

KIC 005977646

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})
005977646-01	OBS	No	397.677411	303.696760	18285.5	8.422	20.9	16.8	1.61	7429	37.66	4.84
005977646-02	OBS	No	511.222939	199.131455	8189.4	7.833	21.3	6.8	1.61	7429	25.64	3.46
005977646-03	OBS	No	426.802579	501.831807	736.7	6.000	20.0	-1.0	1.61	7429	4.41	4.40

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005977646-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—LPP_DV—ALL_TRANS_CHASES—CENT_FEW_DIFFS
005977646-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_TER_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
005977646-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—LPP_DV—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_NOFITS

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.

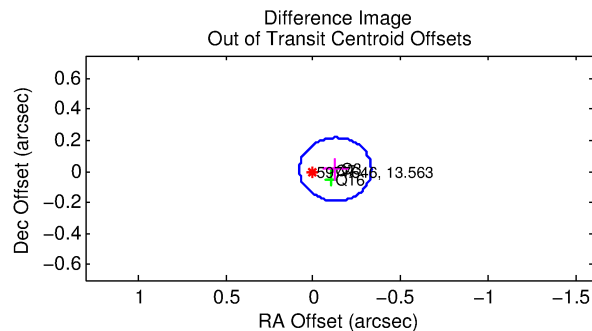
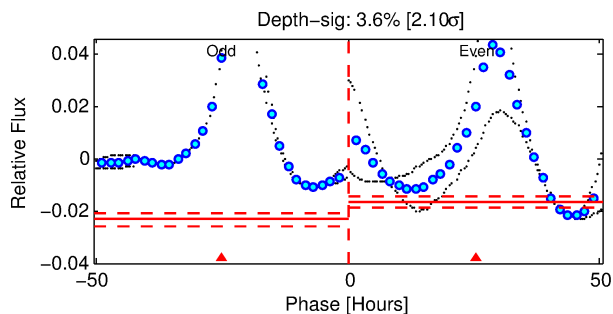
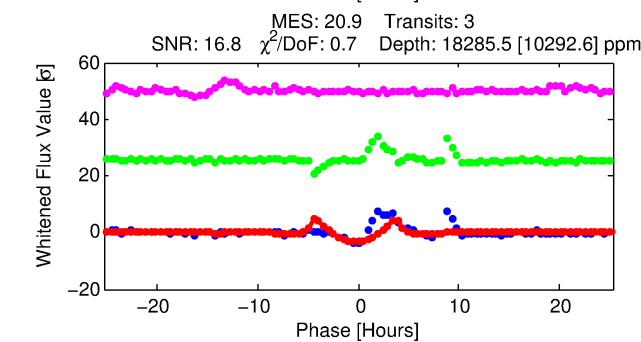
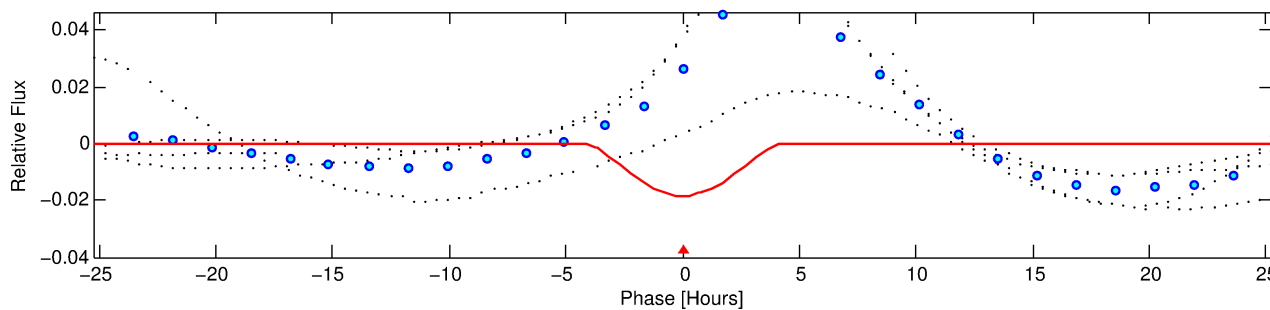
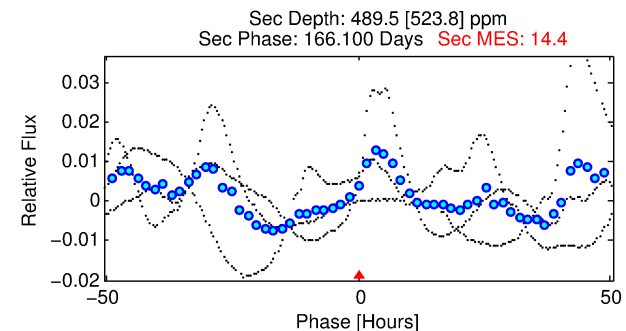
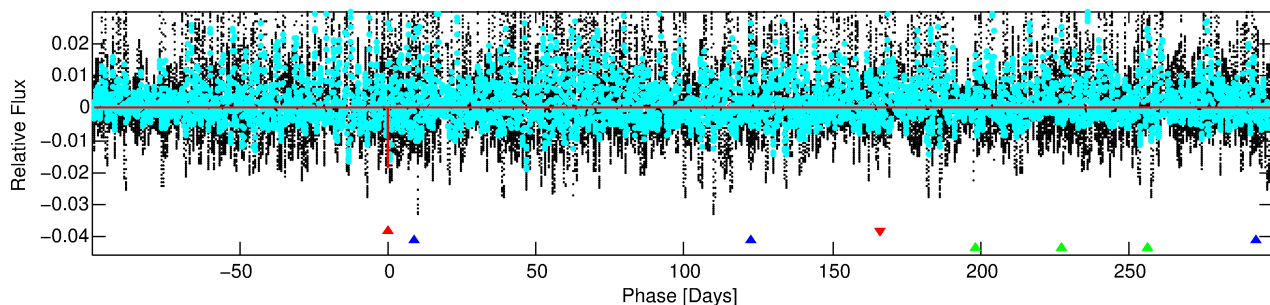
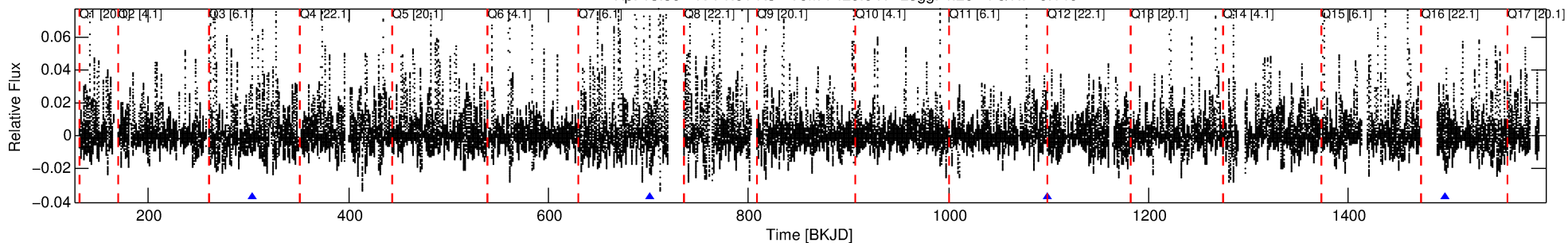
Ephemeris Match Information For 005977646-01

No Significant Match Found

DV One-Page Summary

KIC: 5977646 Candidate: 1 of 3 Period: 397.677 d

Kp: 13.56 R*: 1.61 Rs Teff: 7429.0 K Logg: 4.20 Fe/H: -0.140



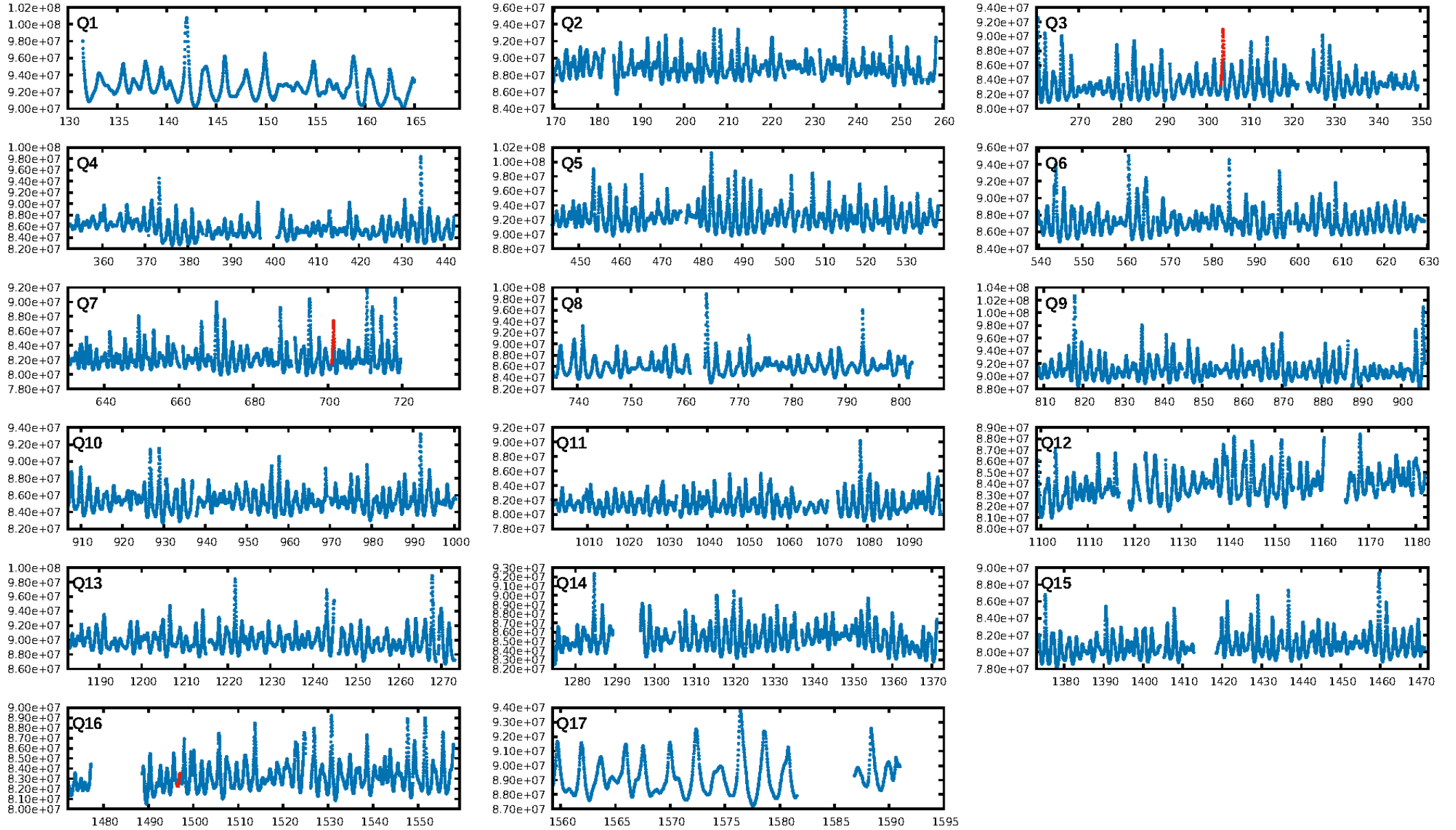
DV Fit Results:

Period = 397.67741 [0.00338] d
Epoch = 303.6968 [0.0032] BKJD
Rp/R* = 0.2148 [0.1083]
a/R* = 248.79 [13.71]
b = 1.00 [0.23]
Seff = 4.84 [2.00]
Teff = 378 [39] K
Rp = 37.66 [22.70] Re
a = 1.2071 [0.3242] AU
Ag = 276.63 [420.11] [0.66σ]
Teffp = 2384 [882] K [2.27σ]

