

KIC 004939265

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})
004939265-01	OBS	No	253.669424	383.404450	229.8	1.938	17.6	1.6	0.71	4337	1.27	0.33
004939265-02	OBS	No	343.801299	425.607797	1153.2	3.719	16.1	6.6	0.71	4337	2.30	0.22
004939265-03	OBS	6475.01	4.845063	134.951160	298.6	2.001	13.4	15.0	0.71	4337	1.62	64.72
004939265-04	OBS	No	602.745555	195.004506	3461.7	19.567	12.2	9.4	0.71	4337	4.33	0.10
004939265-05	OBS	No	247.359838	297.375313	1198.2	4.240	14.2	6.9	0.71	4337	2.65	0.34

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004939265-01	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES_MARSHALL_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_TER_ALT—MOD_POS_ALT— INCONSISTENT_TRANS—CENT_FEW_DIFFS—HALO_GHOST
004939265-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES
004939265-03	OBS	PC	1.00	0	0	0	0	NO_COMMENT
004939265-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS
004939265-05	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—INCONSISTENT_TRANS— CENT_FEW_DIFFS

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

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

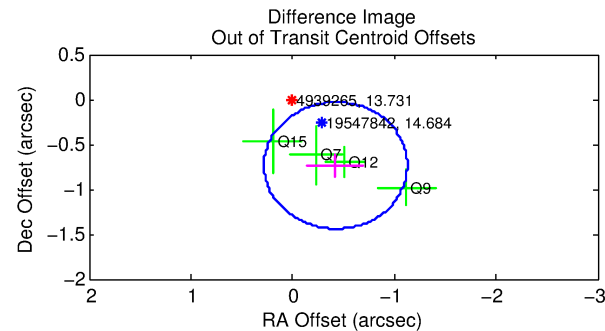
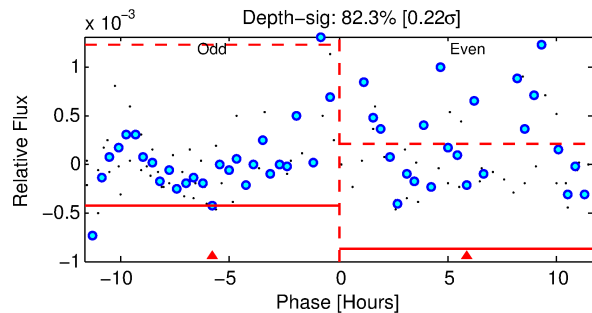
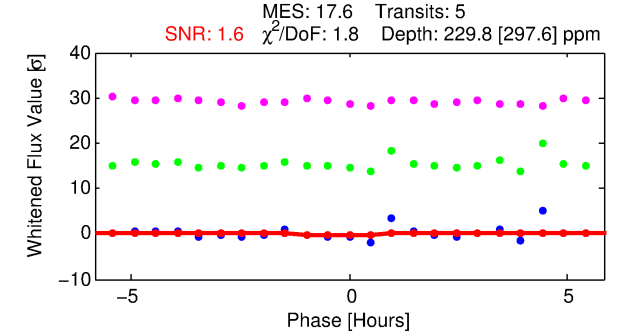
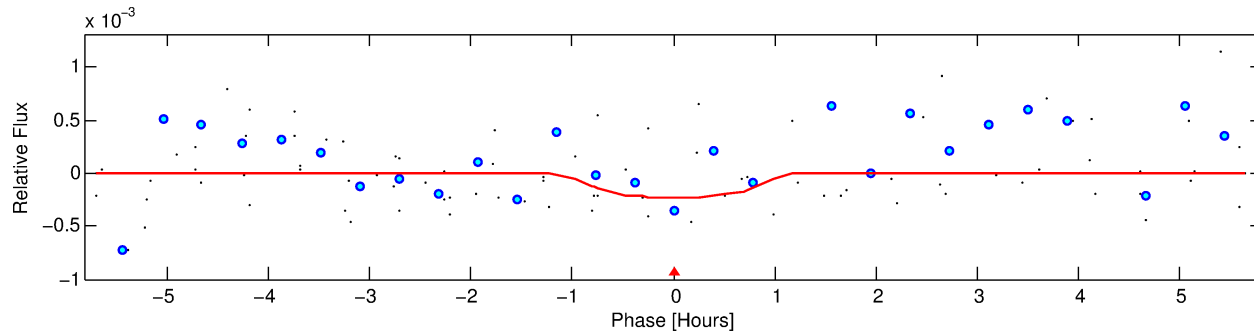
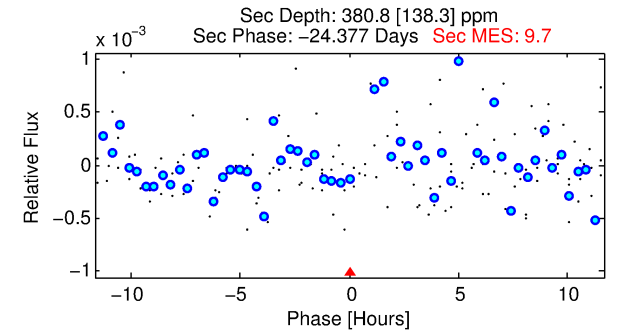
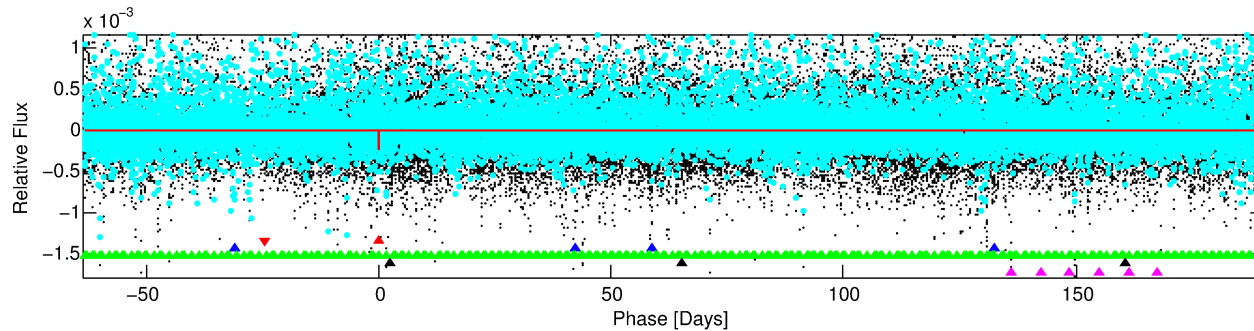
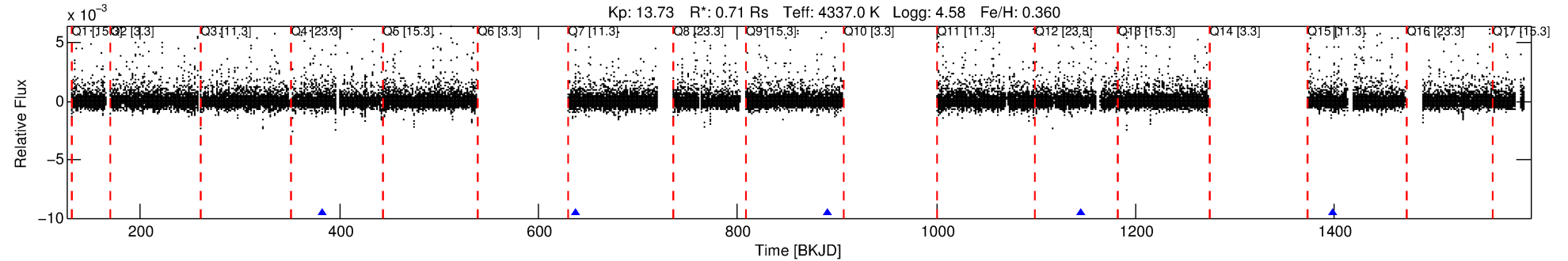
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 004939265-01

No Significant Match Found

DV One-Page Summary

KIC: 4939265 Candidate: 1 of 5 Period: 253.669 d
KOI: K06475 Corr: No Ephemeris Match



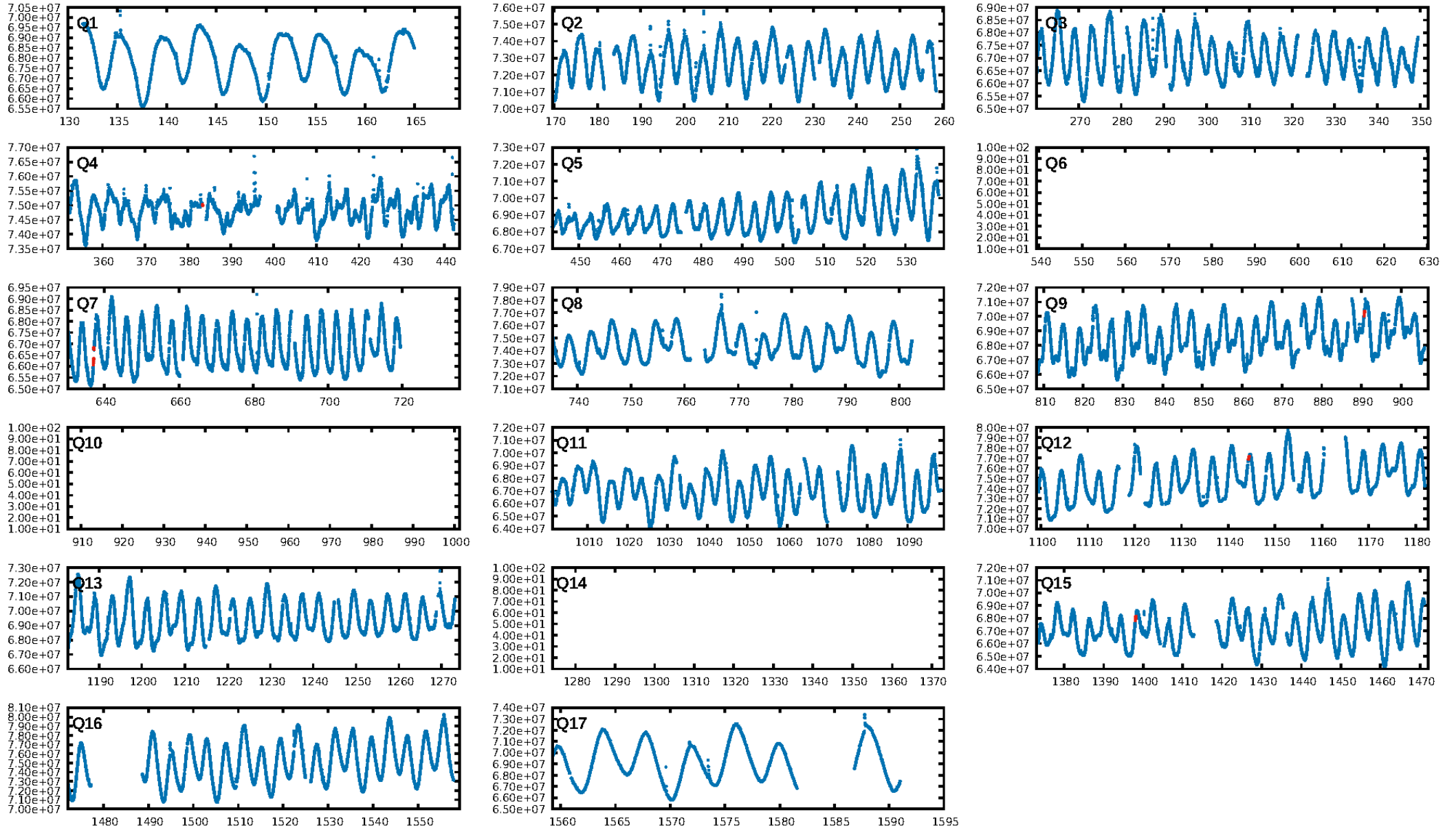
DV Fit Results:

Period = 253.66942 [0.01582] d
Epoch = 383.4044 [0.0469] BKJD
Rp/R* = 0.0163 [0.2672]
a/R* = 571.12 [29725.50]
b = 0.84 [19.11]
Seff = 0.33 [0.04]
Teq = 193 [5] K
Rp = 1.27 [20.82] Re
a = 0.6993 [0.0361] AU
Ag = 63847.77 [2098912.65] [0.03σ]
Teffp = 4751 [39049] K [0.12σ]

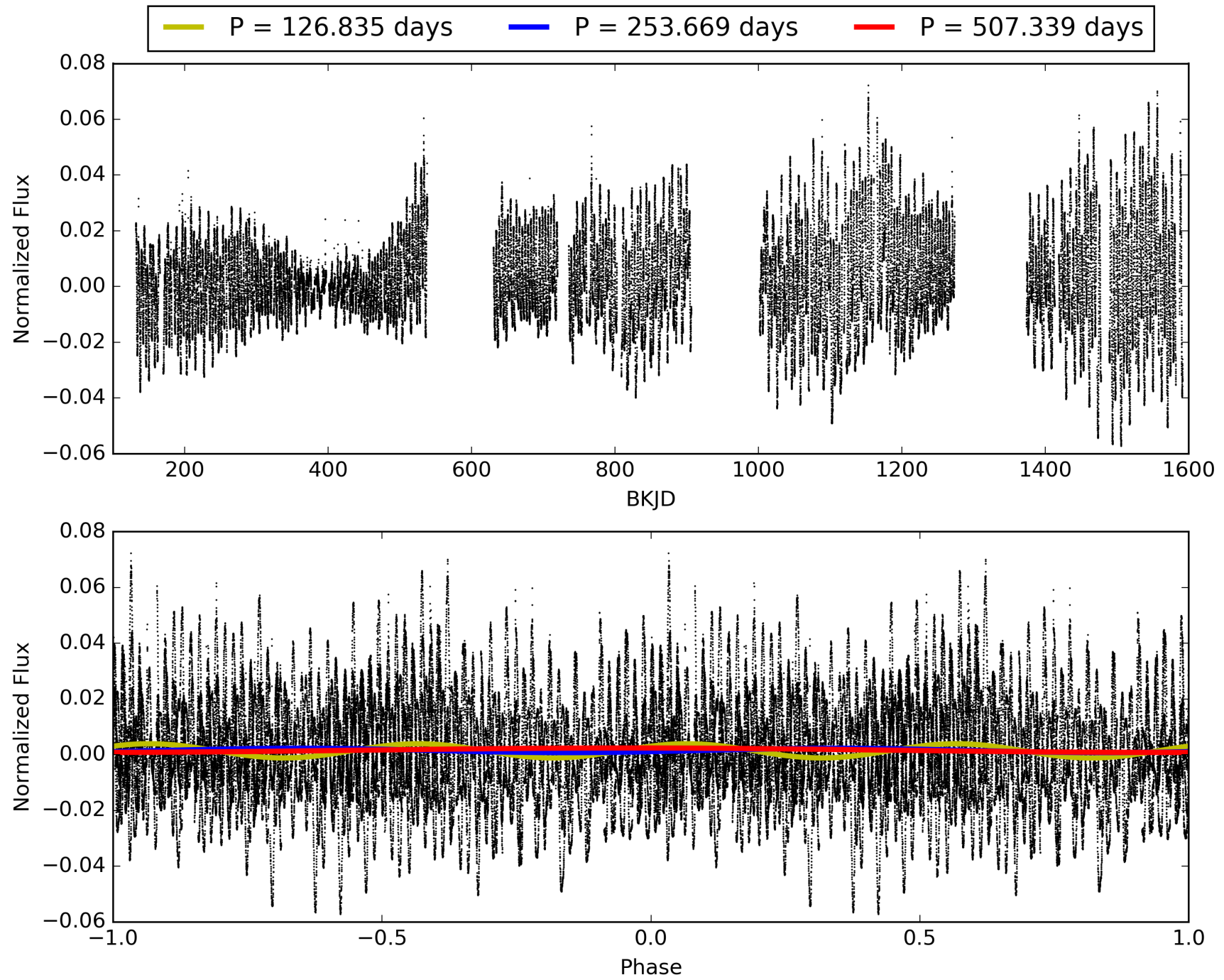
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [32.48σ]
LongPeriod-sig: 100.0% [515.87σ]
ModelChiSquare2-sig: 3.4%
ModelChiSquareGof-sig: 54.1%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [5/5]
GhostDiagnostic-chr: -0.2123
Centroid-sig: 58.3%
Centroid-so: 3.142 arcsec [0.76σ]
OotOffset-rm: 0.850 arcsec [3.62σ]
KicOffset-rm: 0.783 arcsec [4.88σ]
OotOffset-st: 0/2/1/1 [4]
KicOffset-st: 0/2/1/1 [4]
DiffImageQuality-fgm: 0.50 [2/4]
DiffImageOverlap-fno: 0.75 [3/4]

TCE 004939265-01, PDC Light Curves

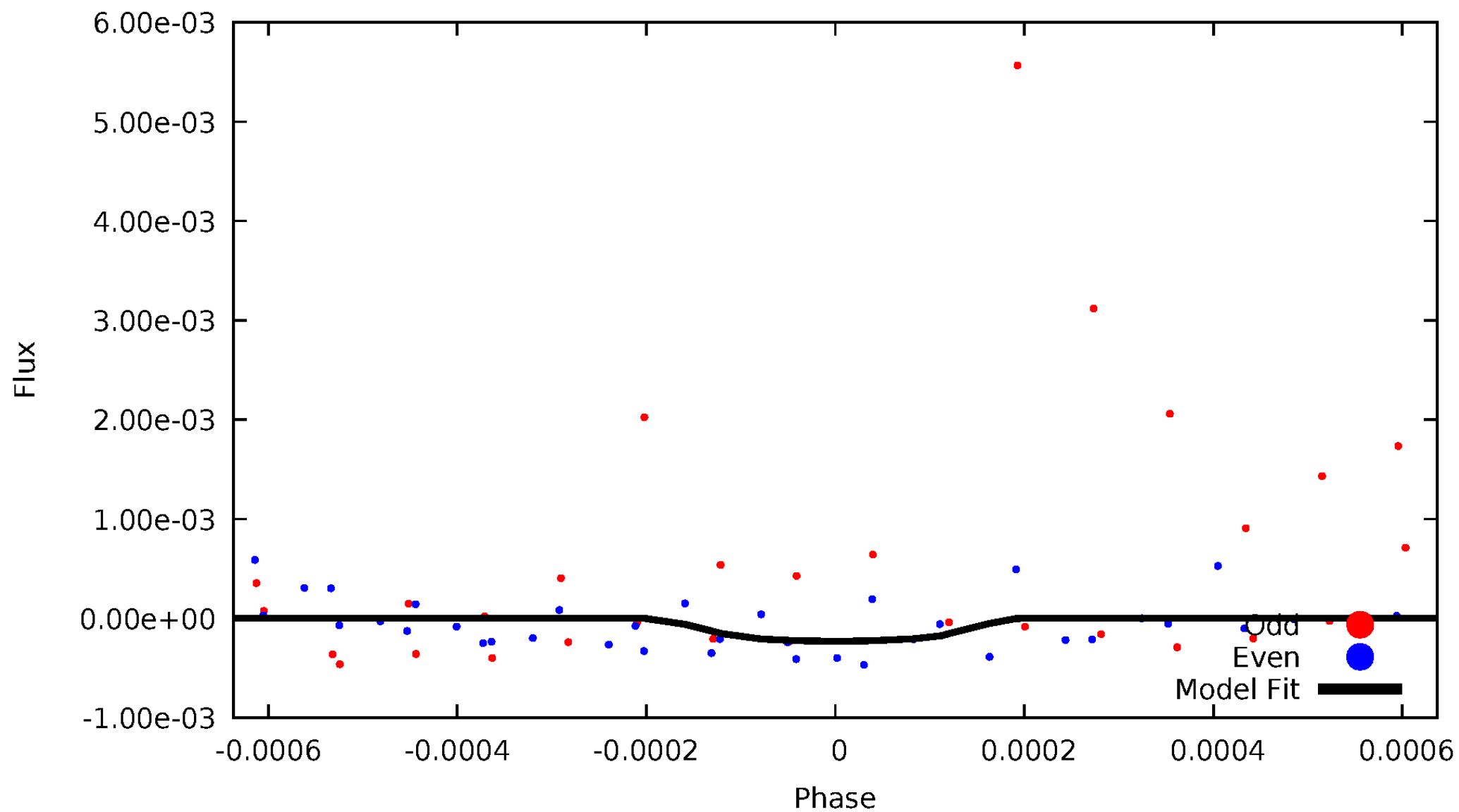


TCE 004939265-01



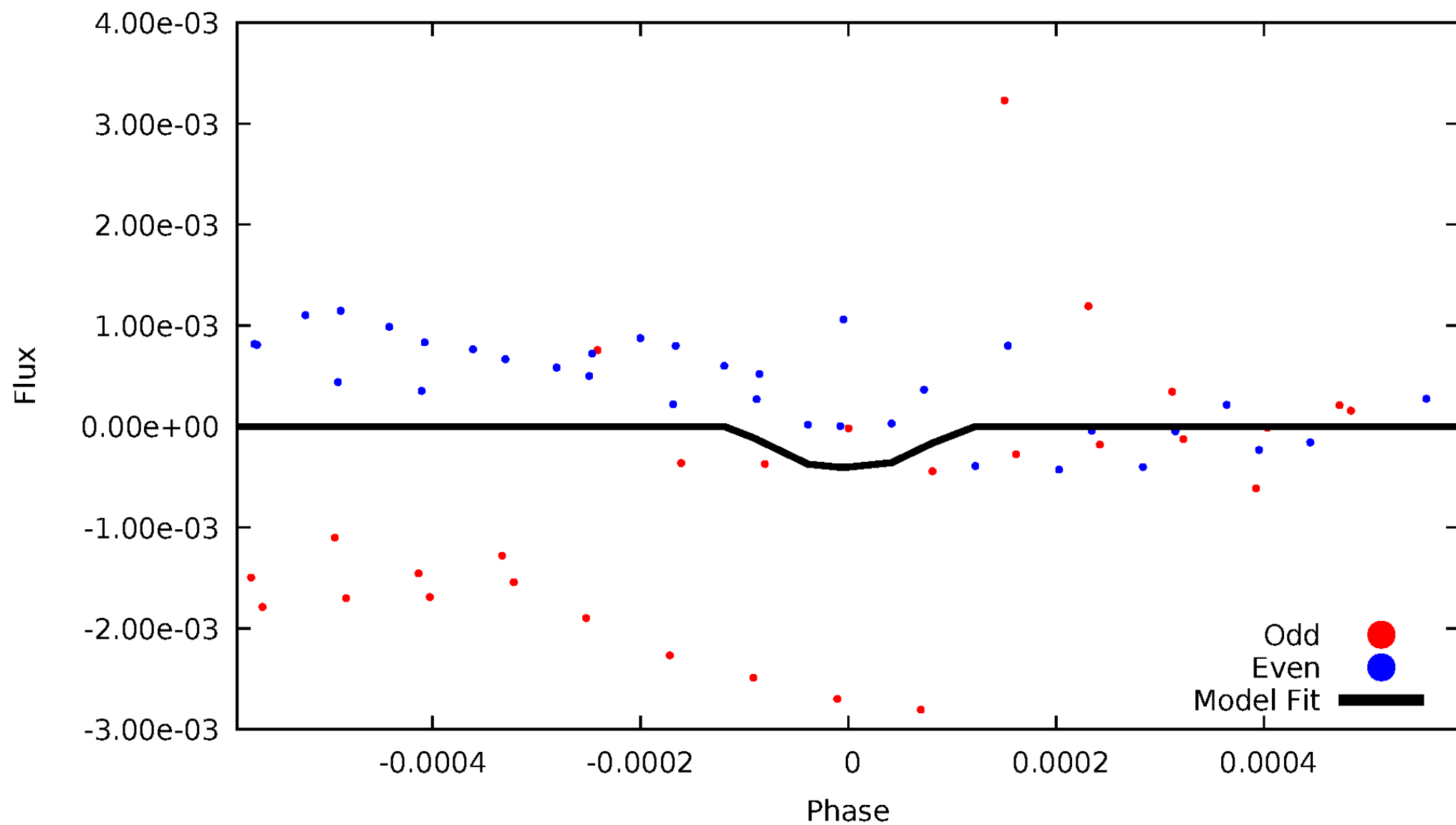
DV Odd/Even

TCE 004939265-01



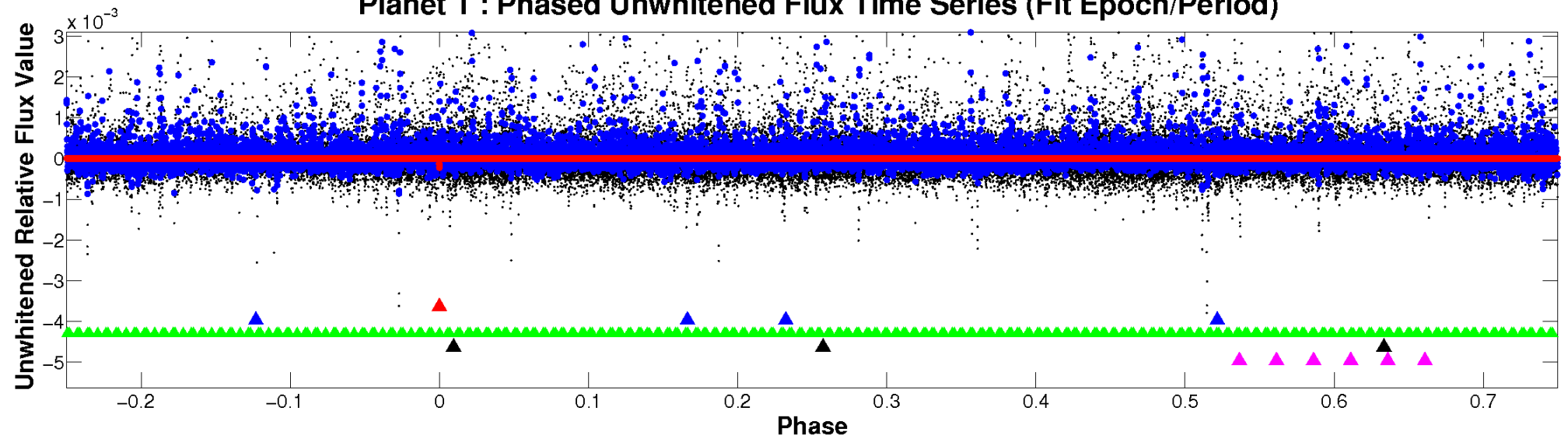
ALT Odd/Even

TCE 004939265-01

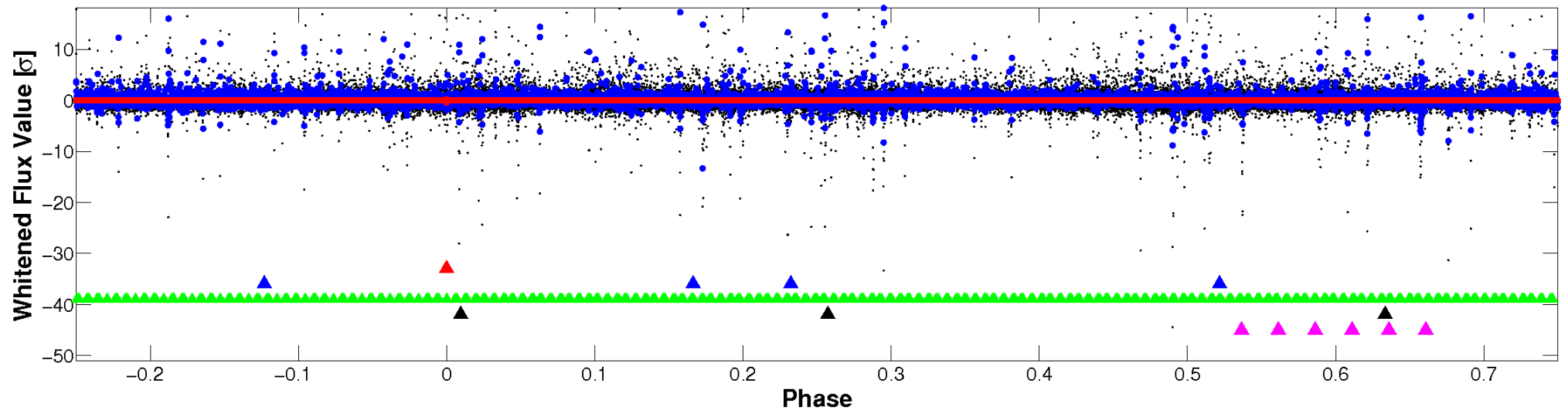


Non-Whitened Vs. Whitened Light Curve

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

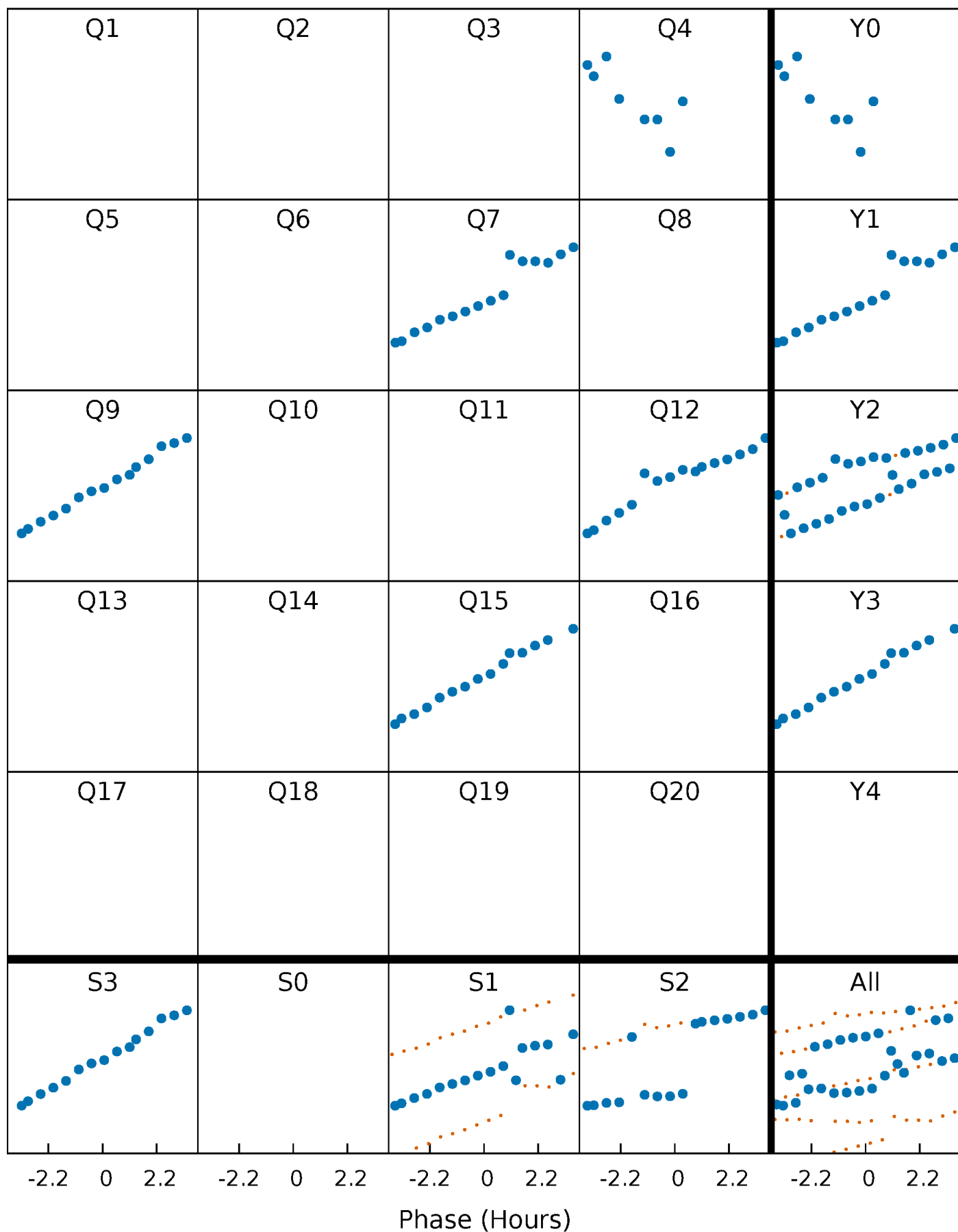


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



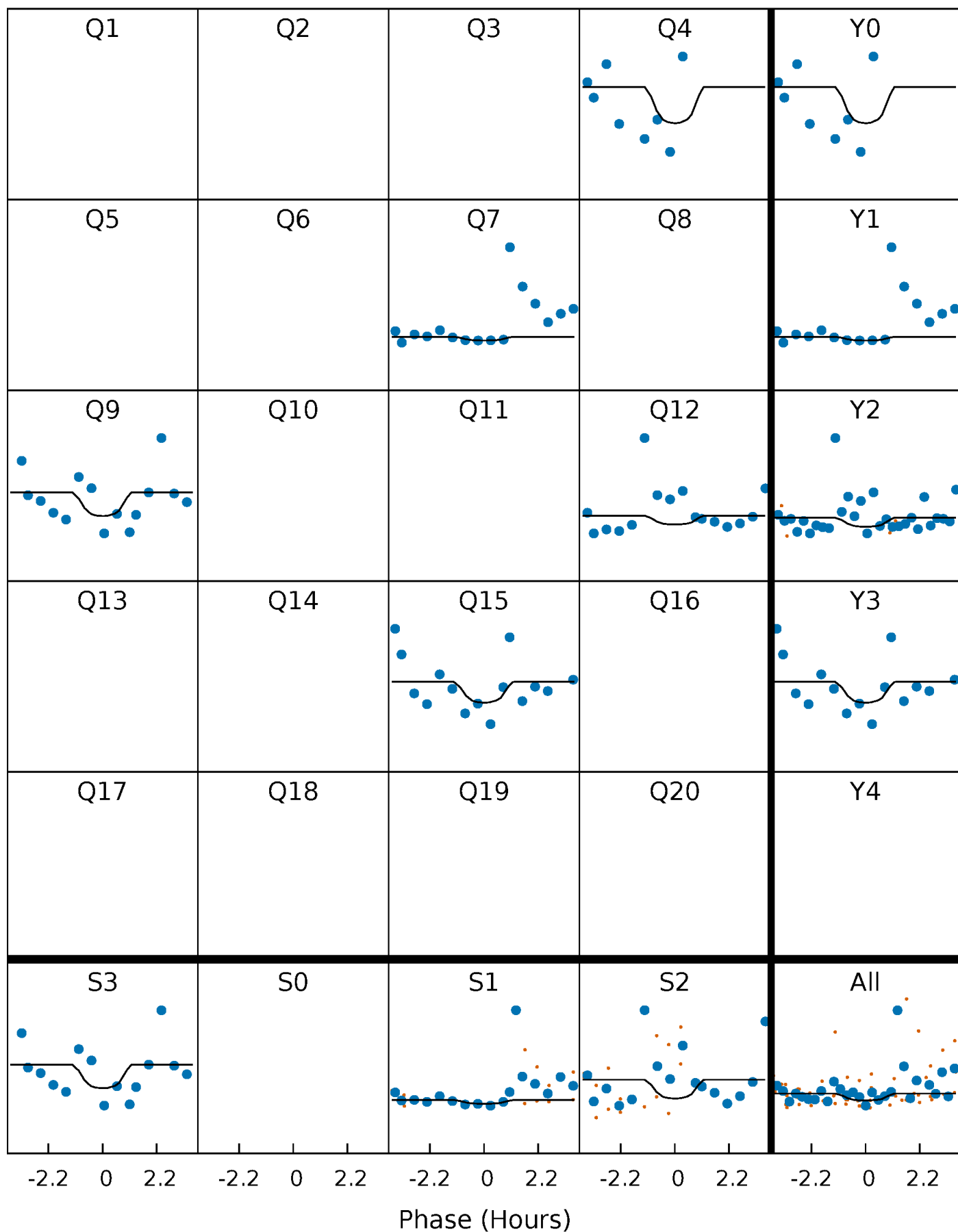
PDC Quarter-Phased Transit Curves

TCE 004939265-01 P=253.669424 Days $T_0=383.404450$ (BKJD)



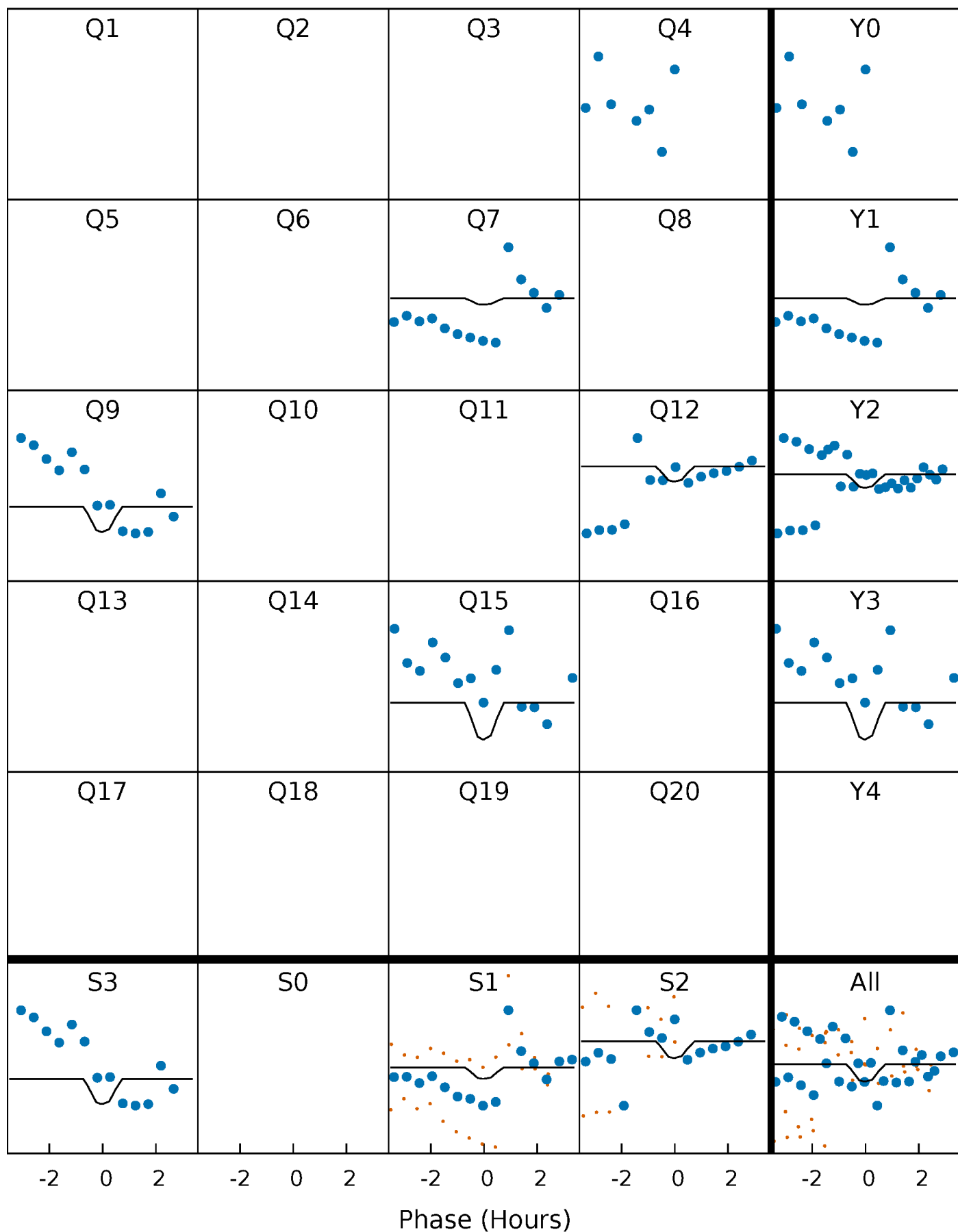
DV Quarter-Phased Transit Curves

TCE 004939265-01 P=253.669424 Days $T_0=383.404450$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

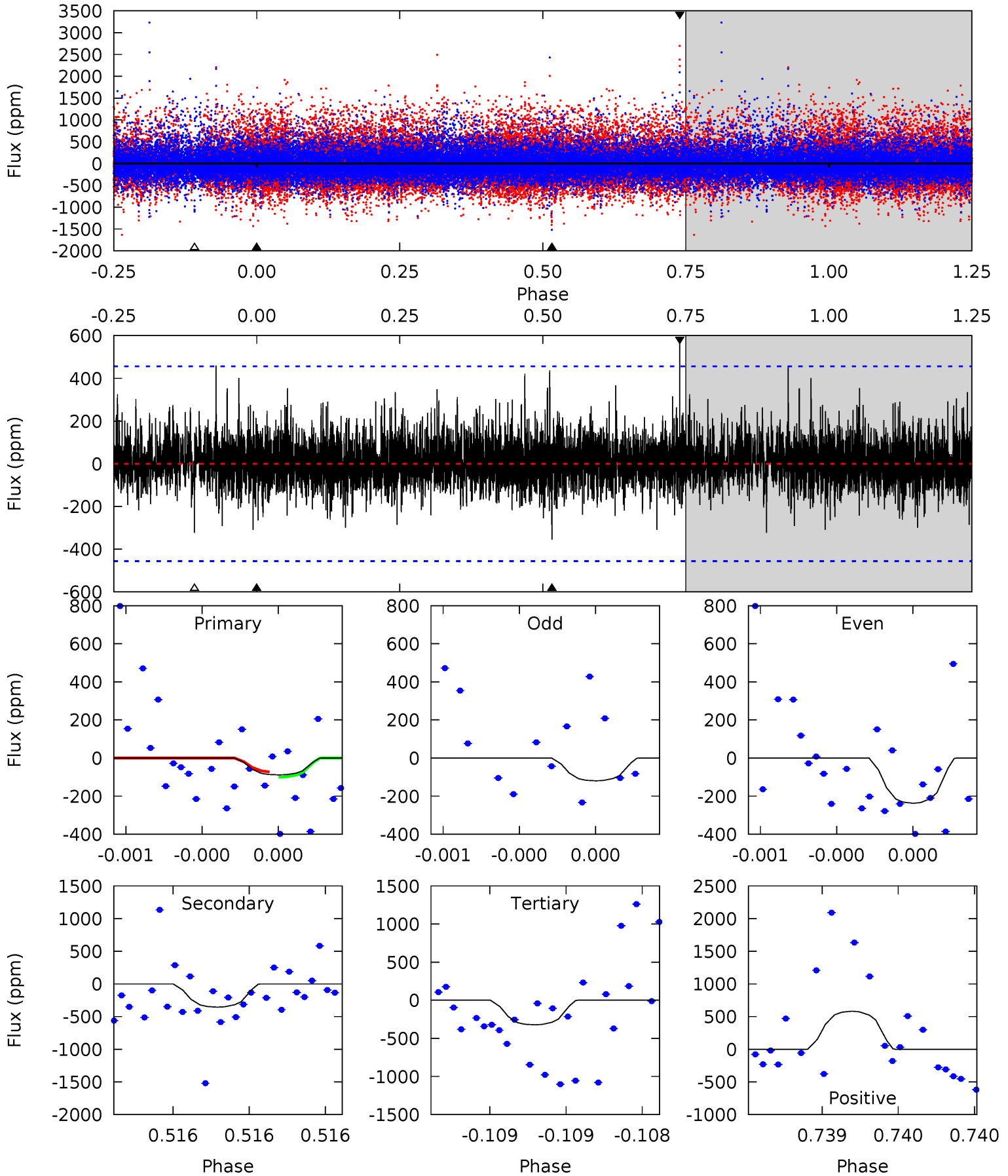
TCE 004939265-01 P=253.669025 Days $T_0=383.415632$ (BKJD)



DV Model-Shift Uniqueness Test

004939265-01, P = 253.669424 Days, E = 129.735026 Days

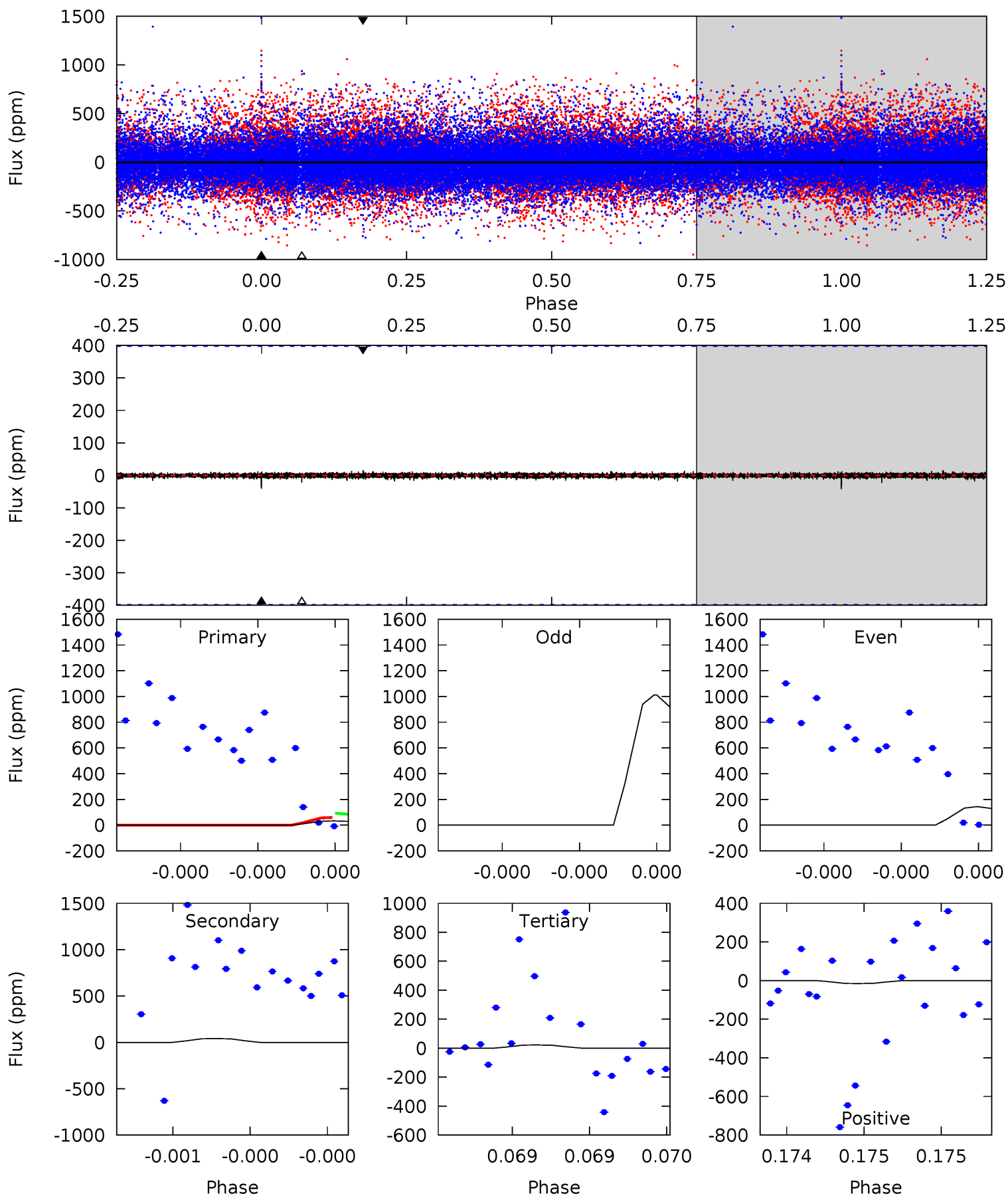
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.09	4.39	3.99	7.19	5.63	3.57	1.08	-2.89	-6.10	0.40	-2.80	0.60	0.41	0.62	0.17



