

KIC 007289165

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})
007289165-01	OBS	3847.01	5.266398	131.703842	181.3	3.304	49.4	37.7	1.60	6338	2.92	966.33
007289165-02	OBS	No	406.295506	242.337418	381.2	8.020	10.8	11.0	1.60	6338	3.49	2.94
007289165-03	OBS	No	2.633430	131.564898	37.8	2.280	8.6	8.9	1.60	6338	1.15	2434.72

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007289165-01	OBS	FP	0.00	0	1	1	1	MOD_SEC_DV—MOD_SEC_ALT—HAS_SEC_TCE—CENT_RESOLVED_OFFSET—EPHEM_MATCH
007289165-02	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES_MARSHALL—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_RESOLVED_OFFSET—HALO_GHOST
007289165-03	OBS	FP	0.00	1	1	1	1	IS_SEC_TCE—CENT_RESOLVED_OFFSET—EPHEM_MATCH

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.

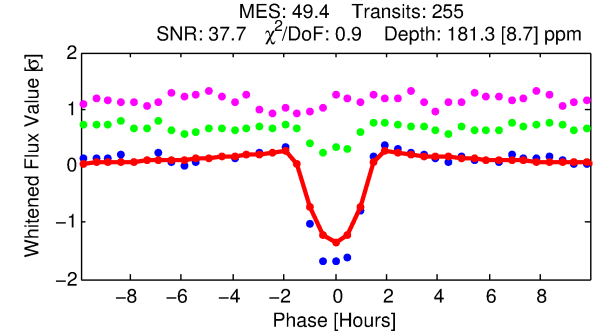
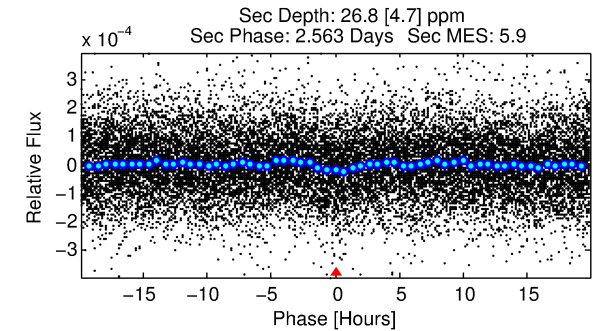
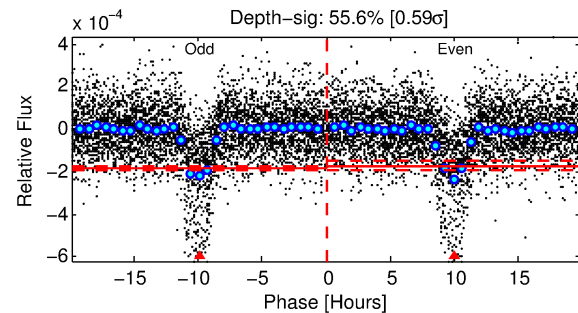
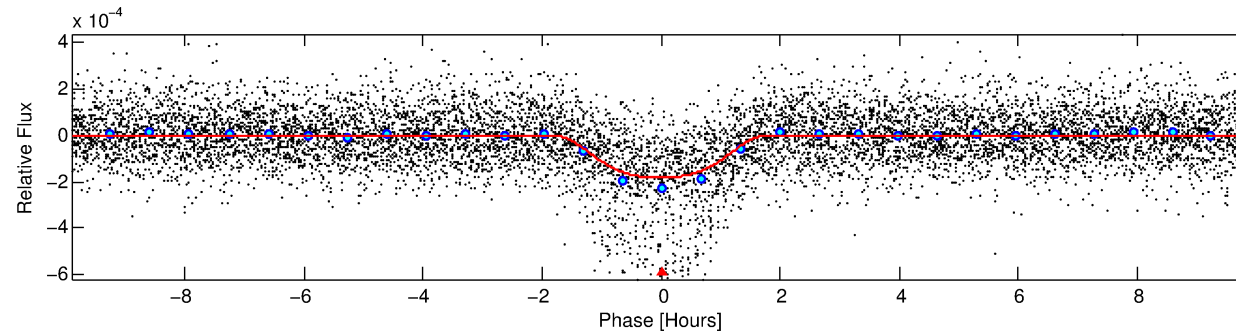
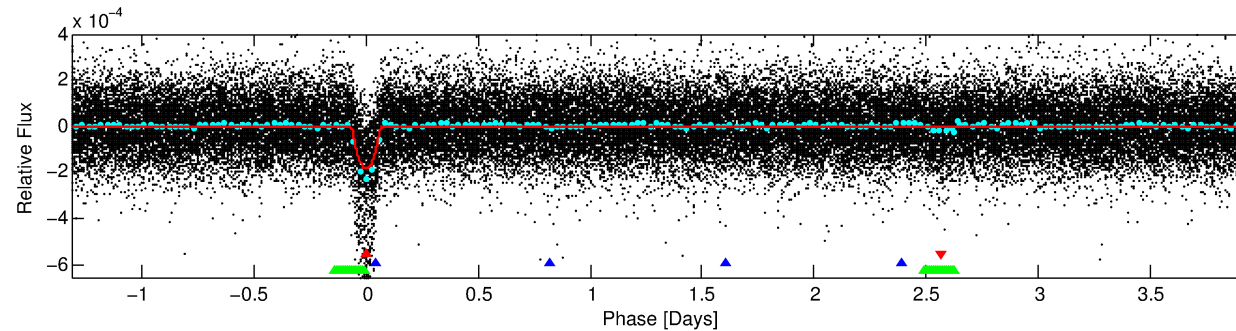
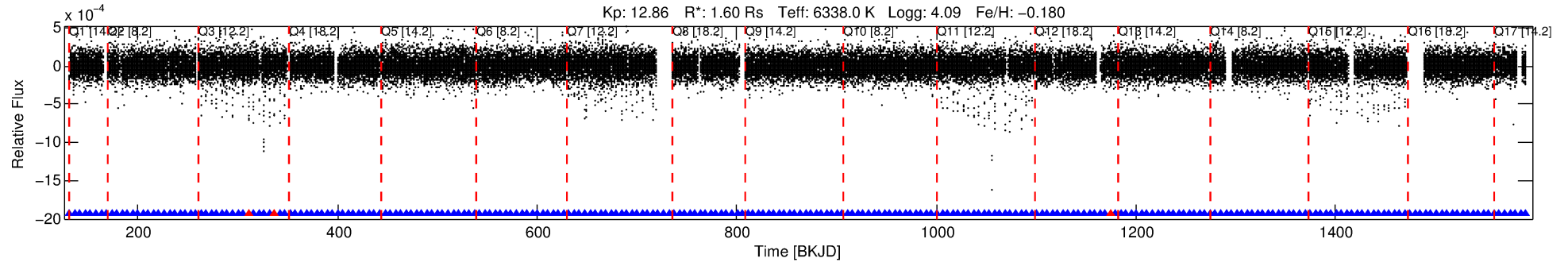
Ephemeris Match Information For 007289165-01

TCE (1)	KIC	Parent (2)	Parent KIC	$P_1:P_2$	Dist ($''$)	Δ Row	Δ Col	m_2	m_1	D_2/D_1	Mechanism	Flag	σ_P	σ_T
007289165-01	7289165	399.01	7289157	1:1	14.7	4	1	12.95	12.86	320.10	Direct-PRF	0	0.01	0.01

Notes: $P_1:P_2$ is the period ratio. Dist is the distance in arcseconds. Δ Row and Δ Col are the number of pixels apart in row and column. m_2 and m_1 are the magnitudes of the parent and child. D_2/D_1 is the parent's transit depth divided by the child's. σ_P and σ_T are the significance of the match in period and epoch. For a match to be considered significant $\sigma_P < 5.0$ and $\sigma_T < 5.0$. Matches which have σ_P and σ_T very close to this cutoff should receive extra scrutiny, especially if the period ratio is very large.

DV One-Page Summary

KIC: 7289165 Candidate: 1 of 3 Period: 5.266 d
KOI: K03847.01 Corr: 0.970



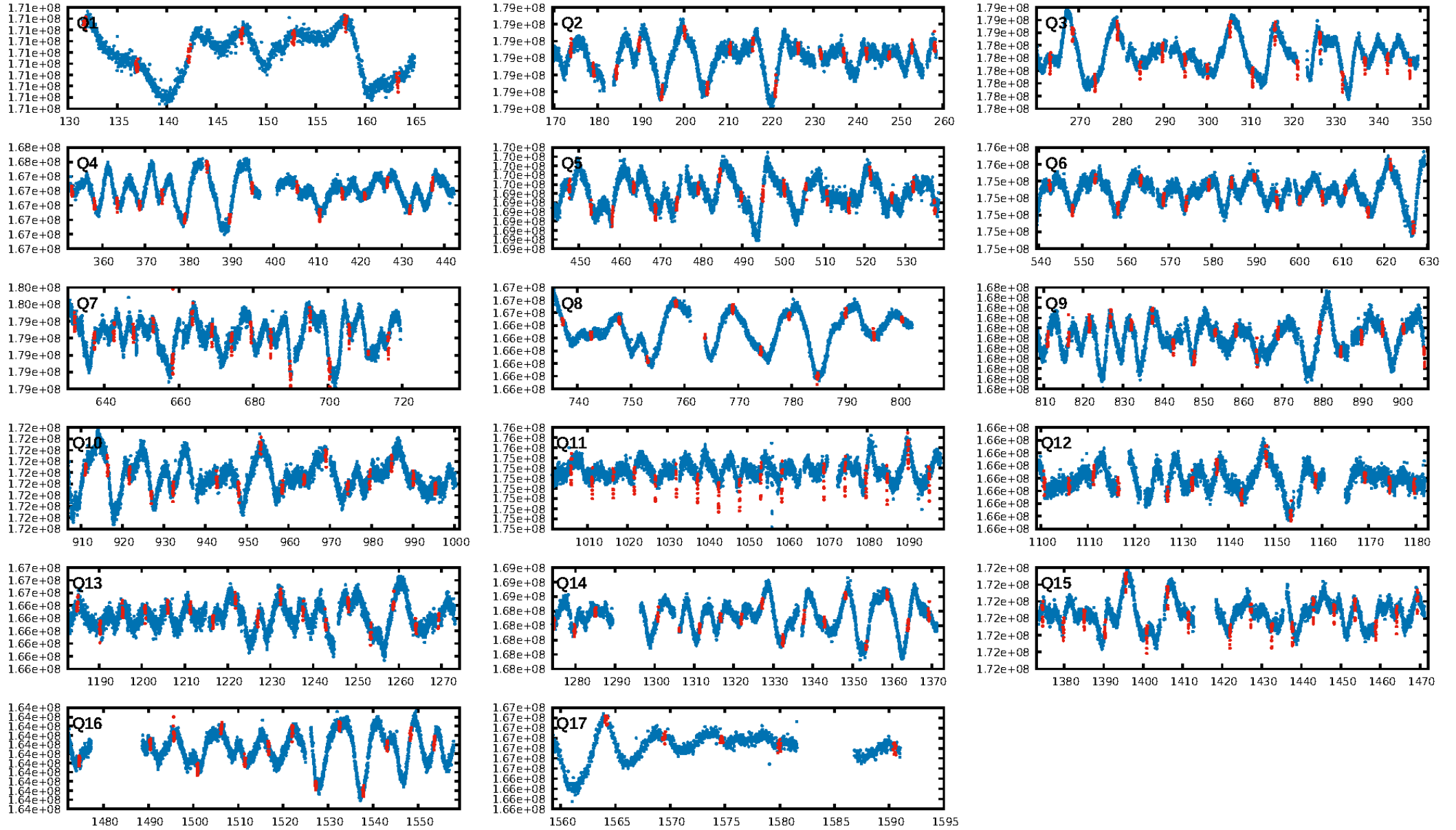
DV Fit Results:

Period = 5.26640 [0.00001] d
Epoch = 131.7038 [0.0017] BKJD
Rp/R* = 0.0167 [0.0006]
a/R* = 3.32 [0.17]
b = 0.98 [0.00]
Seff = 966.33 [390.94]
Teq = 1422 [144] K
Rp = 2.92 [0.75] Re
a = 0.0620 [0.0151] AU
Ag = 6.63 [2.87] [1.97σ]
Teffp = 3527 [192] K [8.79σ]

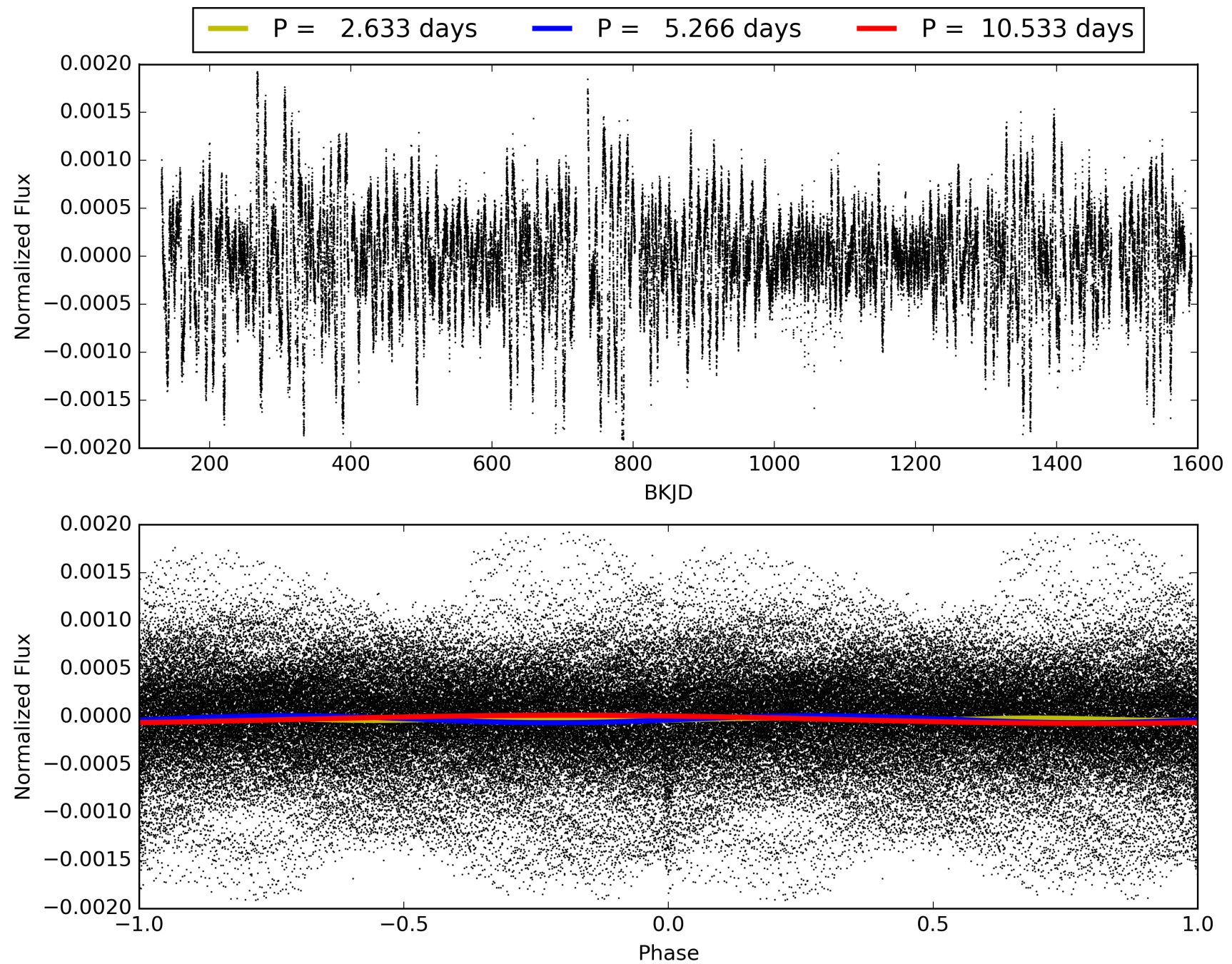
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [15.74σ]
LongPeriod-sig: 100.0% [1109.59σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 0.99 [240/243]
GhostDiagnostic-chr: -0.2766
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: N/A
KicOffset-rm: N/A
OotOffset-st: 0/0/0 [0]
KicOffset-st: 0/0/0 [0]
DiffImageQuality-fgm: N/A
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TCE 007289165-01, PDC Light Curves

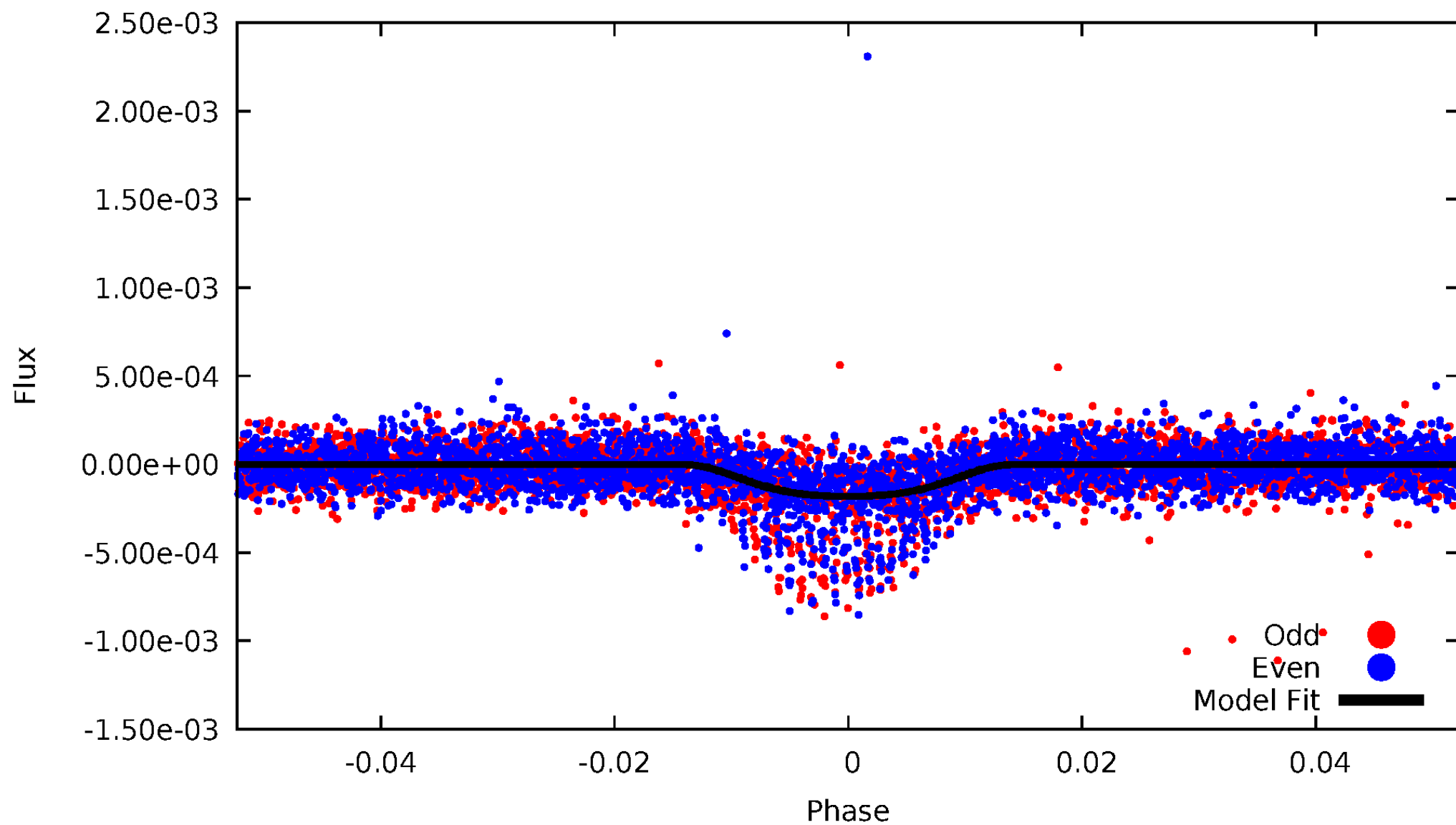


TCE 007289165-01



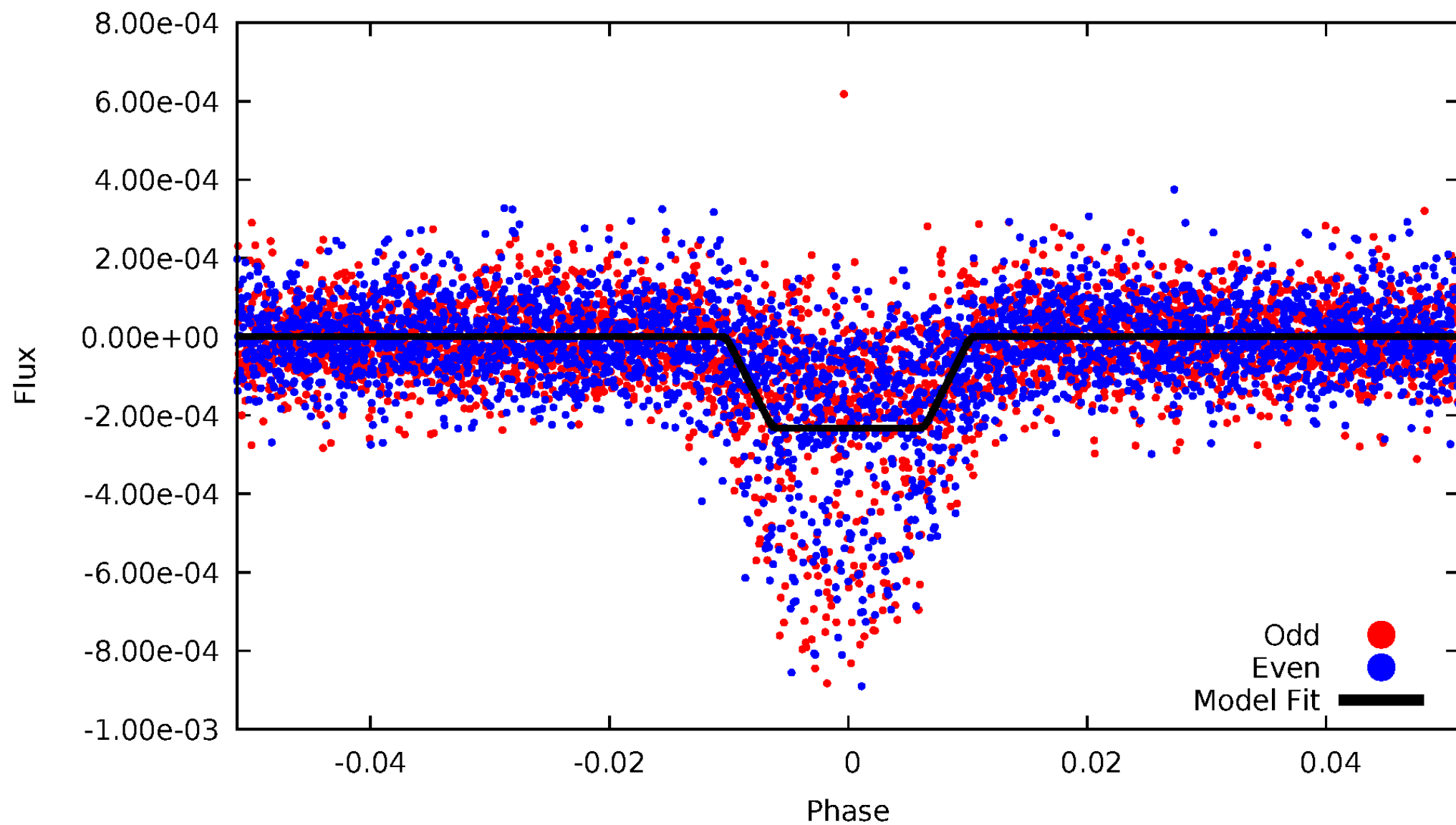
DV Odd/Even

TCE 007289165-01



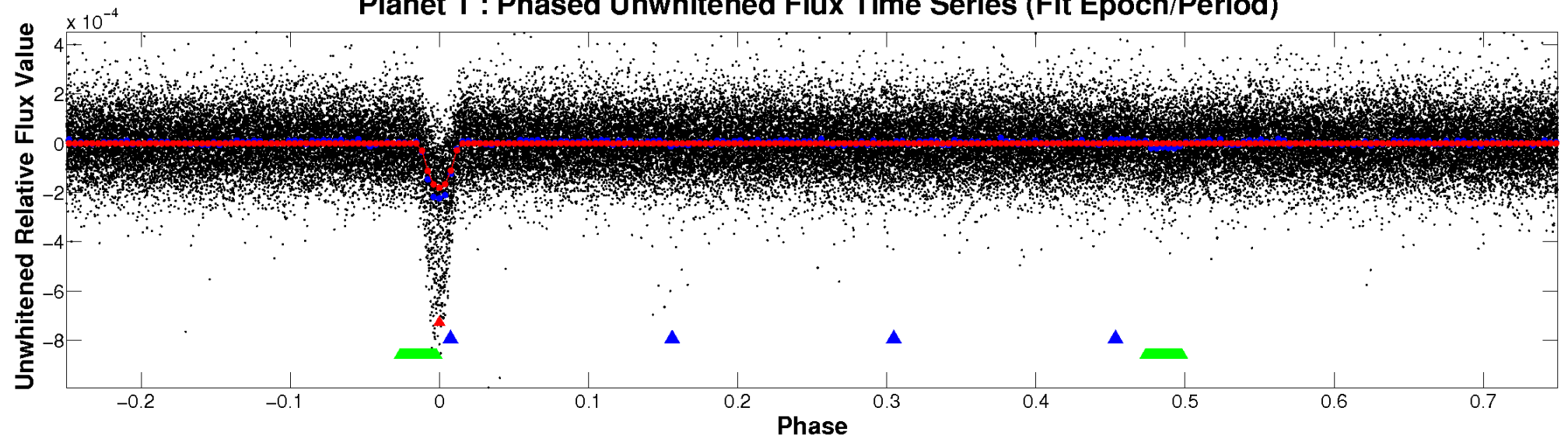
ALT Odd/Even

TCE 007289165-01

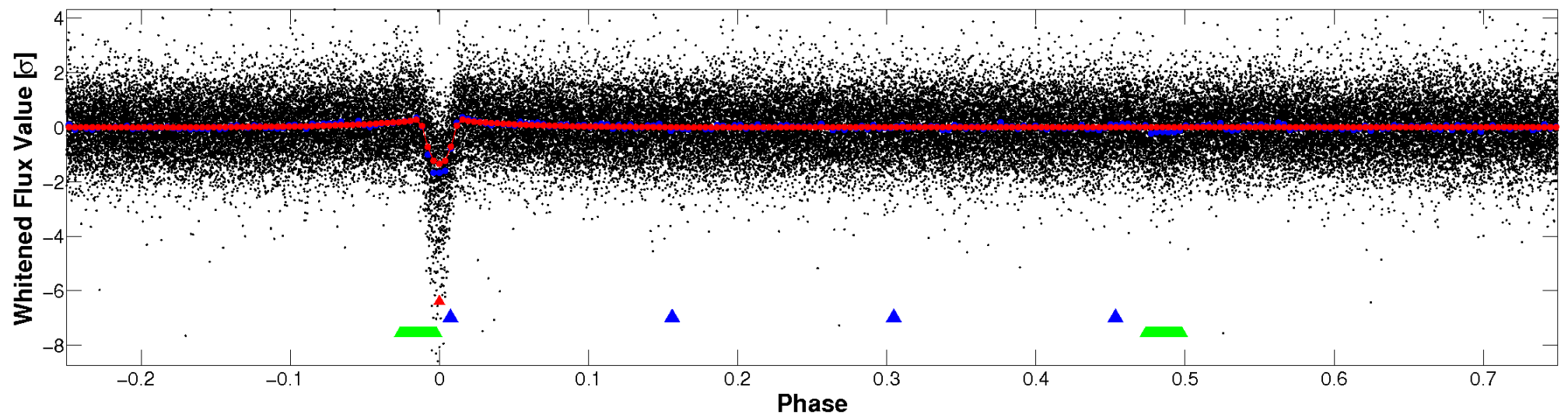


Non-Whitened Vs. Whitened Light Curve

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

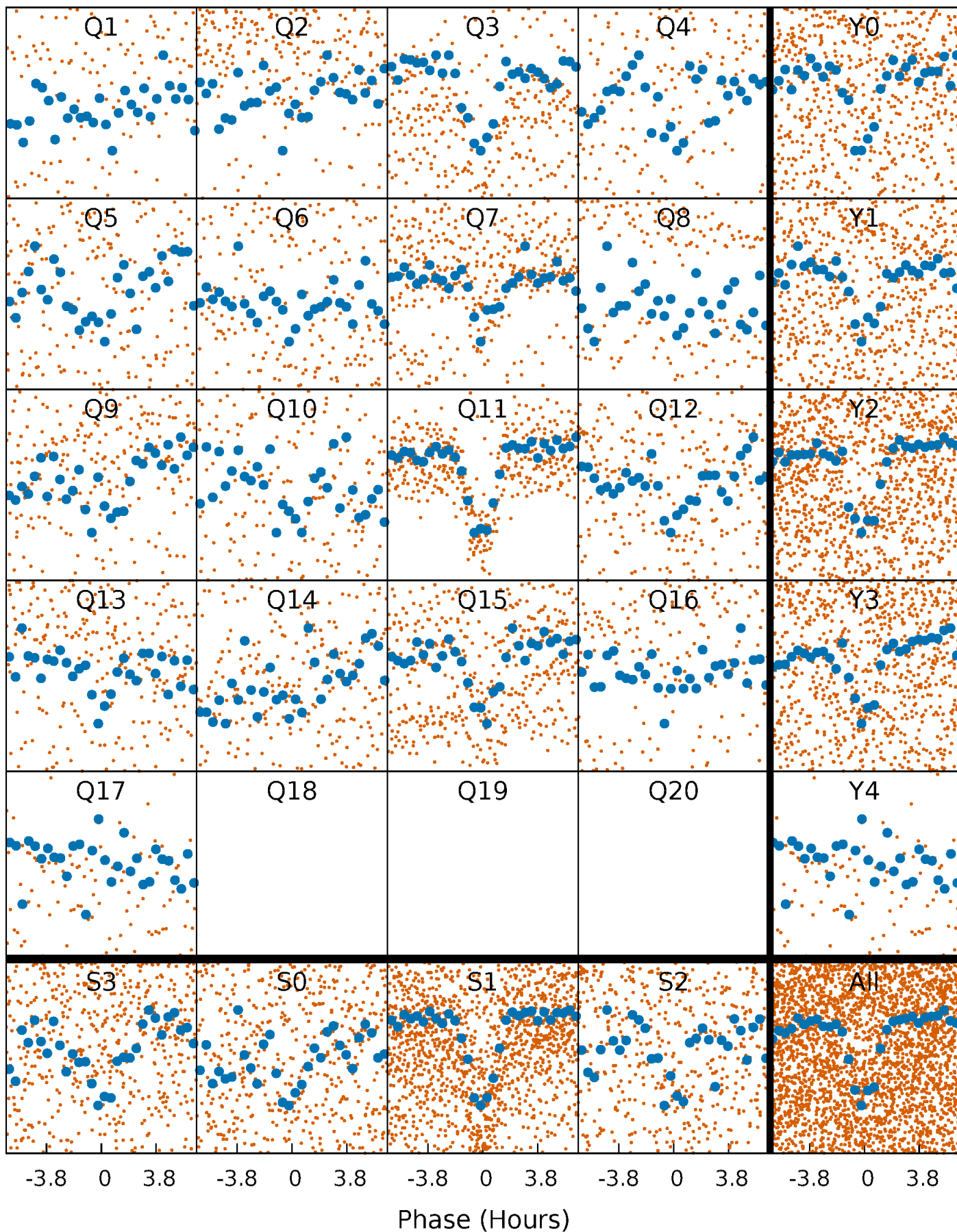


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



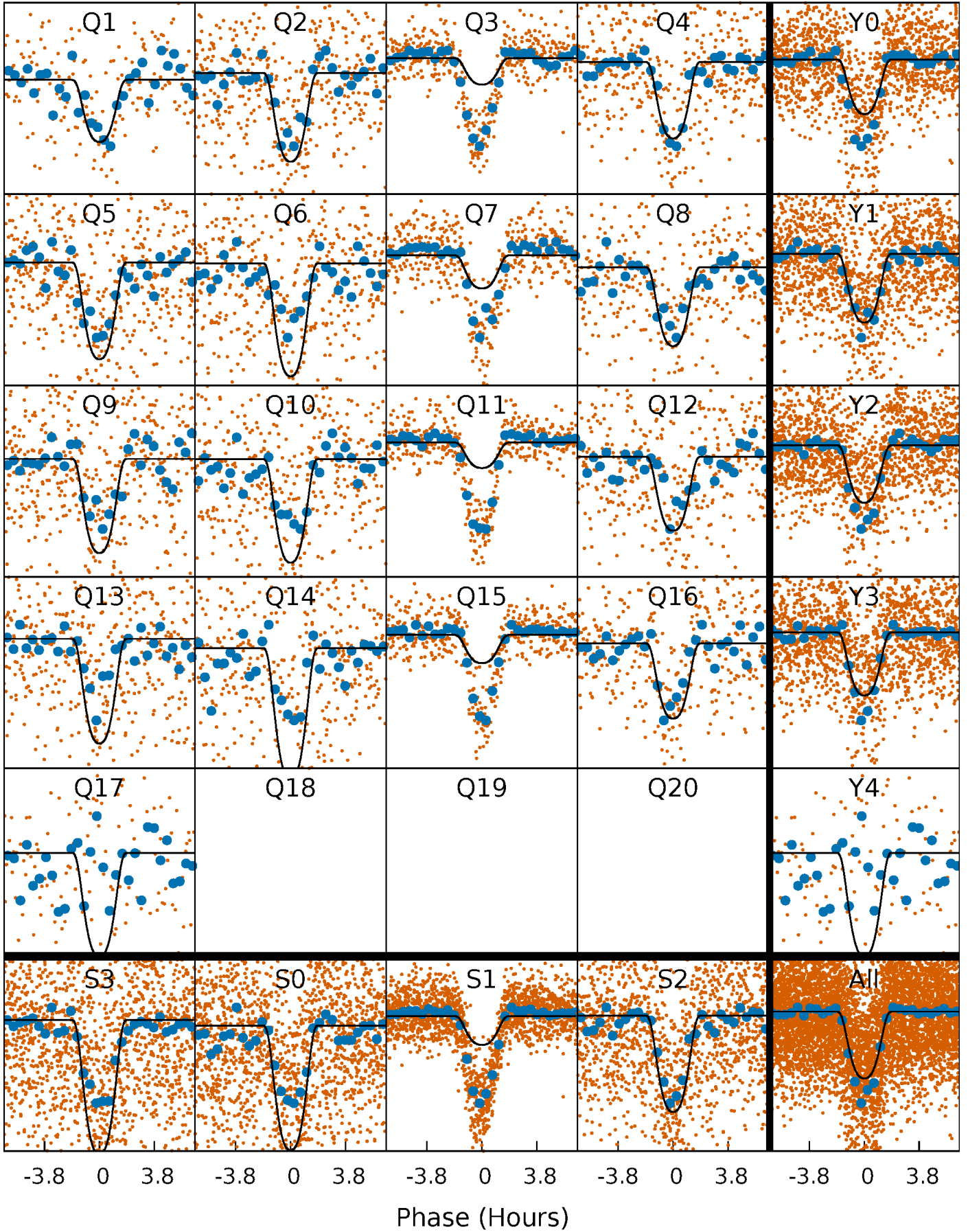
PDC Quarter-Phased Transit Curves

TCE 007289165-01 P= 5.266398 Days $T_0=131.703842$ (BKJD)



