

KIC 007289157

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})
007289157-01	OBS	0399.01	5.266466	131.694714	52111.6	3.525	8152.3	4060.3	1.18	5916	38.39	432.85
007289157-02	OBS	No	5.266702	134.216017	7228.7	3.229	1082.0	734.0	1.18	5916	14.44	432.83
007289157-03	OBS	No	446.465840	405.975557	130024.8	7.717	1003.0	893.0	1.18	5916	57.22	1.16

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007289157-01	OBS	FP	0.00	0	1	0	0	MOD_SEC_DV—MOD_SEC_ALT—DEEP_V_SHAPED—HAS_SEC_TCE
007289157-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE
007289157-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—INCONSISTENT_TRANS—CENT_FEW_DIFFS

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

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

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

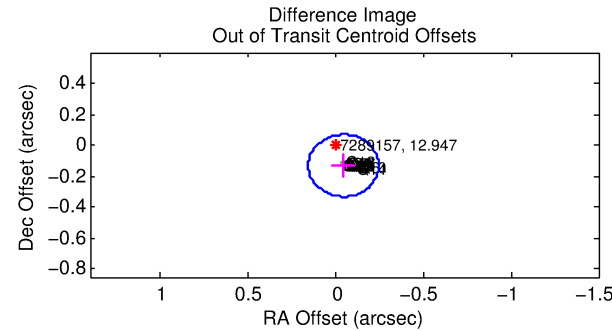
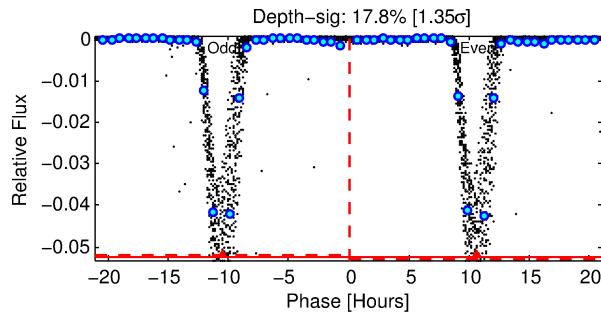
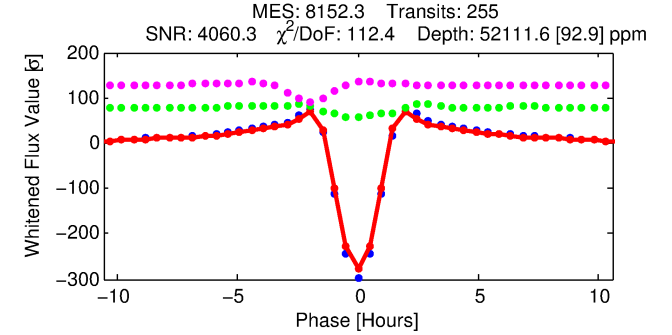
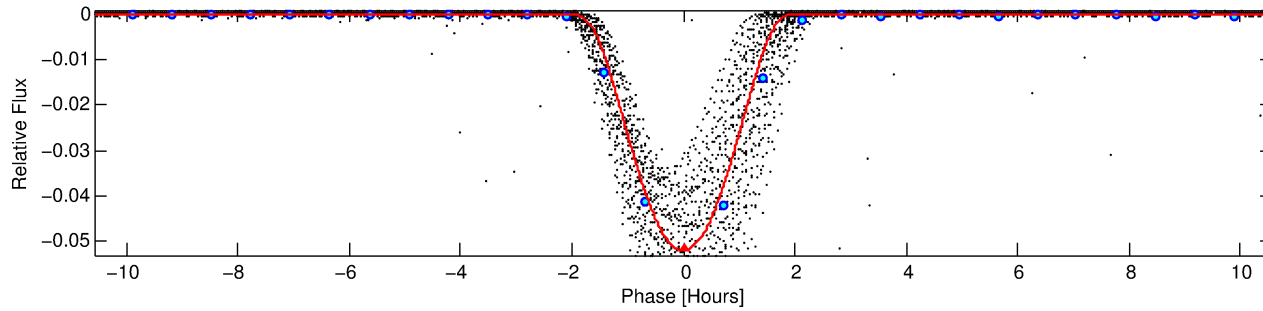
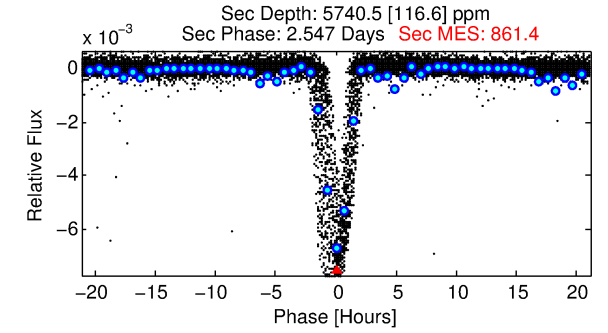
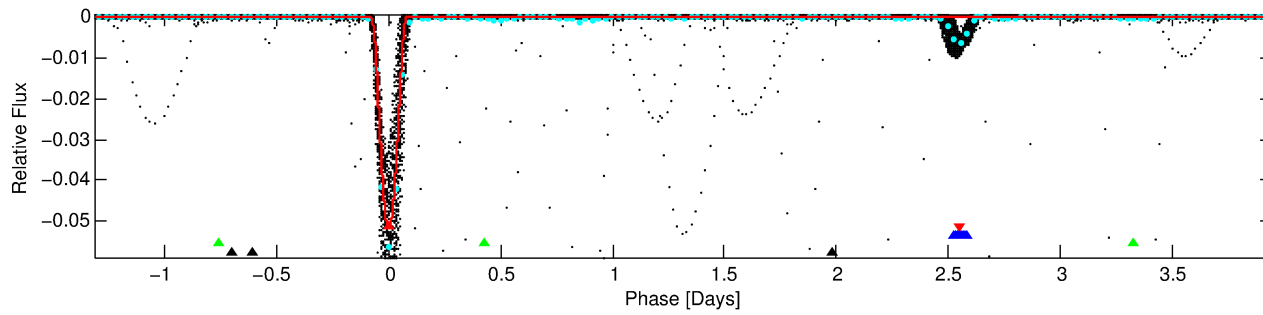
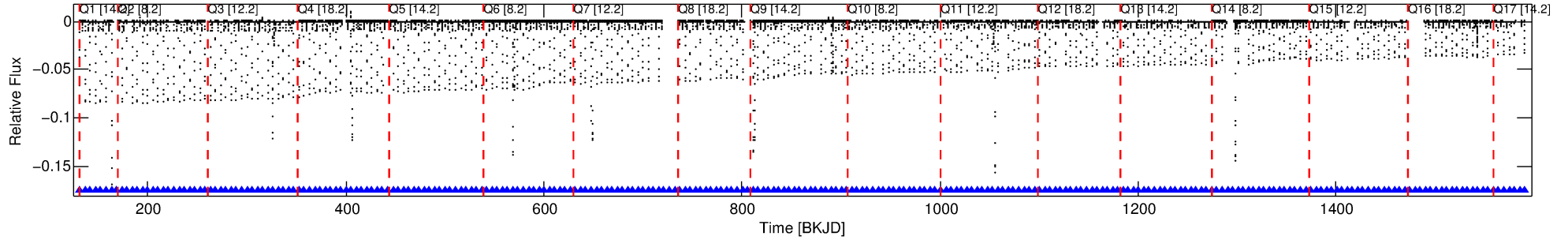
Ephemeris Match Information For 007289157-01

No Significant Match Found

DV One-Page Summary

KIC: 7289157 Candidate: 1 of 4 Period: 5.266 d
KOI: K00399.01 Corr: 0.968

Kp: 12.95 R*: 1.18 Rs Teff: 5916.0 K Logg: 4.30 Fe/H: -0.060



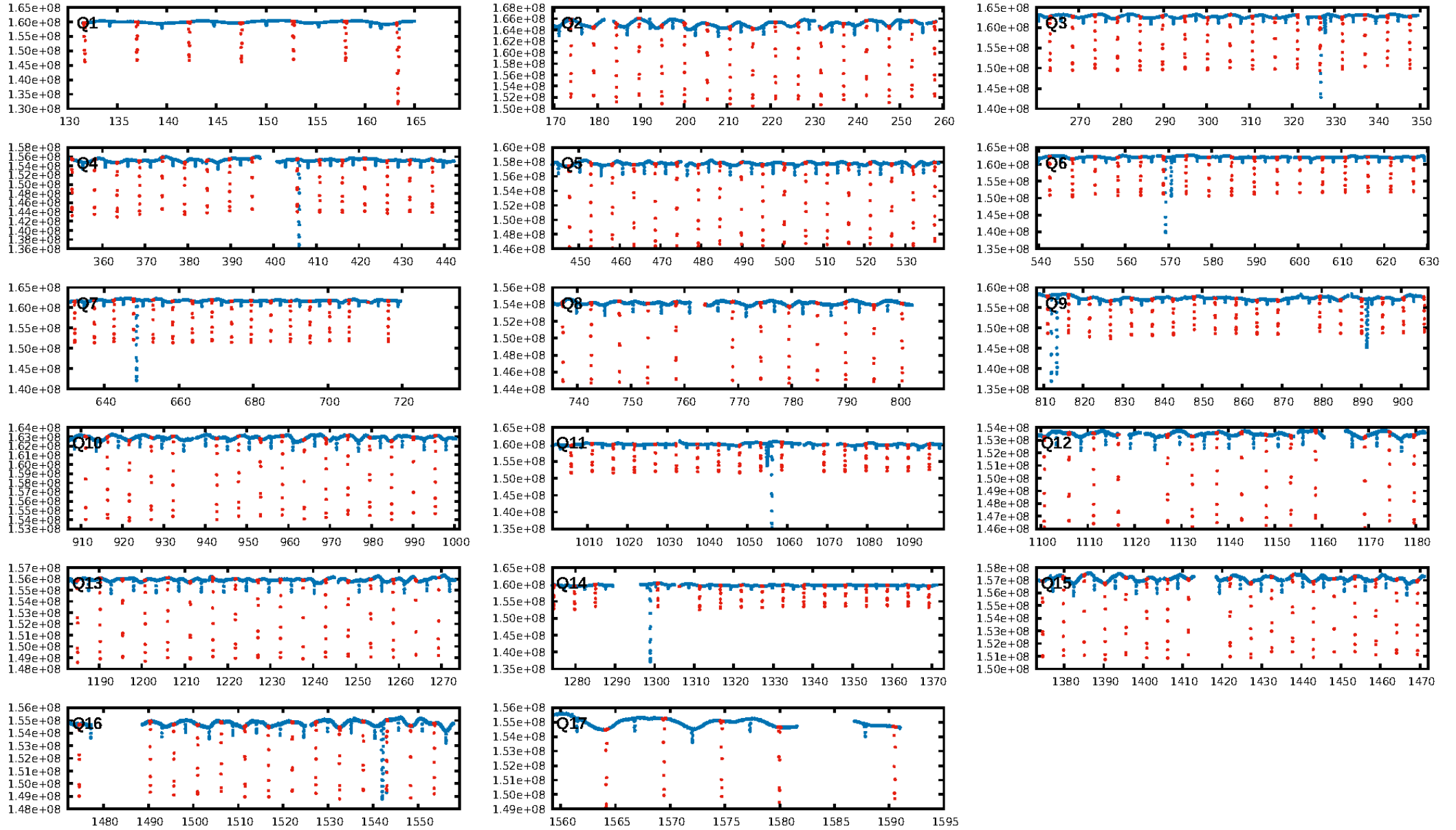
DV Fit Results:

Period = 5.26647 [0.00000] d
Epoch = 131.6947 [0.0001] BKJD
Rp/R* = 0.2994 [0.0166]
a/R* = 10.63 [0.05]
b = 0.91 [0.03]
Seff = 432.85 [104.00]
Teff = 1163 [70] K
Rp = 38.39 [6.19] Re
a = 0.0592 [0.0085] AU
Ag = 7.50 [1.90] [3.43 σ]
Teffp = 2976 [103] K [14.58 σ]

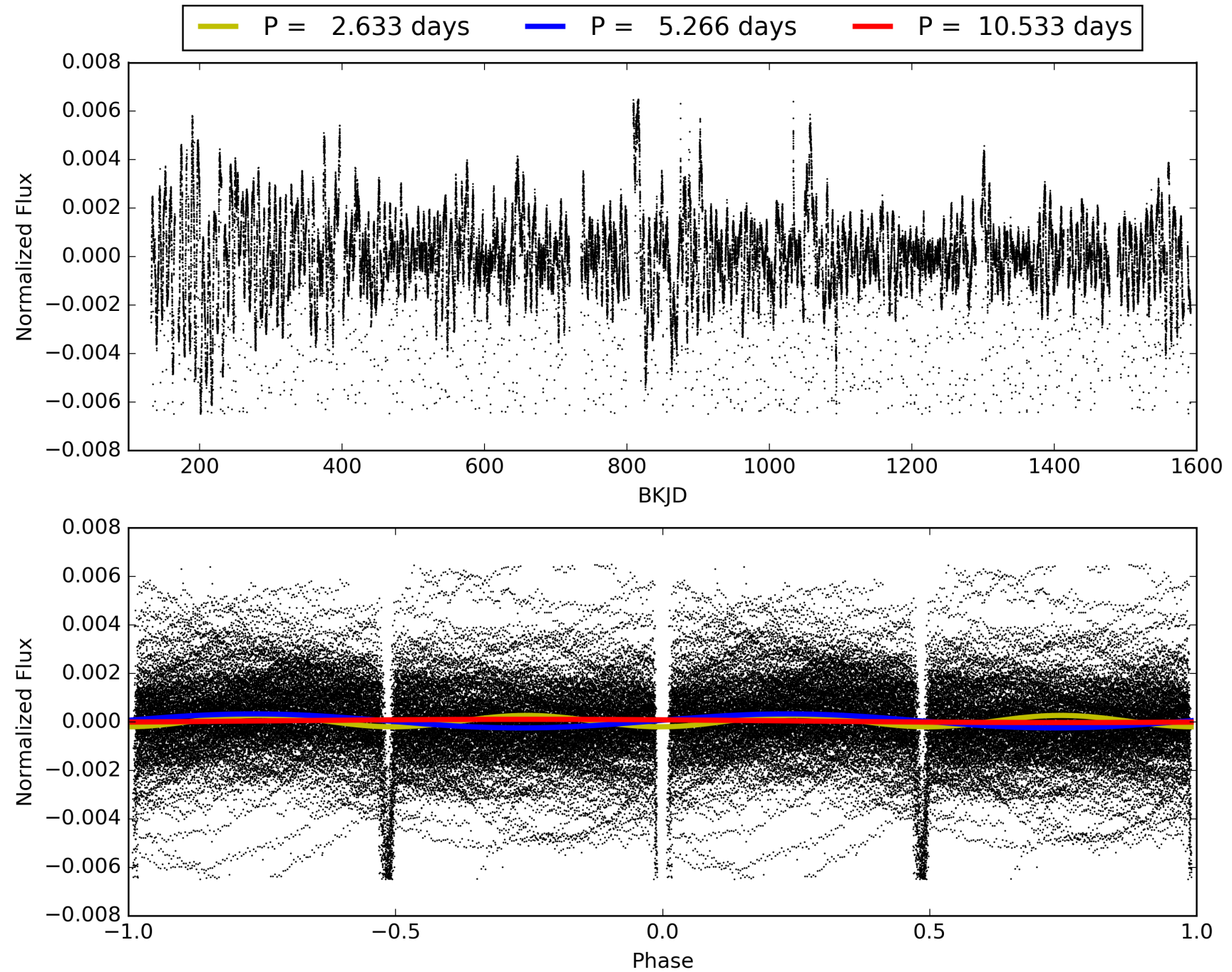
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 0.1% [0.00 σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [243/243]
GhostDiagnostic-chr: 2.77
Centroid-sig: N/A
Centroid-so: 0.148 arcsec [120.76 σ]
OotOffset-rm: 0.139 arcsec [2.07 σ]
KicOffset-rm: 0.083 arcsec [1.17 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]

TCE 007289157-01, PDC Light Curves

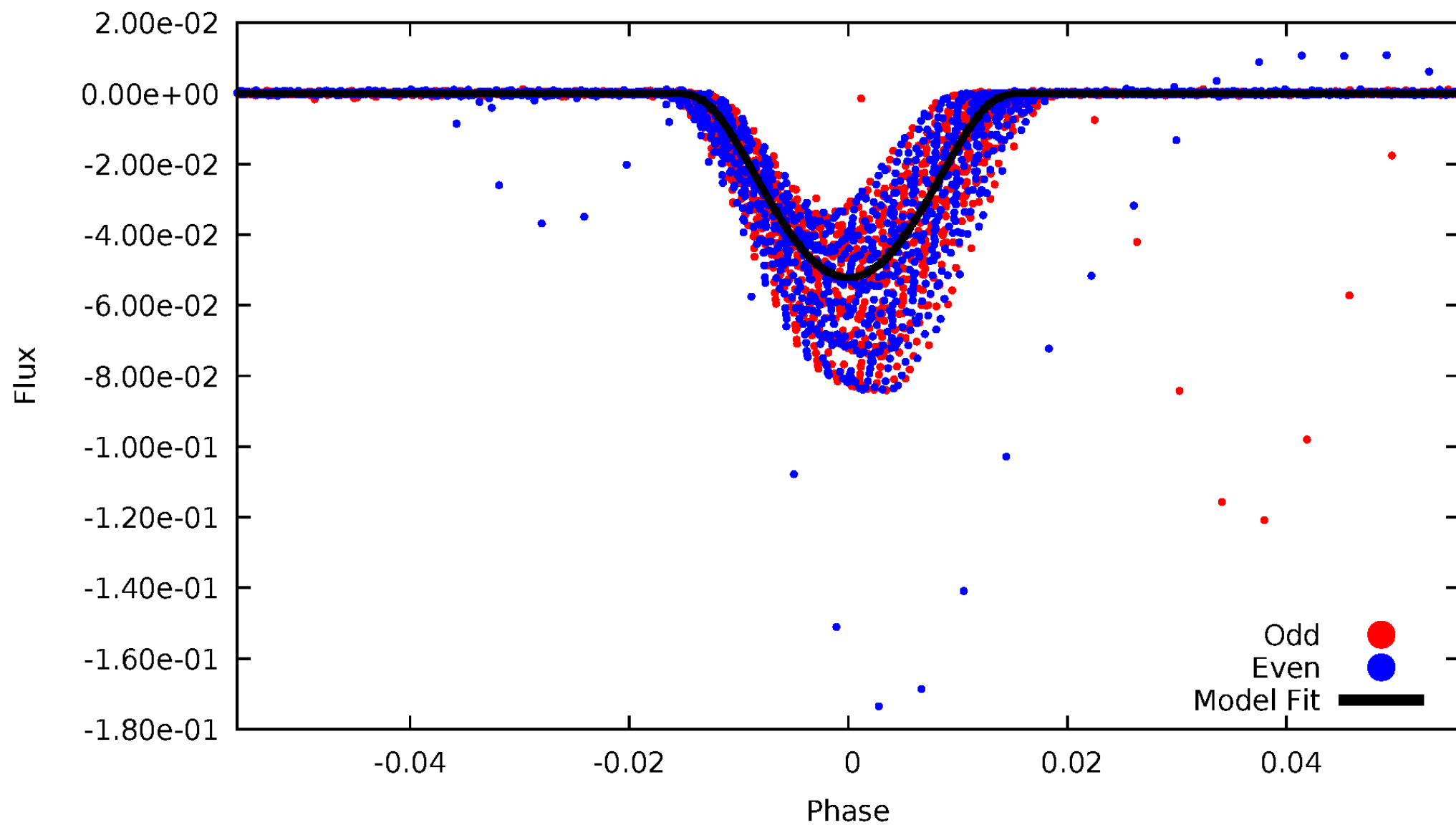


TCE 007289157-01



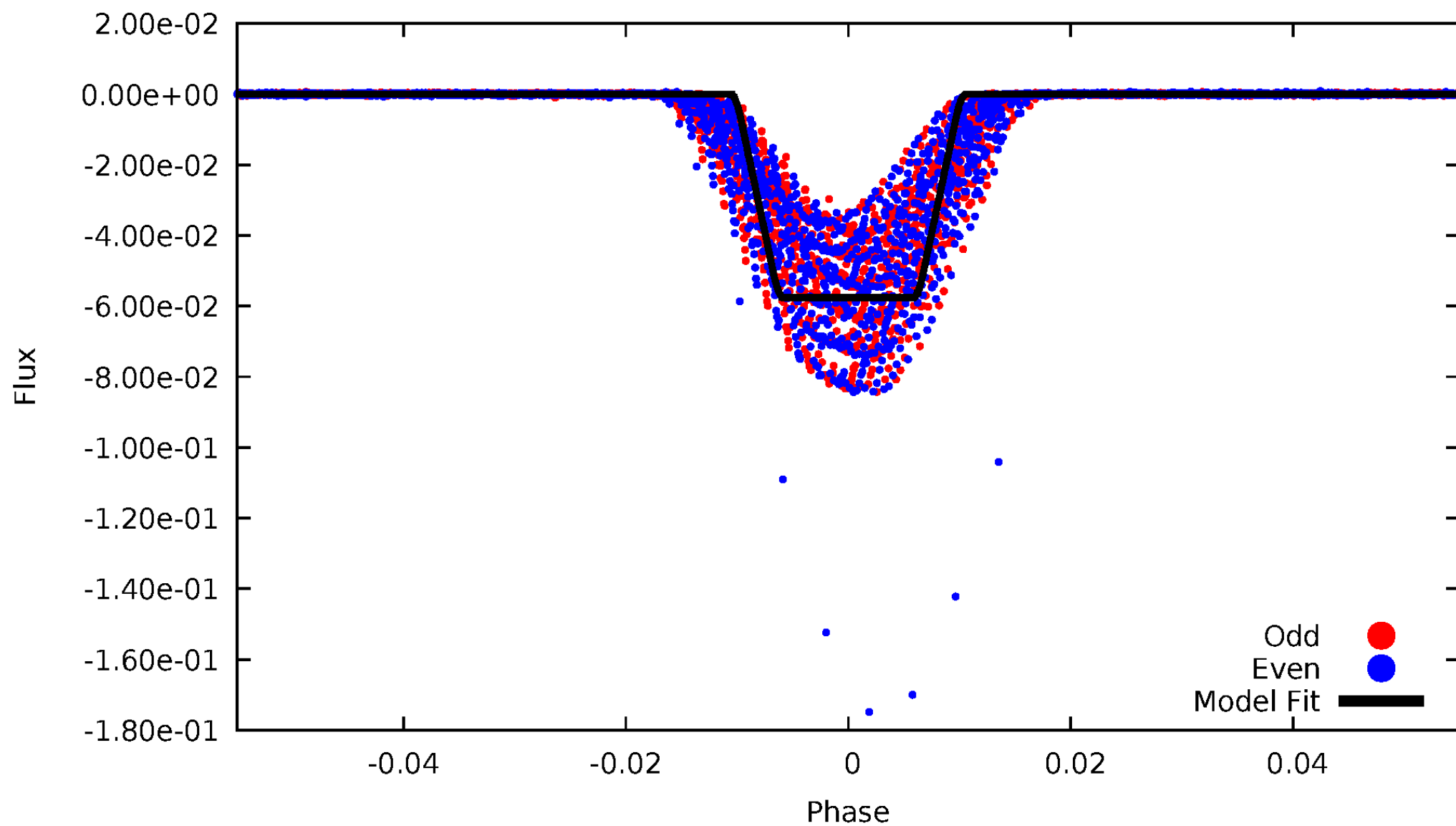
DV Odd/Even

TCE 007289157-01



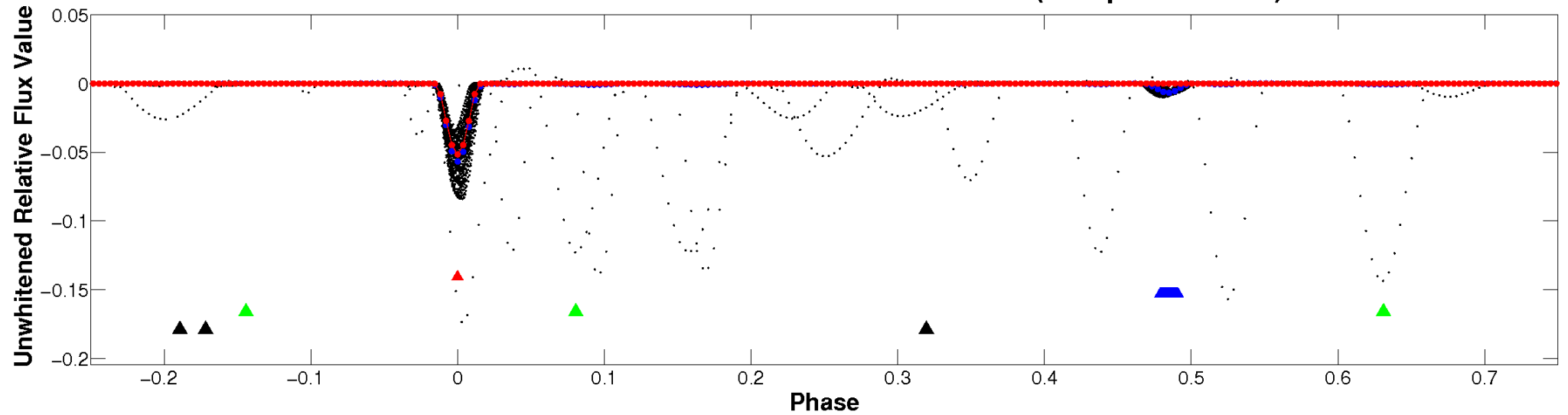
ALT Odd/Even

TCE 007289157-01

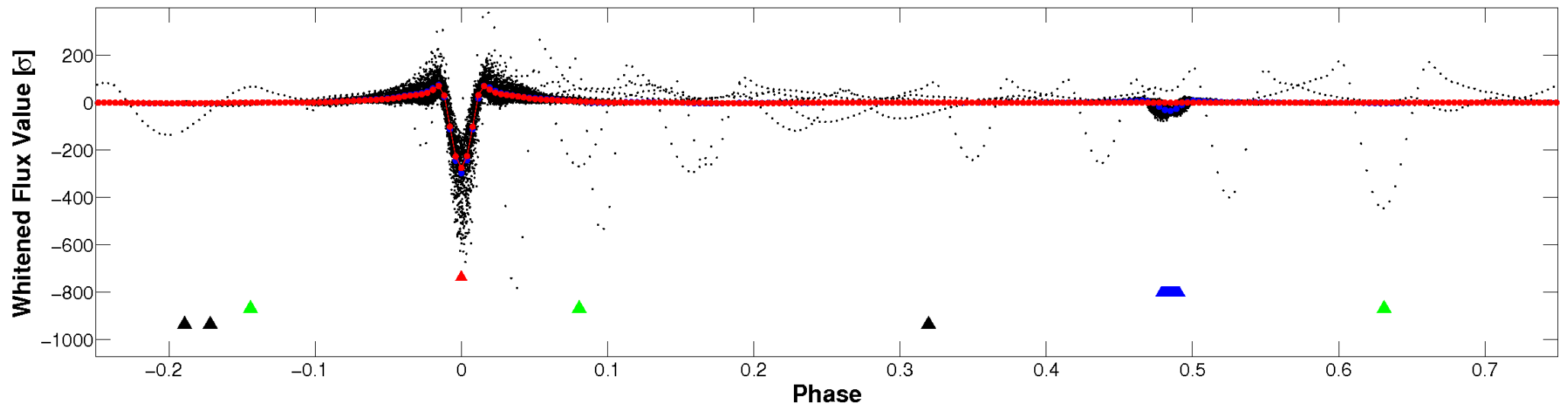


Non-Whitened Vs. Whitened Light Curve

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

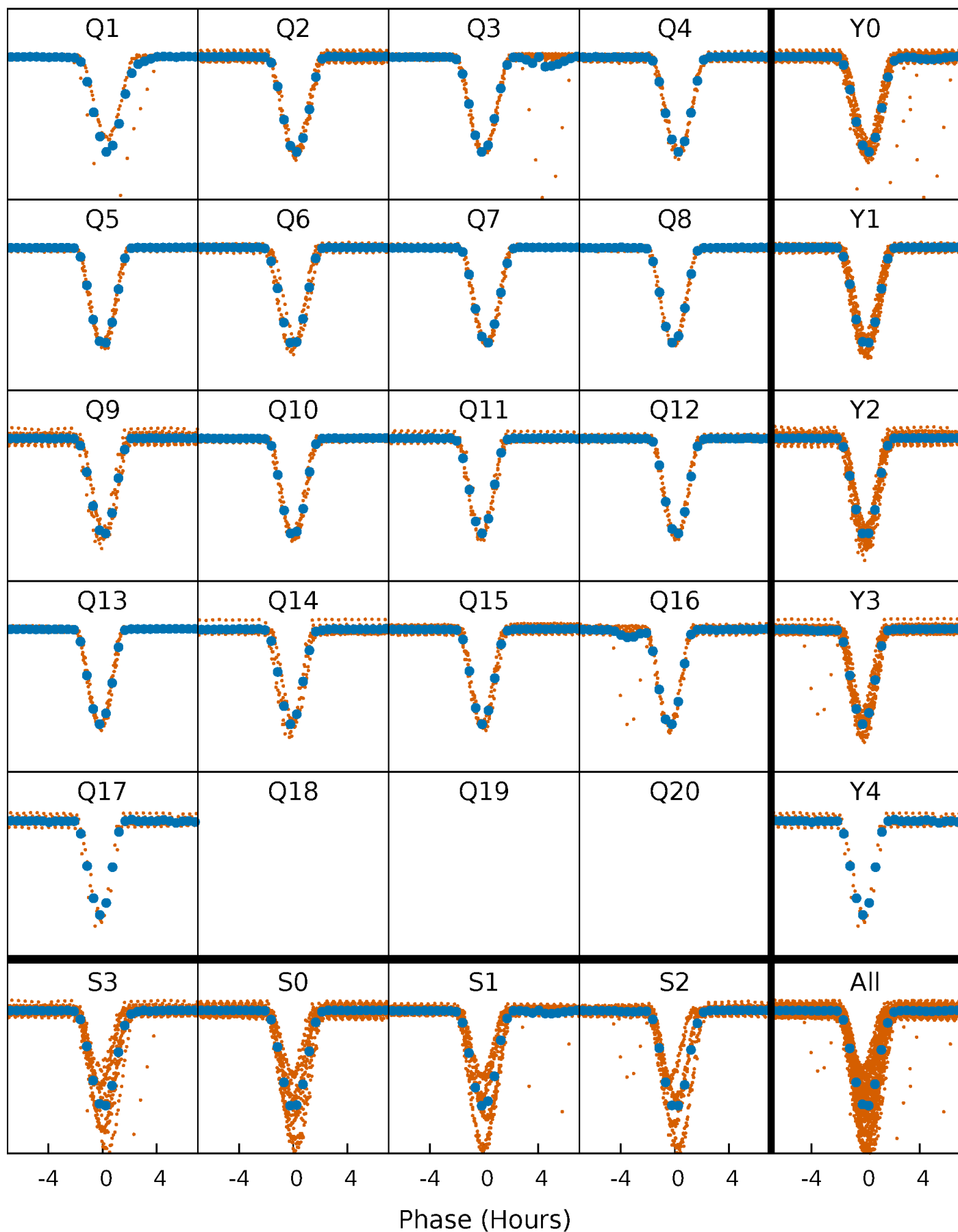


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



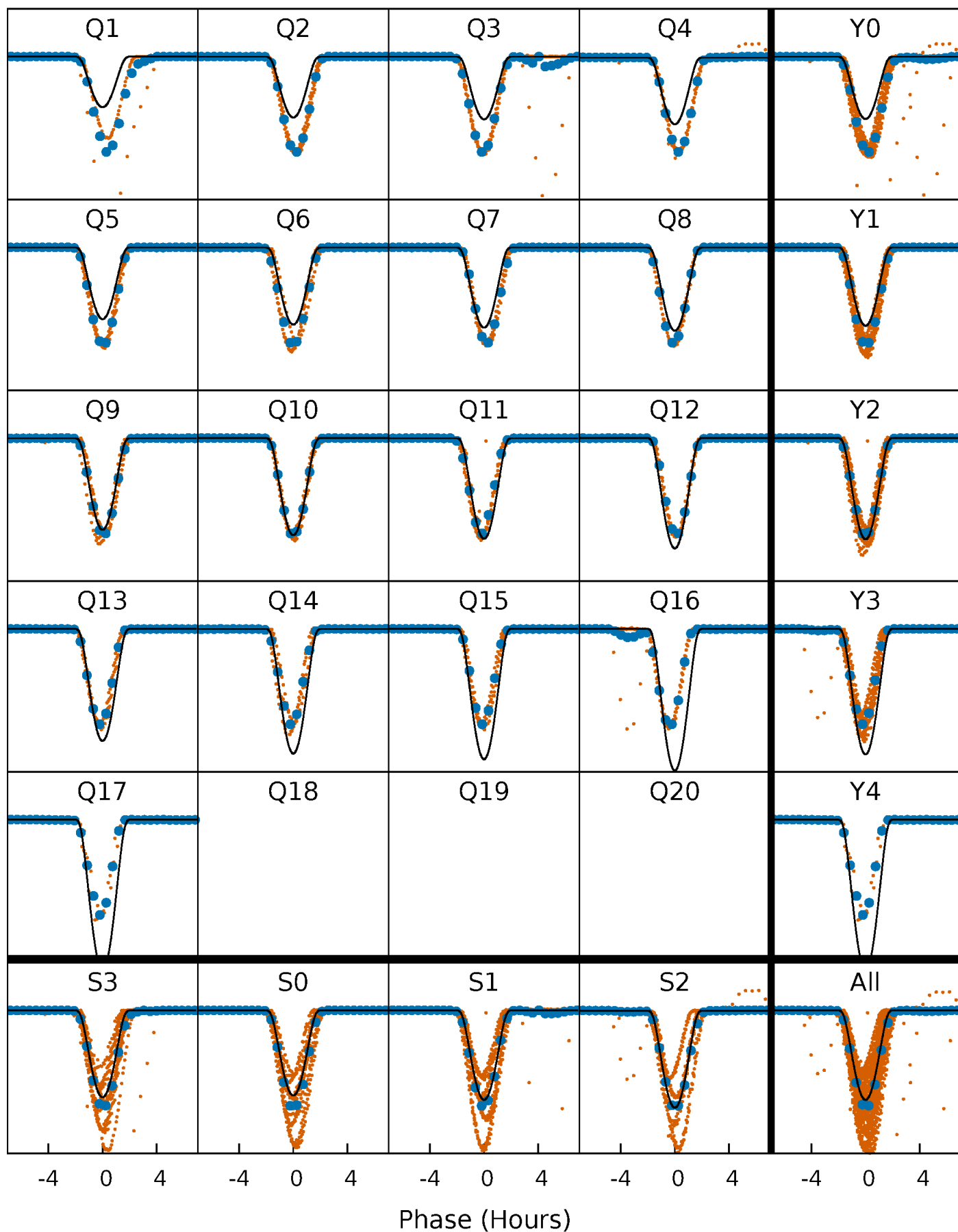
PDC Quarter-Phased Transit Curves

TCE 007289157-01 P= 5.266466 Days $T_0=131.694714$ (BKJD)