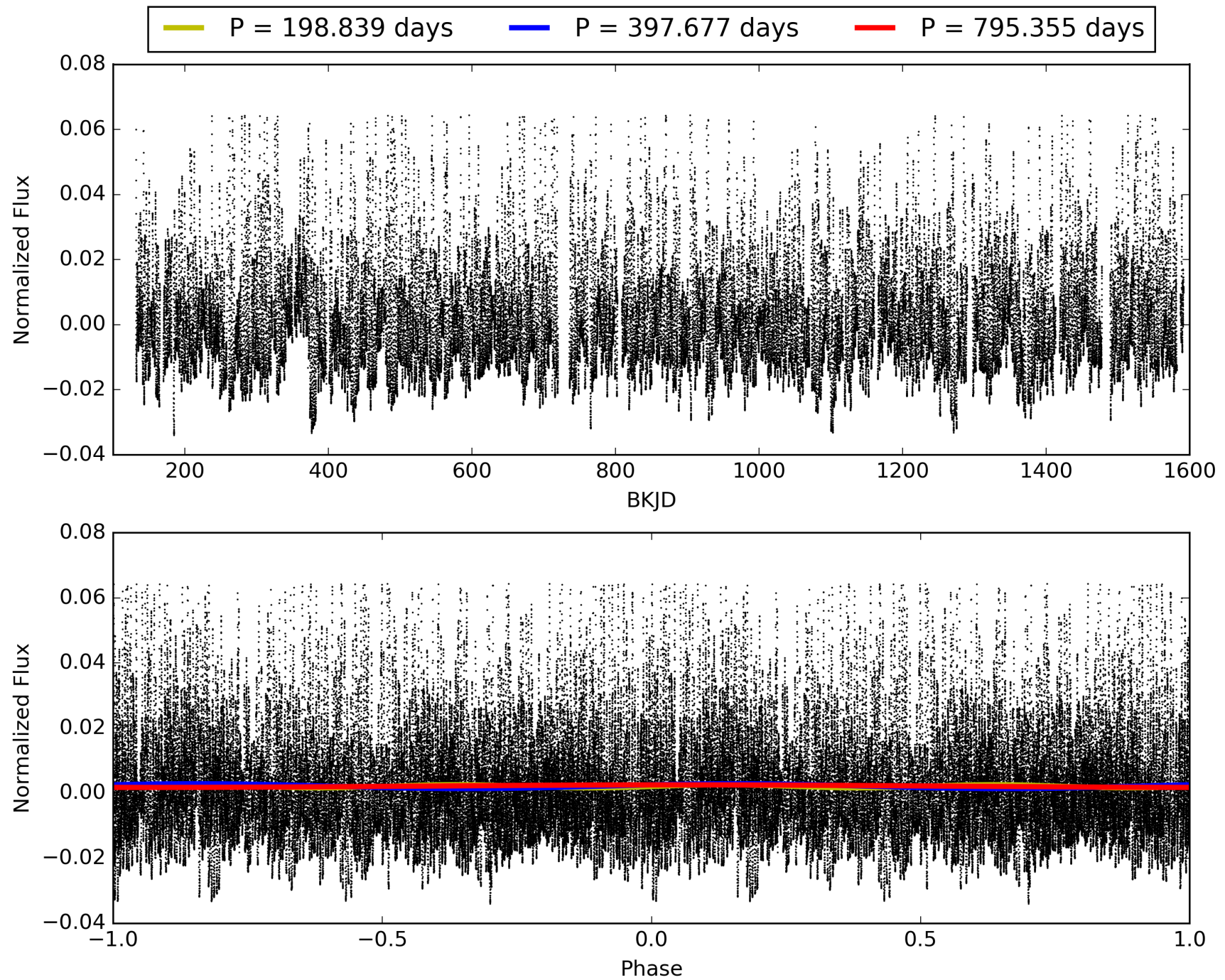
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [67.60σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 99.7%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 1.268
Centroid-sig: 73.3%
Centroid-so: 0.021 arcsec [0.41σ]
OotOffset-rm: 0.128 arcsec [1.87σ]
KicOffset-rm: 0.162 arcsec [2.33σ]
OotOffset-st: 0/2/1/0 [3]
KicOffset-st: 0/2/1/0 [3]
DiffImageQuality-fgm: 0.33 [1/3]
DiffImageOverlap-fno: 1.00 [3/3]