Alt Model-Shift Uniqueness Test

004939265-01, P = 253.669025 Days, E = 129.746607 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0.47	0.60	0.32	0.22	5.72	3.70	0.05	0.15	0.24	0.28	0.37	5.00	-18.8	0.27	0



Stellar Parameters For KIC 004939265

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4337^{+77}_{-86}	$4.581^{+0.045}_{-0.009}$	$0.360^{+0.100}_{-0.150}$	$0.714^{+0.014}_{-0.041}$	$0.709^{+0.027}_{-0.021}$	$2.743^{+0.463}_{-0.112}$
	+2%/-2%	+1%/-0%	+28%/-42%	+2%/-6%	+4%/-3%	+17%/-4%
Source	SPE90	SPE90	SPE90	DSEP		

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

Secondary Eclipse Parameters for KIC 004939265-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-355 ± 81	$14.27^{+15.09}_{-9.37}$	268^{+5}_{-6}	2247^{+689}_{-326}	459^{+3712}_{-353}
Alt.	-42 ± 70	$13.96^{+14.79}_{-9.37}$	268^{+5}_{-6}	1740^{+531}_{-3412}	37^{+459}_{-61}

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

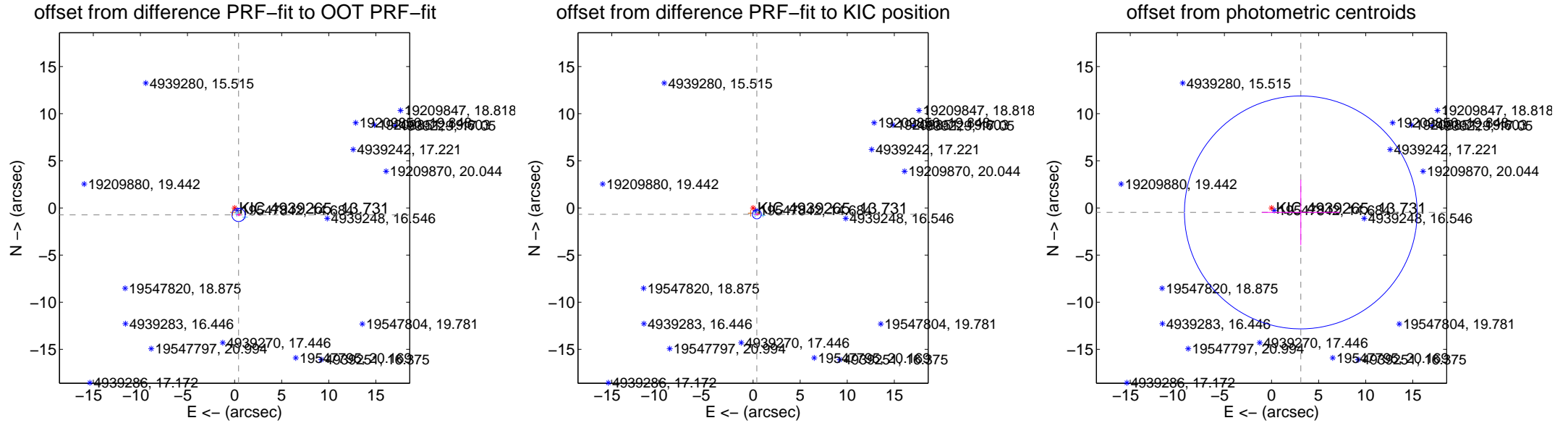
DV Centroid Data

Supplemental centroid analysis for 004939265-01. Kepler magnitude: 13.73. Transit SNR 1.62

There are 2 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.850 ± 0.235	3.62	-0.424 ± 0.277	-0.737 ± 0.125
PRF-fit source offset from KIC position	0.783 ± 0.160	4.88	-0.402 ± 0.278	-0.672 ± 0.085
photometric centroid source offset	3.14 ± 4.12	0.76	-3.11 ± 4.13	-0.47 ± 3.47



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



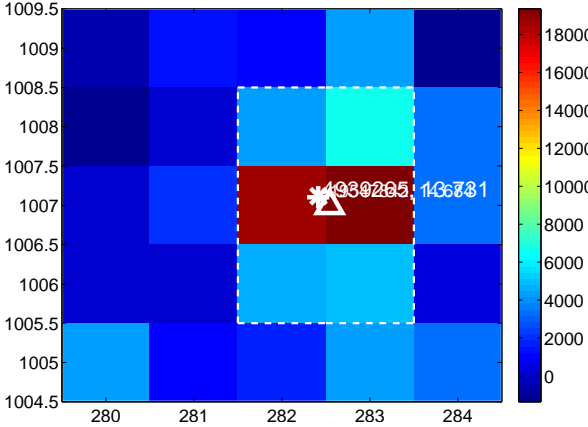
Q6 no difference image



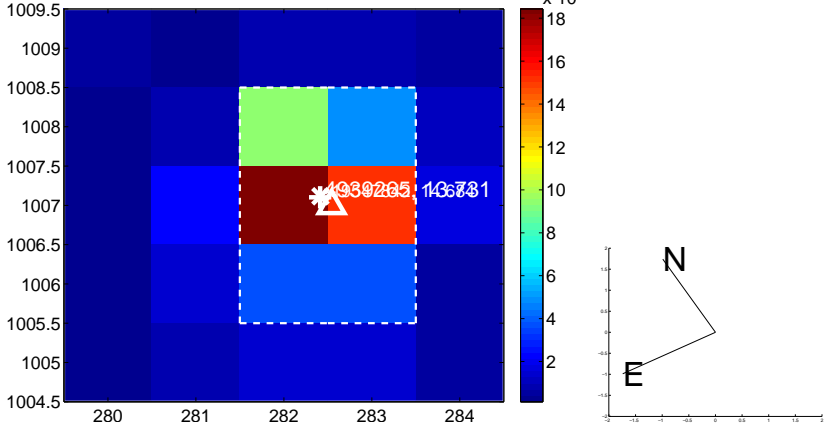
Q6 no OOT image



Q7 difference image



Q7 OOT image



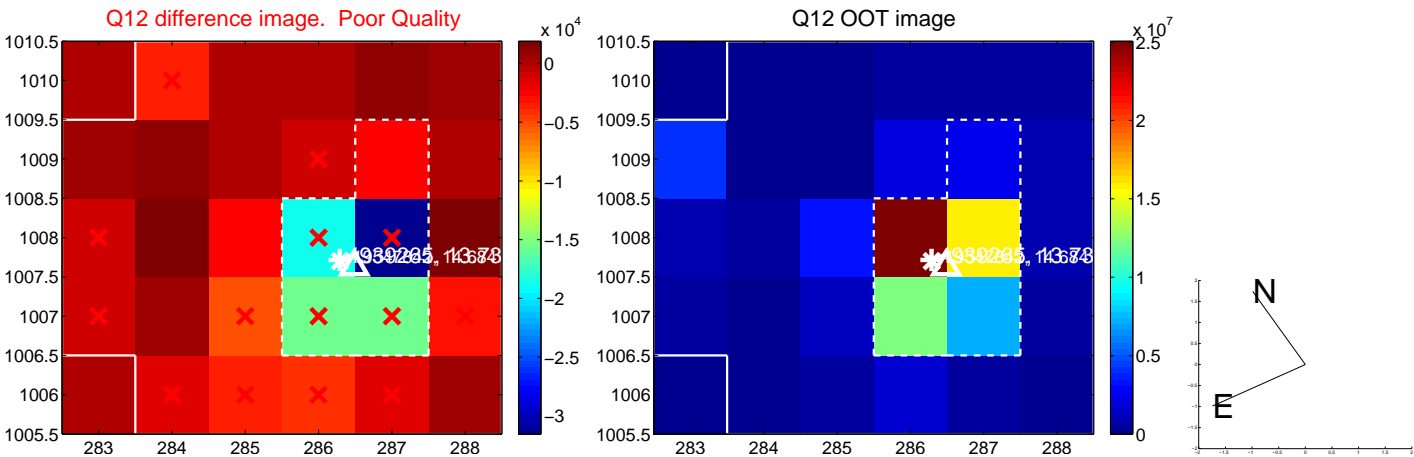
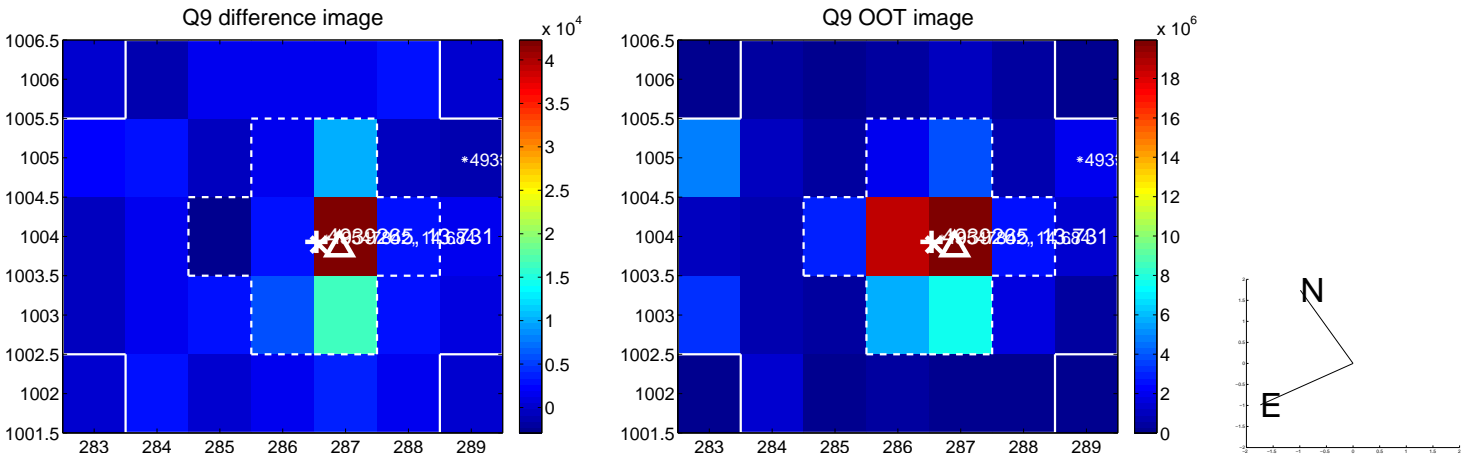
Q8 no difference image



Q8 no OOT image



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

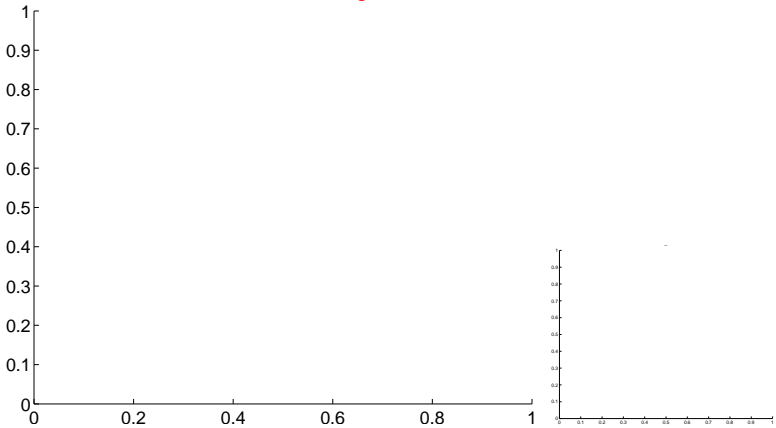


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

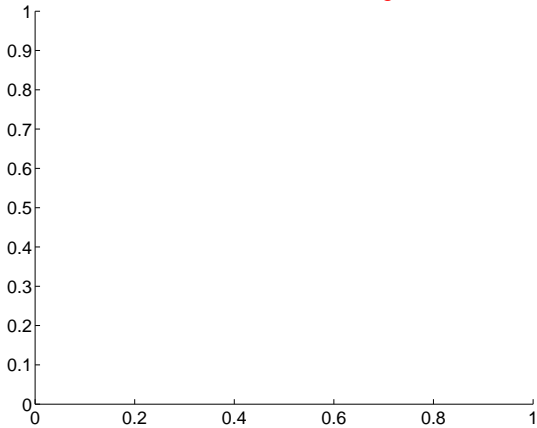
Q13 no difference image



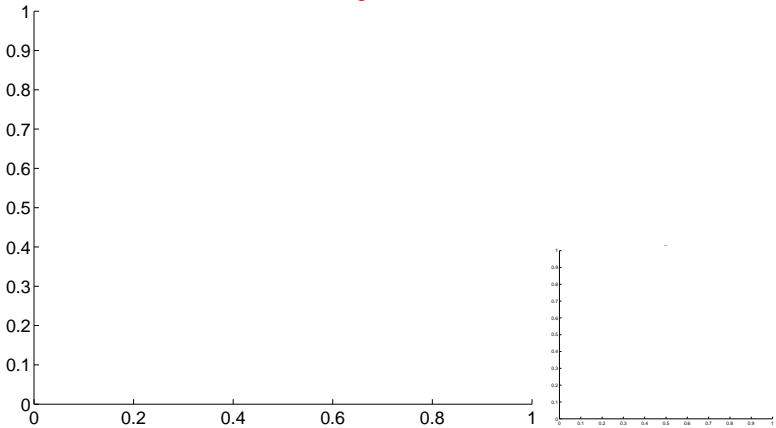
Q13 no OOT image



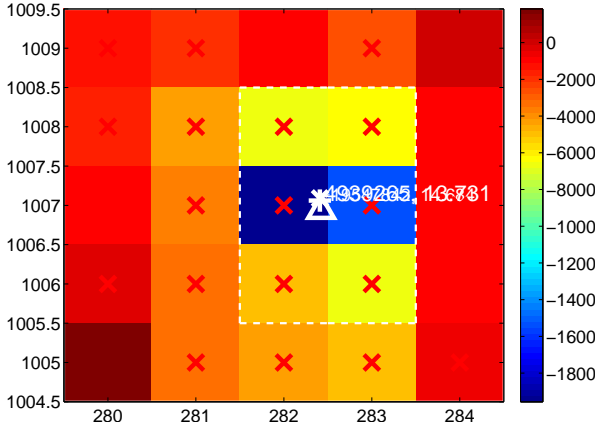
Q14 no difference image



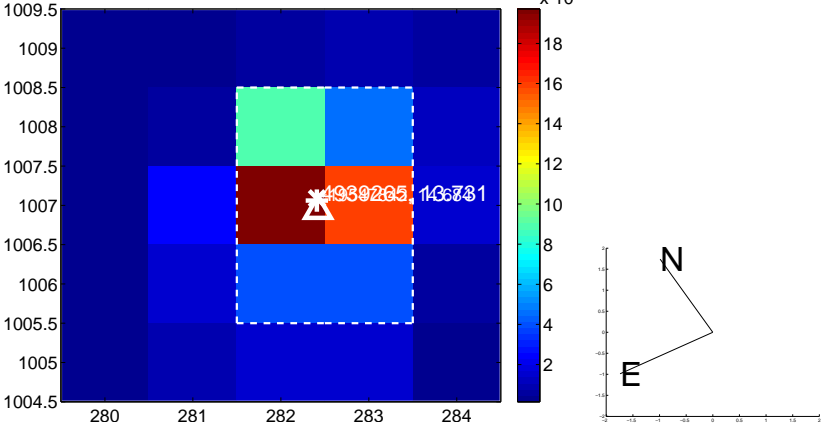
Q14 no OOT image



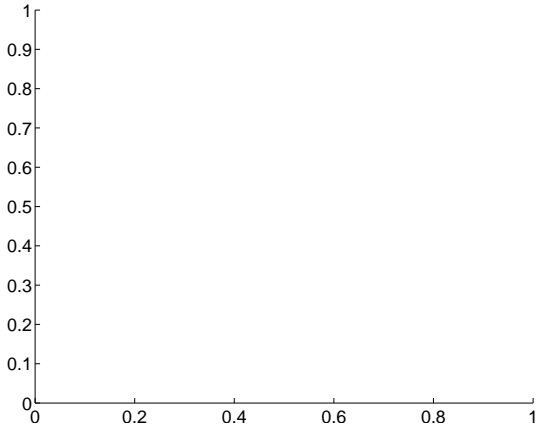
Q15 difference image. Poor Quality



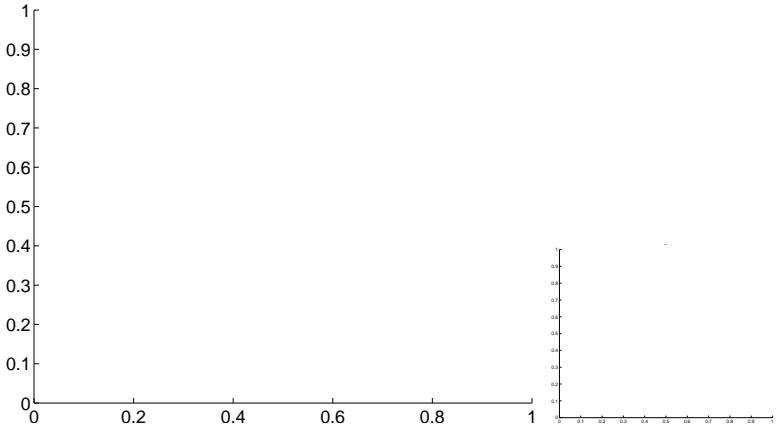
Q15 OOT image



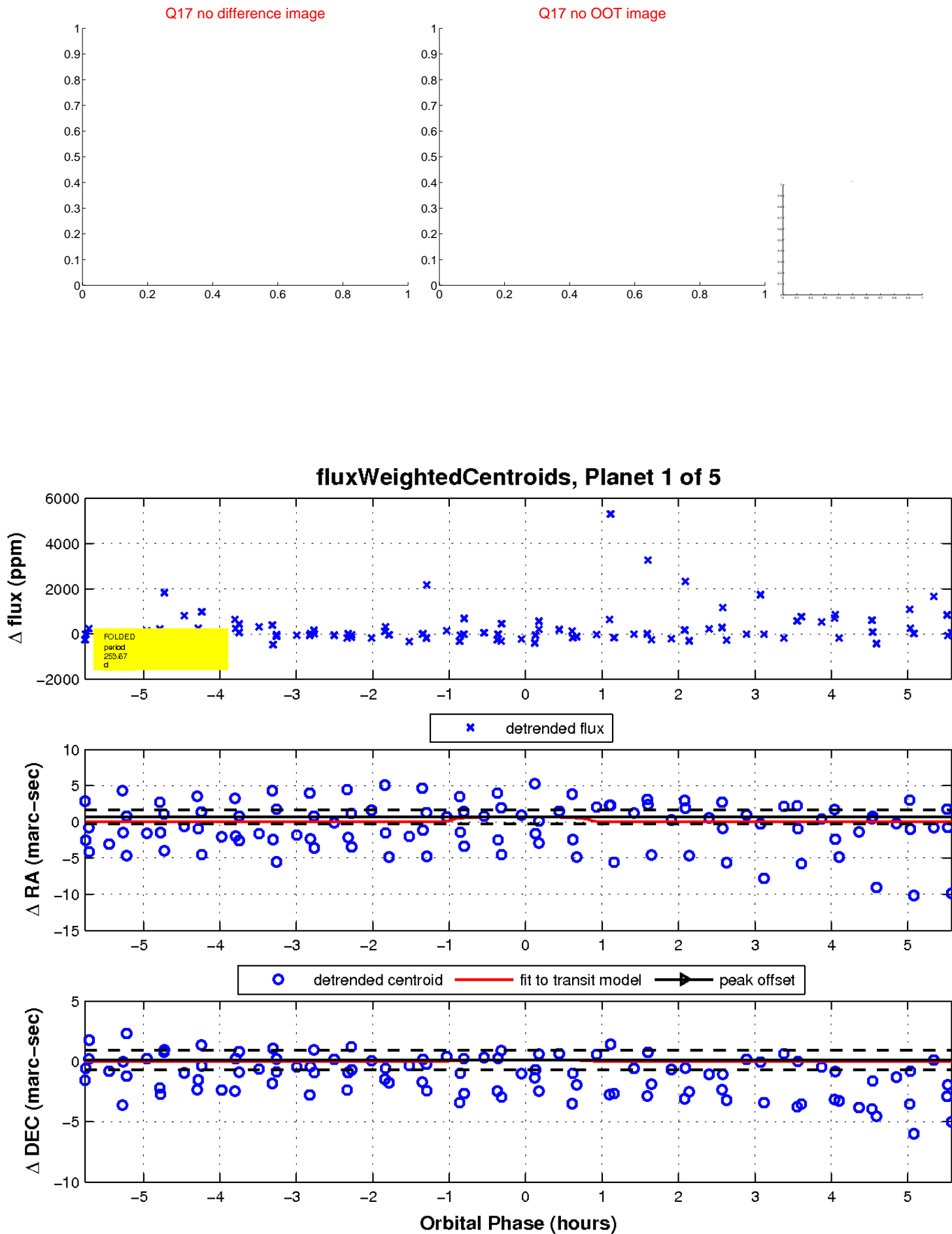
Q16 no difference image



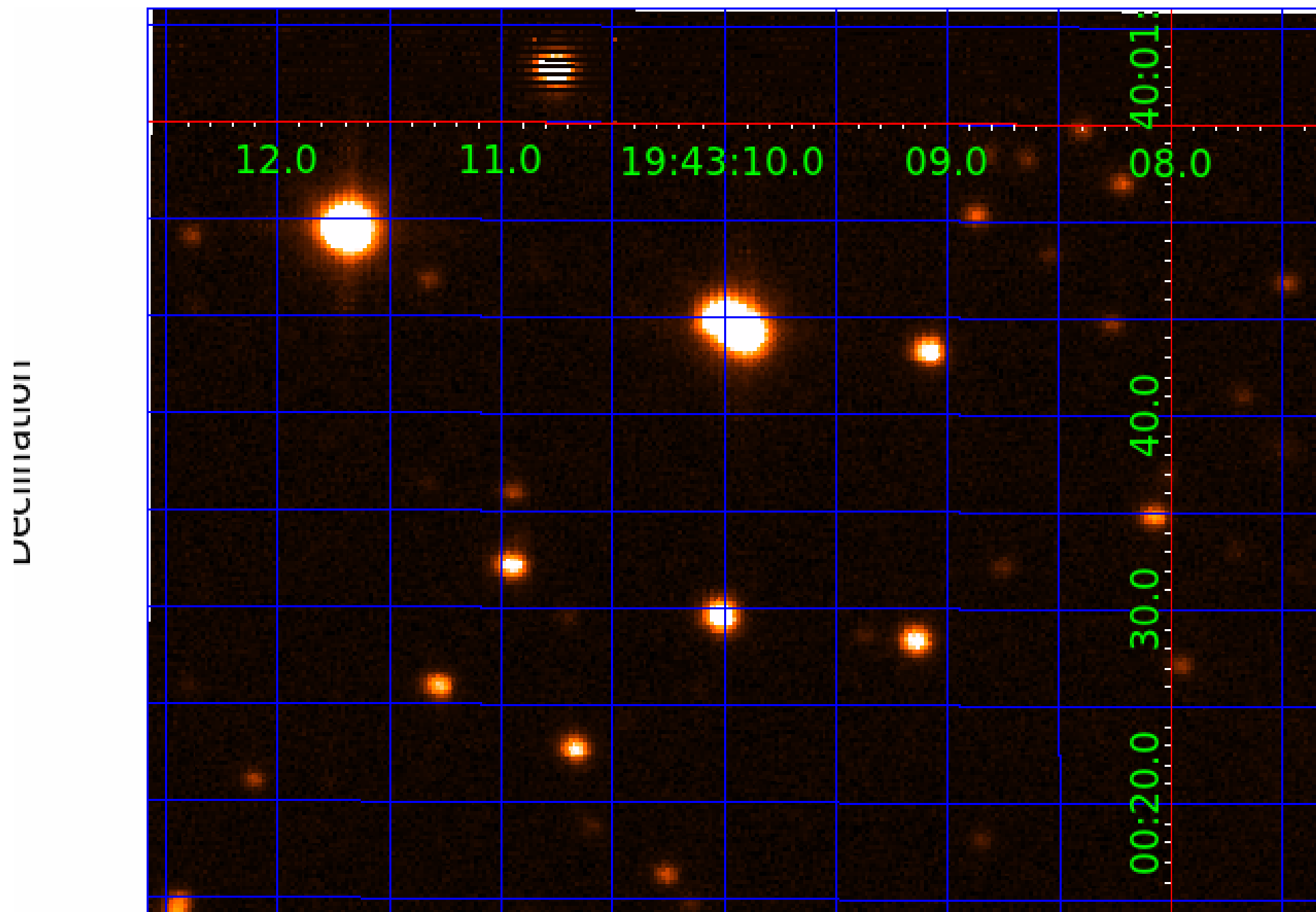
Q16 no OOT image



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



UKIRT Image



KIC 004939265

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})
004939265-01	OBS	No	253.669424	383.404450	229.8	1.938	17.6	1.6	0.71	4337	1.27	0.33
004939265-02	OBS	No	343.801299	425.607797	1153.2	3.719	16.1	6.6	0.71	4337	2.30	0.22
004939265-03	OBS	6475.01	4.845063	134.951160	298.6	2.001	13.4	15.0	0.71	4337	1.62	64.72
004939265-04	OBS	No	602.745555	195.004506	3461.7	19.567	12.2	9.4	0.71	4337	4.33	0.10
004939265-05	OBS	No	247.359838	297.375313	1198.2	4.240	14.2	6.9	0.71	4337	2.65	0.34

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004939265-01	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES_MARSHALL_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS—HALO_GHOST
004939265-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES
004939265-03	OBS	PC	1.00	0	0	0	0	NO_COMMENT
004939265-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS
004939265-05	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—INCONSISTENT_TRANS—CENT_FEW_DIFFS

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

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

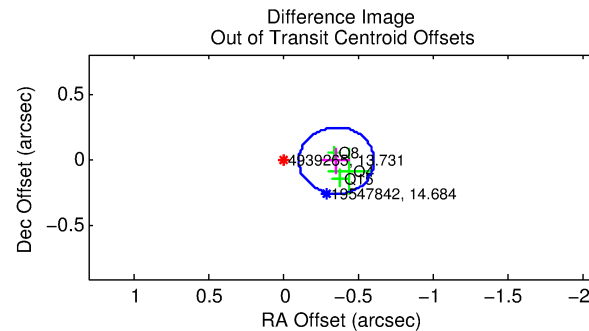
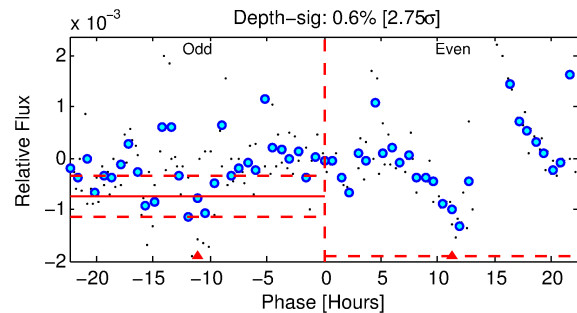
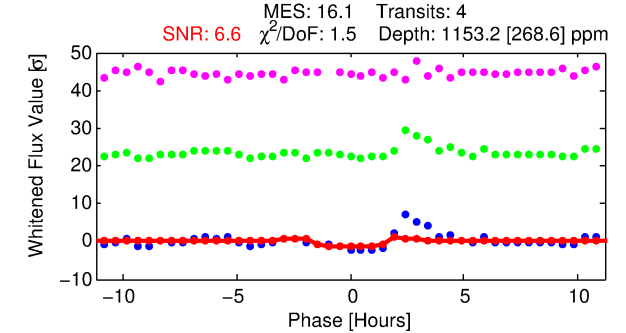
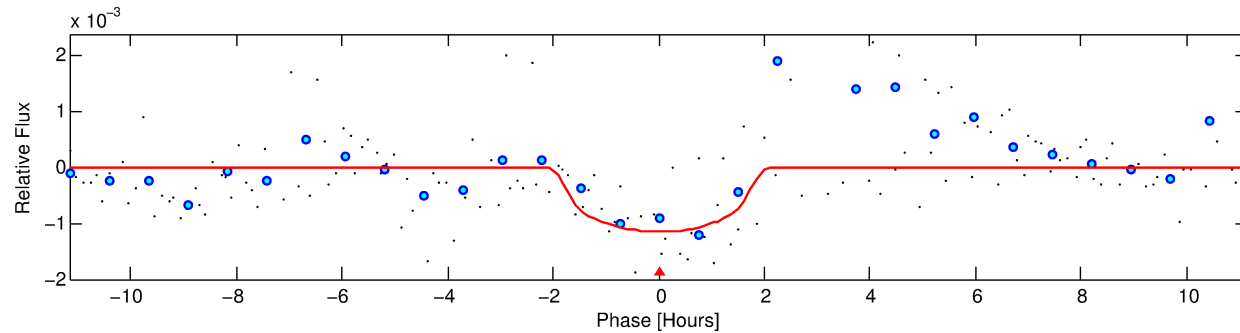
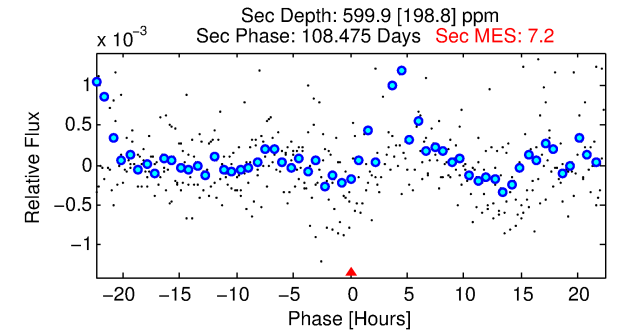
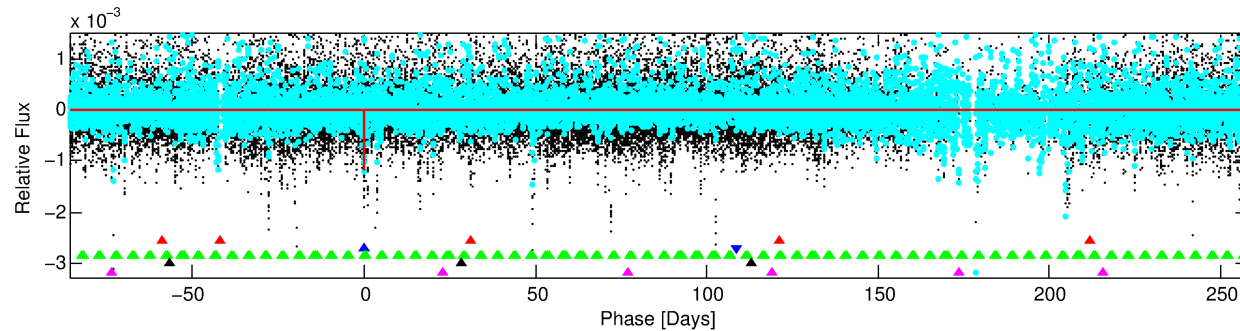
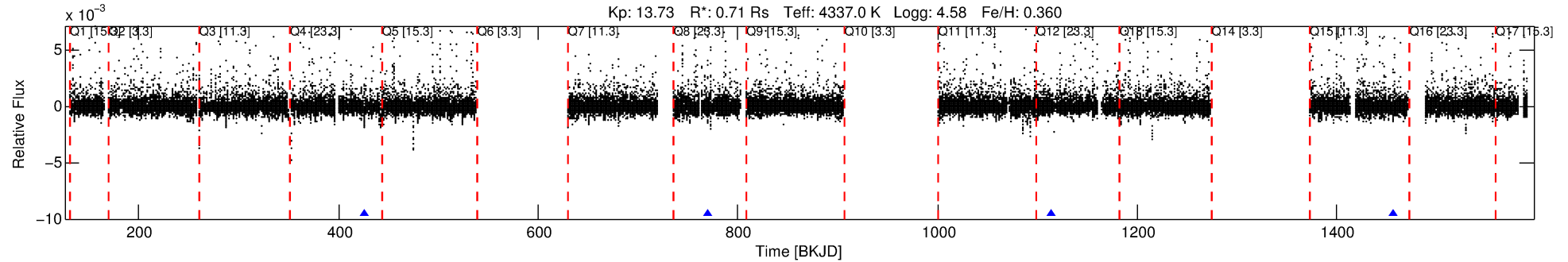
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 004939265-02

No Significant Match Found

DV One-Page Summary

KIC: 4939265 Candidate: 2 of 5 Period: 343.801 d
KOI: K06475 Corr: No Ephemeris Match



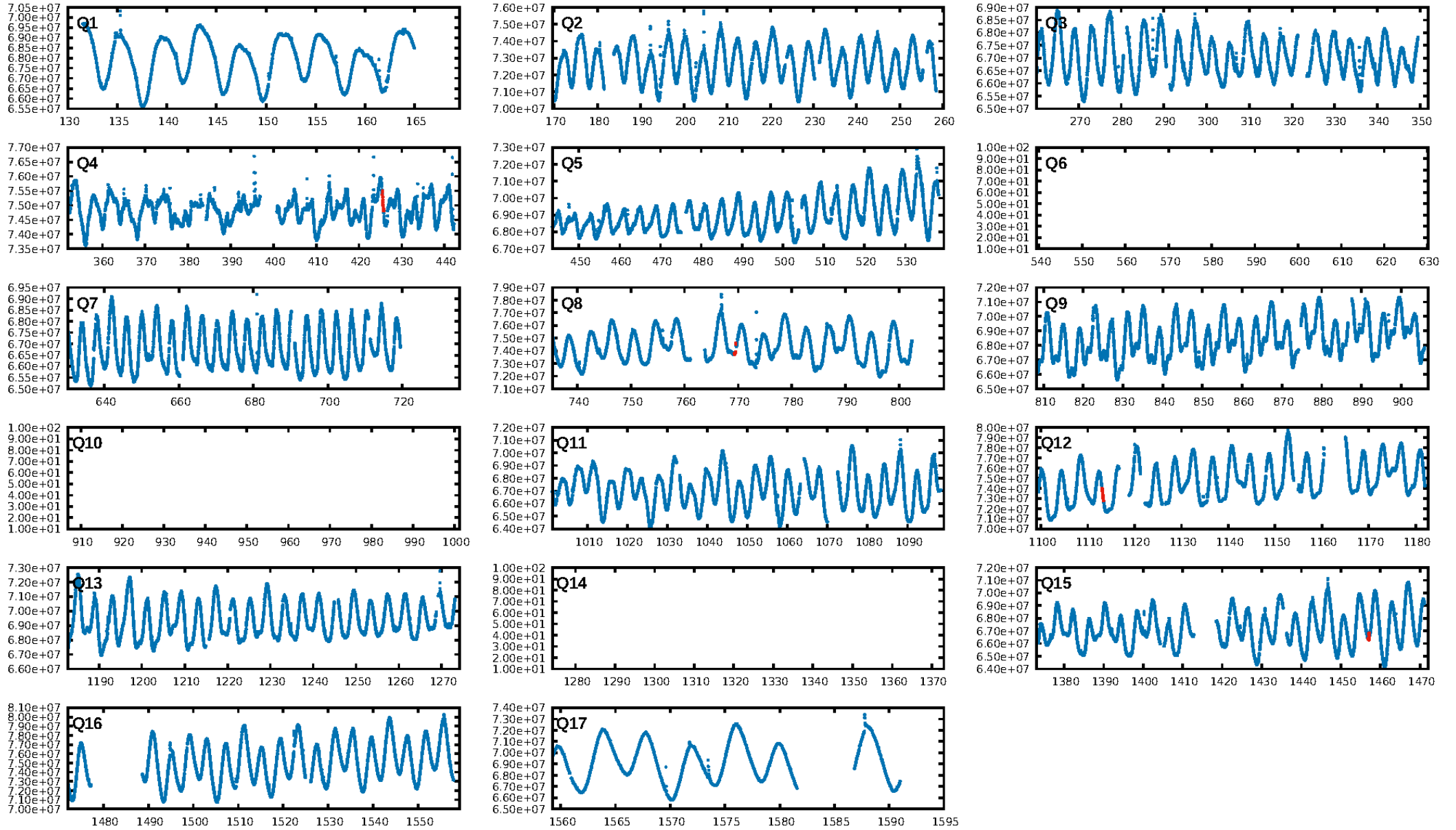
DV Fit Results:

Period = 343.80130 [0.00393] d
Epoch = 425.6078 [0.0088] BKJD
Rp/R* = 0.0295 [0.0426]
a/R* = 727.00 [2839.48]
b = 0.02 [191.67]
Seff = 0.22 [0.02]
Teq = 175 [5] K
Rp = 2.30 [3.32] Re
a = 0.8564 [0.0442] AU
Ag = 45861.52 [133315.92] [0.34 σ]
Teffp = 3953 [2873] K [1.32 σ]

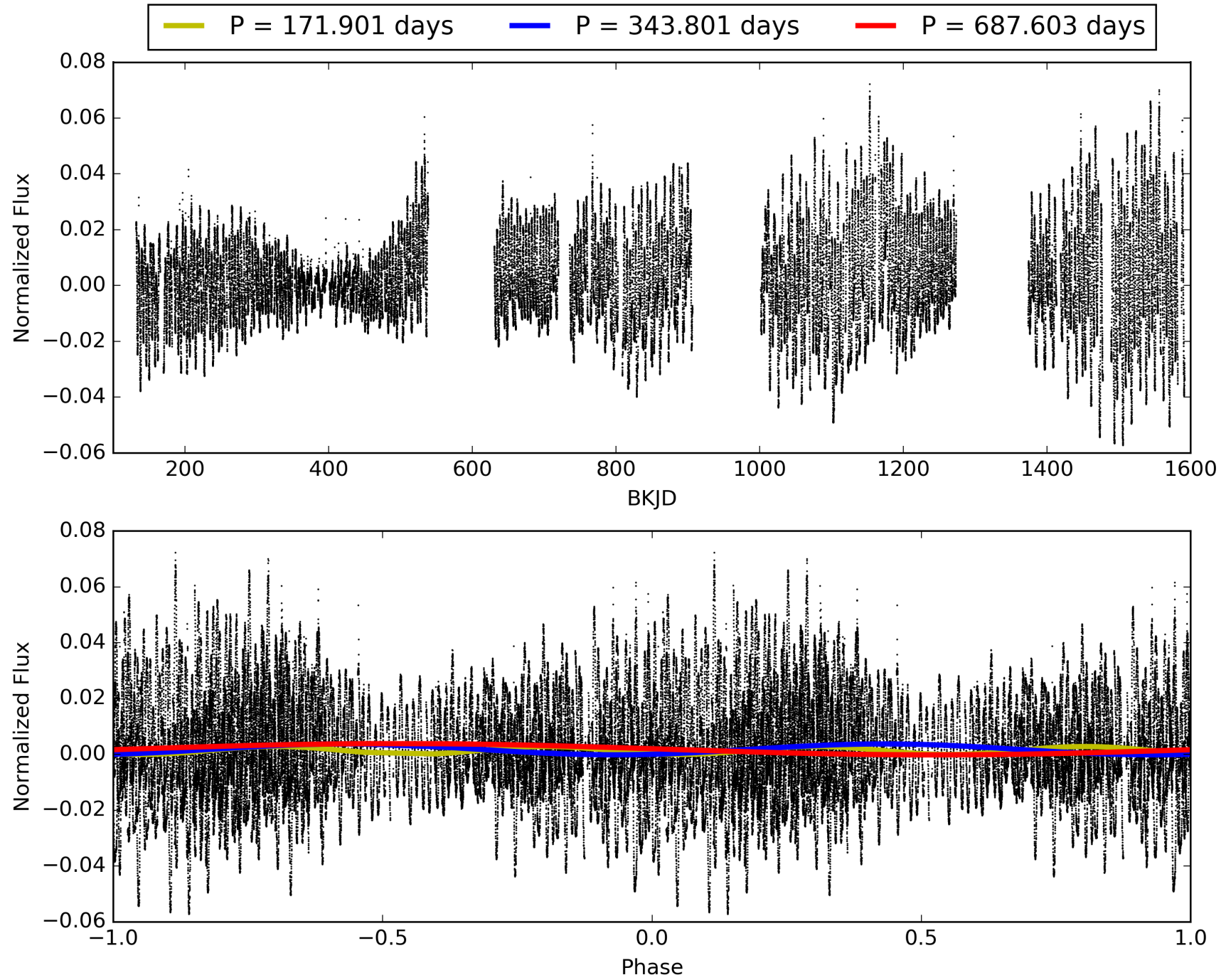
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [515.87 σ]
LongPeriod-sig: 100.0% [312.03 σ]
ModelChiSquare2-sig: 0.1%
ModelChiSquareGof-sig: 35.5%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: 0.8628
Centroid-sig: 3.7%
Centroid-so: 1.060 arcsec [1.46 σ]
OotOffset-rm: 0.358 arcsec [4.27 σ]
KicOffset-rm: 0.308 arcsec [3.09 σ]
OotOffset-st: 0/1/2/0 [3]
KicOffset-st: 0/1/2/0 [3]
DiffImageQuality-fgm: 1.00 [3/3]
DiffImageOverlap-fno: 0.33 [1/3]

