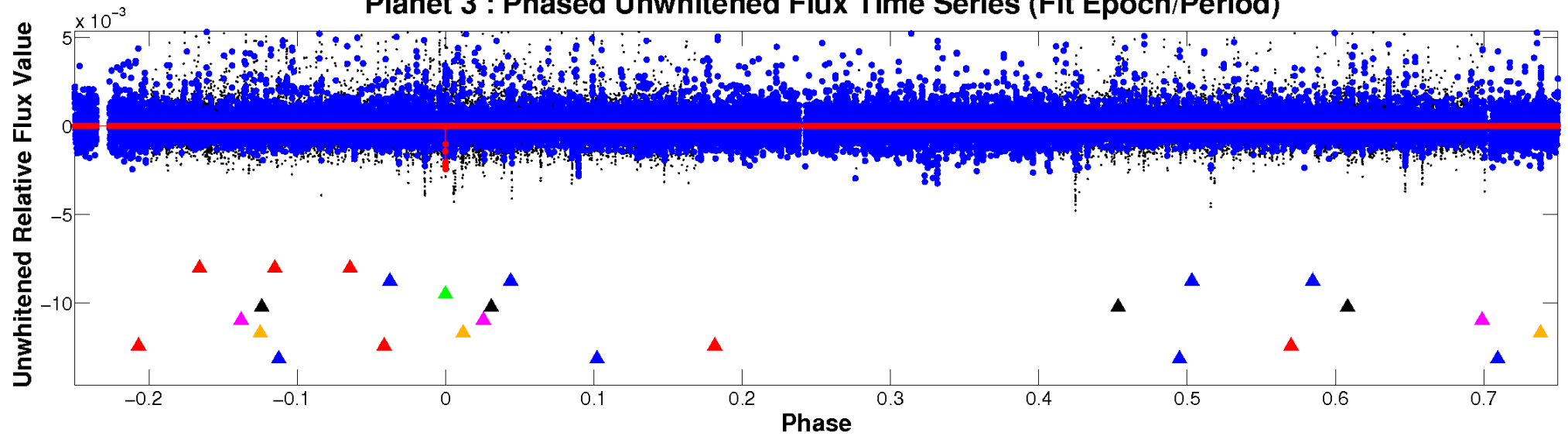
ALT Odd/Even

TCE 011442444-03

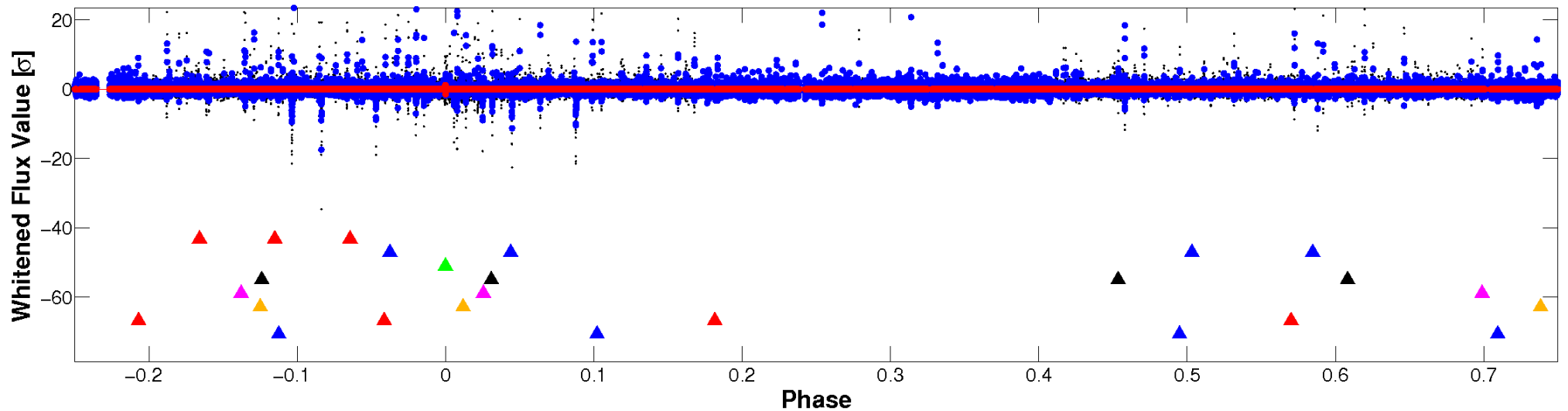


Non-Whitened Vs. Whitened Light Curve

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

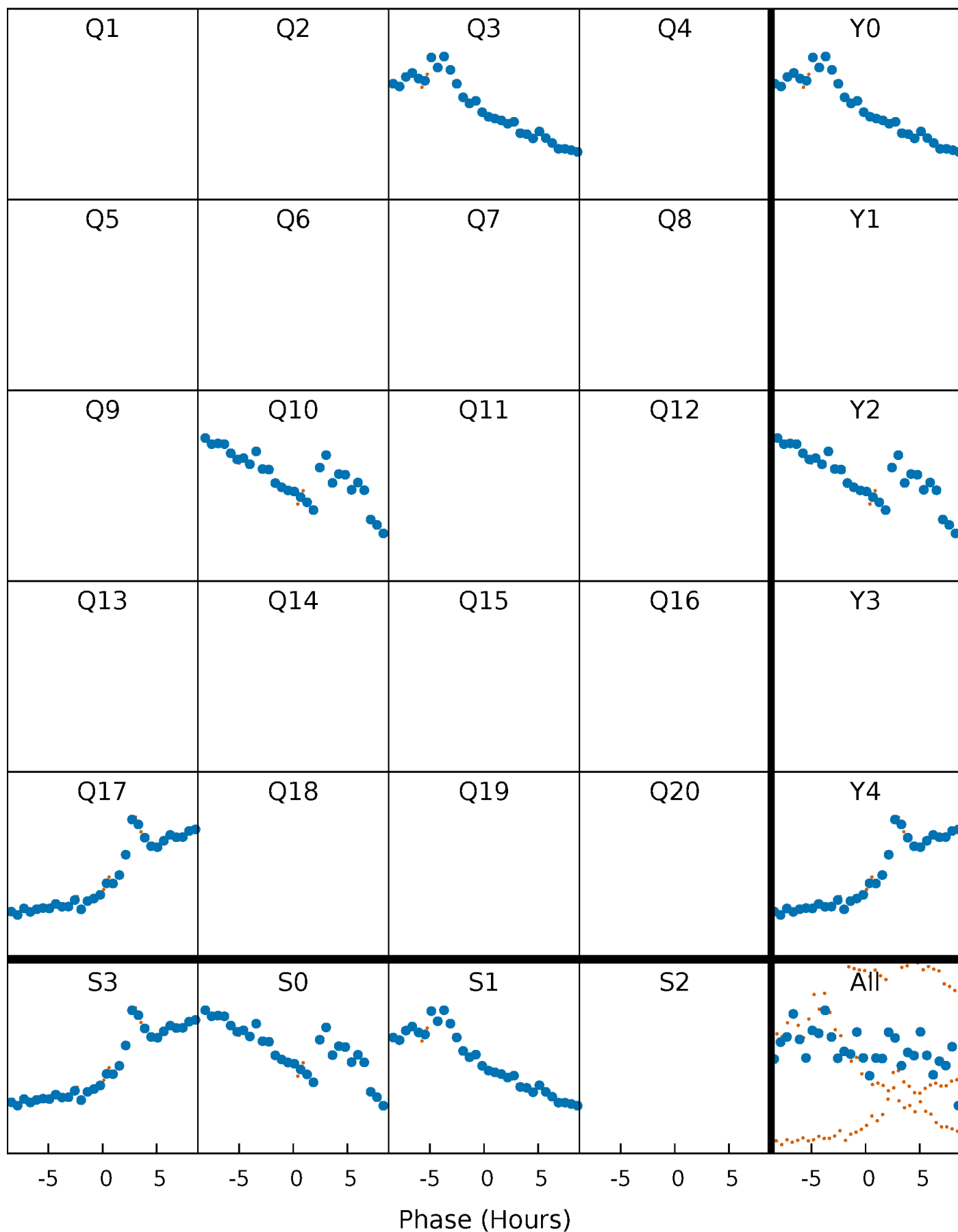


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



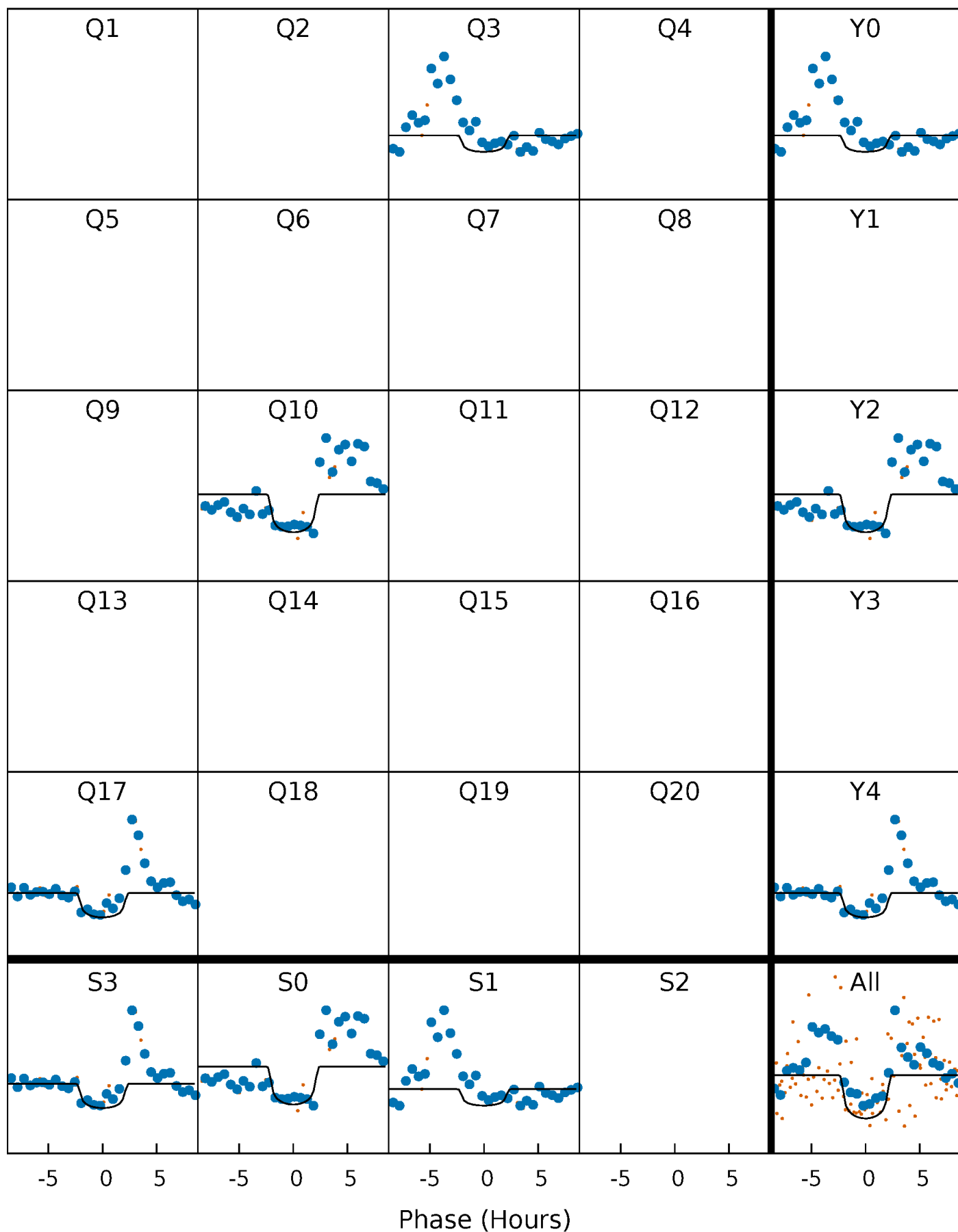
PDC Quarter-Phased Transit Curves

TCE 011442444-03 P=651.494671 Days $T_0=263.057994$ (BKJD)



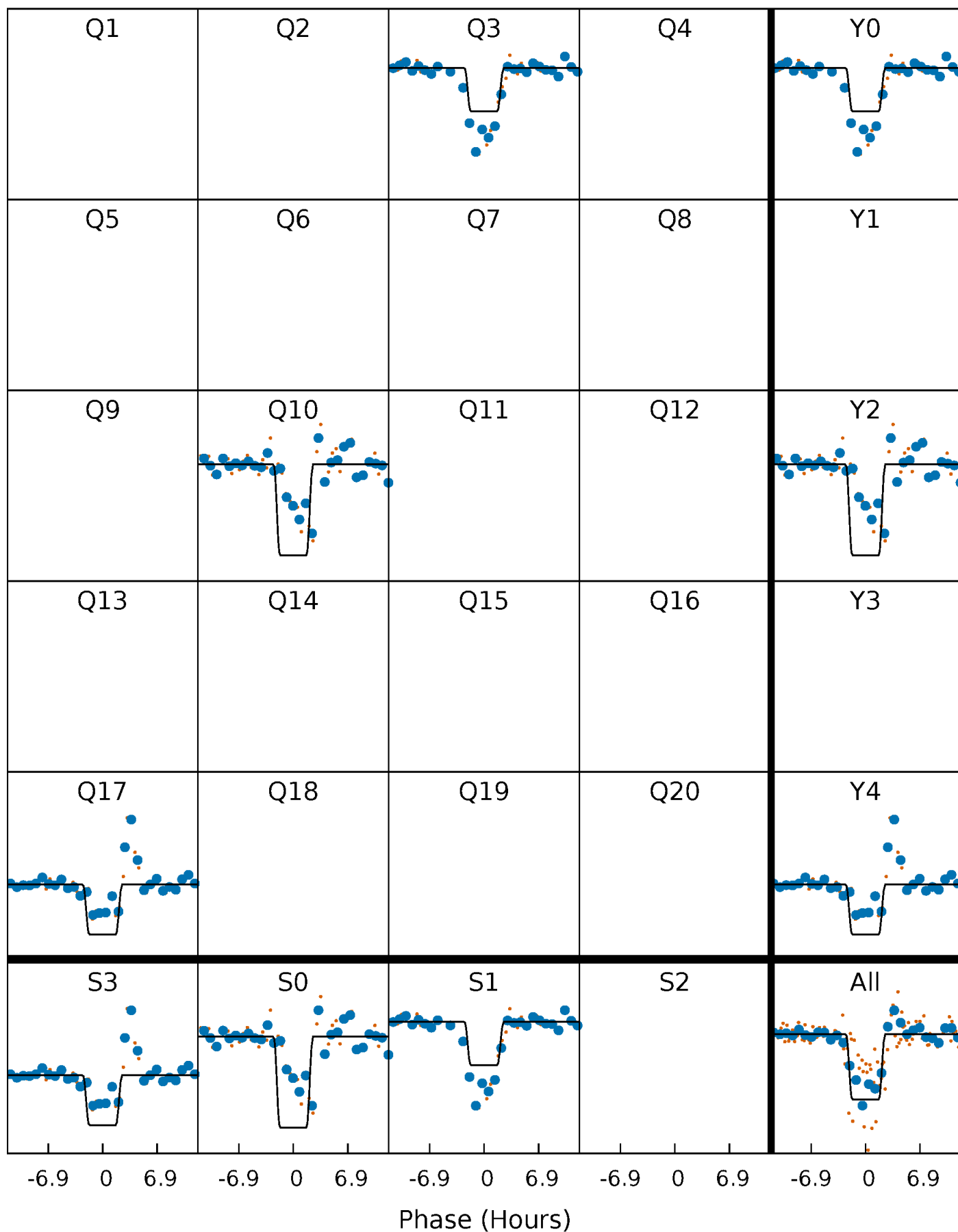
DV Quarter-Phased Transit Curves

TCE 011442444-03 P=651.494671 Days $T_0=263.057994$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

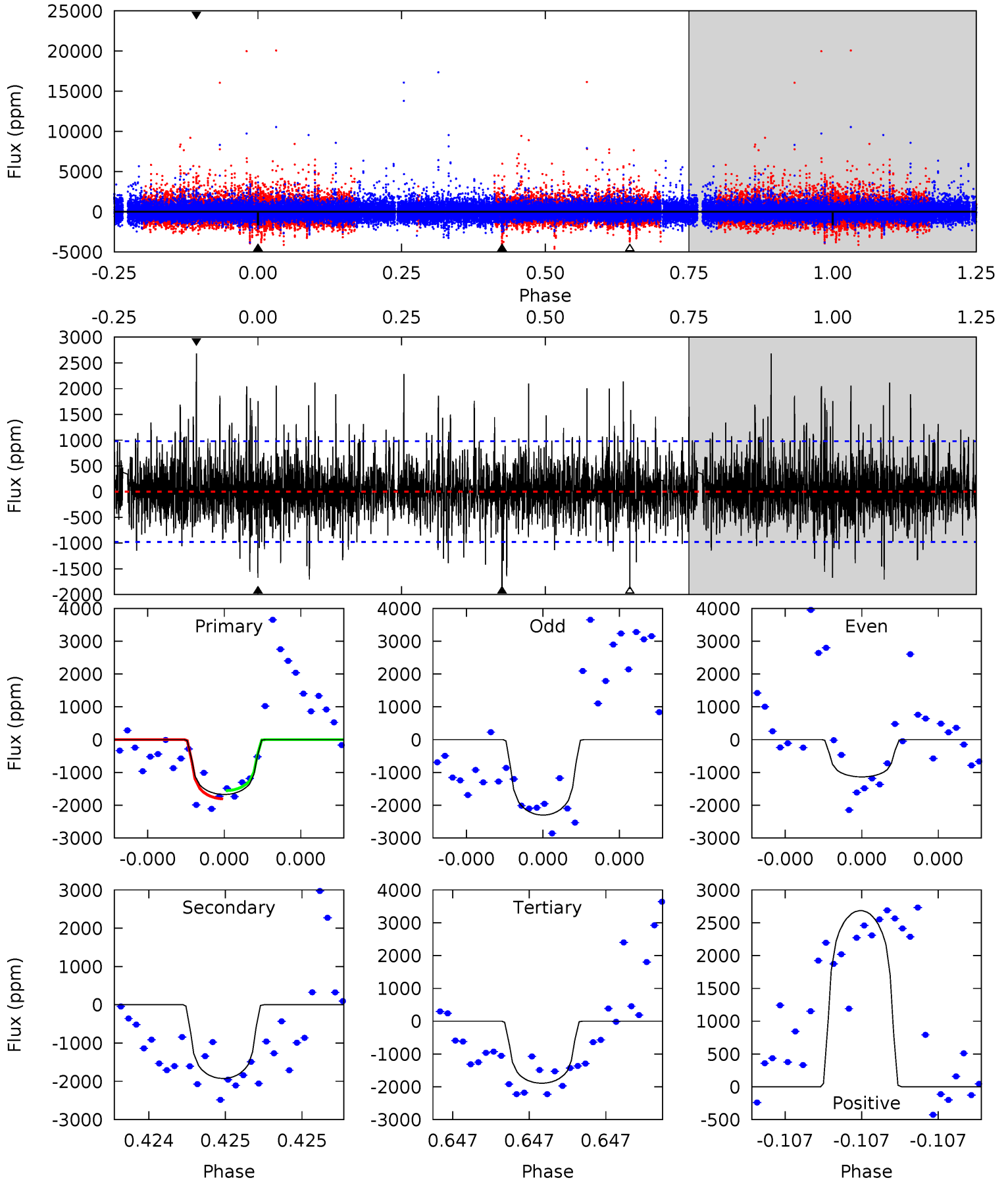
TCE 011442444-03 P=651.496816 Days $T_0=263.030087$ (BKJD)



DV Model-Shift Uniqueness Test

011442444-03, P = 651.494671 Days, E = 263.057994 Days

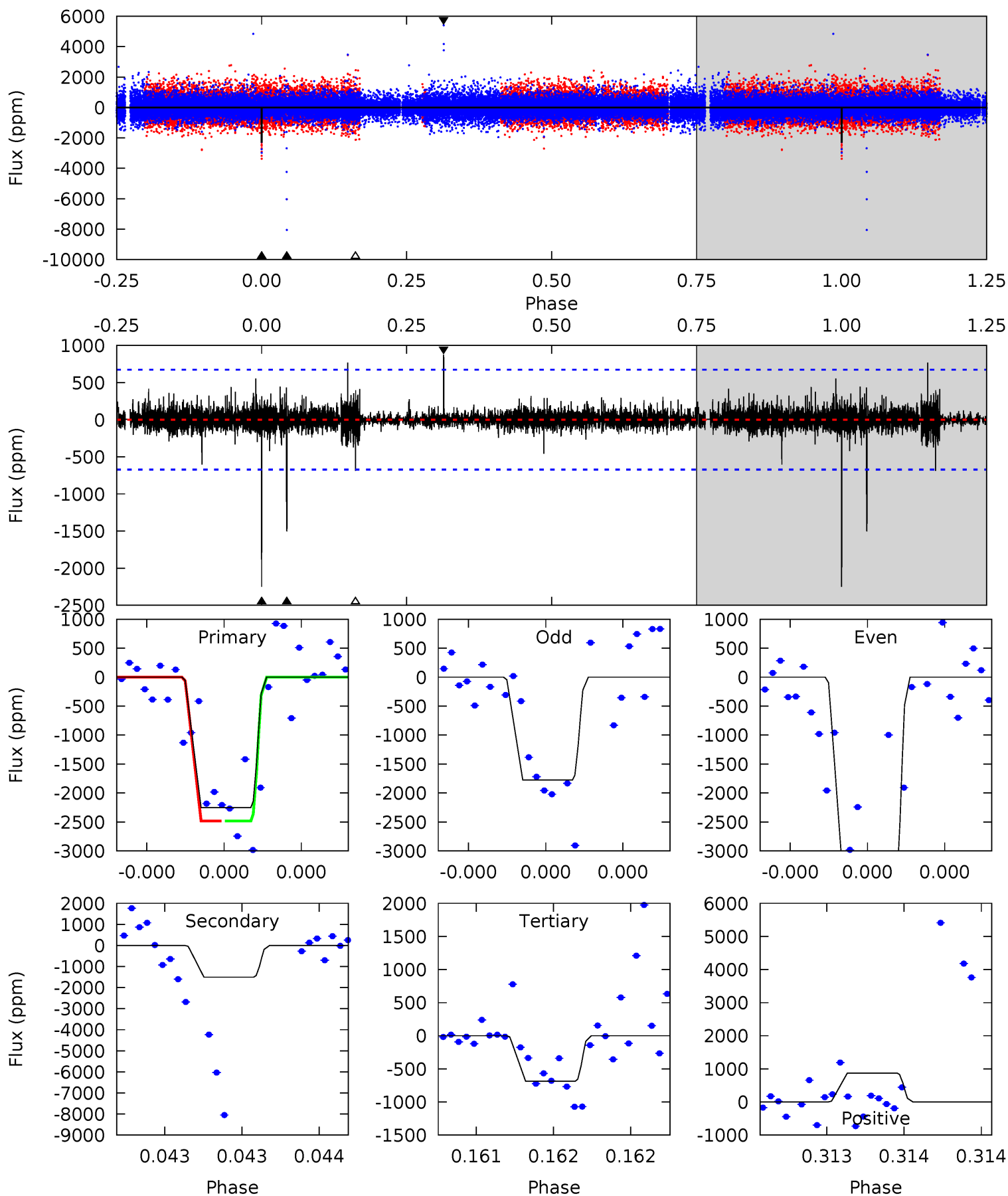
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.67	11.1	10.9	15.5	5.66	3.61	2.28	-1.26	-5.84	0.20	-4.39	2.02	0.92	0.58	0.71



Alt Model-Shift Uniqueness Test

011442444-03, P = 651.496816 Days, E = 263.030087 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
18.9	12.6	5.78	7.33	5.66	3.61	0.66	13.2	11.6	6.87	5.31	9.18	1.64	0.28	0.00



Stellar Parameters For KIC 011442444

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5501^{+166}_{-149}	$4.589^{+0.036}_{-0.135}$	$-0.260^{+0.300}_{-0.300}$	$0.774^{+0.164}_{-0.070}$	$0.864^{+0.083}_{-0.100}$	$2.619^{+0.469}_{-1.017}$
	+3%/-3%	+1%/-3%	+115%/-115%	+21%/-9%	+10%/-12%	+18%/-39%
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 011442444-03 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-1925 ± 173	$4.69^{+3.76}_{-3.04}$	258^{+14}_{-11}	5093^{+3652}_{-1076}	$91951^{+674007}_{-63381}$
Alt.	-1504 ± 119	$6.26^{+4.04}_{-3.53}$	258^{+13}_{-10}	4287^{+1813}_{-685}	$40857^{+165642}_{-25662}$

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 $A_{obs} \gg 1.0$

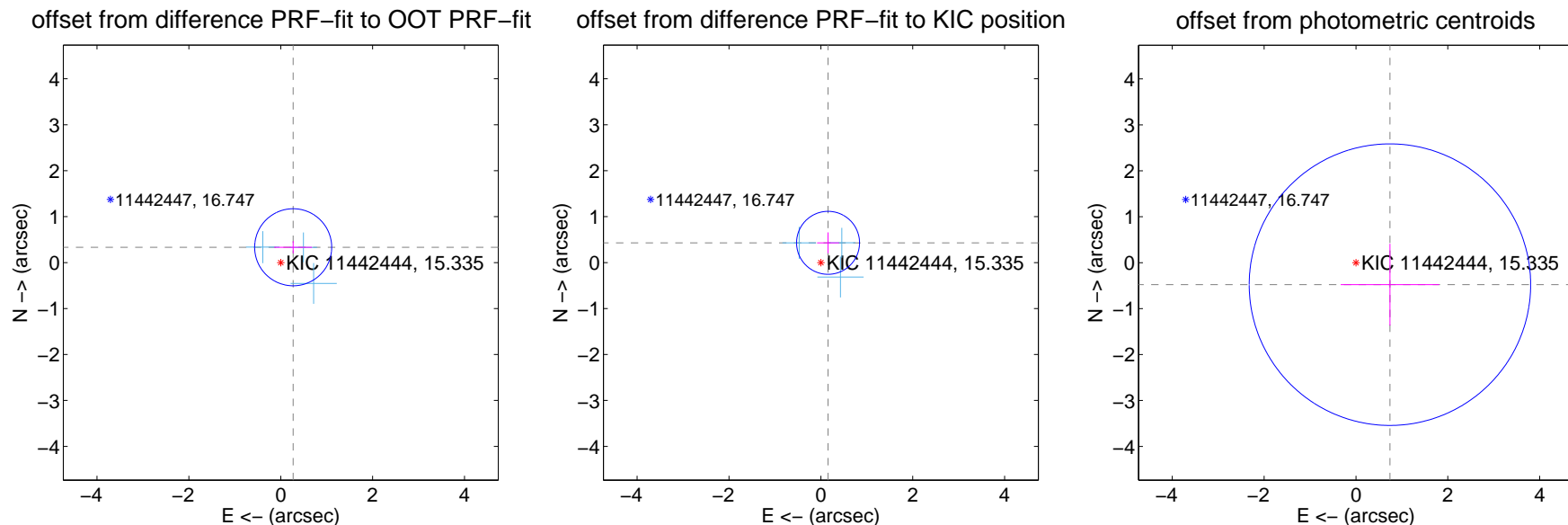
DV Centroid Data

Supplemental centroid analysis for 011442444-03. Kepler magnitude: 15.34. Transit SNR 7.72

There are 3 quarters with good PRF difference image offsets

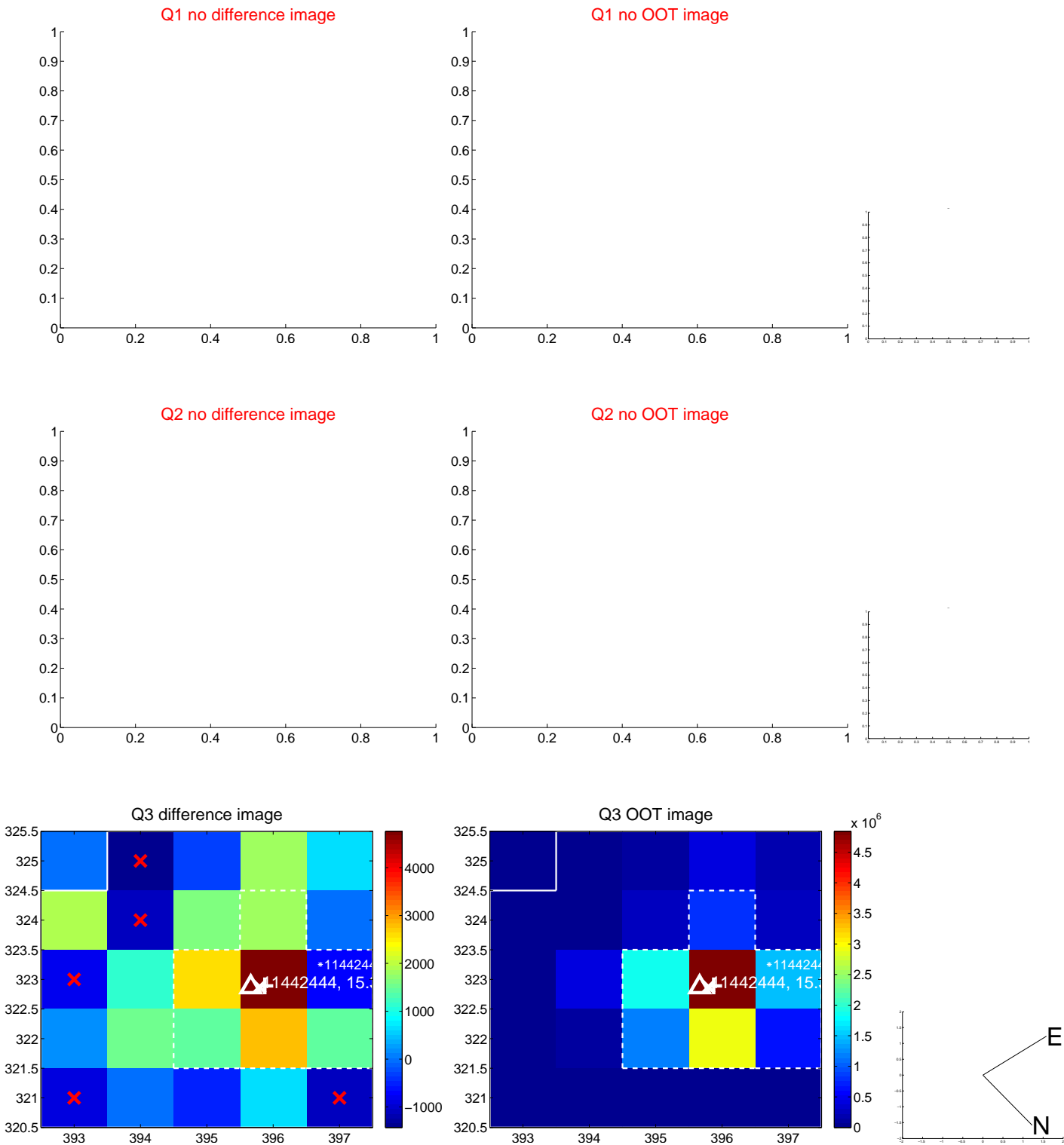
The direct PRF centroid is offset from the target star catalog position by about 0.12 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.430 ± 0.280	1.54	-0.271 ± 0.412	0.334 ± 0.134
PRF-fit source offset from KIC position	0.458 ± 0.228	2.00	-0.157 ± 0.239	0.430 ± 0.227
photometric centroid source offset	0.88 ± 1.02	0.86	-0.74 ± 1.07	-0.48 ± 0.89



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

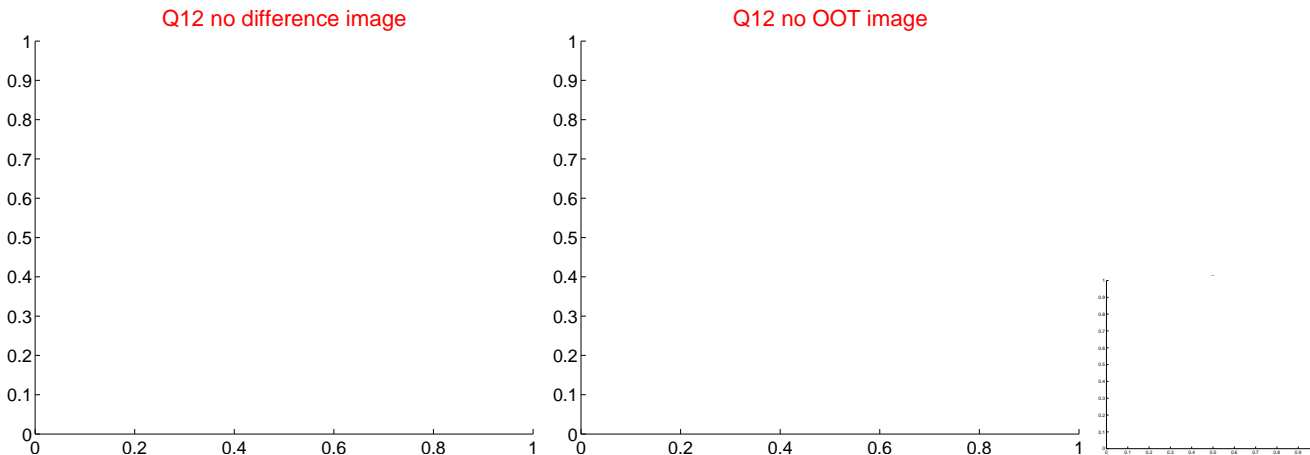
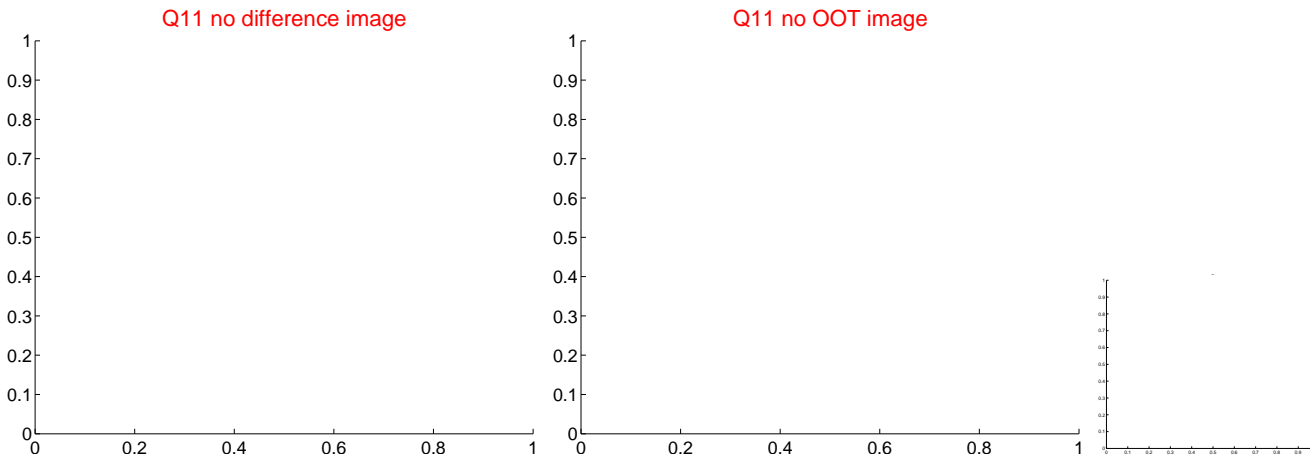
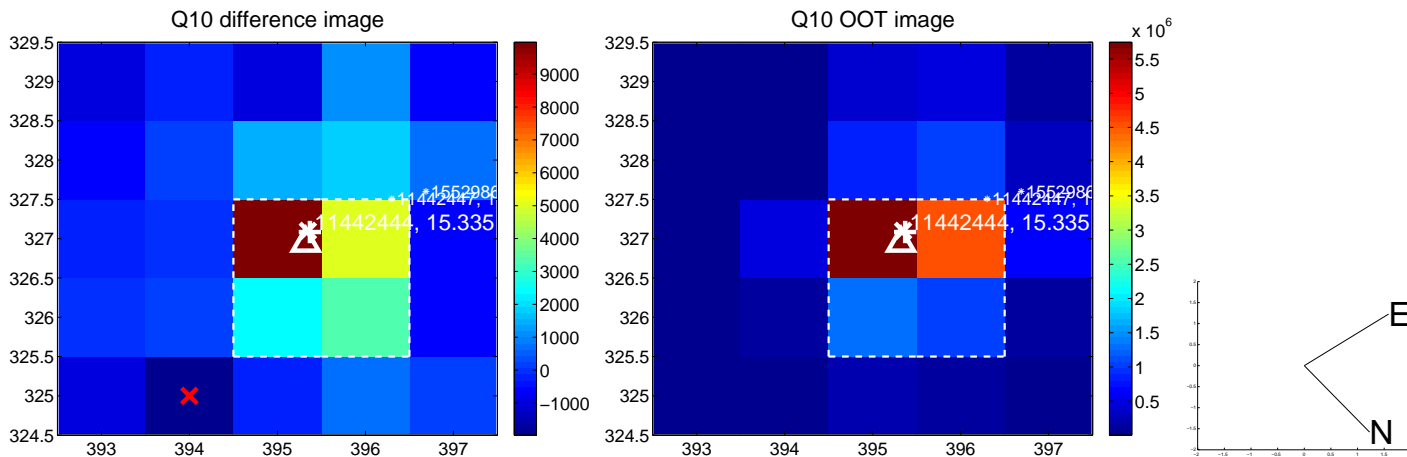
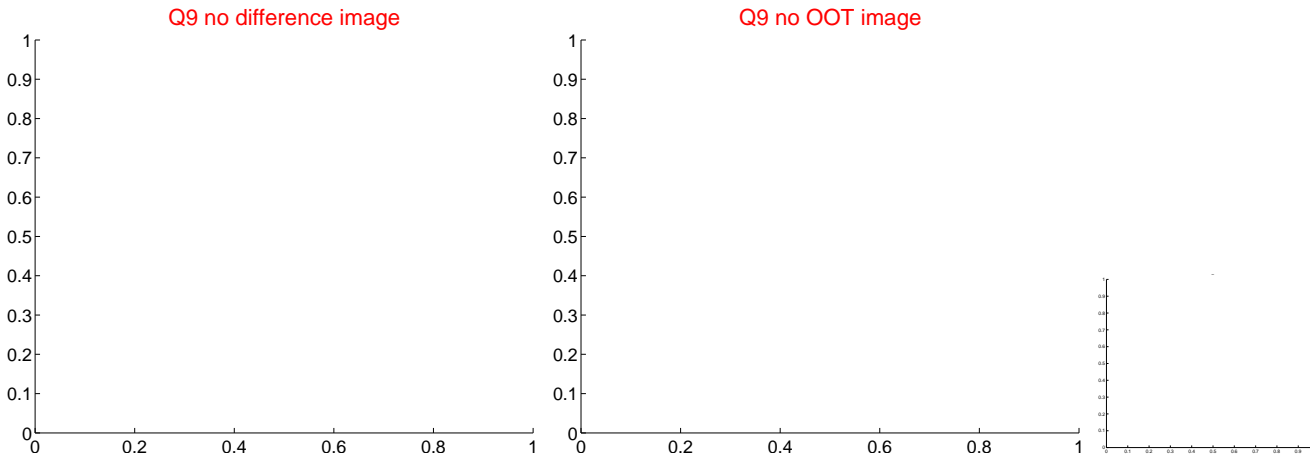
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



