

KIC 010000490

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})
010000490-01	OBS	7269.01	1.400989	132.456010	58809.7	4.171	4497.0	2253.9	1.92	6706	68.44	8782.92
010000490-02	OBS	No	1.400953	131.757869	253.1	1.500	18.2	-1.0	1.92	6706	3.10	8783.22

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010000490-01	OBS	FP	0.00	0	1	0	0	SWEET_EB—DEEP_V_SHAPED—HAS_SEC_TCE—CENT_SATURATED
010000490-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE—CENT_SATURATED

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 010000490-01

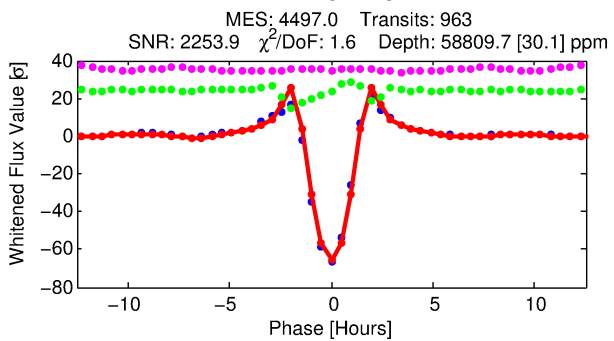
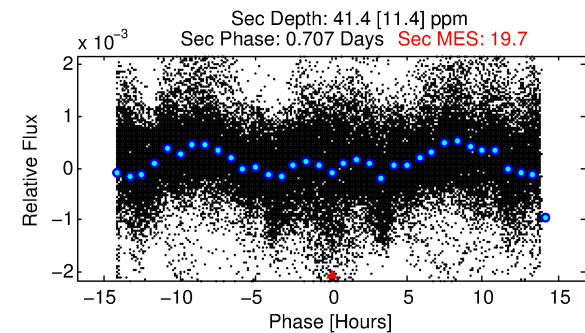
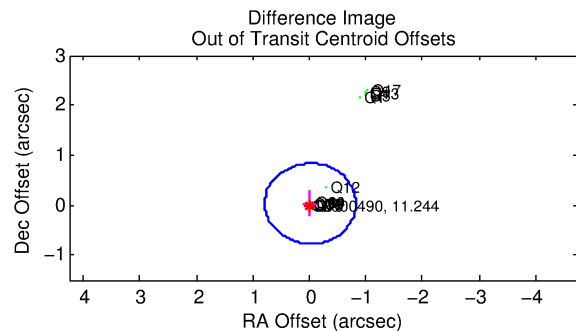
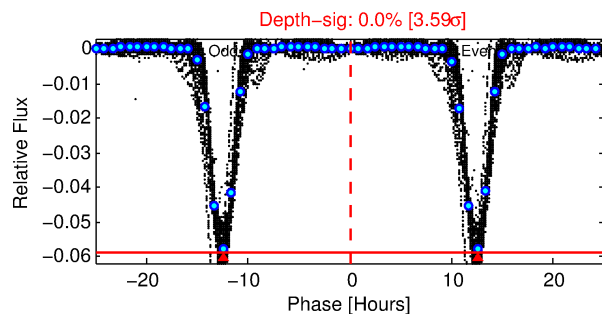
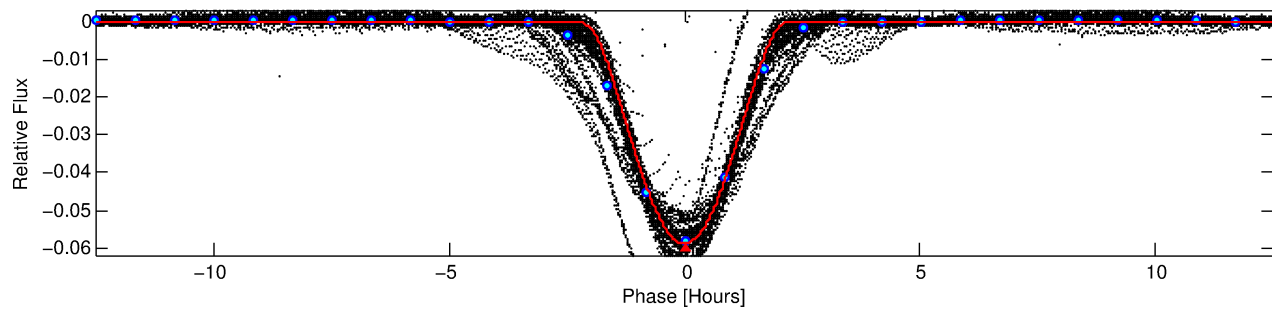
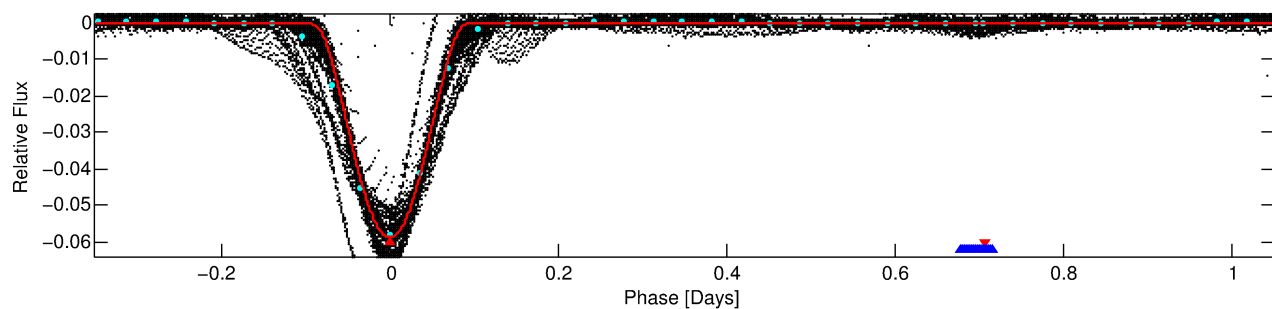
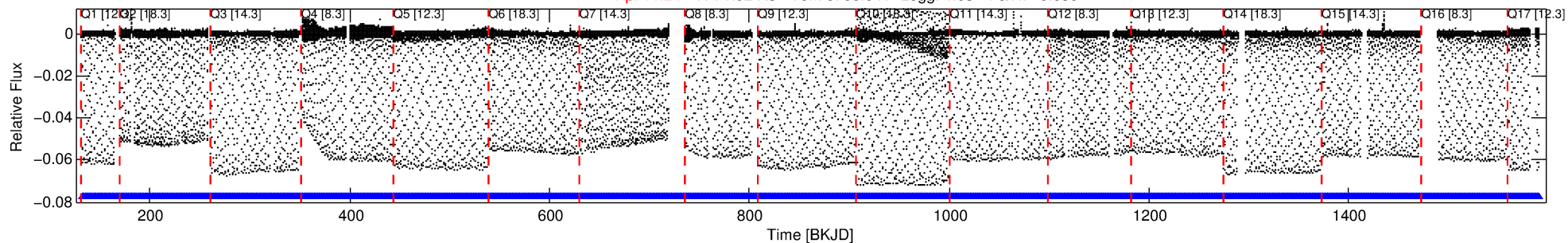
No Significant Match Found

DV One-Page Summary

KIC: 10000490 Candidate: 1 of 2 Period: 1.401 d

KOI: K07269.01 Corr: 0.925

Kp: 11.24 R*: 1.92 Rs Teff: 6706.0 K Logg: 4.03 Fe/H: -0.080



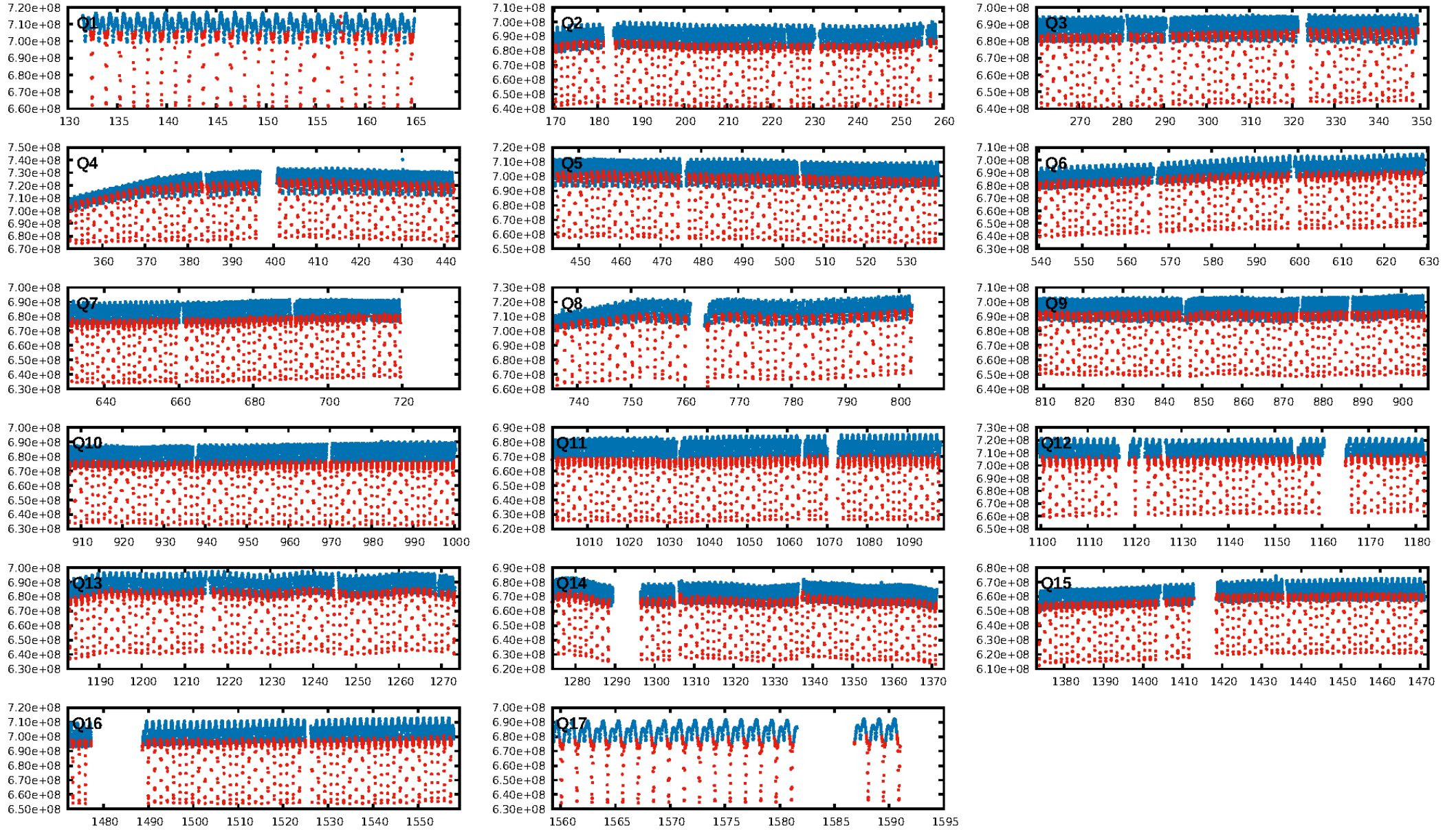
DV Fit Results:

Period = 1.40099 [0.00000] d
Epoch = 132.4560 [0.0000] BKJD
Rp/R* = 0.3260 [0.0022]
a/R* = 2.67 [0.00]
b = 0.93 [0.00]
Seff = 8782.92 [4148.29]
Teq = 2469 [291] K
Rp = 68.44 [21.13] Re
a = 0.0276 [0.0079] AU
Ag = 0.00 [0.00] [-511.26σ]
Teffp = 942 [74] K [-5.07σ]

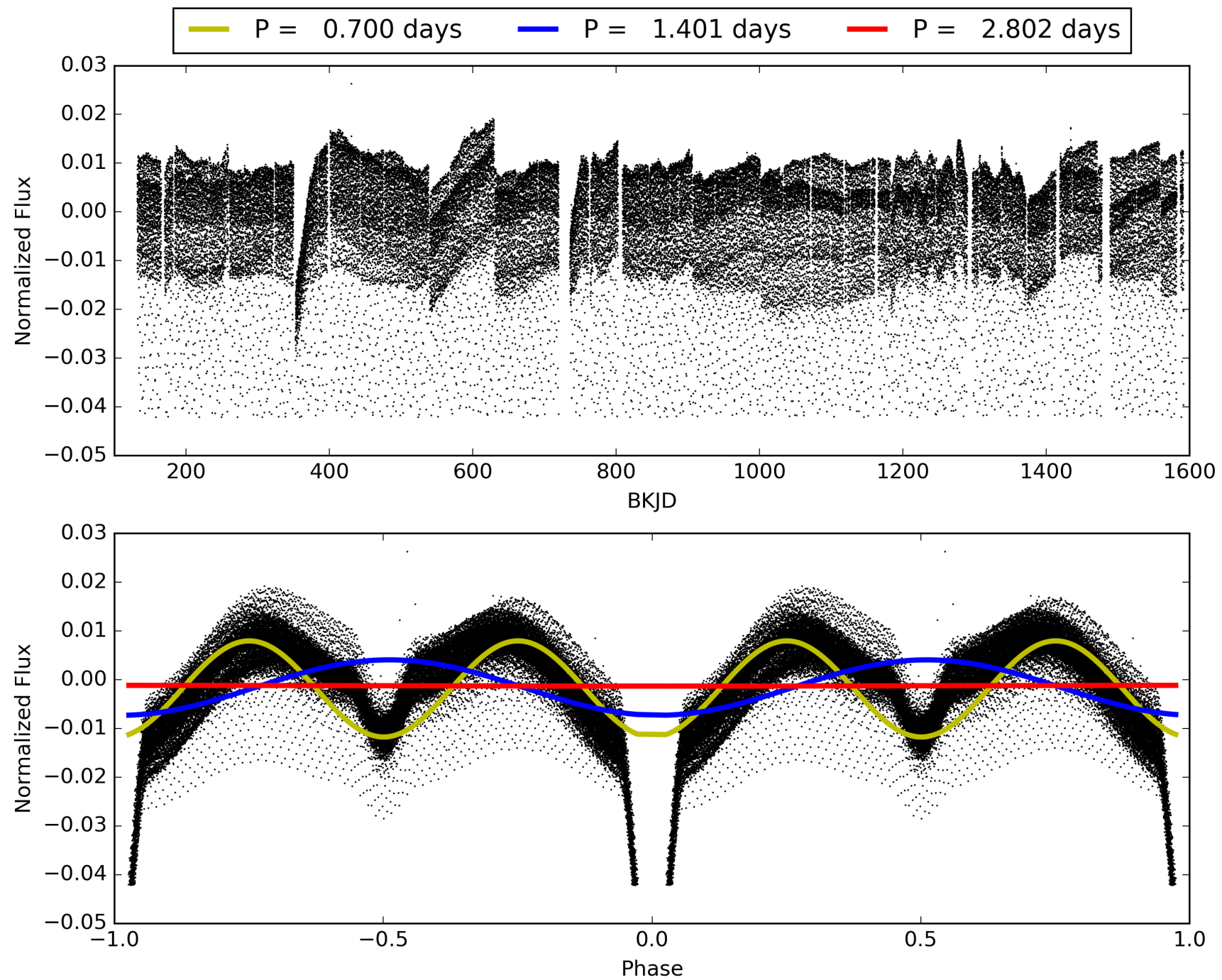
DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [920/920]
GhostDiagnostic-chr: 1.634
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 0.033 arcsec [0.12σ]
KicOffset-rm: 0.085 arcsec [0.29σ]
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]

