

KIC 011134079

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})
011134079-01	OBS	7410.01	1.260576	132.056544	147409.1	2.178	6441.8	3520.0	0.71	5388	27.95	936.23
011134079-02	OBS	No	0.630296	132.042244	8882.9	1.500	56.3	-1.0	0.71	5388	6.70	2359.11

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011134079-01	OBS	PC	0.45	0	1	0	0	MOD_SEC_DV—PLANET_OCCULT_DV—MOD_SEC_ALT—HAS_SEC_TCE
011134079-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE—CENT_NOFITS

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

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

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

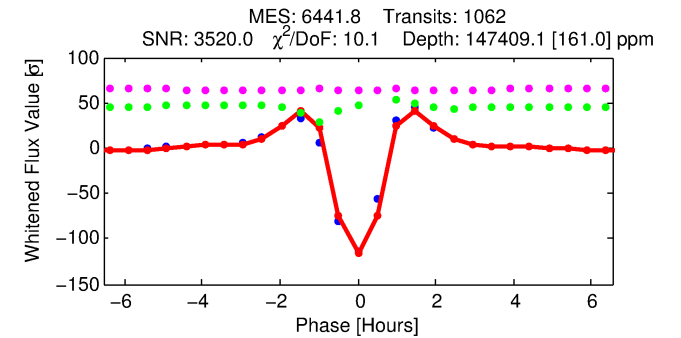
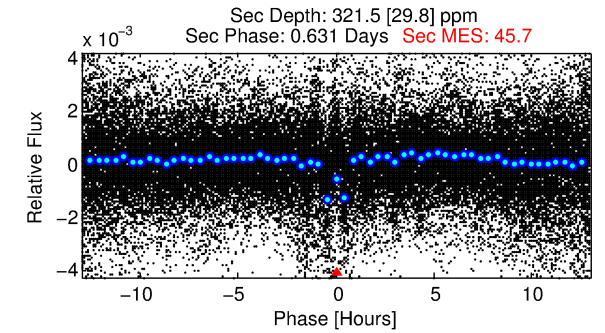
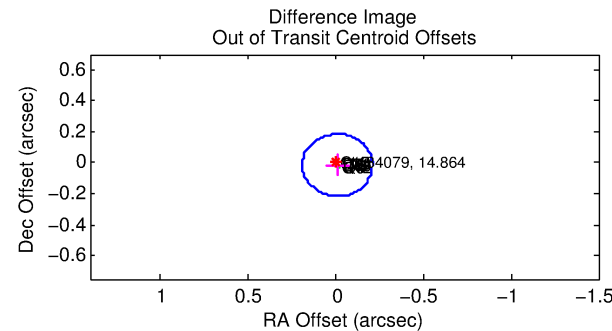
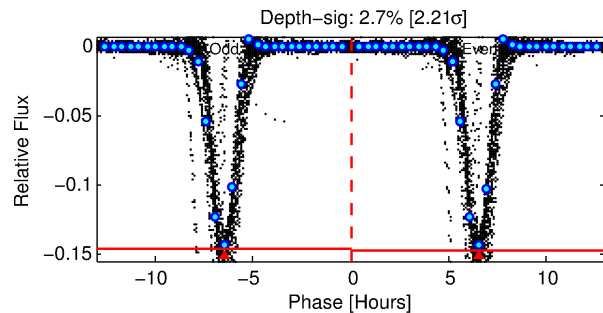
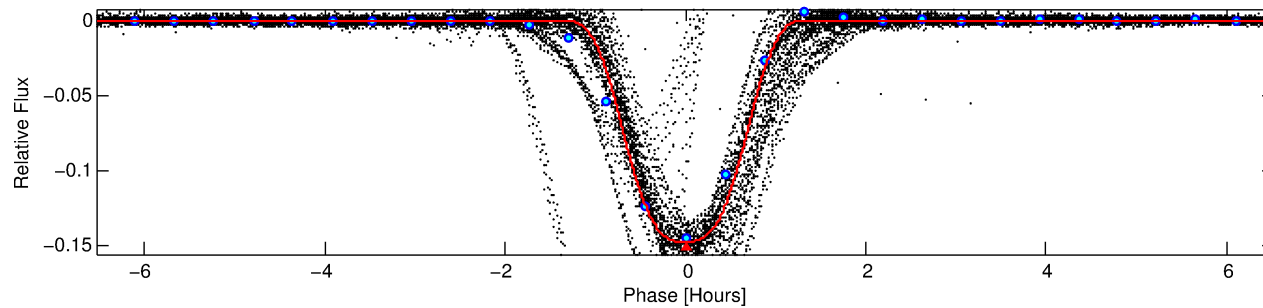
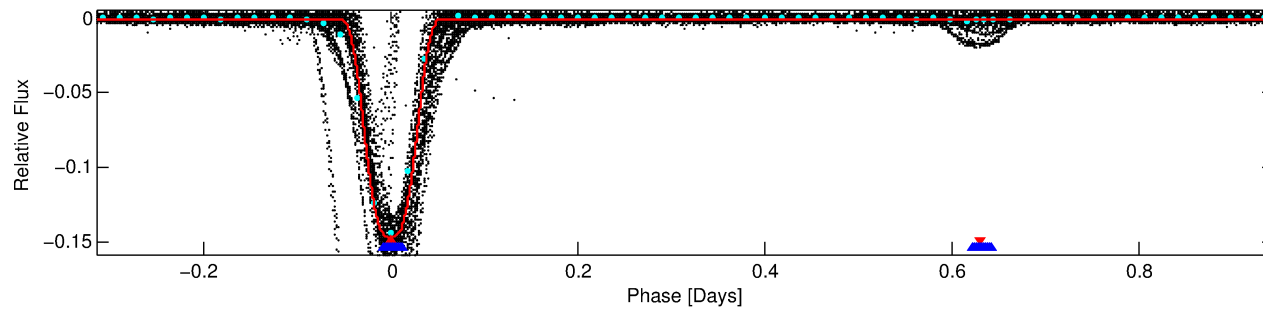
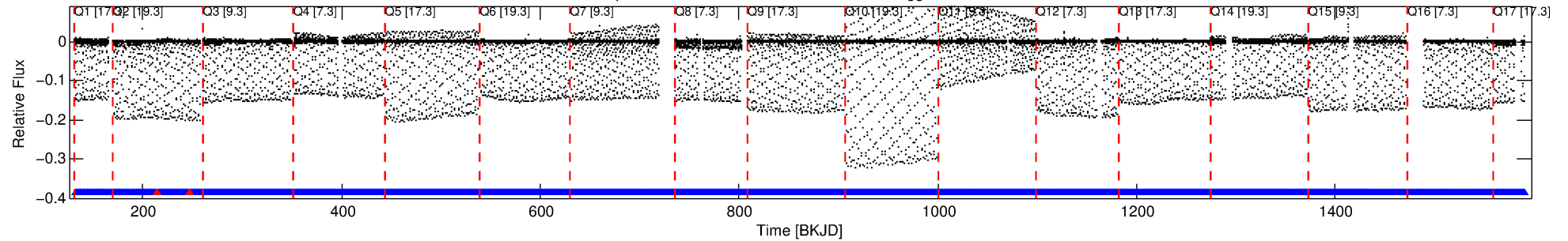
Ephemeris Match Information For 011134079-01

No Significant Match Found

DV One-Page Summary

KIC: 11134079 Candidate: 1 of 2 Period: 1.261 d
KOI: K07410.01 Corr: 0.963

Kp: 14.86 R*: 0.71 Rs Teff: 5388.0 K Logg: 4.58 Fe/H: -0.640



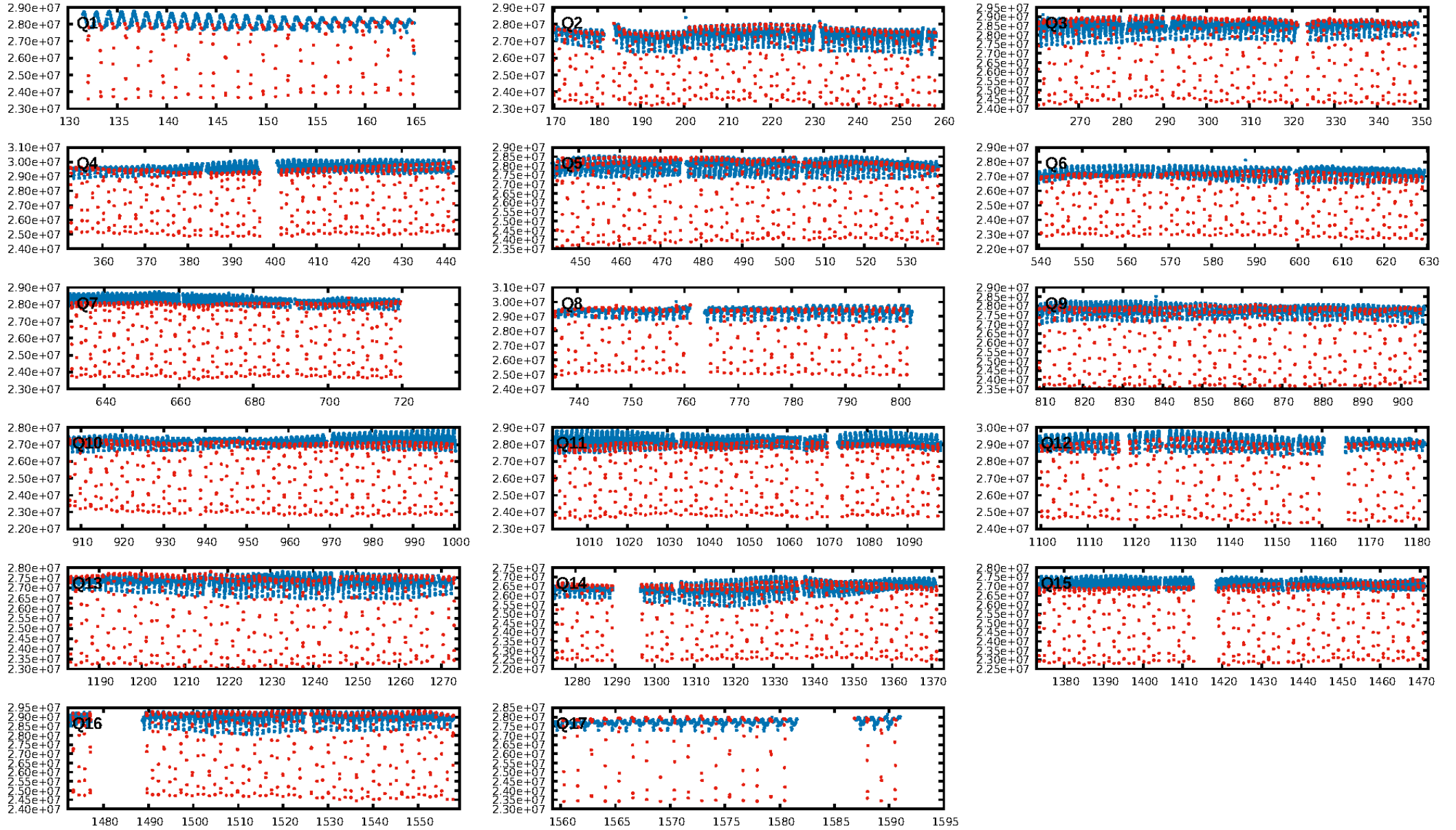
DV Fit Results:

Period = 1.26058 [0.00000] d
Epoch = 132.0565 [0.0000] BKJD
Rp/R* = 0.3582 [0.0004]
a/R* = 5.85 [0.01]
b = 0.36 [0.01]
Seff = 936.23 [169.29]
Teq = 1410 [64] K
Rp = 27.95 [3.52] Re
a = 0.0203 [0.0020] AU
Ag = 0.09 [0.02] [-58.89σ]
Teffp = 1205 [45] K [-2.62σ]

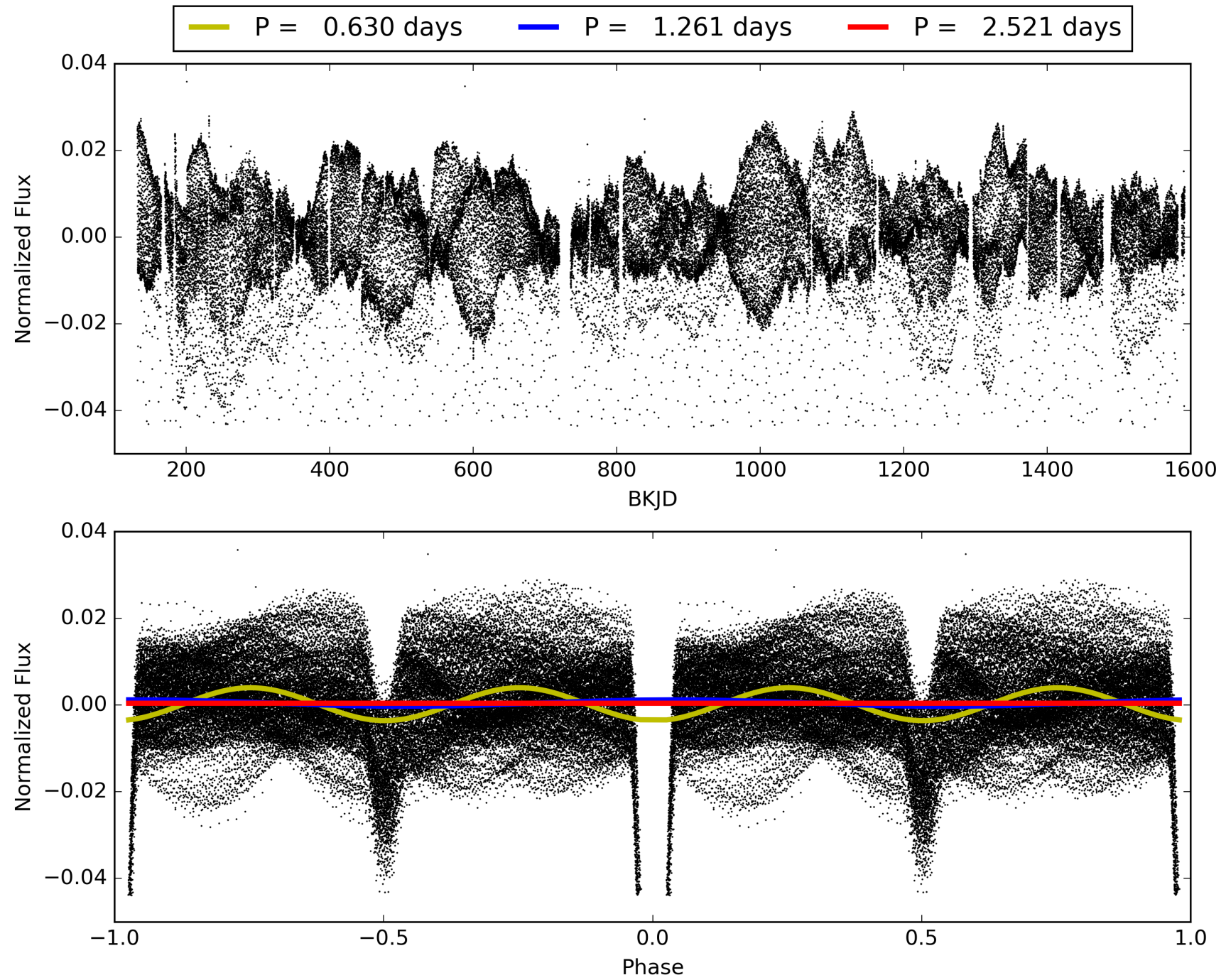
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [5.72σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [1013/1015]
GhostDiagnostic-chr: 1.471
Centroid-sig: N/A
Centroid-so: 0.232 arcsec [256.68σ]
OotOffset-rm: 0.019 arcsec [0.28σ]
KicOffset-rm: 0.131 arcsec [1.80σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 1.00 [17/17]
DiffImageOverlap-fno: 0.00 [0/17]