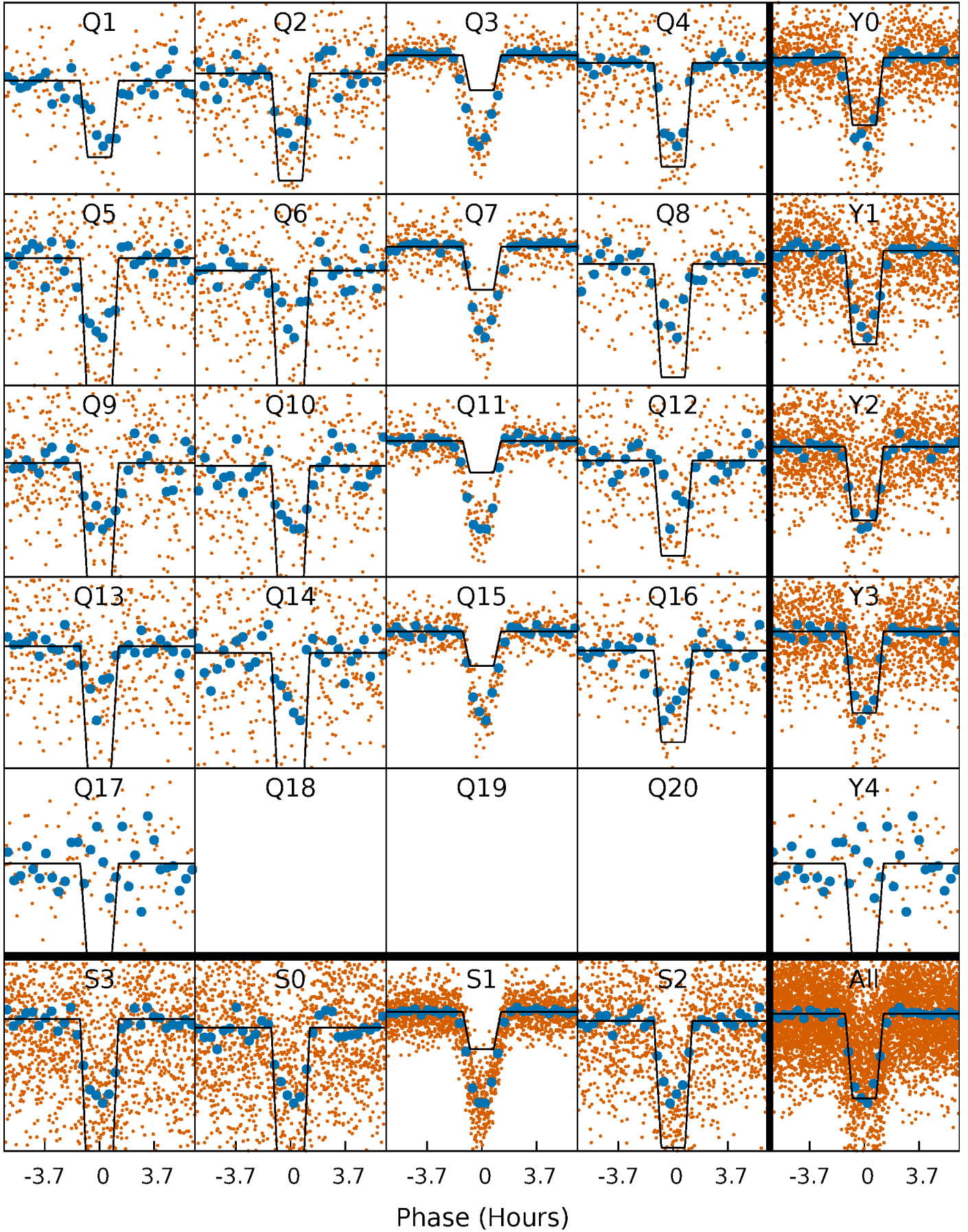
DV Quarter-Phased Transit Curves

TCE 007289165-01 P= 5.266398 Days $T_0=131.703842$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

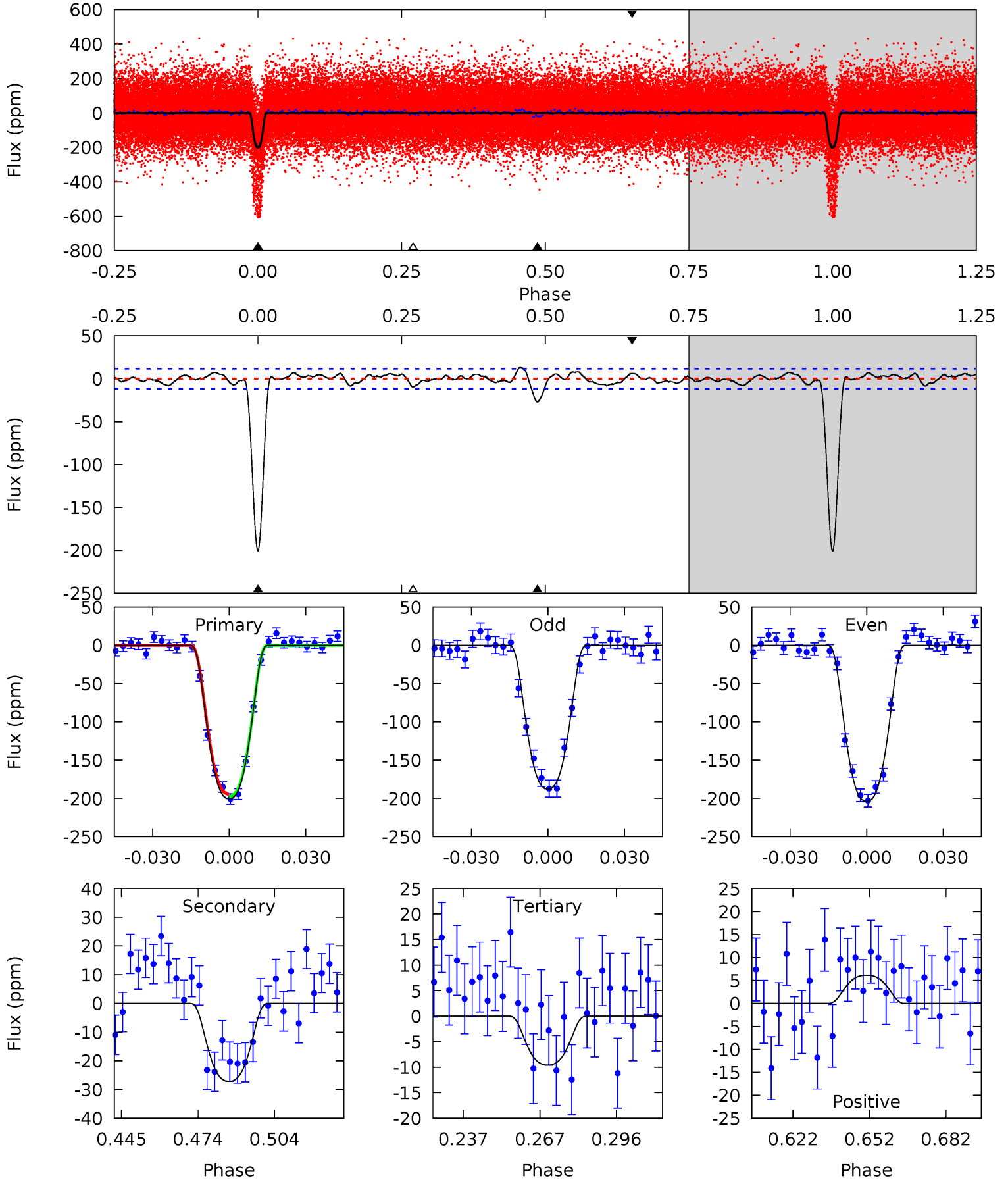
TCE 007289165-01 P= 5.266409 Days $T_0=131.700559$ (BKJD)



DV Model-Shift Uniqueness Test

007289165-01, P = 5.266398 Days, E = 126.437444 Days

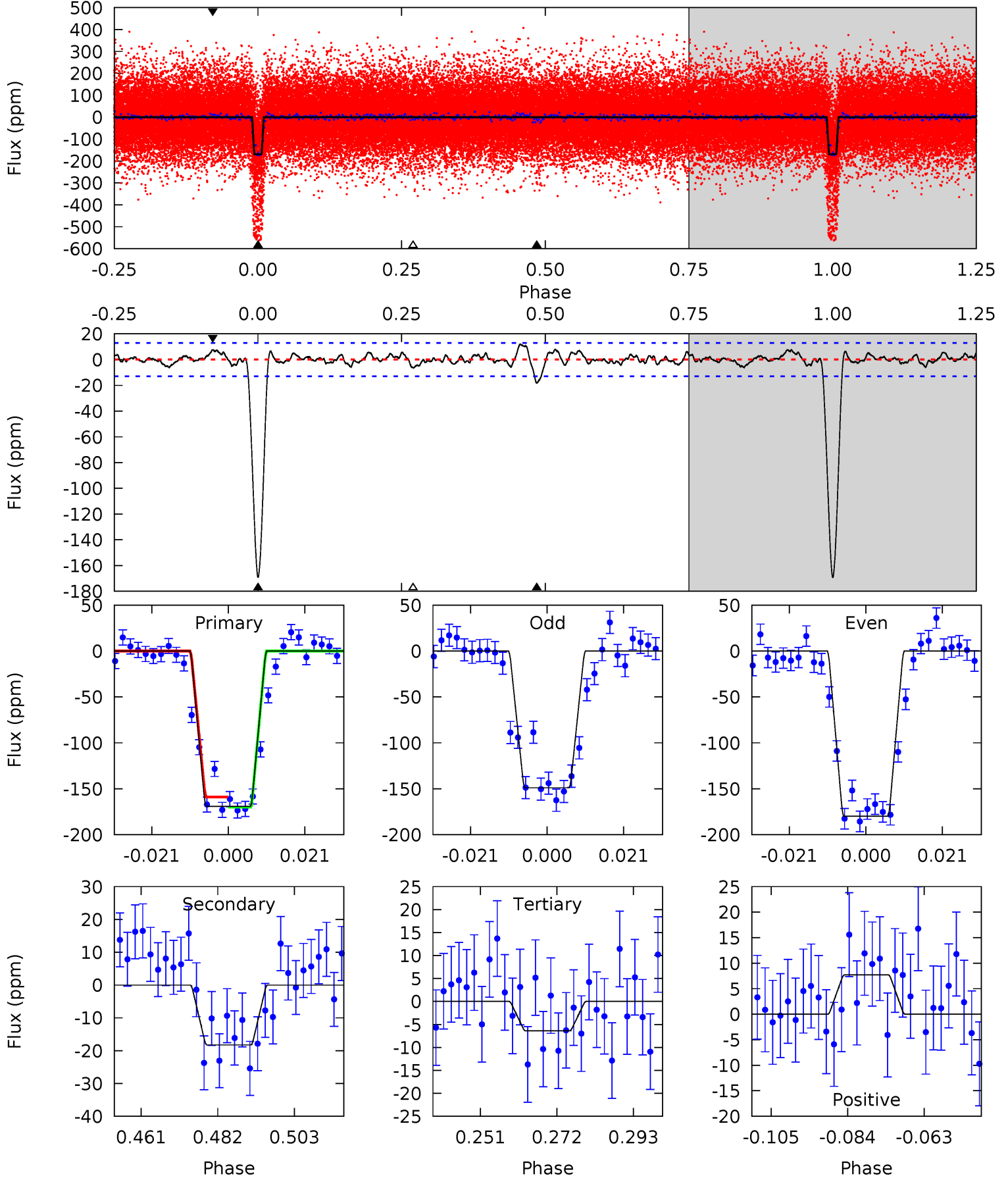
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
83.3	11.3	3.97	2.55	4.81	2.17	1.68	79.3	80.7	7.30	8.72	3.33	1.54	0.06	0.68



Alt Model-Shift Uniqueness Test

007289165-01, P = 5.266409 Days, E = 126.434150 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
63.7	6.88	2.42	2.90	4.88	2.31	1.15	61.3	60.8	4.47	3.98	5.79	1.47	0.07	2.09



Stellar Parameters For KIC 007289165

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6338^{+155}_{-174}	$4.087^{+0.228}_{-0.123}$	$-0.180^{+0.250}_{-0.300}$	$1.602^{+0.335}_{-0.410}$	$1.142^{+0.195}_{-0.146}$	$0.391^{+0.504}_{-0.139}$
	+2%/-3%	+6%/-3%	+139%/-167%	+21%/-26%	+17%/-13%	+129%/-36%
Source	PHO1	FLK73	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 007289165-01 / KOI 3847.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-27 ± 2	$2.87^{+0.39}_{-0.43}$	1958^{+125}_{-141}	3858^{+113}_{-106}	$6.960^{+2.661}_{-1.435}$
Alt.	-18 ± 3	$2.67^{+0.38}_{-0.43}$	1977^{+121}_{-154}	3702^{+126}_{-117}	$5.542^{+2.188}_{-1.453}$

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 007289165-01. Kepler magnitude: 12.86. Transit SNR 37.74

There are 0 quarters with good PRF difference image offsets

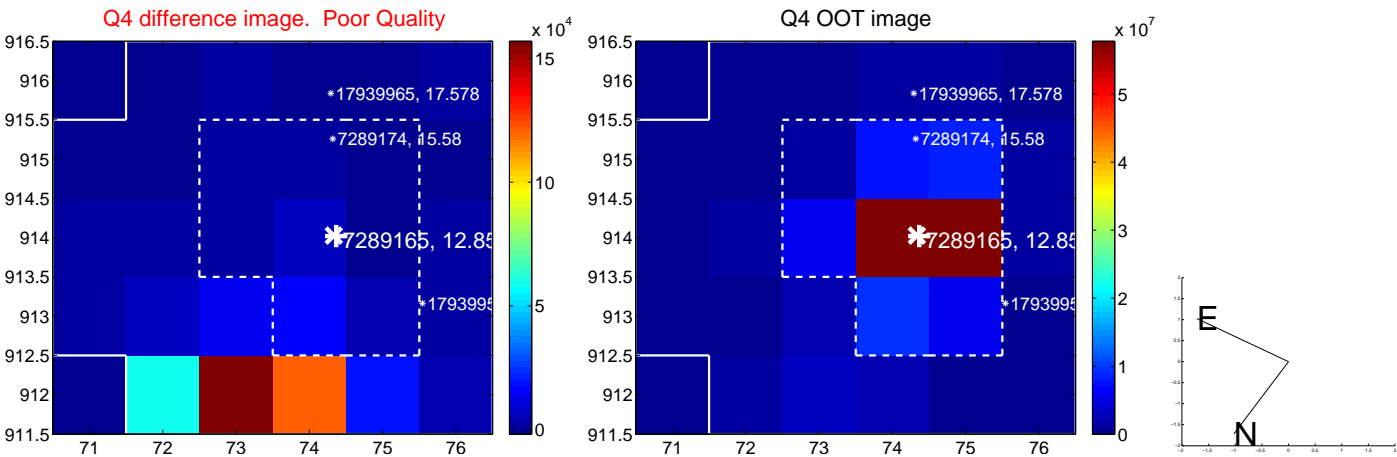
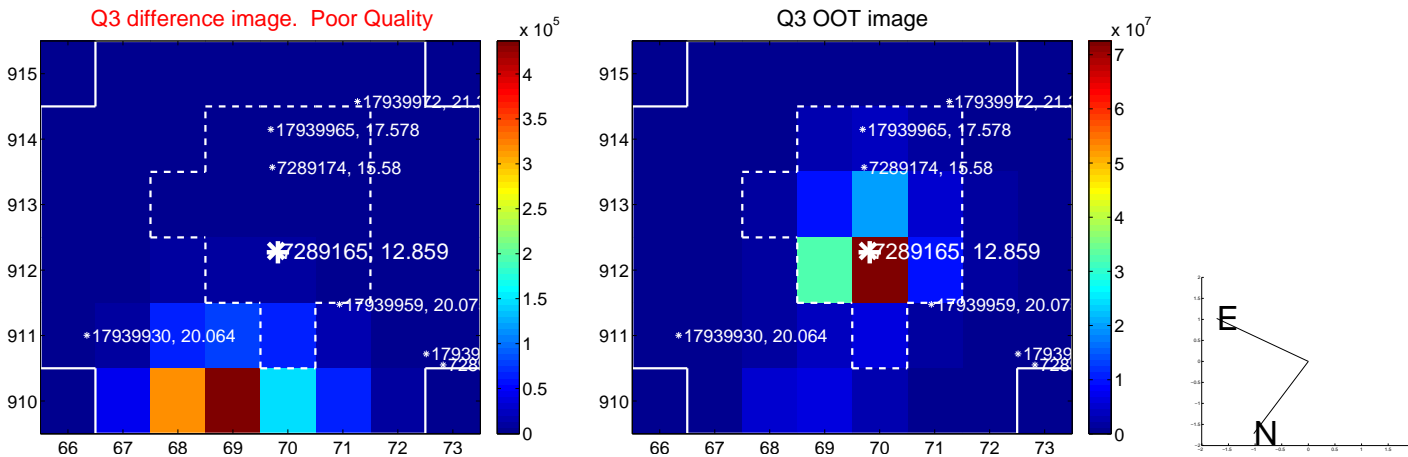
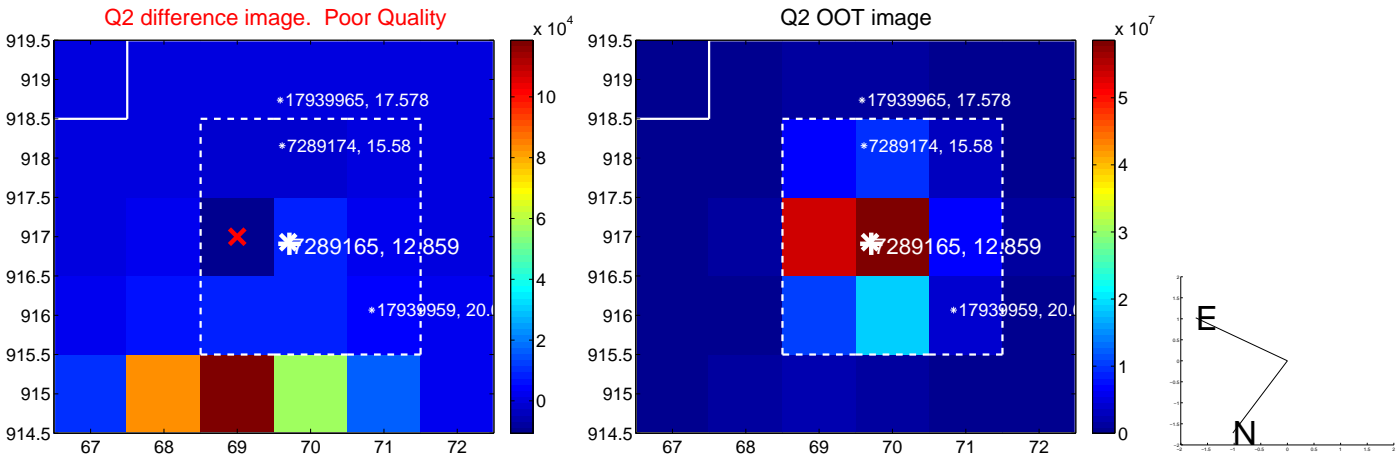
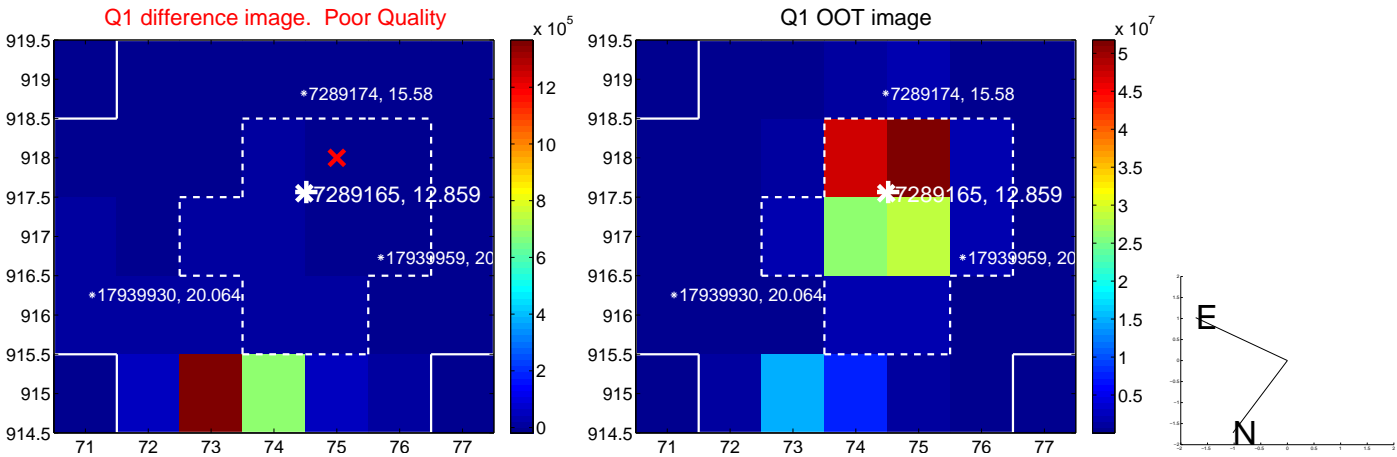
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	—	—	—	—
PRF-fit source offset from KIC position	—	—	—	—
photometric centroid source offset	—	—	—	—

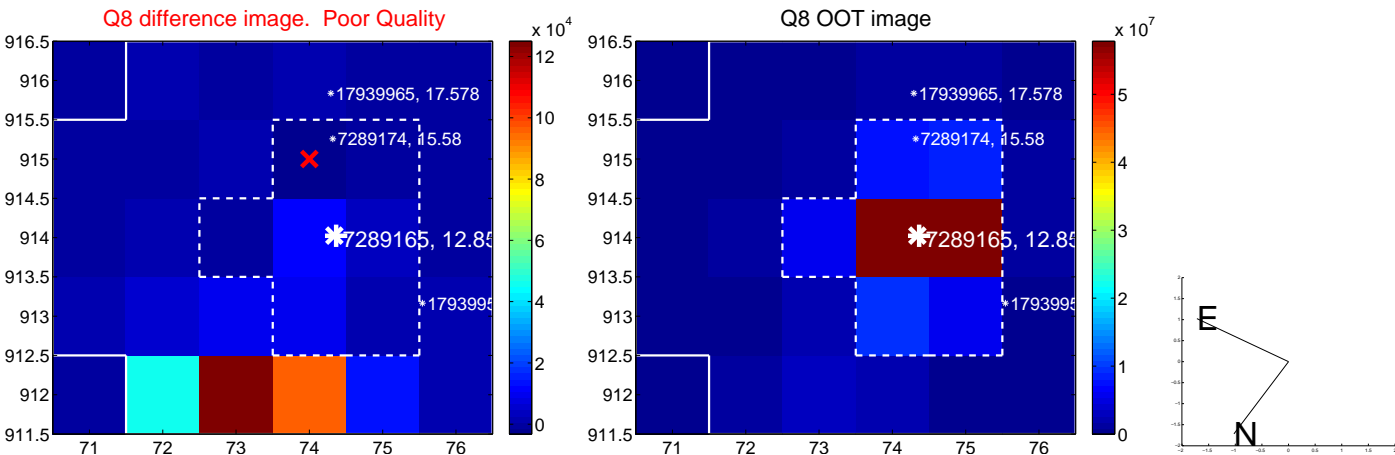
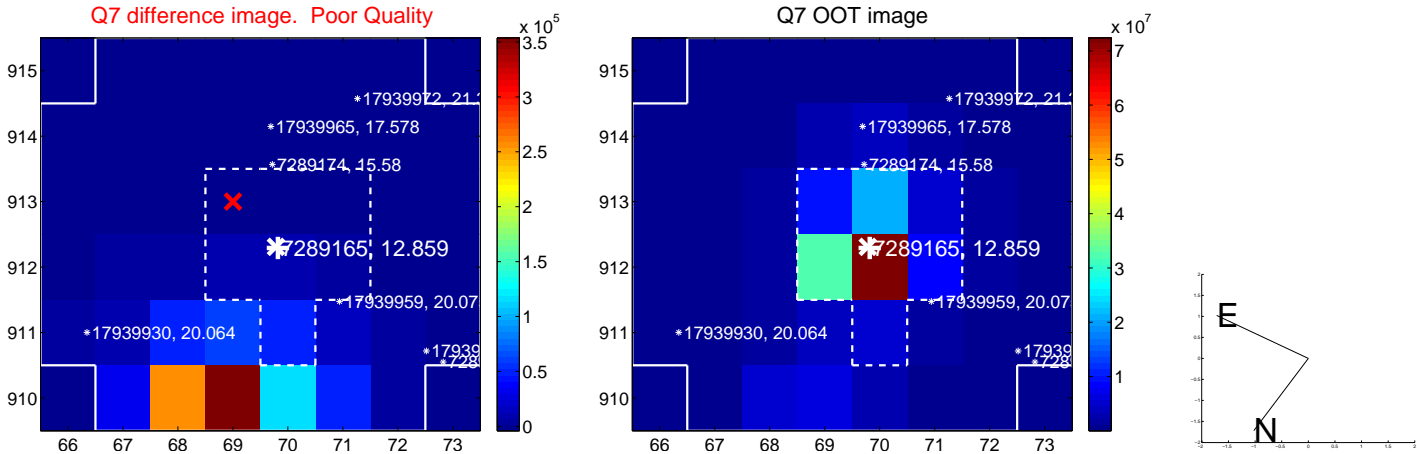
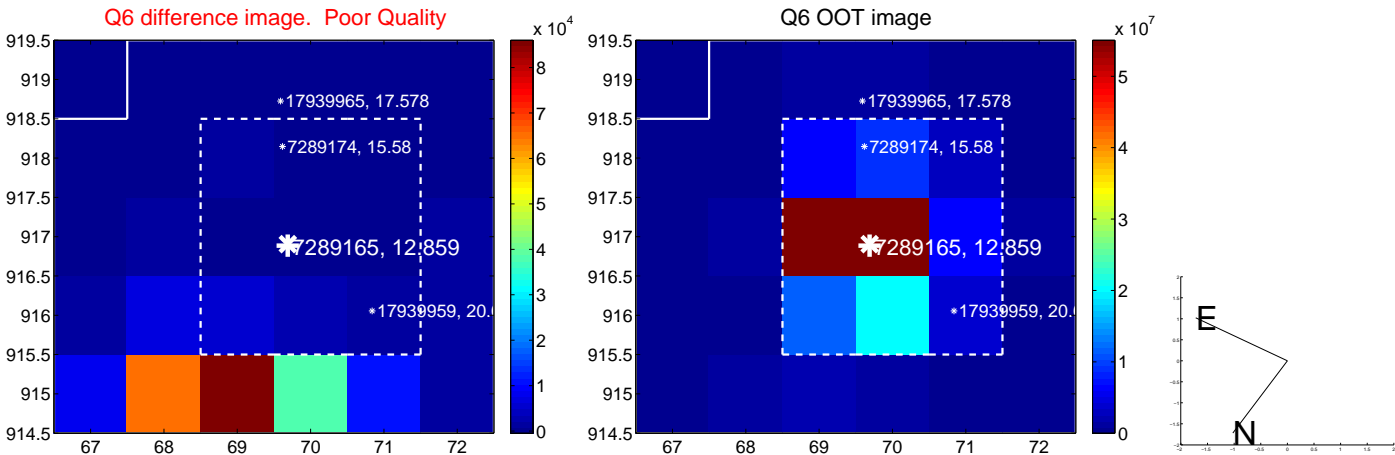
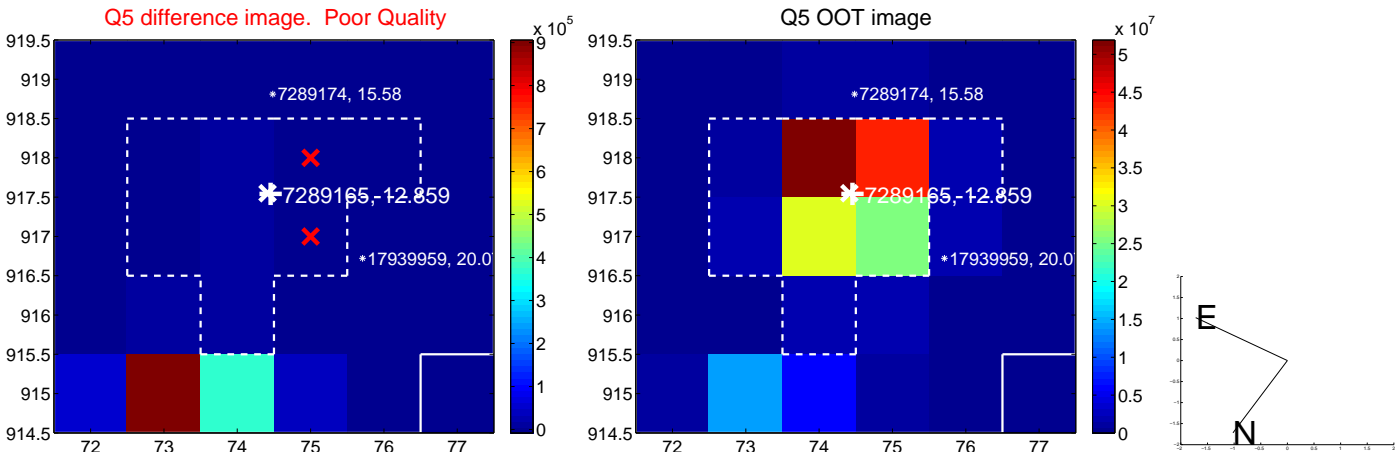