TCE 010000490-01, PDC Light Curves

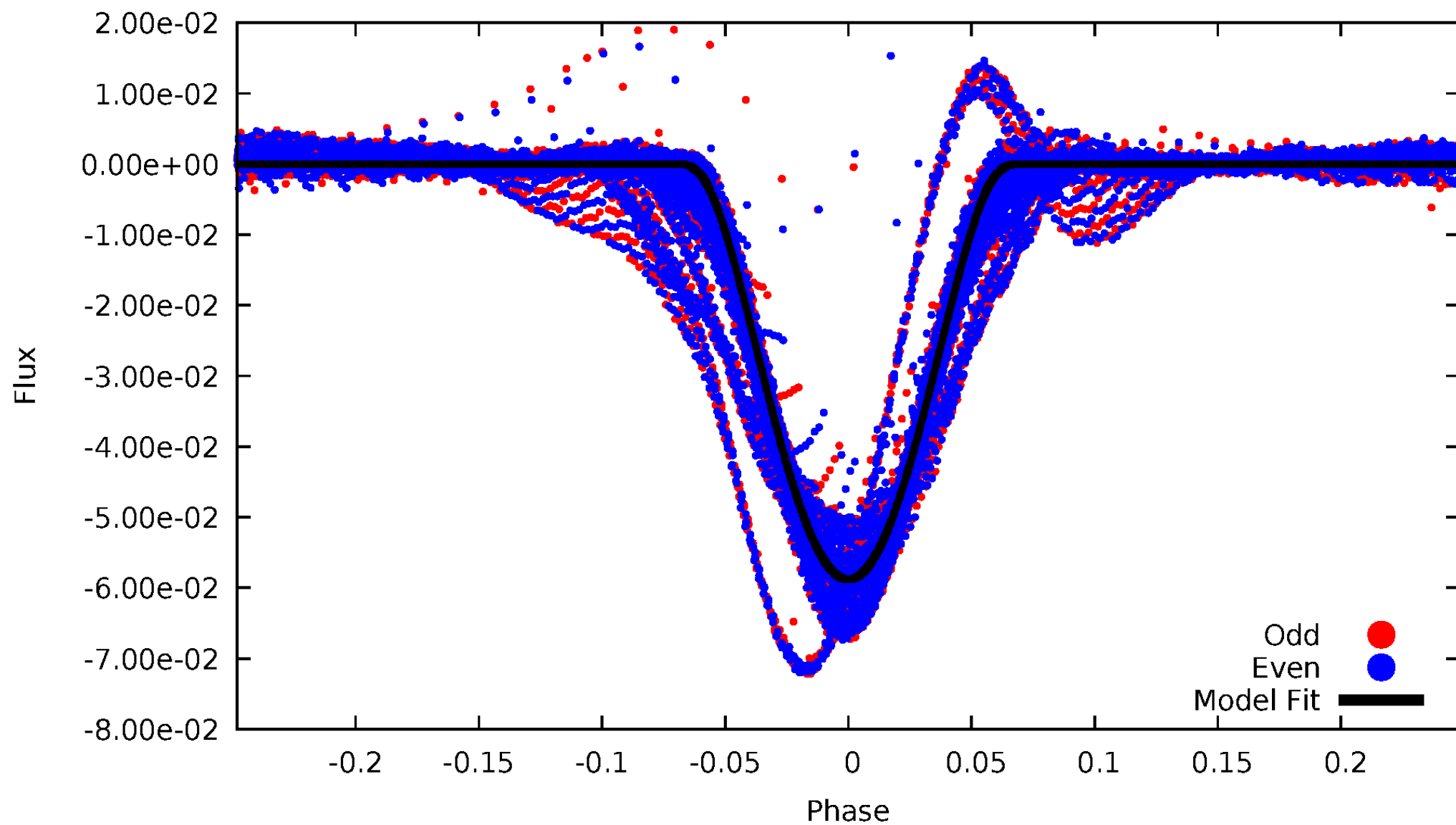


TCE 010000490-01



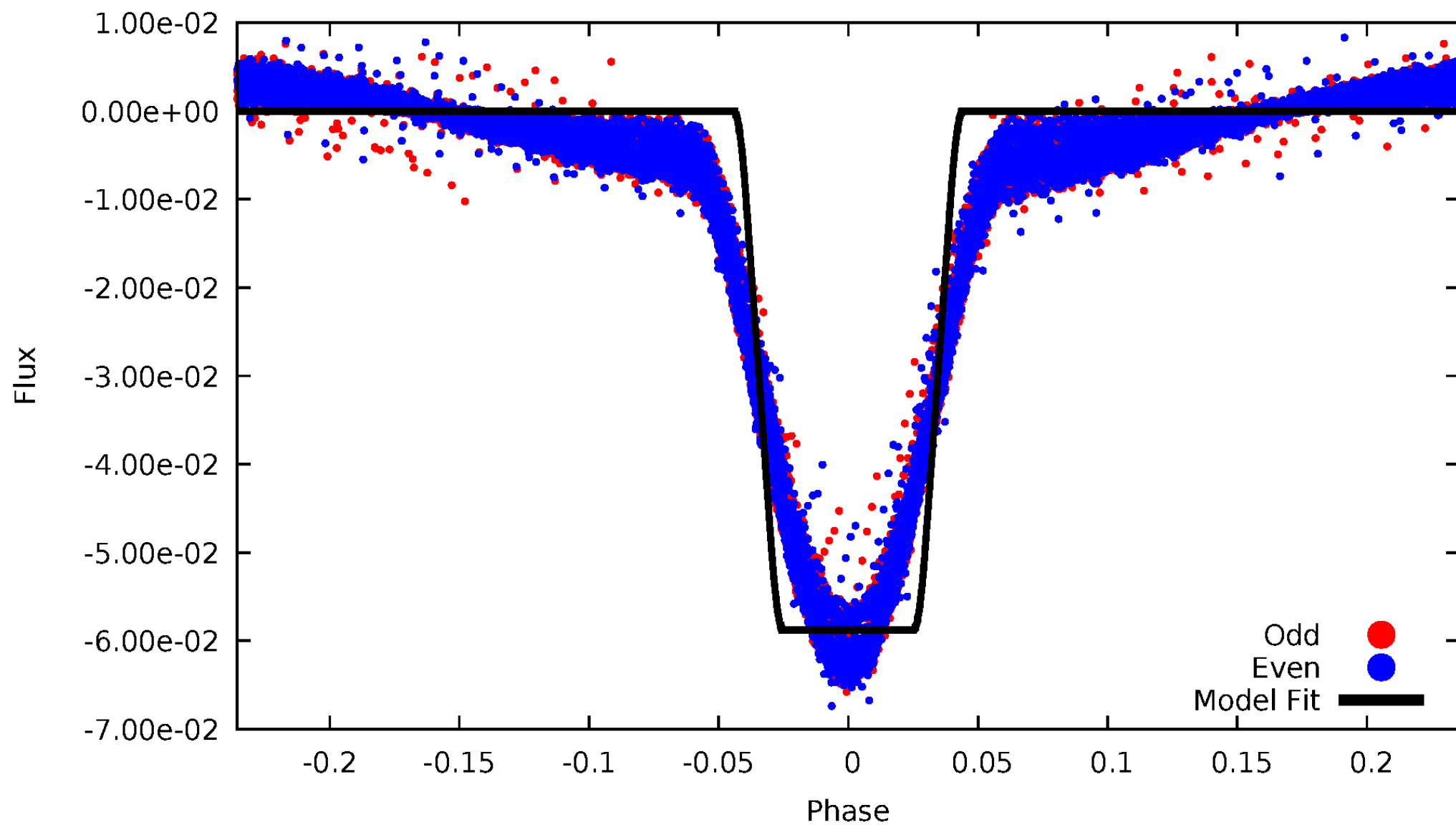
DV Odd/Even

TCE 010000490-01



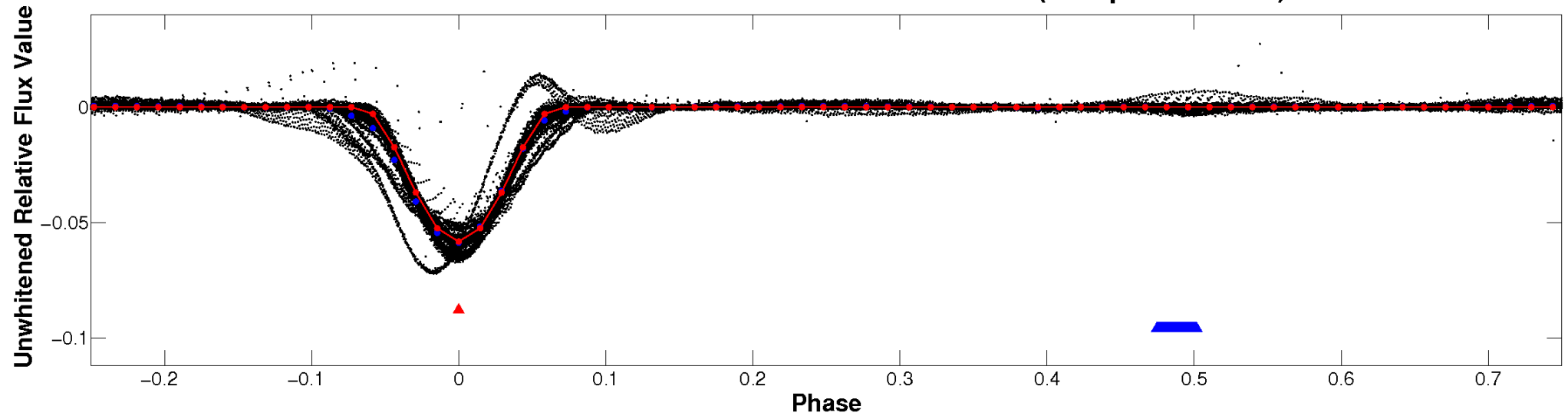
ALT Odd/Even

TCE 010000490-01

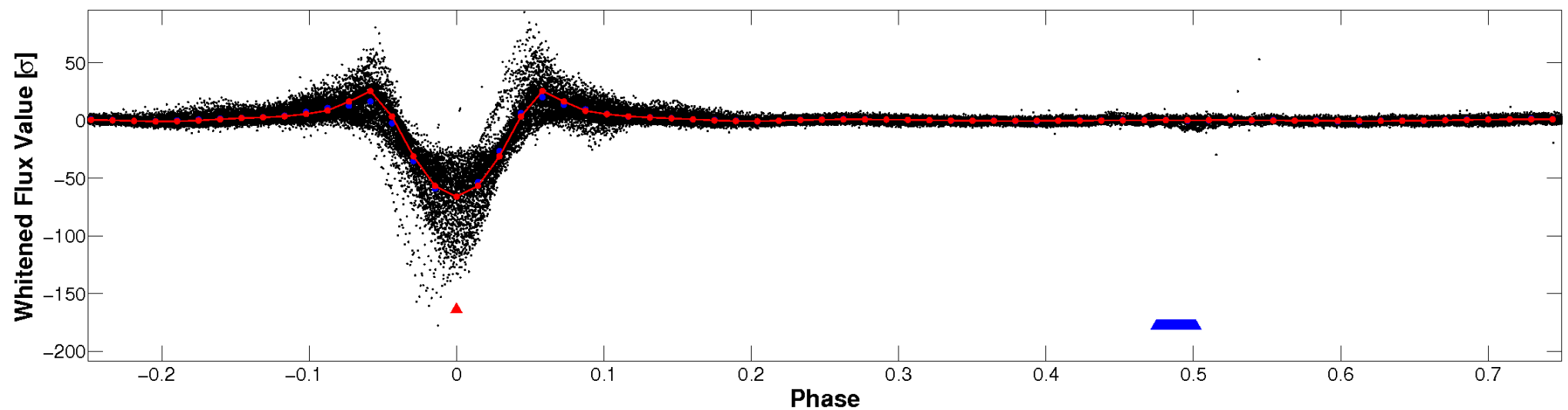


Non-Whitened Vs. Whitened Light Curve

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

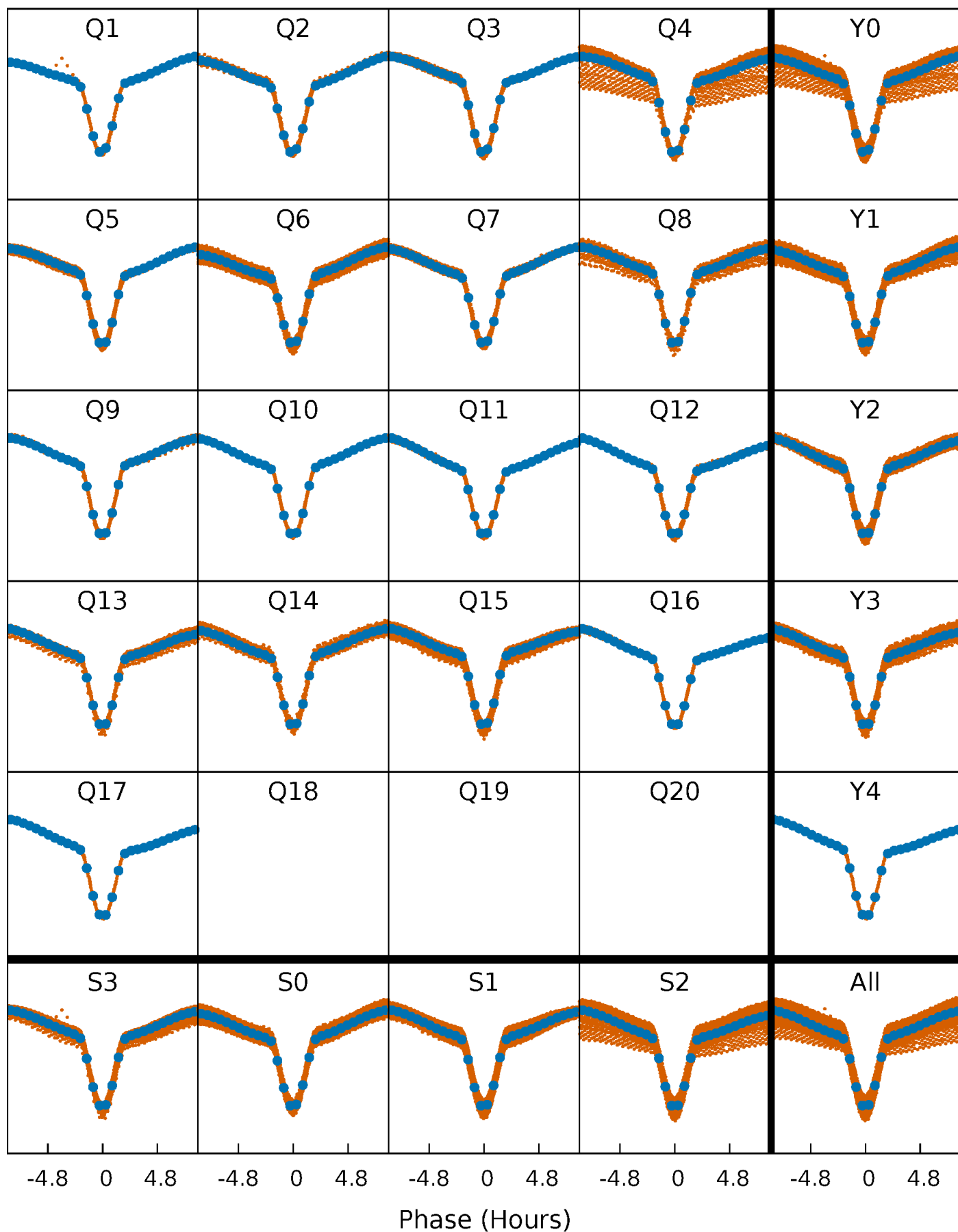


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



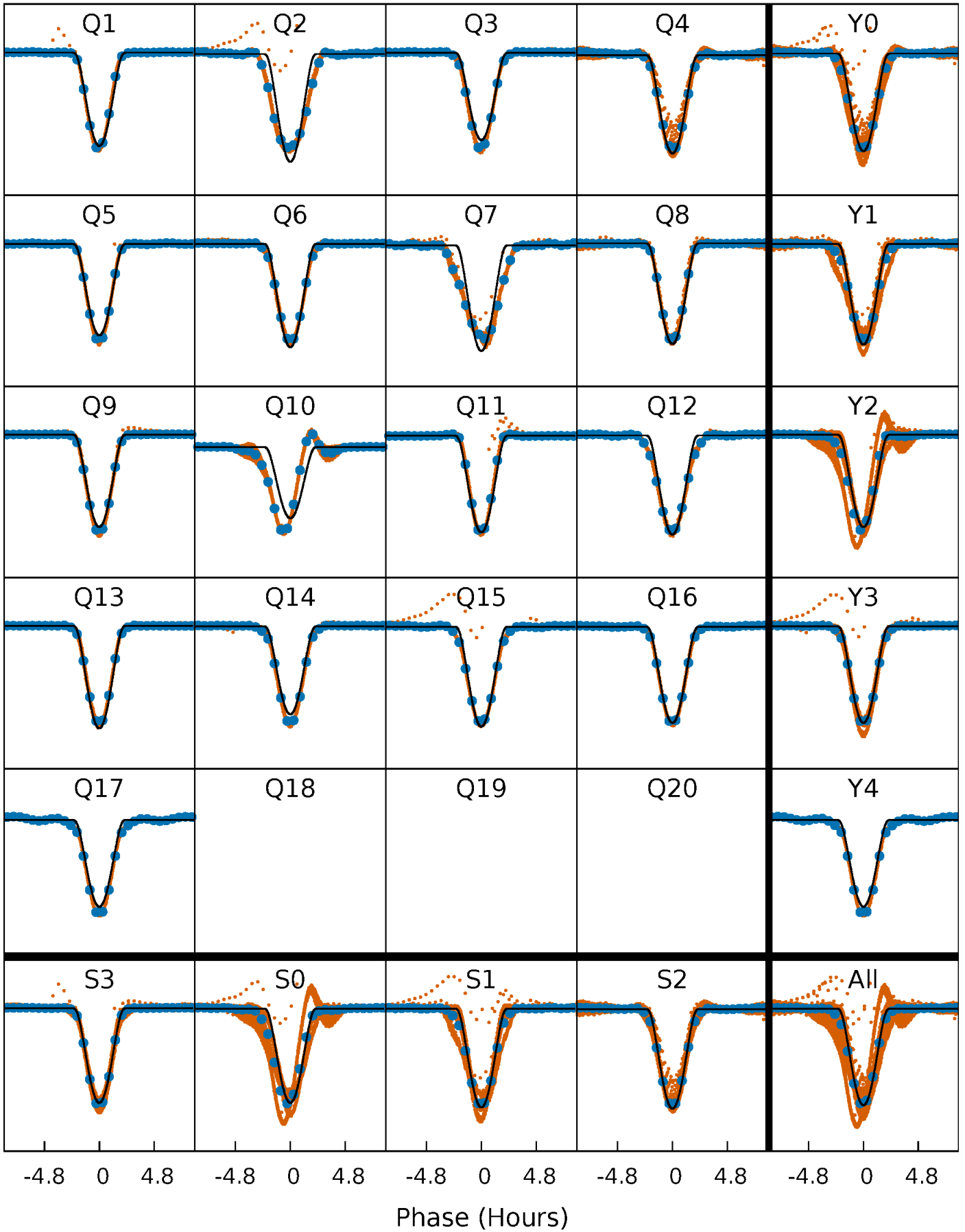
PDC Quarter-Phased Transit Curves

TCE 010000490-01 P= 1.400989 Days $T_0=132.456010$ (BKJD)



