

KIC 004245897

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})
004245897-01	OBS	6395.01	11.257975	140.781019	588305.6	15.000	2327.1	-1.0	1.88	6915	16.40	619.61
004245897-02	OBS	No	297.871193	197.930359	2067.7	7.187	66.6	5.4	1.88	6915	8.61	7.86
004245897-03	OBS	No	11.269861	132.559756	68025.8	135.238	43.0	256.6	1.88	6915	50.36	618.74

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004245897-01	OBS	FP	0.00	0	1	0	0	MOD_SEC_ALT—MOD_ODDEVEN_ALT—CENT_NOFITS
004245897-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_SKYE—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS
004245897-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS

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

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

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

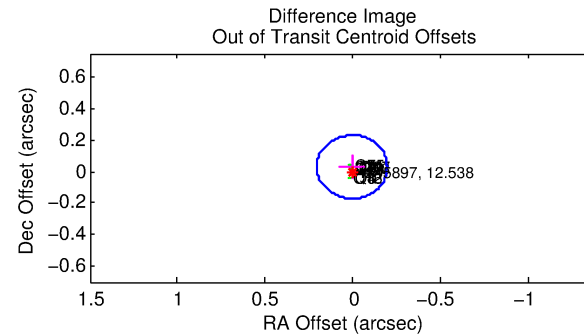
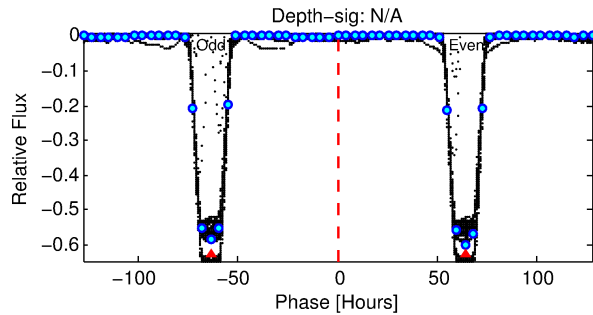
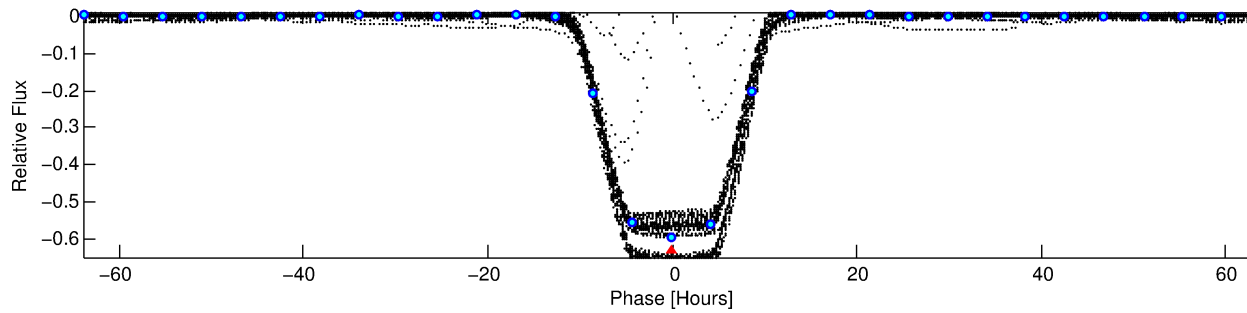
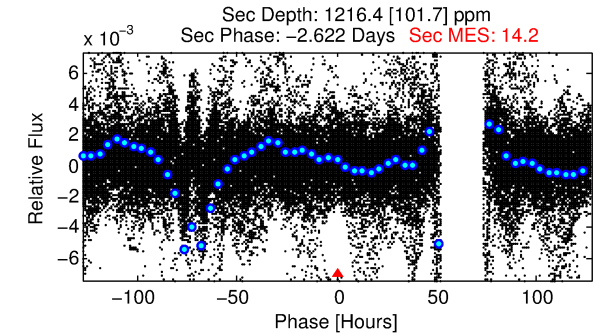
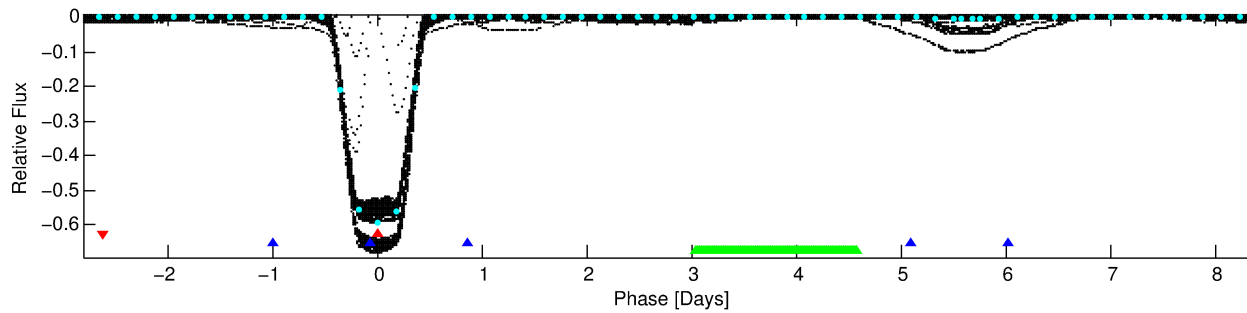
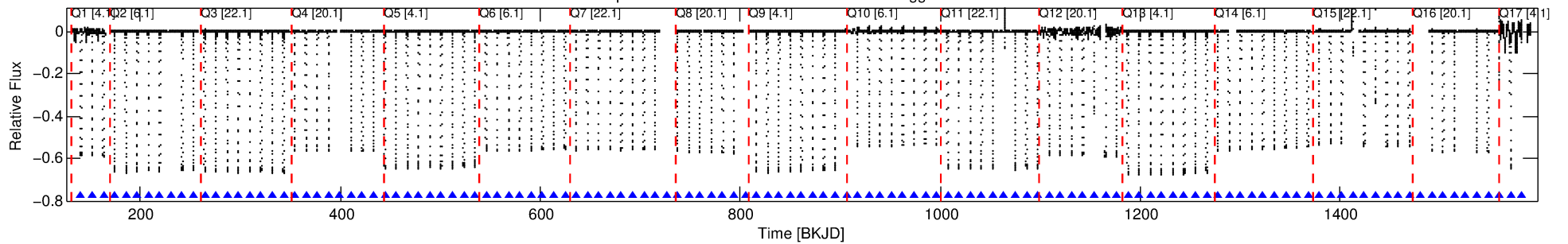
Ephemeris Match Information For 004245897-01

No Significant Match Found

DV One-Page Summary

KIC: 4245897 Candidate: 1 of 3 Period: 11.258 d
KOI: K06395.01 Corr: 0.795

Kp: 12.54 R*: 1.88 Rs Teff: 6915.0 K Logg: 4.01 Fe/H: -0.340



TPS TCE Results:

Period = 11.25798 d
Epoch = 140.7810 BKJD

DV fit results are unavailable

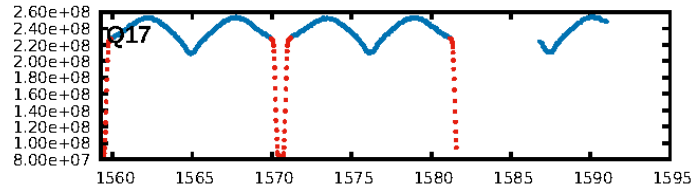
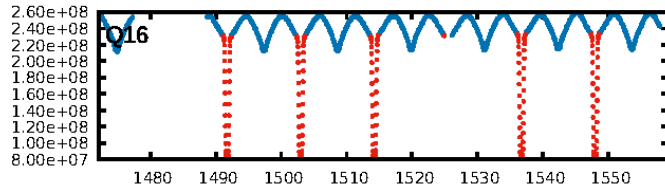
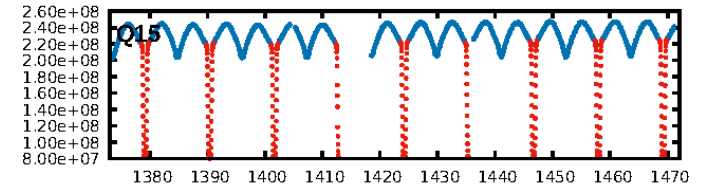
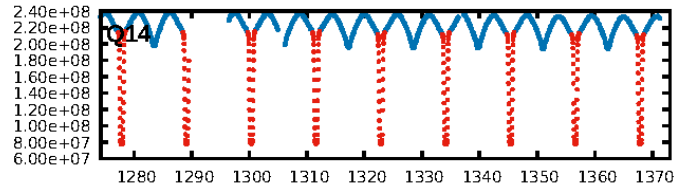
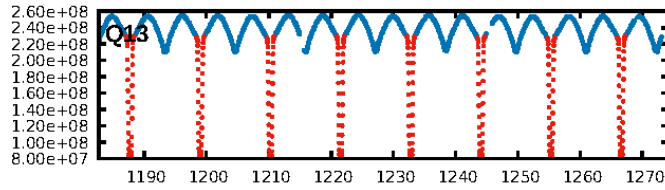
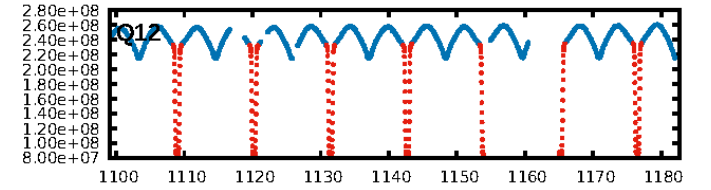
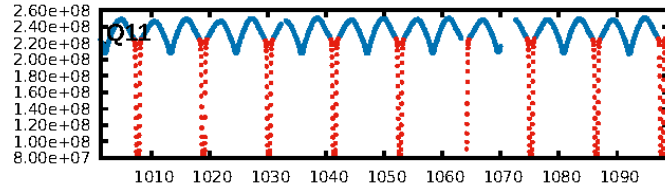
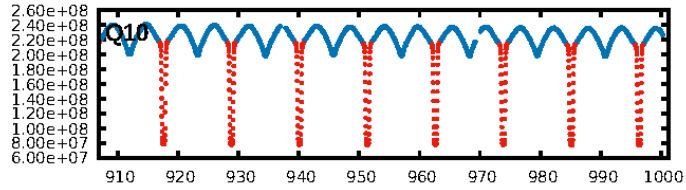
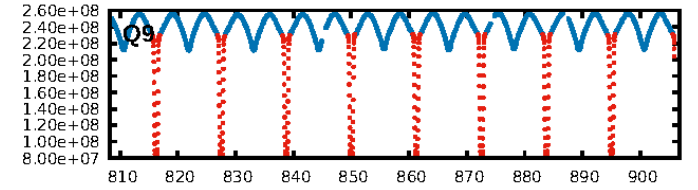
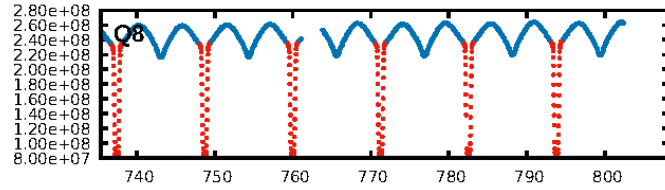
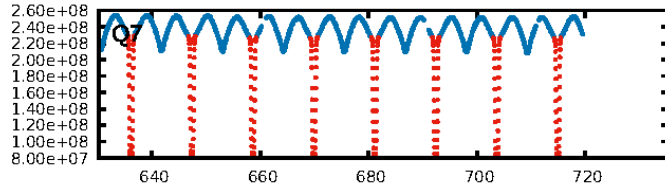
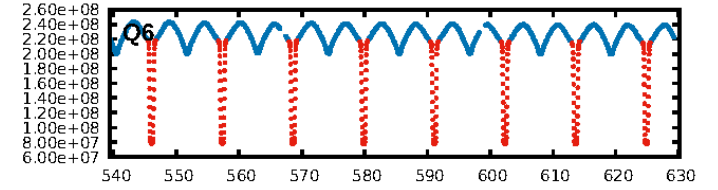
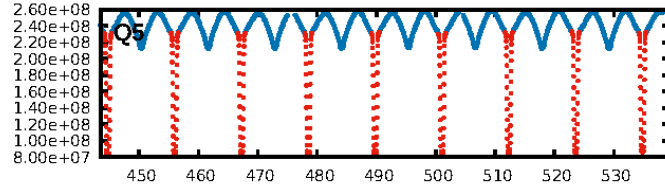
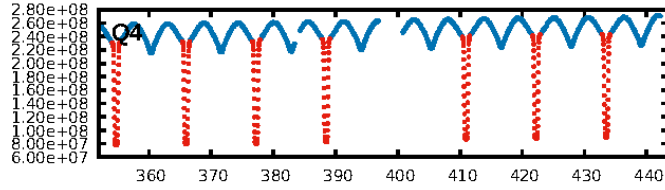
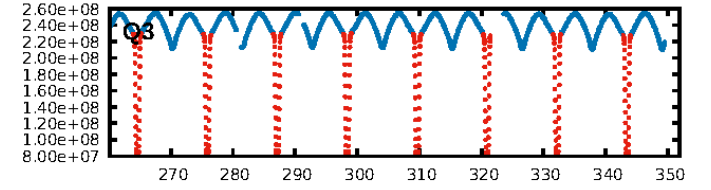
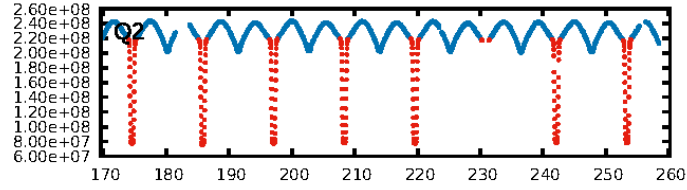
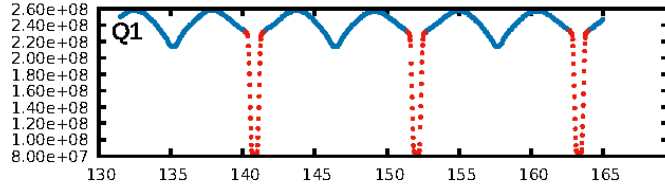
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 0.2% [0.00σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [117/117]
GhostDiagnostic-chr: 0.9687
Centroid-sig: N/A
Centroid-so: 0.112 arcsec [353.58σ]
OotOffset-rm: 0.031 arcsec [0.46σ]
KicOffset-rm: 0.111 arcsec [1.60σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 1.00 [17/17]
DiffImageOverlap-fno: 0.24 [4/17]

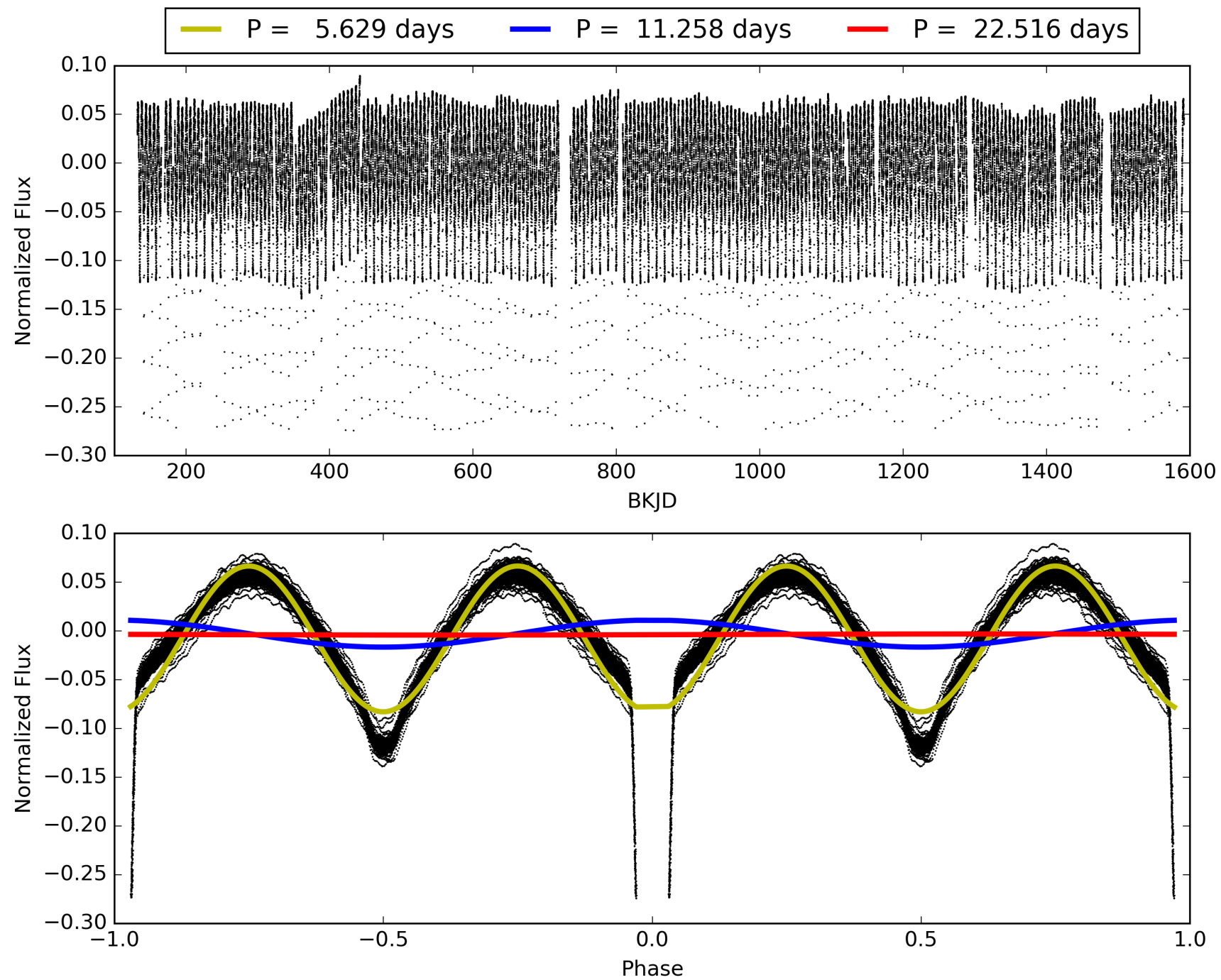
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 09:24:40 Z

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

TCE 004245897-01, PDC Light Curves

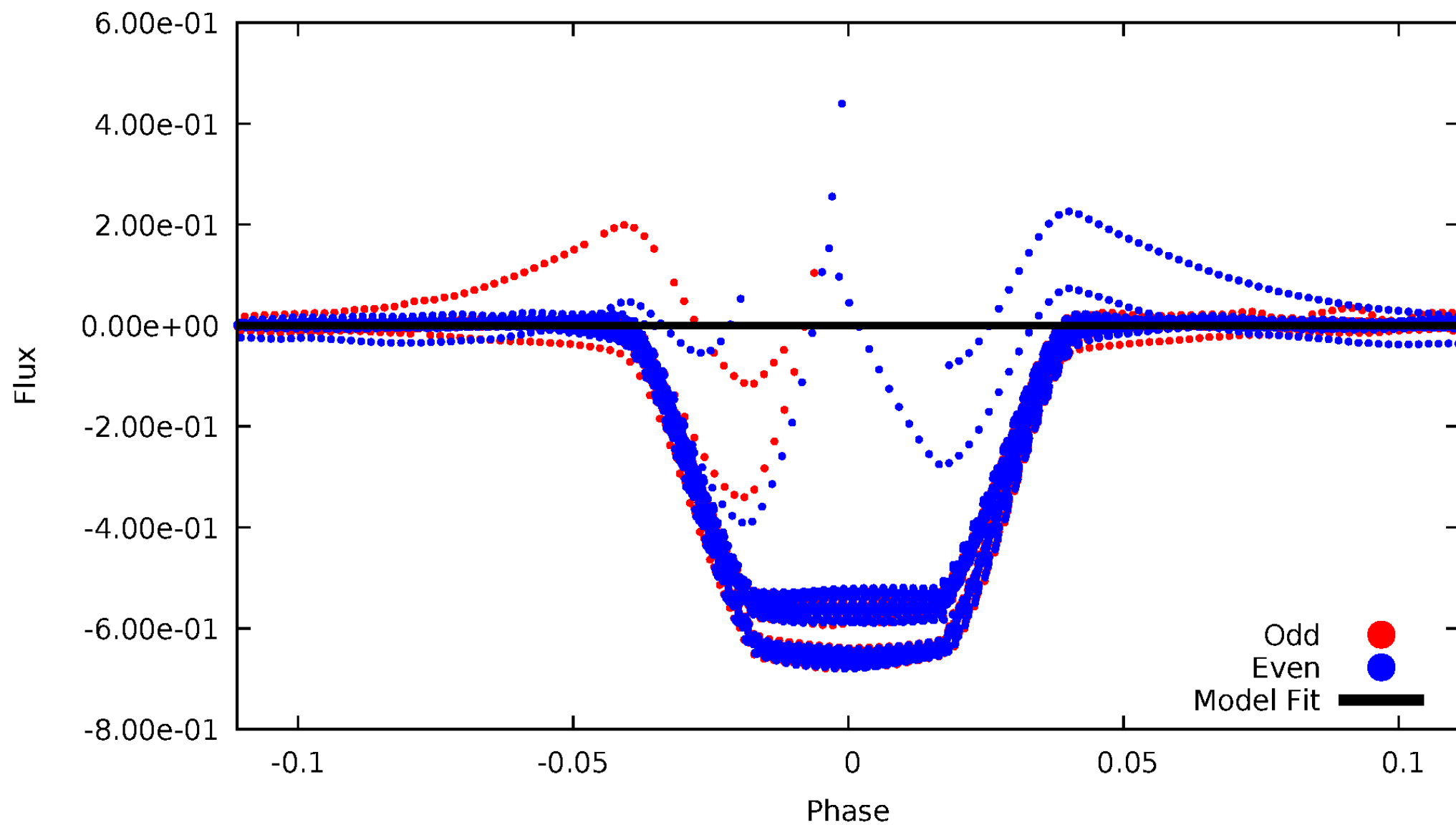


TCE 004245897-01



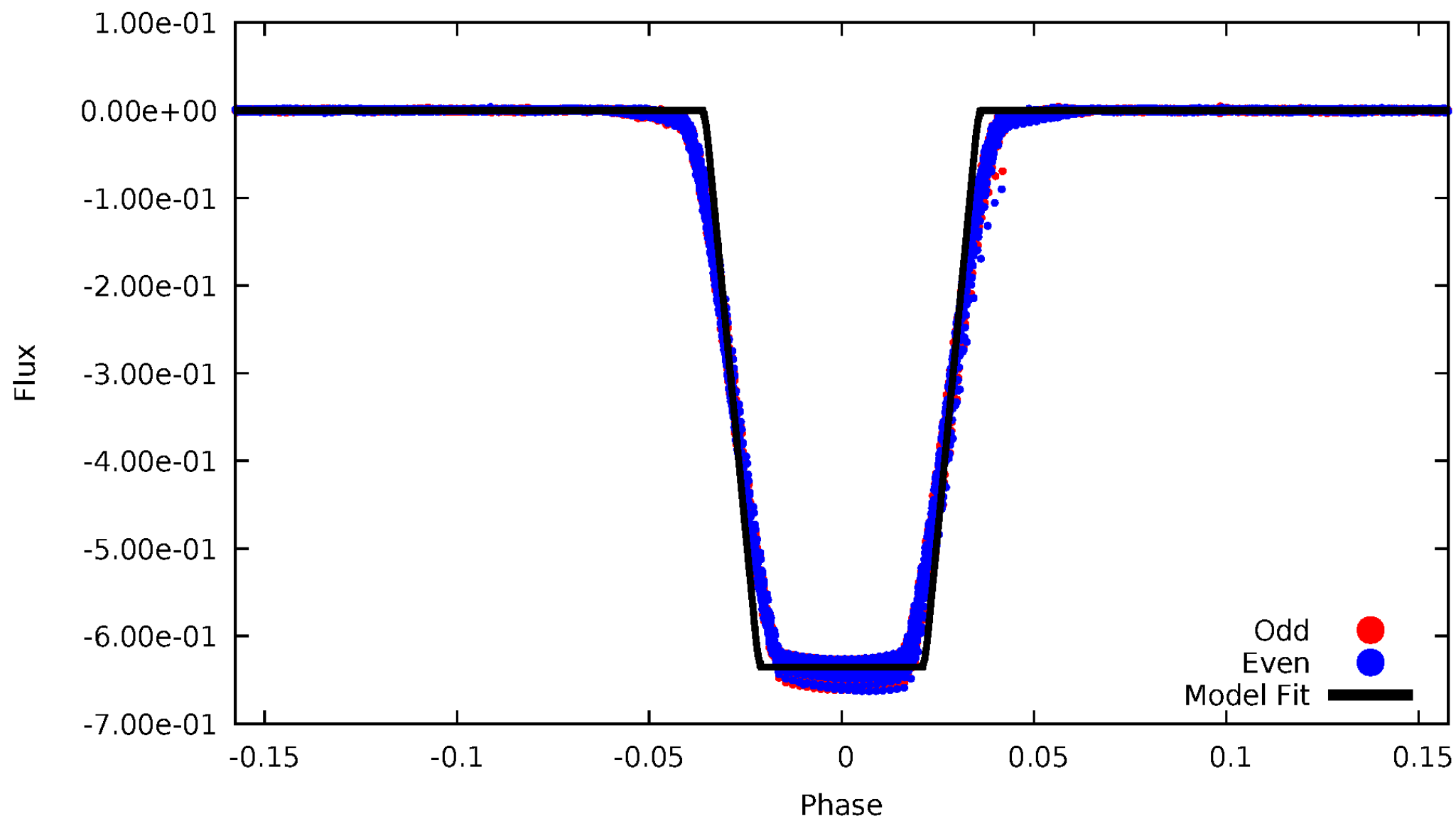
DV Odd/Even

TCE 004245897-01



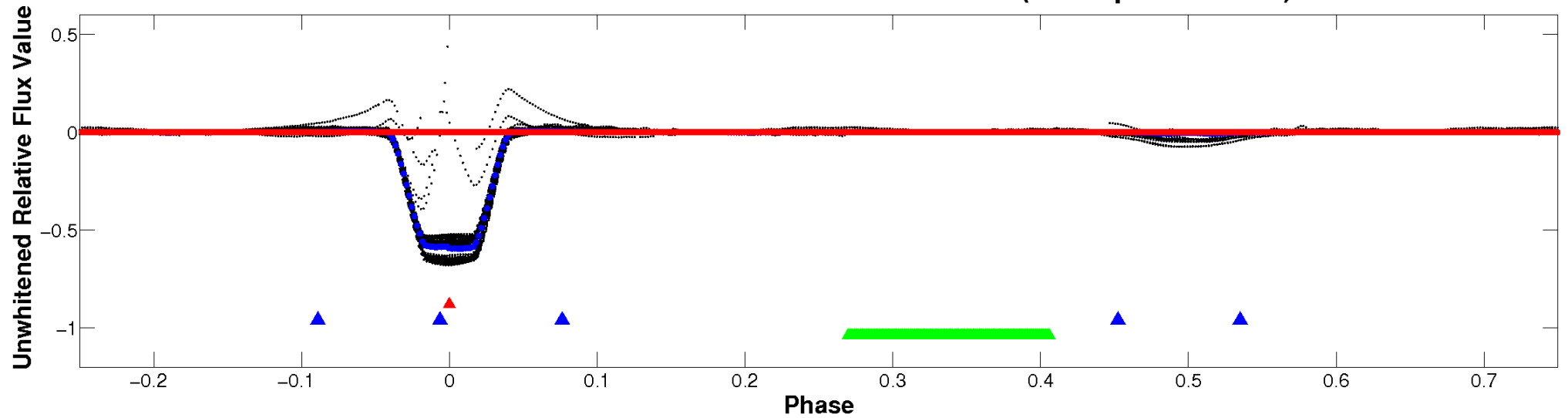
ALT Odd/Even

TCE 004245897-01

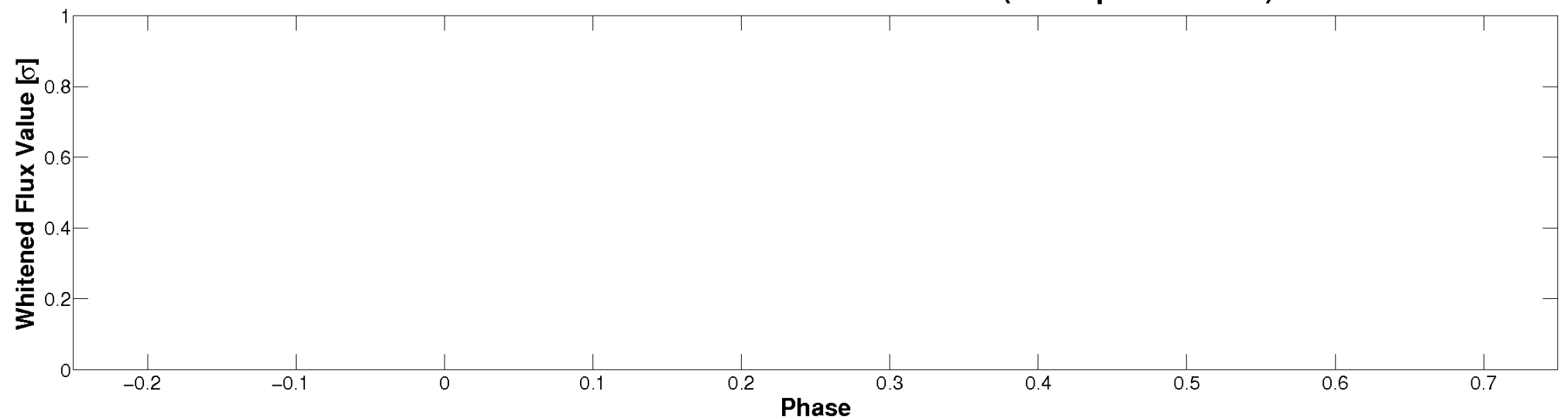


Non-Whitened Vs. Whitened Light Curve

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

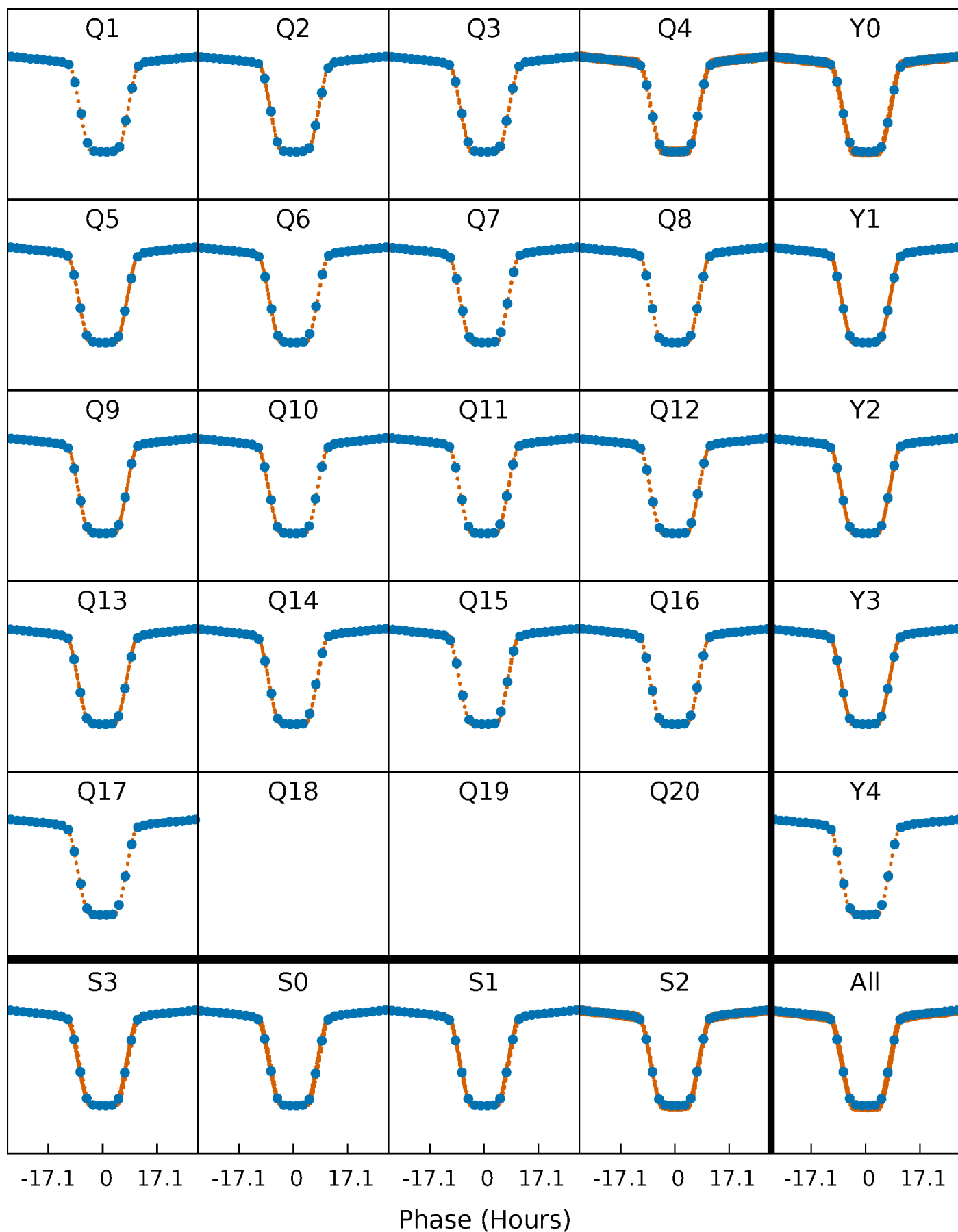


Planet 1 : Phased Whitened Flux Time Series (TPS Epoch/Period)



