

KIC 009576197

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})
009576197-01	OBS	6207.01	7.964434	136.195153	69115.1	9.133	1433.2	1640.4	0.74	5250	19.05	76.90
009576197-02	OBS	No	7.964449	132.191293	6768.7	8.774	249.2	249.2	0.74	5250	6.42	76.90
009576197-03	OBS	No	165.187252	171.709243	841.0	2.119	22.9	6.5	0.74	5250	2.27	1.35
009576197-04	OBS	No	384.551494	392.158465	540.1	2.081	19.0	2.9	0.74	5250	1.86	0.44
009576197-05	OBS	No	384.481376	392.049039	4054.0	22.580	18.2	7.1	0.74	5250	5.66	0.44

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009576197-01	OBS	FP	0.00	0	1	0	0	MOD_SEC_DV—MOD_SEC_ALT—MOD_ODDEVEN_ALT—HAS_SEC_TCE
009576197-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE
009576197-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_SKYE_TRACKER—LPP_DV—LPP_ALT—INCONSISTENT_TRANS
009576197-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_SKYE_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_FEW_MEAS
009576197-05	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—SAME_NTL_PERIOD—CENT_FEW_DIFFS—HALO_GHOST

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

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

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

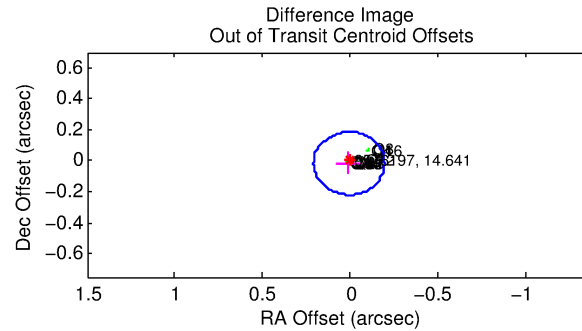
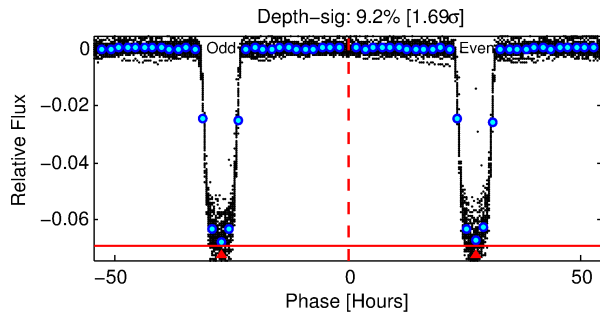
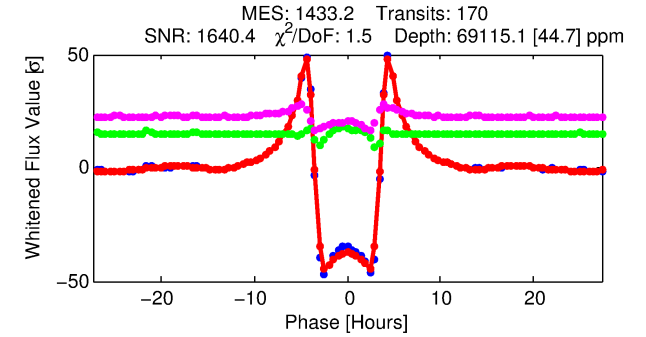
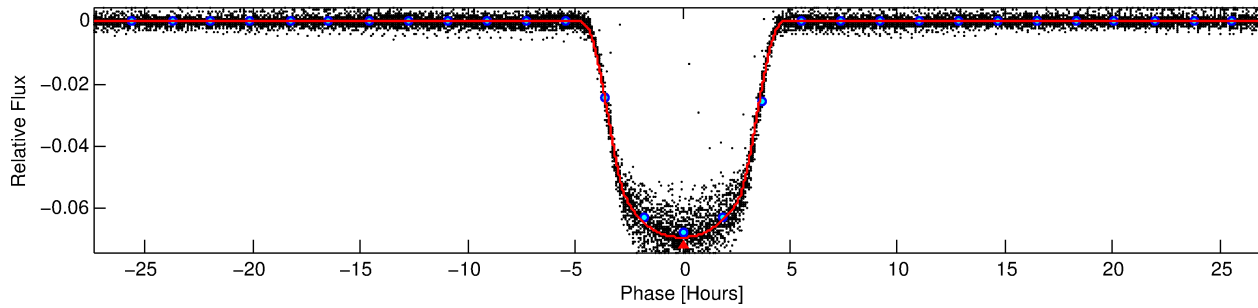
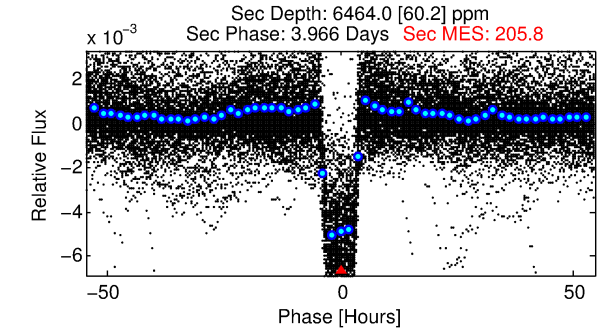
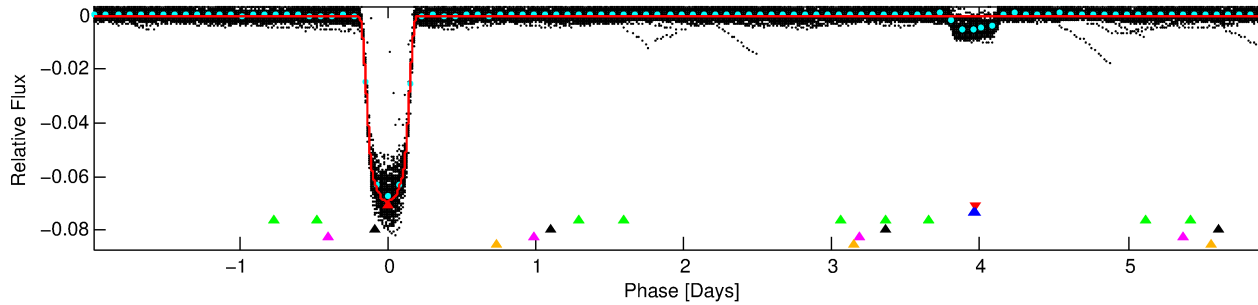
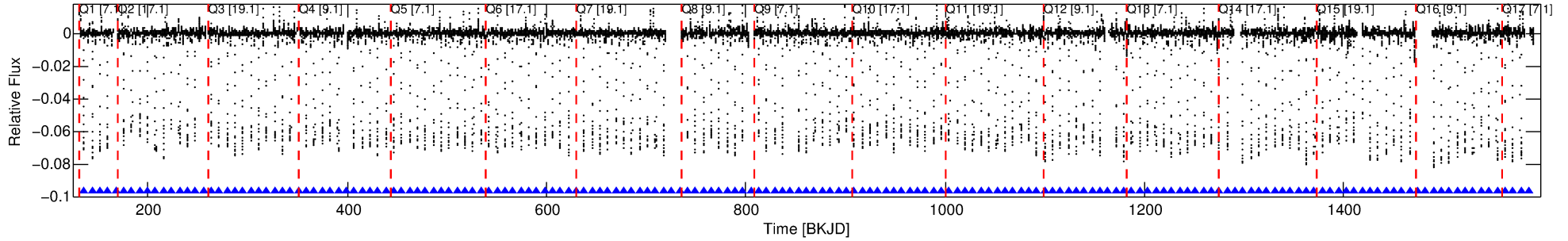
Ephemeris Match Information For 009576197-01

No Significant Match Found

DV One-Page Summary

KIC: 9576197 Candidate: 1 of 6 Period: 7.964 d
KOI: K06207.01 Corr: 0.995

Kp: 14.64 R*: 0.74 Rs Teff: 5250.0 K Logg: 4.55 Fe/H: -0.480



DV Fit Results:

Period = 7.96443 [0.00000] d
Epoch = 136.1952 [0.0001] BKJD
Rp/R* = 0.2372 [0.0001]
a/R* = 8.27 [0.01]
b = 0.00 [0.68]
Seff = 76.90 [14.77]
Teq = 755 [36] K
Rp = 19.05 [2.17] Re
a = 0.0692 [0.0069] AU
Ag = 46.99 [7.05] [6.52 σ]
Teffp = 3057 [92] K [23.22 σ]

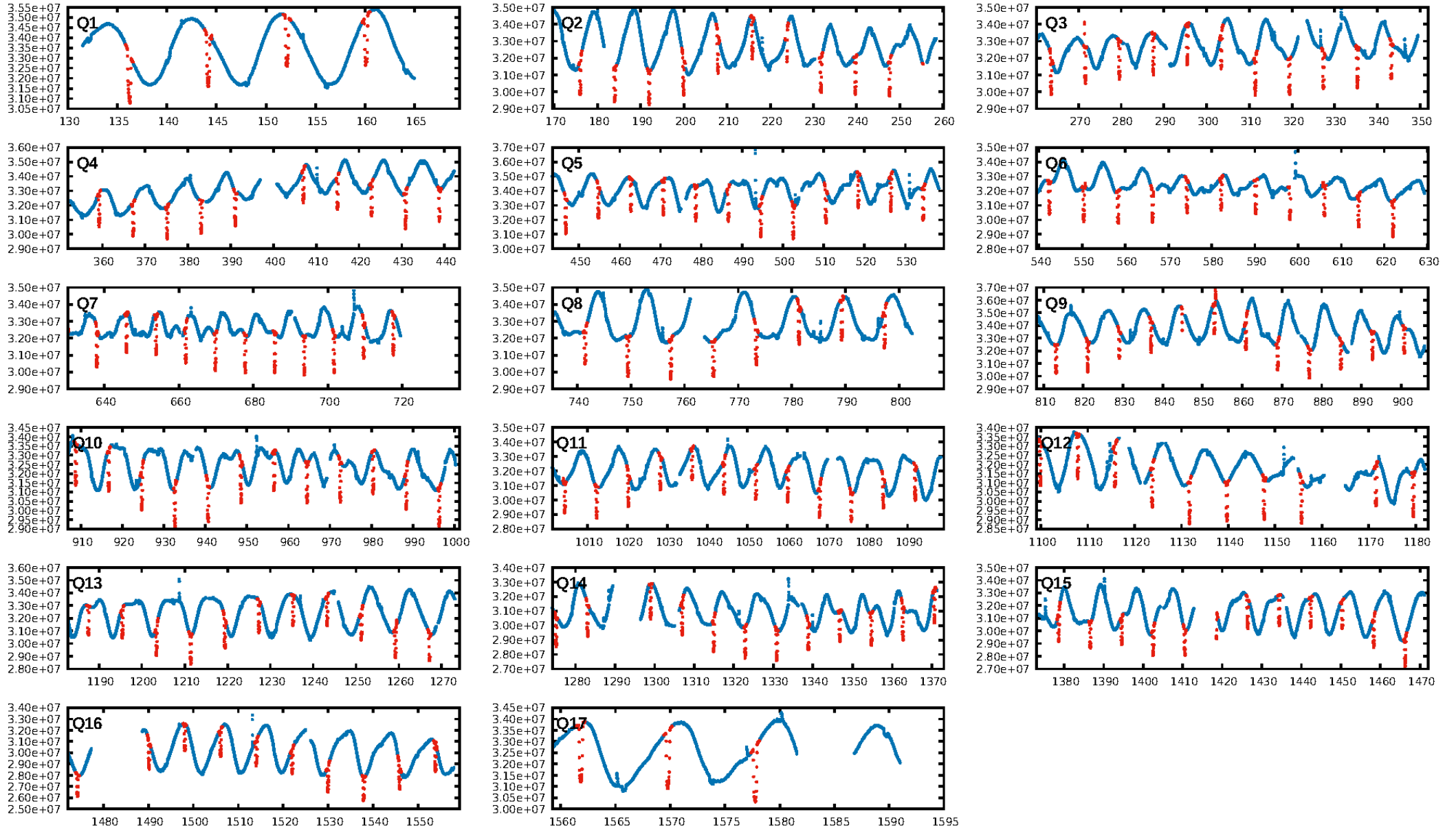
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 0.0% [0.00 σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [163/163]
GhostDiagnostic-chr: 1.075
Centroid-sig: 0.0%
Centroid-so: 0.057 arcsec [39.08 σ]
OotOffset-rm: 0.018 arcsec [0.27 σ]
KicOffset-rm: 0.030 arcsec [0.44 σ]
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]

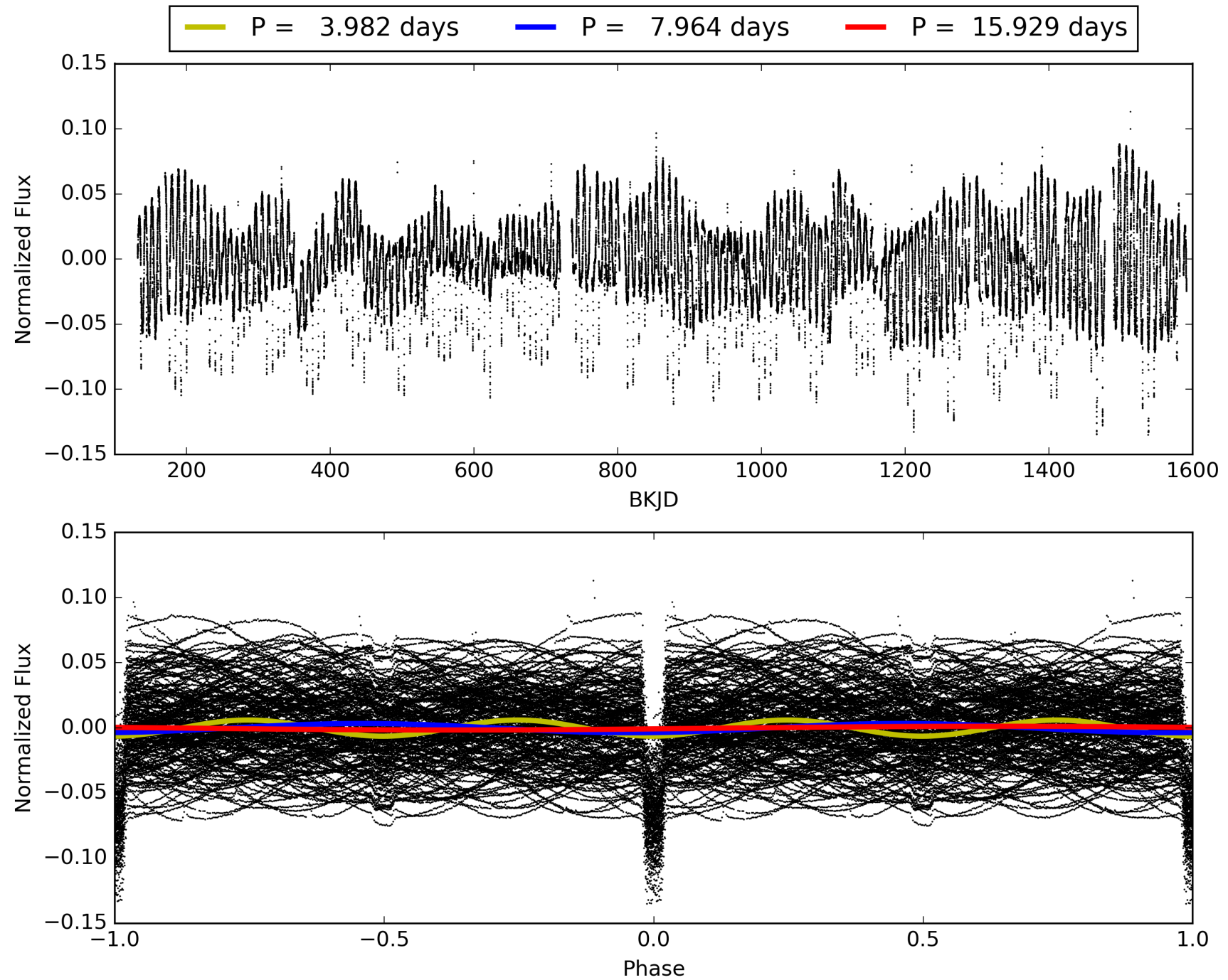
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 05:49:45 Z

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

TCE 009576197-01, PDC Light Curves

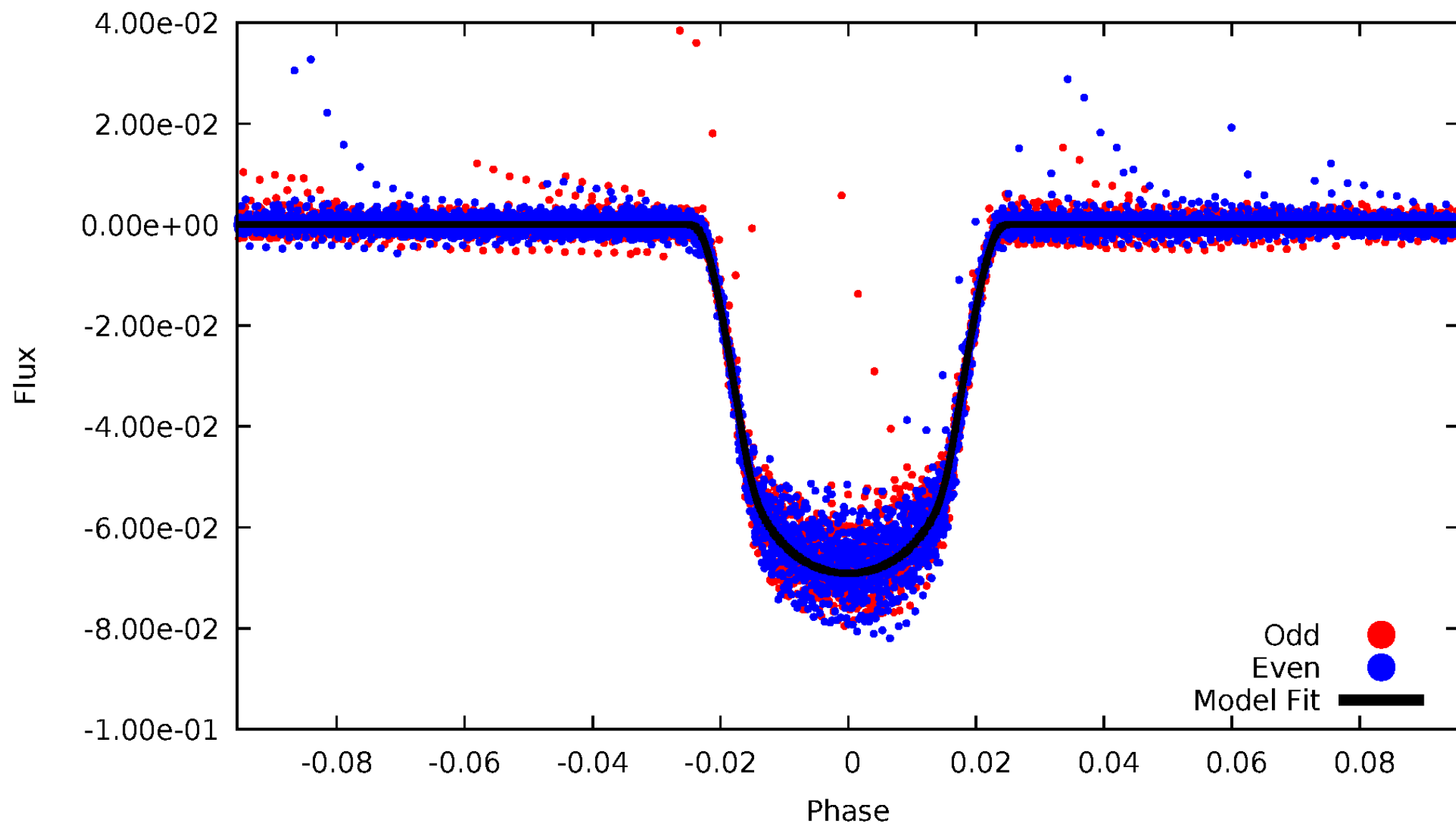


TCE 009576197-01



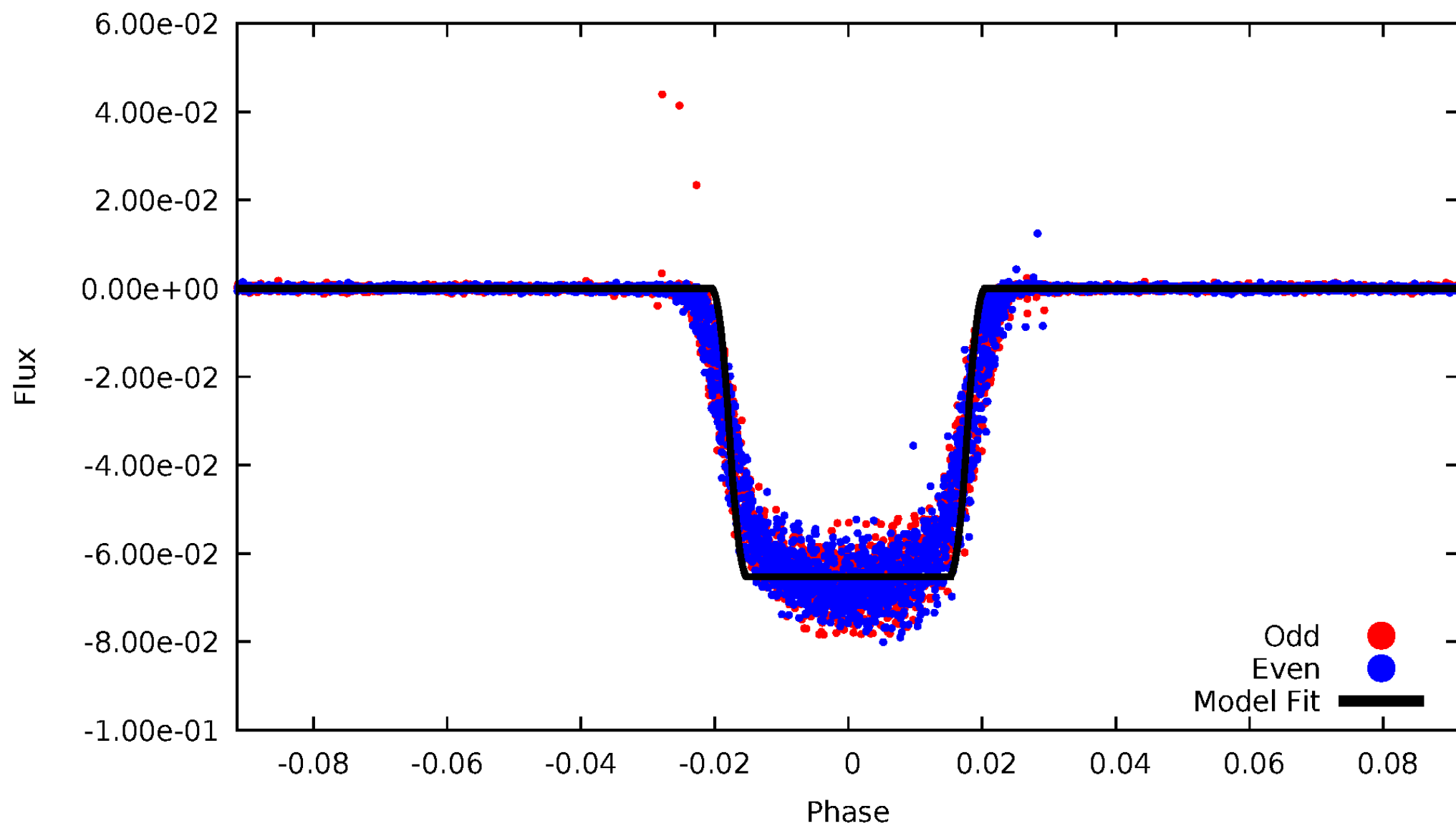
DV Odd/Even

TCE 009576197-01



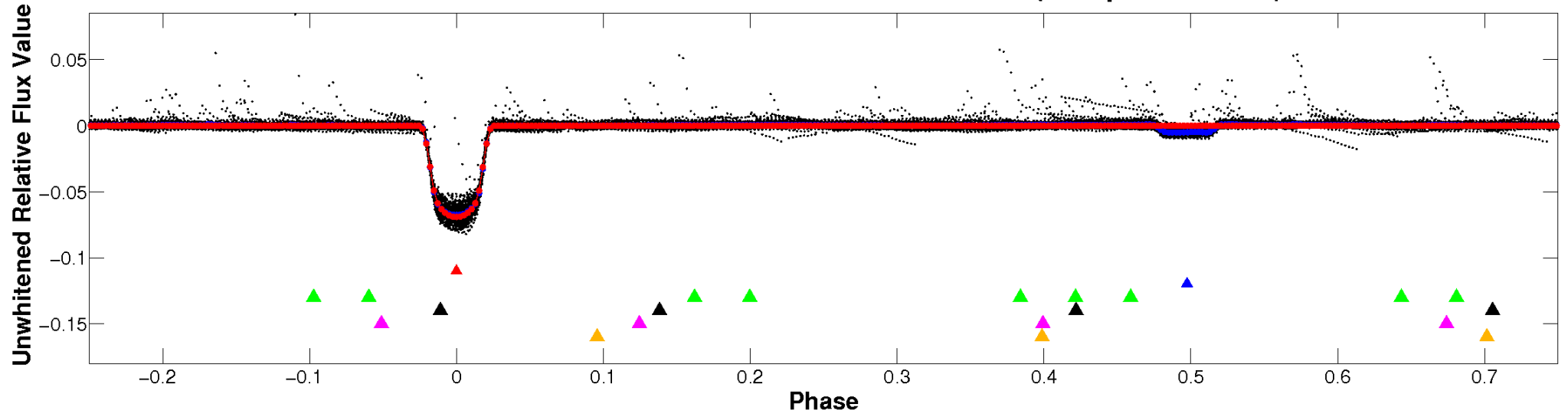
ALT Odd/Even

TCE 009576197-01

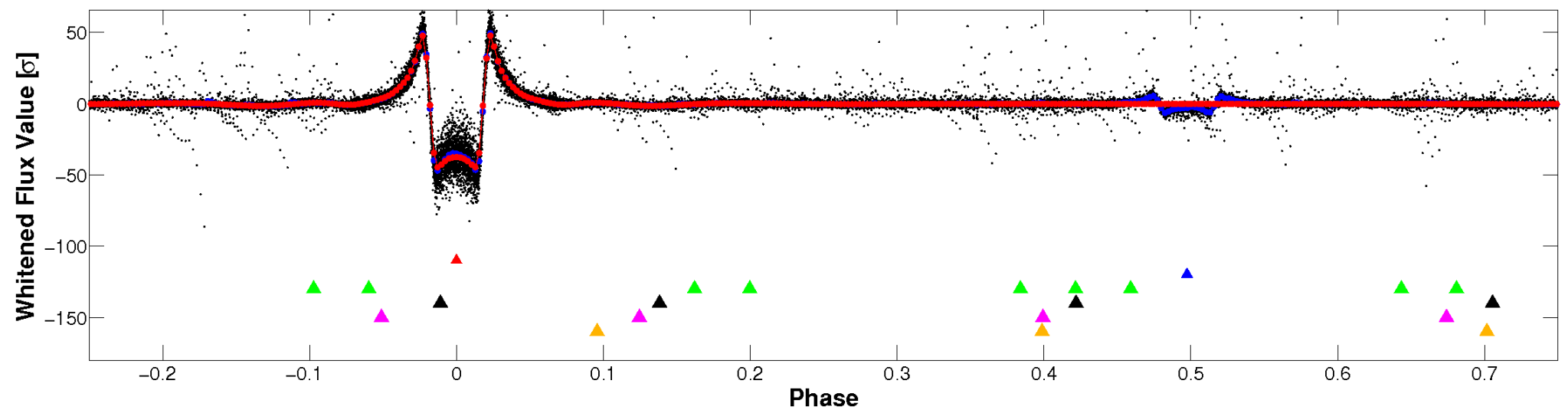


Non-Whitened Vs. Whitened Light Curve

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

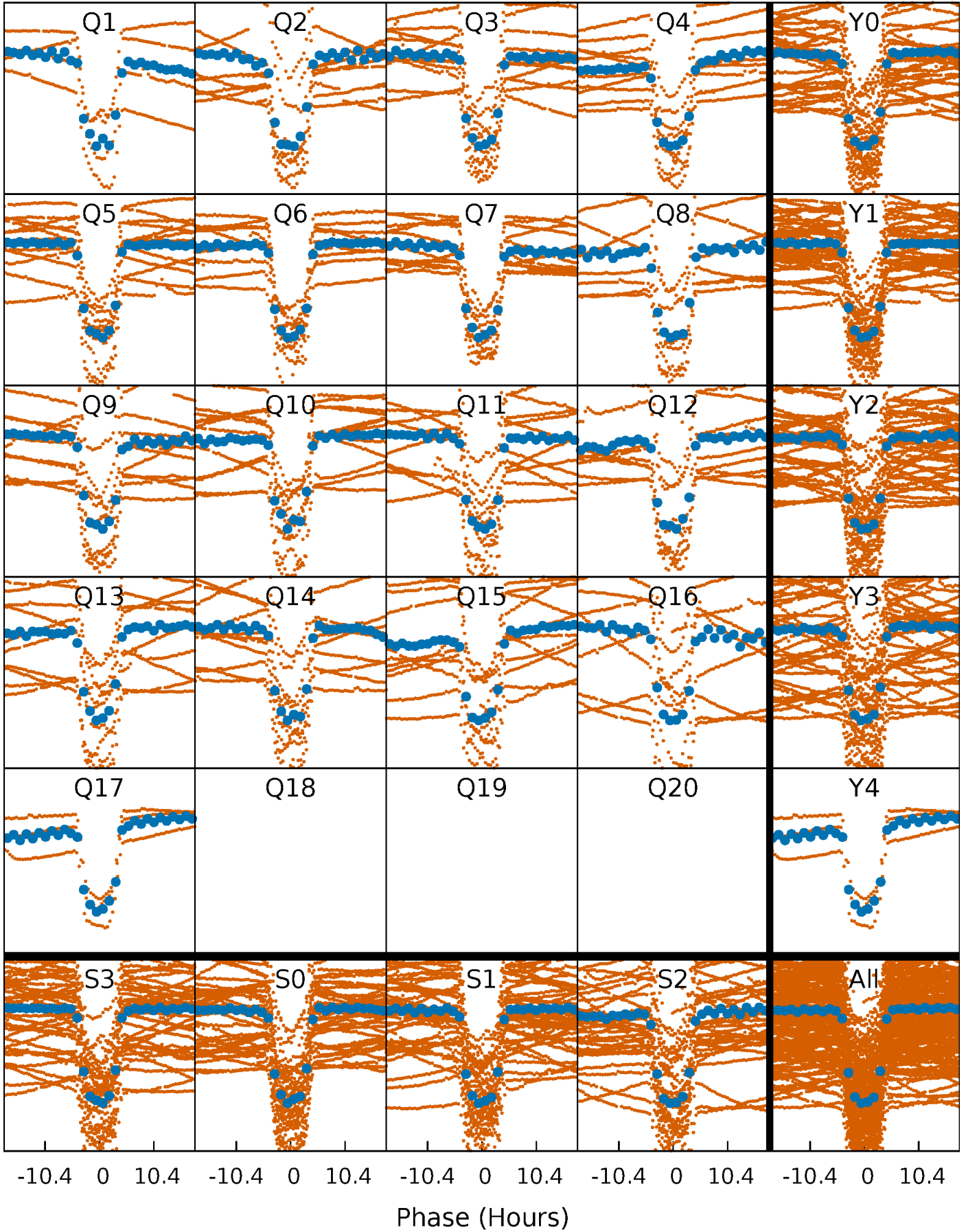


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



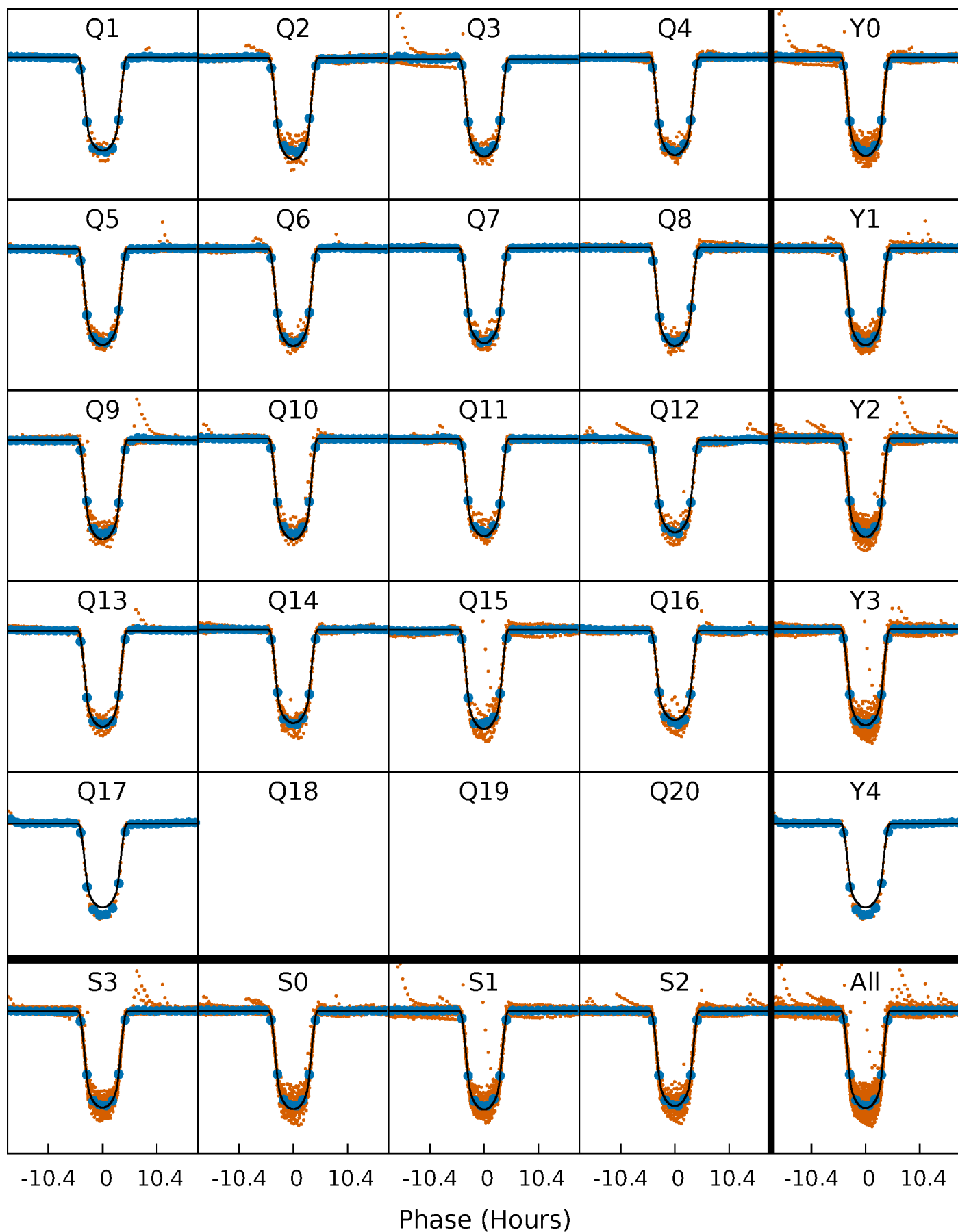
PDC Quarter-Phased Transit Curves

TCE 009576197-01 P= 7.964434 Days $T_0=136.195153$ (BKJD)



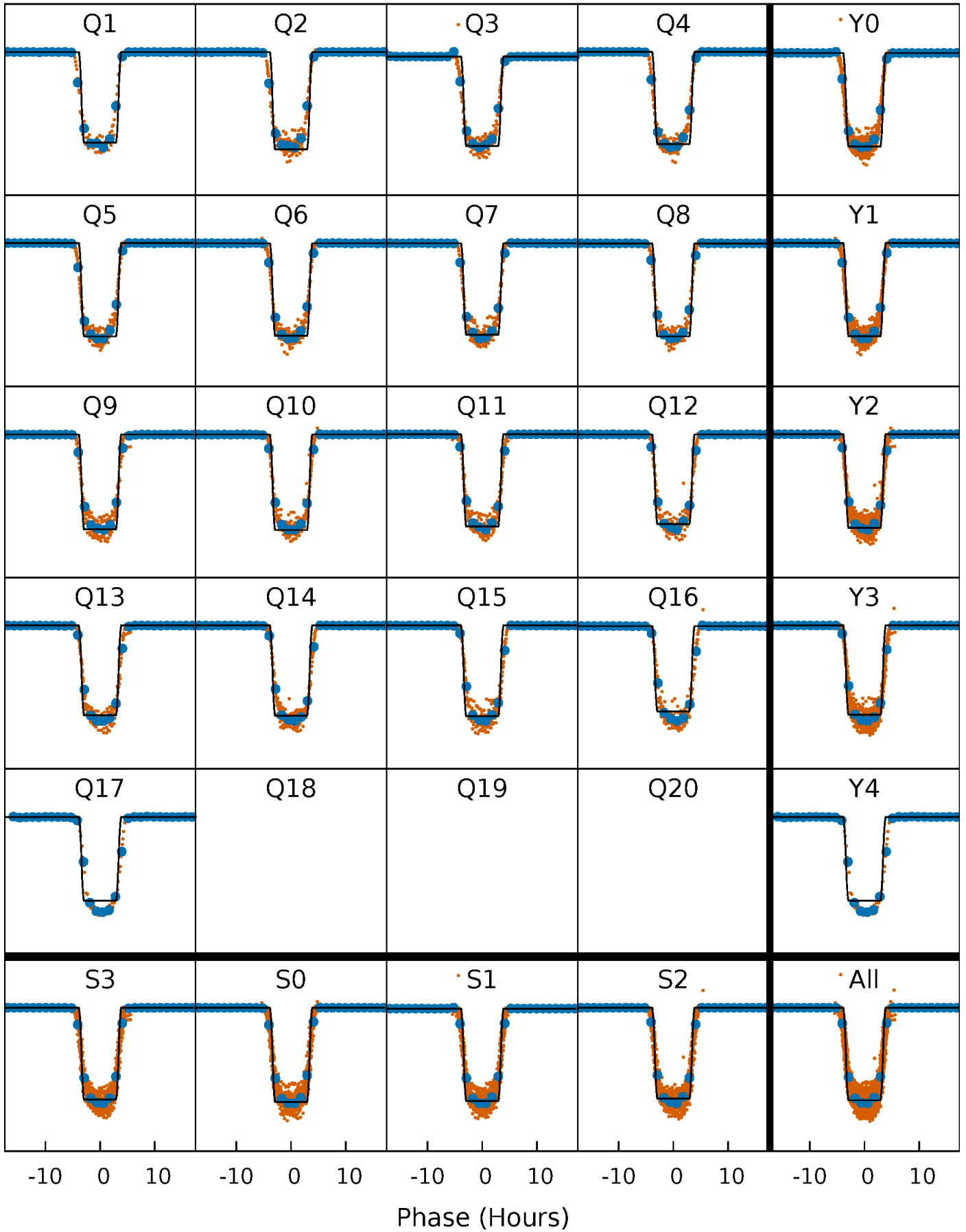
DV Quarter-Phased Transit Curves

TCE 009576197-01 P= 7.964434 Days $T_0=136.195153$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

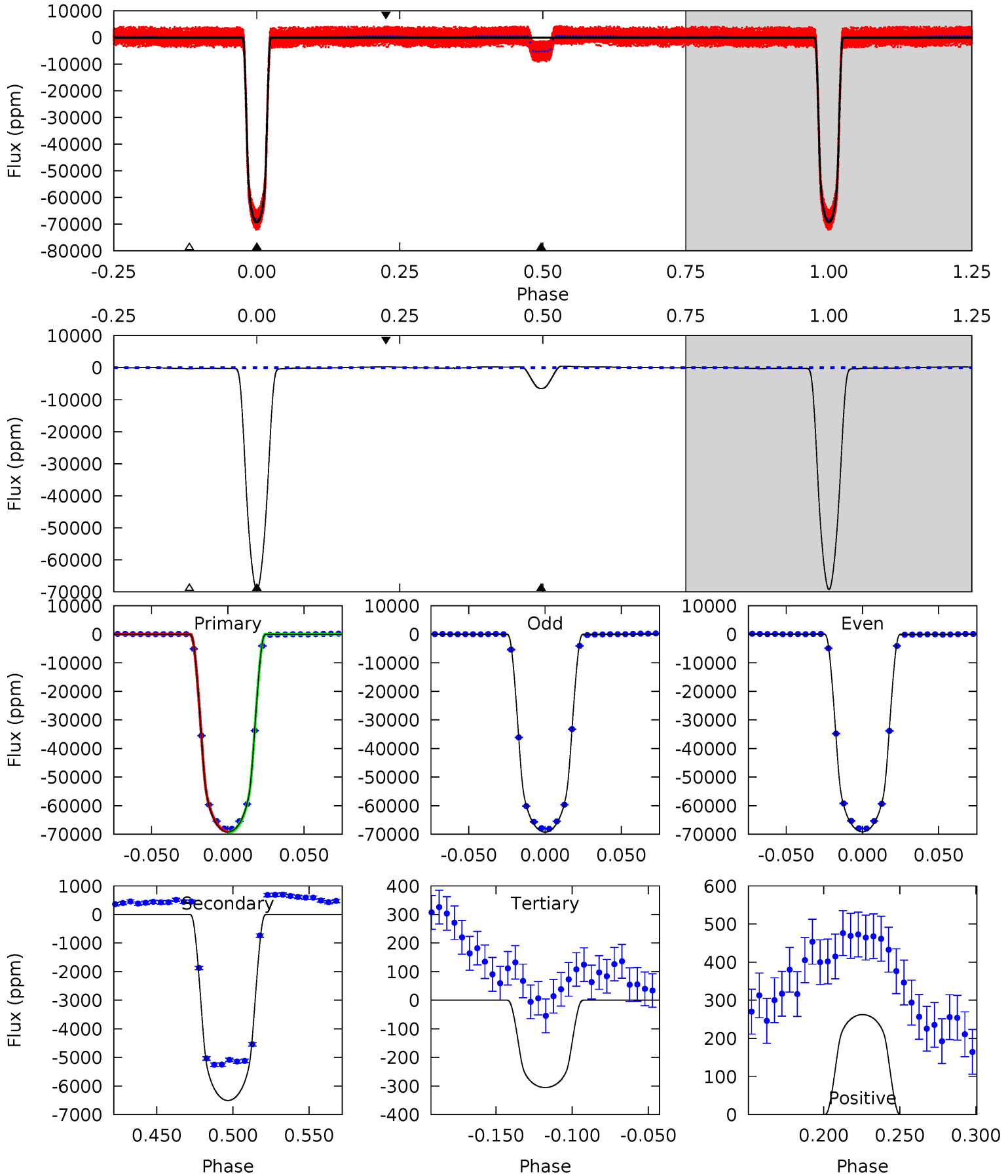
TCE 009576197-01 P= 7.964281 Days $T_0=136.209642$ (BKJD)



DV Model-Shift Uniqueness Test

009576197-01, P = 7.964434 Days, E = 128.230719 Days

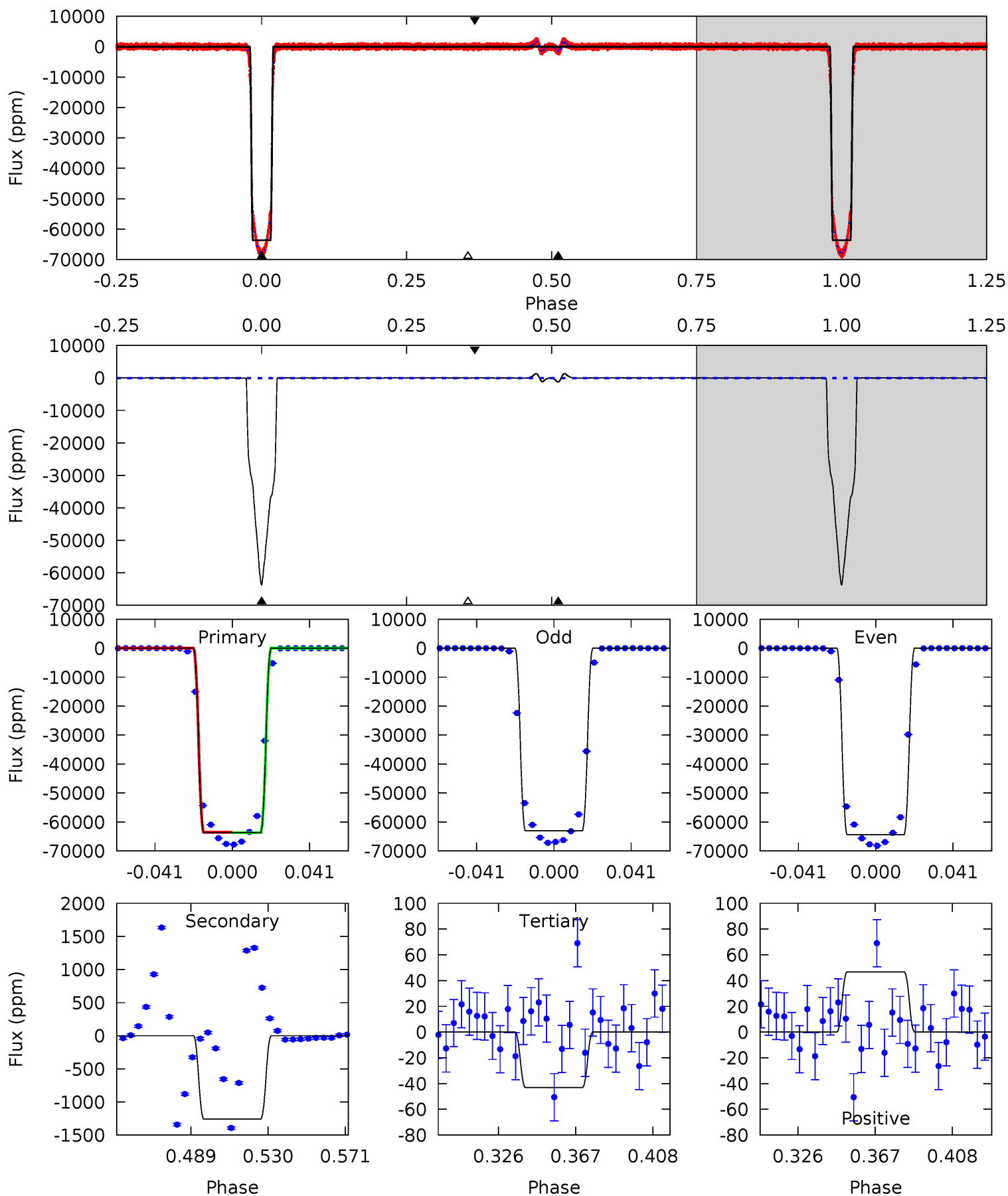
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3028	284.7	13.4	11.5	4.71	1.96	6.94	3015	3017	271.3	273.2	2.53	1.00	0.01	0



Alt Model-Shift Uniqueness Test

009576197-01, P = 7.964281 Days, E = 128.245361 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4717	93.2	3.19	3.46	4.75	2.05	4.34	4714	4714	90.0	89.8	49.6	1.00	0.02	0



Stellar Parameters For KIC 009576197

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5250^{+158}_{-142}	$4.548^{+0.084}_{-0.056}$	$-0.480^{+0.300}_{-0.300}$	$0.736^{+0.084}_{-0.076}$	$0.698^{+0.095}_{-0.044}$	$2.462^{+0.929}_{-0.527}$
	+3%/-3%	+2%/-1%	+62%/-62%	+11%/-10%	+14%/-6%	+38%/-21%
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 009576197-01 / KOI 6207.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-6507 ± 23	$18.98^{+1.25}_{-1.16}$	1049^{+43}_{-39}	3508^{+80}_{-67}	48^{+6}_{-4}
Alt.	-1258 ± 13	$20.44^{+1.34}_{-1.23}$	1050^{+40}_{-42}	2702^{+44}_{-42}	$8.015^{+0.997}_{-0.719}$

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 $A_{obs} \gg 1.0$

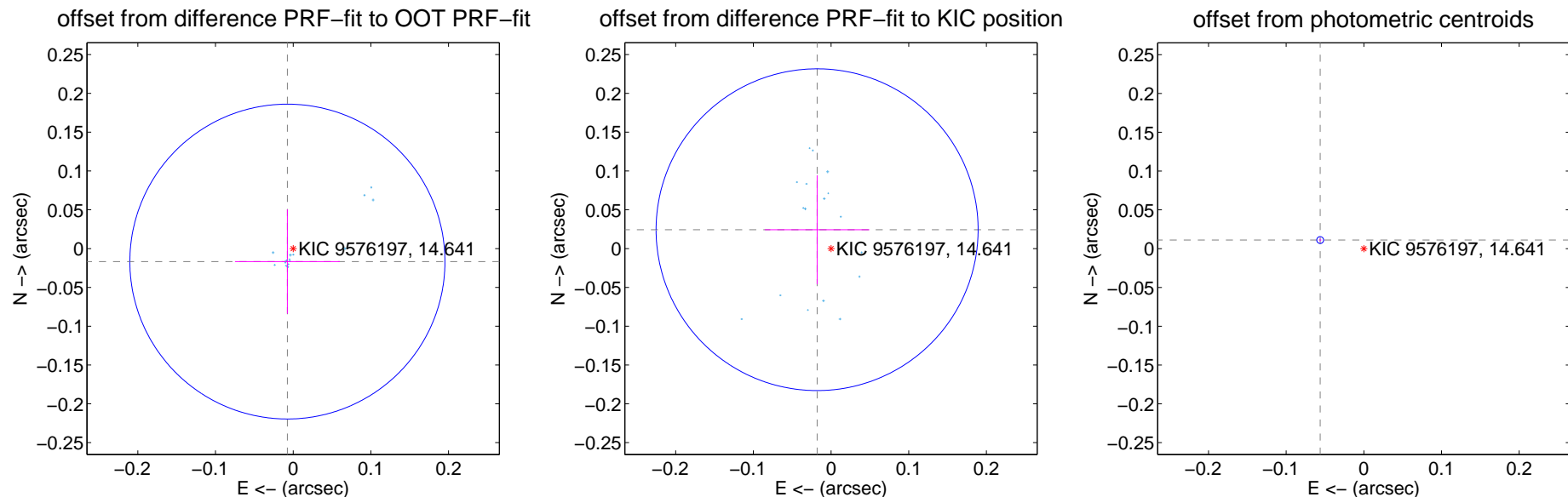
DV Centroid Data

Supplemental centroid analysis for 009576197-01. Kepler magnitude: 14.64. Transit SNR 1640.37