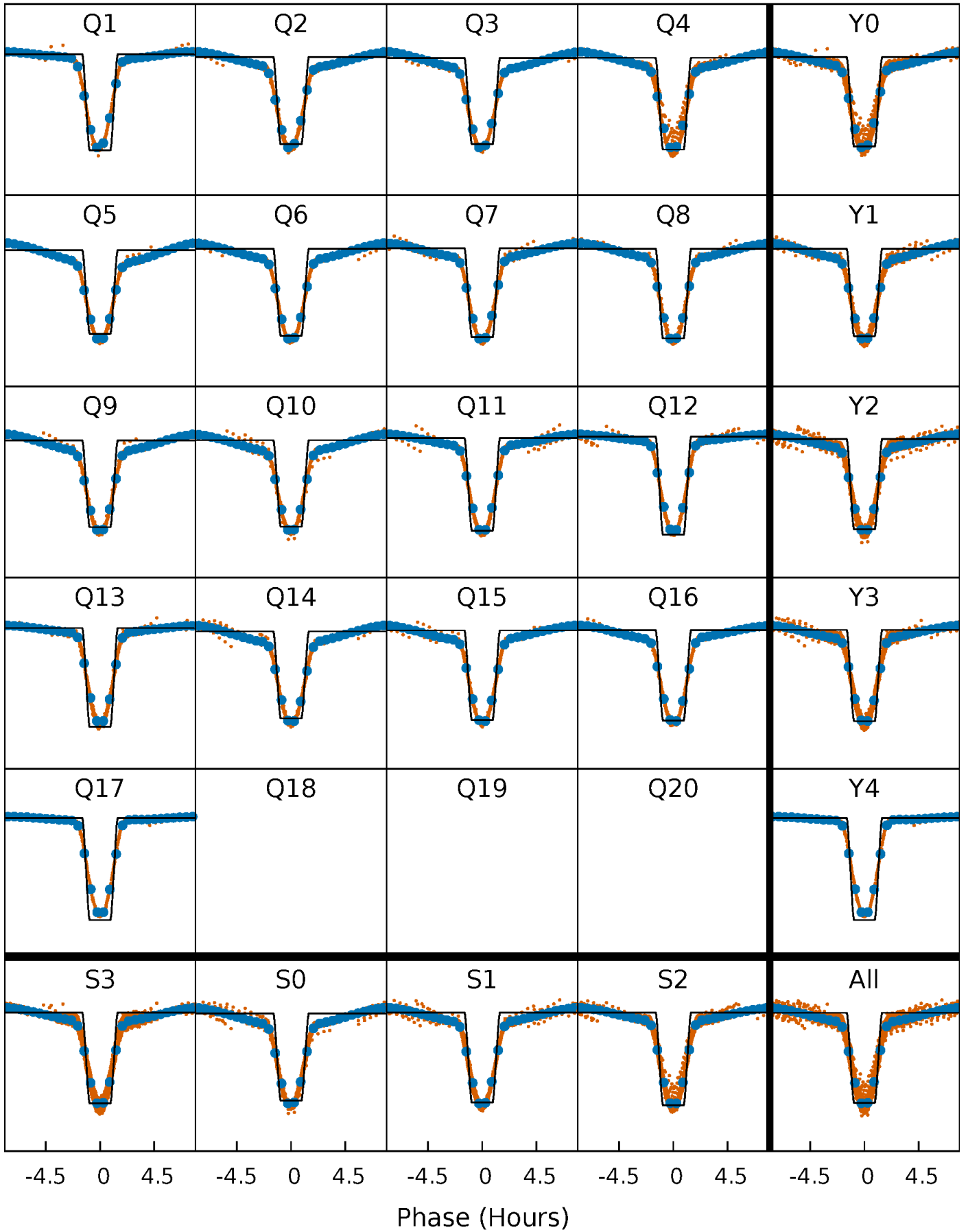
DV Quarter-Phased Transit Curves

TCE 010000490-01 P= 1.400989 Days $T_0=132.456010$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

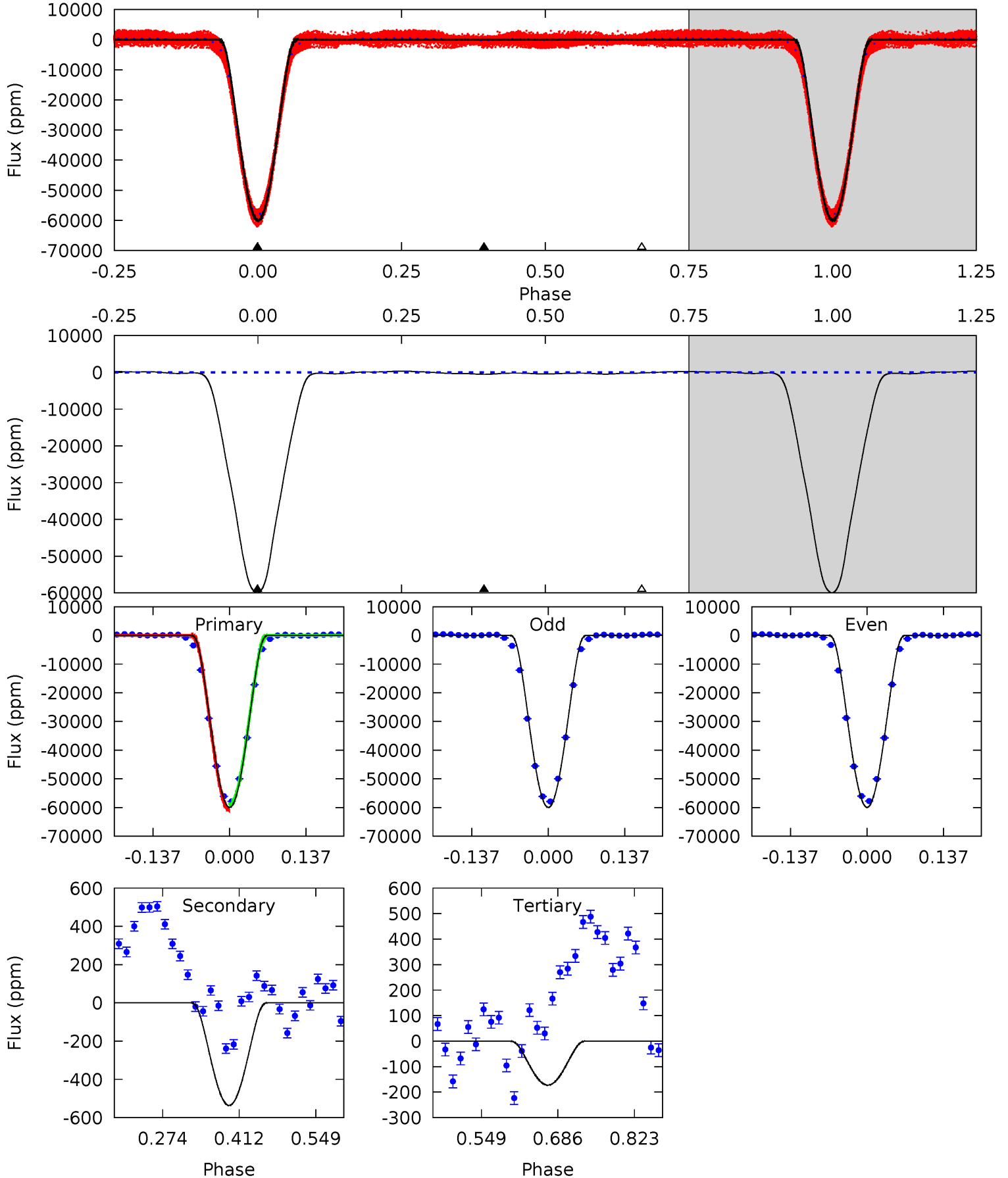
TCE 010000490-01 P= 1.400988 Days $T_0=132.456058$ (BKJD)



DV Model-Shift Uniqueness Test

010000490-01, P = 1.400989 Days, E = 131.055021 Days

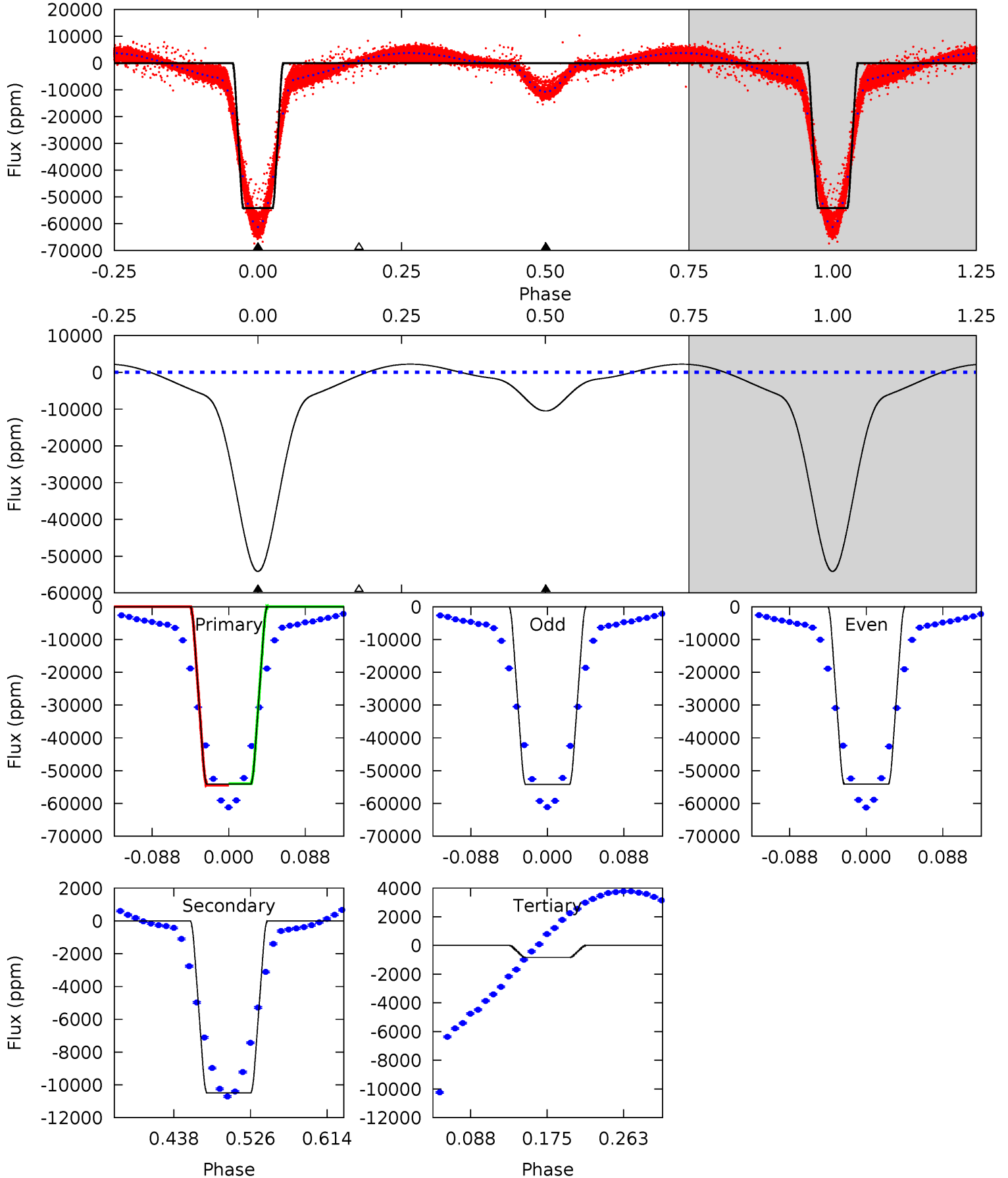
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5914	52.9	17.0	0	4.50	1.49	22.5	5897	5914	35.9	52.9	3.23	1.00	0.01	0



Alt Model-Shift Uniqueness Test

010000490-01, P = 1.400988 Days, E = 131.055070 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1449	280.5	22.3	0	4.59	1.71	64.6	1427	1449	258.3	280.5	0.12	0.99	0.04	5.91



Stellar Parameters For KIC 010000490

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6706^{+189}_{-259}	$4.026^{+0.258}_{-0.172}$	$-0.080^{+0.250}_{-0.300}$	$1.924^{+0.534}_{-0.594}$	$1.436^{+0.196}_{-0.294}$	$0.284^{+0.467}_{-0.135}$
	+3%/-4%	+6%/-4%	+312%/-375%	+28%/-31%	+14%/-20%	+165%/-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 010000490-01 / KOI 7269.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-536 ± 10	$68.77^{+9.51}_{-11.04}$	3441^{+262}_{-293}	-3261^{+202}_{-176}	$0.048^{+0.018}_{-0.011}$
Alt.	-10482 ± 37	$50.40^{+7.52}_{-8.27}$	3406^{+274}_{-297}	4364^{+98}_{-125}	$1.744^{+0.681}_{-0.409}$

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

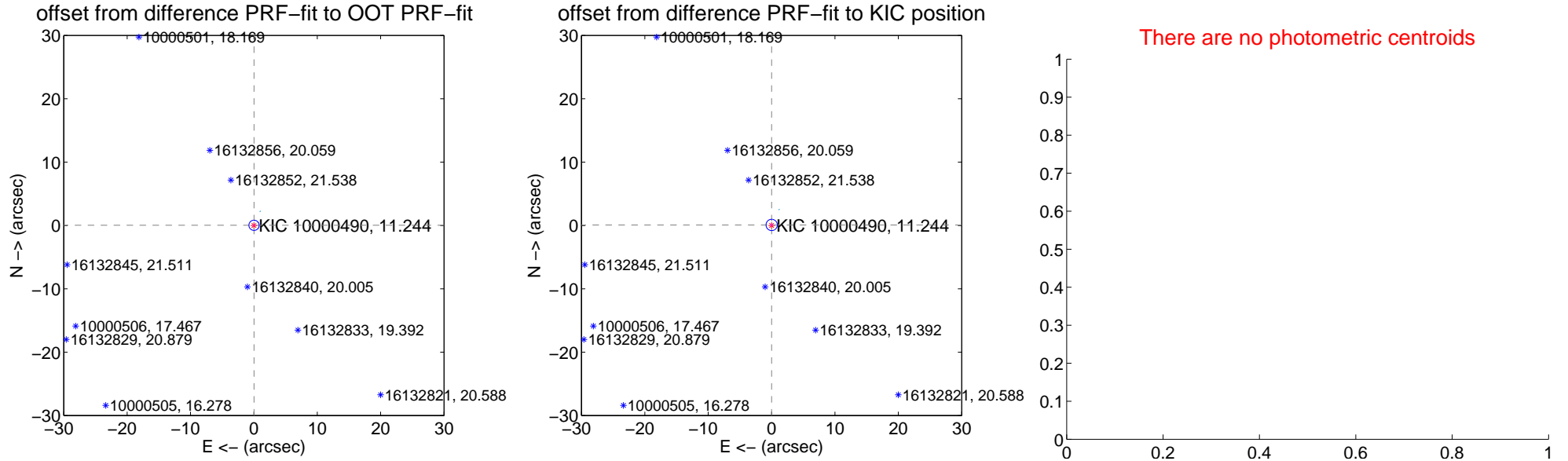
DV Centroid Data

Supplemental centroid analysis for 010000490-01. **Kepler magnitude: 11.24.** Transit SNR 2253.90

There are 17 quarters with good PRF difference image offsets

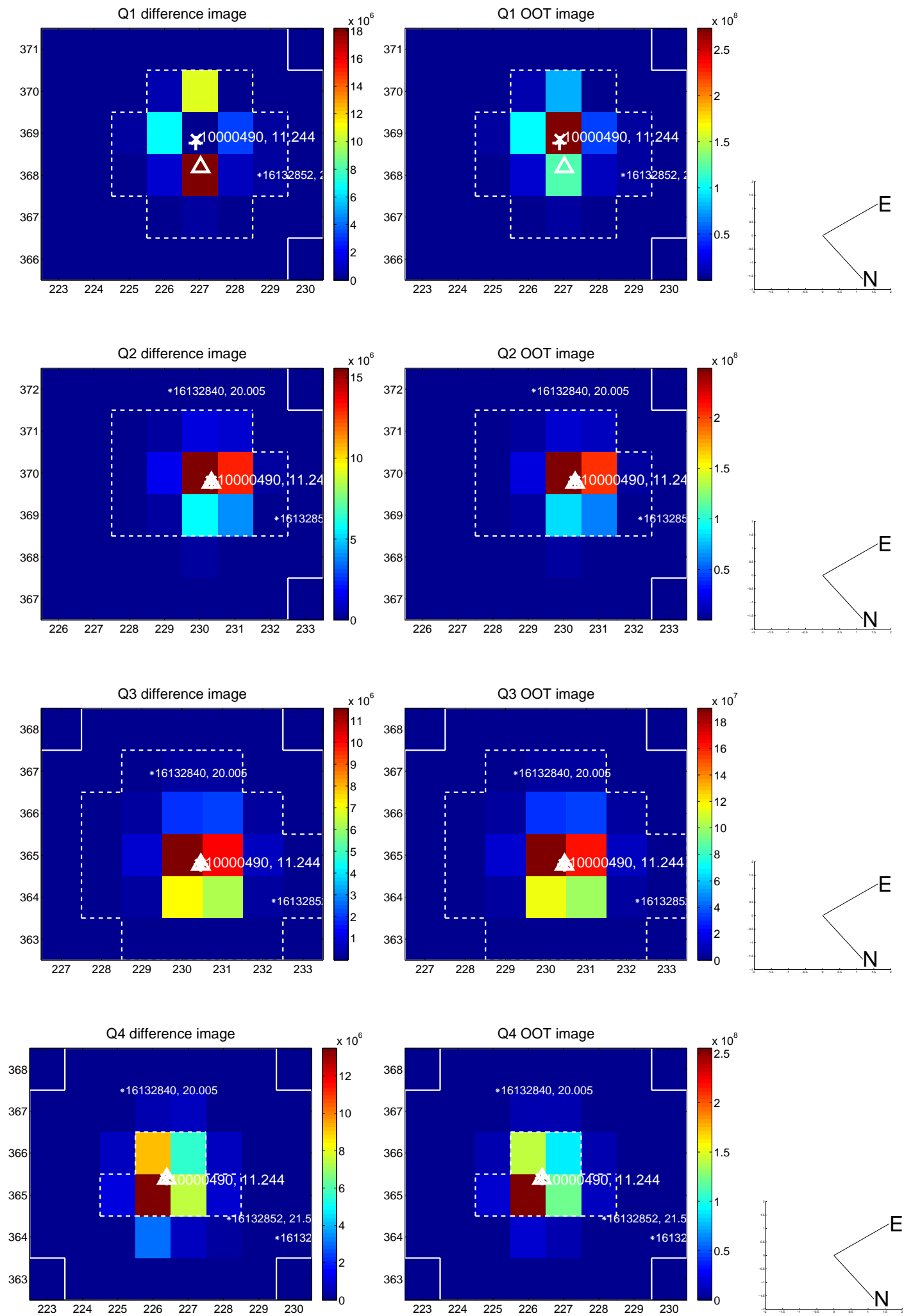
The direct PRF centroid is offset from the target star catalog position by about 0.29 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.033 ± 0.269	0.12	-0.017 ± 0.124	0.029 ± 0.250
PRF-fit source offset from KIC position	0.085 ± 0.297	0.29	-0.014 ± 0.149	0.084 ± 0.279
photometric centroid source offset	—	—	—	—