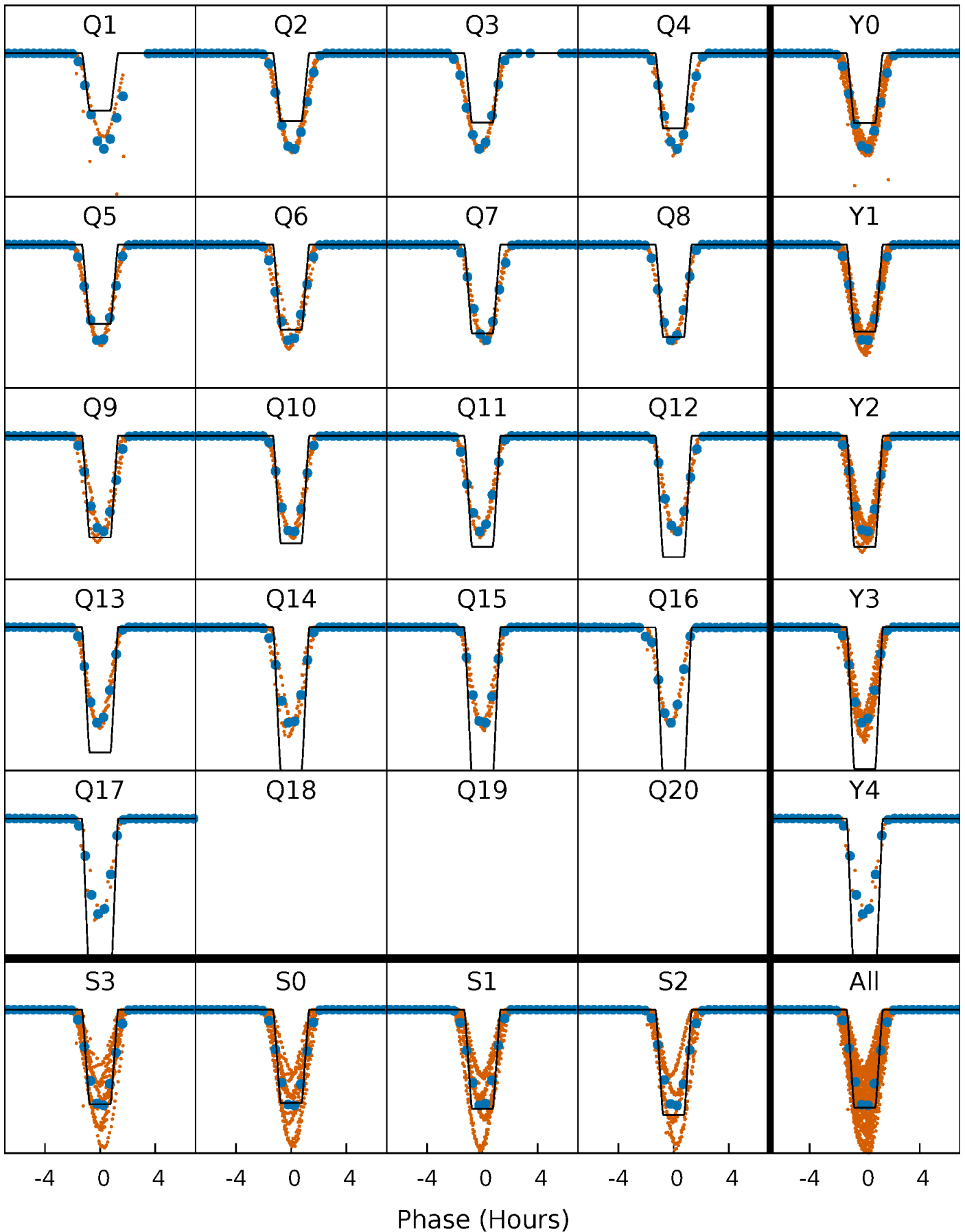
DV Quarter-Phased Transit Curves

TCE 007289157-01 P= 5.266466 Days $T_0=131.694714$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

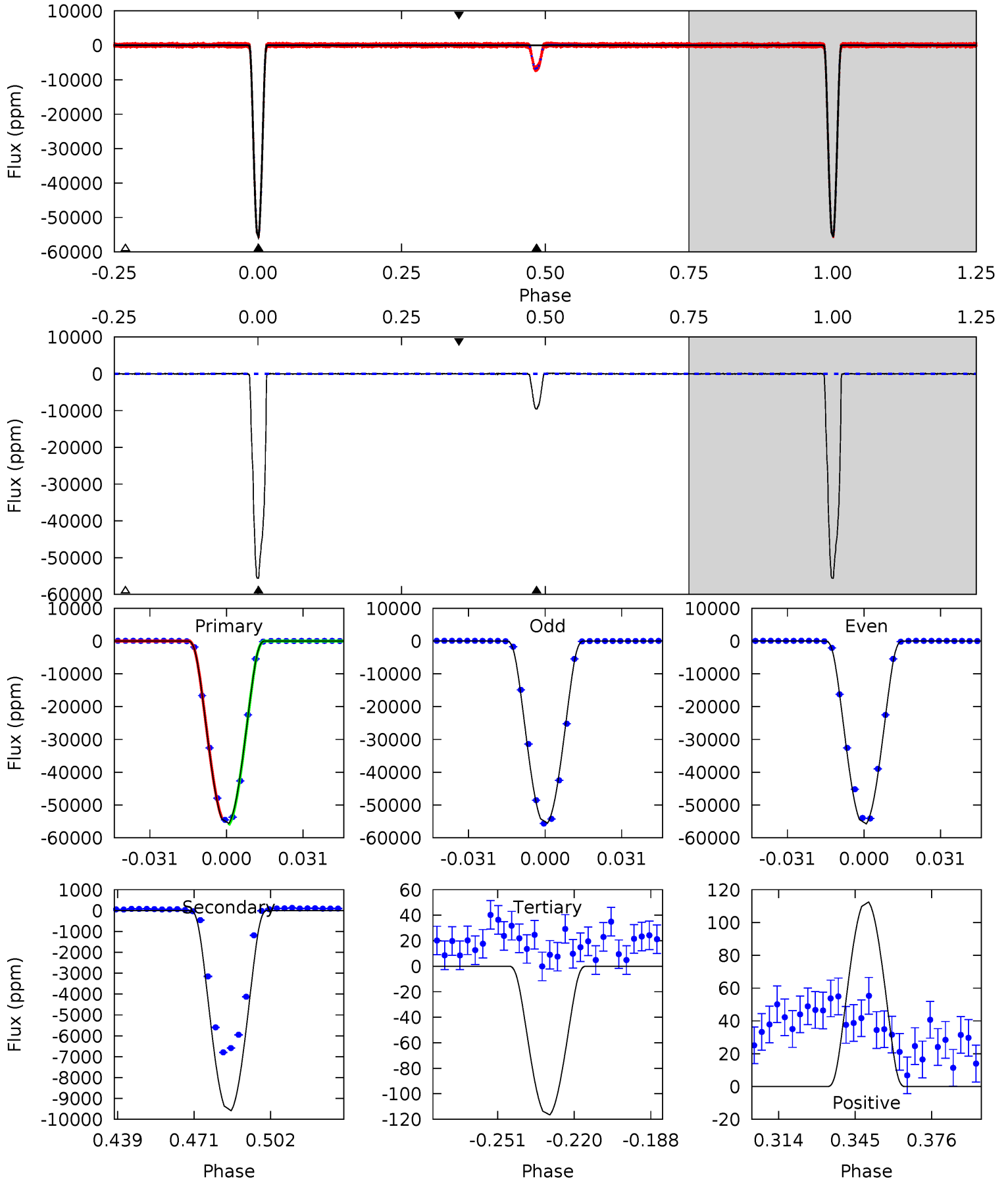
TCE 007289157-01 P= 5.266425 Days $T_0=131.699677$ (BKJD)



DV Model-Shift Uniqueness Test

007289157-01, P = 5.266466 Days, E = 126.428248 Days

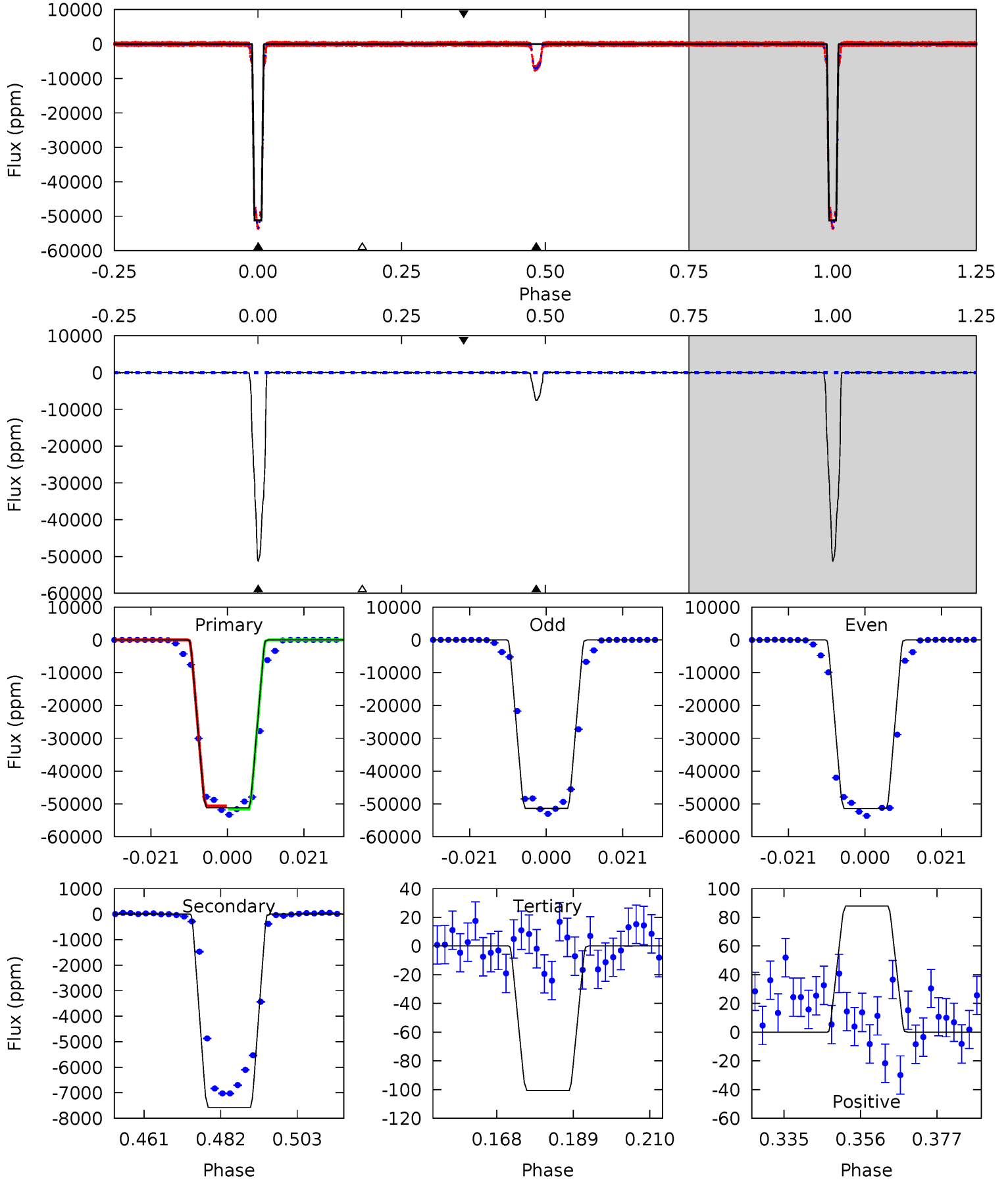
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4645	800.7	9.73	9.39	4.80	2.15	3.40	4635	4635	791.0	791.3	9.27	1.04	0.00	0



Alt Model-Shift Uniqueness Test

007289157-01, P = 5.266425 Days, E = 126.433252 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2378	351.7	4.68	4.08	4.88	2.31	1.25	2374	2374	347.0	347.6	0.34	1.05	0.00	0



Stellar Parameters For KIC 007289157

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5916^{+107}_{-119}	$4.296^{+0.132}_{-0.108}$	$-0.060^{+0.150}_{-0.150}$	$1.175^{+0.178}_{-0.178}$	$0.995^{+0.081}_{-0.066}$	$0.865^{+0.526}_{-0.281}$
	+2%/-2%	+3%/-3%	+250%/-250%	+15%/-15%	+8%/-7%	+61%/-32%
Source	SPE18	SPE18	SPE18	DSEP		

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

Secondary Eclipse Parameters for KIC 007289157-01 / KOI 0399.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-9589±12	$38.28^{+4.21}_{-3.93}$	1622^{+76}_{-77}	3760^{+101}_{-85}	13^{+3}_{-2}
Alt.	-7573±22	$30.71^{+3.56}_{-3.31}$	1621^{+76}_{-75}	3904^{+105}_{-107}	16^{+4}_{-3}

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

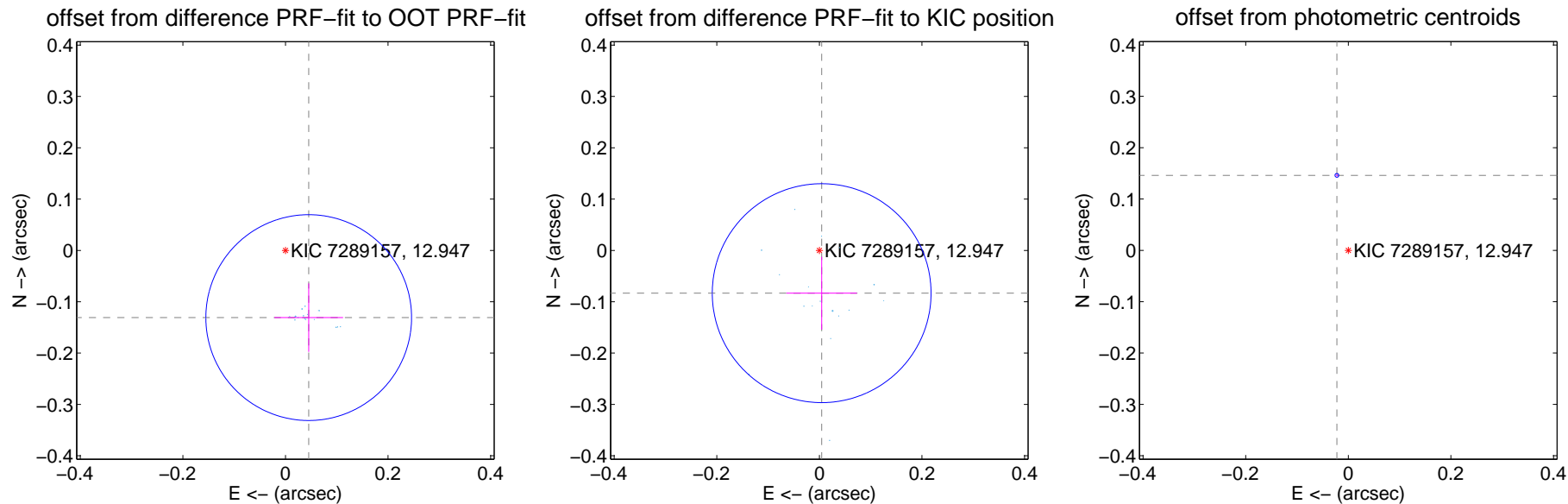
DV Centroid Data

Supplemental centroid analysis for 007289157-01. Kepler magnitude: 12.95. Transit SNR 4060.26

There are 17 quarters with good PRF difference image offsets

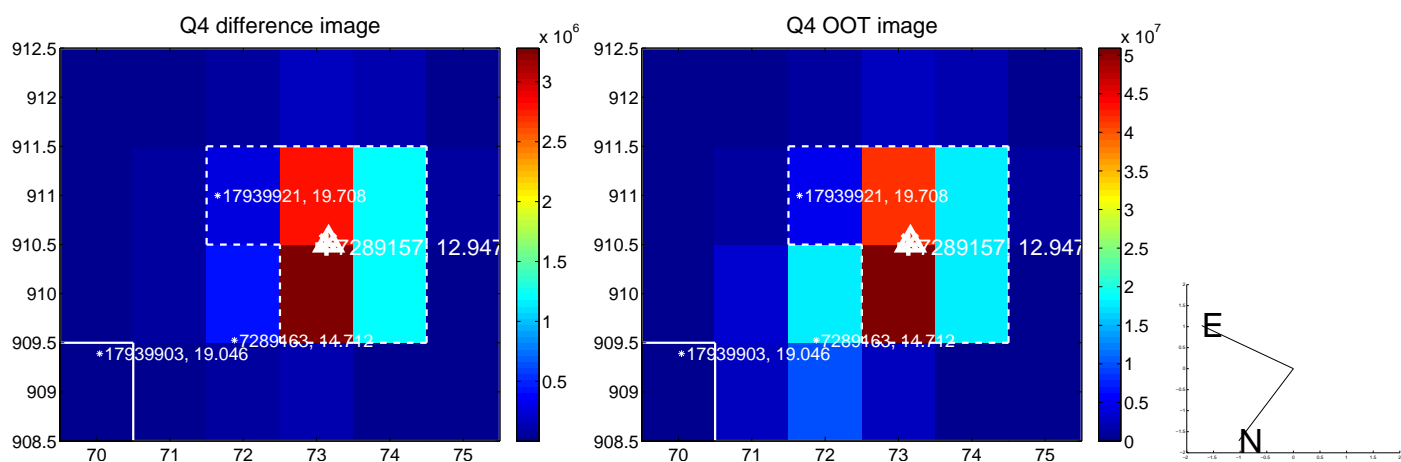
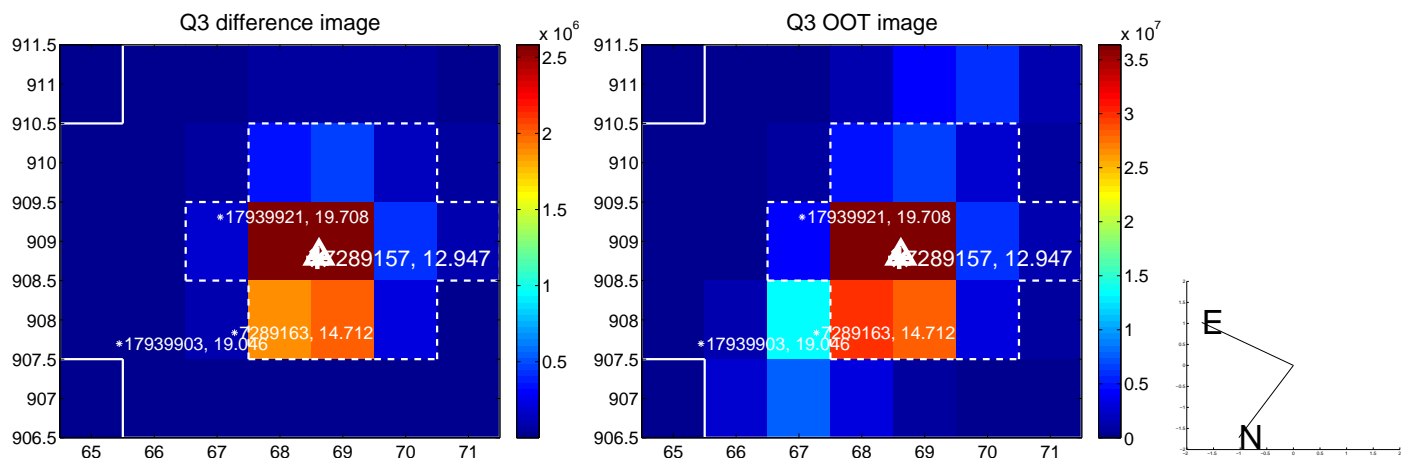
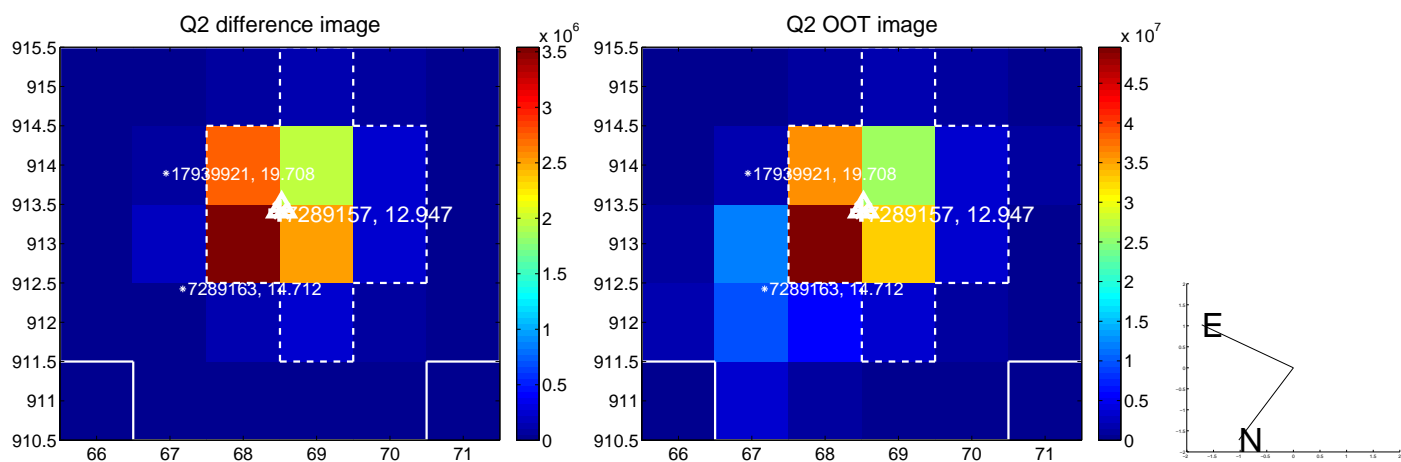
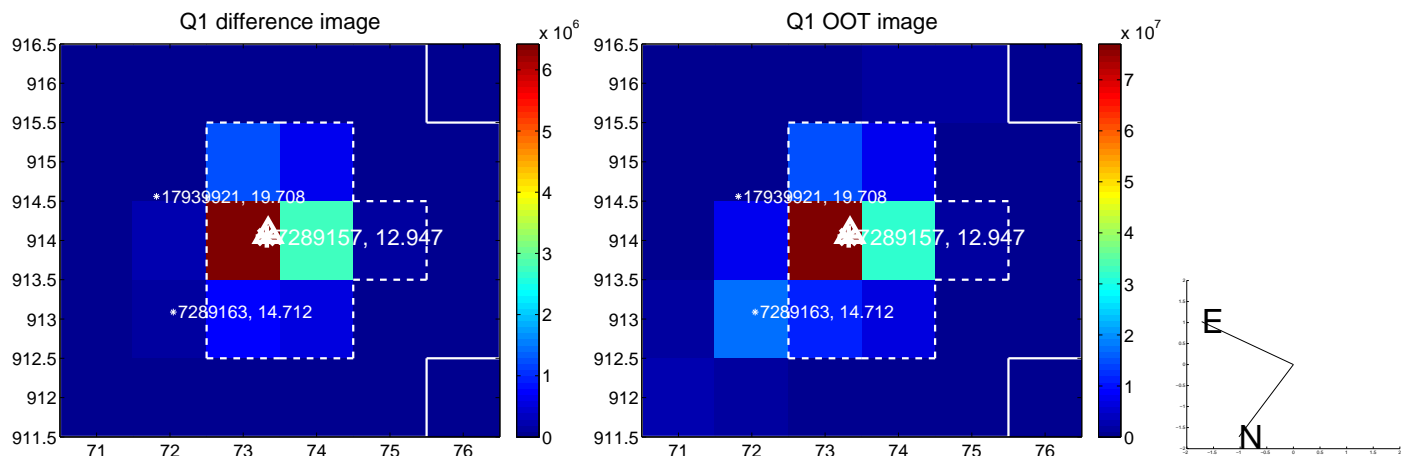
The direct PRF centroid is offset from the target star catalog position by about 0.01 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.139 ± 0.067	2.07	-0.045 ± 0.067	-0.131 ± 0.067
PRF-fit source offset from KIC position	0.083 ± 0.071	1.17	-0.004 ± 0.069	-0.083 ± 0.071
photometric centroid source offset	0.15 ± 0.00	120.76	0.02 ± 0.00	0.15 ± 0.00

