

KIC 004636578

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})
004636578-01	OBS	2025.01	17.848527	148.390179	399.4	5.938	30.0	32.8	1.47	6188	3.36	147.07
004636578-02	OBS	2025.02	26.136350	131.617204	368.4	6.733	24.6	26.4	1.47	6188	3.05	88.44
004636578-03	OBS	2025.03	11.189597	140.630629	124.1	5.424	12.1	12.8	1.47	6188	1.92	274.10

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004636578-01	OBS	PC	1.00	0	0	0	0	NO_COMMENT
004636578-02	OBS	PC	1.00	0	0	0	0	NO_COMMENT
004636578-03	OBS	PC	1.00	0	0	0	0	NO_COMMENT

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

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

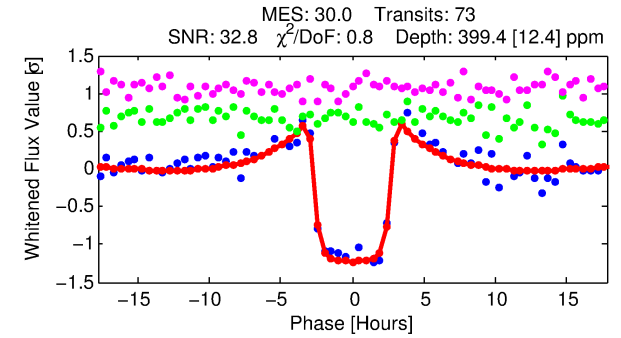
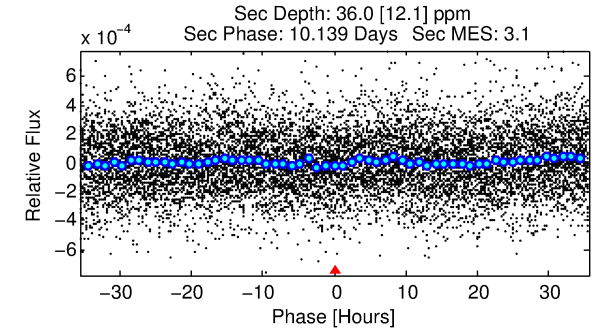
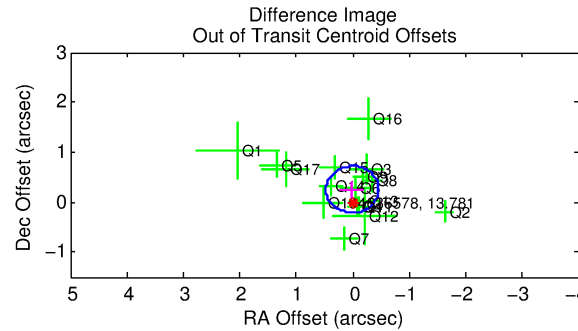
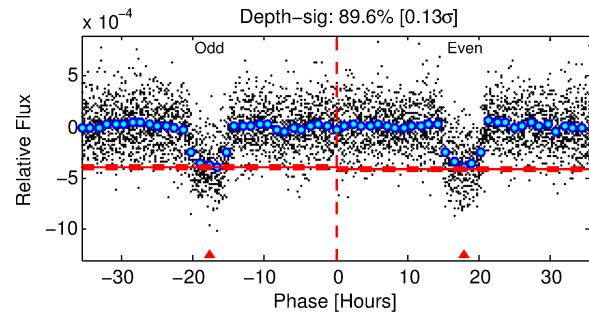
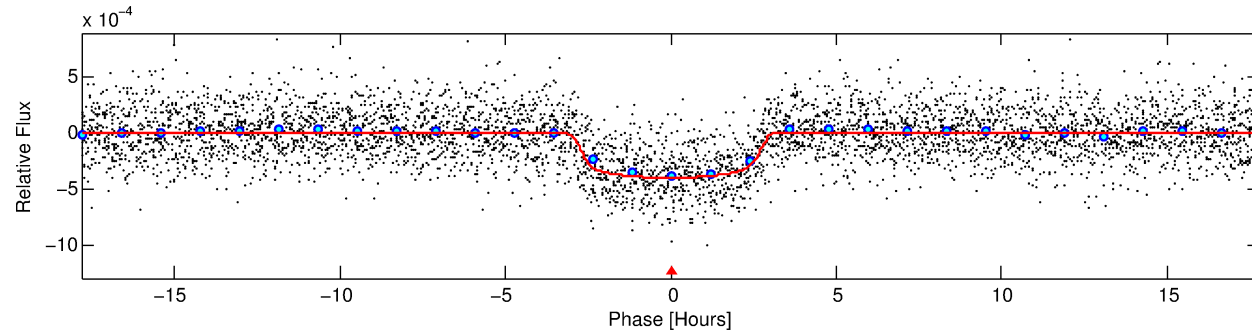
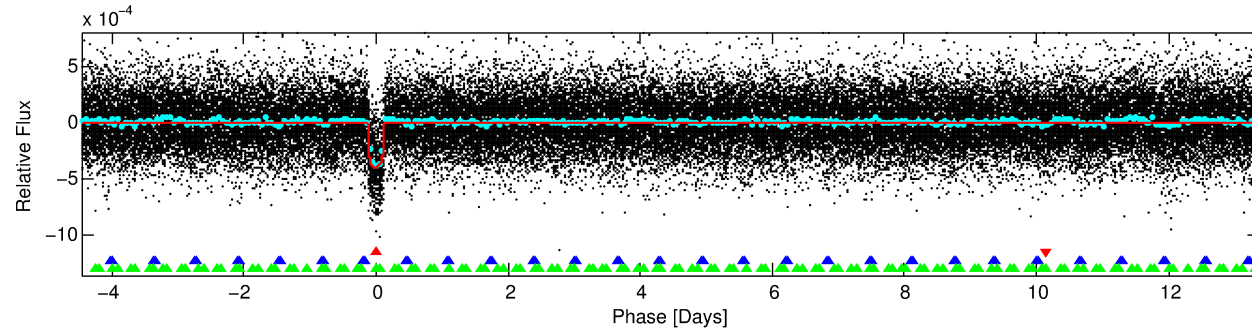
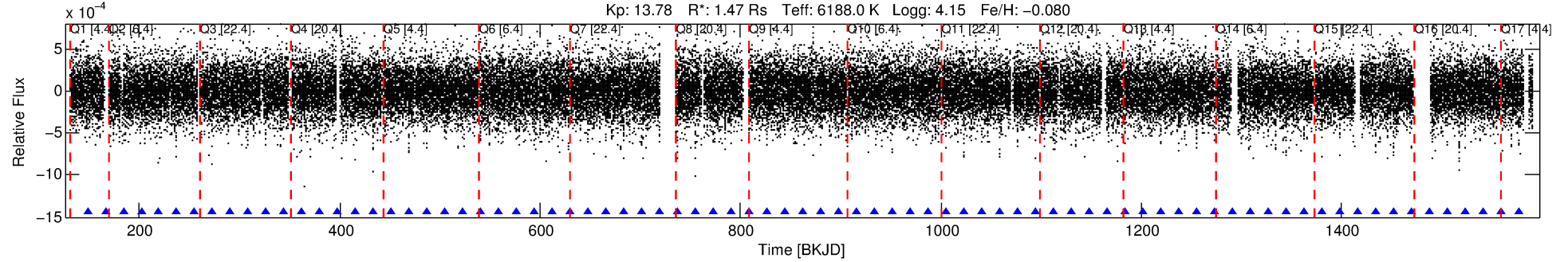
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 004636578-01

No Significant Match Found

DV One-Page Summary

KIC: 4636578 Candidate: 1 of 3 Period: 17.849 d
KOI: K02025.01 Name: Kepler-350c Corr: 0.963



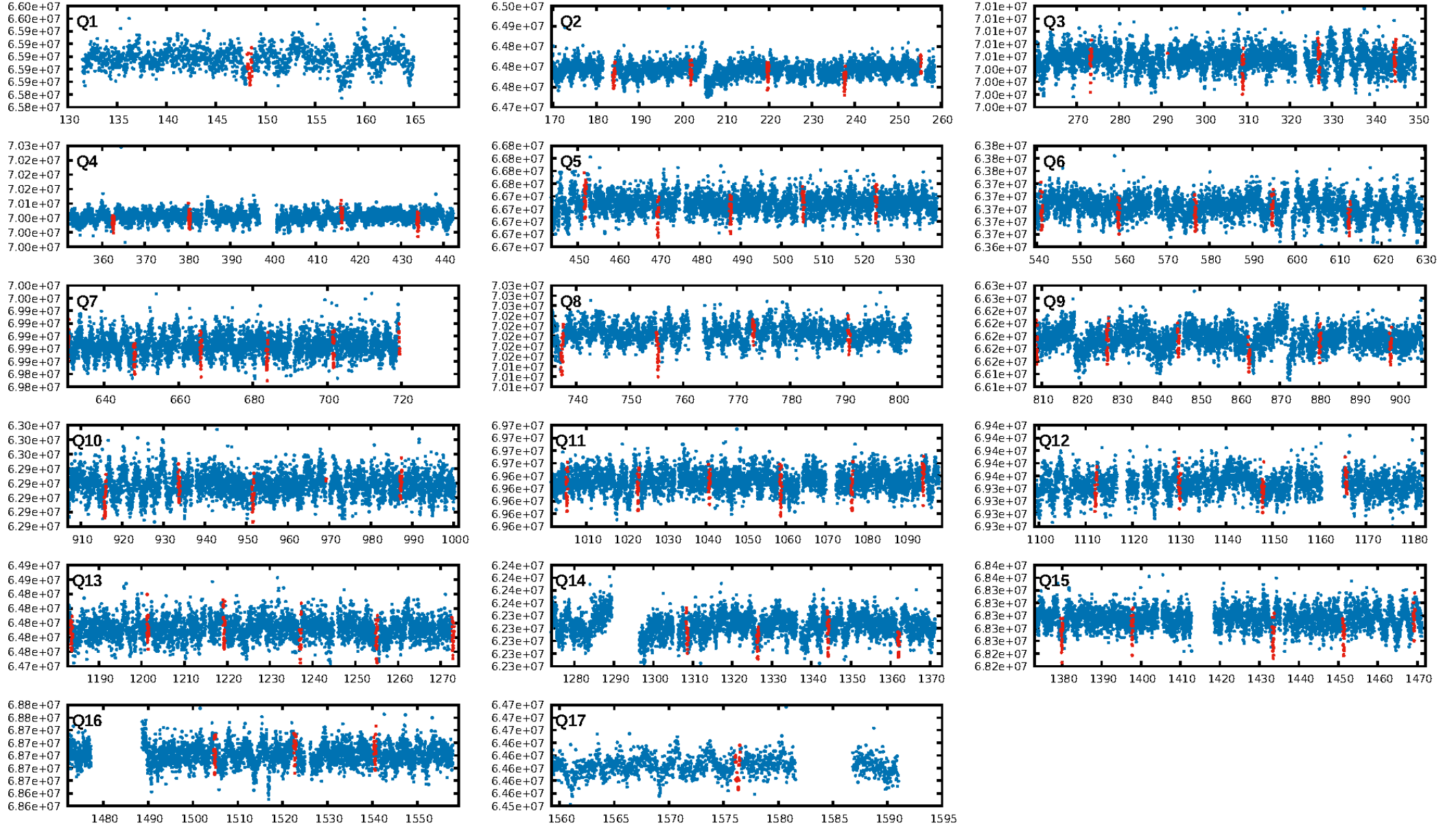
DV Fit Results:

Period = 17.84853 [0.00005] d
Epoch = 148.3902 [0.0025] BKJD
Rp/R* = 0.0210 [0.0012]
a/R* = 12.41 [3.25]
b = 0.87 [0.08]
Seff = 147.07 [43.50]
Teq = 888 [66] K
Rp = 3.36 [0.63] Re
a = 0.1385 [0.0244] AU
Ag = 33.66 [15.26] [2.14σ]
Teffp = 3307 [299] K [7.90σ]

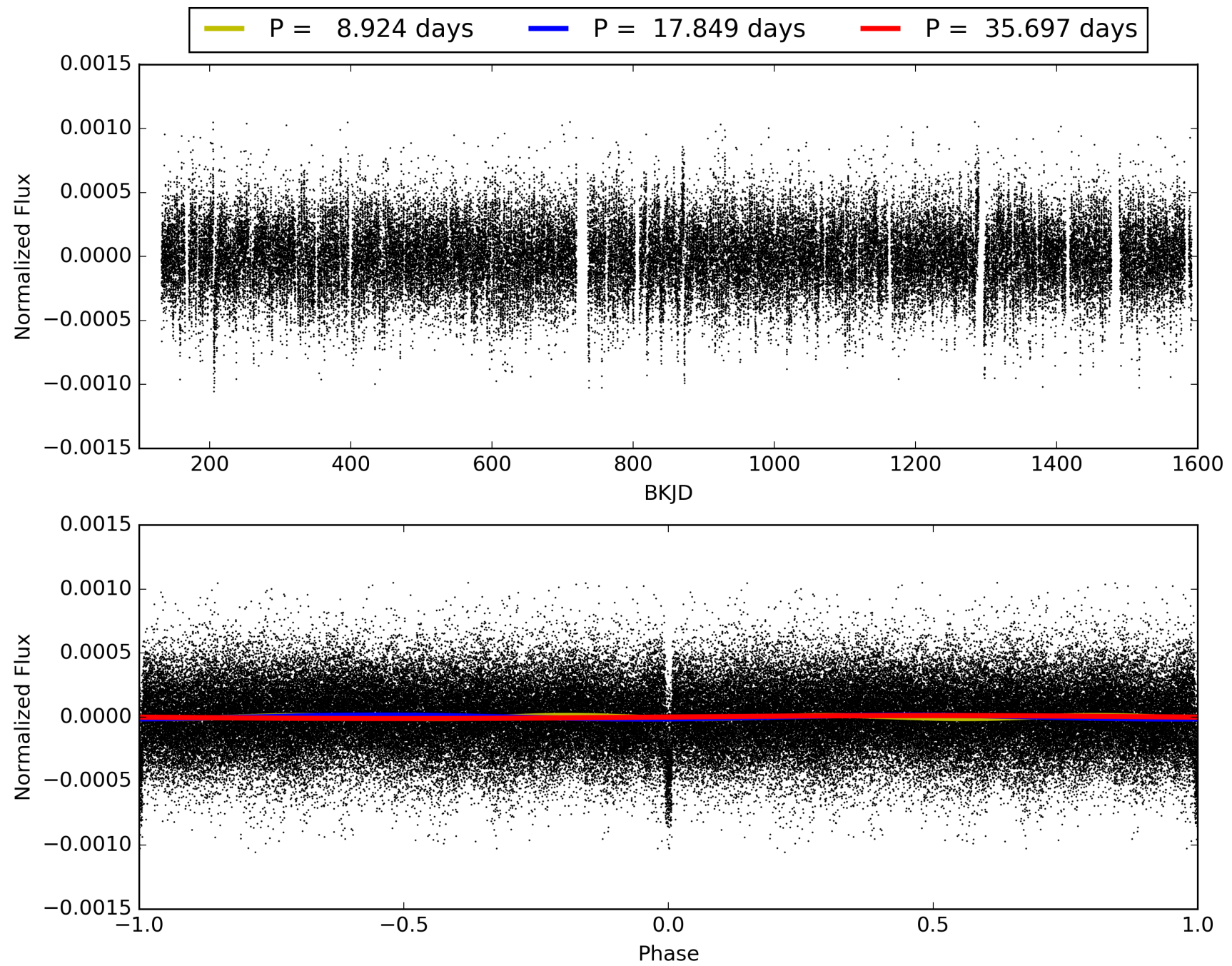
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [19.87σ]
LongPeriod-sig: 100.0% [22.16σ]
ModelChiSquare2-sig: 88.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 2.01e-179
RollingBand-fgt: 1.00 [71/71]
GhostDiagnostic-chr: 2.521
Centroid-sig: 12.6%
Centroid-so: 0.542 arcsec [2.16σ]
OotOffset-rm: 0.253 arcsec [1.62σ]
KicOffset-rm: 0.244 arcsec [1.69σ]
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 004636578-01, PDC Light Curves

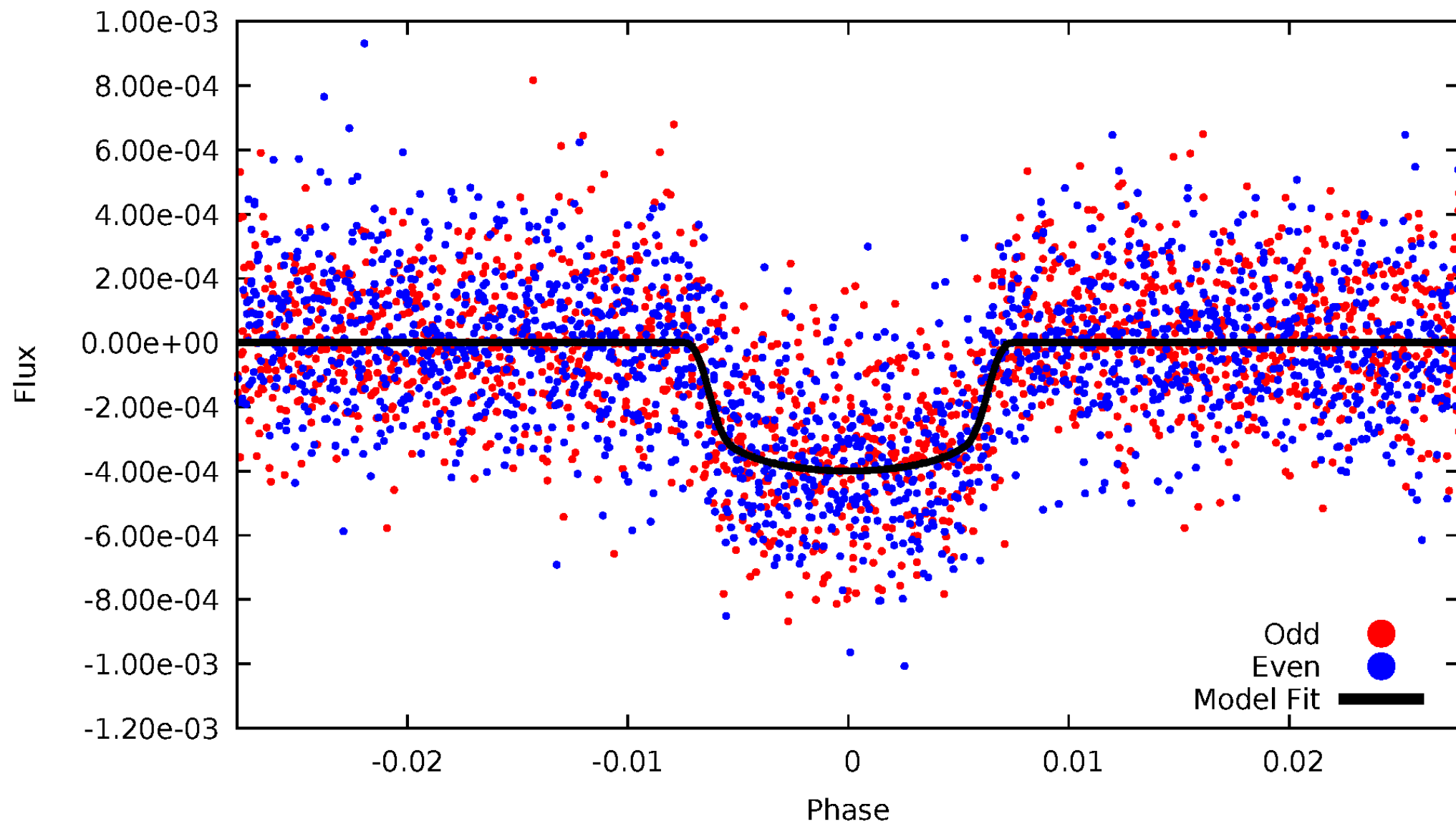


TCE 004636578-01



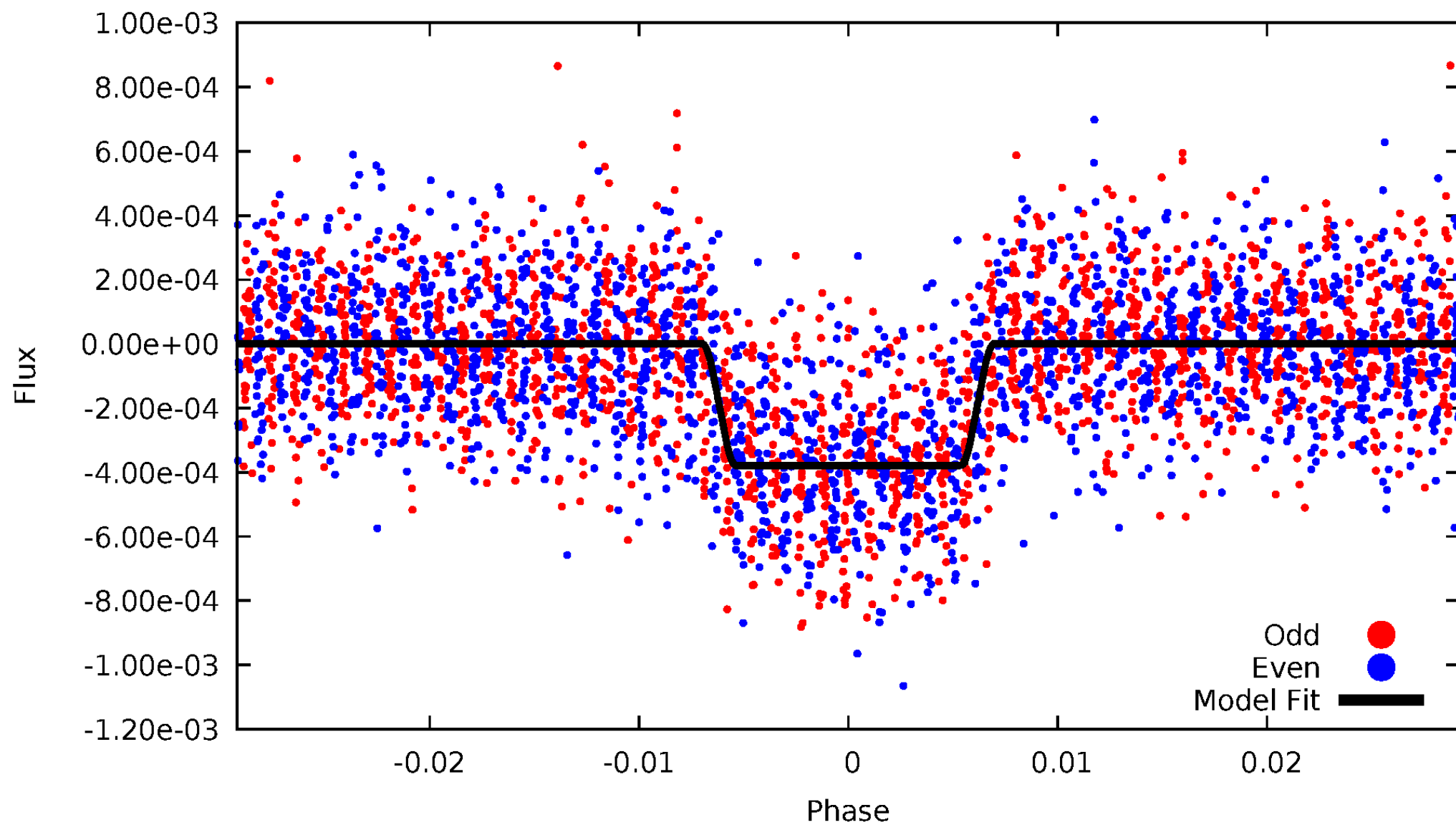
DV Odd/Even

TCE 004636578-01



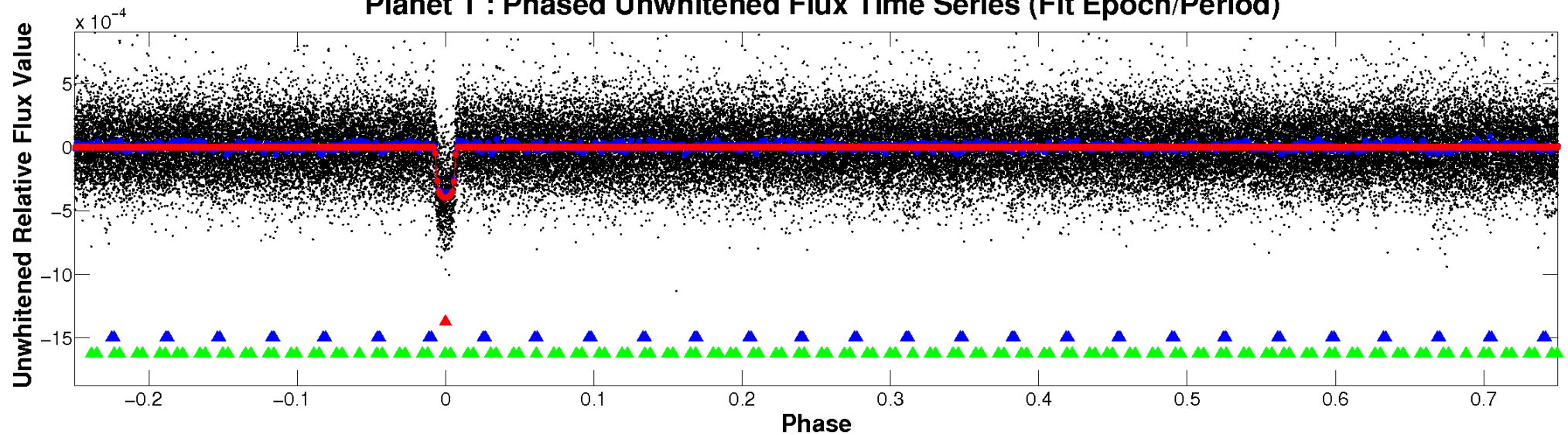
ALT Odd/Even

TCE 004636578-01

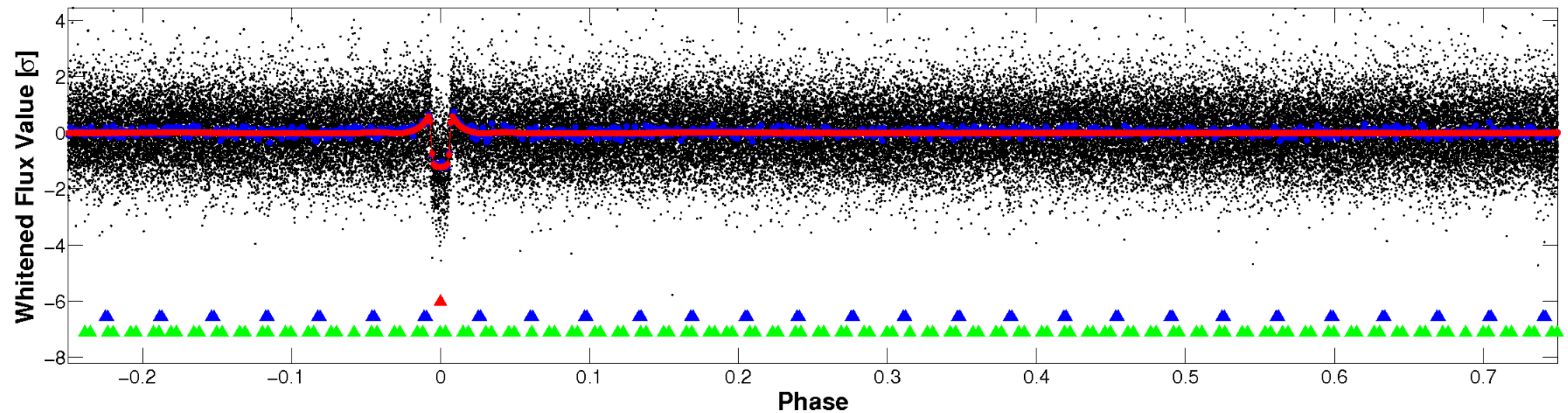


Non-Whitened Vs. Whitened Light Curve

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

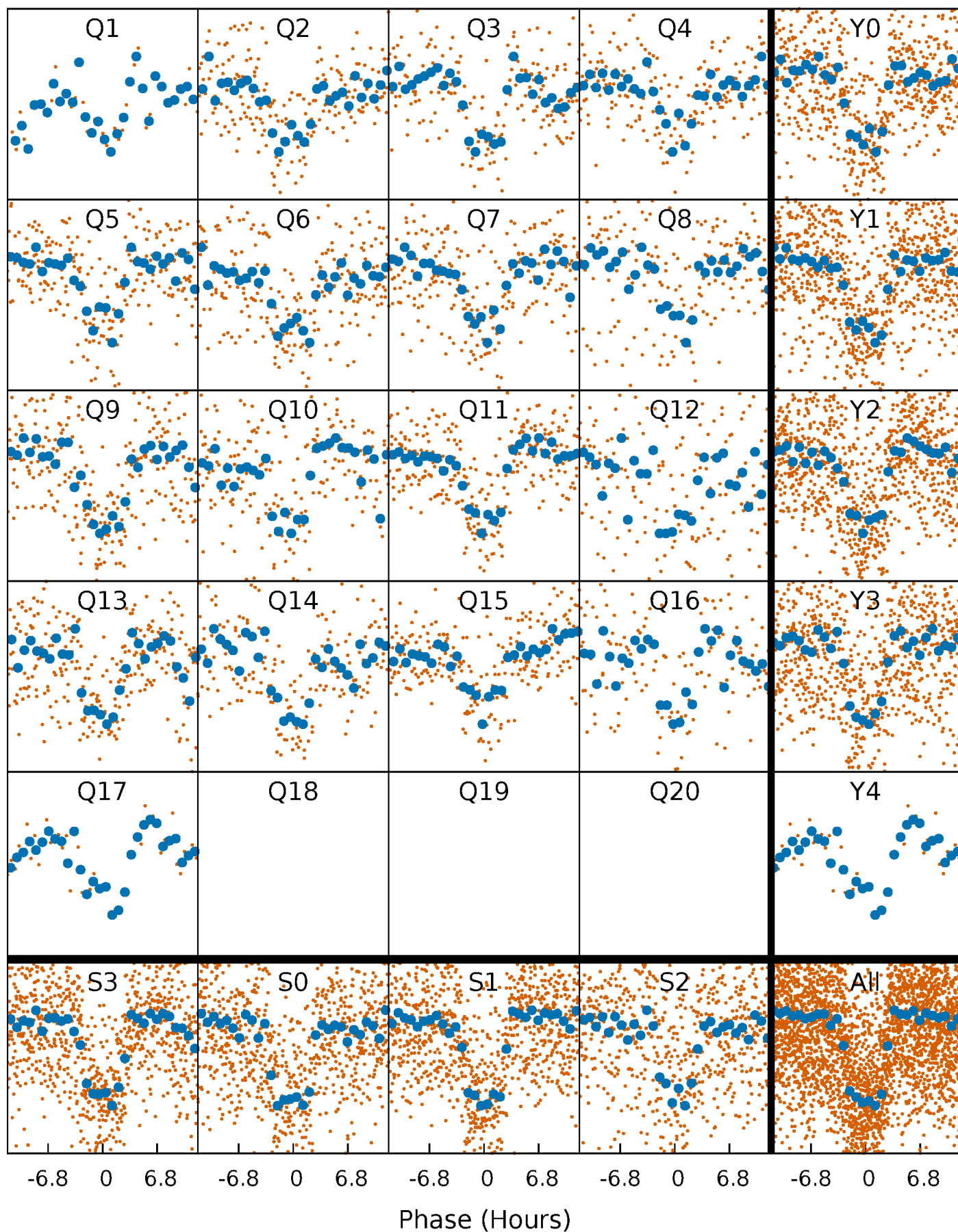


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



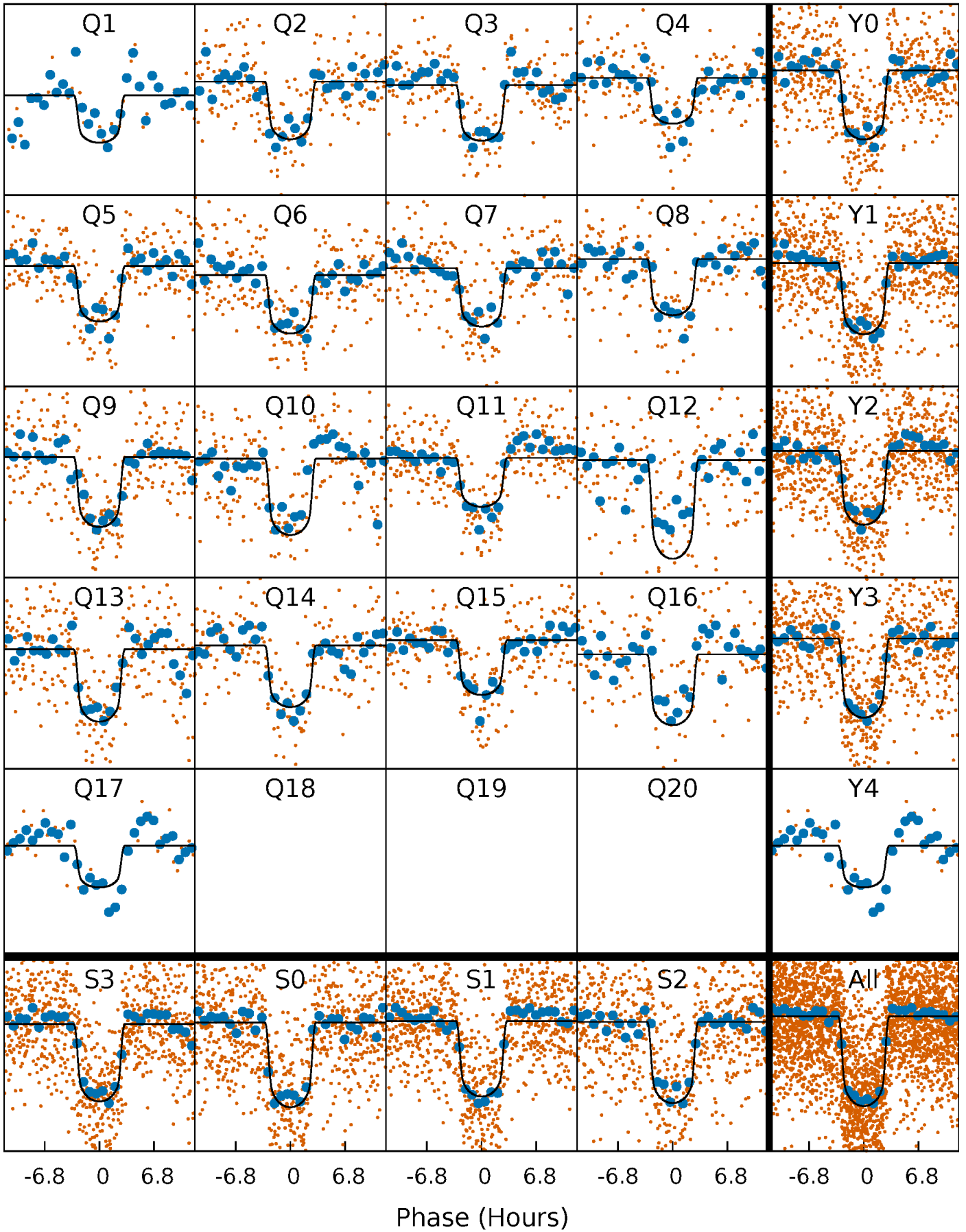
PDC Quarter-Phased Transit Curves

TCE 004636578-01 P= 17.848527 Days $T_0=148.390179$ (BKJD)