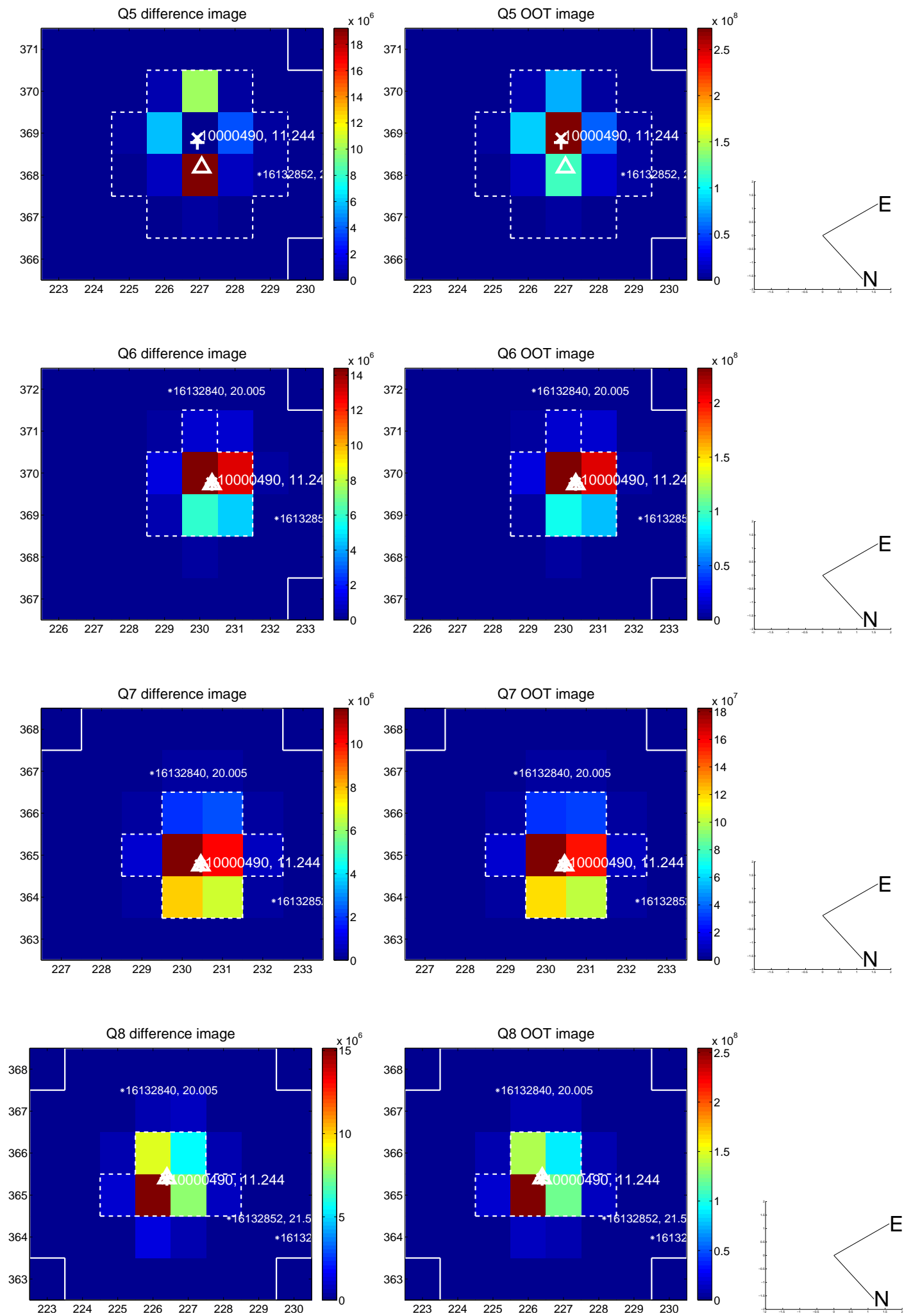


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

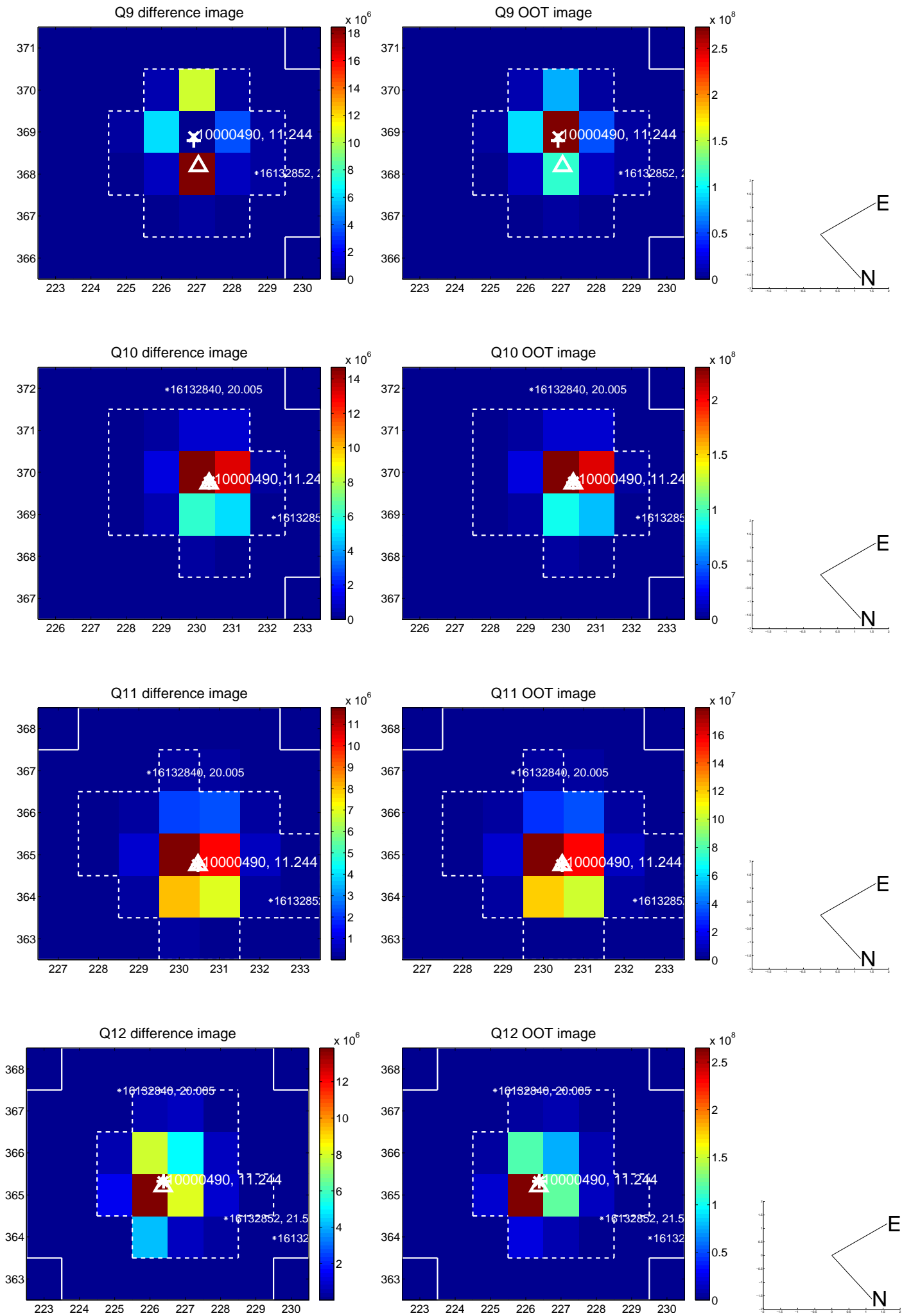
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



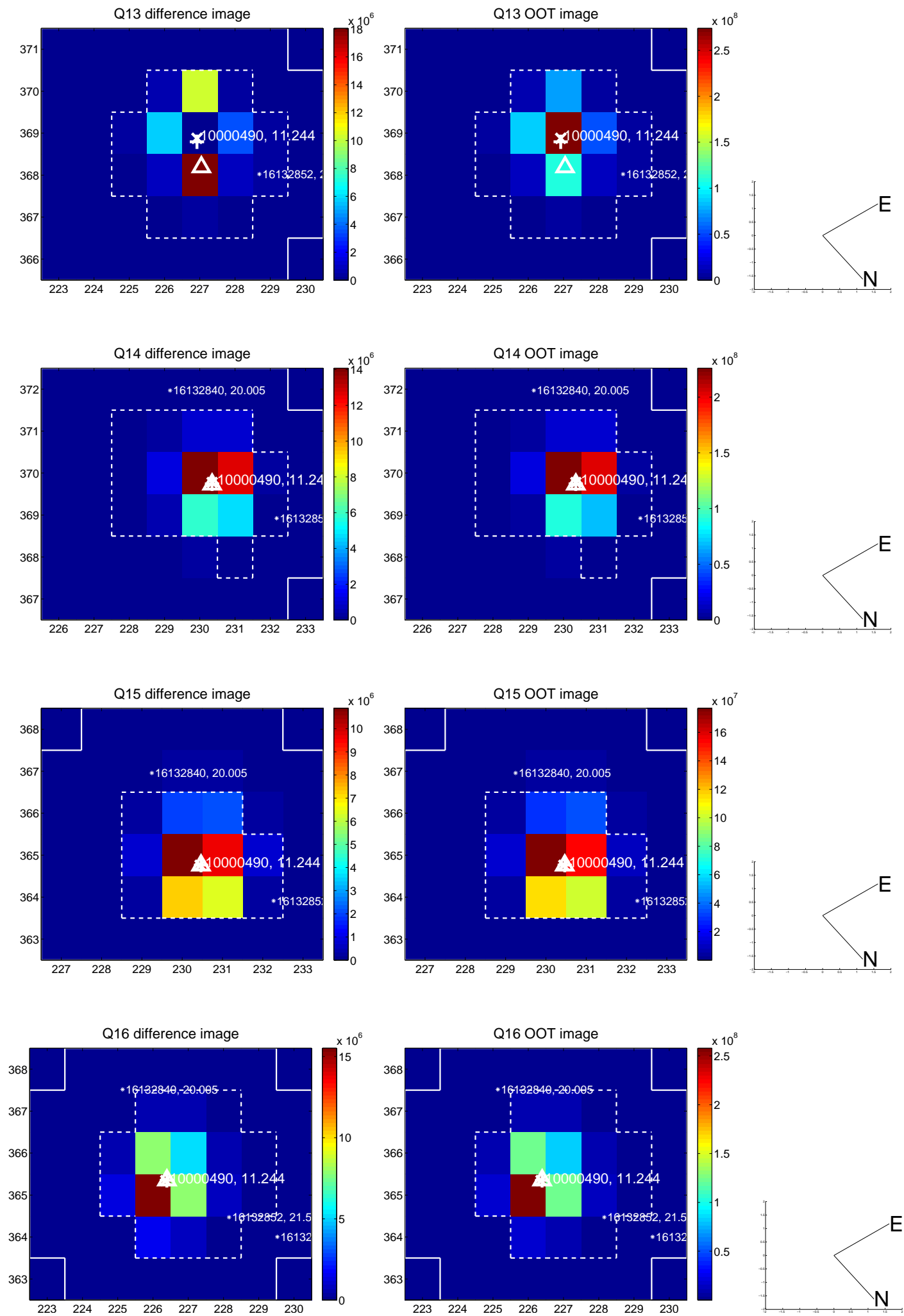
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



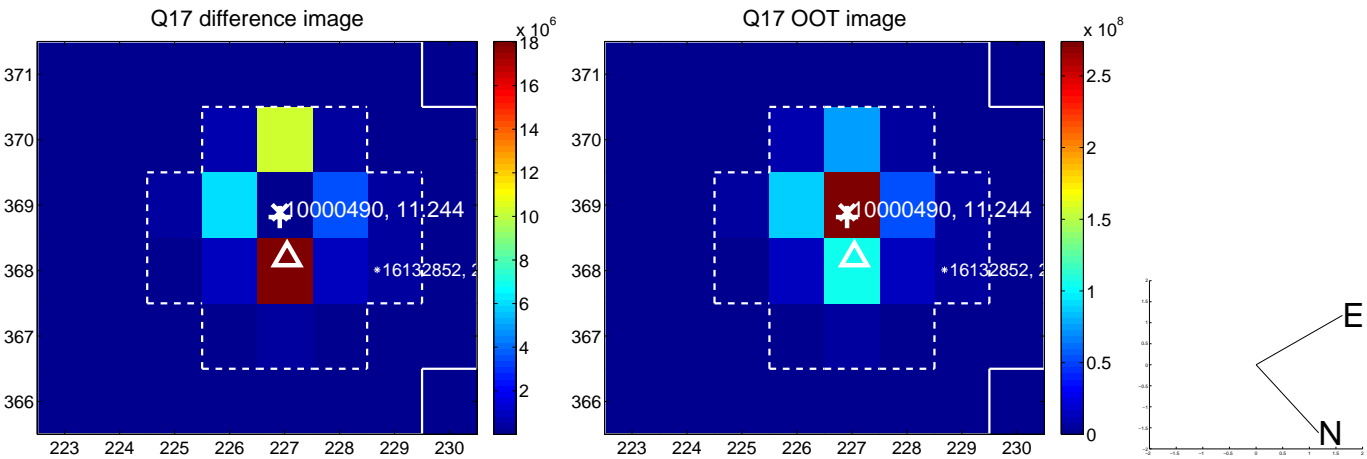
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



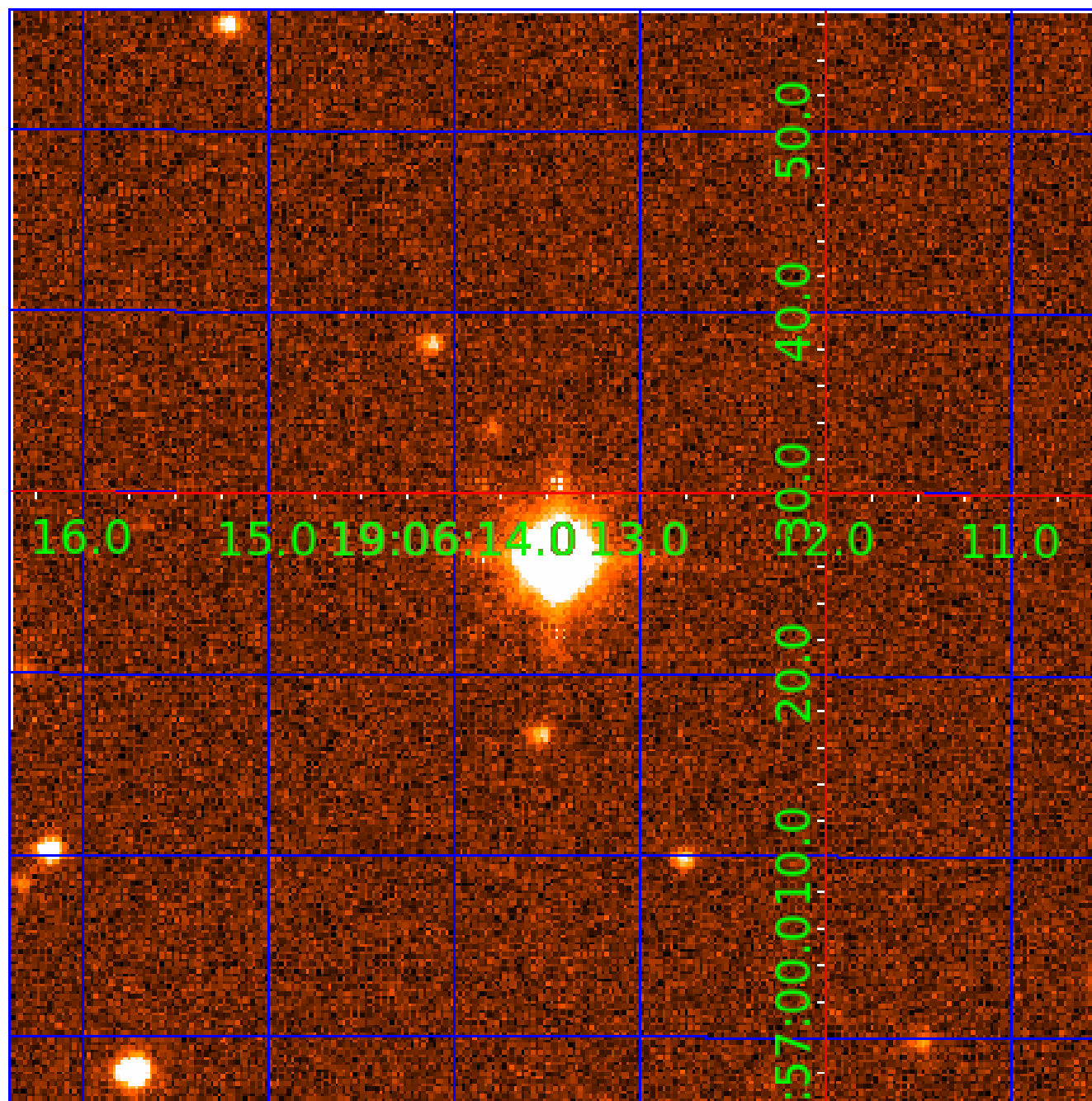
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



folded centroid time series figure for this object.