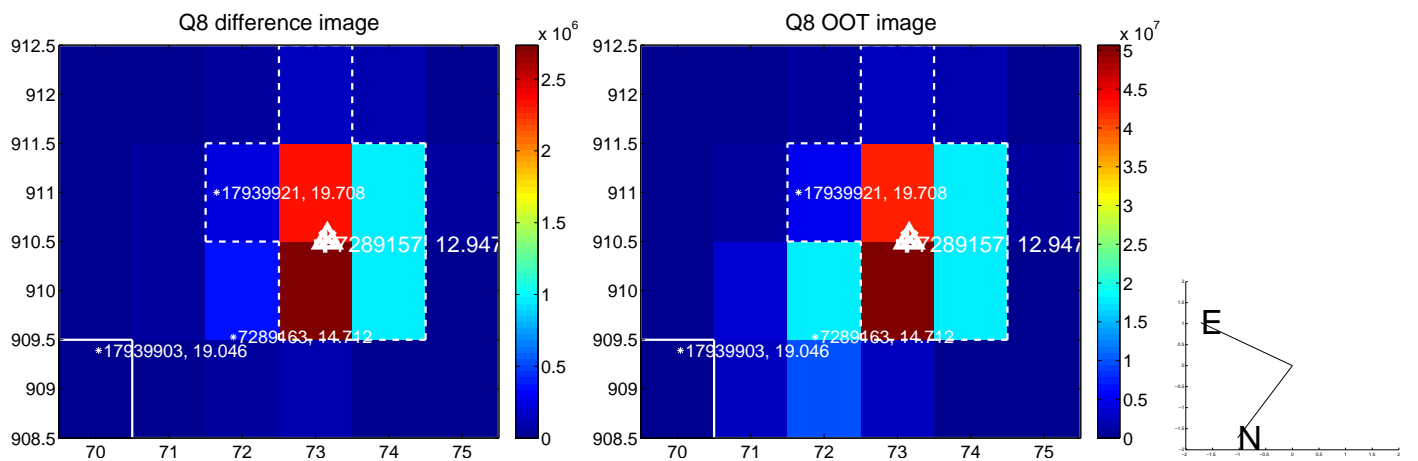
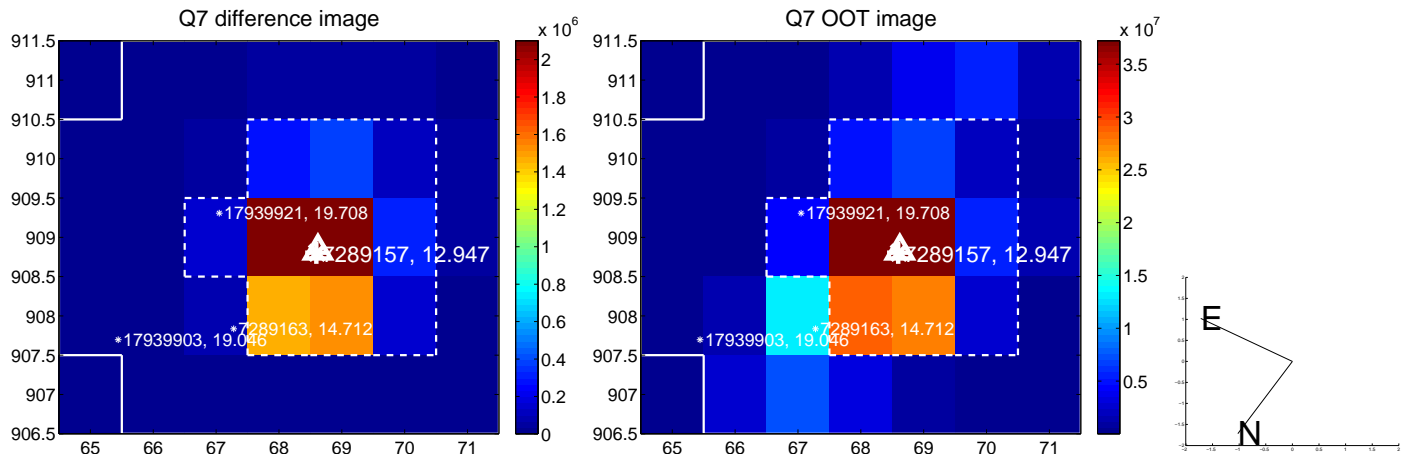
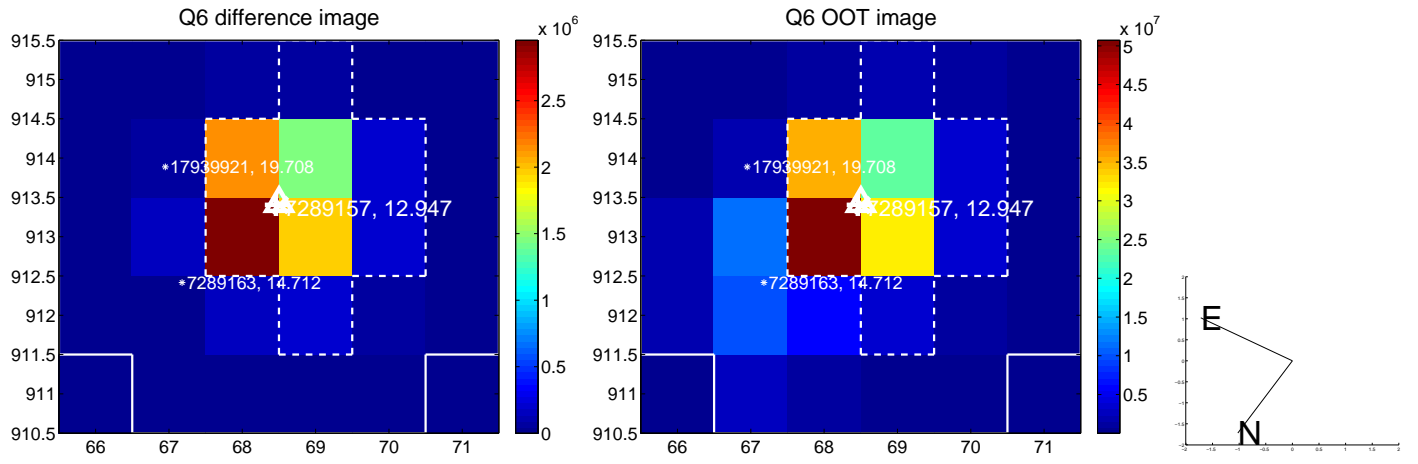
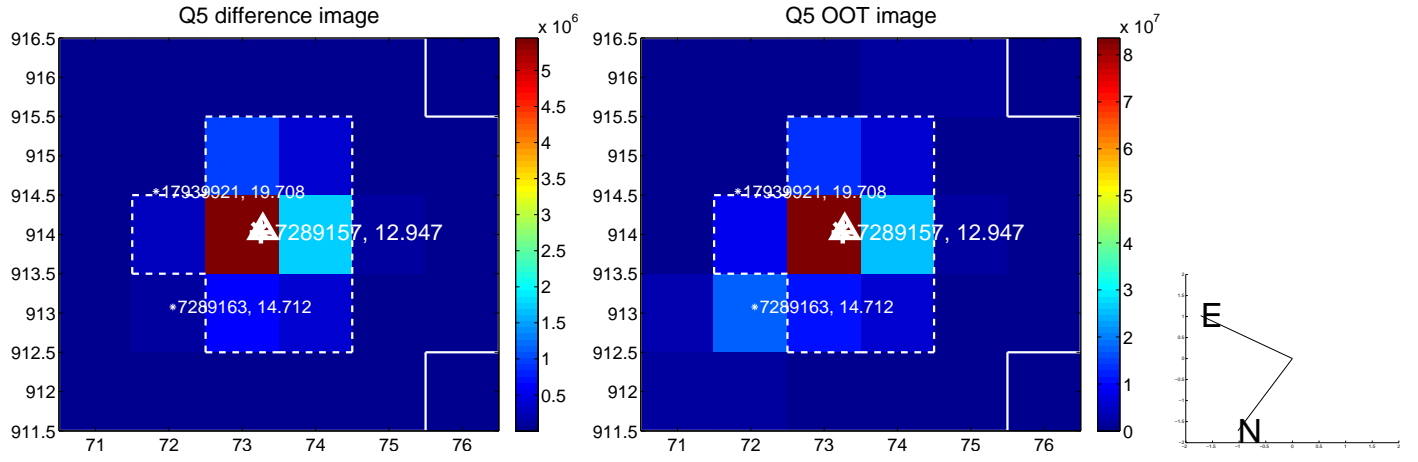


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

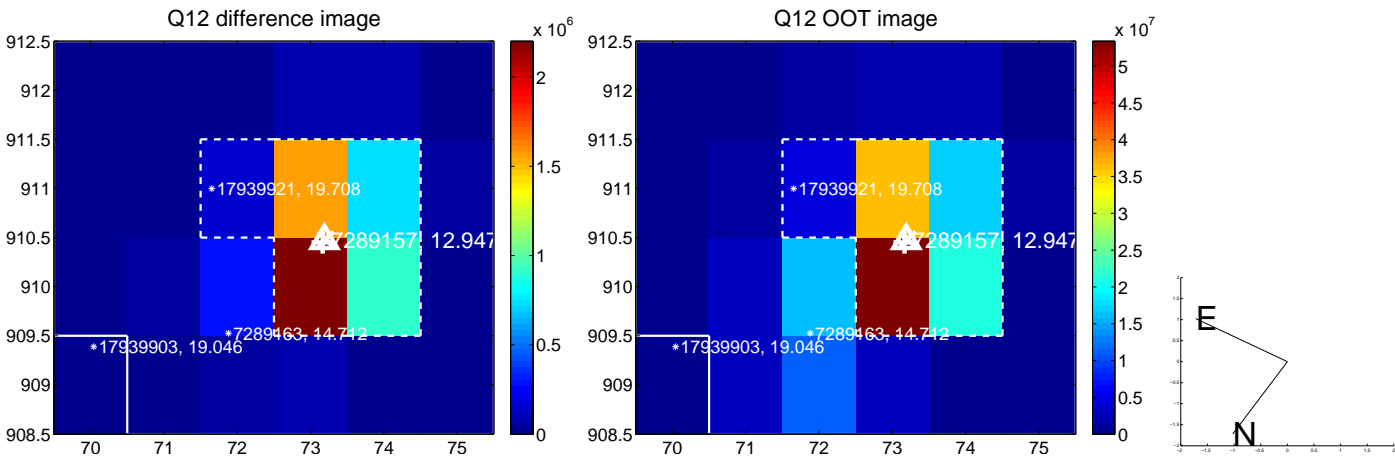
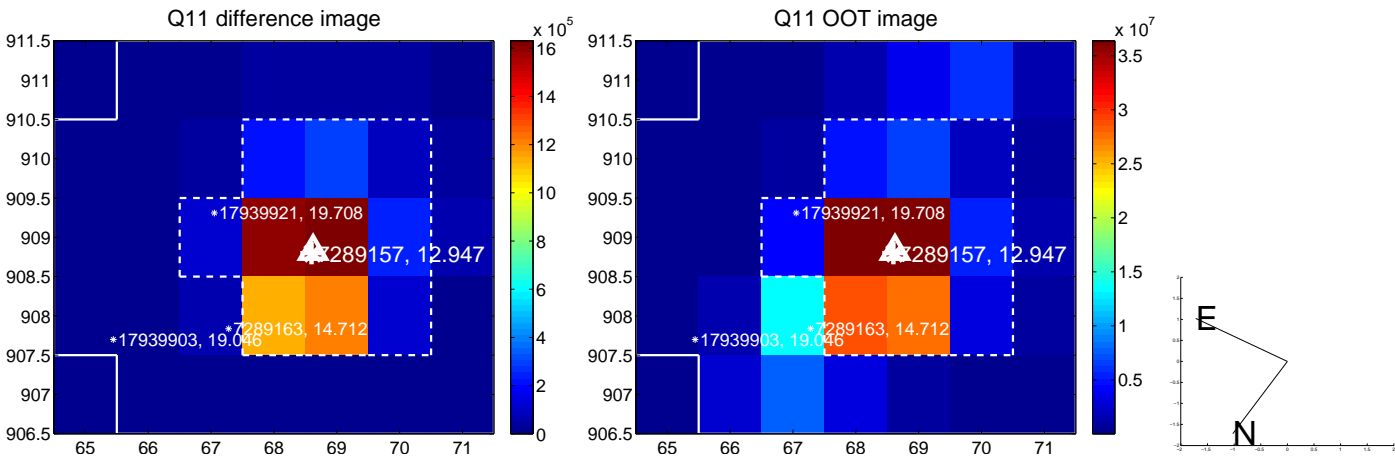
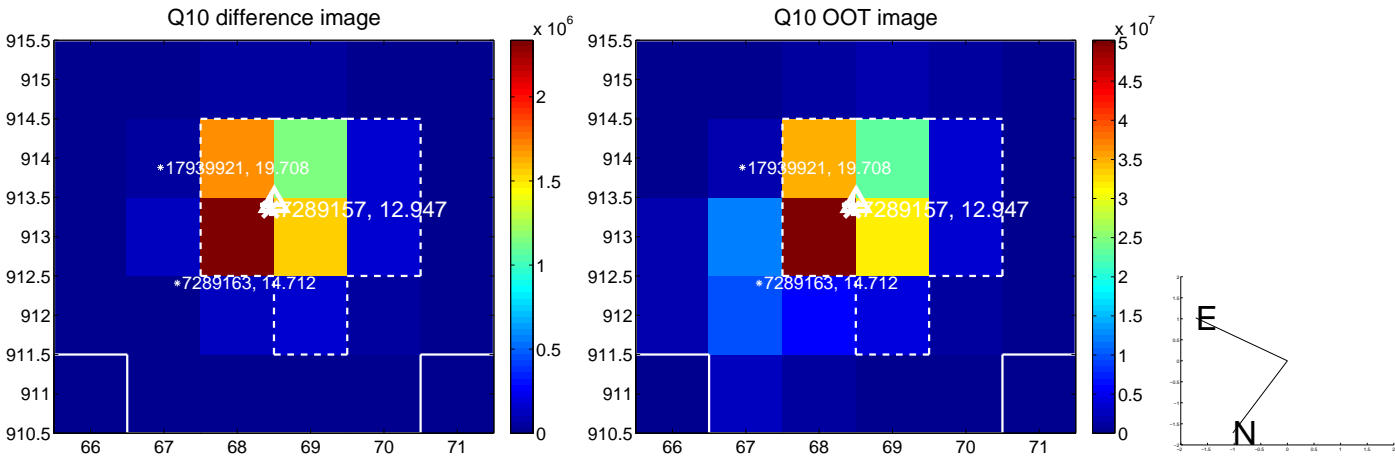
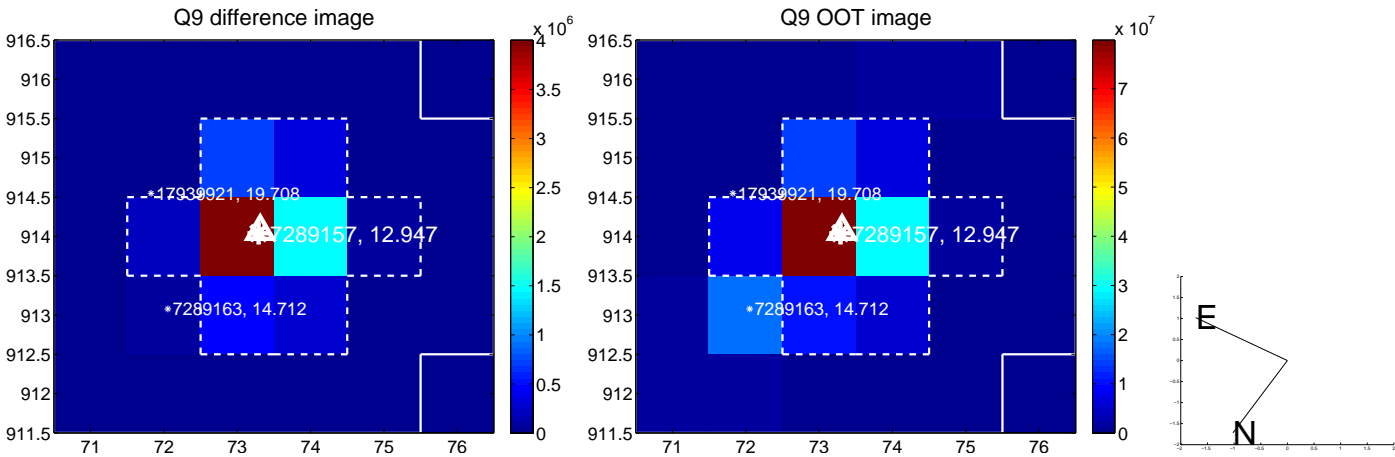
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



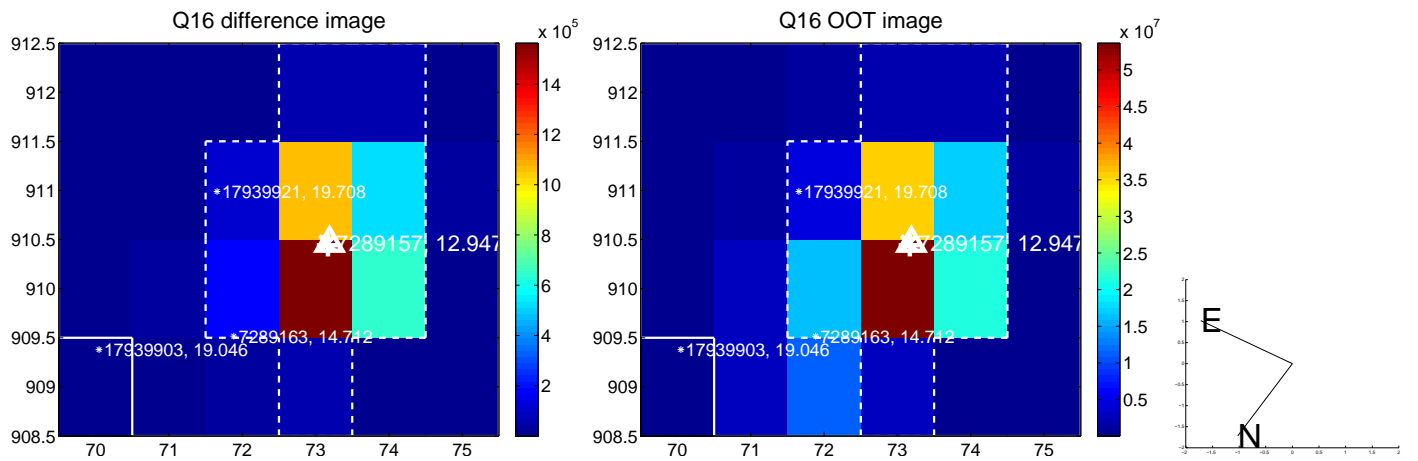
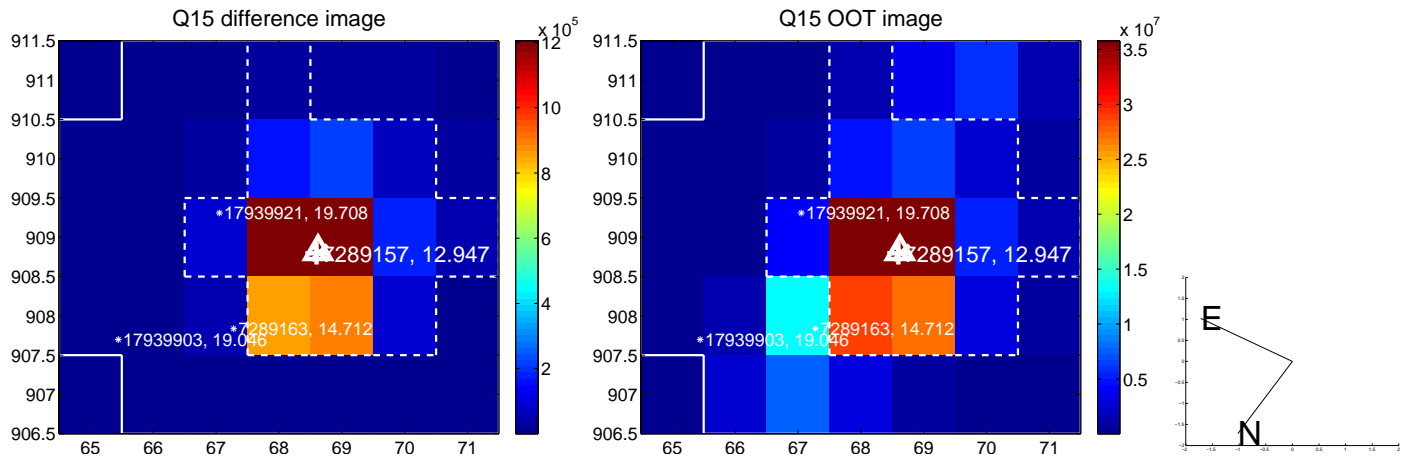
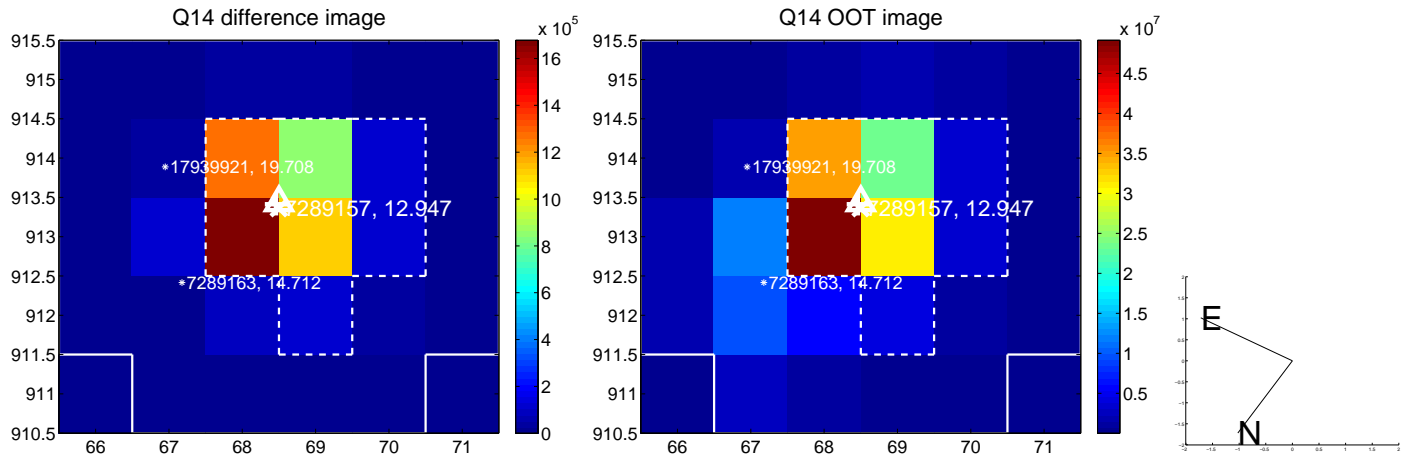
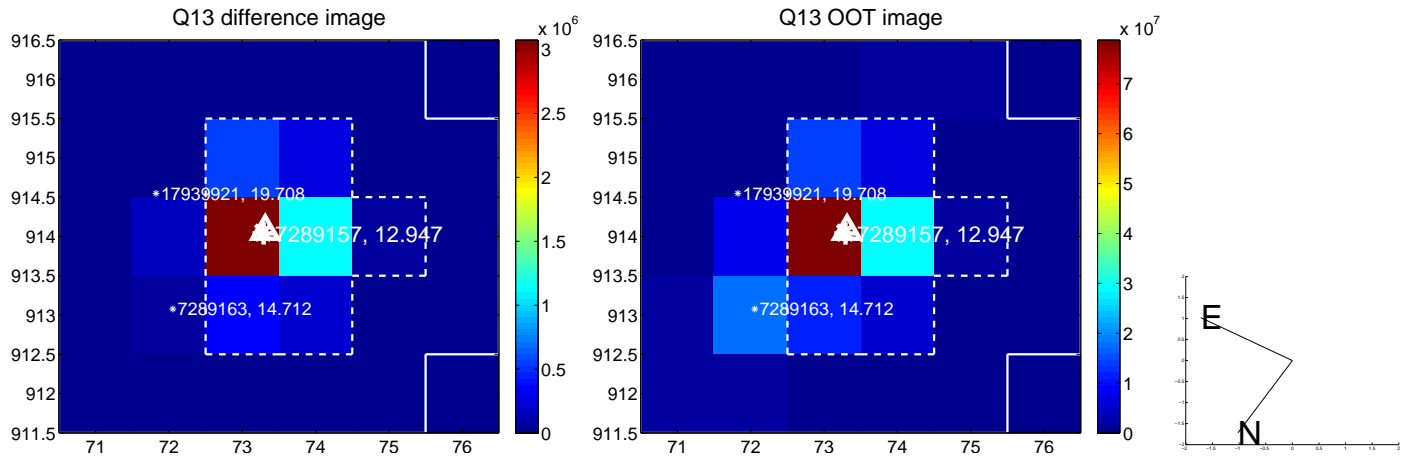
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



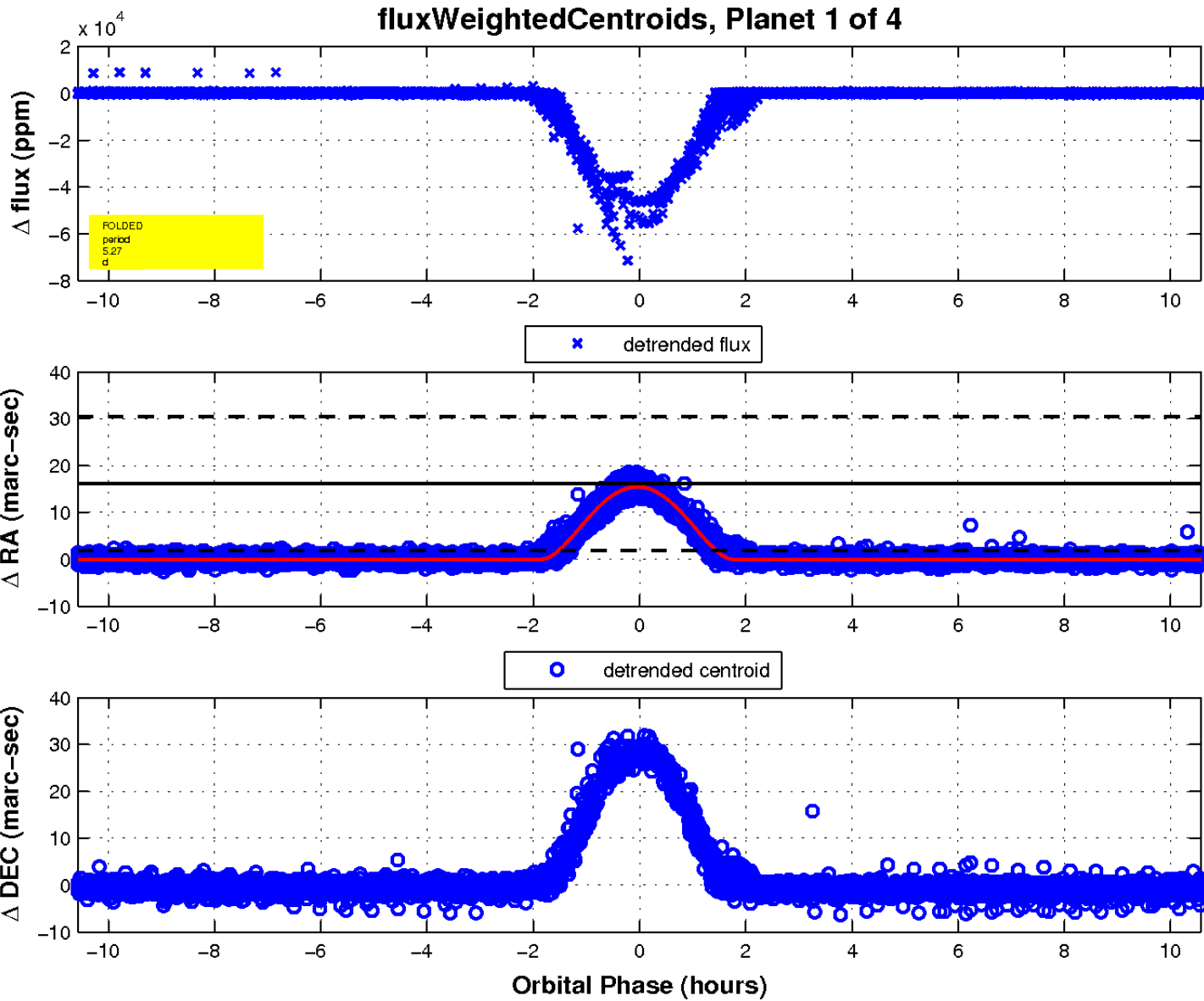
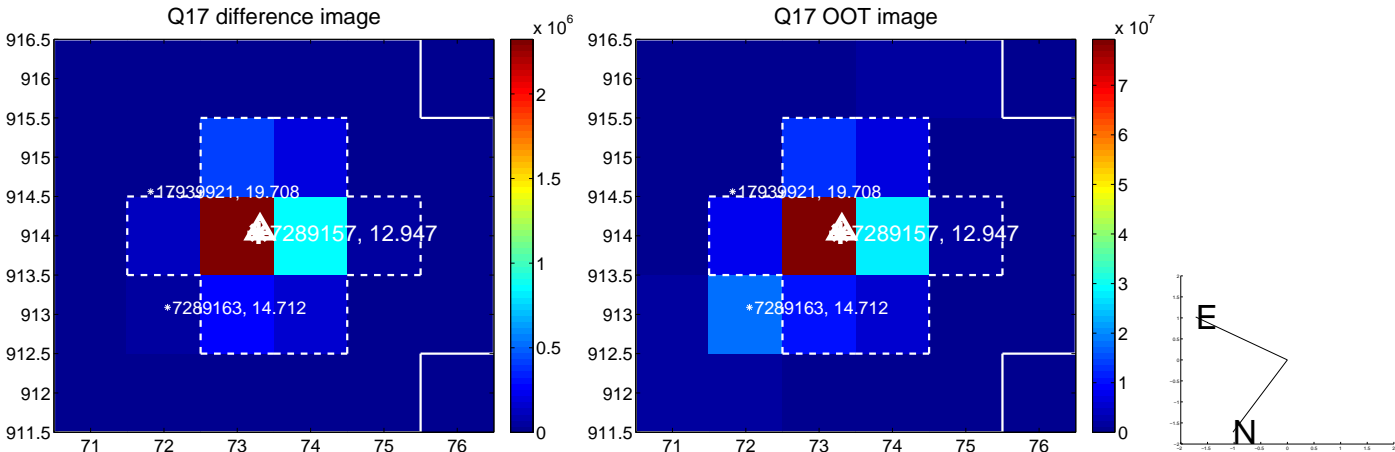
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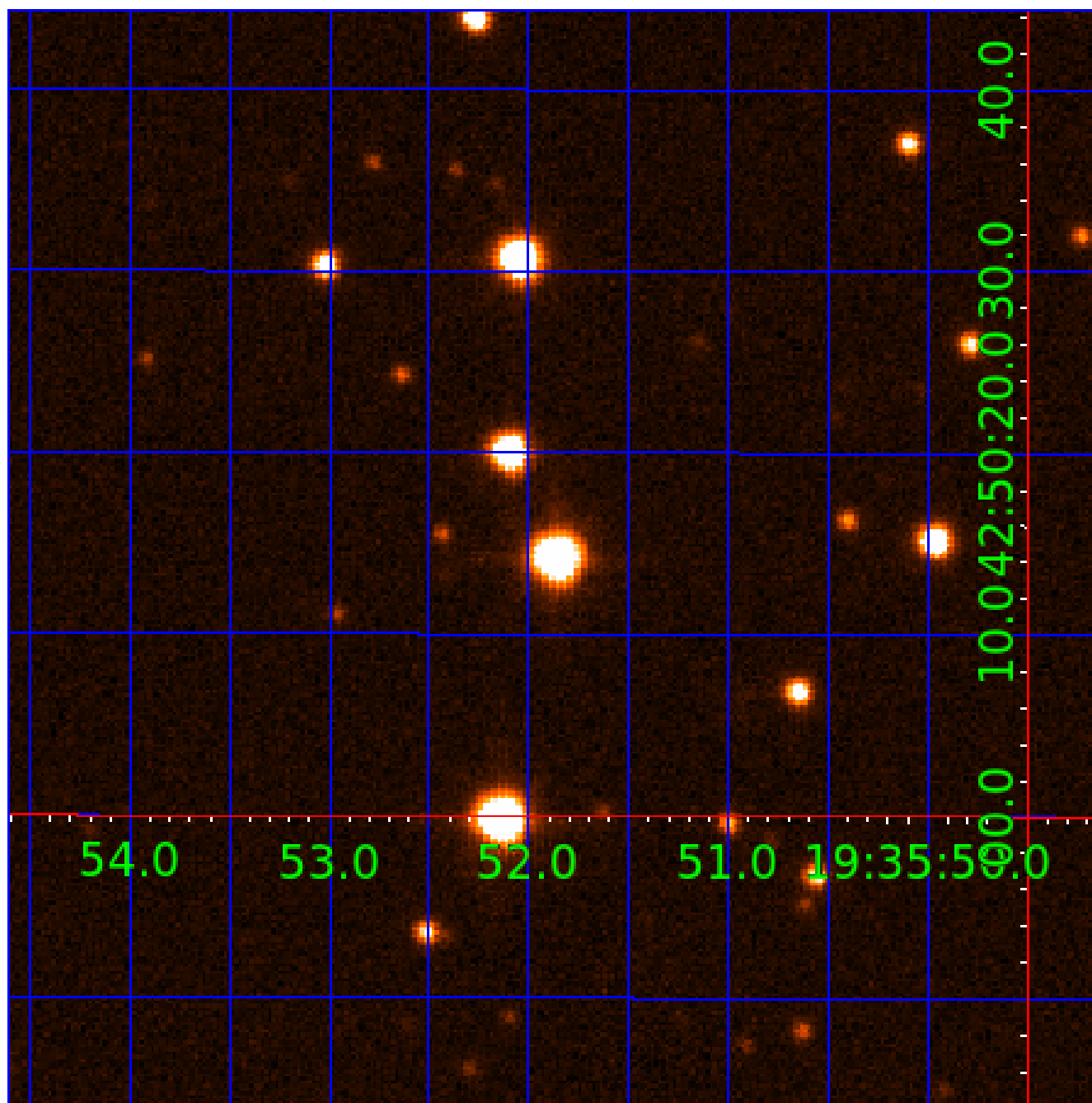


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 007289157

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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007289157-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE
007289157-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—INCONSISTENT_TRANS—CENT_FEW_DIFFS

