

KIC 008265068

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})
008265068-01	OBS	No	1.448332	132.890575	43.5	3.991	7.9	1.6	1.96	7543	1.50	12370.27
008265068-02	OBS	No	1.495832	131.863784	538.9	4.048	9.4	11.2	1.96	7543	8.57	11849.30
008265068-03	OBS	No	304.902879	300.495248	4425.1	4.511	7.8	7.6	1.96	7543	15.04	9.88
008265068-04	OBS	No	1.495838	132.908971	357.2	3.861	8.9	8.6	1.96	7543	4.78	11849.24

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008265068-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
008265068-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
008265068-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
008265068-04	OBS	FP	0.00	1	0	1	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—SAME_NTL_PERIOD—HALO_GHOST

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

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

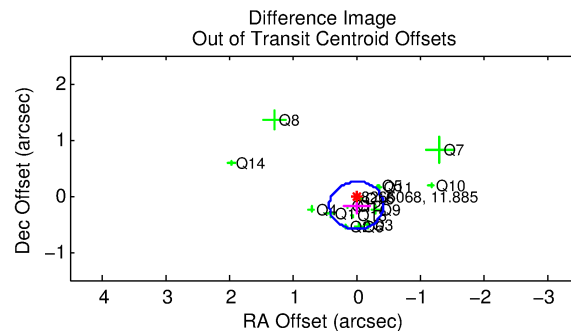
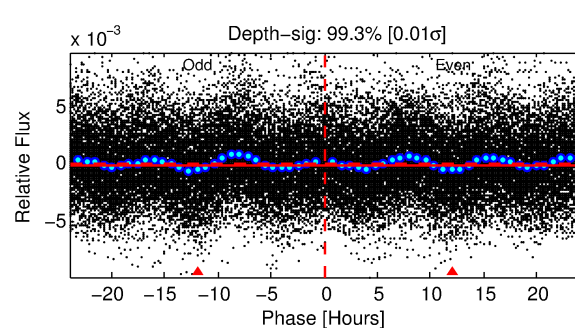
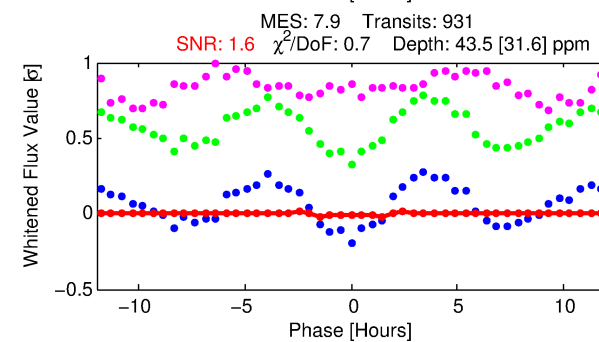
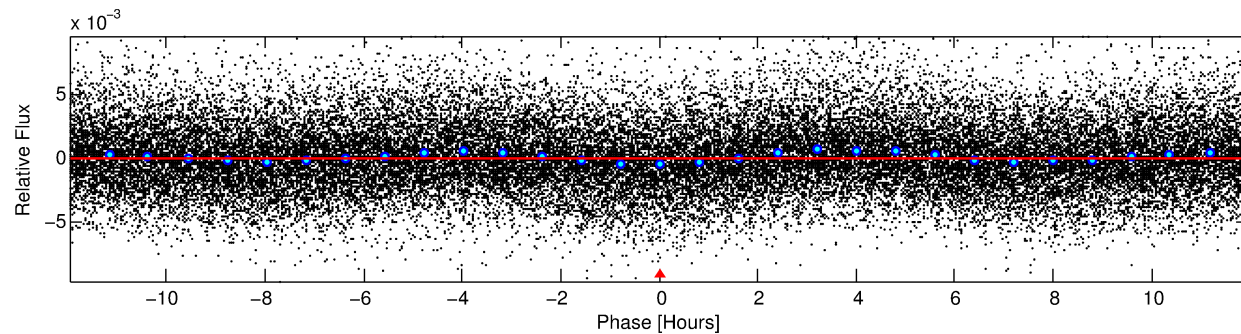
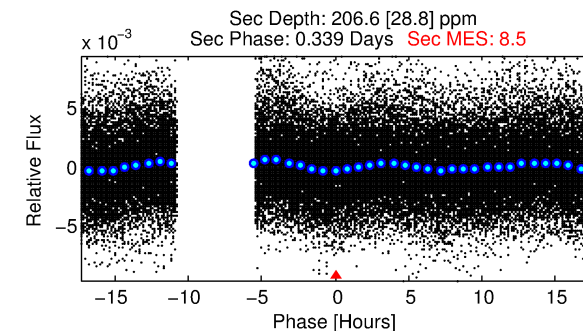
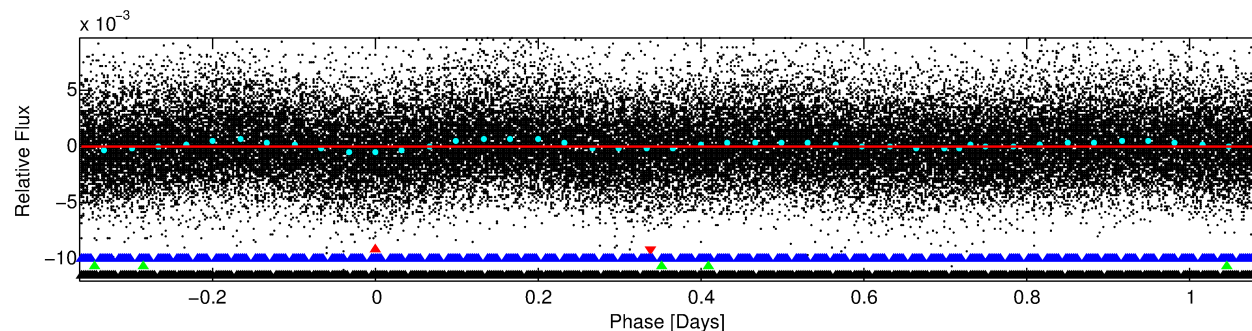
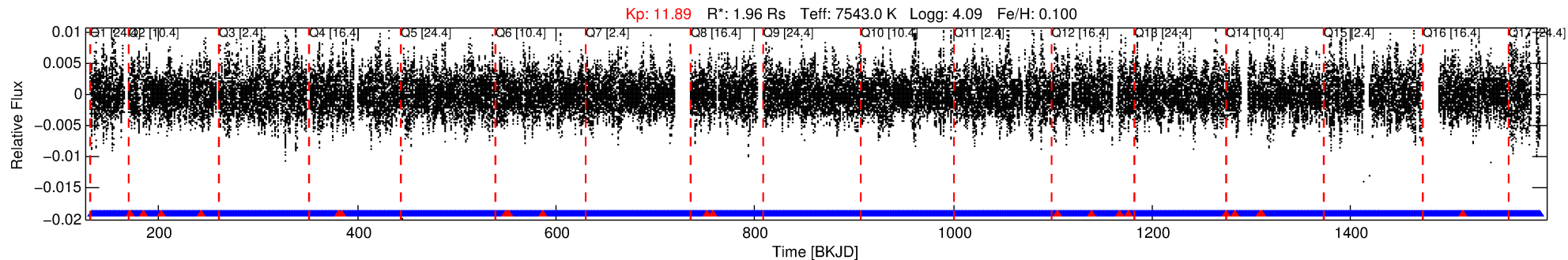
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008265068-01

No Significant Match Found

DV One-Page Summary

KIC: 8265068 Candidate: 1 of 4 Period: 1.448 d



DV Fit Results:

Period = 1.44833 [0.00006] d
Epoch = 132.8906 [0.0080] BKJD
Rp/R* = 0.0070 [0.0053]
a/R* = 1.56 [3.81]
b = 0.90 [0.87]
Seff = 12370.27 [4603.73]
Teff = 2689 [250] K
Rp = 1.50 [1.22] Re
a = 0.0300 [0.0070] AU
Ag = 45.81 [71.72] [0.62σ]
Teffp = 10817 [4170] K [1.95σ]

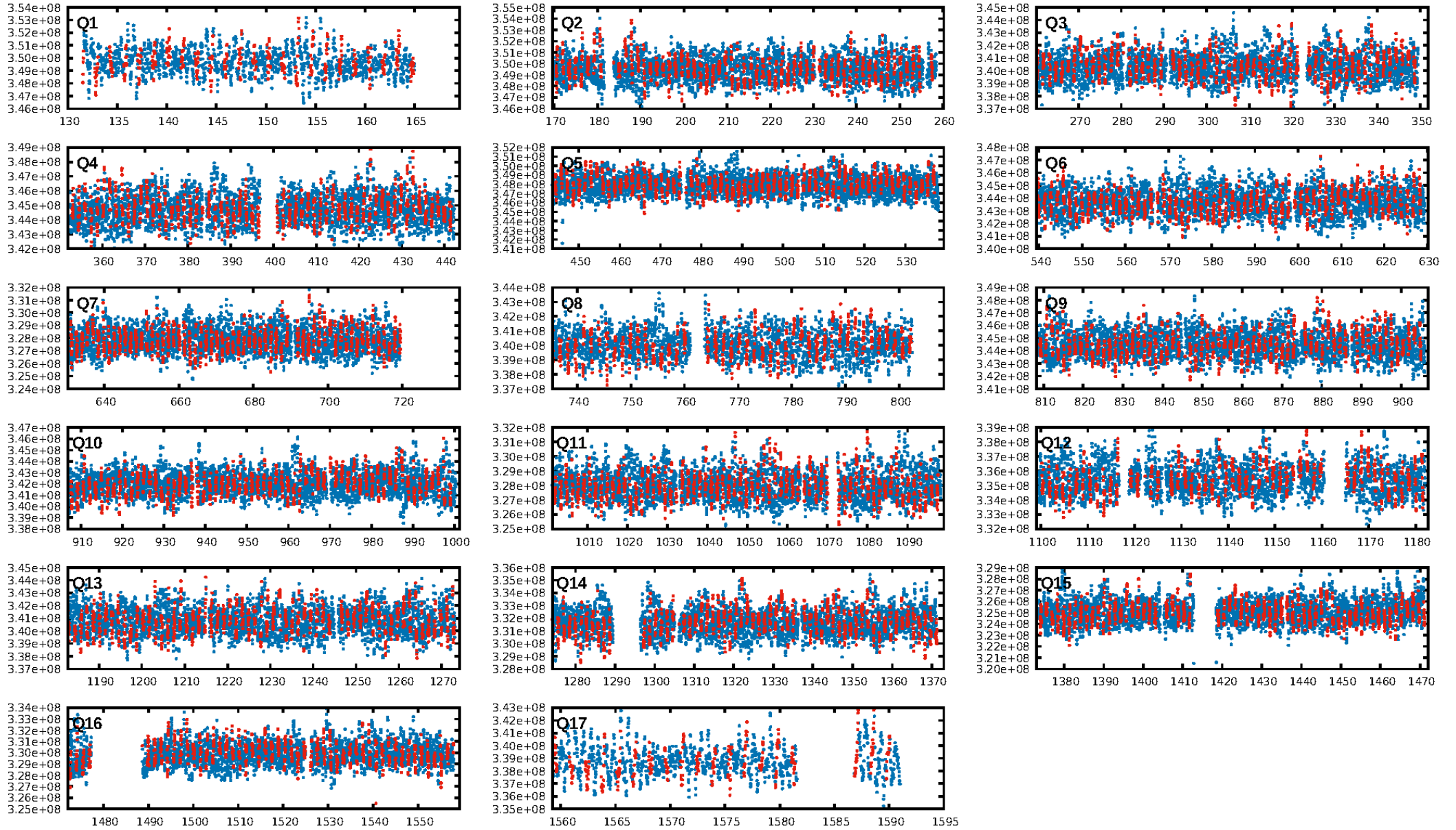
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 15.9% [0.20σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.98 [868/888]
GhostDiagnostic-chr: 17.02
Centroid-sig: 0.1%
Centroid-so: 1.168 arcsec [1.88σ]
OotOffset-rm: 0.174 arcsec [1.23σ]
KicOffset-rm: 0.123 arcsec [0.78σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.71 [12/17]
DiffImageOverlap-fno: 1.00 [17/17]

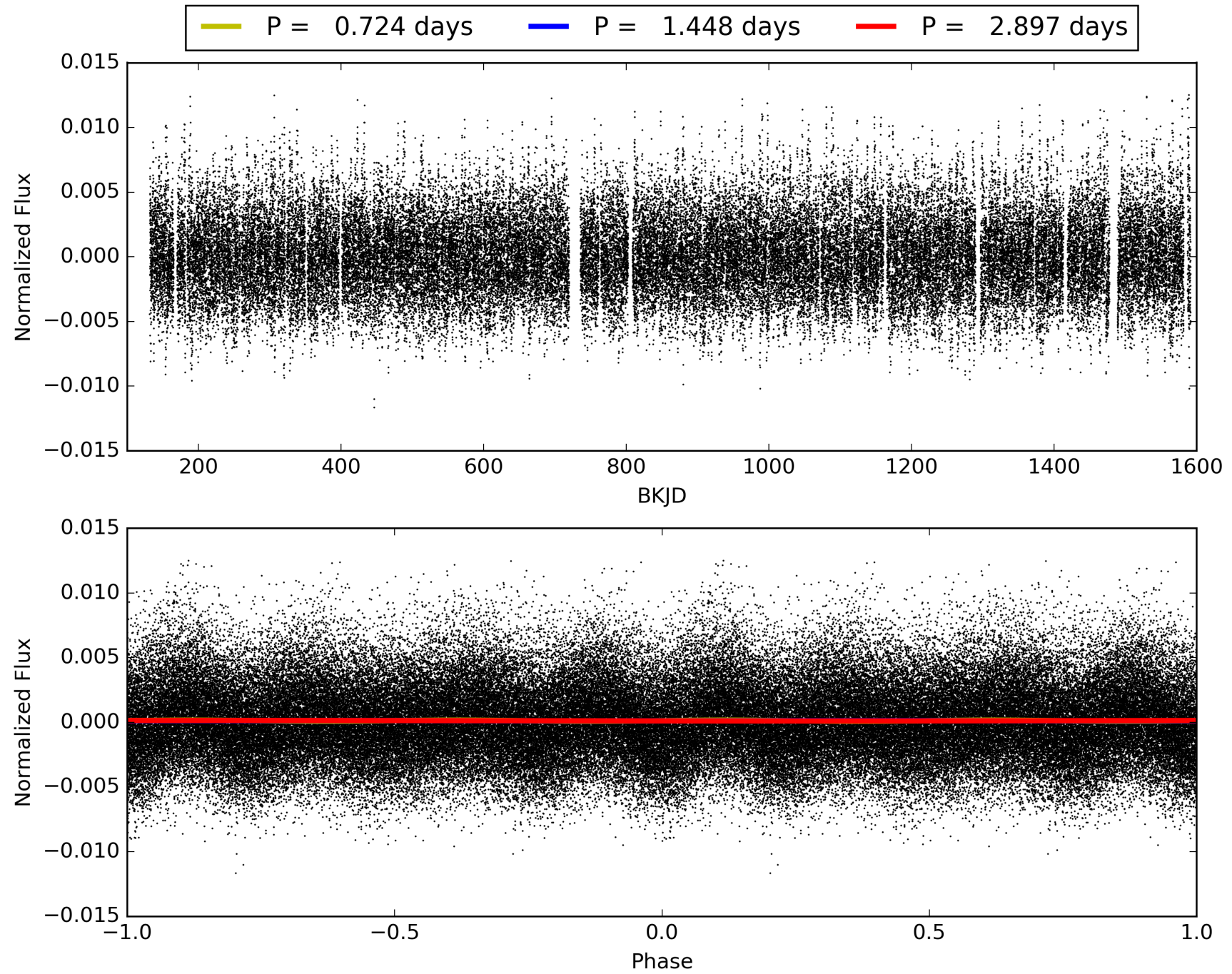
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 05:45:51 Z

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

TCE 008265068-01, PDC Light Curves

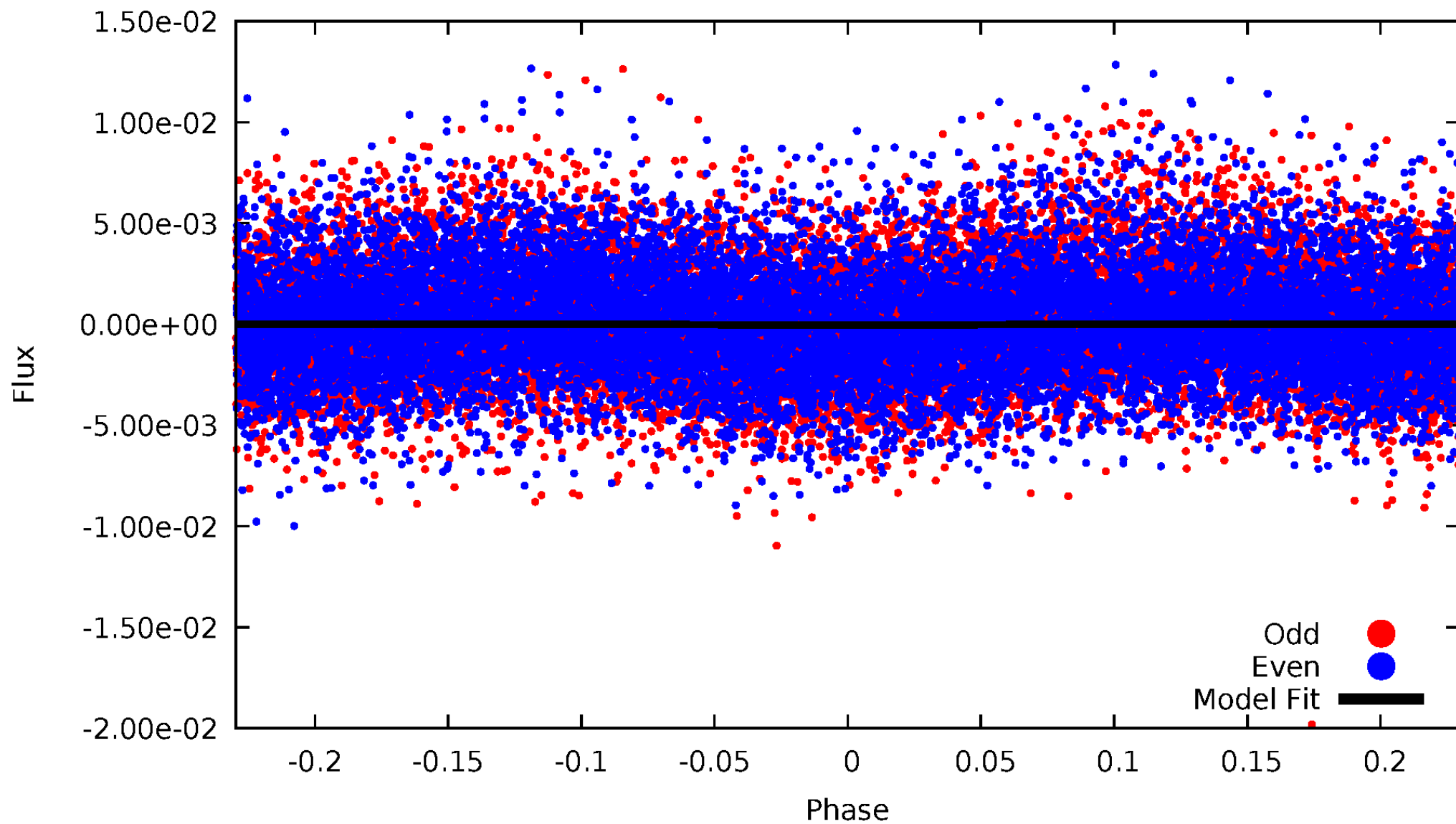


TCE 008265068-01



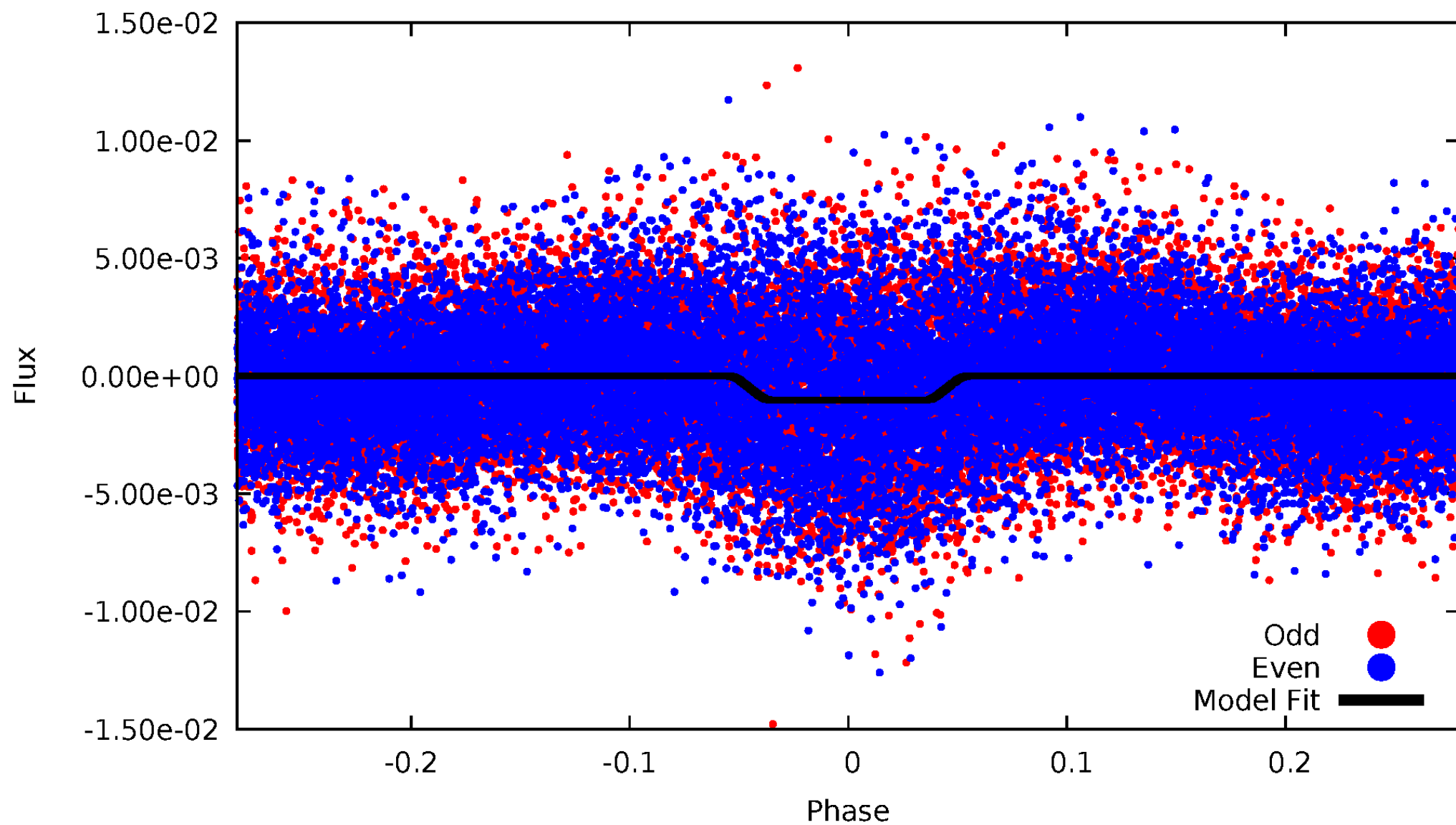
DV Odd/Even

TCE 008265068-01



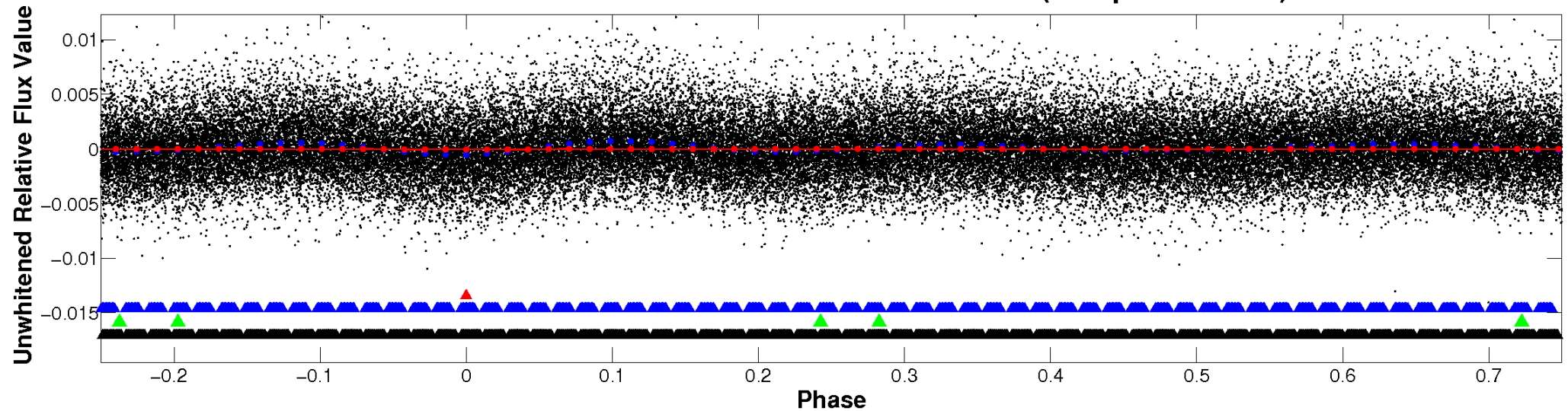
ALT Odd/Even

TCE 008265068-01

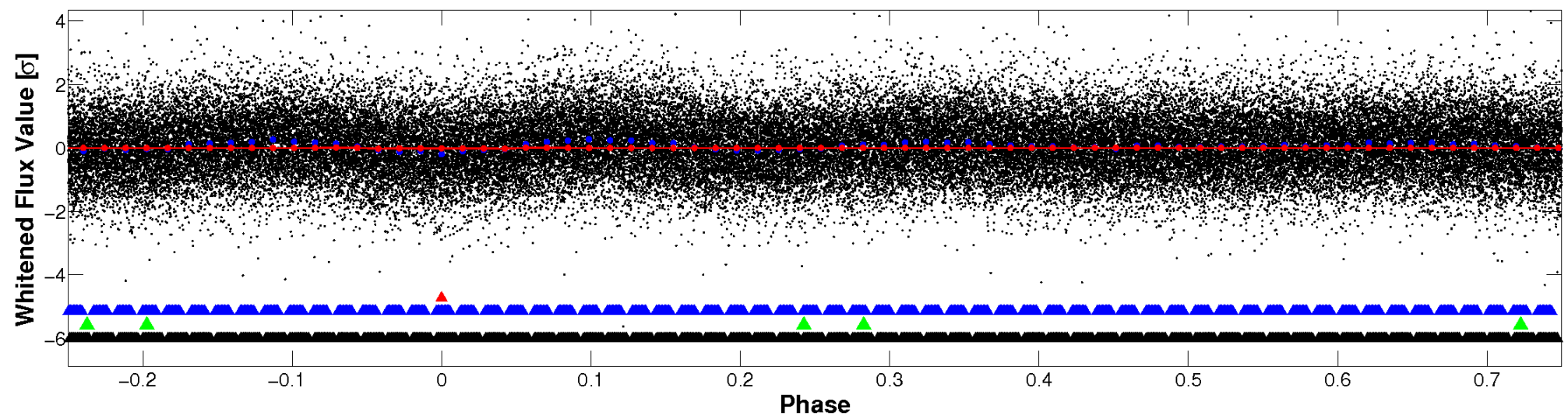


Non-Whitened Vs. Whitened Light Curve

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

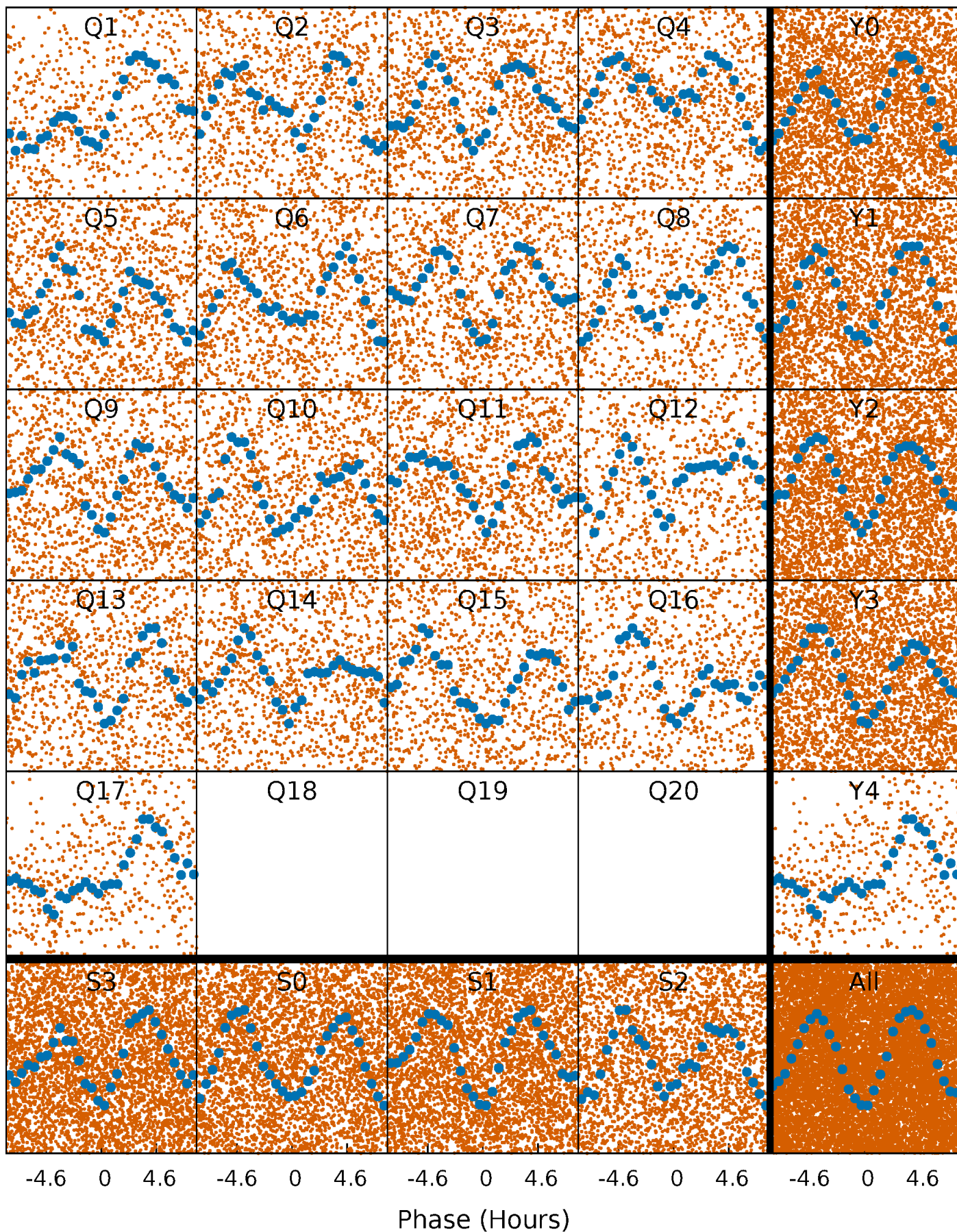


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



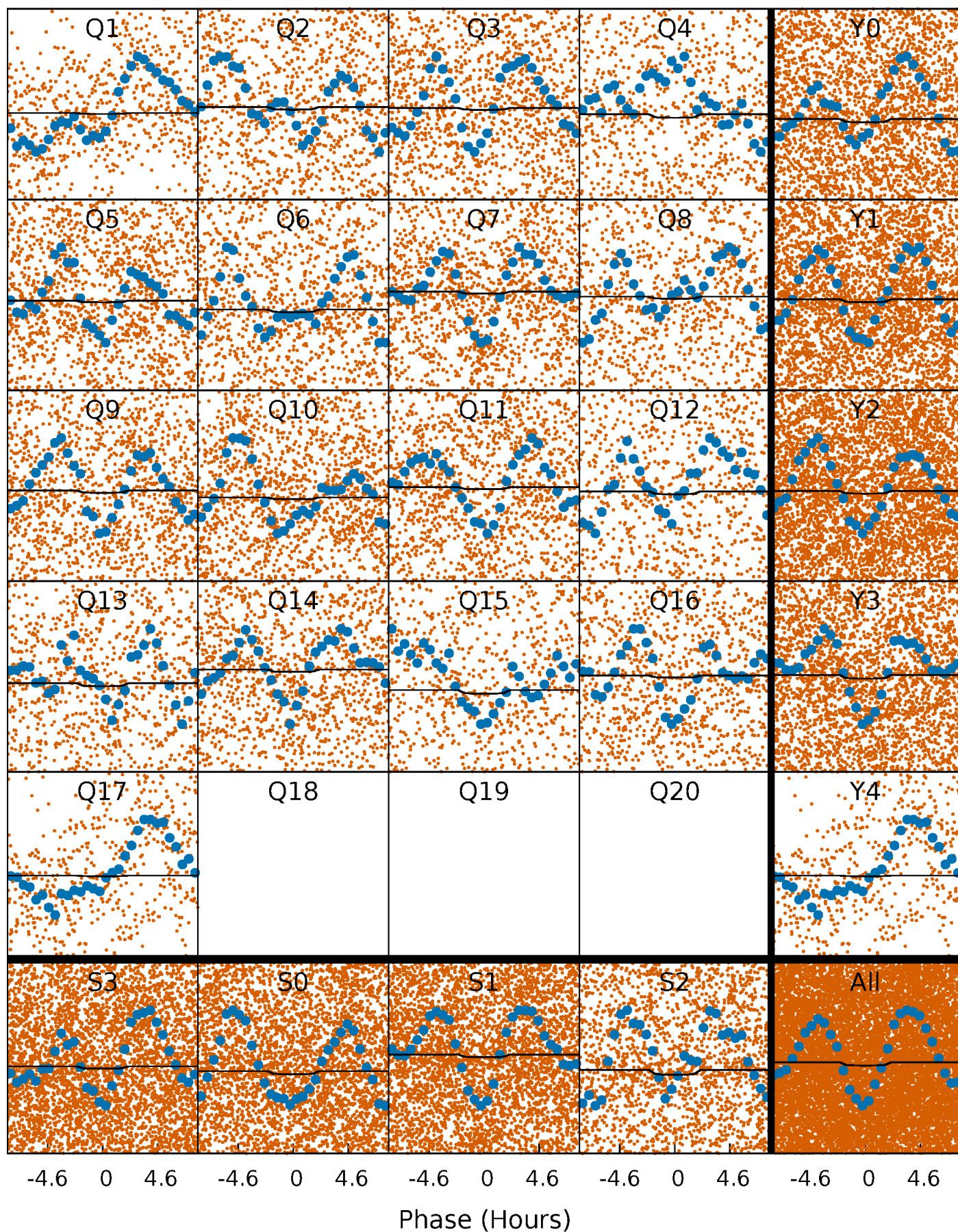
PDC Quarter-Phased Transit Curves

TCE 008265068-01 P= 1.448332 Days $T_0=132.890575$ (BKJD)



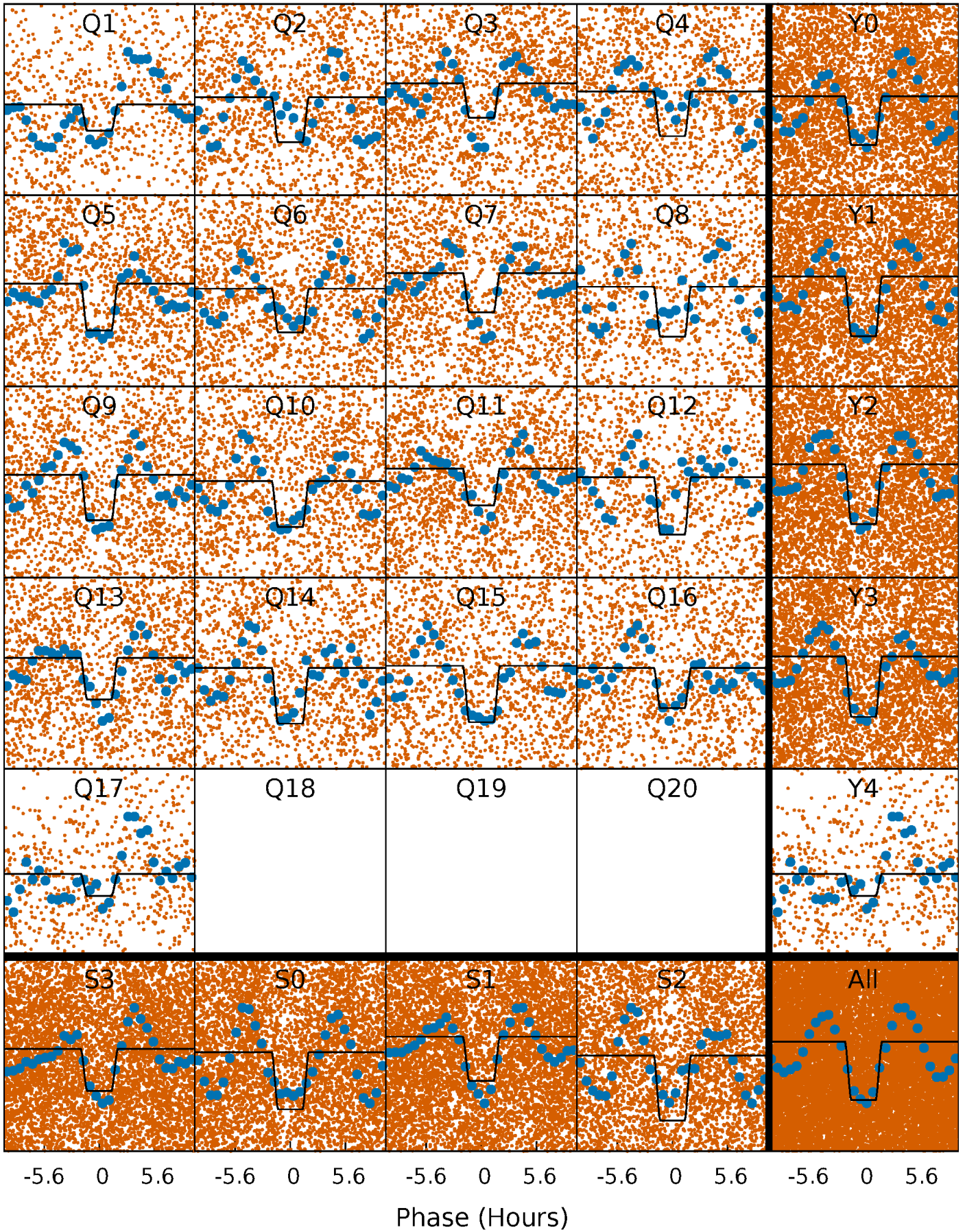
DV Quarter-Phased Transit Curves

TCE 008265068-01 P= 1.448332 Days $T_0=132.890575$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