TCE 004939265-02, PDC Light Curves

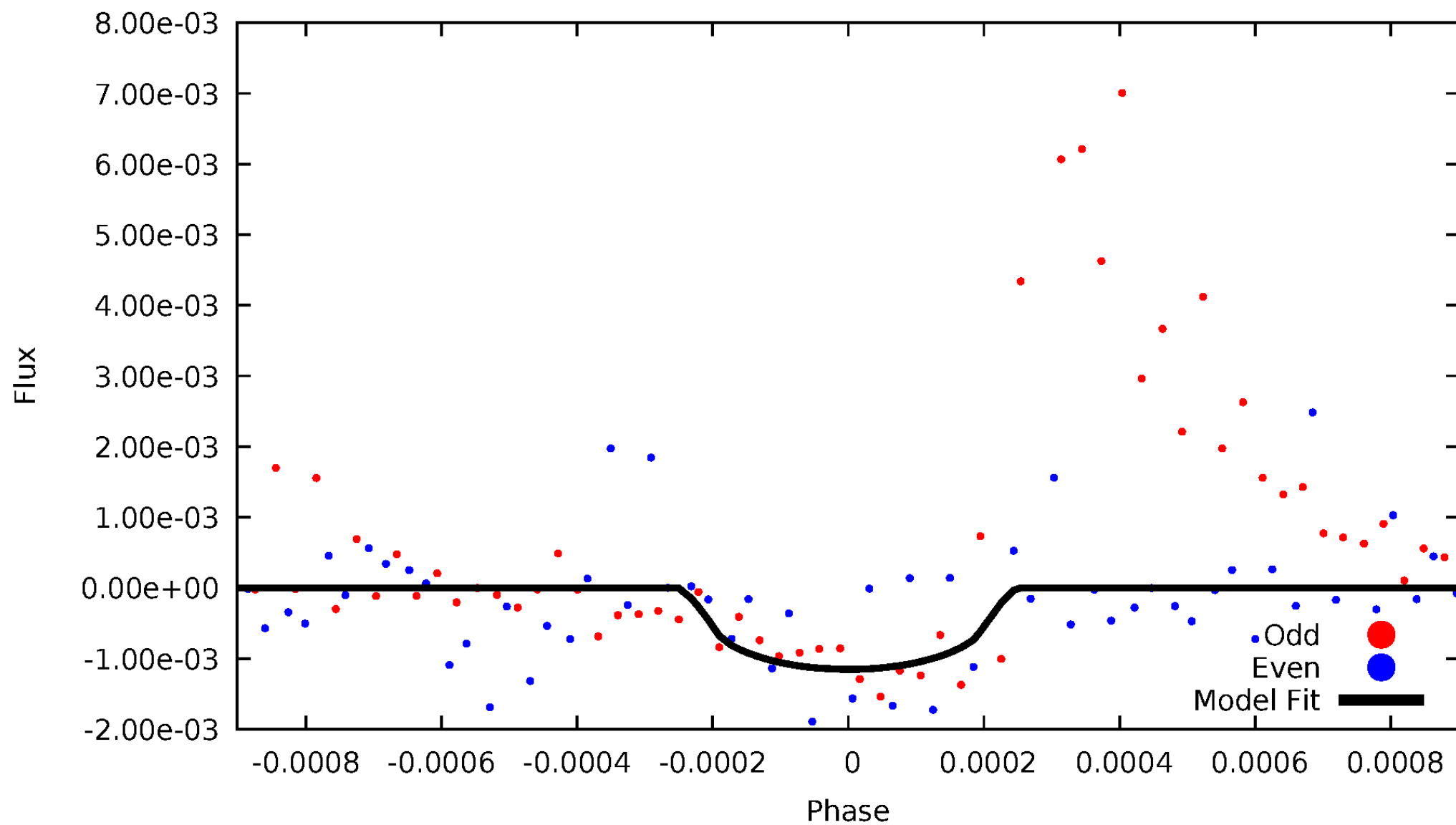


TCE 004939265-02



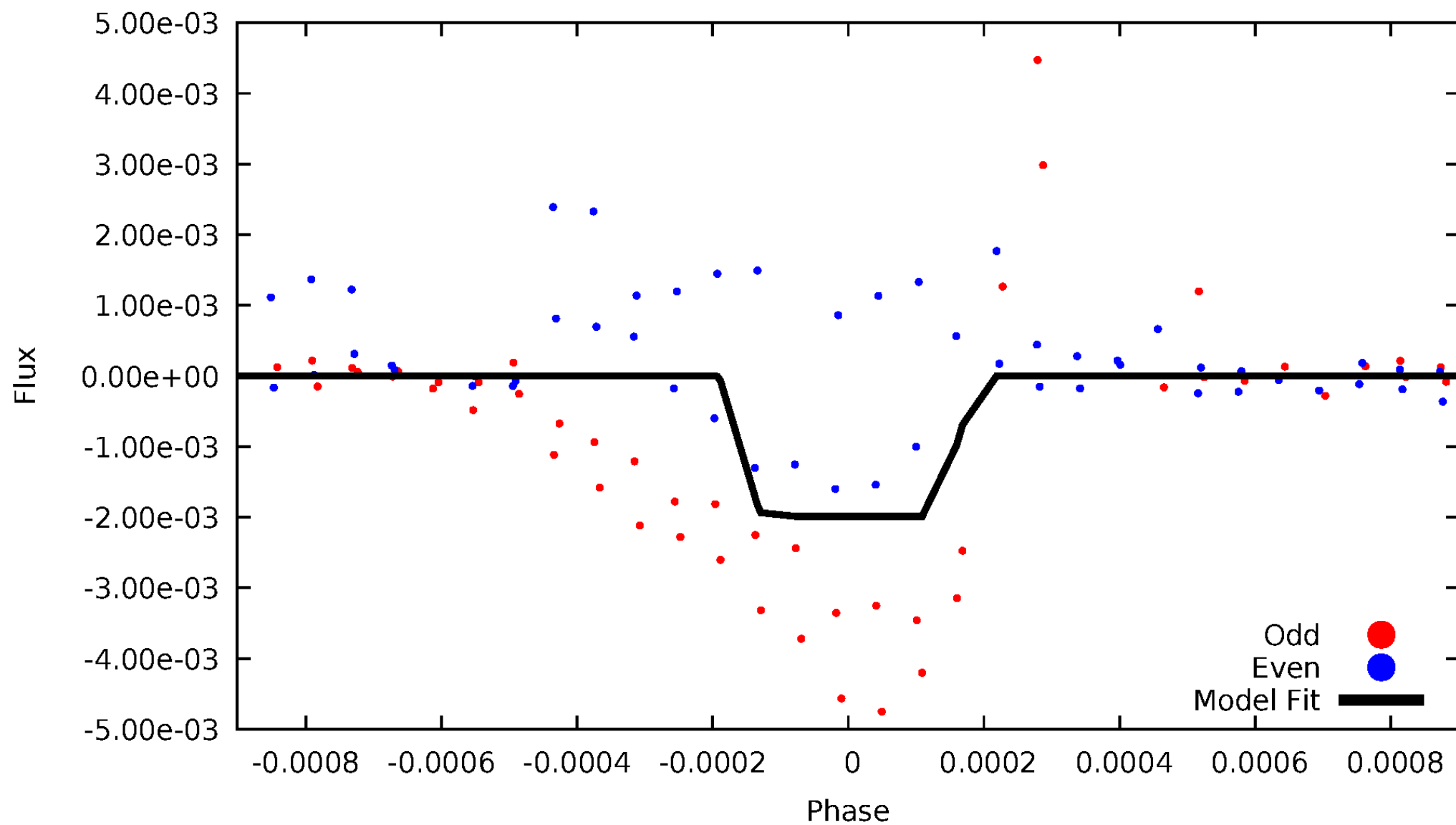
DV Odd/Even

TCE 004939265-02



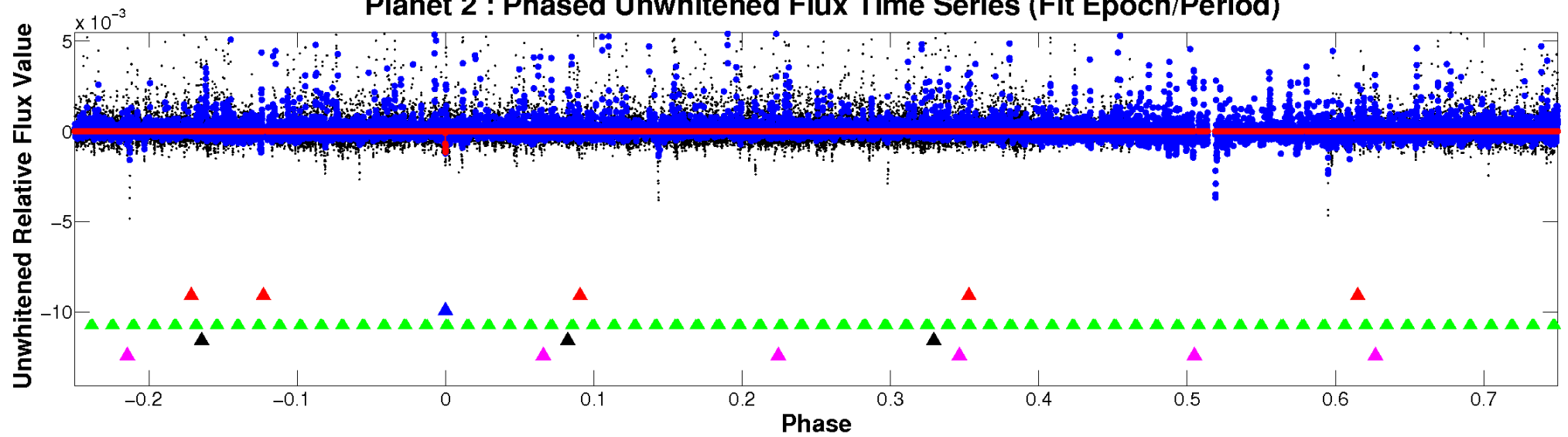
ALT Odd/Even

TCE 004939265-02

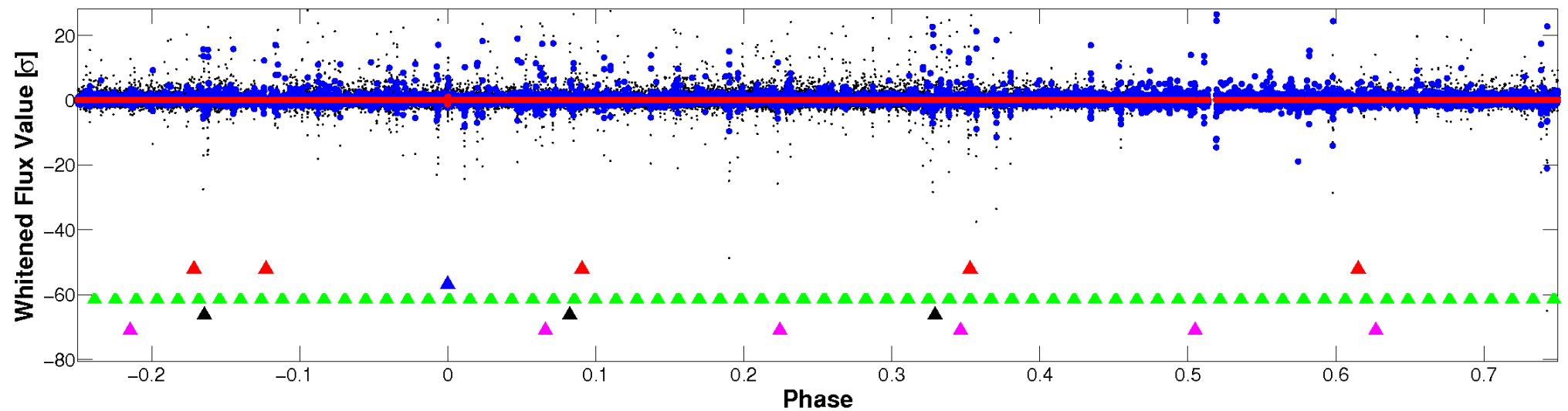


Non-Whitened Vs. Whitened Light Curve

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

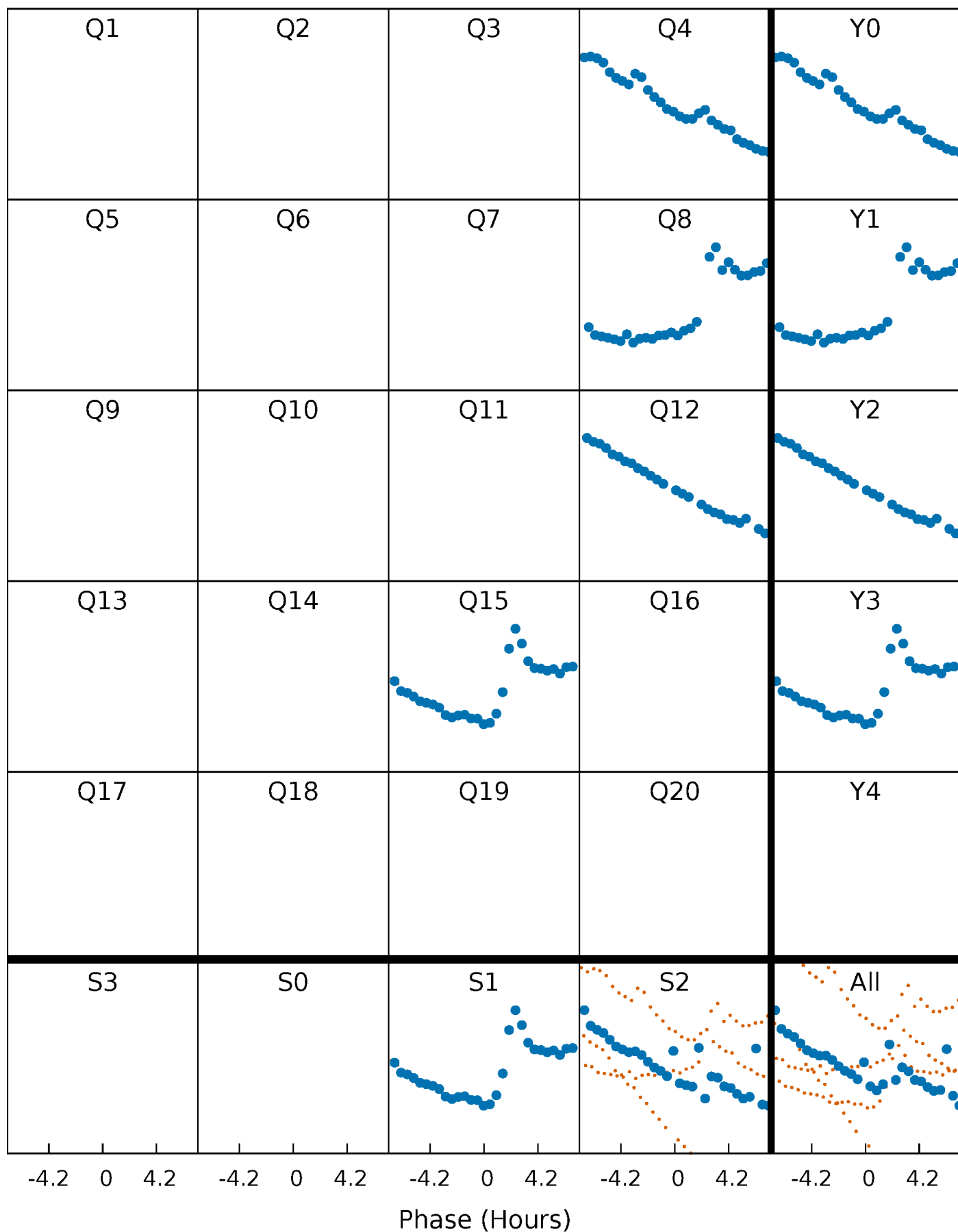


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



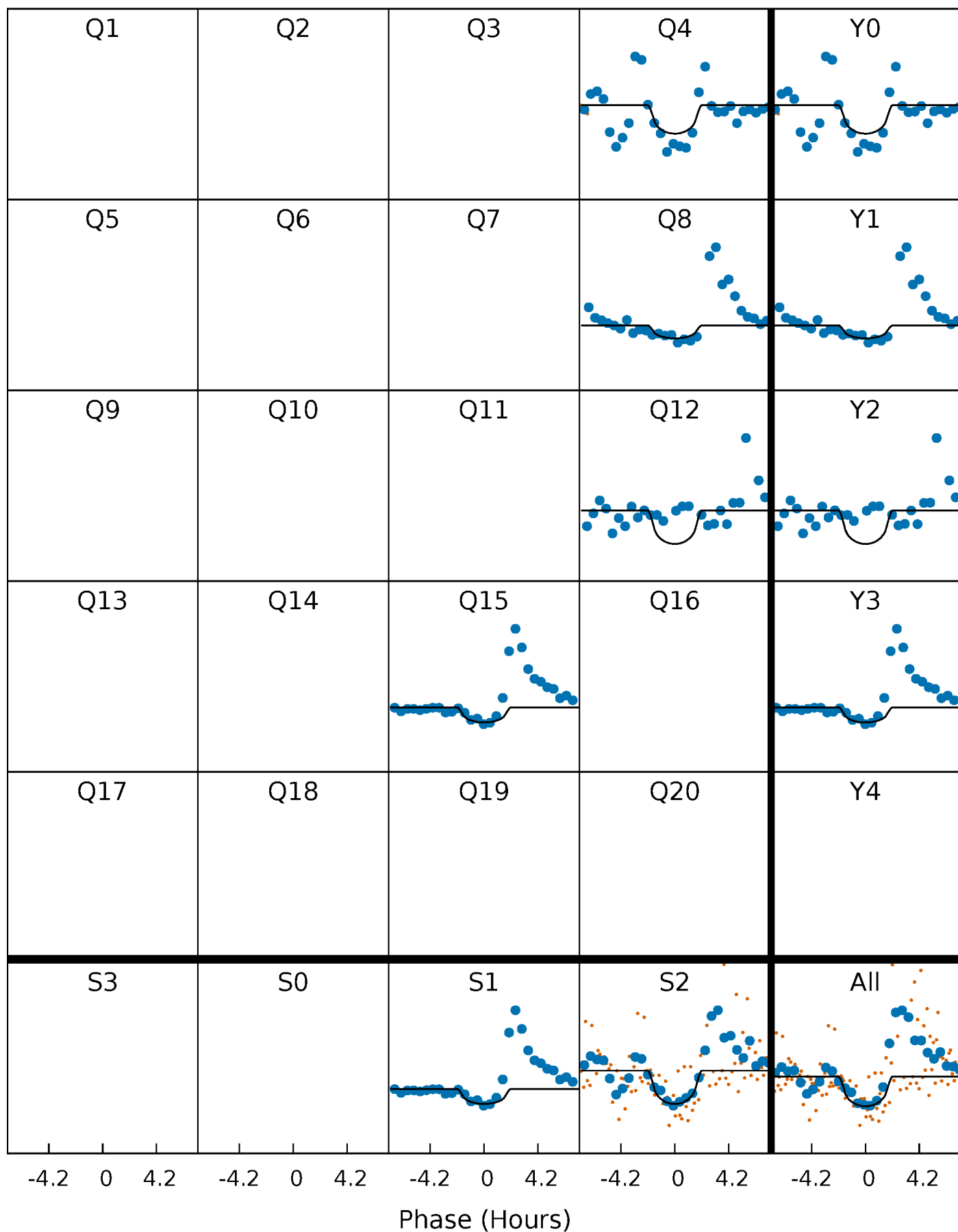
PDC Quarter-Phased Transit Curves

TCE 004939265-02 P=343.801299 Days $T_0=425.607797$ (BKJD)



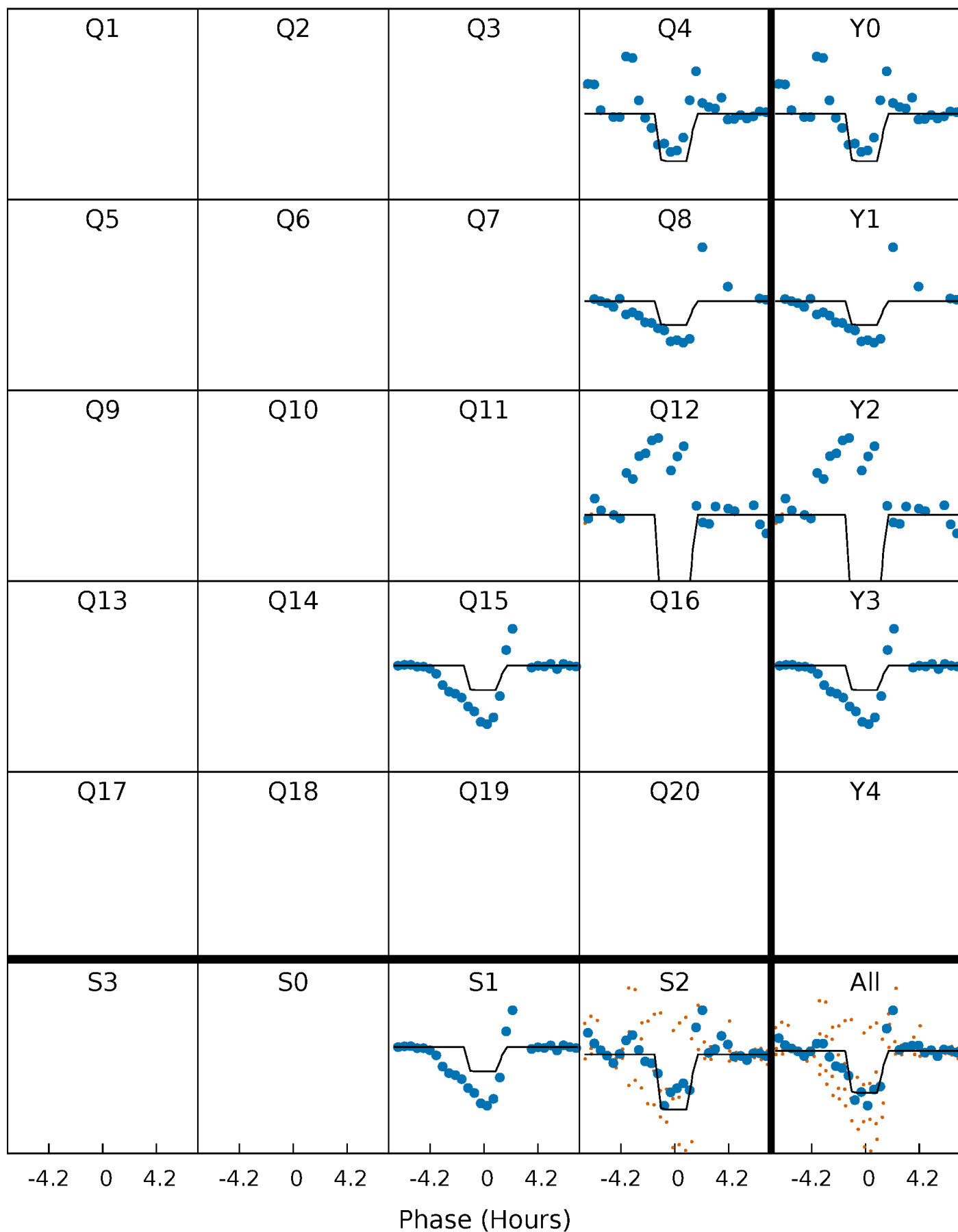
DV Quarter-Phased Transit Curves

TCE 004939265-02 $P=343.801299$ Days $T_0=425.607797$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

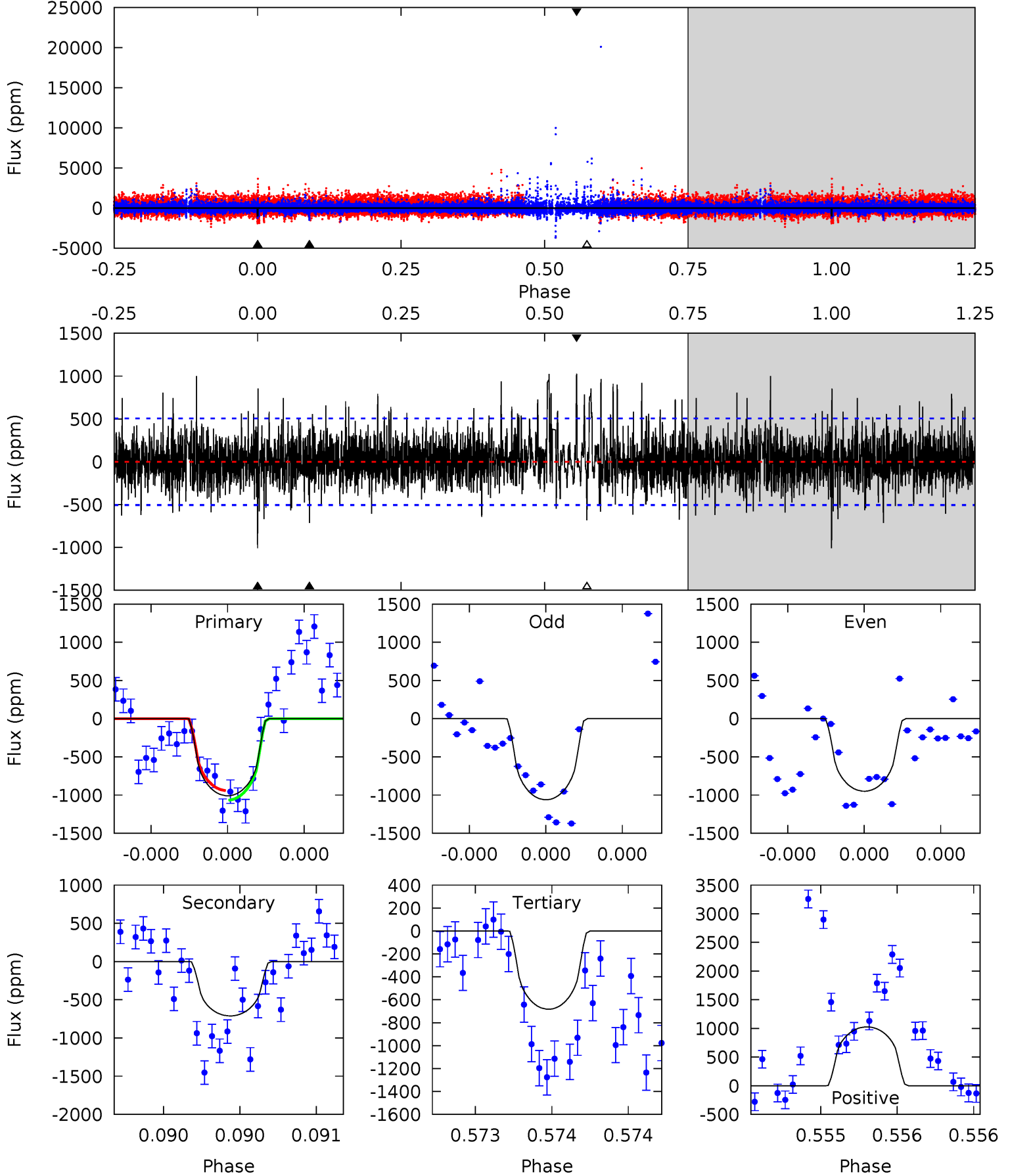
TCE 004939265-02 P=343.794647 Days $T_0=425.636937$ (BKJD)



DV Model-Shift Uniqueness Test

004939265-02, P = 343.801299 Days, E = 81.806498 Days

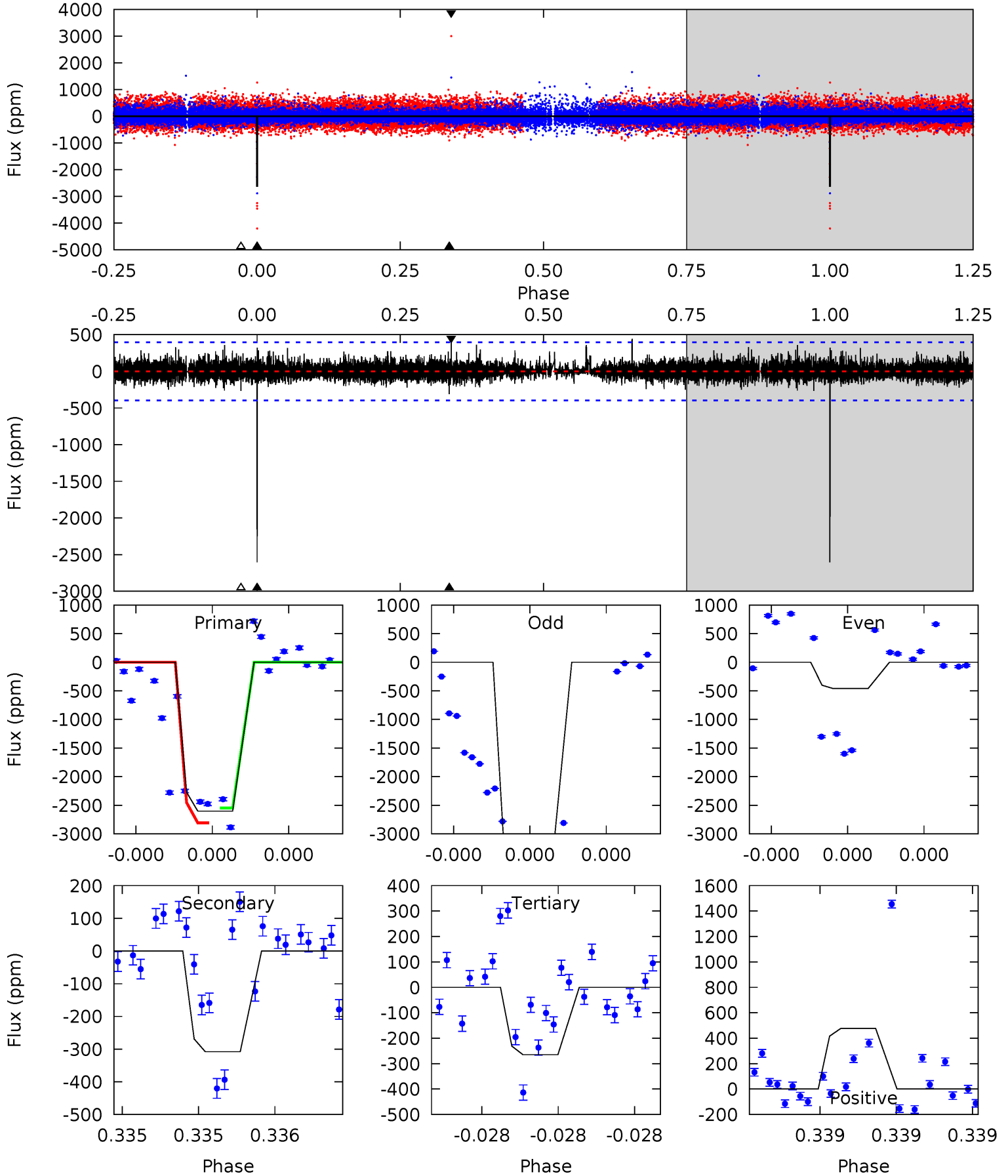
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.1	7.85	7.53	11.3	5.58	3.48	2.14	3.60	-0.20	0.32	-3.48	0.50	0.90	0.50	0.69



Alt Model-Shift Uniqueness Test

004939265-02, P = 343.794647 Days, E = 81.842290 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
36.8	4.36	3.75	6.74	5.61	3.54	0.92	33.1	30.1	0.61	-2.38	30.6	0.84	0.15	0



Stellar Parameters For KIC 004939265

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4337^{+77}_{-86}	$4.581^{+0.045}_{-0.009}$	$0.360^{+0.100}_{-0.150}$	$0.714^{+0.014}_{-0.041}$	$0.709^{+0.027}_{-0.021}$	$2.743^{+0.463}_{-0.112}$
	+2%/-2%	+1%/-0%	+28%/-42%	+2%/-6%	+4%/-3%	+17%/-4%
Source	SPE90	SPE90	SPE90	DSEP		

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

Secondary Eclipse Parameters for KIC 004939265-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-712 ± 91	$3.30^{+2.81}_{-2.03}$	243^{+5}_{-6}	3686^{+1533}_{-629}	$27641^{+152581}_{-19772}$
Alt.	-308 ± 71	$3.98^{+2.91}_{-2.54}$	242^{+5}_{-5}	3037^{+1185}_{-422}	7660^{+53999}_{-5102}

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

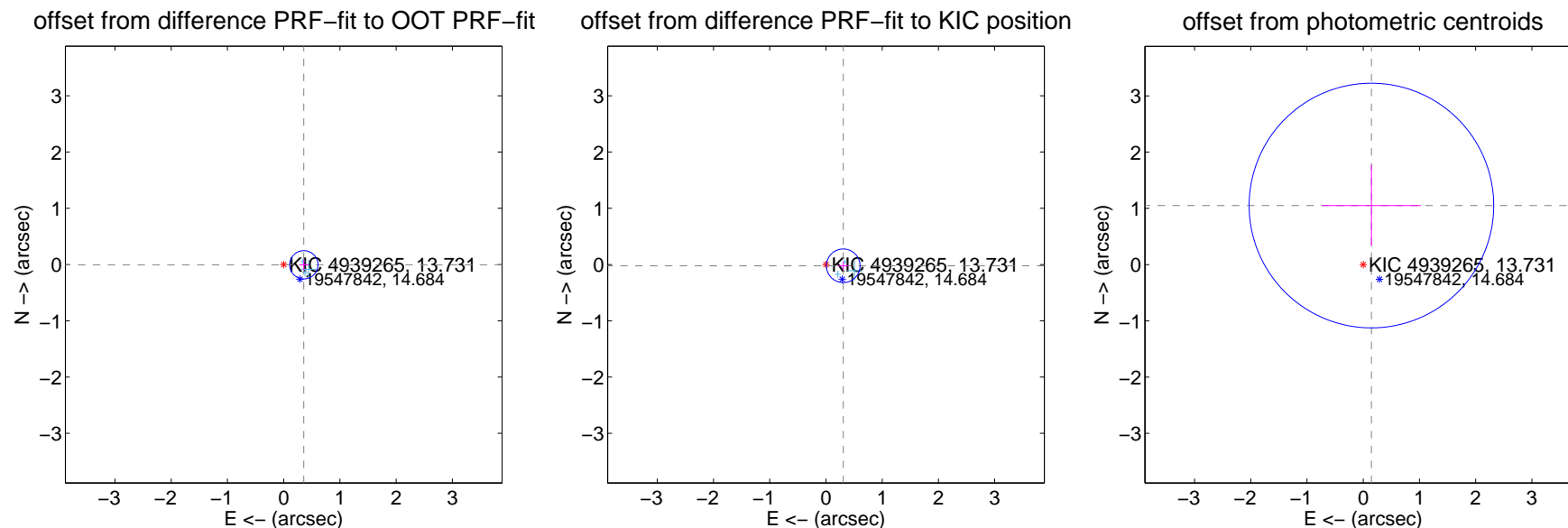
DV Centroid Data

Supplemental centroid analysis for 004939265-02. Kepler magnitude: 13.73. Transit SNR 6.61

There are 3 quarters with good PRF difference image offsets

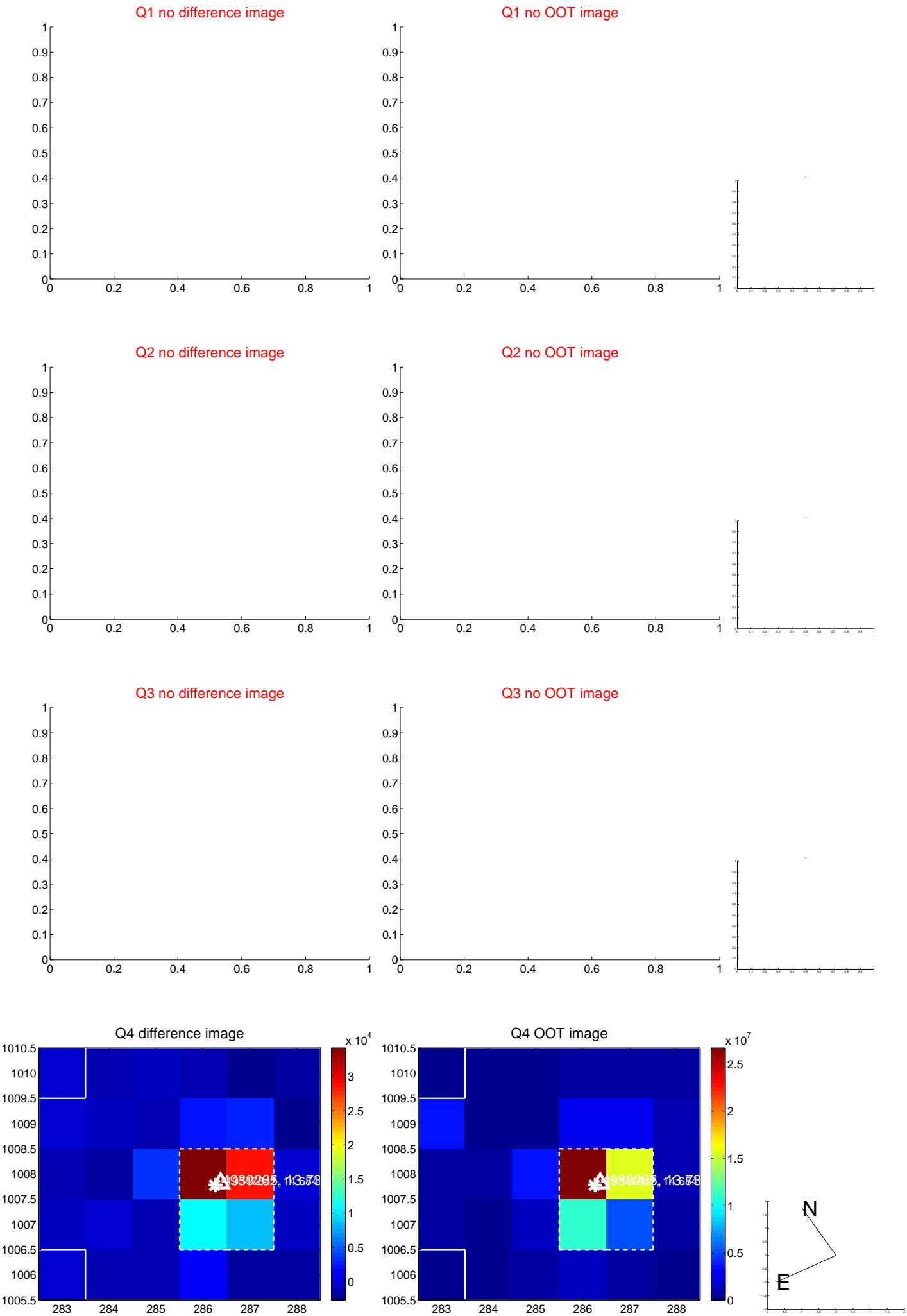
The direct PRF centroid is offset from the target star catalog position by about 0.17 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.358 ± 0.084	4.27	-0.358 ± 0.084	-0.005 ± 0.091
PRF-fit source offset from KIC position	0.308 ± 0.100	3.09	-0.307 ± 0.100	-0.022 ± 0.078
photometric centroid source offset	1.06 ± 0.72	1.46	-0.15 ± 0.88	1.05 ± 0.72

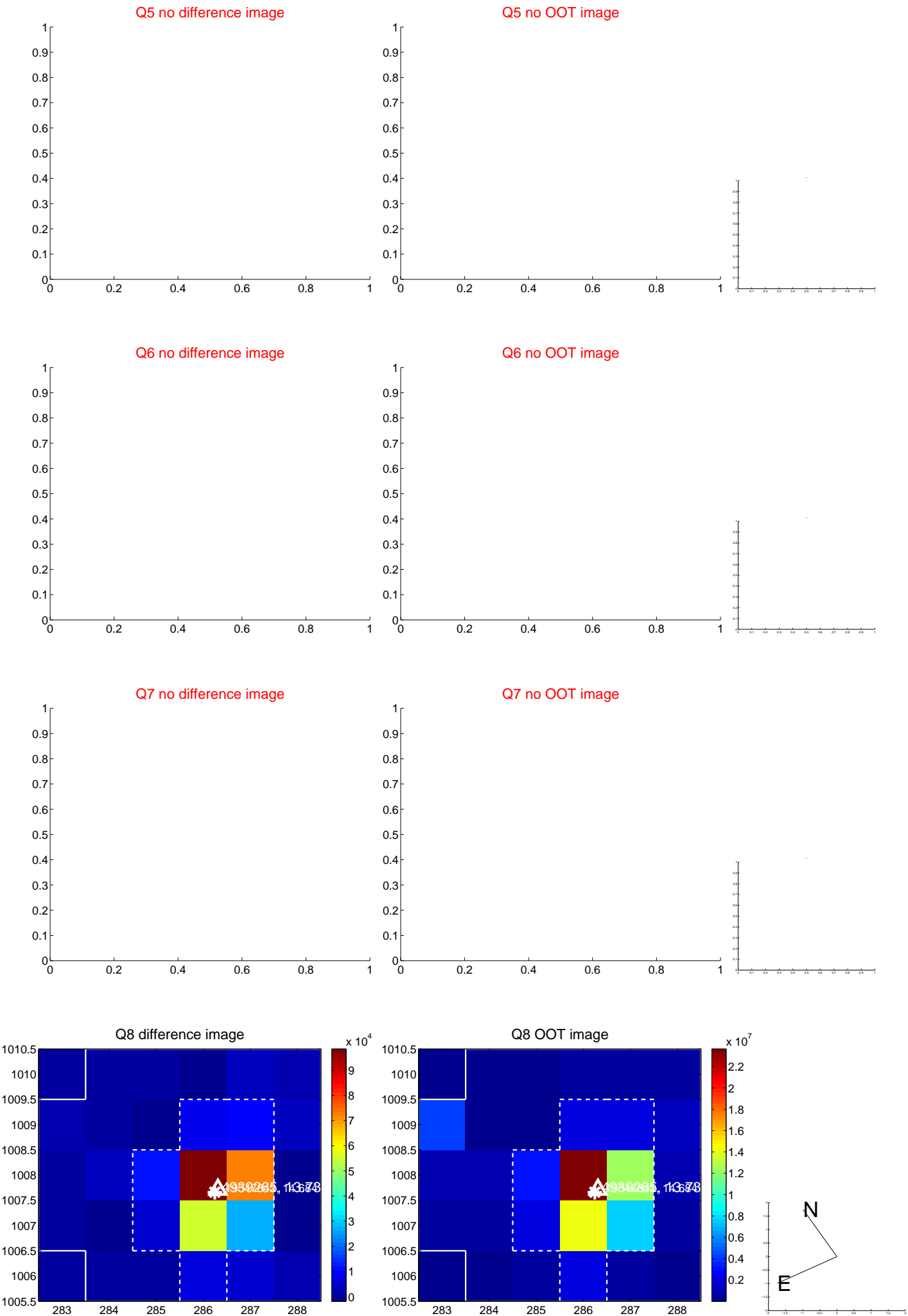


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



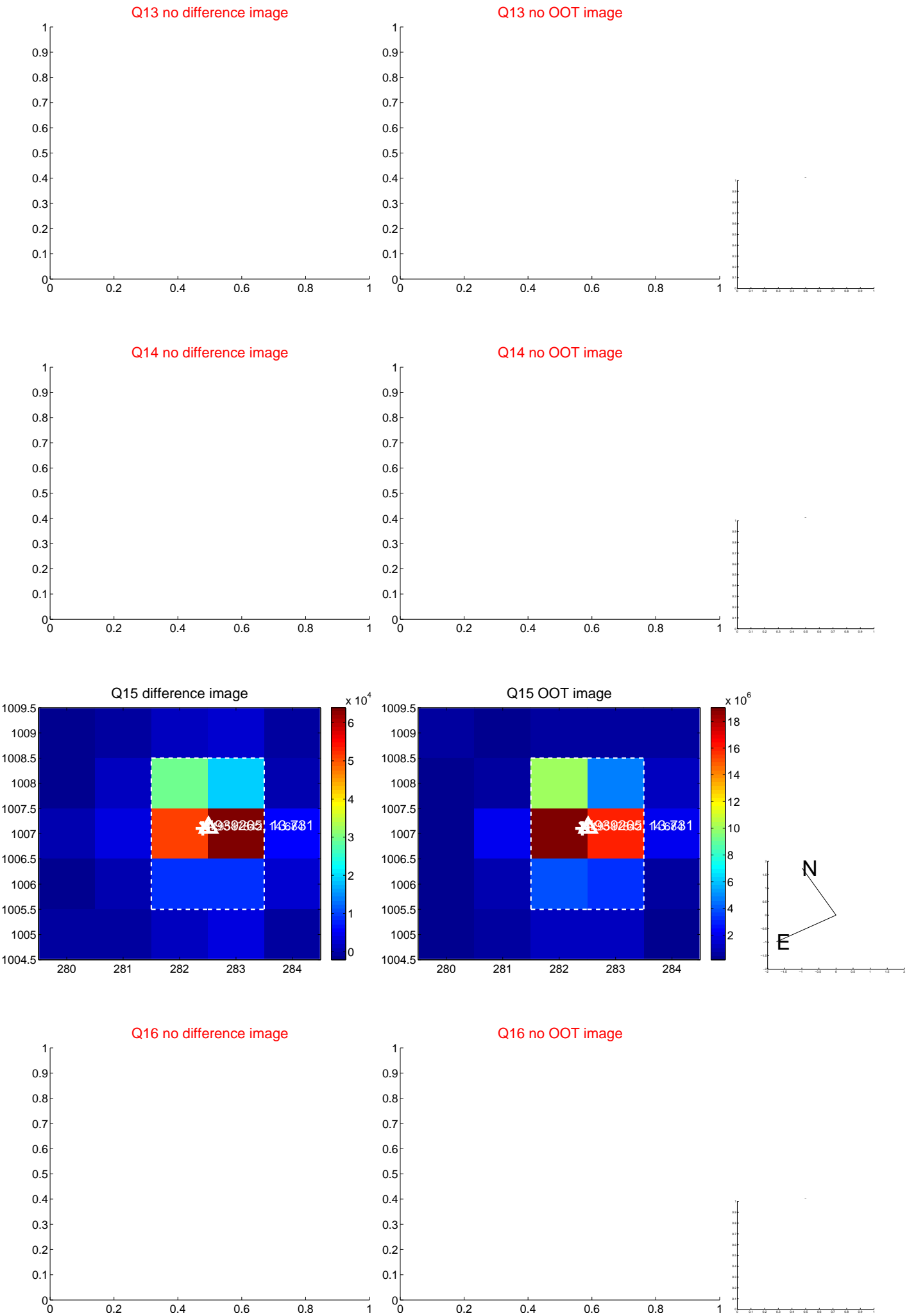
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



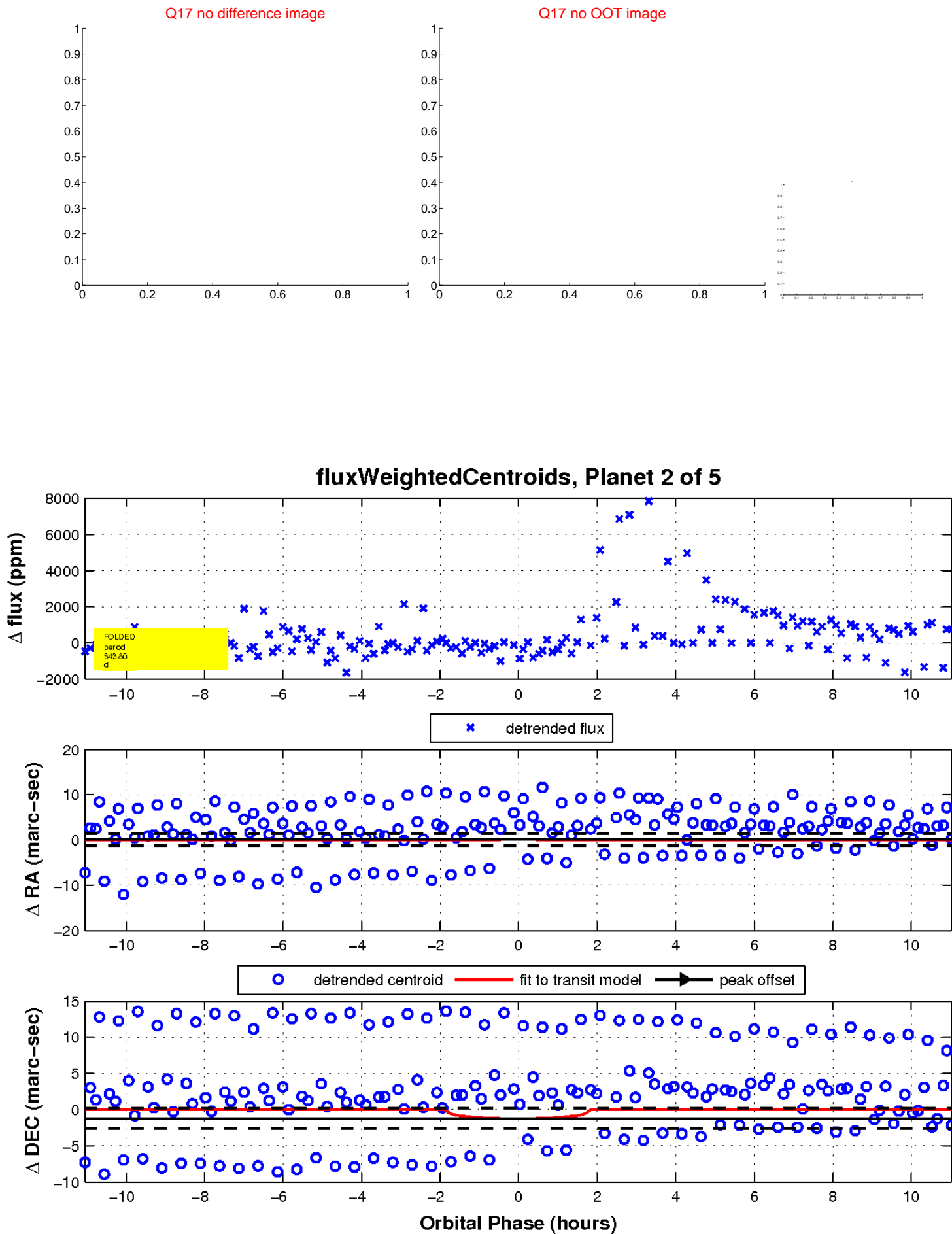
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



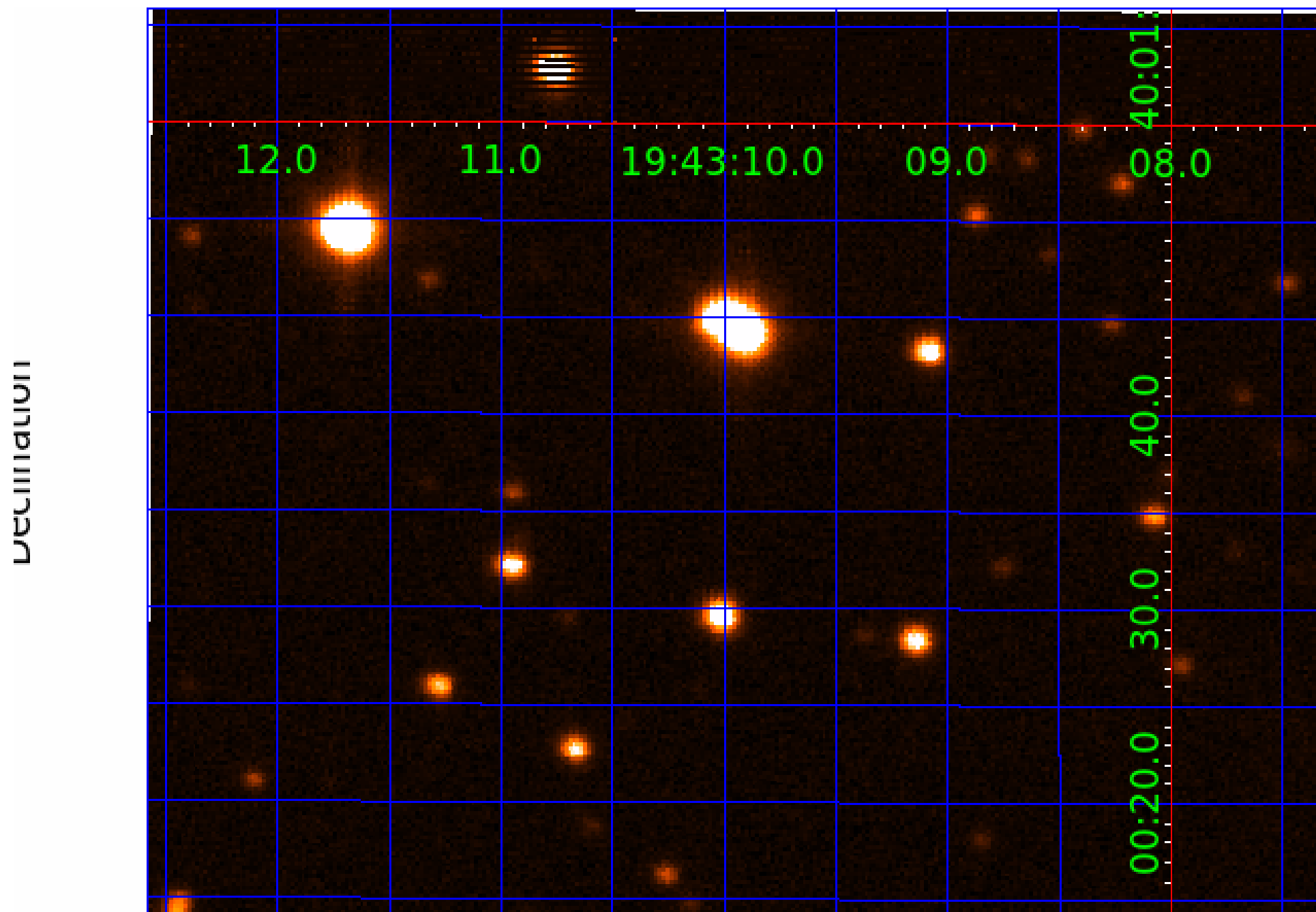
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image