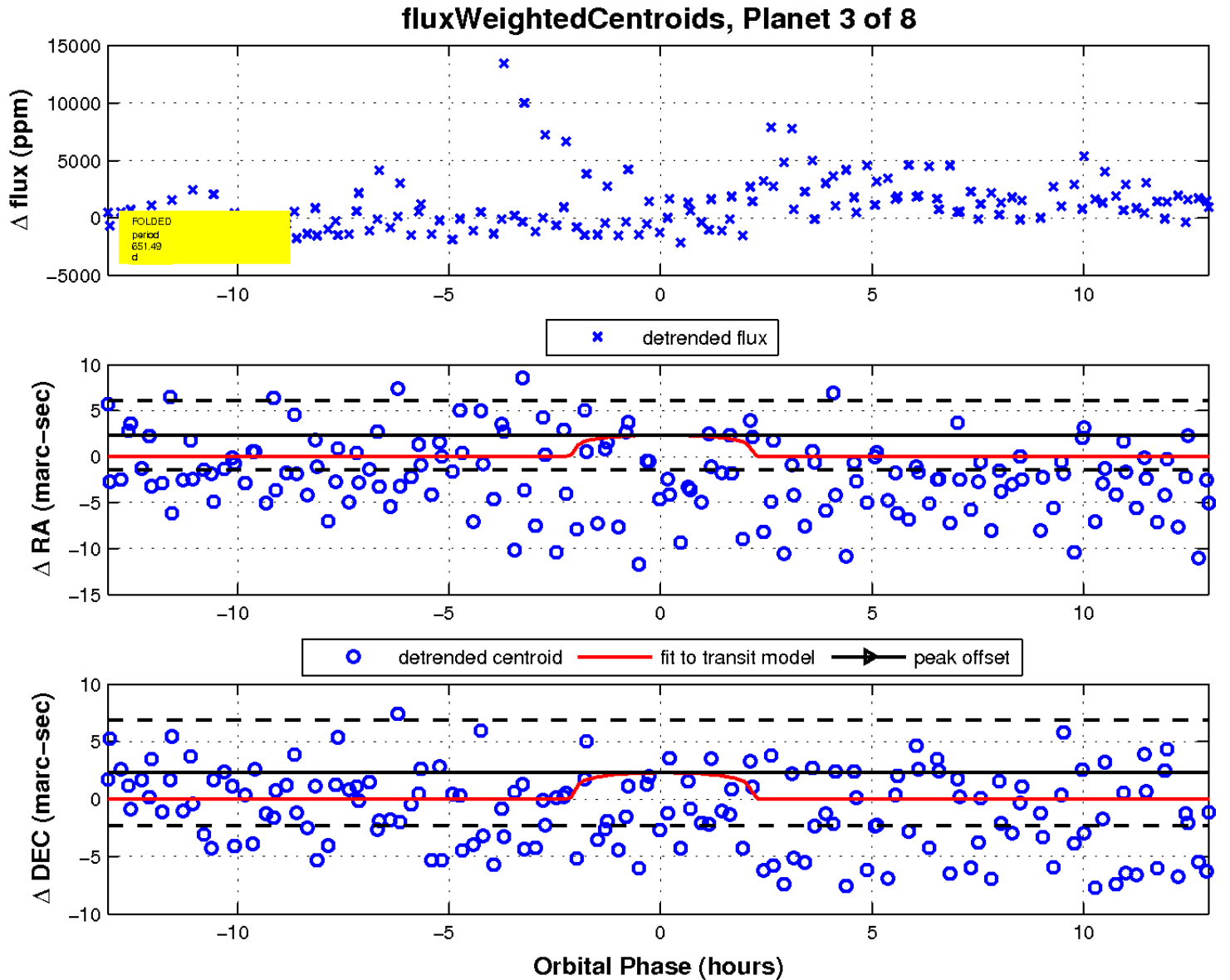
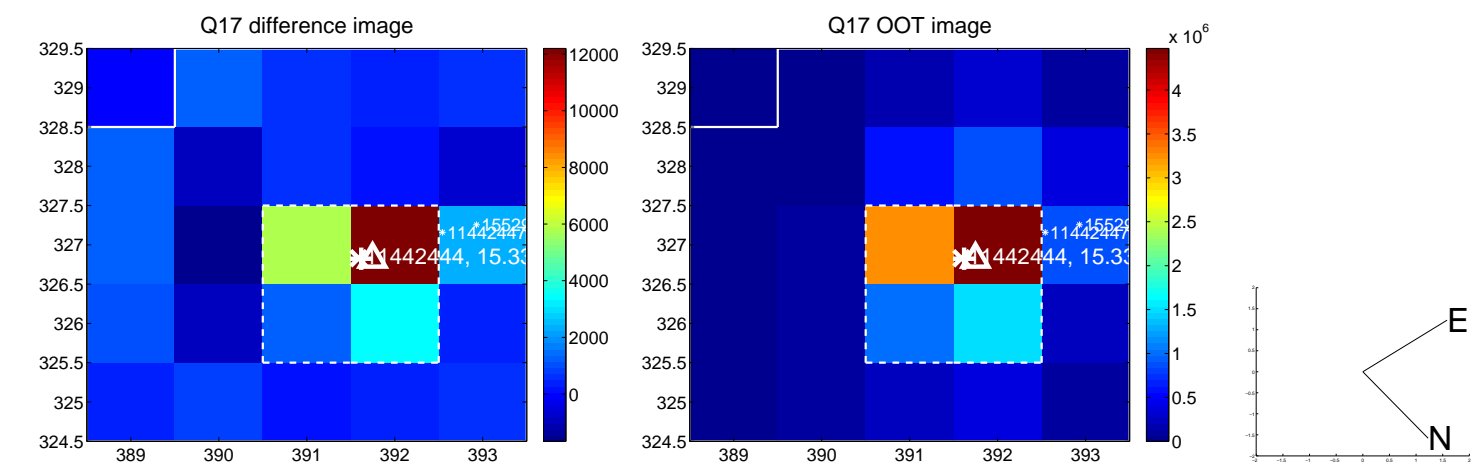
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



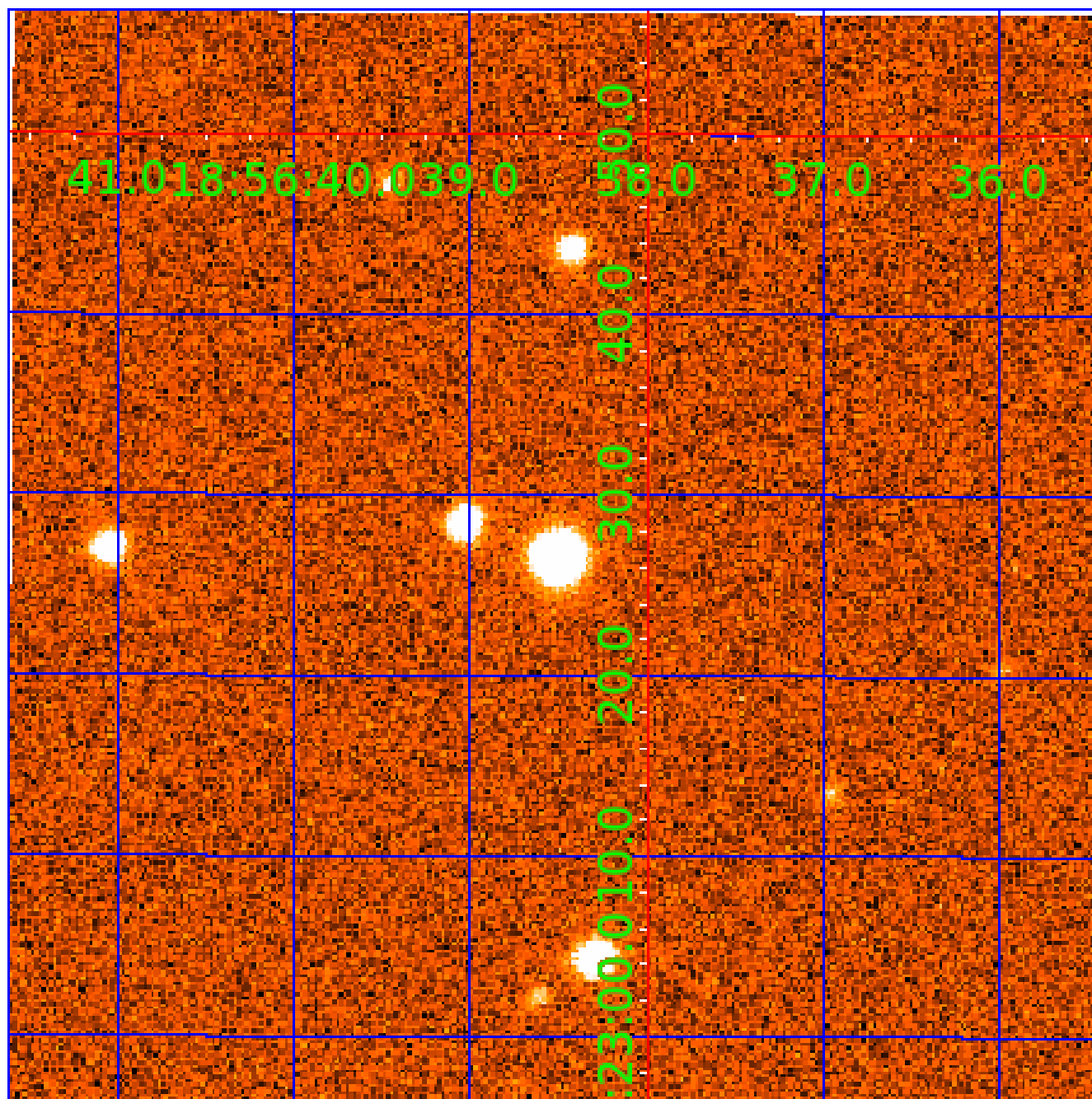
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image



KIC 011442444

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})
011442444-01	OBS	No	618.425753	221.145634	2387.1	5.132	15.2	7.5	0.77	5501	3.93	0.27
011442444-02	OBS	No	352.281436	238.642649	2158.6	6.590	15.1	7.3	0.77	5501	3.59	0.57
011442444-03	OBS	No	651.494671	263.057994	2454.4	4.401	13.2	7.7	0.77	5501	3.79	0.25
011442444-04	OBS	No	376.159227	182.351632	1367.2	3.134	12.2	5.4	0.77	5501	2.96	0.53
011442444-06	OBS	No	562.394418	270.784485	2836.3	7.037	12.7	8.9	0.77	5501	4.06	0.31
011442444-07	OBS	No	398.363012	236.131466	1250.4	3.396	7.6	5.2	0.77	5501	2.92	0.49
011442444-08	OBS	No	395.653194	189.819541	2075.1	3.000	10.5	-1.0	0.77	5501	3.48	0.49

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011442444-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_FEW_DIFFS
011442444-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—LPP_ALT—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
011442444-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV
011442444-04	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV— INCONSISTENT_TRANS—CENT_FEW_DIFFS—HALO_GHOST
011442444-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV
011442444-07	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_POS_ALT— INCONSISTENT_TRANS—CENT_FEW_DIFFS—HALO_GHOST
011442444-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_NOFITS

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

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

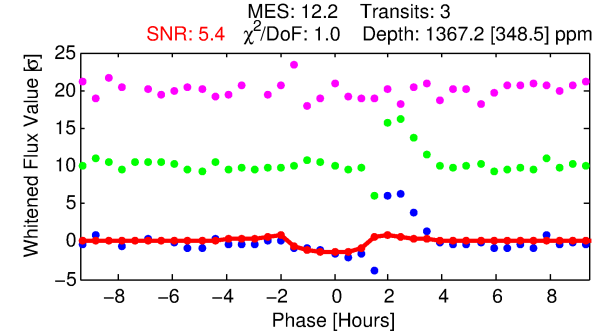
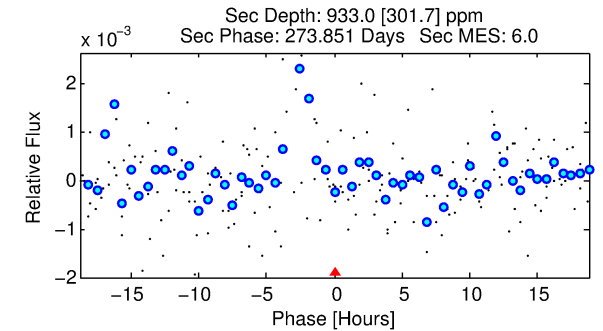
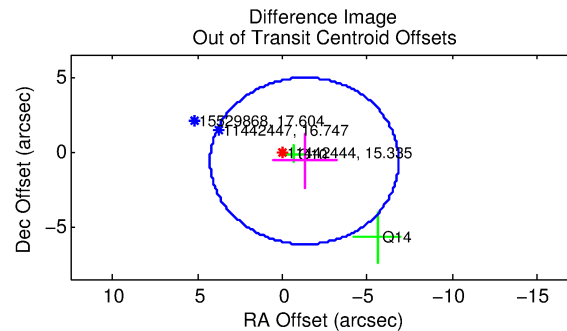
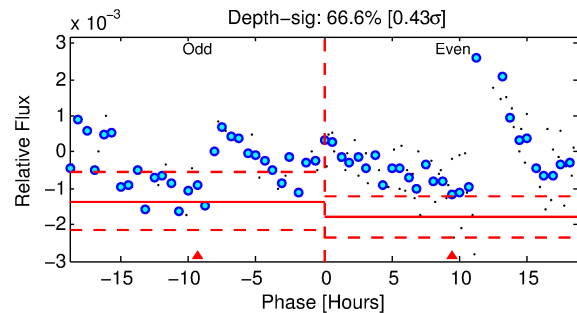
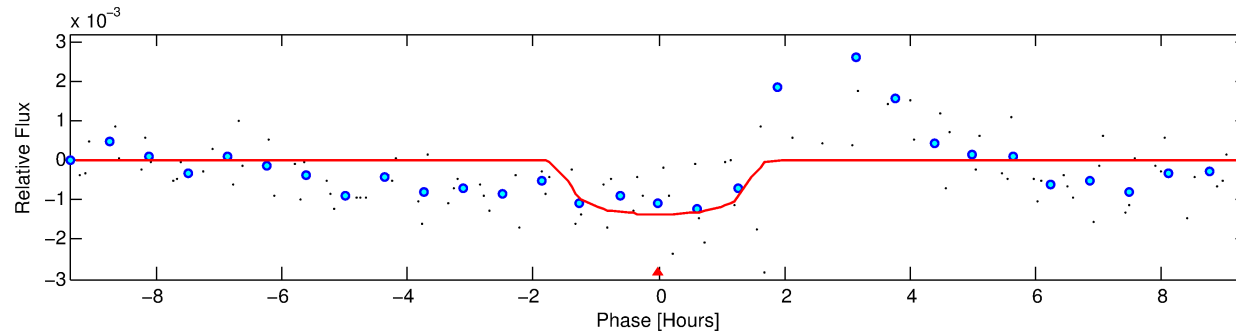
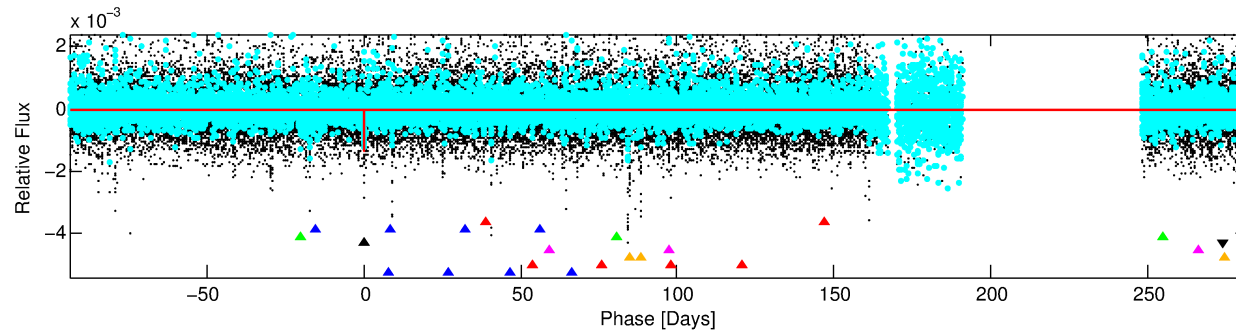
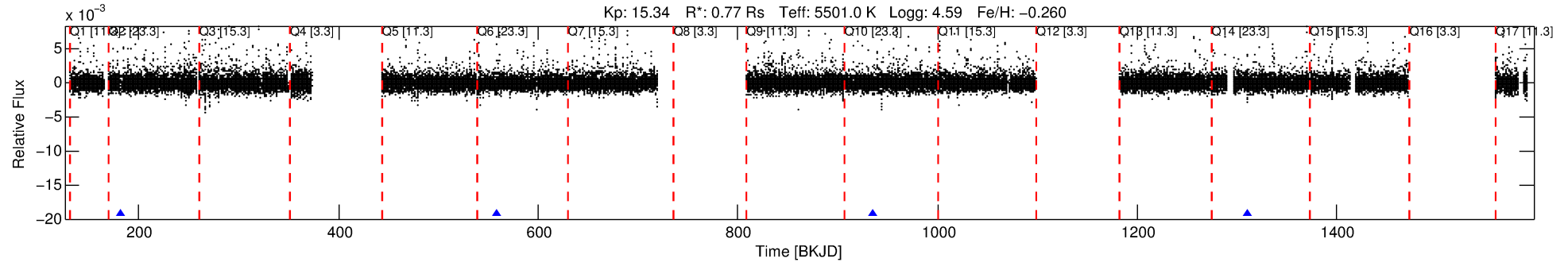
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011442444-04

No Significant Match Found

DV One-Page Summary

KIC: 11442444 Candidate: 4 of 8 Period: 376.159 d



DV Fit Results:

Period = 376.15923 [0.00838] d
Epoch = 182.3516 [0.0156] BKJD
Rp/R* = 0.0351 [0.0704]
a/R* = 784.33 [6425.02]
b = 0.58 [9.43]
Seff = 0.53 [0.15]
Teq = 217 [15] K
Rp = 2.96 [5.98] Re
a = 0.9655 [0.1691] AU
Ag = 54463.00 [219733.02] [0.25 σ]
Teffp = 5132 [5169] K [0.95 σ]

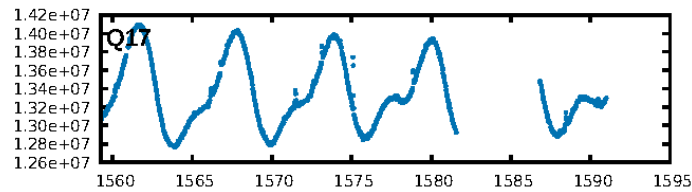
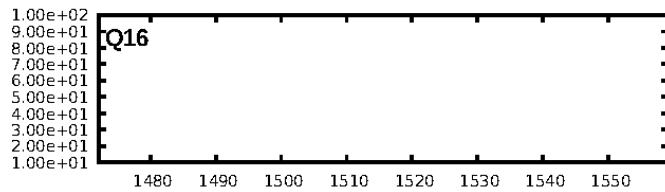
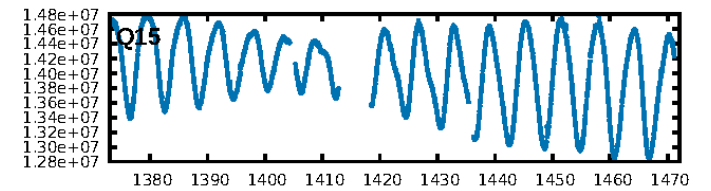
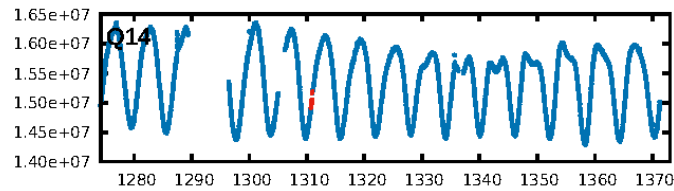
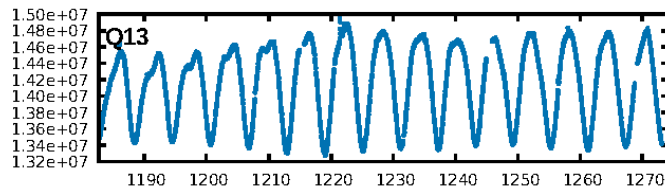
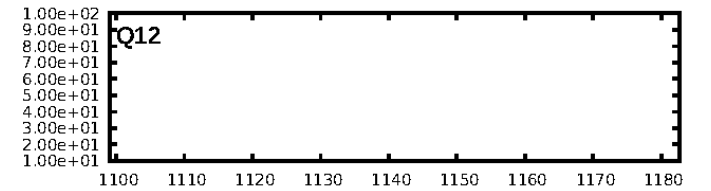
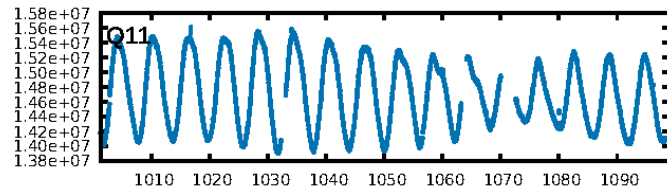
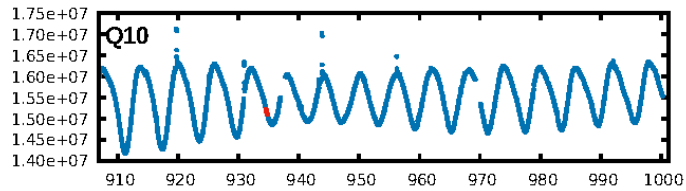
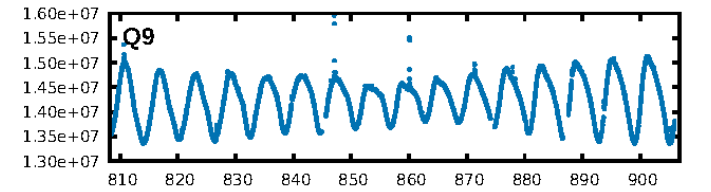
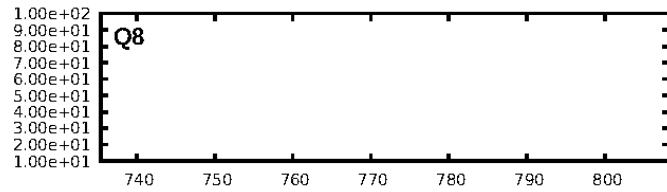
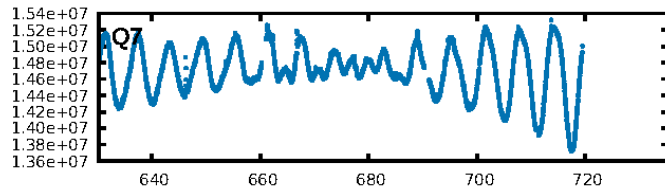
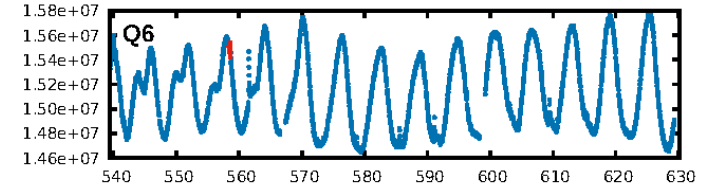
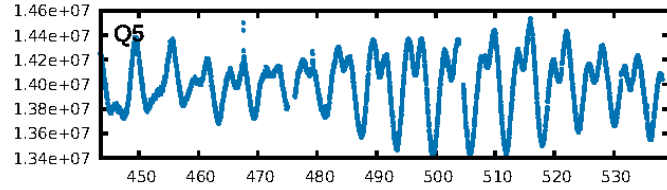
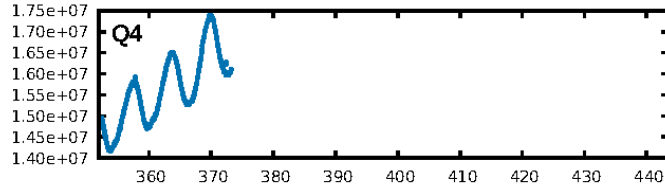
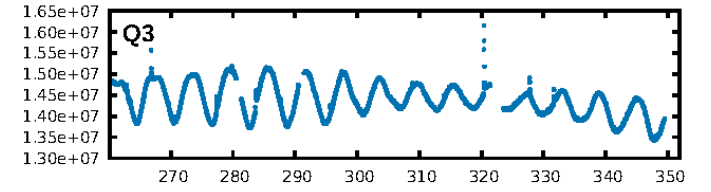
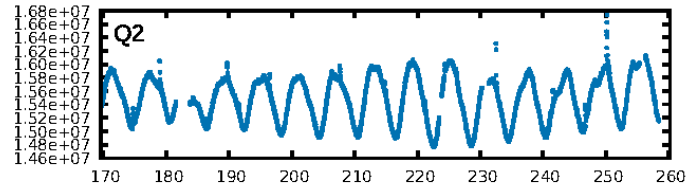
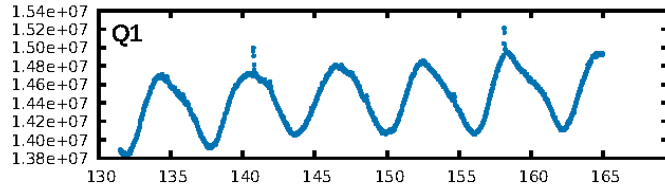
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [78.53 σ]
LongPeriod-sig: 100.0% [107.84 σ]
ModelChiSquare2-sig: 79.4%
ModelChiSquareGof-sig: 73.5%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 0.2398
Centroid-sig: 38.0%
Centroid-so: 0.957 arcsec [0.49 σ]
OotOffset-rm: 1.448 arcsec [0.78 σ]
OotOffset-st: 2/0/0/0 [2]
KicOffset-rm: 1.350 arcsec [0.70 σ]
KicOffset-st: 2/0/0/0 [2]
DiffImageQuality-fgm: 0.50 [1/2]
DiffImageOverlap-fno: 1.00 [3/3]

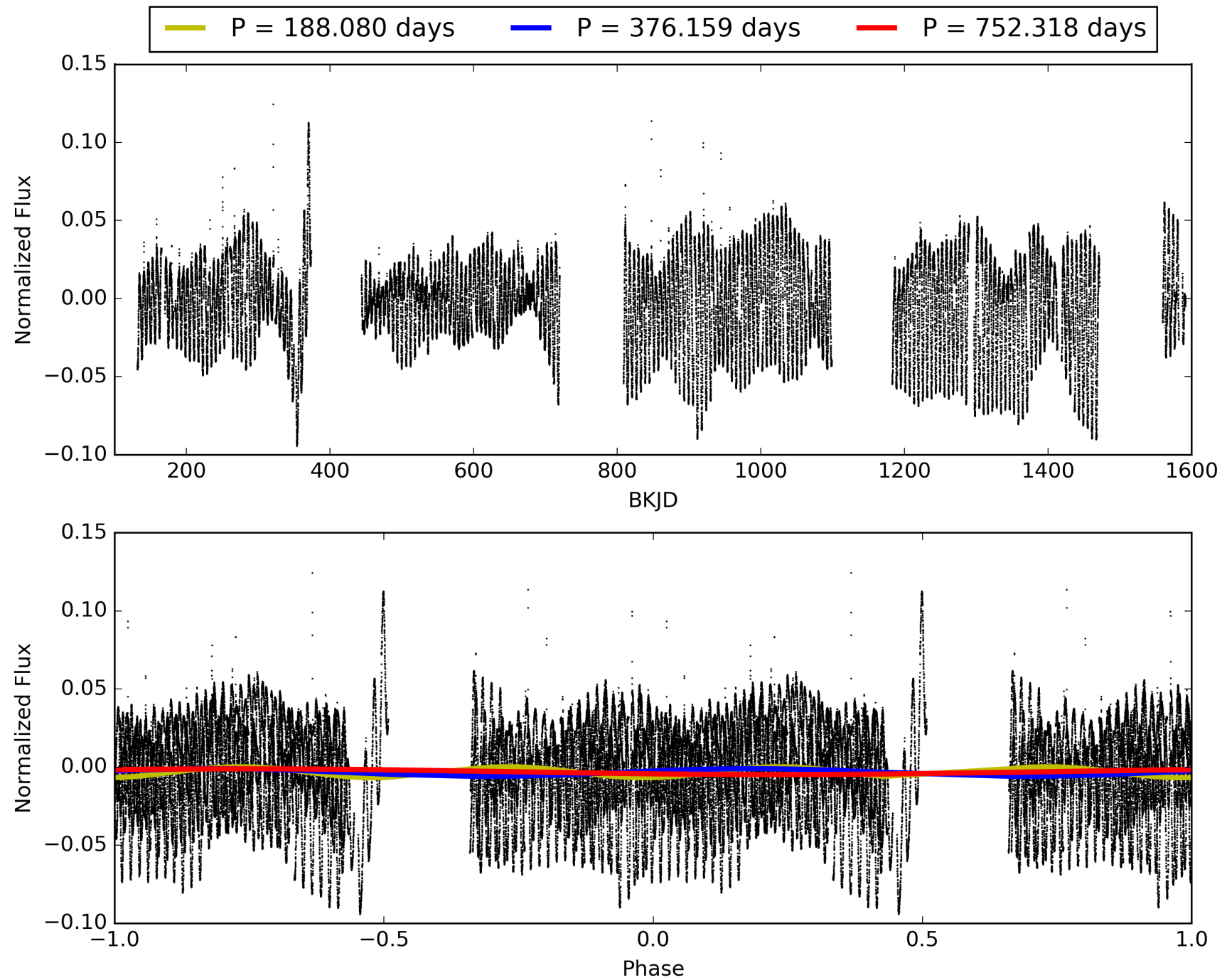
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 05:34:50 Z

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

TCE 011442444-04, PDC Light Curves

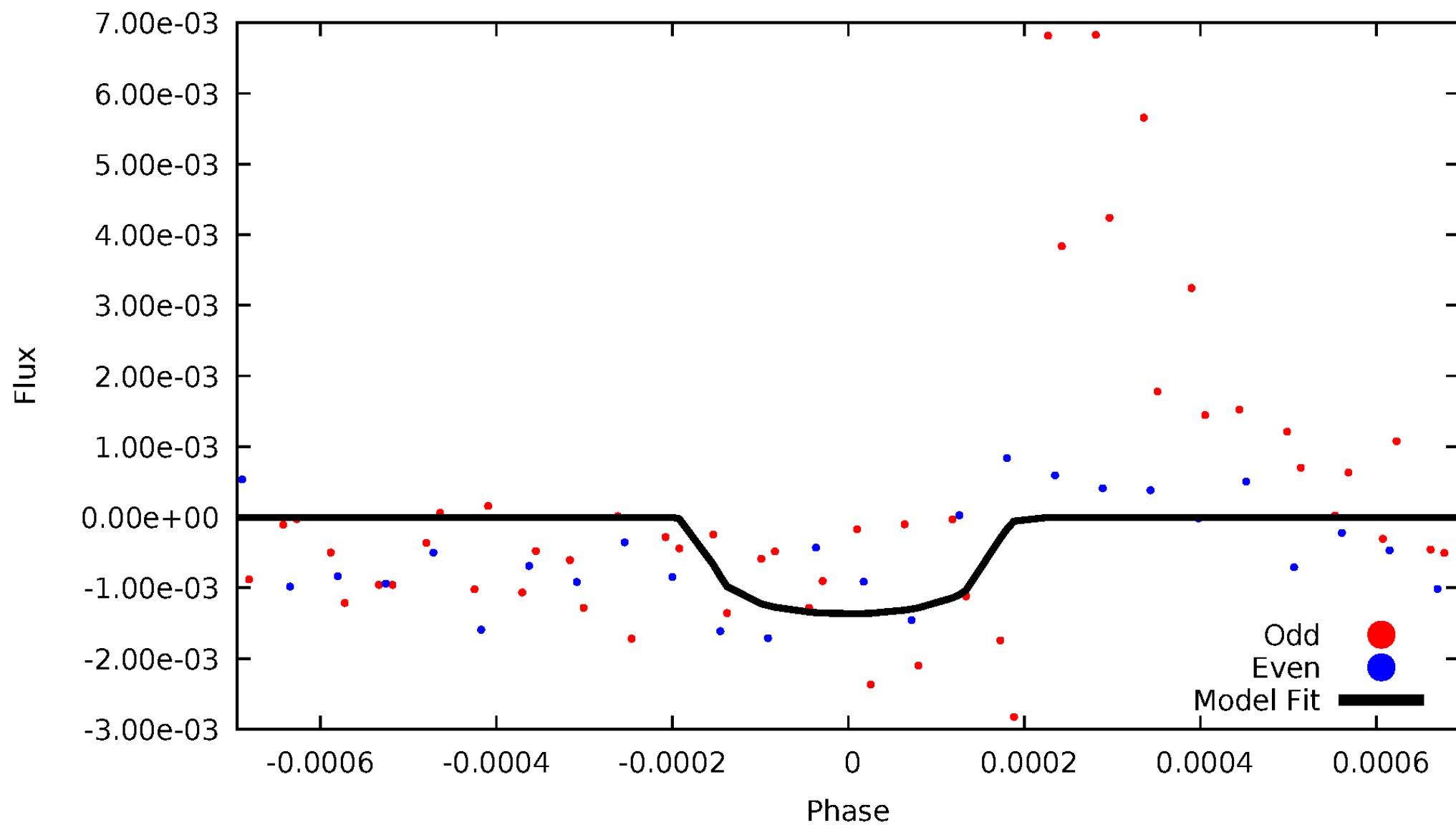


TCE 011442444-04



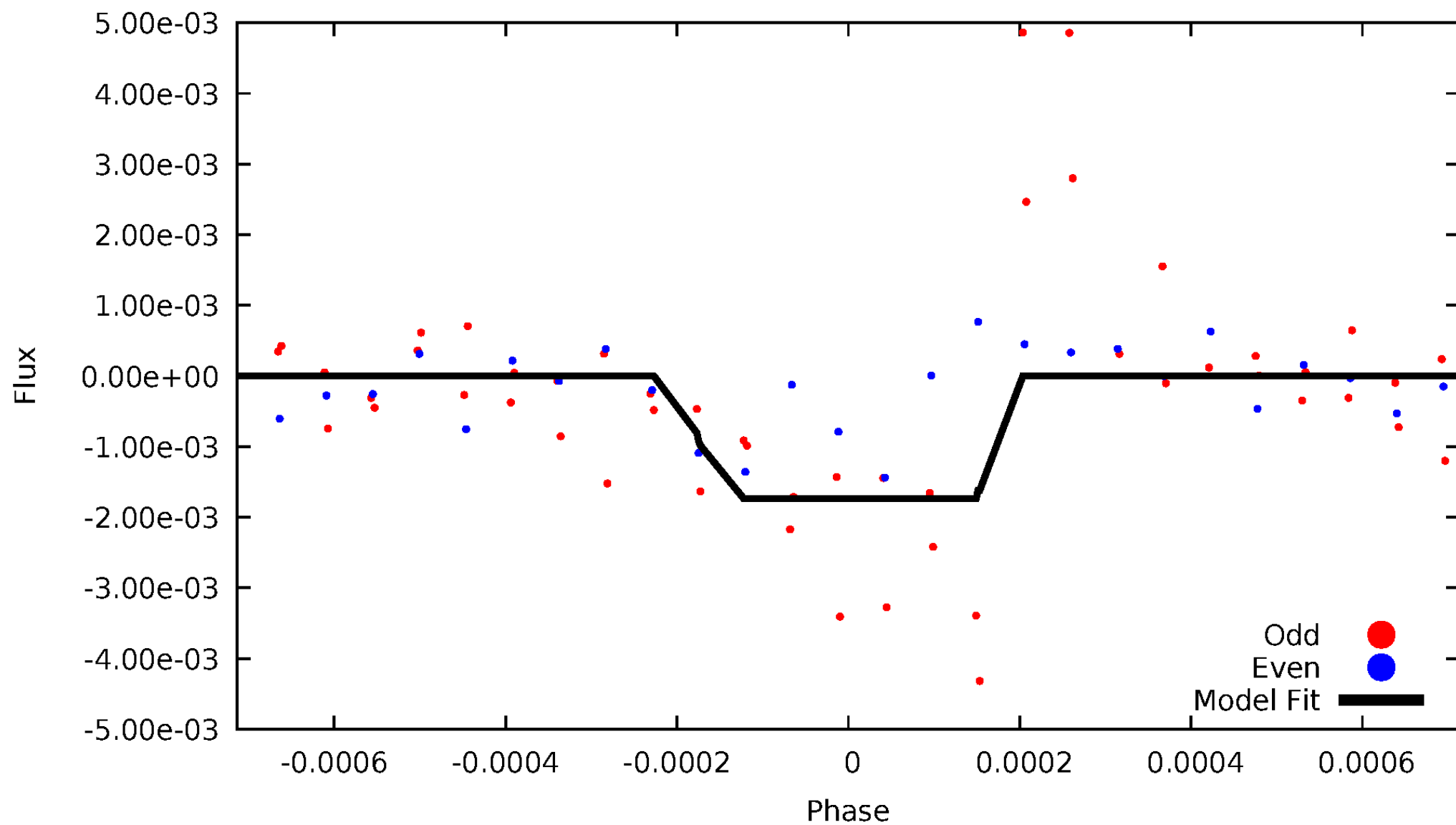
DV Odd/Even

TCE 011442444-04



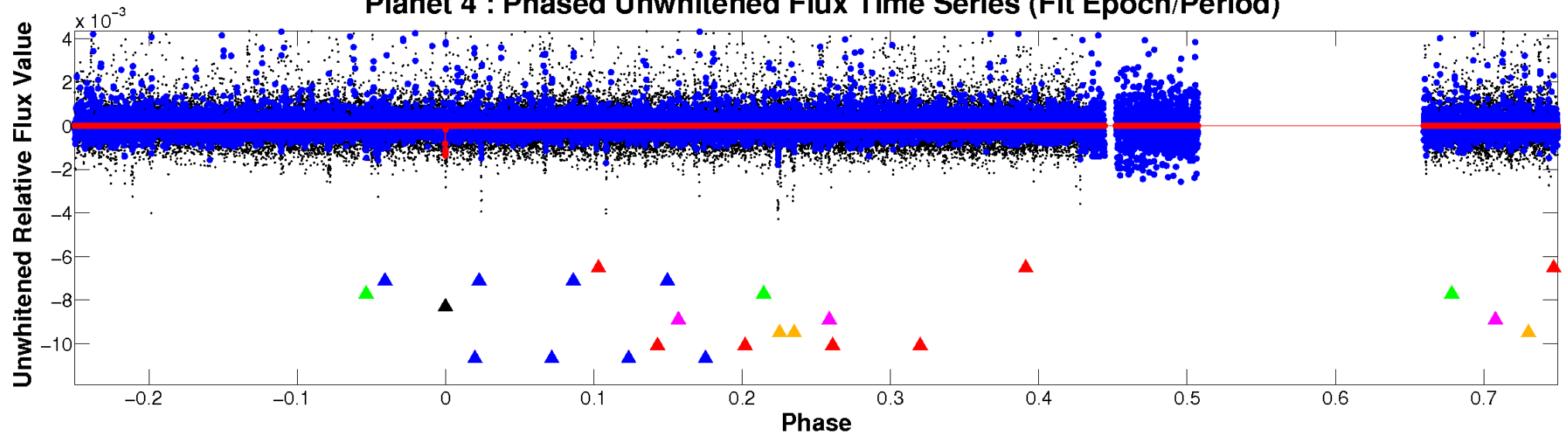
ALT Odd/Even

TCE 011442444-04

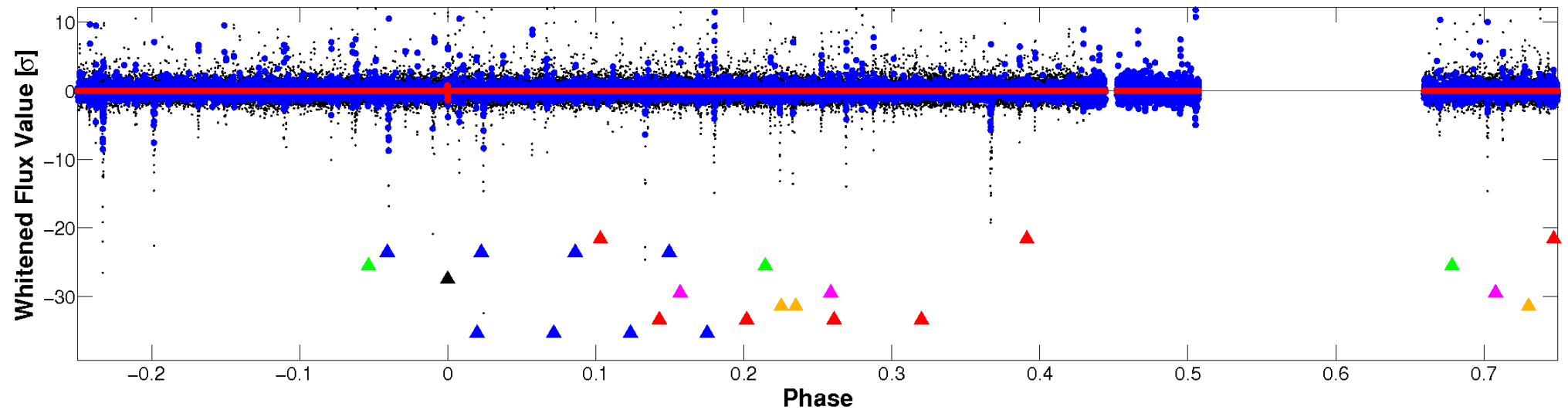


Non-Whitened Vs. Whitened Light Curve

Planet 4 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

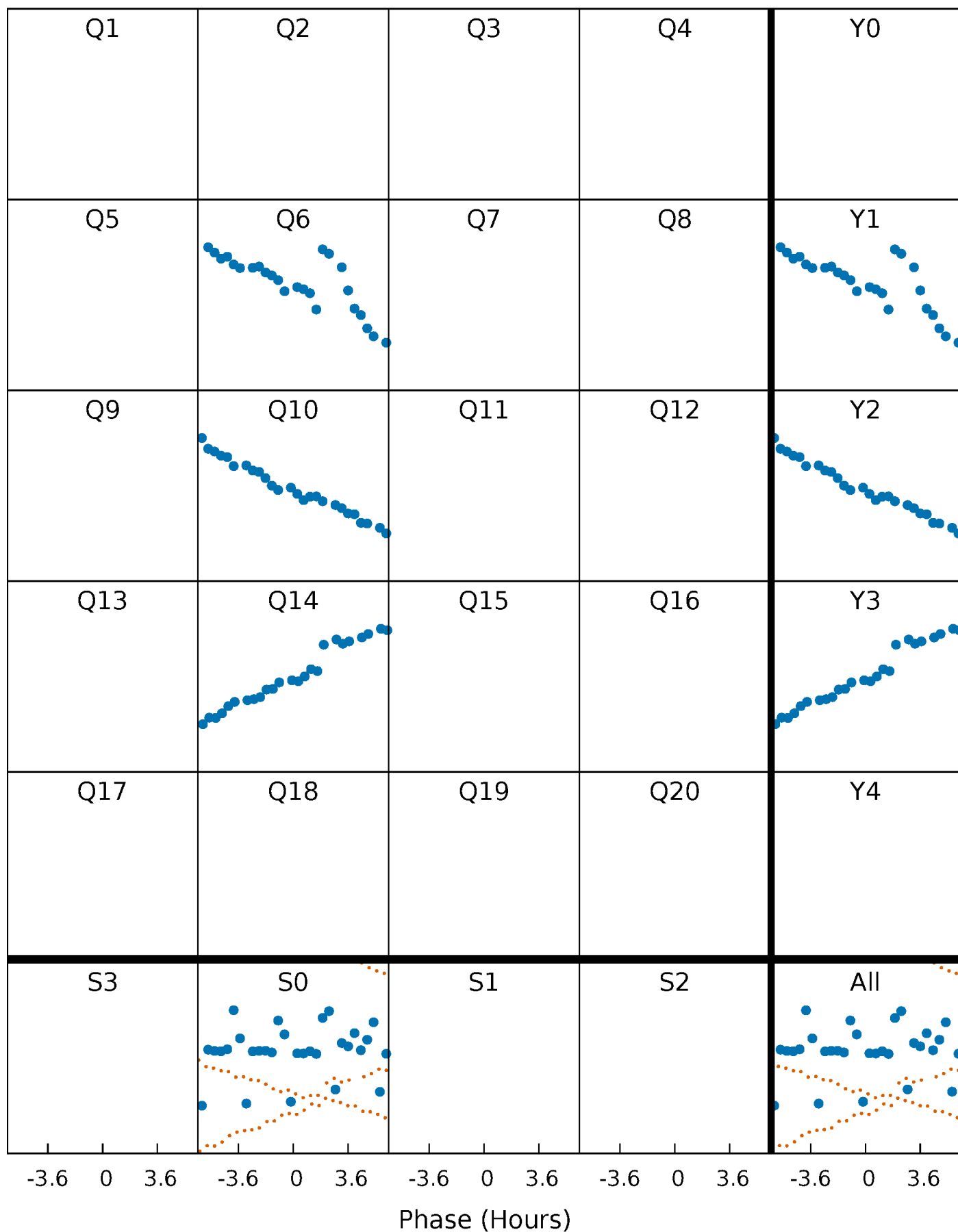


Planet 4 : Phased Whitened Flux Time Series (Fit Epoch/Period)



