

KIC 009637299

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})
009637299-01	OBS	7207.01	1.882435	132.738277	343214.6	2.000	18805.3	-1.0	1.21	6322	43.06	2589.76
009637299-02	OBS	No	1.882444	131.797090	76301.3	3.358	4828.9	3898.5	1.21	6322	36.82	2589.74
009637299-03	OBS	No	3.764860	132.883448	18094.5	9.000	3642.4	-1.0	1.21	6322	16.43	1027.75

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009637299-01	OBS	FP	0.00	0	1	0	0	MOD_SEC_ALT—HAS_SEC_TCE—CENT_NOFITS
009637299-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE
009637299-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—LPP_DV—LPP_ALT—RESIDUAL_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.

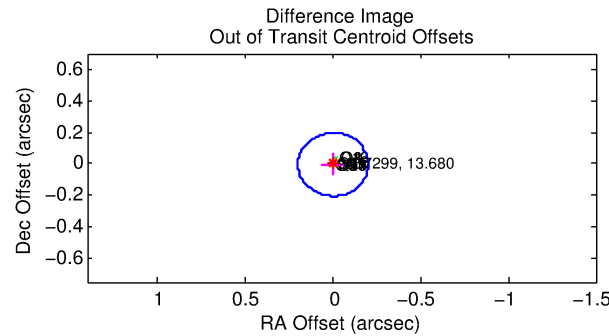
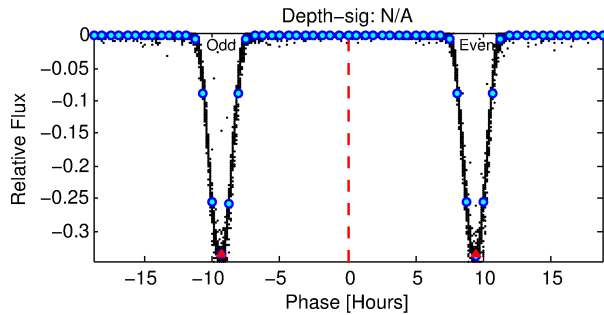
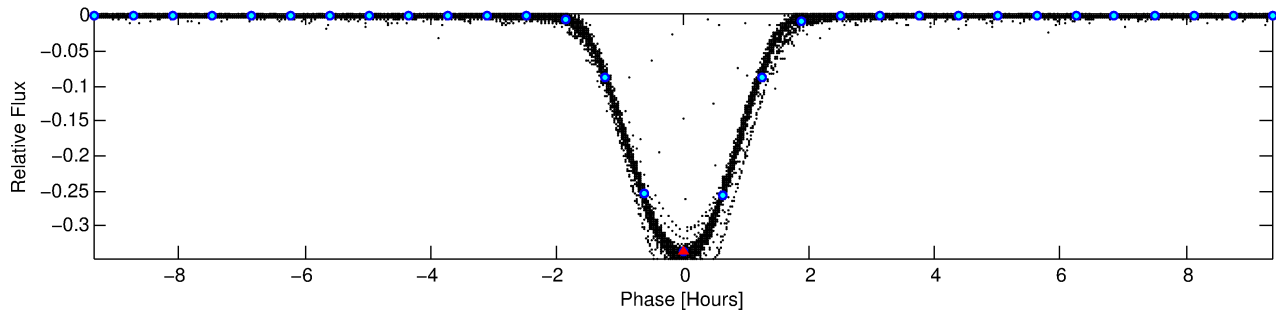
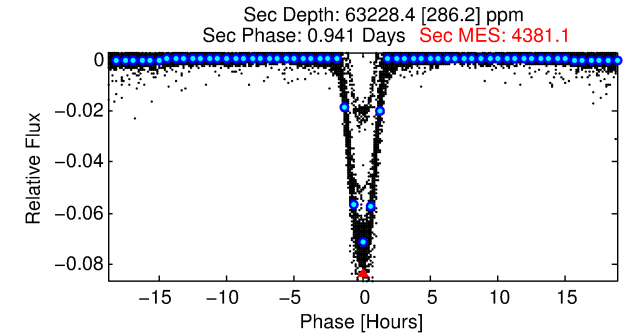
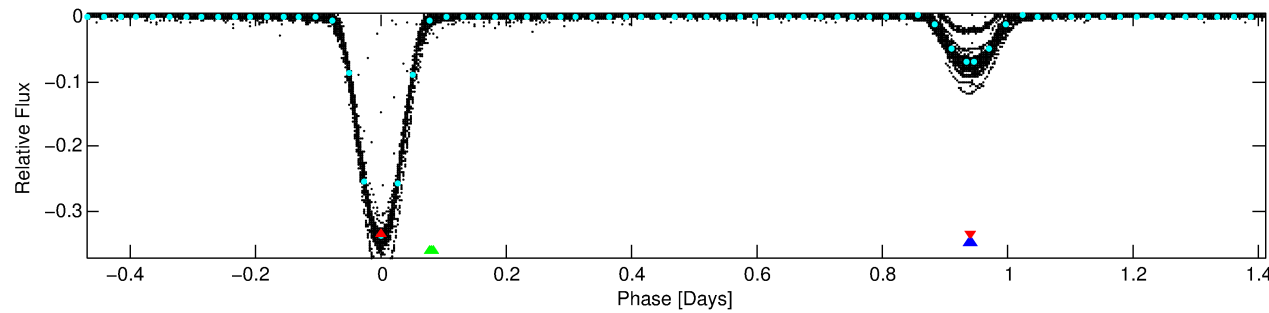
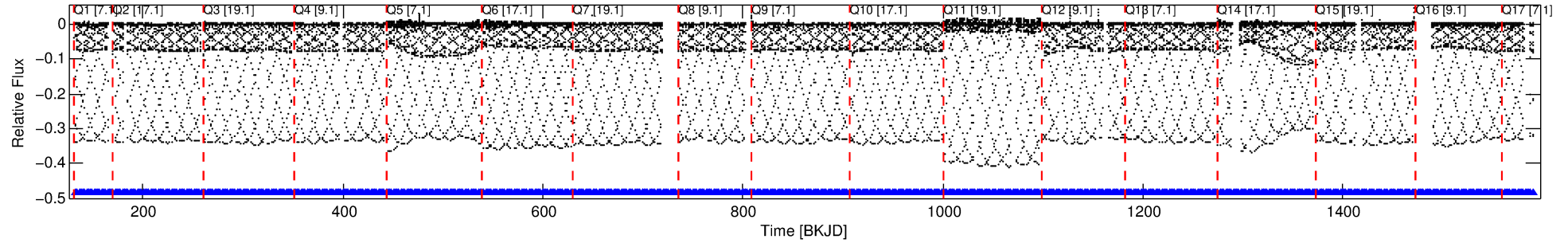
Ephemeris Match Information For 009637299-01

No Significant Match Found

DV One-Page Summary

KIC: 9637299 Candidate: 1 of 3 Period: 1.882 d
KOI: K07207.01 Corr: 0.757

Kp: 13.68 R*: 1.21 Rs Teff: 6322.0 K Logg: 4.21 Fe/H: -0.780



TPS TCE Results:

Period = 1.88244 d
Epoch = 132.7383 BKJD

DV fit results are unavailable

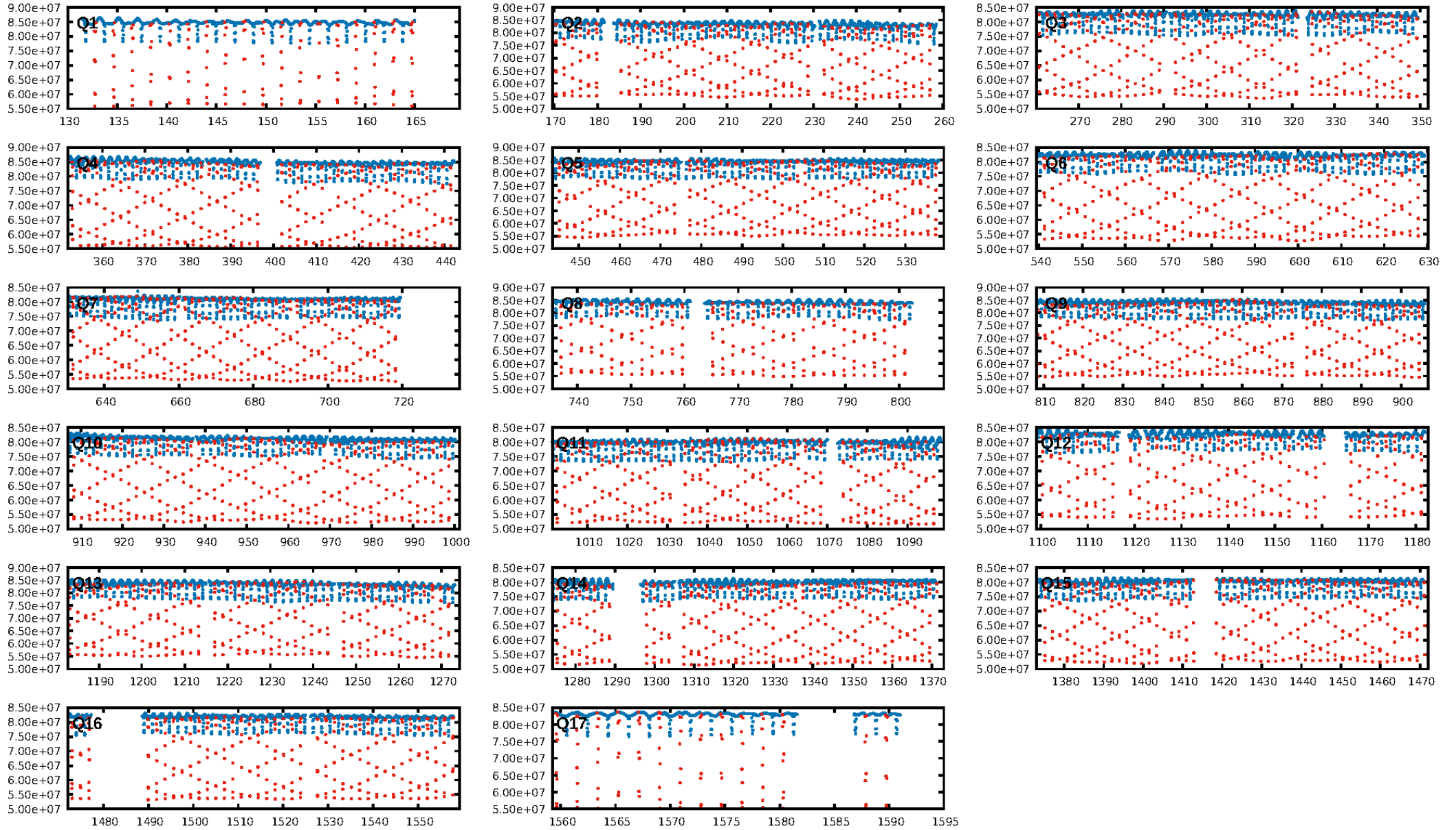
DV Diagnostic Results:

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 [680/680]
GhostDiagnostic-chr: 0.831
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 0.005 arcsec [0.07σ]
KicOffset-rm: 0.179 arcsec [2.64σ]
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]

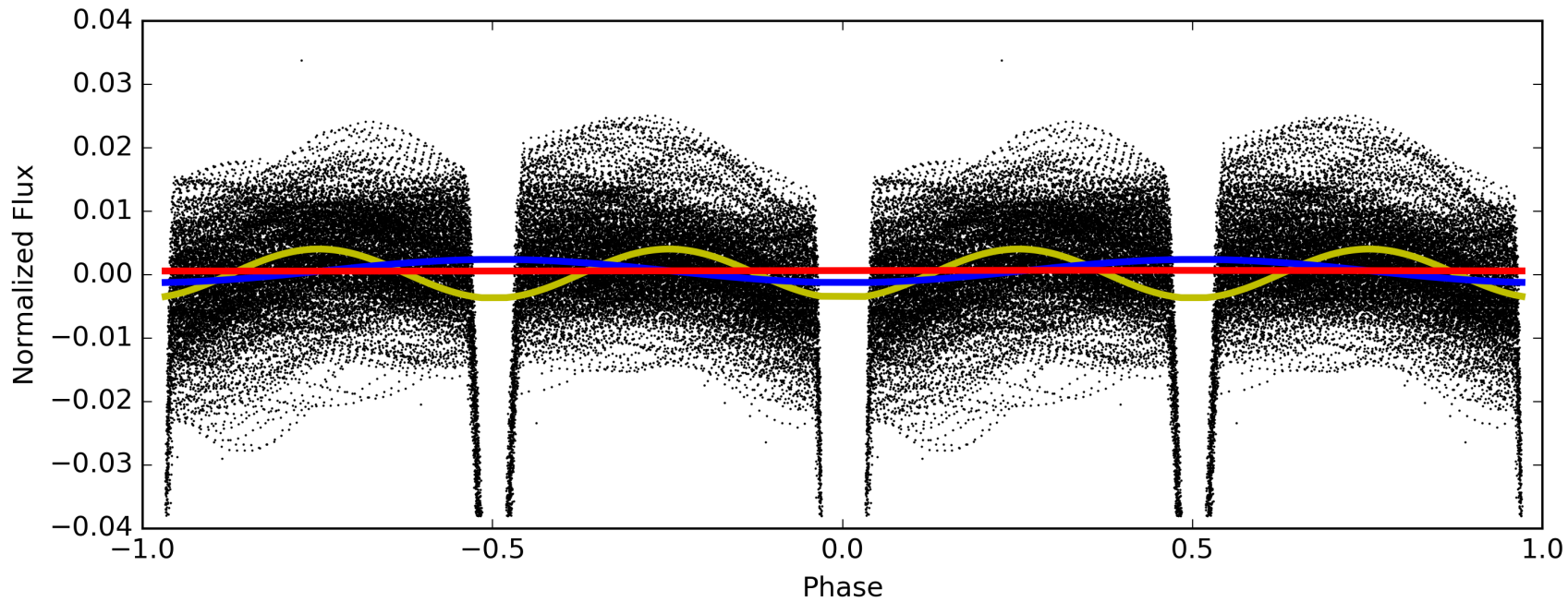
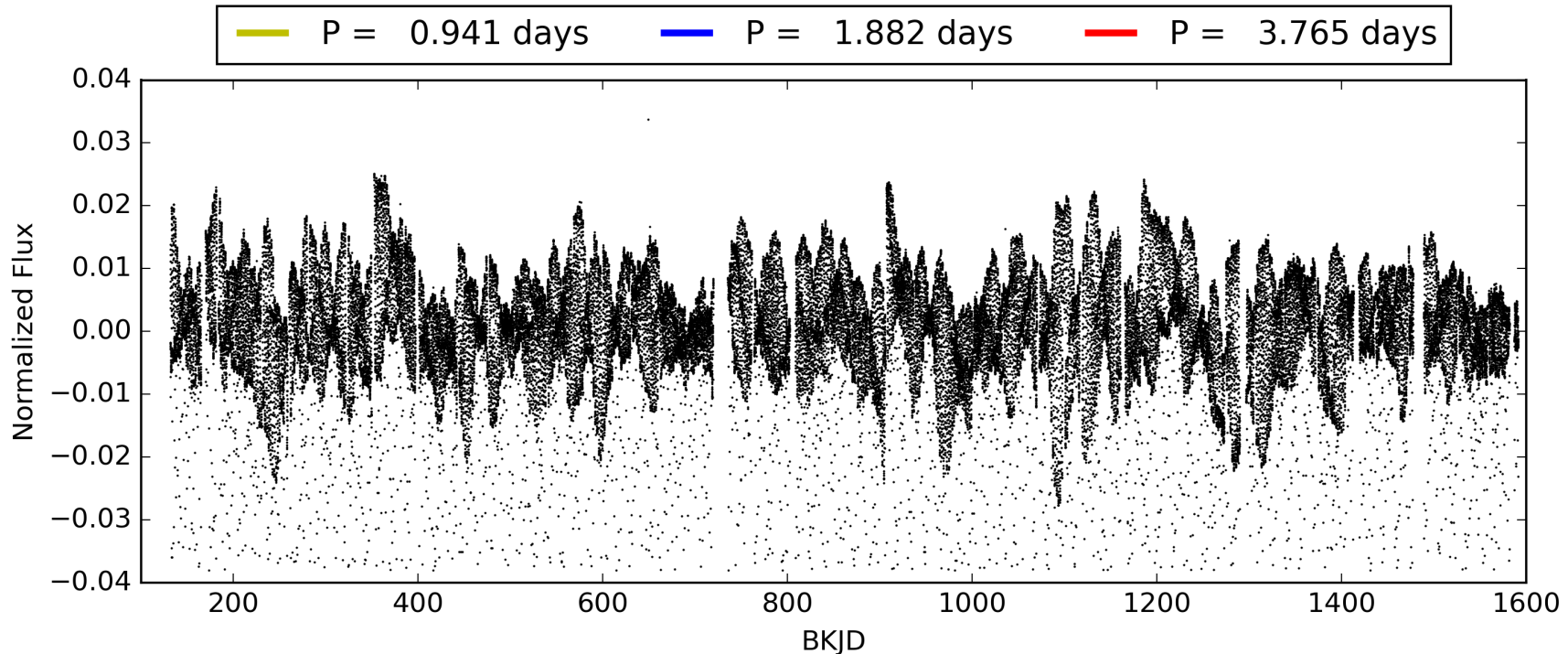
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 08:53:35 Z

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

TCE 009637299-01, PDC Light Curves

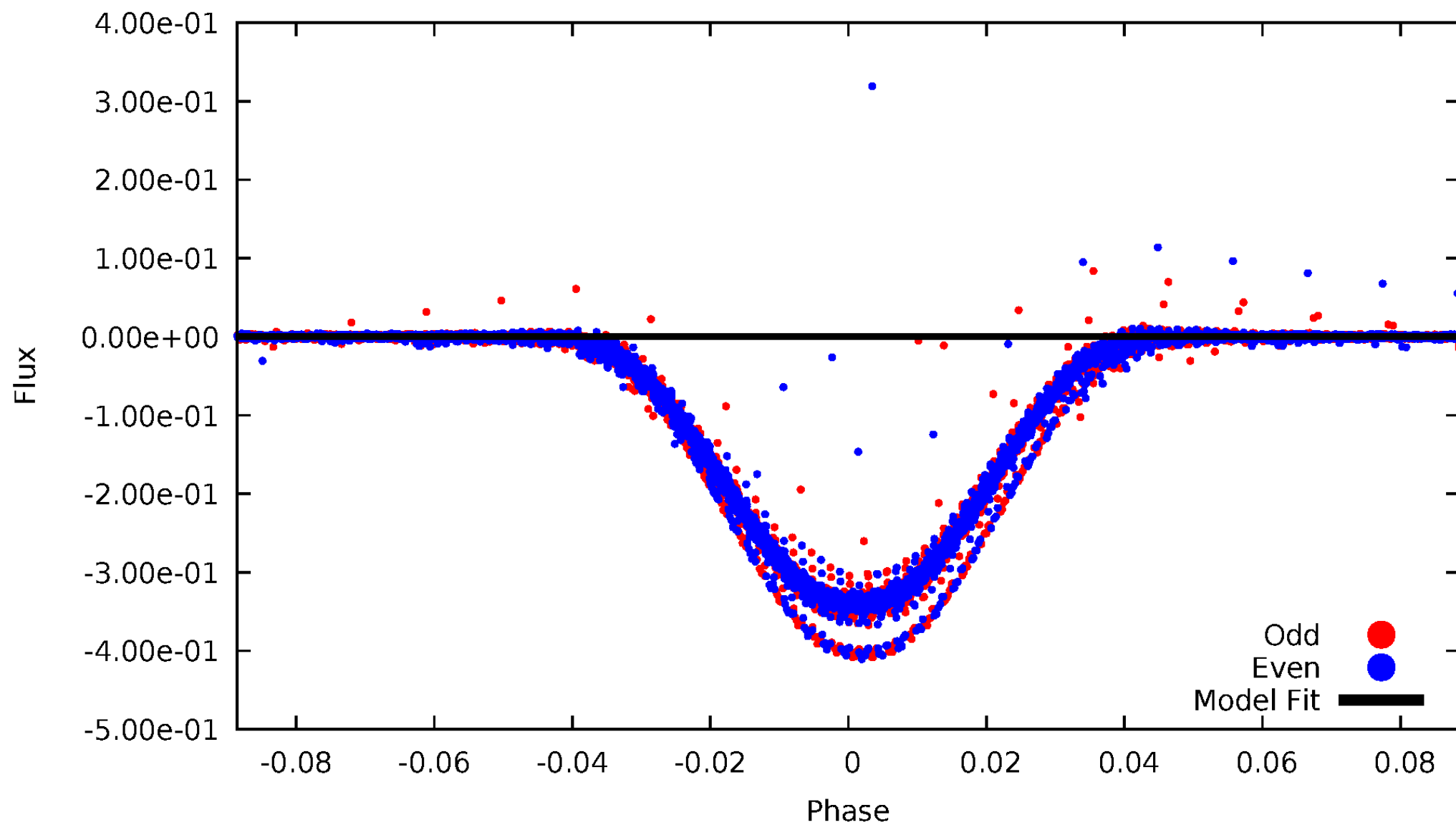


TCE 009637299-01



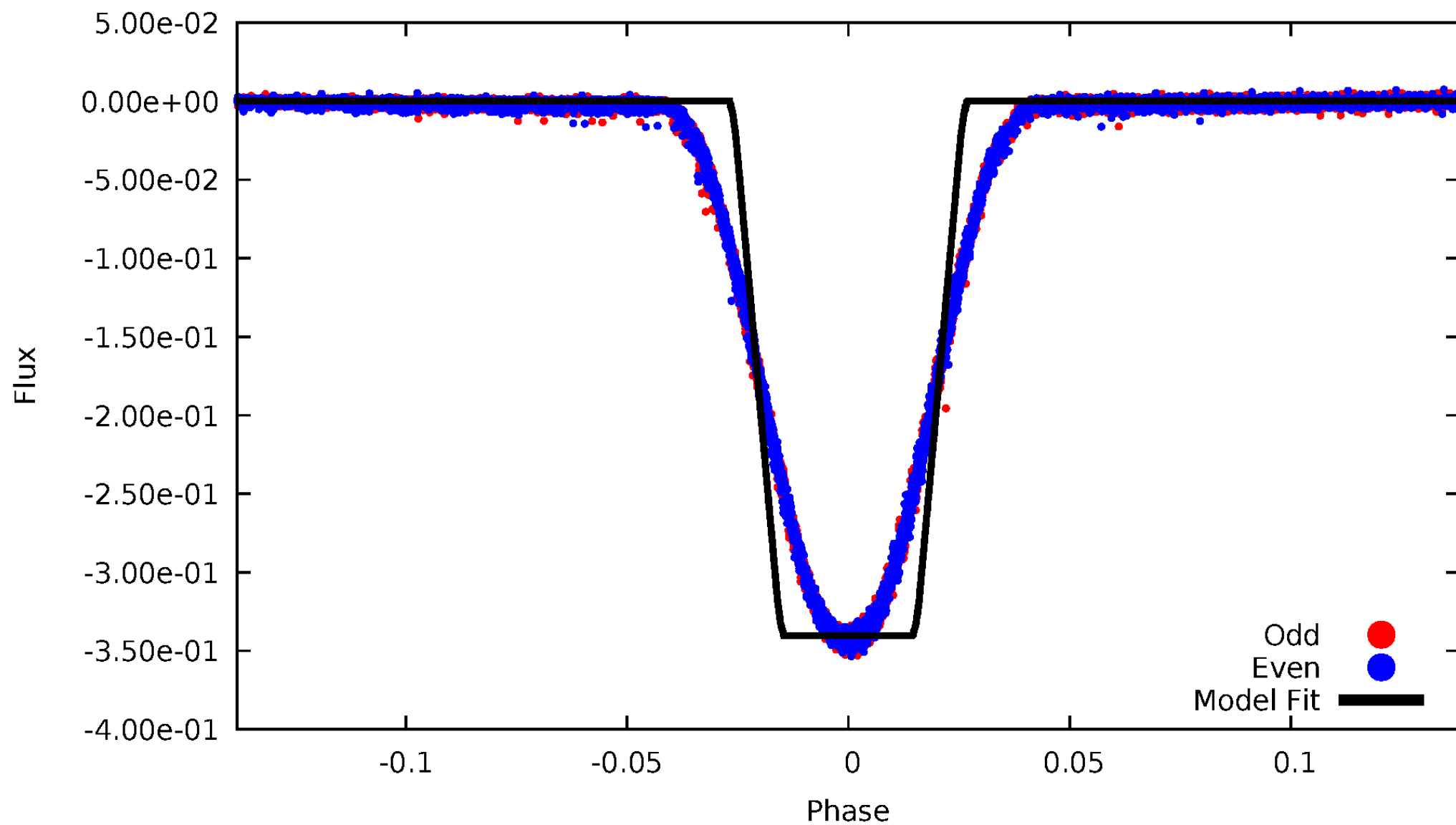
DV Odd/Even

TCE 009637299-01



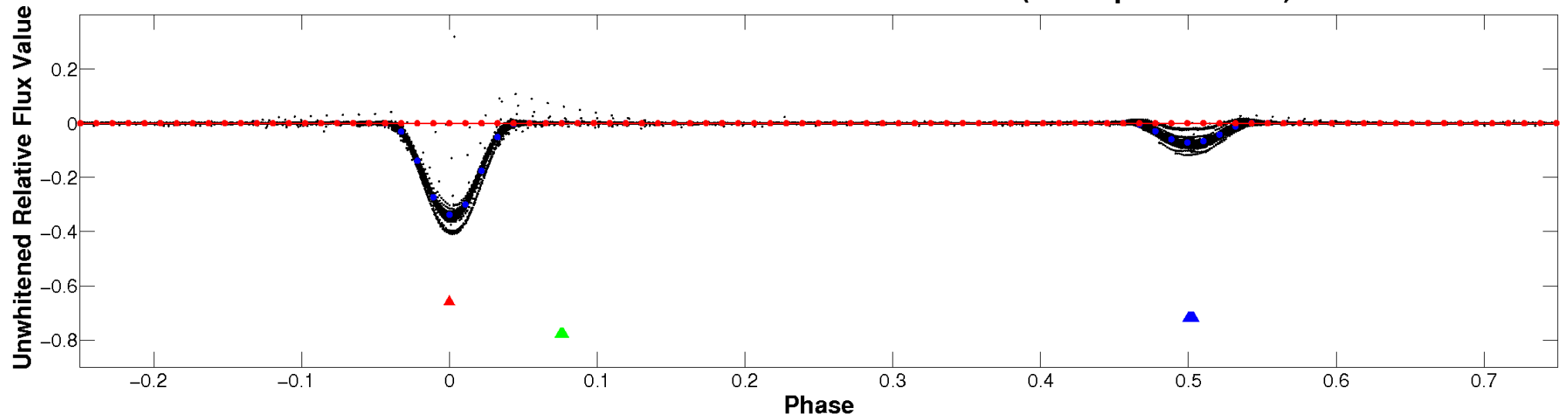
ALT Odd/Even

TCE 009637299-01



Non-Whitened Vs. Whitened Light Curve

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

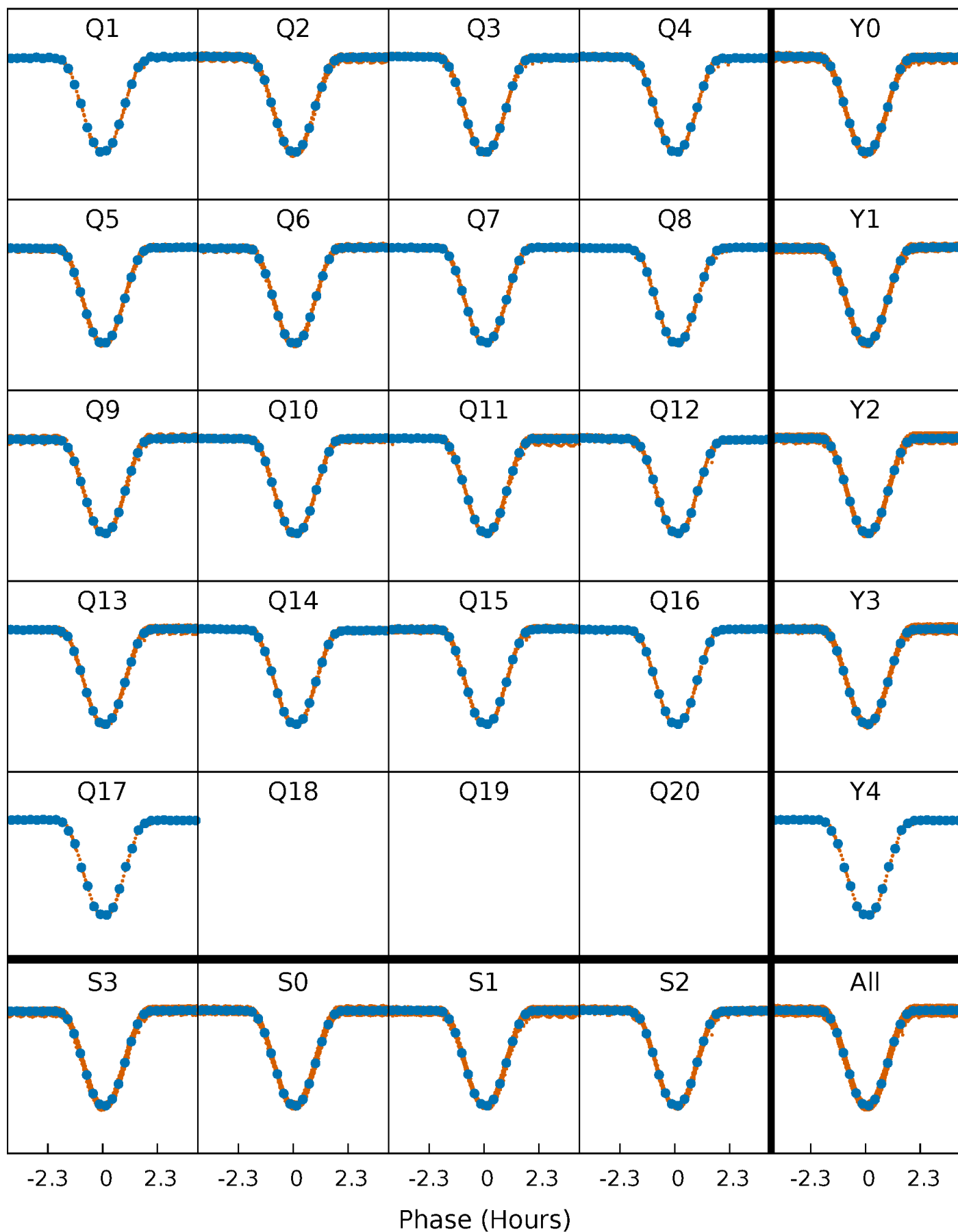


Planet 1 : Phased Whitened Flux Time Series (TPS Epoch/Period)