There are 17 quarters with good PRF difference image offsets

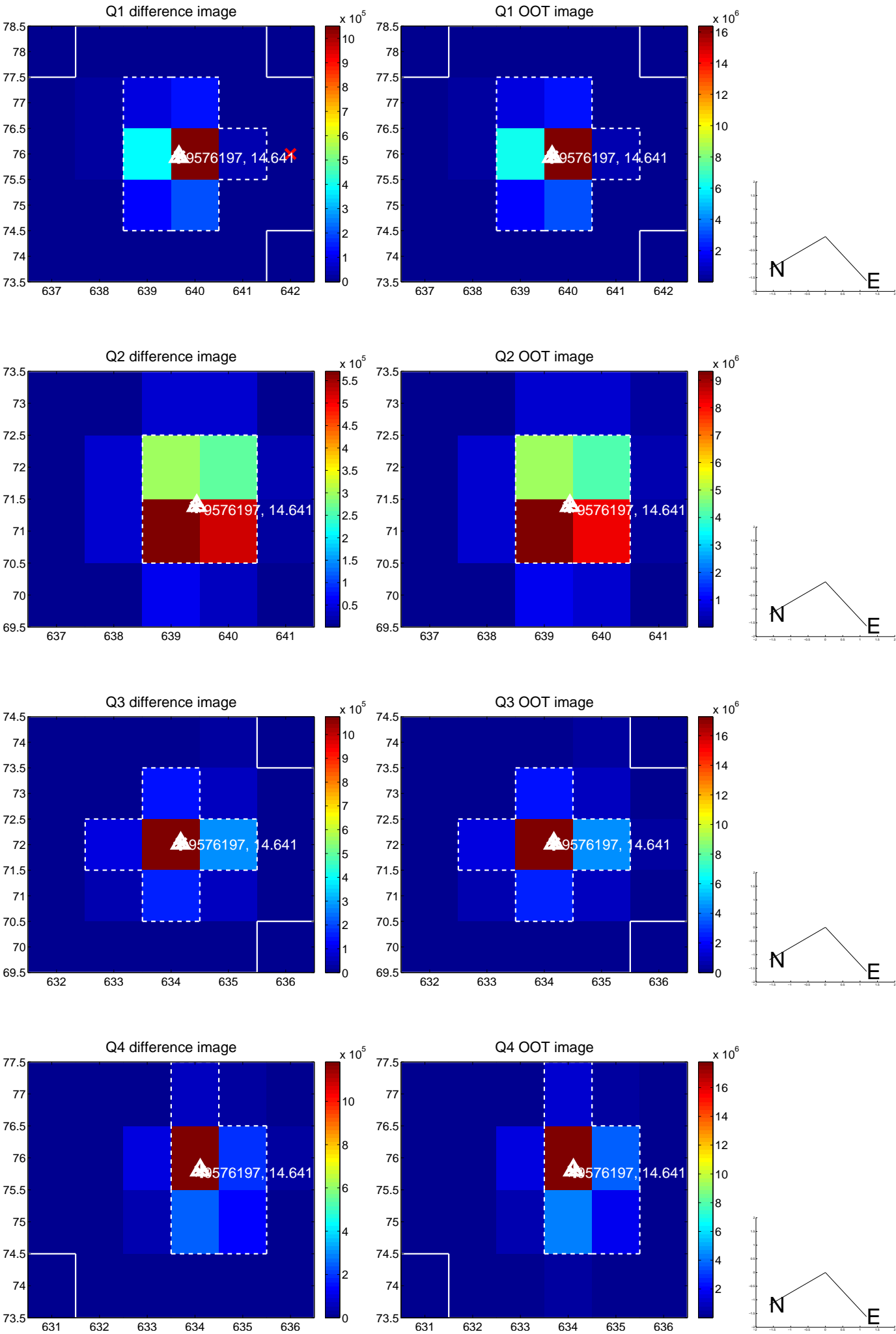
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.018 ± 0.068	0.27	0.007 ± 0.067	-0.017 ± 0.067
PRF-fit source offset from KIC position	0.030 ± 0.069	0.44	0.018 ± 0.067	0.024 ± 0.070
photometric centroid source offset	0.06 ± 0.00	39.08	0.06 ± 0.00	0.01 ± 0.00

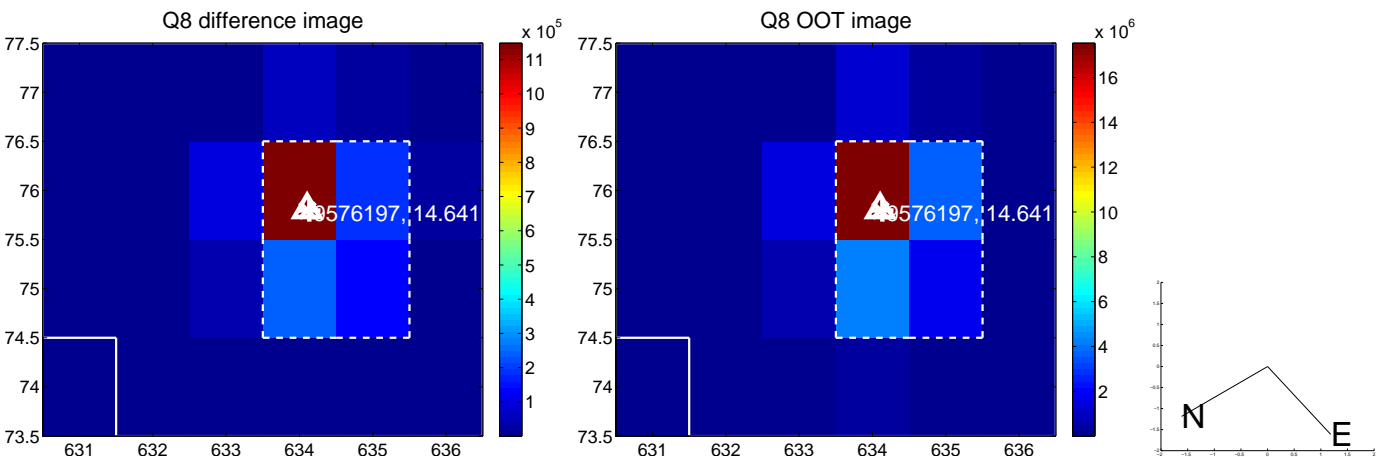
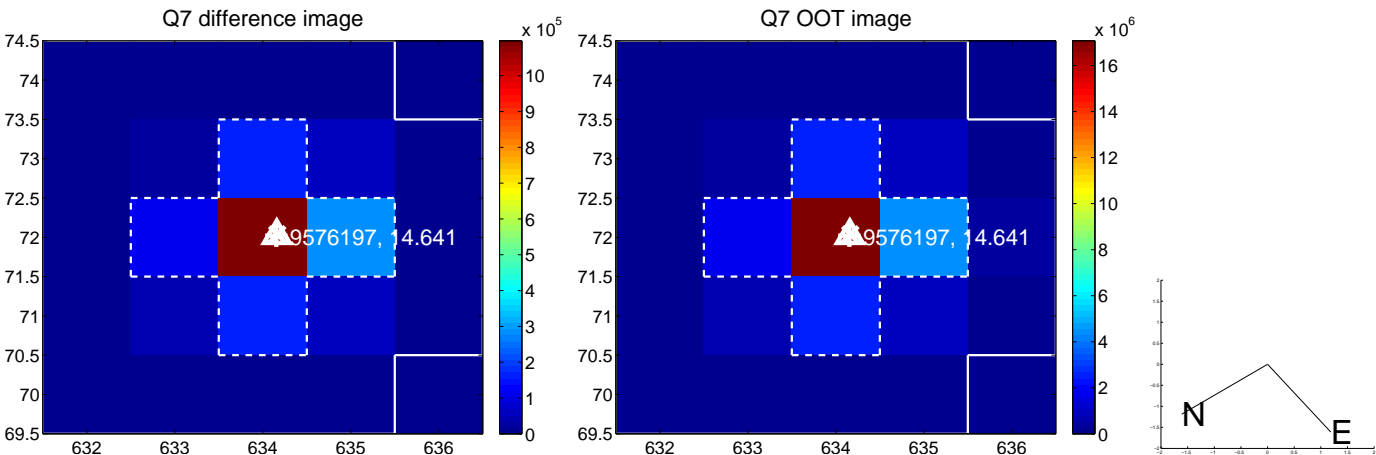
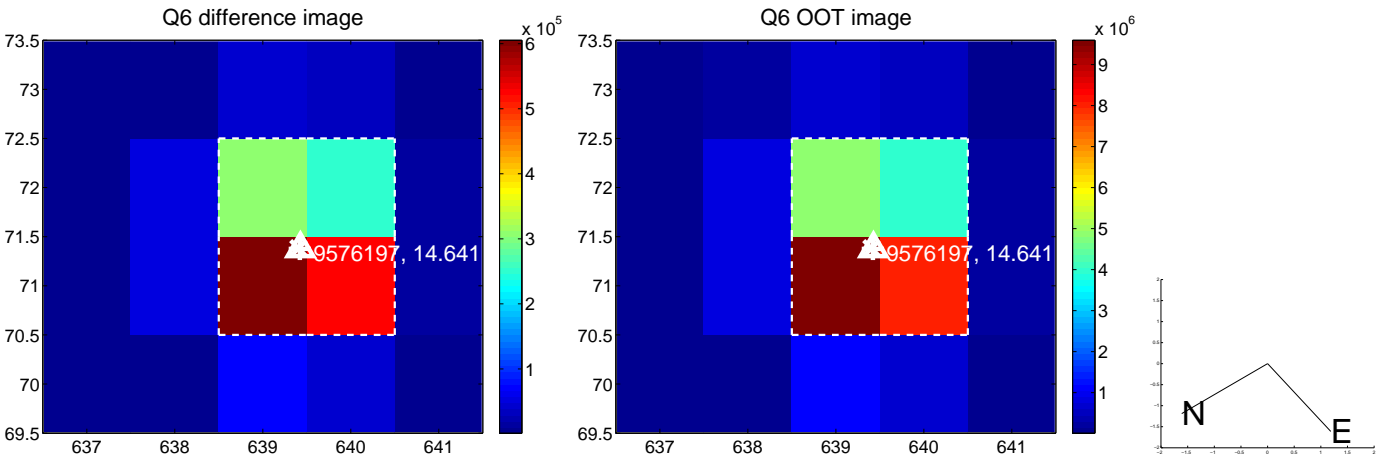
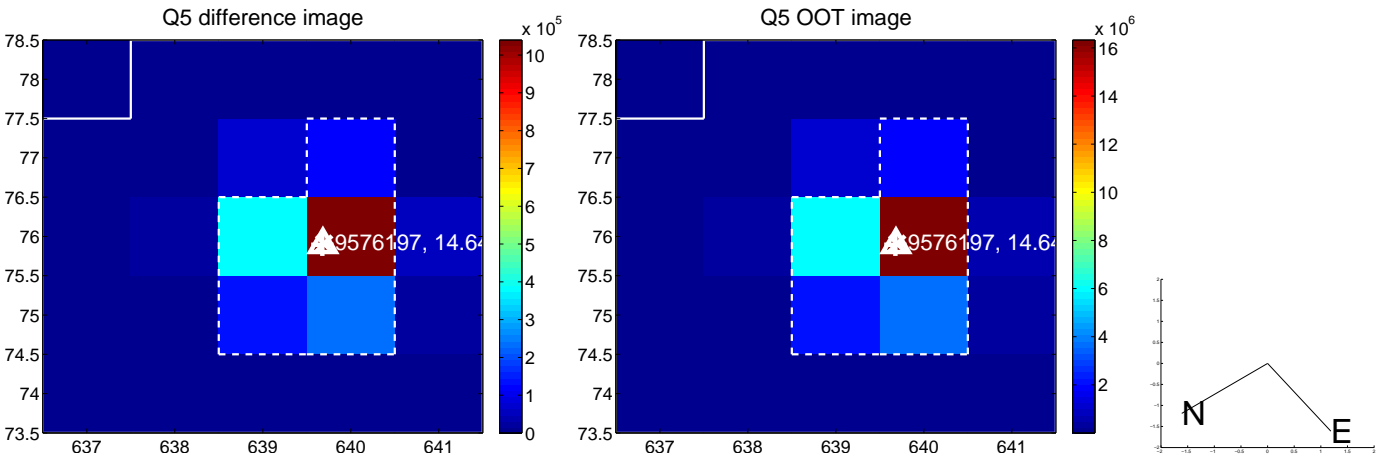


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

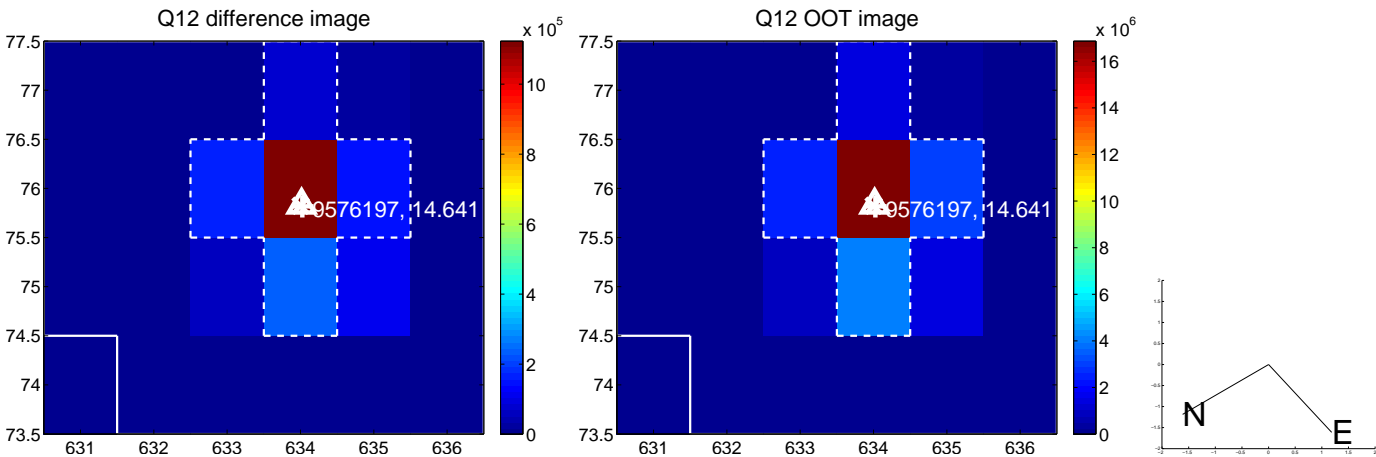
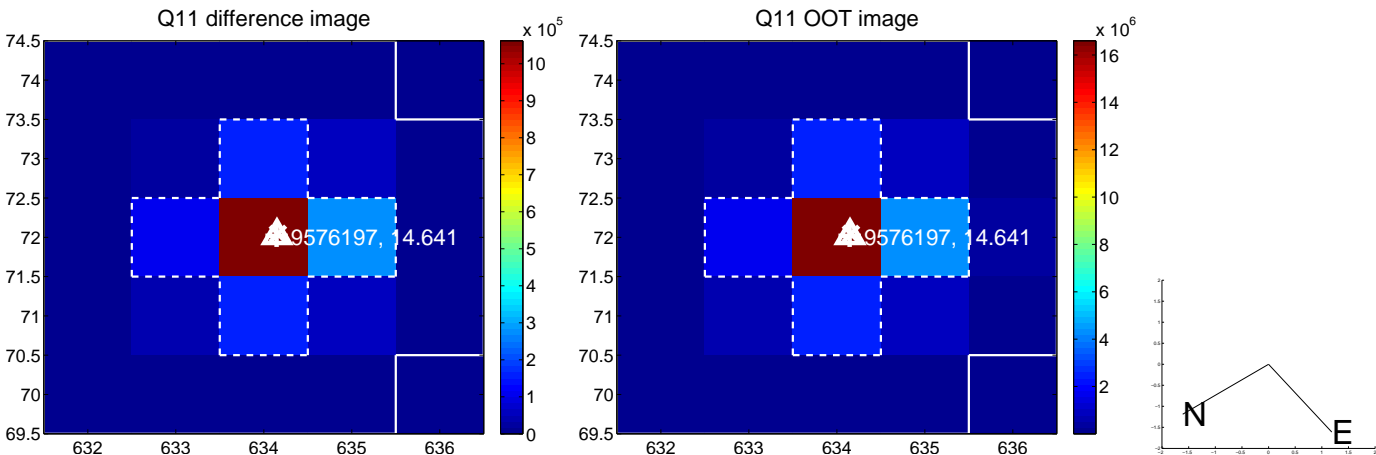
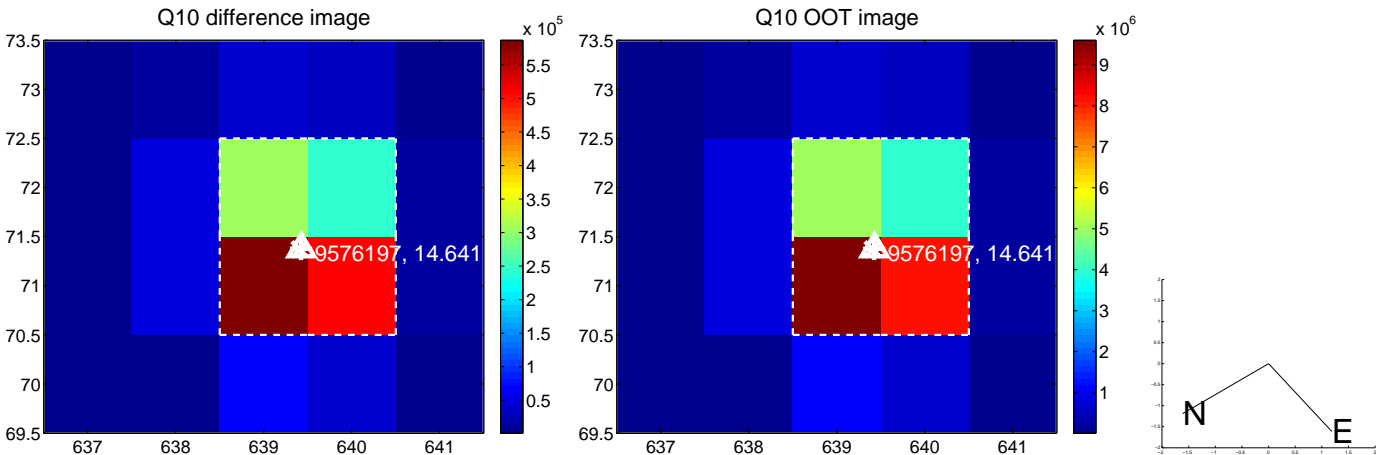
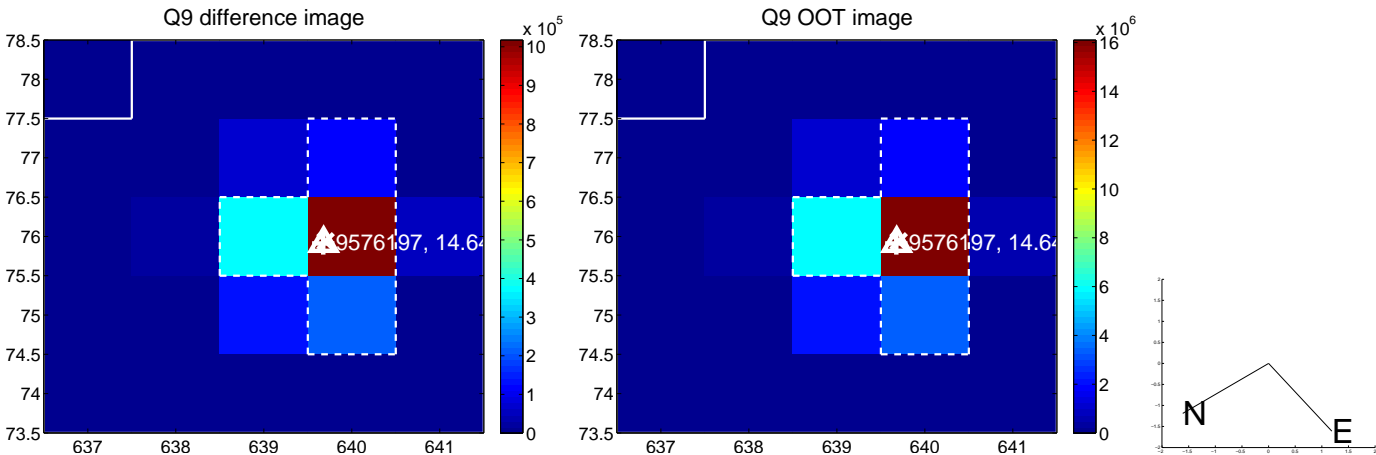
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



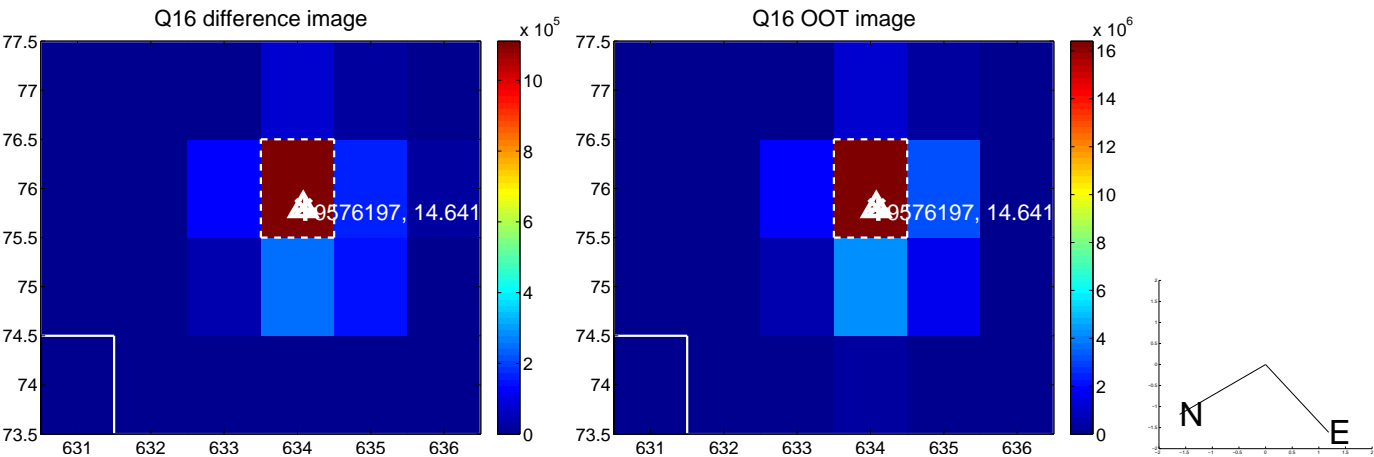
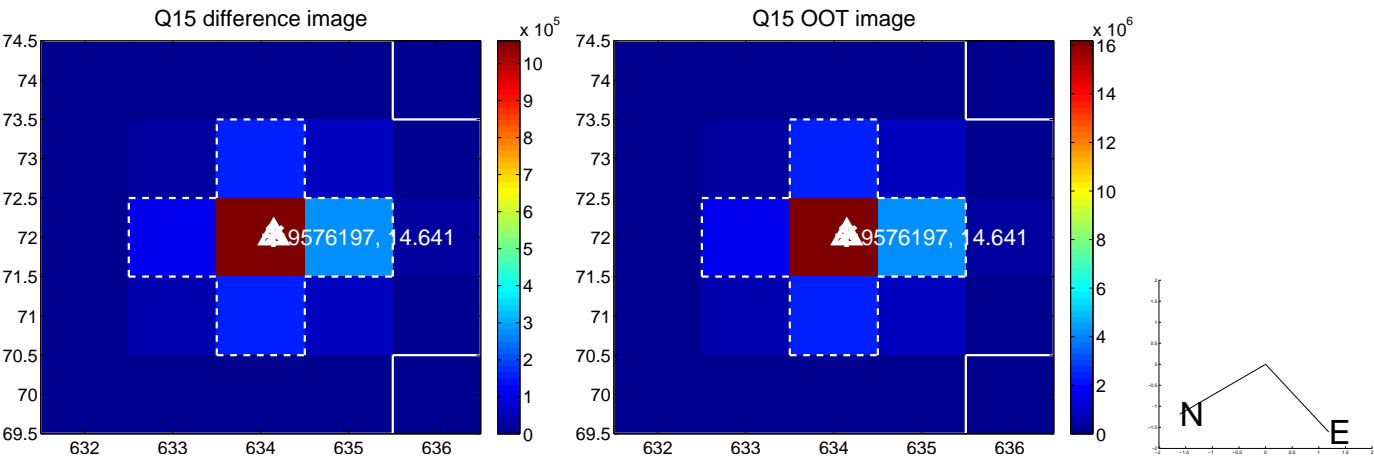
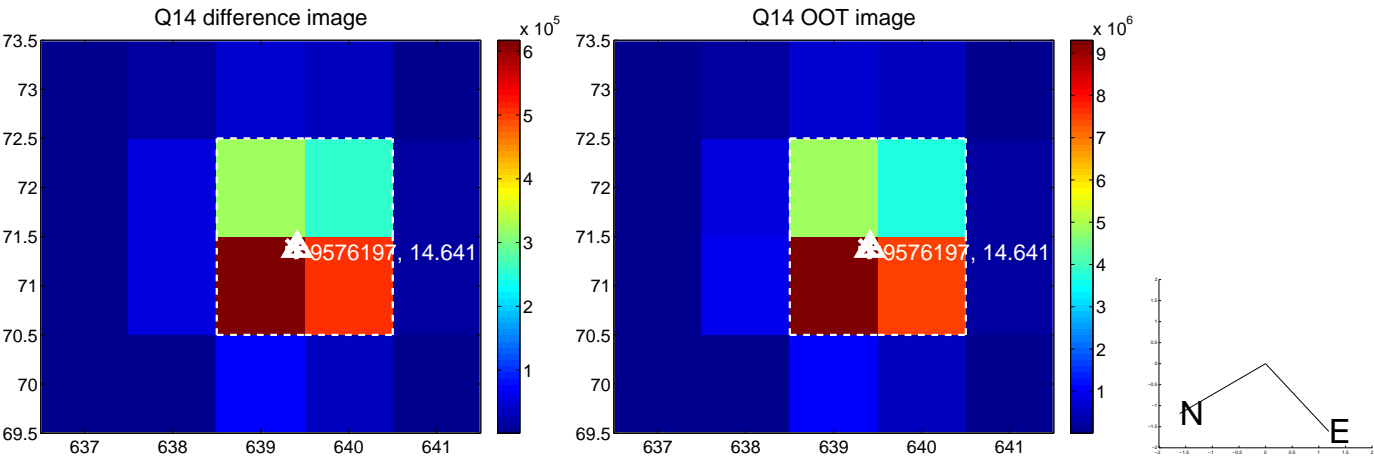
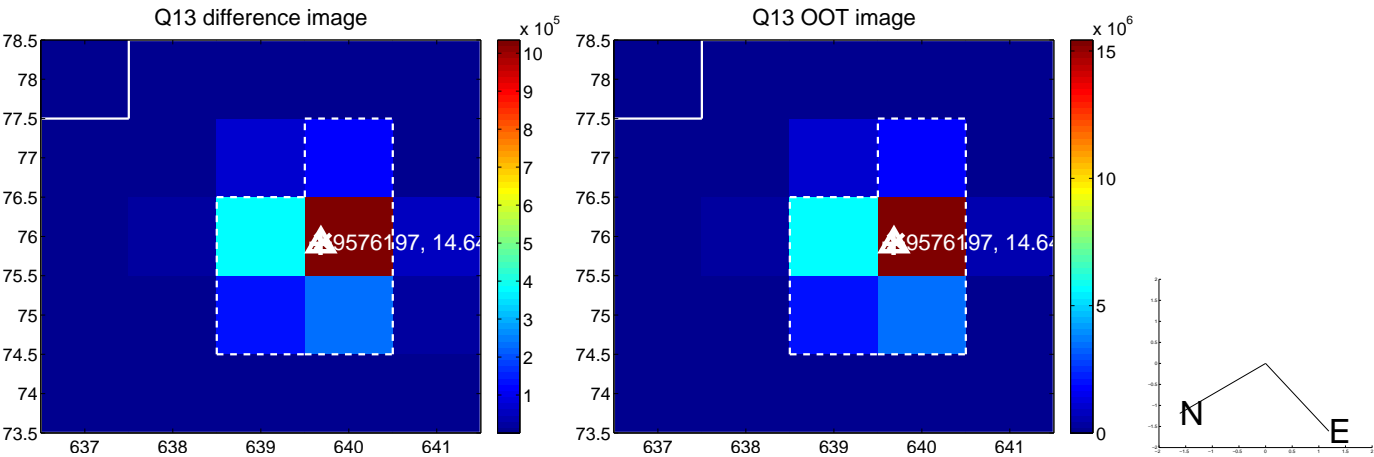
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



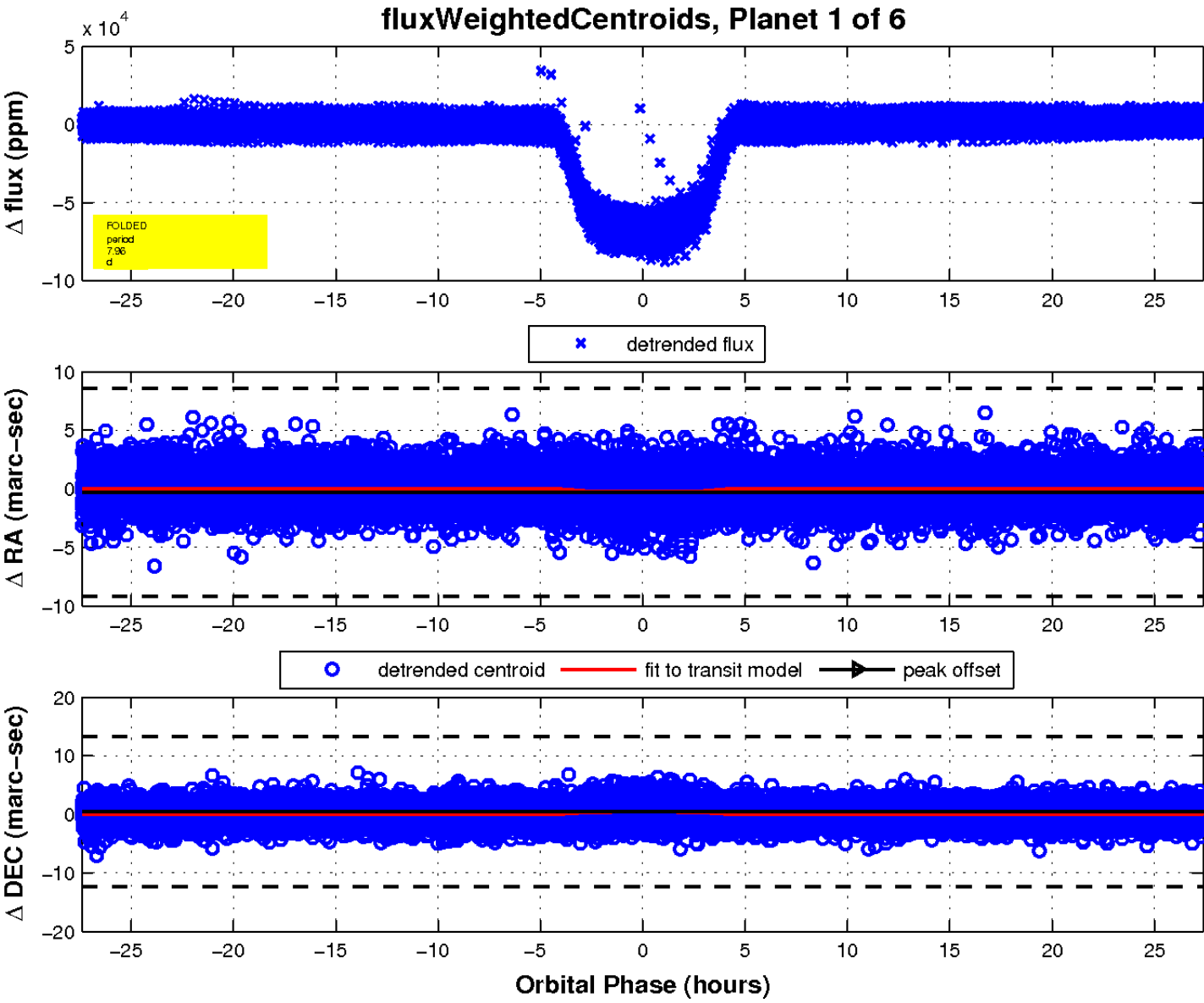
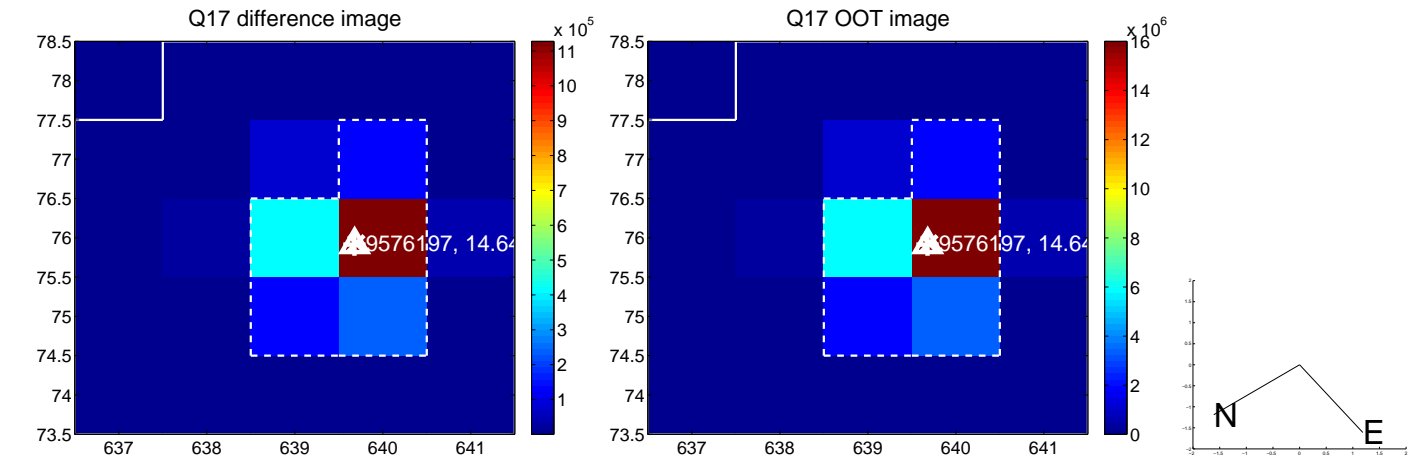
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

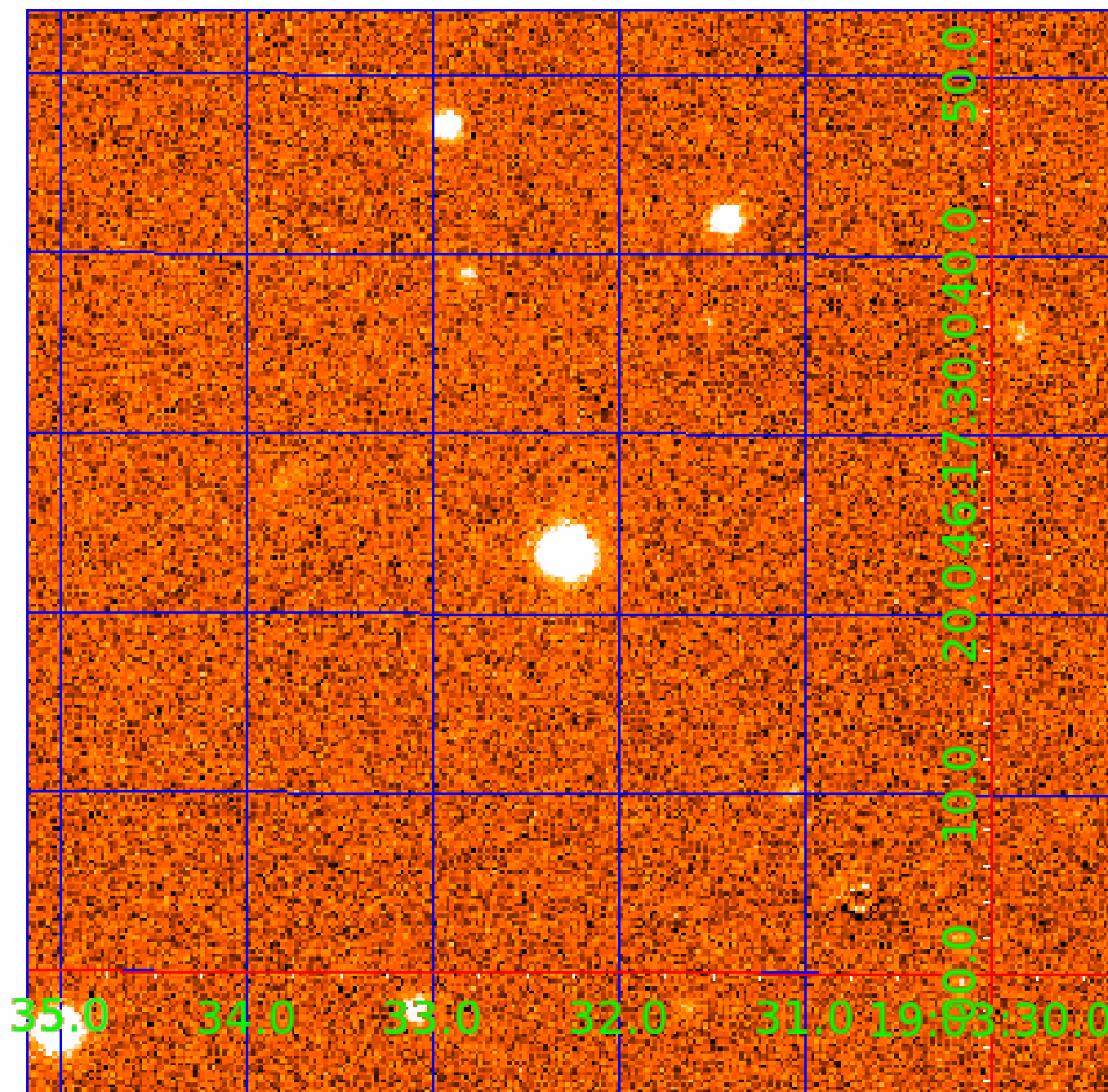


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 009576197

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})
009576197-01	OBS	6207.01	7.964434	136.195153	69115.1	9.133	1433.2	1640.4	0.74	5250	19.05	76.90
009576197-02	OBS	No	7.964449	132.191293	6768.7	8.774	249.2	249.2	0.74	5250	6.42	76.90
009576197-03	OBS	No	165.187252	171.709243	841.0	2.119	22.9	6.5	0.74	5250	2.27	1.35
009576197-04	OBS	No	384.551494	392.158465	540.1	2.081	19.0	2.9	0.74	5250	1.86	0.44
009576197-05	OBS	No	384.481376	392.049039	4054.0	22.580	18.2	7.1	0.74	5250	5.66	0.44

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009576197-01	OBS	FP	0.00	0	1	0	0	MOD_SEC_DV—MOD_SEC_ALT—MOD_ODDEVEN_ALT—HAS_SEC_TCE
009576197-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE
009576197-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_SKYE_TRACKER—LPP_DV—LPP_ALT—INCONSISTENT_TRANS
009576197-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_SKYE_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_FEW_MEAS
009576197-05	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—SAME_NTL_PERIOD—CENT_FEW_DIFFS—HALO_GHOST

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

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

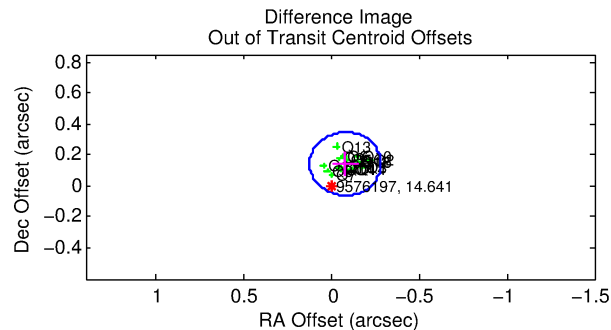
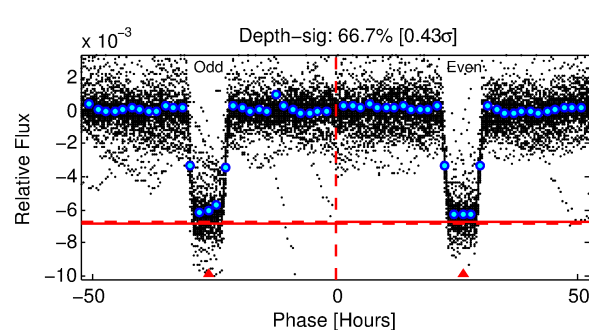
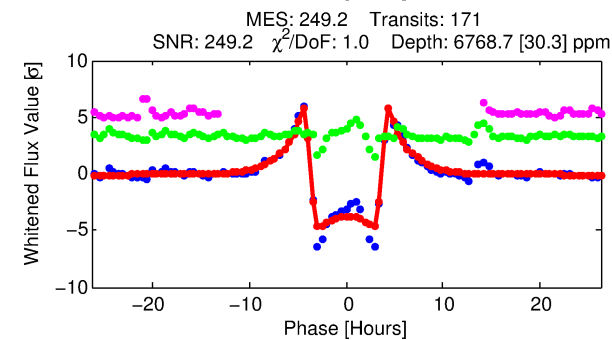
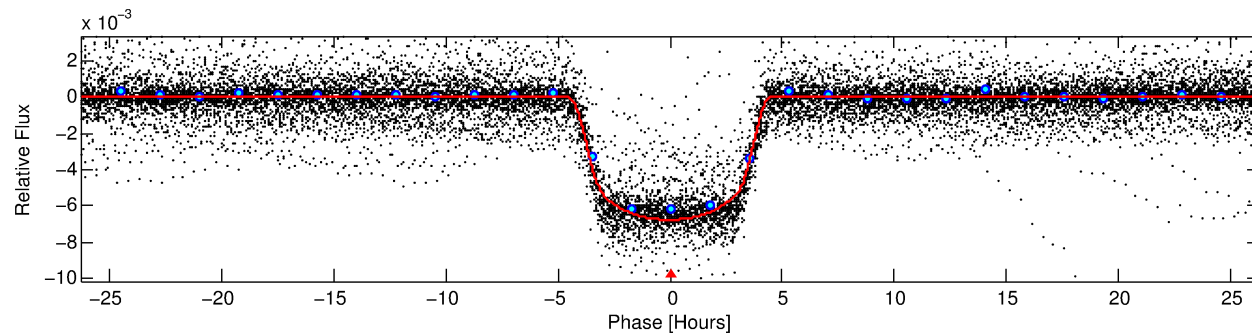
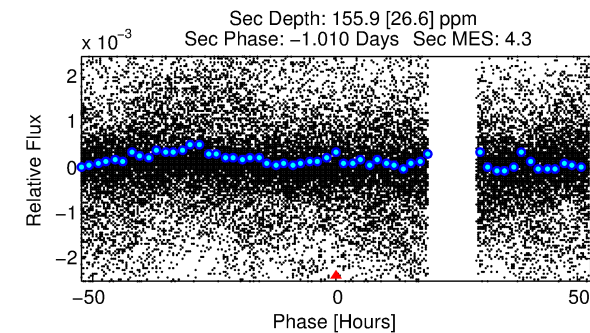
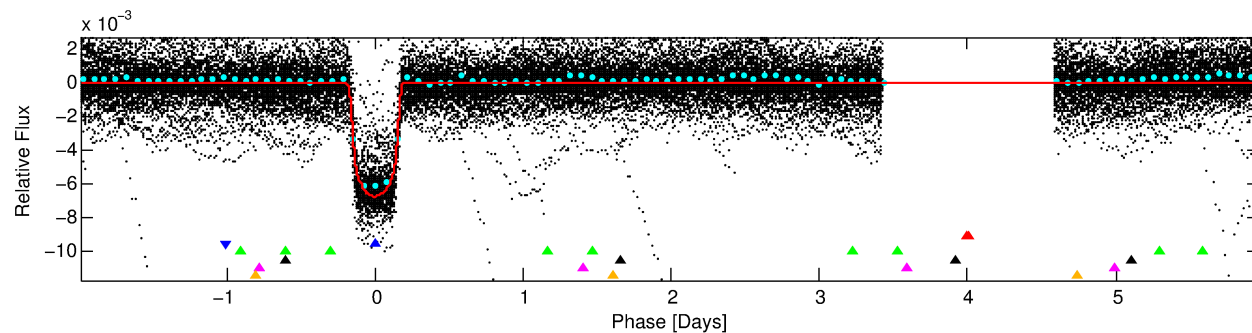
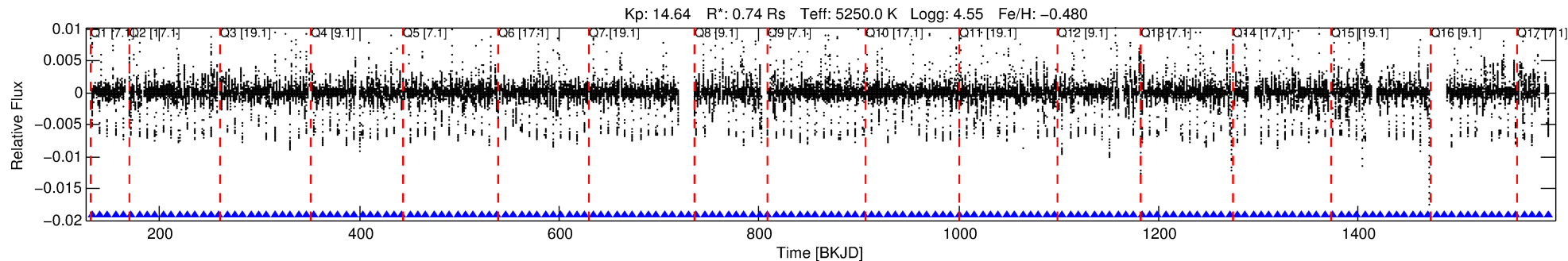
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 009576197-02

No Significant Match Found

DV One-Page Summary

KIC: 9576197 Candidate: 2 of 6 Period: 7.964 d
KOI: K06207 Corr: No Ephemeris Match



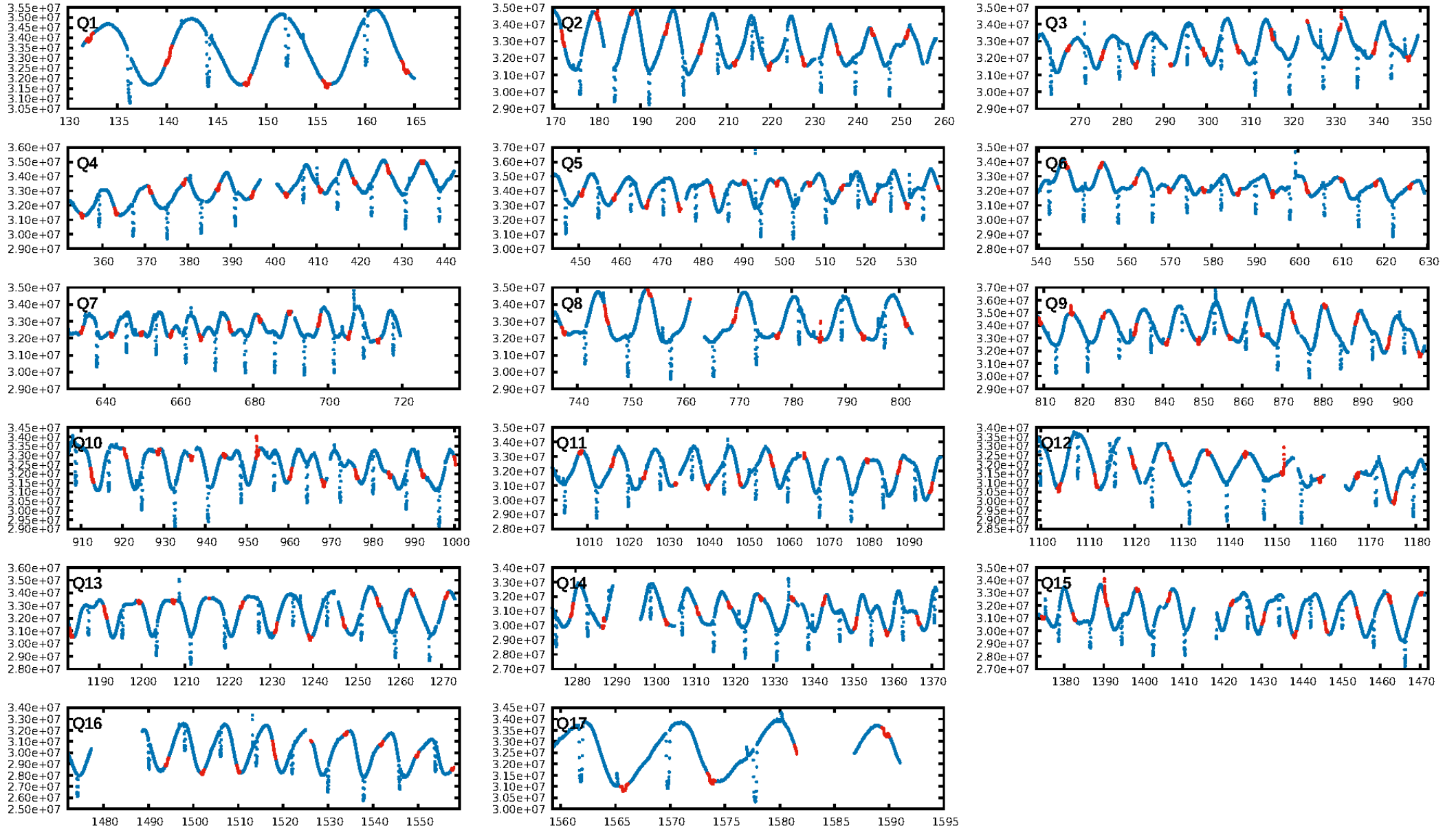
DV Fit Results:

Period = 7.96445 [0.00000] d
Epoch = 132.1913 [0.0003] BKJD
Rp/R* = 0.0800 [0.0003]
a/R* = 5.87 [0.05]
b = 0.68 [0.01]
Seff = 76.90 [14.77]
Teq = 755 [36] K
Rp = 6.42 [0.73] Re
a = 0.0692 [0.0069] AU
Ag = 9.96 [2.26] [3.96σ]
Teff = 2074 [108] K [11.55σ]