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

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

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

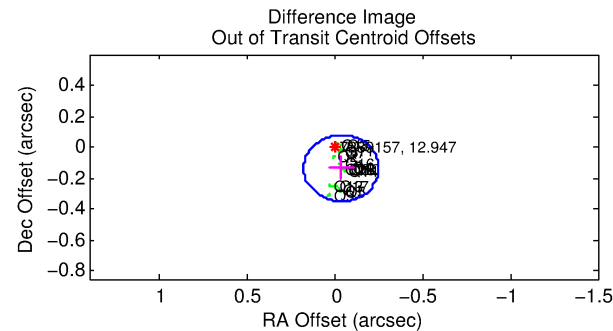
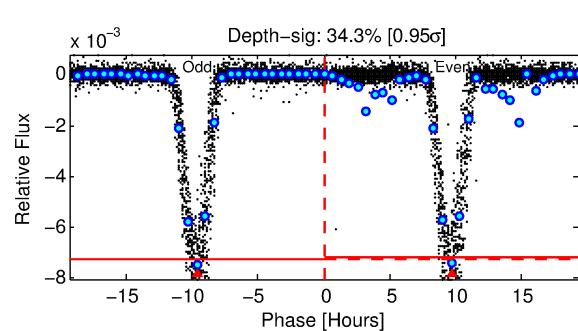
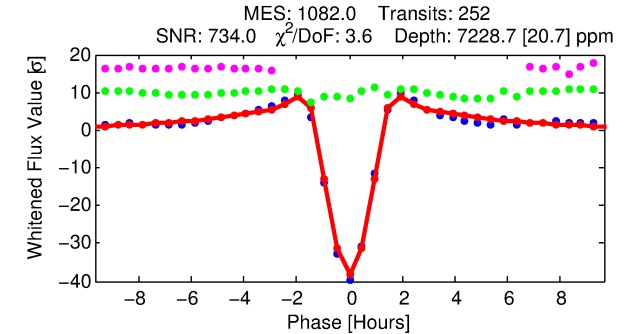
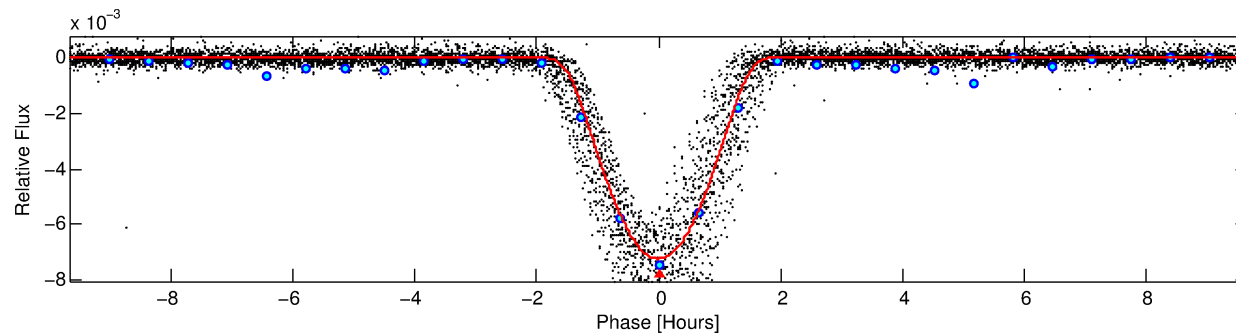
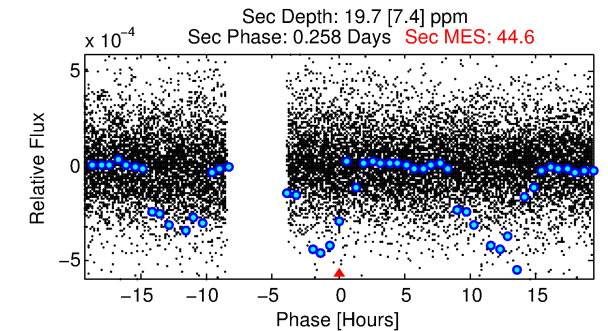
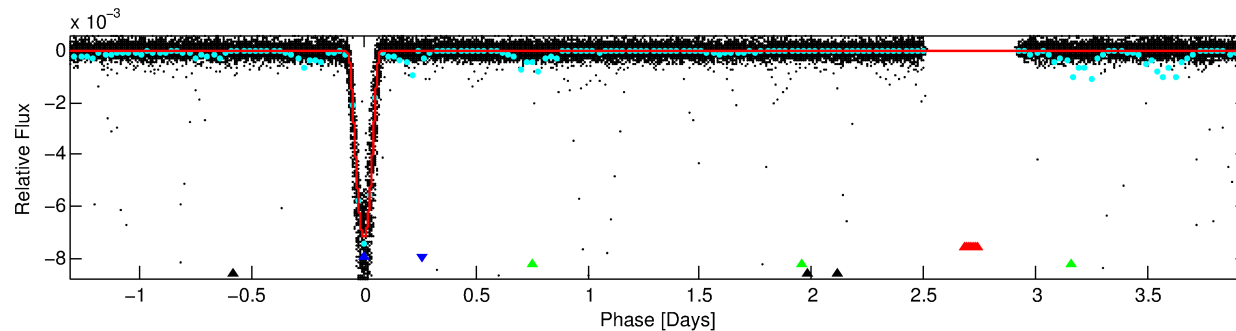
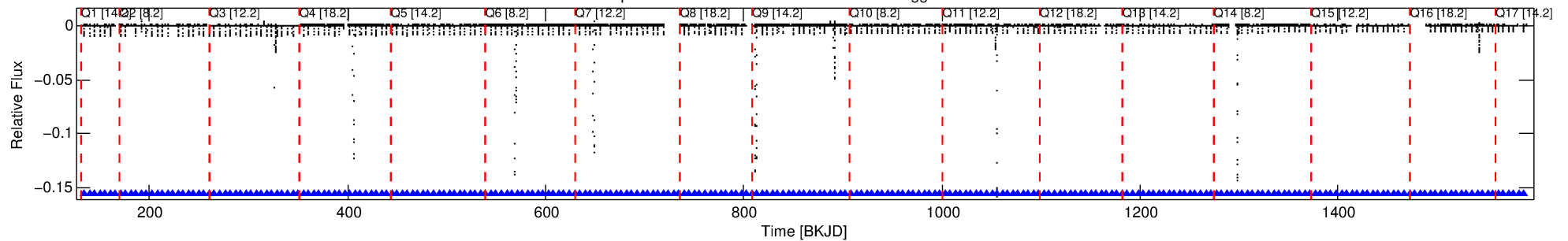
Ephemeris Match Information For 007289157-02

No Significant Match Found

DV One-Page Summary

KIC: 7289157 Candidate: 2 of 4 Period: 5.267 d
KOI: K00399 Corr: No Ephemeris Match

Kp: 12.95 R*: 1.18 Rs Teff: 5916.0 K Logg: 4.30 Fe/H: -0.060



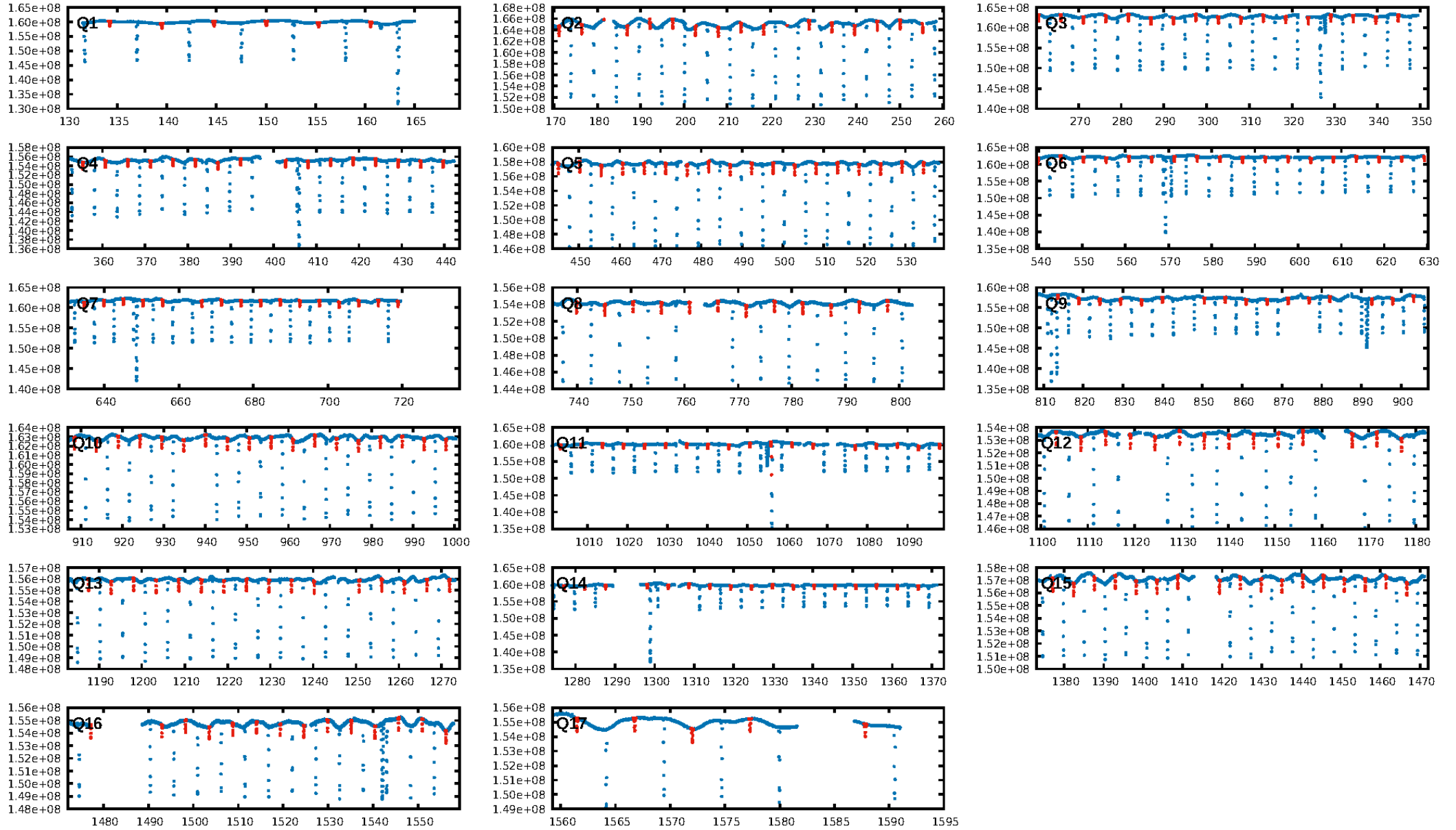
DV Fit Results:

Period = 5.26670 [0.00000] d
Epoch = 134.2160 [0.0001] BKJD
Rp/R* = 0.1126 [0.0042]
a/R* = 7.22 [0.08]
b = 0.95 [0.01]
Seff = 432.83 [104.00]
Teff = 1163 [70] K
Rp = 14.44 [2.25] Re
a = 0.0592 [0.0085] AU
Ag = 0.18 [0.08] [-10.08σ]
Teffp = 1174 [116] K [0.08σ]

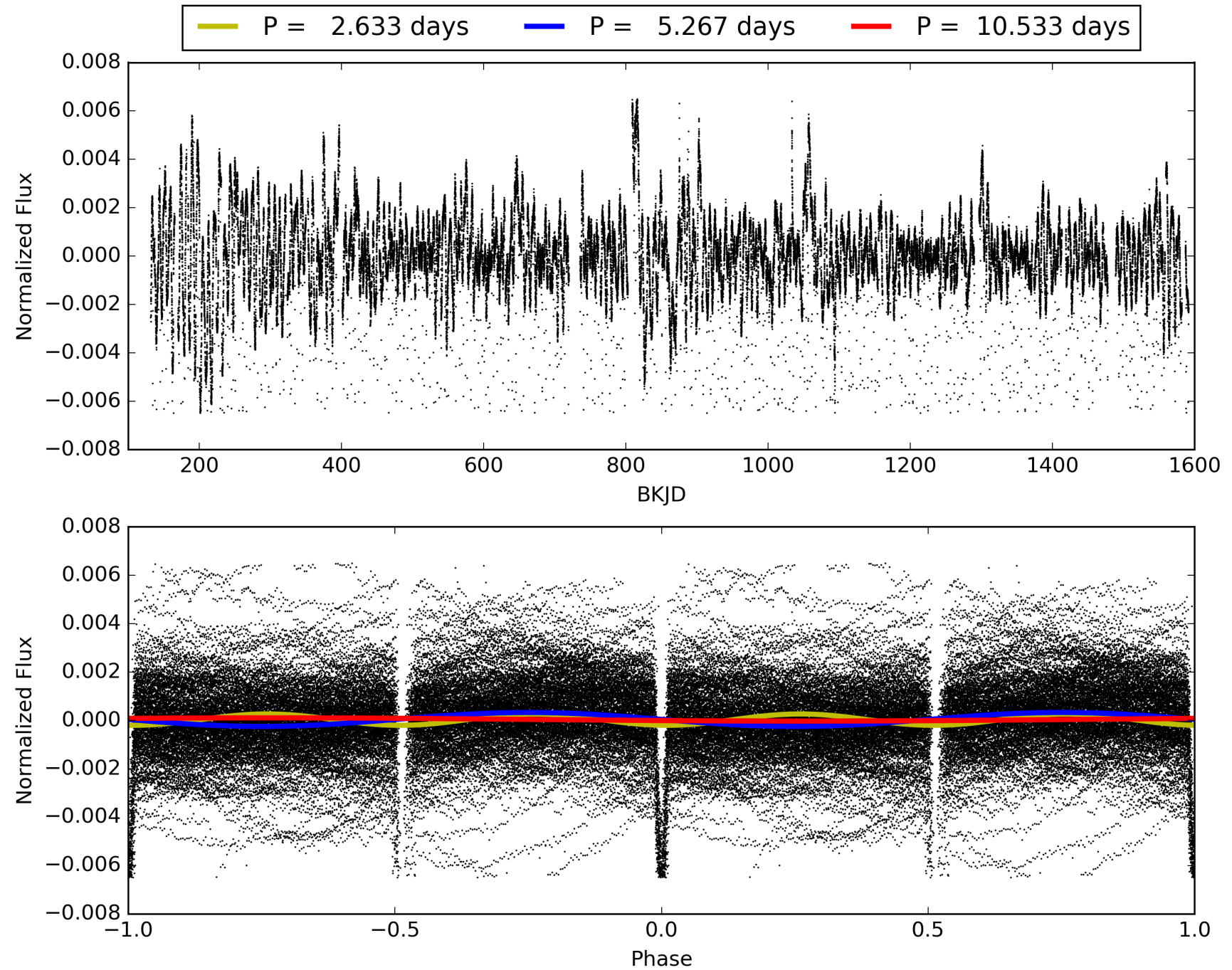
DV Diagnostic Results:

ShortPeriod-sig: 0.1% [0.00σ]
LongPeriod-sig: 100.0% [1265.80σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [241/241]
GhostDiagnostic-chr: 3.097
Centroid-sig: N/A
Centroid-so: 0.167 arcsec [19.46σ]
OotOffset-rm: 0.140 arcsec [1.96σ]
KicOffset-rm: 0.092 arcsec [1.19σ]
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 007289157-02, PDC Light Curves

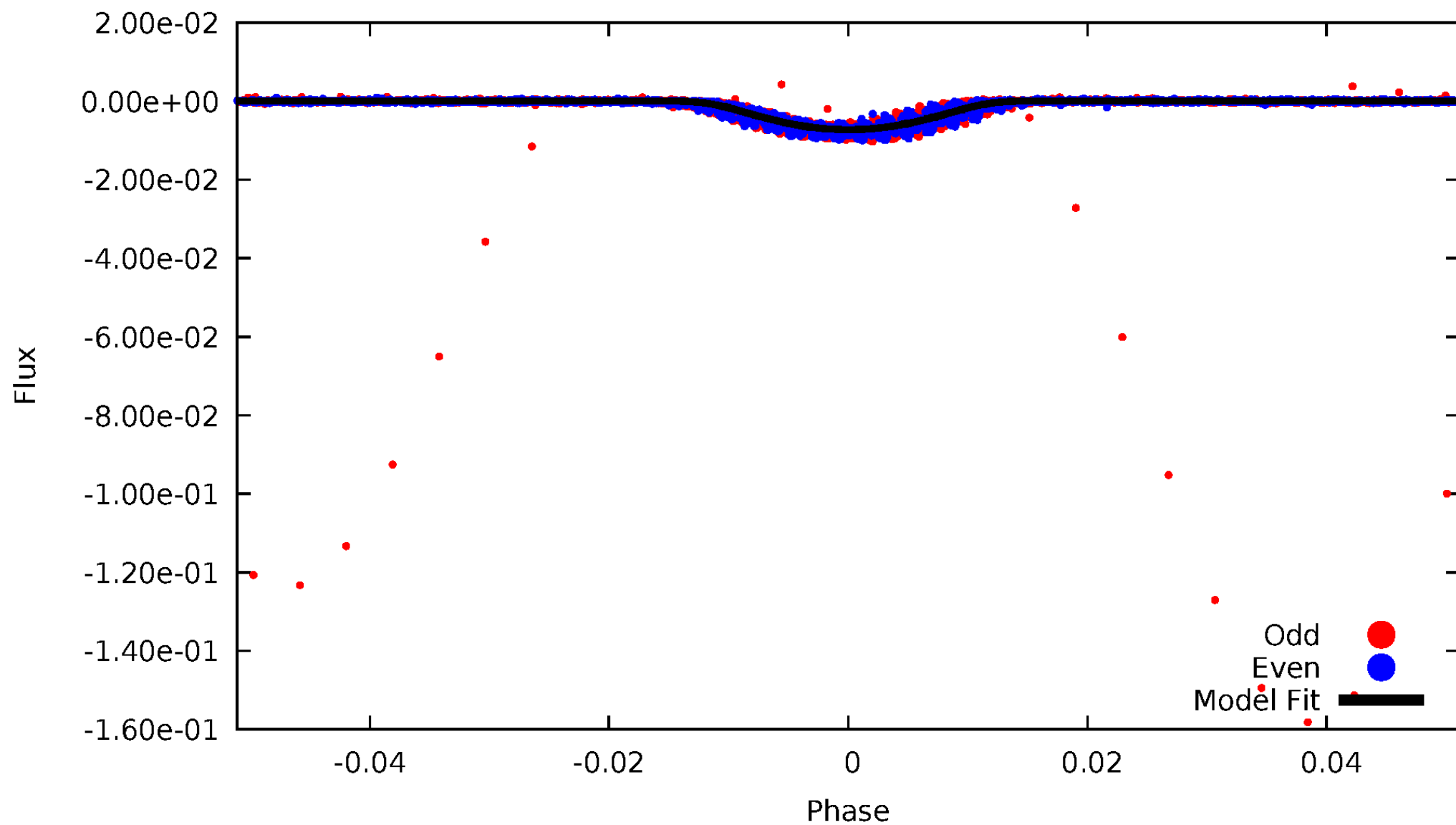


TCE 007289157-02



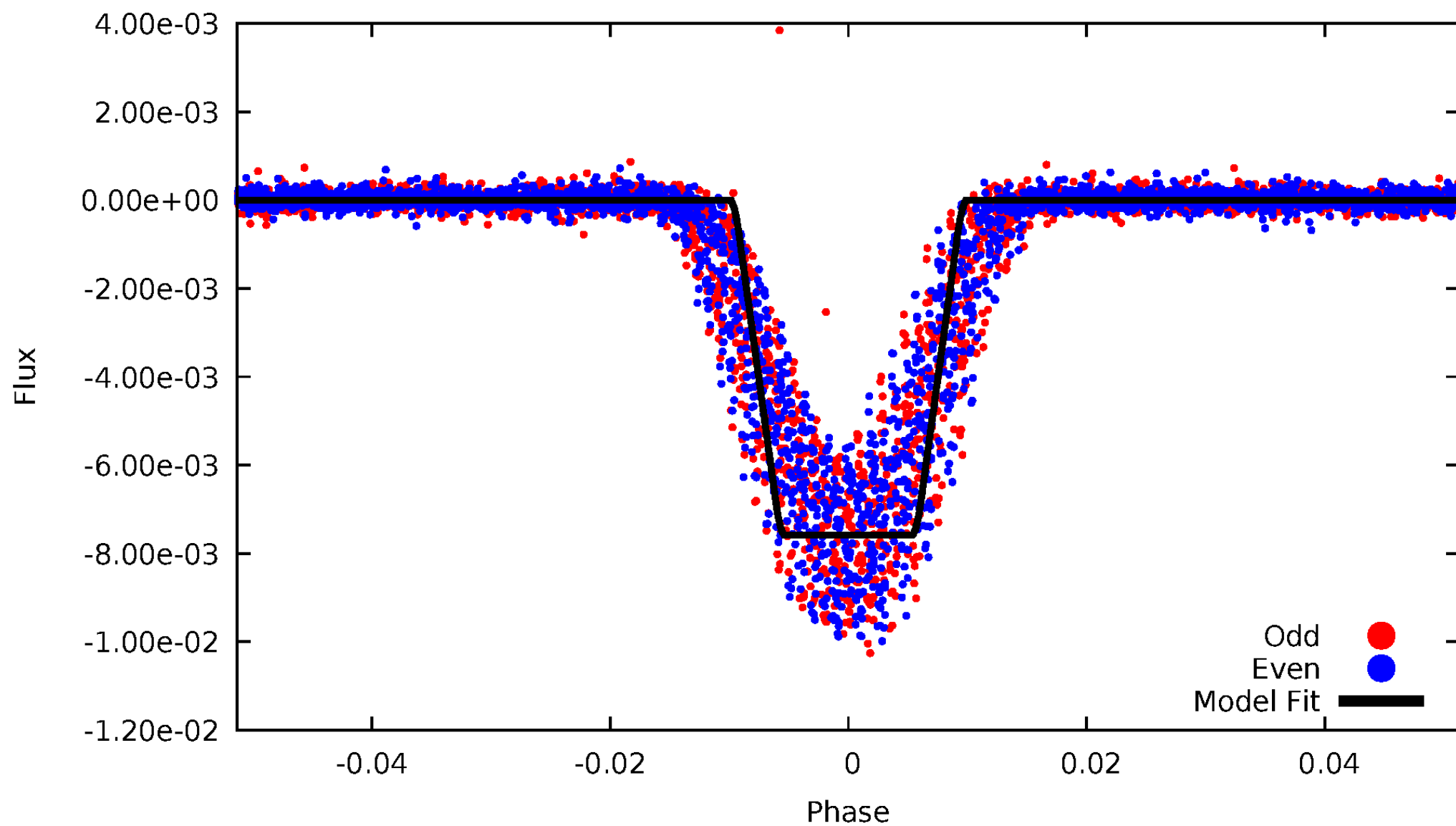
DV Odd/Even

TCE 007289157-02



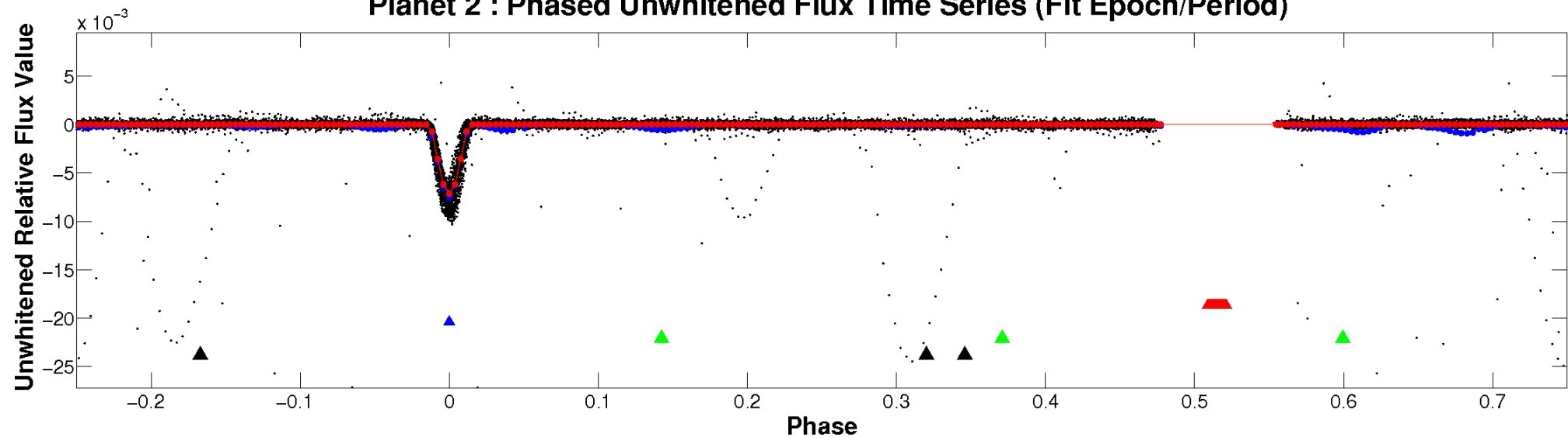
ALT Odd/Even

TCE 007289157-02

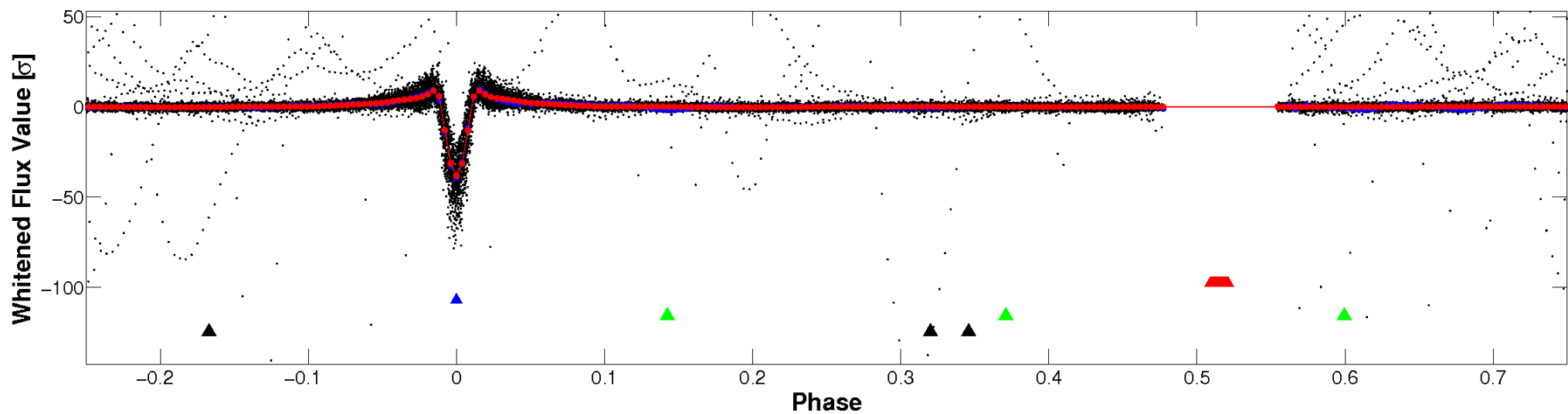


Non-Whitened Vs. Whitened Light Curve

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

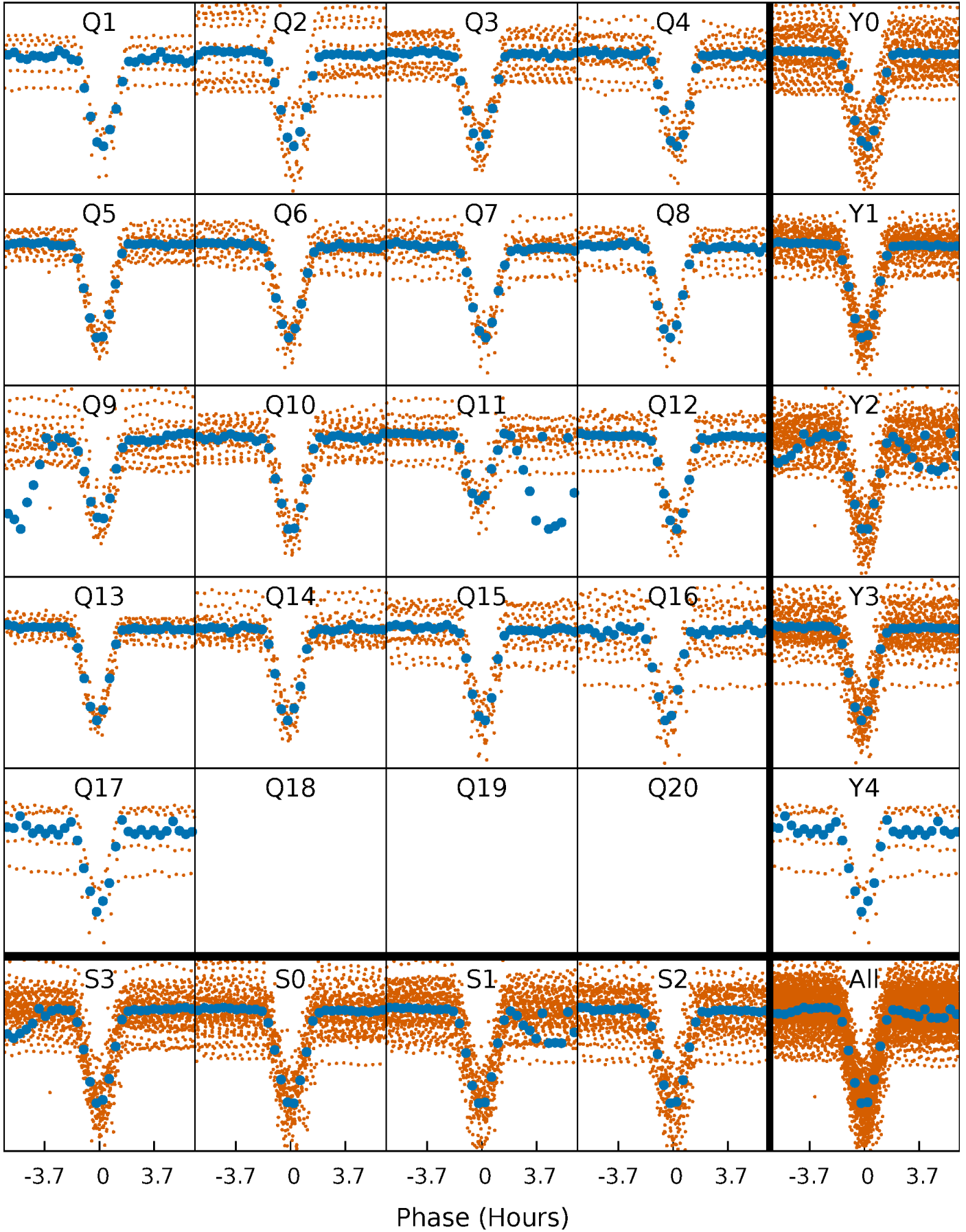


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



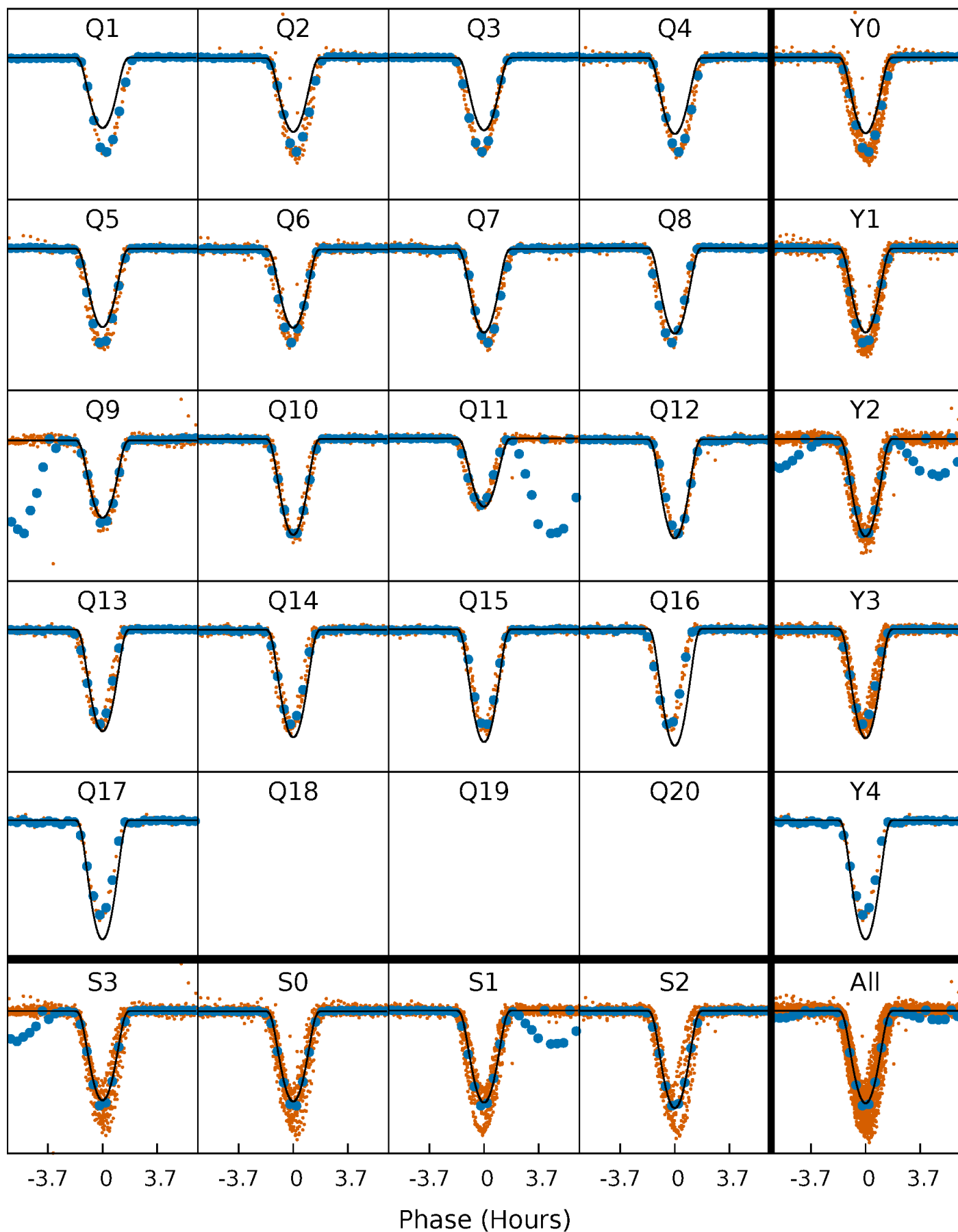
PDC Quarter-Phased Transit Curves

TCE 007289157-02 P= 5.266702 Days $T_0=134.216017$ (BKJD)