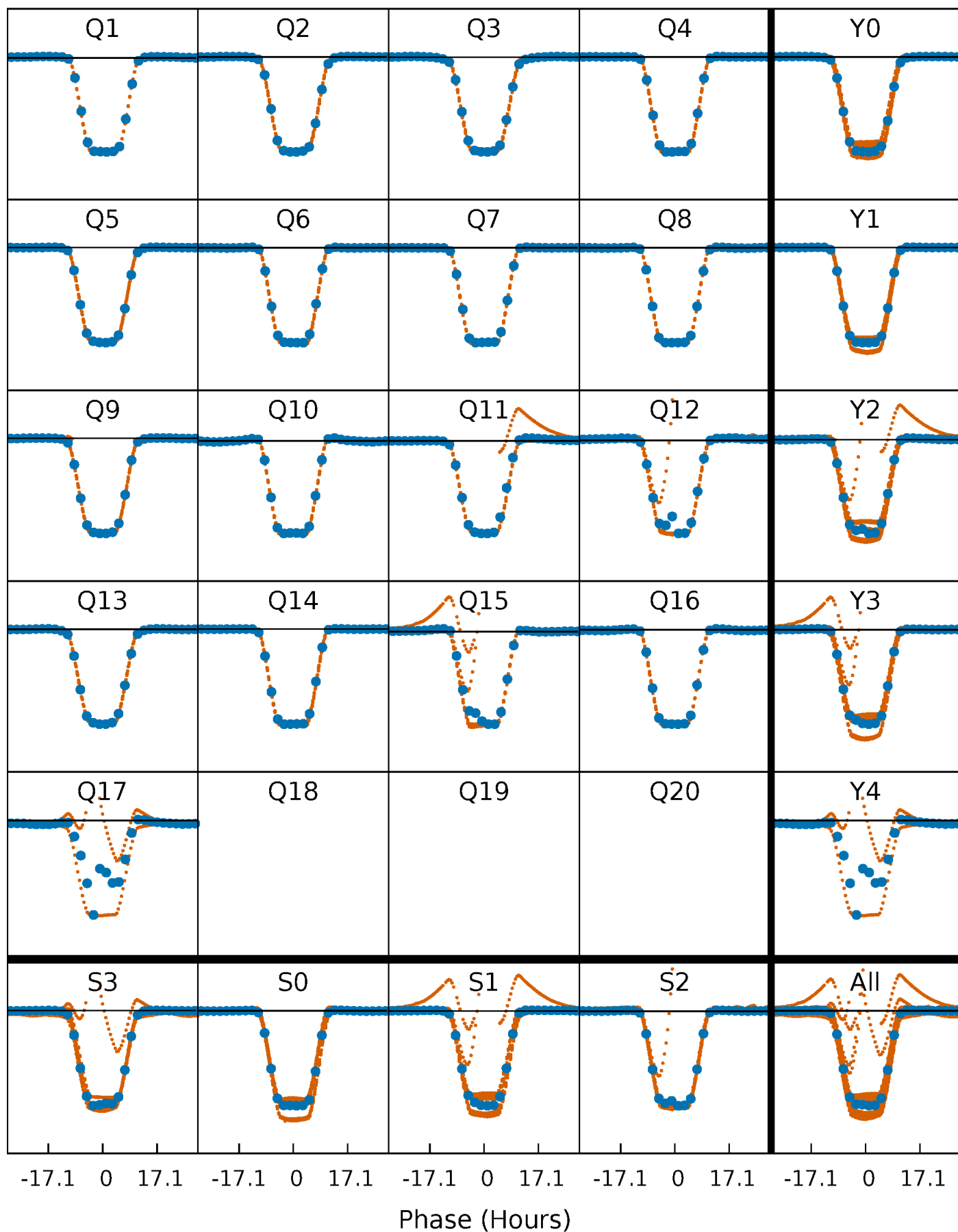
PDC Quarter-Phased Transit Curves

TCE 004245897-01 P= 11.257975 Days $T_0=140.781019$ (BKJD)



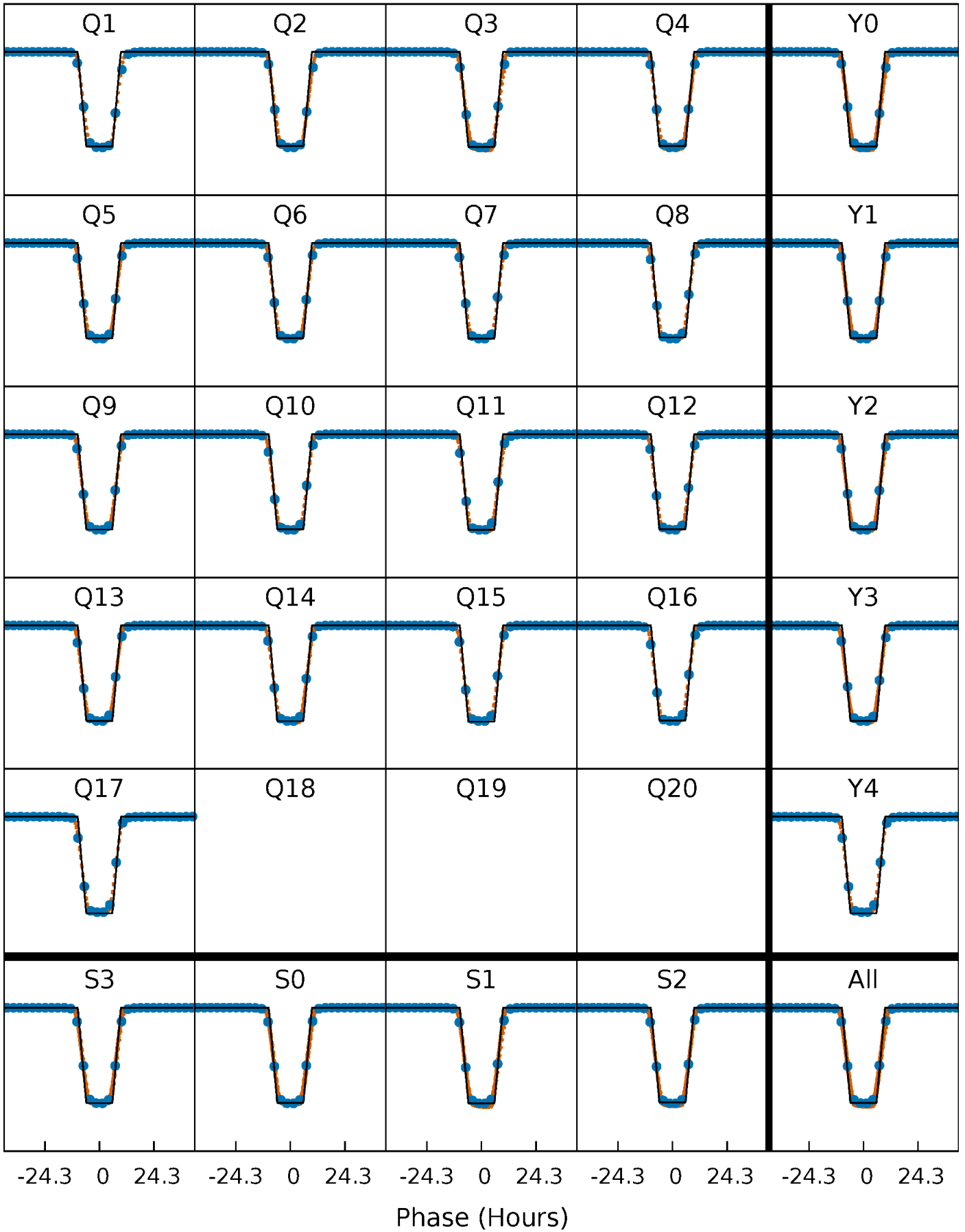
DV Quarter-Phased Transit Curves

TCE 004245897-01 P= 11.257975 Days $T_0=140.781019$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

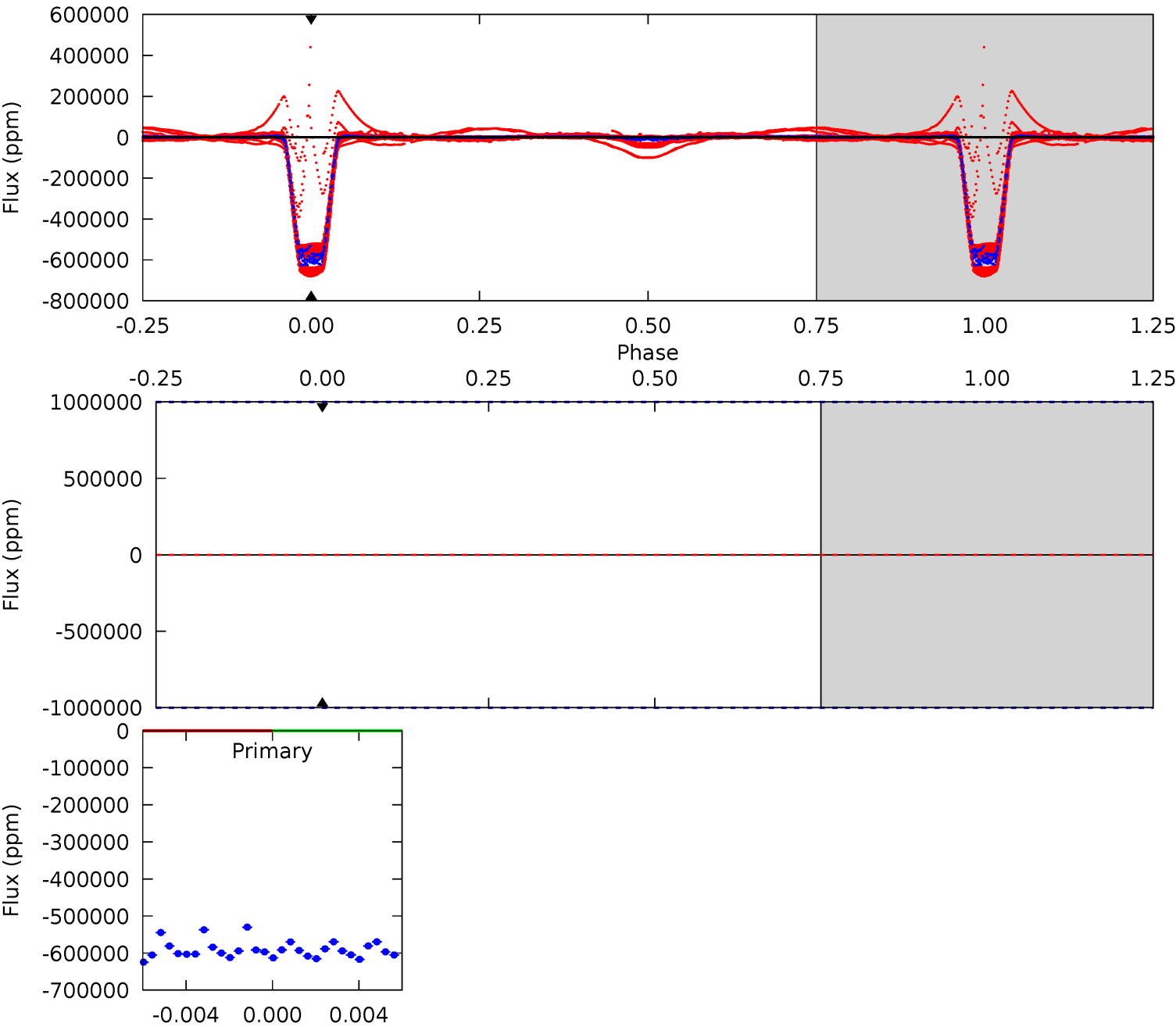
TCE 004245897-01 P= 11.257975 Days $T_0=140.783413$ (BKJD)



DV Model-Shift Uniqueness Test

004245897-01, P = 11.257975 Days, E = 129.523044 Days

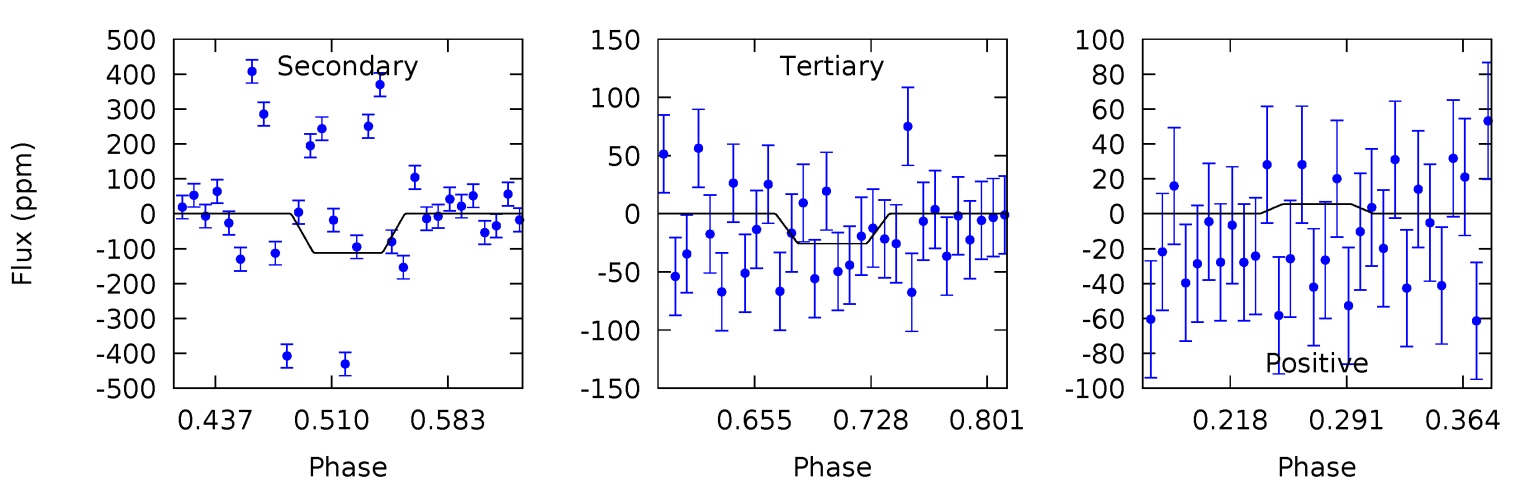
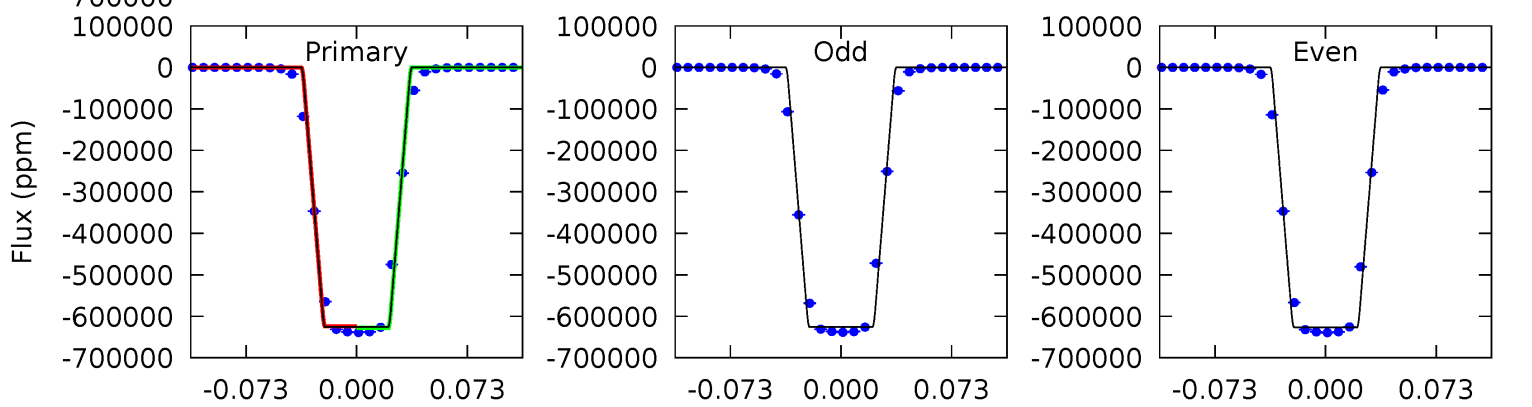
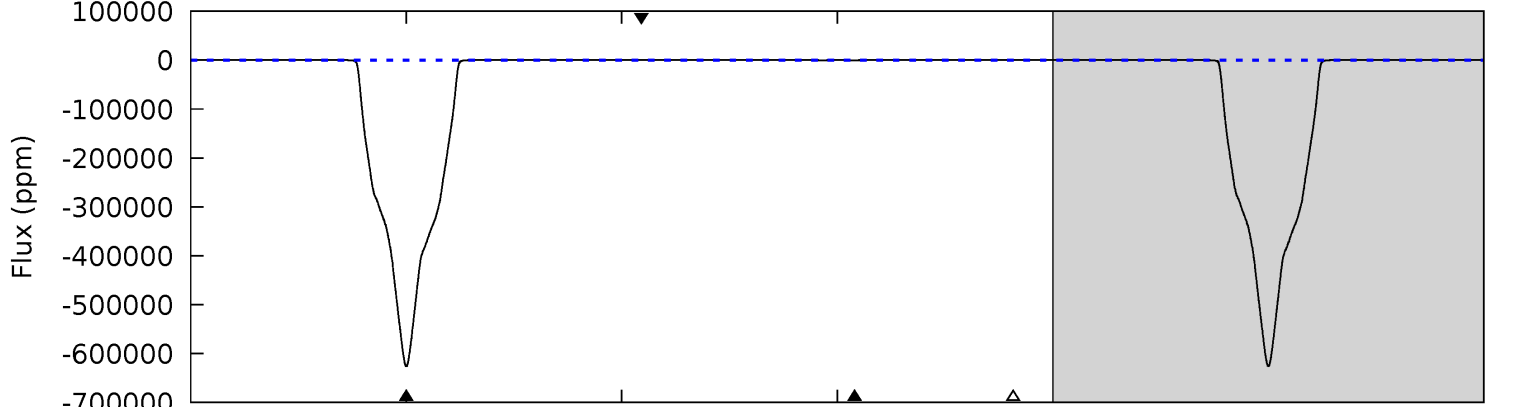
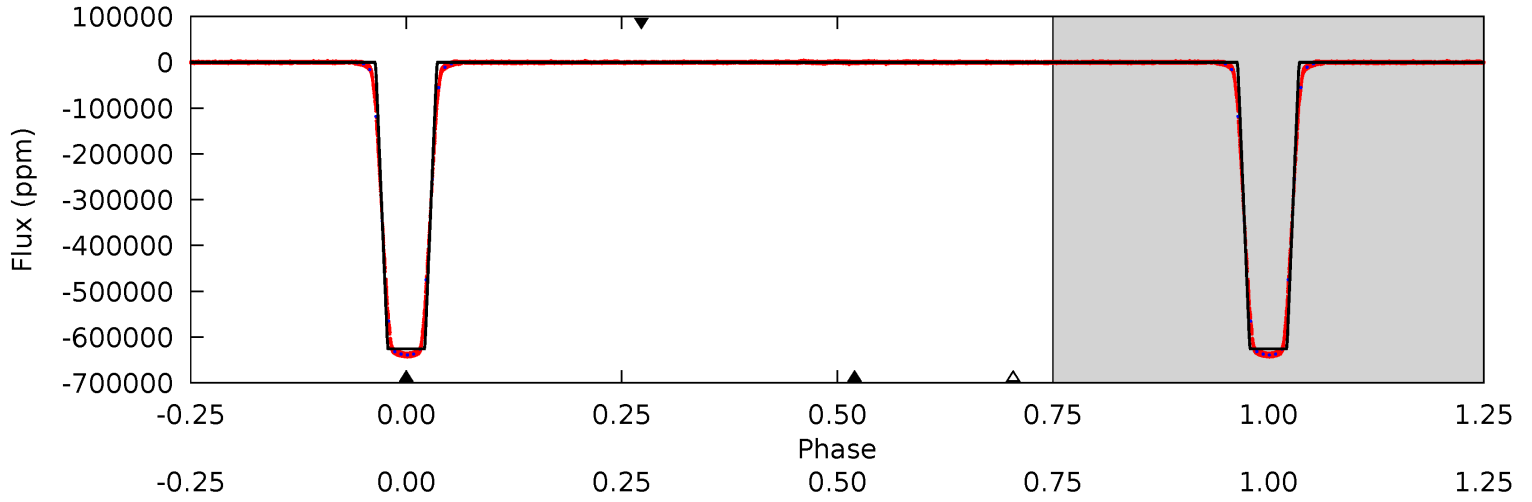
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

004245897-01, P = 11.257975 Days, E = 129.525438 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
34254	6.13	1.41	0.30	4.63	1.79	0.88	34253	34254	4.73	5.83	22.8	1.00	0.00	100.0



Stellar Parameters For KIC 004245897

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6915^{+217}_{-326}	$4.012^{+0.286}_{-0.154}$	$-0.340^{+0.300}_{-0.300}$	$1.875^{+0.522}_{-0.638}$	$1.322^{+0.195}_{-0.238}$	$0.282^{+0.562}_{-0.126}$
	+3%/-5%	+7%/-4%	+88%/-88%	+28%/-34%	+15%/-18%	+199%/-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 004245897-01 / KOI 6395.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	0 ± 1000000	$20.62^{+18.48}_{-13.49}$	1748^{+153}_{-164}	-5109^{+24304}_{-15115}	$-45.319^{+2352.256}_{-2468.486}$
Alt.	-112 ± 18	$160.38^{+33.35}_{-33.63}$	1754^{+146}_{-160}	-2314^{+109}_{-95}	$0.028^{+0.016}_{-0.009}$

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 $A_{obs} \gg 1.0$

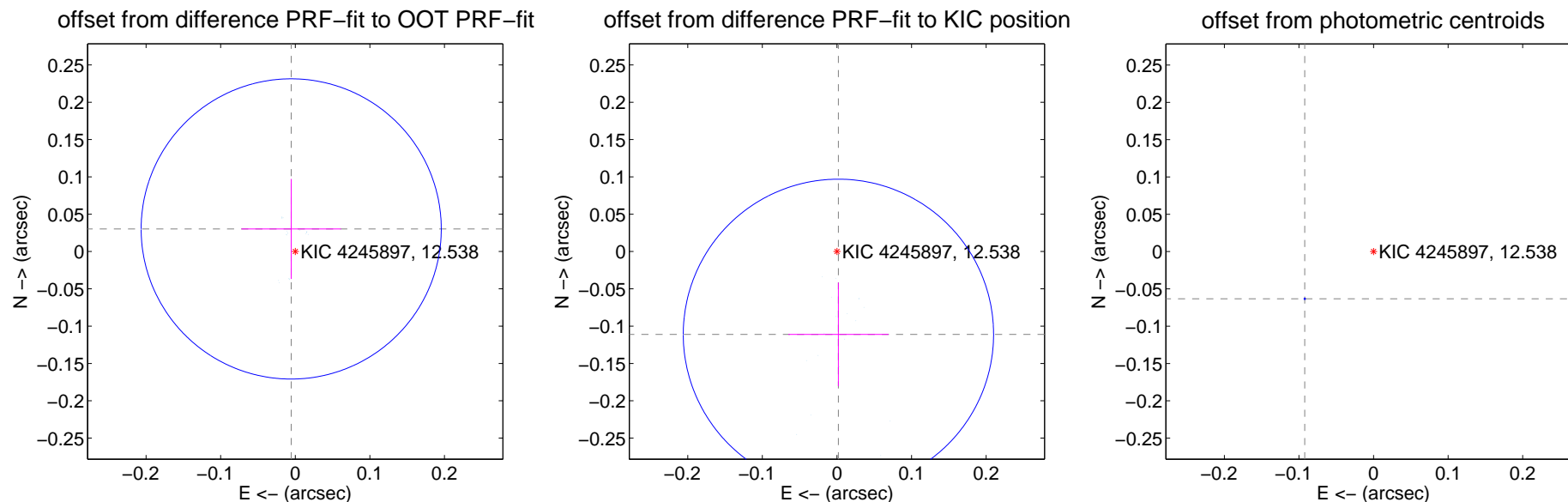
DV Centroid Data

Supplemental centroid analysis for 004245897-01. Kepler magnitude: 12.54. Transit SNR -1.00

There are 17 quarters with good PRF difference image offsets

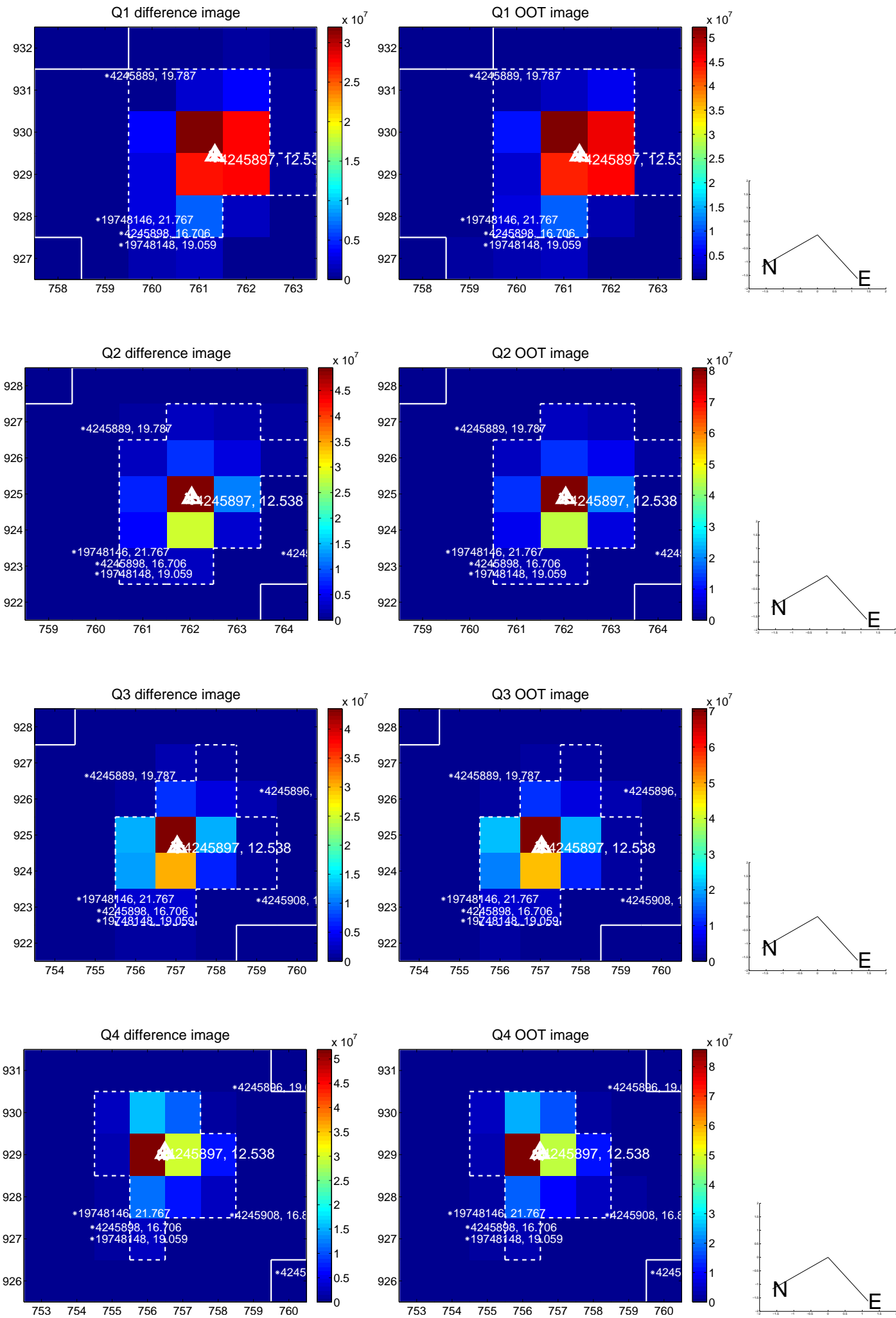
The direct PRF centroid is offset from the target star catalog position by about 0.14 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.031 ± 0.067	0.46	0.005 ± 0.067	0.030 ± 0.067
PRF-fit source offset from KIC position	0.111 ± 0.069	1.60	-0.002 ± 0.067	-0.111 ± 0.069
photometric centroid source offset	0.11 ± 0.00	353.58	0.09 ± 0.00	-0.06 ± 0.00