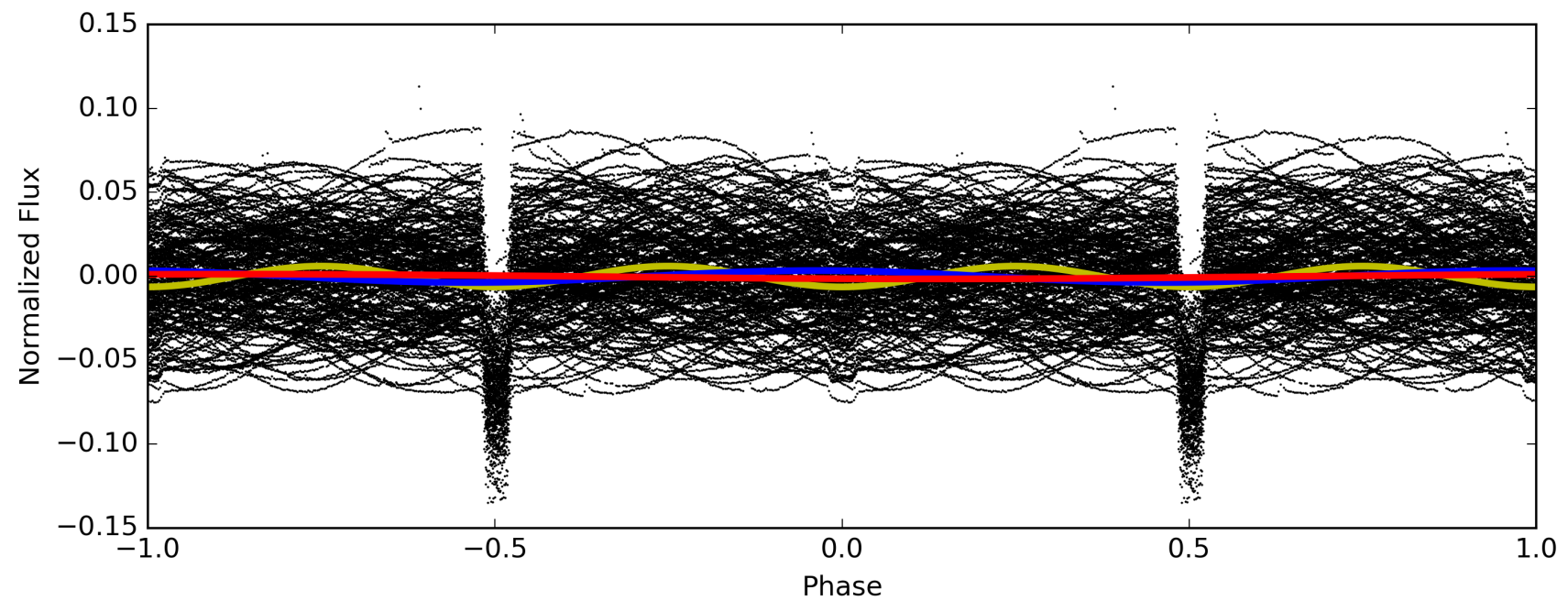
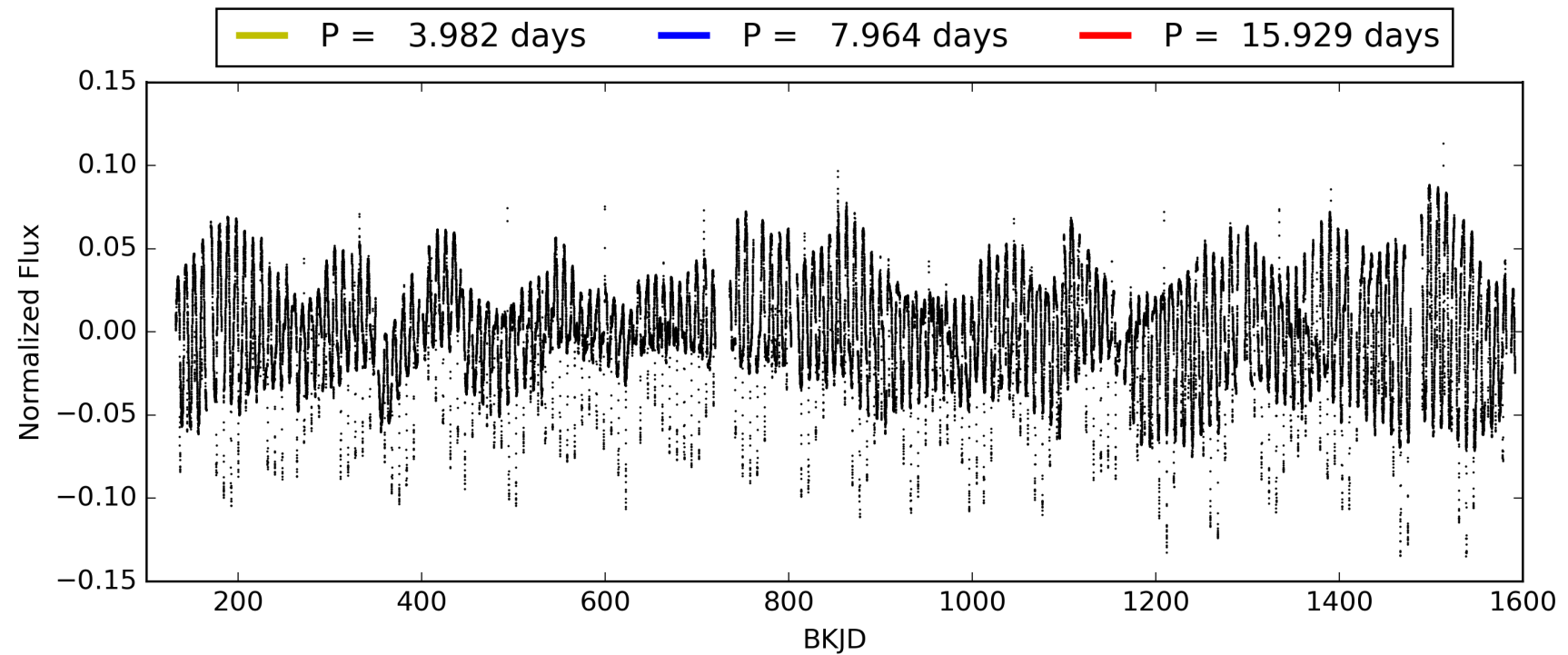
DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00σ]
LongPeriod-sig: 100.0% [418.02σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [162/162]
GhostDiagnostic-chr: 1.027
Centroid-sig: 0.0%
Centroid-so: 0.091 arcsec [6.36σ]
OotOffset-rm: 0.164 arcsec [2.40σ]
KicOffset-rm: 0.165 arcsec [2.29σ]
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 009576197-02, PDC Light Curves

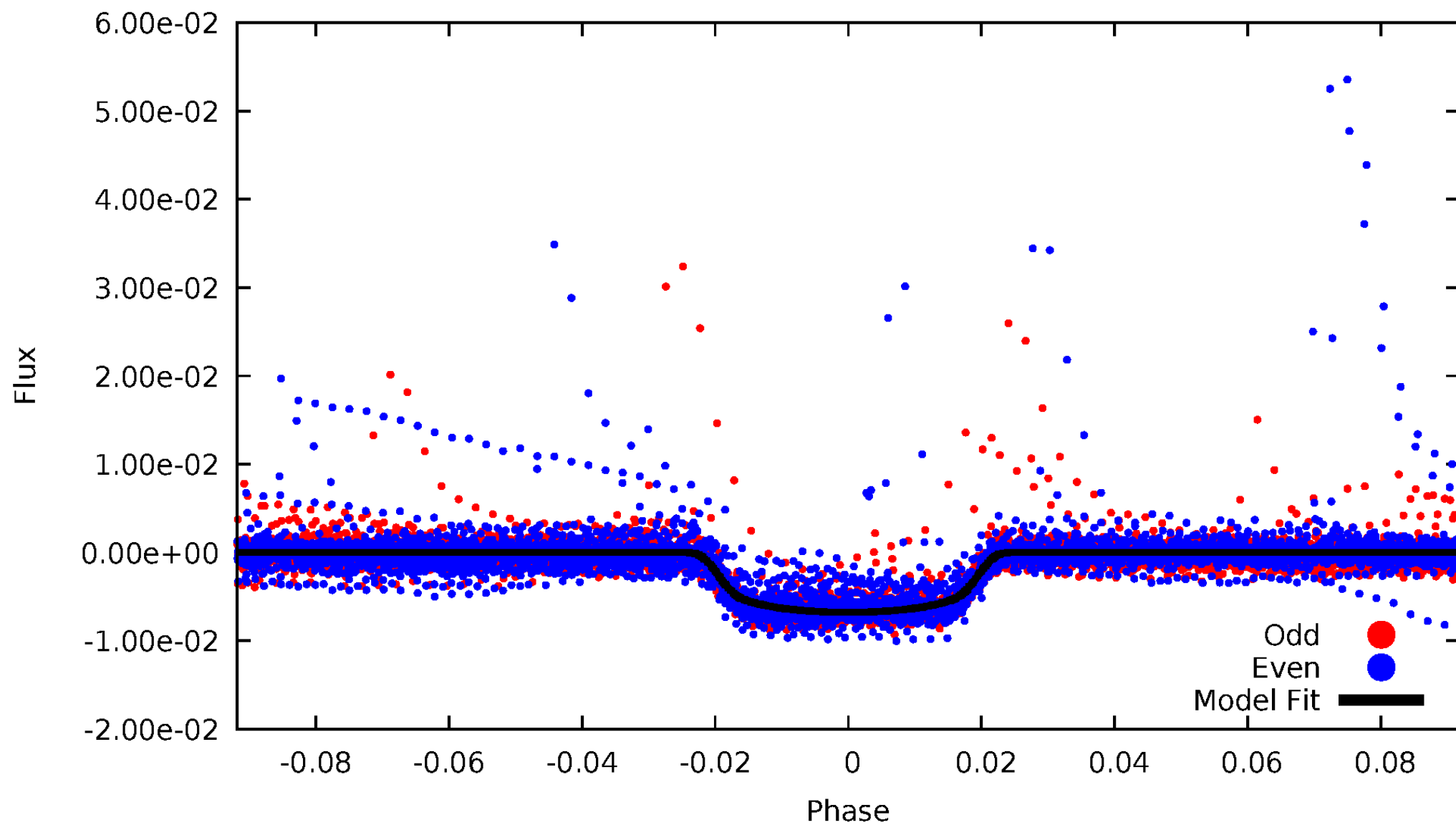


TCE 009576197-02



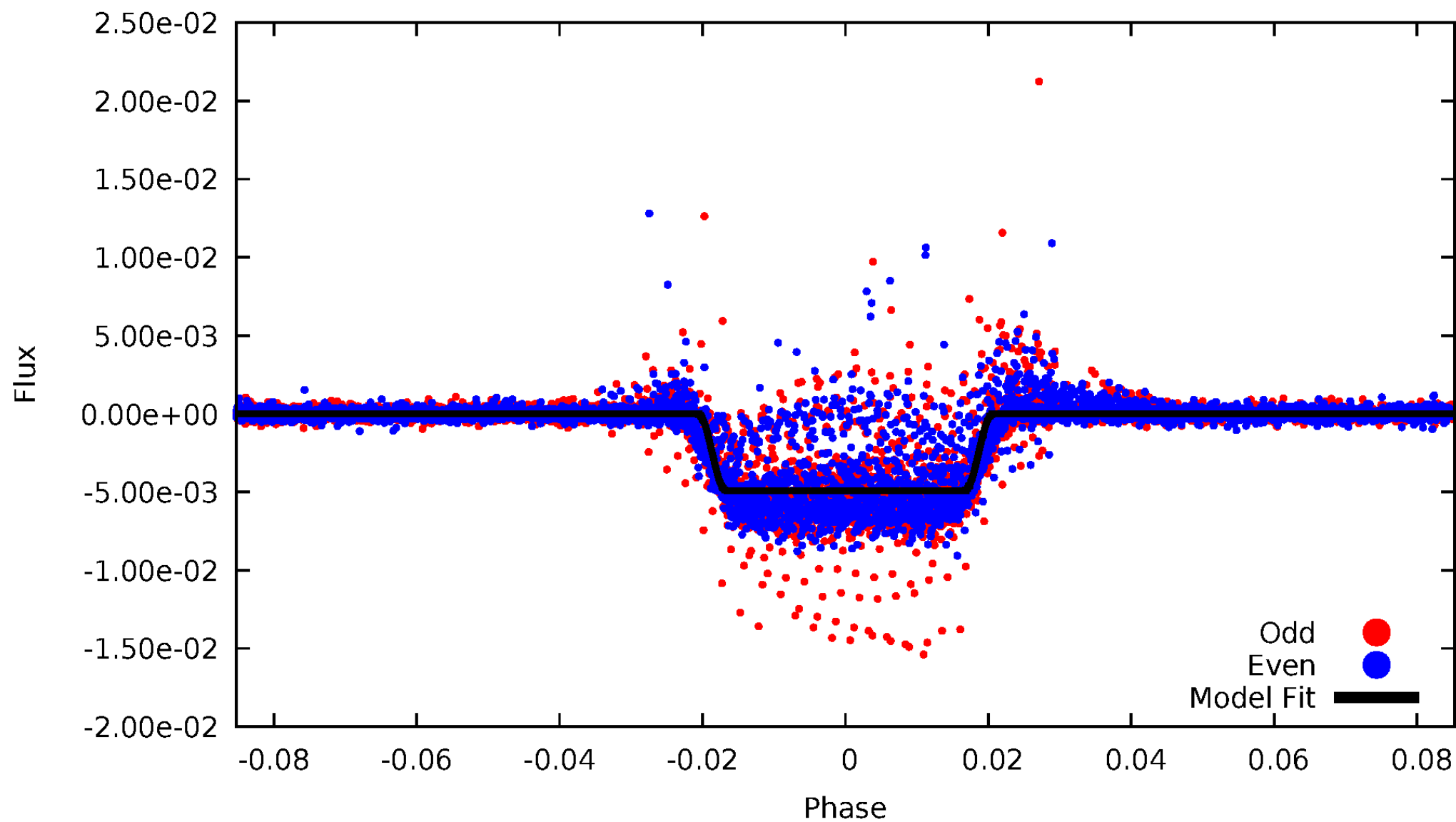
DV Odd/Even

TCE 009576197-02



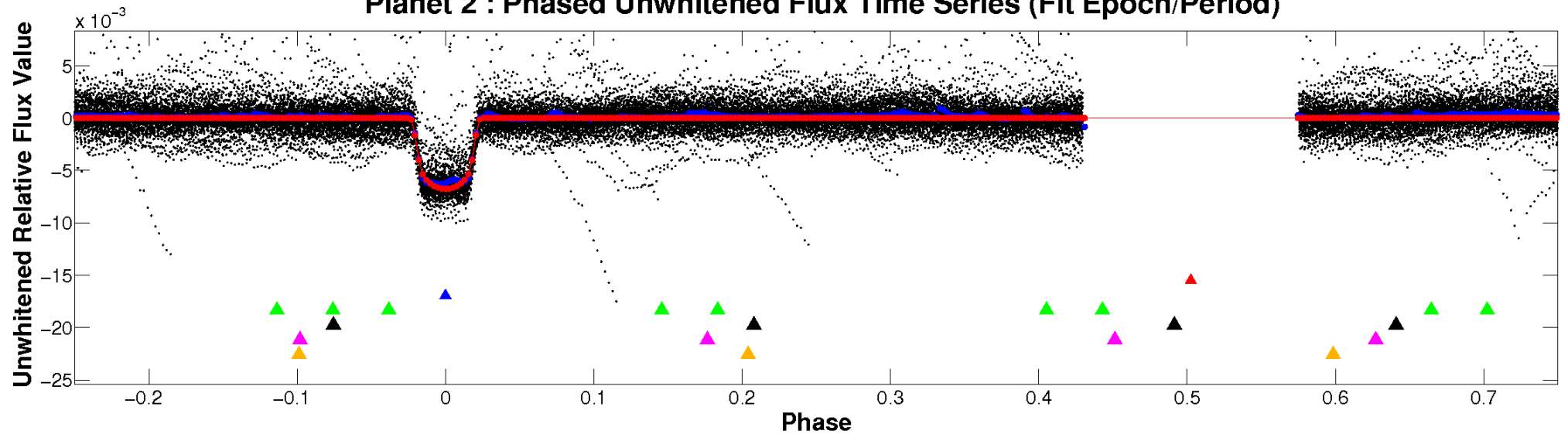
ALT Odd/Even

TCE 009576197-02

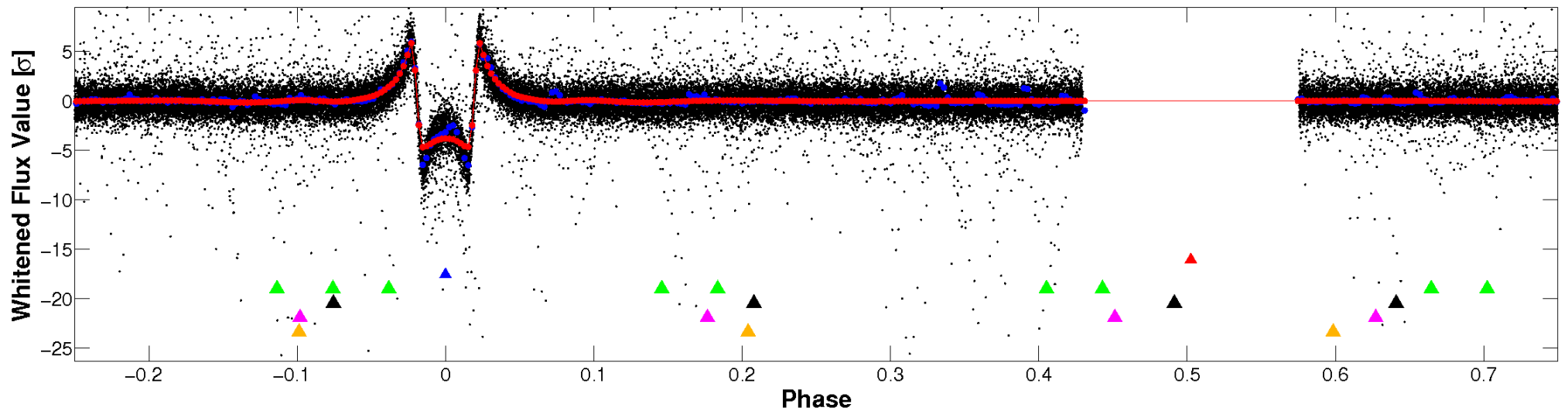


Non-Whitened Vs. Whitened Light Curve

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

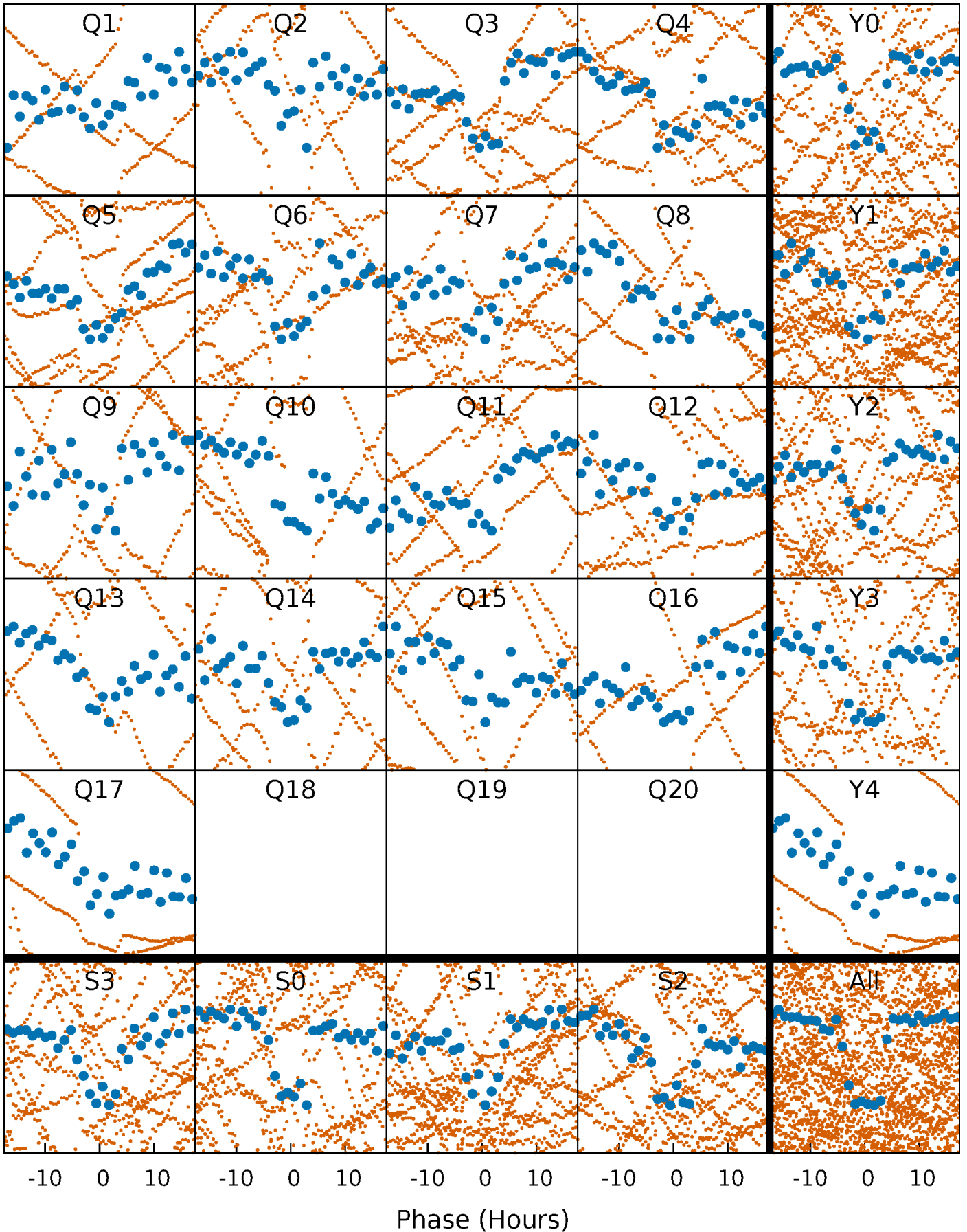


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



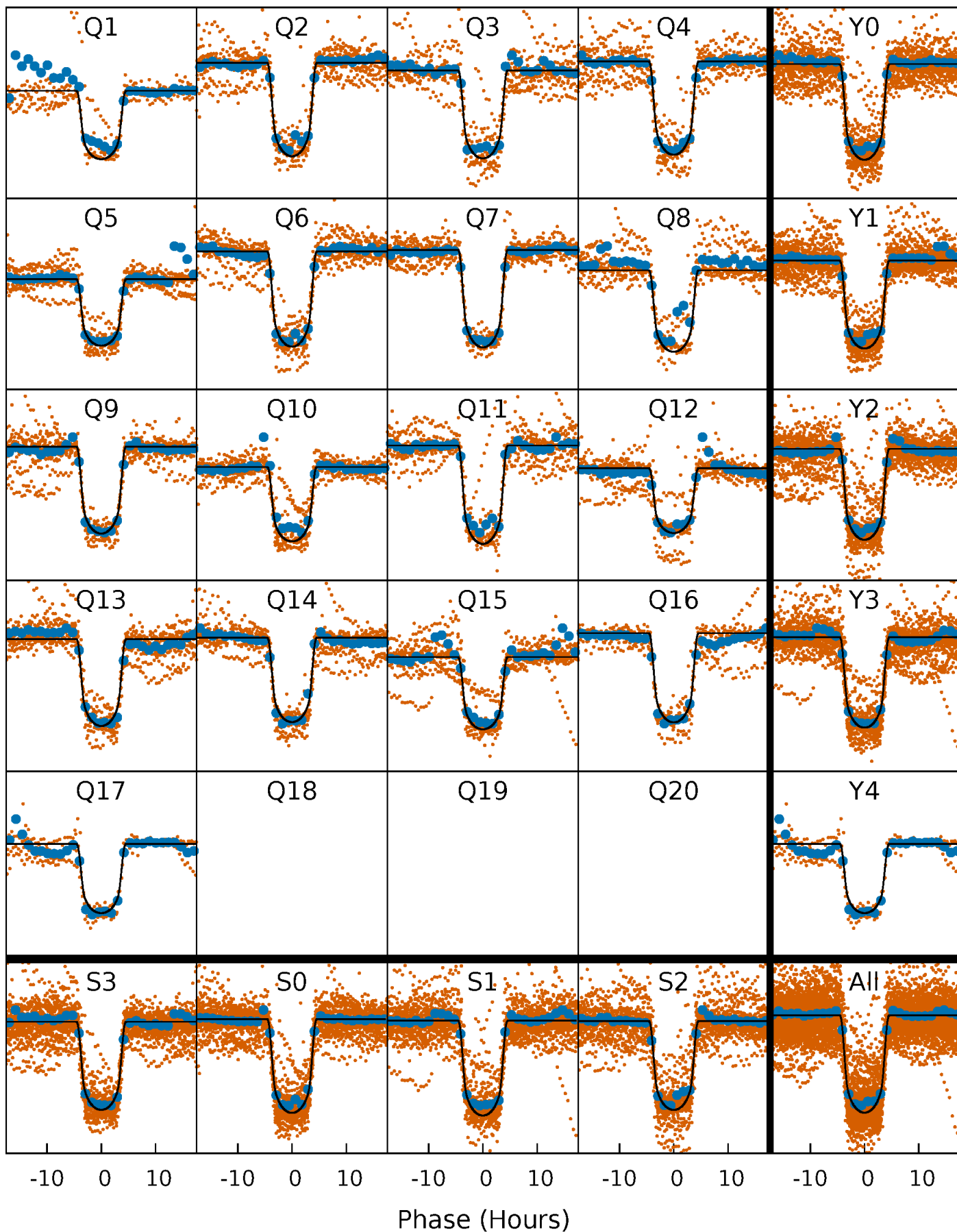
PDC Quarter-Phased Transit Curves

TCE 009576197-02 P= 7.964449 Days $T_0=132.191293$ (BKJD)



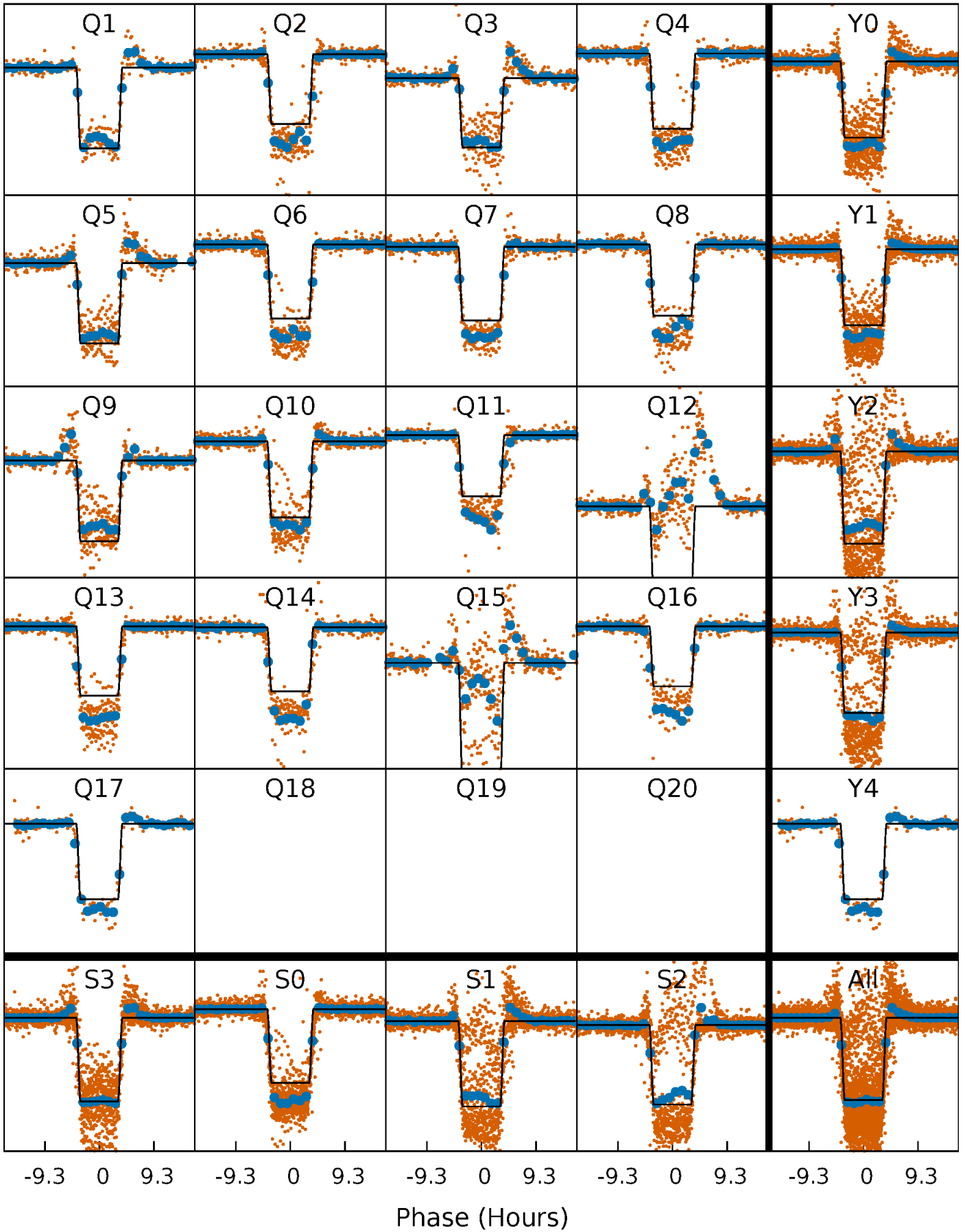
DV Quarter-Phased Transit Curves

TCE 009576197-02 P= 7.964449 Days $T_0=132.191293$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

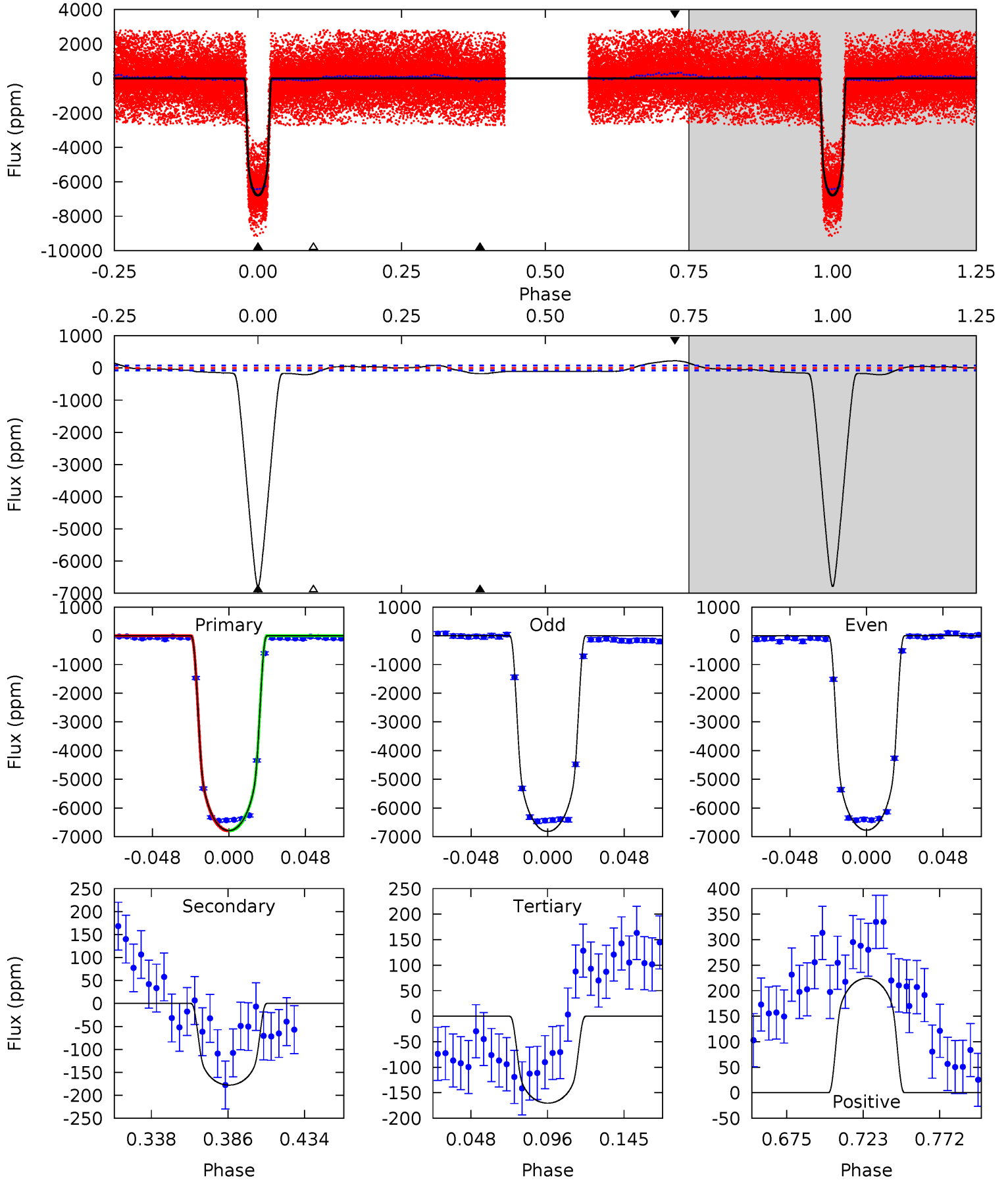
TCE 009576197-02 P= 7.964497 Days $T_0=132.186503$ (BKJD)



DV Model-Shift Uniqueness Test

009576197-02, P = 7.964449 Days, E = 124.226844 Days

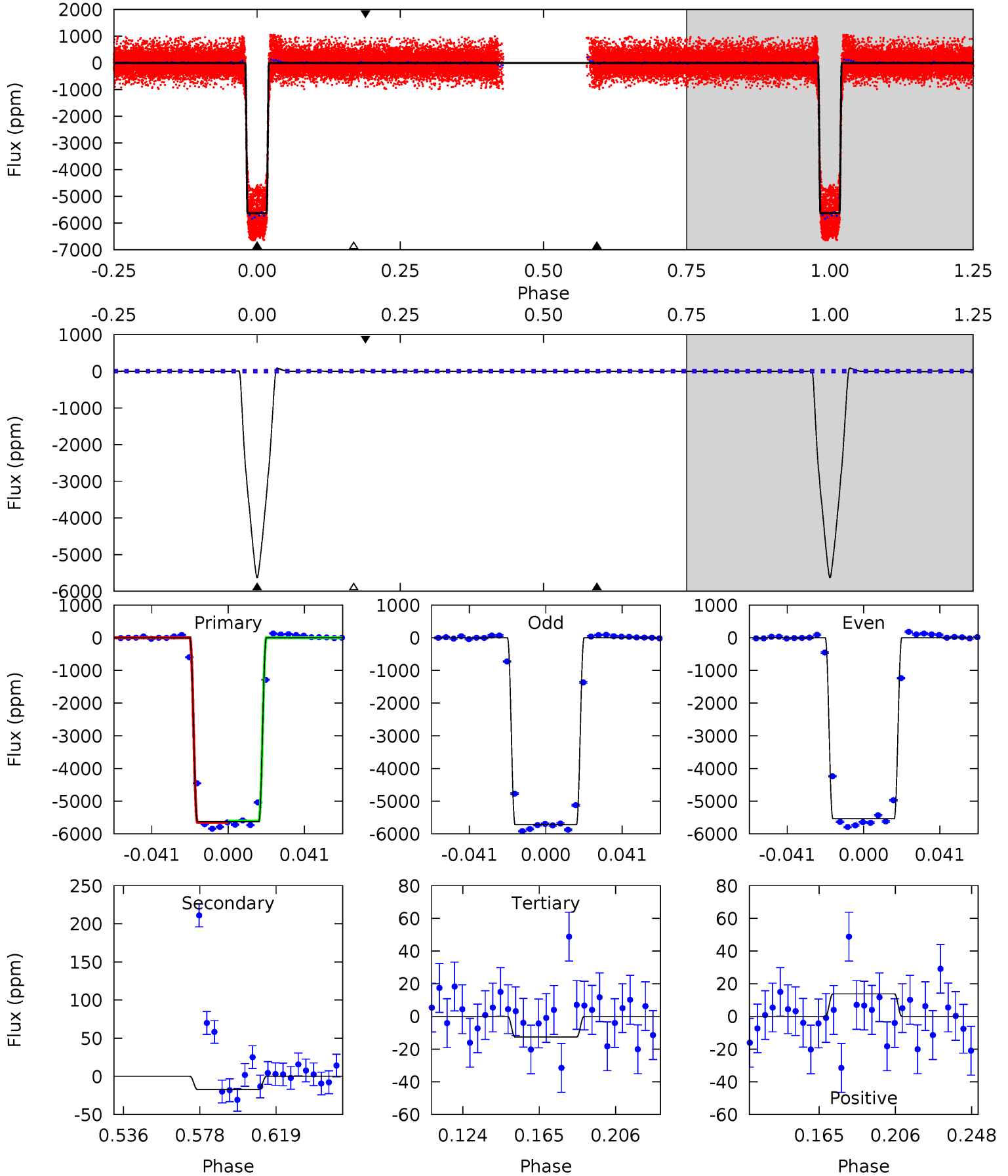
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
418.8	11.0	10.5	13.8	4.72	1.98	6.50	408.3	404.9	0.46	-2.86	1.36	0.94	0.03	0.17



Alt Model-Shift Uniqueness Test

009576197-02, P = 7.964497 Days, E = 124.222006 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
821.0	2.52	1.85	2.02	4.75	2.04	0.81	819.1	819.0	0.67	0.51	13.1	0.90	0.02	0



Stellar Parameters For KIC 009576197

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5250^{+158}_{-142}	$4.548^{+0.084}_{-0.056}$	$-0.480^{+0.300}_{-0.300}$	$0.736^{+0.084}_{-0.076}$	$0.698^{+0.095}_{-0.044}$	$2.462^{+0.929}_{-0.527}$
	+3%/-3%	+2%/-1%	+62%/-62%	+11%/-10%	+14%/-6%	+38%/-21%
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 009576197-02 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-178 ± 16	$6.41^{+0.42}_{-0.37}$	1051^{+43}_{-39}	2841^{+64}_{-58}	12^{+2}_{-2}
Alt.	-17 ± 7	$5.63^{+0.36}_{-0.32}$	1053^{+38}_{-39}	2156^{+106}_{-165}	$1.458^{+0.601}_{-0.618}$

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 $A_{obs} \gg 1.0$

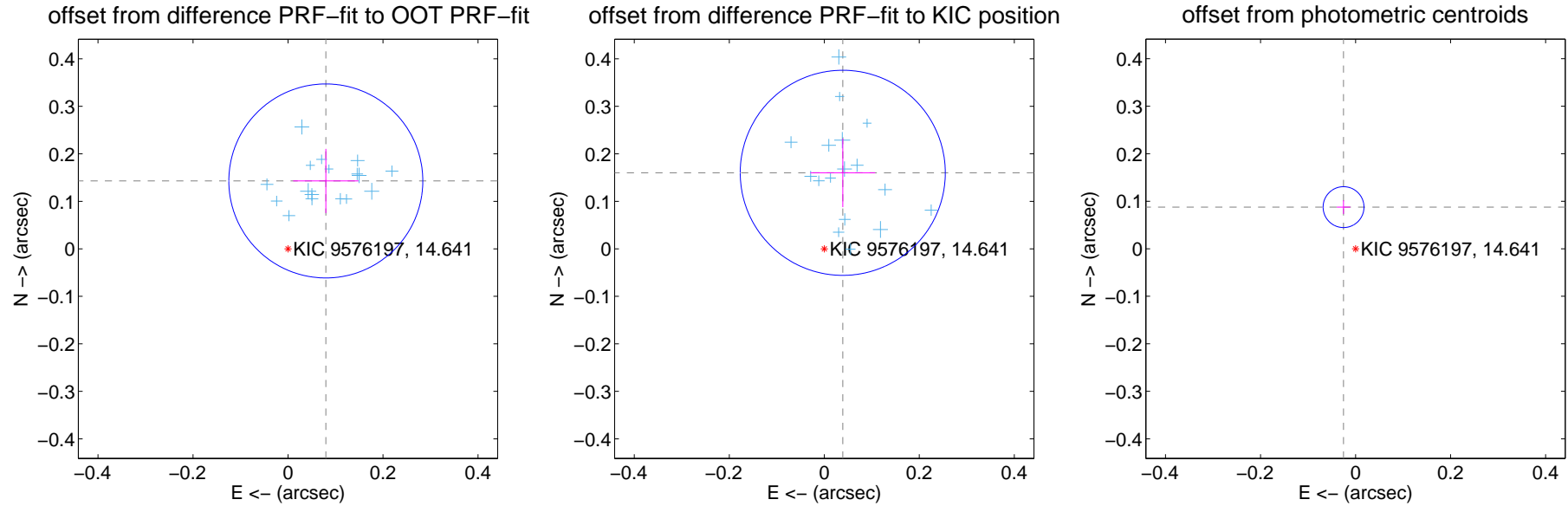
DV Centroid Data

Supplemental centroid analysis for 009576197-02. Kepler magnitude: 14.64. Transit SNR 249.17

There are 17 quarters with good PRF difference image offsets

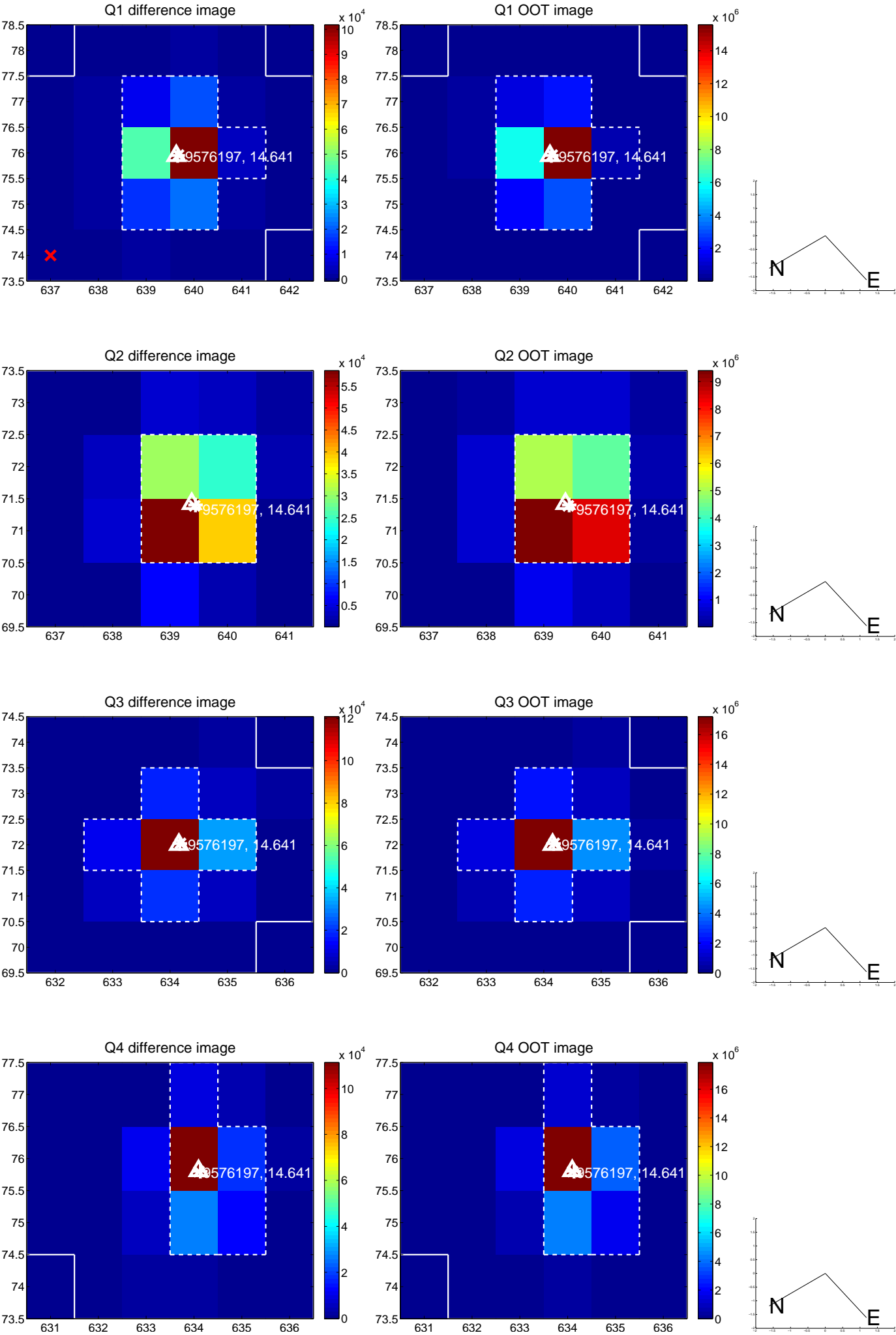
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.164 ± 0.068	2.40	-0.080 ± 0.069	0.143 ± 0.068
PRF-fit source offset from KIC position	0.165 ± 0.072	2.29	-0.039 ± 0.068	0.160 ± 0.072
photometric centroid source offset	0.09 ± 0.01	6.36	0.03 ± 0.01	0.09 ± 0.01

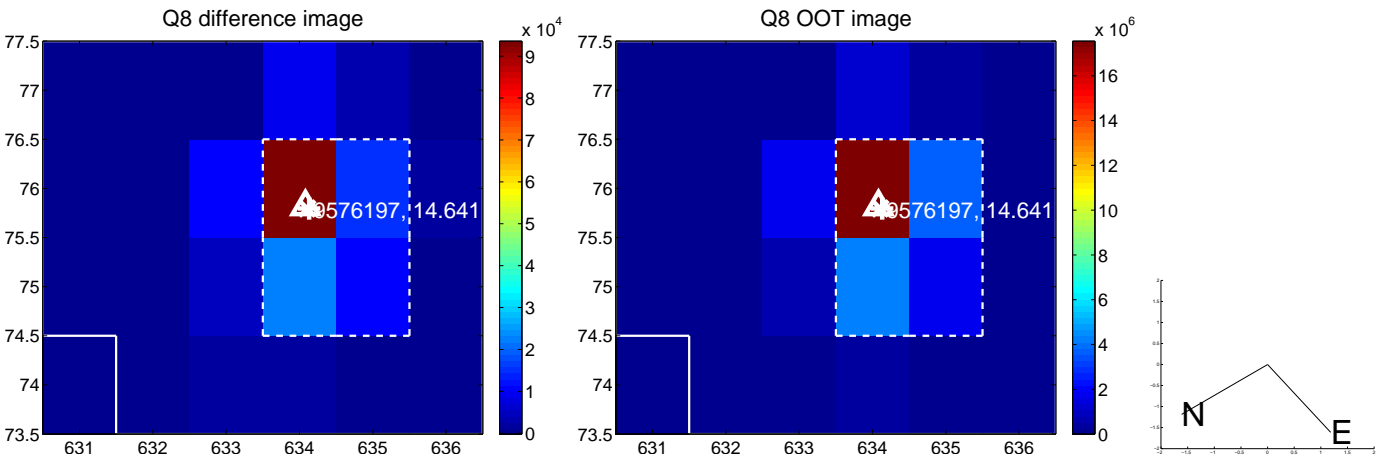
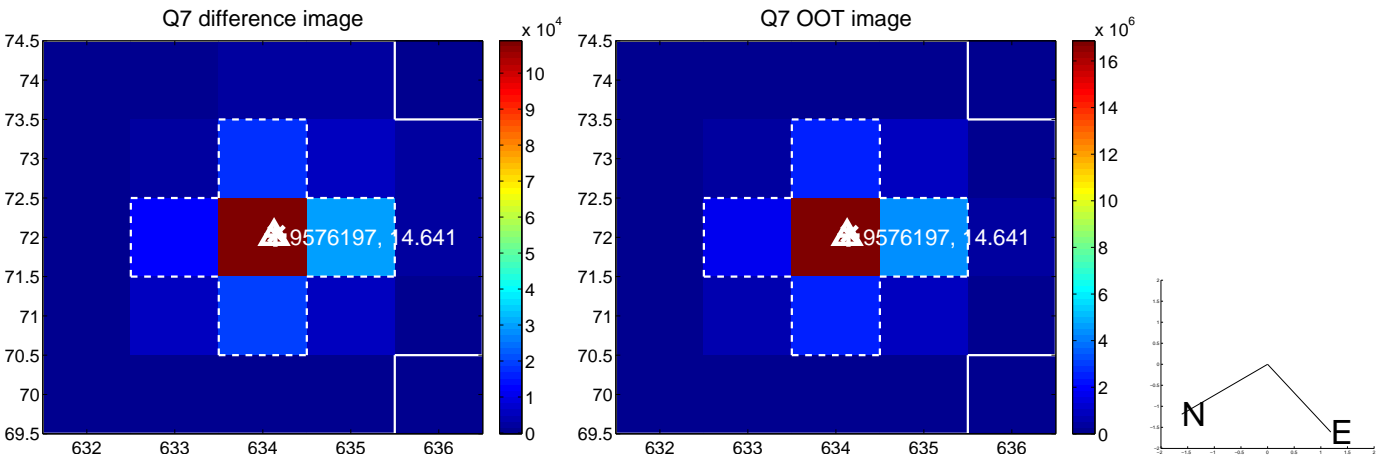
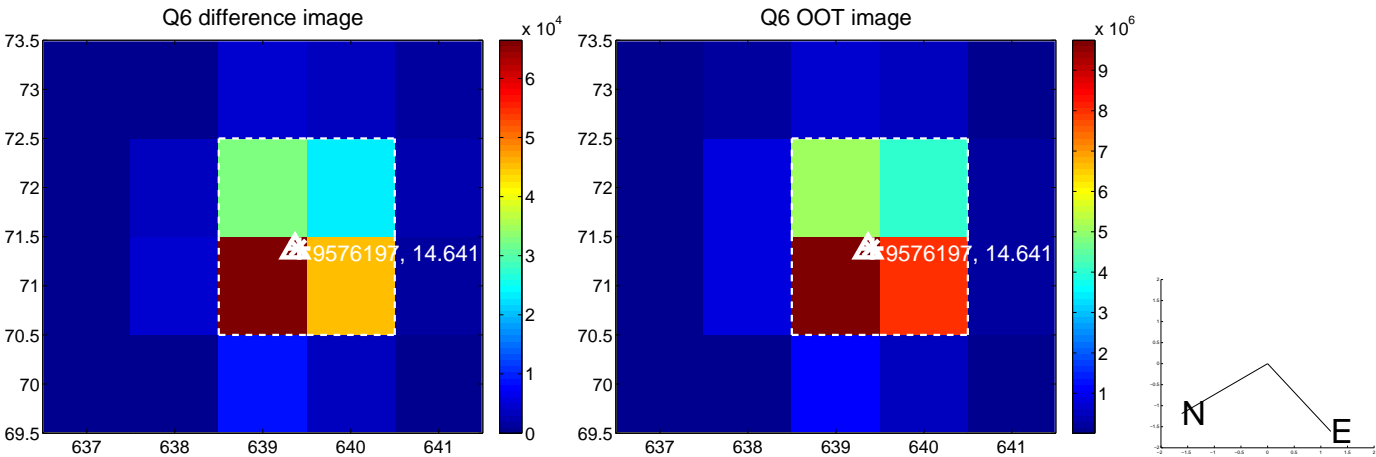
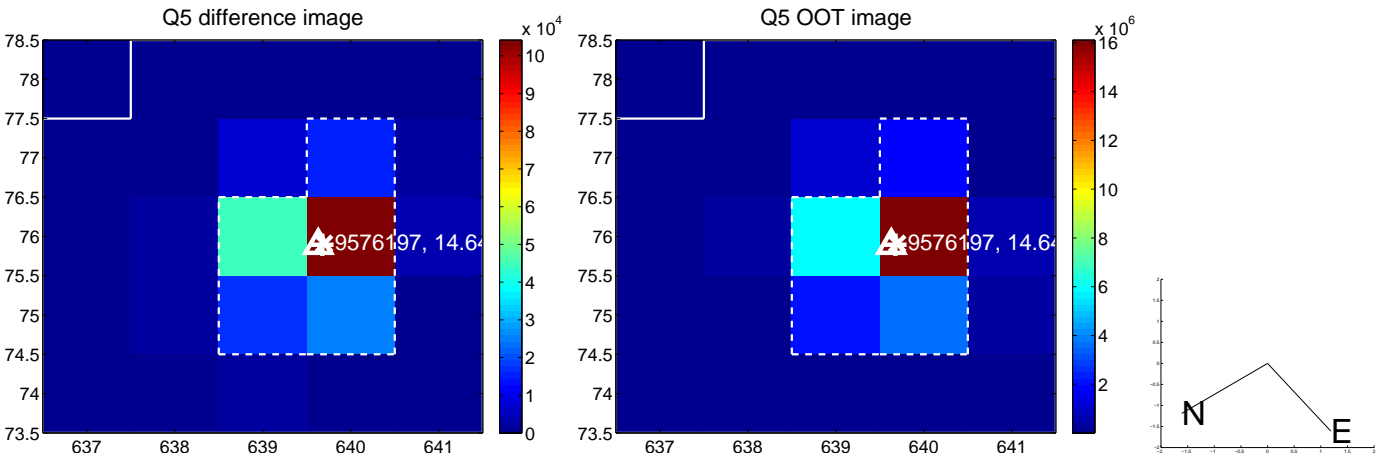