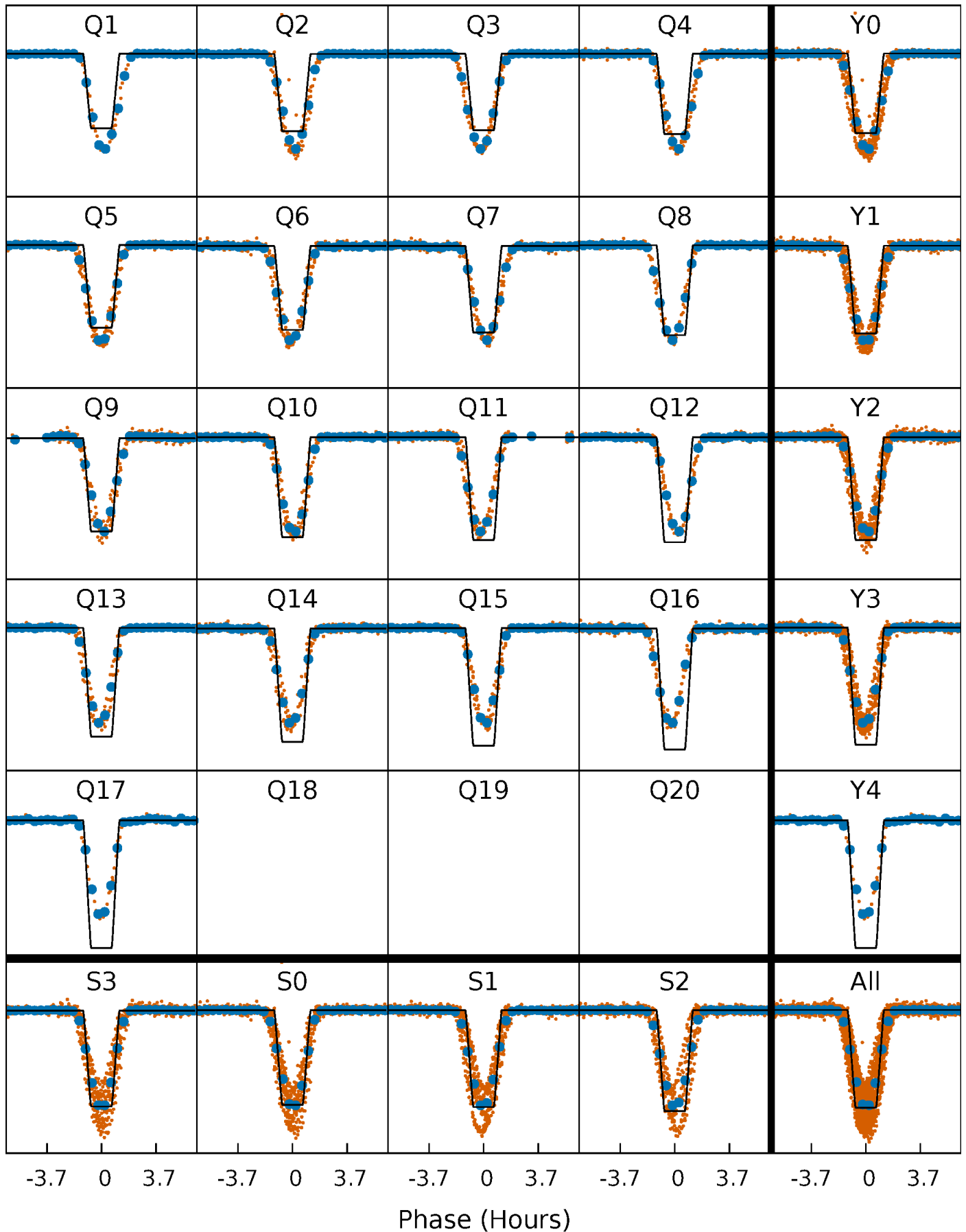
DV Quarter-Phased Transit Curves

TCE 007289157-02 P= 5.266702 Days $T_0=134.216017$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

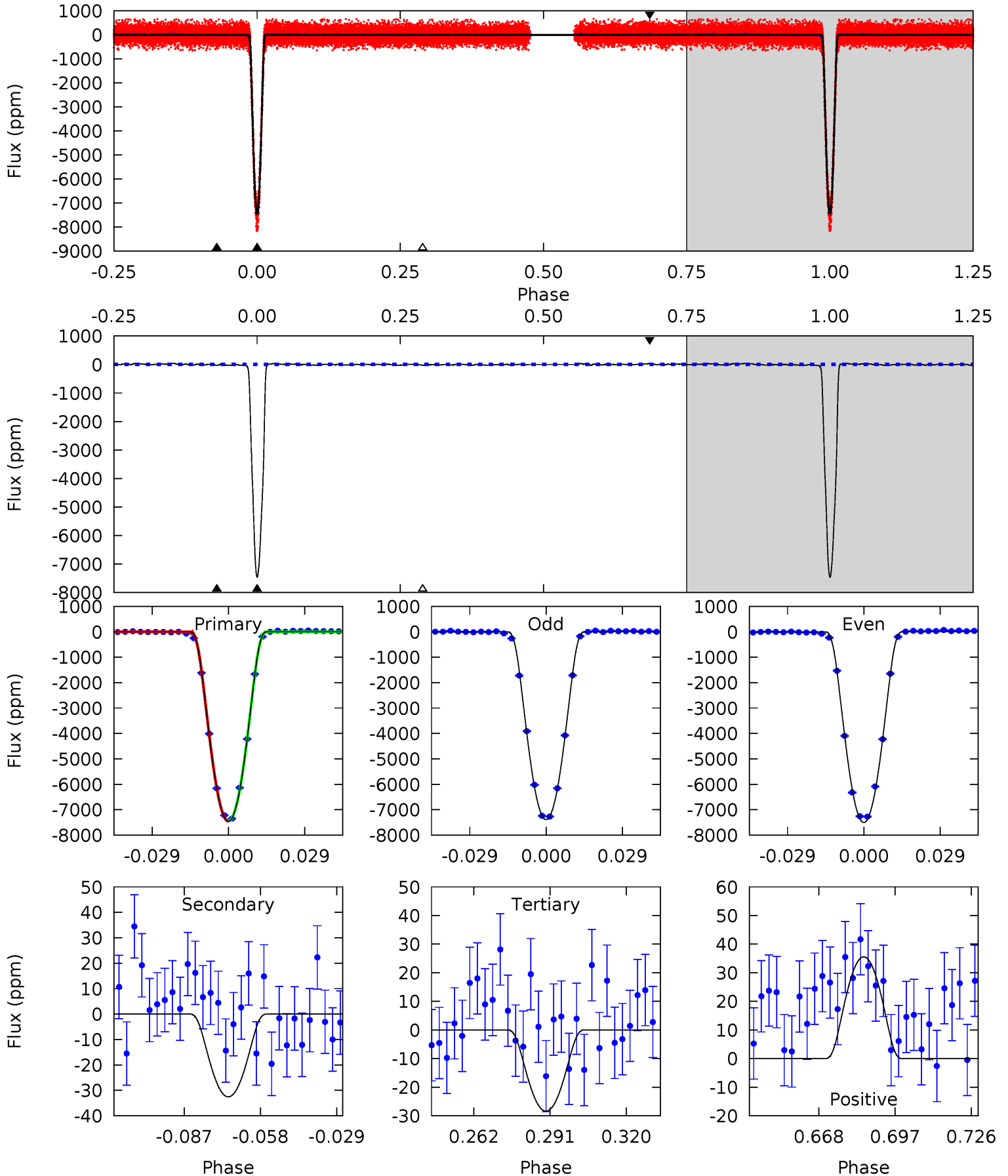
TCE 007289157-02 P= 5.266684 Days $T_0=134.217162$ (BKJD)



DV Model-Shift Uniqueness Test

007289157-02, P = 5.266702 Days, E = 128.949315 Days

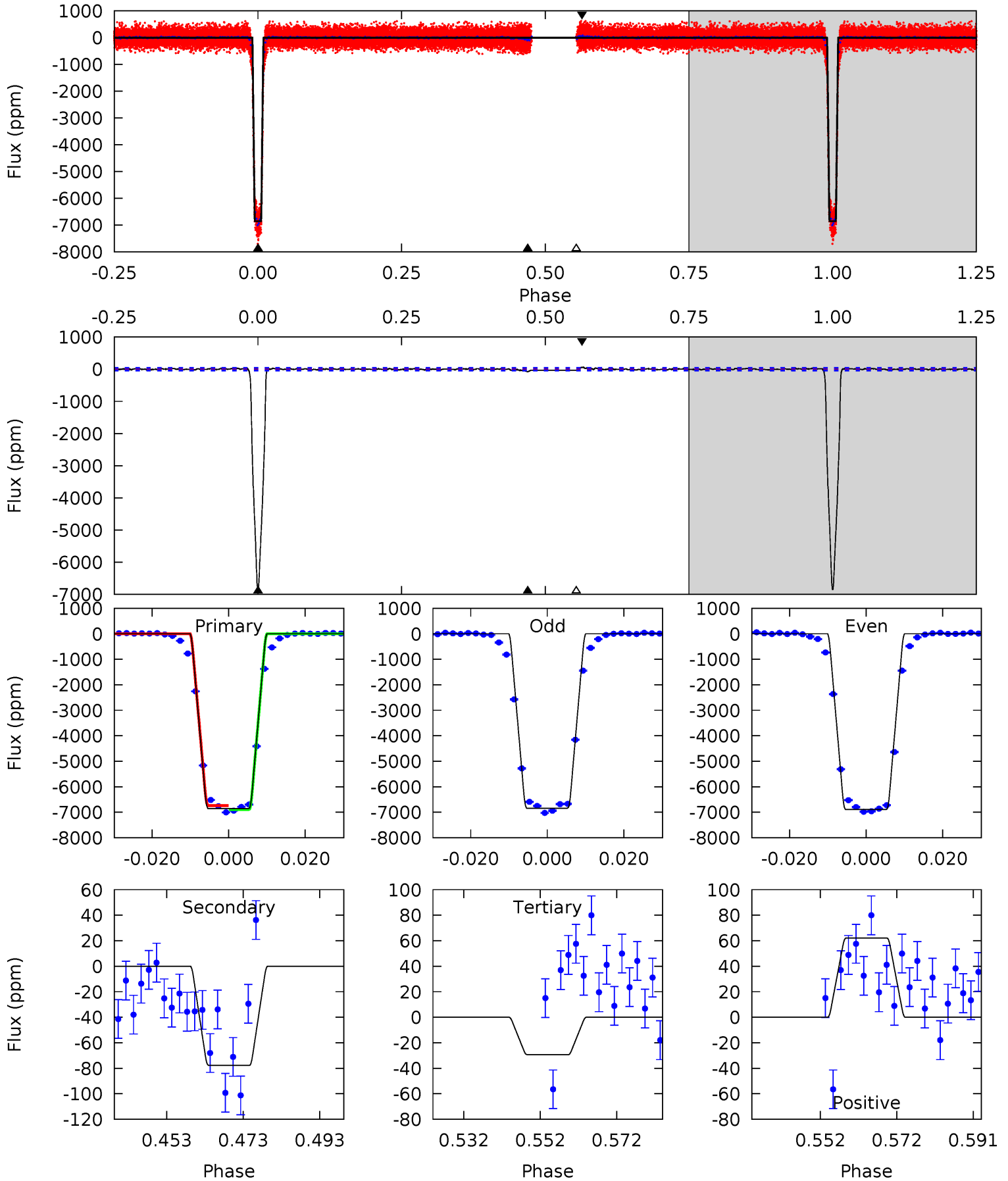
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1289	5.63	4.91	6.15	4.82	2.18	2.33	1284	1283	0.72	-0.52	9.83	1.01	0.00	0



Alt Model-Shift Uniqueness Test

007289157-02, P = 5.266684 Days, E = 128.950478 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
859.5	9.76	3.69	7.79	4.89	2.33	1.46	855.8	851.7	6.07	1.96	3.22	1.03	0.01	9.66



Stellar Parameters For KIC 007289157

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5916^{+107}_{-119}	$4.296^{+0.132}_{-0.108}$	$-0.060^{+0.150}_{-0.150}$	$1.175^{+0.178}_{-0.178}$	$0.995^{+0.081}_{-0.066}$	$0.865^{+0.526}_{-0.281}$
	+2%/-2%	+3%/-3%	+250%/-250%	+15%/-15%	+8%/-7%	+61%/-32%
Source	SPE18	SPE18	SPE18	DSEP		

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

Secondary Eclipse Parameters for KIC 007289157-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-33 ± 6	$14.50^{+1.34}_{-1.37}$	1622^{+73}_{-76}	-1353^{+3309}_{-604}	$0.299^{+0.088}_{-0.068}$
Alt.	-78 ± 8	$11.22^{+1.13}_{-1.03}$	1626^{+69}_{-68}	2579^{+64}_{-73}	$1.199^{+0.298}_{-0.236}$

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 $A_{obs} \gg 1.0$

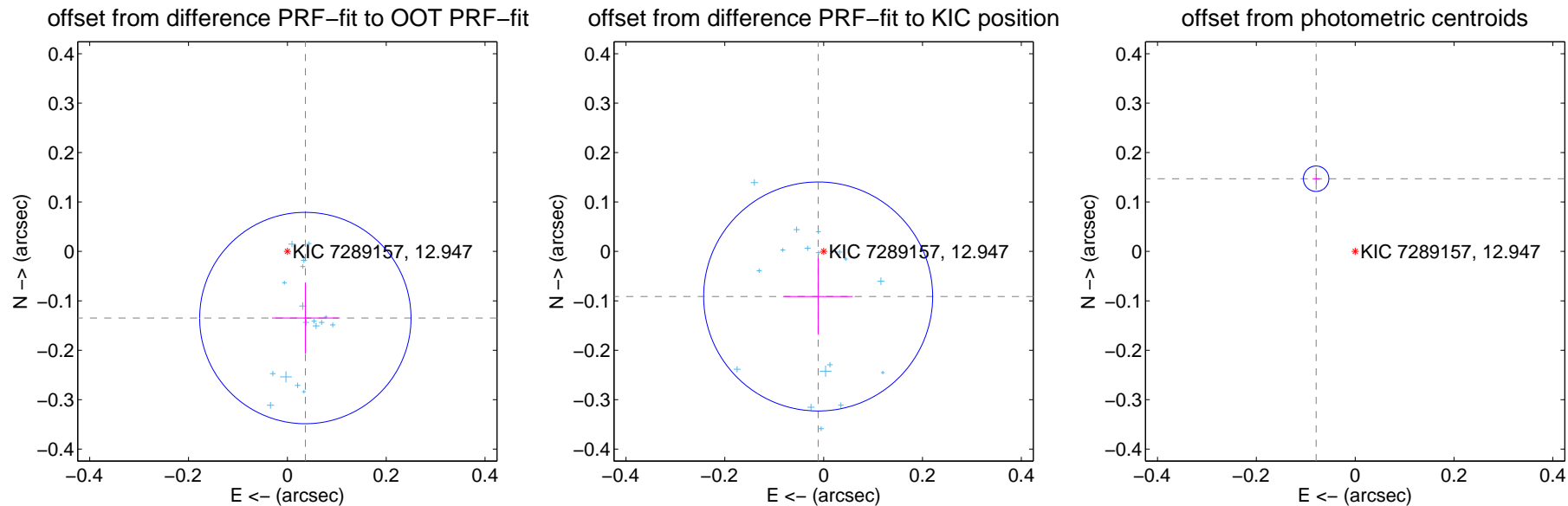
DV Centroid Data

Supplemental centroid analysis for 007289157-02. Kepler magnitude: 12.95. Transit SNR 734.00

There are 17 quarters with good PRF difference image offsets

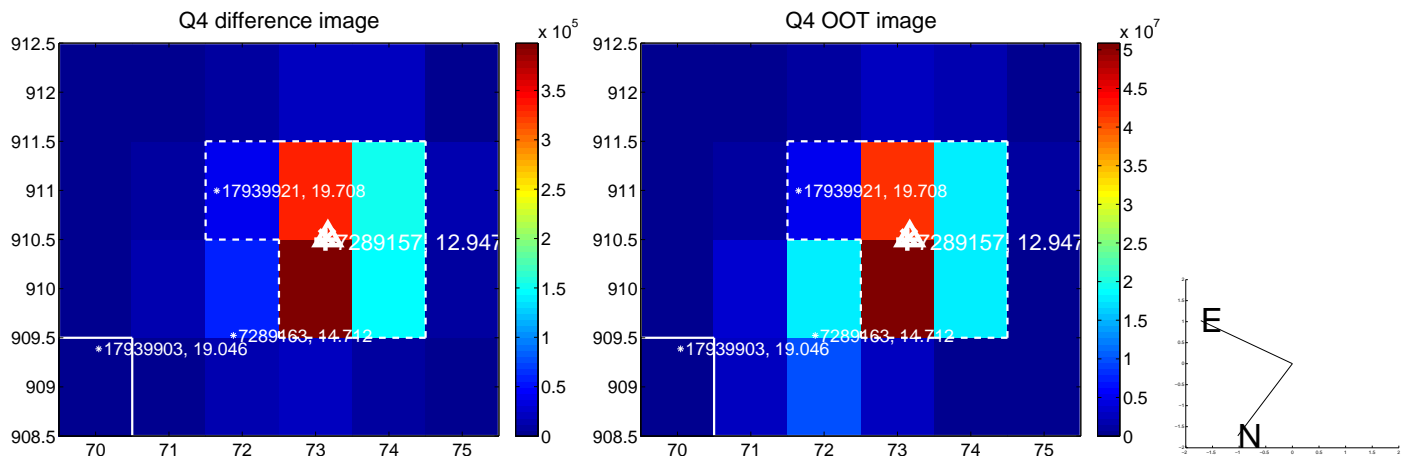
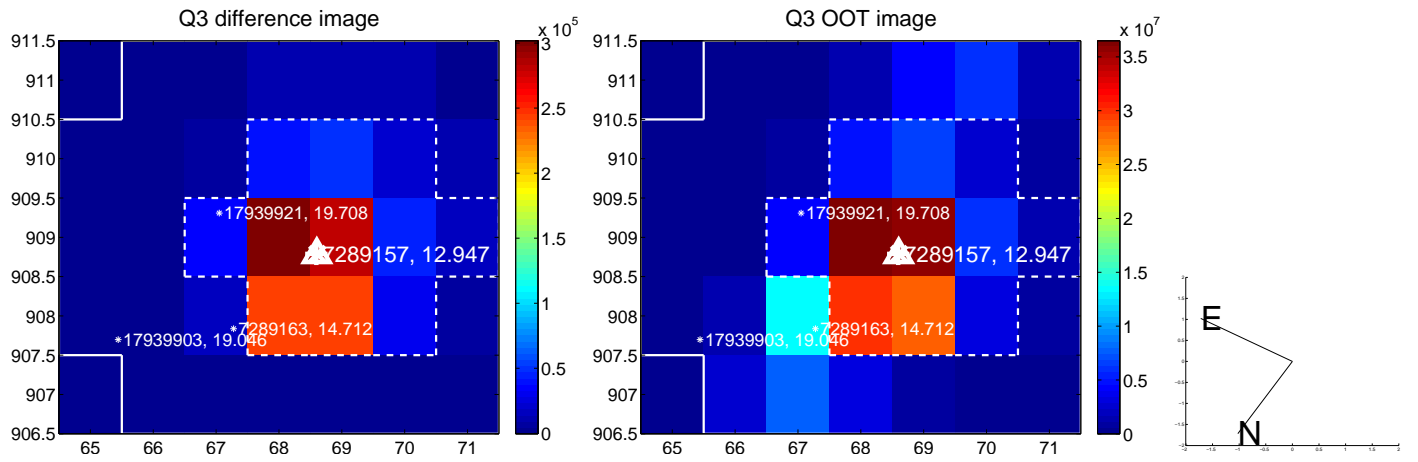
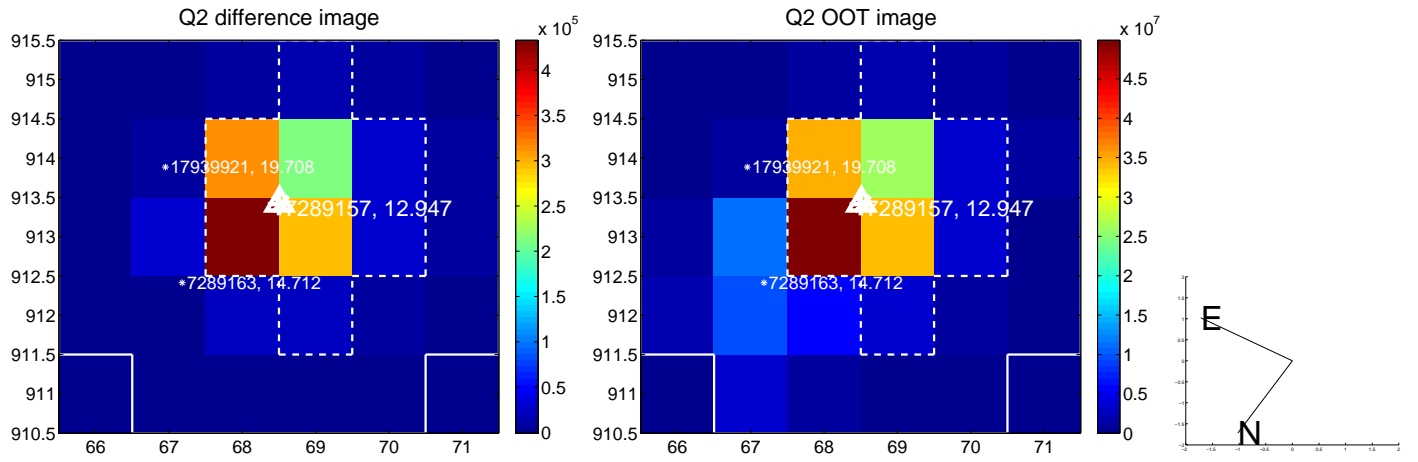
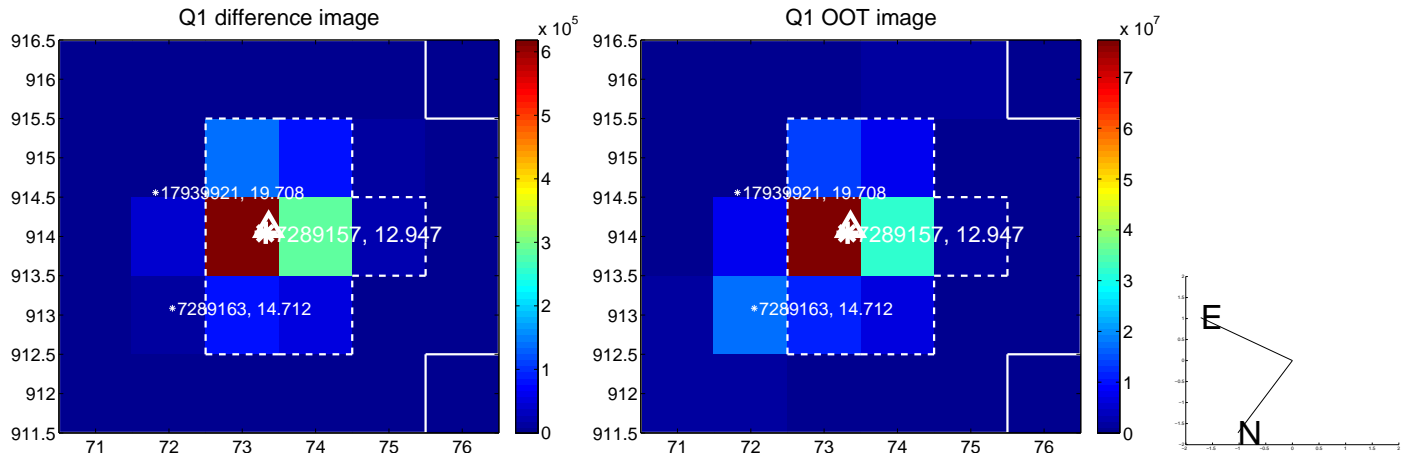
The direct PRF centroid is offset from the target star catalog position by about 0.01 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.140 ± 0.071	1.96	-0.036 ± 0.067	-0.135 ± 0.072
PRF-fit source offset from KIC position	0.092 ± 0.077	1.19	0.011 ± 0.070	-0.091 ± 0.077
photometric centroid source offset	0.17 ± 0.01	19.46	0.08 ± 0.01	0.15 ± 0.01

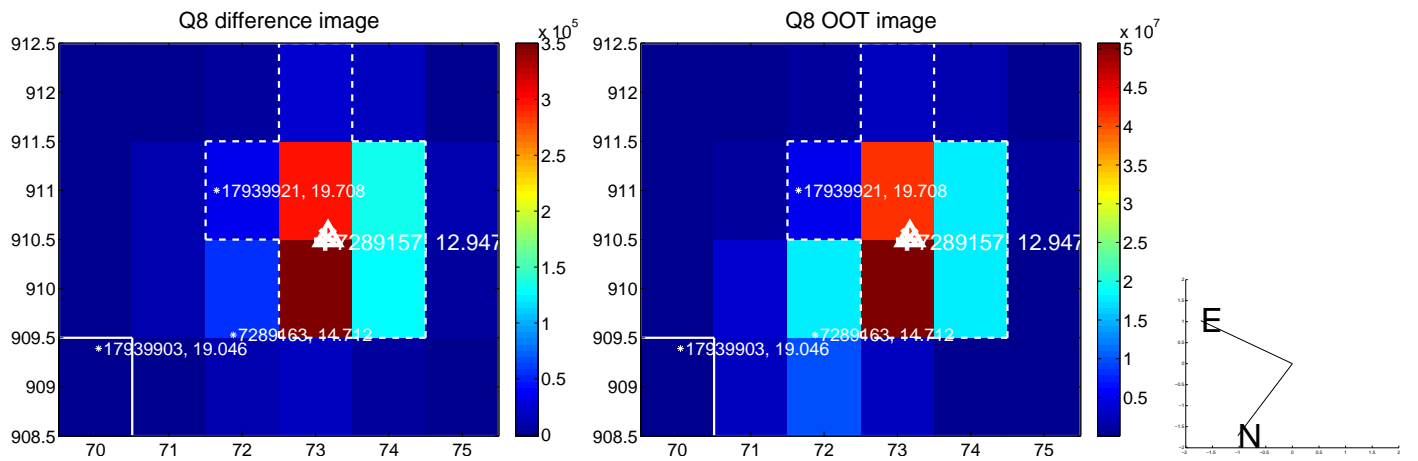
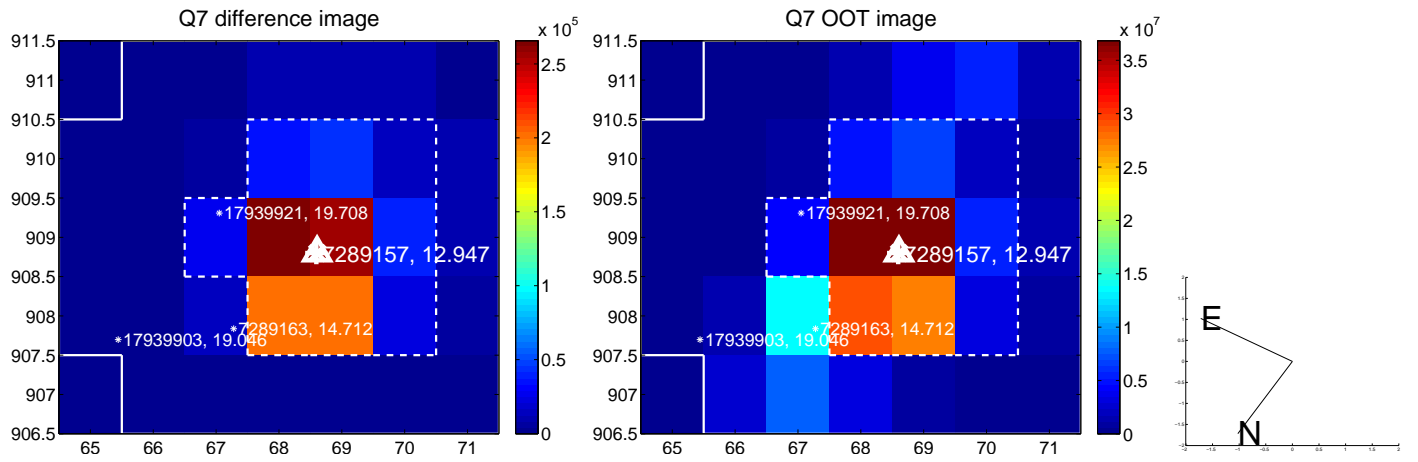
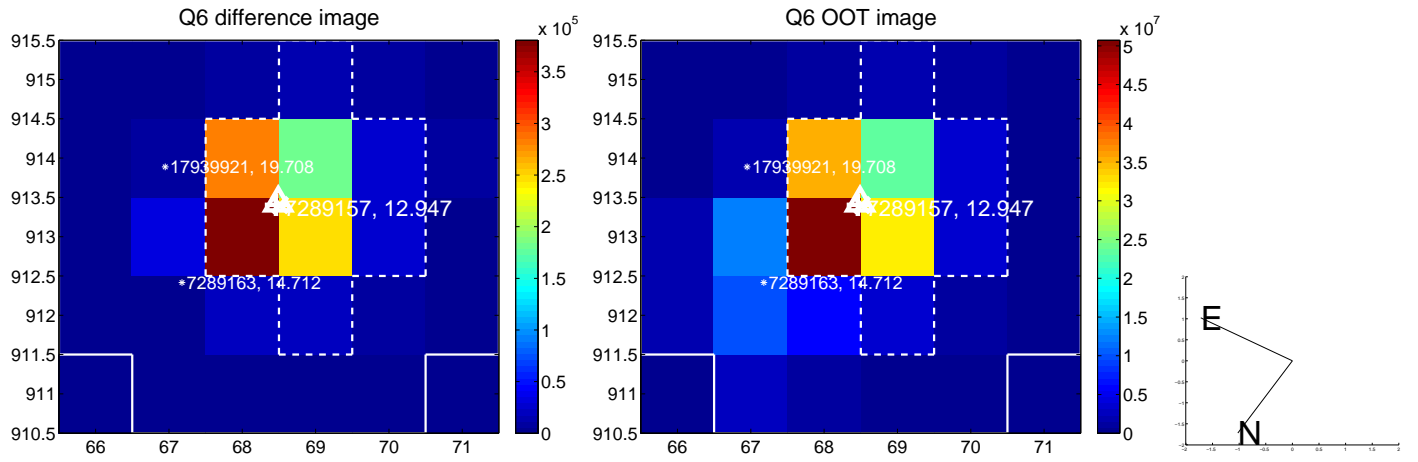
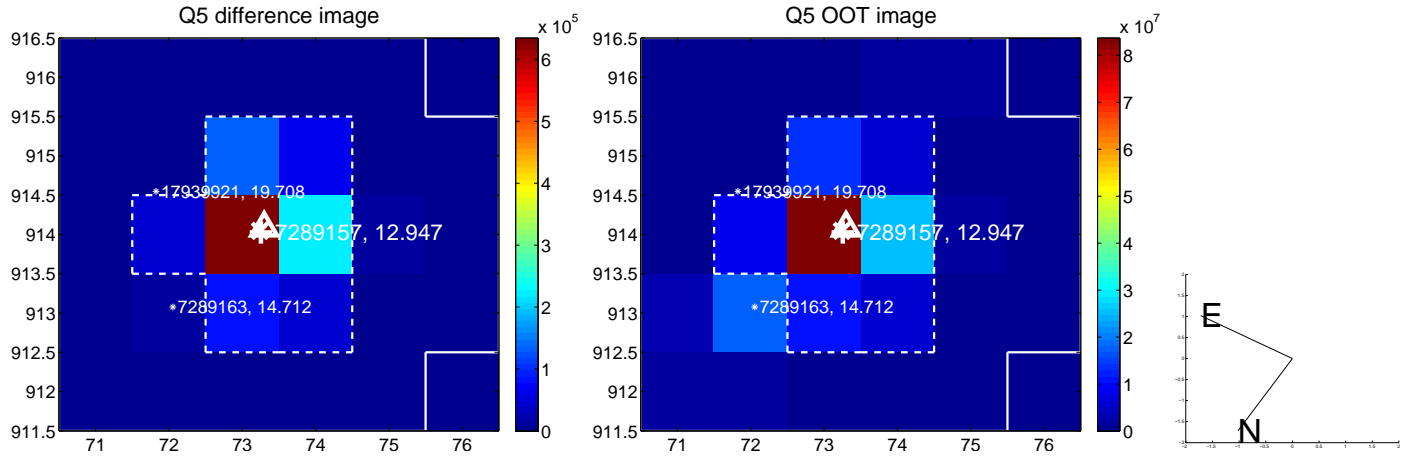