UKIRT Image

Declination



KIC 010000490

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})
010000490-01	OBS	7269.01	1.400989	132.456010	58809.7	4.171	4497.0	2253.9	1.92	6706	68.44	8782.92
010000490-02	OBS	No	1.400953	131.757869	253.1	1.500	18.2	-1.0	1.92	6706	3.10	8783.22

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010000490-01	OBS	FP	0.00	0	1	0	0	SWEET_EB—DEEP_V_SHAPED—HAS_SEC_TCE—CENT_SATURATED
010000490-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE—CENT_SATURATED

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 010000490-02

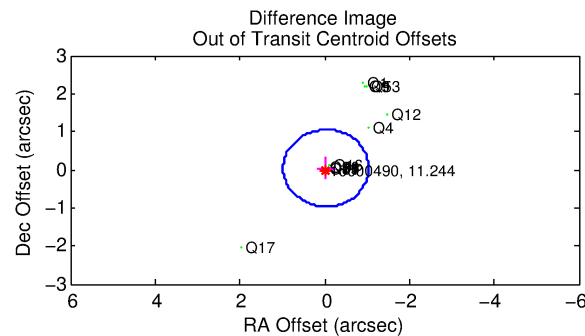
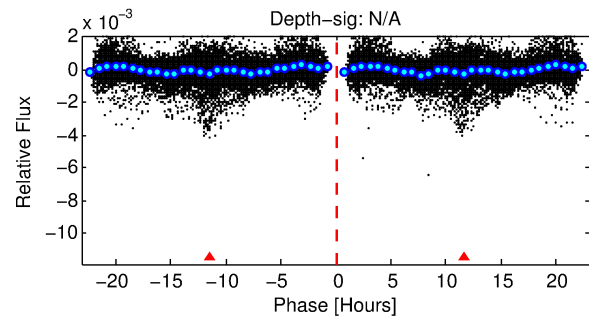
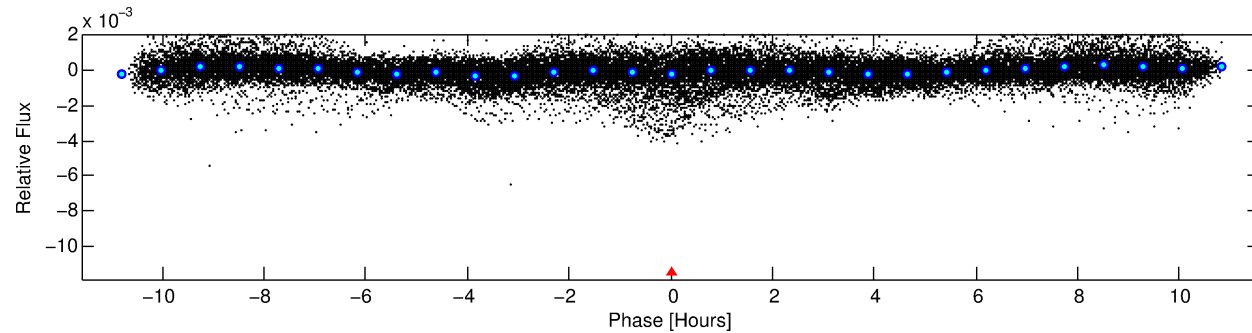
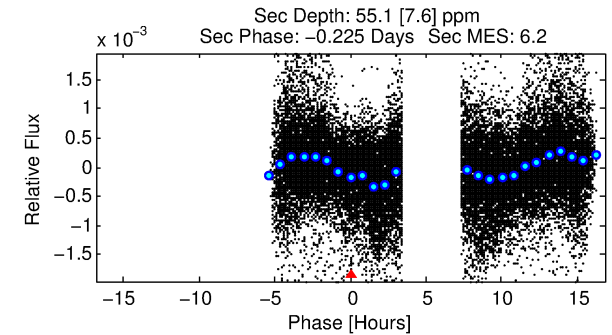
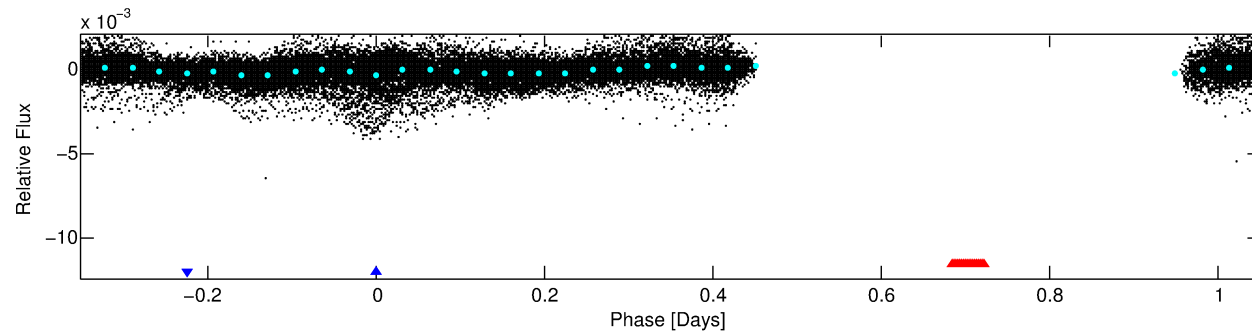
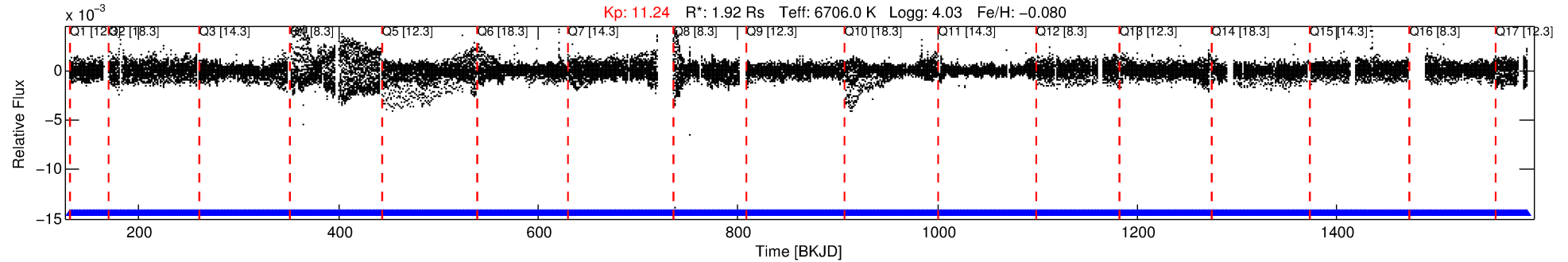
No Significant Match Found

DV One-Page Summary

KIC: 10000490 Candidate: 2 of 2 Period: 1.401 d

KOI: K07269 Corr: No Ephemeris Match

Kp: 11.24 R*: 1.92 Rs Teff: 6706.0 K Logg: 4.03 Fe/H: -0.080



TPS TCE Results:

Period = 1.40095 d
Epoch = 131.7579 BKJD

DV fit results are unavailable

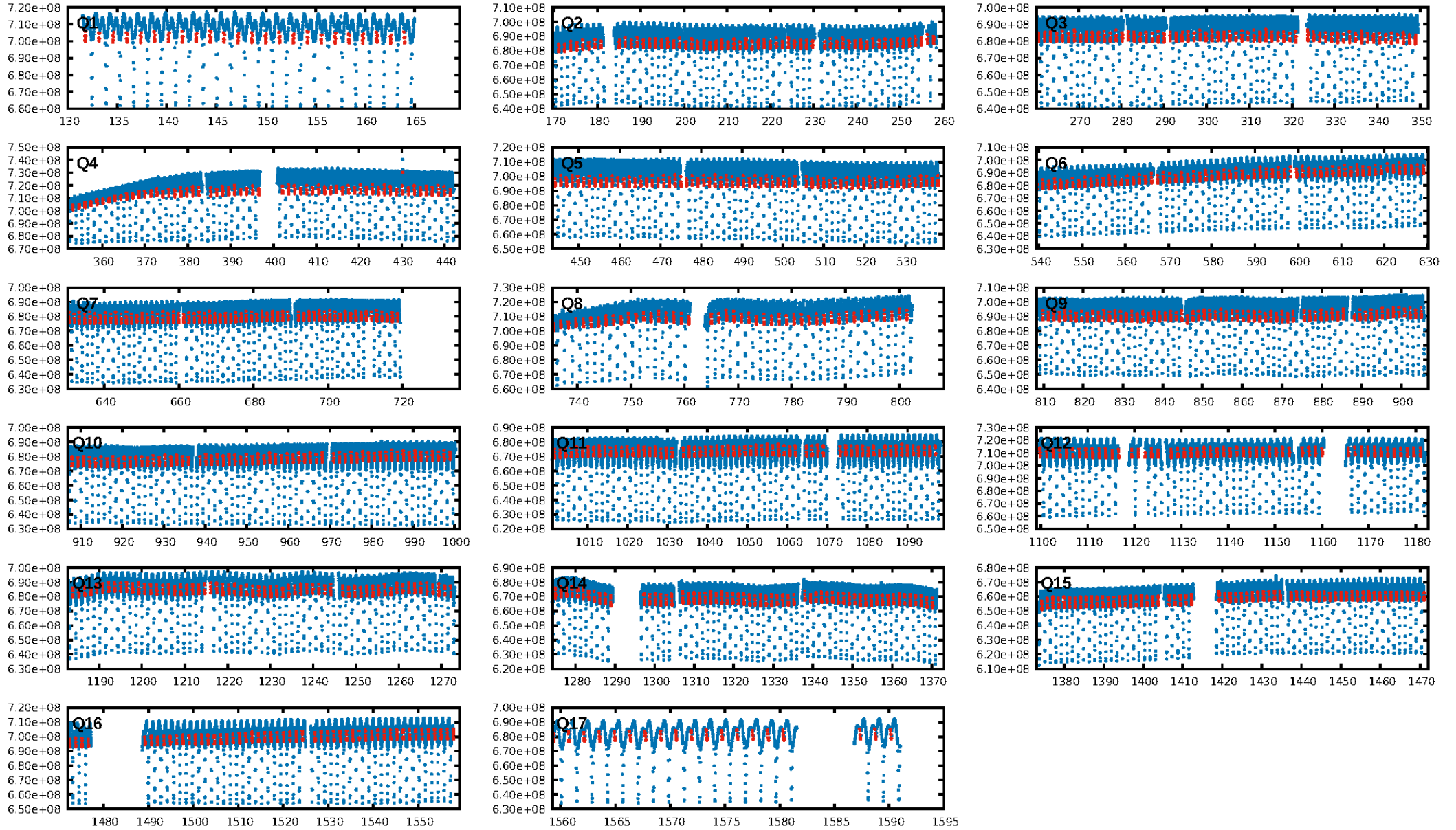
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 0.0% [0.00σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [913/913]
GhostDiagnostic-chr: 2.97
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 0.051 arcsec [0.15σ]
KicOffset-rm: 0.266 arcsec [0.93σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.94 [16/17]
DiffImageOverlap-fno: 1.00 [17/17]

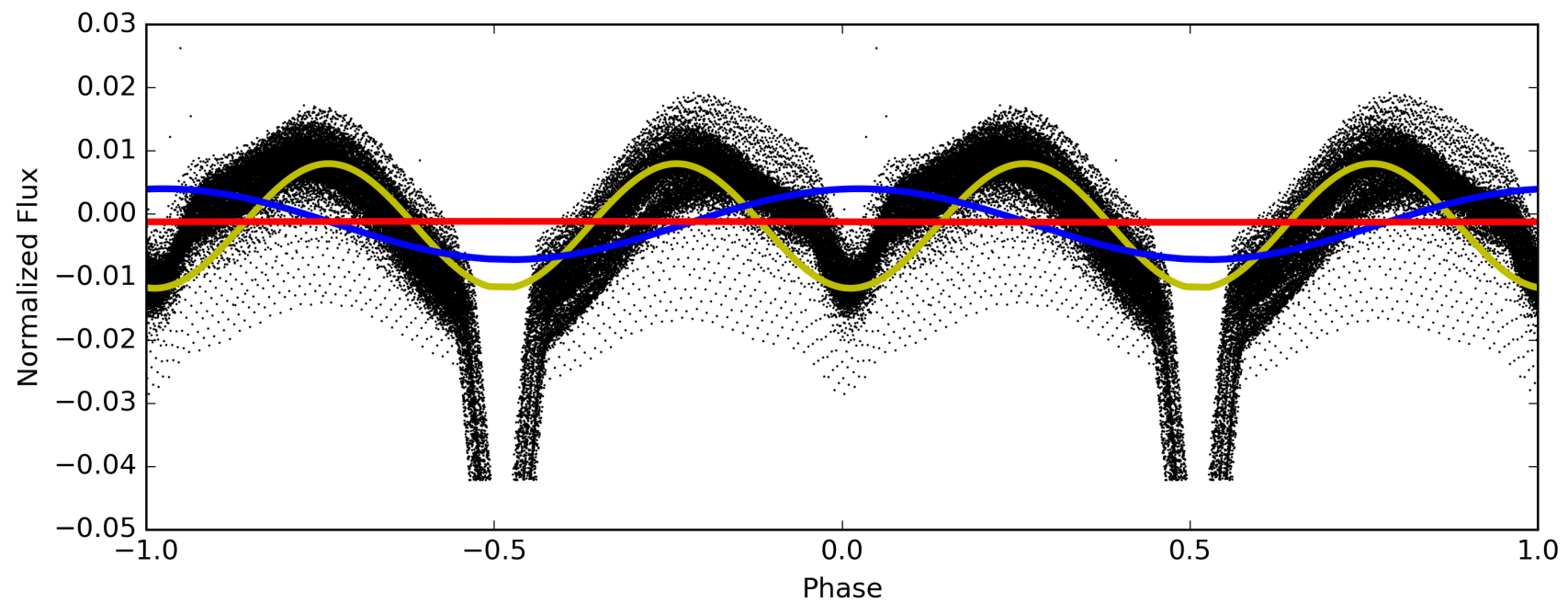
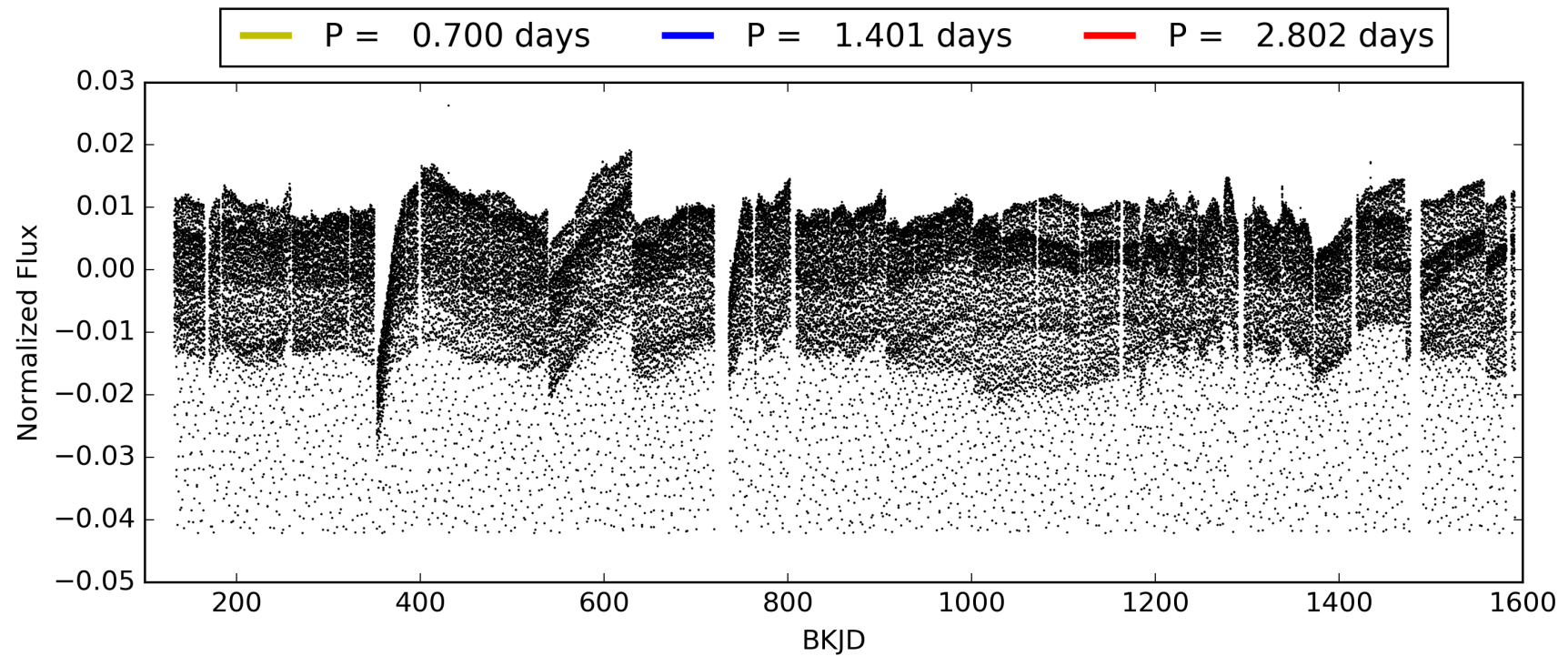
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 09:05:42 Z