TCE 011134079-01, PDC Light Curves

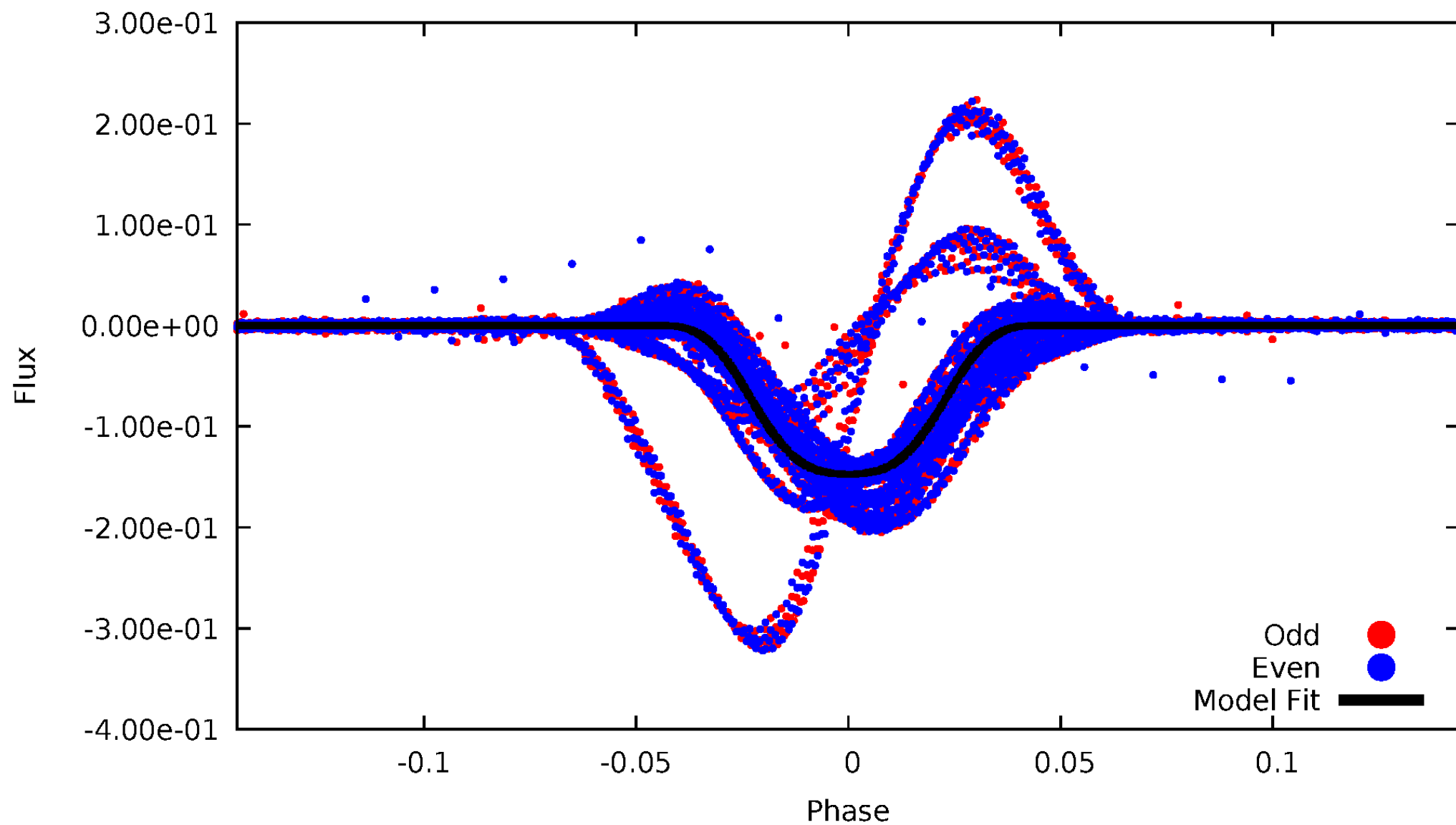


TCE 011134079-01



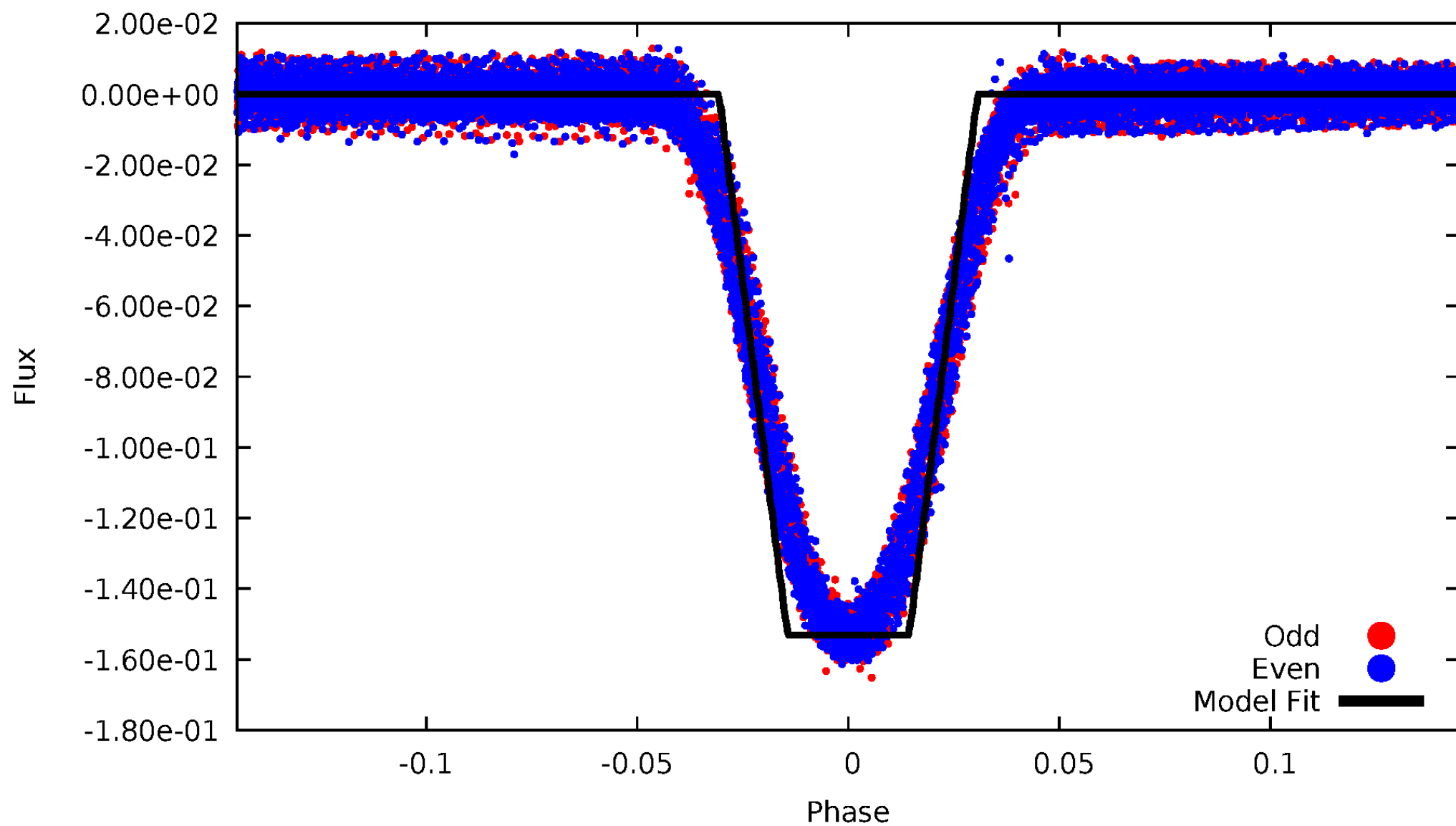
DV Odd/Even

TCE 011134079-01



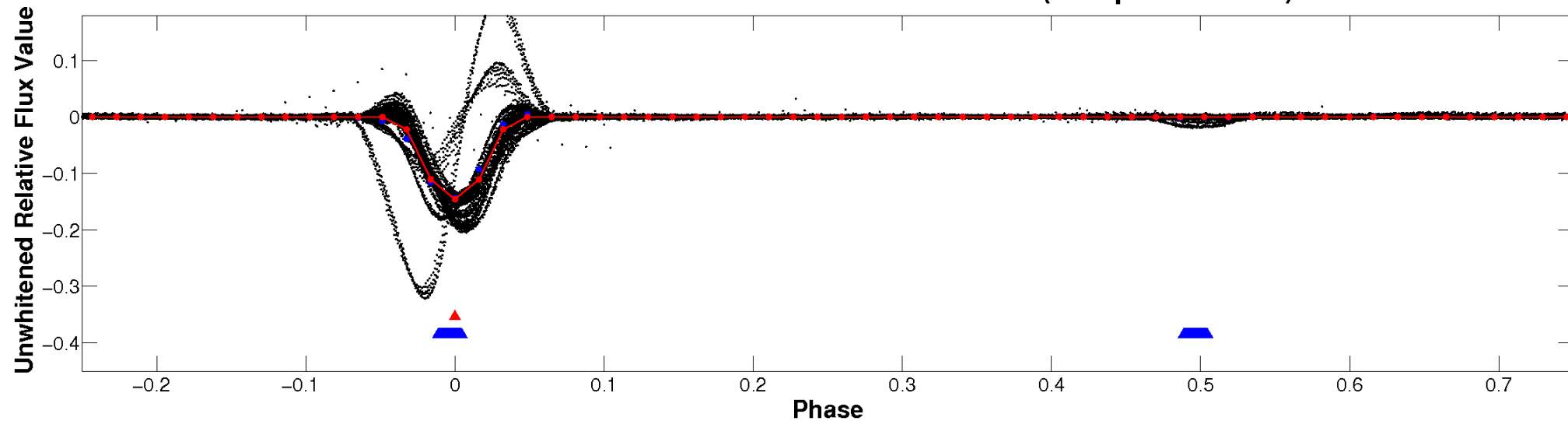
ALT Odd/Even

TCE 011134079-01

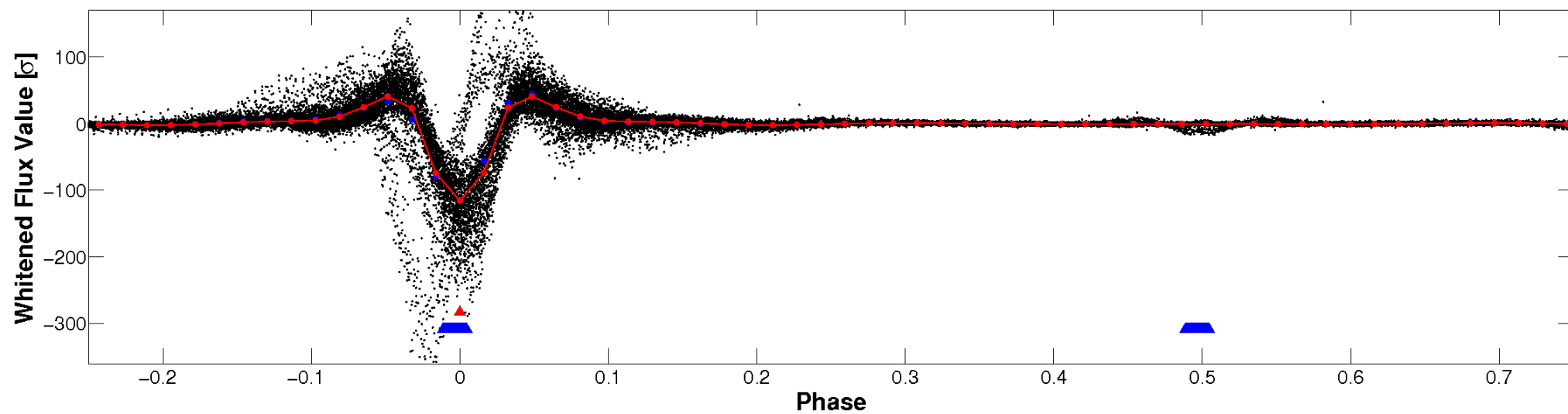


Non-Whitened Vs. Whitened Light Curve

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

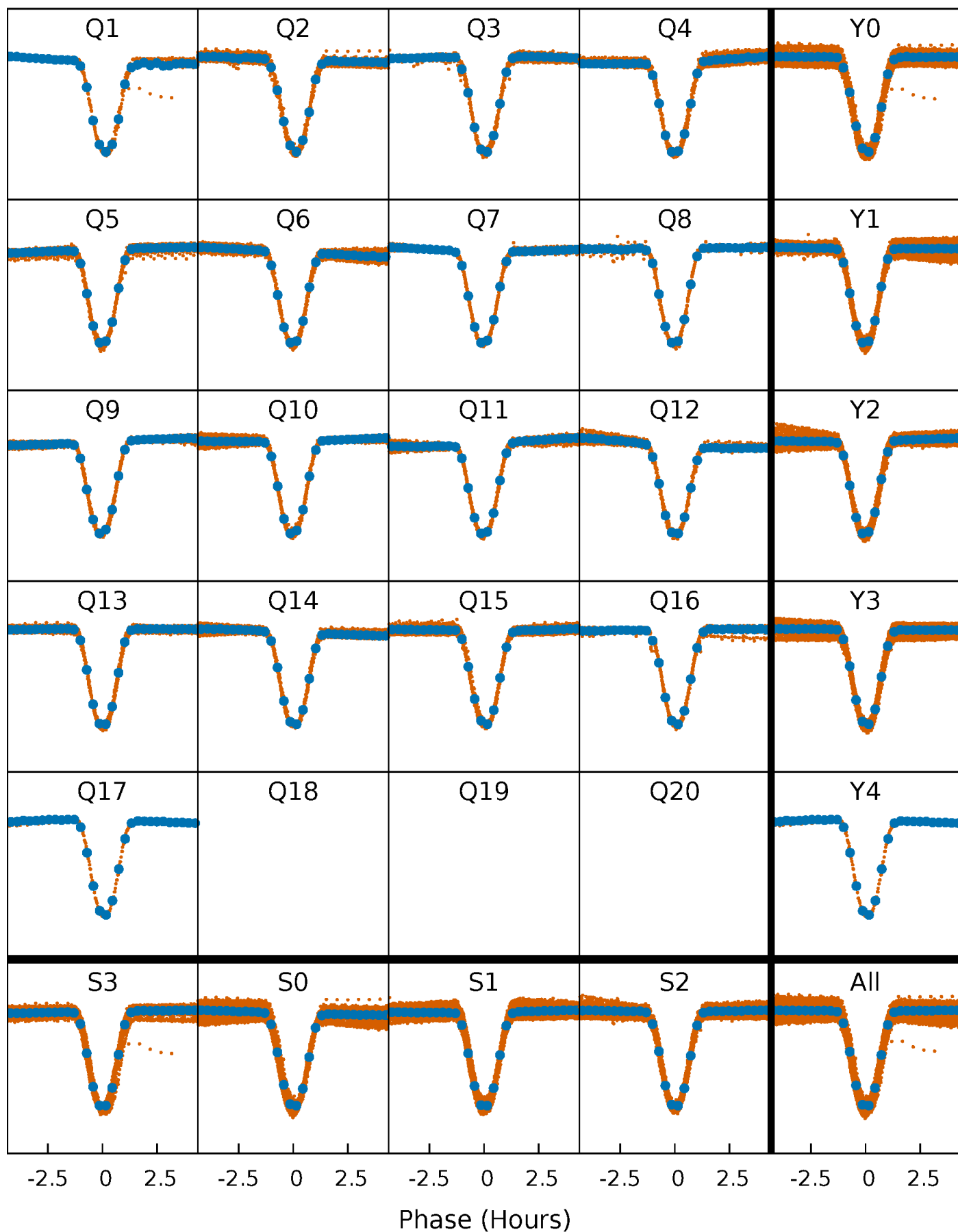


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



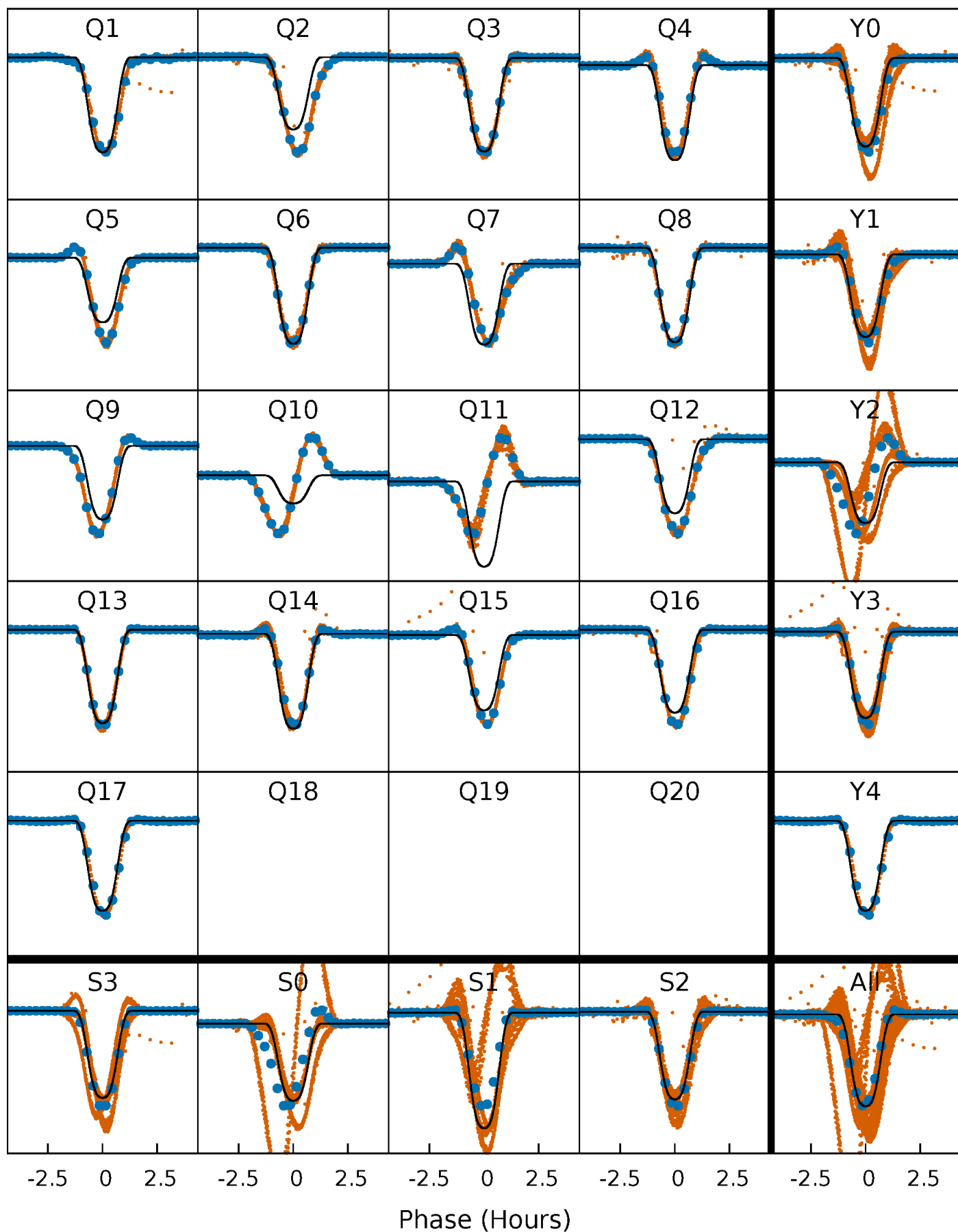
PDC Quarter-Phased Transit Curves

TCE 011134079-01 P= 1.260576 Days $T_0=132.056544$ (BKJD)



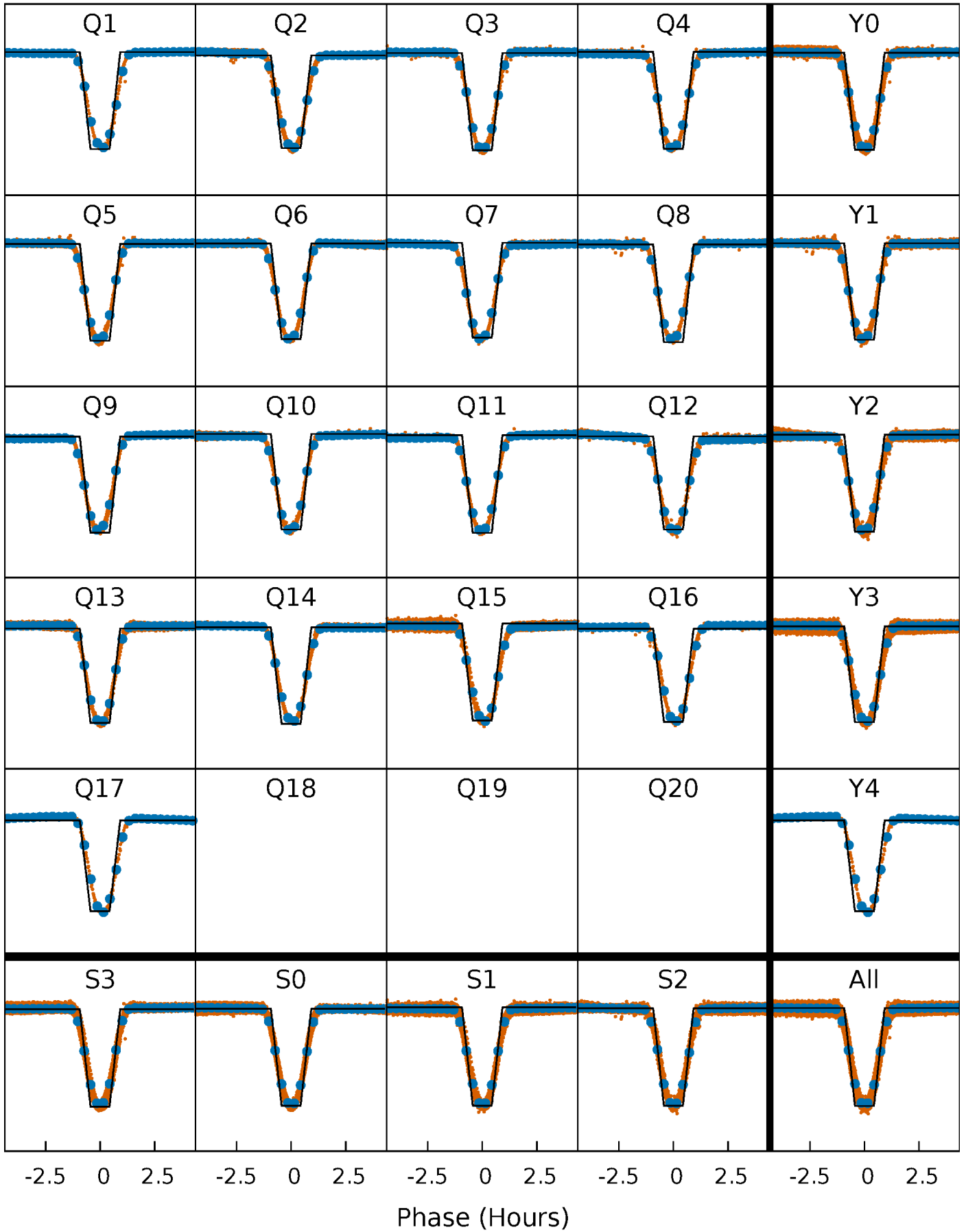
DV Quarter-Phased Transit Curves

TCE 011134079-01 P= 1.260576 Days $T_0=132.056544$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