TCE 005977646-01, PDC Light Curves

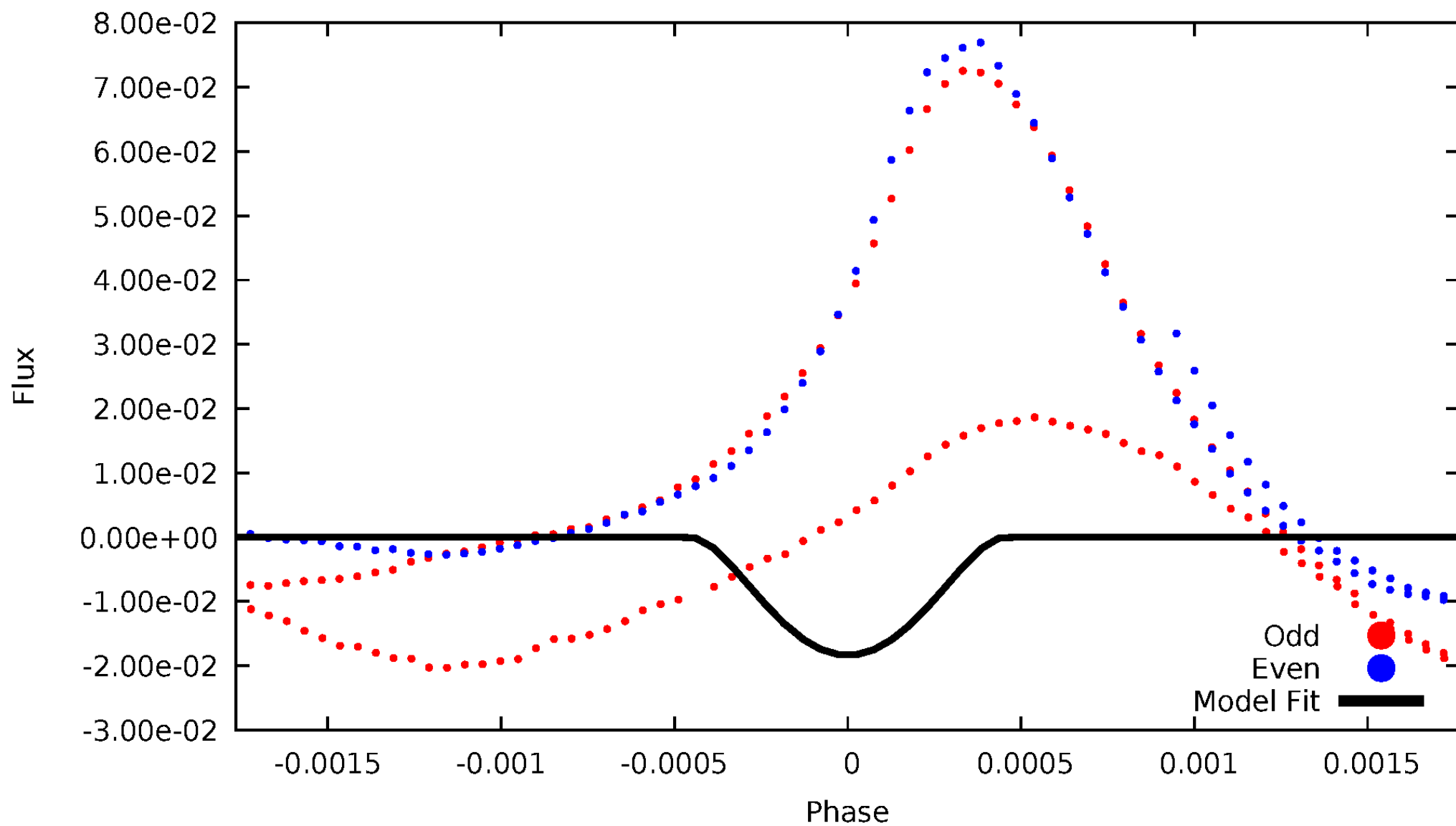


TCE 005977646-01



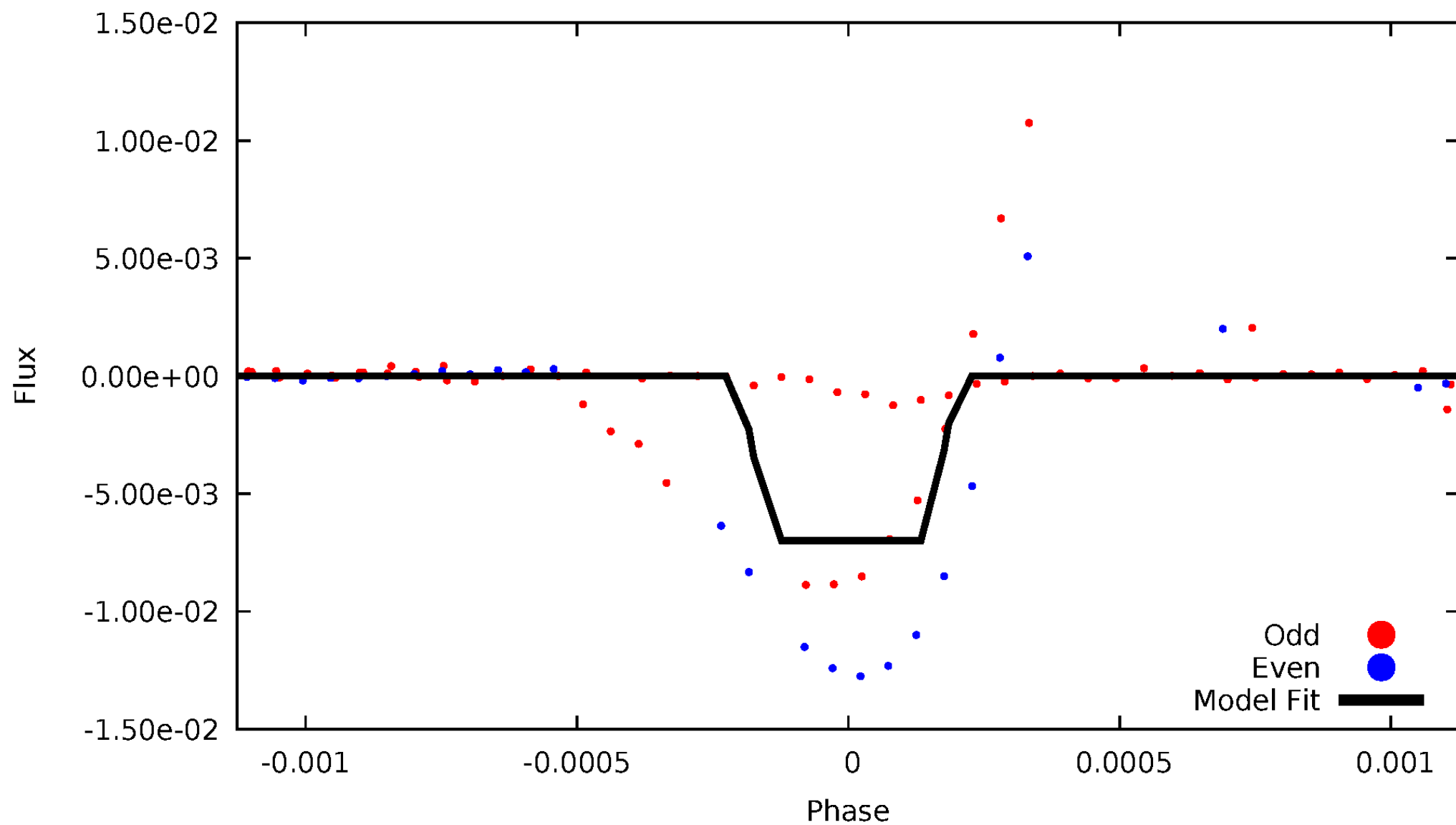
DV Odd/Even

TCE 005977646-01



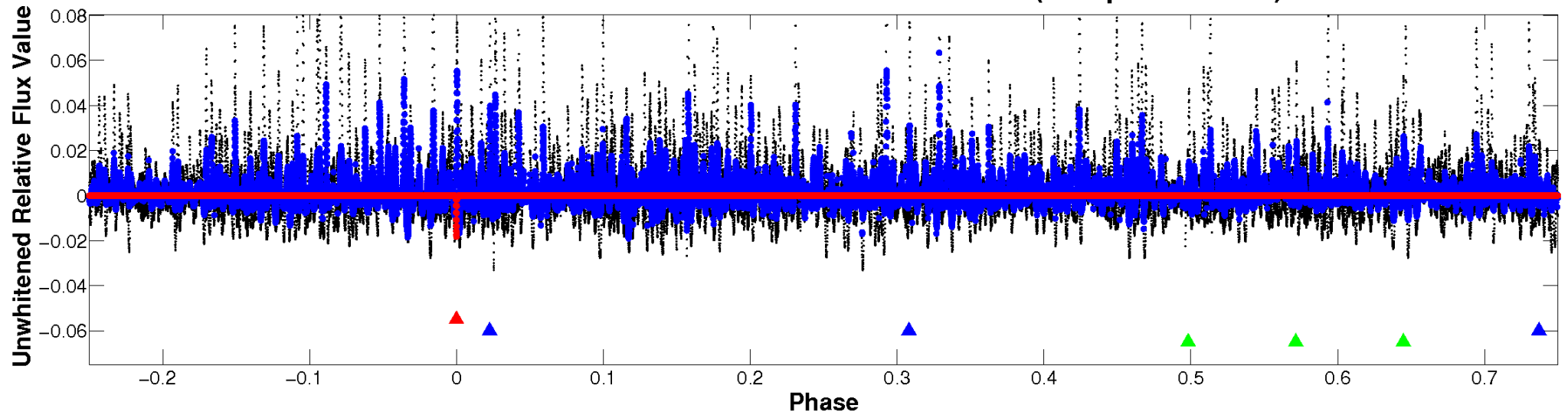
ALT Odd/Even

TCE 005977646-01

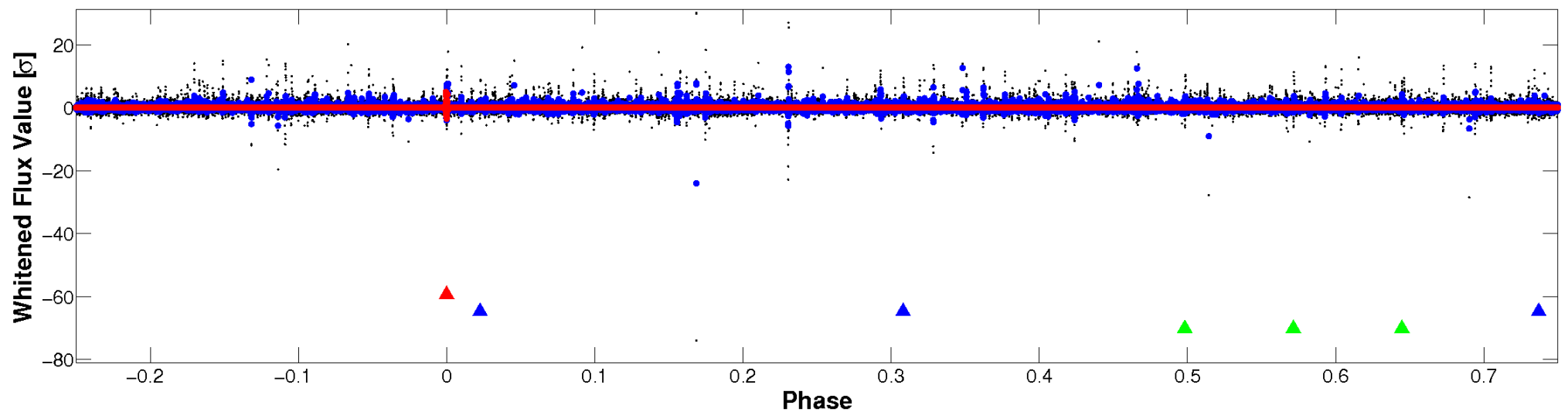


Non-Whitened Vs. Whitened Light Curve

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

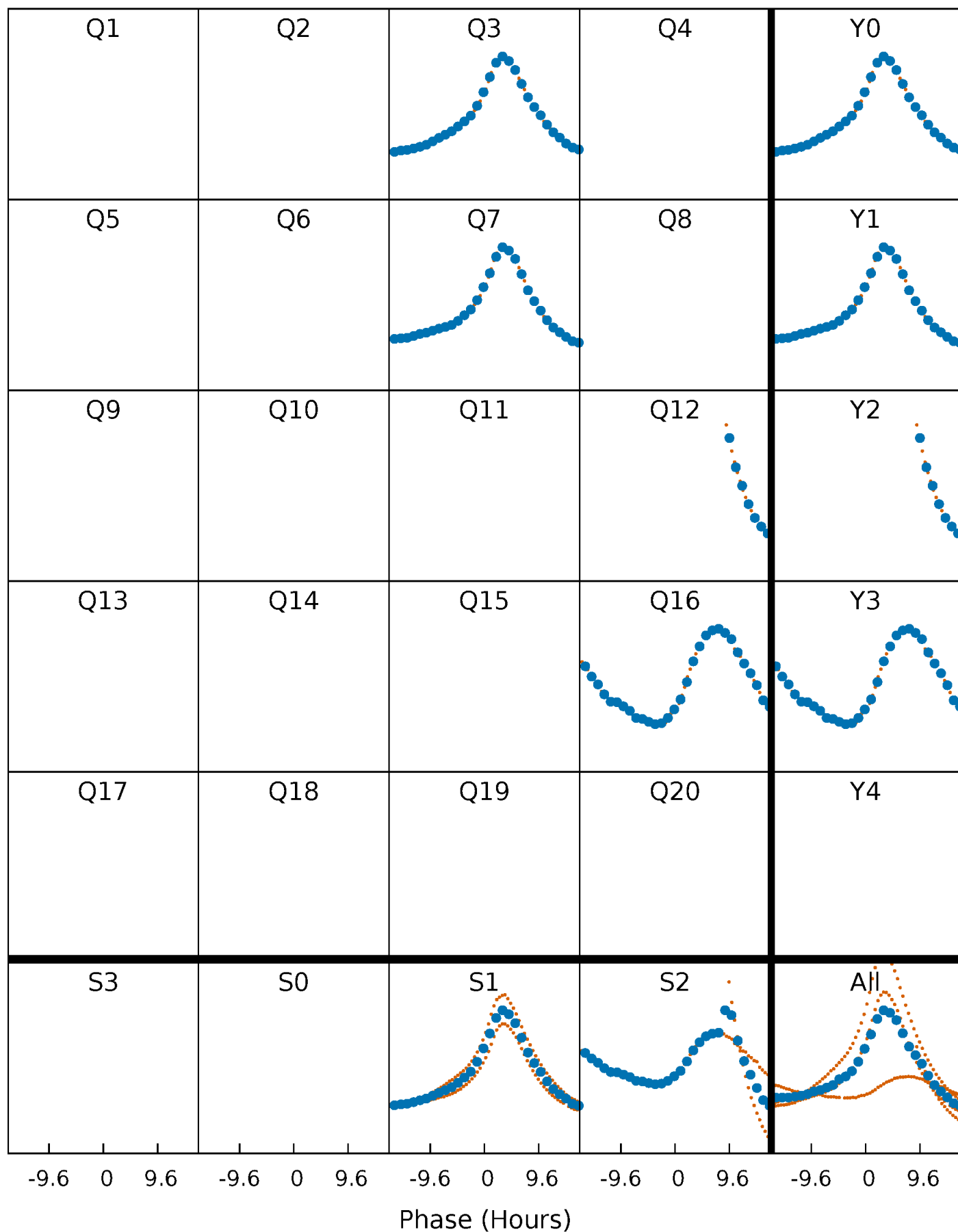


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



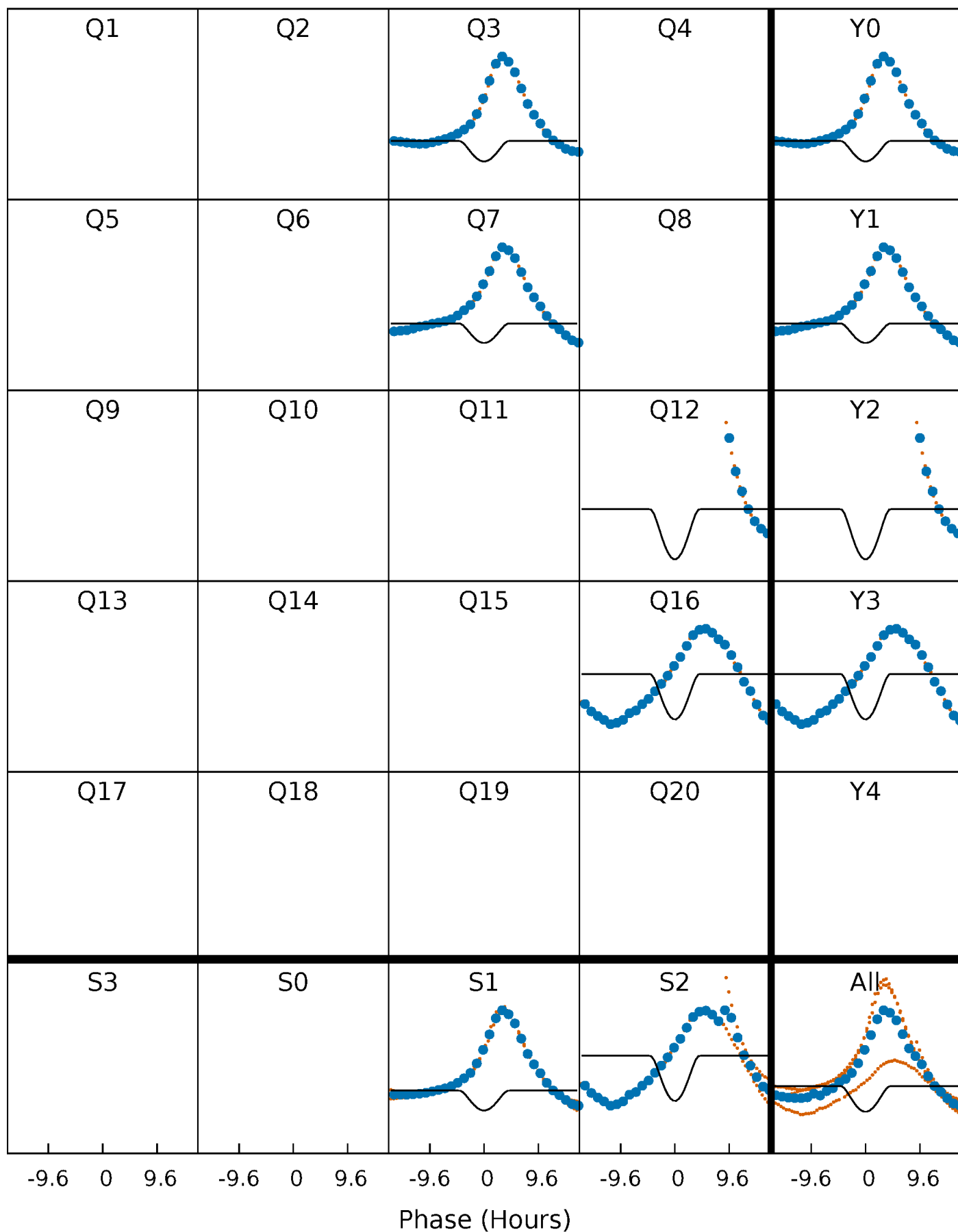
PDC Quarter-Phased Transit Curves

TCE 005977646-01 $P=397.677411$ Days $T_0=303.696760$ (BKJD)



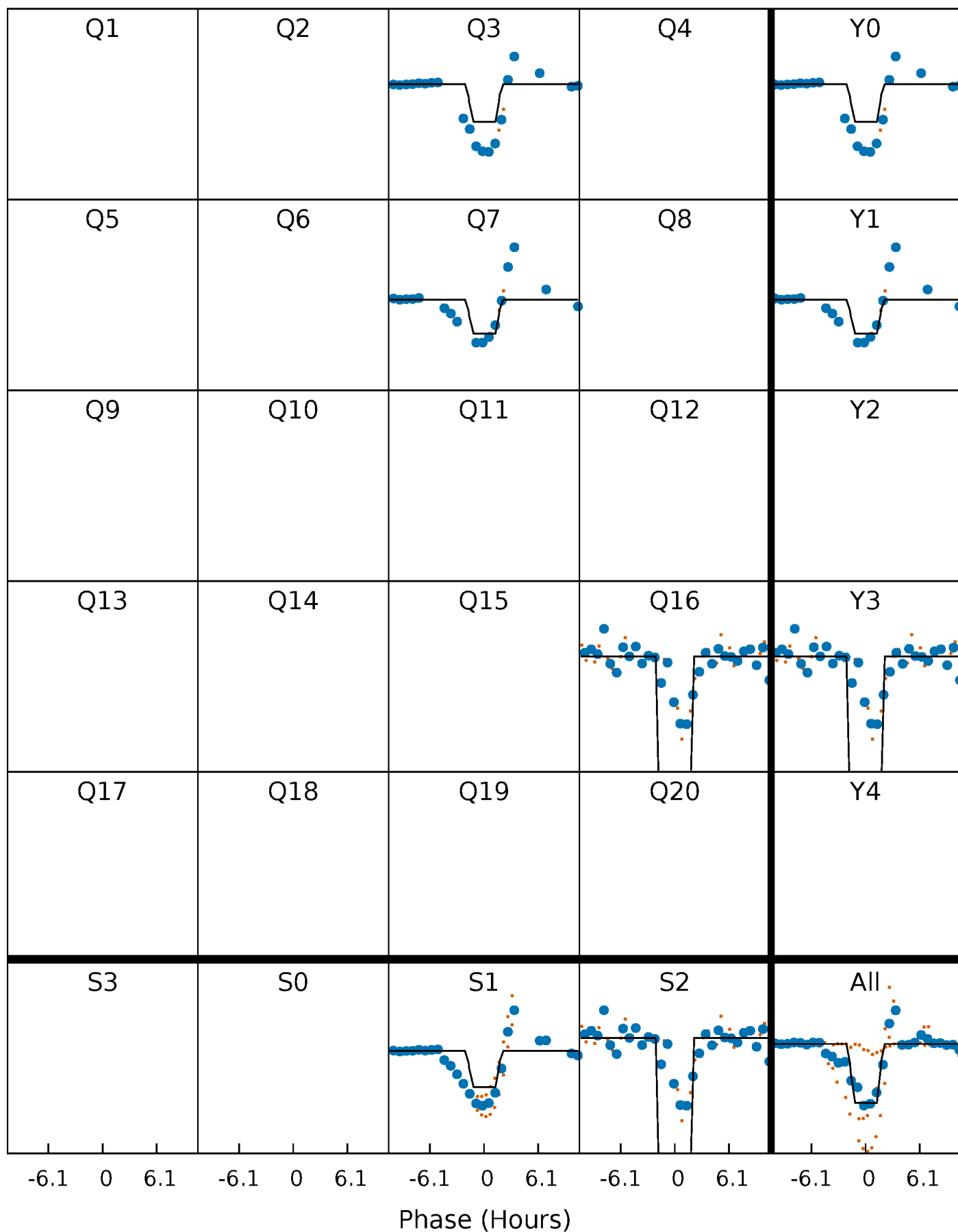
DV Quarter-Phased Transit Curves

TCE 005977646-01 P=397.677411 Days $T_0=303.696760$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