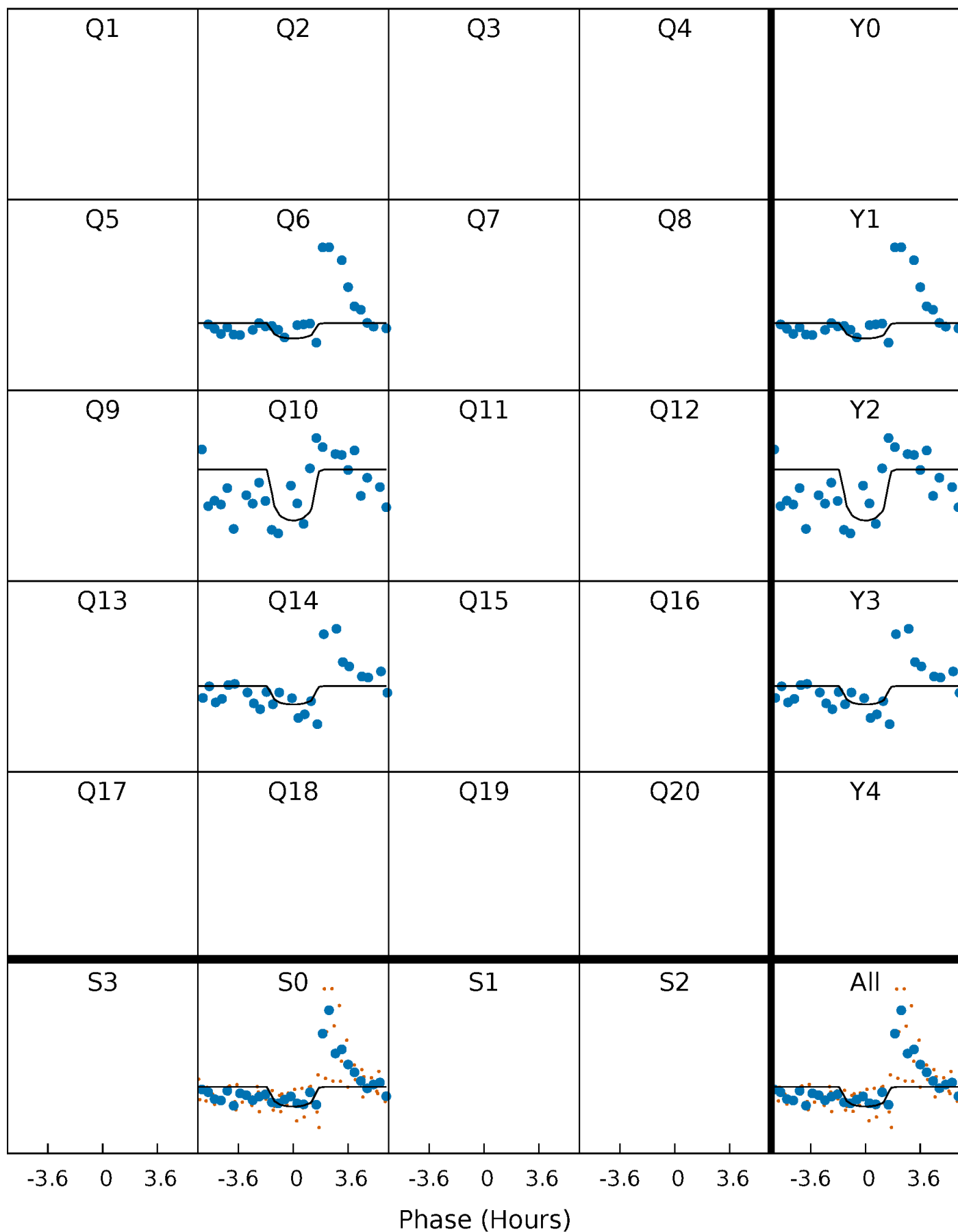
PDC Quarter-Phased Transit Curves

TCE 011442444-04 P=376.159227 Days $T_0=182.351632$ (BKJD)



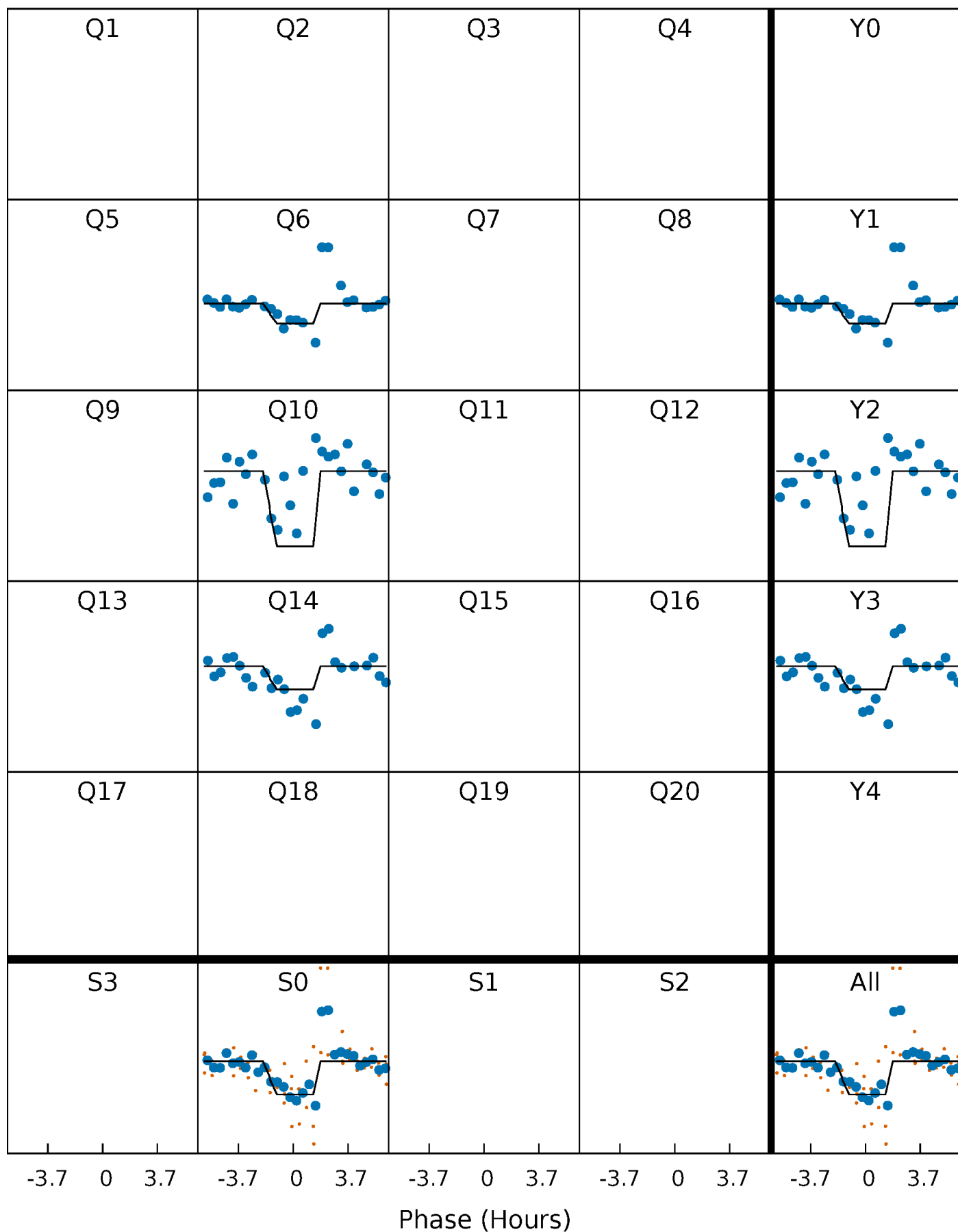
DV Quarter-Phased Transit Curves

TCE 011442444-04 P=376.159227 Days $T_0=182.351632$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

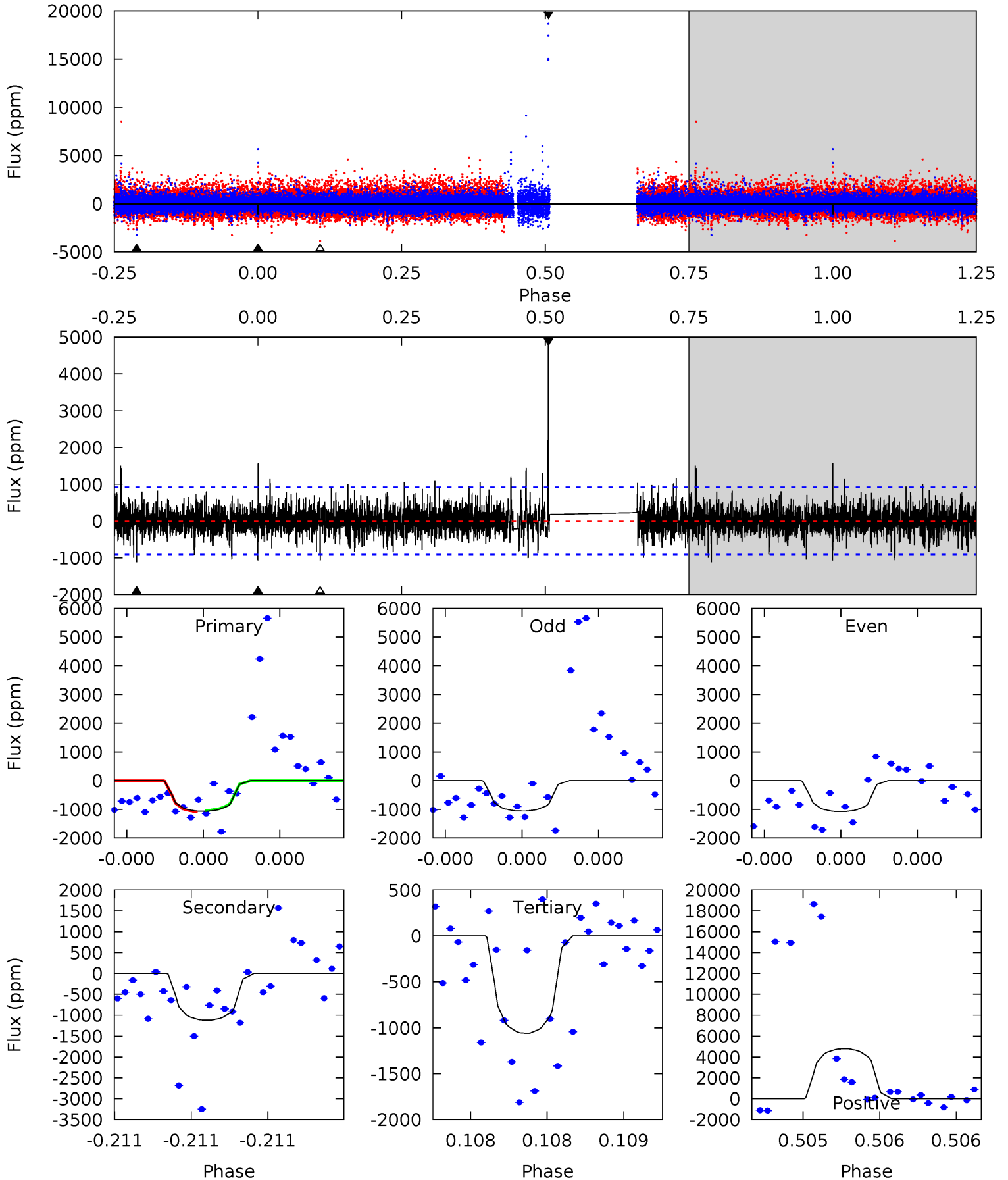
TCE 011442444-04 P=376.161406 Days $T_0=182.358238$ (BKJD)



DV Model-Shift Uniqueness Test

011442444-04, P = 376.159227 Days, E = 182.351632 Days

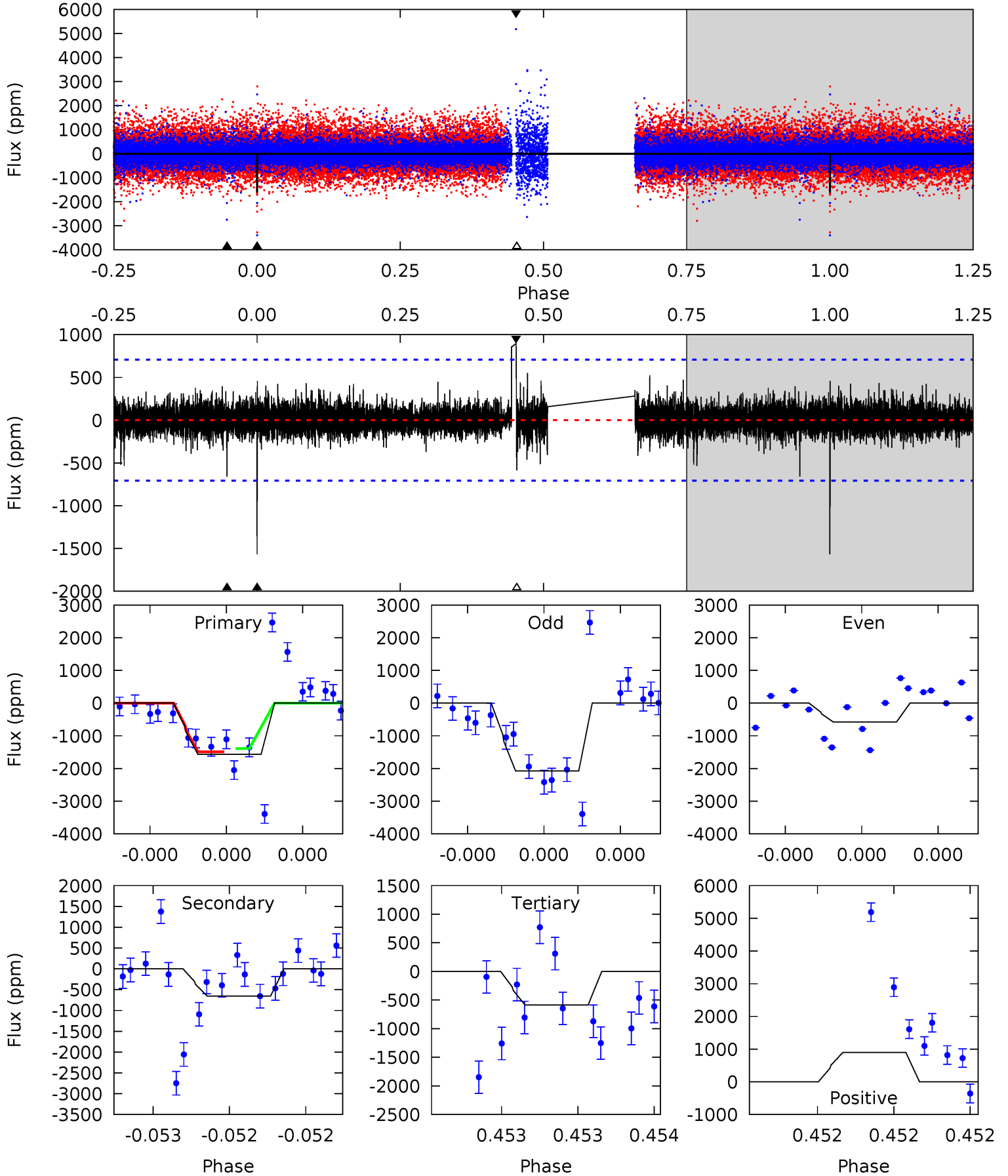
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.54	6.86	6.49	29.4	5.62	3.55	1.60	0.05	-22.8	0.37	-22.5	0.04	0.99	0.81	0.14



Alt Model-Shift Uniqueness Test

011442444-04, P = 376.161406 Days, E = 182.358238 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.5	5.25	4.67	7.15	5.65	3.59	0.79	7.86	5.37	0.58	-1.90	5.86	0.94	0.36	0.36



Stellar Parameters For KIC 011442444

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5501^{+166}_{-149}	$4.589^{+0.036}_{-0.135}$	$-0.260^{+0.300}_{-0.300}$	$0.774^{+0.164}_{-0.070}$	$0.864^{+0.083}_{-0.100}$	$2.619^{+0.469}_{-1.017}$
	+3%/-3%	+1%/-3%	+115%/-115%	+21%/-9%	+10%/-12%	+18%/-39%
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 011442444-04 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-1121 ± 163	$5.72^{+5.41}_{-3.94}$	310^{+17}_{-12}	4204^{+3070}_{-860}	$16751^{+165134}_{-12244}$
Alt.	-658 ± 125	$5.88^{+5.25}_{-3.87}$	309^{+16}_{-12}	3773^{+2070}_{-663}	9859^{+71716}_{-7233}

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

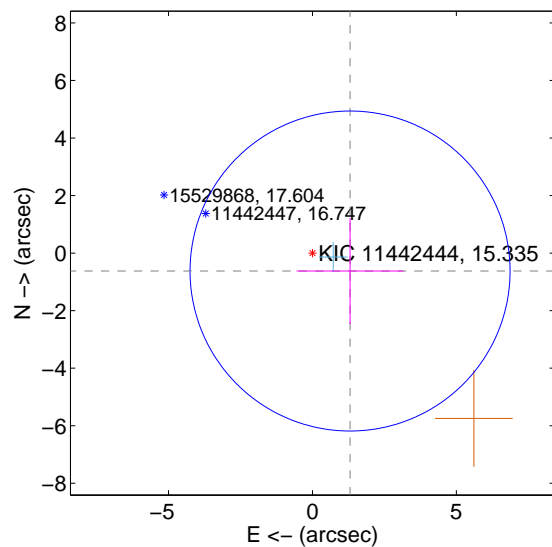
Supplemental centroid analysis for 011442444-04. Kepler magnitude: 15.34. Transit SNR 5.37

There are 1 quarters with good PRF difference image offsets

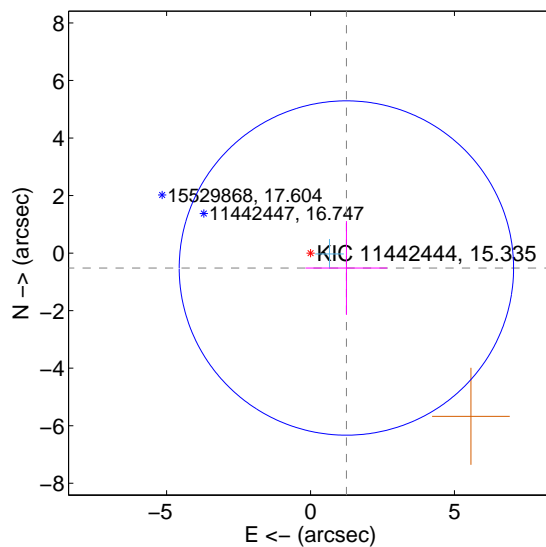
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.448 ± 1.854	0.78	-1.308 ± 1.856	-0.623 ± 1.843
PRF-fit source offset from KIC position	1.350 ± 1.937	0.70	-1.246 ± 1.421	-0.518 ± 1.630
photometric centroid source offset	0.96 ± 1.97	0.49	0.27 ± 2.09	-0.92 ± 1.95

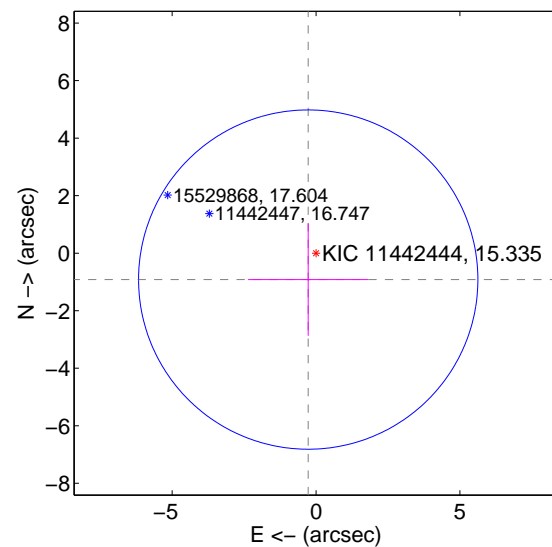
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position



offset from photometric centroids

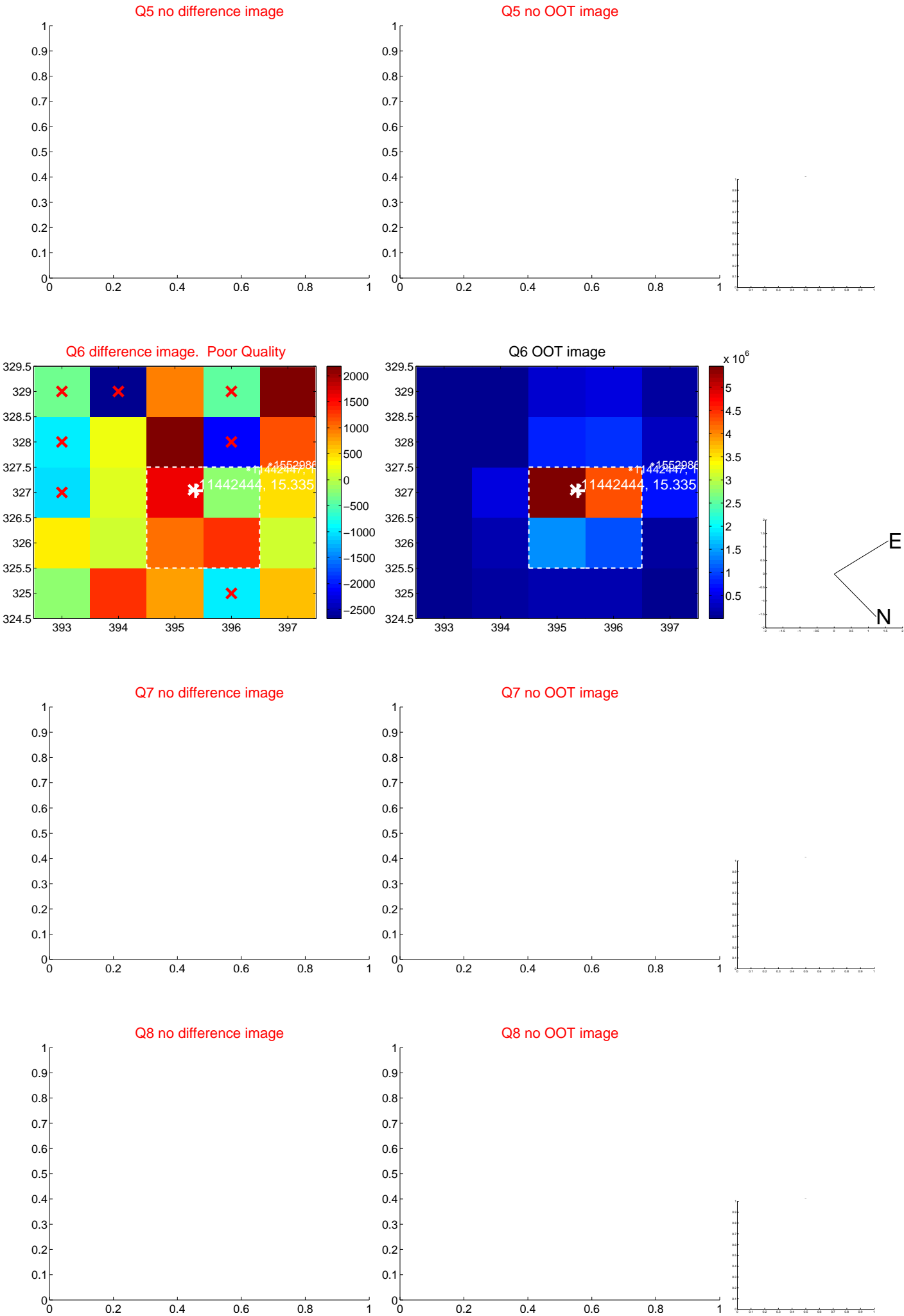


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

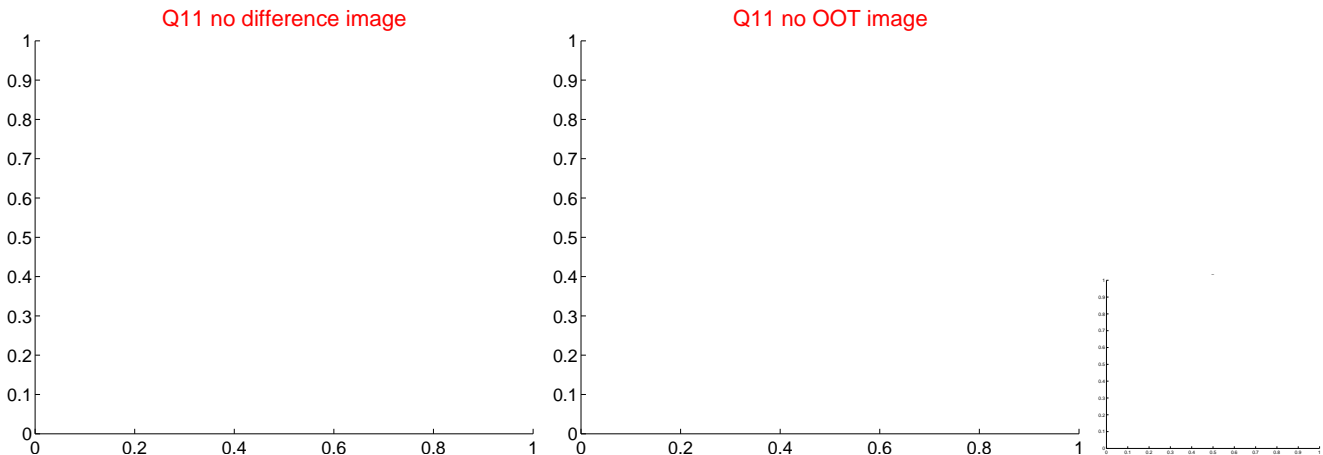
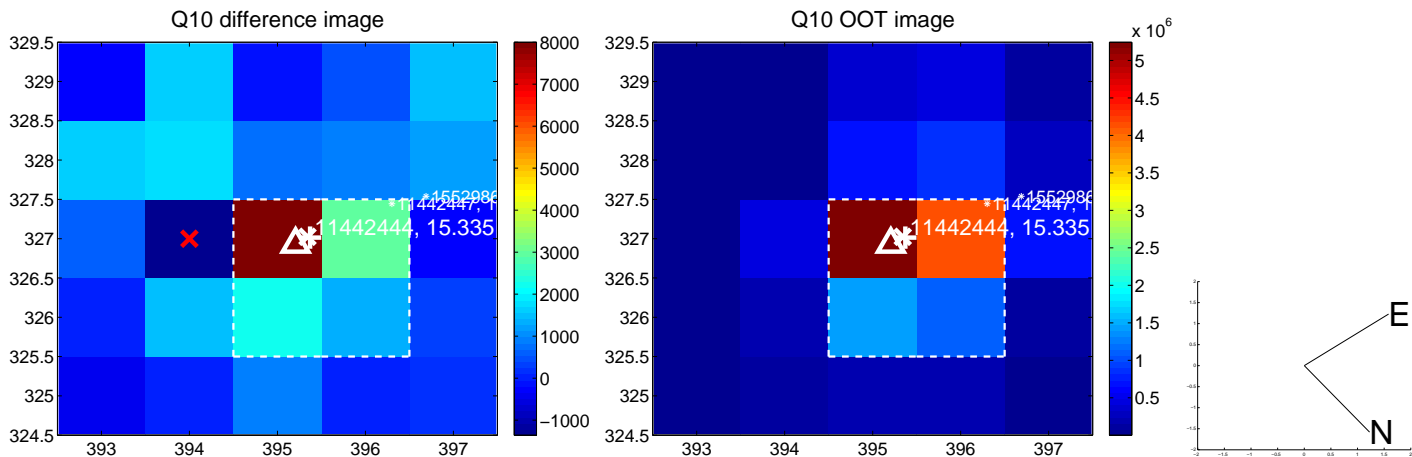
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



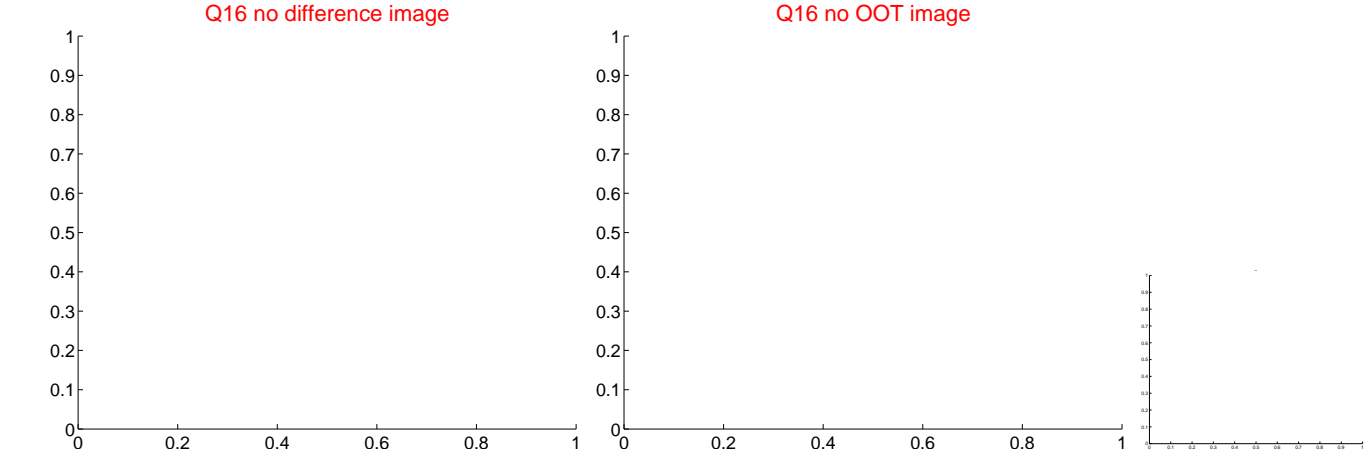
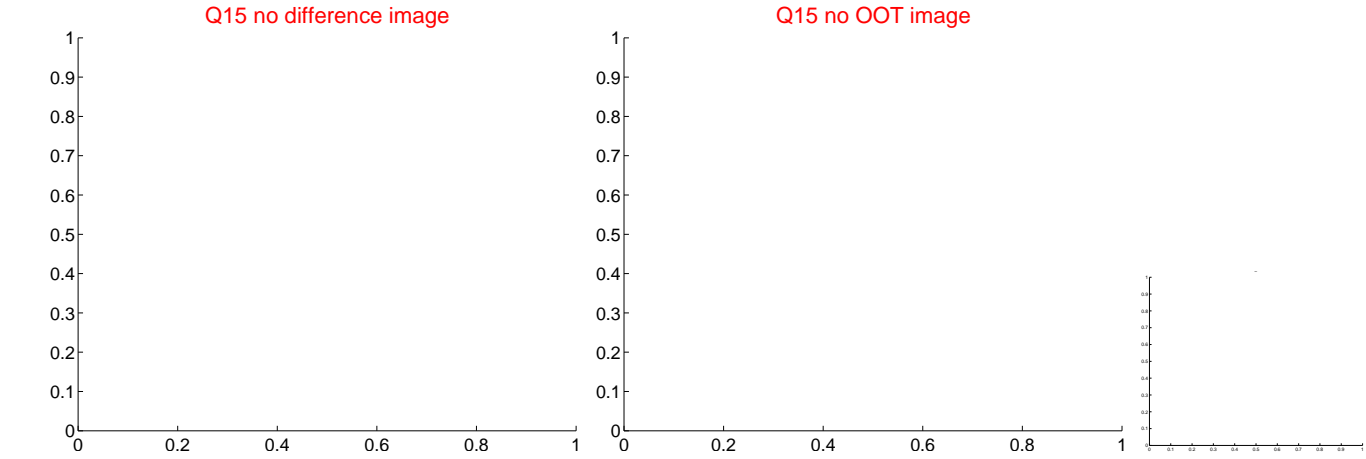
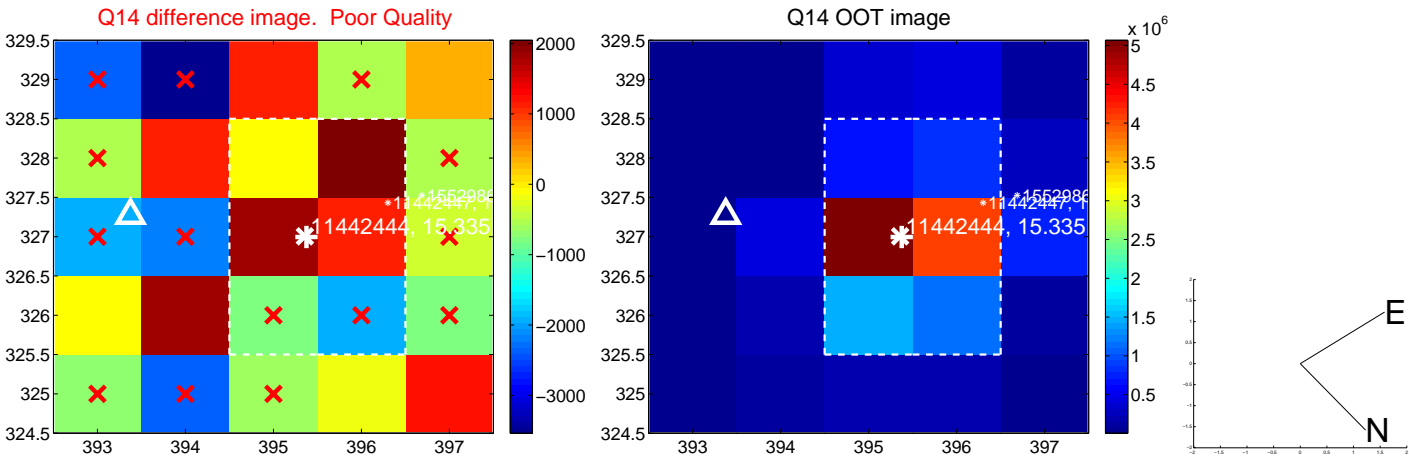
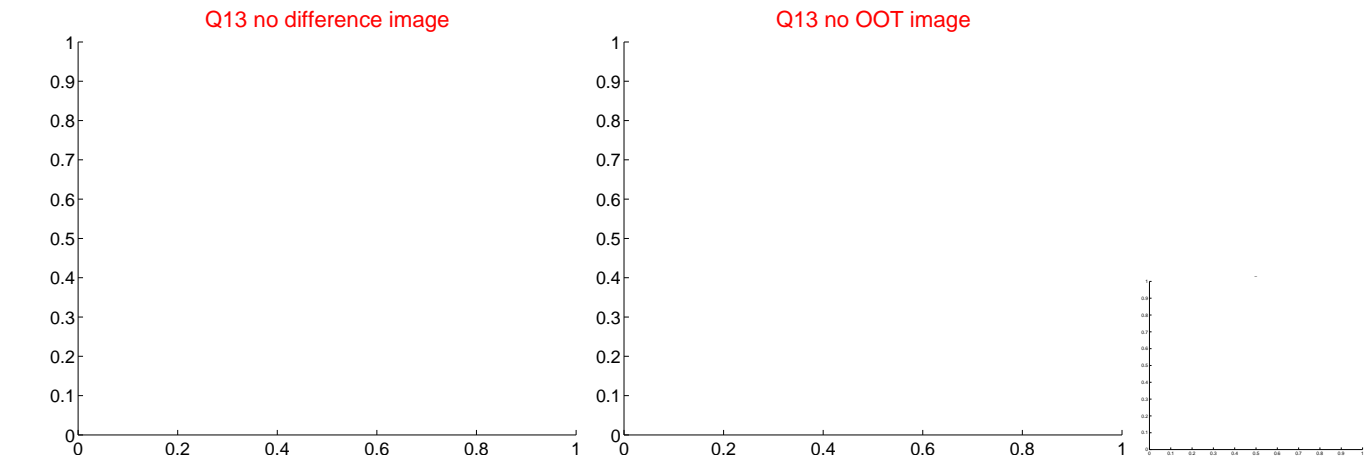
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



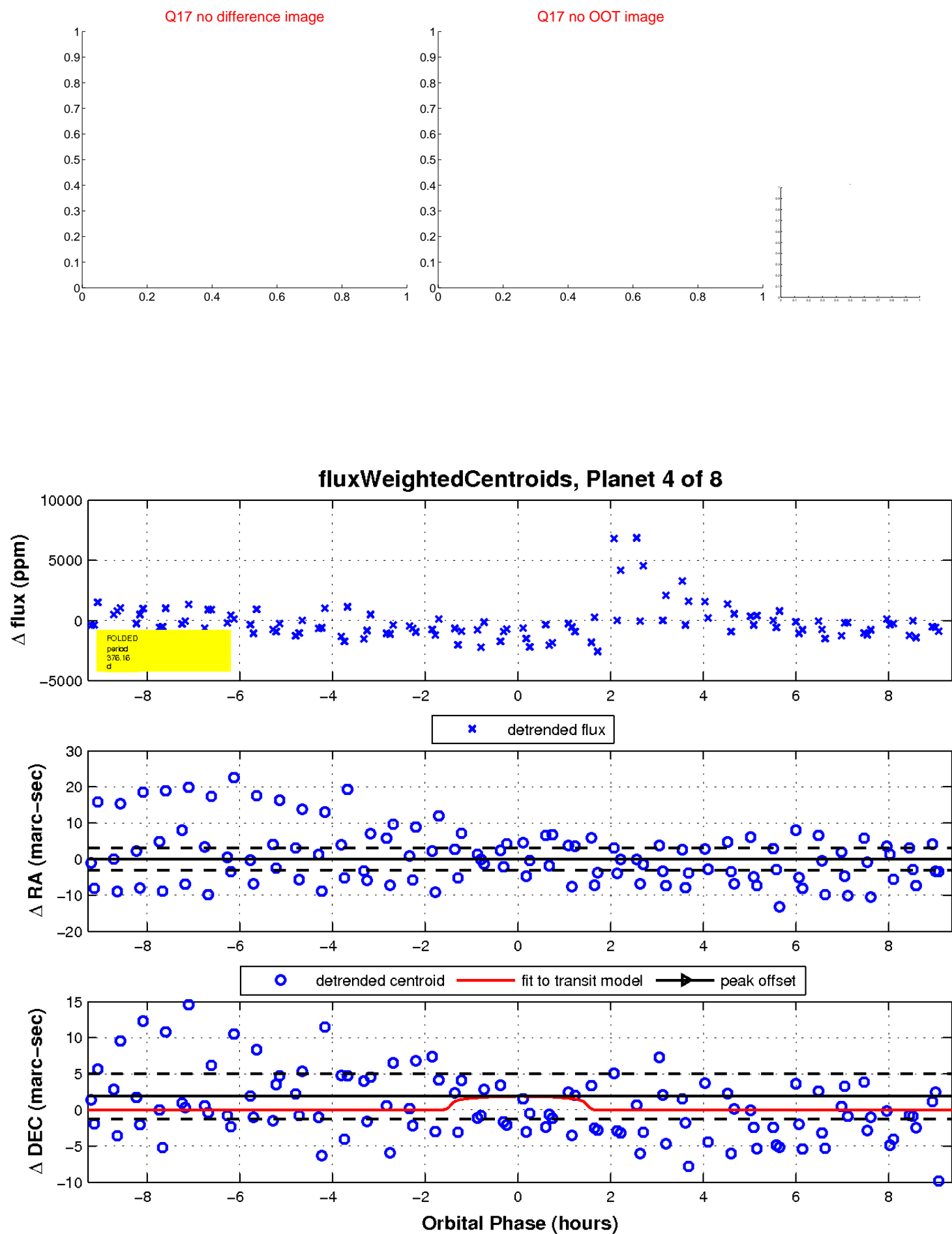
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



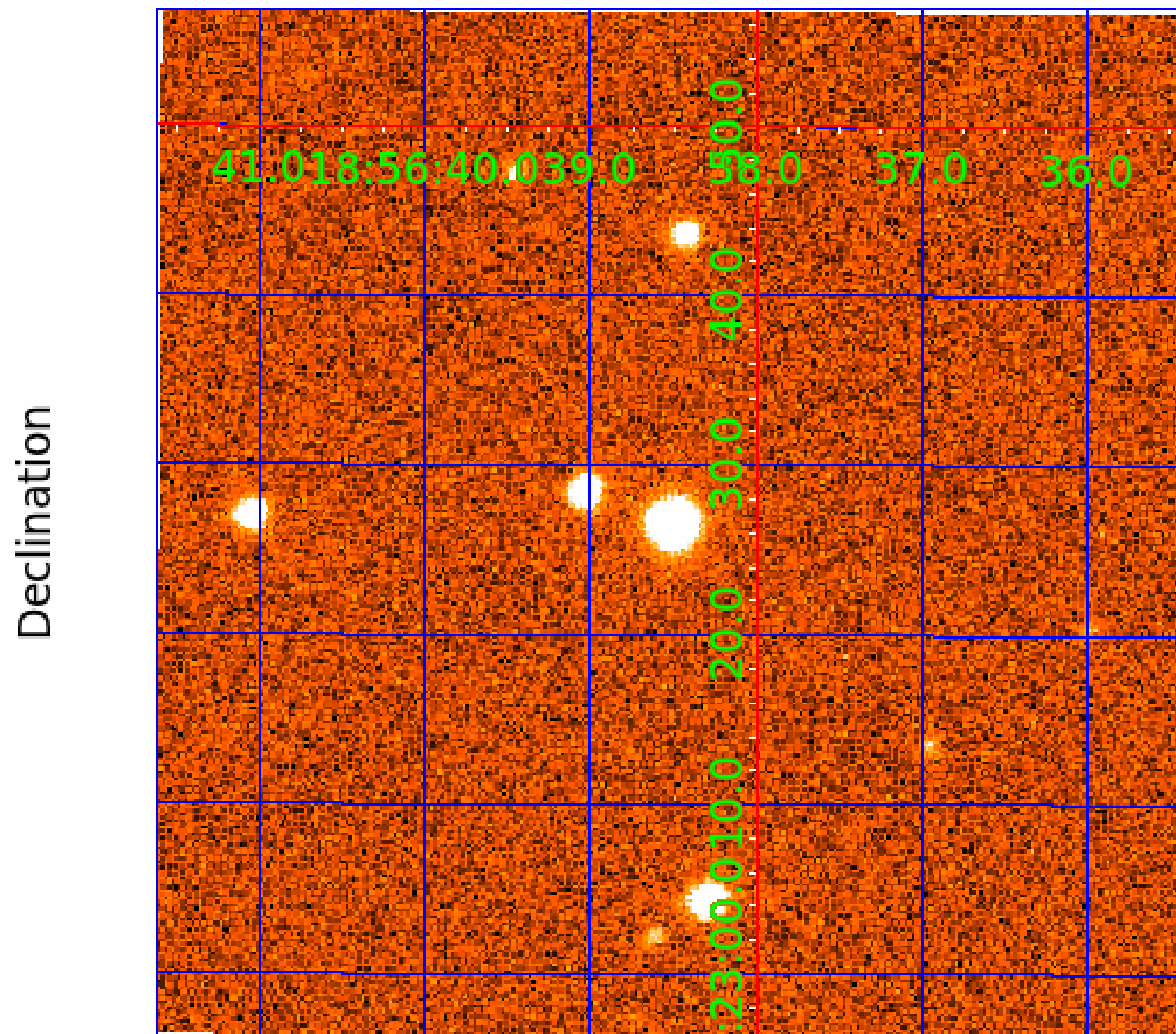
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image