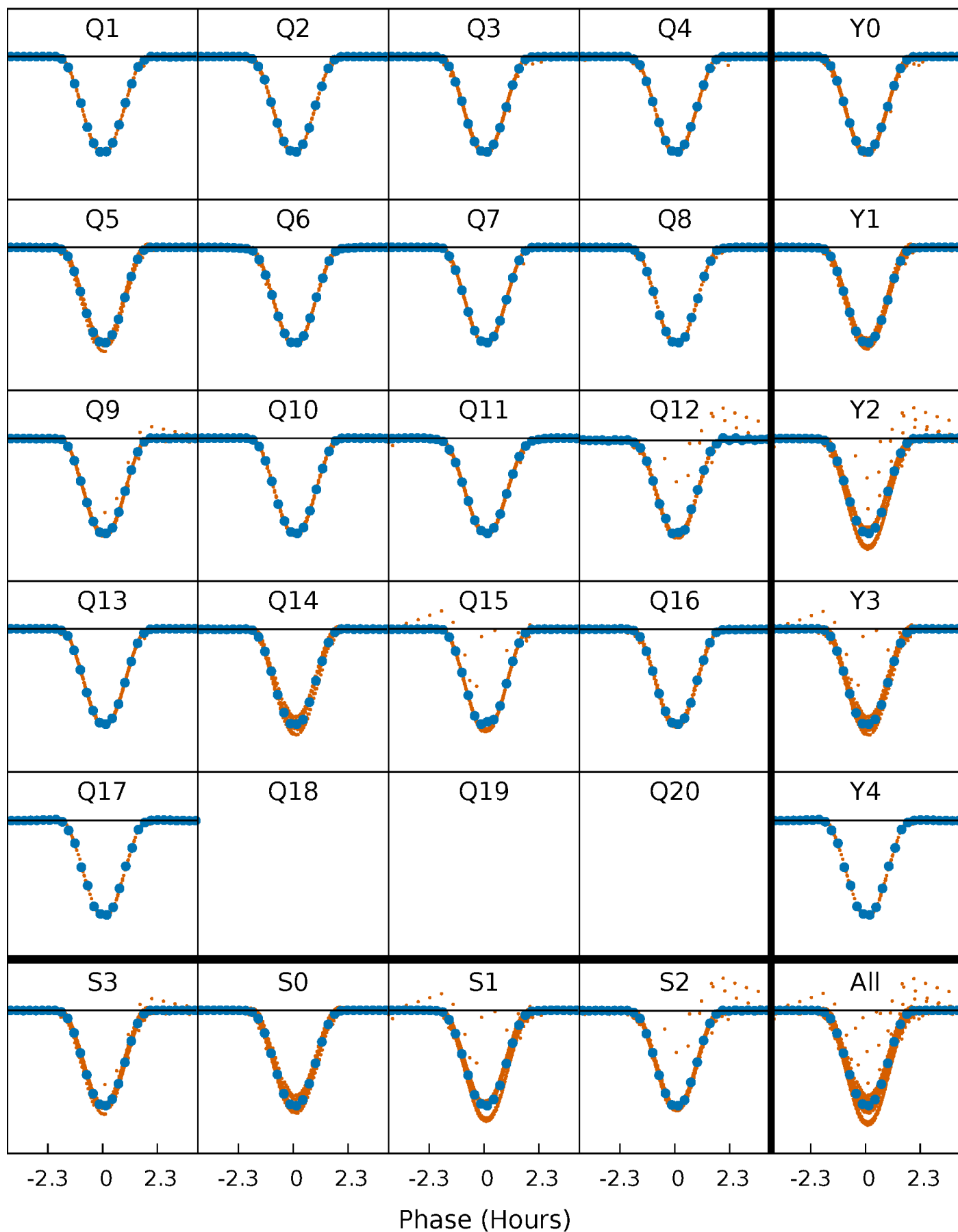
PDC Quarter-Phased Transit Curves

TCE 009637299-01 P= 1.882435 Days $T_0=132.738277$ (BKJD)



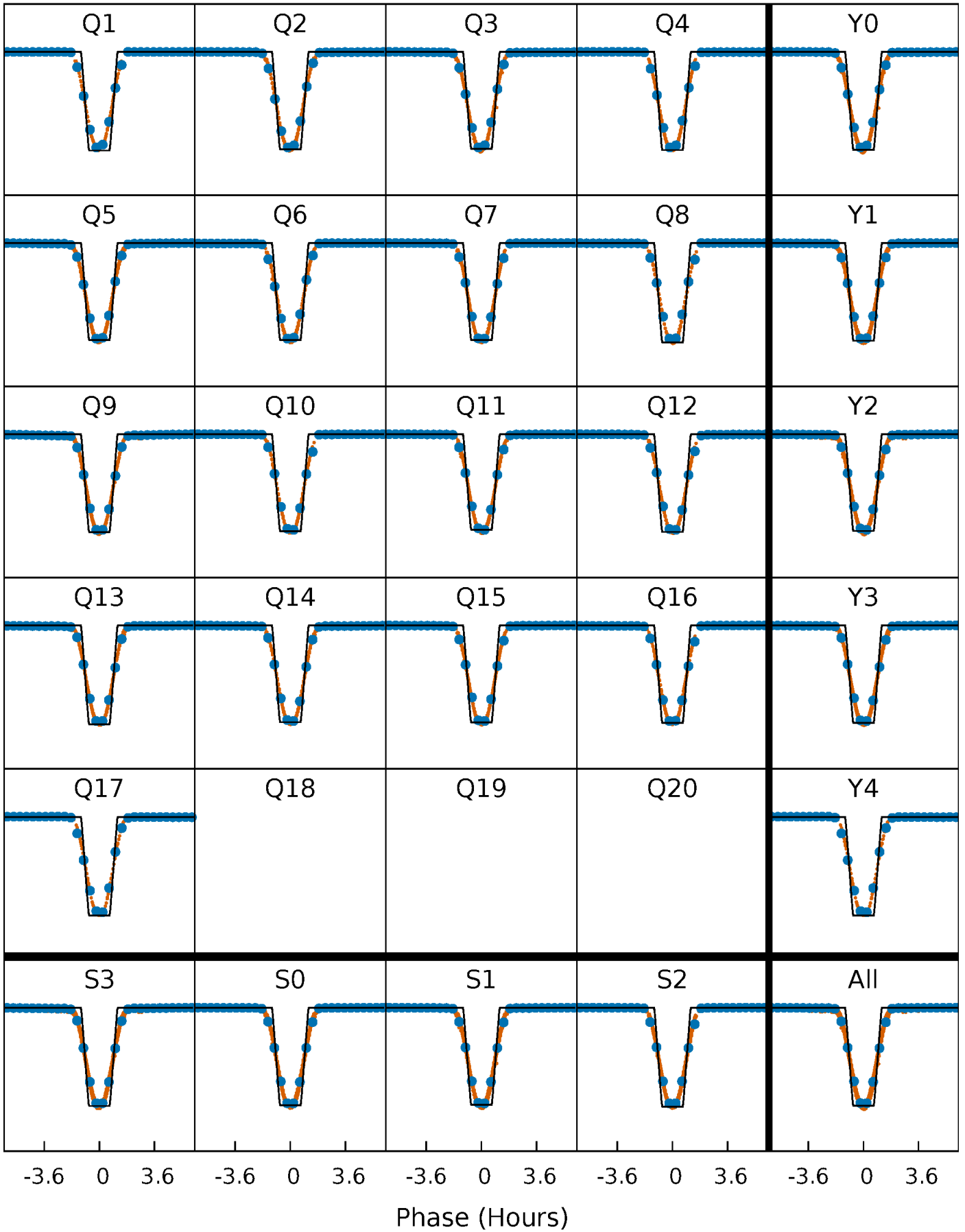
DV Quarter-Phased Transit Curves

TCE 009637299-01 P= 1.882435 Days $T_0=132.738277$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

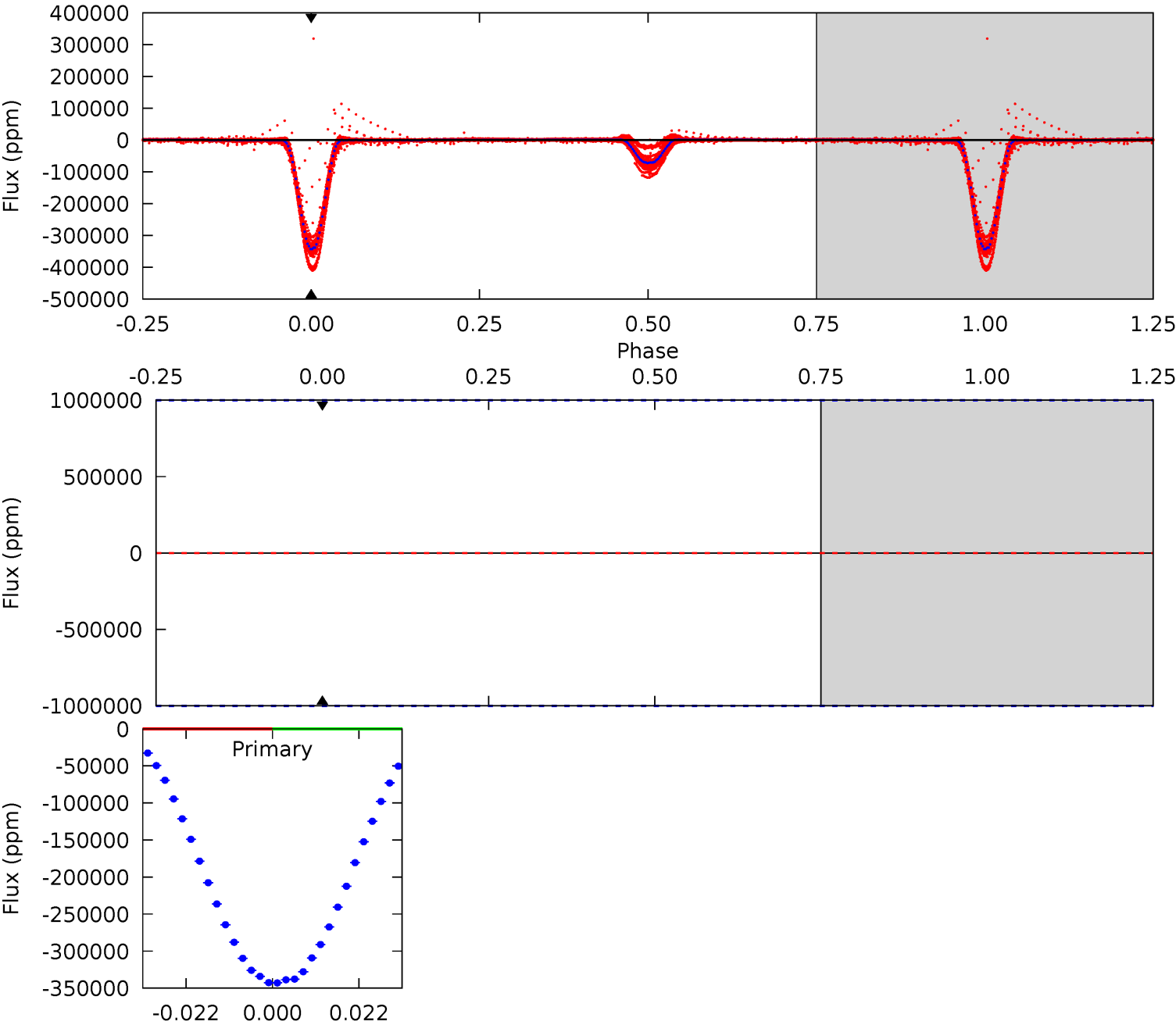
TCE 009637299-01 P= 1.882435 Days $T_0=132.740686$ (BKJD)



DV Model-Shift Uniqueness Test

009637299-01, P = 1.882435 Days, E = 130.855842 Days

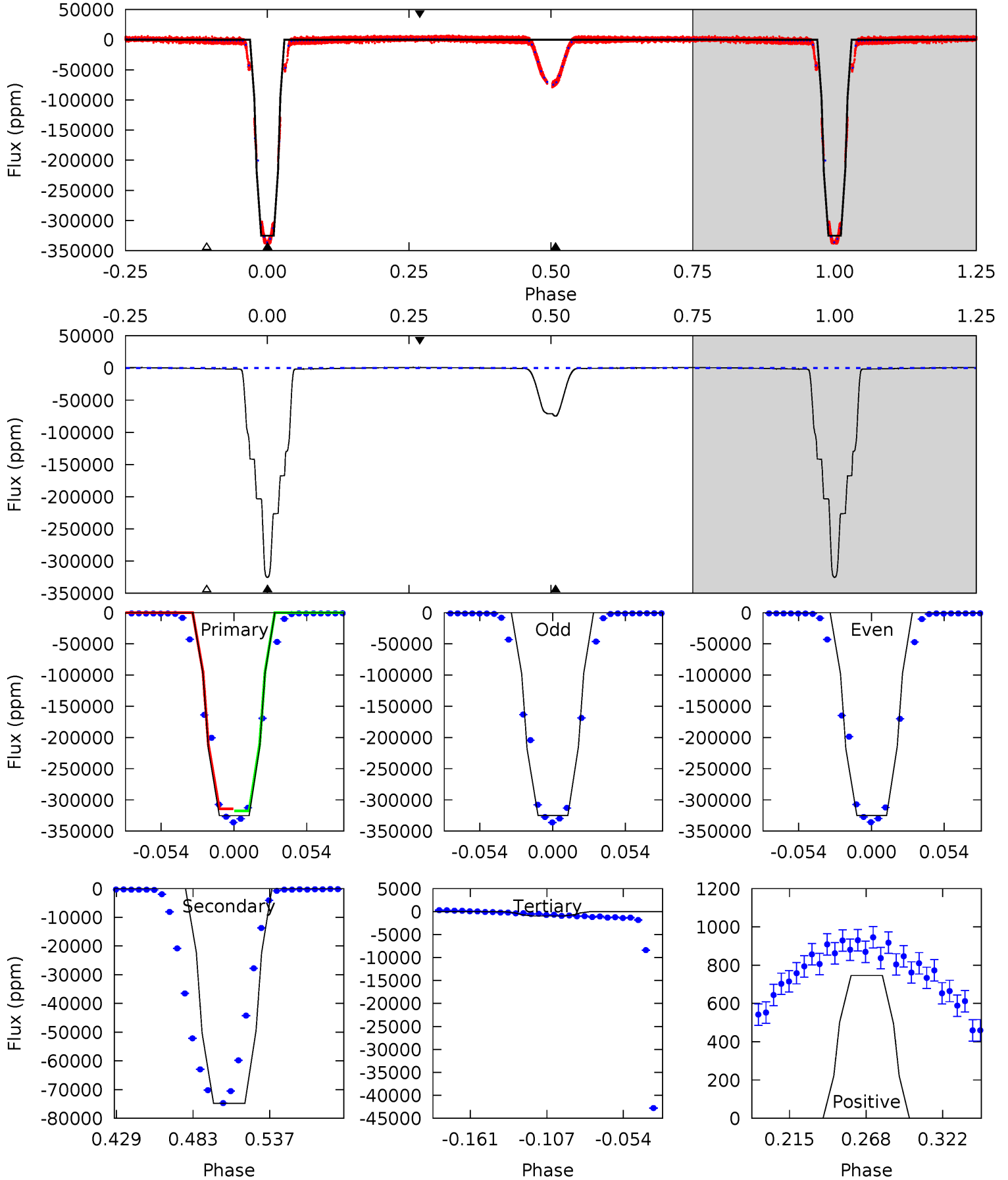
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

009637299-01, P = 1.882435 Days, E = 130.858251 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7034	1617	20.8	16.1	4.69	1.93	13.9	7013	7018	1596	1601	2.78	1.00	0.00	0



Stellar Parameters For KIC 009637299

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6322^{+171}_{-190}	$4.211^{+0.264}_{-0.176}$	$-0.780^{+0.300}_{-0.300}$	$1.213^{+0.312}_{-0.312}$	$0.872^{+0.104}_{-0.066}$	$0.688^{+1.030}_{-0.311}$
	+3%/-3%	+6%/-4%	+38%/-38%	+26%/-26%	+12%/-8%	+150%/-45%
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 009637299-01 / KOI 7207.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	0 ± 1000000	$42.22^{+15.40}_{-13.80}$	2532^{+189}_{-205}	-2218^{+8583}_{-4123}	$0.224^{+27.394}_{-26.147}$
Alt.	-74795 ± 46	$76.04^{+19.62}_{-16.32}$	2531^{+199}_{-198}	4517^{+440}_{-277}	$6.306^{+3.789}_{-2.316}$

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

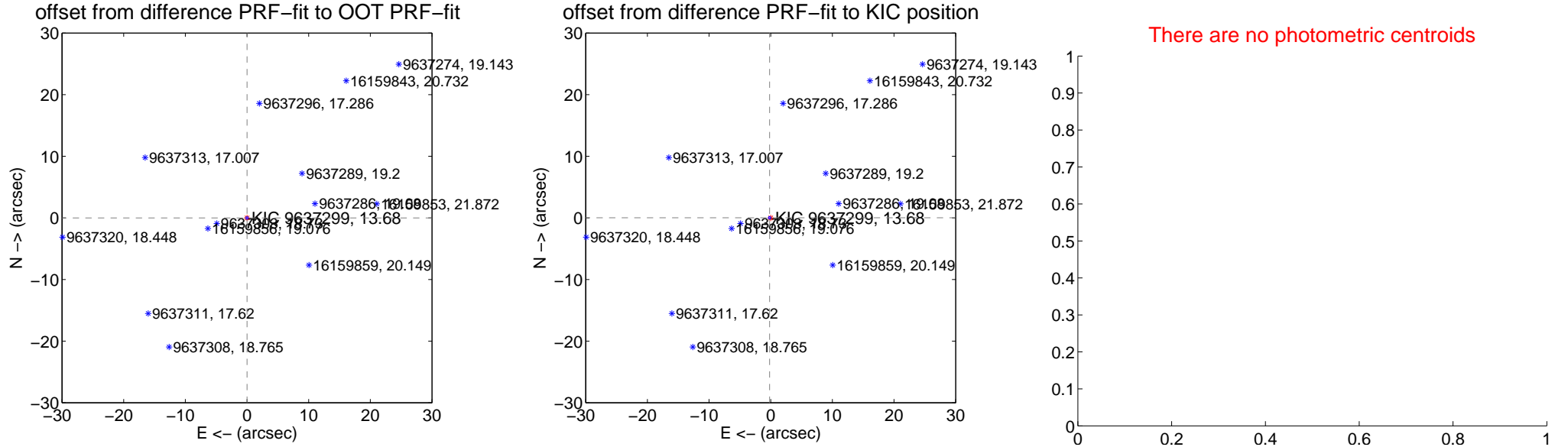
DV Centroid Data

Supplemental centroid analysis for 009637299-01. Kepler magnitude: 13.68. Transit SNR -1.00

There are 17 quarters with good PRF difference image offsets

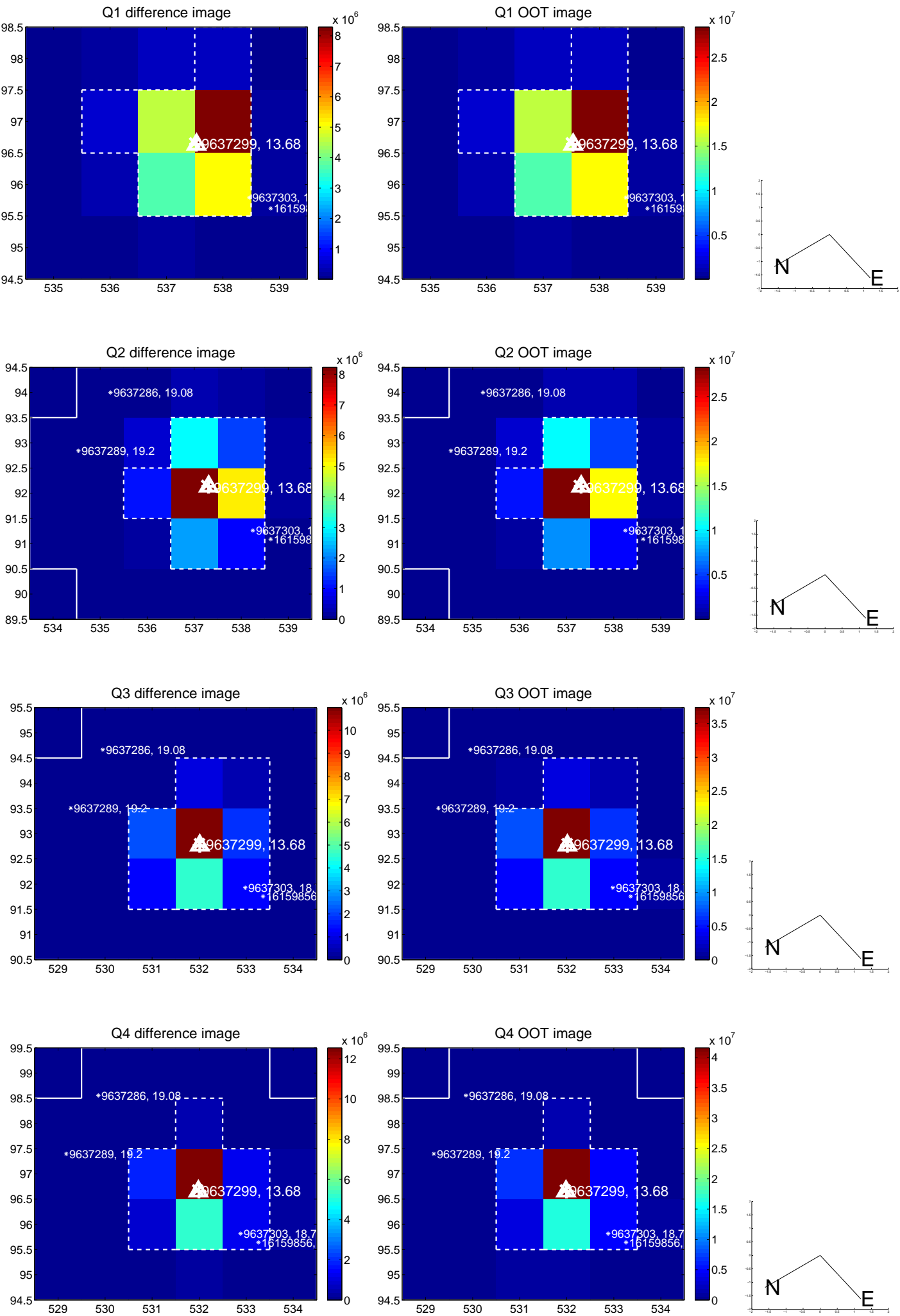
The direct PRF centroid is offset from the target star catalog position by about 0.17 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.005 ± 0.067	0.07	-0.001 ± 0.067	-0.004 ± 0.067
PRF-fit source offset from KIC position	0.179 ± 0.068	2.64	0.178 ± 0.068	0.018 ± 0.068
photometric centroid source offset	—	—	—	—

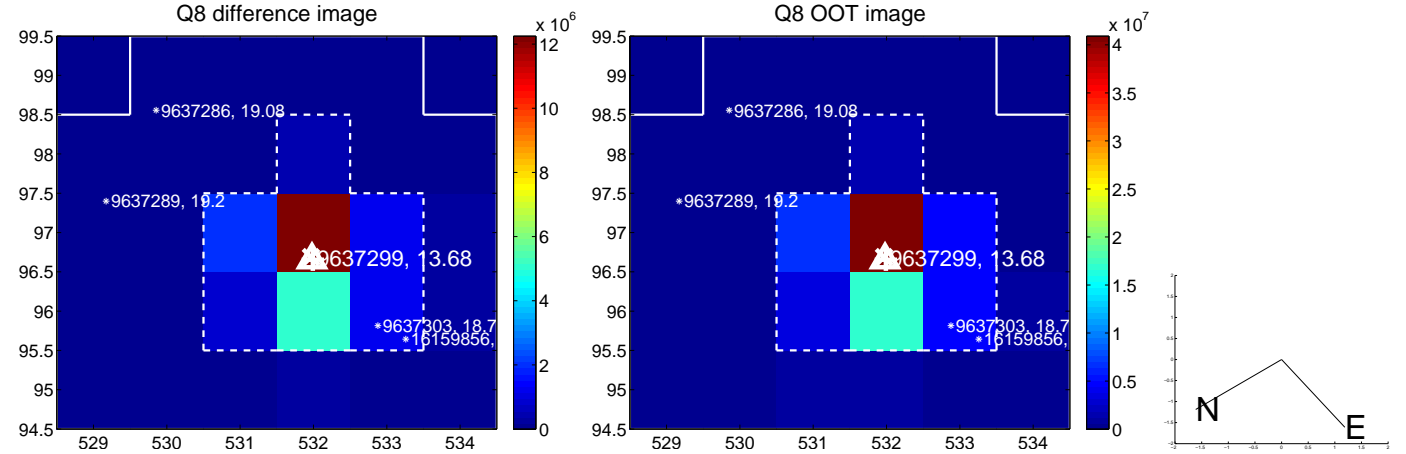
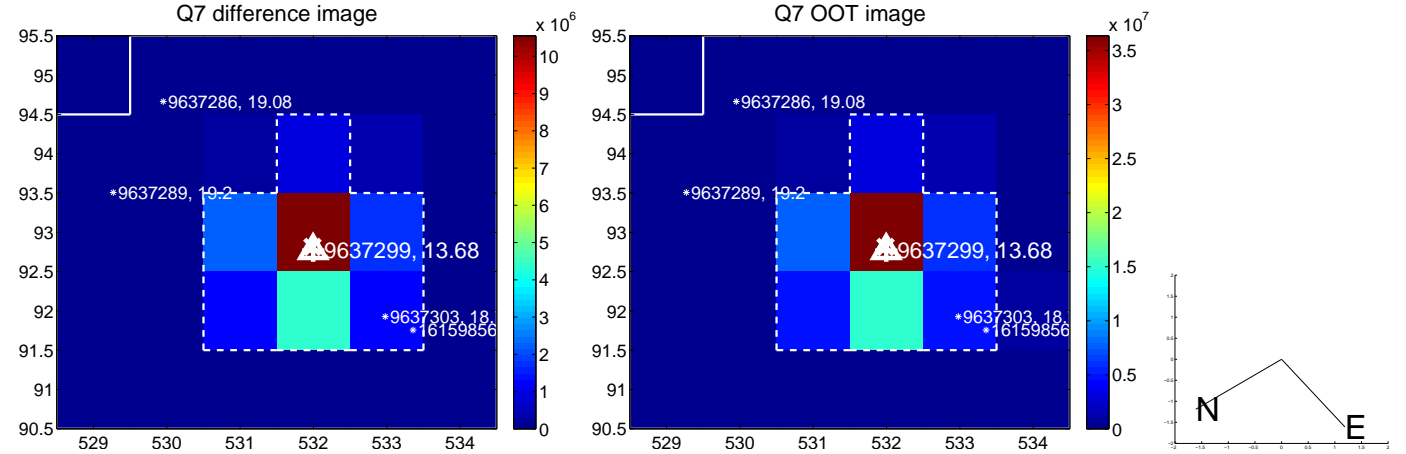
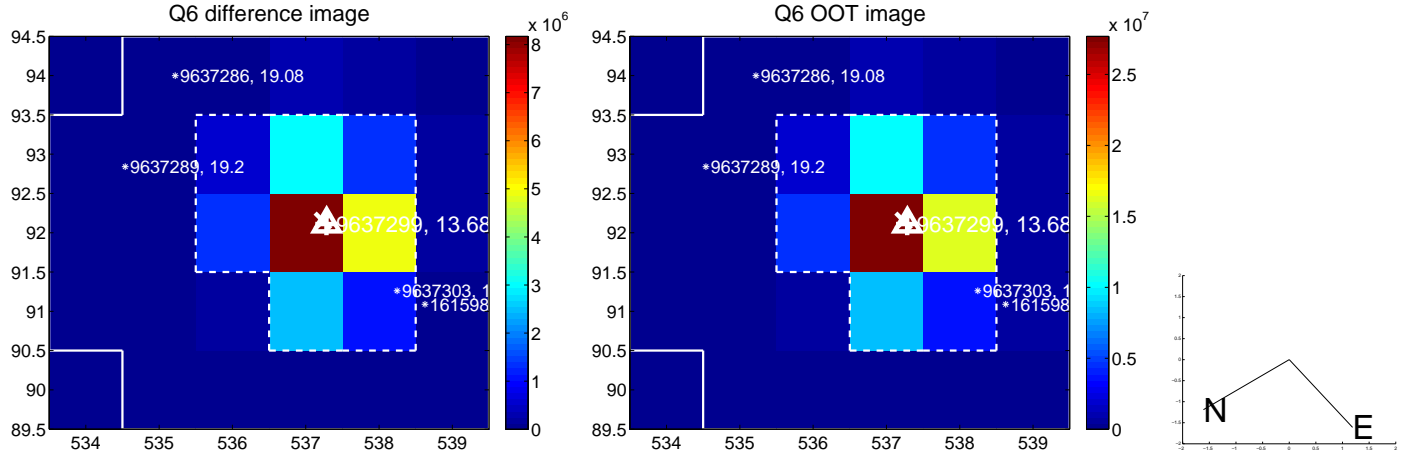
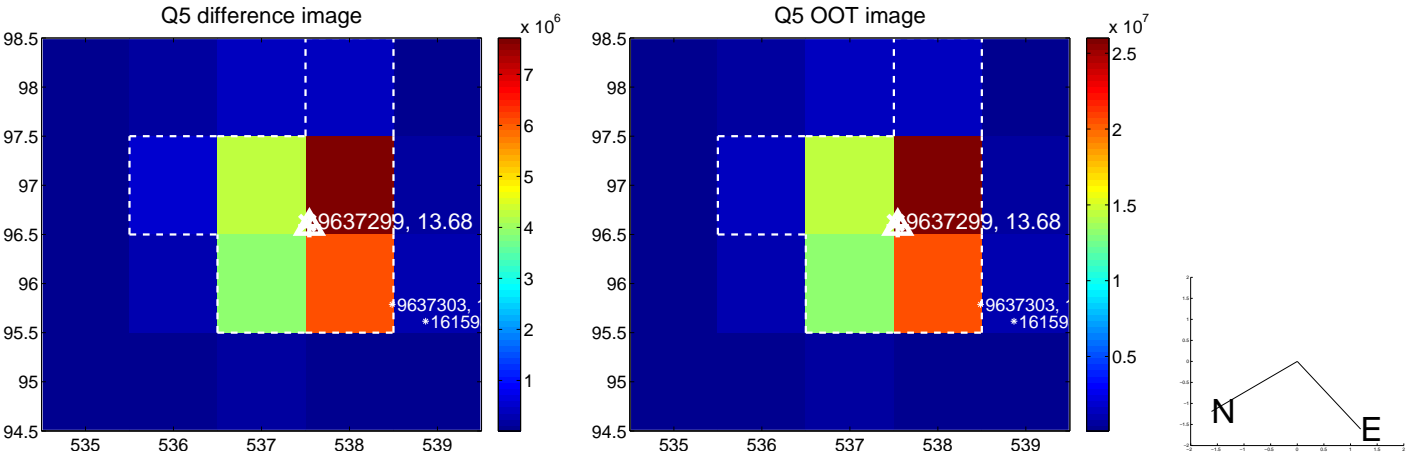