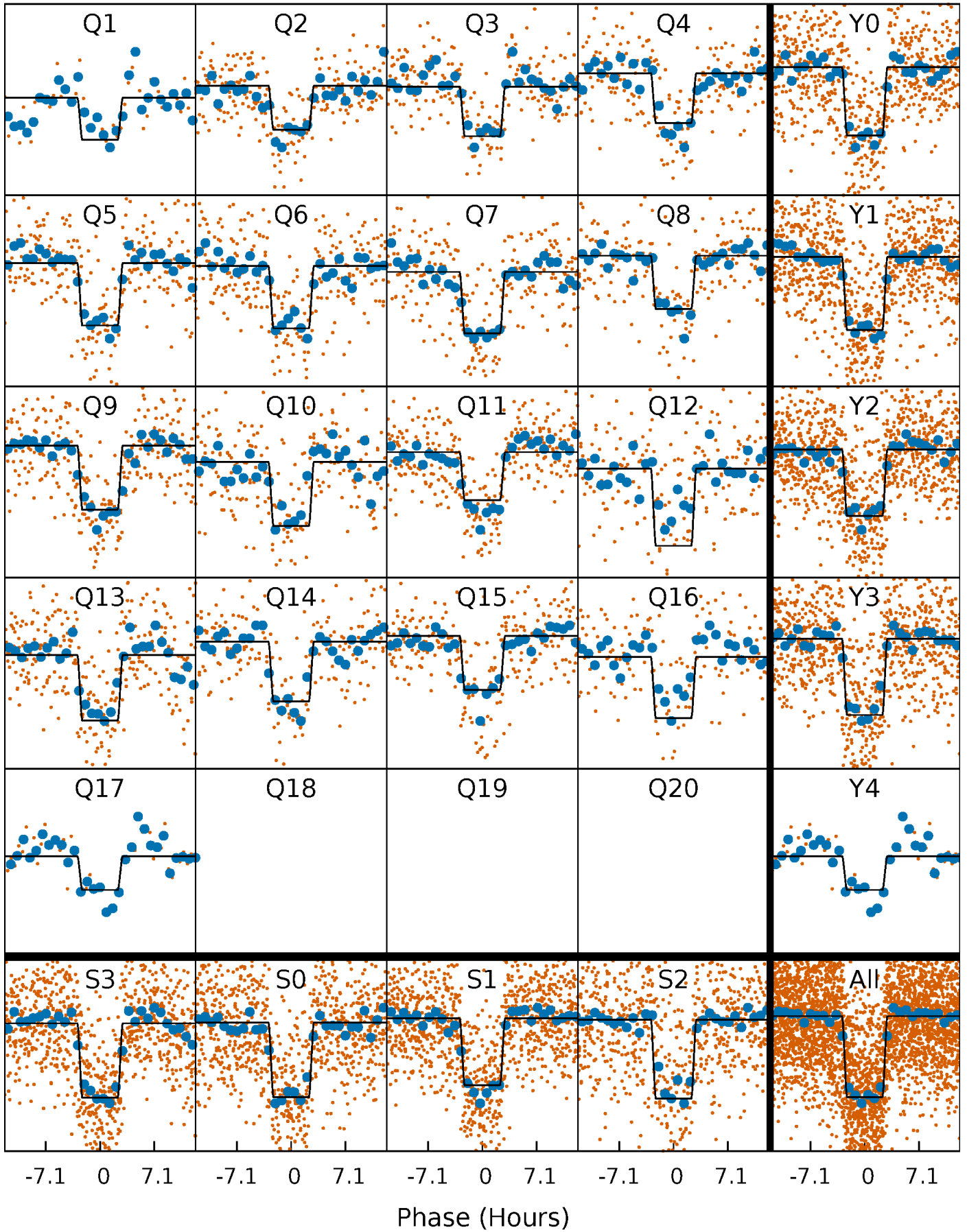
DV Quarter-Phased Transit Curves

TCE 004636578-01 P= 17.848527 Days $T_0=148.390179$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

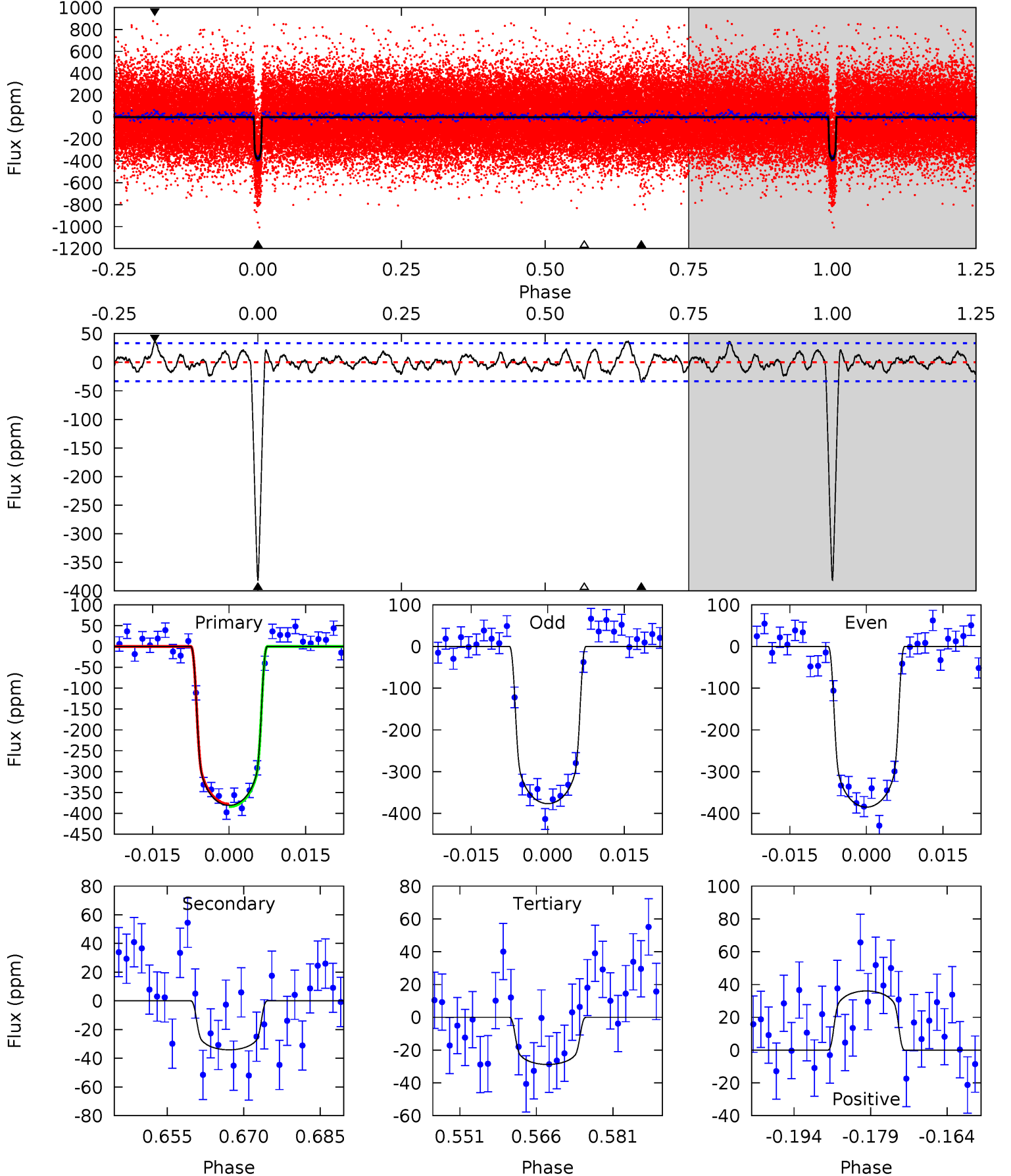
TCE 004636578-01 P= 17.848784 Days $T_0=148.379885$ (BKJD)



DV Model-Shift Uniqueness Test

004636578-01, P = 17.848527 Days, E = 130.541652 Days

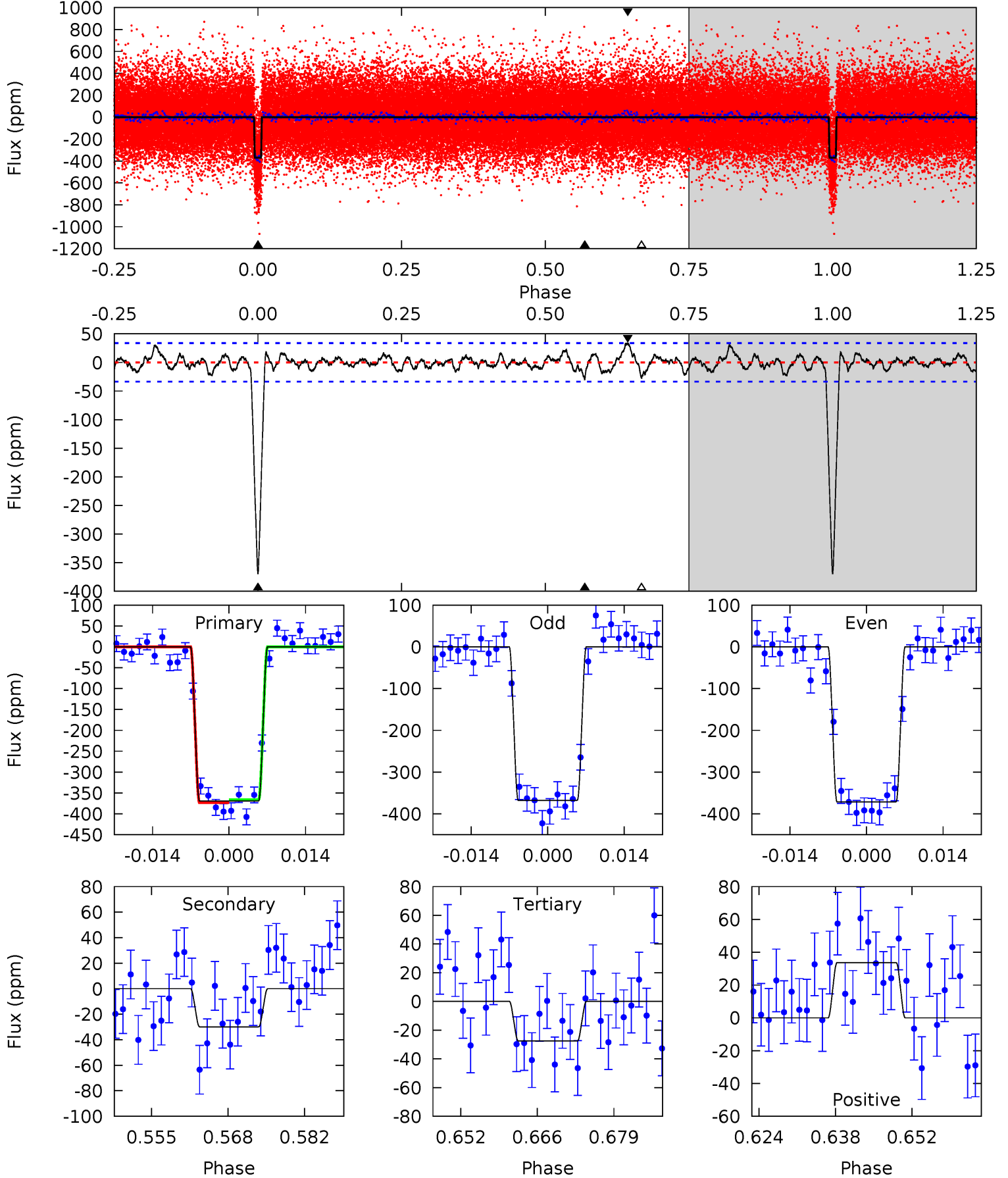
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
56.5	5.06	4.27	5.35	4.95	2.43	1.64	52.2	51.1	0.79	-0.29	0.62	1.03	0.09	0.45



Alt Model-Shift Uniqueness Test

004636578-01, P = 17.848784 Days, E = 130.531101 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
54.6	4.41	4.06	4.97	4.96	2.46	1.43	50.5	49.6	0.35	-0.56	0.27	1.01	0.08	0.49



Stellar Parameters For KIC 004636578

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6188^{+124}_{-124}	$4.152^{+0.168}_{-0.112}$	$-0.080^{+0.150}_{-0.150}$	$1.465^{+0.265}_{-0.265}$	$1.111^{+0.116}_{-0.093}$	$0.498^{+0.419}_{-0.165}$
	+2%/-2%	+4%/-3%	+188%/-188%	+18%/-18%	+10%/-8%	+84%/-33%
Source	SPE58	SPE58	SPE58	DSEP		

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

Secondary Eclipse Parameters for KIC 004636578-01 / KOI 2025.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-34 ± 7	$3.31^{+0.40}_{-0.36}$	1232^{+67}_{-69}	3686^{+141}_{-158}	33^{+11}_{-9}
Alt.	-30 ± 7	$3.08^{+0.35}_{-0.38}$	1231^{+62}_{-64}	3682^{+178}_{-163}	33^{+13}_{-9}

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 $A_{obs} \gg 1.0$

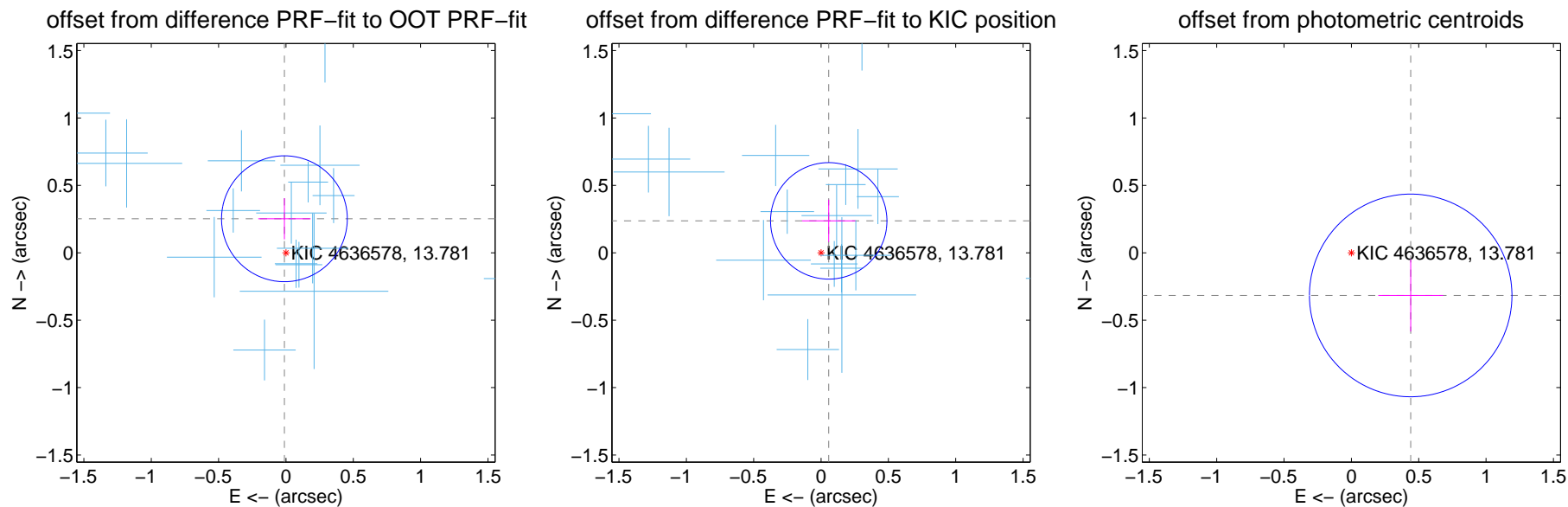
DV Centroid Data

Supplemental centroid analysis for 004636578-01. Kepler magnitude: 13.78. Transit SNR 32.80

There are 17 quarters with good PRF difference image offsets

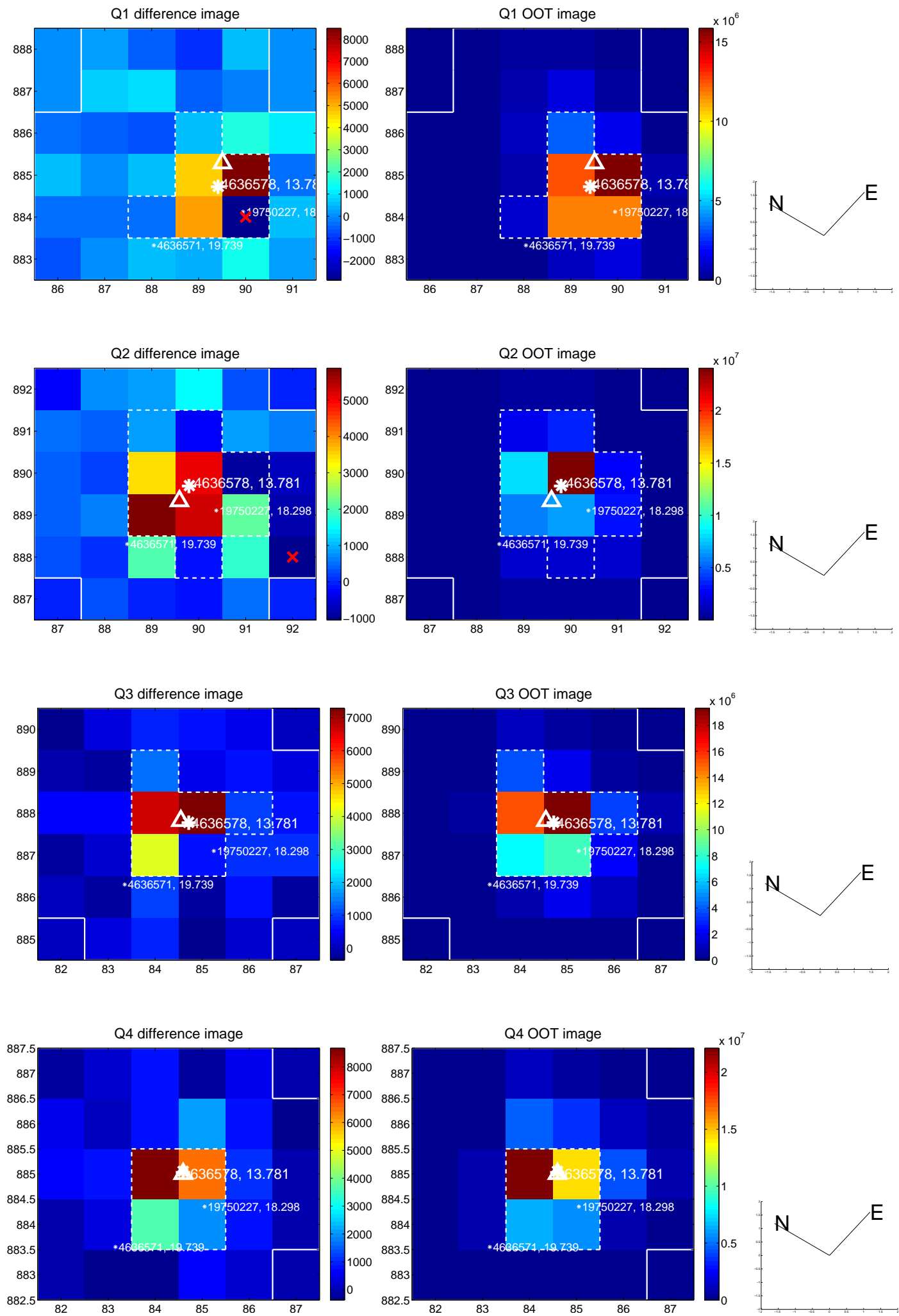
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.253 ± 0.156	1.62	0.011 ± 0.194	0.252 ± 0.153
PRF-fit source offset from KIC position	0.244 ± 0.144	1.69	-0.057 ± 0.198	0.237 ± 0.156
photometric centroid source offset	0.54 ± 0.25	2.16	-0.44 ± 0.24	-0.32 ± 0.27

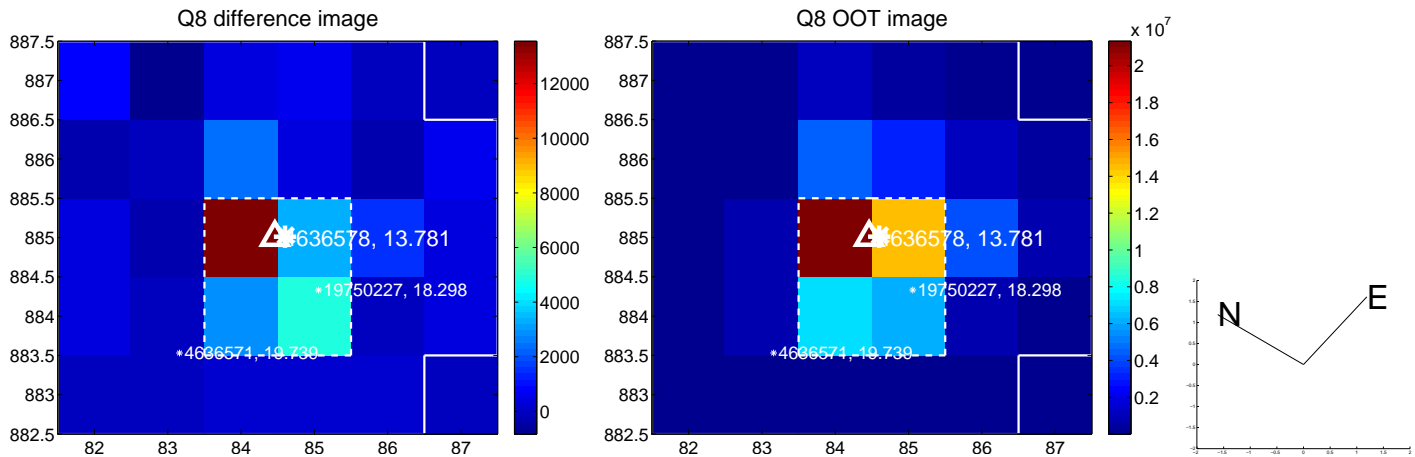
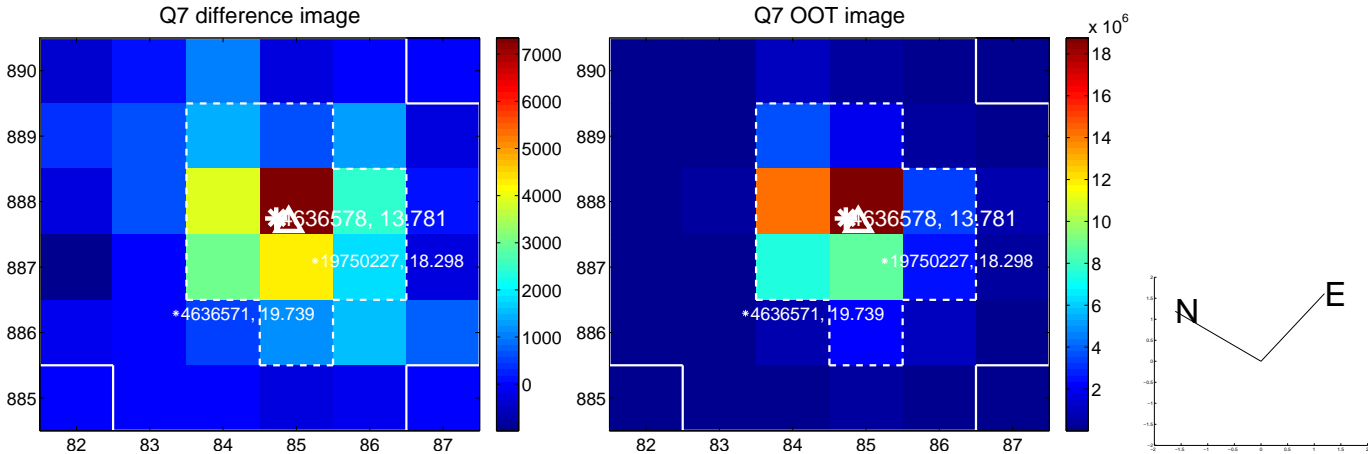
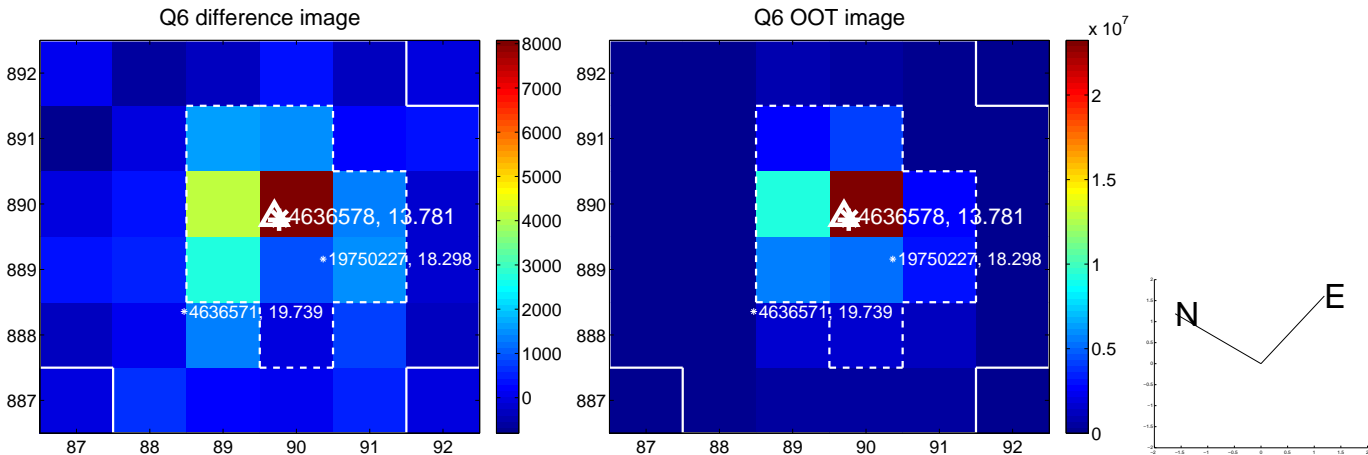
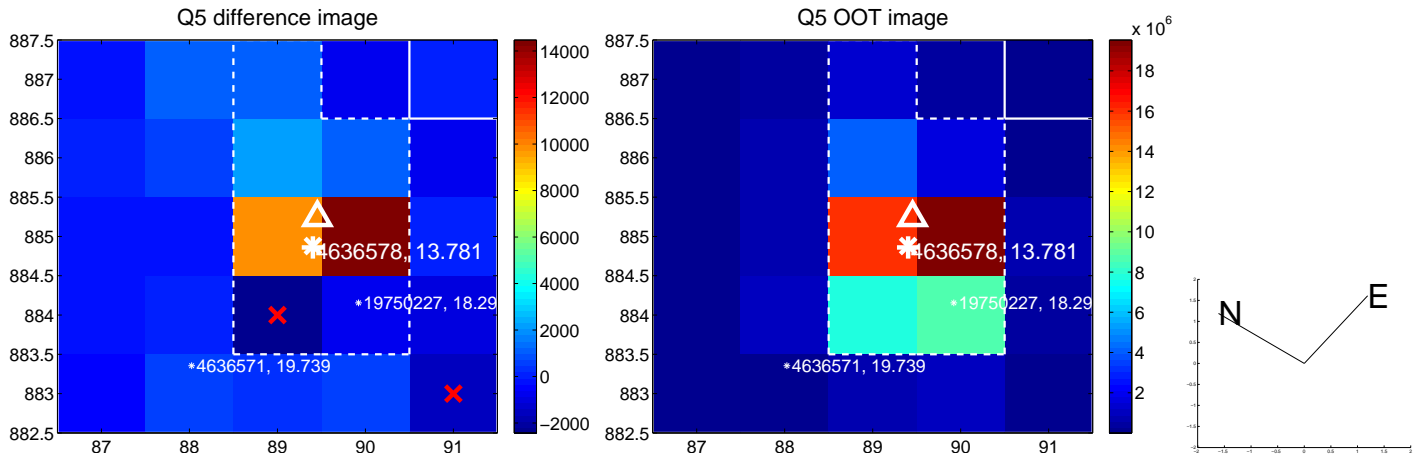


