

KIC 006443122

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})
006443122-01	OBS	No	1.620562	133.105146	181.8	9.345	10.9	11.4	2.14	7236	2.92	10794.53
006443122-02	OBS	No	114.062543	186.431271	617.7	9.918	14.4	4.3	2.14	7236	5.68	37.15
006443122-03	OBS	No	109.554415	138.977442	3764.8	4.117	17.1	12.4	2.14	7236	23.60	39.20
006443122-04	OBS	No	62.740431	139.084380	1319.2	1.877	11.8	6.2	2.14	7236	8.47	82.42
006443122-05	OBS	No	128.493143	162.950785	168.4	3.000	11.1	-1.0	2.14	7236	2.81	31.69

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006443122-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—CENT_SATURATED
006443122-02	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_CHASES_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED—HALO_GHOST
006443122-03	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
006443122-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_TRACKER—TRANS_GAPPED—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
006443122-05	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_CHASES—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS—CENT_SATURATED—HALO_GHOST

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

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

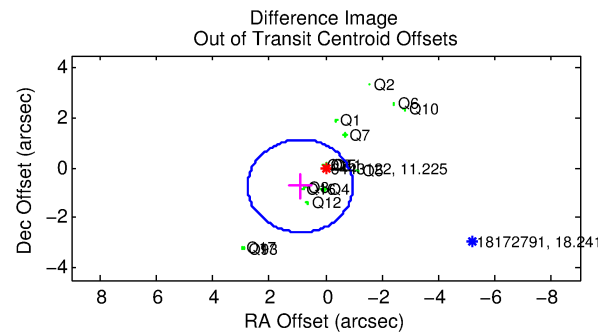
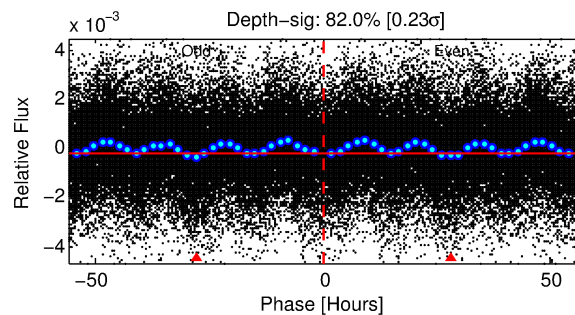
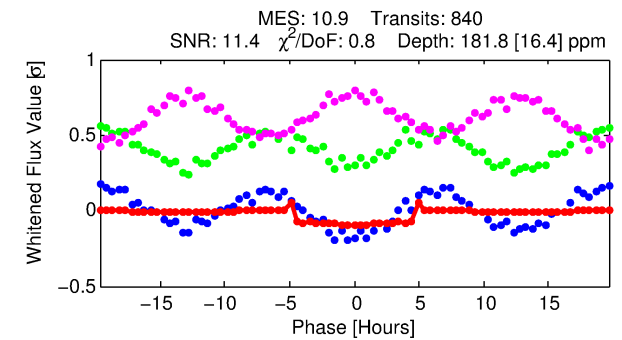
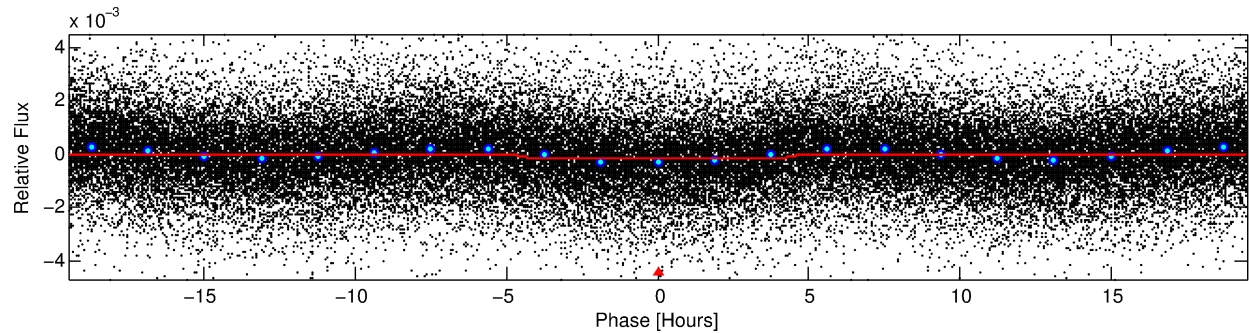
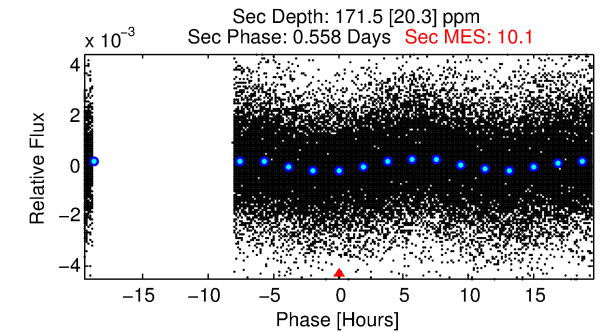
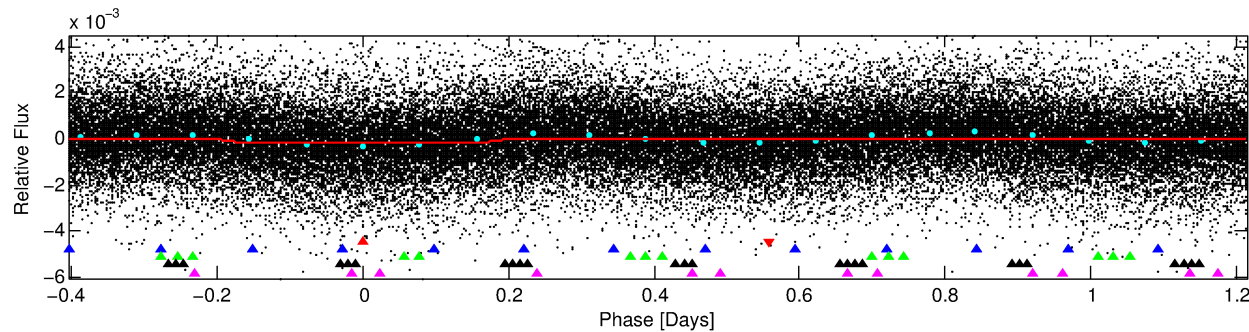
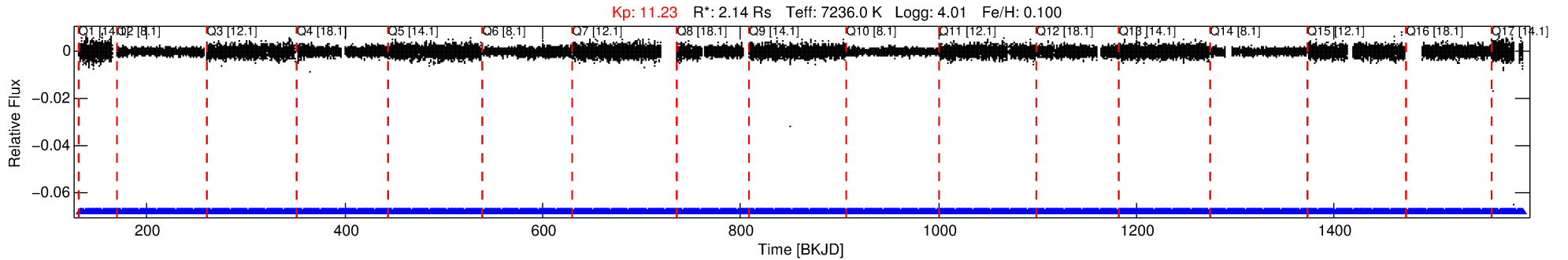
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006443122-01

No Significant Match Found

DV One-Page Summary

KIC: 6443122 Candidate: 1 of 5 Period: 1.621 d



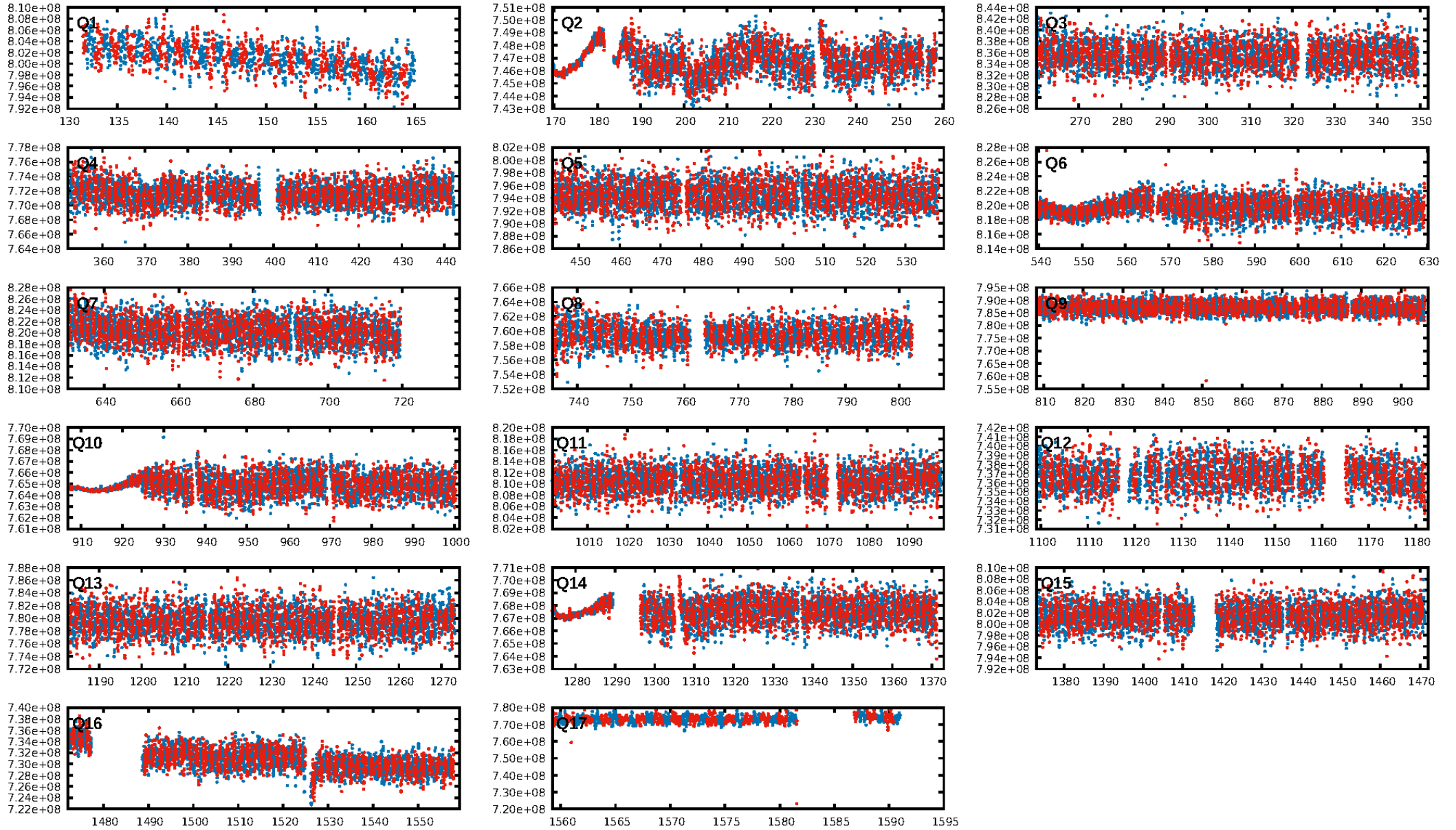
DV Fit Results:

Period = 1.62056 [0.00001] d
Epoch = 133.1051 [0.0024] BKJD
Rp/R* = 0.0125 [0.0060]
a/R* = 1.48 [2.26]
b = 0.07 [41.05]
Seff = 10794.53 [2449.98]
Teq = 2599 [147] K
Rp = 2.92 [1.48] Re
a = 0.0322 [0.0047] AU
Ag = 11.52 [11.45] [0.92σ]
Teffp = 7403 [1794] K [2.67σ]

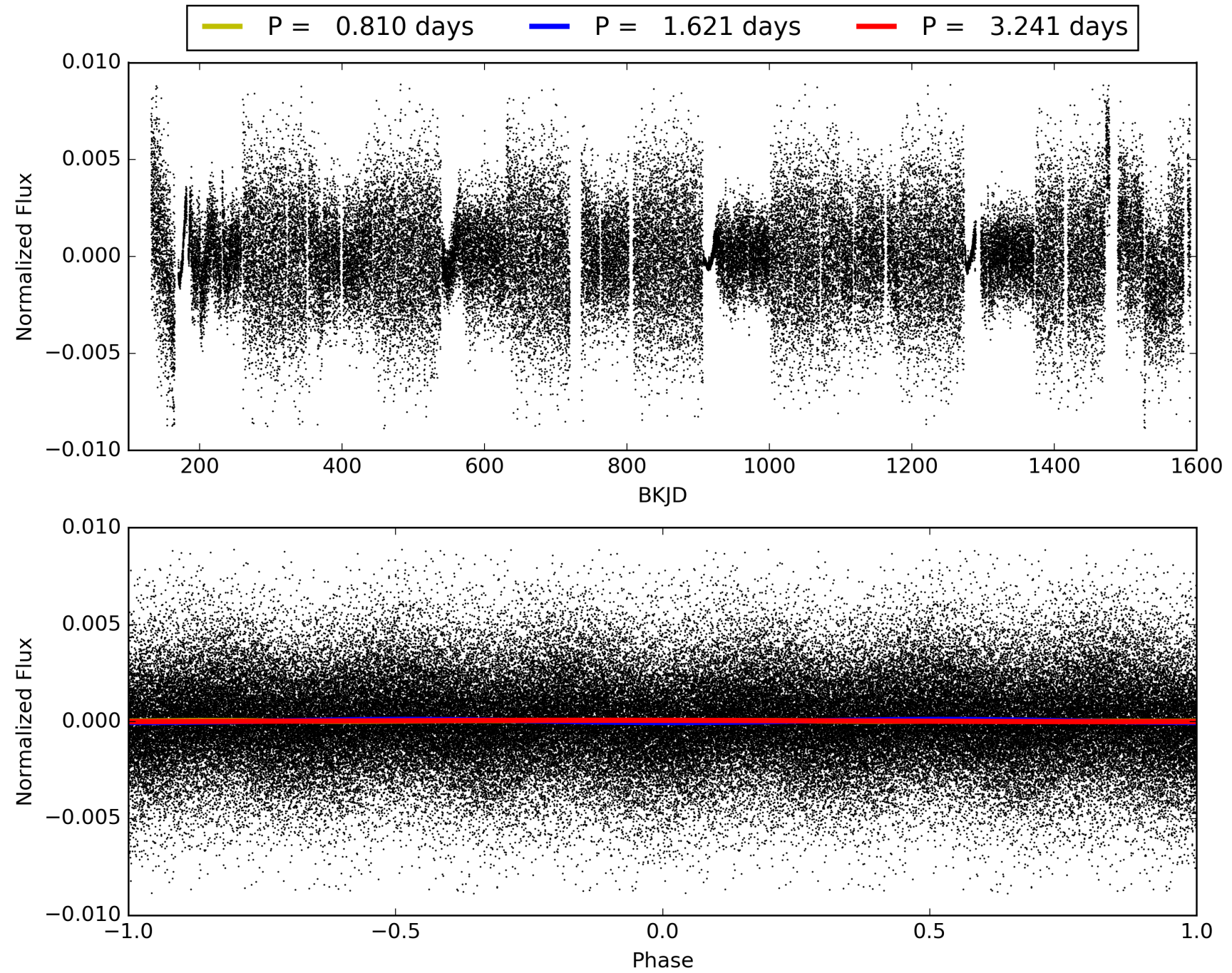
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [153.90σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [802/802]
GhostDiagnostic-chr: 1.145
Centroid-sig: 40.3%
Centroid-so: 0.233 arcsec [3.03σ]
OotOffset-rm: 1.157 arcsec [1.87σ]
KicOffset-rm: 1.155 arcsec [1.98σ]
OotOffset-st: 3/4/4/5 [16]
KicOffset-st: 3/4/4/5 [16]
DiffImageQuality-fgm: 0.81 [13/16]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 006443122-01, PDC Light Curves

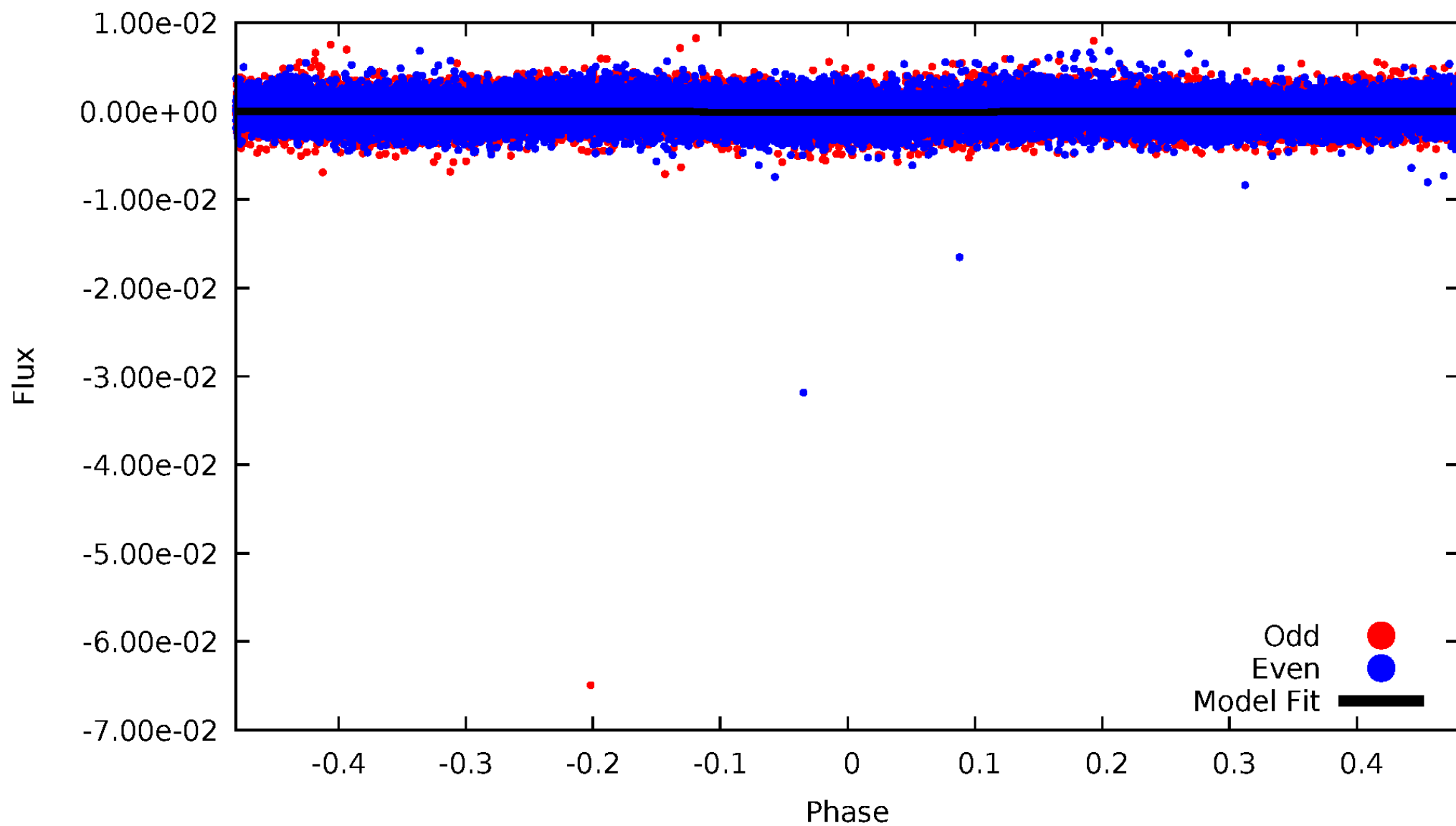


TCE 006443122-01



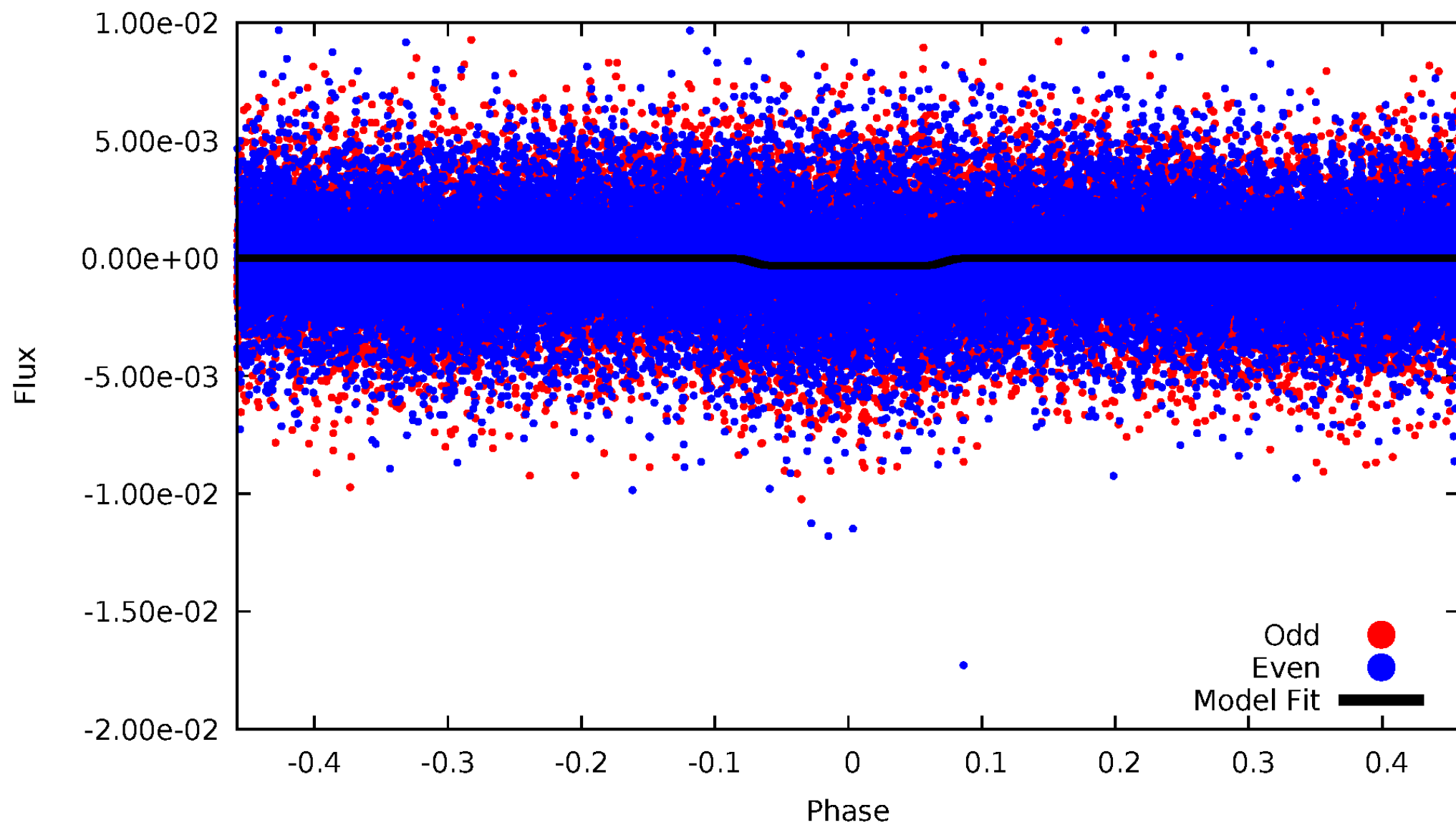
DV Odd/Even

TCE 006443122-01



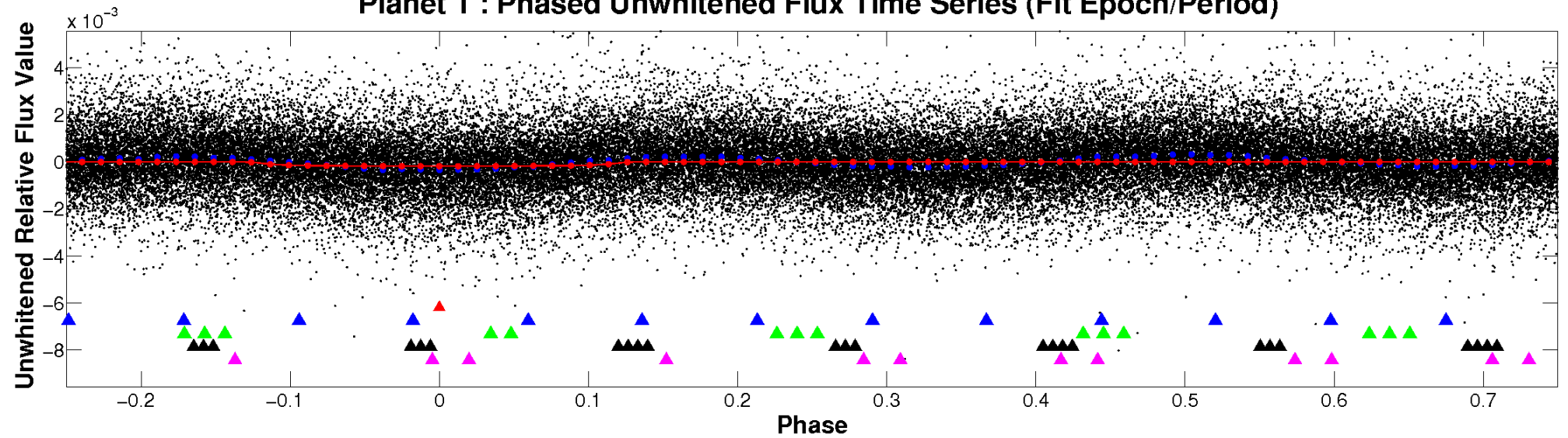
ALT Odd/Even

TCE 006443122-01

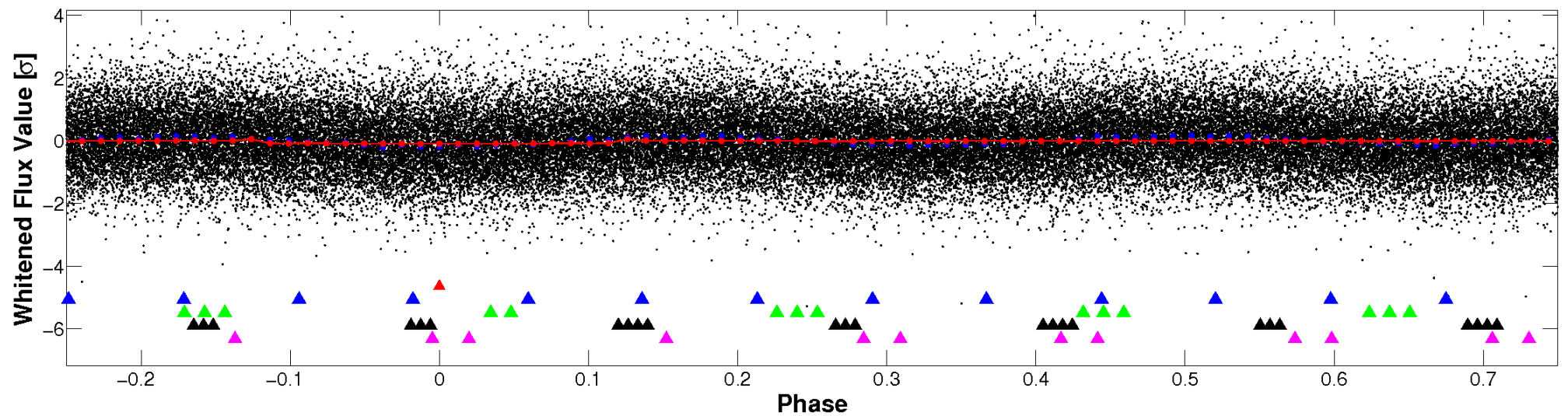


Non-Whitened Vs. Whitened Light Curve

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

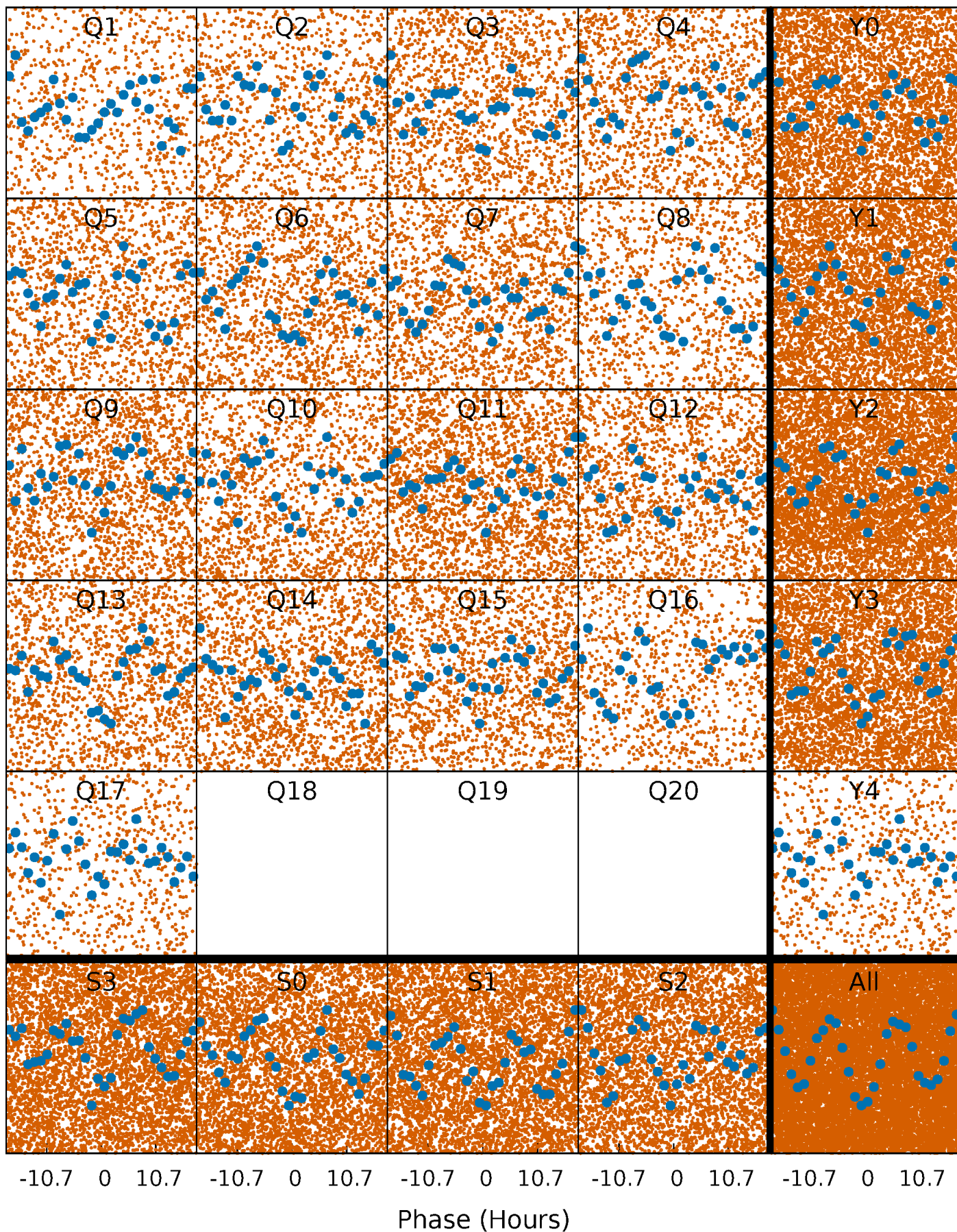


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



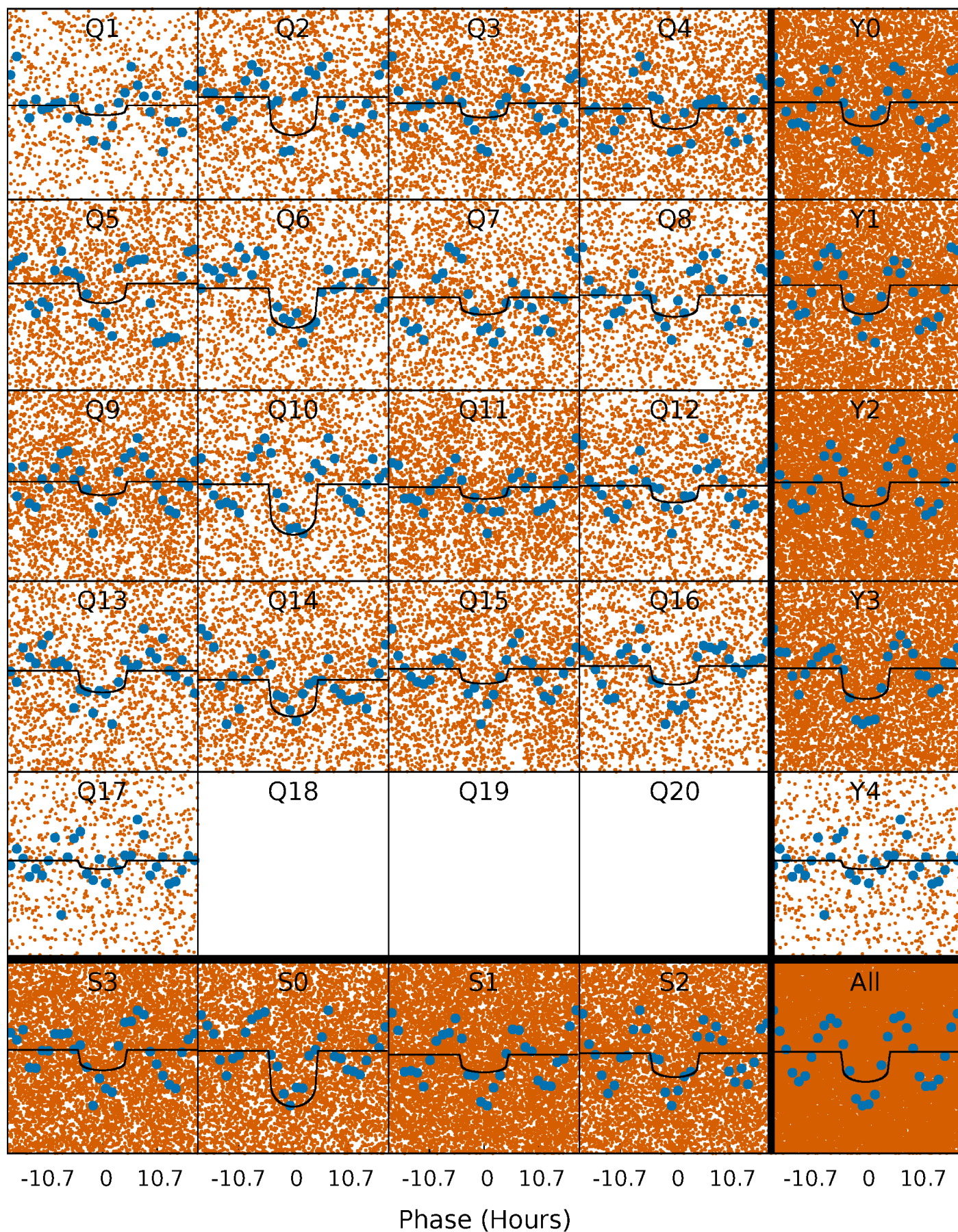
PDC Quarter-Phased Transit Curves

TCE 006443122-01 P= 1.620562 Days $T_0=133.105146$ (BKJD)



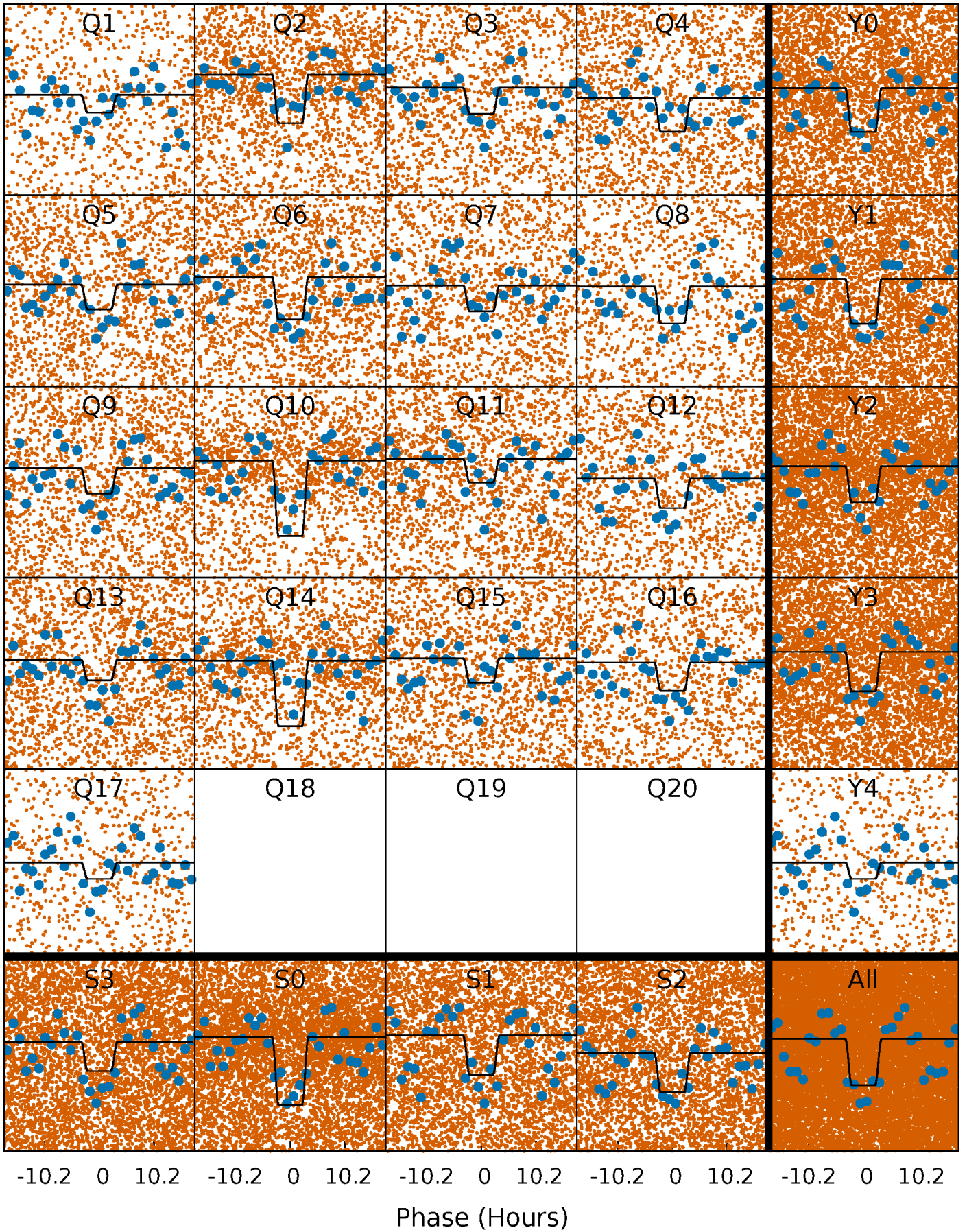
DV Quarter-Phased Transit Curves

TCE 006443122-01 P= 1.620562 Days $T_0=133.105146$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

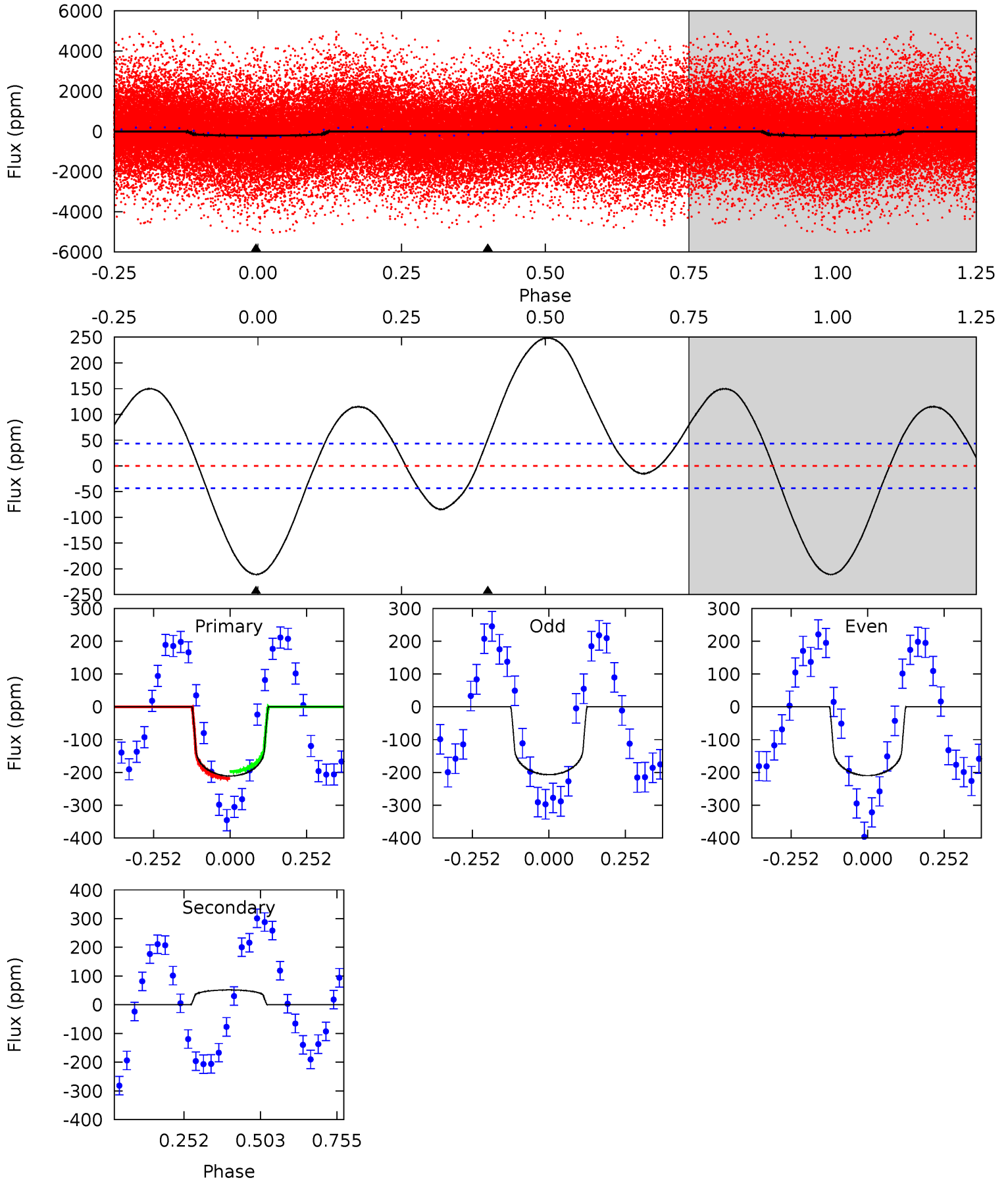
TCE 006443122-01 P= 1.620592 Days $T_0=133.081651$ (BKJD)



DV Model-Shift Uniqueness Test

006443122-01, P = 1.620562 Days, E = 131.484584 Days

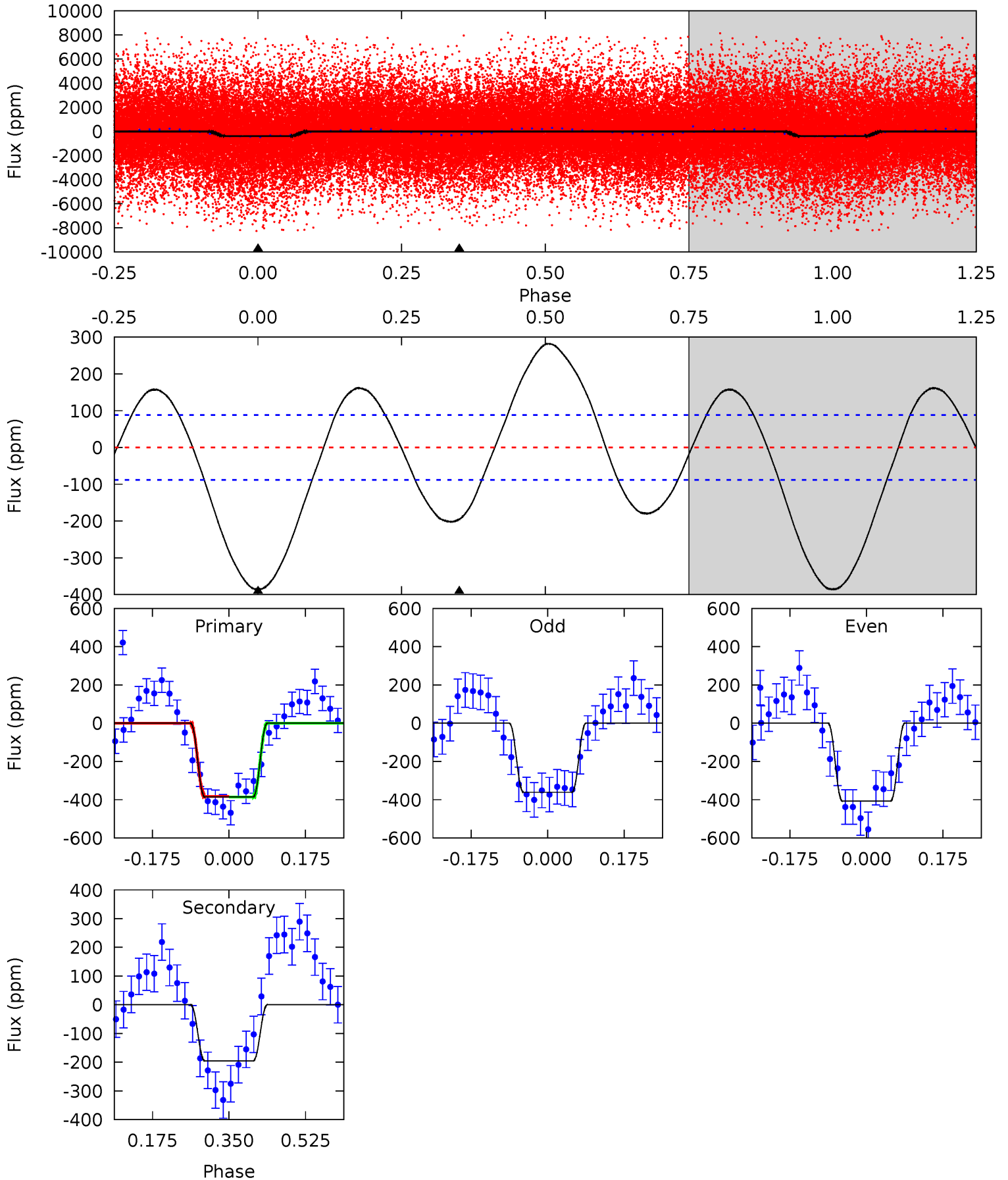
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
21.3	-5.22	0	0	4.37	1.15	2.81	21.3	21.3	-5.22	-5.22	0.14	1.16	0.54	1.06



Alt Model-Shift Uniqueness Test

006443122-01, P = 1.620592 Days, E = 131.461059 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
19.4	9.84	0	0	4.45	1.36	7.01	19.4	19.4	9.84	9.84	1.15	1.12	0.42	0.08



Stellar Parameters For KIC 006443122

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7236^{+72}_{-79}	$4.009^{+0.126}_{-0.103}$	$0.100^{+0.150}_{-0.150}$	$2.137^{+0.354}_{-0.354}$	$1.701^{+0.108}_{-0.162}$	$0.245^{+0.152}_{-0.080}$
	+1%/-1%	+3%/-3%	+150%/-150%	+17%/-17%	+6%/-10%	+62%/-33%
Source	SPE68	SPE68	SPE68	DSEP		

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

Secondary Eclipse Parameters for KIC 006443122-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	52 ± 10	$2.85^{+1.43}_{-1.28}$	3617^{+158}_{-142}	-5609^{+835}_{-1845}	$-3.657^{+2.092}_{-8.199}$
Alt.	-195 ± 20	$4.13^{+1.47}_{-1.41}$	3628^{+153}_{-142}	6276^{+1758}_{-911}	$6.583^{+9.063}_{-3.180}$