KIC 004939265

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})
004939265-01	OBS	No	253.669424	383.404450	229.8	1.938	17.6	1.6	0.71	4337	1.27	0.33
004939265-02	OBS	No	343.801299	425.607797	1153.2	3.719	16.1	6.6	0.71	4337	2.30	0.22
004939265-03	OBS	6475.01	4.845063	134.951160	298.6	2.001	13.4	15.0	0.71	4337	1.62	64.72
004939265-04	OBS	No	602.745555	195.004506	3461.7	19.567	12.2	9.4	0.71	4337	4.33	0.10
004939265-05	OBS	No	247.359838	297.375313	1198.2	4.240	14.2	6.9	0.71	4337	2.65	0.34

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004939265-01	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES_MARSHALL_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS—HALO_GHOST
004939265-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES
004939265-03	OBS	PC	1.00	0	0	0	0	NO_COMMENT
004939265-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS
004939265-05	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—INCONSISTENT_TRANS—CENT_FEW_DIFFS

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

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

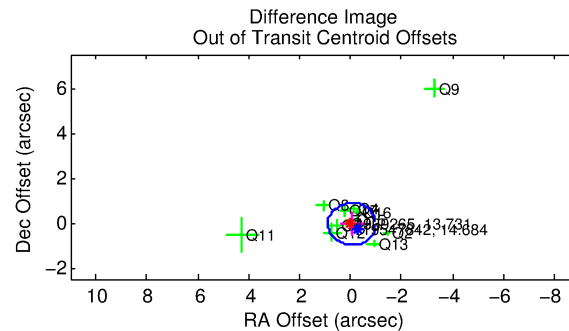
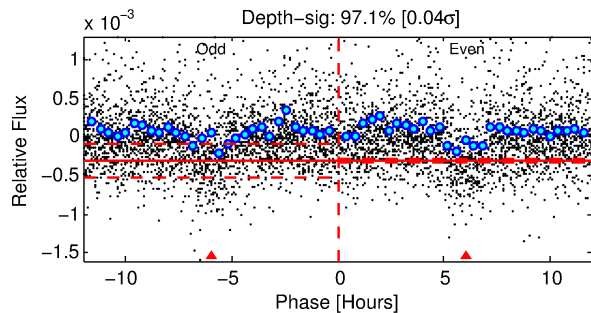
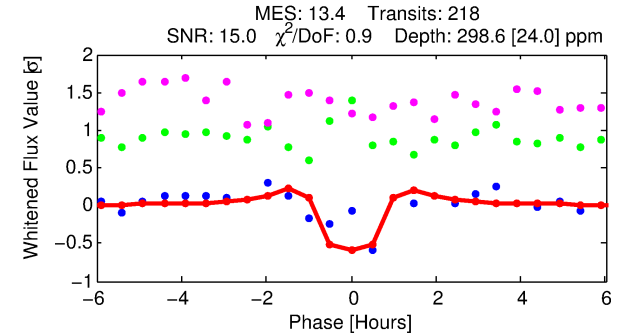
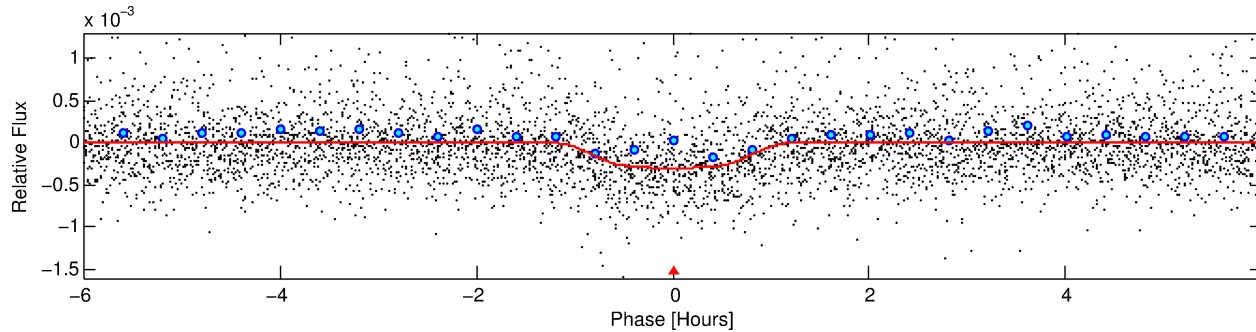
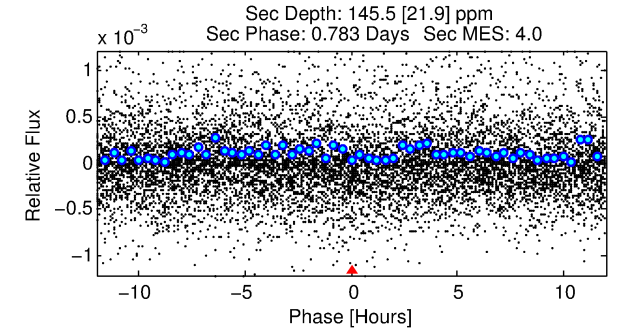
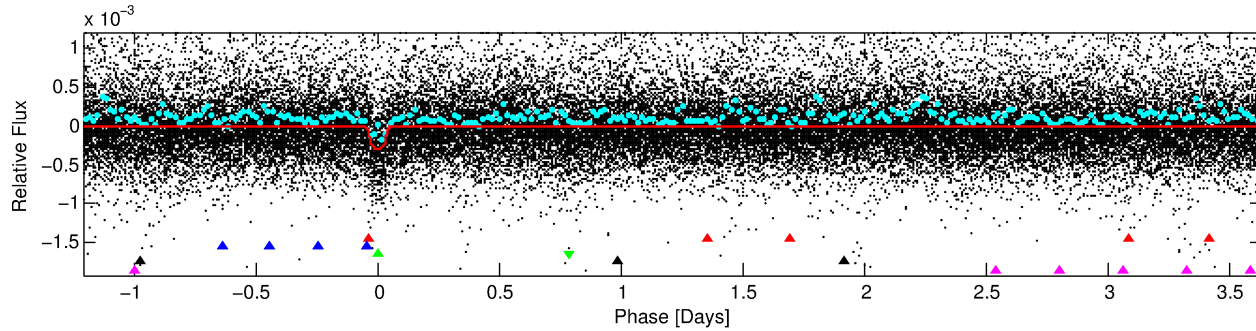
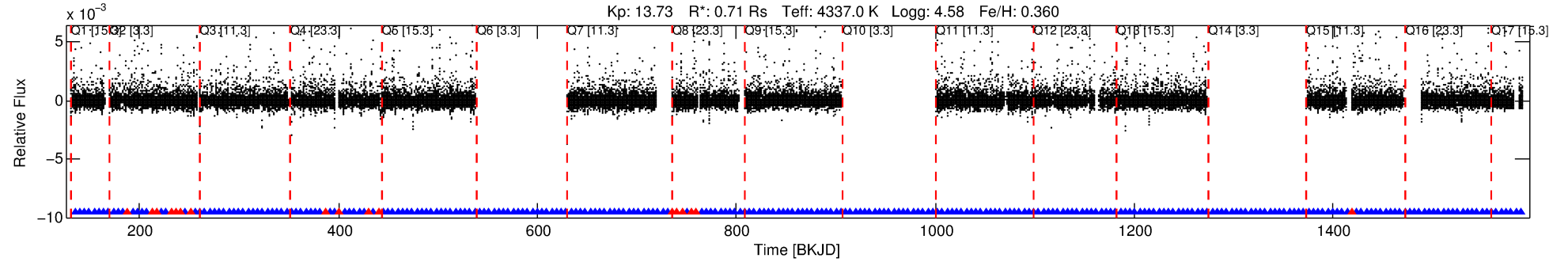
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 004939265-03

No Significant Match Found

DV One-Page Summary

KIC: 4939265 Candidate: 3 of 5 Period: 4.845 d
KOI: K06475.01 Corr: 0.956



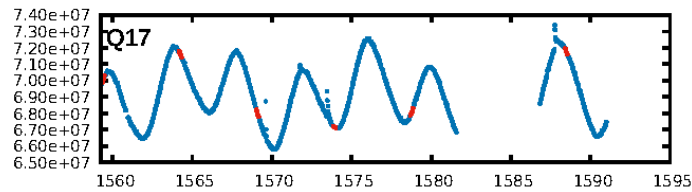
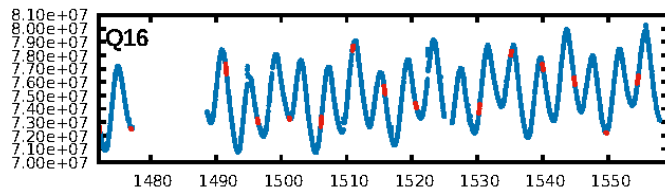
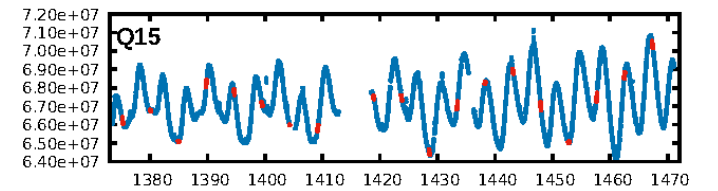
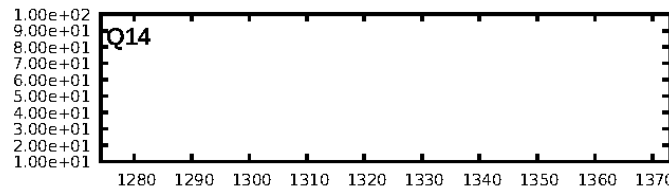
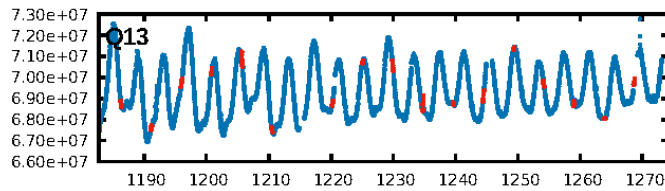
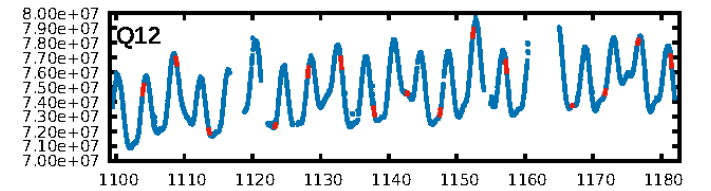
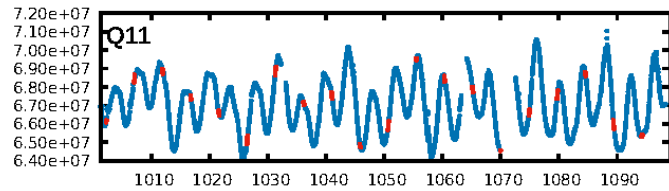
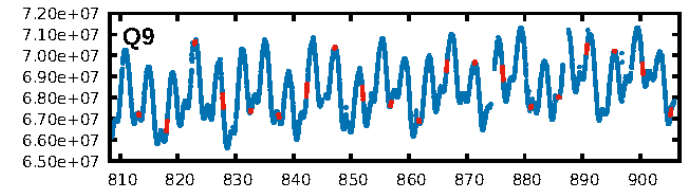
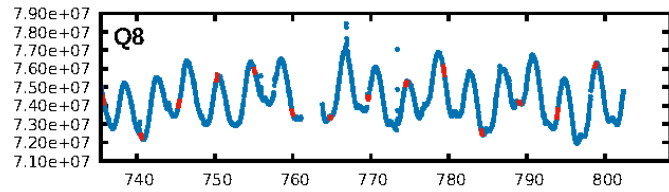
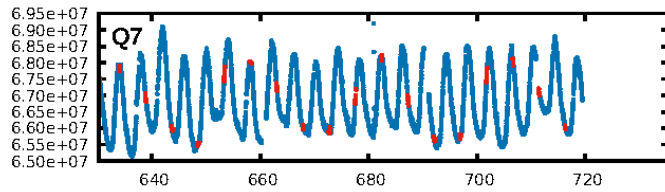
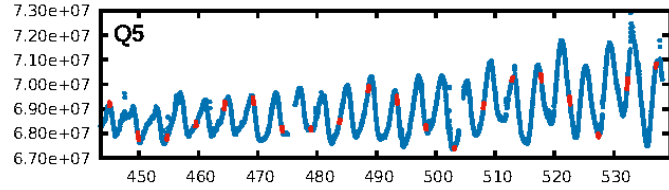
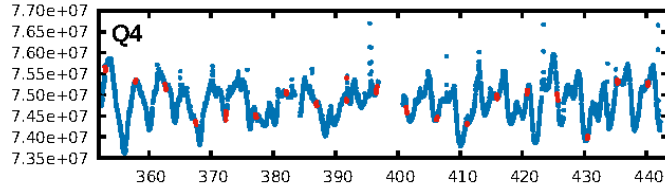
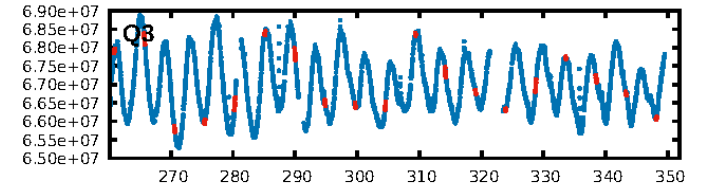
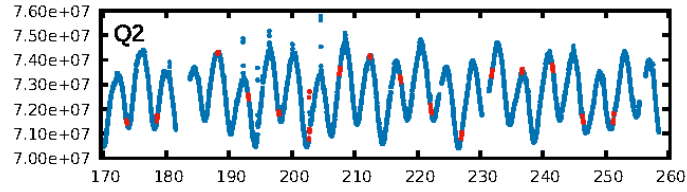
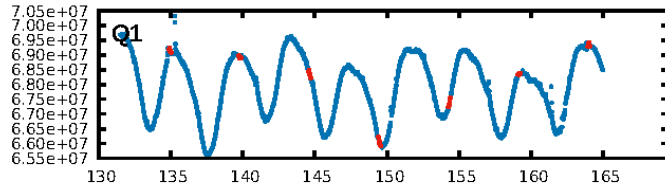
DV Fit Results:

Period = 4.84506 [0.00001] d
Epoch = 134.9512 [0.0017] BKJD
Rp/R* = 0.0208 [0.0041]
a/R* = 7.67 [5.35]
b = 0.93 [0.10]
Seff = 64.72 [7.24]
Teq = 723 [20] K
Rp = 1.62 [0.33] Re
a = 0.0500 [0.0026] AU
Ag = 75.87 [32.52] [2.30σ]
Teffp = 3300 [354] K [7.27σ]

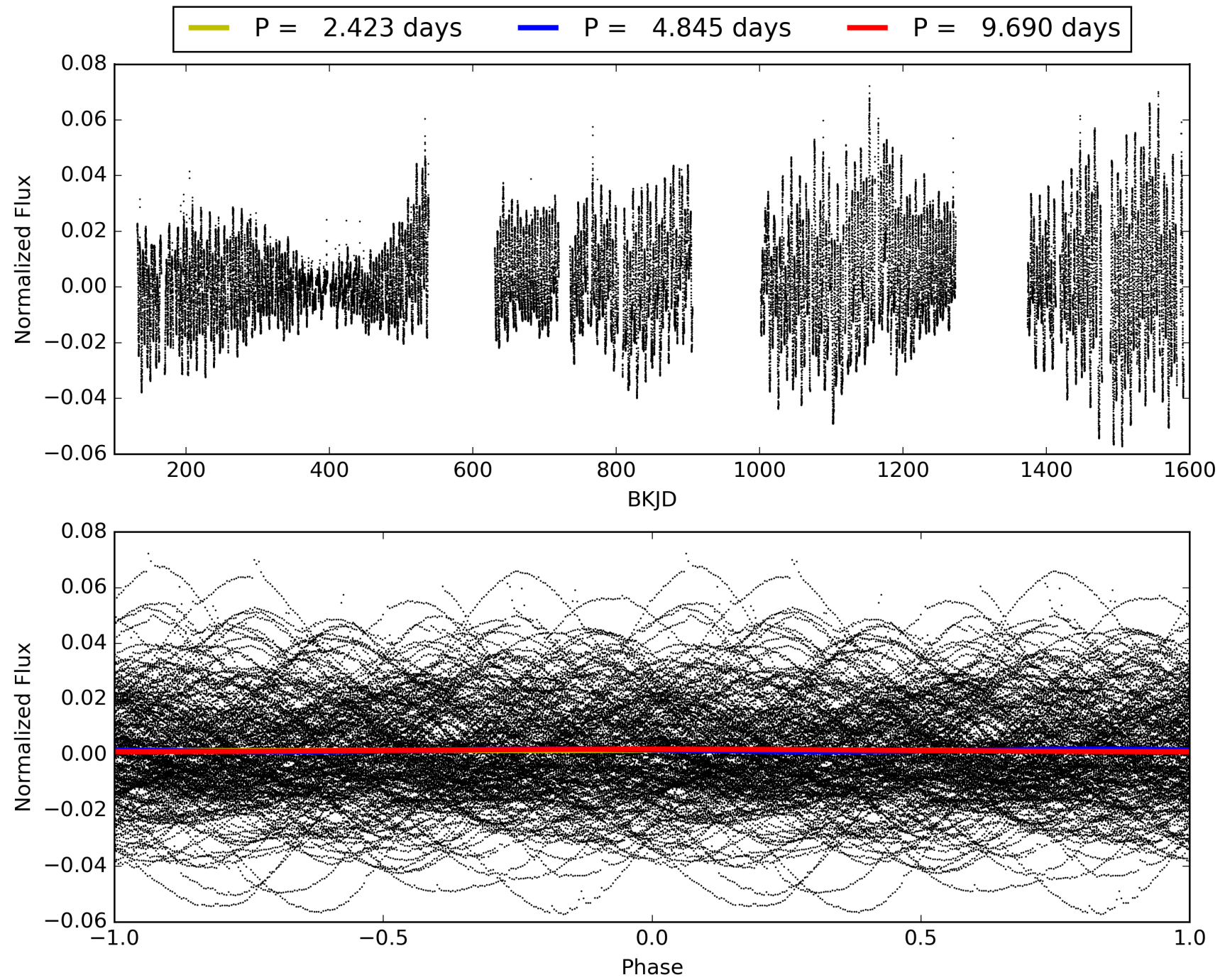
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [1241.42σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.92 [188/205]
GhostDiagnostic-chr: -3.152
Centroid-sig: 0.1%
Centroid-so: 1.321 arcsec [2.44σ]
OotOffset-rm: 0.074 arcsec [0.24σ]
KicOffset-rm: 0.055 arcsec [0.14σ]
OotOffset-st: 1/4/4/3 [12]
KicOffset-st: 1/4/4/3 [12]
DiffImageQuality-fgm: 0.67 [8/12]
DiffImageOverlap-fno: 1.00 [14/14]

TCE 004939265-03, PDC Light Curves

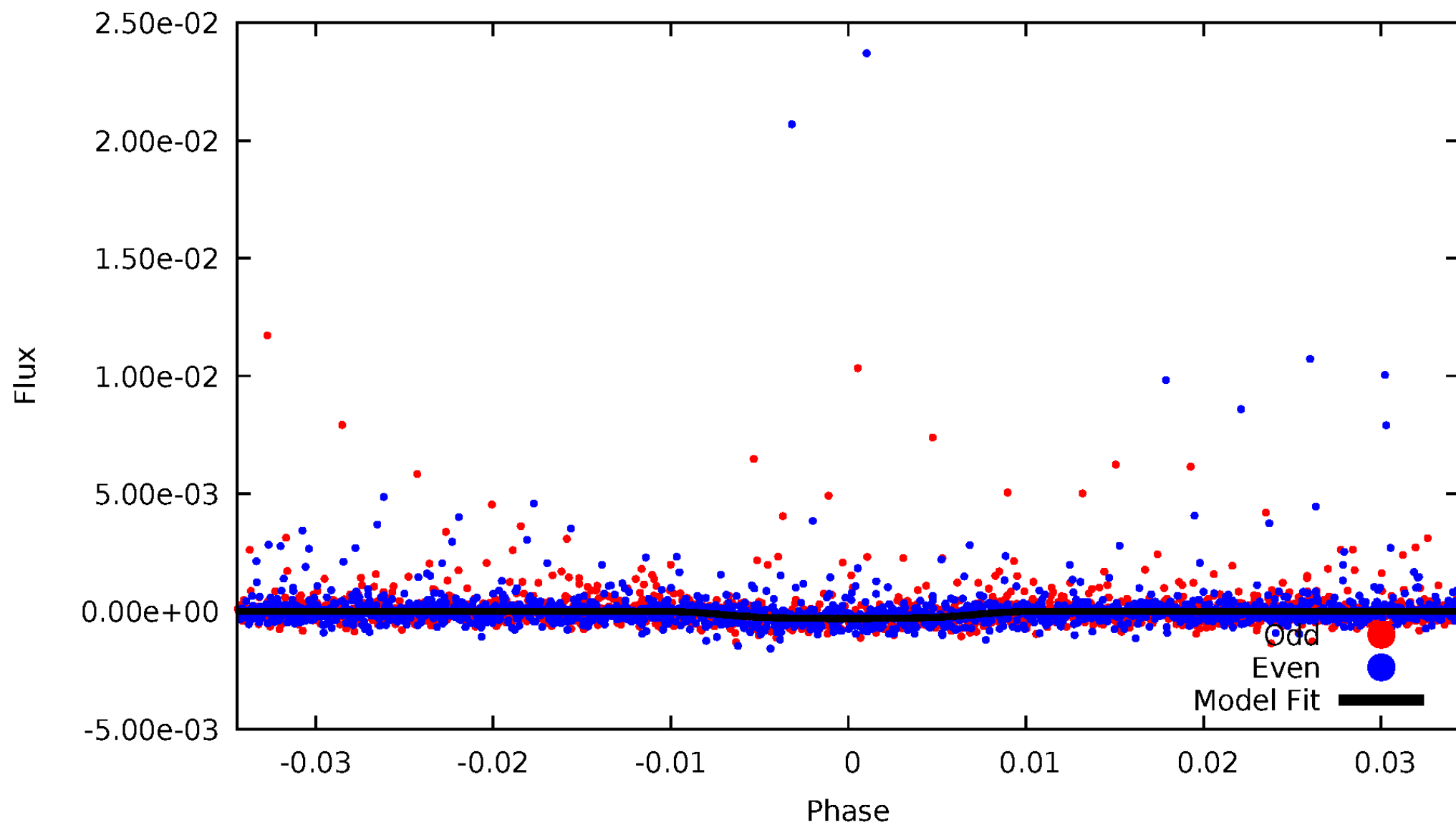


TCE 004939265-03



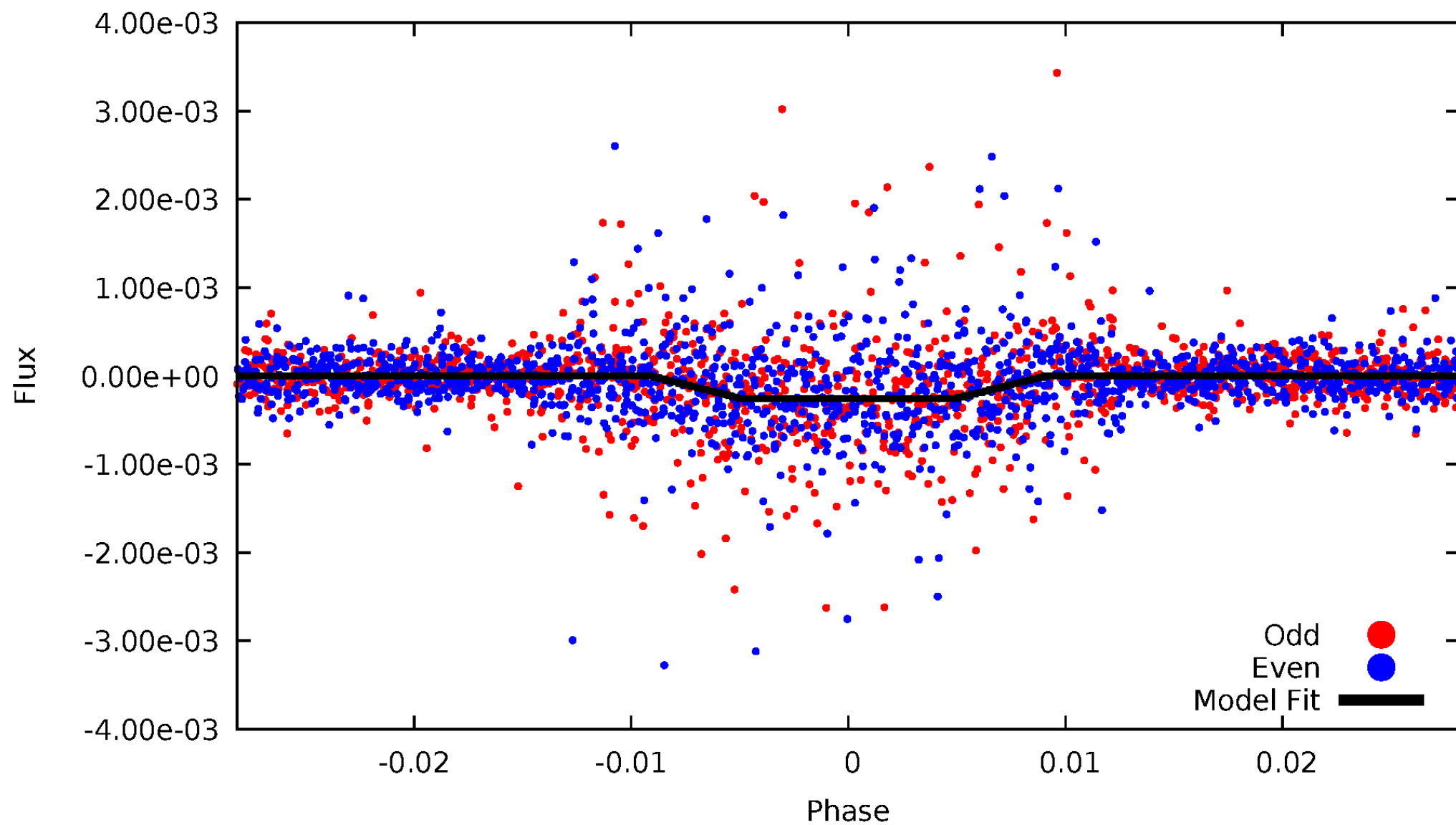
DV Odd/Even

TCE 004939265-03



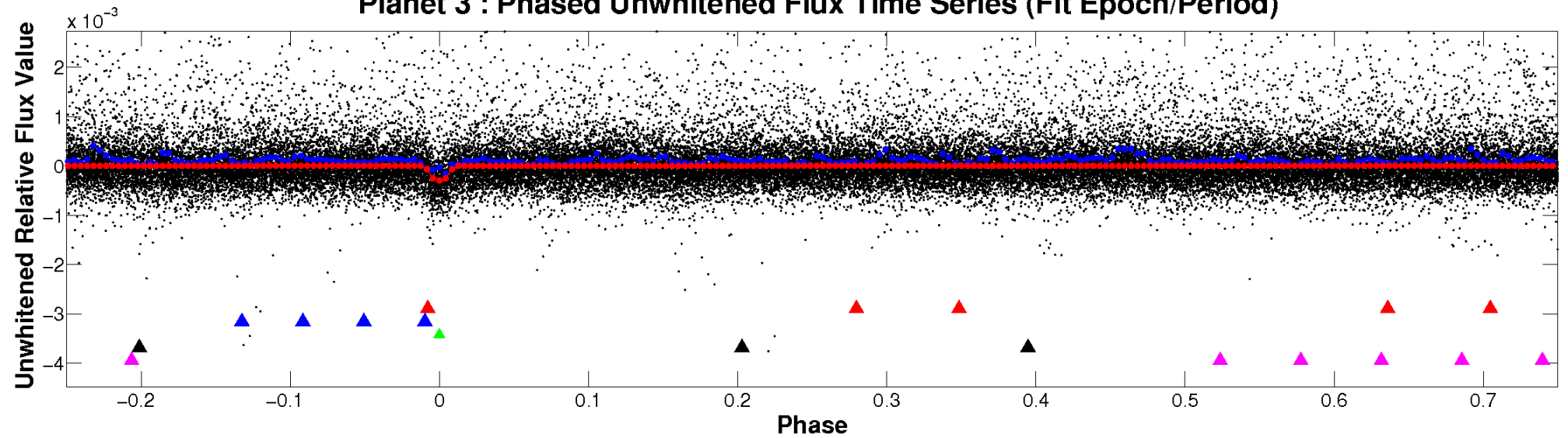
ALT Odd/Even

TCE 004939265-03

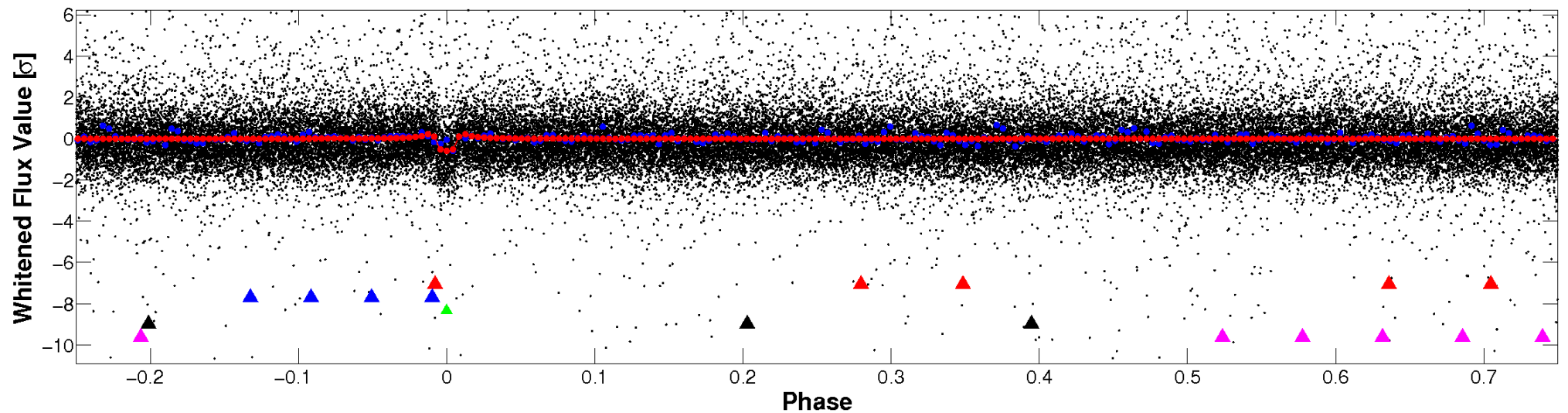


Non-Whitened Vs. Whitened Light Curve

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

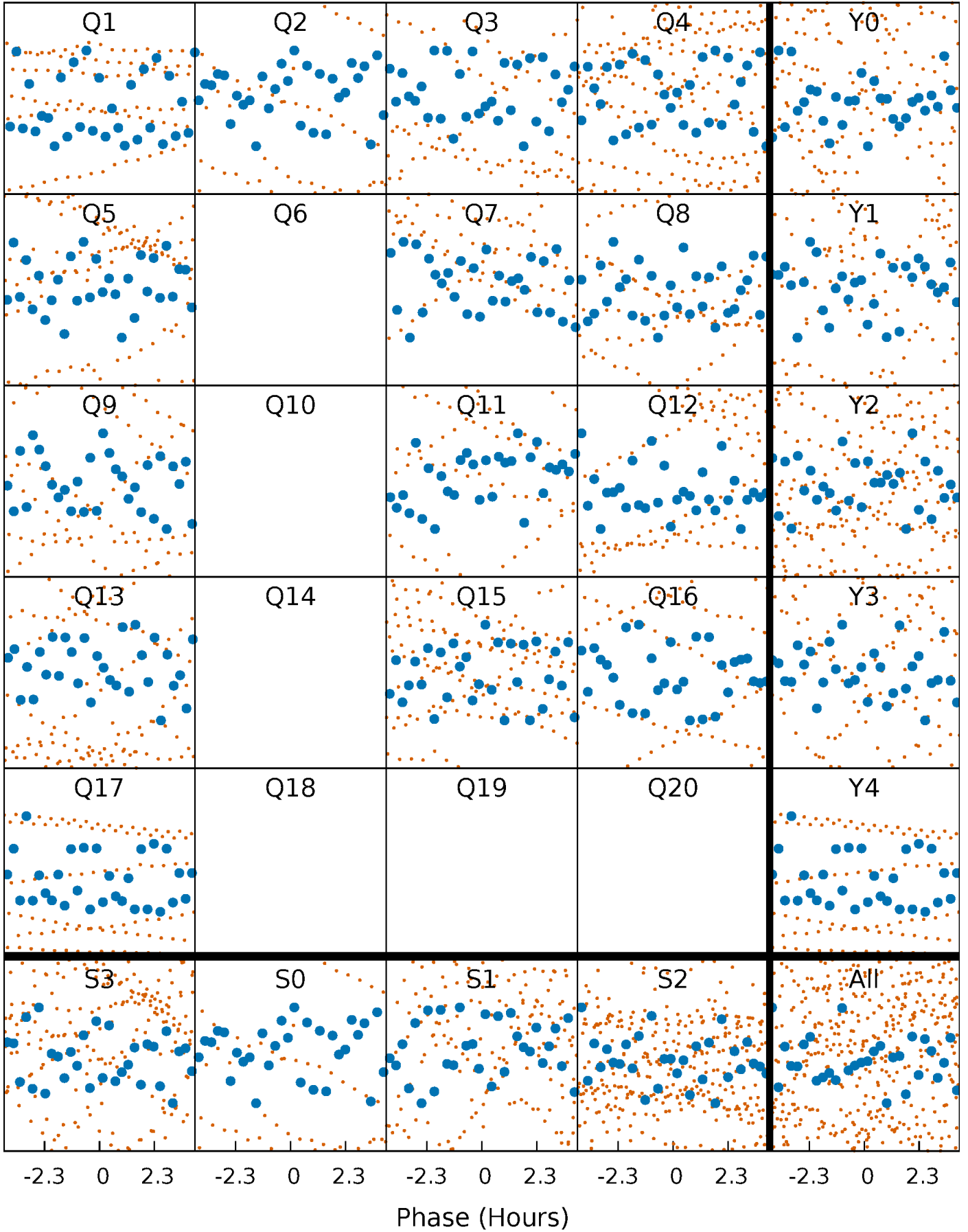


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



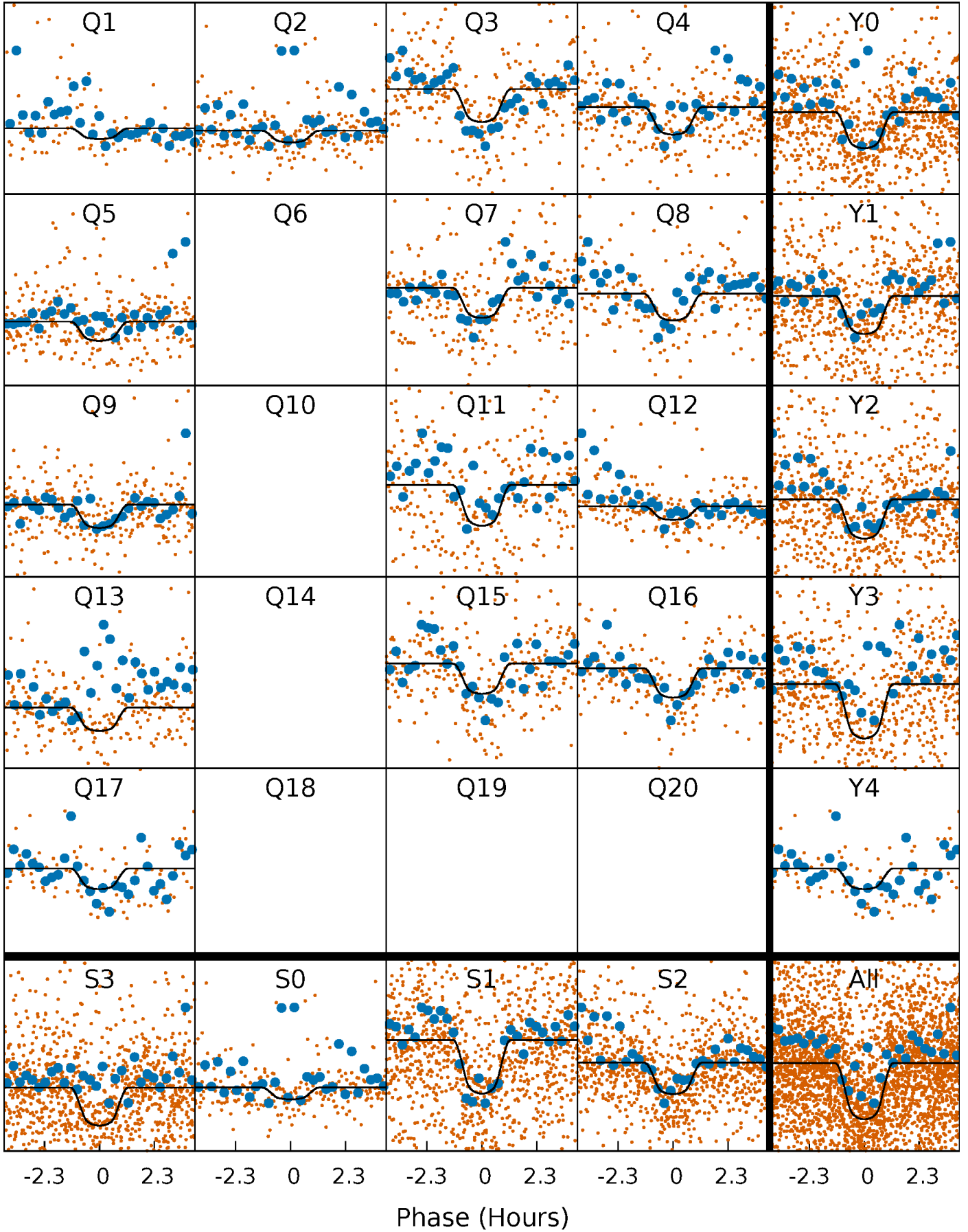
PDC Quarter-Phased Transit Curves

TCE 004939265-03 P= 4.845063 Days $T_0=134.951160$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 004939265-03 P= 4.845063 Days $T_0=134.951160$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

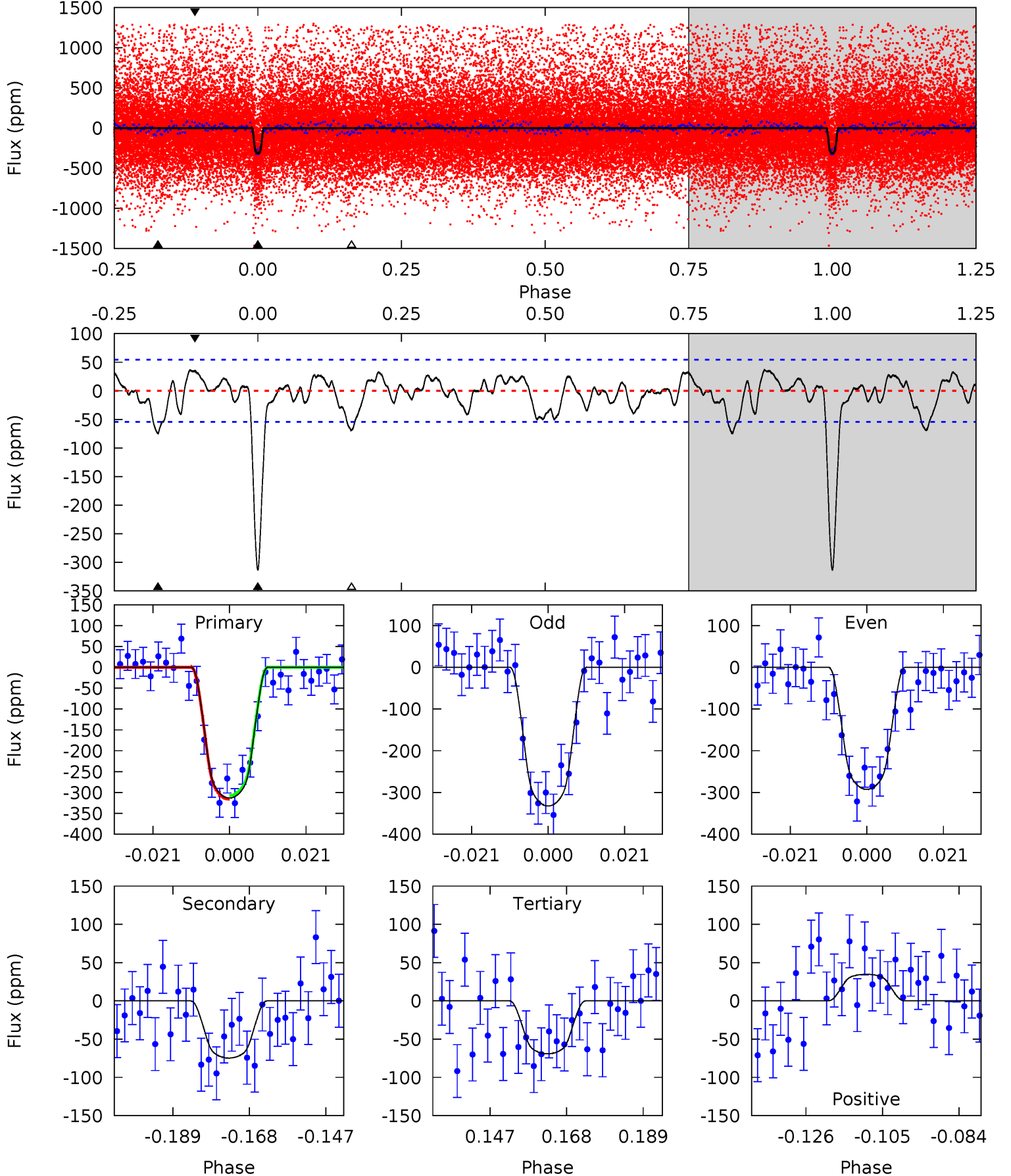
TCE 004939265-03 P= 4.845067 Days $T_0=134.947165$ (BKJD)



DV Model-Shift Uniqueness Test

004939265-03, P = 4.845063 Days, E = 130.106097 Days

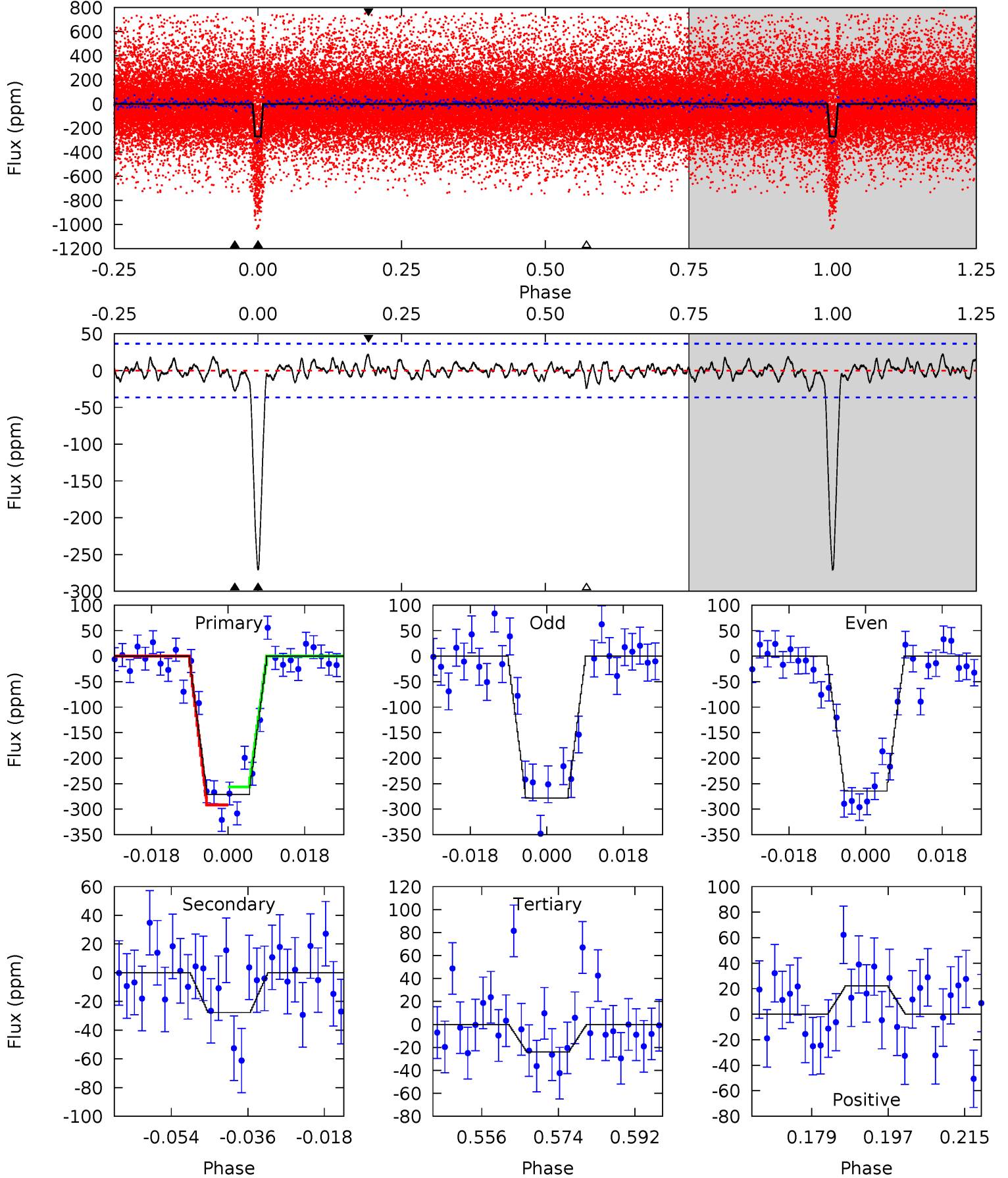
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
28.1	6.71	6.21	3.12	4.88	2.31	1.92	21.9	25.0	0.50	3.59	1.82	0.35	0.10	0.38