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

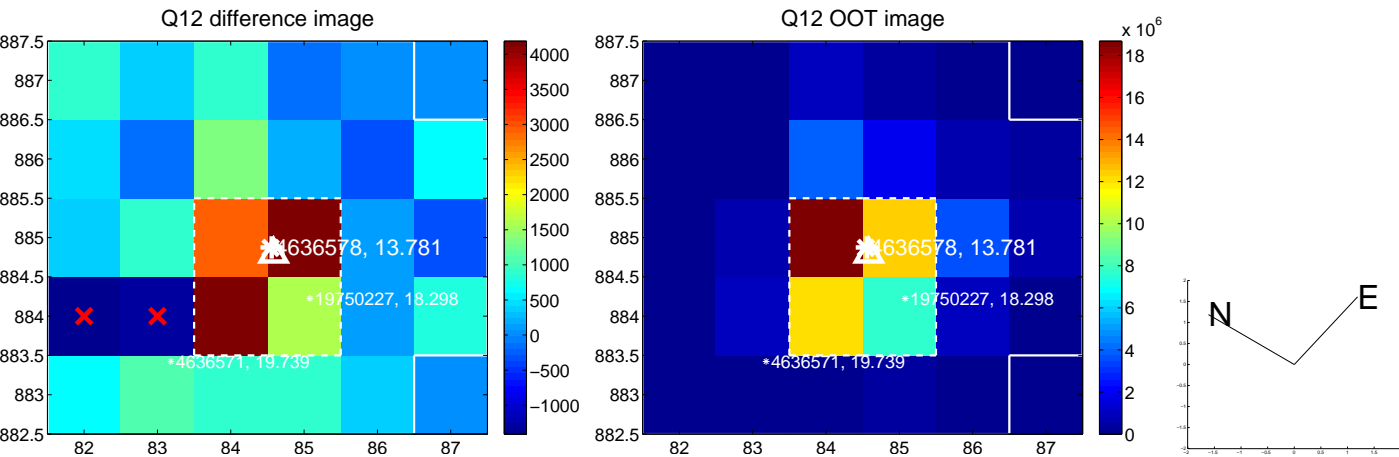
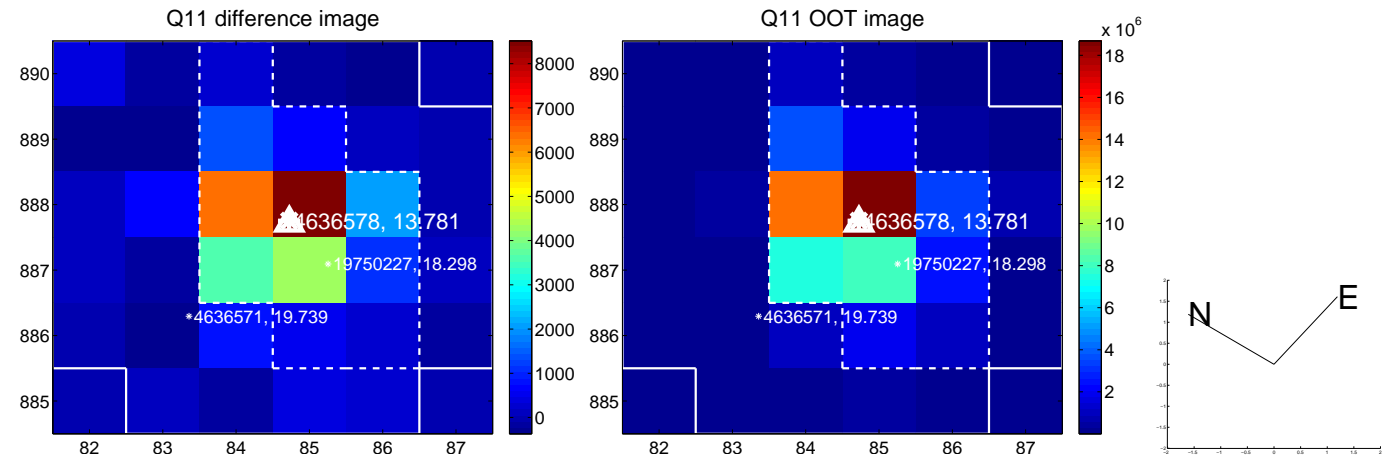
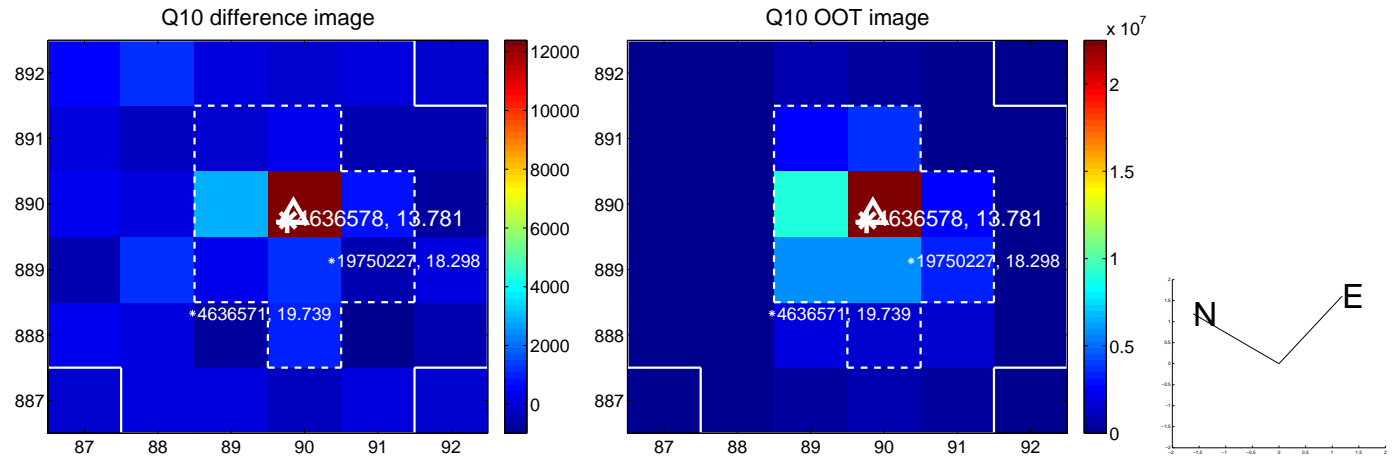
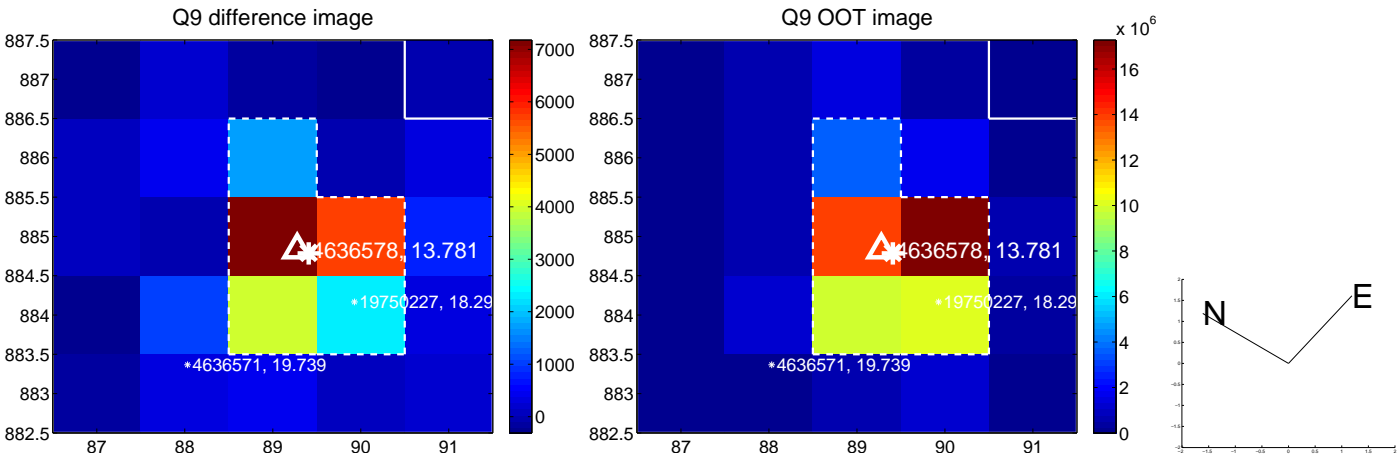
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



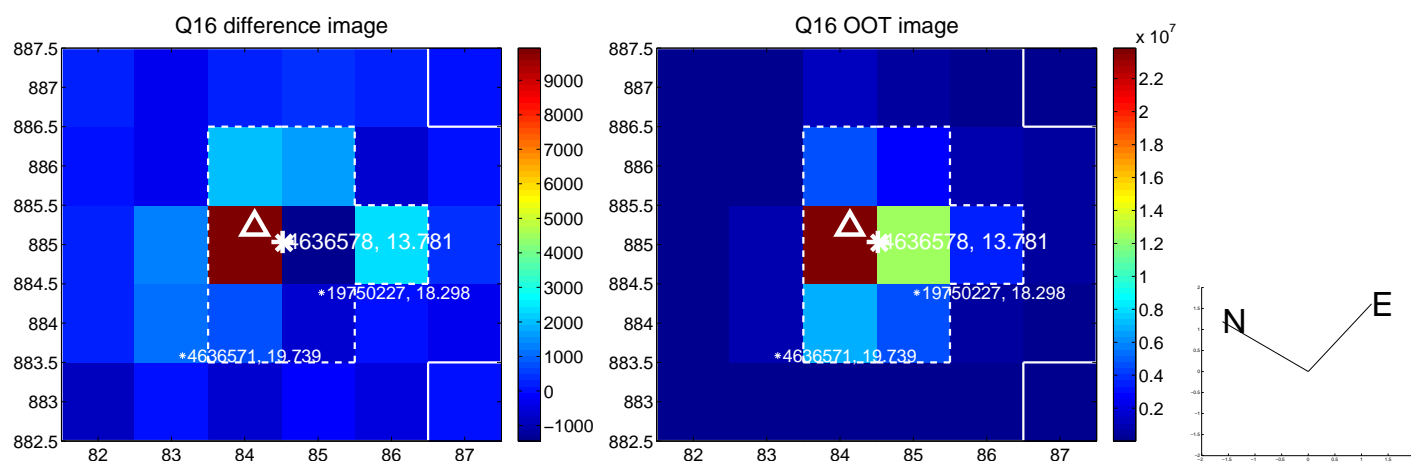
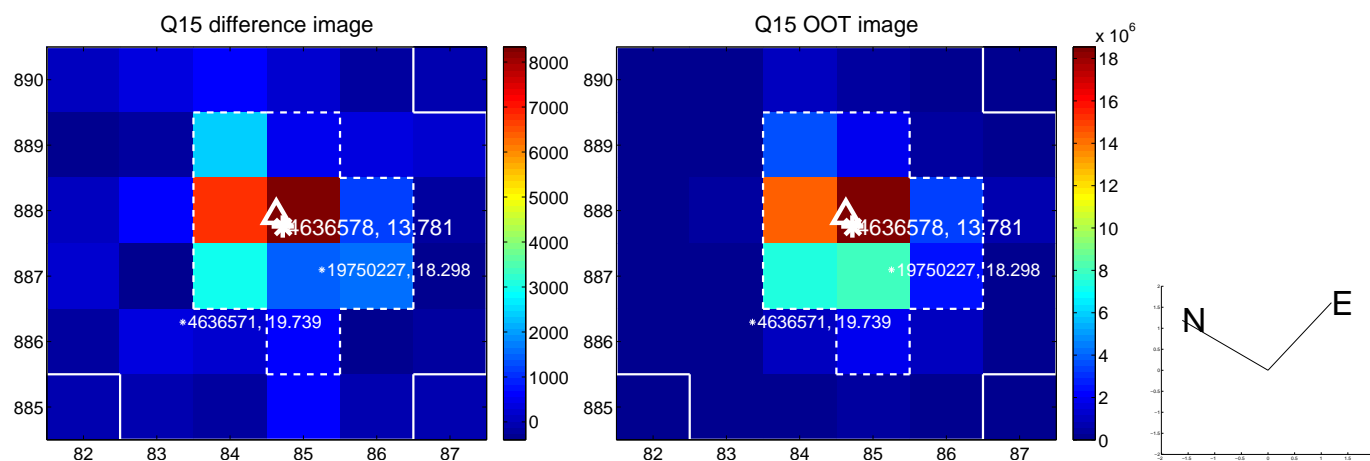
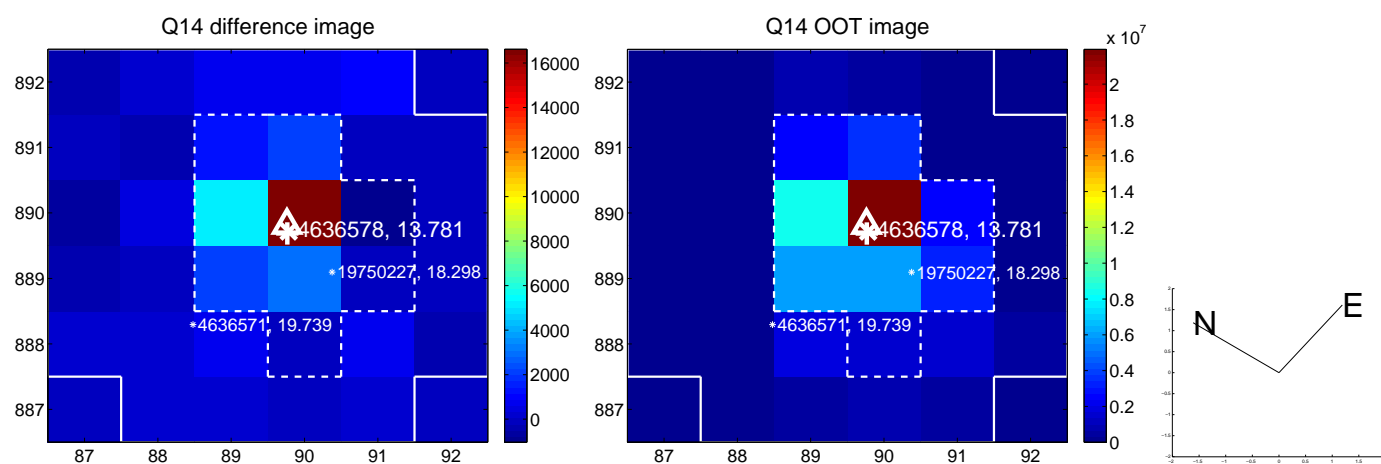
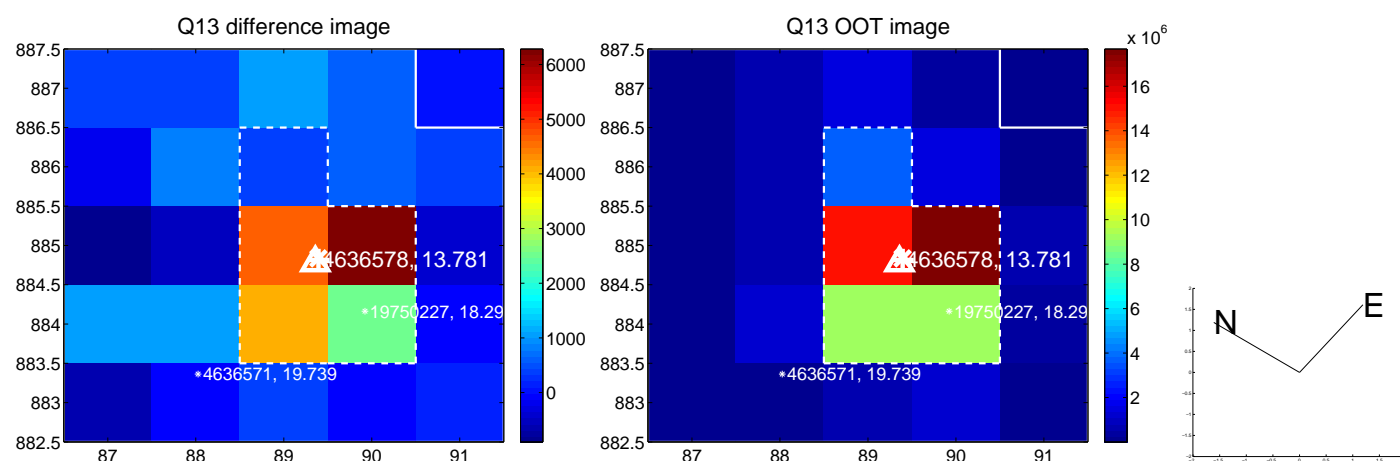
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



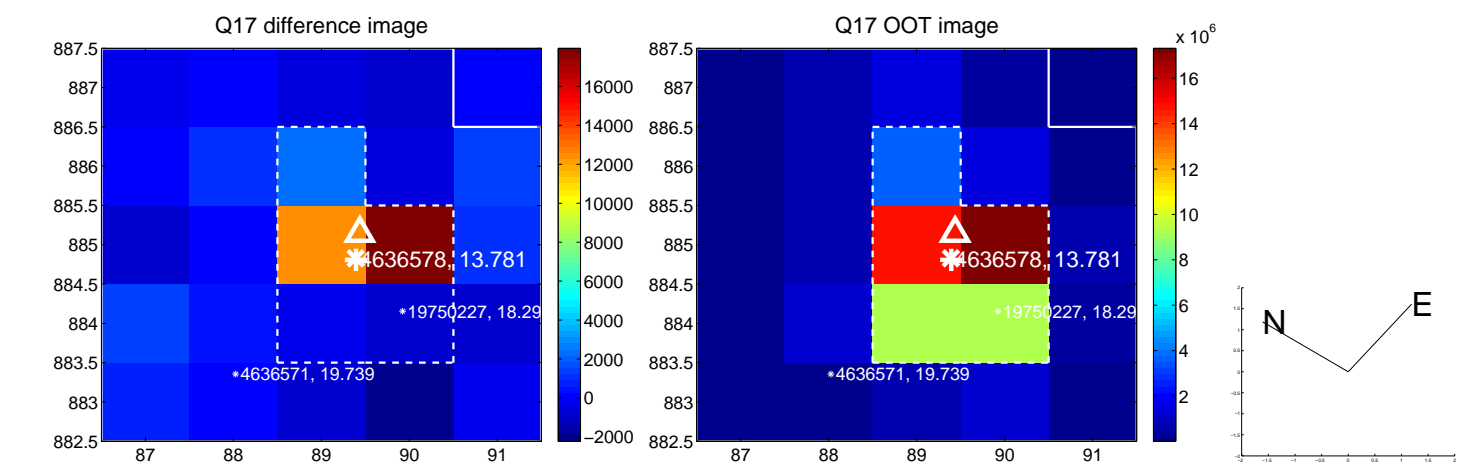
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



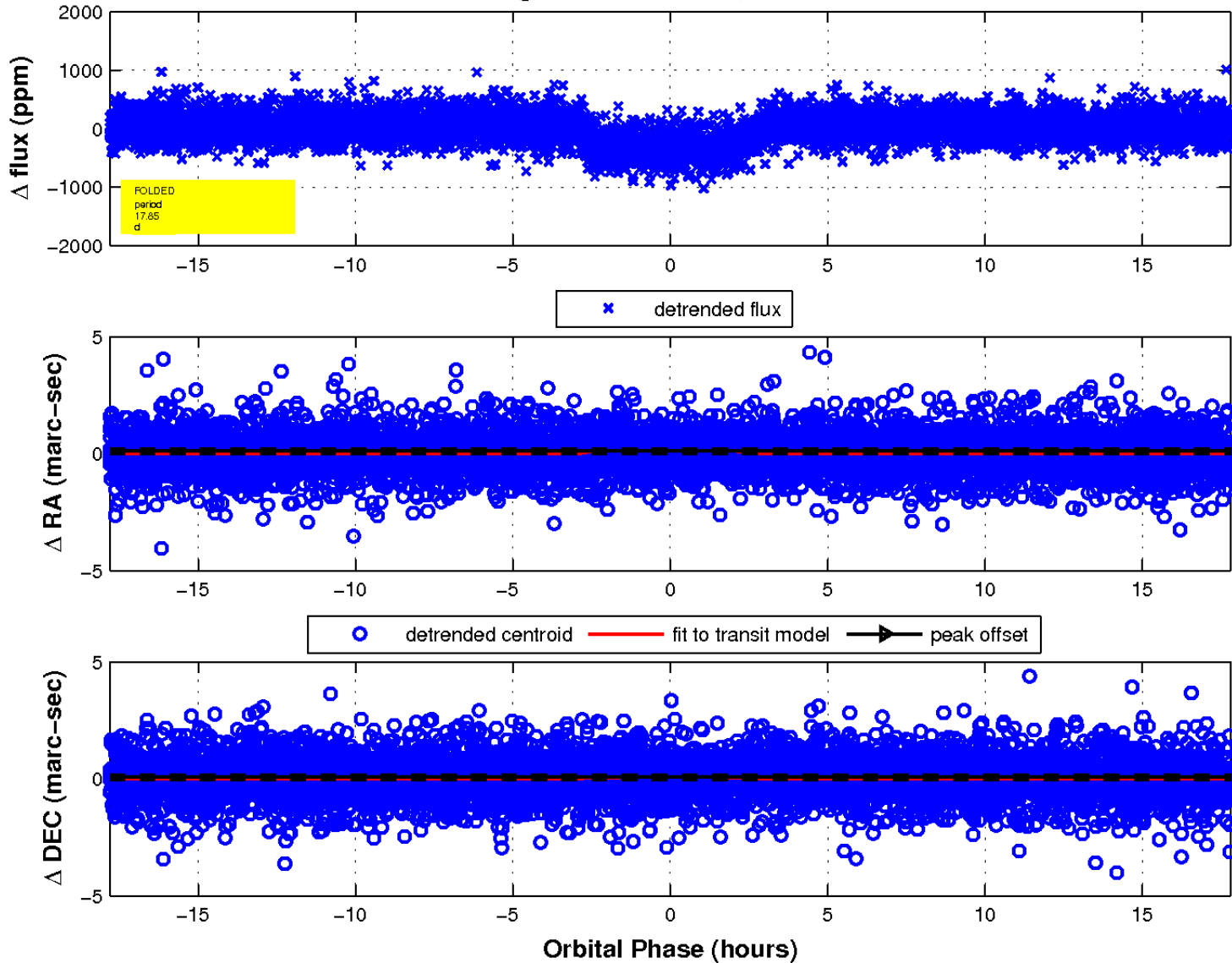
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

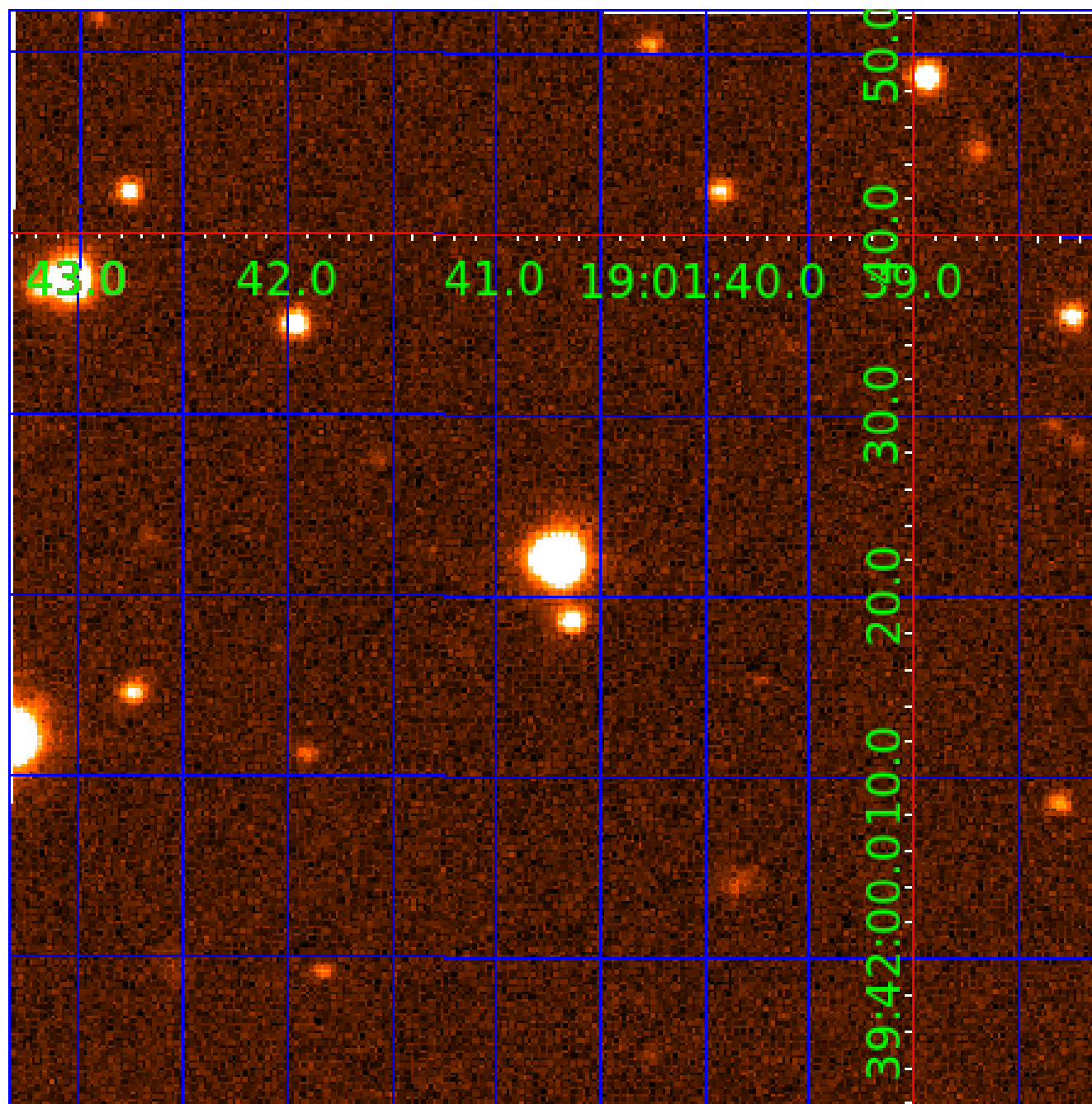


fluxWeightedCentroids, Planet 1 of 3



UKIRT Image

Declination



KIC 004636578

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})
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004636578-03	OBS	2025.03	11.189597	140.630629	124.1	5.424	12.1	12.8	1.47	6188	1.92	274.10

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004636578-01	OBS	PC	1.00	0	0	0	0	NO_COMMENT
004636578-02	OBS	PC	1.00	0	0	0	0	NO_COMMENT
004636578-03	OBS	PC	1.00	0	0	0	0	NO_COMMENT

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

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

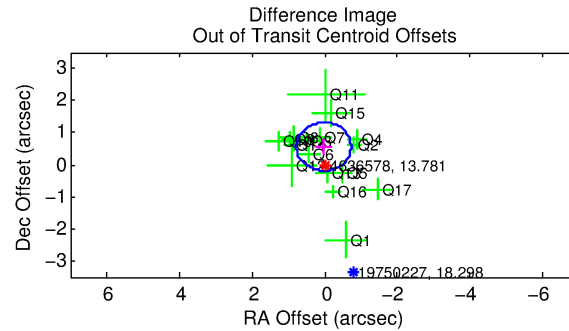
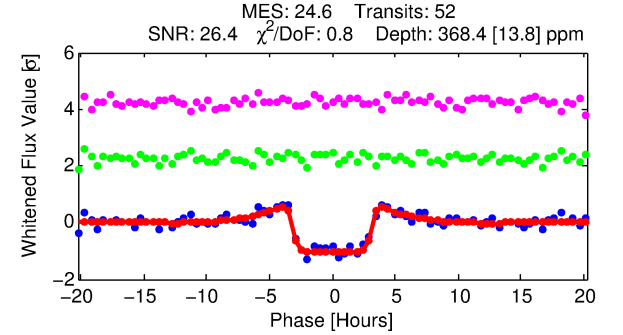
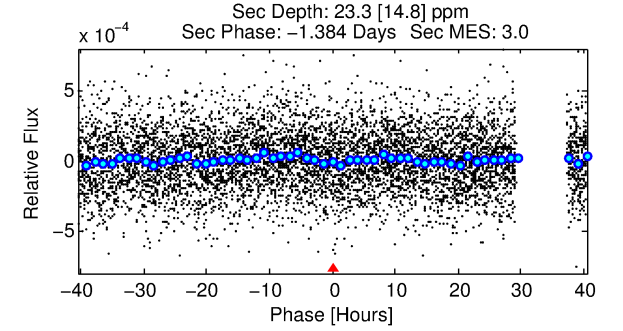
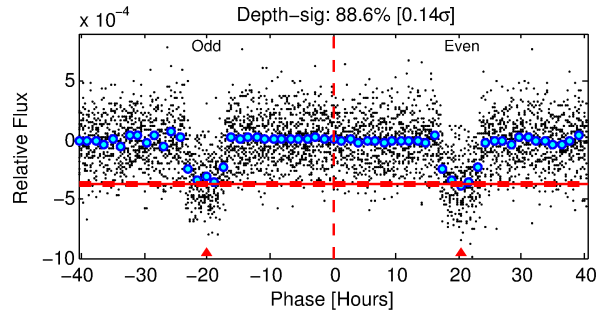
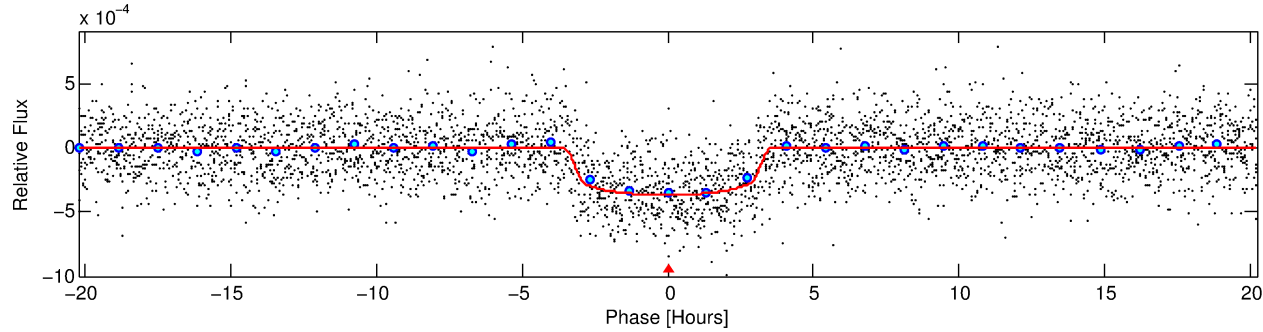
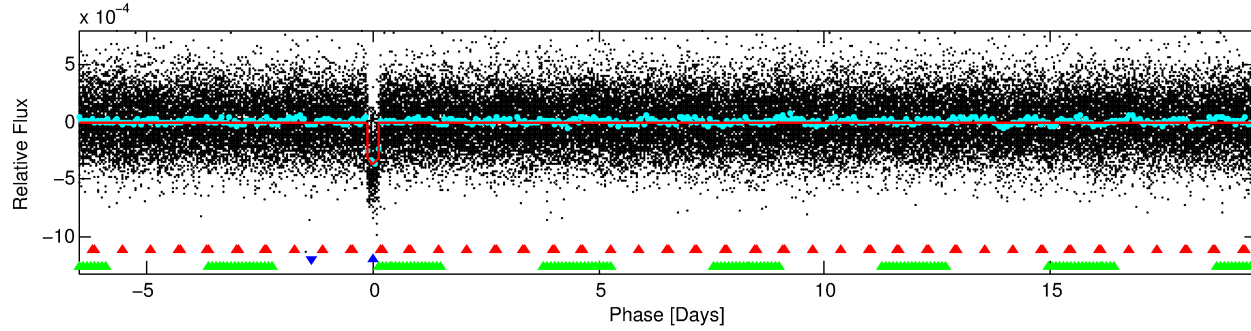
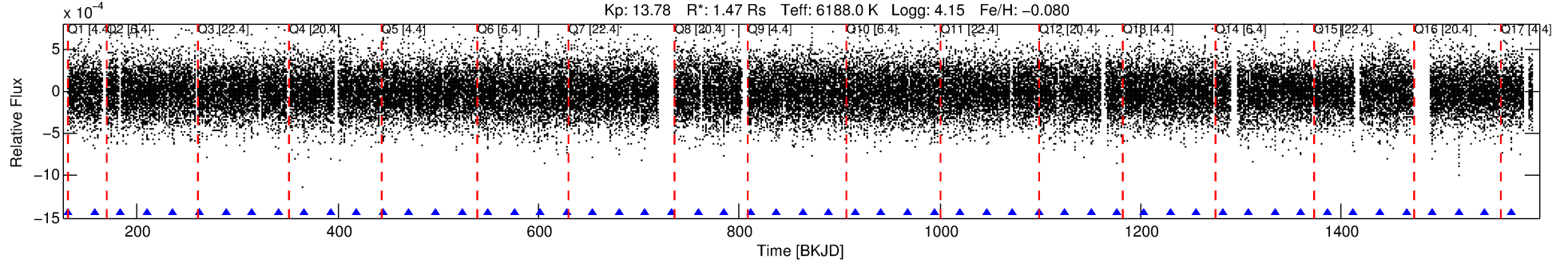
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 004636578-02