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

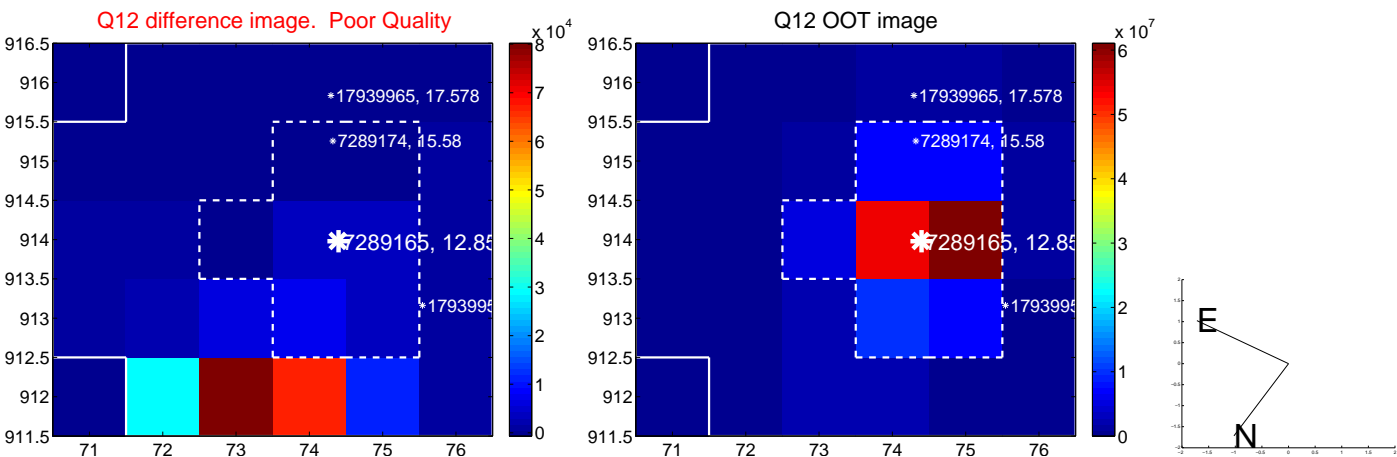
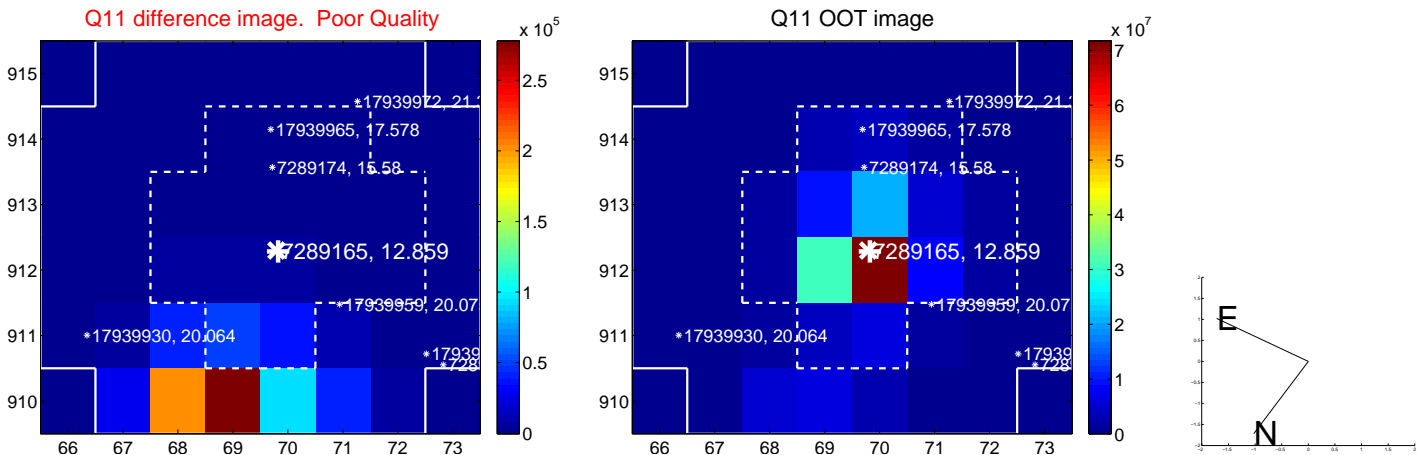
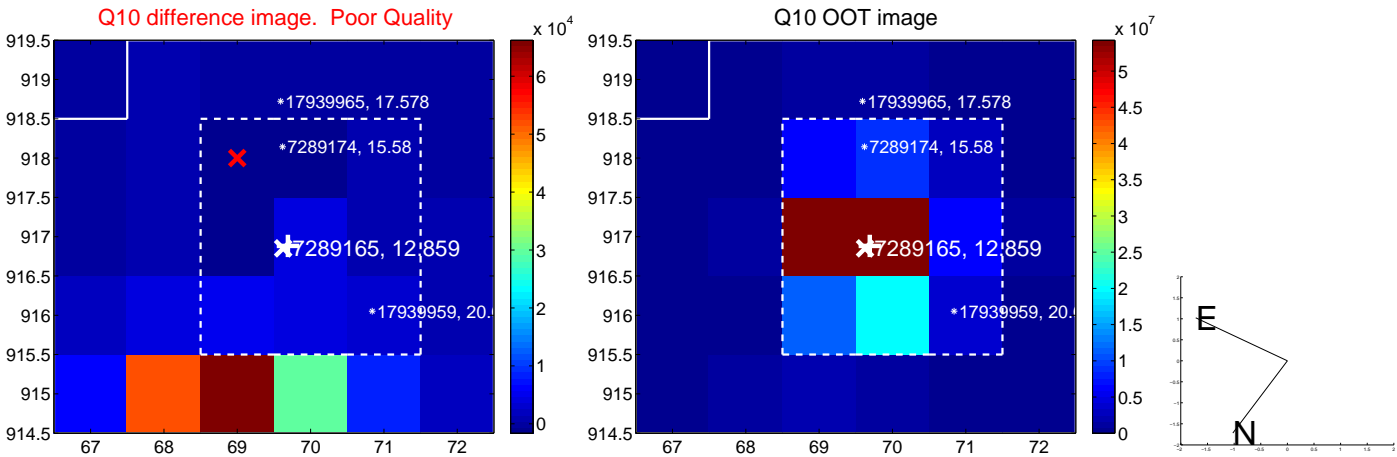
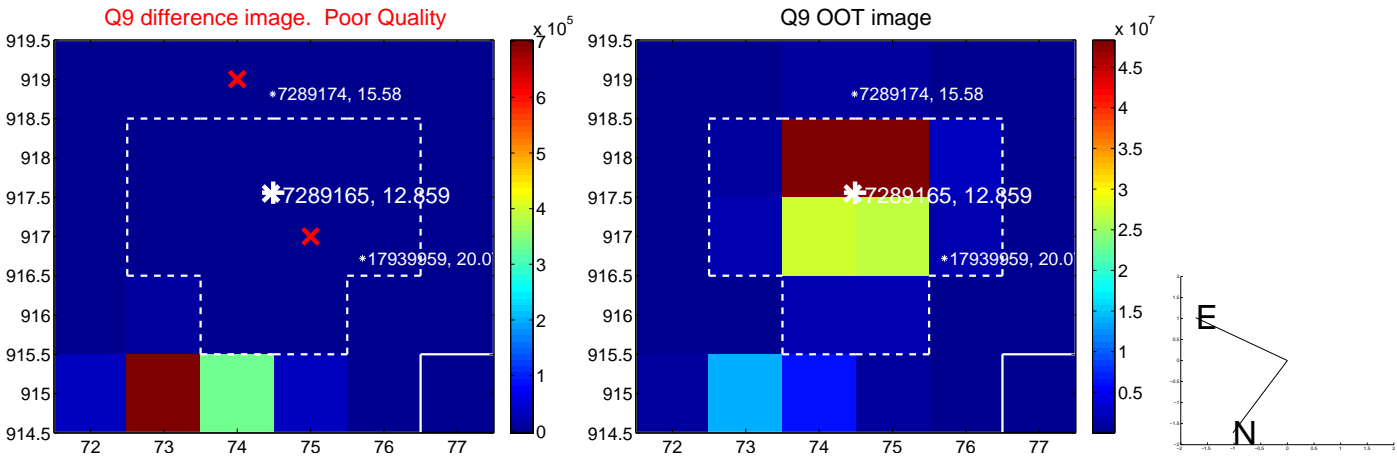
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



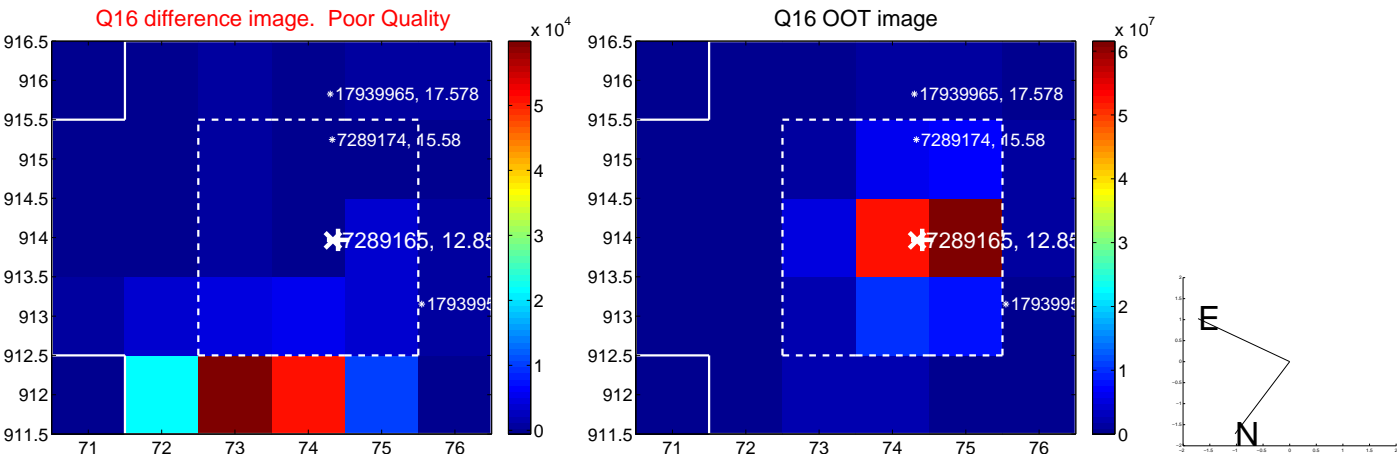
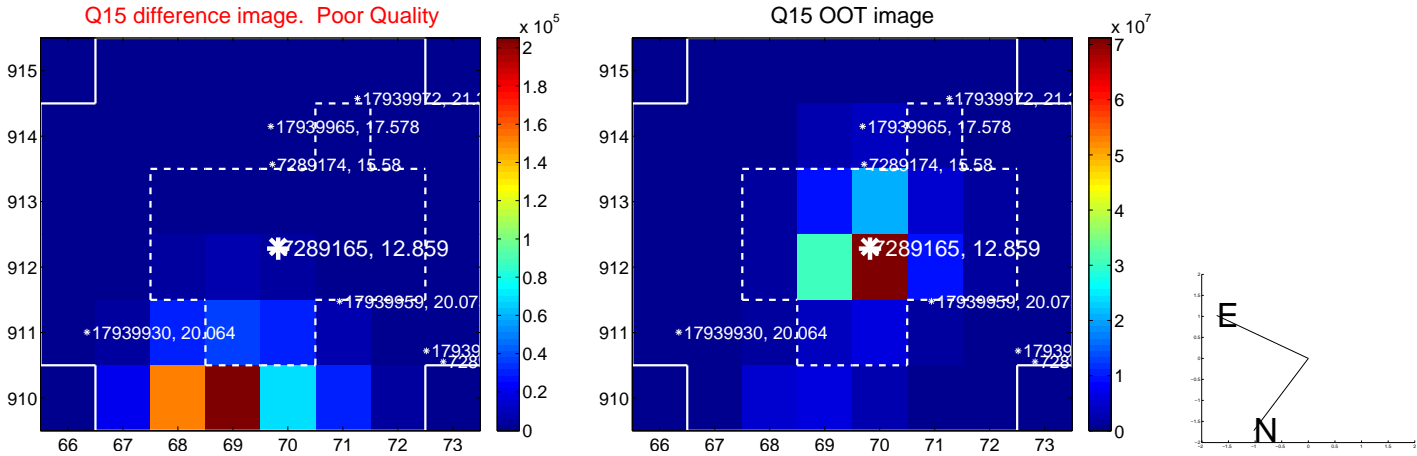
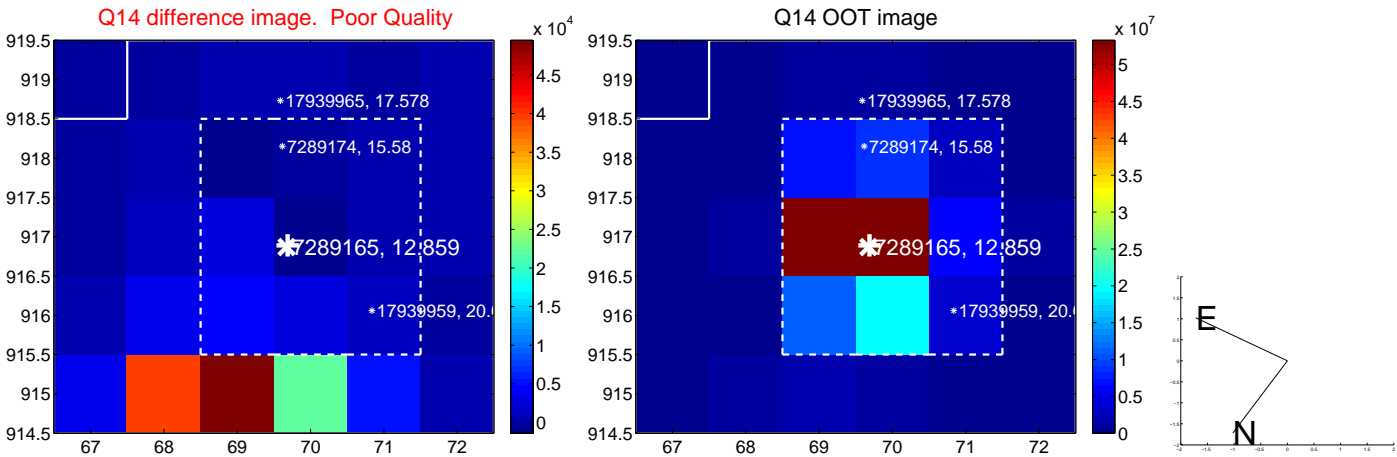
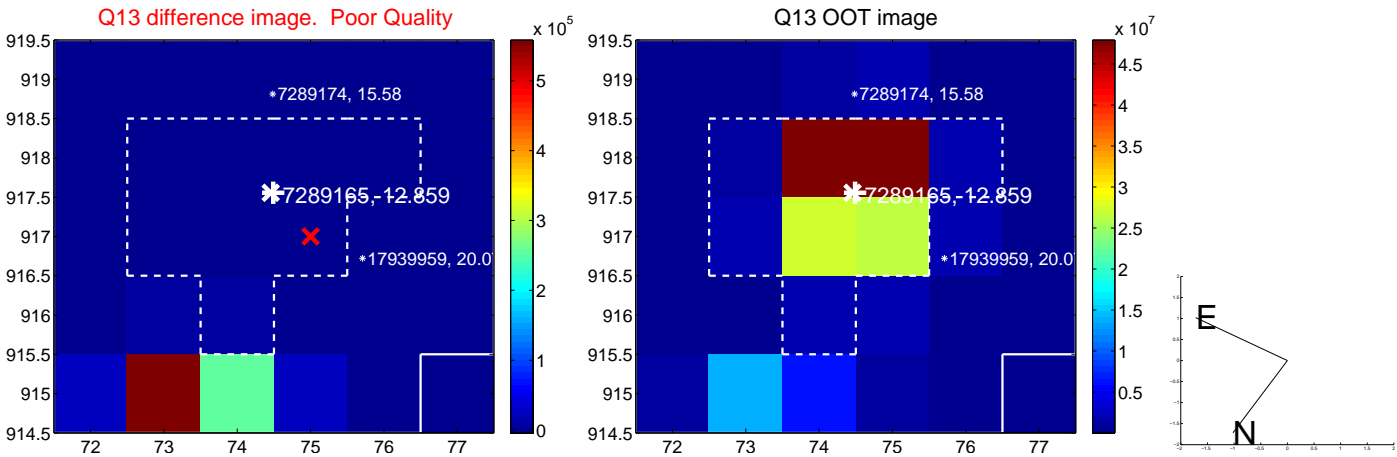
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



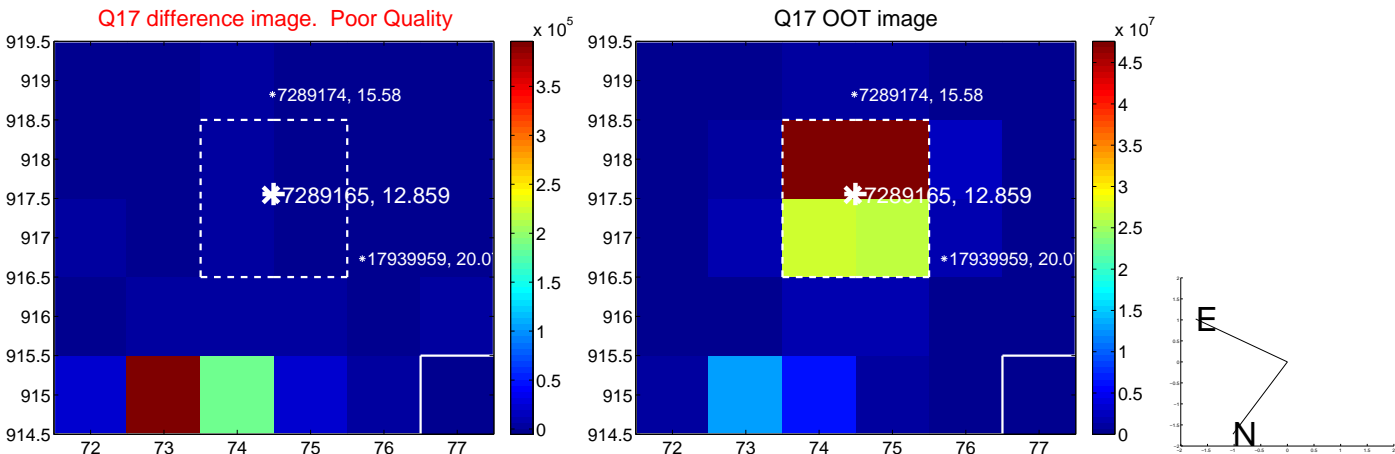
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



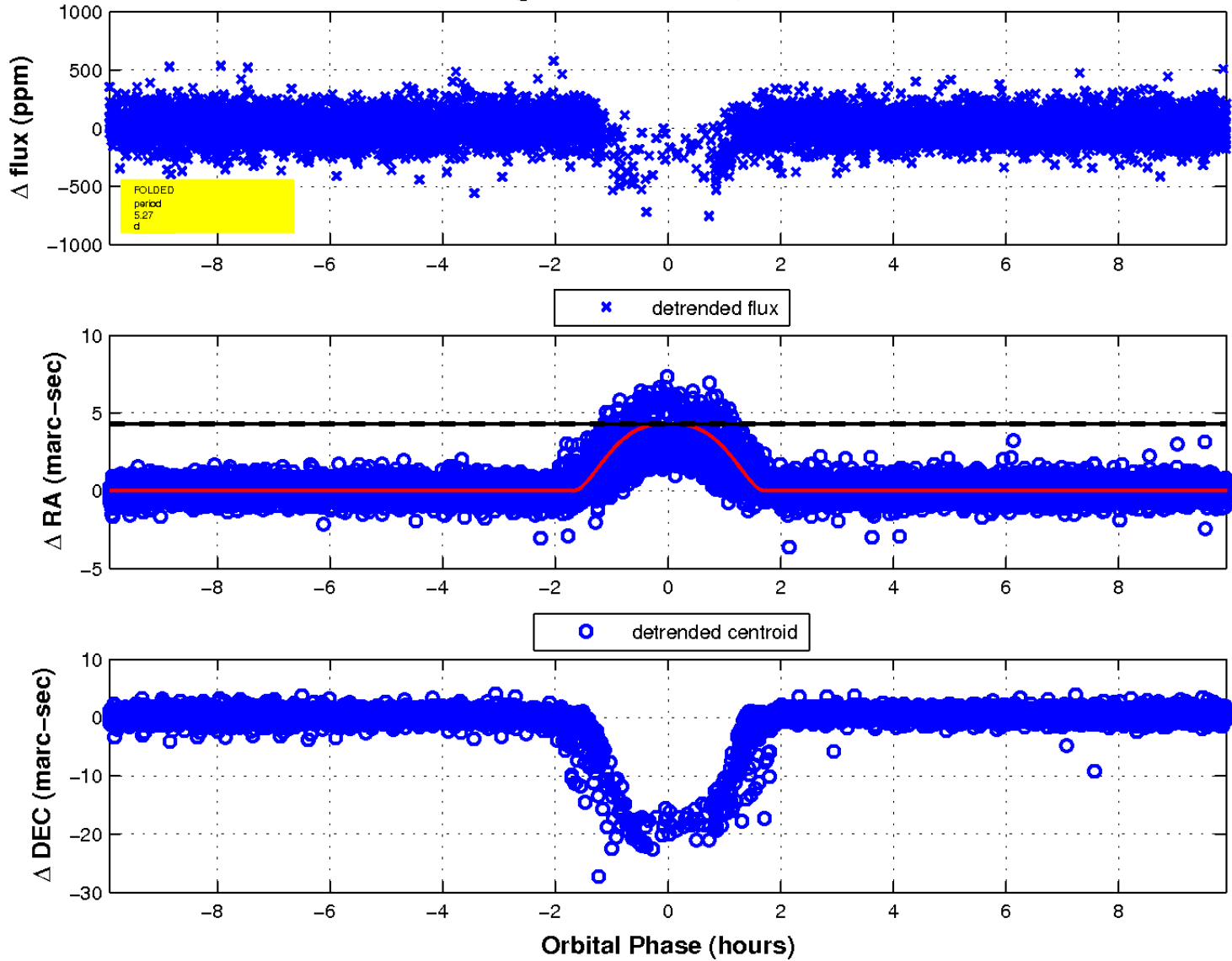
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

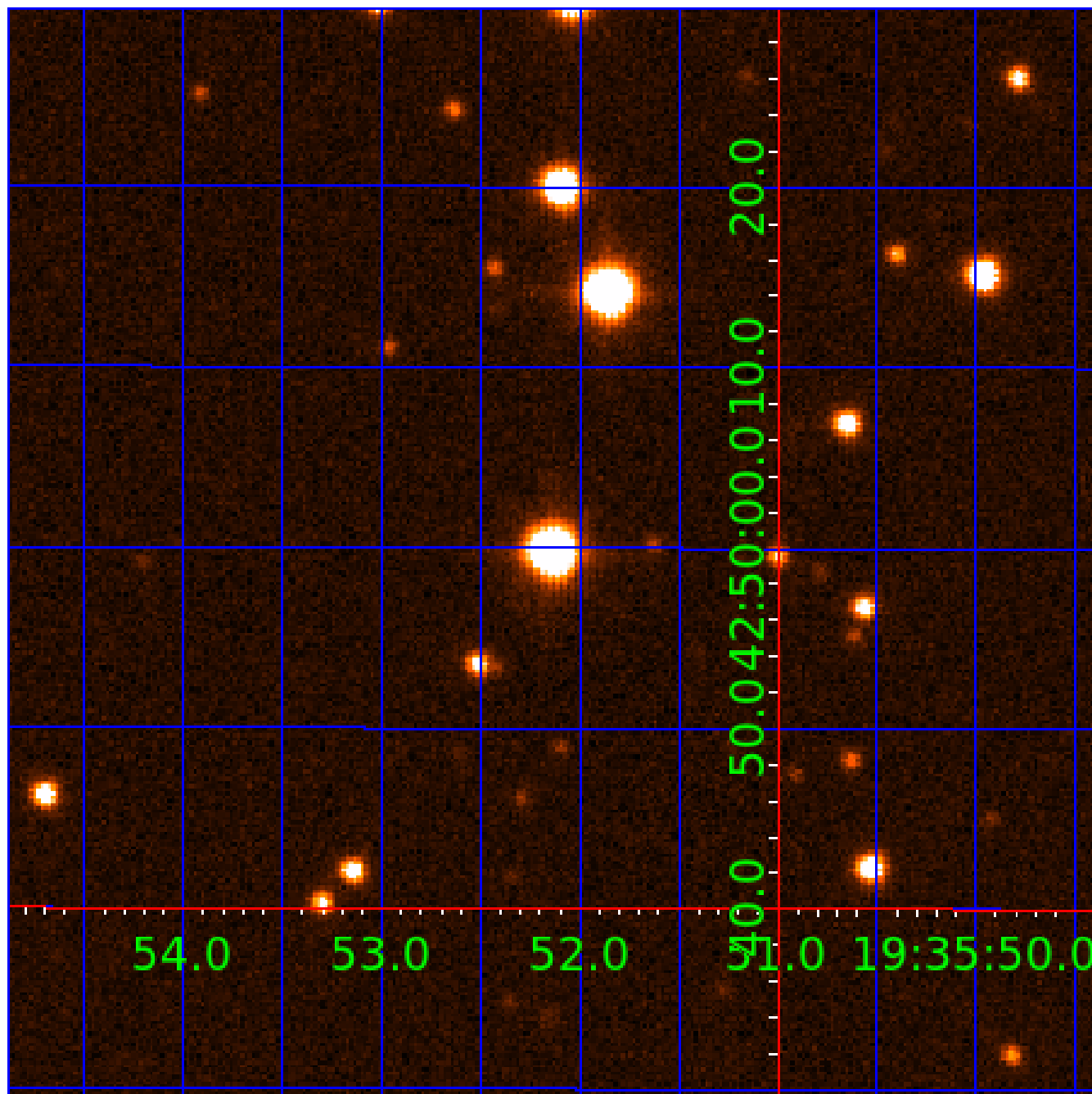


fluxWeightedCentroids, Planet 1 of 3



UKIRT Image

Declination



KIC 007289165

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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Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
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007289165-02	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES_MARSHALL—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_RESOLVED_OFFSET—HALO_GHOST
007289165-03	OBS	FP	0.00	1	1	1	1	IS_SEC_TCE—CENT_RESOLVED_OFFSET—EPHEM_MATCH

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

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

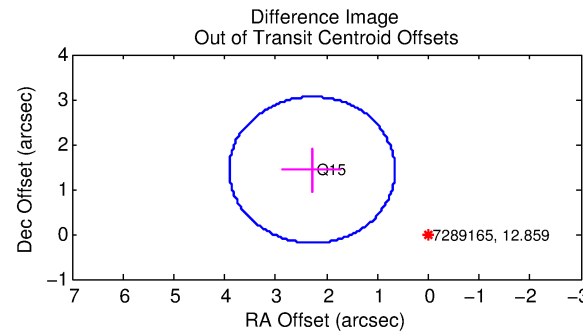
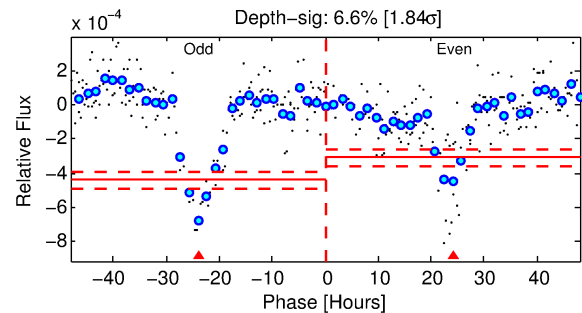
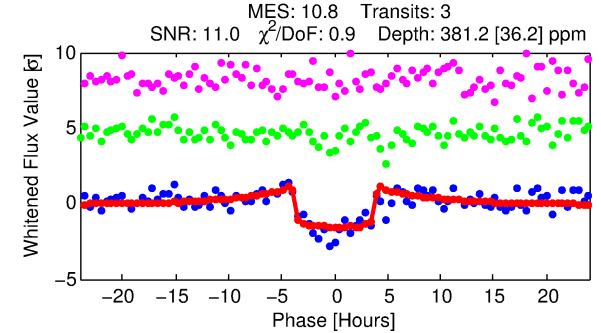
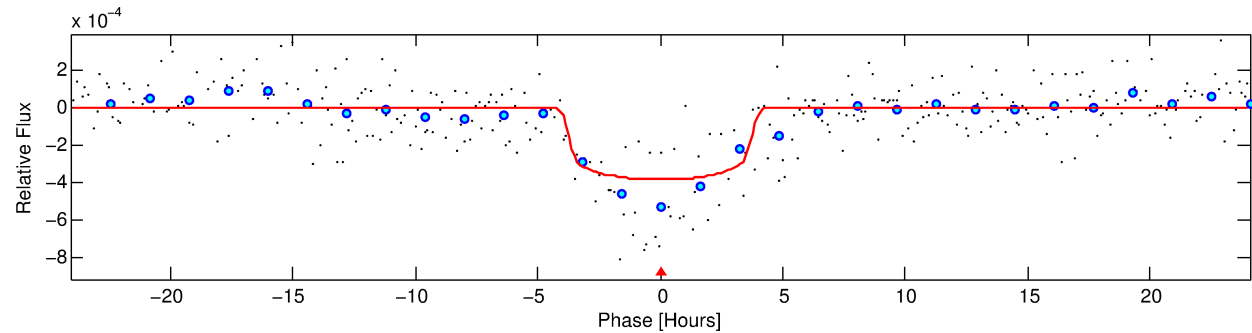
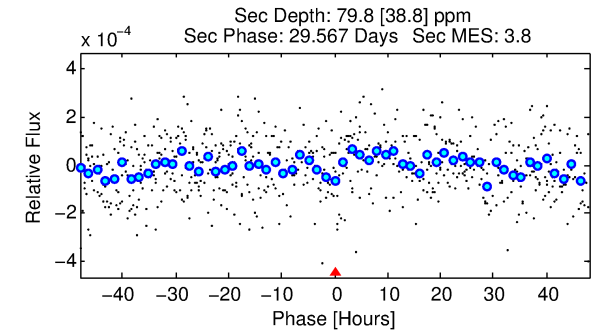
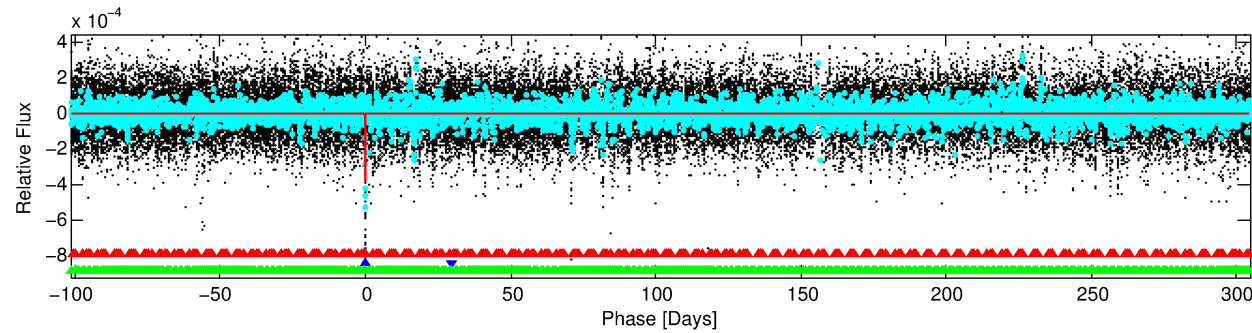
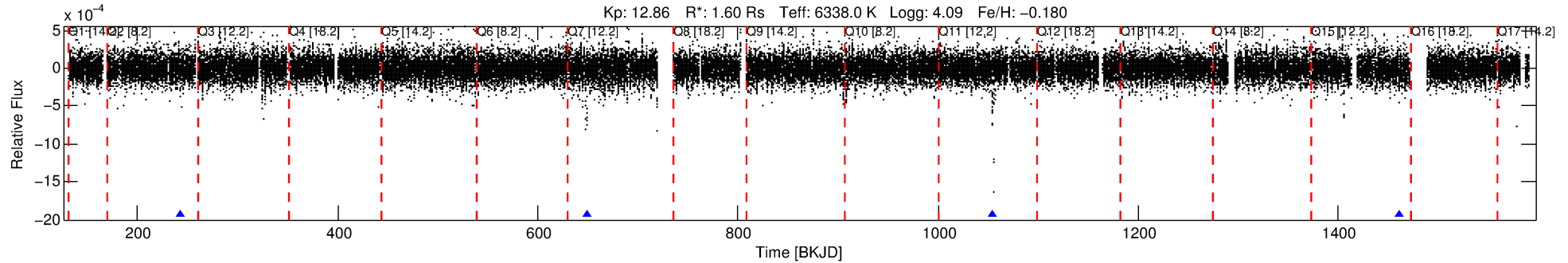
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007289165-02