KIC 011442444

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})
011442444-01	OBS	No	618.425753	221.145634	2387.1	5.132	15.2	7.5	0.77	5501	3.93	0.27
011442444-02	OBS	No	352.281436	238.642649	2158.6	6.590	15.1	7.3	0.77	5501	3.59	0.57
011442444-03	OBS	No	651.494671	263.057994	2454.4	4.401	13.2	7.7	0.77	5501	3.79	0.25
011442444-04	OBS	No	376.159227	182.351632	1367.2	3.134	12.2	5.4	0.77	5501	2.96	0.53
011442444-06	OBS	No	562.394418	270.784485	2836.3	7.037	12.7	8.9	0.77	5501	4.06	0.31
011442444-07	OBS	No	398.363012	236.131466	1250.4	3.396	7.6	5.2	0.77	5501	2.92	0.49
011442444-08	OBS	No	395.653194	189.819541	2075.1	3.000	10.5	-1.0	0.77	5501	3.48	0.49

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011442444-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_FEW_DIFFS
011442444-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—LPP_ALT—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
011442444-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV
011442444-04	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS—HALO_GHOST
011442444-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV
011442444-07	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS—HALO_GHOST
011442444-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_NOFITS

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

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

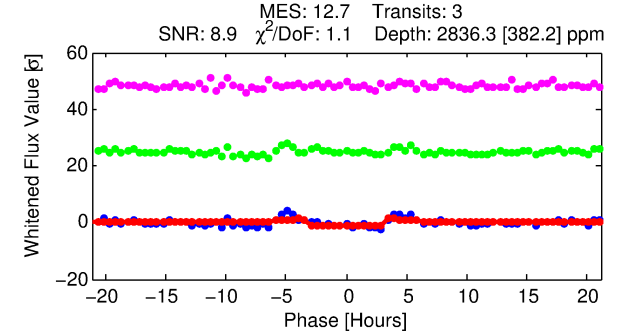
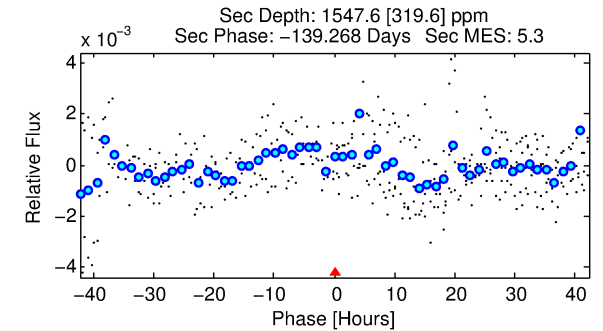
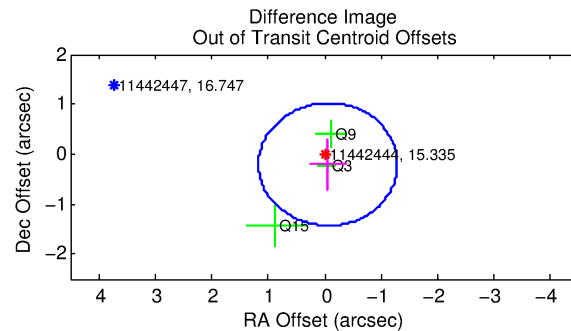
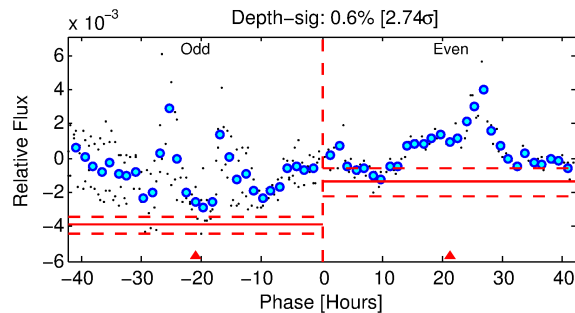
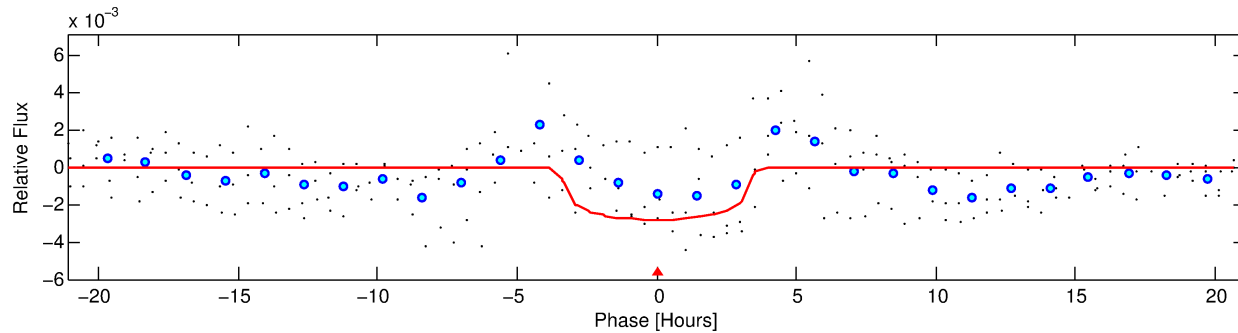
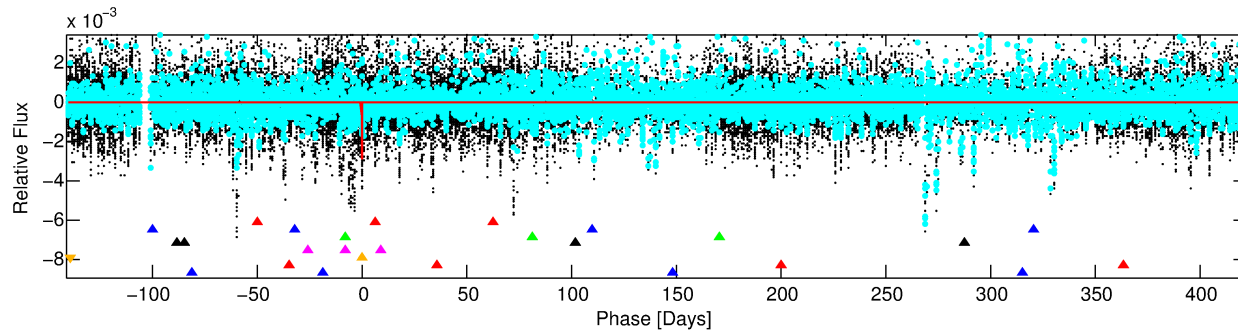
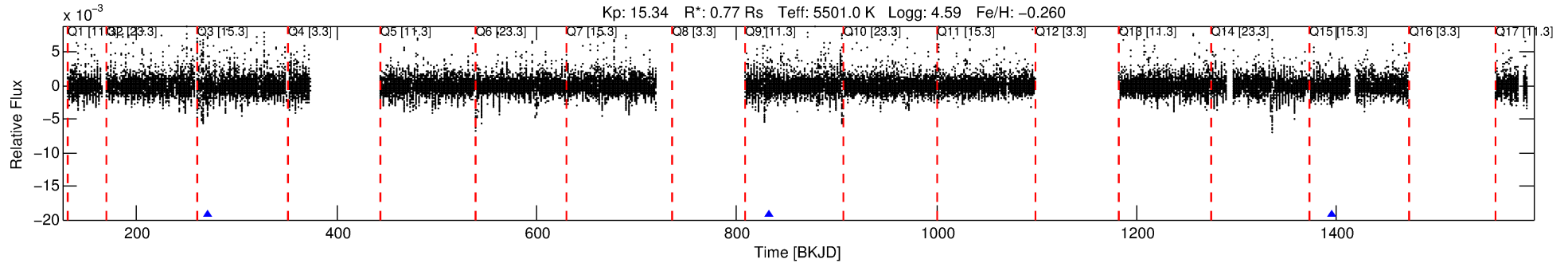
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011442444-06

No Significant Match Found

DV One-Page Summary

KIC: 11442444 Candidate: 6 of 8 Period: 562.394 d



DV Fit Results:

Period = 562.39442 [0.00536] d
Epoch = 270.7845 [0.0077] BKJD
Rp/R* = 0.0481 [0.0396]
a/R* = 639.91 [2158.91]
b = 0.00 [1562.24]
Seff = 0.31 [0.09]
Teq = 190 [13] K
Rp = 4.06 [3.45] Re
a = 1.2625 [0.2212] AU
Ag = 82249.90 [138094.44] [0.60 σ]
Teffp = 4975 [2070] K [2.31 σ]

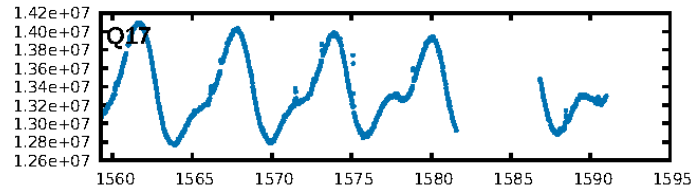
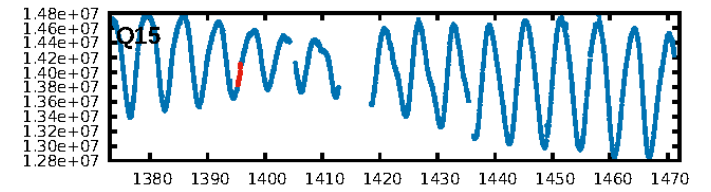
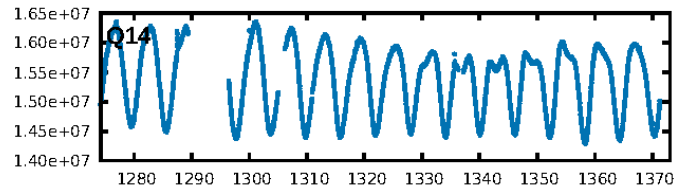
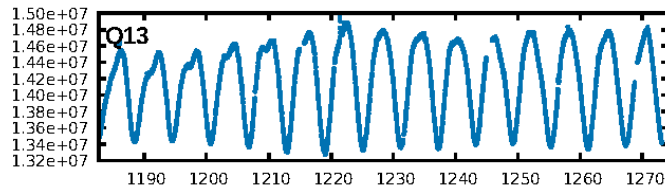
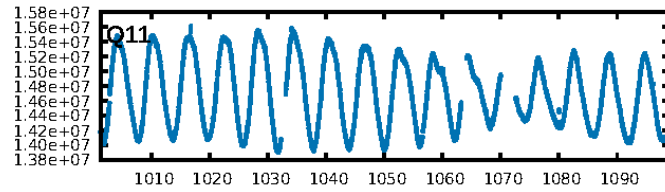
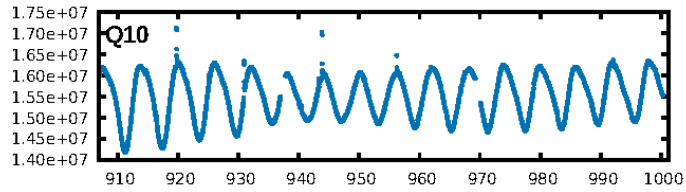
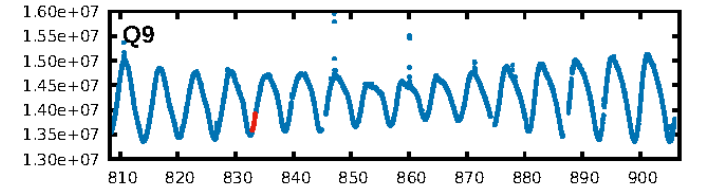
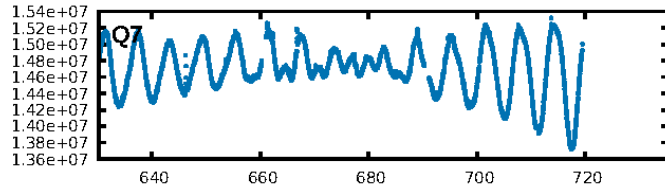
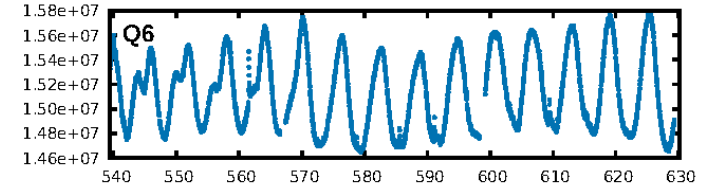
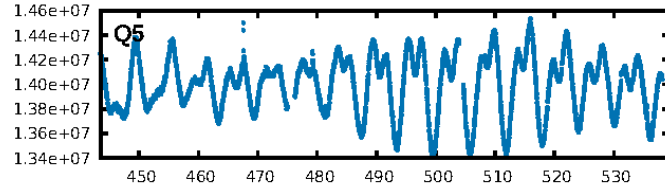
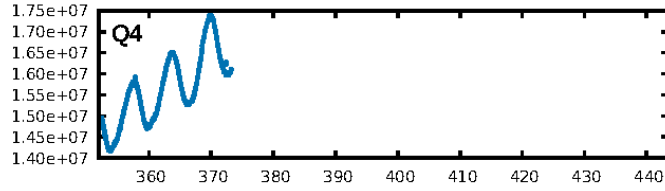
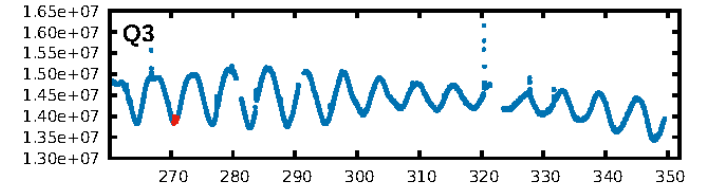
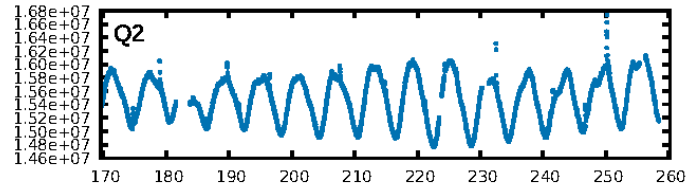
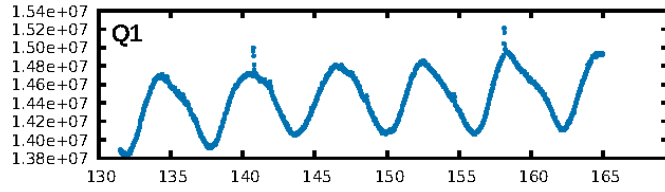
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [44.53 σ]
LongPeriod-sig: 100.0% [154.40 σ]
ModelChiSquare2-sig: 0.5%
ModelChiSquareGof-sig: 64.1%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 132.9
Centroid-sig: 84.7%
Centroid-so: 0.673 arcsec [1.00 σ]
OotOffset-rm: 0.213 arcsec [0.52 σ]
OotOffset-st: 0/2/0/1 [3]
KicOffset-rm: 0.239 arcsec [0.79 σ]
KicOffset-st: 0/2/0/1 [3]
DiffImageQuality-fgm: 1.00 [3/3]
DiffImageOverlap-fno: 1.00 [3/3]

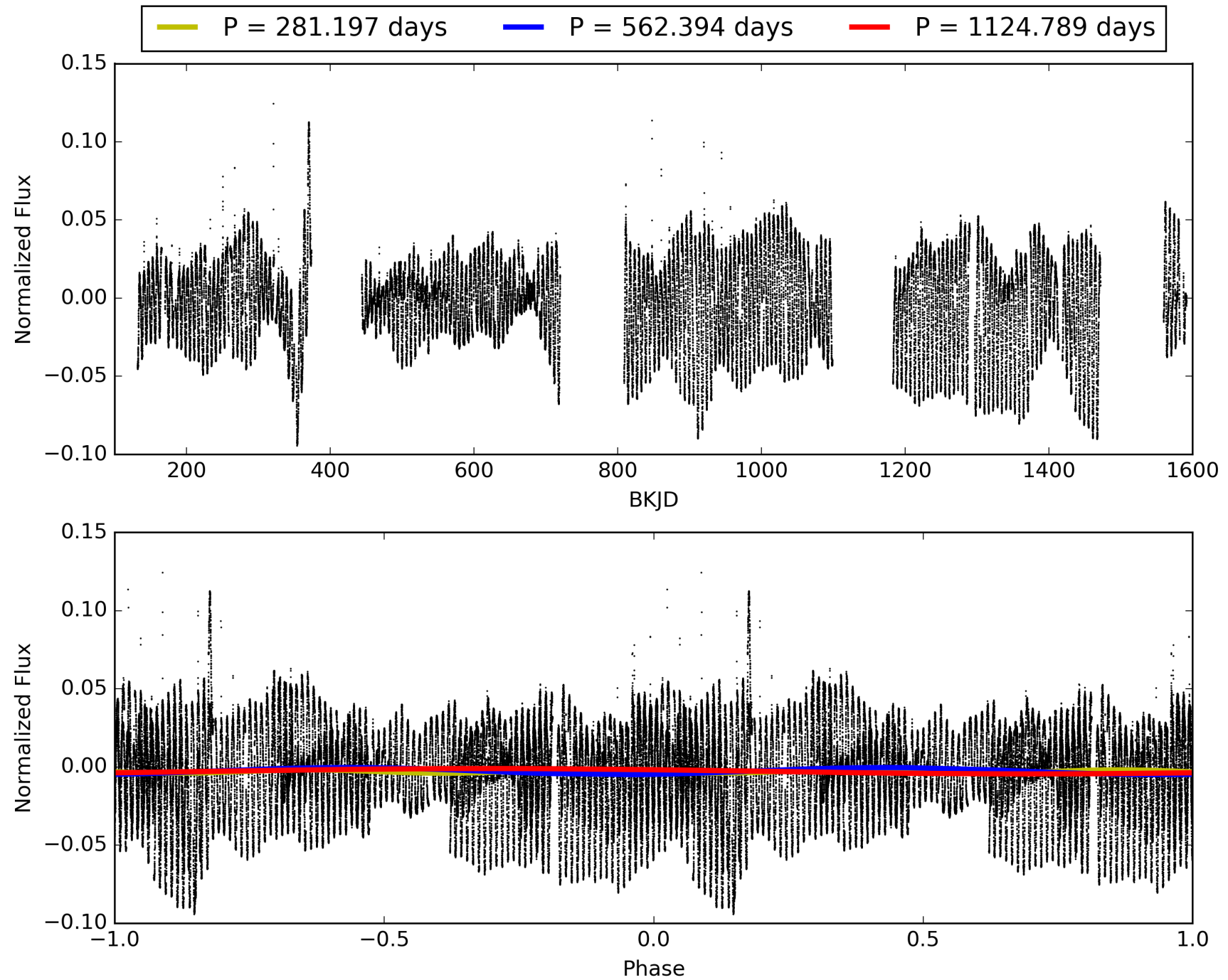
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 05:35:15 Z

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

TCE 011442444-06, PDC Light Curves

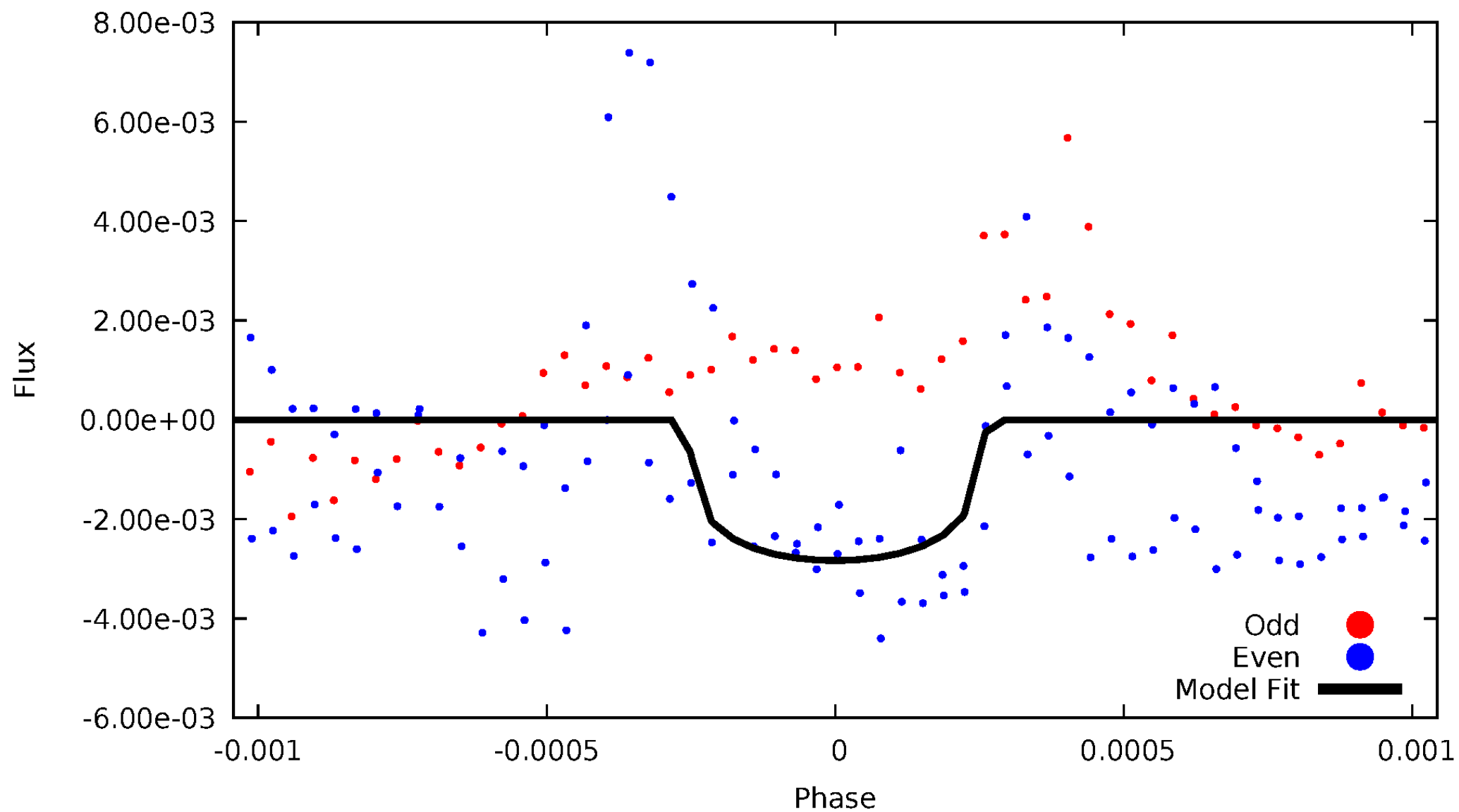


TCE 011442444-06



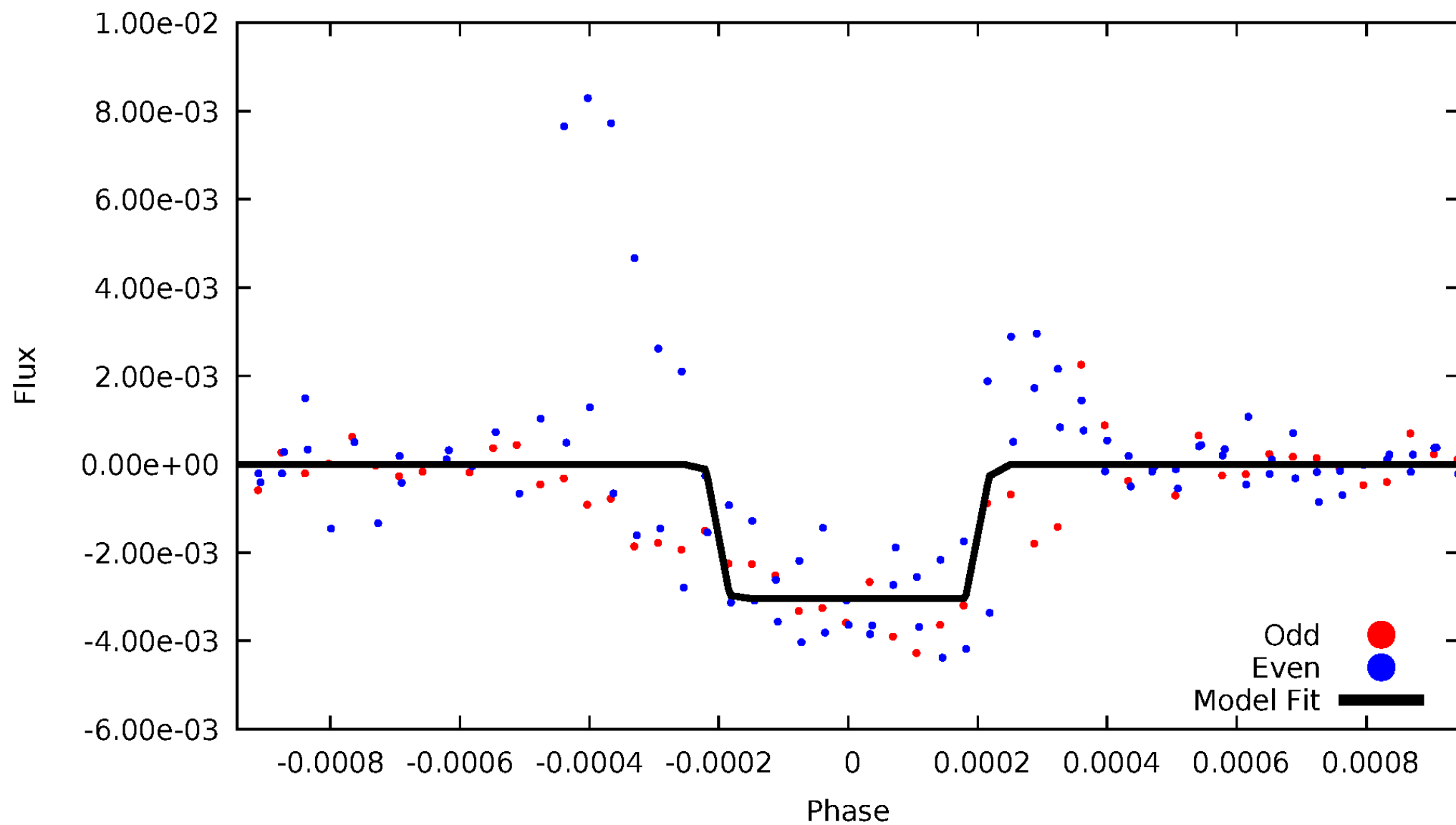
DV Odd/Even

TCE 011442444-06



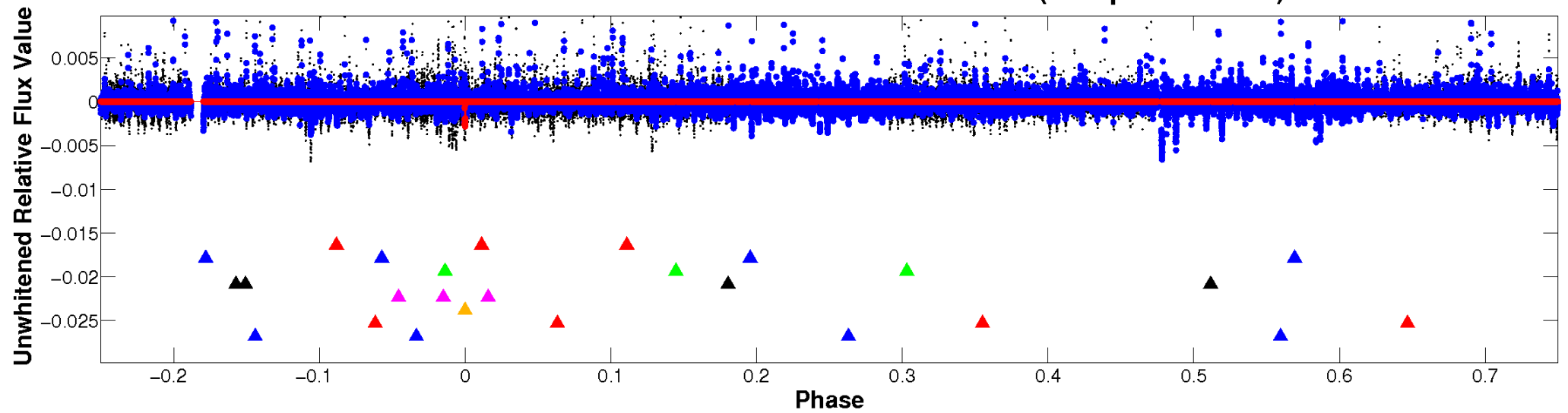
ALT Odd/Even

TCE 011442444-06

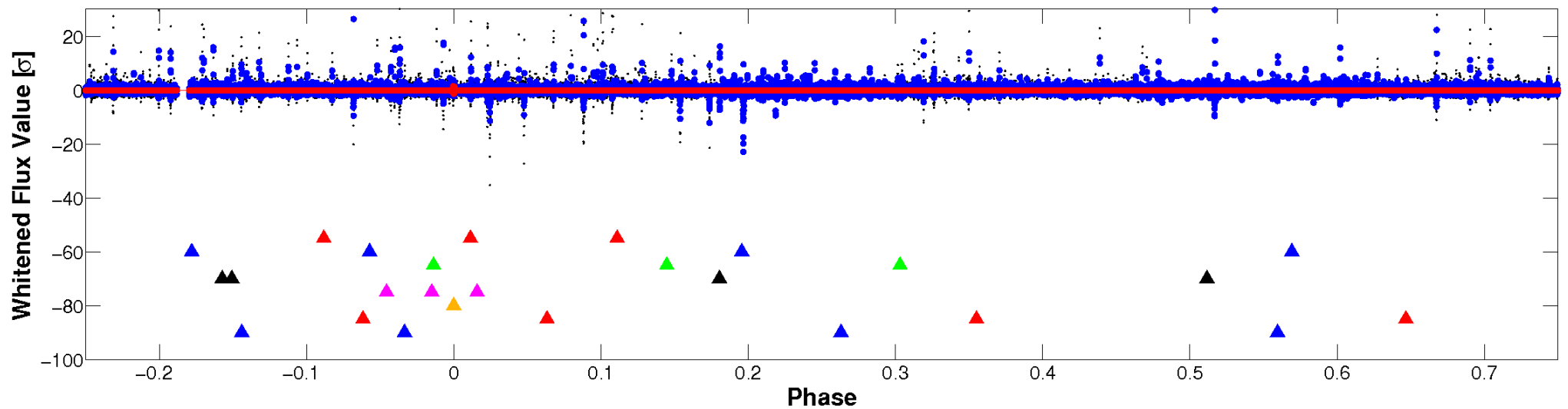


Non-Whitened Vs. Whitened Light Curve

Planet 6 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

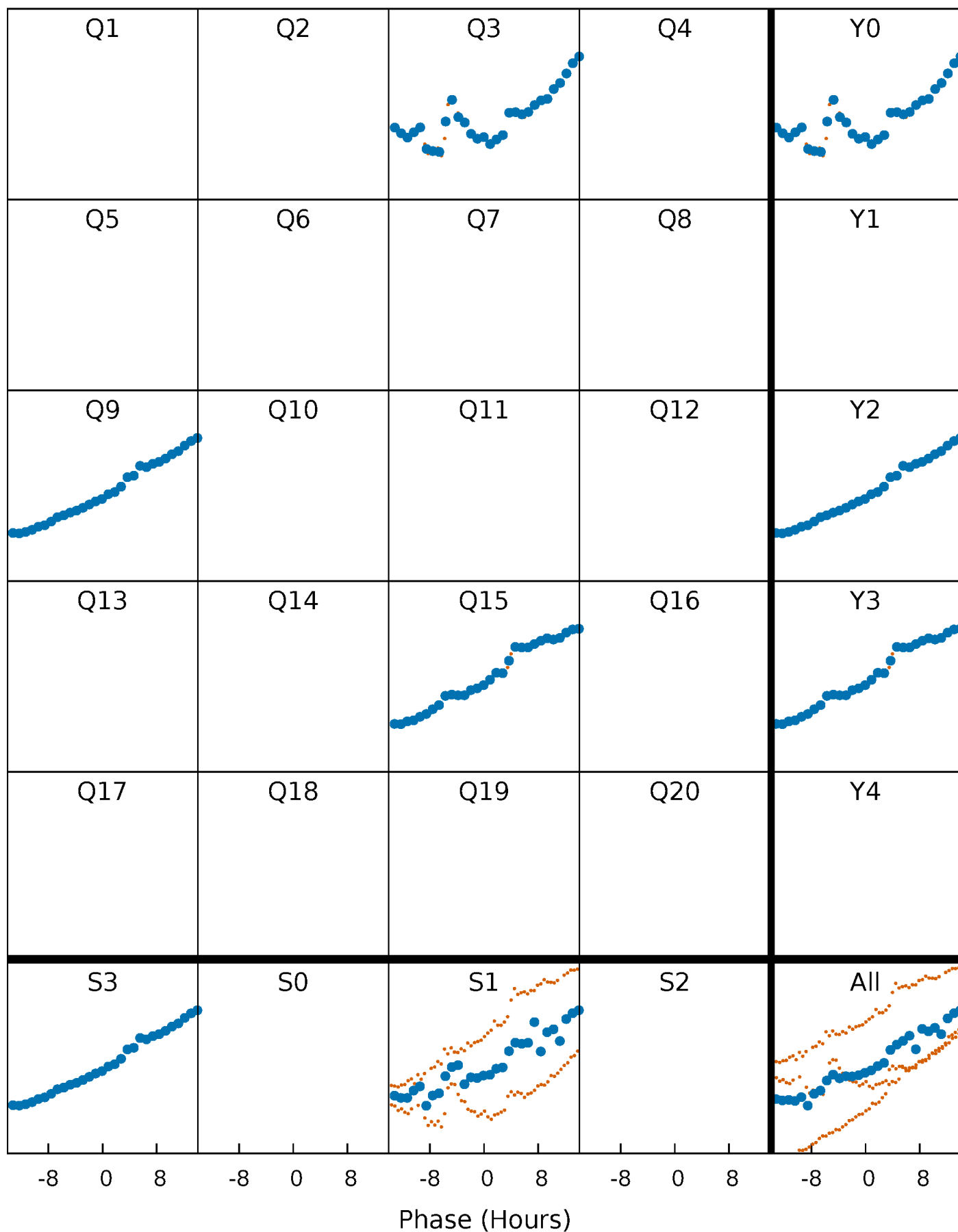


Planet 6 : Phased Whitened Flux Time Series (Fit Epoch/Period)



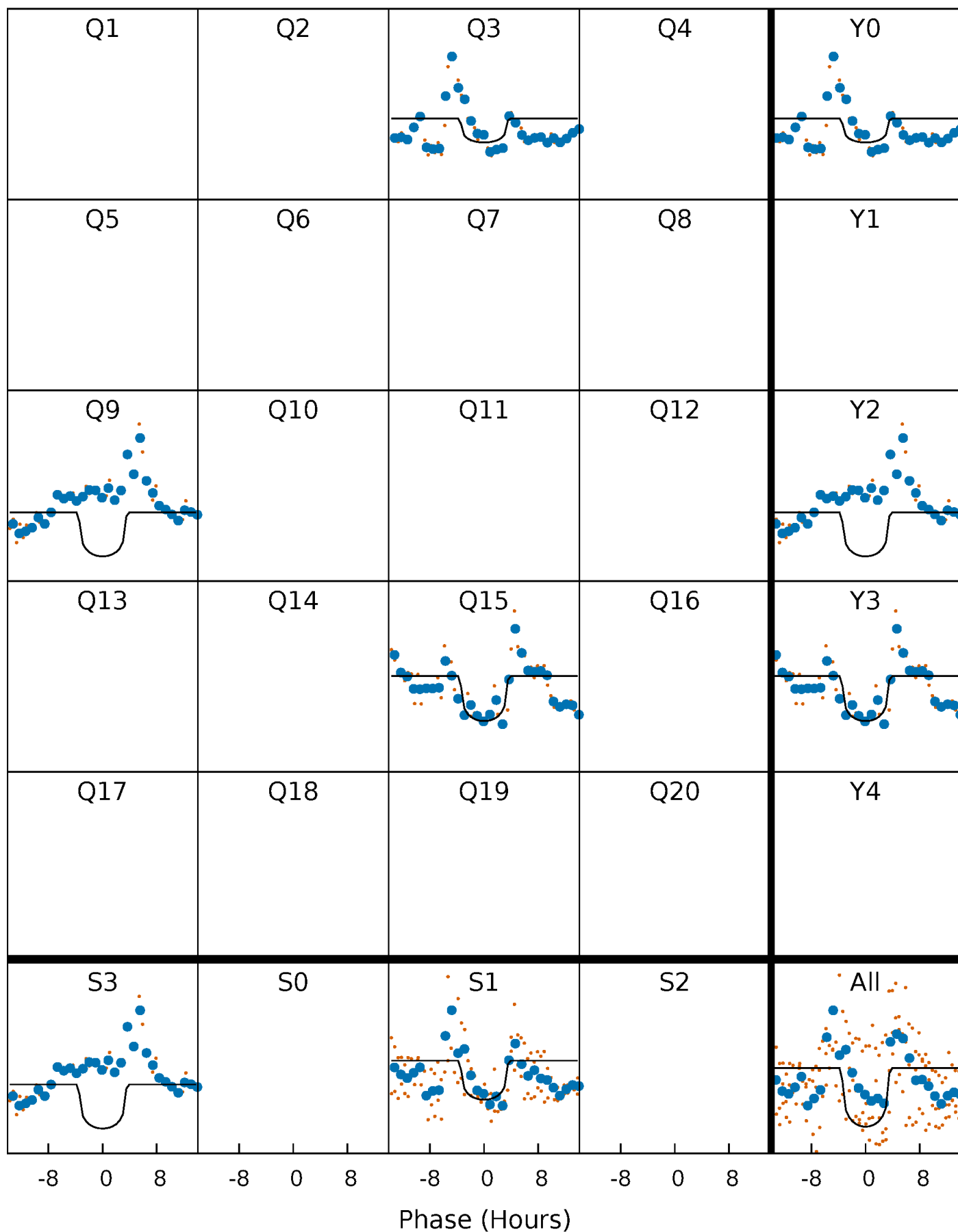
PDC Quarter-Phased Transit Curves

TCE 011442444-06 P=562.394418 Days $T_0=270.784485$ (BKJD)



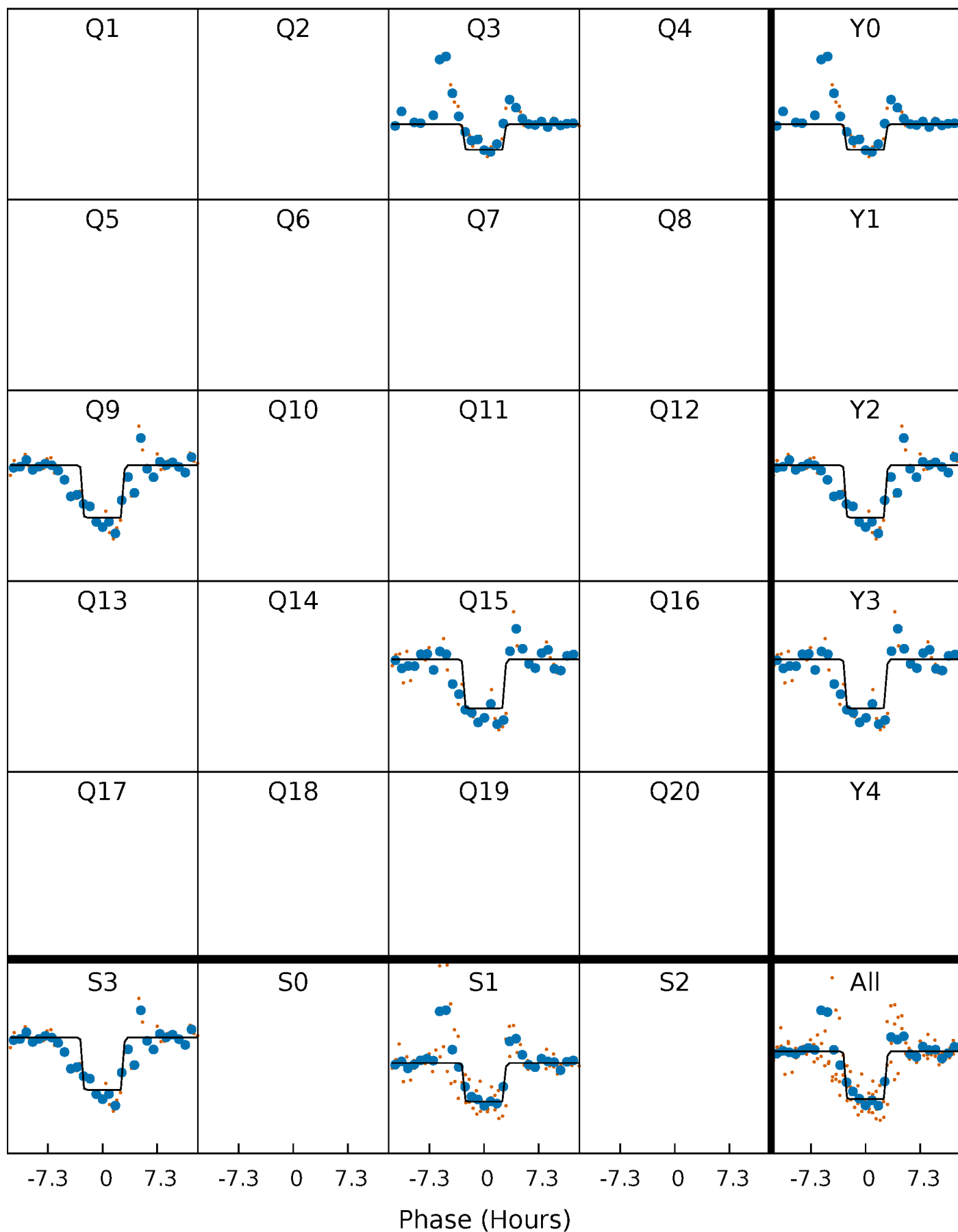
DV Quarter-Phased Transit Curves

TCE 011442444-06 $P=562.394418$ Days $T_0=270.784485$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