No Significant Match Found

DV One-Page Summary

KIC: 4636578 Candidate: 2 of 3 Period: 26.136 d
KOI: K02025.02 Name: Kepler-350d Corr: 0.990



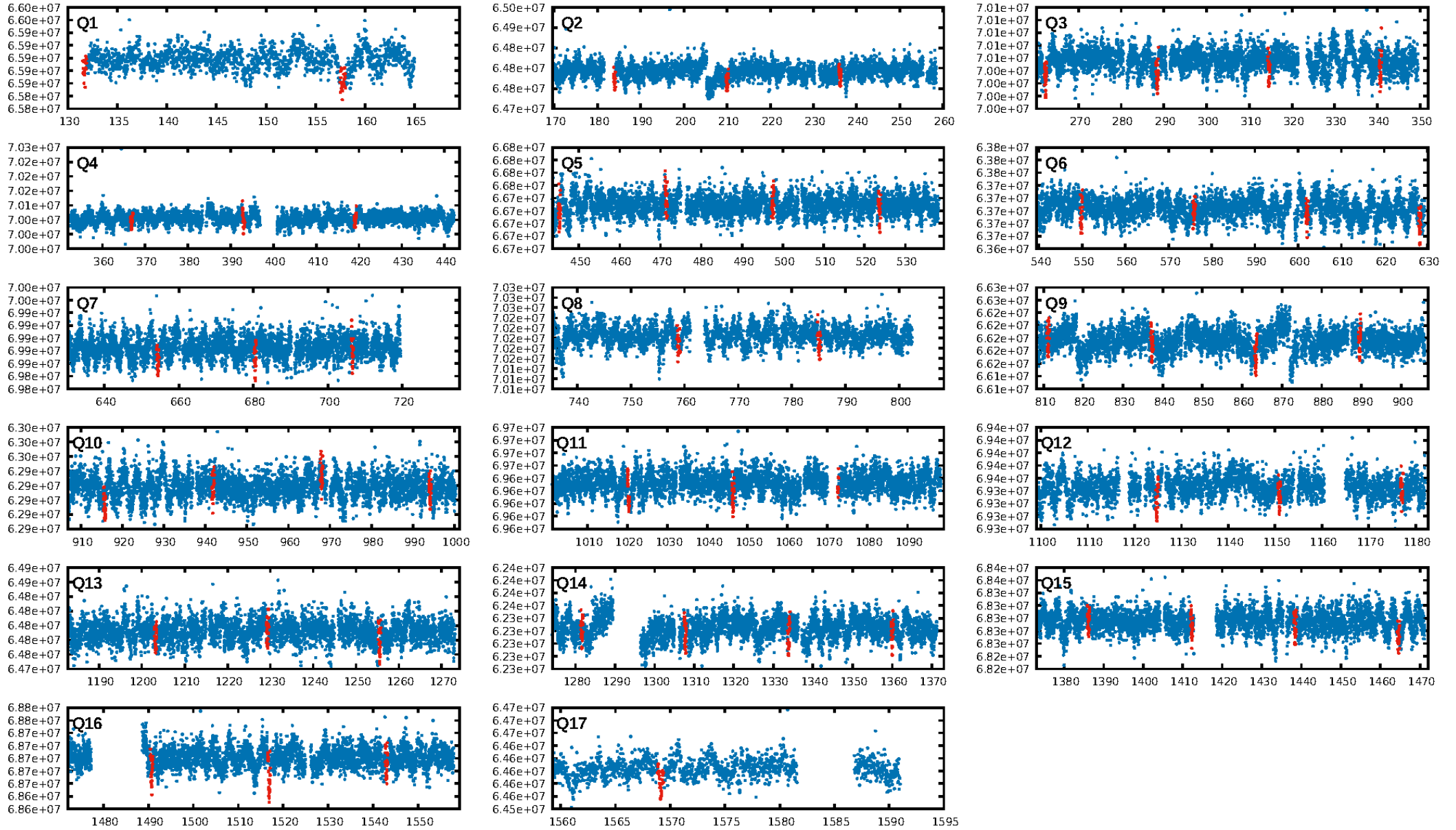
DV Fit Results:

Period = 26.13635 [0.00010] d
Epoch = 131.6172 [0.0032] BKJD
Rp/R* = 0.0191 [0.0027]
a/R* = 20.59 [14.43]
b = 0.75 [0.42]
Seff = 88.44 [26.16]
Teq = 782 [58] K
Rp = 3.05 [0.70] Re
a = 0.1785 [0.0315] AU
Ag = 44.04 [33.09] [1.30σ]
Teffp = 3115 [545] K [4.26σ]

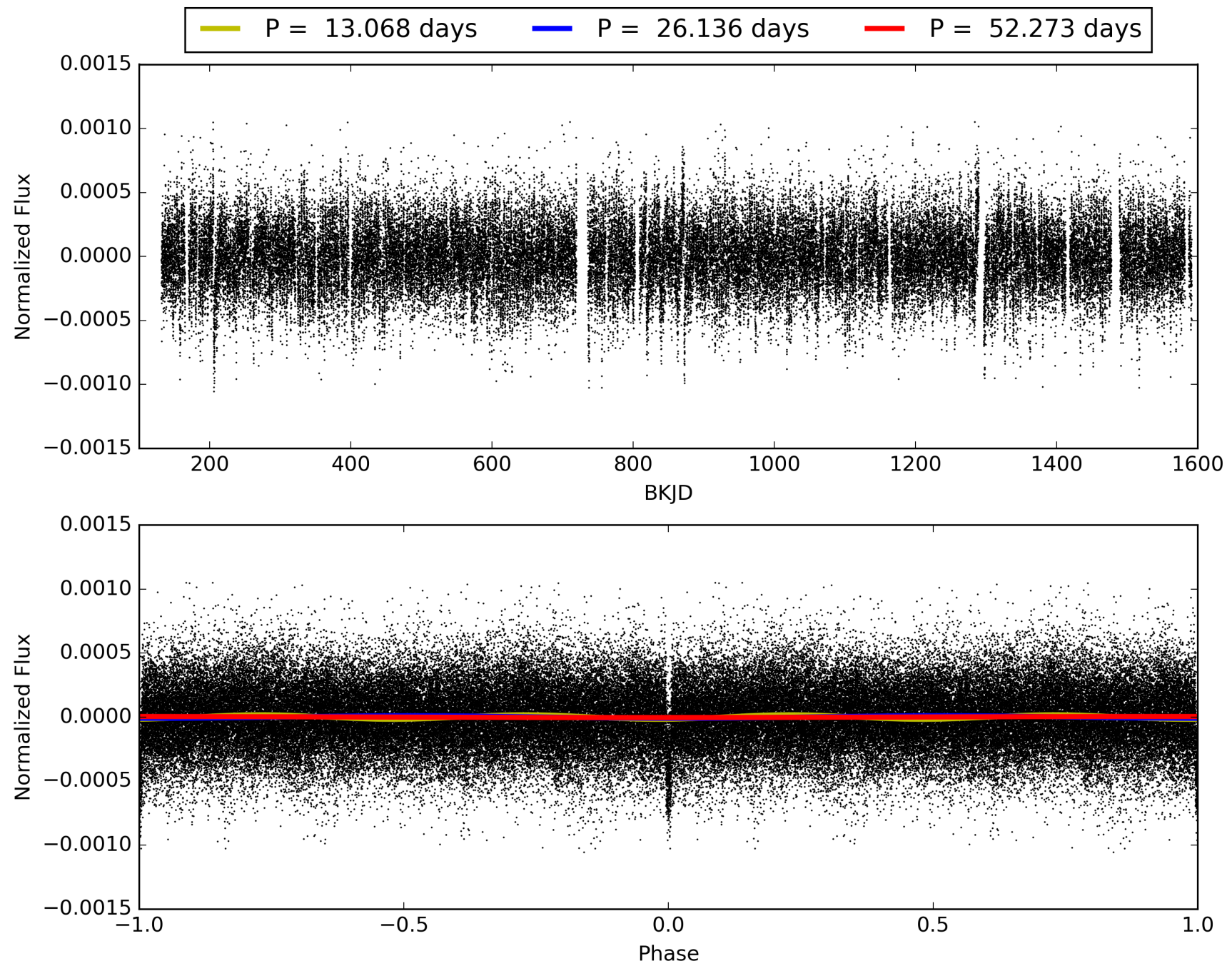
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [22.16σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 75.6%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 7.43e-120
RollingBand-fgt: 1.00 [49/49]
GhostDiagnostic-chr: 2.412
Centroid-sig: 44.0%
Centroid-so: 0.288 arcsec [1.02σ]
OotOffset-rm: 0.562 arcsec [2.24σ]
KicOffset-rm: 0.549 arcsec [2.22σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 1.00 [17/17]
DiffImageOverlap-fno: 0.94 [16/17]

TCE 004636578-02, PDC Light Curves

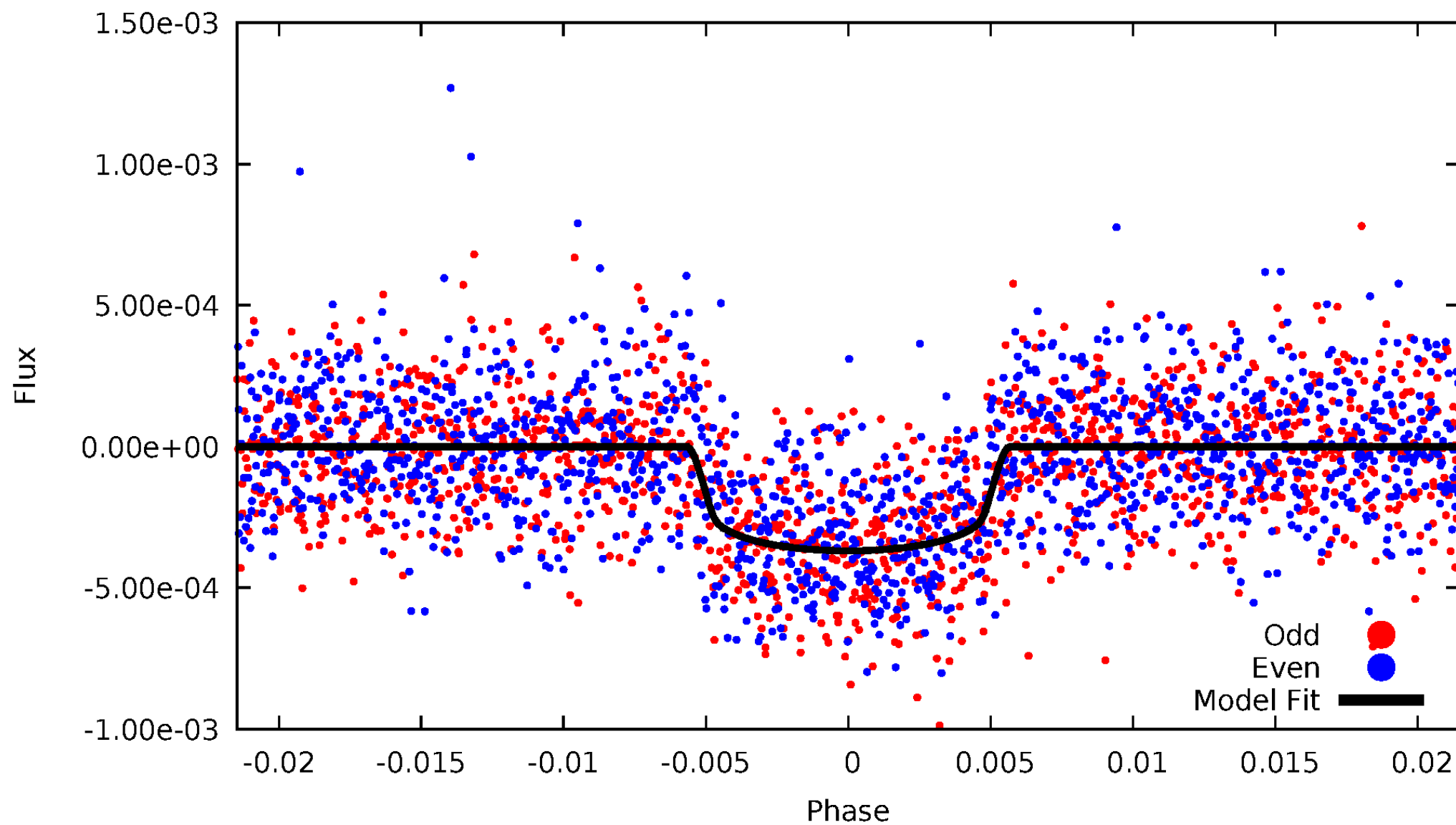


TCE 004636578-02



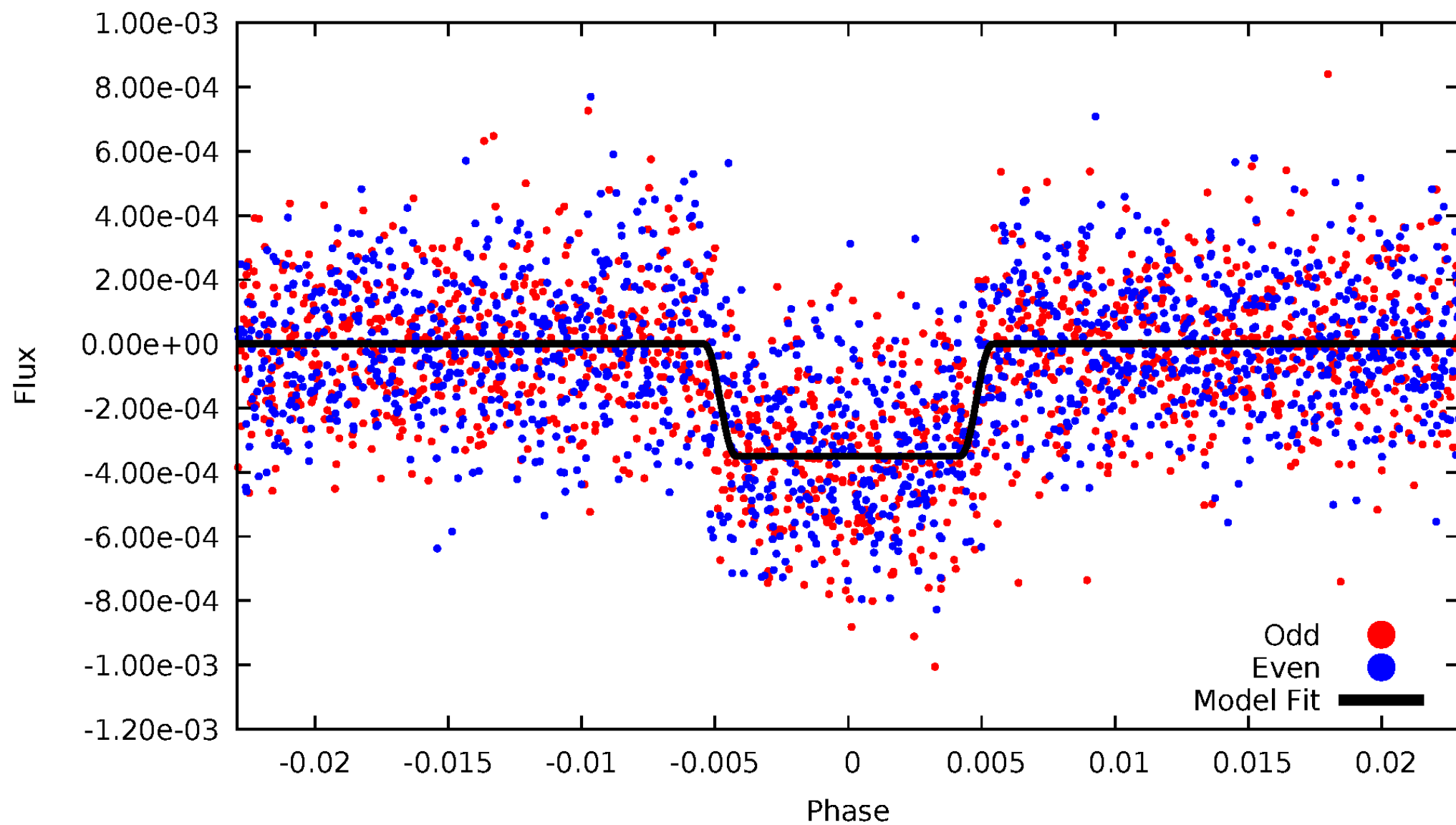
DV Odd/Even

TCE 004636578-02



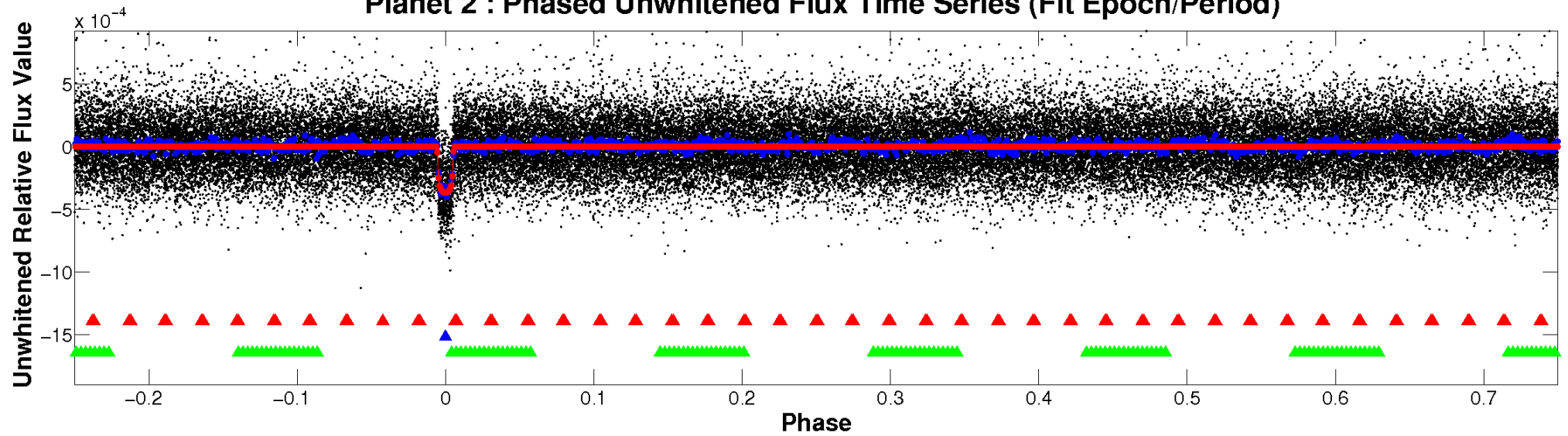
ALT Odd/Even

TCE 004636578-02

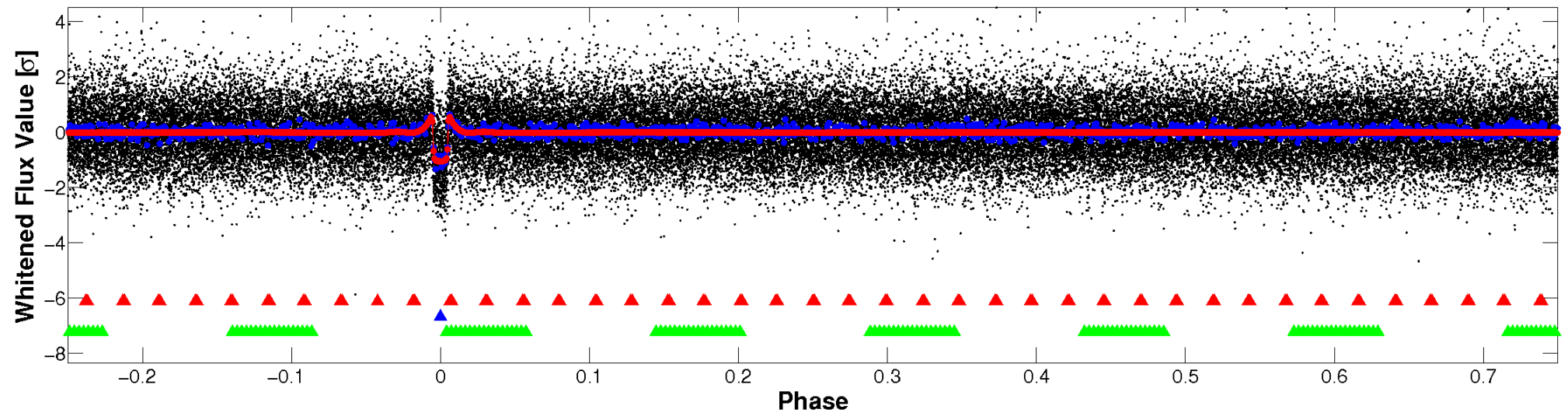


Non-Whitened Vs. Whitened Light Curve

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

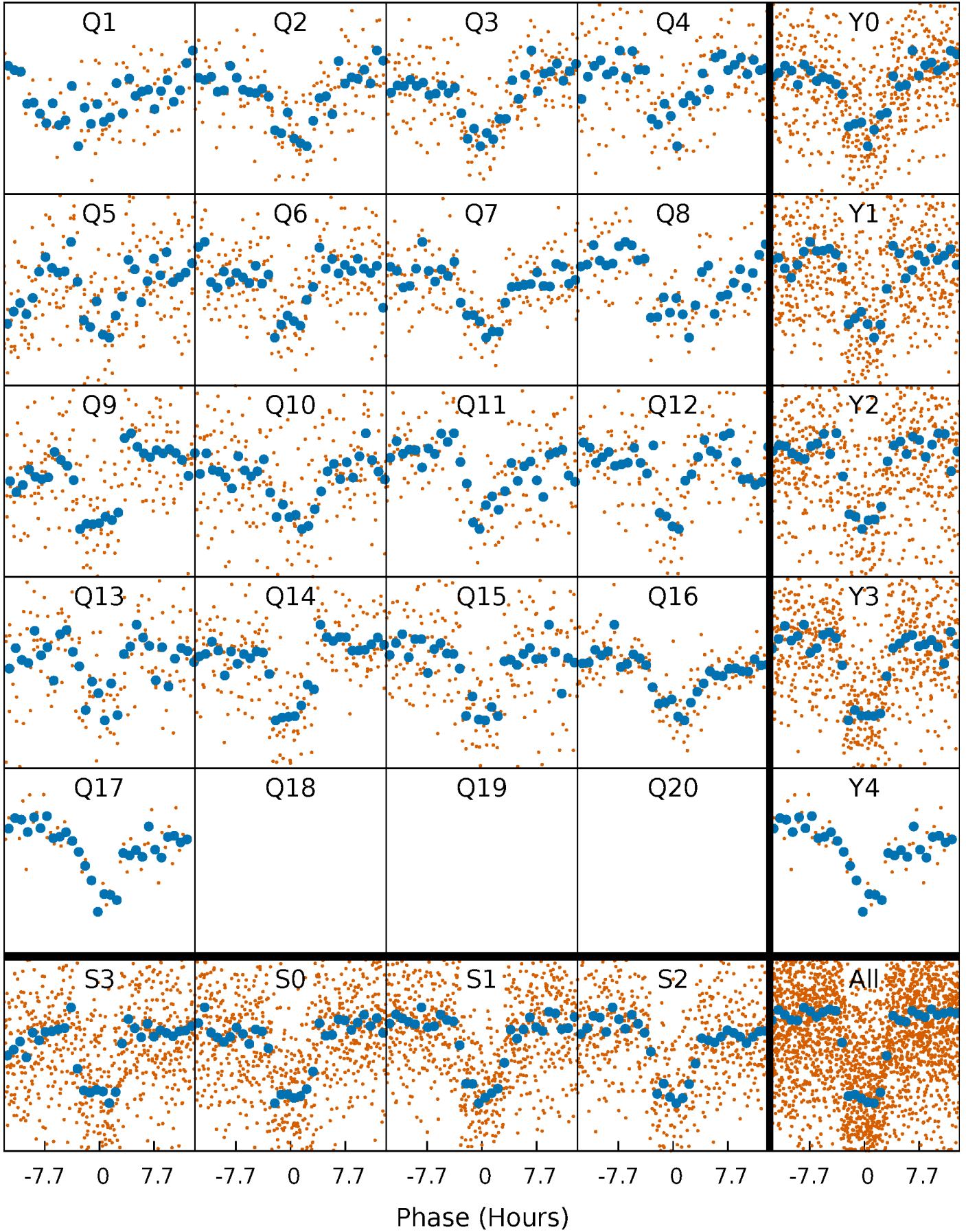


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



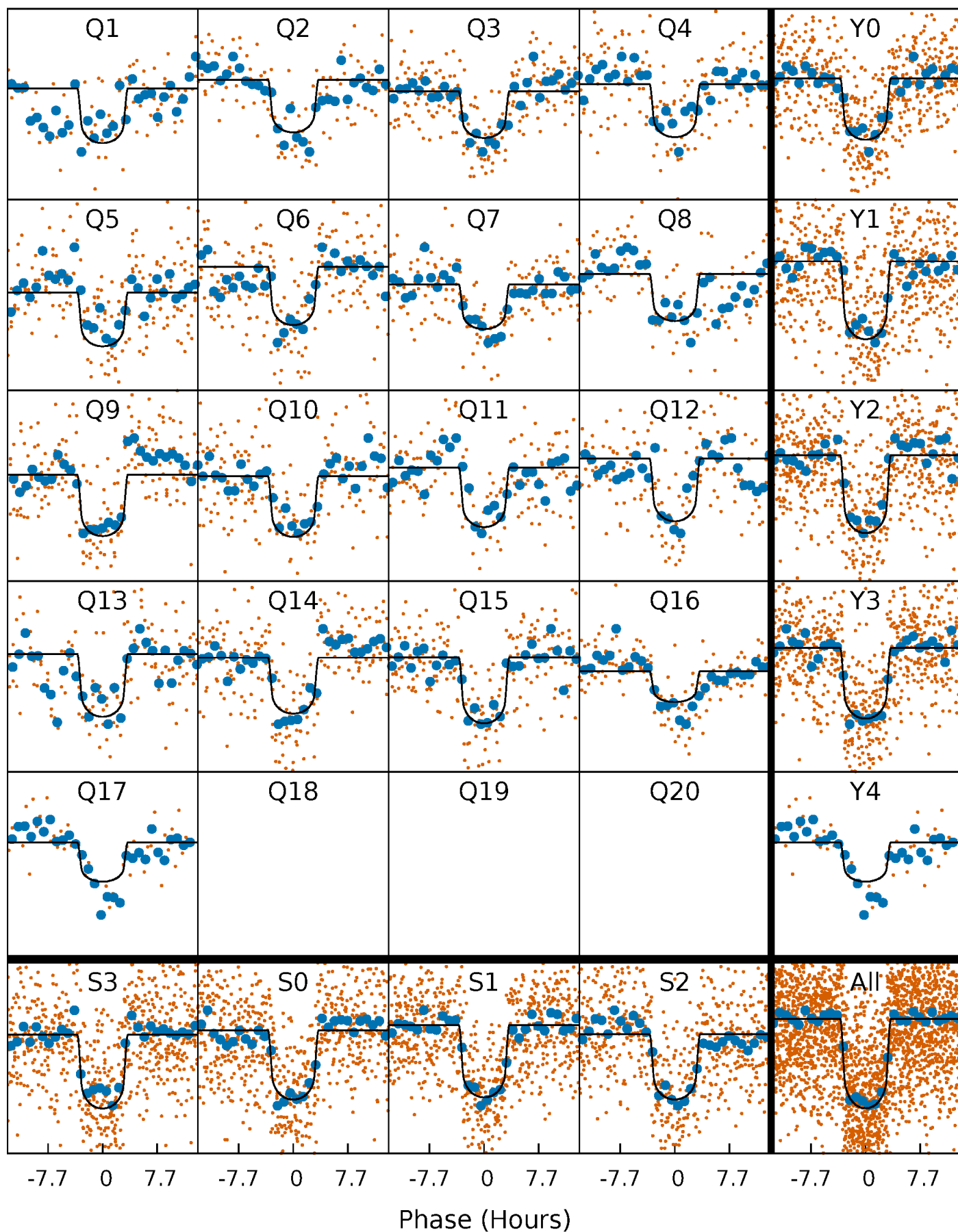
PDC Quarter-Phased Transit Curves

TCE 004636578-02 P= 26.136350 Days $T_0=131.617204$ (BKJD)