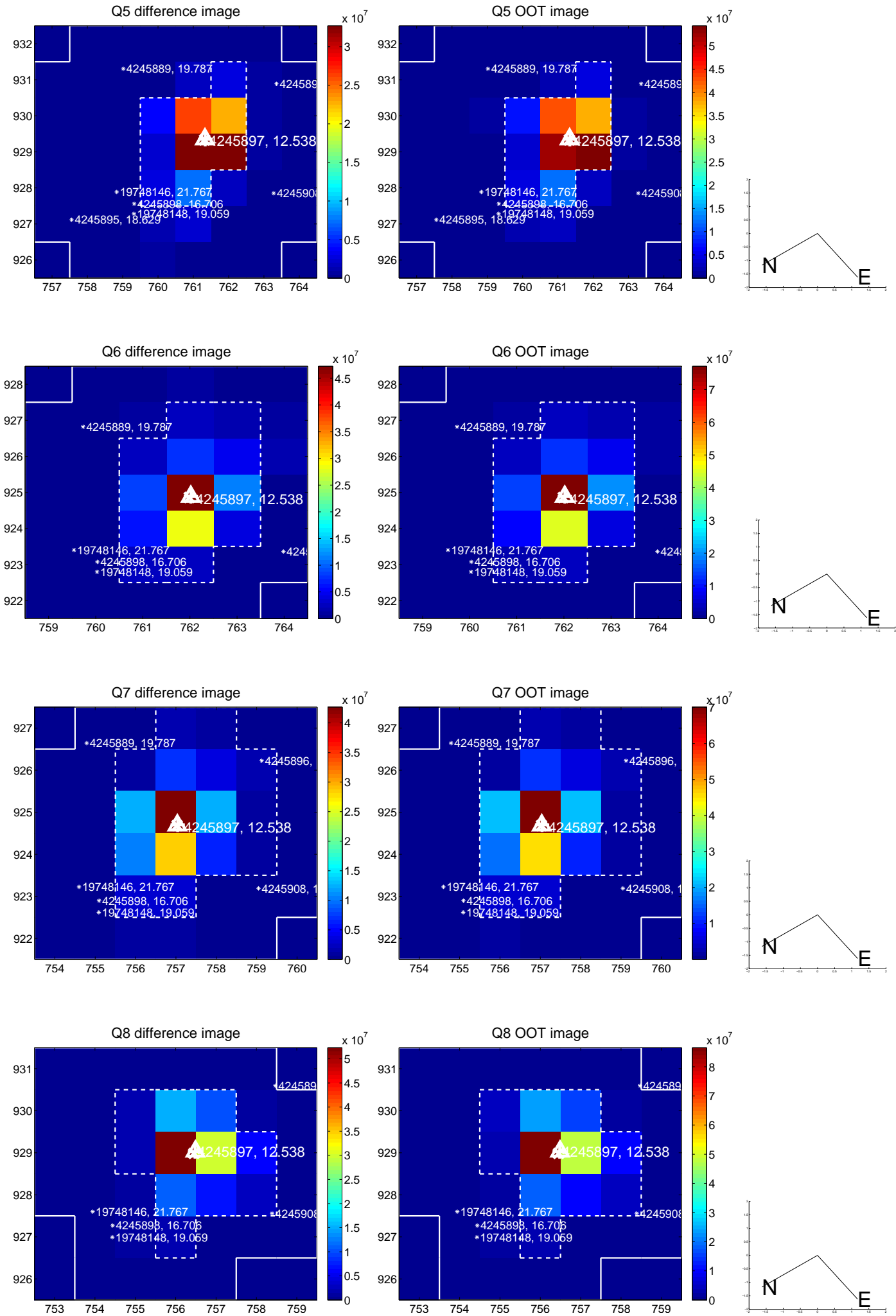


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

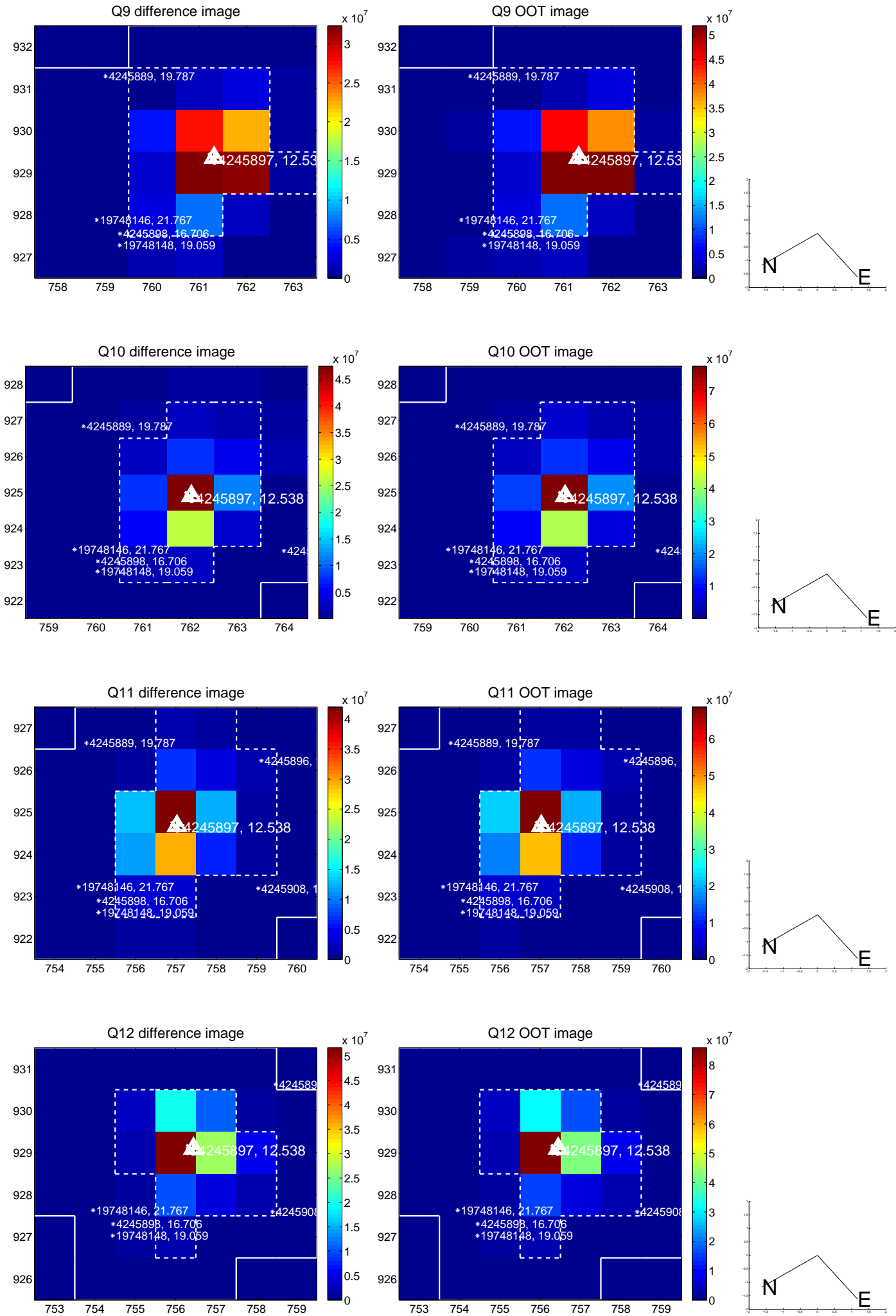
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



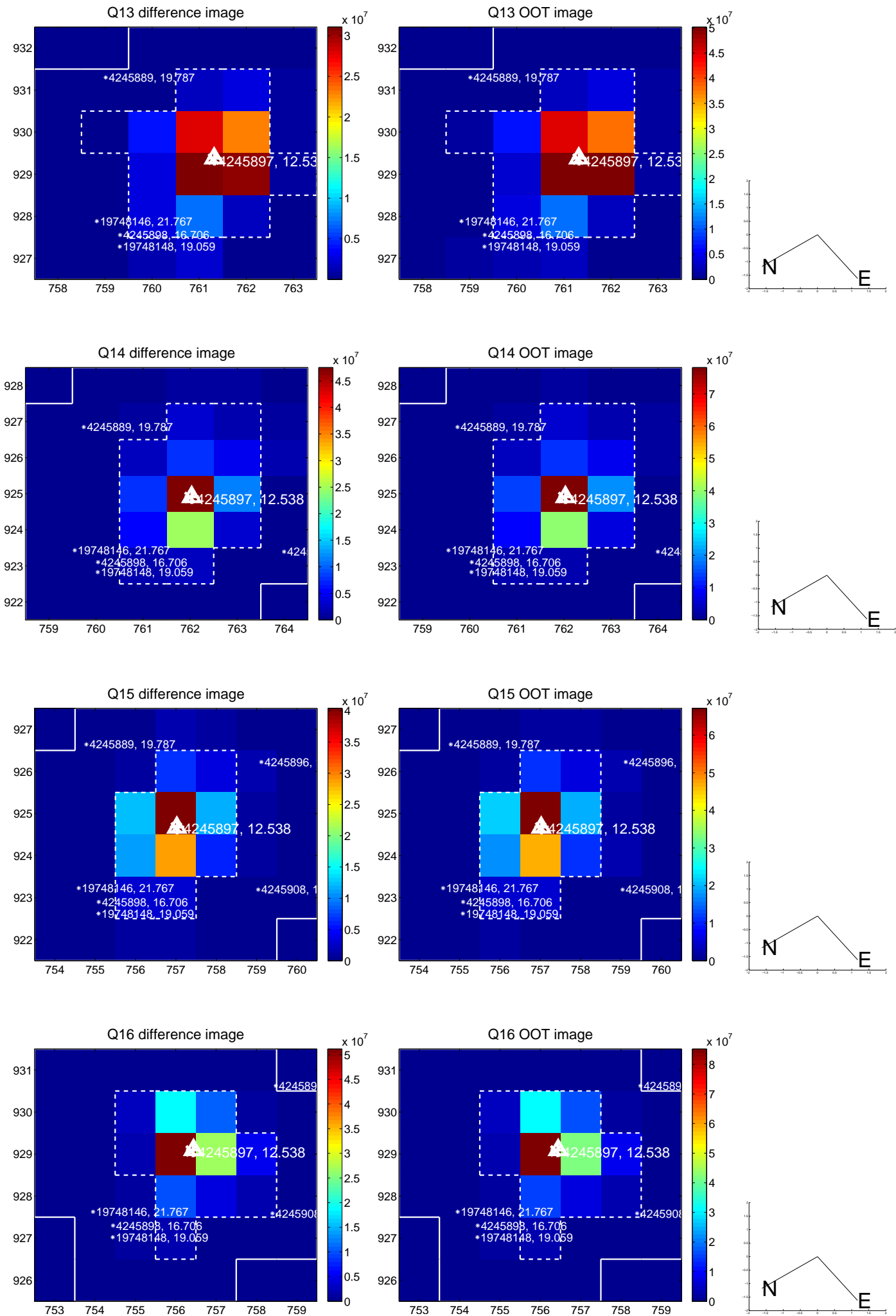
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



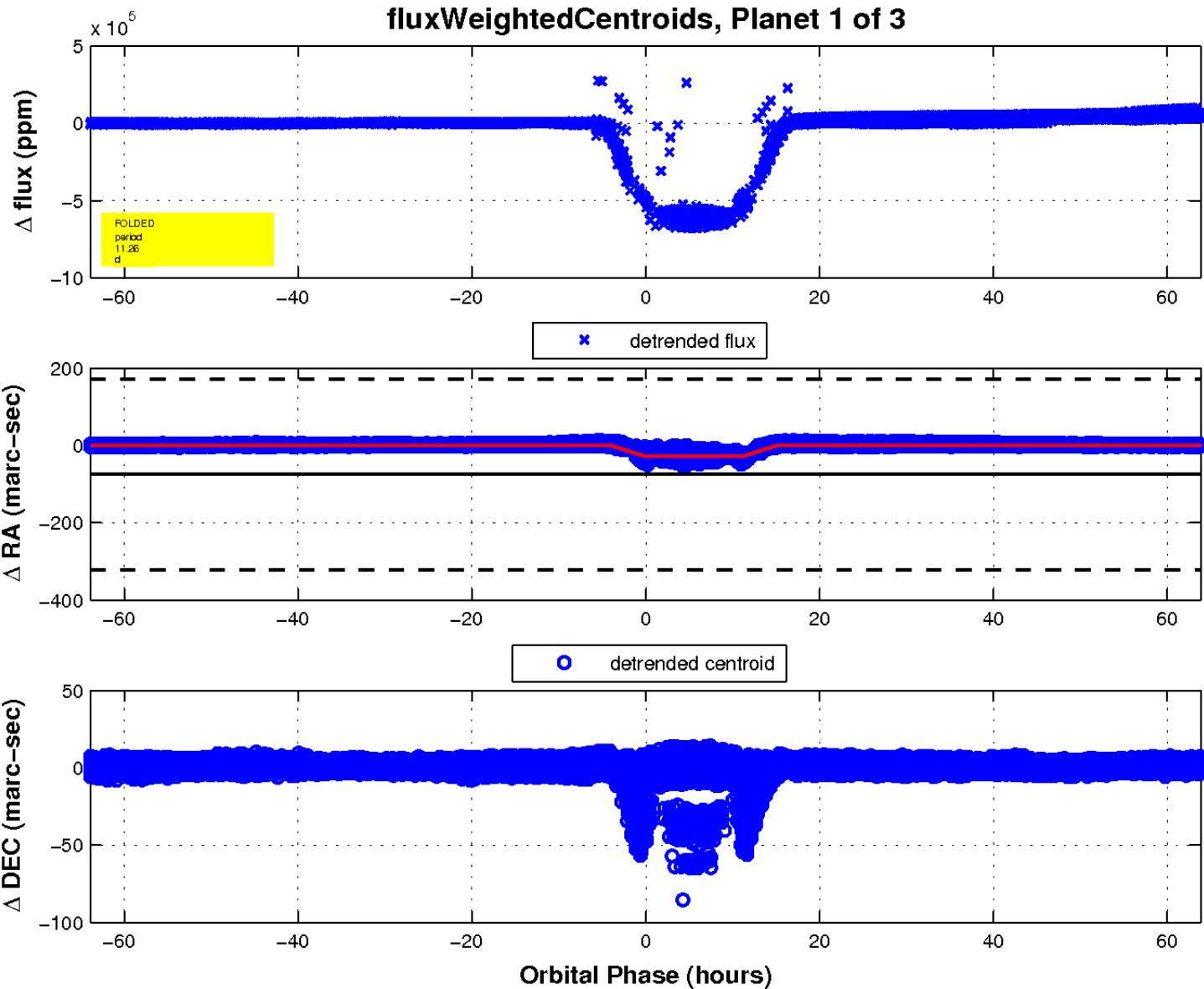
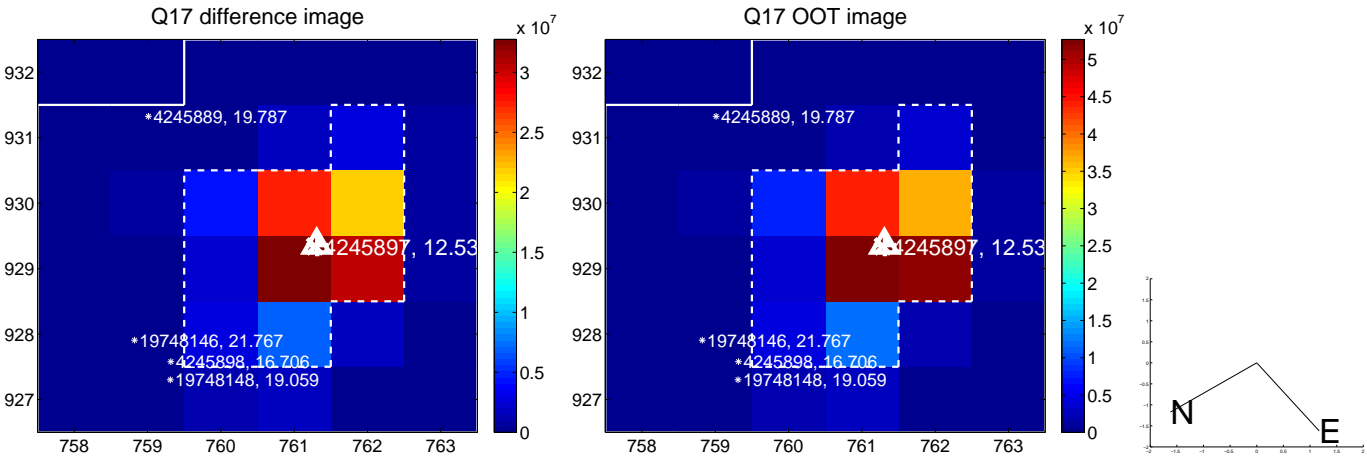
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

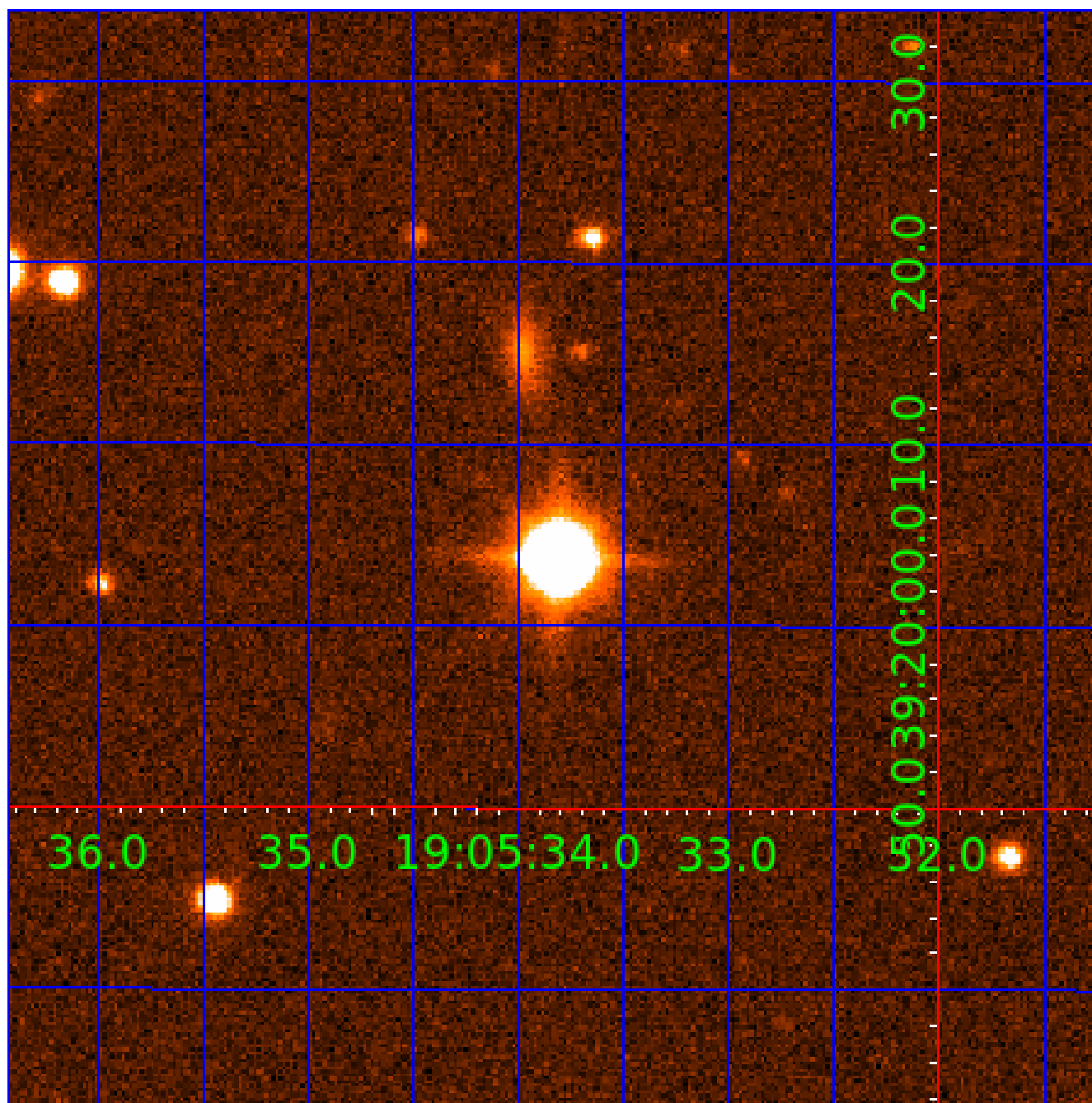


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 004245897

Q1-17 DR25 TCE Parameters

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004245897-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_SKYE—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS
004245897-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS

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

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

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

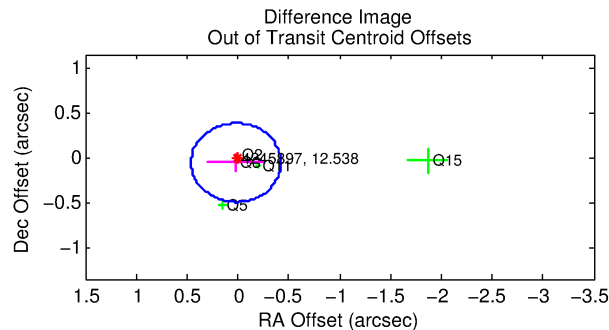
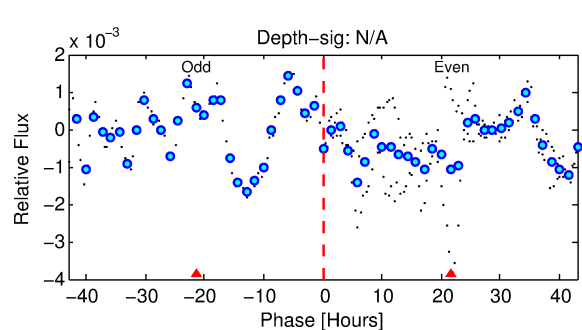
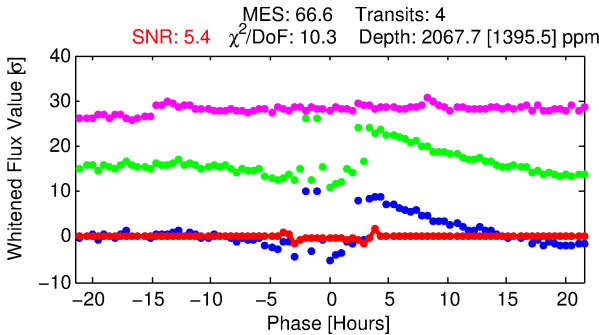
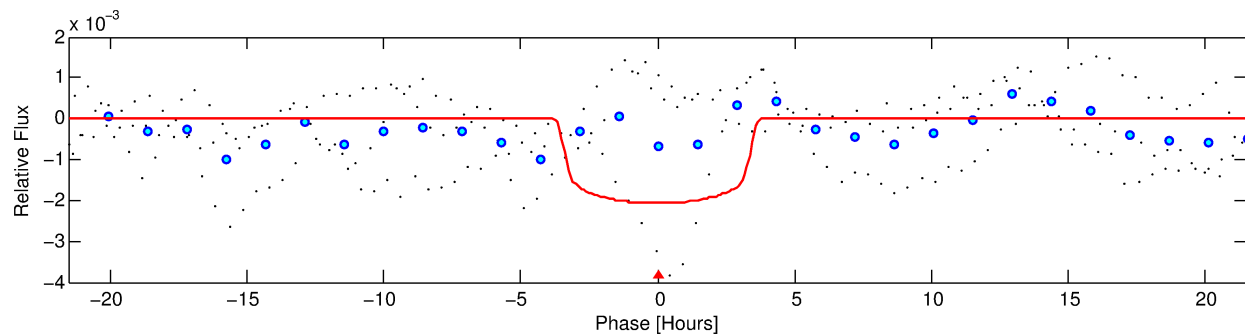
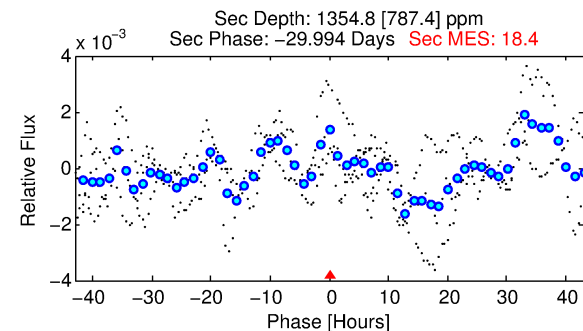
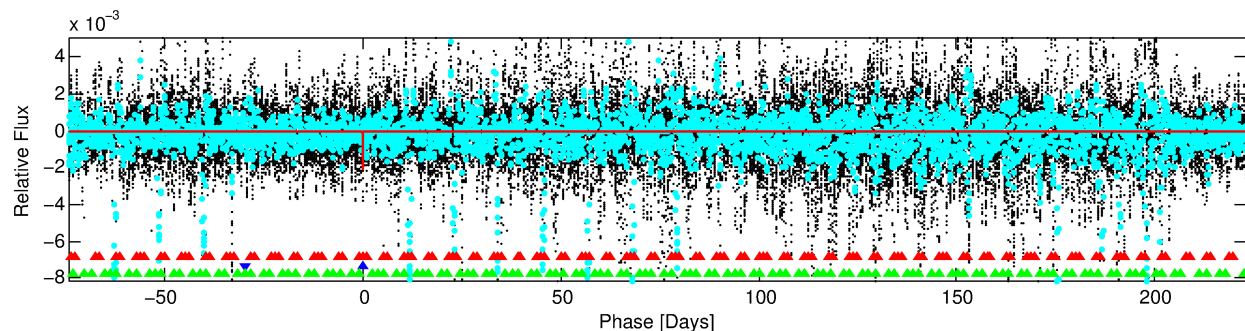
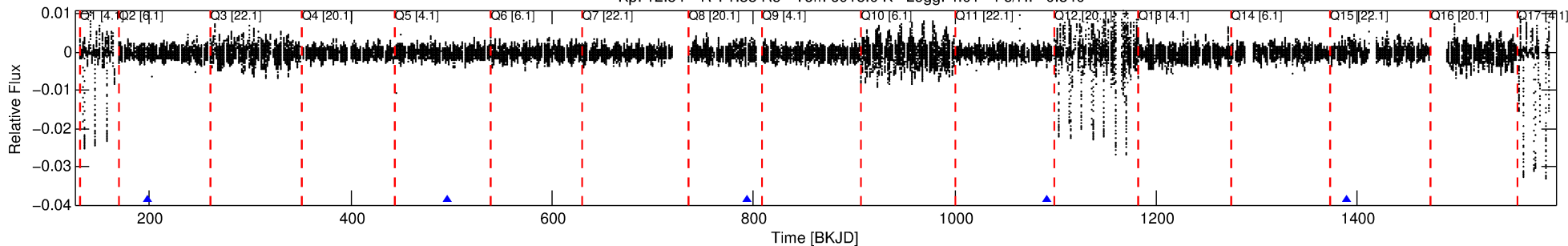
Ephemeris Match Information For 004245897-02

No Significant Match Found

DV One-Page Summary

KIC: 4245897 Candidate: 2 of 3 Period: 297.871 d
KOI: K06395 Corr: No Ephemeris Match

Kp: 12.54 R*: 1.88 Rs Teff: 6915.0 K Logg: 4.01 Fe/H: -0.340



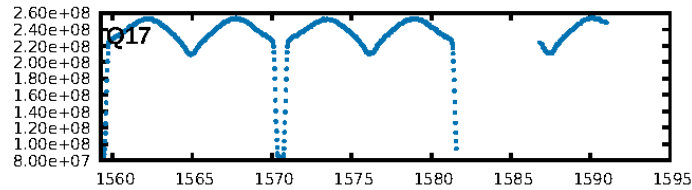
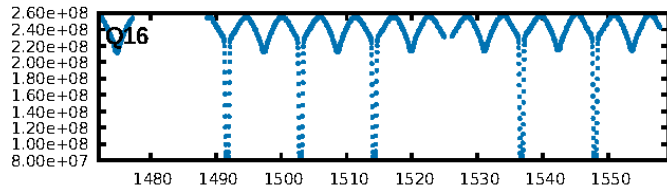
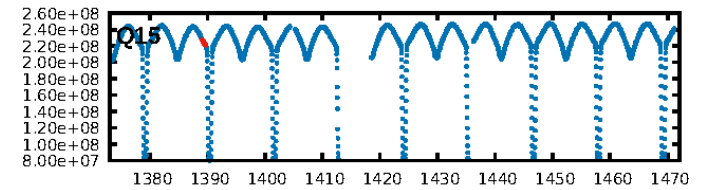
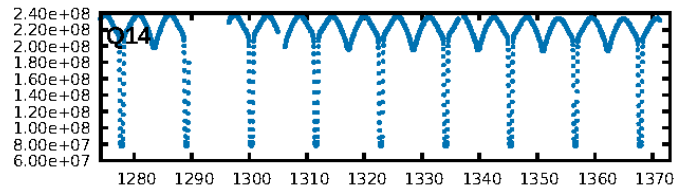
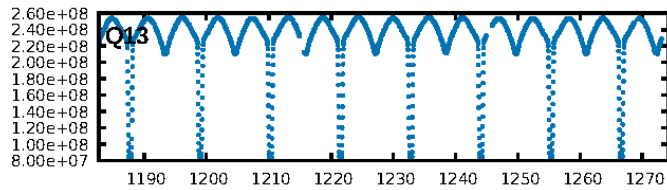
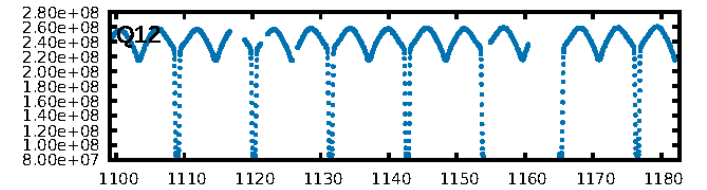
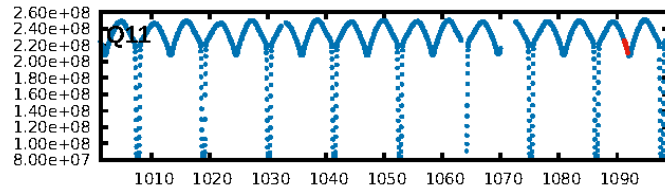
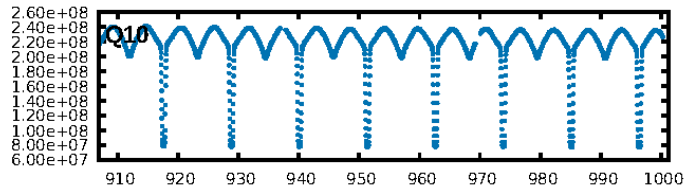
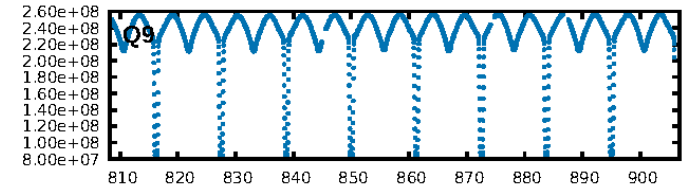
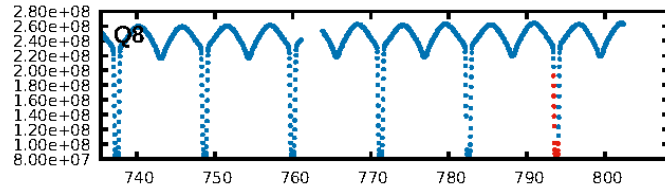
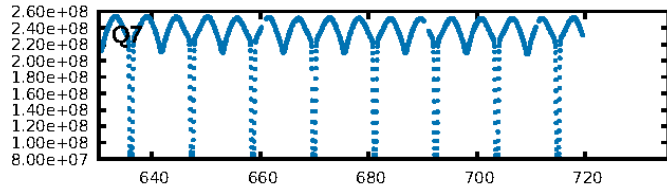
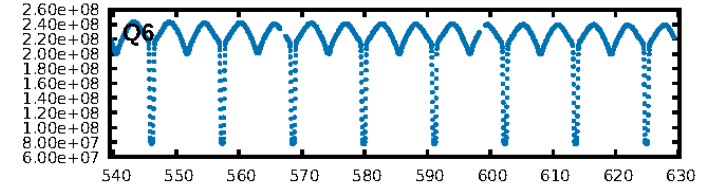
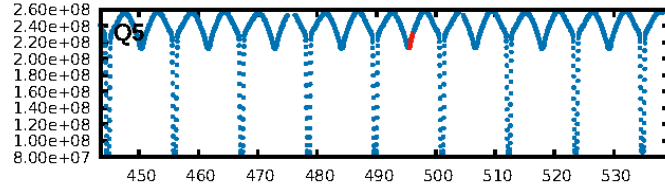
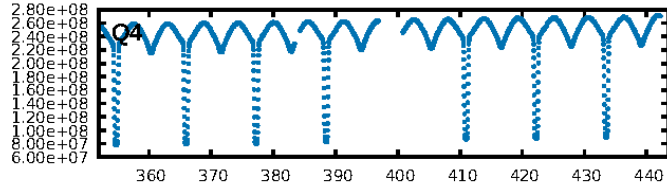
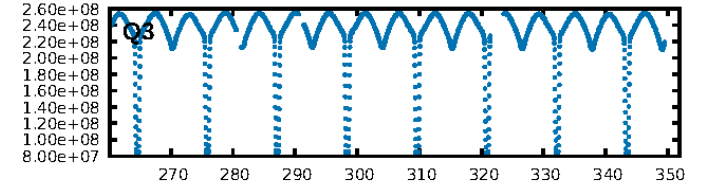
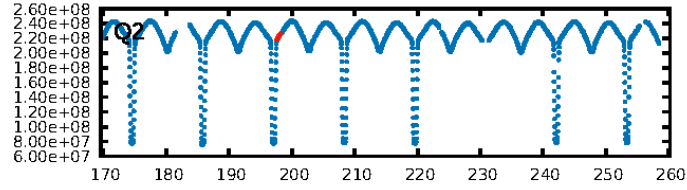
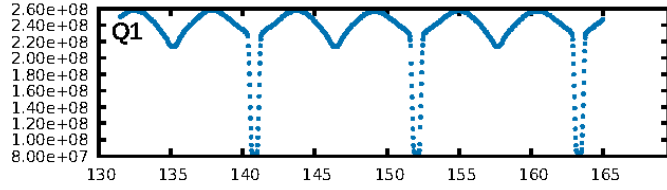
DV Fit Results:

Period = 297.87119 [0.00877] d
Epoch = 197.9304 [0.0136] BKJD
Rp/R* = 0.0421 [0.0202]
a/R* = 329.96 [653.78]
b = 0.00 [36405.98]
Seff = 7.86 [4.16]
Teq = 427 [56] K
Rp = 8.61 [5.07] Re
a = 0.9573 [0.3022] AU
Ag = 9216.25 [11318.28] [0.81σ]
Teffp = 6468 [1843] K [3.28σ]

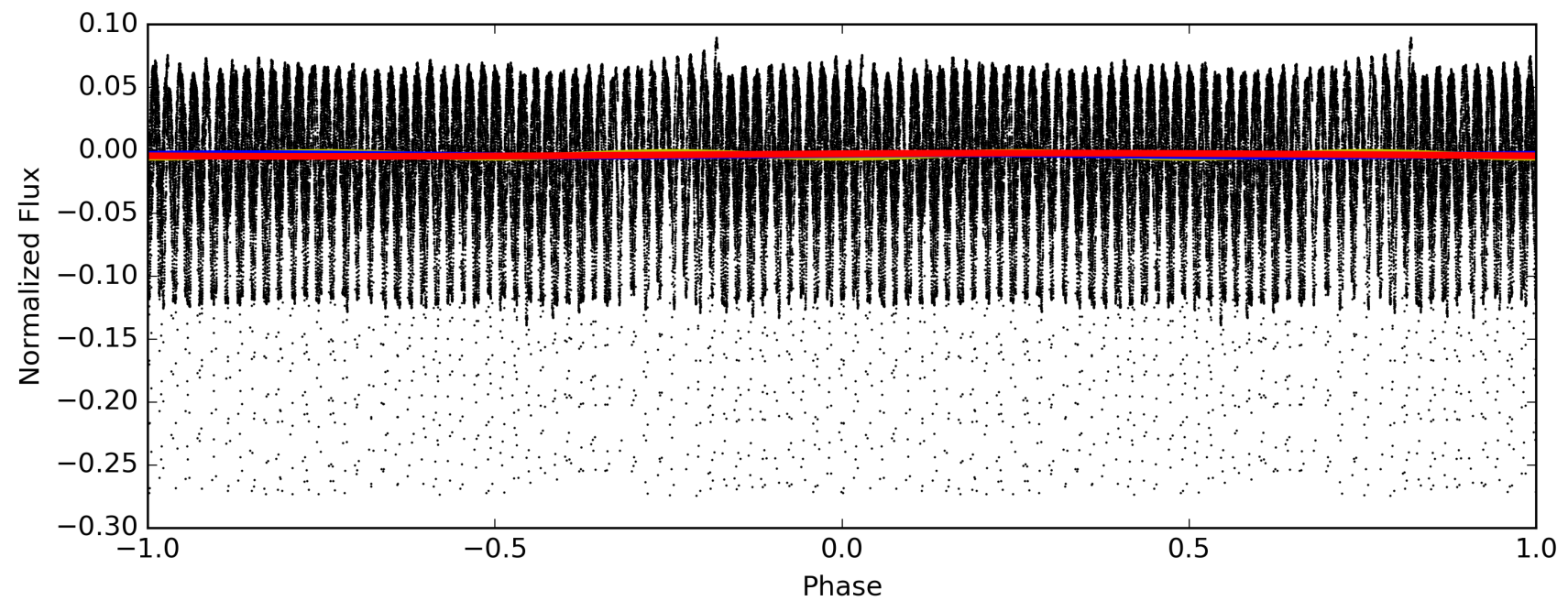
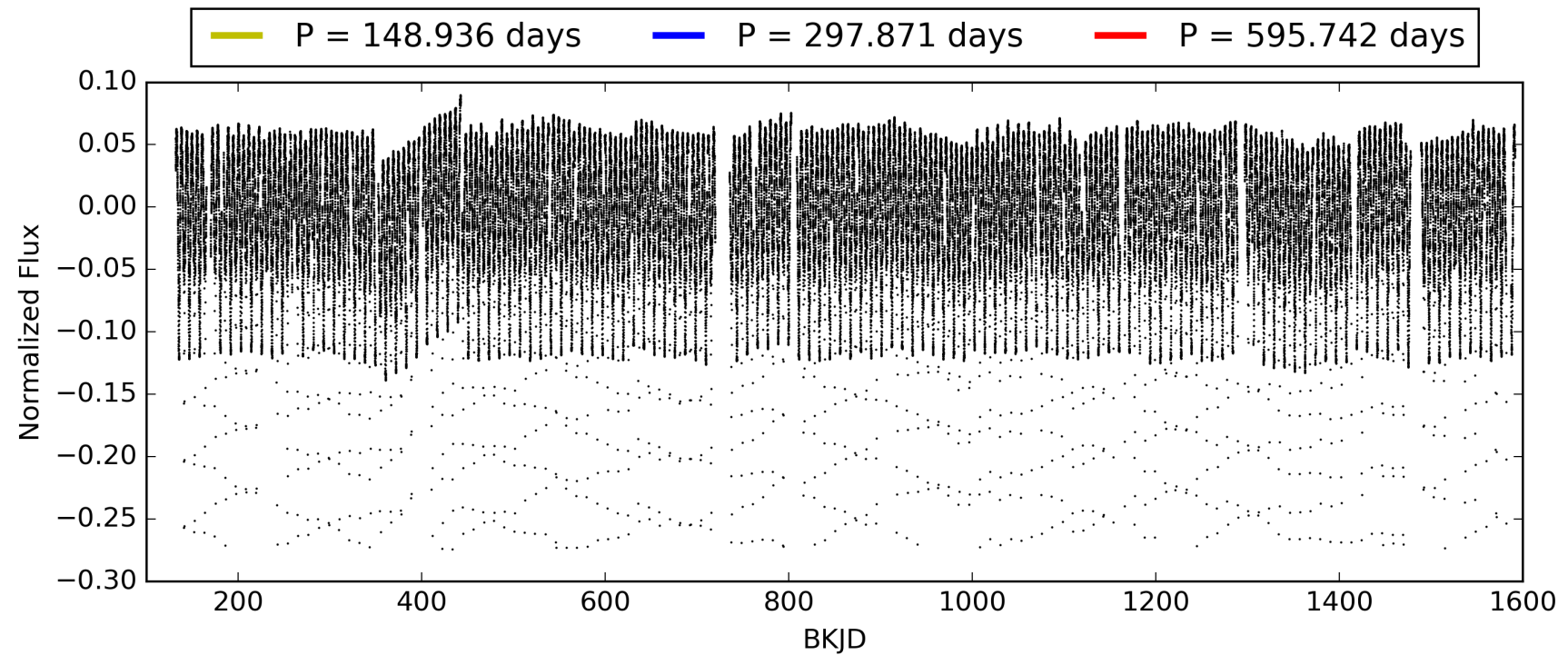
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [50.79σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 0.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: -0.2826
Centroid-sig: N/A
Centroid-so: 0.218 arcsec [0.87σ]
OotOffset-rm: 0.060 arcsec [0.41σ]
KicOffset-rm: 0.242 arcsec [2.37σ]
OotOffset-st: 1/2/1/1 [5]
KicOffset-st: 1/2/1/1 [5]
DiffImageQuality-fgm: 0.40 [2/5]
DiffImageOverlap-fno: 0.00 [0/5]

TCE 004245897-02, PDC Light Curves

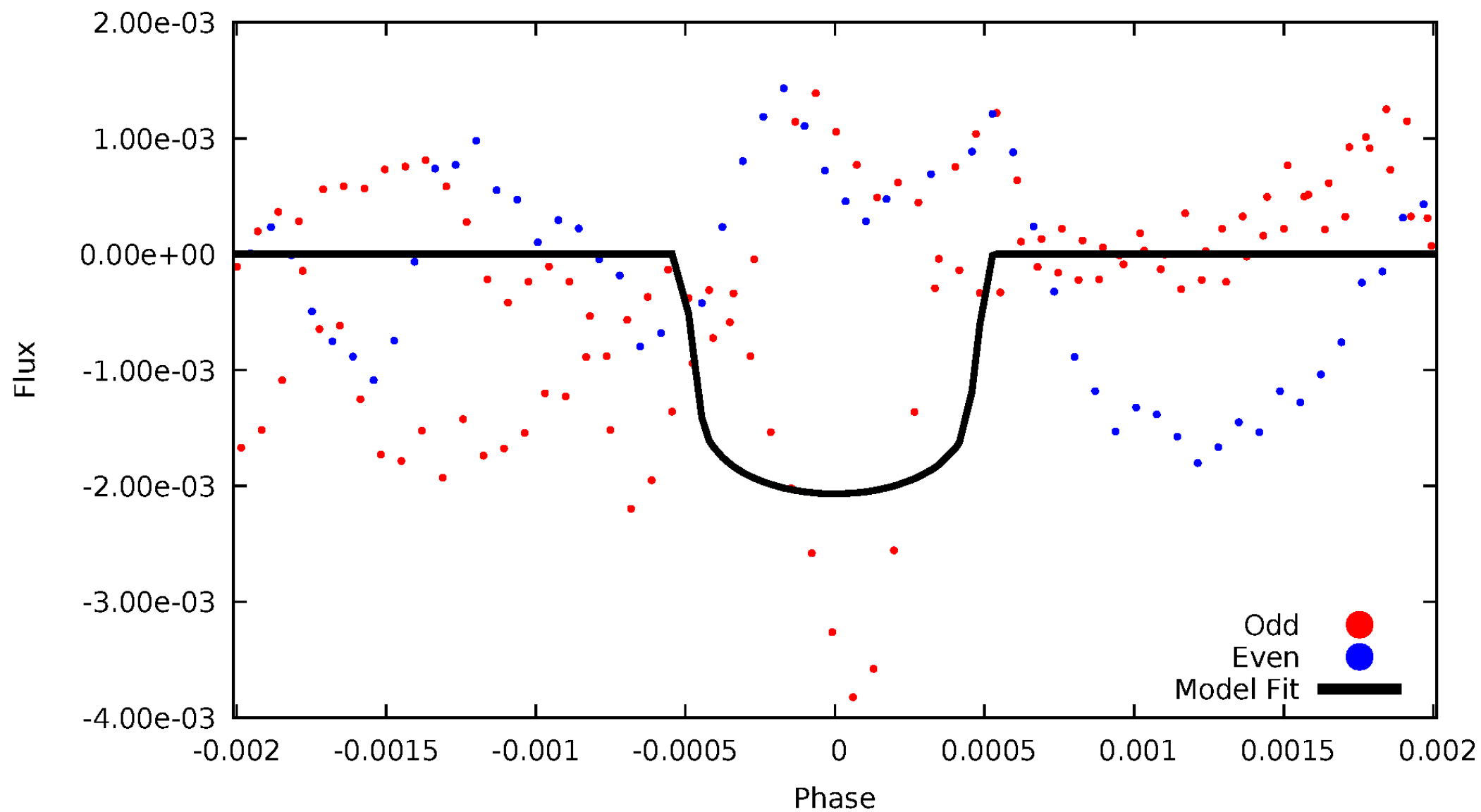


TCE 004245897-02



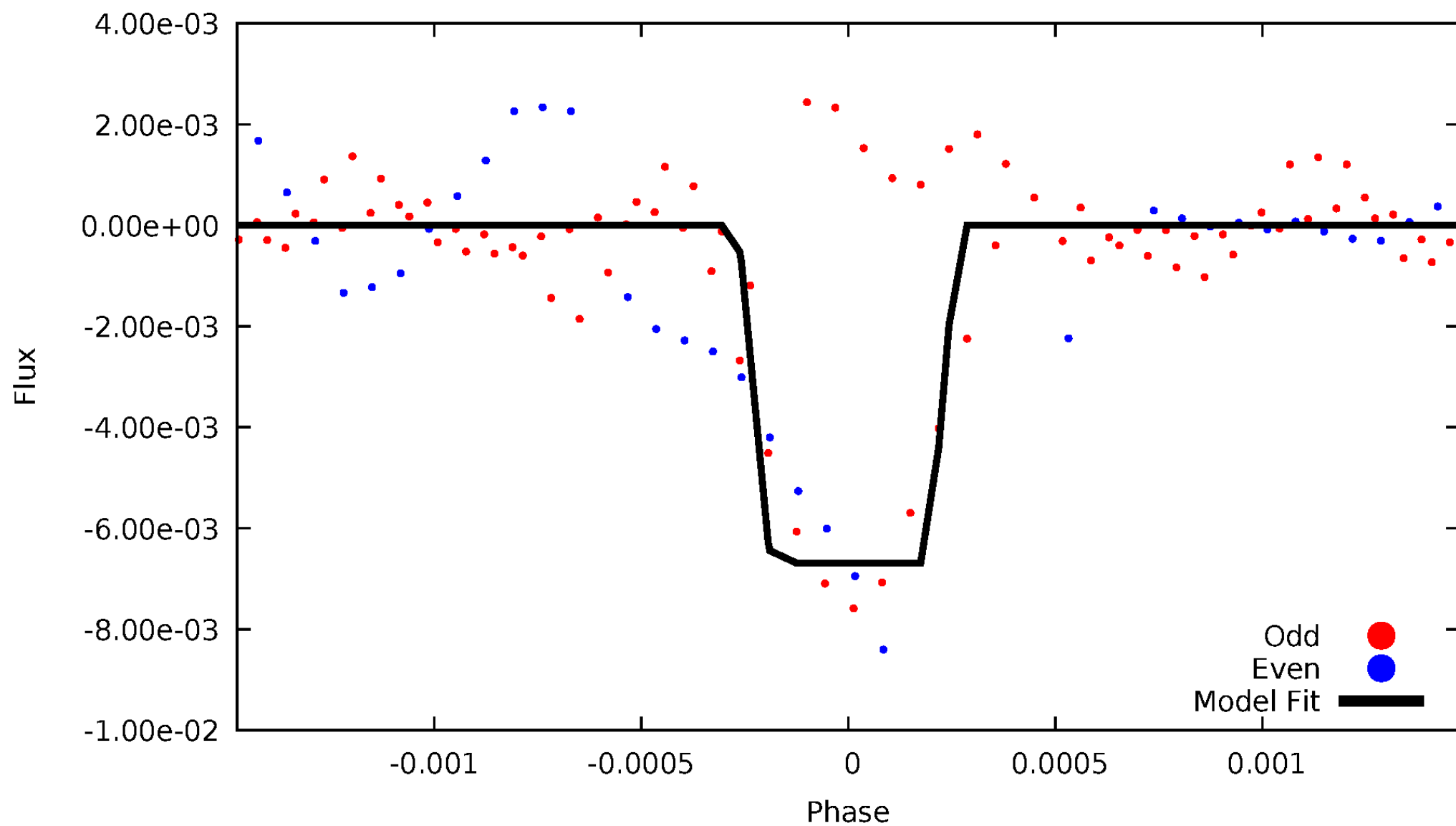
DV Odd/Even

TCE 004245897-02



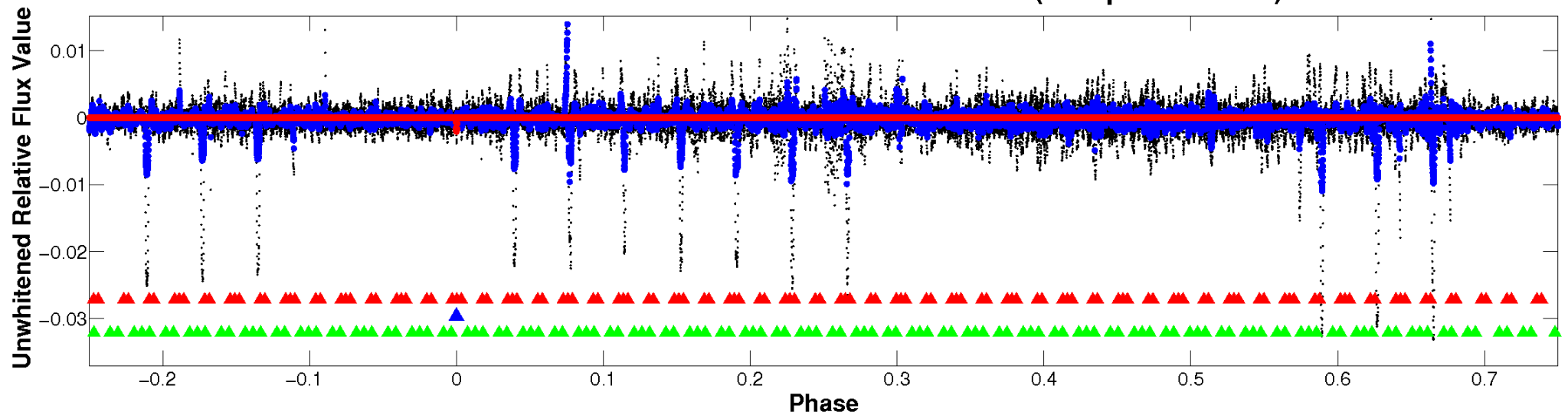
ALT Odd/Even

TCE 004245897-02

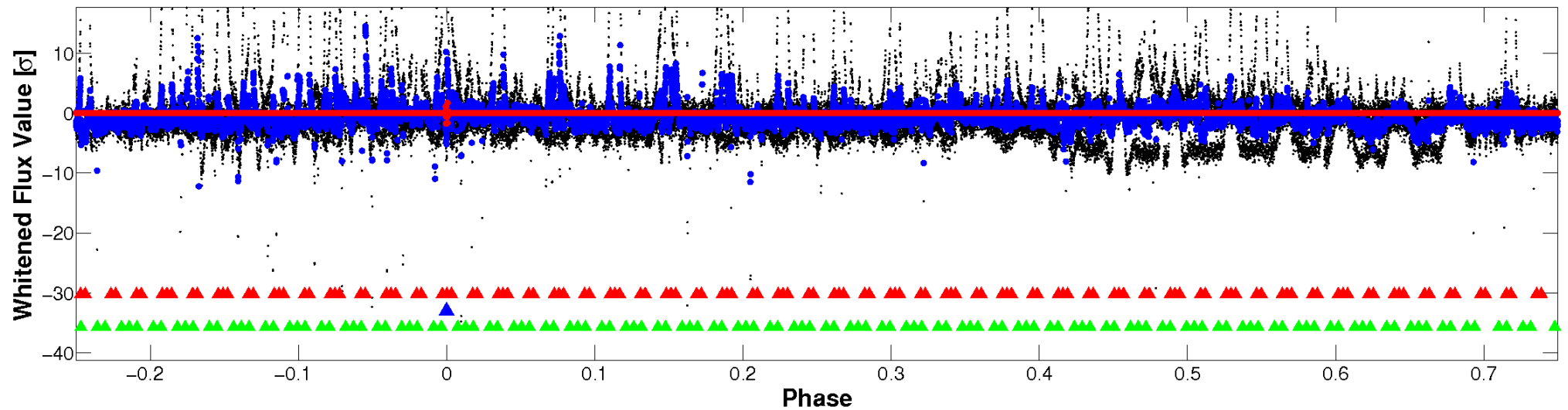


Non-Whitened Vs. Whitened Light Curve

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

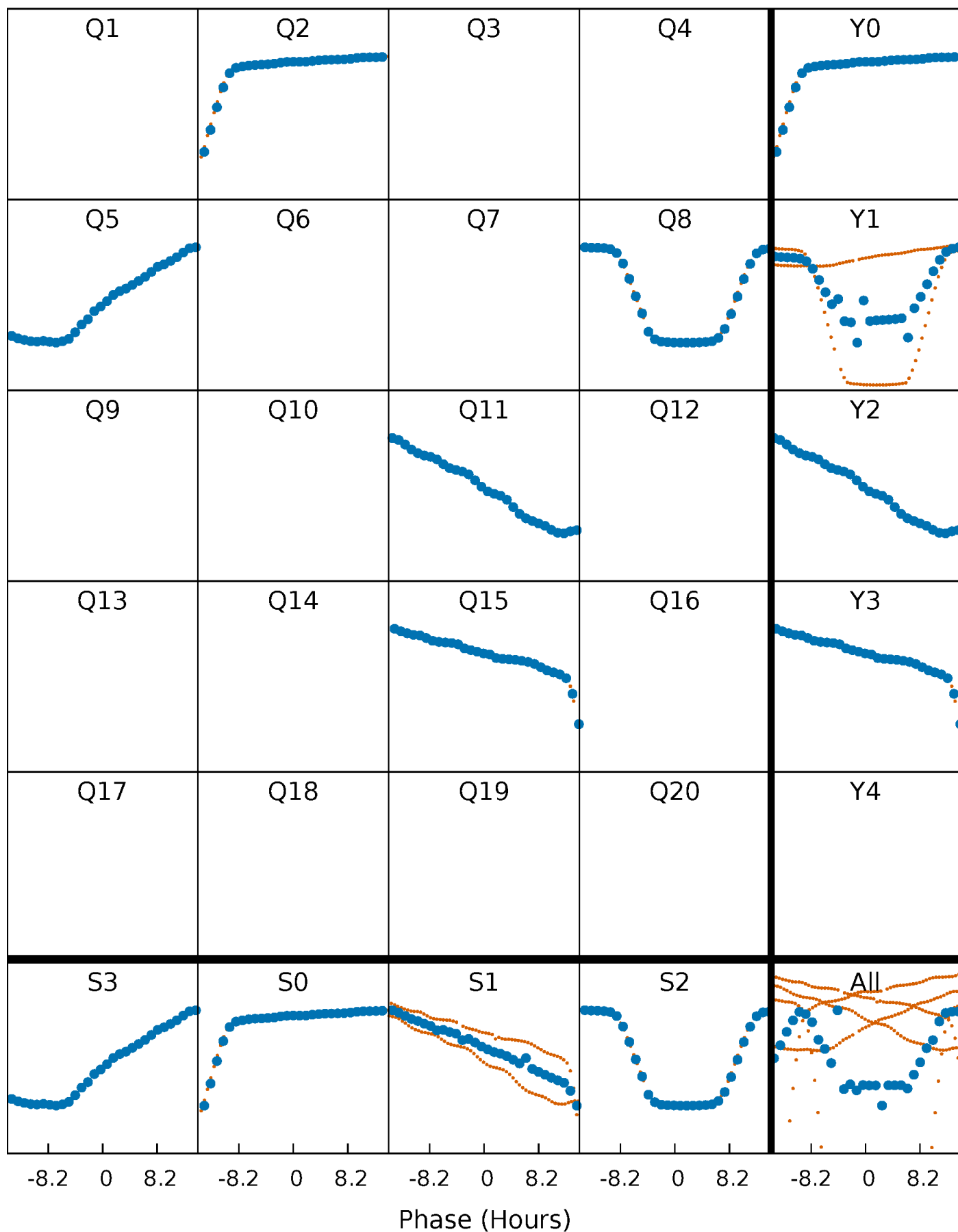


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



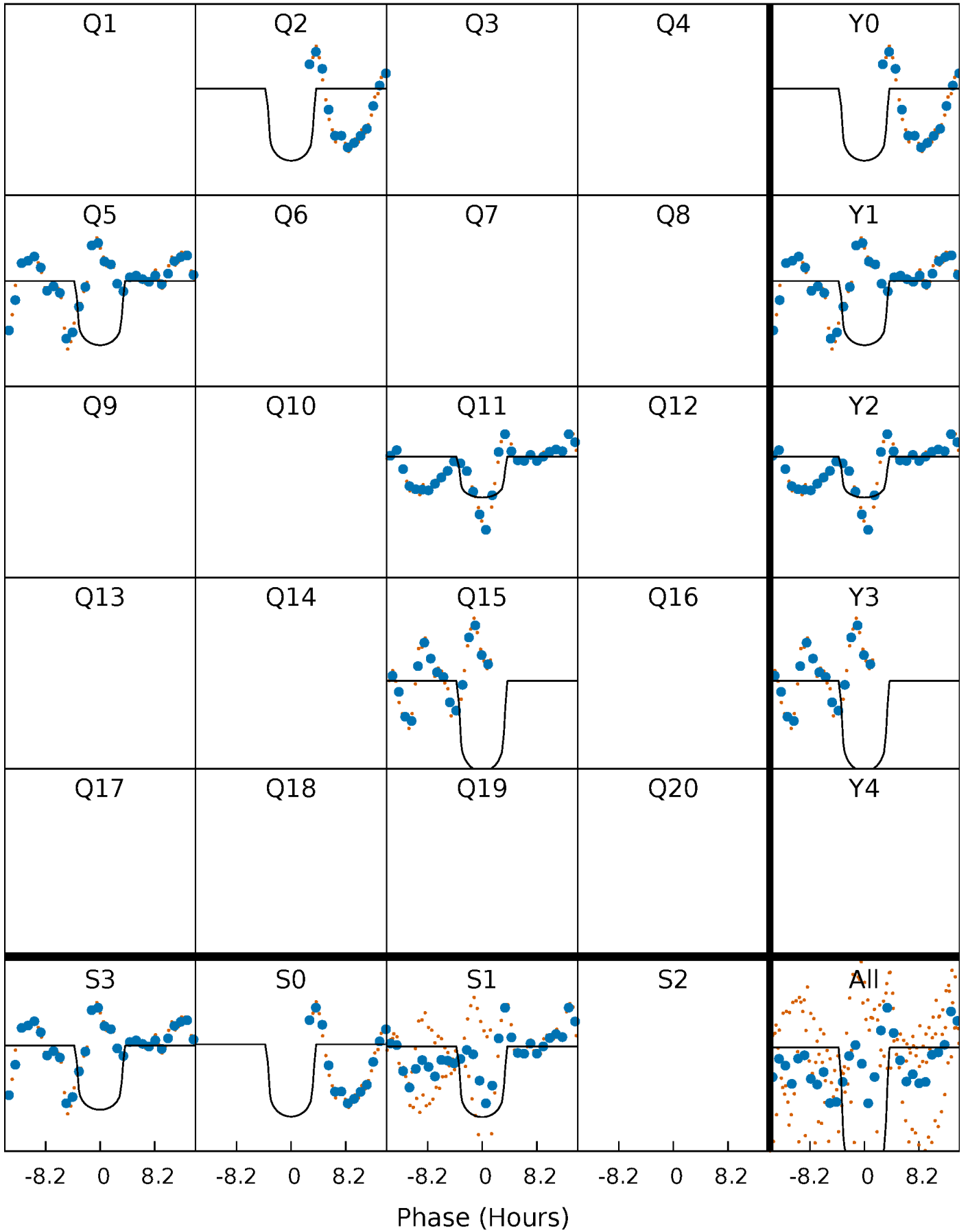
PDC Quarter-Phased Transit Curves

TCE 004245897-02 P=297.871193 Days $T_0=197.930359$ (BKJD)



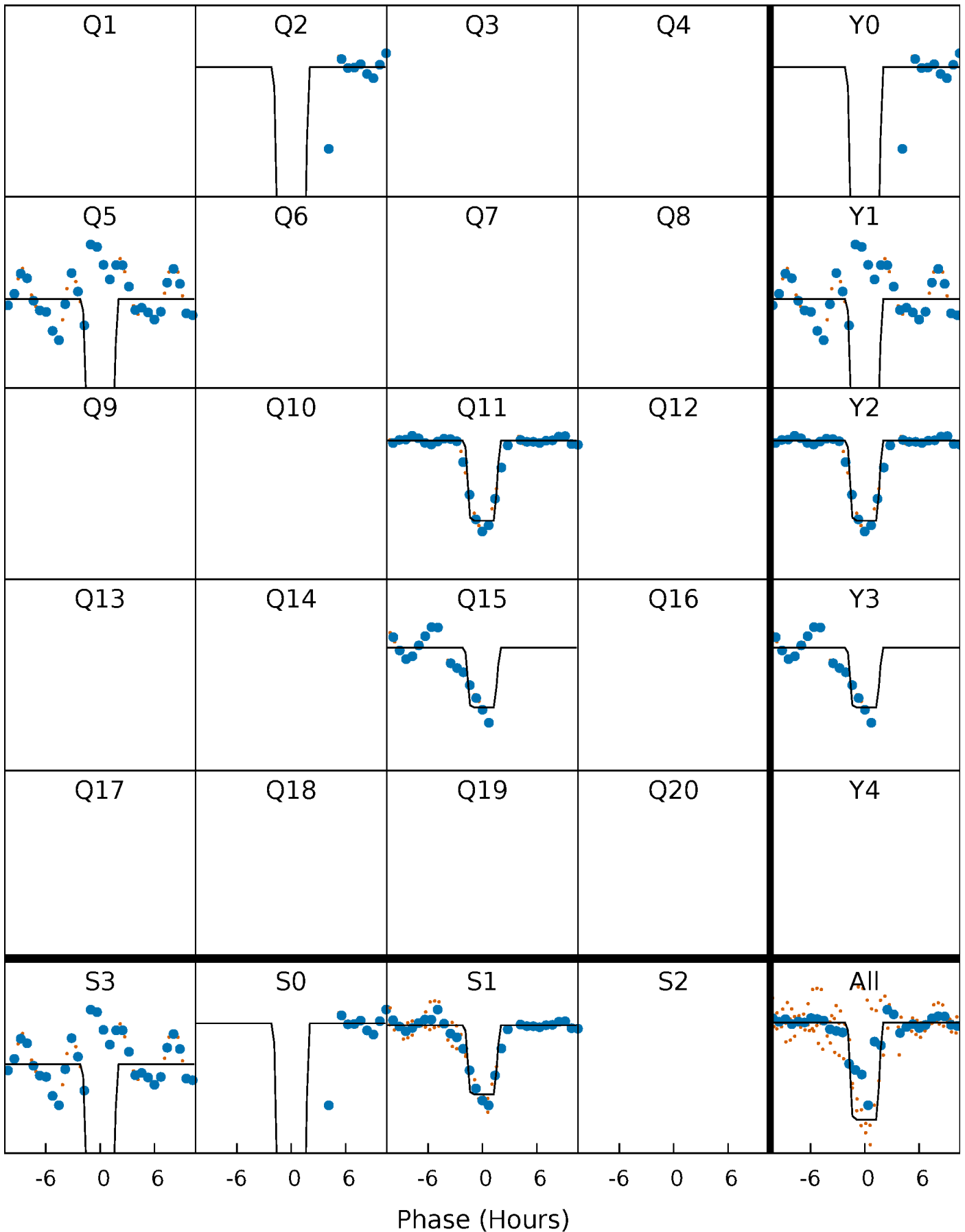
DV Quarter-Phased Transit Curves

TCE 004245897-02 $P=297.871193$ Days $T_0=197.930359$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