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

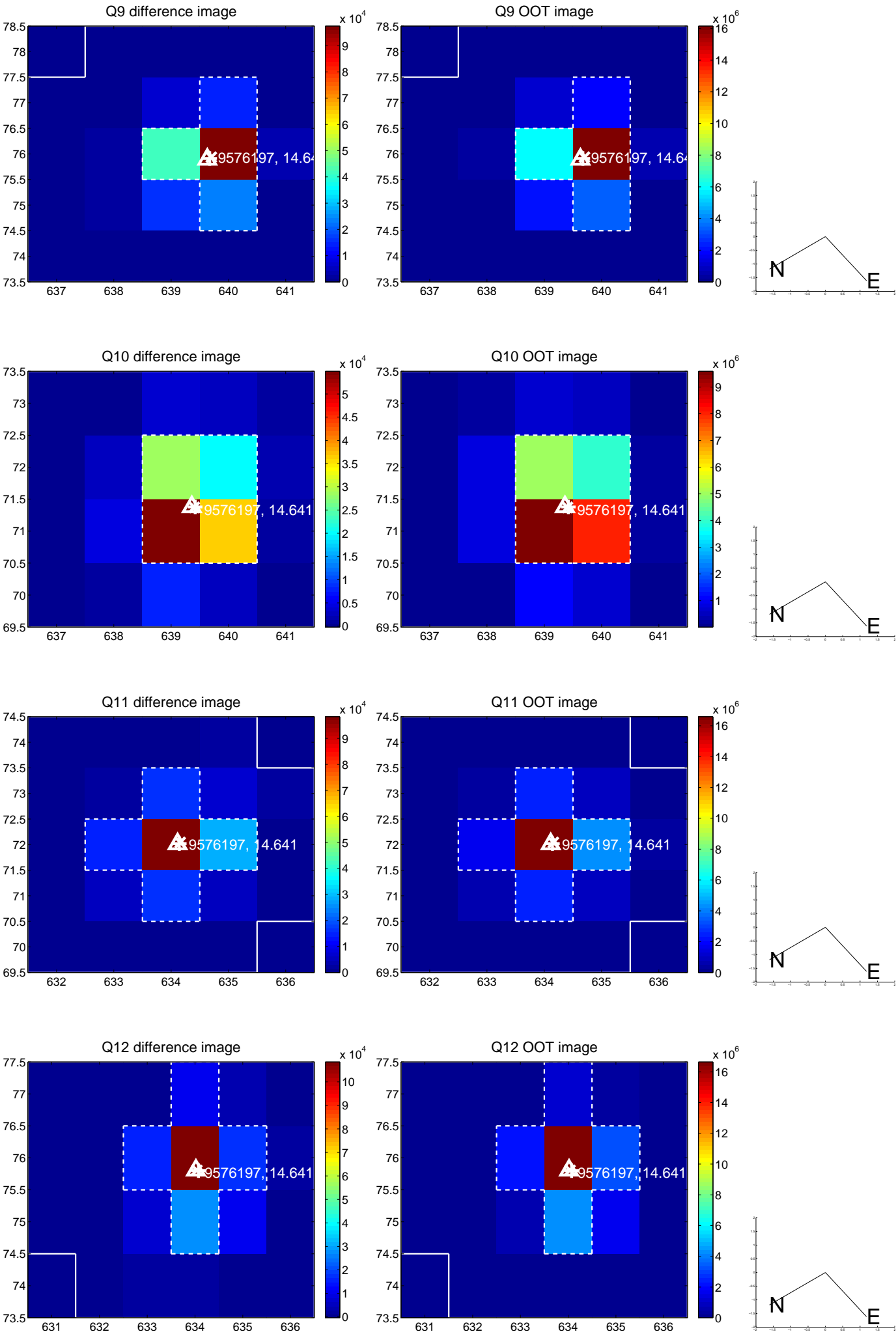
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



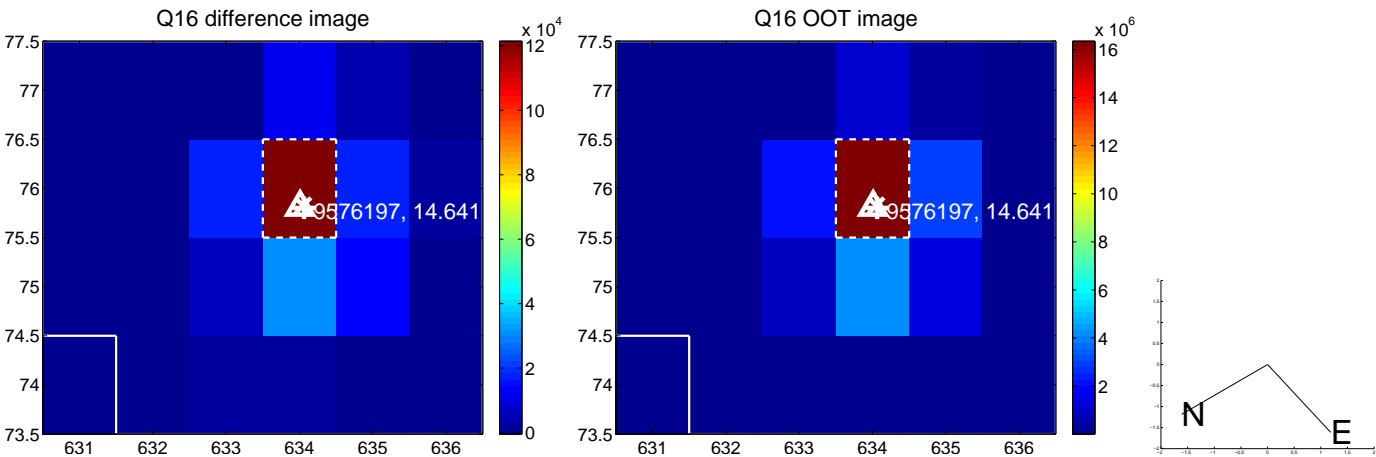
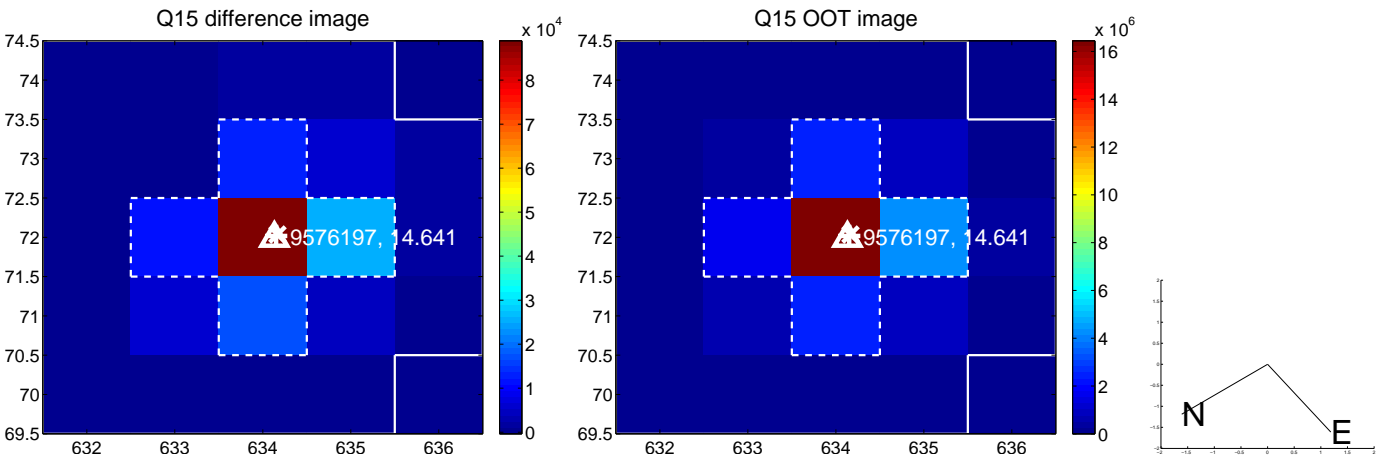
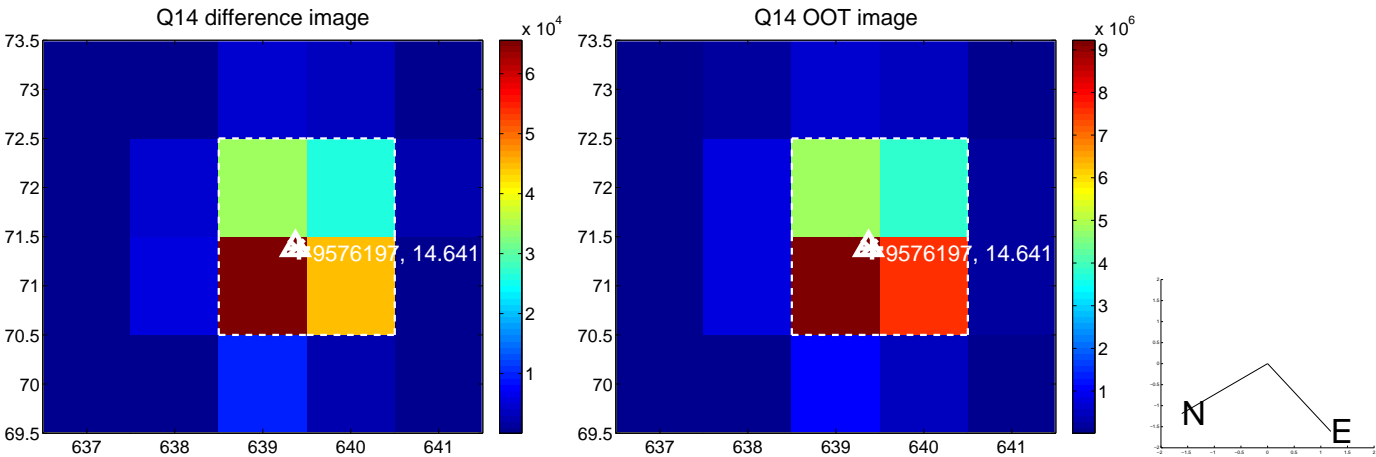
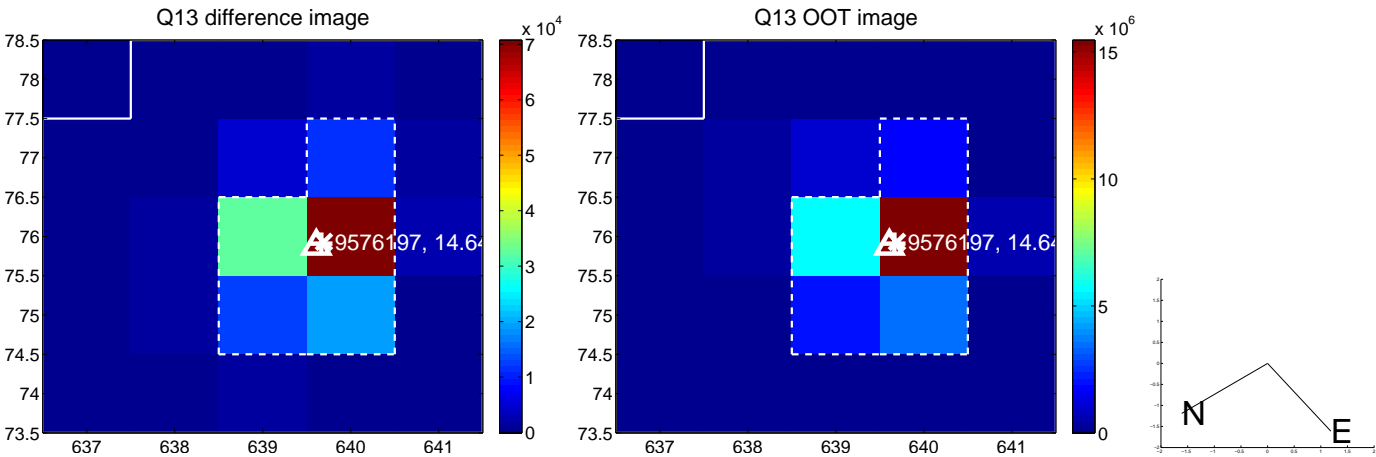
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



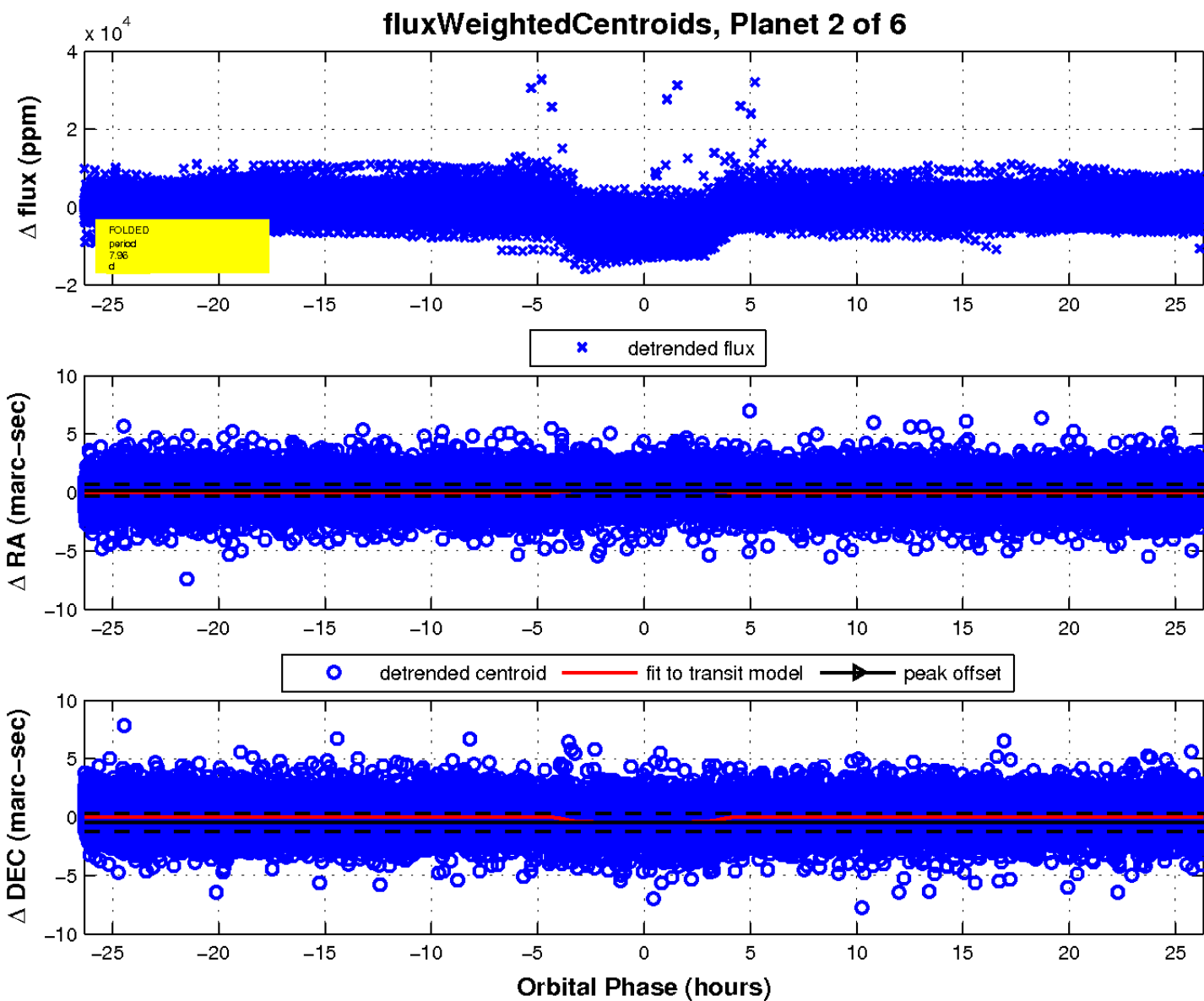
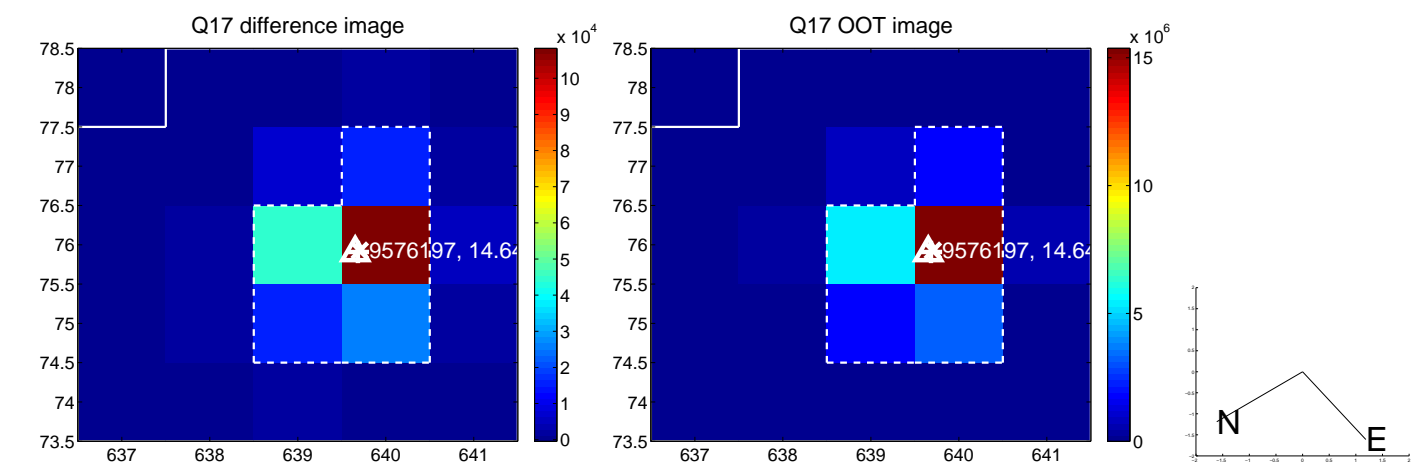
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

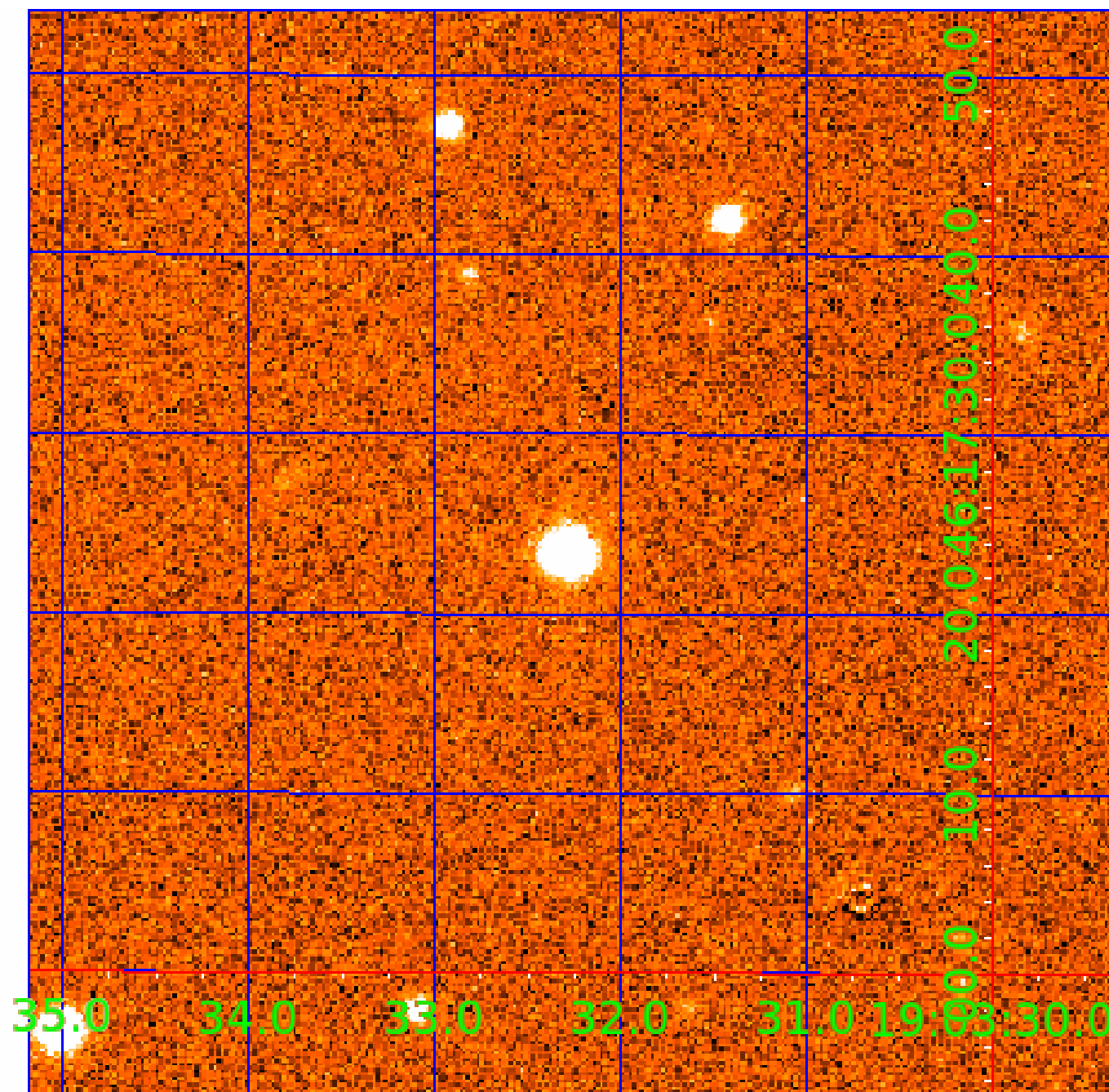


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 009576197

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})
009576197-01	OBS	6207.01	7.964434	136.195153	69115.1	9.133	1433.2	1640.4	0.74	5250	19.05	76.90
009576197-02	OBS	No	7.964449	132.191293	6768.7	8.774	249.2	249.2	0.74	5250	6.42	76.90
009576197-03	OBS	No	165.187252	171.709243	841.0	2.119	22.9	6.5	0.74	5250	2.27	1.35
009576197-04	OBS	No	384.551494	392.158465	540.1	2.081	19.0	2.9	0.74	5250	1.86	0.44
009576197-05	OBS	No	384.481376	392.049039	4054.0	22.580	18.2	7.1	0.74	5250	5.66	0.44

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009576197-01	OBS	FP	0.00	0	1	0	0	MOD_SEC_DV—MOD_SEC_ALT—MOD_ODDEVEN_ALT—HAS_SEC_TCE
009576197-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE
009576197-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_SKYE_TRACKER—LPP_DV—LPP_ALT—INCONSISTENT_TRANS
009576197-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_SKYE_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_FEW_MEAS
009576197-05	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—SAME_NTL_PERIOD—CENT_FEW_DIFFS—HALO_GHOST

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

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

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

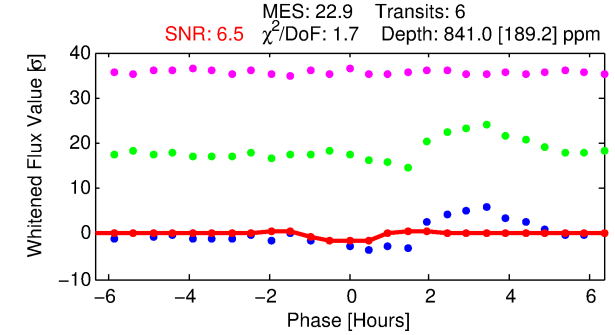
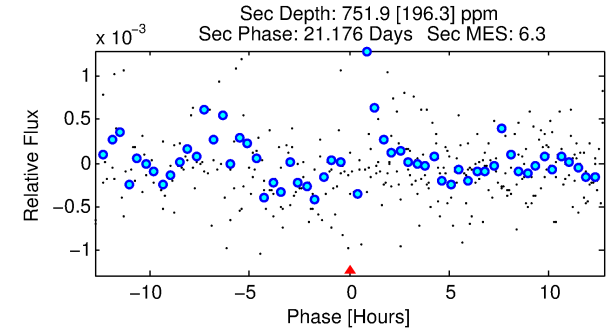
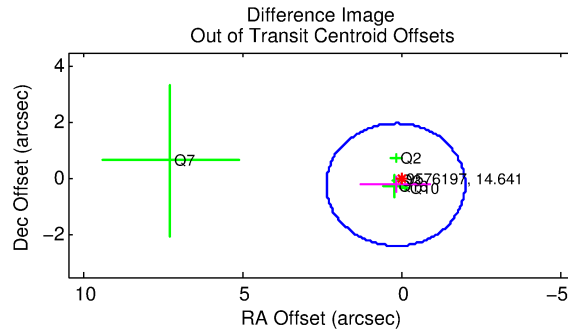
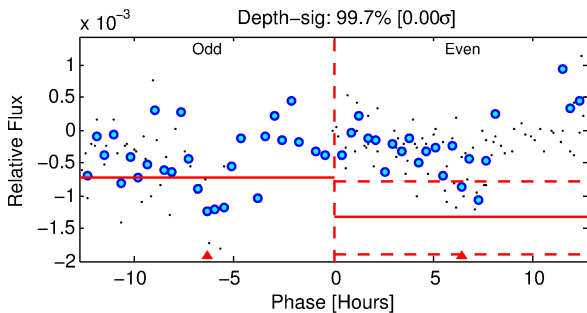
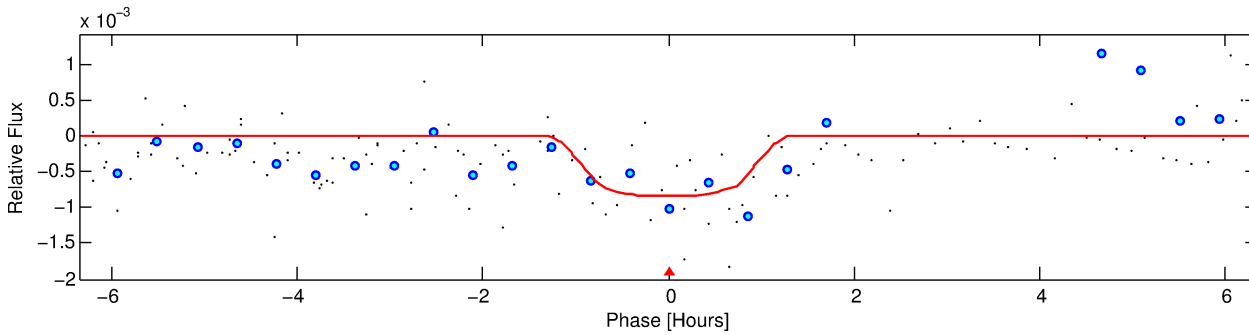
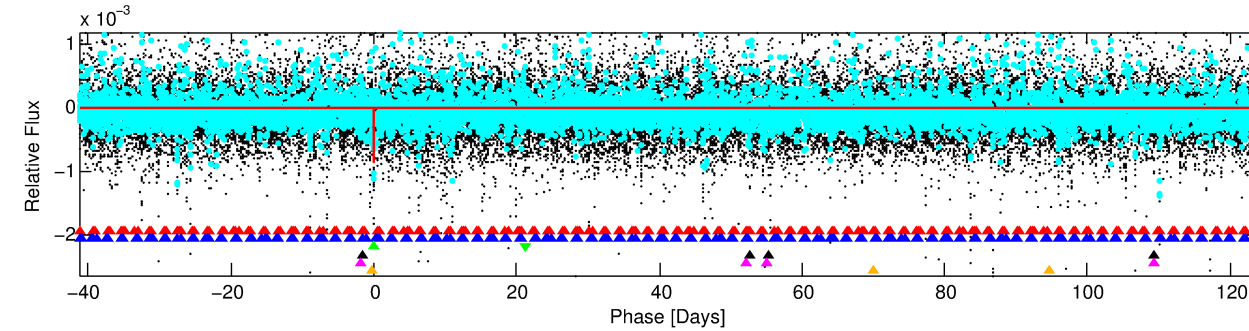
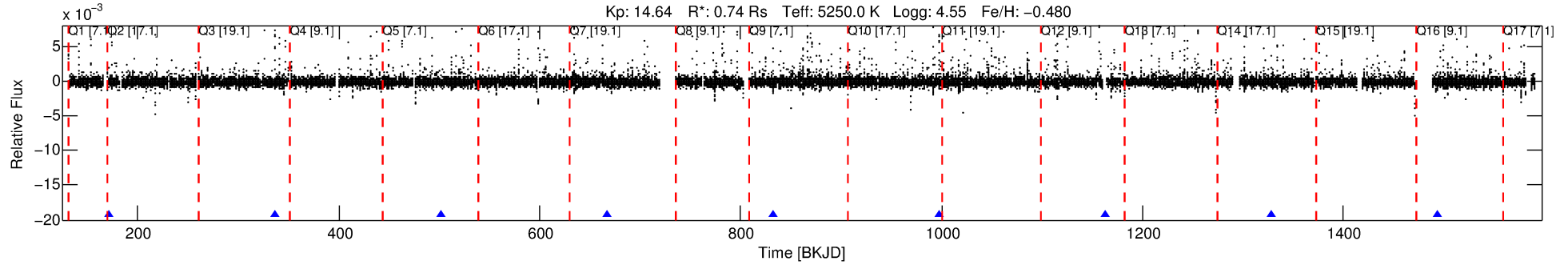
Ephemeris Match Information For 009576197-03

No Significant Match Found

DV One-Page Summary

KIC: 9576197 Candidate: 3 of 6 Period: 165.187 d
KOI: K06207 Corr: No Ephemeris Match

Kp: 14.64 R*: 0.74 Rs Teff: 5250.0 K Logg: 4.55 Fe/H: -0.480



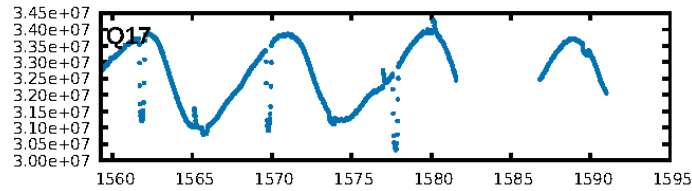
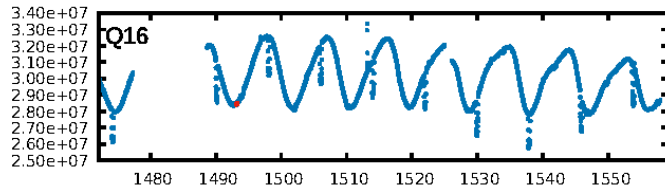
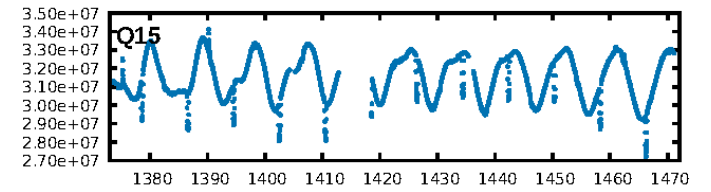
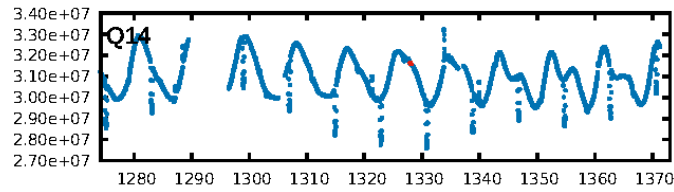
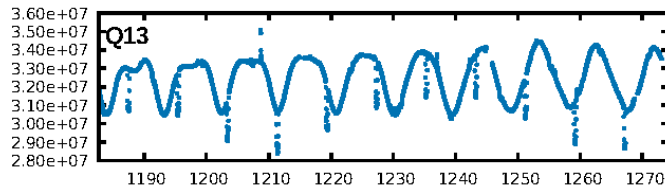
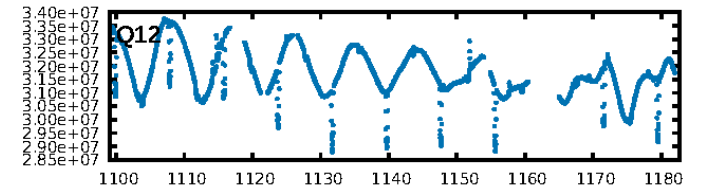
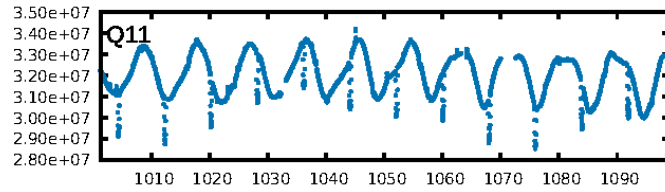
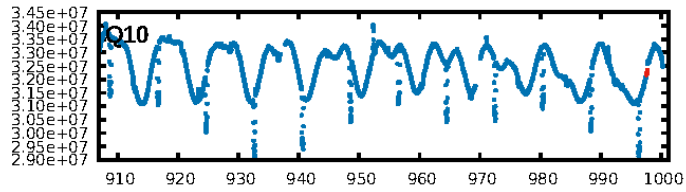
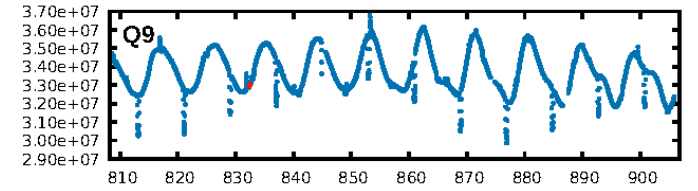
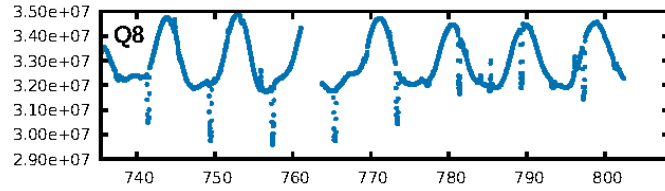
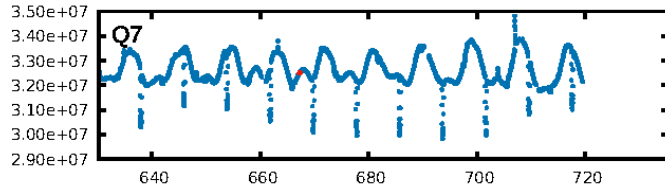
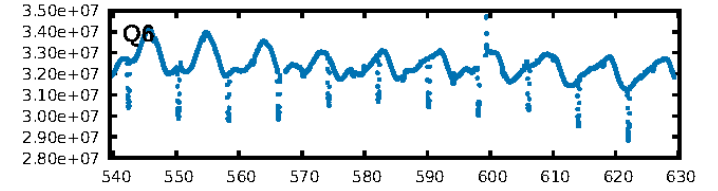
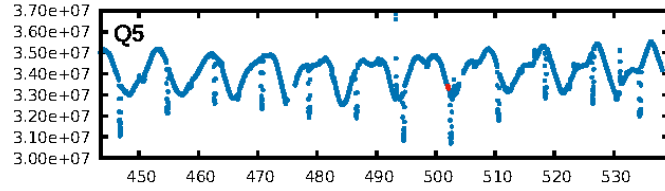
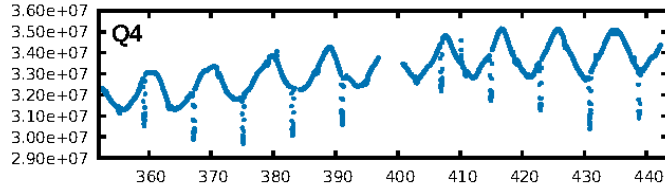
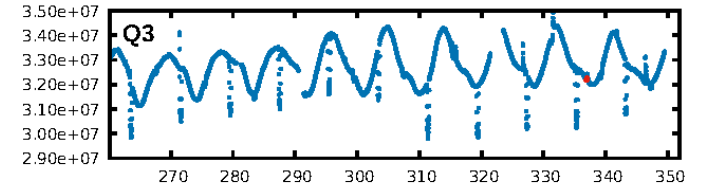
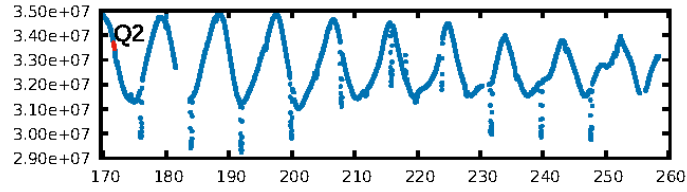
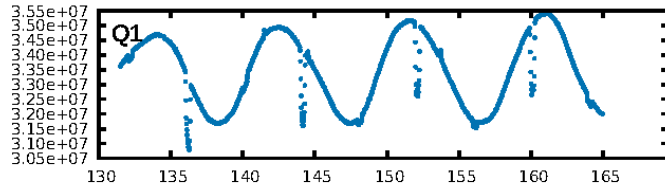
DV Fit Results:

Period = 165.18725 [0.00221] d
Epoch = 171.7092 [0.0121] BKJD
Rp/R* = 0.0283 [0.0675]
a/R* = 456.80 [4312.67]
b = 0.68 [7.46]
Seff = 1.35 [0.26]
Teff = 275 [13] K
Rp = 2.27 [5.43] Re
a = 0.5227 [0.0521] AU
Ag = 21922.59 [104937.45] [0.21σ]
Teffp = 5170 [6186] K [0.79σ]

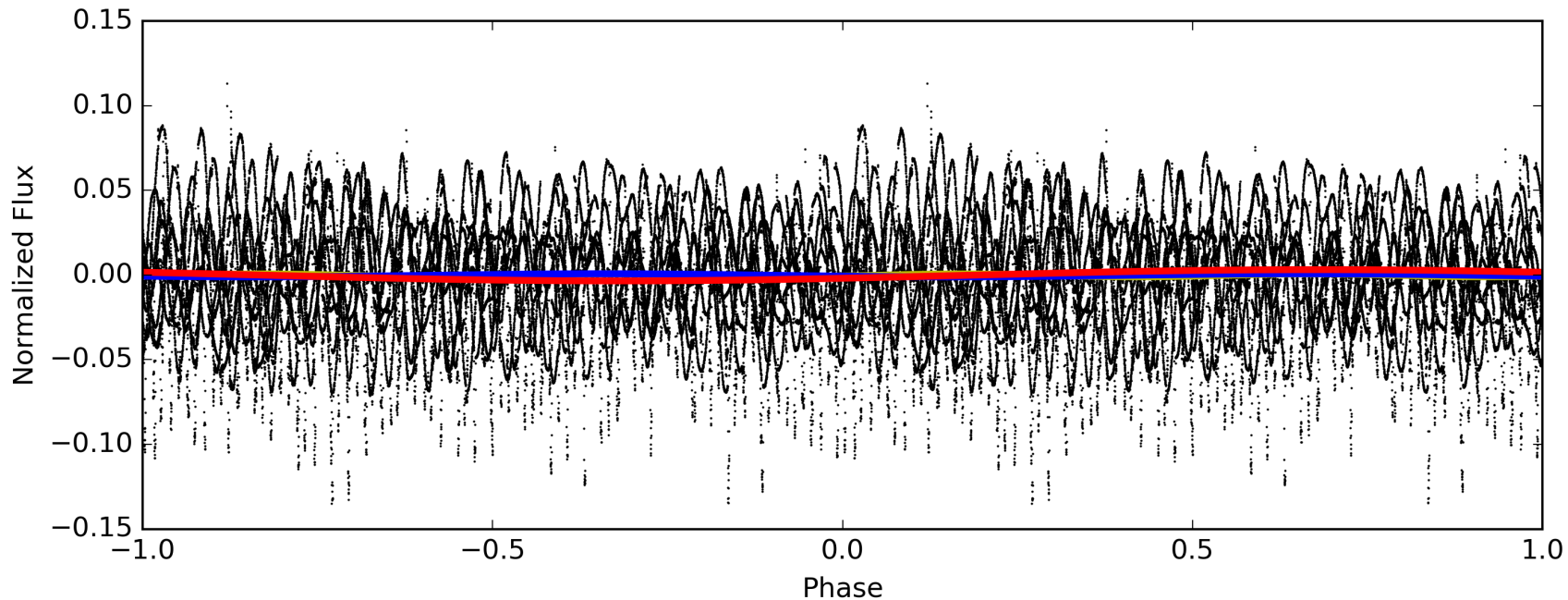
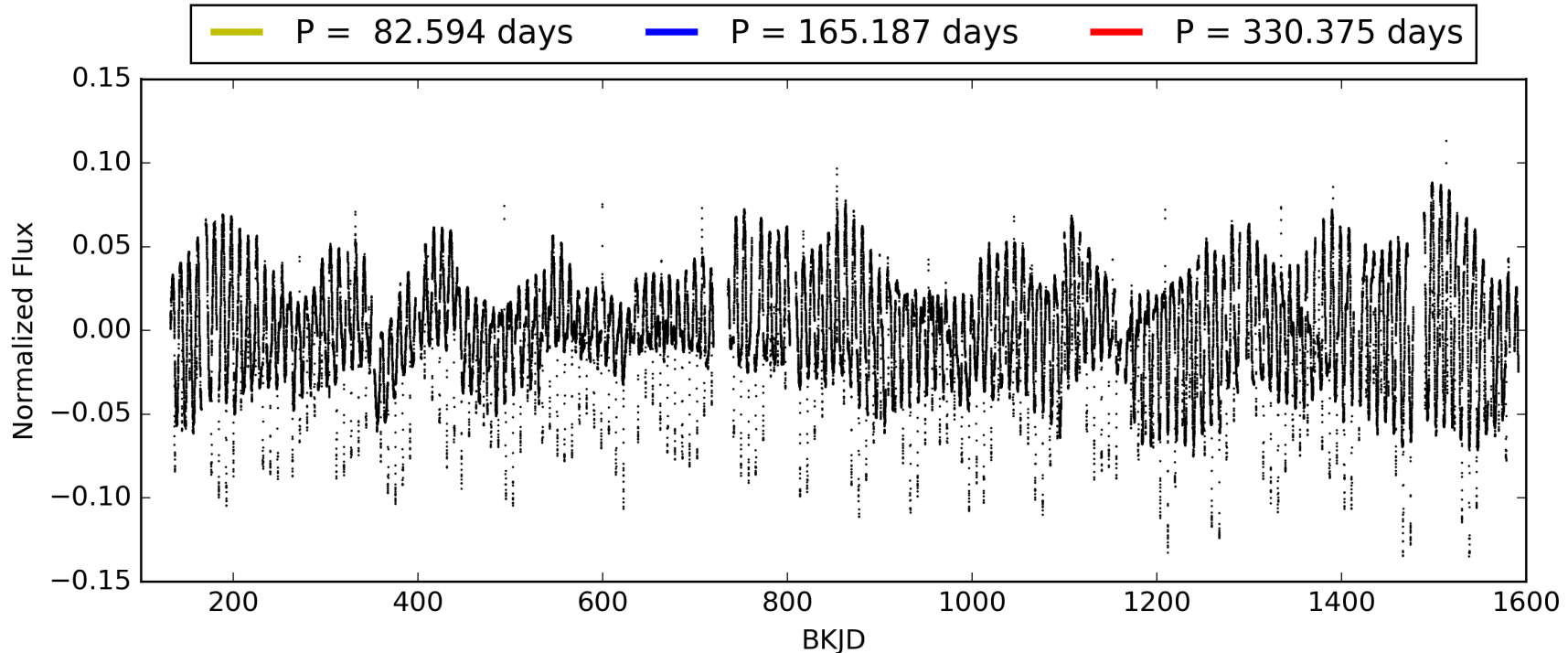
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [418.02σ]
LongPeriod-sig: 100.0% [232.07σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 17.3%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [6/6]
GhostDiagnostic-chr: -0.7005
Centroid-sig: 14.5%
Centroid-so: 1.142 arcsec [1.34σ]
OotOffset-rm: 0.291 arcsec [0.40σ]
KicOffset-rm: 0.146 arcsec [0.16σ]
OotOffset-st: 2/2/1/0 [5]
KicOffset-st: 2/2/1/0 [5]
DiffImageQuality-fgm: 0.60 [3/5]
DiffImageOverlap-fno: 0.75 [6/8]