No Significant Match Found

DV One-Page Summary

KIC: 7289165 Candidate: 2 of 3 Period: 406.296 d
KOI: K03847 Corr: No Ephemeris Match



DV Fit Results:

Period = 406.29551 [0.00539] d
Epoch = 242.3374 [0.0126] BKJD
Rp/R* = 0.0199 [0.0032]
a/R* = 234.69 [186.79]
b = 0.82 [0.32]
Seff = 2.94 [1.19]
Teq = 334 [34] K
Rp = 3.49 [1.05] Re
a = 1.1230 [0.2745] AU
Ag = 4550.69 [3192.45] [1.43σ]
Teffp = 4241 [630] K [6.20σ]

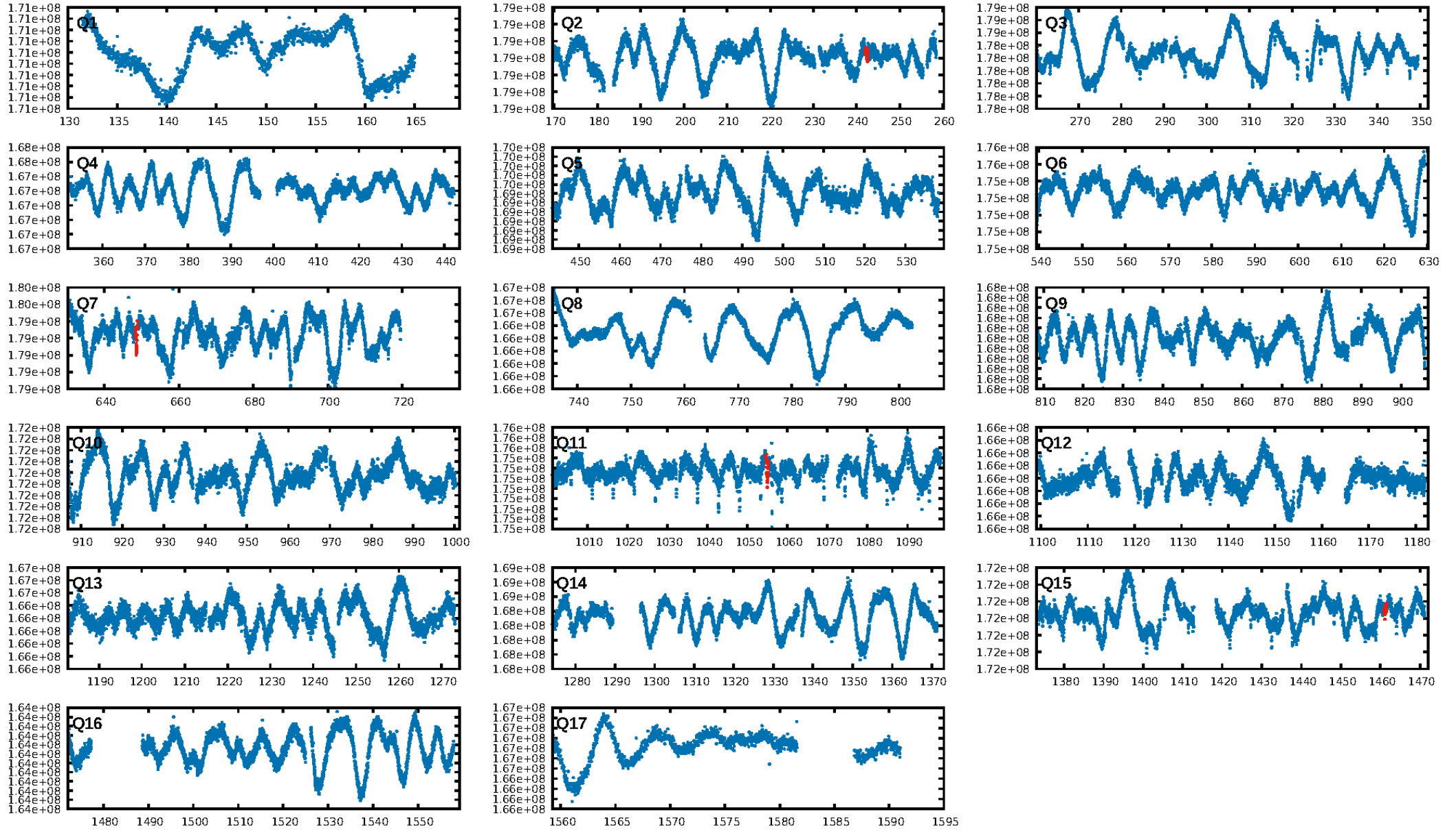
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [1109.59σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 90.0%
Bootstrap-pfa: 3.60e-15
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -0.02112
Centroid-sig: N/A
Centroid-so: 46.116 arcsec [56.98σ]
OotOffset-rm: 2.689 arcsec [4.95σ]
KicOffset-rm: 2.681 arcsec [4.98σ]
OotOffset-st: 0/1/0/0 [1]
KicOffset-st: 0/1/0/0 [1]
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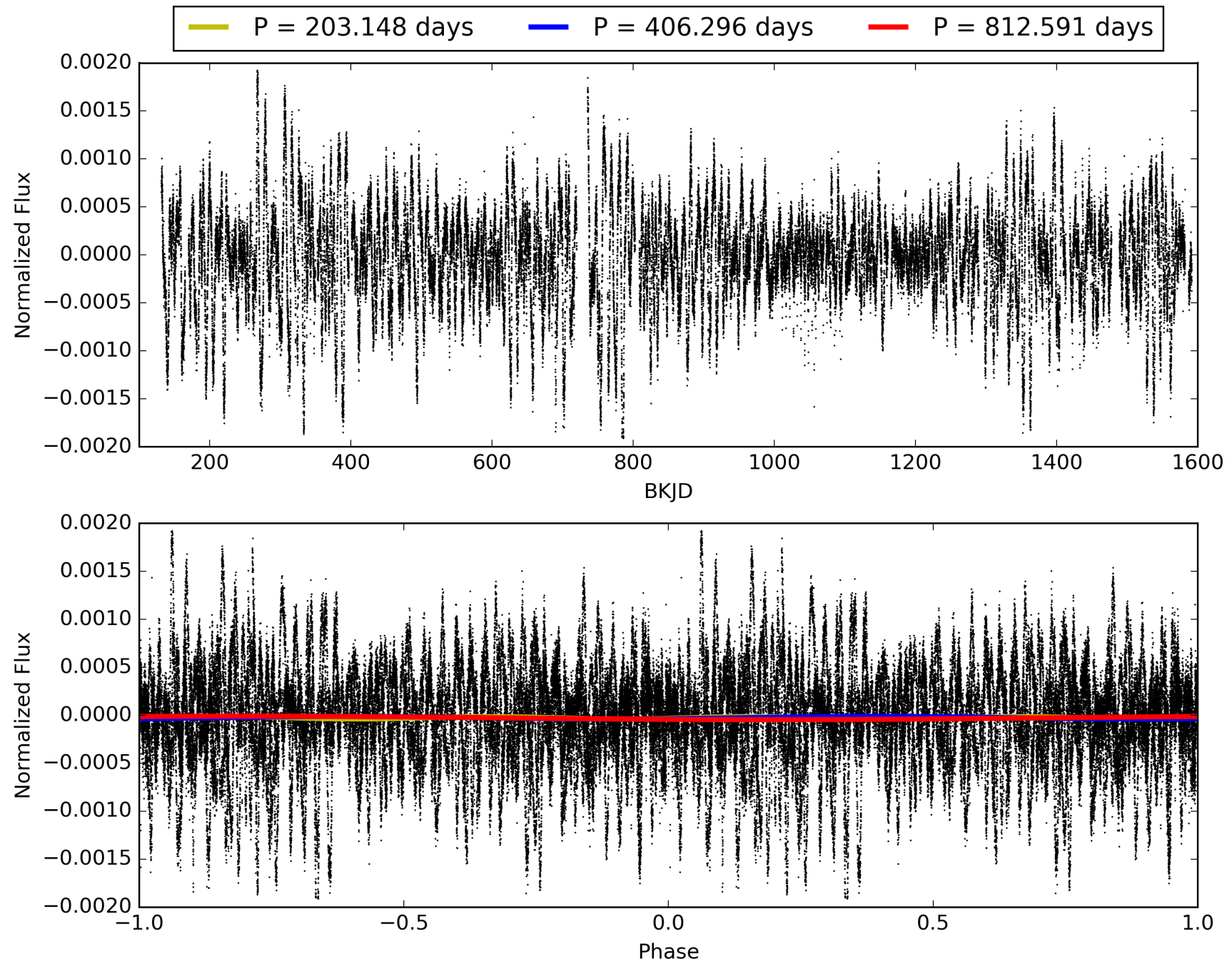
Software Revision: svn-ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 01:48:20 Z

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

TCE 007289165-02, PDC Light Curves

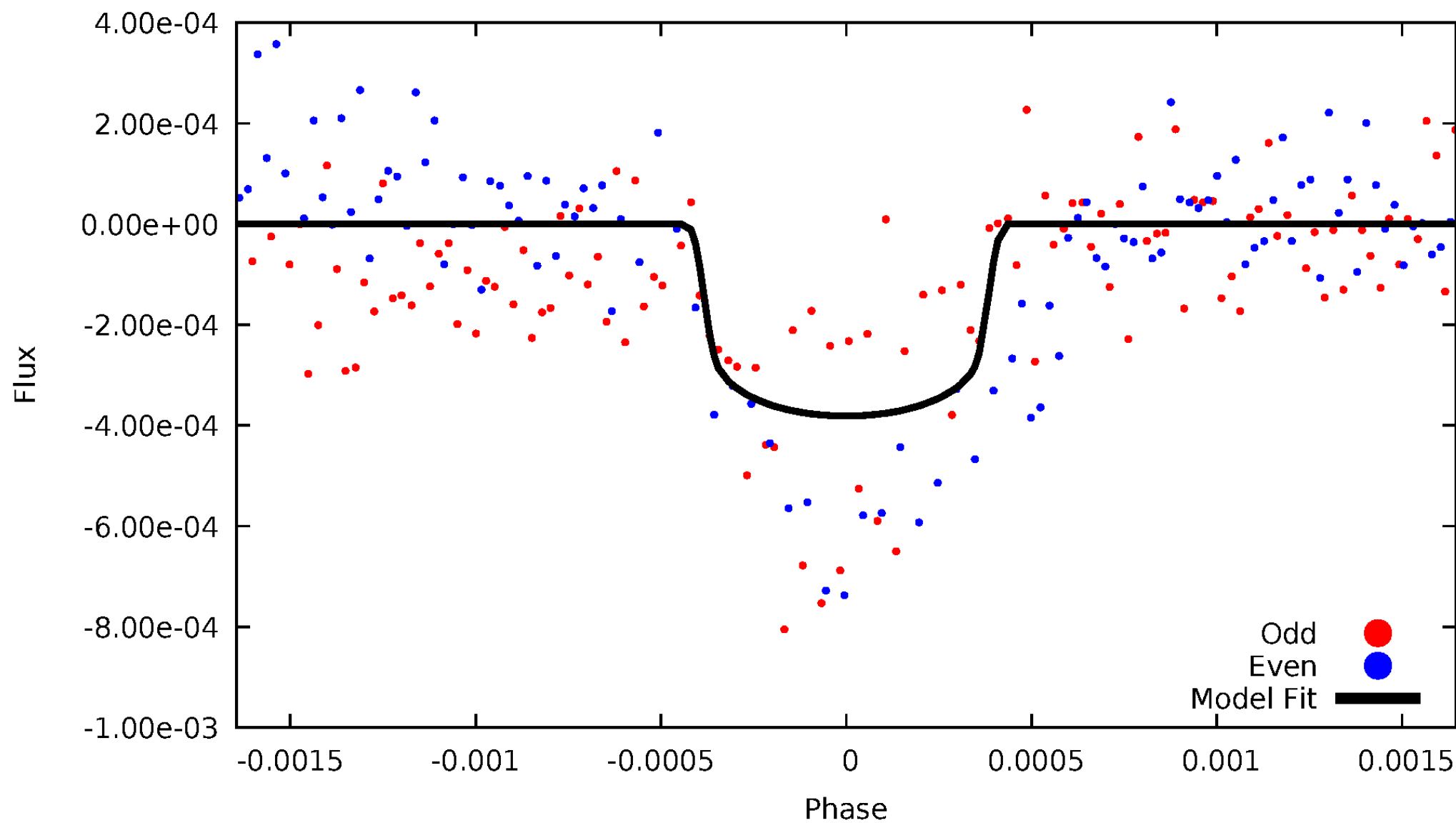


TCE 007289165-02



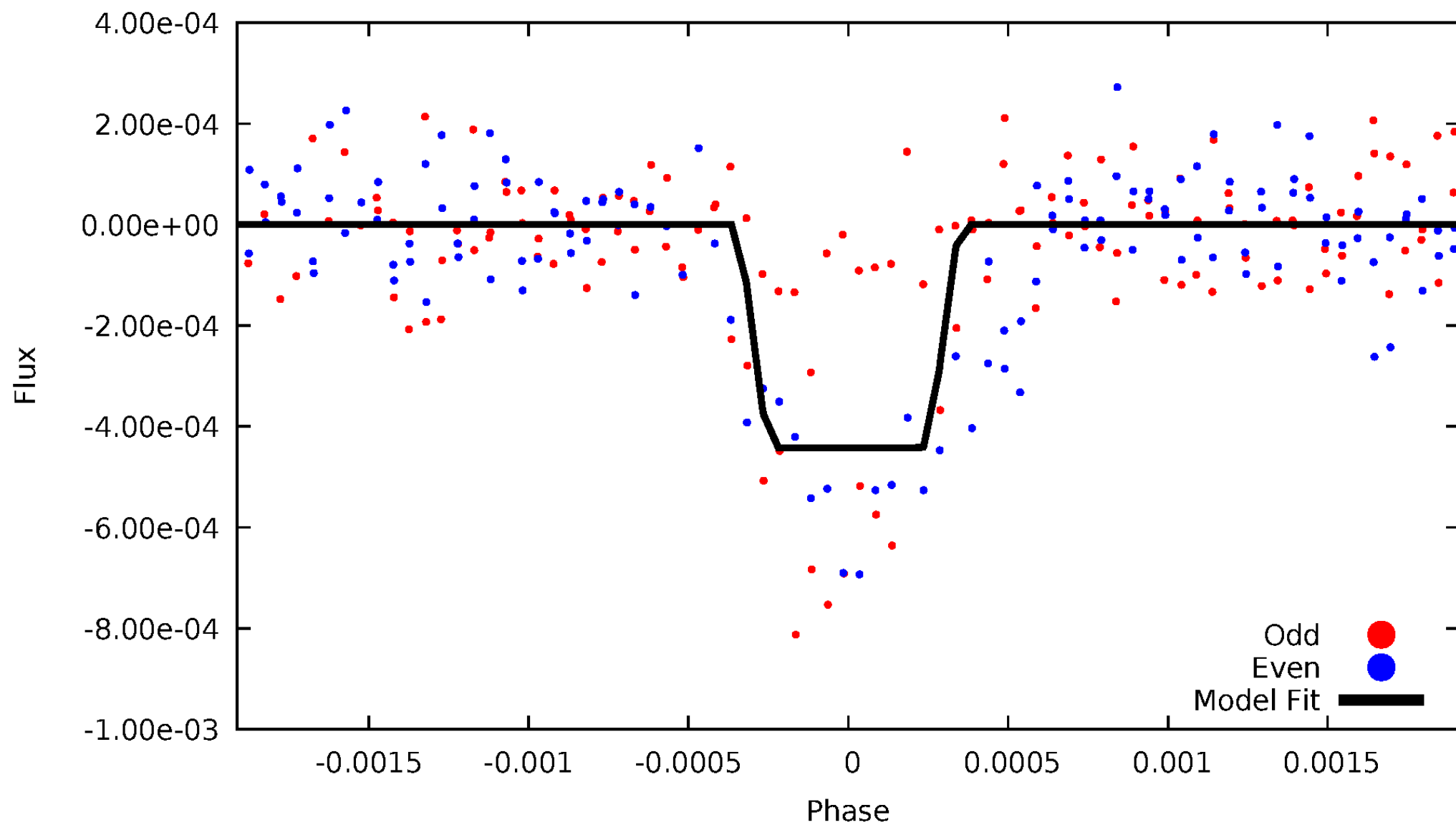
DV Odd/Even

TCE 007289165-02



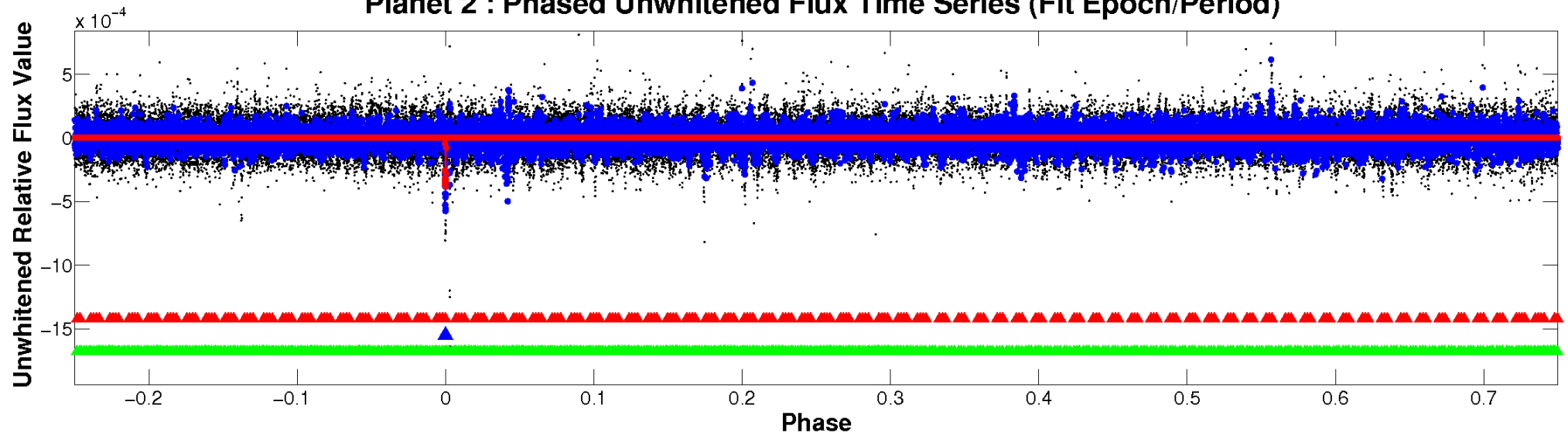
ALT Odd/Even

TCE 007289165-02

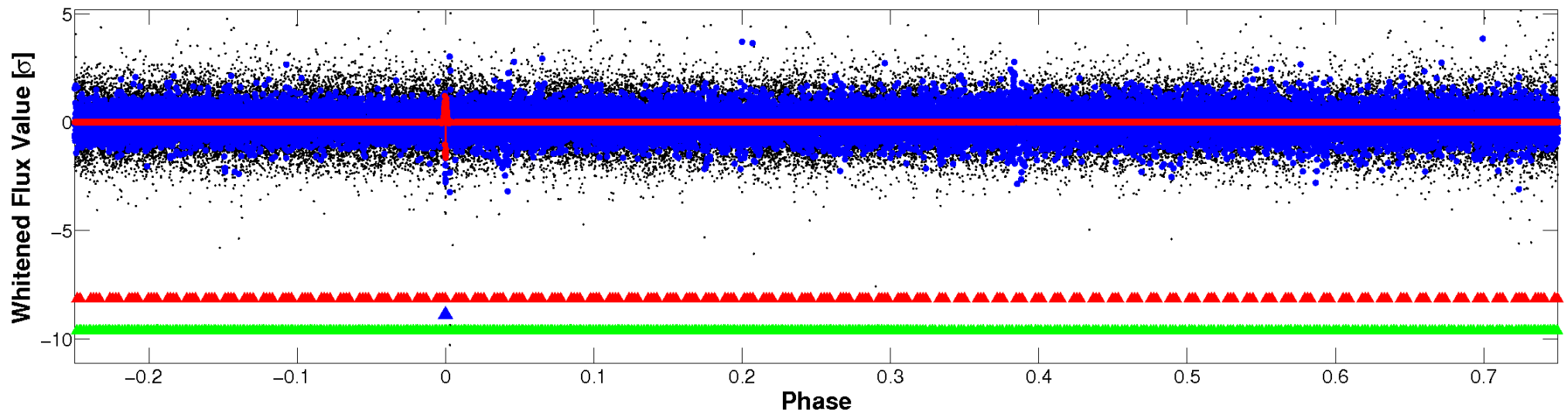


Non-Whitened Vs. Whitened Light Curve

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

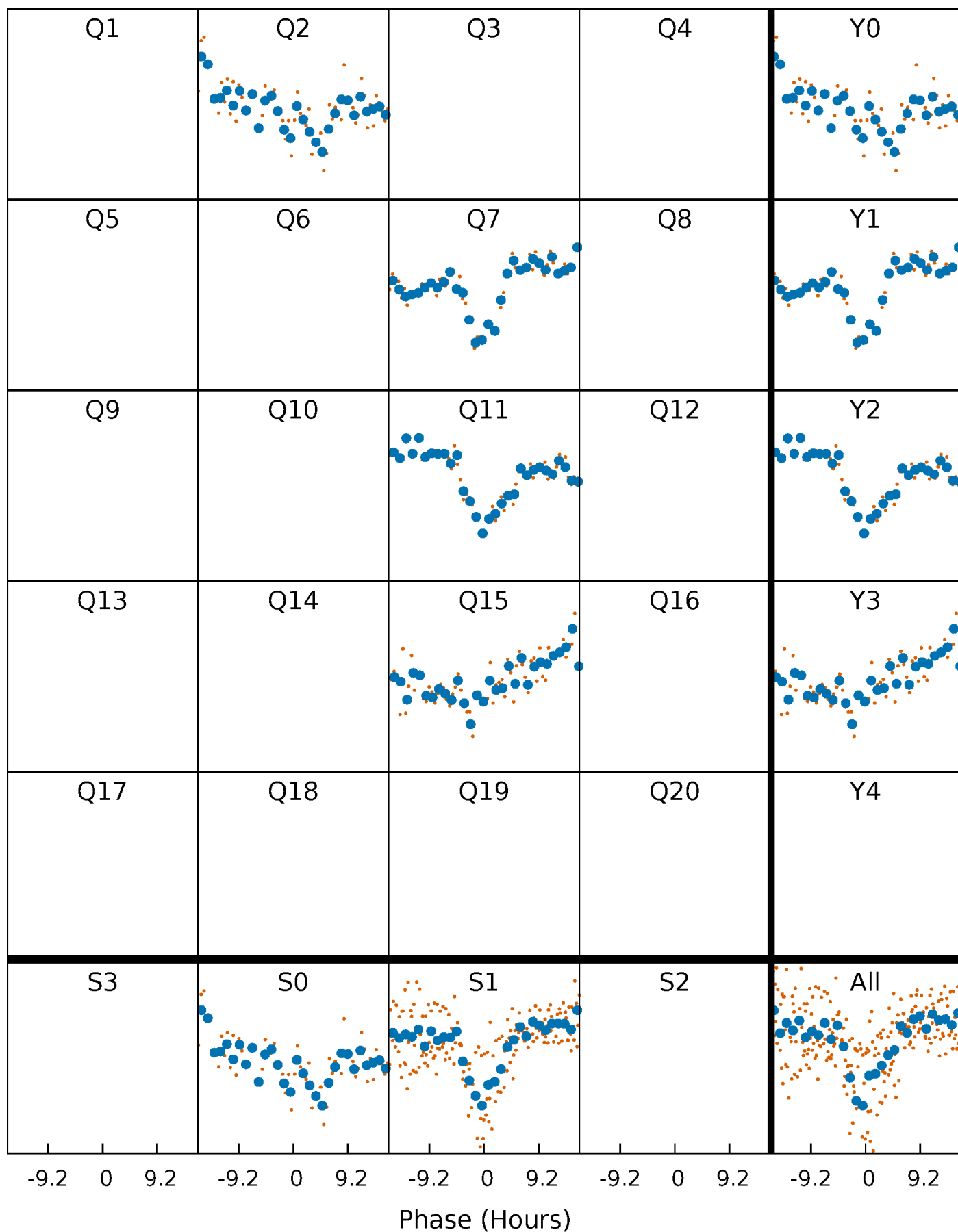


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



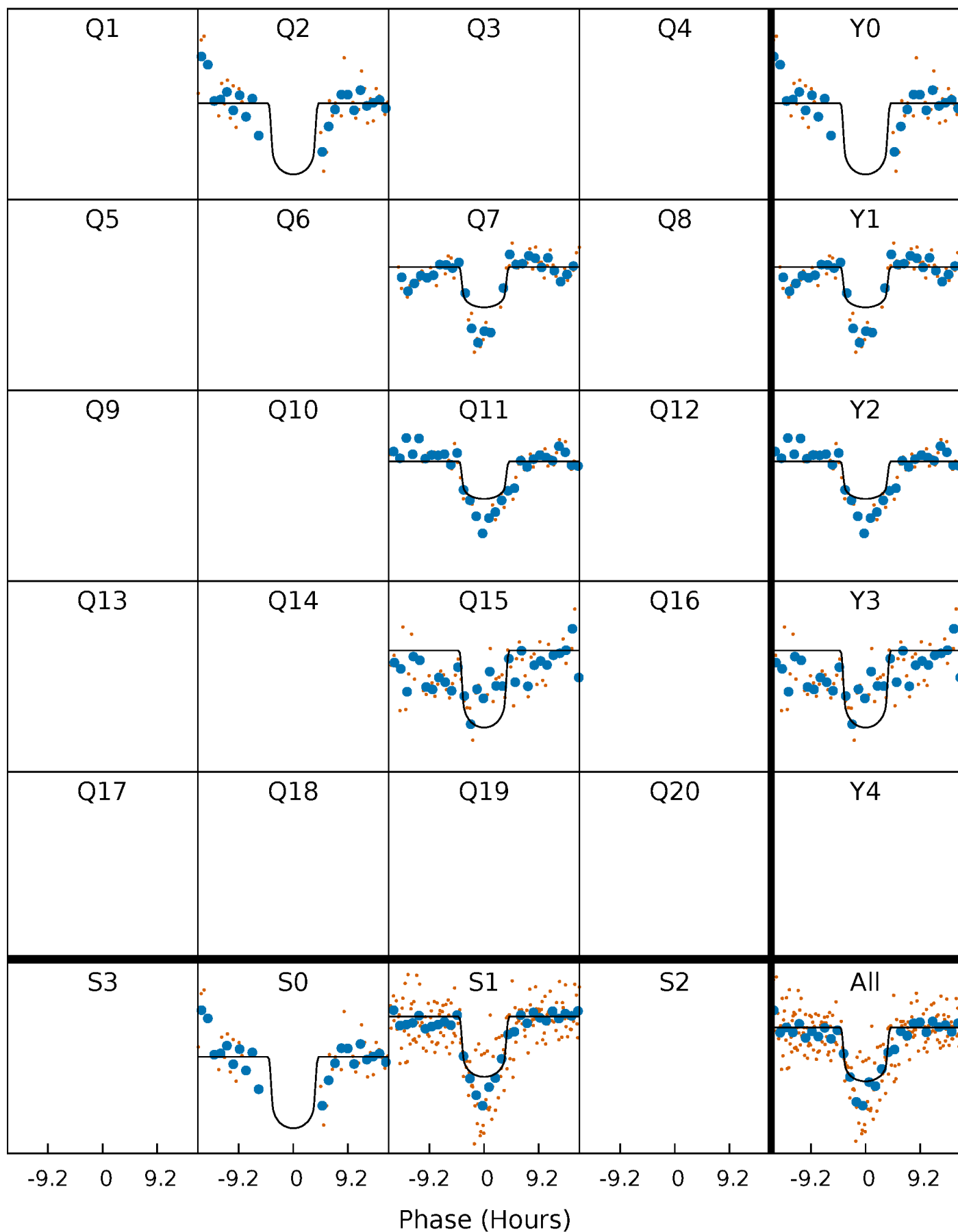
PDC Quarter-Phased Transit Curves

TCE 007289165-02 P=406.295506 Days $T_0=242.337418$ (BKJD)



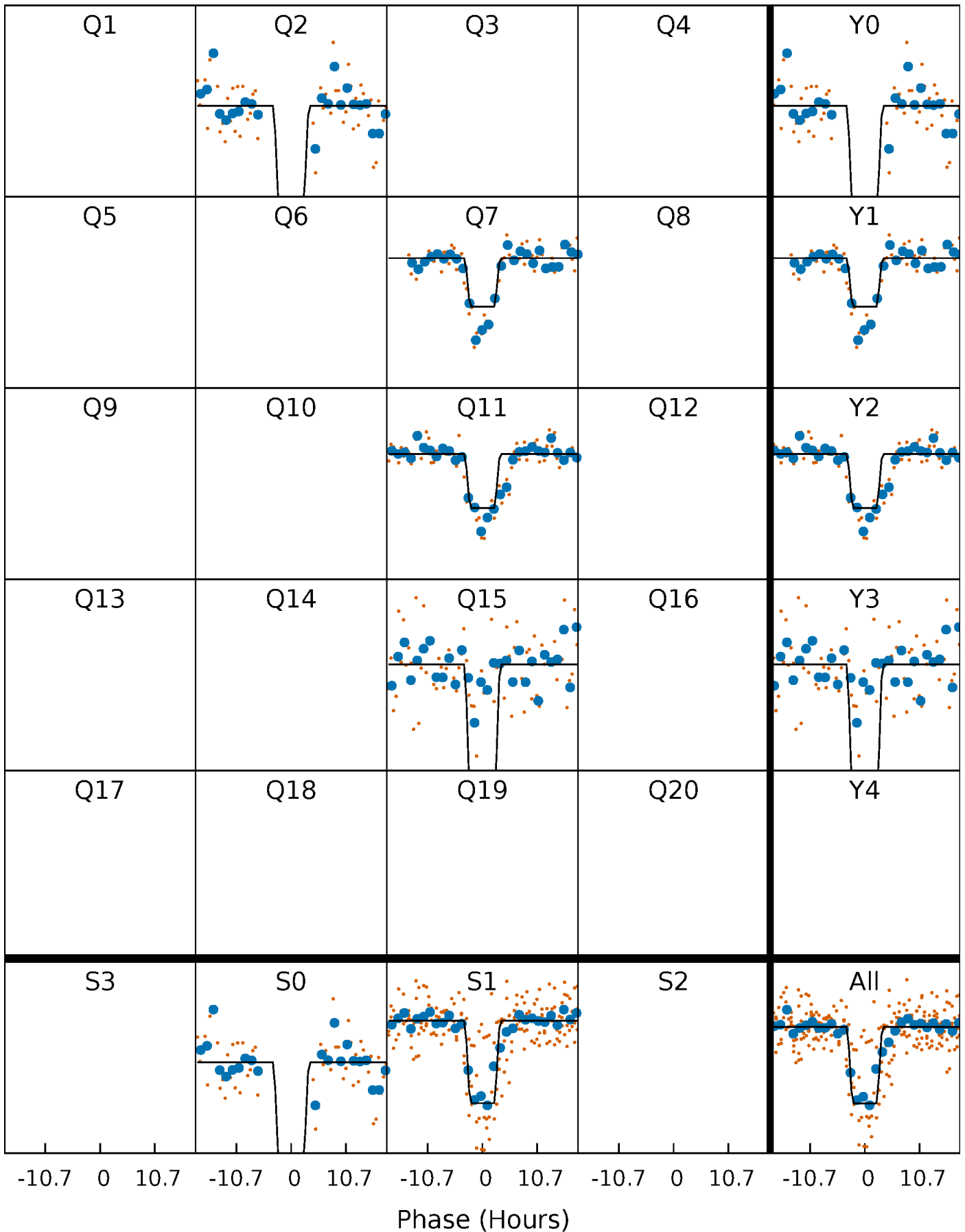
DV Quarter-Phased Transit Curves

TCE 007289165-02 $P=406.295506$ Days $T_0=242.337418$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