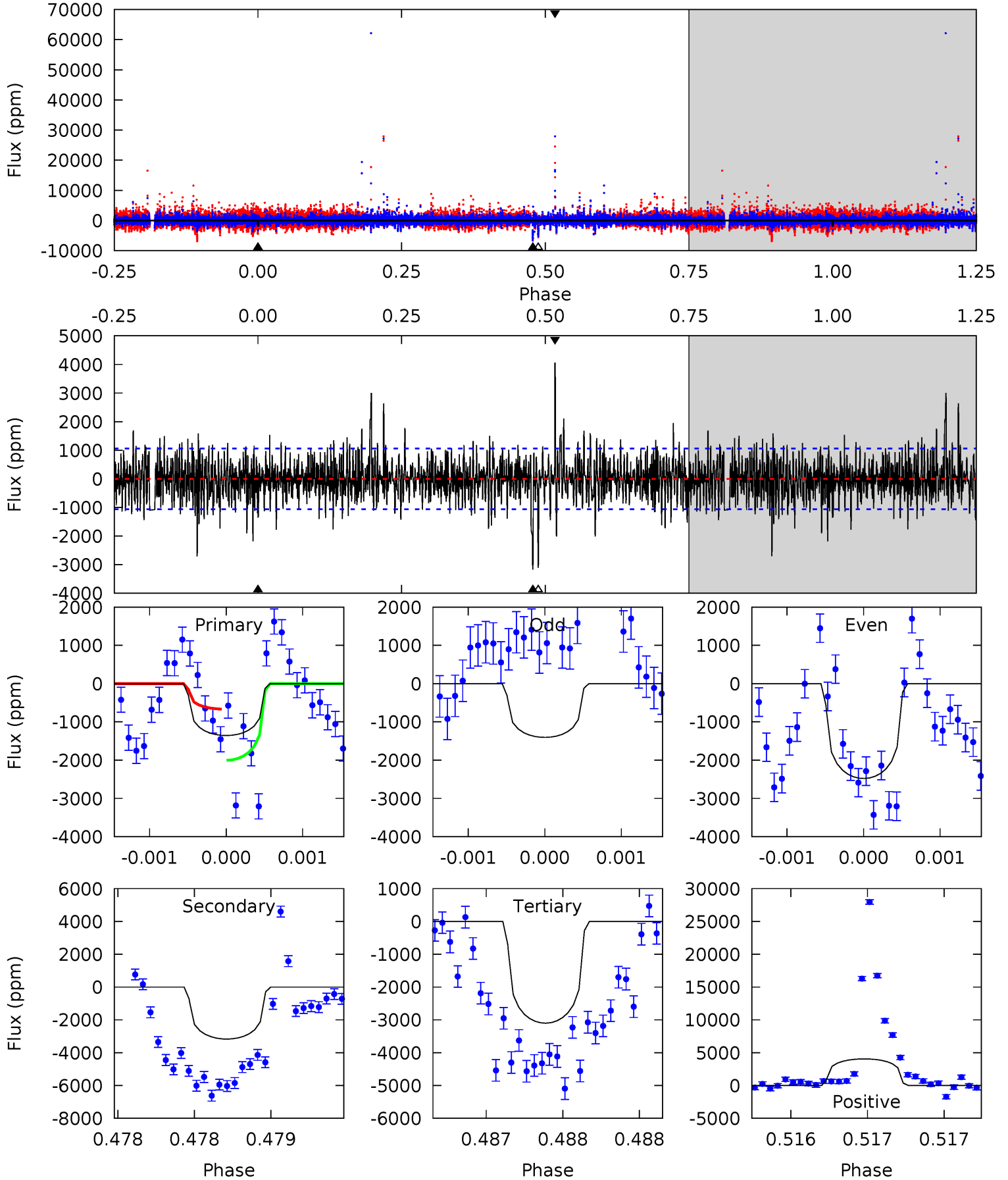
TCE 011442444-06 P=562.392872 Days $T_0=270.810156$ (BKJD)



DV Model-Shift Uniqueness Test

011442444-06, P = 562.394418 Days, E = 270.784485 Days

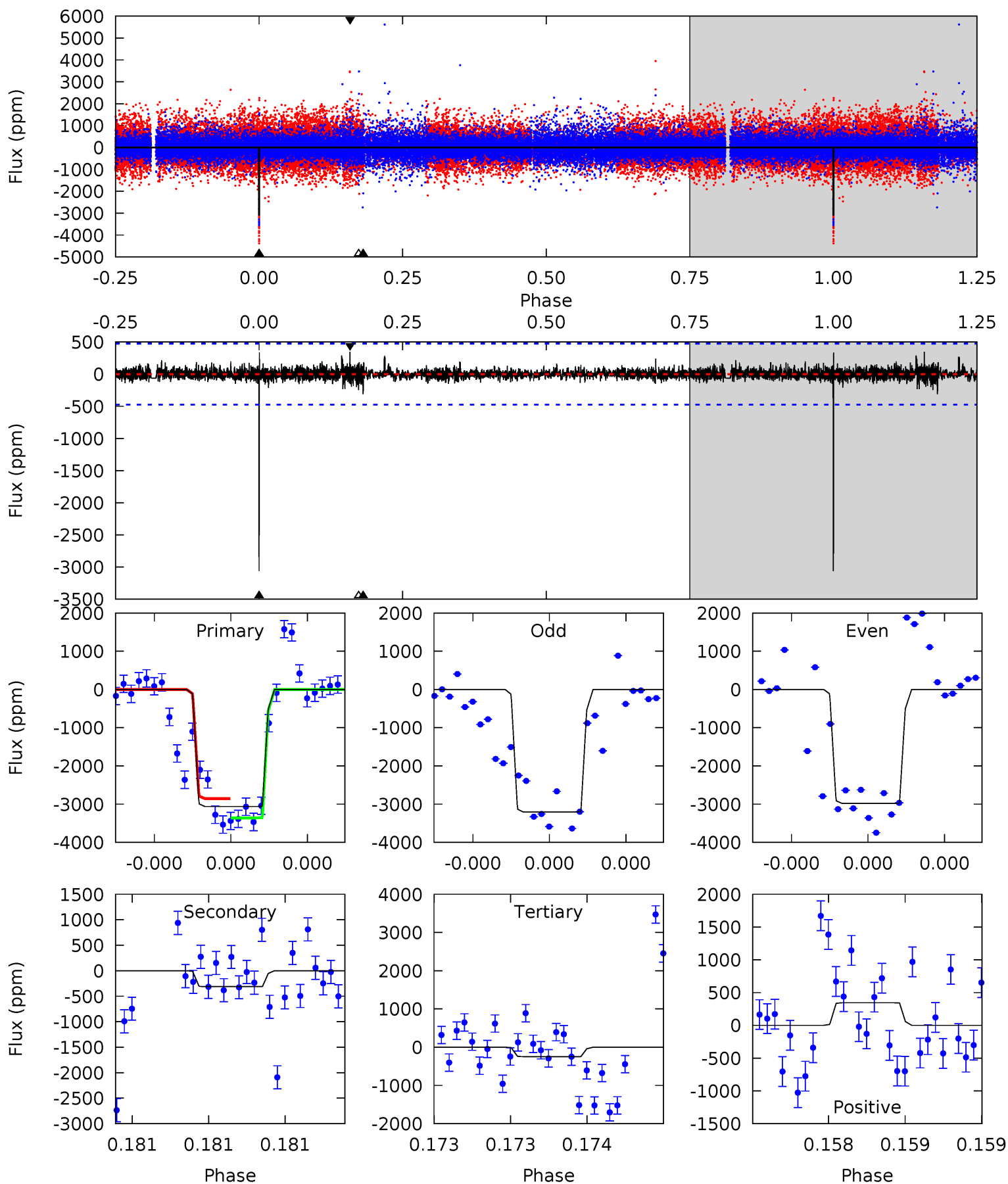
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.13	16.7	16.3	21.3	5.57	3.48	2.88	-9.17	-14.2	0.36	-4.63	2.19	0.51	0.56	3.54



Alt Model-Shift Uniqueness Test

011442444-06, P = 562.392872 Days, E = 270.810156 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
36.1	3.68	2.91	4.06	5.60	3.52	0.53	33.2	32.0	0.77	-0.38	1.31	0.94	0.10	2.94



Stellar Parameters For KIC 011442444

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5501^{+166}_{-149}	$4.589^{+0.036}_{-0.135}$	$-0.260^{+0.300}_{-0.300}$	$0.774^{+0.164}_{-0.070}$	$0.864^{+0.083}_{-0.100}$	$2.619^{+0.469}_{-1.017}$
	+3%/-3%	+1%/-3%	+115%/-115%	+21%/-9%	+10%/-12%	+18%/-39%
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 011442444-06 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-3170 ± 190	$4.67^{+3.58}_{-2.78}$	270^{+14}_{-10}	5653^{+3774}_{-1195}	$125049^{+656875}_{-85355}$
Alt.	-312 ± 85	$5.05^{+3.41}_{-2.94}$	270^{+13}_{-11}	3504^{+1316}_{-520}	10218^{+50912}_{-6760}

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

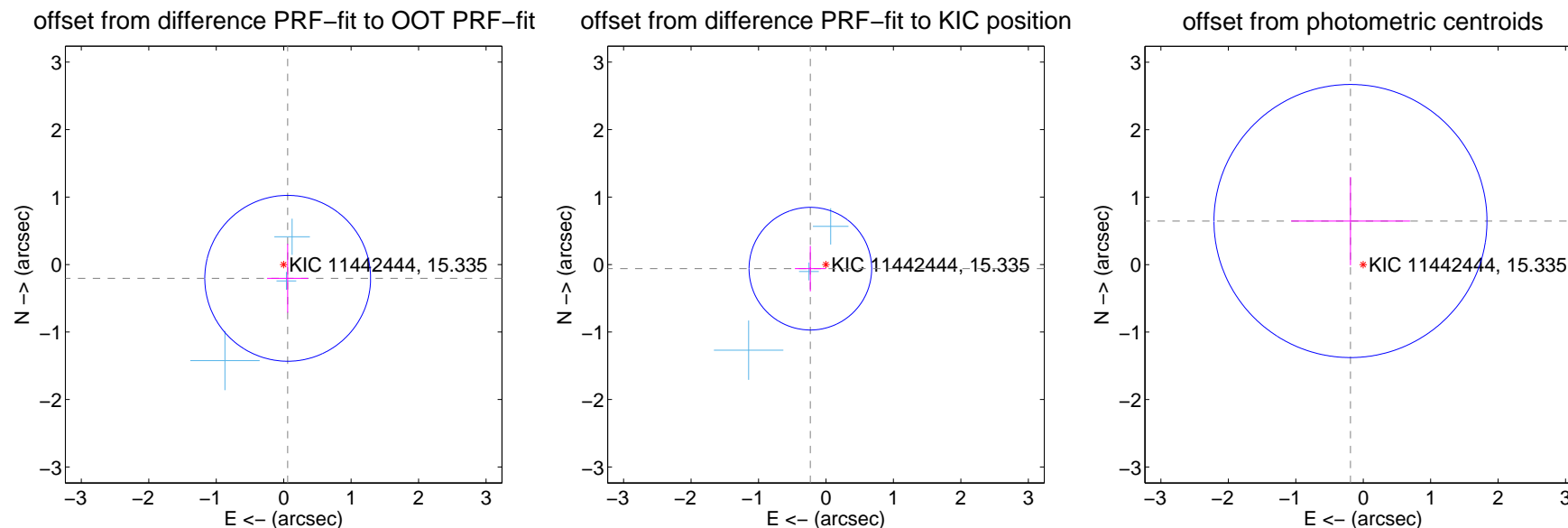
DV Centroid Data

Supplemental centroid analysis for 011442444-06. Kepler magnitude: 15.34. Transit SNR 8.87

There are 3 quarters with good PRF difference image offsets

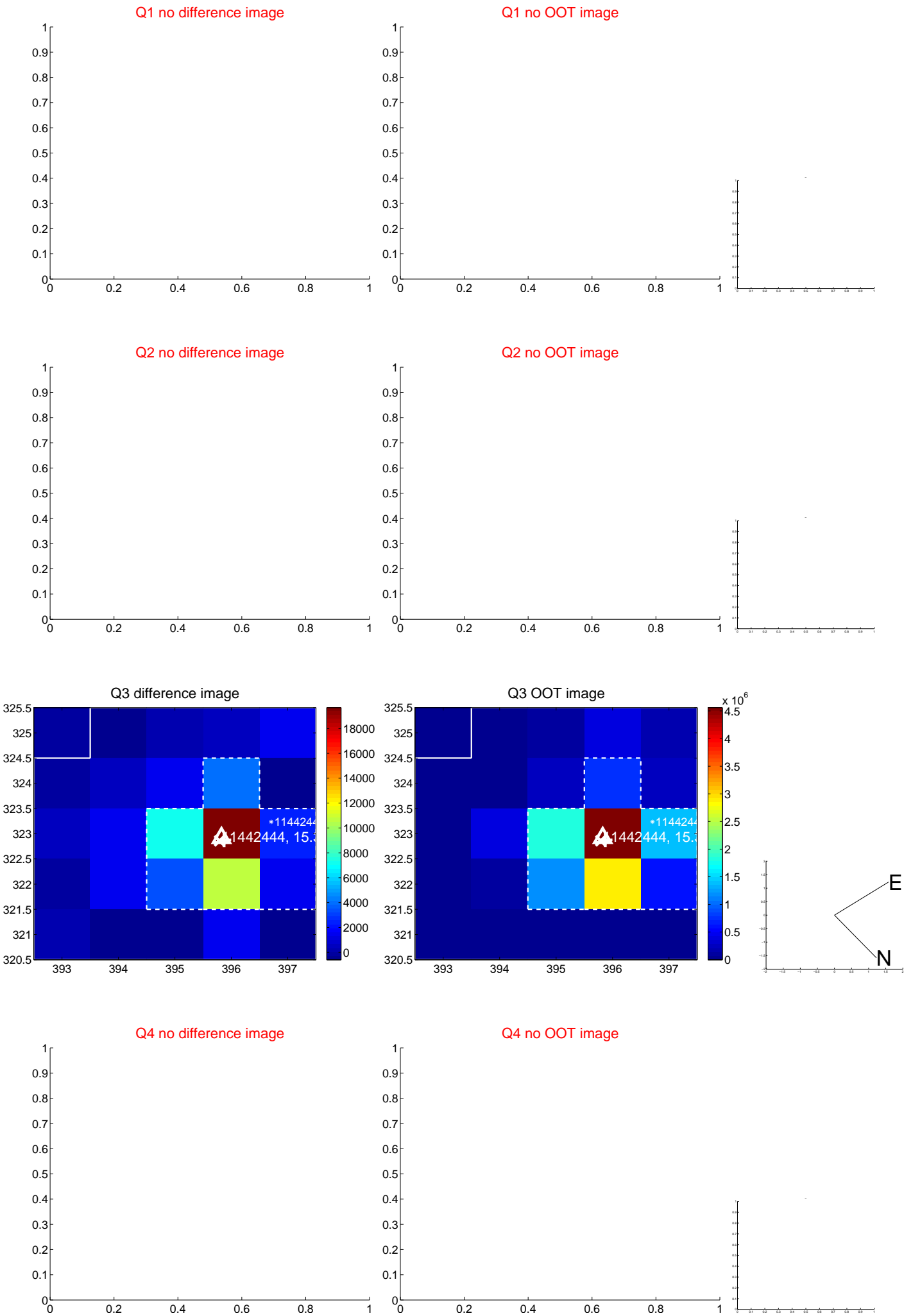
The direct PRF centroid is offset from the target star catalog position by about 0.32 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.213 ± 0.410	0.52	-0.059 ± 0.305	-0.204 ± 0.509
PRF-fit source offset from KIC position	0.239 ± 0.303	0.79	0.231 ± 0.229	-0.061 ± 0.337
photometric centroid source offset	0.67 ± 0.67	1.00	0.19 ± 0.88	0.65 ± 0.65



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

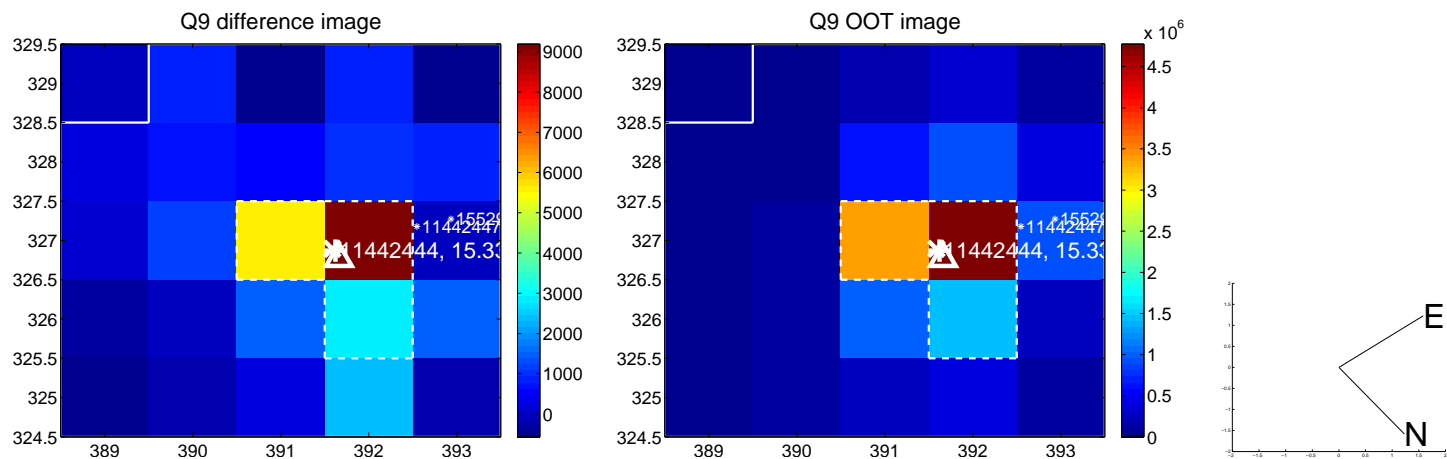
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



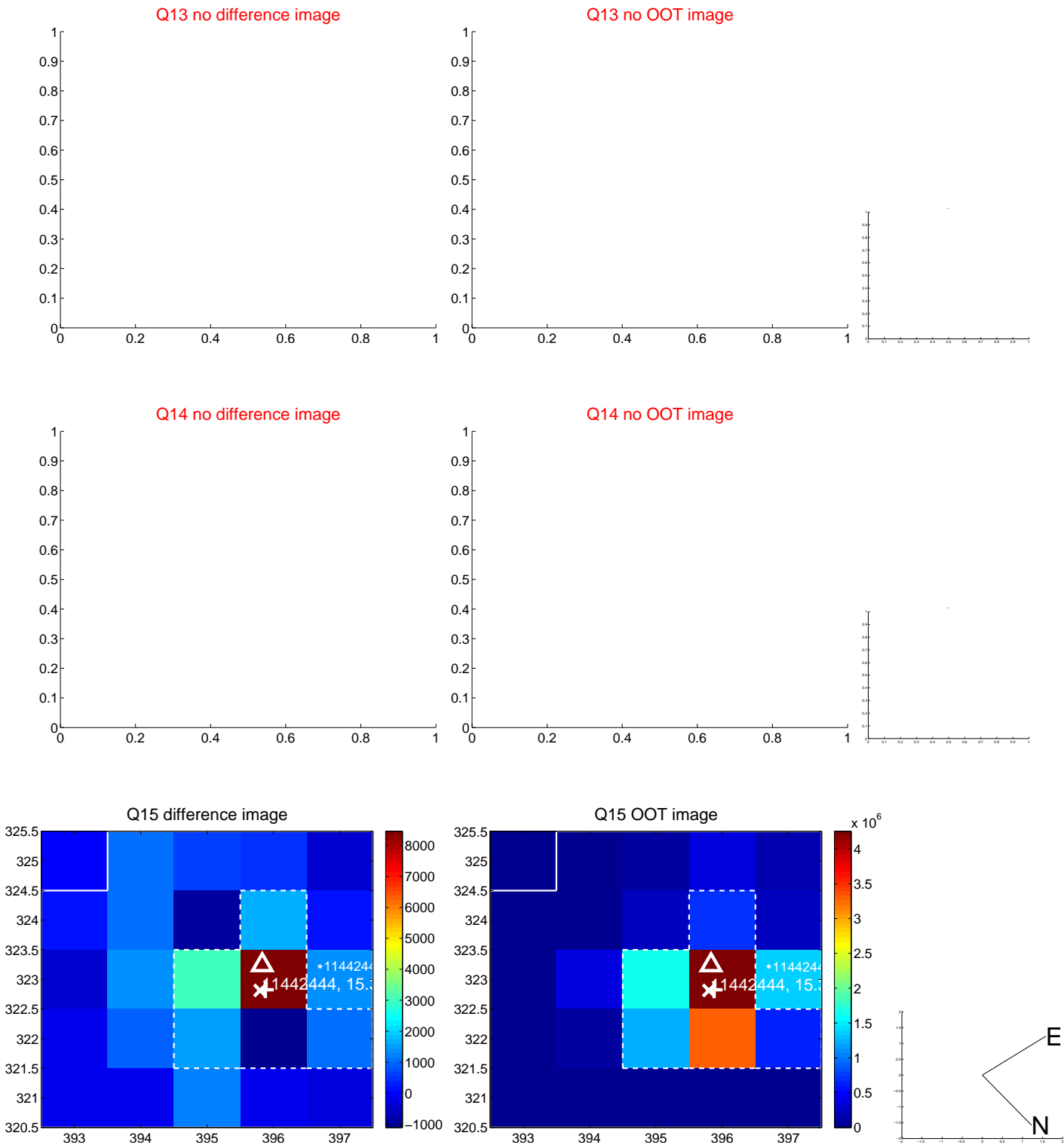
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



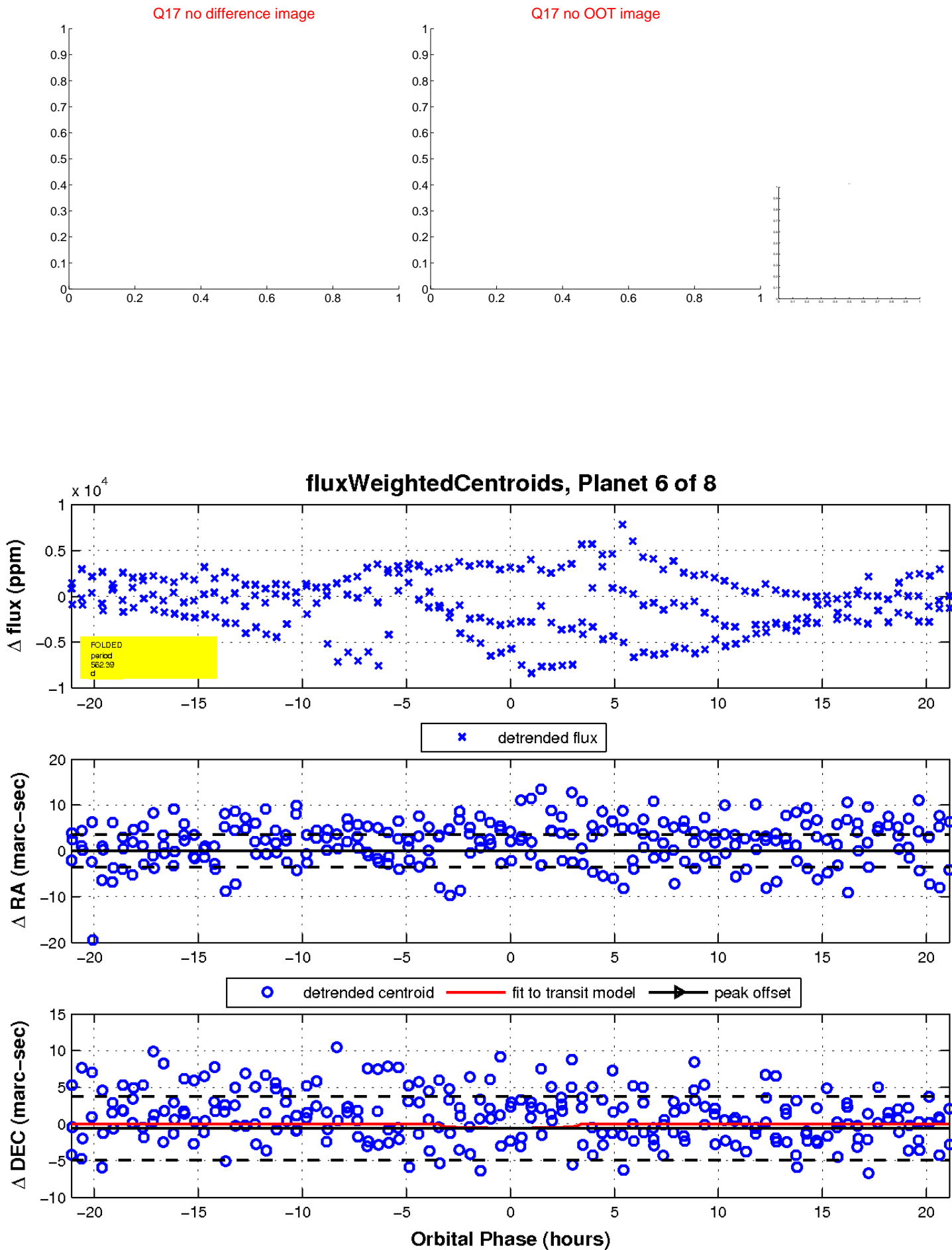
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



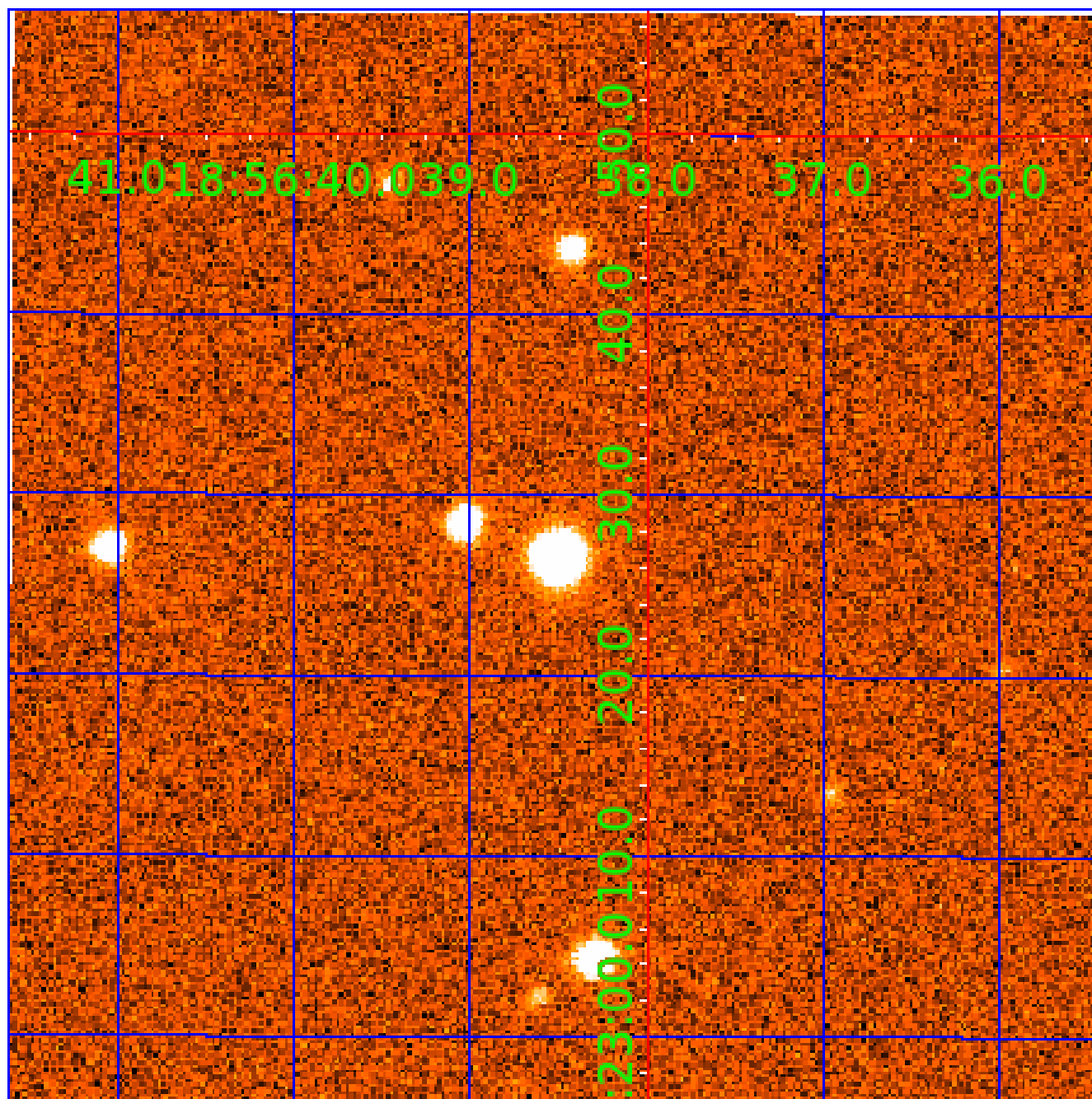
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image



KIC 011442444

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})
011442444-01	OBS	No	618.425753	221.145634	2387.1	5.132	15.2	7.5	0.77	5501	3.93	0.27
011442444-02	OBS	No	352.281436	238.642649	2158.6	6.590	15.1	7.3	0.77	5501	3.59	0.57
011442444-03	OBS	No	651.494671	263.057994	2454.4	4.401	13.2	7.7	0.77	5501	3.79	0.25
011442444-04	OBS	No	376.159227	182.351632	1367.2	3.134	12.2	5.4	0.77	5501	2.96	0.53
011442444-06	OBS	No	562.394418	270.784485	2836.3	7.037	12.7	8.9	0.77	5501	4.06	0.31
011442444-07	OBS	No	398.363012	236.131466	1250.4	3.396	7.6	5.2	0.77	5501	2.92	0.49
011442444-08	OBS	No	395.653194	189.819541	2075.1	3.000	10.5	-1.0	0.77	5501	3.48	0.49

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011442444-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_FEW_DIFFS
011442444-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—LPP_ALT—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
011442444-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV
011442444-04	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS—HALO_GHOST
011442444-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV
011442444-07	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS—HALO_GHOST
011442444-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_NOFITS

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

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

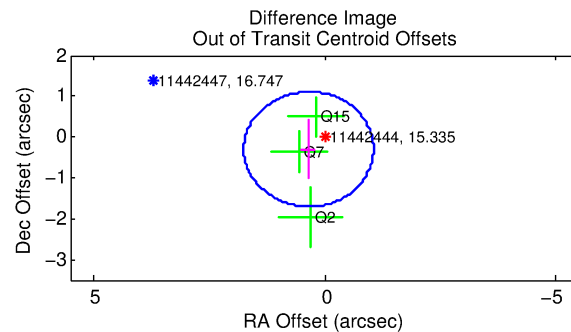
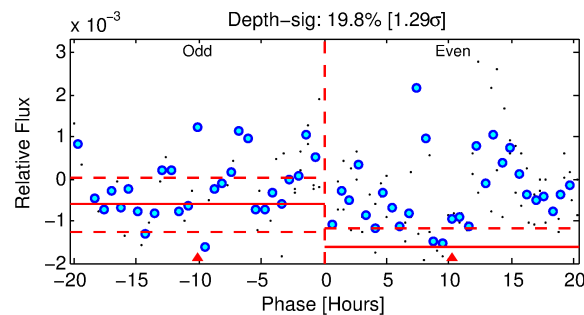
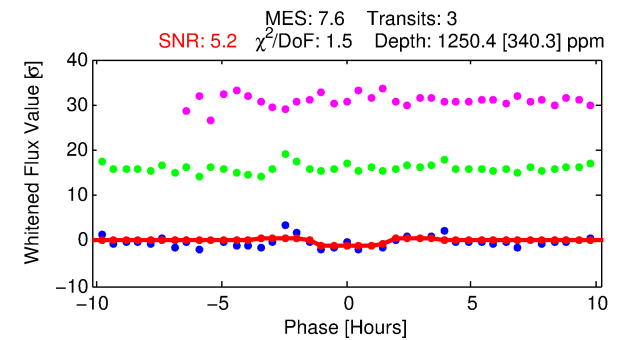
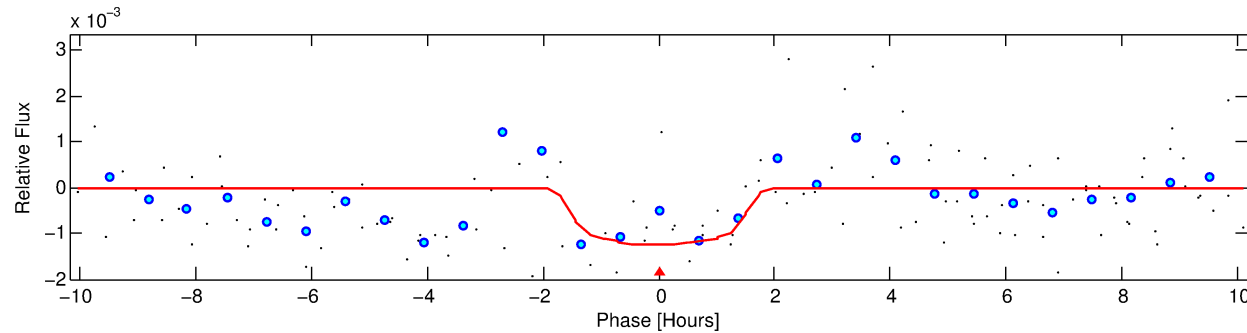
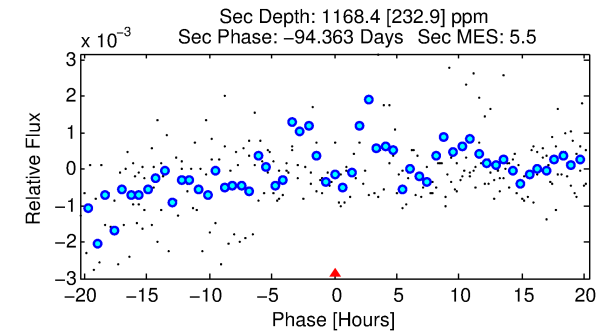
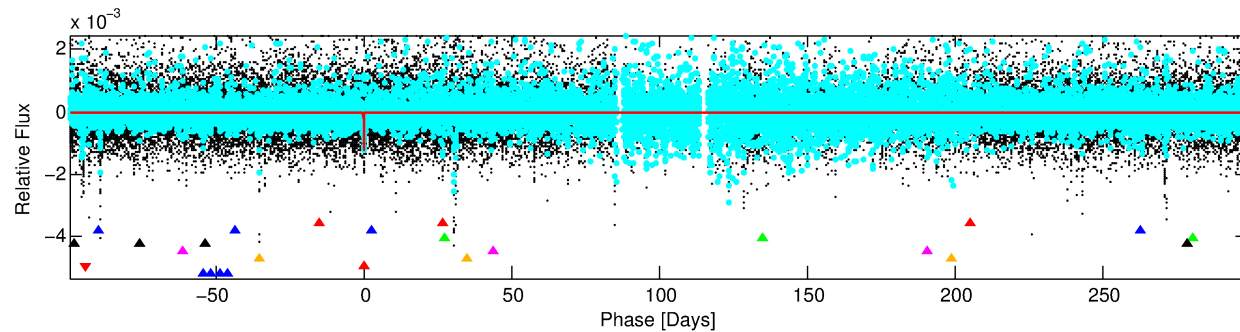
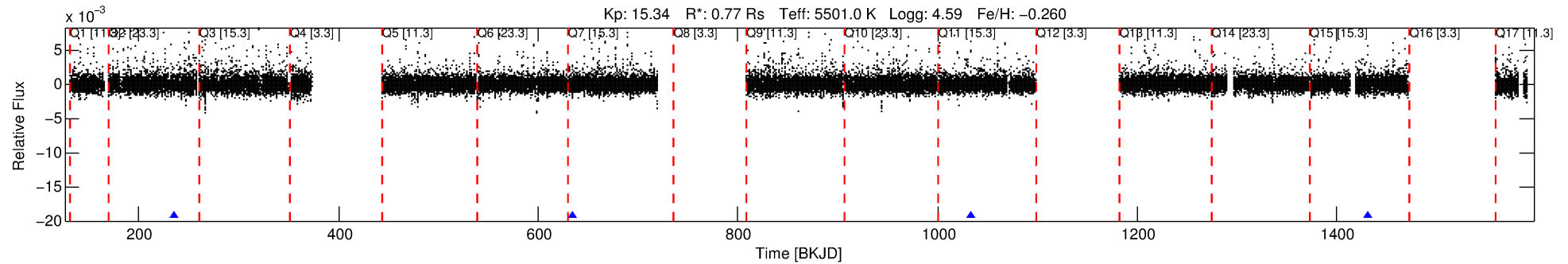
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011442444-07

No Significant Match Found

DV One-Page Summary

KIC: 11442444 Candidate: 7 of 8 Period: 398.363 d



DV Fit Results:

Period = 398.36301 [0.00646] d
Epoch = 236.1315 [0.0116] BKJD
Rp/R* = 0.0346 [0.1154]
a/R* = 681.84 [9420.24]
b = 0.70 [10.20]
Seff = 0.49 [0.14]
Teq = 213 [15] K
Rp = 2.92 [9.76] Re
a = 1.0032 [0.1757] AU
Ag = 75668.94 [504980.07] [0.15 σ]
Teffp = 5466 [9115] K [0.58 σ]

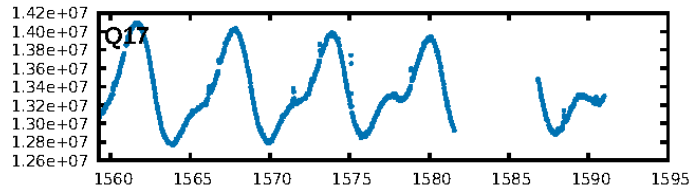
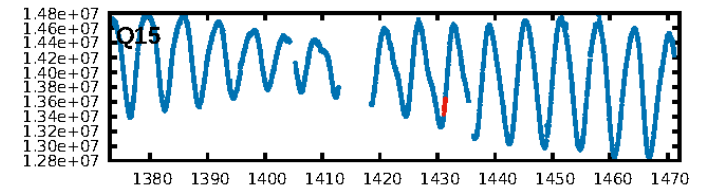
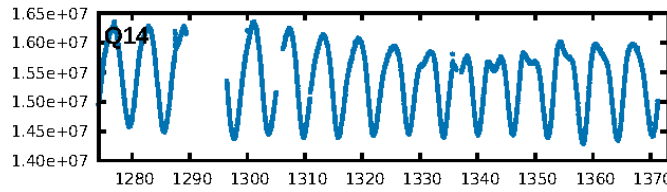
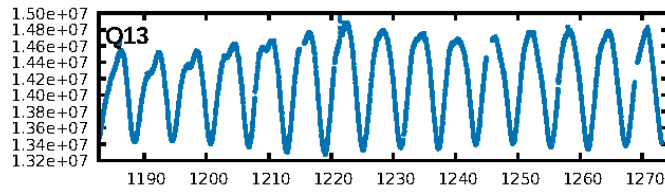
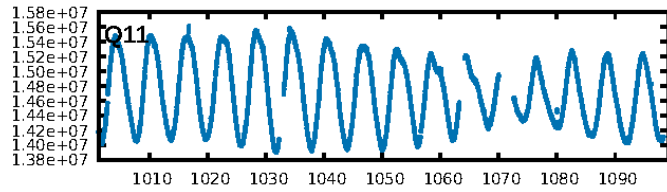
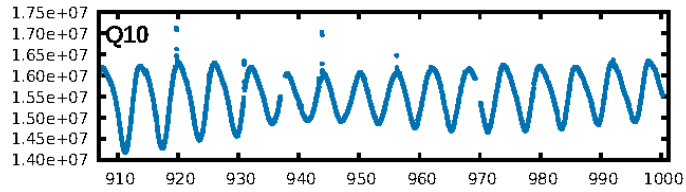
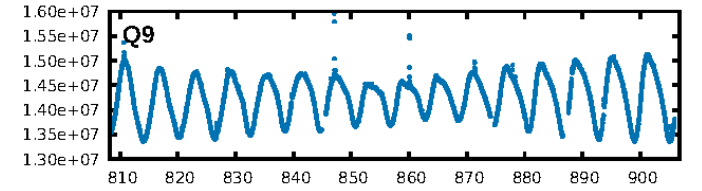
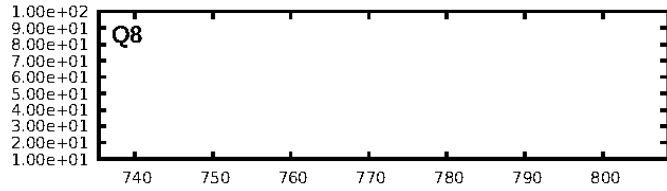
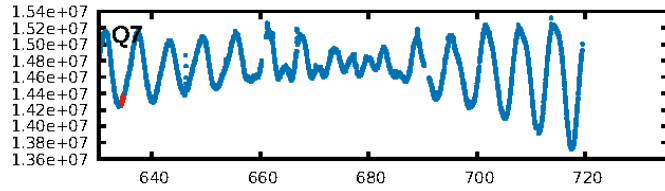
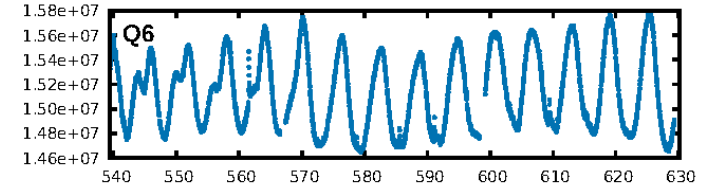
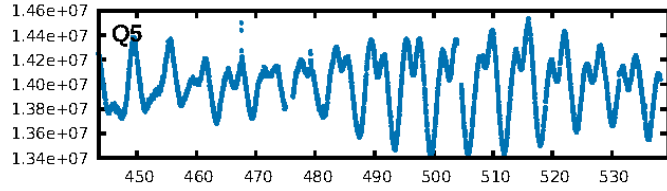
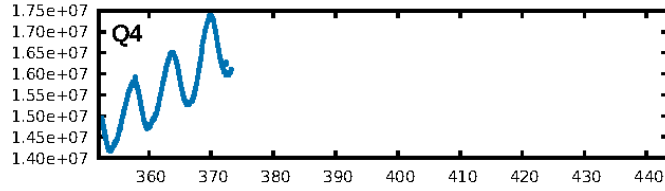
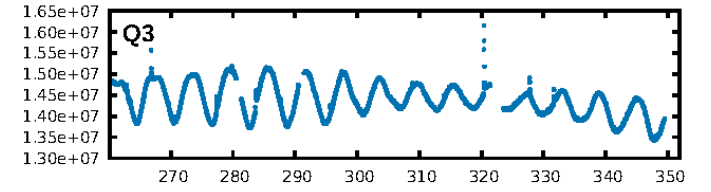
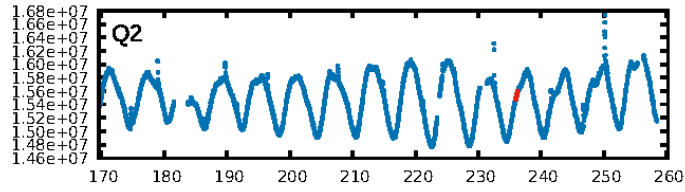
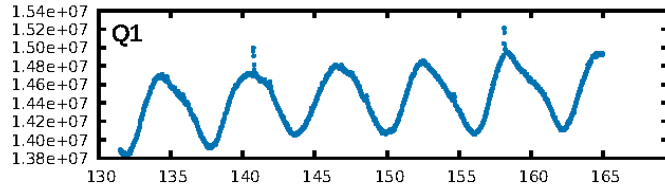
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [14.35 σ]
LongPeriod-sig: 100.0% [503.72 σ]
ModelChiSquare2-sig: 41.1%
ModelChiSquareGoF-sig: 97.8%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -0.121
Centroid-sig: 69.6%
Centroid-so: 1.426 arcsec [0.61 σ]
OotOffset-rm: 0.457 arcsec [0.98 σ]
OotOffset-st: 1/2/0/0 [3]
KicOffset-rm: 0.596 arcsec [1.61 σ]
KicOffset-st: 1/2/0/0 [3]
DiffImageQuality-fgm: 0.67 [2/3]
DiffImageOverlap-fno: 1.00 [3/3]