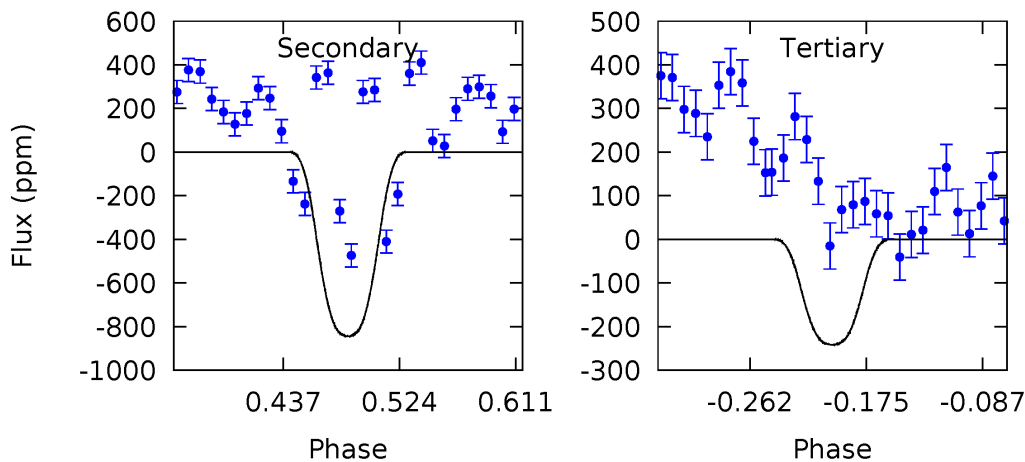
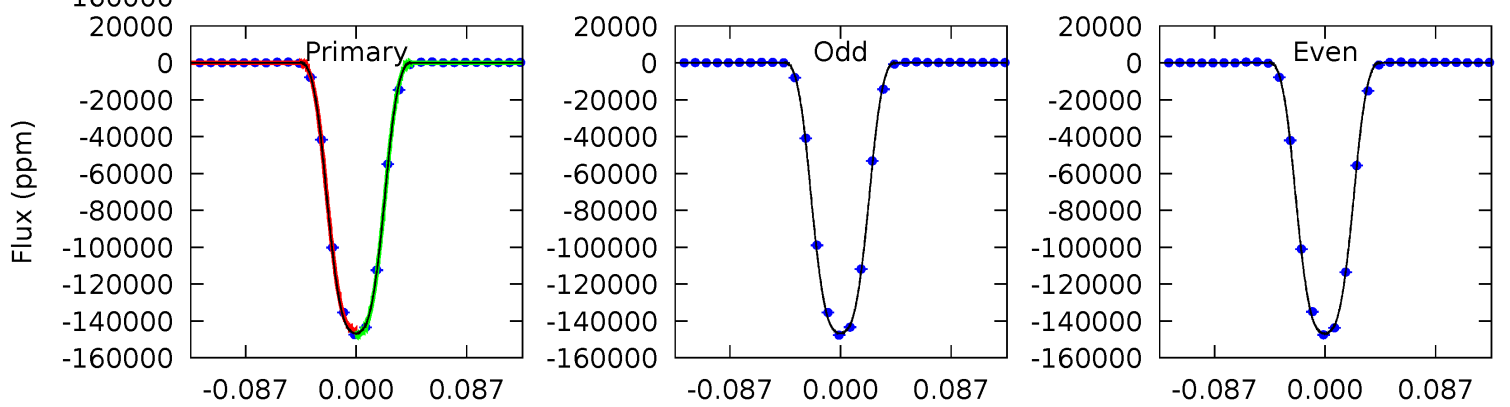
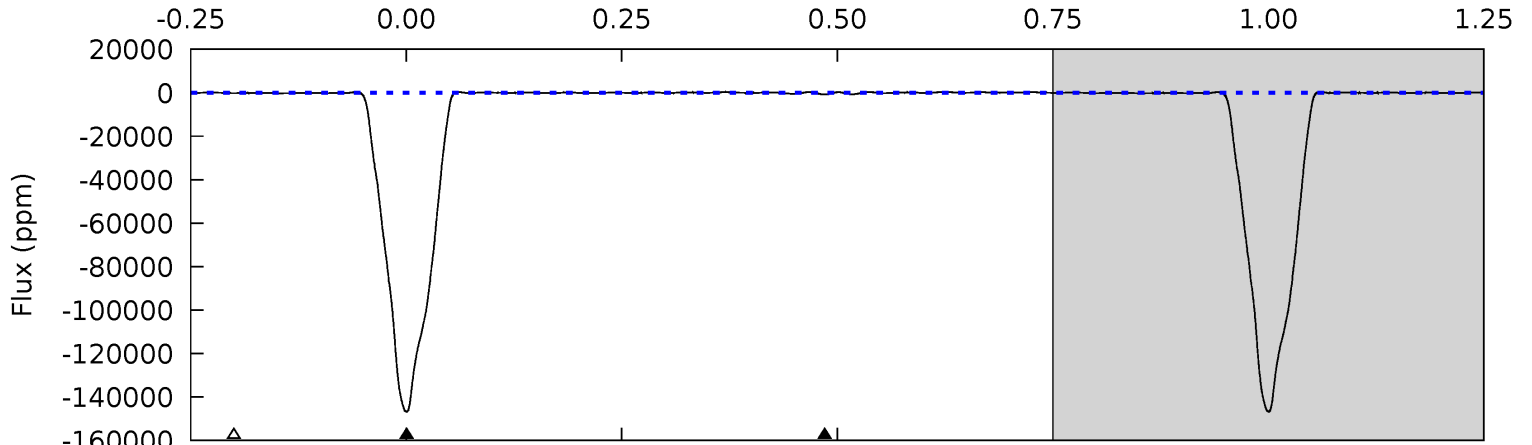
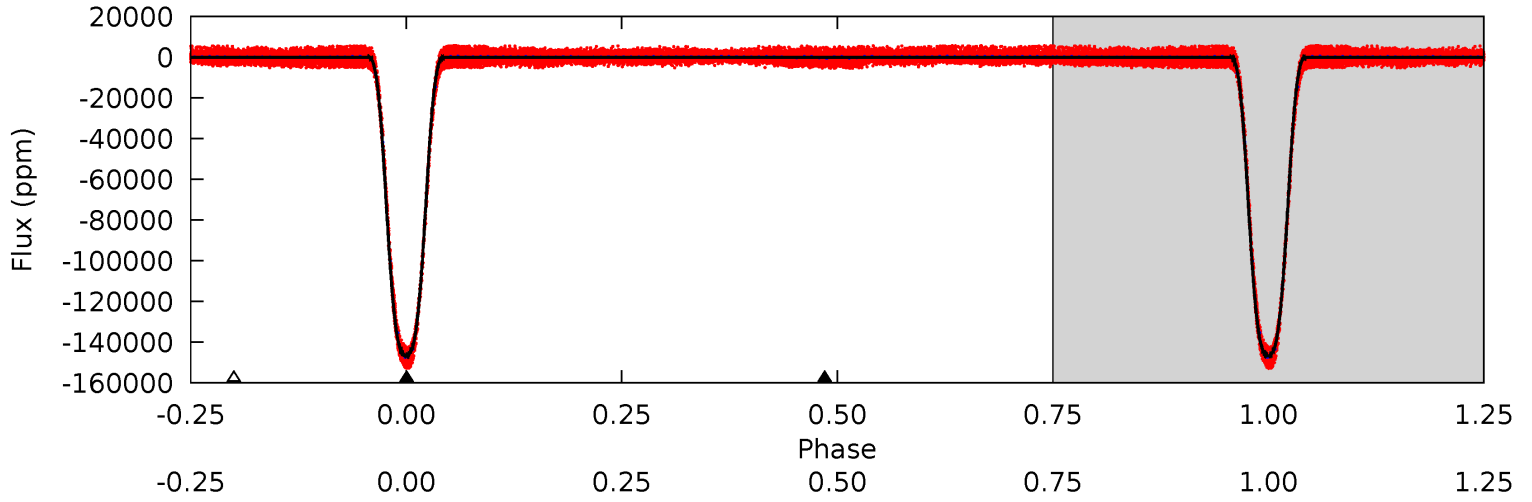
TCE 011134079-01 P= 1.260573 Days $T_0=132.058324$ (BKJD)



DV Model-Shift Uniqueness Test

011134079-01, P = 1.260576 Days, E = 130.795968 Days

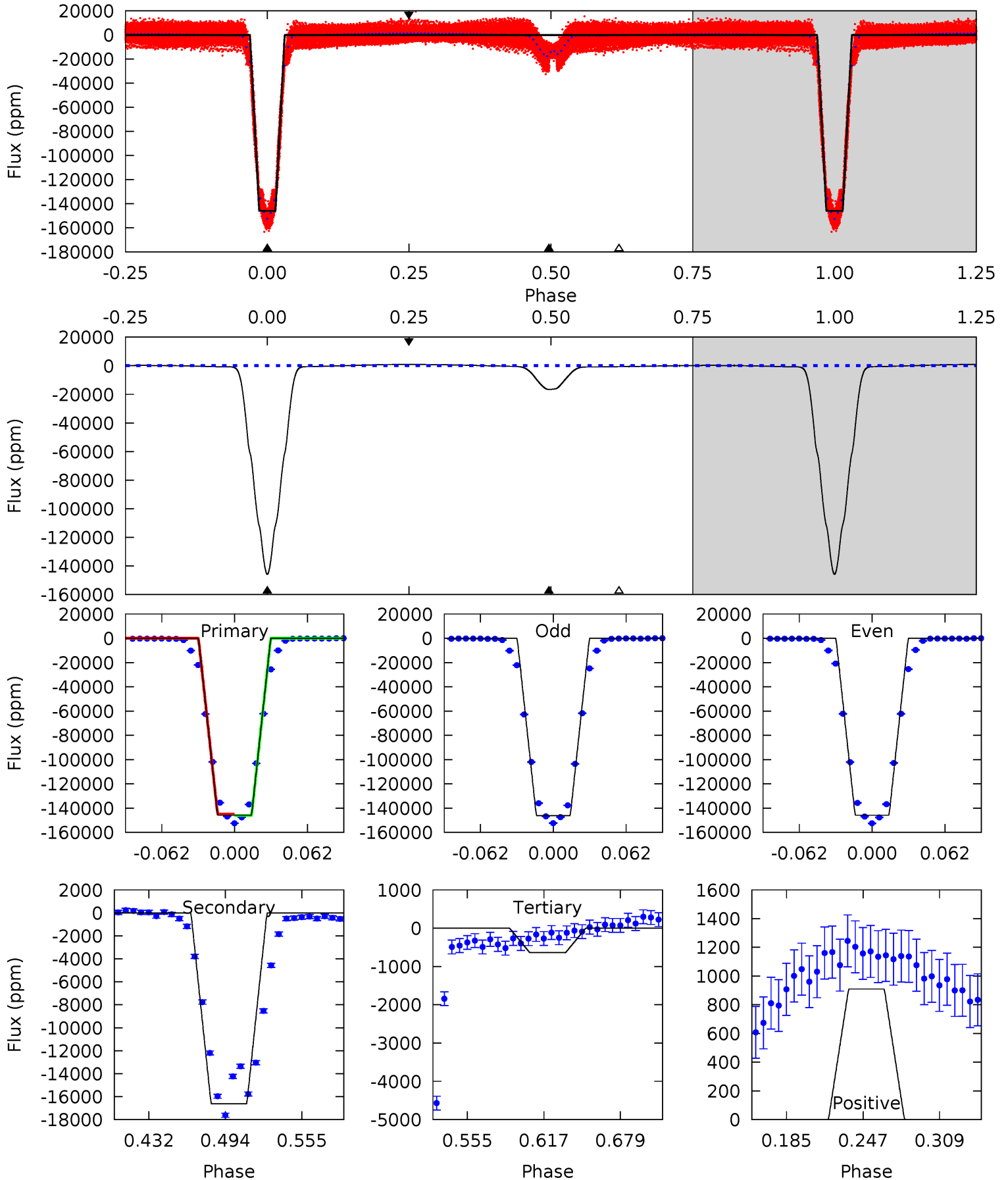
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4239	24.4	6.98	0	4.59	1.71	3.94	4232	4239	17.4	24.4	1.15	0.97	0.00	0



Alt Model-Shift Uniqueness Test

011134079-01, P = 1.260573 Days, E = 130.797751 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2091	238.4	9.17	13.0	4.67	1.87	7.41	2082	2078	229.2	225.3	2.30	1.00	0.01	8.76



Stellar Parameters For KIC 011134079

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5388^{+160}_{-144}	$4.576^{+0.070}_{-0.070}$	$-0.640^{+0.350}_{-0.300}$	$0.715^{+0.090}_{-0.065}$	$0.701^{+0.084}_{-0.039}$	$2.705^{+0.850}_{-0.645}$
	+3%/-3%	+2%/-2%	+55%/-47%	+13%/-9%	+12%/-6%	+31%/-24%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 011134079-01 / KOI 7410.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-844 ± 35	$28.00^{+1.82}_{-1.46}$	1972^{+81}_{-77}	-2038^{+156}_{-120}	$0.247^{+0.025}_{-0.027}$
Alt.	-16628 ± 70	$30.45^{+2.13}_{-1.46}$	1967^{+81}_{-73}	3507^{+78}_{-67}	$4.151^{+0.409}_{-0.439}$

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 $A_{obs} \gg 1.0$

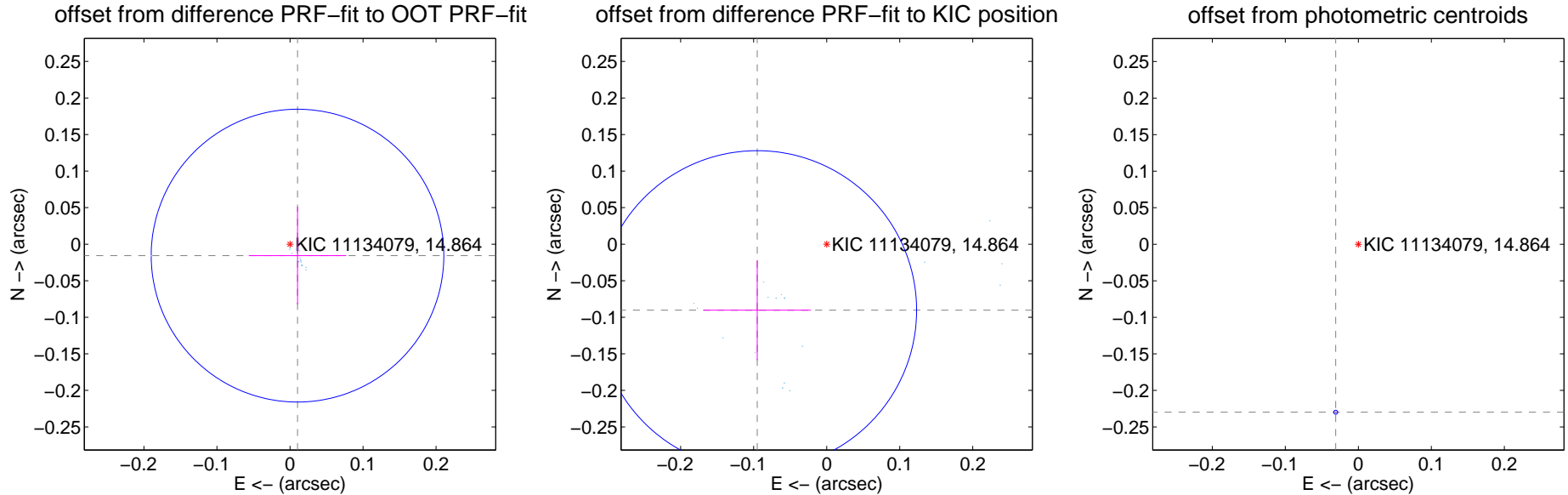
DV Centroid Data

Supplemental centroid analysis for 011134079-01. Kepler magnitude: 14.86. Transit SNR 3520.04

There are 17 quarters with good PRF difference image offsets

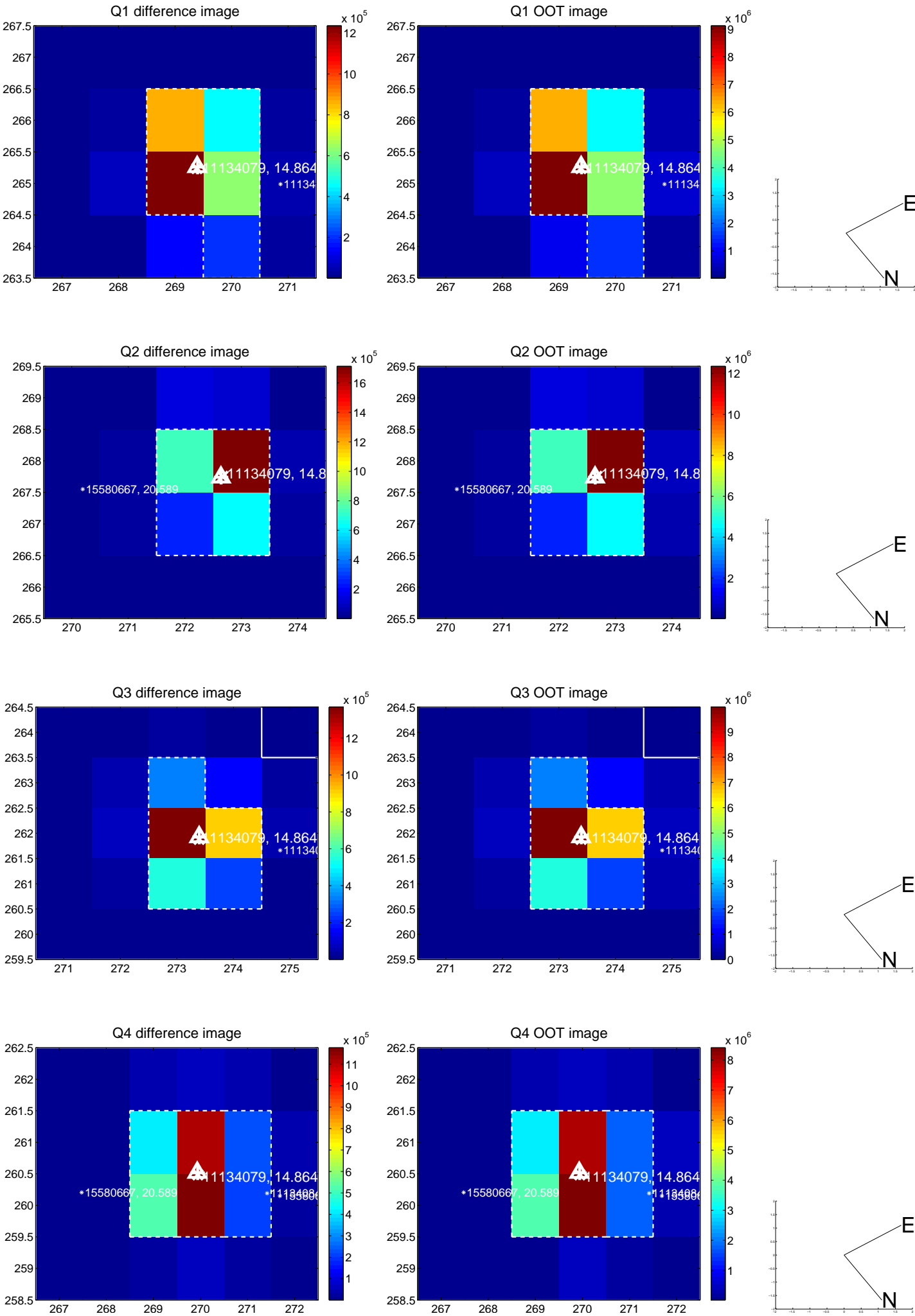
The direct PRF centroid is offset from the target star catalog position by about 0.09 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.019 ± 0.067	0.28	-0.010 ± 0.067	-0.016 ± 0.067
PRF-fit source offset from KIC position	0.131 ± 0.073	1.80	0.095 ± 0.073	-0.090 ± 0.068
photometric centroid source offset	0.23 ± 0.00	256.68	0.03 ± 0.00	-0.23 ± 0.00