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

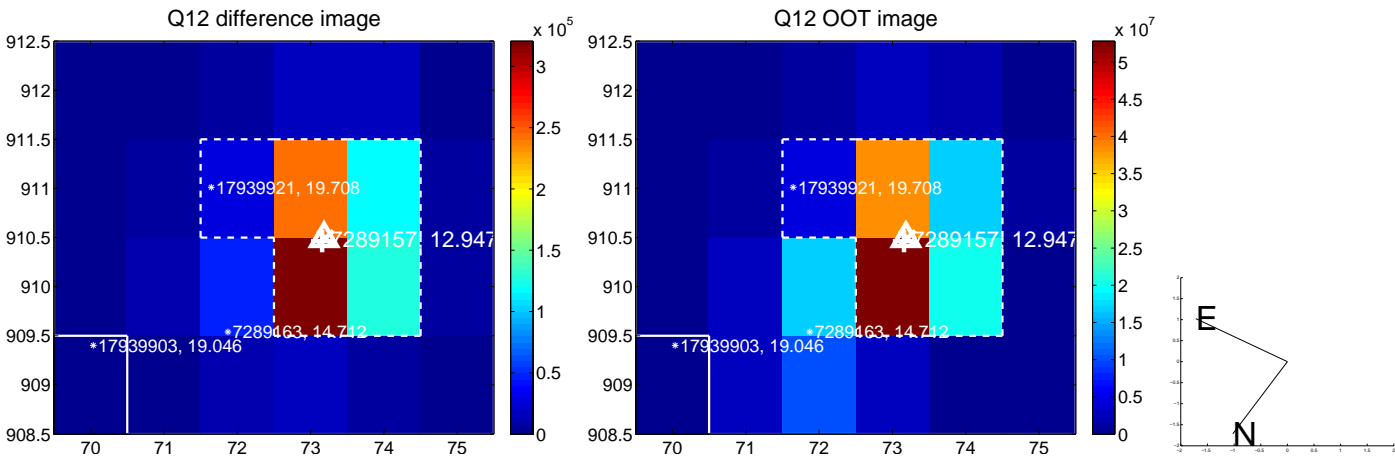
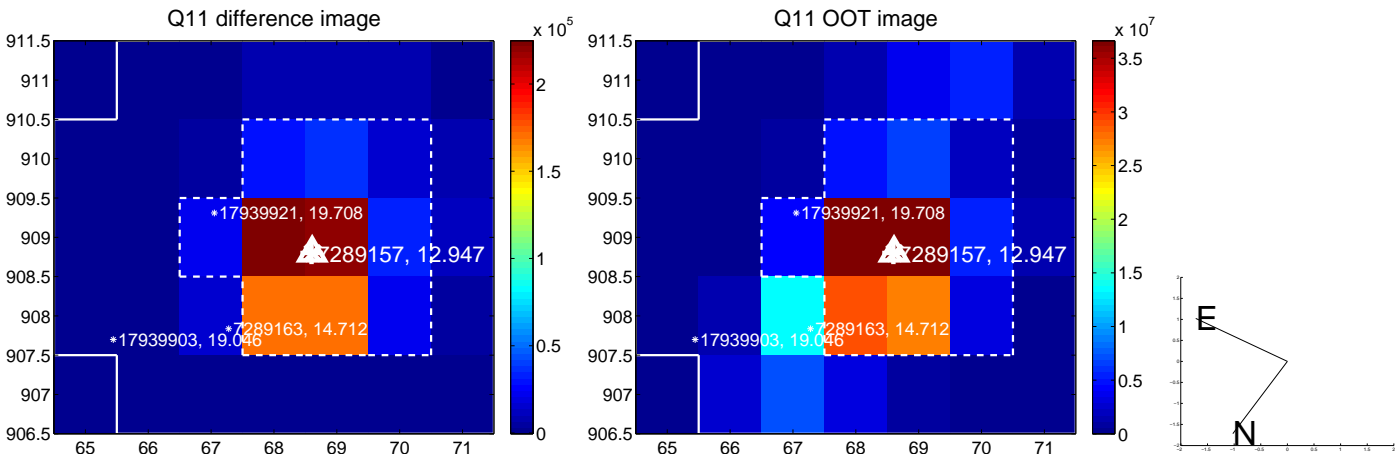
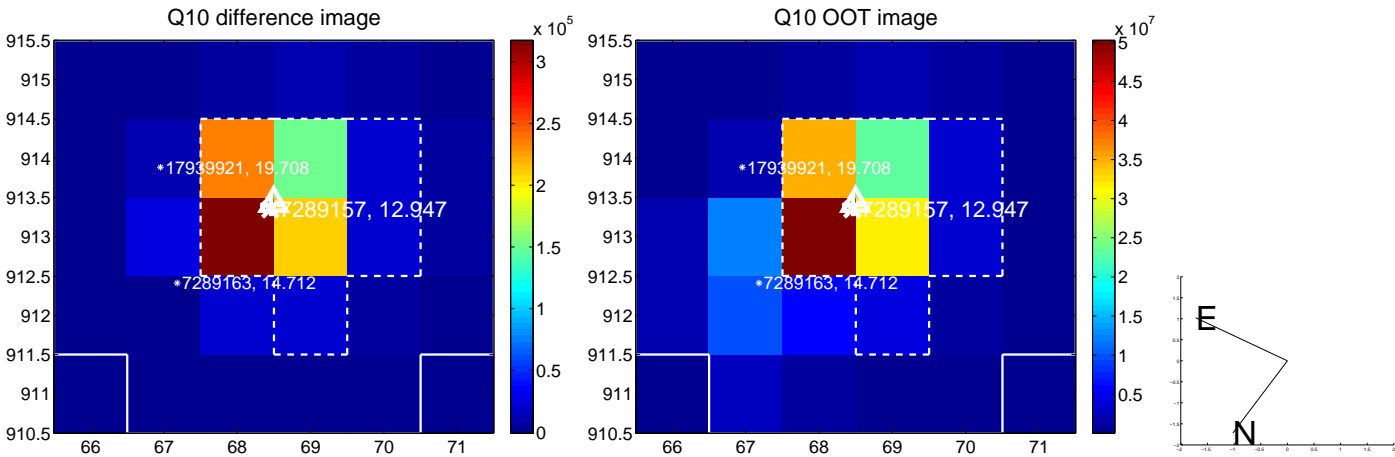
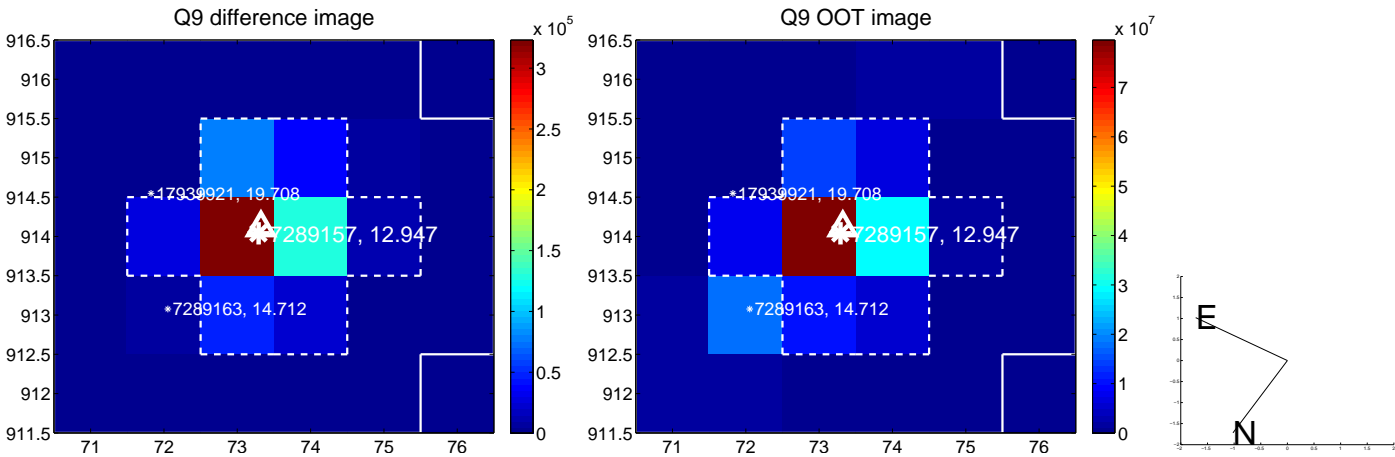
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



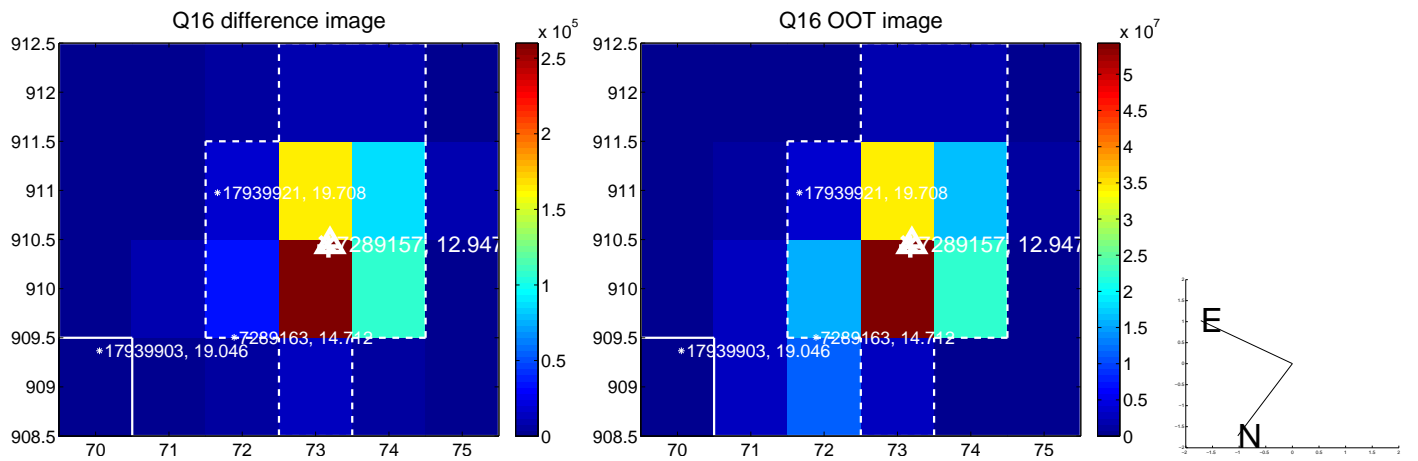
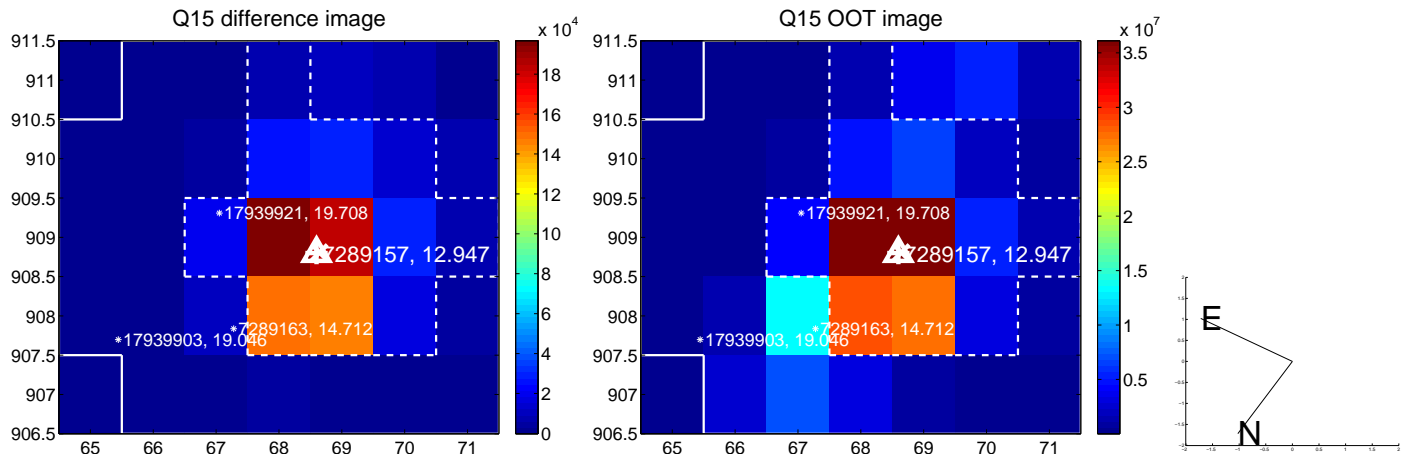
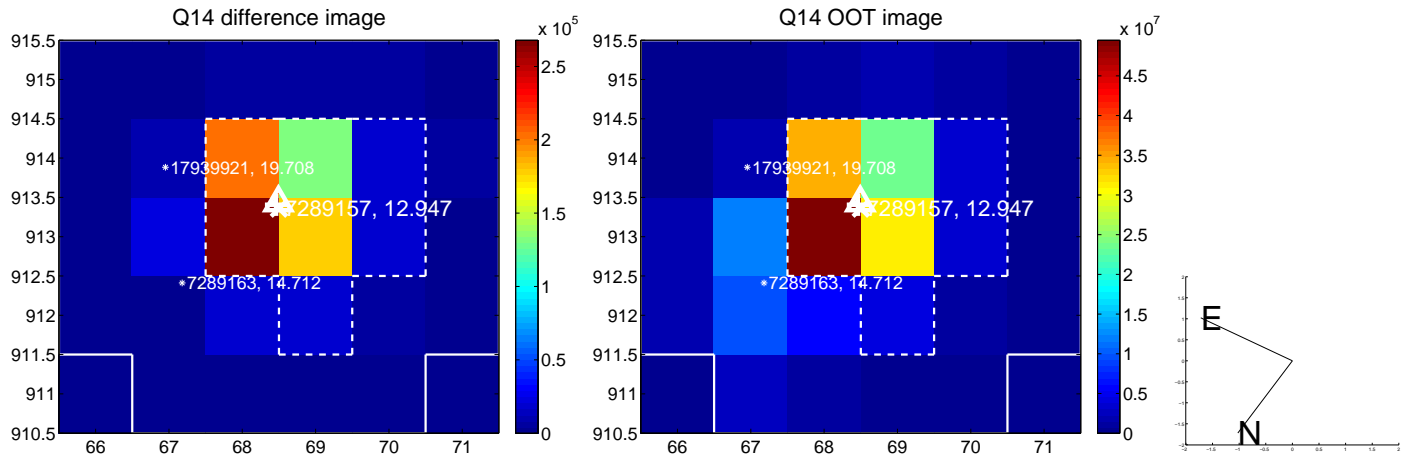
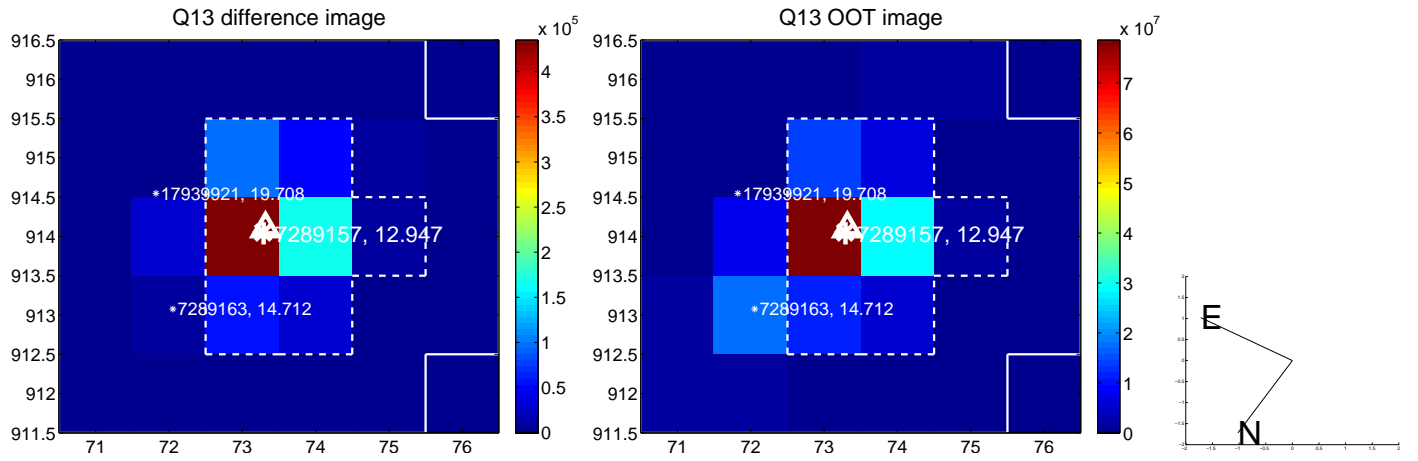
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



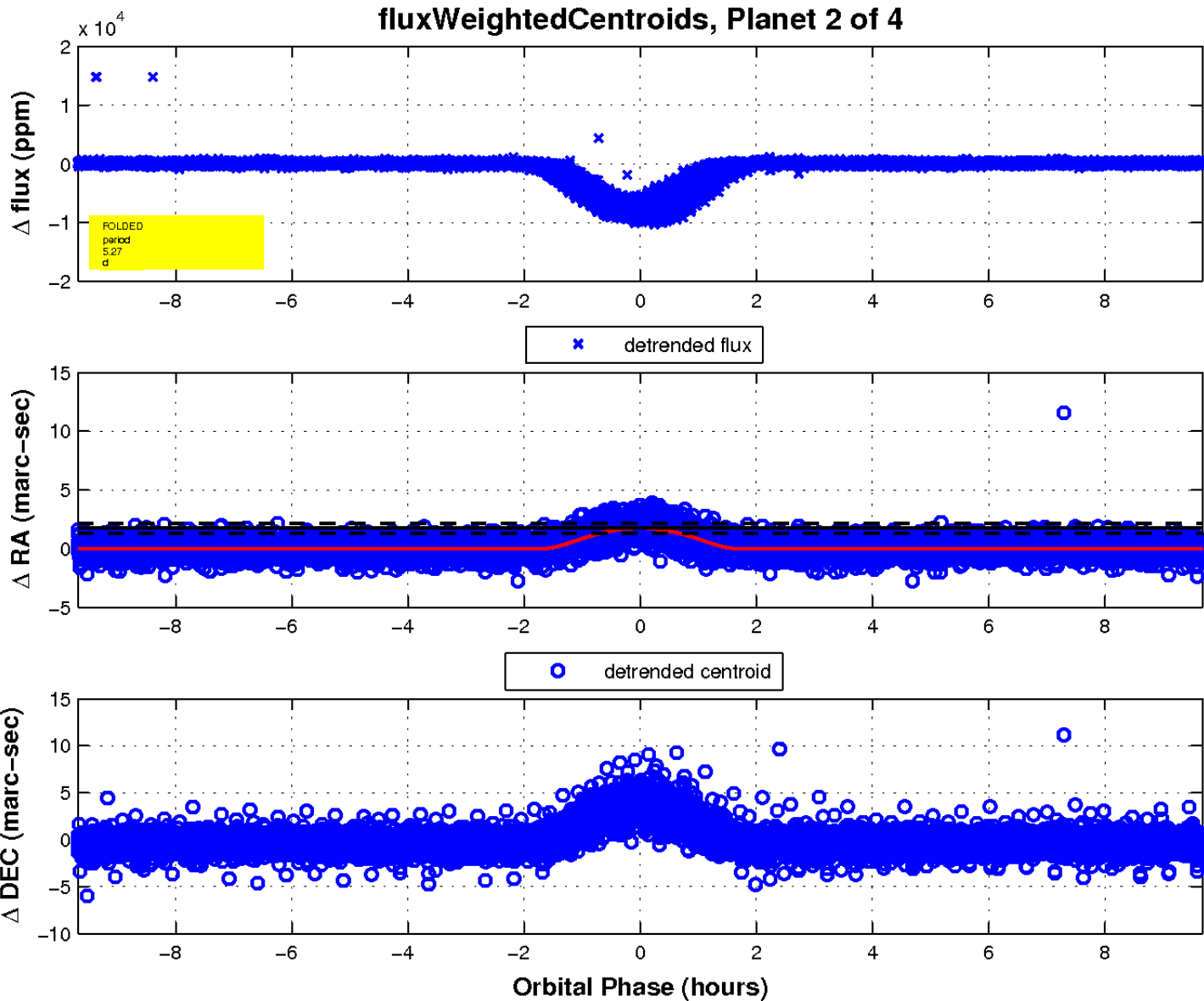
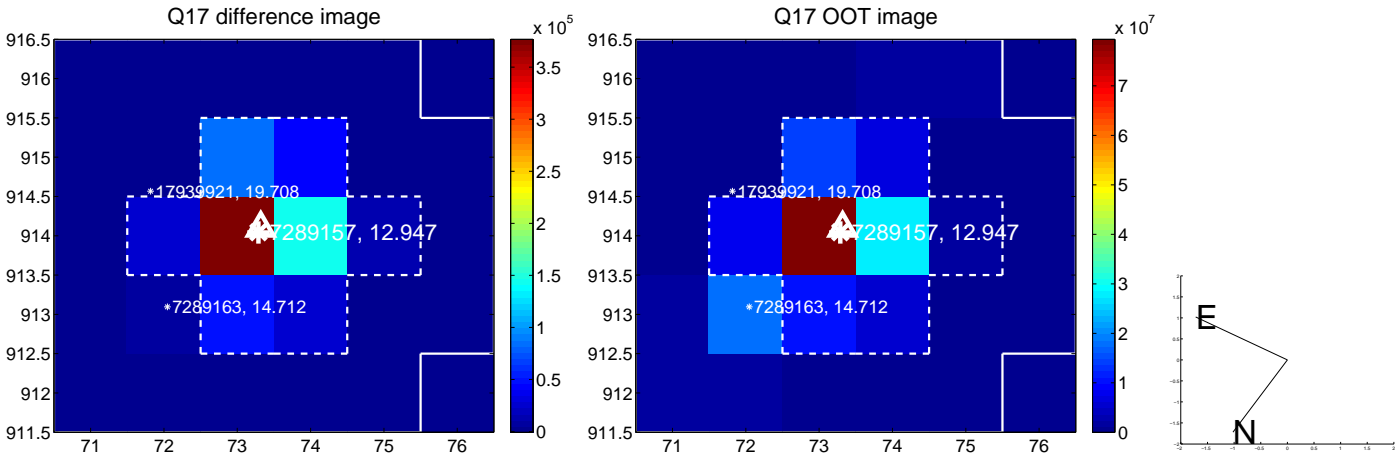
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

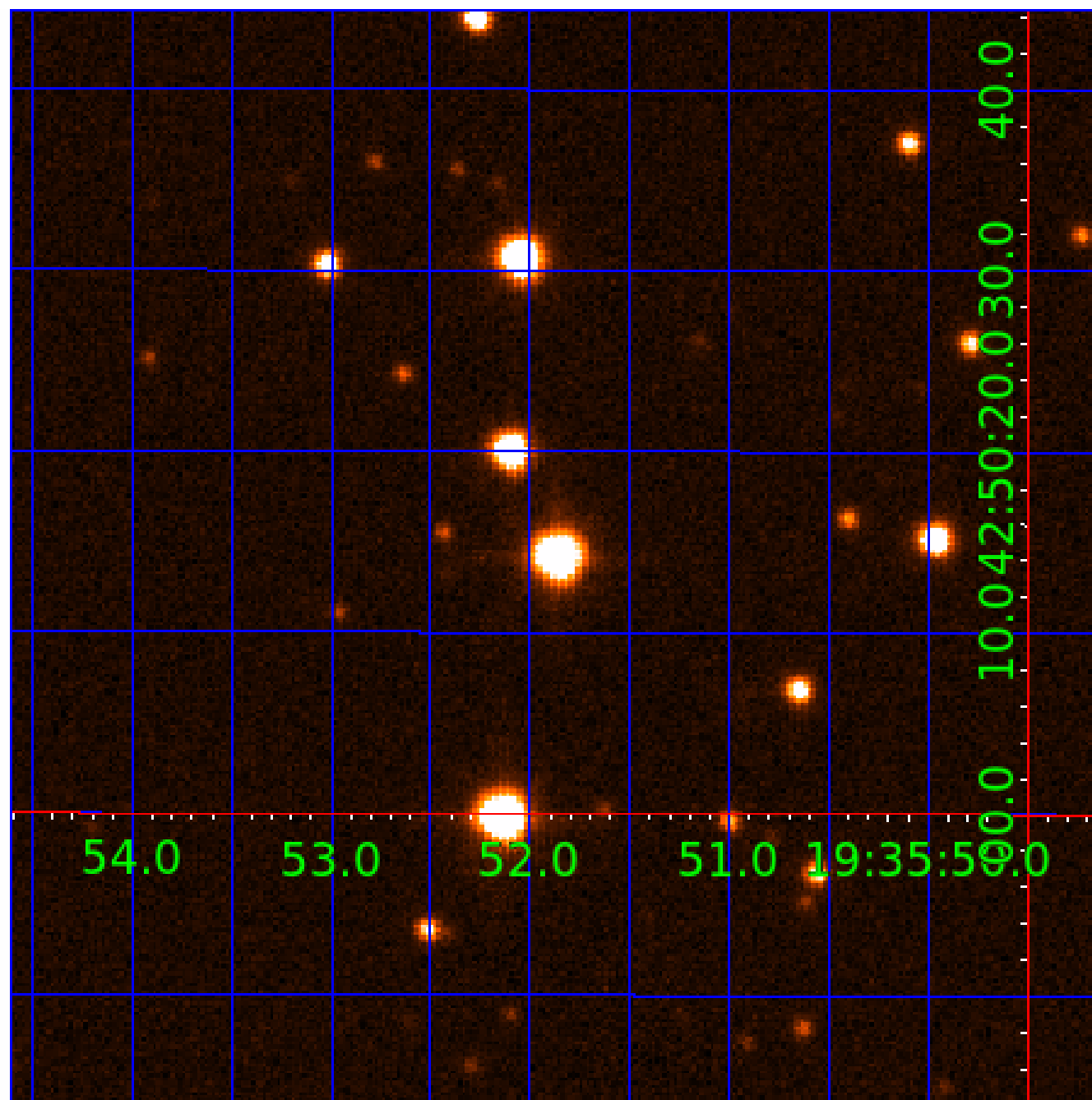


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 007289157

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})
007289157-01	OBS	0399.01	5.266466	131.694714	52111.6	3.525	8152.3	4060.3	1.18	5916	38.39	432.85
007289157-02	OBS	No	5.266702	134.216017	7228.7	3.229	1082.0	734.0	1.18	5916	14.44	432.83
007289157-03	OBS	No	446.465840	405.975557	130024.8	7.717	1003.0	893.0	1.18	5916	57.22	1.16

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007289157-01	OBS	FP	0.00	0	1	0	0	MOD_SEC_DV—MOD_SEC_ALT—DEEP_V_SHAPED—HAS_SEC_TCE
007289157-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE
007289157-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—INCONSISTENT_TRANS—CENT_FEW_DIFFS