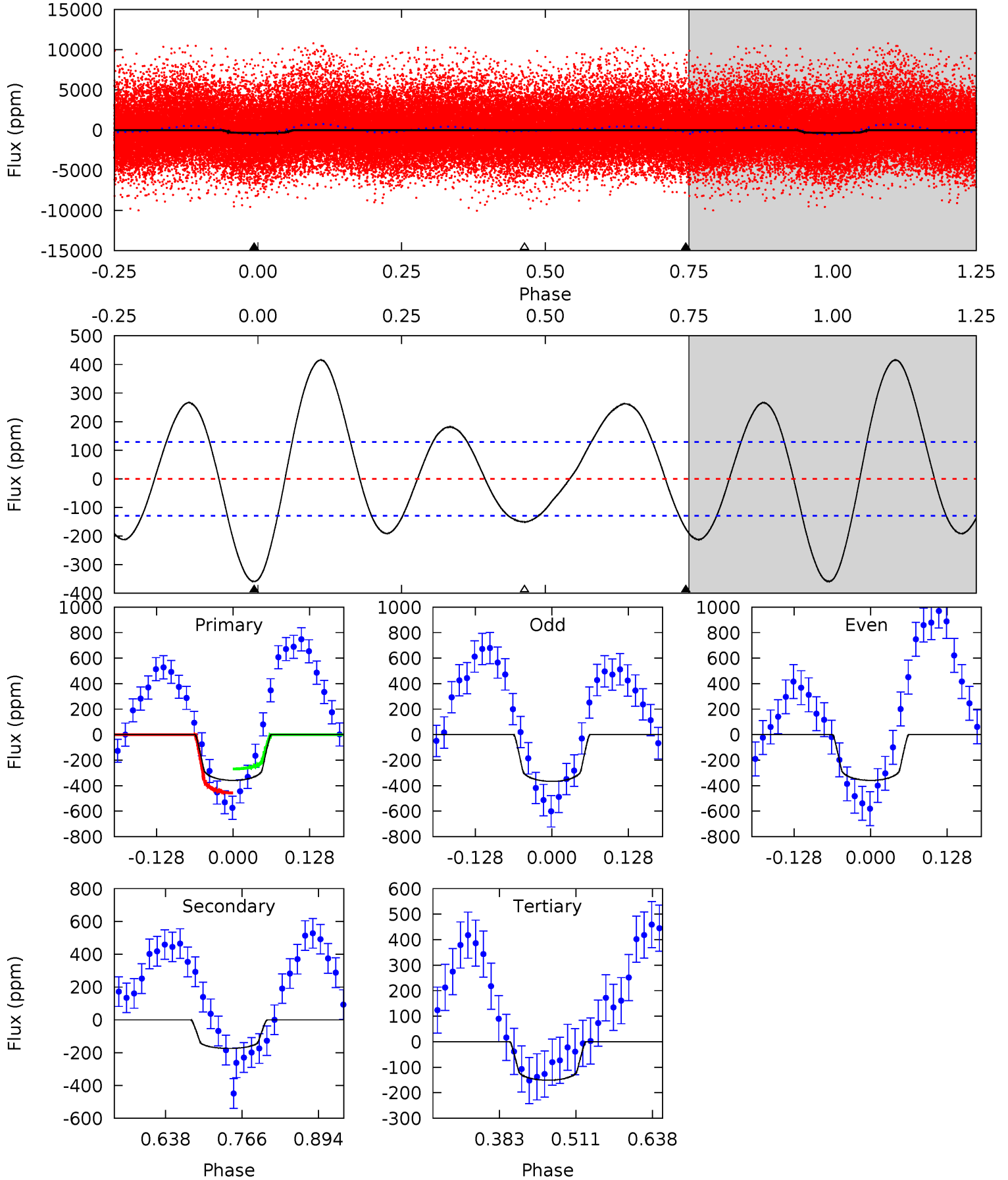
TCE 008265068-01 P= 1.448369 Days $T_0=132.865311$ (BKJD)



DV Model-Shift Uniqueness Test

008265068-01, P = 1.448332 Days, E = 131.442243 Days

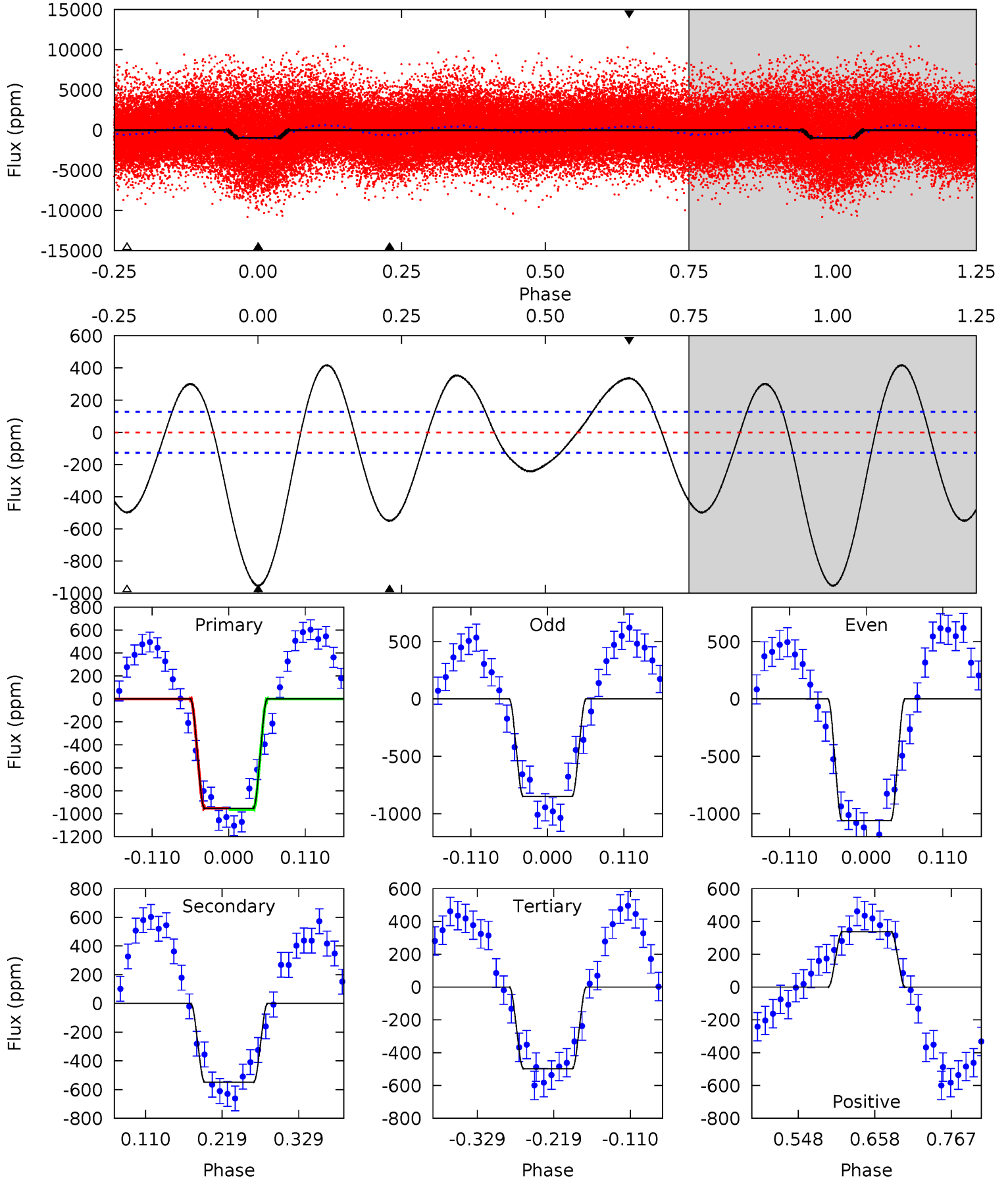
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.6	6.10	5.28	0	4.51	1.52	5.06	7.29	12.6	0.82	6.10	0.13	1.03	0.54	3.26



Alt Model-Shift Uniqueness Test

008265068-01, P = 1.448369 Days, E = 131.416942 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
33.9	19.6	17.7	12.0	4.55	1.60	9.22	16.2	22.0	1.84	7.57	3.74	1.04	0.30	0.17



Stellar Parameters For KIC 008265068

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7543^{+211}_{-342}	$4.089^{+0.139}_{-0.170}$	$0.100^{+0.200}_{-0.350}$	$1.962^{+0.570}_{-0.380}$	$1.722^{+0.204}_{-0.272}$	$0.321^{+0.219}_{-0.150}$
	+3%/-5%	+3%/-4%	+200%/-350%	+29%/-19%	+12%/-16%	+68%/-47%
Source	PHO54	PHO54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 008265068-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-174 ± 29	$1.59^{+1.13}_{-0.92}$	3751^{+290}_{-263}	11131^{+14664}_{-3542}	35^{+150}_{-23}
Alt.	-549 ± 28	$6.84^{+1.41}_{-1.35}$	3734^{+290}_{-232}	6252^{+681}_{-548}	$5.693^{+3.200}_{-1.764}$

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

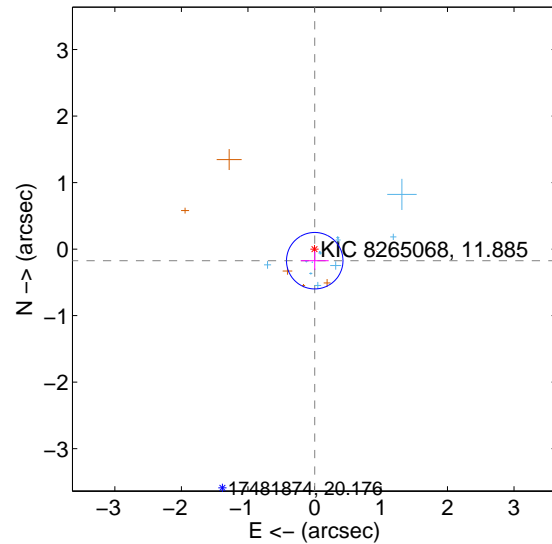
Supplemental centroid analysis for 008265068-01. **Kepler magnitude: 11.88.** Transit SNR 1.60

There are 12 quarters with good PRF difference image offsets

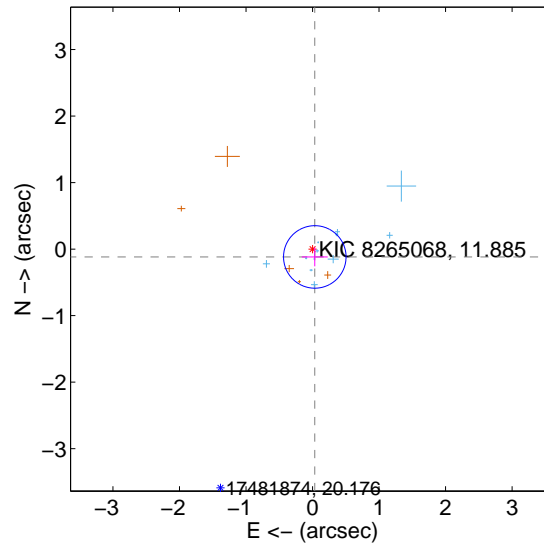
The direct PRF centroid is offset from the target star catalog position by about 0.07 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.174 ± 0.141	1.23	-0.004 ± 0.210	-0.174 ± 0.140
PRF-fit source offset from KIC position	0.123 ± 0.157	0.78	-0.034 ± 0.194	-0.118 ± 0.142
photometric centroid source offset	1.17 ± 0.62	1.88	-0.22 ± 0.82	1.15 ± 0.61

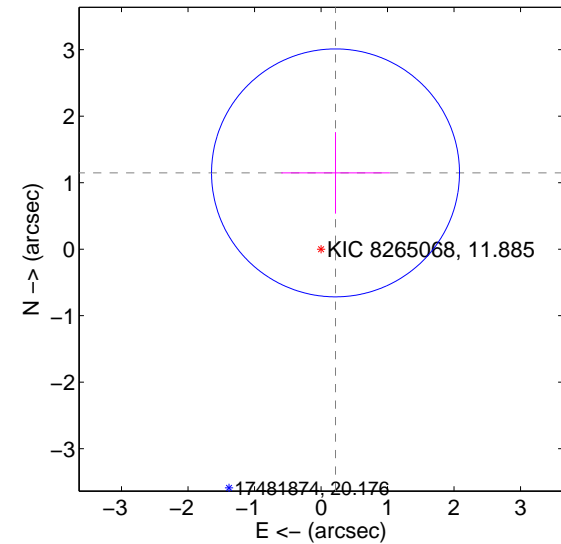
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

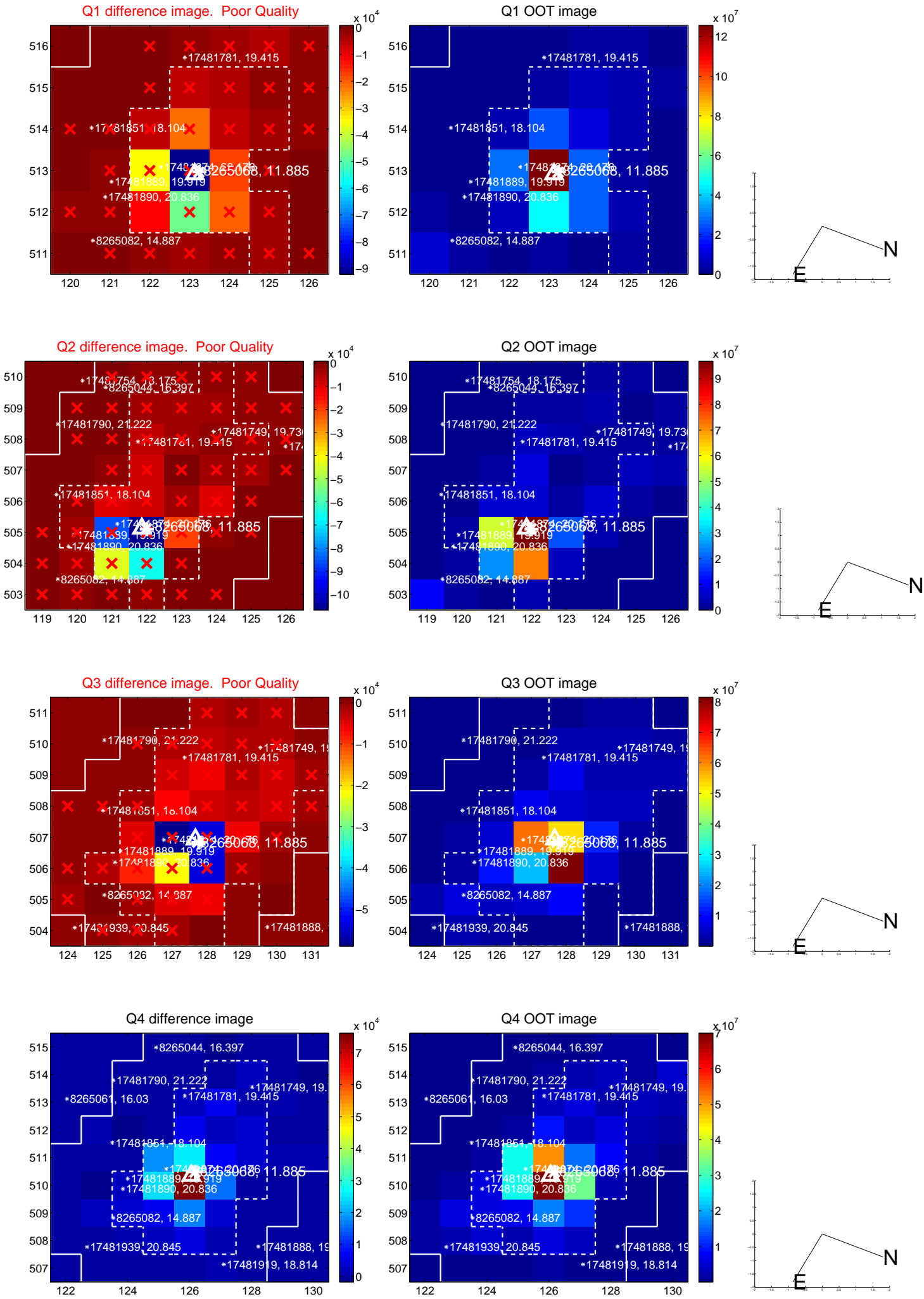


offset from photometric centroids

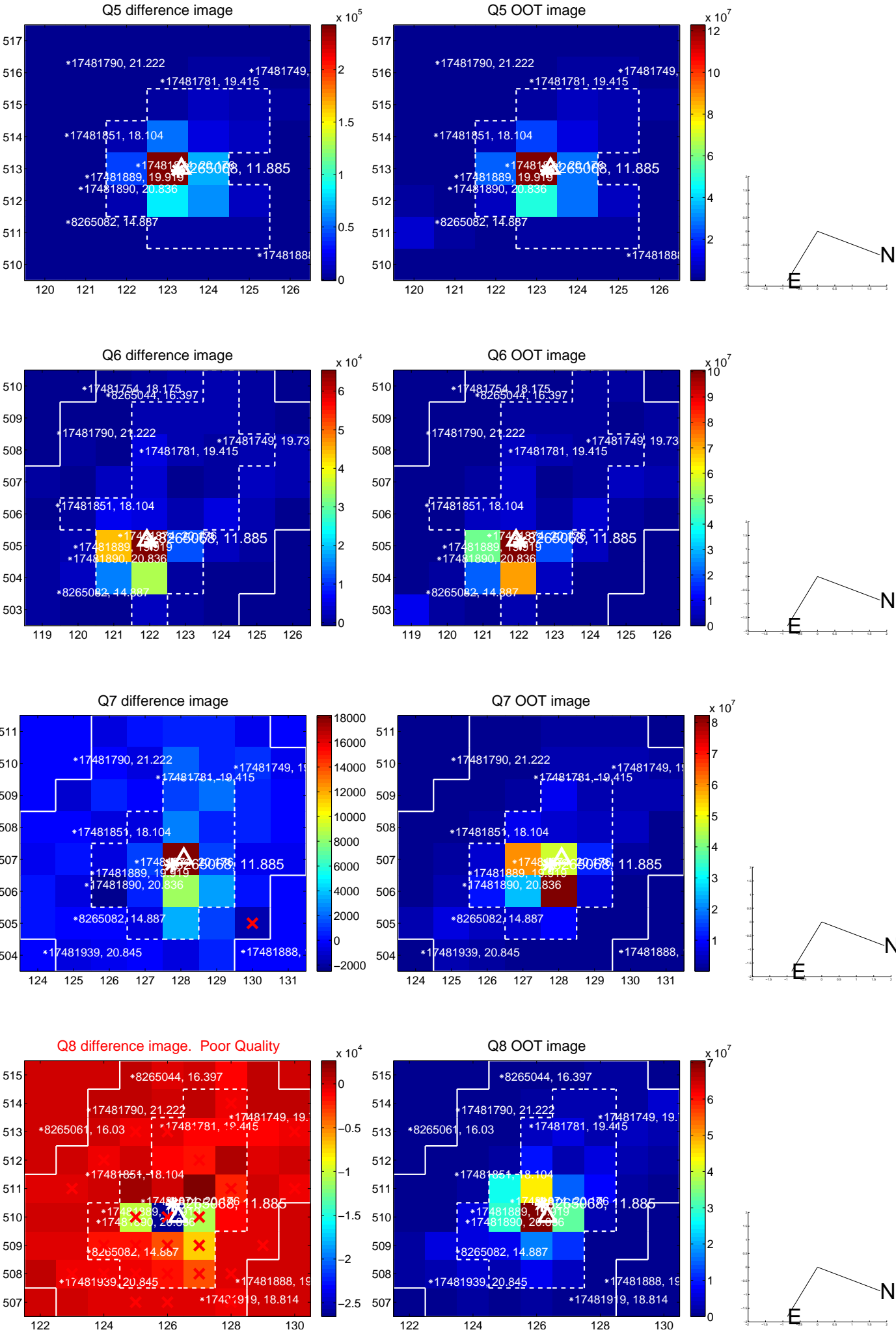


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

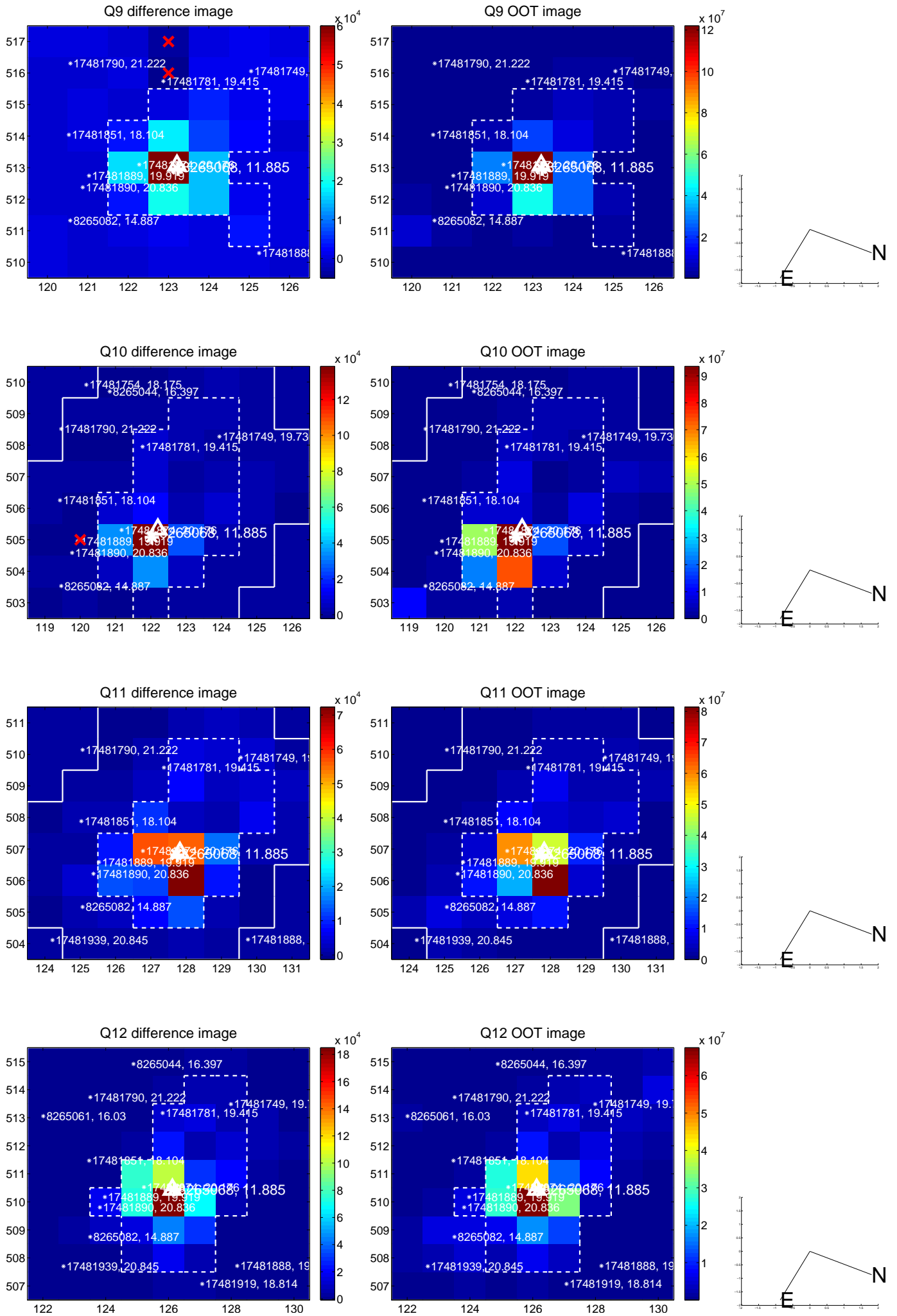
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



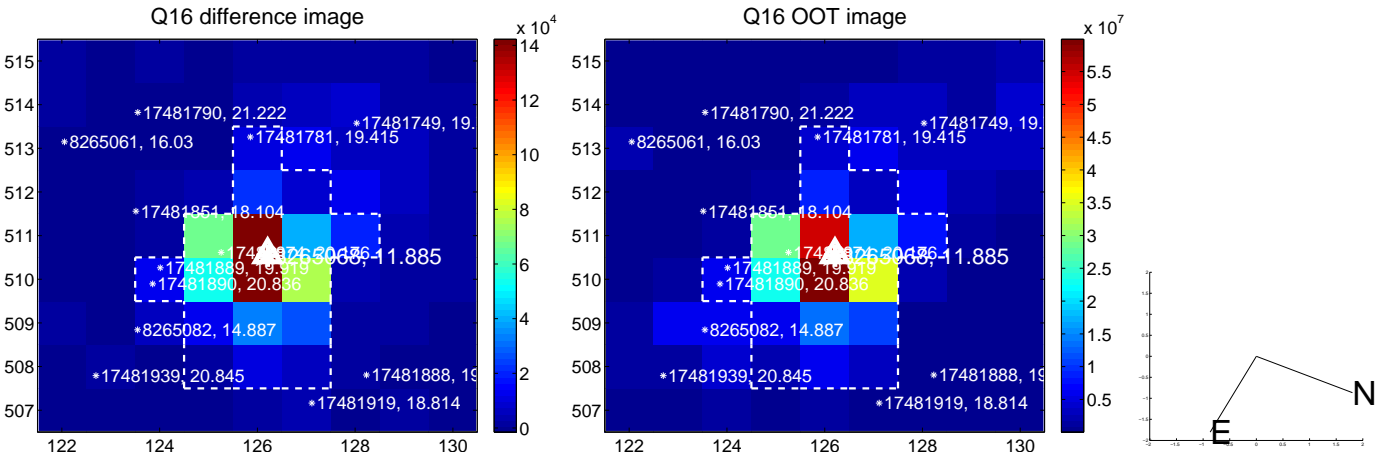
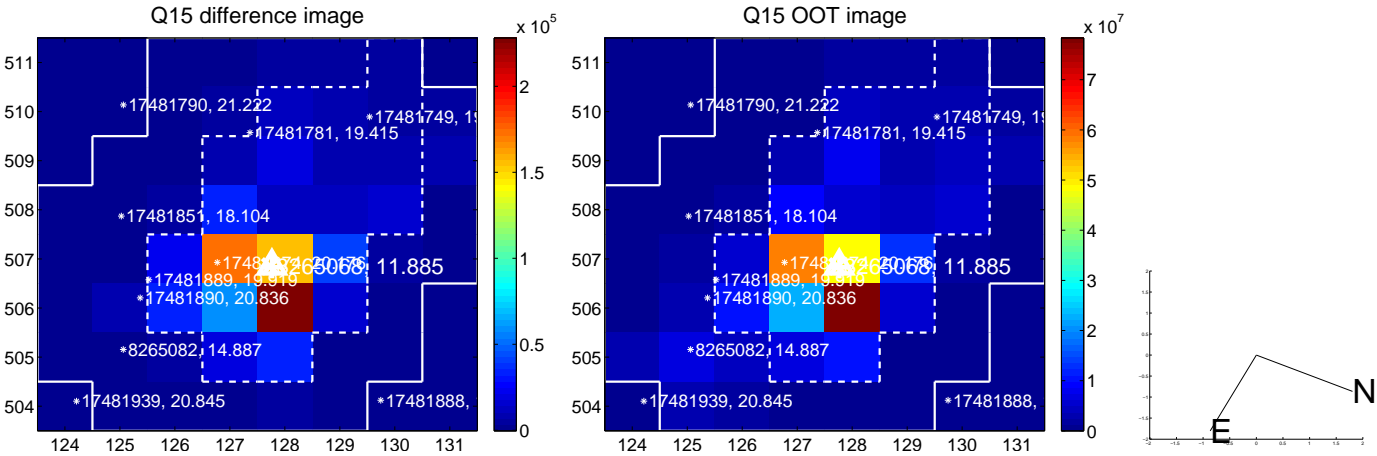
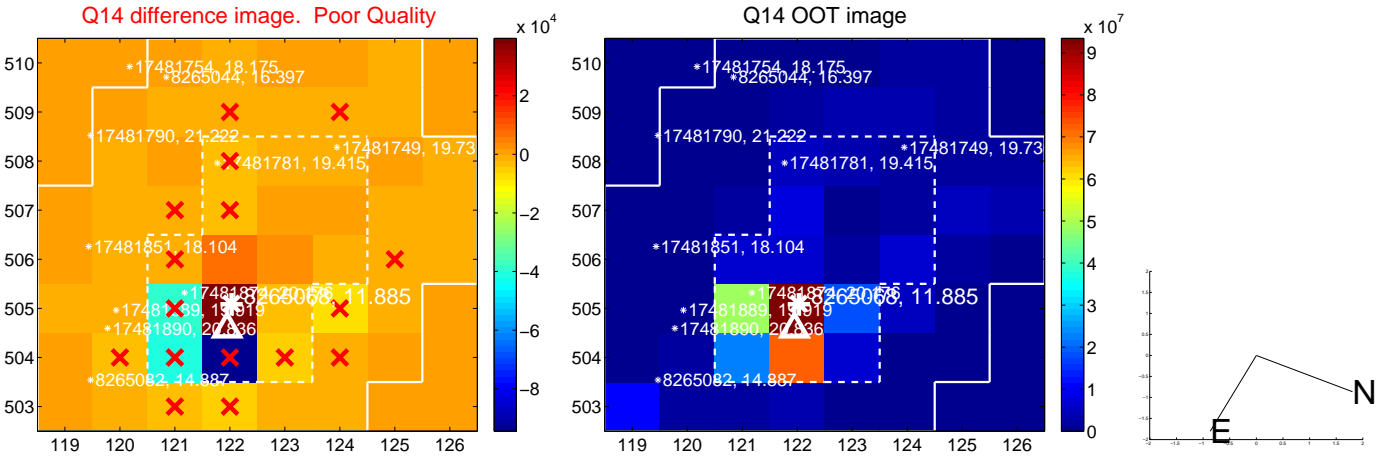
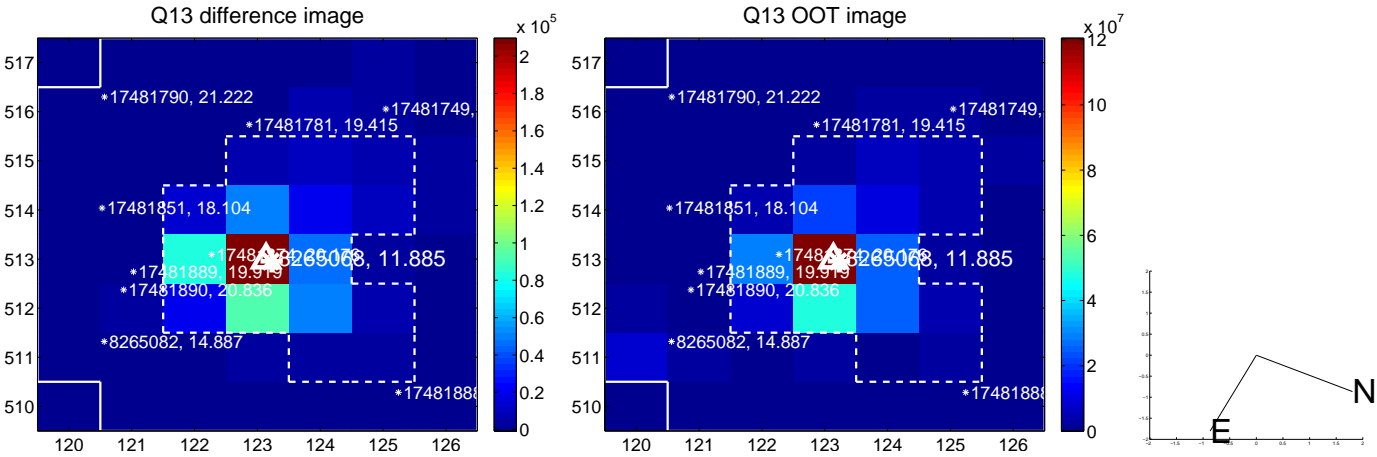
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



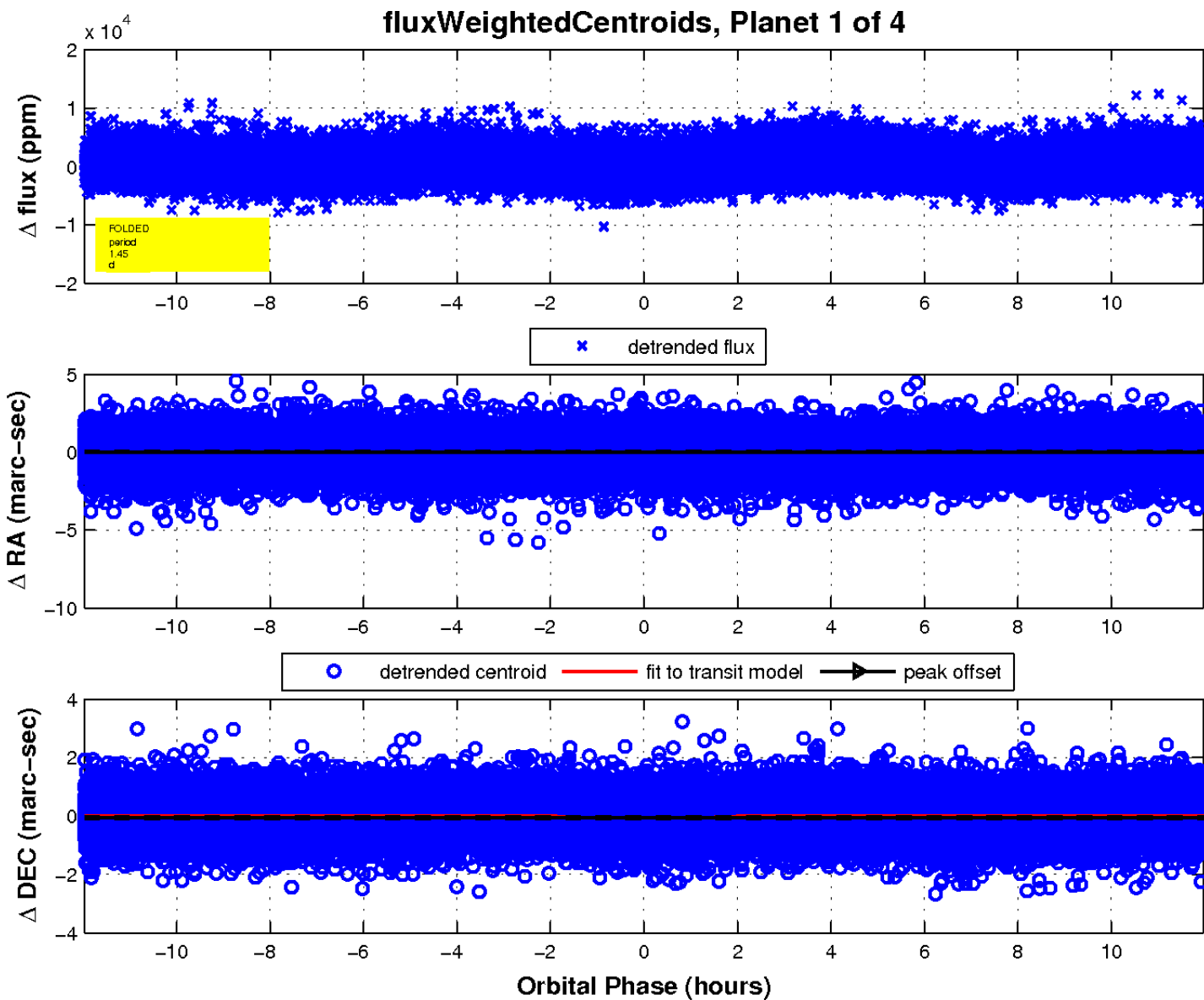
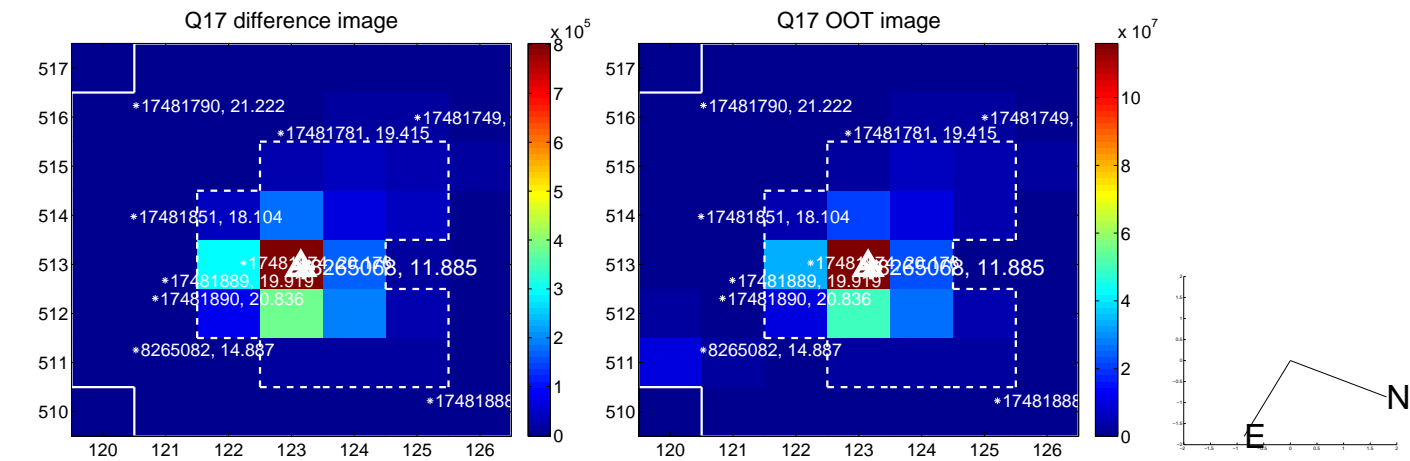
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