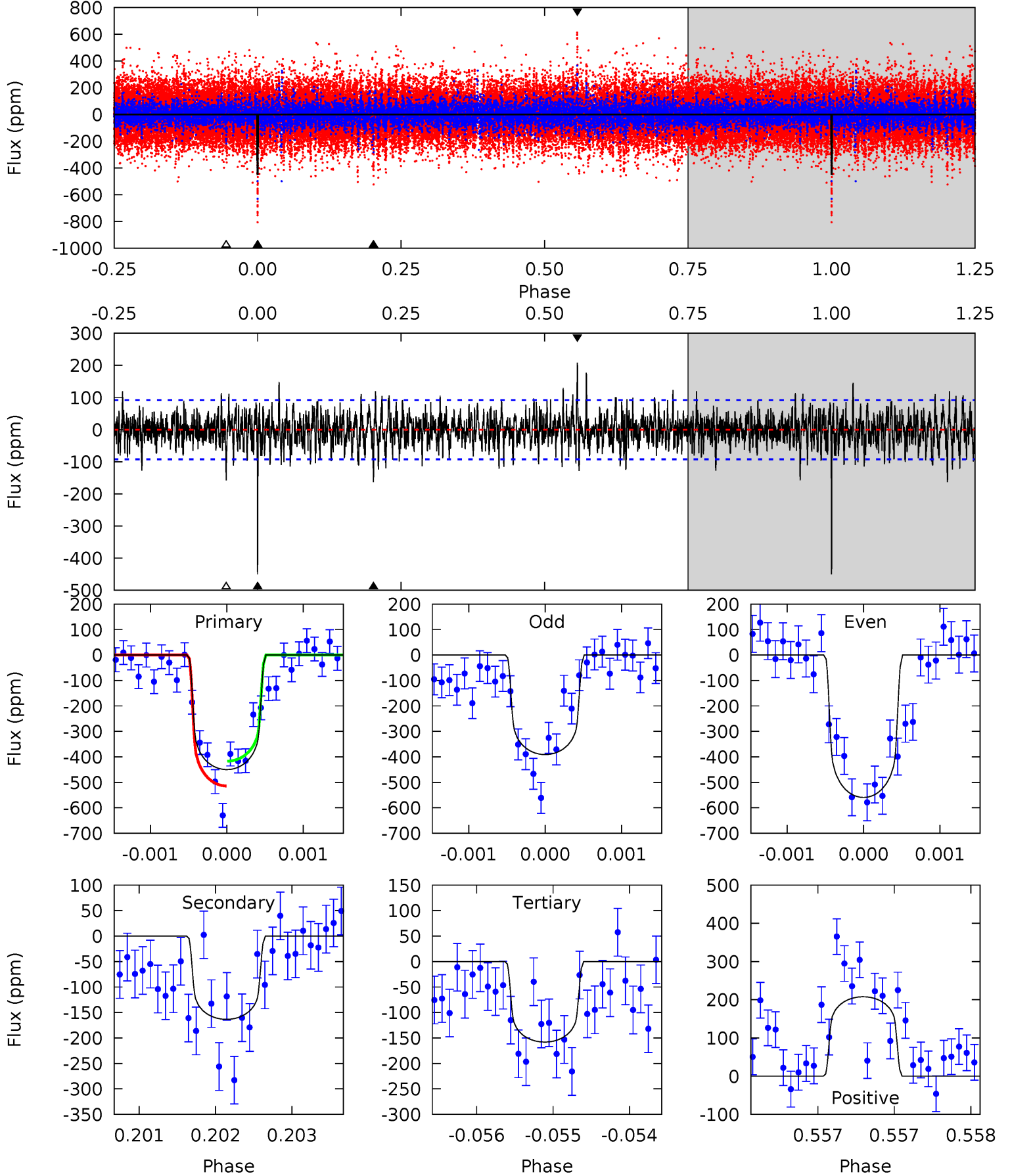
TCE 007289165-02 $P=406.280474$ Days $T_0=242.351429$ (BKJD)



DV Model-Shift Uniqueness Test

007289165-02, P = 406.295506 Days, E = 242.337418 Days

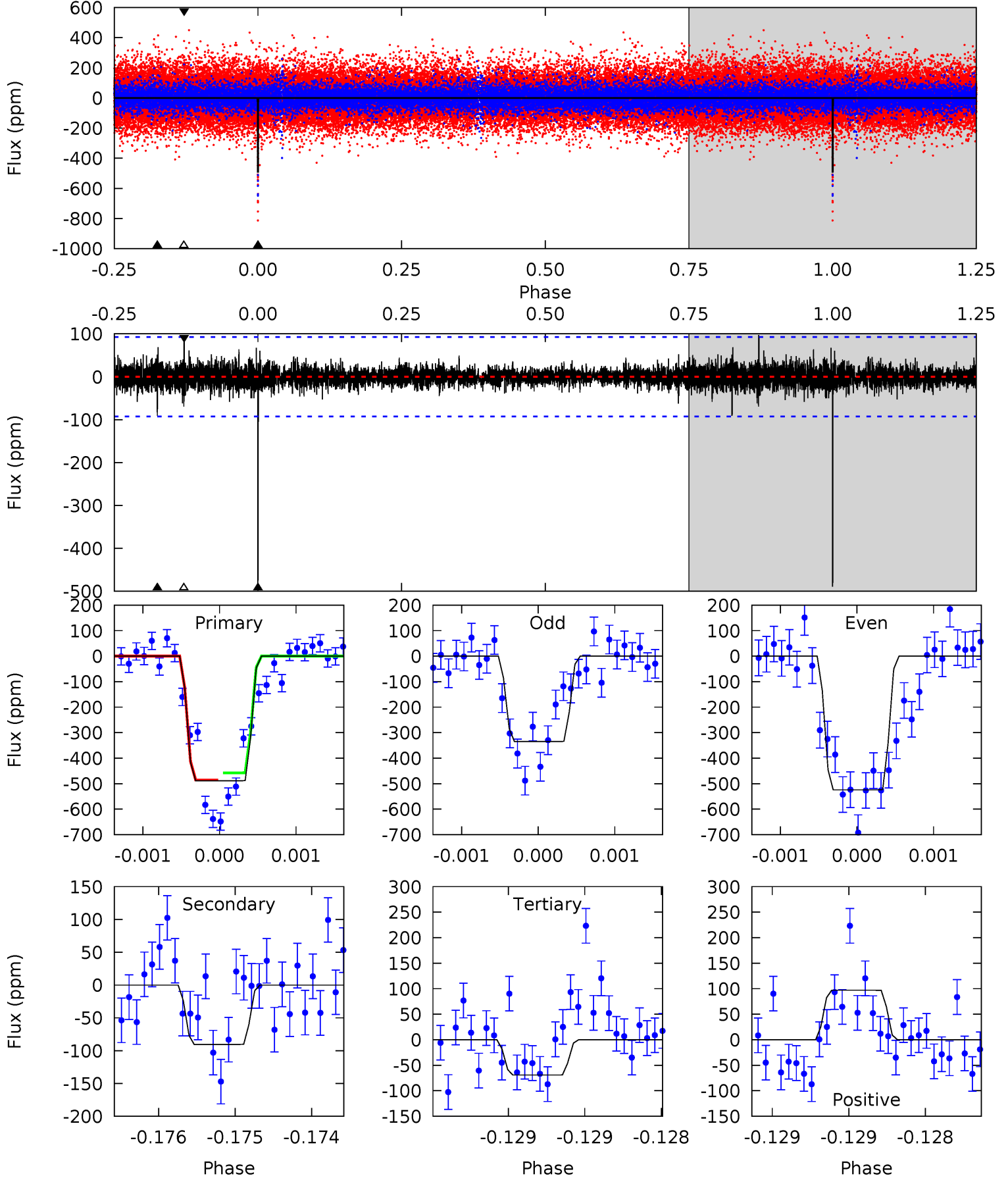
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
26.7	9.71	9.39	12.3	5.48	3.33	2.31	17.3	14.4	0.32	-2.63	4.80	0.81	0.32	2.83



Alt Model-Shift Uniqueness Test

007289165-02, P = 406.280474 Days, E = 242.351429 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
29.2	5.40	4.13	5.79	5.51	3.39	0.85	25.1	23.4	1.27	-0.39	5.85	0.79	0.17	0.85



Stellar Parameters For KIC 007289165

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6338^{+155}_{-174}	$4.087^{+0.228}_{-0.123}$	$-0.180^{+0.250}_{-0.300}$	$1.602^{+0.335}_{-0.410}$	$1.142^{+0.195}_{-0.146}$	$0.391^{+0.504}_{-0.139}$
	+2%/-3%	+6%/-3%	+139%/-167%	+21%/-26%	+17%/-13%	+129%/-36%
Source	PHO1	FLK73	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 007289165-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-163 ± 17	$3.38^{+0.76}_{-0.69}$	459^{+29}_{-35}	5123^{+462}_{-345}	10012^{+6118}_{-3313}
Alt.	-91 ± 17	$3.57^{+0.71}_{-0.66}$	462^{+26}_{-33}	4452^{+323}_{-282}	4912^{+2721}_{-1595}

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

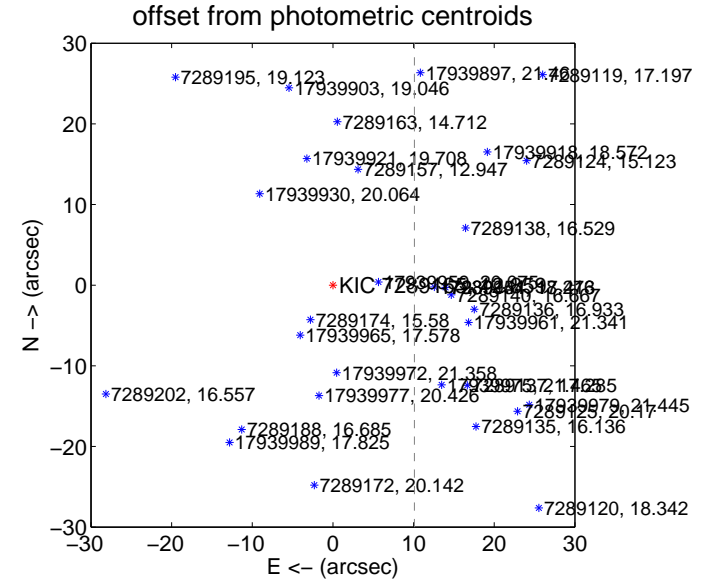
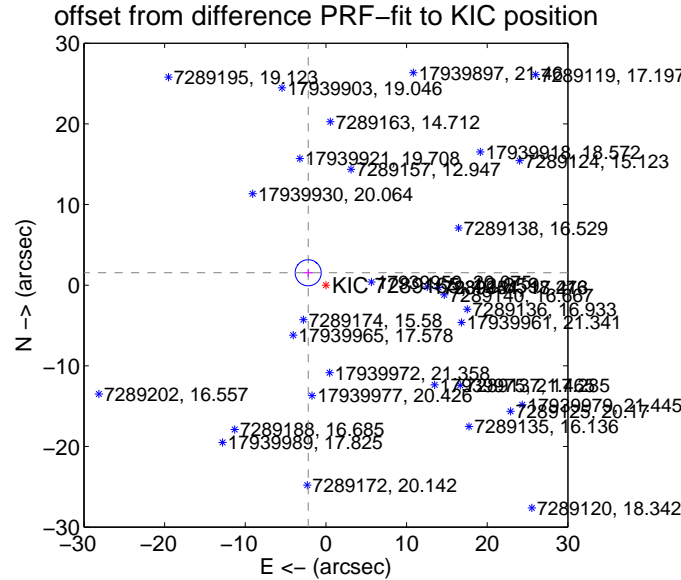
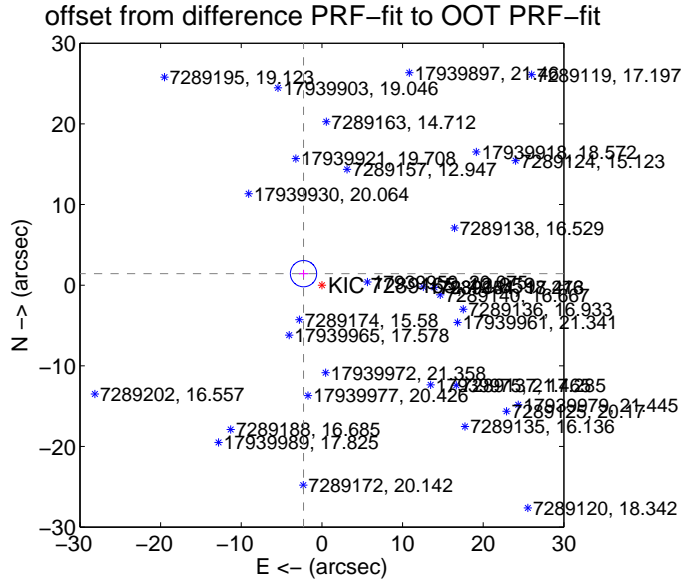
DV Centroid Data

Supplemental centroid analysis for 007289165-02. Kepler magnitude: 12.86. Transit SNR 10.97

There are 1 quarters with good PRF difference image offsets

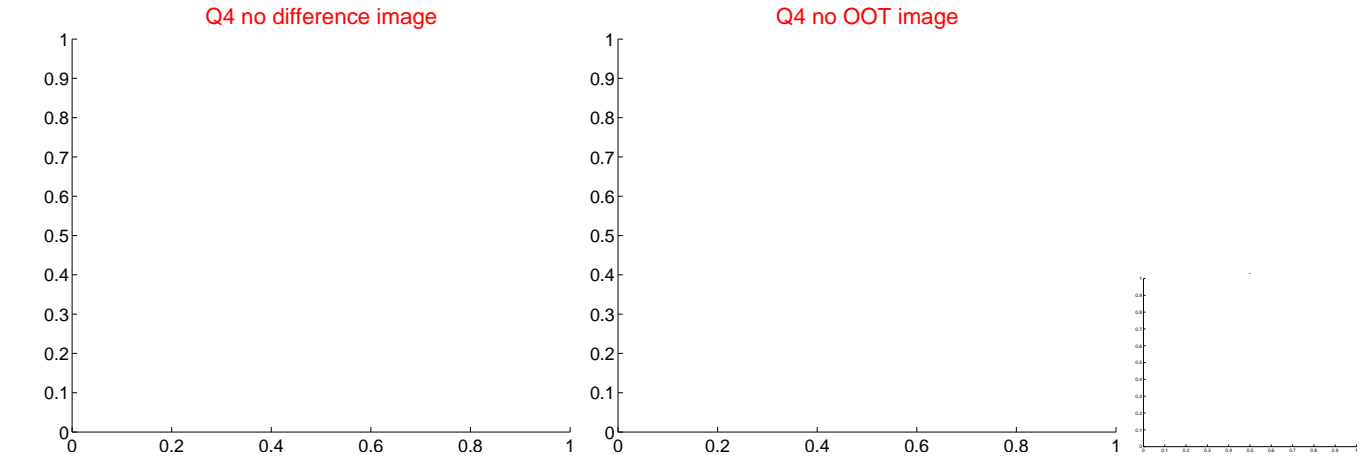
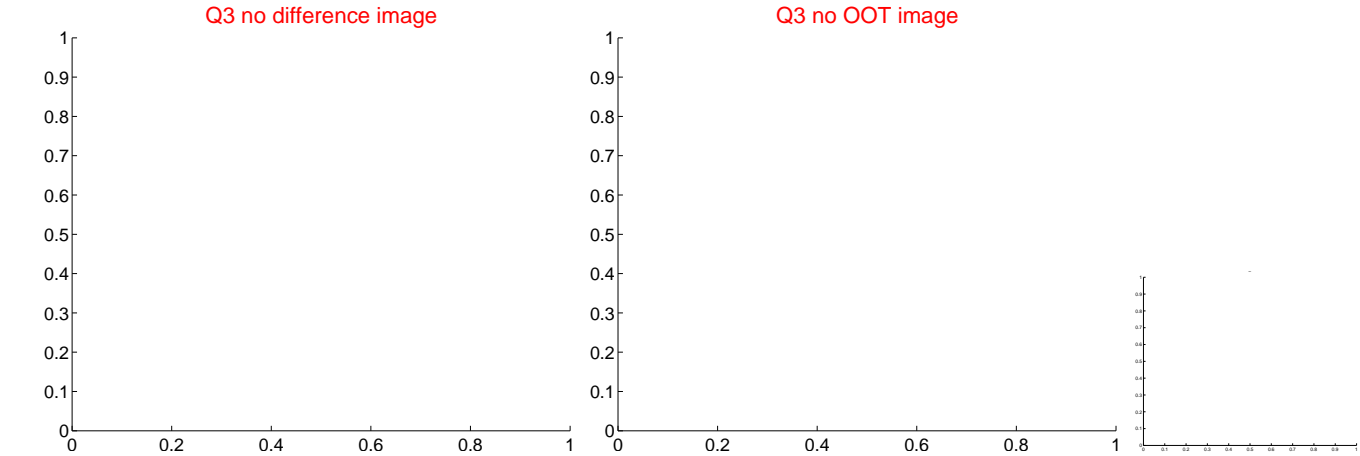
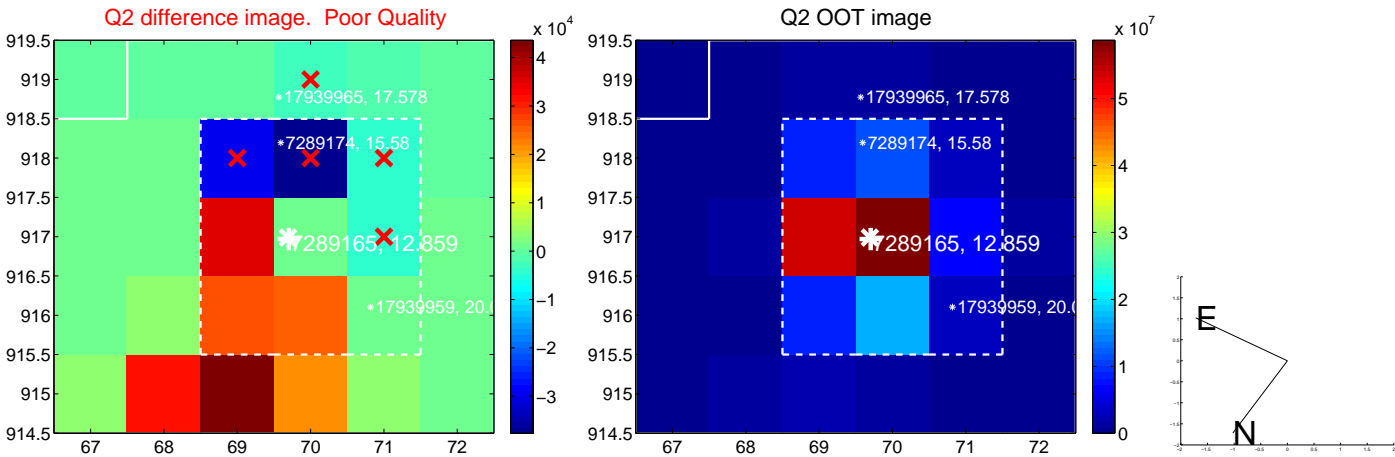
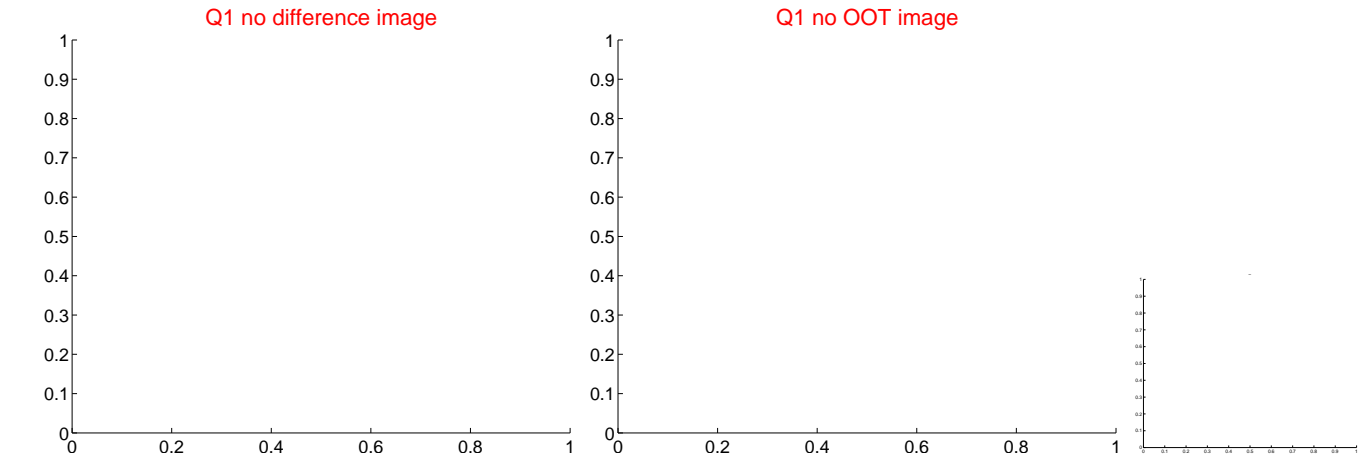
The direct PRF centroid is offset from the target star catalog position by about 0.14 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.689 \pm 0.543	4.95	2.280 \pm 0.567	1.426 \pm 0.475
PRF-fit source offset from KIC position	2.681 \pm 0.539	4.98	2.198 \pm 0.567	1.535 \pm 0.475
photometric centroid source offset	46.12 \pm 0.81	56.98	-10.11 \pm 0.63	44.99 \pm 0.82



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 ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



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

Q5 no difference image



Q5 no OOT image



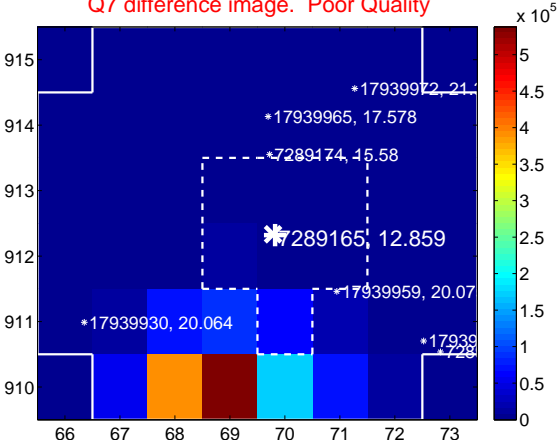
Q6 no difference image



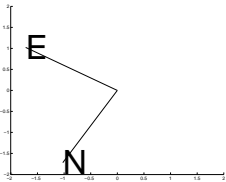
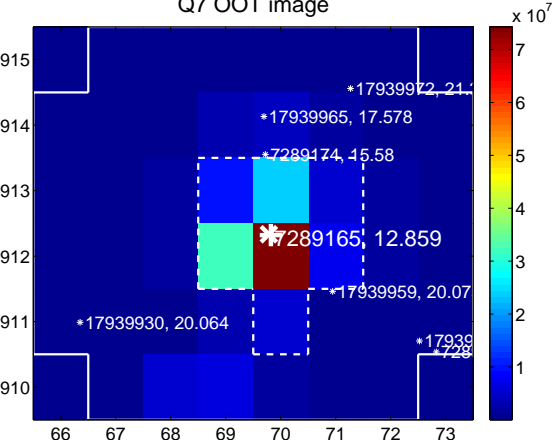
Q6 no OOT image



Q7 difference image. Poor Quality



Q7 OOT image



Q8 no difference image



Q8 no OOT image



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

Q9 no difference image



Q9 no OOT image



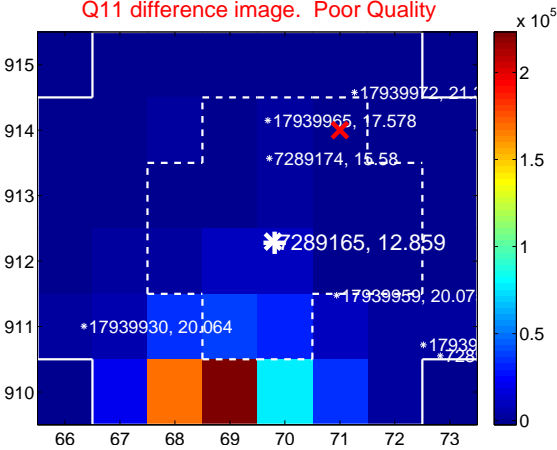
Q10 no difference image



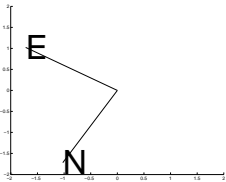
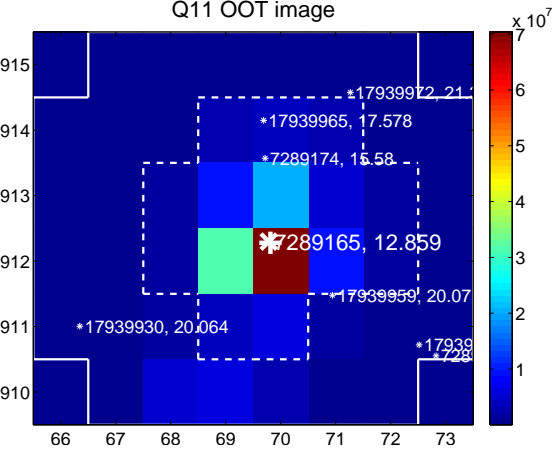
Q10 no OOT image



Q11 difference image. Poor Quality



Q11 OOT image



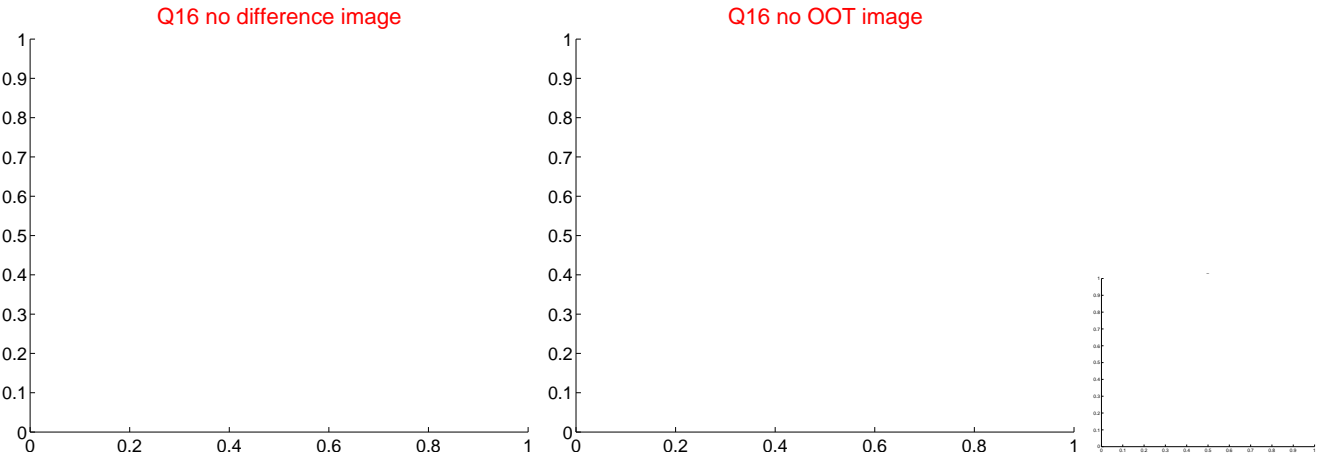
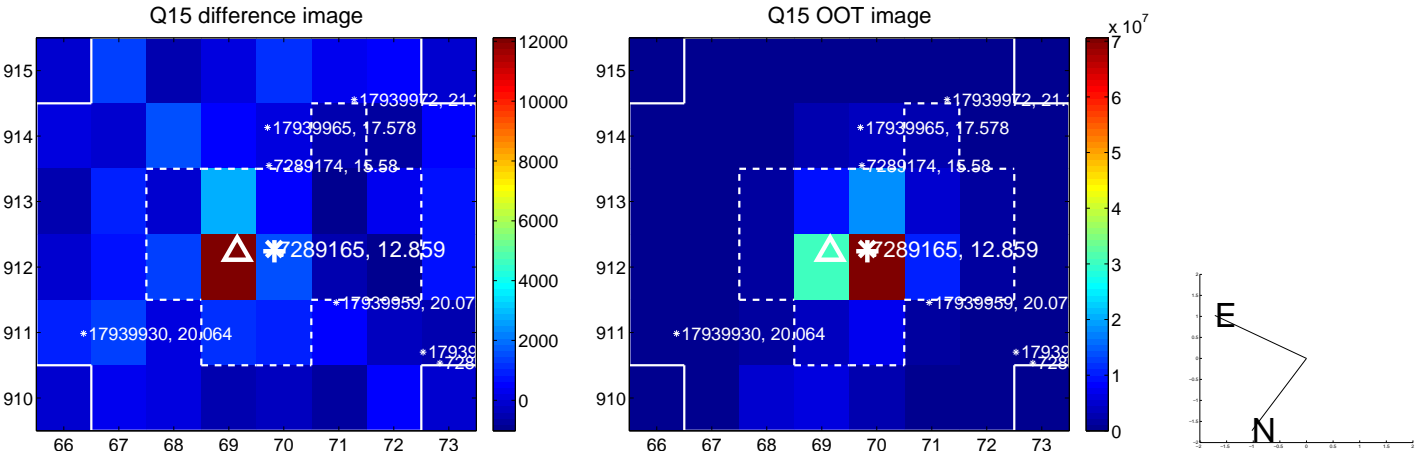
Q12 no difference image