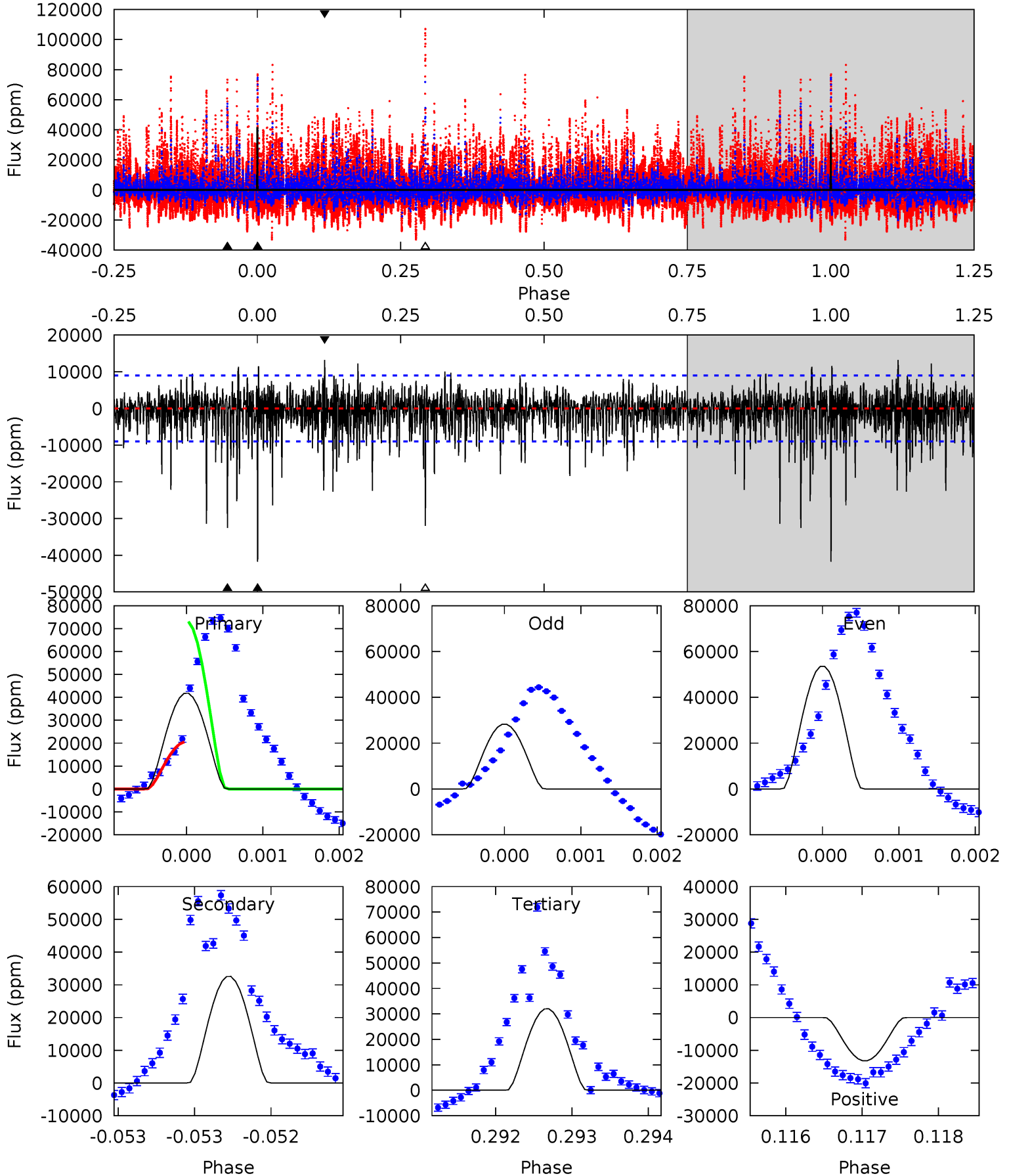
TCE 005977646-01 P=397.696945 Days $T_0=303.635970$ (BKJD)



DV Model-Shift Uniqueness Test

005977646-01, P = 397.677411 Days, E = 303.696760 Days

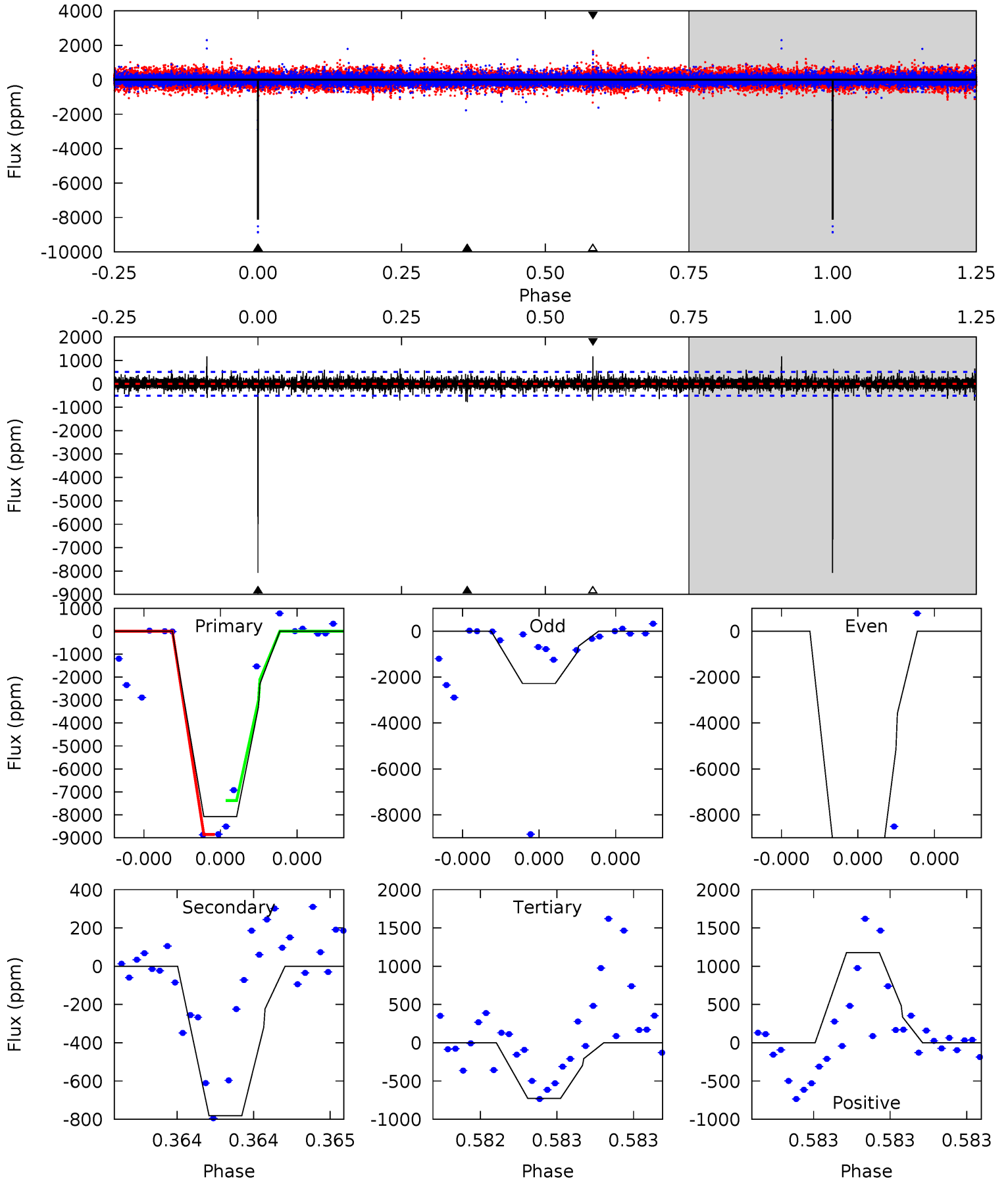
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
25.5	19.9	19.5	8.06	5.47	3.33	2.70	5.99	17.4	0.35	11.8	6.70	0.71	0.24	15.8



Alt Model-Shift Uniqueness Test

005977646-01, P = 397.696945 Days, E = 303.635970 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
89.4	8.64	8.03	13.1	5.63	3.57	1.18	81.4	76.3	0.61	-4.41	57.3	0.91	0.13	0



Stellar Parameters For KIC 005977646

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7429^{+233}_{-311}	$4.197^{+0.108}_{-0.201}$	$-0.140^{+0.200}_{-0.350}$	$1.607^{+0.530}_{-0.286}$	$1.482^{+0.232}_{-0.232}$	$0.503^{+0.288}_{-0.259}$
	+3%/-4%	+3%/-5%	+143%/-250%	+33%/-18%	+16%/-16%	+57%/-51%
Source	KIC0	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 005977646-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-32540 ± 1639	$39.59^{+20.73}_{-18.08}$	533^{+44}_{-34}	6780^{+3224}_{-1325}	17089^{+40840}_{-9805}
Alt.	-781 ± 90	$21.54^{+17.39}_{-13.55}$	534^{+43}_{-35}	3895^{+1988}_{-670}	1349^{+8177}_{-944}

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

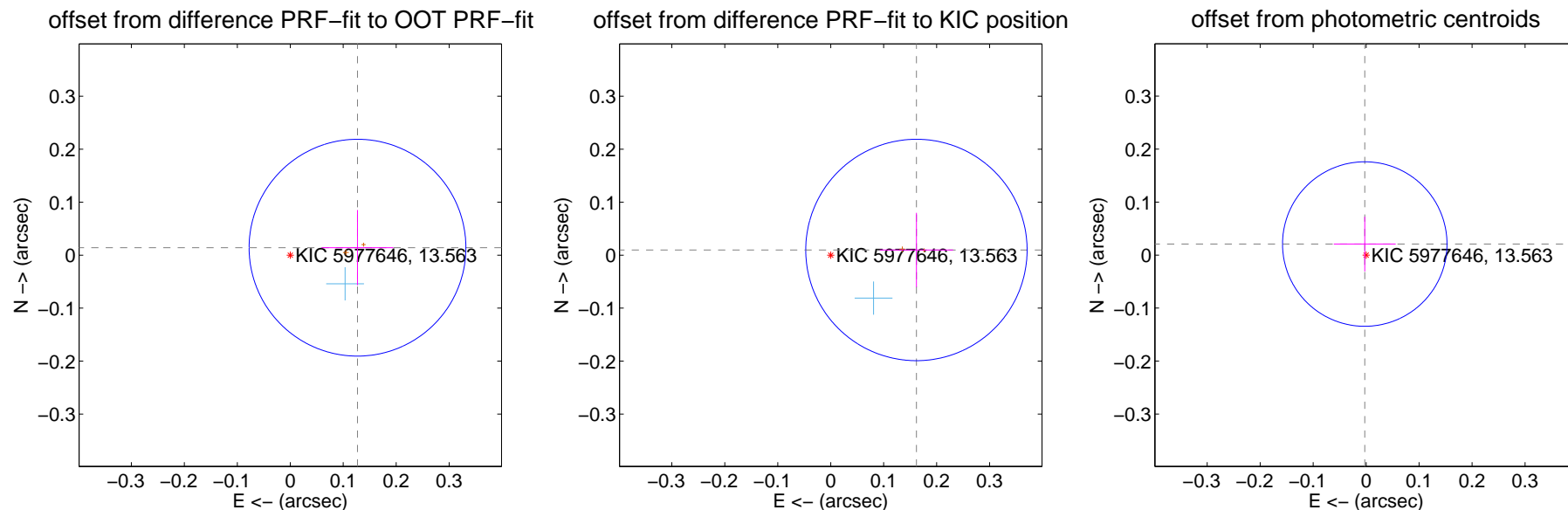
DV Centroid Data

Supplemental centroid analysis for 005977646-01. Kepler magnitude: 13.56. Transit SNR 16.83