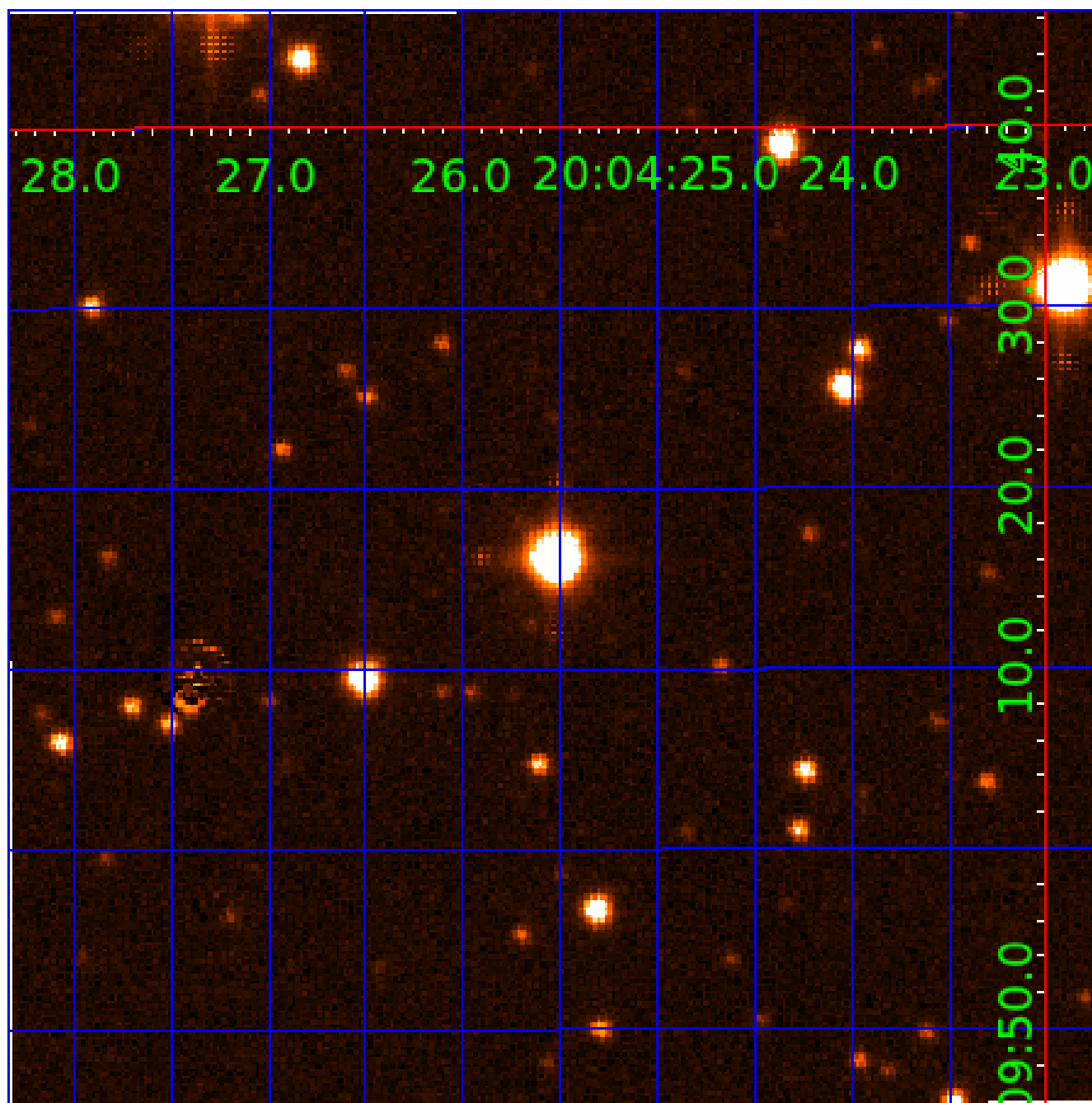


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 008265068

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})
008265068-01	OBS	No	1.448332	132.890575	43.5	3.991	7.9	1.6	1.96	7543	1.50	12370.27
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Robovetter Results

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008265068-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
008265068-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
008265068-04	OBS	FP	0.00	1	0	1	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—SAME_NTL_PERIOD—HALO_GHOST

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

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

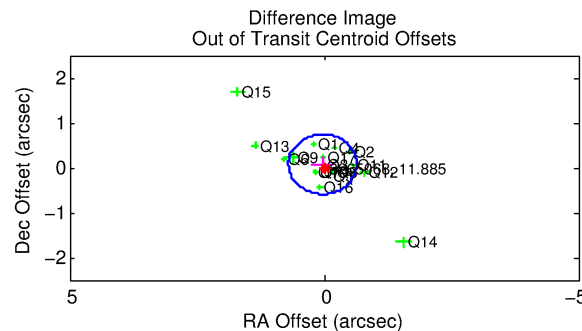
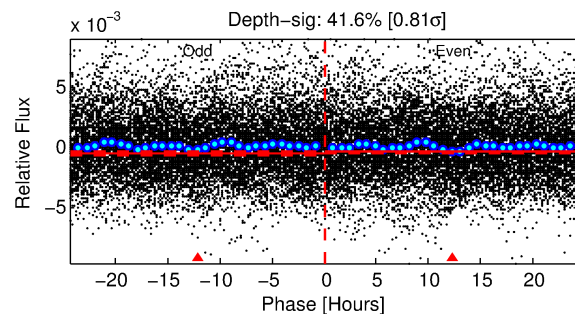
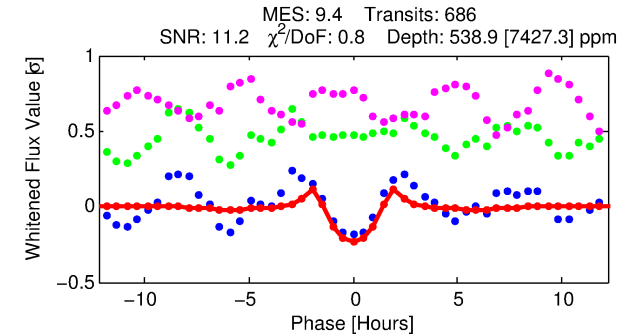
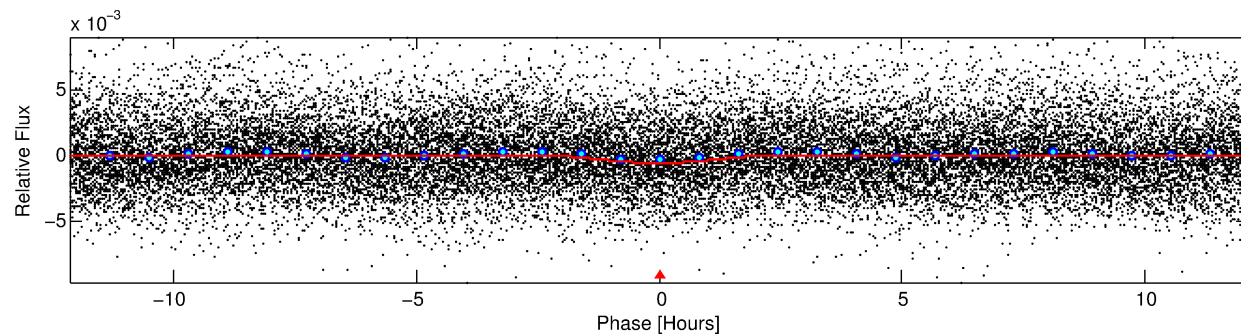
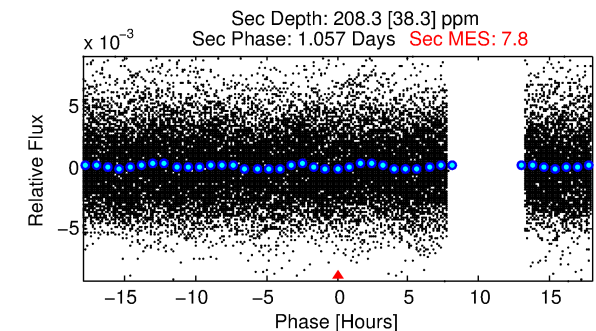
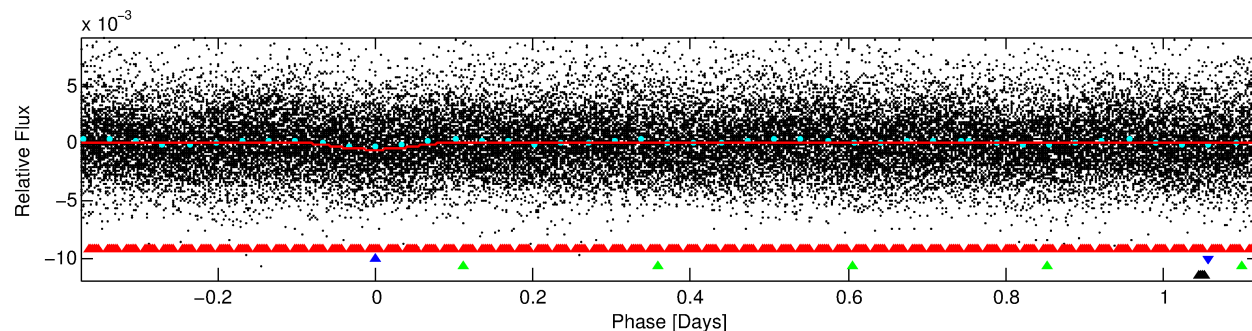
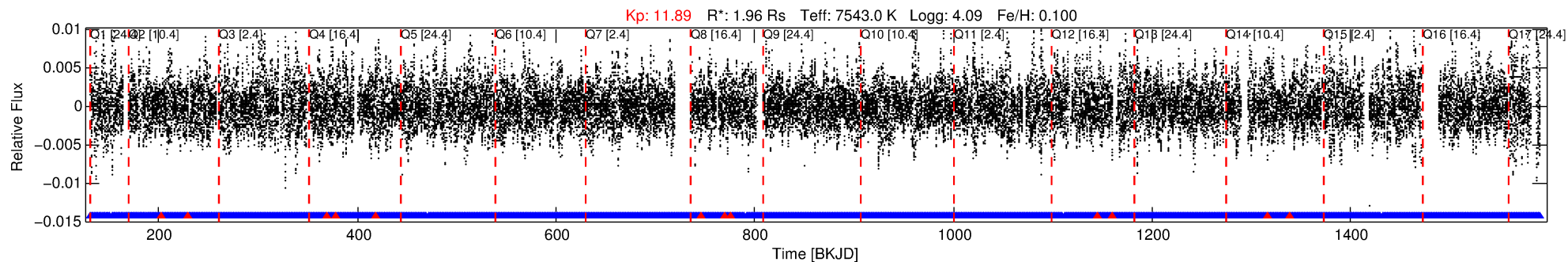
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008265068-02

No Significant Match Found

DV One-Page Summary

KIC: 8265068 Candidate: 2 of 4 Period: 1.496 d



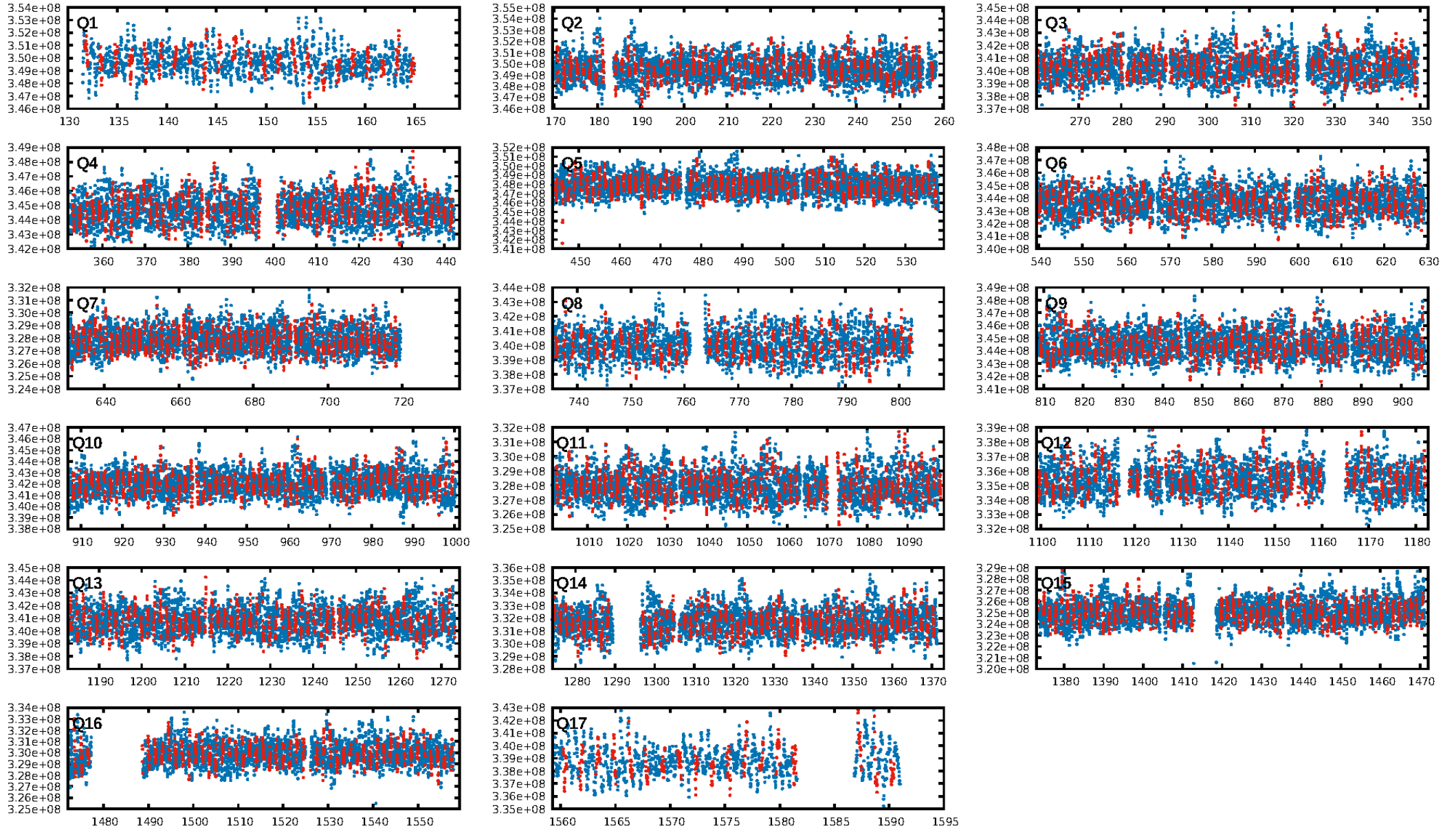
DV Fit Results:

Period = 1.49583 [0.00001] d
Epoch = 131.8638 [0.0029] BKJD
Rp/R* = 0.0401 [0.0385]
a/R* = 1.30 [0.08]
b = 1.00 [0.32]
Seff = 11849.30 [4409.84]
Teff = 2660 [248] K
Rp = 8.58 [8.62] Re
a = 0.0307 [0.0072] AU
Ag = 1.47 [2.88] [0.16σ]
Teffp = 4528 [2197] K [0.84σ]

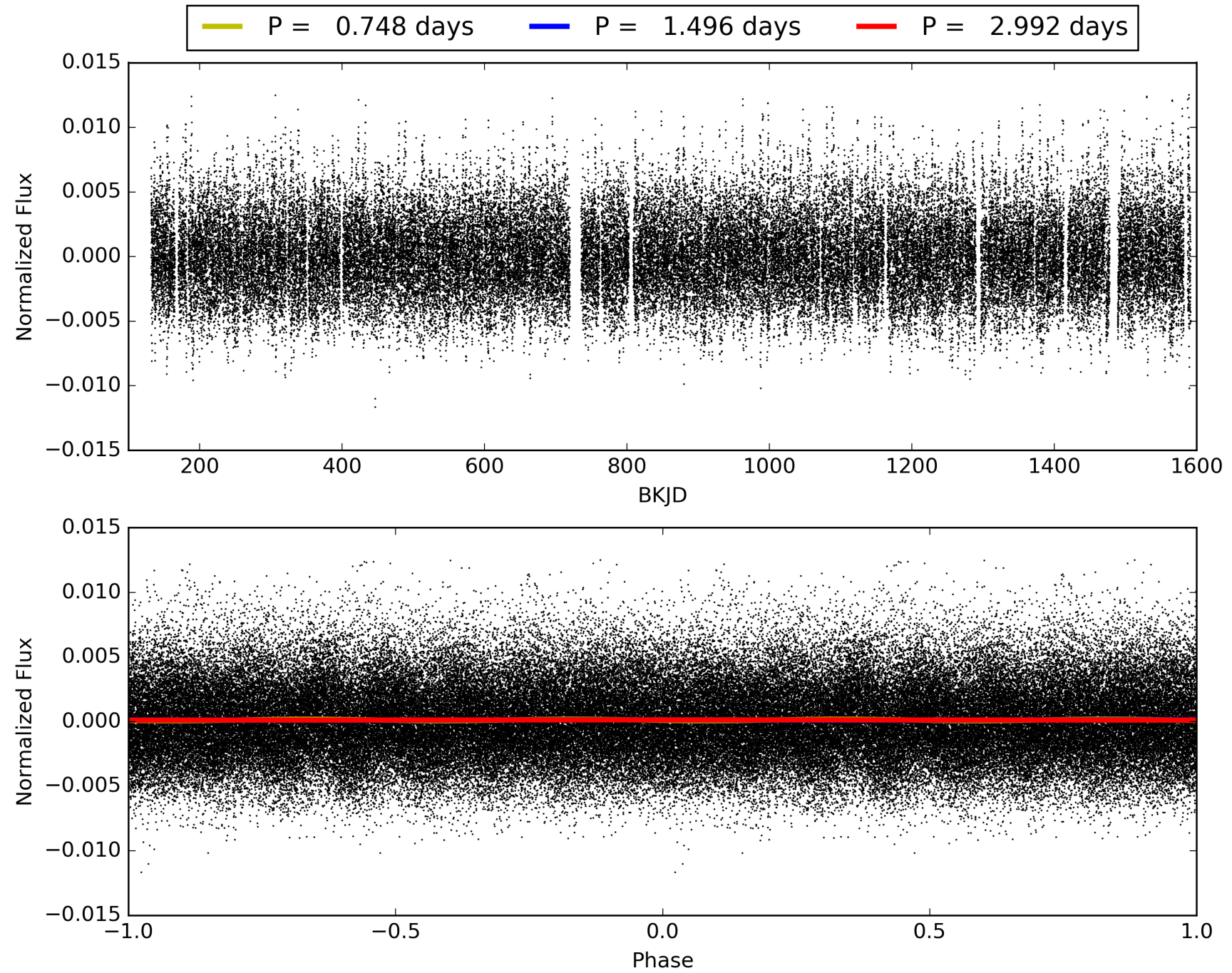
DV Diagnostic Results:

ShortPeriod-sig: 15.9% [0.20σ]
LongPeriod-sig: 0.0% [0.00σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.98 [644/656]
GhostDiagnostic-chr: 1.293
Centroid-sig: 33.2%
Centroid-so: 0.038 arcsec [0.55σ]
OotOffset-rm: 0.084 arcsec [0.38σ]
KicOffset-rm: 0.142 arcsec [0.73σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.71 [12/17]
DiffImageOverlap-fno: 0.00 [0/17]

TCE 008265068-02, PDC Light Curves

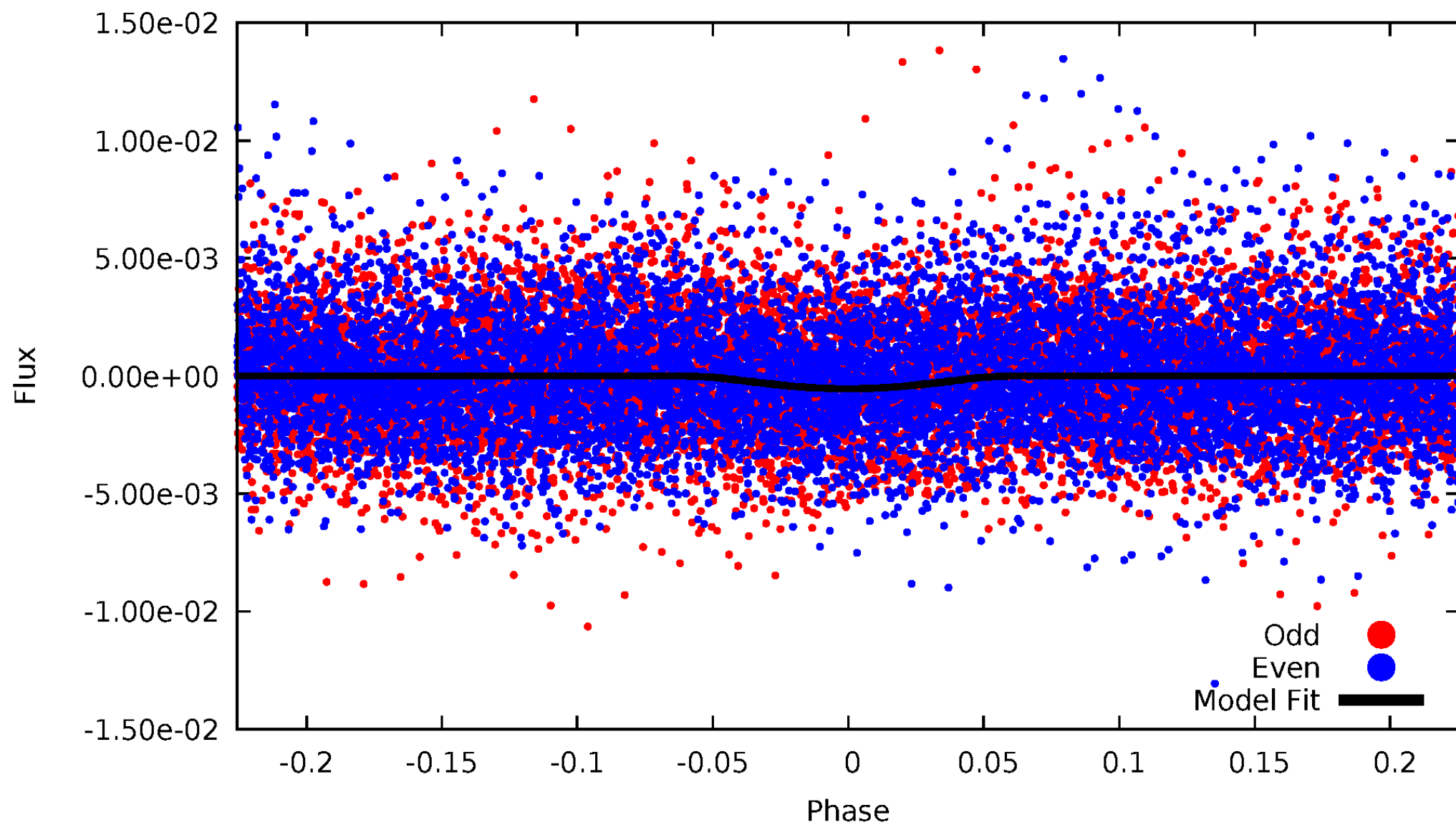


TCE 008265068-02



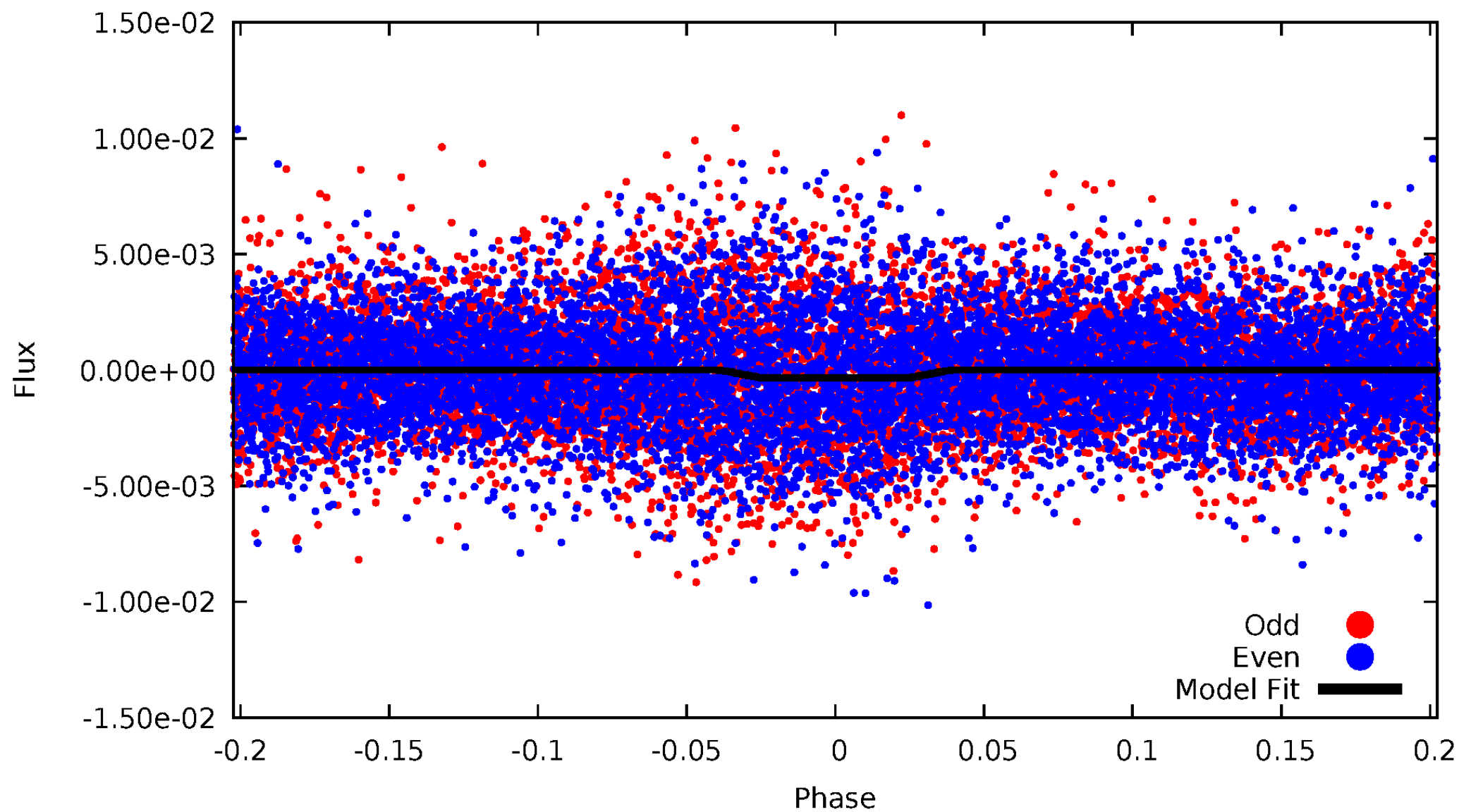
DV Odd/Even

TCE 008265068-02



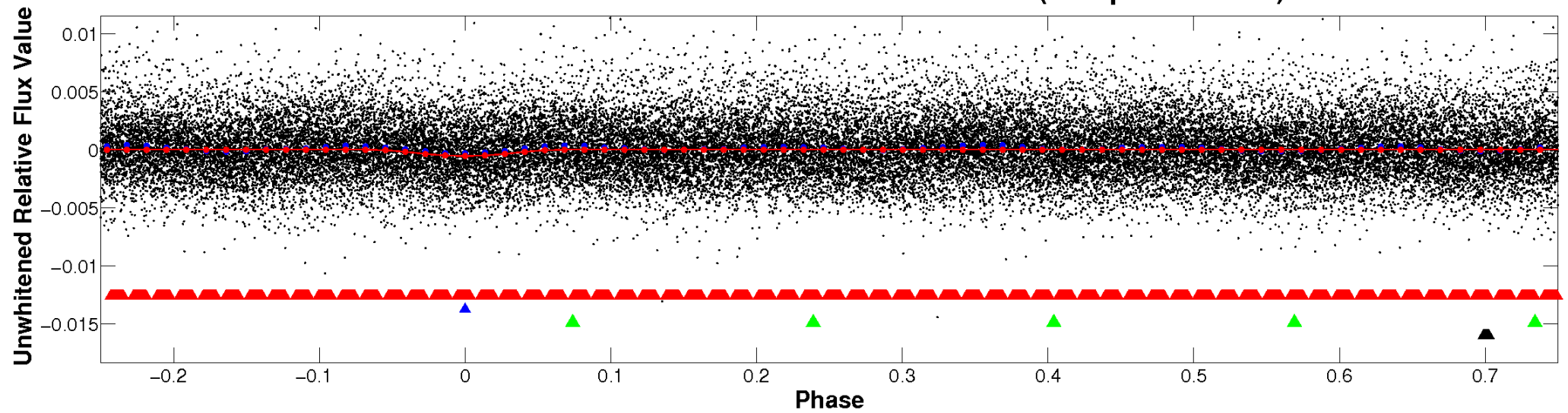
ALT Odd/Even

TCE 008265068-02

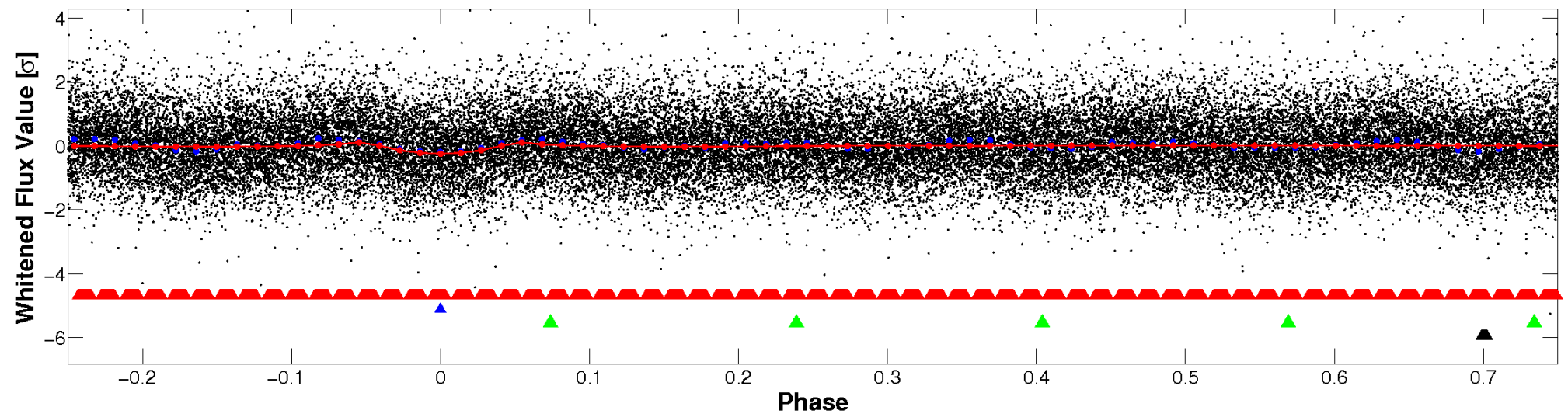


Non-Whitened Vs. Whitened Light Curve

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

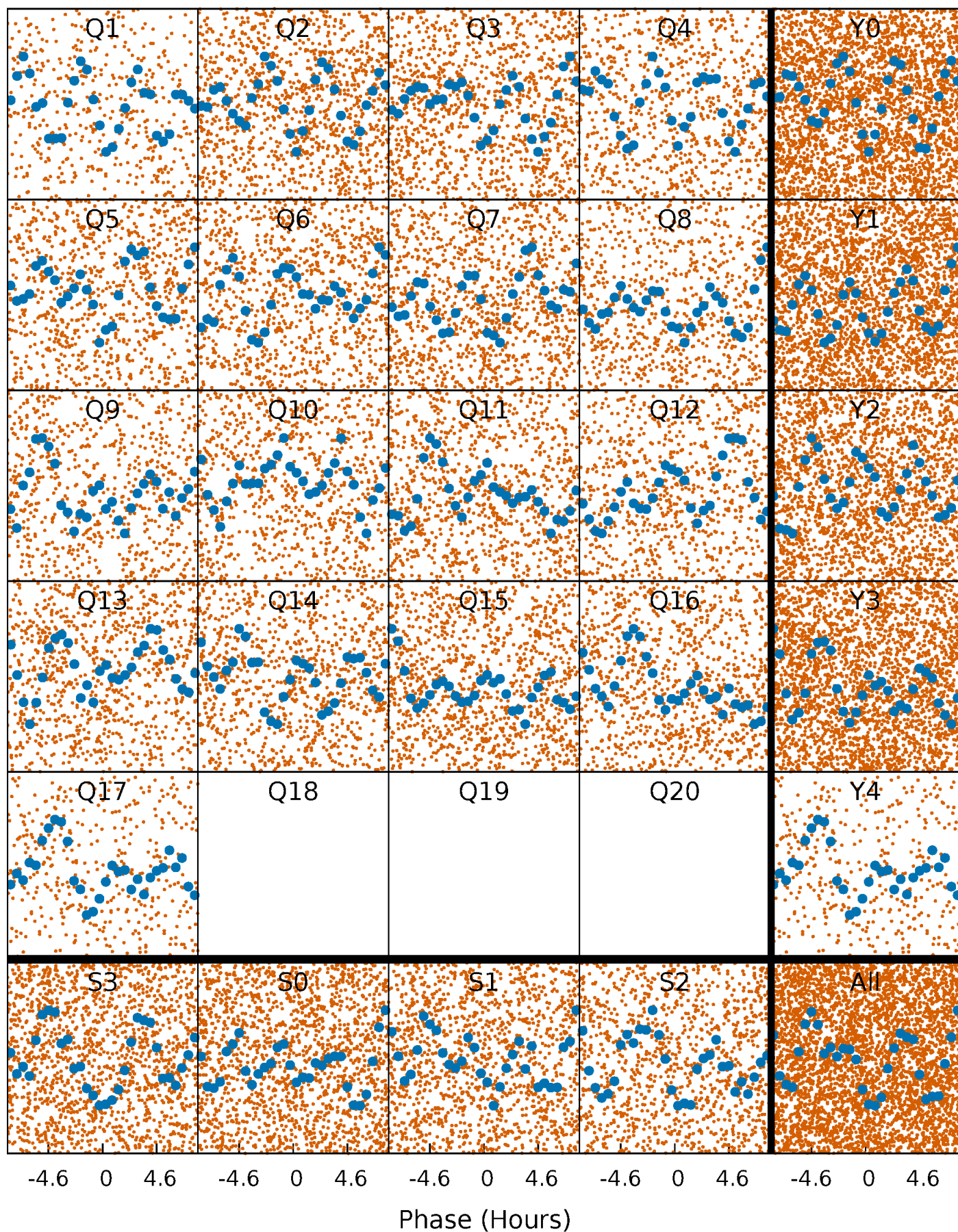


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



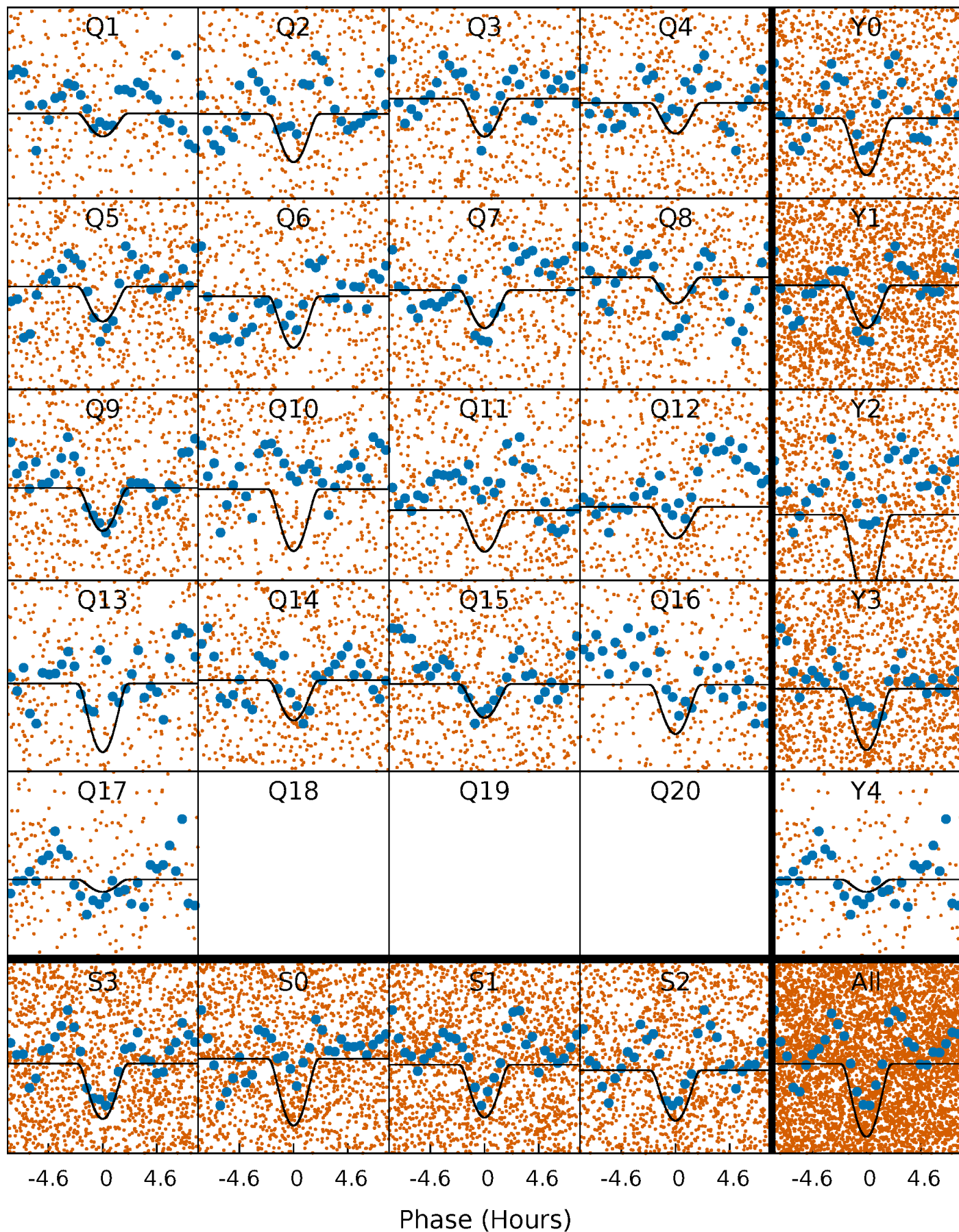
PDC Quarter-Phased Transit Curves

TCE 008265068-02 P= 1.495832 Days $T_0=131.863784$ (BKJD)



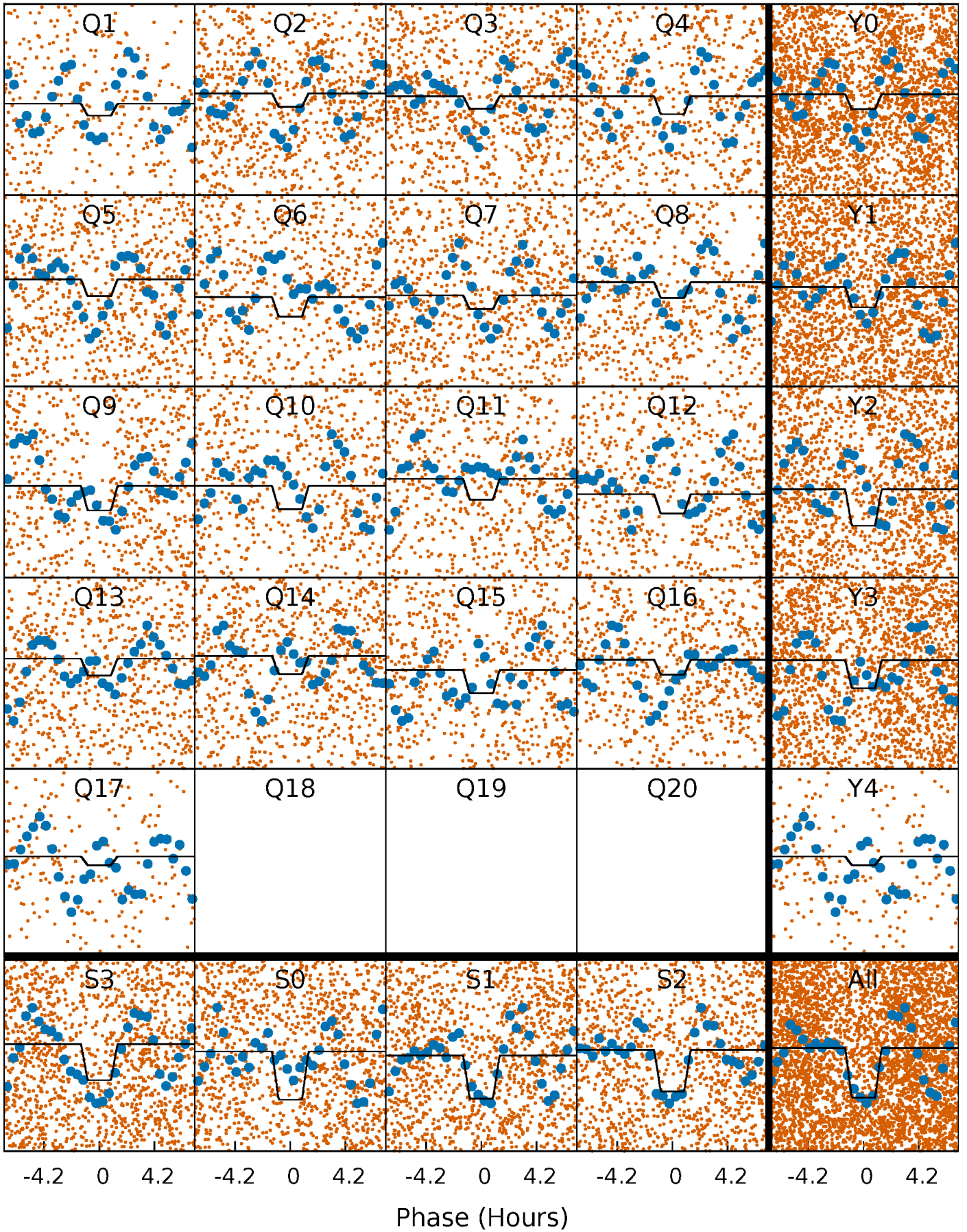
DV Quarter-Phased Transit Curves

TCE 008265068-02 P= 1.495832 Days $T_0=131.863784$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