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 $A_{obs} \gg 1.0$

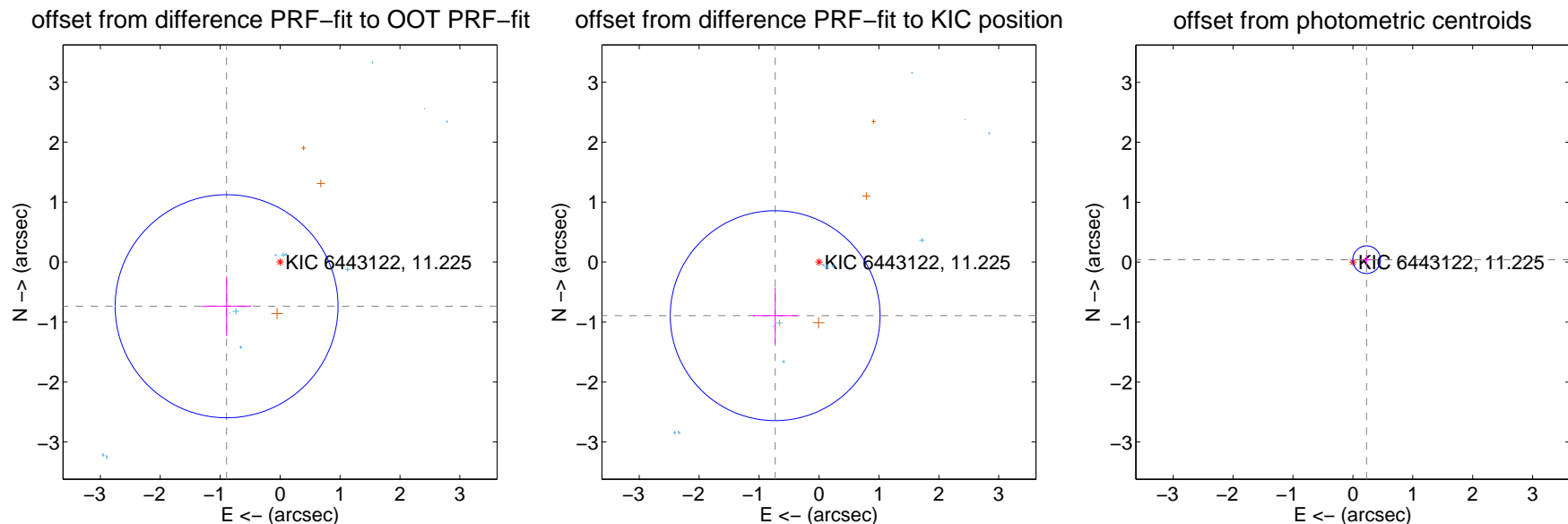
DV Centroid Data

Supplemental centroid analysis for 006443122-01. **Kepler magnitude: 11.22.** Transit SNR 11.37

There are 13 quarters with good PRF difference image offsets

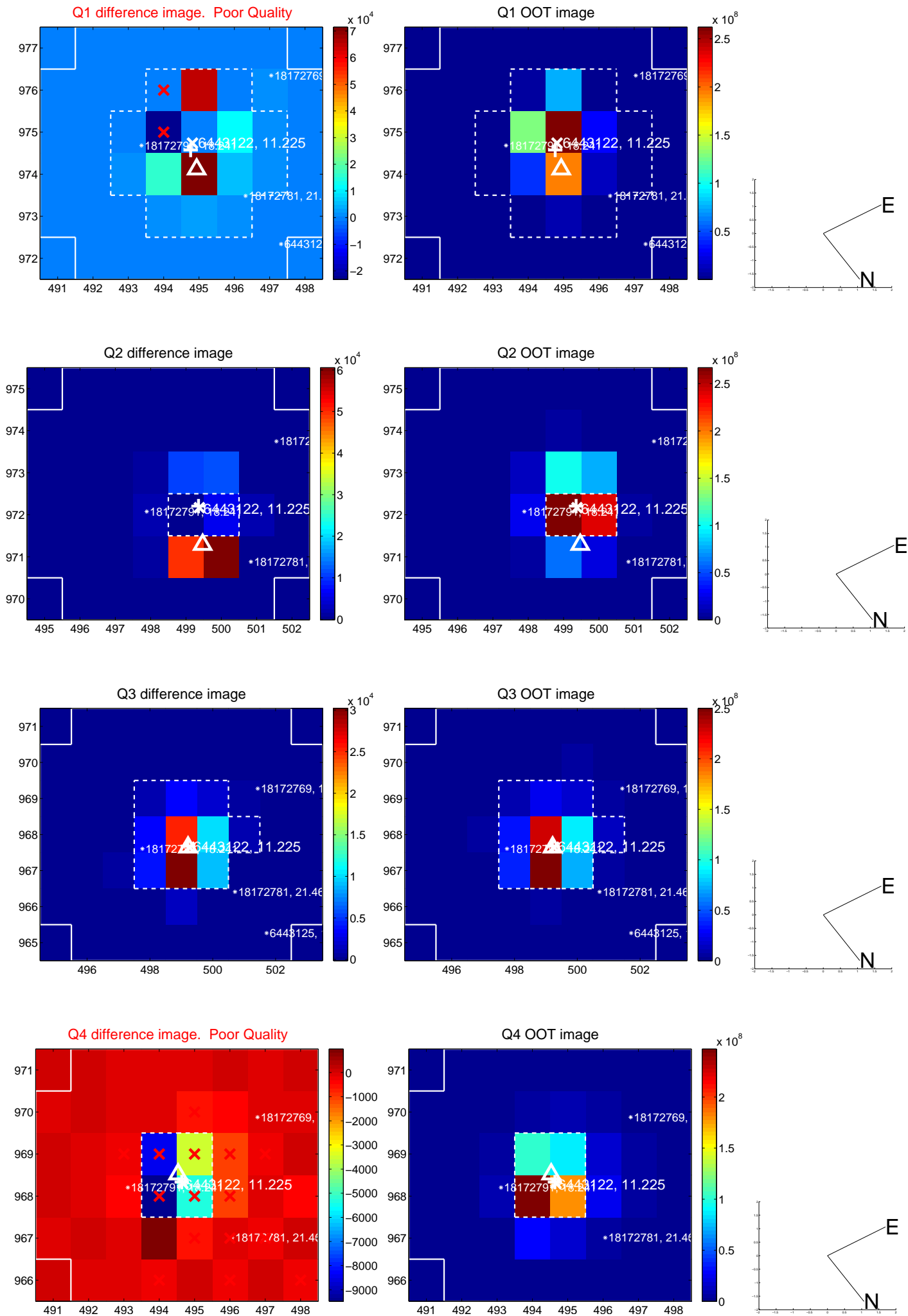
The direct PRF centroid is offset from the target star catalog position by about 0.66 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.157 ± 0.620	1.87	0.893 ± 0.415	-0.736 ± 0.497
PRF-fit source offset from KIC position	1.155 ± 0.583	1.98	0.731 ± 0.376	-0.893 ± 0.469
photometric centroid source offset	0.23 ± 0.08	3.03	-0.23 ± 0.08	0.04 ± 0.08

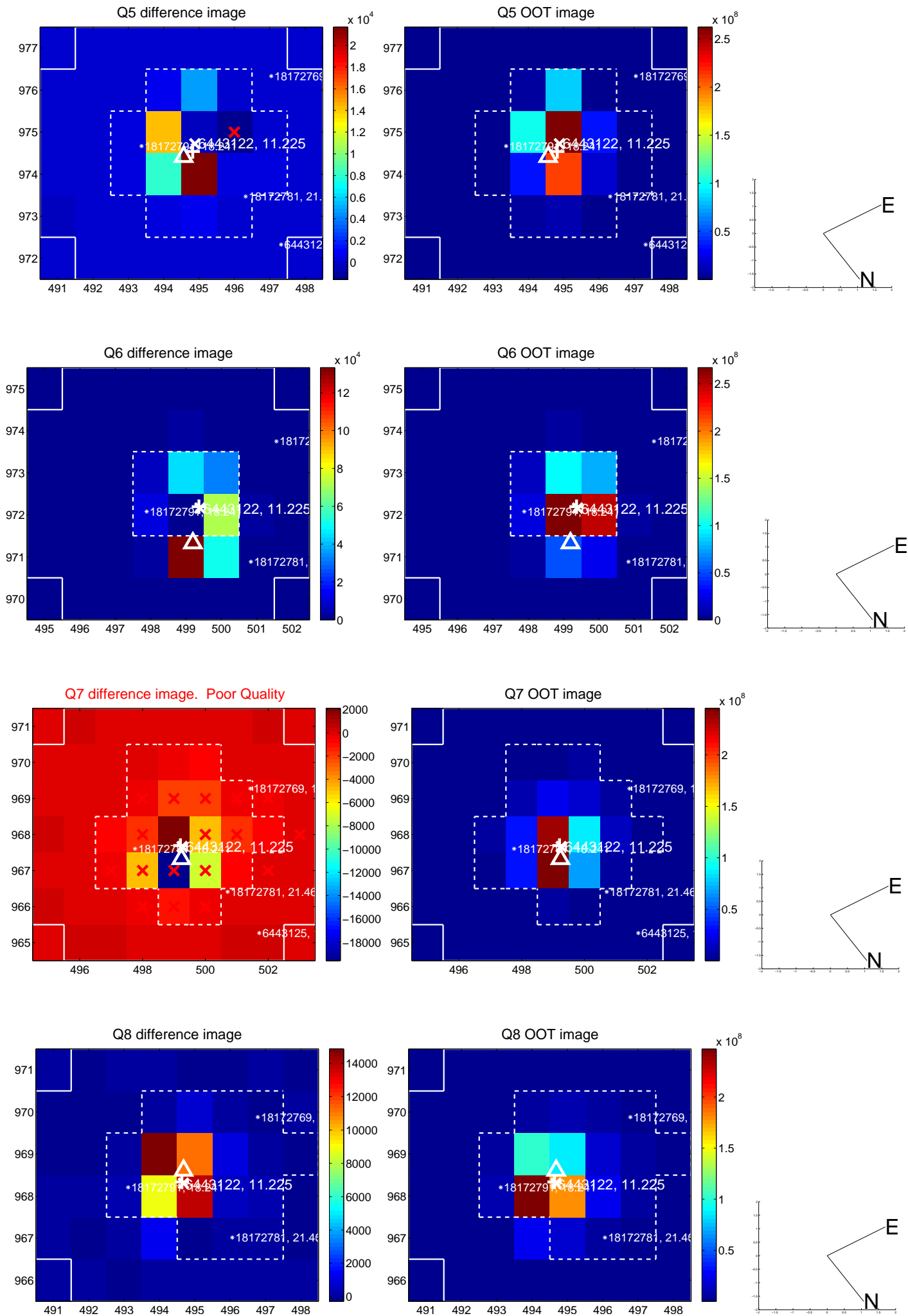


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

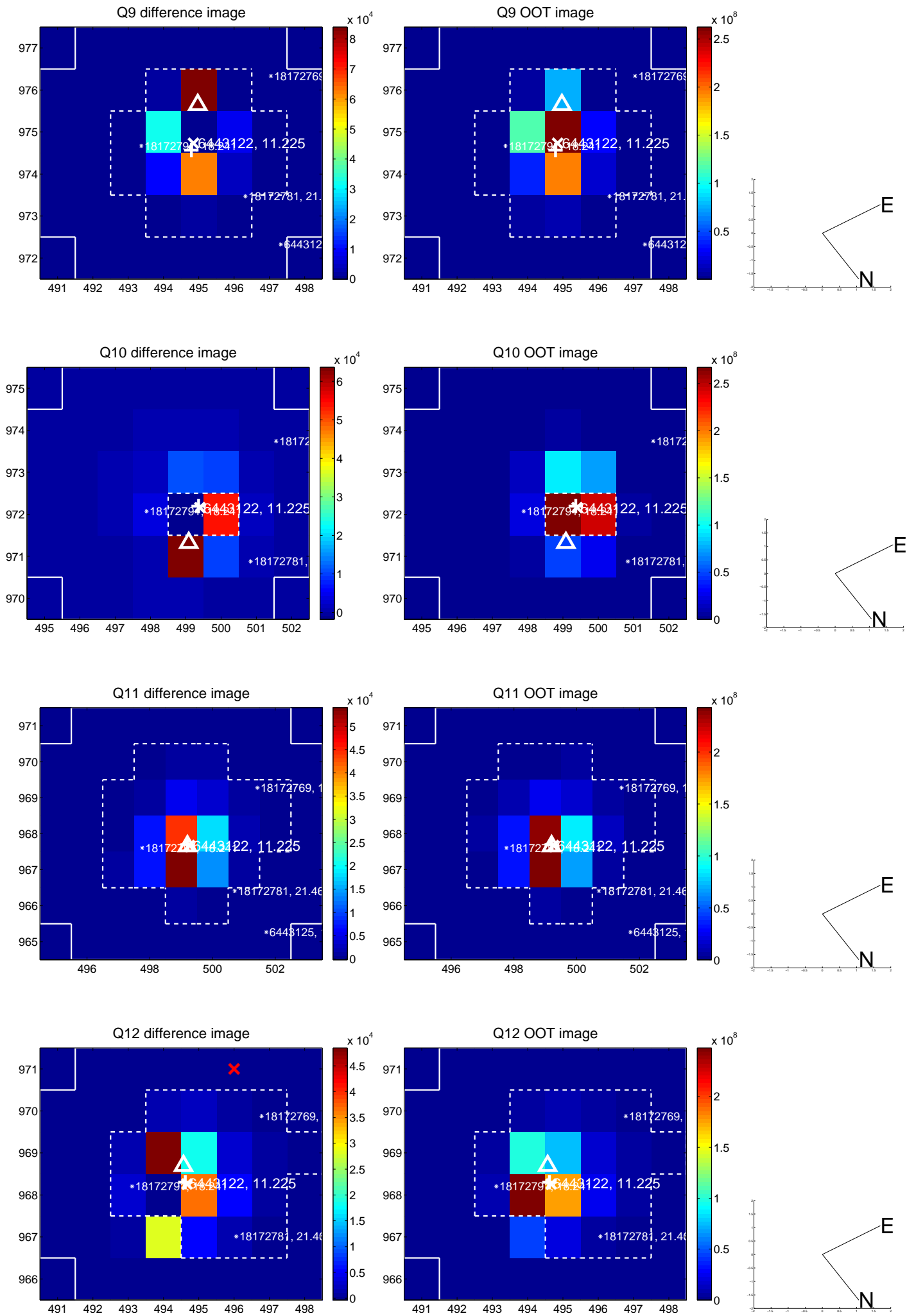
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



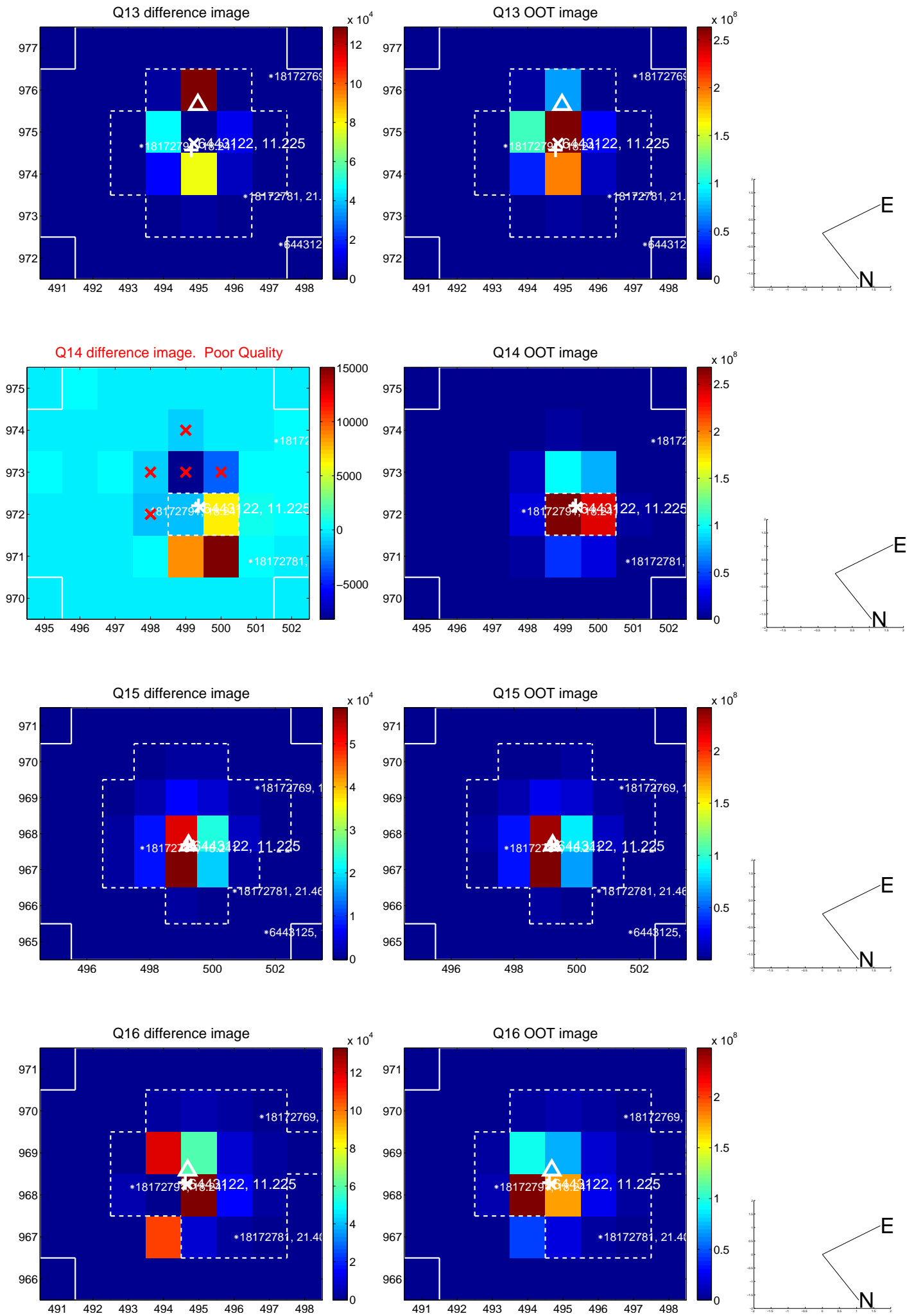
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



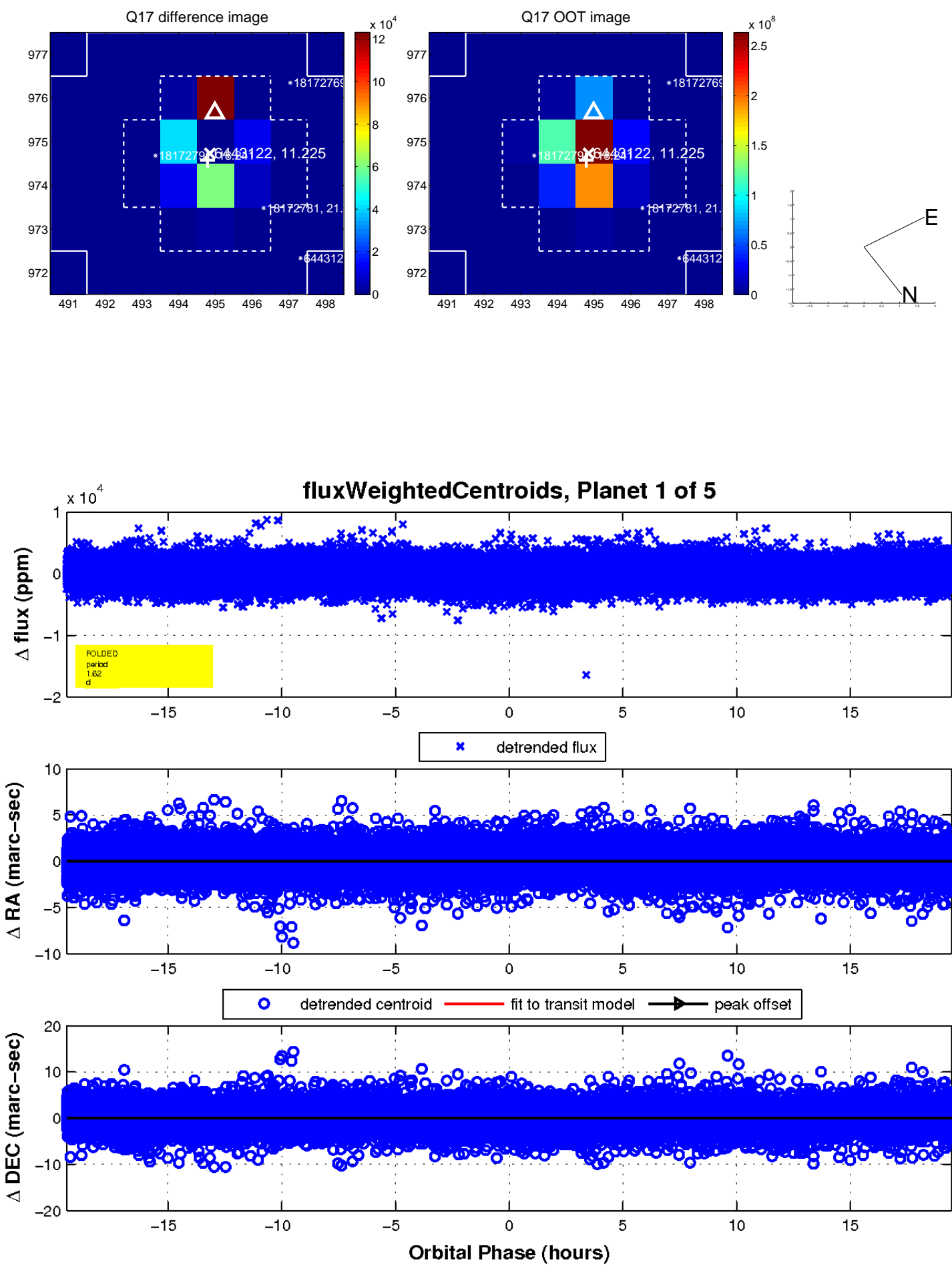
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



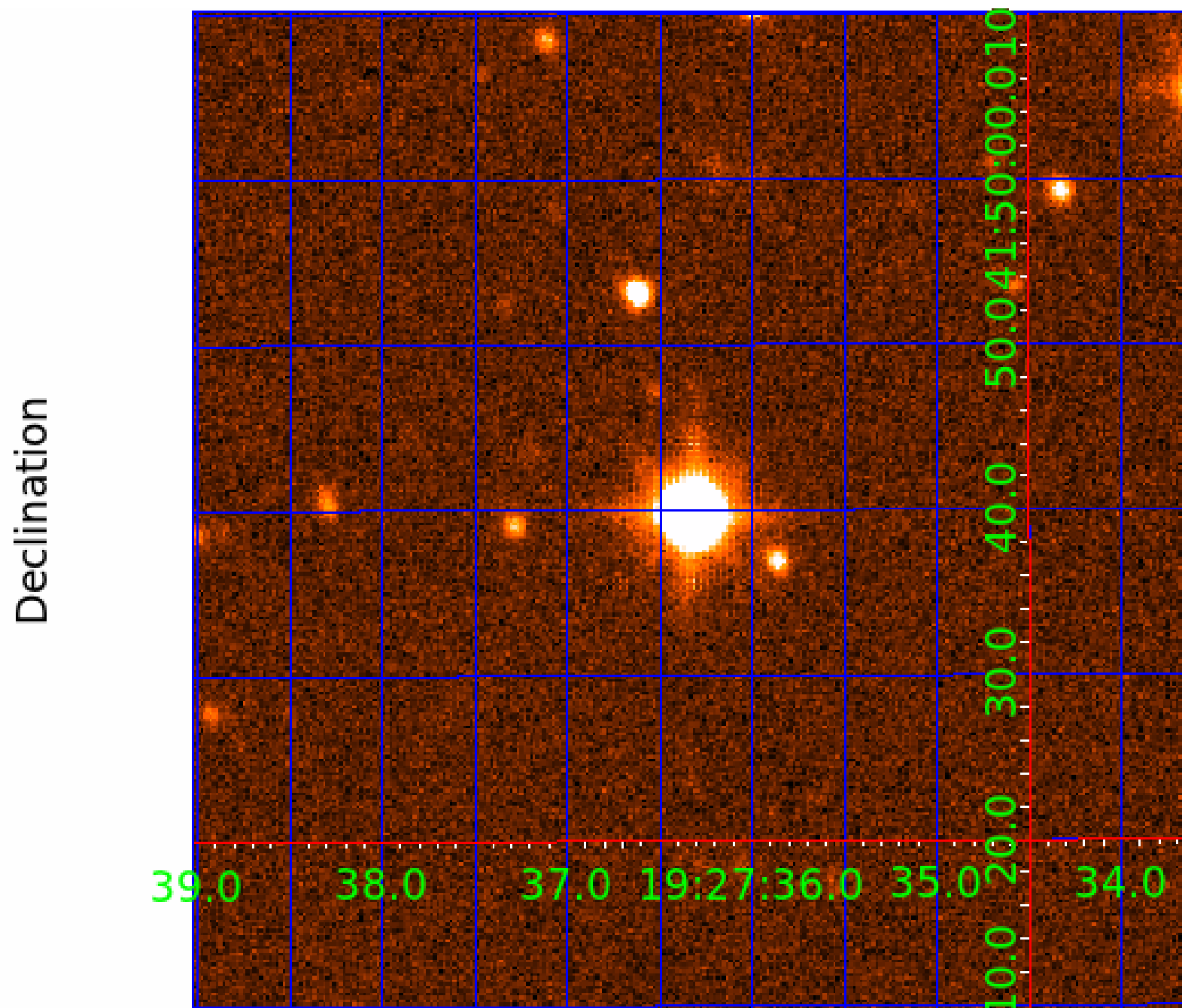
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image



KIC 006443122

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})
006443122-01	OBS	No	1.620562	133.105146	181.8	9.345	10.9	11.4	2.14	7236	2.92	10794.53
006443122-02	OBS	No	114.062543	186.431271	617.7	9.918	14.4	4.3	2.14	7236	5.68	37.15
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Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006443122-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—CENT_SATURATED
006443122-02	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_CHASES_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED—HALO_GHOST
006443122-03	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
006443122-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_TRACKER—TRANS_GAPPED—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
006443122-05	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_CHASES—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS—CENT_SATURATED—HALO_GHOST

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

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

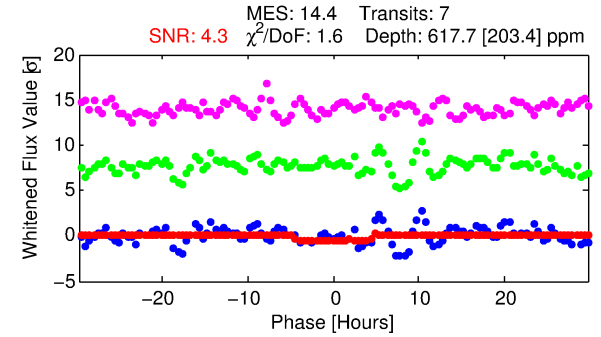
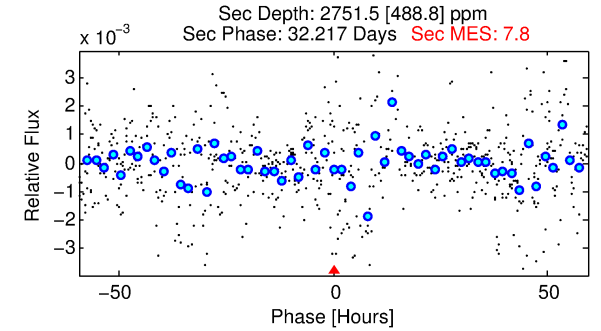
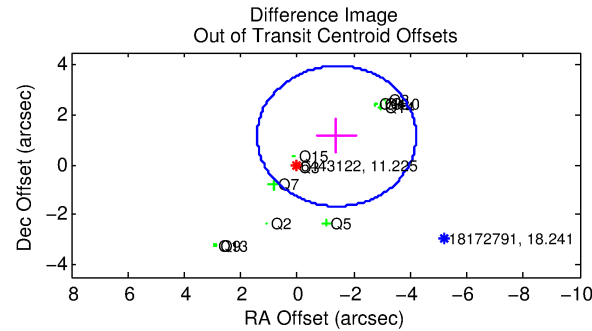
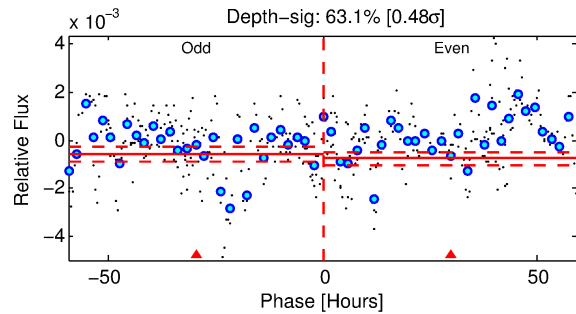
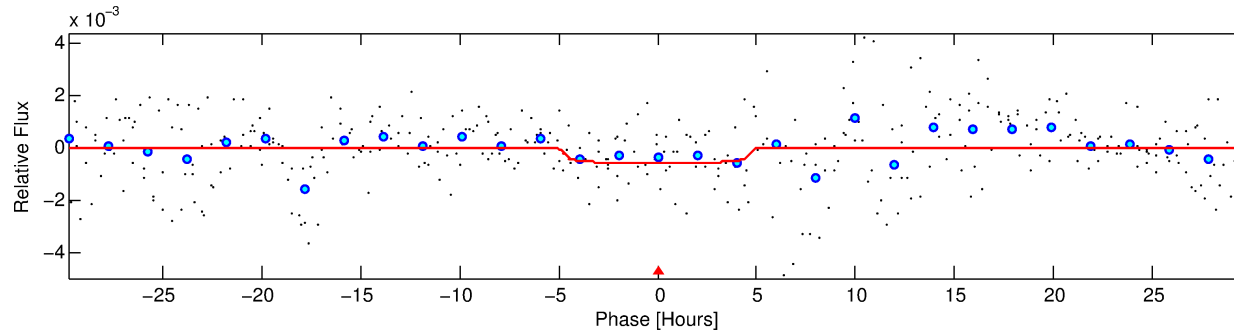
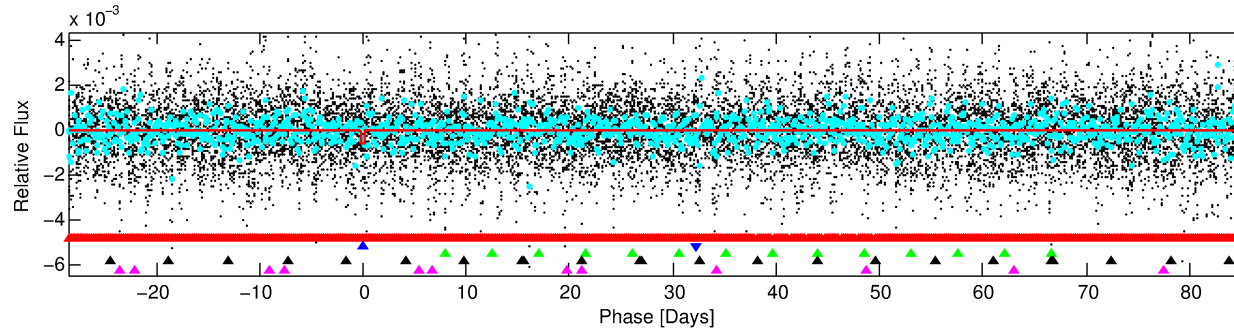
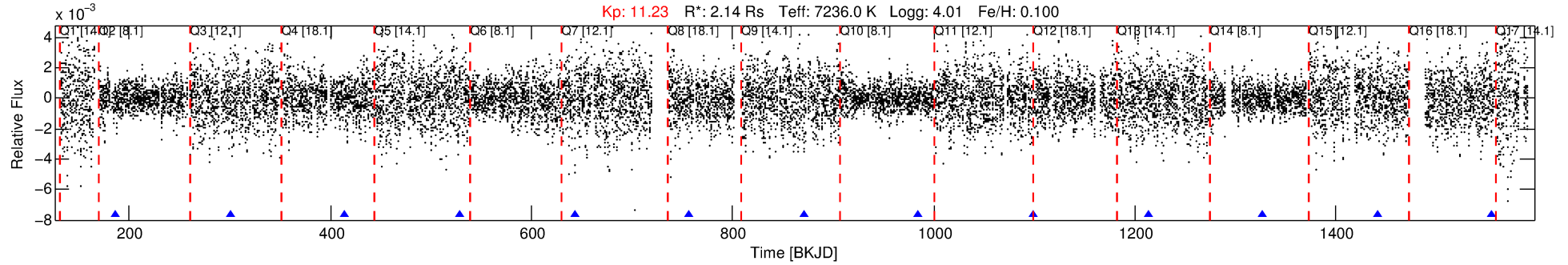
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006443122-02

No Significant Match Found

DV One-Page Summary

KIC: 6443122 Candidate: 2 of 5 Period: 114.063 d



DV Fit Results:

Period = 114.06254 [0.00555] d
Epoch = 186.4313 [0.0401] BKJD
Rp/R* = 0.0244 [0.0107]
a/R* = 66.09 [156.55]
b = 0.70 [1.75]
Seff = 37.15 [8.43]
Teq = 630 [36] K
Rp = 5.68 [2.67] Re
a = 0.5495 [0.0807] AU
Ag = 14149.04 [13070.67] [1.08 σ]
Teffp = 10615 [2382] K [4.19 σ]

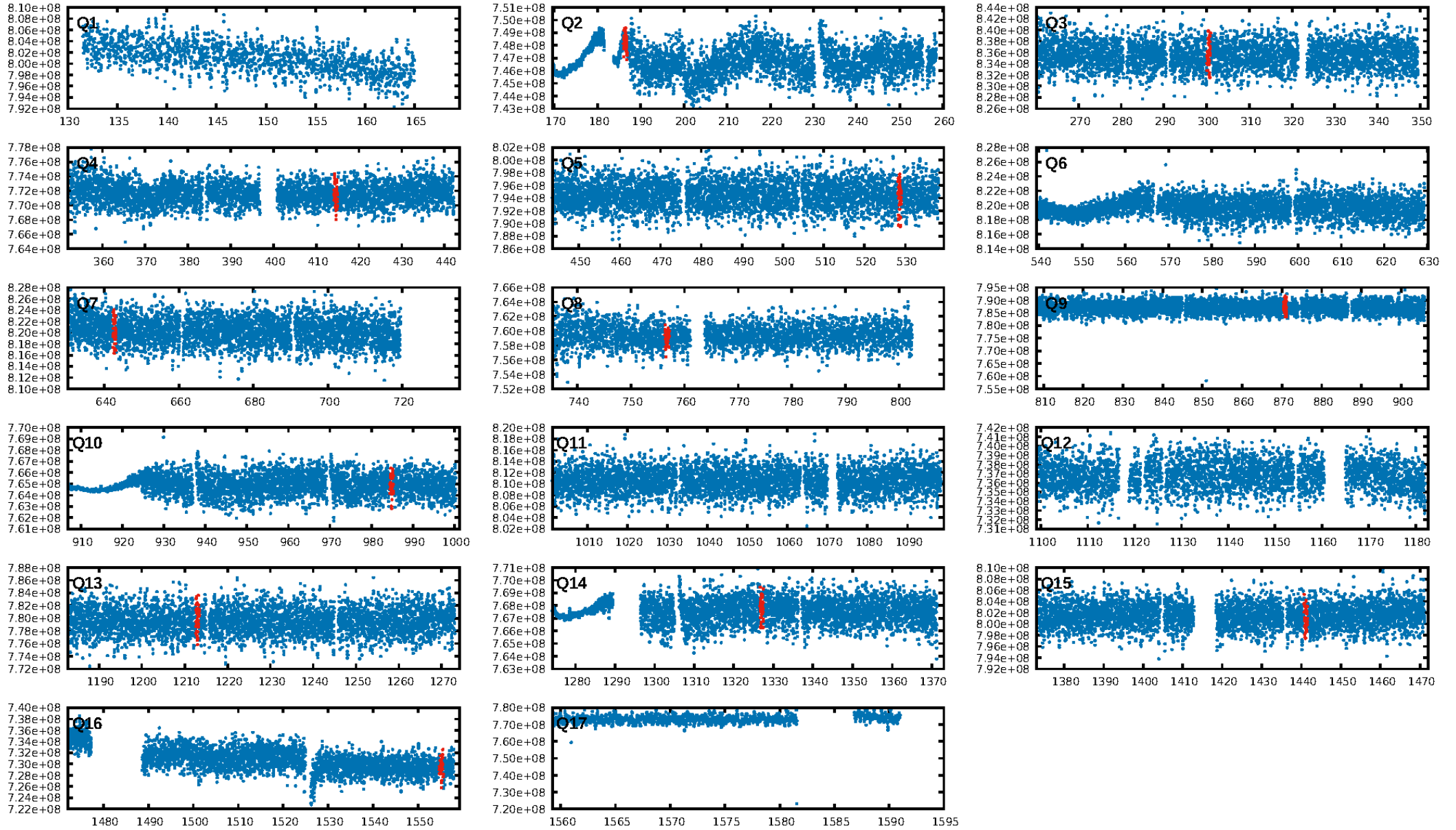
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [10.08 σ]
LongPeriod-sig: 100.0% [33.43 σ]
ModelChiSquare2-sig: 10.9%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [7/7]
GhostDiagnostic-chr: 0.09537
Centroid-sig: 84.1%
Centroid-so: 0.118 arcsec [0.58 σ]
OotOffset-rm: 1.801 arcsec [1.92 σ]
OotOffset-st: 3/3/3/3 [12]
KicOffset-rm: 1.787 arcsec [2.21 σ]
KicOffset-st: 3/3/3/3 [12]
DiffImageQuality-fgm: 0.58 [7/12]
DiffImageOverlap-fno: 0.00 [0/12]

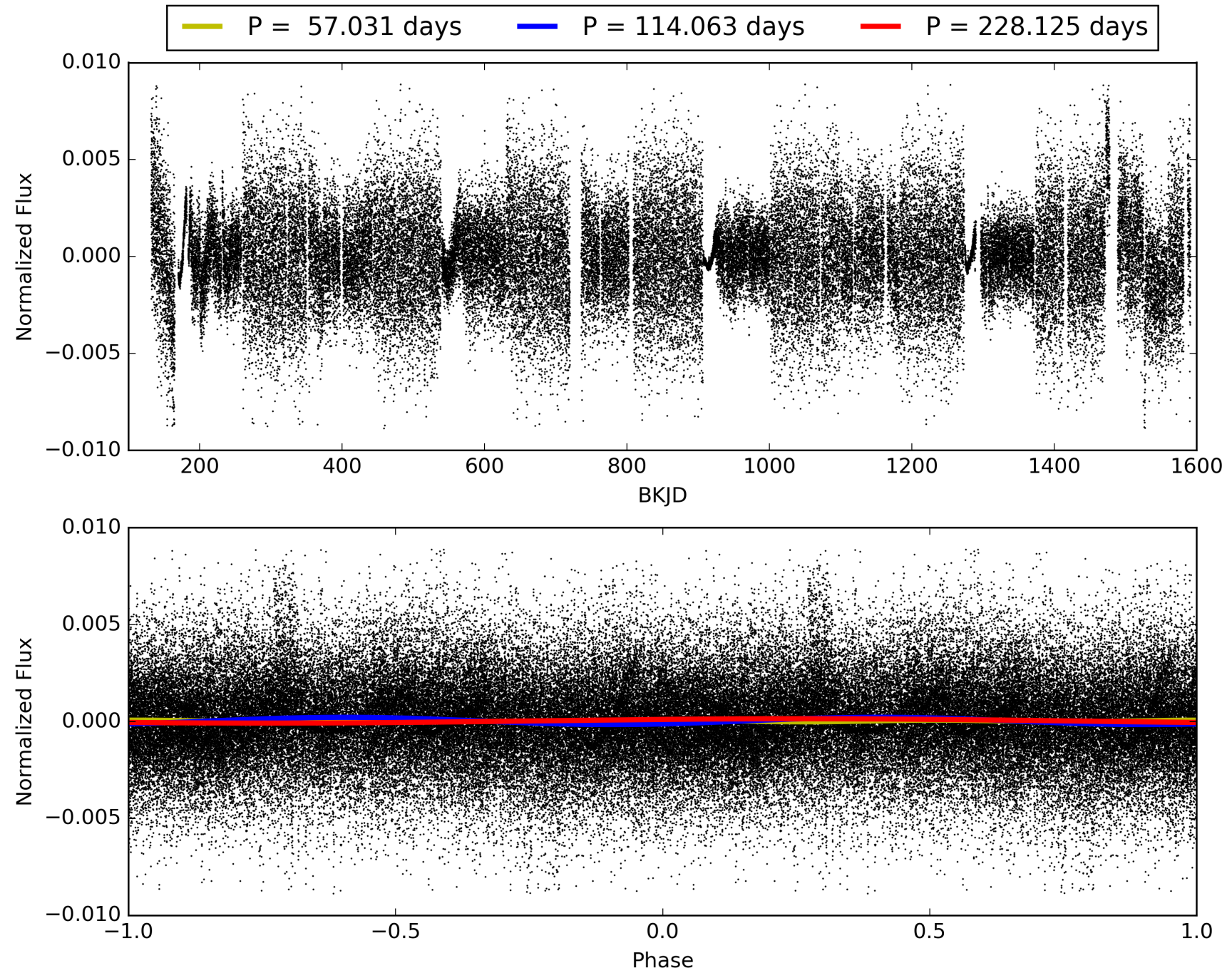
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 15:02:10 Z

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

TCE 006443122-02, PDC Light Curves

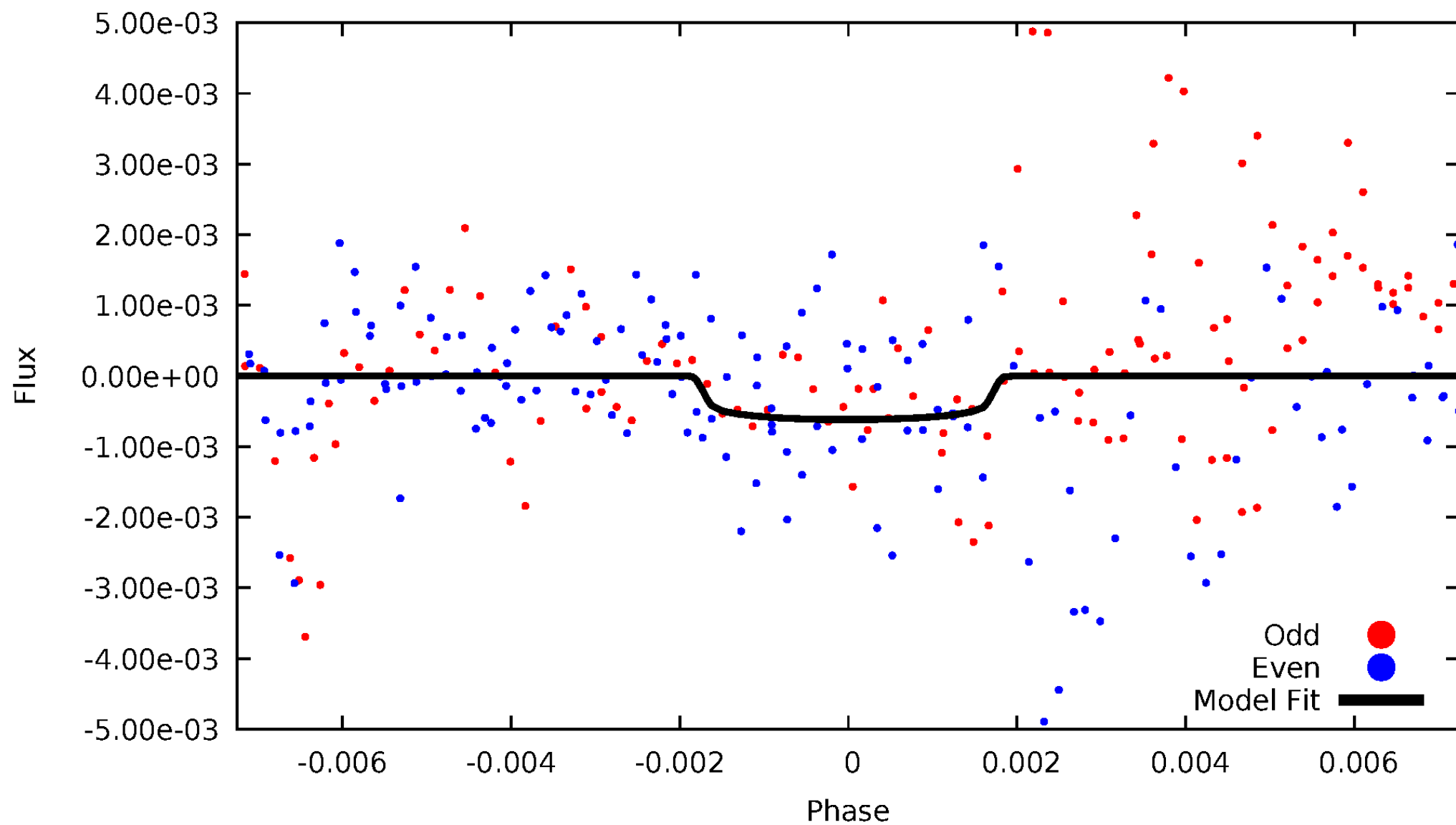


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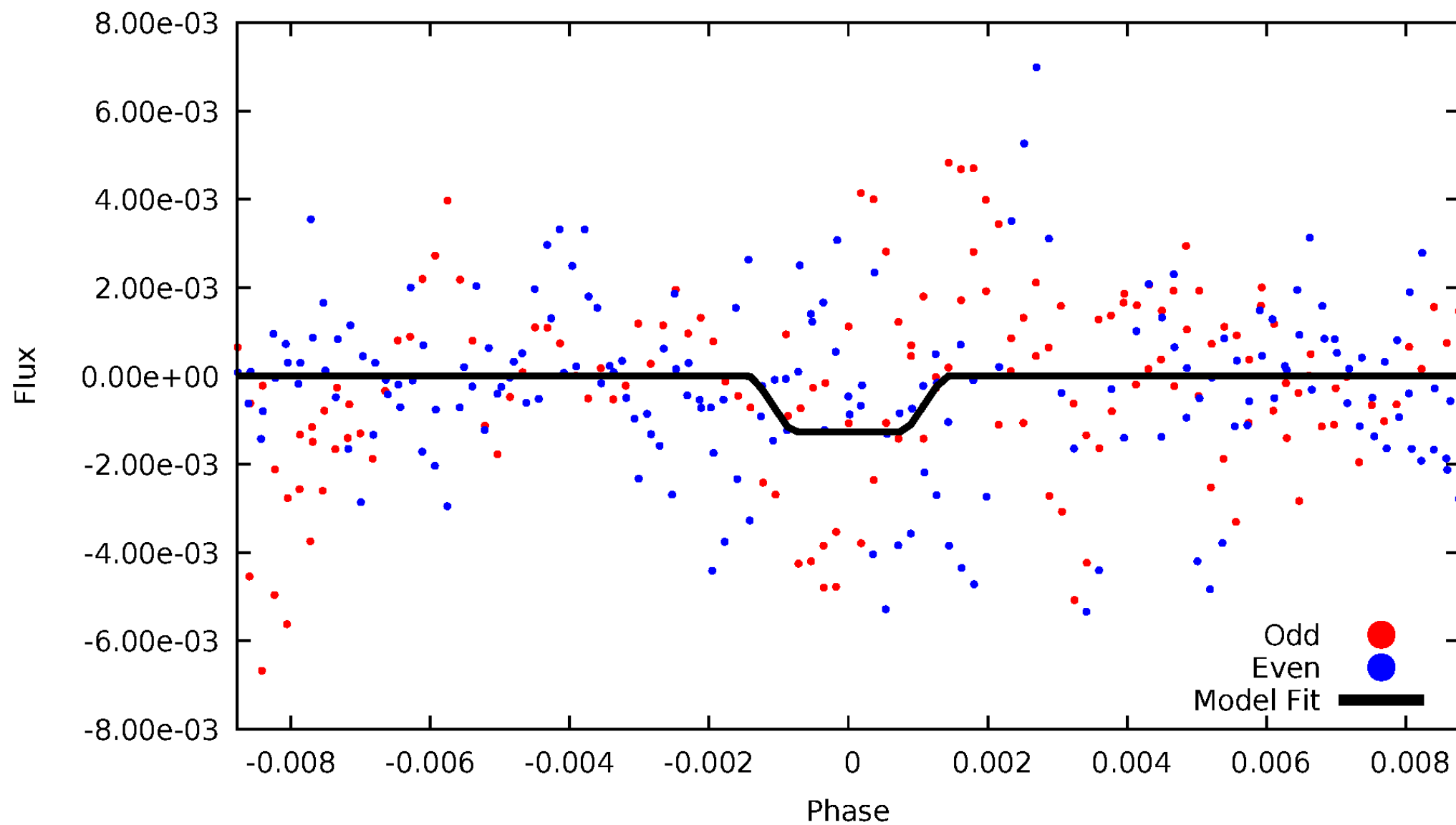
DV Odd/Even