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

TCE 010000490-02, PDC Light Curves

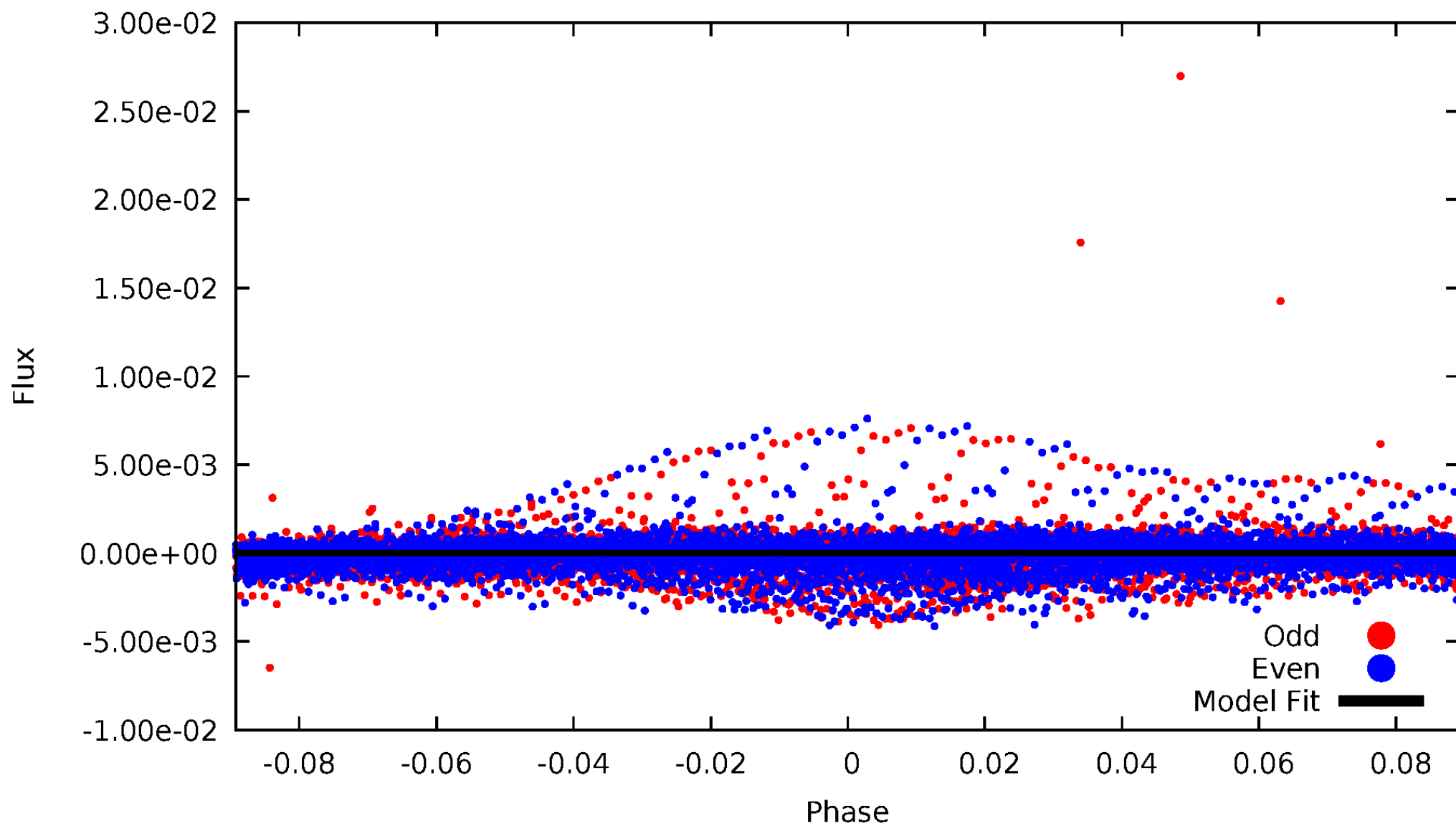


TCE 010000490-02



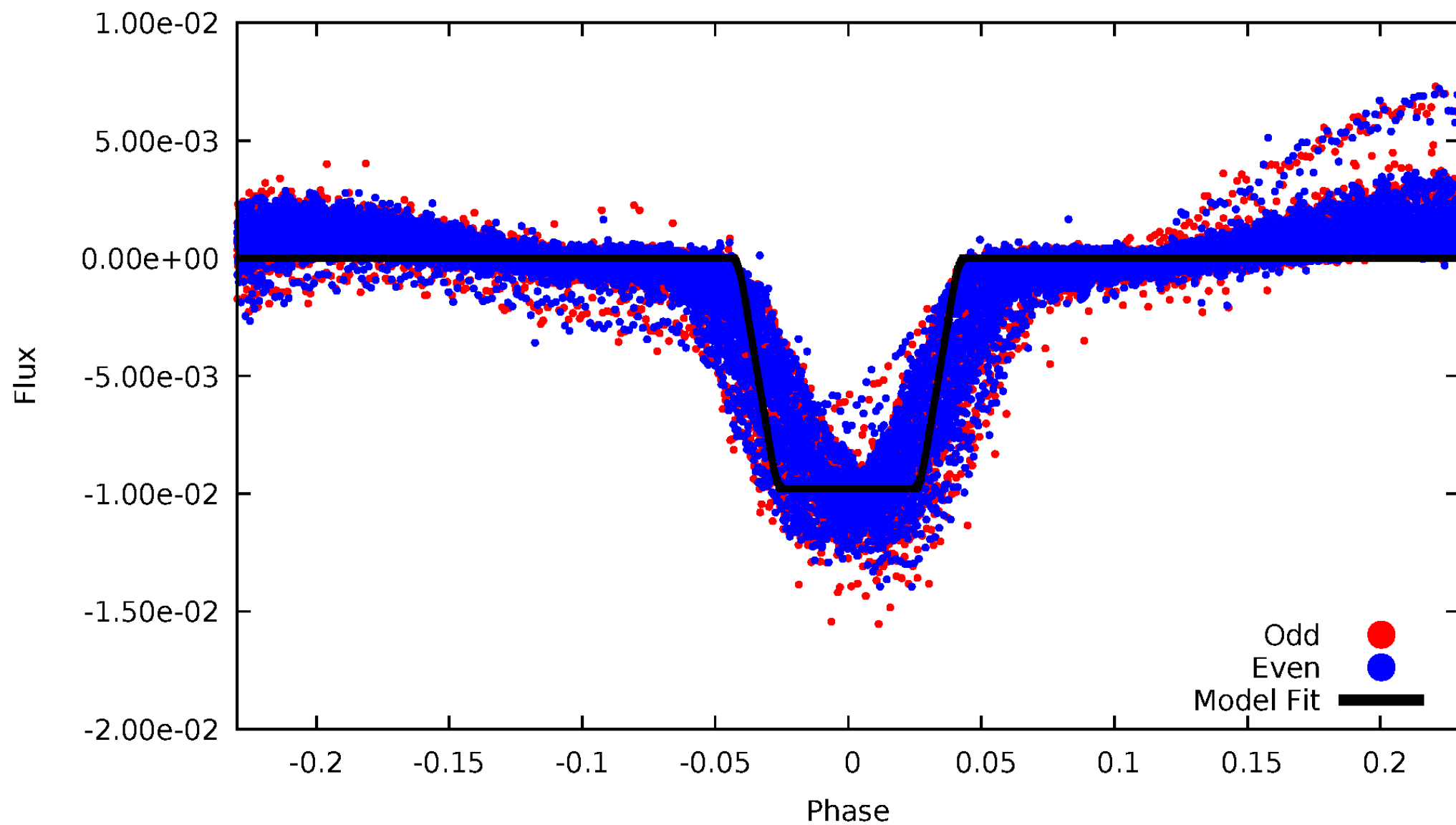
DV Odd/Even

TCE 010000490-02



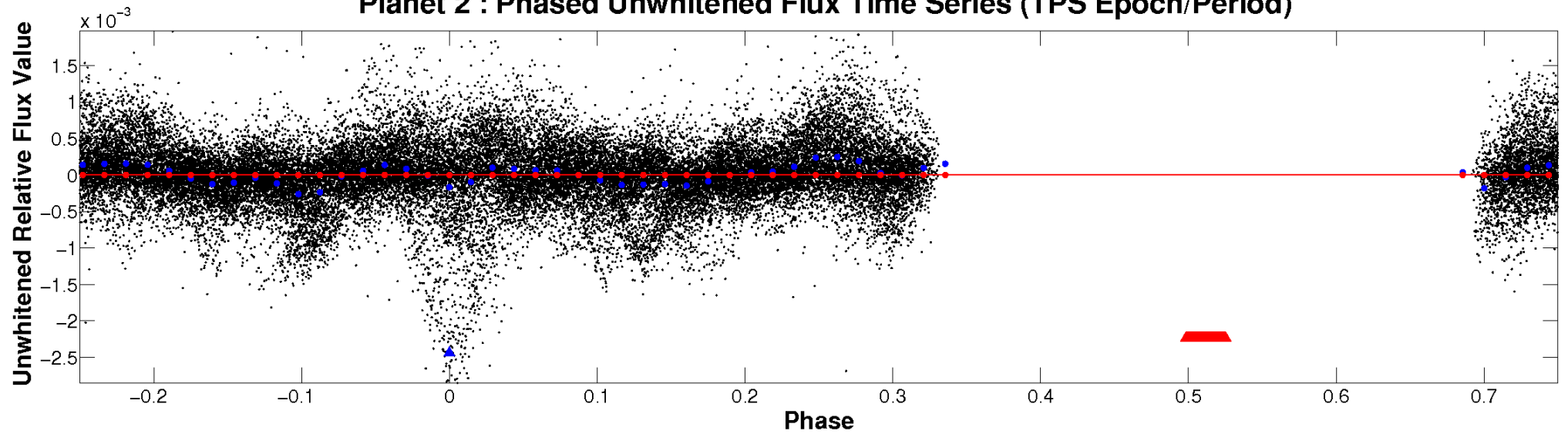
ALT Odd/Even

TCE 010000490-02

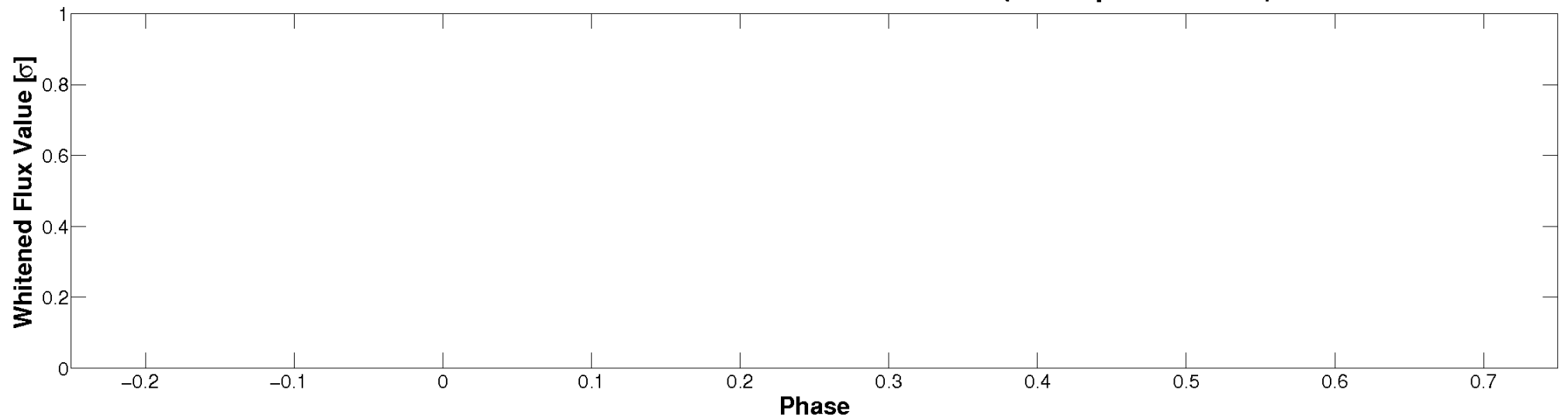


Non-Whitened Vs. Whitened Light Curve

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

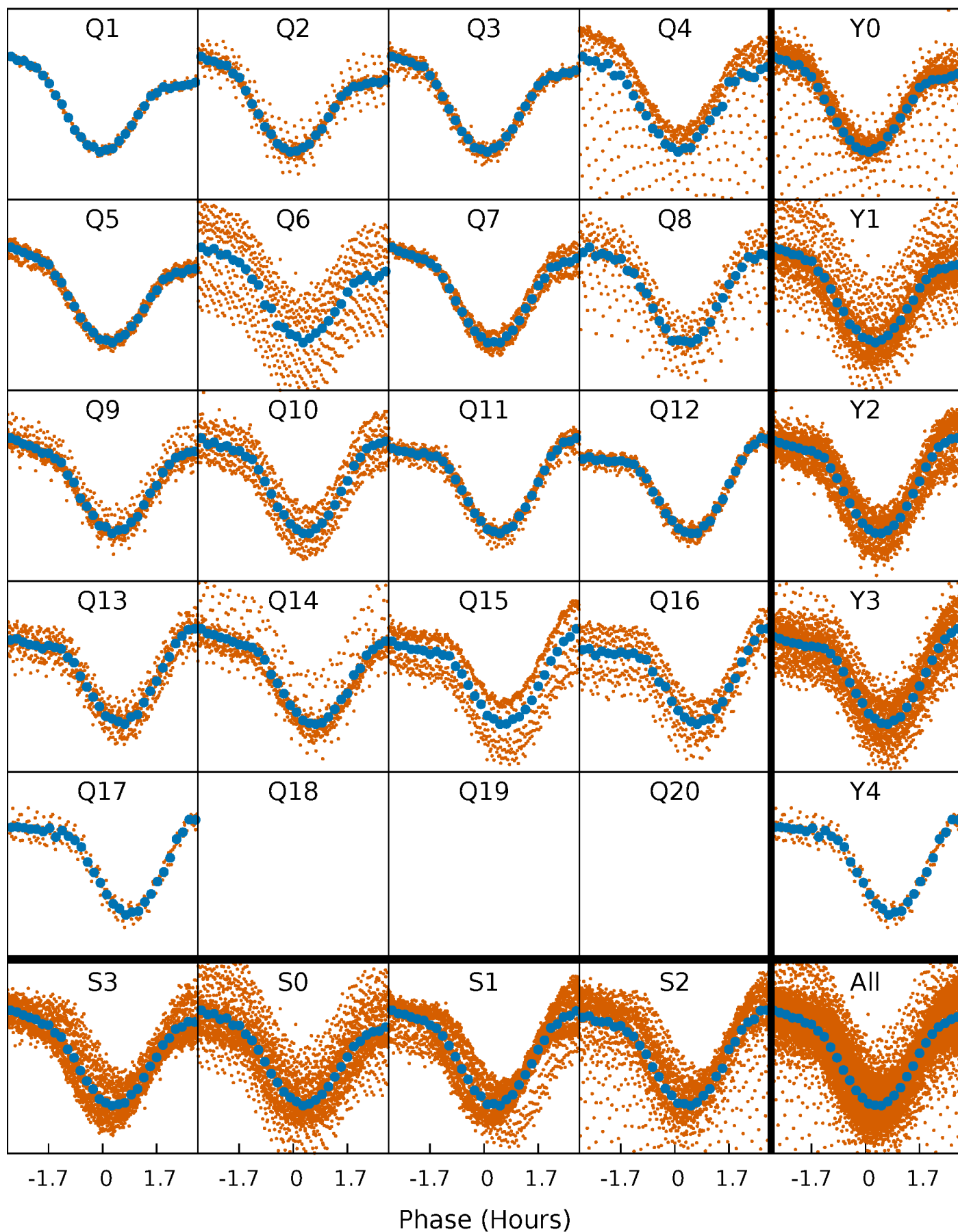


Planet 2 : Phased Whitened Flux Time Series (TPS Epoch/Period)