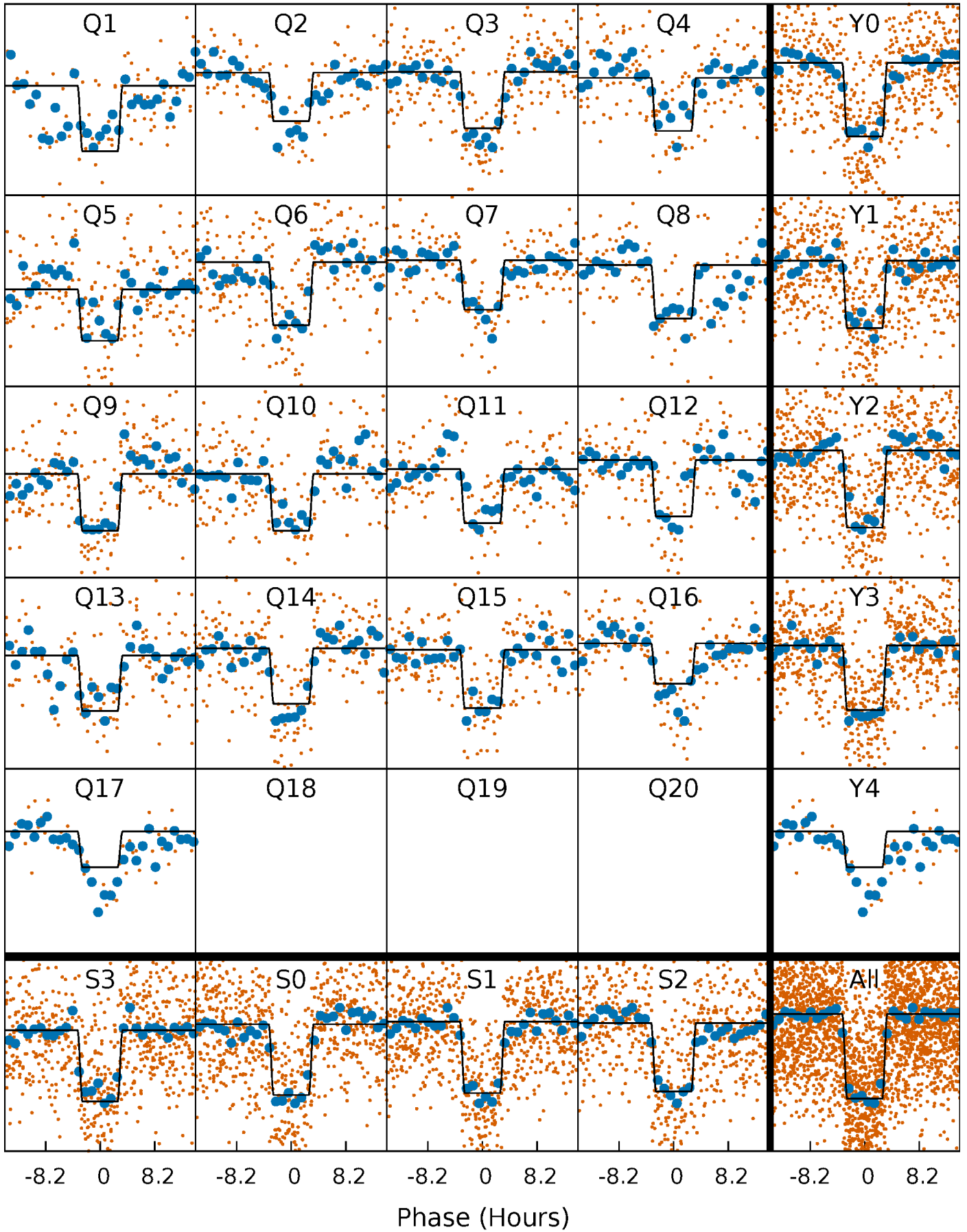
DV Quarter-Phased Transit Curves

TCE 004636578-02 P= 26.136350 Days $T_0=131.617204$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

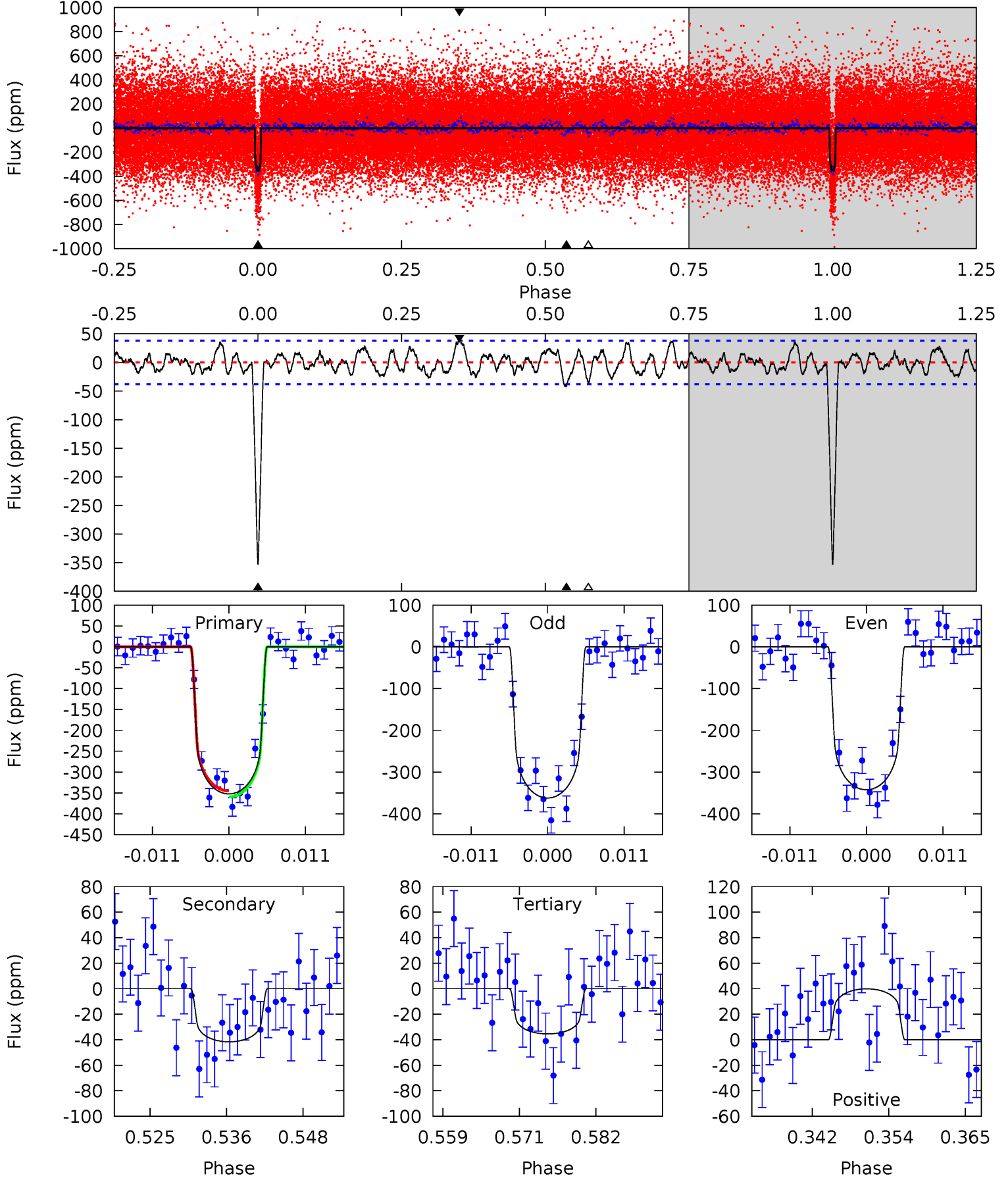
TCE 004636578-02 P= 26.136235 Days $T_0=131.622172$ (BKJD)



DV Model-Shift Uniqueness Test

004636578-02, P = 26.136350 Days, E = 105.480854 Days

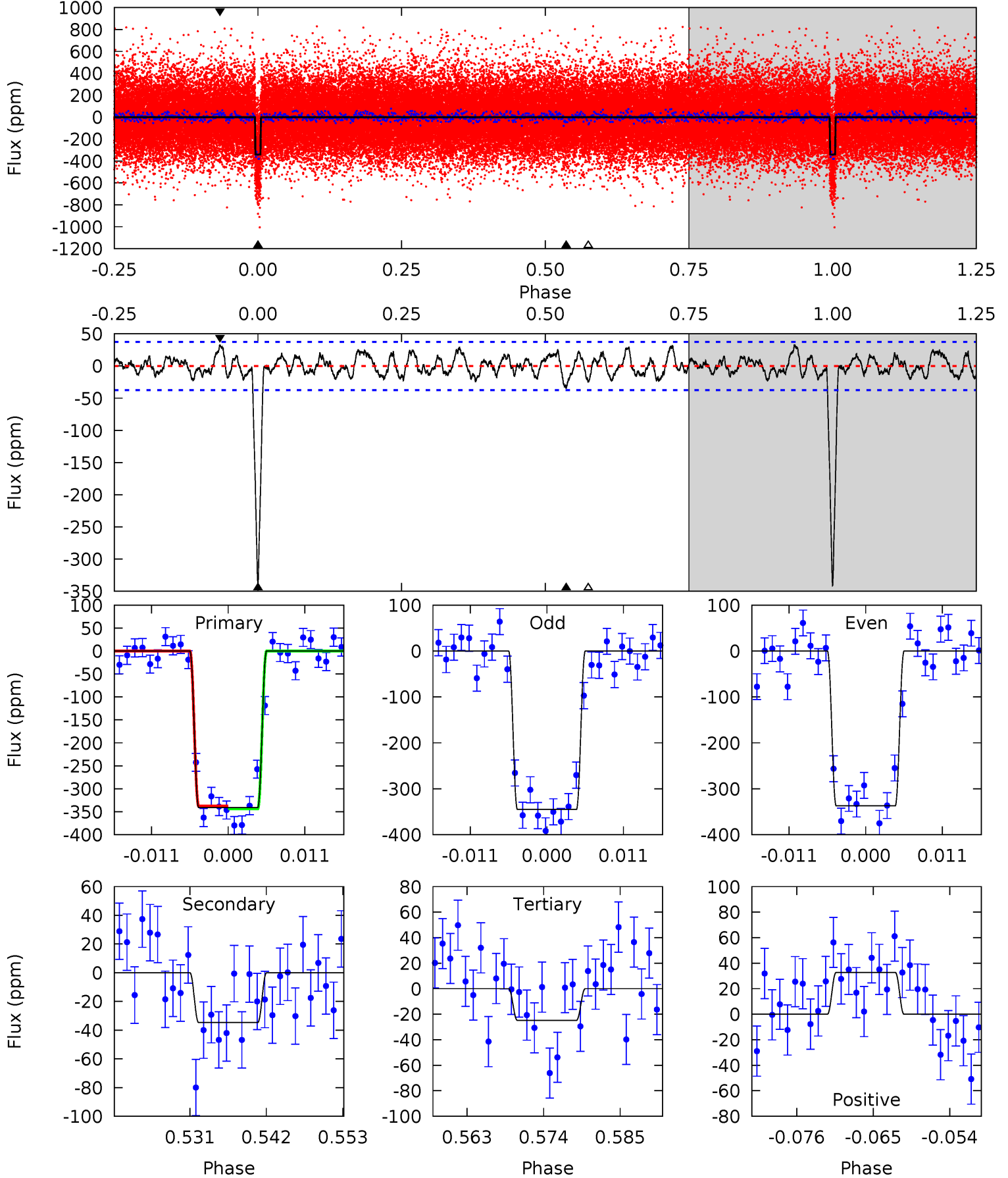
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
46.6	5.50	4.68	5.27	5.00	2.53	1.92	41.9	41.3	0.82	0.23	1.31	0.99	0.10	0.97



Alt Model-Shift Uniqueness Test

004636578-02, $P = 26.136235$ Days, $E = 105.485937$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
45.6	4.64	3.31	4.39	5.01	2.55	1.65	42.3	41.2	1.32	0.25	0.53	0.97	0.09	0.42



Stellar Parameters For KIC 004636578

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6188^{+124}_{-124}	$4.152^{+0.168}_{-0.112}$	$-0.080^{+0.150}_{-0.150}$	$1.465^{+0.265}_{-0.265}$	$1.111^{+0.116}_{-0.093}$	$0.498^{+0.419}_{-0.165}$
	+2%/-2%	+4%/-3%	+188%/-188%	+18%/-18%	+10%/-8%	+84%/-33%
Source	SPE58	SPE58	SPE58	DSEP		

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

Secondary Eclipse Parameters for KIC 004636578-02 / KOI 2025.02

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-42 ± 8	$2.99^{+0.53}_{-0.53}$	1085^{+57}_{-60}	3946^{+239}_{-235}	82^{+41}_{-27}
Alt.	-35 ± 7	$2.91^{+0.59}_{-0.48}$	1087^{+57}_{-59}	3839^{+279}_{-234}	71^{+37}_{-26}

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 $A_{obs} \gg 1.0$

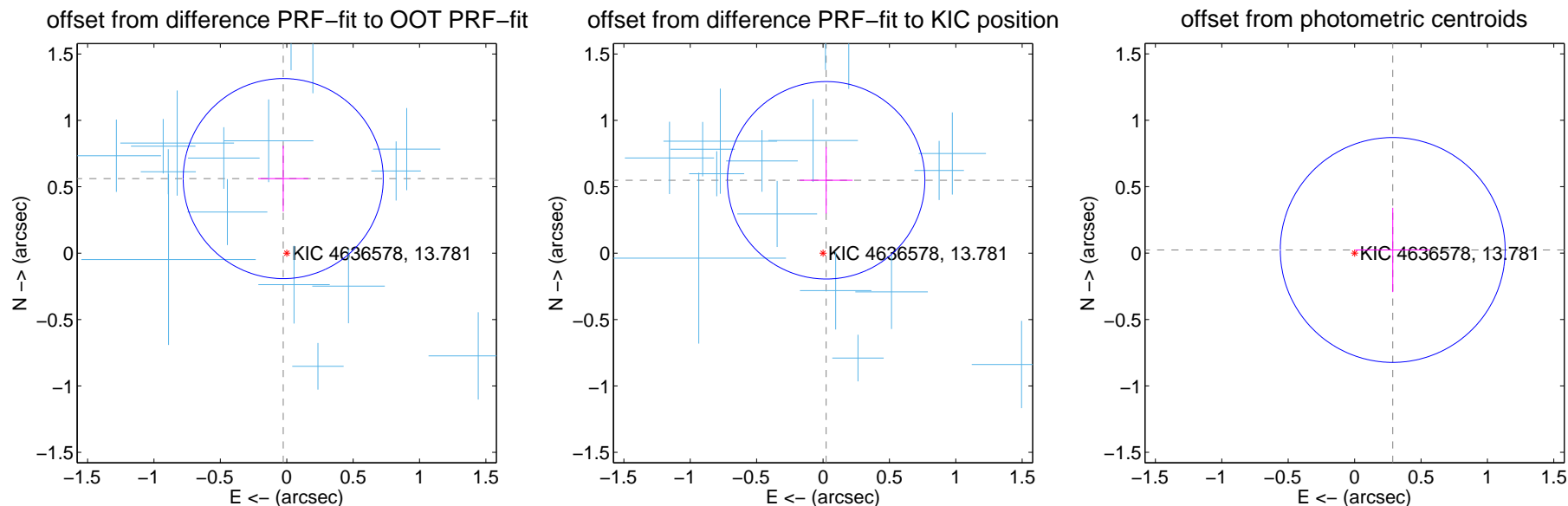
DV Centroid Data

Supplemental centroid analysis for 004636578-02. Kepler magnitude: 13.78. Transit SNR 26.37

There are 17 quarters with good PRF difference image offsets

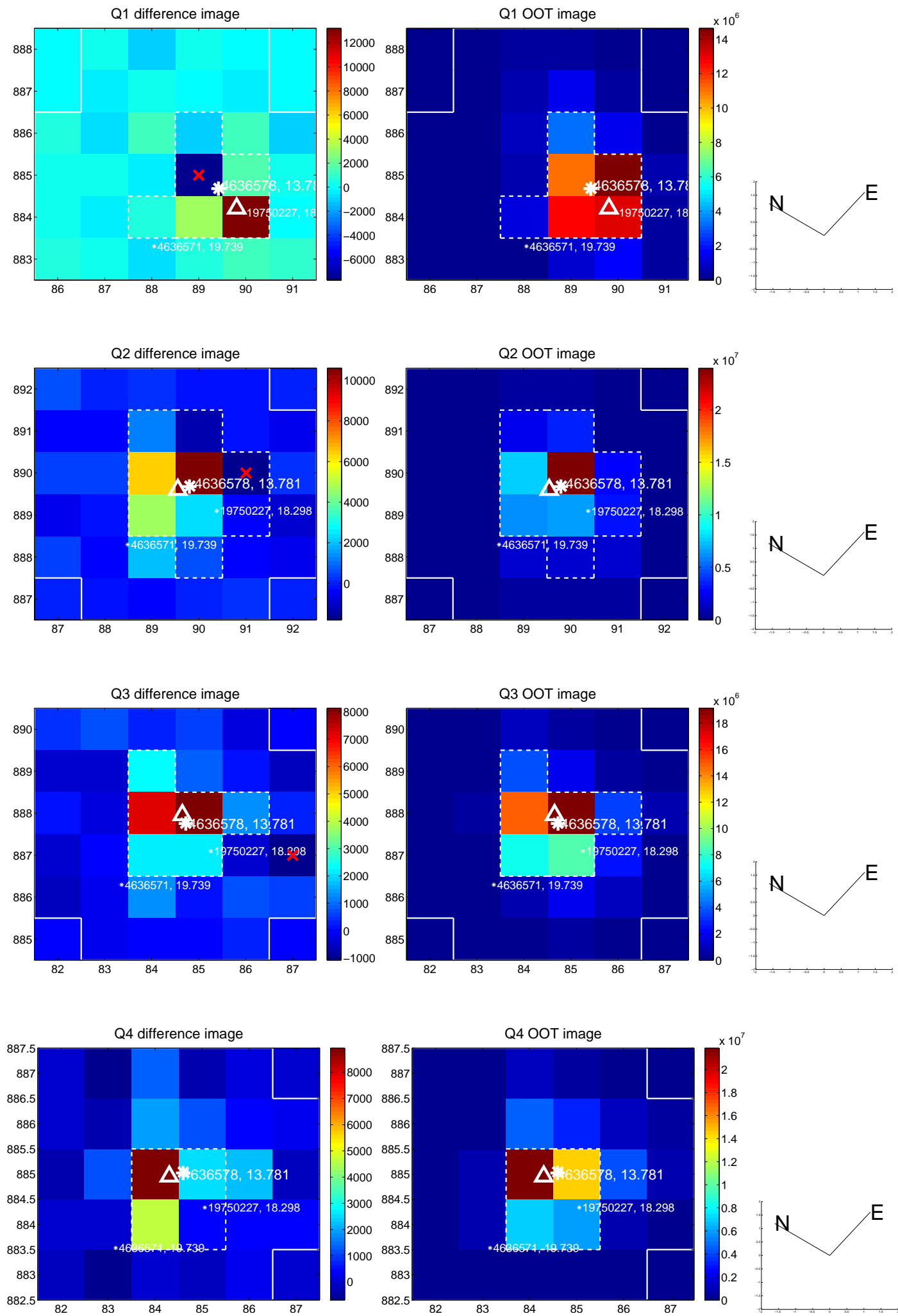
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.562 ± 0.251	2.24	0.026 ± 0.189	0.561 ± 0.248
PRF-fit source offset from KIC position	0.549 ± 0.248	2.22	-0.024 ± 0.199	0.549 ± 0.251
photometric centroid source offset	0.29 ± 0.28	1.02	-0.29 ± 0.28	0.02 ± 0.32

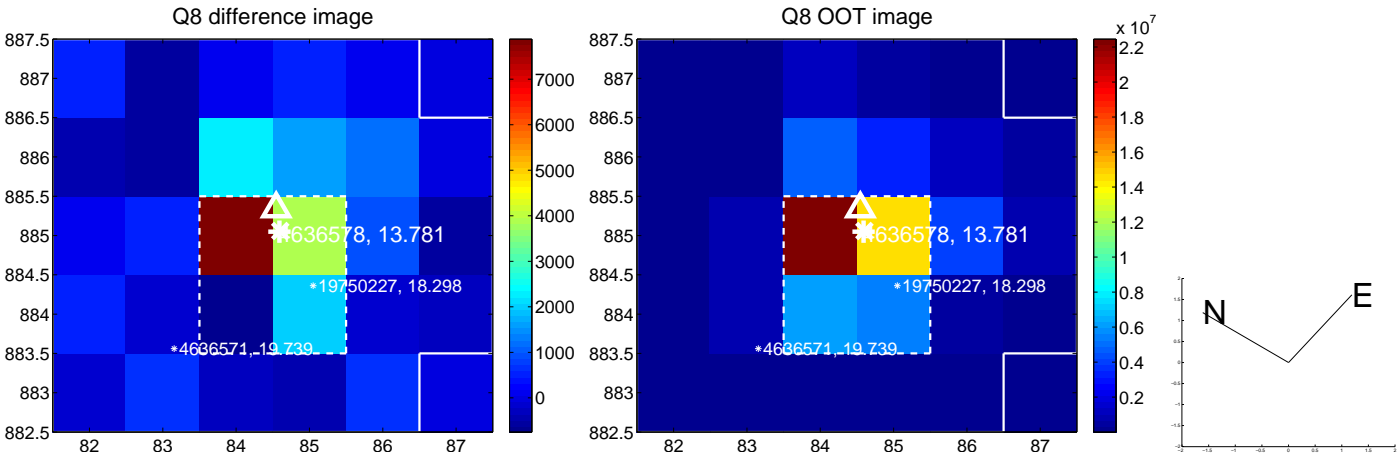
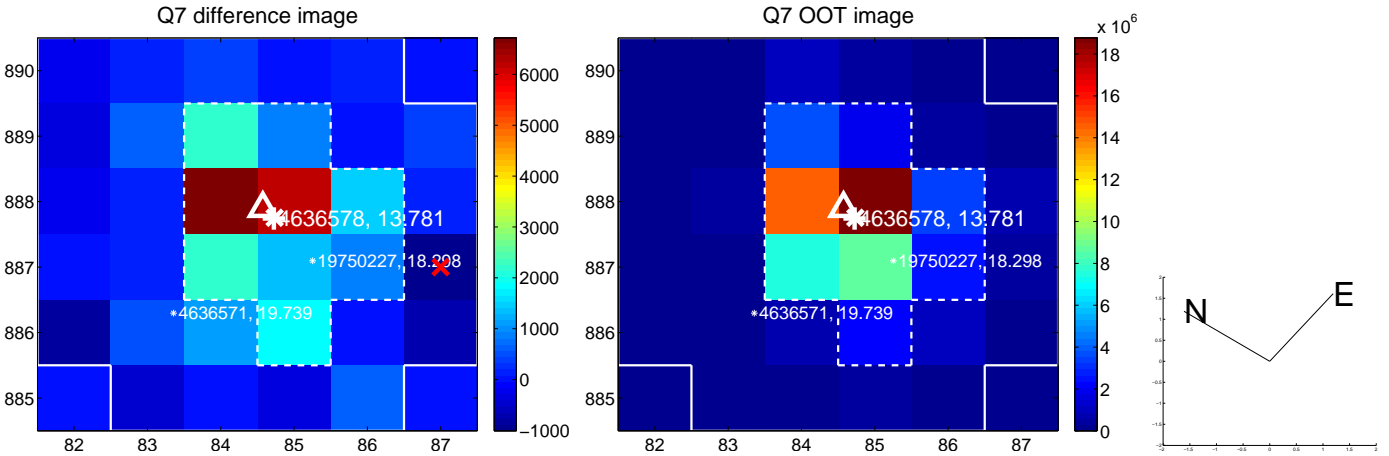
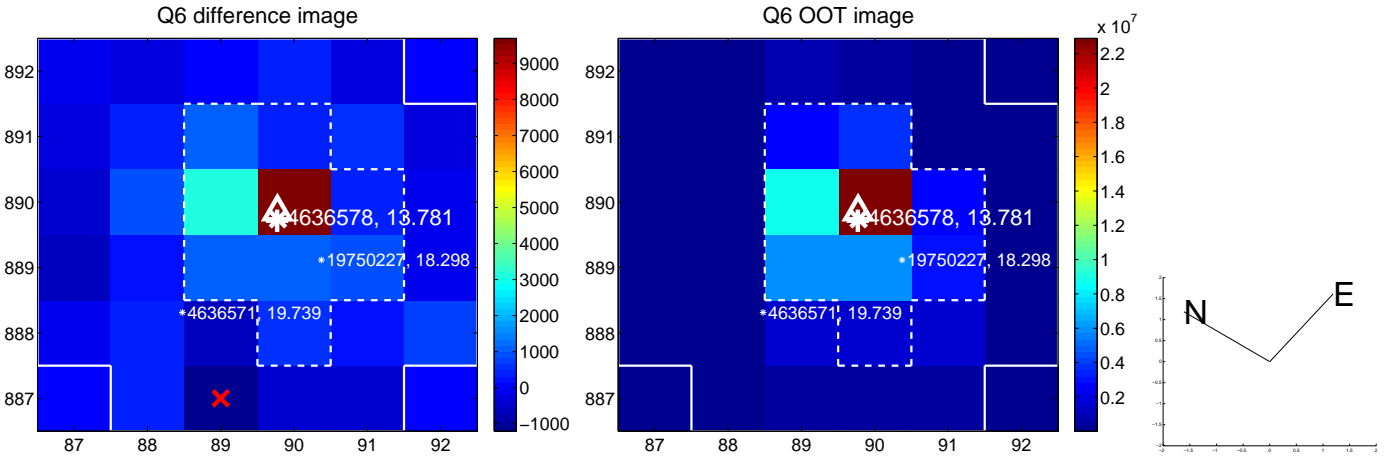
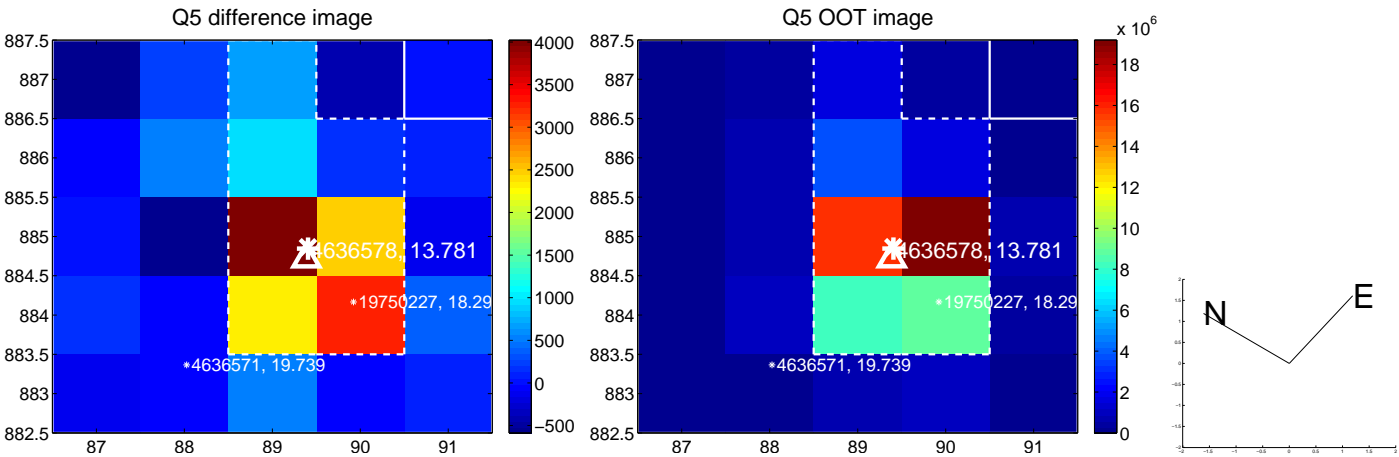