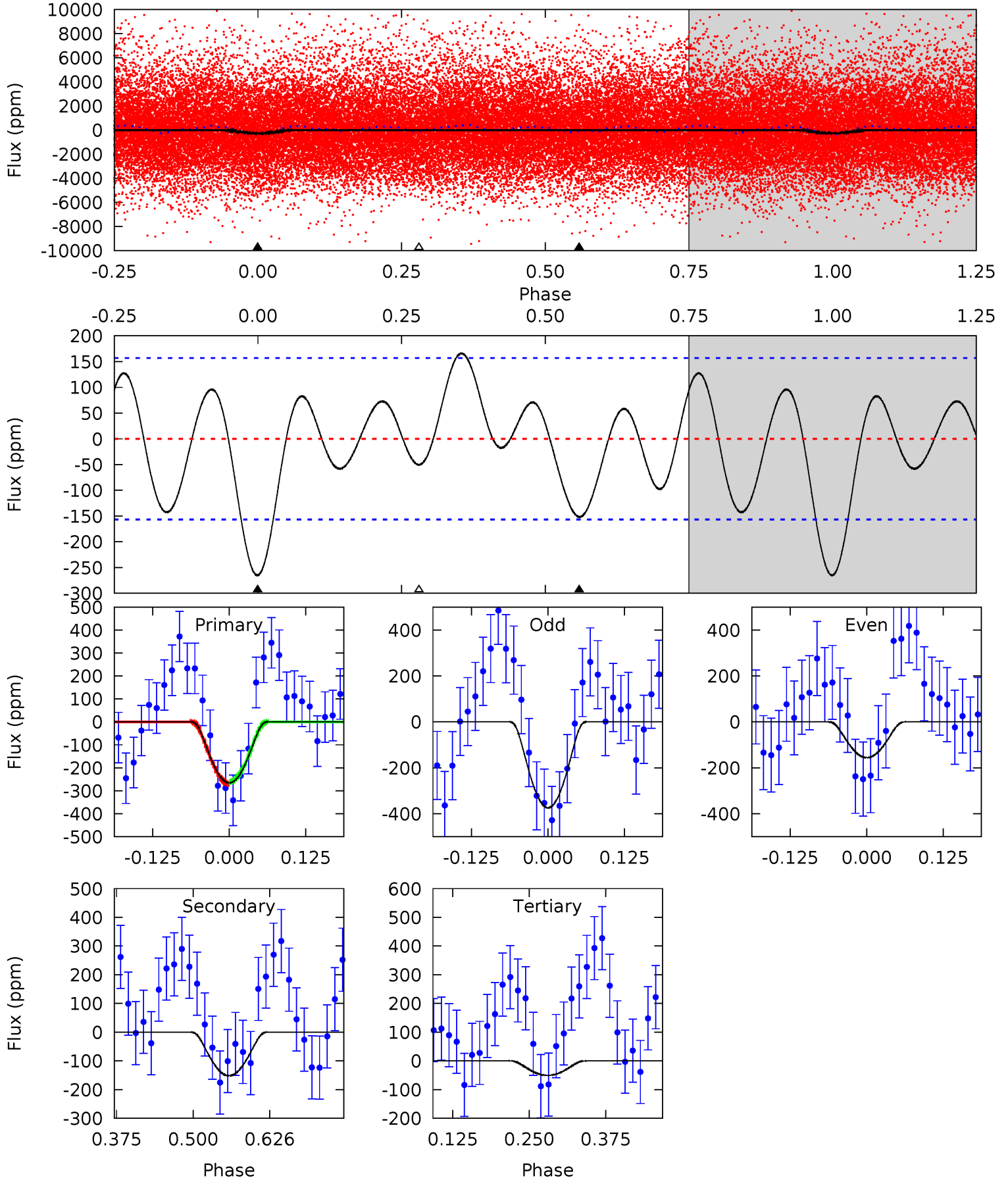
TCE 008265068-02 P= 1.495831 Days $T_0=131.889679$ (BKJD)



DV Model-Shift Uniqueness Test

008265068-02, P = 1.495832 Days, E = 130.367952 Days

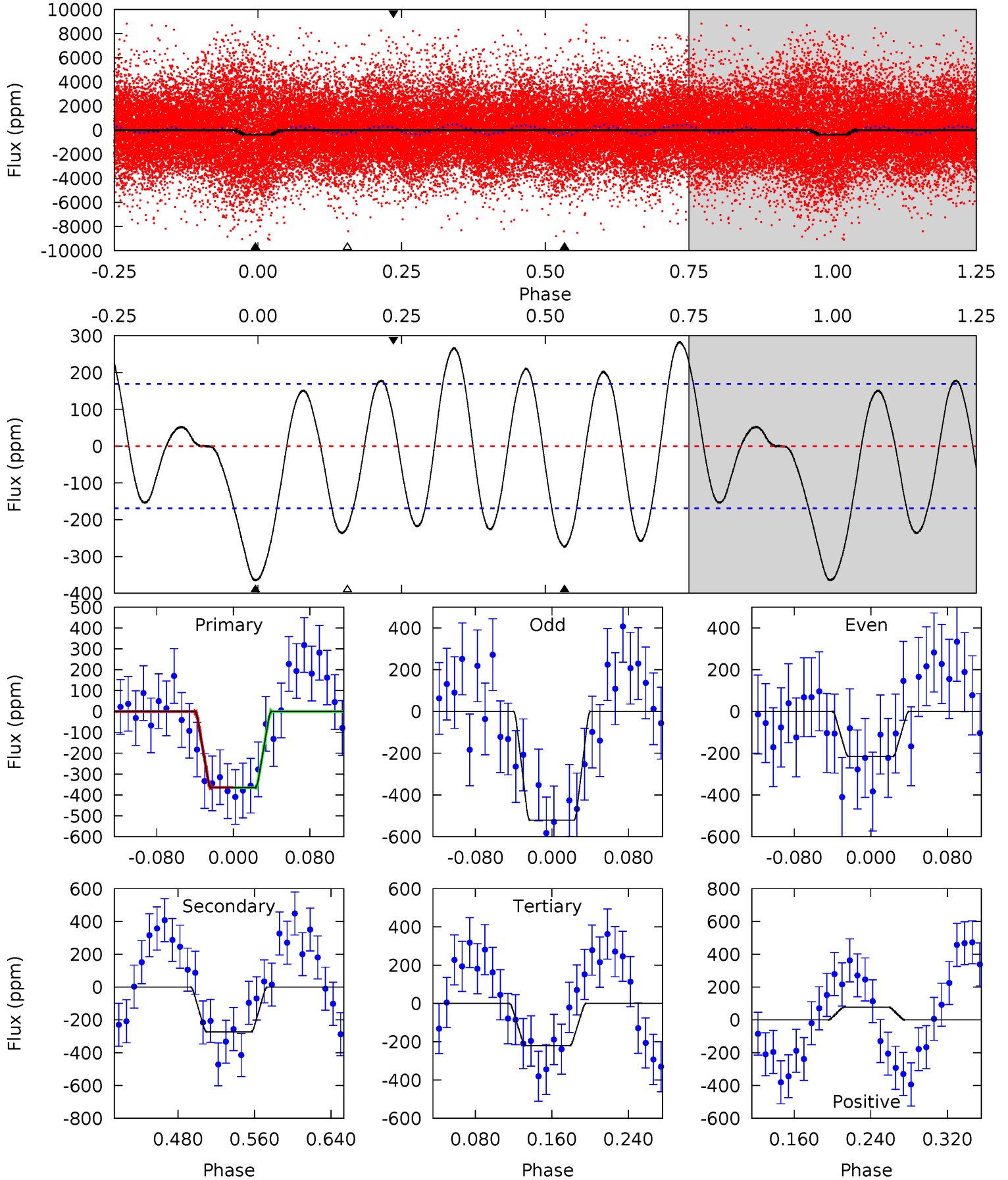
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.65	4.38	1.46	0	4.52	1.53	2.35	6.19	7.65	2.92	4.38	3.16	0.73	0.38	0.12



Alt Model-Shift Uniqueness Test

008265068-02, P = 1.495831 Days, E = 130.393848 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.95	7.46	5.99	2.09	4.61	1.75	4.07	3.96	7.86	1.47	5.37	4.02	0.74	0.44	0.02



Stellar Parameters For KIC 008265068

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7543^{+211}_{-342}	$4.089^{+0.139}_{-0.170}$	$0.100^{+0.200}_{-0.350}$	$1.962^{+0.570}_{-0.380}$	$1.722^{+0.204}_{-0.272}$	$0.321^{+0.219}_{-0.150}$
	+3%/-5%	+3%/-4%	+200%/-350%	+29%/-19%	+12%/-16%	+68%/-47%
Source	PHO54	PHO54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 008265068-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-152 ± 35	$10.06^{+8.05}_{-6.14}$	3704^{+284}_{-232}	3707^{+2147}_{-6517}	$0.775^{+4.010}_{-0.547}$
Alt.	-274 ± 37	$7.40^{+7.19}_{-5.04}$	3712^{+277}_{-254}	5053^{+4647}_{-1448}	$2.529^{+21.448}_{-1.848}$

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 $A_{obs} \gg 1.0$

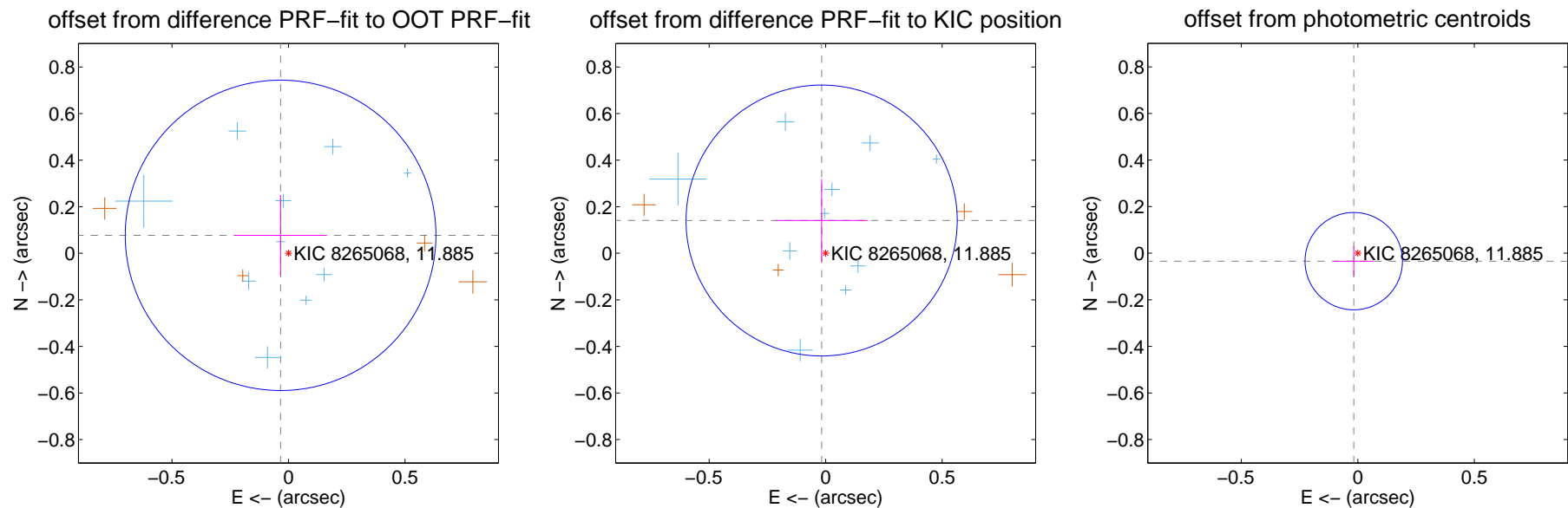
DV Centroid Data

Supplemental centroid analysis for 008265068-02. **Kepler magnitude: 11.88.** Transit SNR 11.17

There are 12 quarters with good PRF difference image offsets

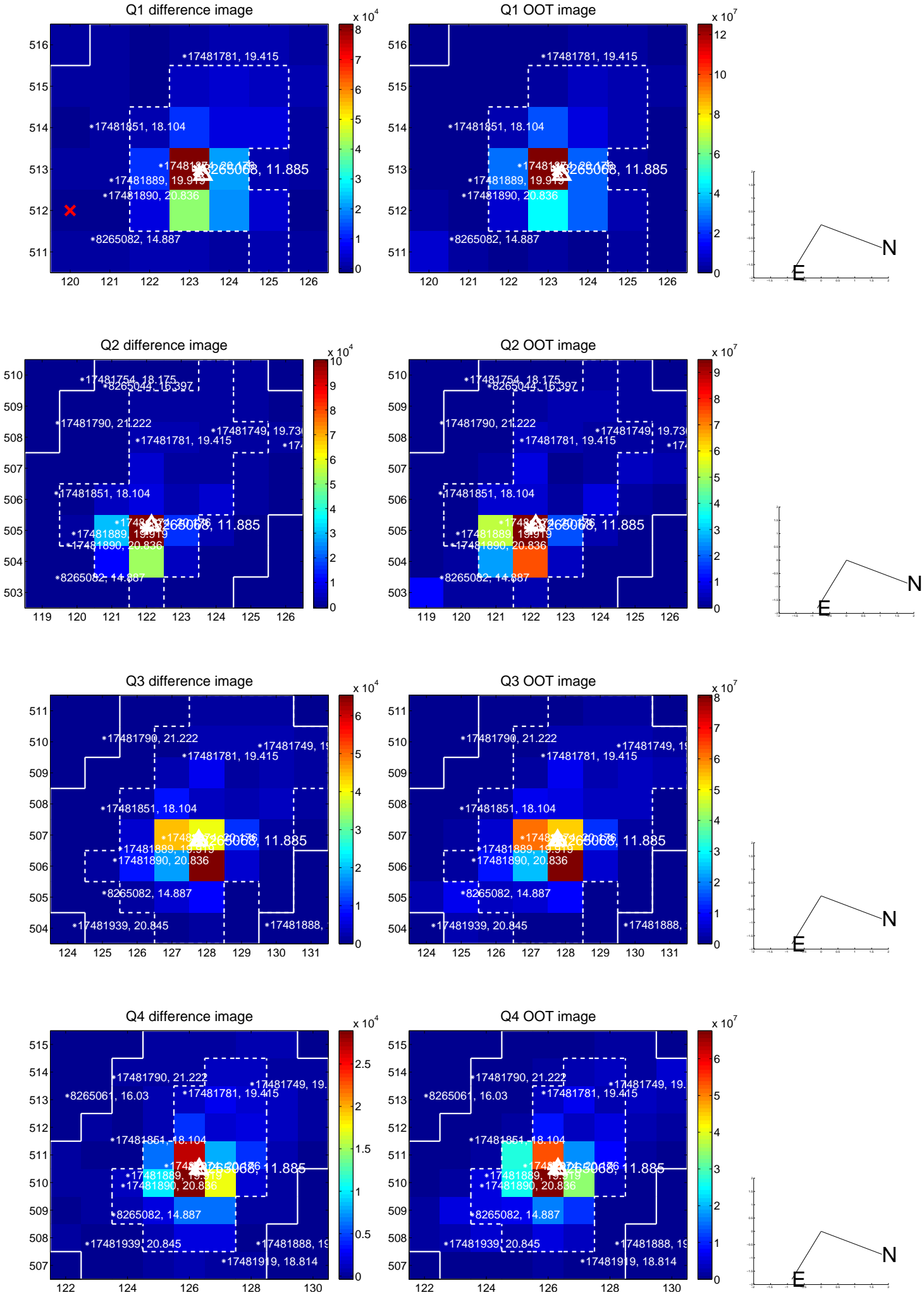
The direct PRF centroid is offset from the target star catalog position by about 0.07 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.084 ± 0.222	0.38	0.034 ± 0.199	0.077 ± 0.173
PRF-fit source offset from KIC position	0.142 ± 0.194	0.73	0.017 ± 0.197	0.141 ± 0.177
photometric centroid source offset	0.04 ± 0.07	0.55	0.02 ± 0.09	-0.03 ± 0.06

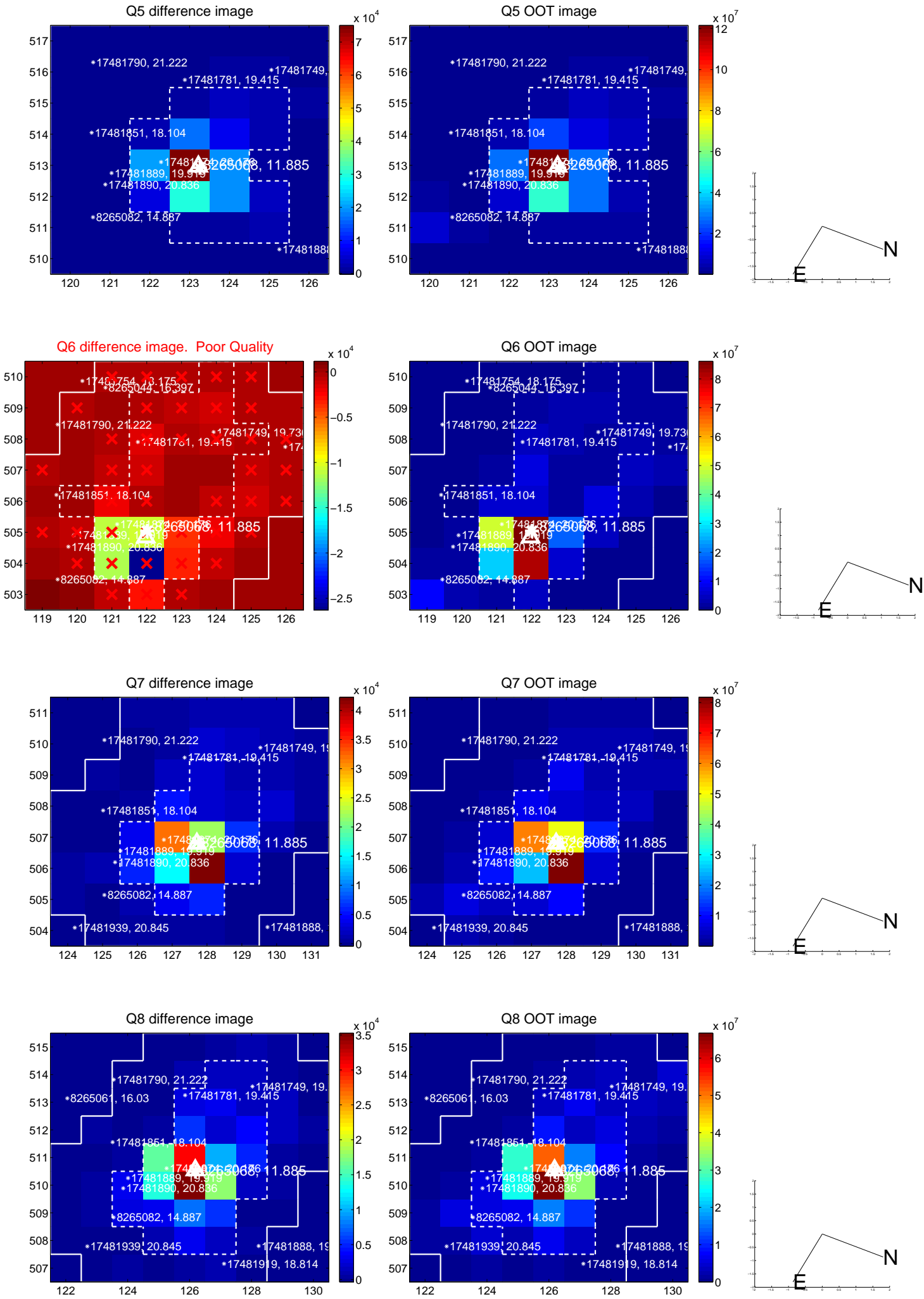


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

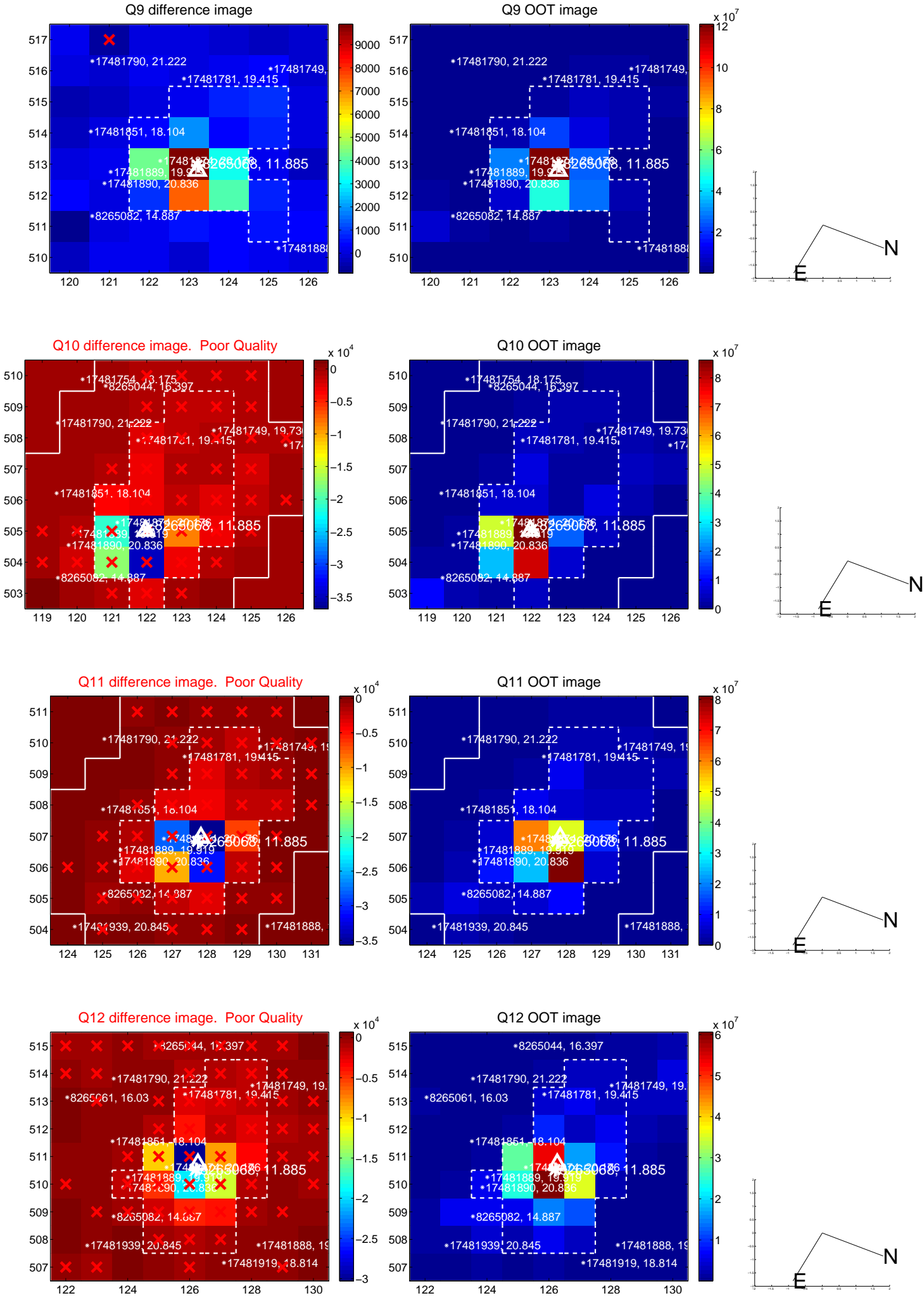
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



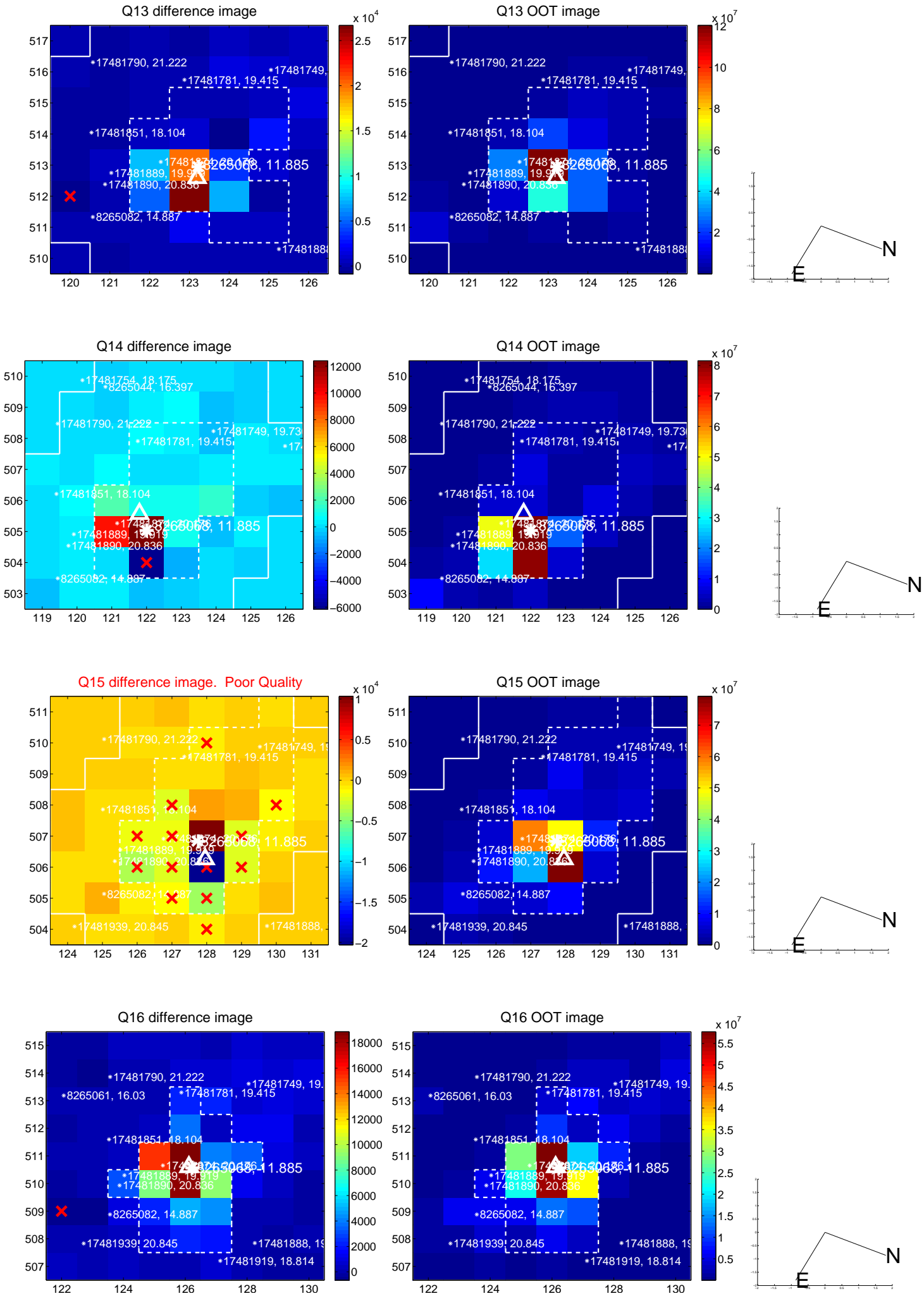
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



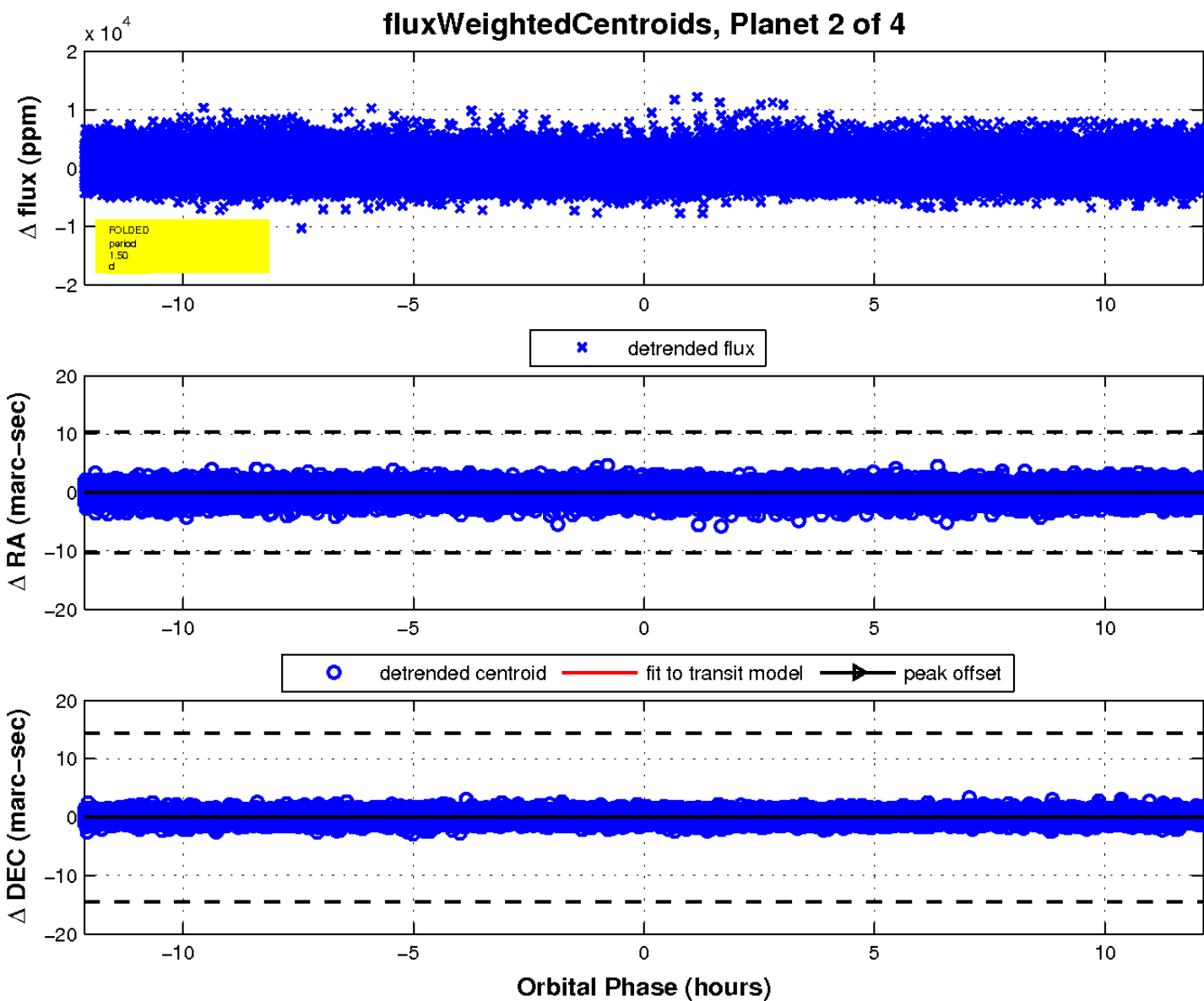
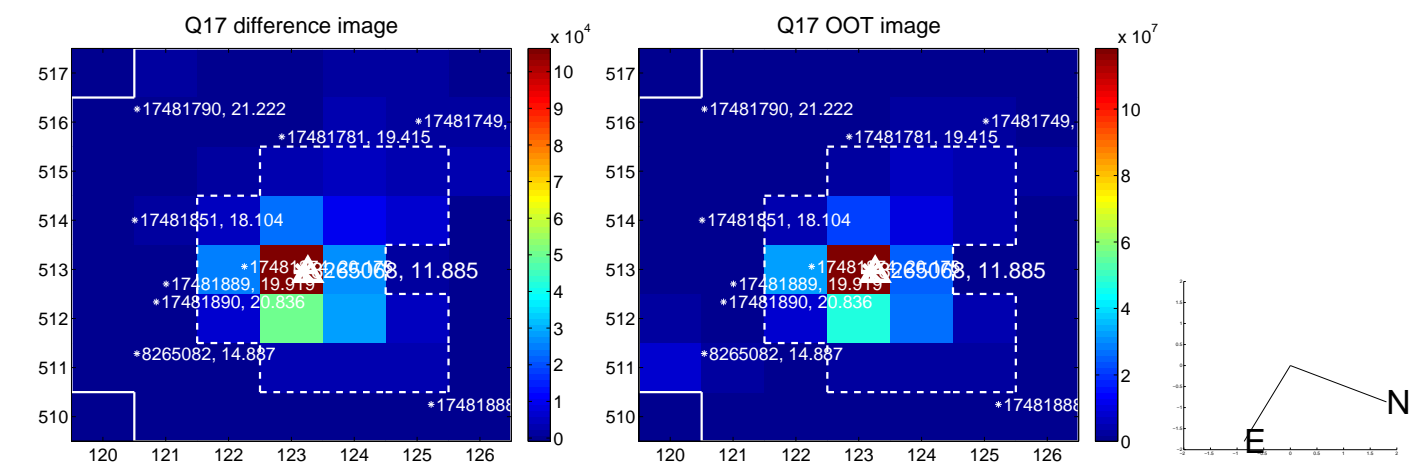
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

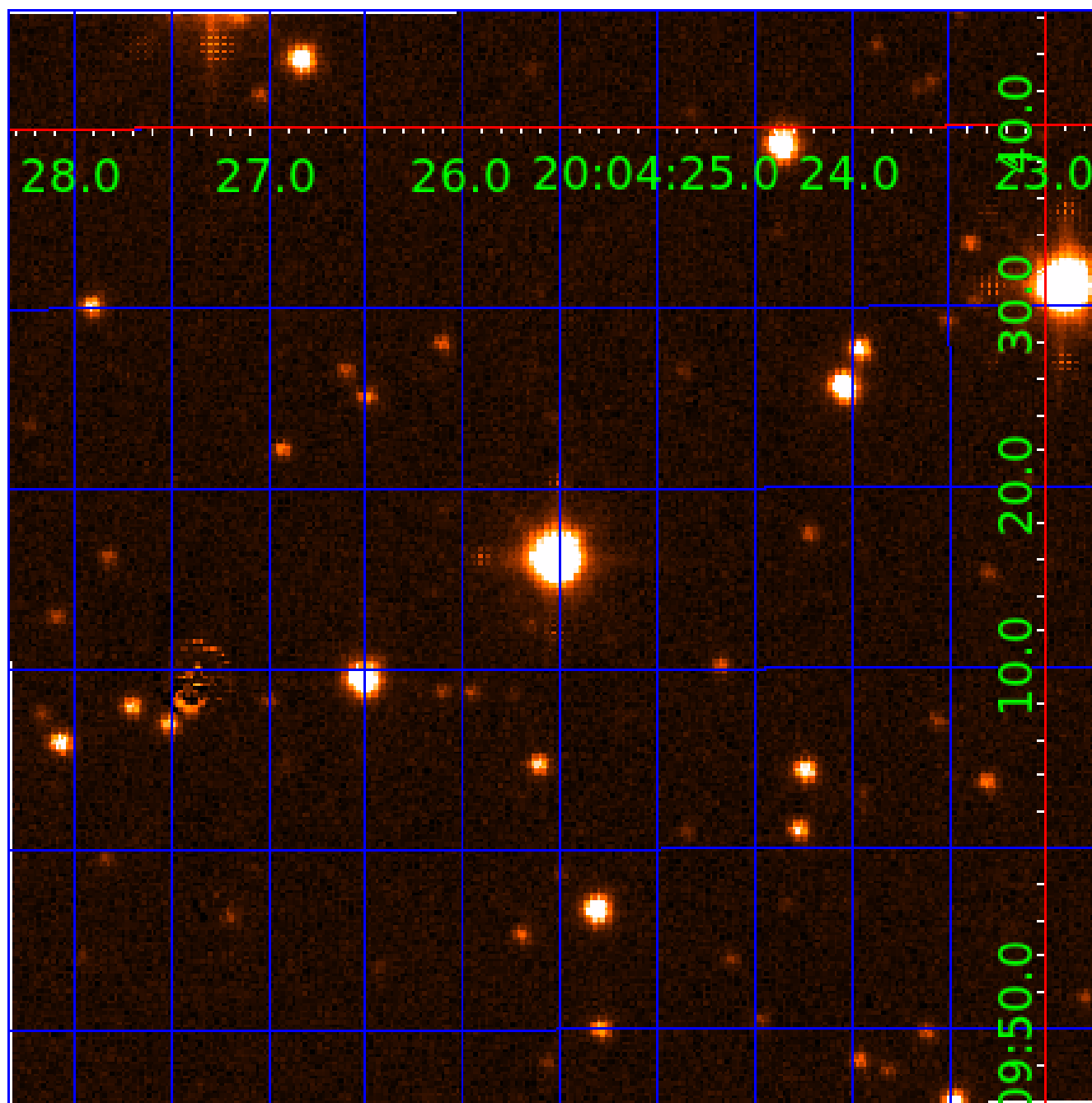


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 008265068

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})
008265068-01	OBS	No	1.448332	132.890575	43.5	3.991	7.9	1.6	1.96	7543	1.50	12370.27
008265068-02	OBS	No	1.495832	131.863784	538.9	4.048	9.4	11.2	1.96	7543	8.57	11849.30
008265068-03	OBS	No	304.902879	300.495248	4425.1	4.511	7.8	7.6	1.96	7543	15.04	9.88
008265068-04	OBS	No	1.495838	132.908971	357.2	3.861	8.9	8.6	1.96	7543	4.78	11849.24

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008265068-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
008265068-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
008265068-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
008265068-04	OBS	FP	0.00	1	0	1	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—SAME_NTL_PERIOD—HALO_GHOST