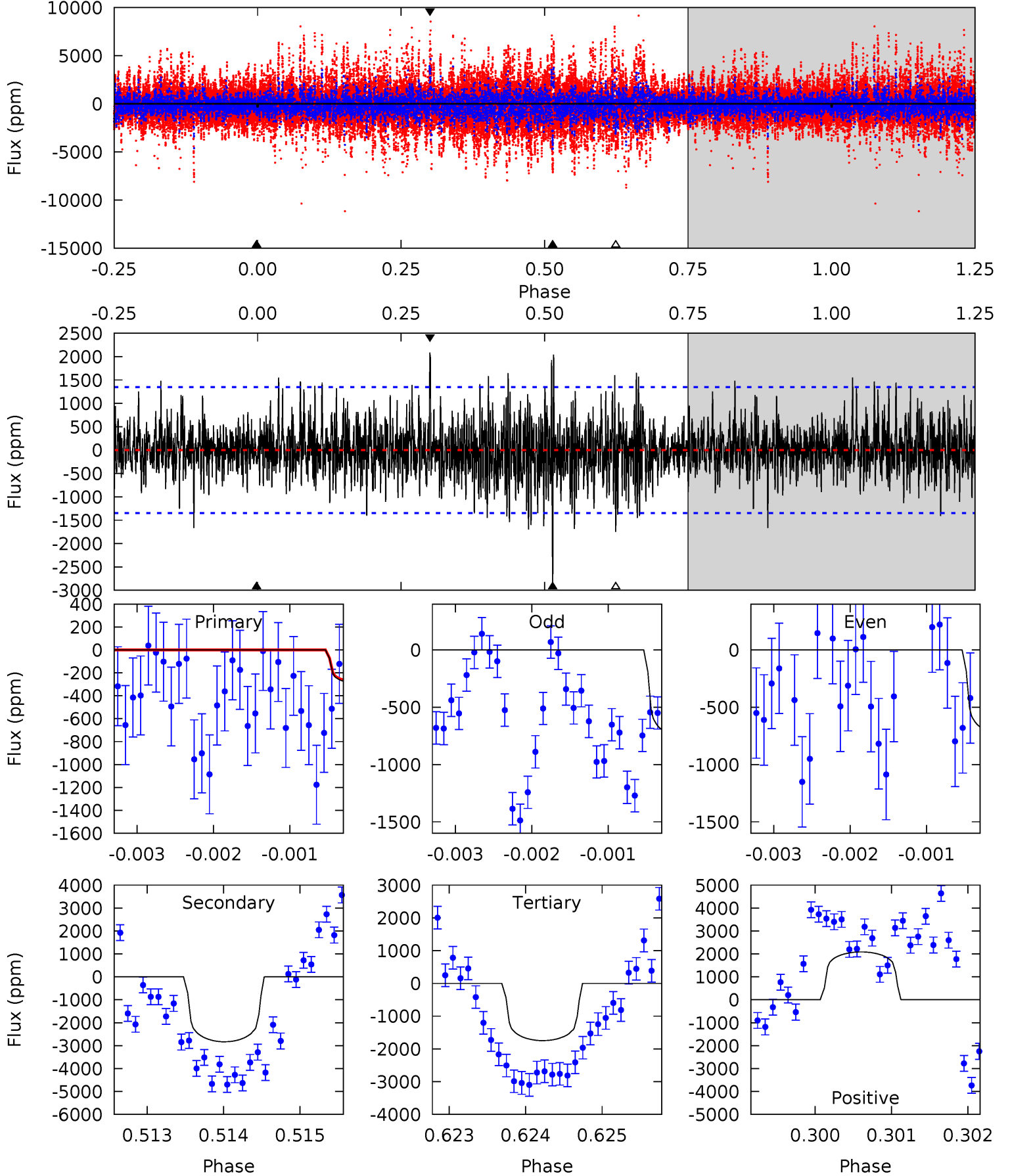
TCE 004245897-02 P=297.883171 Days $T_0=197.908546$ (BKJD)



DV Model-Shift Uniqueness Test

004245897-02, P = 297.871193 Days, E = 197.930359 Days

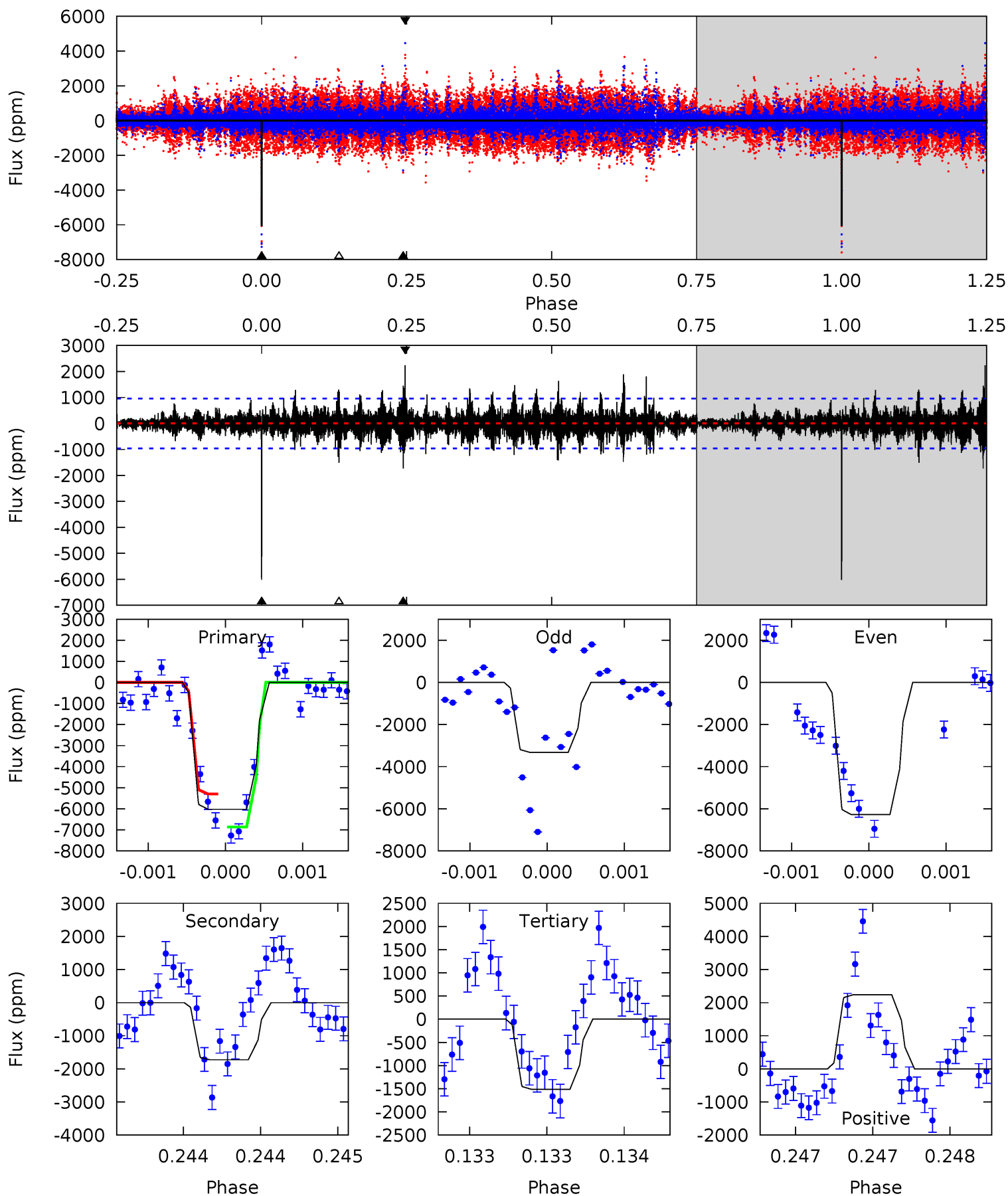
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.21	11.4	7.06	8.43	5.45	3.29	1.92	-5.85	-7.22	4.39	3.02	0.04	0.12	0.42	0.05



Alt Model-Shift Uniqueness Test

004245897-02, P = 297.883171 Days, E = 197.908546 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
34.9	10.00	8.76	13.0	5.56	3.46	1.68	26.1	21.9	1.24	-2.97	8.61	0.59	0.27	0



Stellar Parameters For KIC 004245897

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6915^{+217}_{-326}	$4.012^{+0.286}_{-0.154}$	$-0.340^{+0.300}_{-0.300}$	$1.875^{+0.522}_{-0.638}$	$1.322^{+0.195}_{-0.238}$	$0.282^{+0.562}_{-0.126}$
	+3%/-5%	+7%/-4%	+88%/-88%	+28%/-34%	+15%/-18%	+199%/-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 004245897-02 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-2833 ± 247	$8.05^{+4.45}_{-3.93}$	587^{+45}_{-57}	7949^{+4794}_{-1597}	22192^{+61317}_{-12928}
Alt.	-1726 ± 173	$15.88^{+5.23}_{-4.65}$	586^{+48}_{-53}	4960^{+715}_{-492}	3400^{+3280}_{-1481}

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 $A_{obs} \gg 1.0$

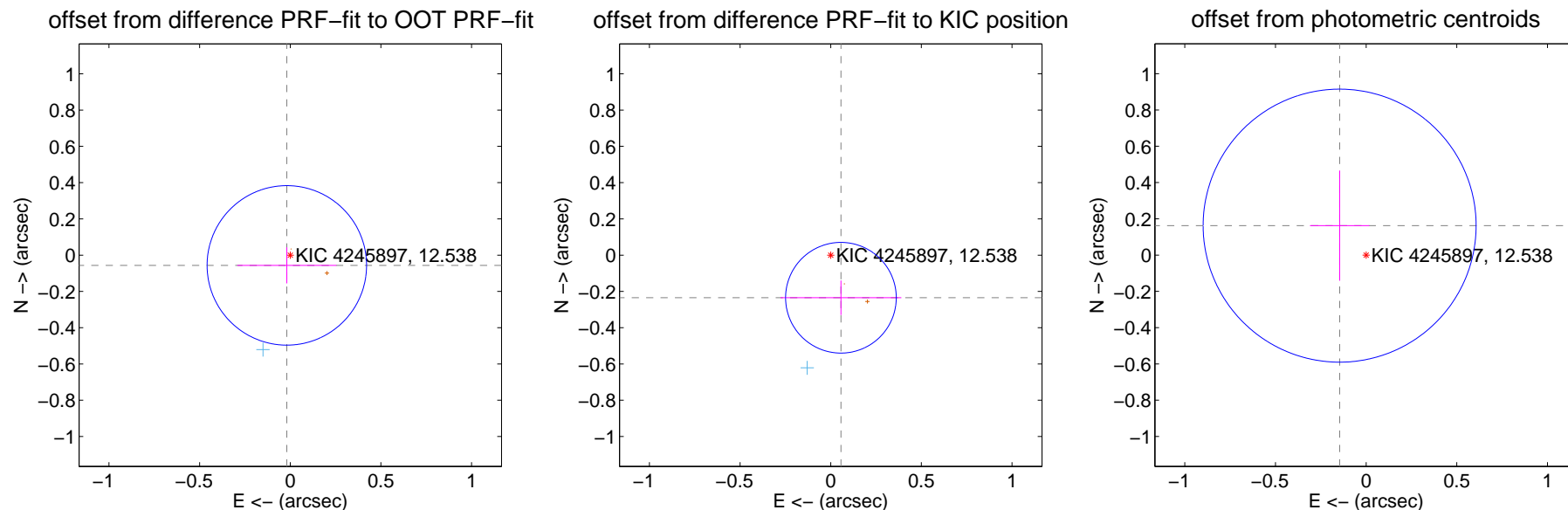
DV Centroid Data

Supplemental centroid analysis for 004245897-02. Kepler magnitude: 12.54. Transit SNR 5.44

There are 2 quarters with good PRF difference image offsets

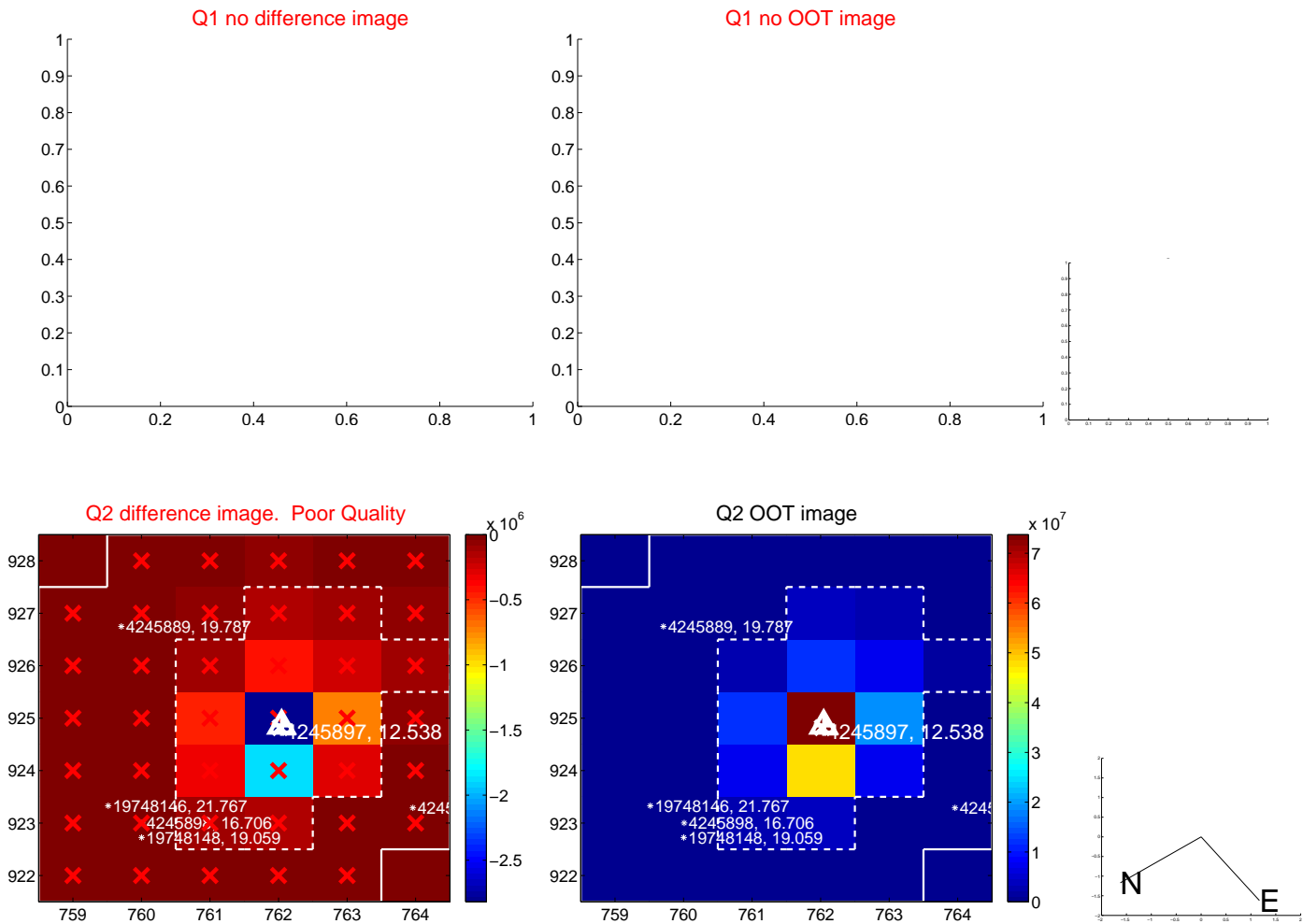
The direct PRF centroid is offset from the target star catalog position by about 0.07 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.060 ± 0.147	0.41	0.019 ± 0.273	-0.056 ± 0.100
PRF-fit source offset from KIC position	0.242 ± 0.102	2.37	-0.056 ± 0.333	-0.235 ± 0.095
photometric centroid source offset	0.22 ± 0.25	0.87	0.15 ± 0.16	0.16 ± 0.30

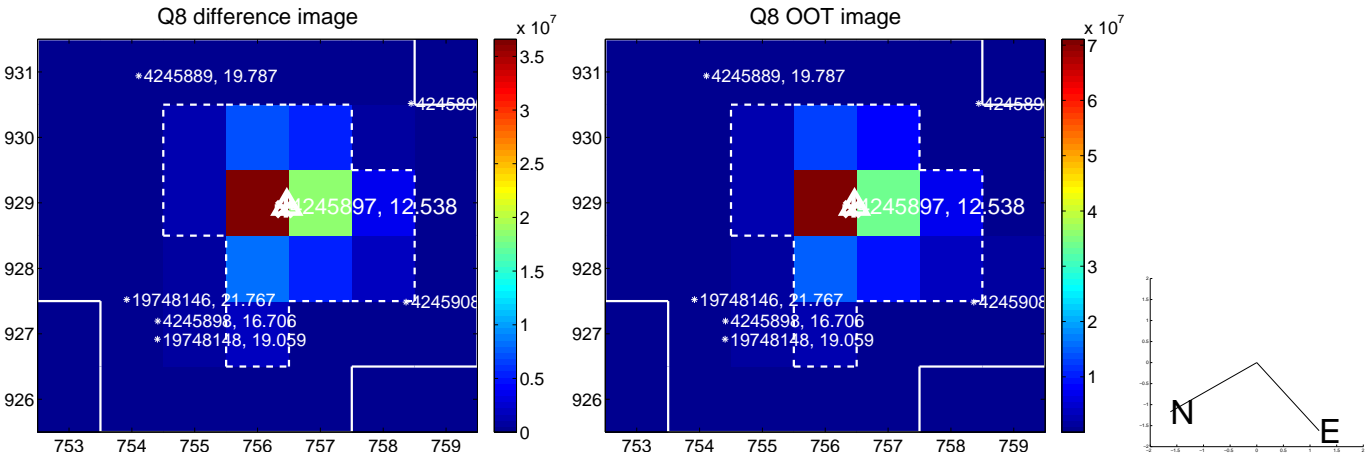
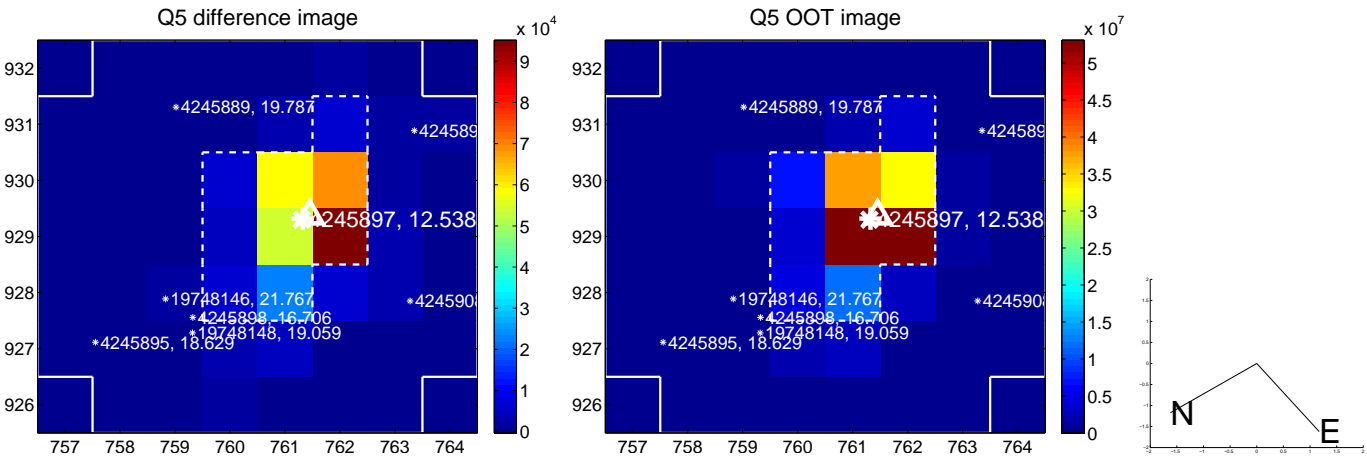


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

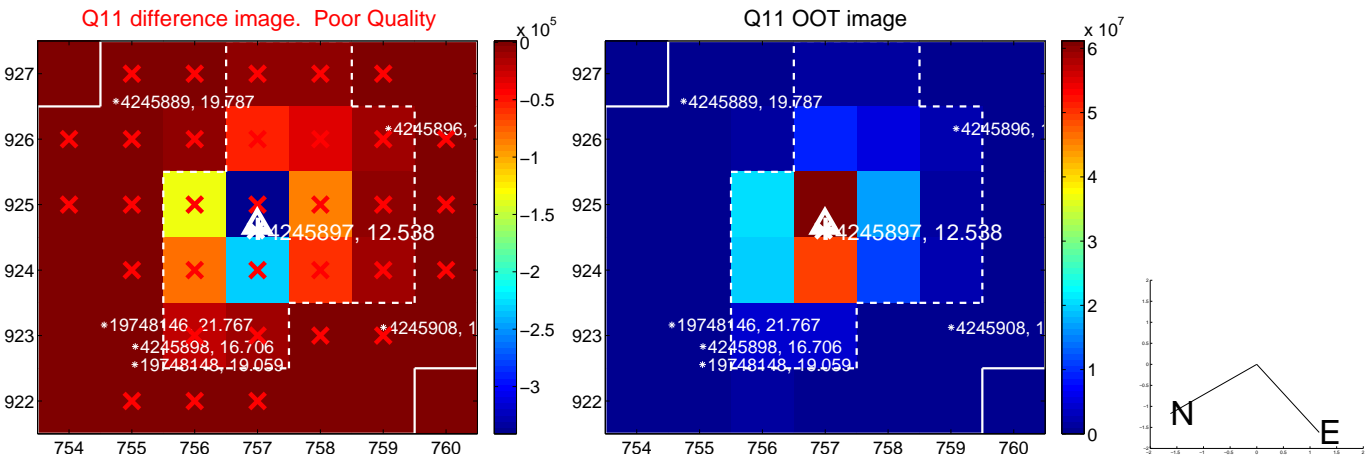
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



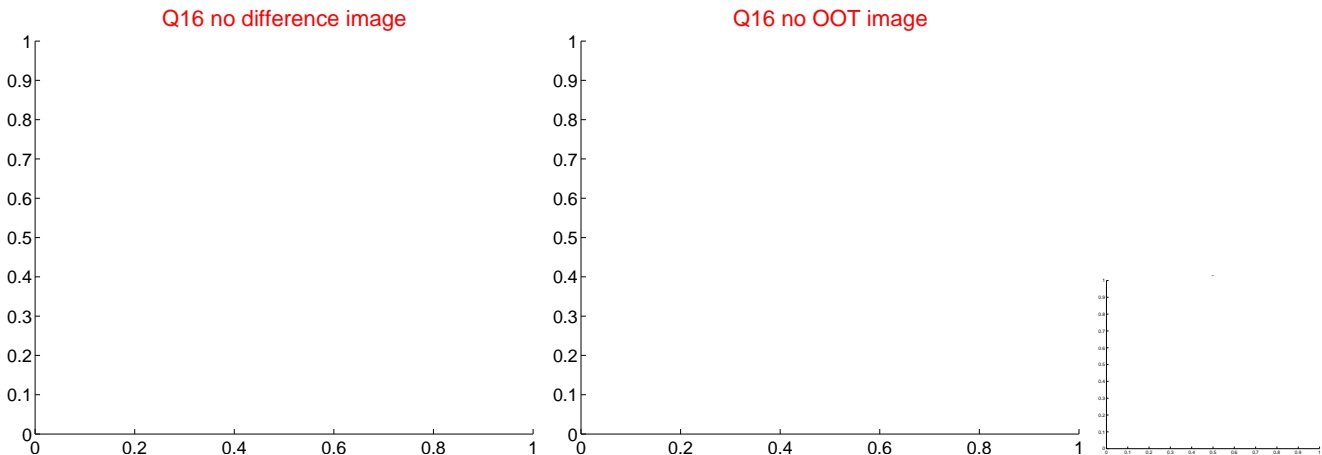
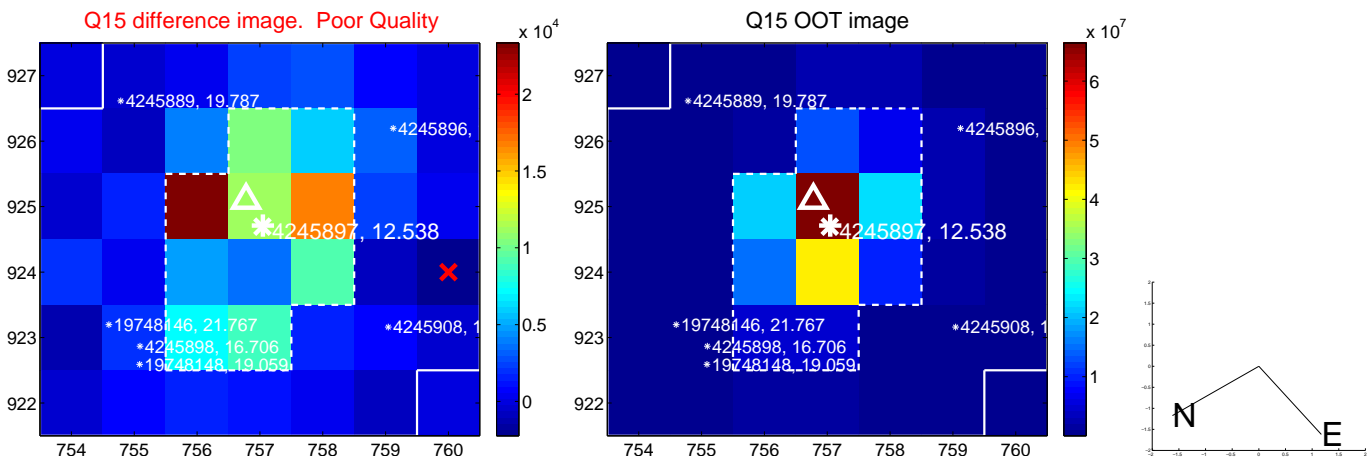
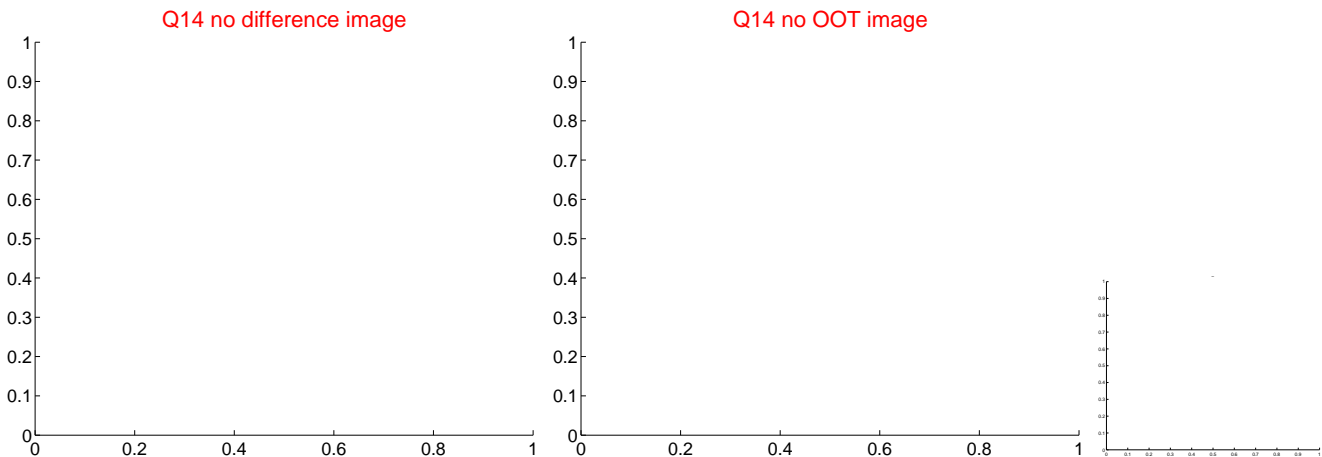
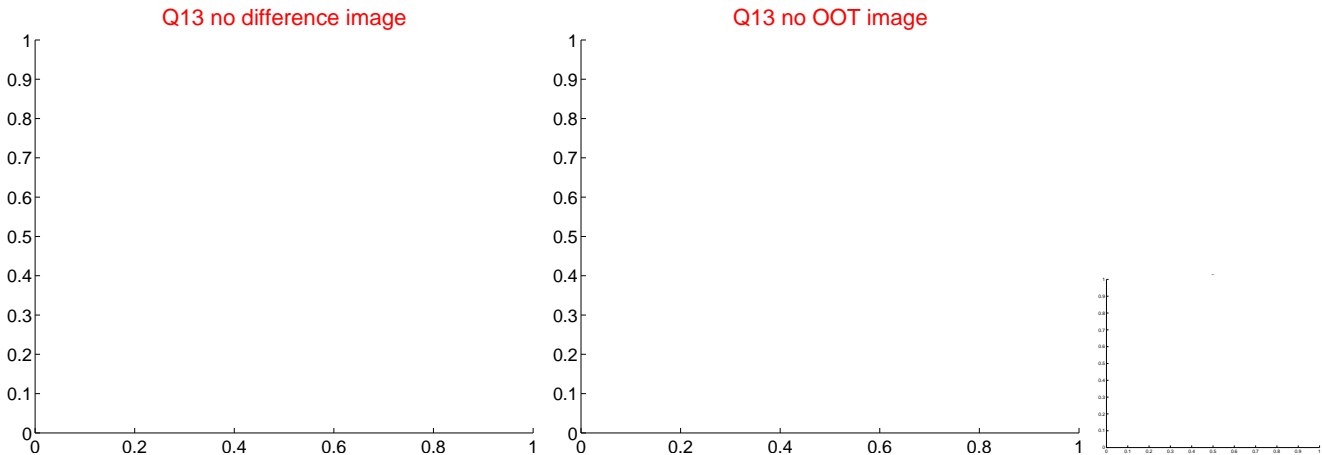
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