TCE 009576197-03, PDC Light Curves

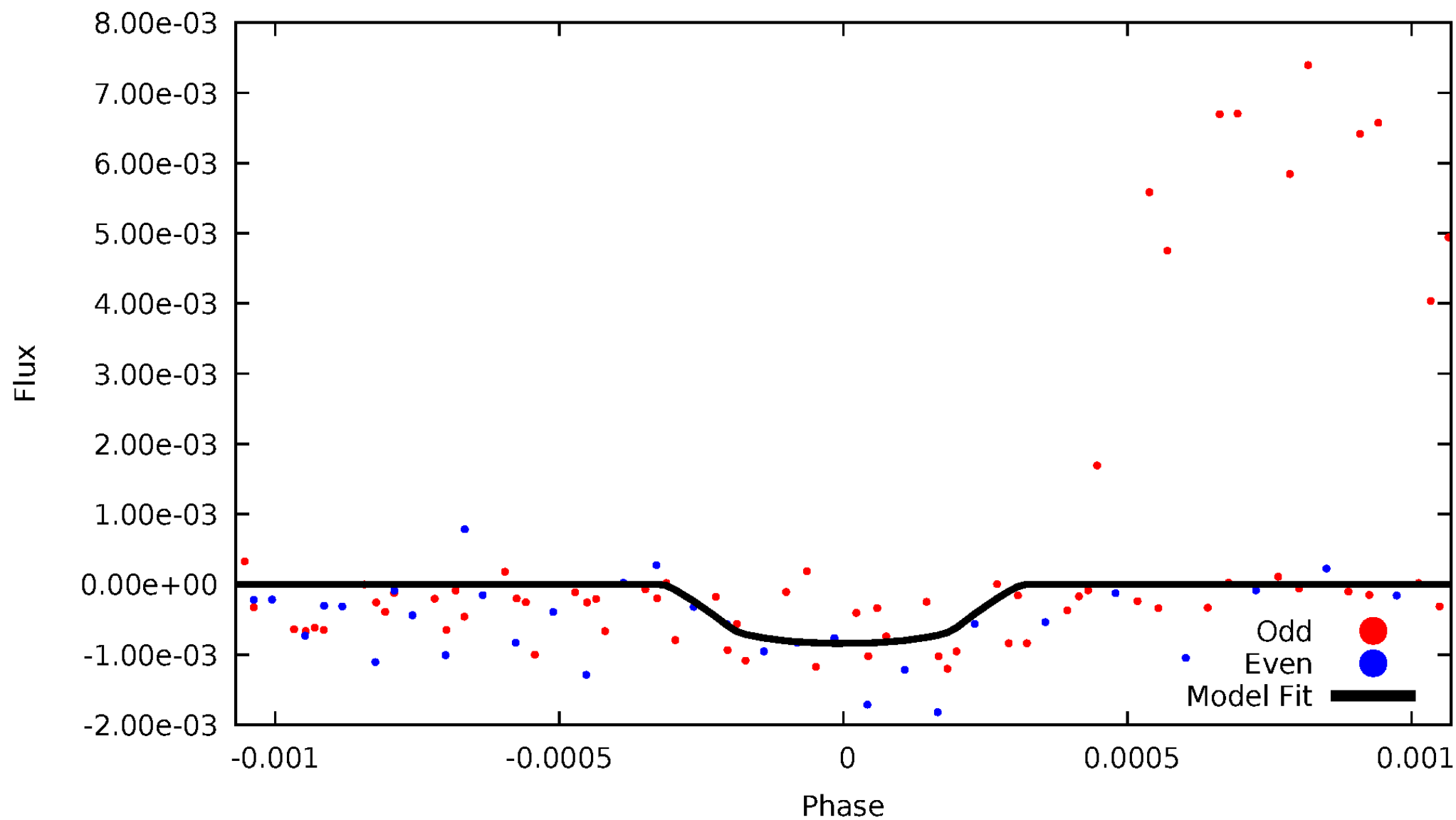


TCE 009576197-03



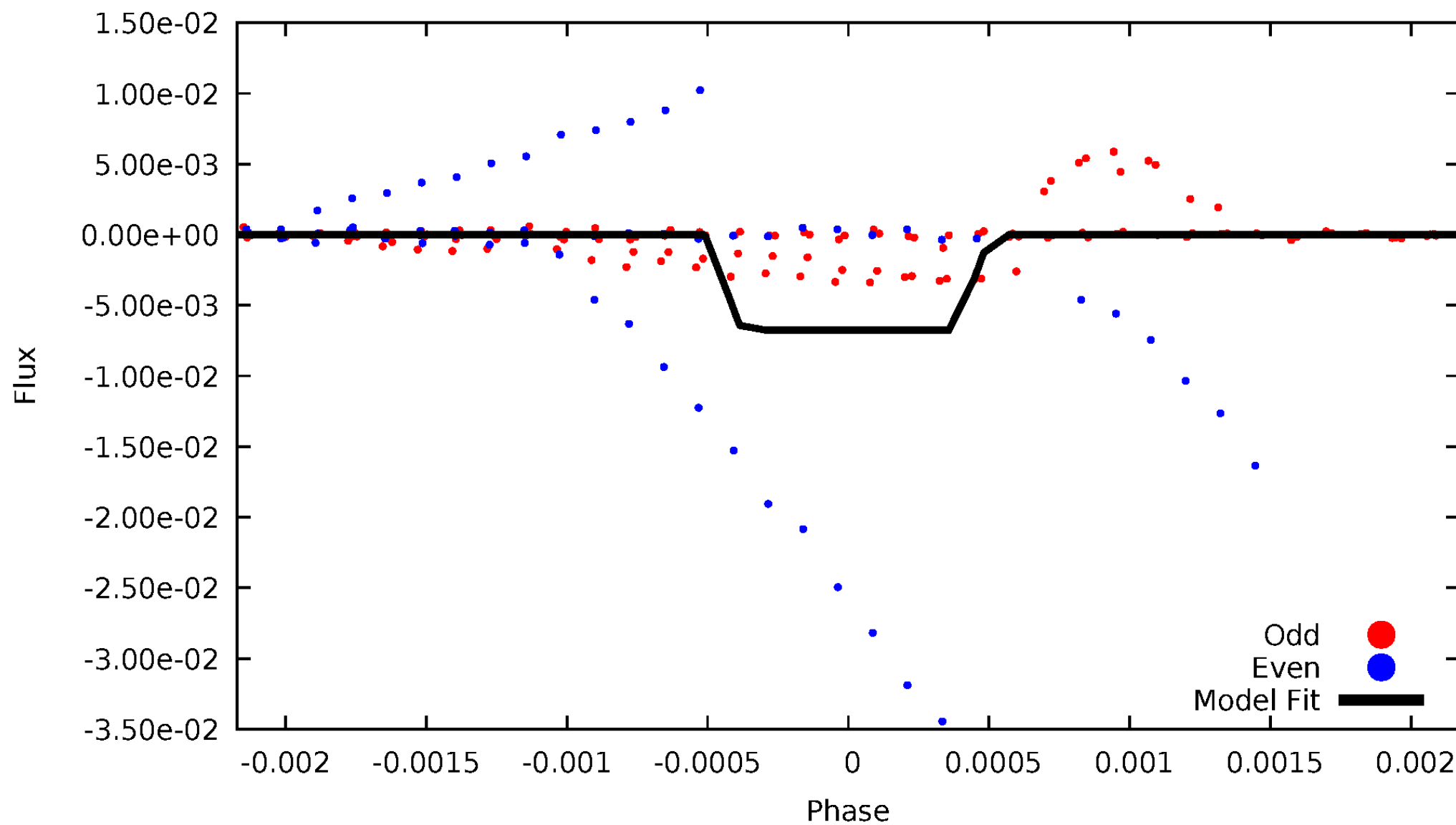
DV Odd/Even

TCE 009576197-03



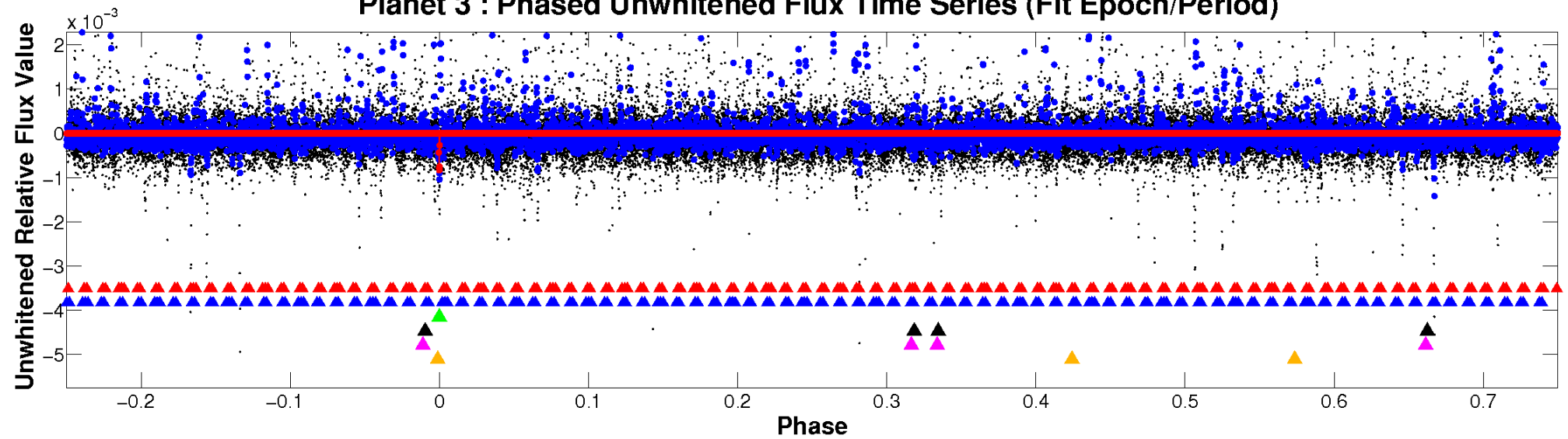
ALT Odd/Even

TCE 009576197-03

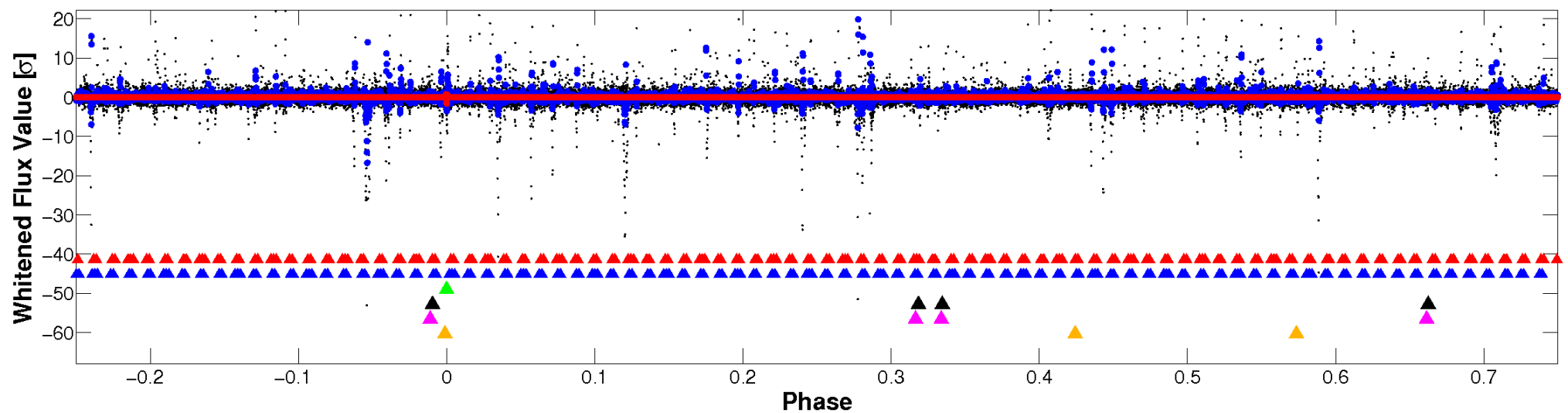


Non-Whitened Vs. Whitened Light Curve

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

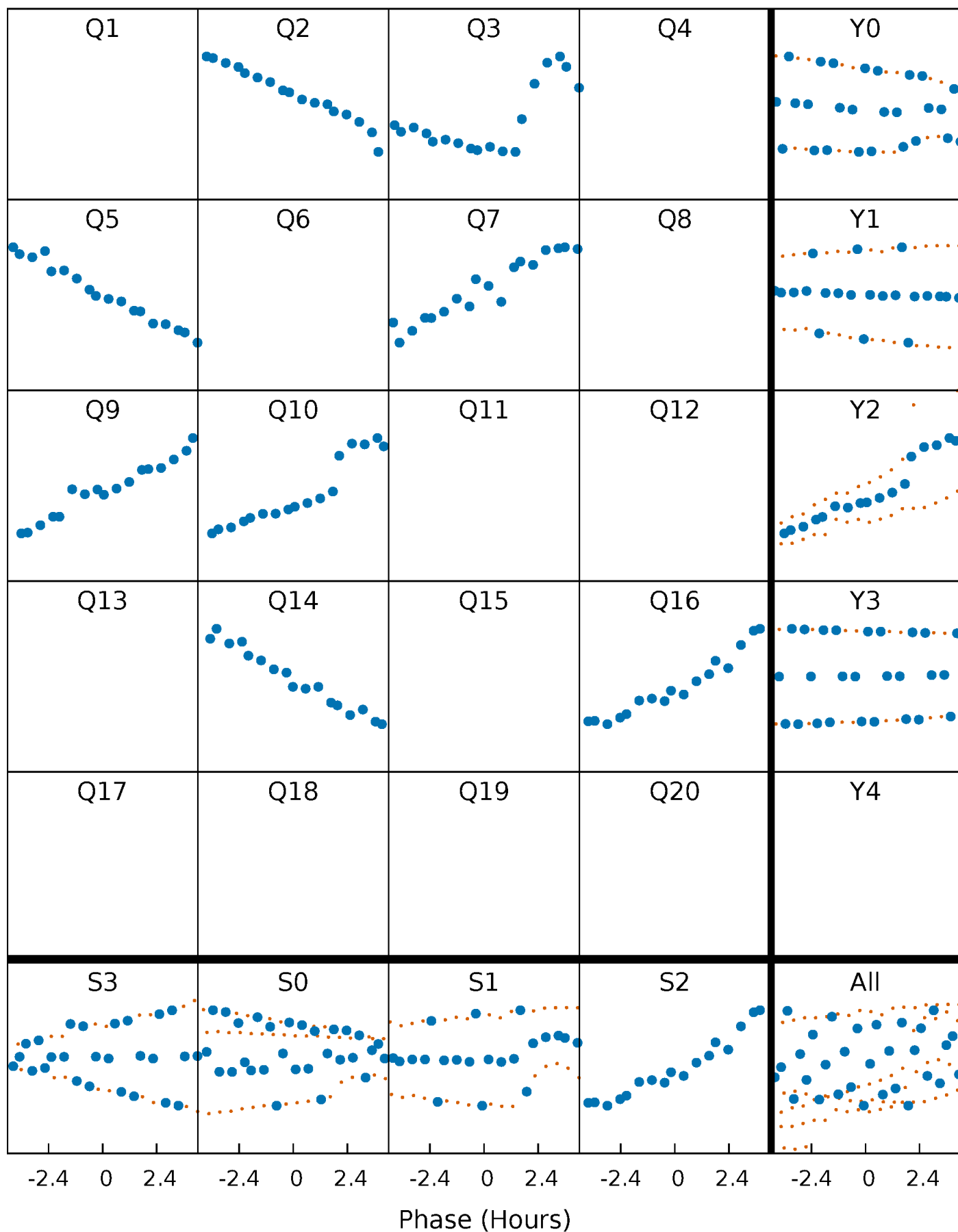


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



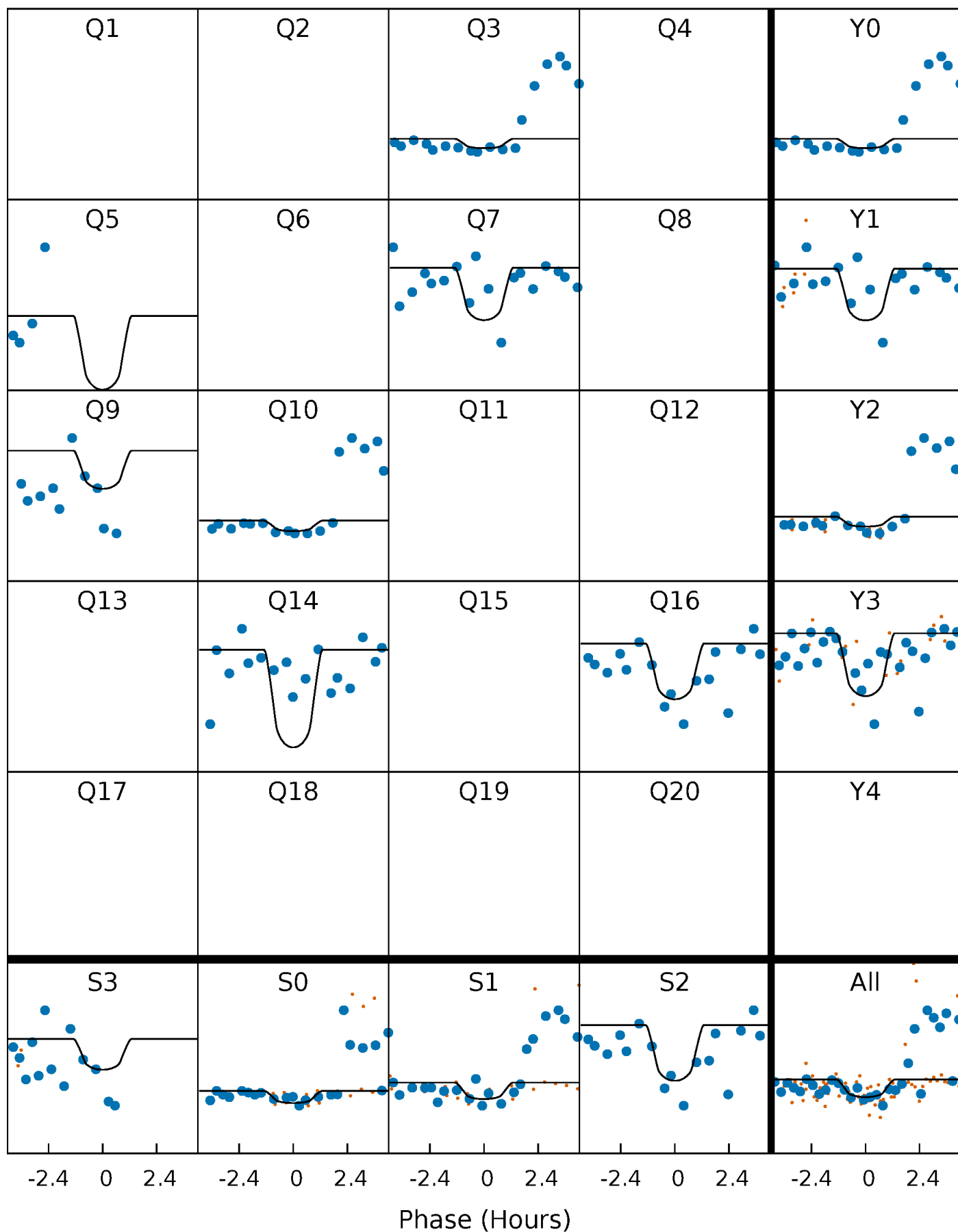
PDC Quarter-Phased Transit Curves

TCE 009576197-03 $P=165.187252$ Days $T_0=171.709242$ (BKJD)



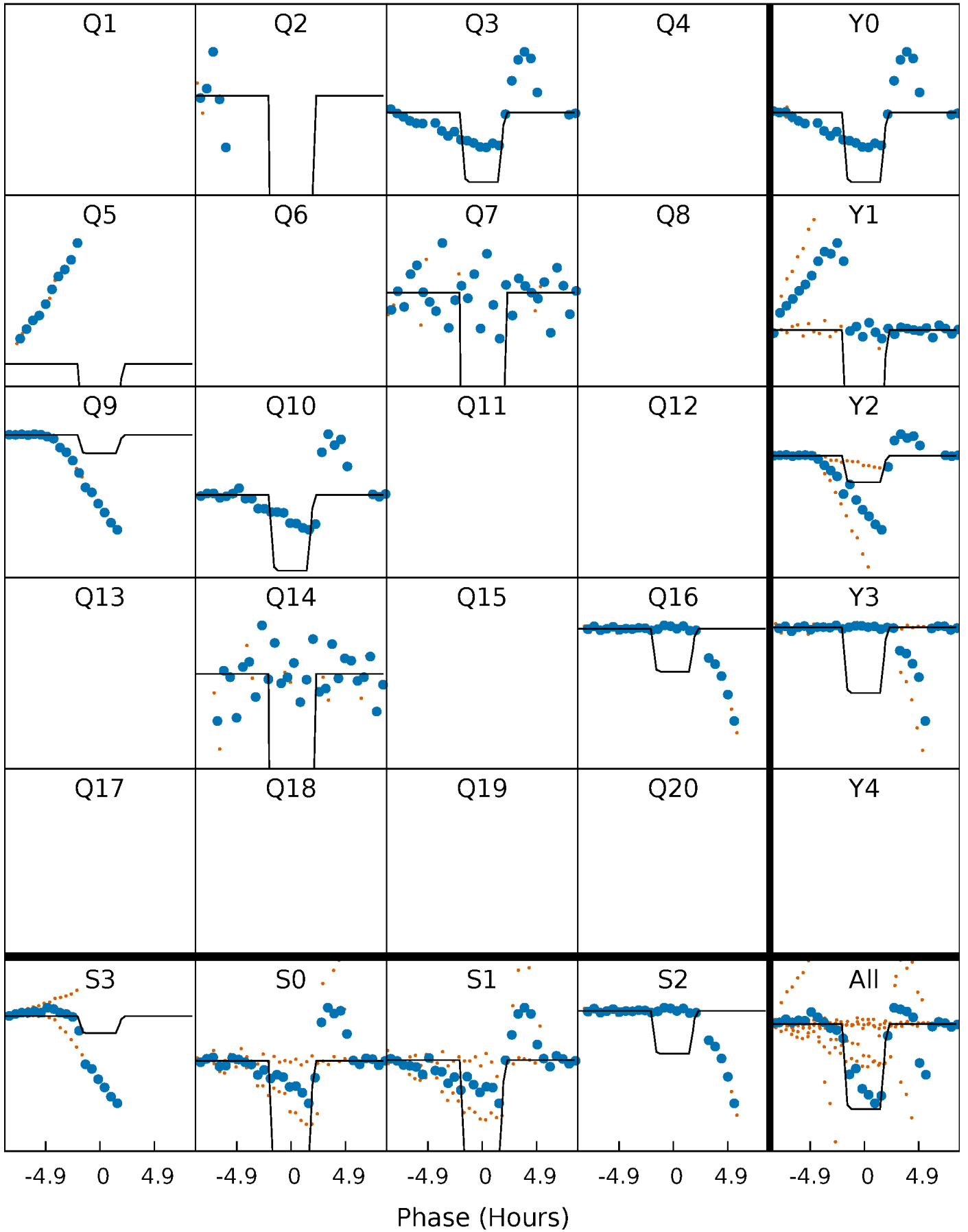
DV Quarter-Phased Transit Curves

TCE 009576197-03 P=165.187252 Days $T_0=171.709242$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

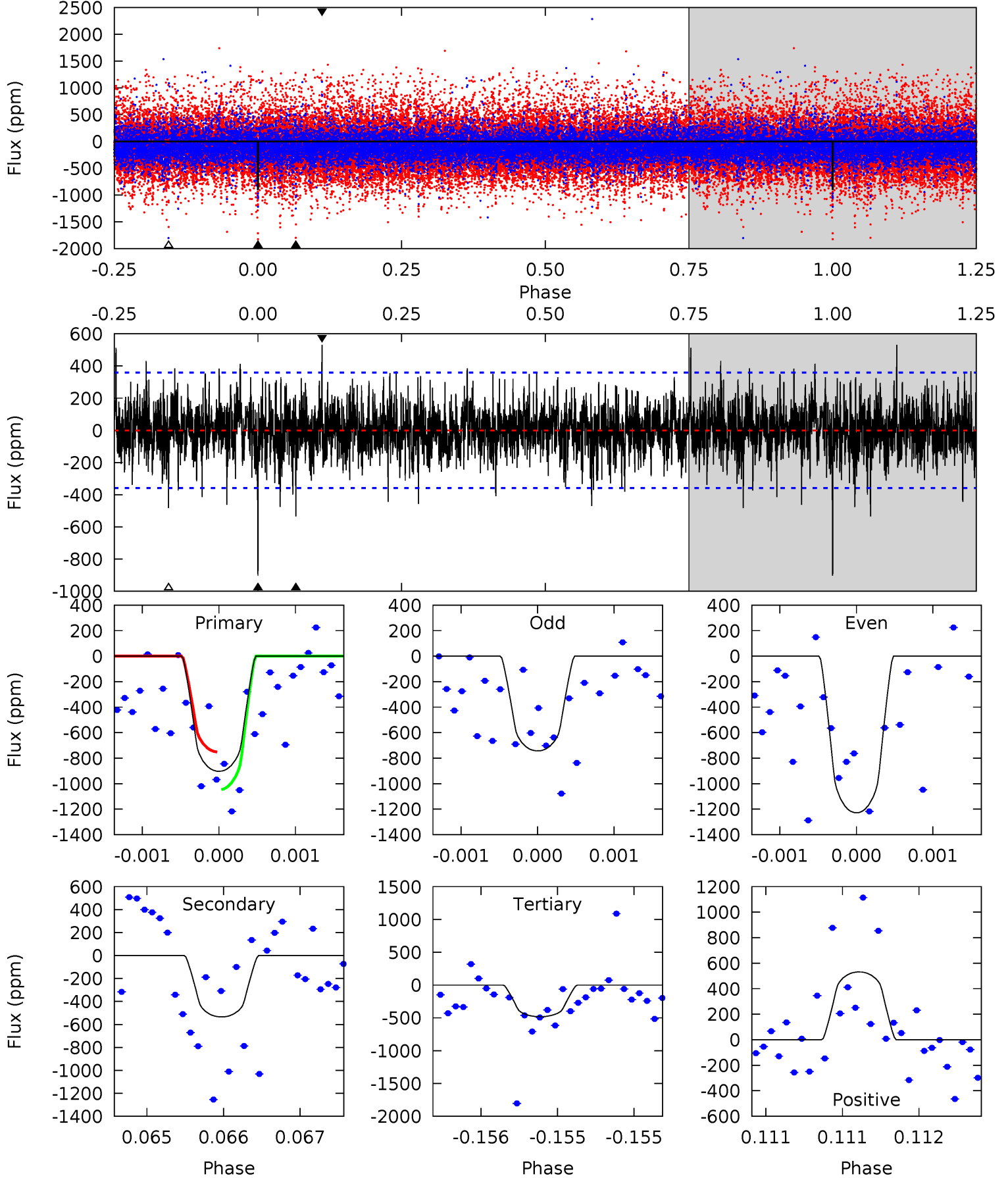
TCE 009576197-03 P=165.184899 Days $T_0=171.690885$ (BKJD)



DV Model-Shift Uniqueness Test

009576197-03, P = 165.187252 Days, E = 6.521990 Days

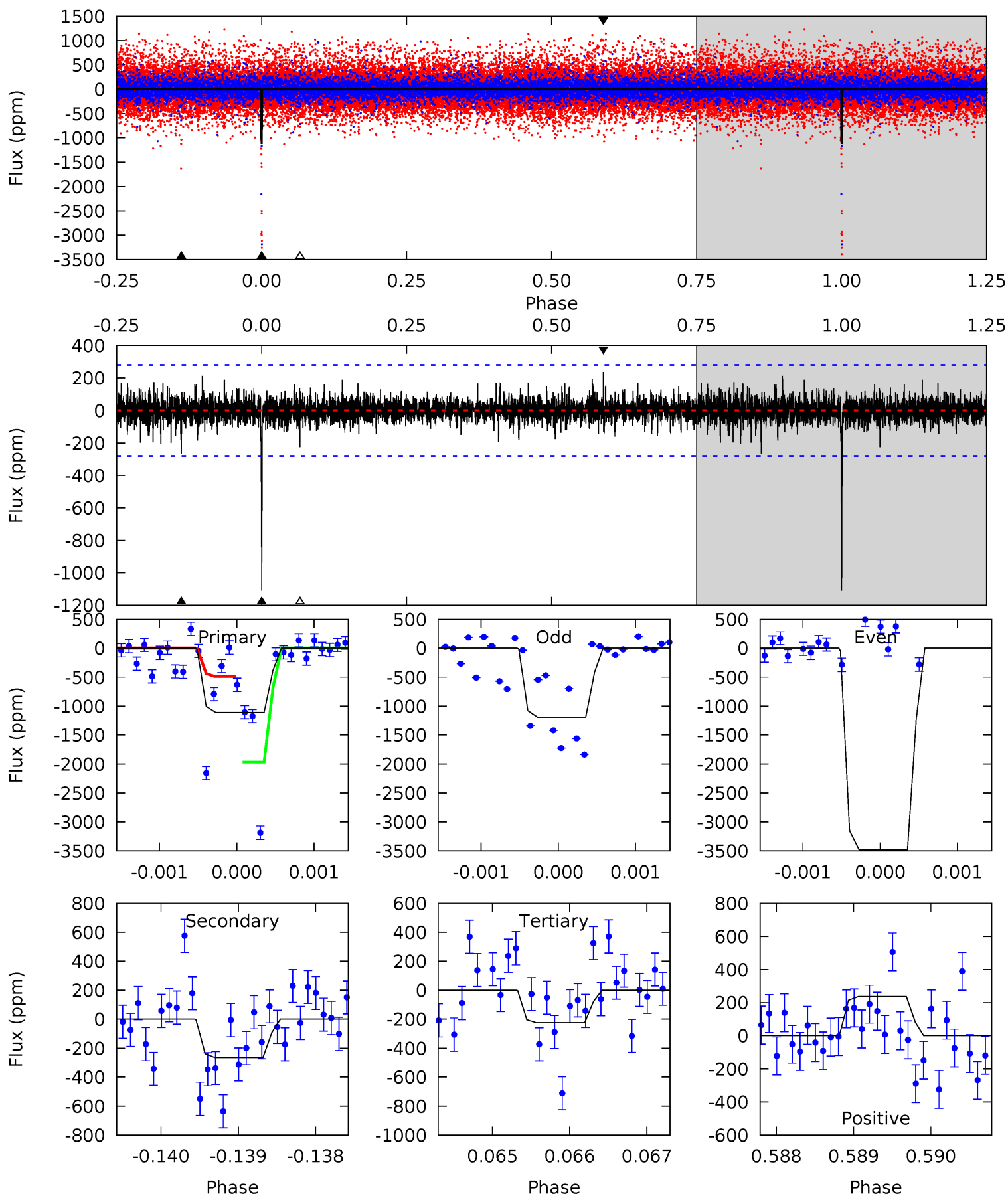
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.9	8.22	7.42	8.18	5.52	3.40	1.79	6.47	5.71	0.81	0.04	3.16	0.85	0.37	2.29



Alt Model-Shift Uniqueness Test

009576197-03, P = 165.184899 Days, E = 6.505986 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
21.6	5.13	4.37	4.59	5.45	3.29	0.90	17.2	17.0	0.76	0.54	13.8	4.24	0.18	13.9



Stellar Parameters For KIC 009576197

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5250^{+158}_{-142}	$4.548^{+0.084}_{-0.056}$	$-0.480^{+0.300}_{-0.300}$	$0.736^{+0.084}_{-0.076}$	$0.698^{+0.095}_{-0.044}$	$2.462^{+0.929}_{-0.527}$
	+3%/-3%	+2%/-1%	+62%/-62%	+11%/-10%	+14%/-6%	+38%/-21%
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 009576197-03 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-534 ± 65	$4.31^{+4.79}_{-2.87}$	383^{+16}_{-14}	3780^{+2357}_{-743}	4388^{+38359}_{-3366}
Alt.	-264 ± 51	$7.20^{+5.22}_{-4.28}$	383^{+15}_{-16}	2916^{+947}_{-383}	772^{+4158}_{-512}

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 $A_{obs} \gg 1.0$

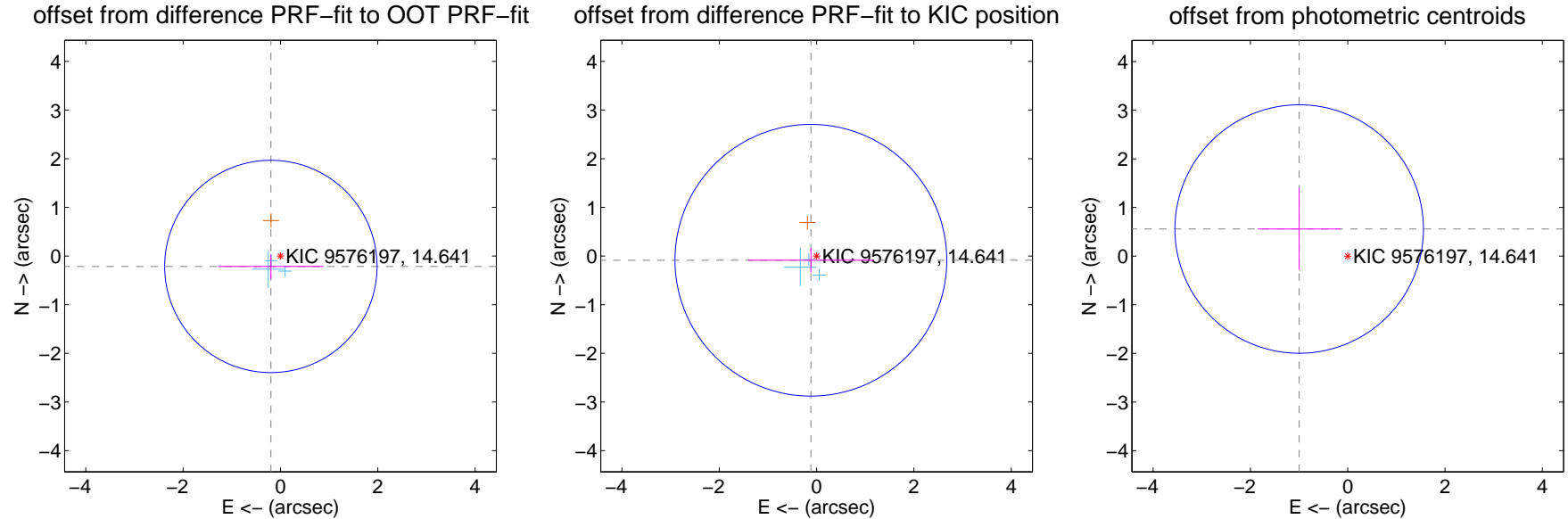
DV Centroid Data

Supplemental centroid analysis for 009576197-03. Kepler magnitude: 14.64. Transit SNR 6.46

There are 3 quarters with good PRF difference image offsets

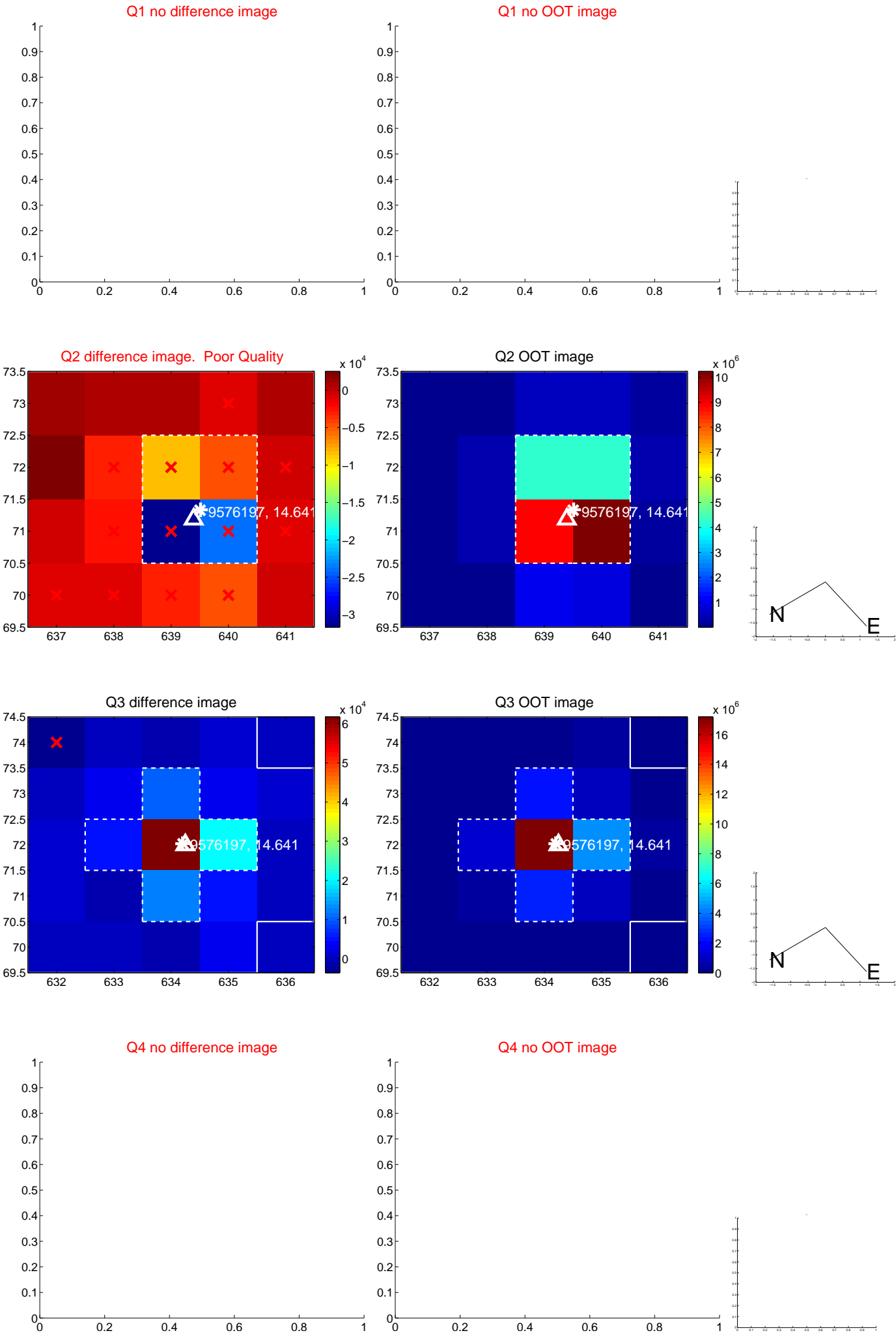
The direct PRF centroid is offset from the target star catalog position by about 0.09 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.291 ± 0.727	0.40	0.197 ± 1.085	-0.214 ± 0.255
PRF-fit source offset from KIC position	0.146 ± 0.931	0.16	0.117 ± 1.289	-0.087 ± 0.251
photometric centroid source offset	1.14 ± 0.85	1.34	1.00 ± 0.85	0.56 ± 0.85

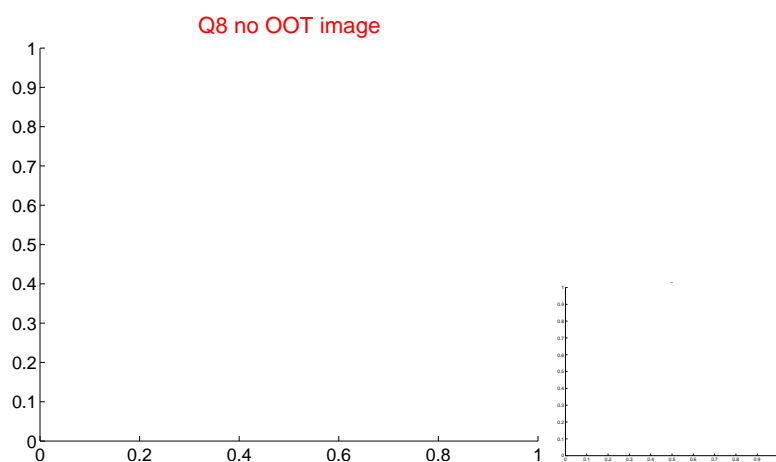
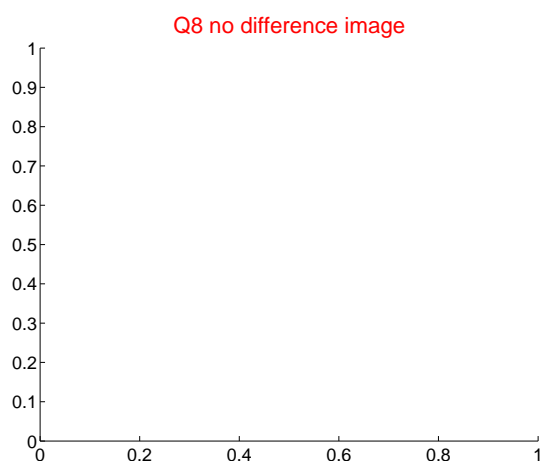
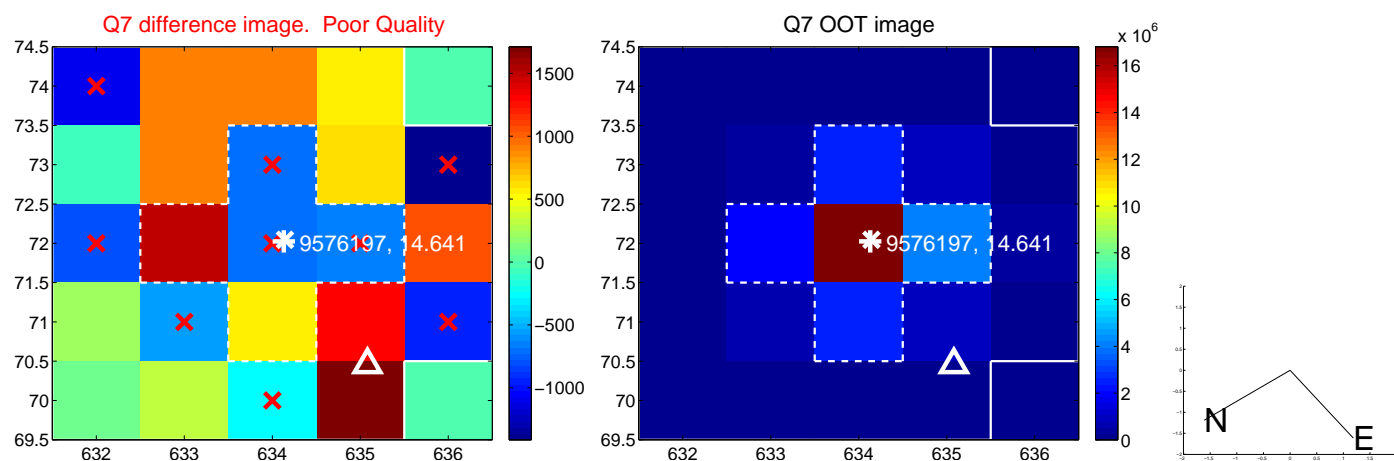
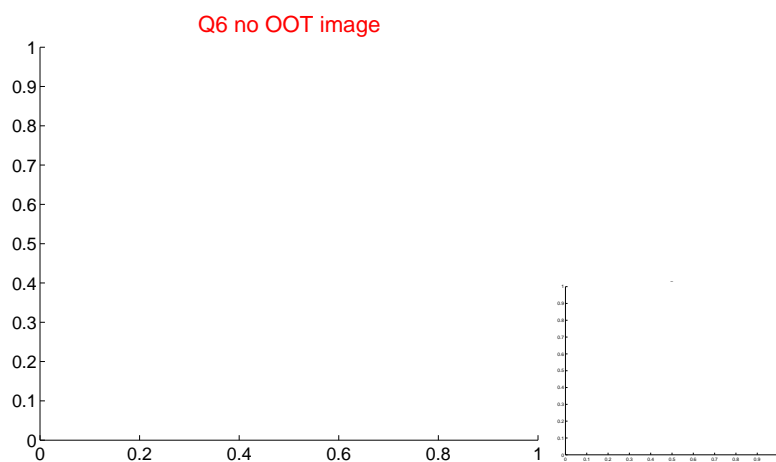
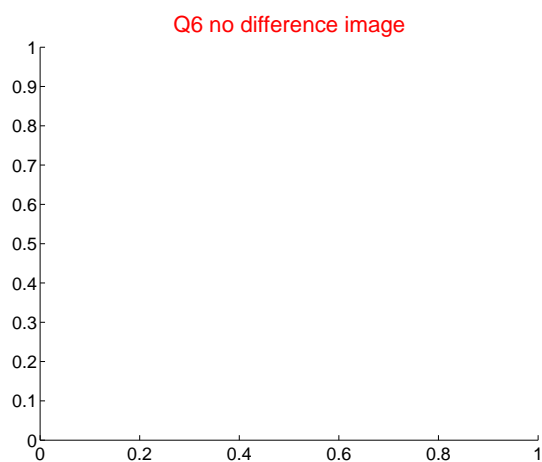
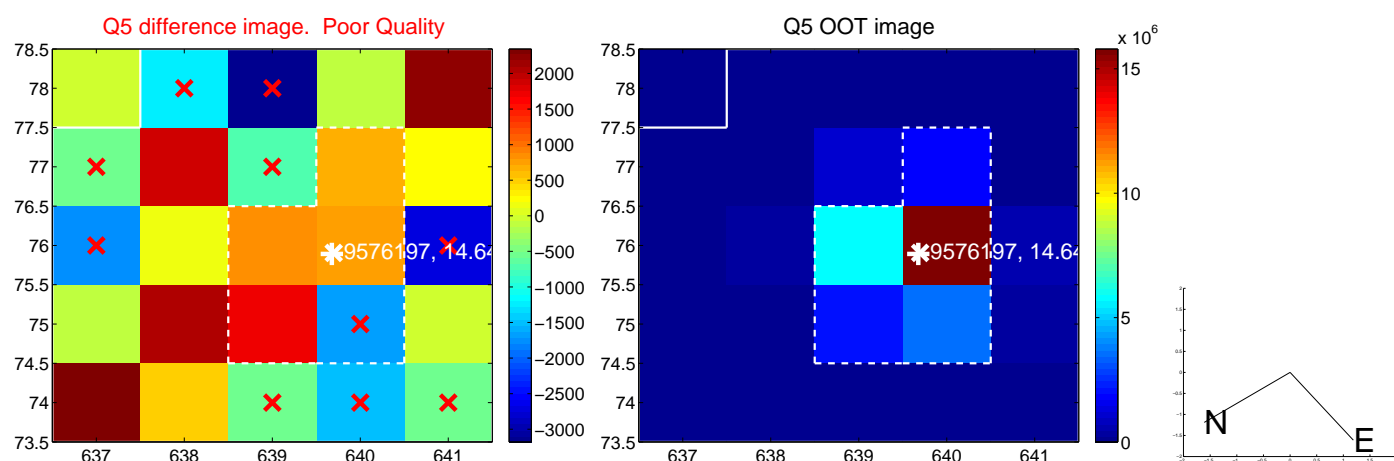


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

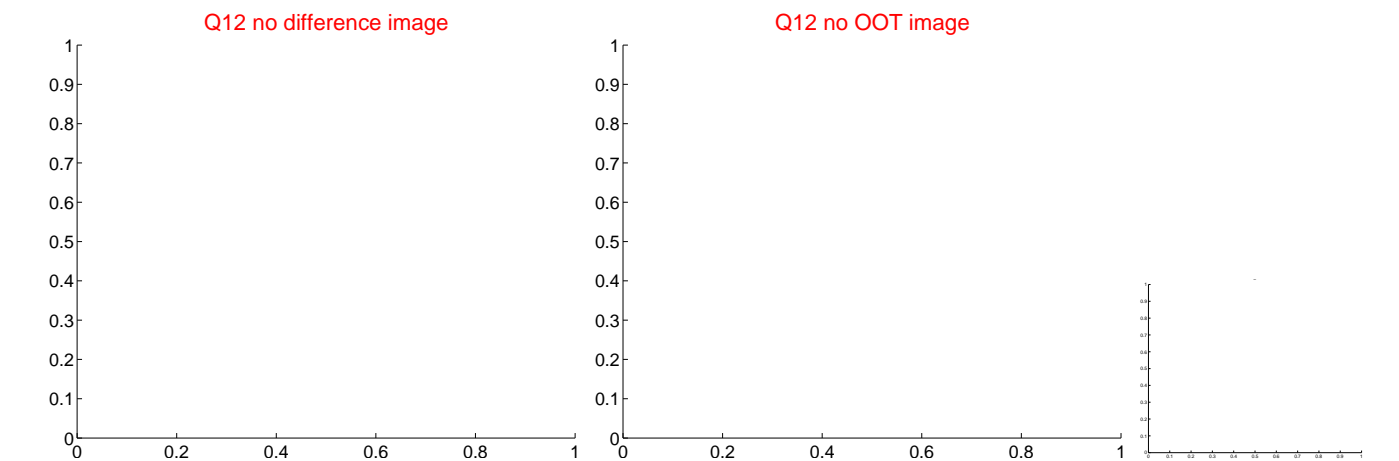
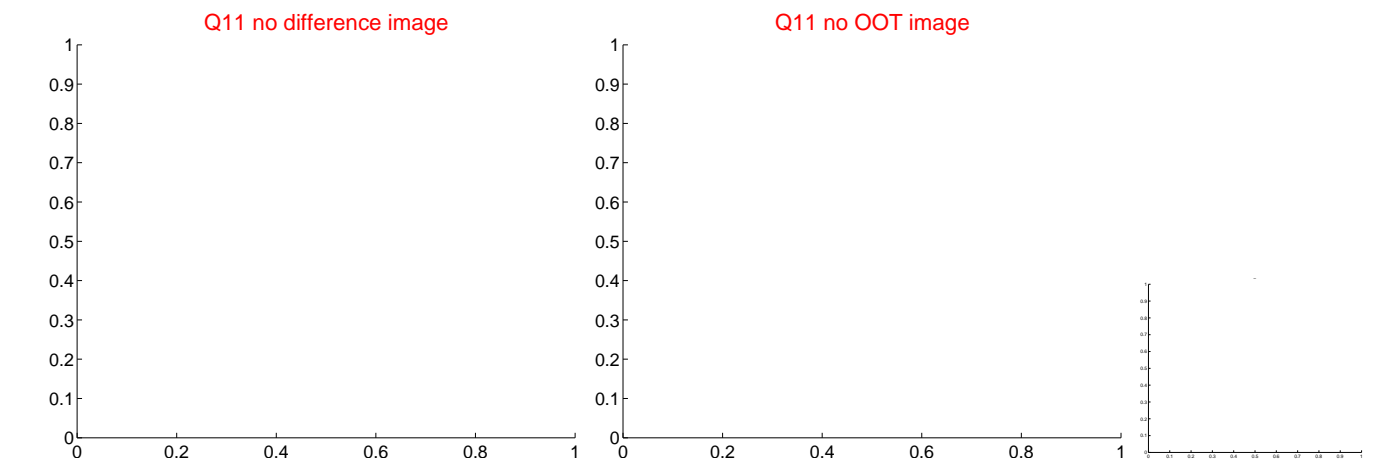
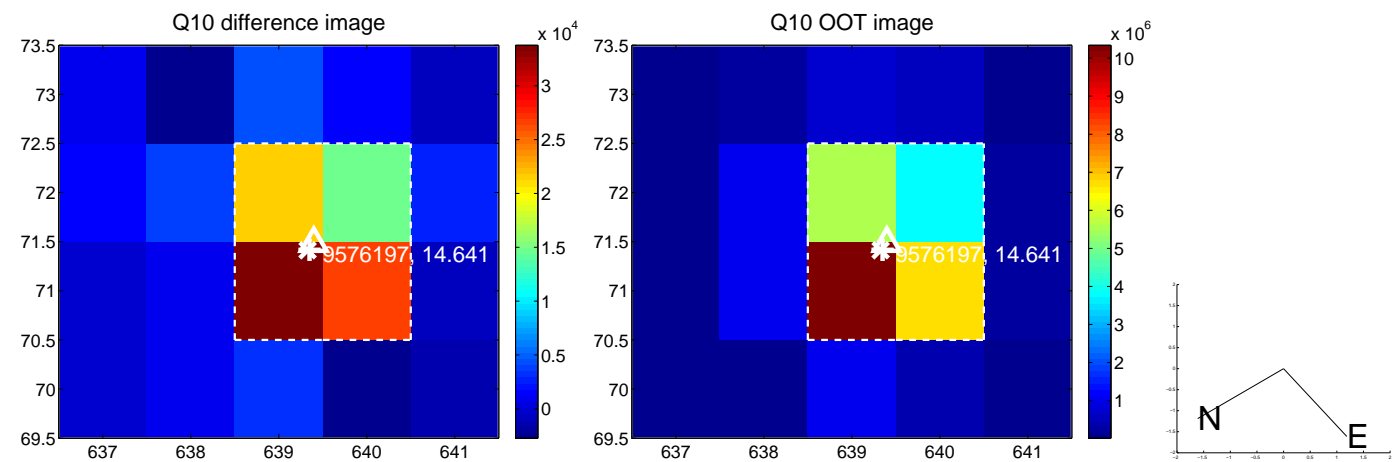
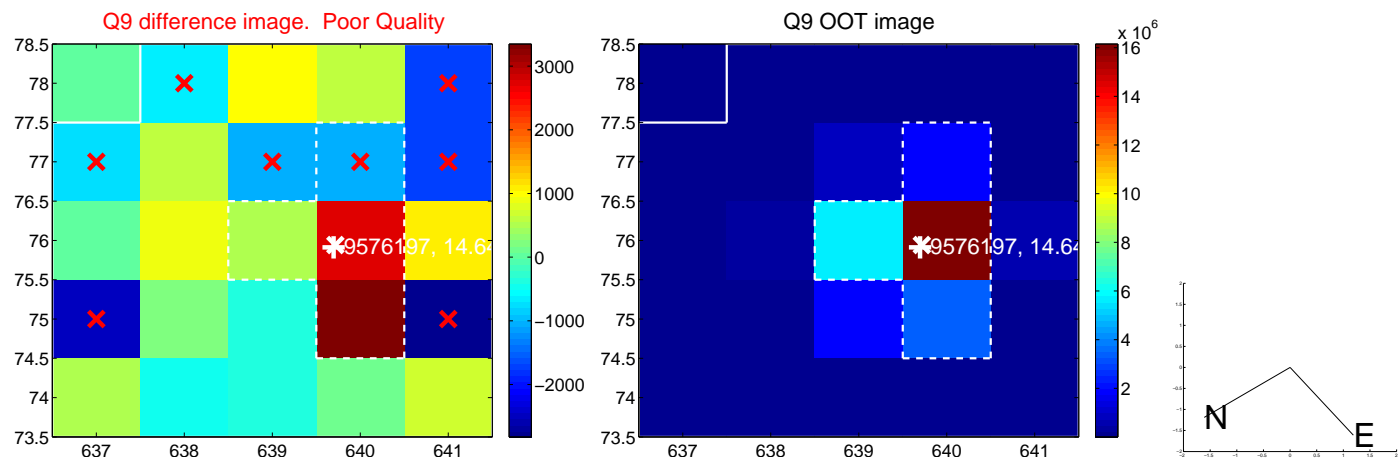
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.