Alt Model-Shift Uniqueness Test

004939265-03, P = 4.845067 Days, E = 130.102098 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
36.4	3.73	3.22	2.98	4.91	2.37	0.97	33.2	33.5	0.51	0.75	0.91	0.96	0.08	2.40



Stellar Parameters For KIC 004939265

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4337^{+77}_{-86}	$4.581^{+0.045}_{-0.009}$	$0.360^{+0.100}_{-0.150}$	$0.714^{+0.014}_{-0.041}$	$0.709^{+0.027}_{-0.021}$	$2.743^{+0.463}_{-0.112}$
	+2%/-2%	+1%/-0%	+28%/-42%	+2%/-6%	+4%/-3%	+17%/-4%
Source	SPE90	SPE90	SPE90	DSEP		

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

Secondary Eclipse Parameters for KIC 004939265-03 / KOI 6475.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-75 ± 11	$1.60^{+0.32}_{-0.32}$	1004^{+22}_{-22}	3232^{+250}_{-189}	41^{+24}_{-13}
Alt.	-28 ± 7	$1.22^{+0.32}_{-0.31}$	1003^{+20}_{-23}	3012^{+300}_{-228}	25^{+23}_{-10}

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

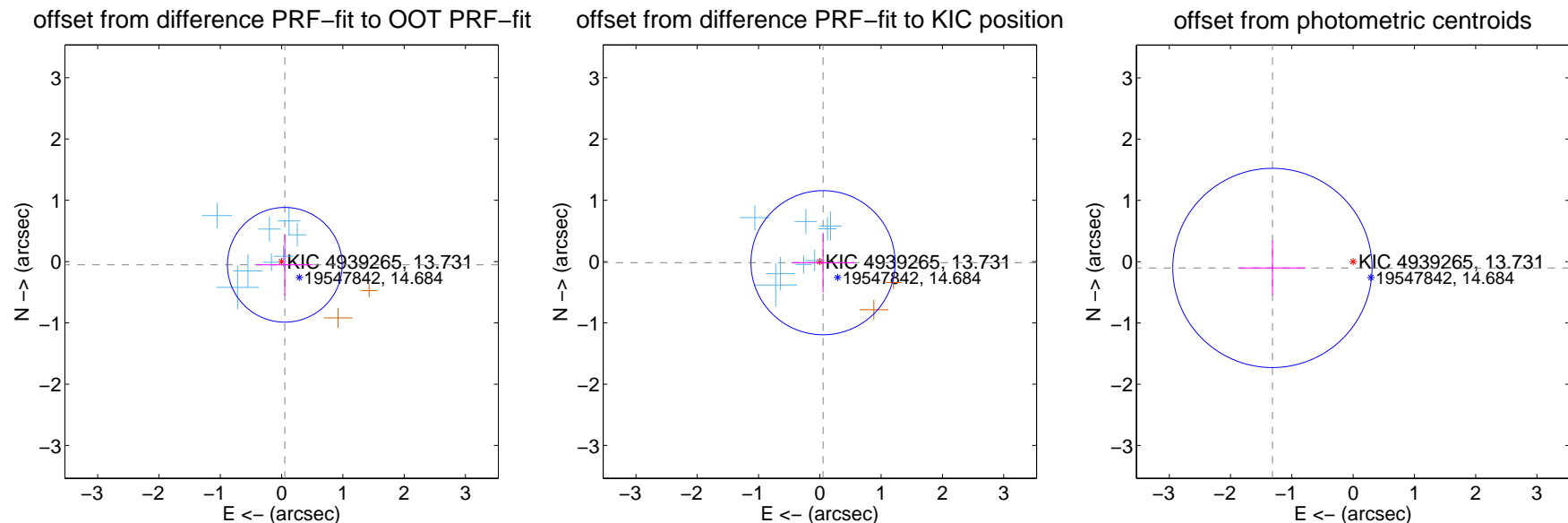
DV Centroid Data

Supplemental centroid analysis for 004939265-03. Kepler magnitude: 13.73. Transit SNR 14.97

There are 8 quarters with good PRF difference image offsets

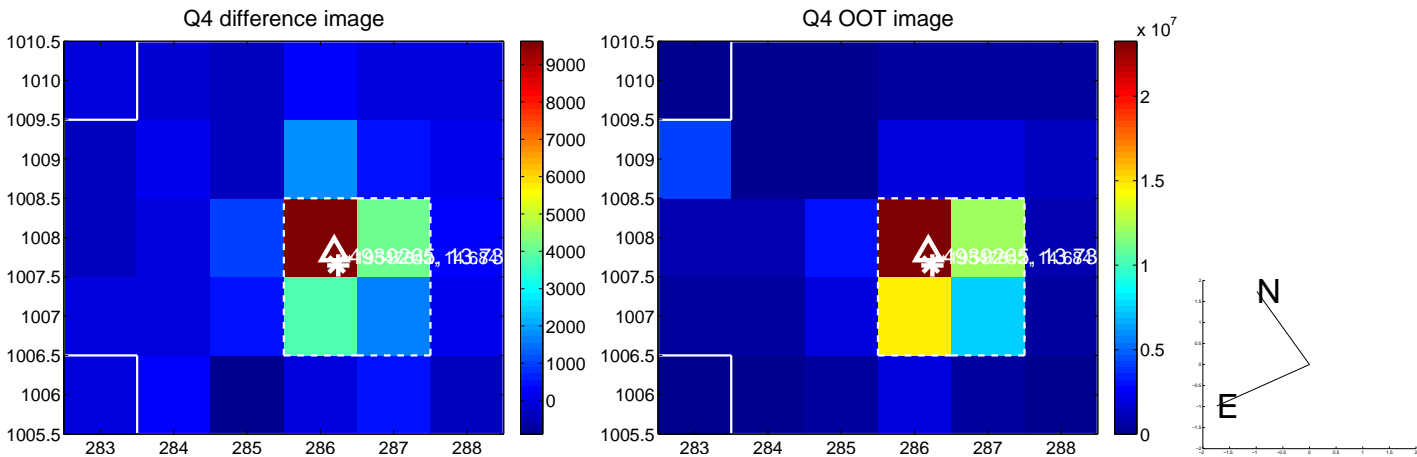
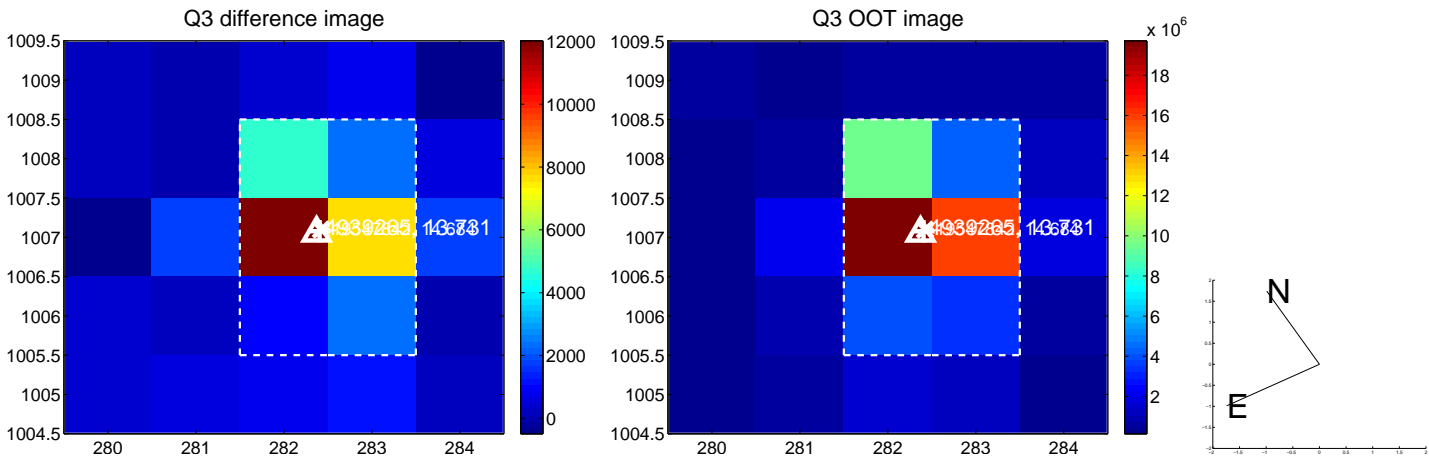
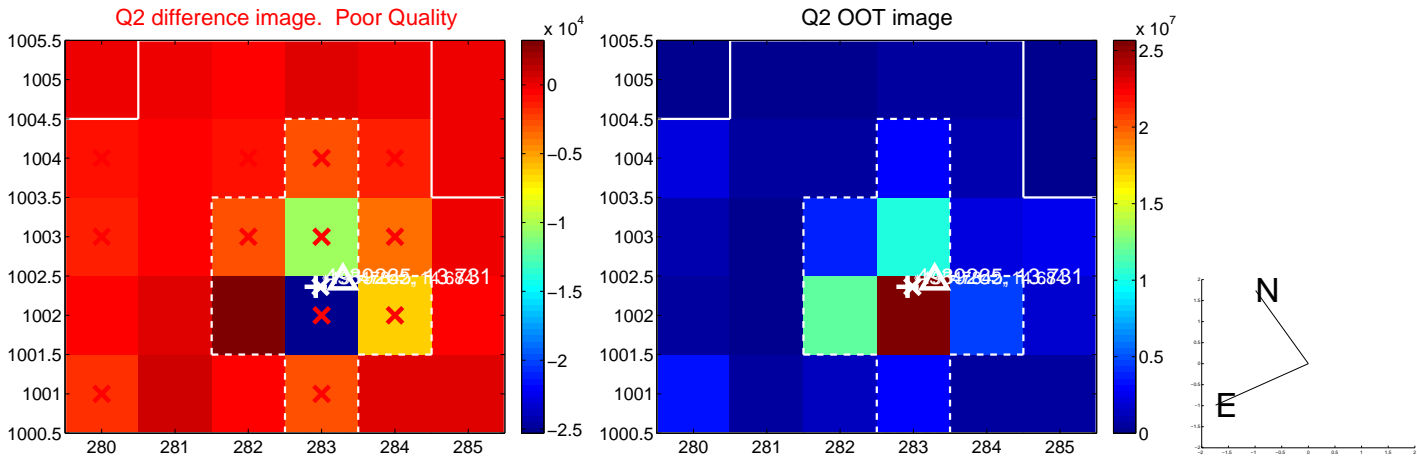
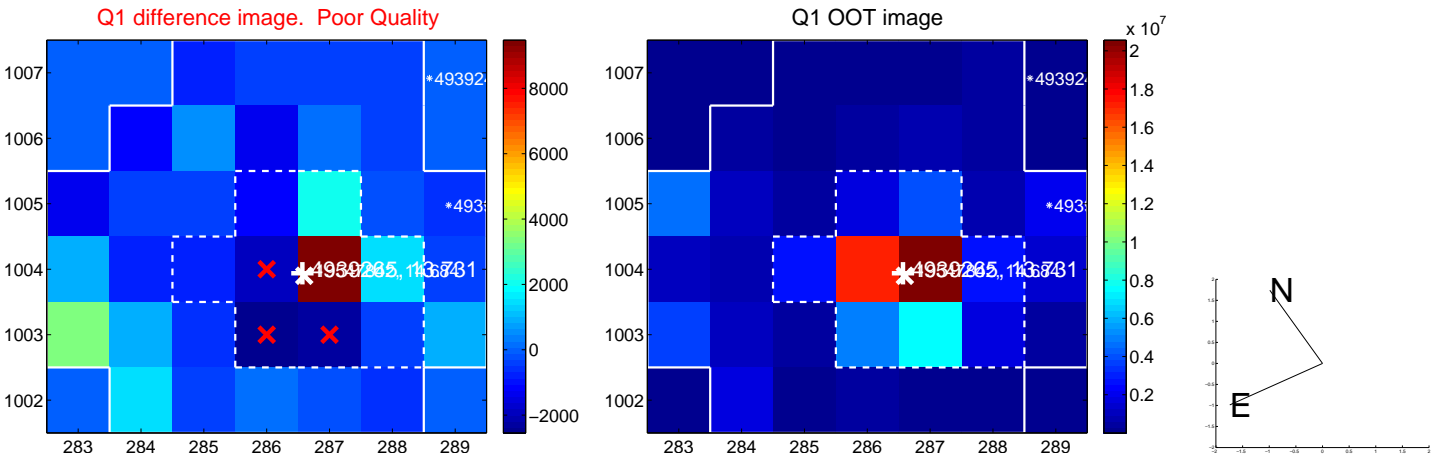
The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.074 ± 0.312	0.24	-0.052 ± 0.463	-0.052 ± 0.501
PRF-fit source offset from KIC position	0.055 ± 0.392	0.14	-0.052 ± 0.512	-0.018 ± 0.488
photometric centroid source offset	1.32 ± 0.54	2.44	1.32 ± 0.54	-0.10 ± 0.45

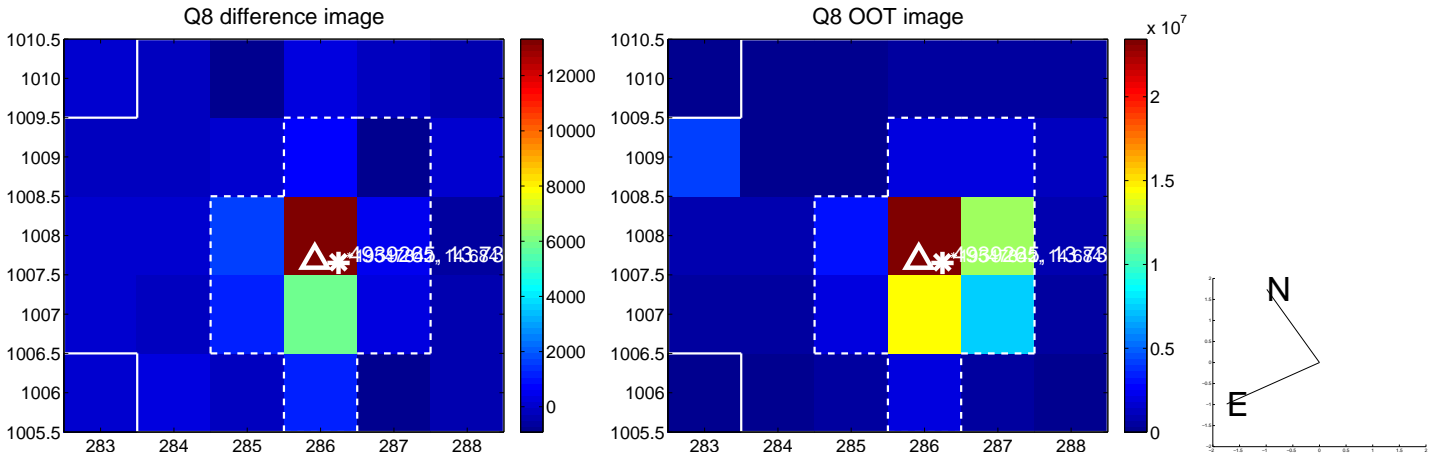
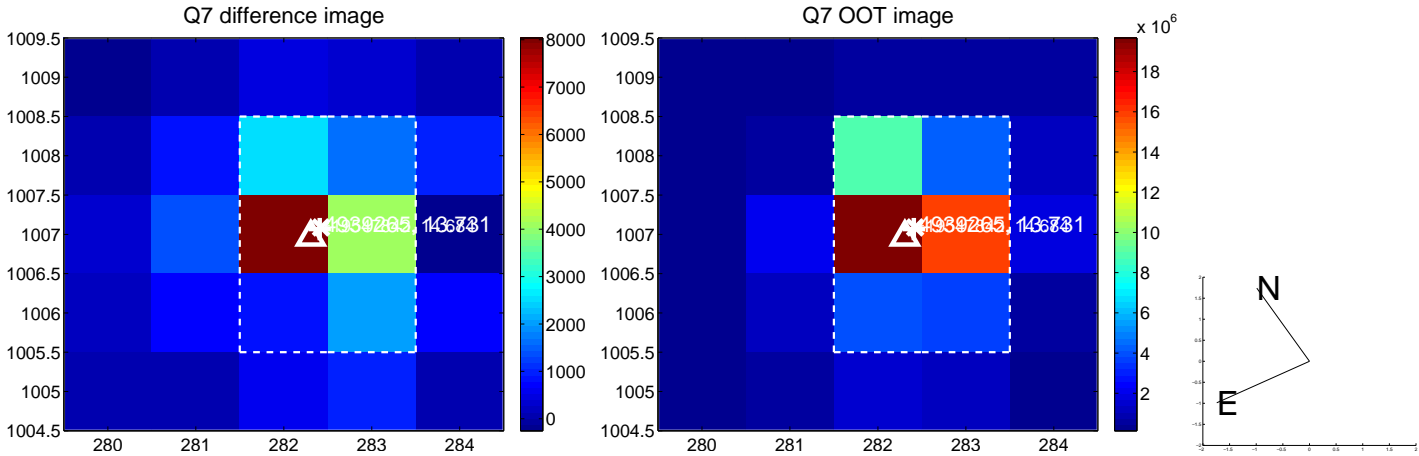
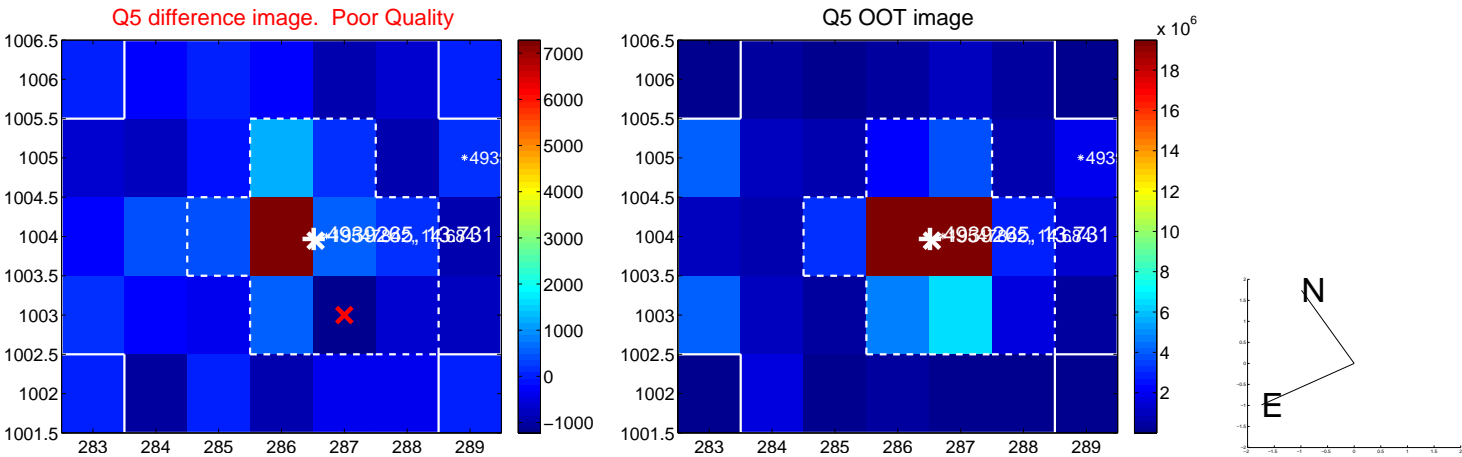


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

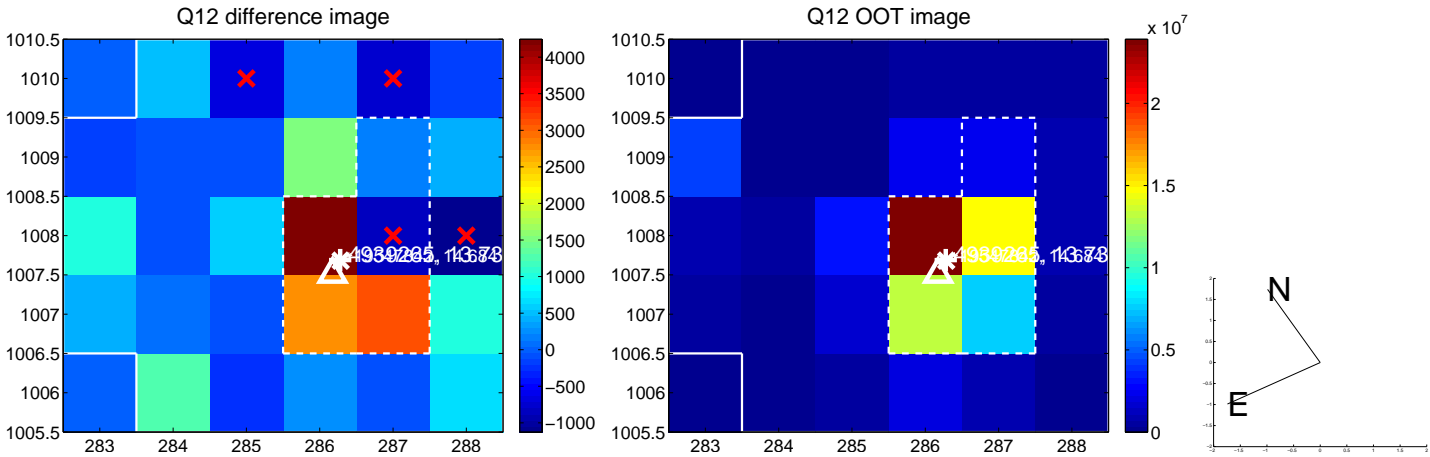
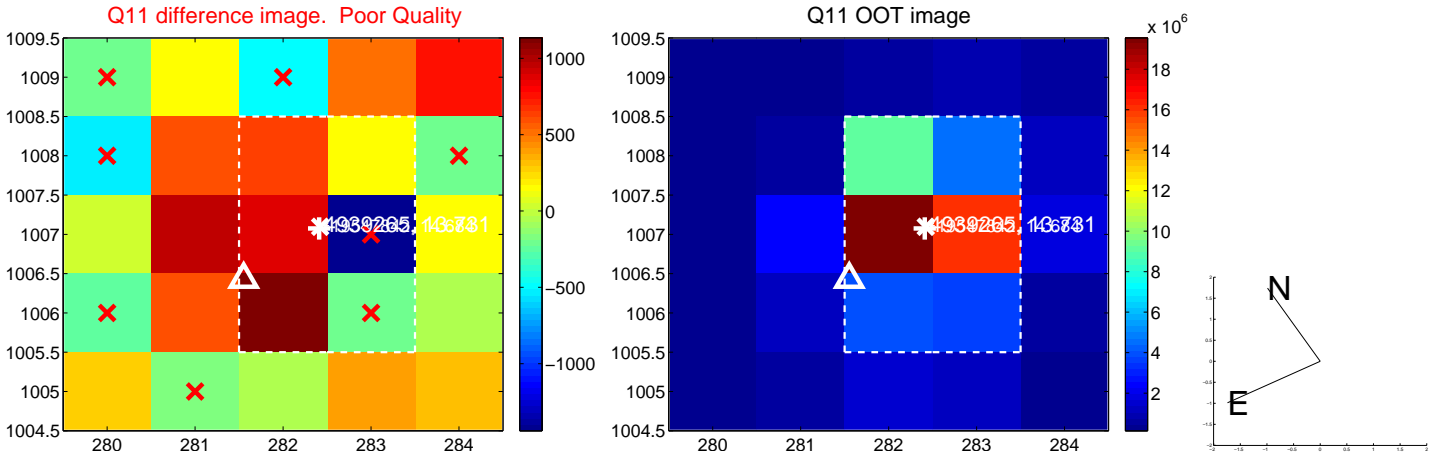
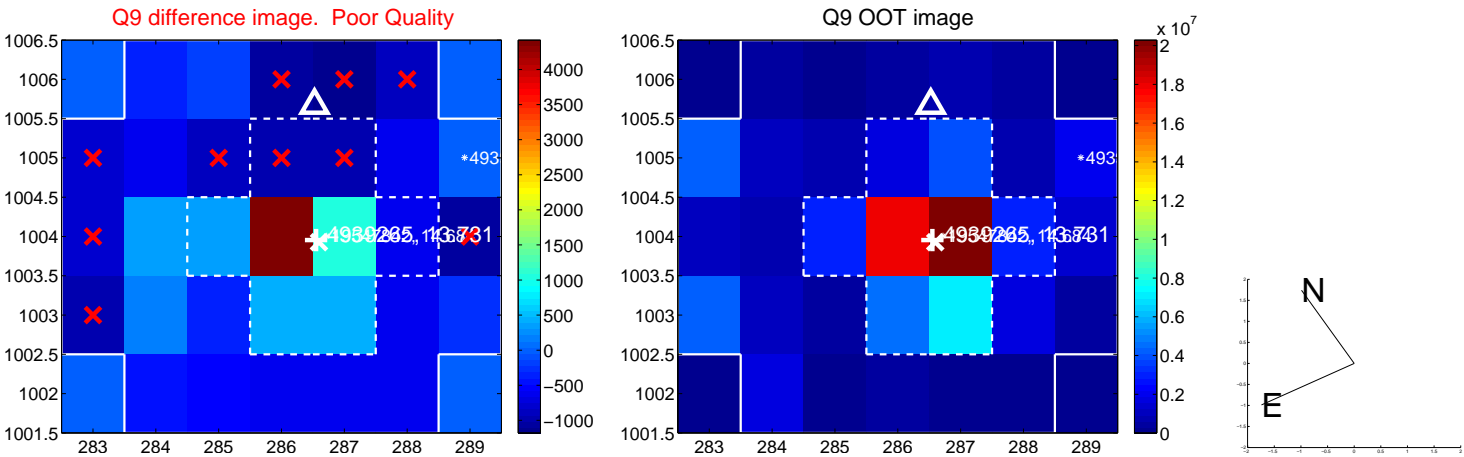
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



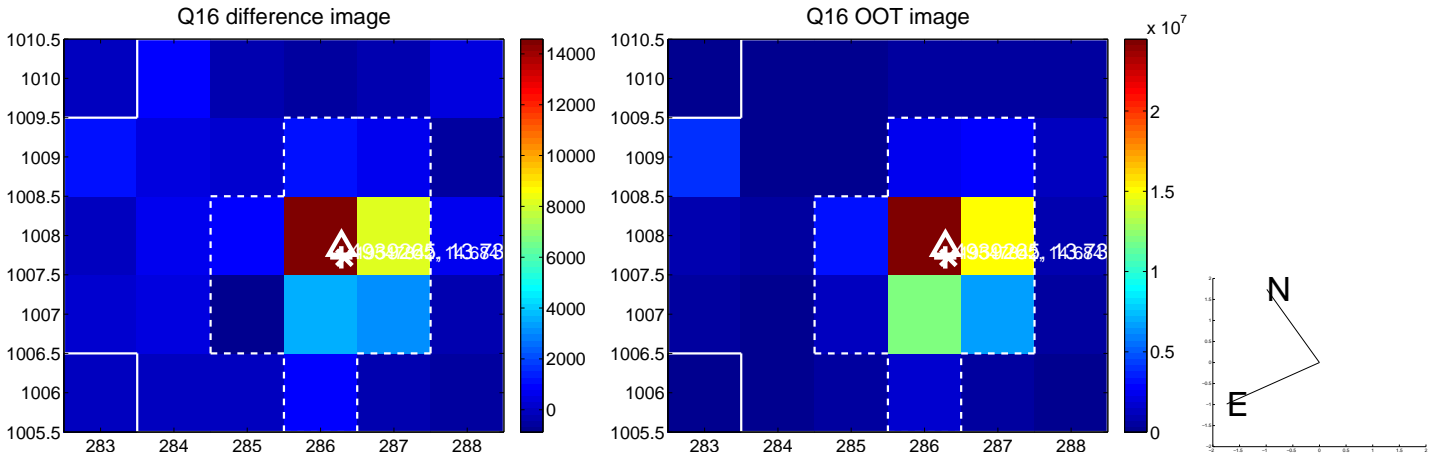
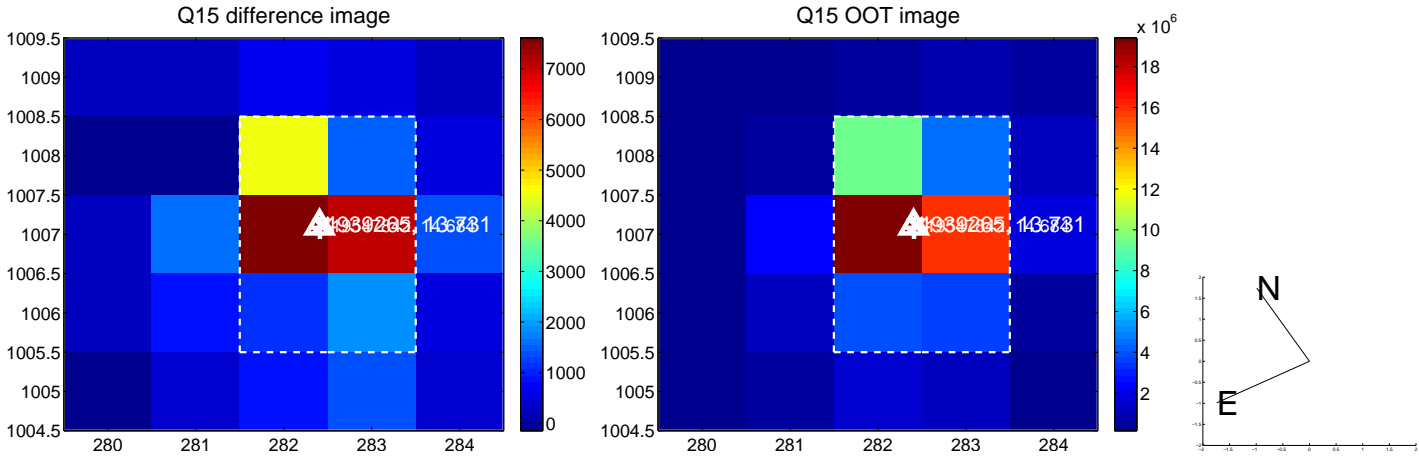
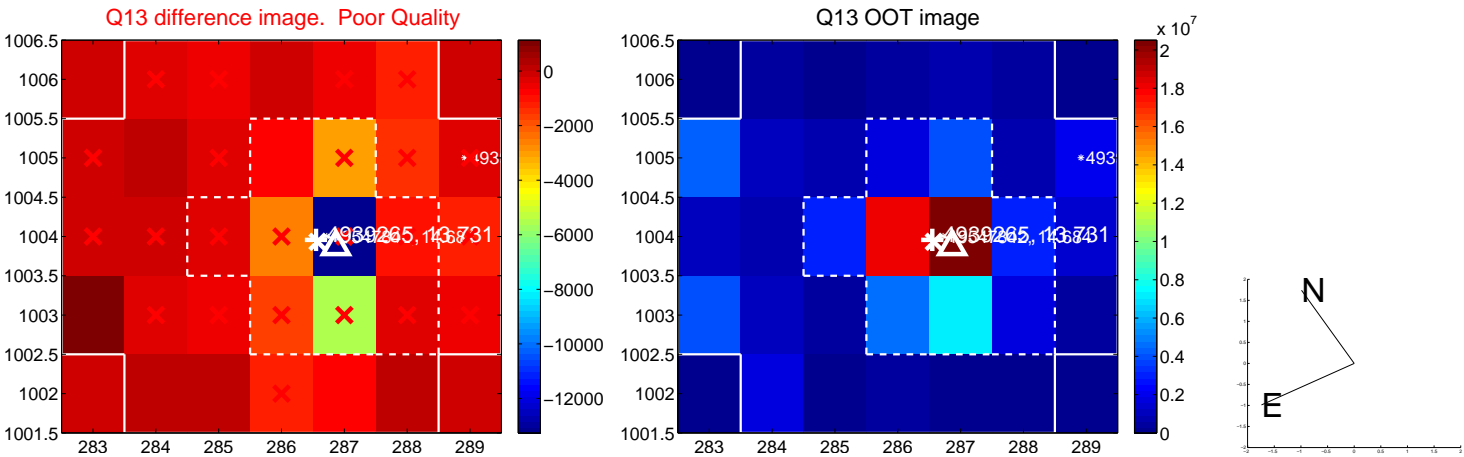
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



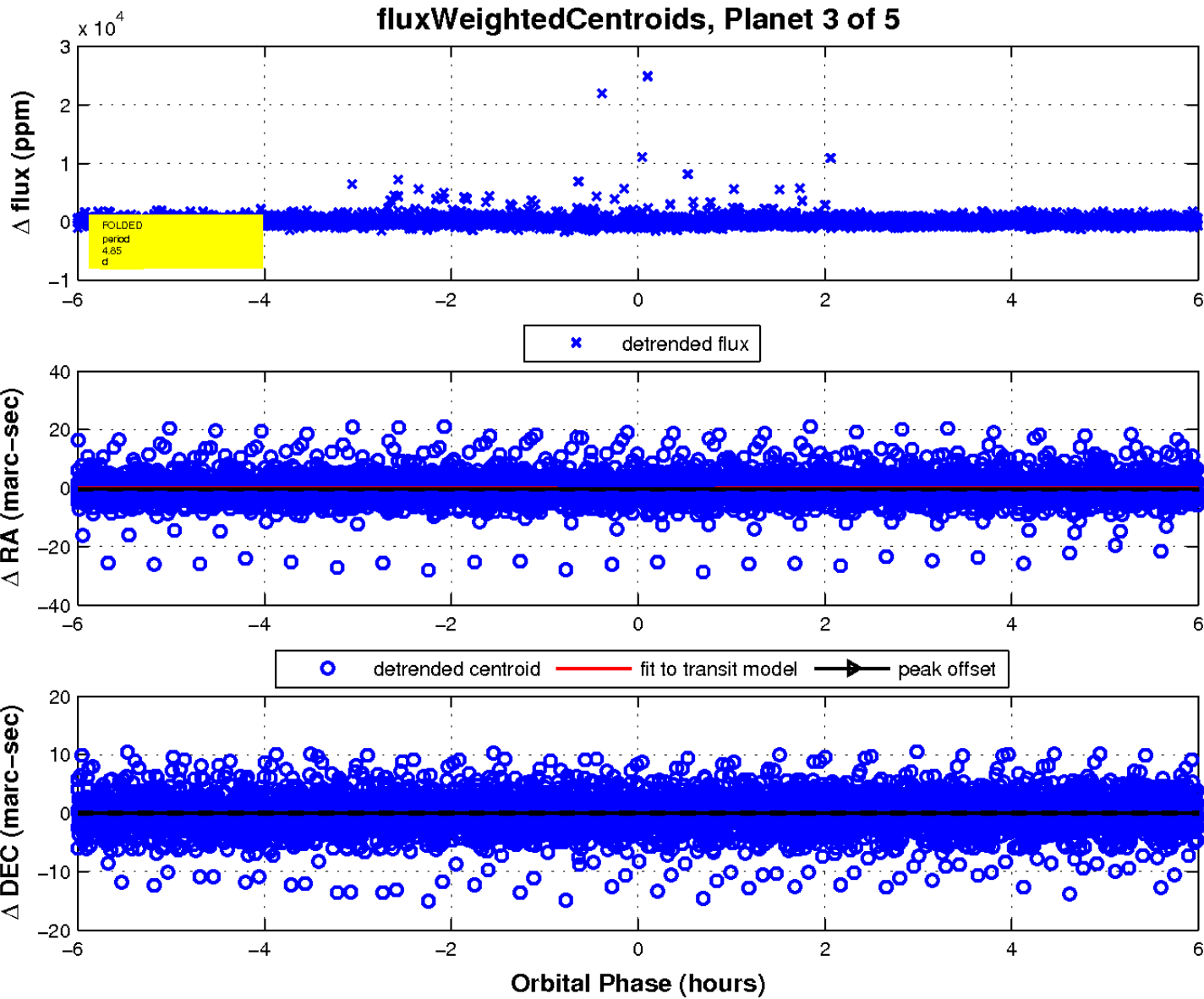
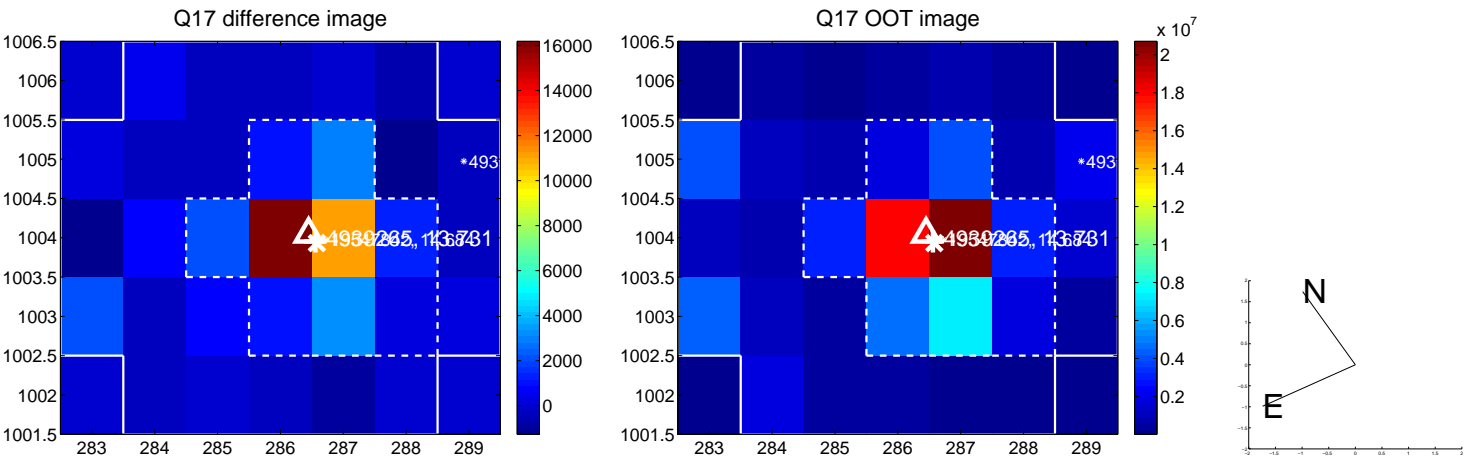
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



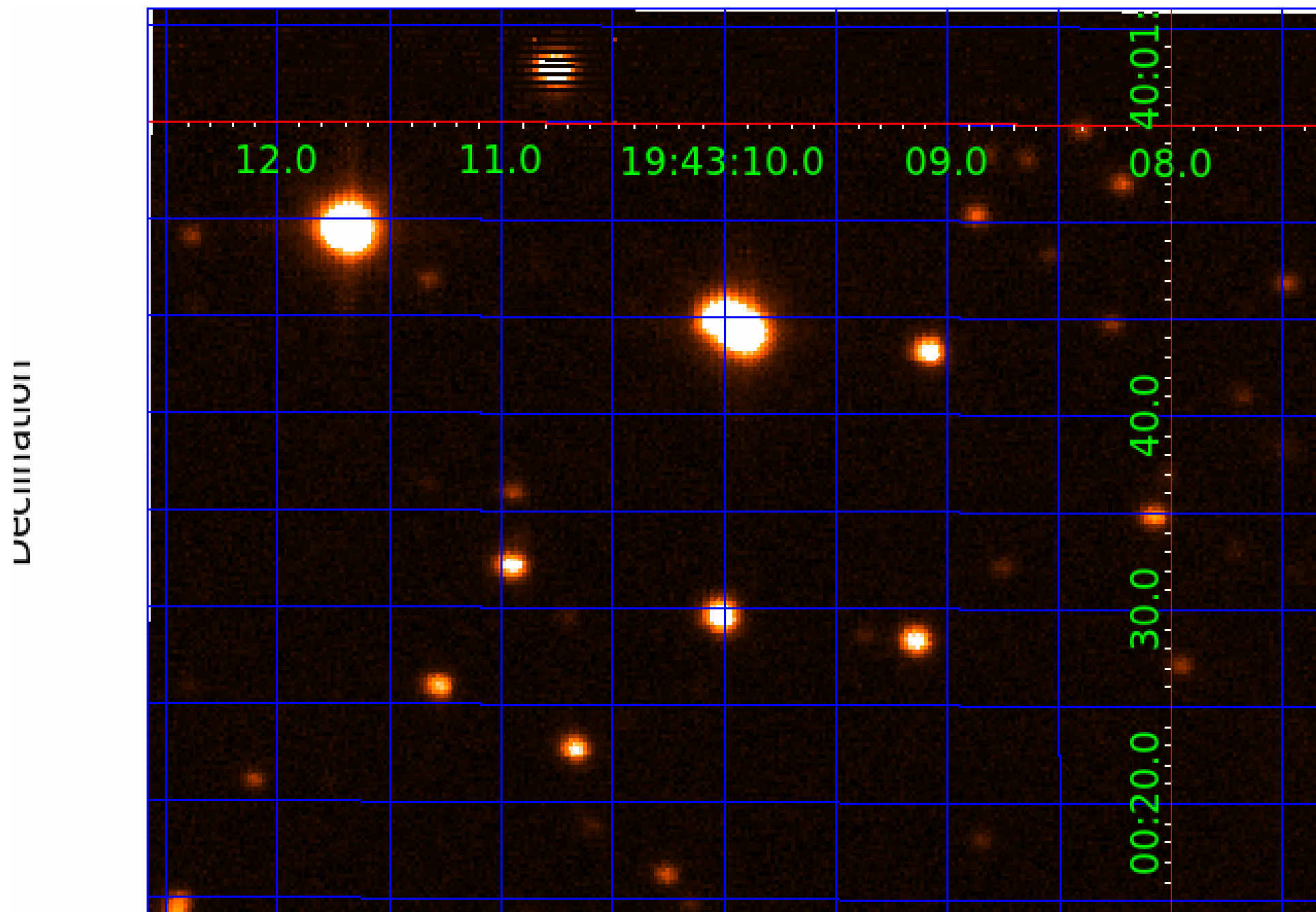
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image



KIC 004939265

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})
004939265-01	OBS	No	253.669424	383.404450	229.8	1.938	17.6	1.6	0.71	4337	1.27	0.33
004939265-02	OBS	No	343.801299	425.607797	1153.2	3.719	16.1	6.6	0.71	4337	2.30	0.22
004939265-03	OBS	6475.01	4.845063	134.951160	298.6	2.001	13.4	15.0	0.71	4337	1.62	64.72
004939265-04	OBS	No	602.745555	195.004506	3461.7	19.567	12.2	9.4	0.71	4337	4.33	0.10
004939265-05	OBS	No	247.359838	297.375313	1198.2	4.240	14.2	6.9	0.71	4337	2.65	0.34

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004939265-01	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES_MARSHALL_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS—HALO_GHOST
004939265-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES
004939265-03	OBS	PC	1.00	0	0	0	0	NO_COMMENT
004939265-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS
004939265-05	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—INCONSISTENT_TRANS—CENT_FEW_DIFFS

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

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

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

Ephemeris Match Information For 004939265-04

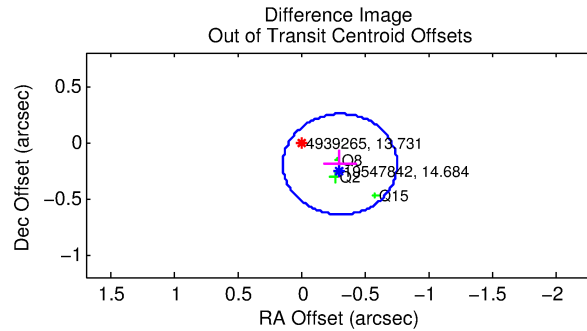
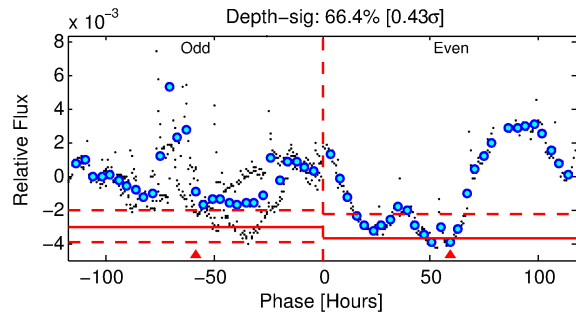
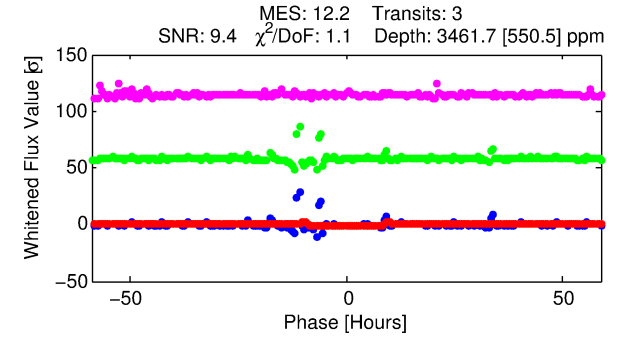
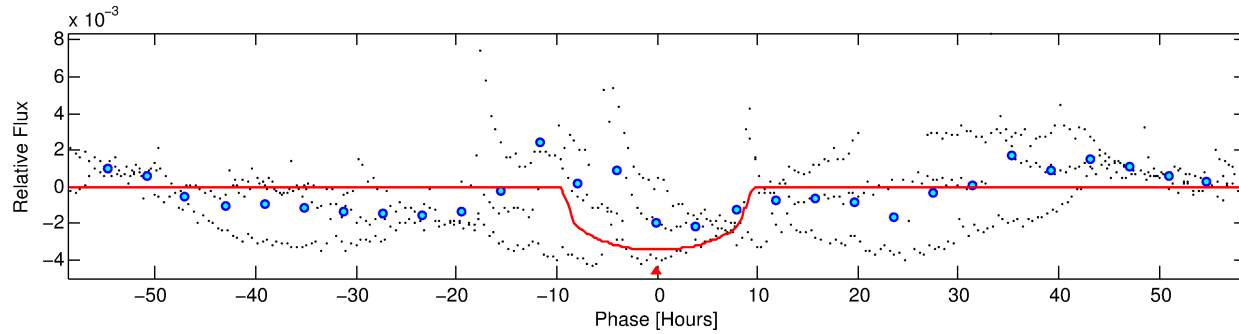
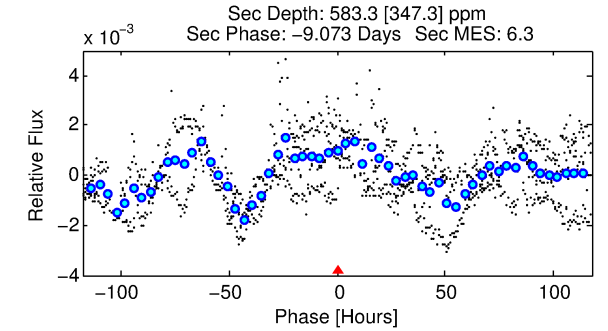
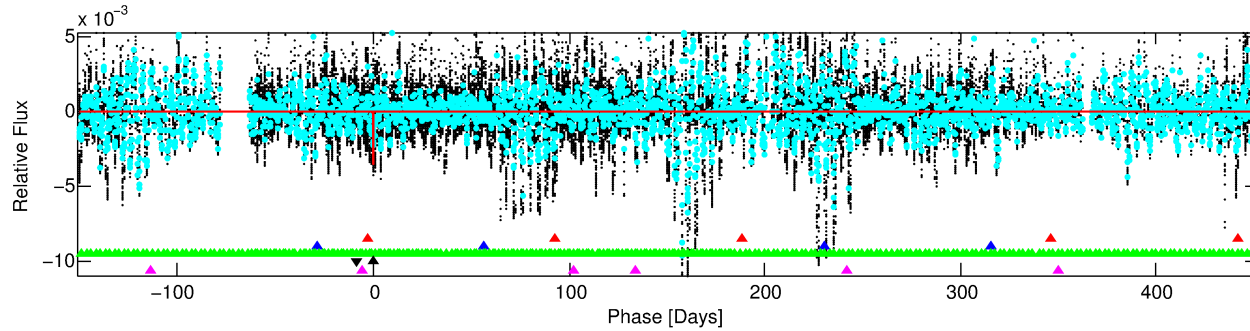
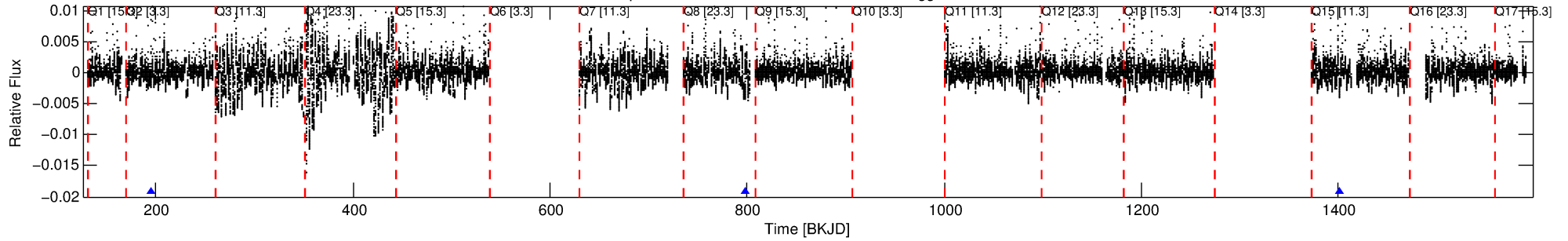
No Significant Match Found