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

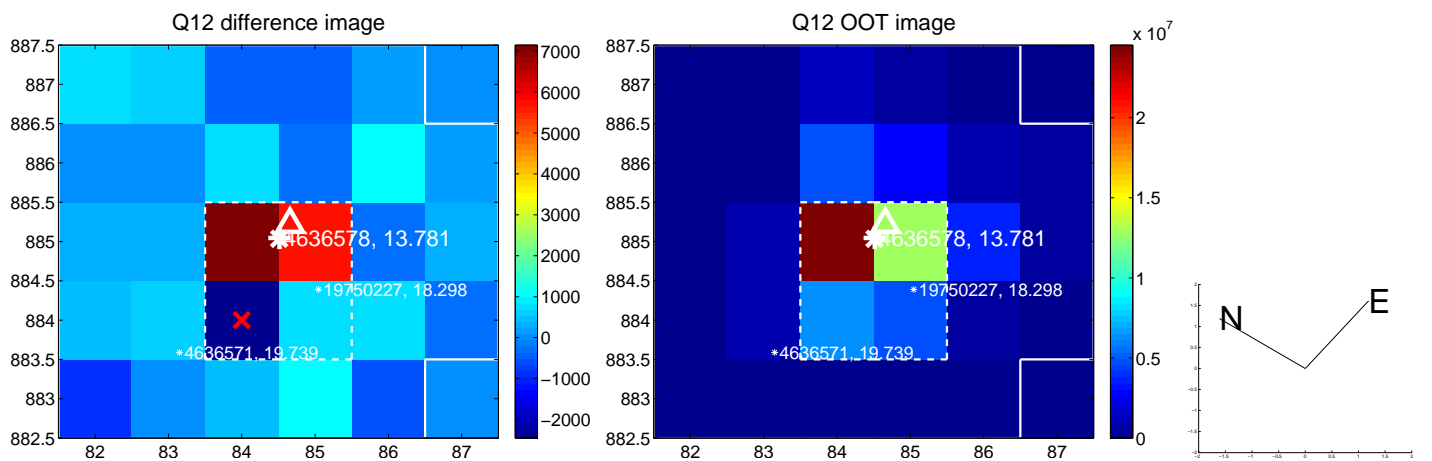
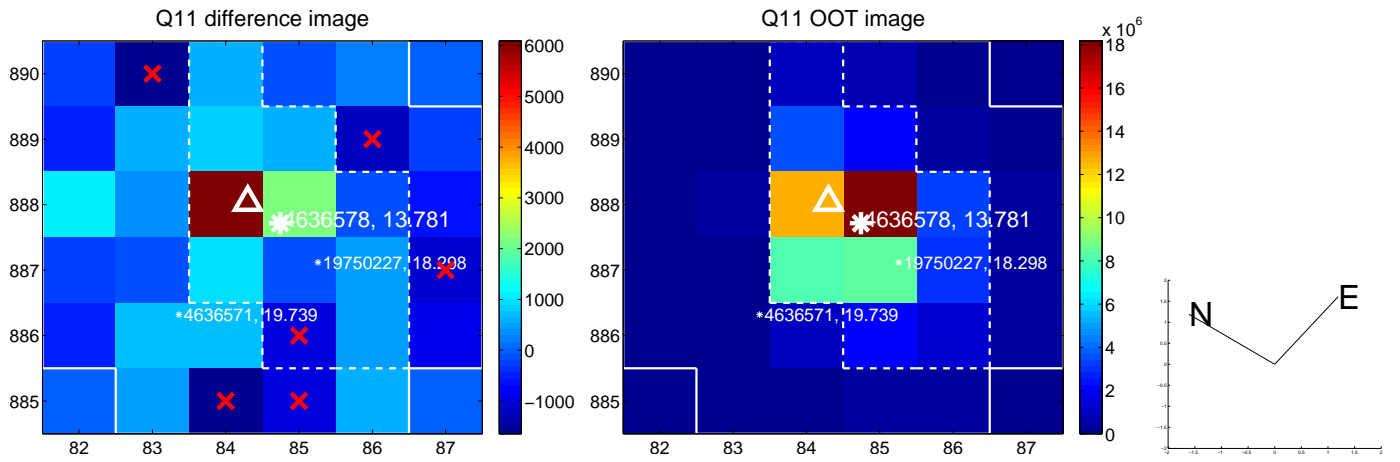
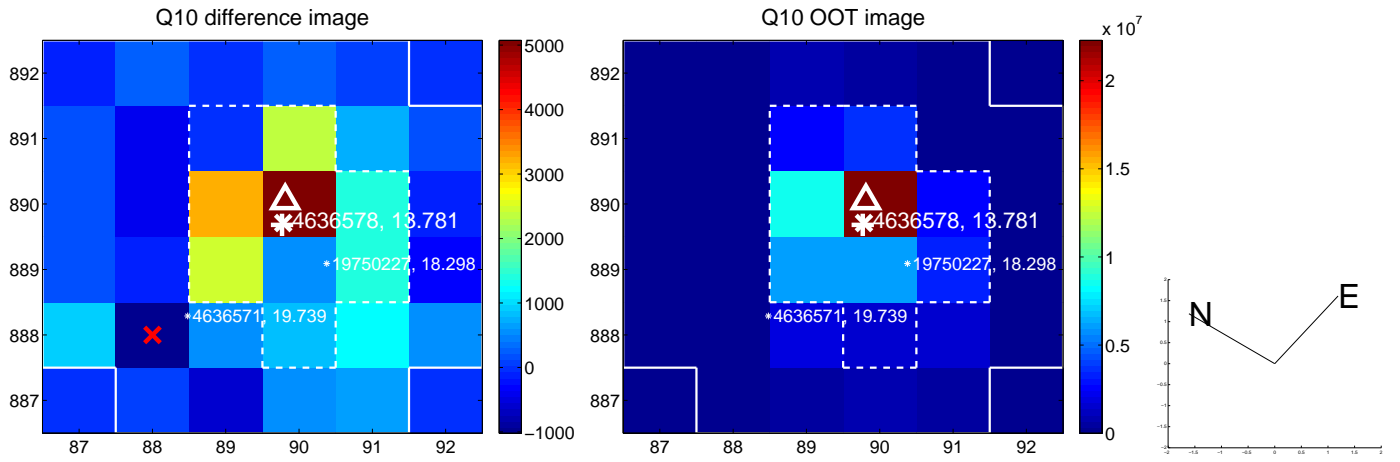
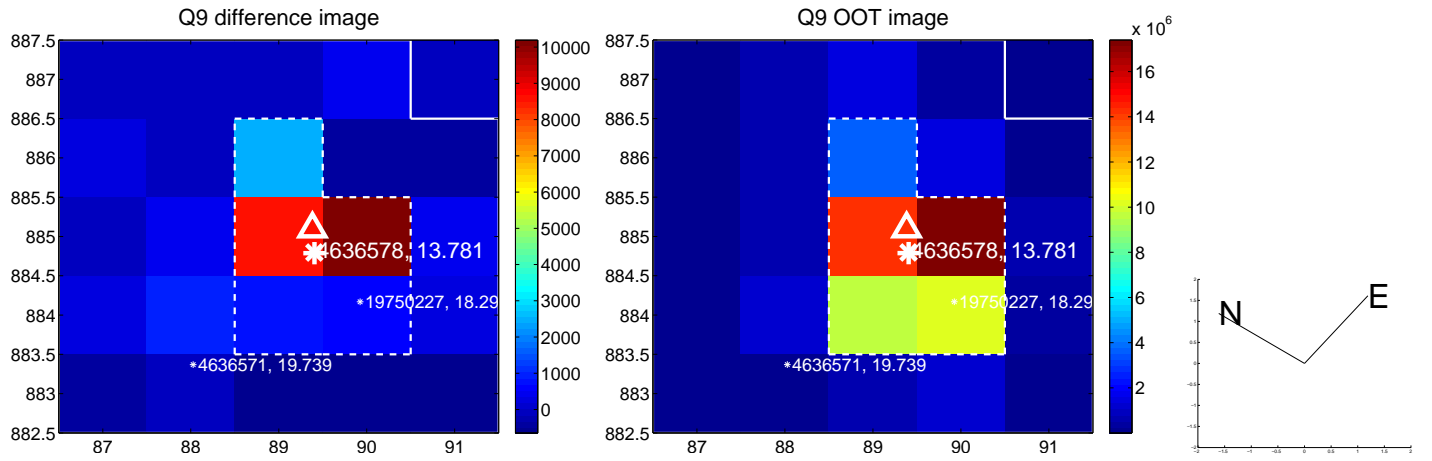
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



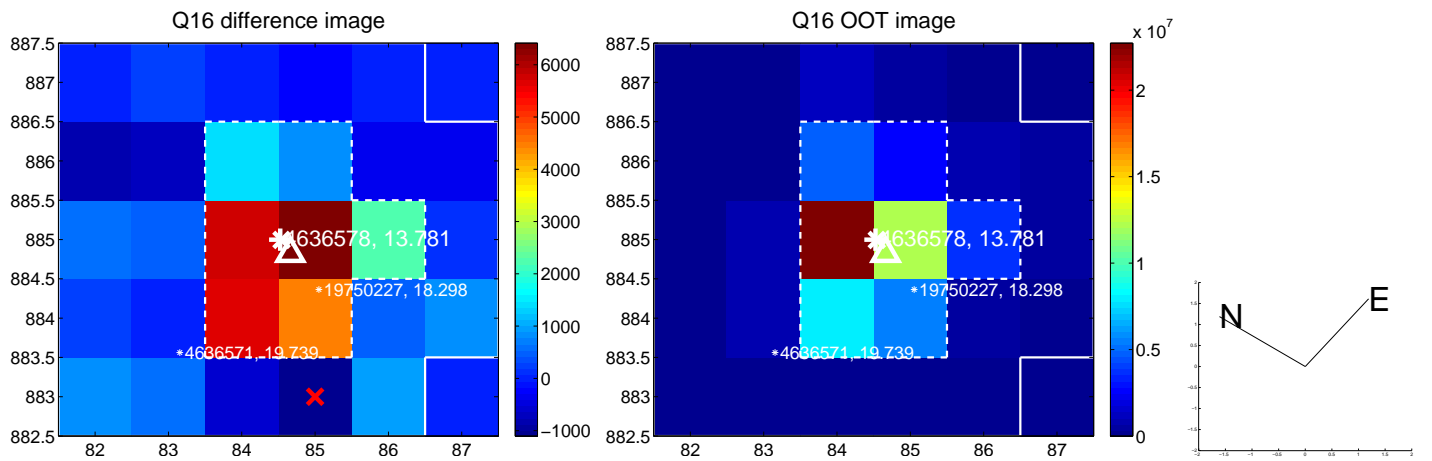
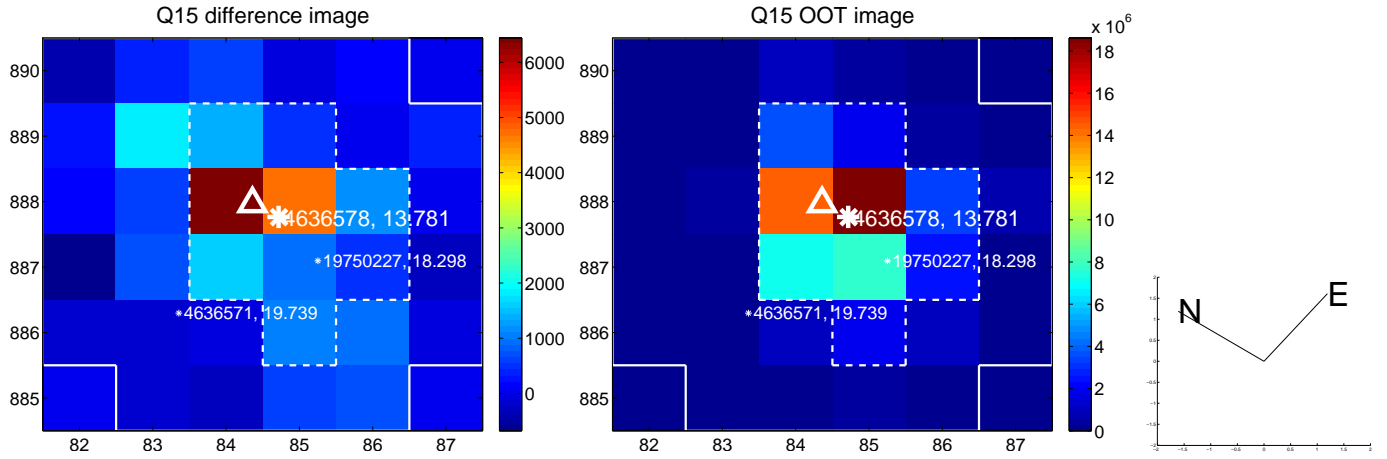
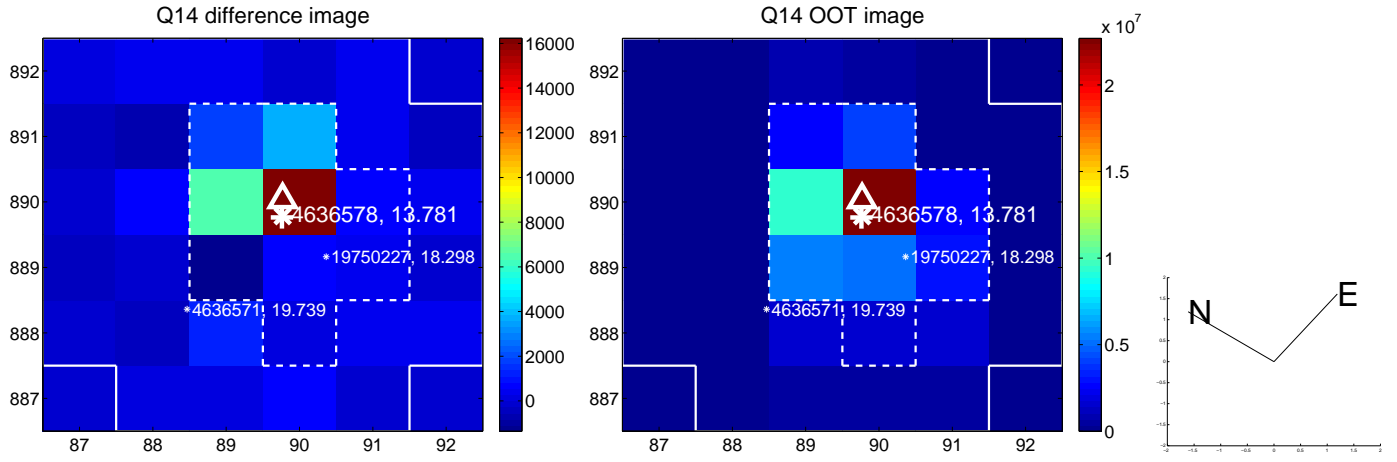
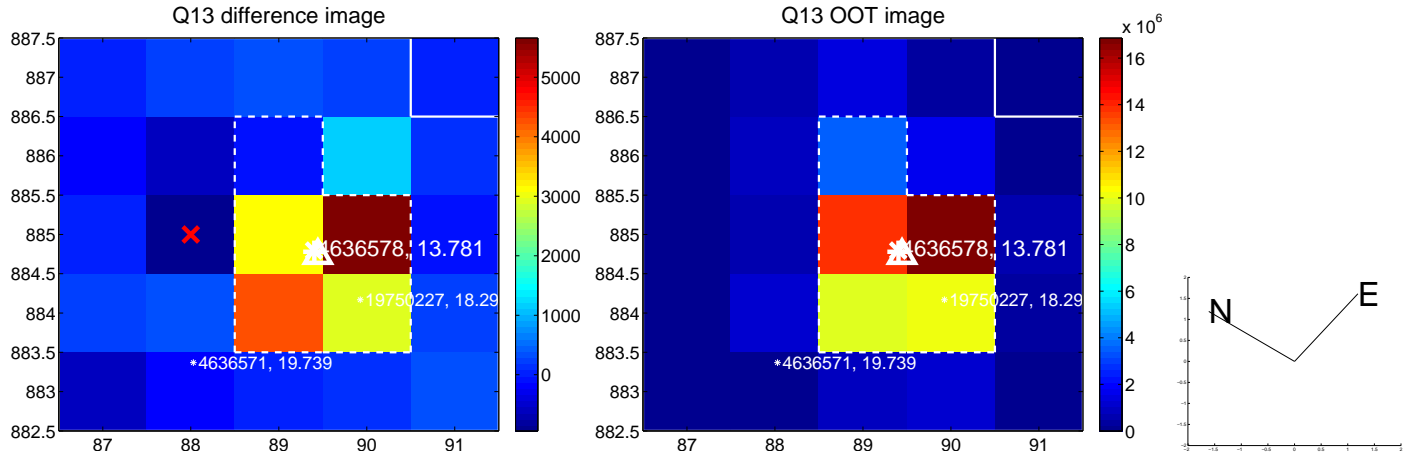
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



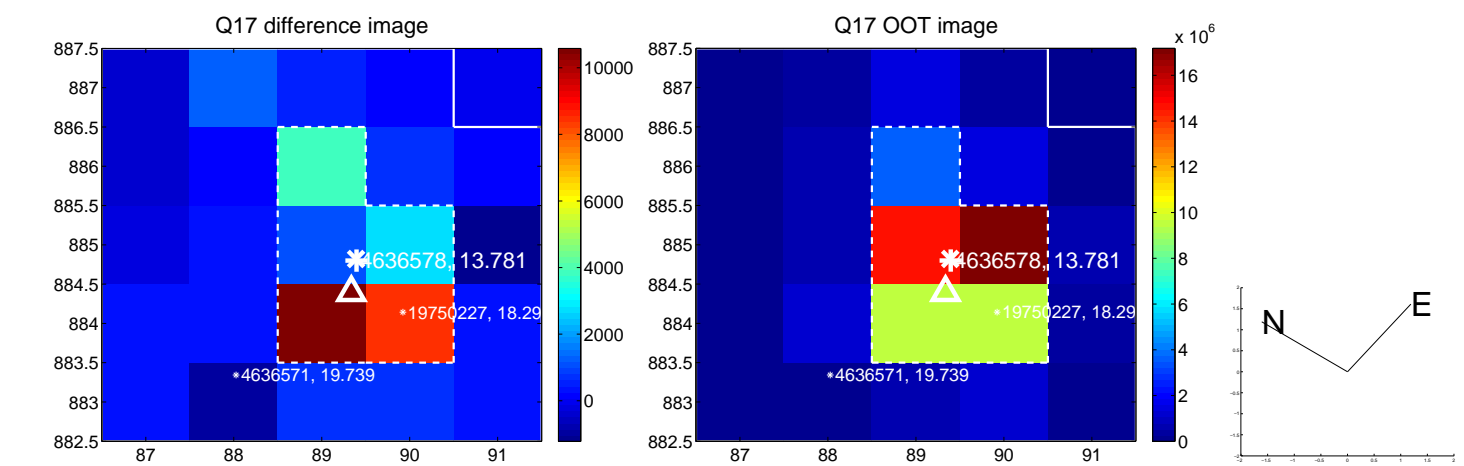
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



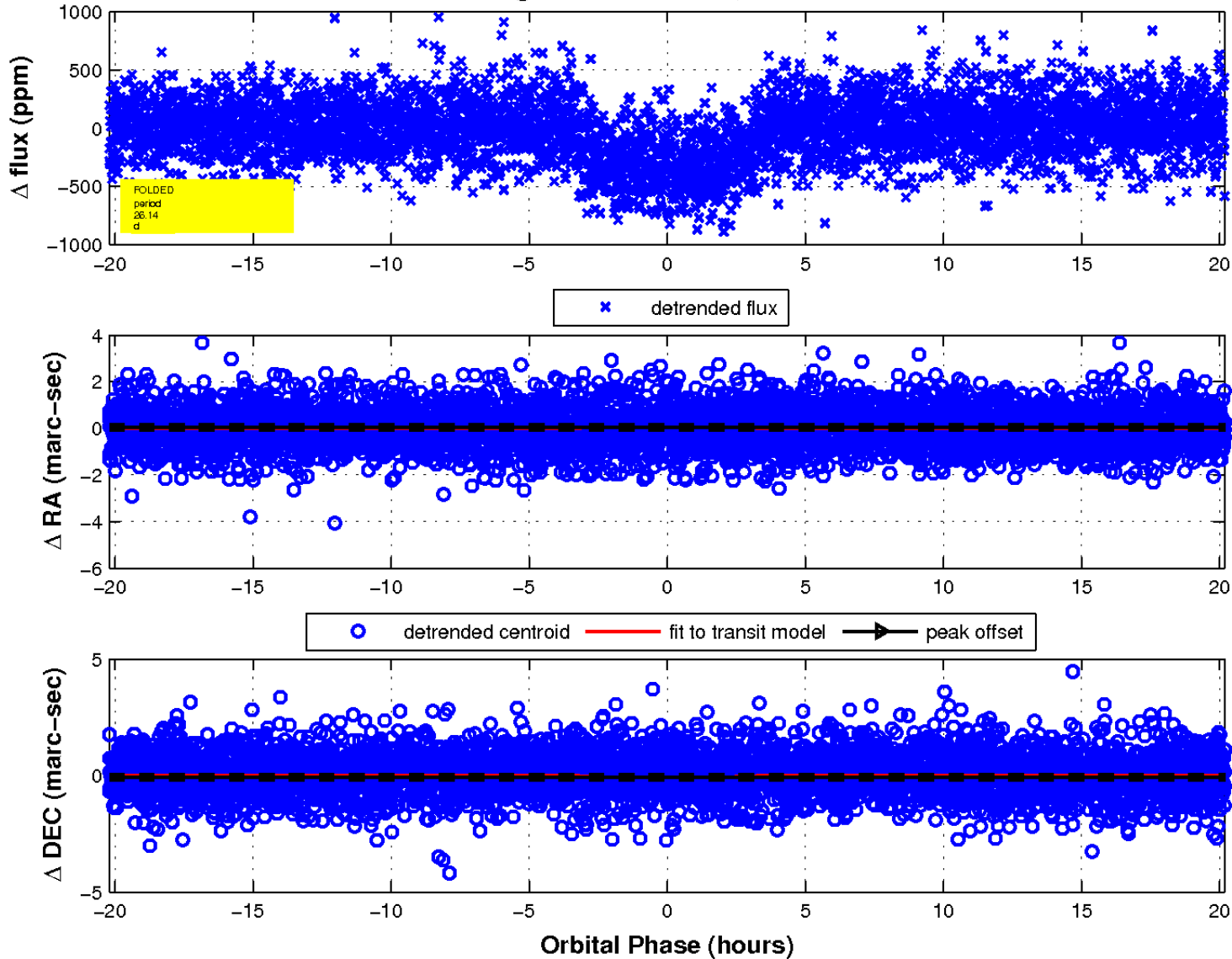
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

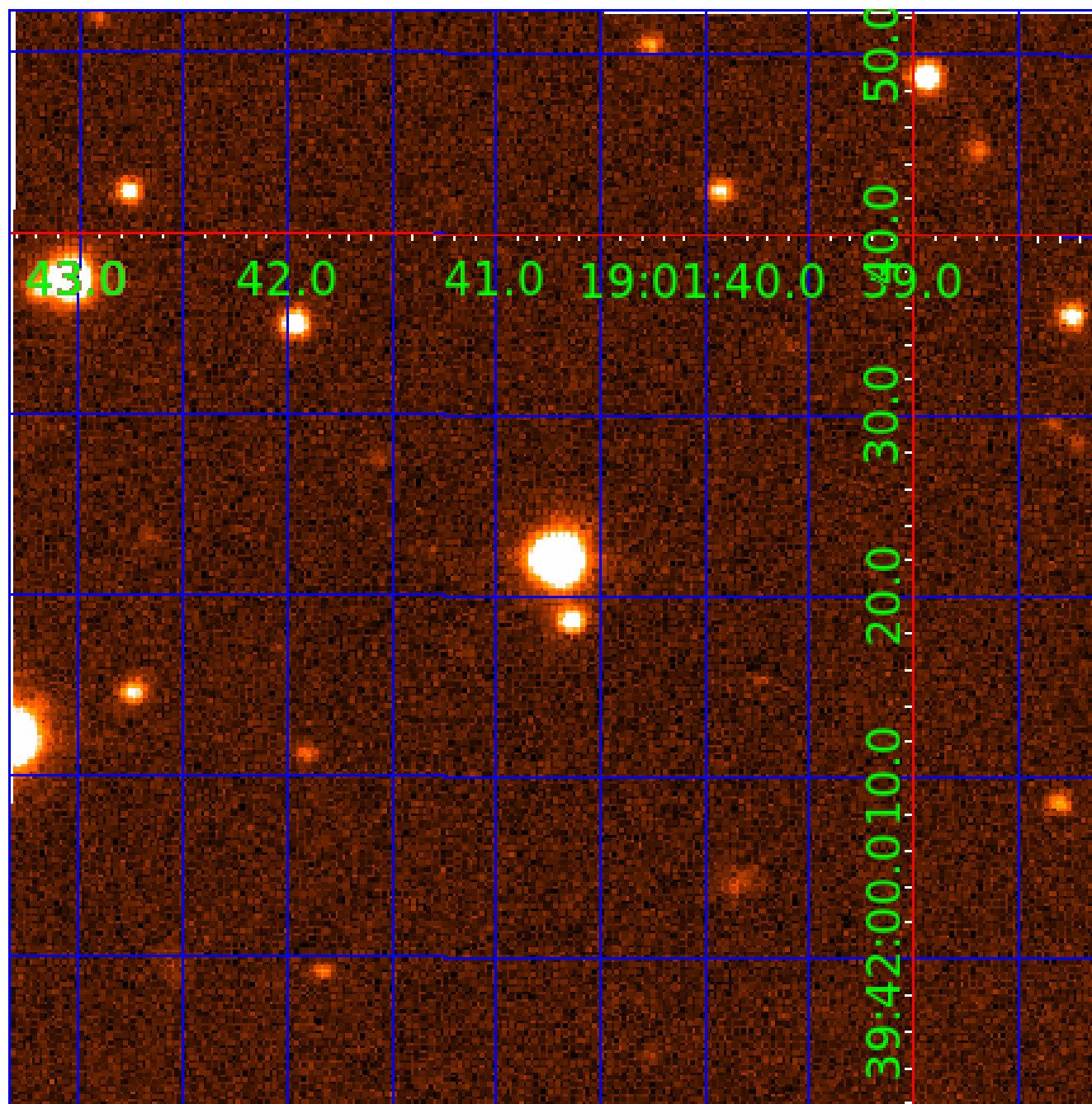


fluxWeightedCentroids, Planet 2 of 3



UKIRT Image

Declination



KIC 004636578

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})
004636578-01	OBS	2025.01	17.848527	148.390179	399.4	5.938	30.0	32.8	1.47	6188	3.36	147.07
004636578-02	OBS	2025.02	26.136350	131.617204	368.4	6.733	24.6	26.4	1.47	6188	3.05	88.44
004636578-03	OBS	2025.03	11.189597	140.630629	124.1	5.424	12.1	12.8	1.47	6188	1.92	274.10

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004636578-01	OBS	PC	1.00	0	0	0	0	NO_COMMENT
004636578-02	OBS	PC	1.00	0	0	0	0	NO_COMMENT
004636578-03	OBS	PC	1.00	0	0	0	0	NO_COMMENT

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

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

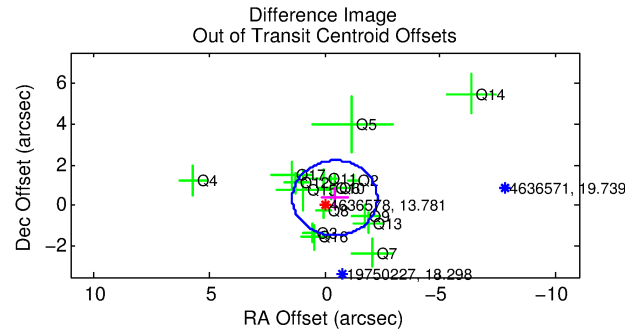
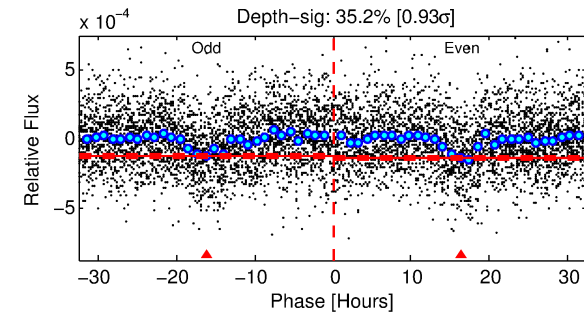
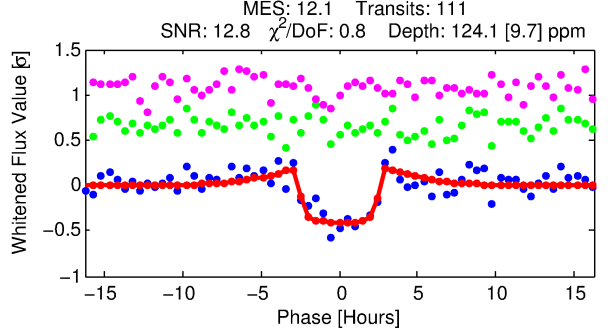
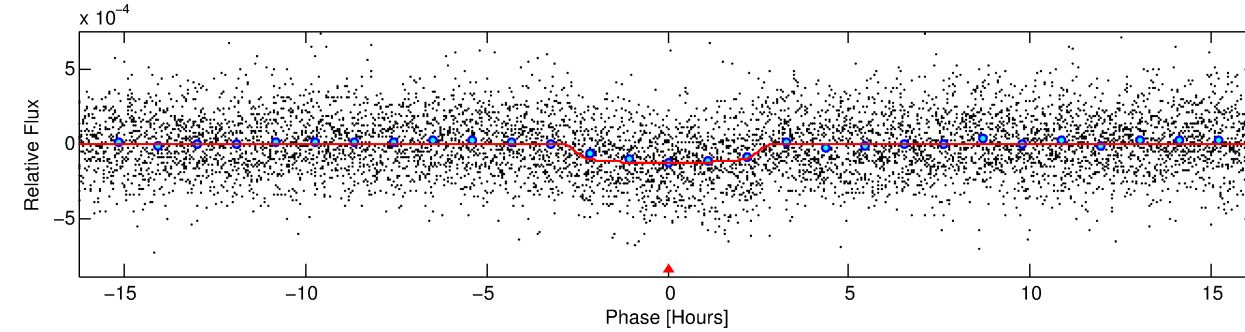
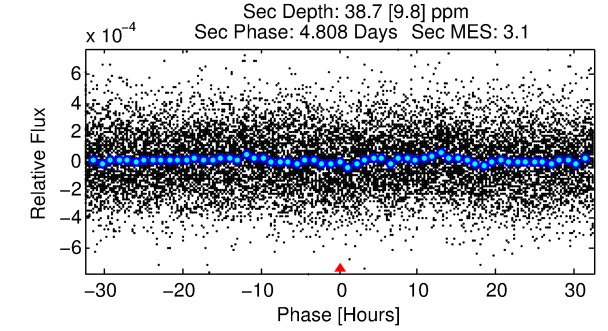
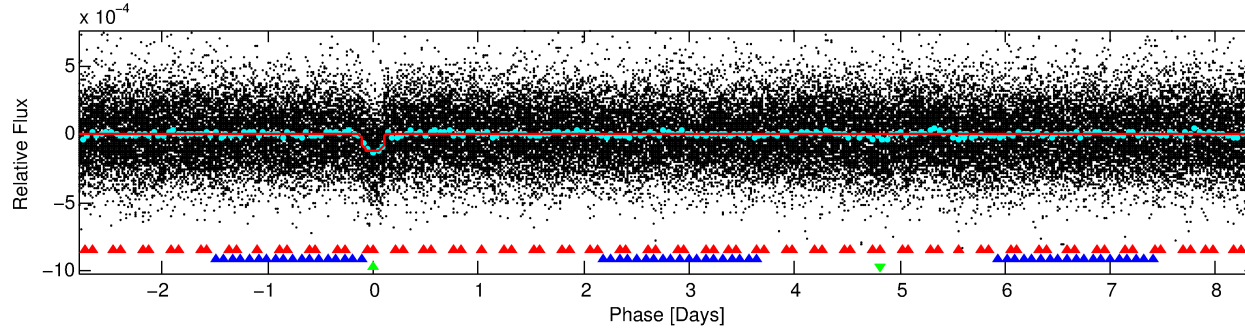
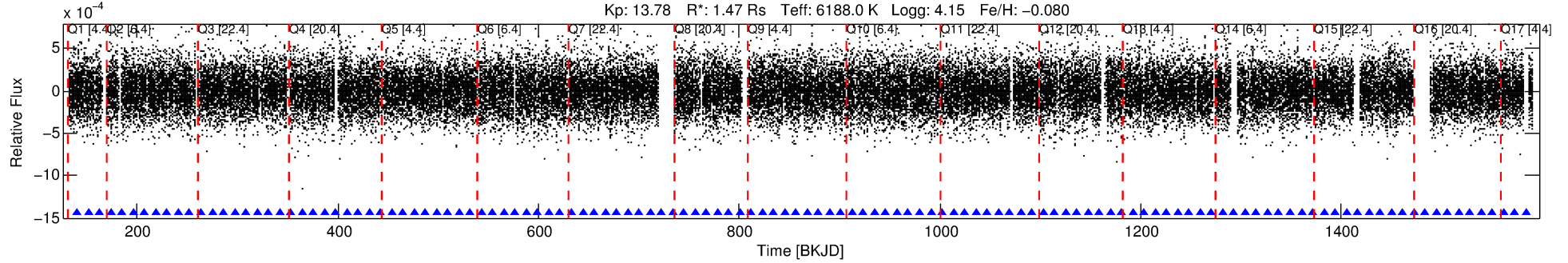
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 004636578-03

No Significant Match Found

DV One-Page Summary

KIC: 4636578 Candidate: 3 of 3 Period: 11.190 d
KOI: K02025.03 Name: Kepler-350b Corr: 0.980