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

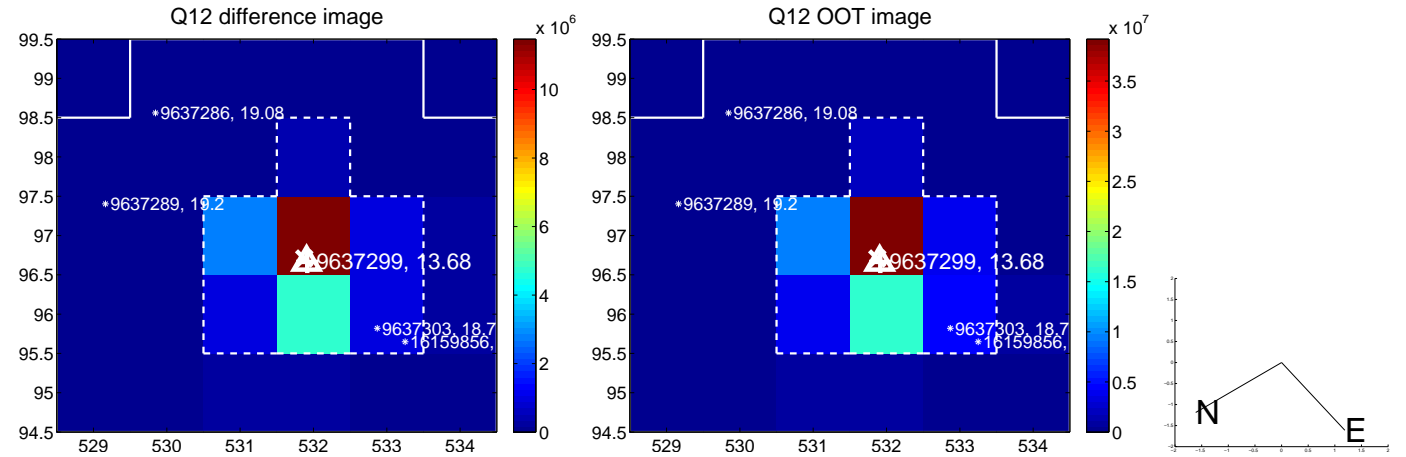
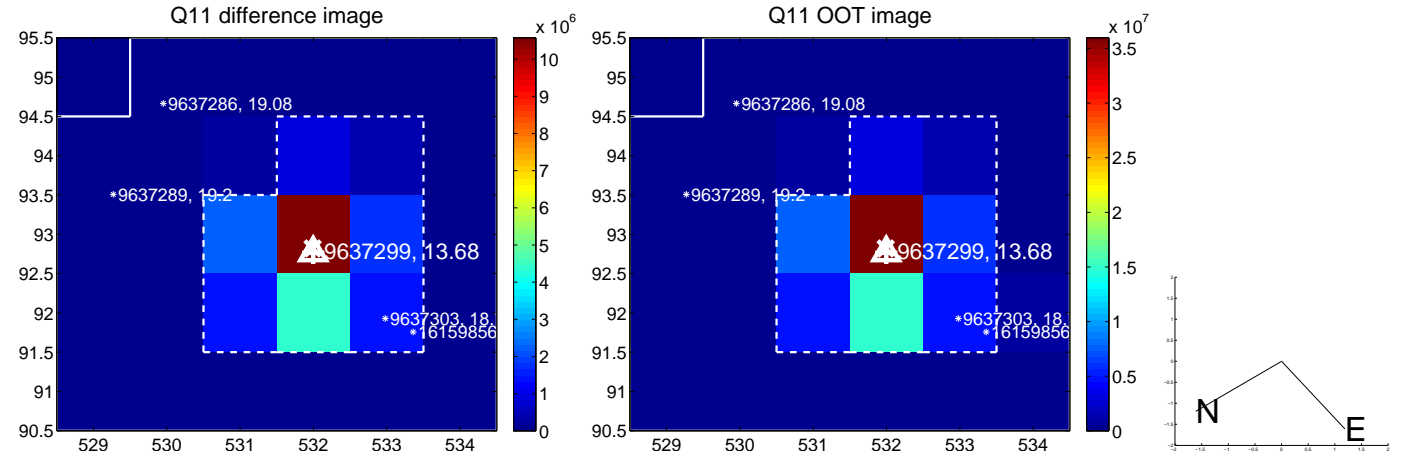
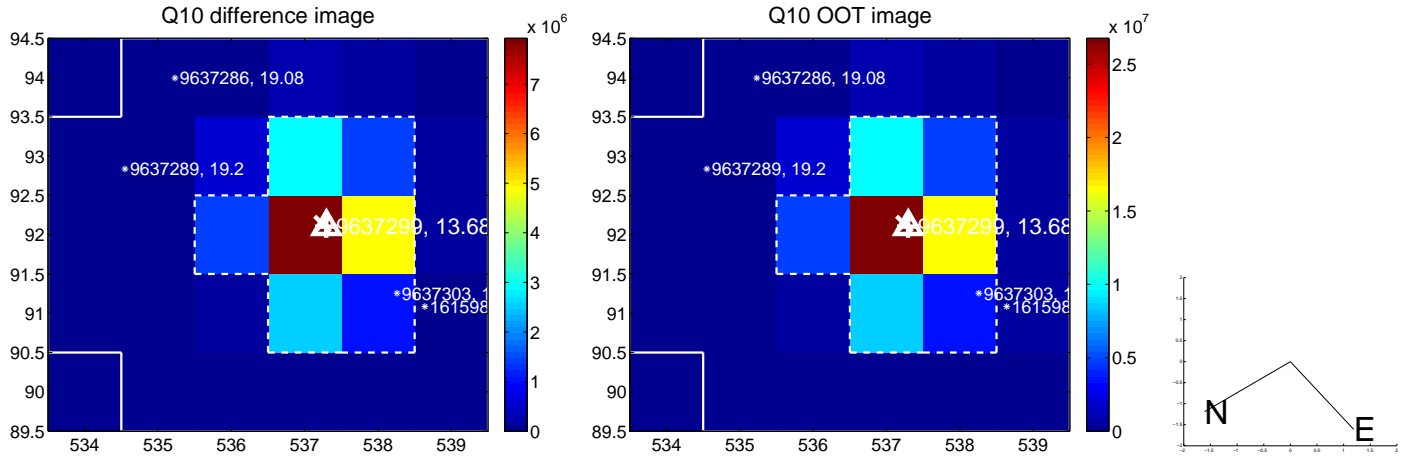
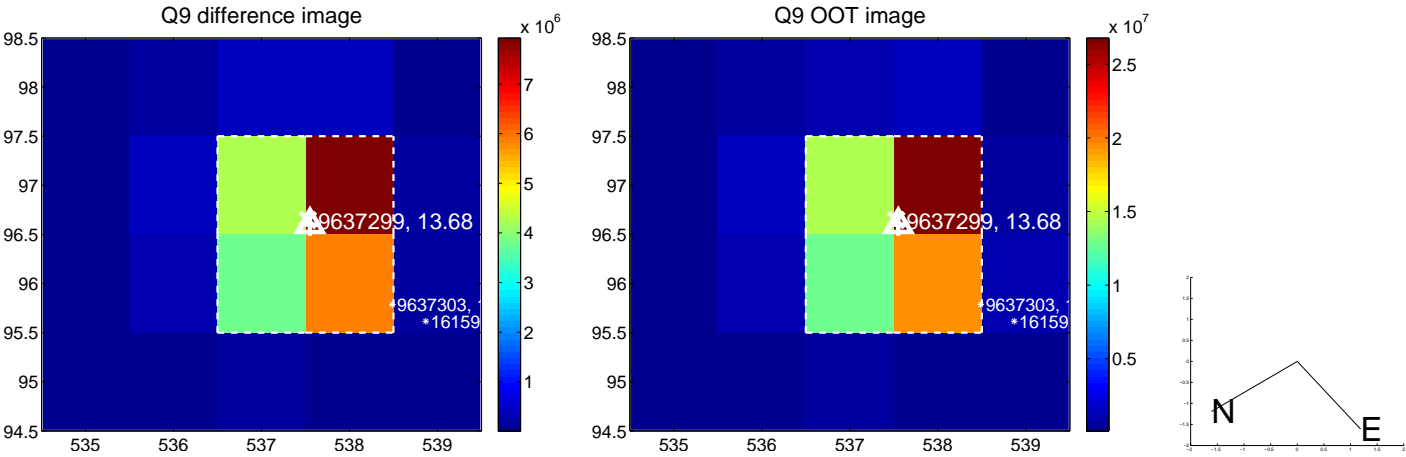
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



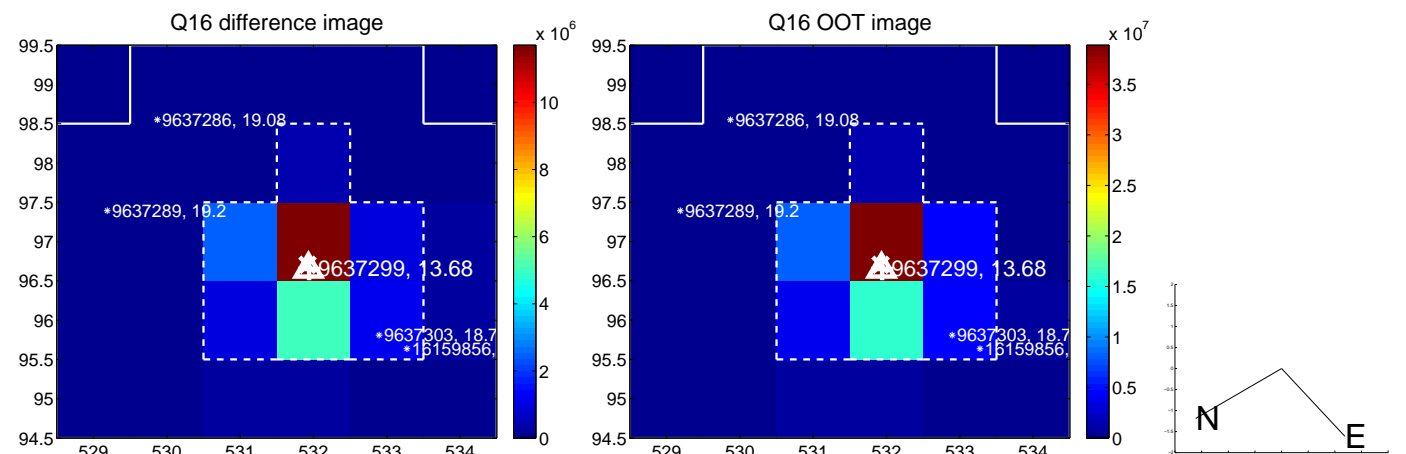
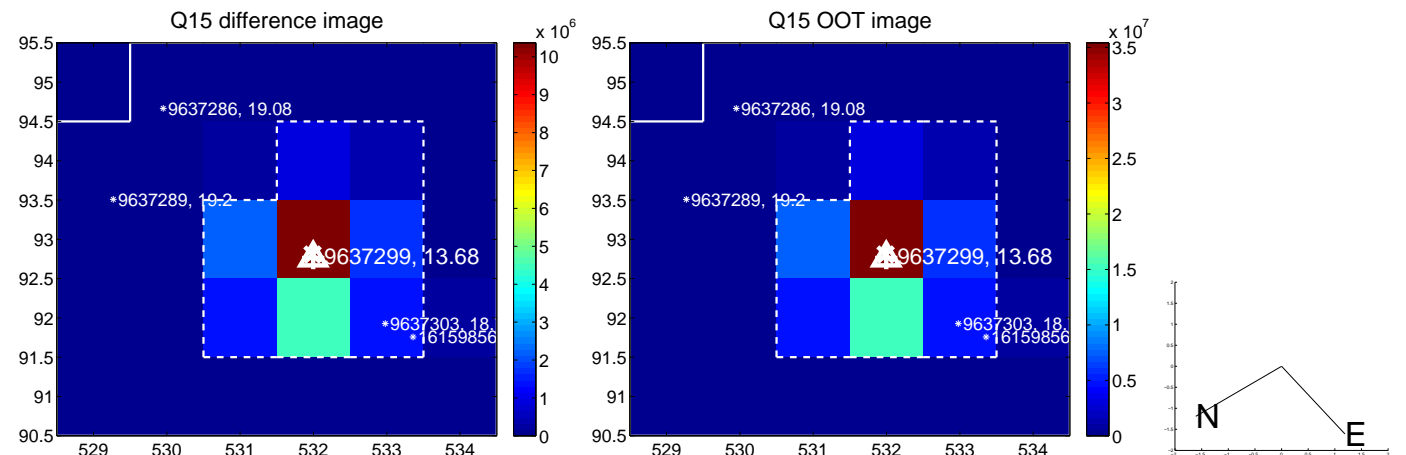
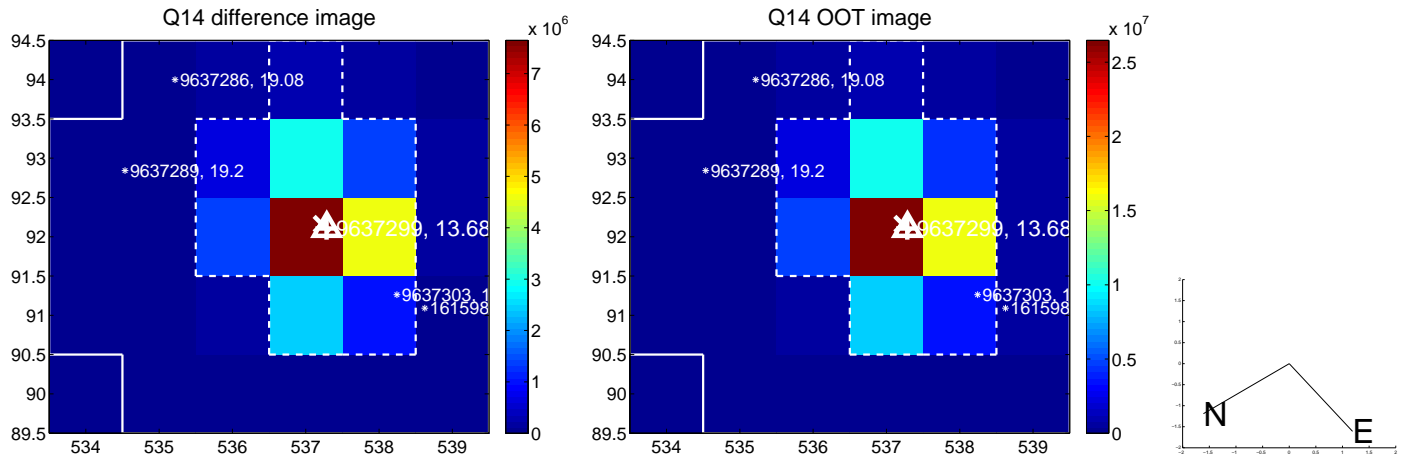
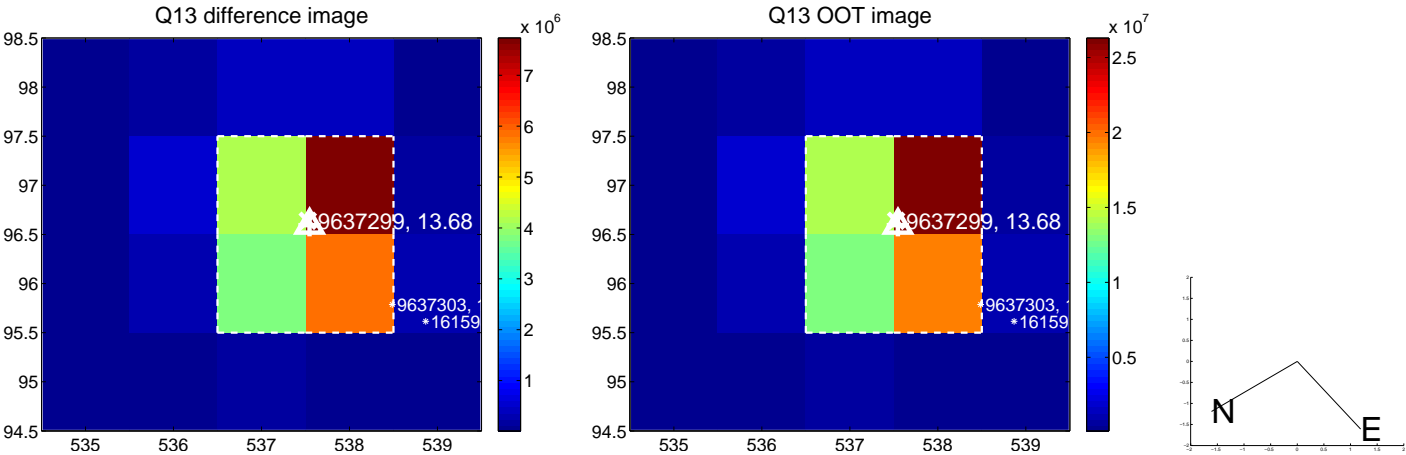
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



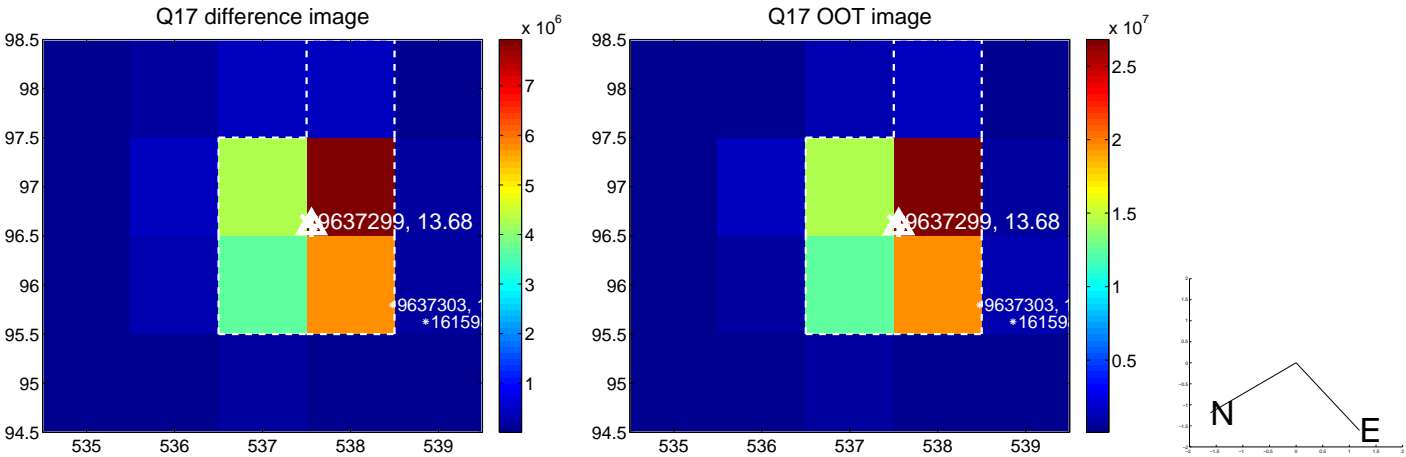
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



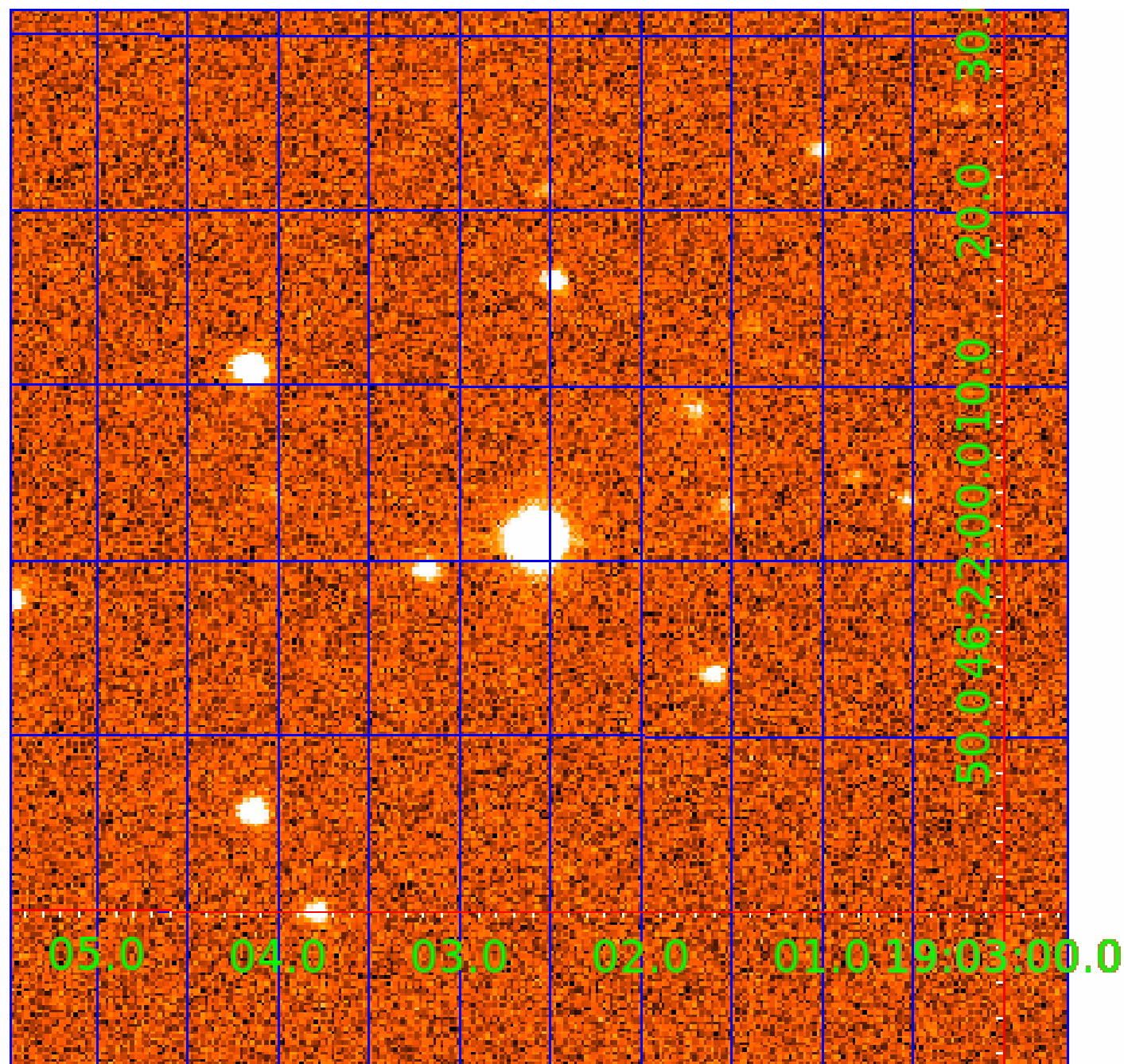
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



folded centroid time series figure for this object.

UKIRT Image

Declination



KIC 009637299

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})
009637299-01	OBS	7207.01	1.882435	132.738277	343214.6	2.000	18805.3	-1.0	1.21	6322	43.06	2589.76
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009637299-03	OBS	No	3.764860	132.883448	18094.5	9.000	3642.4	-1.0	1.21	6322	16.43	1027.75

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009637299-01	OBS	FP	0.00	0	1	0	0	MOD_SEC_ALT—HAS_SEC_TCE—CENT_NOFITS
009637299-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE
009637299-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—LPP_DV—LPP_ALT—RESIDUAL_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.

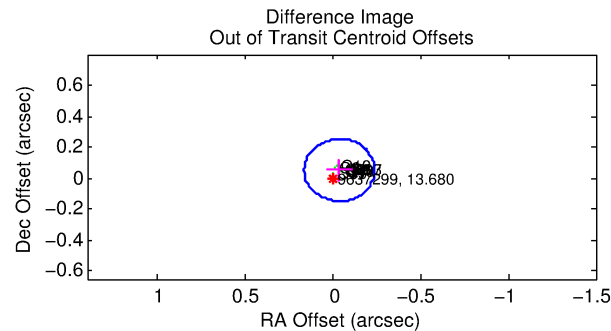
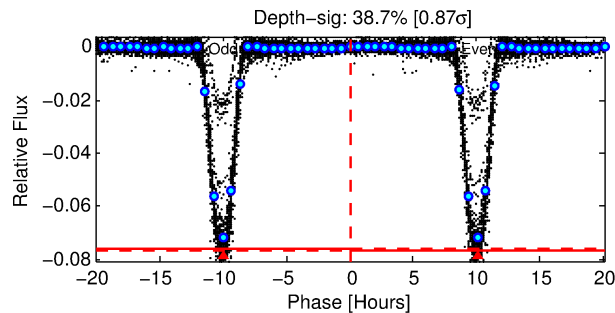
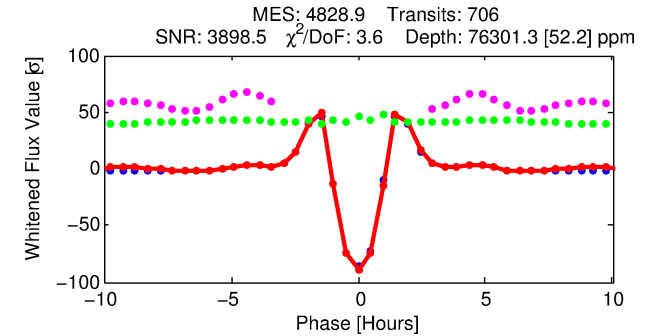
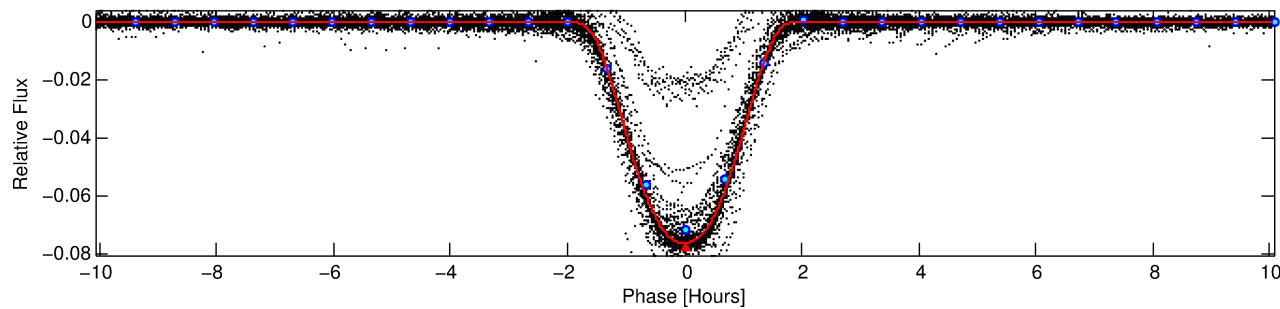
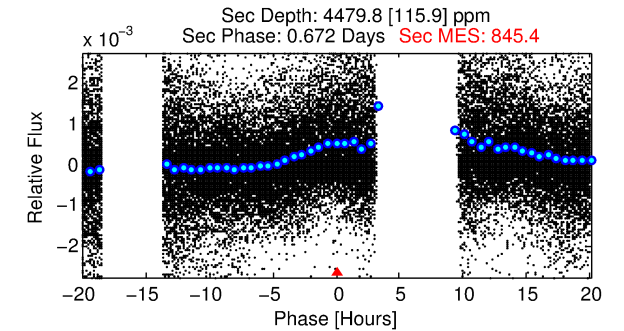
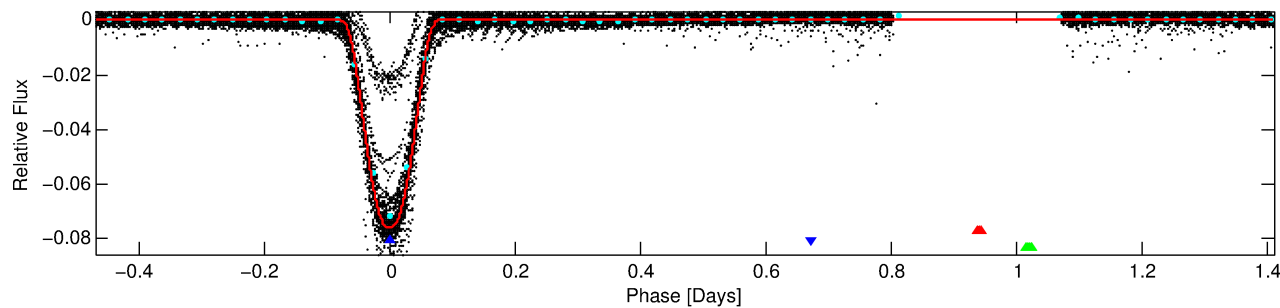
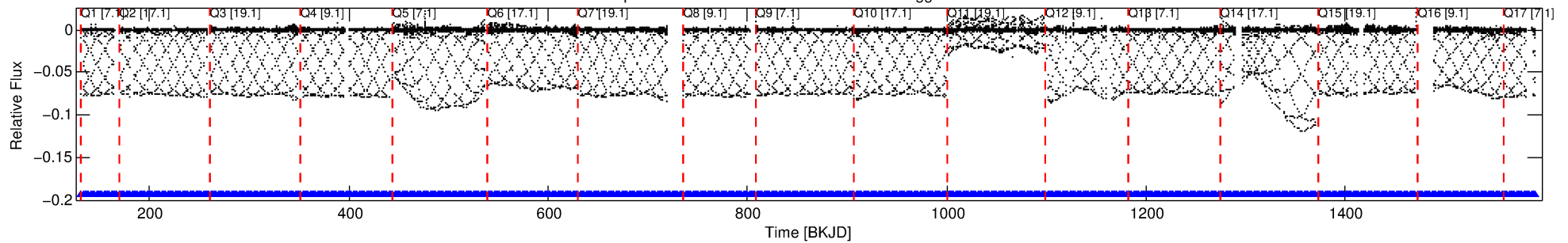
Ephemeris Match Information For 009637299-02

No Significant Match Found

DV One-Page Summary

KIC: 9637299 Candidate: 2 of 3 Period: 1.882 d
KOI: K07207 Corr: No Ephemeris Match

Kp: 13.68 R*: 1.21 Rs Teff: 6322.0 K Logg: 4.21 Fe/H: -0.780



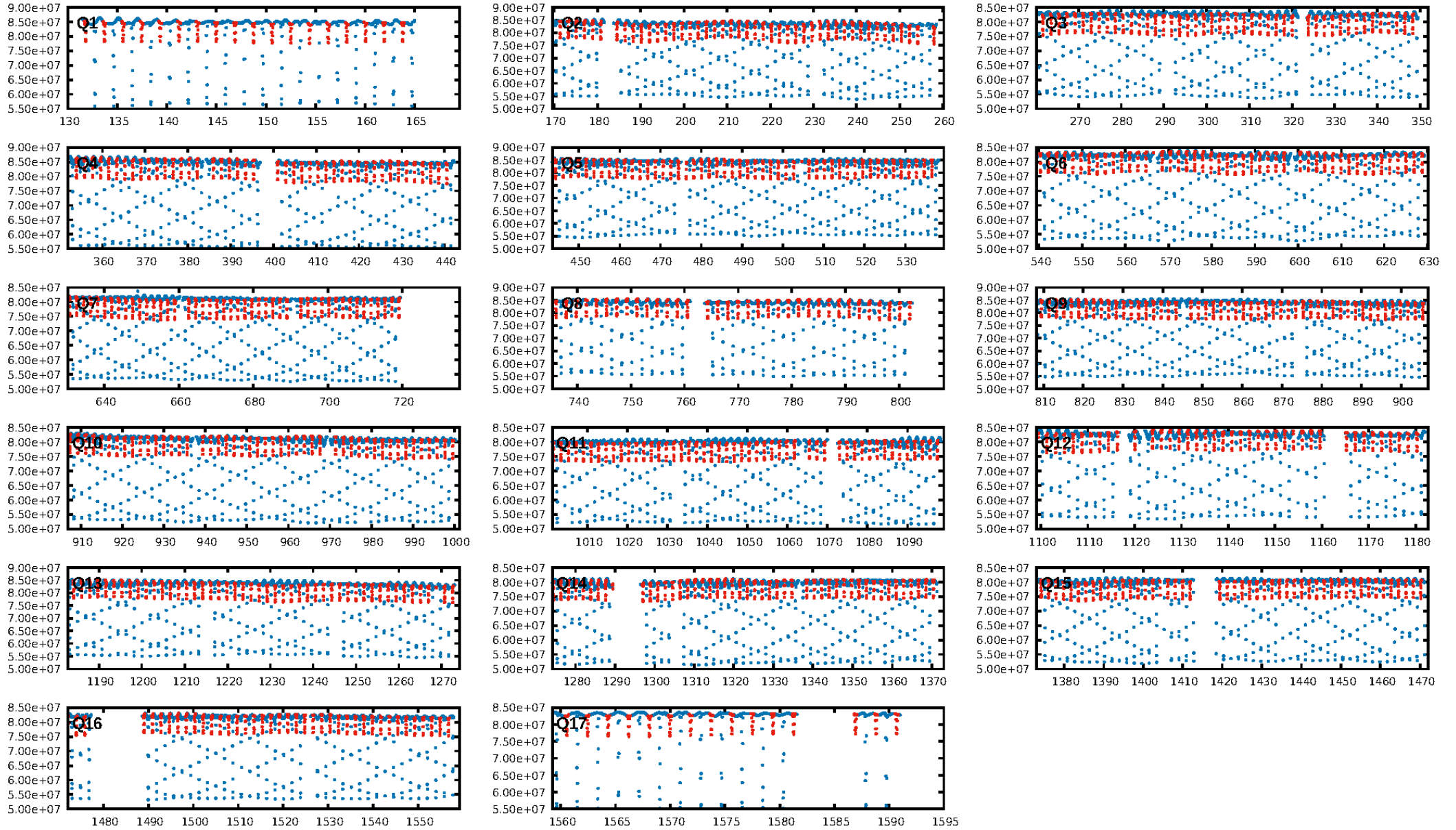
DV Fit Results:

Period = 1.88244 [0.00000] d
Epoch = 131.7971 [0.0000] BKJD
Rp/R* = 0.2781 [0.0001]
a/R* = 4.62 [0.00]
b = 0.72 [0.00]
Seff = 2589.74 [1181.35]
Teq = 1819 [207] K
Rp = 36.82 [9.47] Re
a = 0.0285 [0.0076] AU
Ag = 1.48 [0.65] [0.73σ]
Teffp = 3101 [95] K [5.62σ]

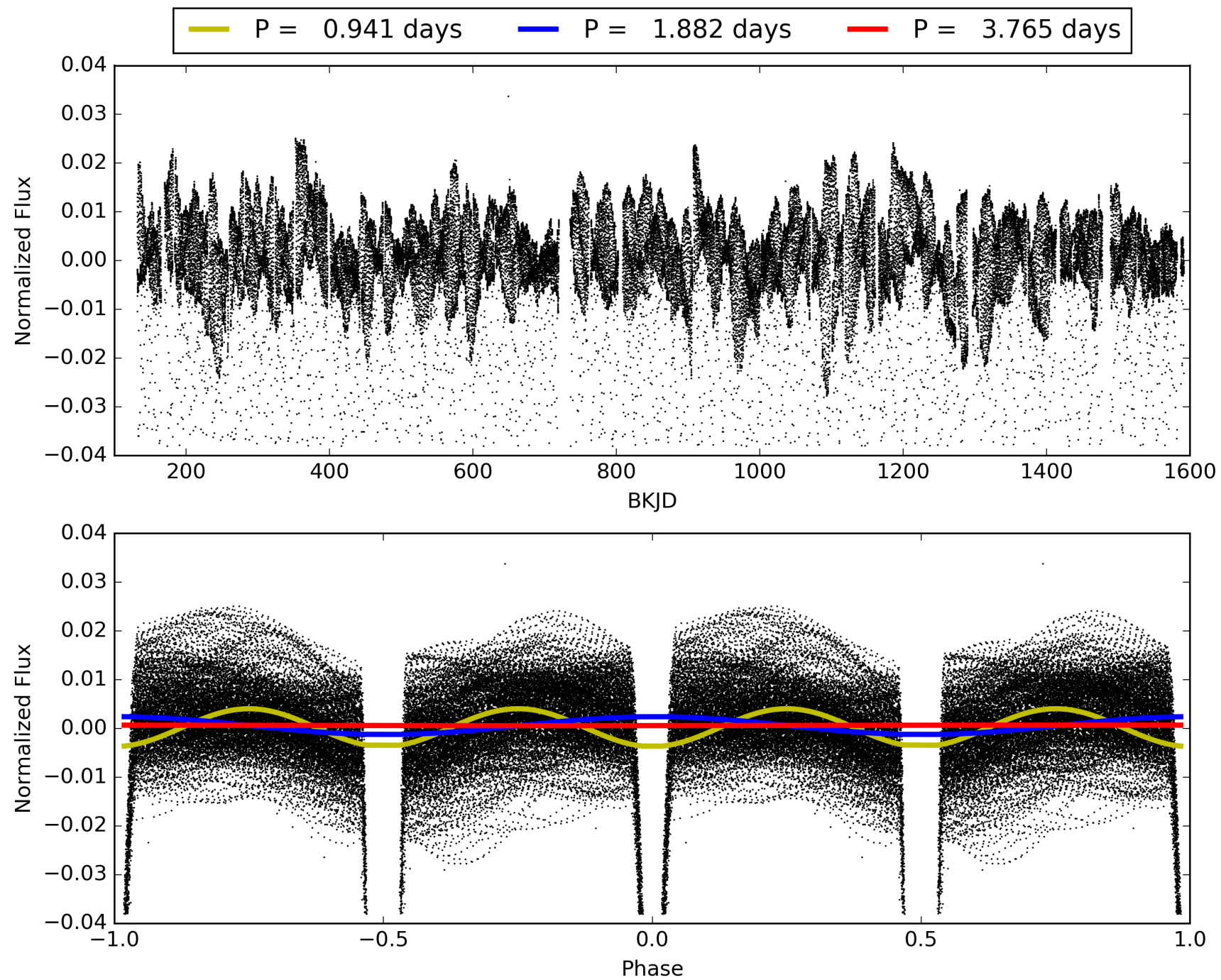
DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00σ]
LongPeriod-sig: 100.0% [4.70σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [674/674]
GhostDiagnostic-chr: 1.821
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 0.065 arcsec [0.96σ]
KicOffset-rm: 0.163 arcsec [2.40σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 1.00 [17/17]
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TCE 009637299-02, PDC Light Curves

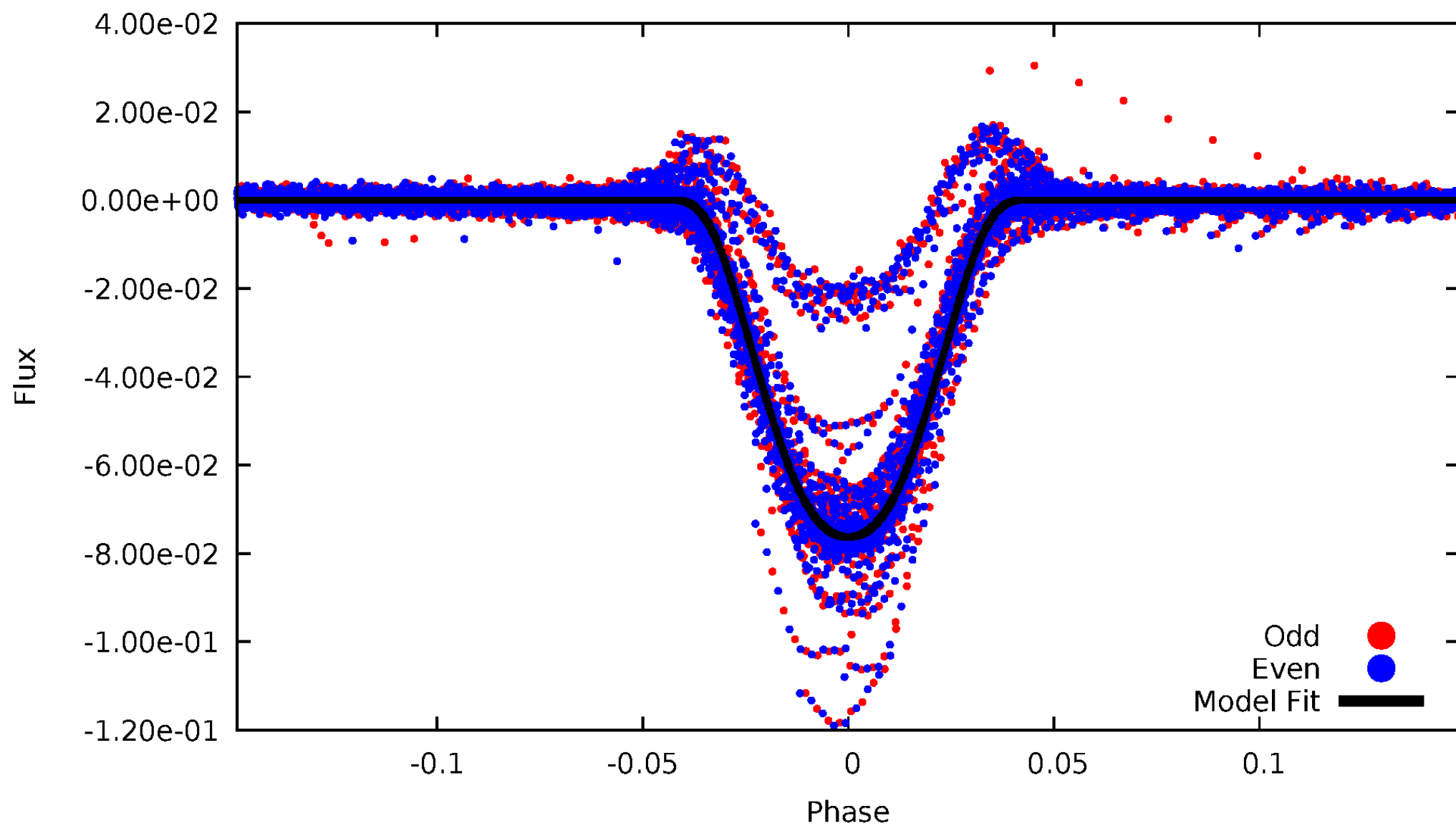


TCE 009637299-02



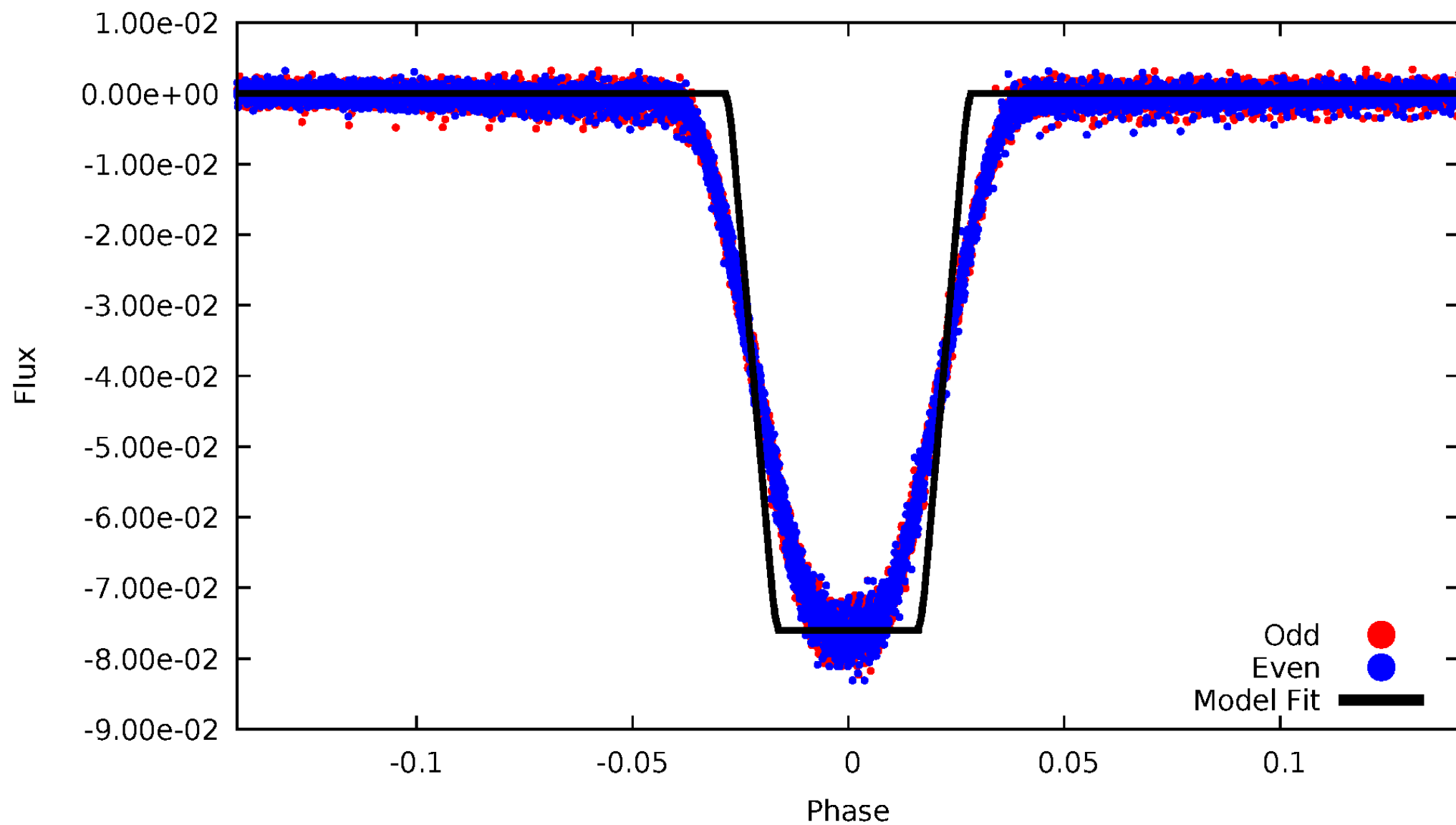
DV Odd/Even

TCE 009637299-02



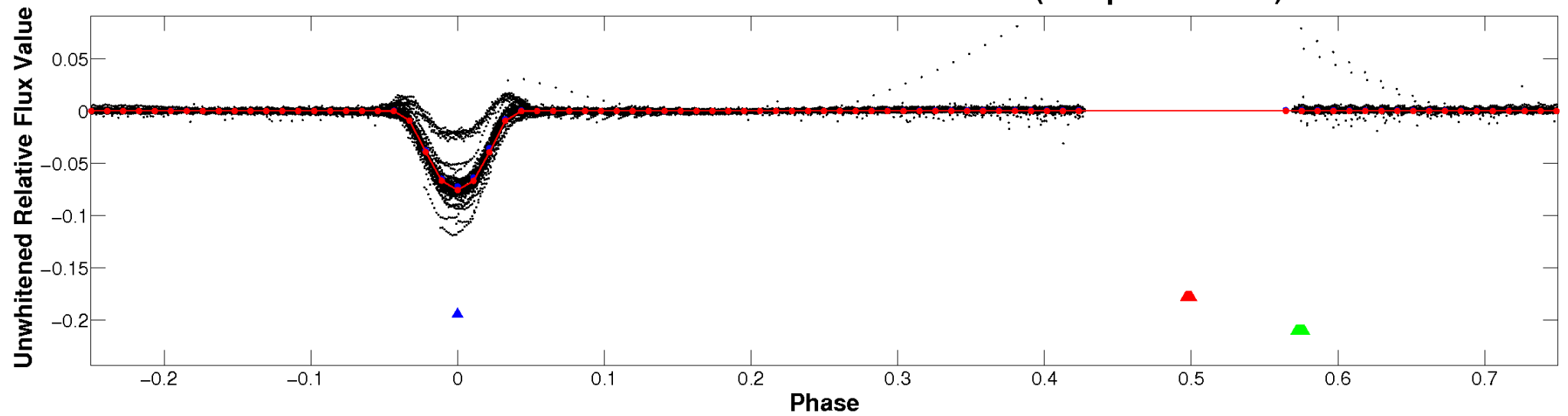
ALT Odd/Even

TCE 009637299-02

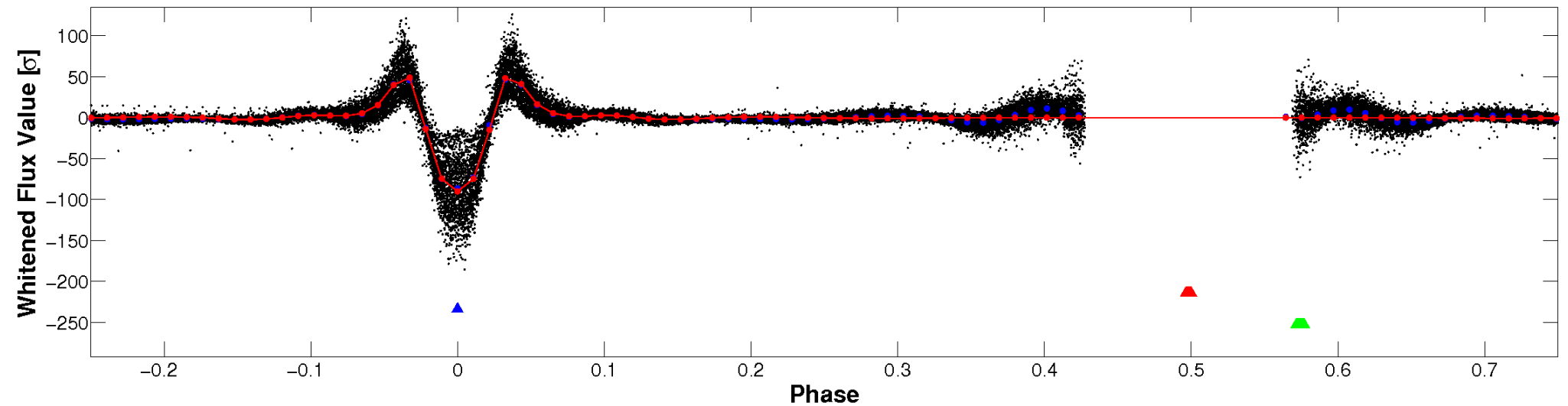


Non-Whitened Vs. Whitened Light Curve

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

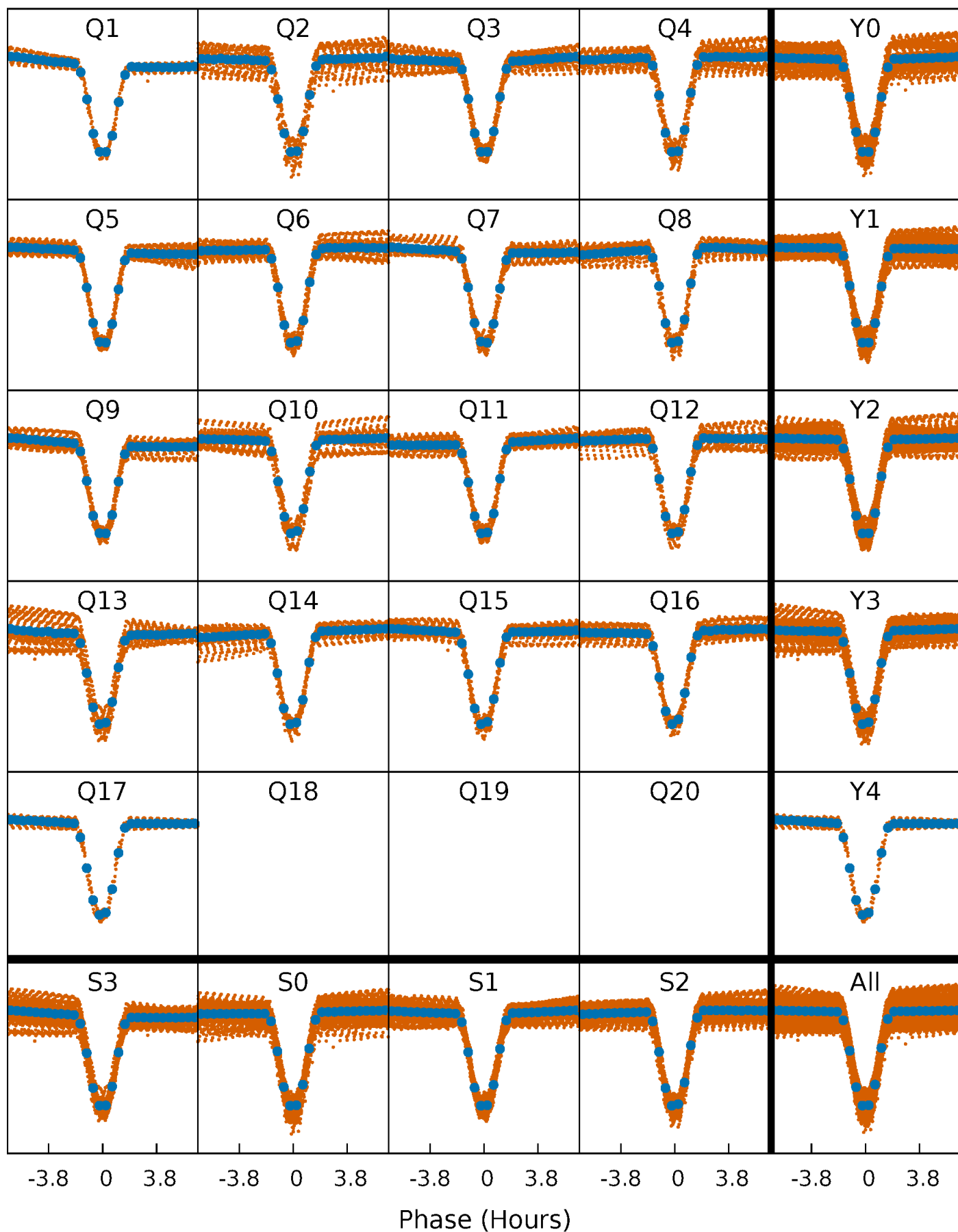


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



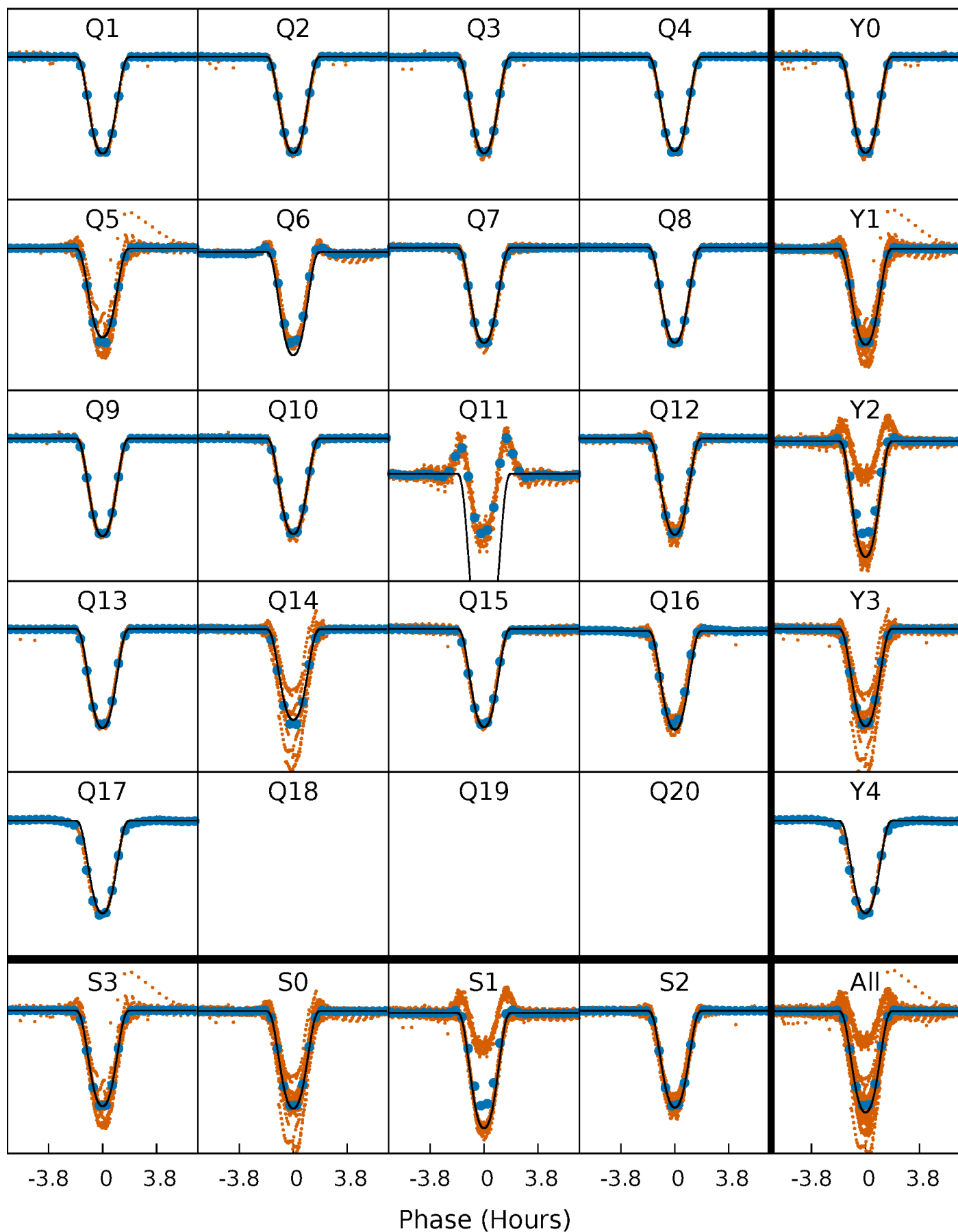
PDC Quarter-Phased Transit Curves

TCE 009637299-02 $P = 1.882444$ Days $T_0 = 131.797090$ (BKJD)



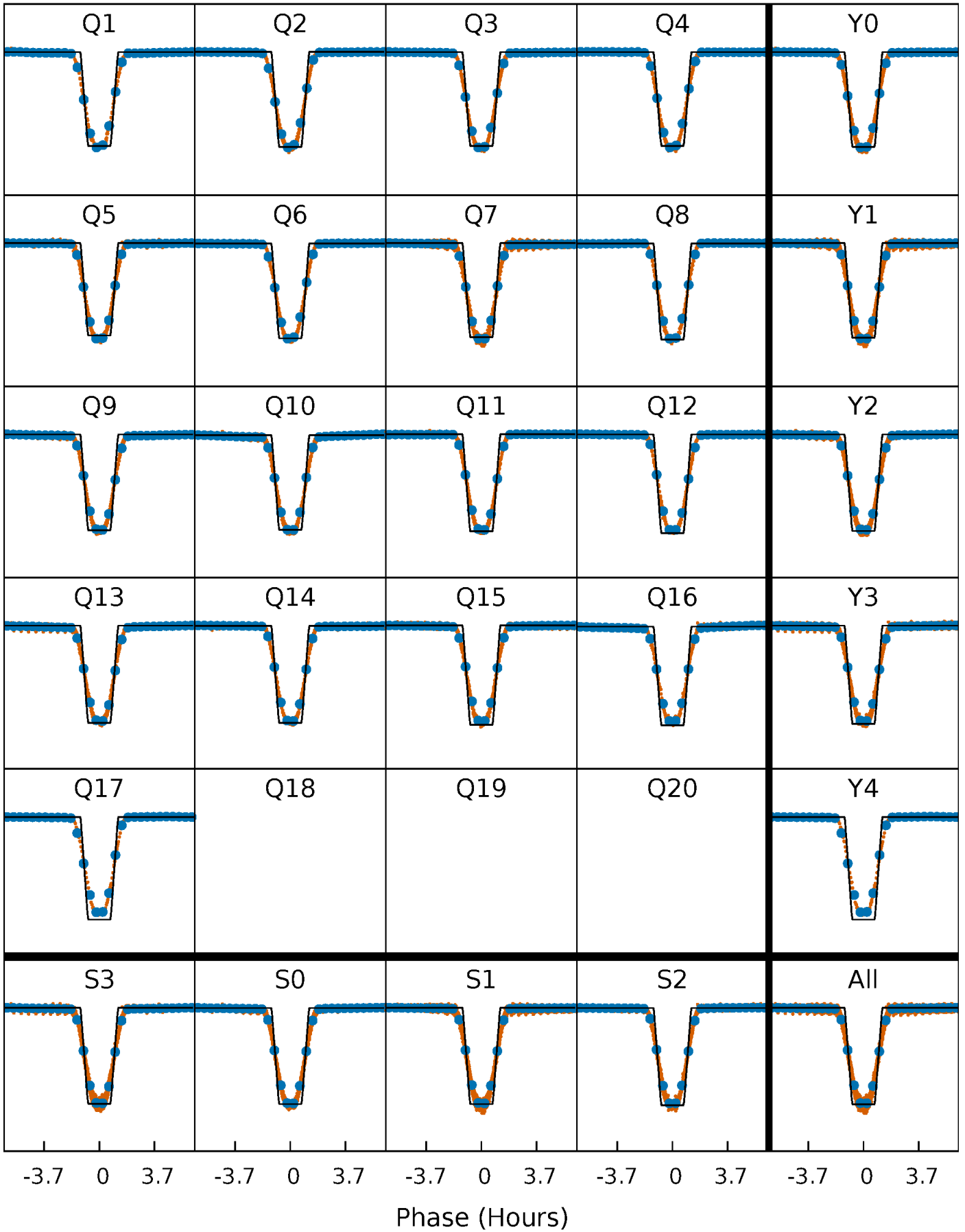
DV Quarter-Phased Transit Curves

TCE 009637299-02 P= 1.882444 Days $T_0=131.797090$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

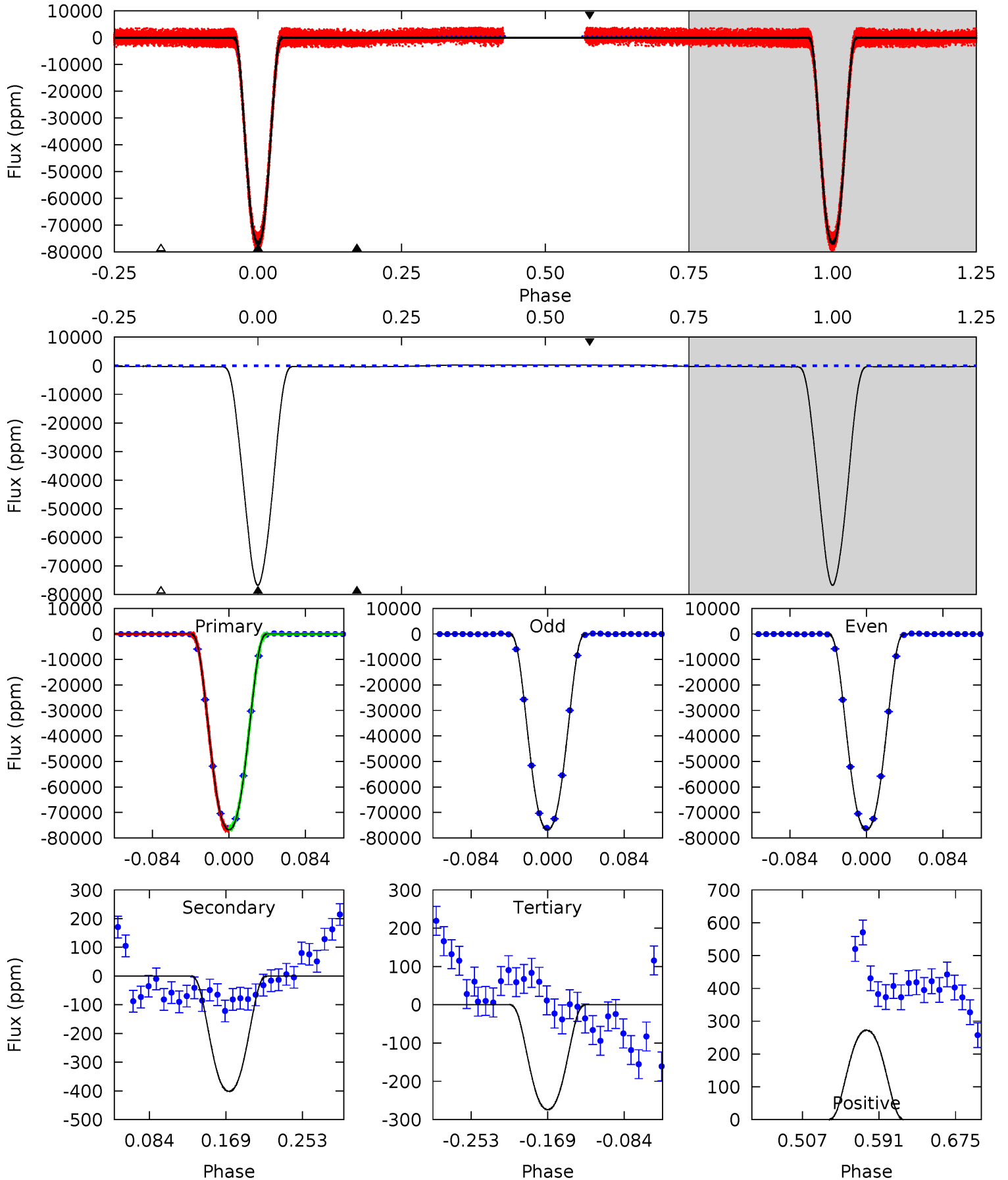
TCE 009637299-02 $P = 1.882436$ Days $T_0 = 131.799017$ (BKJD)