DV One-Page Summary

KIC: 4939265 Candidate: 4 of 5 Period: 602.746 d

KOI: K06475 Corr: No Ephemeris Match

Kp: 13.73 R*: 0.71 Rs Teff: 4337.0 K Logg: 4.58 Fe/H: 0.360



DV Fit Results:

Period = 602.74556 [0.00839] d
Epoch = 195.0045 [0.0105] BKJD
Rp/R* = 0.0556 [0.0058]
a/R* = 201.66 [33.54]
b = 0.62 [0.17]
Seff = 0.10 [0.01]
Teq = 145 [4] K
Rp = 4.34 [0.51] Re
a = 1.2452 [0.0642] AU
Ag = 26475.58 [16818.29] [1.57σ]
Teff = 2857 [454] K [5.98σ]

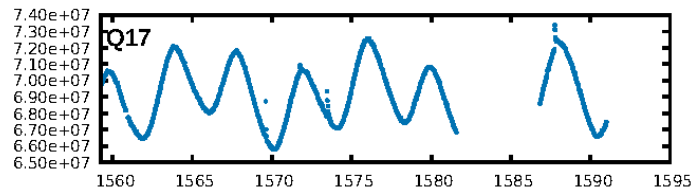
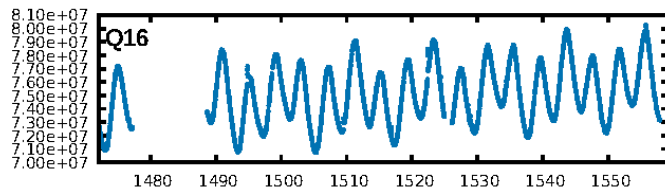
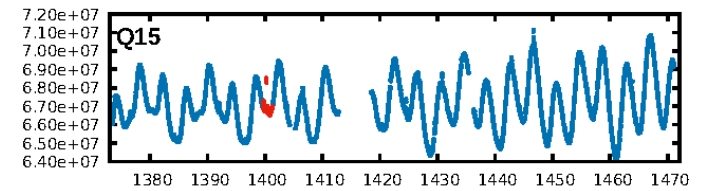
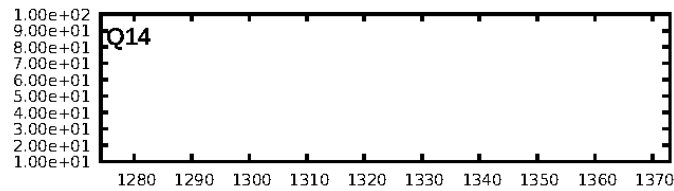
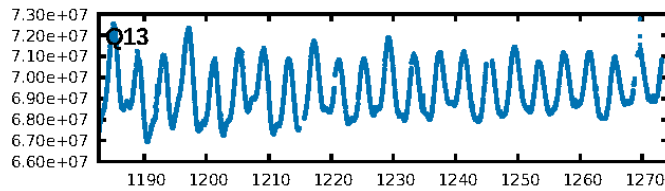
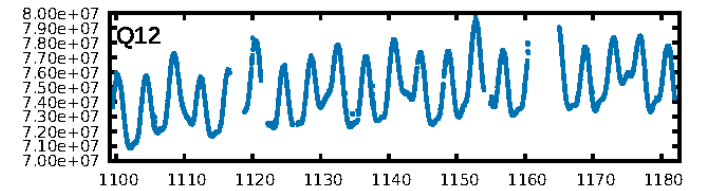
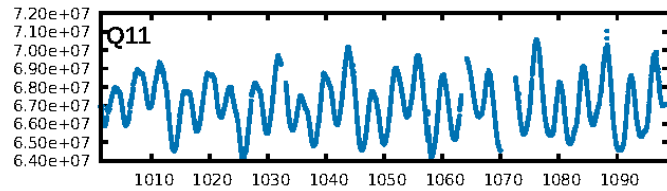
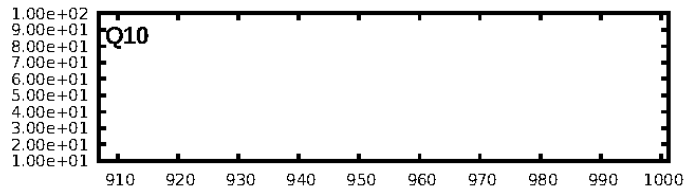
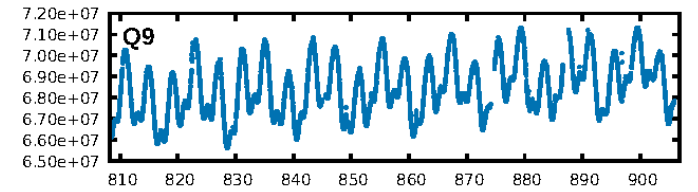
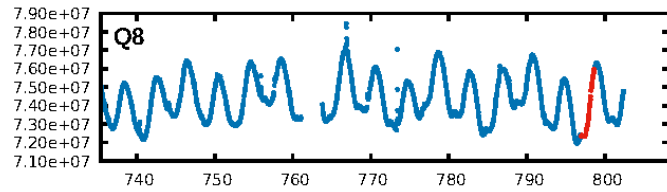
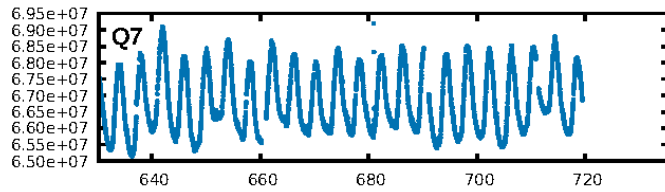
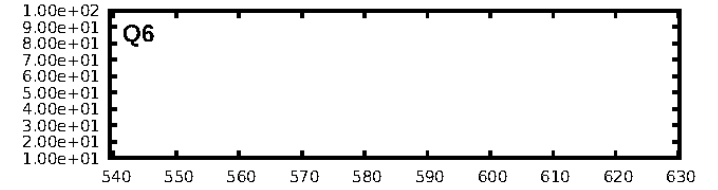
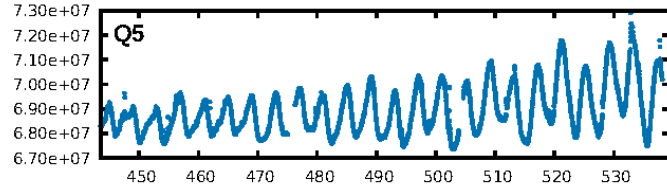
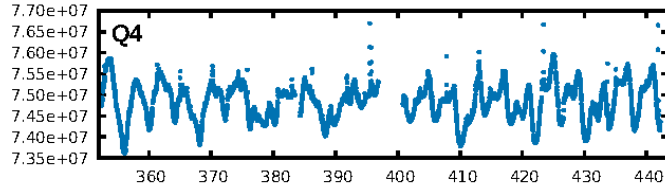
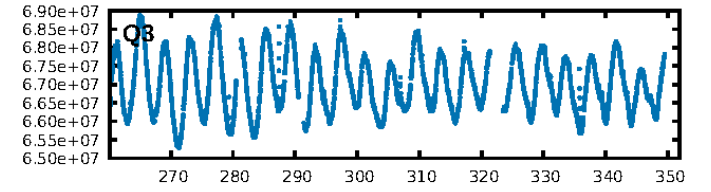
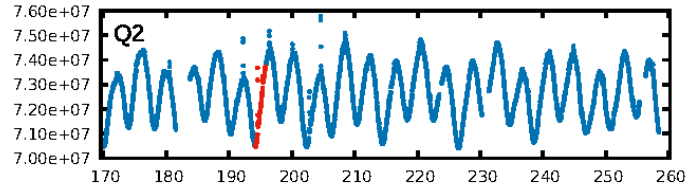
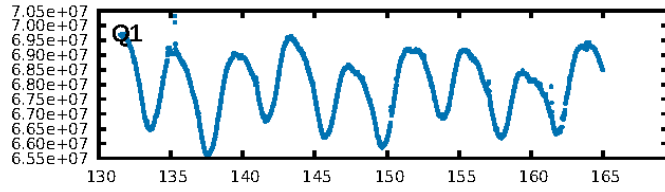
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [312.03σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 6.3%
ModelChiSquareGof-sig: 99.4%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -0.8592
Centroid-sig: 42.0%
Centroid-so: 0.292 arcsec [0.67σ]
OotOffset-rm: 0.357 arcsec [2.39σ]
KicOffset-rm: 0.356 arcsec [2.81σ]
OotOffset-st: 1/1/1/0 [3]
KicOffset-st: 1/1/1/0 [3]
DiffImageQuality-fgm: 1.00 [3/3]
DiffImageOverlap-fno: 0.33 [1/3]

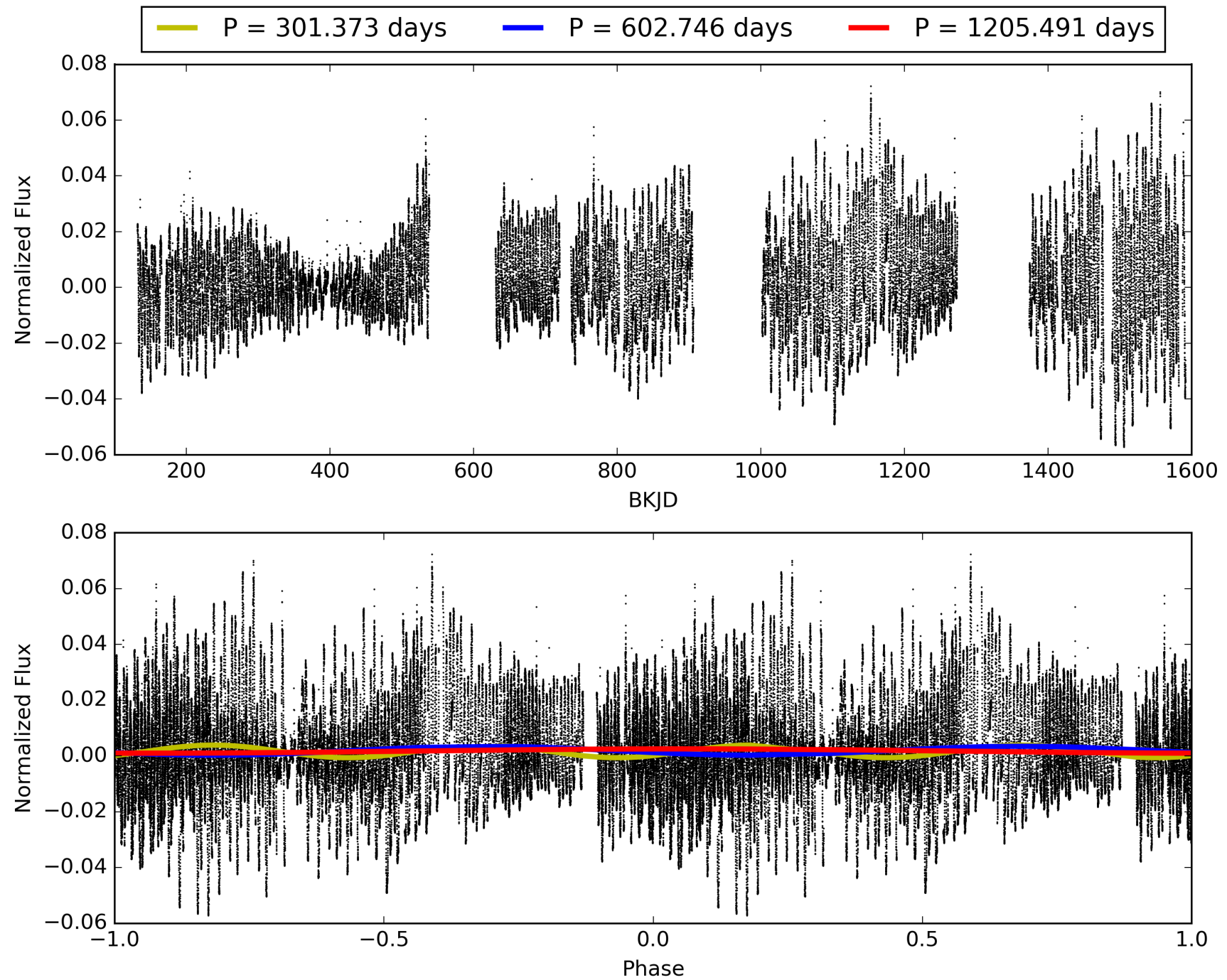
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 05:18:07 Z

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

TCE 004939265-04, PDC Light Curves

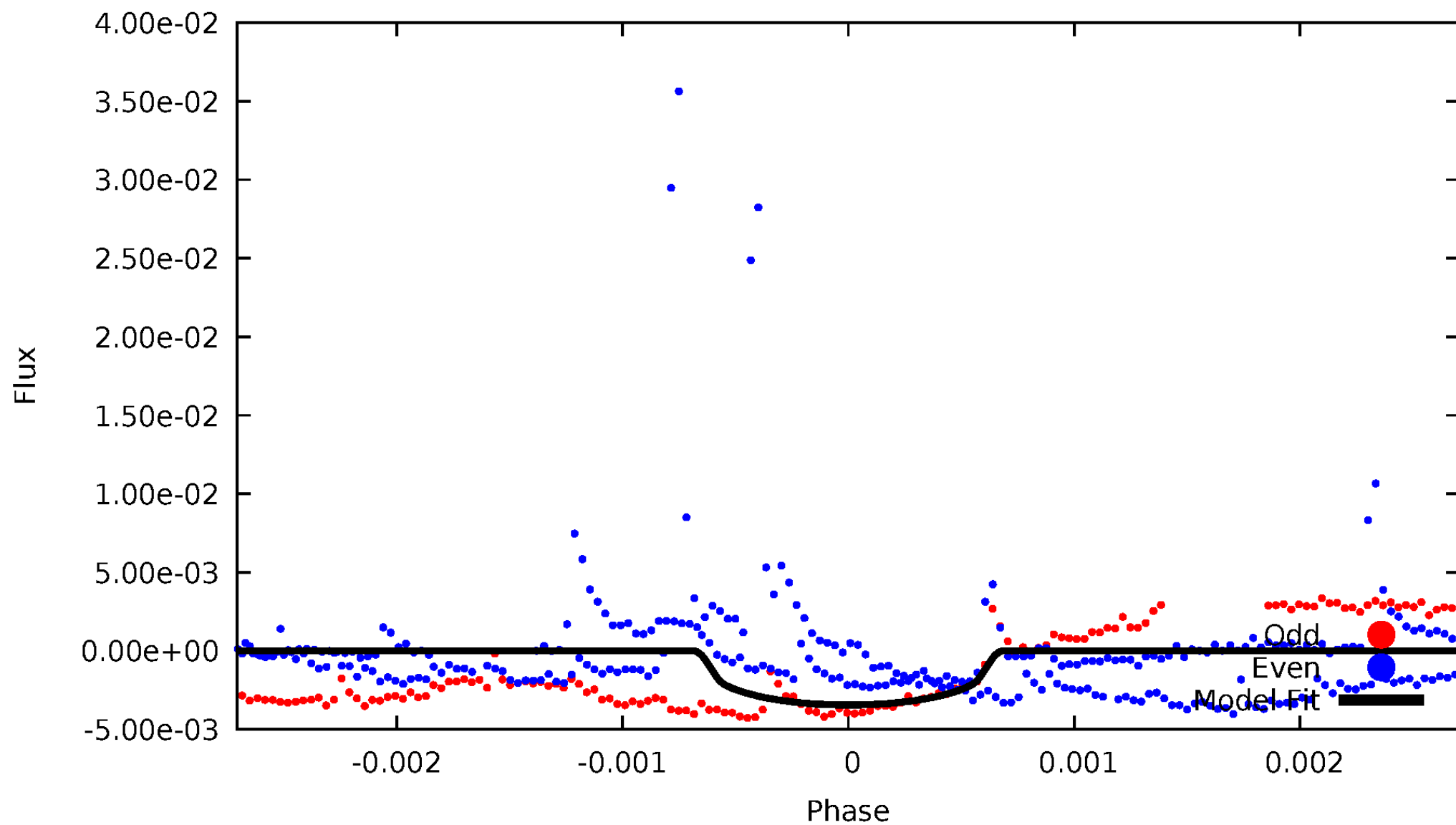


TCE 004939265-04



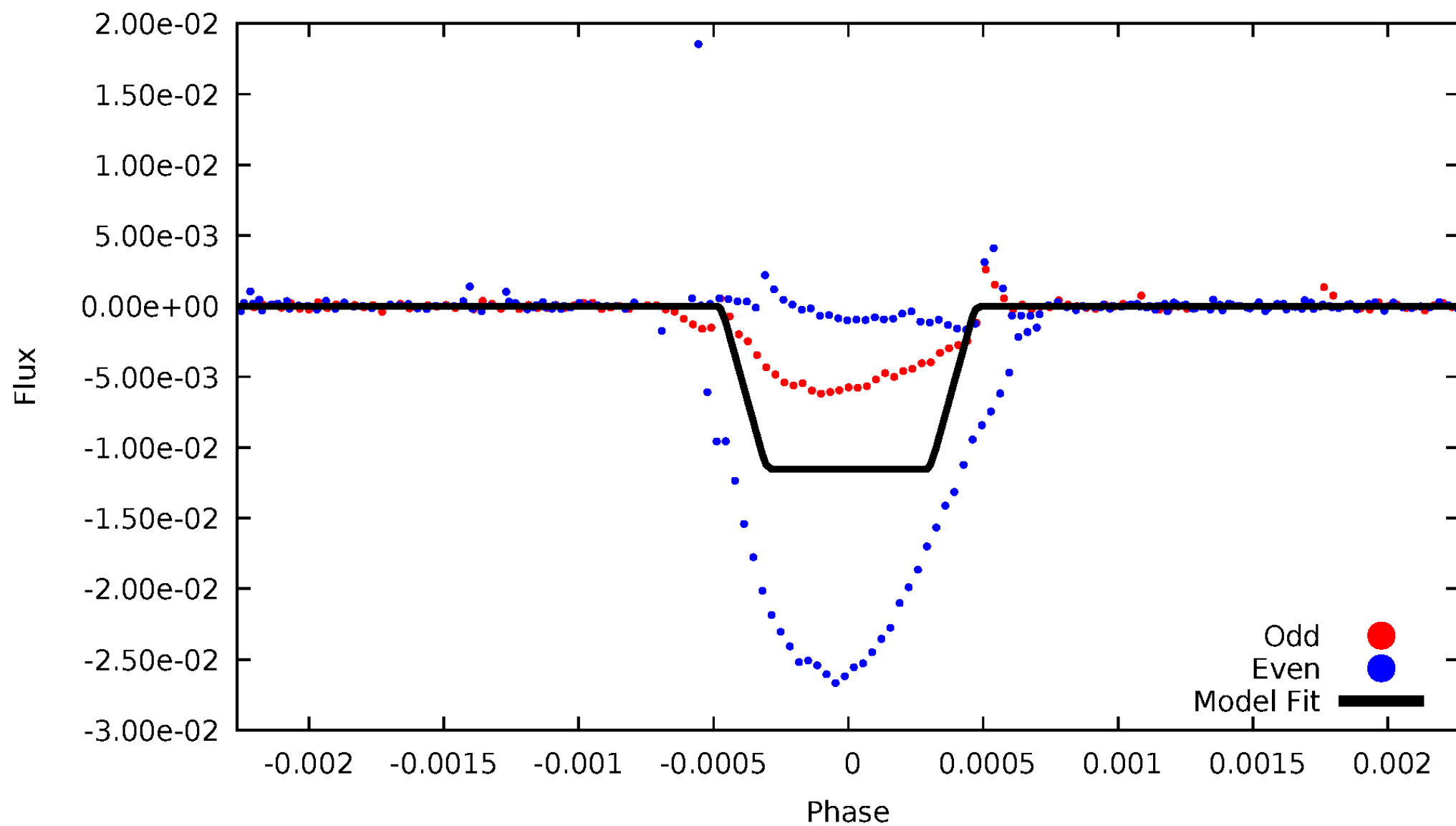
DV Odd/Even

TCE 004939265-04



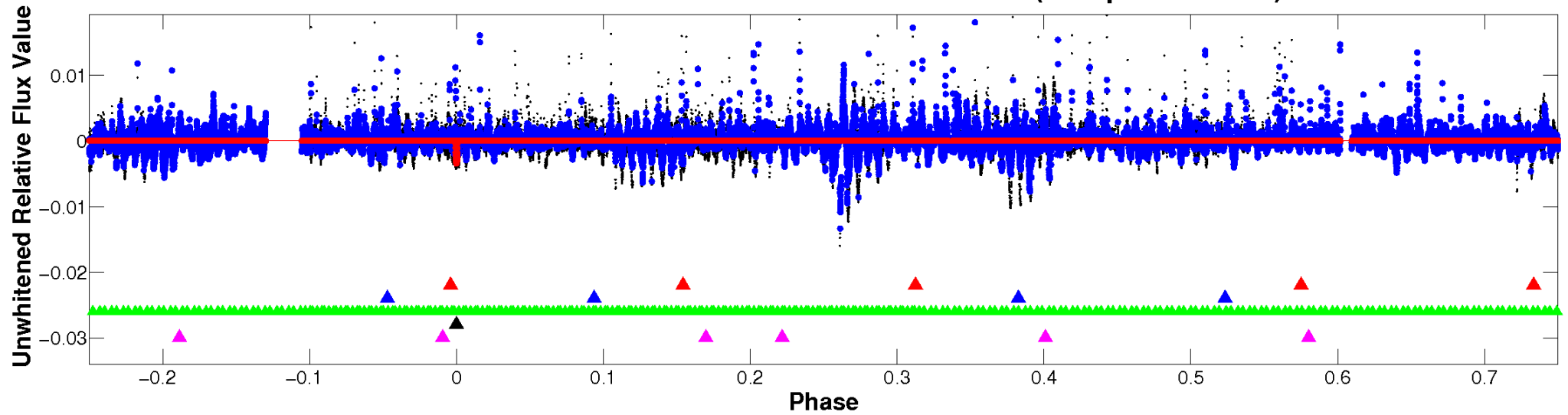
ALT Odd/Even

TCE 004939265-04

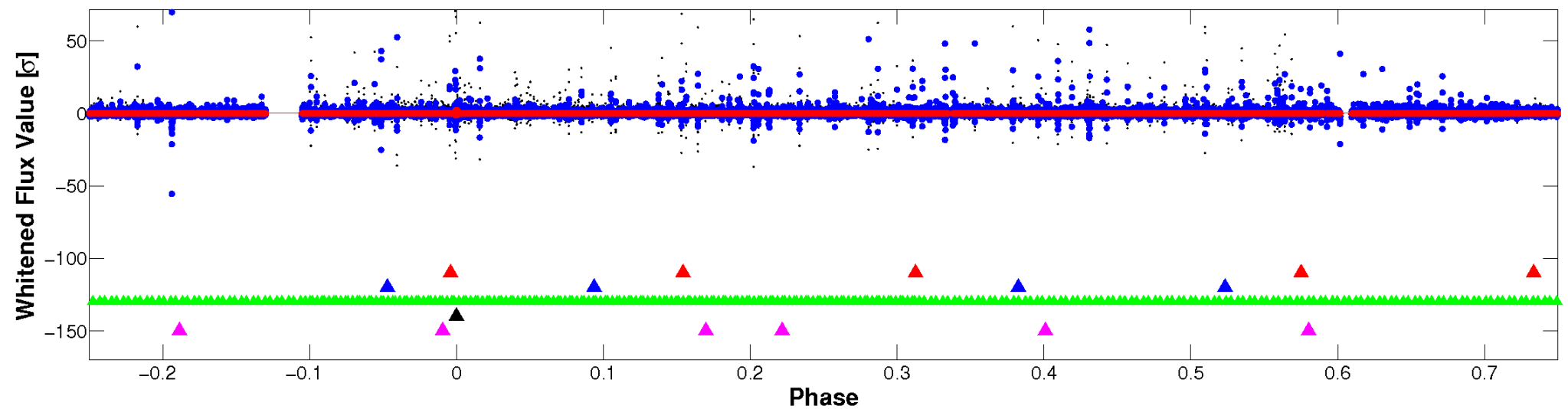


Non-Whitened Vs. Whitened Light Curve

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

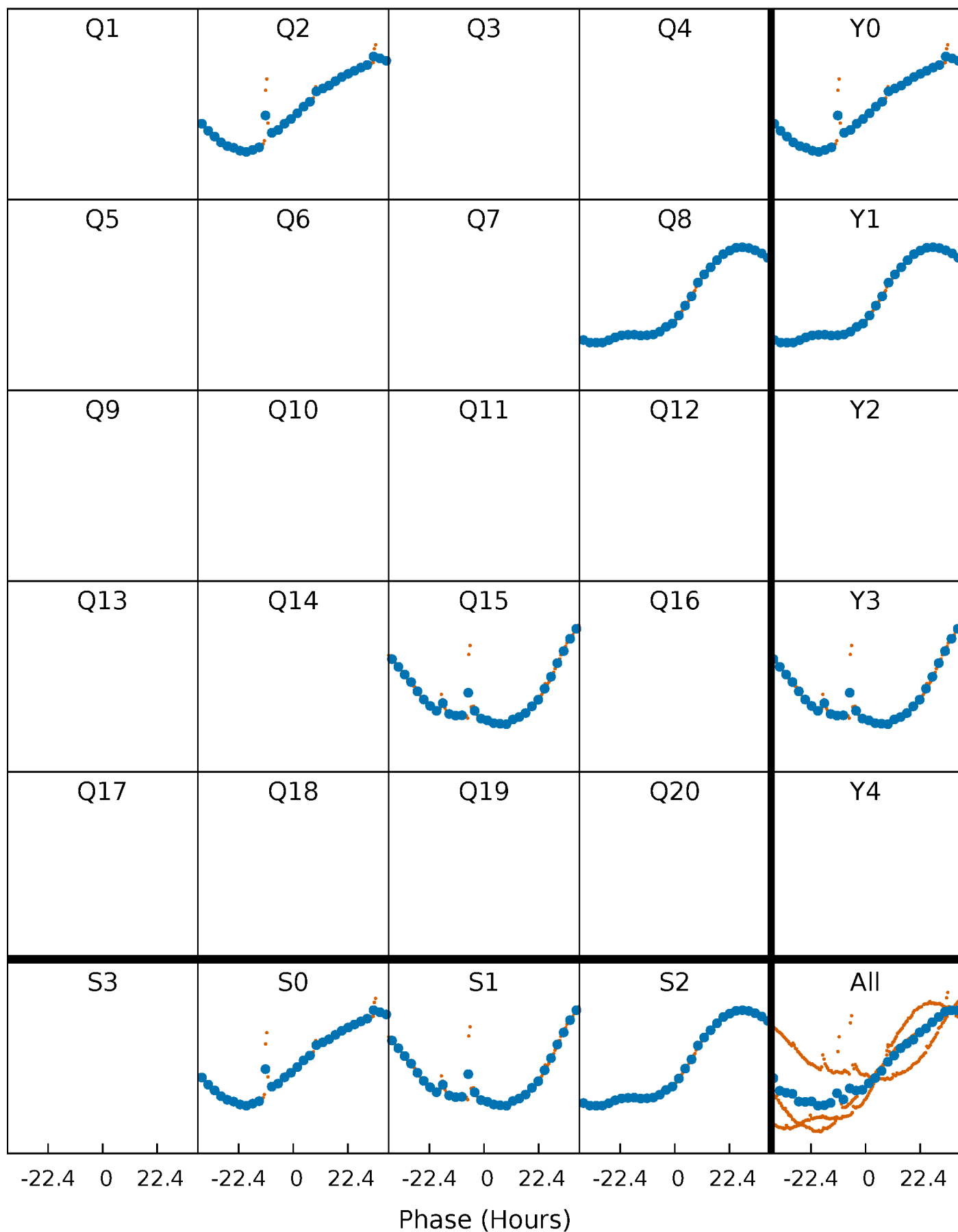


Planet 4 : Phased Whitened Flux Time Series (Fit Epoch/Period)



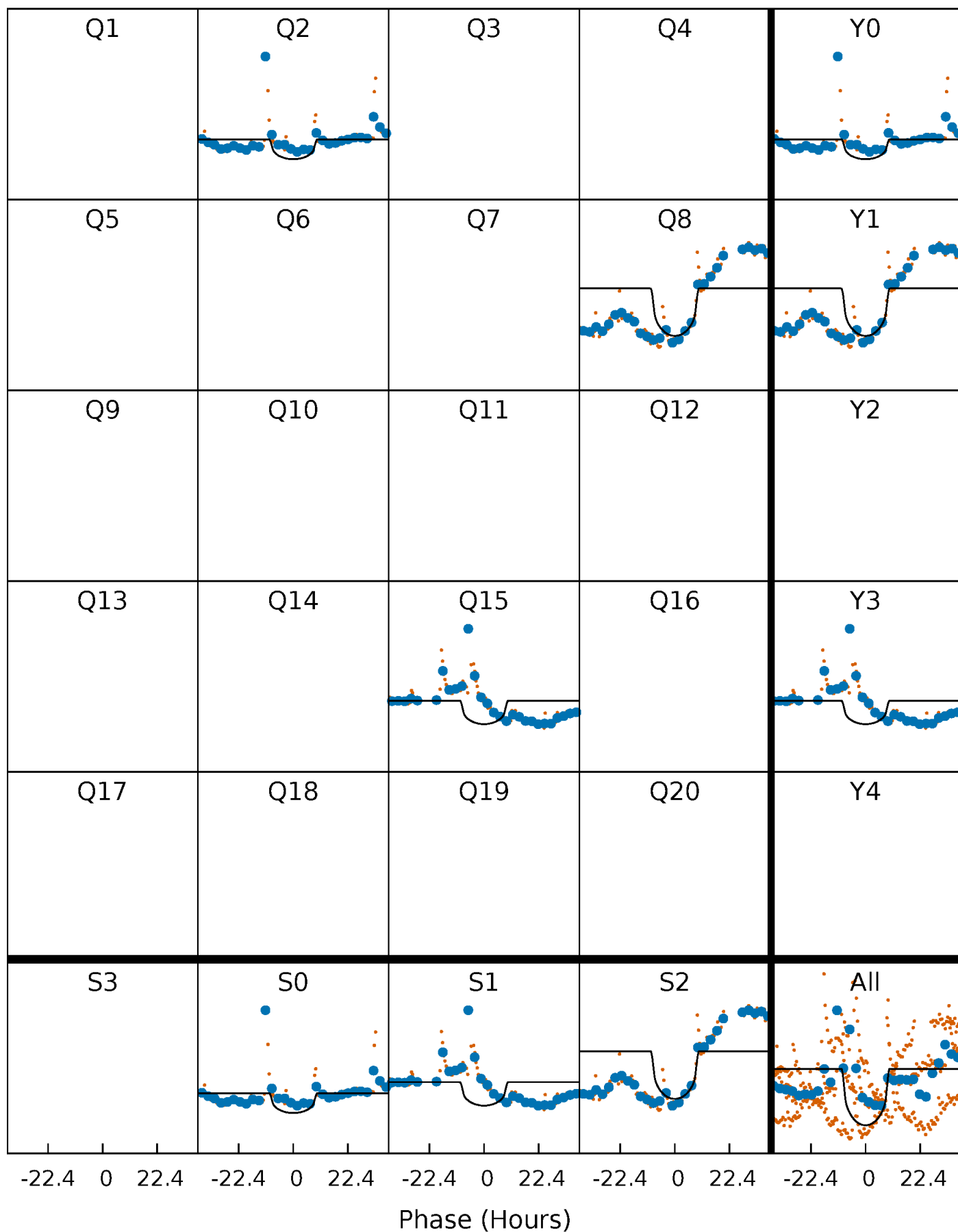
PDC Quarter-Phased Transit Curves

TCE 004939265-04 $P=602.745555$ Days $T_0=195.004506$ (BKJD)



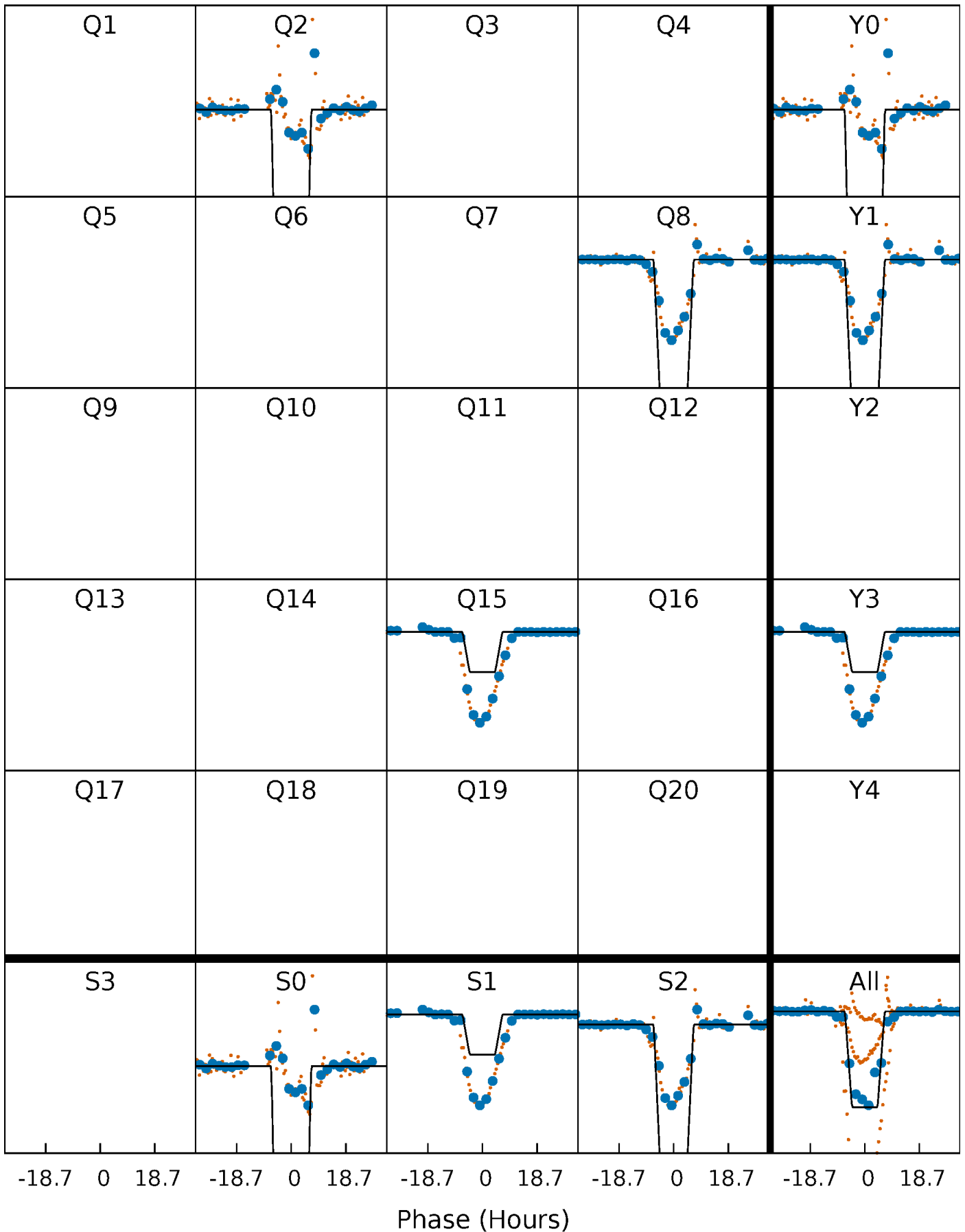
DV Quarter-Phased Transit Curves

TCE 004939265-04 $P=602.745555$ Days $T_0=195.004506$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

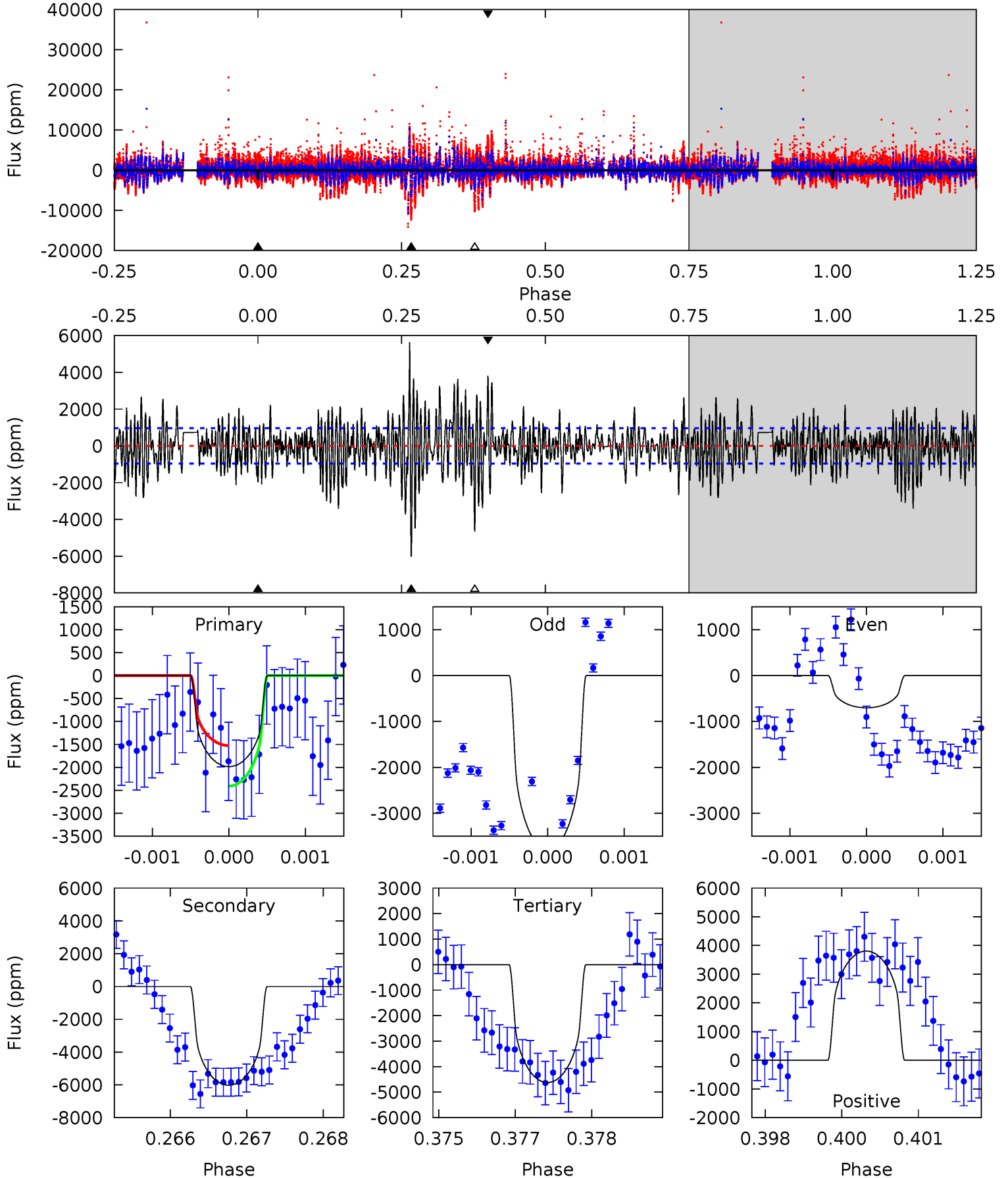
TCE 004939265-04 P=602.762775 Days $T_0=195.065200$ (BKJD)



DV Model-Shift Uniqueness Test

004939265-04, P = 602.745555 Days, E = 195.004506 Days

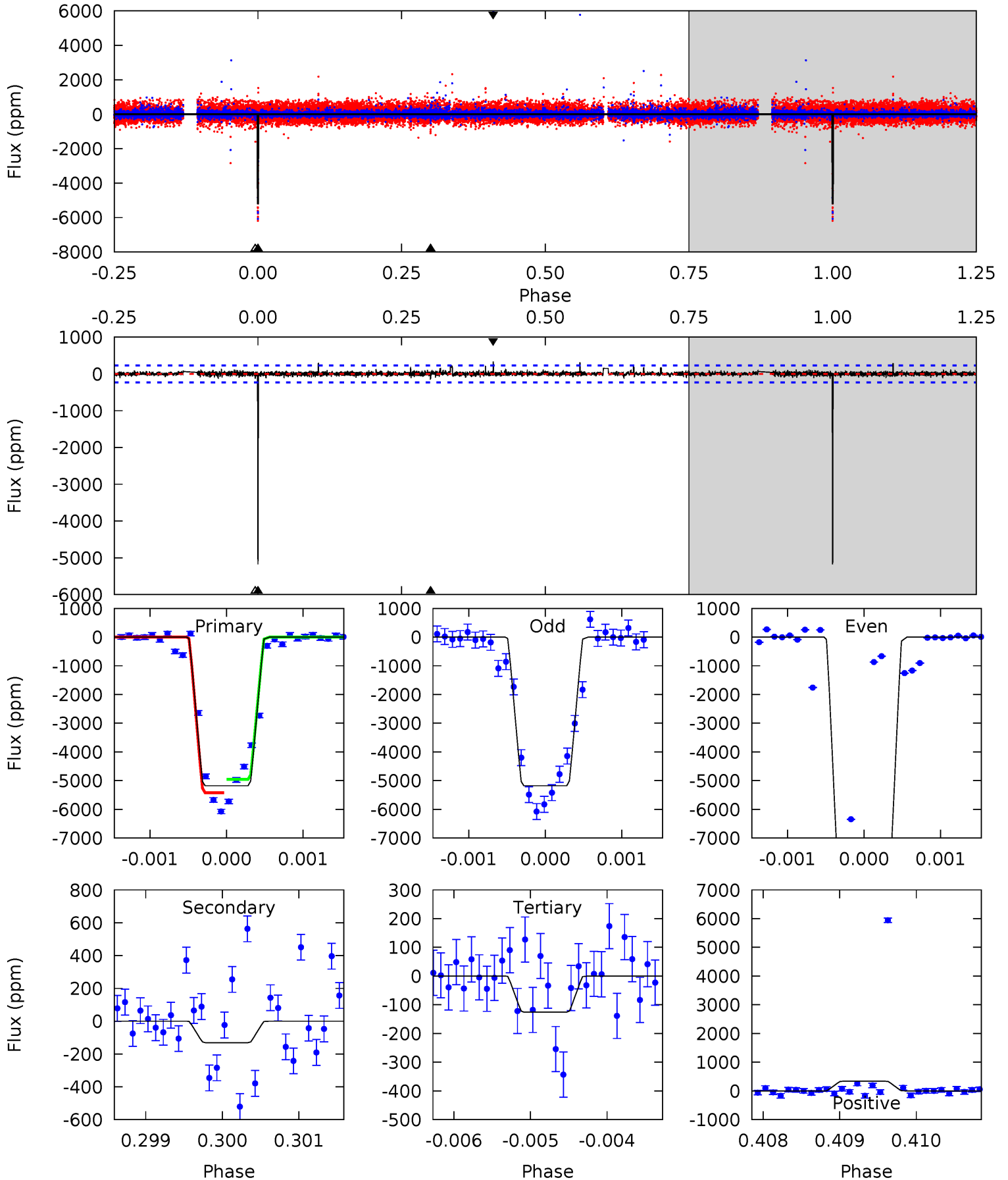
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.1	33.8	26.0	21.4	5.40	3.20	6.14	-14.8	-10.2	7.86	12.4	8.50	0.73	0.48	2.56



Alt Model-Shift Uniqueness Test

004939265-04, P = 602.762775 Days, E = 195.065200 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
123.3	3.11	2.99	7.99	5.46	3.30	0.70	120.3	115.3	0.12	-4.88	77.0	1.88	0.06	0



Stellar Parameters For KIC 004939265

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4337^{+77}_{-86}	$4.581^{+0.045}_{-0.009}$	$0.360^{+0.100}_{-0.150}$	$0.714^{+0.014}_{-0.041}$	$0.709^{+0.027}_{-0.021}$	$2.743^{+0.463}_{-0.112}$
	+2%/-2%	+1%/-0%	+28%/-42%	+2%/-6%	+4%/-3%	+17%/-4%
Source	SPE90	SPE90	SPE90	DSEP		