TCE 006443122-02



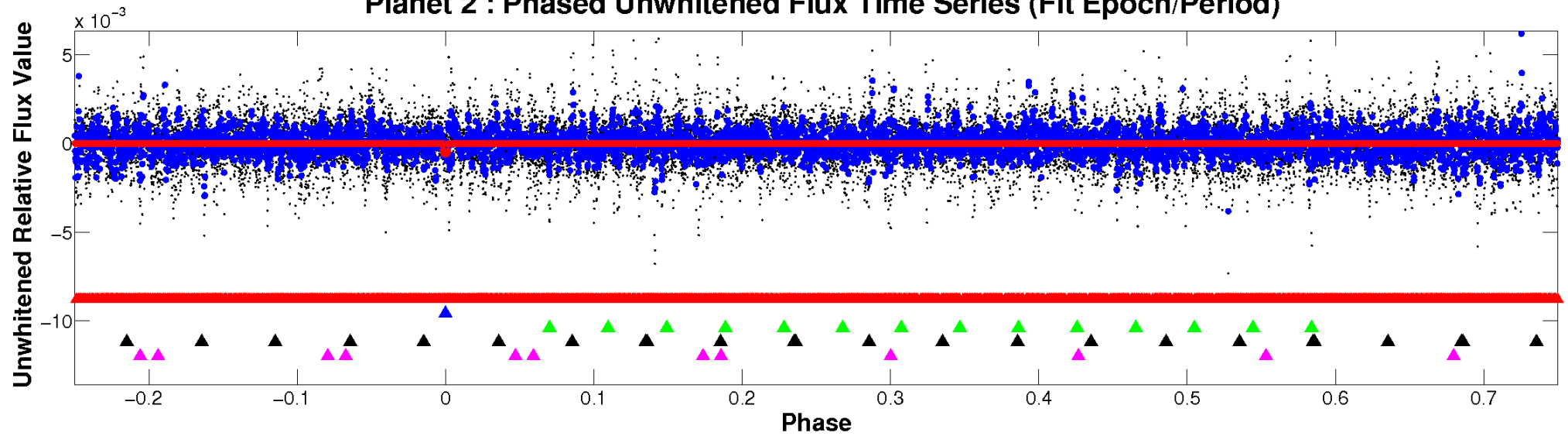
ALT Odd/Even

TCE 006443122-02

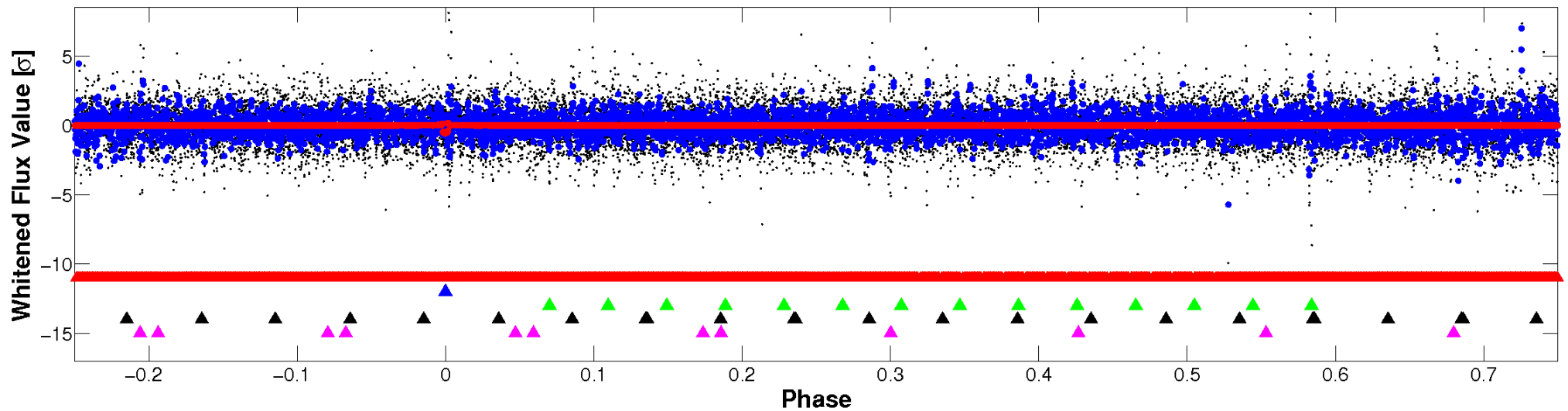


Non-Whitened Vs. Whitened Light Curve

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

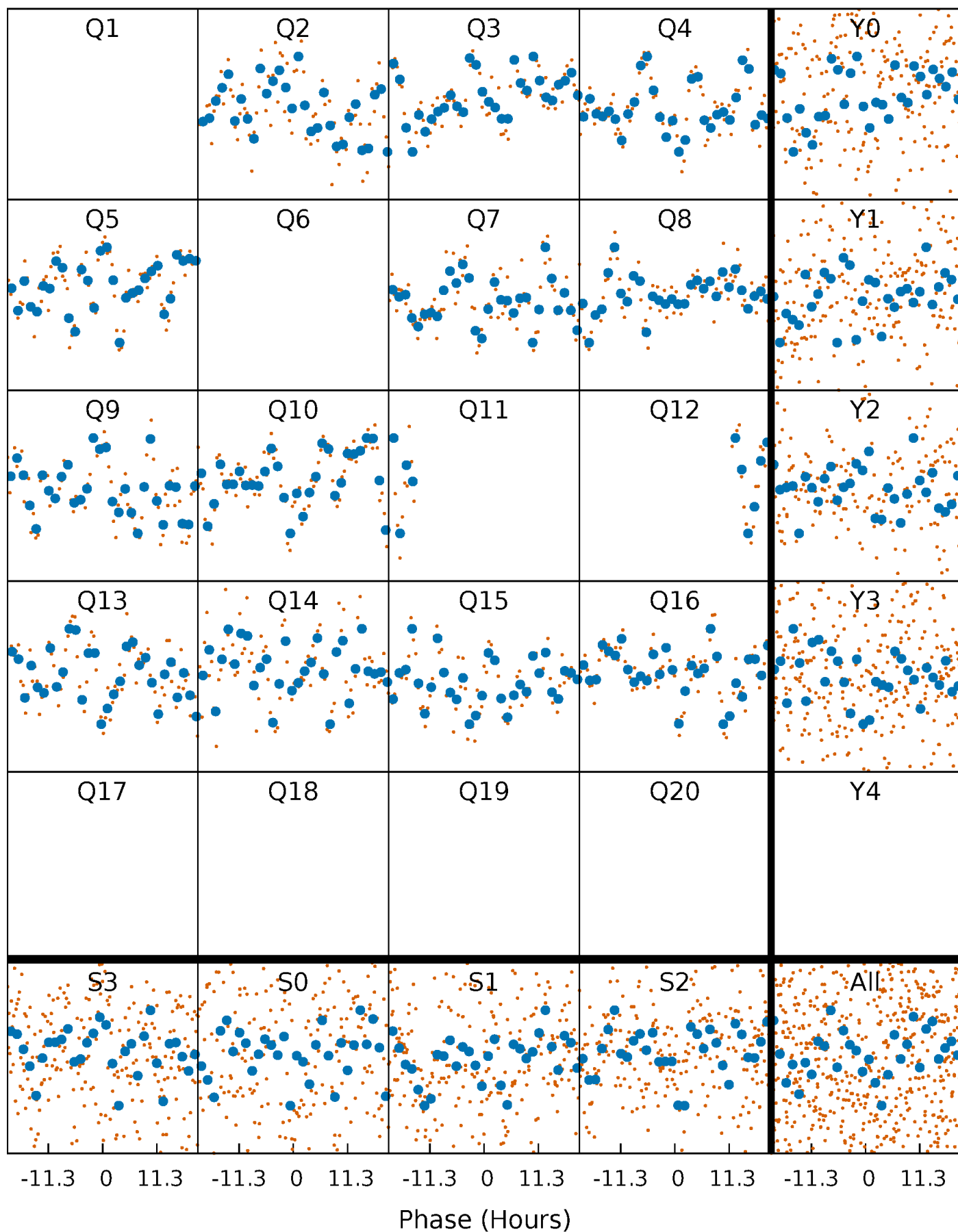


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



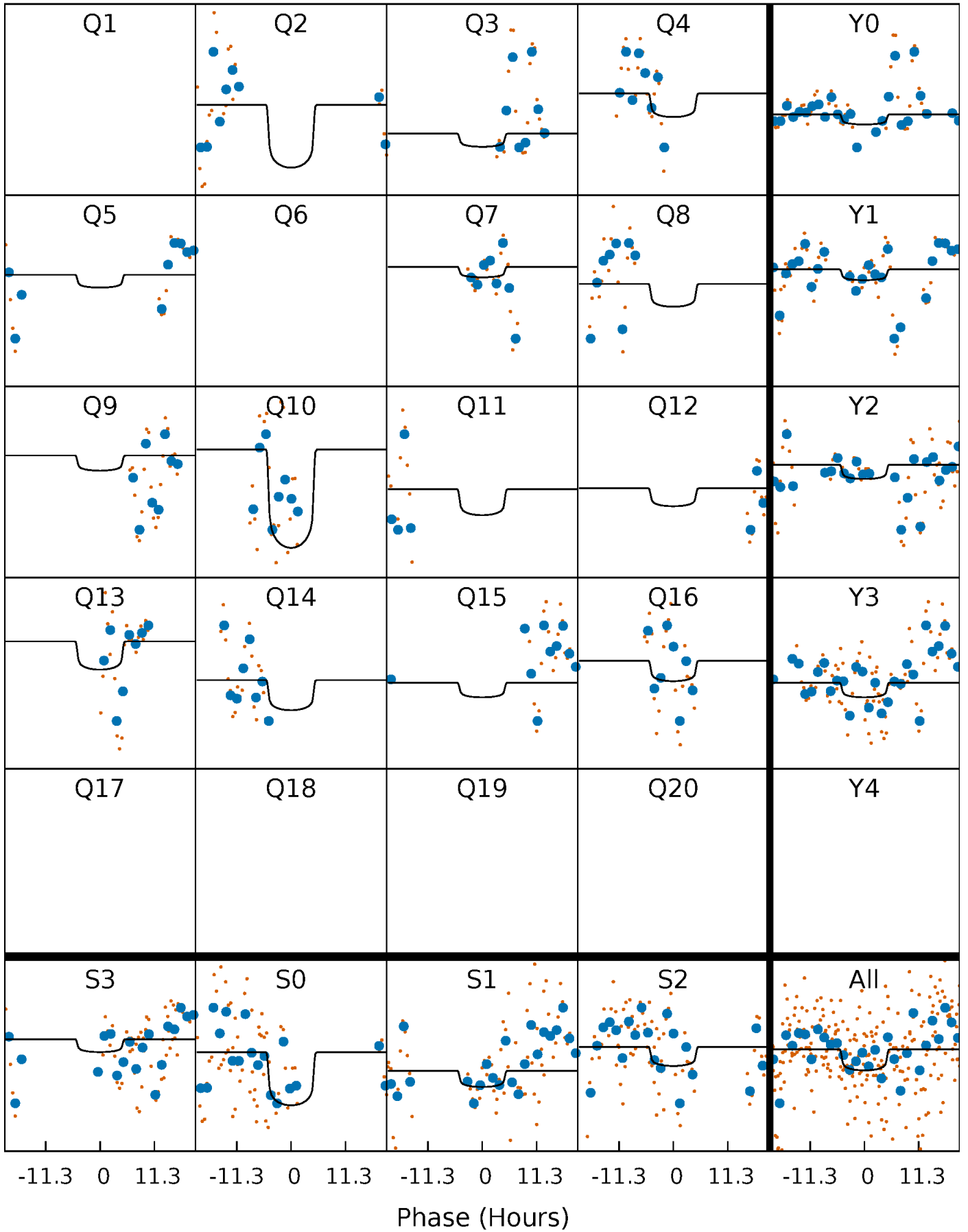
PDC Quarter-Phased Transit Curves

TCE 006443122-02 P=114.062543 Days $T_0=186.431271$ (BKJD)



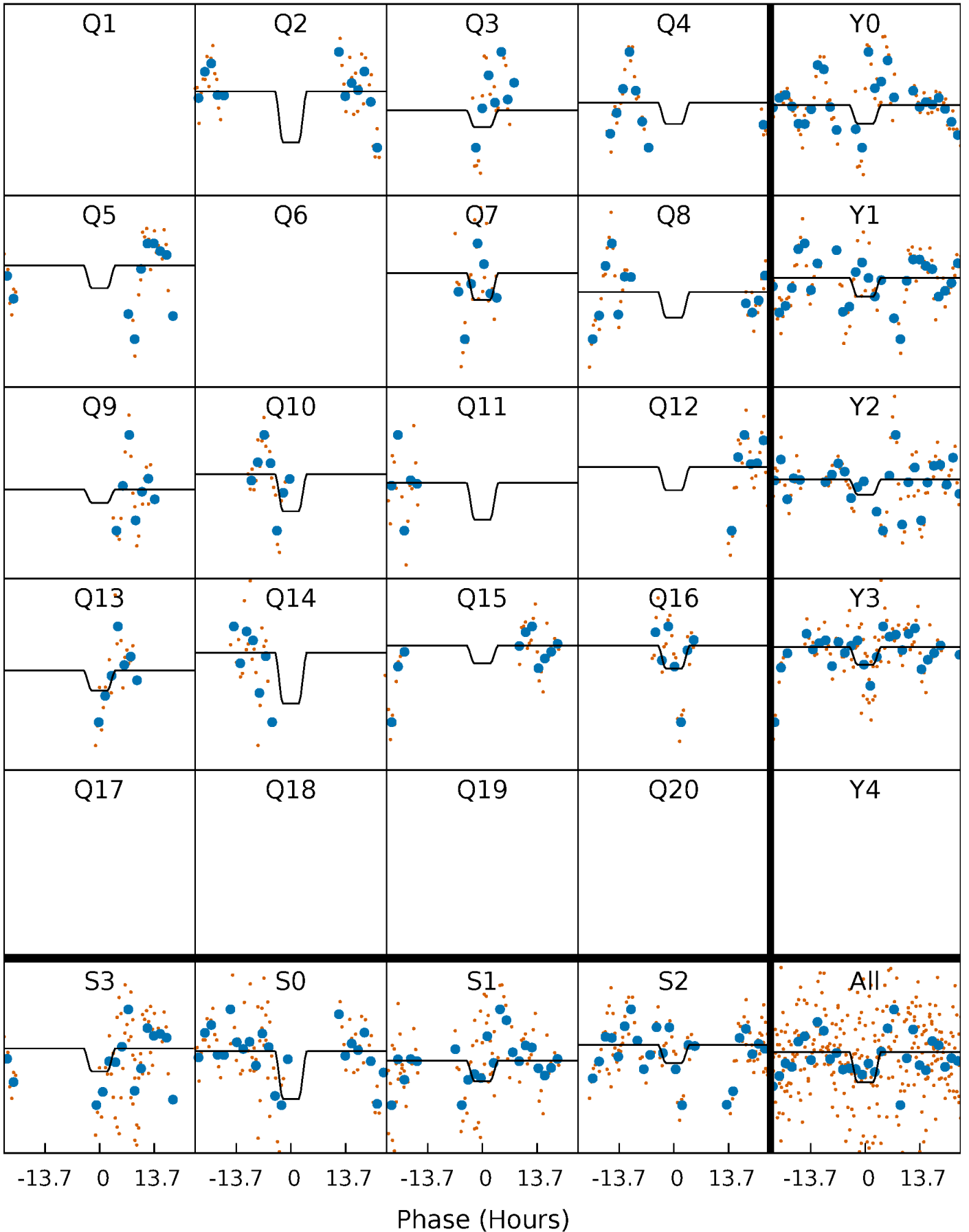
DV Quarter-Phased Transit Curves

TCE 006443122-02 P=114.062543 Days $T_0=186.431271$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

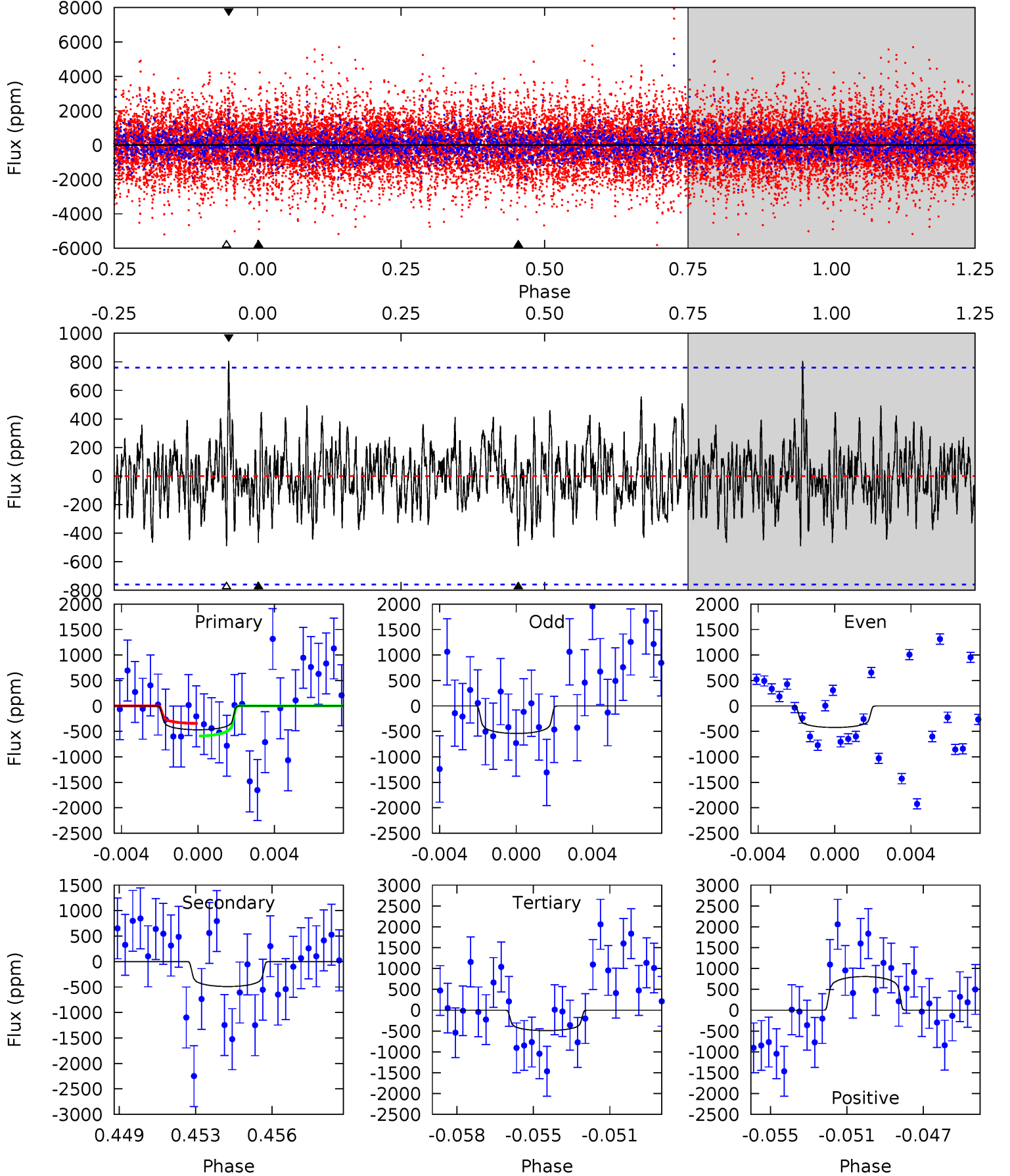
TCE 006443122-02 P=114.039752 Days $T_0=186.682566$ (BKJD)



DV Model-Shift Uniqueness Test

006443122-02, P = 114.062543 Days, E = 72.368728 Days

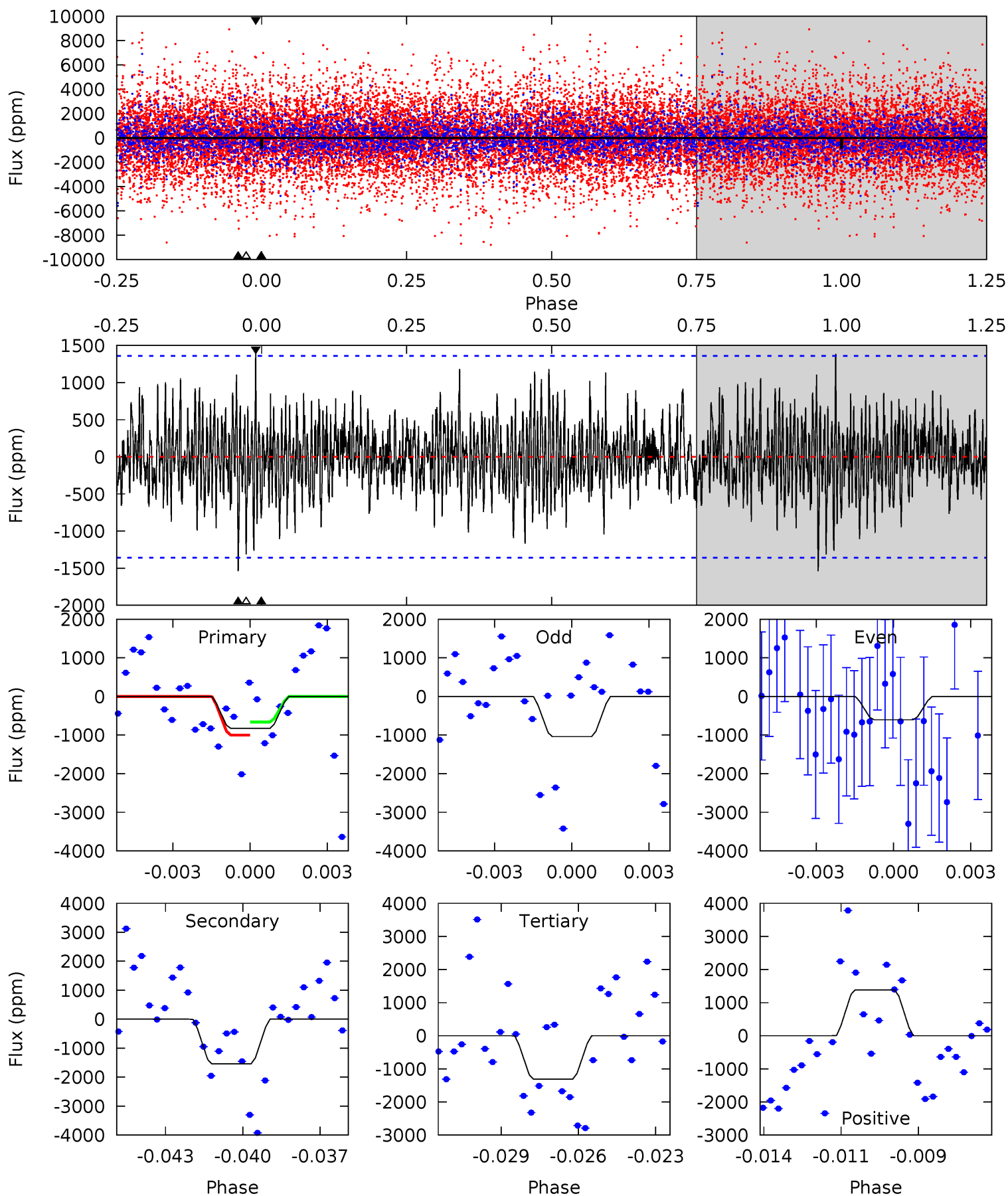
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.22	3.37	3.36	5.54	5.22	2.91	1.20	-0.15	-2.33	0.01	-2.17	0.39	1.06	0.62	0.85



Alt Model-Shift Uniqueness Test

006443122-02, P = 114.039752 Days, E = 72.642814 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.20	5.96	5.07	5.37	5.26	2.98	1.46	-1.88	-2.17	0.88	0.59	0.85	2.74	0.47	0.65



Stellar Parameters For KIC 006443122

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7236^{+72}_{-79}	$4.009^{+0.126}_{-0.103}$	$0.100^{+0.150}_{-0.150}$	$2.137^{+0.354}_{-0.354}$	$1.701^{+0.108}_{-0.162}$	$0.245^{+0.152}_{-0.080}$
	+1%/-1%	+3%/-3%	+150%/-150%	+17%/-17%	+6%/-10%	+62%/-33%
Source	SPE68	SPE68	SPE68	DSEP		

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

Secondary Eclipse Parameters for KIC 006443122-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-490 ± 146	$5.82^{+2.49}_{-2.30}$	875^{+40}_{-36}	6688^{+2458}_{-1146}	2358^{+4544}_{-1296}
Alt.	-1539 ± 258	$8.34^{+2.41}_{-2.63}$	878^{+39}_{-36}	7617^{+2121}_{-1096}	3690^{+4004}_{-1612}

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 $A_{obs} \gg 1.0$

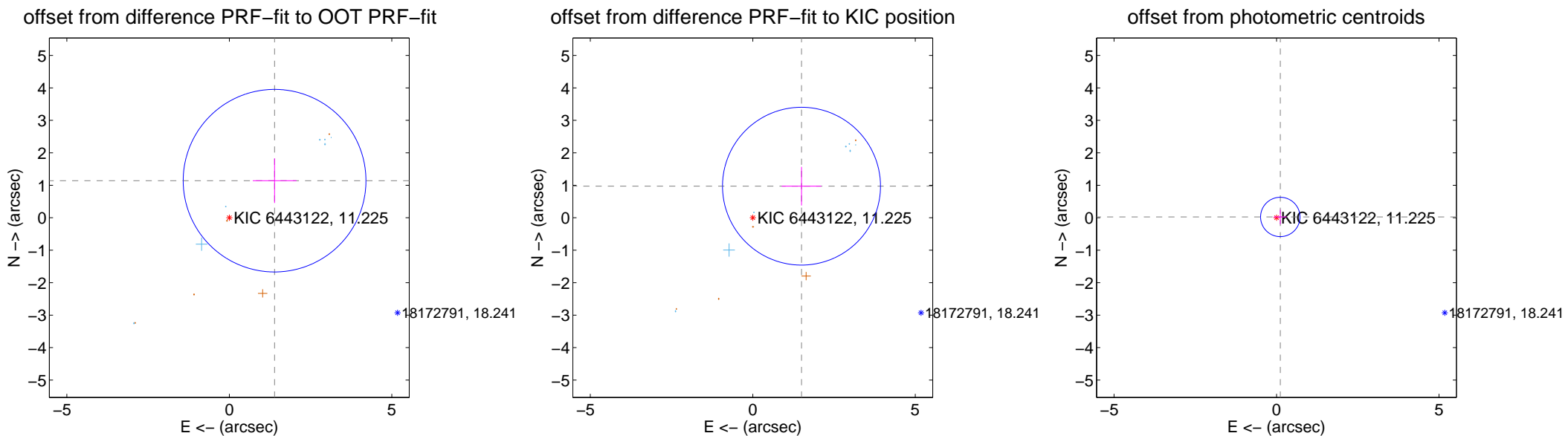
DV Centroid Data

Supplemental centroid analysis for 006443122-02. **Kepler magnitude: 11.22.** Transit SNR 4.27

There are 7 quarters with good PRF difference image offsets

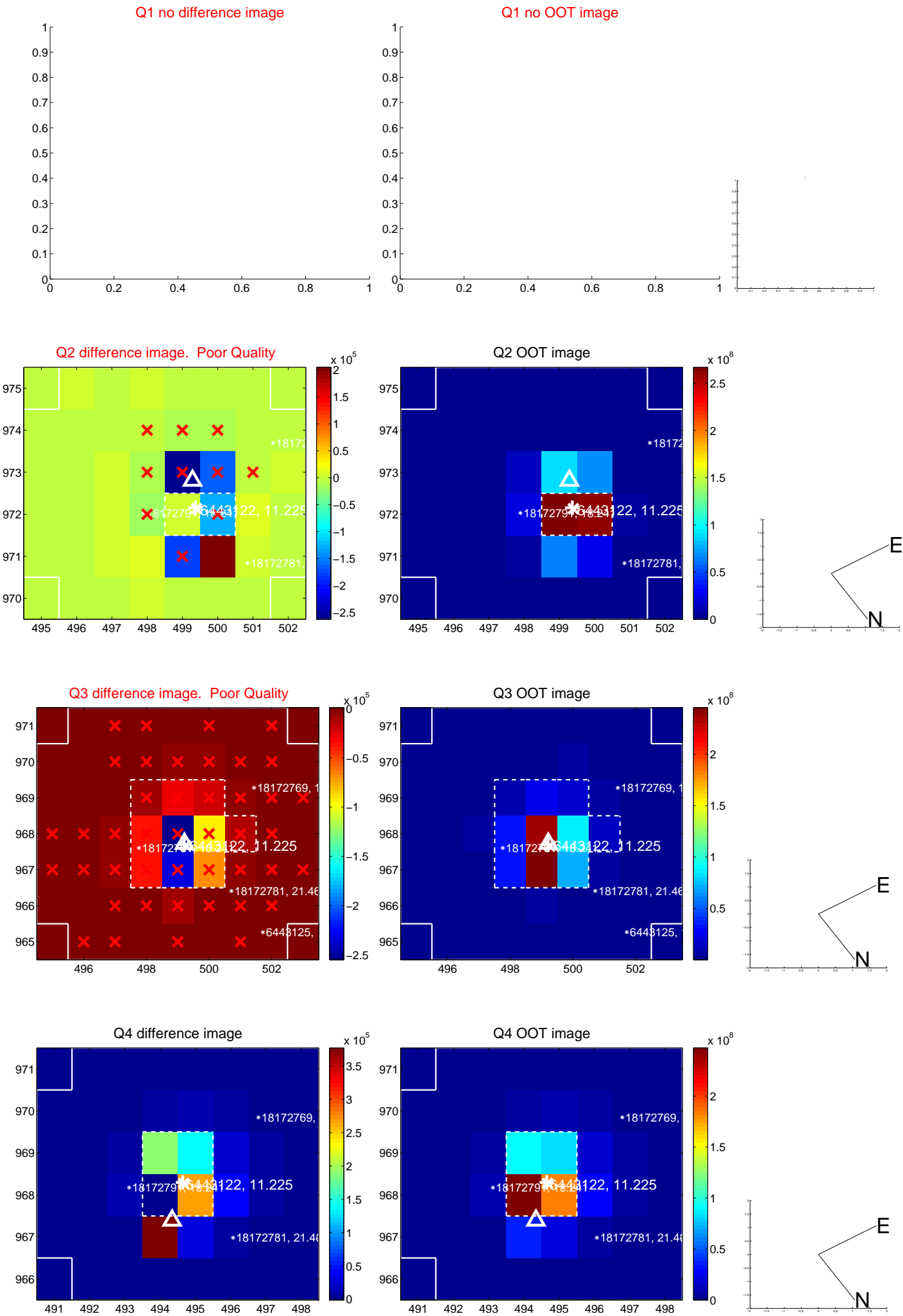
The direct PRF centroid is offset from the target star catalog position by about 0.22 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.801 ± 0.937	1.92	-1.393 ± 0.672	1.142 ± 0.687
PRF-fit source offset from KIC position	1.787 ± 0.810	2.21	-1.499 ± 0.608	0.973 ± 0.594
photometric centroid source offset	0.12 ± 0.20	0.58	-0.12 ± 0.20	0.02 ± 0.22

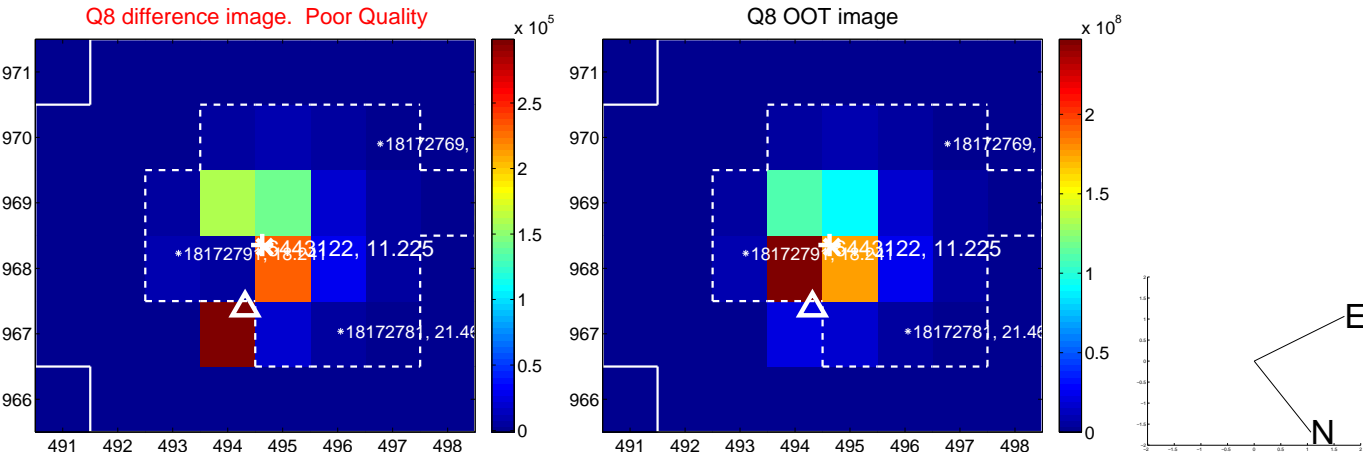
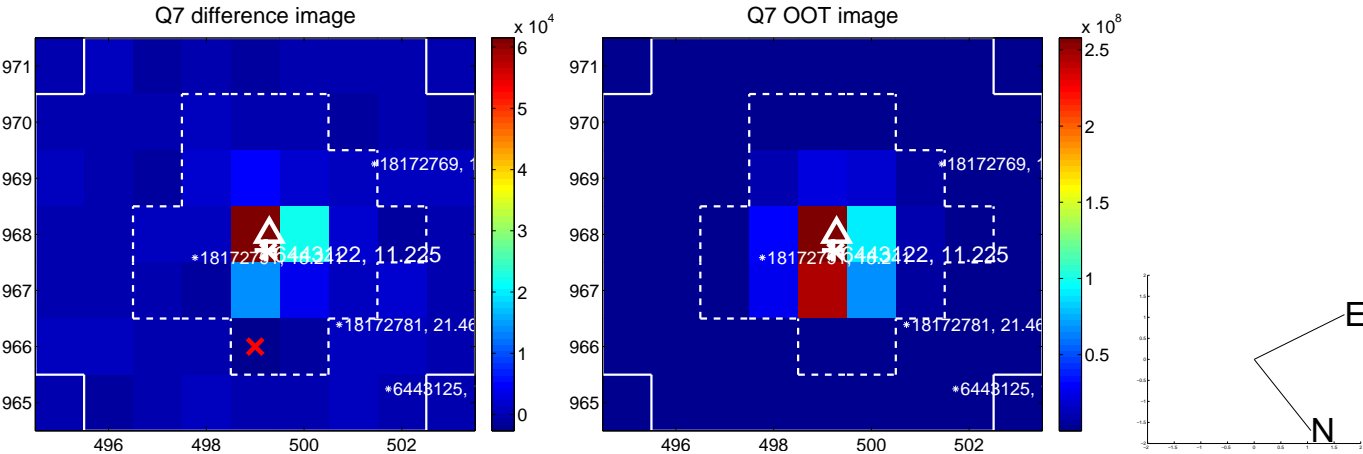
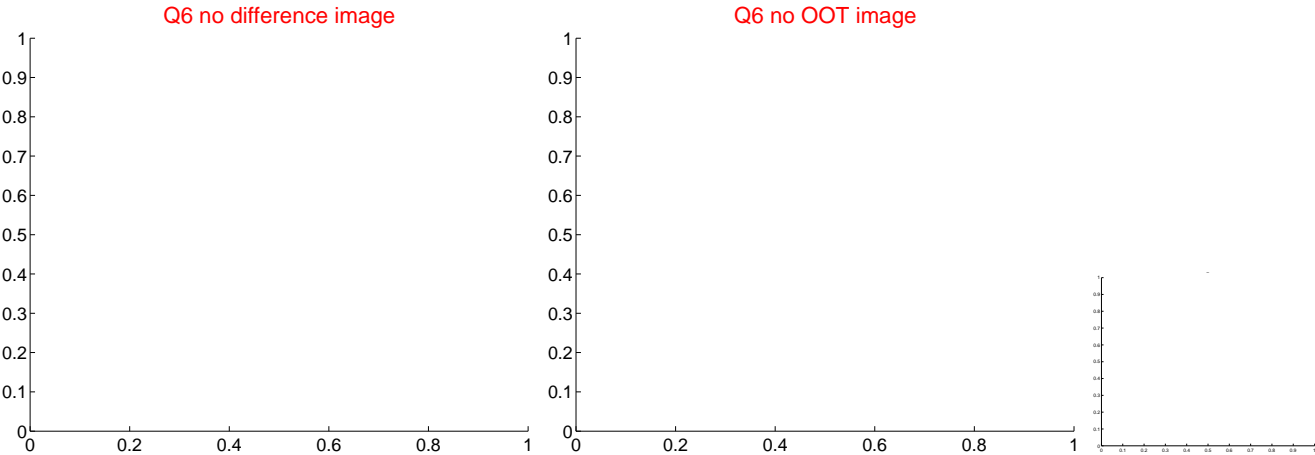
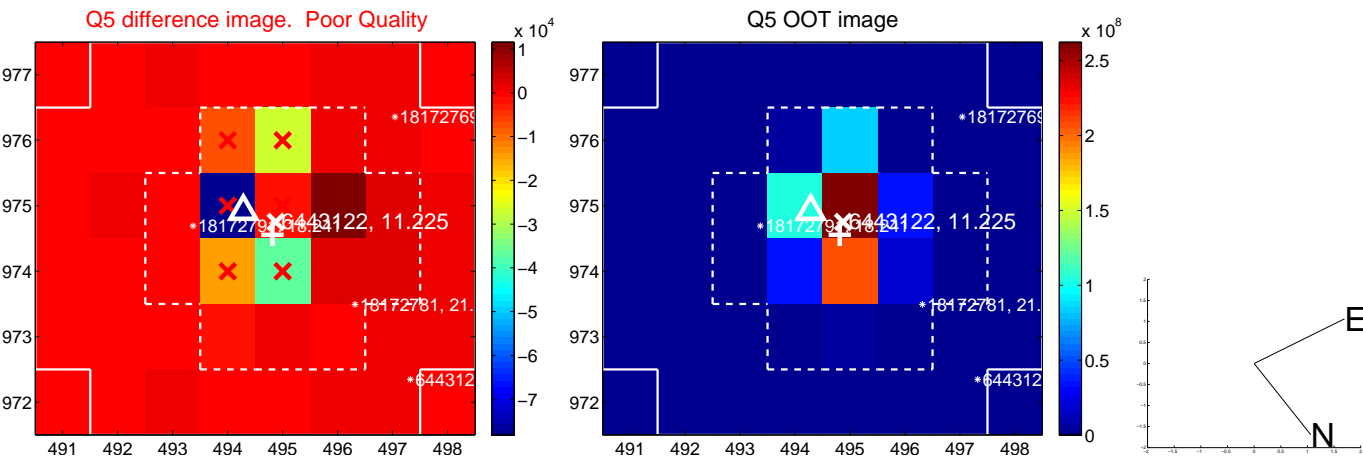


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

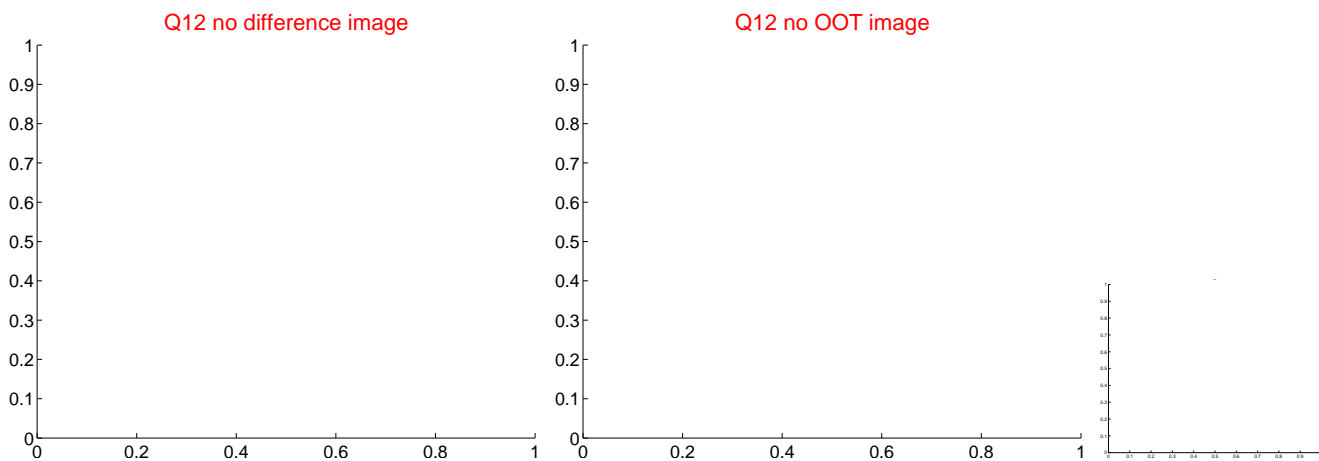
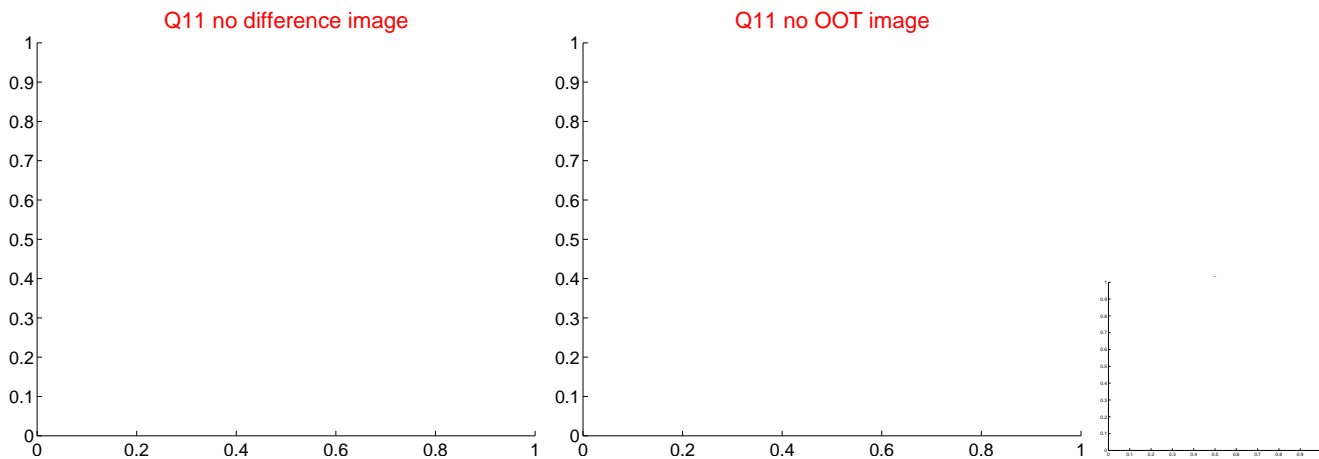
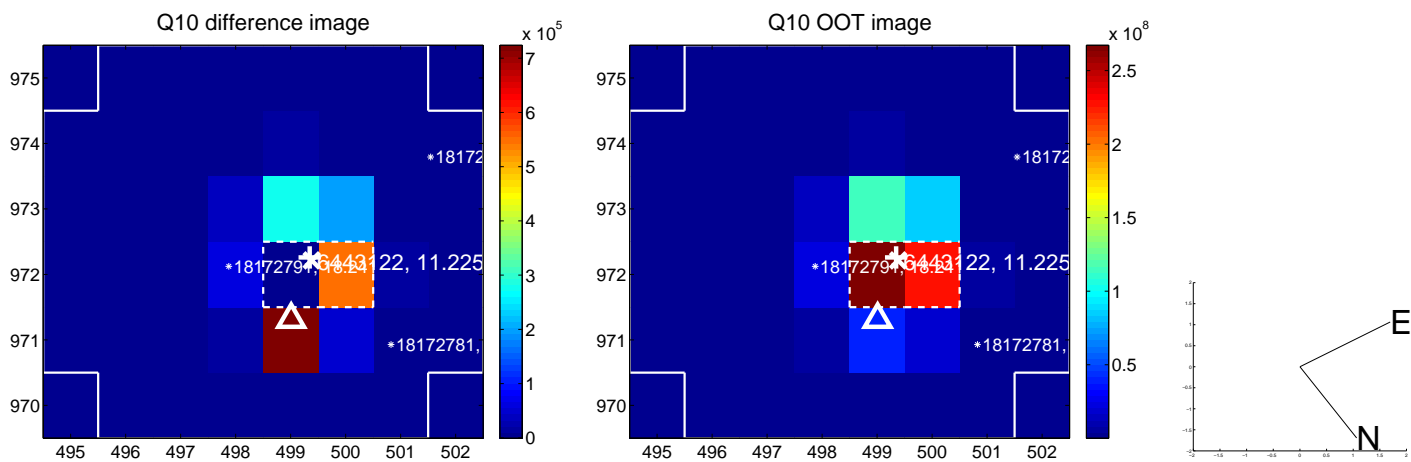
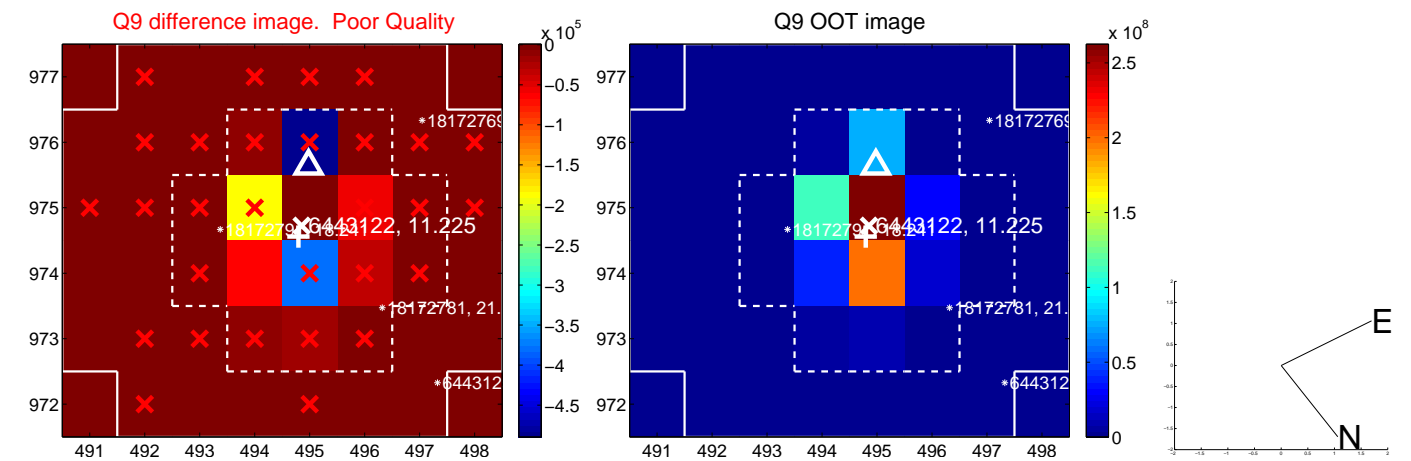
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



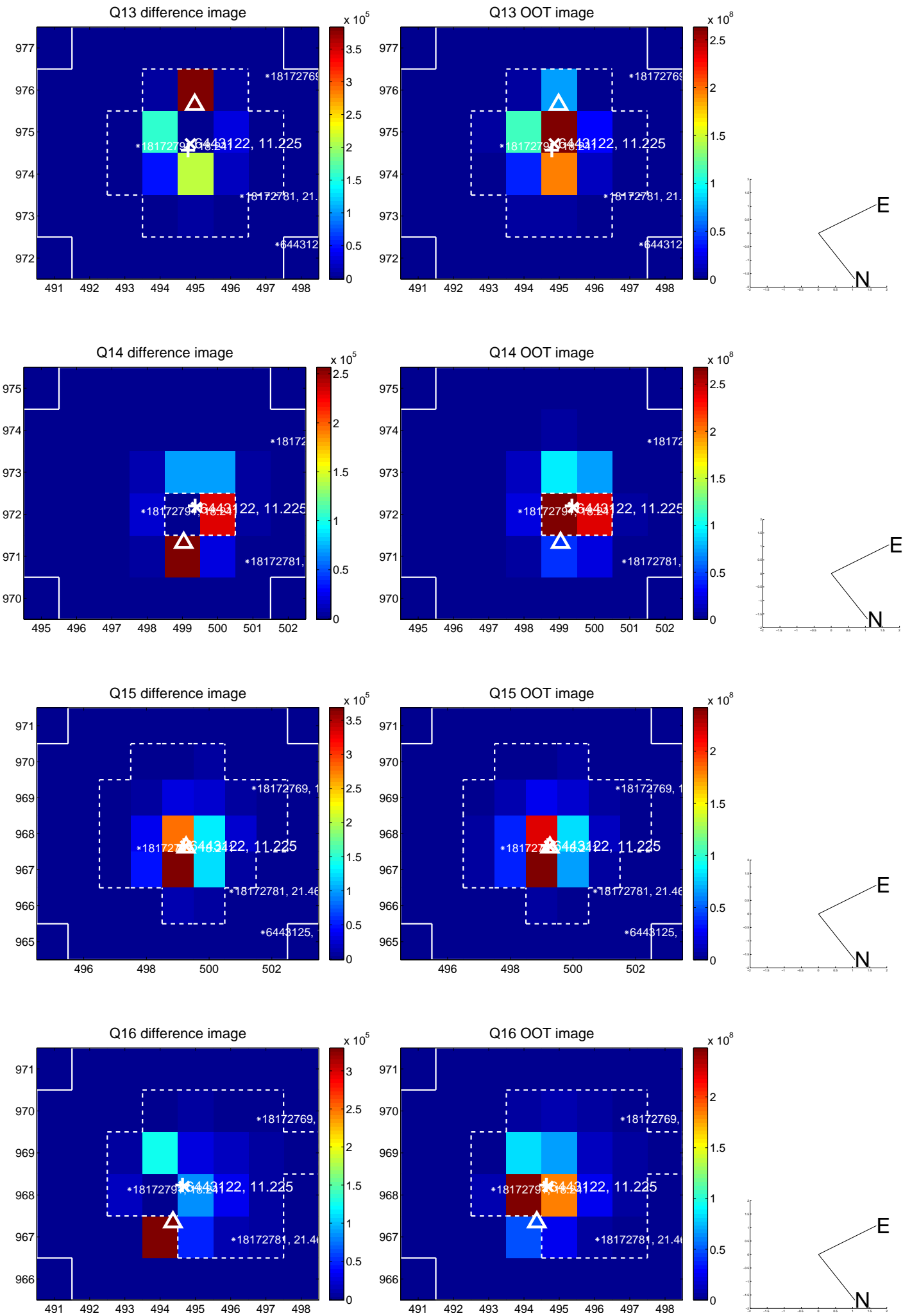
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