DV Model-Shift Uniqueness Test

009637299-02, P = 1.882444 Days, E = 129.914646 Days

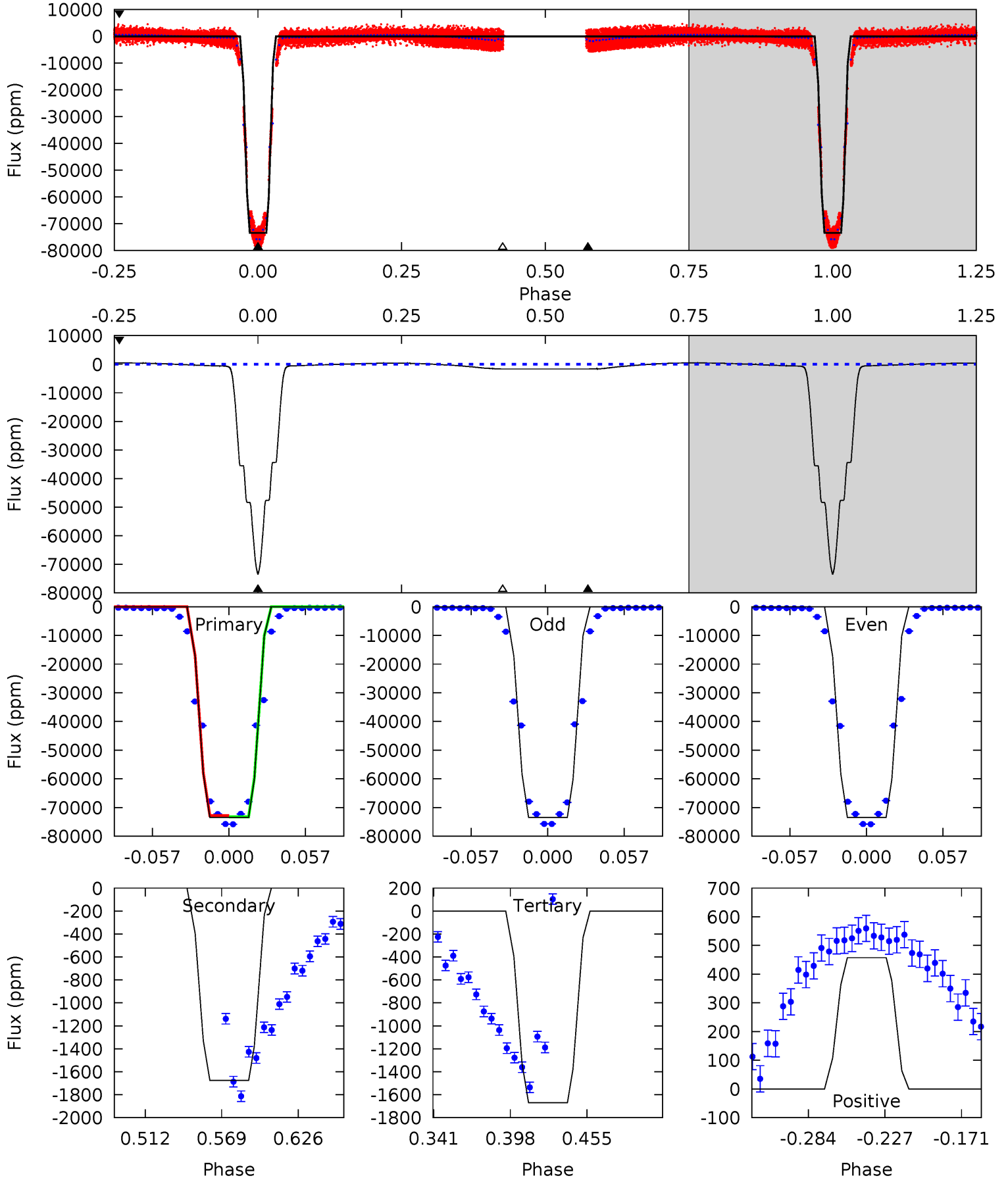
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4642	24.3	16.6	16.5	4.60	1.73	14.2	4625	4625	7.74	7.83	0.04	0.95	0.00	0



Alt Model-Shift Uniqueness Test

009637299-02, P = 1.882436 Days, E = 129.916581 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3009	68.6	68.5	18.7	4.68	1.90	19.4	2941	2990	0.17	49.9	0.16	1.00	0.01	8.76



Stellar Parameters For KIC 009637299

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6322^{+171}_{-190}	$4.211^{+0.264}_{-0.176}$	$-0.780^{+0.300}_{-0.300}$	$1.213^{+0.312}_{-0.312}$	$0.872^{+0.104}_{-0.066}$	$0.688^{+1.030}_{-0.311}$
	+3%/-3%	+6%/-4%	+38%/-38%	+26%/-26%	+12%/-8%	+150%/-45%
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 009637299-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-402 ± 17	$36.48^{+5.67}_{-5.30}$	2517^{+207}_{-196}	-2590^{+205}_{-172}	$0.137^{+0.048}_{-0.034}$
Alt.	-1675 ± 24	$36.51^{+5.71}_{-5.27}$	2534^{+196}_{-199}	2775^{+104}_{-164}	$0.568^{+0.195}_{-0.135}$

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

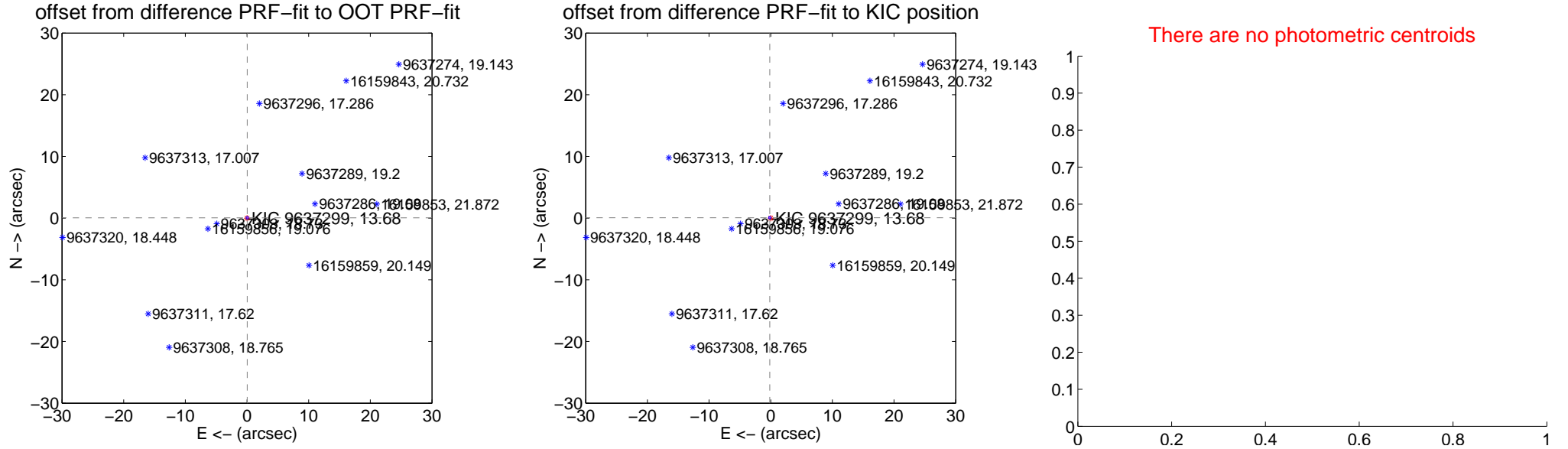
DV Centroid Data

Supplemental centroid analysis for 009637299-02. Kepler magnitude: 13.68. Transit SNR 3898.52

There are 17 quarters with good PRF difference image offsets

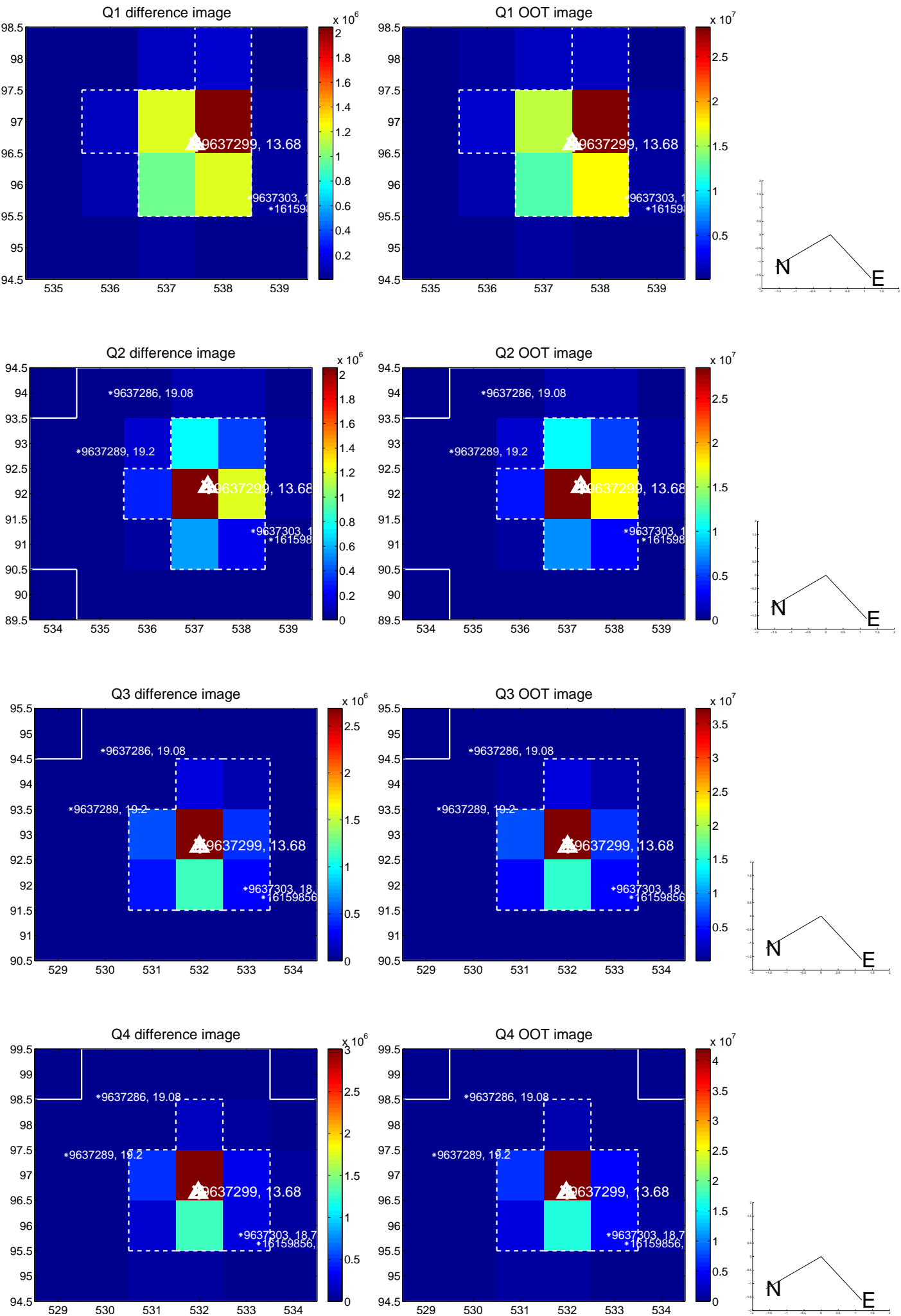
The direct PRF centroid is offset from the target star catalog position by about 0.17 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.065 ± 0.067	0.96	-0.037 ± 0.067	0.053 ± 0.067
PRF-fit source offset from KIC position	0.163 ± 0.068	2.40	0.149 ± 0.068	0.068 ± 0.068
photometric centroid source offset	—	—	—	—

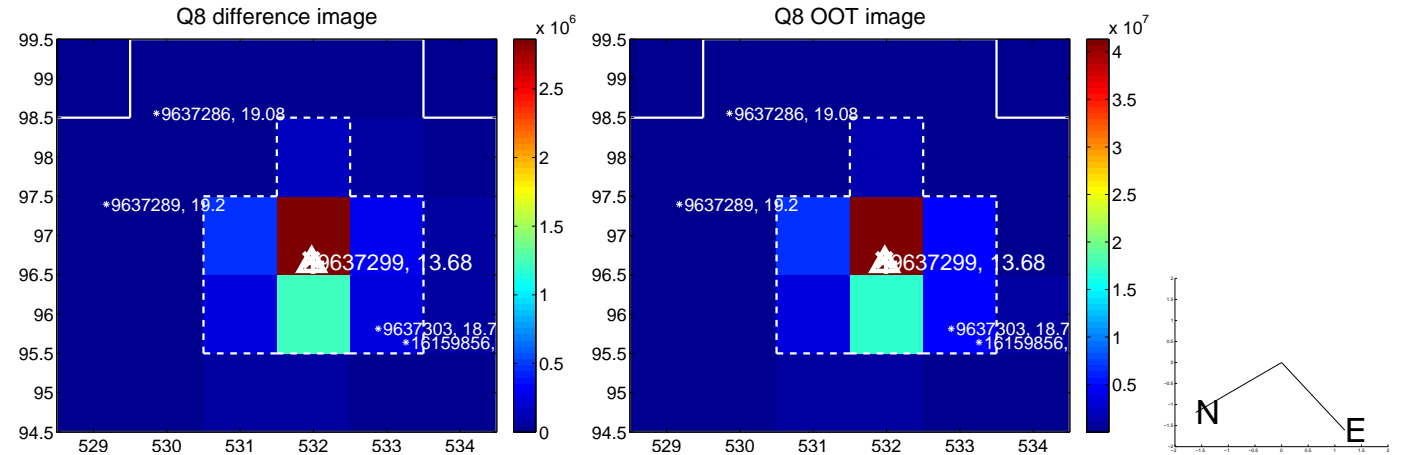
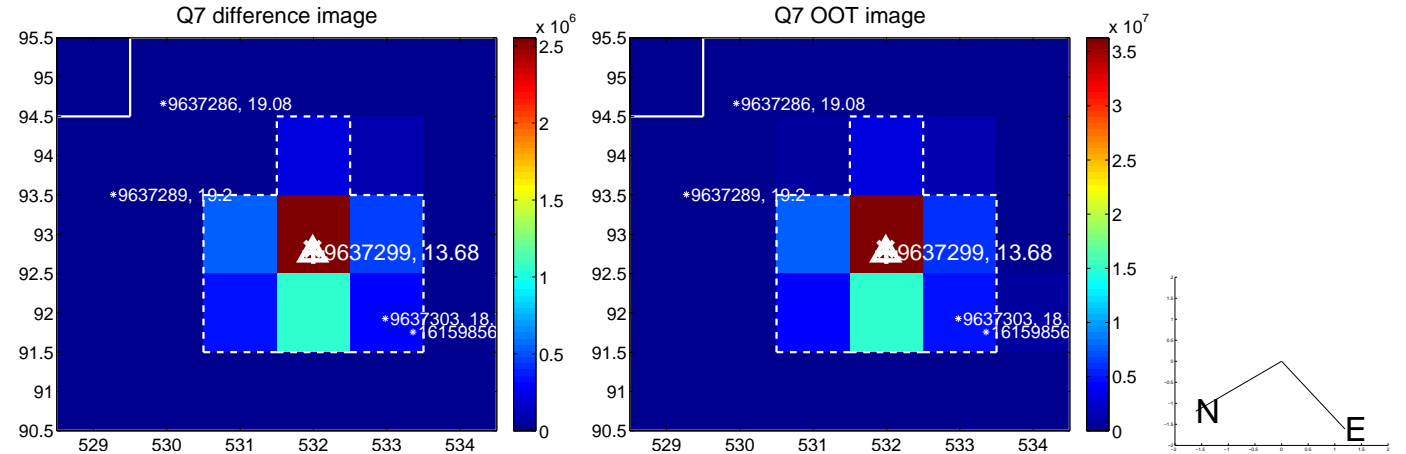
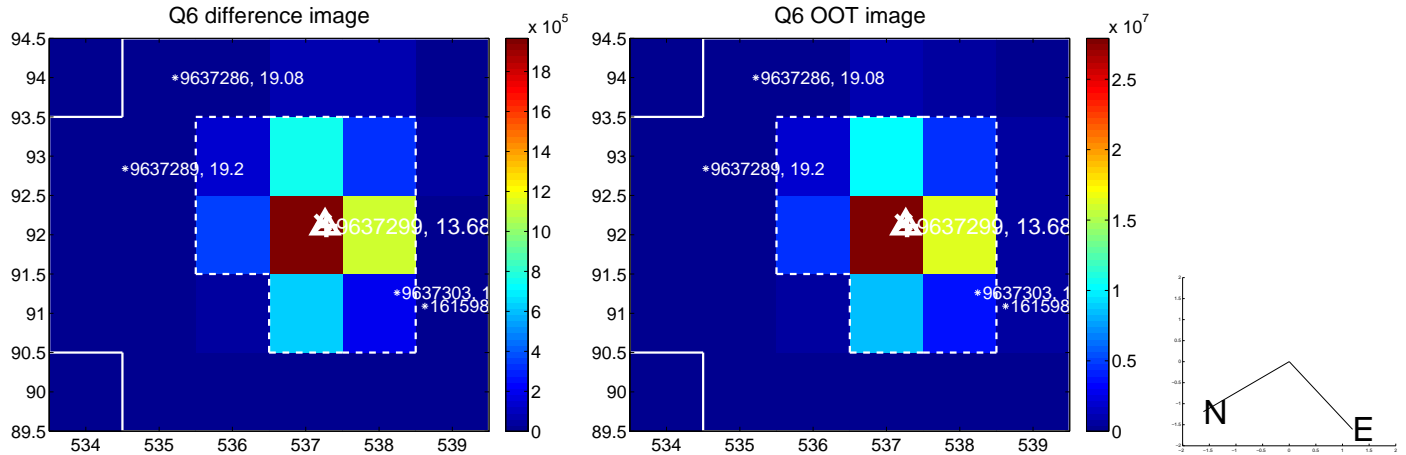
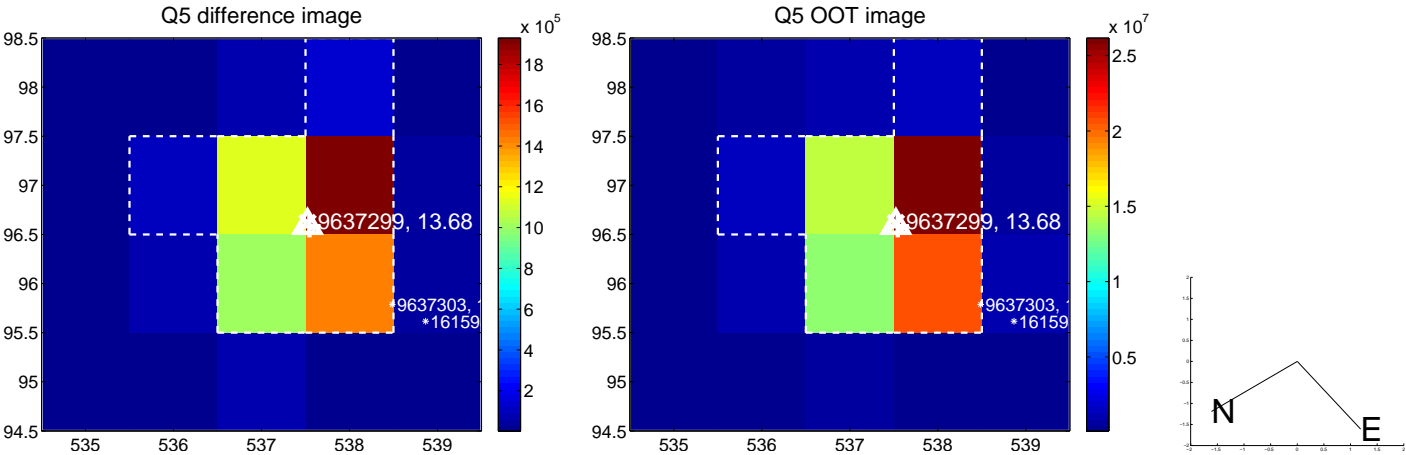


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

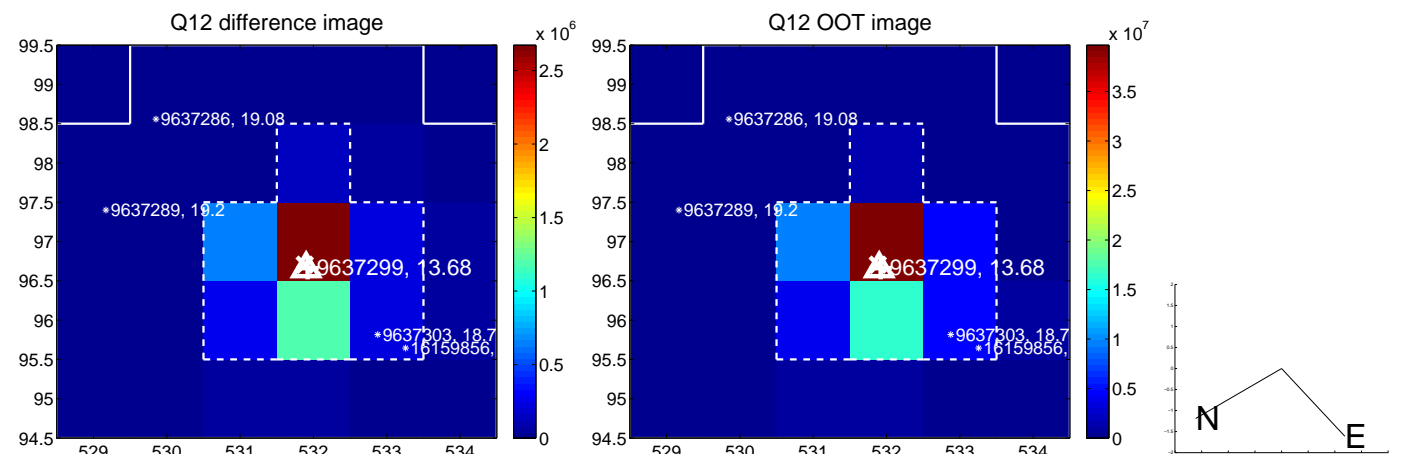
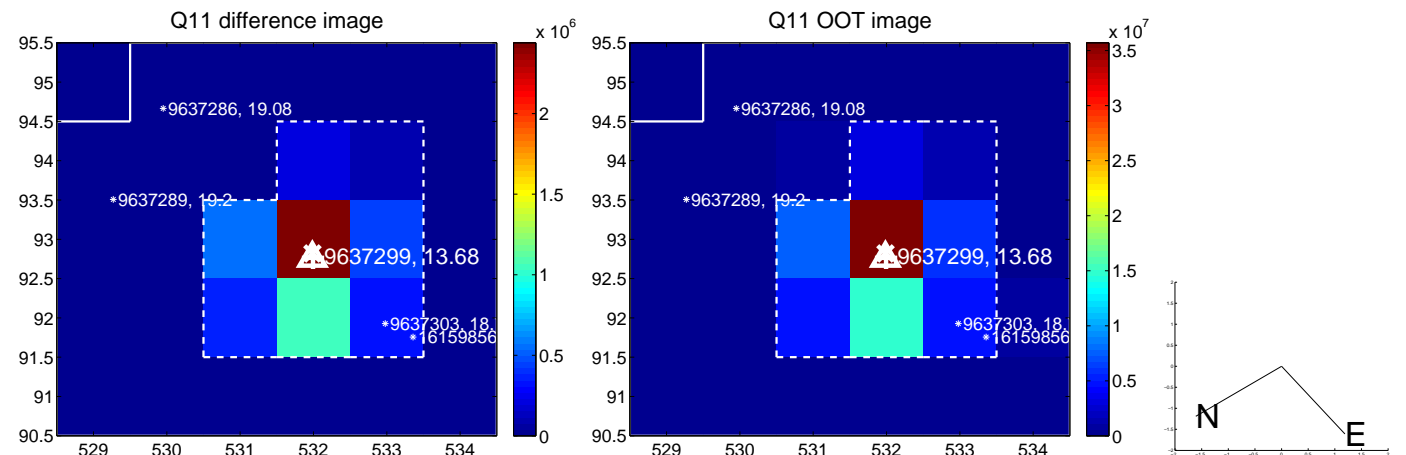
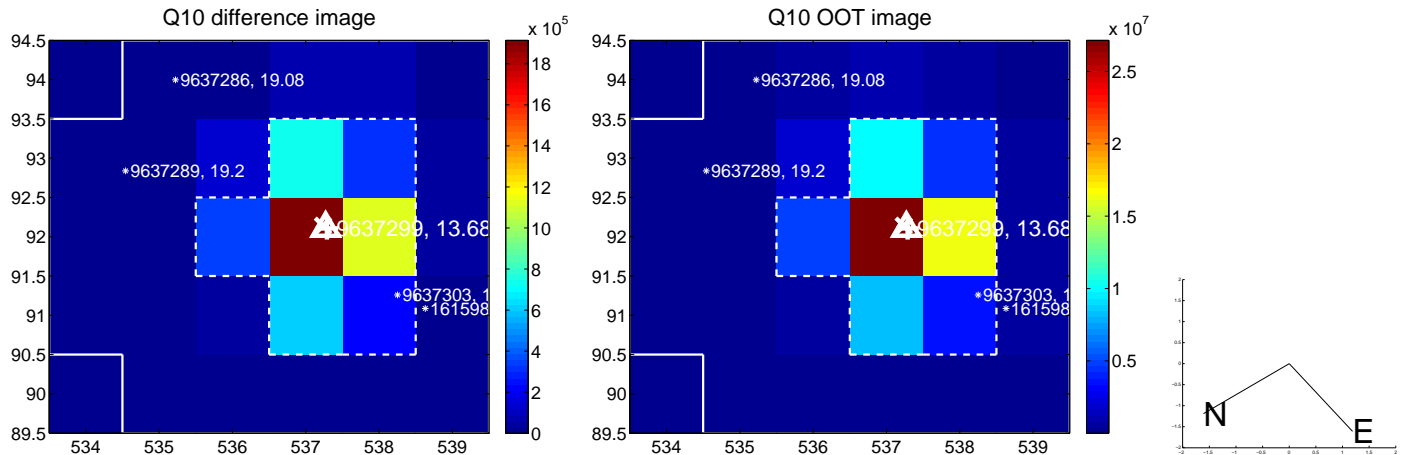
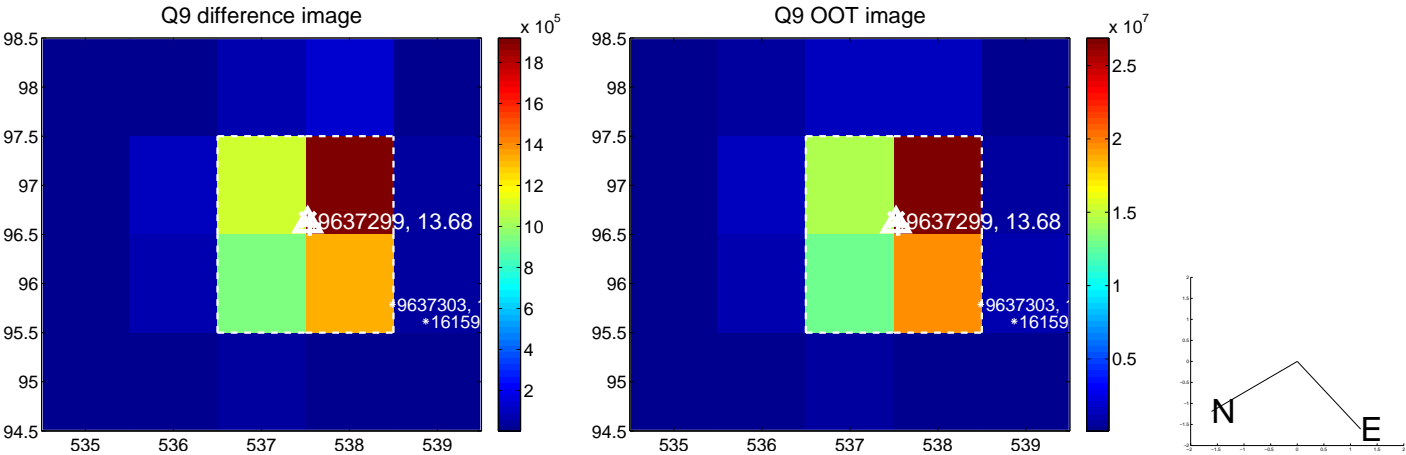
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