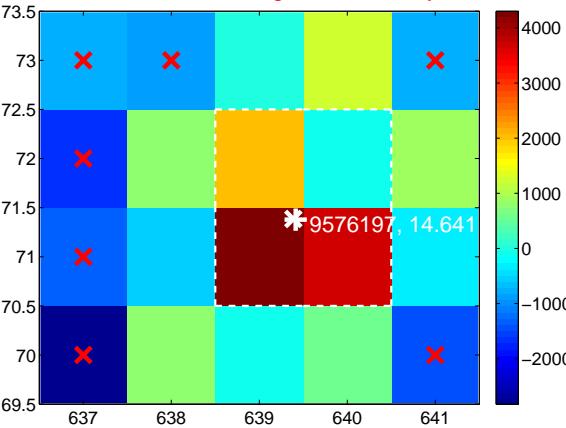
Q13 no difference image



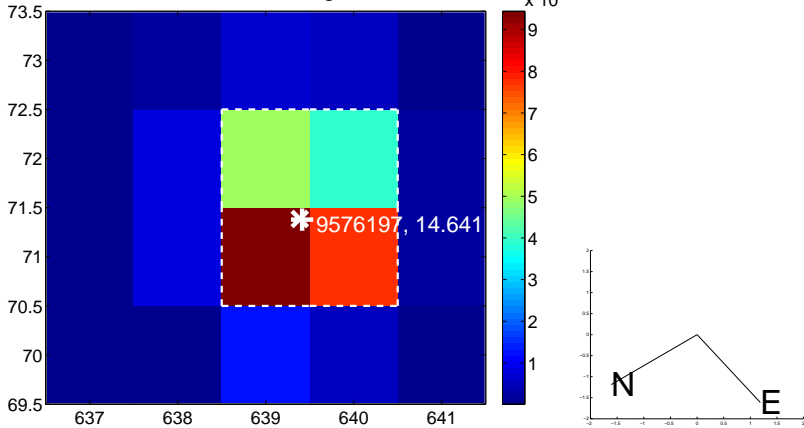
Q13 no OOT image



Q14 difference image. Poor Quality



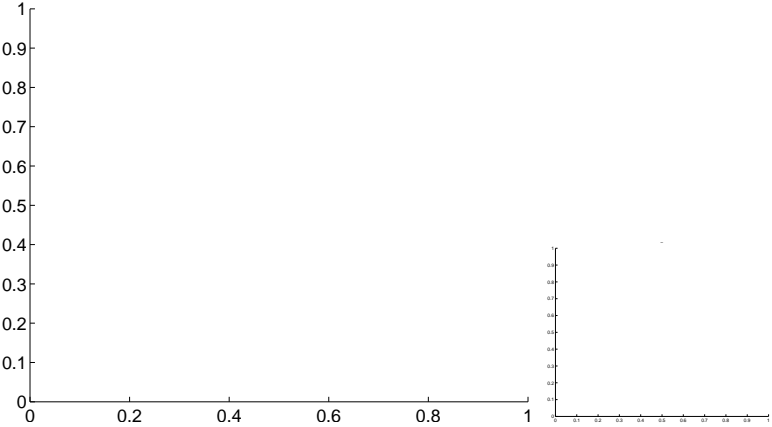
Q14 OOT image



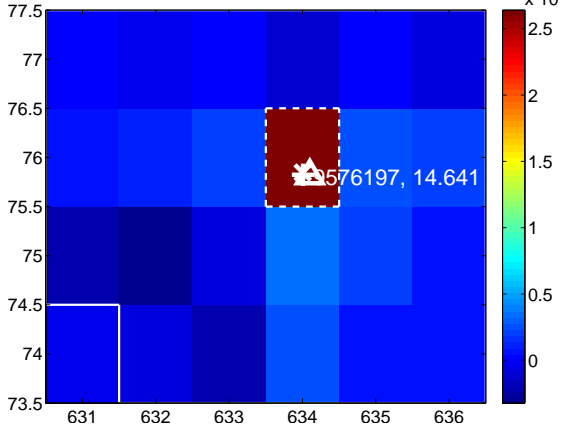
Q15 no difference image



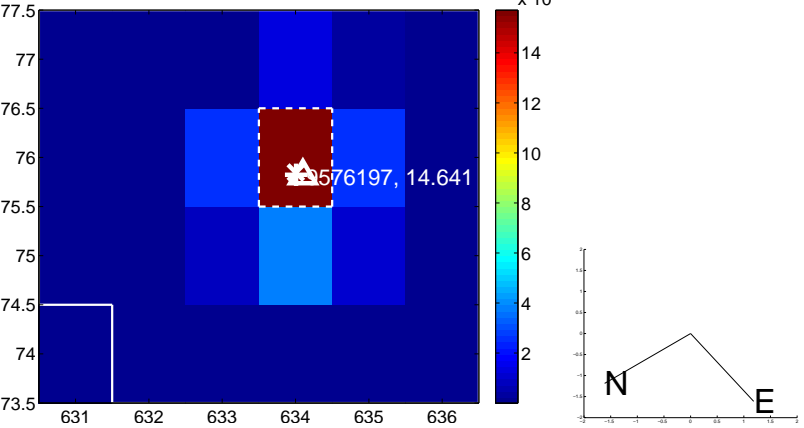
Q15 no OOT image



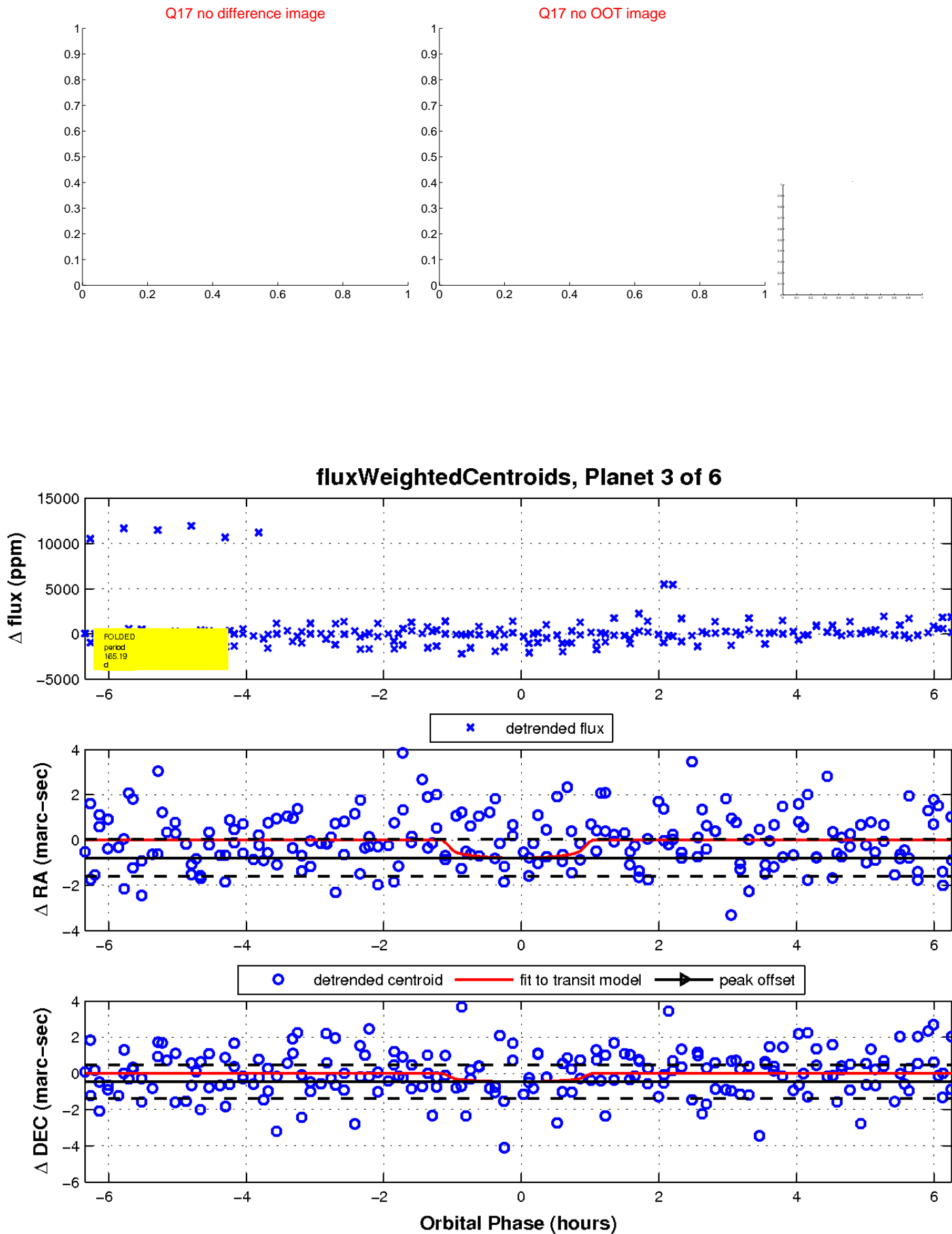
Q16 difference image



Q16 OOT image

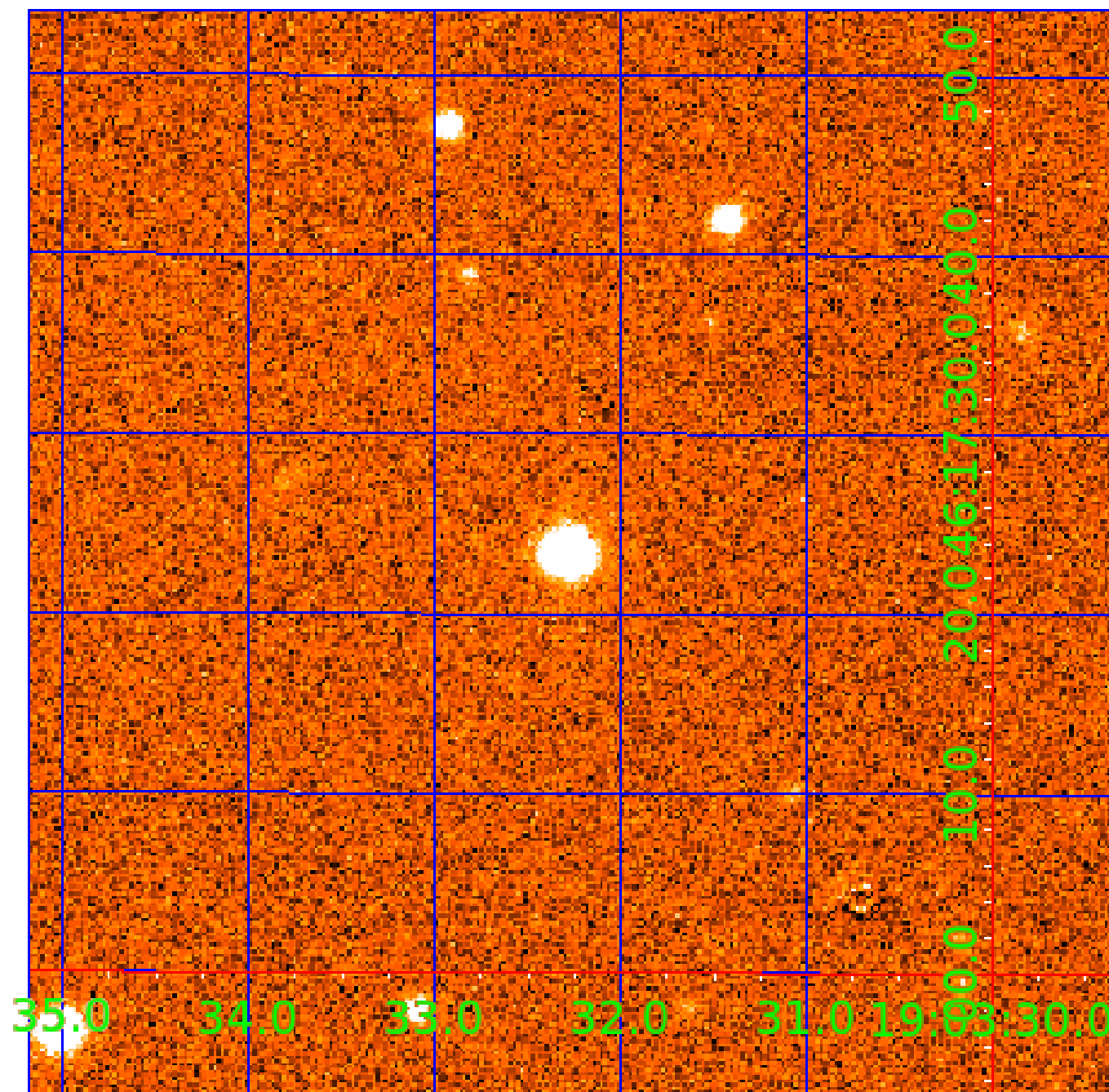


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 009576197

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})
009576197-01	OBS	6207.01	7.964434	136.195153	69115.1	9.133	1433.2	1640.4	0.74	5250	19.05	76.90
009576197-02	OBS	No	7.964449	132.191293	6768.7	8.774	249.2	249.2	0.74	5250	6.42	76.90
009576197-03	OBS	No	165.187252	171.709243	841.0	2.119	22.9	6.5	0.74	5250	2.27	1.35
009576197-04	OBS	No	384.551494	392.158465	540.1	2.081	19.0	2.9	0.74	5250	1.86	0.44
009576197-05	OBS	No	384.481376	392.049039	4054.0	22.580	18.2	7.1	0.74	5250	5.66	0.44

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009576197-01	OBS	FP	0.00	0	1	0	0	MOD_SEC_DV—MOD_SEC_ALT—MOD_ODDEVEN_ALT—HAS_SEC_TCE
009576197-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE
009576197-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_SKYE_TRACKER—LPP_DV—LPP_ALT—INCONSISTENT_TRANS
009576197-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_SKYE_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_FEW_MEAS
009576197-05	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—SAME_NTL_PERIOD—CENT_FEW_DIFFS—HALO_GHOST

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

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

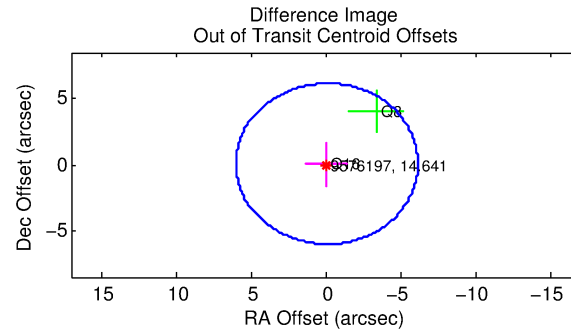
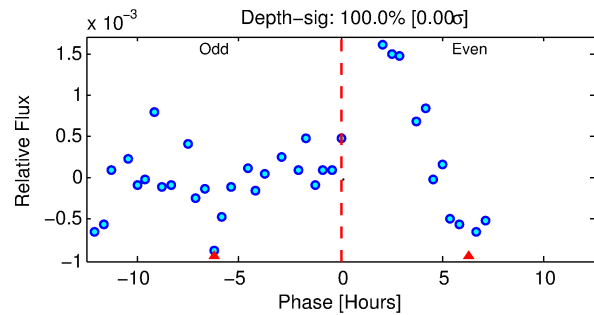
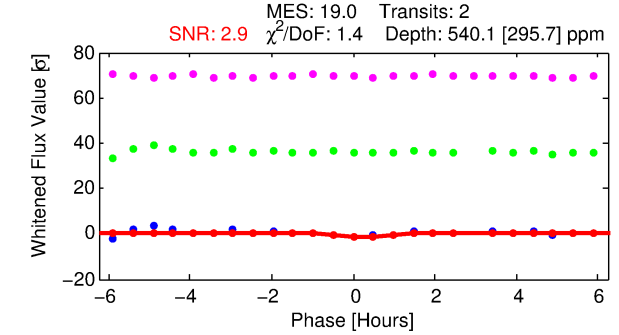
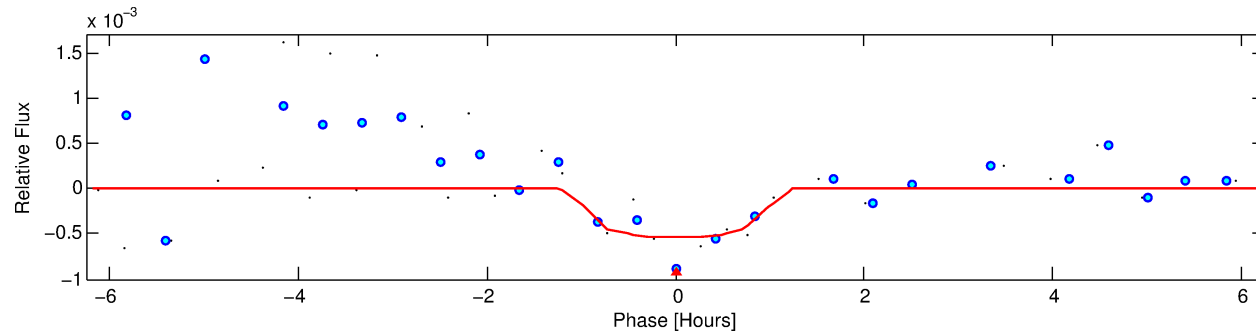
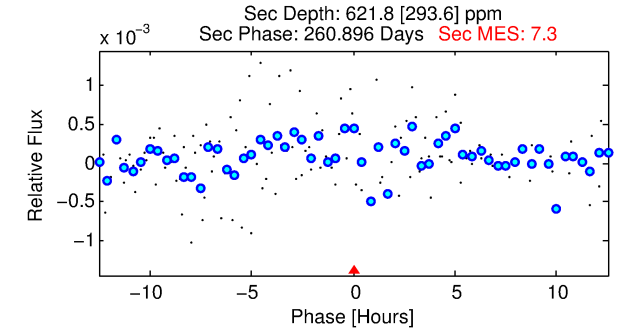
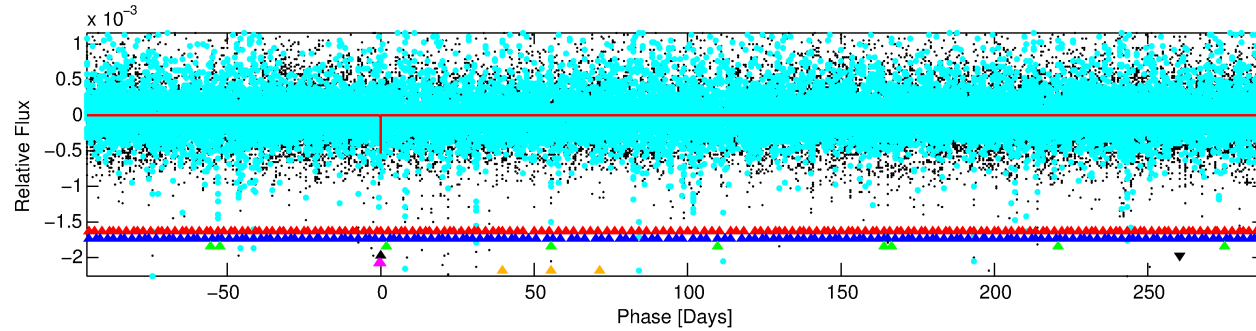
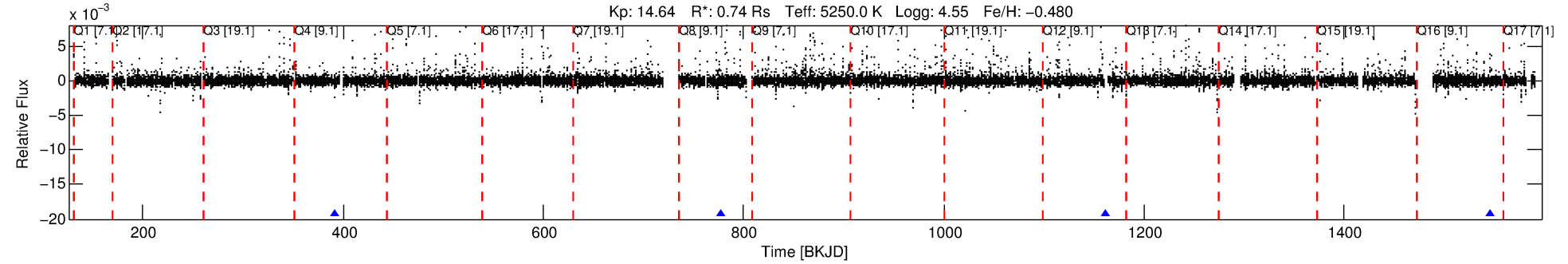
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 009576197-04

No Significant Match Found

DV One-Page Summary

KIC: 9576197 Candidate: 4 of 6 Period: 384.551 d
KOI: K06207 Corr: No Ephemeris Match



DV Fit Results:

Period = 384.55149 [0.02183] d
Epoch = 392.1585 [0.0146] BKJD
Rp/R* = 0.0231 [0.1276]
a/R* = 990.68 [21472.90]
b = 0.74 [13.30]
Seff = 0.44 [0.08]
Teq = 207 [10] K
Rp = 1.86 [10.25] Re
a = 0.9182 [0.0916] AU
Ag = 83449.39 [921022.93] [0.09σ]
Teffp = 5449 [15035] K [0.35σ]

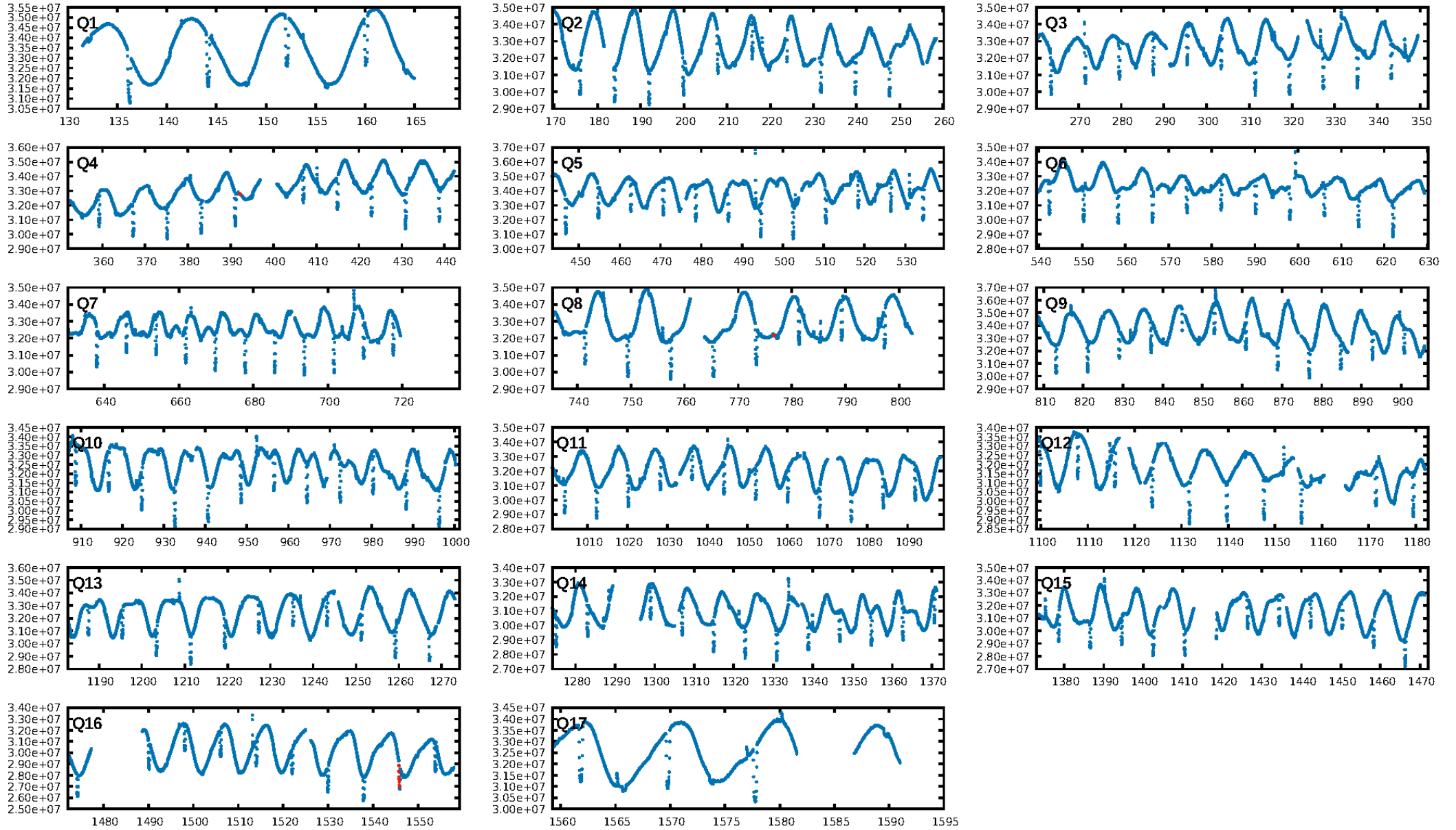
DV Diagnostic Results:

ShortPeriod-sig: 5.9% [0.07σ]
LongPeriod-sig: 100.0% [71.27σ]
ModelChiSquare2-sig: 16.9%
ModelChiSquareGof-sig: 92.5%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [2/2]
GhostDiagnostic-chr: -1.803
Centroid-sig: 27.0%
Centroid-so: 1.971 arcsec [0.94σ]
OotOffset-rm: 0.116 arcsec [0.06σ]
KicOffset-rm: 0.075 arcsec [0.09σ]
OotOffset-st: 0/0/2/0 [2]
KicOffset-st: 0/0/2/0 [2]
DiffImageQuality-fgm: 0.50 [1/2]
DiffImageOverlap-fno: 0.00 [0/3]

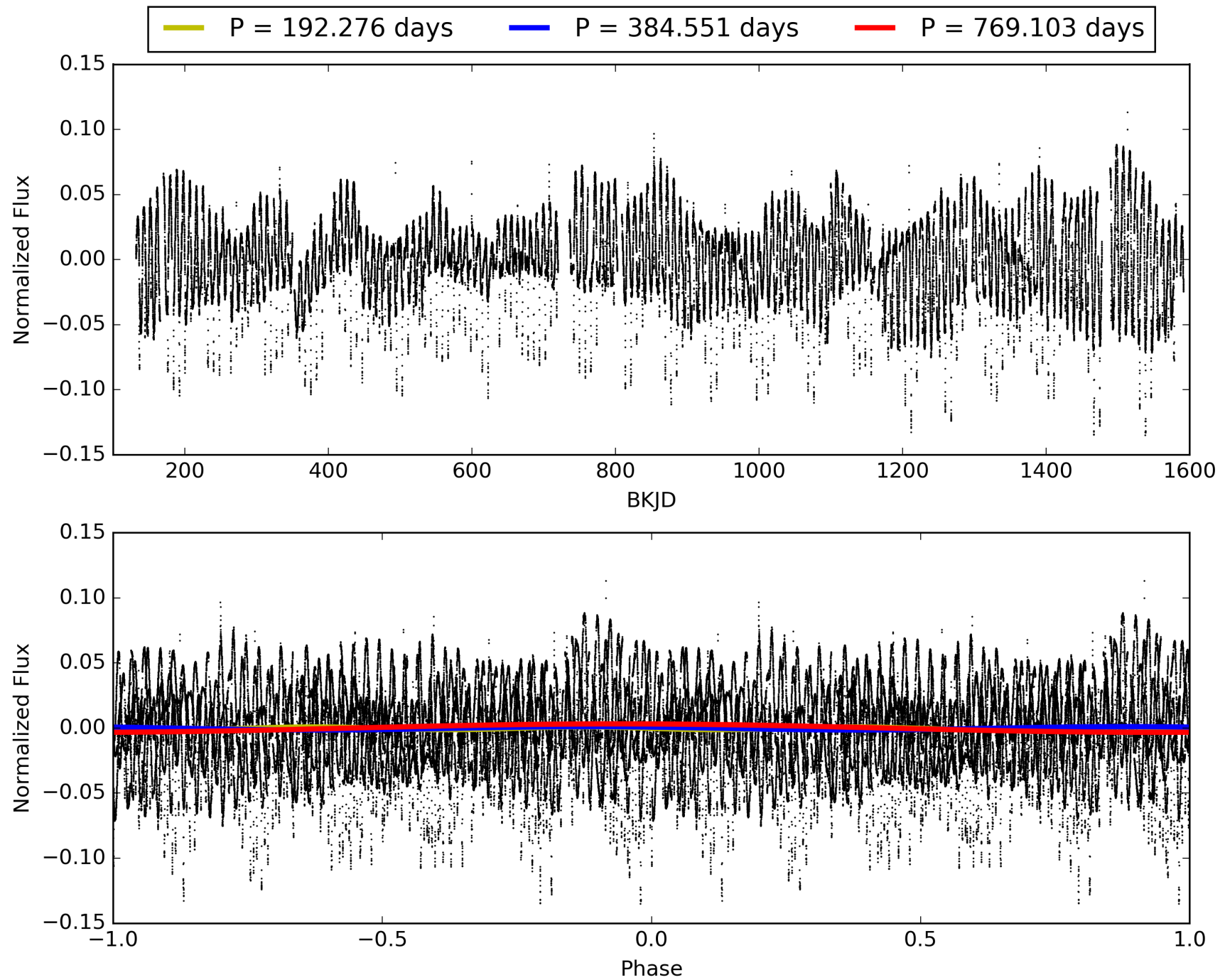
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 05:50:22 Z

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

TCE 009576197-04, PDC Light Curves

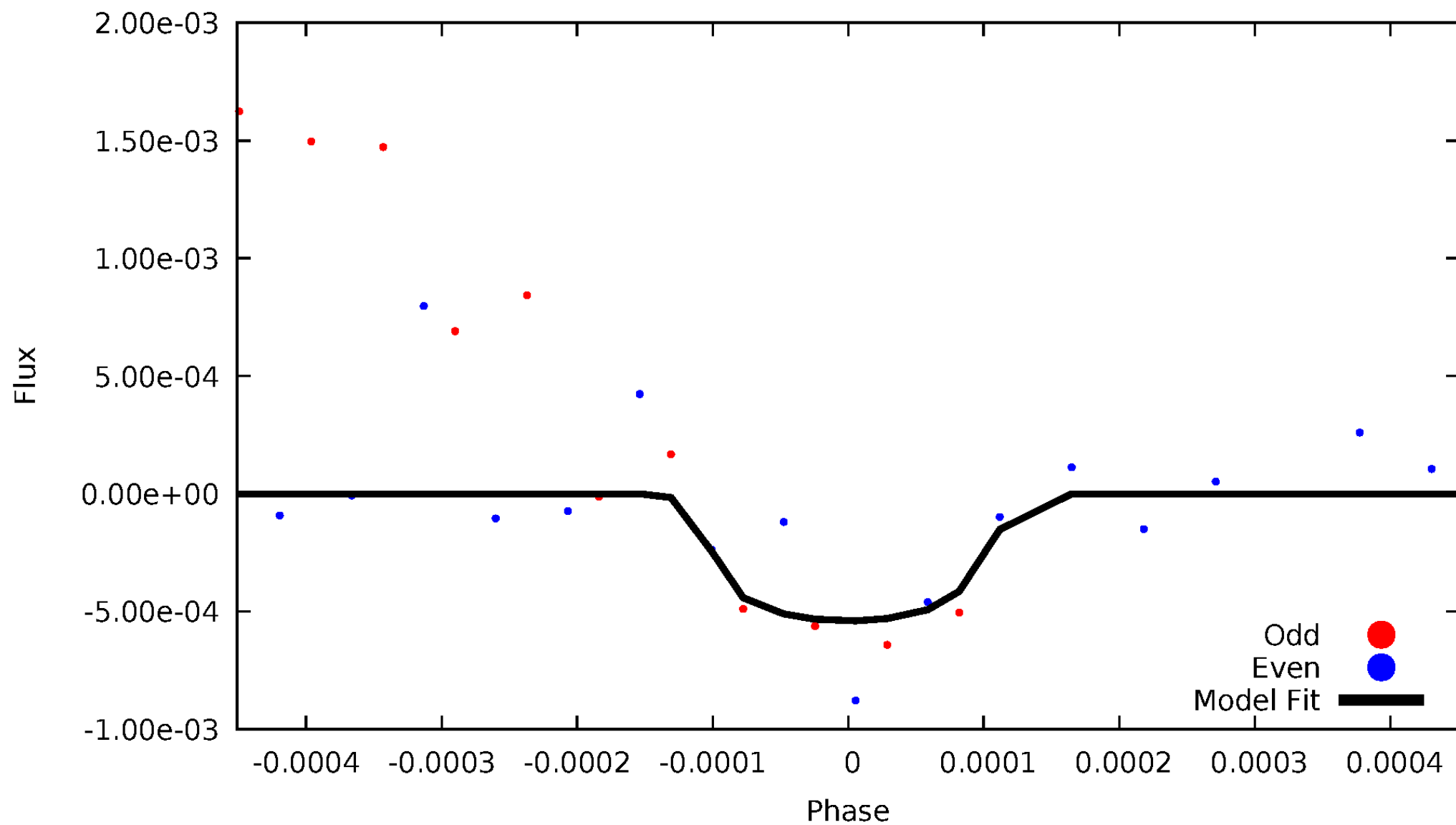


TCE 009576197-04



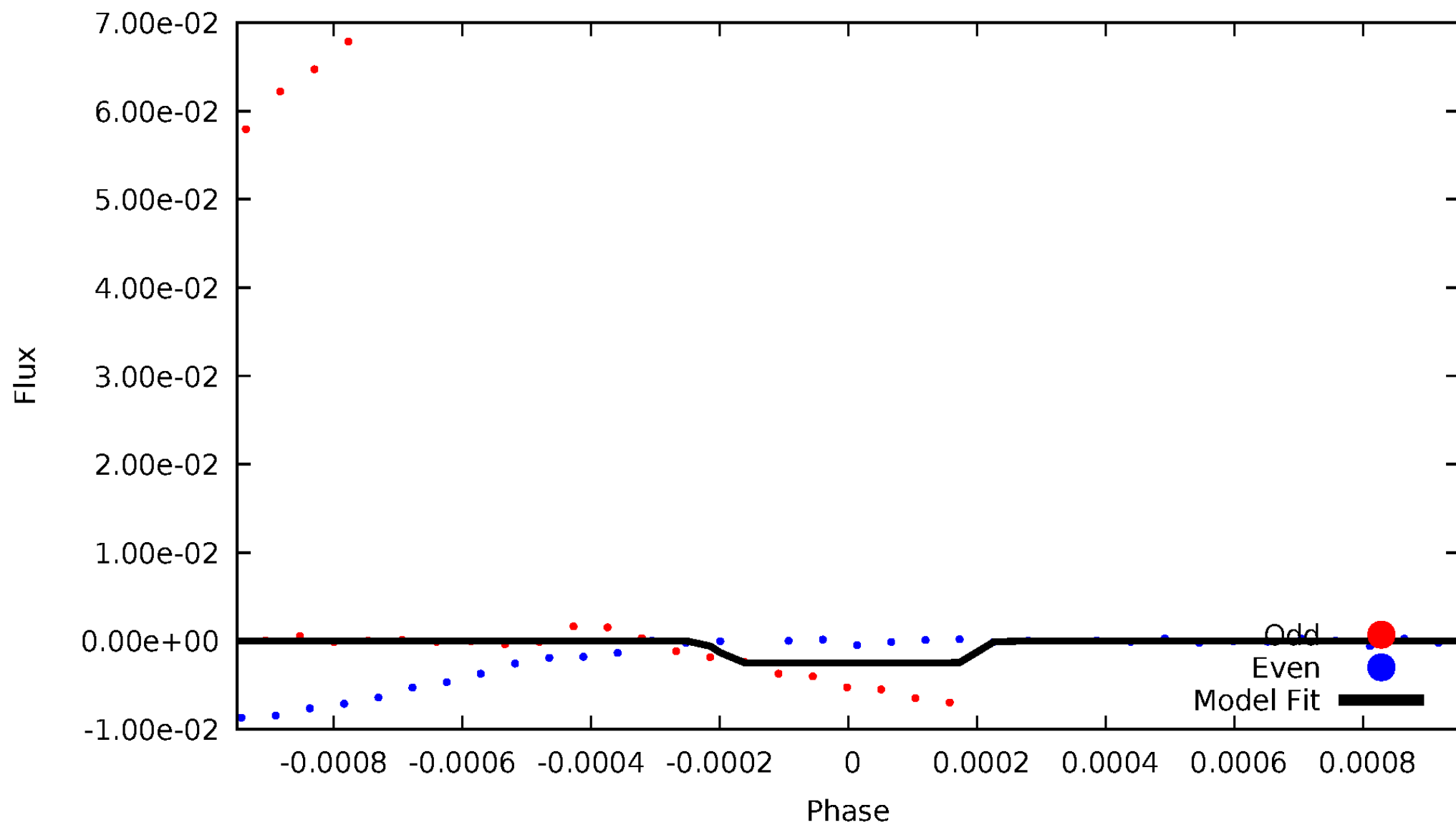
DV Odd/Even

TCE 009576197-04



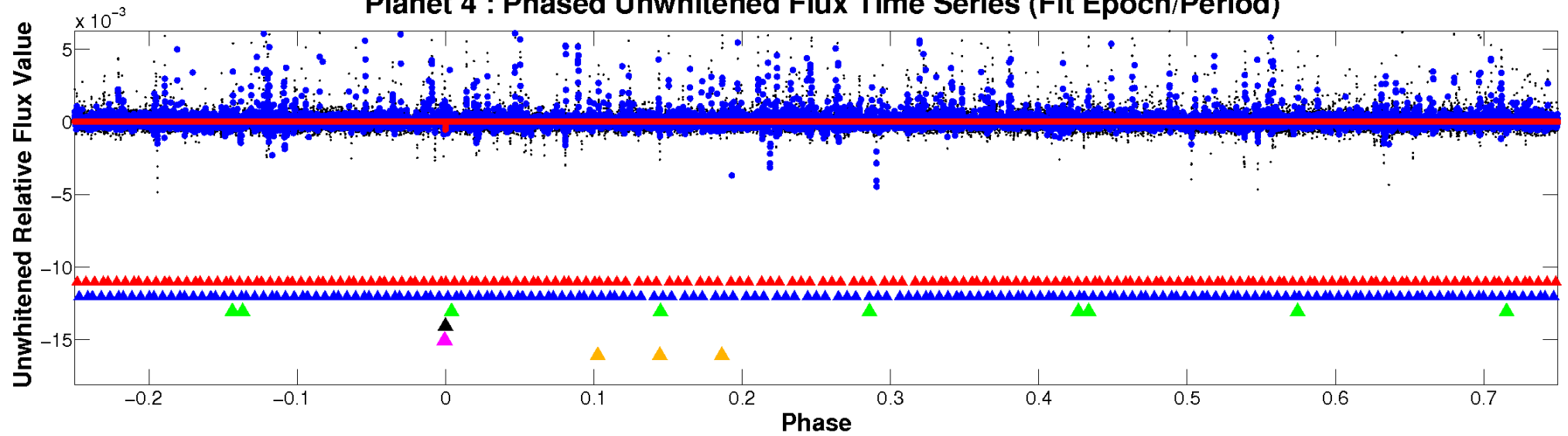
ALT Odd/Even

TCE 009576197-04

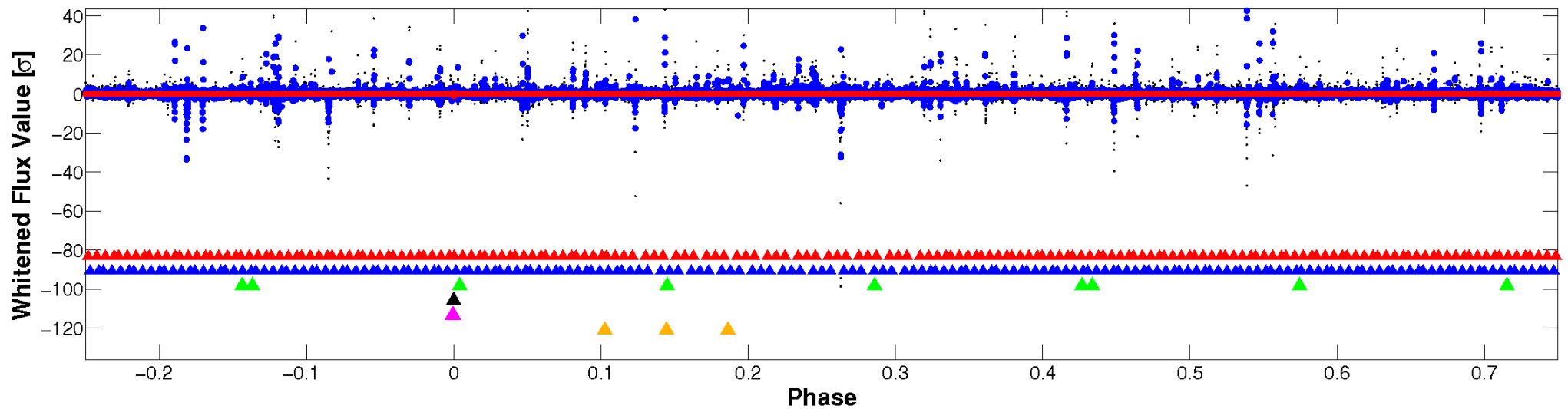


Non-Whitened Vs. Whitened Light Curve

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

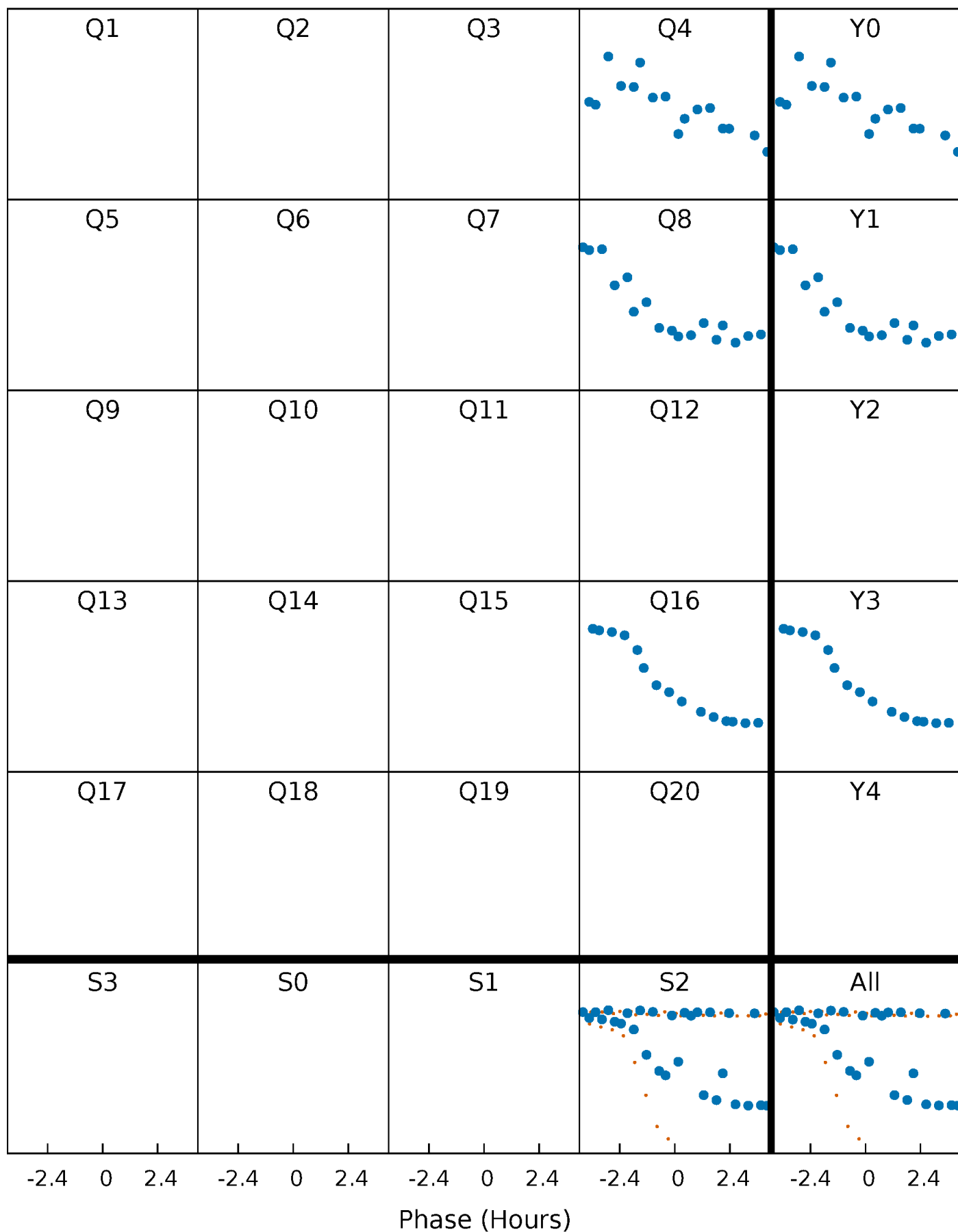


Planet 4 : Phased Whitened Flux Time Series (Fit Epoch/Period)



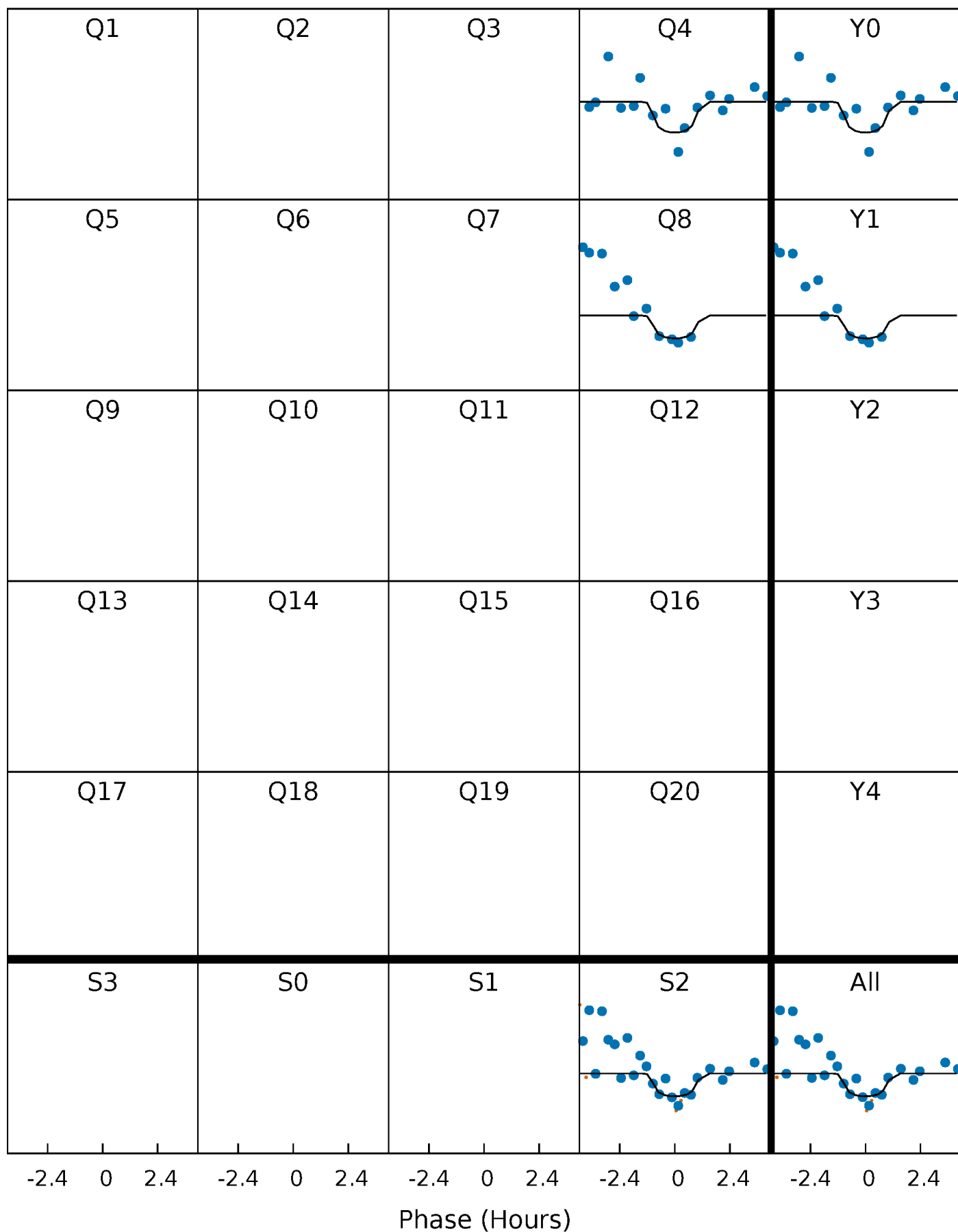
PDC Quarter-Phased Transit Curves

TCE 009576197-04 $P=384.551494$ Days $T_0=392.158465$ (BKJD)