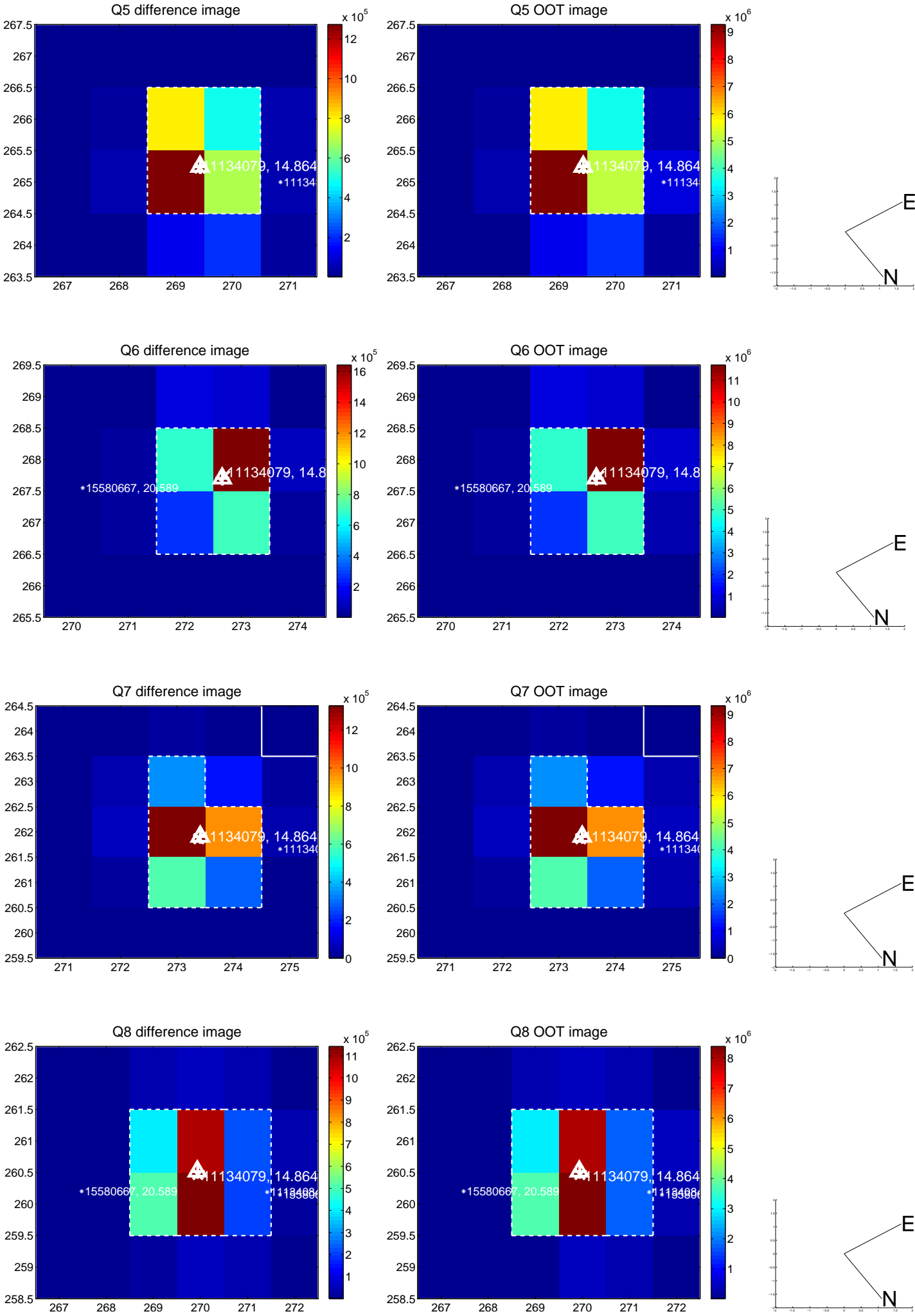


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

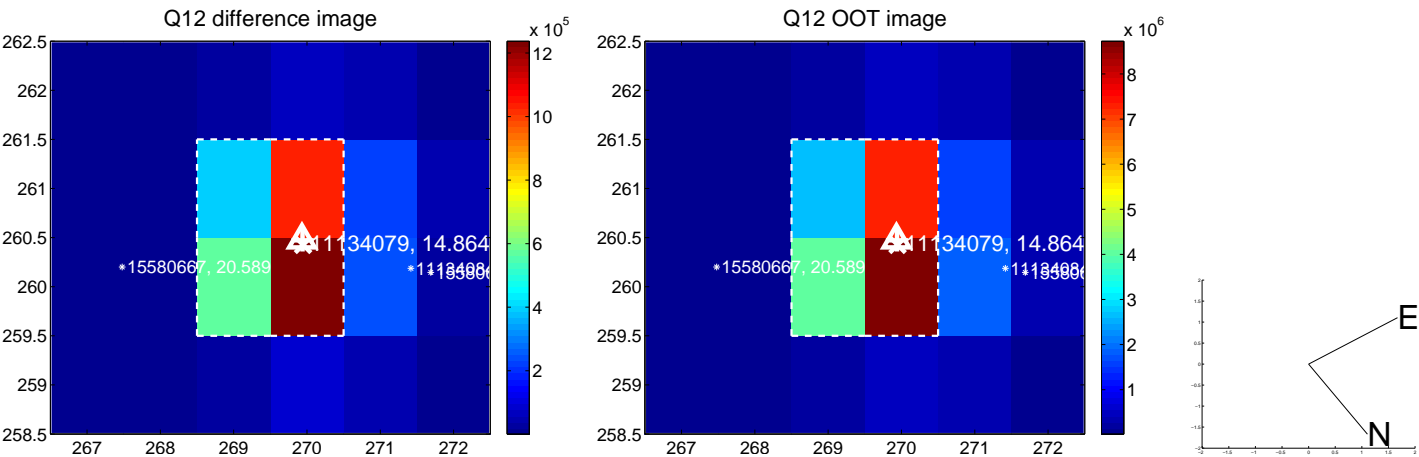
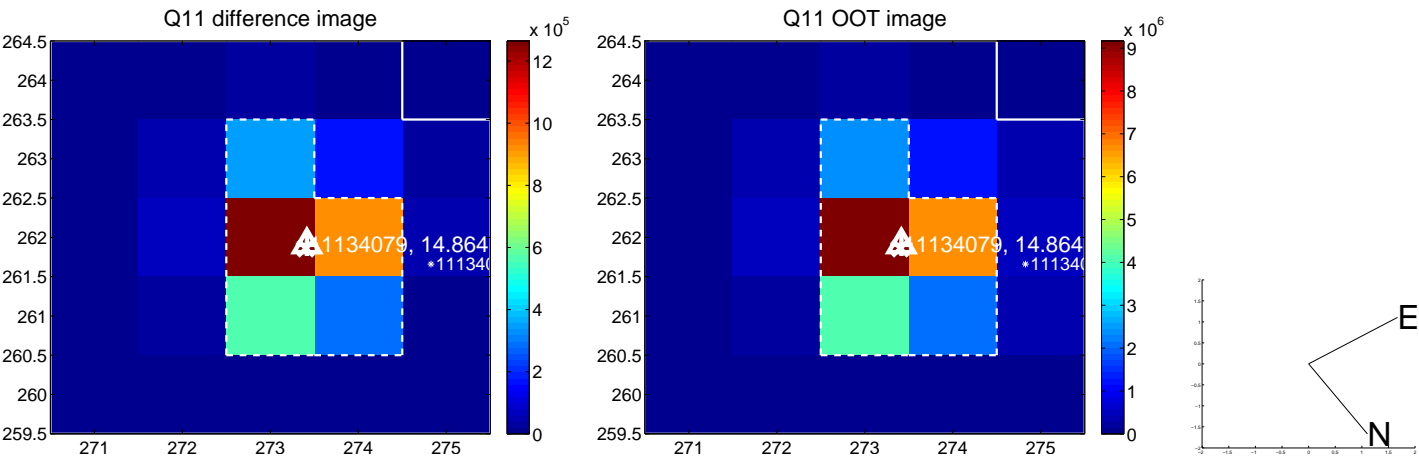
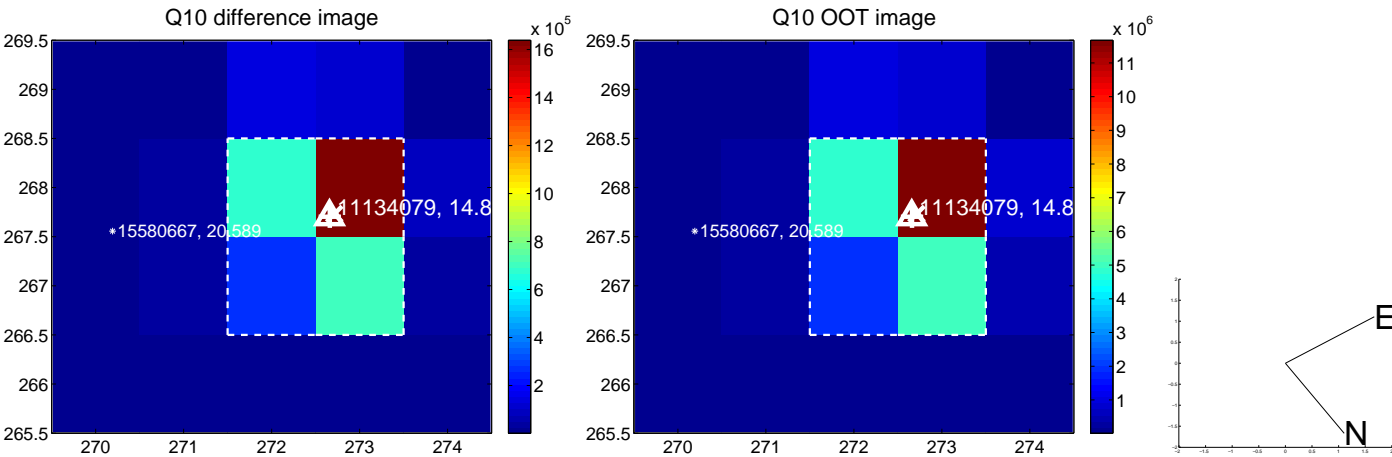
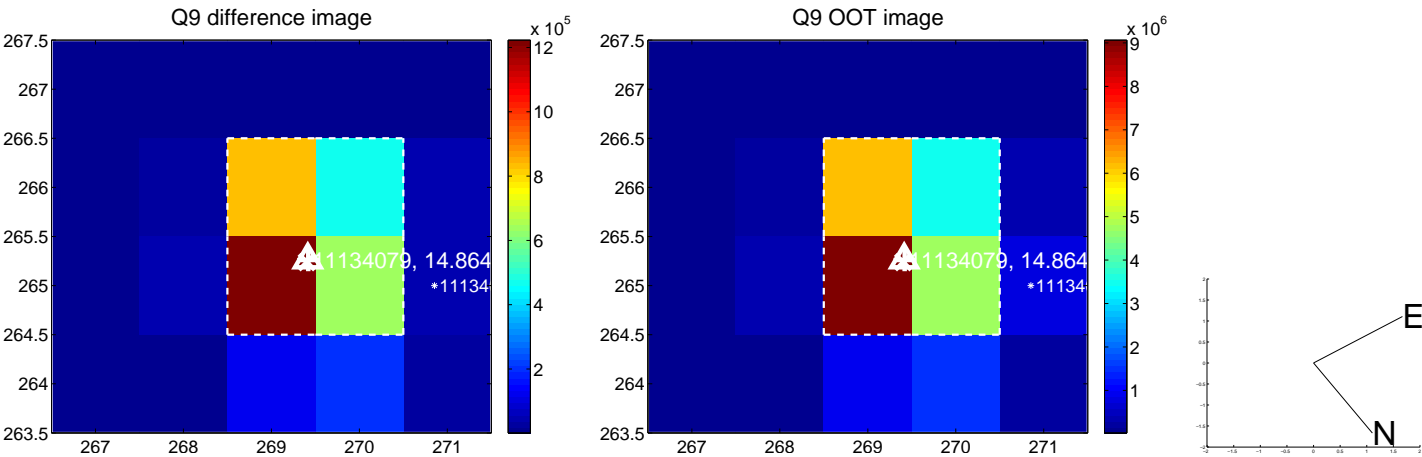
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



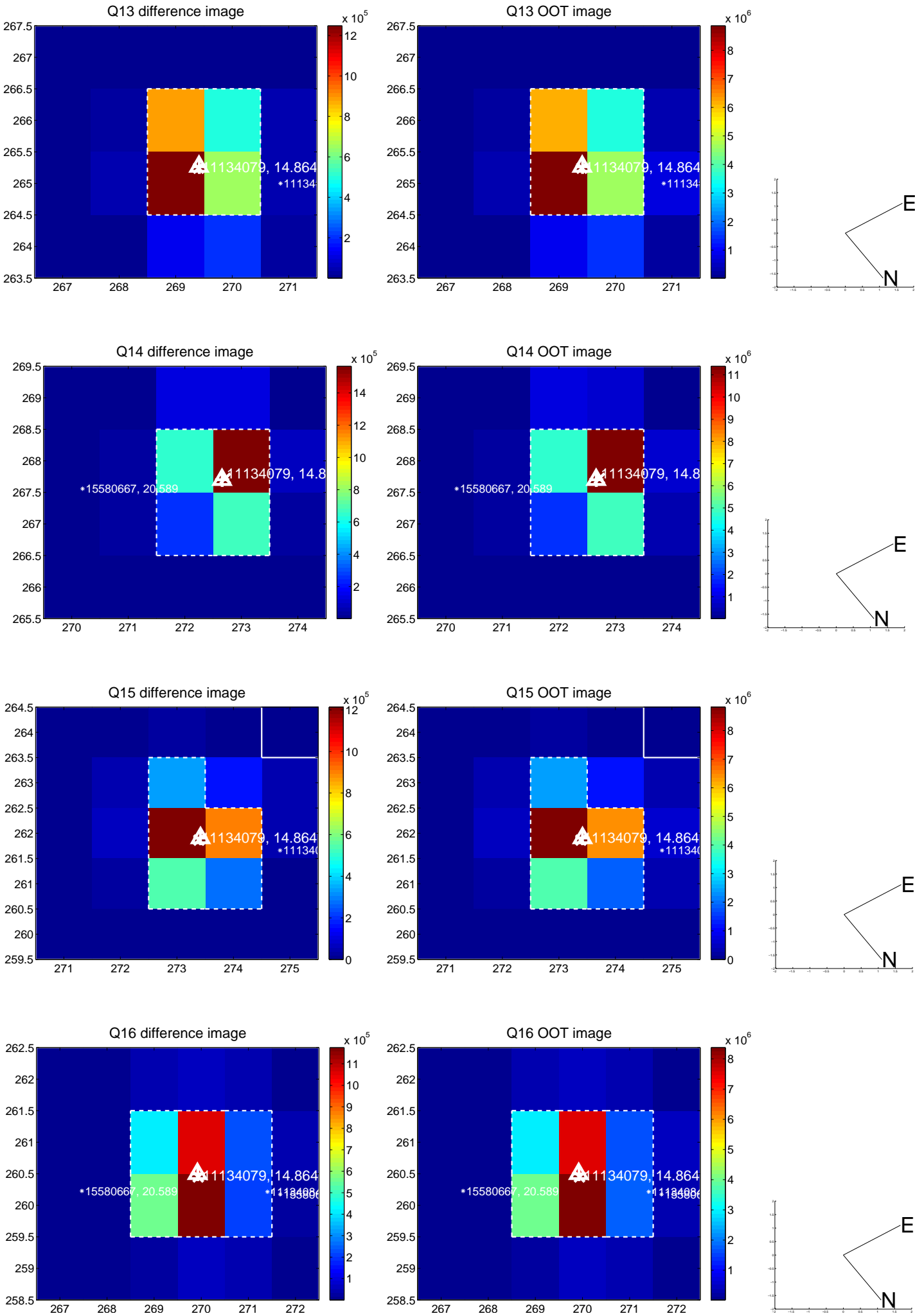
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



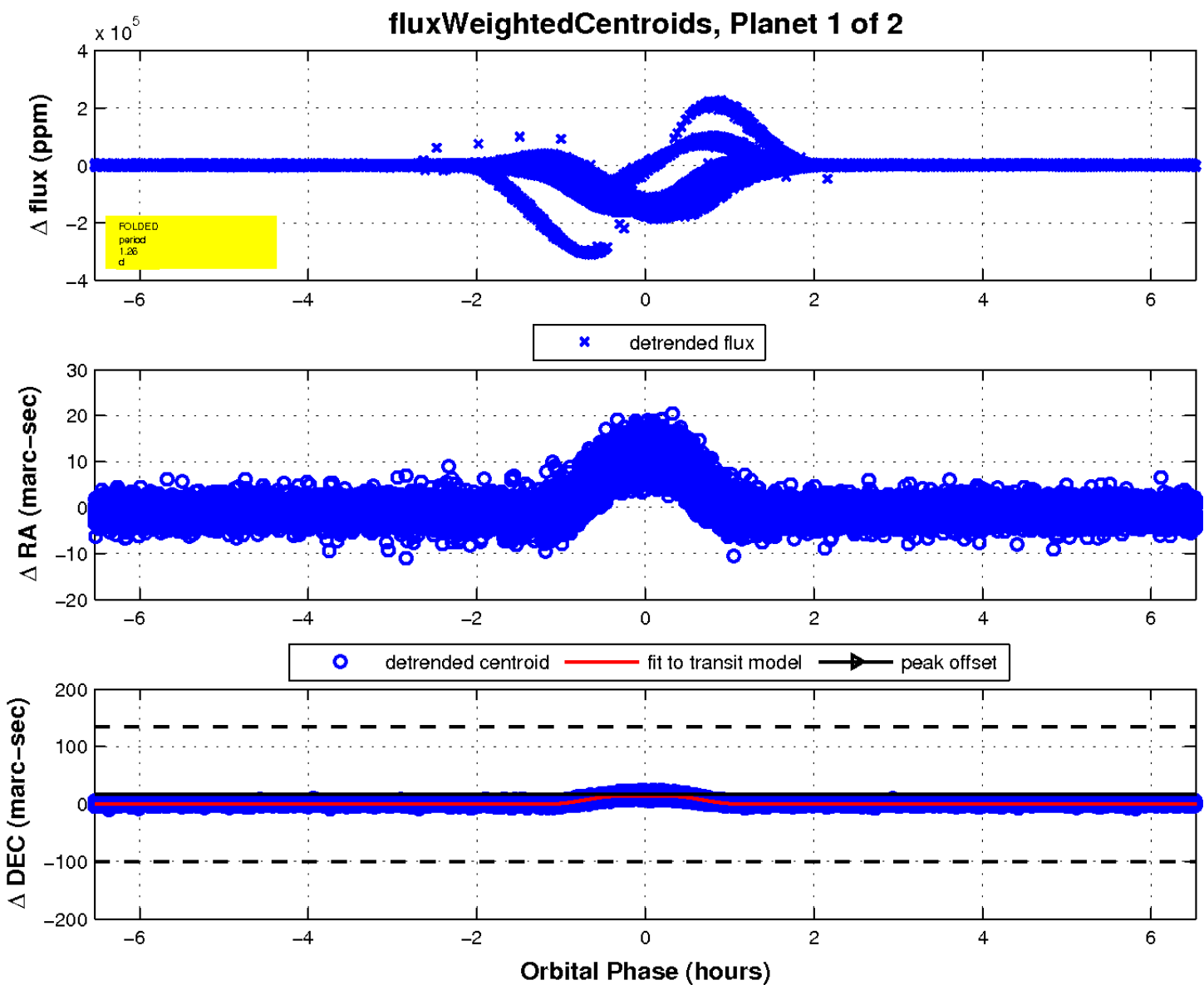
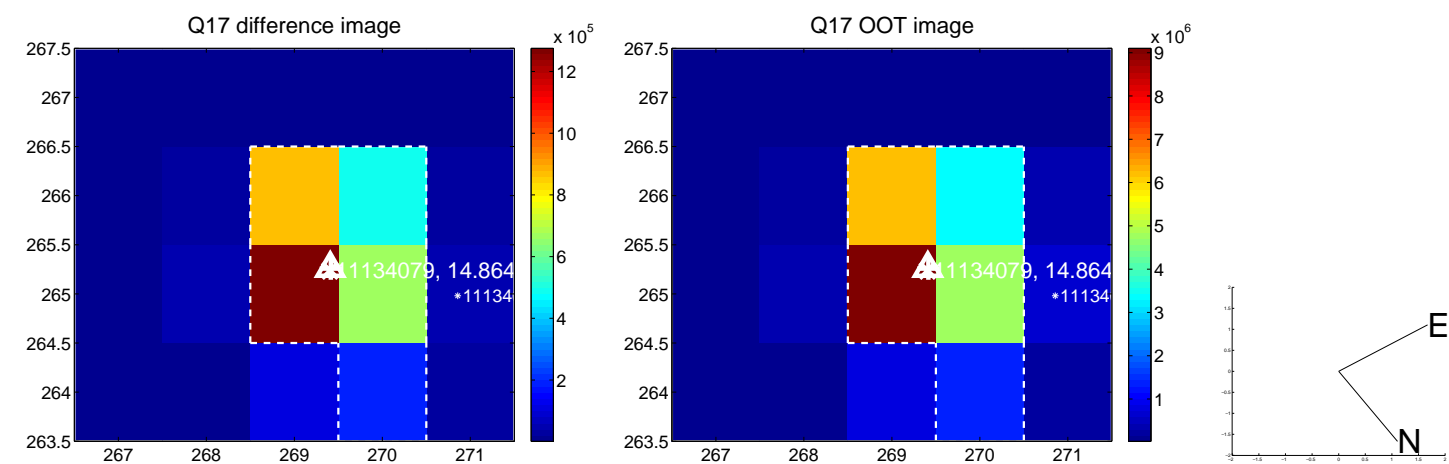
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