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

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

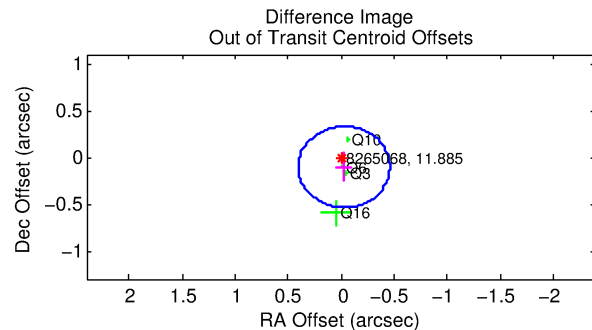
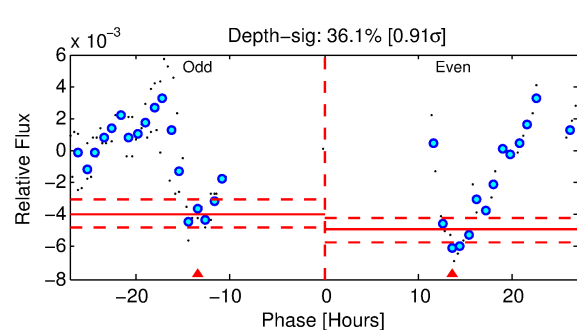
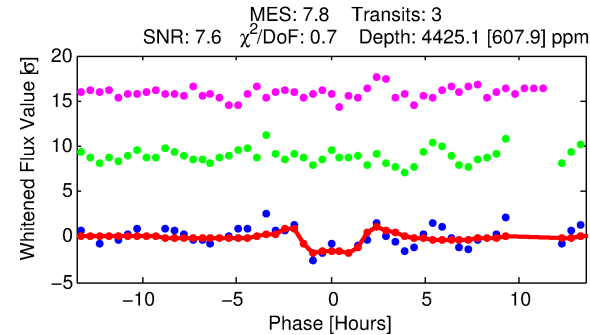
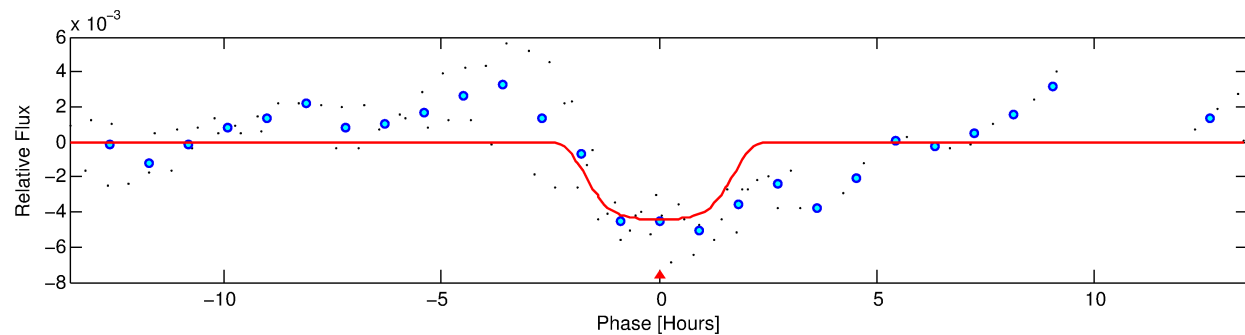
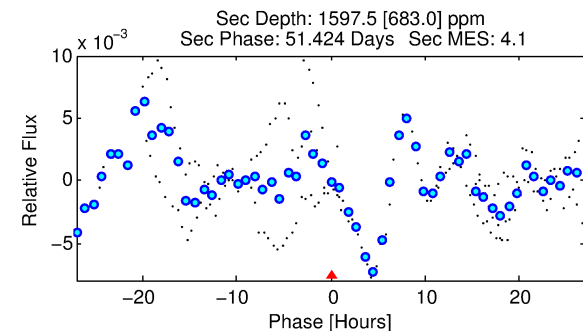
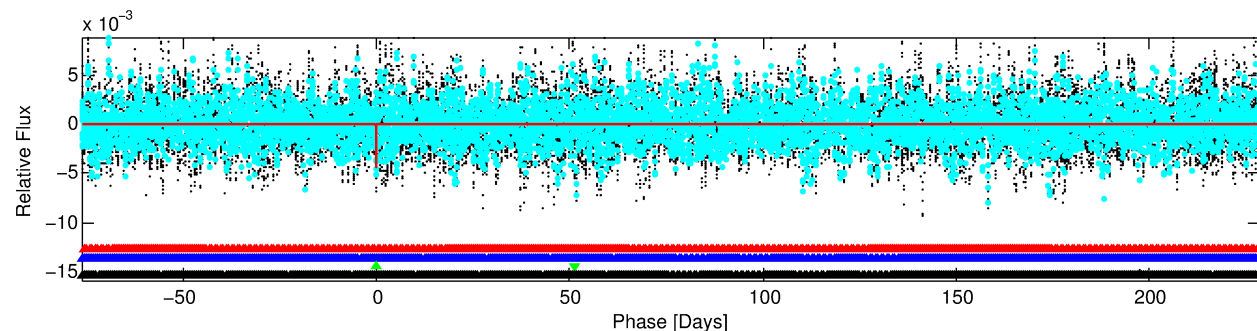
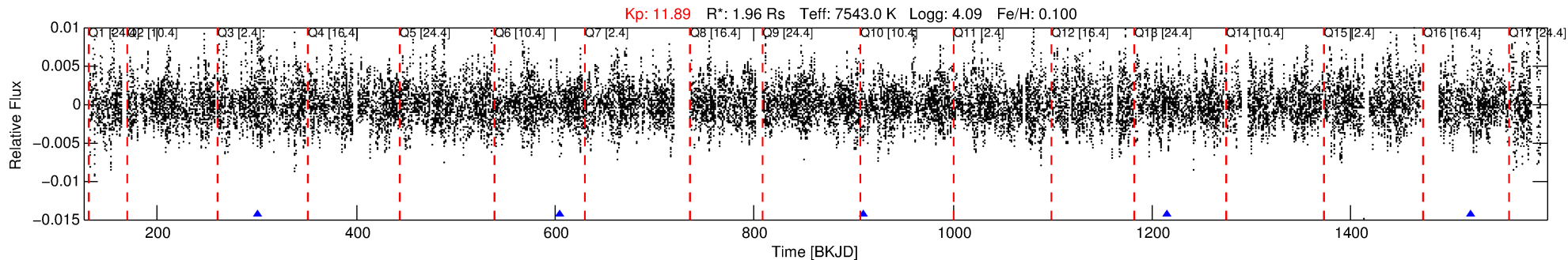
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008265068-03

No Significant Match Found

DV One-Page Summary

KIC: 8265068 Candidate: 3 of 4 Period: 304.903 d



DV Fit Results:

Period = 304.90288 [0.00475] d
Epoch = 300.4952 [0.0062] BKJD
Rp/R* = 0.0702 [0.0055]
a/R* = 307.78 [43.47]
b = 0.89 [0.03]
Seff = 9.88 [3.68]
Teq = 452 [42] K
Rp = 15.04 [4.53] Re
a = 1.0632 [0.2483] AU
Ag = 4391.94 [2458.28] [1.79σ]
Teffp = 5690 [698] K [7.49σ]

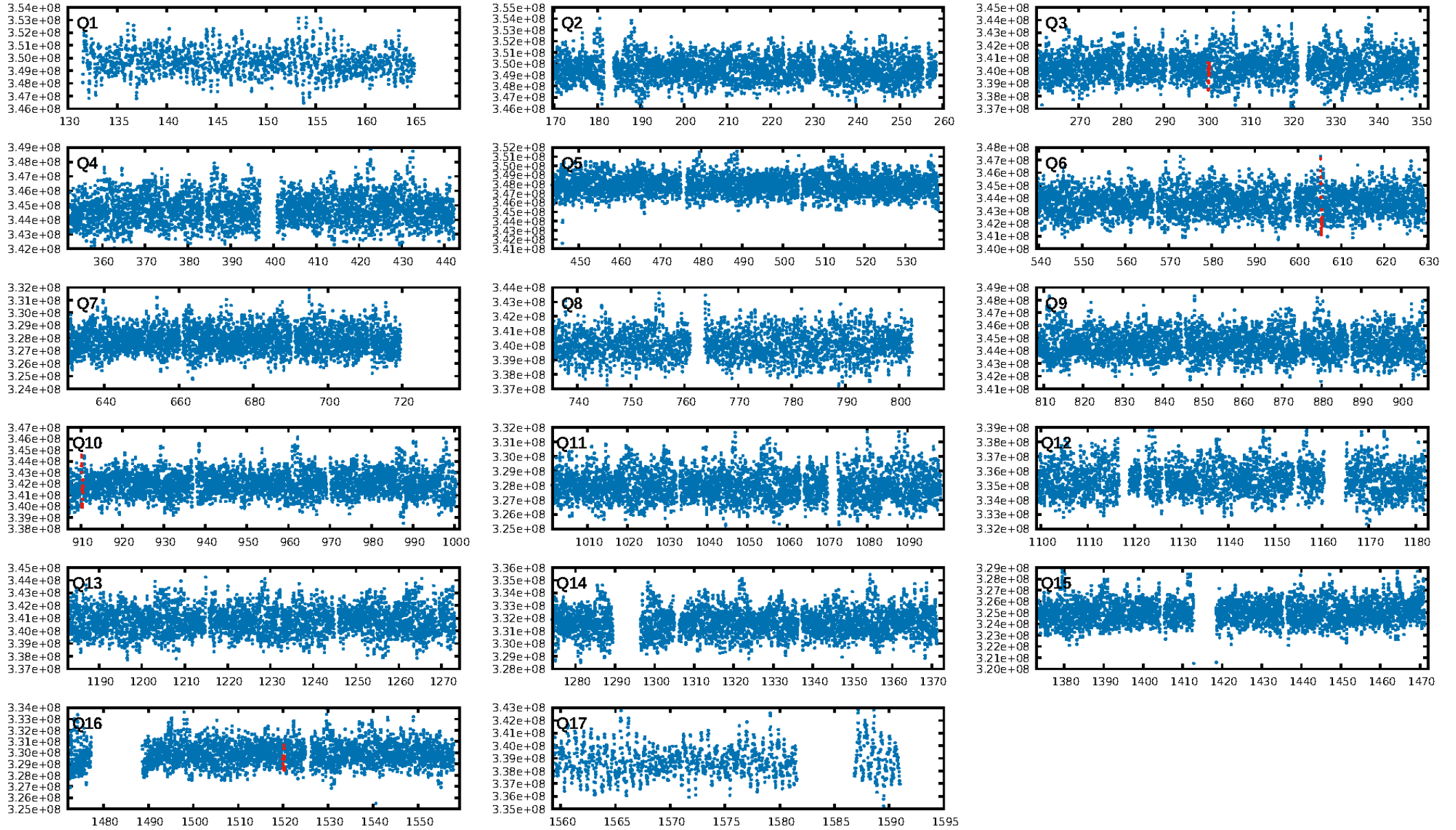
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [1226.27σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 20.6%
ModelChiSquareGof-sig: 98.6%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 1.644
Centroid-sig: 93.8%
Centroid-so: 0.095 arcsec [0.68σ]
OotOffset-rm: 0.107 arcsec [0.74σ]
KicOffset-rm: 0.095 arcsec [1.01σ]
OotOffset-st: 2/1/1/0 [4]
KicOffset-st: 2/1/1/0 [4]
DiffImageQuality-fgm: 1.00 [4/4]
DiffImageOverlap-fno: 0.00 [0/4]

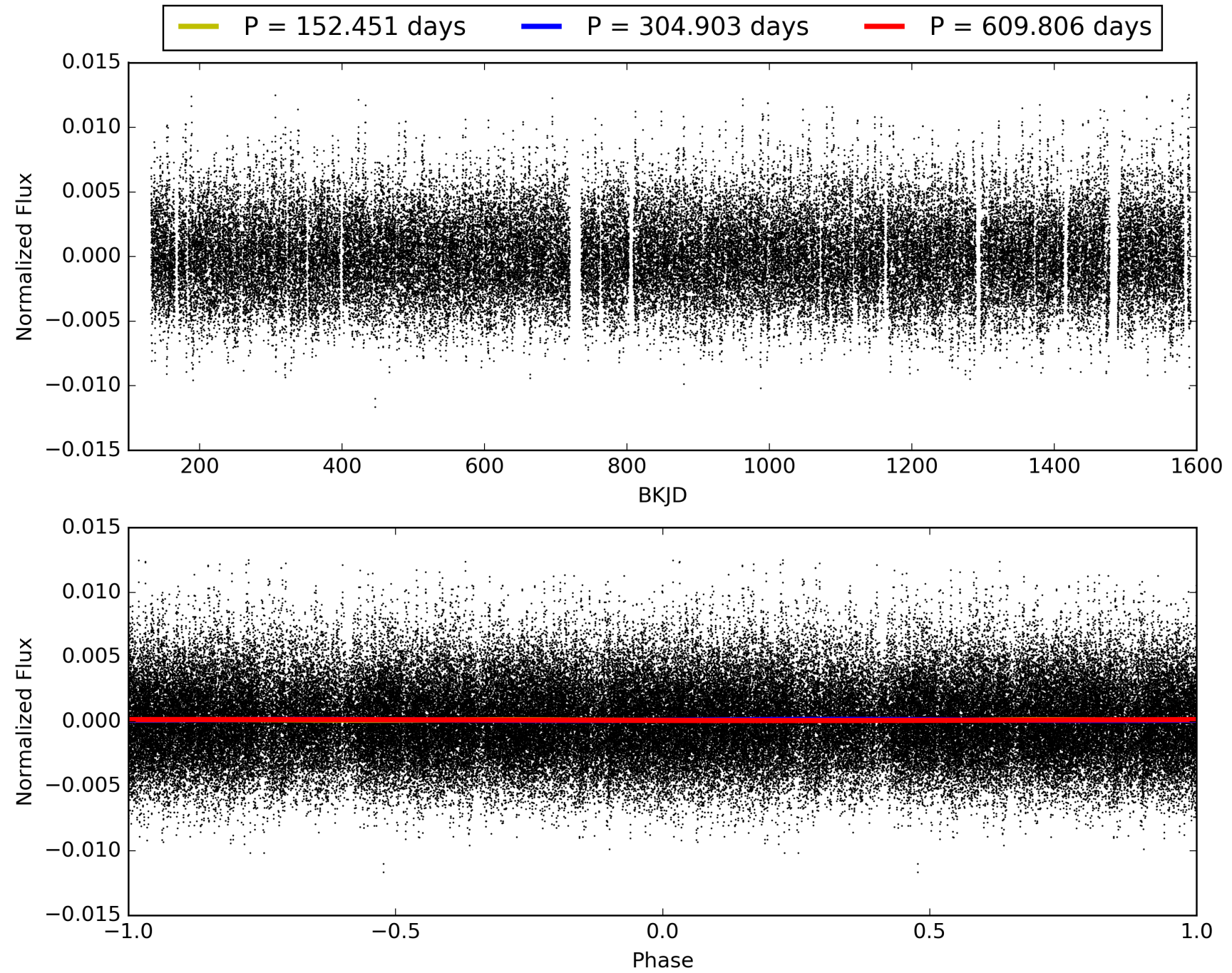
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 05:46:12 Z

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

TCE 008265068-03, PDC Light Curves

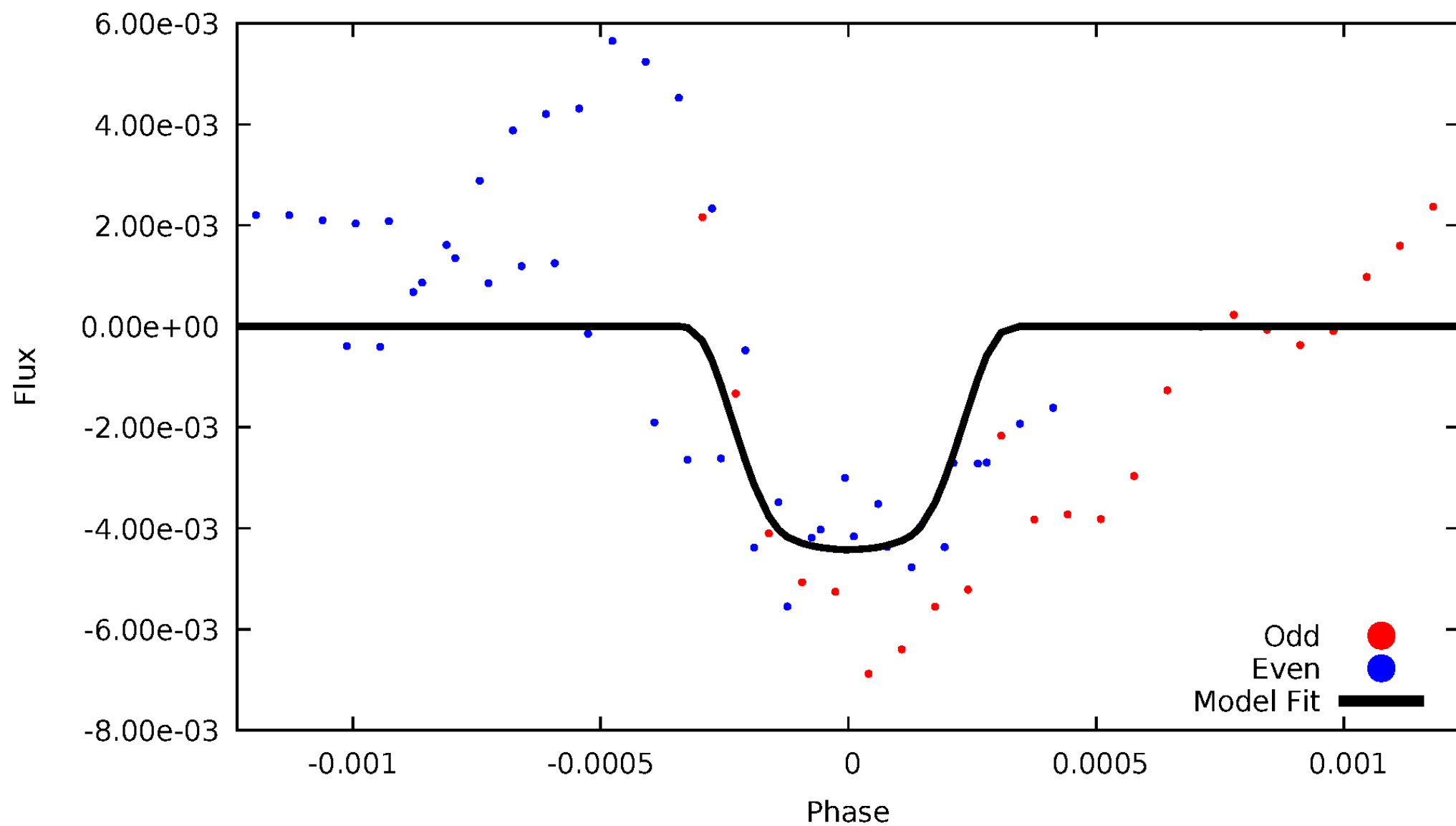


TCE 008265068-03



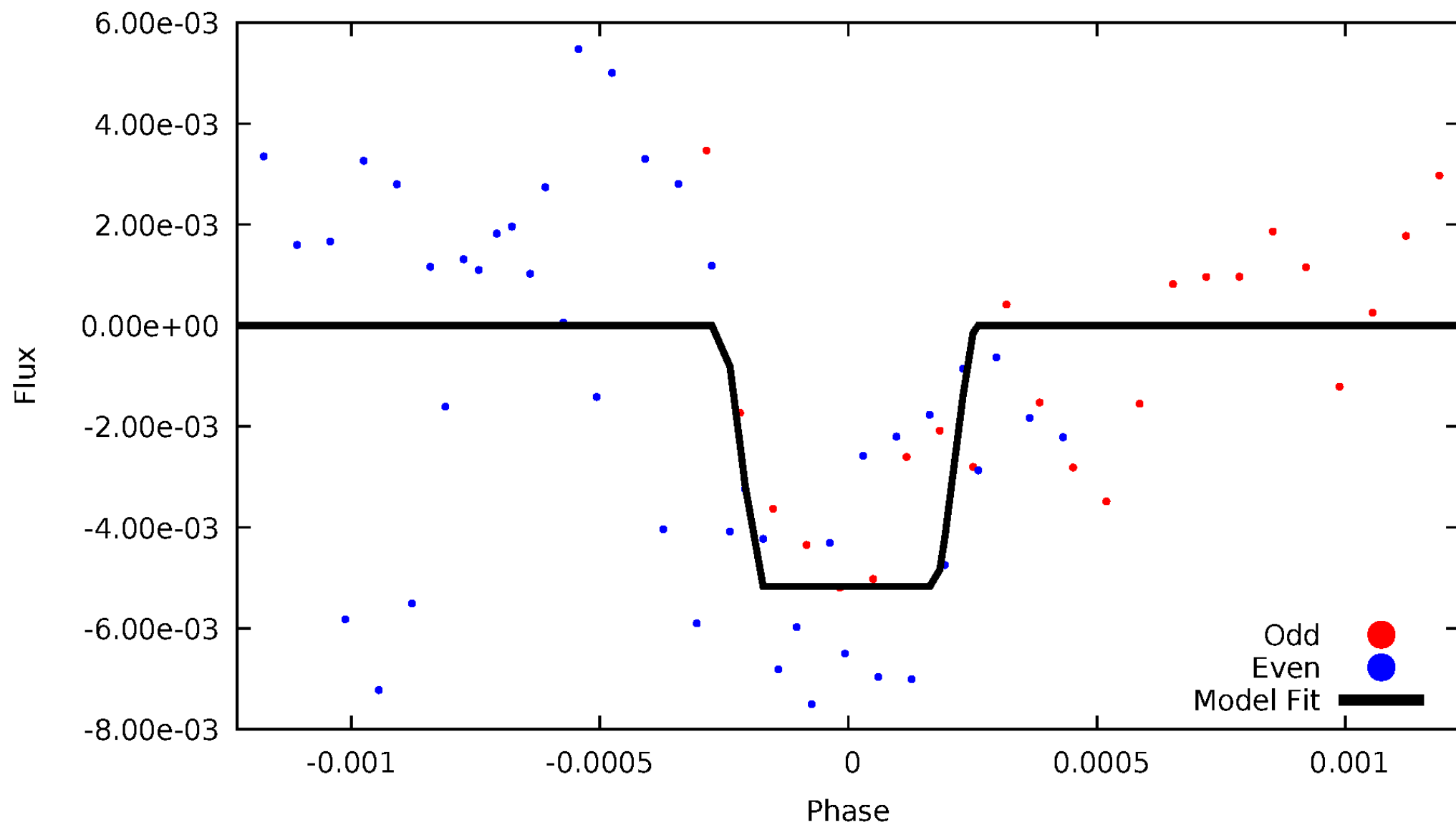
DV Odd/Even

TCE 008265068-03



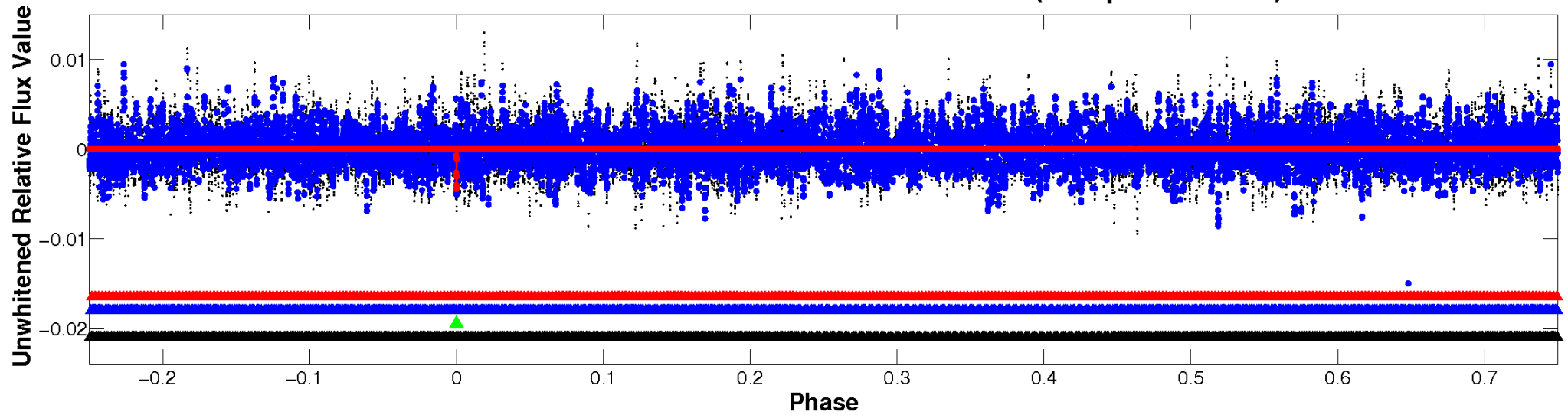
ALT Odd/Even

TCE 008265068-03

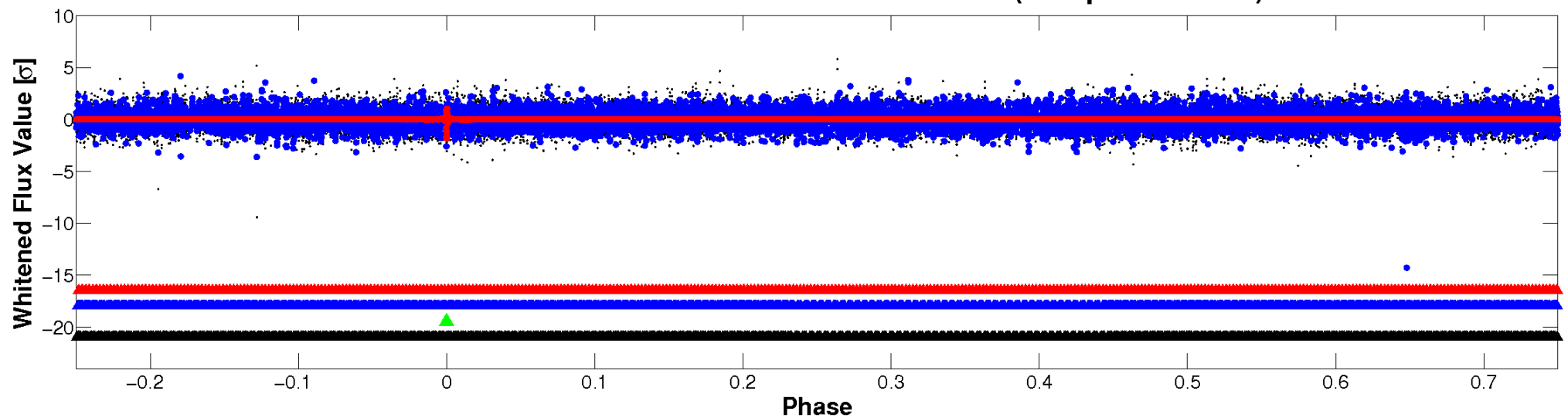


Non-Whitened Vs. Whitened Light Curve

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

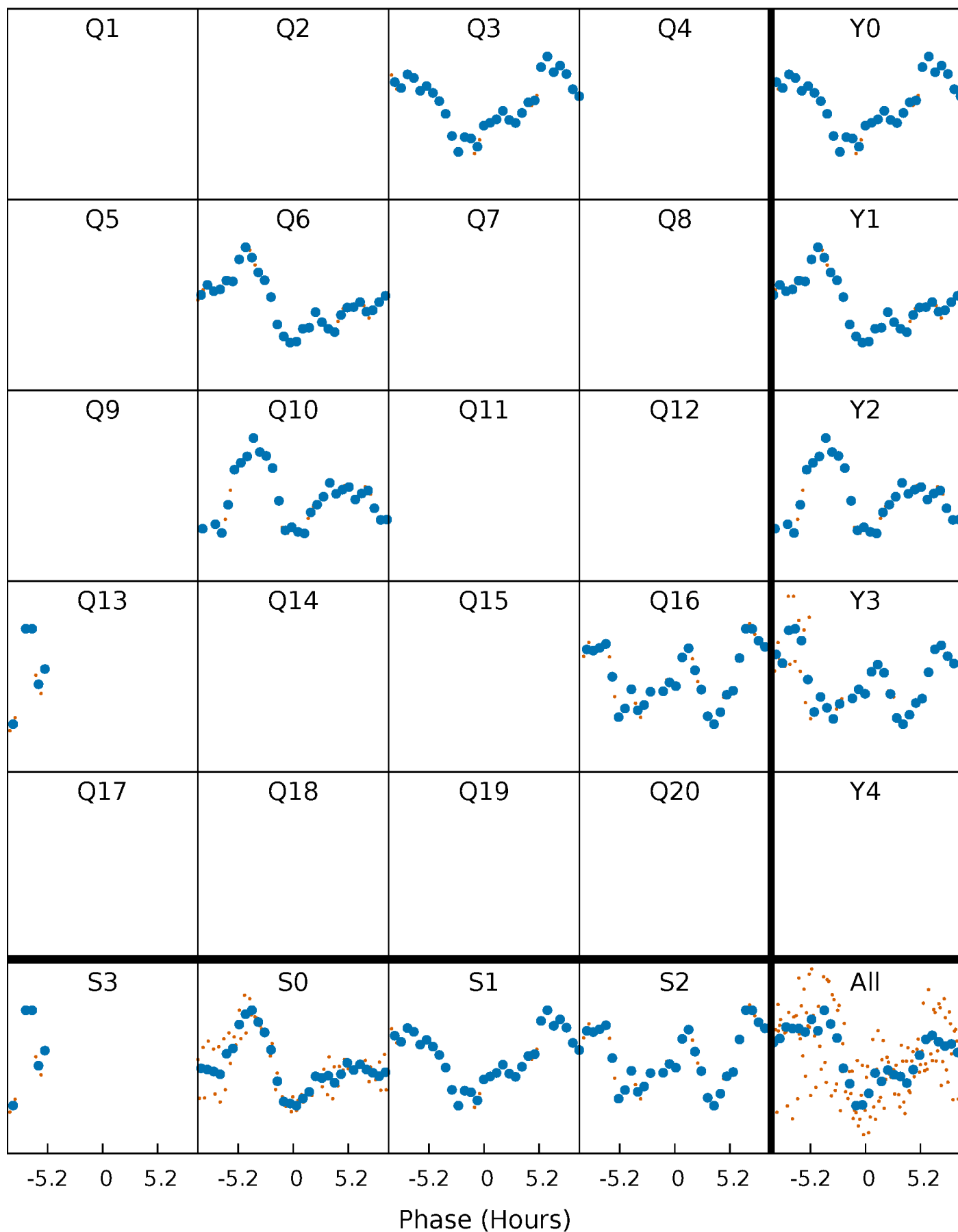


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



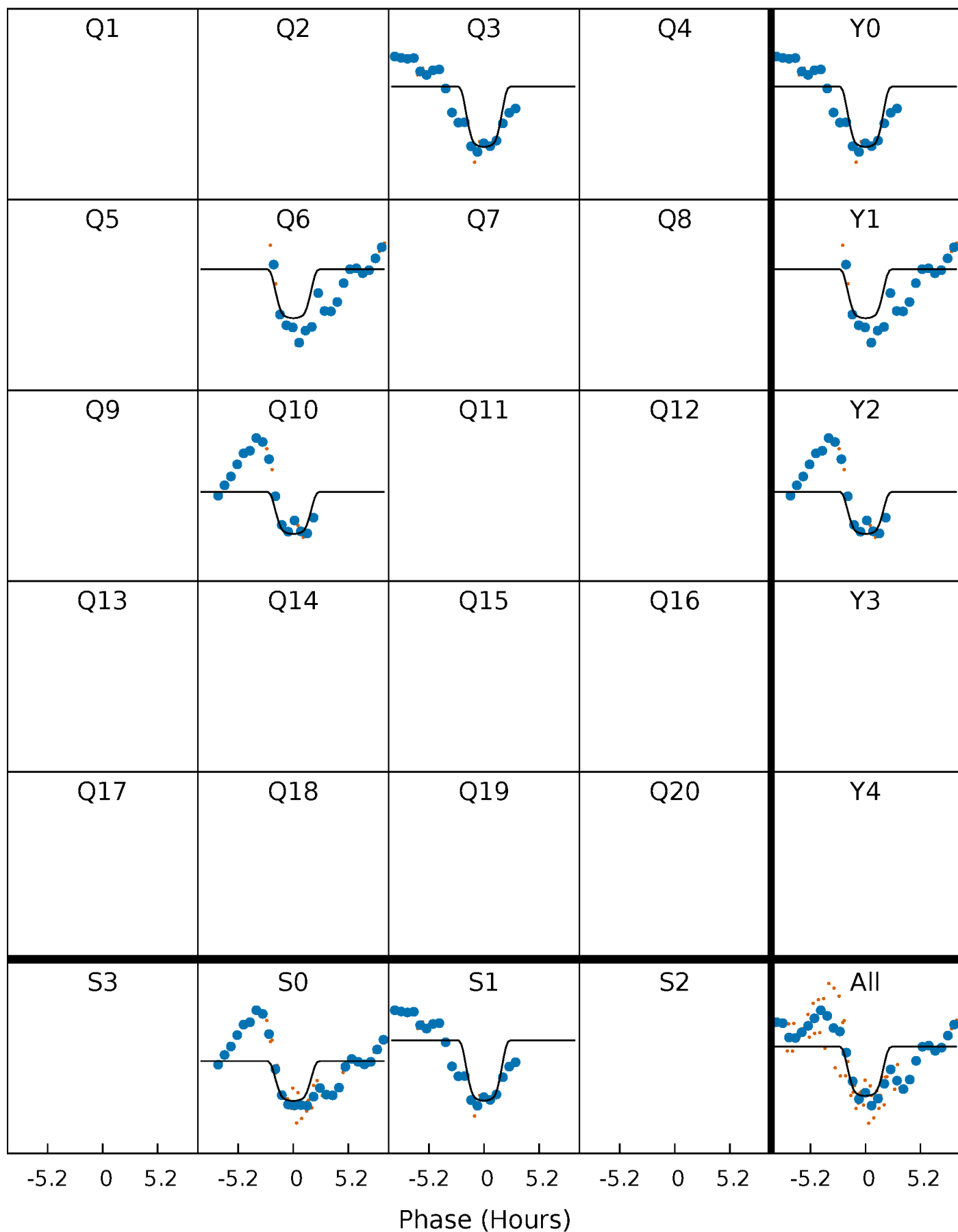
PDC Quarter-Phased Transit Curves

TCE 008265068-03 P=304.902879 Days $T_0=300.495248$ (BKJD)



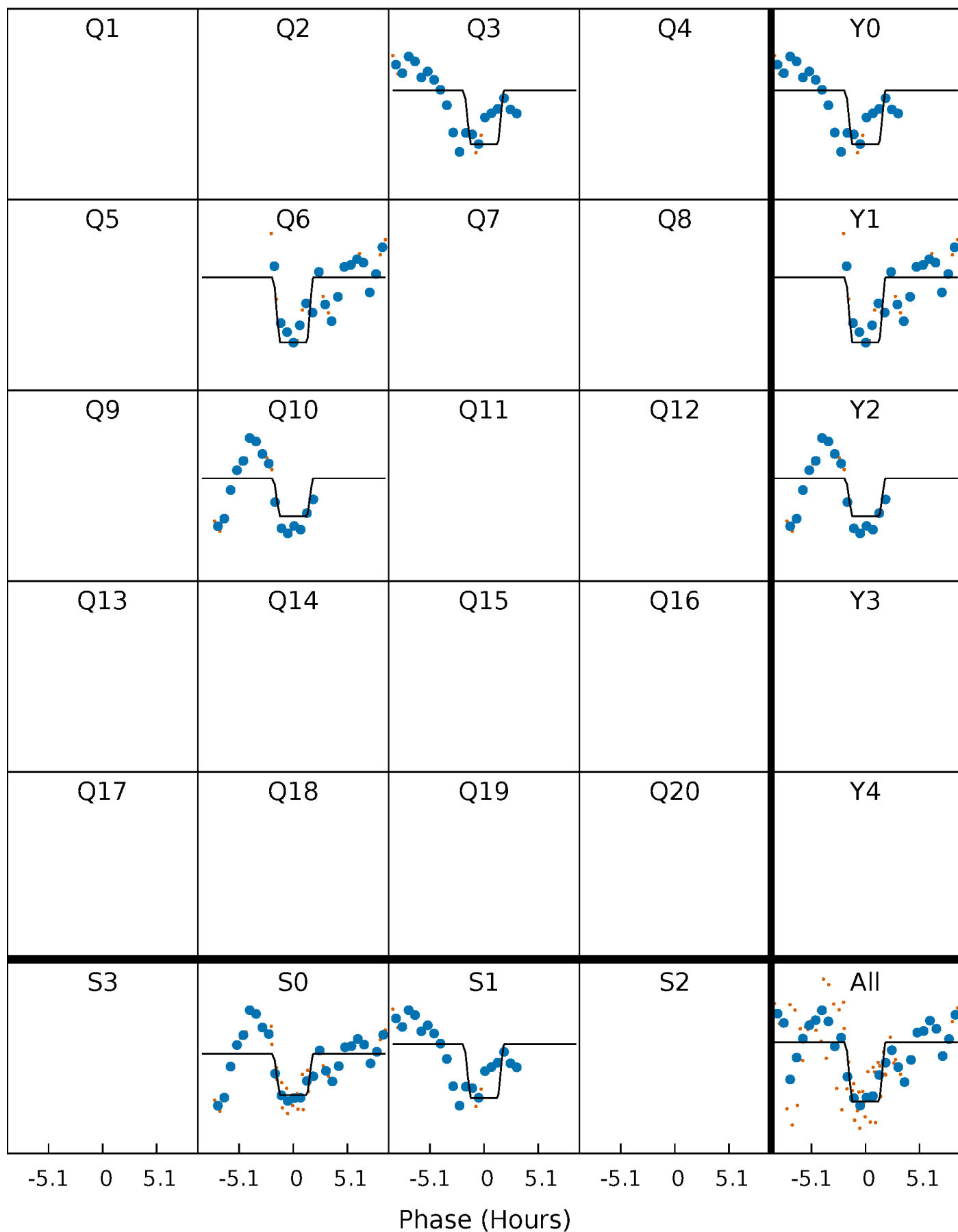
DV Quarter-Phased Transit Curves

TCE 008265068-03 $P=304.902879$ Days $T_0=300.495248$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