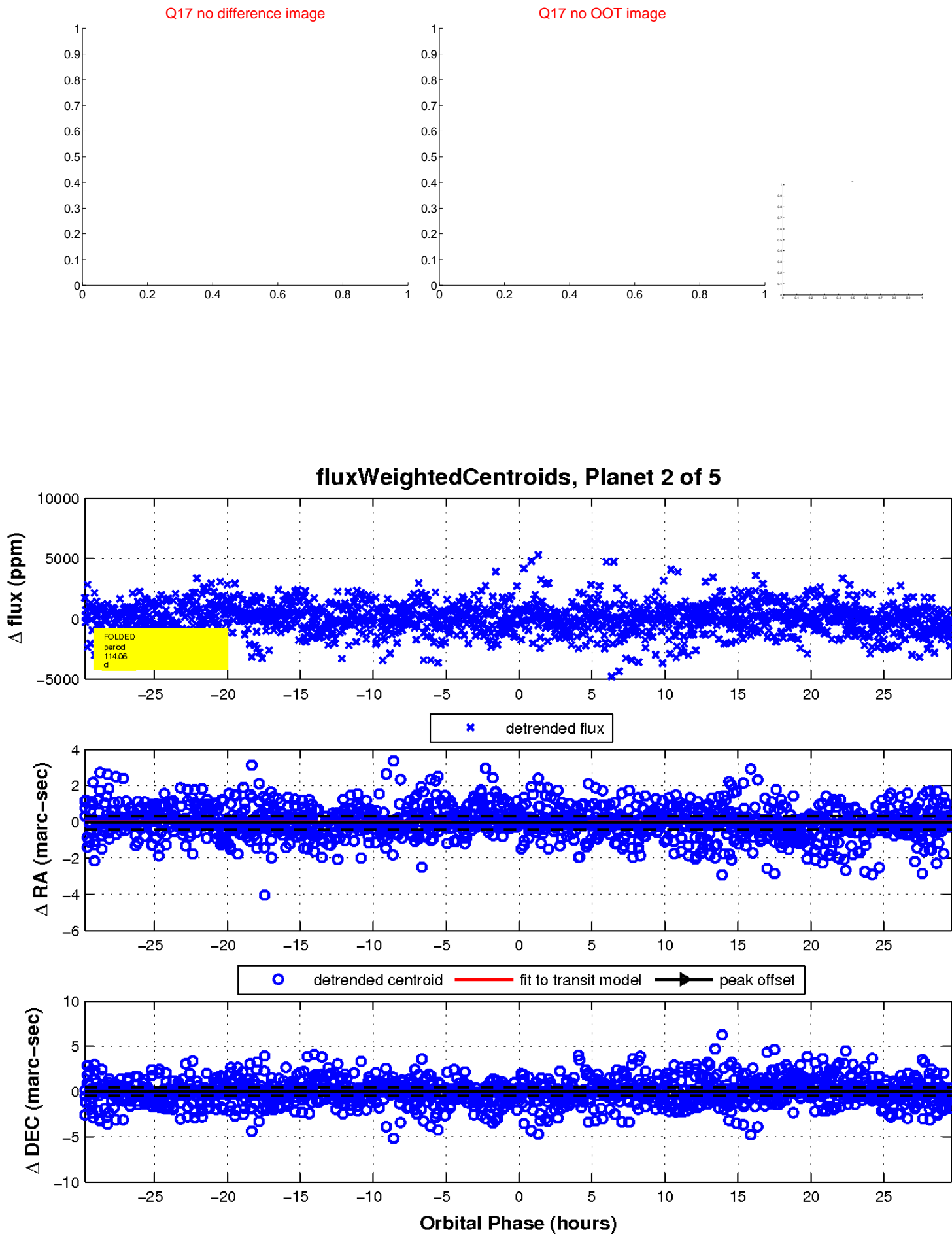
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



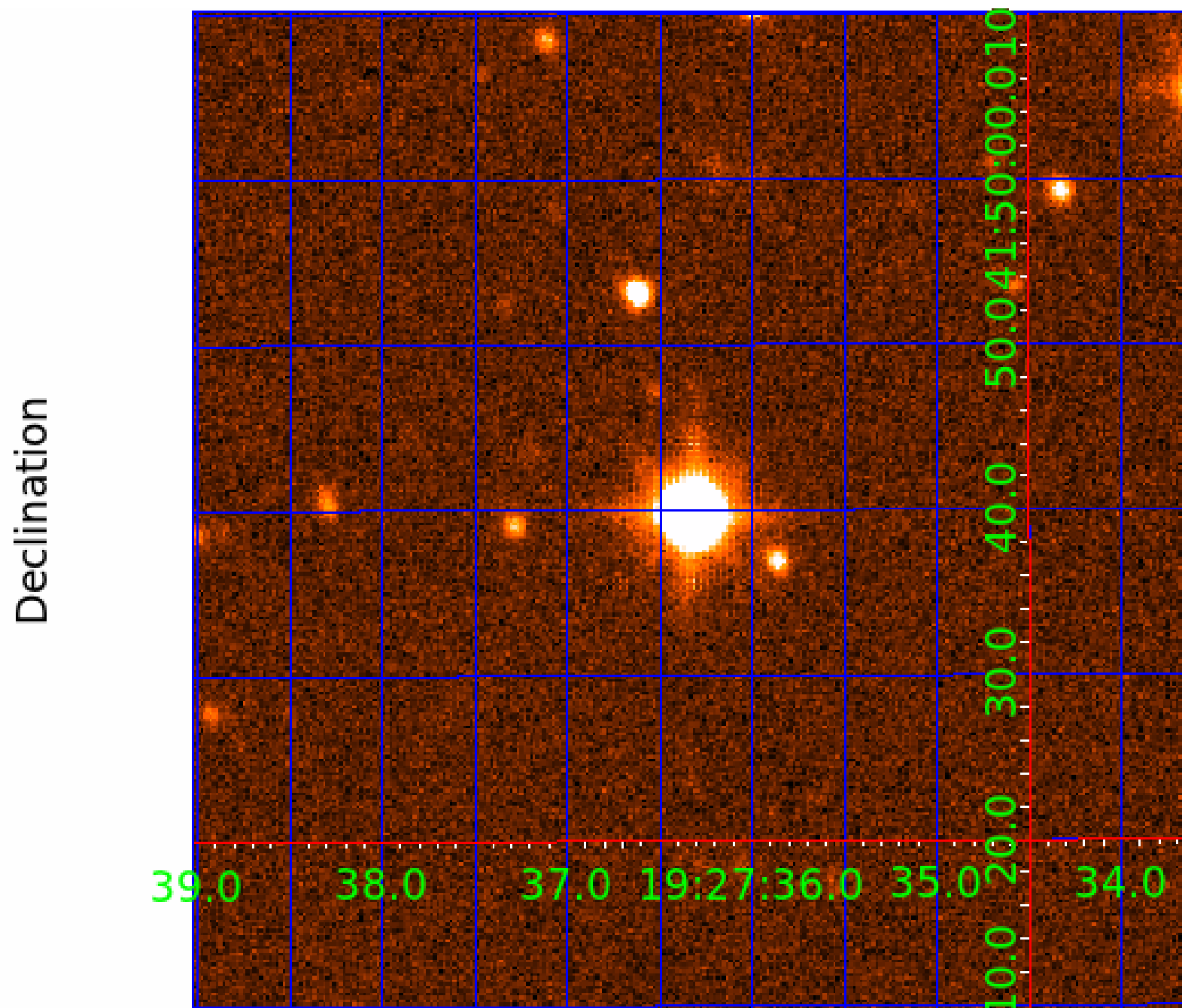
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image



KIC 006443122

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})
006443122-01	OBS	No	1.620562	133.105146	181.8	9.345	10.9	11.4	2.14	7236	2.92	10794.53
006443122-02	OBS	No	114.062543	186.431271	617.7	9.918	14.4	4.3	2.14	7236	5.68	37.15
006443122-03	OBS	No	109.554415	138.977442	3764.8	4.117	17.1	12.4	2.14	7236	23.60	39.20
006443122-04	OBS	No	62.740431	139.084380	1319.2	1.877	11.8	6.2	2.14	7236	8.47	82.42
006443122-05	OBS	No	128.493143	162.950785	168.4	3.000	11.1	-1.0	2.14	7236	2.81	31.69

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006443122-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—CENT_SATURATED
006443122-02	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_CHASES_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED—HALO_GHOST
006443122-03	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
006443122-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_TRACKER—TRANS_GAPPED—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
006443122-05	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_CHASES—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS—CENT_SATURATED—HALO_GHOST

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

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

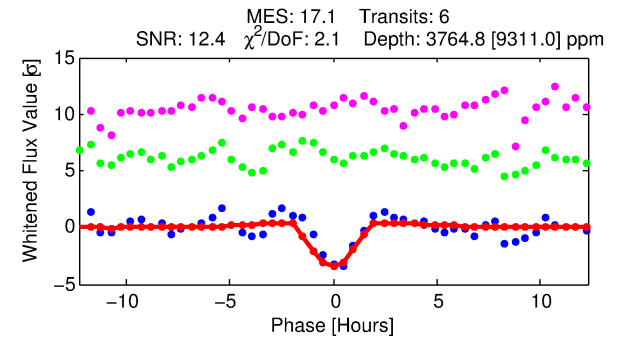
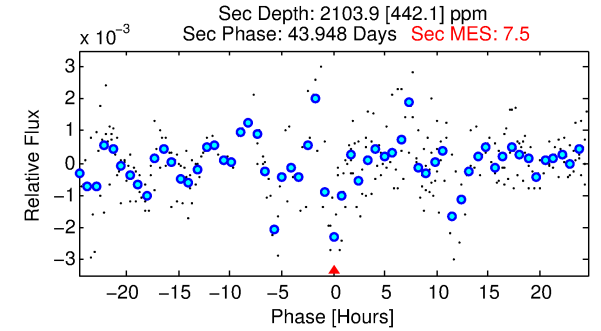
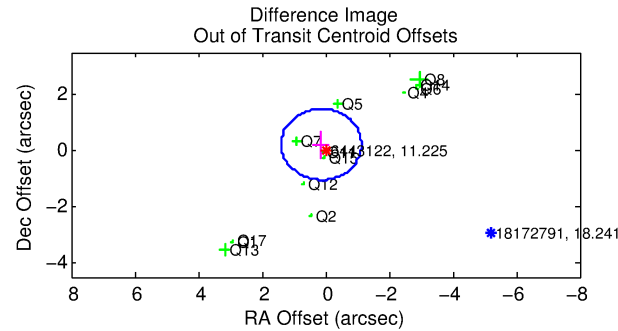
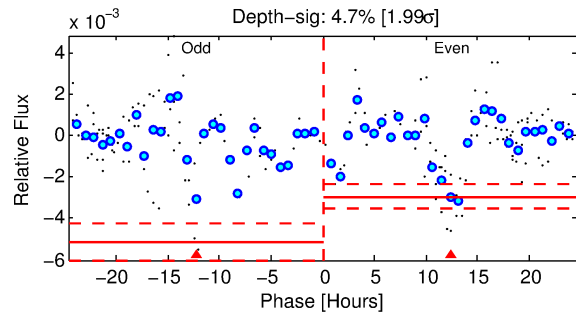
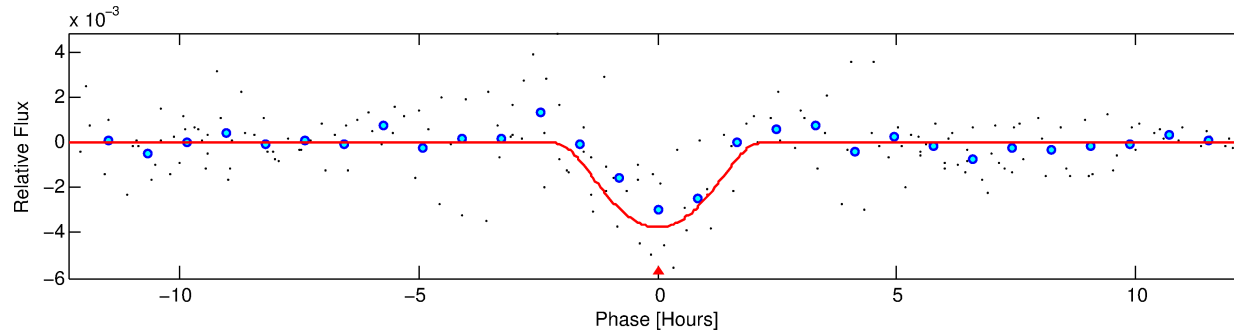
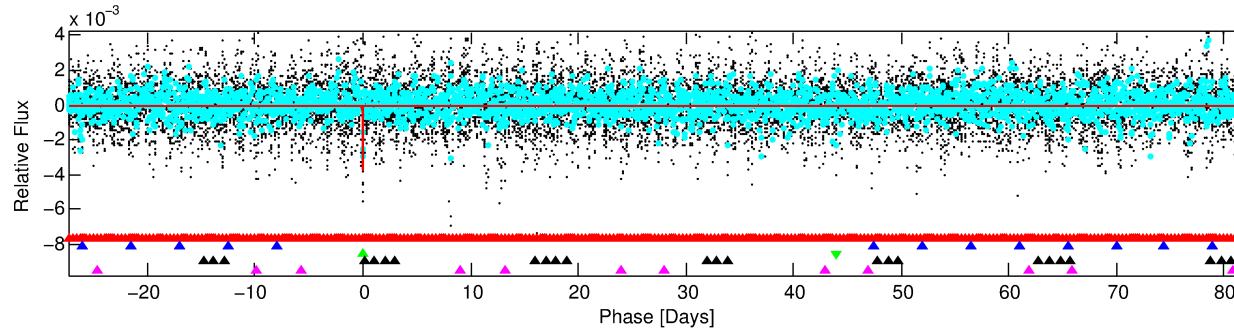
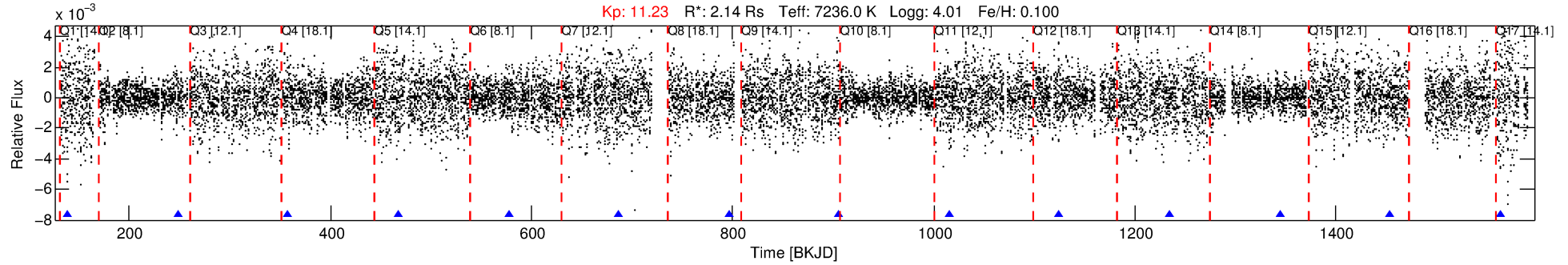
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006443122-03

No Significant Match Found

DV One-Page Summary

KIC: 6443122 Candidate: 3 of 5 Period: 109.554 d



DV Fit Results:

Period = 109.55442 [0.00124] d
Epoch = 138.9774 [0.0102] BKJD
Rp/R* = 0.1012 [0.4185]
a/R* = 93.75 [78.43]
b = 1.00 [0.43]
Seff = 39.20 [8.90]
Teq = 638 [36] K
Rp = 23.60 [97.66] Re
a = 0.5350 [0.0785] AU
Ag = 594.86 [4923.40] [0.12 σ]
Teff = 4872 [10077] K [0.42 σ]

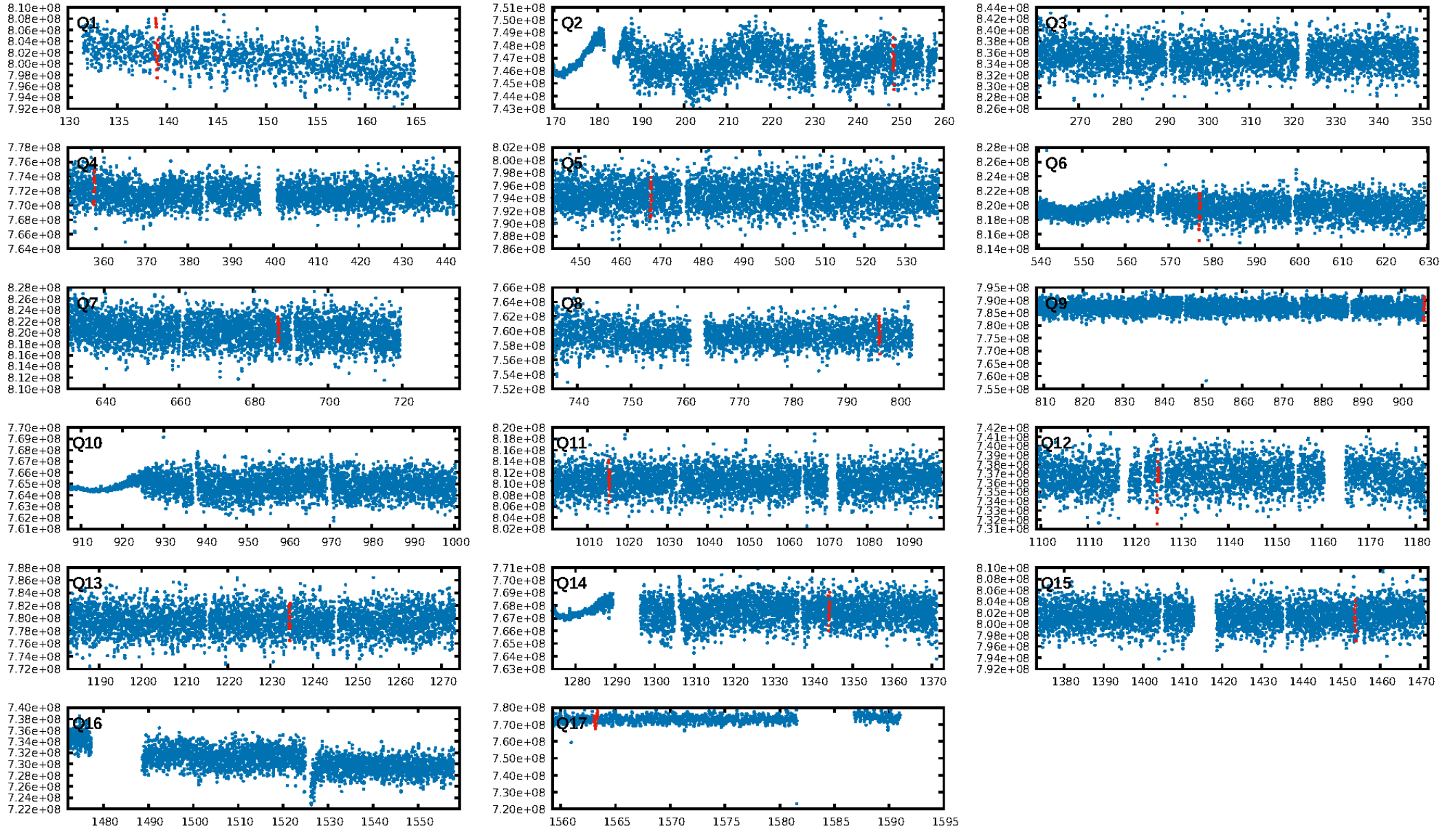
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [248.31 σ]
LongPeriod-sig: 100.0% [10.08 σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 45.3%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: 1.031
Centroid-sig: 36.1%
Centroid-so: 0.162 arcsec [2.83 σ]
OotOffset-rm: 0.256 arcsec [0.61 σ]
KicOffset-rm: 0.243 arcsec [0.40 σ]
OotOffset-st: 3/3/3/4 [13]
KicOffset-st: 3/3/3/4 [13]
DiffImageQuality-fgm: 0.31 [4/13]
DiffImageOverlap-fno: 0.31 [4/13]

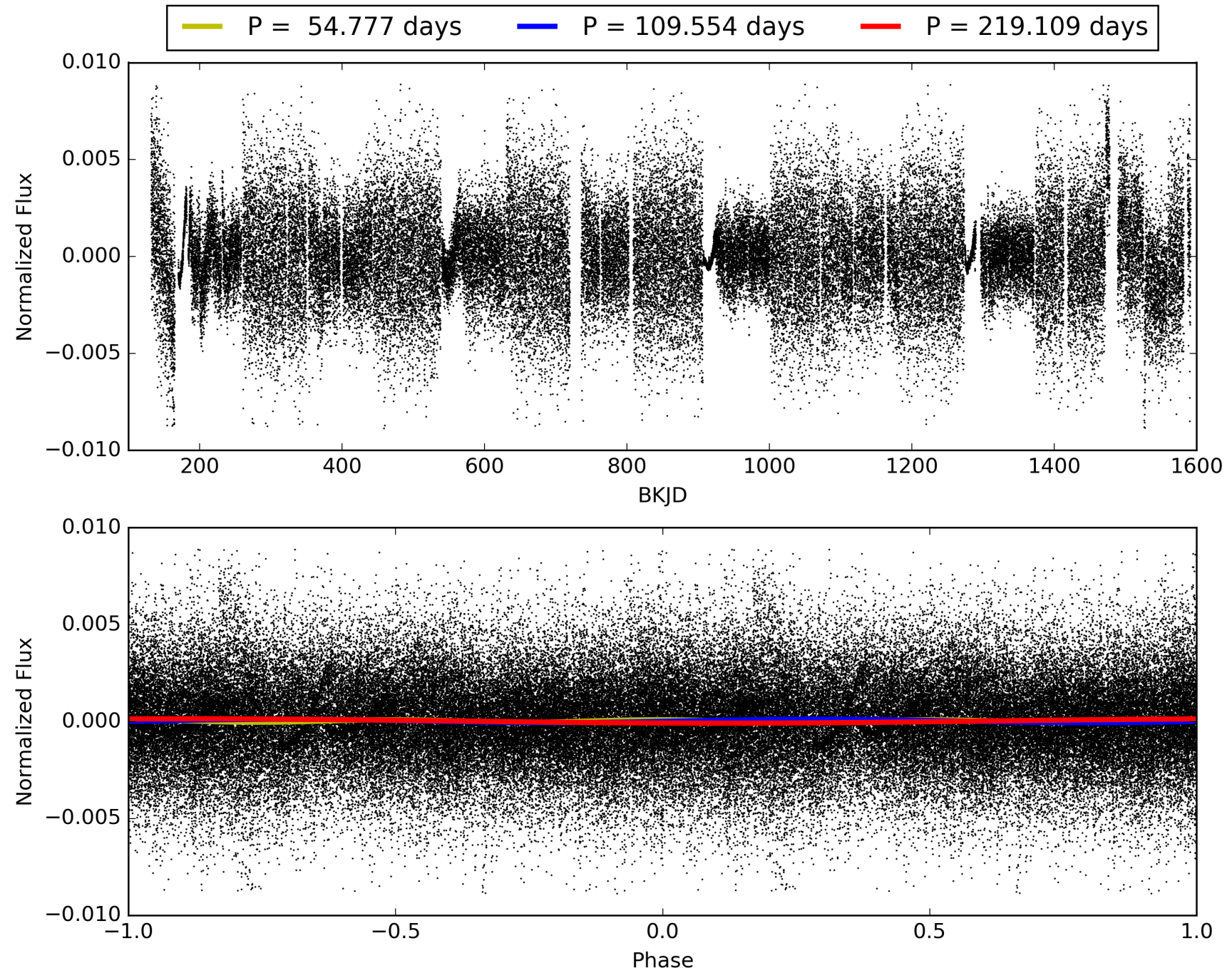
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 15:02:14 Z

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

TCE 006443122-03, PDC Light Curves

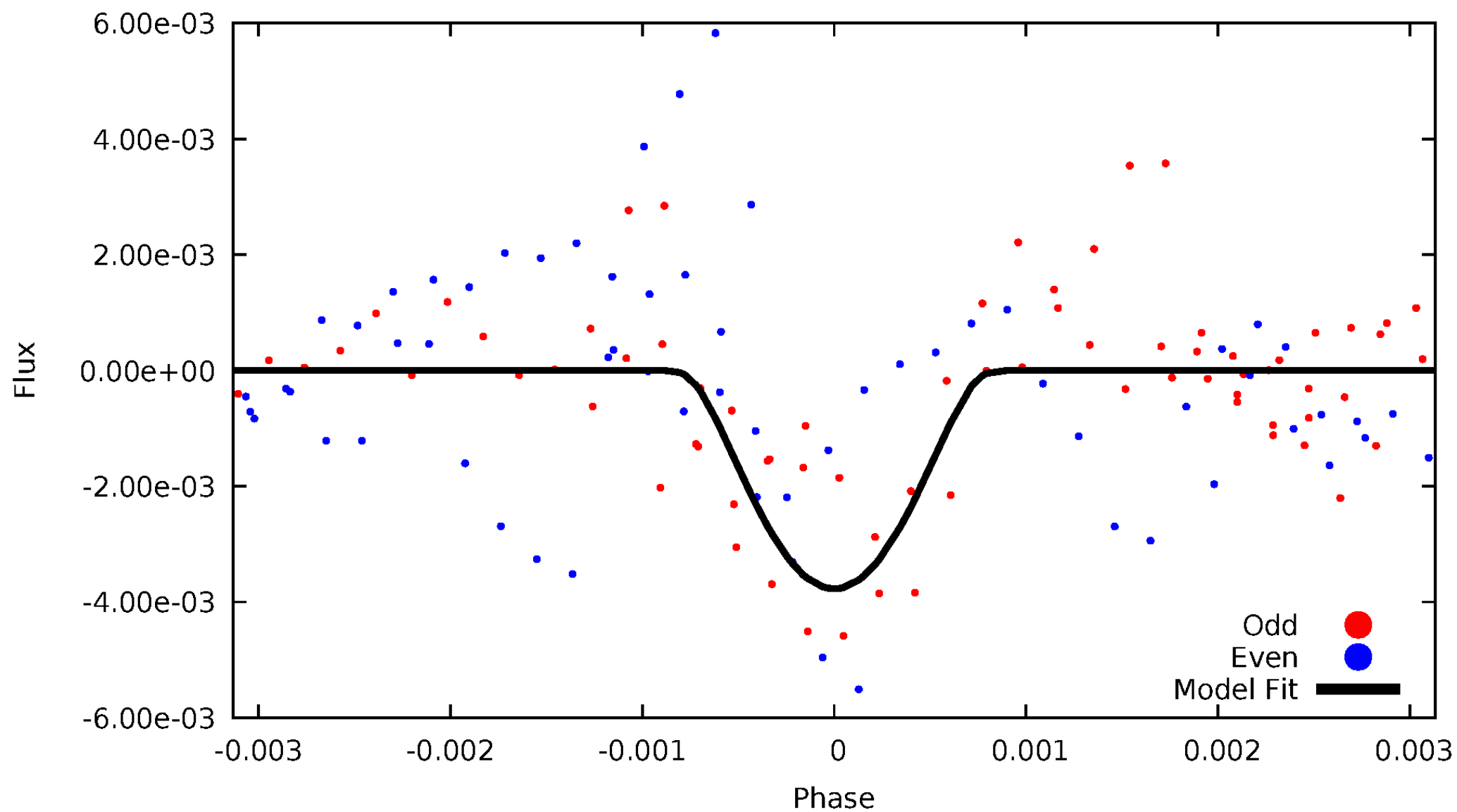


TCE 006443122-03



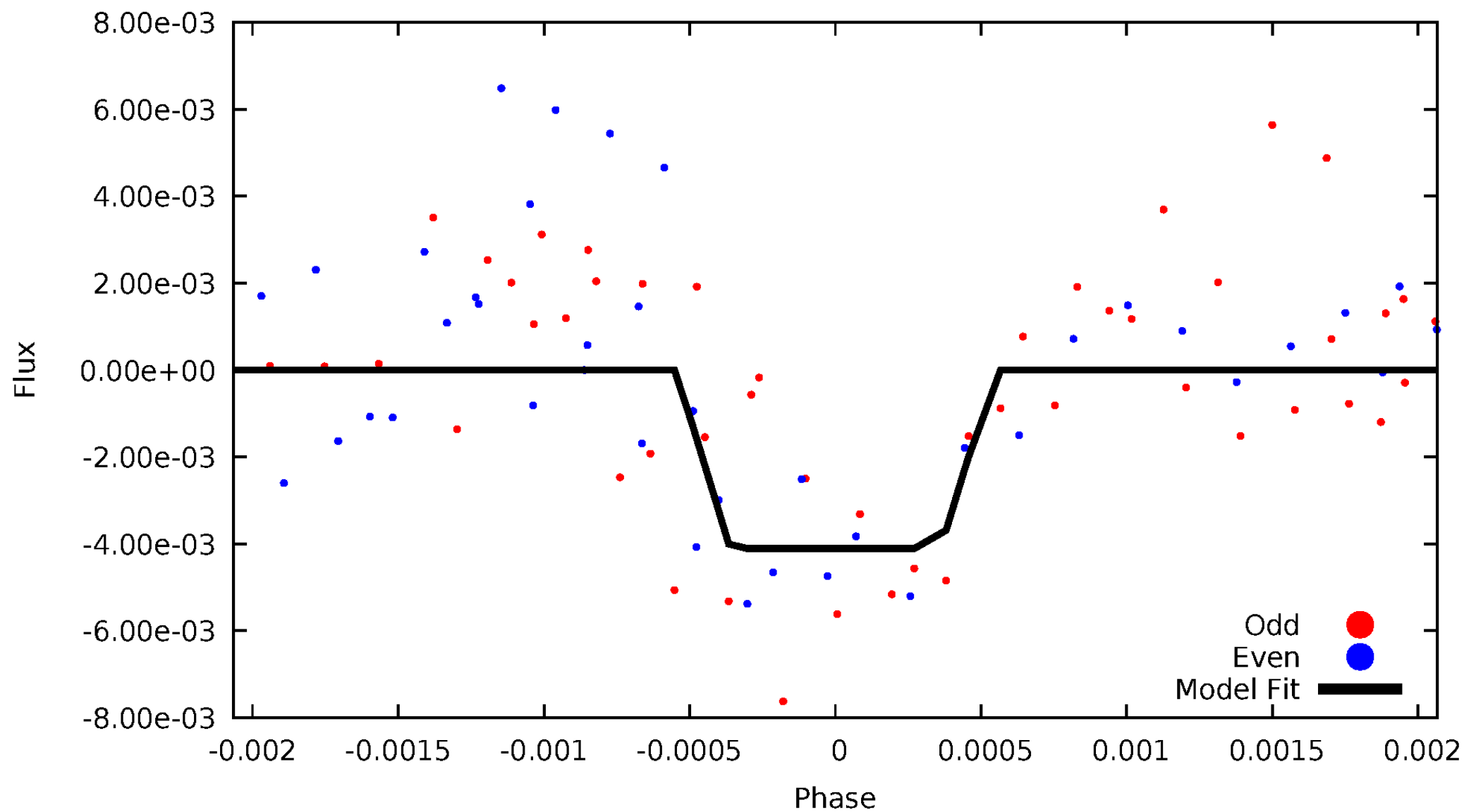
DV Odd/Even

TCE 006443122-03



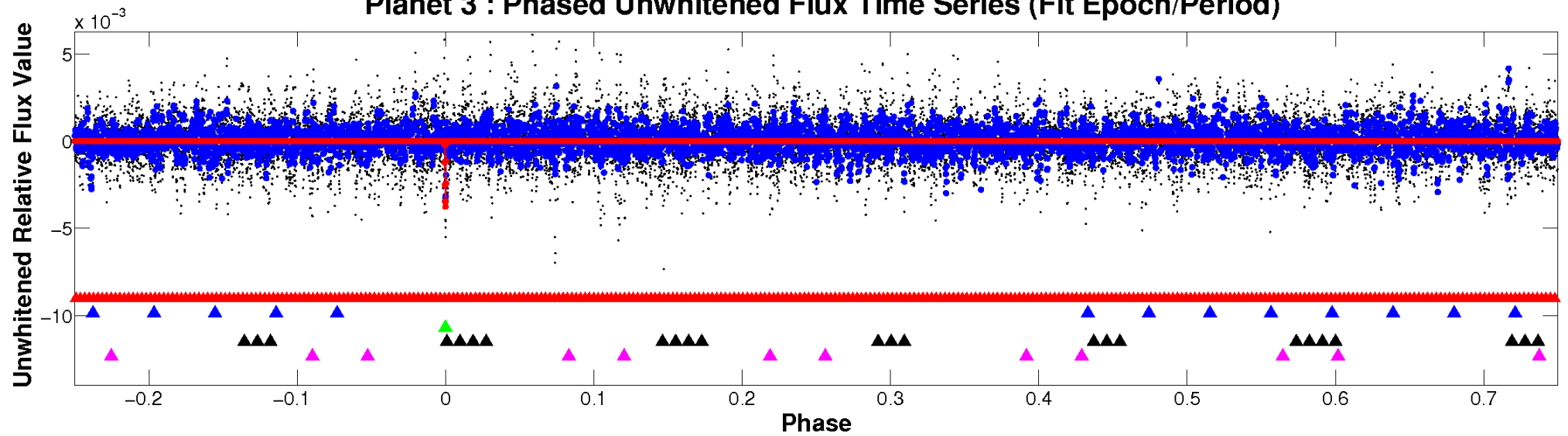
ALT Odd/Even

TCE 006443122-03

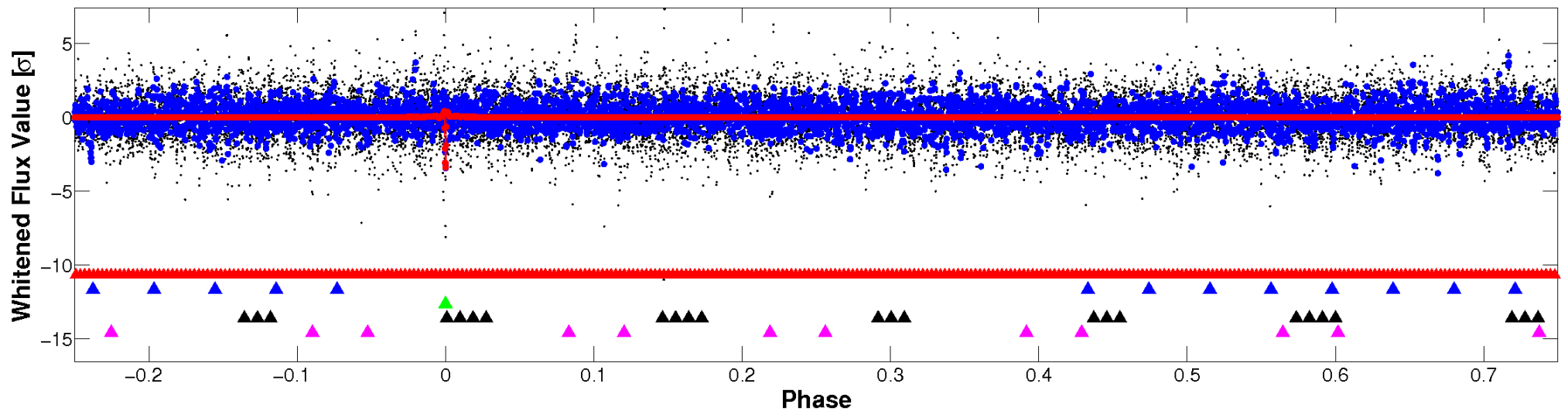


Non-Whitened Vs. Whitened Light Curve

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

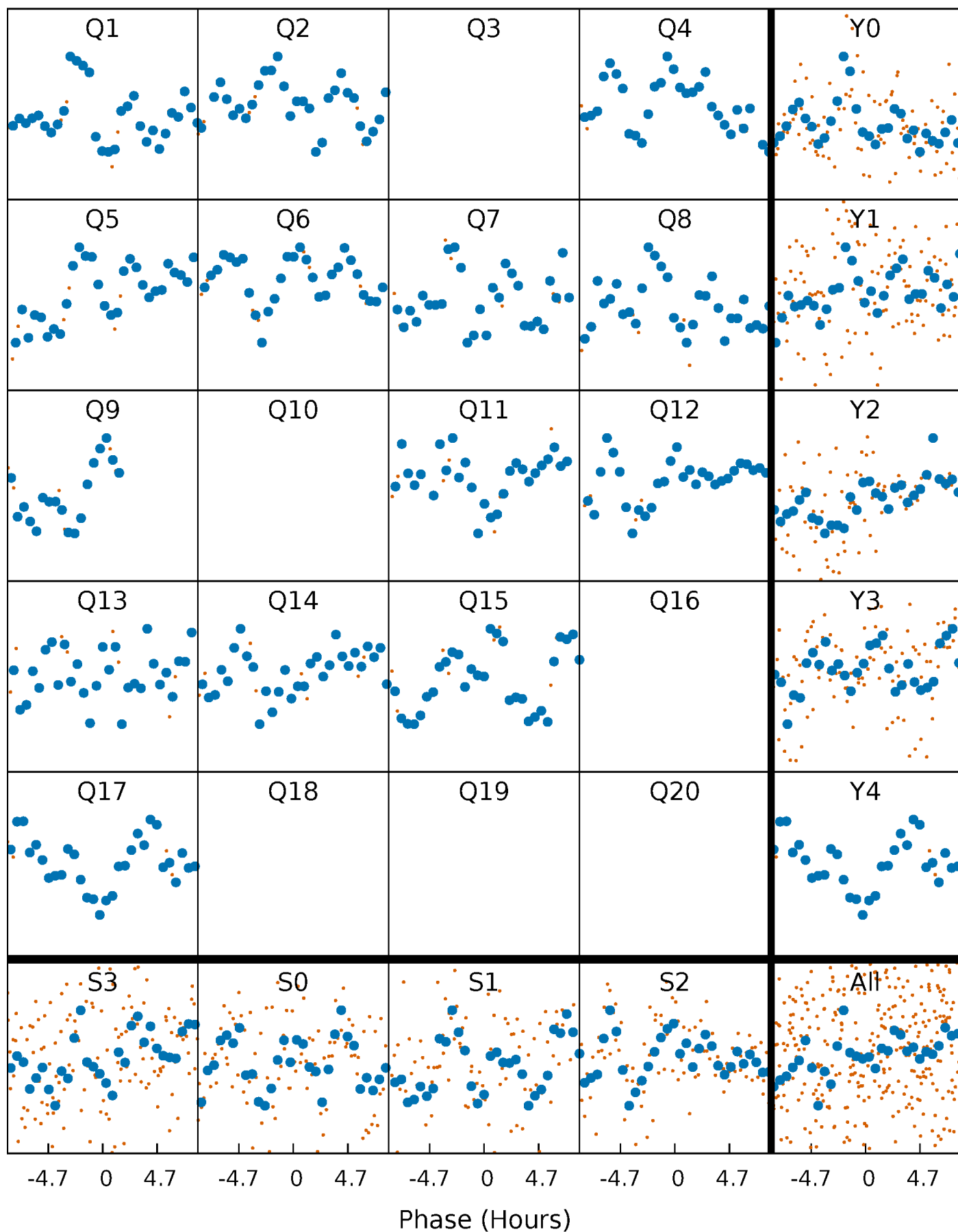


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



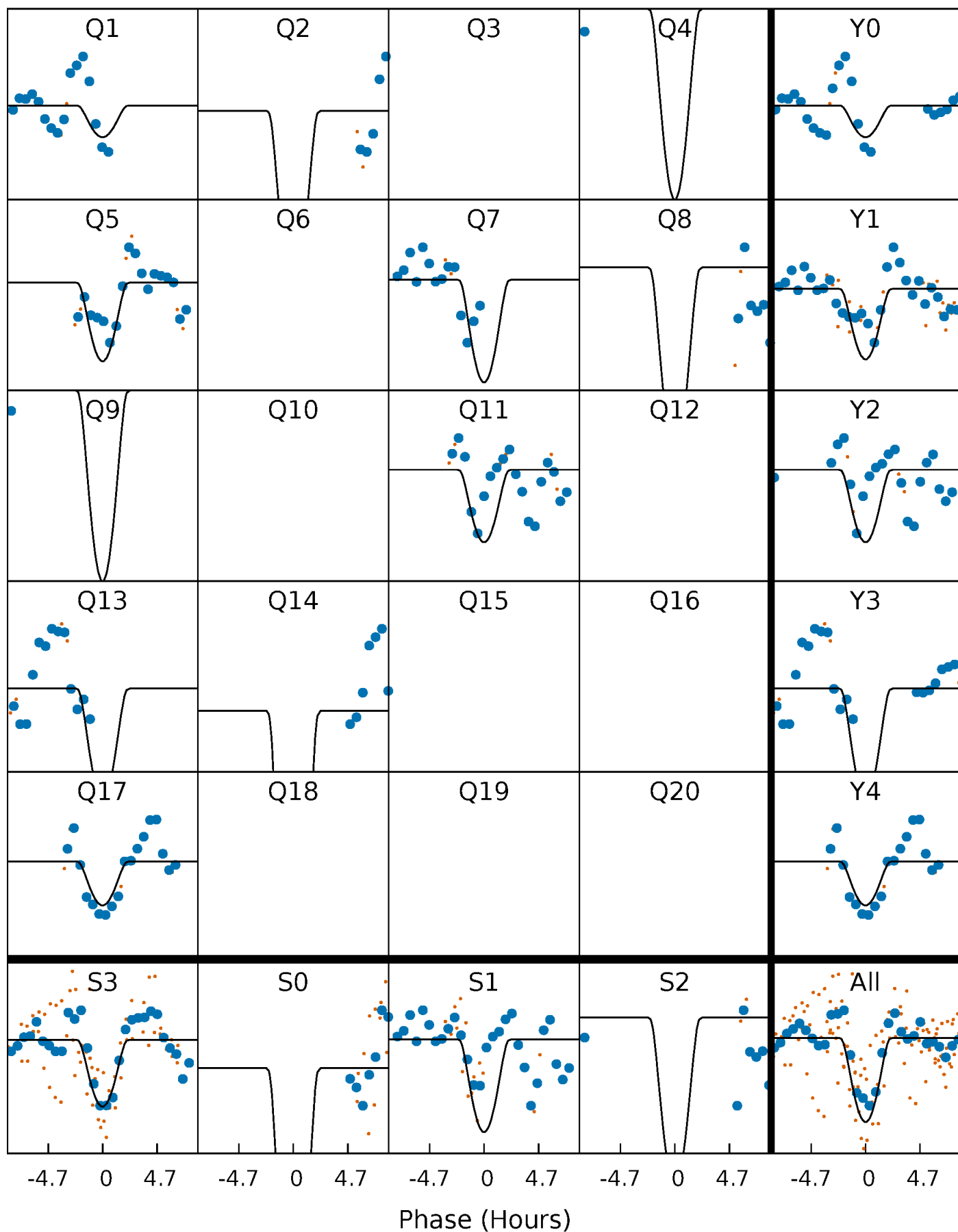
PDC Quarter-Phased Transit Curves

TCE 006443122-03 P=109.554415 Days $T_0=138.977442$ (BKJD)



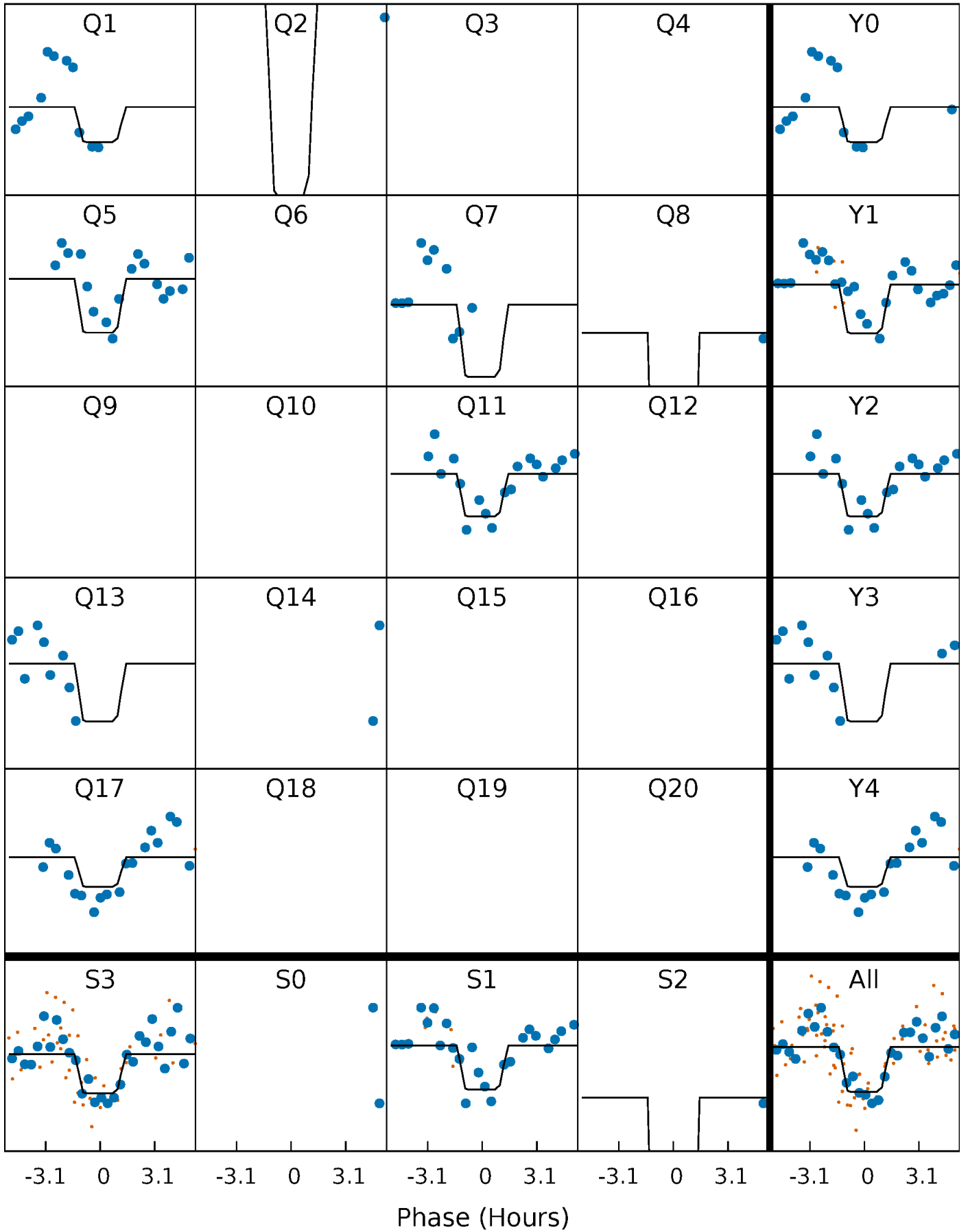
DV Quarter-Phased Transit Curves

TCE 006443122-03 $P=109.554415$ Days $T_0=138.977442$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