There are 1 quarters with good PRF difference image offsets

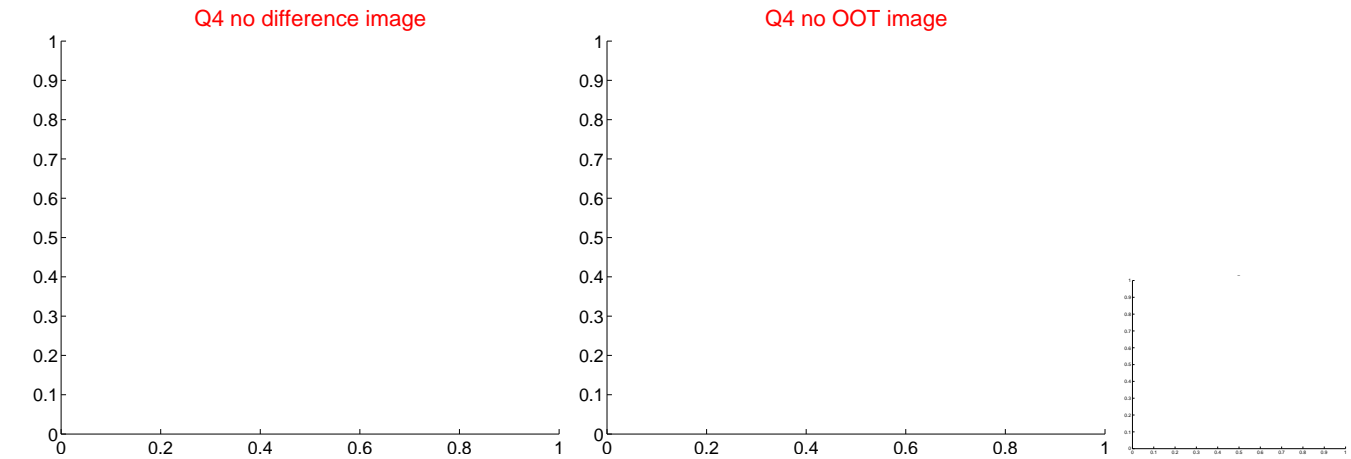
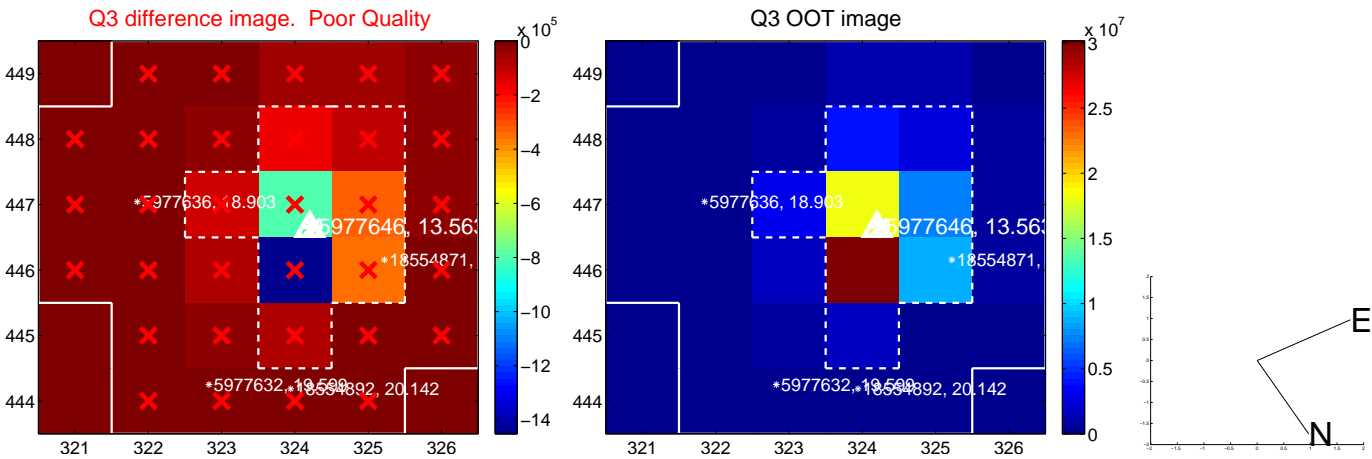
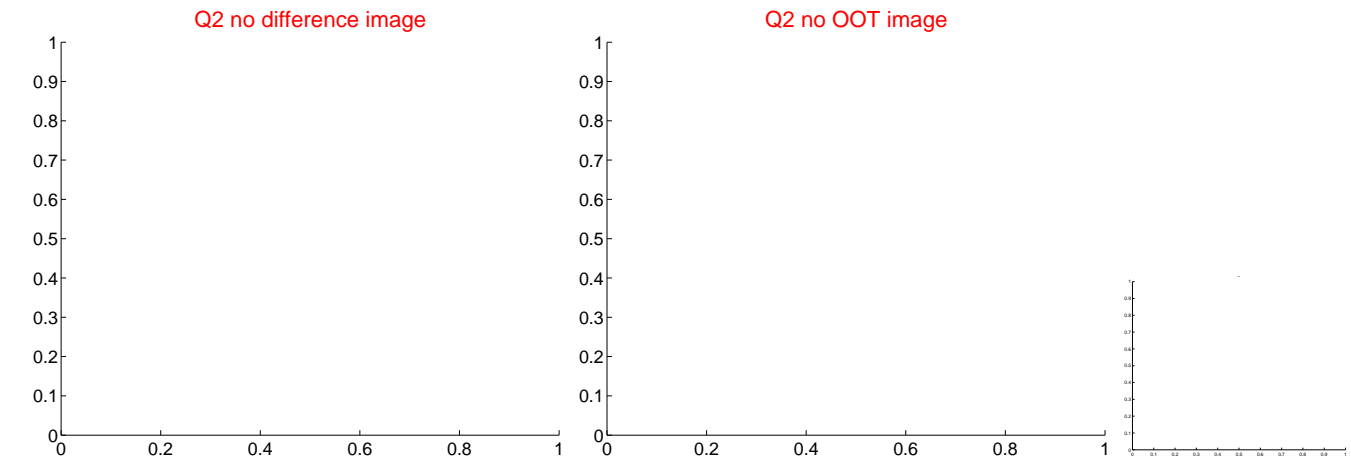
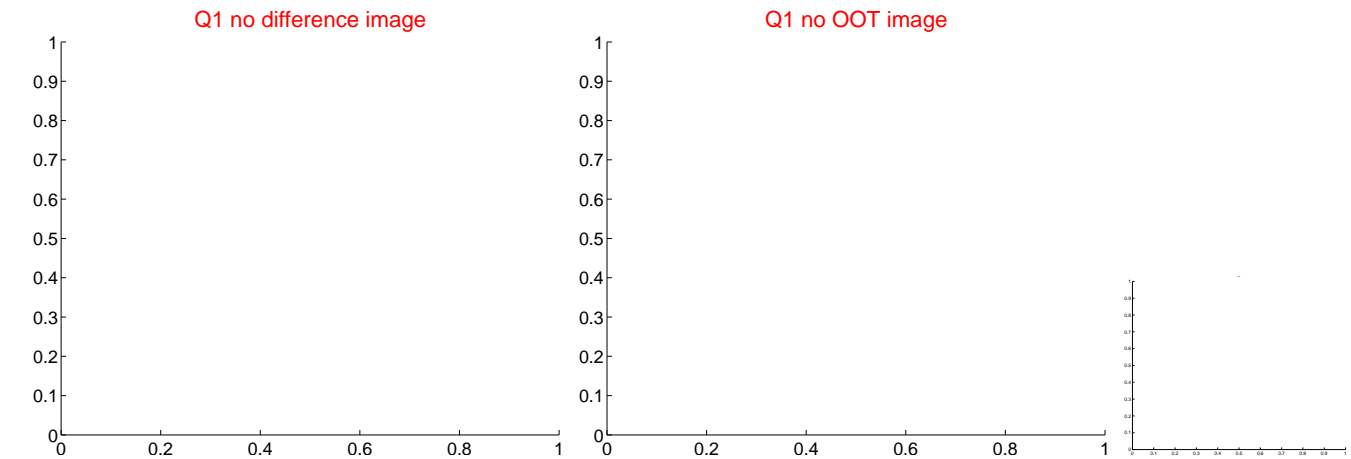
The direct PRF centroid is offset from the target star catalog position by about 0.04 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.128 ± 0.068	1.87	-0.127 ± 0.068	0.014 ± 0.071
PRF-fit source offset from KIC position	0.162 ± 0.070	2.33	-0.162 ± 0.069	0.010 ± 0.070
photometric centroid source offset	0.02 ± 0.05	0.41	0.00 ± 0.06	0.02 ± 0.05

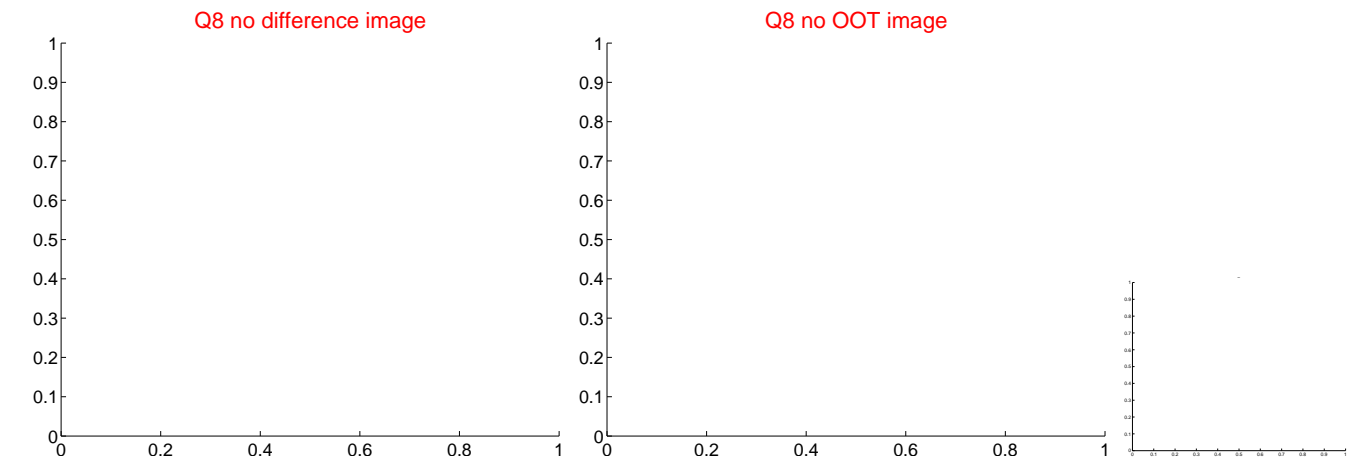
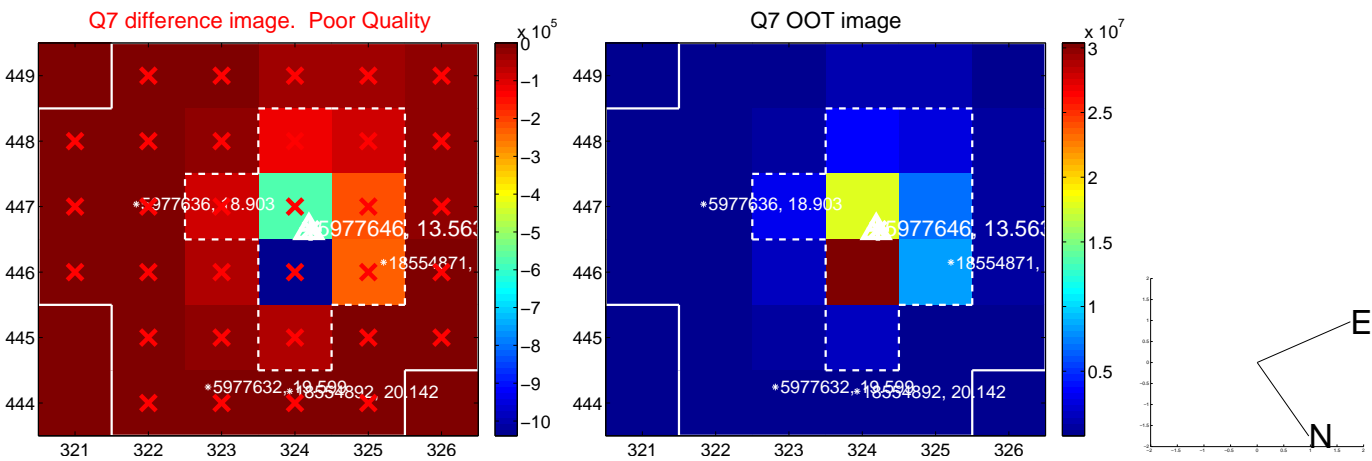
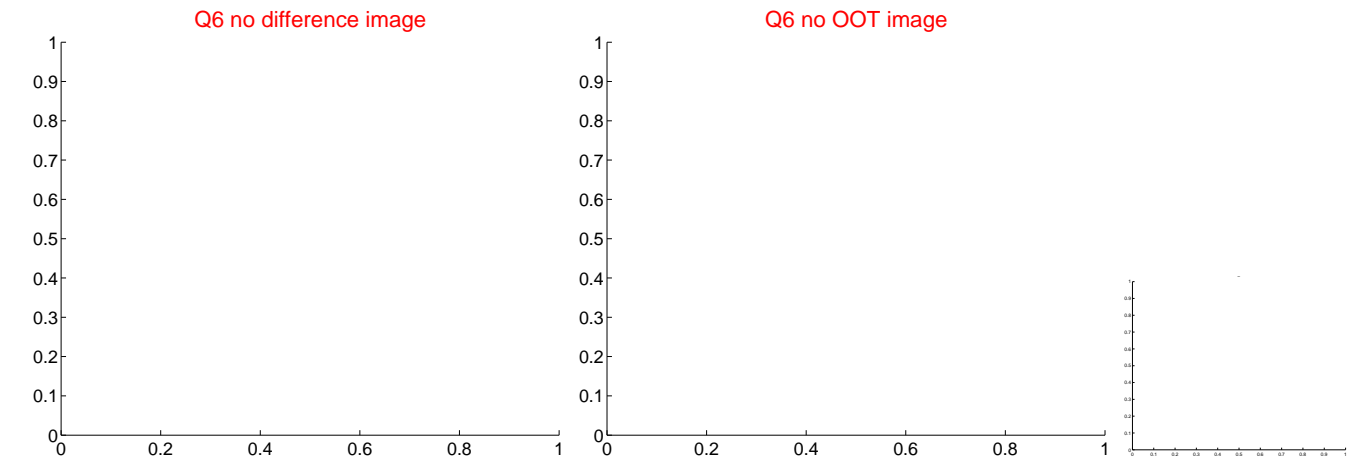
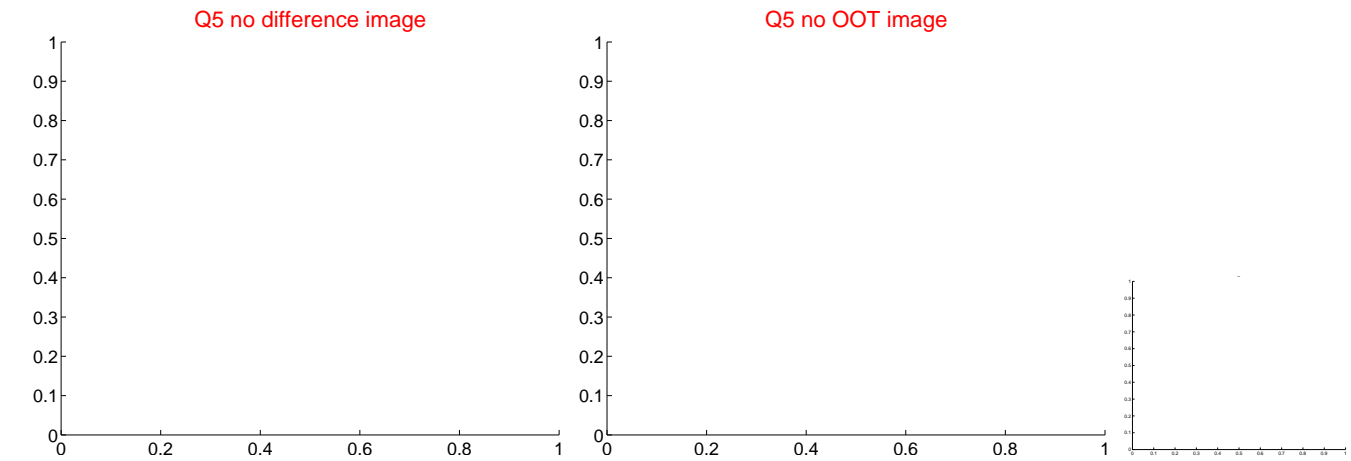