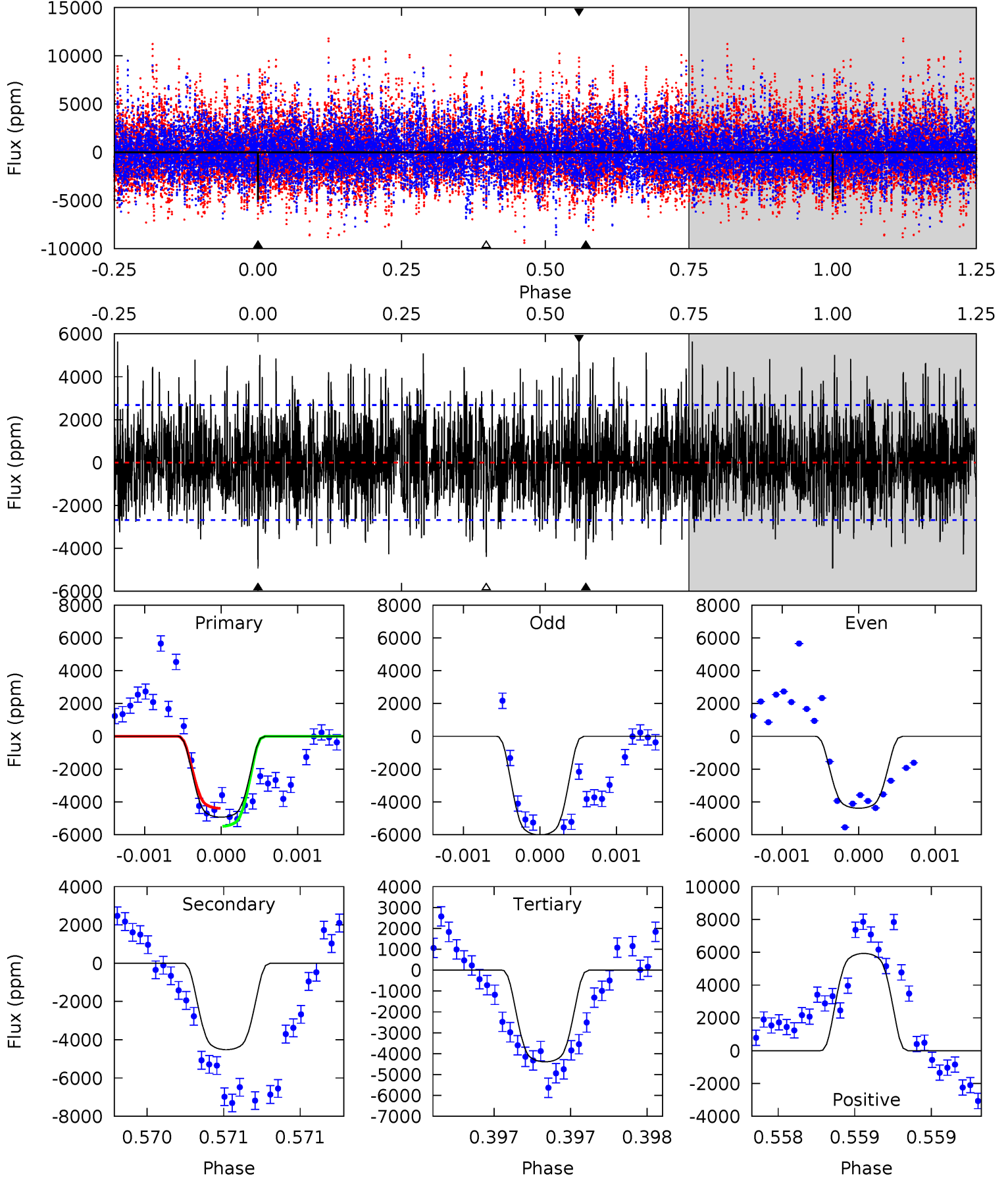
TCE 008265068-03 P=304.905732 Days $T_0=300.489510$ (BKJD)



DV Model-Shift Uniqueness Test

008265068-03, P = 304.902879 Days, E = 300.495248 Days

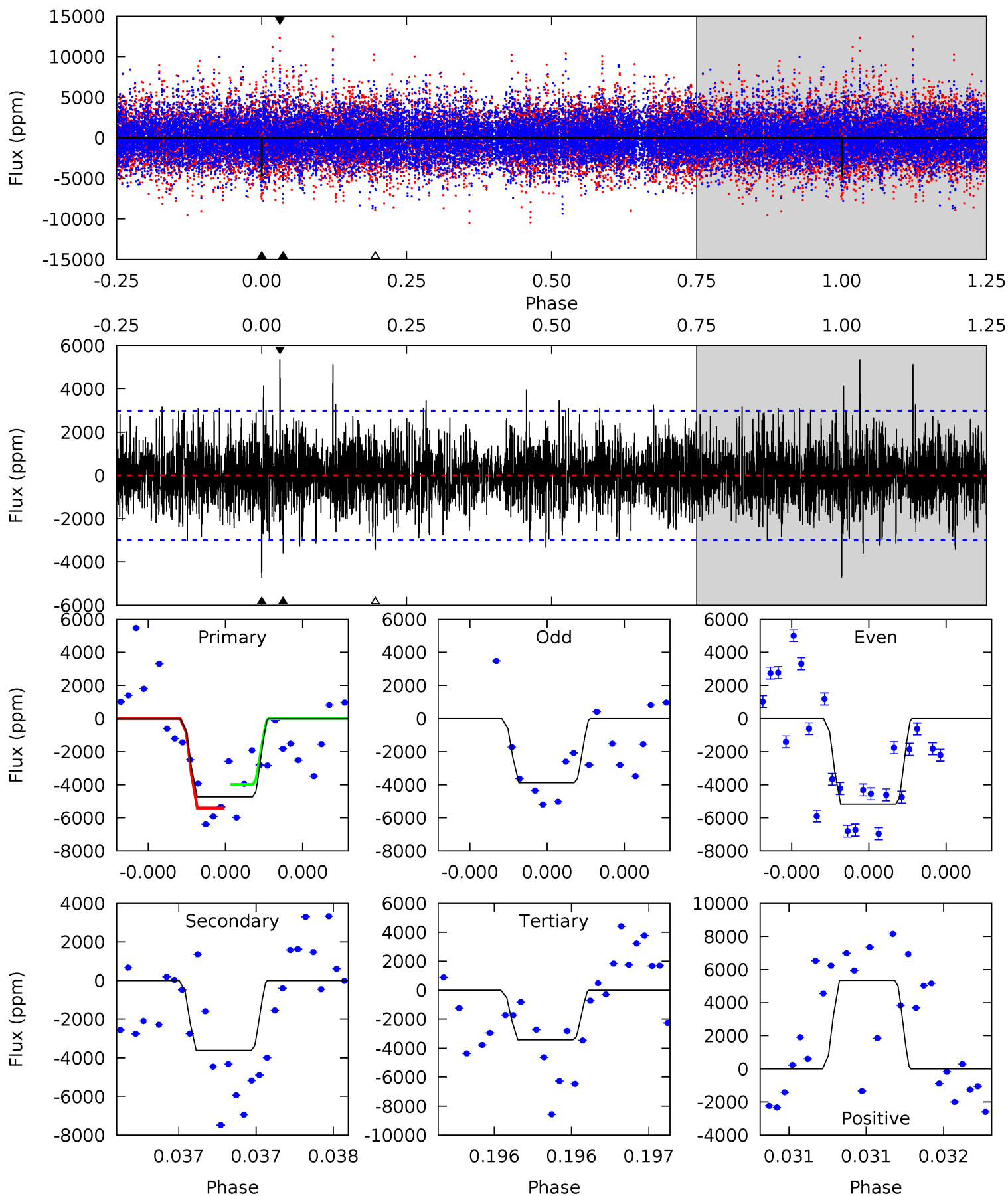
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.2	9.34	9.07	12.2	5.54	3.43	3.10	1.12	-2.06	0.27	-2.91	1.56	1.02	0.55	1.13



Alt Model-Shift Uniqueness Test

008265068-03, P = 304.905732 Days, E = 300.489510 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.83	6.73	6.38	9.98	5.58	3.50	1.94	2.45	-1.14	0.35	-3.25	1.10	1.22	0.53	1.33



Stellar Parameters For KIC 008265068

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7543^{+211}_{-342}	$4.089^{+0.139}_{-0.170}$	$0.100^{+0.200}_{-0.350}$	$1.962^{+0.570}_{-0.380}$	$1.722^{+0.204}_{-0.272}$	$0.321^{+0.219}_{-0.150}$
	+3%/-5%	+3%/-4%	+200%/-350%	+29%/-19%	+12%/-16%	+68%/-47%
Source	PHO54	PHO54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 008265068-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-4521 ± 484	$15.00^{+2.46}_{-1.99}$	627^{+47}_{-44}	7295^{+506}_{-448}	12438^{+3914}_{-3373}
Alt.	-3605 ± 536	$15.49^{+2.55}_{-2.00}$	632^{+47}_{-42}	6747^{+460}_{-444}	9161^{+3276}_{-2561}

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 $A_{obs} \gg 1.0$

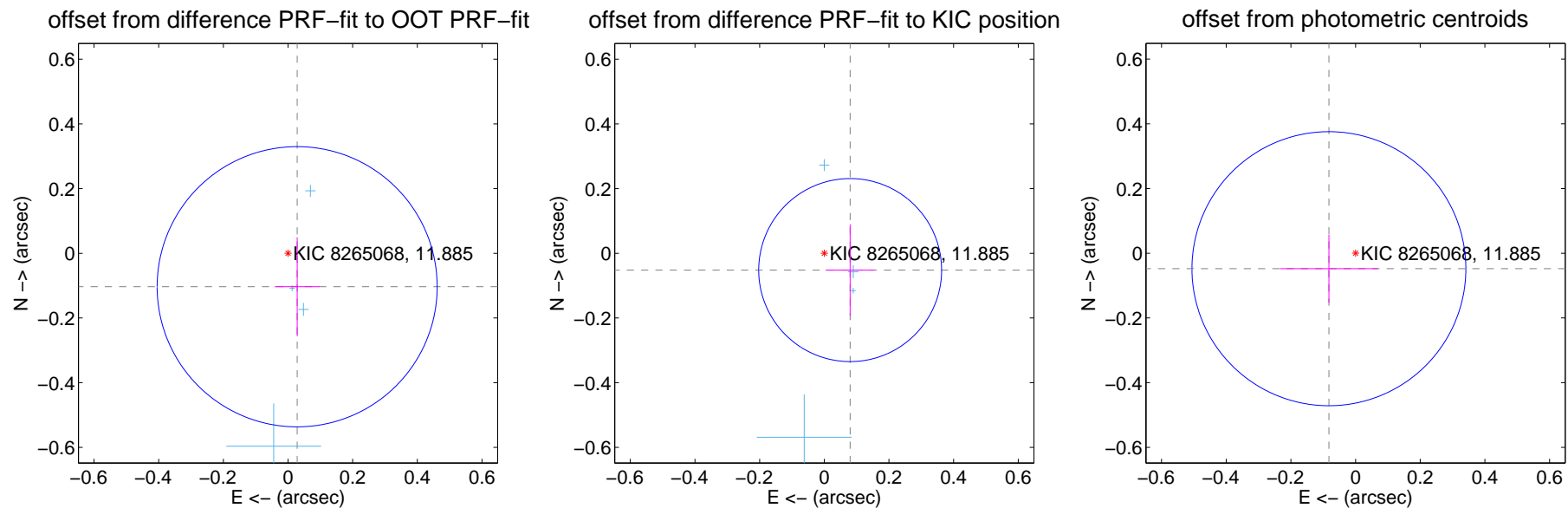
DV Centroid Data

Supplemental centroid analysis for 008265068-03. **Kepler magnitude: 11.88.** Transit SNR 7.62

There are 4 quarters with good PRF difference image offsets

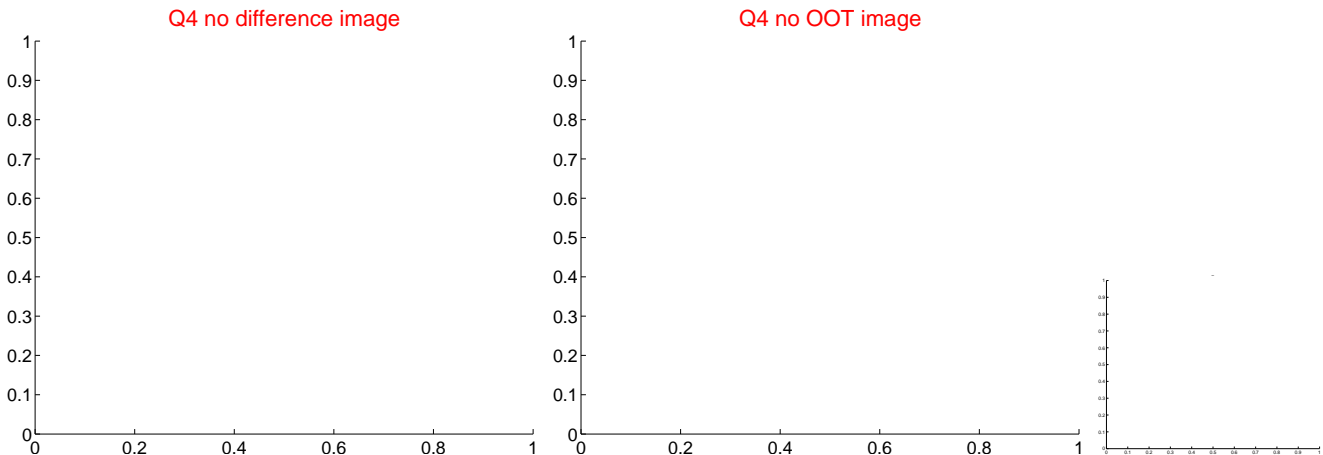
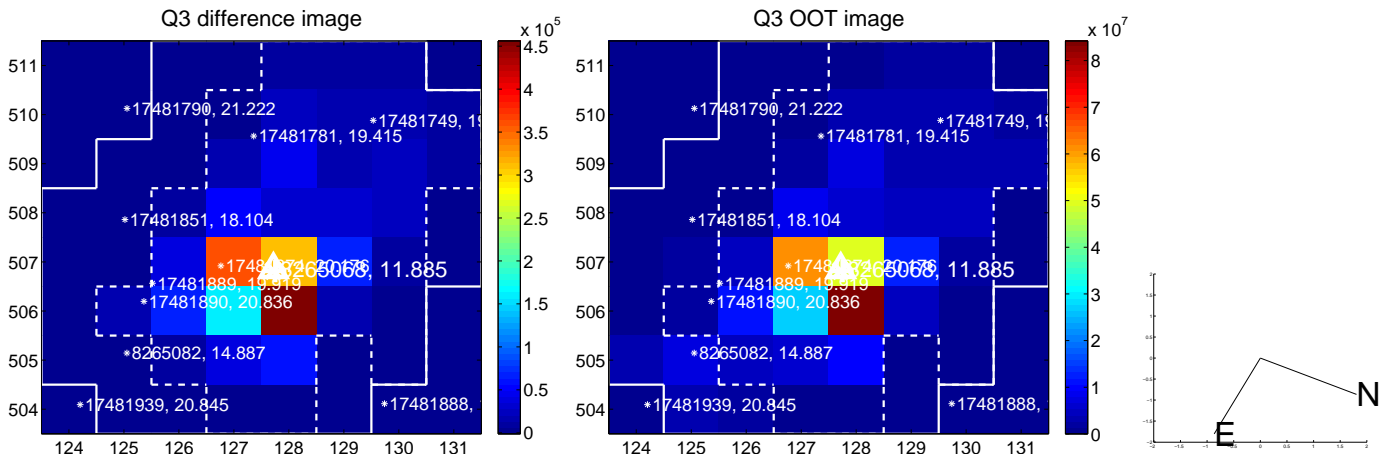
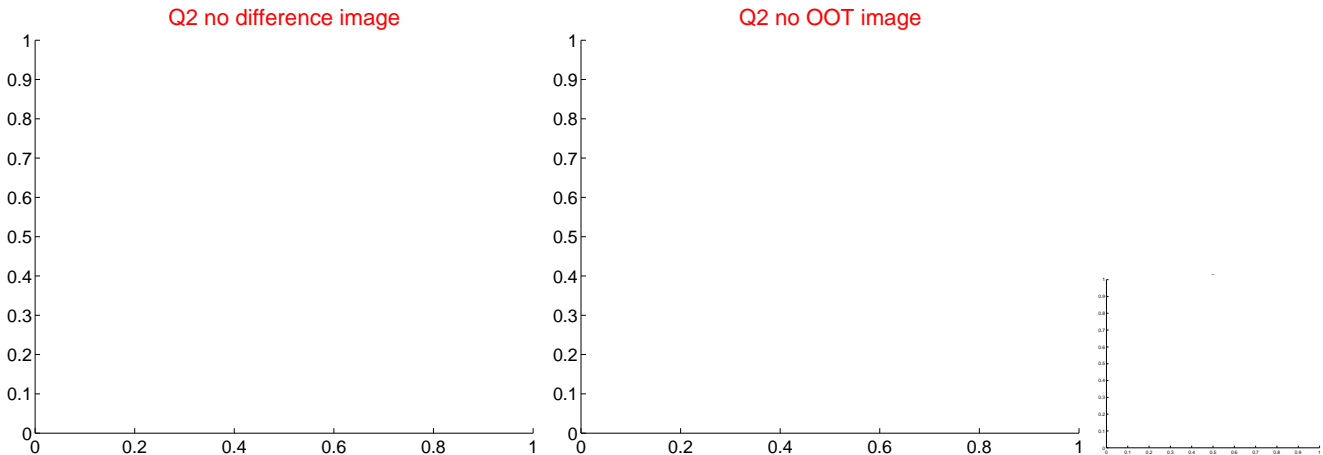
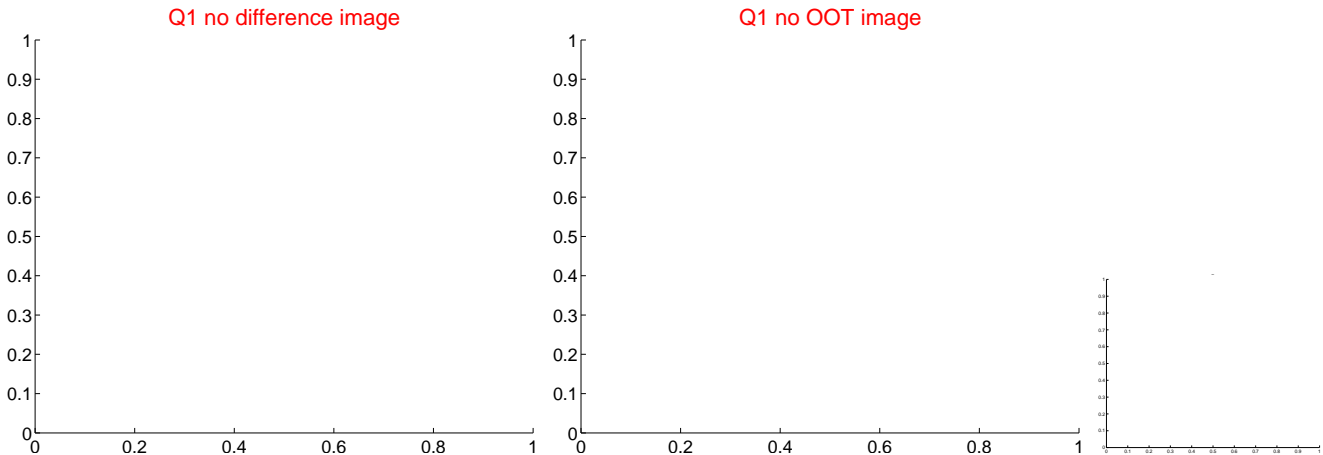
The direct PRF centroid is offset from the target star catalog position by about 0.03 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.107 ± 0.144	0.74	-0.028 ± 0.069	-0.103 ± 0.153
PRF-fit source offset from KIC position	0.095 ± 0.094	1.01	-0.080 ± 0.076	-0.052 ± 0.141
photometric centroid source offset	0.10 ± 0.14	0.68	0.08 ± 0.15	-0.05 ± 0.11



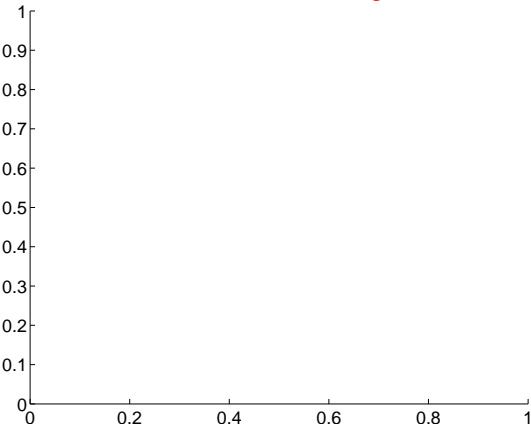
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

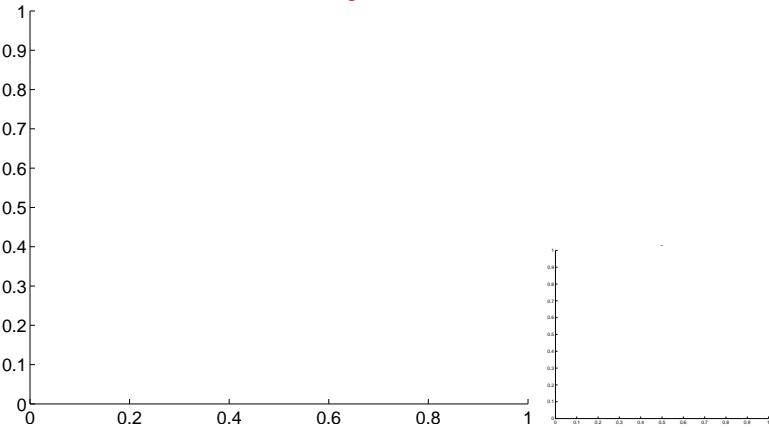


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

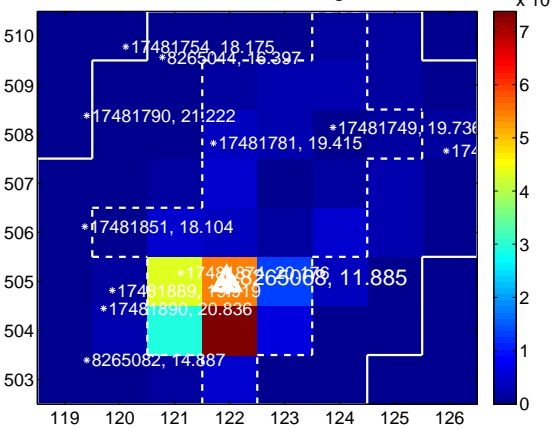
Q5 no difference image



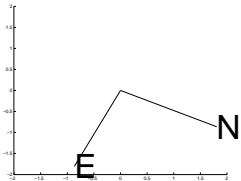
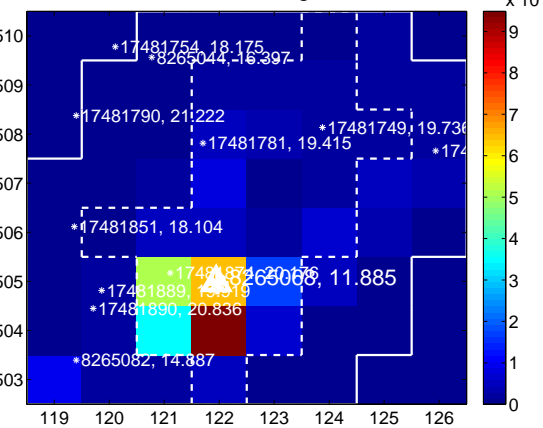
Q5 no OOT image



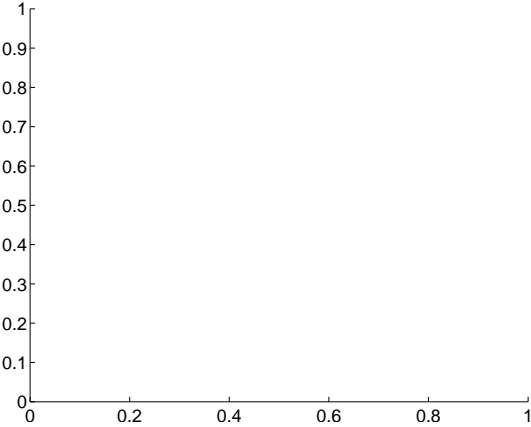
Q6 difference image



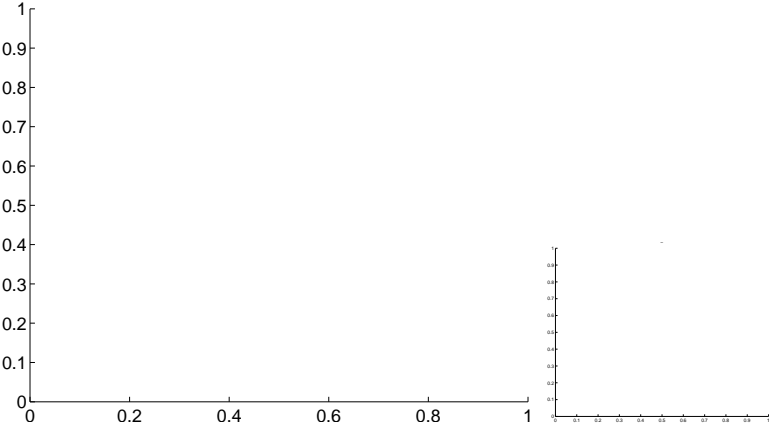
Q6 OOT image



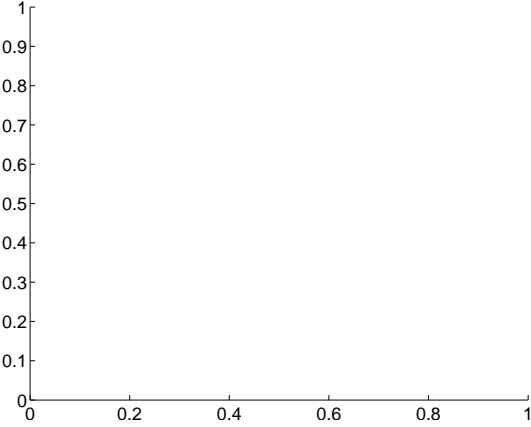
Q7 no difference image



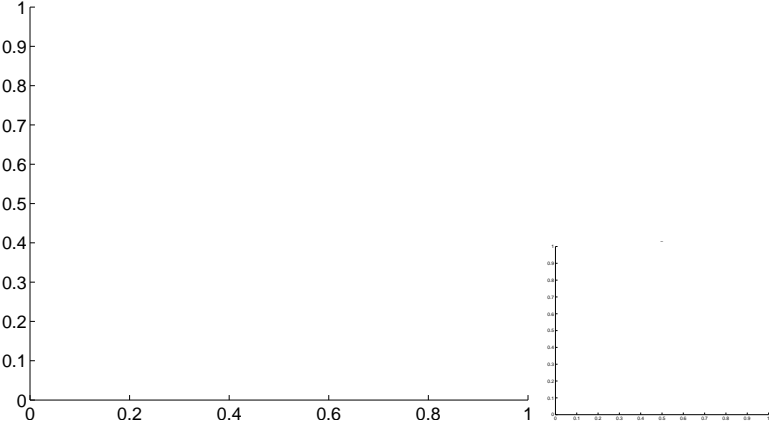
Q7 no OOT image



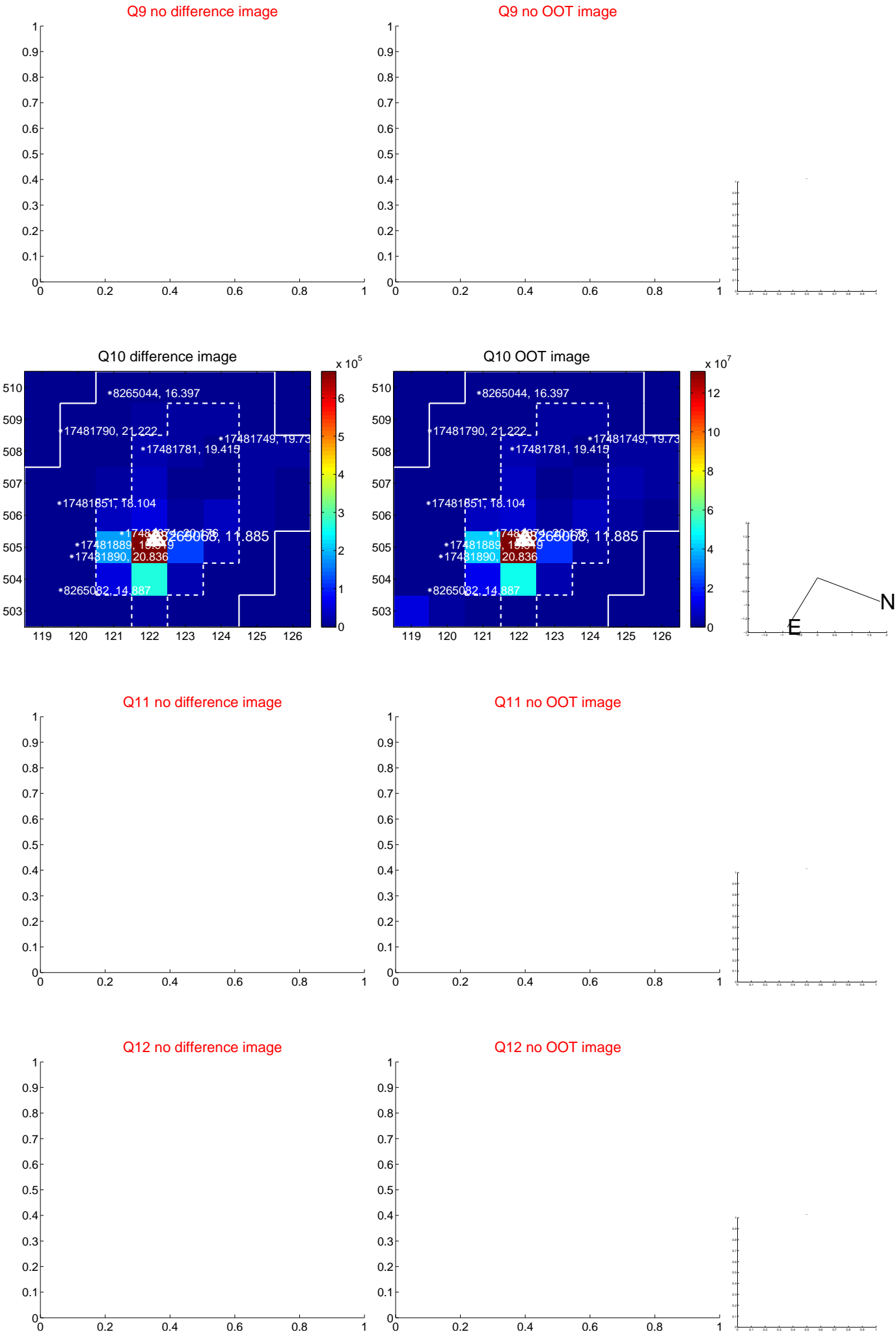
Q8 no difference image



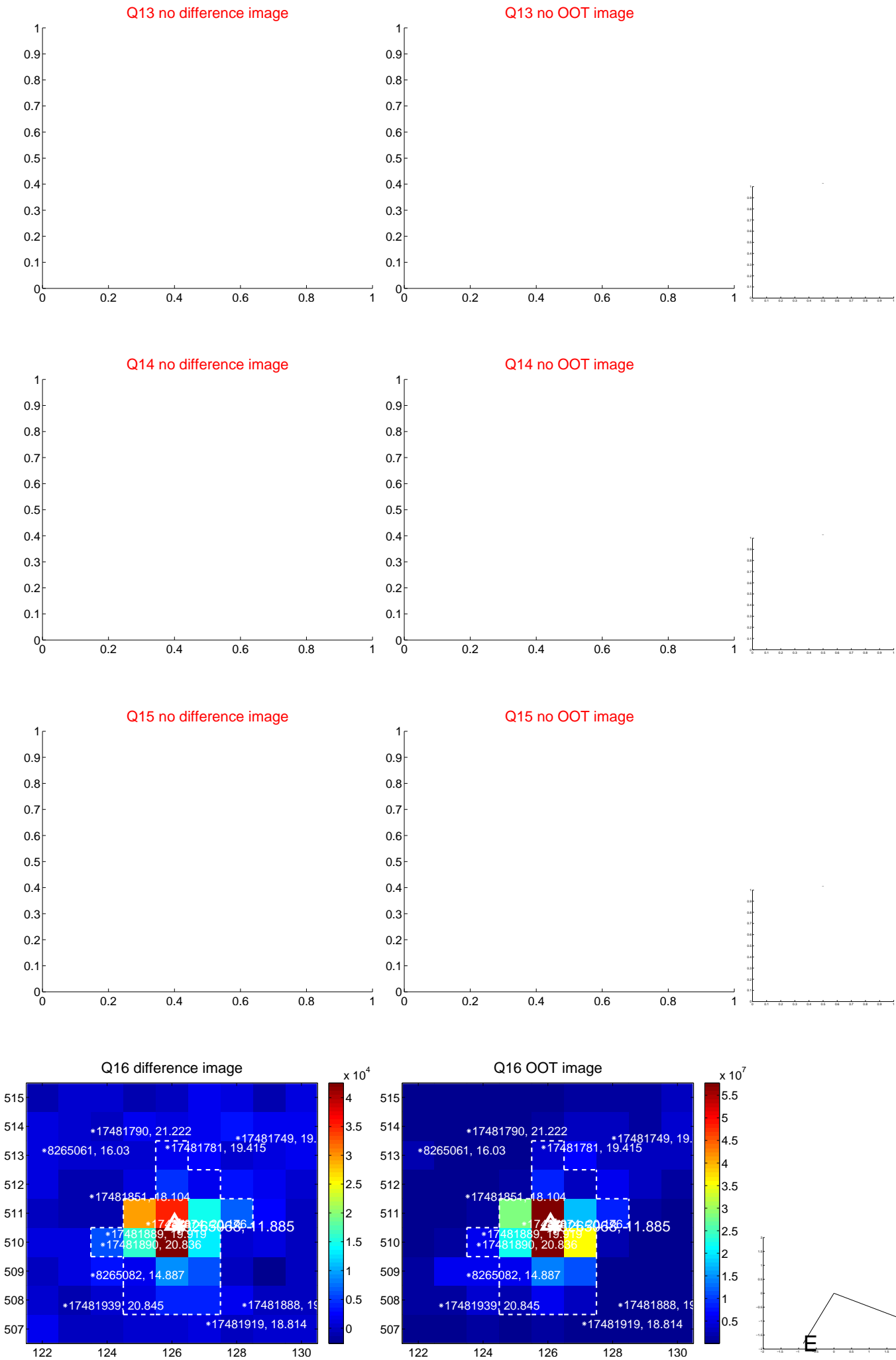
Q8 no OOT image



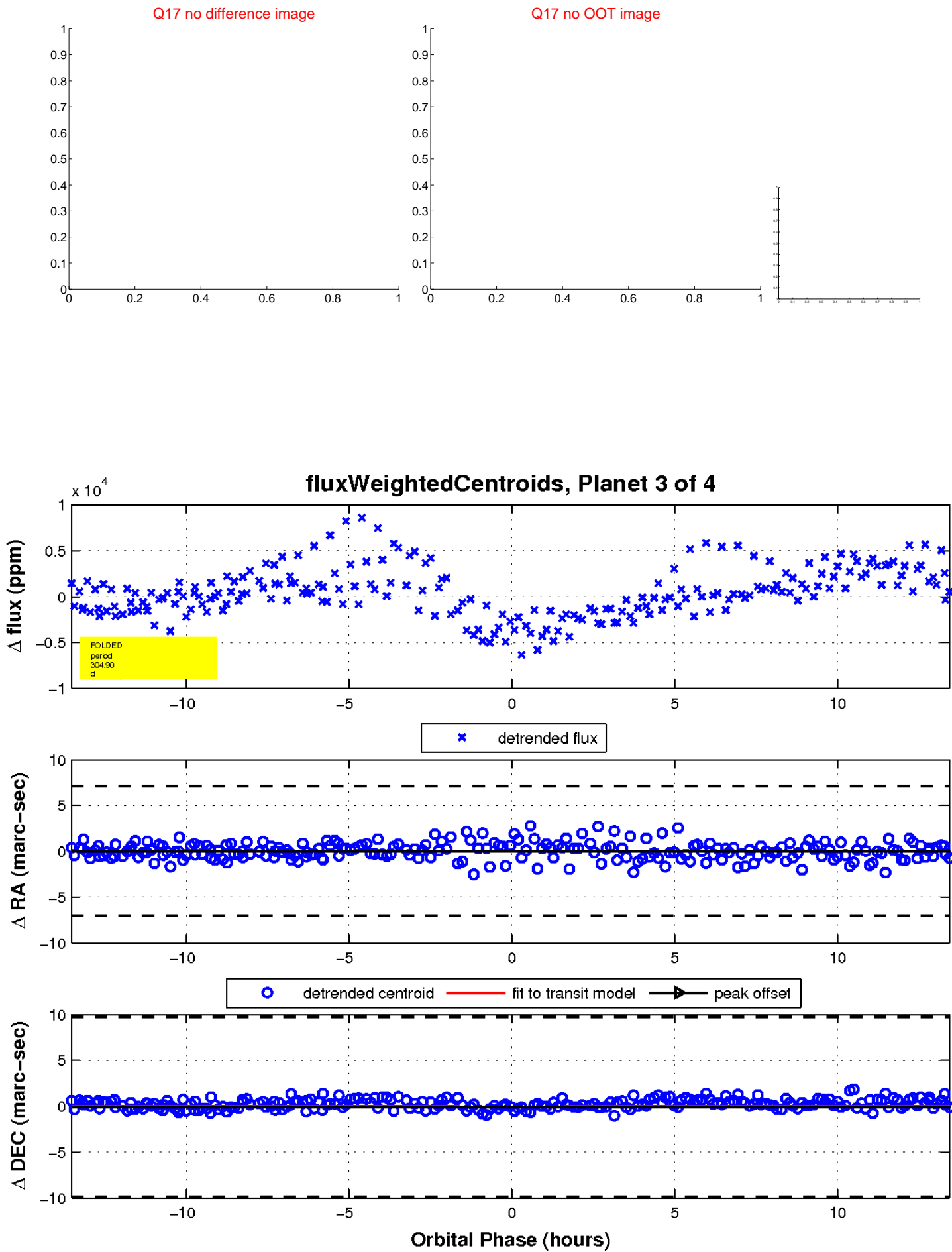
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