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

Secondary Eclipse Parameters for KIC 004939265-04 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-6021±178	$4.31^{+0.43}_{-0.48}$	201^{+4}_{-5}	4938^{+267}_{-207}	282213^{+71957}_{-50317}
Alt.	-131±42	$8.31^{+0.51}_{-0.52}$	201^{+4}_{-4}	2273^{+86}_{-109}	1637^{+582}_{-564}

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

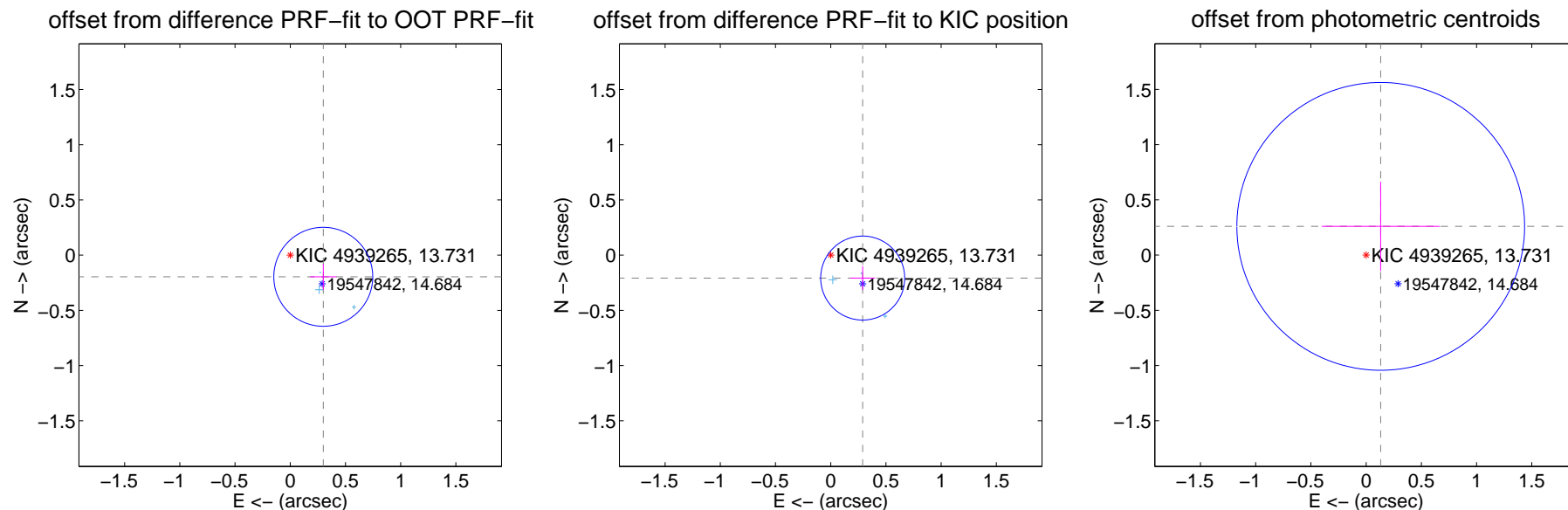
DV Centroid Data

Supplemental centroid analysis for 004939265-04. Kepler magnitude: 13.73. Transit SNR 9.41

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	0.357 ± 0.149	2.39	-0.299 ± 0.120	-0.196 ± 0.117
PRF-fit source offset from KIC position	0.356 ± 0.127	2.81	-0.290 ± 0.112	-0.207 ± 0.108
photometric centroid source offset	0.29 ± 0.43	0.67	-0.13 ± 0.54	0.26 ± 0.40



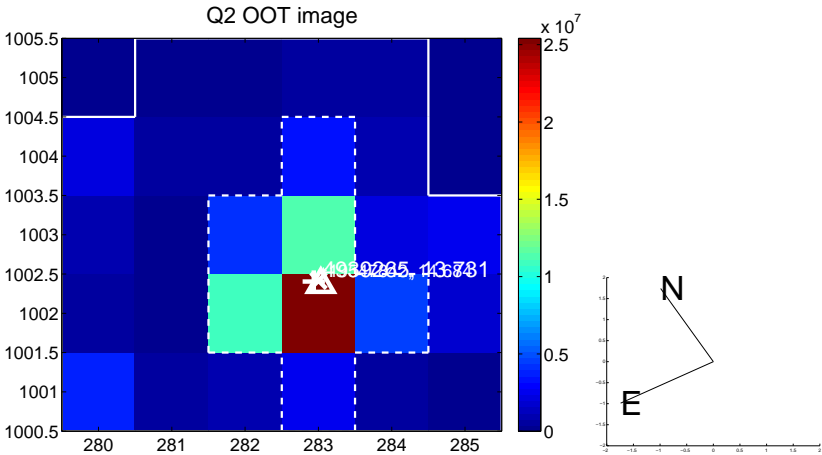
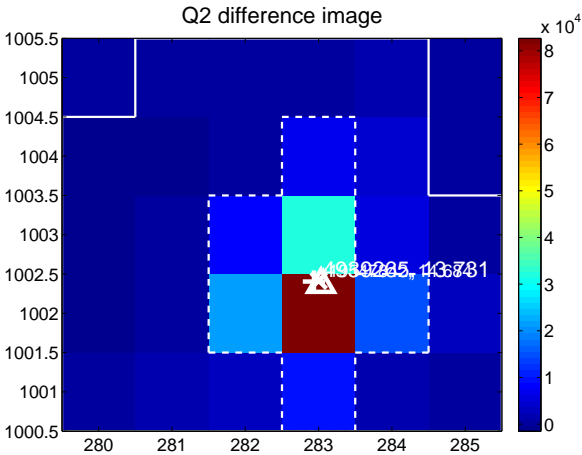
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

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

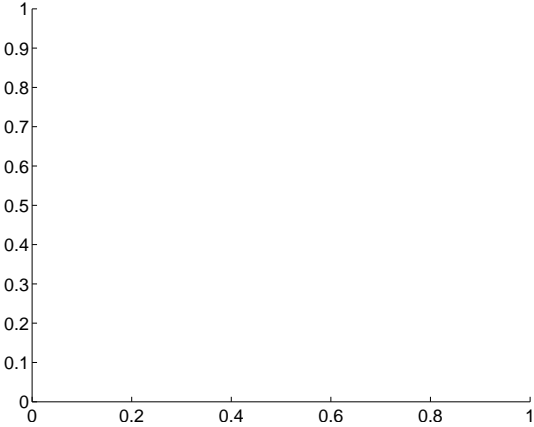
Q1 no difference image



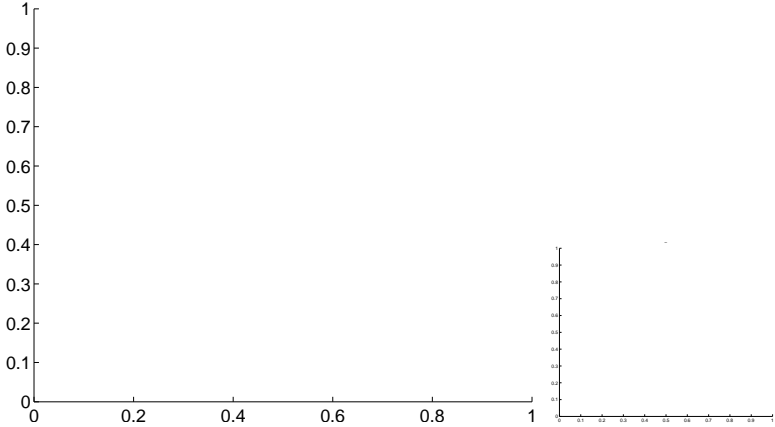
Q1 no OOT image



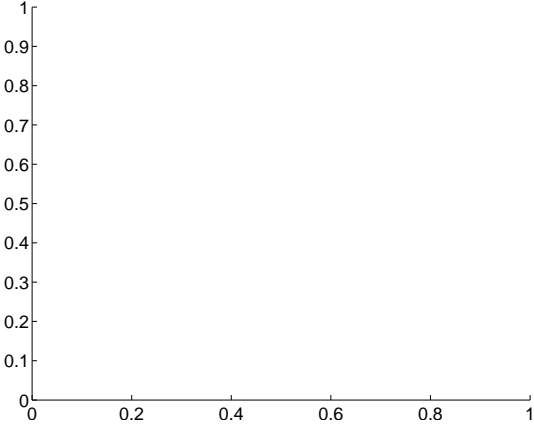
Q3 no difference image



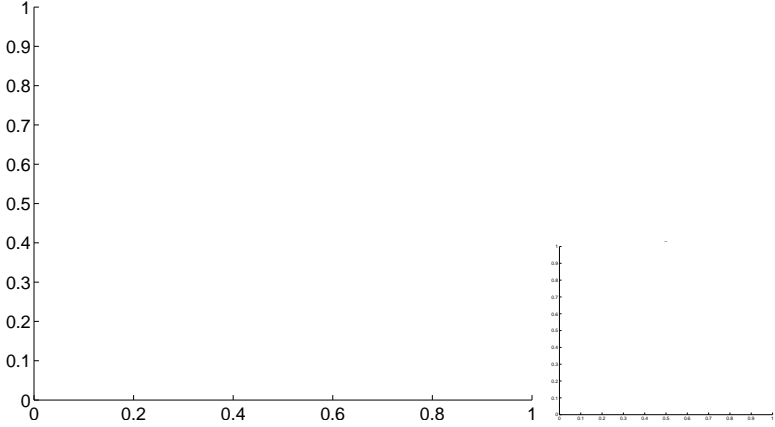
Q3 no OOT image



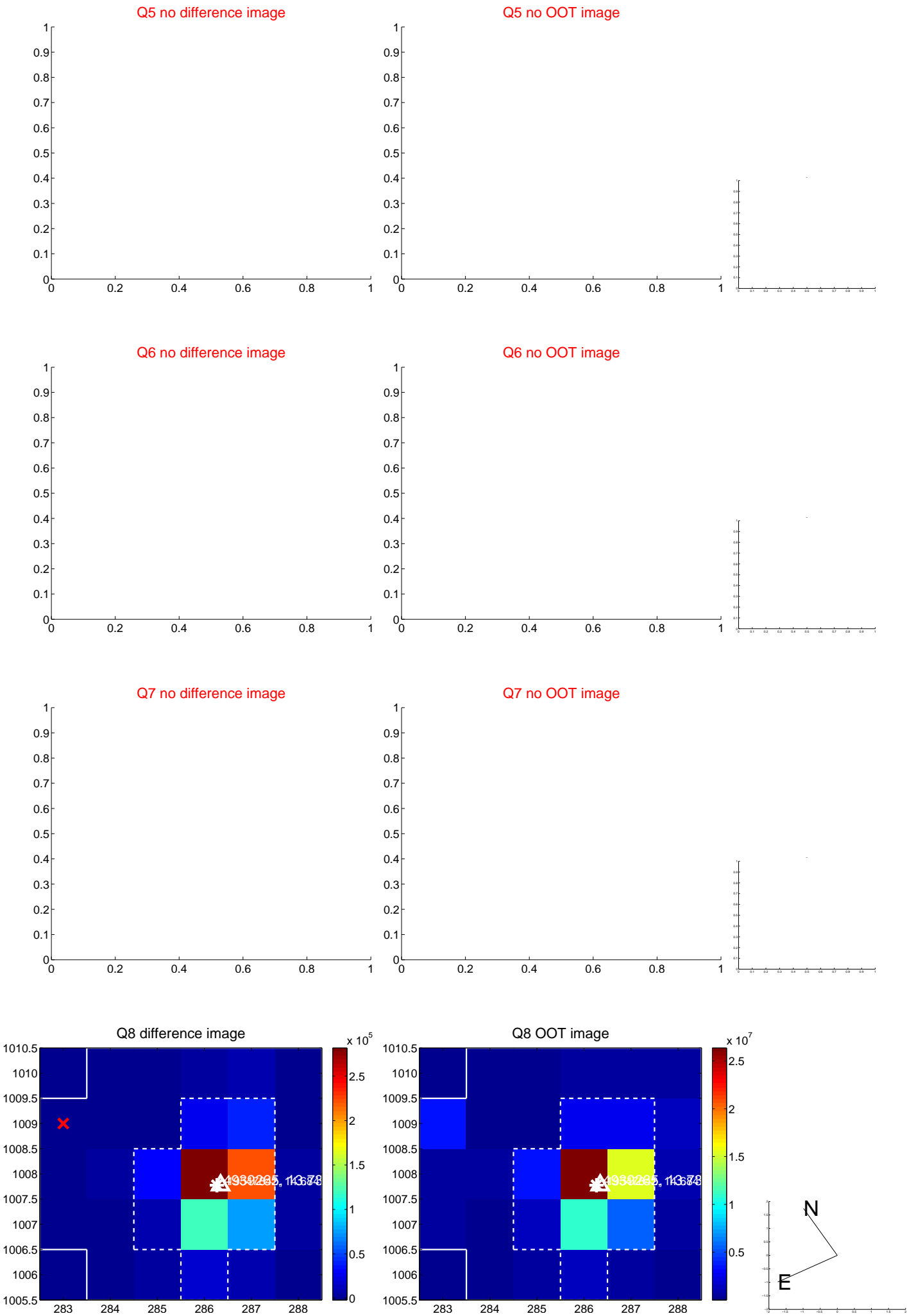
Q4 no difference image



Q4 no OOT image



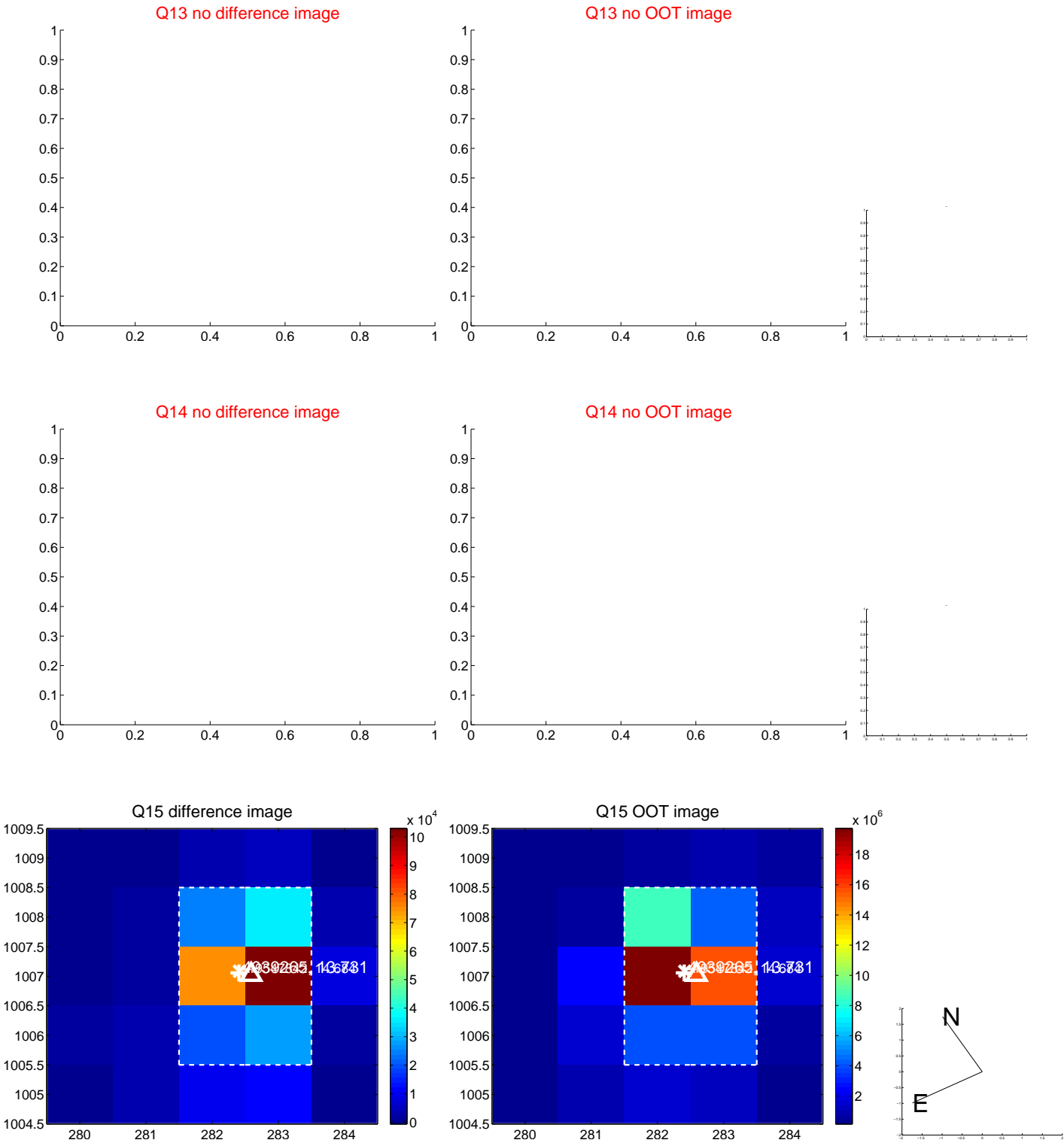
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



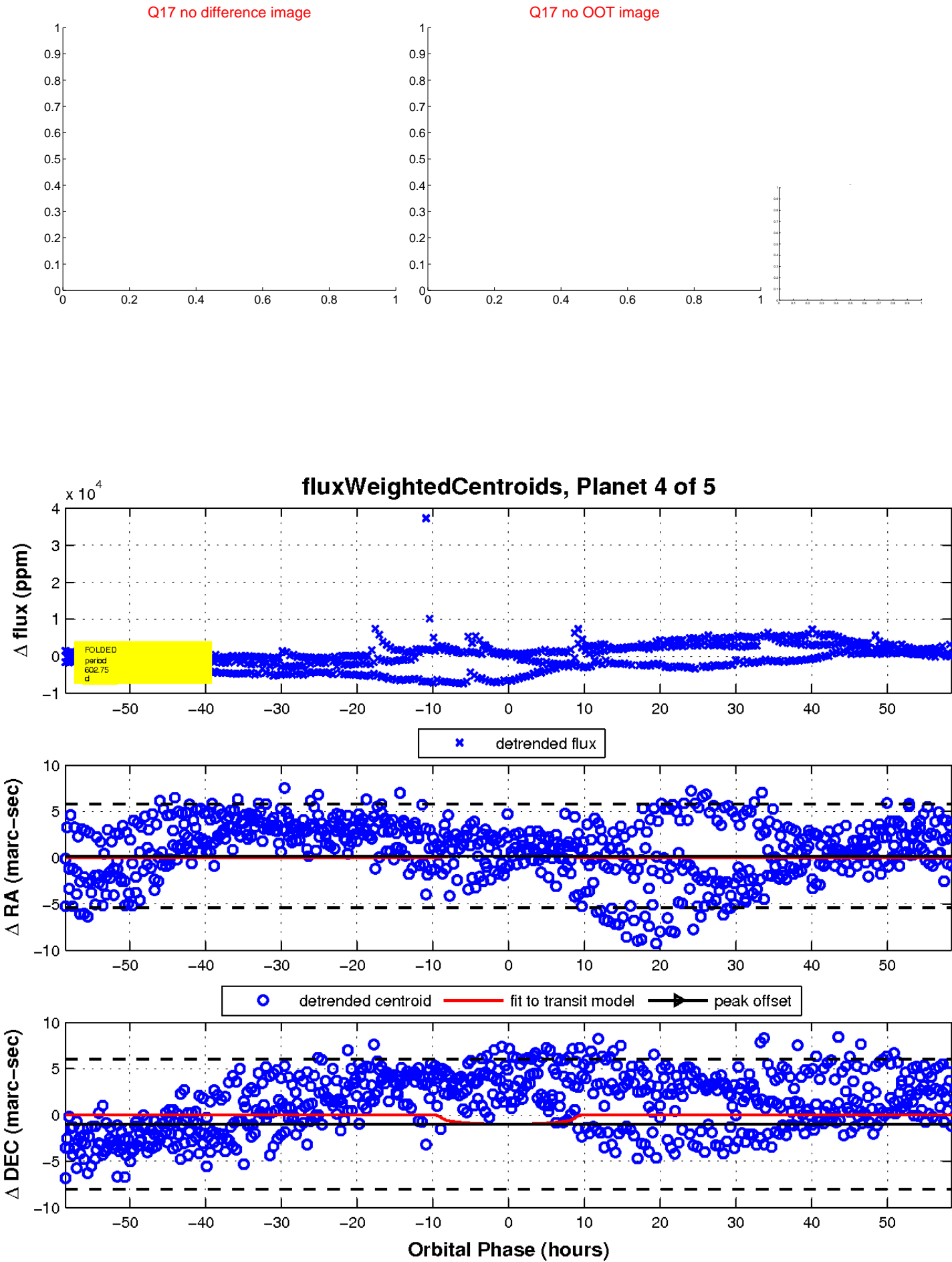
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



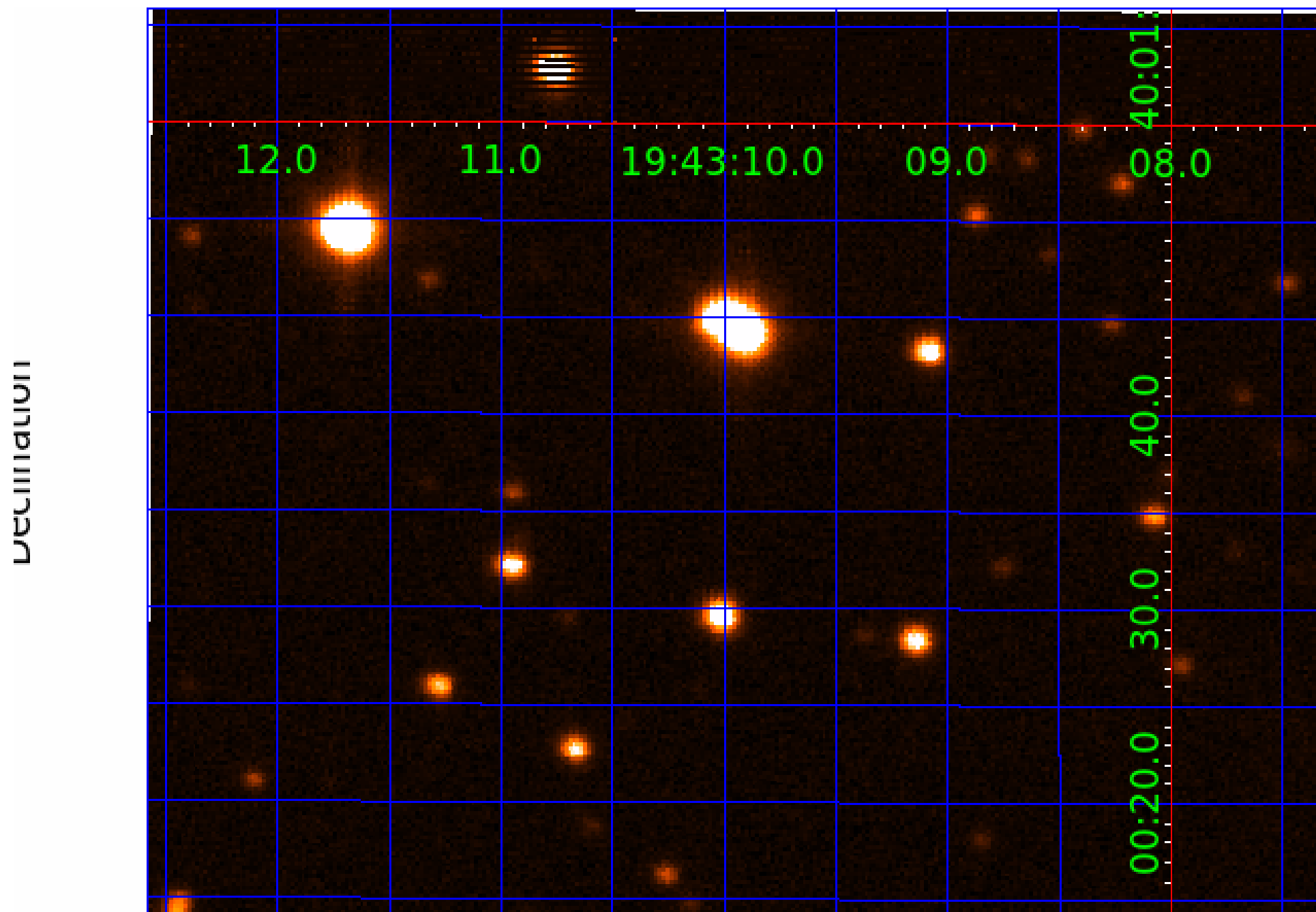
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image



KIC 004939265

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})
004939265-01	OBS	No	253.669424	383.404450	229.8	1.938	17.6	1.6	0.71	4337	1.27	0.33
004939265-02	OBS	No	343.801299	425.607797	1153.2	3.719	16.1	6.6	0.71	4337	2.30	0.22
004939265-03	OBS	6475.01	4.845063	134.951160	298.6	2.001	13.4	15.0	0.71	4337	1.62	64.72
004939265-04	OBS	No	602.745555	195.004506	3461.7	19.567	12.2	9.4	0.71	4337	4.33	0.10
004939265-05	OBS	No	247.359838	297.375313	1198.2	4.240	14.2	6.9	0.71	4337	2.65	0.34

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004939265-01	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES_MARSHALL_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS—HALO_GHOST
004939265-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES
004939265-03	OBS	PC	1.00	0	0	0	0	NO_COMMENT
004939265-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS
004939265-05	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—INCONSISTENT_TRANS—CENT_FEW_DIFFS

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

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

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

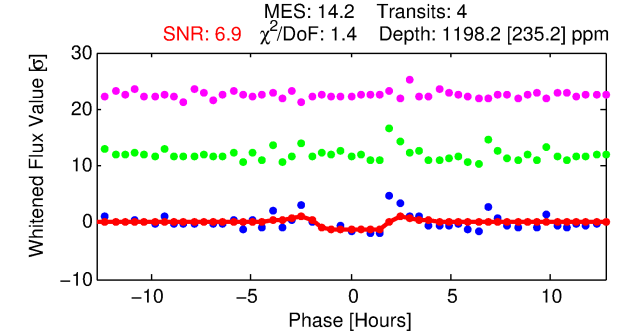
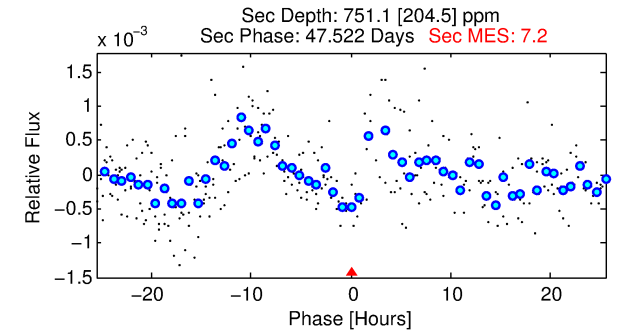
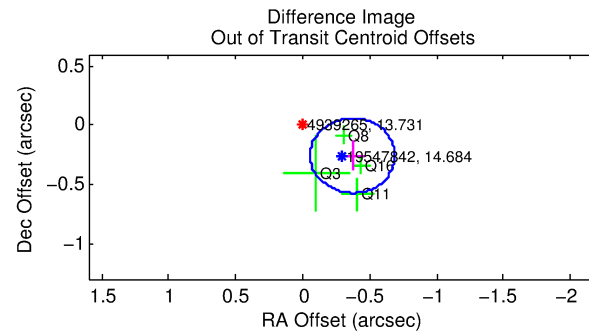
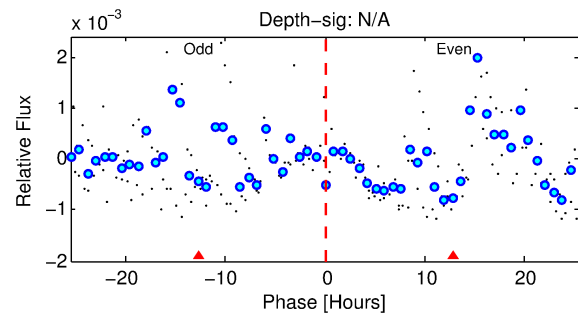
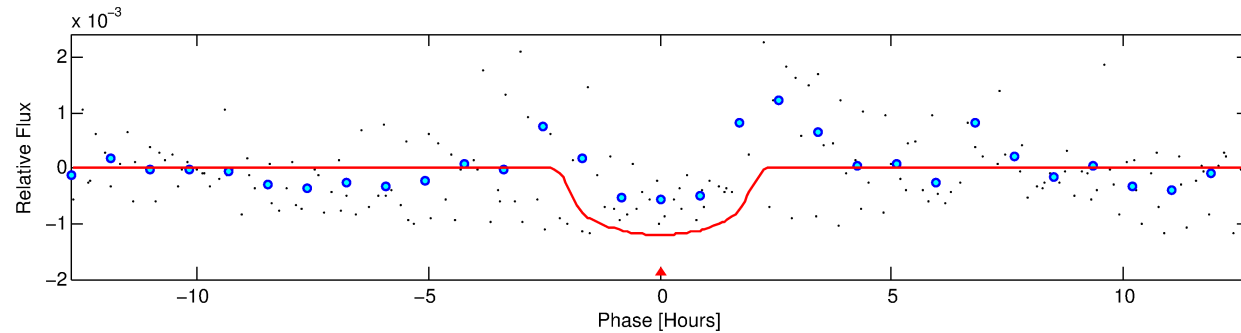
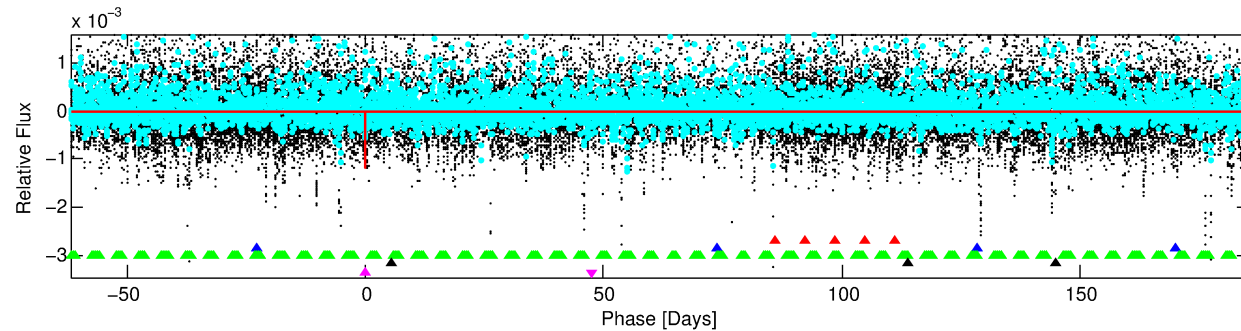
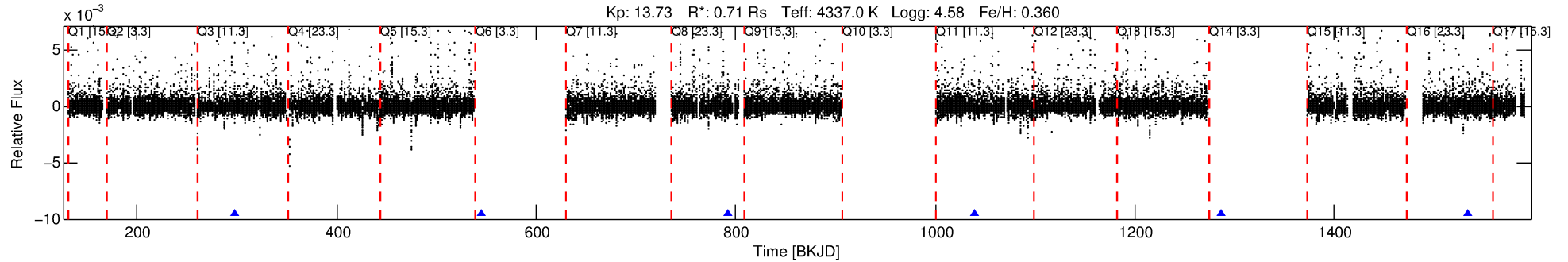
Ephemeris Match Information For 004939265-05

No Significant Match Found

DV One-Page Summary

KIC: 4939265 Candidate: 5 of 5 Period: 247.360 d

KOI: K06475 Corr: No Ephemeris Match



DV Fit Results:

Period = 247.35984 [0.00247] d
Epoch = 297.3753 [0.0082] BKJD
Rp/R* = 0.0341 [0.0286]
a/R* = 333.96 [826.53]
b = 0.71 [1.76]
Seff = 0.34 [0.04]
Teq = 195 [5] K
Rp = 2.66 [2.23] Re
a = 0.6877 [0.0355] AU
Ag = 27717.80 [47173.55] [0.59σ]
Teffp = 3889 [1655] K [2.23σ]

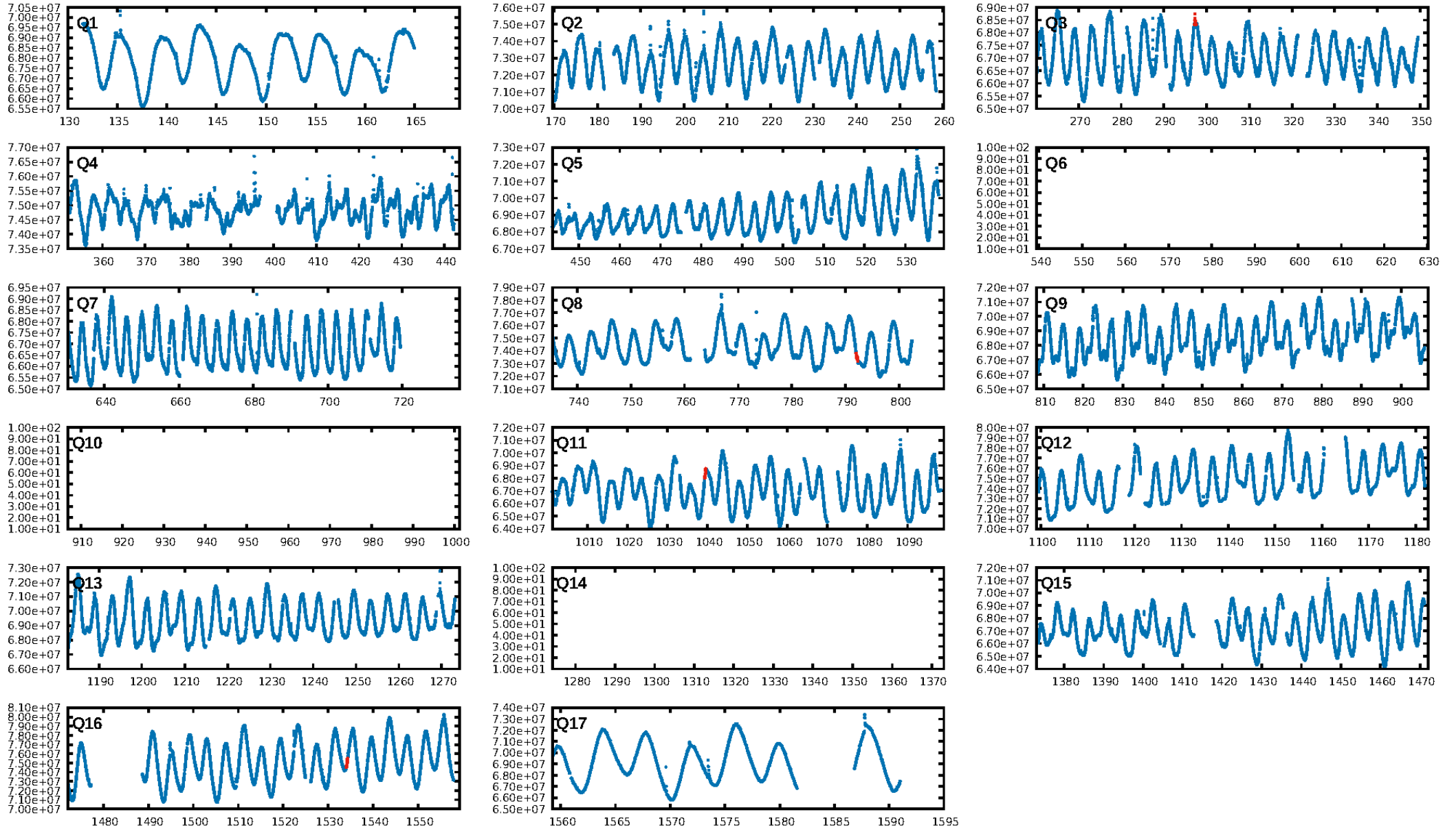
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [1241.42σ]
LongPeriod-sig: 100.0% [32.48σ]
ModelChiSquare2-sig: 30.5%
ModelChiSquareGof-sig: 88.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: 0.5973
Centroid-sig: 6.3%
Centroid-so: 1.132 arcsec [1.27σ]
OotOffset-rm: 0.451 arcsec [4.28σ]
KicOffset-rm: 0.363 arcsec [3.59σ]
OotOffset-st: 0/2/2/0 [4]
KicOffset-st: 0/2/2/0 [4]
DiffImageQuality-fgm: 0.50 [2/4]
DiffImageOverlap-fno: 1.00 [4/4]

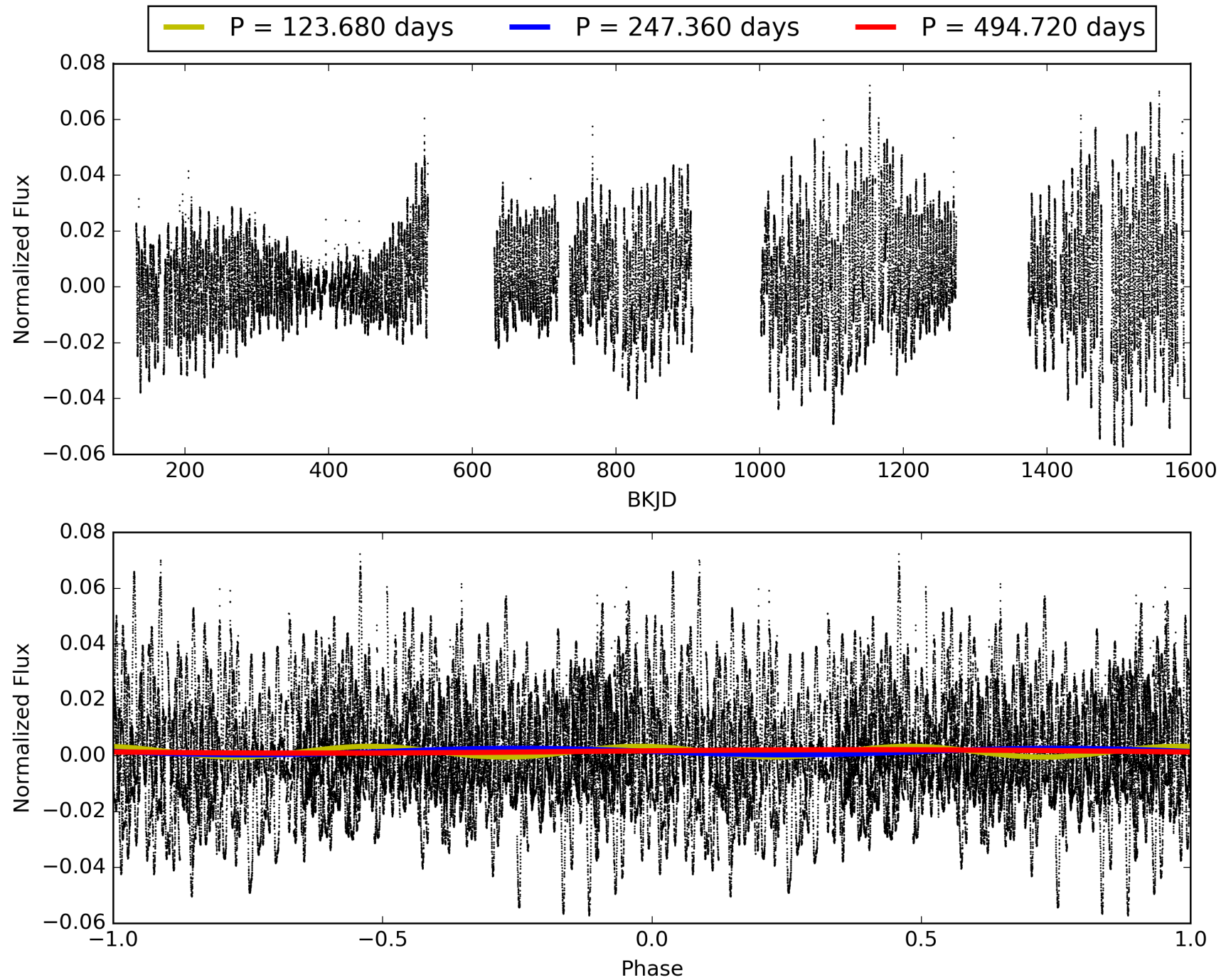
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 05:18:16 Z