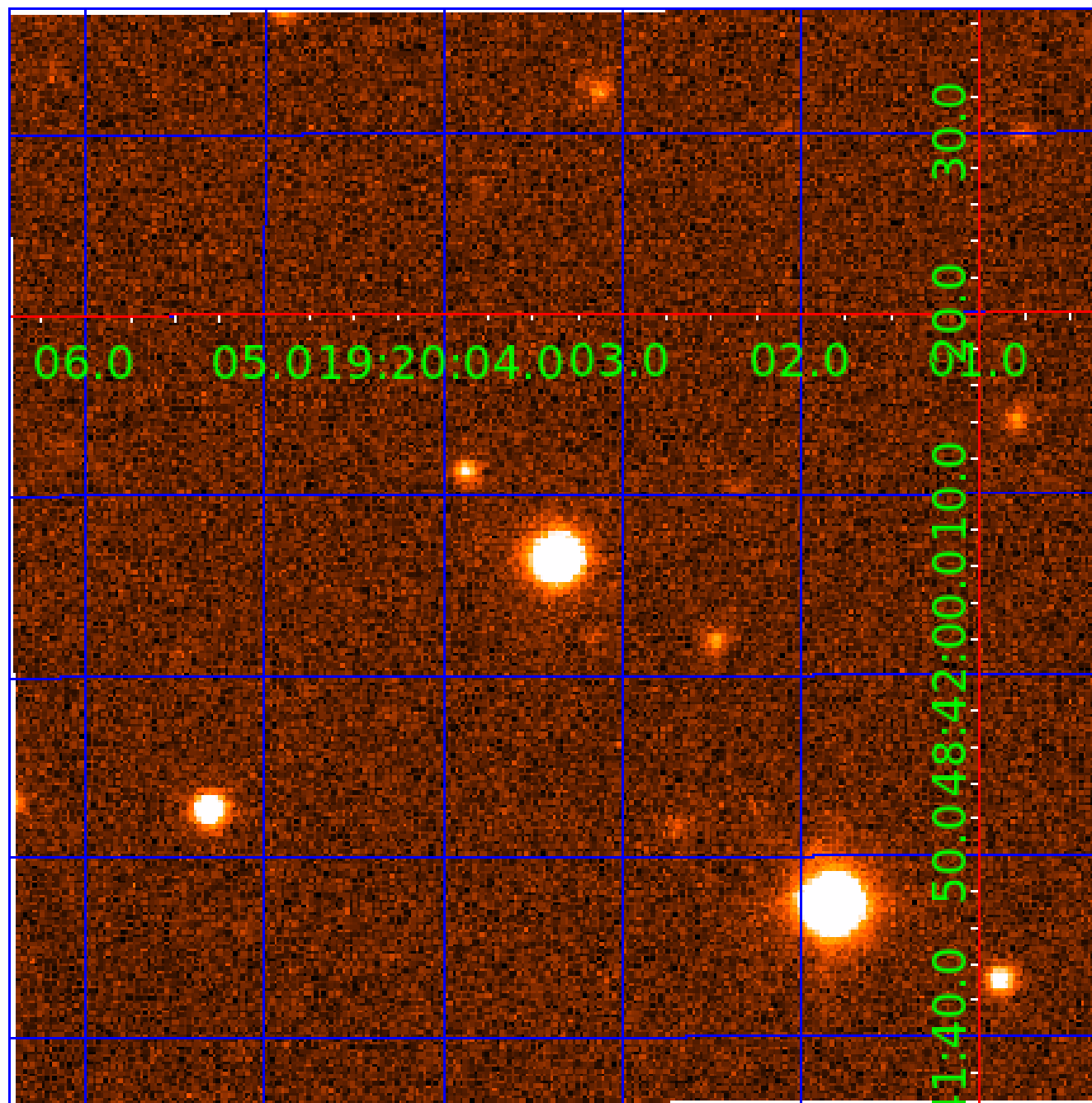


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 011134079

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})
011134079-01	OBS	7410.01	1.260576	132.056544	147409.1	2.178	6441.8	3520.0	0.71	5388	27.95	936.23
011134079-02	OBS	No	0.630296	132.042244	8882.9	1.500	56.3	-1.0	0.71	5388	6.70	2359.11

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011134079-01	OBS	PC	0.45	0	1	0	0	MOD_SEC_DV—PLANET_OCCULT_DV—MOD_SEC_ALT—HAS_SEC_TCE
011134079-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE—CENT_NOFITS

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

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

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

Ephemeris Match Information For 011134079-02

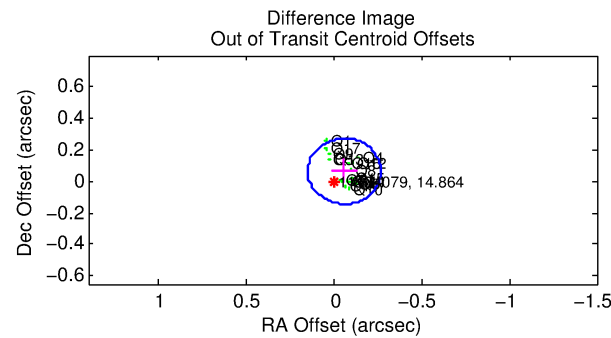
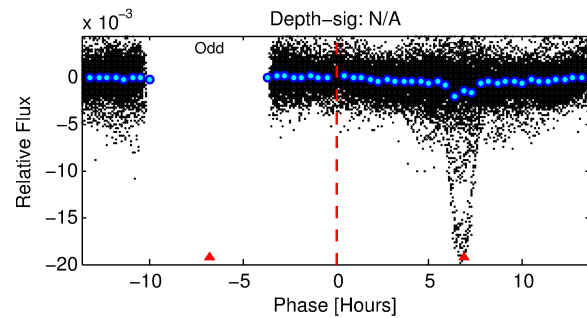
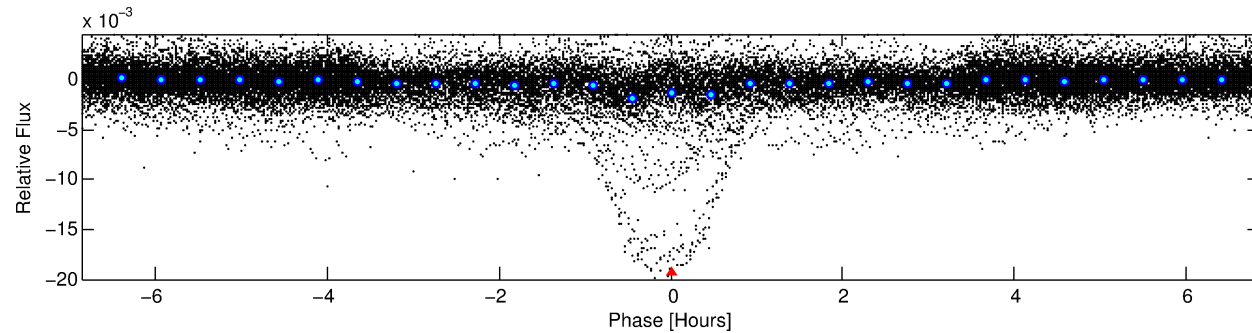
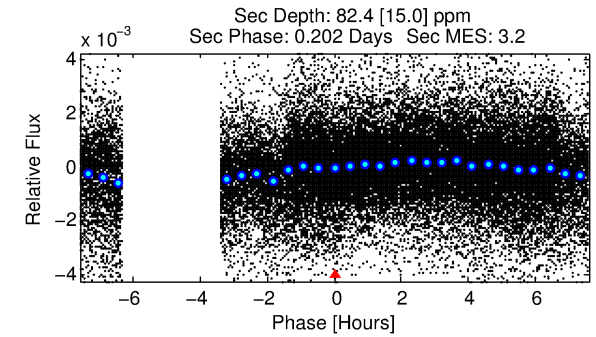
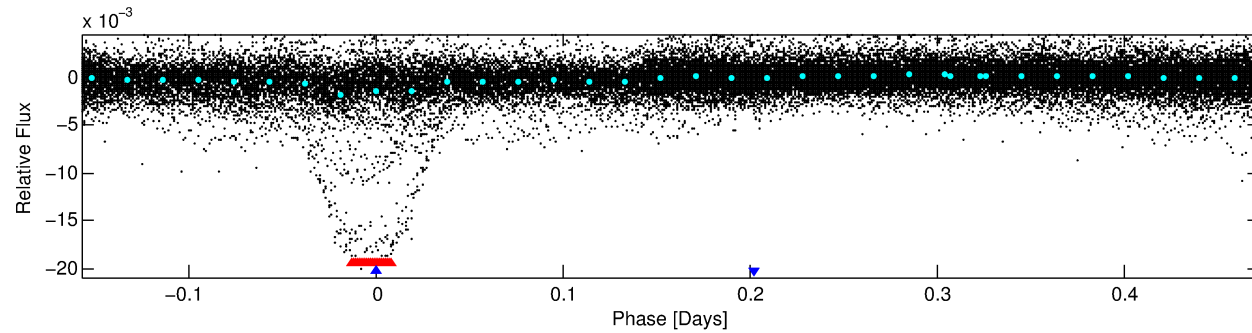
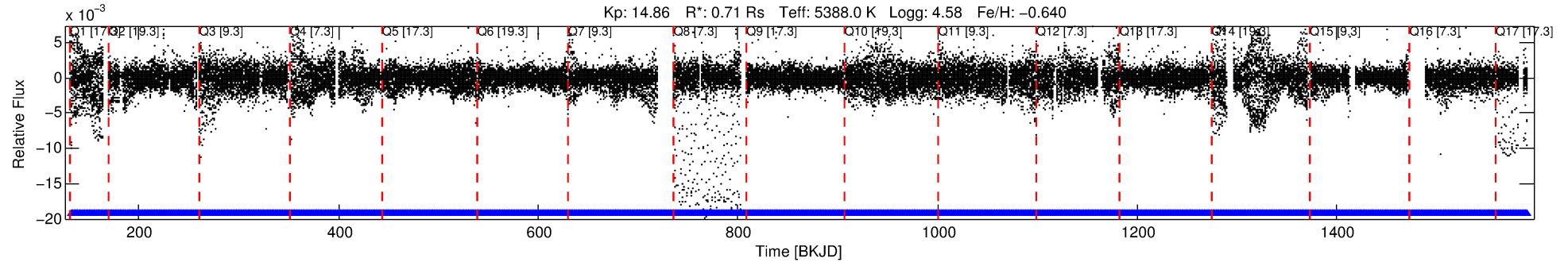
No Significant Match Found

DV One-Page Summary

KIC: 11134079 Candidate: 2 of 2 Period: 0.630 d

KOI: K07410 Corr: No Ephemeris Match

Kp: 14.86 R*: 0.71 Rs Teff: 5388.0 K Logg: 4.58 Fe/H: -0.640



TPS TCE Results:

Period = 0.63030 d
Epoch = 132.0422 BKJD

DV fit results are unavailable

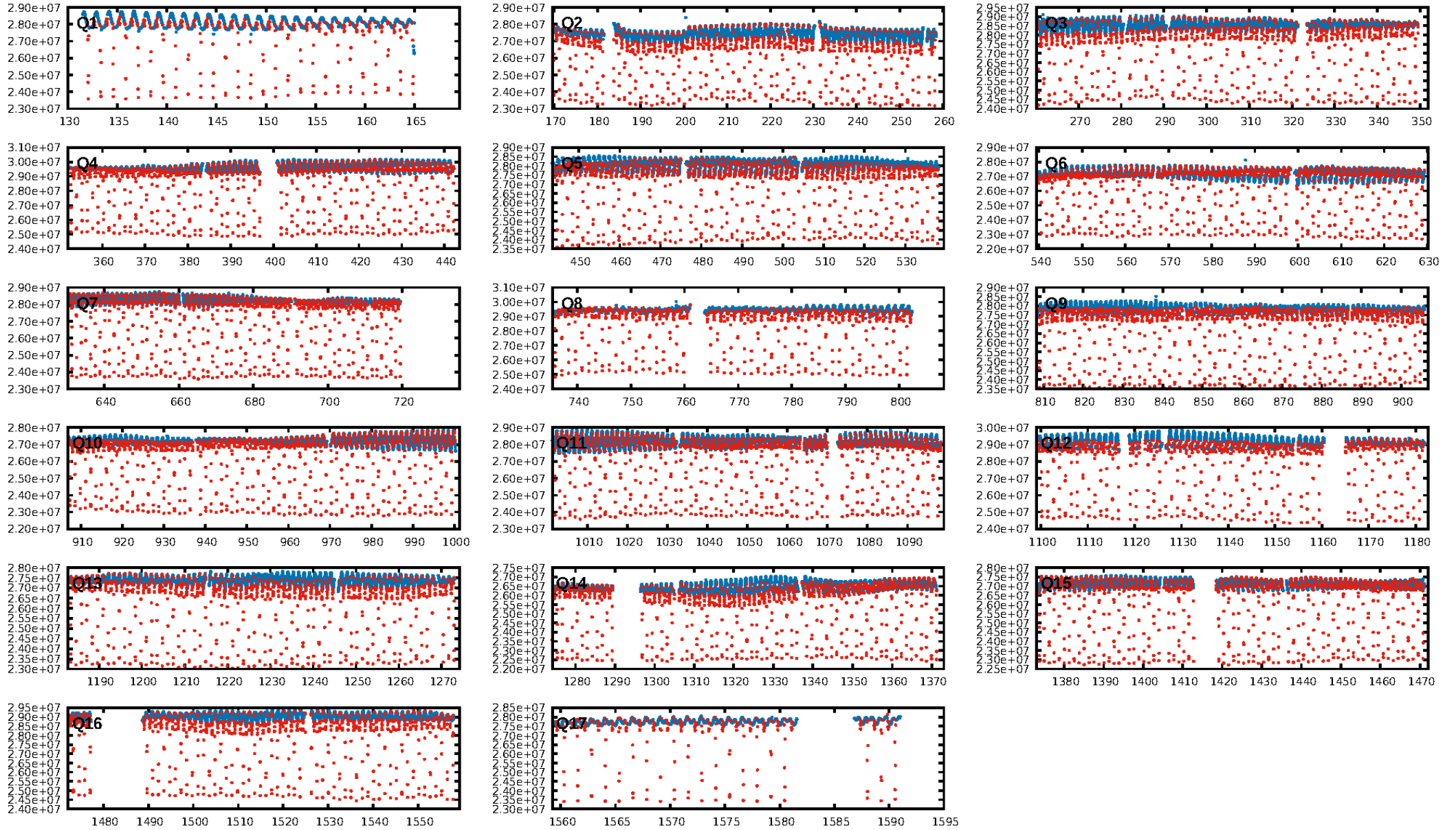
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [5.72σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [1016/1016]
GhostDiagnostic-chr: 0.6896
Centroid-sig: N/A
Centroid-so: 0.158 arcsec [34.92σ]
OotOffset-rm: 0.088 arcsec [1.27σ]
KicOffset-rm: 0.013 arcsec [0.18σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 1.00 [17/17]
DiffImageOverlap-fno: 1.00 [17/17]

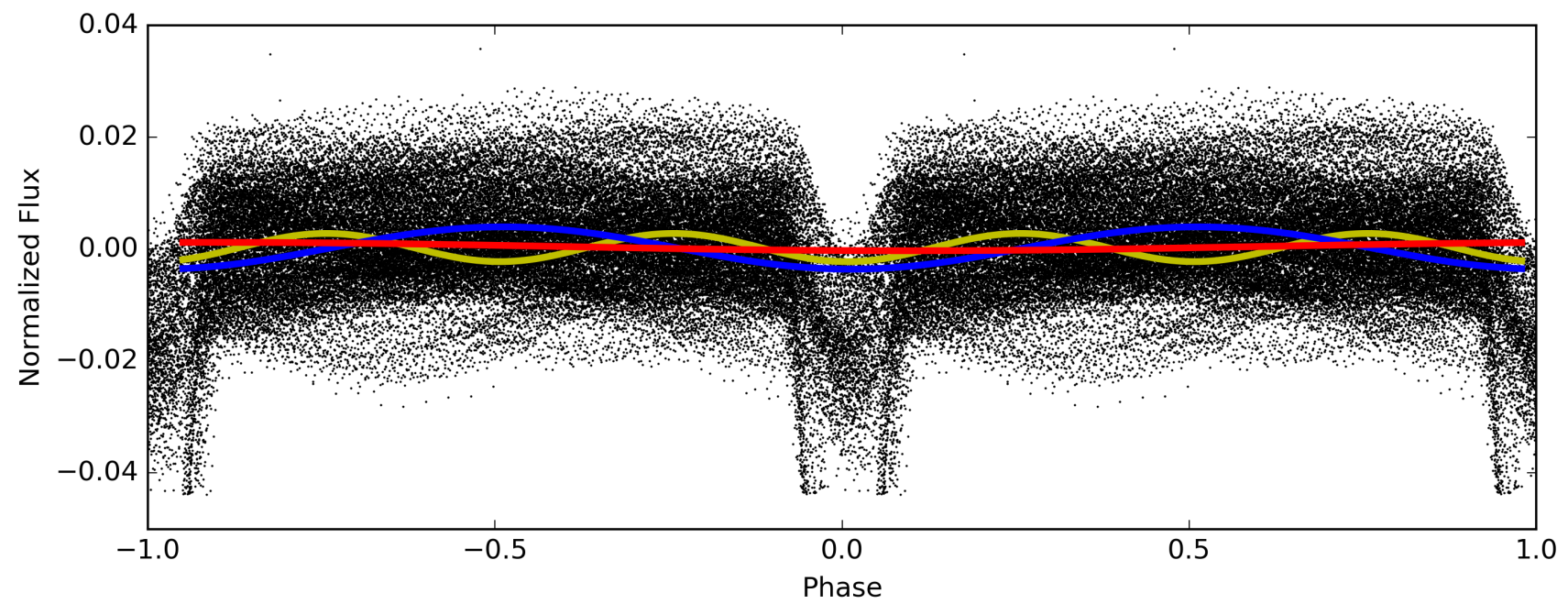
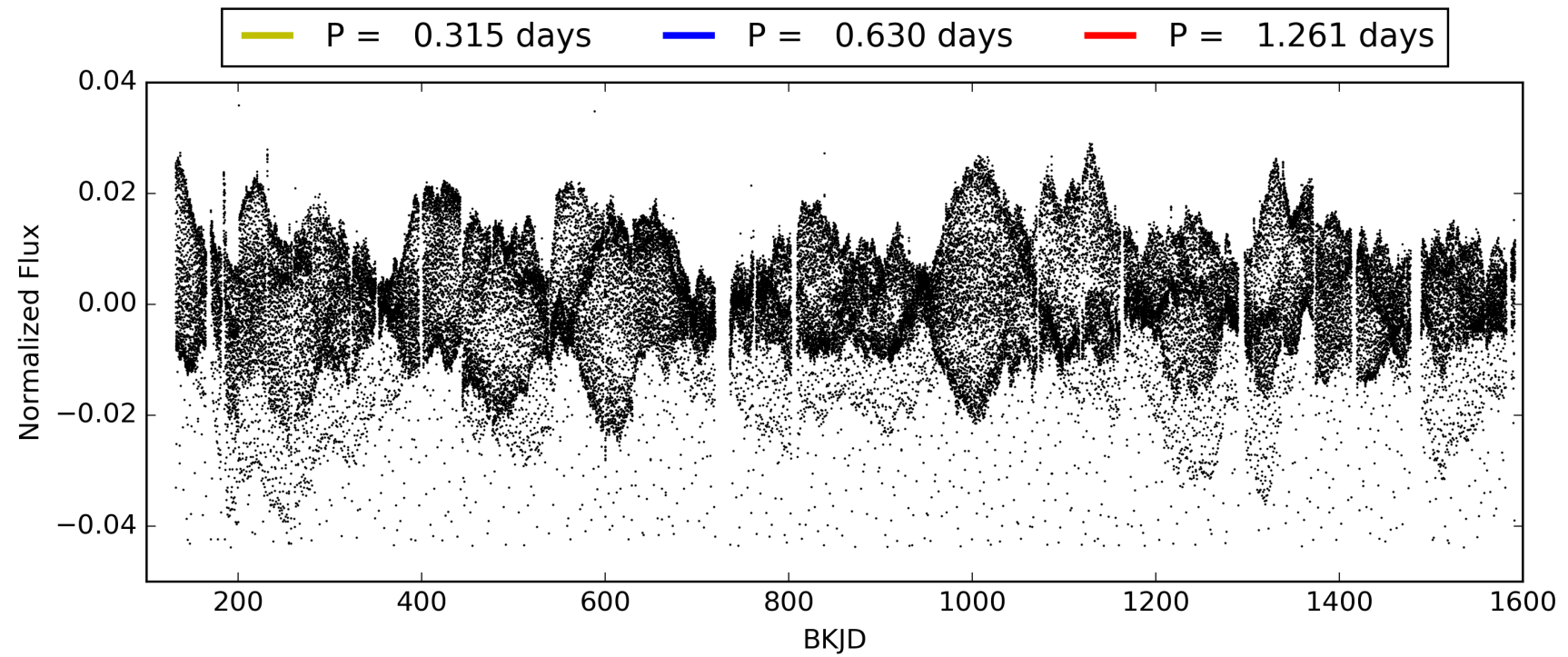
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 07:17:47 Z