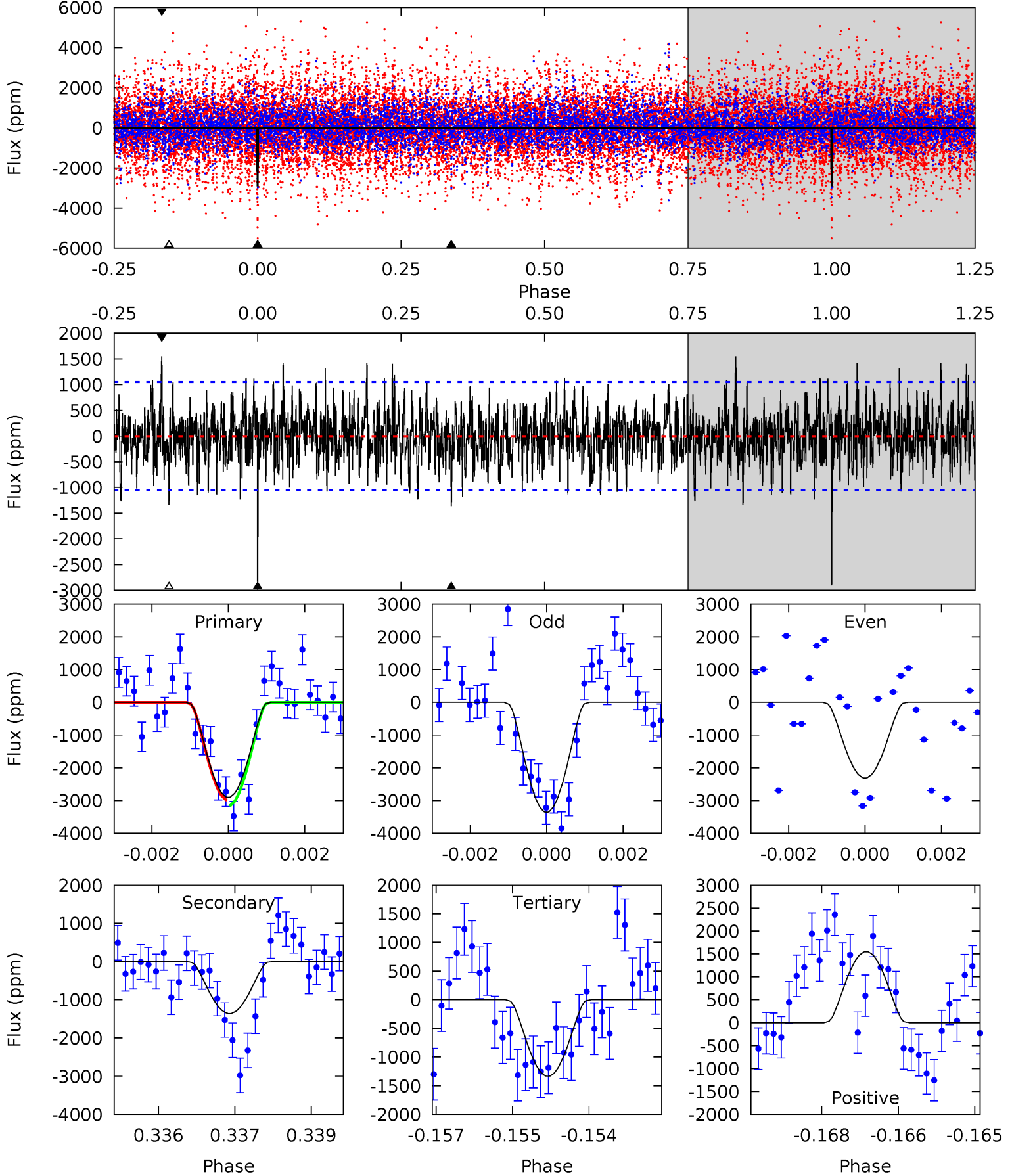
TCE 006443122-03 P=109.553456 Days $T_0=138.994427$ (BKJD)



DV Model-Shift Uniqueness Test

006443122-03, P = 109.554415 Days, E = 29.423027 Days

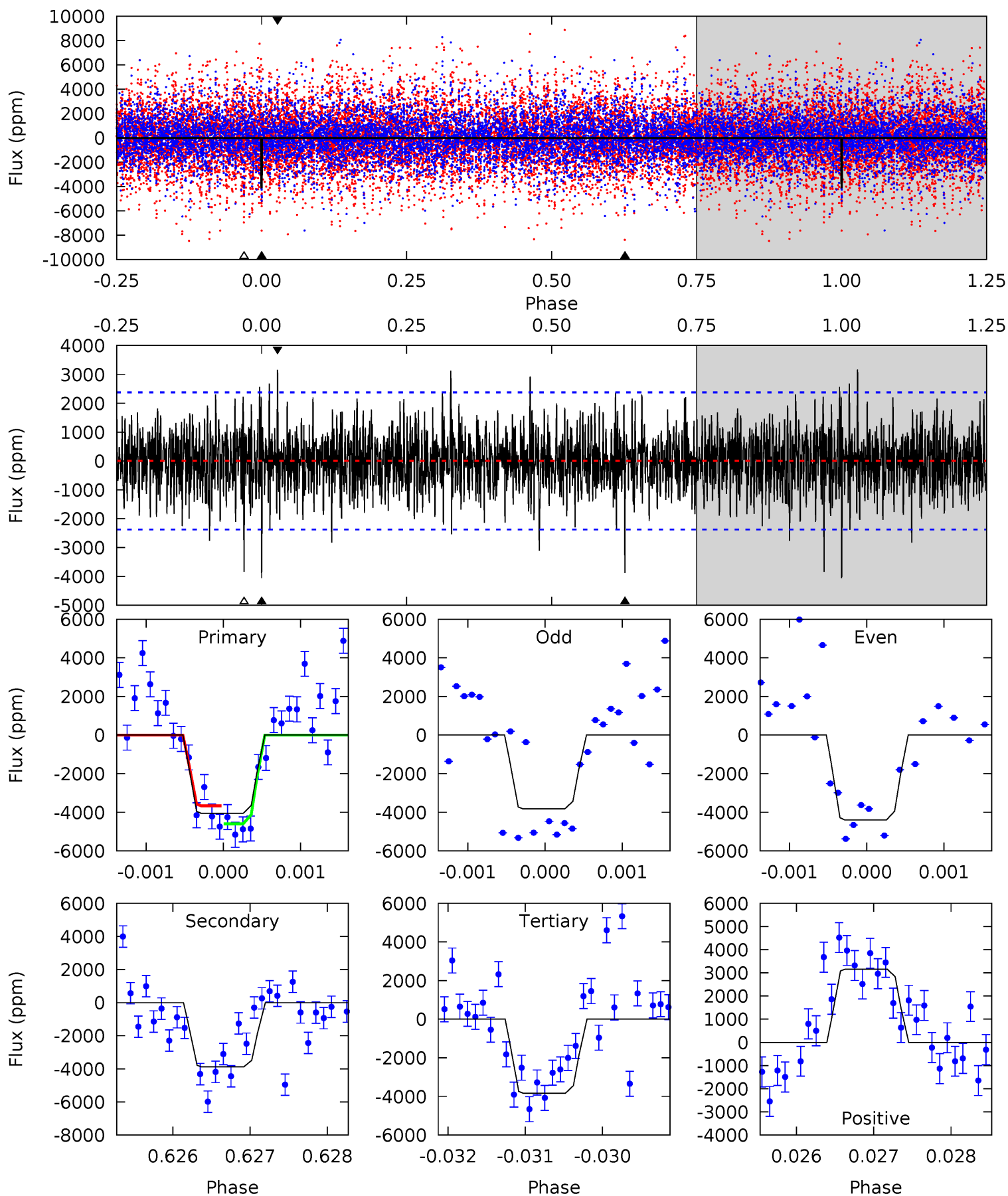
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.8	6.95	6.82	7.91	5.37	3.16	2.13	8.01	6.91	0.13	-0.97	2.63	1.22	0.35	0.42



Alt Model-Shift Uniqueness Test

006443122-03, P = 109.553456 Days, E = 29.440971 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.29	8.89	8.79	7.23	5.44	3.28	1.91	0.50	2.05	0.11	1.66	0.66	0.86	0.44	1.05



Stellar Parameters For KIC 006443122

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7236^{+72}_{-79}	$4.009^{+0.126}_{-0.103}$	$0.100^{+0.150}_{-0.150}$	$2.137^{+0.354}_{-0.354}$	$1.701^{+0.108}_{-0.162}$	$0.245^{+0.152}_{-0.080}$
	+1%/-1%	+3%/-3%	+150%/-150%	+17%/-17%	+6%/-10%	+62%/-33%
Source	SPE68	SPE68	SPE68	DSEP		

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

Secondary Eclipse Parameters for KIC 006443122-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-1359 ± 196	$75.23^{+77.49}_{-51.99}$	888^{+38}_{-38}	3043^{+1459}_{-509}	36^{+328}_{-27}
Alt.	-3882 ± 437	$68.79^{+72.73}_{-47.80}$	888^{+39}_{-38}	3706^{+2120}_{-745}	132^{+1141}_{-101}

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 $A_{obs} \gg 1.0$

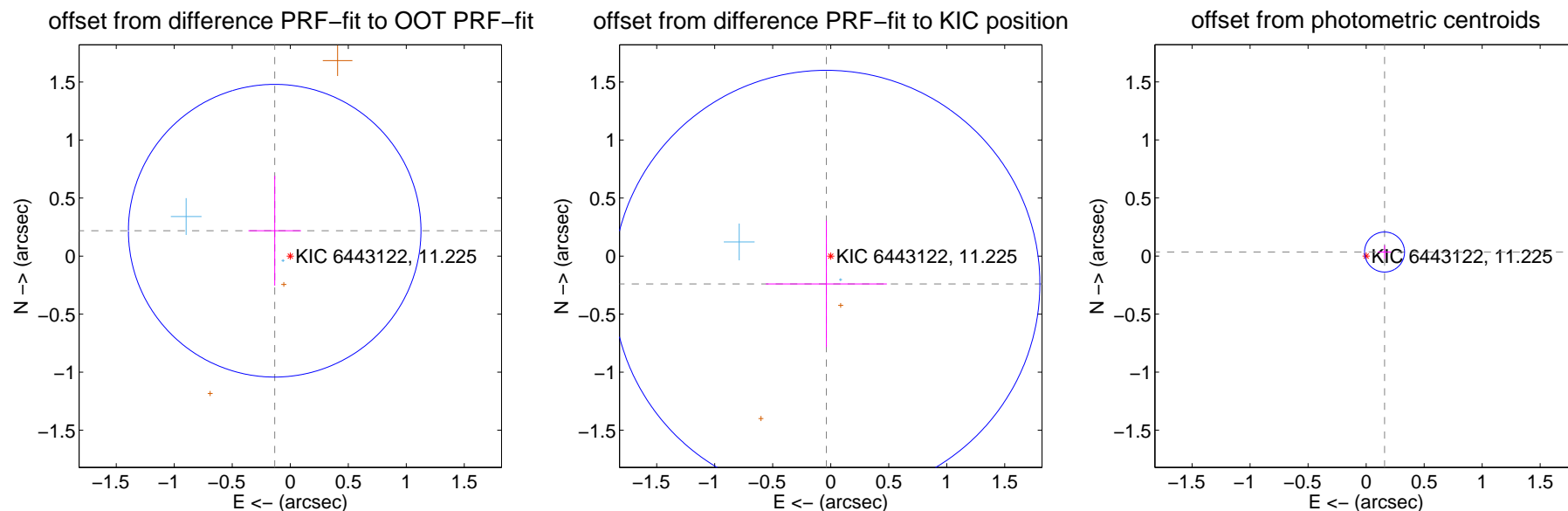
DV Centroid Data

Supplemental centroid analysis for 006443122-03. **Kepler magnitude: 11.22.** Transit SNR 12.39

There are 4 quarters with good PRF difference image offsets

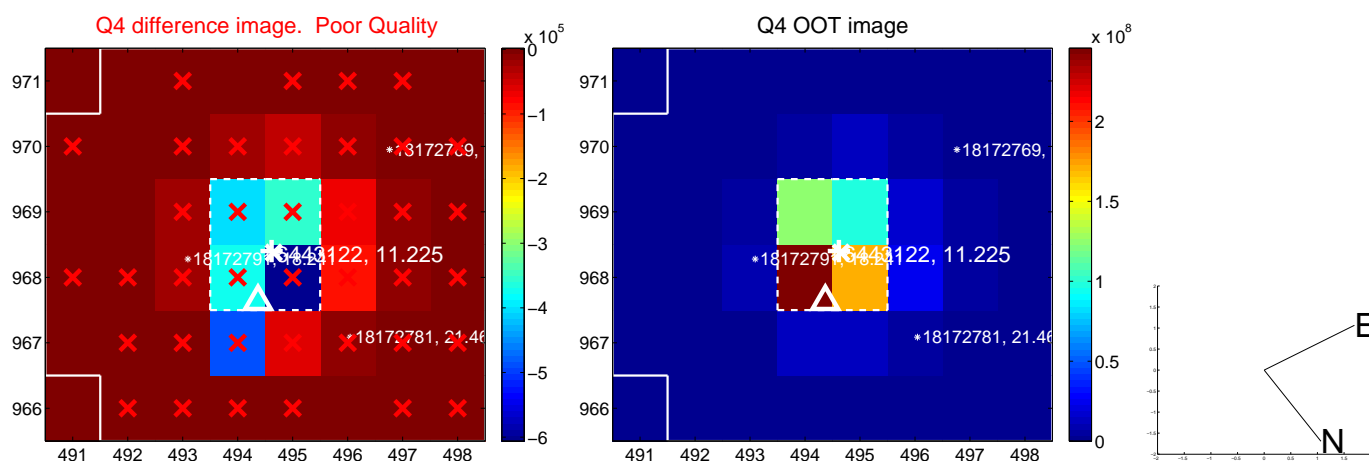
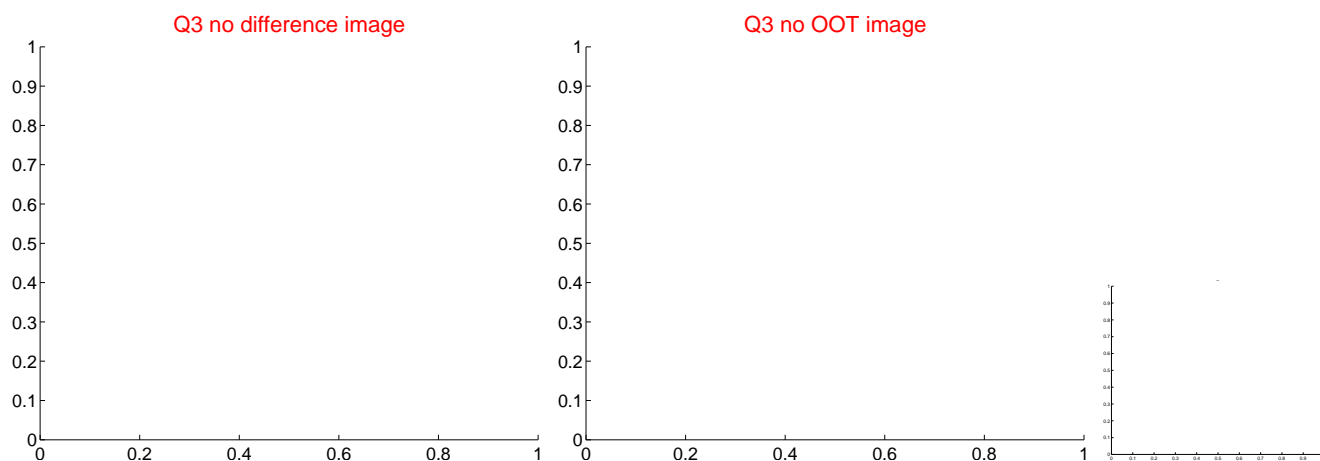
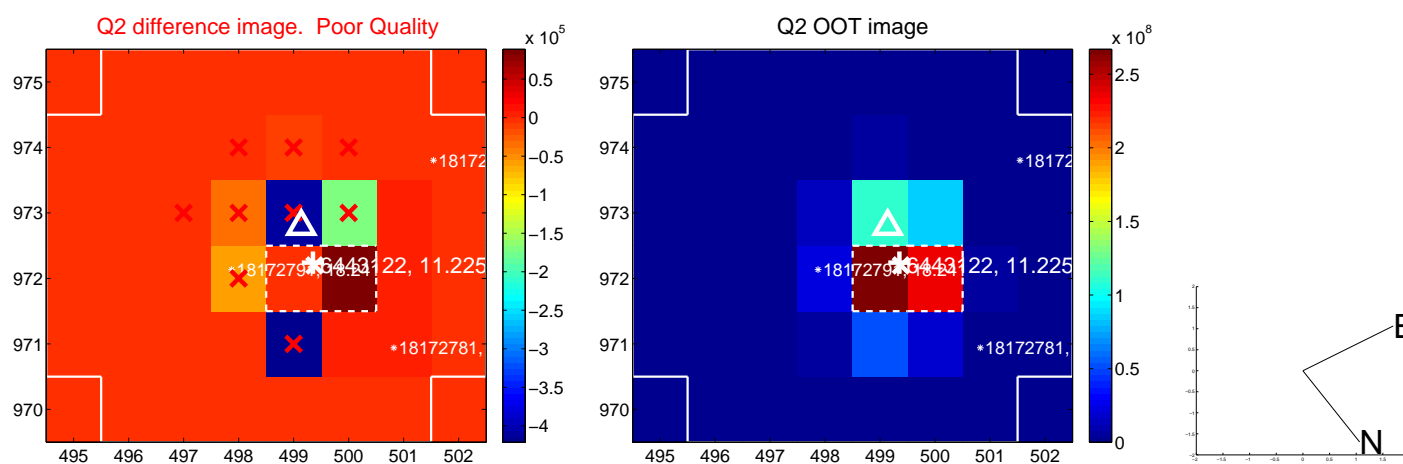
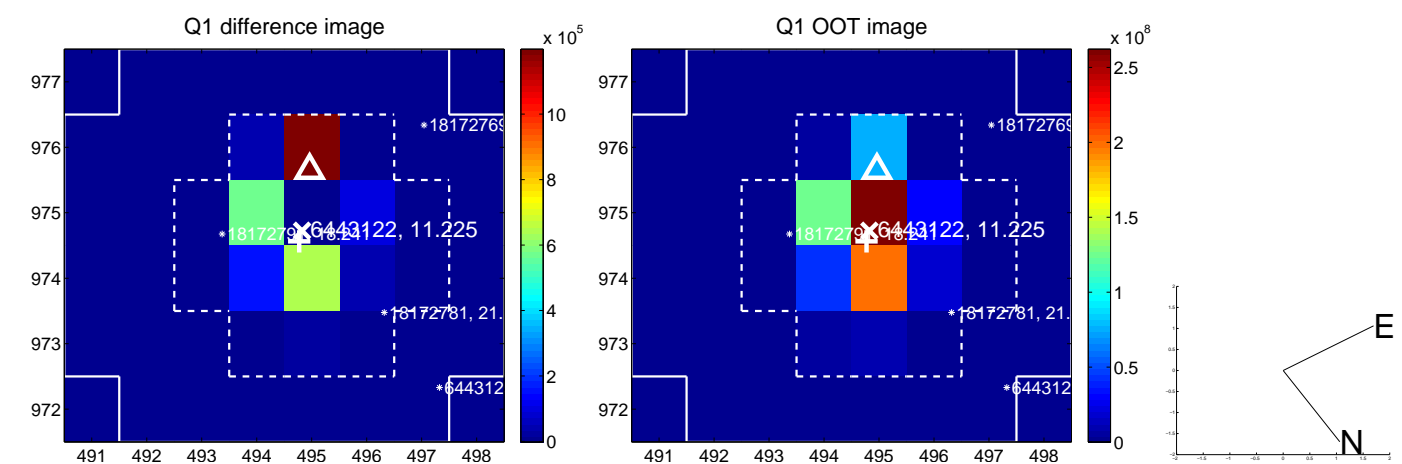
The direct PRF centroid is offset from the target star catalog position by about 0.66 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.256 ± 0.420	0.61	0.134 ± 0.227	0.219 ± 0.473
PRF-fit source offset from KIC position	0.243 ± 0.613	0.40	0.038 ± 0.522	-0.240 ± 0.545
photometric centroid source offset	0.16 ± 0.06	2.83	-0.16 ± 0.06	0.03 ± 0.06

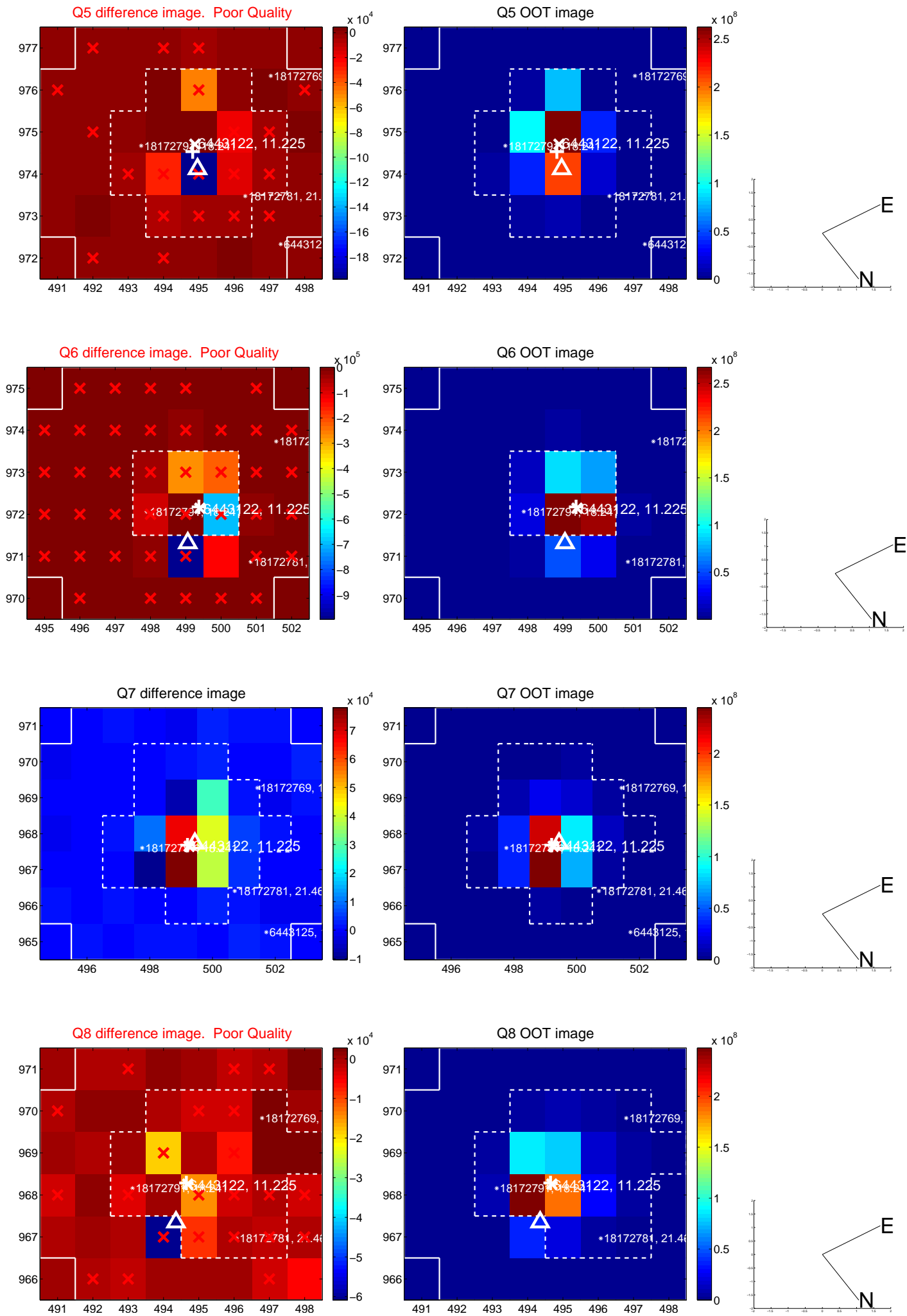


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

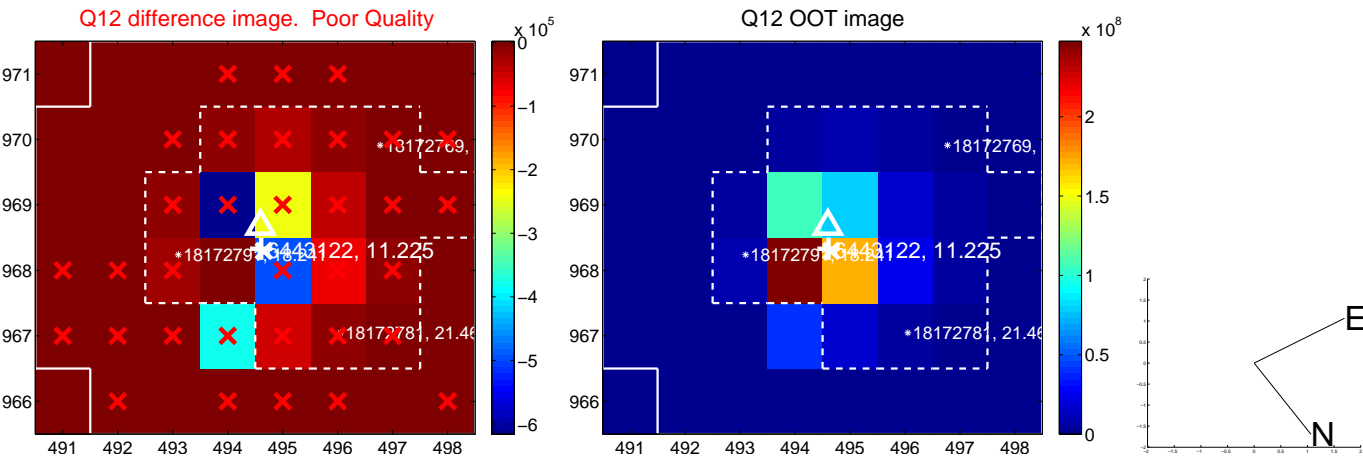
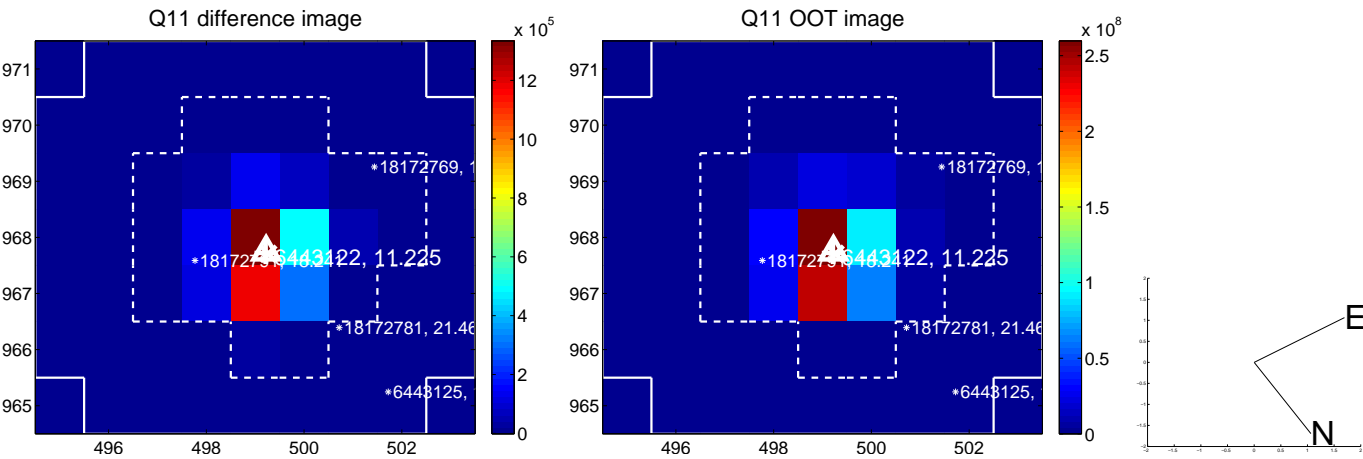
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



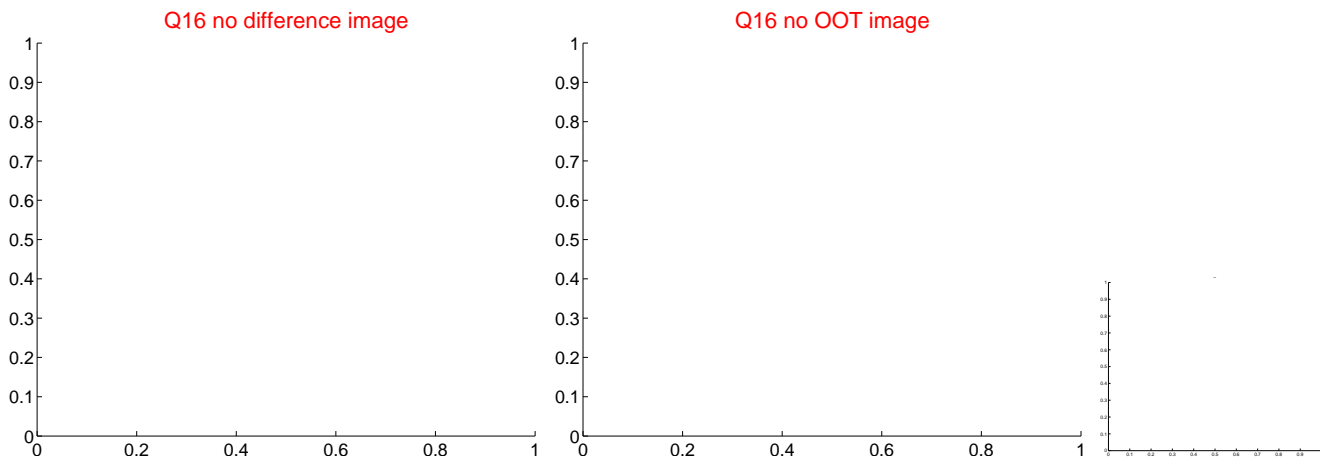
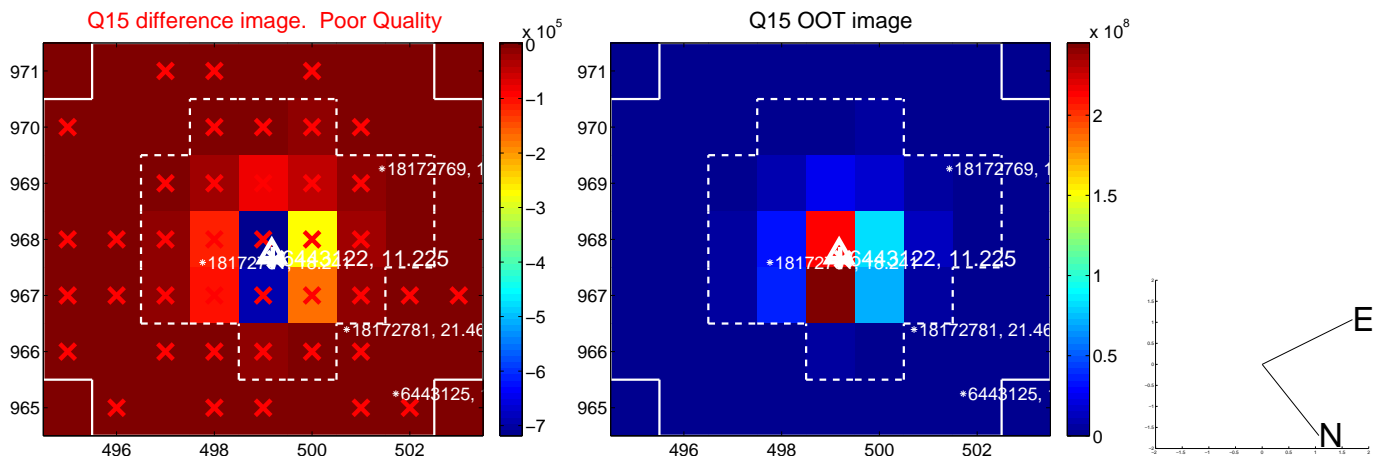
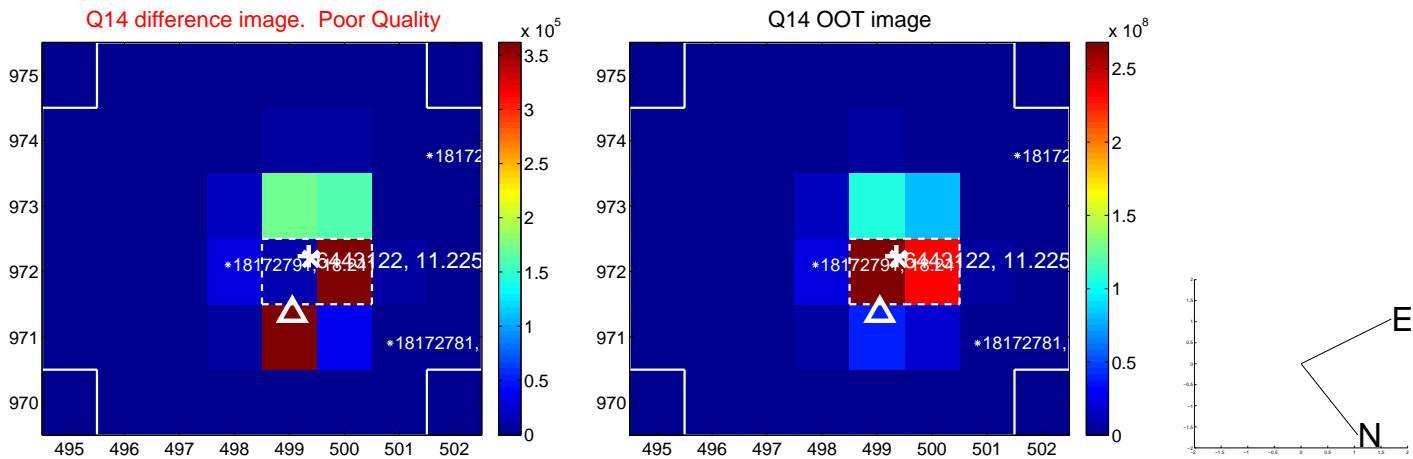
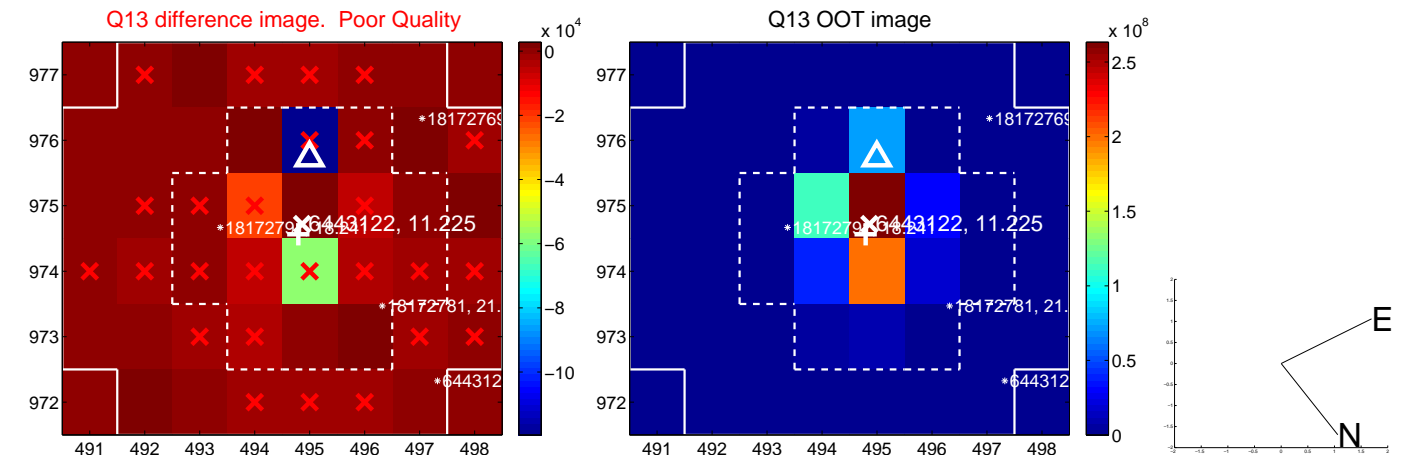
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



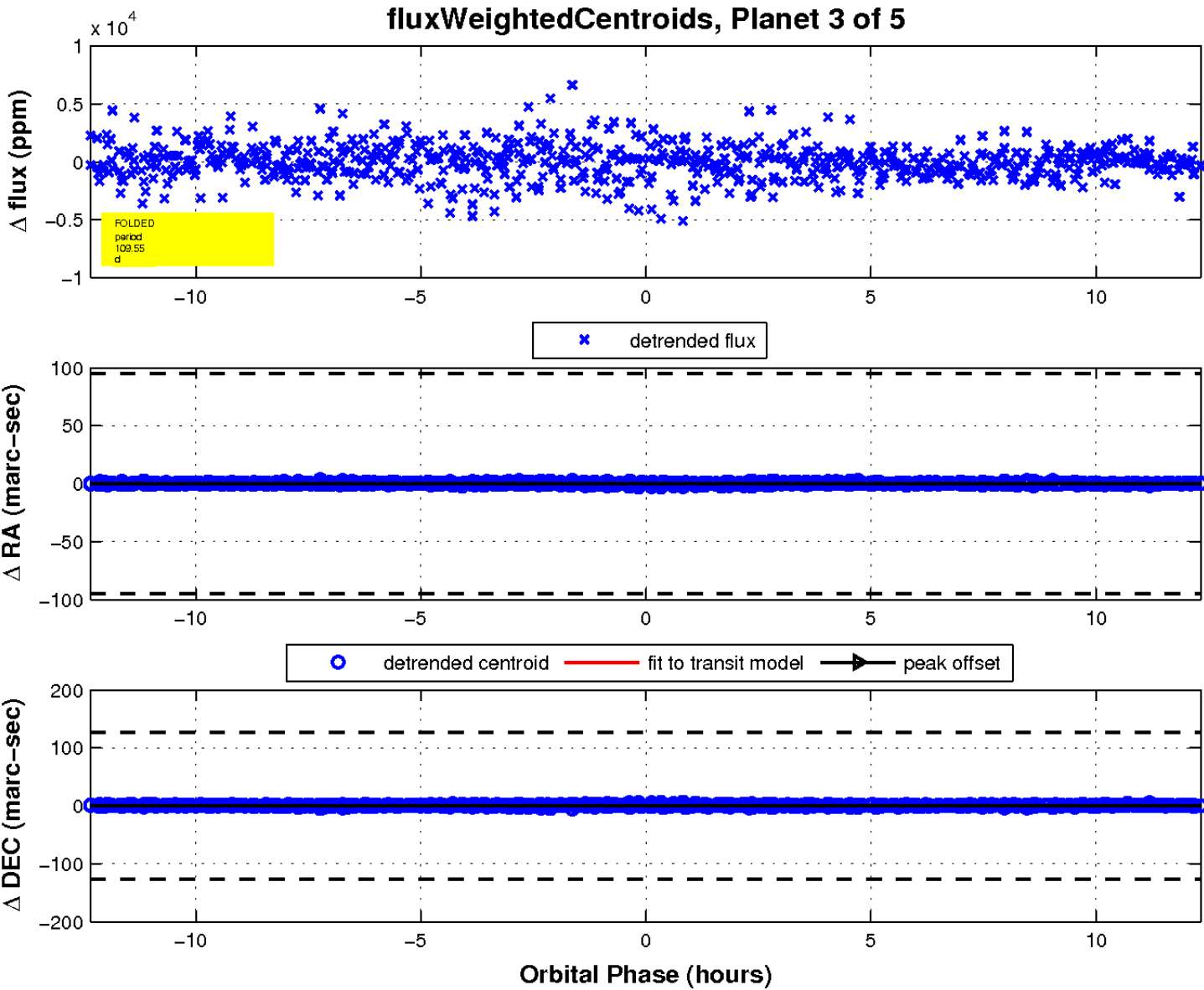
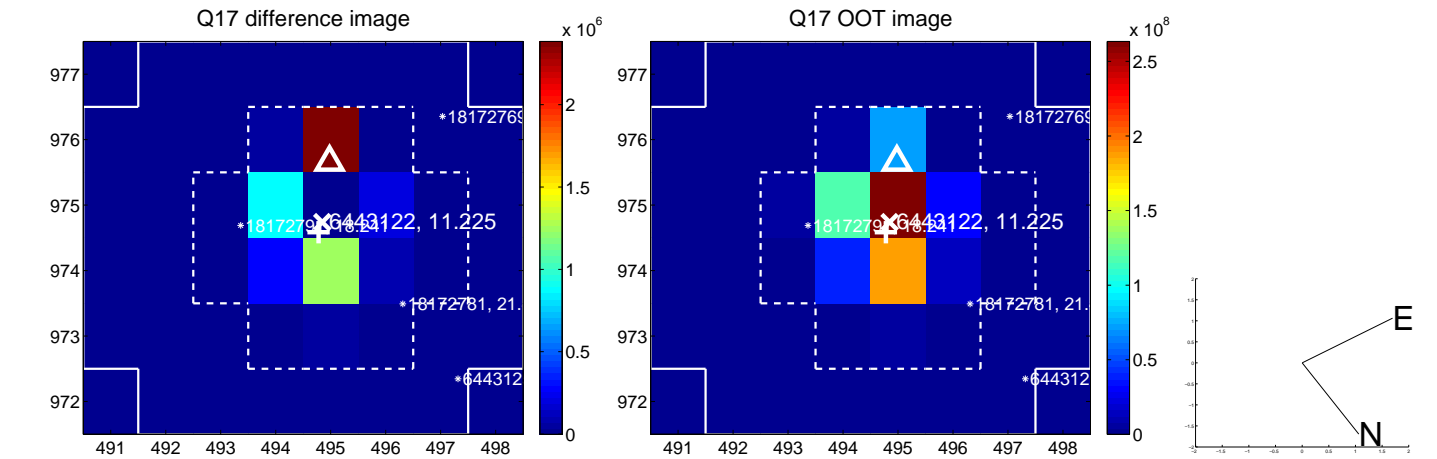
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



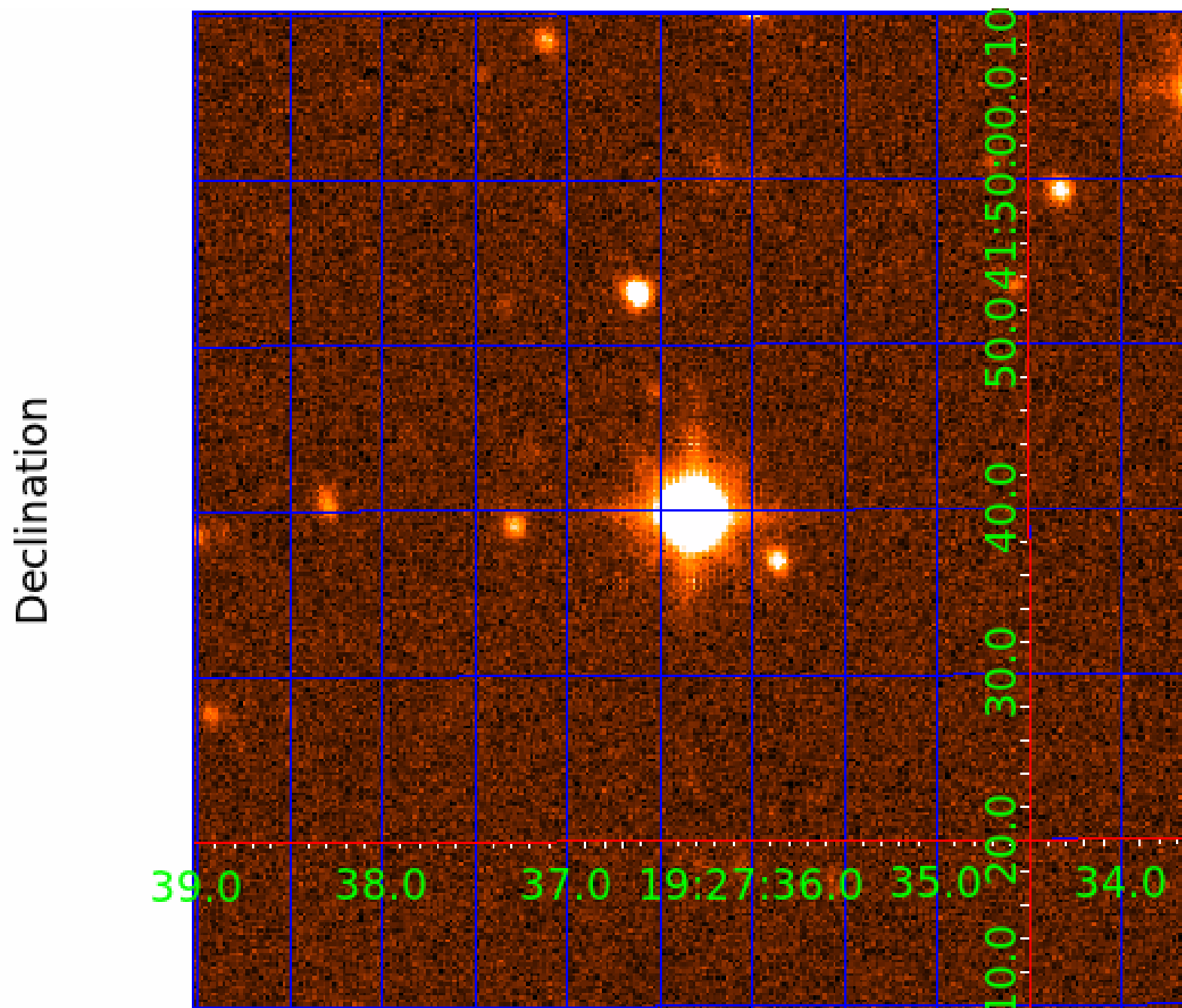
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image



KIC 006443122

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})
006443122-01	OBS	No	1.620562	133.105146	181.8	9.345	10.9	11.4	2.14	7236	2.92	10794.53
006443122-02	OBS	No	114.062543	186.431271	617.7	9.918	14.4	4.3	2.14	7236	5.68	37.15
006443122-03	OBS	No	109.554415	138.977442	3764.8	4.117	17.1	12.4	2.14	7236	23.60	39.20
006443122-04	OBS	No	62.740431	139.084380	1319.2	1.877	11.8	6.2	2.14	7236	8.47	82.42
006443122-05	OBS	No	128.493143	162.950785	168.4	3.000	11.1	-1.0	2.14	7236	2.81	31.69

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006443122-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—CENT_SATURATED
006443122-02	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_CHASES_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED—HALO_GHOST
006443122-03	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
006443122-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_TRACKER—TRANS_GAPPED—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
006443122-05	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_CHASES—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS—CENT_SATURATED—HALO_GHOST

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

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

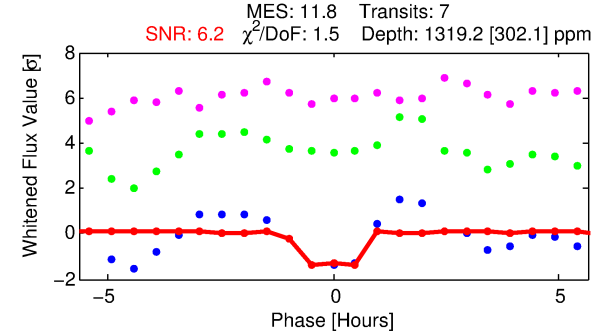
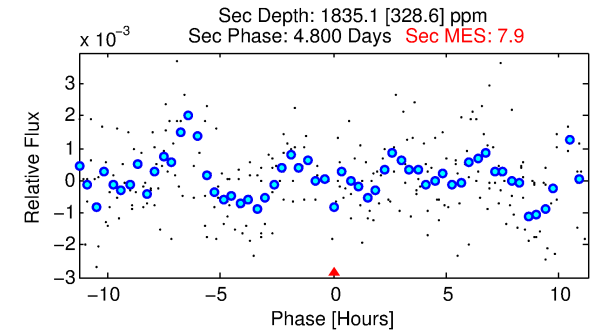
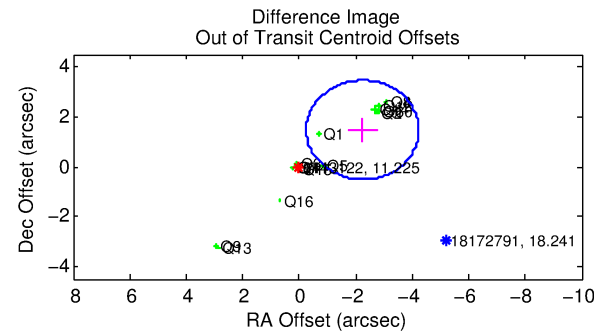
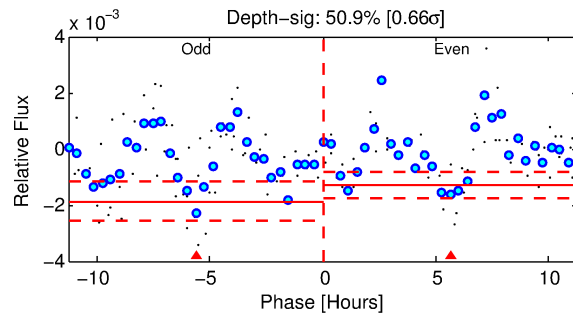
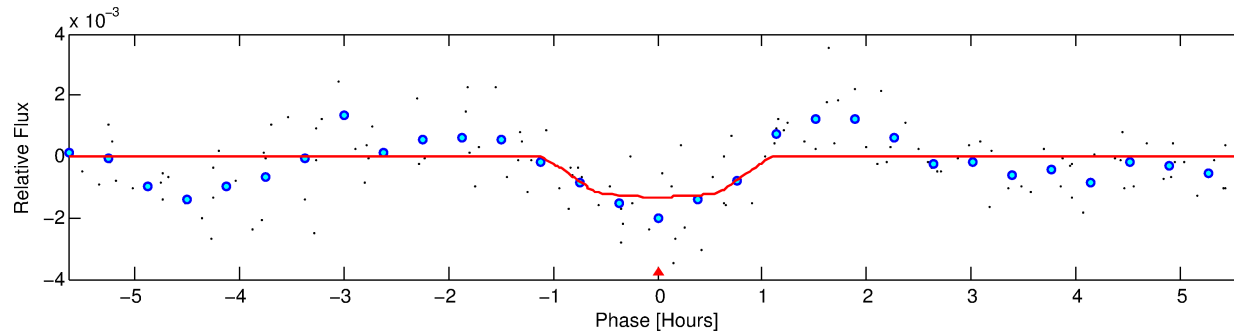
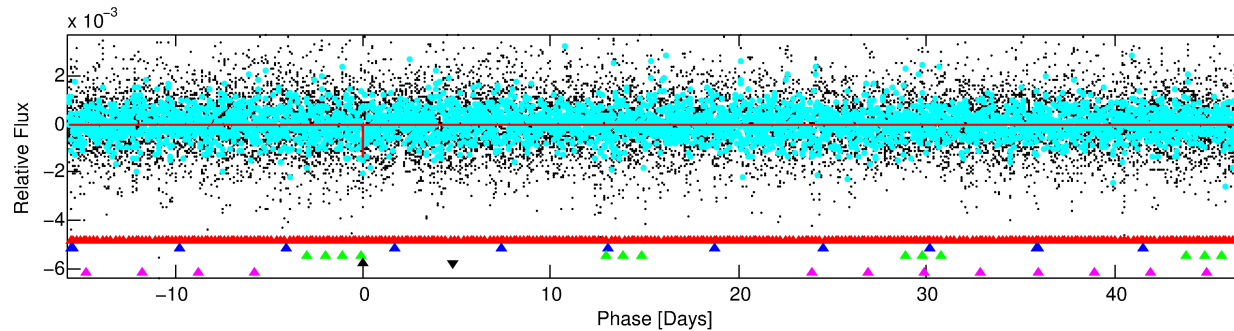
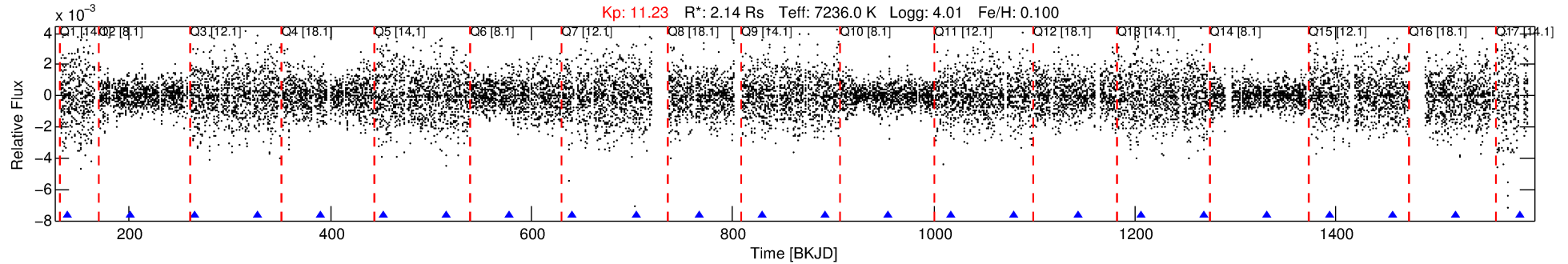
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006443122-04