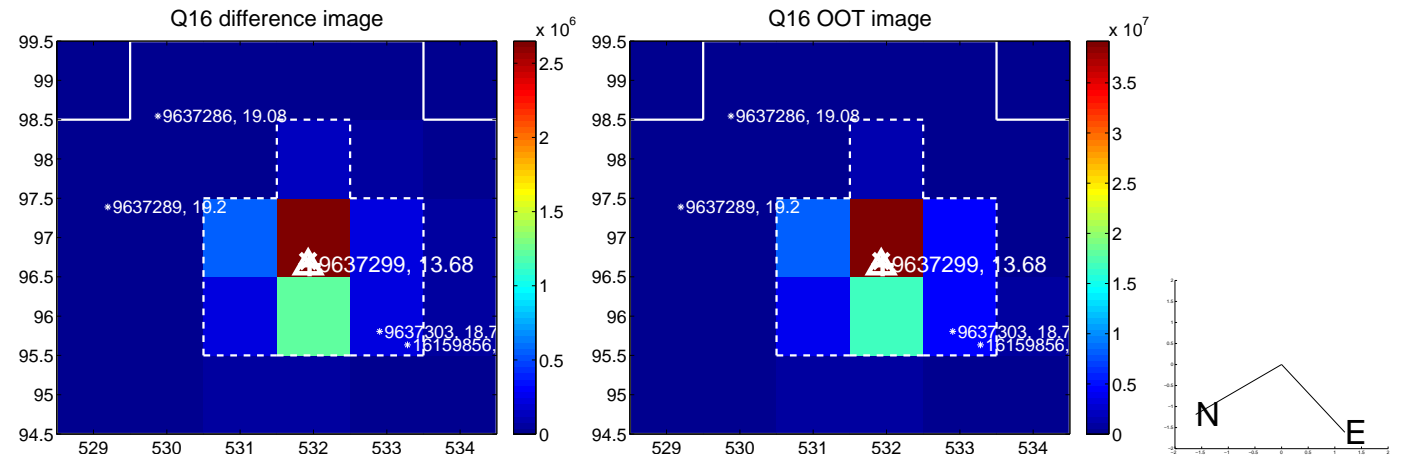
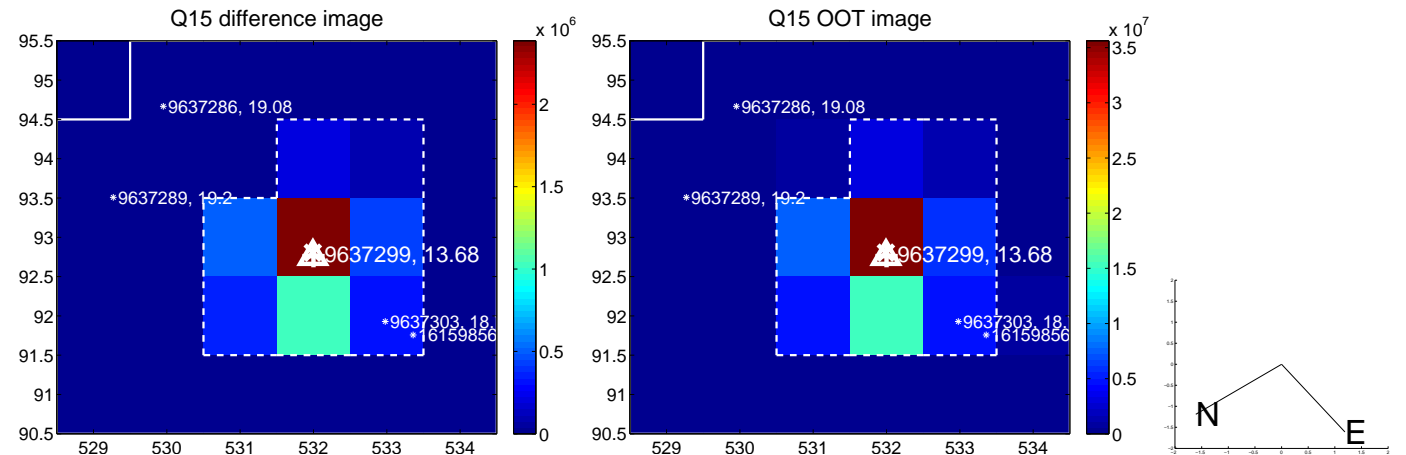
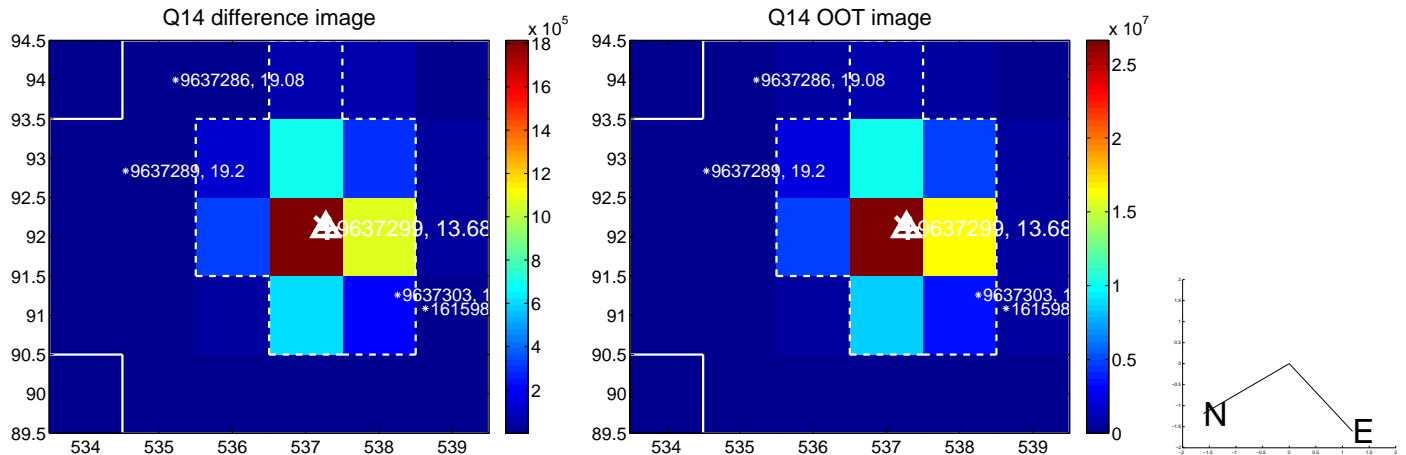
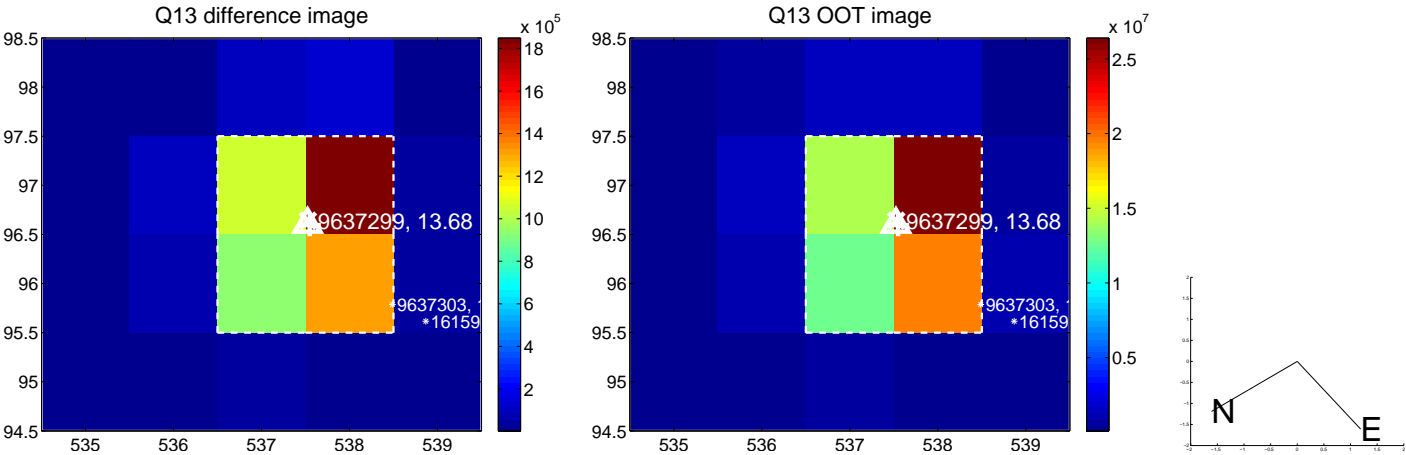
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



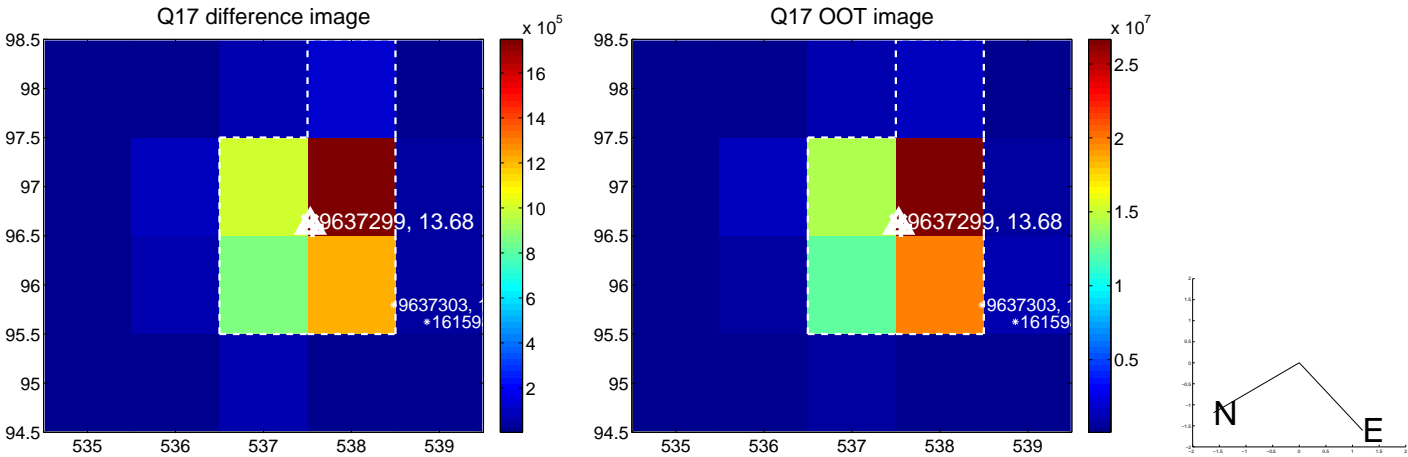
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



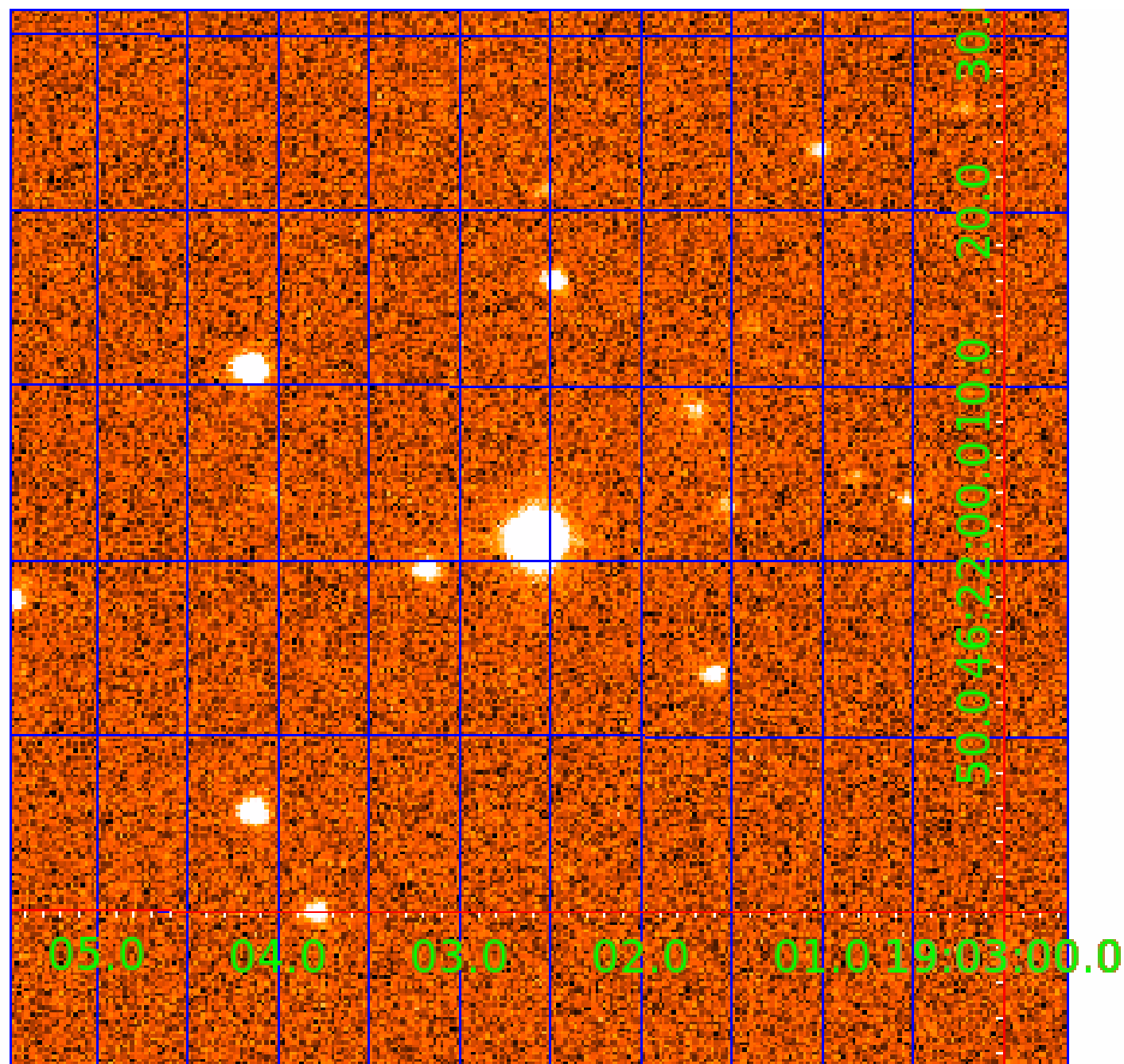
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



folded centroid time series figure for this object.

UKIRT Image

Declination



KIC 009637299

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})
009637299-01	OBS	7207.01	1.882435	132.738277	343214.6	2.000	18805.3	-1.0	1.21	6322	43.06	2589.76
009637299-02	OBS	No	1.882444	131.797090	76301.3	3.358	4828.9	3898.5	1.21	6322	36.82	2589.74
009637299-03	OBS	No	3.764860	132.883448	18094.5	9.000	3642.4	-1.0	1.21	6322	16.43	1027.75

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009637299-01	OBS	FP	0.00	0	1	0	0	MOD_SEC_ALT—HAS_SEC_TCE—CENT_NOFITS
009637299-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE
009637299-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—LPP_DV—LPP_ALT—RESIDUAL_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.

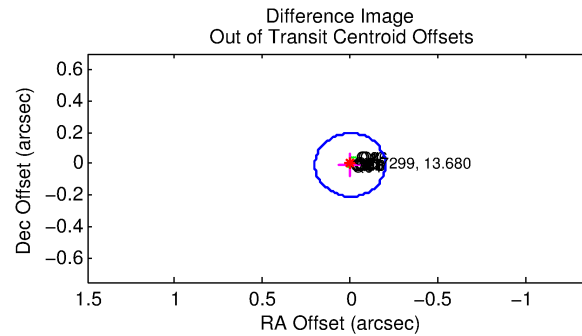
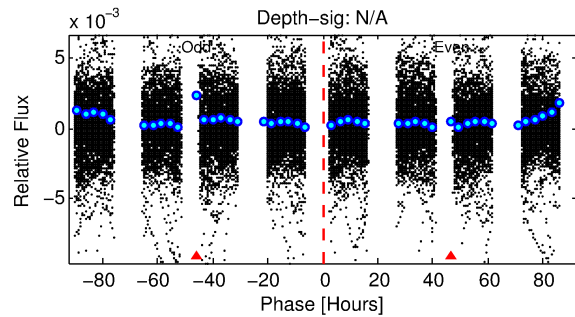
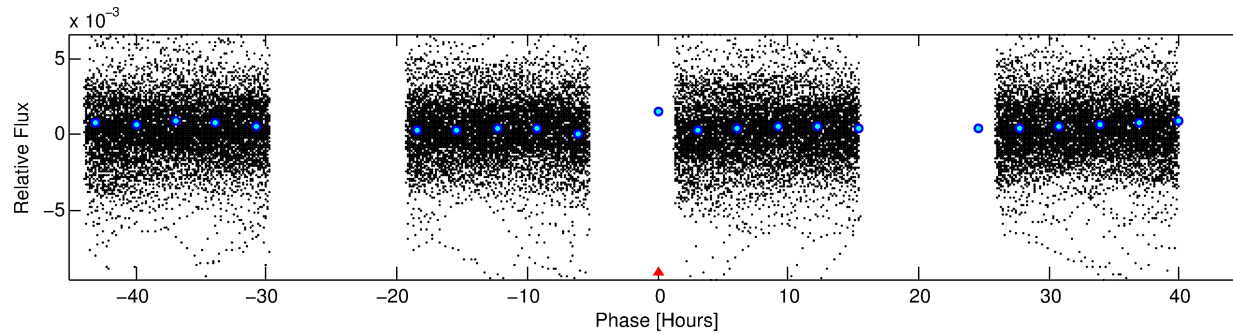
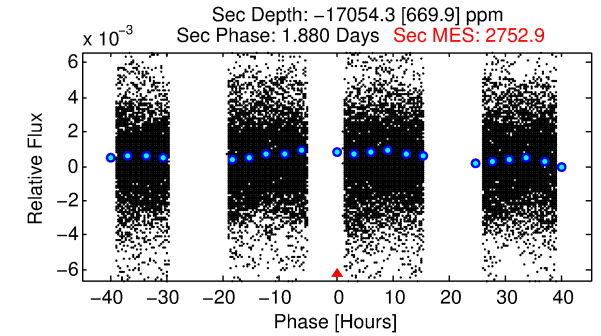
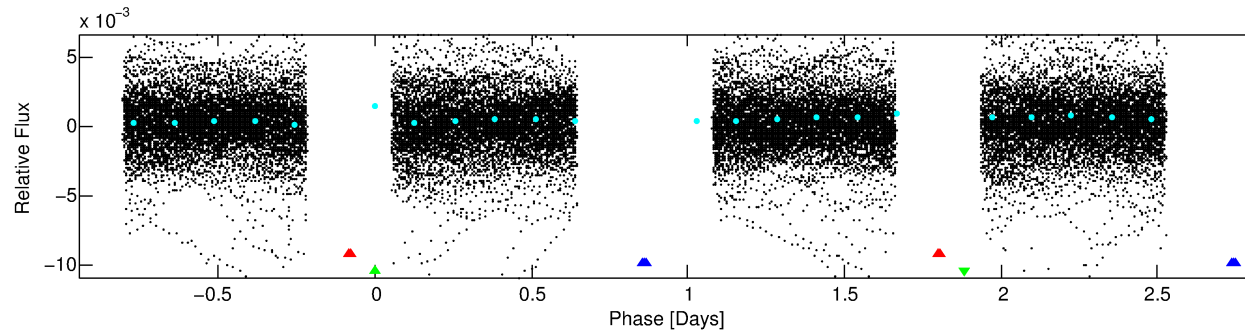
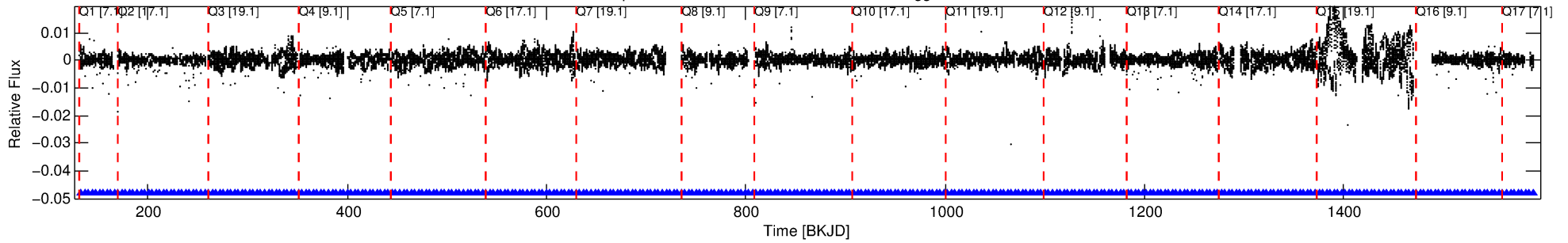
Ephemeris Match Information For 009637299-03

No Significant Match Found

DV One-Page Summary

KIC: 9637299 Candidate: 3 of 3 Period: 3.765 d
KOI: K07207 Corr: No Ephemeris Match

Kp: 13.68 R*: 1.21 Rs Teff: 6322.0 K Logg: 4.21 Fe/H: -0.780



TPS TCE Results:

Period = 3.76486 d
Epoch = 132.8834 BKJD

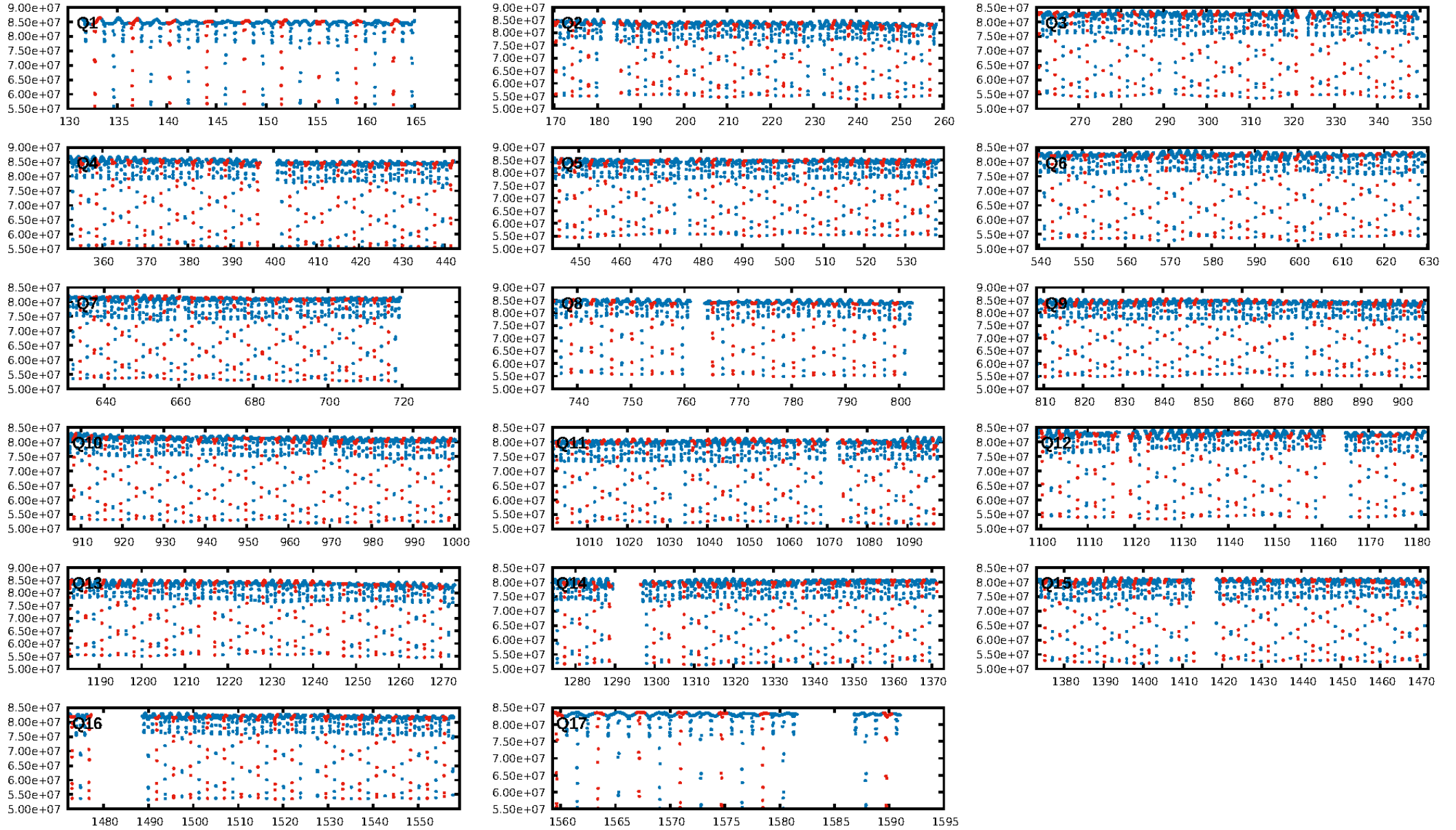
DV fit results are unavailable

DV Diagnostic Results:

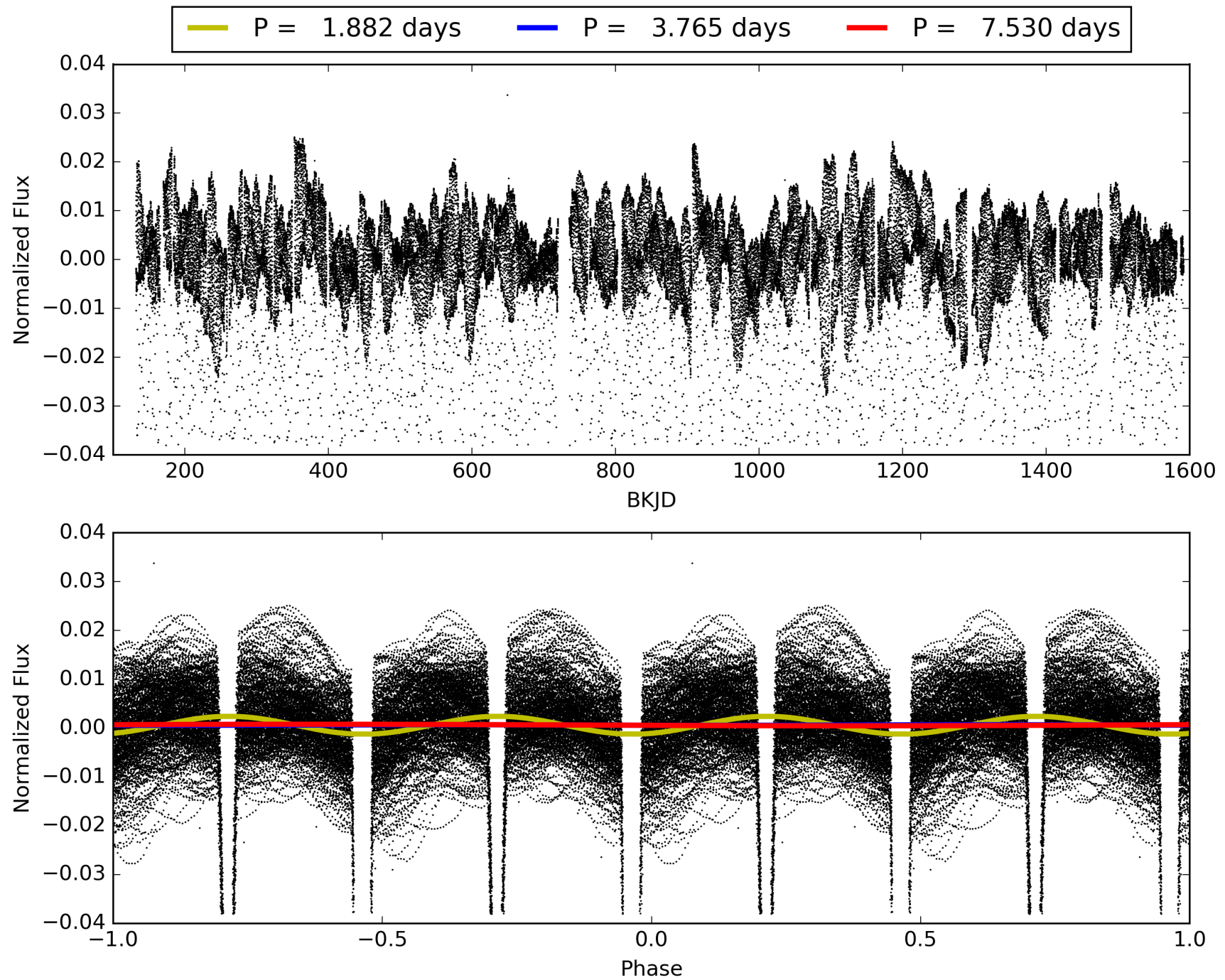
ShortPeriod-sig: 100.0% [4.70 σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [345/345]
GhostDiagnostic-chr: -1.243

Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 0.007 arcsec [0.10 σ]
KicOffset-rm: 0.177 arcsec [2.62 σ]
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 009637299-03, PDC Light Curves