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

TCE 011134079-02, PDC Light Curves

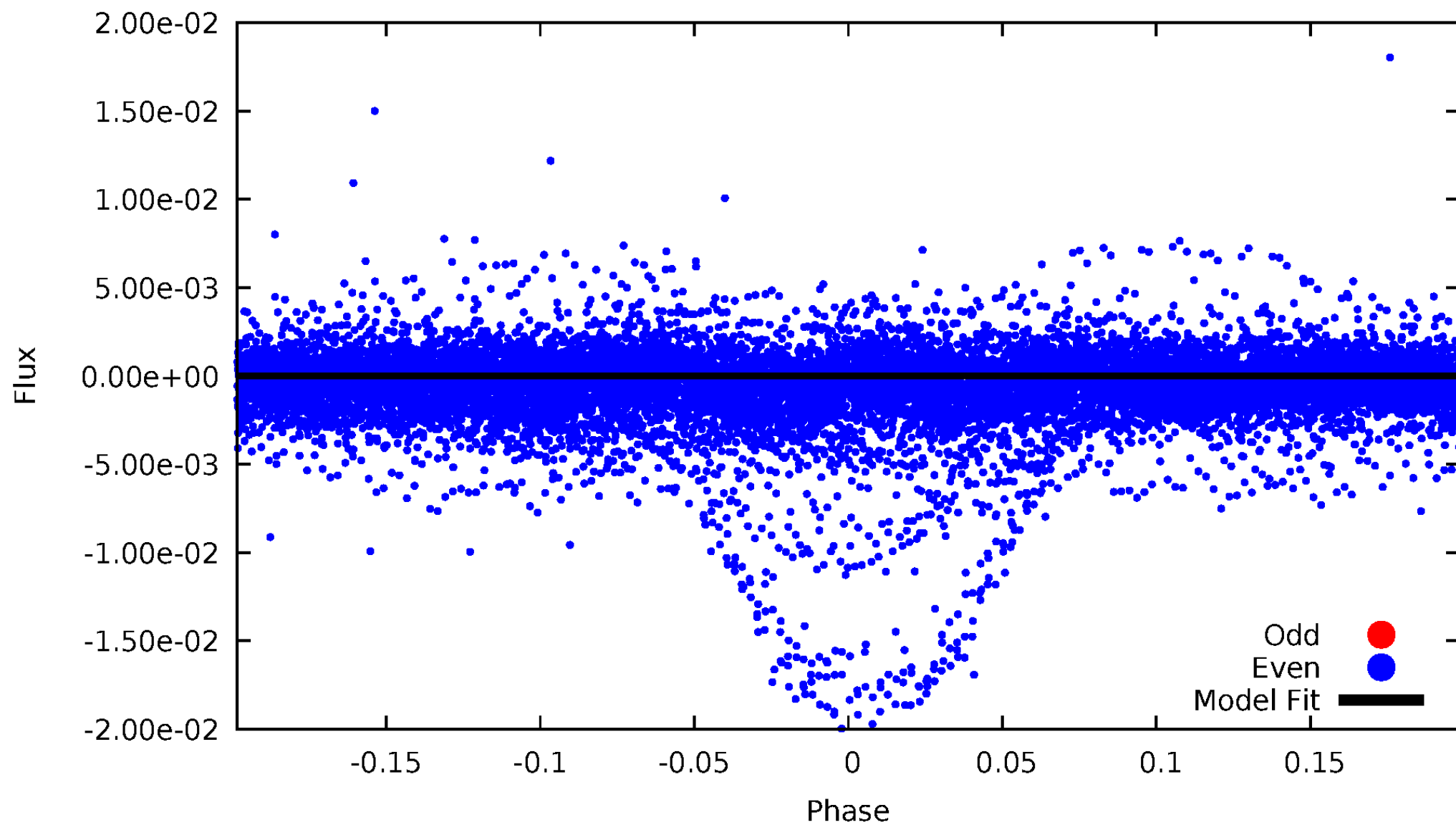


TCE 011134079-02



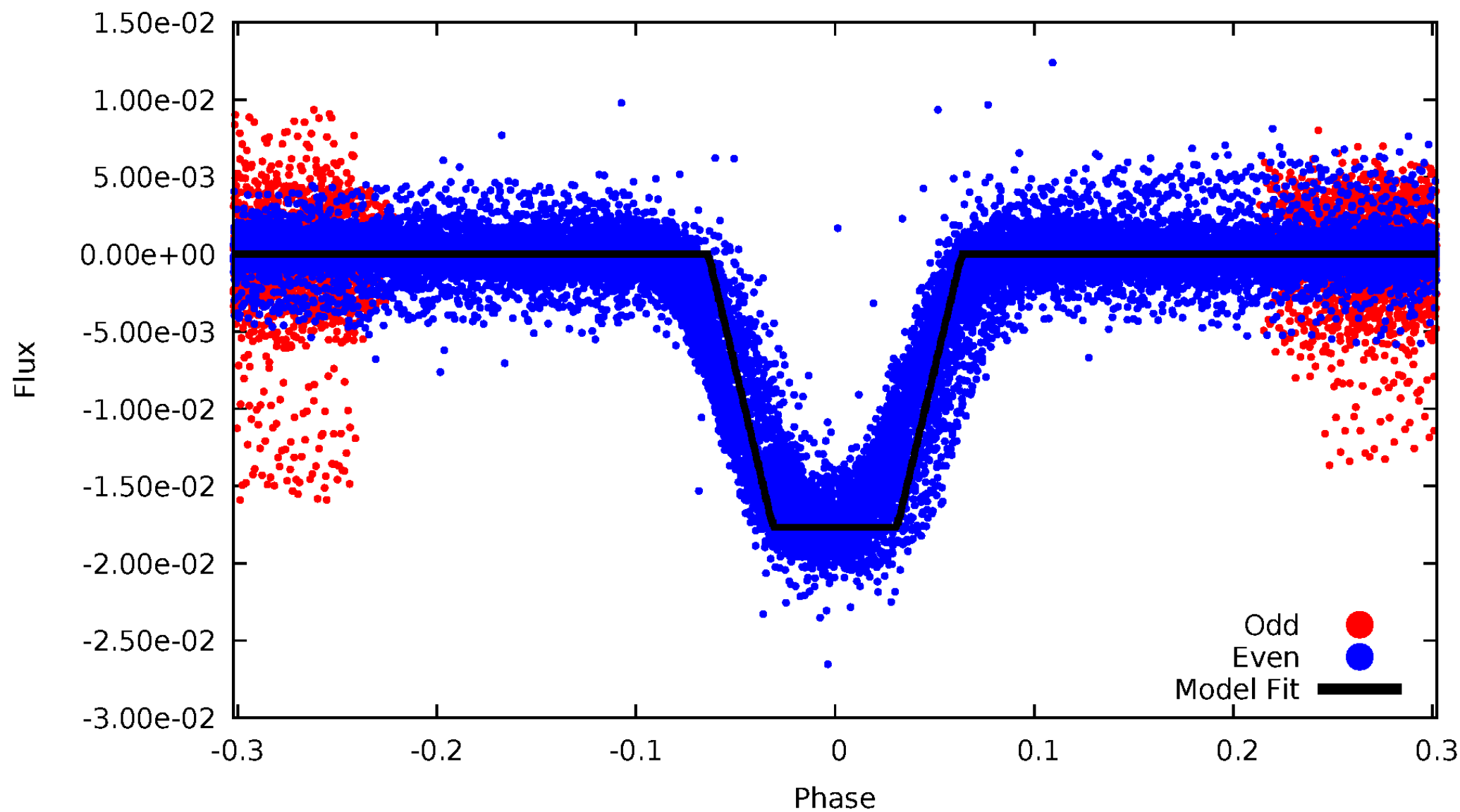
DV Odd/Even

TCE 011134079-02



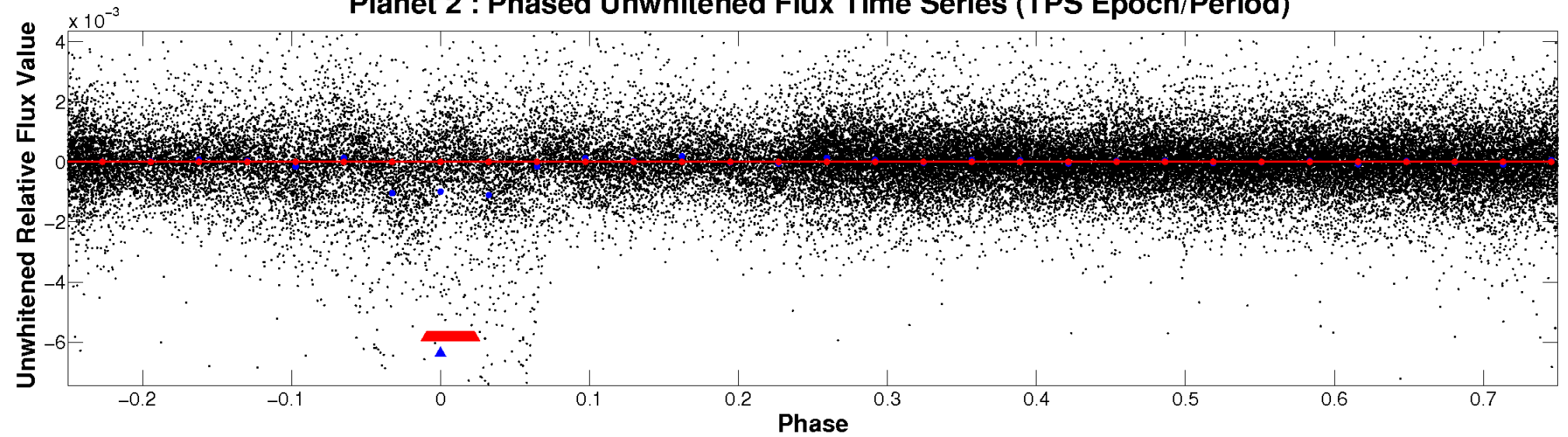
ALT Odd/Even

TCE 011134079-02

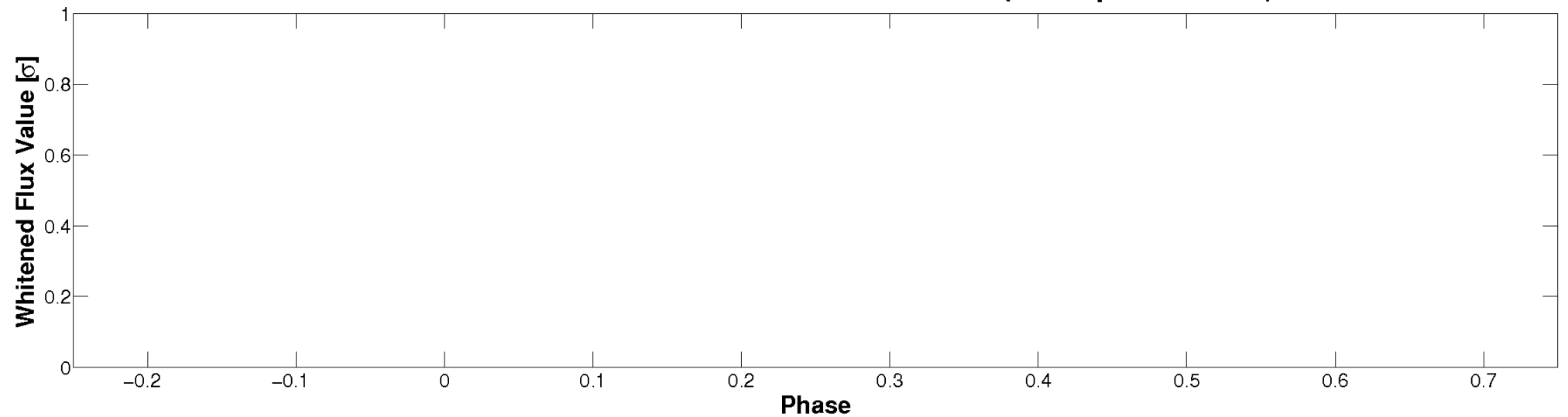


Non-Whitened Vs. Whitened Light Curve

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

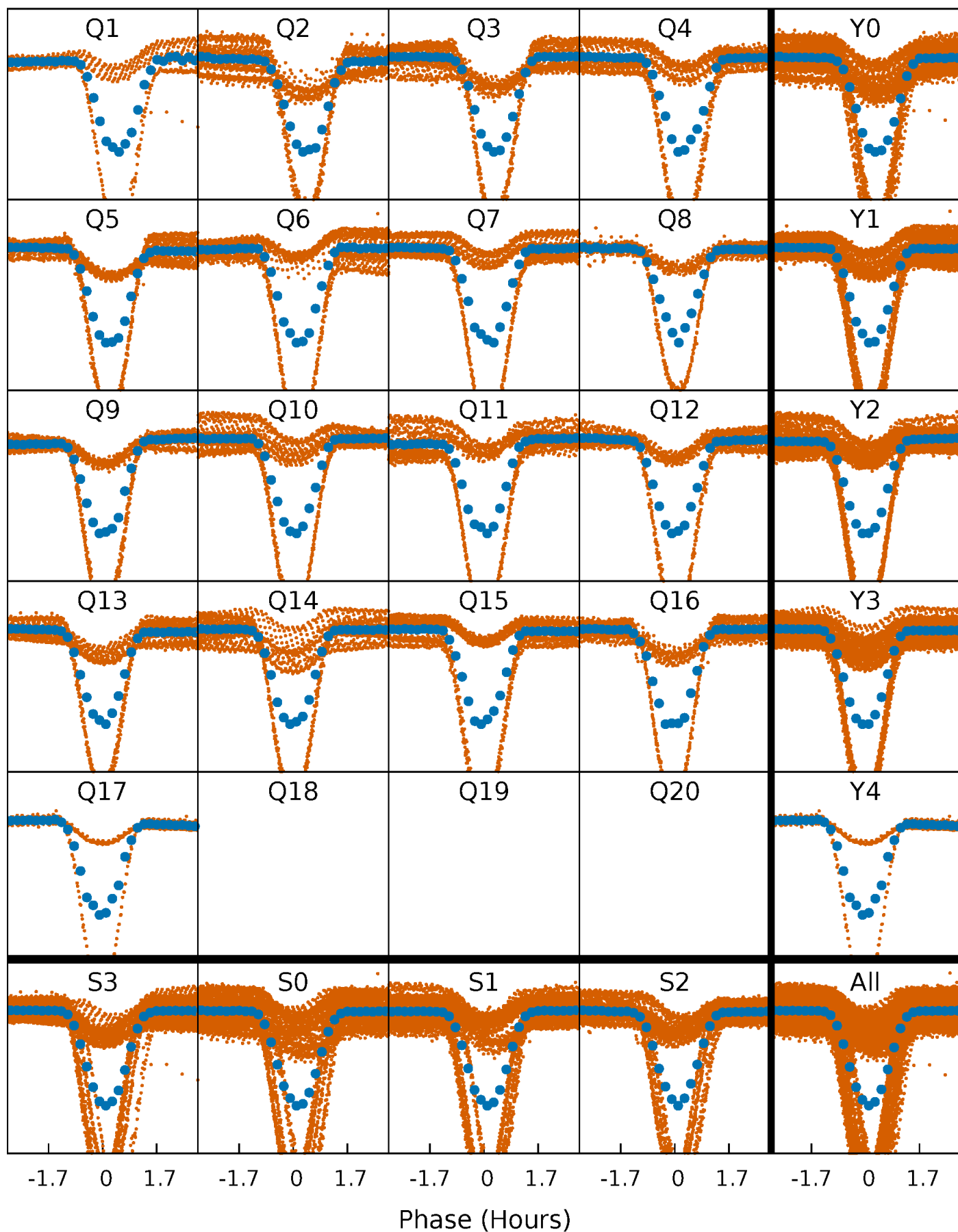


Planet 2 : Phased Whitened Flux Time Series (TPS Epoch/Period)



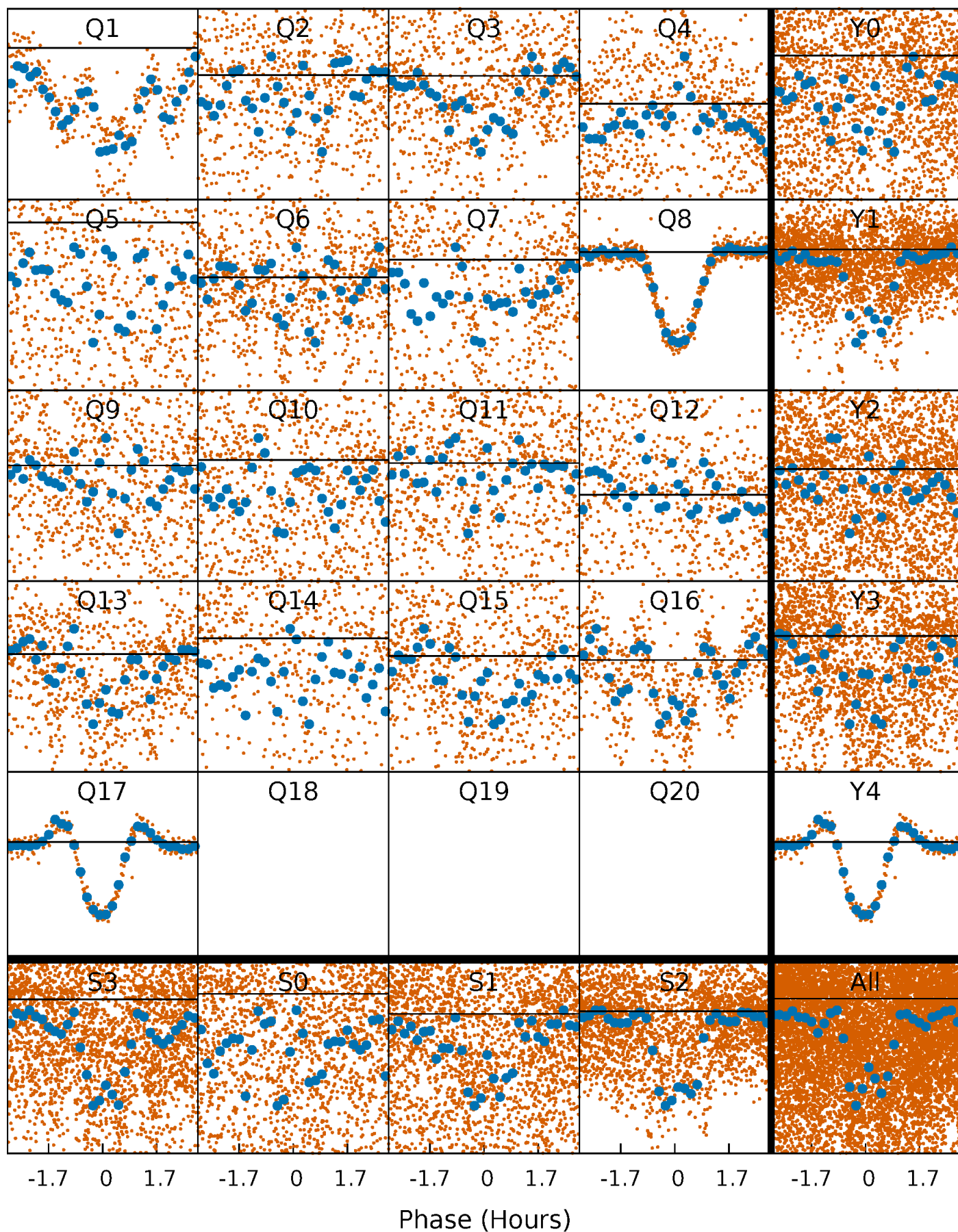
PDC Quarter-Phased Transit Curves

TCE 011134079-02 P= 0.630296 Days $T_0=132.042244$ (BKJD)