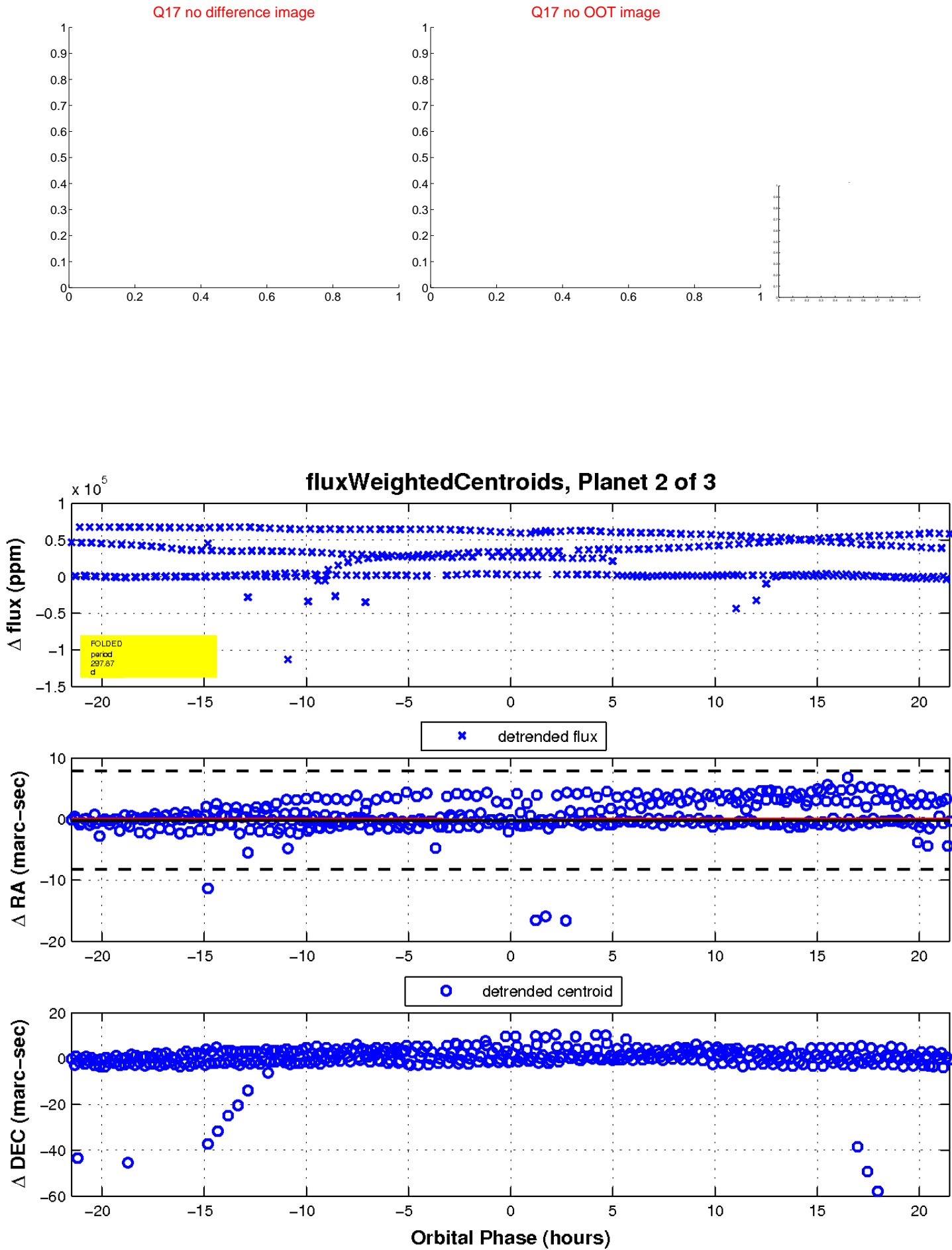
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

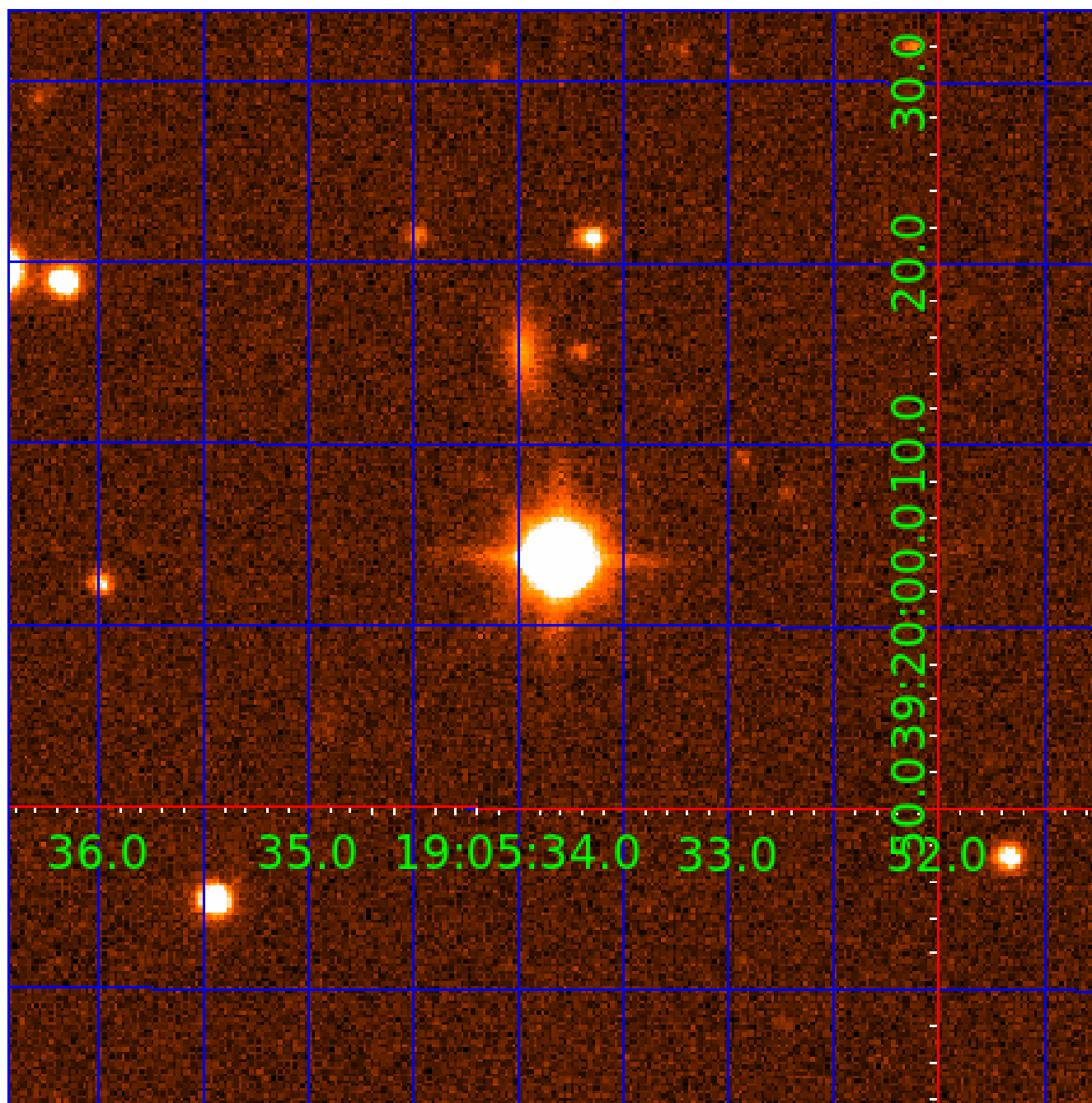


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 004245897

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})
004245897-01	OBS	6395.01	11.257975	140.781019	588305.6	15.000	2327.1	-1.0	1.88	6915	16.40	619.61
004245897-02	OBS	No	297.871193	197.930359	2067.7	7.187	66.6	5.4	1.88	6915	8.61	7.86
004245897-03	OBS	No	11.269861	132.559756	68025.8	135.238	43.0	256.6	1.88	6915	50.36	618.74

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004245897-01	OBS	FP	0.00	0	1	0	0	MOD_SEC_ALT—MOD_ODDEVEN_ALT—CENT_NOFITS
004245897-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_SKYE—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS
004245897-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS

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

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

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

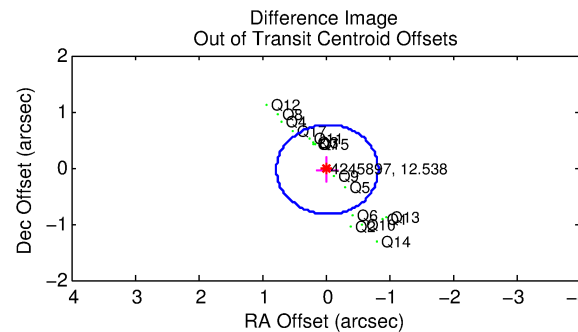
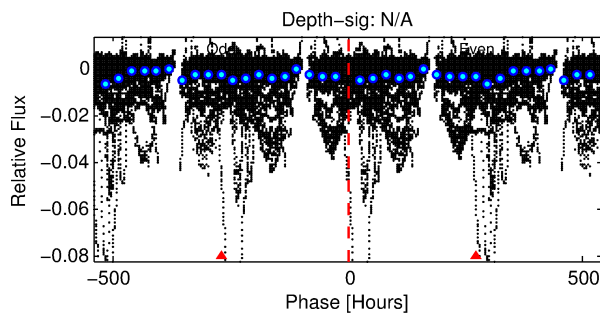
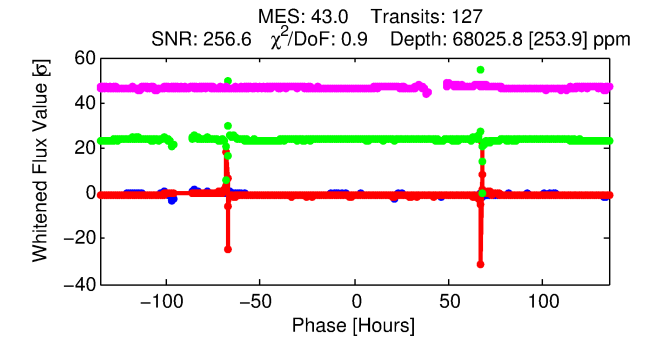
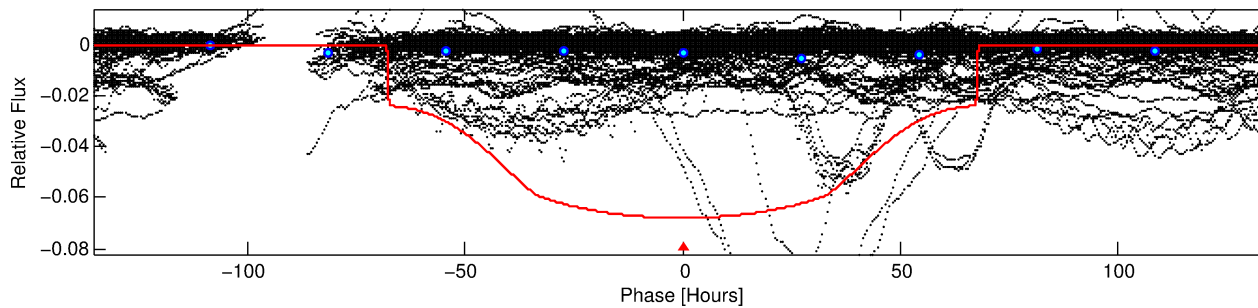
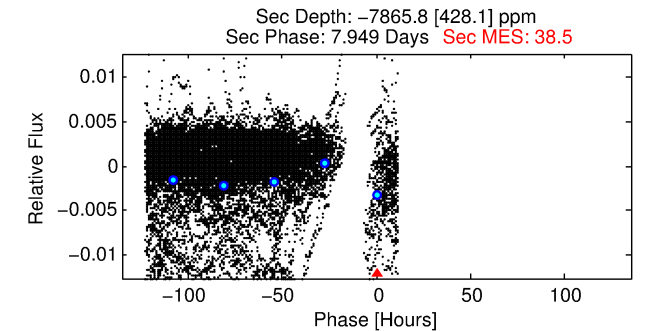
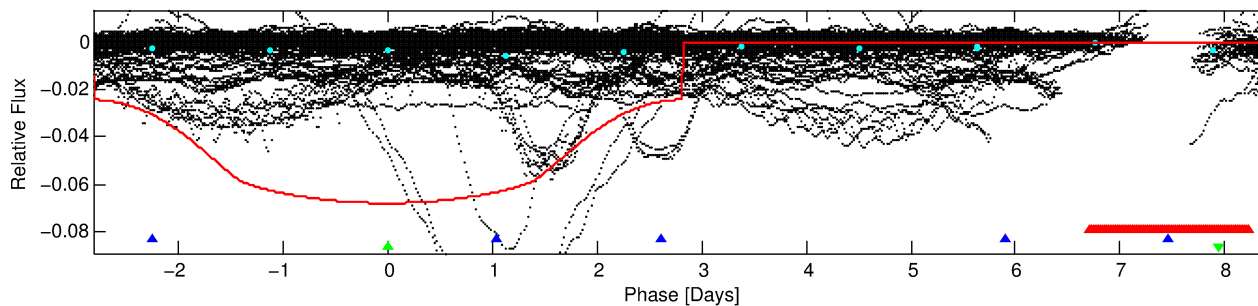
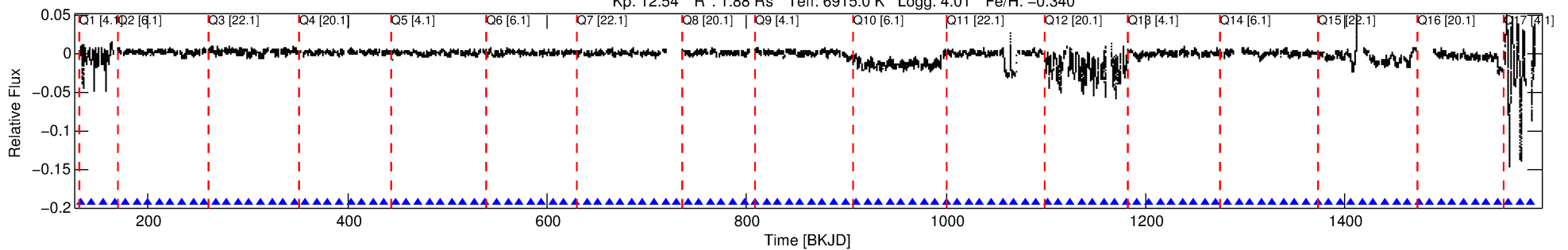
Ephemeris Match Information For 004245897-03

No Significant Match Found

DV One-Page Summary

KIC: 4245897 Candidate: 3 of 3 Period: 11.270 d
KOI: K06395 Corr: No Ephemeris Match

Kp: 12.54 R*: 1.88 Rs Teff: 6915.0 K Logg: 4.01 Fe/H: -0.340



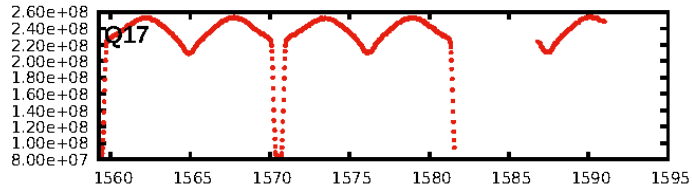
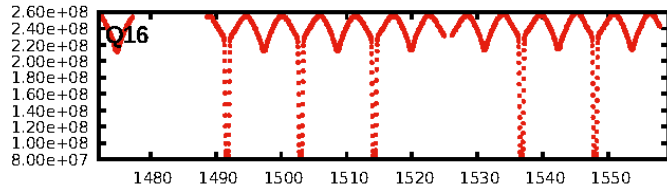
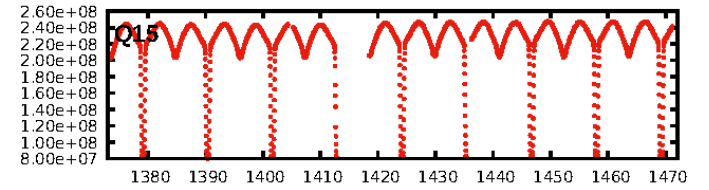
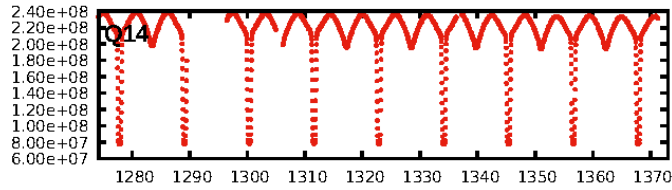
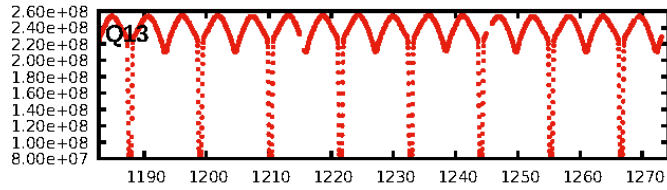
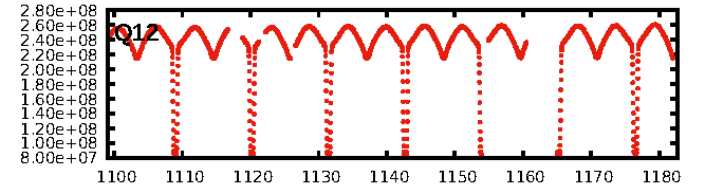
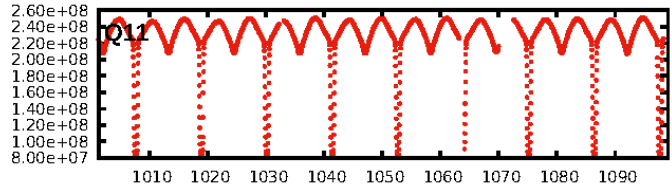
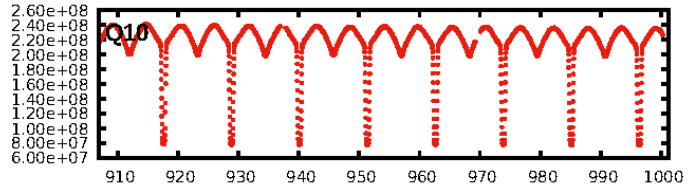
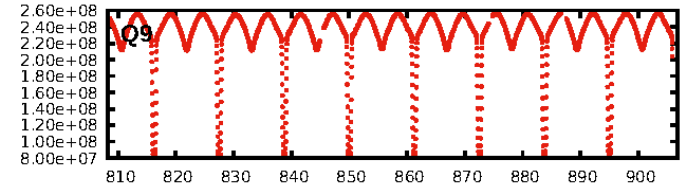
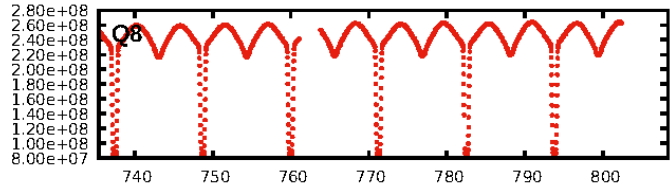
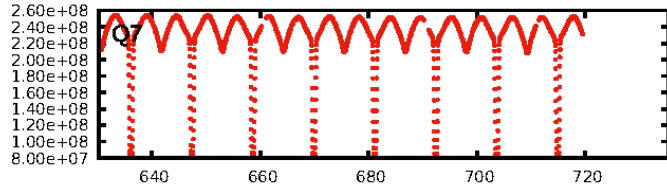
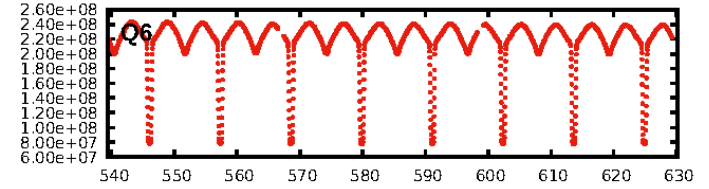
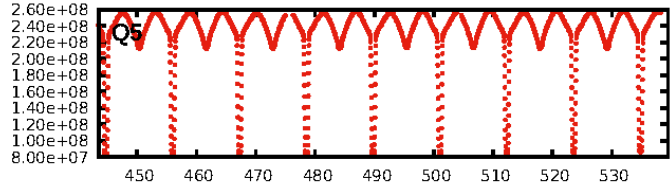
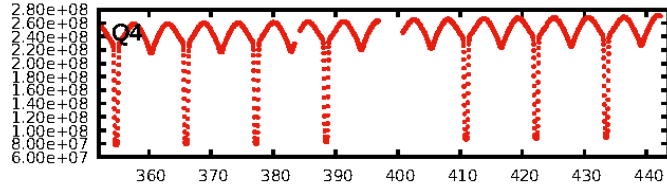
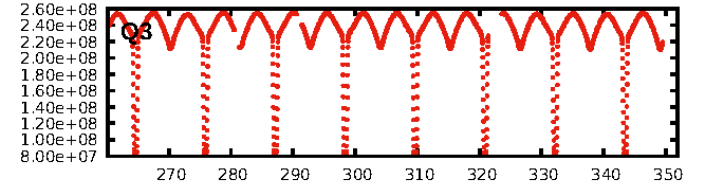
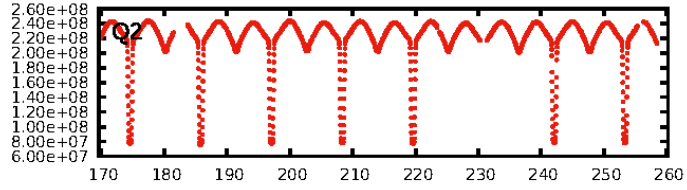
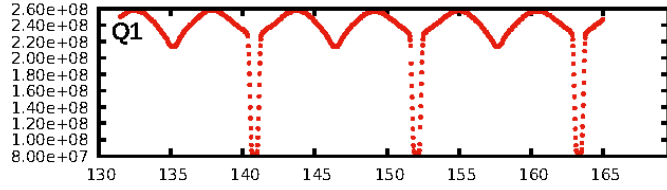
DV Fit Results:

Period = 11.26986 [0.00000] d
Epoch = 132.5598 [0.0002] BKJD
Rp/R* = 0.2461 [0.0005]
a/R* = 1.00 [0.00]
b = 0.41 [0.01]
Seff = 618.74 [327.27]
Teq = 1272 [168] K
Rp = 50.36 [17.14] Re
a = 0.1079 [0.0341] AU
Ag = N/A
Teffp = N/A

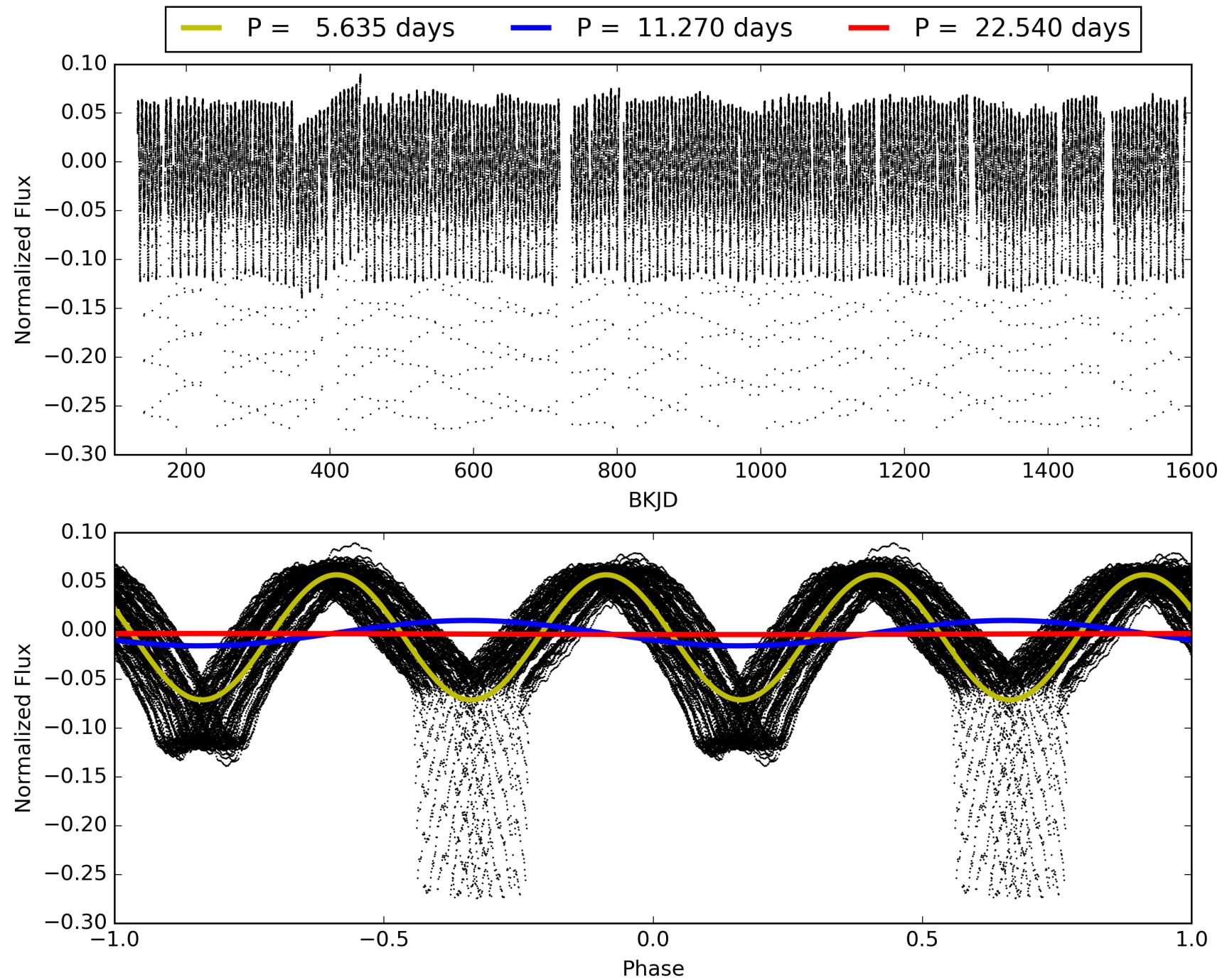
DV Diagnostic Results:

ShortPeriod-sig: 0.2% [0.00σ]
LongPeriod-sig: 100.0% [50.79σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [120/120]
GhostDiagnostic-chr: 0.2887
Centroid-sig: N/A
Centroid-so: 0.086 arcsec [57.87σ]
OotOffset-rm: 0.044 arcsec [0.17σ]
KicOffset-rm: 0.154 arcsec [0.69σ]
OotOffset-st: 4/4/3/5 [16]
KicOffset-st: 4/4/3/5 [16]
DiffImageQuality-figm: 0.00 [0/16]
DiffImageOverlap-fno: 0.00 [0/16]