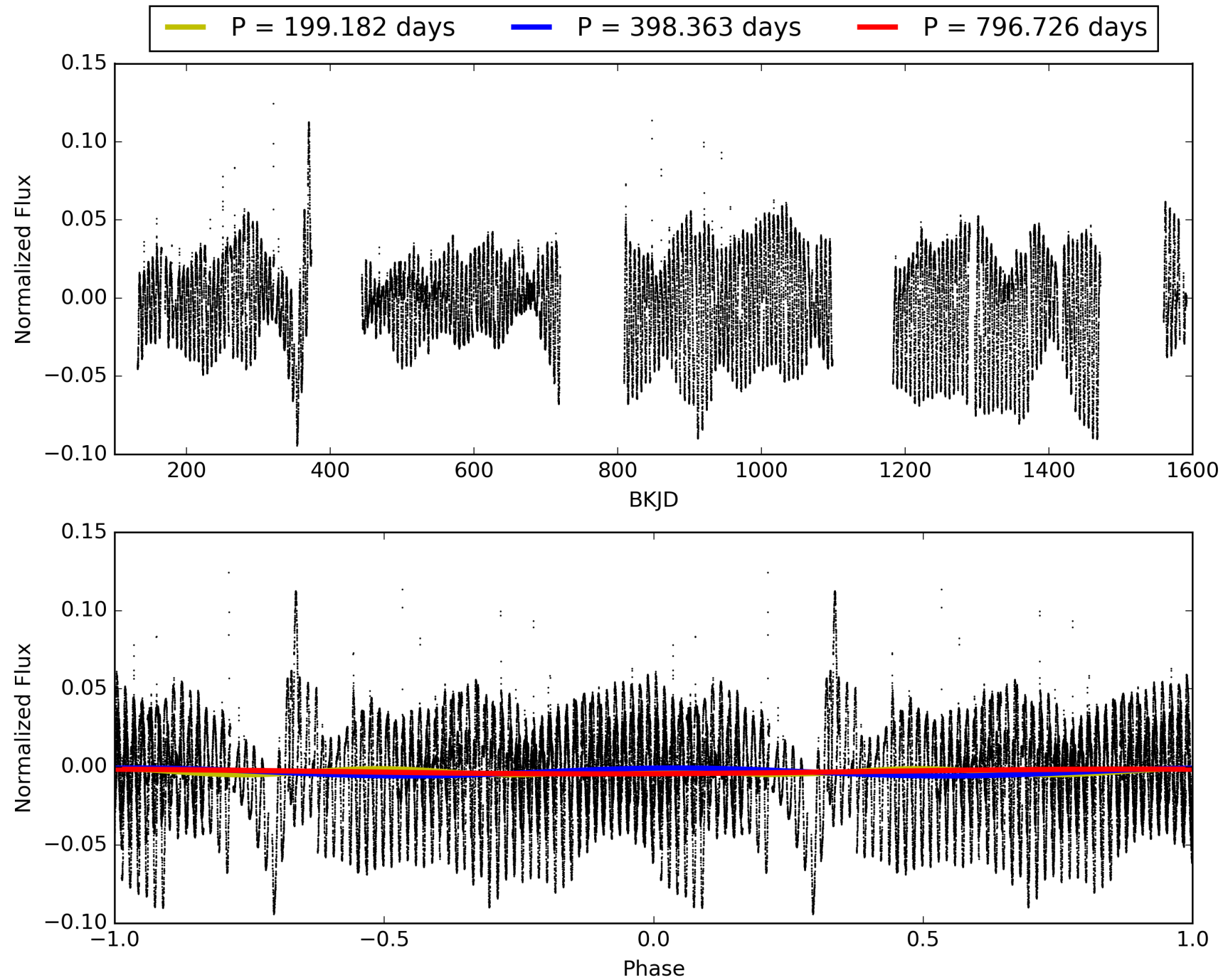
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 05:35:29 Z

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

TCE 011442444-07, PDC Light Curves

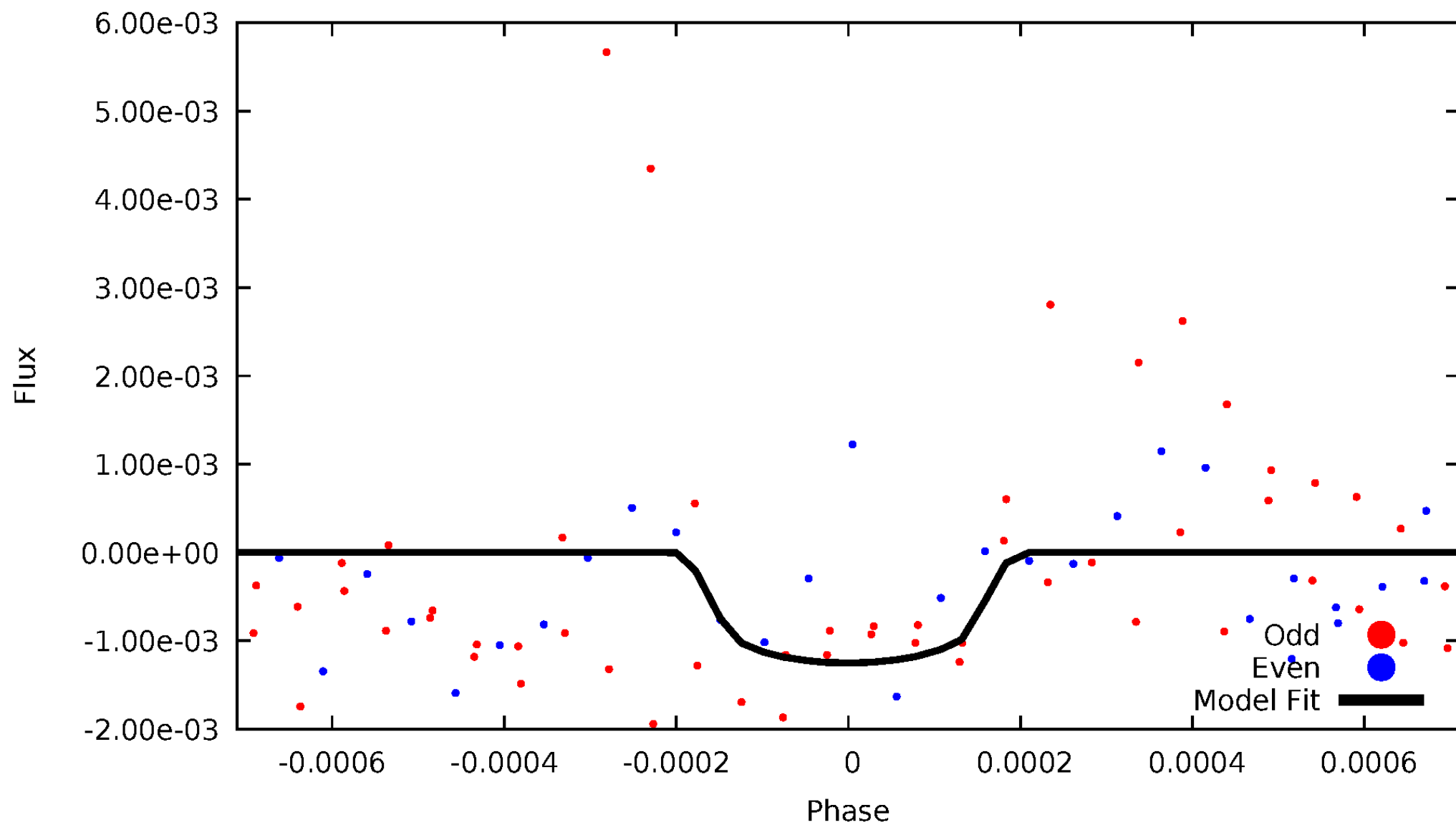


TCE 011442444-07



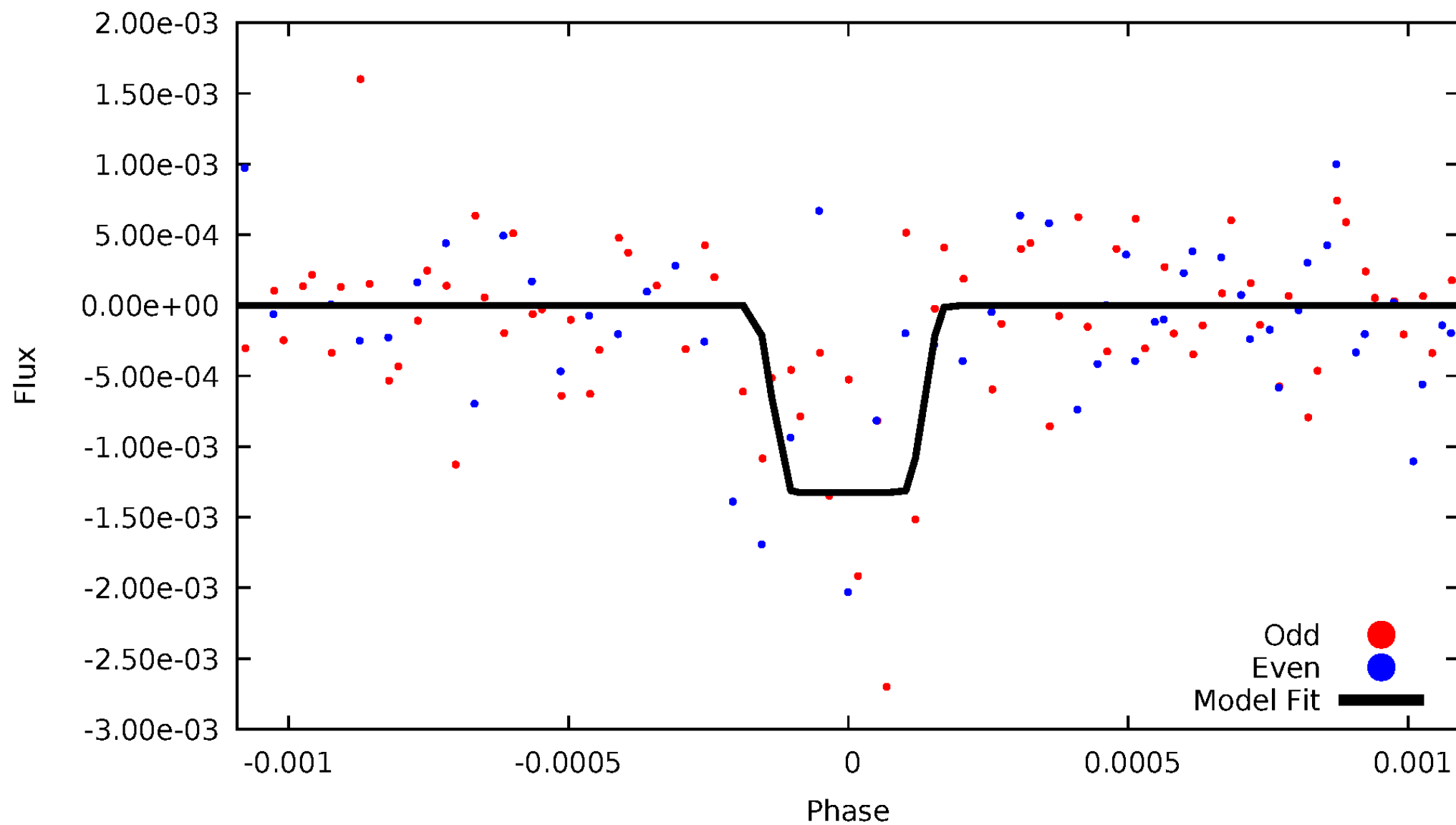
DV Odd/Even

TCE 011442444-07



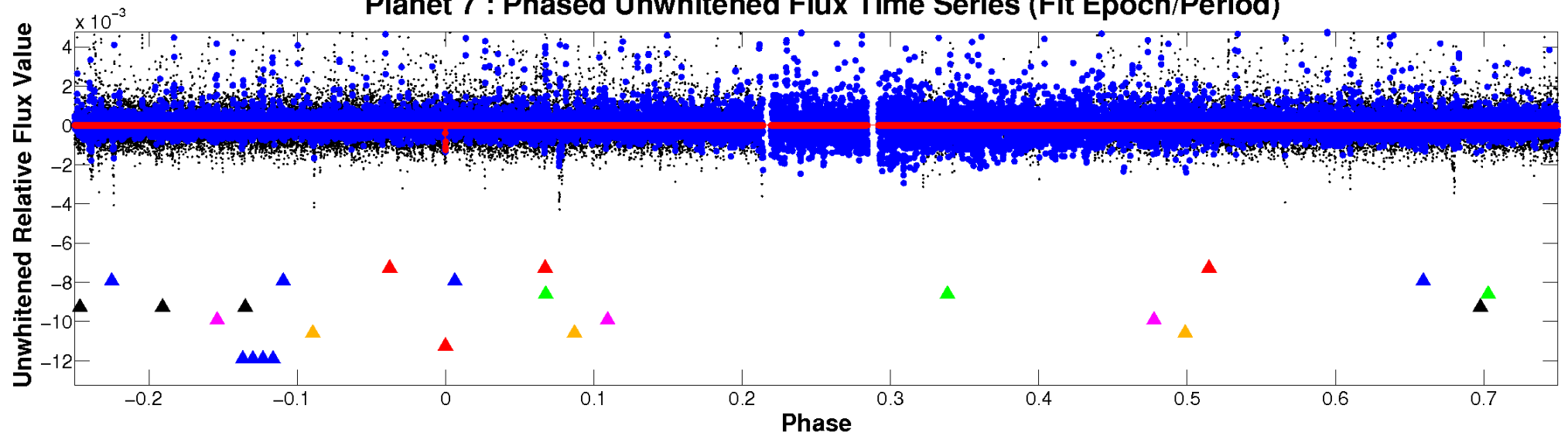
ALT Odd/Even

TCE 011442444-07

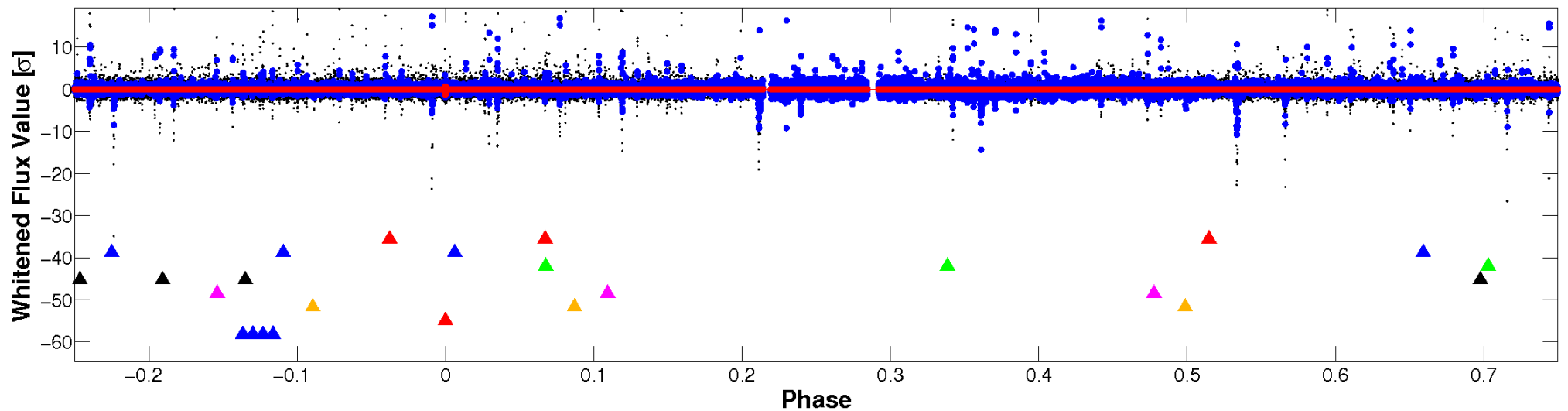


Non-Whitened Vs. Whitened Light Curve

Planet 7 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

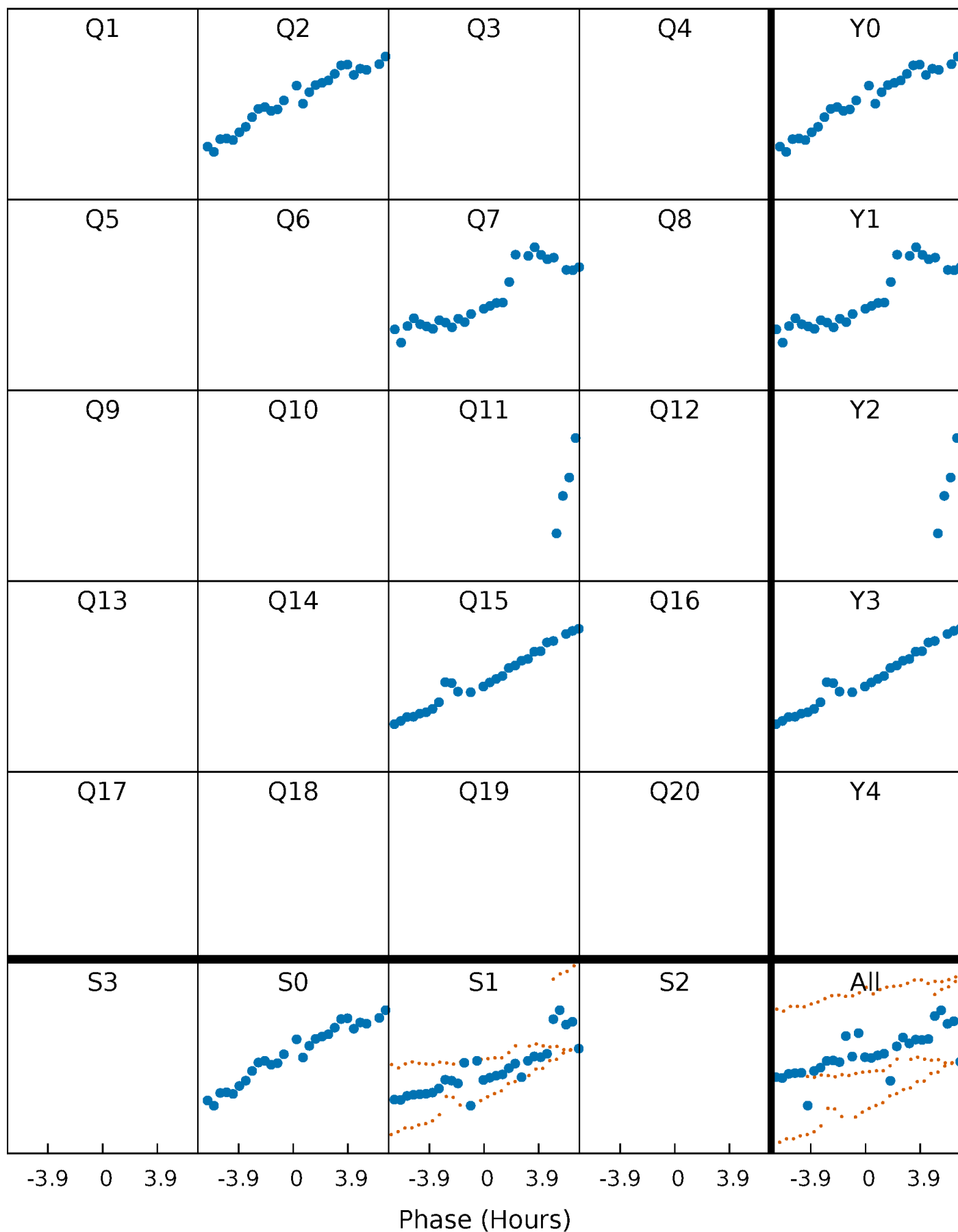


Planet 7 : Phased Whitened Flux Time Series (Fit Epoch/Period)



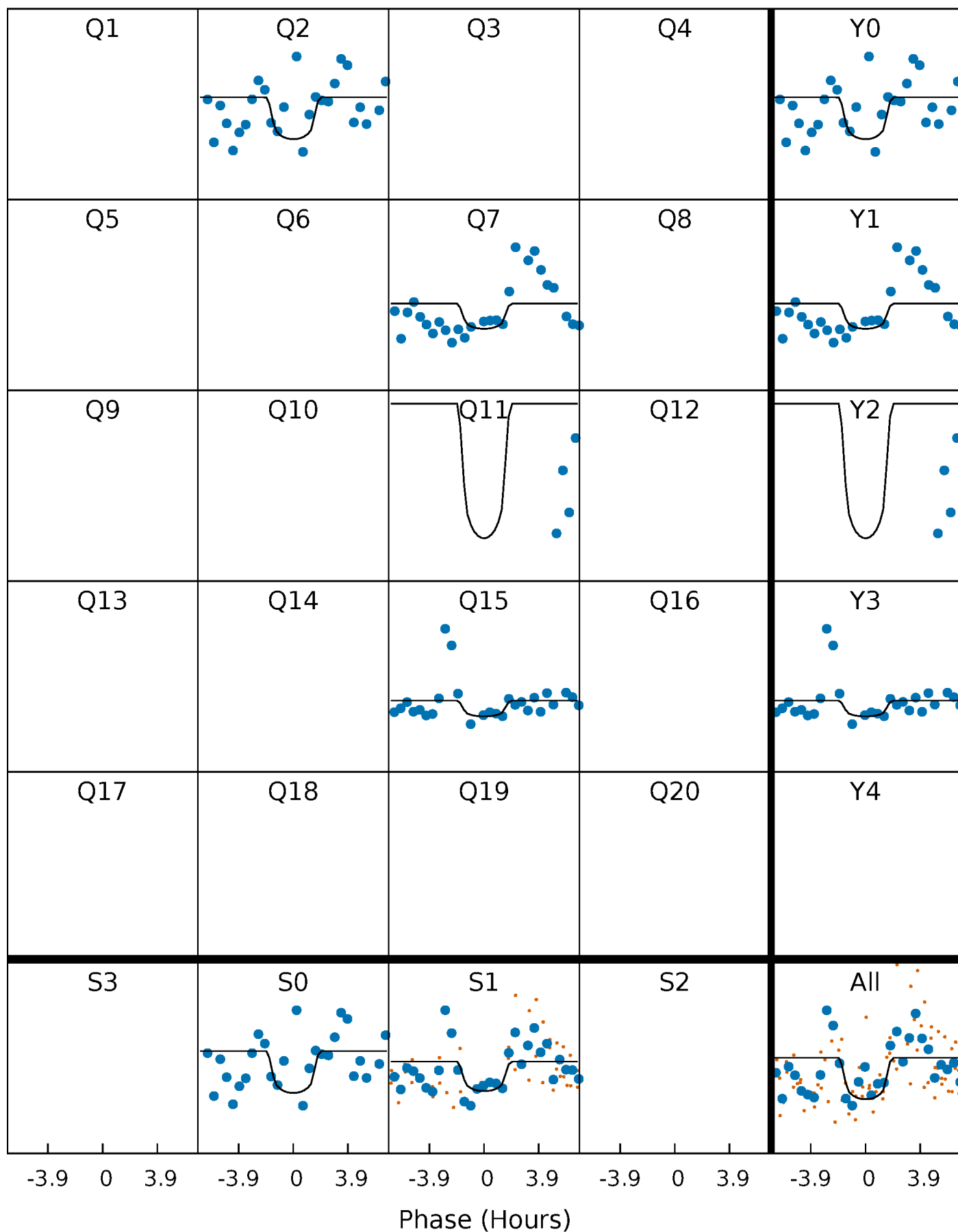
PDC Quarter-Phased Transit Curves

TCE 011442444-07 P=398.363012 Days $T_0=236.131466$ (BKJD)



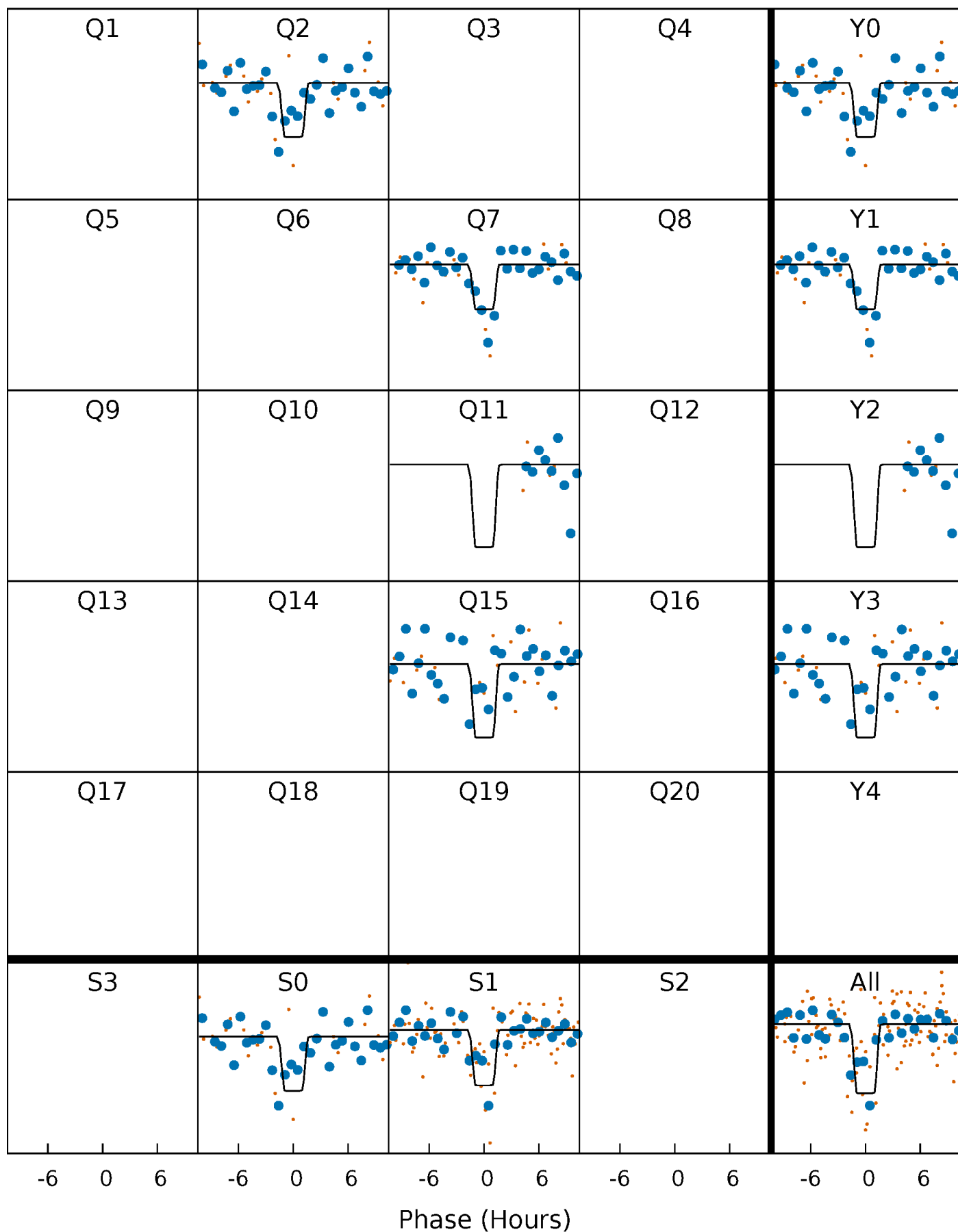
DV Quarter-Phased Transit Curves

TCE 011442444-07 P=398.363012 Days $T_0=236.131466$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

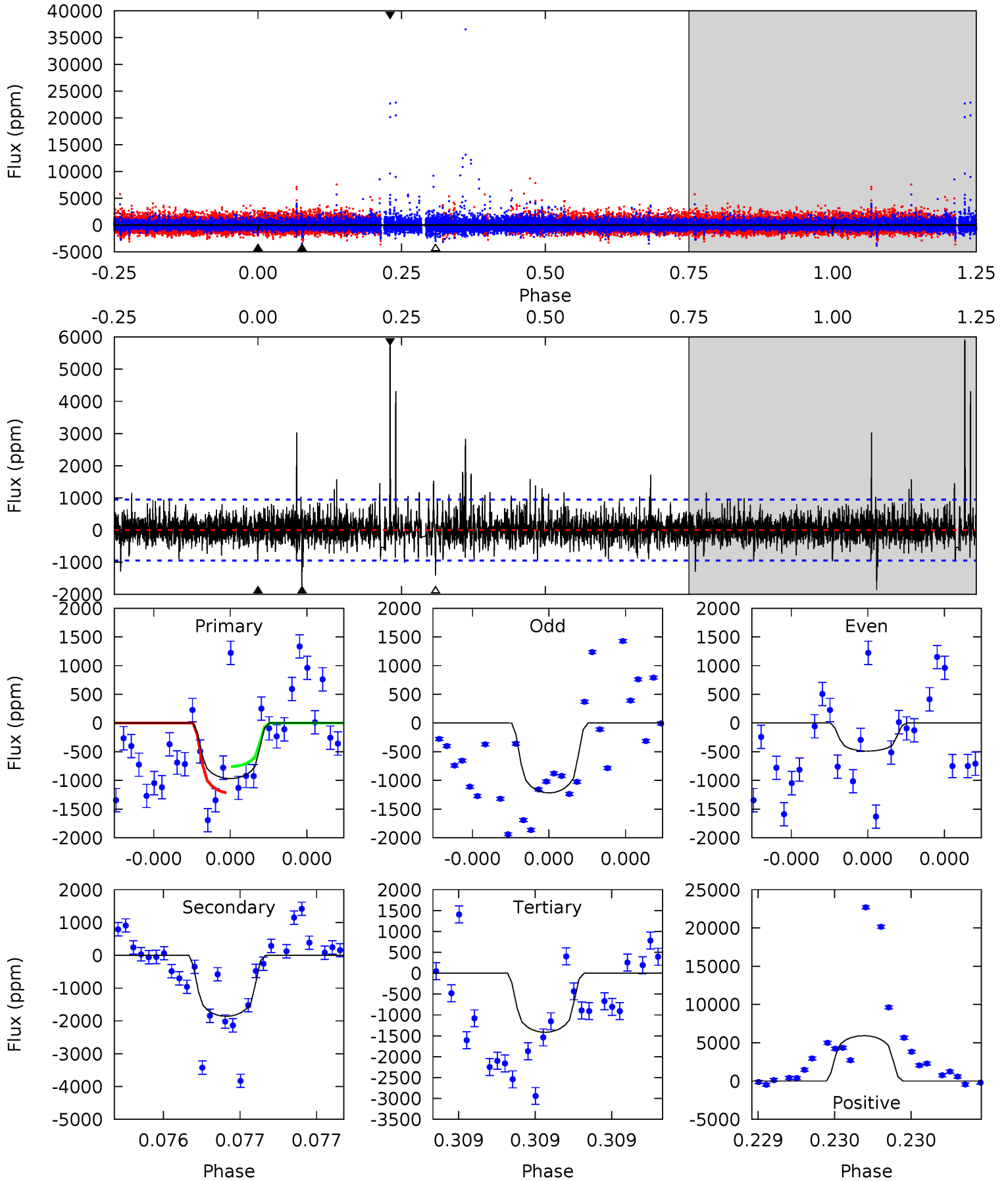
TCE 011442444-07 $P=398.365695$ Days $T_0=236.154225$ (BKJD)



DV Model-Shift Uniqueness Test

011442444-07, P = 398.363012 Days, E = 236.131466 Days

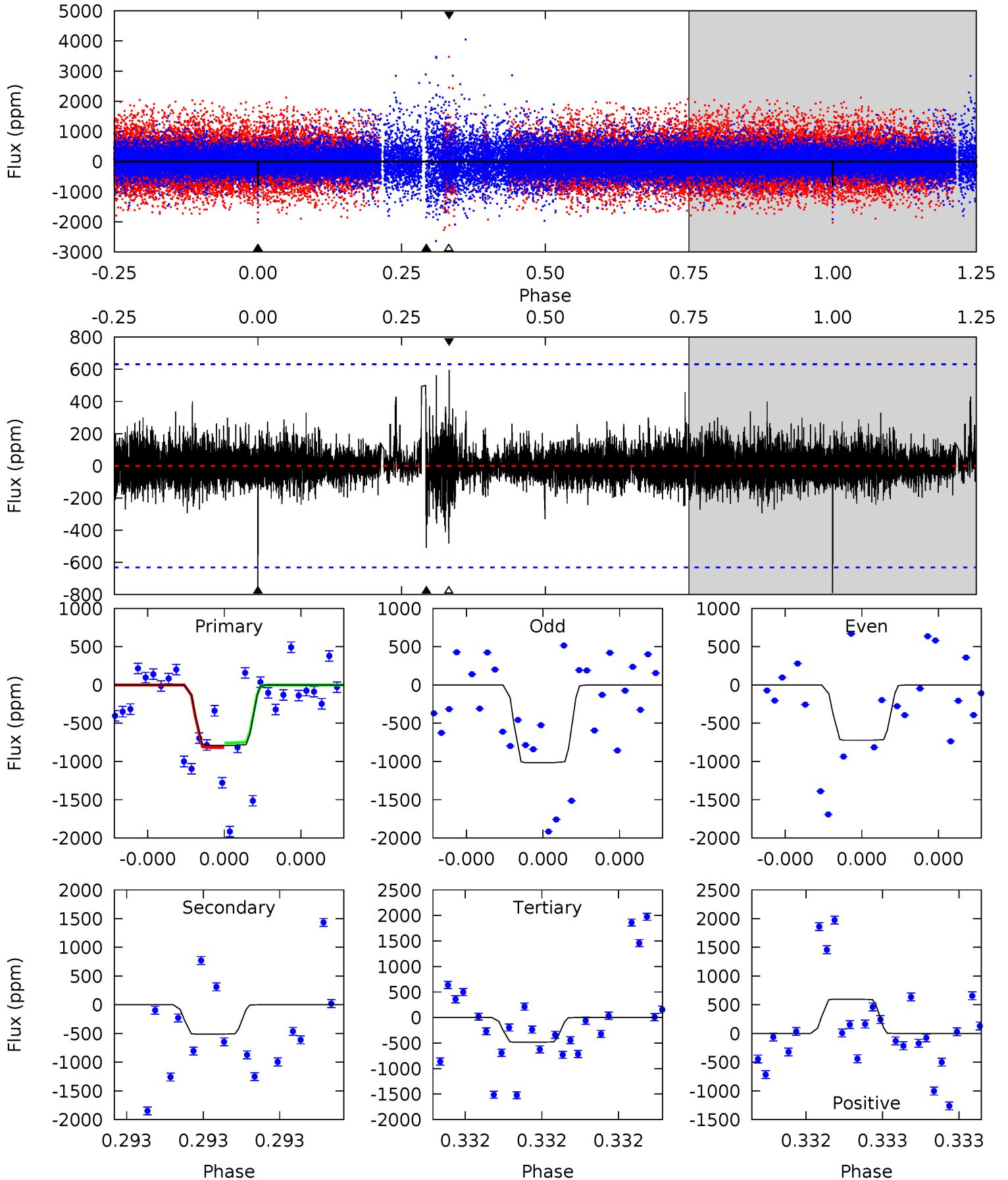
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.73	11.0	8.36	35.0	5.61	3.53	1.81	-2.64	-29.3	2.62	-24.0	1.30	0.84	0.76	1.32



Alt Model-Shift Uniqueness Test

011442444-07, P = 398.365695 Days, E = 236.154225 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.03	4.55	4.30	5.31	5.63	3.57	0.65	2.73	1.72	0.25	-0.76	1.22	1.28	0.43	0.27



Stellar Parameters For KIC 011442444

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5501^{+166}_{-149}	$4.589^{+0.036}_{-0.135}$	$-0.260^{+0.300}_{-0.300}$	$0.774^{+0.164}_{-0.070}$	$0.864^{+0.083}_{-0.100}$	$2.619^{+0.469}_{-1.017}$
	+3%/-3%	+1%/-3%	+115%/-115%	+21%/-9%	+10%/-12%	+18%/-39%
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 011442444-07 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-1859 ± 169	$8.21^{+8.02}_{-5.85}$	304^{+14}_{-12}	4018^{+3015}_{-789}	$14903^{+168263}_{-10968}$
Alt.	-510 ± 112	$8.22^{+7.86}_{-5.62}$	304^{+14}_{-13}	3232^{+1595}_{-528}	3881^{+38278}_{-2859}

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 $A_{obs} \gg 1.0$

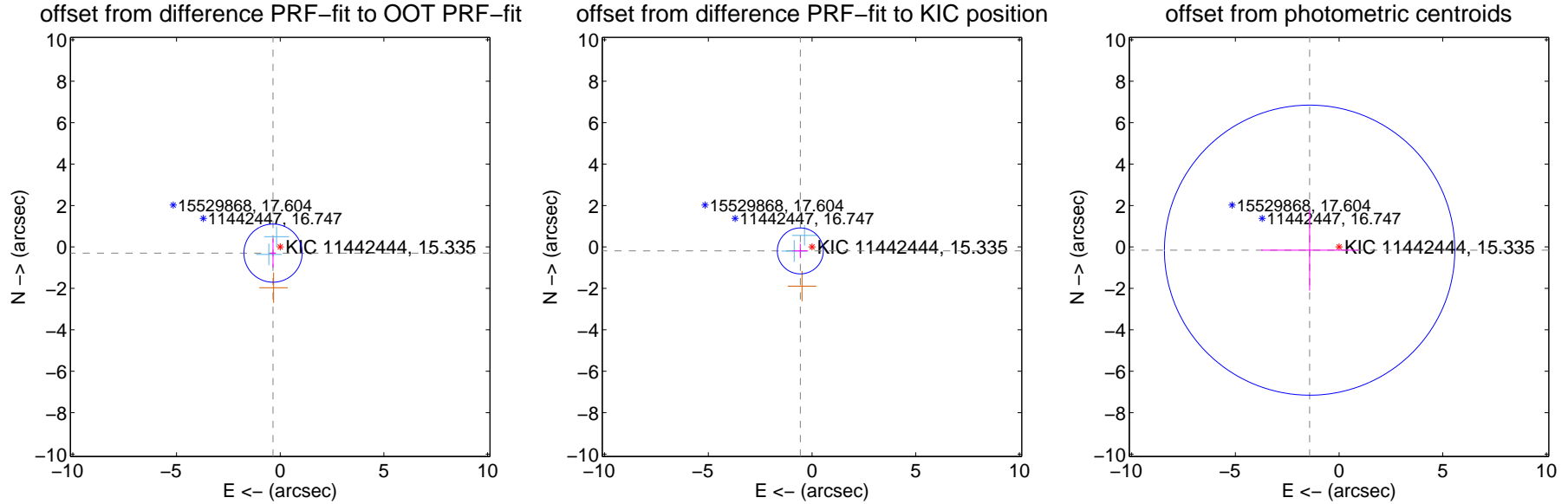
DV Centroid Data

Supplemental centroid analysis for 011442444-07. Kepler magnitude: 15.34. Transit SNR 5.20