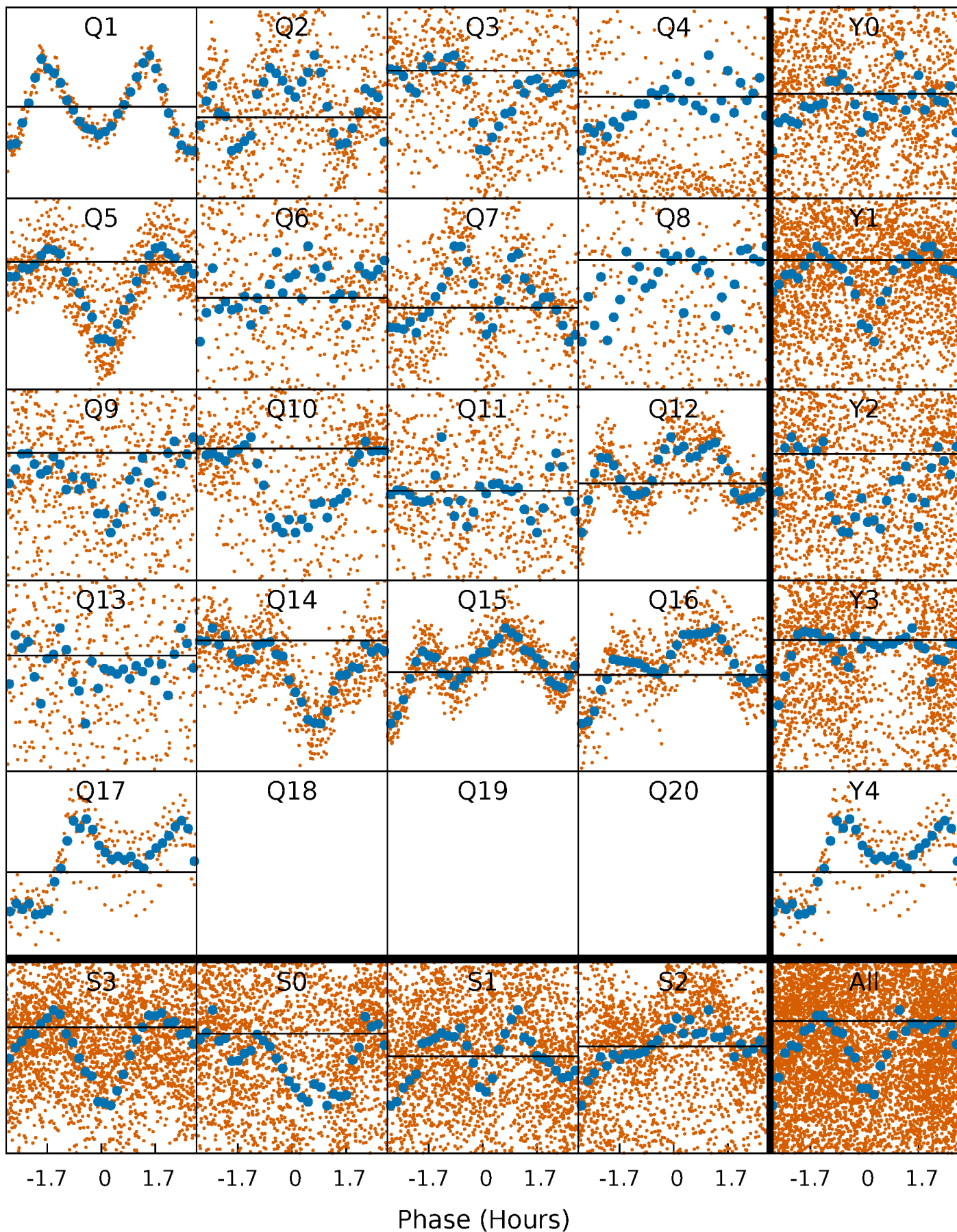
PDC Quarter-Phased Transit Curves

TCE 010000490-02 P= 1.400953 Days $T_0=131.757869$ (BKJD)



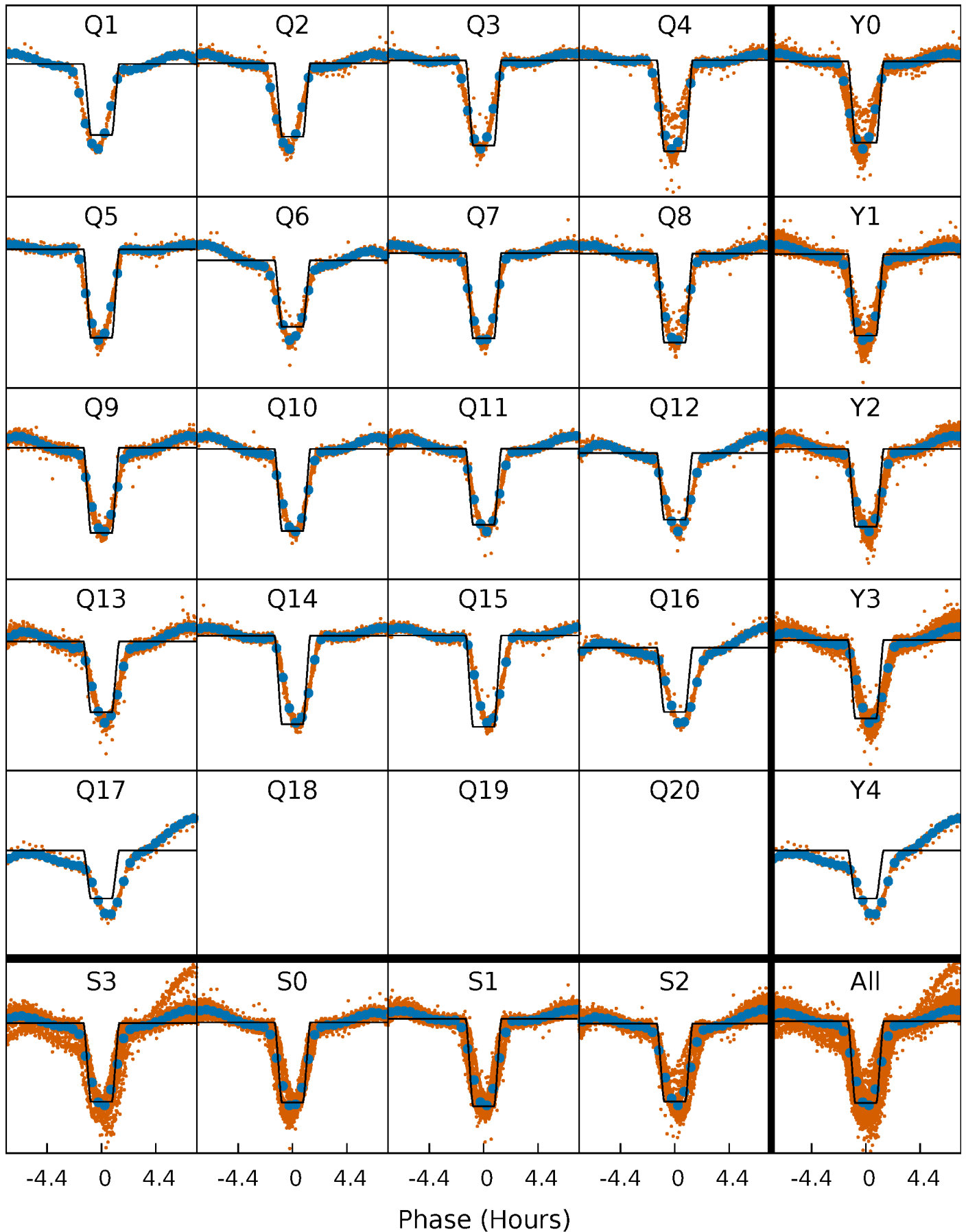
DV Quarter-Phased Transit Curves

TCE 010000490-02 $P = 1.400953$ Days $T_0 = 131.757869$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

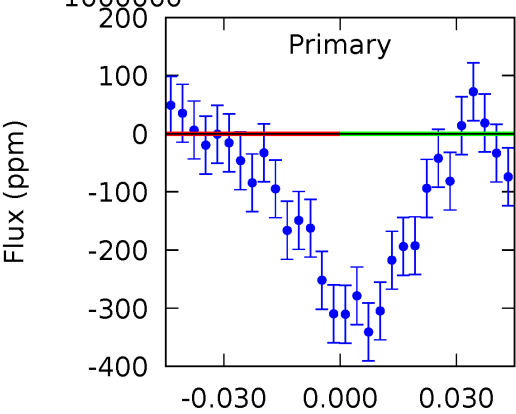
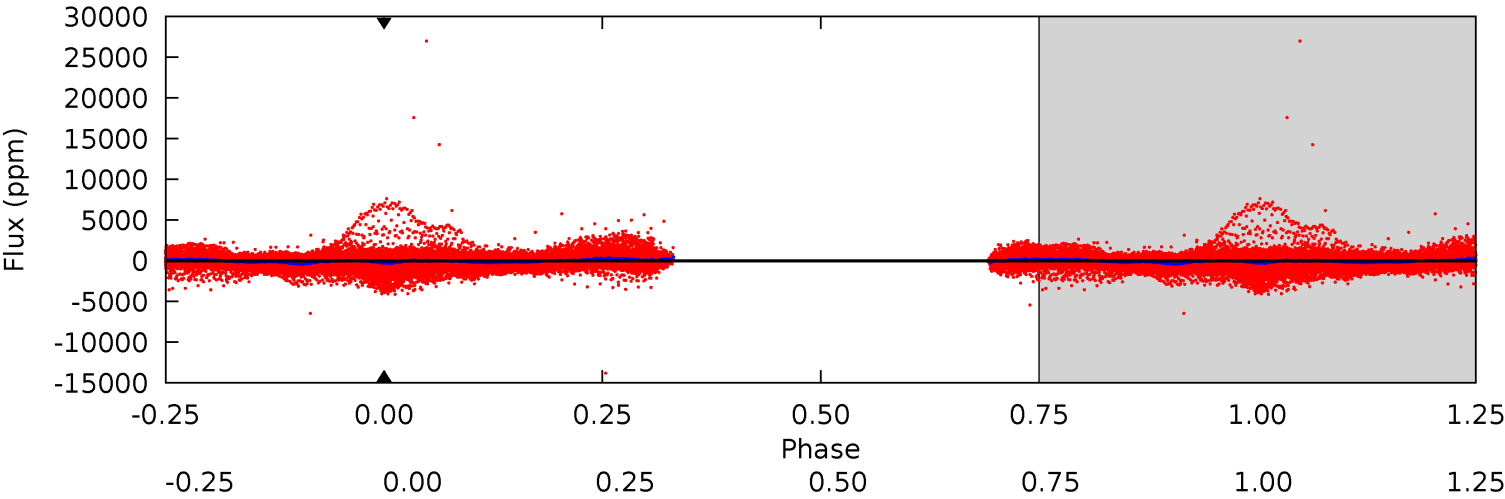
TCE 010000490-02 $P = 1.400953$ Days $T_0 = 131.770153$ (BKJD)



DV Model-Shift Uniqueness Test

010000490-02, P = 1.400953 Days, E = 130.356916 Days

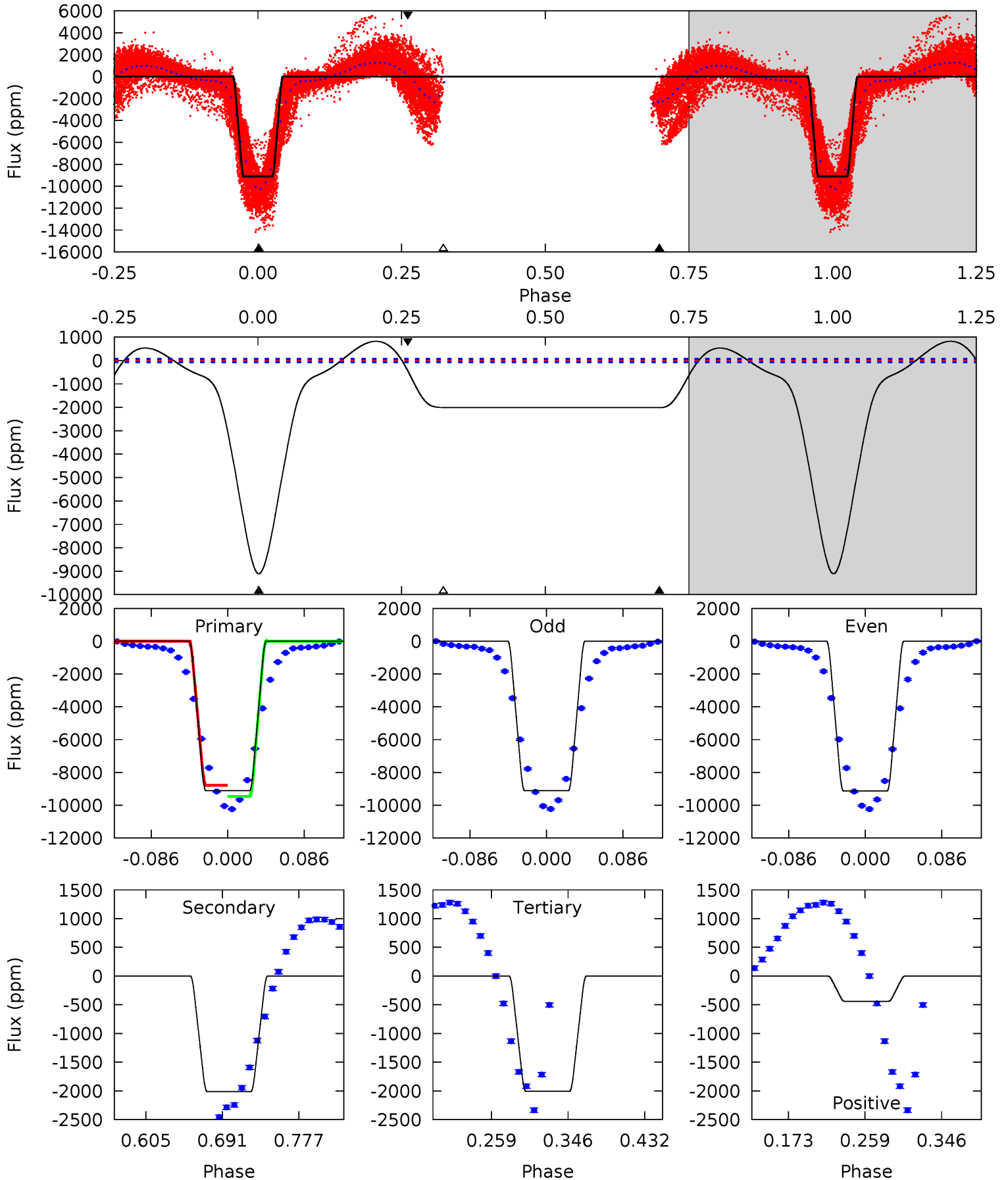
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

010000490-02, P = 1.400953 Days, E = 130.369200 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
582.1	128.6	128.1	-28.1	4.60	1.71	44.8	453.9	610.2	0.46	156.7	0.37	1.01	0.08	26.0



Stellar Parameters For KIC 010000490

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6706^{+189}_{-259}	$4.026^{+0.258}_{-0.172}$	$-0.080^{+0.250}_{-0.300}$	$1.924^{+0.534}_{-0.594}$	$1.436^{+0.196}_{-0.294}$	$0.284^{+0.467}_{-0.135}$
	+3%/-4%	+6%/-4%	+312%/-375%	+28%/-31%	+14%/-20%	+165%/-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 010000490-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	0 ± 1000000	$14.82^{+14.81}_{-9.85}$	3408^{+274}_{-286}	4855^{+31061}_{-31055}	$2.836^{+393.408}_{-262.460}$
Alt.	-2013 ± 16	$24.83^{+18.71}_{-15.96}$	3421^{+283}_{-309}	4054^{+2419}_{-1055}	$1.368^{+9.776}_{-0.935}$

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

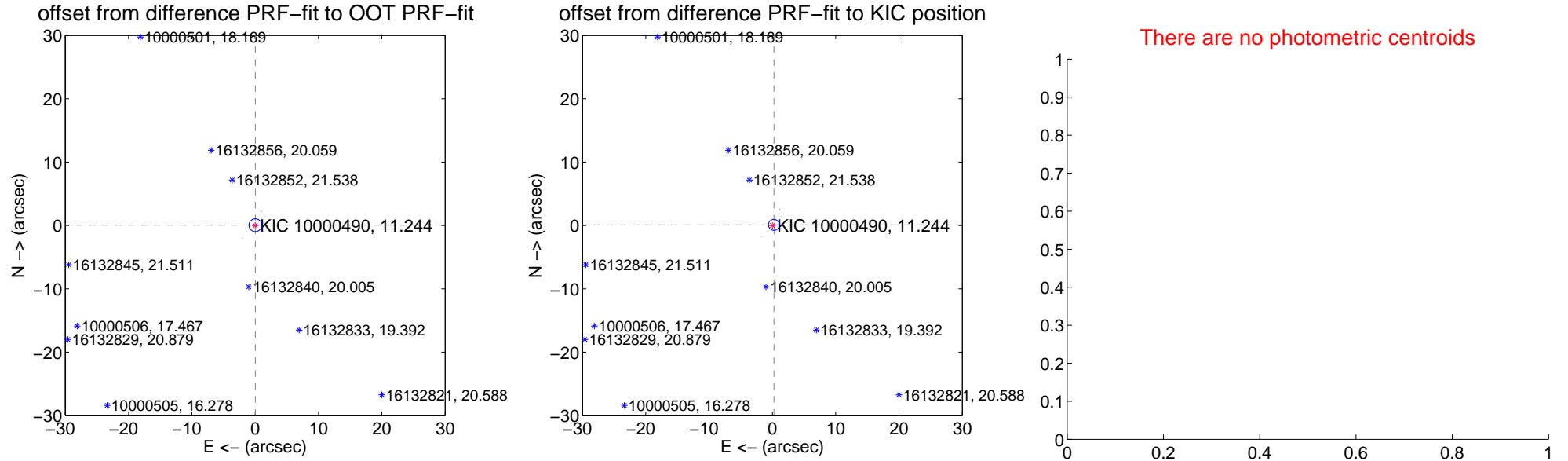
DV Centroid Data

Supplemental centroid analysis for 010000490-02. **Kepler magnitude: 11.24.** Transit SNR -1.00