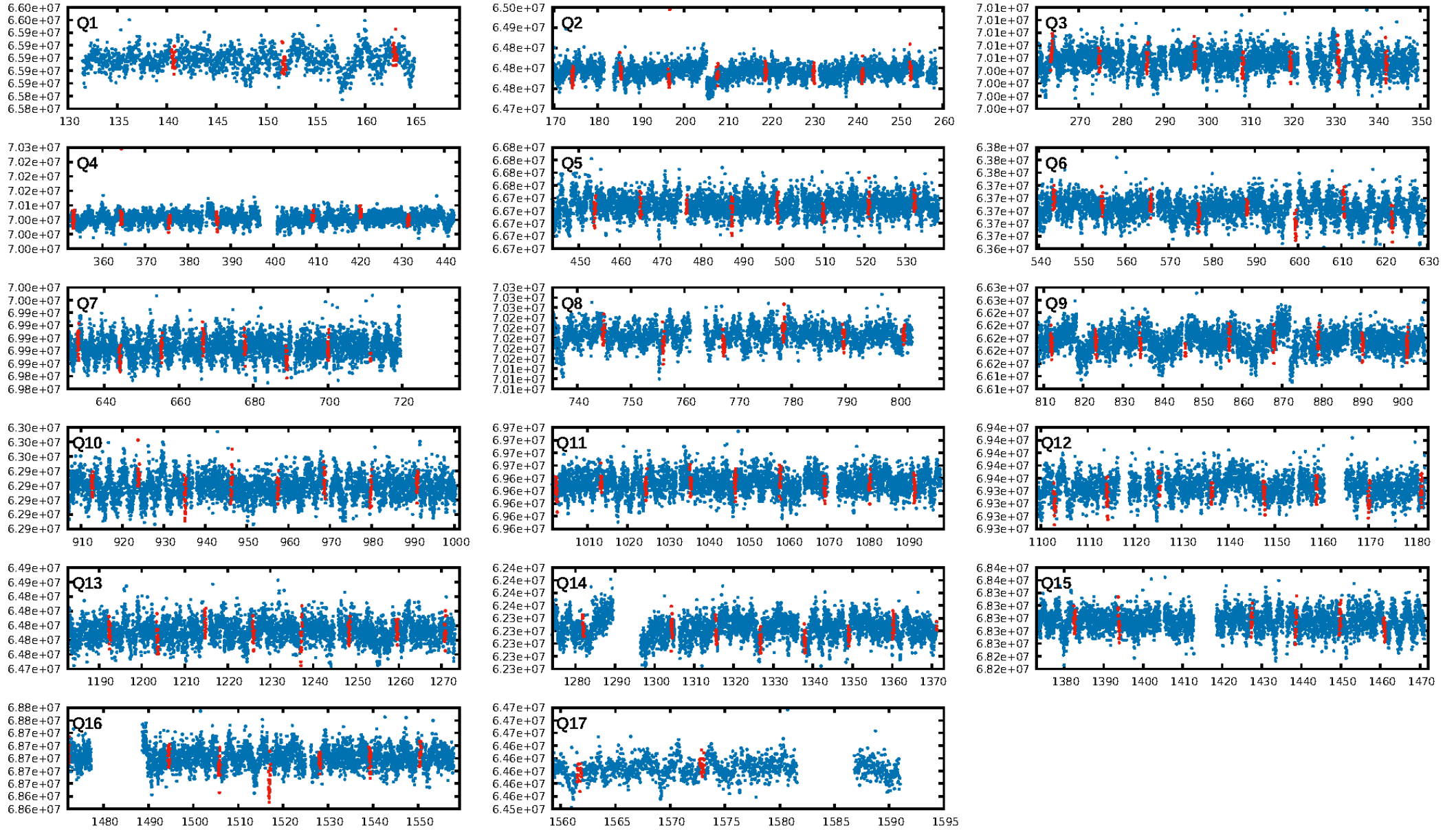
DV Fit Results:

Period = 11.18960 [0.00008] d
Epoch = 140.6306 [0.0055] BKJD
Rp/R* = 0.0120 [0.0022]
a/R* = 7.35 [7.00]
b = 0.90 [0.21]
Seff = 274.10 [81.07]
Teff = 1038 [77] K
Rp = 1.92 [0.50] Re
a = 0.1014 [0.0179] AU
Ag = 59.55 [31.84] [1.84σ]
Teffp = 4456 [512] K [6.60σ]

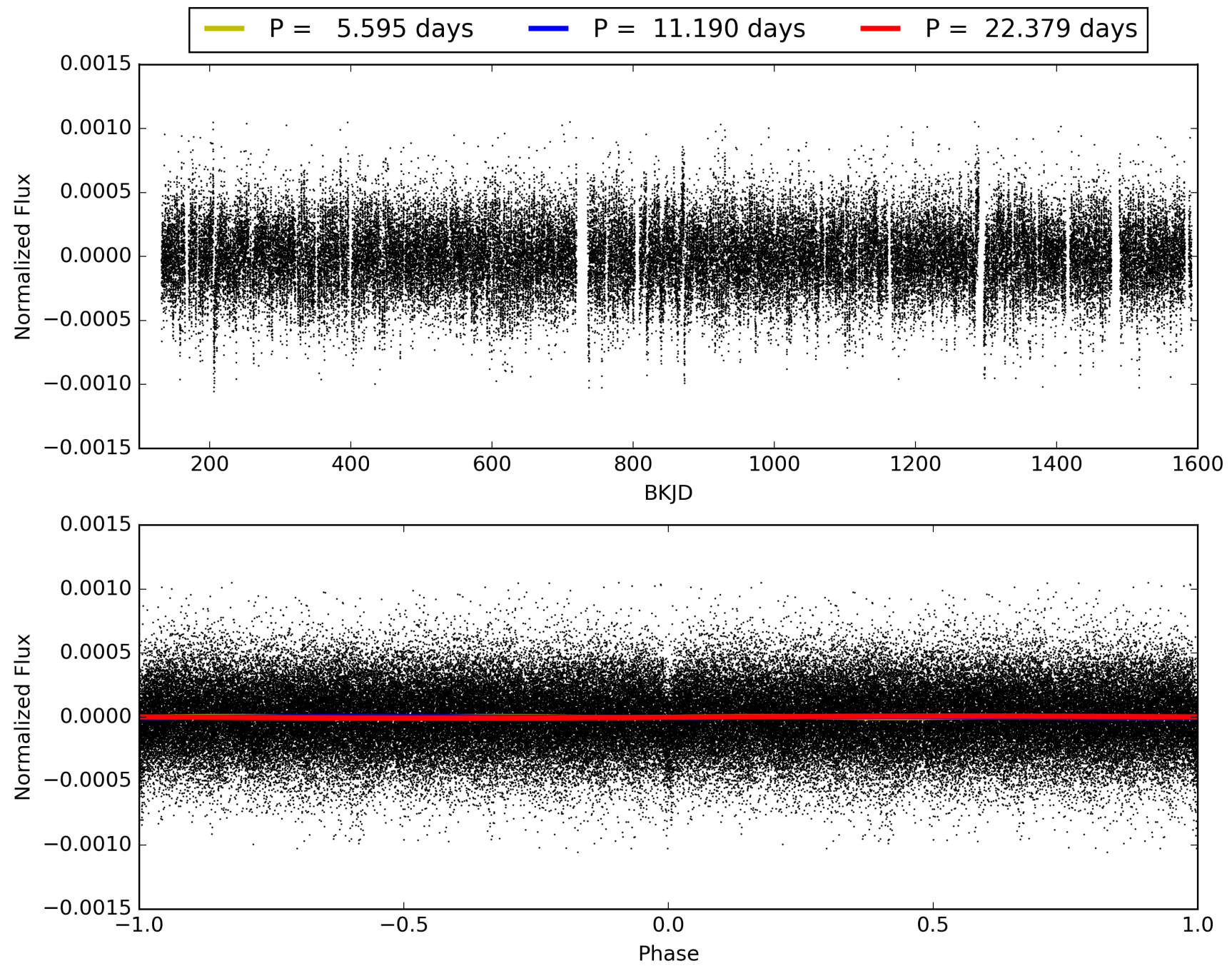
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [19.87σ]
ModelChiSquare2-sig: 99.9%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 7.30e-32
RollingBand-fgt: 1.00 [106/106]
GhostDiagnostic-chr: 1.691
Centroid-sig: 0.0%
Centroid-so: 1.635 arcsec [2.35σ]
OotOffset-rm: 0.570 arcsec [0.93σ]
KicOffset-rm: 0.595 arcsec [0.93σ]
OotOffset-st: 4/4/4/4 [16]
KicOffset-st: 4/4/4/4 [16]
DiffImageQuality-fgm: 0.81 [13/16]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 004636578-03, PDC Light Curves

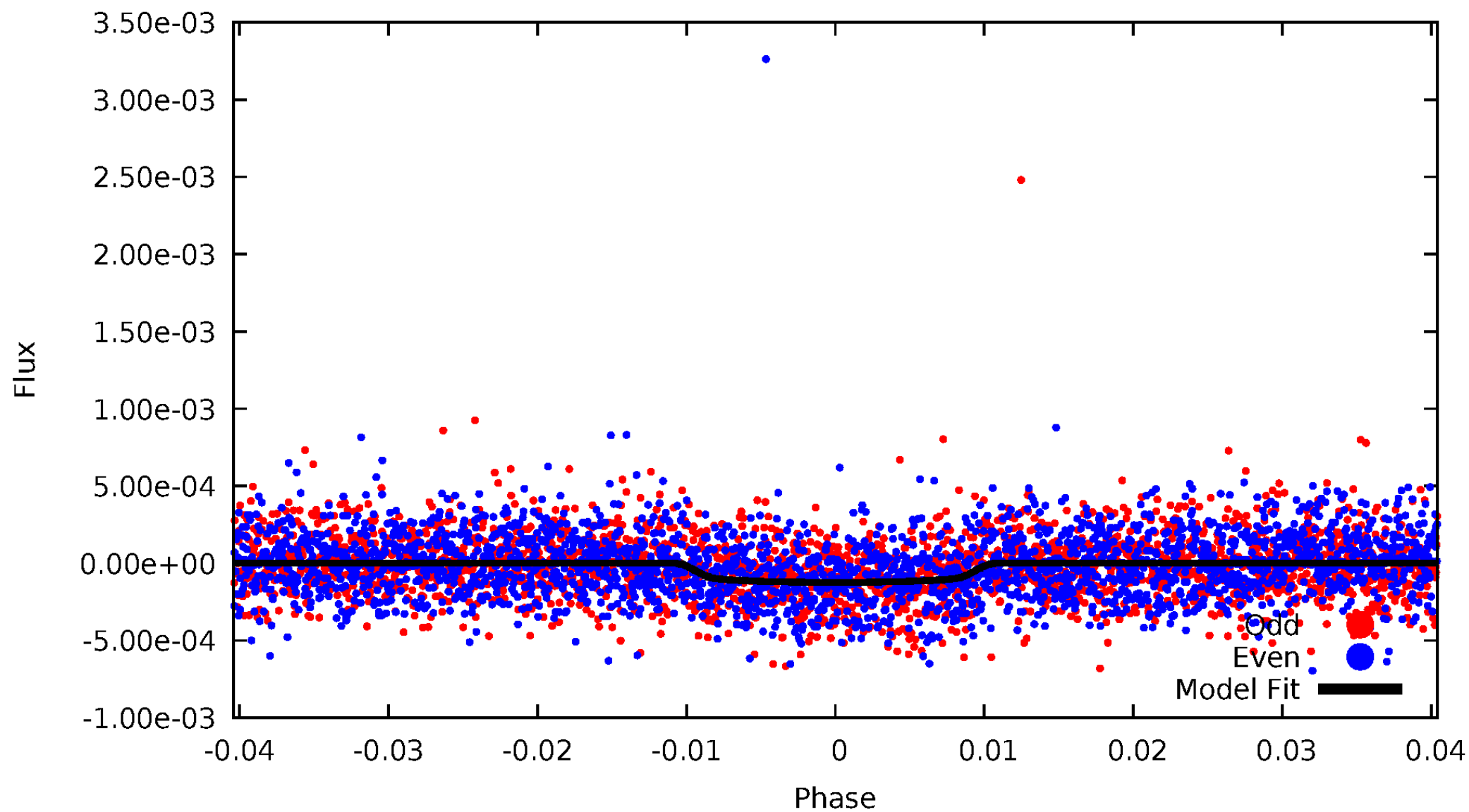


TCE 004636578-03



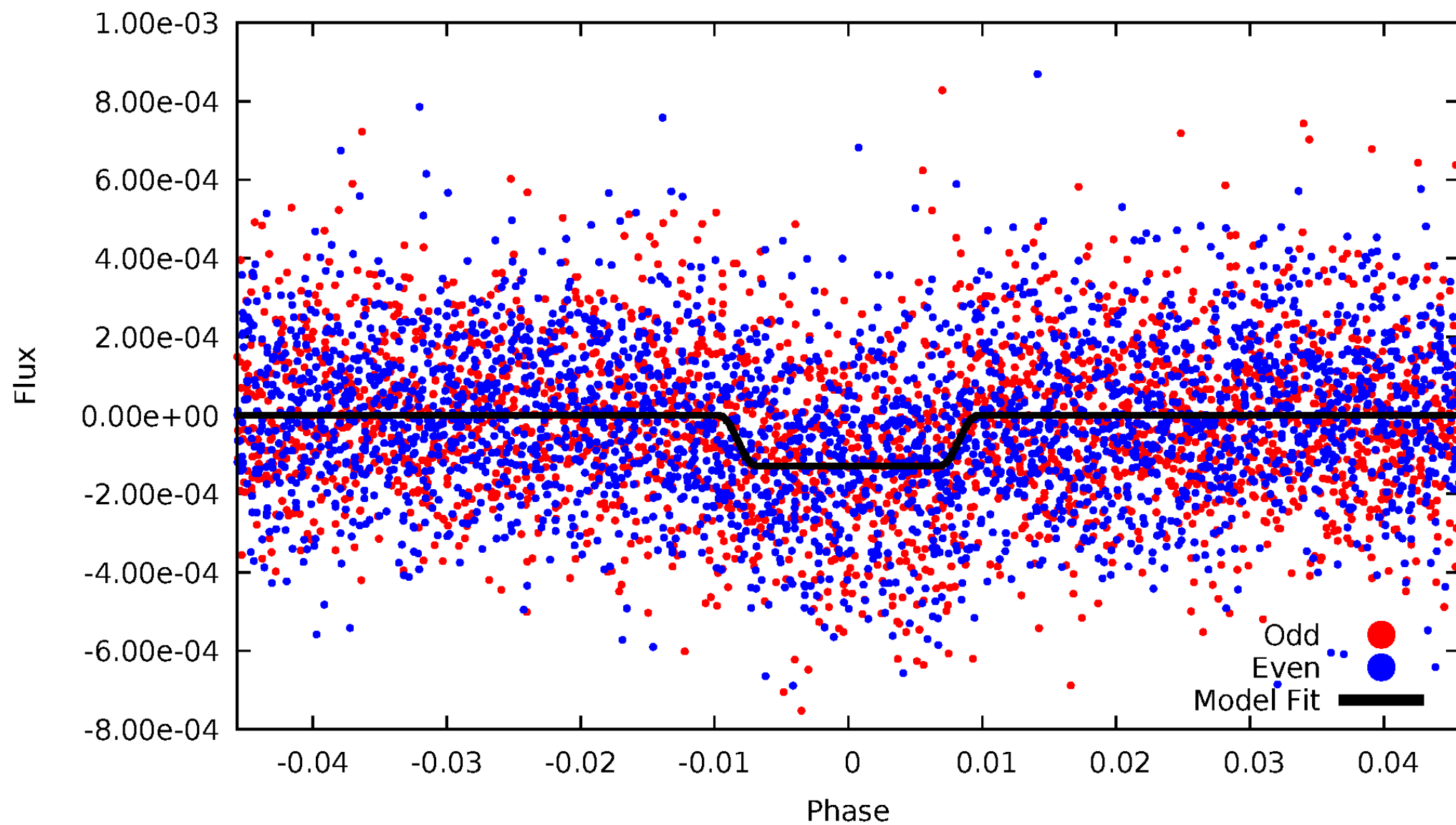
DV Odd/Even

TCE 004636578-03

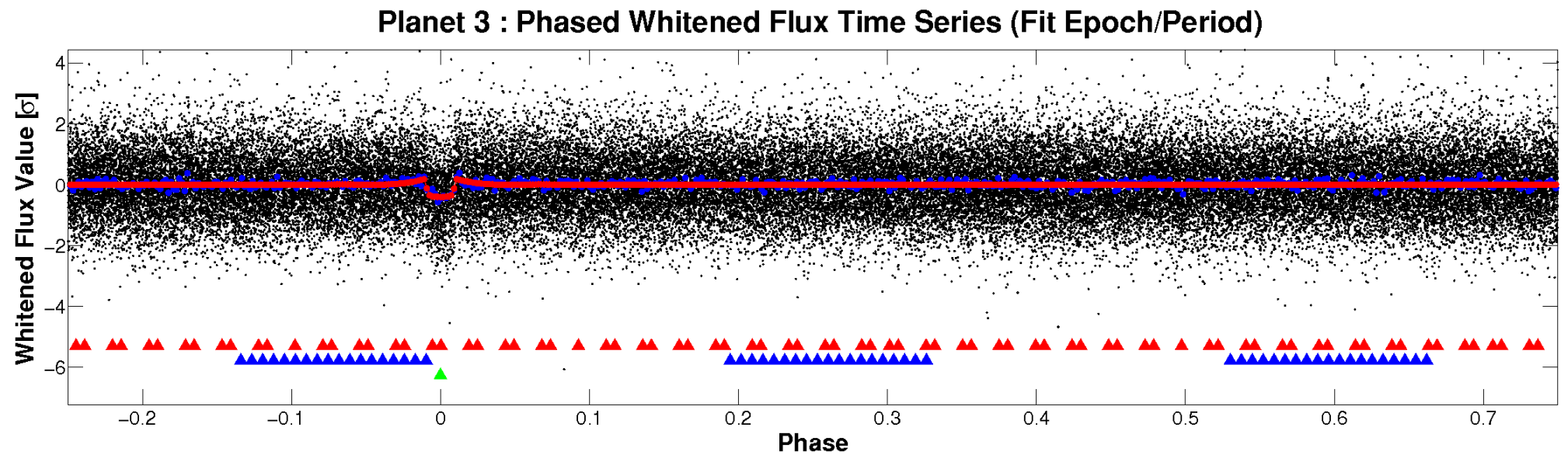
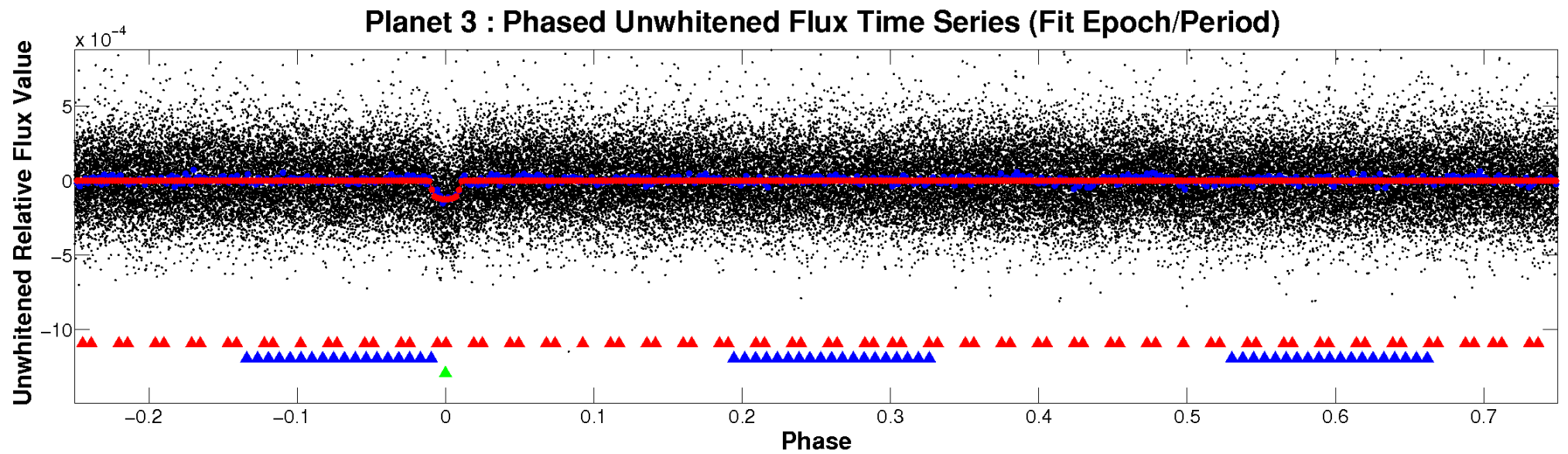


ALT Odd/Even

TCE 004636578-03

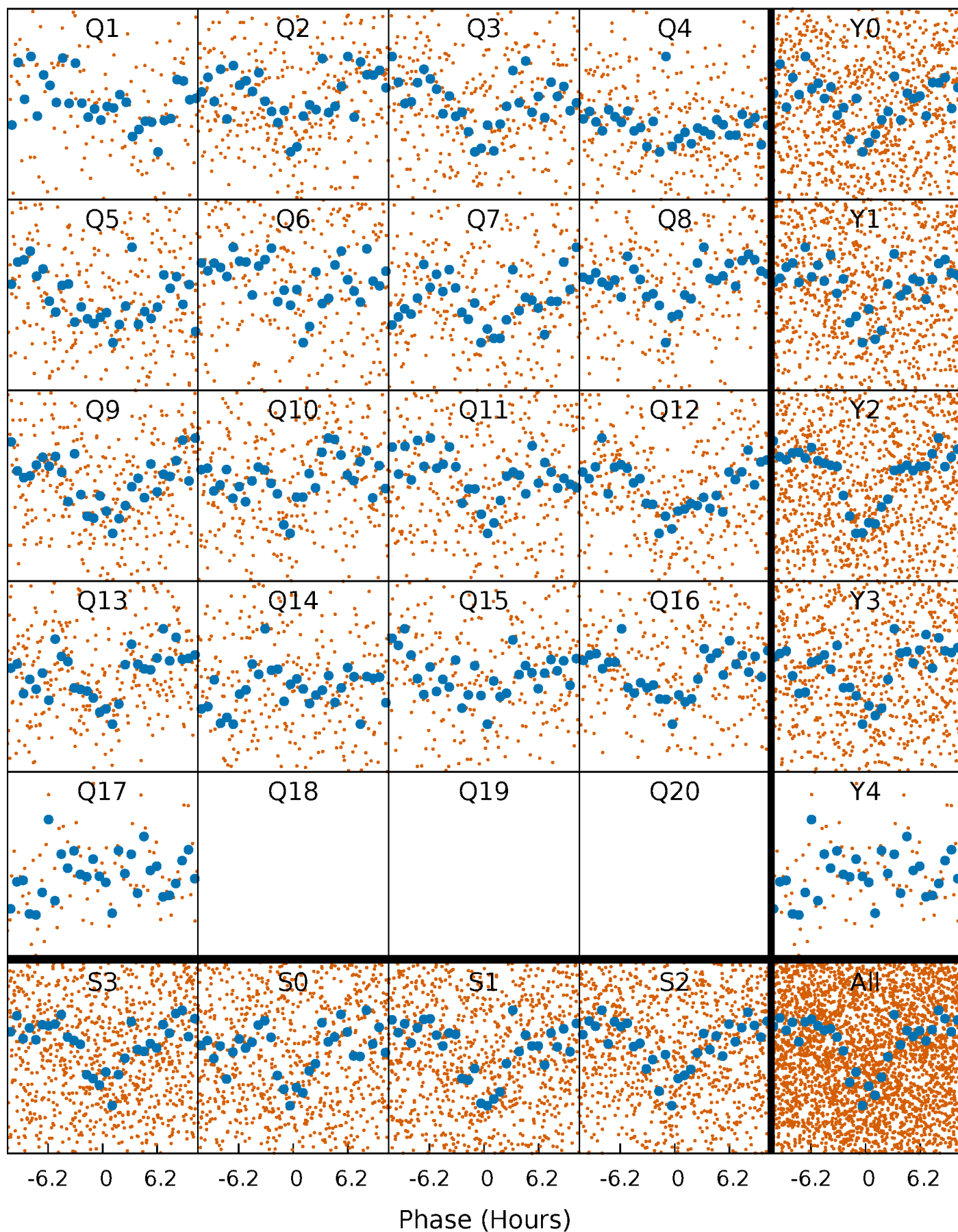


Non-Whitened Vs. Whitened Light Curve



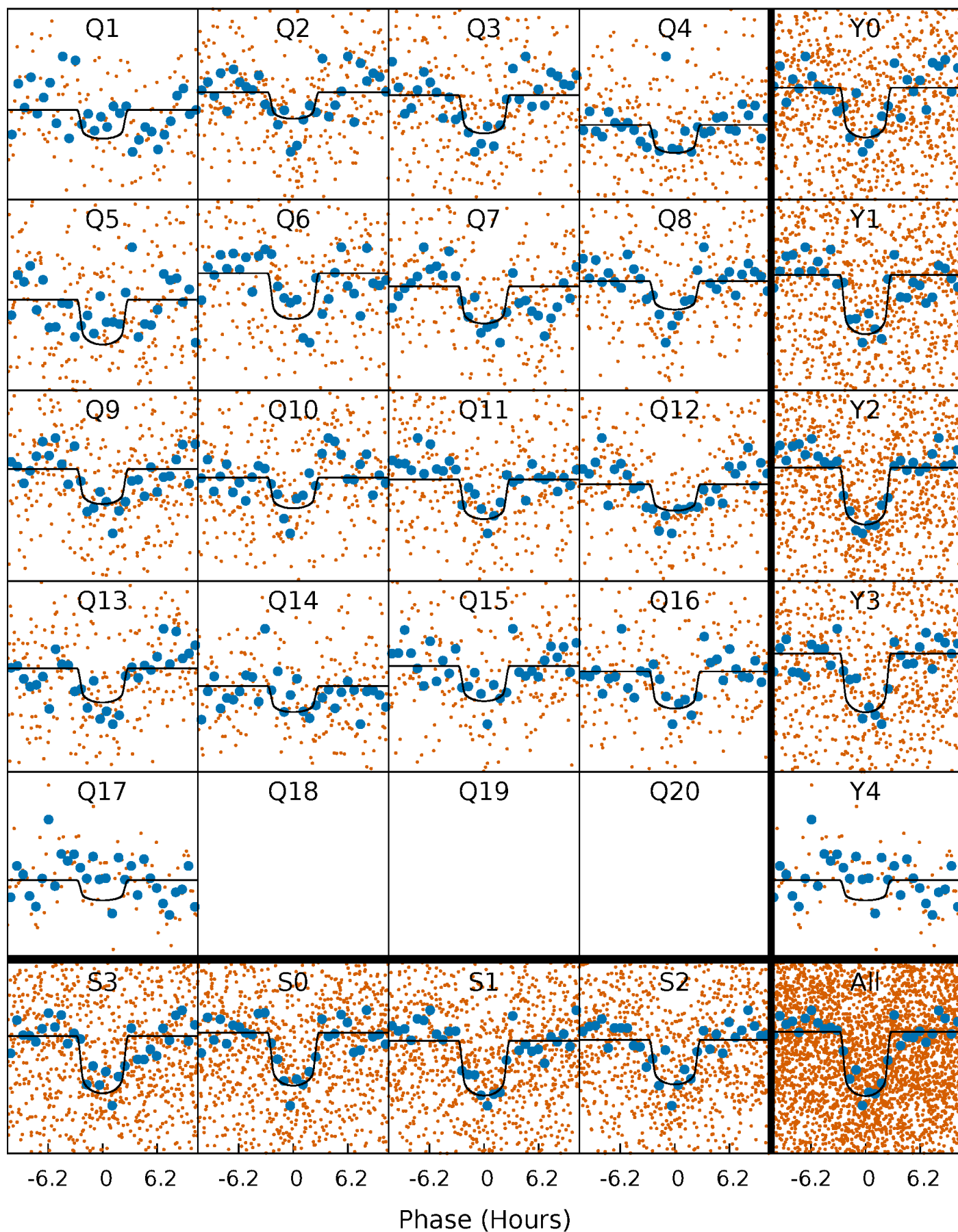
PDC Quarter-Phased Transit Curves

TCE 004636578-03 P= 11.189597 Days $T_0=140.630629$ (BKJD)



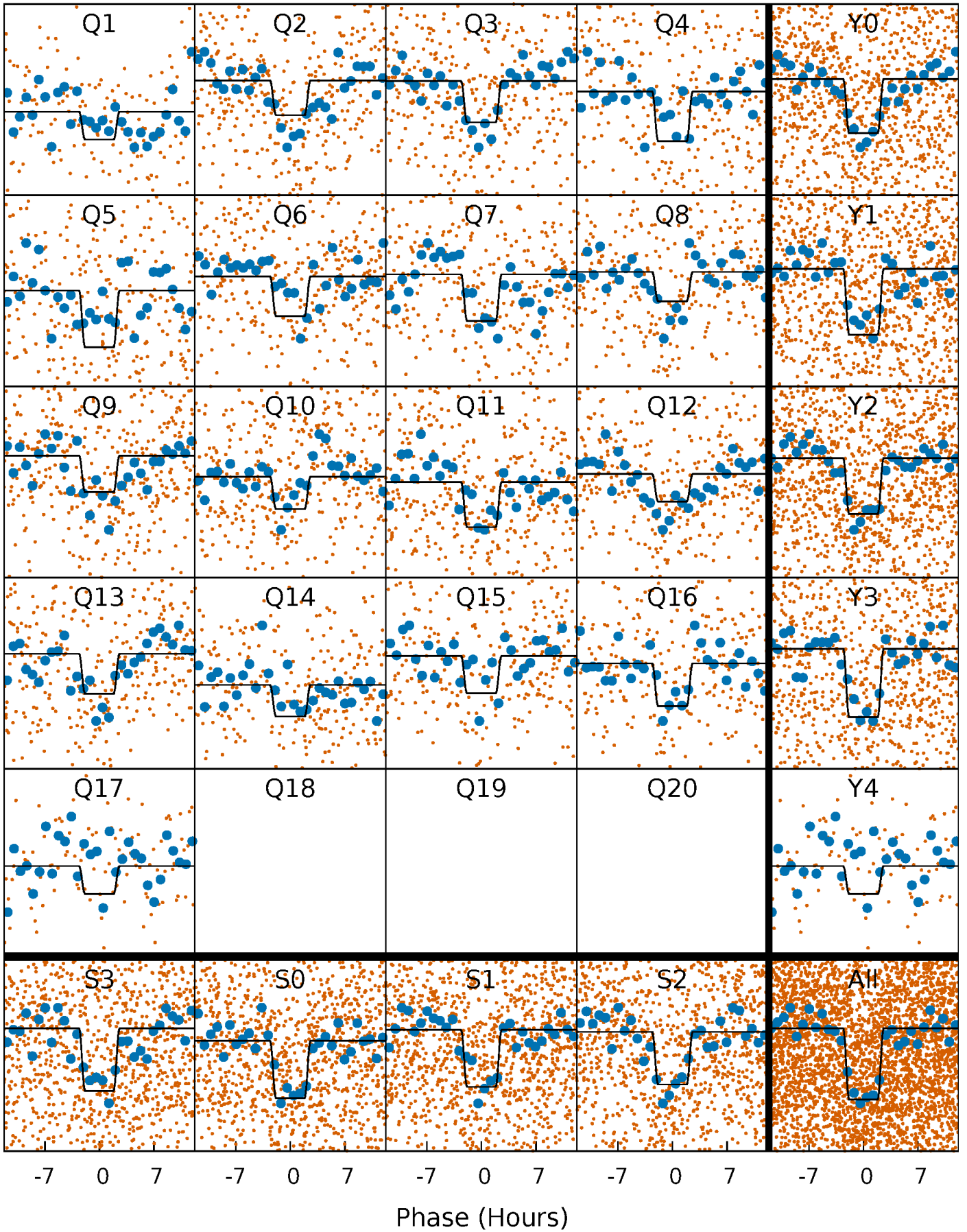
DV Quarter-Phased Transit Curves

TCE 004636578-03 P= 11.189597 Days $T_0=140.630629$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