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

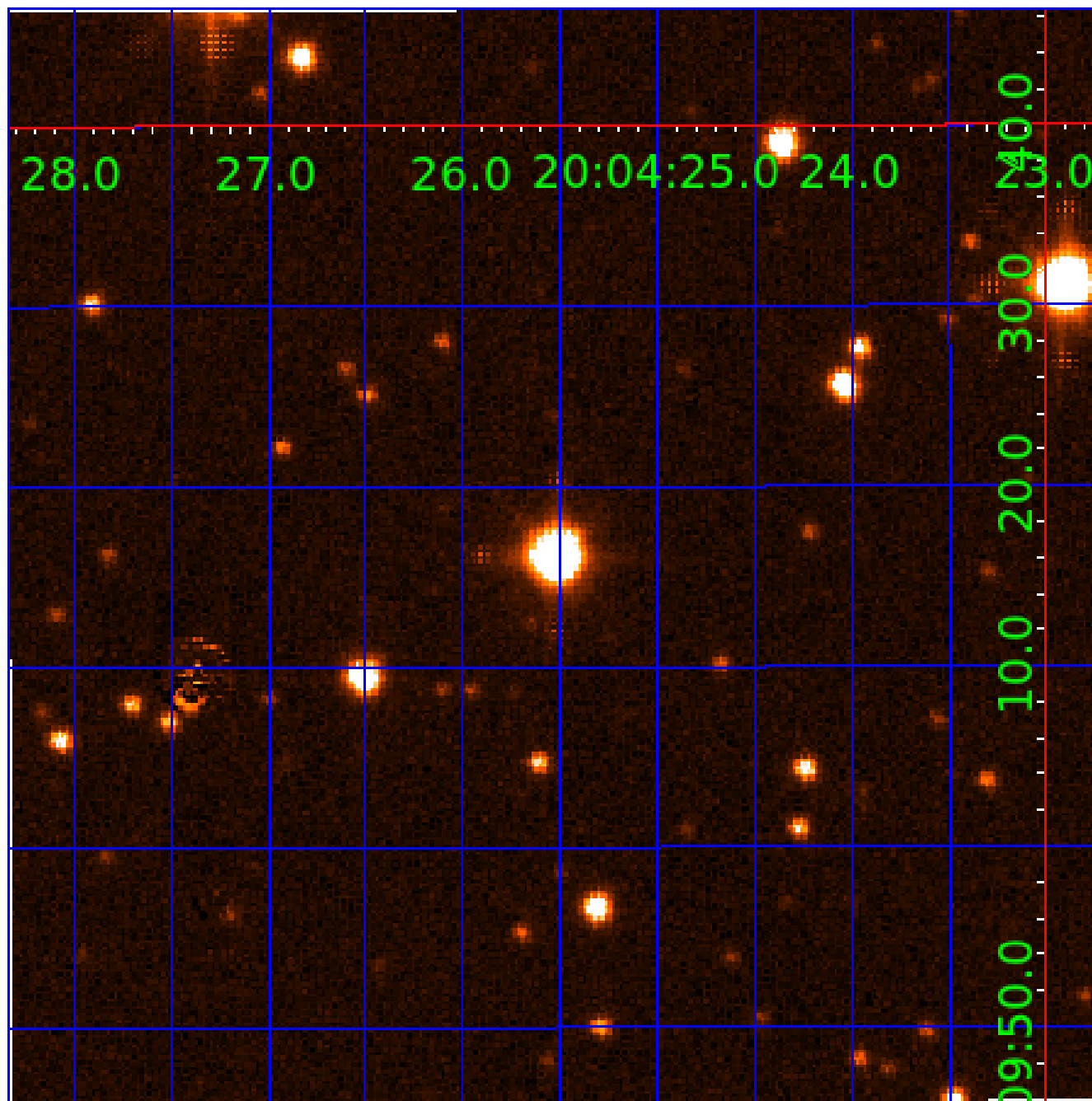


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 008265068

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})
008265068-01	OBS	No	1.448332	132.890575	43.5	3.991	7.9	1.6	1.96	7543	1.50	12370.27
008265068-02	OBS	No	1.495832	131.863784	538.9	4.048	9.4	11.2	1.96	7543	8.57	11849.30
008265068-03	OBS	No	304.902879	300.495248	4425.1	4.511	7.8	7.6	1.96	7543	15.04	9.88
008265068-04	OBS	No	1.495838	132.908971	357.2	3.861	8.9	8.6	1.96	7543	4.78	11849.24

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008265068-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
008265068-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
008265068-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
008265068-04	OBS	FP	0.00	1	0	1	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—SAME_NTL_PERIOD—HALO_GHOST

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

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

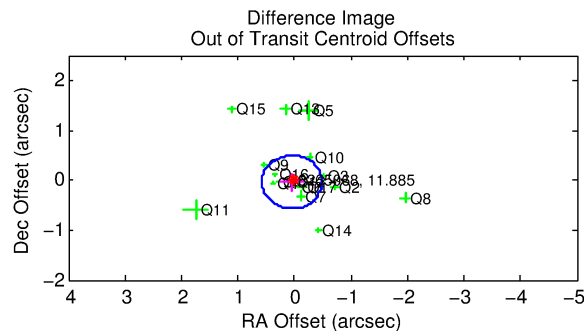
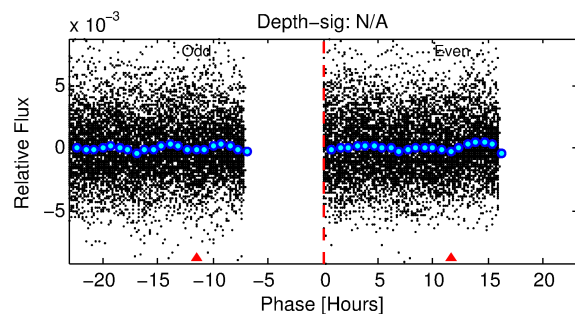
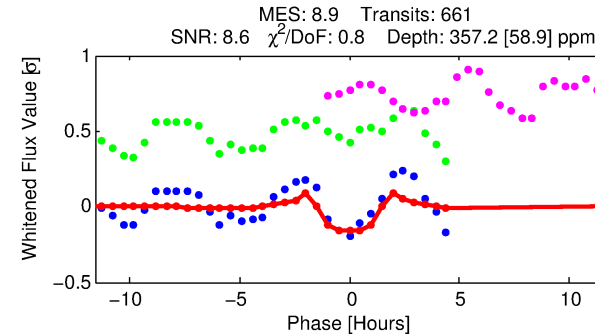
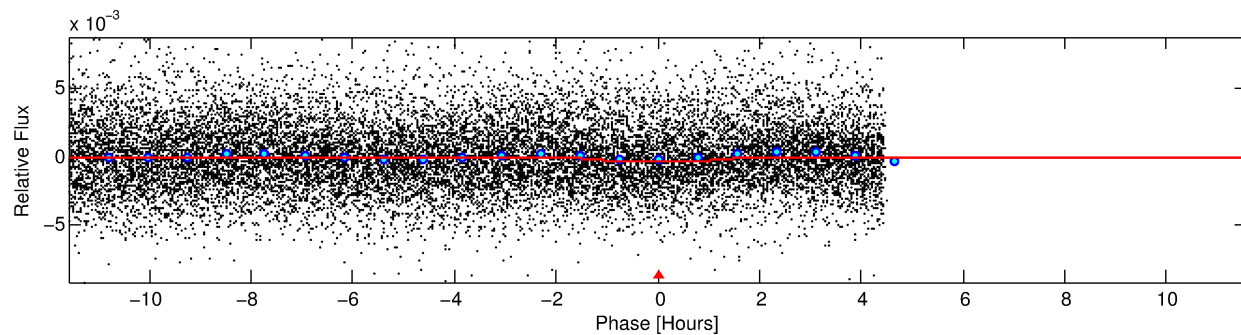
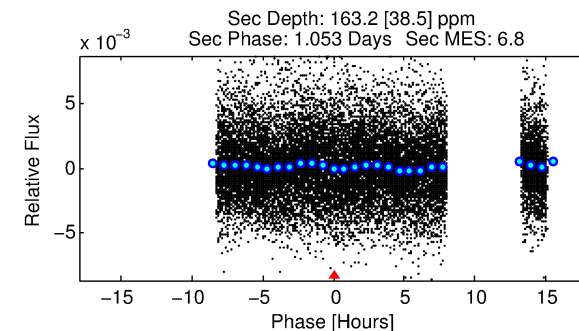
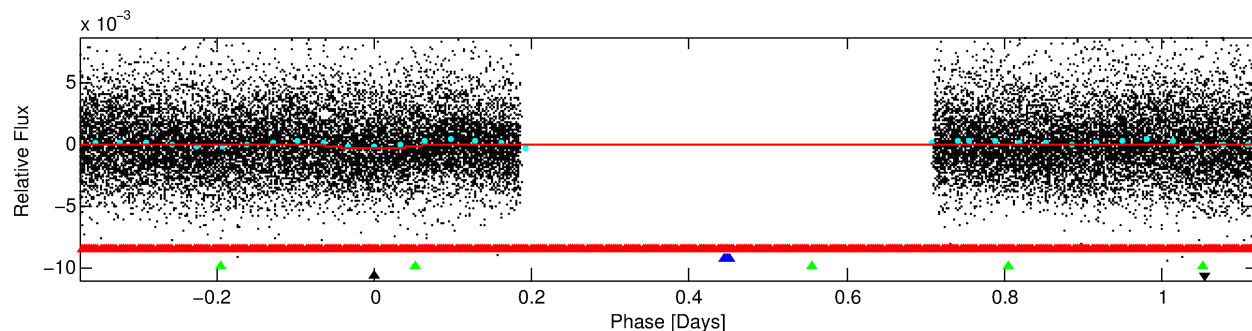
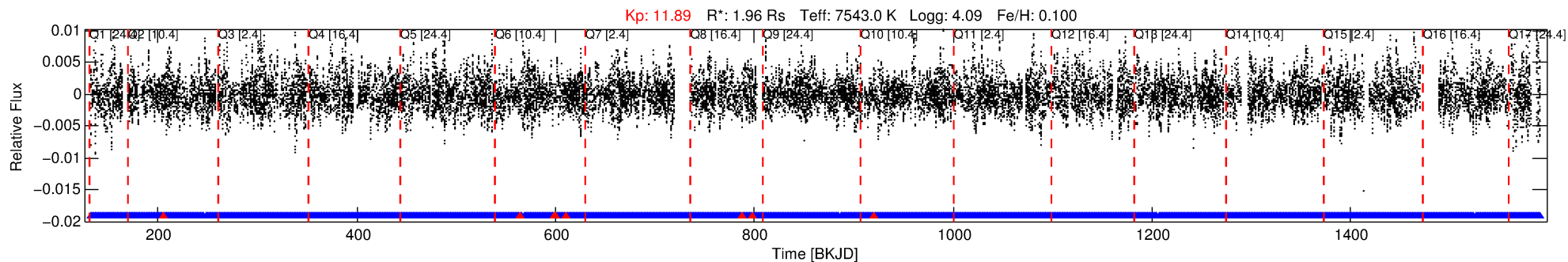
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008265068-04

No Significant Match Found

DV One-Page Summary

KIC: 8265068 Candidate: 4 of 4 Period: 1.496 d



DV Fit Results:

Period = 1.49584 [0.00001] d
Epoch = 132.9090 [0.0036] BKJD
Rp/R* = 0.0223 [0.0020]
a/R* = 1.33 [0.05]
b = 0.98 [0.01]
Seff = 11849.24 [4409.82]
Teq = 2660 [248] K
Rp = 4.78 [1.45] Re
a = 0.0307 [0.0072] AU
Ag = 3.70 [1.63] [1.66σ]
Teffp = 5705 [497] K [5.49σ]

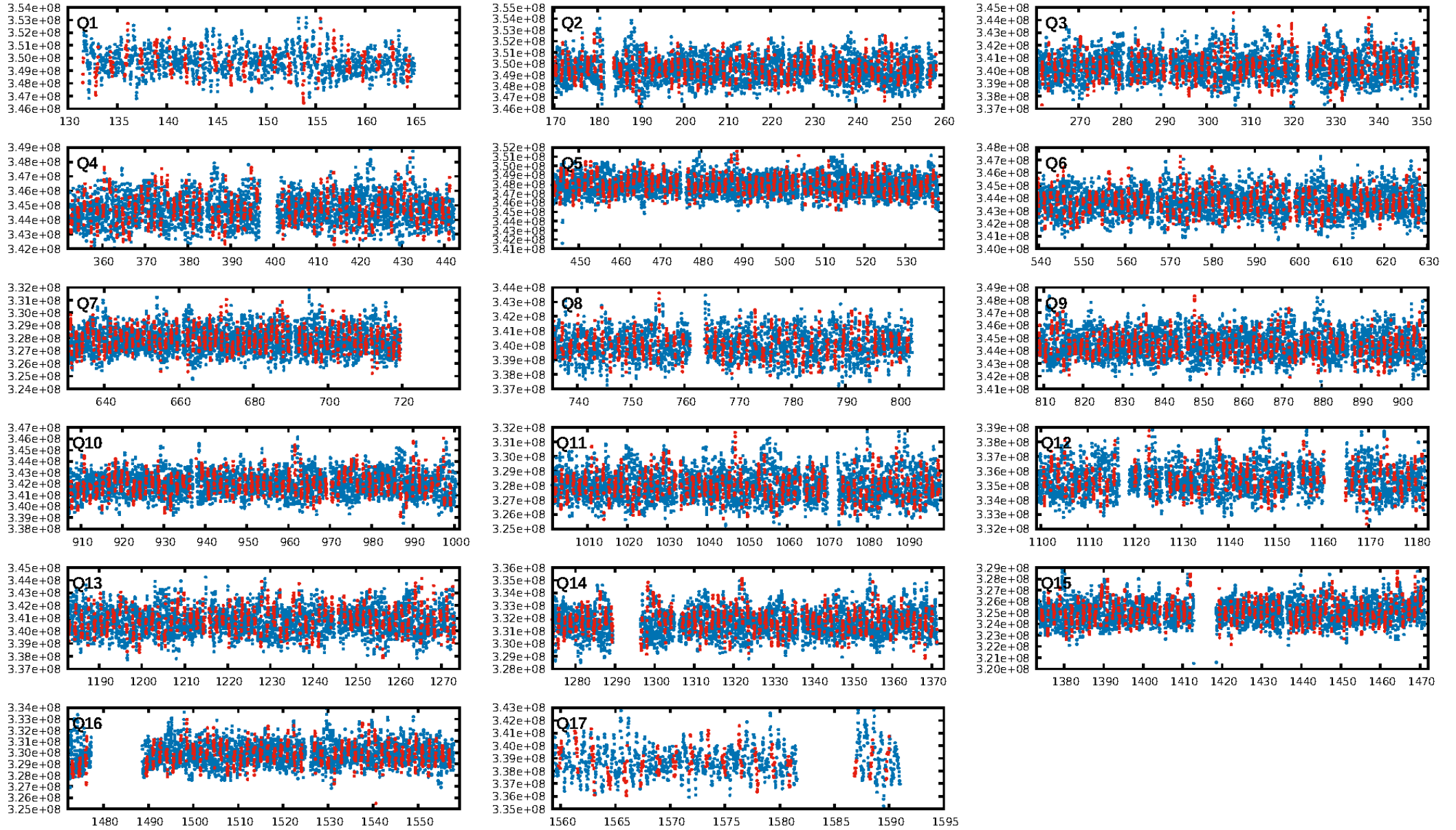
DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00σ]
LongPeriod-sig: 100.0% [1226.27σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.99 [620/628]
GhostDiagnostic-chr: -0.03397
Centroid-sig: 0.2%
Centroid-so: 0.163 arcsec [1.35σ]
OotOffset-rm: 0.061 arcsec [0.34σ]
KicOffset-rm: 0.038 arcsec [0.20σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.53 [9/17]
DiffImageOverlap-fno: 0.29 [5/17]

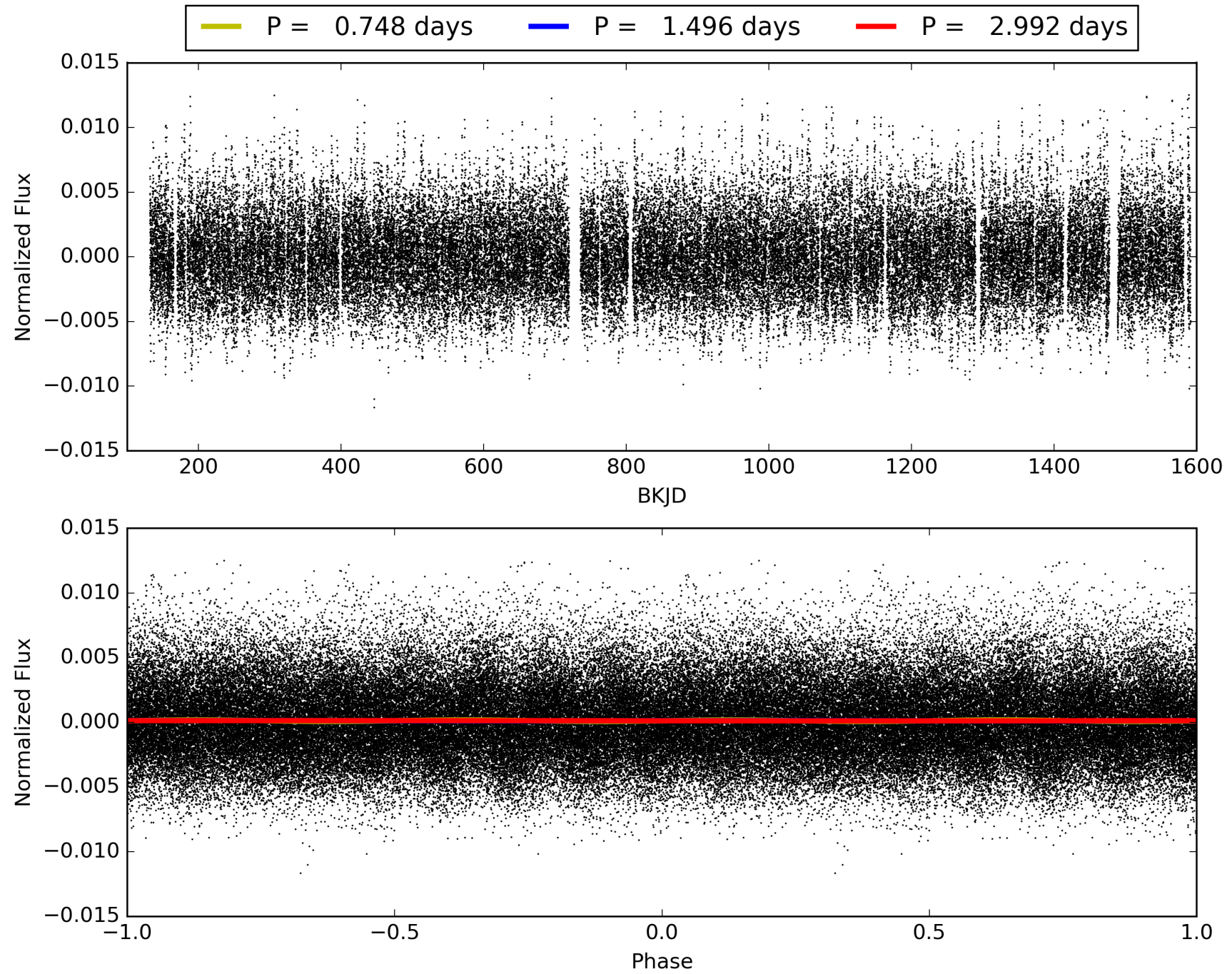
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 05:46:19 Z

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

TCE 008265068-04, PDC Light Curves

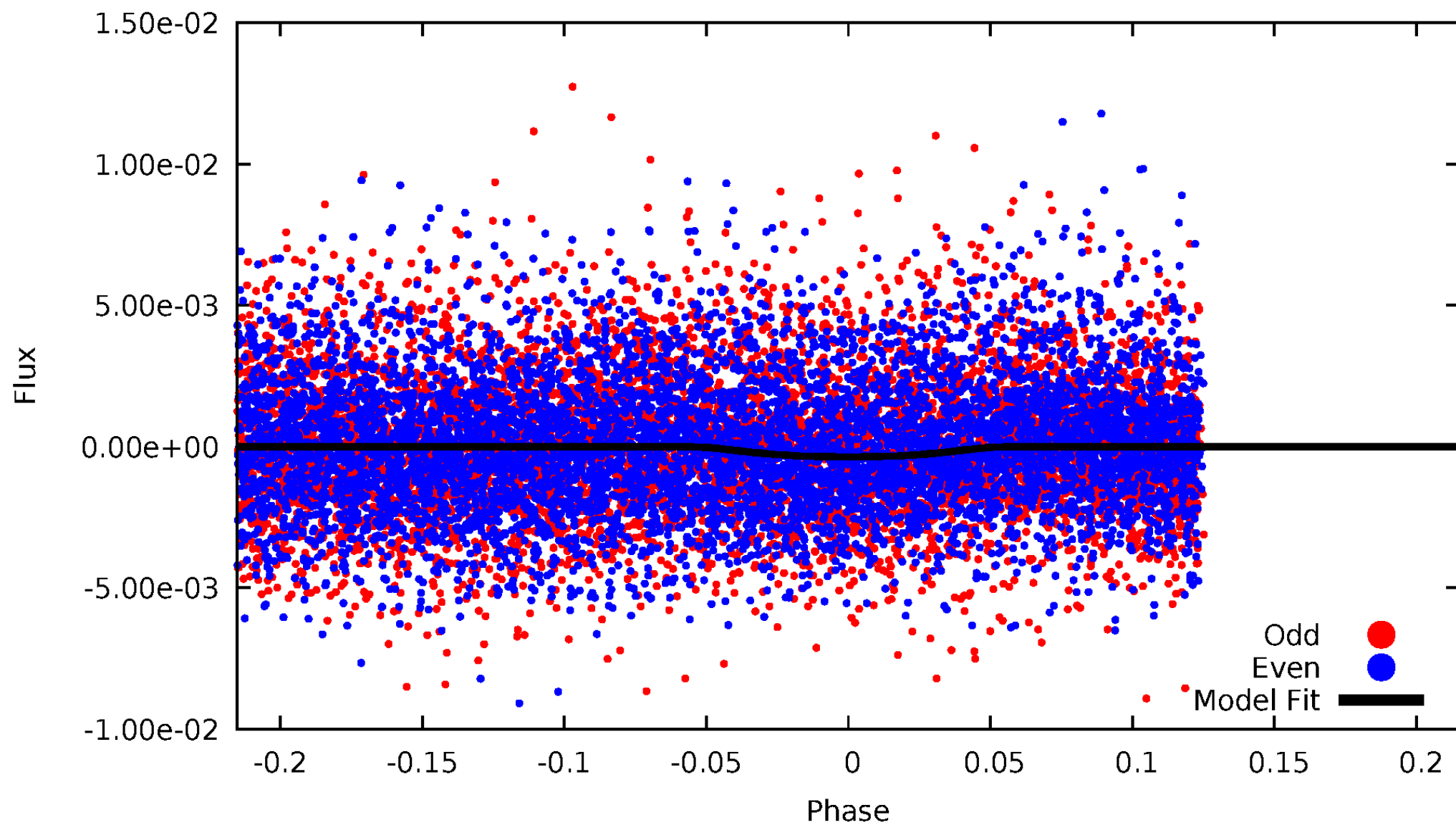


TCE 008265068-04



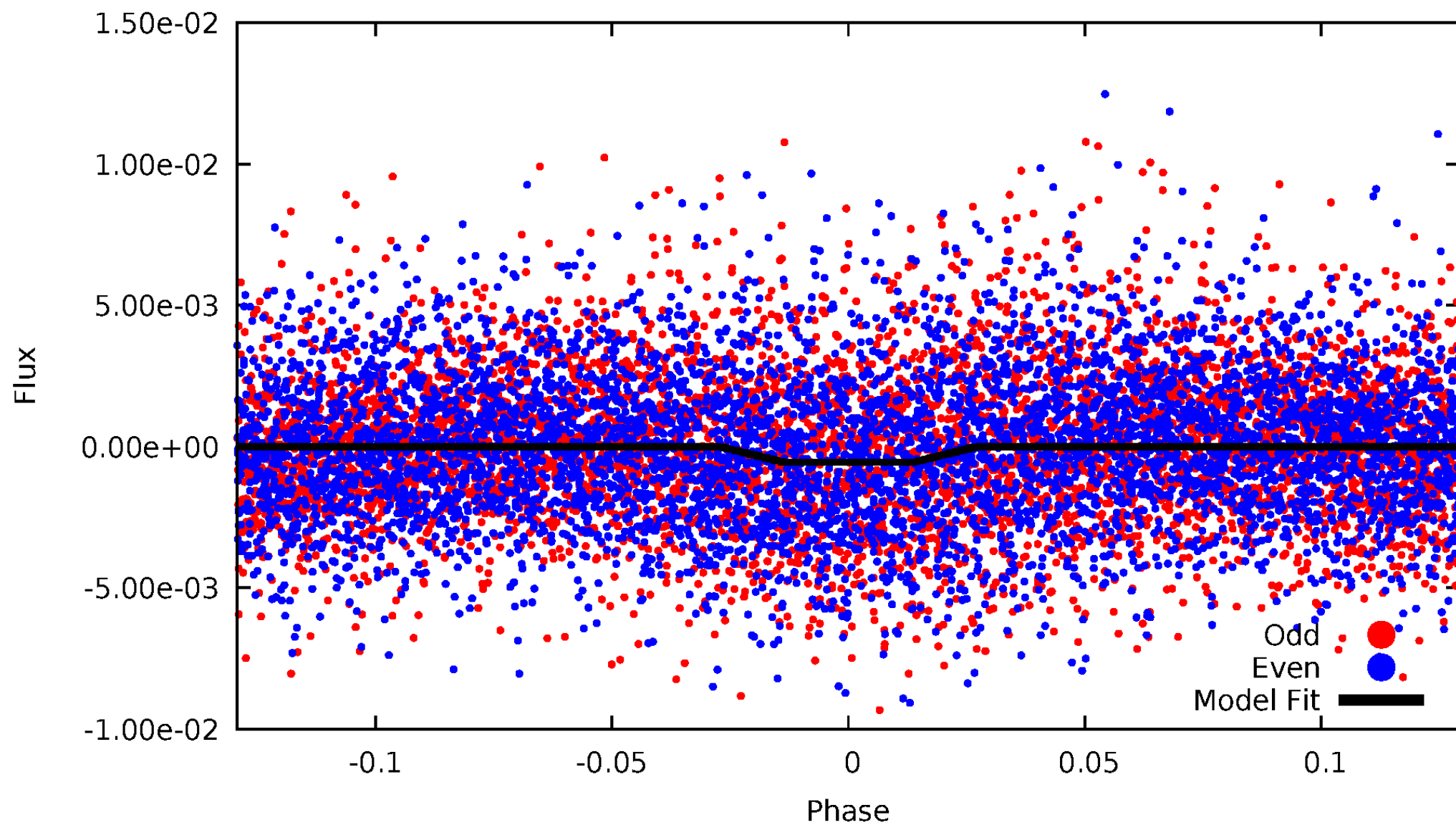
DV Odd/Even

TCE 008265068-04



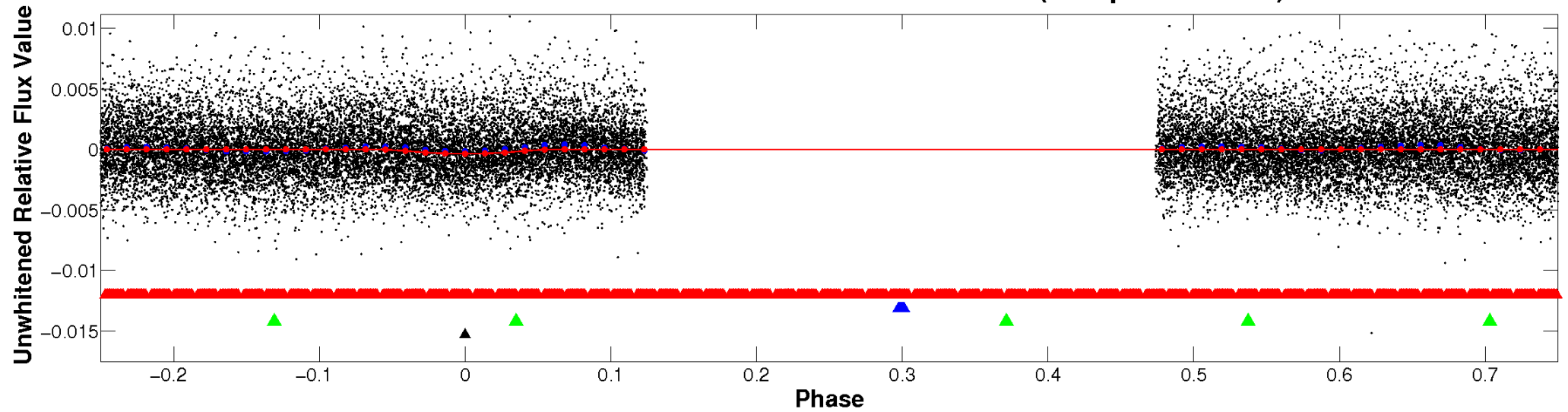
ALT Odd/Even

TCE 008265068-04

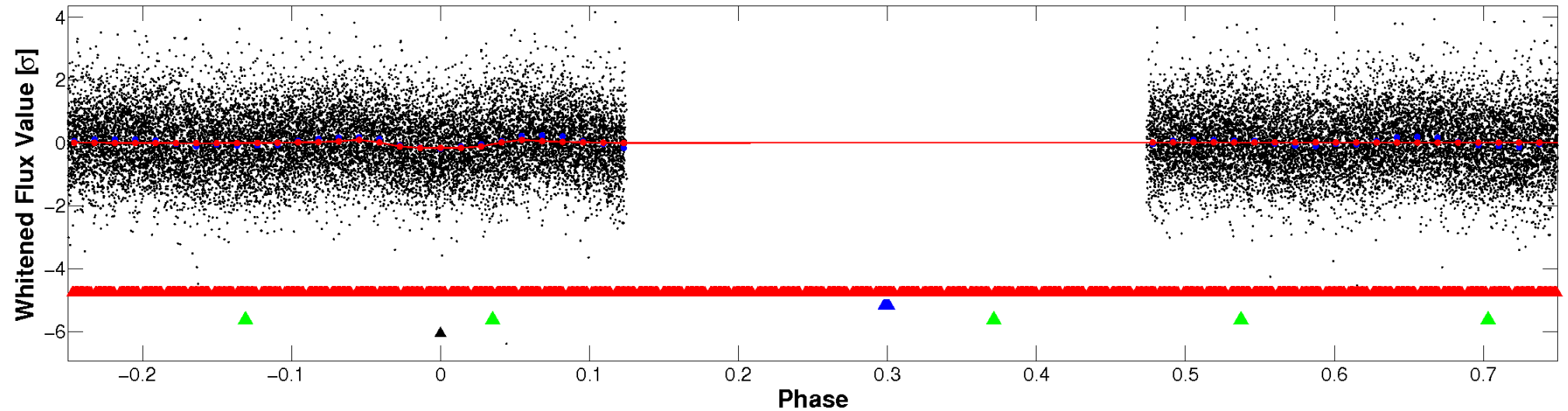


Non-Whitened Vs. Whitened Light Curve

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

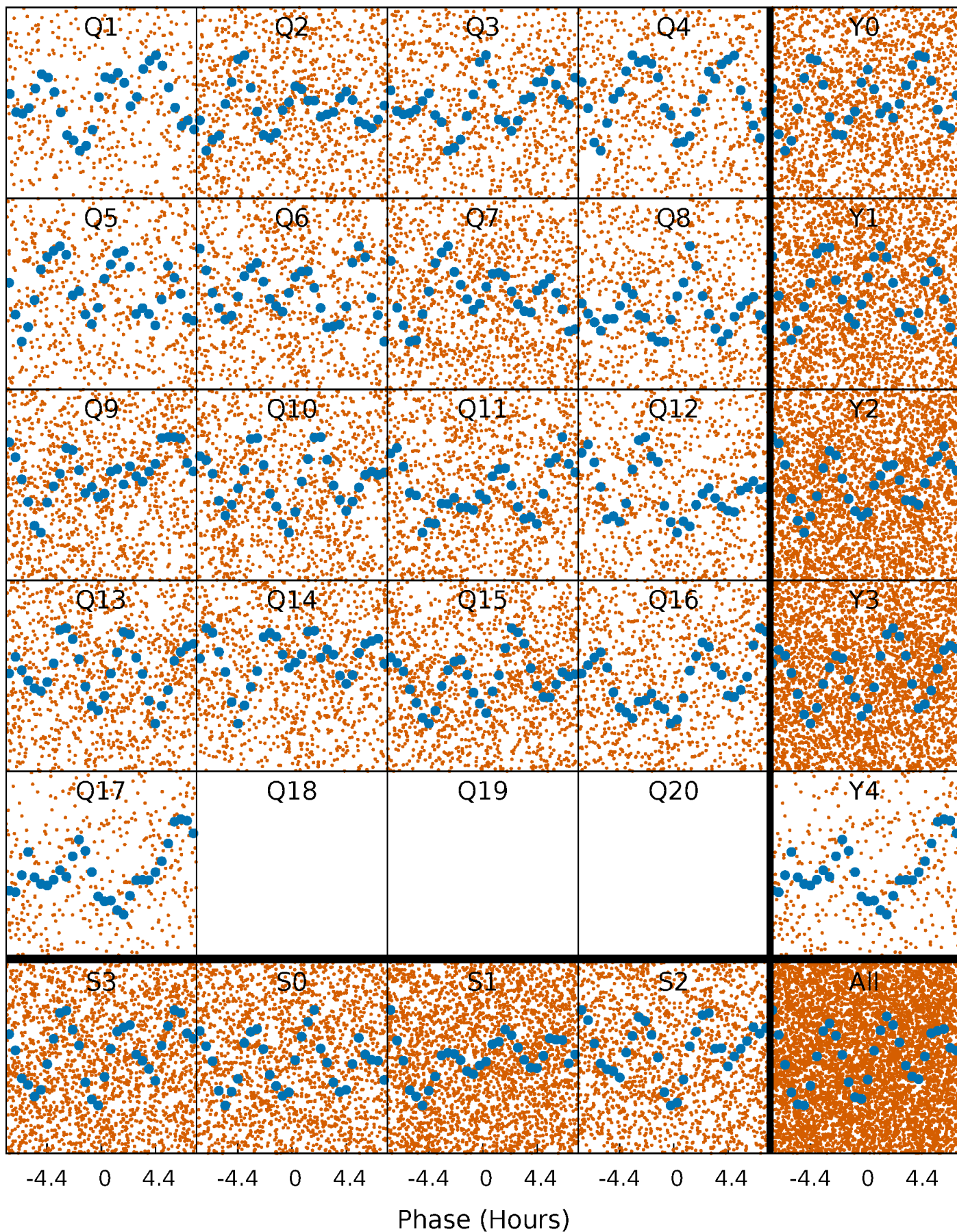


Planet 4 : Phased Whitened Flux Time Series (Fit Epoch/Period)



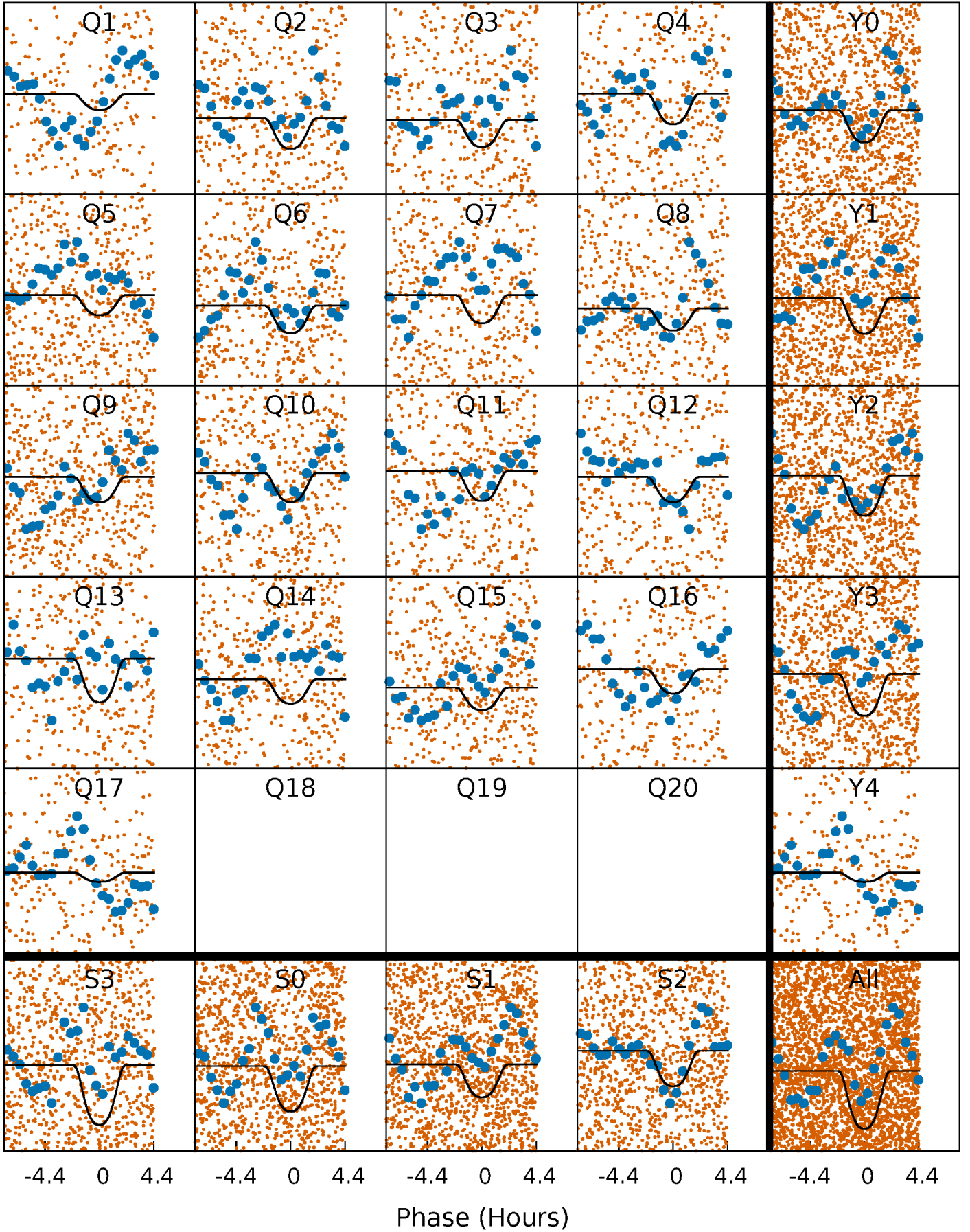
PDC Quarter-Phased Transit Curves

TCE 008265068-04 P= 1.495838 Days $T_0=132.908971$ (BKJD)



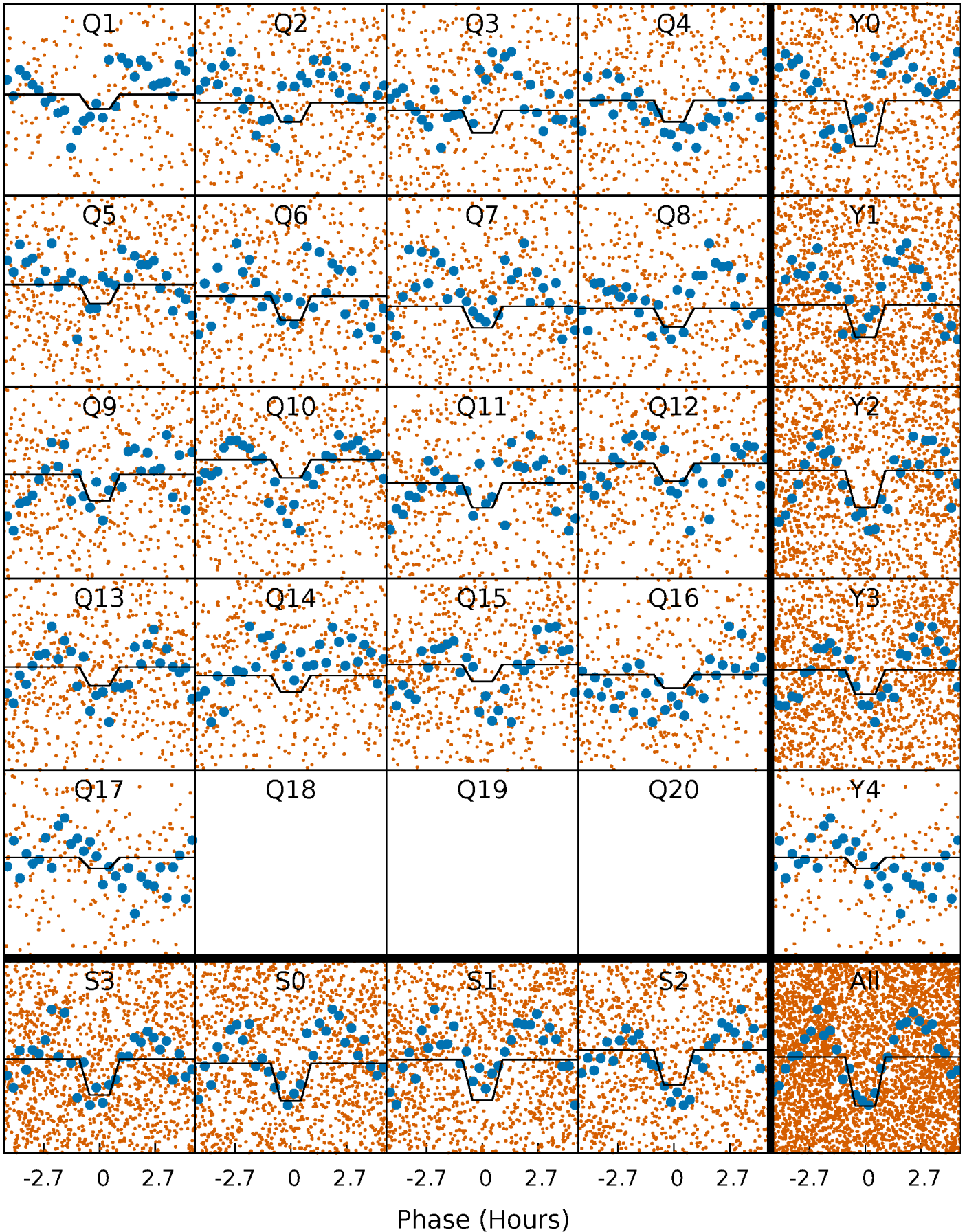
DV Quarter-Phased Transit Curves

TCE 008265068-04 $P = 1.495838$ Days $T_0 = 132.908971$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