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



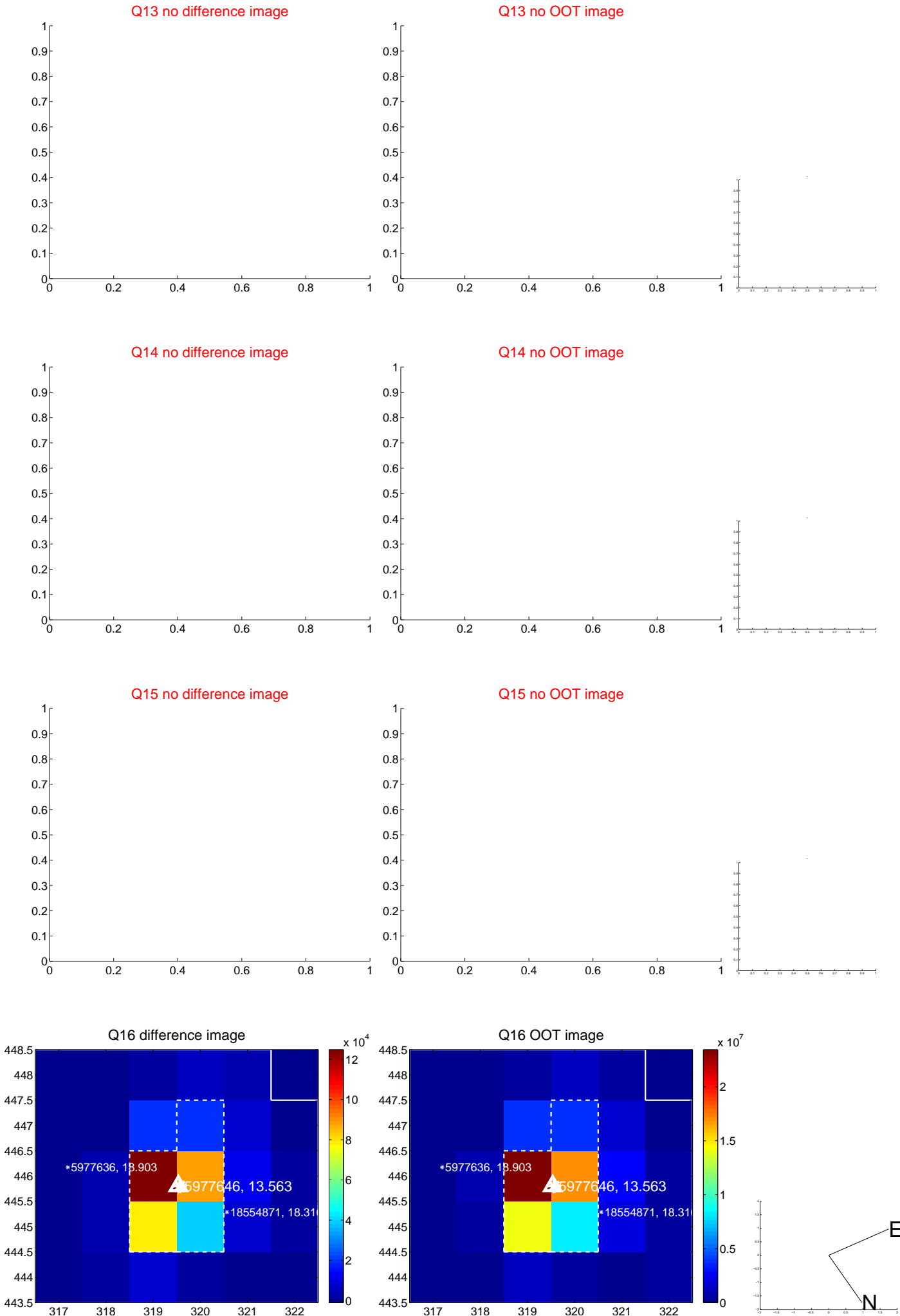
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



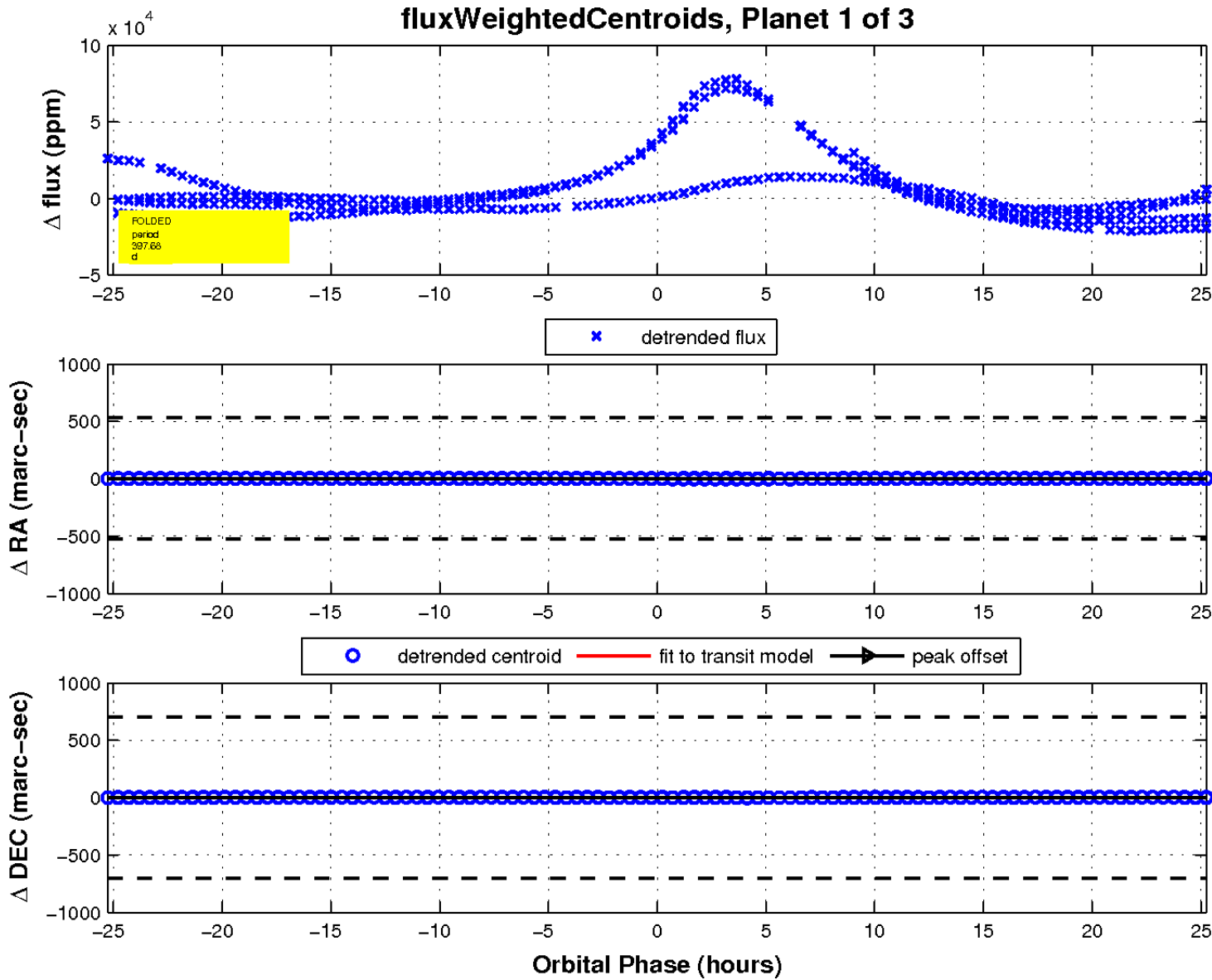
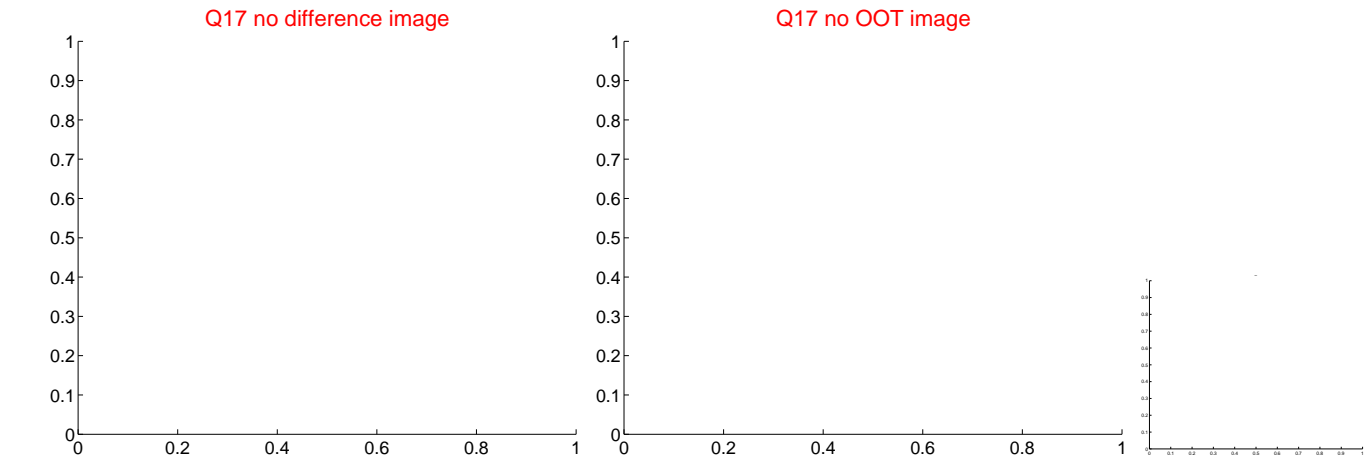
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



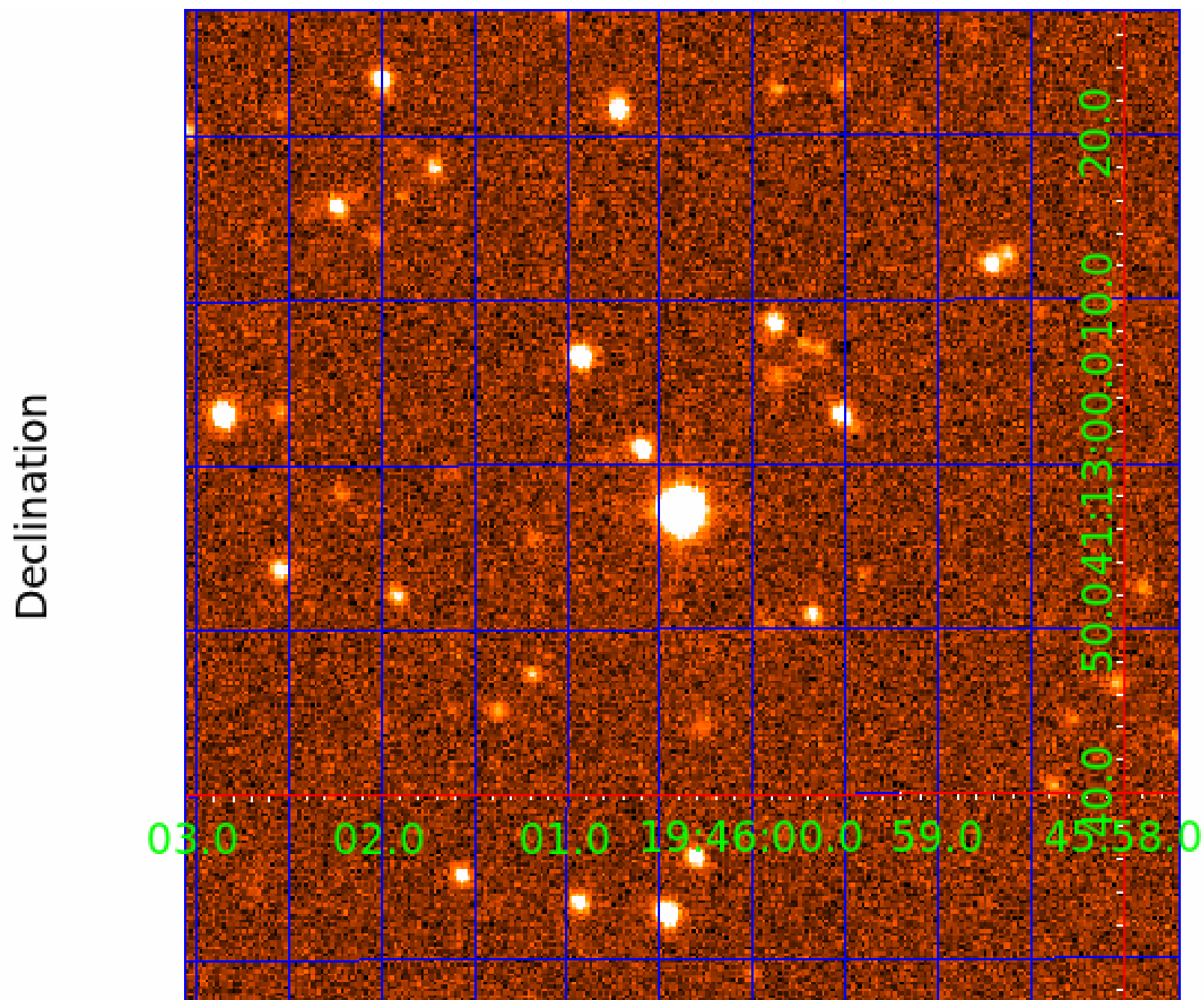
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image



KIC 005977646

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})
005977646-01	OBS	No	397.677411	303.696760	18285.5	8.422	20.9	16.8	1.61	7429	37.66	4.84
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005977646-03	OBS	No	426.802579	501.831807	736.7	6.000	20.0	-1.0	1.61	7429	4.41	4.40

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005977646-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—LPP_DV—ALL_TRANS_CHASES—CENT_FEW_DIFFS
005977646-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_TER_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
005977646-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—LPP_DV—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_NOFITS

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.