There are 2 quarters with good PRF difference image offsets

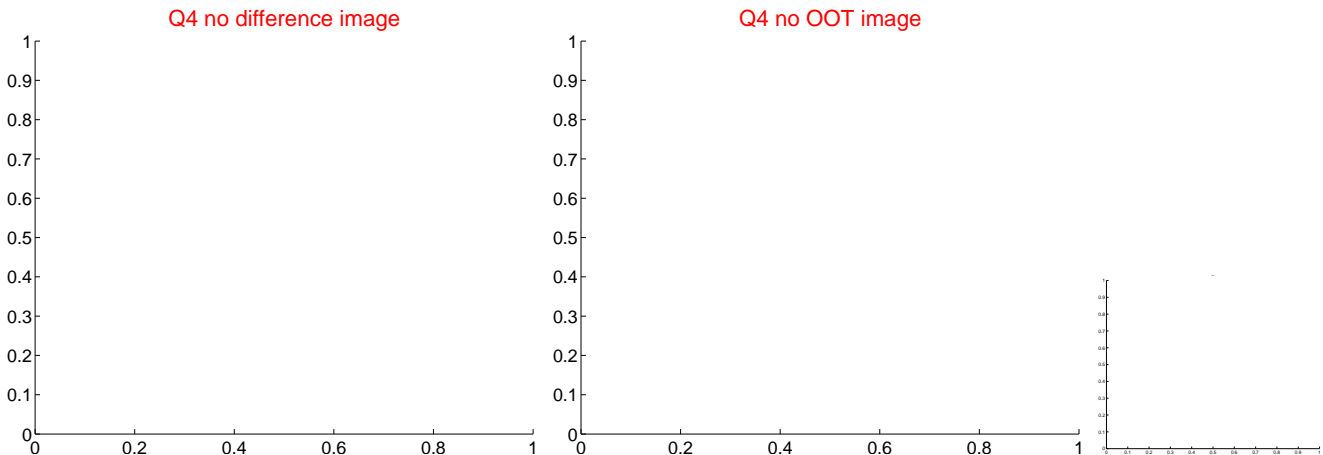
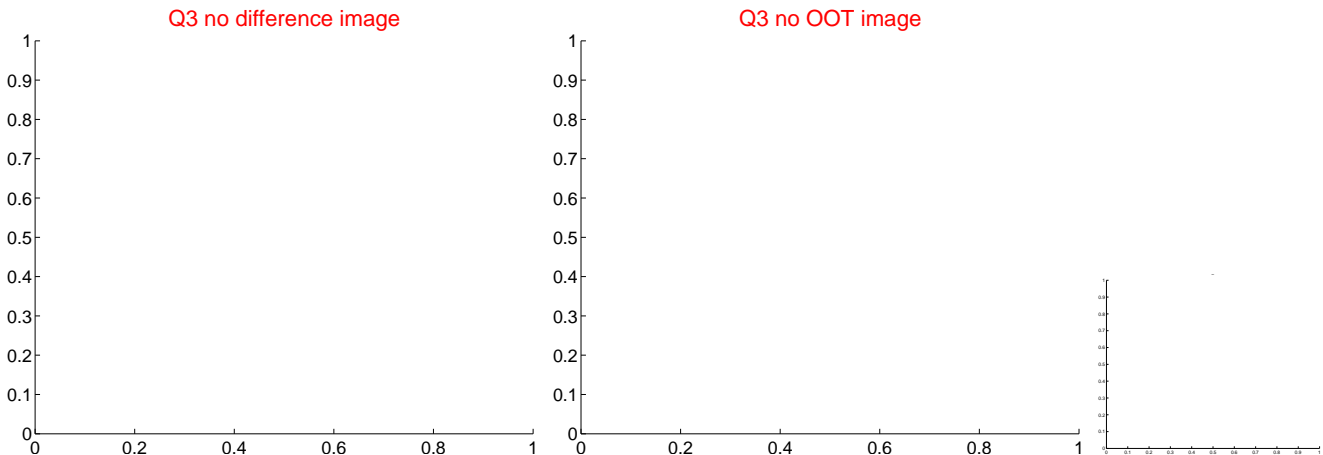
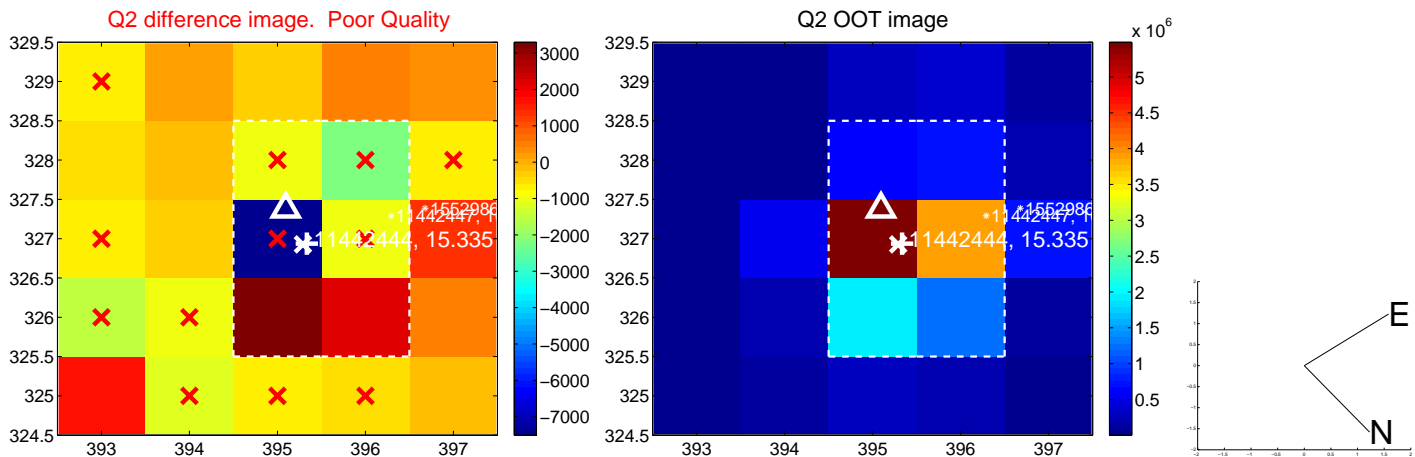
The direct PRF centroid is offset from the target star catalog position by about 0.20 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.457 ± 0.468	0.98	0.346 ± 0.140	-0.298 ± 0.698
PRF-fit source offset from KIC position	0.596 ± 0.369	1.61	0.564 ± 0.372	-0.191 ± 0.348
photometric centroid source offset	1.43 ± 2.33	0.61	1.42 ± 2.34	-0.15 ± 1.95



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



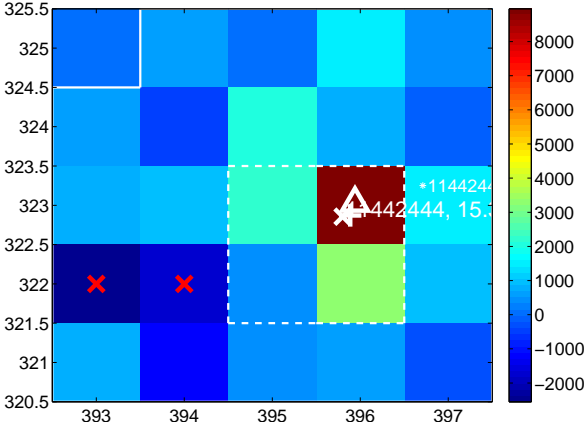
Q6 no difference image



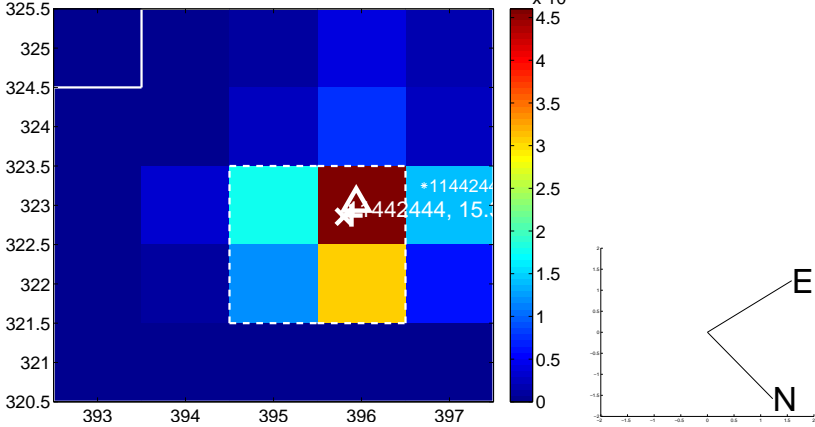
Q6 no OOT image



Q7 difference image



Q7 OOT image



Q8 no difference image



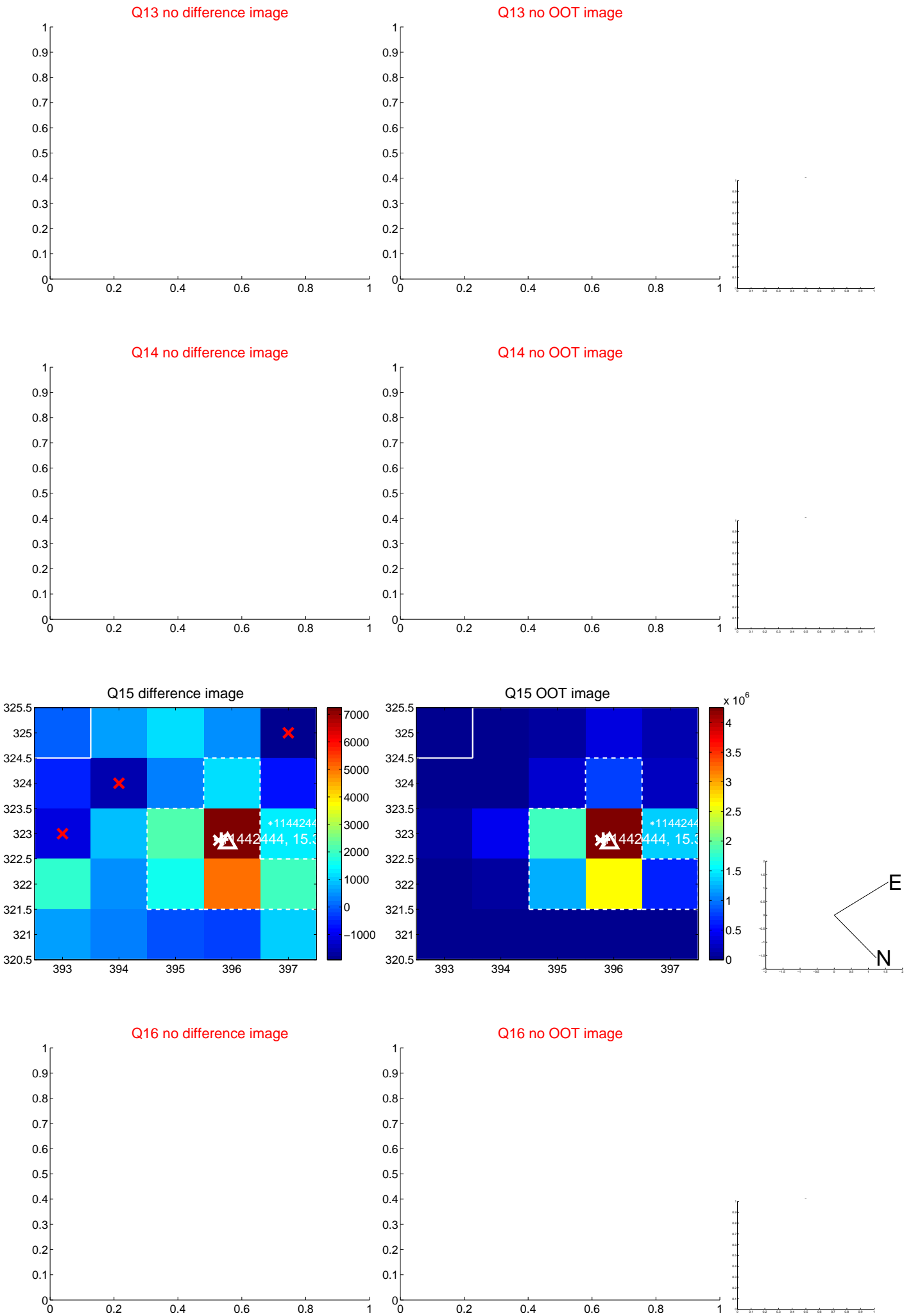
Q8 no OOT image



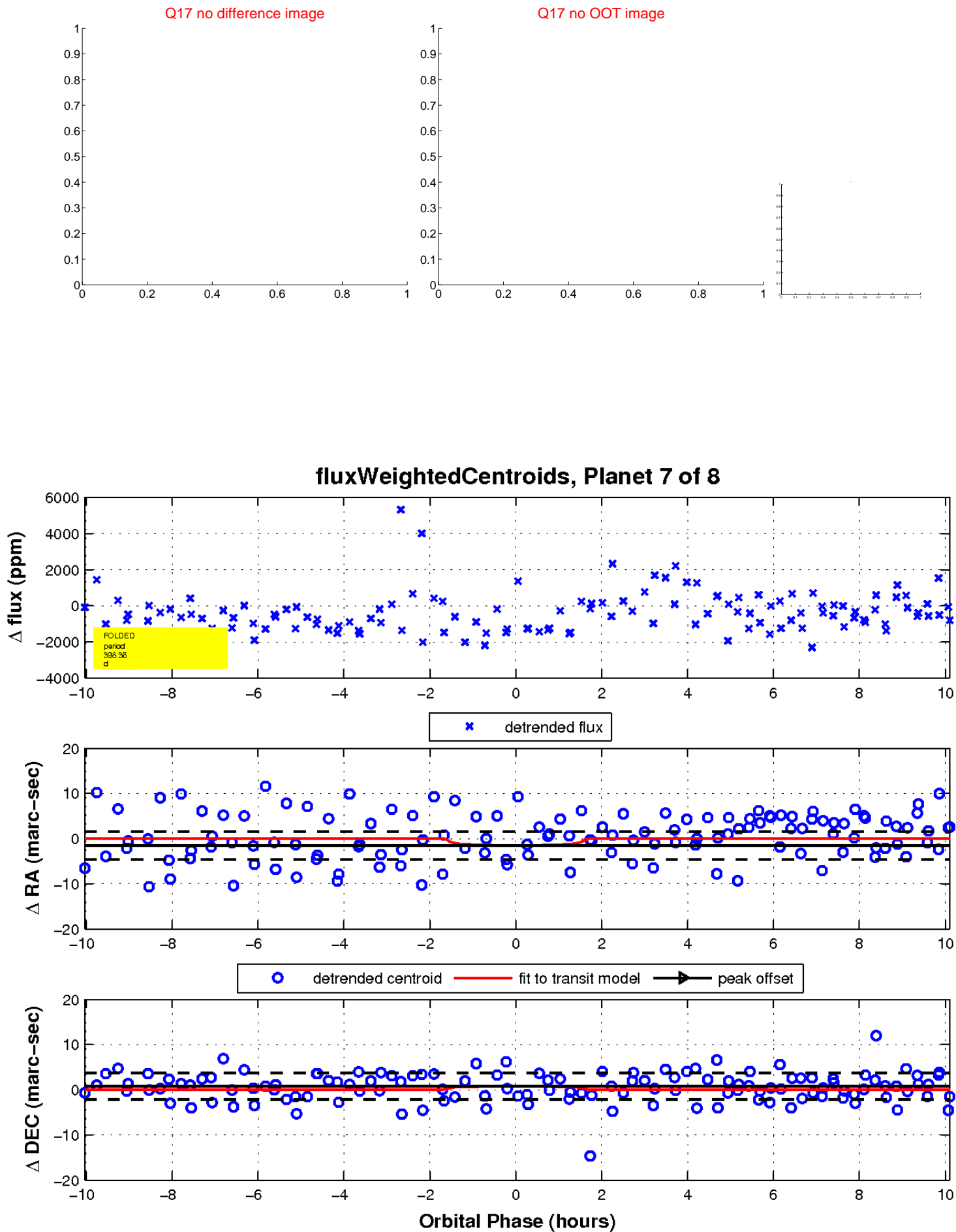
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

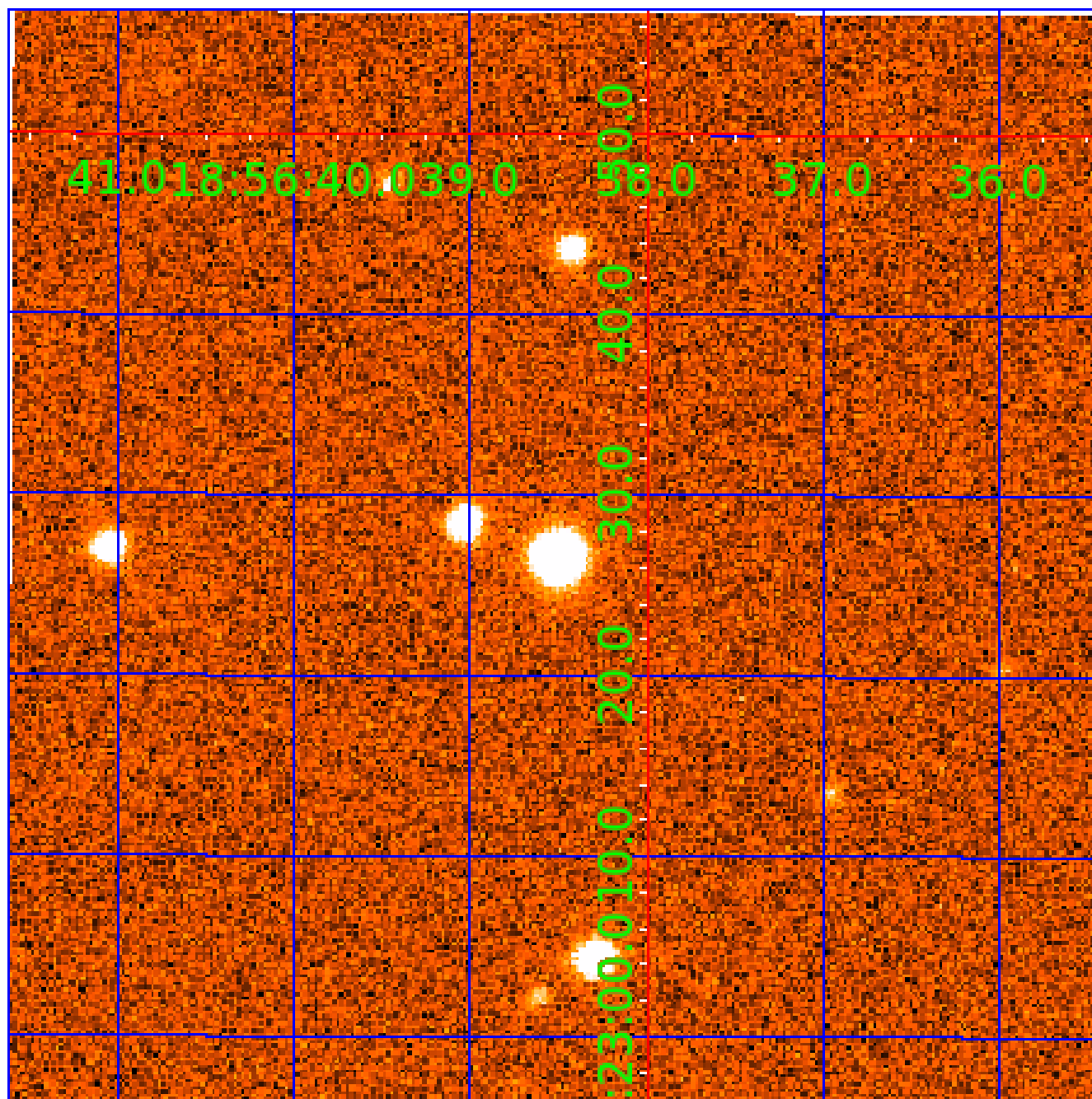


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 011442444

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})
011442444-01	OBS	No	618.425753	221.145634	2387.1	5.132	15.2	7.5	0.77	5501	3.93	0.27
011442444-02	OBS	No	352.281436	238.642649	2158.6	6.590	15.1	7.3	0.77	5501	3.59	0.57
011442444-03	OBS	No	651.494671	263.057994	2454.4	4.401	13.2	7.7	0.77	5501	3.79	0.25
011442444-04	OBS	No	376.159227	182.351632	1367.2	3.134	12.2	5.4	0.77	5501	2.96	0.53
011442444-06	OBS	No	562.394418	270.784485	2836.3	7.037	12.7	8.9	0.77	5501	4.06	0.31
011442444-07	OBS	No	398.363012	236.131466	1250.4	3.396	7.6	5.2	0.77	5501	2.92	0.49
011442444-08	OBS	No	395.653194	189.819541	2075.1	3.000	10.5	-1.0	0.77	5501	3.48	0.49

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011442444-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_FEW_DIFFS
011442444-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—LPP_ALT—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
011442444-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV
011442444-04	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS—HALO_GHOST
011442444-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV
011442444-07	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS—HALO_GHOST
011442444-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_NOFITS

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

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

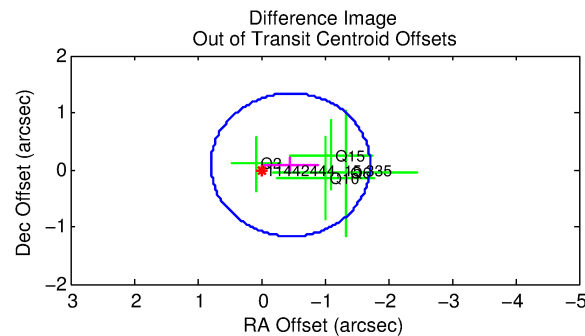
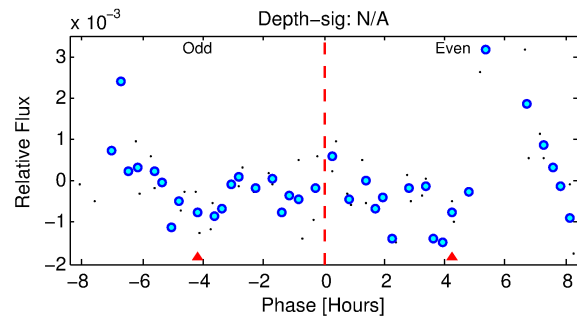
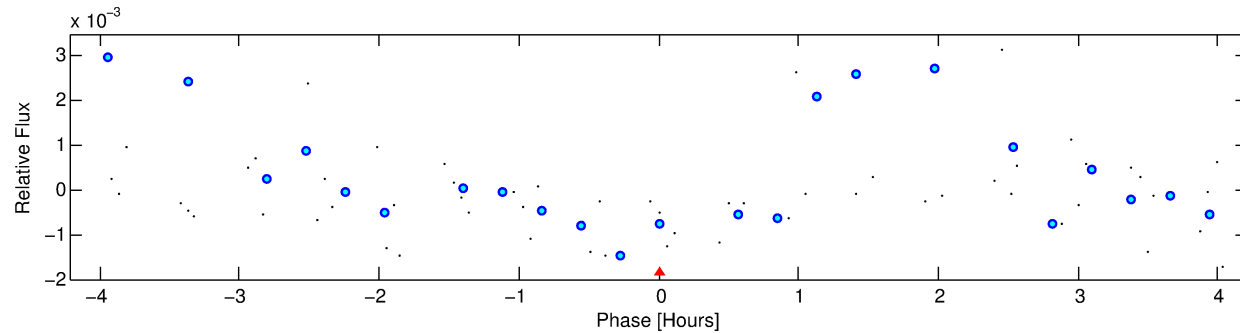
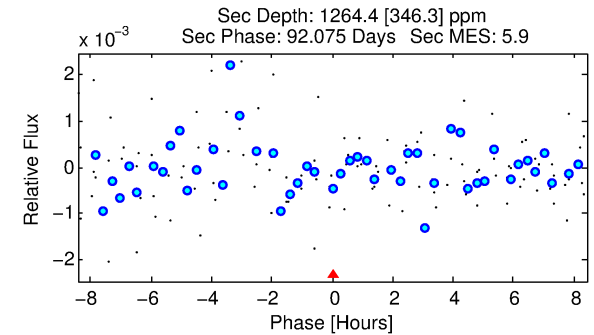
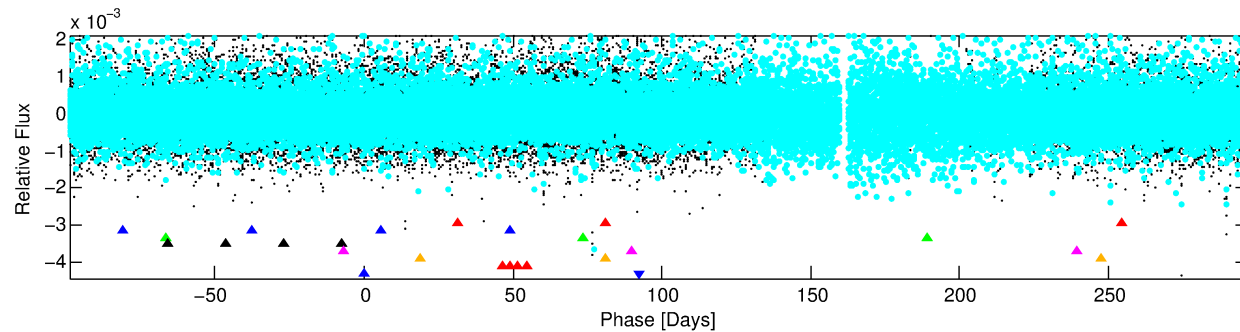
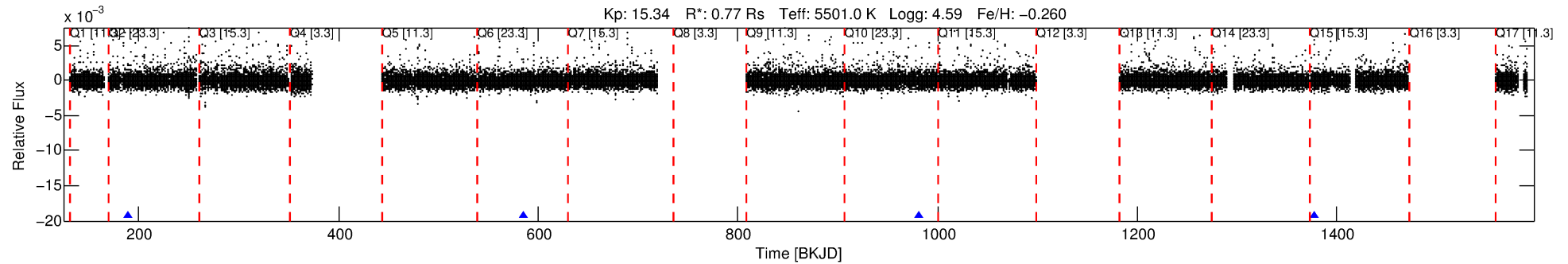
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011442444-08

No Significant Match Found

DV One-Page Summary

KIC: 11442444 Candidate: 8 of 8 Period: 395.653 d



TPS TCE Results:

Period = 395.65319 d
Epoch = 189.8195 BKJD

DV fit results are unavailable

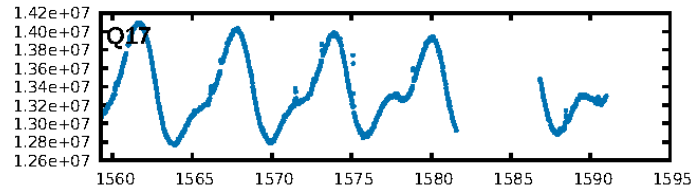
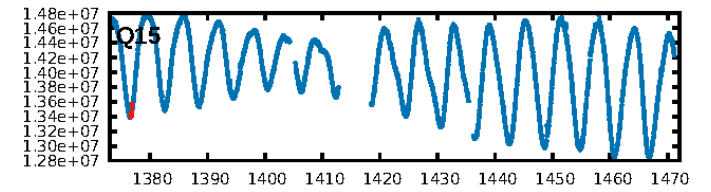
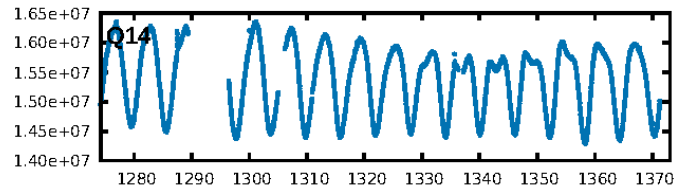
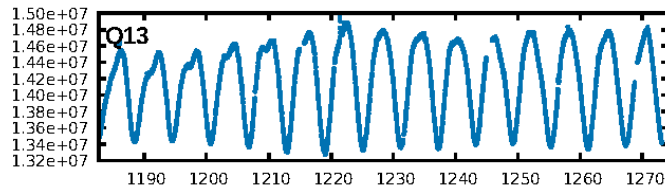
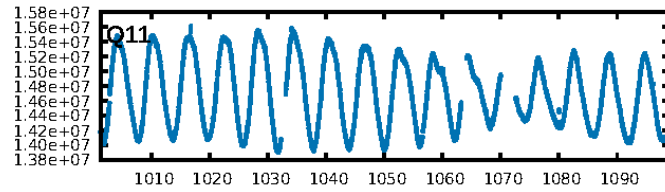
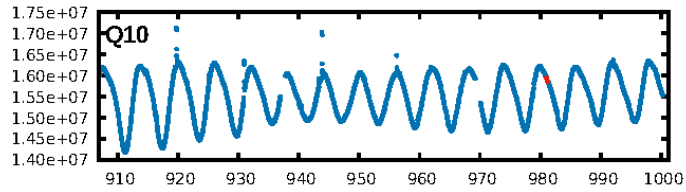
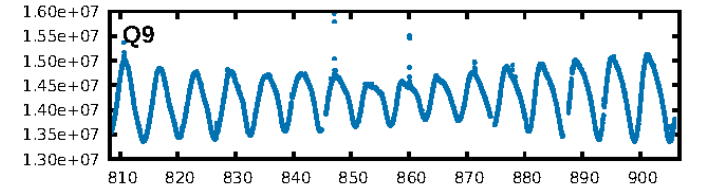
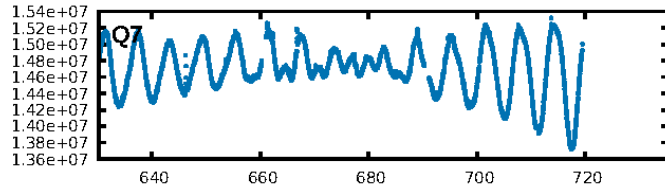
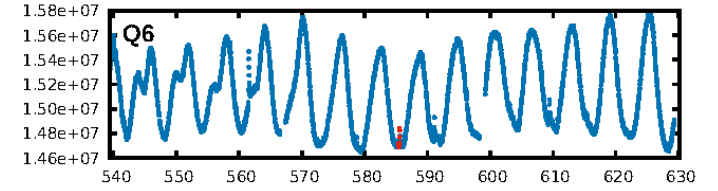
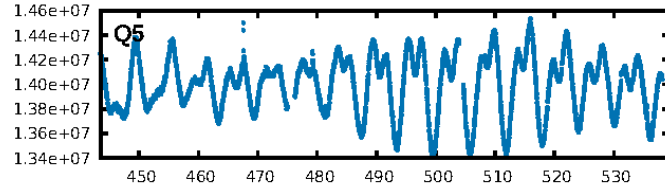
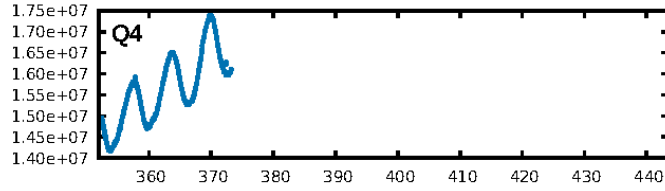
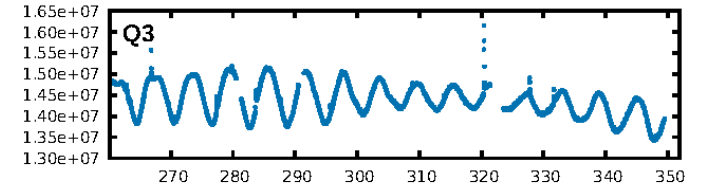
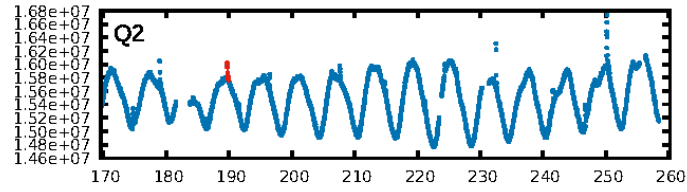
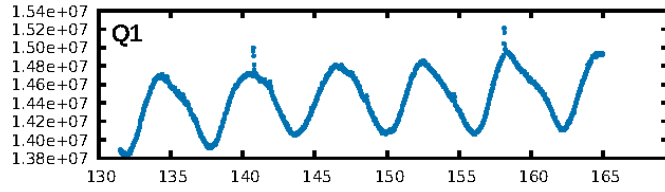
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [107.84 σ]
LongPeriod-sig: 100.0% [14.35 σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: -14.19
Centroid-sig: 38.9%
Centroid-so: 1.467 arcsec [0.53 σ]
OotOffset-rm: 0.472 arcsec [1.13 σ]
KicOffset-rm: 0.379 arcsec [0.96 σ]
OotOffset-st: 3/1/0/0 [4]
KicOffset-st: 3/1/0/0 [4]
DiffImageQuality-fgm: 0.50 [2/4]
DiffImageOverlap-fno: 1.00 [4/4]

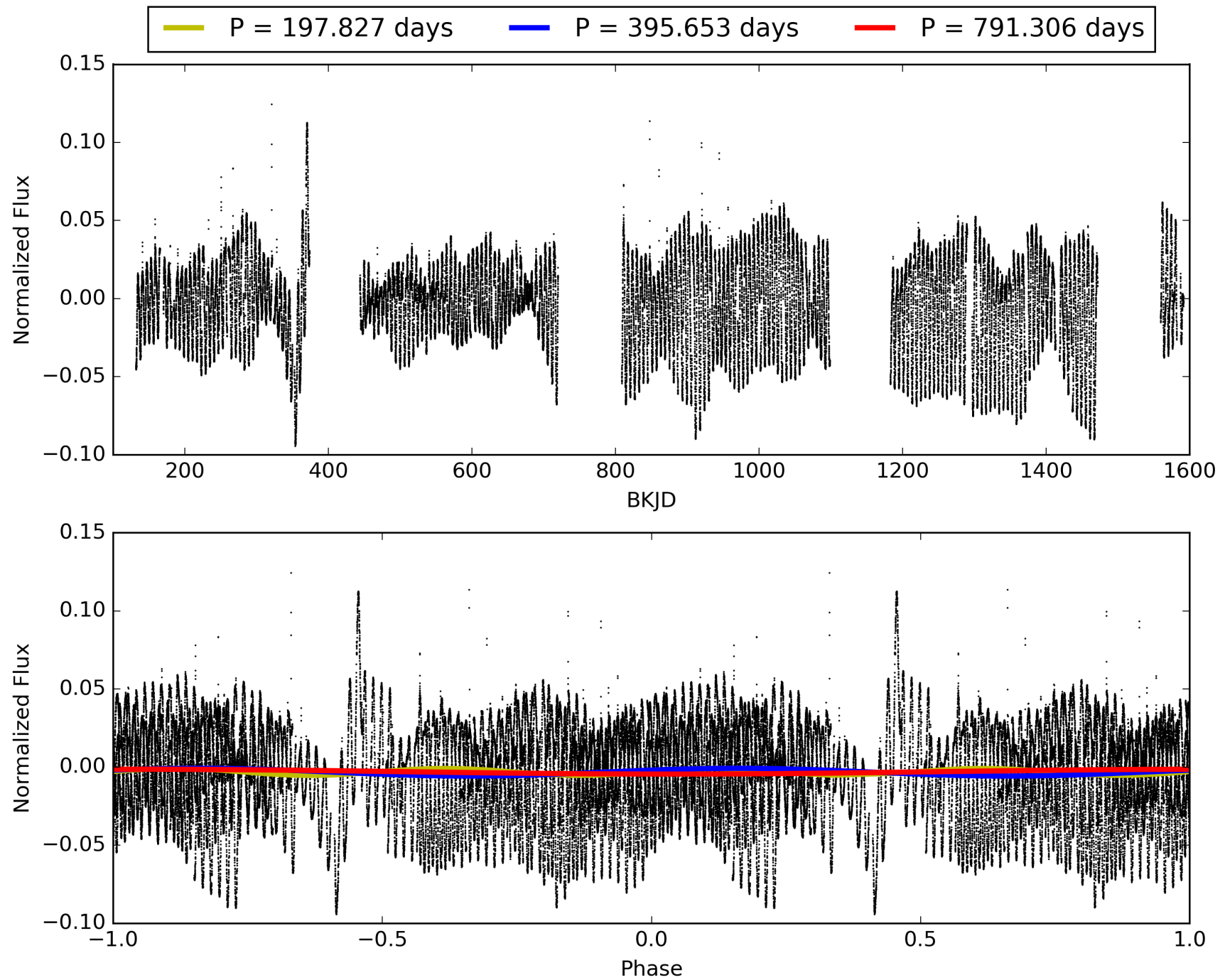
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 05:35:57 Z