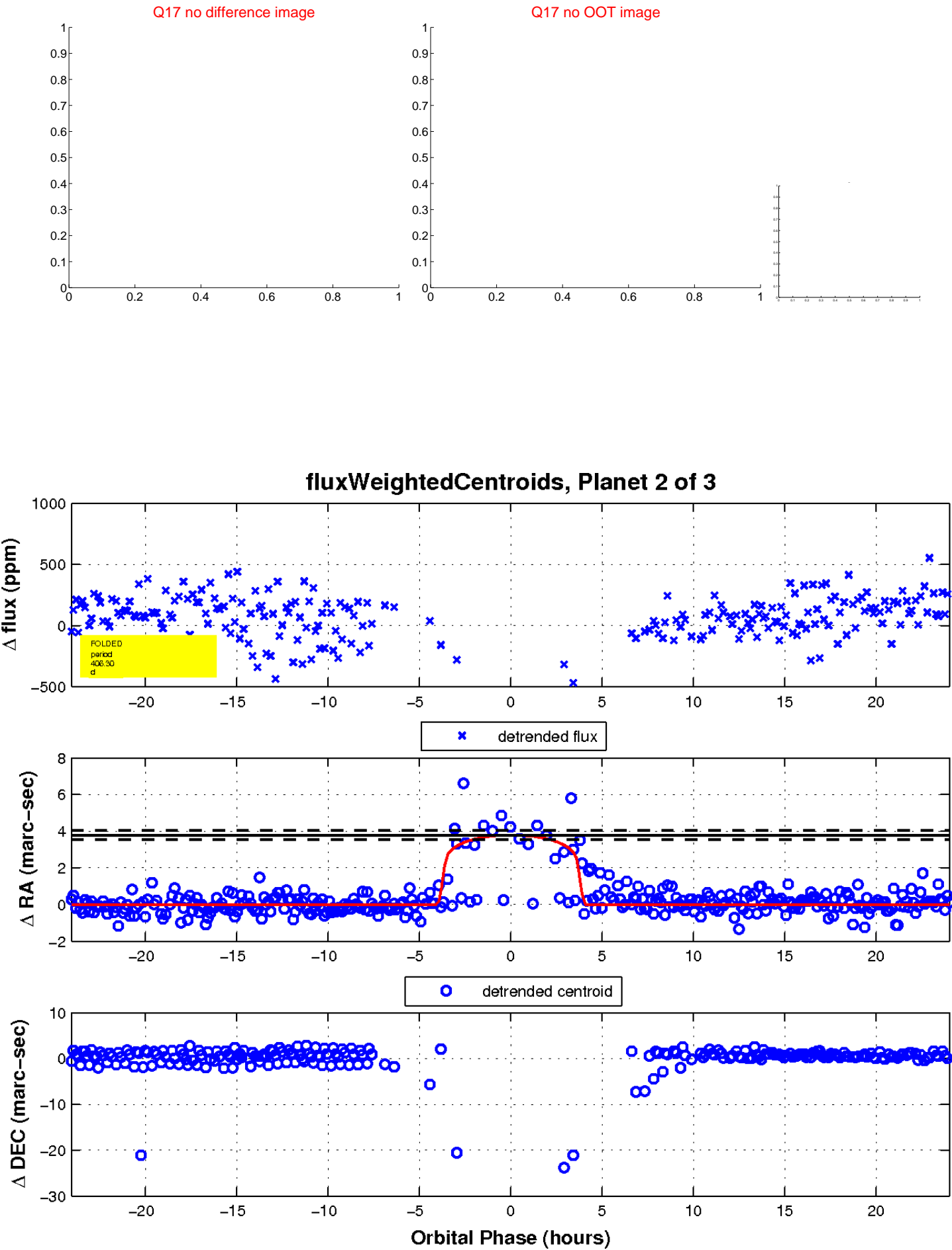
Q12 no OOT image



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

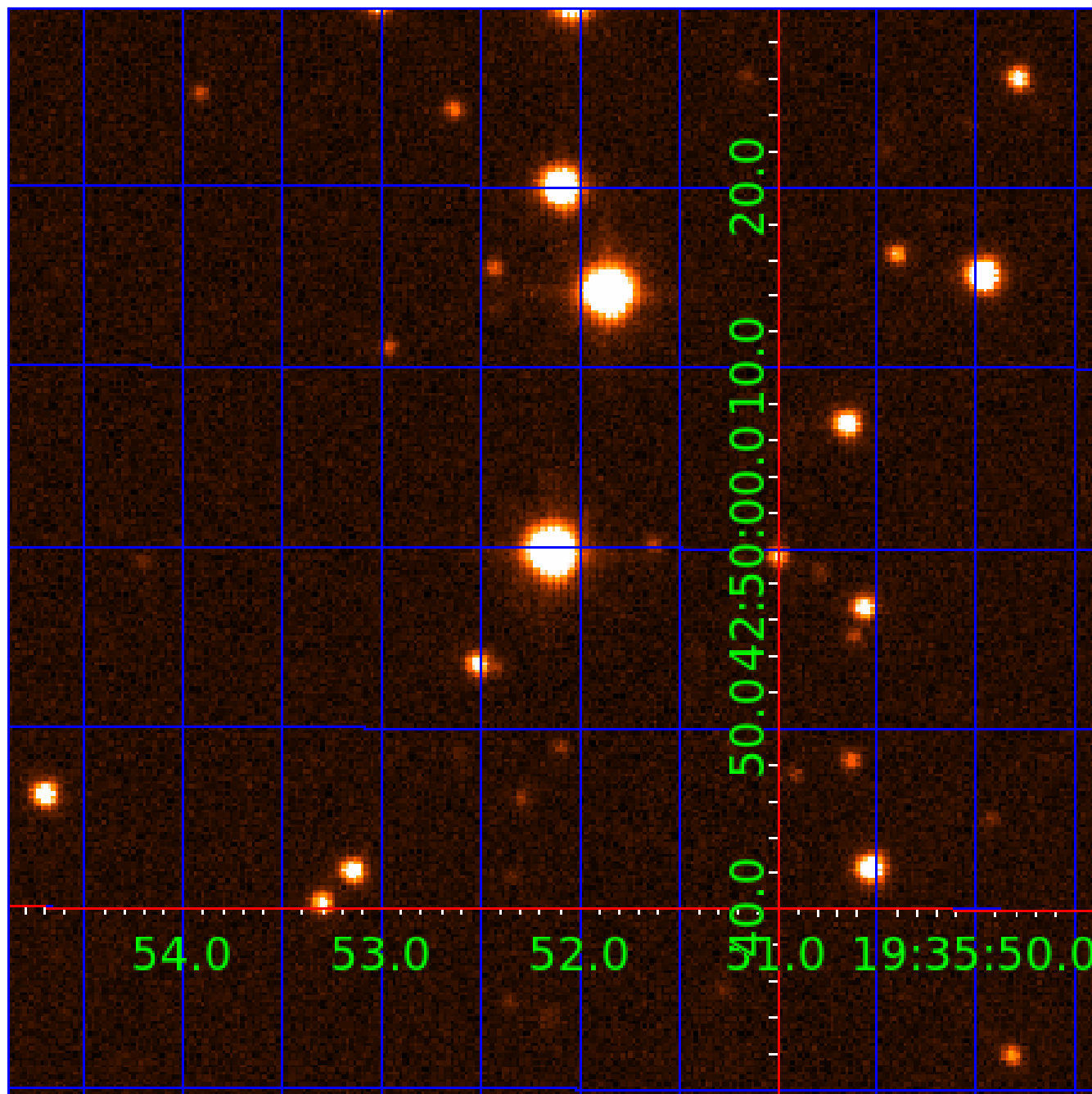


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 007289165

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})
007289165-01	OBS	3847.01	5.266398	131.703842	181.3	3.304	49.4	37.7	1.60	6338	2.92	966.33
007289165-02	OBS	No	406.295506	242.337418	381.2	8.020	10.8	11.0	1.60	6338	3.49	2.94
007289165-03	OBS	No	2.633430	131.564898	37.8	2.280	8.6	8.9	1.60	6338	1.15	2434.72

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007289165-01	OBS	FP	0.00	0	1	1	1	MOD_SEC_DV—MOD_SEC_ALT—HAS_SEC_TCE—CENT_RESOLVED_OFFSET—EPHEM_MATCH
007289165-02	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES_MARSHALL—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_RESOLVED_OFFSET—HALO_GHOST
007289165-03	OBS	FP	0.00	1	1	1	1	IS_SEC_TCE—CENT_RESOLVED_OFFSET—EPHEM_MATCH

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 007289165-03

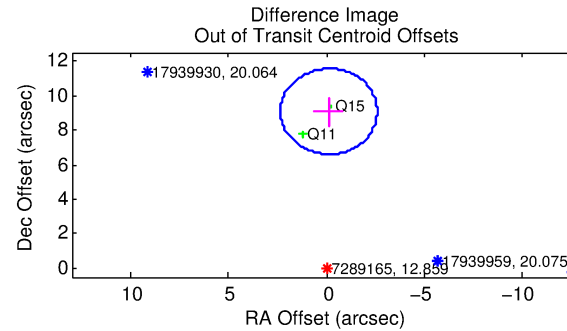
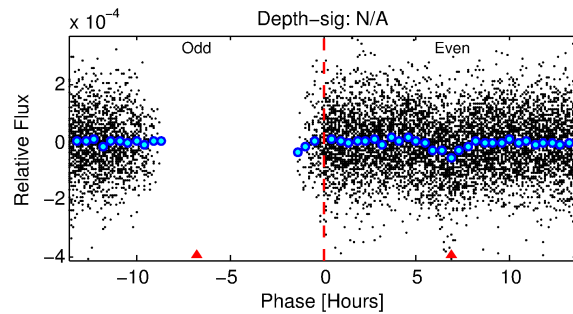
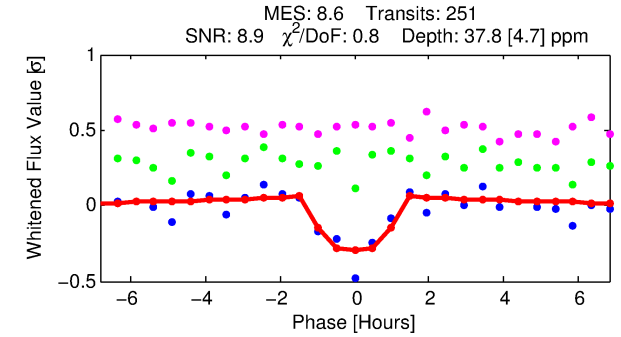
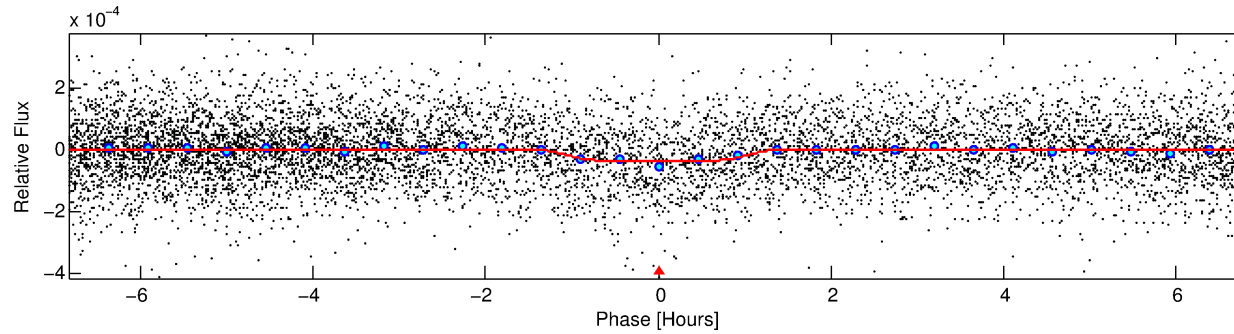
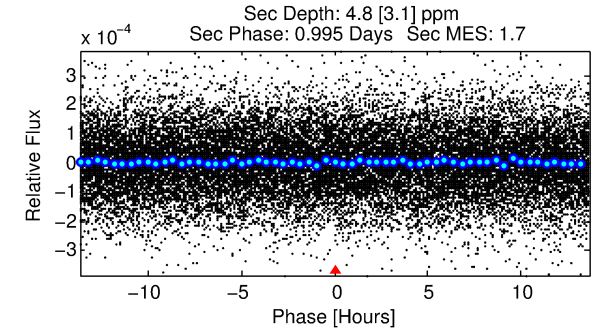
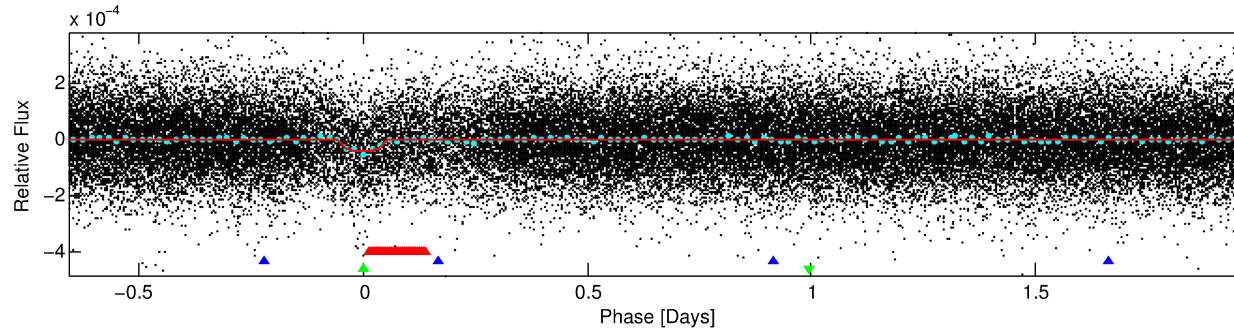
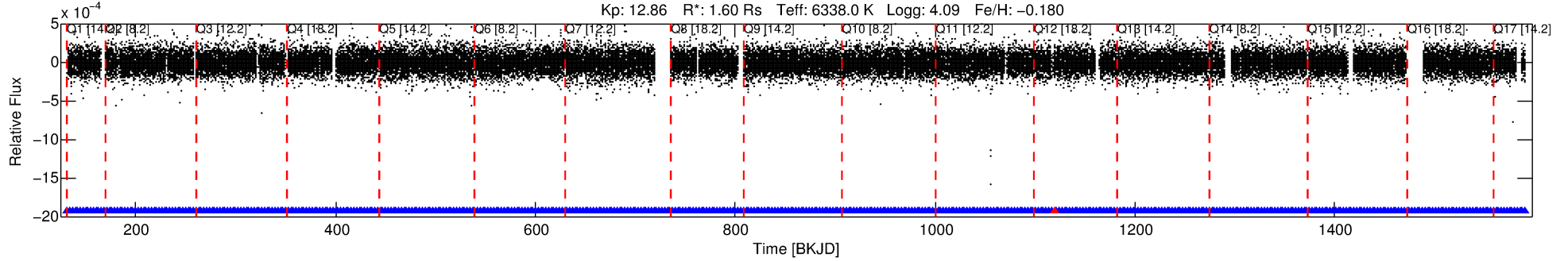
TCE (1)	KIC	Parent (2)	Parent KIC	P ₁ :P ₂	Dist ($''$)	Δ Row	Δ Col	m ₂	m ₁	D ₂ /D ₁	Mechanism	Flag	σ_P	σ_T
007289165-03	7289165	007289157-02	7289157	1:2	14.7	4	1	12.95	12.86	190.24	Direct-PRF	0	3.87	0.91

Notes: P₁:P₂ is the period ratio. Dist is the distance in arcseconds. Δ Row and Δ Col are the number of pixels apart in row and column. m₂ and m₁ are the magnitudes of the parent and child. D₂/D₁ is the parent's transit depth divided by the child's. σ_P and σ_T are the significance of the match in period and epoch. For a match to be considered significant $\sigma_P < 5.0$ and $\sigma_T < 5.0$. Matches which have σ_P and σ_T very close to this cutoff should receive extra scrutiny, especially if the period ratio is very large.

DV One-Page Summary

KIC: 7289165 Candidate: 3 of 3 Period: 2.633 d
KOI: K03847 Corr: No Ephemeris Match

Kp: 12.86 R*: 1.60 Rs Teff: 6338.0 K Logg: 4.09 Fe/H: -0.180



DV Fit Results:

Period = 2.63343 [0.00002] d
Epoch = 131.5649 [0.0034] BKJD
Rp/R* = 0.0066 [0.0026]
a/R* = 4.10 [8.28]
b = 0.90 [0.47]
Seff = 2434.72 [984.98]
Teq = 1791 [181] K
Rp = 1.15 [0.54] Re
a = 0.0390 [0.0095] AU
Ag = 2.99 [3.25] [0.61σ]
Teffp = 3642 [929] K [1.96σ]

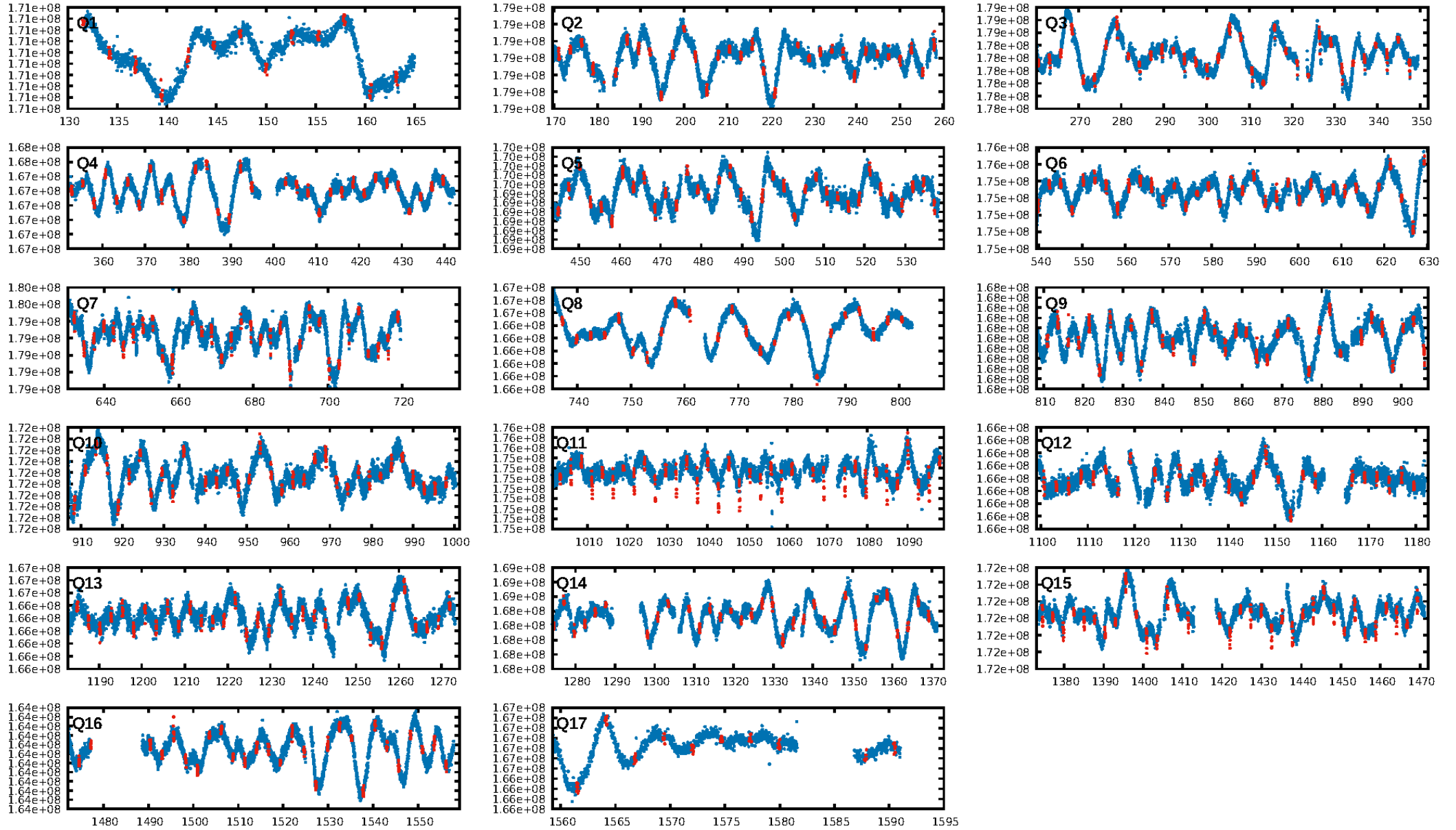
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [15.74σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 2.93e-17
RollingBand-fgt: 1.00 [239/240]
GhostDiagnostic-chr: -0.3011
Centroid-sig: N/A
Centroid-so: 39.678 arcsec [39.70σ]
OotOffset-rm: 9.079 arcsec [11.01σ]
KicOffset-rm: 9.139 arcsec [10.92σ]
OotOffset-st: 0/2/0/0 [2]
KicOffset-st: 0/2/0/0 [2]
DiffImageQuality-fgm: 0.50 [1/2]
DiffImageOverlap-fno: 1.00 [17/17]

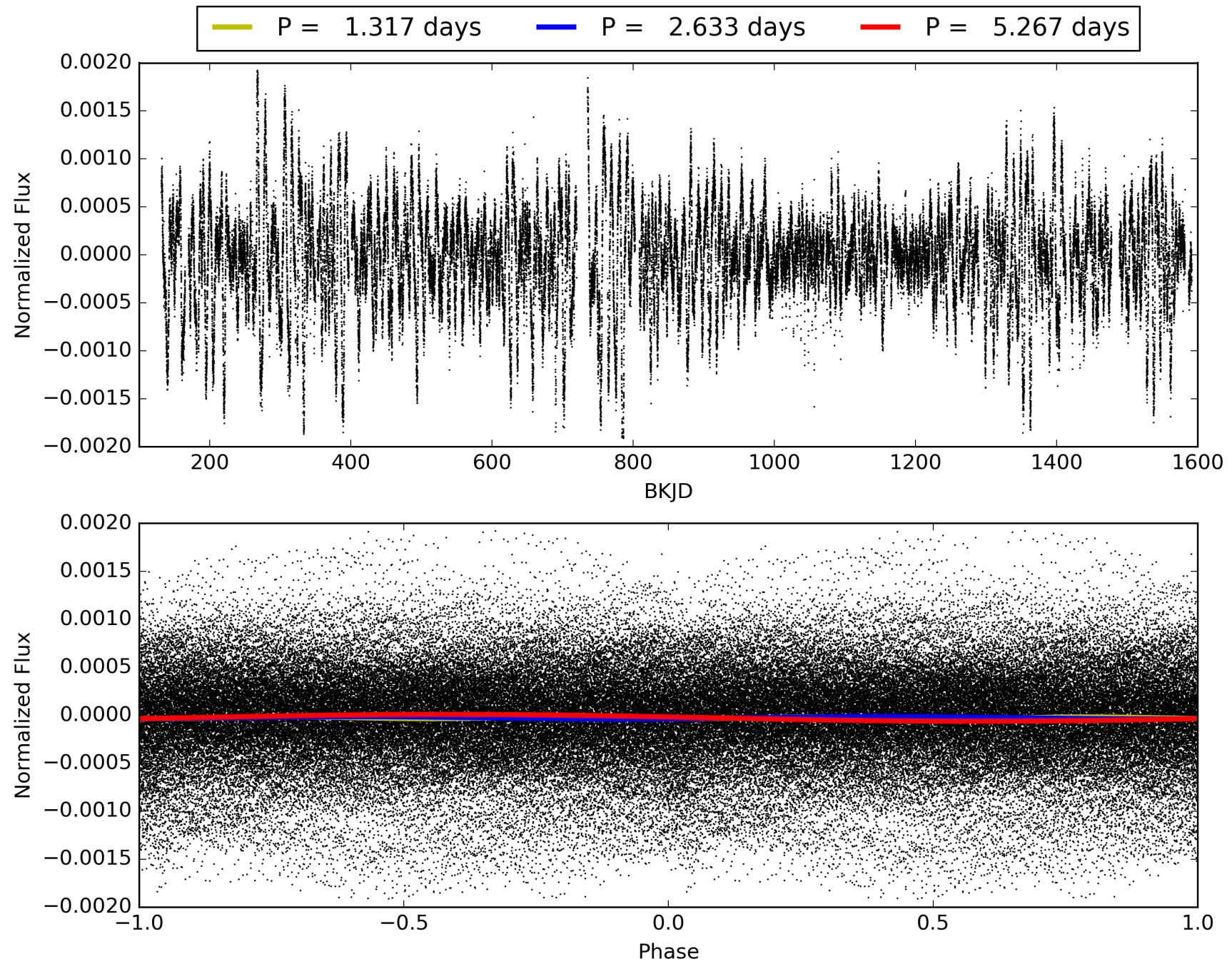
Software Revision: svn-ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 01:48:27 Z