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

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

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

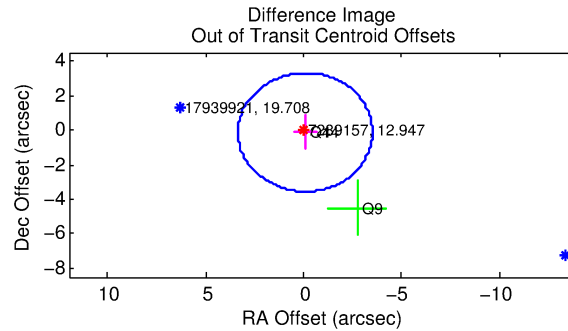
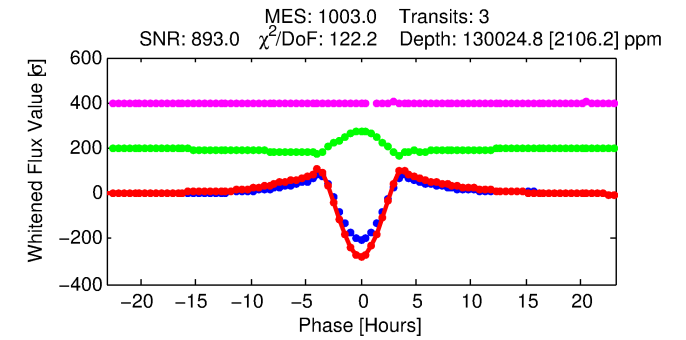
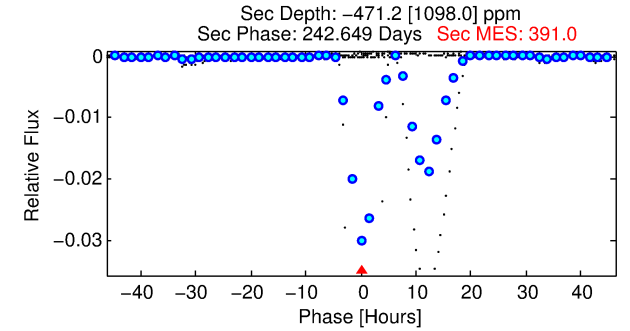
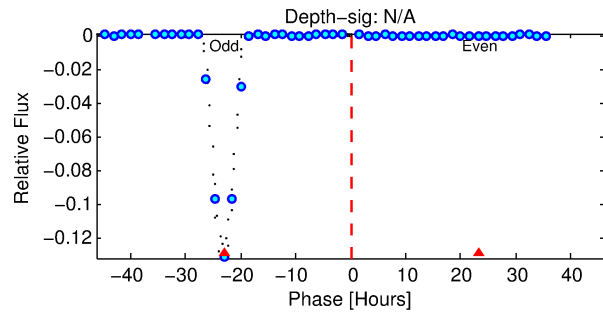
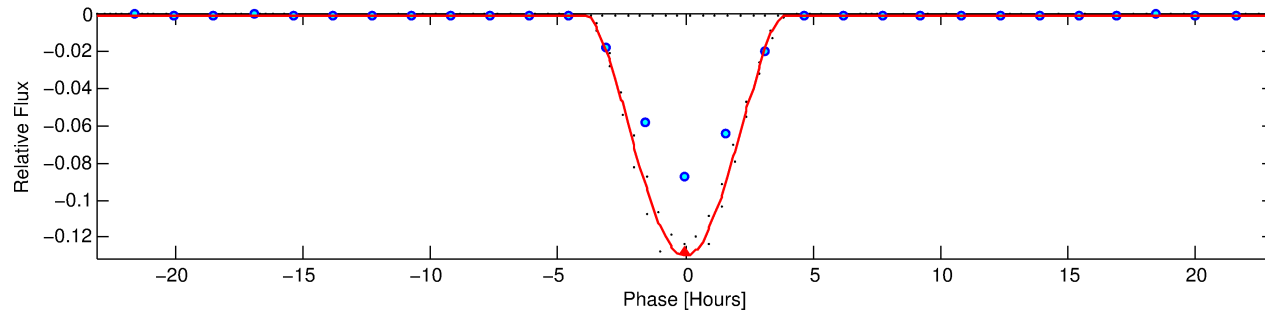
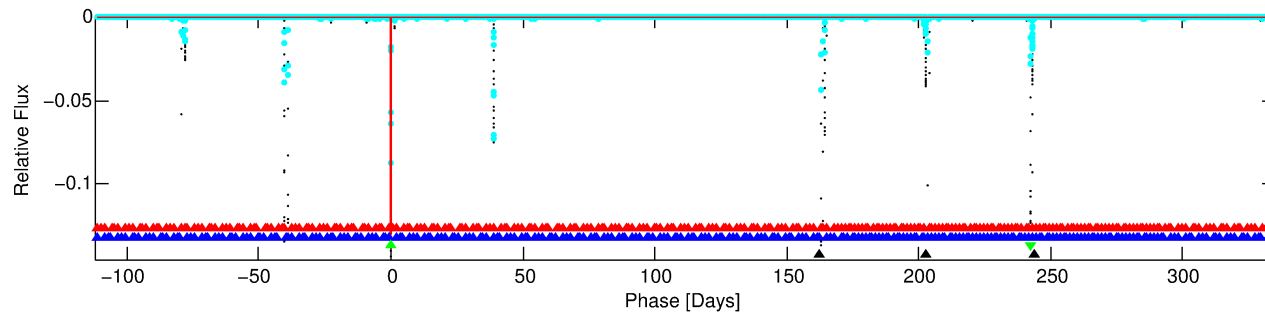
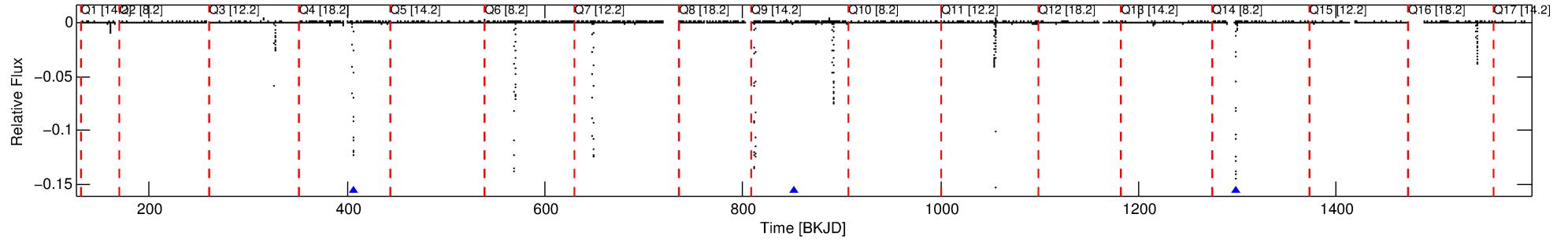
Ephemeris Match Information For 007289157-03

No Significant Match Found

DV One-Page Summary

KIC: 7289157 Candidate: 3 of 4 Period: 446.466 d
KOI: K00399 Corr: No Ephemeris Match

Kp: 12.95 R*: 1.18 R_s T_{eff}: 5916.0 K Logg: 4.30 Fe/H: -0.060



DV Fit Results:

Period = 446.46584 [0.00122] d
Epoch = 405.9756 [0.0019] BKJD
Rp/R* = 0.4462 [0.2254]
a/R* = 520.54 [10.06]
b = 0.84 [0.35]
Seff = 1.16 [0.28]
Teq = 265 [16] K
Rp = 57.21 [30.18] Re
7289138, 16.529a = 1.1418 [0.1633] AU
Ag = N/A
Teffp = N/A

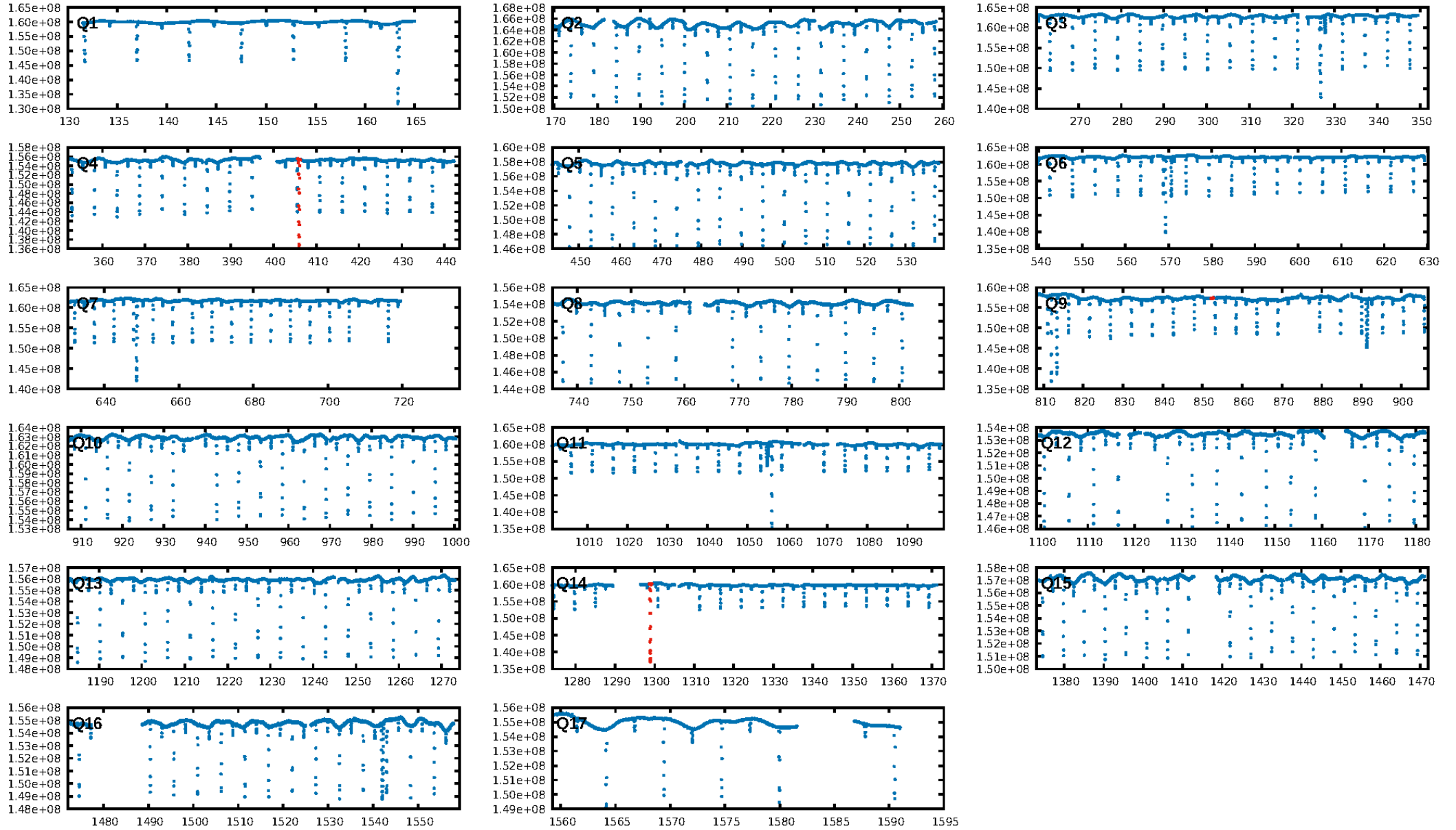
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [1265.80σ]
LongPeriod-sig: 100.0% [82.26σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 0.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 4.913
Centroid-sig: N/A
Centroid-so: 0.756 arcsec [210.91σ]
OotOffset-rm: 0.145 arcsec [0.13σ]
KicOffset-rm: 0.139 arcsec [0.14σ]
OotOffset-st: 1/0/1/1 [3]
KicOffset-st: 1/0/1/1 [3]
DiffImageQuality-fgm: 0.67 [2/3]
DiffImageOverlap-fno: 0.67 [2/3]

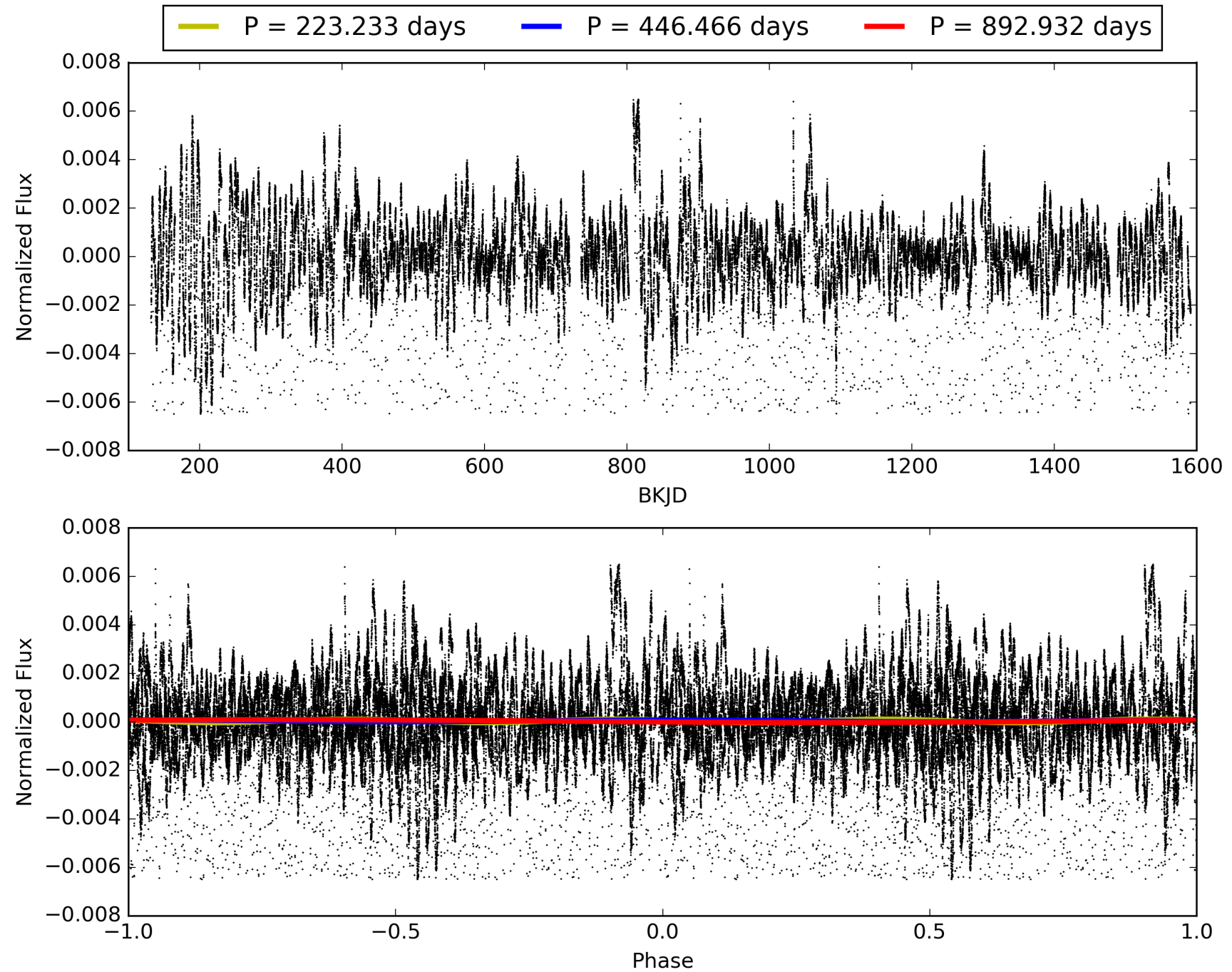
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 13:15:51 Z

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

TCE 007289157-03, PDC Light Curves

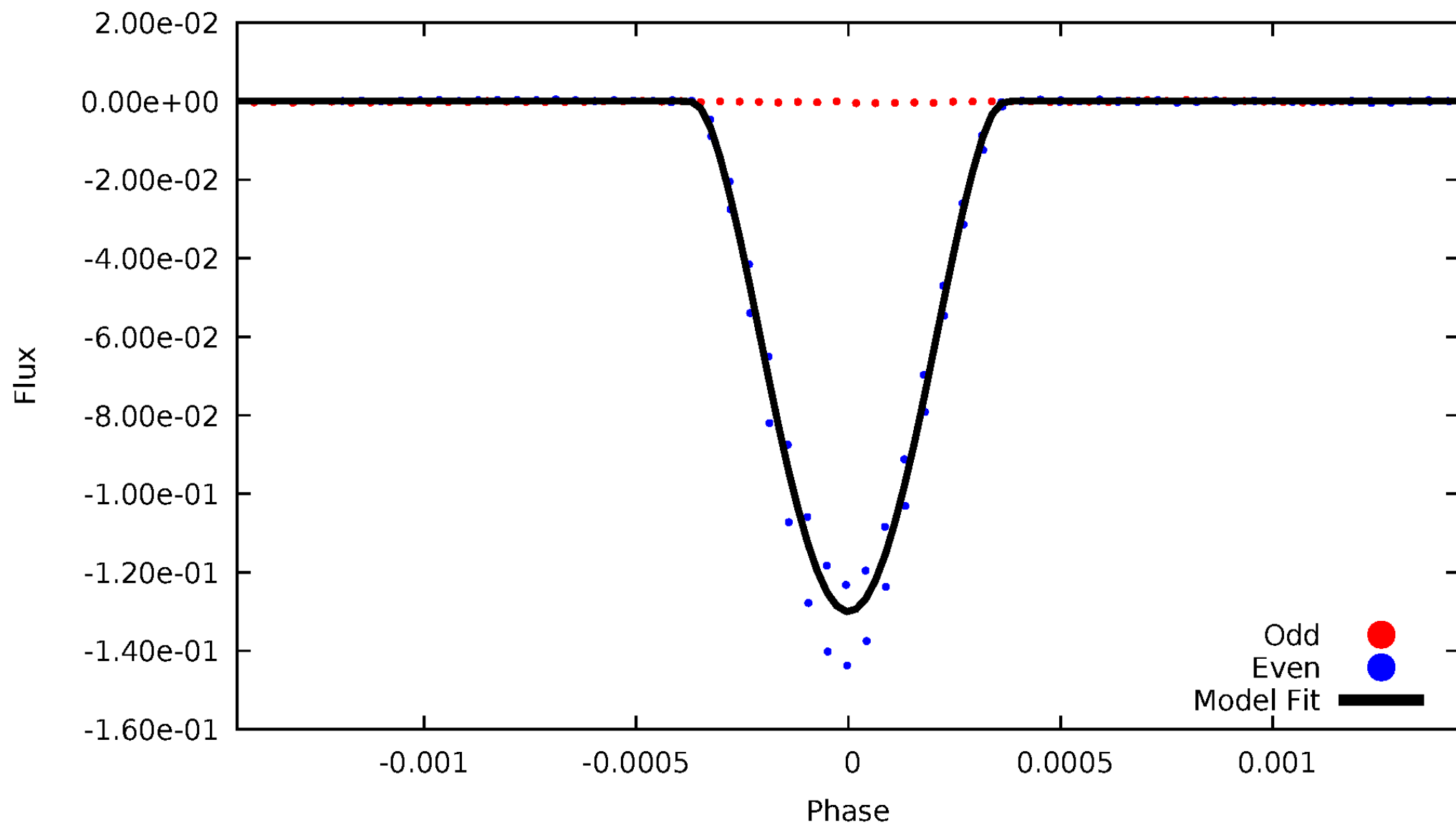


TCE 007289157-03



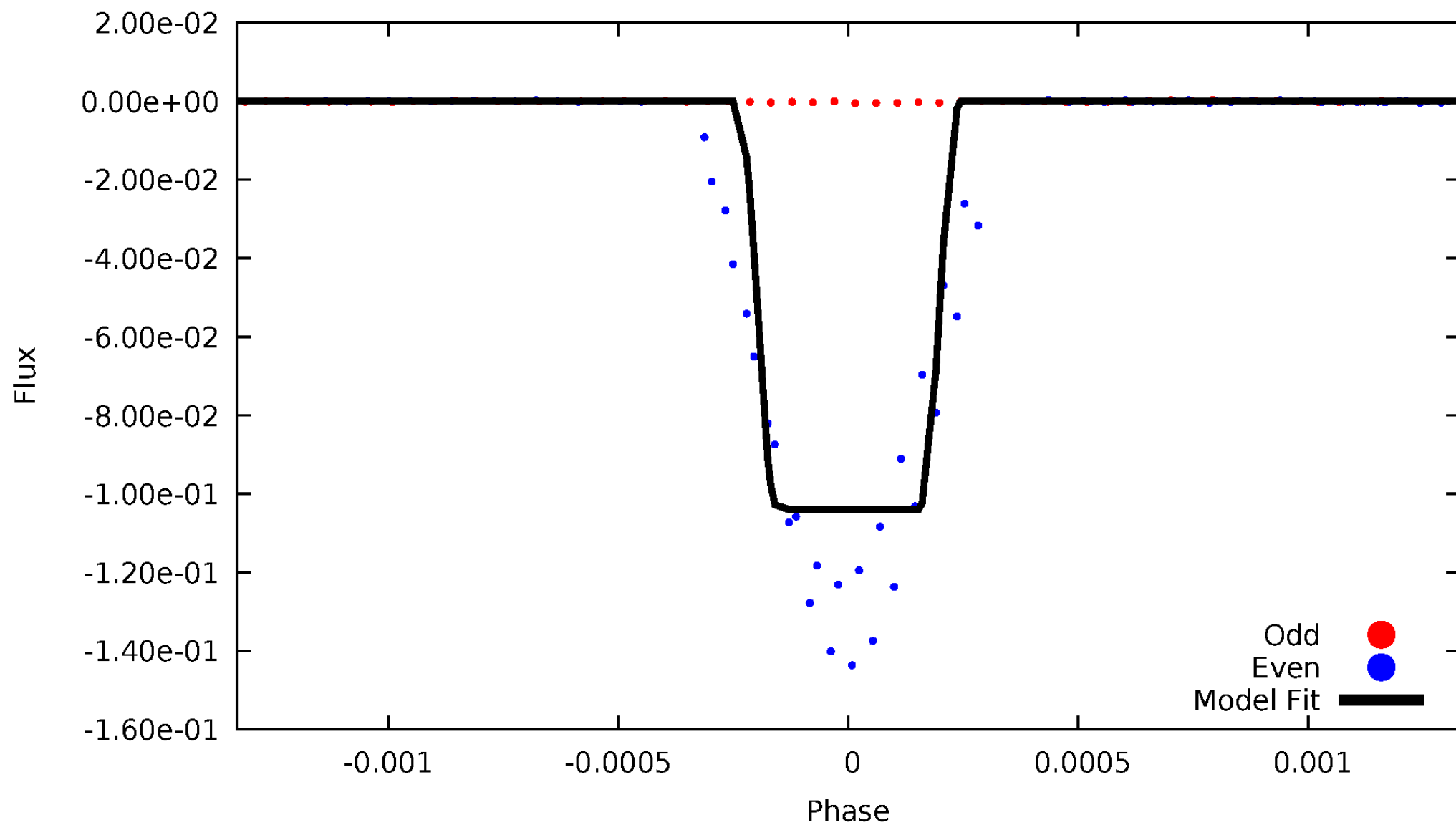
DV Odd/Even

TCE 007289157-03



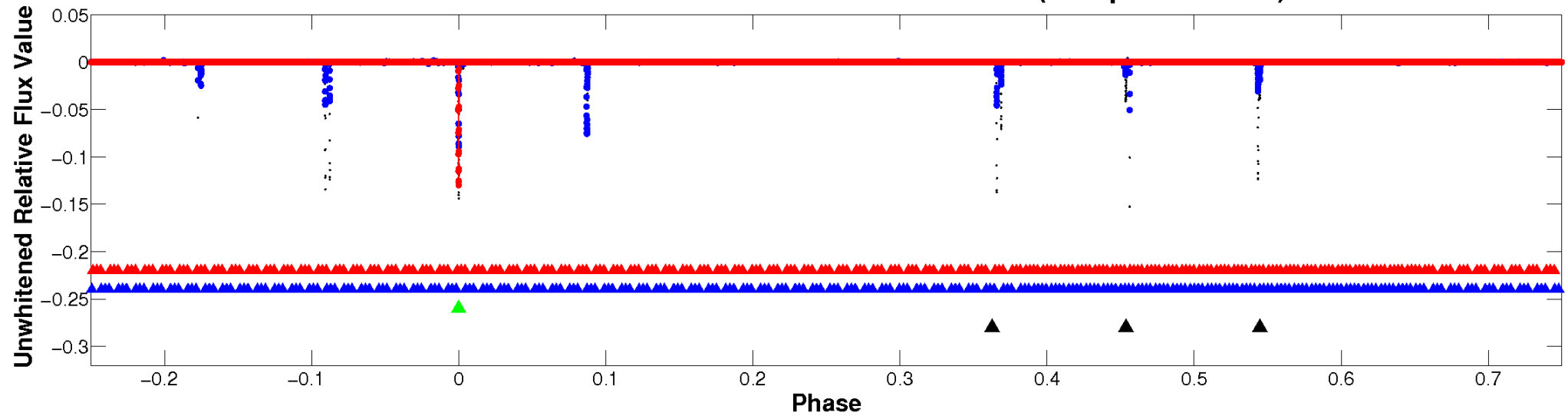
ALT Odd/Even

TCE 007289157-03

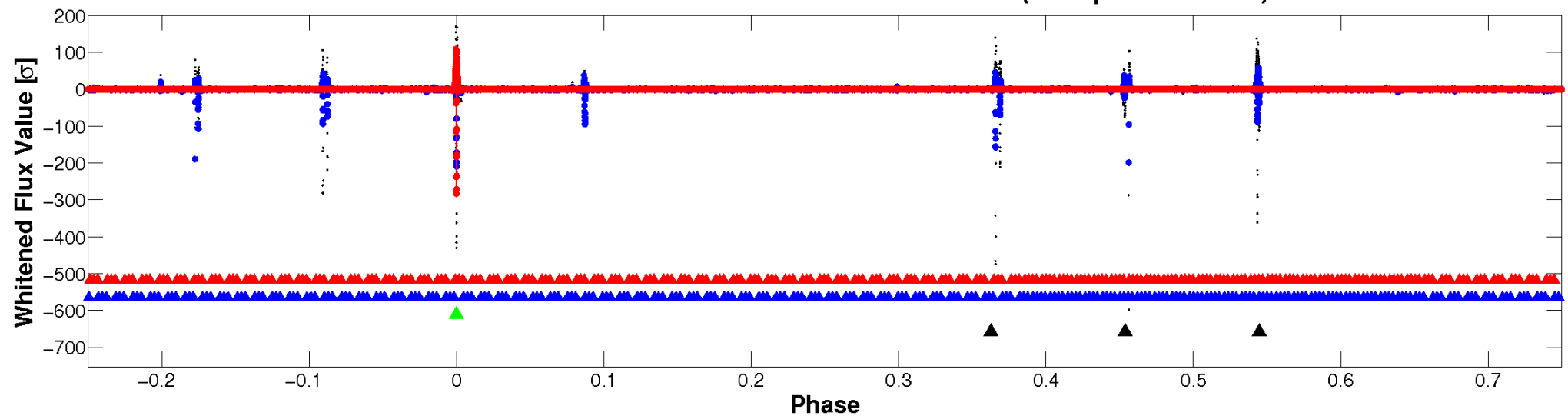


Non-Whitened Vs. Whitened Light Curve

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

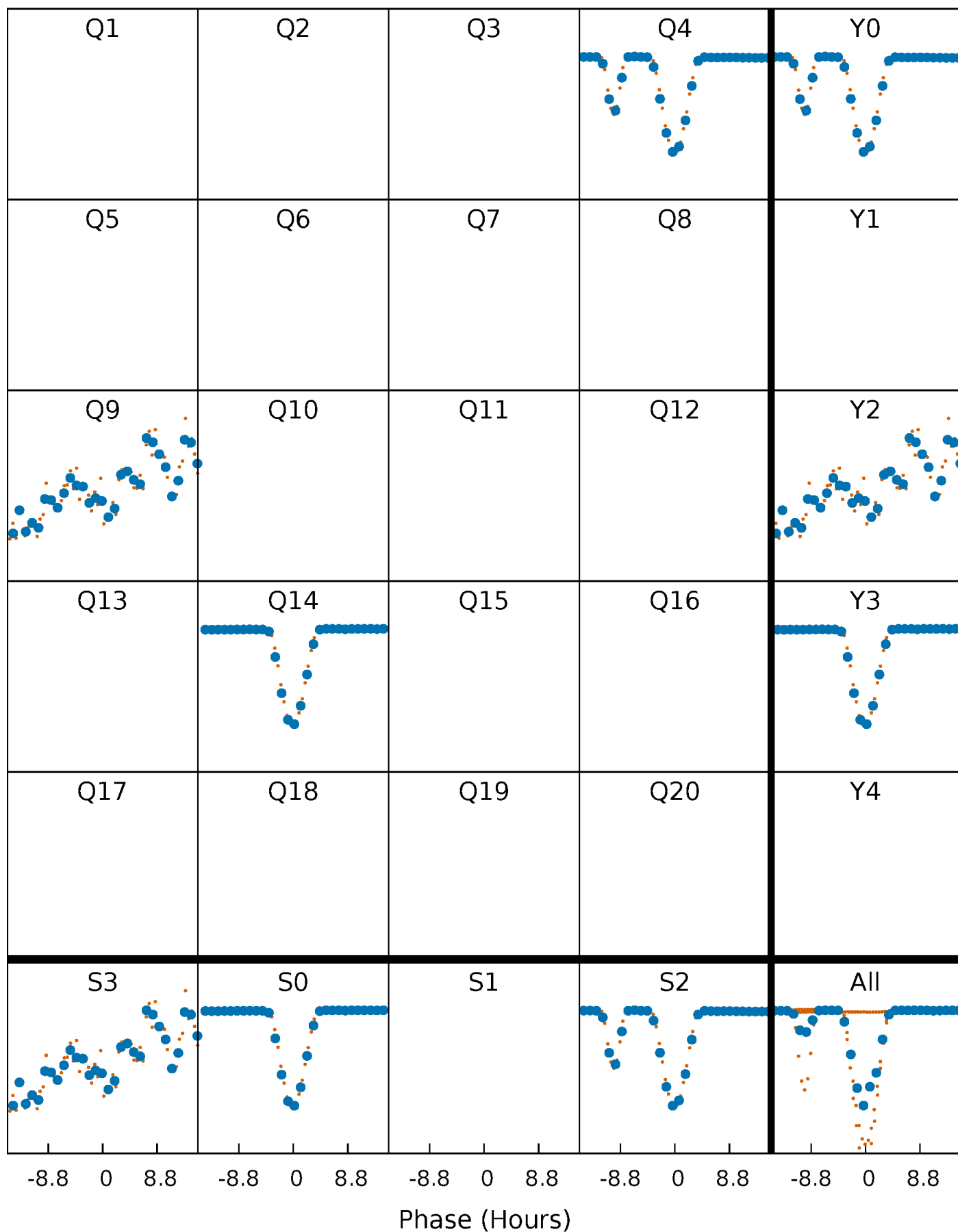


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



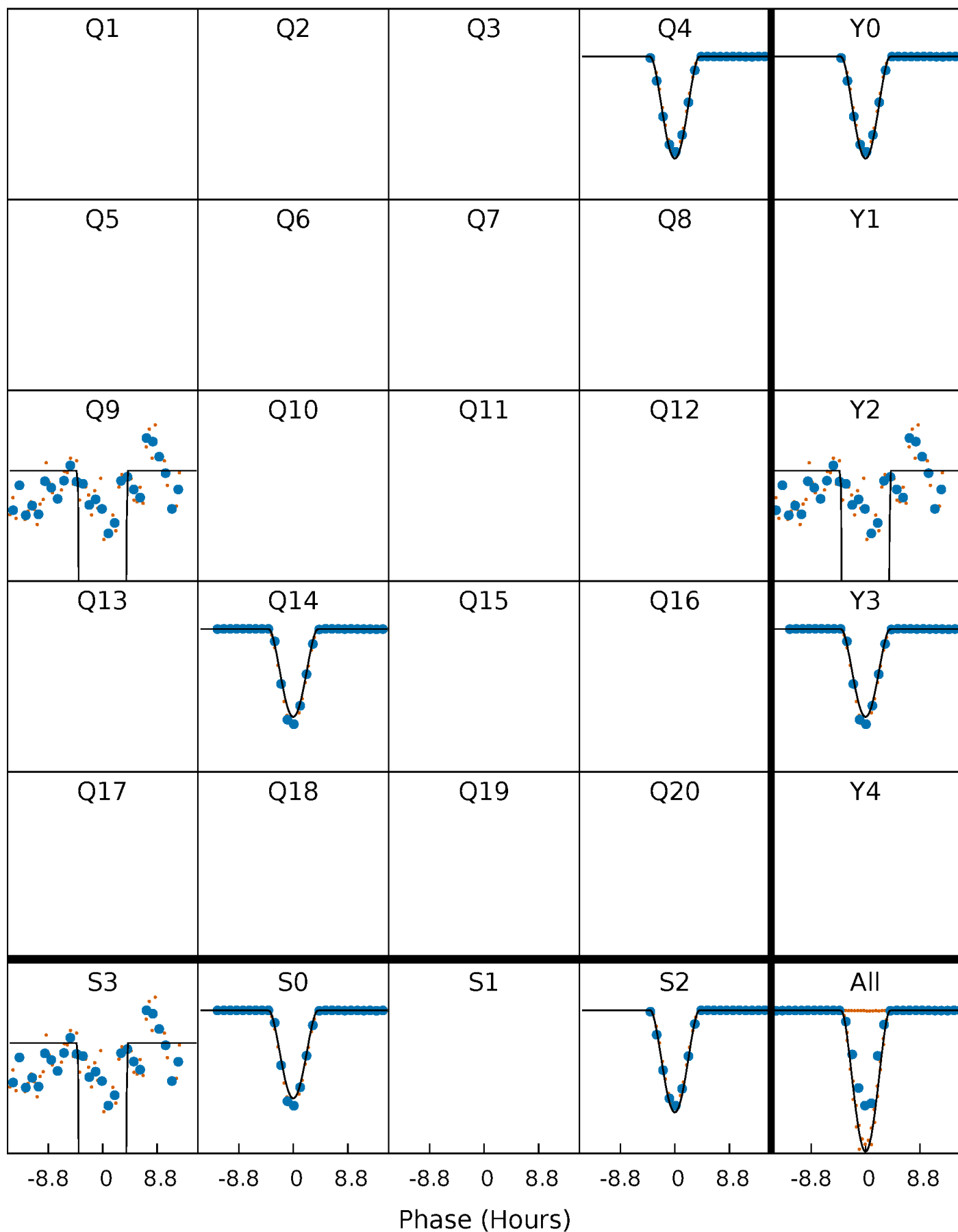
PDC Quarter-Phased Transit Curves

TCE 007289157-03 P=446.465840 Days $T_0=405.975557$ (BKJD)