TCE 004245897-03, PDC Light Curves

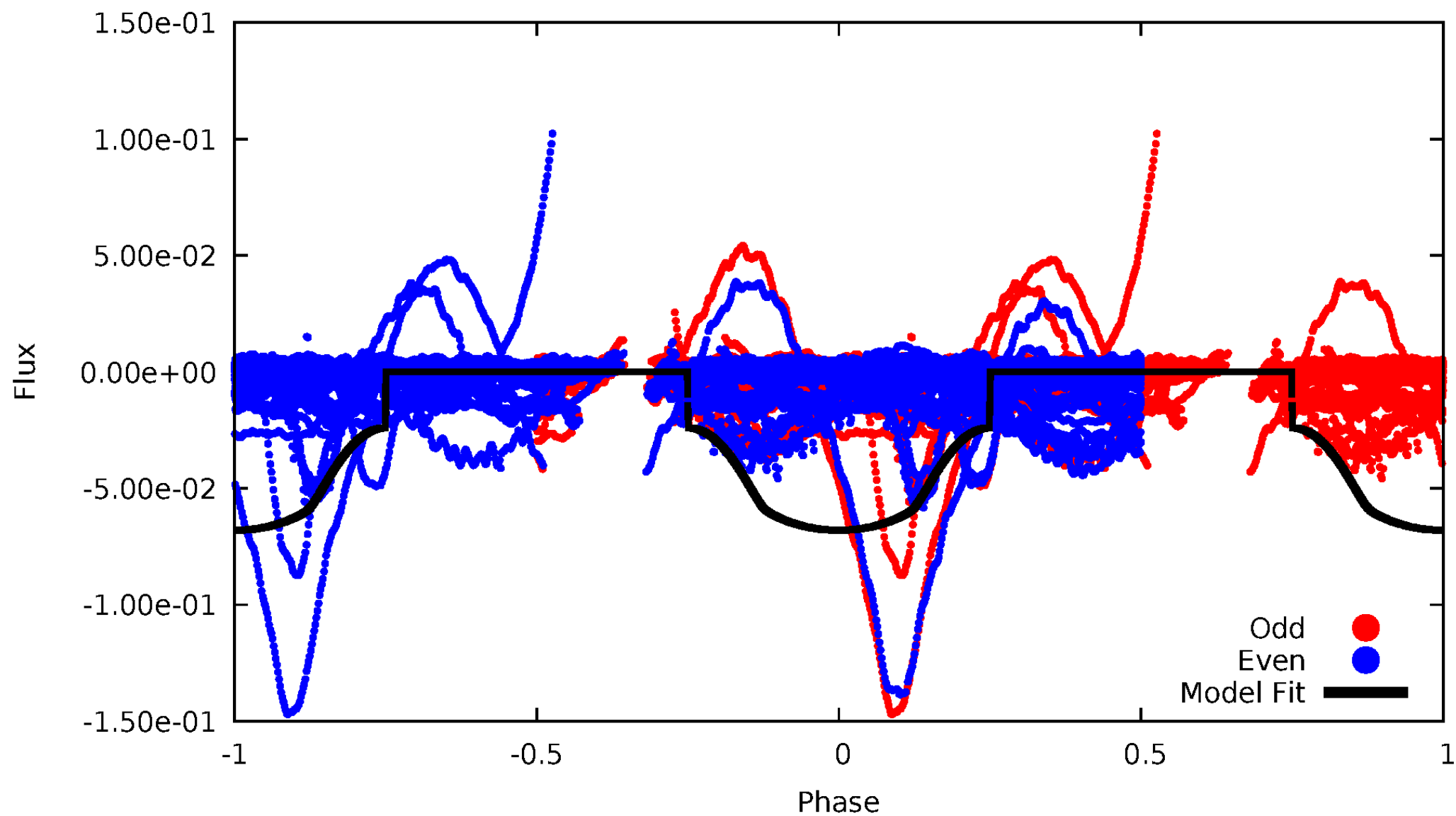


TCE 004245897-03



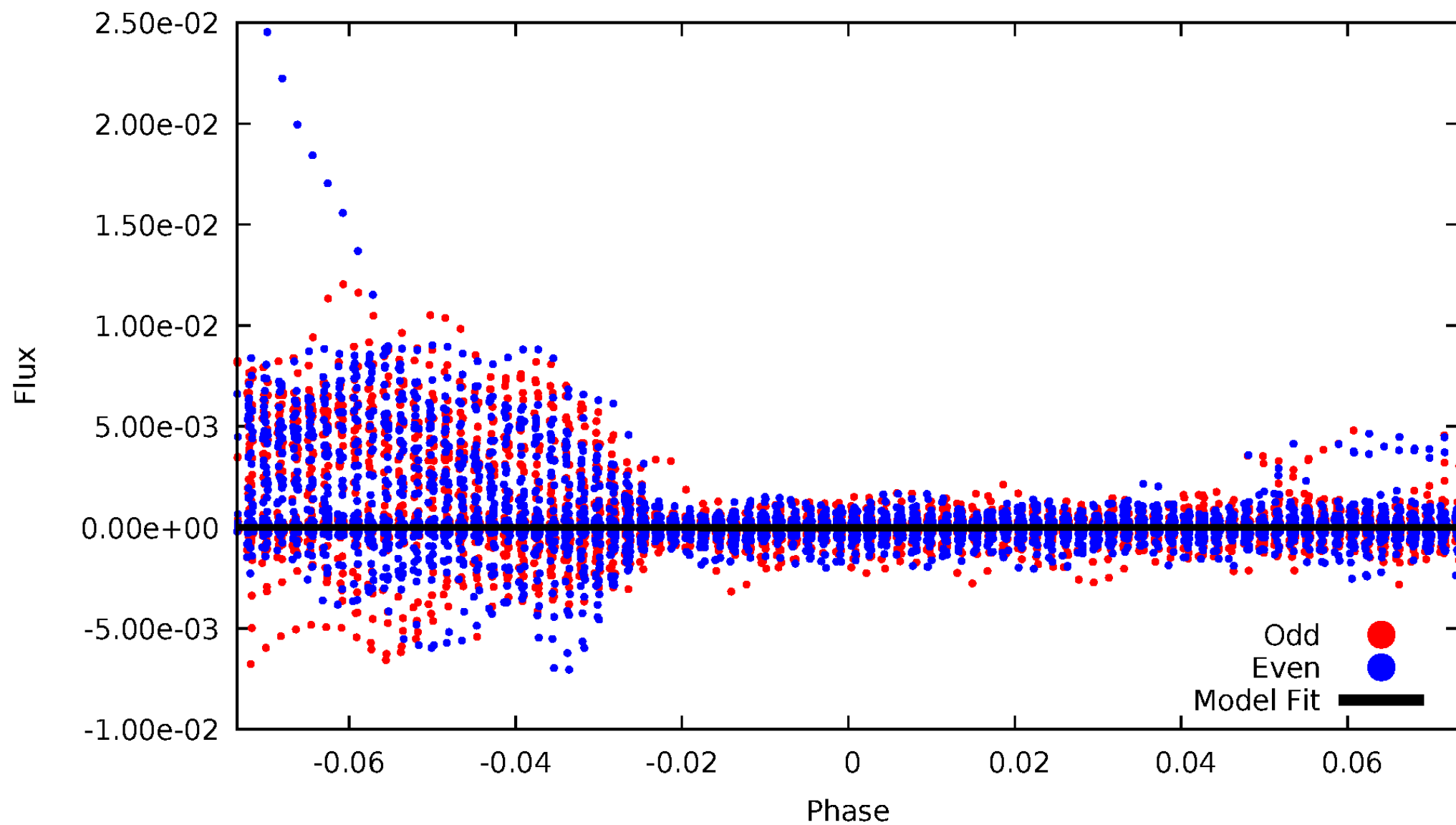
DV Odd/Even

TCE 004245897-03



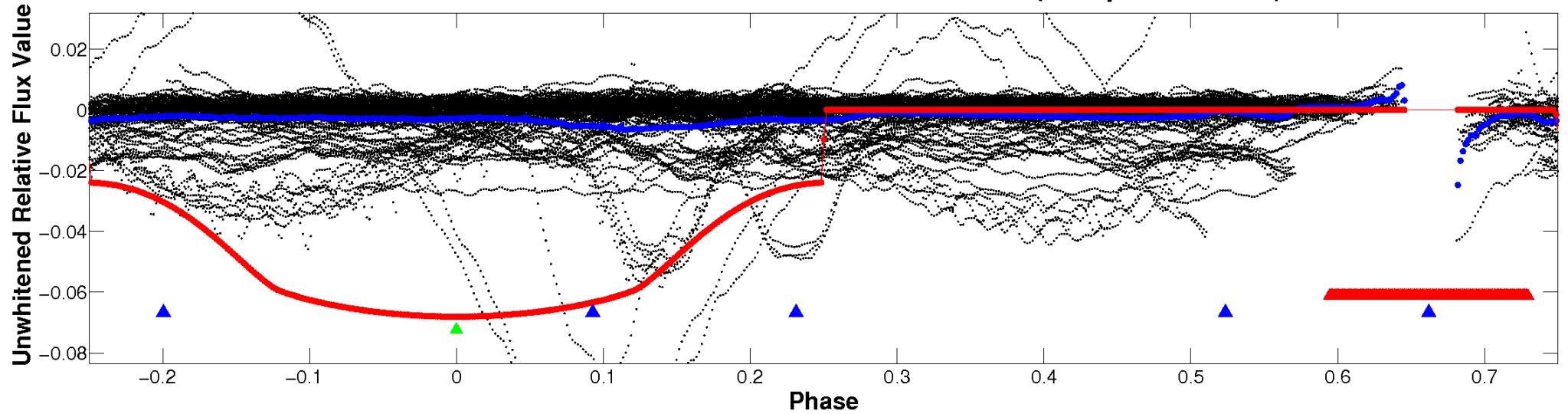
ALT Odd/Even

TCE 004245897-03

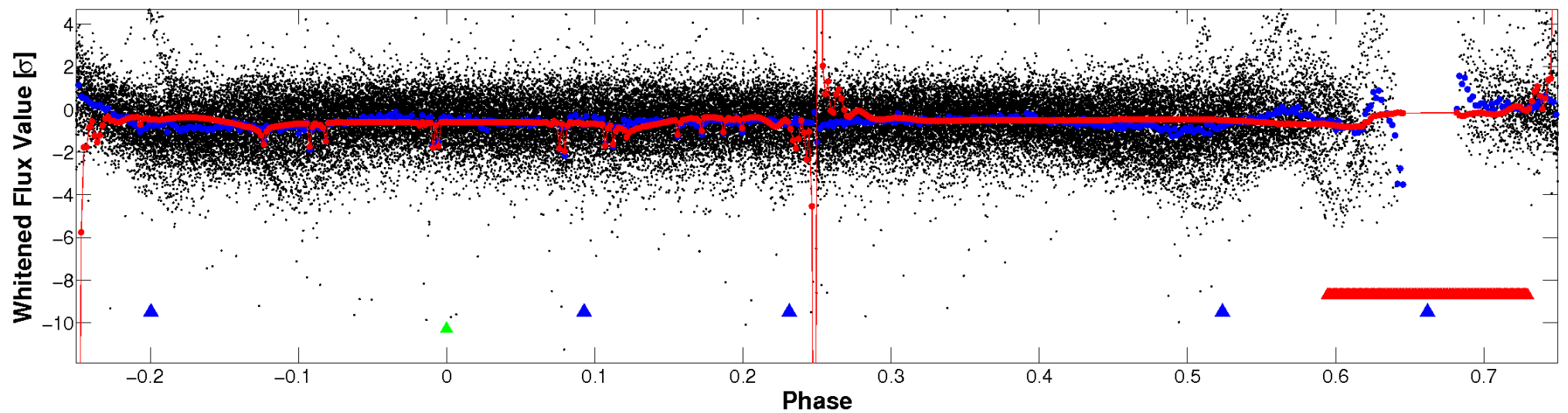


Non-Whitened Vs. Whitened Light Curve

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

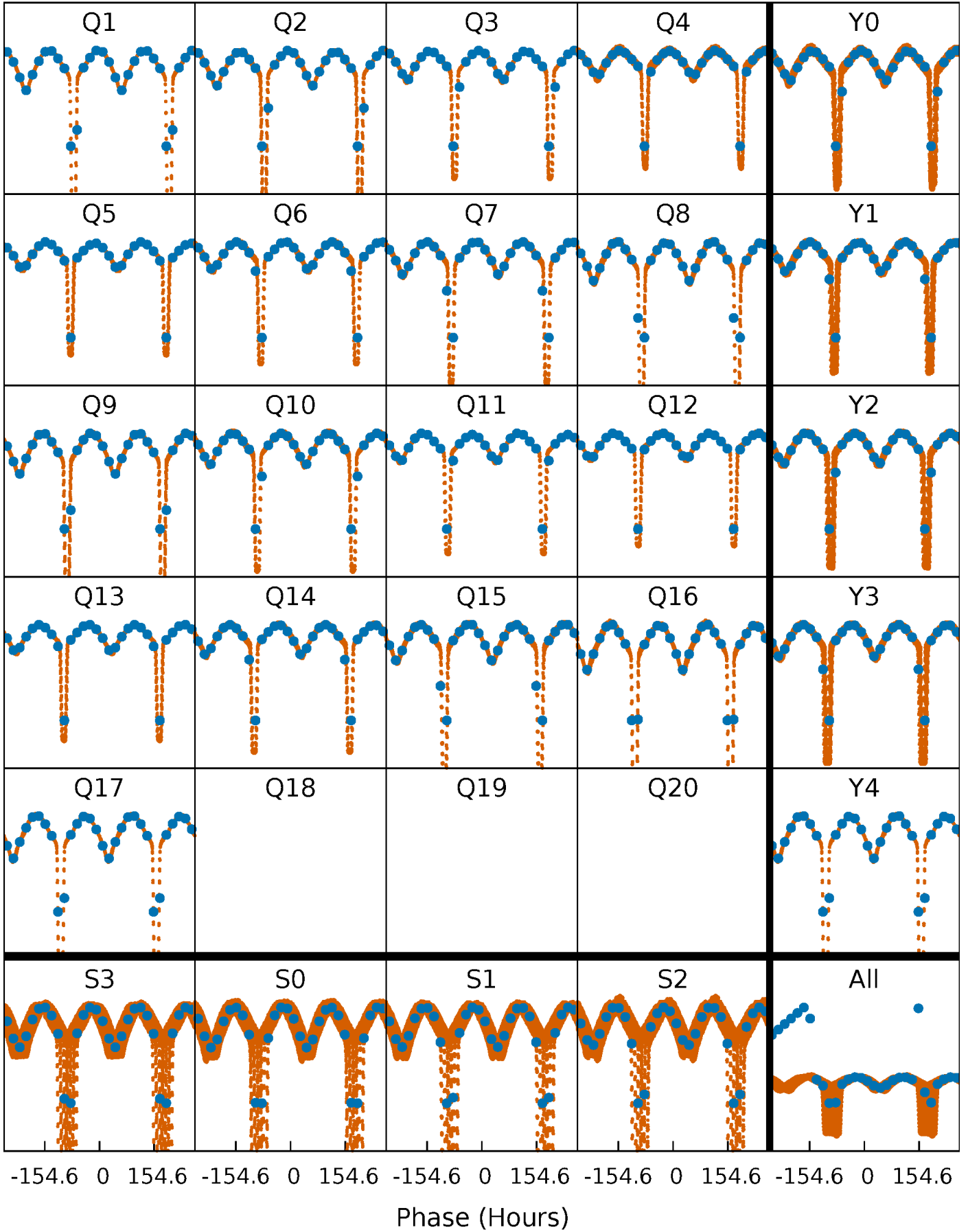


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



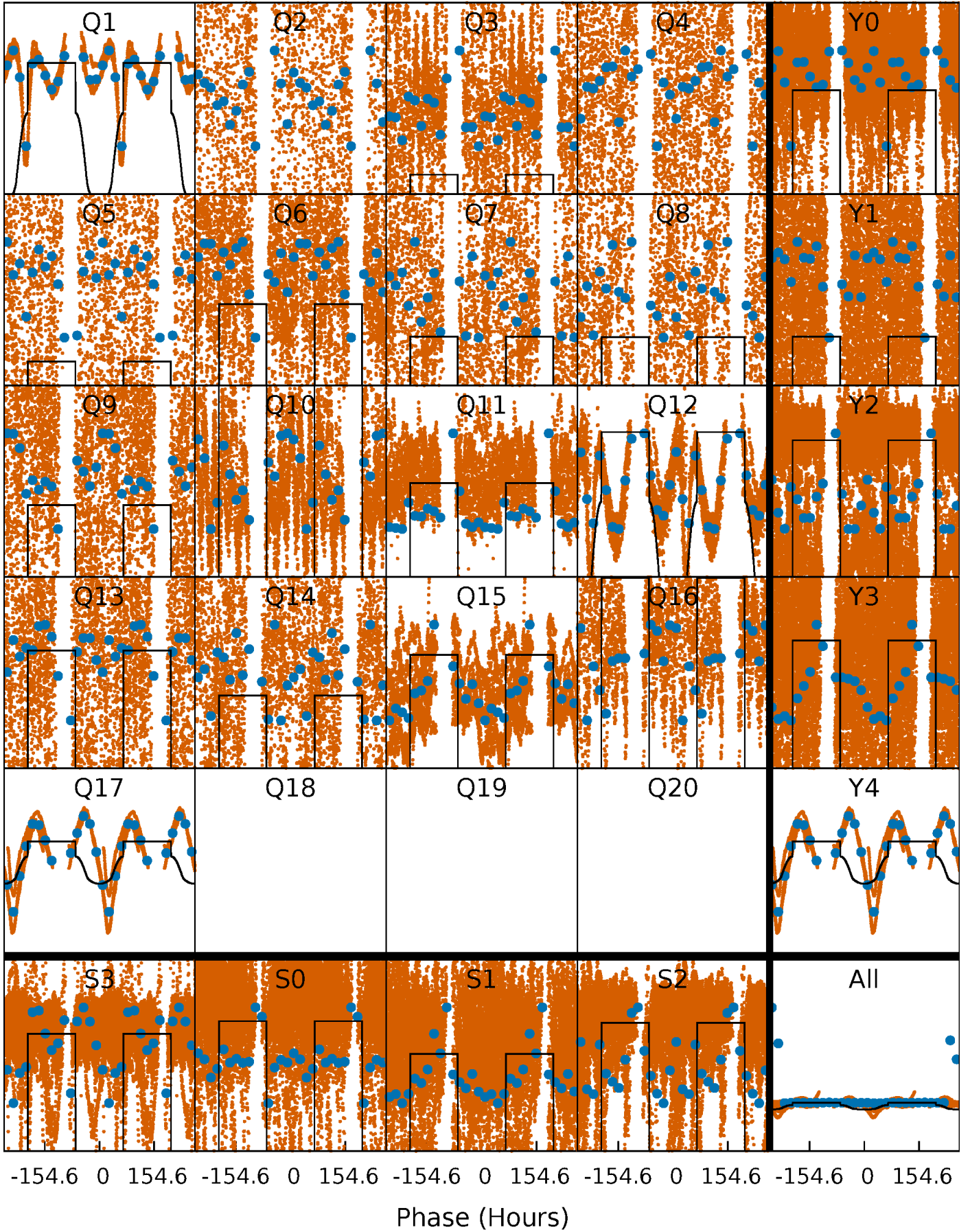
PDC Quarter-Phased Transit Curves

TCE 004245897-03 P= 11.269861 Days $T_0=132.559756$ (BKJD)



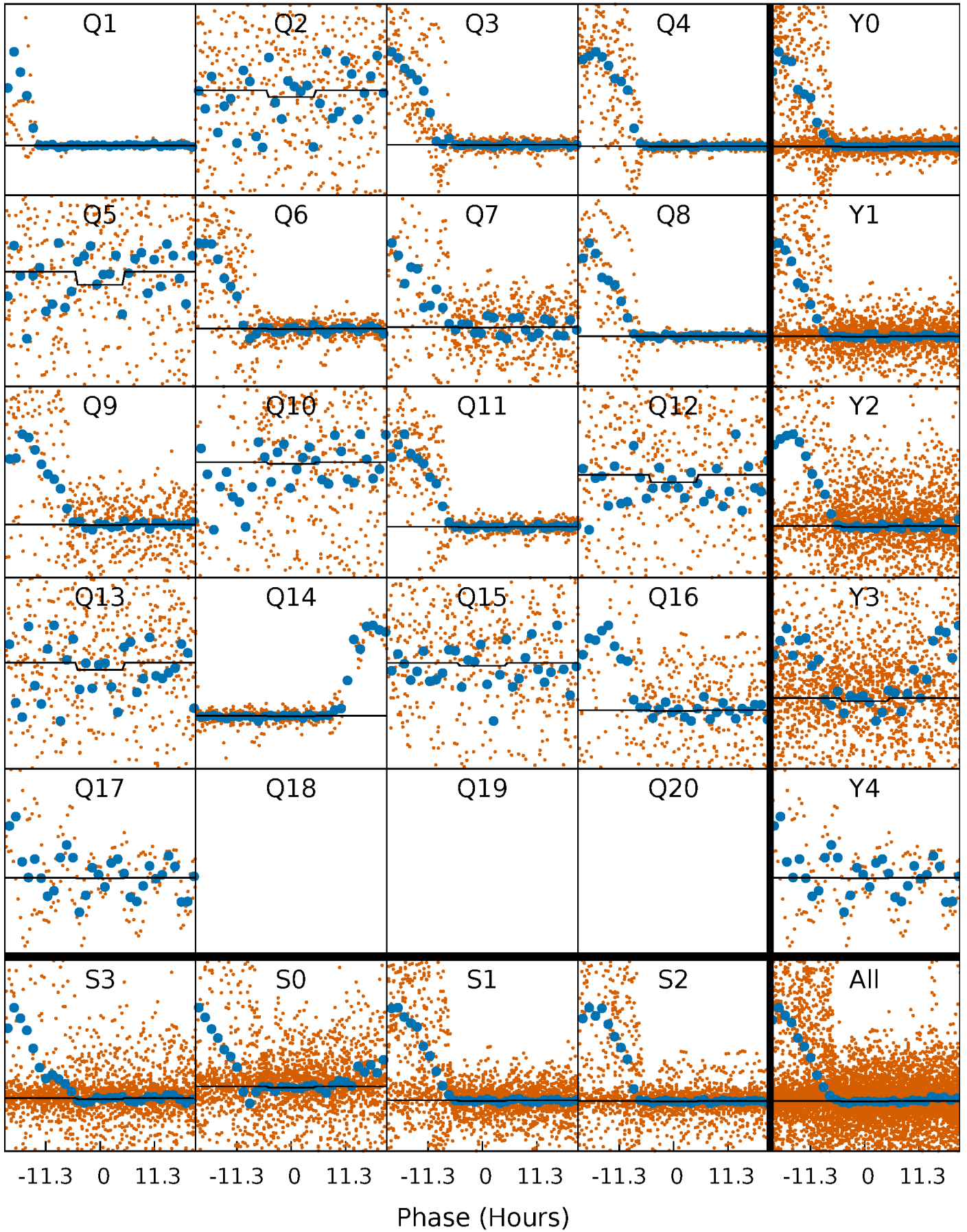
DV Quarter-Phased Transit Curves

TCE 004245897-03 P= 11.269861 Days $T_0=132.559756$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

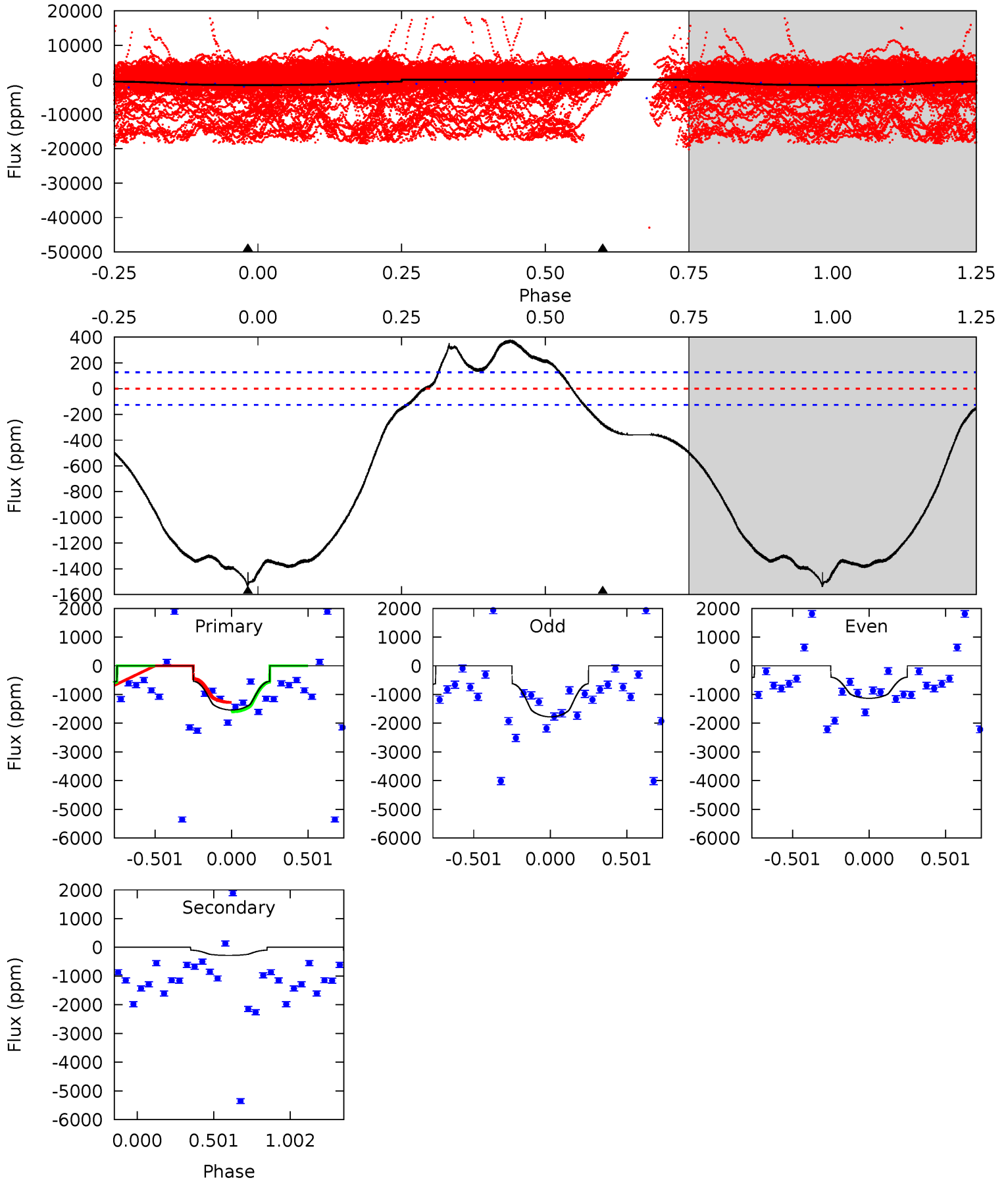
TCE 004245897-03 P= 11.258937 Days $T_0=132.401211$ (BKJD)



DV Model-Shift Uniqueness Test

004245897-03, P = 11.269861 Days, E = 121.289895 Days

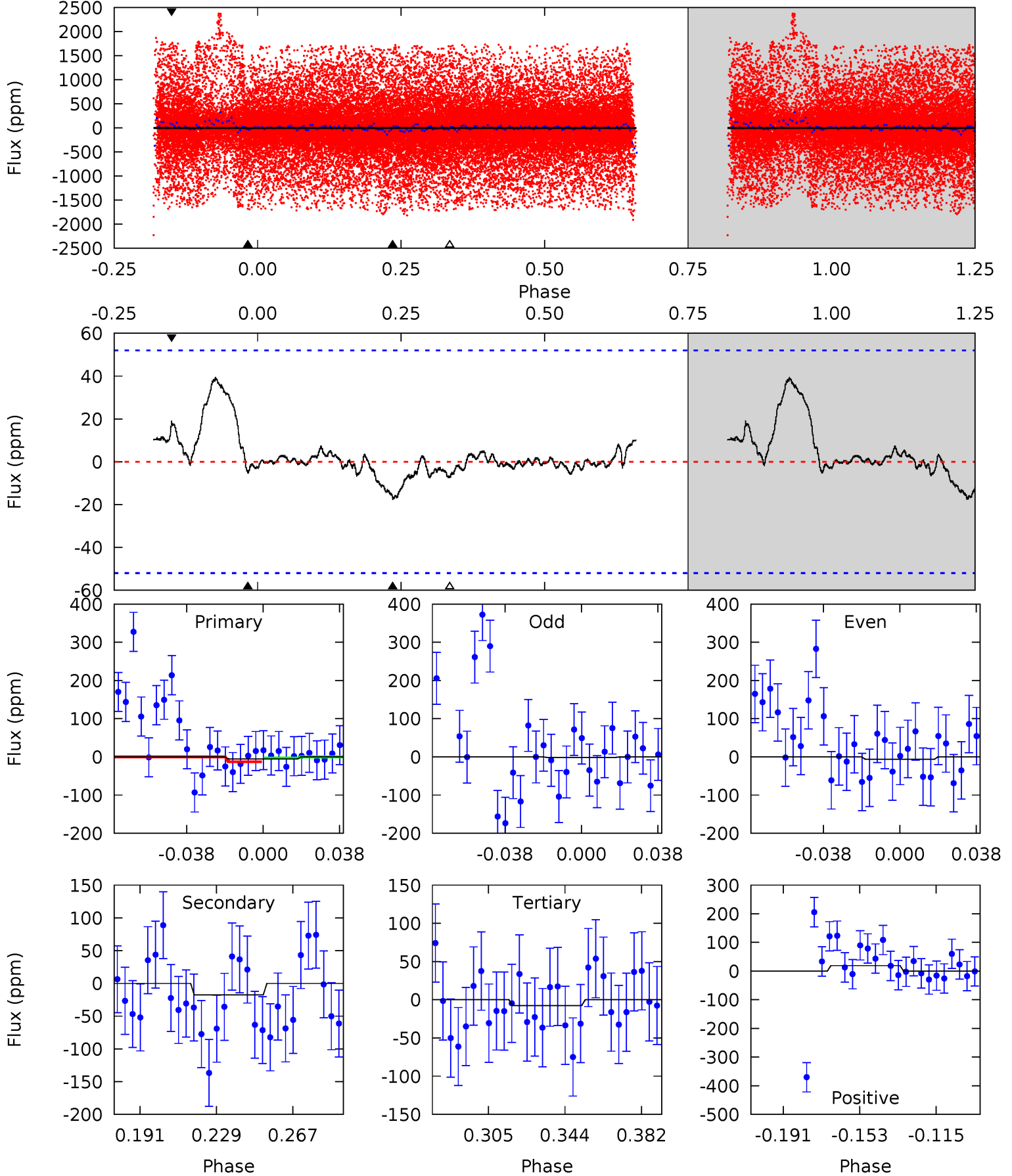
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
51.3	9.36	0	0	4.21	0.67	4.63	51.3	51.3	9.36	9.36	11.0	-22.0	0.20	5.18



Alt Model-Shift Uniqueness Test

004245897-03, P = 11.258937 Days, E = 121.142274 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0.49	1.60	0.70	1.76	4.76	2.07	0.68	-0.20	-1.27	0.91	-0.16	0.22	1.30	0.69	0.46



Stellar Parameters For KIC 004245897

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6915^{+217}_{-326}	$4.012^{+0.286}_{-0.154}$	$-0.340^{+0.300}_{-0.300}$	$1.875^{+0.522}_{-0.638}$	$1.322^{+0.195}_{-0.238}$	$0.282^{+0.562}_{-0.126}$
	+3%/-5%	+7%/-4%	+88%/-88%	+28%/-34%	+15%/-18%	+199%/-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 004245897-03 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-281 ± 30	$49.79^{+7.37}_{-8.85}$	1740^{+155}_{-164}	2433^{+84}_{-100}	$0.732^{+0.325}_{-0.189}$
Alt.	-17 ± 11	$0.83^{+0.19}_{-0.16}$	1743^{+138}_{-154}	6793^{+1342}_{-1536}	158^{+155}_{-103}

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

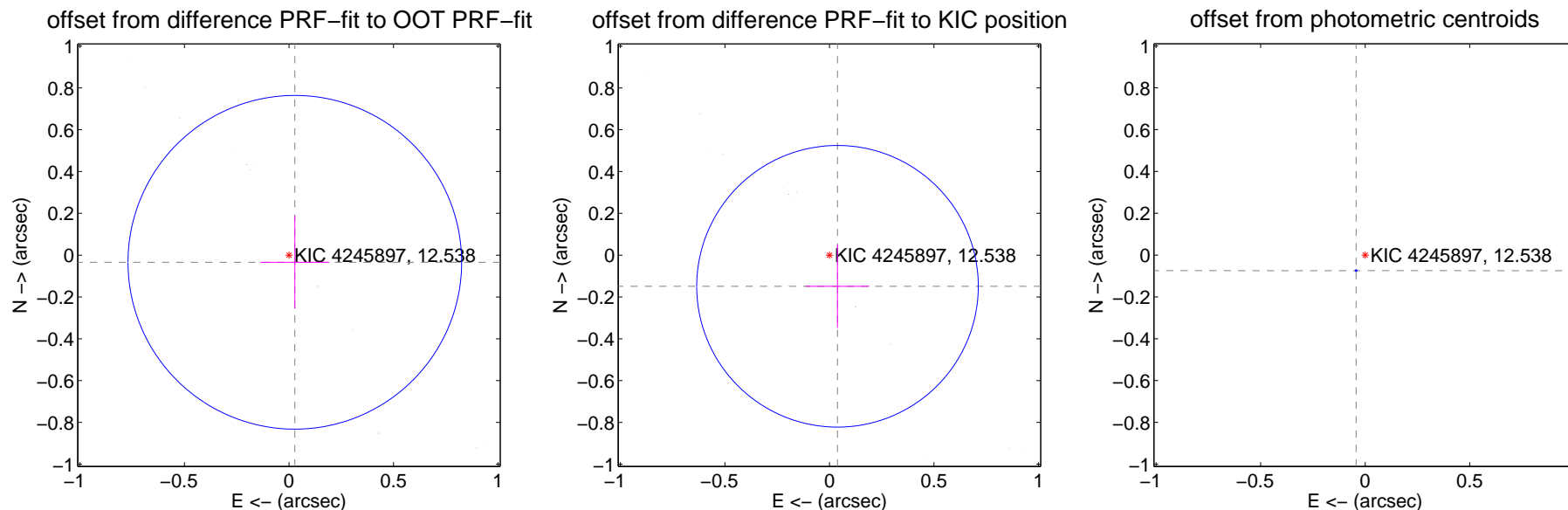
DV Centroid Data

Supplemental centroid analysis for 004245897-03. Kepler magnitude: 12.54. Transit SNR 256.59