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

TCE 007289165-03, PDC Light Curves

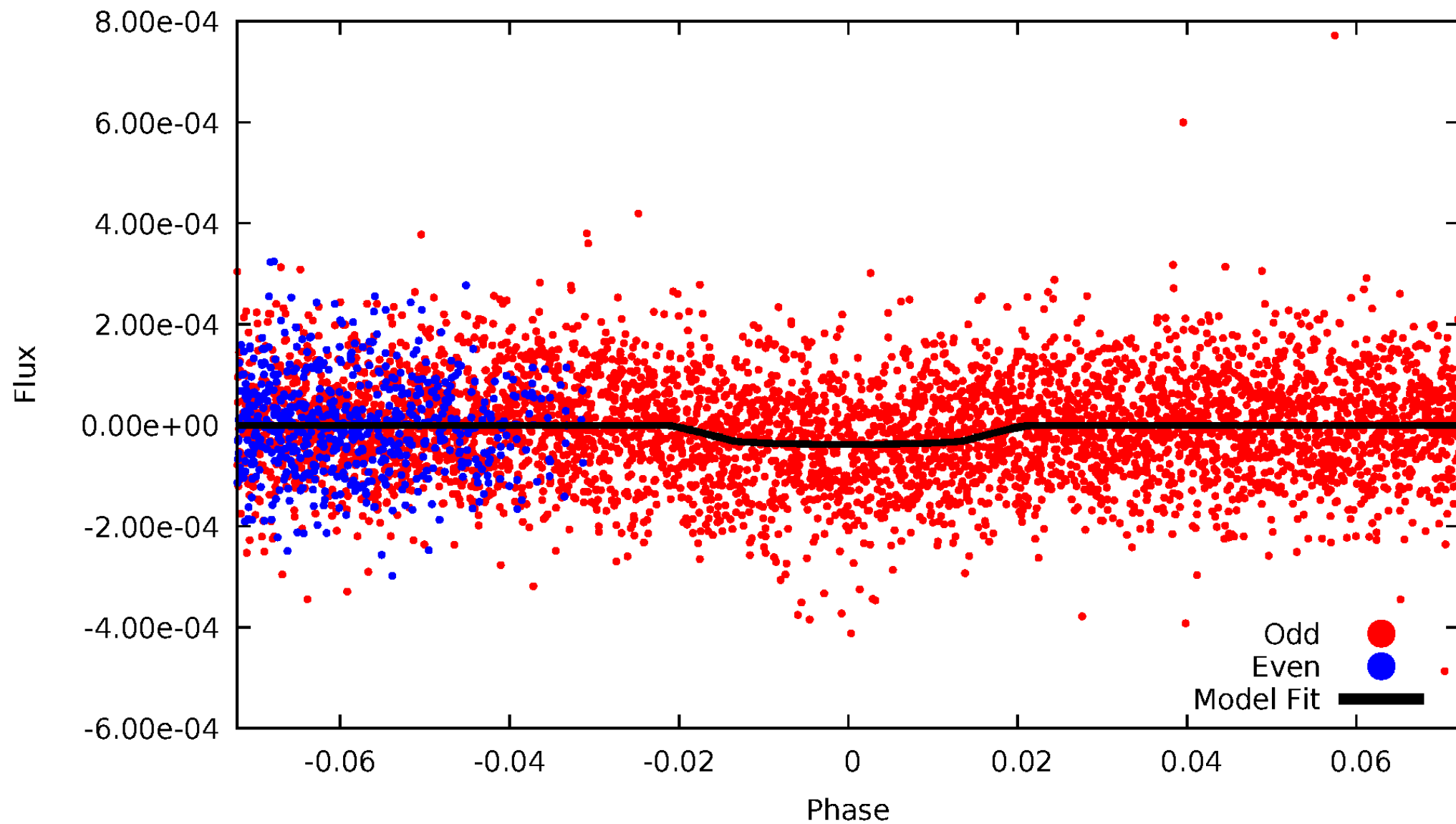


TCE 007289165-03



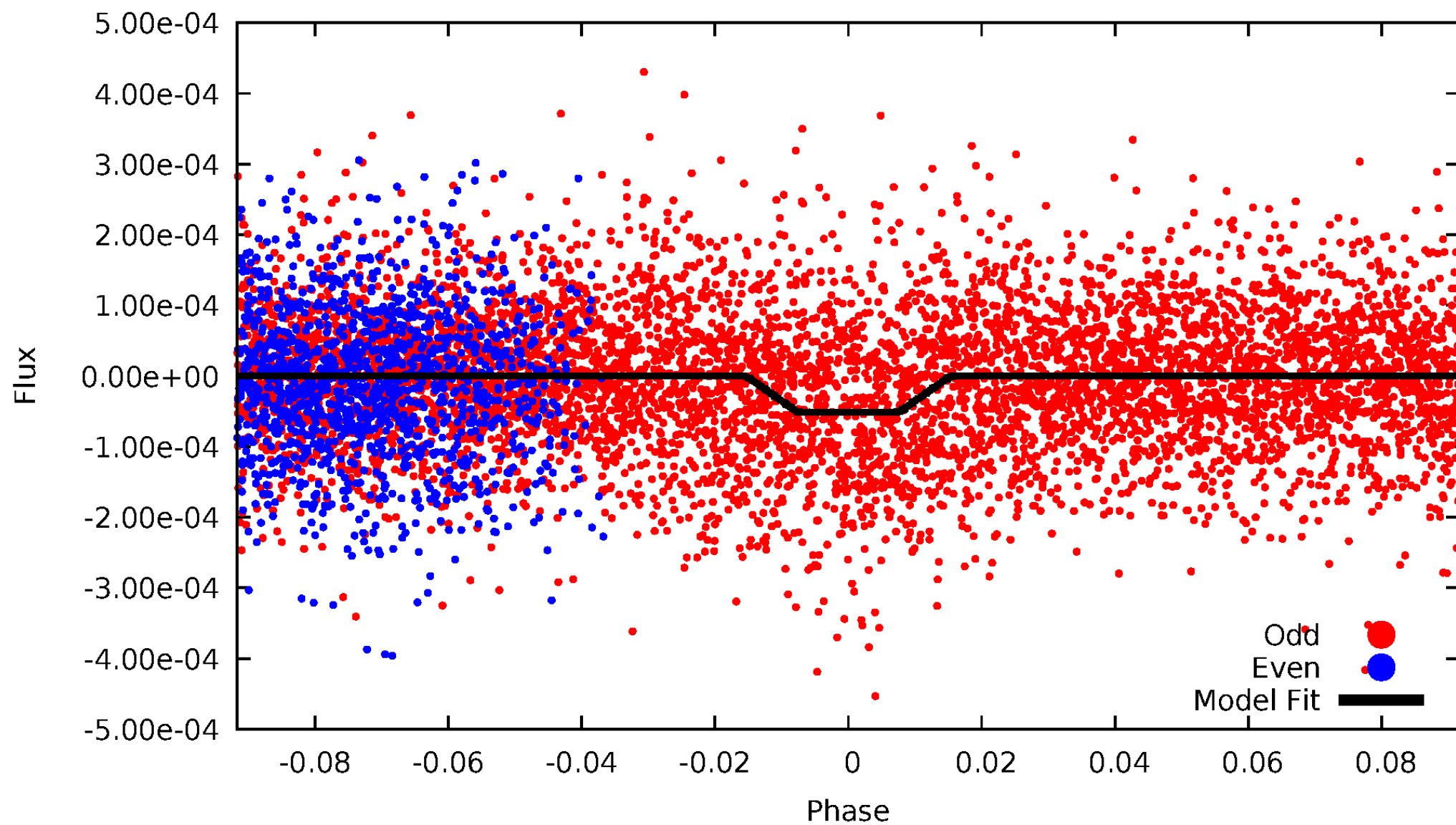
DV Odd/Even

TCE 007289165-03



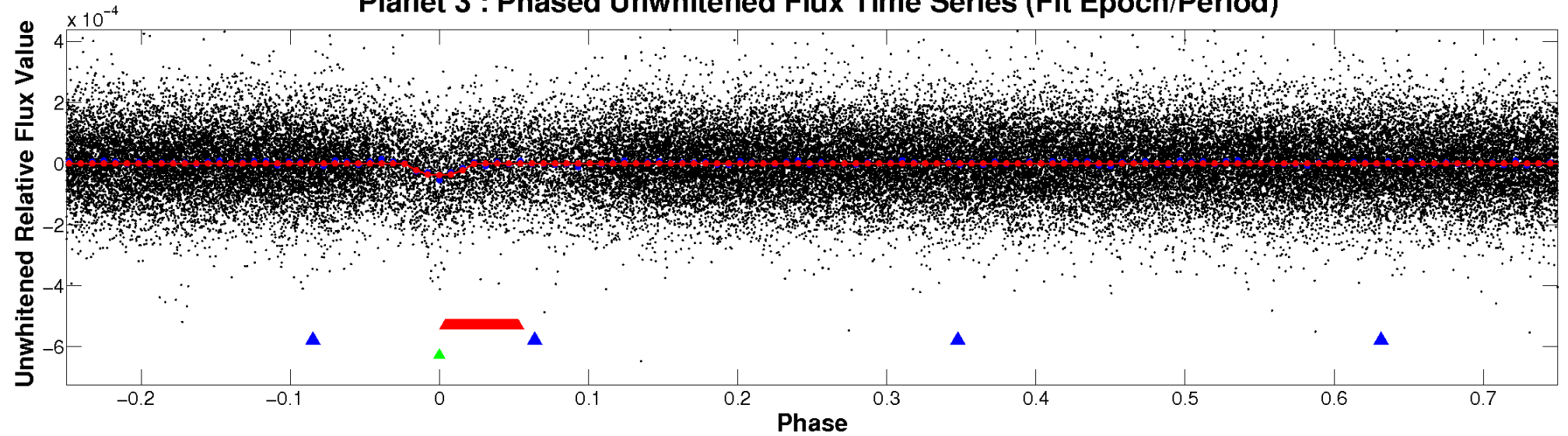
ALT Odd/Even

TCE 007289165-03

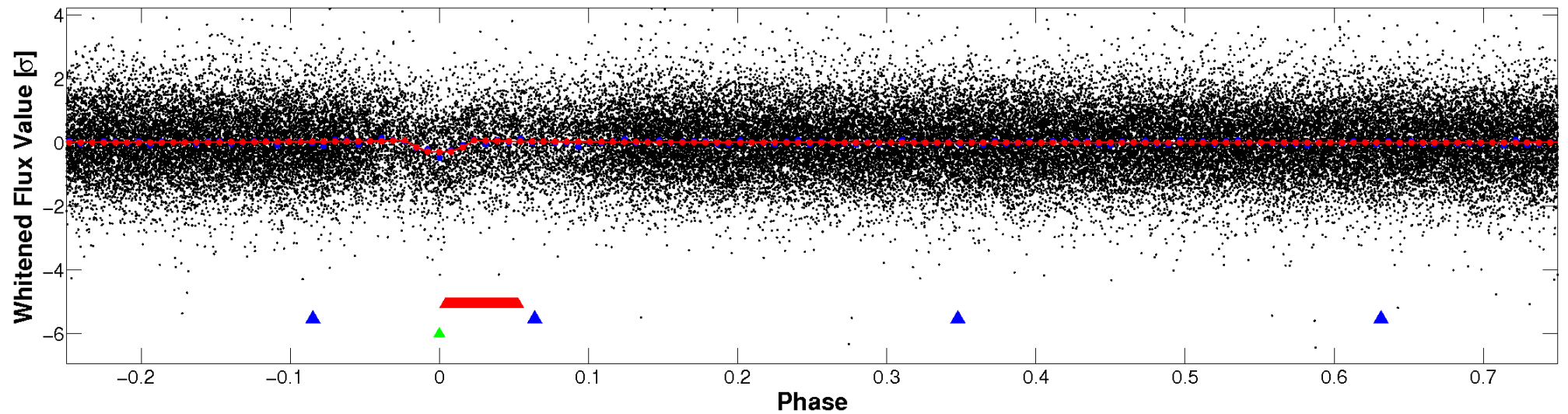


Non-Whitened Vs. Whitened Light Curve

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

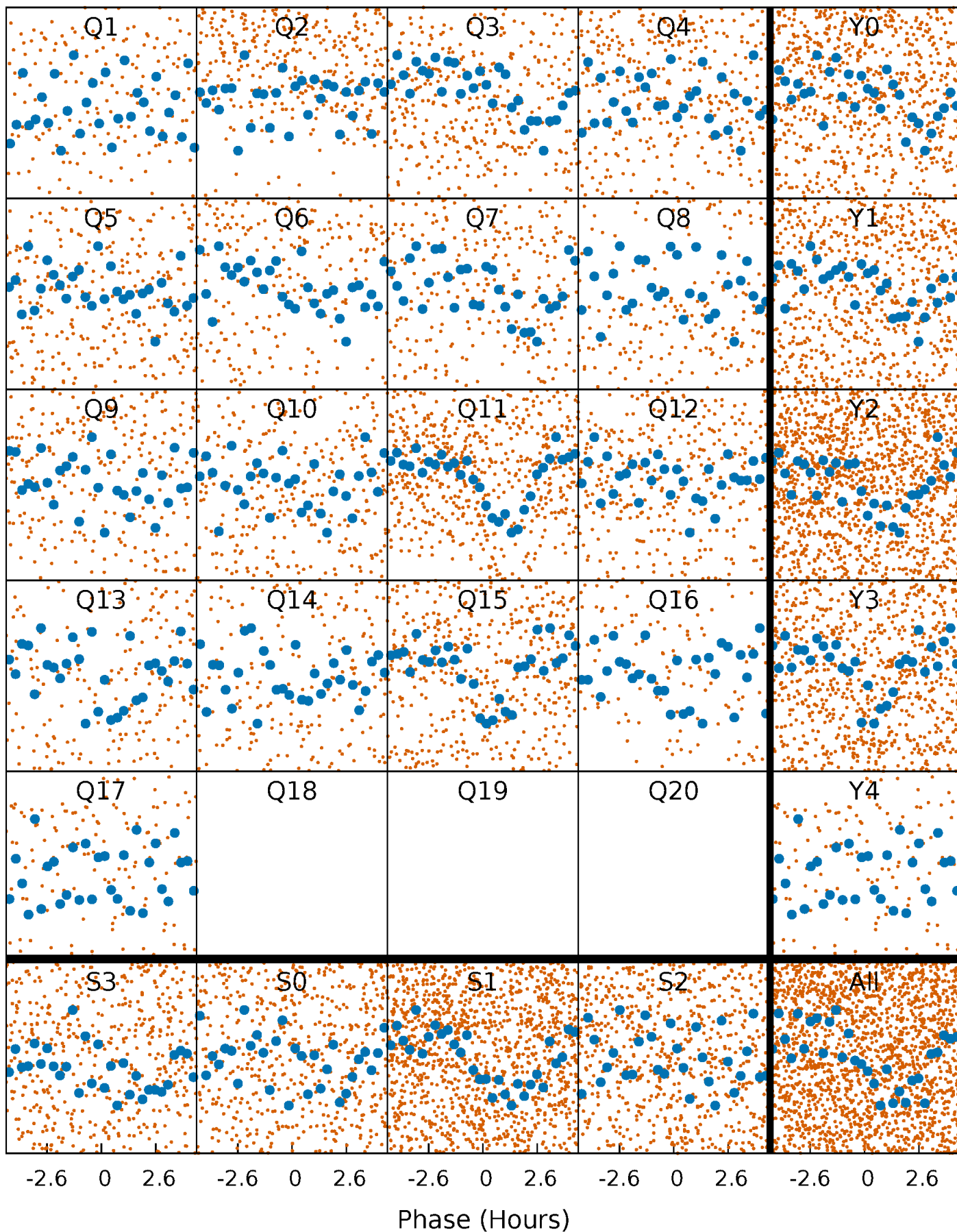


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



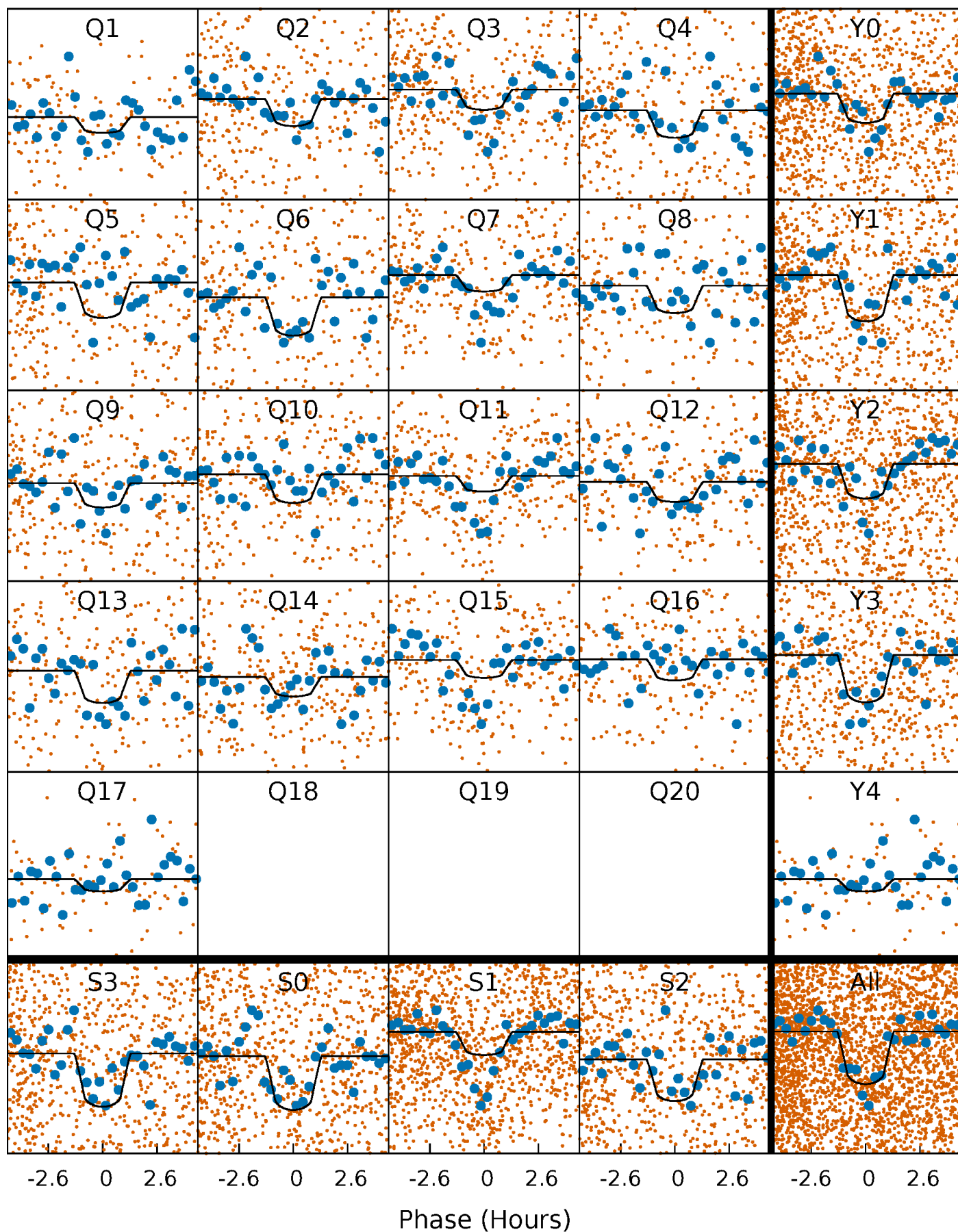
PDC Quarter-Phased Transit Curves

TCE 007289165-03 P= 2.633430 Days $T_0=131.564898$ (BKJD)



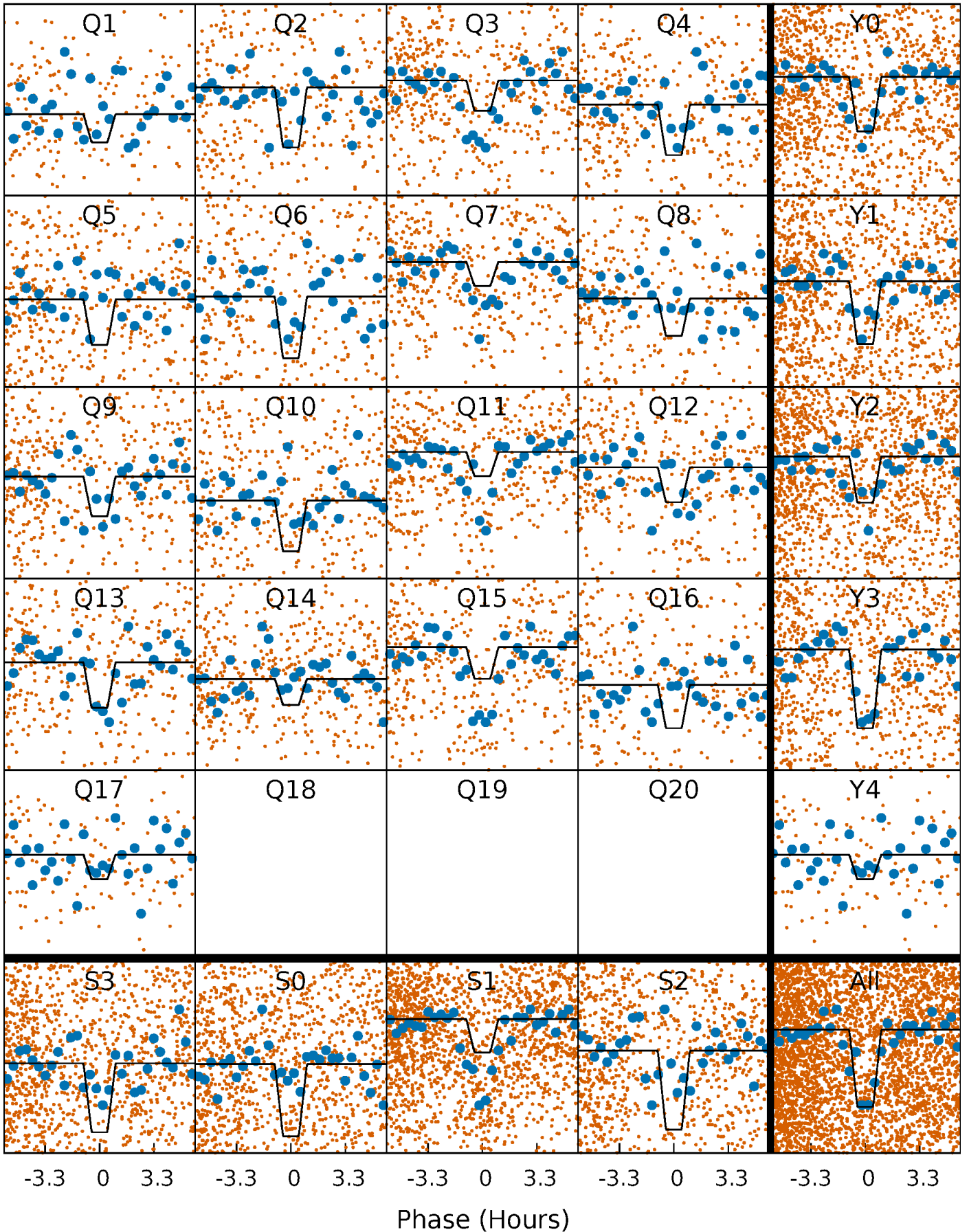
DV Quarter-Phased Transit Curves

TCE 007289165-03 P= 2.633430 Days $T_0=131.564898$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

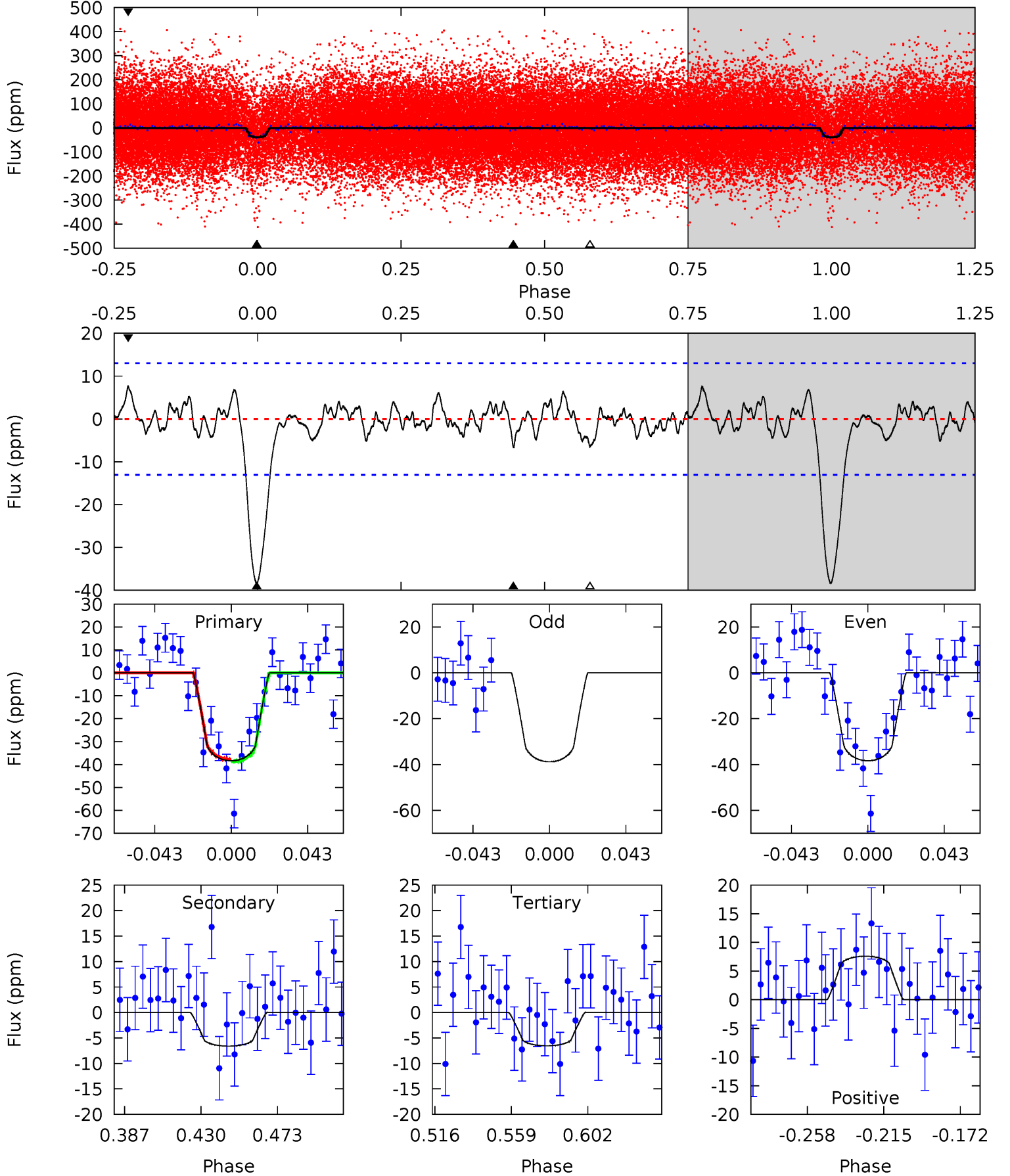
TCE 007289165-03 P= 2.633360 Days $T_0=131.580611$ (BKJD)



DV Model-Shift Uniqueness Test

007289165-03, P = 2.633430 Days, E = 131.564898 Days

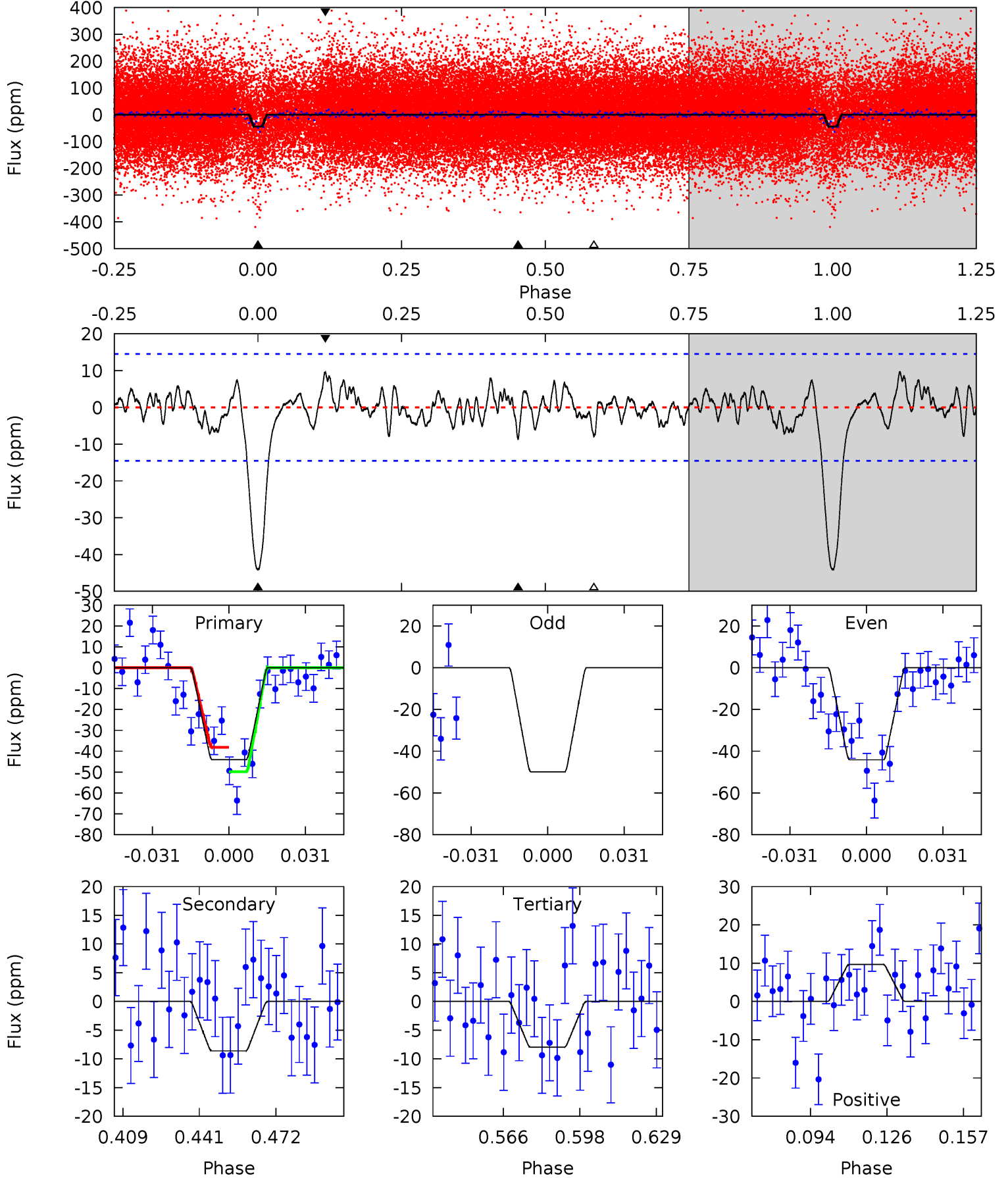
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.0	2.40	2.38	2.76	4.74	2.02	0.93	11.6	11.2	0.02	-0.36	0.10	1.02	0.17	0.17



Alt Model-Shift Uniqueness Test

007289165-03, P = 2.633360 Days, E = 131.580611 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.6	2.85	2.63	3.19	4.80	2.15	1.08	11.9	11.4	0.22	-0.35	1.11	1.09	0.18	1.94



Stellar Parameters For KIC 007289165

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6338^{+155}_{-174}	$4.087^{+0.228}_{-0.123}$	$-0.180^{+0.250}_{-0.300}$	$1.602^{+0.335}_{-0.410}$	$1.142^{+0.195}_{-0.146}$	$0.391^{+0.504}_{-0.139}$
	+2%/-3%	+6%/-3%	+139%/-167%	+21%/-26%	+17%/-13%	+129%/-36%
Source	PHO1	FLK73	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 007289165-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-7 ± 3	$1.15^{+0.50}_{-0.45}$	2480^{+146}_{-173}	4098^{+893}_{-601}	$4.177^{+7.048}_{-2.375}$
Alt.	-9 ± 3	$1.24^{+0.48}_{-0.45}$	2483^{+138}_{-179}	4175^{+927}_{-533}	$4.599^{+7.378}_{-2.449}$

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

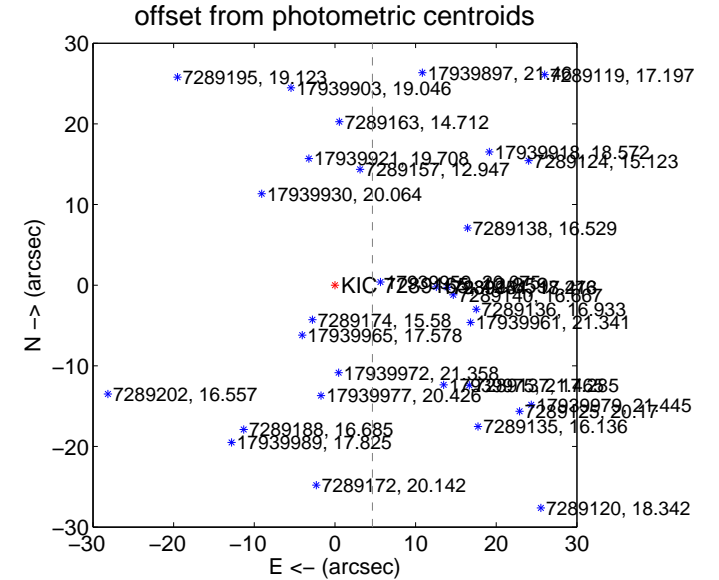
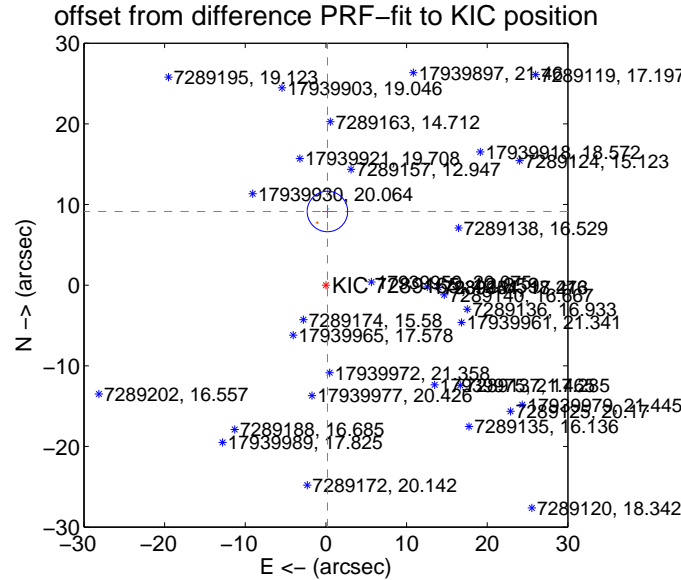
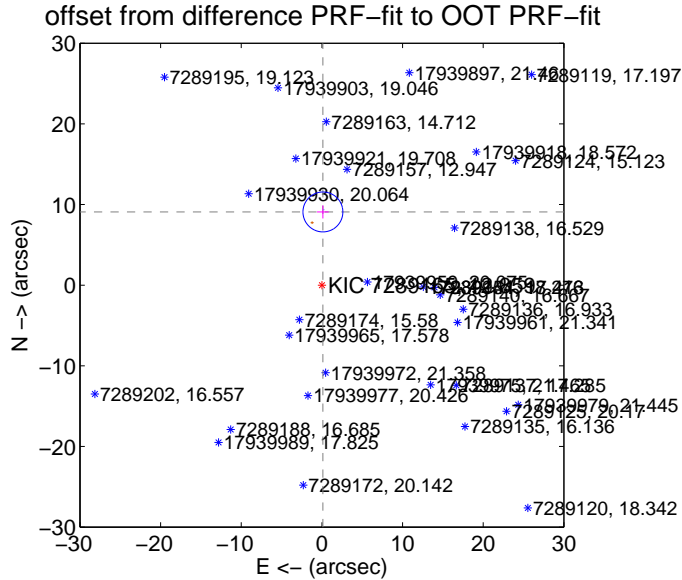
DV Centroid Data

Supplemental centroid analysis for 007289165-03. Kepler magnitude: 12.86. Transit SNR 8.86

There are 1 quarters with good PRF difference image offsets

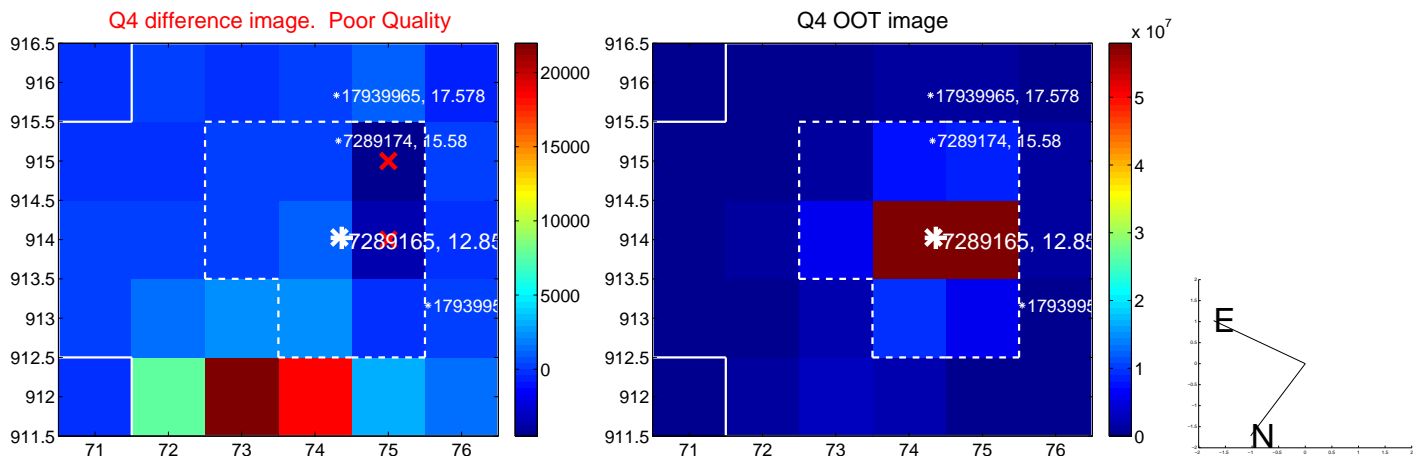
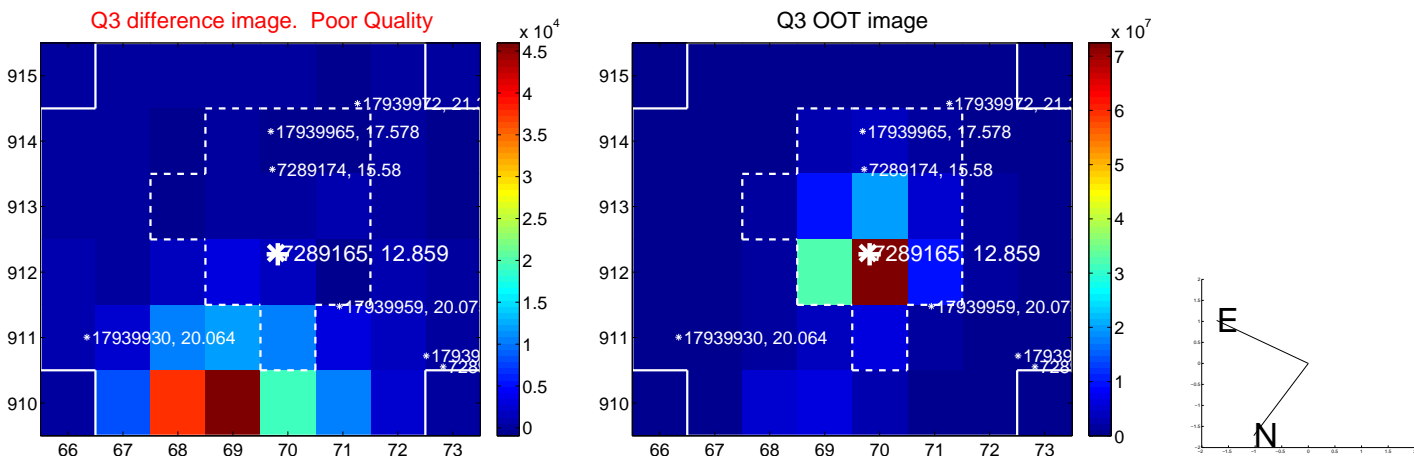
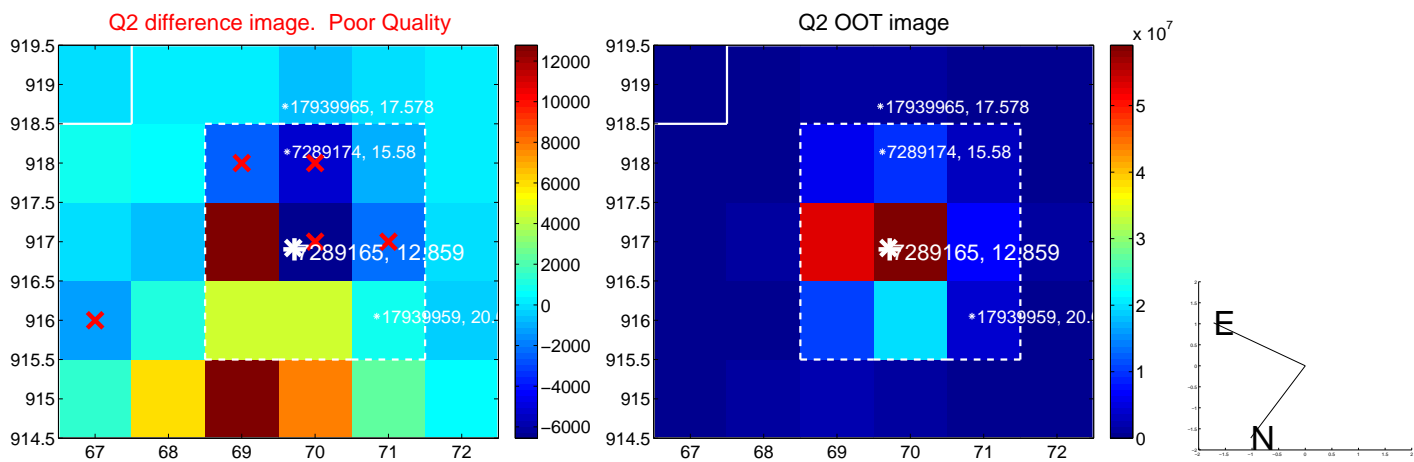
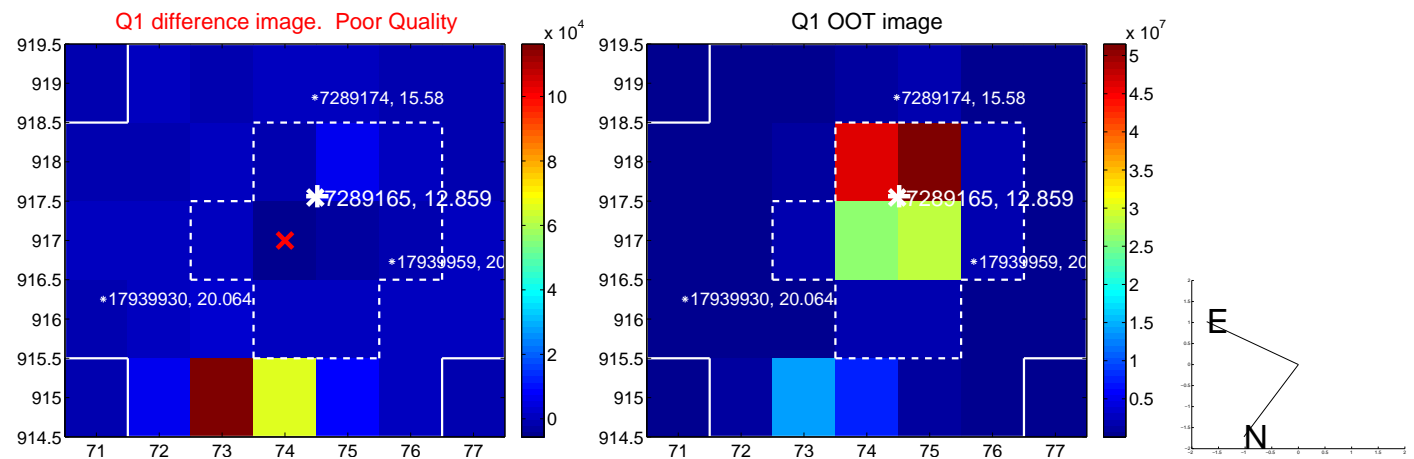
The direct PRF centroid is offset from the target star catalog position by about 0.09 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	9.079 \pm 0.825	11.01	-0.125 \pm 0.723	9.078 \pm 0.815
PRF-fit source offset from KIC position	9.139 \pm 0.837	10.92	-0.186 \pm 0.656	9.137 \pm 0.824
photometric centroid source offset	39.68 \pm 1.00	39.70	-4.65 \pm 0.87	39.40 \pm 1.00