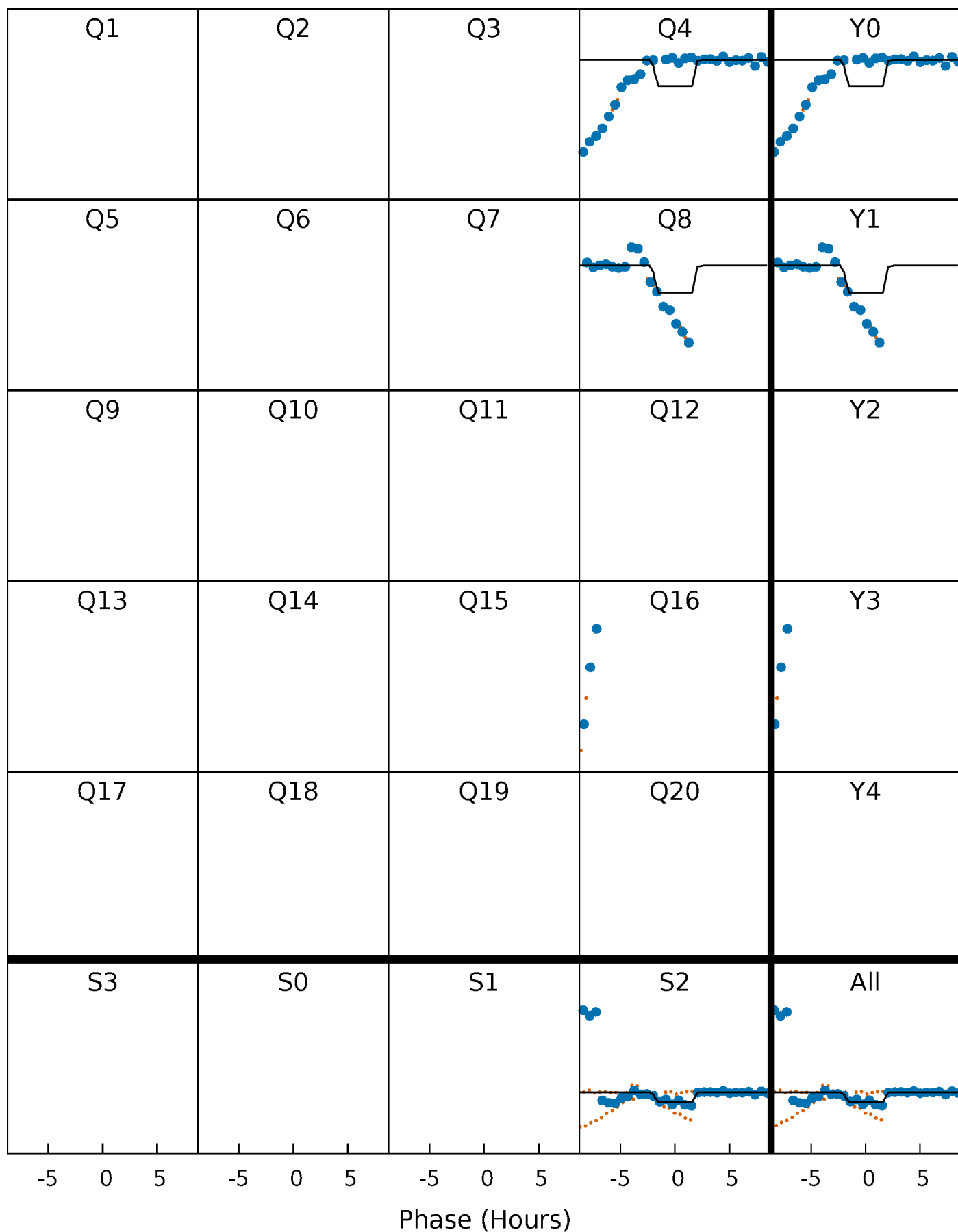
DV Quarter-Phased Transit Curves

TCE 009576197-04 $P=384.551494$ Days $T_0=392.158465$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

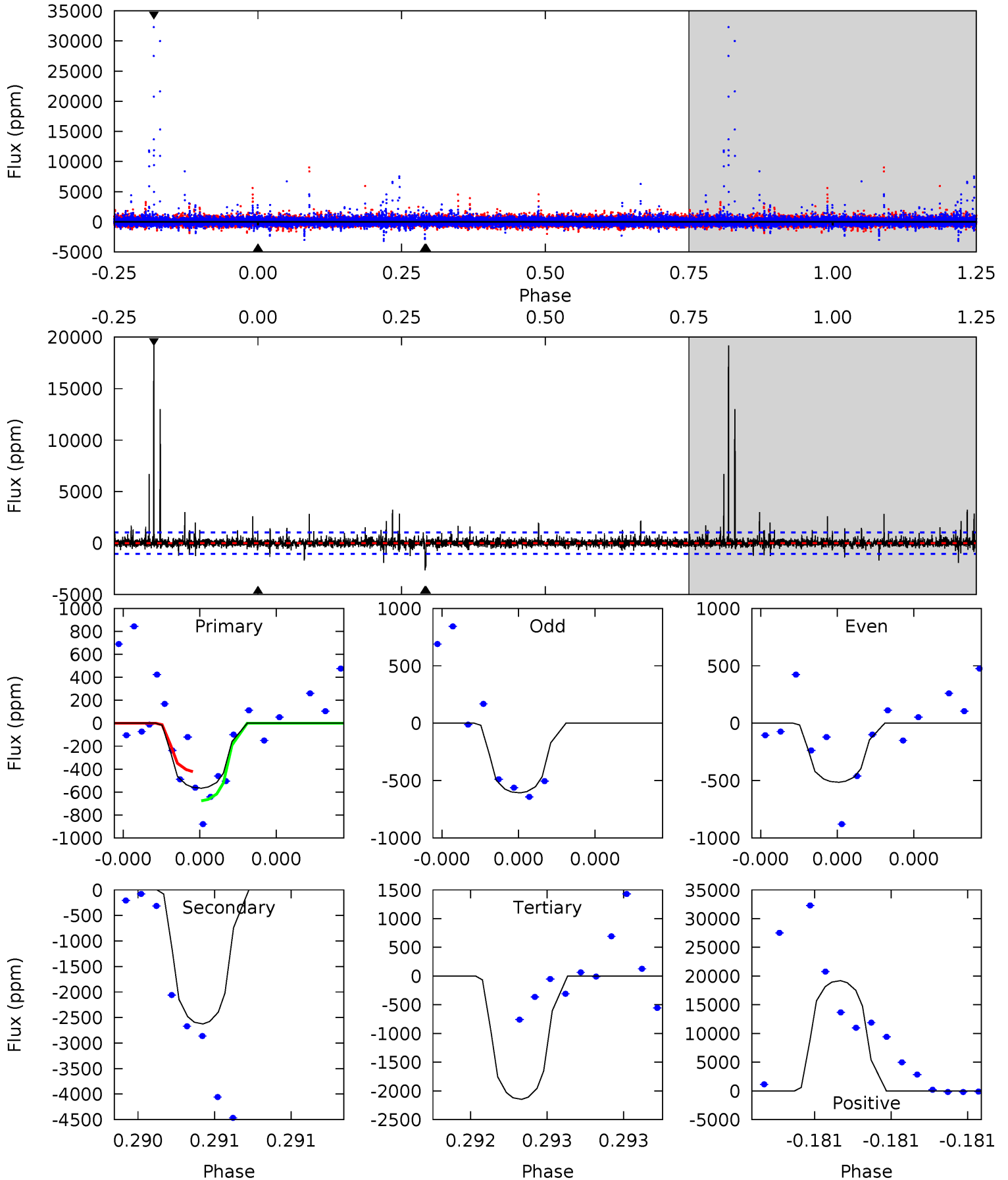
TCE 009576197-04 P=384.484676 Days $T_0=392.155357$ (BKJD)



DV Model-Shift Uniqueness Test

009576197-04, P = 384.551494 Days, E = 7.606971 Days

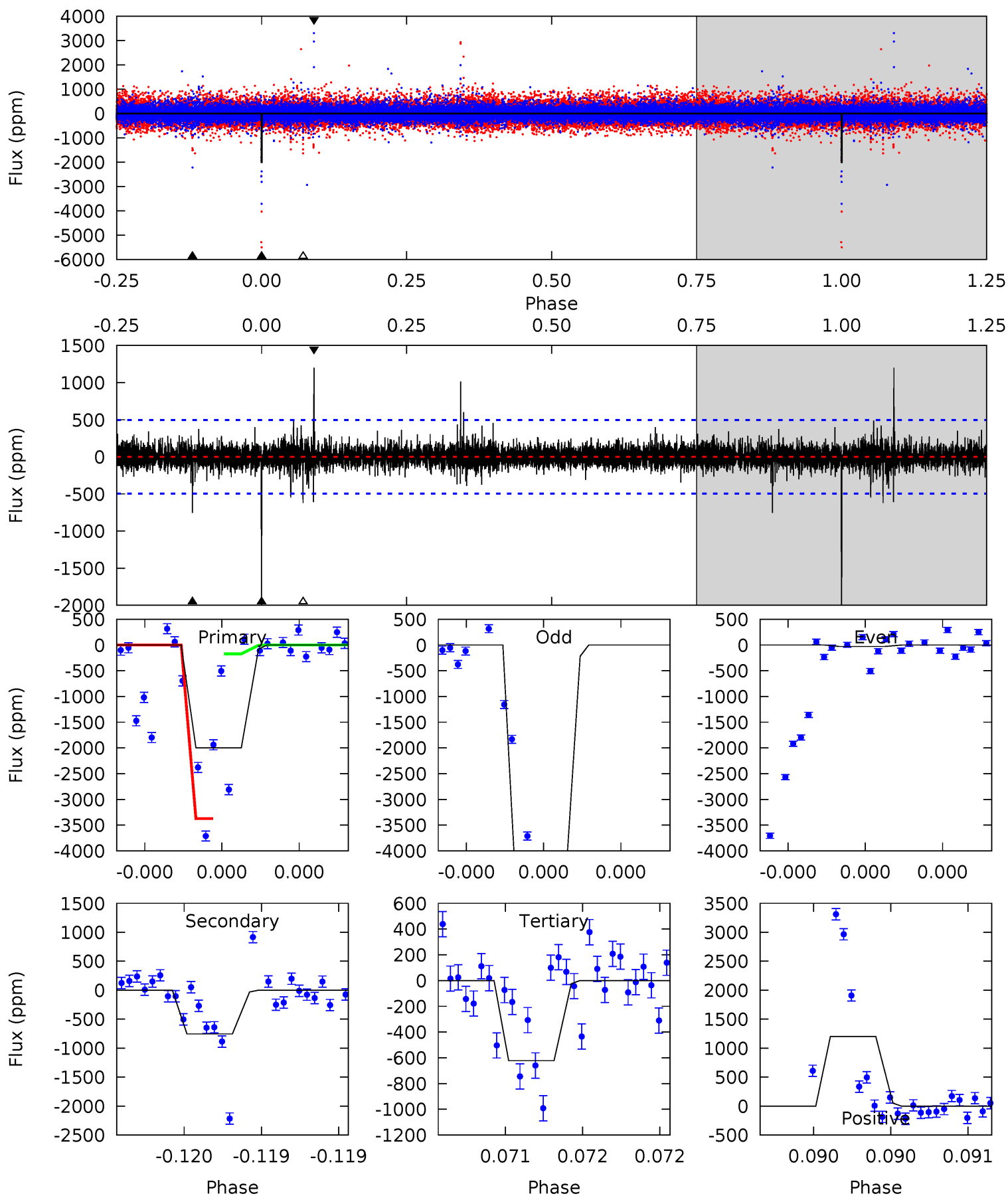
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.10	14.4	11.8	105.1	5.68	3.65	1.92	-8.66	-102.0	2.62	-90.7	0.19	1.00	0.88	0.65



Alt Model-Shift Uniqueness Test

009576197-04, P = 384.484676 Days, E = 7.670681 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
22.5	8.50	7.00	13.5	5.58	3.49	0.91	15.5	8.96	1.50	-5.01	30.6	1.00	0.38	0



Stellar Parameters For KIC 009576197

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5250^{+158}_{-142}	$4.548^{+0.084}_{-0.056}$	$-0.480^{+0.300}_{-0.300}$	$0.736^{+0.084}_{-0.076}$	$0.698^{+0.095}_{-0.044}$	$2.462^{+0.929}_{-0.527}$
	+3%/-3%	+2%/-1%	+62%/-62%	+11%/-10%	+14%/-6%	+38%/-21%
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 009576197-04 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-2626 ± 183	$7.45^{+8.05}_{-5.46}$	288^{+12}_{-11}	4145^{+3405}_{-877}	$21694^{+290577}_{-16307}$
Alt.	-755 ± 89	$8.56^{+7.89}_{-5.87}$	289^{+10}_{-11}	3215^{+1641}_{-503}	4659^{+45565}_{-3317}

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 $A_{obs} \gg 1.0$

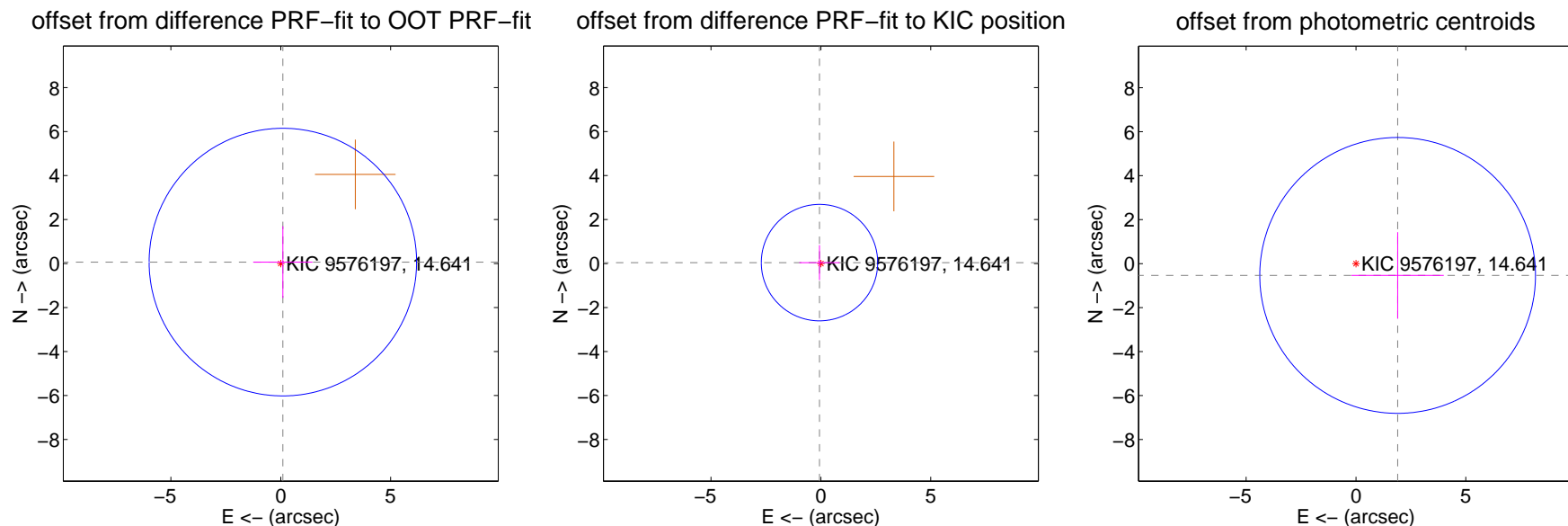
DV Centroid Data

Supplemental centroid analysis for 009576197-04. Kepler magnitude: 14.64. Transit SNR 2.88

There are 1 quarters with good PRF difference image offsets

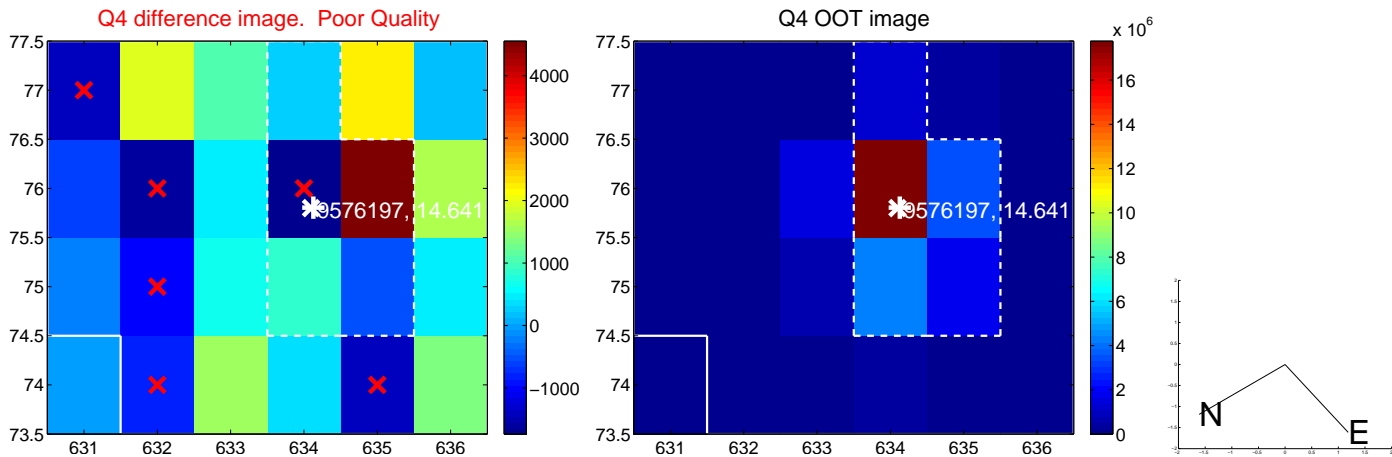
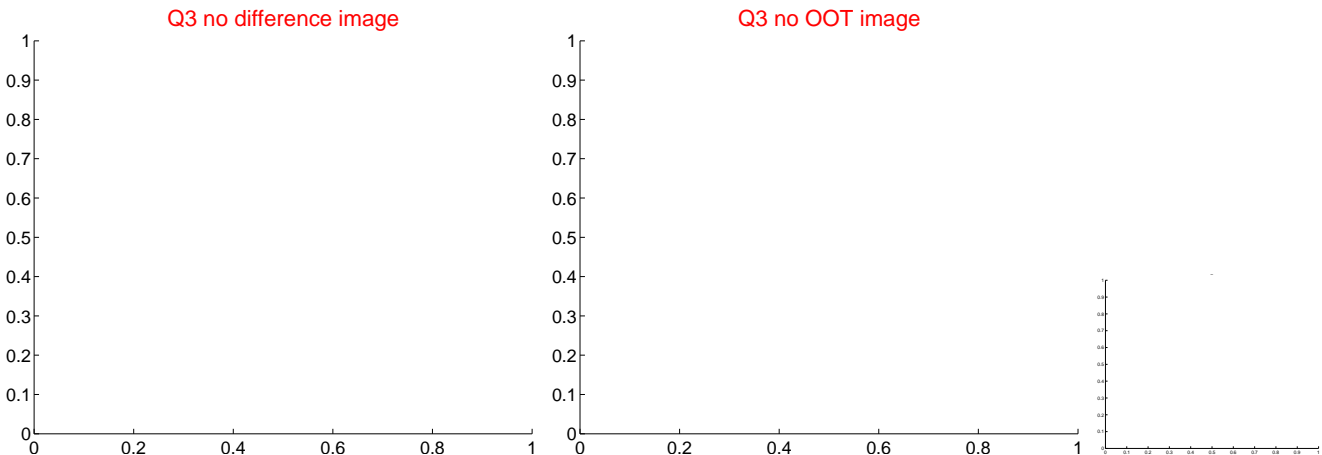
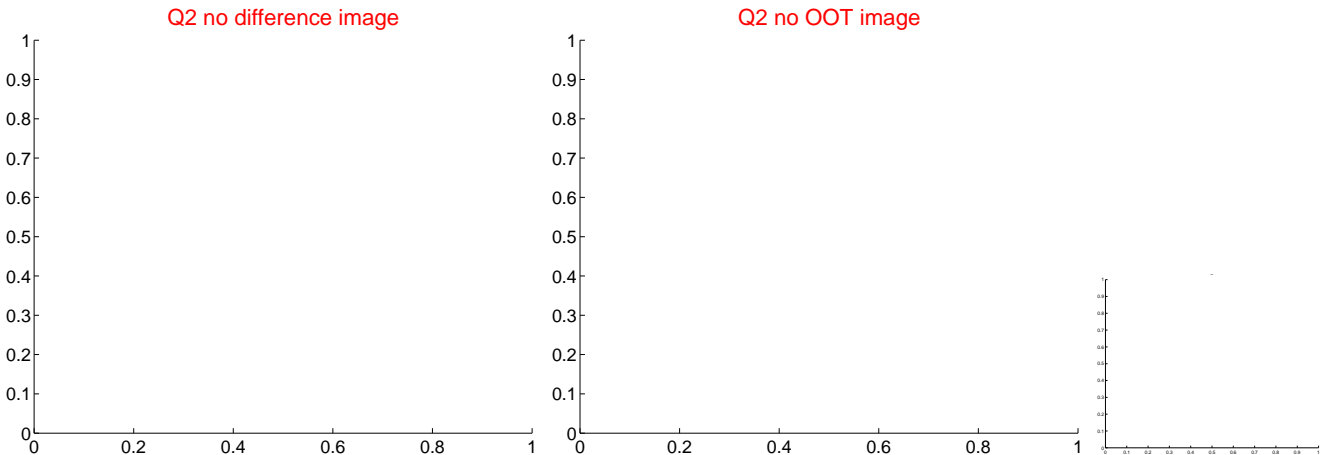
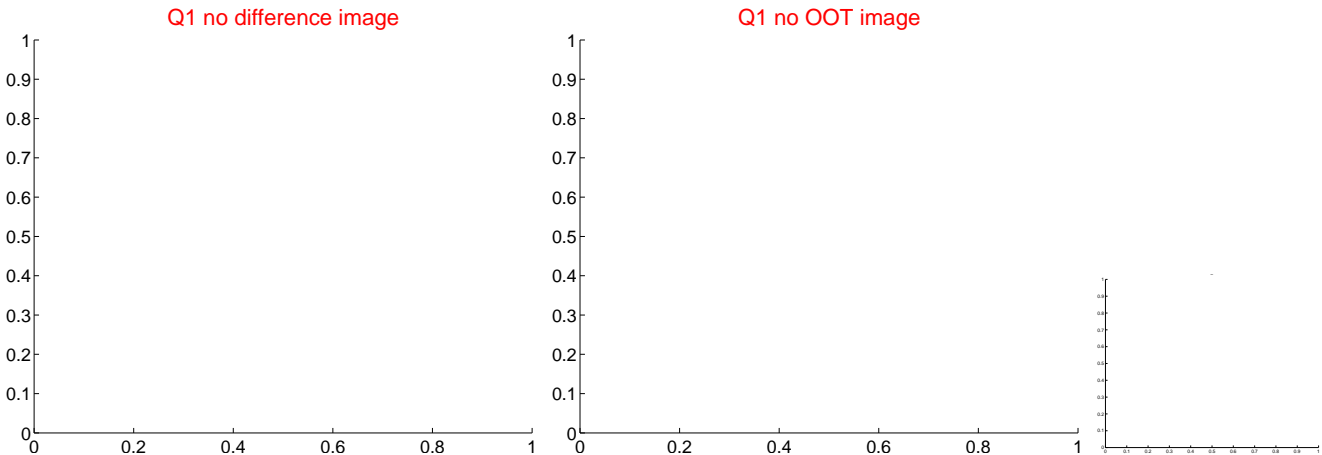
The direct PRF centroid is offset from the target star catalog position by about 0.16 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.116 ± 2.028	0.06	-0.096 ± 1.347	0.065 ± 1.630
PRF-fit source offset from KIC position	0.075 ± 0.882	0.09	0.062 ± 0.919	0.042 ± 0.795
photometric centroid source offset	1.97 ± 2.09	0.94	-1.90 ± 2.10	-0.54 ± 1.97

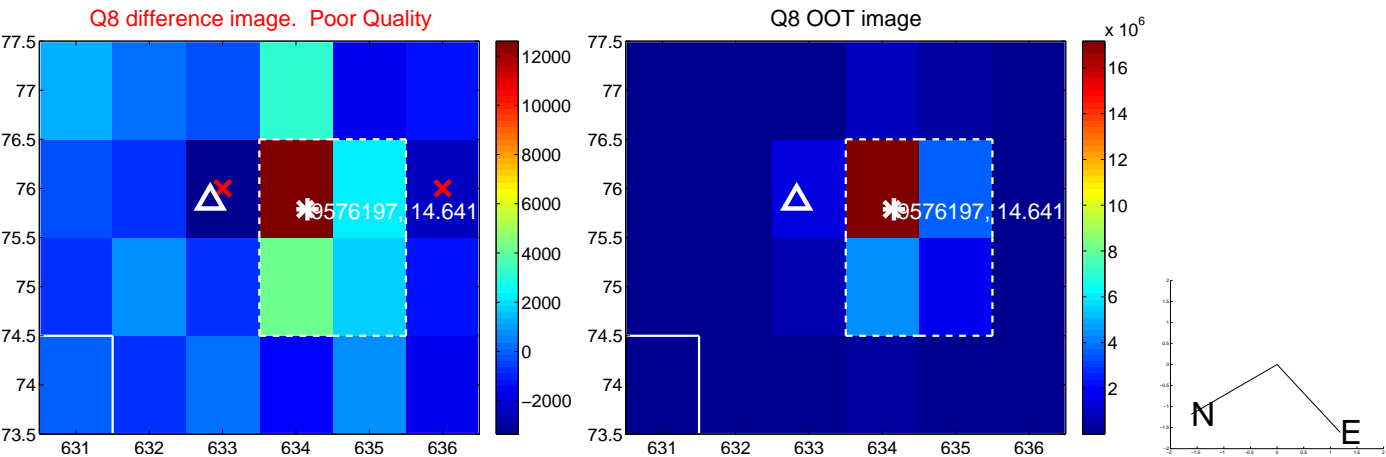


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



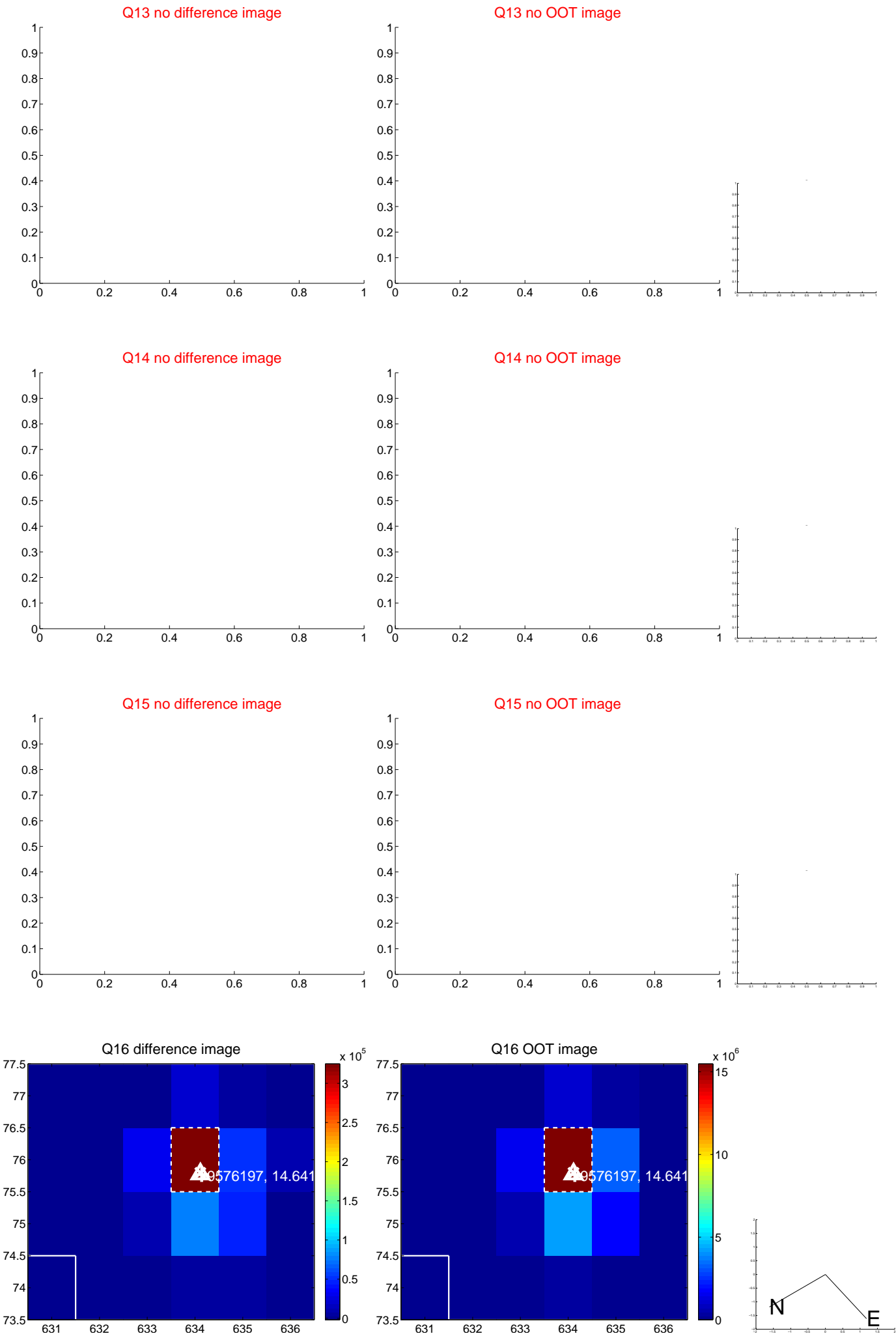
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



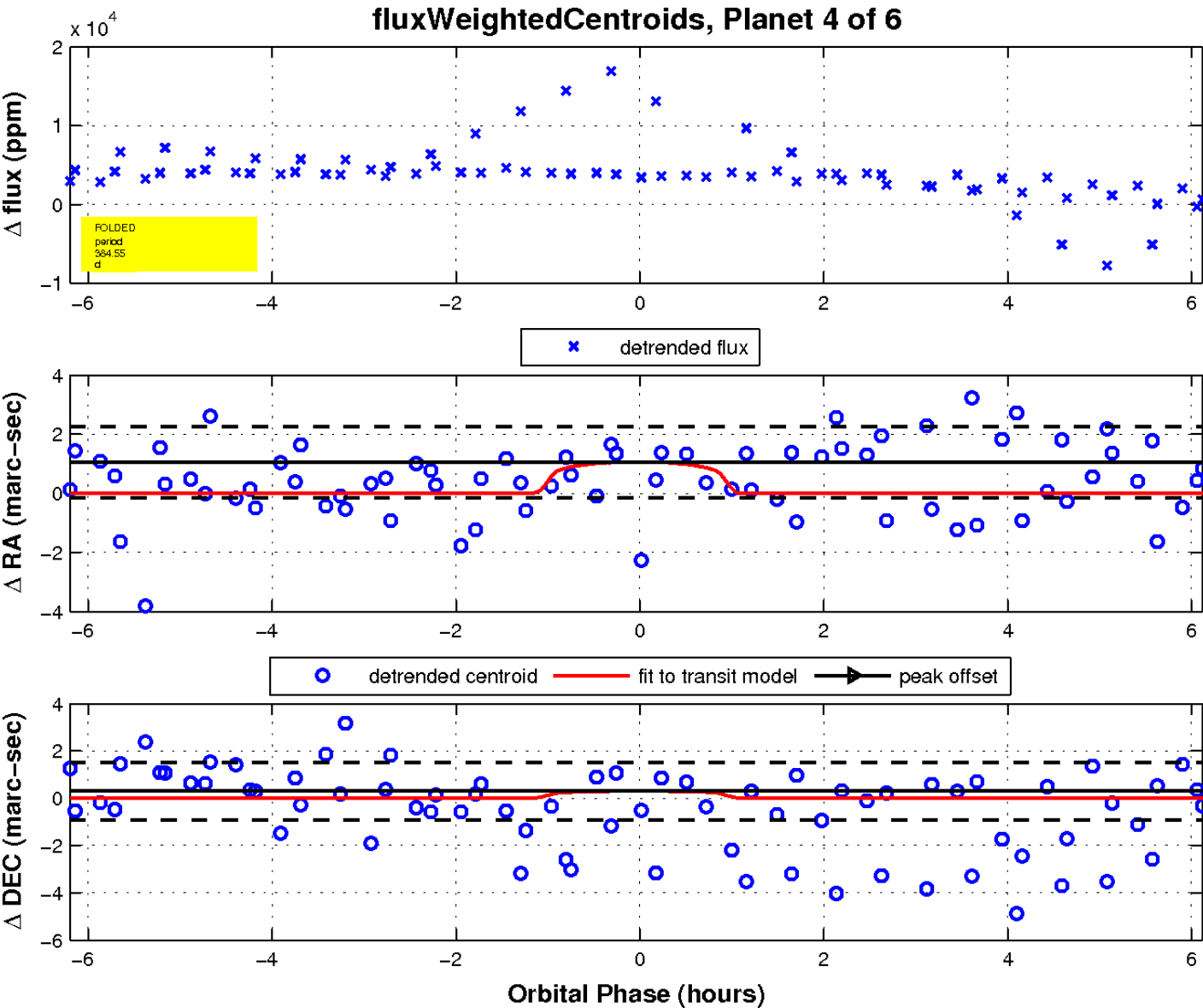
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

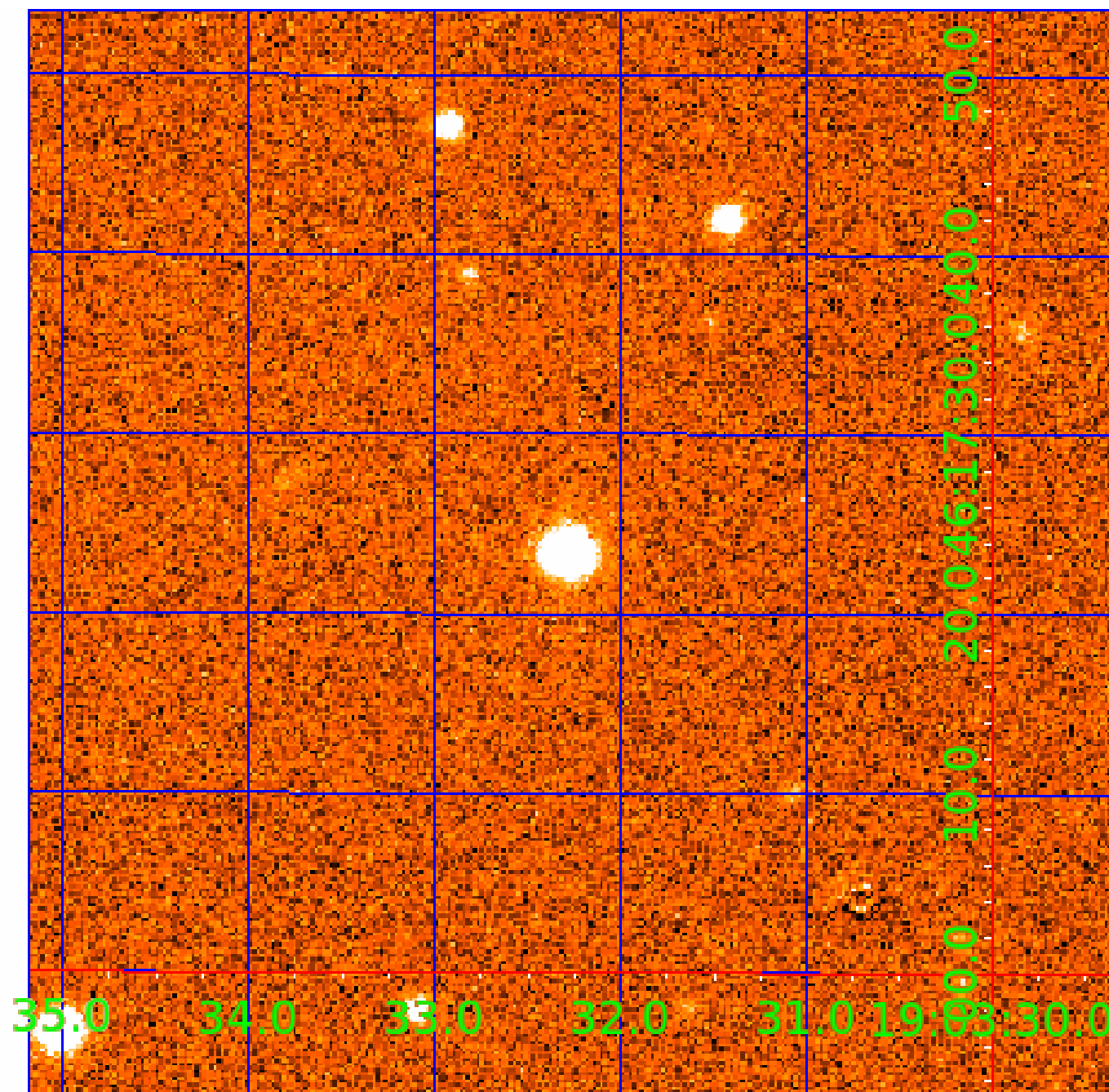


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 009576197

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})
009576197-01	OBS	6207.01	7.964434	136.195153	69115.1	9.133	1433.2	1640.4	0.74	5250	19.05	76.90
009576197-02	OBS	No	7.964449	132.191293	6768.7	8.774	249.2	249.2	0.74	5250	6.42	76.90
009576197-03	OBS	No	165.187252	171.709243	841.0	2.119	22.9	6.5	0.74	5250	2.27	1.35
009576197-04	OBS	No	384.551494	392.158465	540.1	2.081	19.0	2.9	0.74	5250	1.86	0.44
009576197-05	OBS	No	384.481376	392.049039	4054.0	22.580	18.2	7.1	0.74	5250	5.66	0.44

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009576197-01	OBS	FP	0.00	0	1	0	0	MOD_SEC_DV—MOD_SEC_ALT—MOD_ODDEVEN_ALT—HAS_SEC_TCE
009576197-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE
009576197-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_SKYE_TRACKER—LPP_DV—LPP_ALT—INCONSISTENT_TRANS
009576197-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_SKYE_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_FEW_MEAS
009576197-05	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—SAME_NTL_PERIOD—CENT_FEW_DIFFS—HALO_GHOST

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

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

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

Ephemeris Match Information For 009576197-05

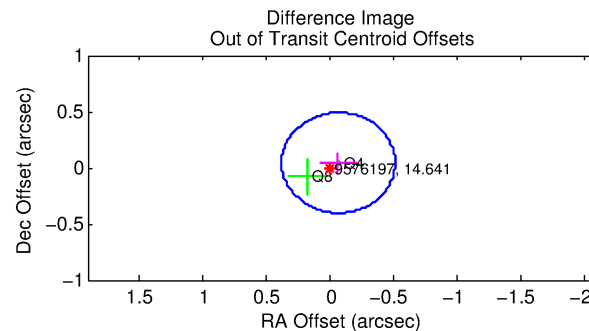
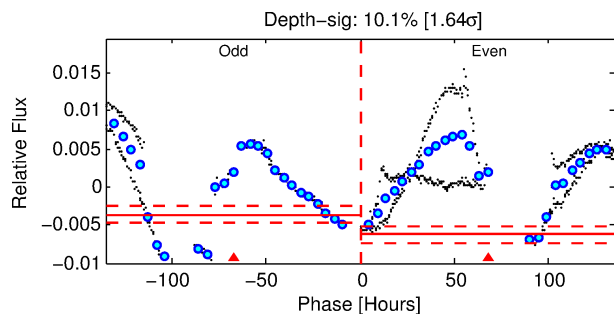
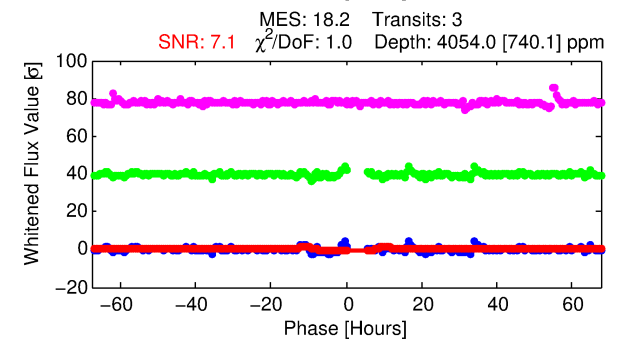
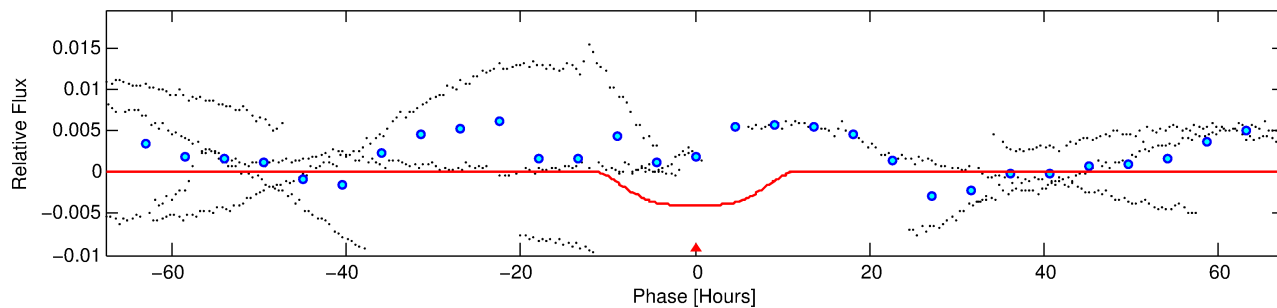
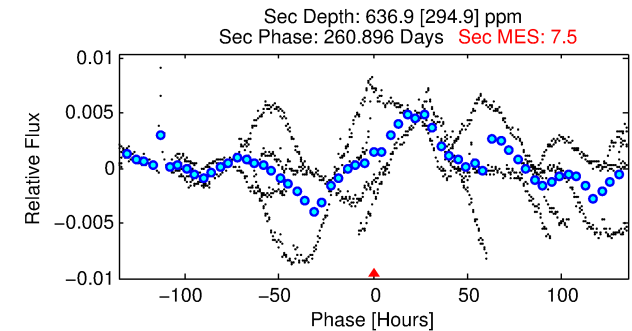
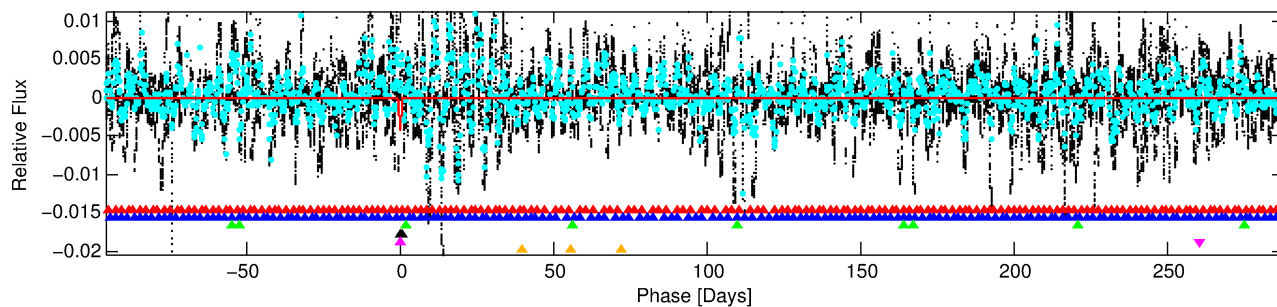
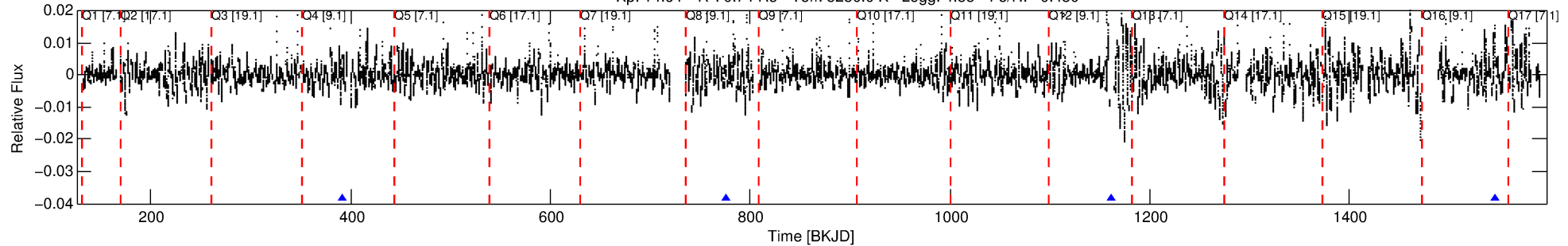
No Significant Match Found

DV One-Page Summary

KIC: 9576197 Candidate: 5 of 6 Period: 384.481 d

KOI: K06207 Corr: No Ephemeris Match

Kp: 14.64 R*: 0.74 Rs Teff: 5250.0 K Logg: 4.55 Fe/H: -0.480



DV Fit Results:

Period = 384.48138 [0.01246] d
Epoch = 392.0490 [0.0173] BKJD
Rp/R* = 0.0705 [0.0067]
a/R* = 75.04 [4.62]
b = 0.90 [0.01]
Seff = 0.44 [0.08]
Teq = 207 [10] K
Rp = 5.66 [0.84] Re
a = 0.9180 [0.0916] AU
Ag = 9211.07 [4816.23] [1.91σ]
Teffp = 3141 [405] K [7.25σ]

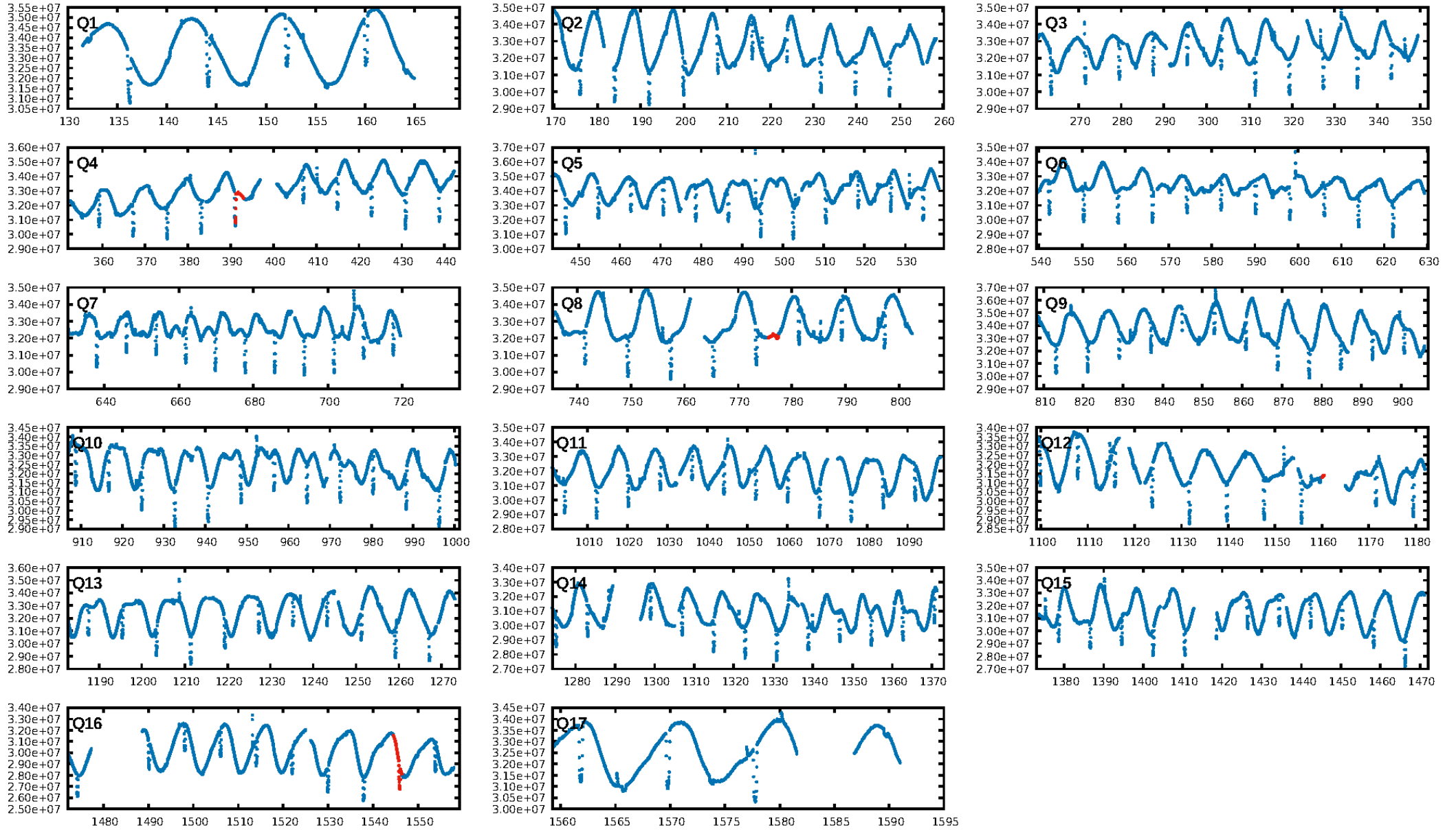
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [232.07σ]
LongPeriod-sig: 5.9% [0.07σ]
ModelChiSquare2-sig: 0.5%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -0.03428
Centroid-sig: 24.1%
Centroid-so: 0.174 arcsec [1.21σ]
OotOffset-rm: 0.082 arcsec [0.55σ]
OotOffset-st: 0/0/2/0 [2]
KicOffset-rm: 0.070 arcsec [0.68σ]
KicOffset-st: 0/0/2/0 [2]
DiffImageQuality-fgm: 0.00 [0/2]
DiffImageOverlap-fno: 0.00 [0/2]