No Significant Match Found

DV One-Page Summary

KIC: 6443122 Candidate: 4 of 5 Period: 62.740 d



DV Fit Results:

Period = 62.74043 [0.00063] d
Epoch = 139.0844 [0.0064] BKJD
Rp/R* = 0.0363 [0.0326]
a/R* = 179.07 [947.70]
b = 0.76 [2.91]
Seff = 82.42 [18.71]
Teq = 768 [44] K
Rp = 8.47 [7.74] Re
a = 0.3689 [0.0542] AU
Ag = 1915.19 [3483.67] [0.55 σ]
Teffp = 7858 [3548] K [2.00 σ]

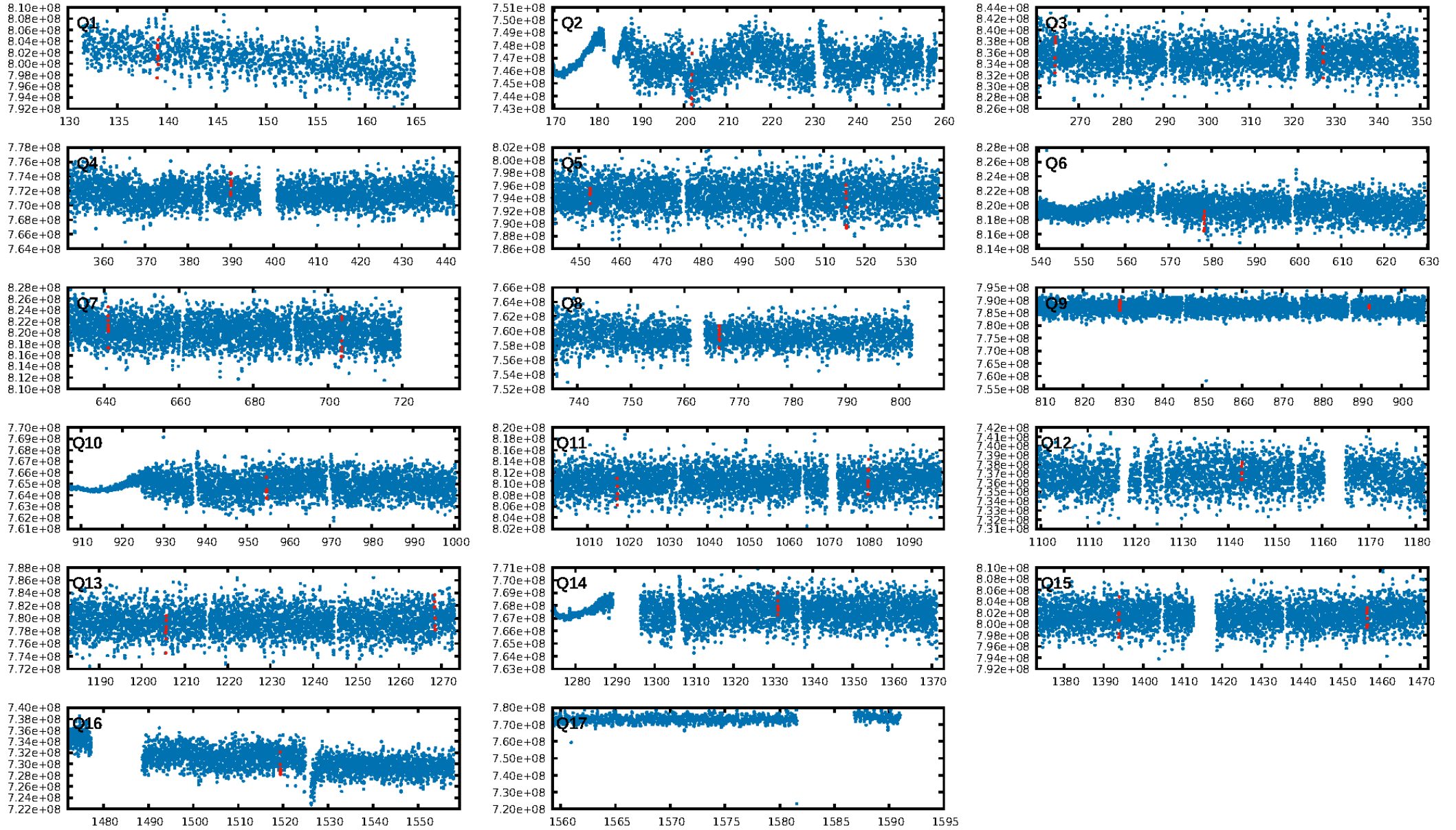
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [153.90 σ]
LongPeriod-sig: 100.0% [248.31 σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 39.5%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [7/7]
GhostDiagnostic-chr: 2.654
Centroid-sig: 55.3%
Centroid-so: 0.228 arcsec [2.22 σ]
OotOffset-rm: 2.679 arcsec [4.04 σ]
KicOffset-rm: 2.591 arcsec [4.38 σ]
OotOffset-st: 4/4/4/4 [16]
KicOffset-st: 4/4/4/4 [16]
DiffImageQuality-fgm: 0.31 [5/16]
DiffImageOverlap-fno: 0.56 [9/16]

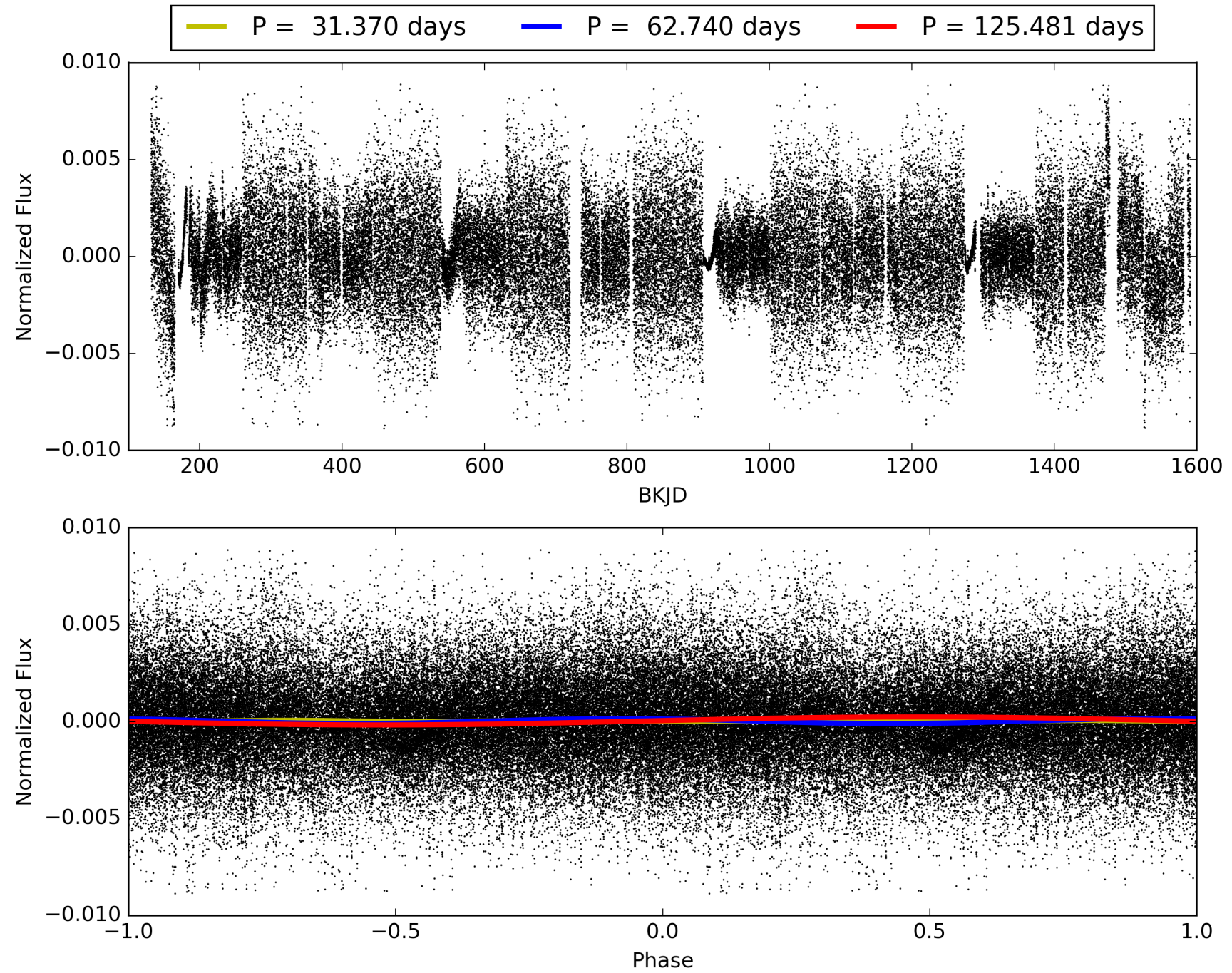
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 15:02:19 Z

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

TCE 006443122-04, PDC Light Curves

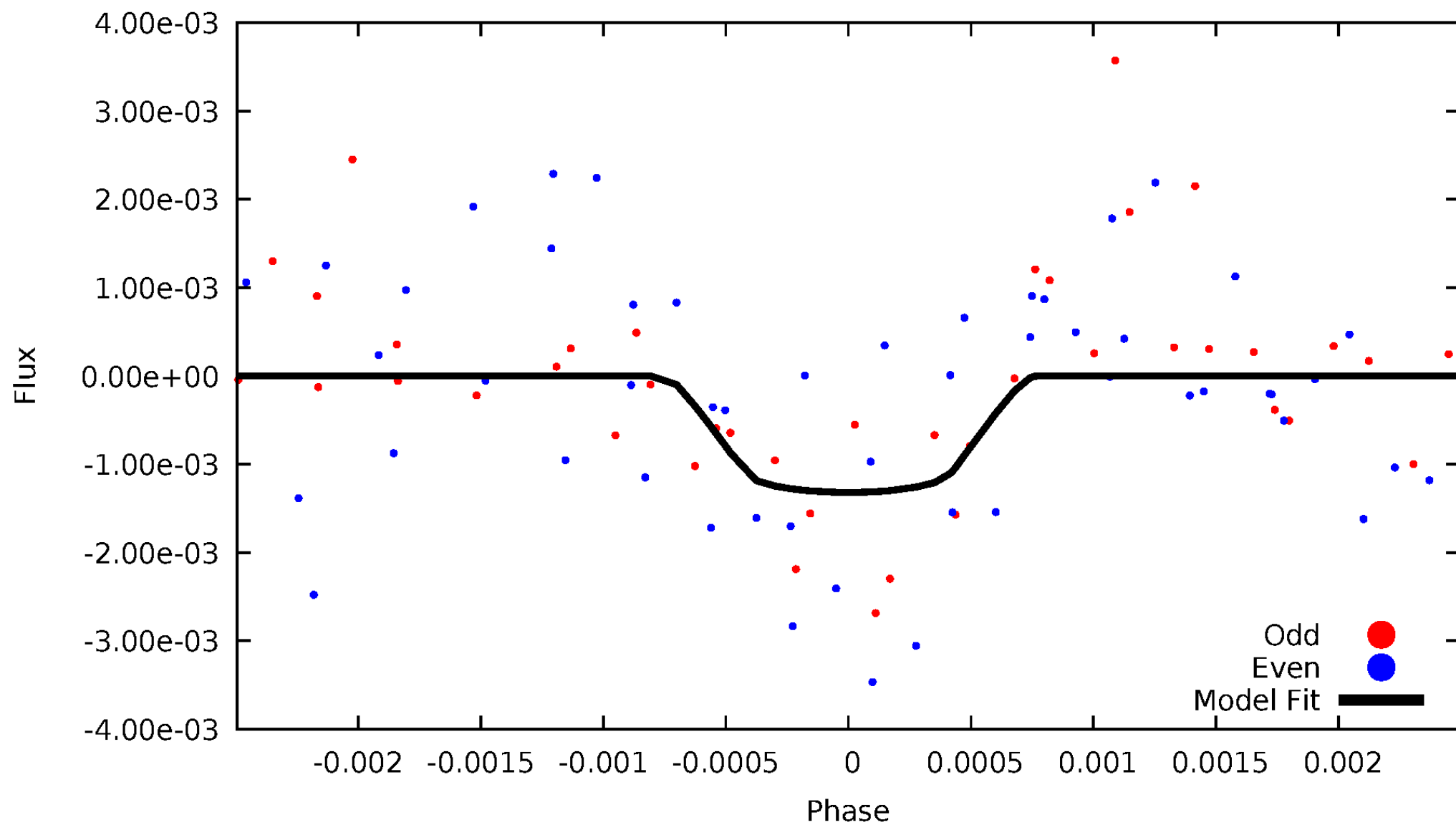


TCE 006443122-04



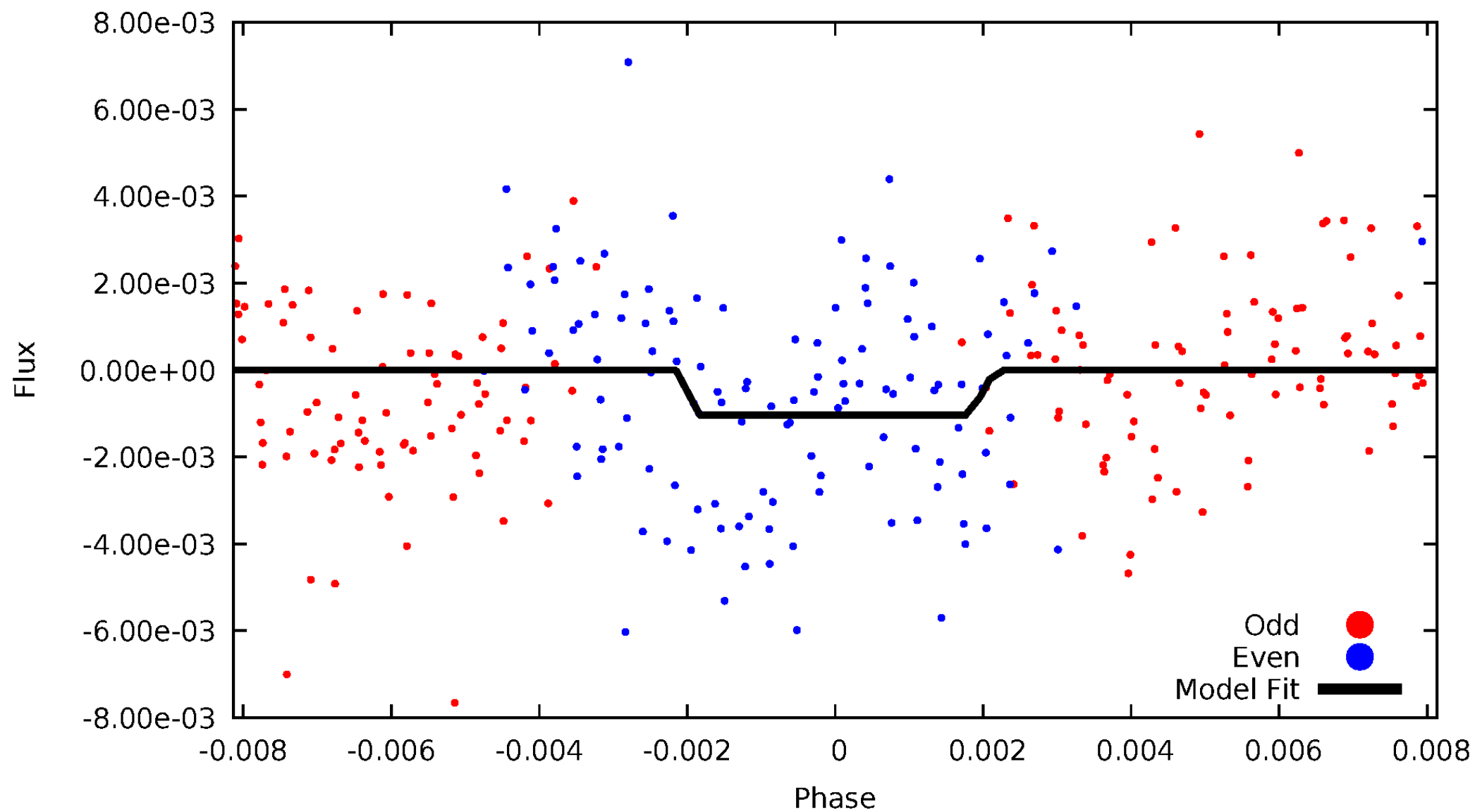
DV Odd/Even

TCE 006443122-04



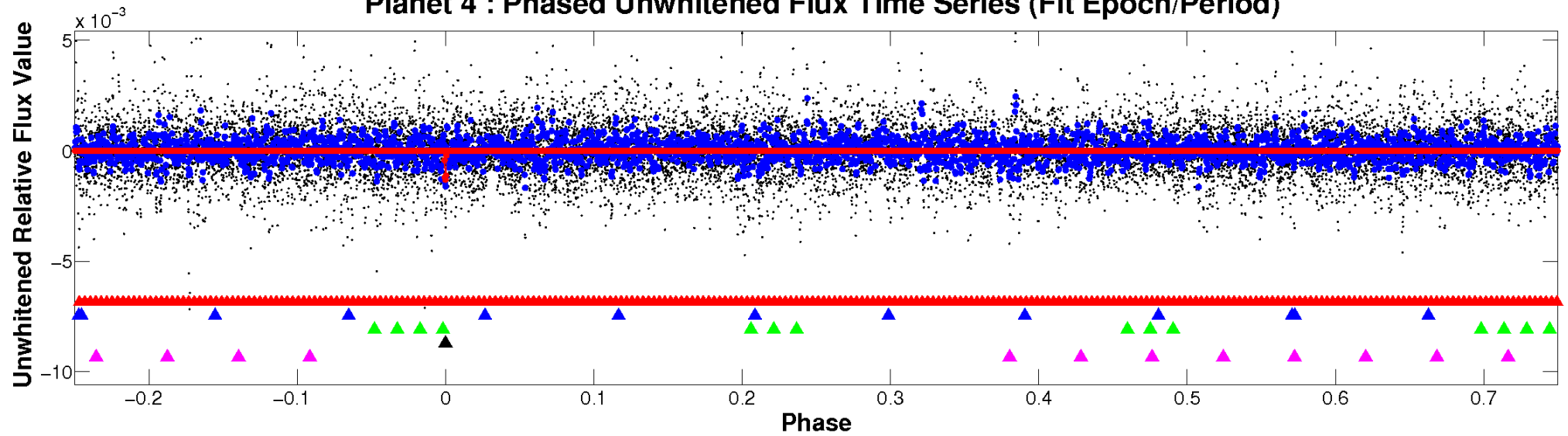
ALT Odd/Even

TCE 006443122-04

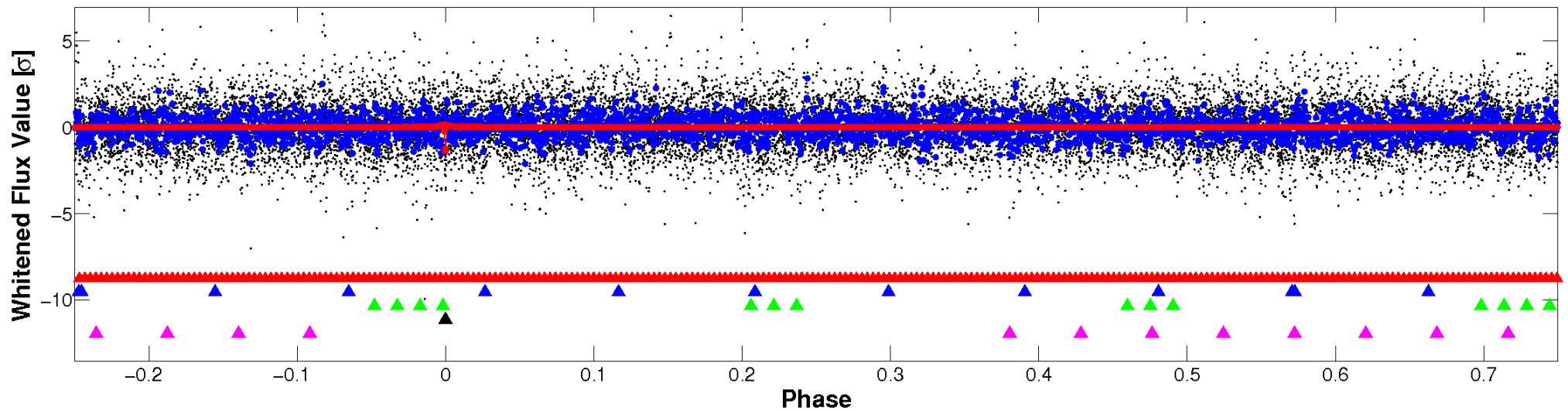


Non-Whitened Vs. Whitened Light Curve

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

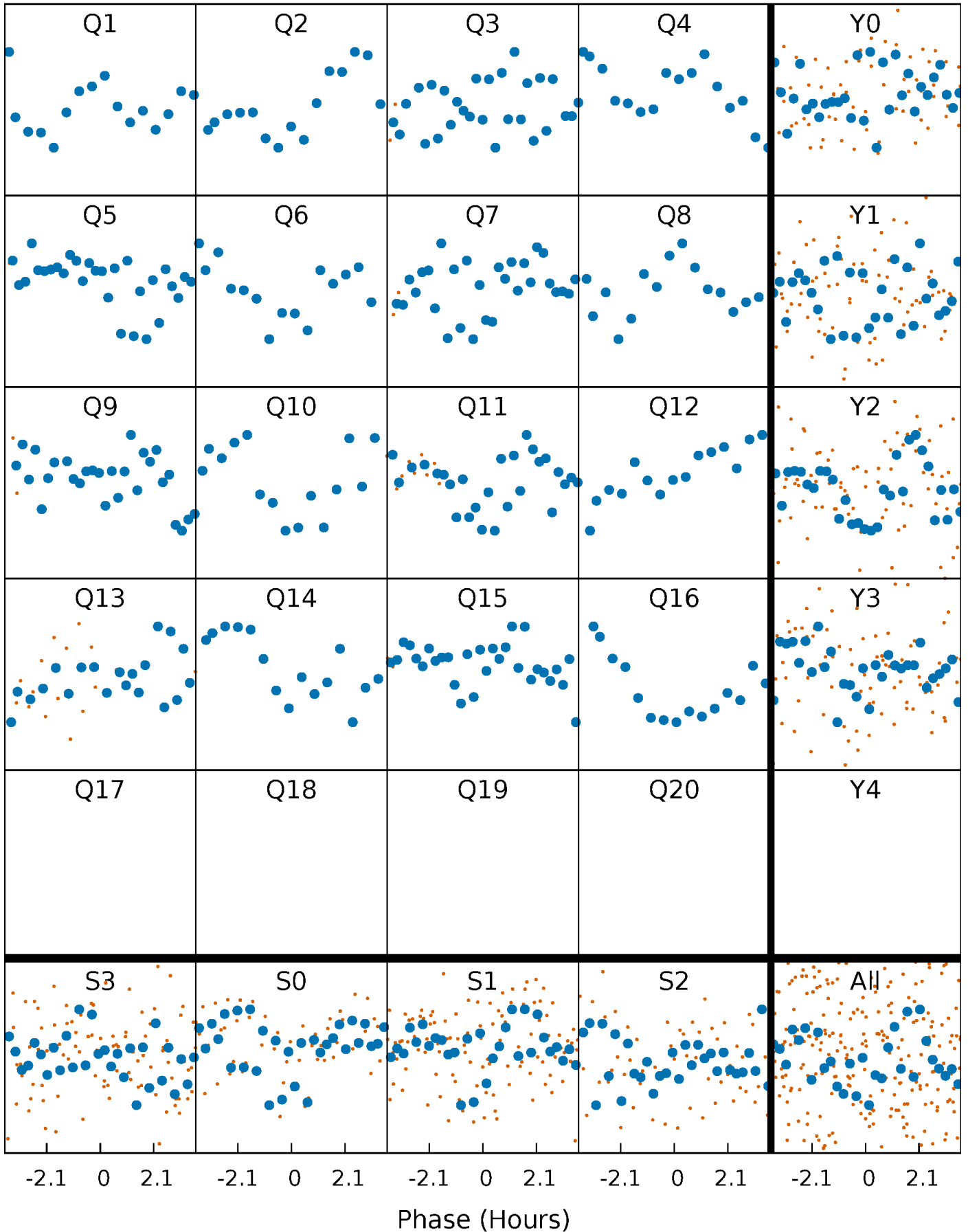


Planet 4 : Phased Whitened Flux Time Series (Fit Epoch/Period)



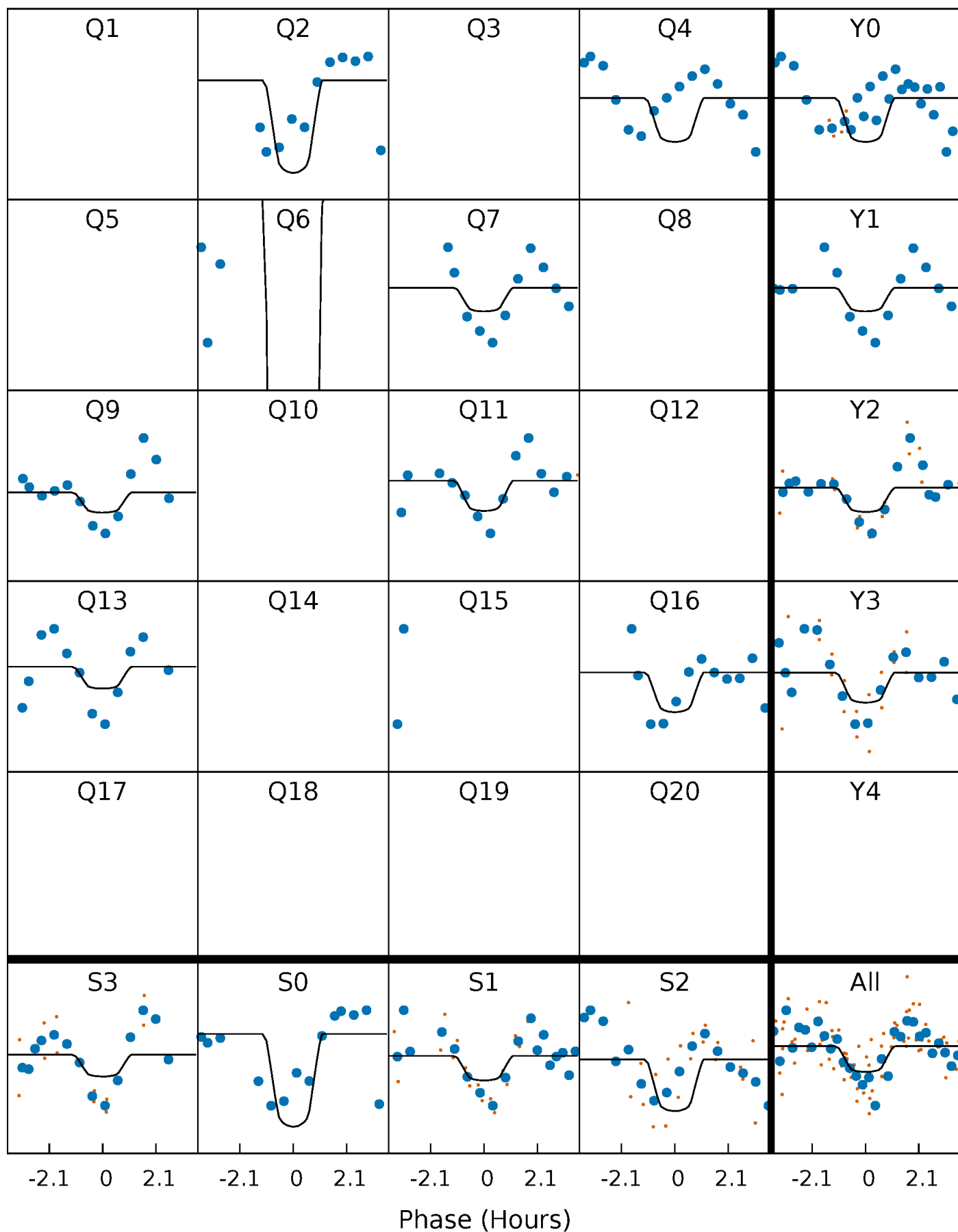
PDC Quarter-Phased Transit Curves

TCE 006443122-04 P= 62.740431 Days $T_0=139.084380$ (BKJD)



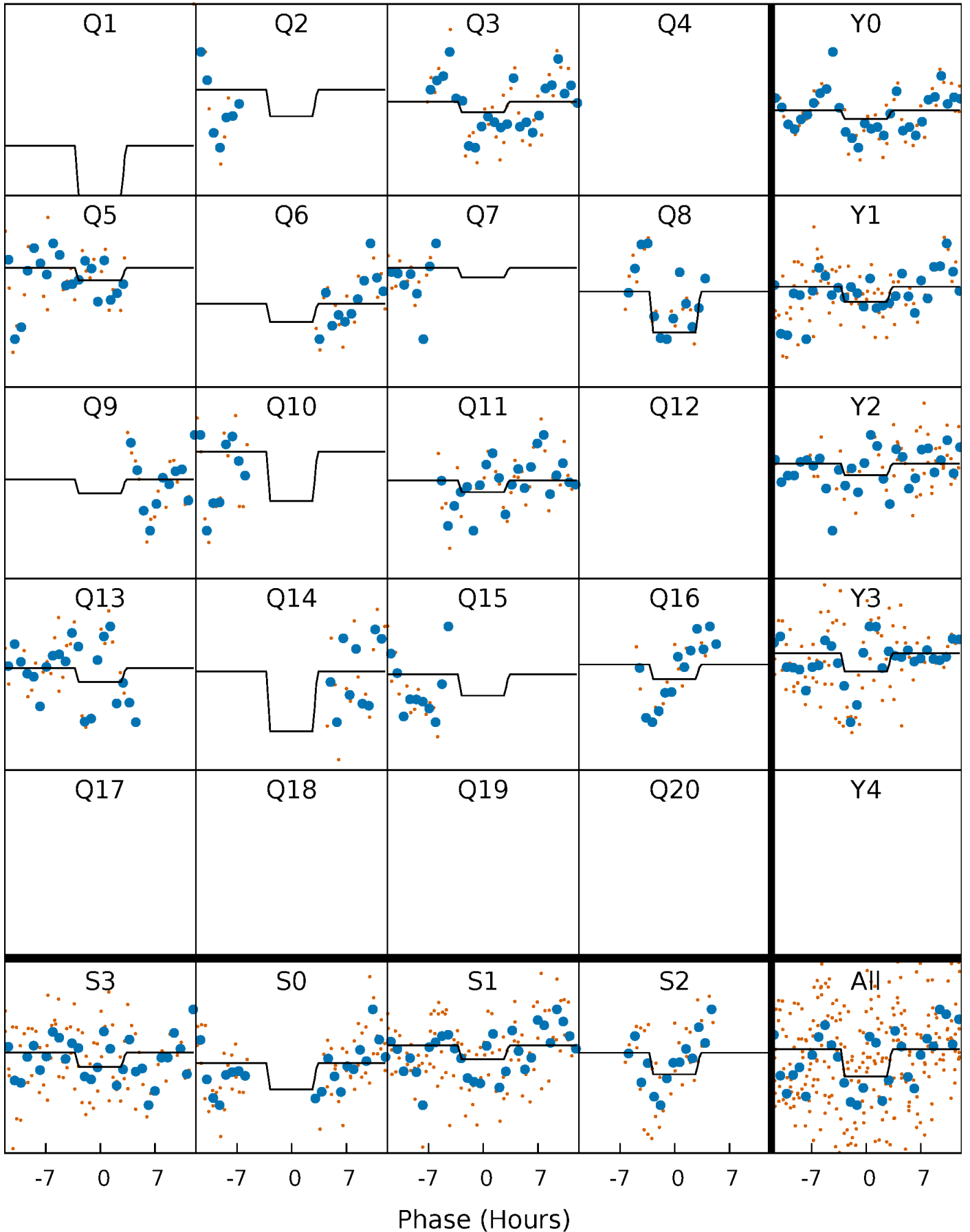
DV Quarter-Phased Transit Curves

TCE 006443122-04 P= 62.740431 Days $T_0=139.084380$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

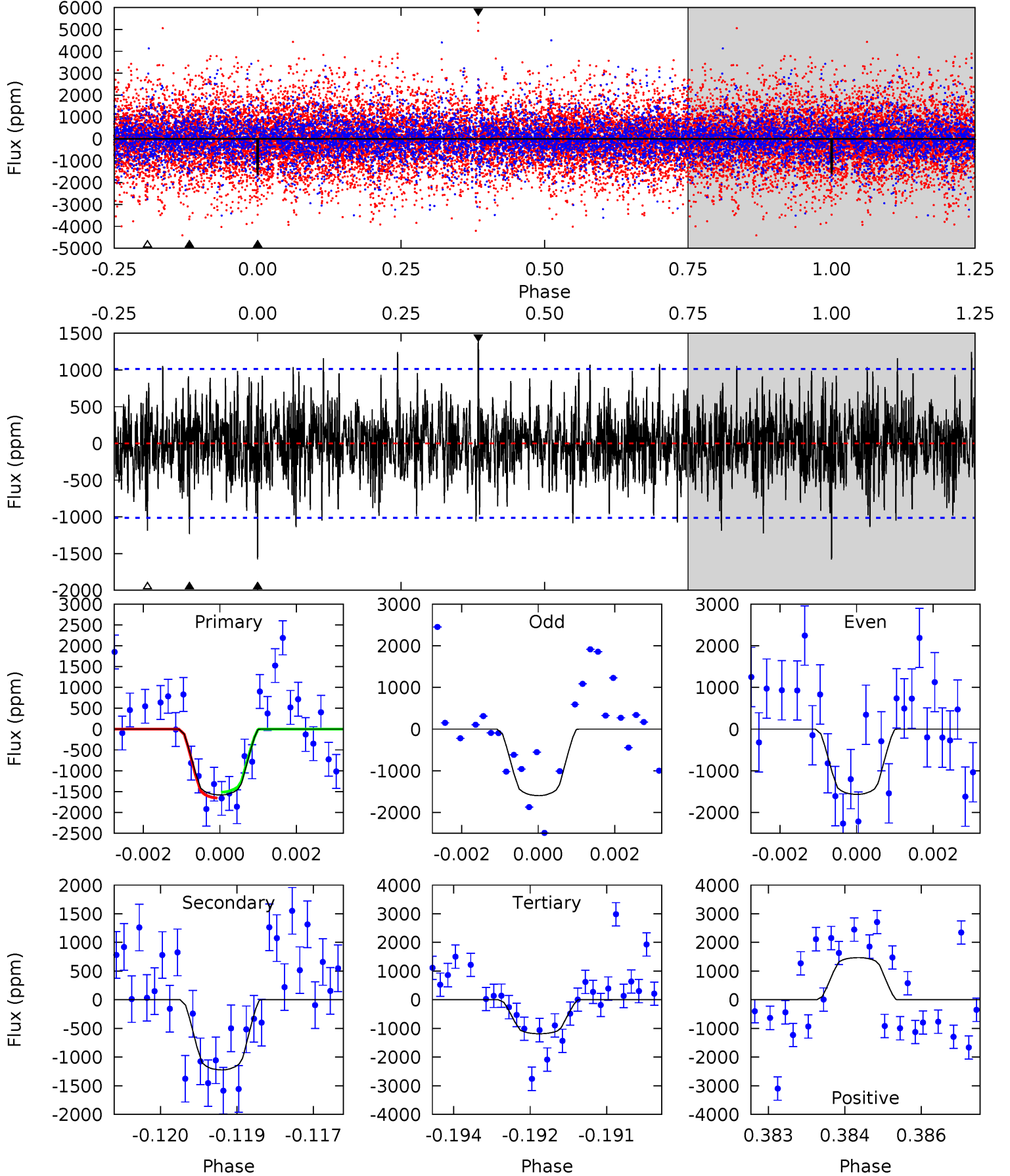
TCE 006443122-04 $P = 62.792630$ Days $T_0 = 138.064012$ (BKJD)



DV Model-Shift Uniqueness Test

006443122-04, P = 62.740431 Days, E = 76.343949 Days

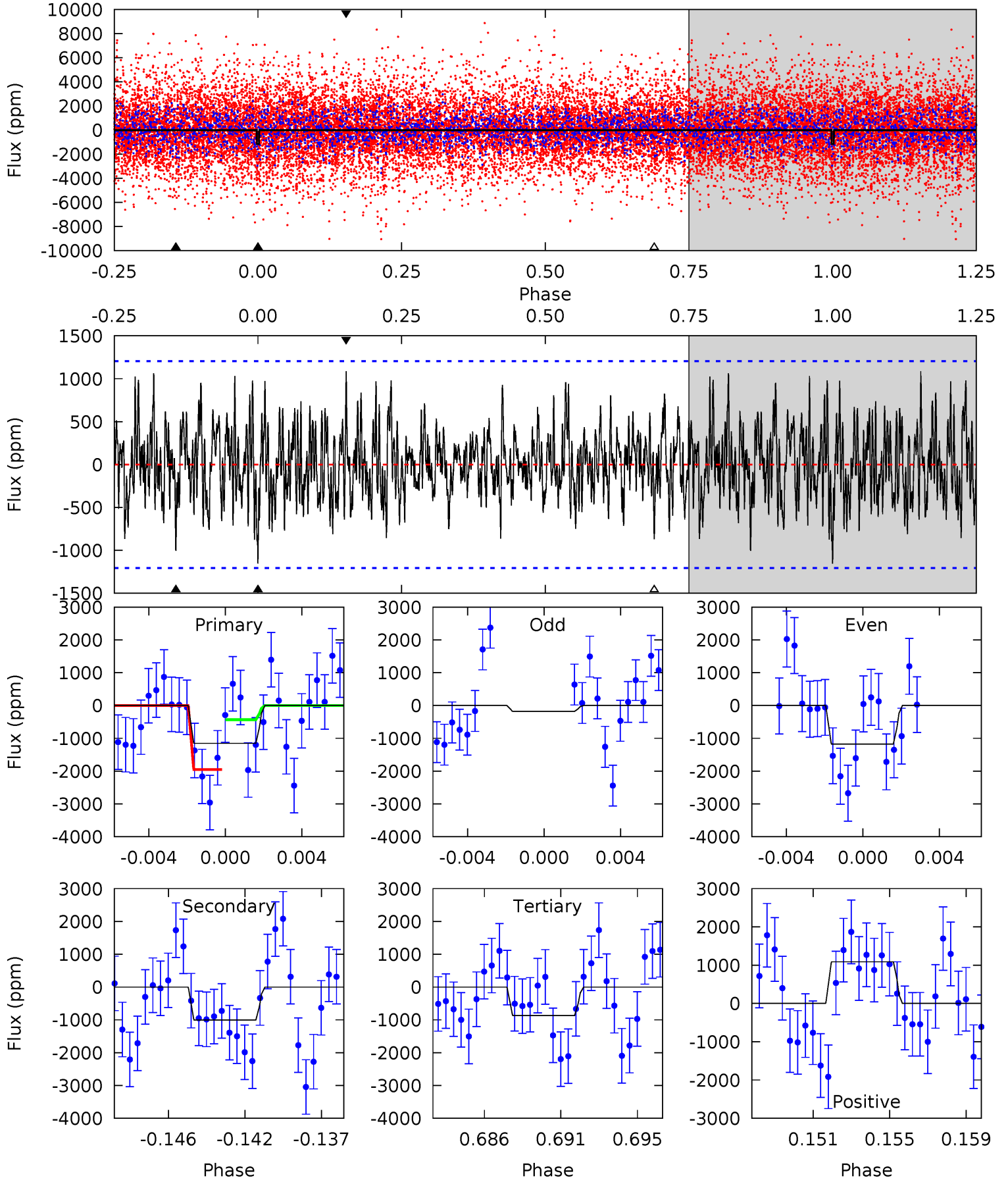
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.38	6.49	6.29	7.80	5.38	3.17	1.87	2.09	0.58	0.20	-1.31	0.08	0.92	0.48	0.37



Alt Model-Shift Uniqueness Test

006443122-04, P = 62.792630 Days, E = 75.271382 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.96	4.31	3.73	4.68	5.18	2.85	1.49	1.23	0.28	0.58	-0.37	0.83	1.45	0.49	3.28



Stellar Parameters For KIC 006443122

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7236^{+72}_{-79}	$4.009^{+0.126}_{-0.103}$	$0.100^{+0.150}_{-0.150}$	$2.137^{+0.354}_{-0.354}$	$1.701^{+0.108}_{-0.162}$	$0.245^{+0.152}_{-0.080}$
	+1%/-1%	+3%/-3%	+150%/-150%	+17%/-17%	+6%/-10%	+62%/-33%
Source	SPE68	SPE68	SPE68	DSEP		

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

Secondary Eclipse Parameters for KIC 006443122-04 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-1224 ± 189	$9.32^{+7.21}_{-5.55}$	1072^{+40}_{-46}	6734^{+5746}_{-1698}	1070^{+5515}_{-752}
Alt.	-1002 ± 233	$8.98^{+7.08}_{-6.17}$	1073^{+41}_{-50}	6470^{+7346}_{-1565}	914^{+7342}_{-631}

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 $A_{obs} \gg 1.0$

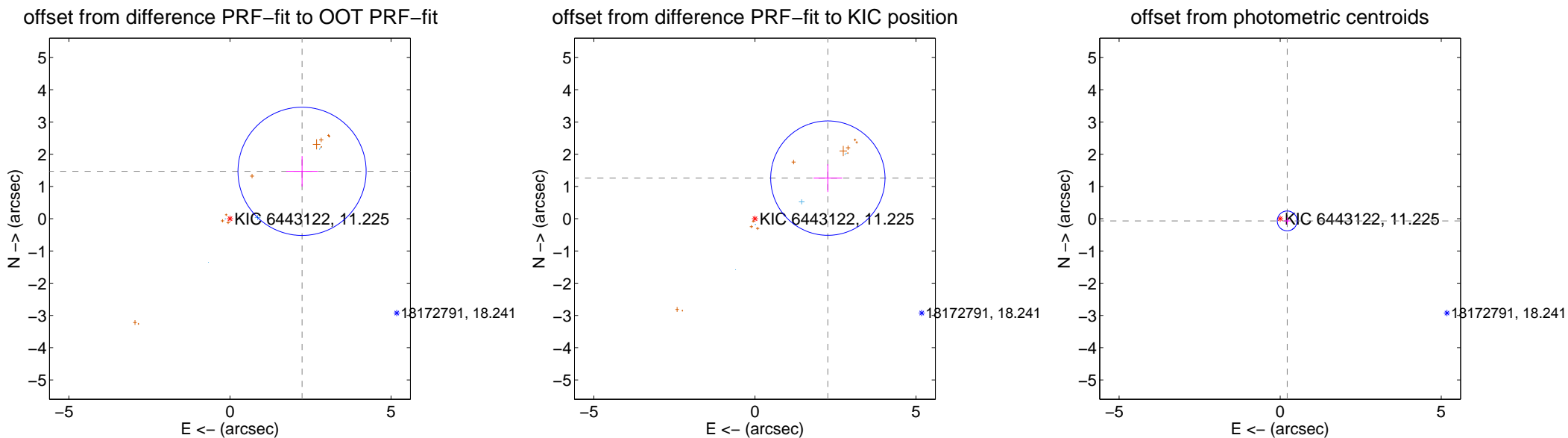
DV Centroid Data

Supplemental centroid analysis for 006443122-04. **Kepler magnitude: 11.22**. Transit SNR 6.19

There are 5 quarters with good PRF difference image offsets

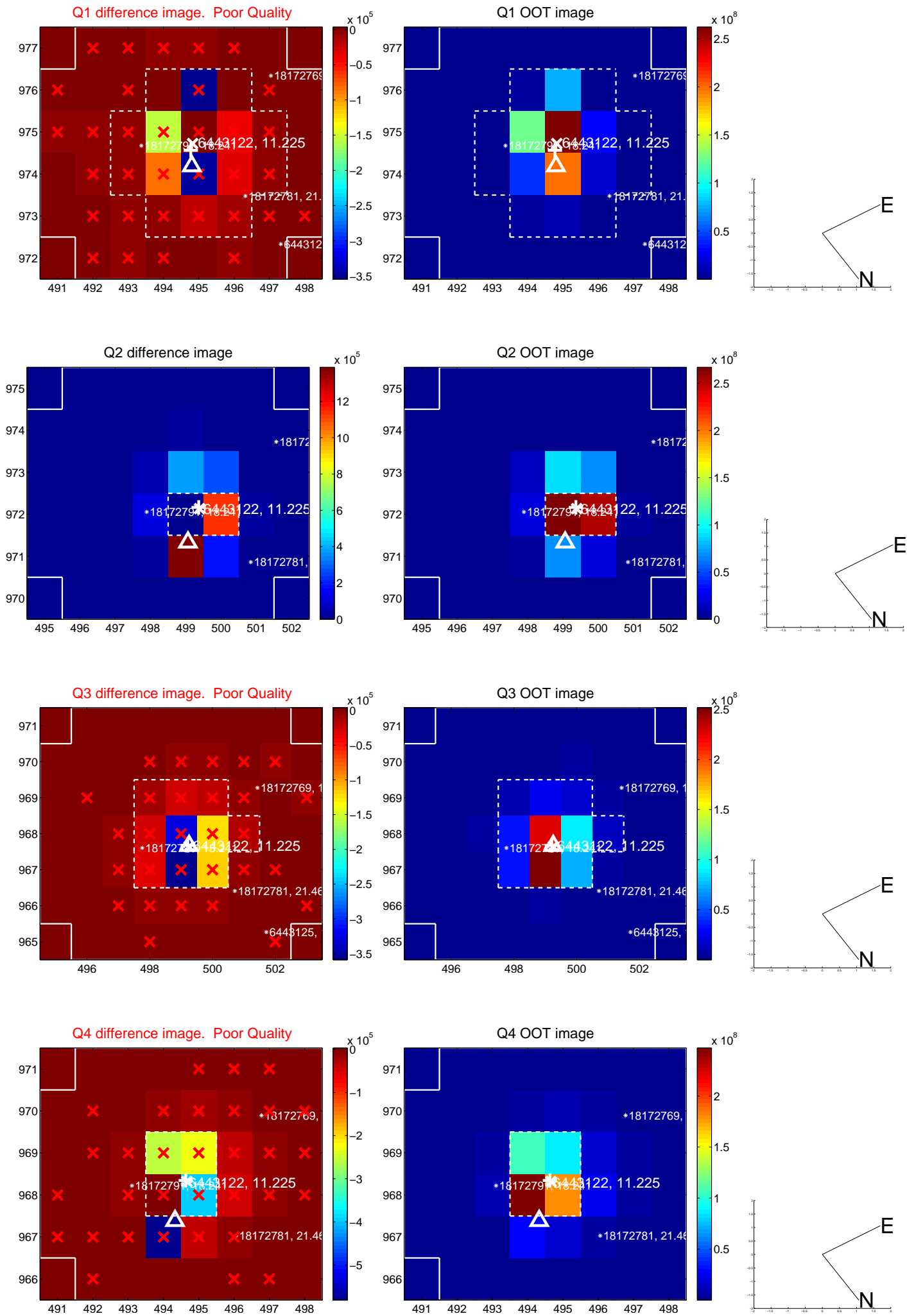
The direct PRF centroid is offset from the target star catalog position by about 0.24 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.679 ± 0.663	4.04	-2.238 ± 0.491	1.472 ± 0.472
PRF-fit source offset from KIC position	2.591 ± 0.592	4.38	-2.264 ± 0.445	1.261 ± 0.430
photometric centroid source offset	0.23 ± 0.10	2.22	-0.22 ± 0.10	-0.07 ± 0.10