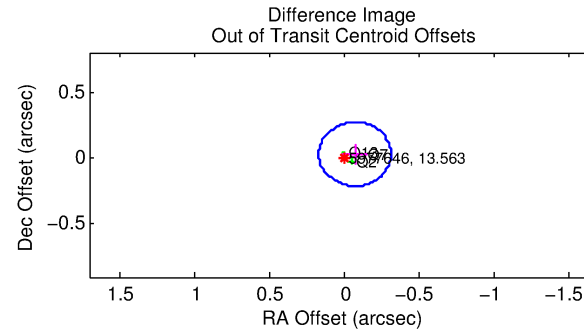
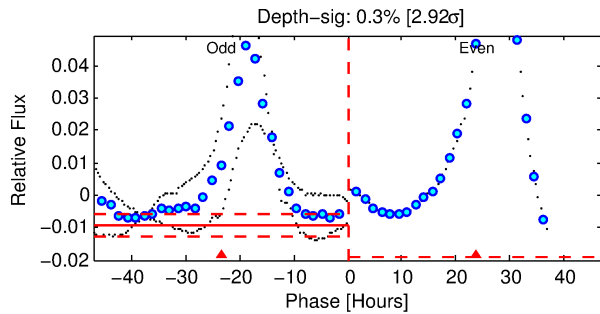
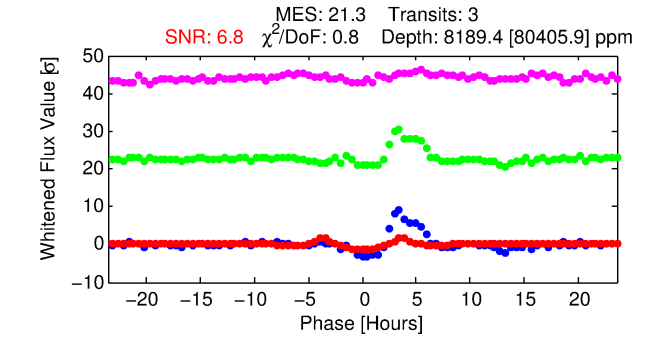
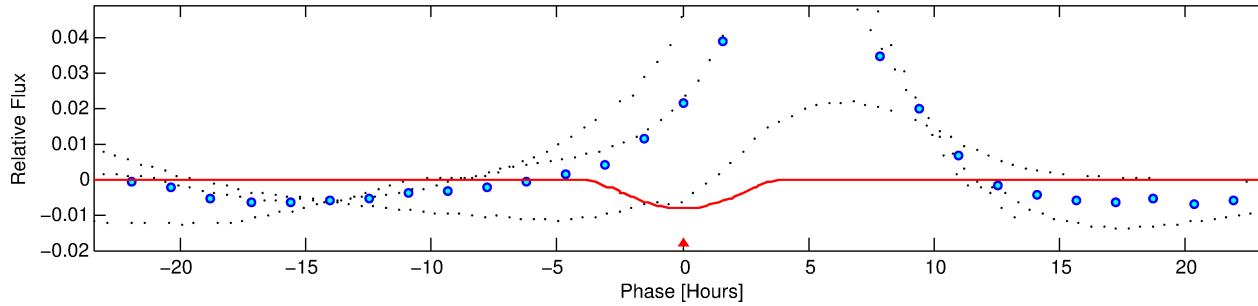
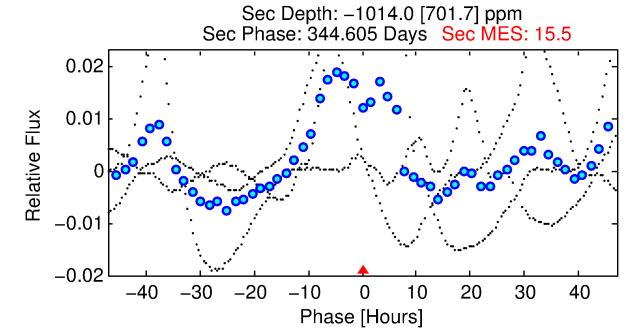
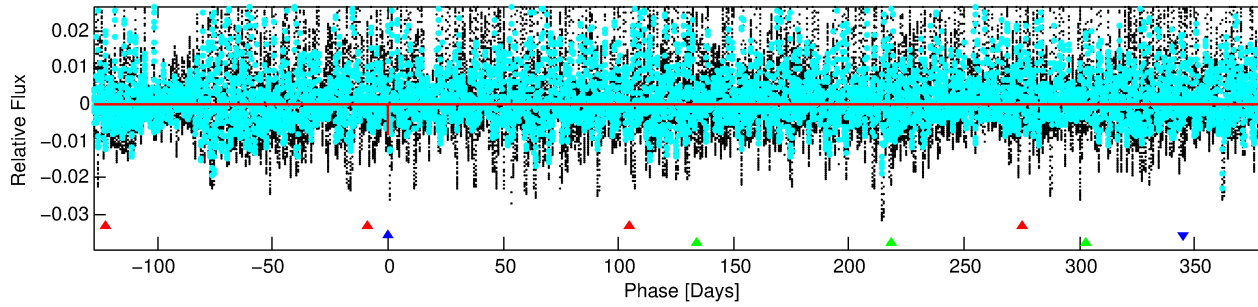
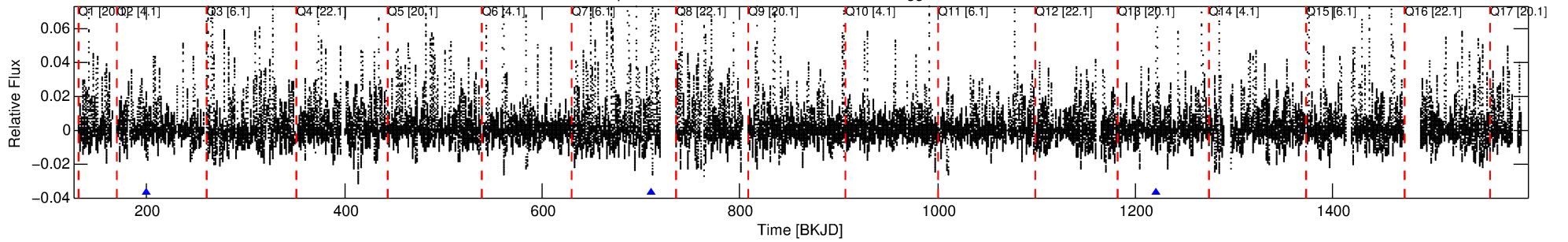
Ephemeris Match Information For 005977646-02

No Significant Match Found

DV One-Page Summary

KIC: 5977646 Candidate: 2 of 3 Period: 511.223 d

Kp: 13.56 R*: 1.61 Rs Teff: 7429.0 K Logg: 4.20 Fe/H: -0.140



DV Fit Results:

Period = 511.22294 [0.00762] d
Epoch = 199.1315 [0.0090] BKJD
Rp/R* = 0.1462 [0.1746]
a/R* = 279.33 [52.16]
b = 1.00 [0.72]
Seff = 3.46 [1.43]
Teq = 348 [36] K
Rp = 25.64 [31.77] Re
a = 1.4271 [0.3833] AU
Ag = N/A
Teffp = N/A

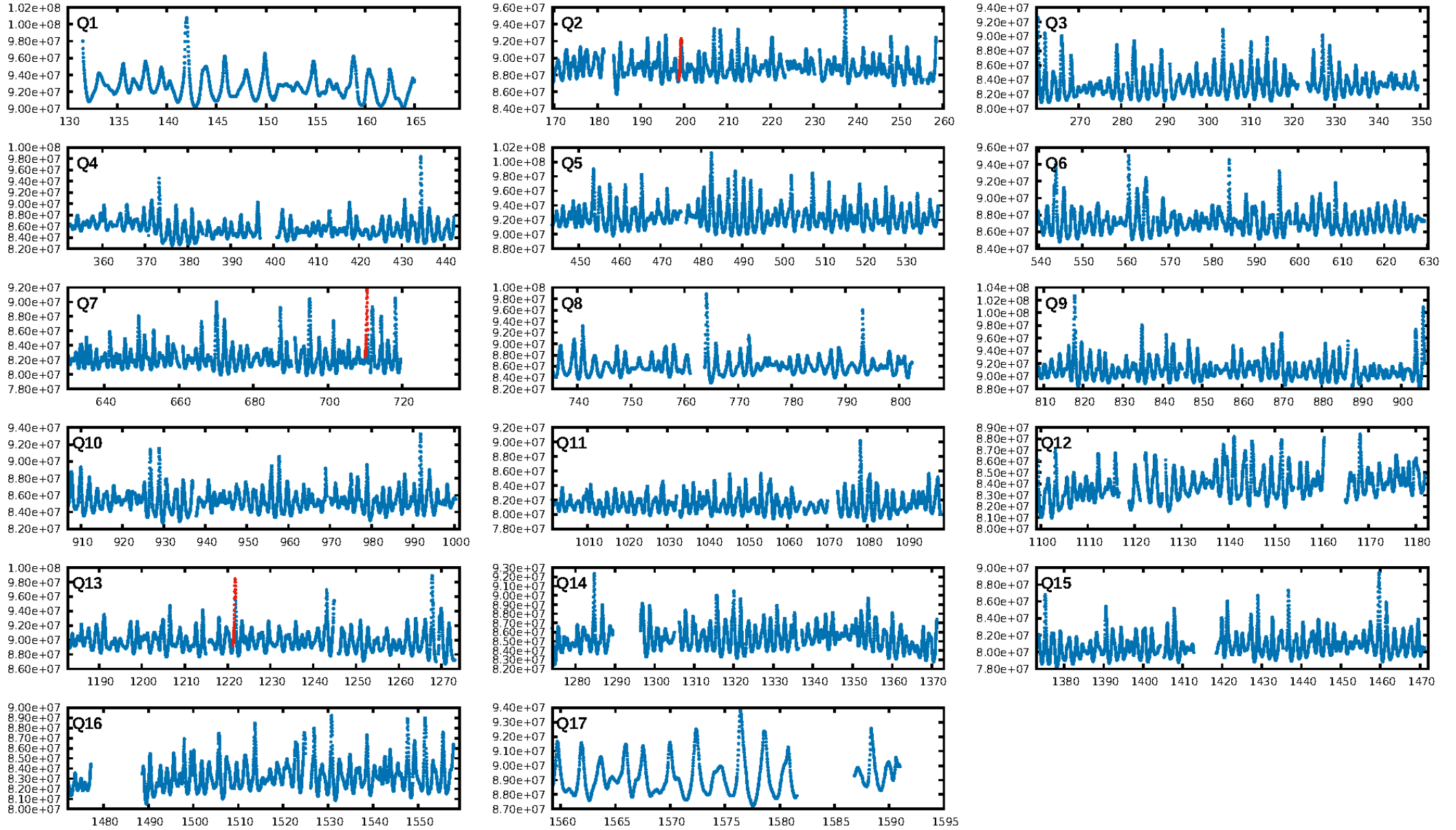
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [205.35σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 18.2%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 1.13
Centroid-sig: 39.0%
Centroid-so: 0.088 arcsec [0.74σ]
OotOffset-rm: 0.081 arcsec [1.00σ]
KicOffset-rm: 0.098 arcsec [1.11σ]
OotOffset-st: 1/1/0/1 [3]
KicOffset-st: 1/1/0/1 [3]
DiffImageQuality-fgm: 0.00 [0/3]
DiffImageOverlap-fno: 1.00 [3/3]

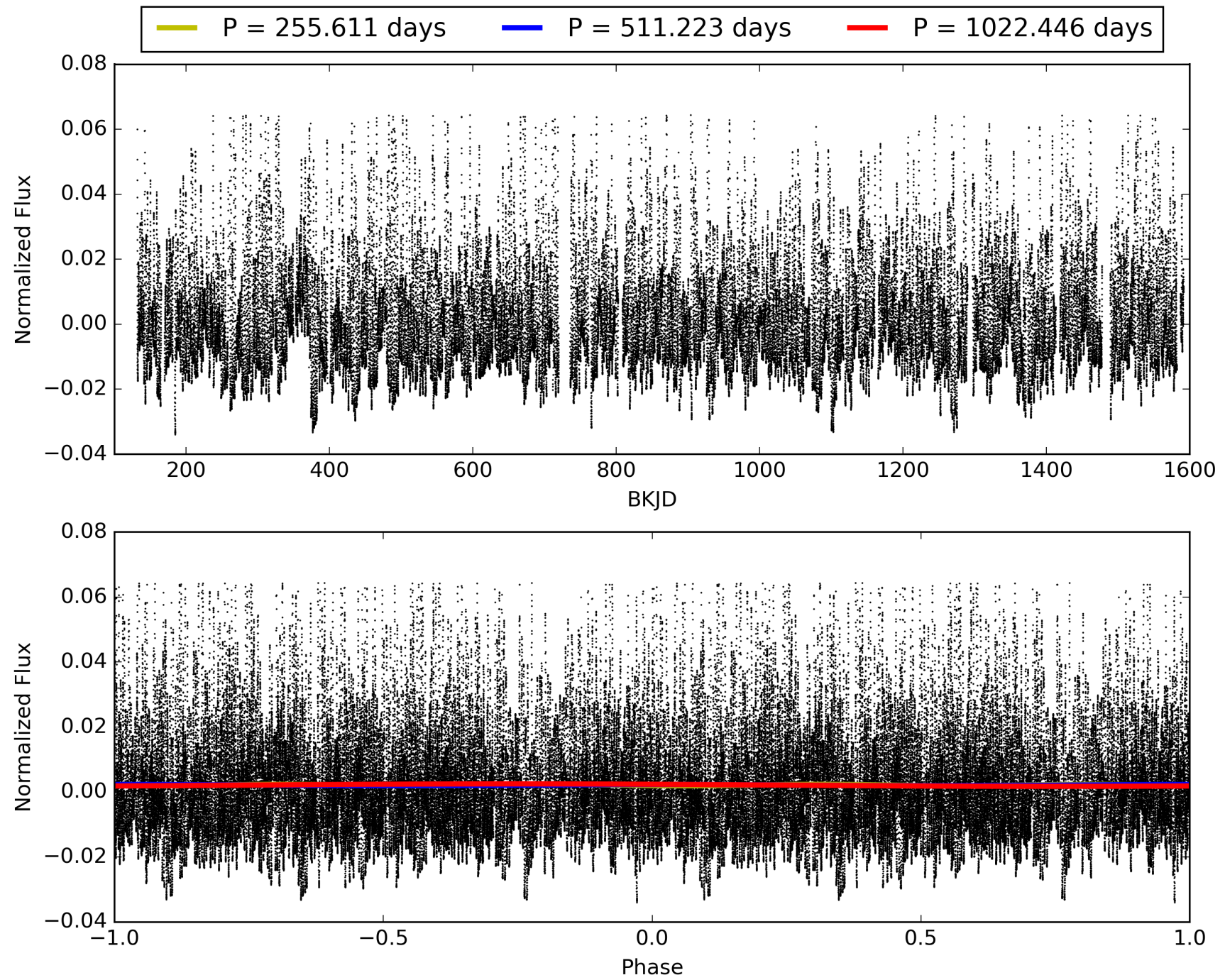
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 03-Feb-2016 08:08:50 Z