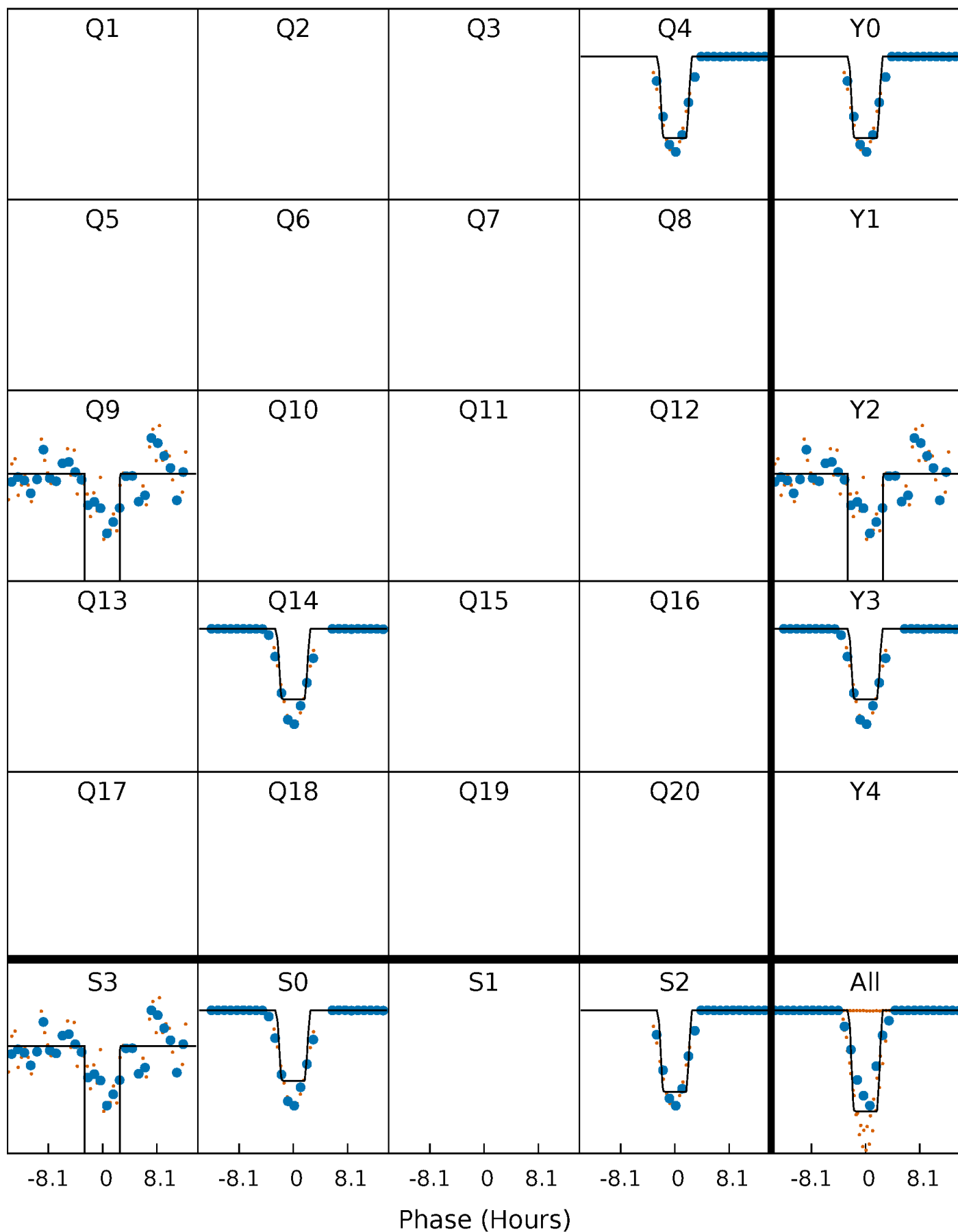
DV Quarter-Phased Transit Curves

TCE 007289157-03 P=446.465840 Days $T_0=405.975557$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

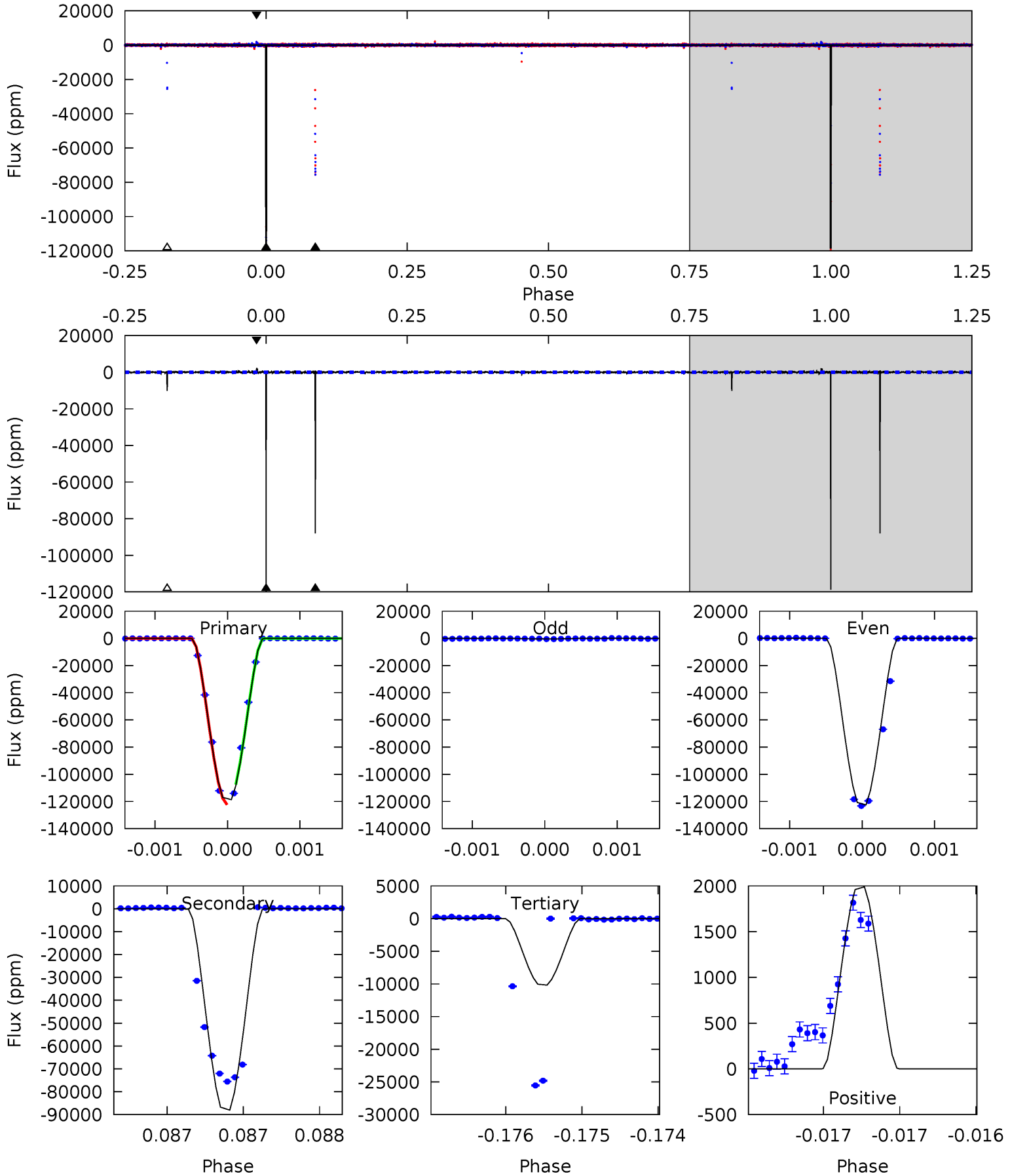
TCE 007289157-03 P=446.459664 Days $T_0=405.983206$ (BKJD)



DV Model-Shift Uniqueness Test

007289157-03, P = 446.465840 Days, E = 405.975557 Days

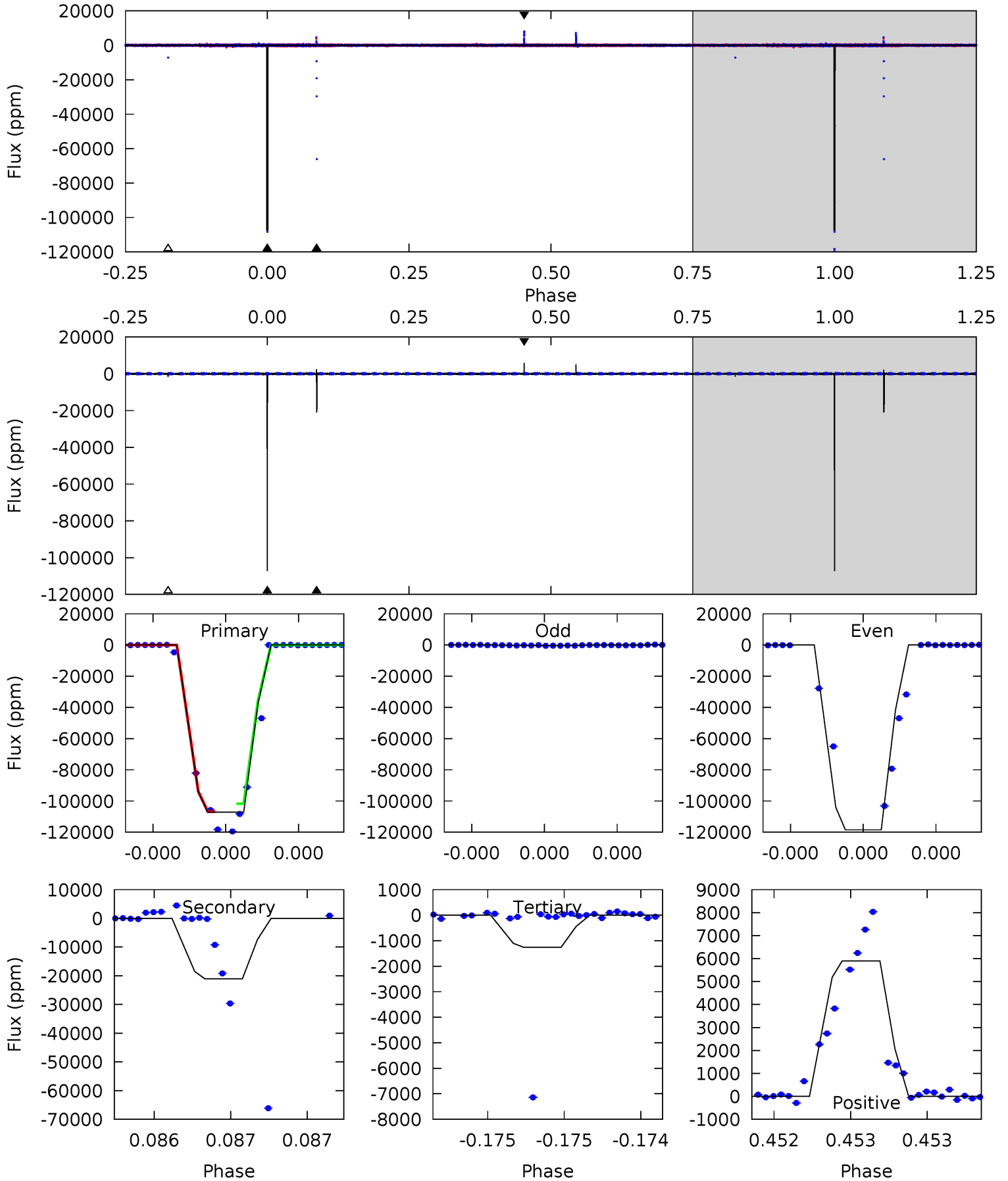
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1664	1234	142.8	27.9	5.50	3.37	2.60	1521	1636	1092	1207	189.8	0.73	0.02	0



Alt Model-Shift Uniqueness Test

007289157-03, P = 446.459664 Days, E = 405.983206 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1573	308.5	18.4	86.6	5.59	3.50	2.26	1555	1487	290.1	221.9	474.8	0.73	0.05	0



Stellar Parameters For KIC 007289157

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5916^{+107}_{-119}	$4.296^{+0.132}_{-0.108}$	$-0.060^{+0.150}_{-0.150}$	$1.175^{+0.178}_{-0.178}$	$0.995^{+0.081}_{-0.066}$	$0.865^{+0.526}_{-0.281}$
	+2%/-2%	+3%/-3%	+250%/-250%	+15%/-15%	+8%/-7%	+61%/-32%
Source	SPE18	SPE18	SPE18	DSEP		

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

Secondary Eclipse Parameters for KIC 007289157-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-88044 ± 71	$57.06^{+28.56}_{-28.08}$	369^{+16}_{-16}	5042^{+1874}_{-750}	21317^{+60242}_{-11878}
Alt.	-21019 ± 68	$45.26^{+30.26}_{-25.67}$	369^{+17}_{-16}	4079^{+1723}_{-616}	7411^{+33016}_{-4700}

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

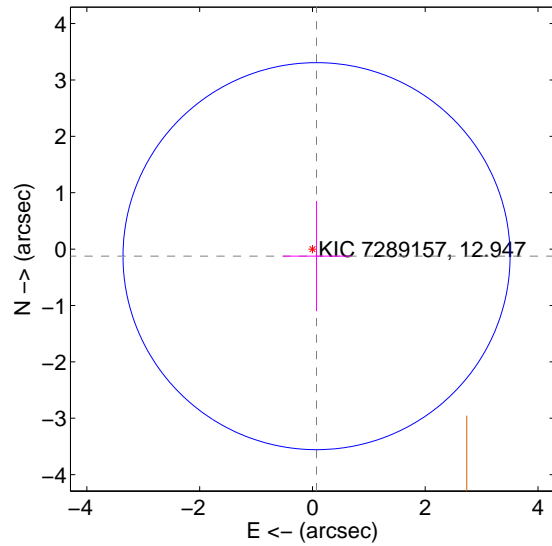
Supplemental centroid analysis for 007289157-03. Kepler magnitude: 12.95. Transit SNR 893.04

There are 2 quarters with good PRF difference image offsets

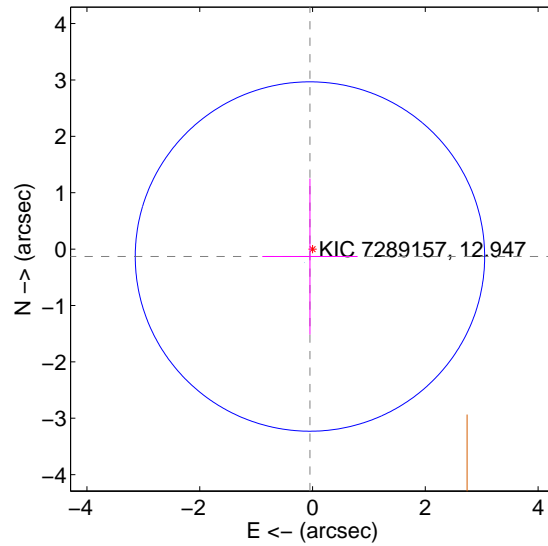
The direct PRF centroid is offset from the target star catalog position by about 0.26 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.145 ± 1.144	0.13	-0.073 ± 0.598	-0.125 ± 0.978
PRF-fit source offset from KIC position	0.139 ± 1.033	0.14	0.046 ± 0.846	-0.132 ± 1.383
photometric centroid source offset	0.76 ± 0.00	210.91	0.26 ± 0.00	0.71 ± 0.00

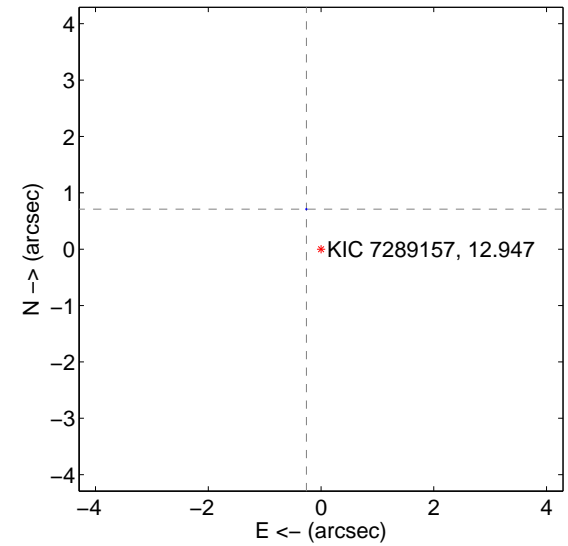
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

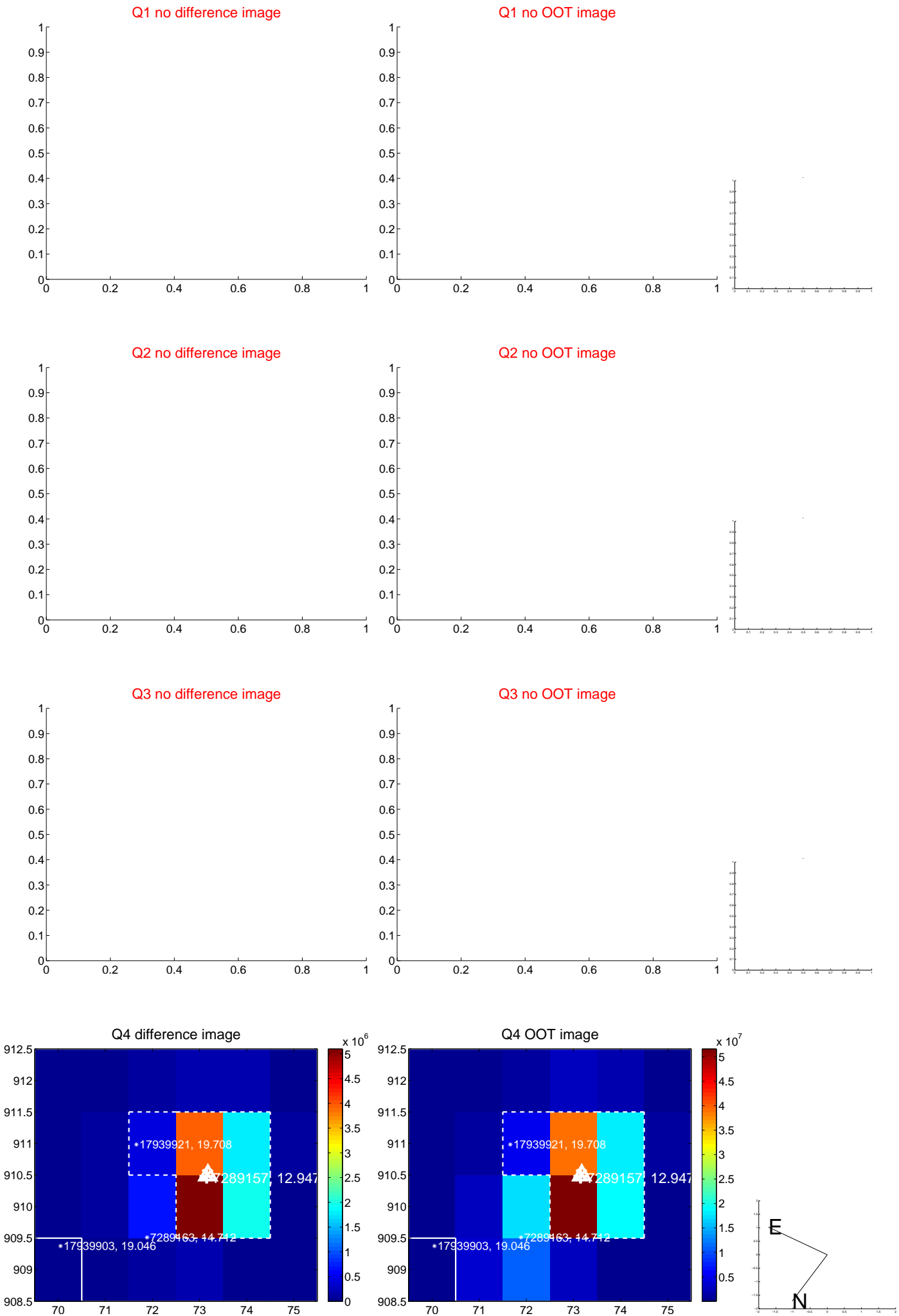


offset from photometric centroids



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.

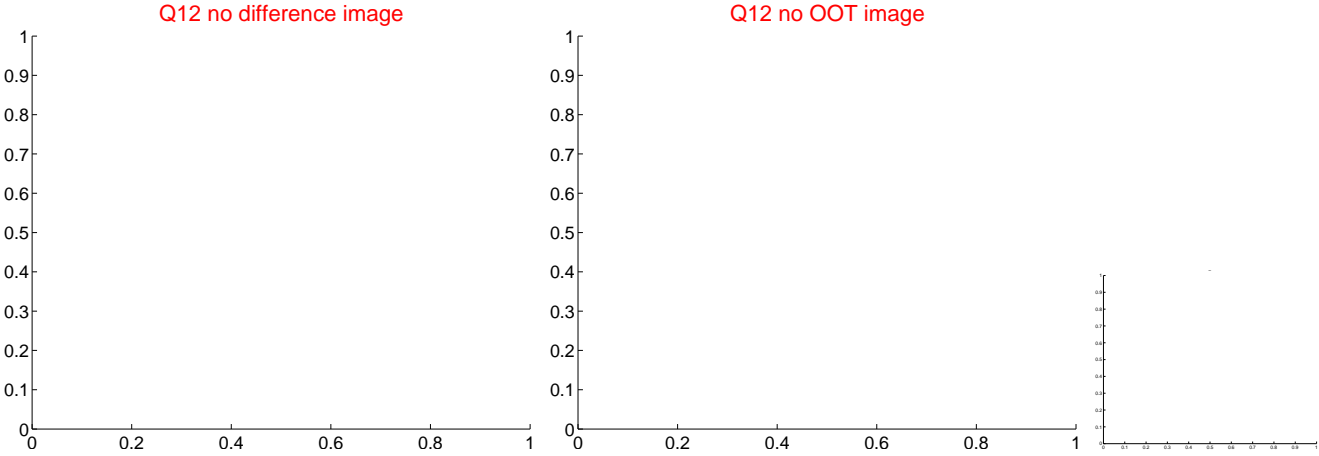
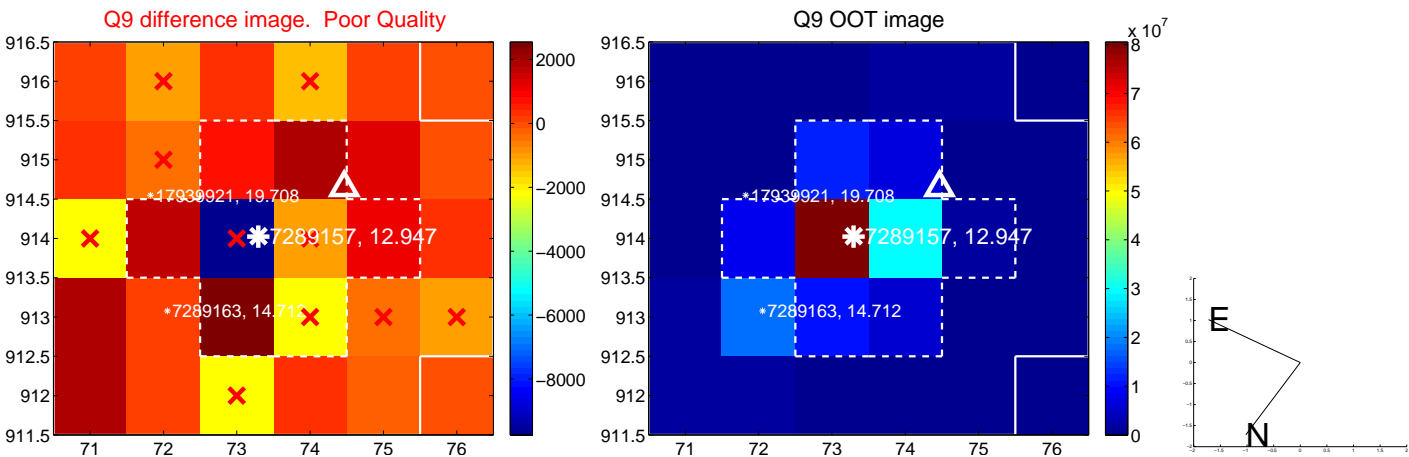
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.

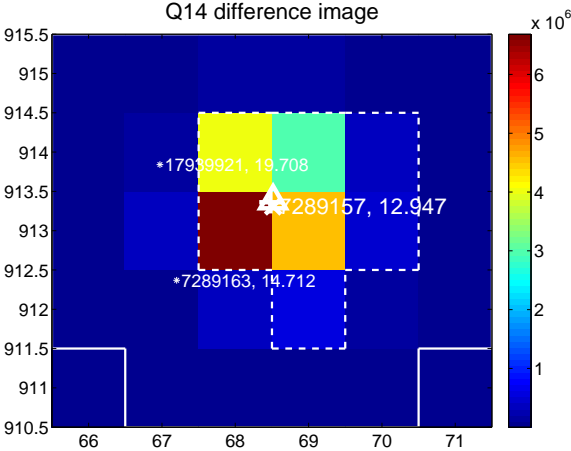
Q13 no difference image



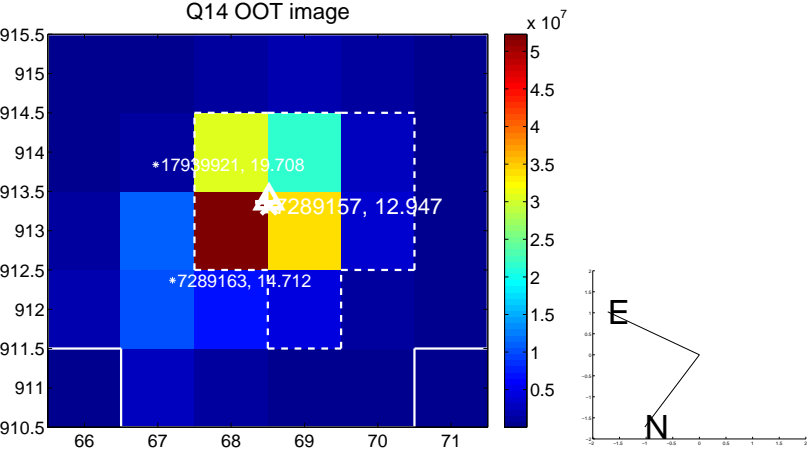
Q13 no OOT image



Q14 difference image



Q14 OOT image



Q15 no difference image



Q15 no OOT image



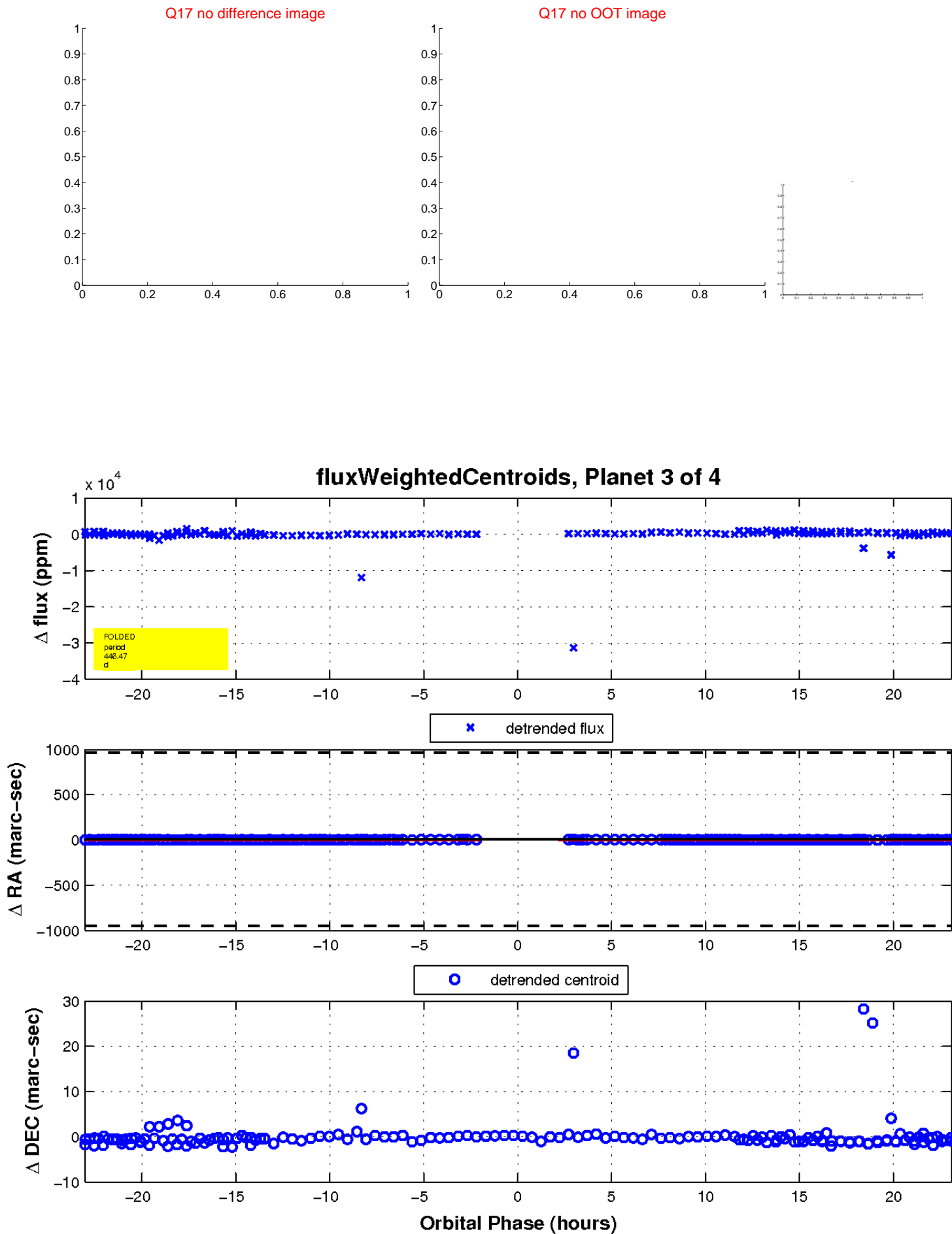
Q16 no difference image



Q16 no OOT image



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



UKIRT Image

Declination