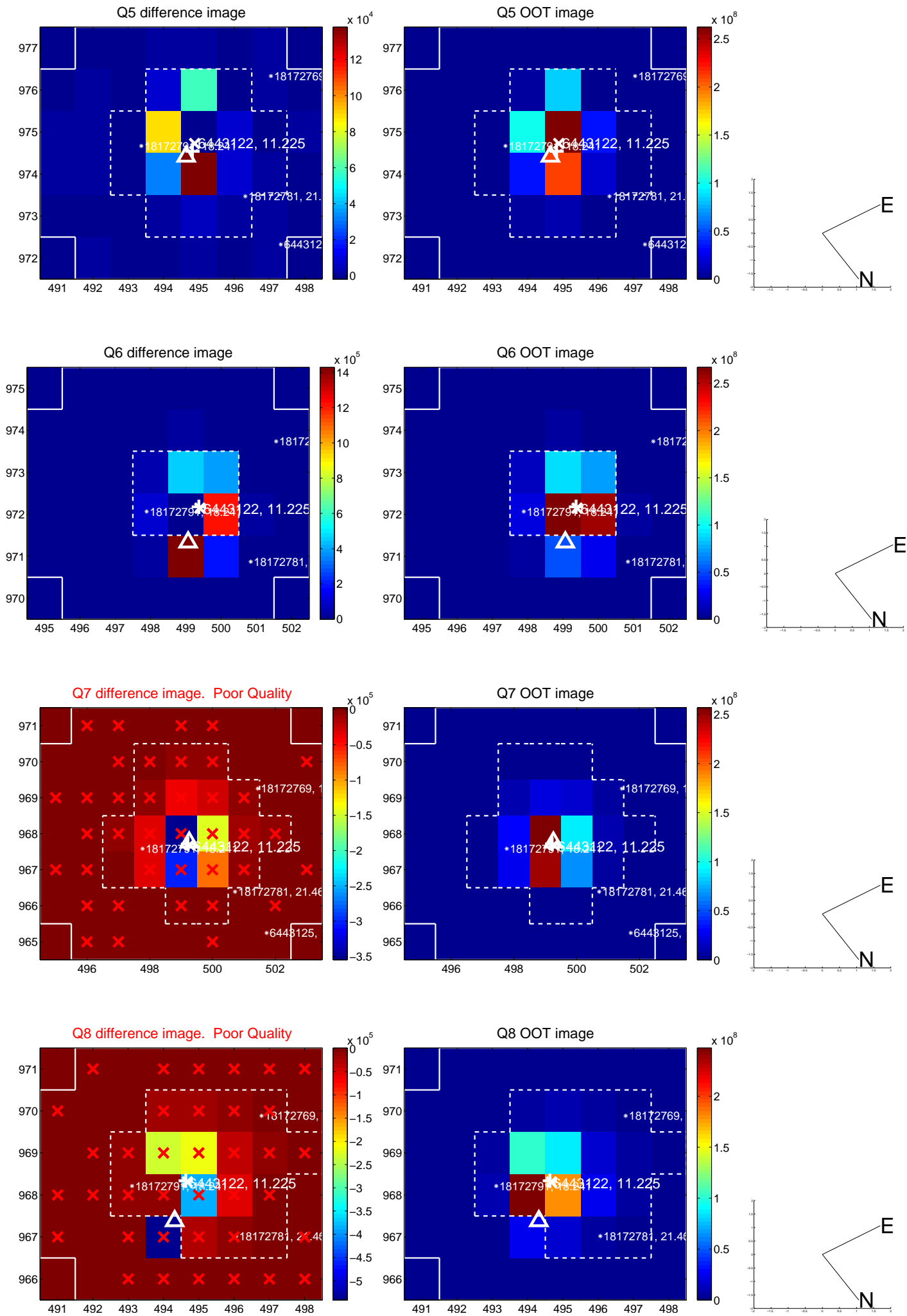


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

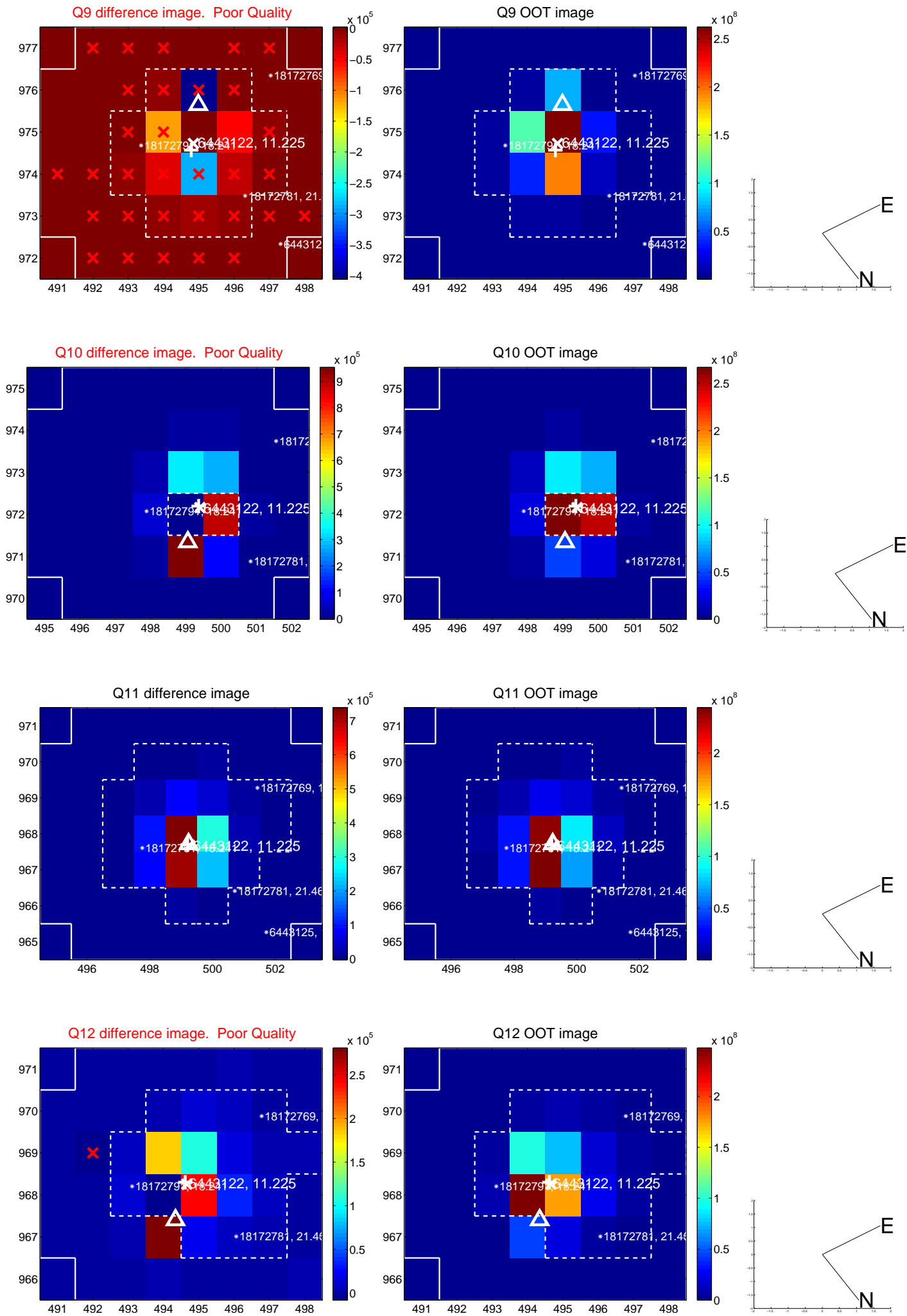
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



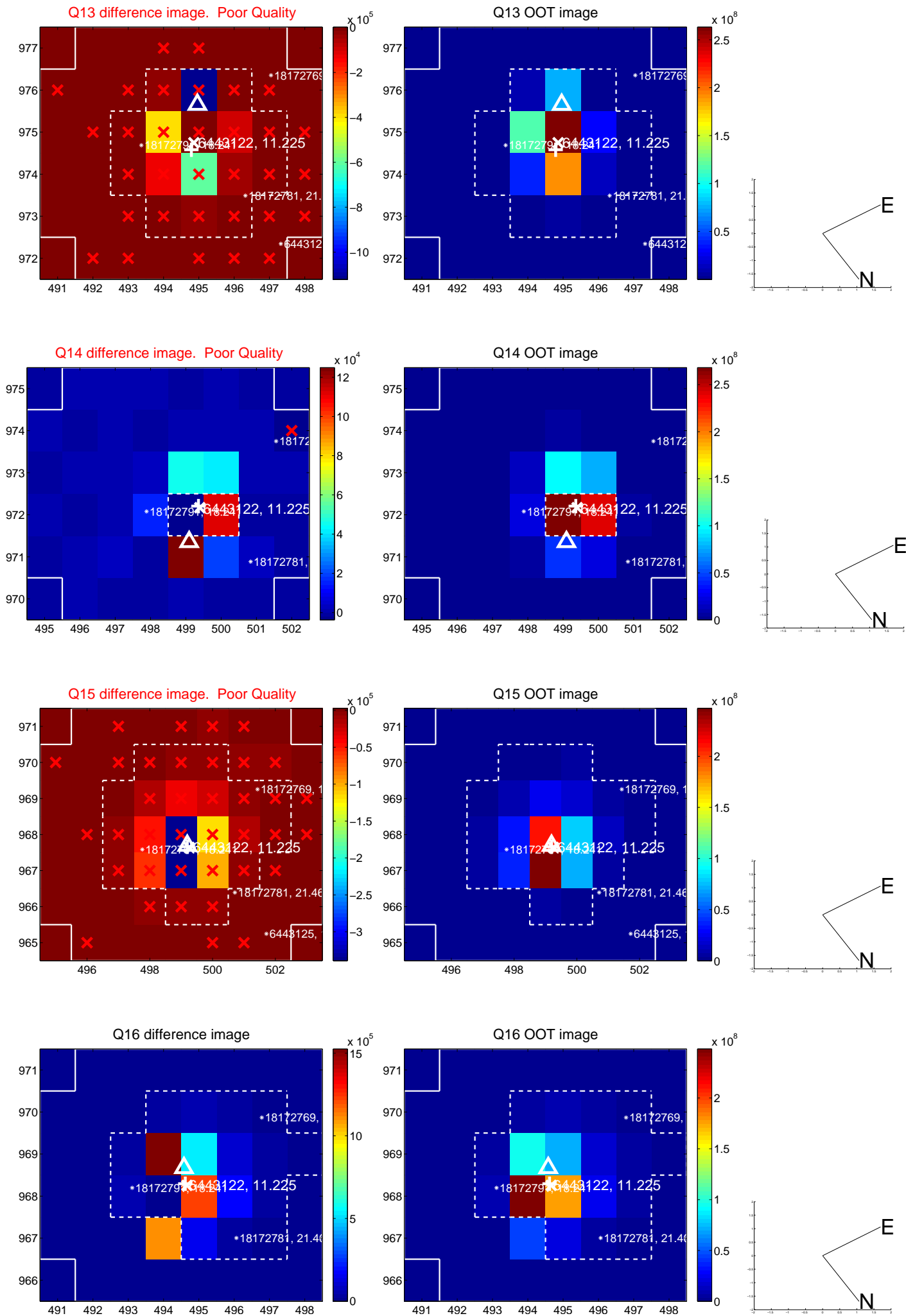
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



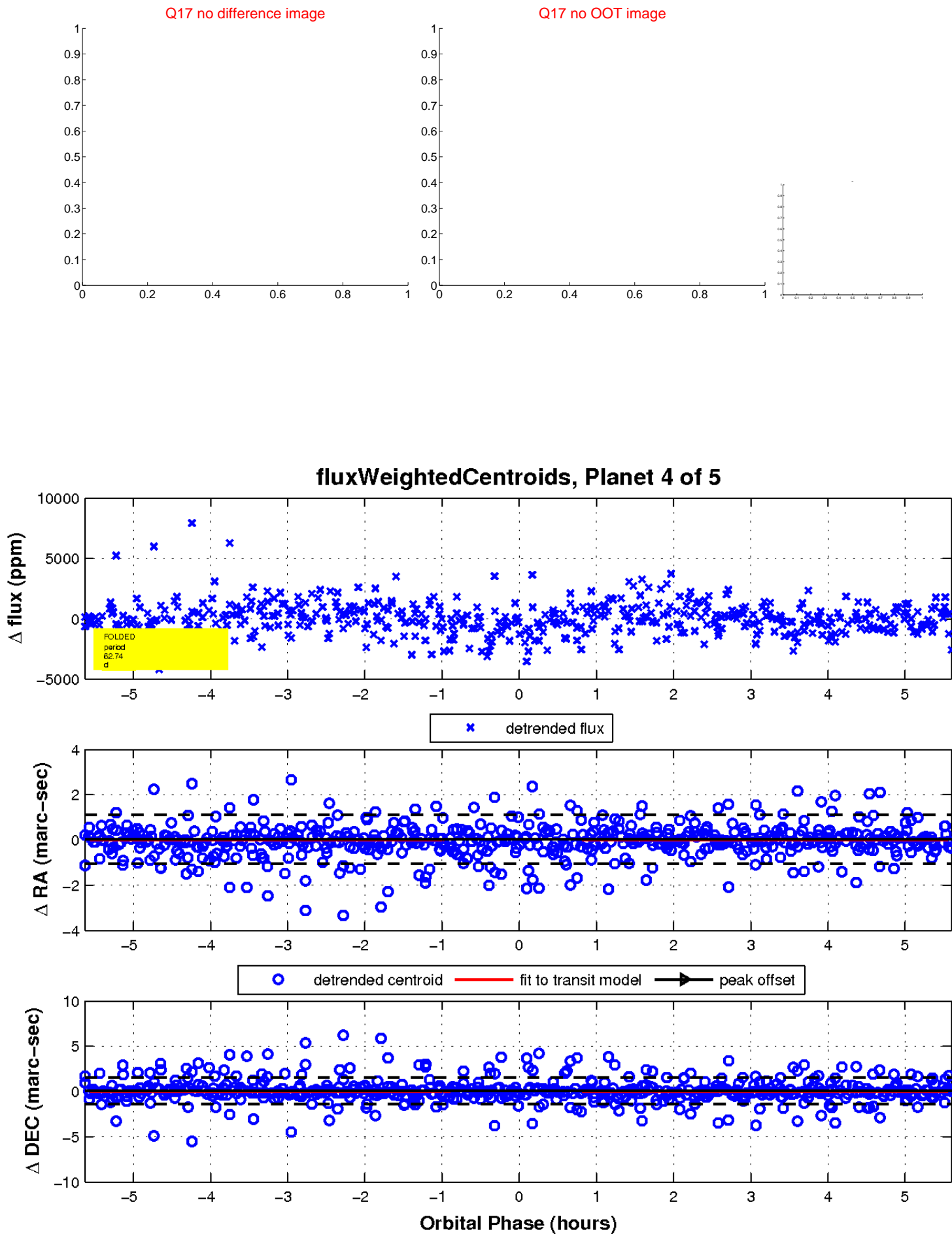
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



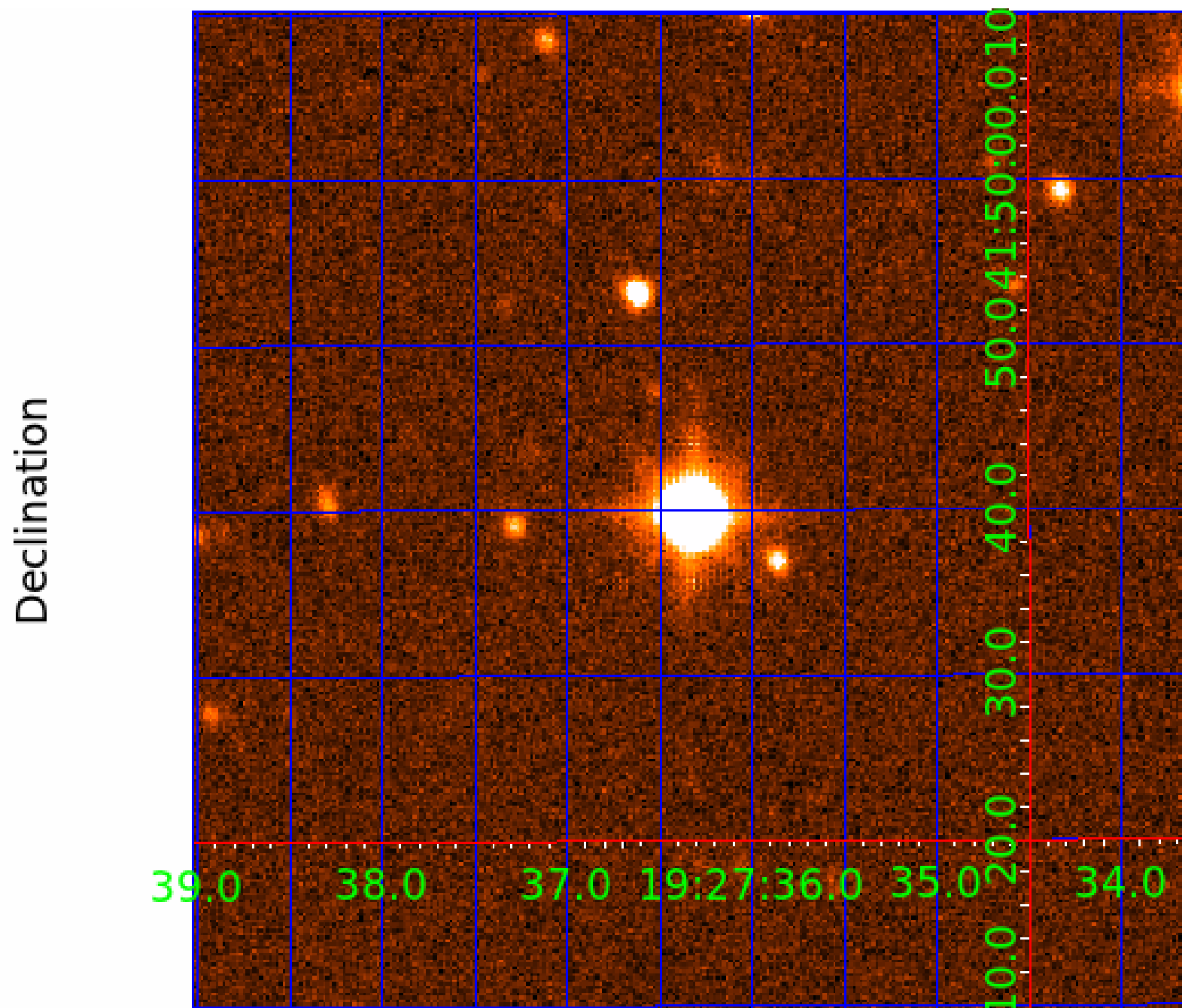
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image



KIC 006443122

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})
006443122-01	OBS	No	1.620562	133.105146	181.8	9.345	10.9	11.4	2.14	7236	2.92	10794.53
006443122-02	OBS	No	114.062543	186.431271	617.7	9.918	14.4	4.3	2.14	7236	5.68	37.15
006443122-03	OBS	No	109.554415	138.977442	3764.8	4.117	17.1	12.4	2.14	7236	23.60	39.20
006443122-04	OBS	No	62.740431	139.084380	1319.2	1.877	11.8	6.2	2.14	7236	8.47	82.42
006443122-05	OBS	No	128.493143	162.950785	168.4	3.000	11.1	-1.0	2.14	7236	2.81	31.69

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006443122-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—CENT_SATURATED
006443122-02	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_CHASES_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED—HALO_GHOST
006443122-03	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
006443122-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_TRACKER—TRANS_GAPPED—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
006443122-05	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_CHASES—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS—CENT_SATURATED—HALO_GHOST

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

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

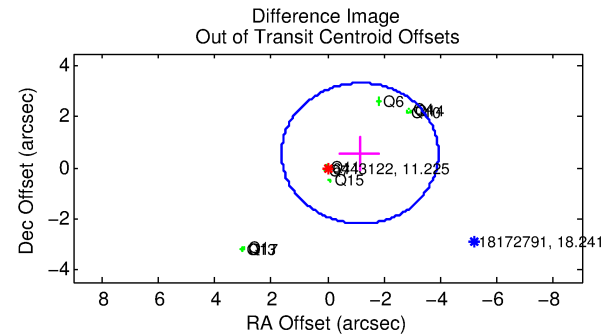
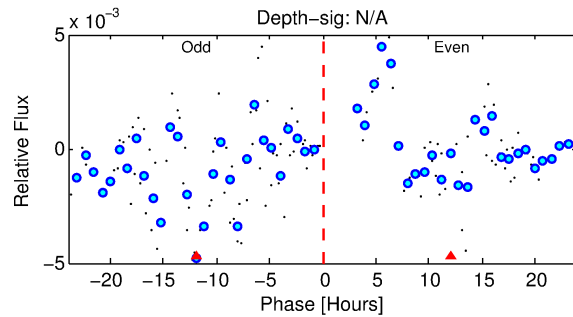
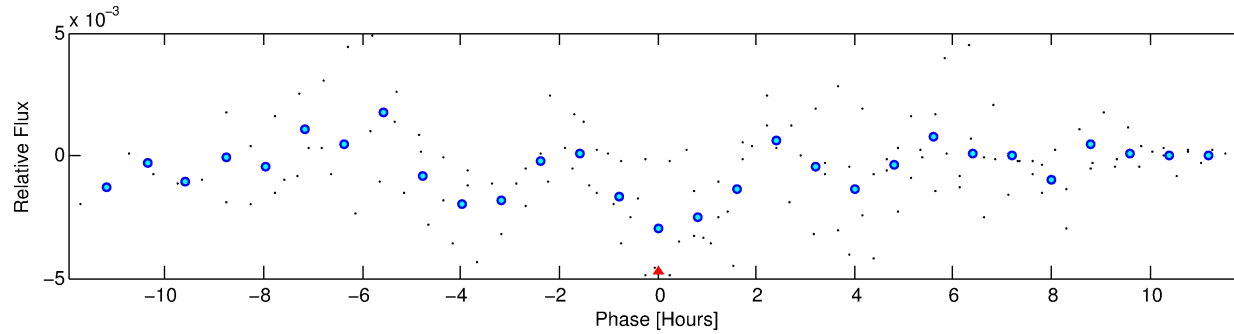
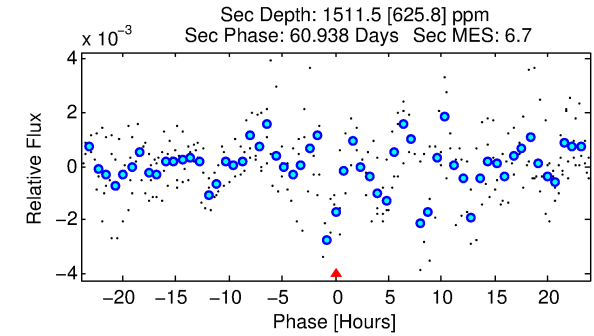
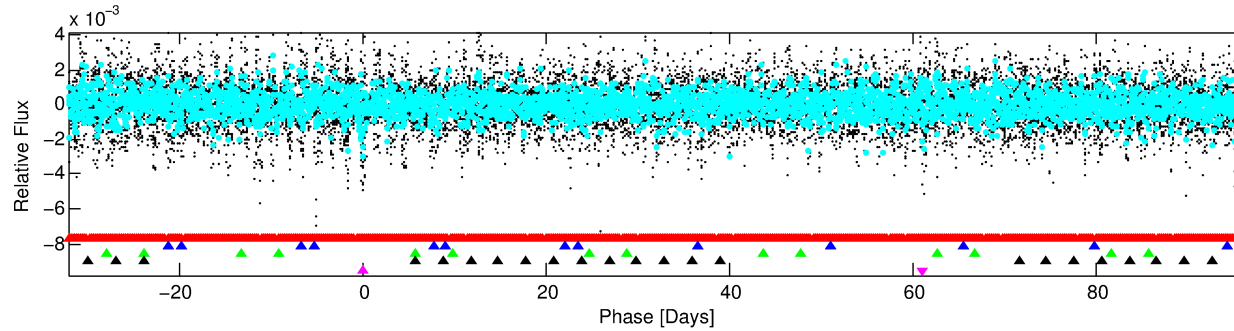
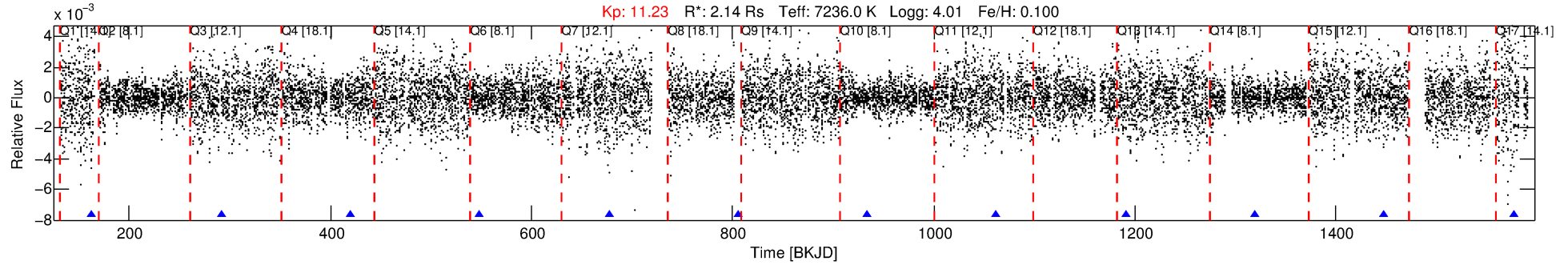
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006443122-05

No Significant Match Found

DV One-Page Summary

KIC: 6443122 Candidate: 5 of 5 Period: 128.493 d



TPS TCE Results:

Period = 128.49314 d
Epoch = 162.9508 BKJD

DV fit results are unavailable

DV Diagnostic Results:

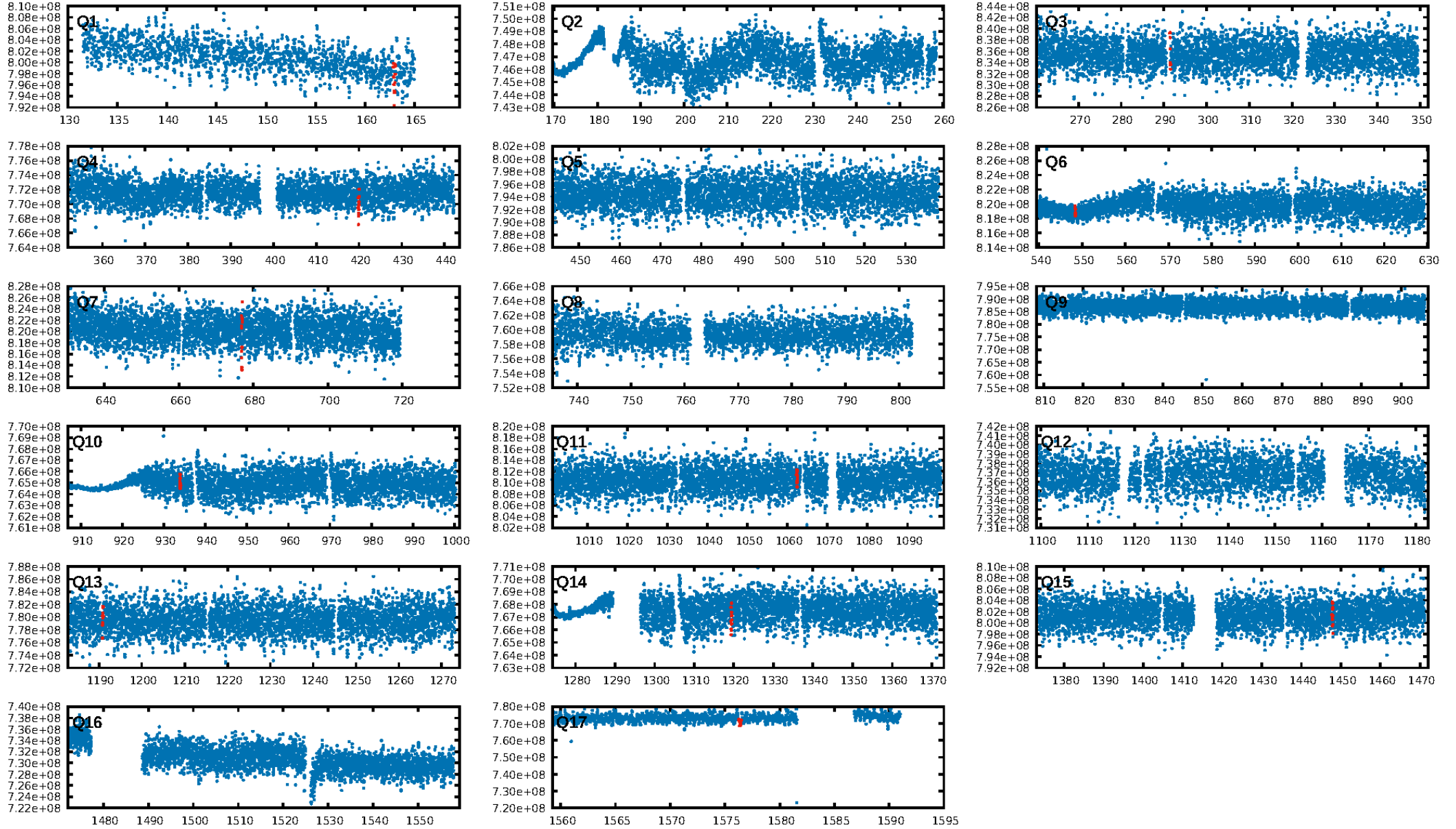
ShortPeriod-sig: 100.0% [33.43 σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [2/2]
GhostDiagnostic-chr: 0.2354

Centroid-sig: 78.4%
Centroid-so: 0.188 arcsec [6.53 σ]
OotOffset-rm: 1.281 arcsec [1.38 σ]
KicOffset-rm: 1.244 arcsec [1.50 σ]
OotOffset-st: 3/3/1/3 [10]
KicOffset-st: 3/3/1/3 [10]
DiffImageQuality-fgm: 0.80 [8/10]
DiffImageOverlap-fno: 0.40 [4/10]

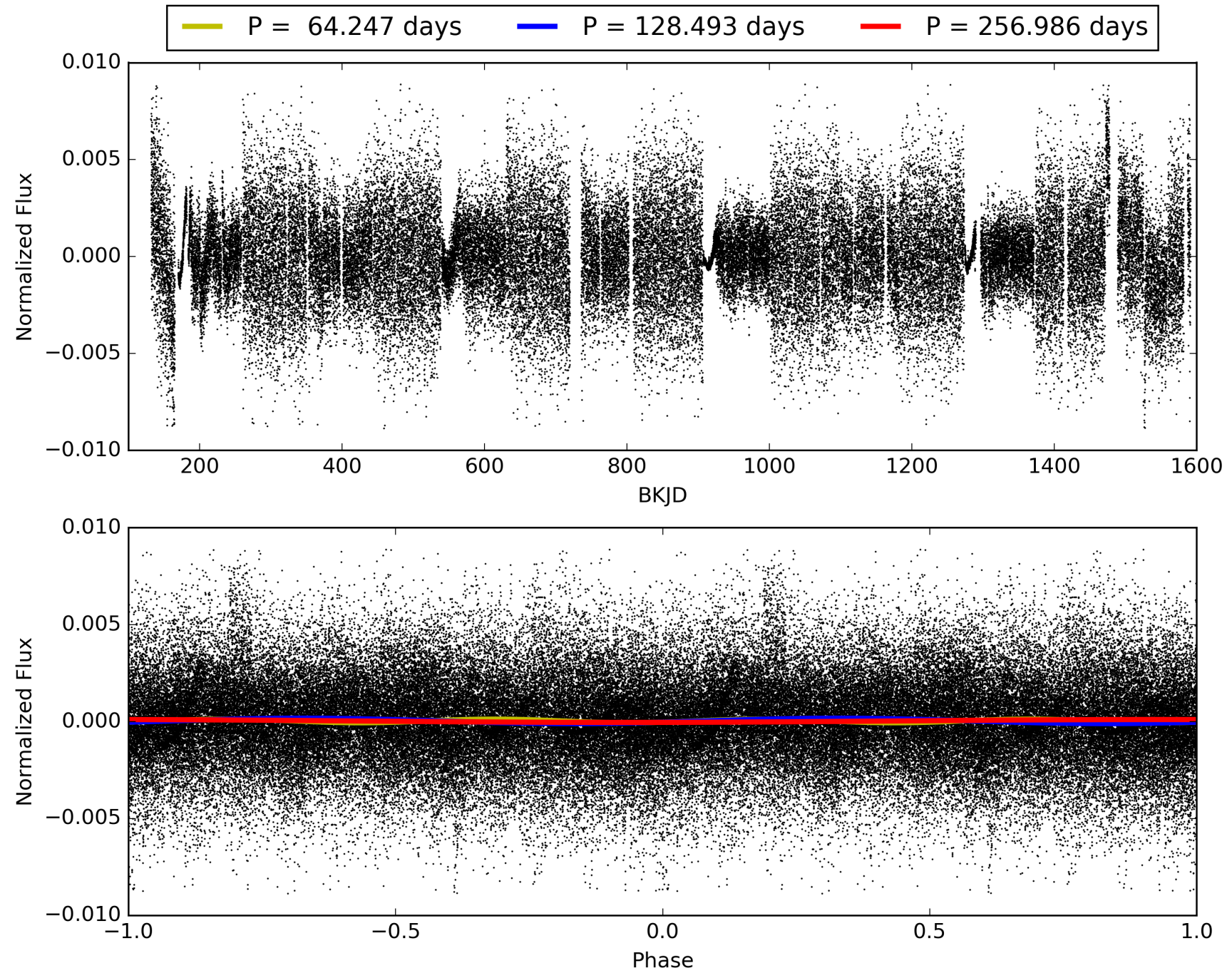
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 15:02:24 Z

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

TCE 006443122-05, PDC Light Curves

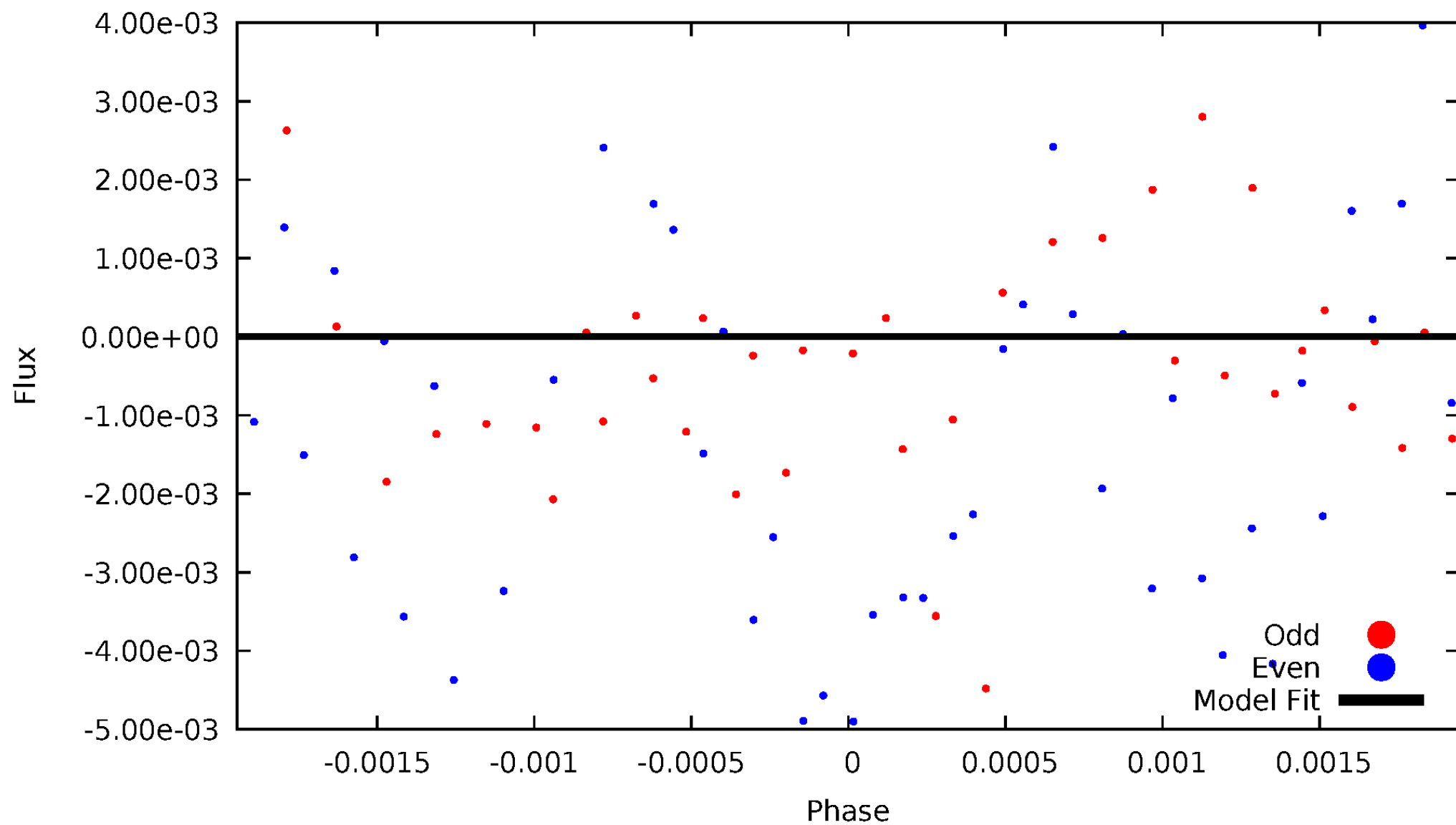


TCE 006443122-05



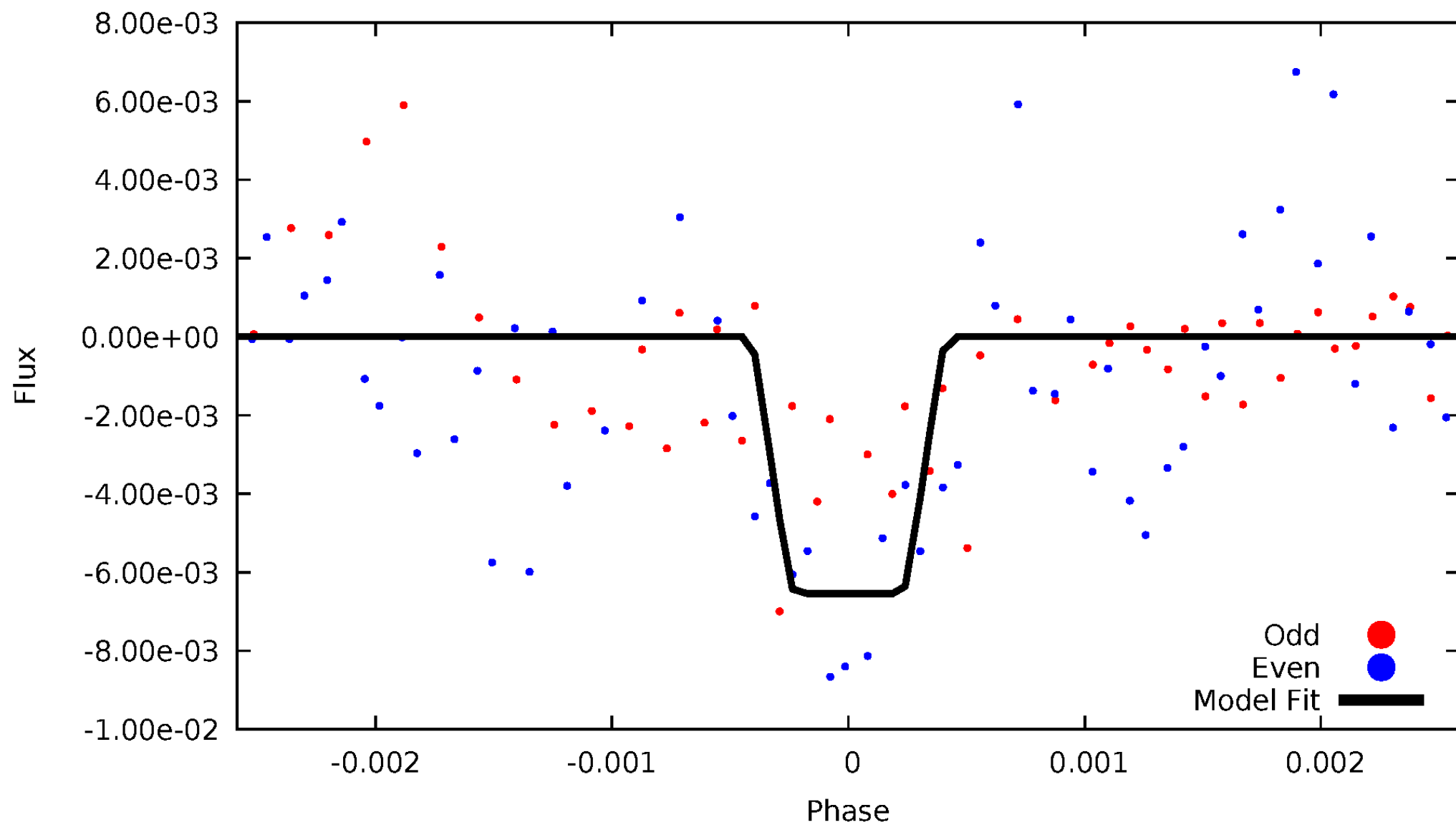
DV Odd/Even

TCE 006443122-05

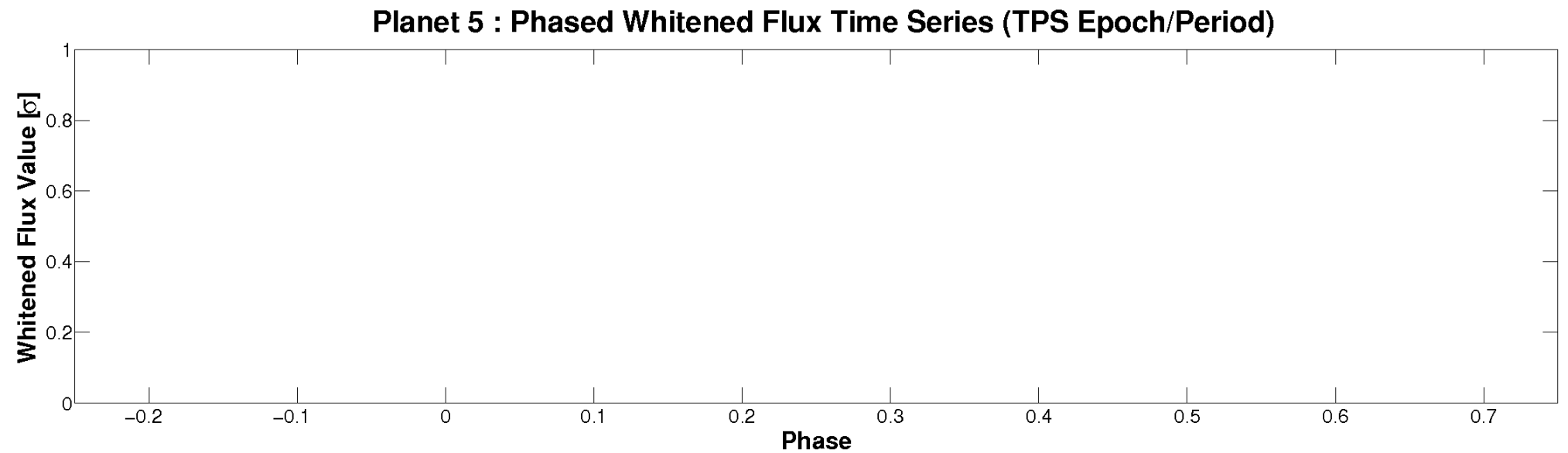
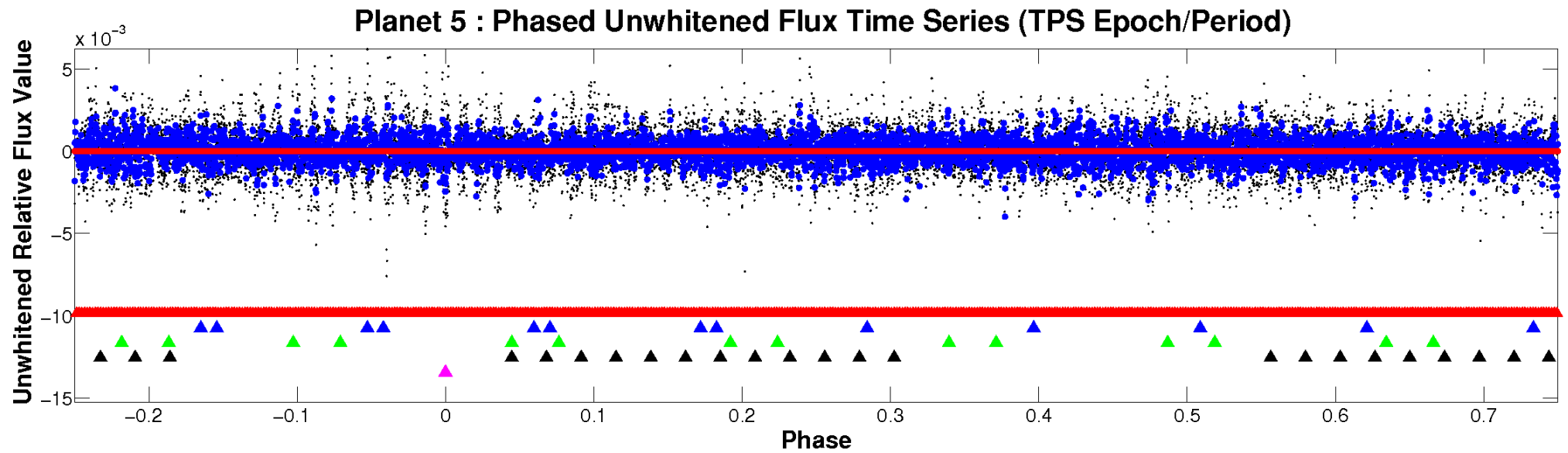