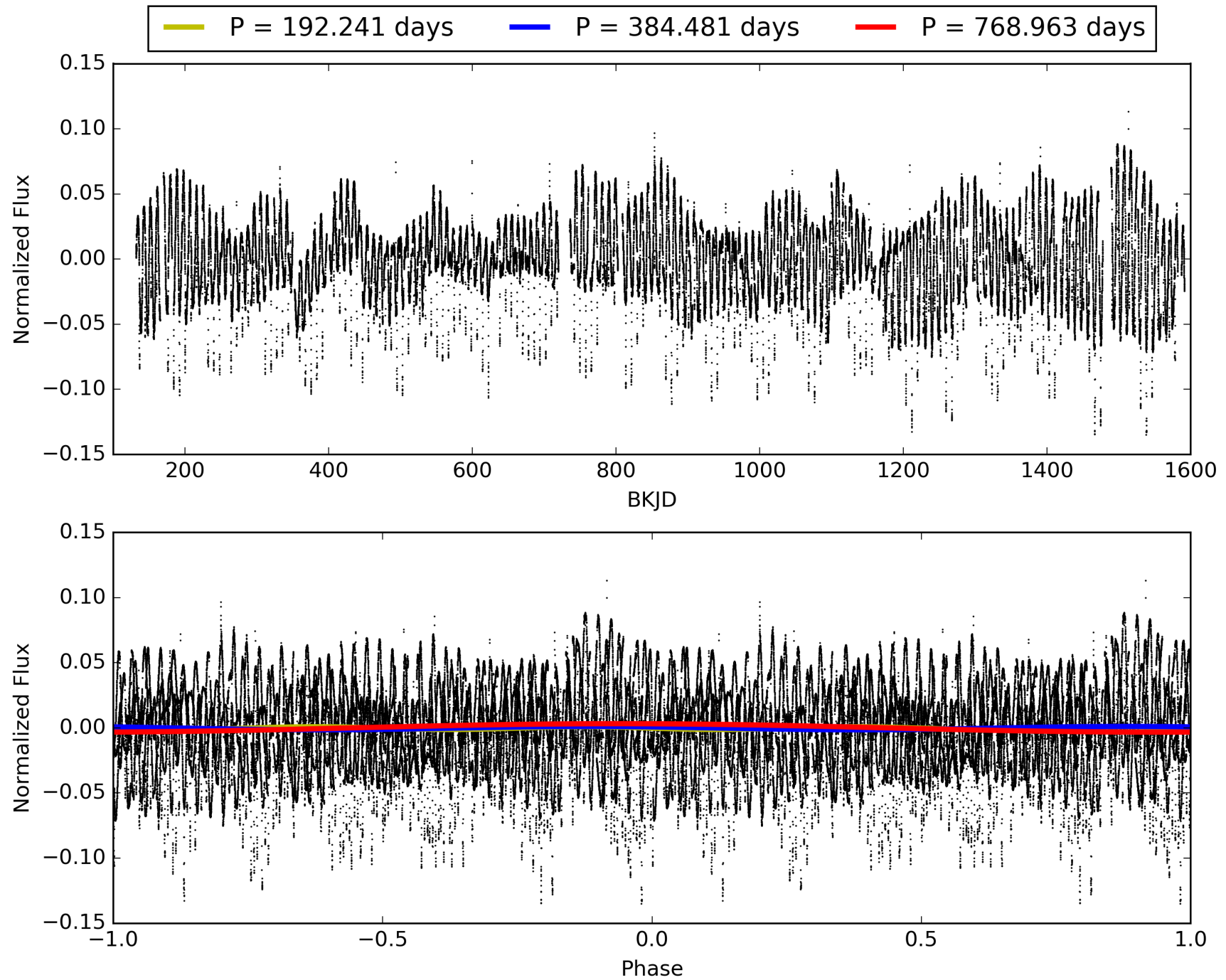
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 05:50:30 Z

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

TCE 009576197-05, PDC Light Curves

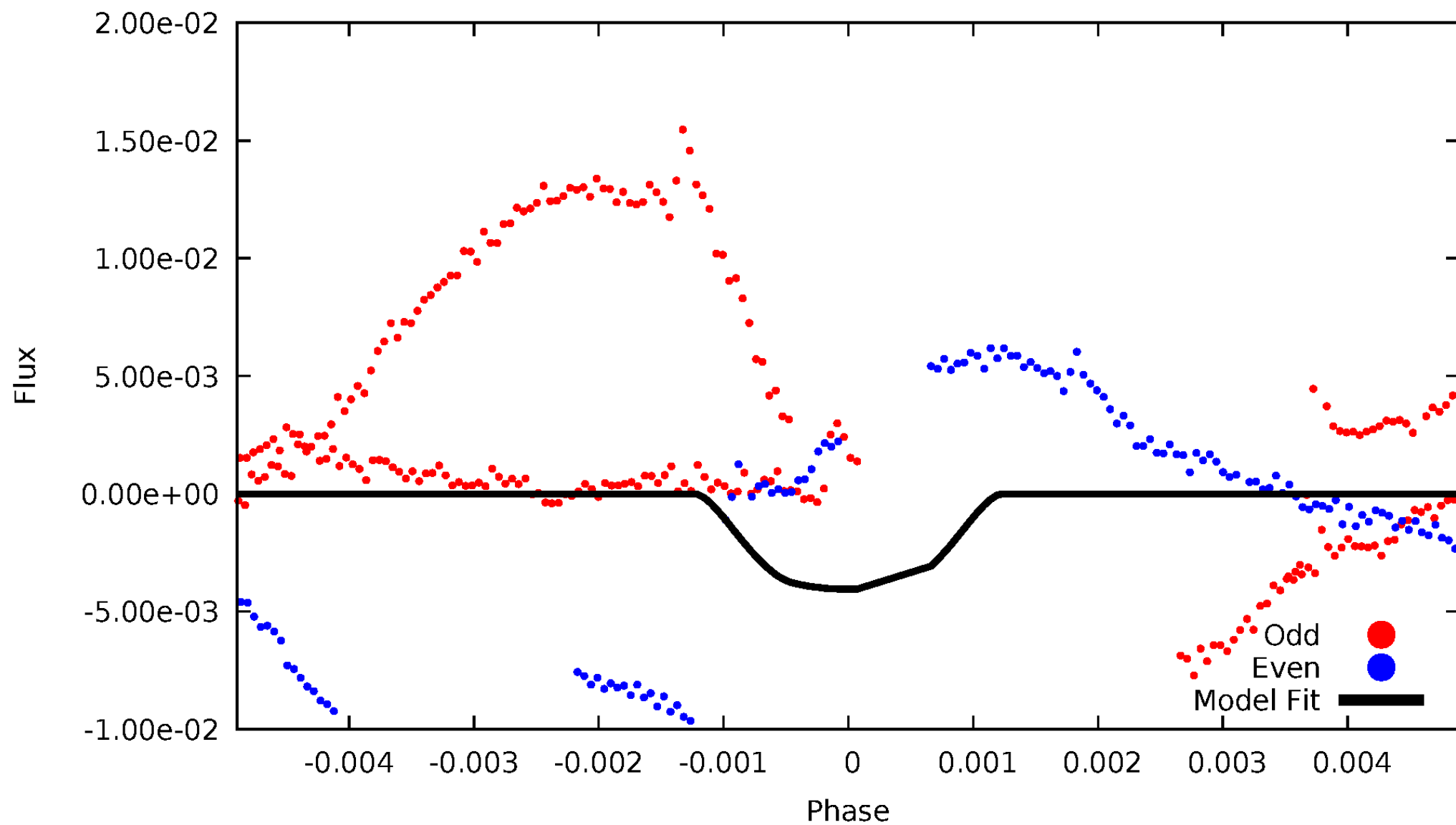


TCE 009576197-05



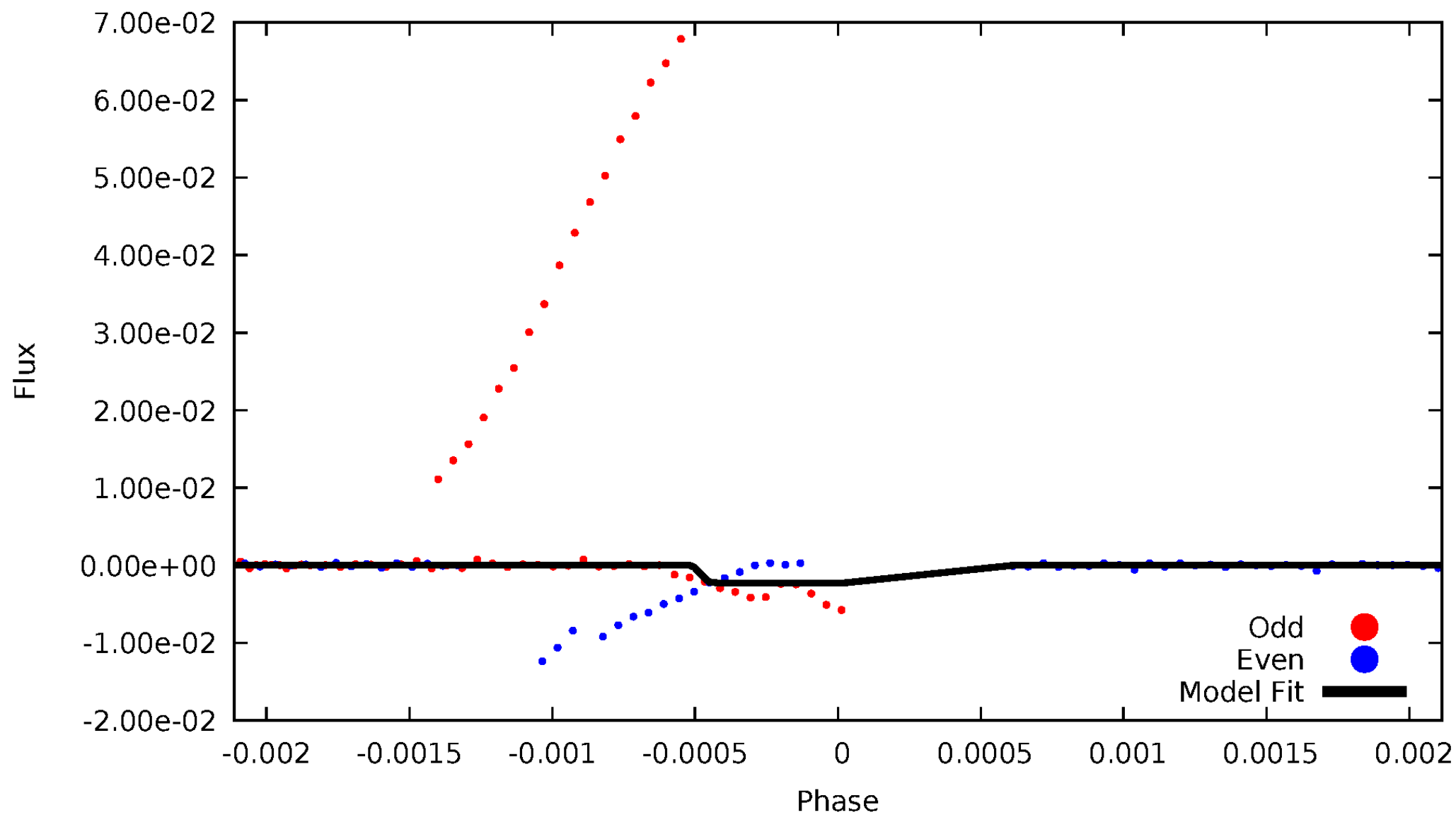
DV Odd/Even

TCE 009576197-05



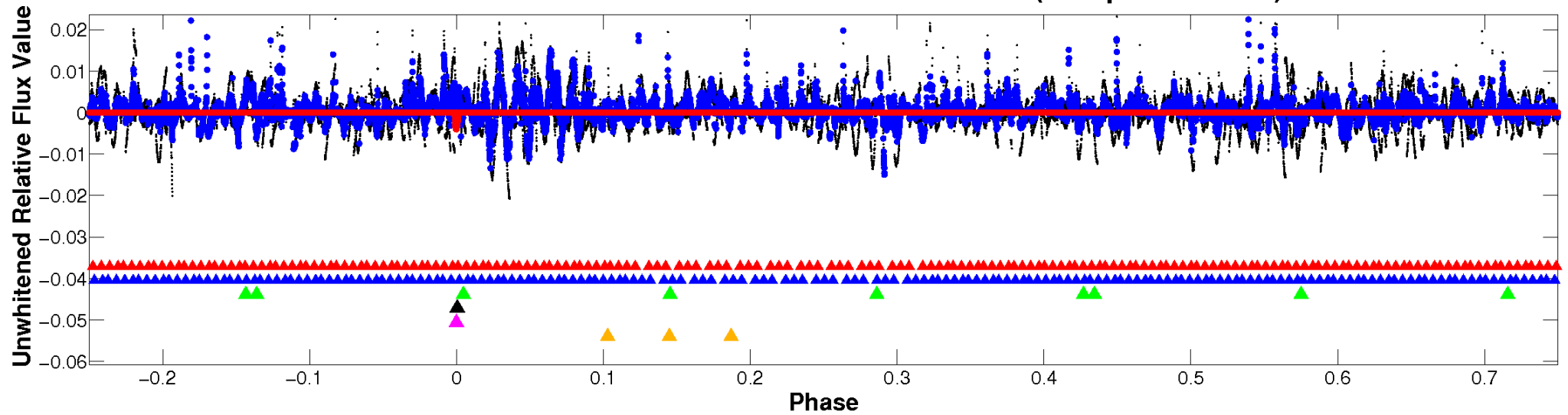
ALT Odd/Even

TCE 009576197-05

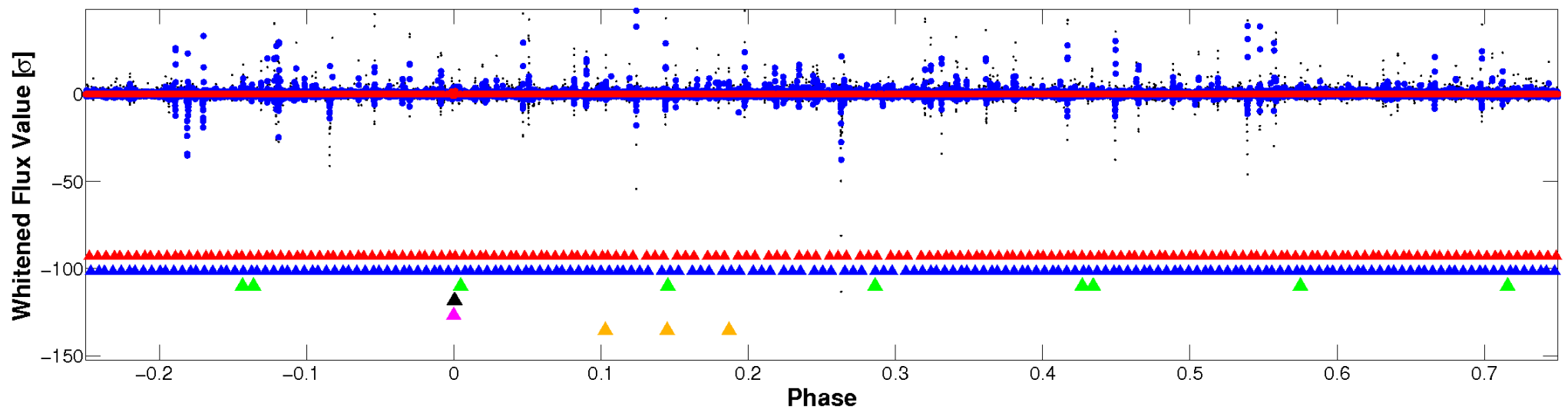


Non-Whitened Vs. Whitened Light Curve

Planet 5 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

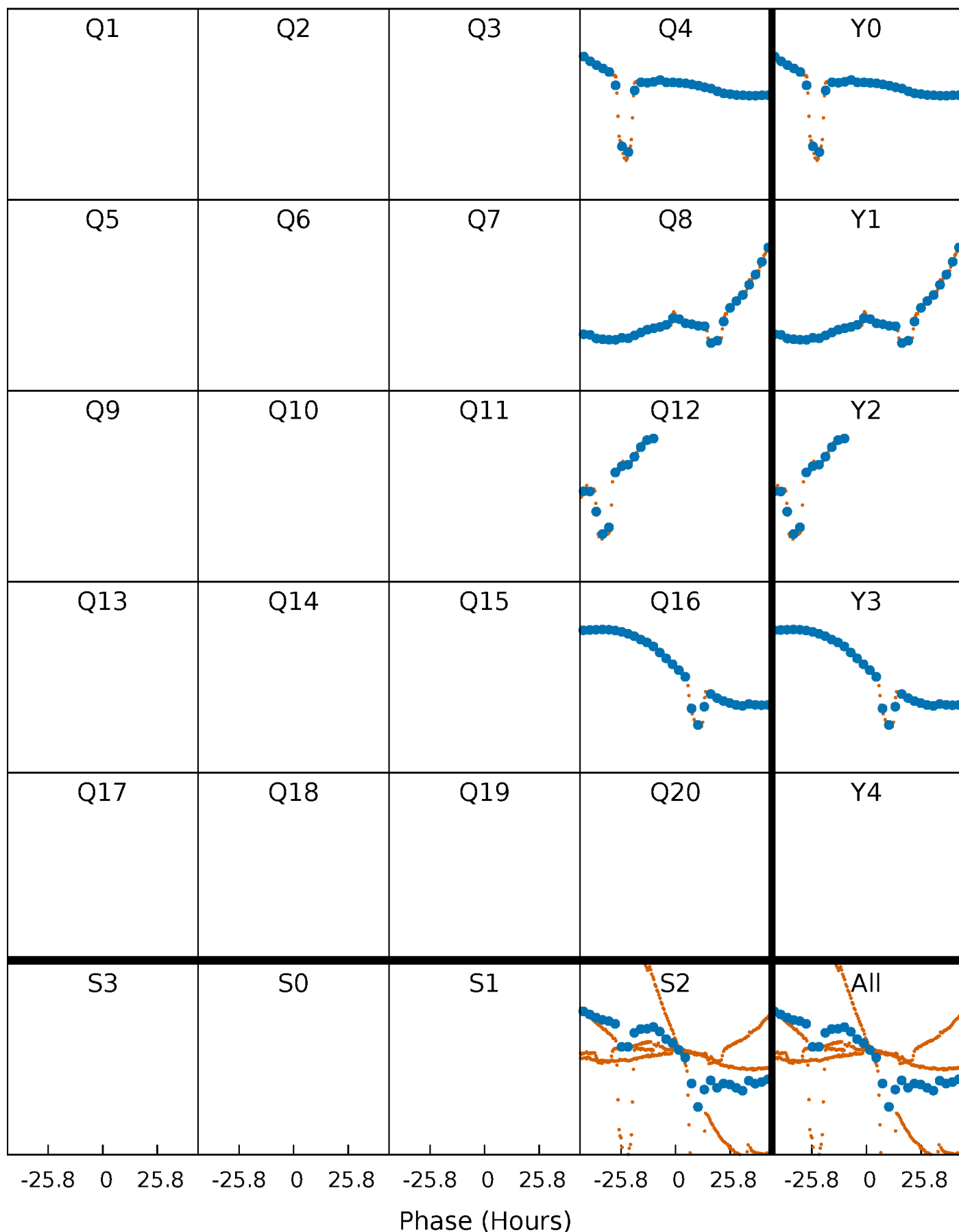


Planet 5 : Phased Whitened Flux Time Series (Fit Epoch/Period)



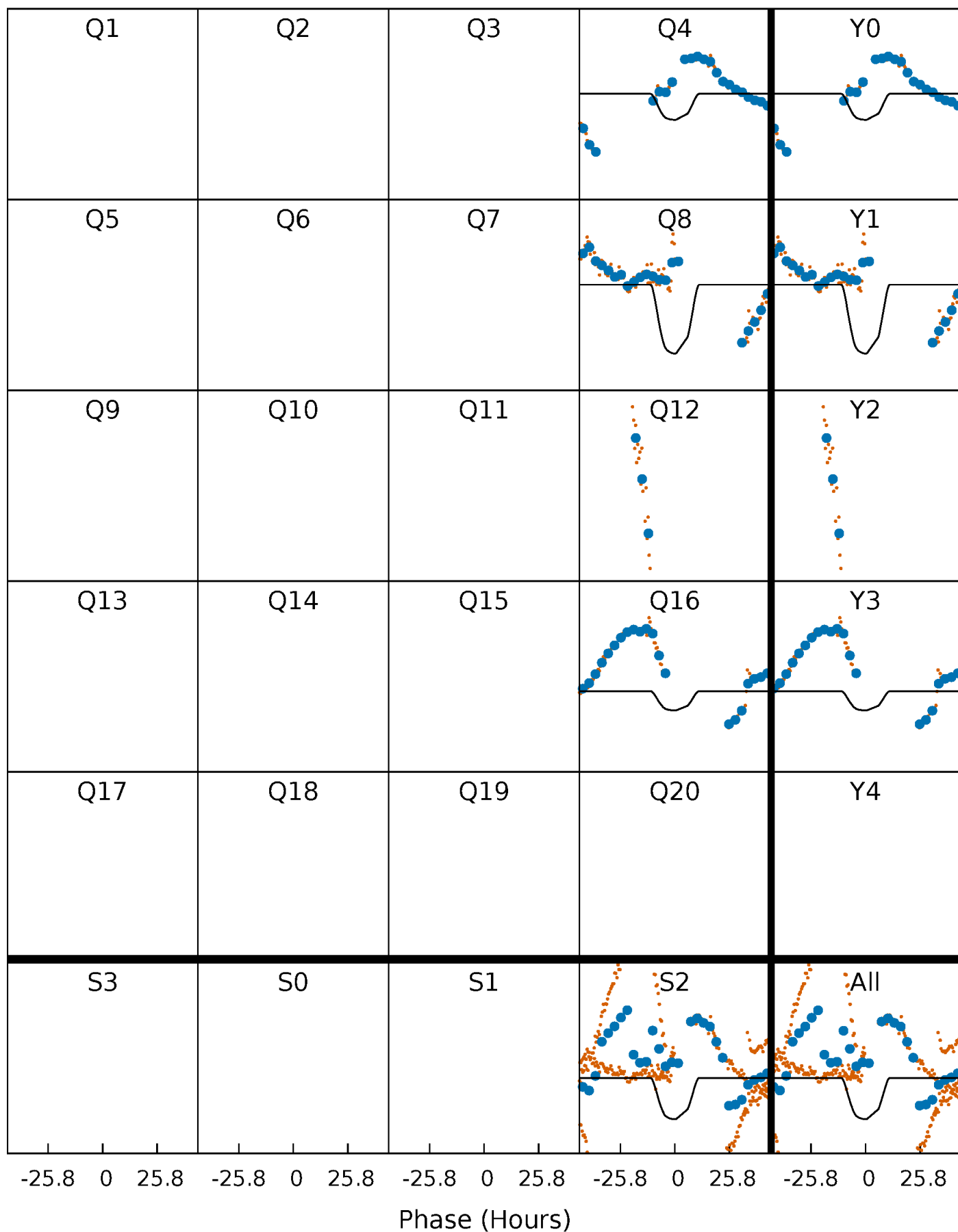
PDC Quarter-Phased Transit Curves

TCE 009576197-05 $P=384.481376$ Days $T_0=392.049039$ (BKJD)



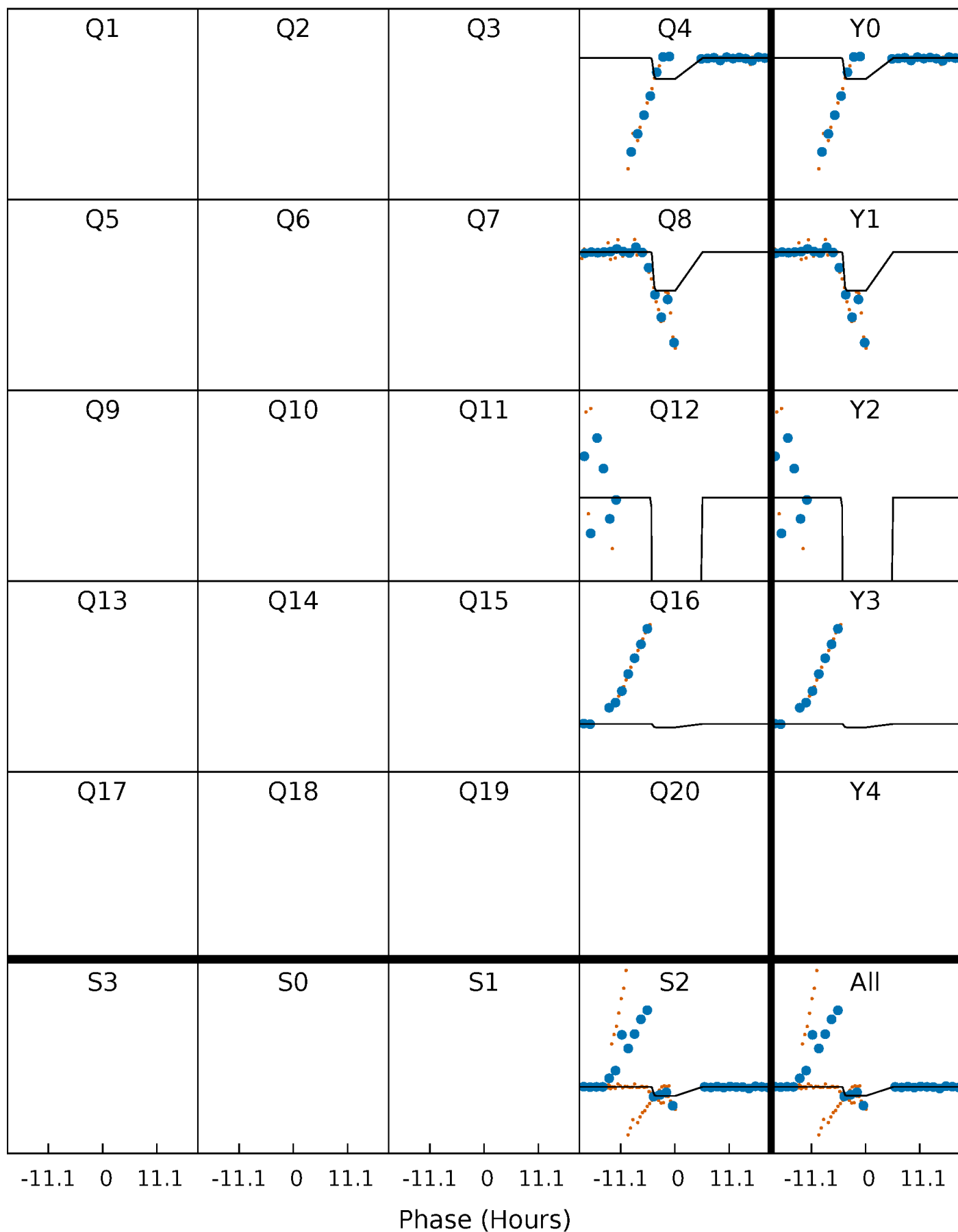
DV Quarter-Phased Transit Curves

TCE 009576197-05 $P=384.481376$ Days $T_0=392.049039$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

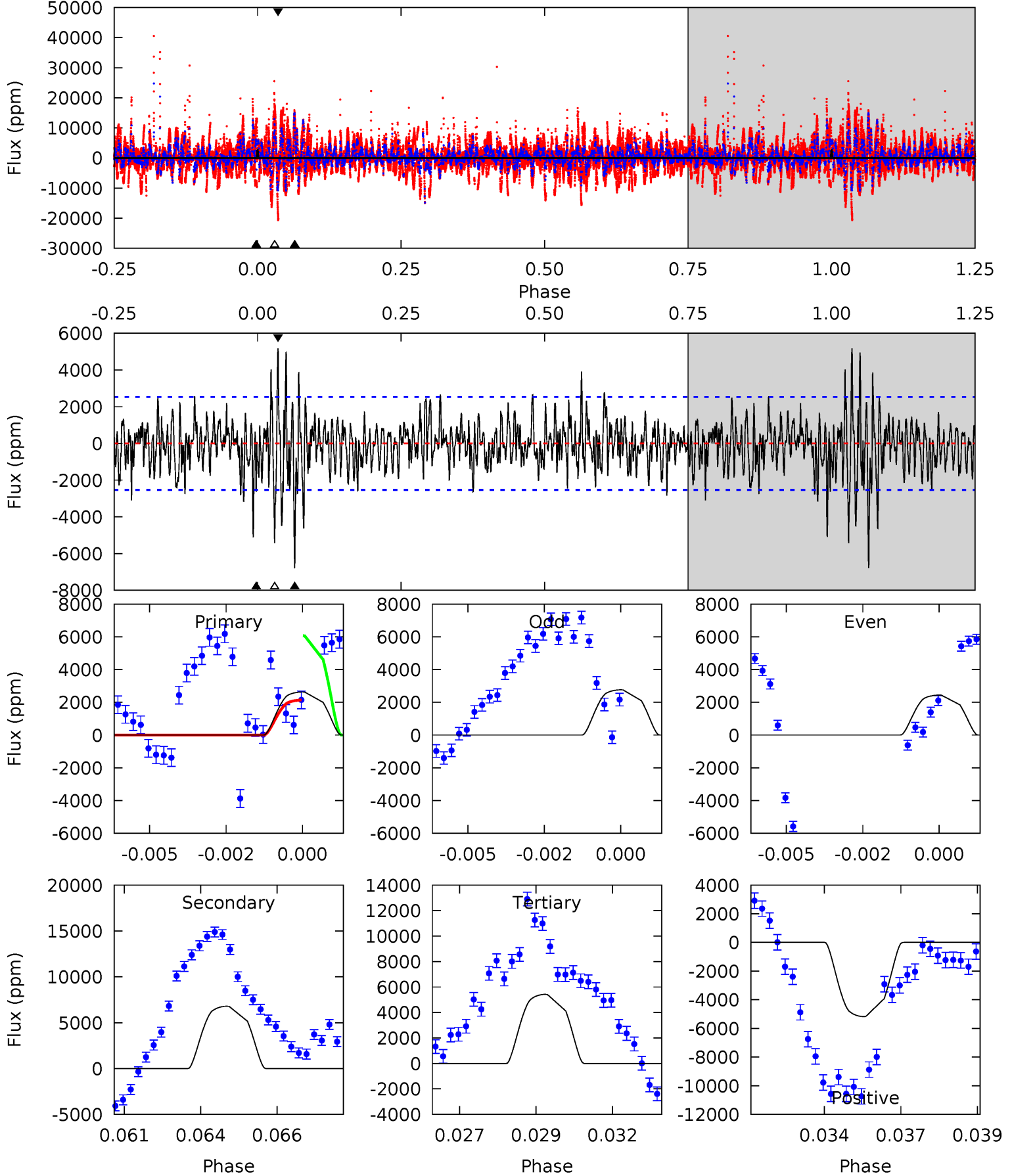
TCE 009576197-05 $P=384.484676$ Days $T_0=392.068053$ (BKJD)



DV Model-Shift Uniqueness Test

009576197-05, P = 384.481376 Days, E = 7.567663 Days

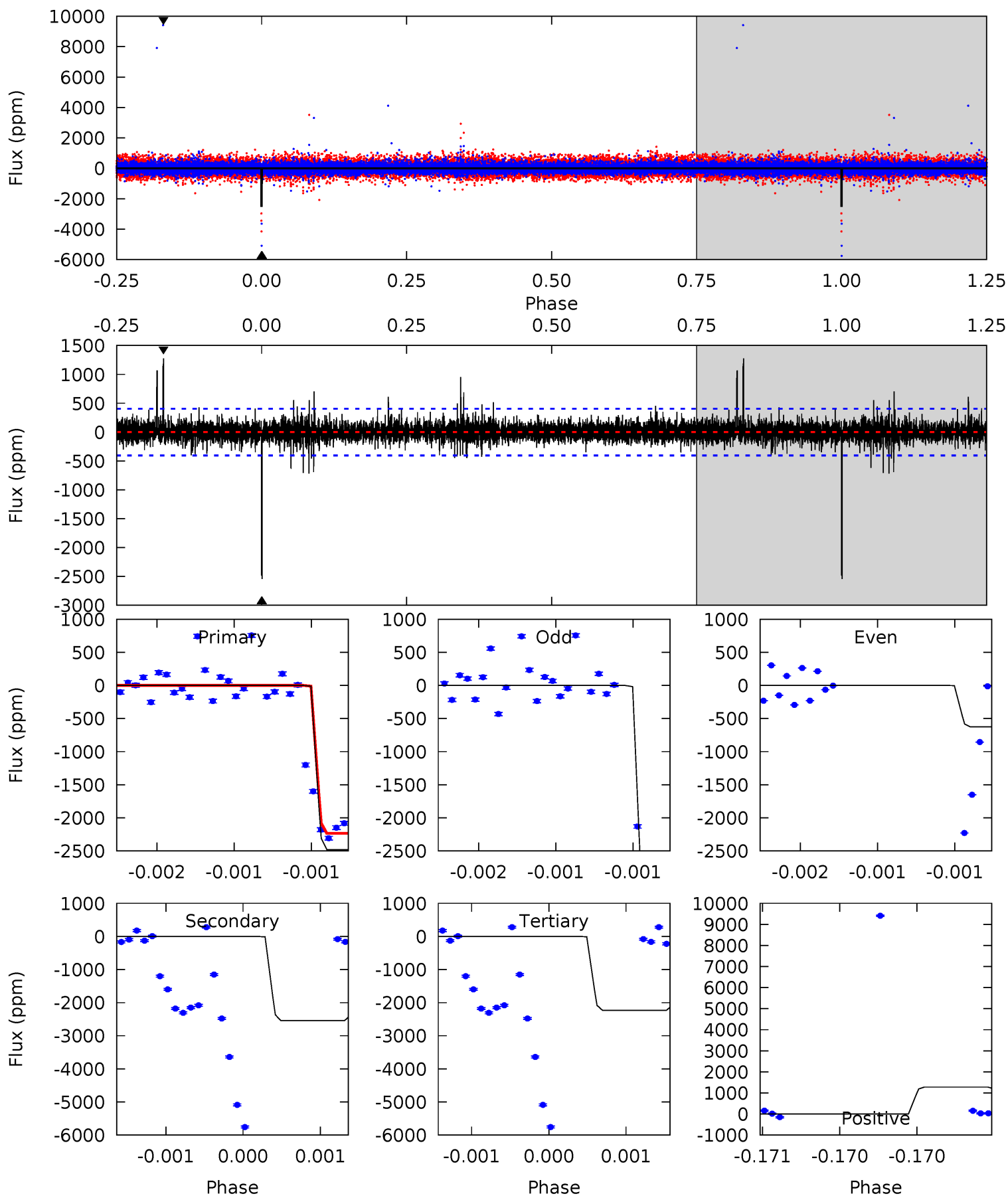
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.50	14.2	11.3	10.8	5.29	3.03	2.32	-5.84	-5.31	2.87	3.40	0.32	1.60	0.43	3.26



Alt Model-Shift Uniqueness Test

009576197-05, P = 384.484676 Days, E = 7.583377 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
34.2	35.0	30.8	17.6	5.57	3.47	1.30	3.36	16.6	4.23	17.5	19.3	0	0.33	34.2



Stellar Parameters For KIC 009576197

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5250^{+158}_{-142}	$4.548^{+0.084}_{-0.056}$	$-0.480^{+0.300}_{-0.300}$	$0.736^{+0.084}_{-0.076}$	$0.698^{+0.095}_{-0.044}$	$2.462^{+0.929}_{-0.527}$
	+3%/-3%	+2%/-1%	+62%/-62%	+11%/-10%	+14%/-6%	+38%/-21%
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 009576197-05 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-6792 ± 478	$5.64^{+0.75}_{-0.68}$	289^{+11}_{-12}	5657^{+348}_{-311}	100624^{+29743}_{-20738}
Alt.	-2543 ± 73	$3.85^{+0.63}_{-0.63}$	289^{+11}_{-11}	5375^{+482}_{-330}	81345^{+35706}_{-21471}

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

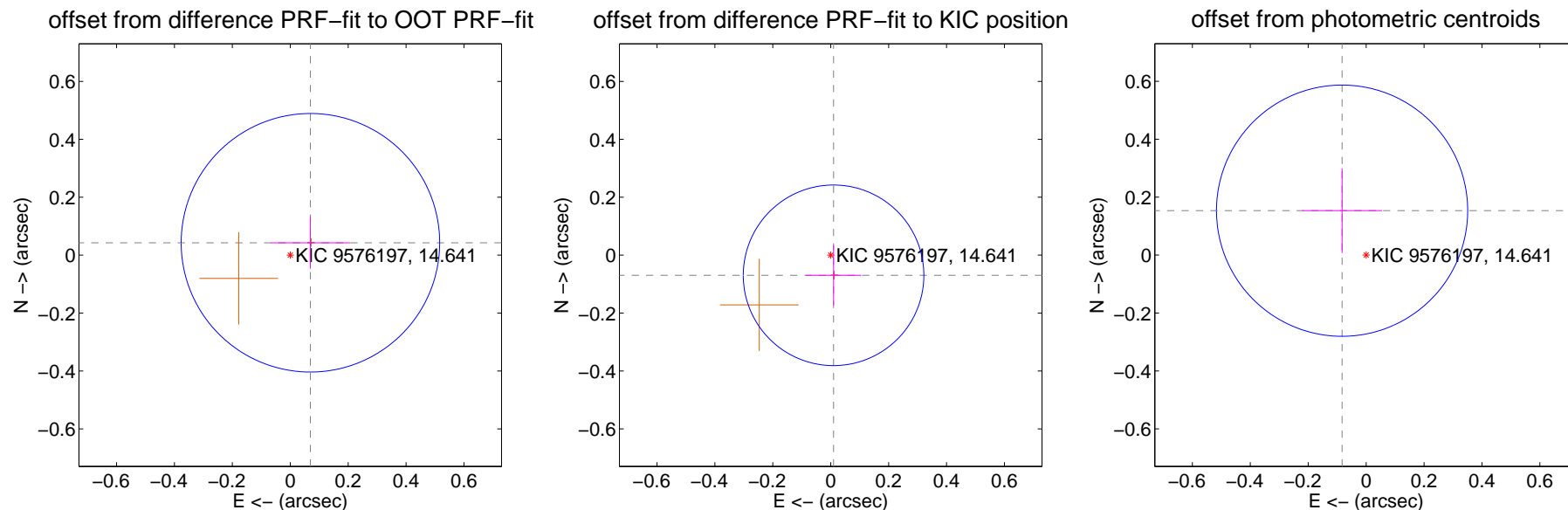
DV Centroid Data

Supplemental centroid analysis for 009576197-05. Kepler magnitude: 14.64. Transit SNR 7.09

There are 0 quarters with good PRF difference image offsets

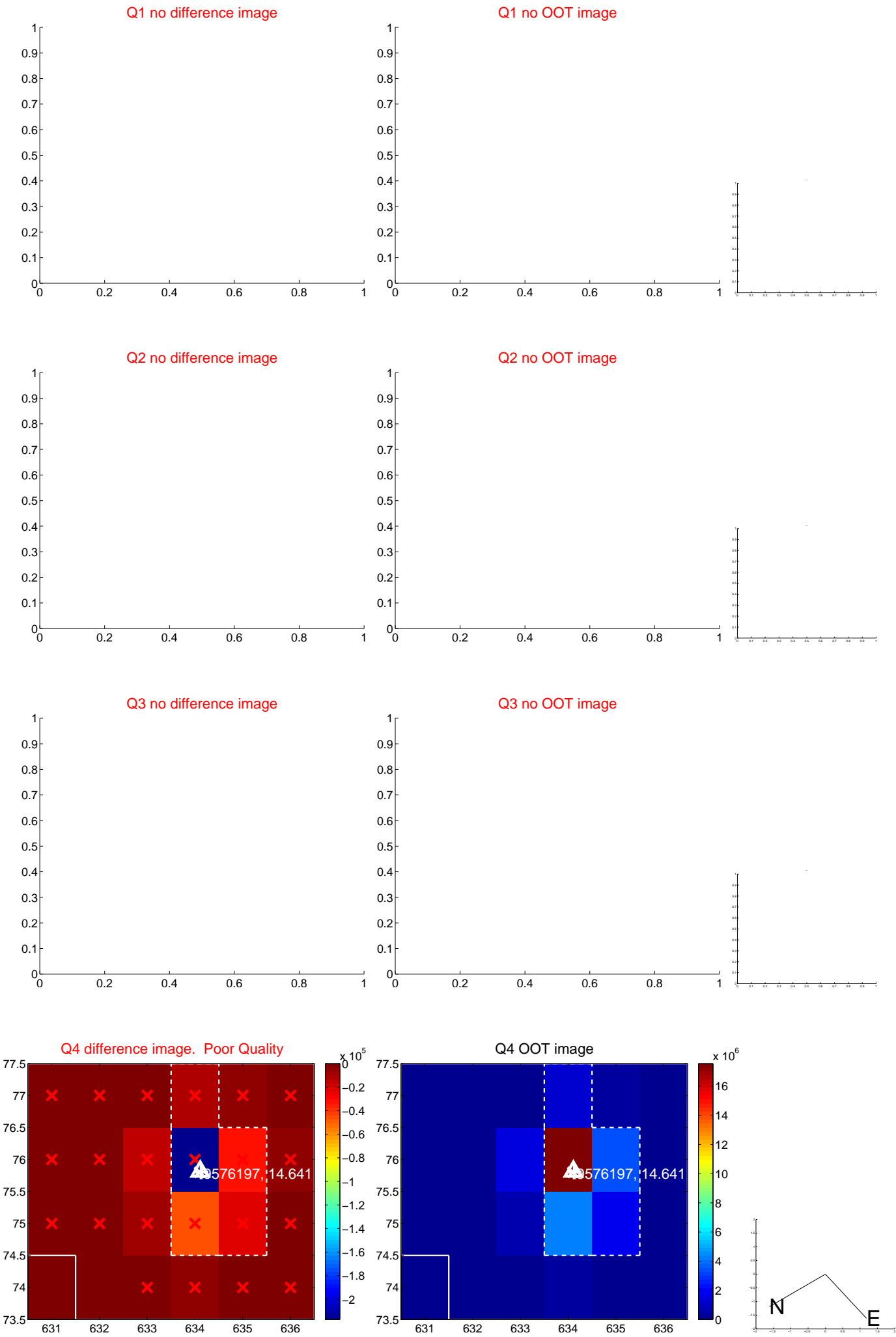
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.082 ± 0.149	0.55	-0.070 ± 0.137	0.043 ± 0.089
PRF-fit source offset from KIC position	0.070 ± 0.104	0.68	-0.010 ± 0.095	-0.070 ± 0.104
photometric centroid source offset	0.17 ± 0.14	1.21	0.08 ± 0.14	0.15 ± 0.15

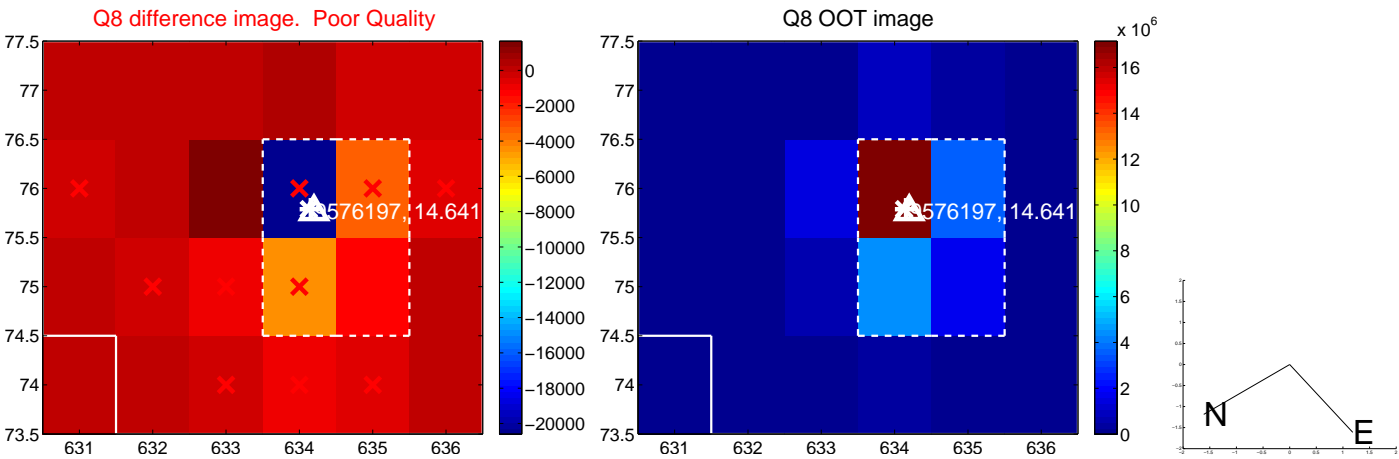
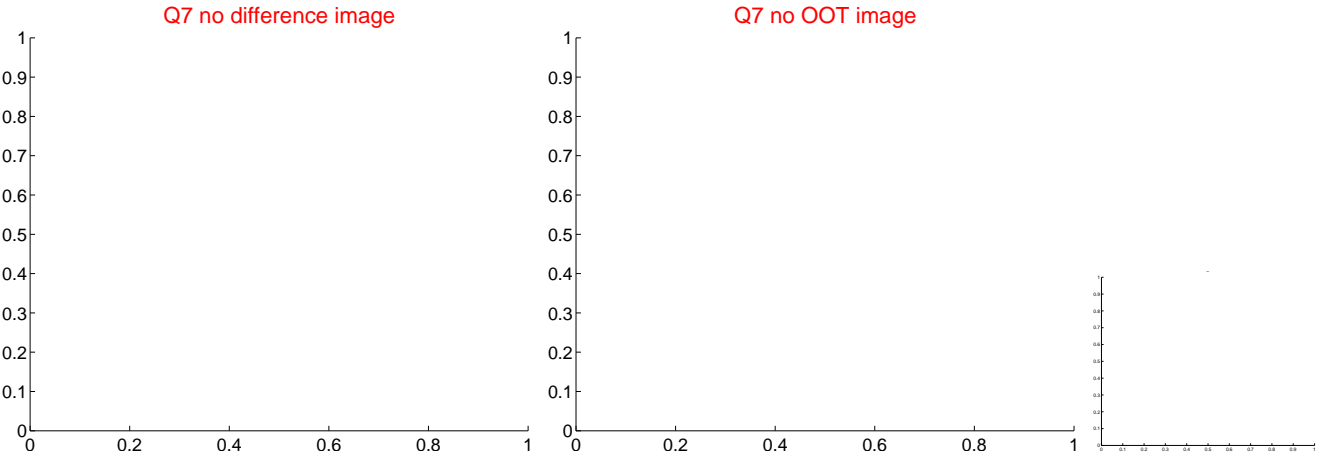
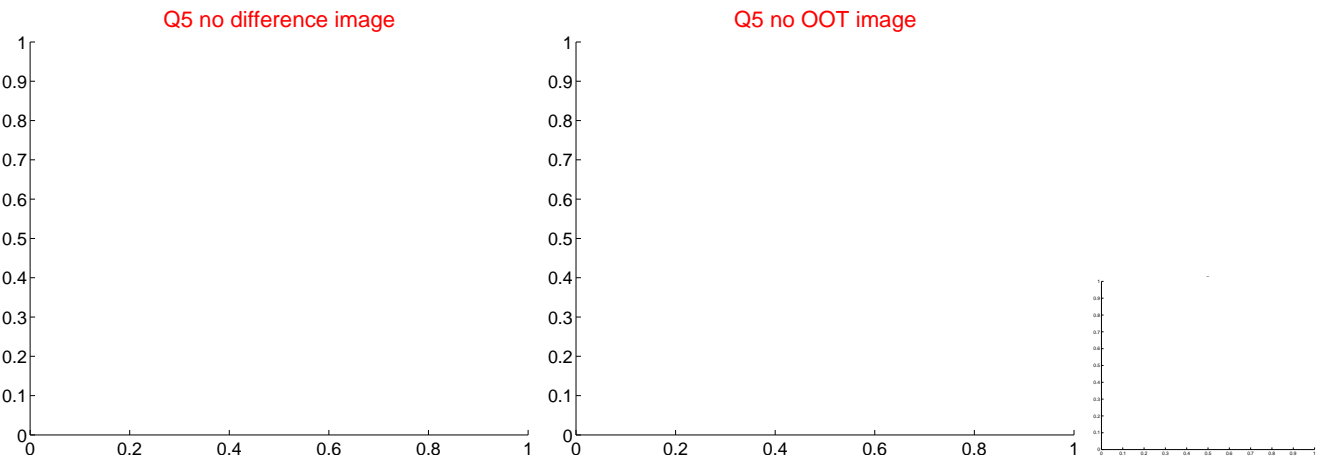


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



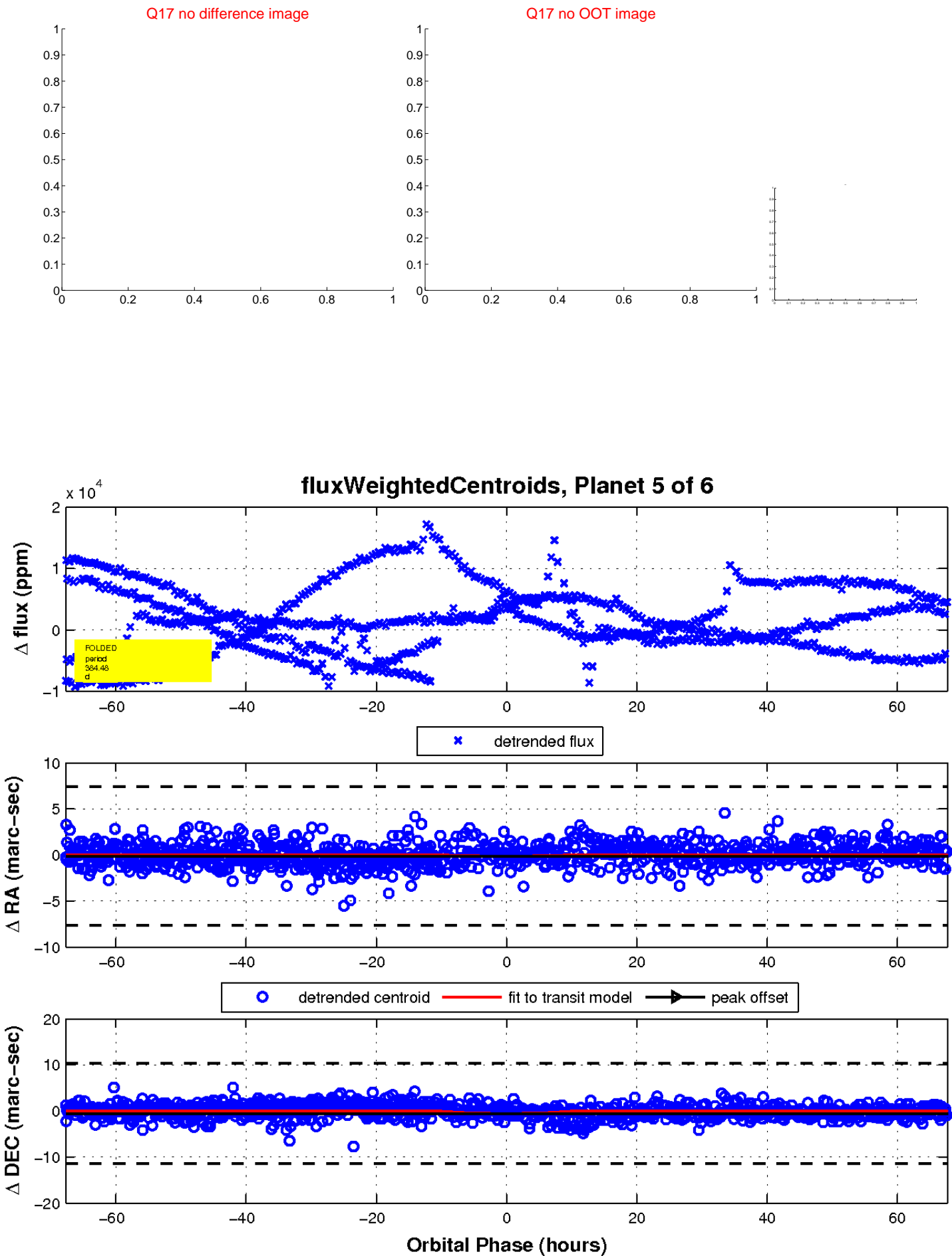
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