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

TCE 004939265-05, PDC Light Curves

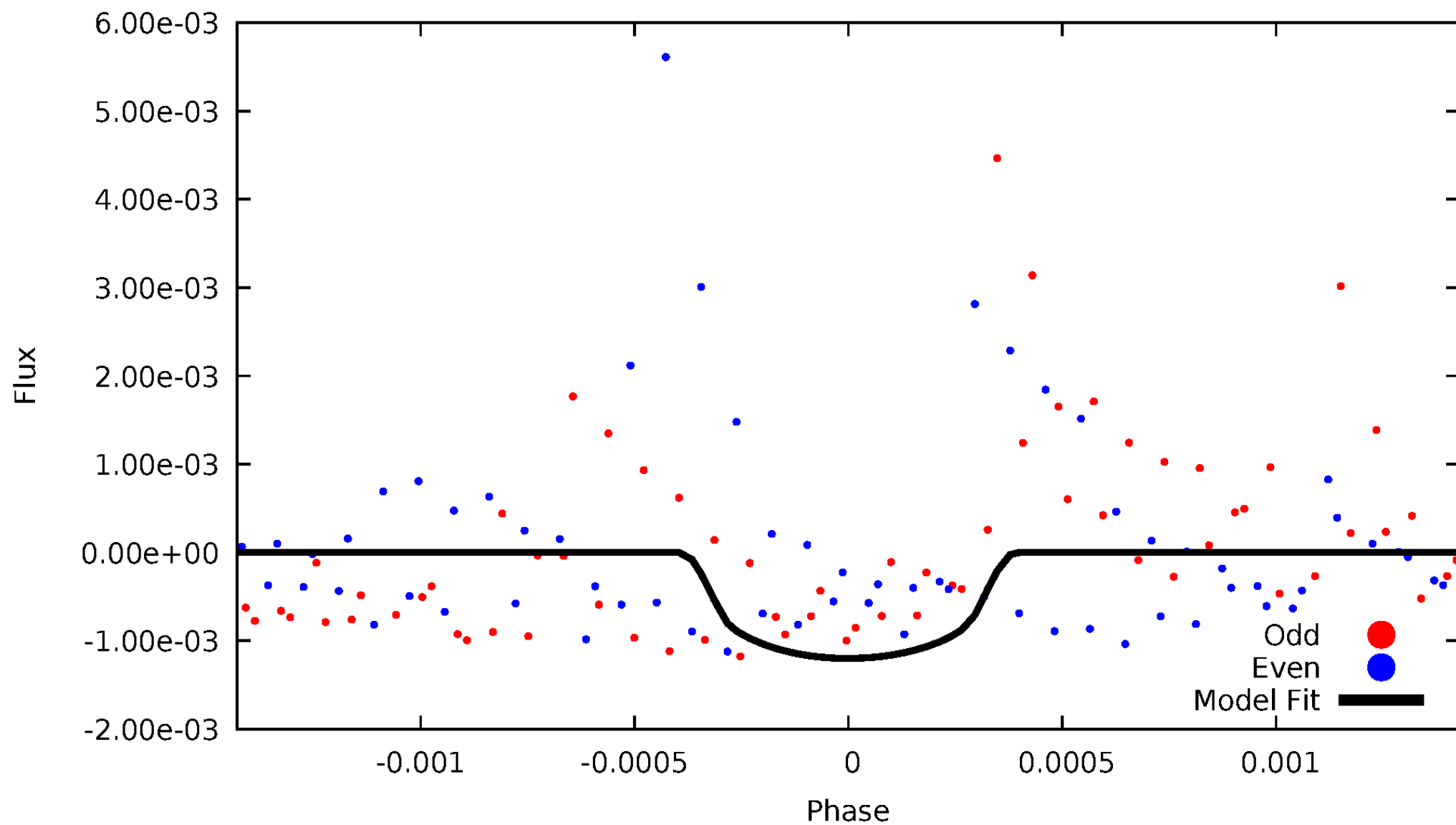


TCE 004939265-05



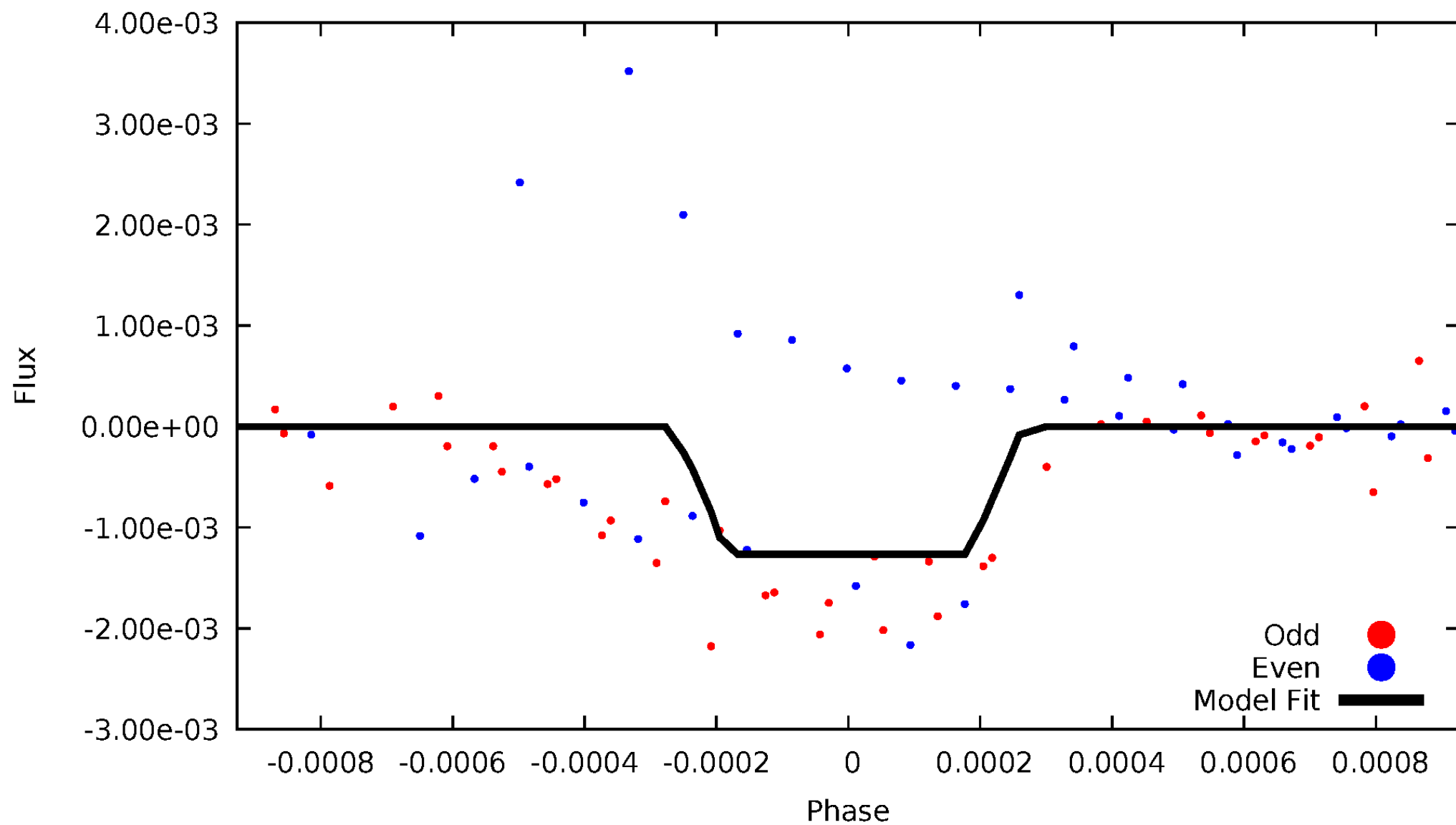
DV Odd/Even

TCE 004939265-05



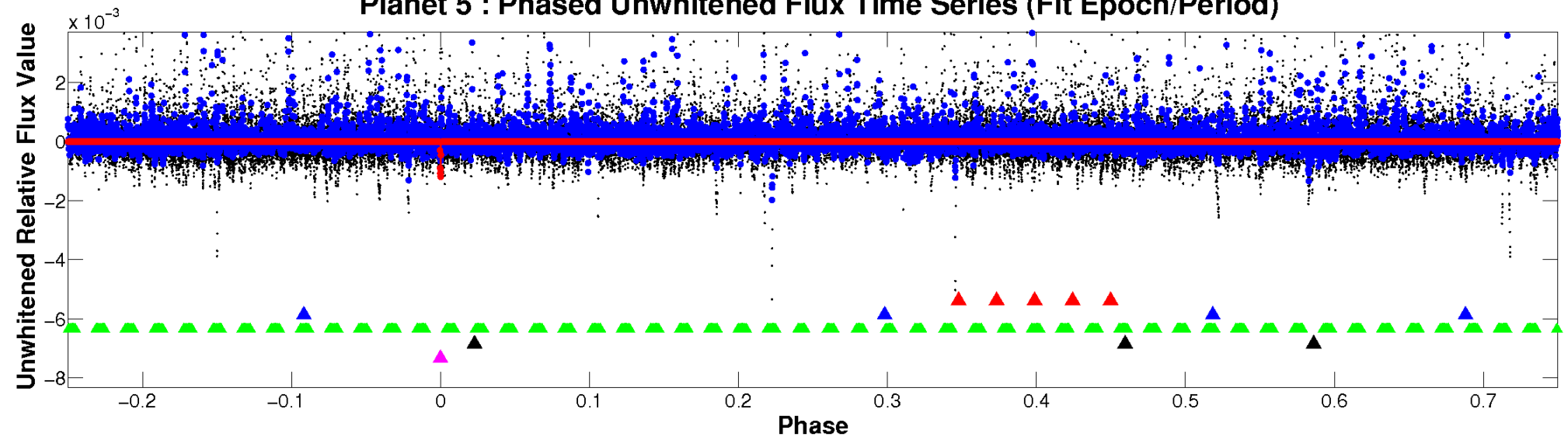
ALT Odd/Even

TCE 004939265-05

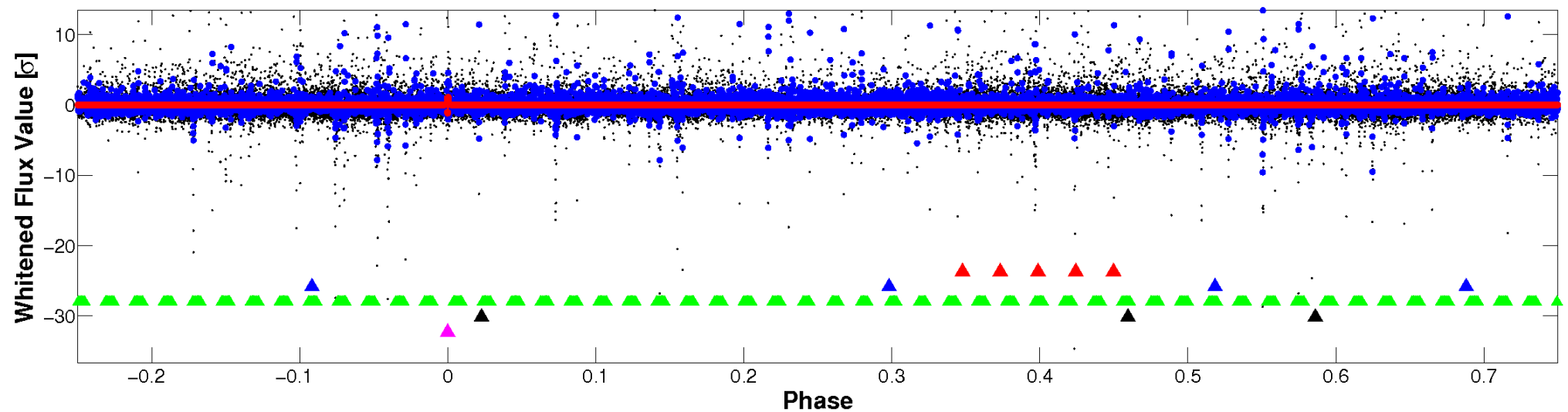


Non-Whitened Vs. Whitened Light Curve

Planet 5 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

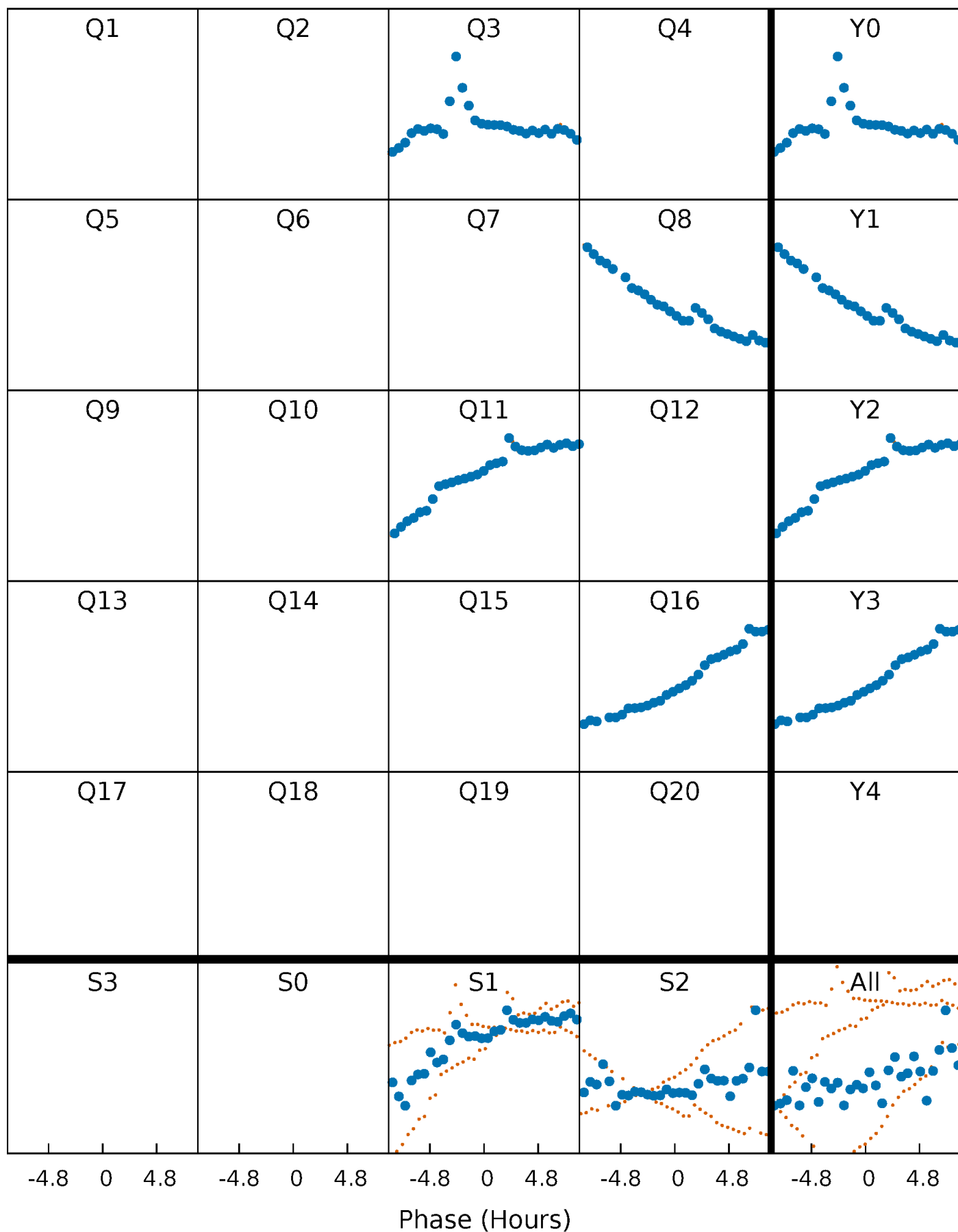


Planet 5 : Phased Whitened Flux Time Series (Fit Epoch/Period)



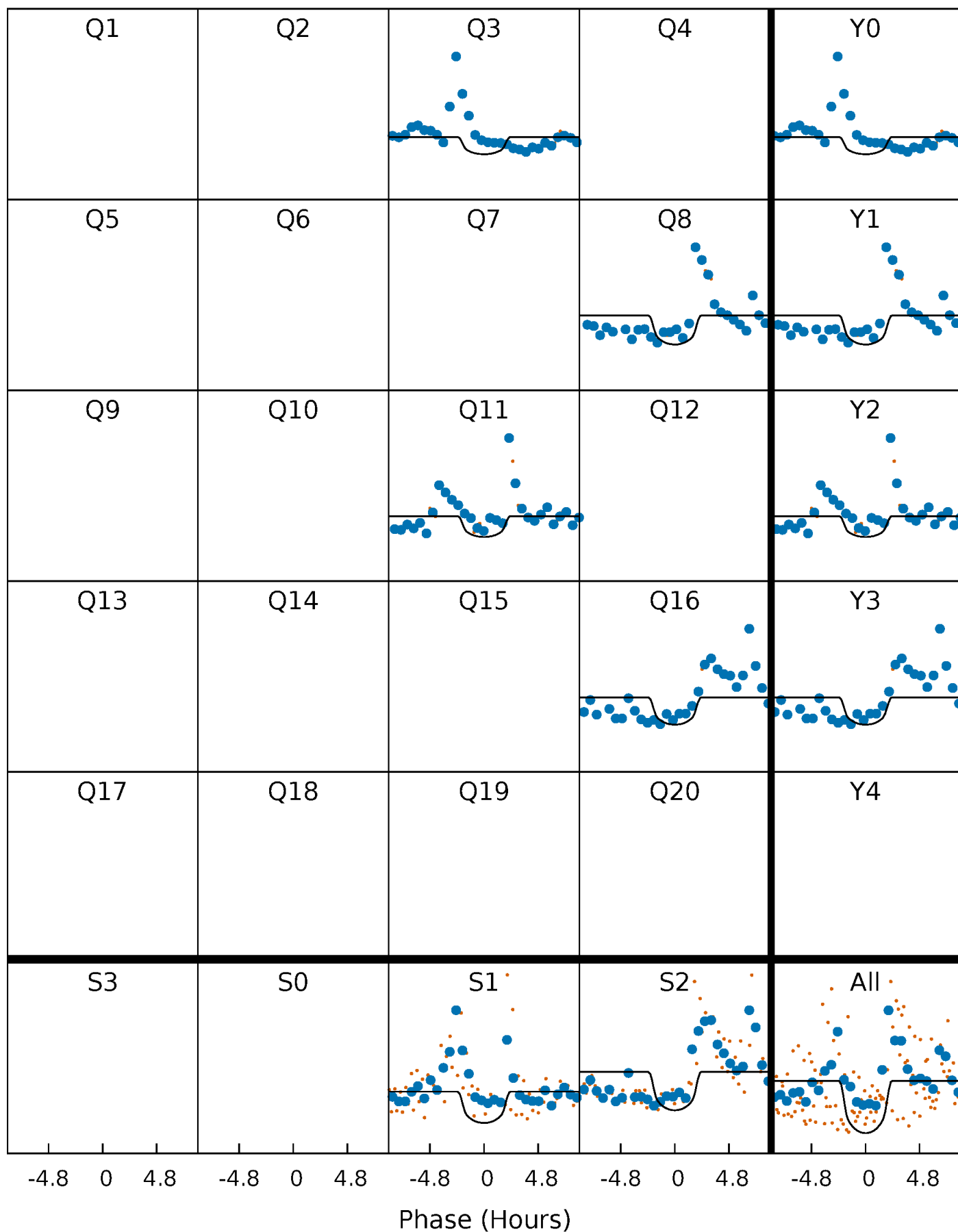
PDC Quarter-Phased Transit Curves

TCE 004939265-05 $P=247.359838$ Days $T_0=297.375313$ (BKJD)



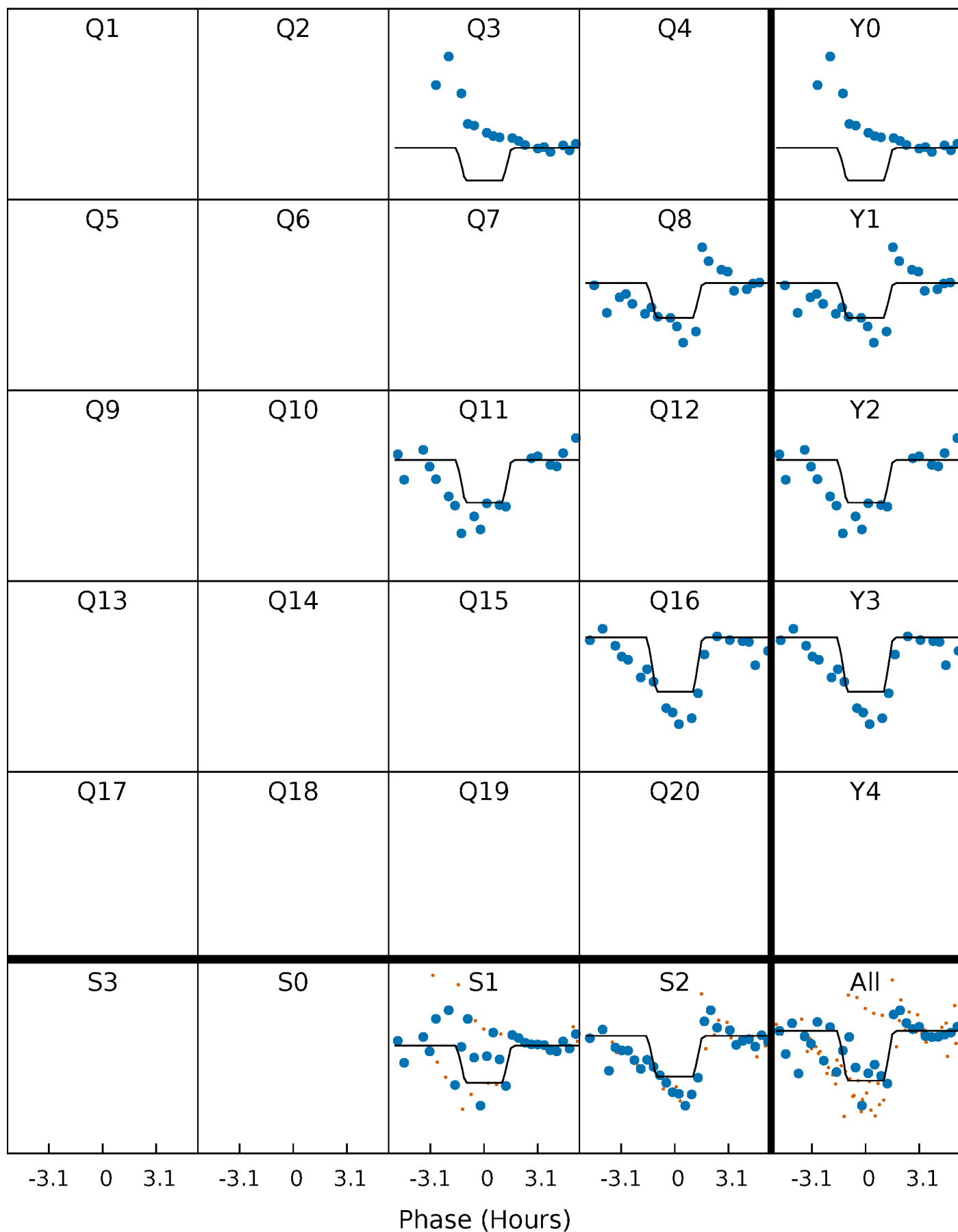
DV Quarter-Phased Transit Curves

TCE 004939265-05 $P=247.359838$ Days $T_0=297.375313$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

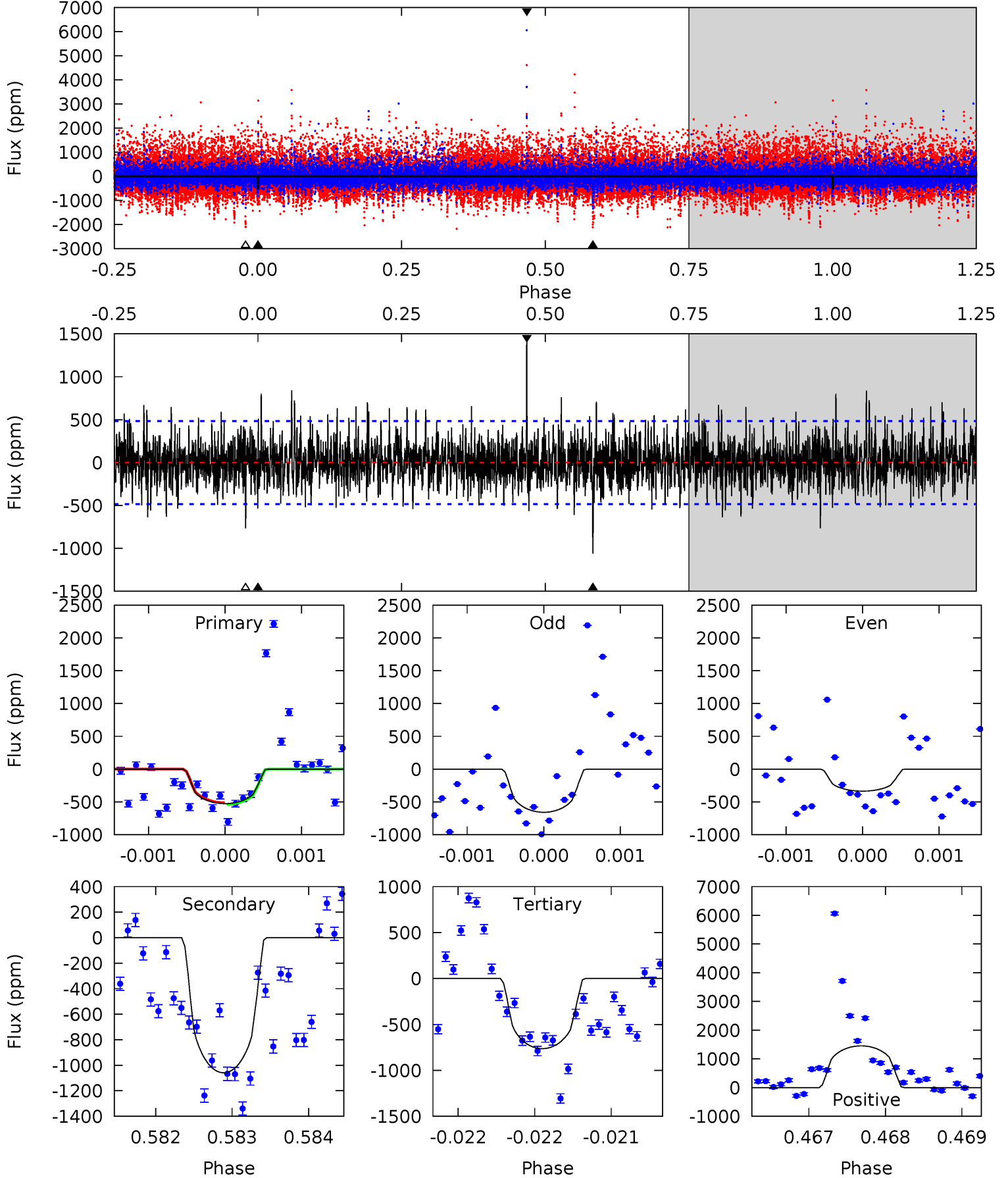
TCE 004939265-05 $P=247.365719$ Days $T_0=297.372571$ (BKJD)



DV Model-Shift Uniqueness Test

004939265-05, P = 247.359838 Days, E = 50.015475 Days

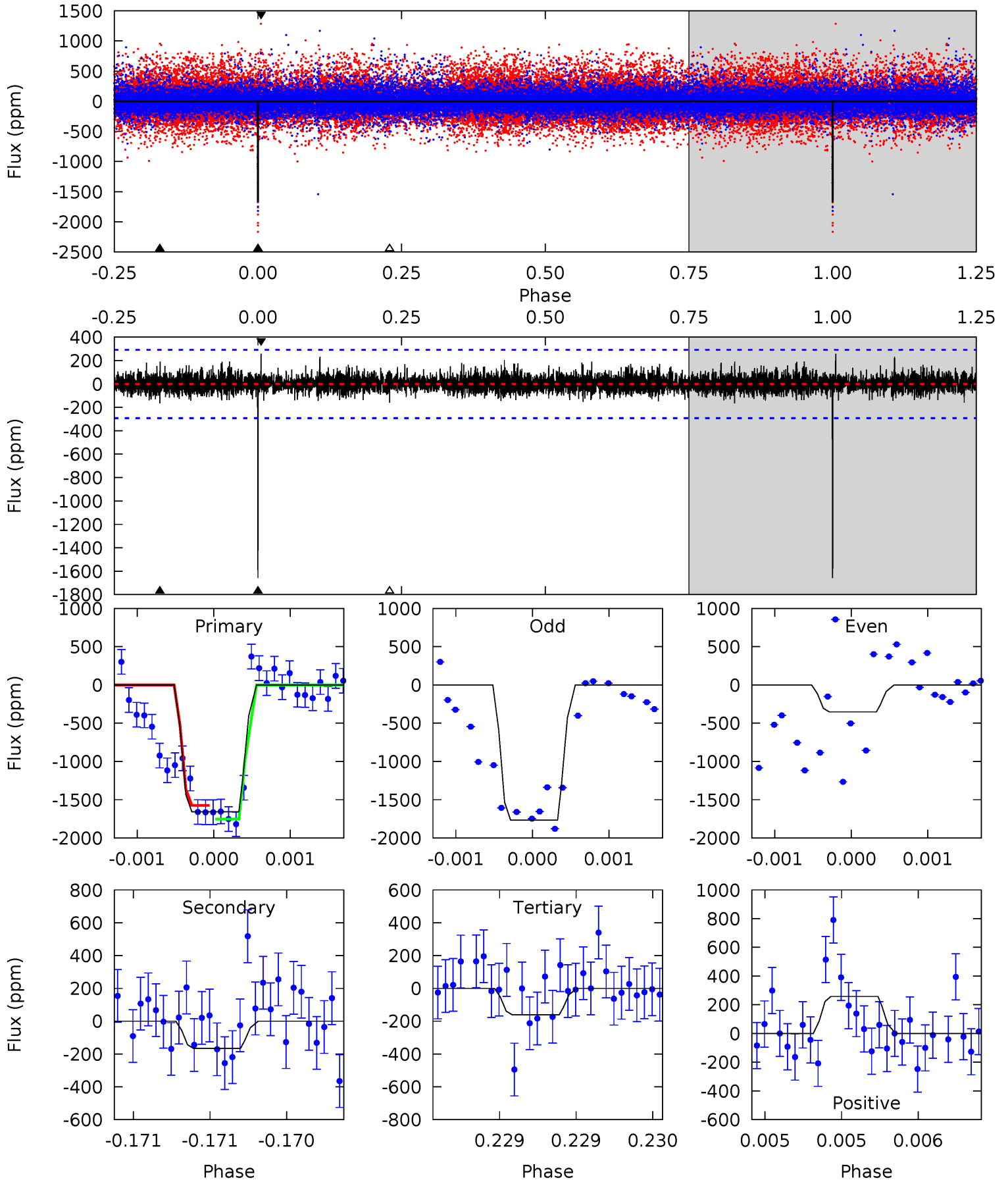
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.00	12.1	8.70	16.6	5.51	3.38	2.25	-2.71	-10.6	3.37	-4.50	1.58	0.99	0.58	0.15



Alt Model-Shift Uniqueness Test

004939265-05, $P = 247.365719$ Days, $E = 50.006852$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
31.6	3.15	3.06	4.91	5.56	3.46	0.88	28.6	26.7	0.09	-1.76	14.8	0.66	0.13	0



Stellar Parameters For KIC 004939265

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4337^{+77}_{-86}	$4.581^{+0.045}_{-0.009}$	$0.360^{+0.100}_{-0.150}$	$0.714^{+0.014}_{-0.041}$	$0.709^{+0.027}_{-0.021}$	$2.743^{+0.463}_{-0.112}$
	+2%/-2%	+1%/-0%	+28%/-42%	+2%/-6%	+4%/-3%	+17%/-4%
Source	SPE90	SPE90	SPE90	DSEP		

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

Secondary Eclipse Parameters for KIC 004939265-05 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-1059 ± 88	$2.87^{+2.07}_{-1.74}$	271^{+5}_{-6}	4128^{+1965}_{-701}	$33446^{+175741}_{-22201}$
Alt.	-165 ± 52	$3.03^{+2.01}_{-1.67}$	271^{+5}_{-7}	2977^{+832}_{-388}	4395^{+18334}_{-2868}

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

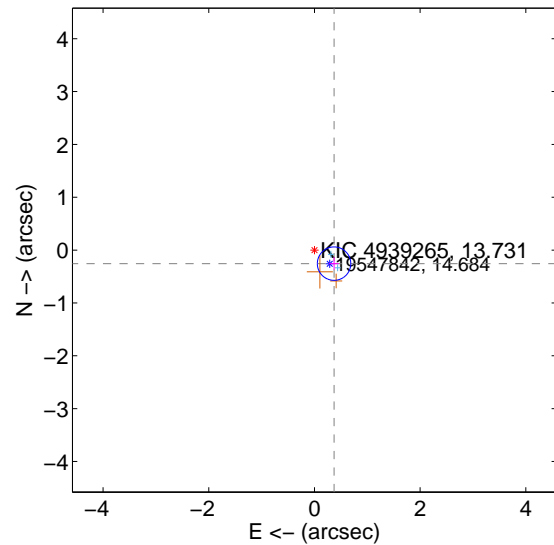
Supplemental centroid analysis for 004939265-05. Kepler magnitude: 13.73. Transit SNR 6.93

There are 2 quarters with good PRF difference image offsets

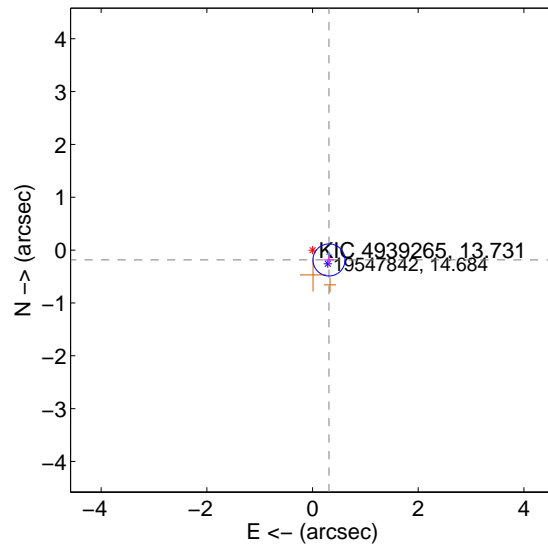
The direct PRF centroid is offset from the target star catalog position by about 0.20 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.451 ± 0.105	4.28	-0.371 ± 0.092	-0.256 ± 0.121
PRF-fit source offset from KIC position	0.363 ± 0.101	3.59	-0.312 ± 0.097	-0.186 ± 0.111
photometric centroid source offset	1.13 ± 0.89	1.27	0.88 ± 0.99	0.71 ± 0.74

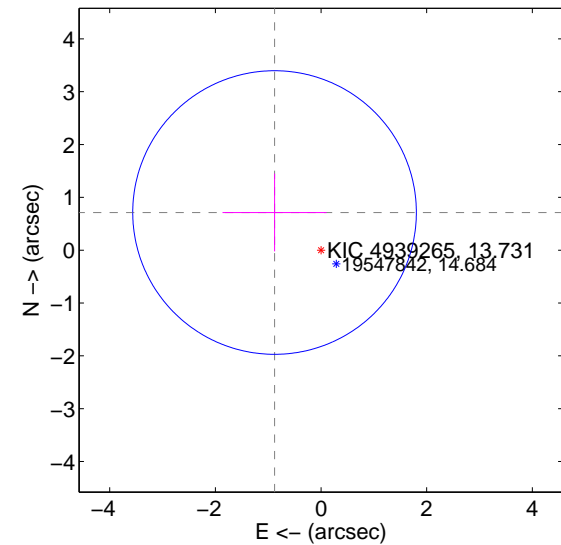
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position



offset from photometric centroids



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

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

Q1 no difference image



Q1 no OOT image



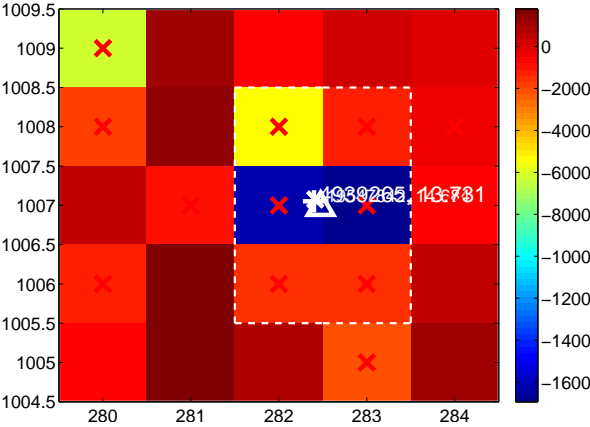
Q2 no difference image



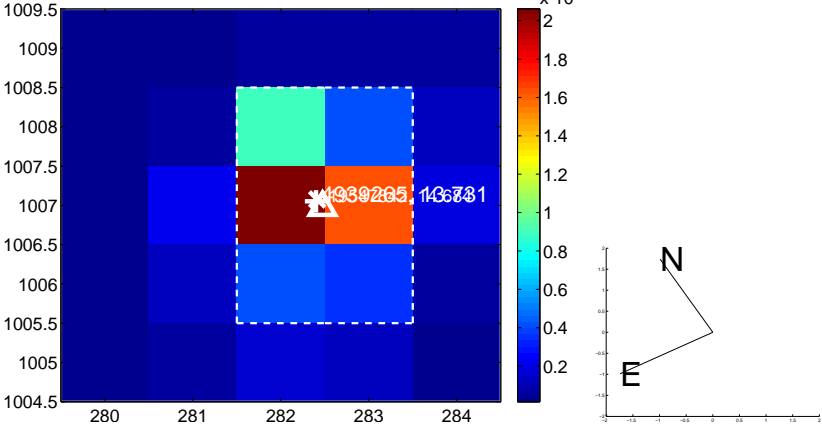
Q2 no OOT image



Q3 difference image. Poor Quality



Q3 OOT image



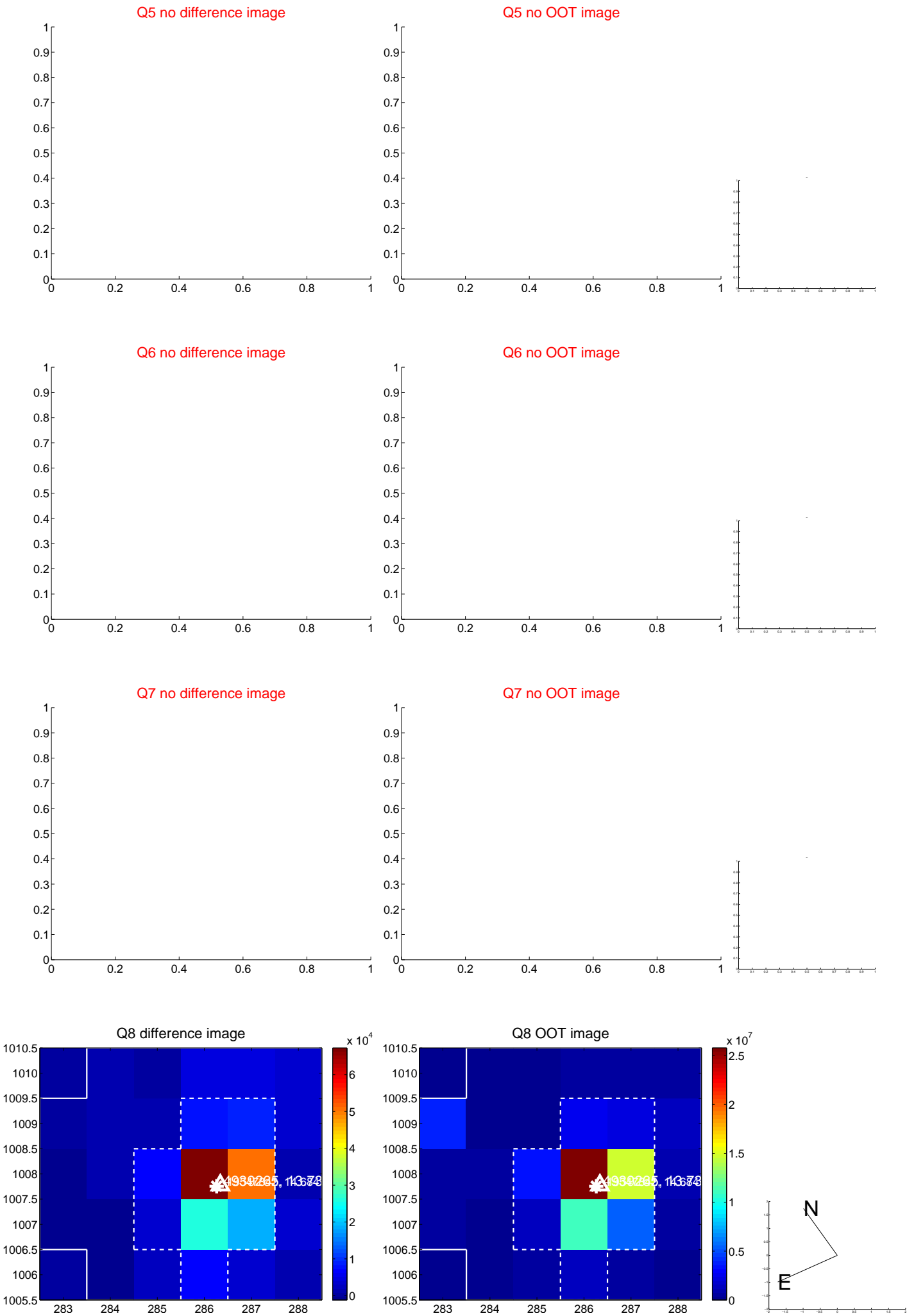
Q4 no difference image



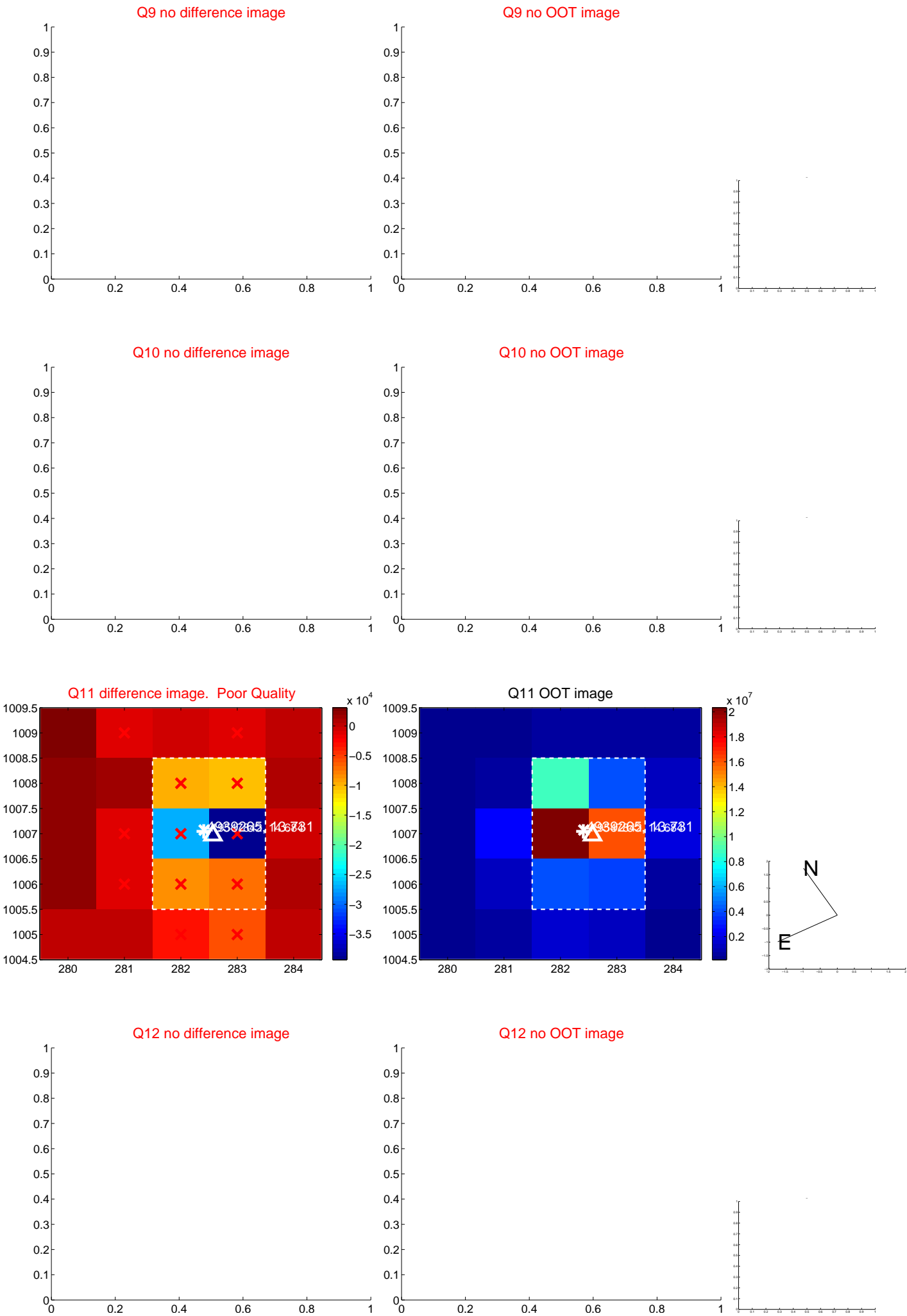
Q4 no OOT image



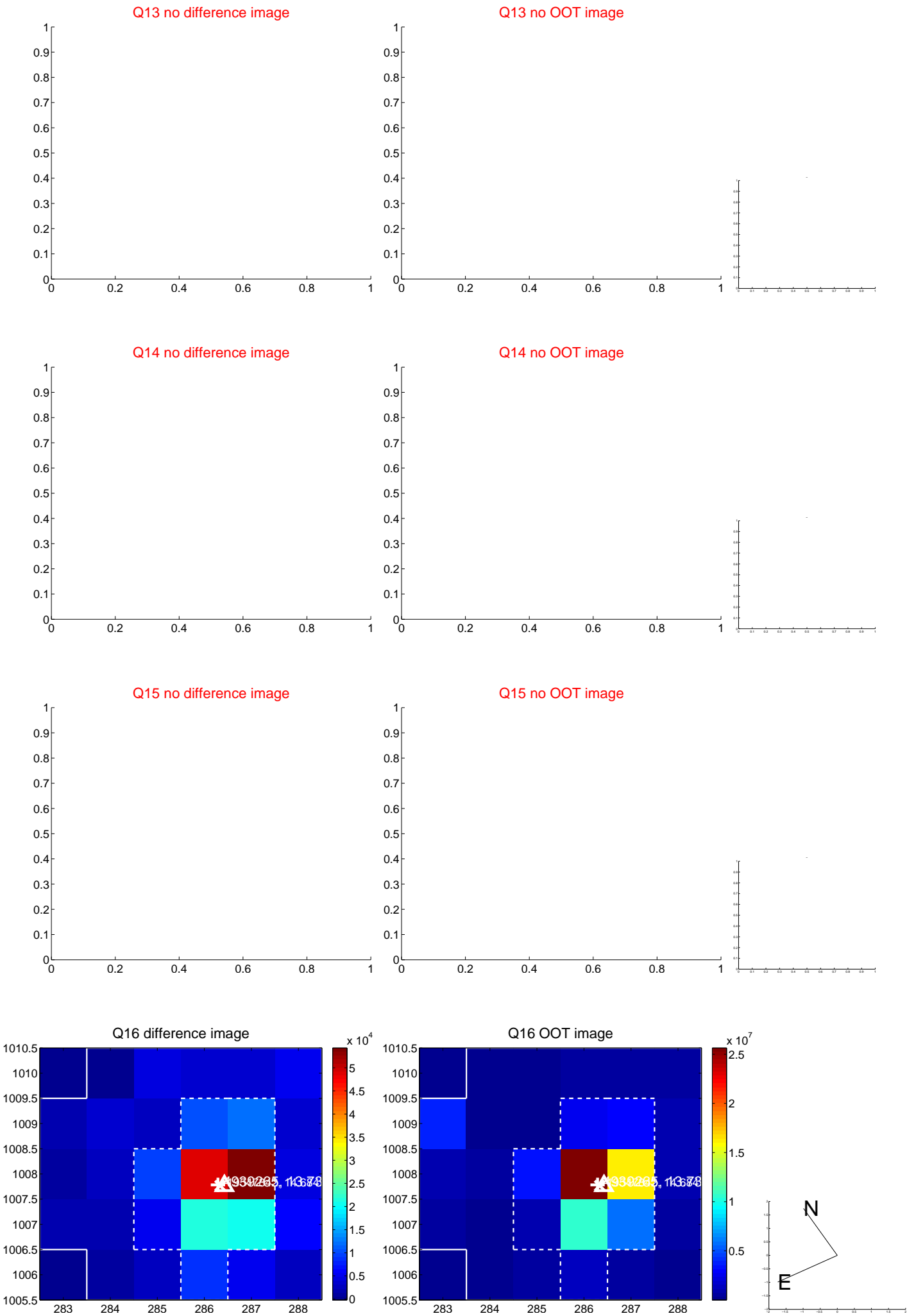
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



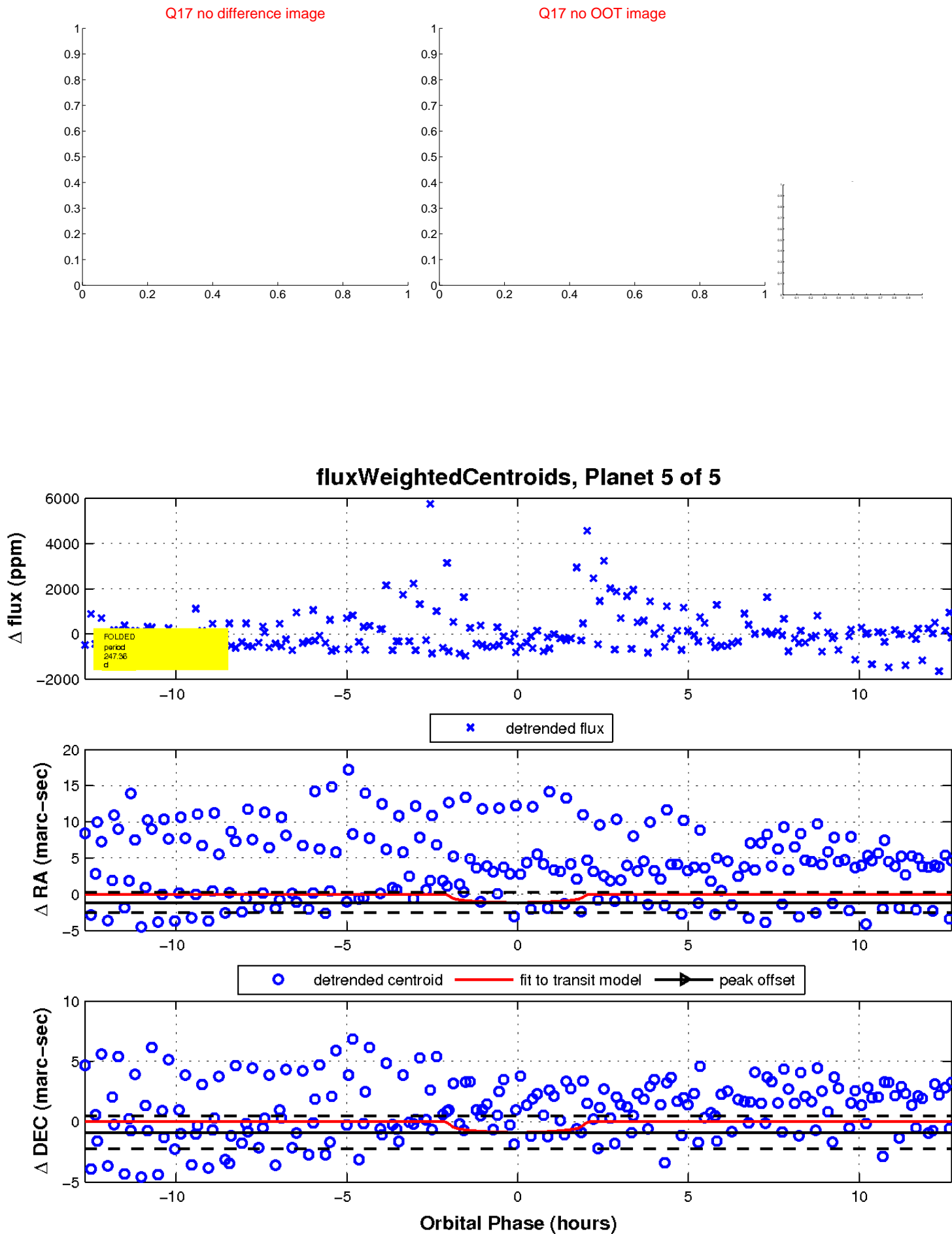
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



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



UKIRT Image