ALT Odd/Even

TCE 006443122-05

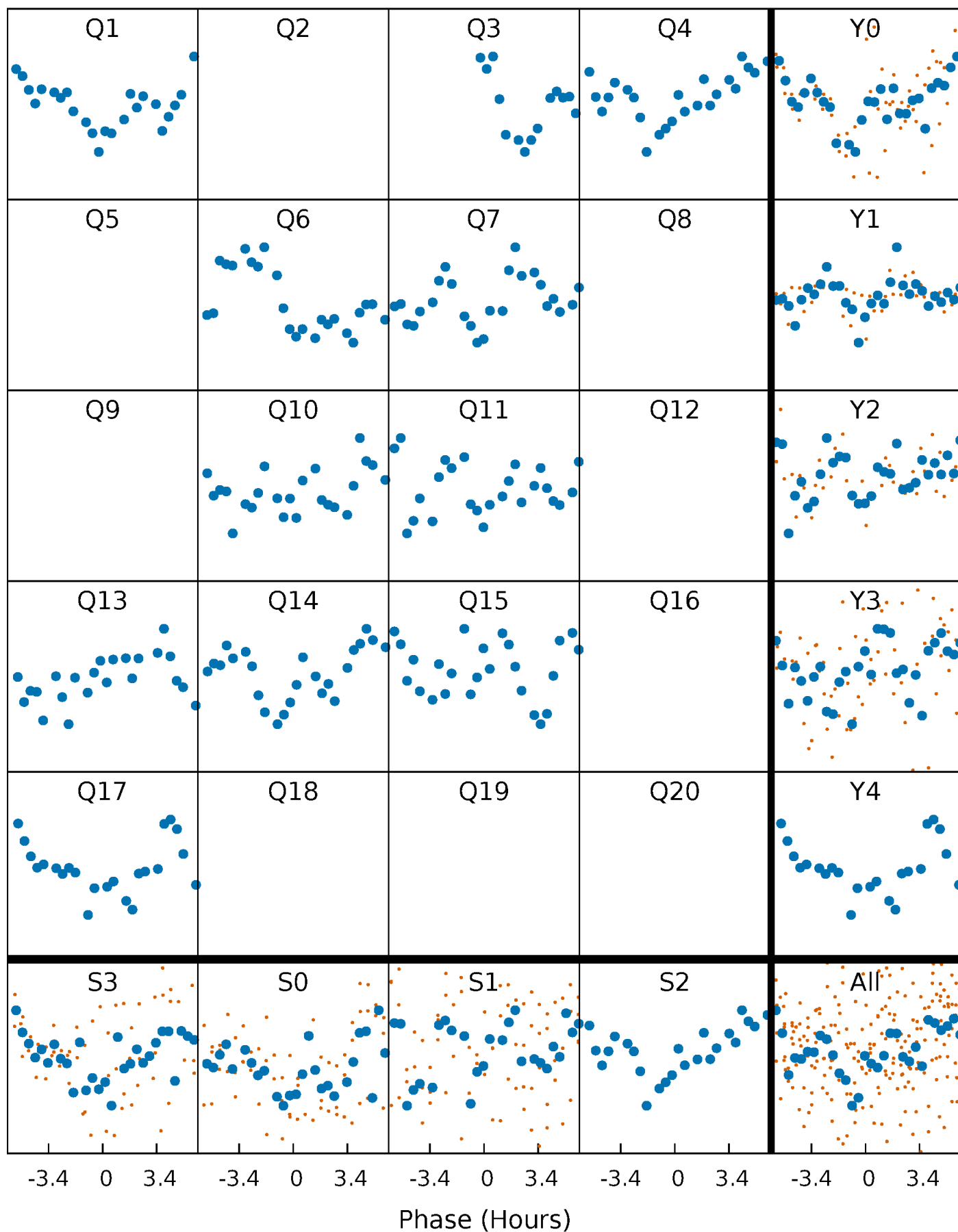


Non-Whitened Vs. Whitened Light Curve



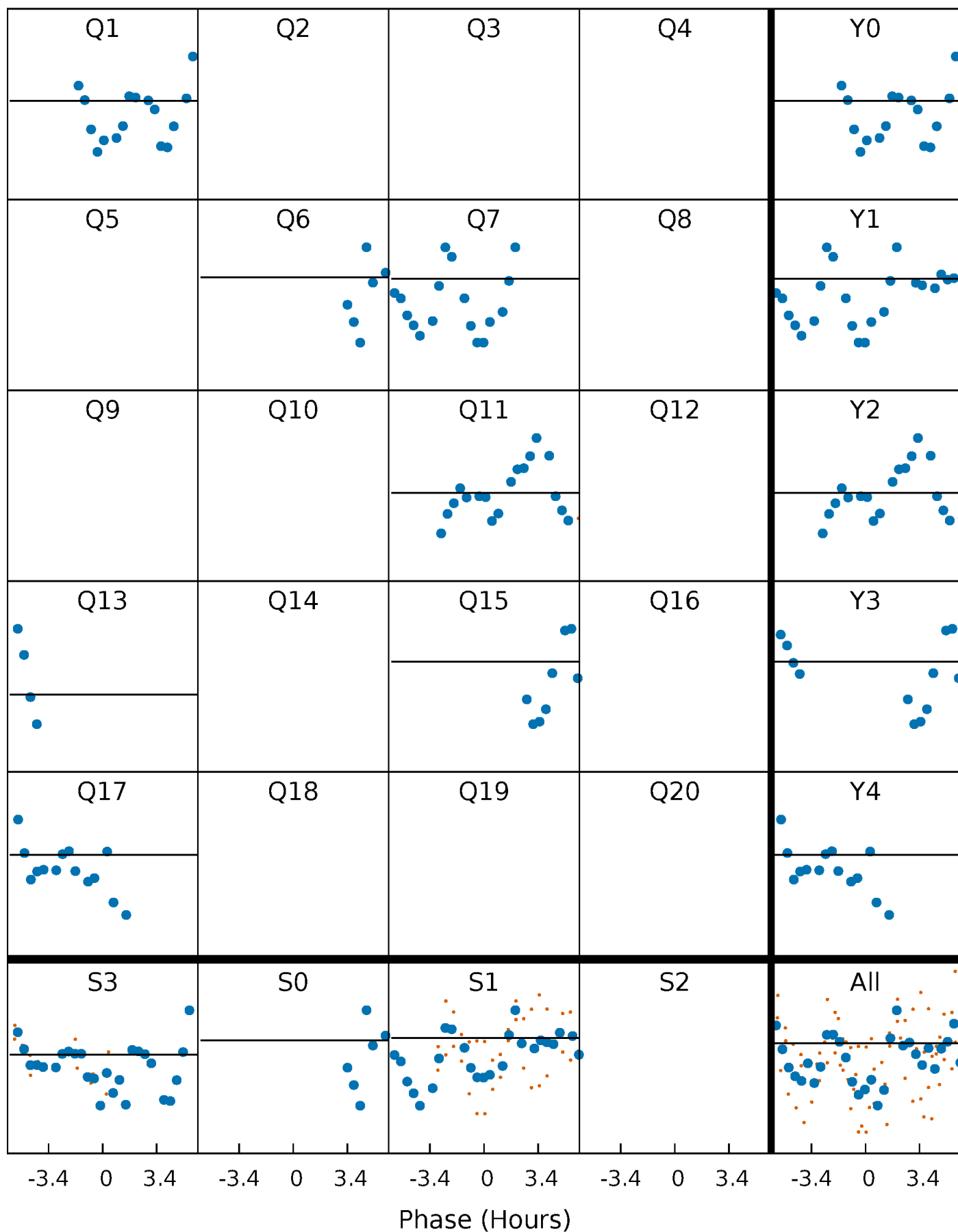
PDC Quarter-Phased Transit Curves

TCE 006443122-05 $P=128.493143$ Days $T_0=162.950784$ (BKJD)



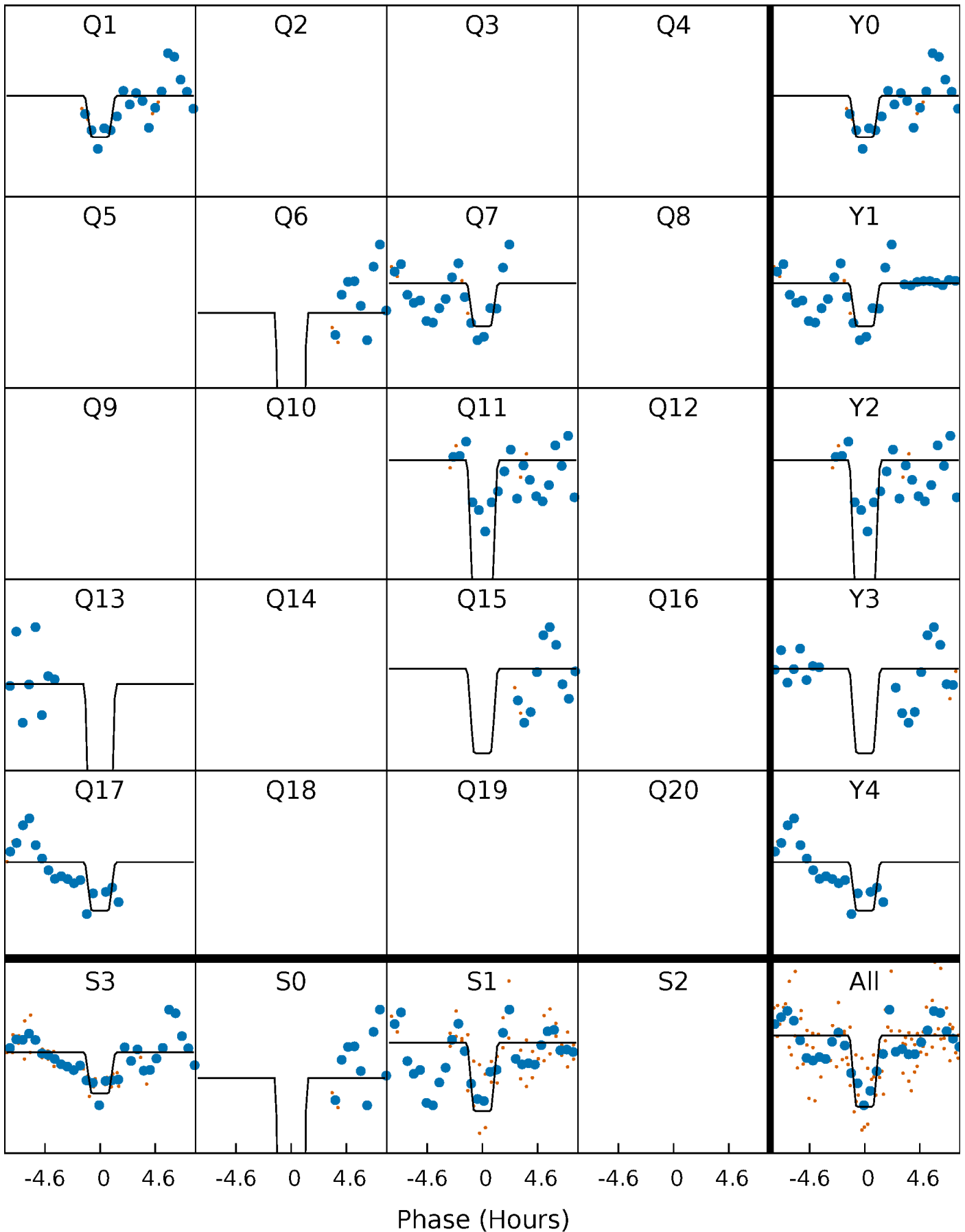
DV Quarter-Phased Transit Curves

TCE 006443122-05 $P=128.493143$ Days $T_0=162.950784$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

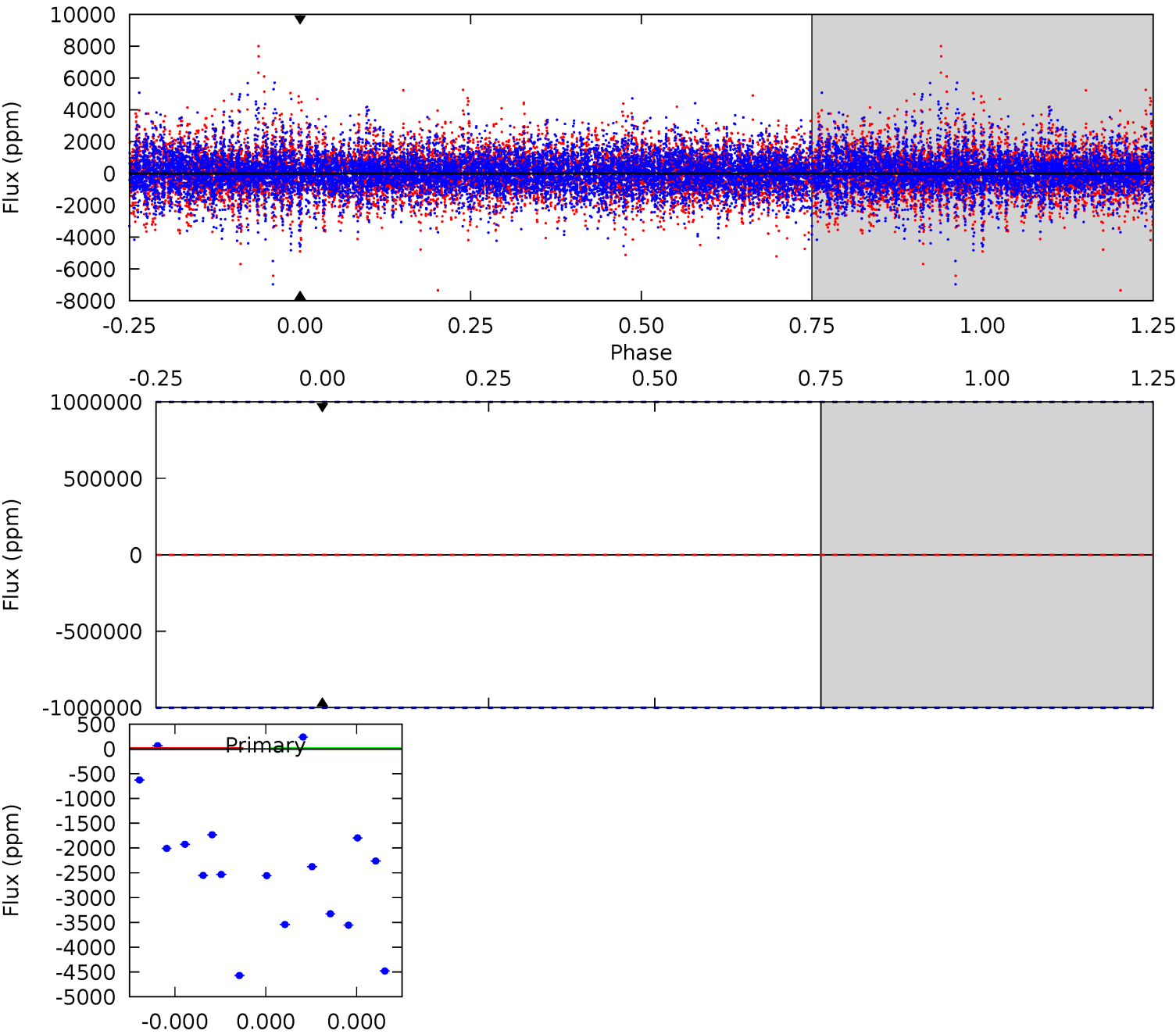
TCE 006443122-05 $P=128.493143$ Days $T_0=162.942280$ (BKJD)



DV Model-Shift Uniqueness Test

006443122-05, P = 128.493143 Days, E = 34.457641 Days

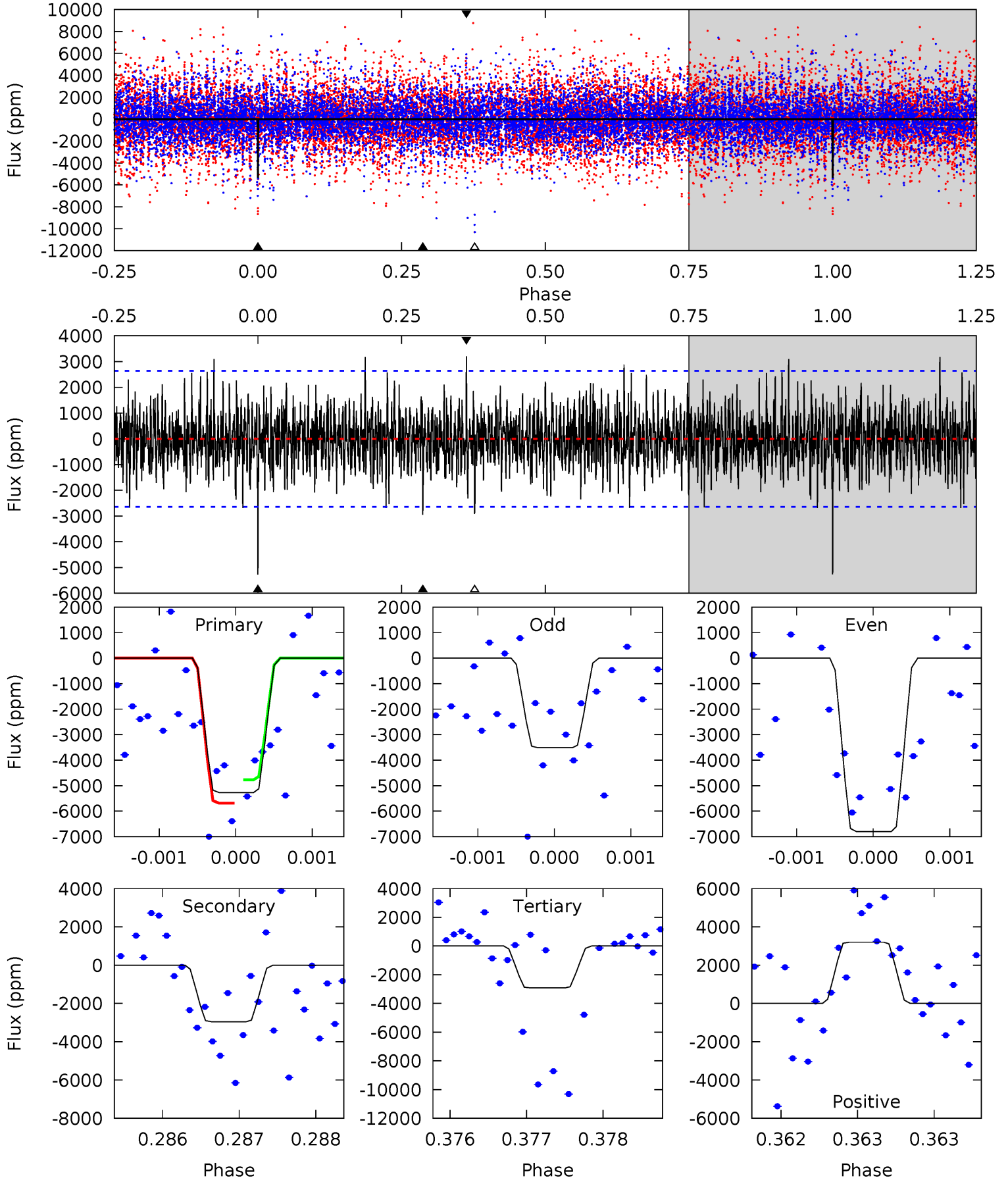
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

006443122-05, P = 128.493143 Days, E = 34.449137 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.0	6.14	6.07	6.66	5.49	3.35	1.73	4.90	4.30	0.08	-0.51	3.51	0.87	0.38	0.96



Stellar Parameters For KIC 006443122

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (g \cdot \text{cm}^{-3})$
	7236^{+72}_{-79}	$4.009^{+0.126}_{-0.103}$	$0.100^{+0.150}_{-0.150}$	$2.137^{+0.354}_{-0.354}$	$1.701^{+0.108}_{-0.162}$	$0.245^{+0.152}_{-0.080}$
	+1%/-1%	+3%/-3%	+150%/-150%	+17%/-17%	+6%/-10%	+62%/-33%
Source	SPE68	SPE68	SPE68	DSEP		

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

Secondary Eclipse Parameters for KIC 006443122-05 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	0 ± 1000000	$16.74^{+18.80}_{-11.35}$	845^{+32}_{-37}	-5453^{+41913}_{-31475}	$-1217.137^{+122973.005}_{-118638.593}$
Alt.	-2953 ± 481	$24.85^{+21.14}_{-15.76}$	844^{+33}_{-35}	5133^{+3823}_{-1103}	926^{+6190}_{-655}

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 $A_{obs} \gg 1.0$

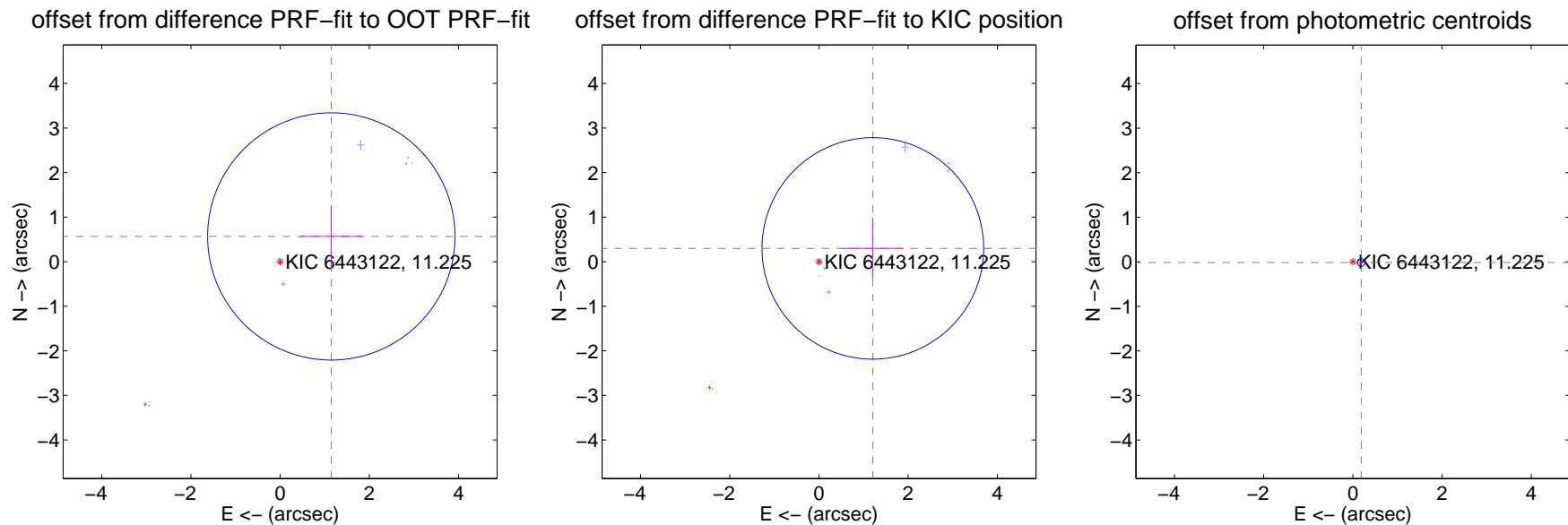
DV Centroid Data

Supplemental centroid analysis for 006443122-05. **Kepler magnitude: 11.22**. Transit SNR -1.00

There are 8 quarters with good PRF difference image offsets

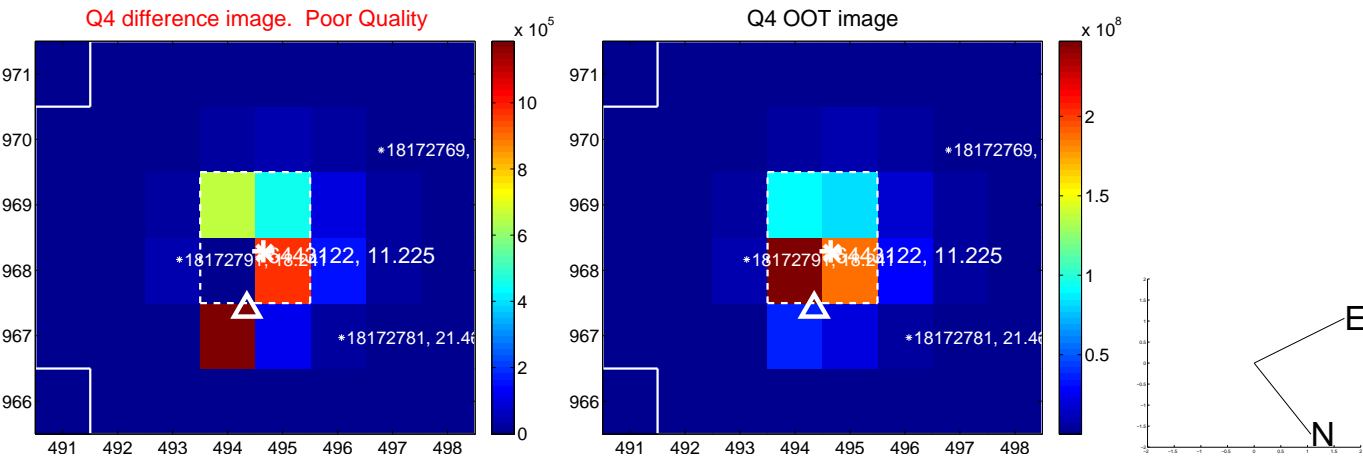
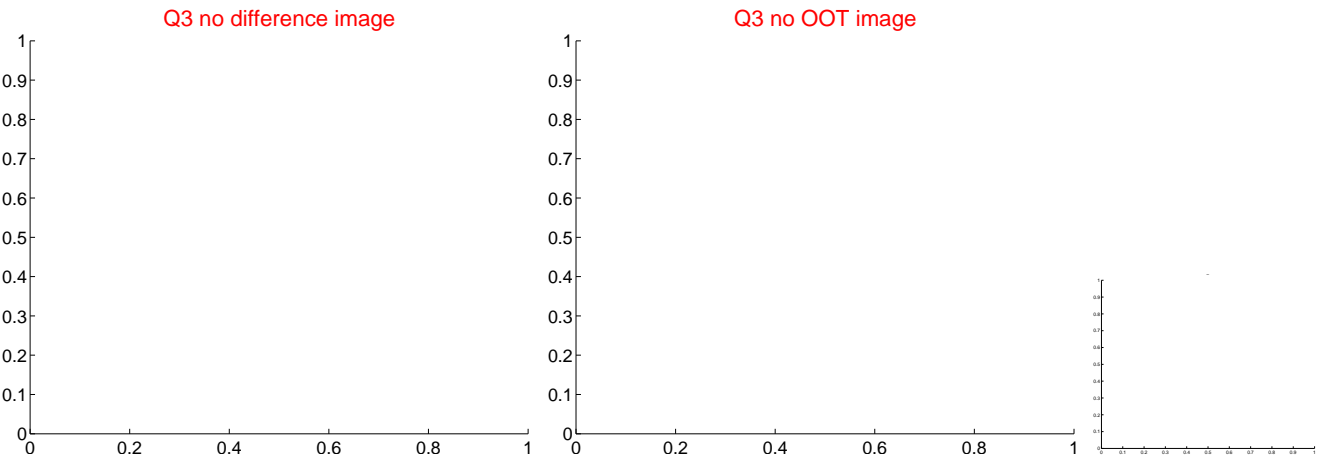
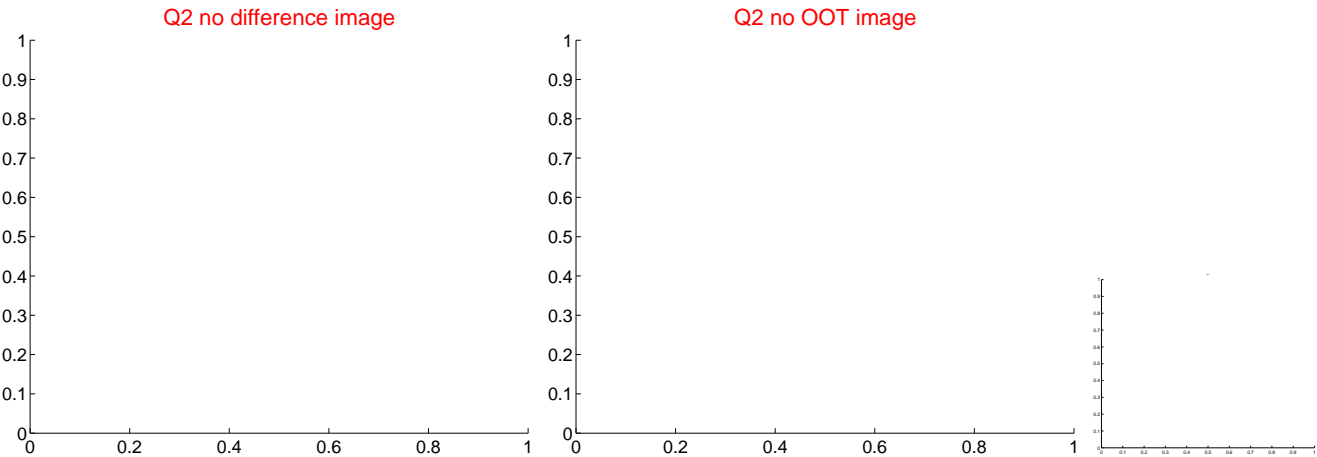
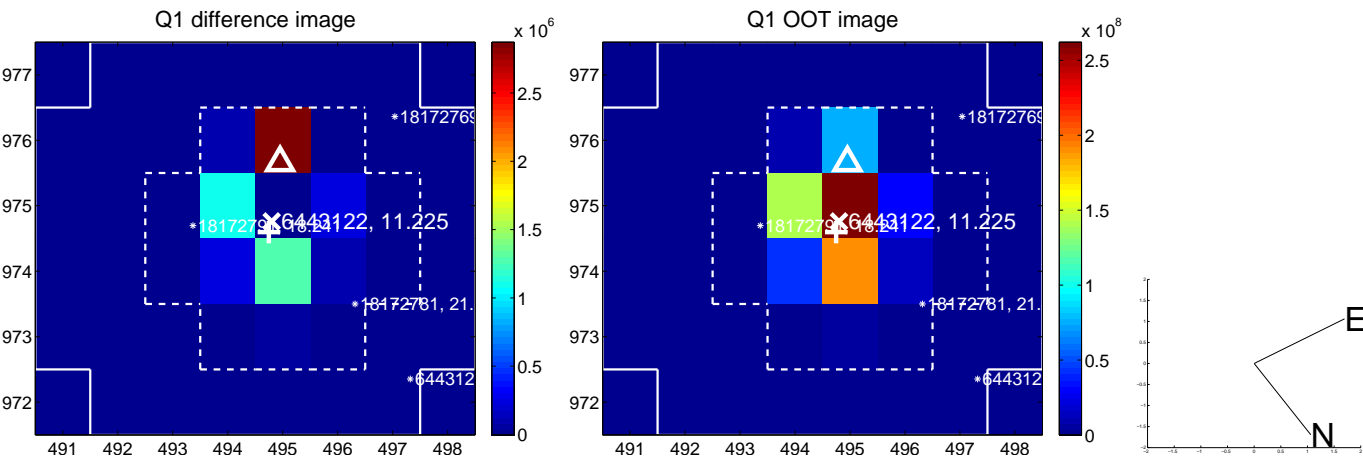
The direct PRF centroid is offset from the target star catalog position by about 0.66 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.281 ± 0.925	1.38	-1.148 ± 0.704	0.567 ± 0.675
PRF-fit source offset from KIC position	1.244 ± 0.828	1.50	-1.207 ± 0.688	0.298 ± 0.686
photometric centroid source offset	0.19 ± 0.03	6.53	-0.19 ± 0.03	-0.02 ± 0.03

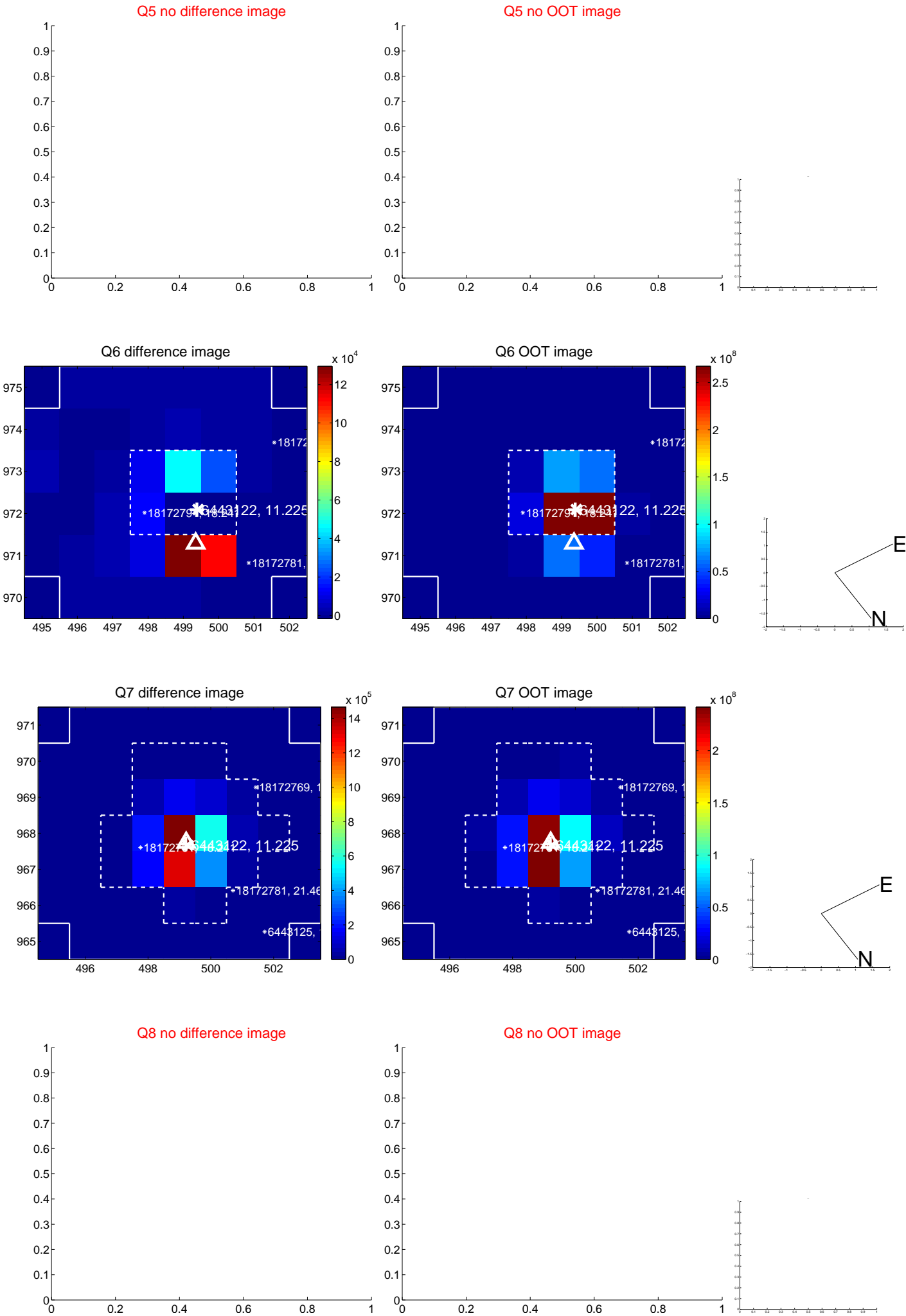


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

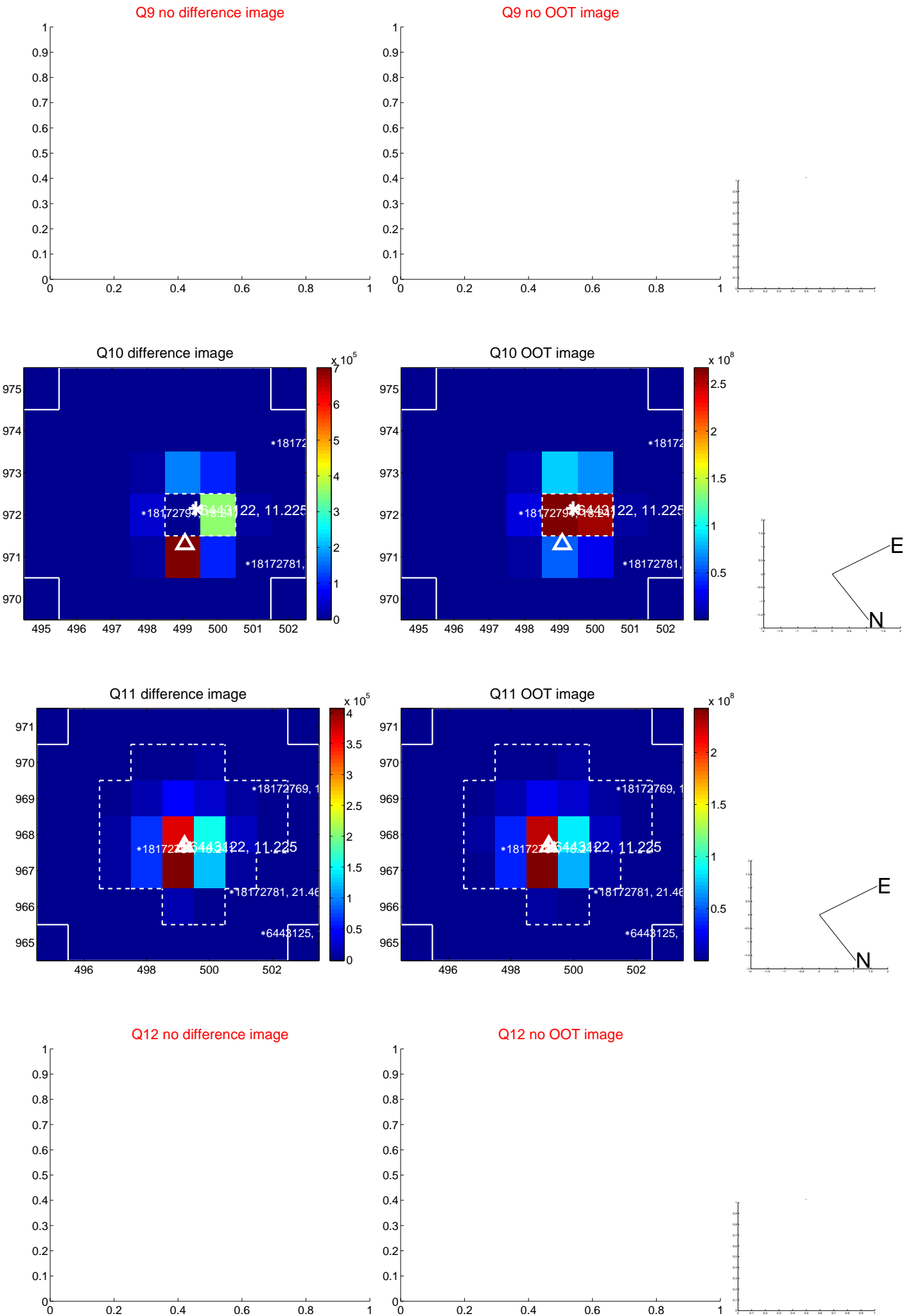
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



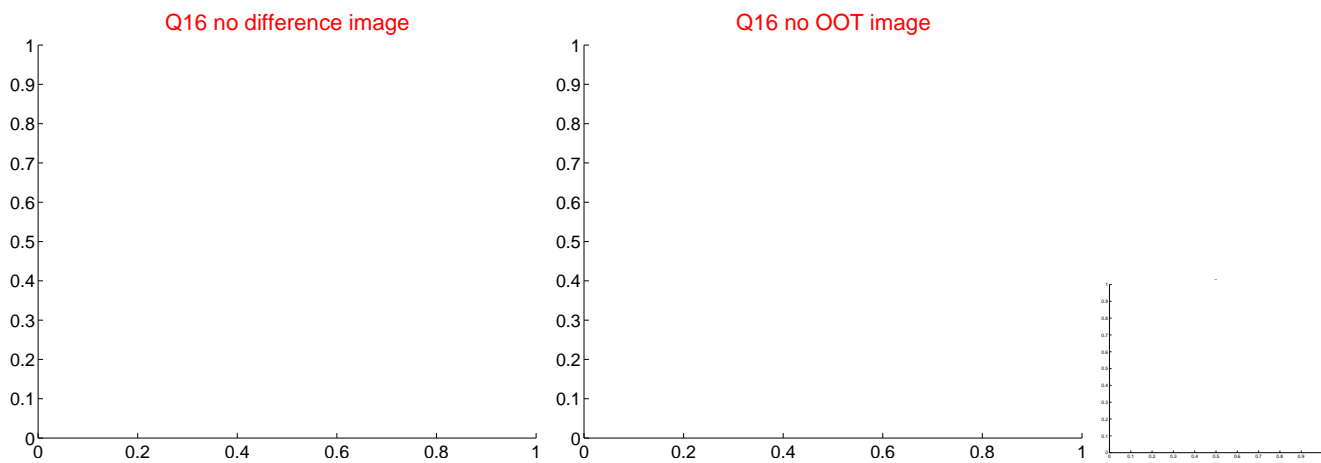
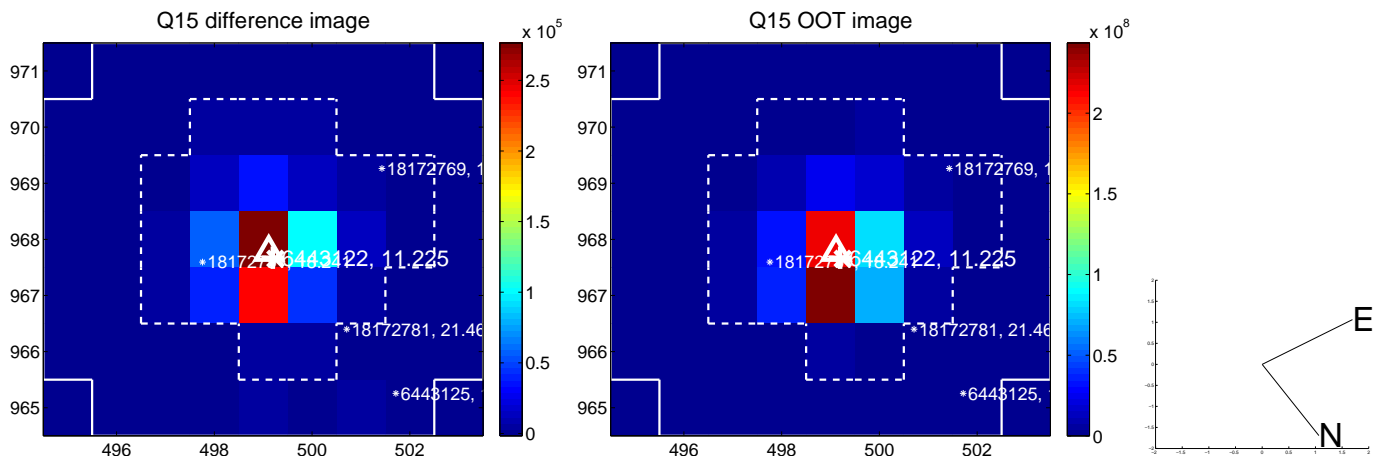
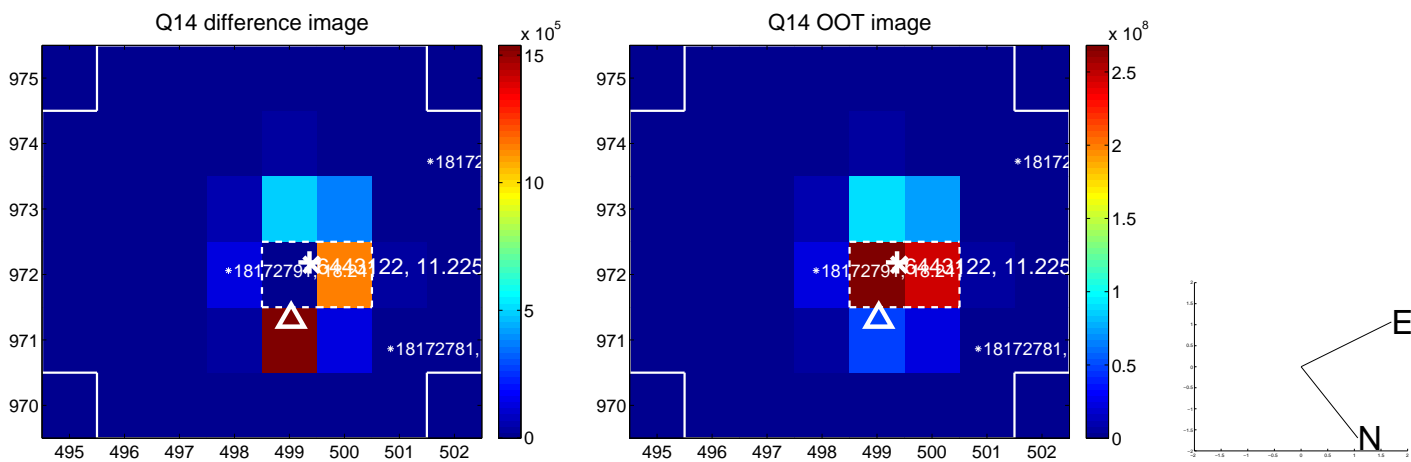
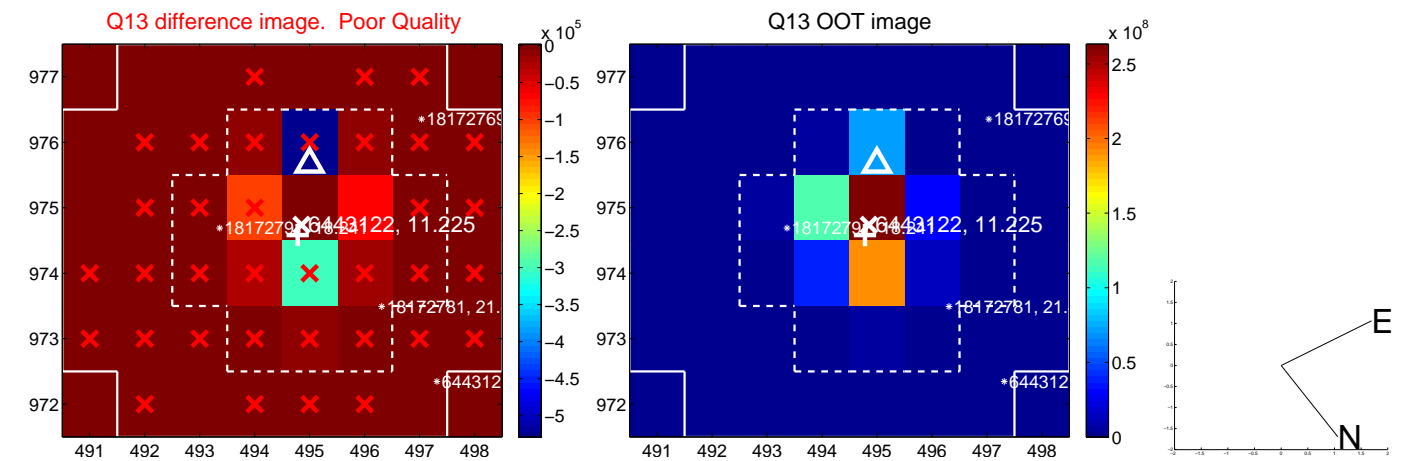
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



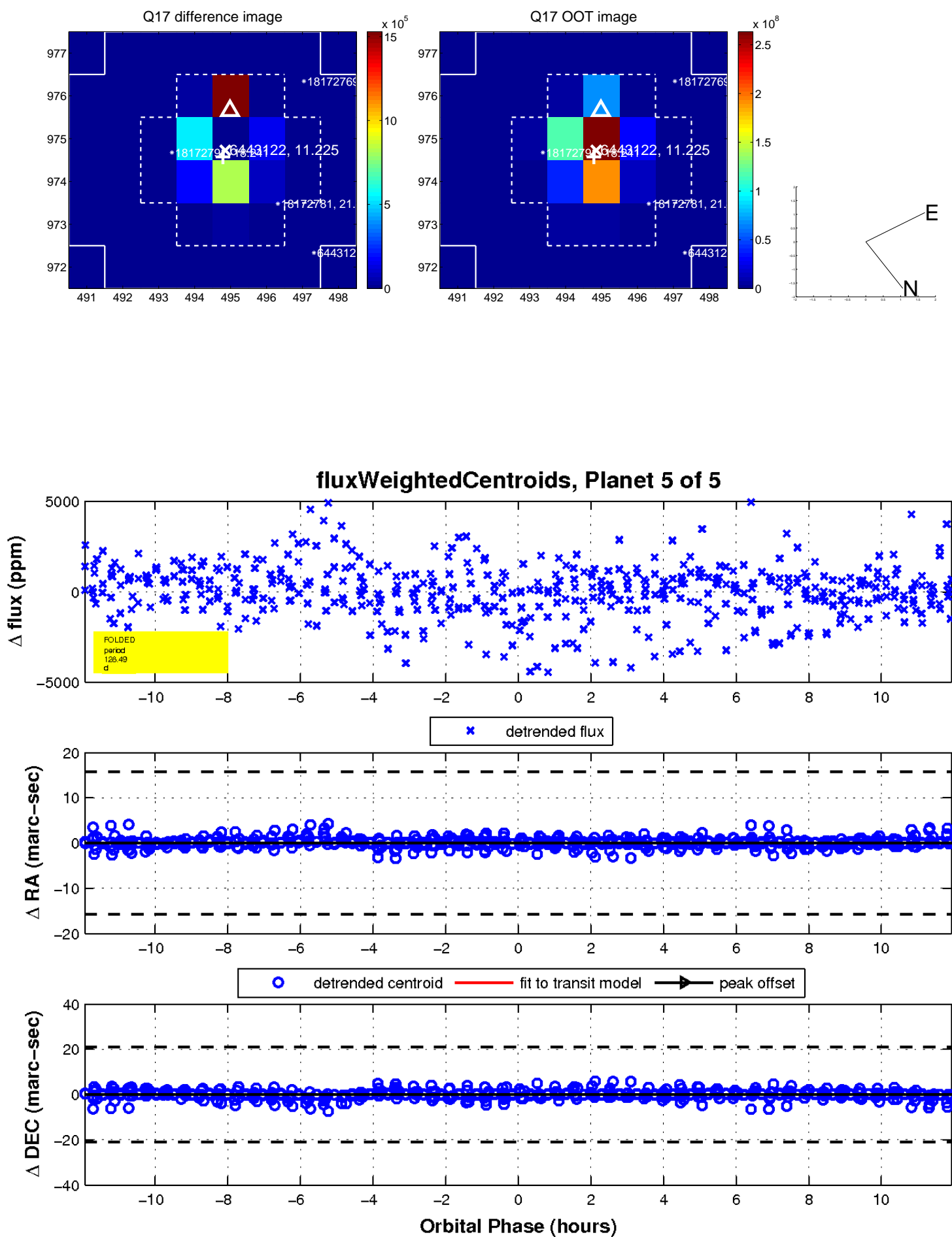
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