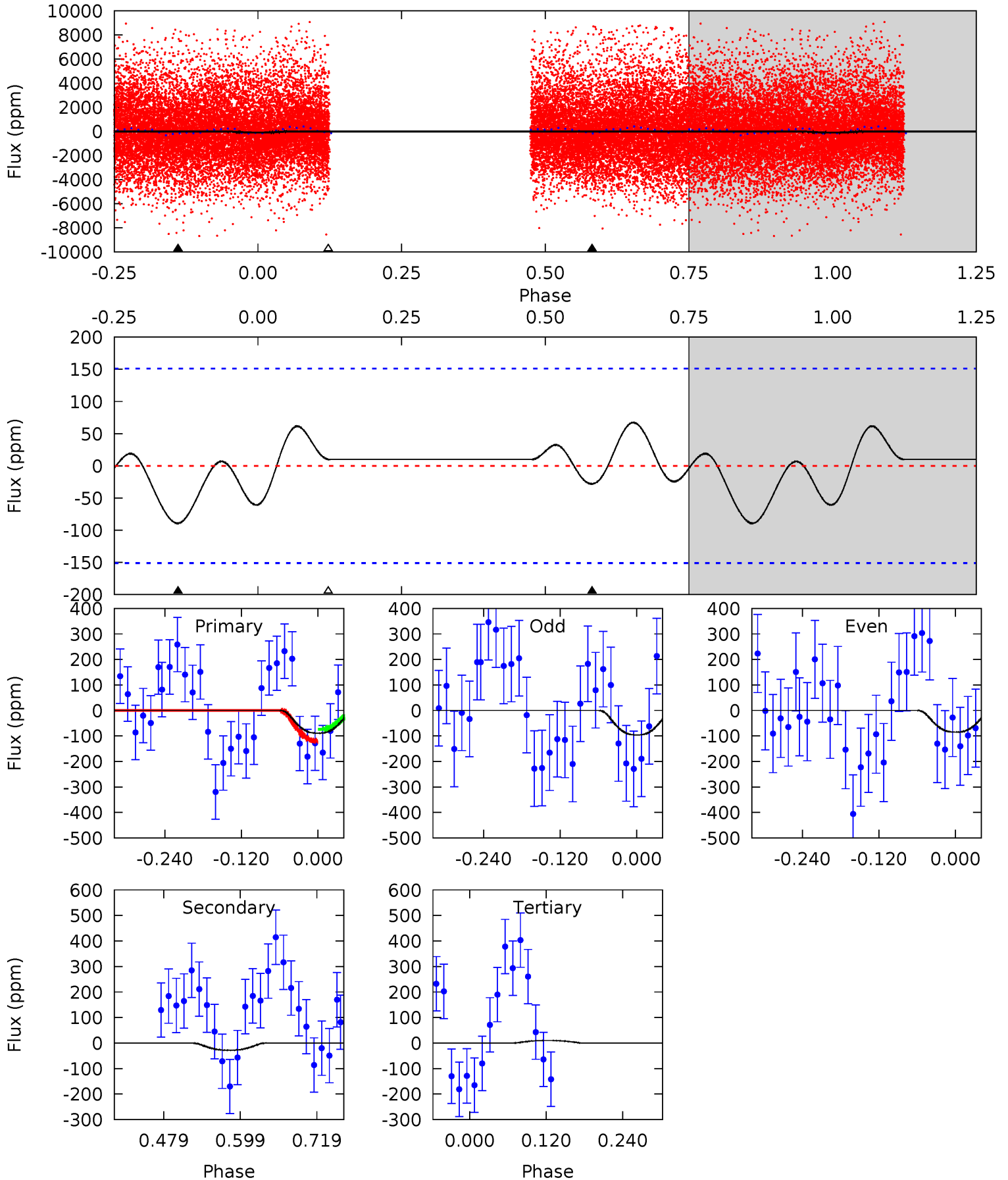
TCE 008265068-04 $P = 1.495852$ Days $T_0 = 132.877366$ (BKJD)



DV Model-Shift Uniqueness Test

008265068-04, P = 1.495838 Days, E = 131.413133 Days

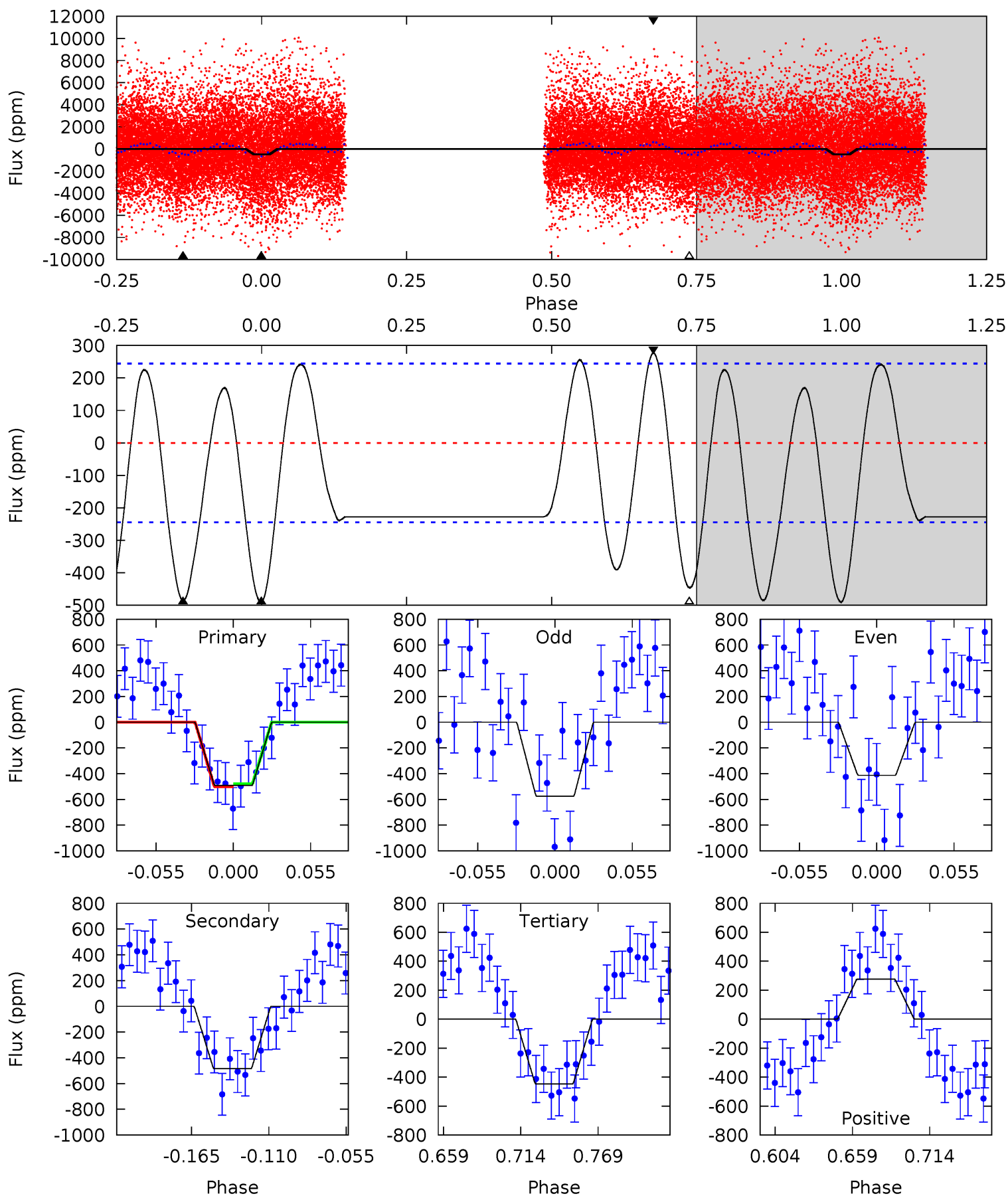
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.68	0.84	-0.30	0	4.53	1.56	1.19	2.98	2.68	1.14	0.84	0.16	-0.07	0.43	0.67



Alt Model-Shift Uniqueness Test

008265068-04, P = 1.495852 Days, E = 131.381514 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.41	9.30	8.56	5.32	4.69	1.92	4.29	0.85	4.09	0.74	3.98	1.56	0.77	0.36	0.21



Stellar Parameters For KIC 008265068

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7543^{+211}_{-342}	$4.089^{+0.139}_{-0.170}$	$0.100^{+0.200}_{-0.350}$	$1.962^{+0.570}_{-0.380}$	$1.722^{+0.204}_{-0.272}$	$0.321^{+0.219}_{-0.150}$
	+3%/-5%	+3%/-4%	+200%/-350%	+29%/-19%	+12%/-16%	+68%/-47%
Source	PHO54	PHO54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 008265068-04 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-28 ± 33	$4.76^{+0.79}_{-0.68}$	3714^{+255}_{-238}	3549^{+849}_{-7258}	$0.617^{+0.846}_{-0.739}$
Alt.	-485 ± 52	$5.09^{+0.79}_{-0.73}$	3710^{+268}_{-244}	7113^{+497}_{-506}	$9.453^{+3.365}_{-2.523}$

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 $A_{obs} \gg 1.0$

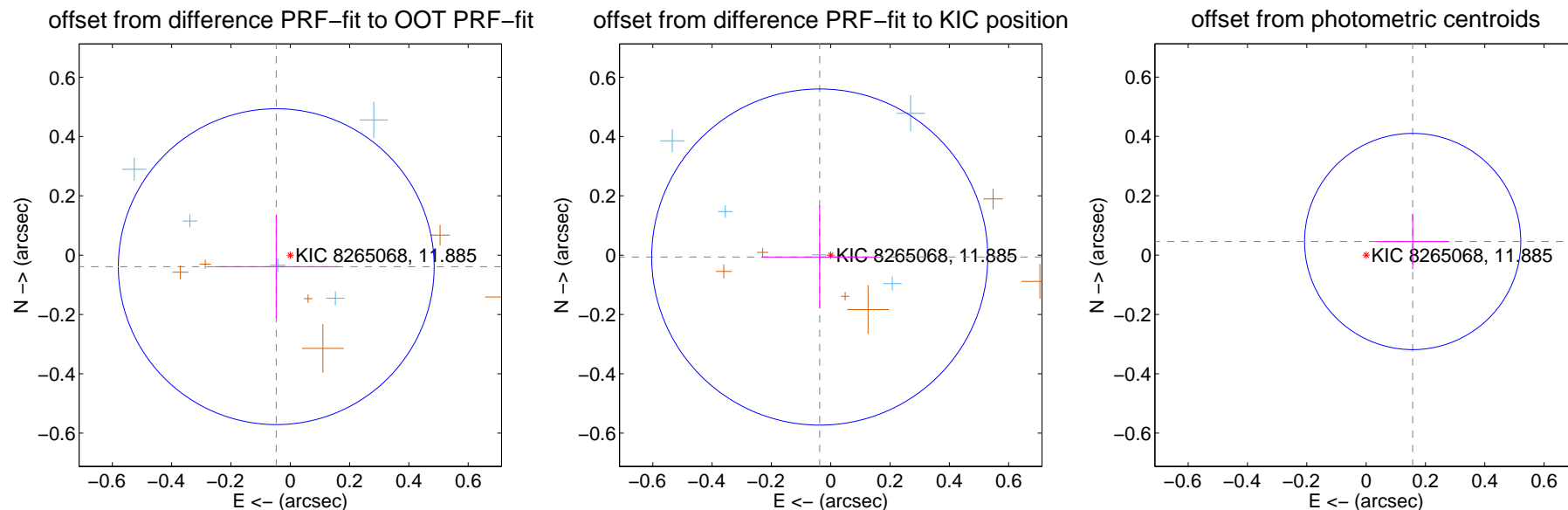
DV Centroid Data

Supplemental centroid analysis for 008265068-04. **Kepler magnitude: 11.88.** Transit SNR 8.57

There are 9 quarters with good PRF difference image offsets

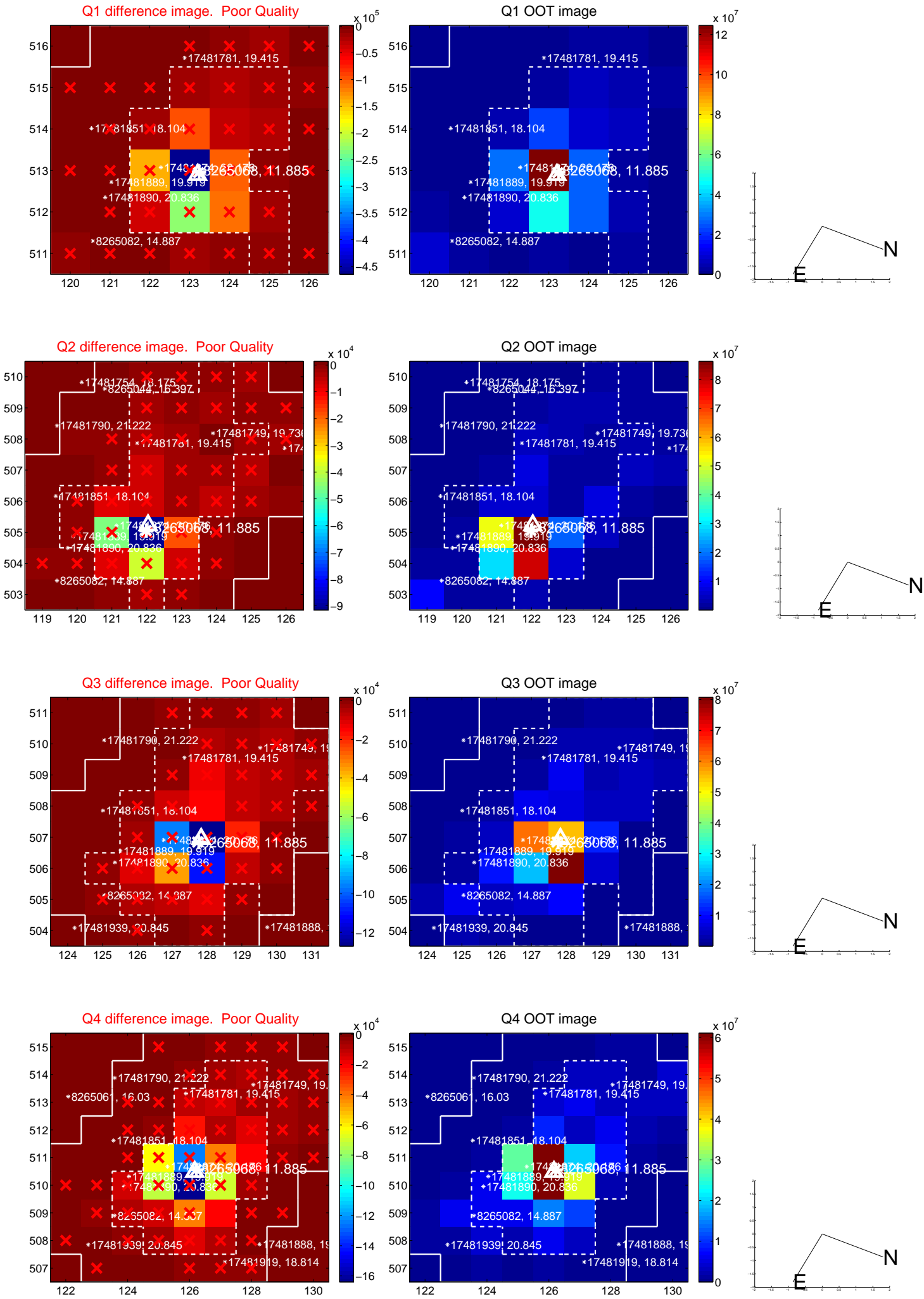
The direct PRF centroid is offset from the target star catalog position by about 0.07 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.061 ± 0.177	0.34	0.047 ± 0.209	-0.039 ± 0.174
PRF-fit source offset from KIC position	0.038 ± 0.189	0.20	0.037 ± 0.195	-0.006 ± 0.174
photometric centroid source offset	0.16 ± 0.12	1.35	-0.16 ± 0.12	0.05 ± 0.09

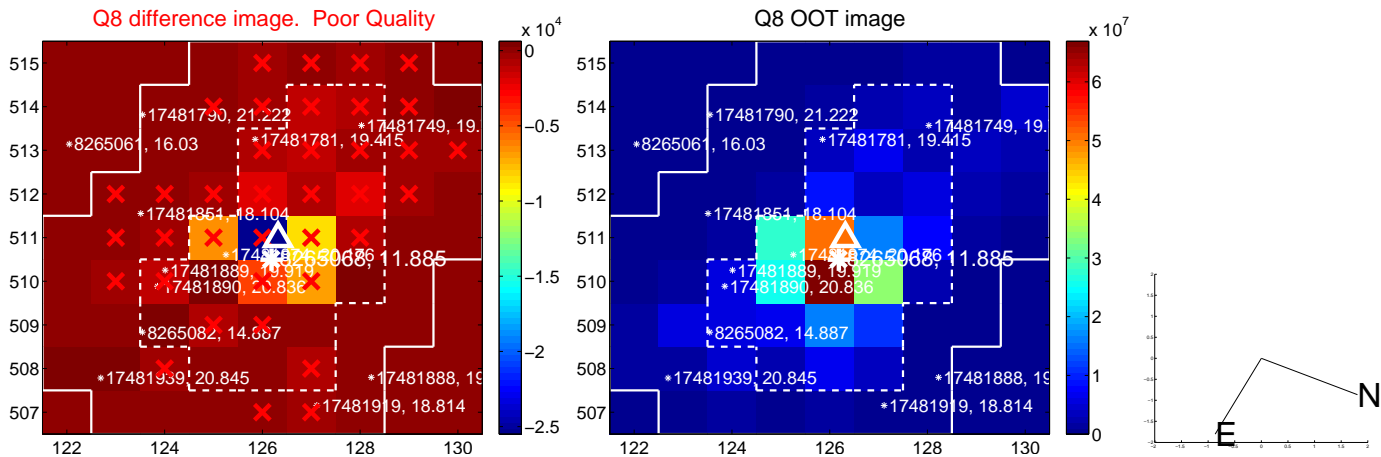
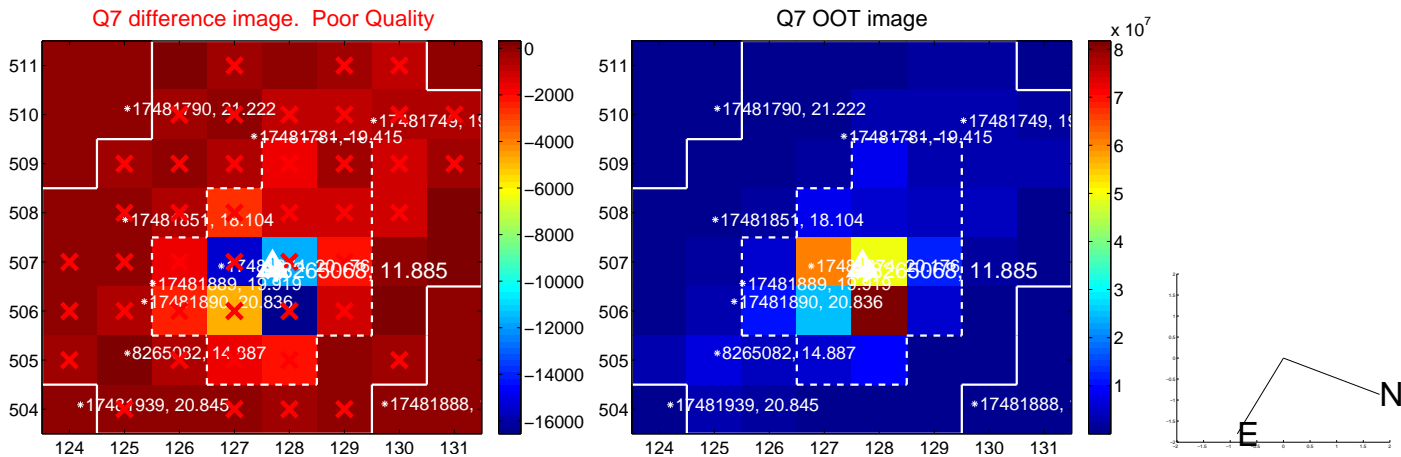
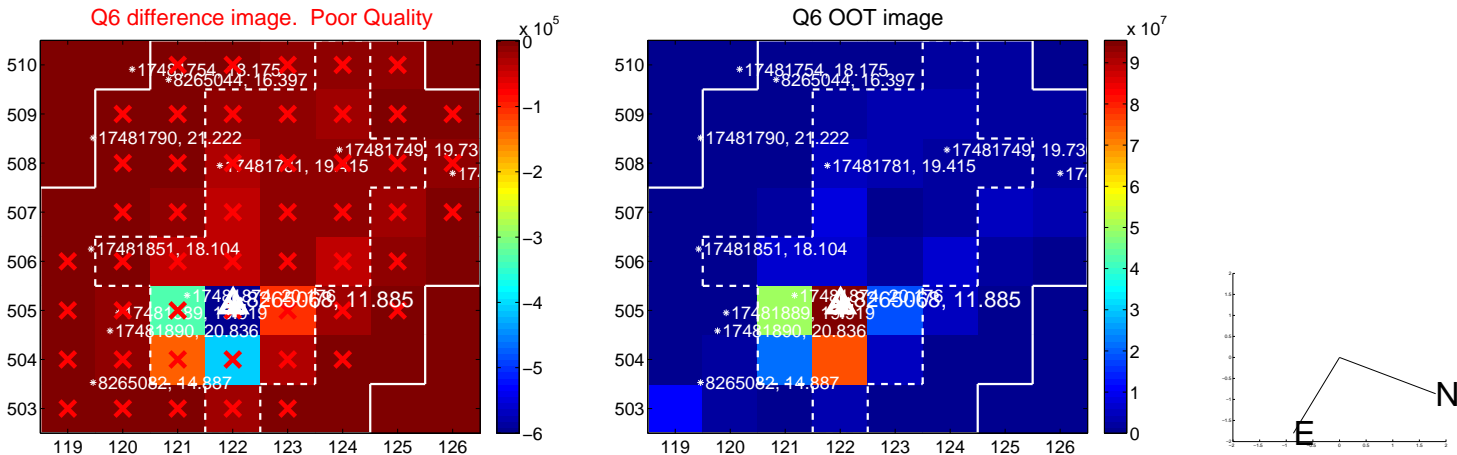
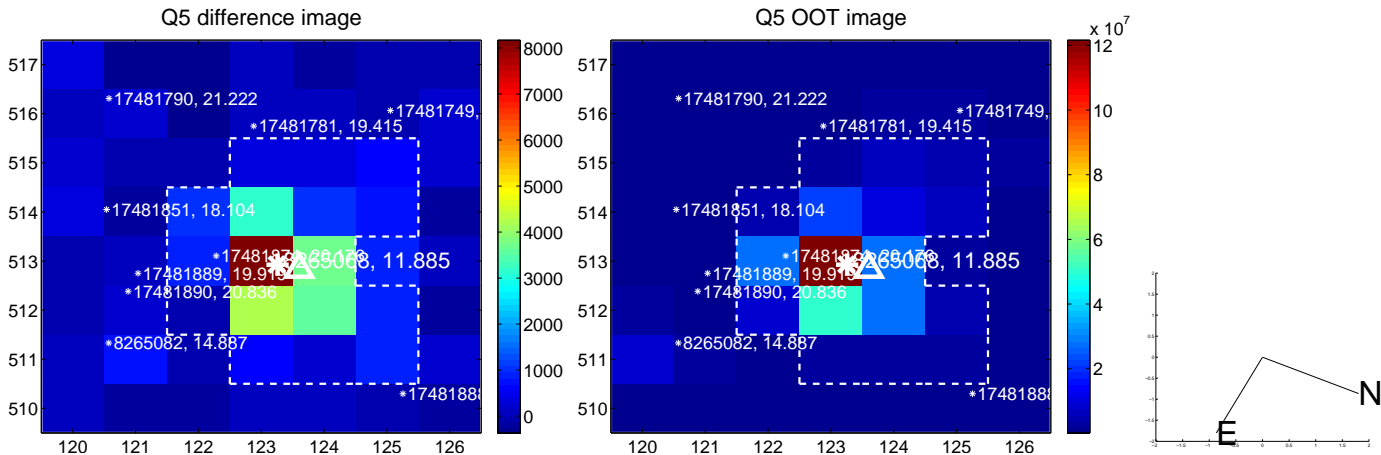


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

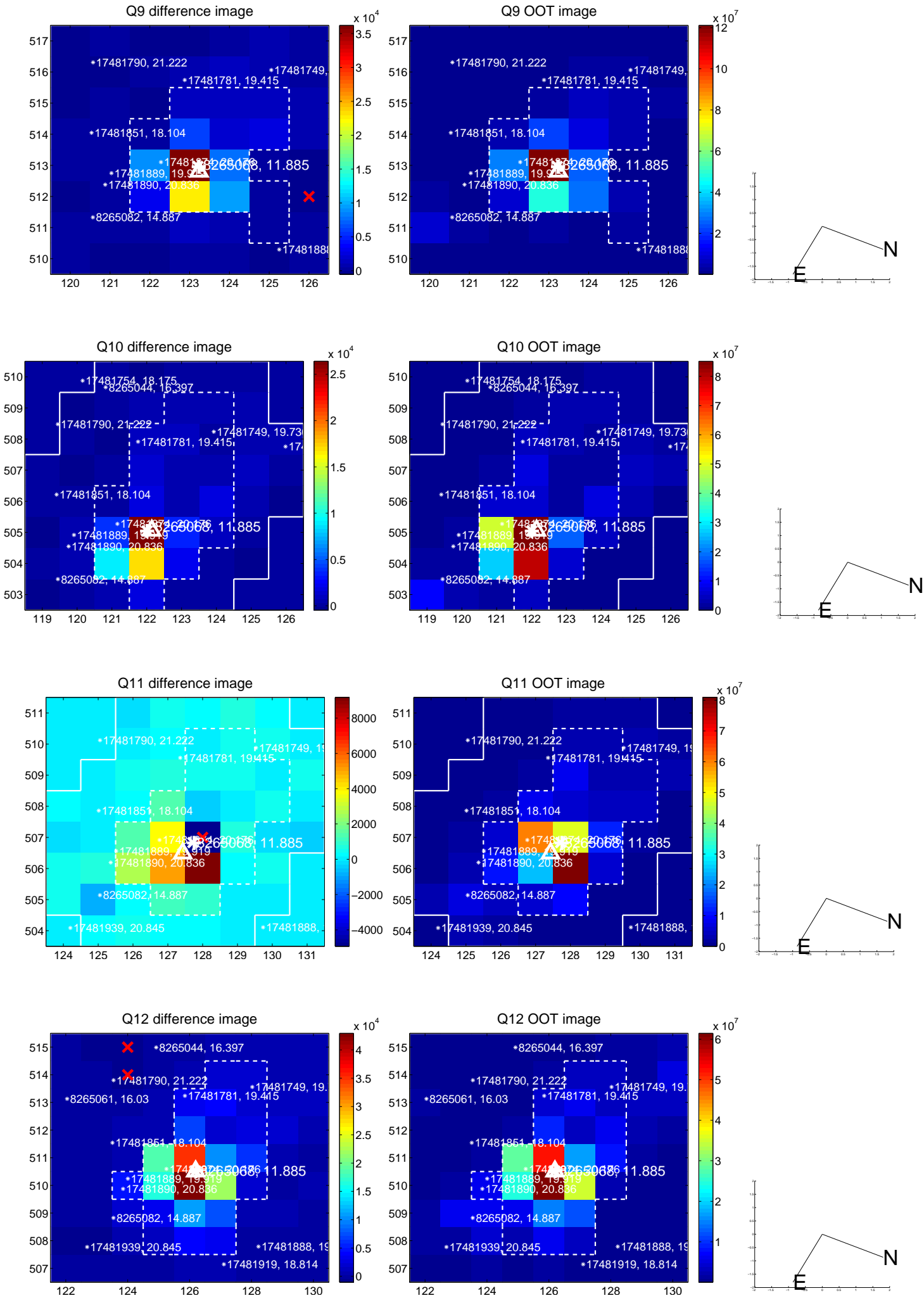
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



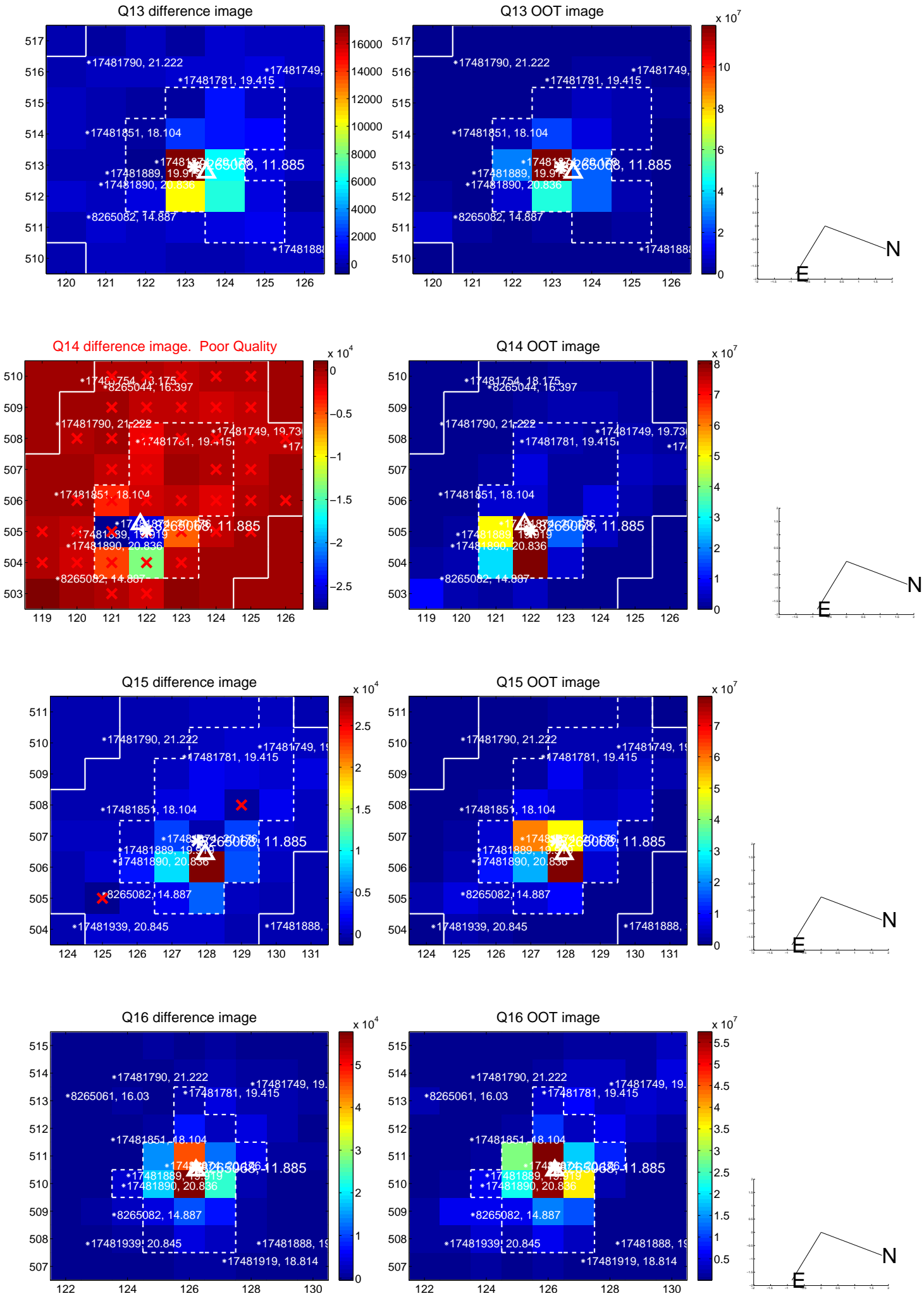
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



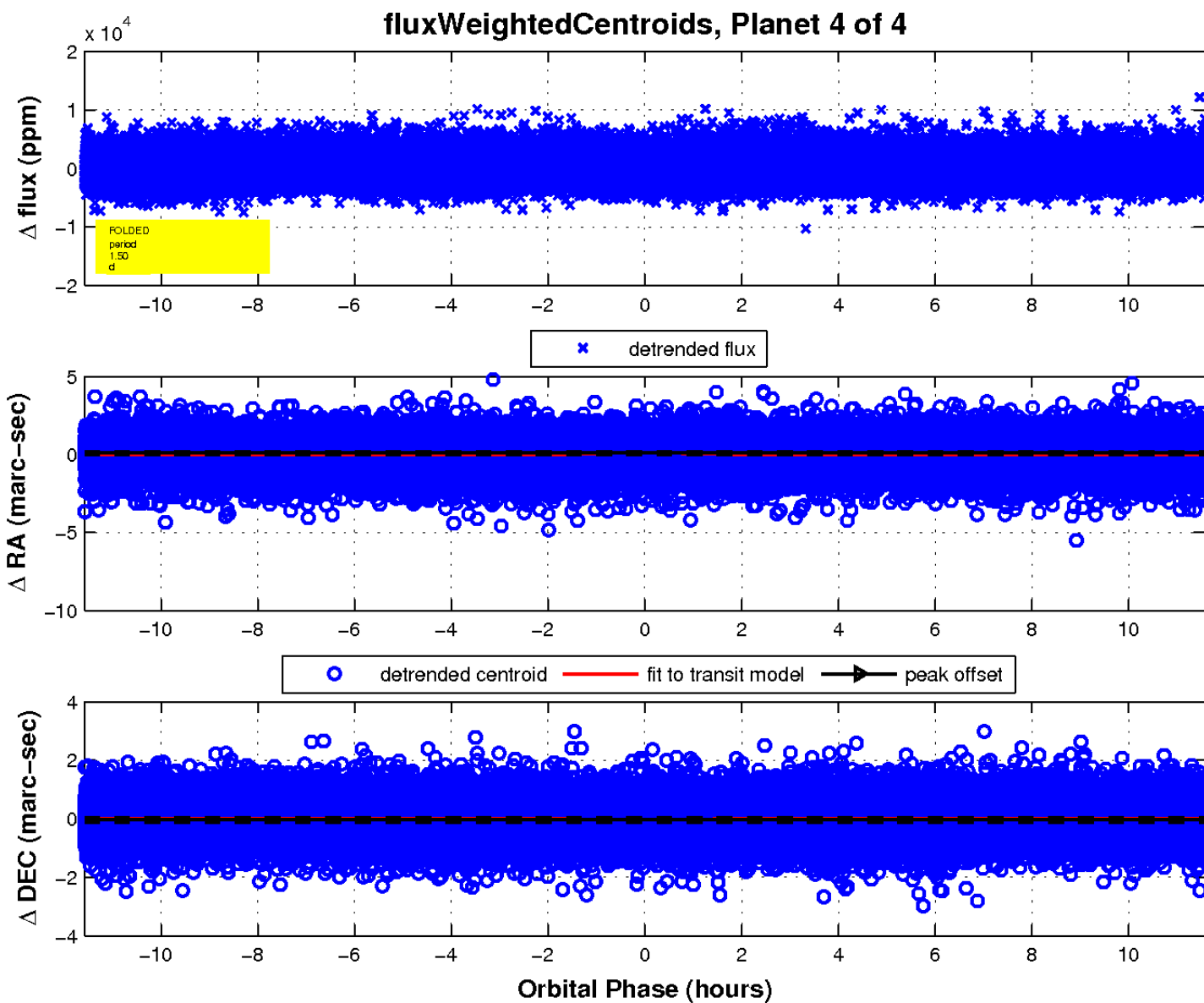
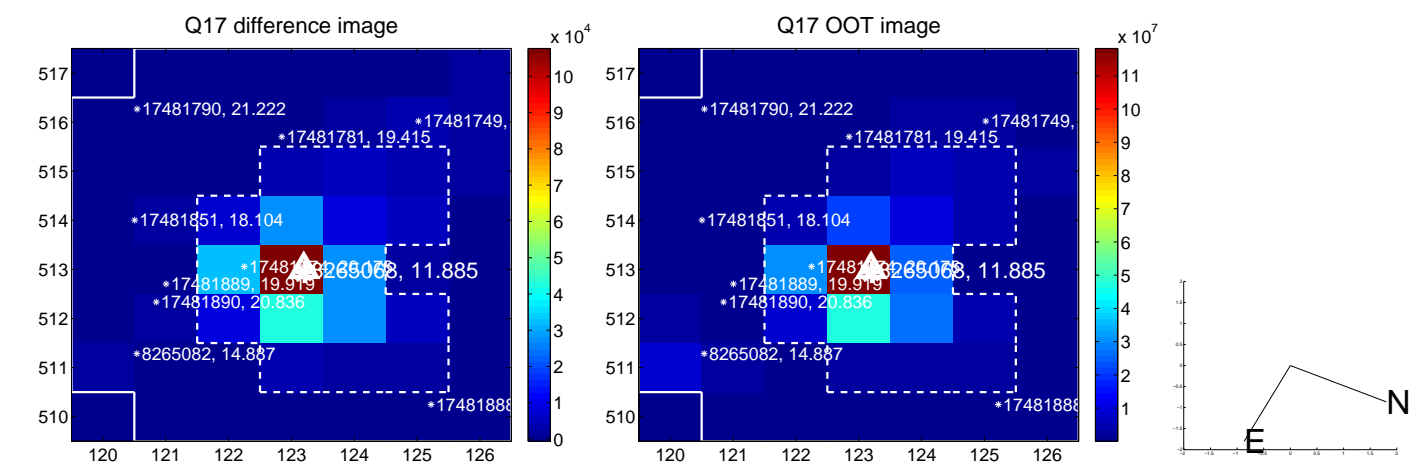
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

Declination