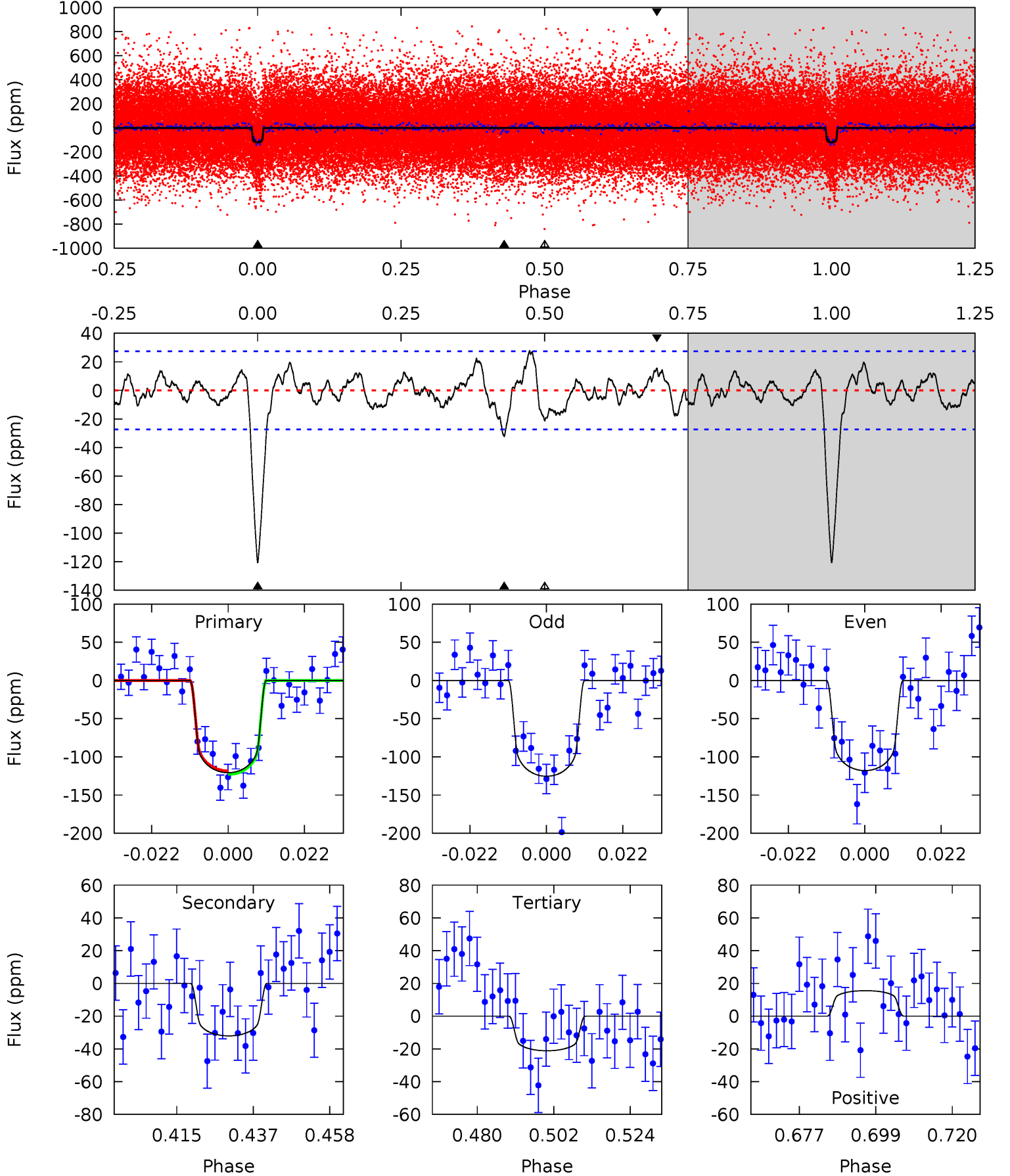
TCE 004636578-03 P= 11.189936 Days $T_0=140.613818$ (BKJD)



DV Model-Shift Uniqueness Test

004636578-03, P = 11.189597 Days, E = 129.441032 Days

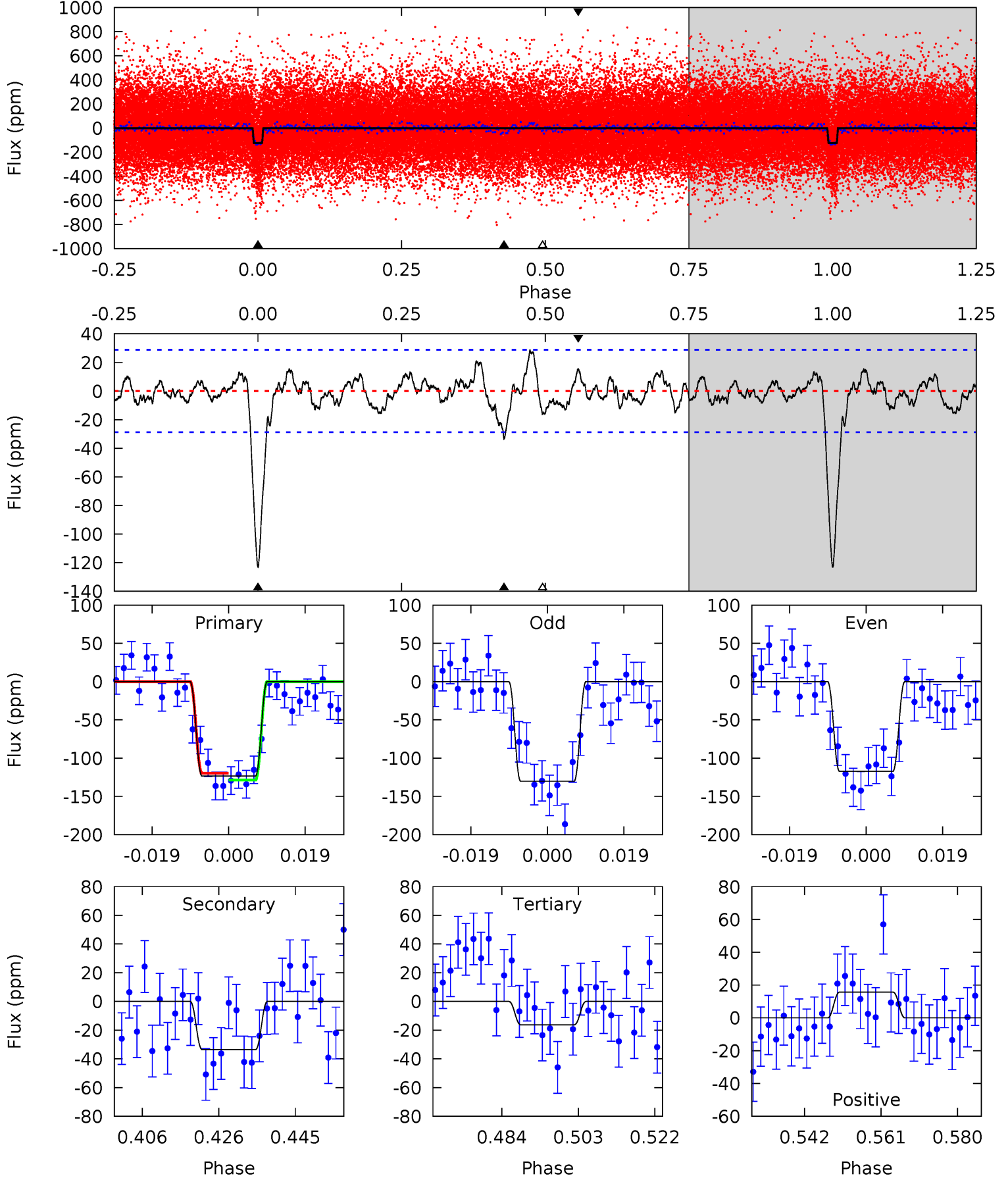
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
21.5	5.72	3.77	2.78	4.87	2.29	1.57	17.8	18.8	1.95	2.94	0.66	0.90	0.19	0.40



Alt Model-Shift Uniqueness Test

004636578-03, P = 11.189936 Days, E = 129.423882 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
20.9	5.68	2.76	2.66	4.90	2.34	1.37	18.2	18.3	2.92	3.02	1.11	0.91	0.19	0.77



Stellar Parameters For KIC 004636578

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6188^{+124}_{-124}	$4.152^{+0.168}_{-0.112}$	$-0.080^{+0.150}_{-0.150}$	$1.465^{+0.265}_{-0.265}$	$1.111^{+0.116}_{-0.093}$	$0.498^{+0.419}_{-0.165}$
	+2%/-2%	+4%/-3%	+188%/-188%	+18%/-18%	+10%/-8%	+84%/-33%
Source	SPE58	SPE58	SPE58	DSEP		

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

Secondary Eclipse Parameters for KIC 004636578-03 / KOI 2025.03

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-32 ± 6	$1.87^{+0.42}_{-0.36}$	1441^{+72}_{-78}	4450^{+389}_{-324}	51^{+30}_{-17}
Alt.	-33 ± 6	$1.80^{+0.41}_{-0.42}$	1446^{+72}_{-79}	4568^{+495}_{-343}	58^{+40}_{-21}

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 $A_{obs} \gg 1.0$

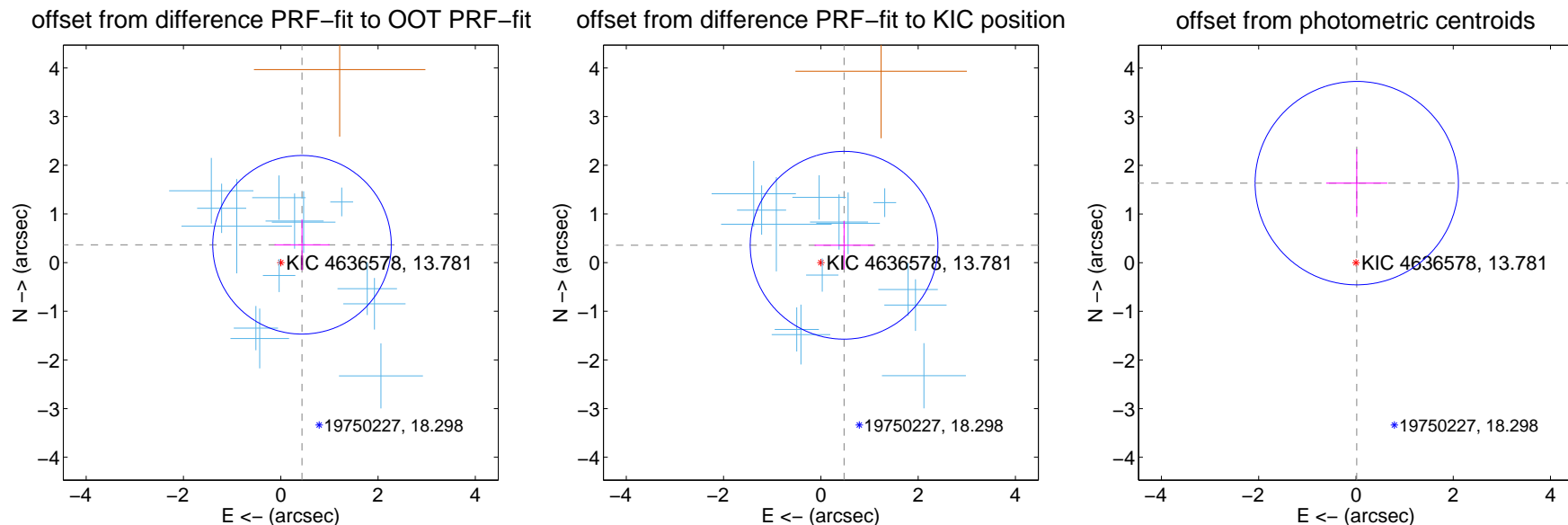
DV Centroid Data

Supplemental centroid analysis for 004636578-03. Kepler magnitude: 13.78. Transit SNR 12.76

There are 13 quarters with good PRF difference image offsets

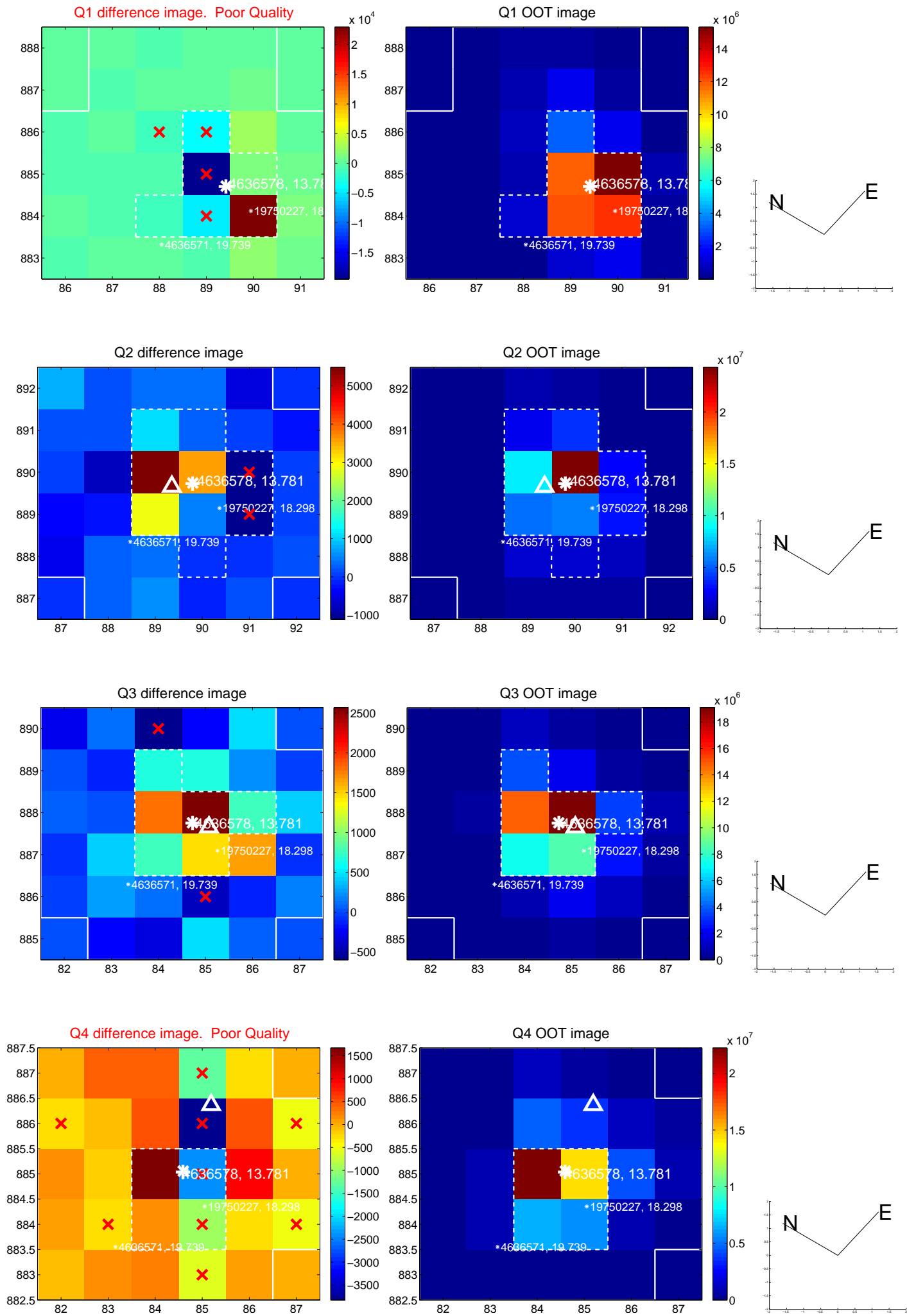
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.570 ± 0.612	0.93	-0.437 ± 0.566	0.366 ± 0.522
PRF-fit source offset from KIC position	0.595 ± 0.643	0.93	-0.477 ± 0.608	0.356 ± 0.495
photometric centroid source offset	1.63 ± 0.70	2.35	-0.02 ± 0.63	1.63 ± 0.70

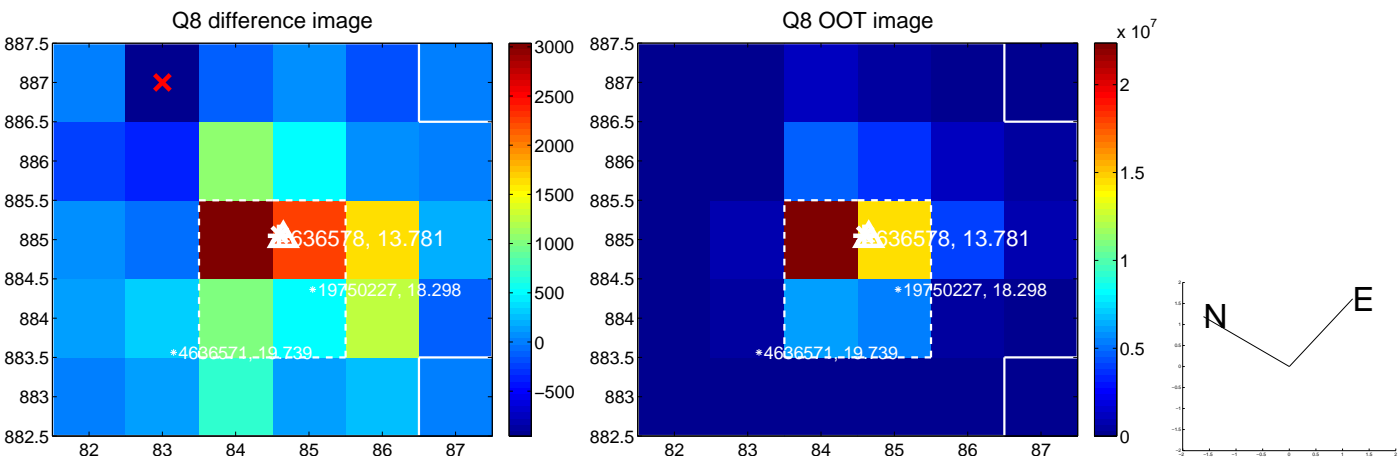
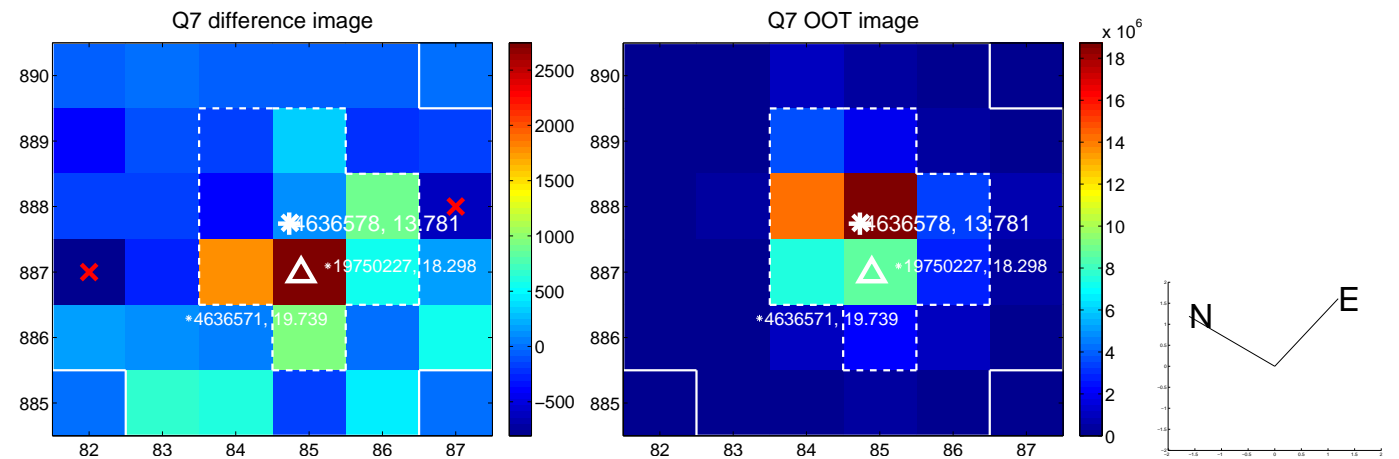
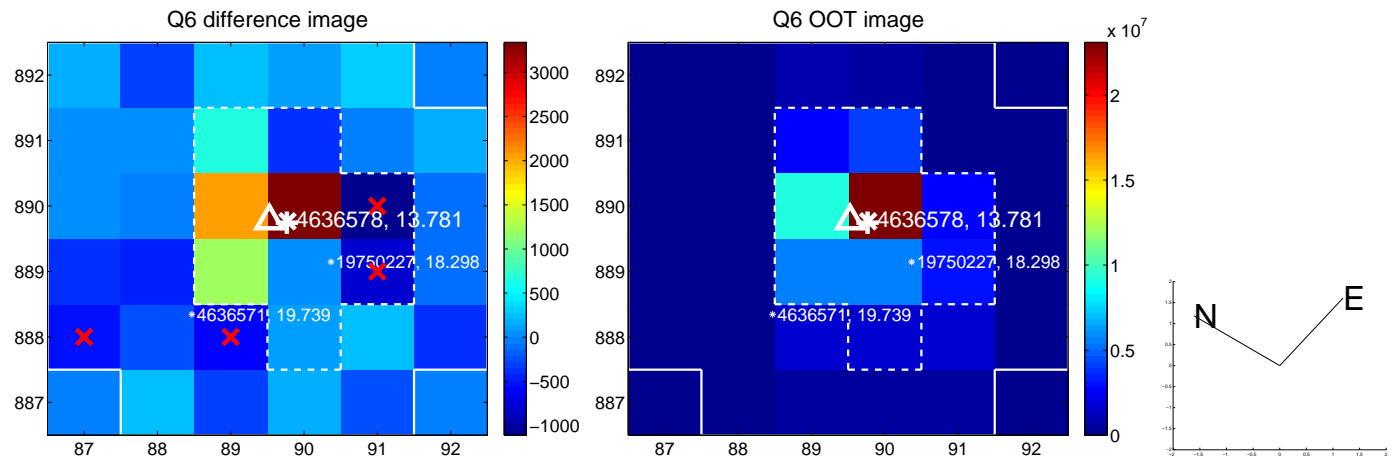
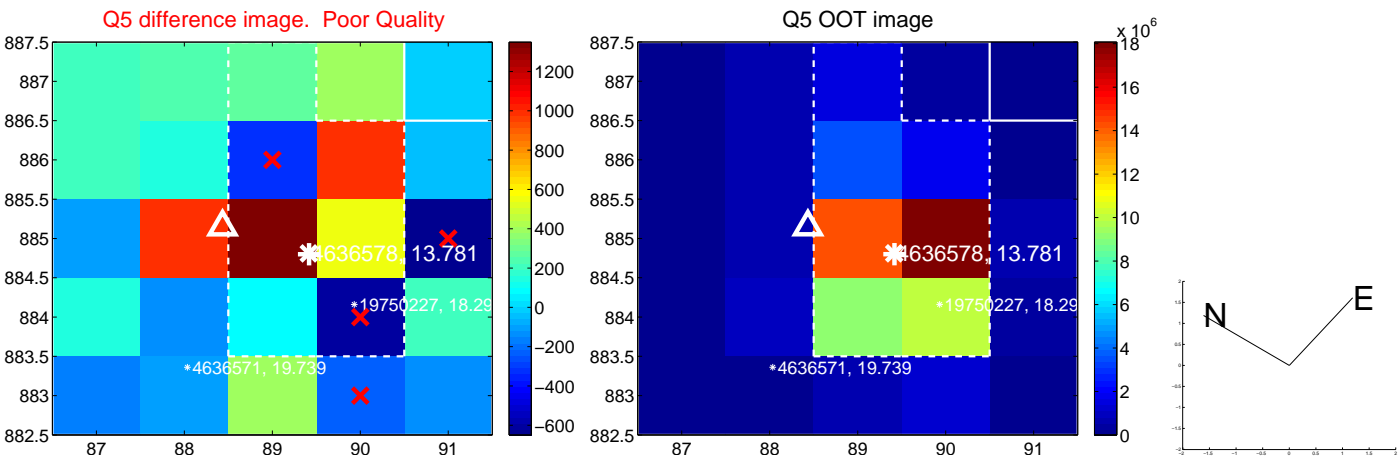


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

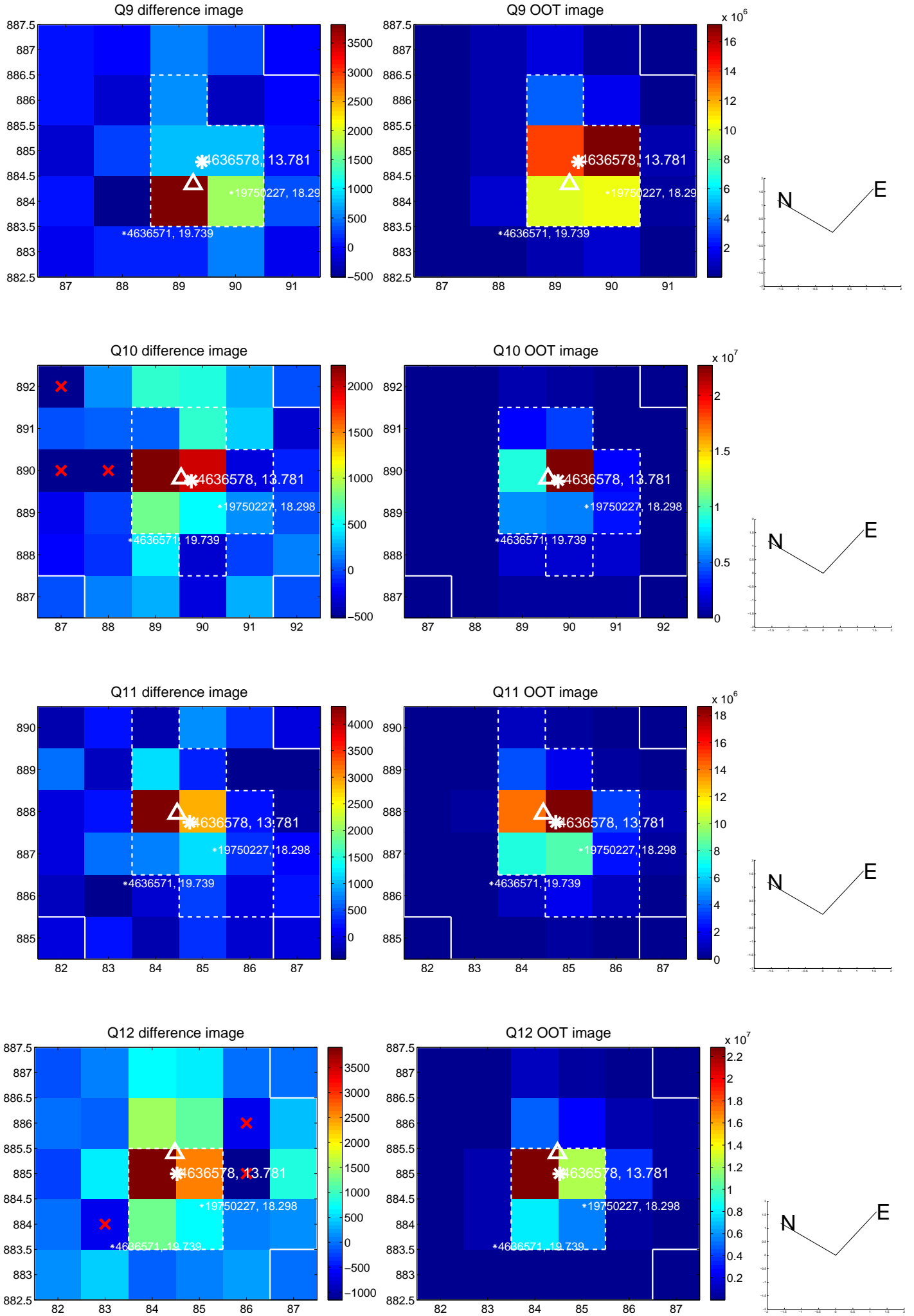
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



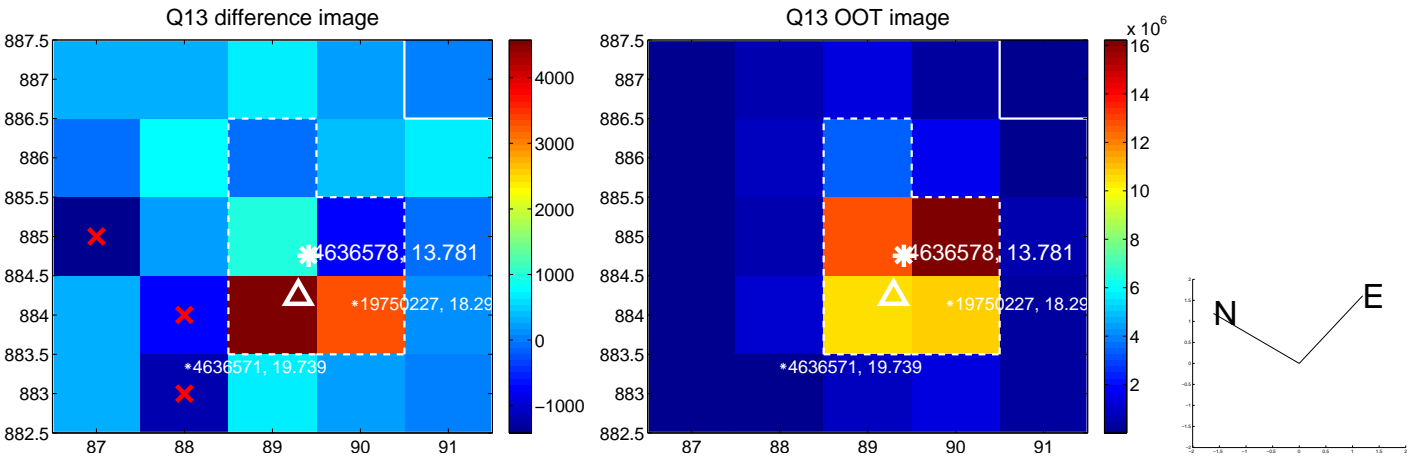
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



UKIRT Image

Declination