There are 0 quarters with good PRF difference image offsets

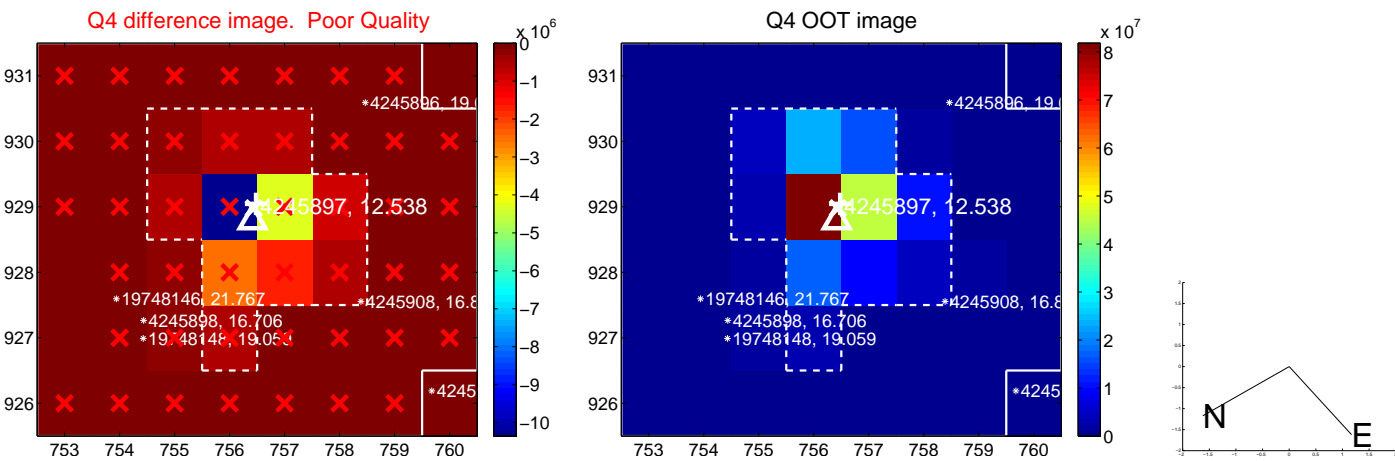
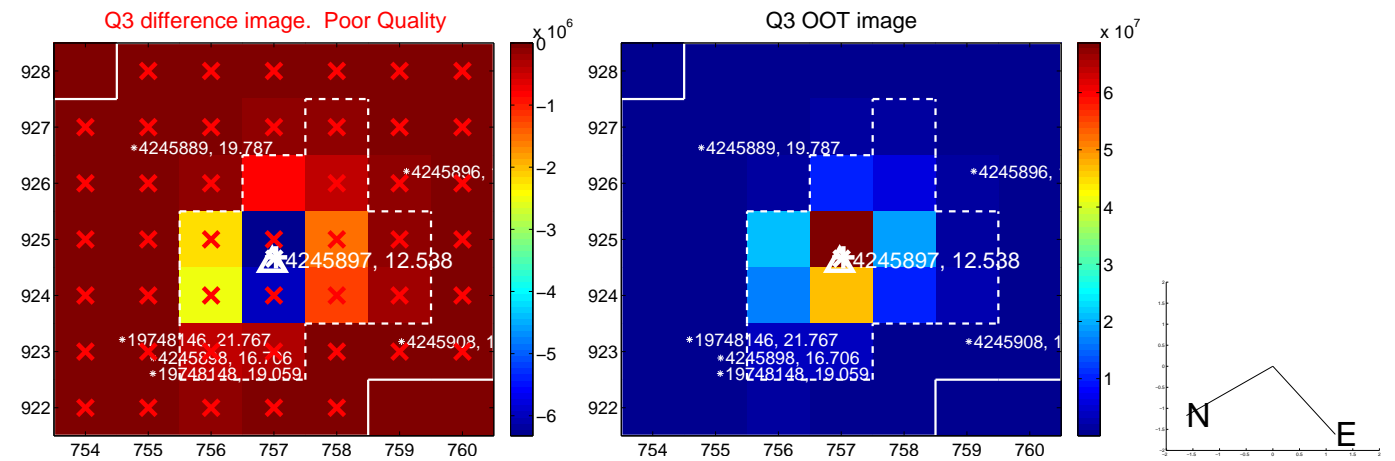
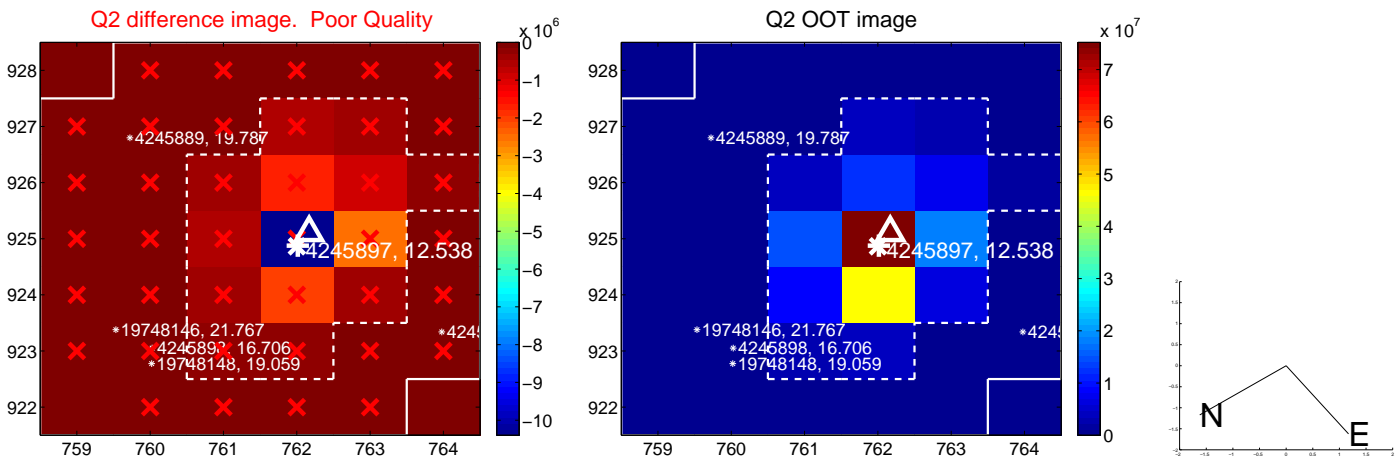
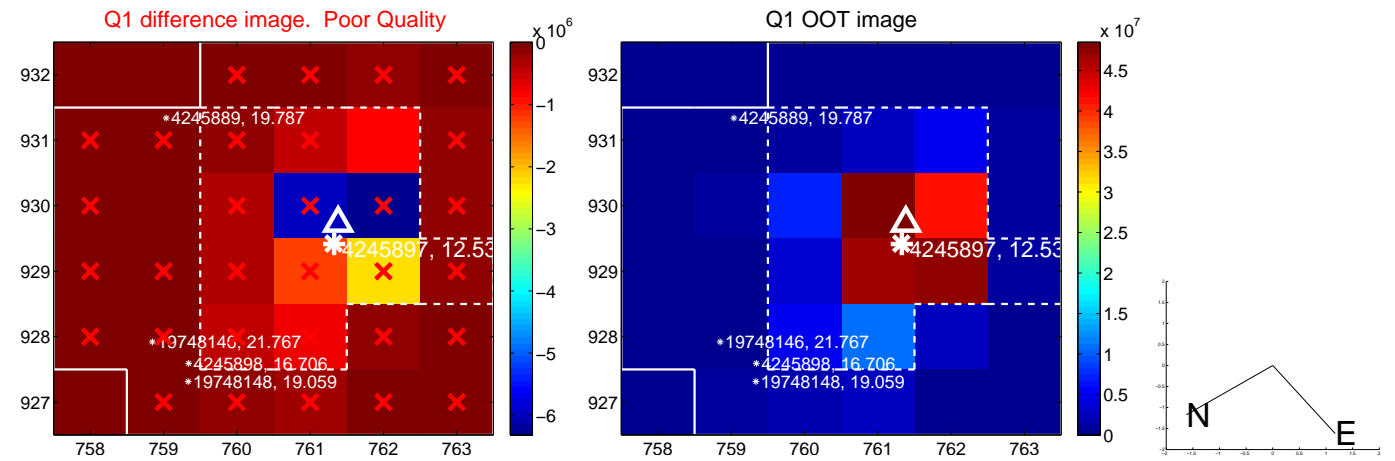
The direct PRF centroid is offset from the target star catalog position by about 0.17 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.044 ± 0.266	0.17	-0.028 ± 0.166	-0.034 ± 0.222
PRF-fit source offset from KIC position	0.154 ± 0.225	0.69	-0.039 ± 0.152	-0.149 ± 0.199
photometric centroid source offset	0.09 ± 0.00	57.87	0.04 ± 0.00	-0.07 ± 0.00

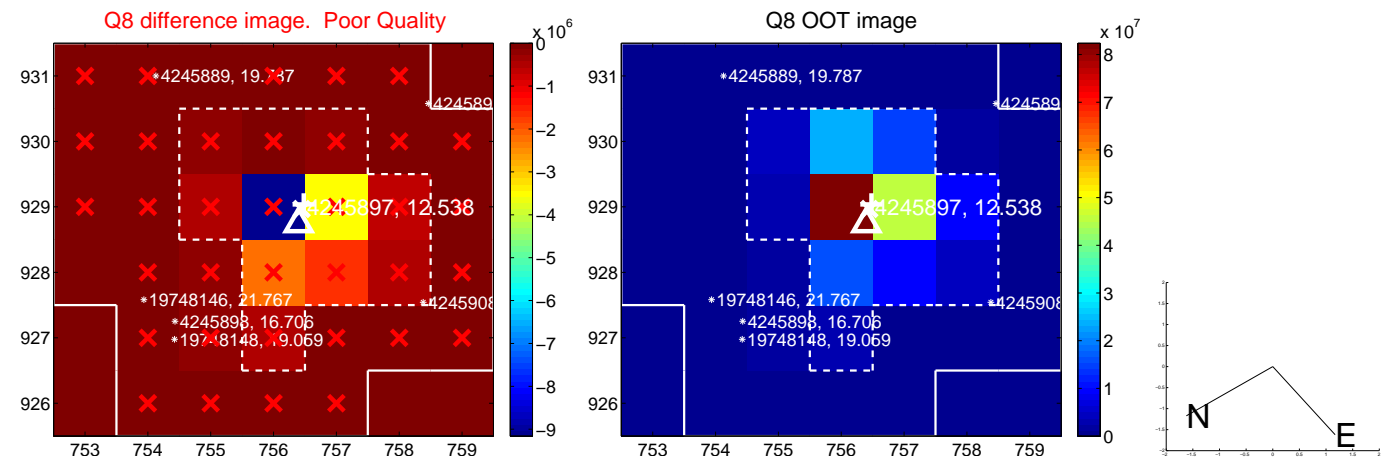
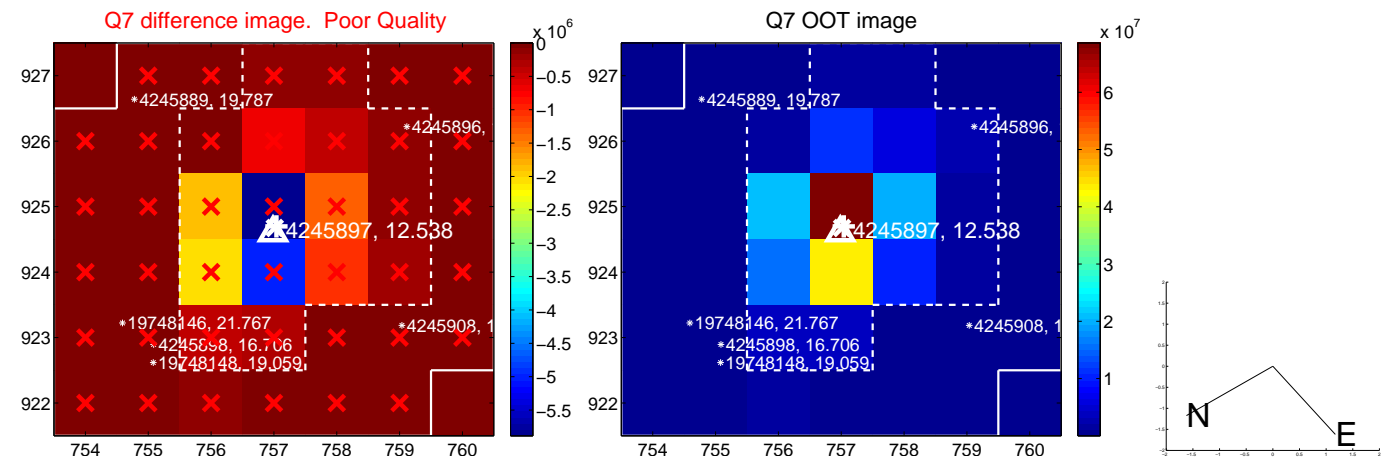
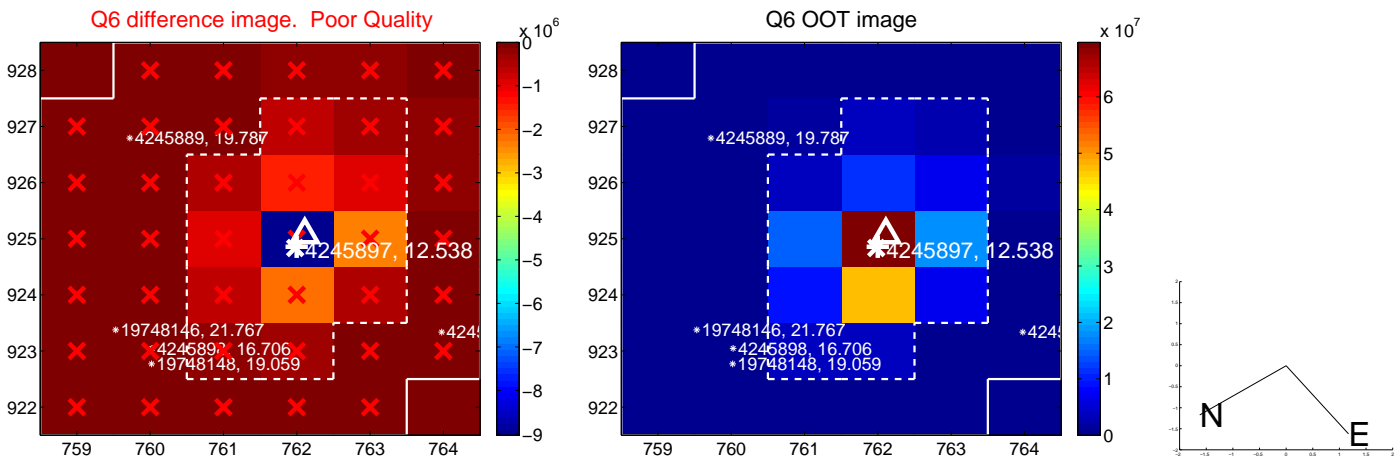
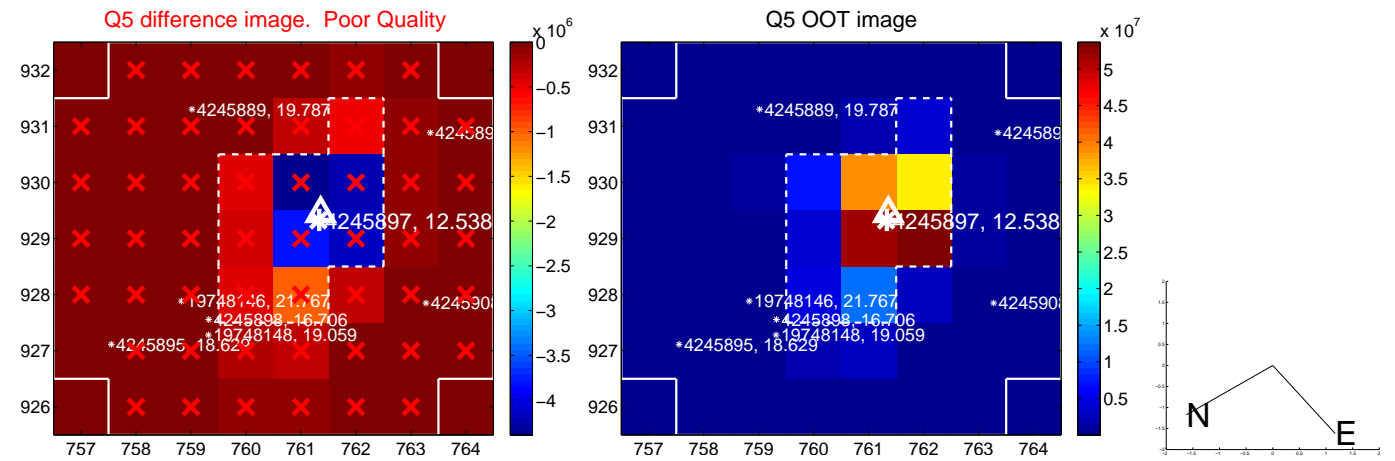


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

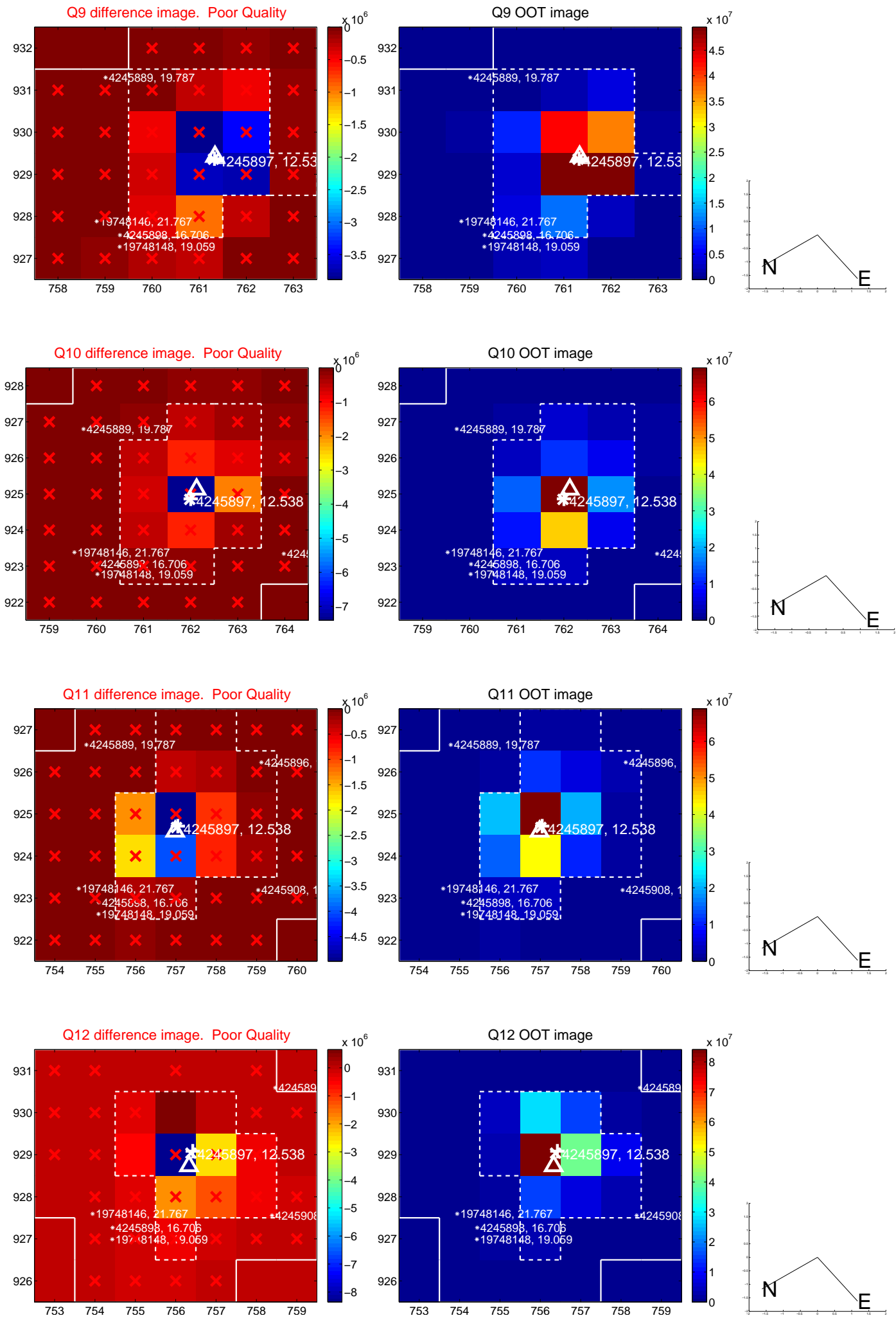
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



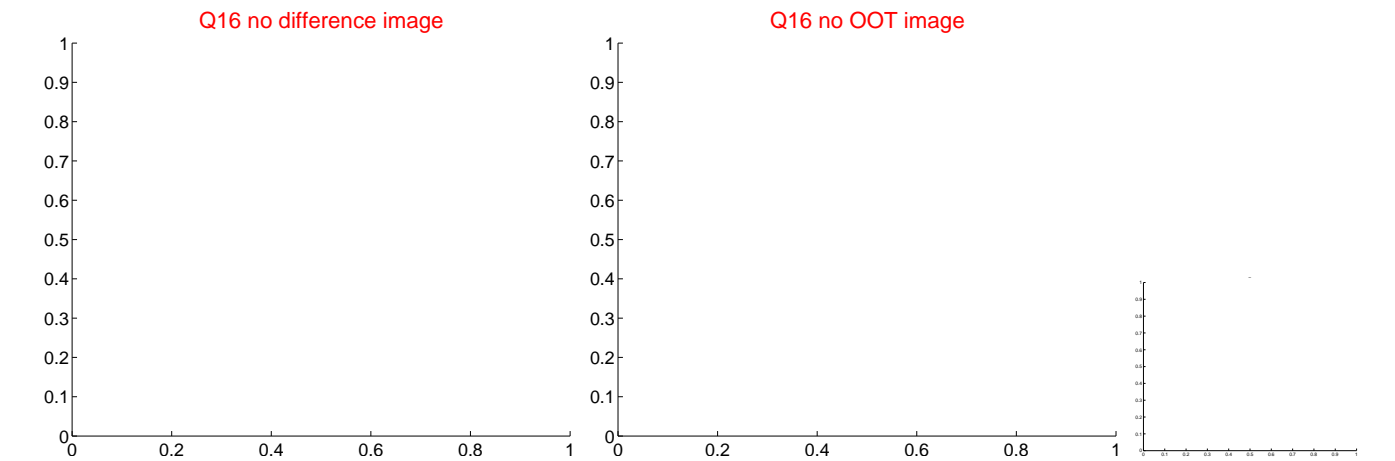
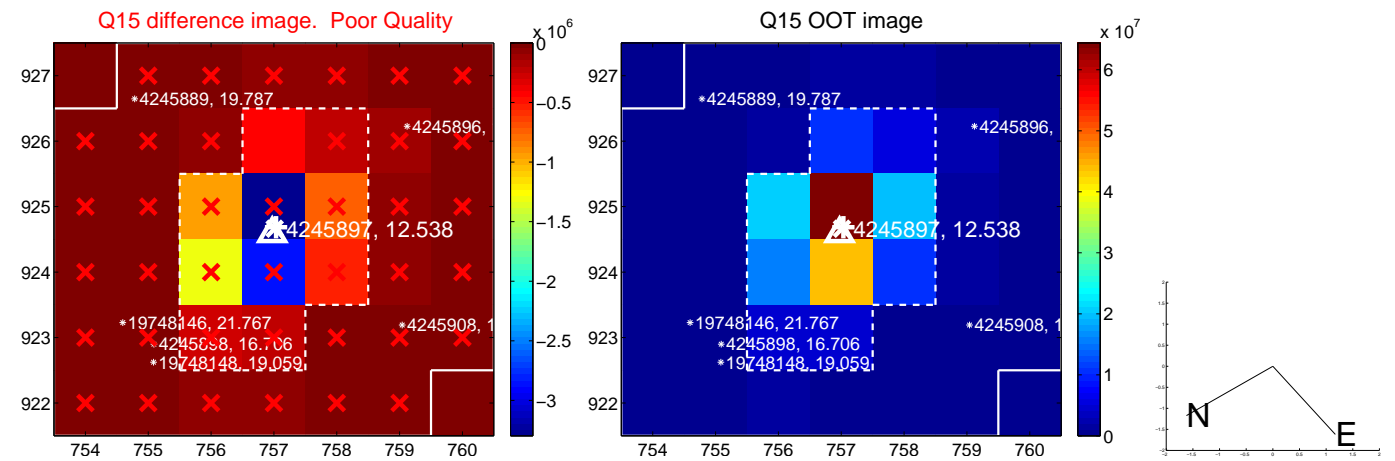
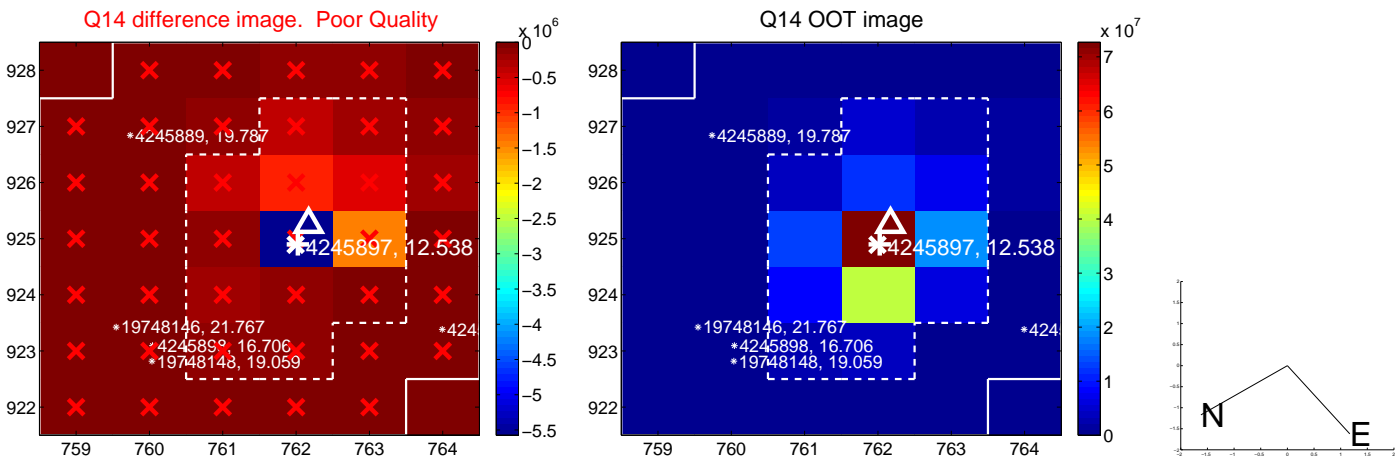
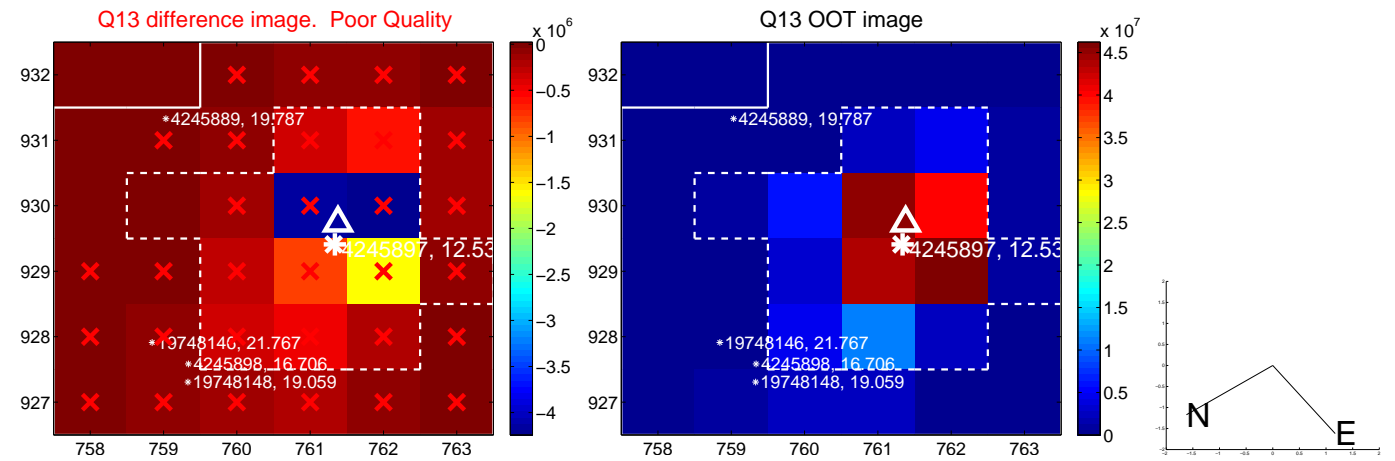
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



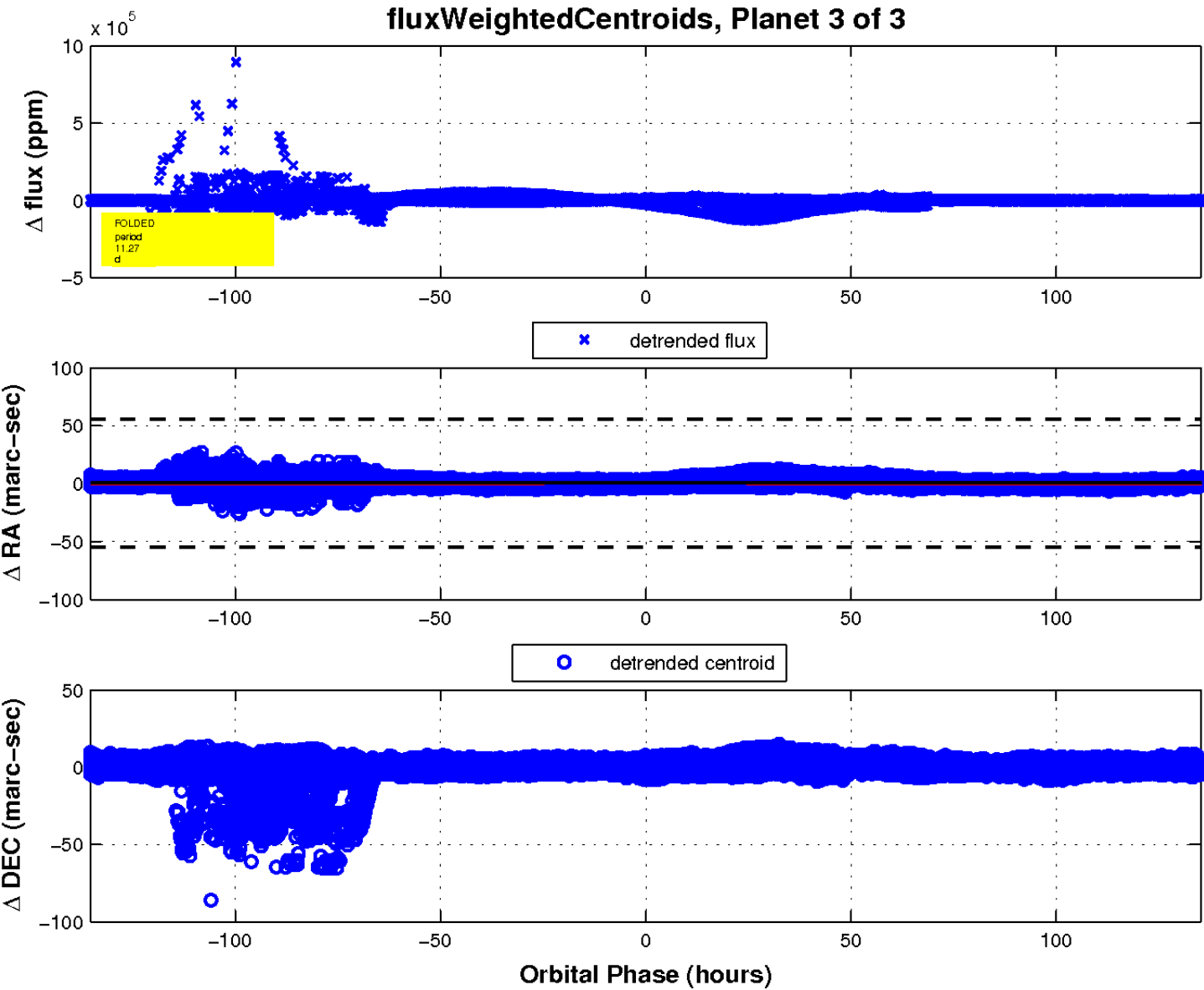
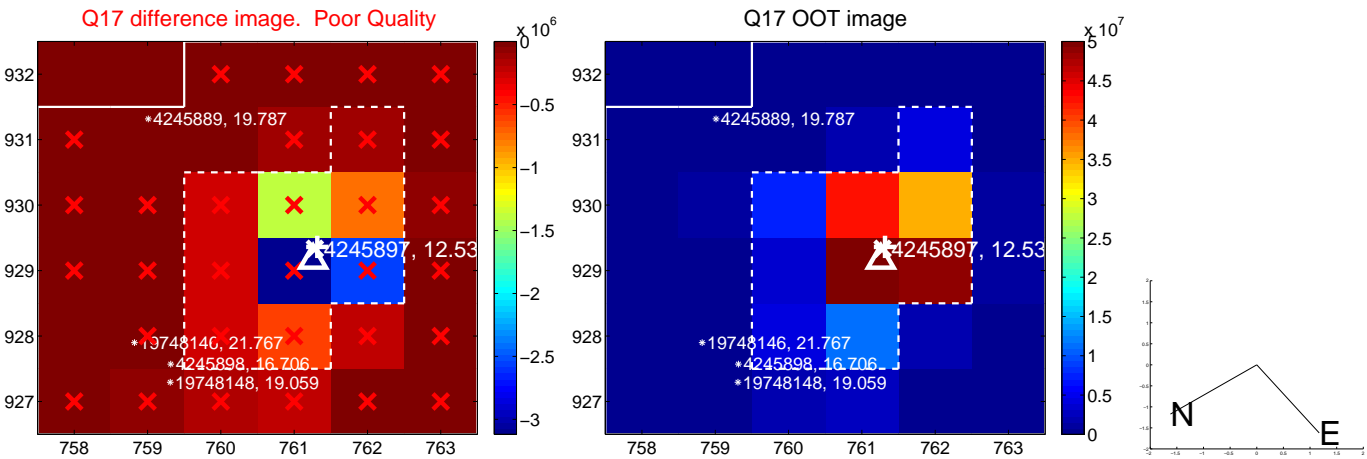
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