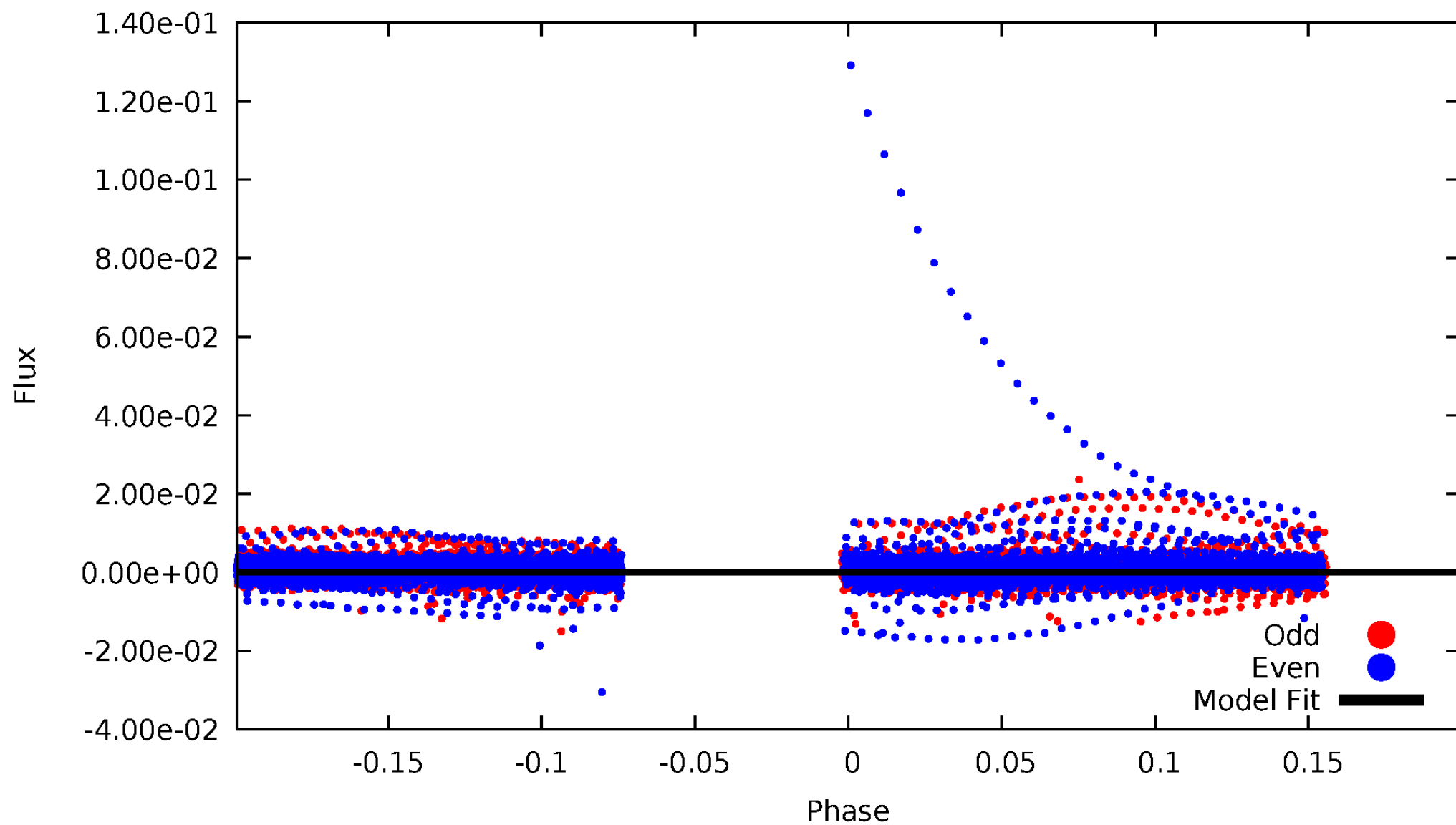


TCE 009637299-03



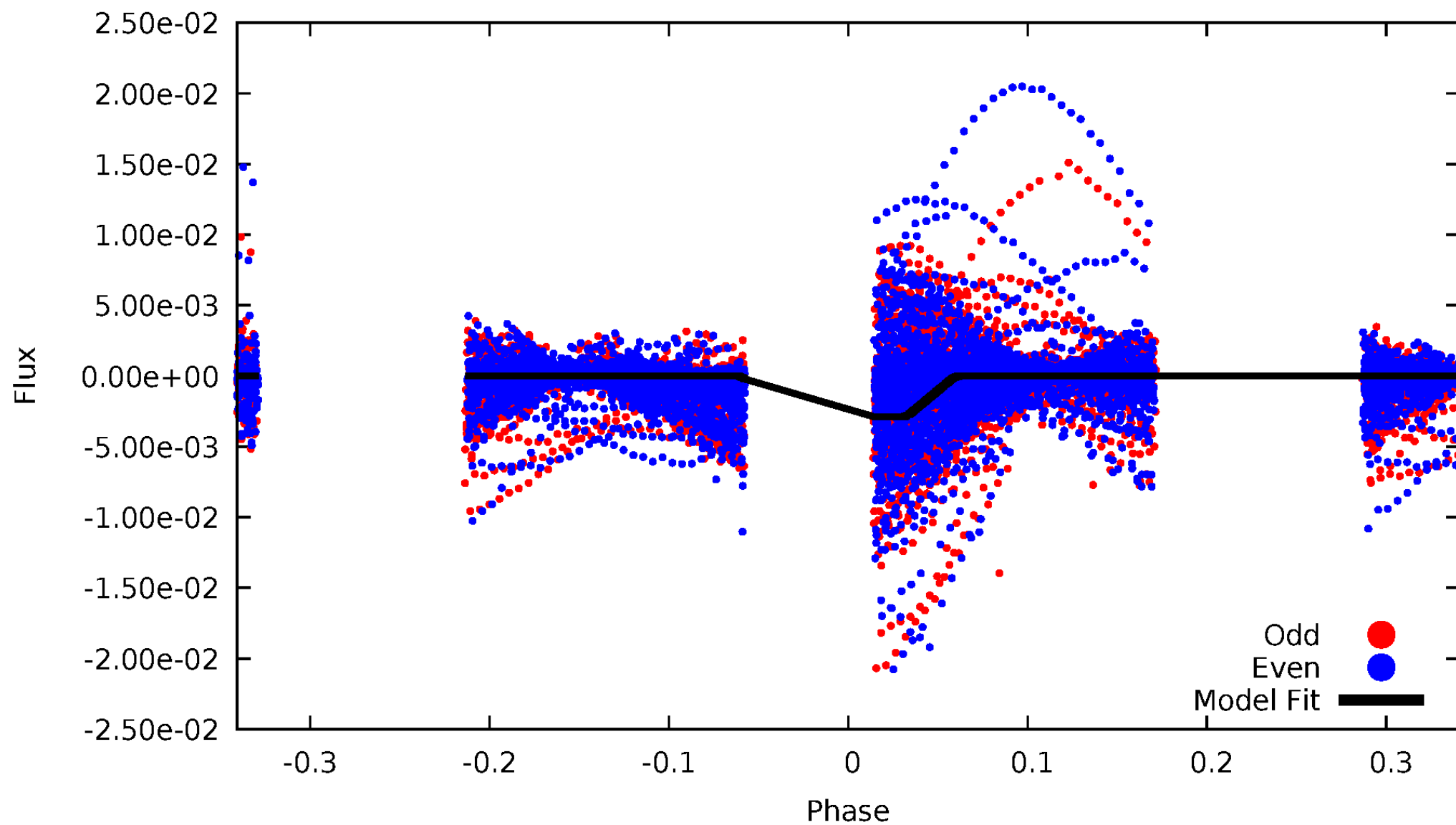
DV Odd/Even

TCE 009637299-03



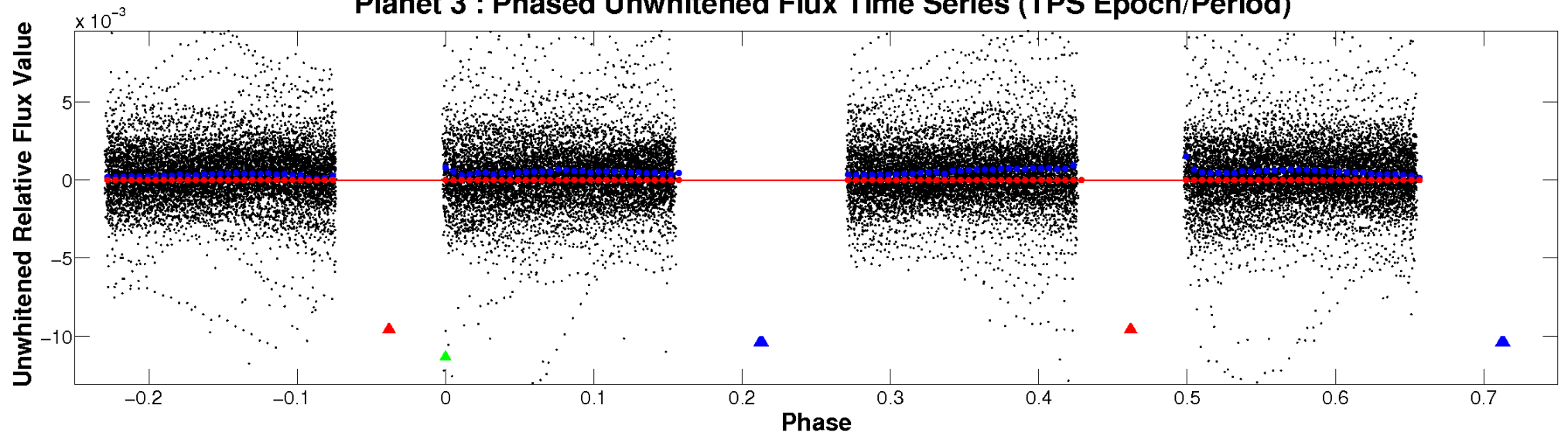
ALT Odd/Even

TCE 009637299-03

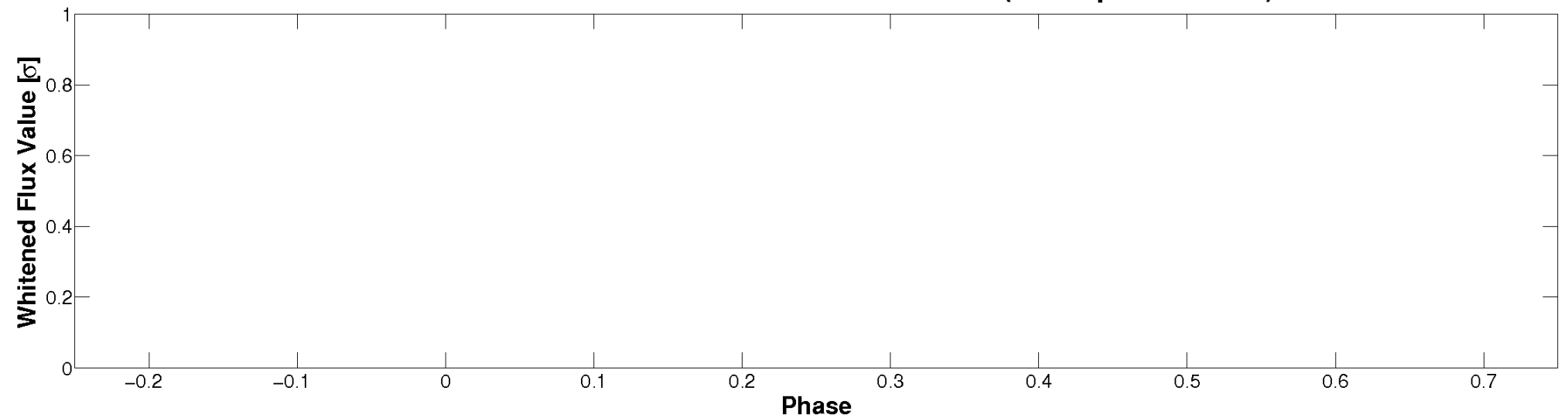


Non-Whitened Vs. Whitened Light Curve

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

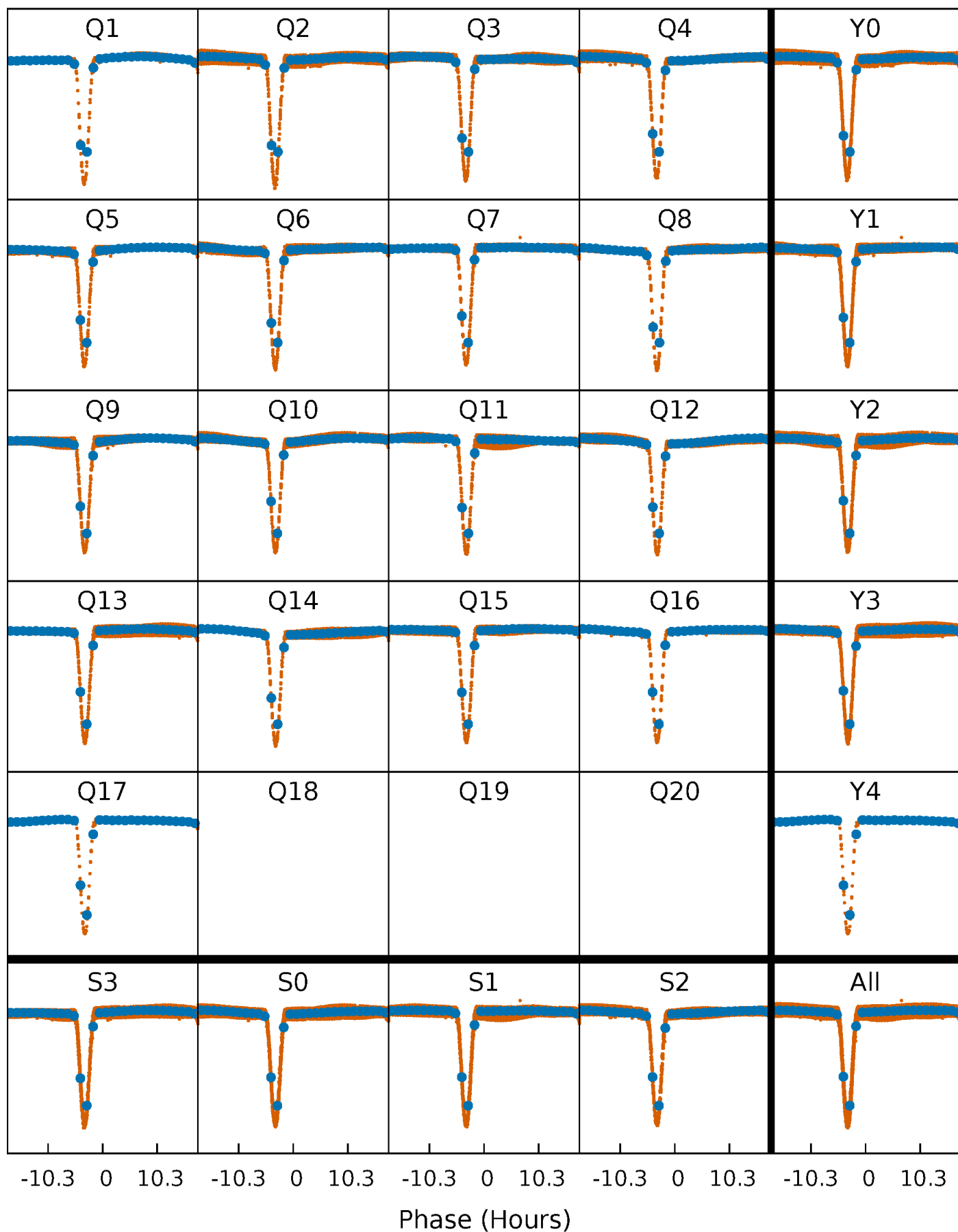


Planet 3 : Phased Whitened Flux Time Series (TPS Epoch/Period)



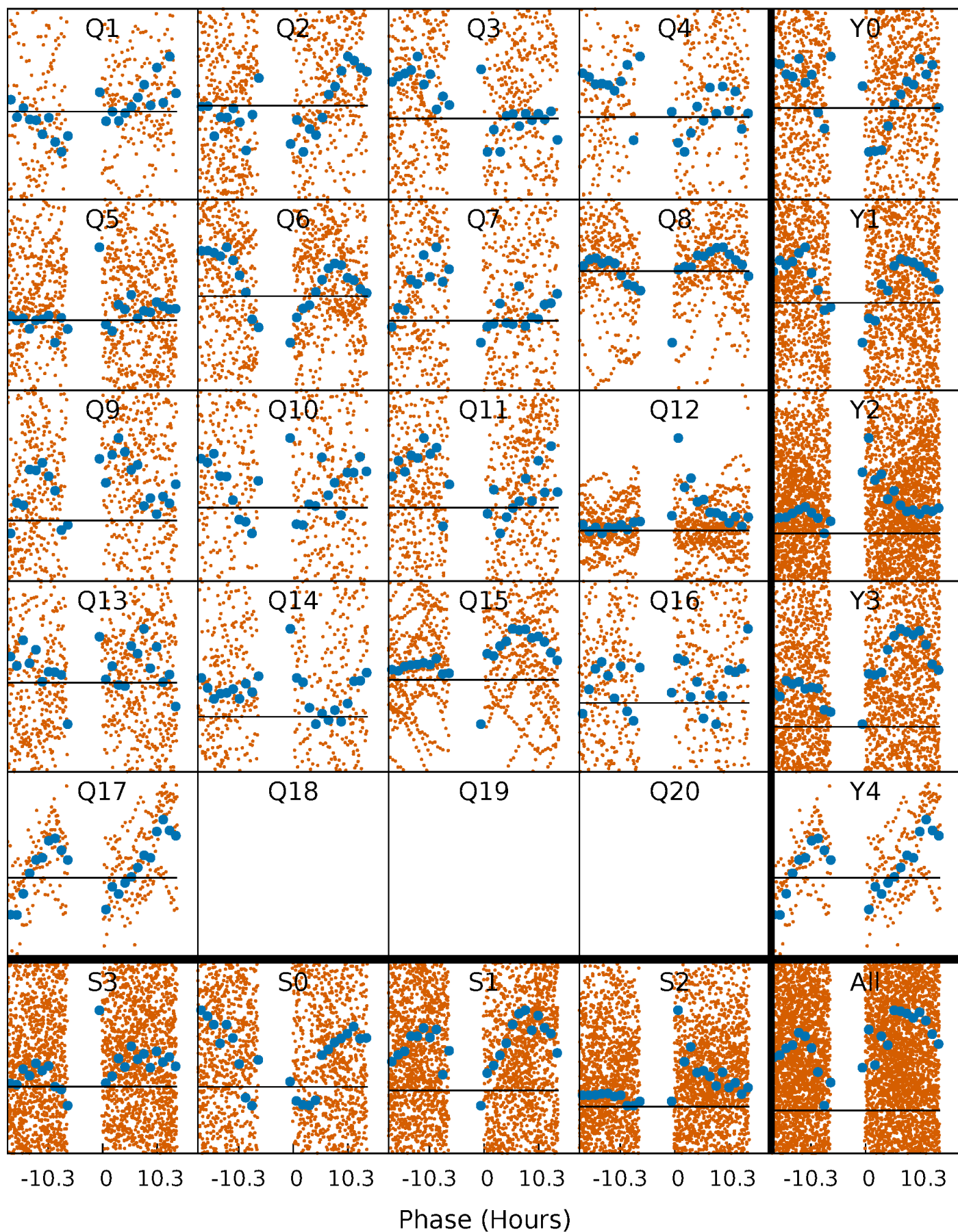
PDC Quarter-Phased Transit Curves

TCE 009637299-03 P= 3.764860 Days $T_0=132.883448$ (BKJD)



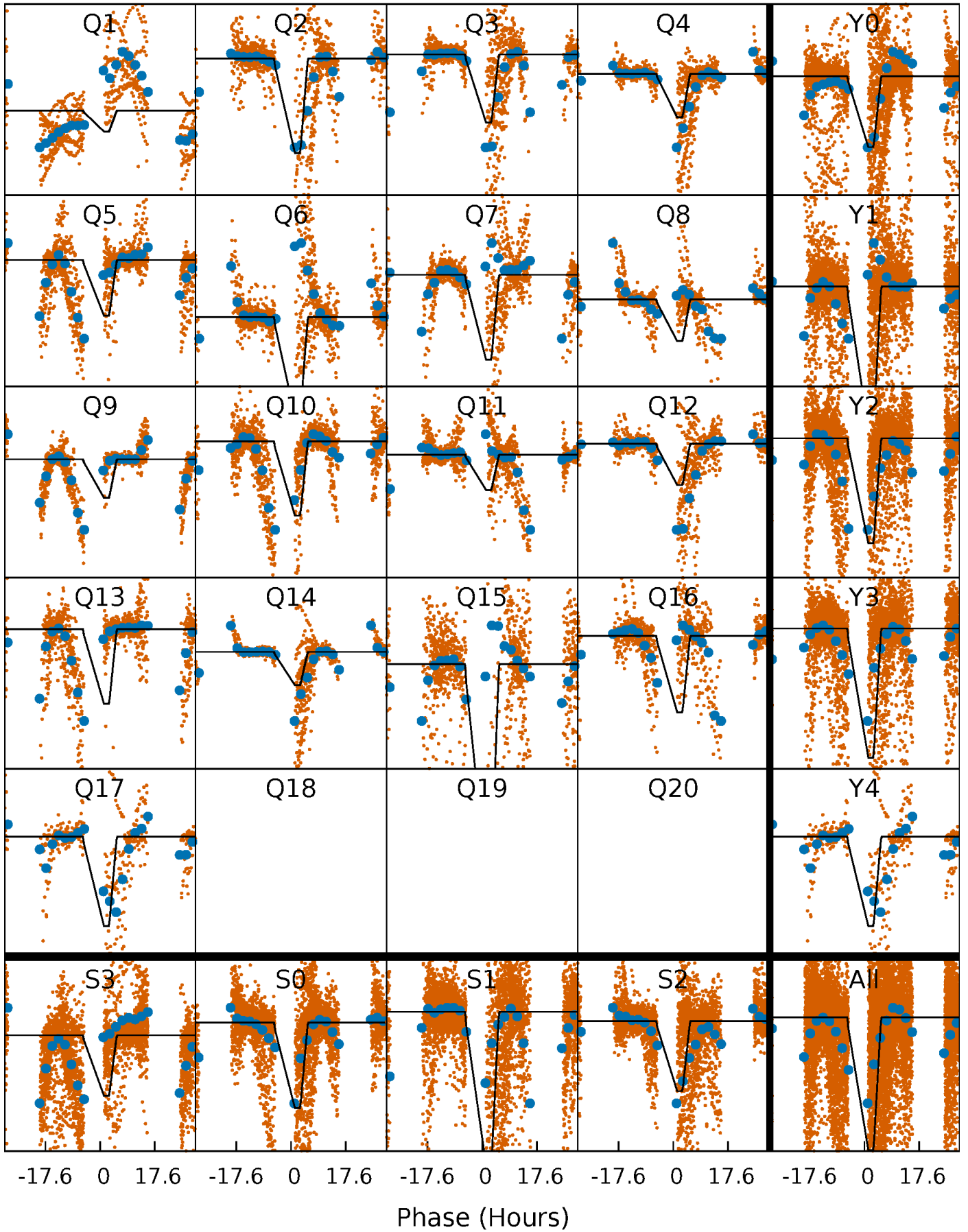
DV Quarter-Phased Transit Curves

TCE 009637299-03 P= 3.764860 Days $T_0=132.883448$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

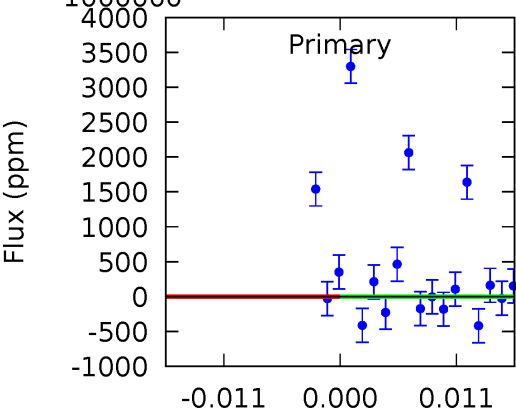
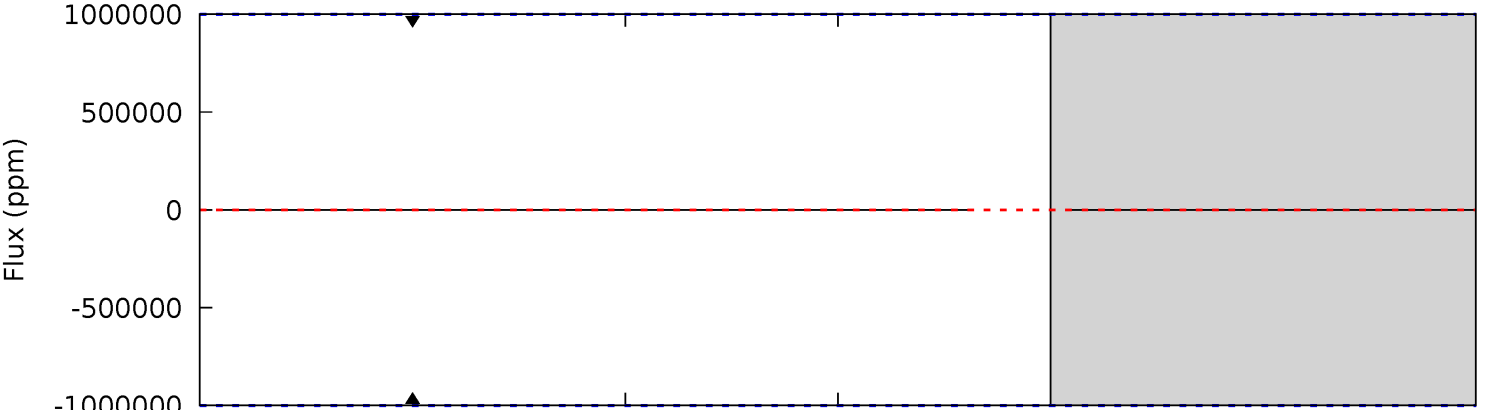
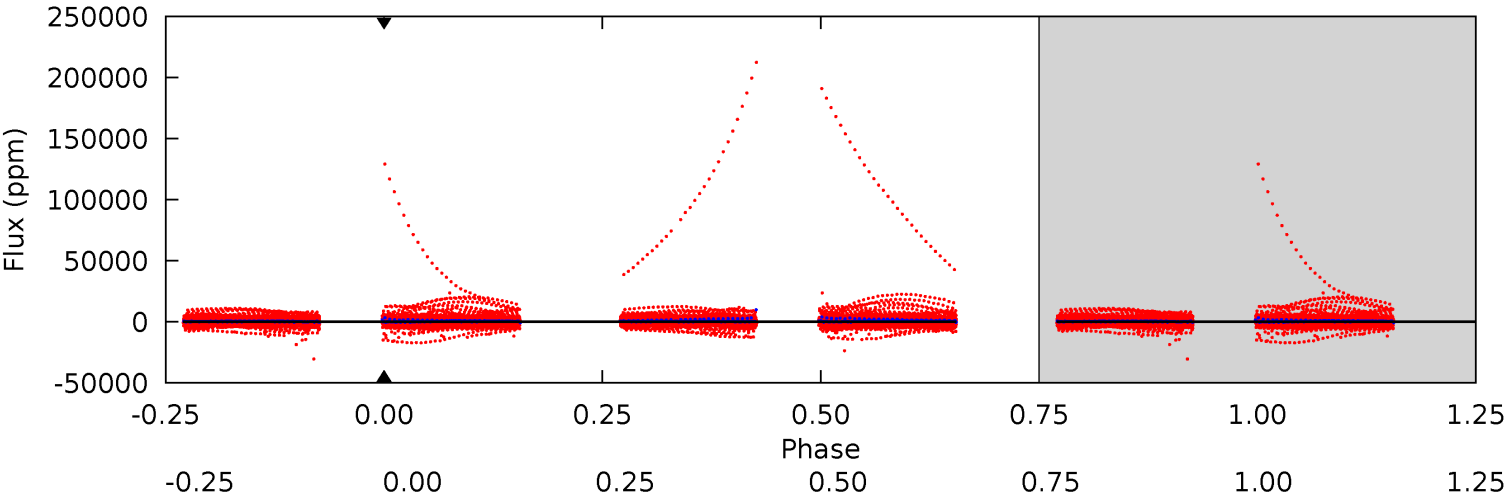
TCE 009637299-03 P= 3.764860 Days $T_0=132.823018$ (BKJD)



DV Model-Shift Uniqueness Test

009637299-03, P = 3.764860 Days, E = 129.118588 Days

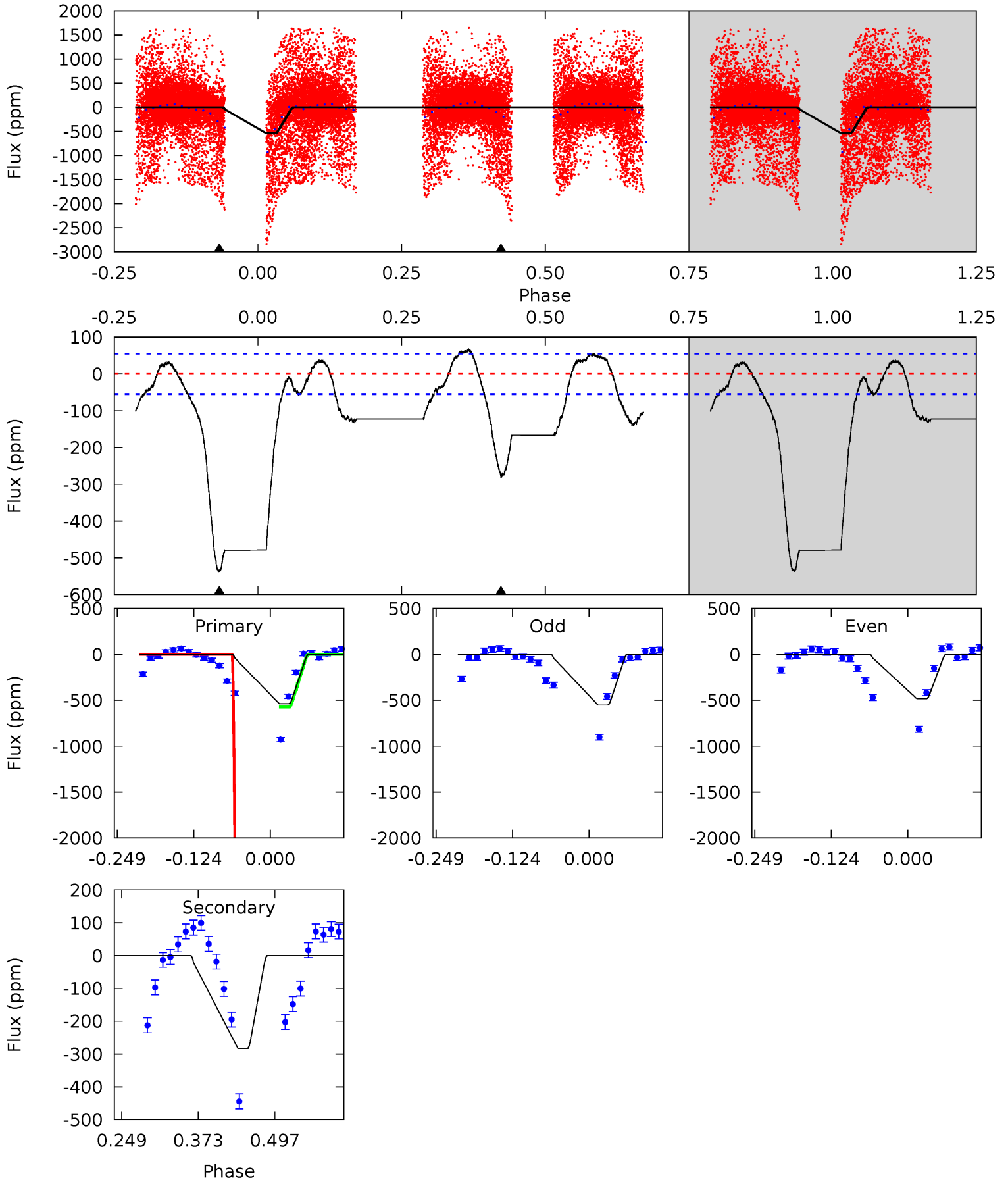
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

009637299-03, P = 3.764860 Days, E = 129.058158 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
44.3	23.3	0	0	4.52	1.54	4.91	44.3	44.3	23.3	23.3	2.93	2.75	0.11	0



Stellar Parameters For KIC 009637299

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6322^{+171}_{-190}	$4.211^{+0.264}_{-0.176}$	$-0.780^{+0.300}_{-0.300}$	$1.213^{+0.312}_{-0.312}$	$0.872^{+0.104}_{-0.066}$	$0.688^{+1.030}_{-0.311}$
	+3%/-3%	+6%/-4%	+38%/-38%	+26%/-26%	+12%/-8%	+150%/-45%
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 009637299-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	0 ± 1000000	$17.49^{+13.57}_{-10.58}$	2006^{+156}_{-173}	-2933^{+16237}_{-8640}	$-1.086^{+759.670}_{-484.071}$
Alt.	-283 ± 12	$11.38^{+11.52}_{-7.71}$	2003^{+160}_{-170}	3253^{+1656}_{-746}	$2.489^{+22.127}_{-1.877}$

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

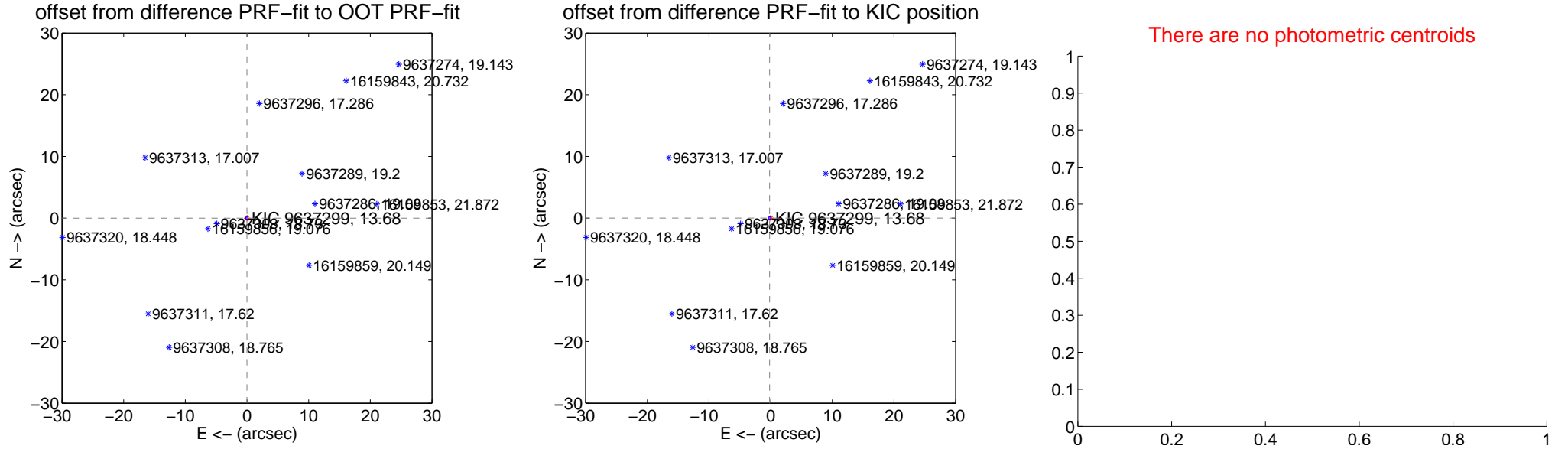
DV Centroid Data

Supplemental centroid analysis for 009637299-03. Kepler magnitude: 13.68. Transit SNR -1.00