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

TCE 011442444-08, PDC Light Curves

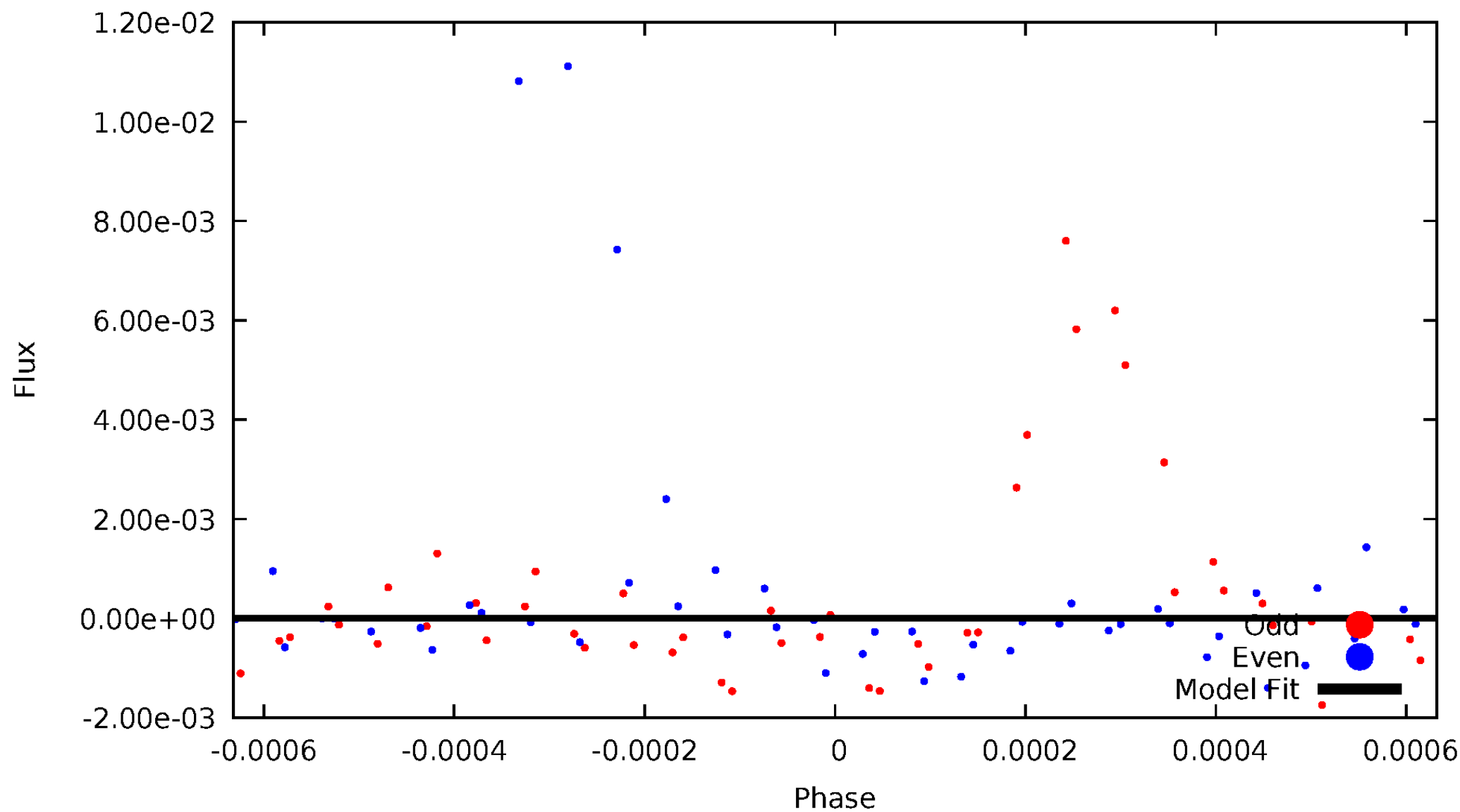


TCE 011442444-08



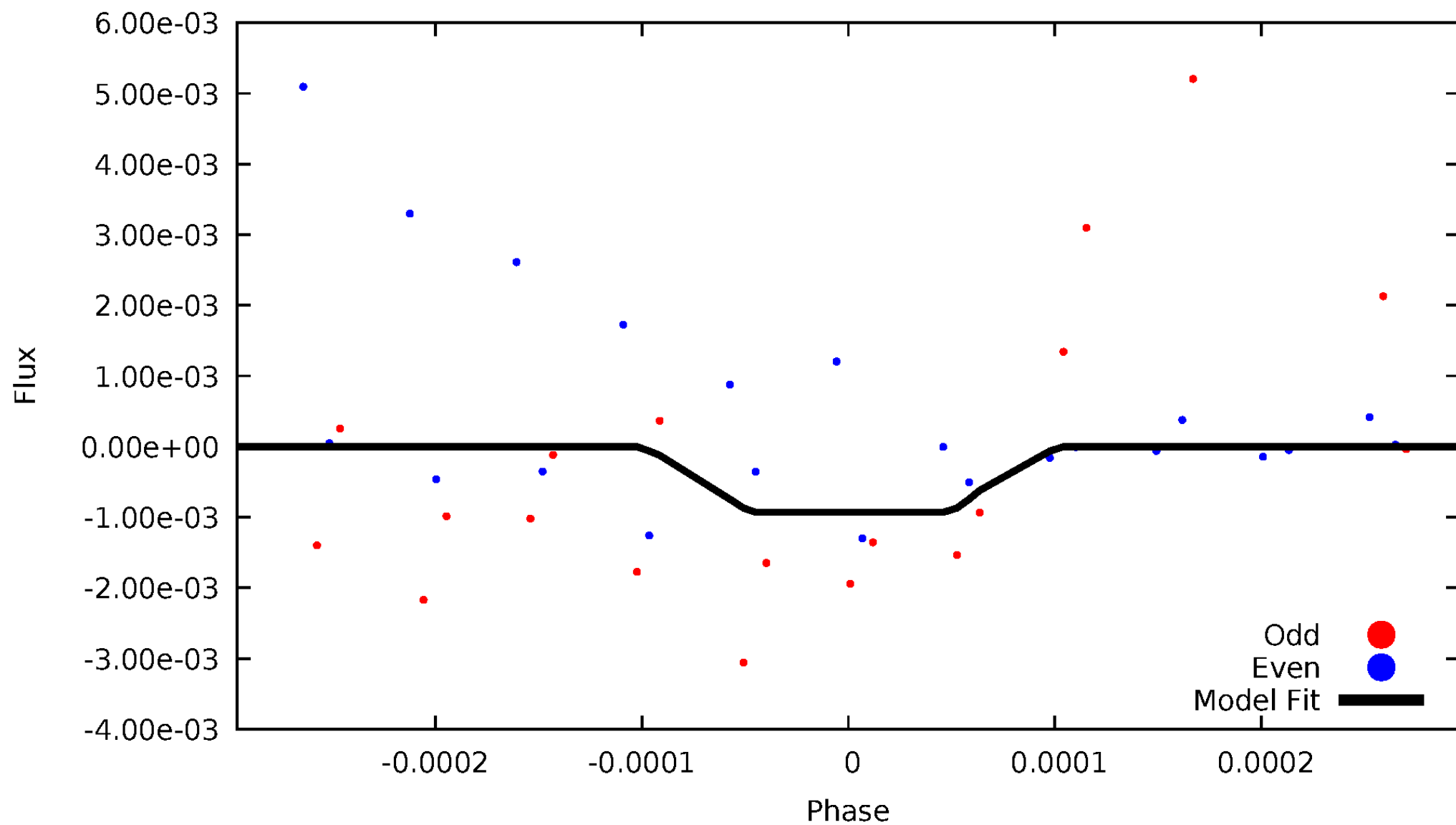
DV Odd/Even

TCE 011442444-08



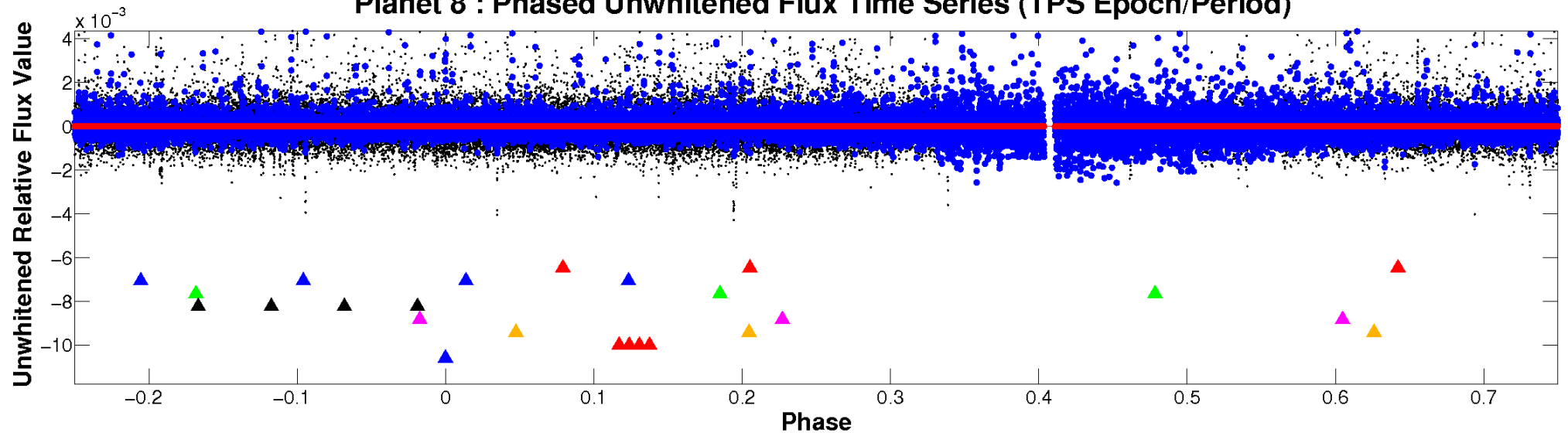
ALT Odd/Even

TCE 011442444-08

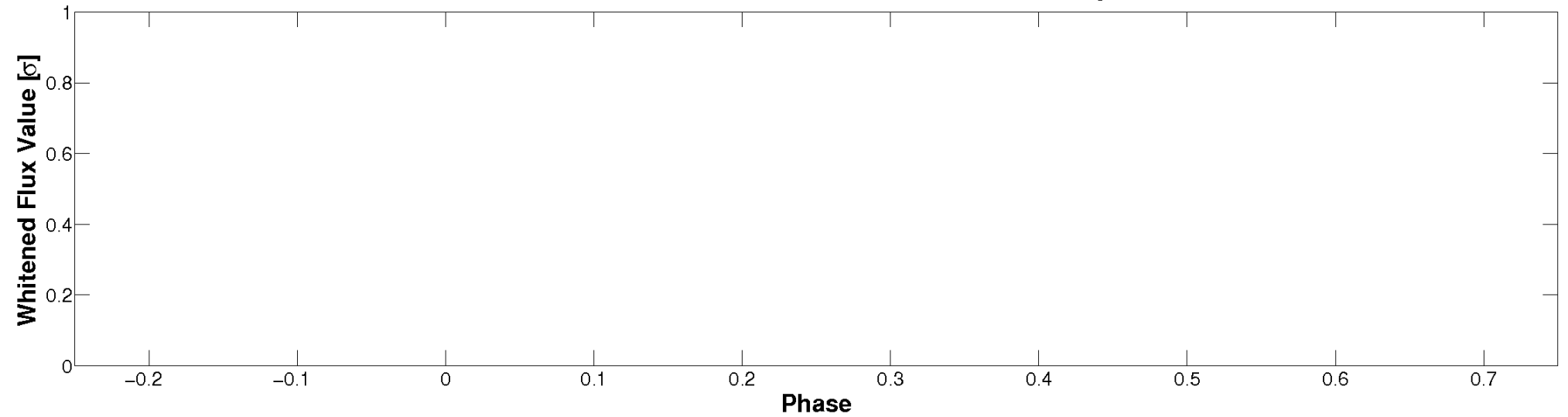


Non-Whitened Vs. Whitened Light Curve

Planet 8 : Phased Unwhitened Flux Time Series (TPS Epoch/Period)



Planet 8 : Phased Whitened Flux Time Series (TPS Epoch/Period)



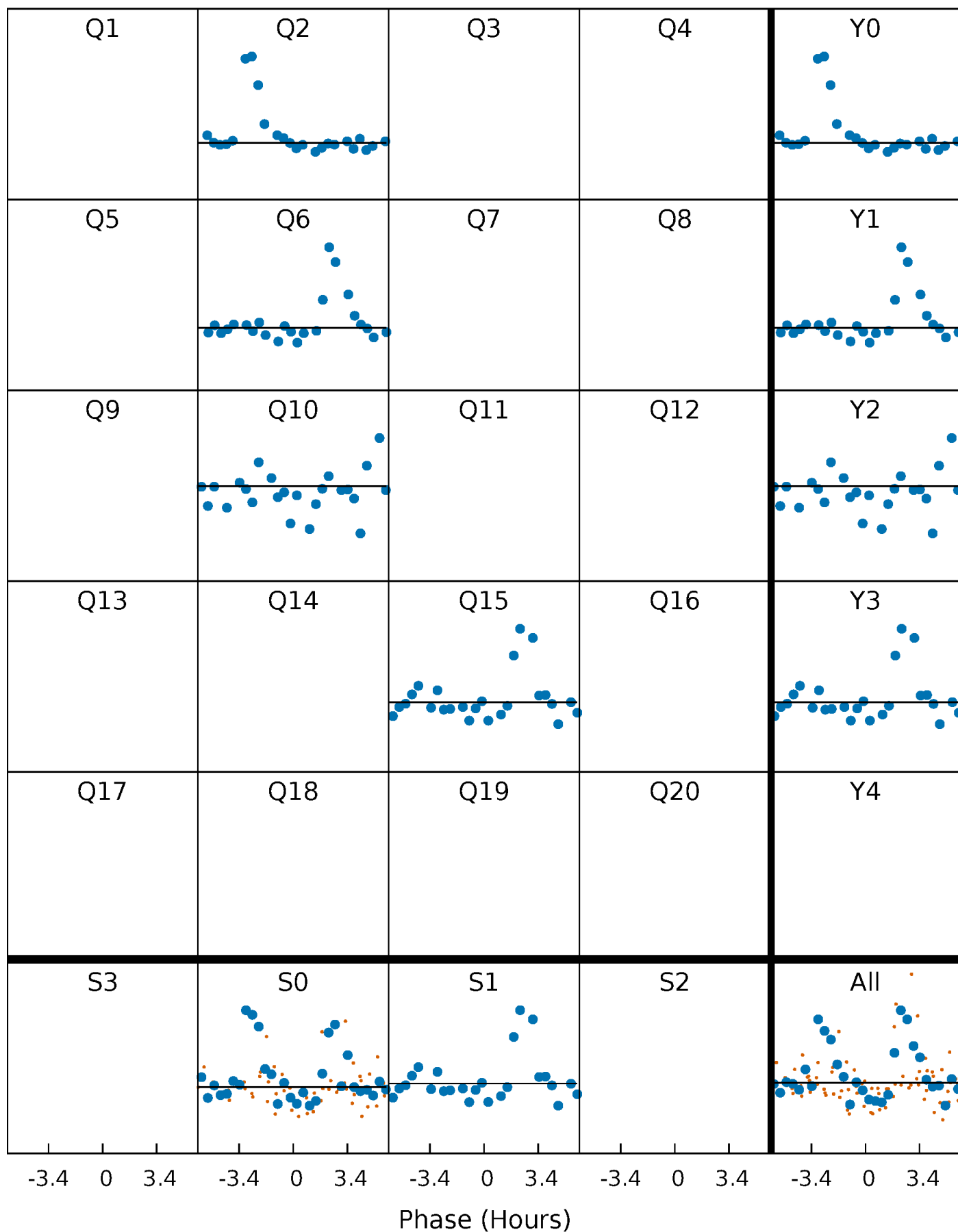
PDC Quarter-Phased Transit Curves

TCE 011442444-08 P=395.653194 Days $T_0=189.819541$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 011442444-08 P=395.653194 Days $T_0=189.819541$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

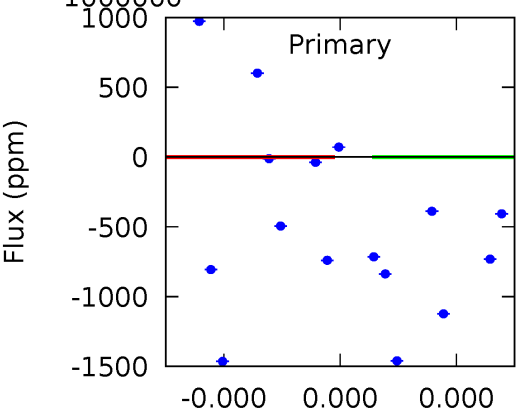
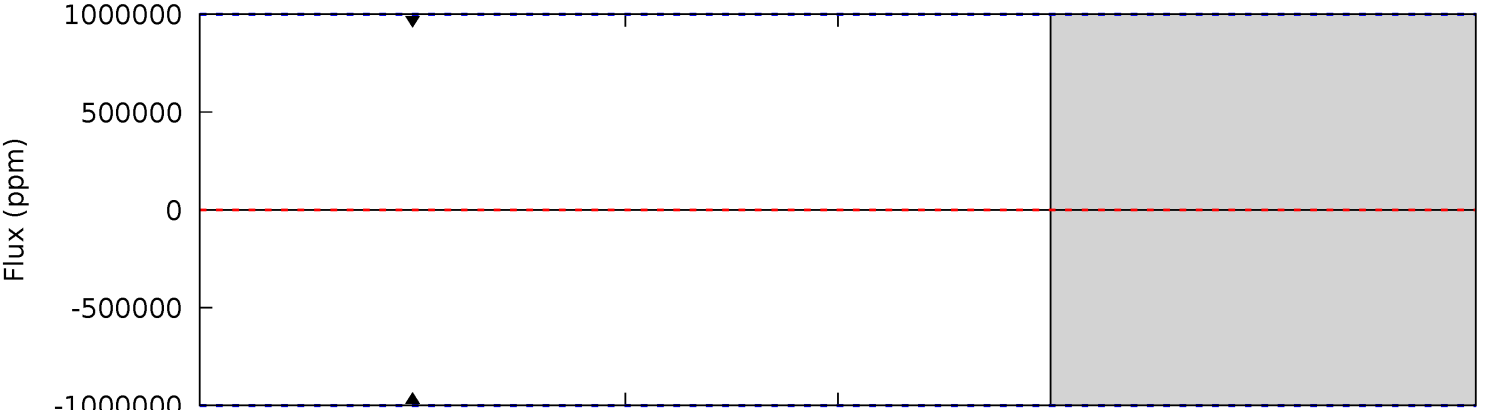
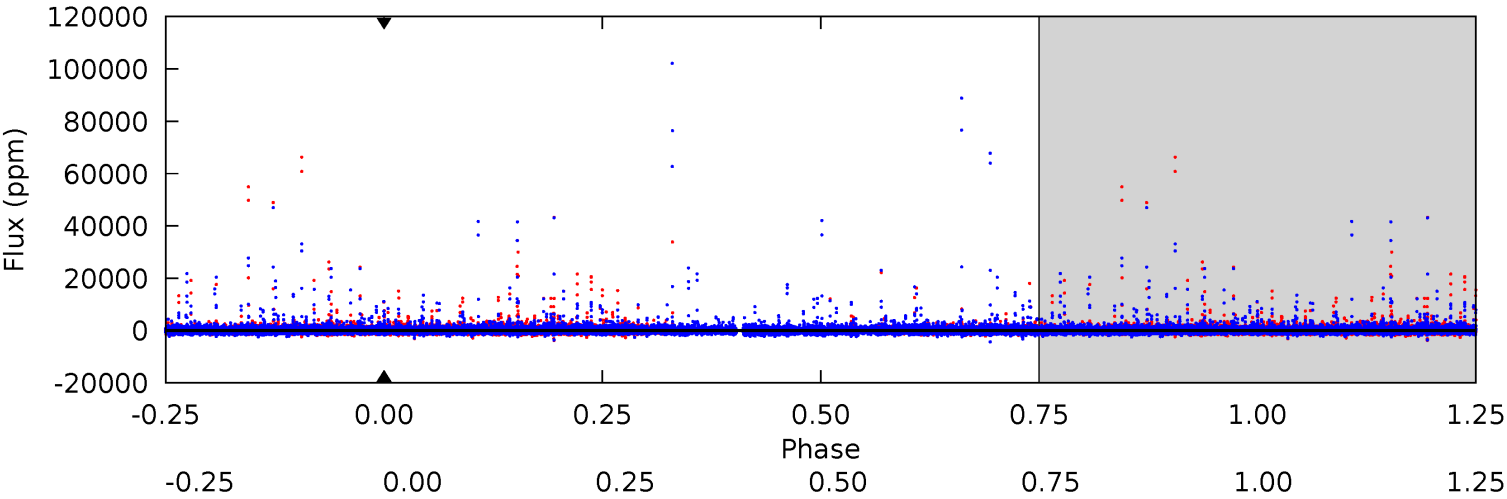
TCE 011442444-08 P=395.653194 Days $T_0=189.853804$ (BKJD)



DV Model-Shift Uniqueness Test

011442444-08, P = 395.653194 Days, E = 189.819541 Days

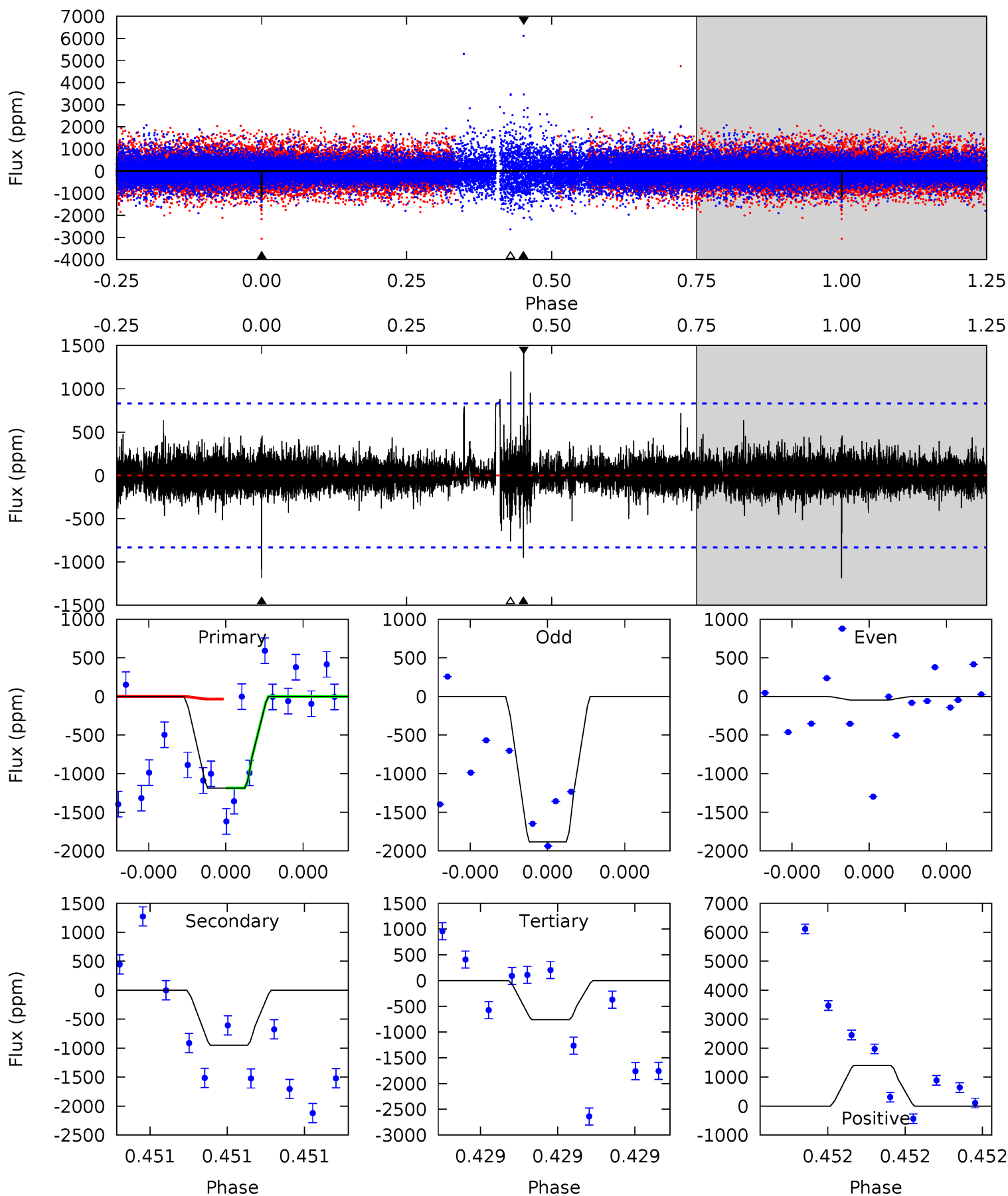
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

011442444-08, P = 395.653194 Days, E = 189.853804 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.19	6.58	5.26	9.70	5.74	3.73	0.78	2.93	-1.51	1.32	-3.12	6.56	0.84	0.54	3.81



Stellar Parameters For KIC 011442444

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5501^{+166}_{-149}	$4.589^{+0.036}_{-0.135}$	$-0.260^{+0.300}_{-0.300}$	$0.774^{+0.164}_{-0.070}$	$0.864^{+0.083}_{-0.100}$	$2.619^{+0.469}_{-1.017}$
	+3%/-3%	+1%/-3%	+115%/-115%	+21%/-9%	+10%/-12%	+18%/-39%
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 011442444-08 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	0 ± 1000000	$7.87^{+7.06}_{-5.14}$	305^{+16}_{-13}	3874^{+11391}_{-19114}	$11303^{+1399686}_{-1412990}$
Alt.	-951 ± 145	$7.04^{+6.84}_{-4.82}$	304^{+14}_{-13}	3825^{+2205}_{-773}	10653^{+95197}_{-8053}

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

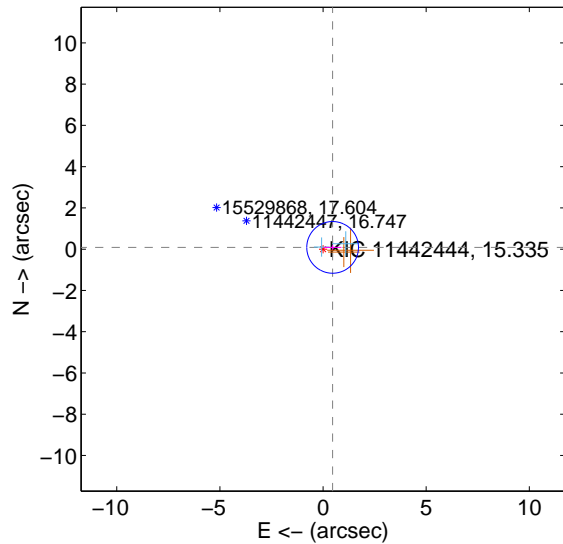
Supplemental centroid analysis for 011442444-08. Kepler magnitude: 15.34. Transit SNR -1.00

There are 2 quarters with good PRF difference image offsets

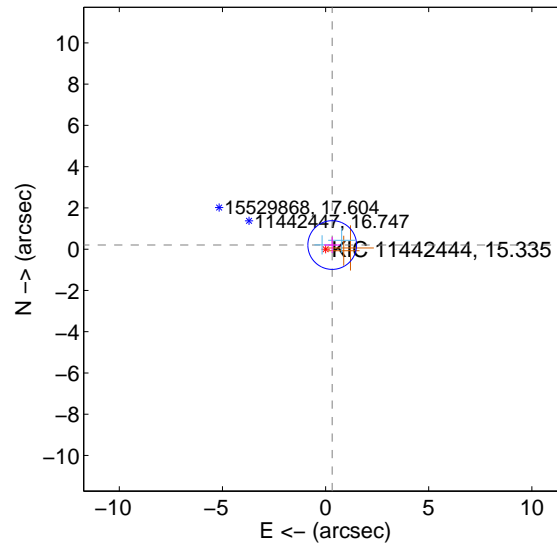
The direct PRF centroid is offset from the target star catalog position by about 0.36 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.472 ± 0.418	1.13	-0.464 ± 0.424	0.087 ± 0.112
PRF-fit source offset from KIC position	0.379 ± 0.394	0.96	-0.322 ± 0.396	0.201 ± 0.386
photometric centroid source offset	1.47 ± 2.77	0.53	1.07 ± 2.91	-1.01 ± 2.60

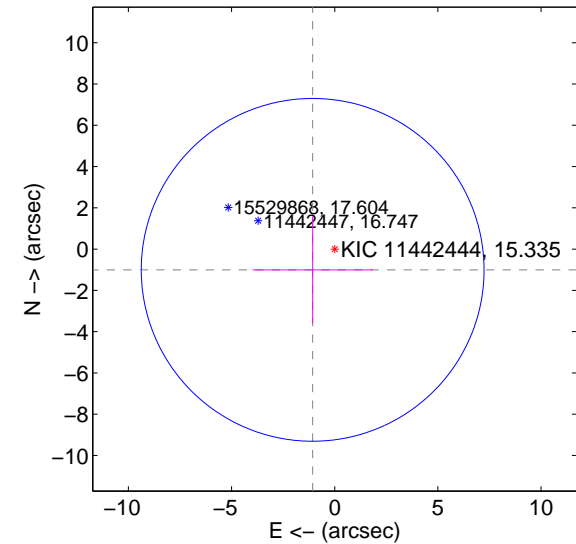
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

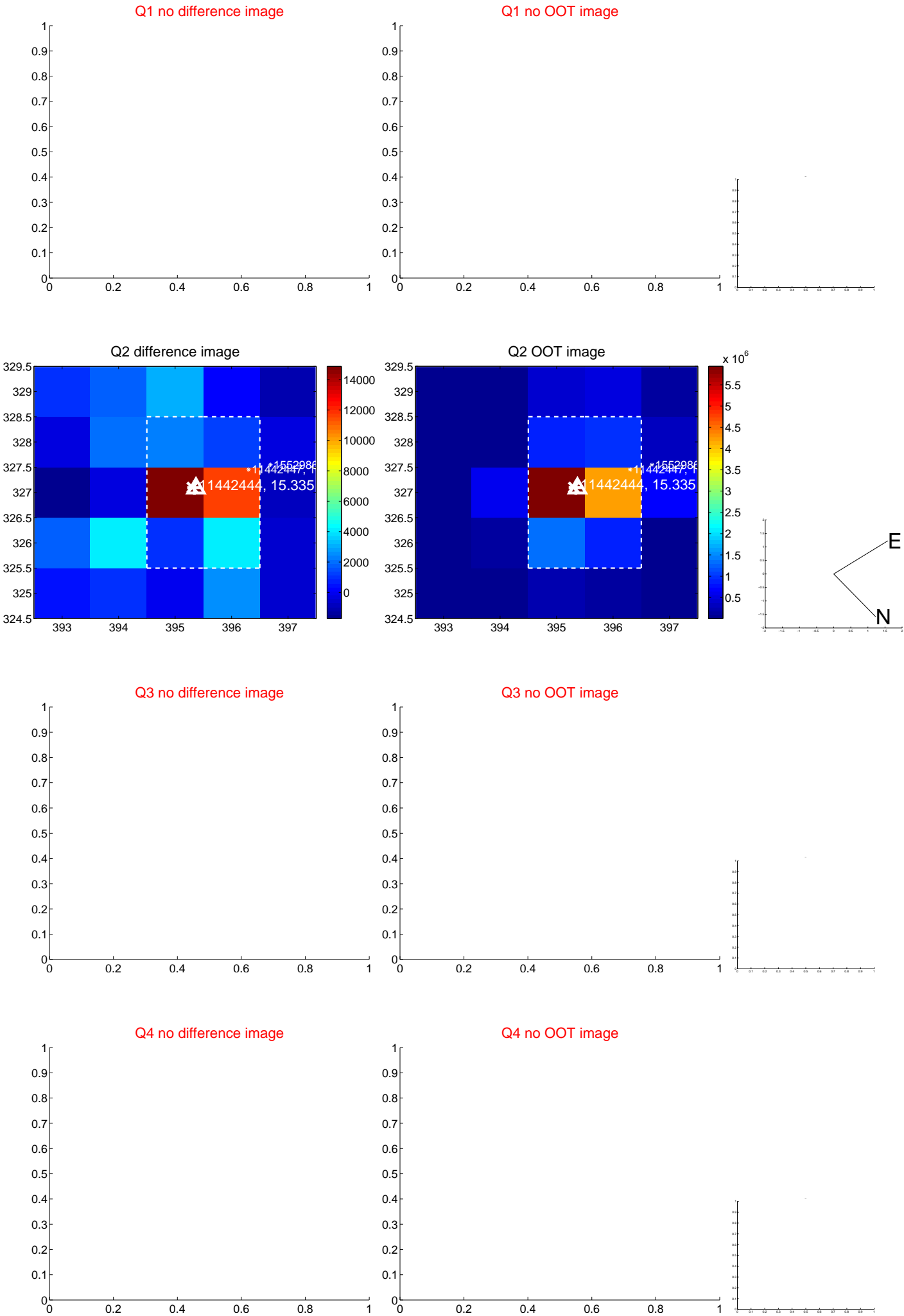


offset from photometric centroids

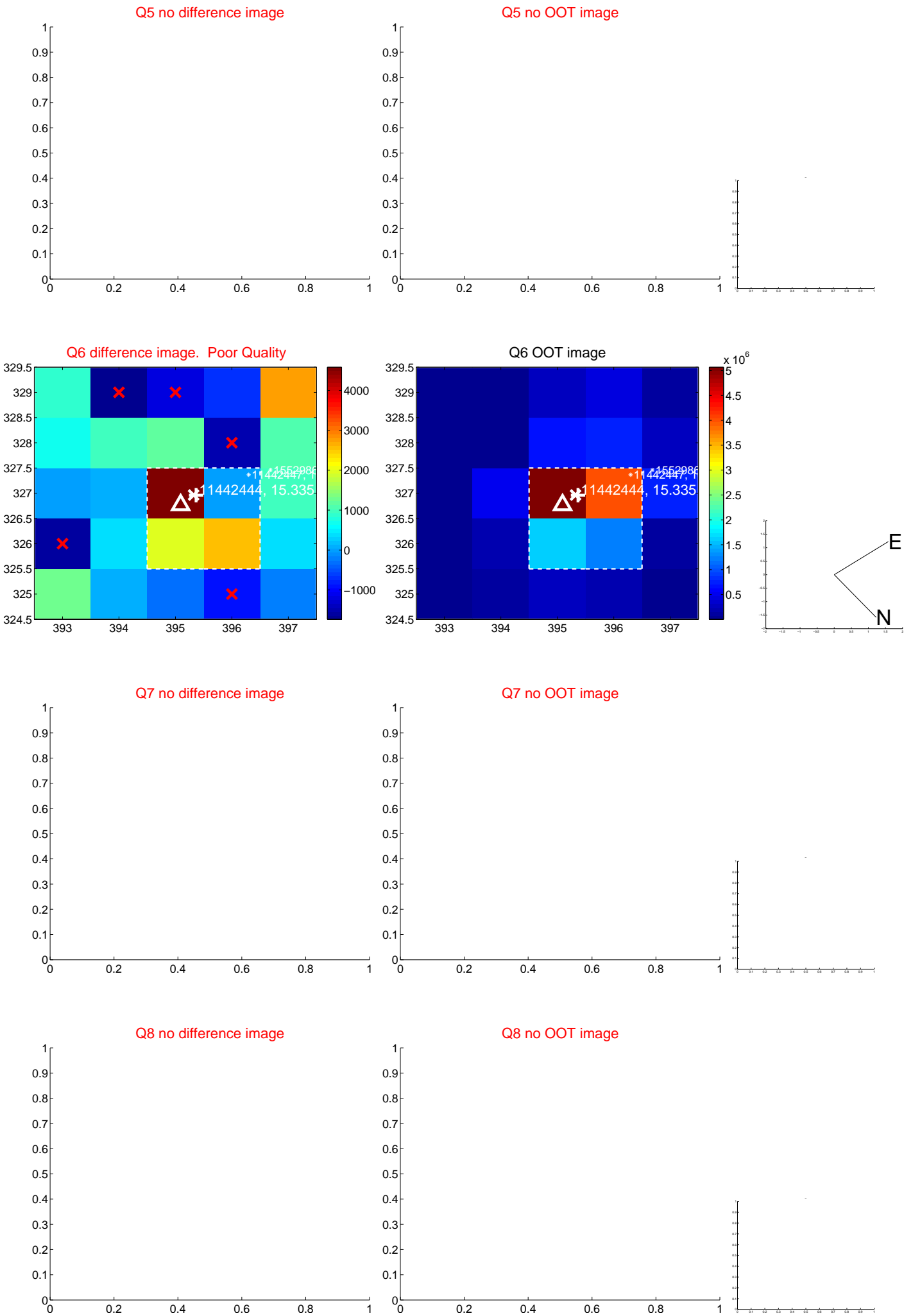


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

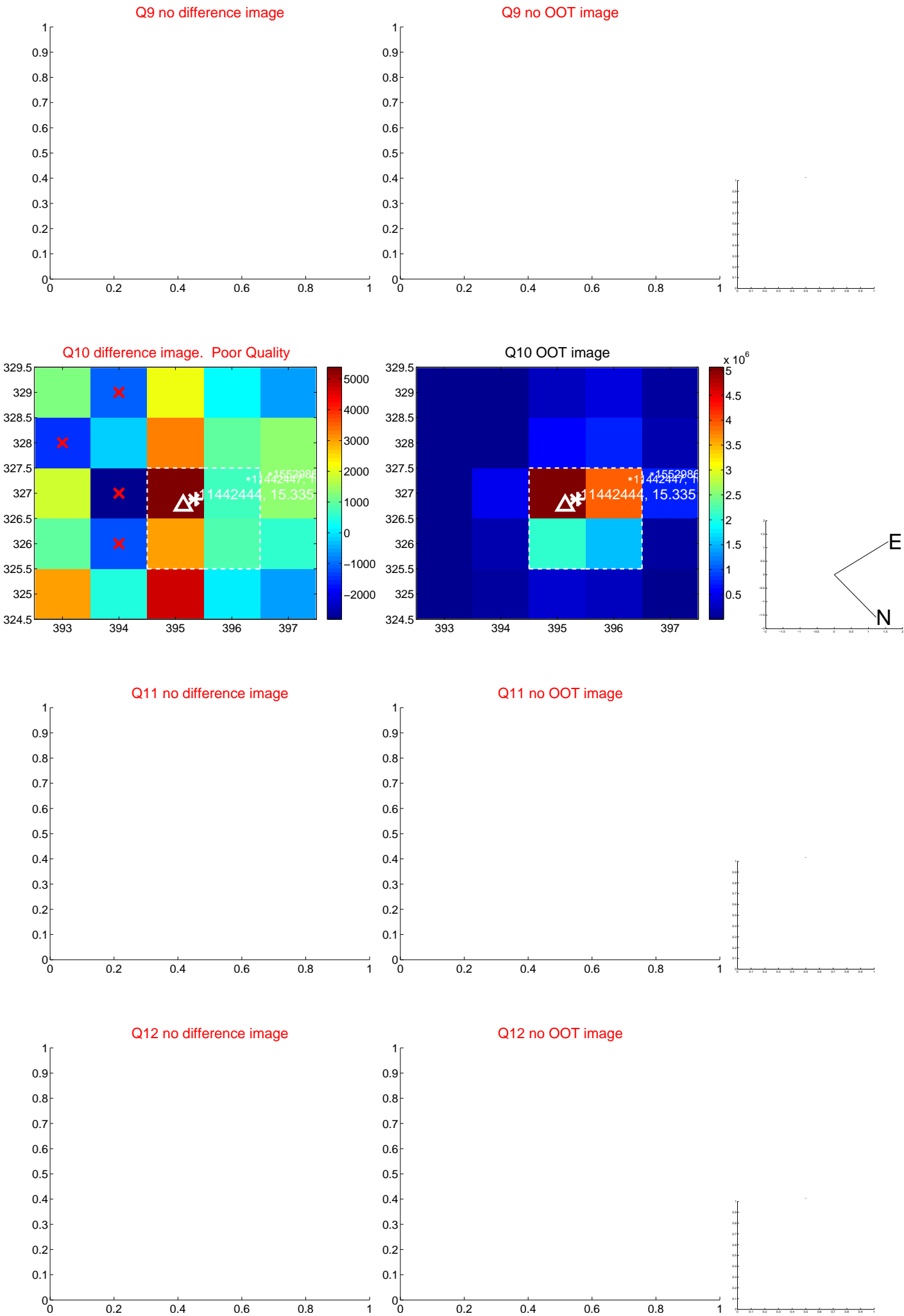
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



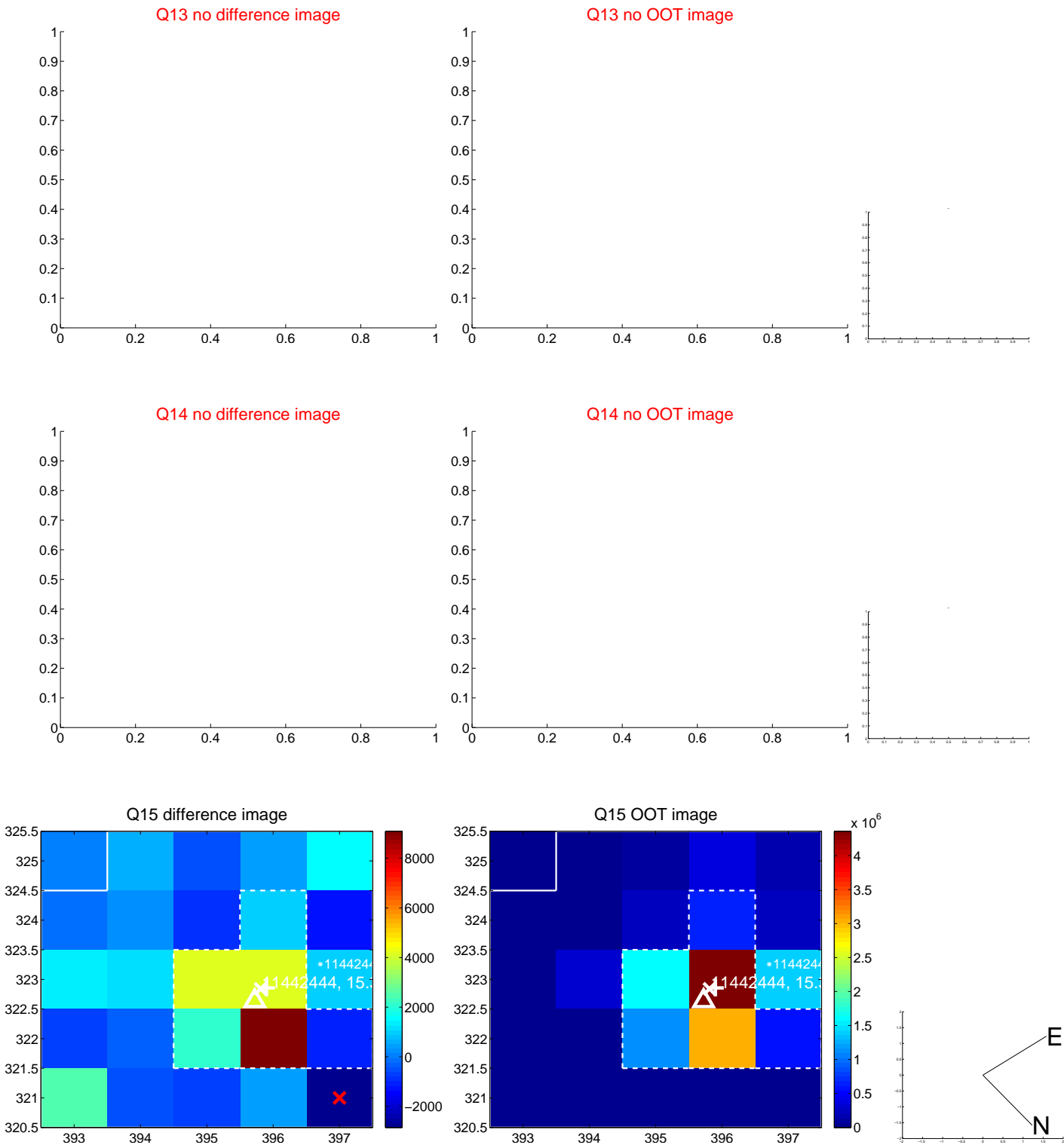
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



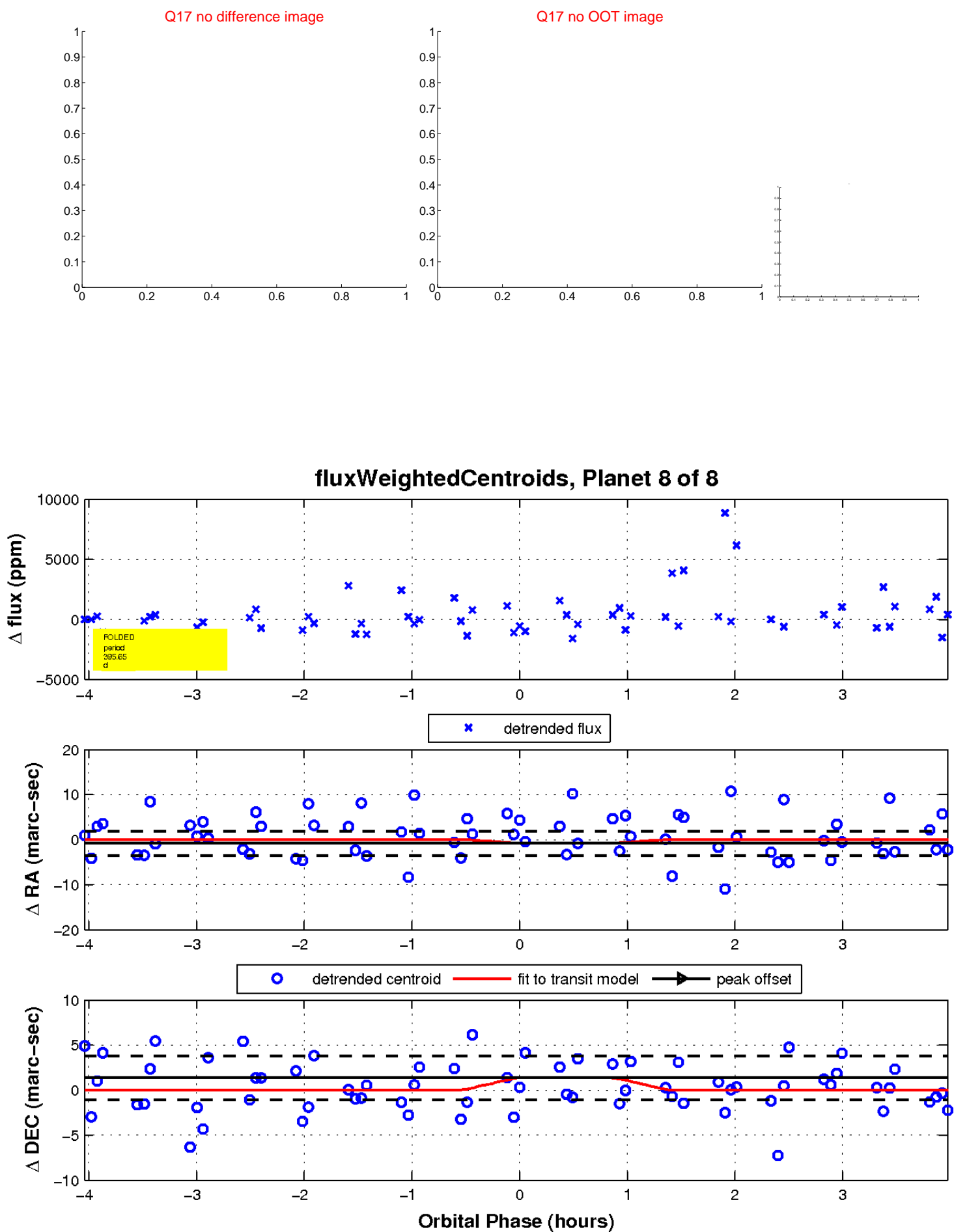
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white ×: 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.



UKIRT Image