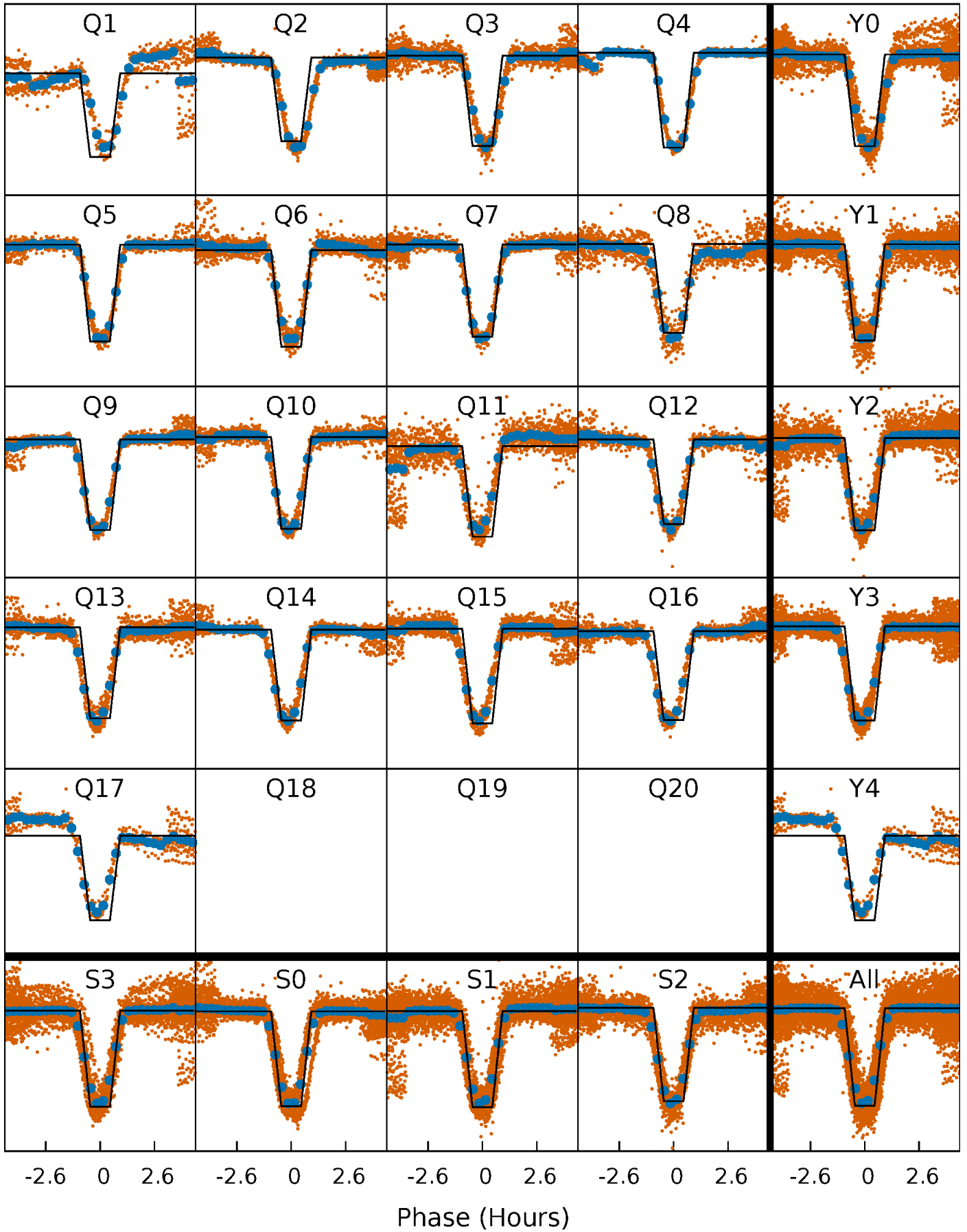
DV Quarter-Phased Transit Curves

TCE 011134079-02 $P = 0.630296$ Days $T_0 = 132.042244$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

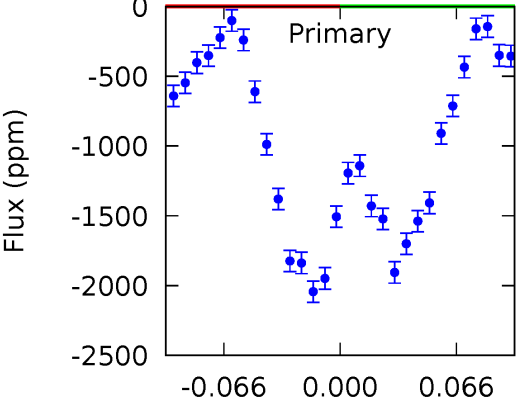
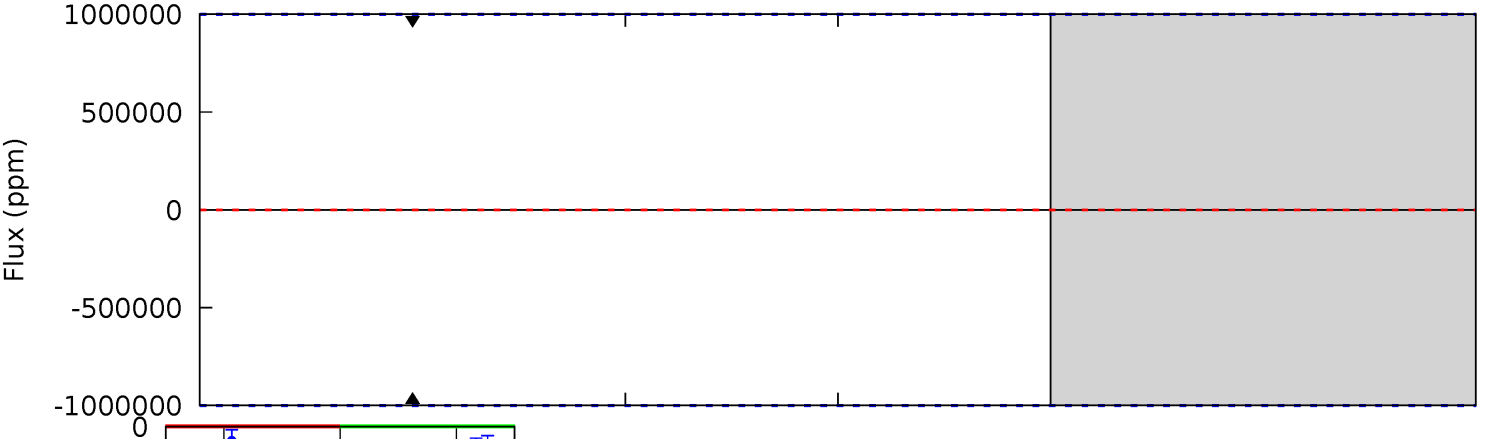
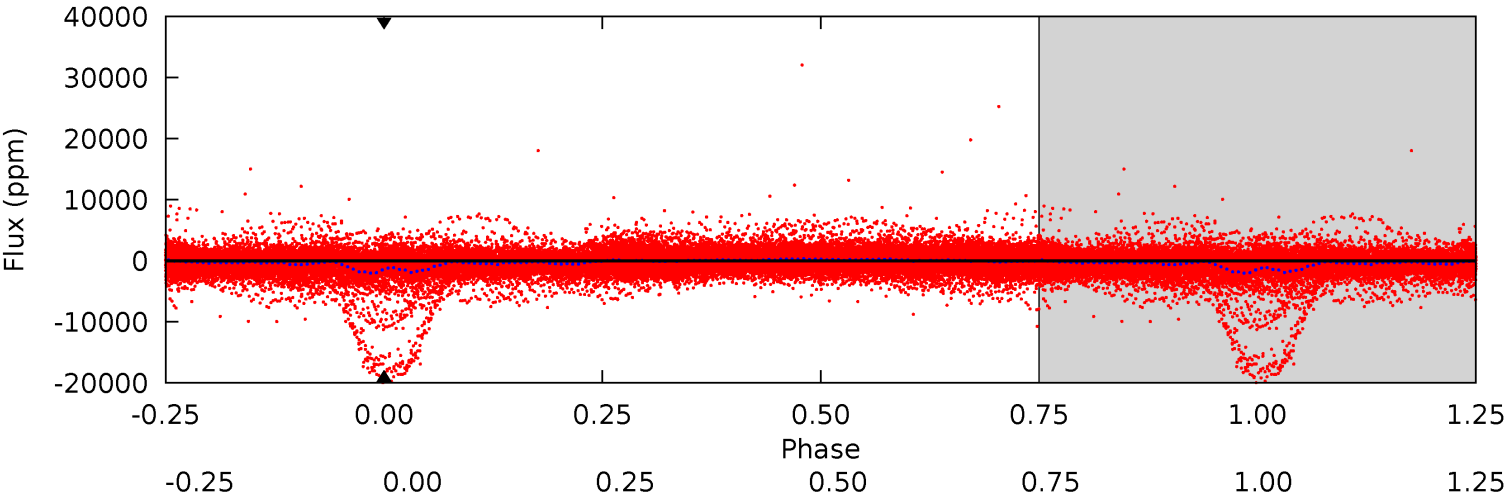
TCE 011134079-02 P= 0.630296 Days $T_0=132.048957$ (BKJD)



DV Model-Shift Uniqueness Test

011134079-02, P = 0.630296 Days, E = 131.411948 Days

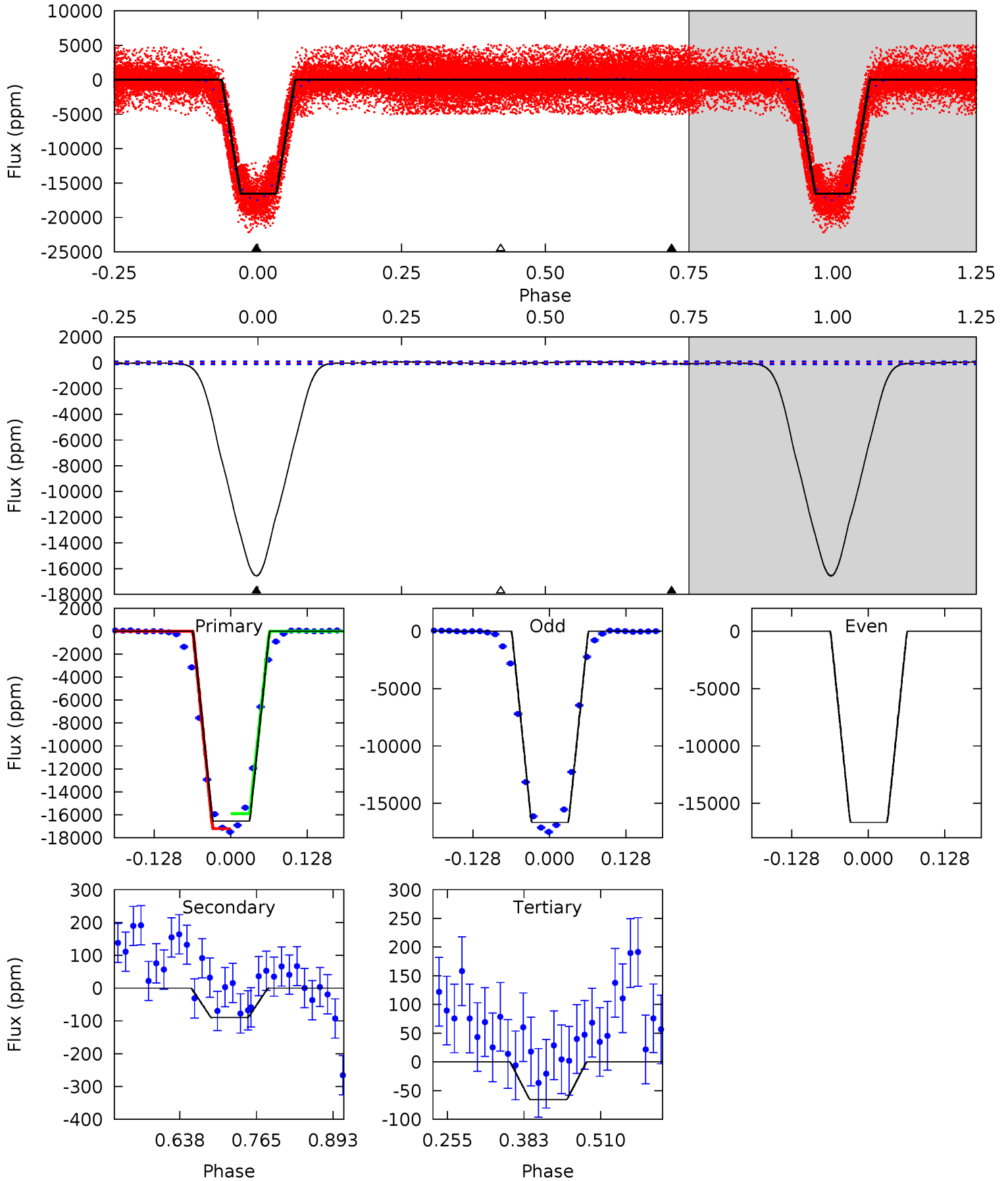
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

011134079-02, P = 0.630296 Days, E = 131.418661 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
678.2	3.68	2.69	0	4.51	1.52	2.02	675.5	678.2	0.99	3.68	0	0.99	0.01	25.1



Stellar Parameters For KIC 011134079

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5388^{+160}_{-144}	$4.576^{+0.070}_{-0.070}$	$-0.640^{+0.350}_{-0.300}$	$0.715^{+0.090}_{-0.065}$	$0.701^{+0.084}_{-0.039}$	$2.705^{+0.850}_{-0.645}$
	+3%/-3%	+2%/-2%	+55%/-47%	+13%/-9%	+12%/-6%	+31%/-24%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 011134079-02 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	0 ± 1000000	$8.92^{+7.03}_{-5.78}$	2482^{+109}_{-99}	4047^{+7676}_{-15024}	$4.201^{+189.445}_{-166.855}$
Alt.	-90 ± 24	$11.25^{+7.53}_{-6.85}$	2486^{+98}_{-88}	-2675^{+5133}_{-98}	$0.060^{+0.363}_{-0.038}$

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 $A_{obs} \gg 1.0$

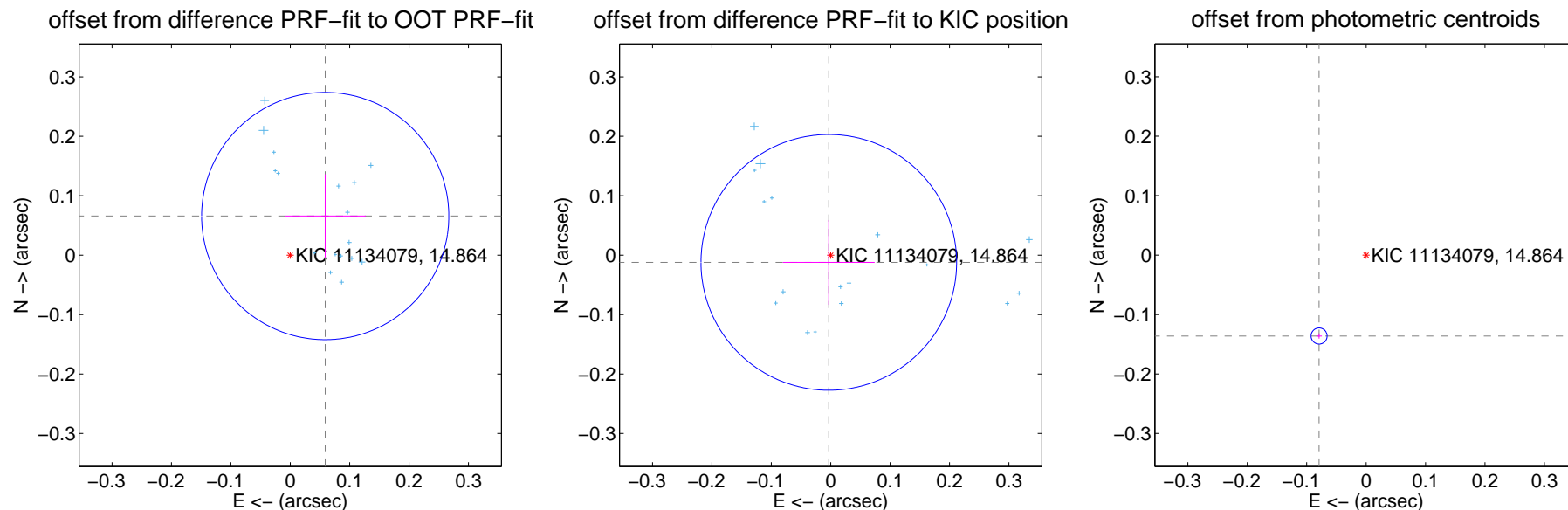
DV Centroid Data

Supplemental centroid analysis for 011134079-02. Kepler magnitude: 14.86. Transit SNR -1.00

There are 17 quarters with good PRF difference image offsets

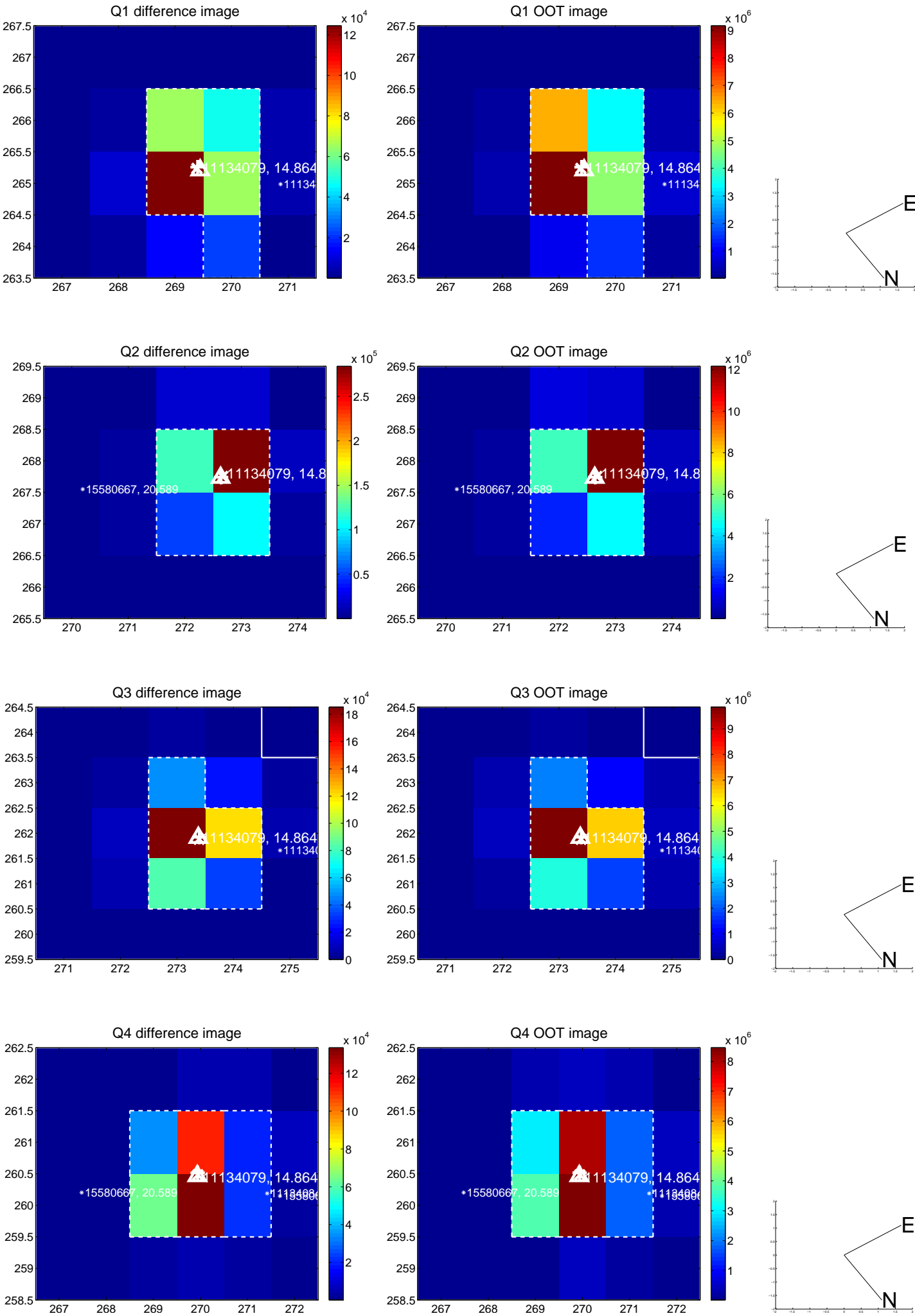
The direct PRF centroid is offset from the target star catalog position by about 0.09 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.088 ± 0.069	1.27	-0.059 ± 0.068	0.066 ± 0.070
PRF-fit source offset from KIC position	0.013 ± 0.072	0.18	0.003 ± 0.077	-0.012 ± 0.071
photometric centroid source offset	0.16 ± 0.00	34.92	0.08 ± 0.00	-0.14 ± 0.00