There are 17 quarters with good PRF difference image offsets

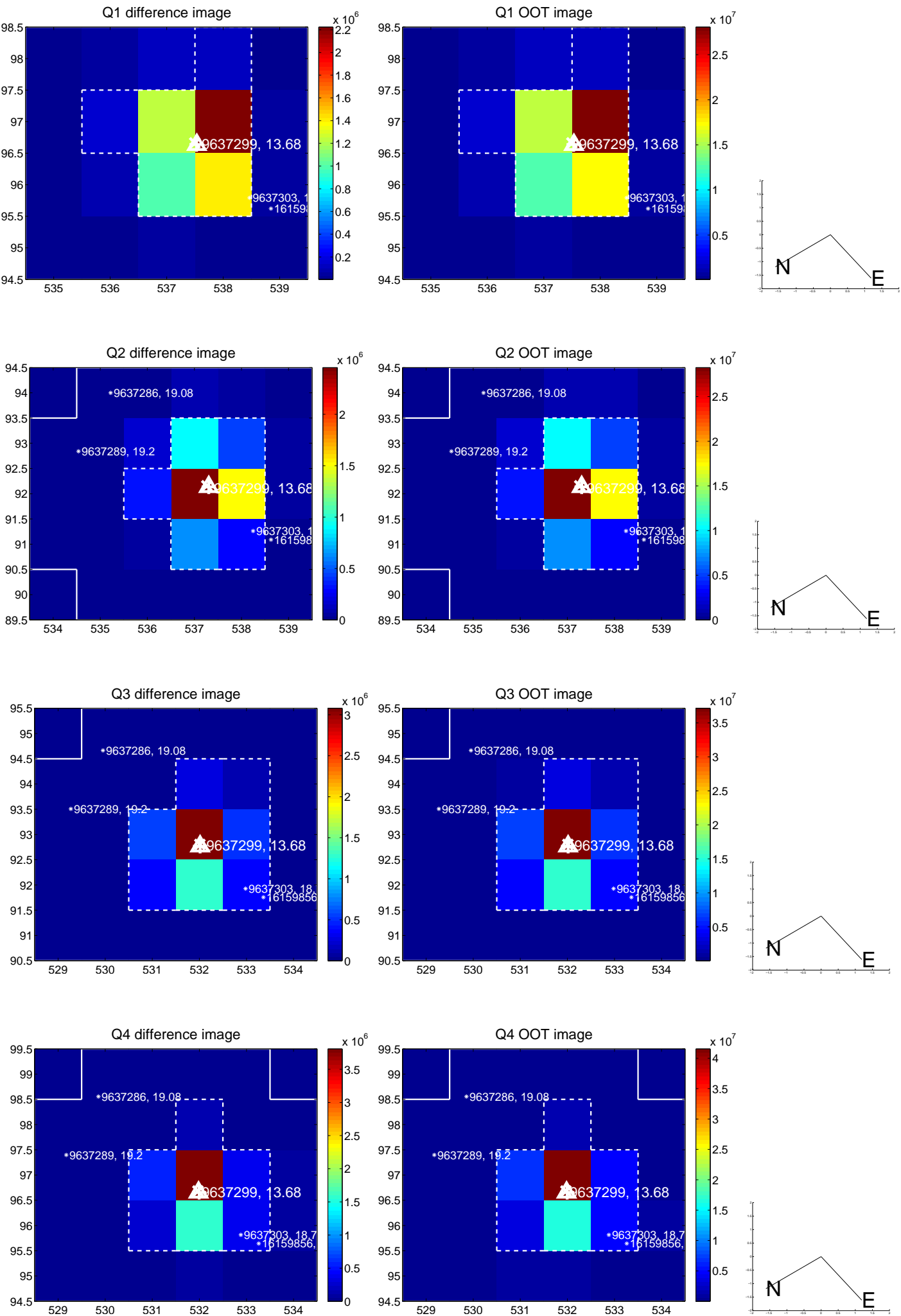
The direct PRF centroid is offset from the target star catalog position by about 0.17 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.007 ± 0.067	0.10	0.001 ± 0.067	-0.006 ± 0.067
PRF-fit source offset from KIC position	0.177 ± 0.068	2.62	0.177 ± 0.068	0.009 ± 0.069
photometric centroid source offset	—	—	—	—

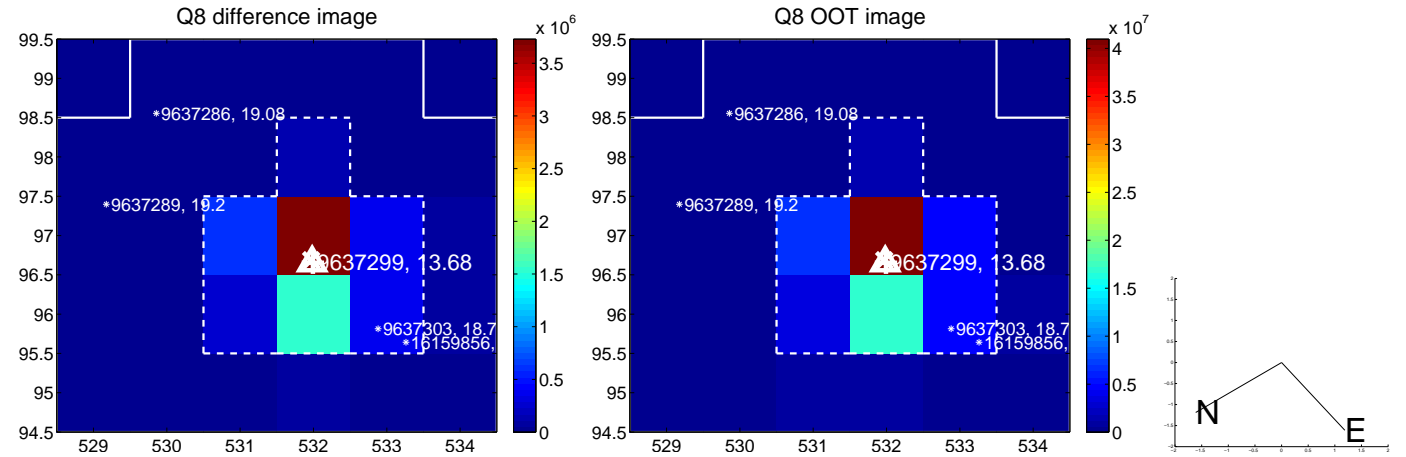
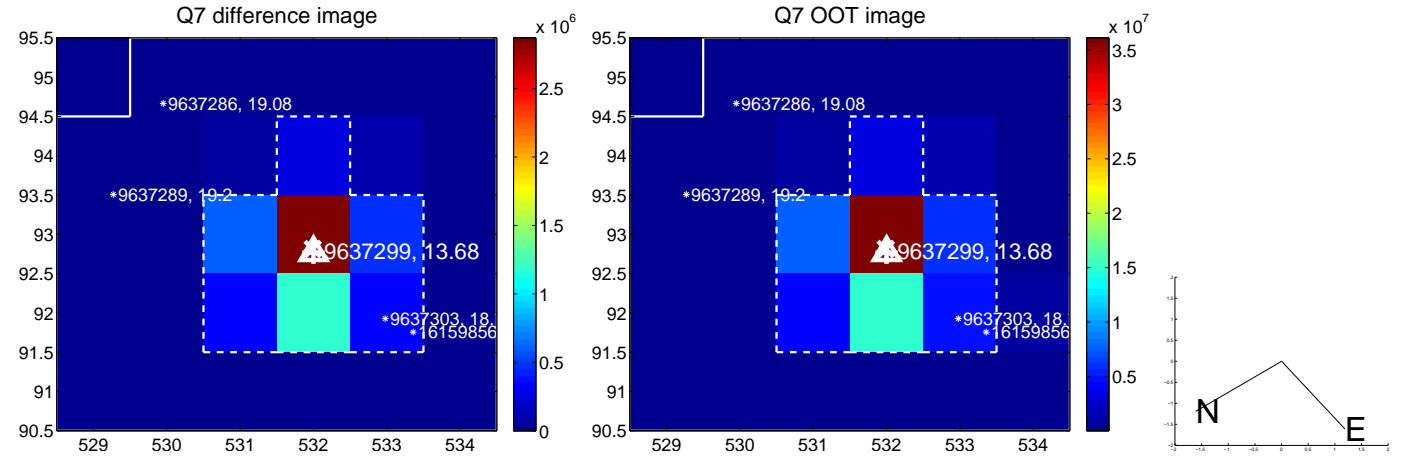
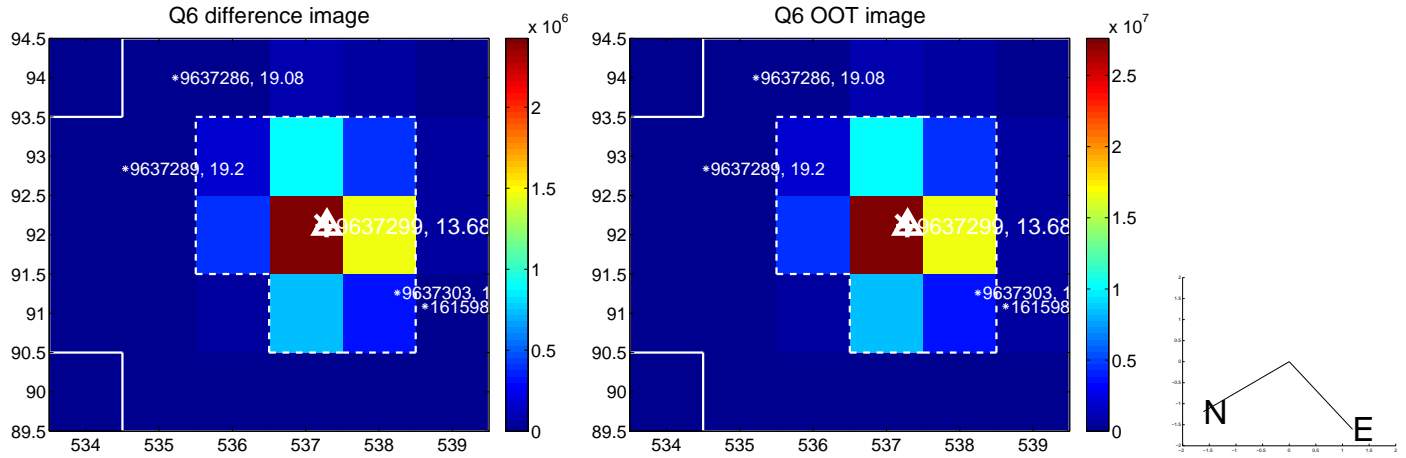
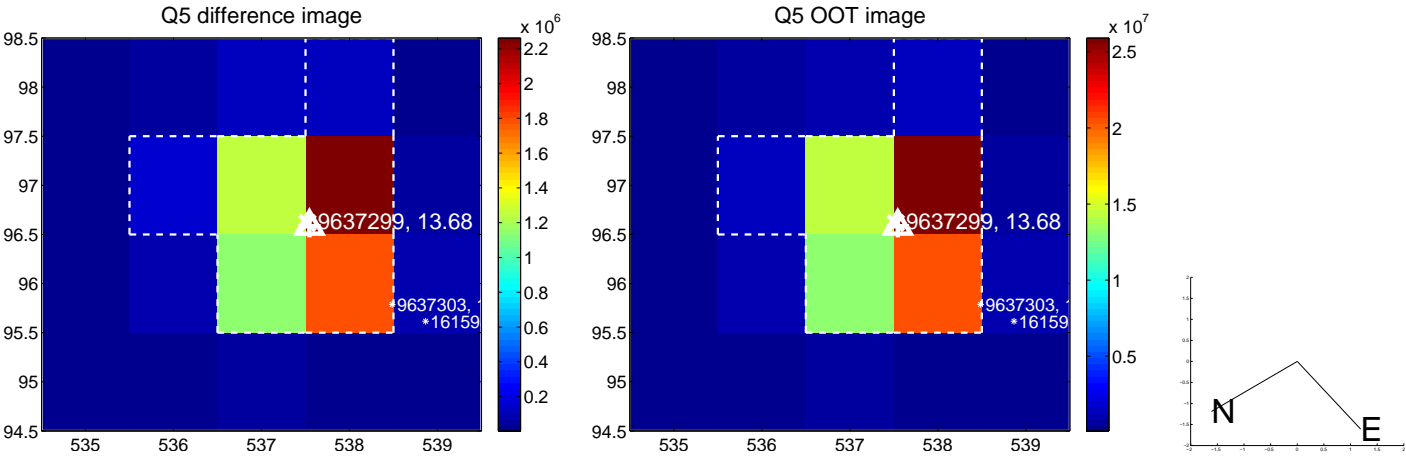


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

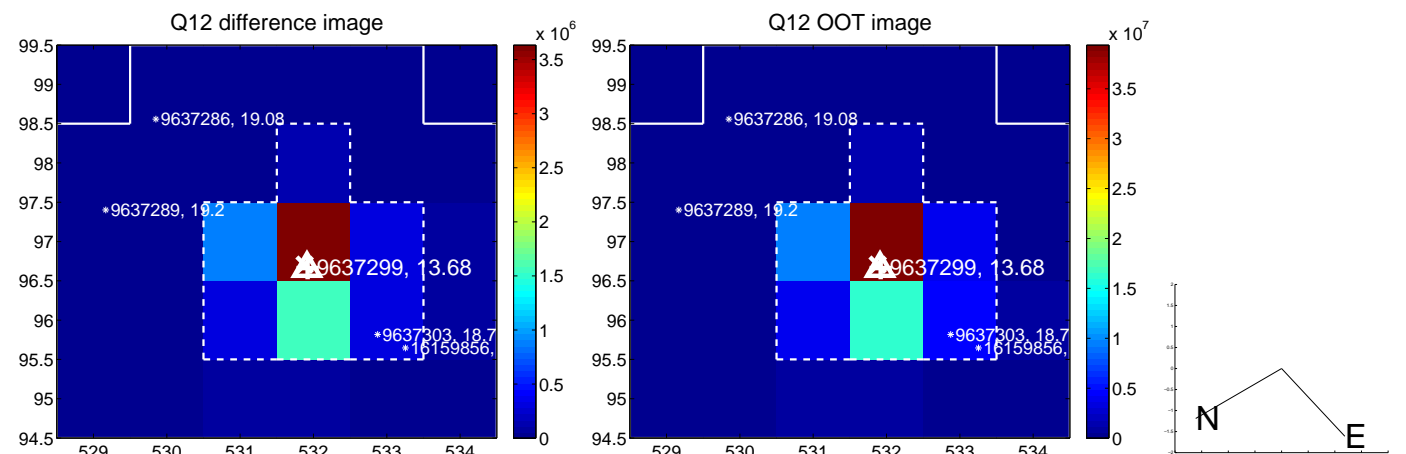
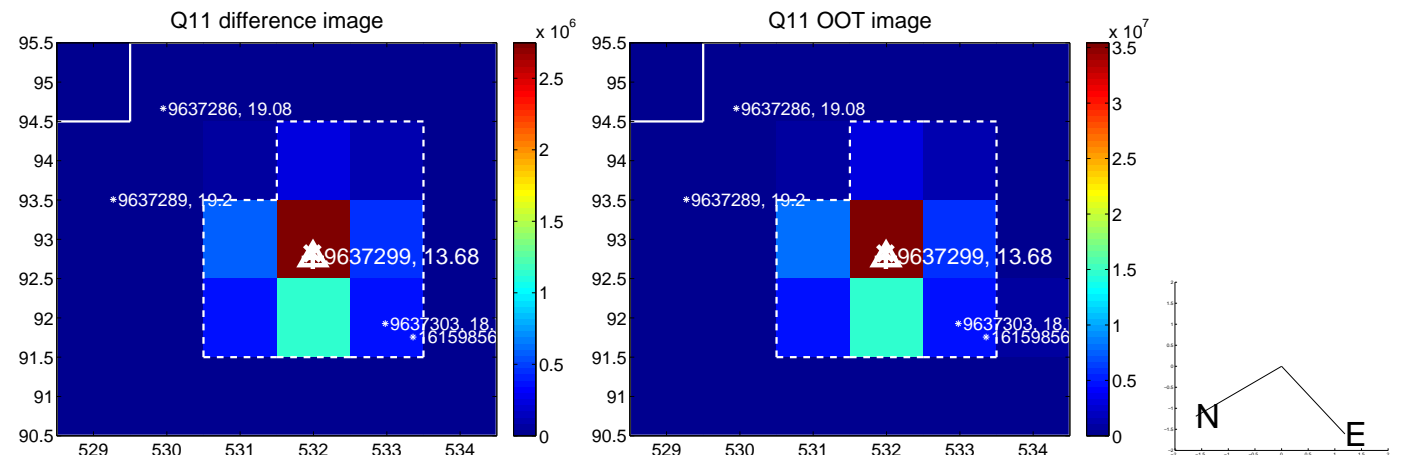
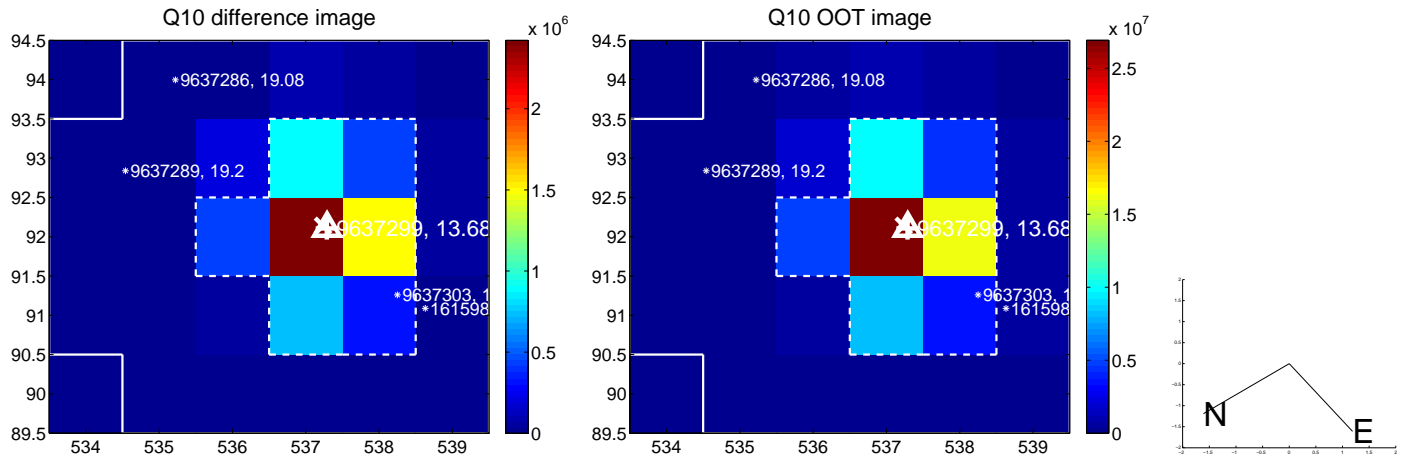
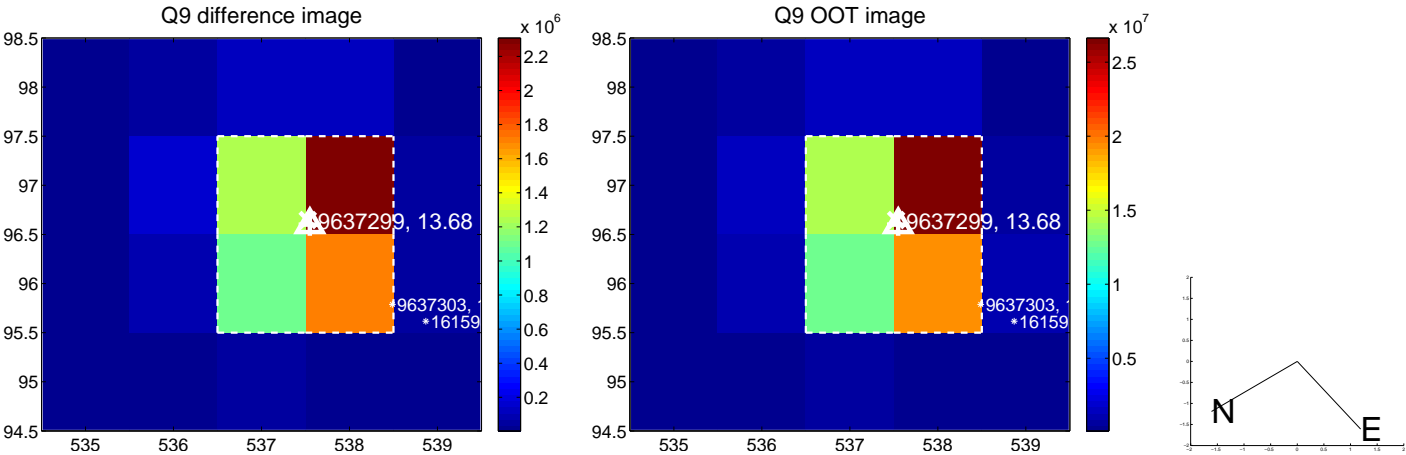
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



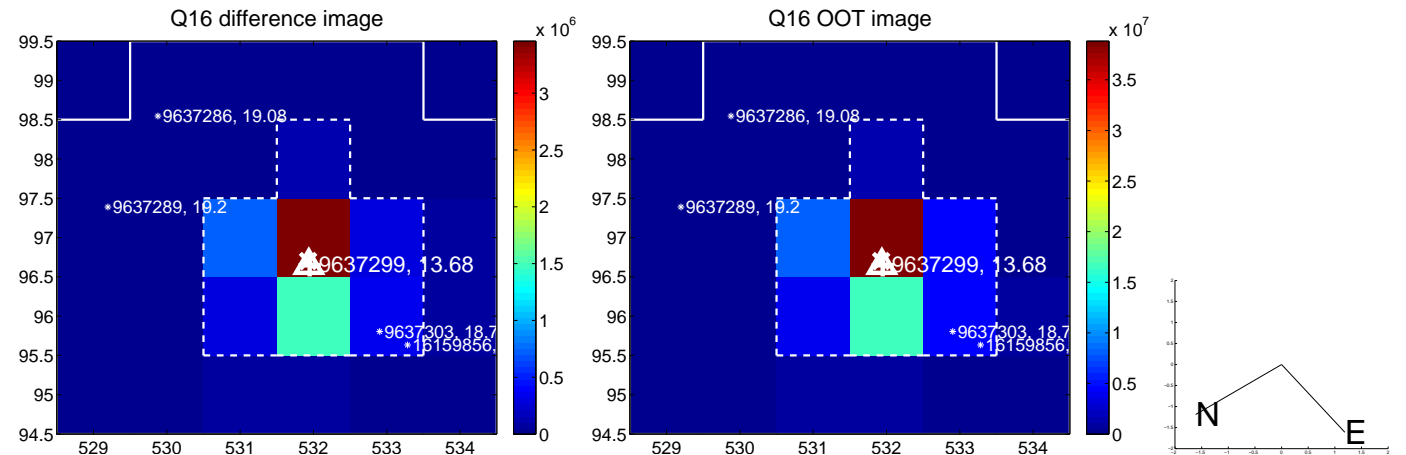
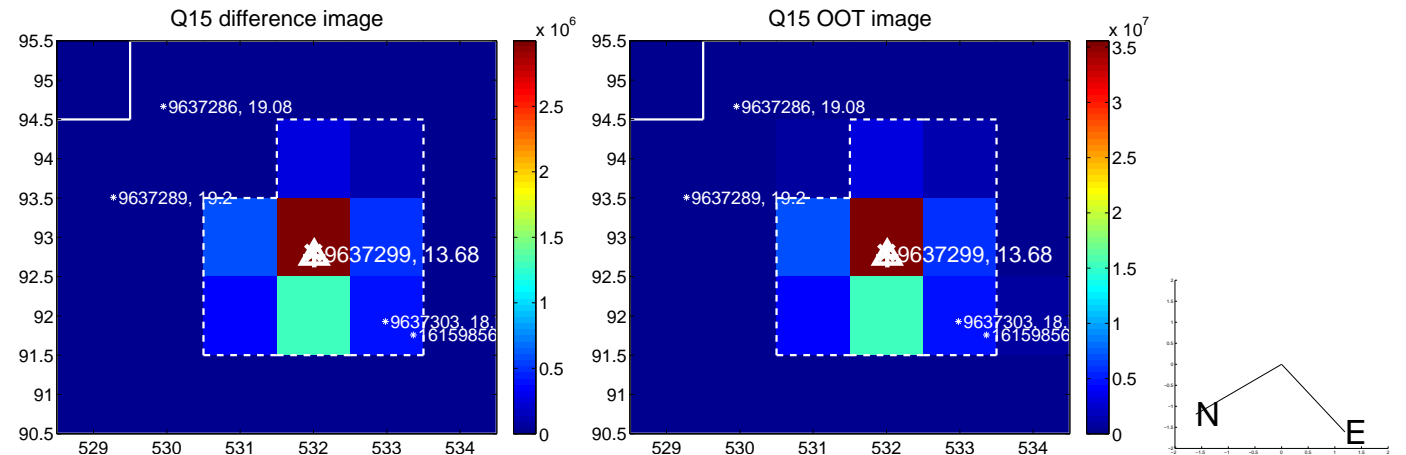
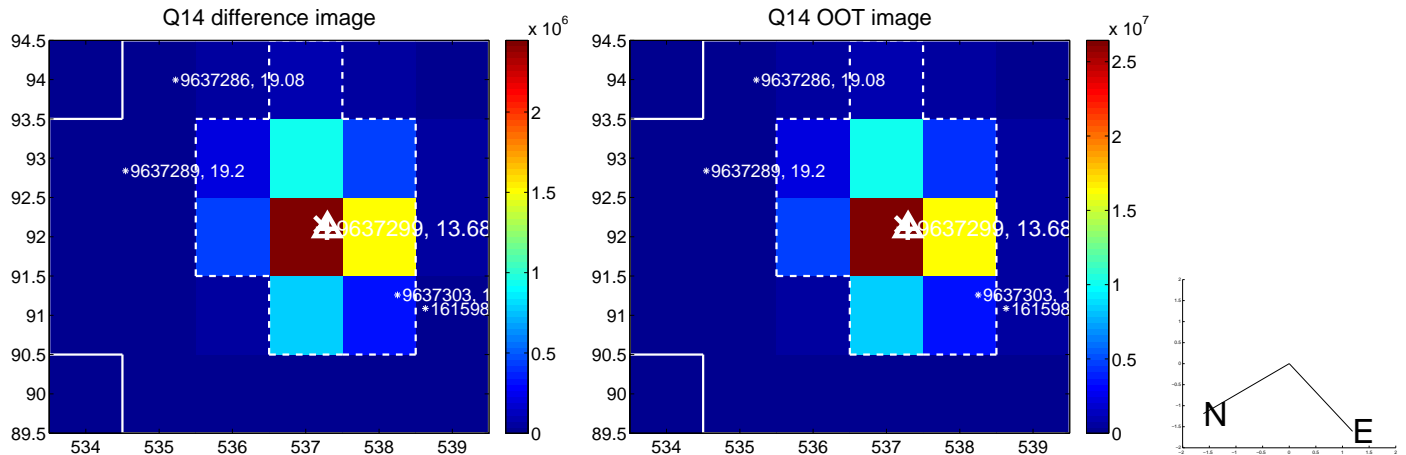
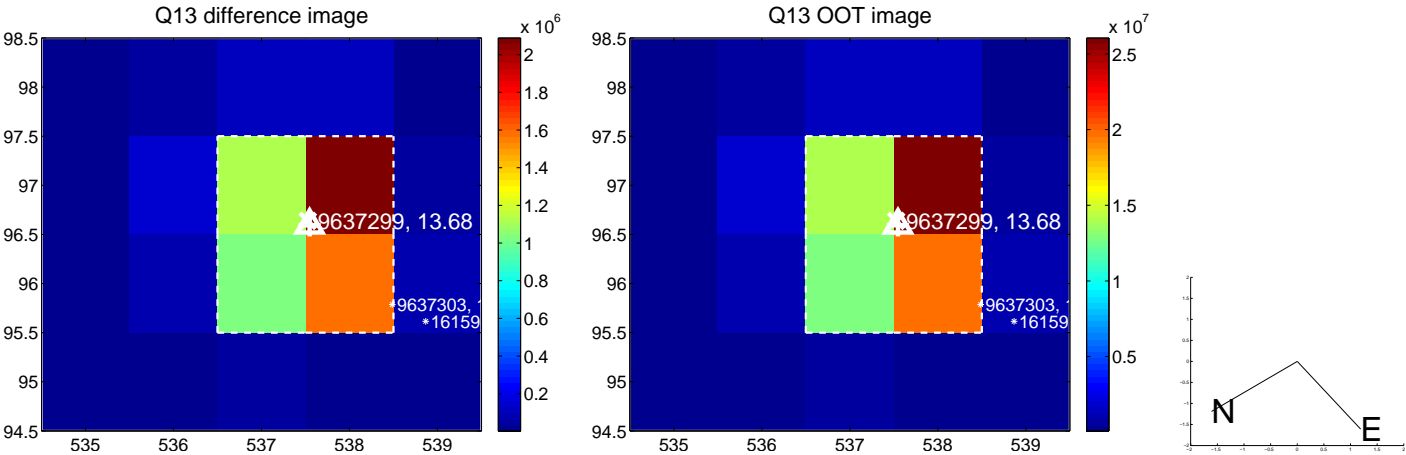
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



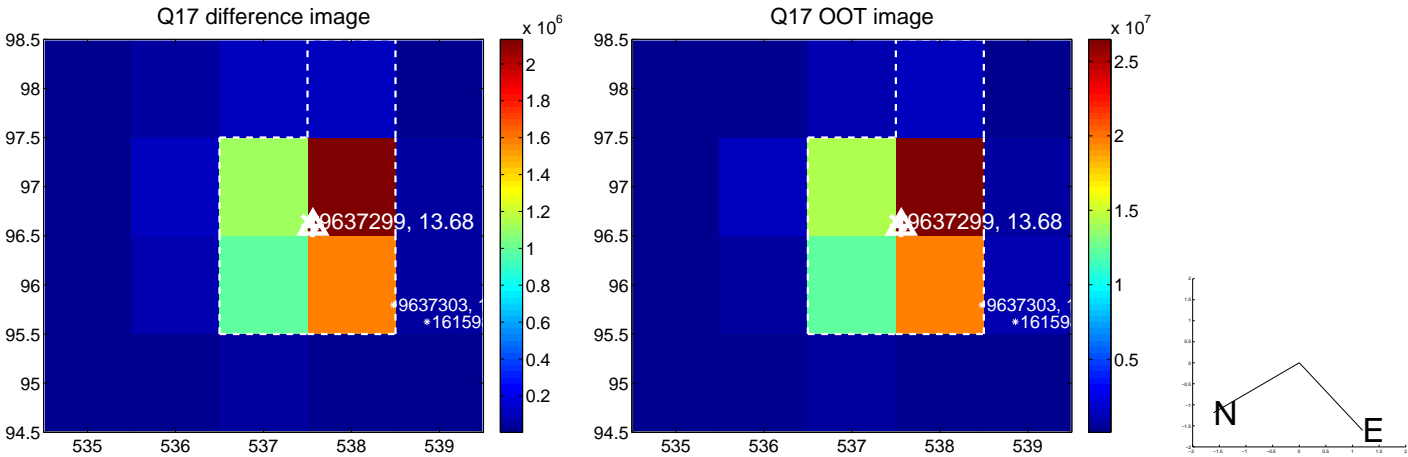
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