There are 16 quarters with good PRF difference image offsets

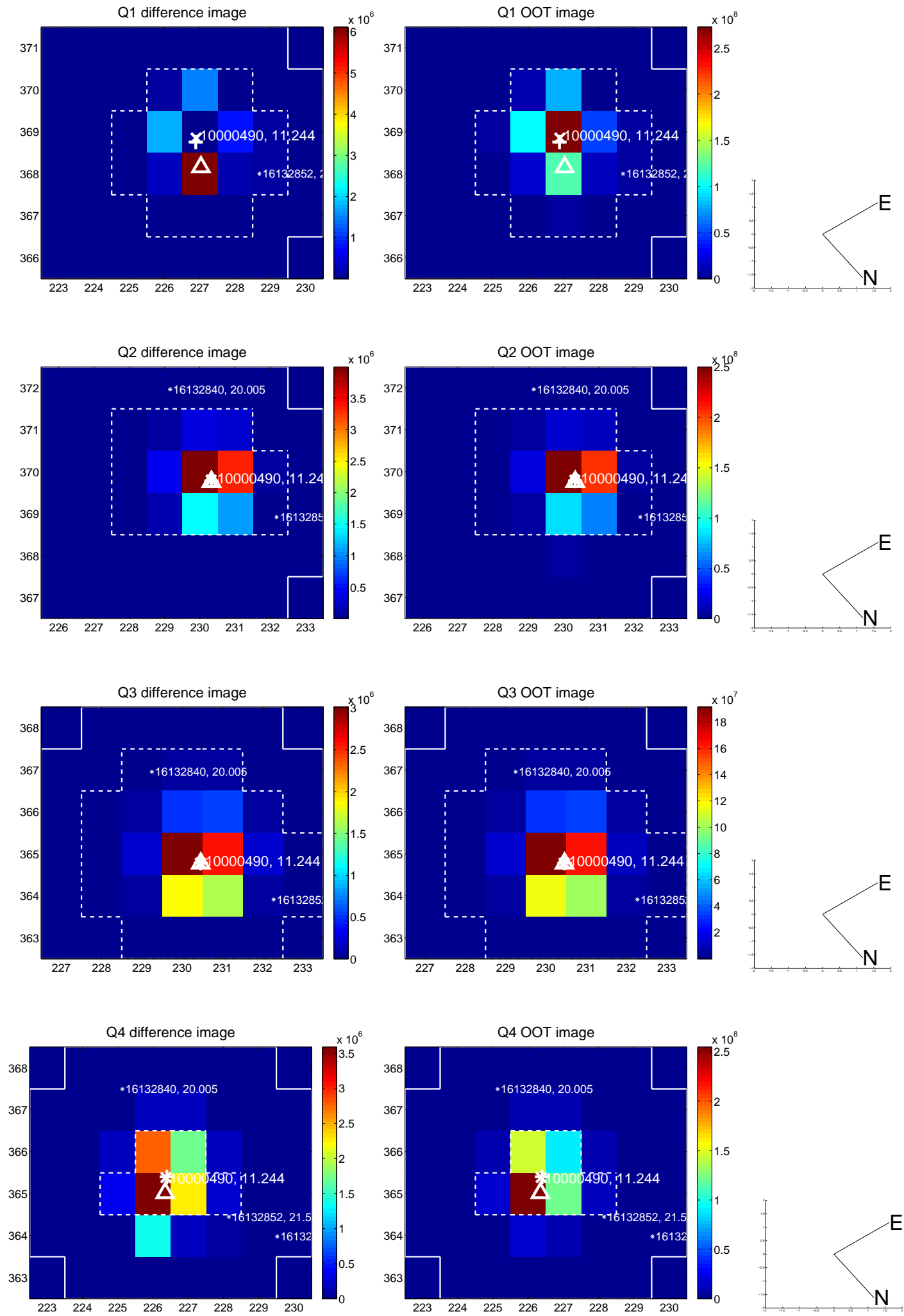
The direct PRF centroid is offset from the target star catalog position by about 0.30 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.051 ± 0.336	0.15	-0.027 ± 0.200	0.043 ± 0.285
PRF-fit source offset from KIC position	0.266 ± 0.287	0.93	-0.248 ± 0.201	0.096 ± 0.300
photometric centroid source offset	—	—	—	—

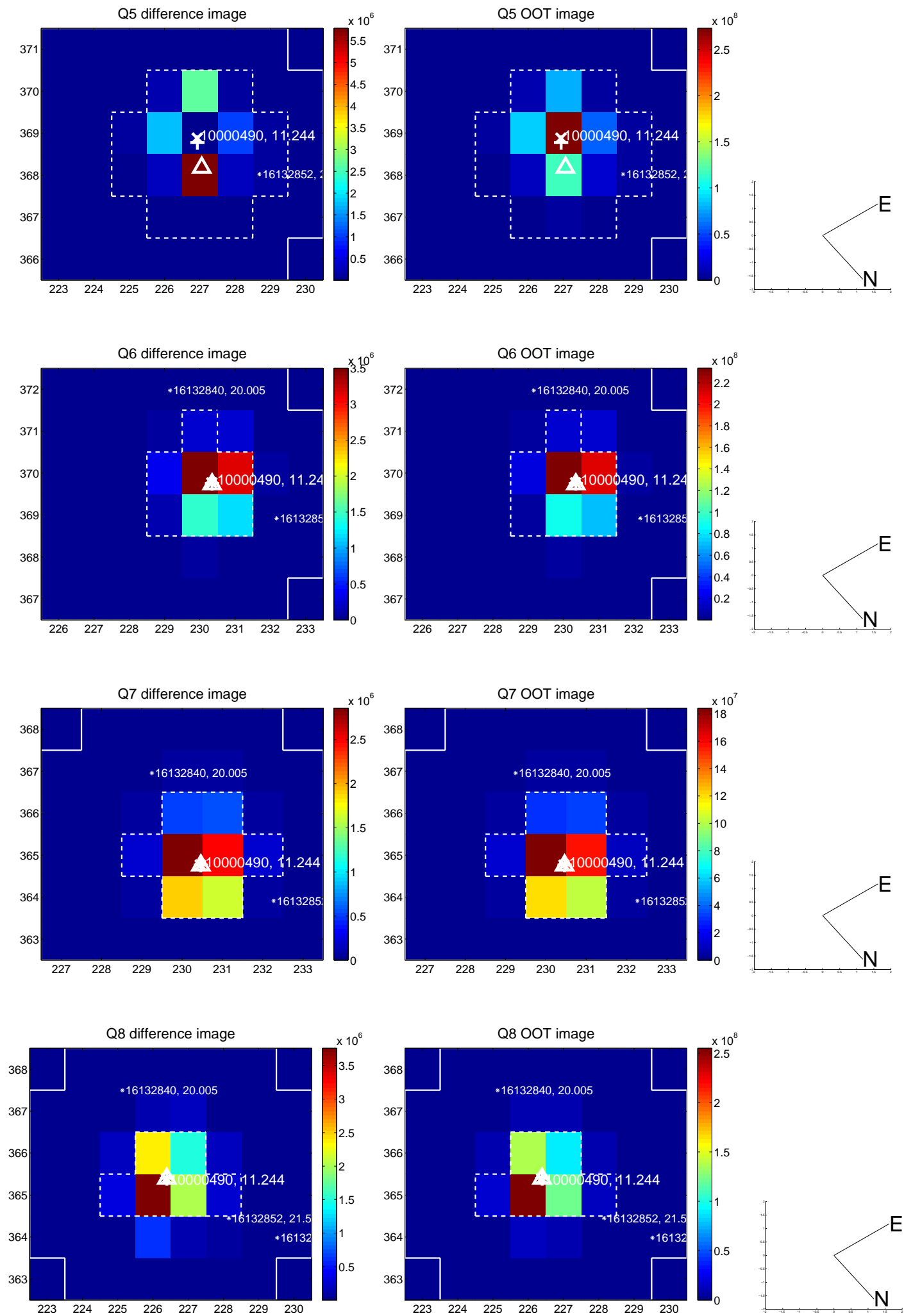


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

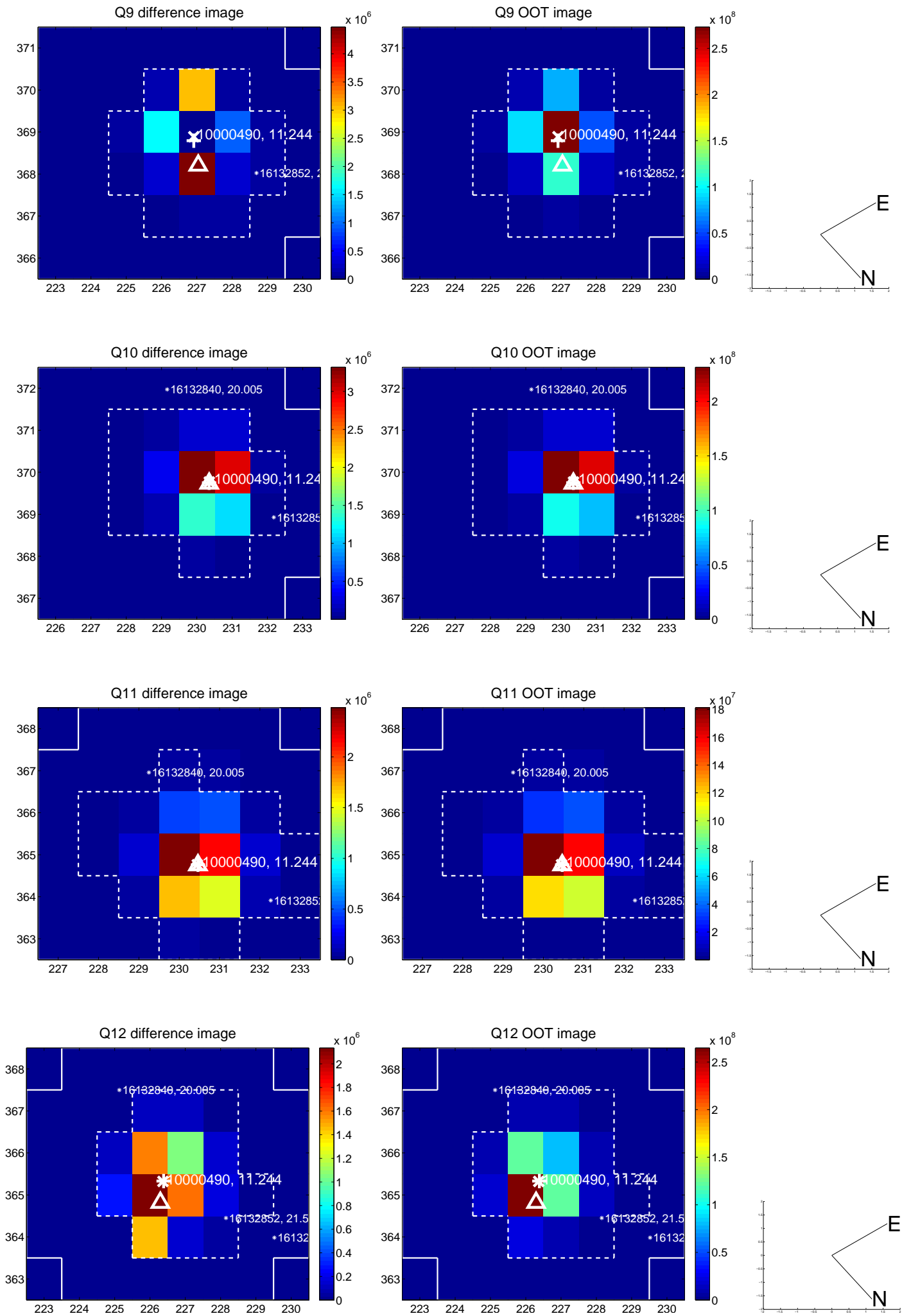
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



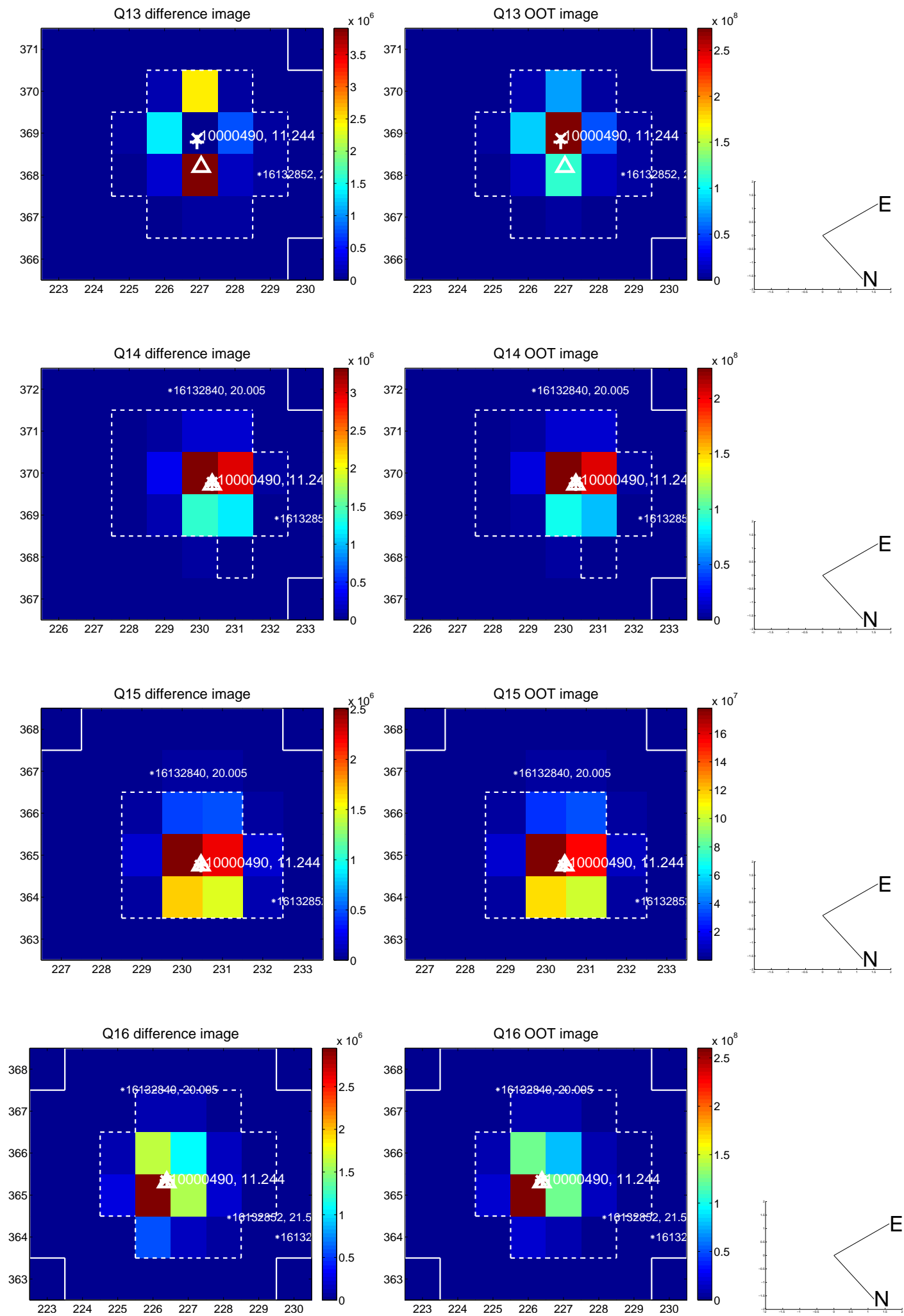
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



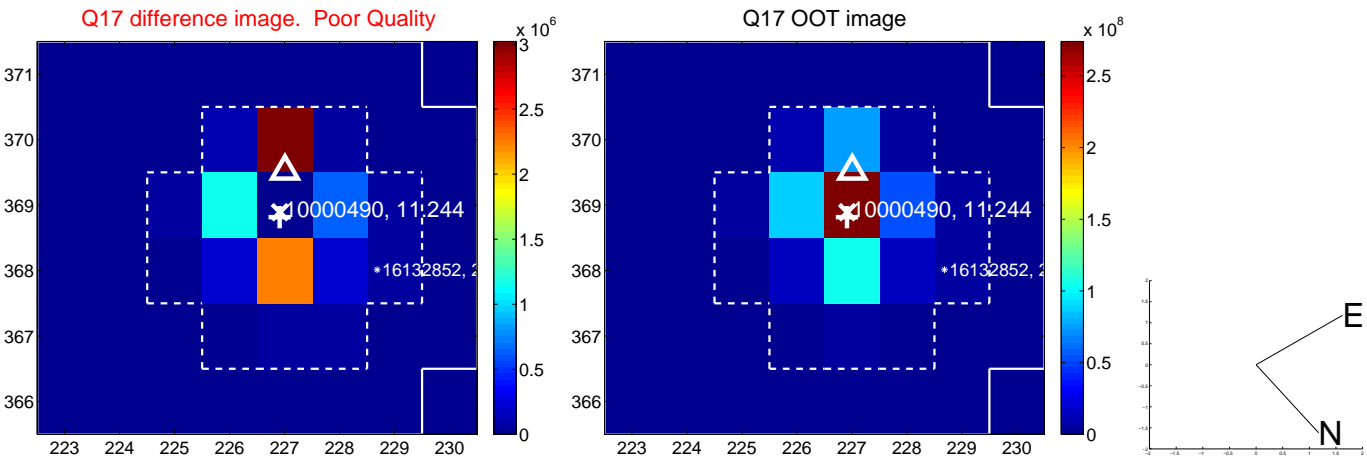
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



folded centroid time series figure for this object.

UKIRT Image

Declination