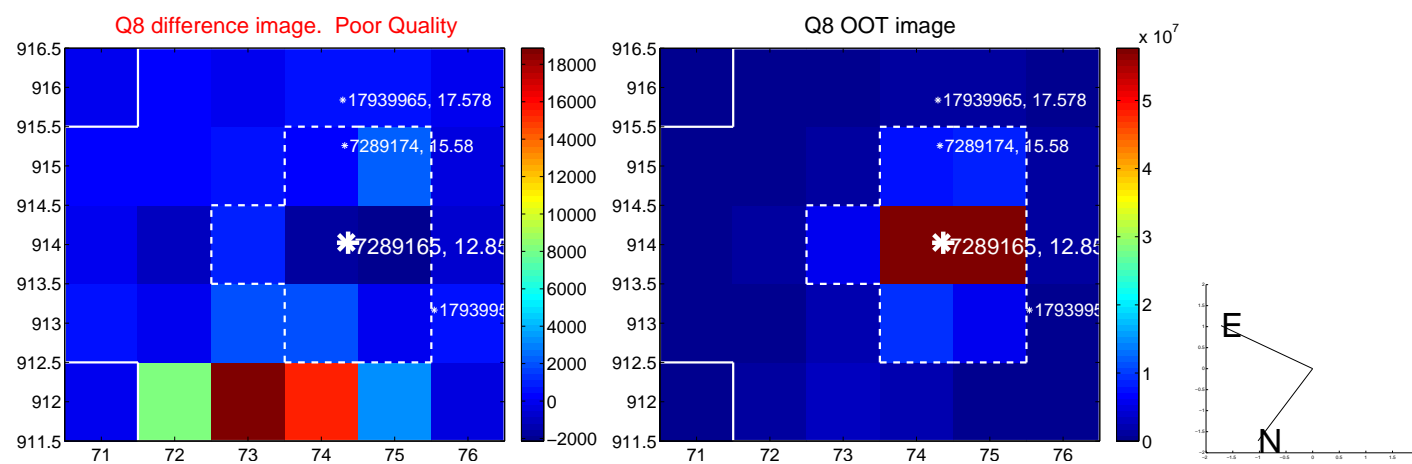
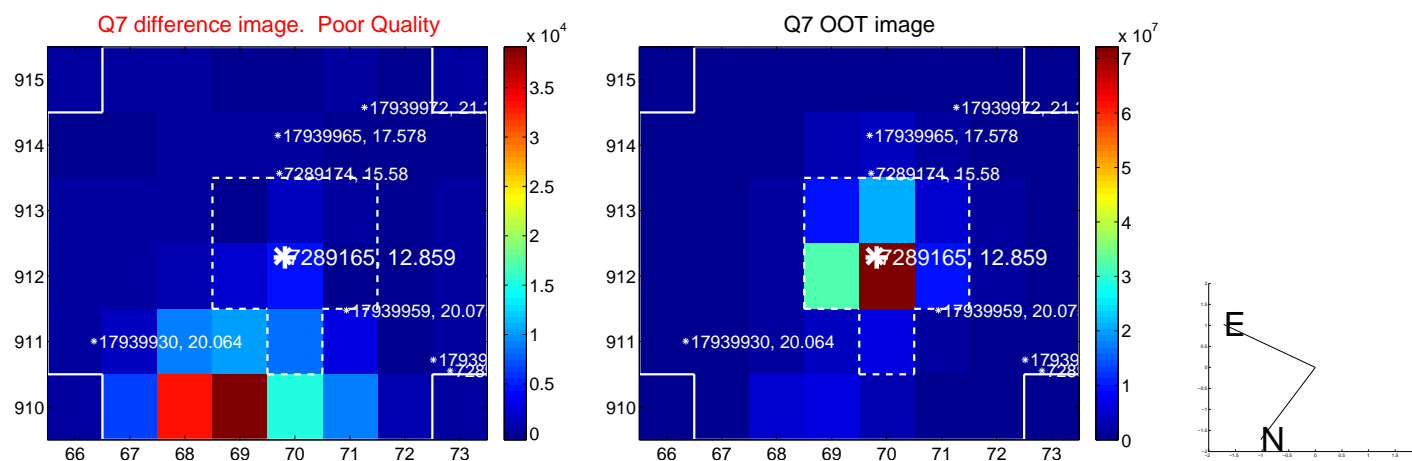
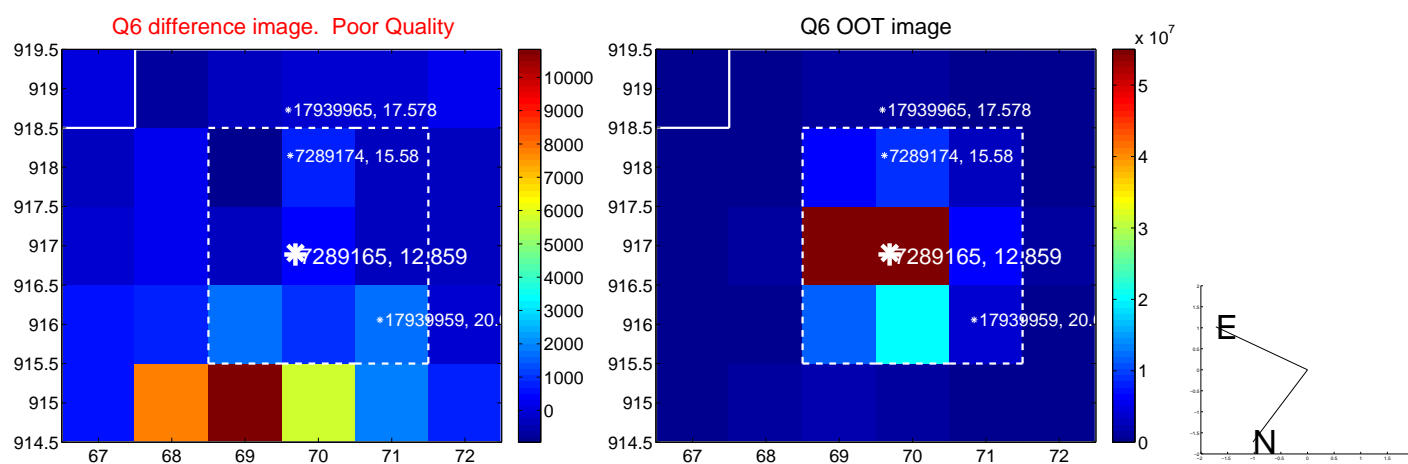
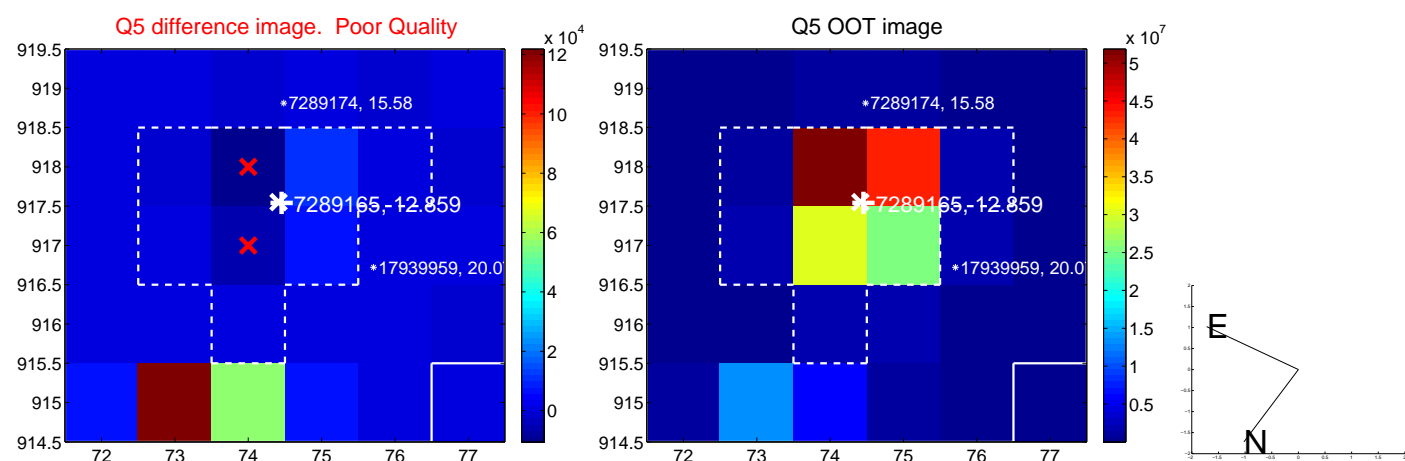


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

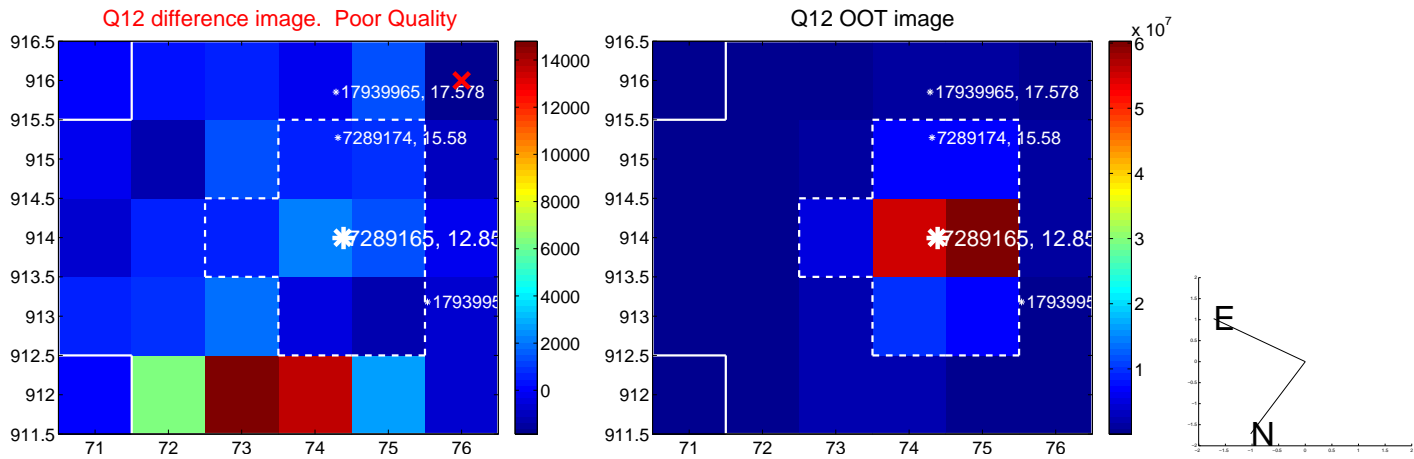
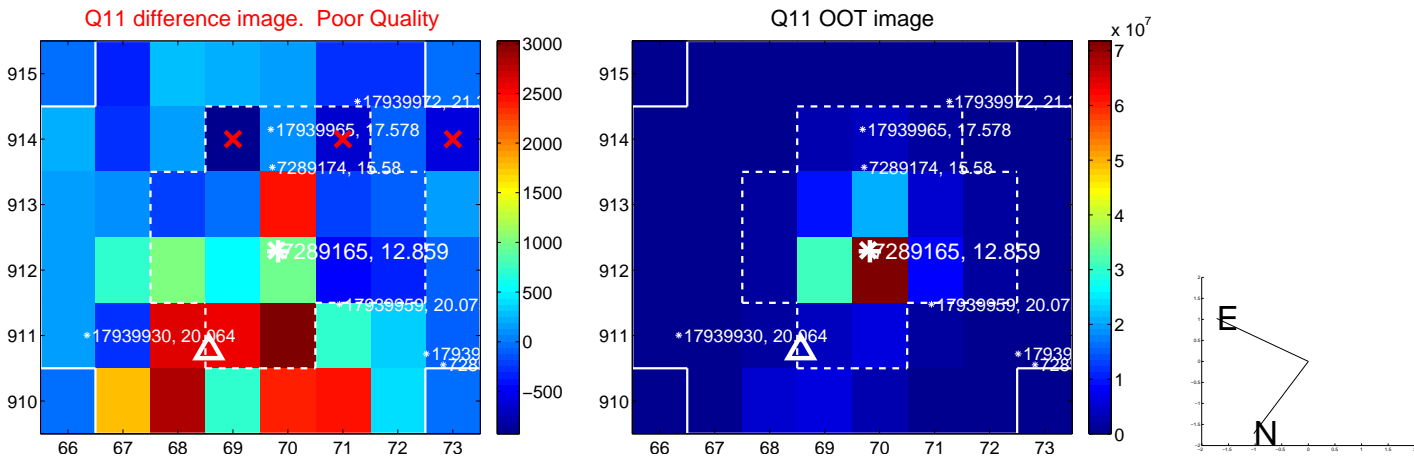
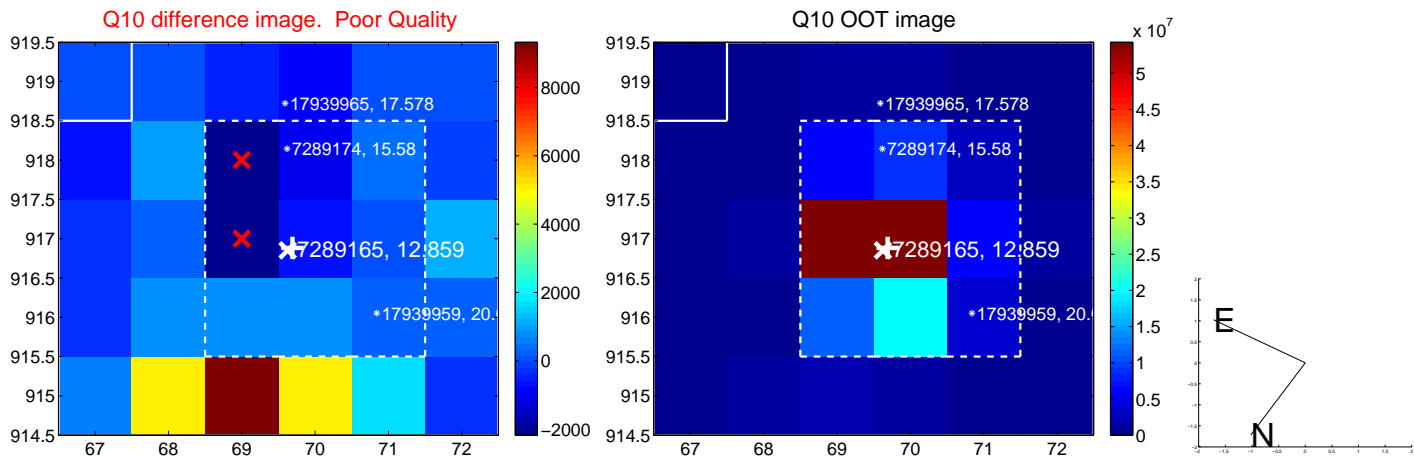
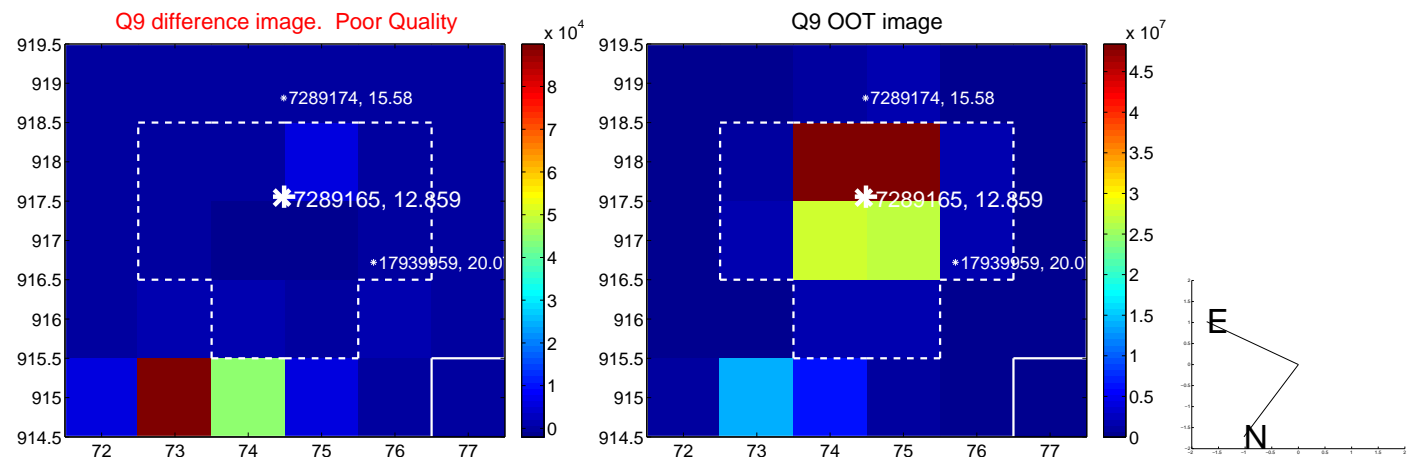
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



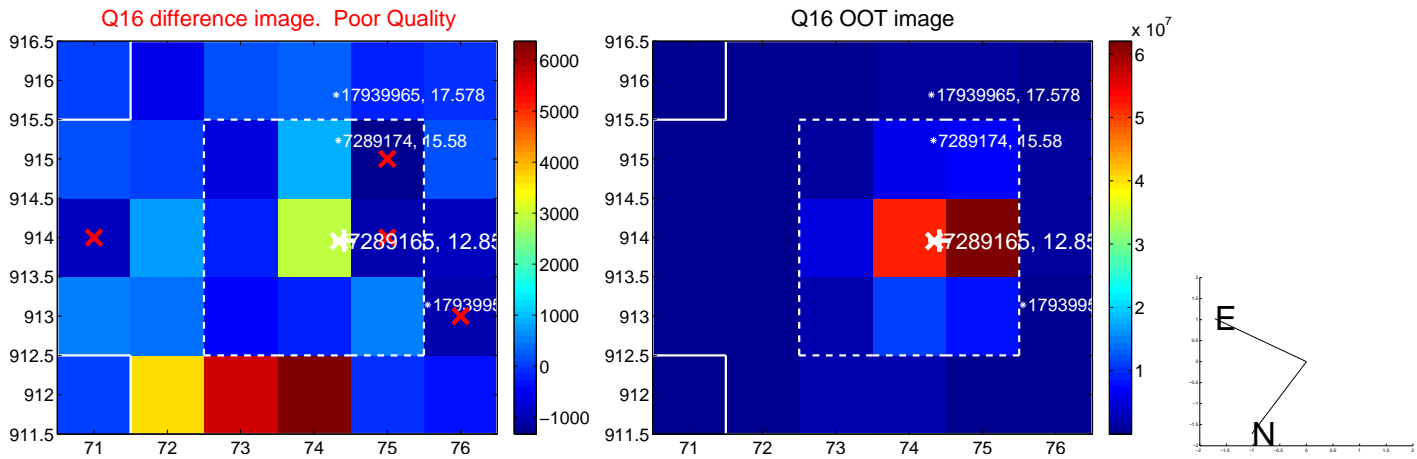
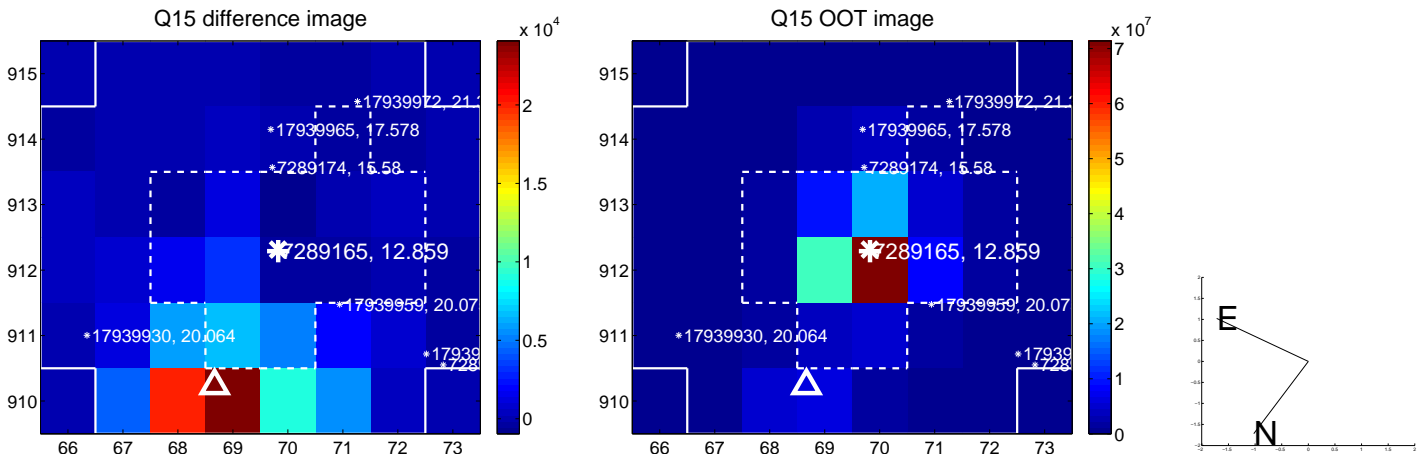
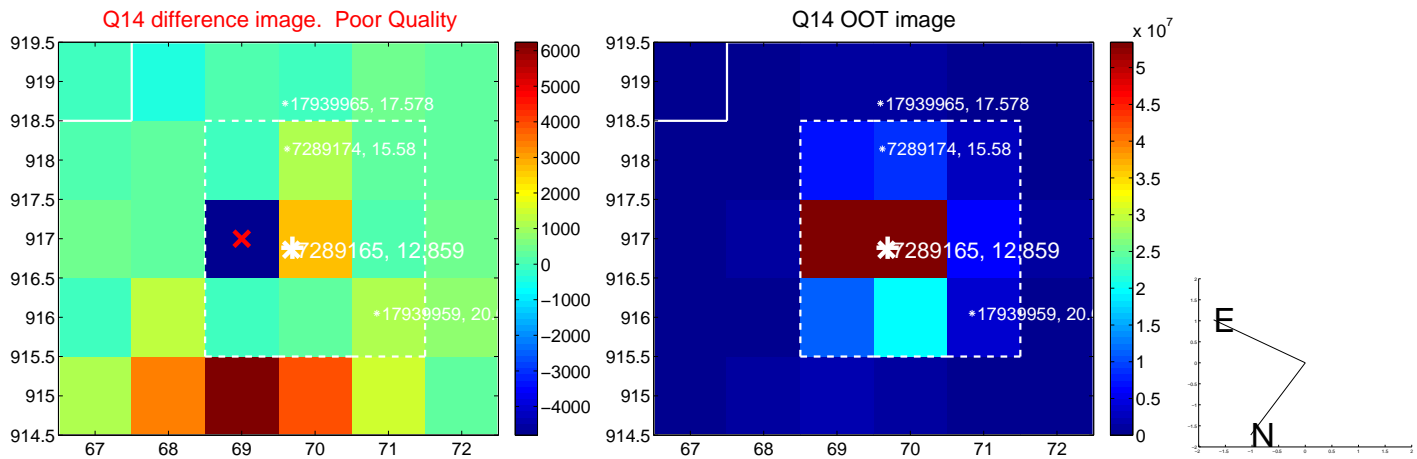
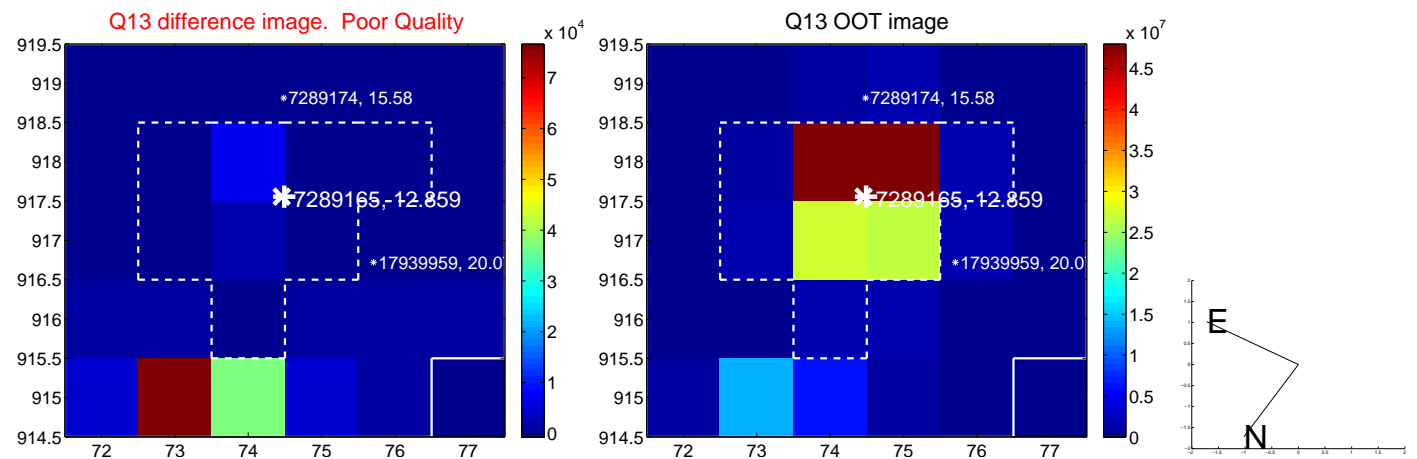
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



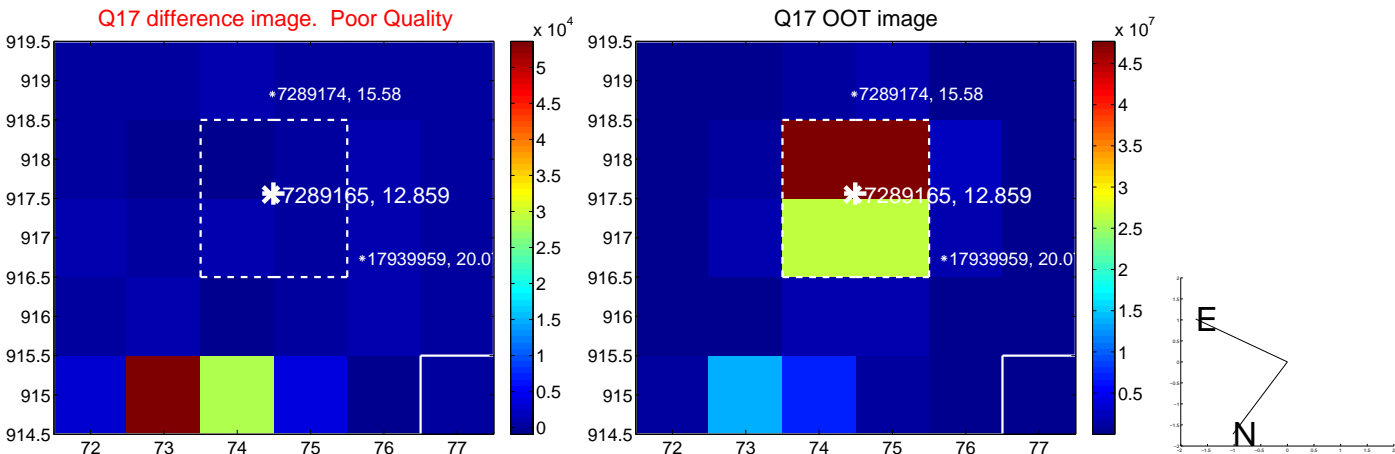
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



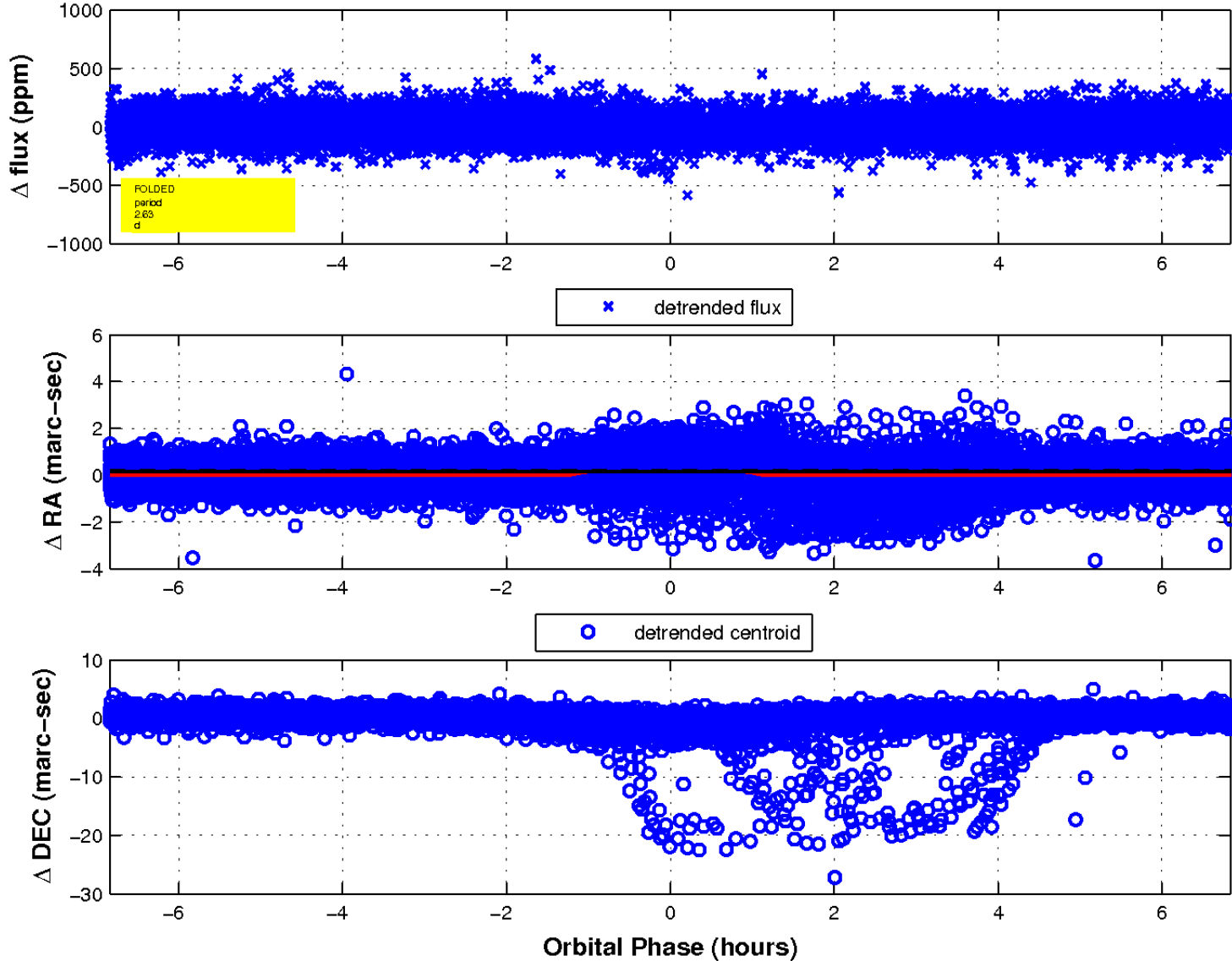
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 3 of 3



UKIRT Image

Declination