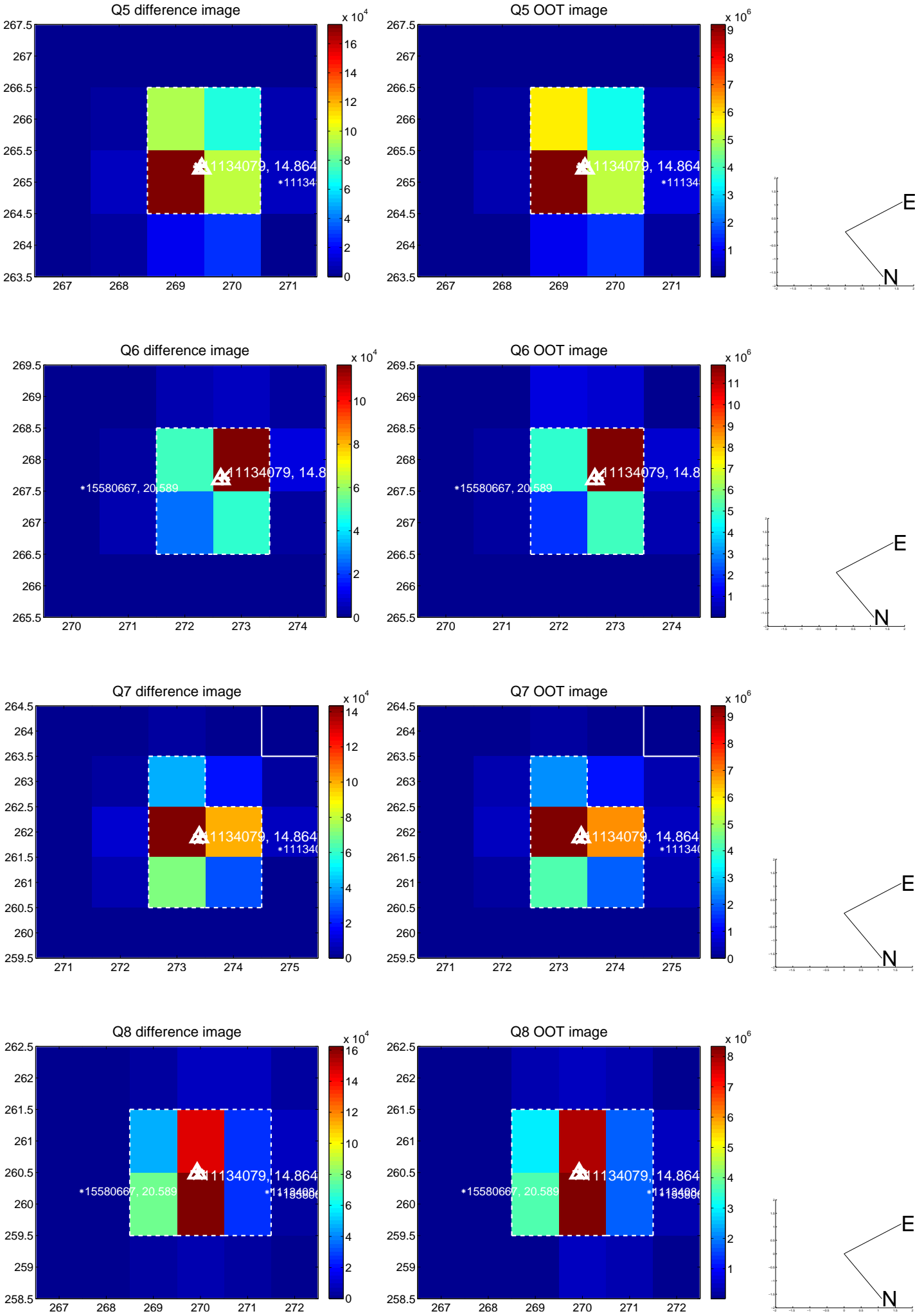


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

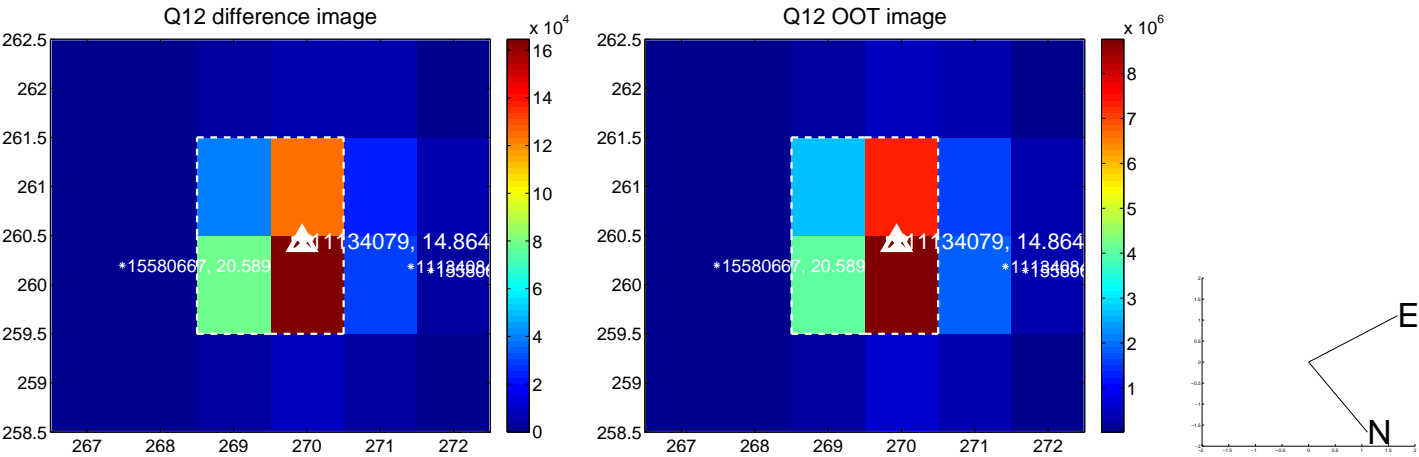
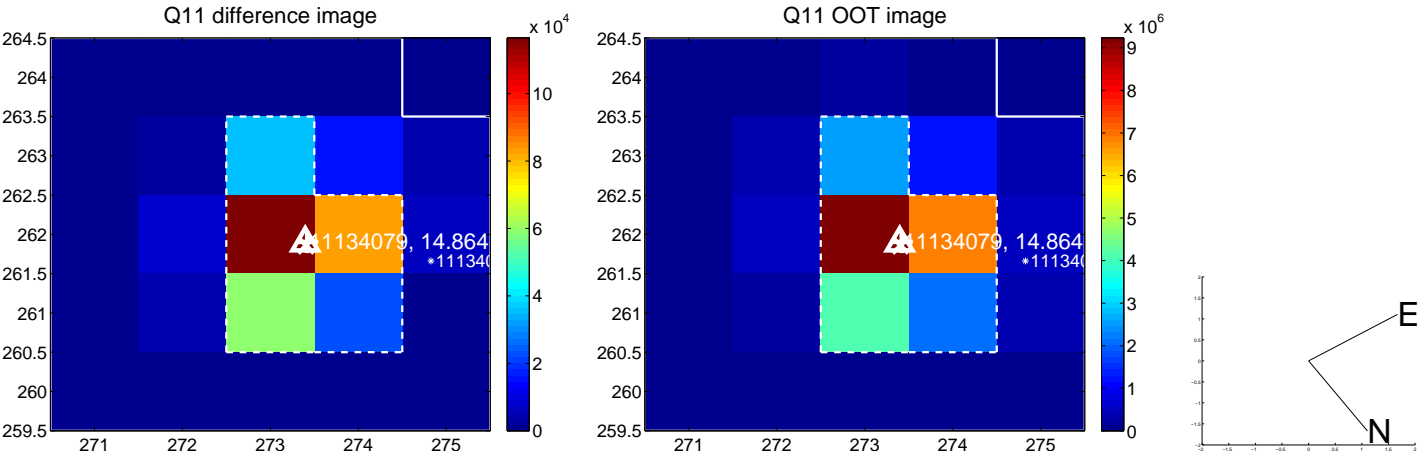
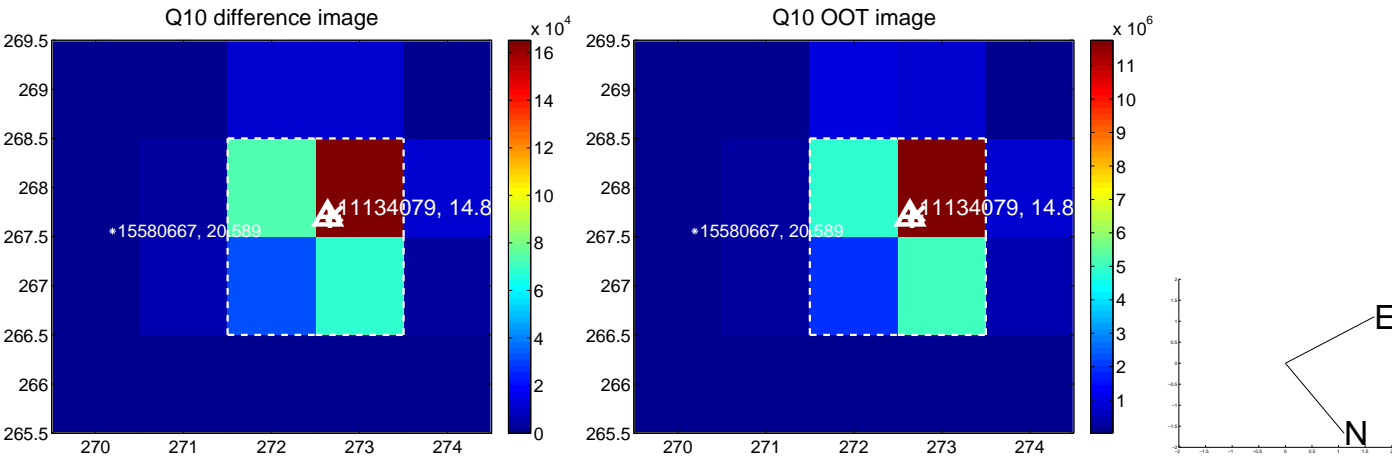
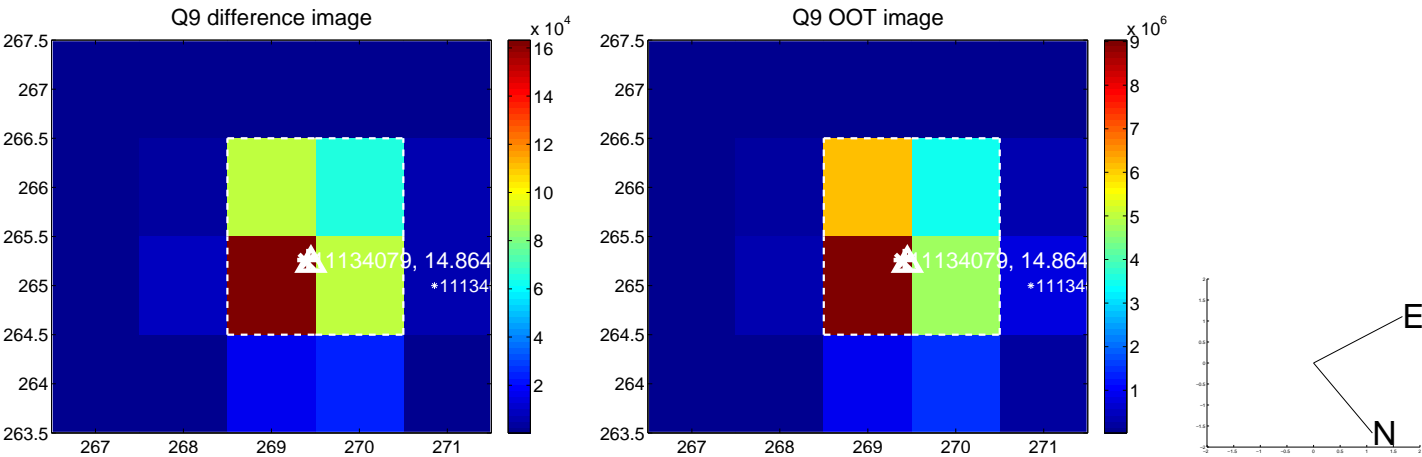
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



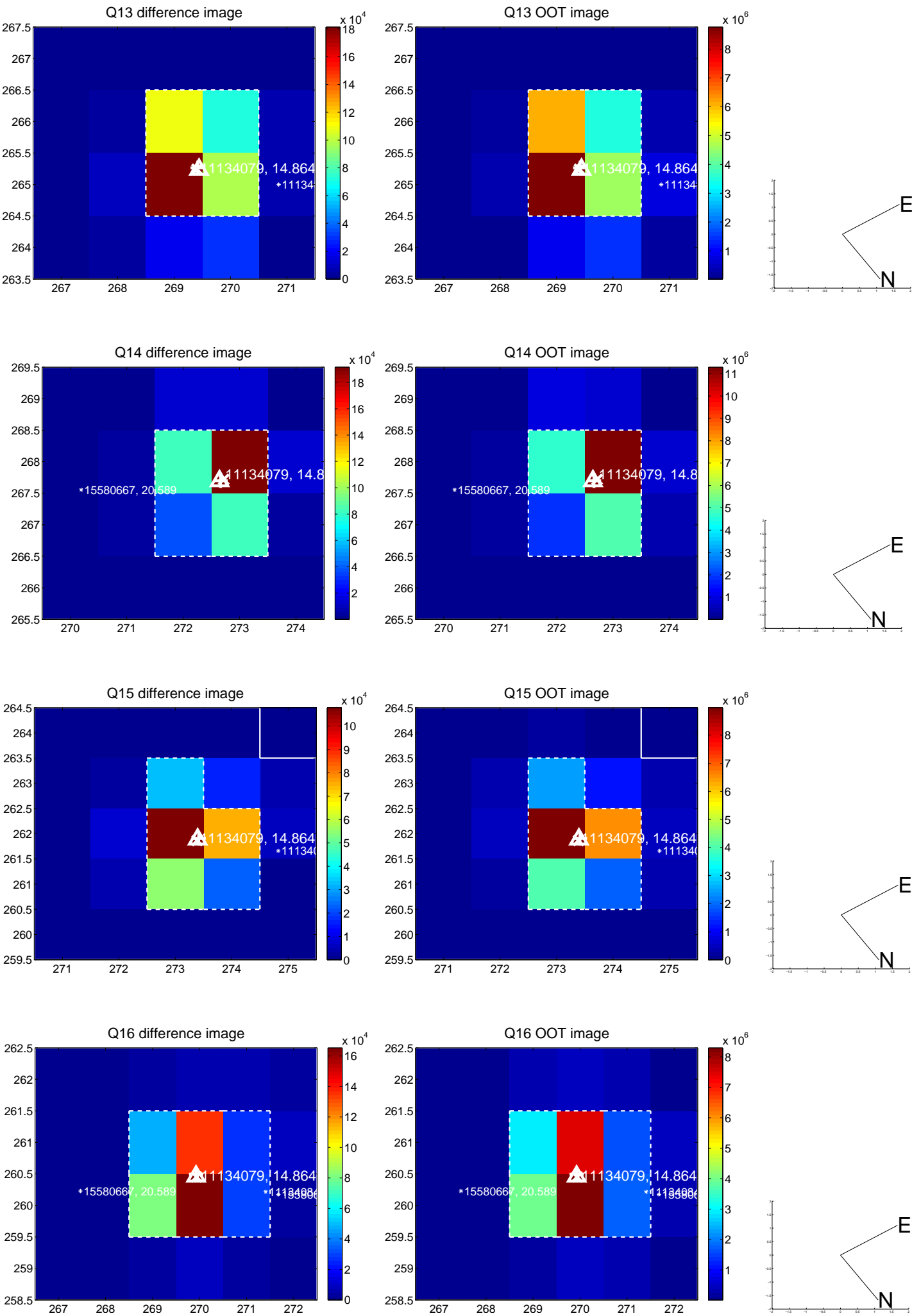
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



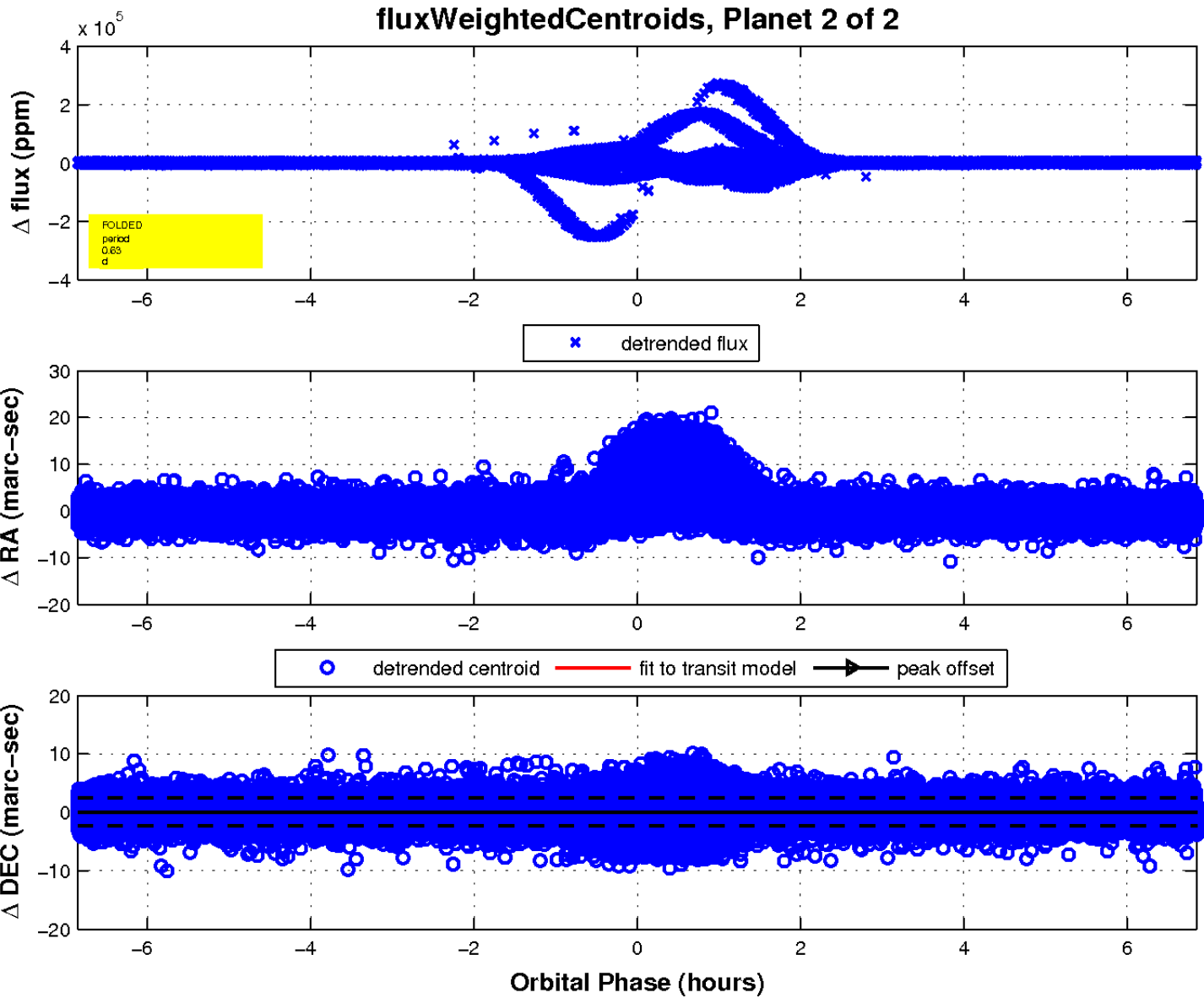
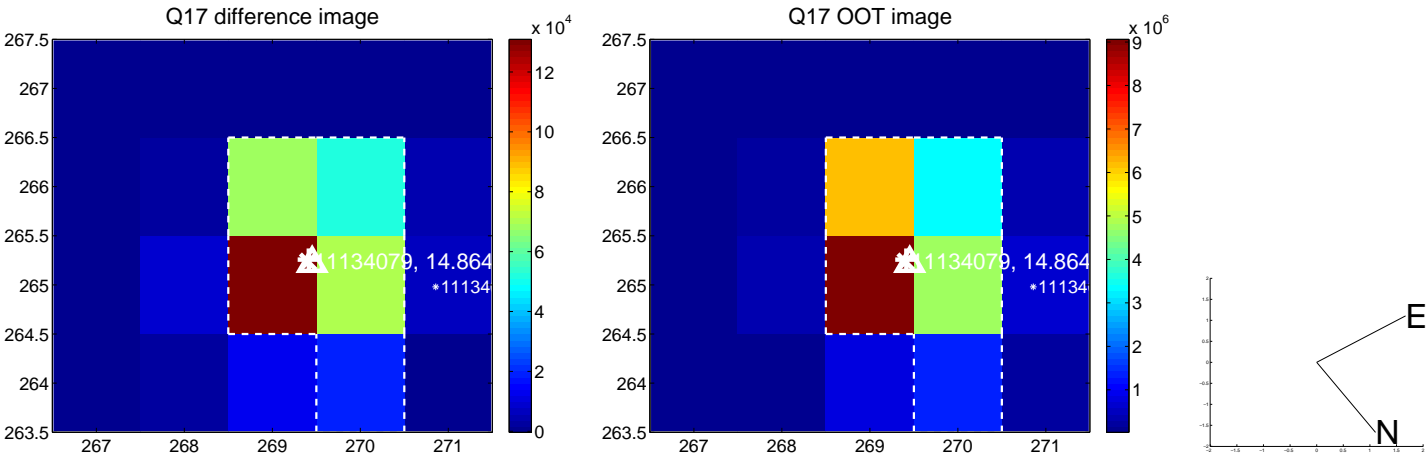
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UKIRT Image

Declination