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

TCE 005977646-02, PDC Light Curves

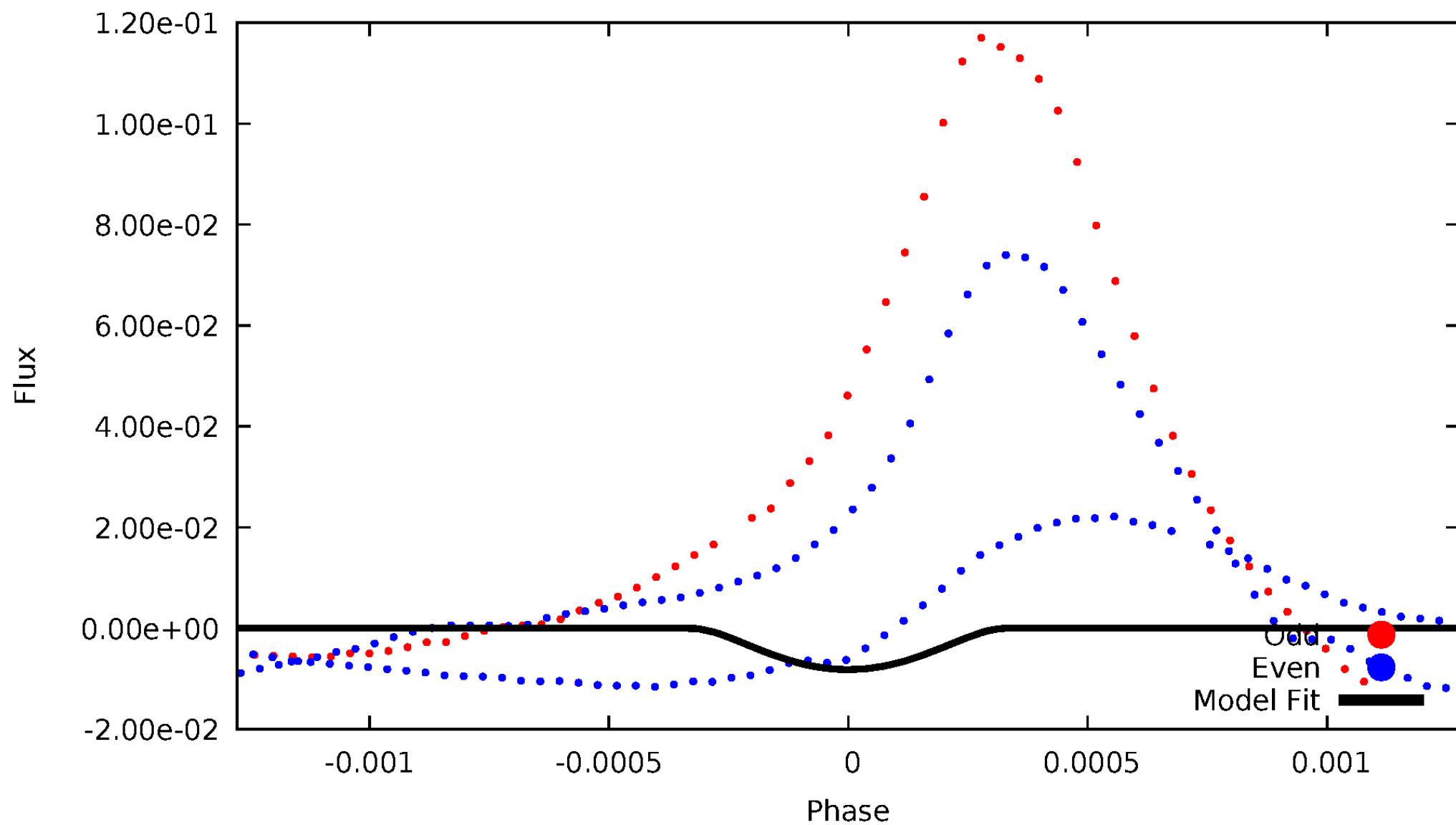


TCE 005977646-02



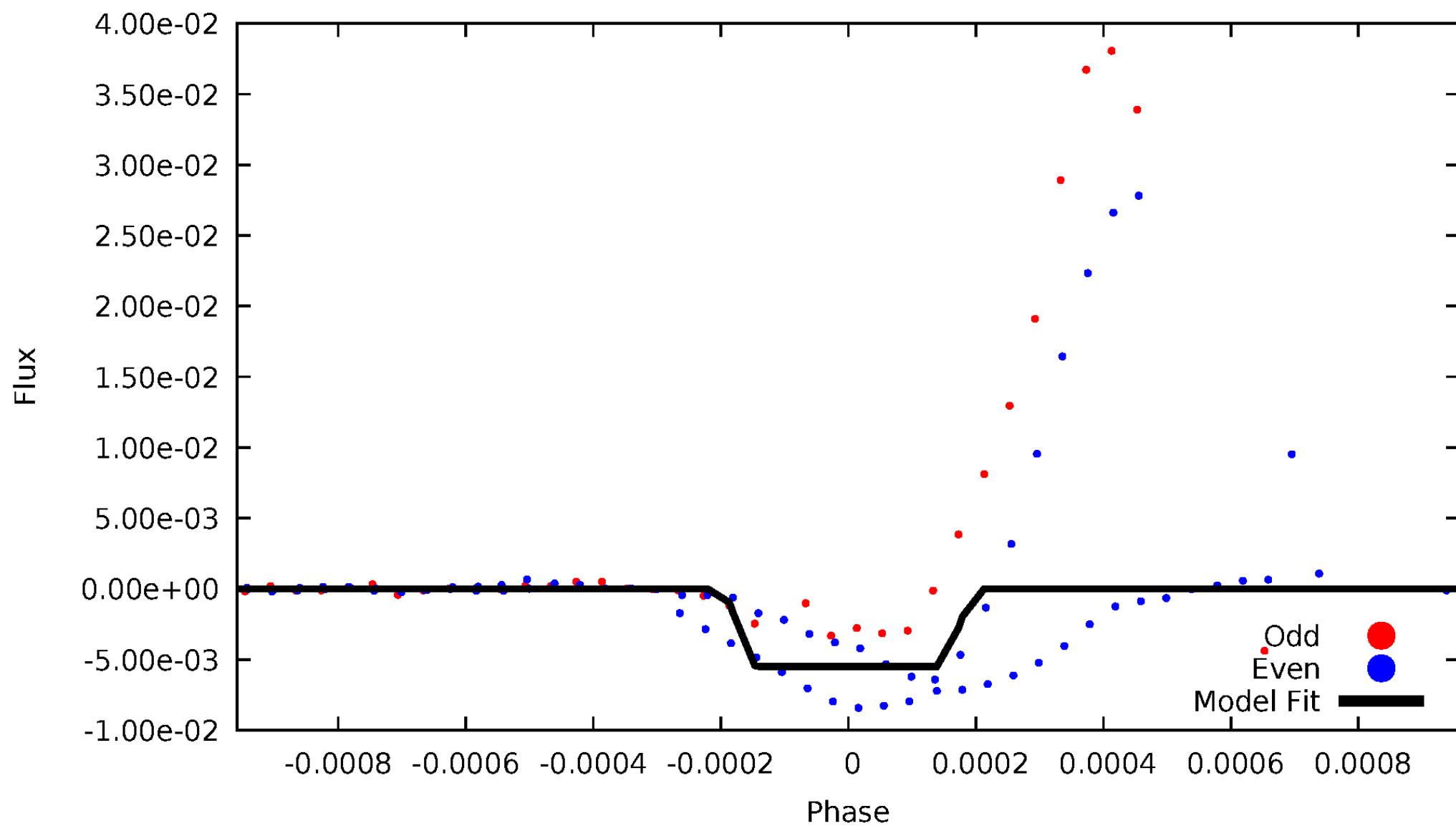
DV Odd/Even

TCE 005977646-02



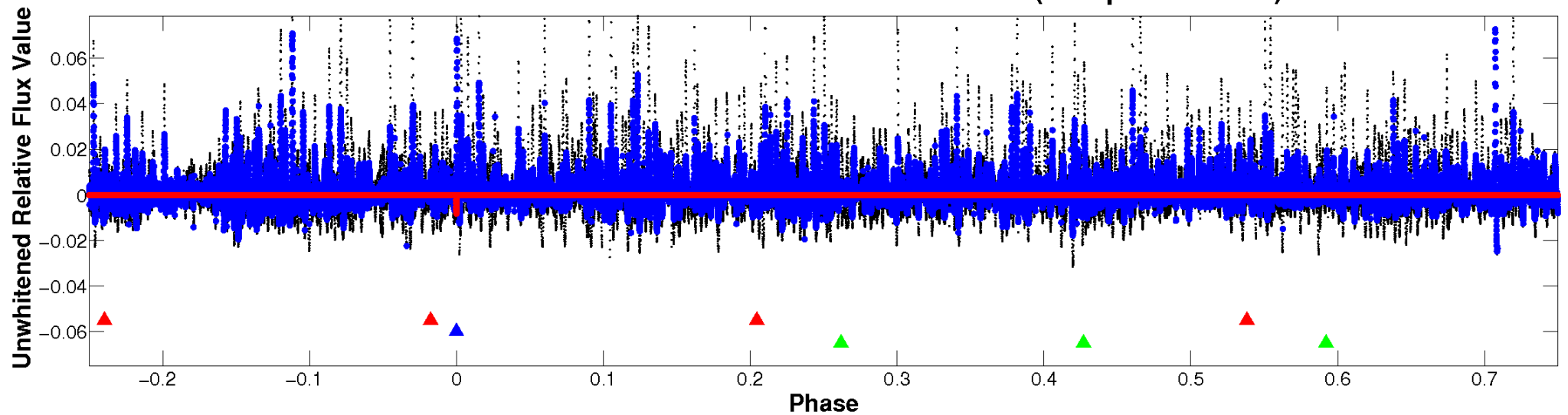
ALT Odd/Even

TCE 005977646-02

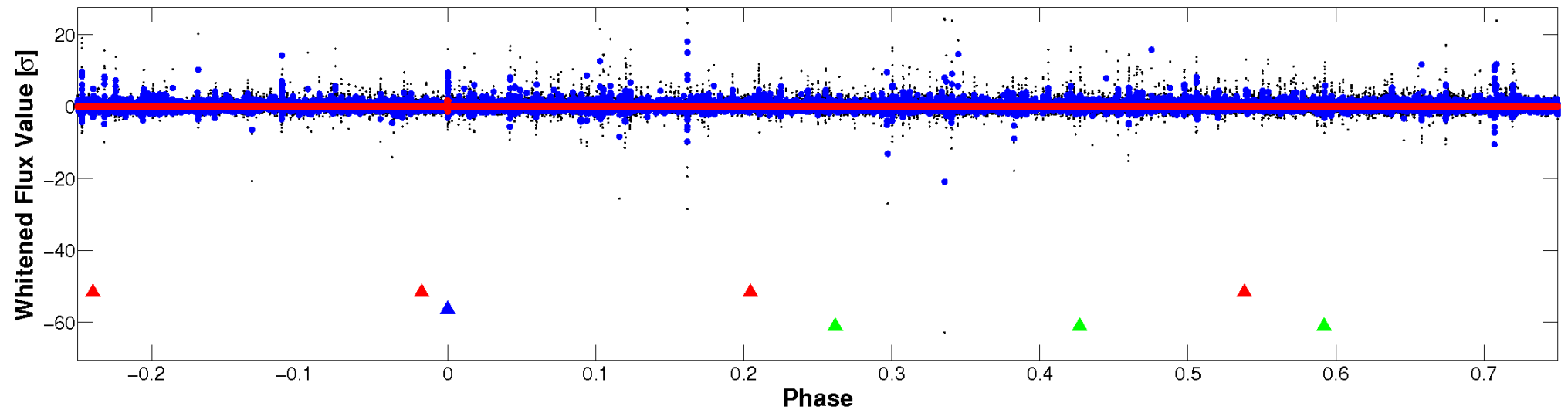


Non-Whitened Vs. Whitened Light Curve

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

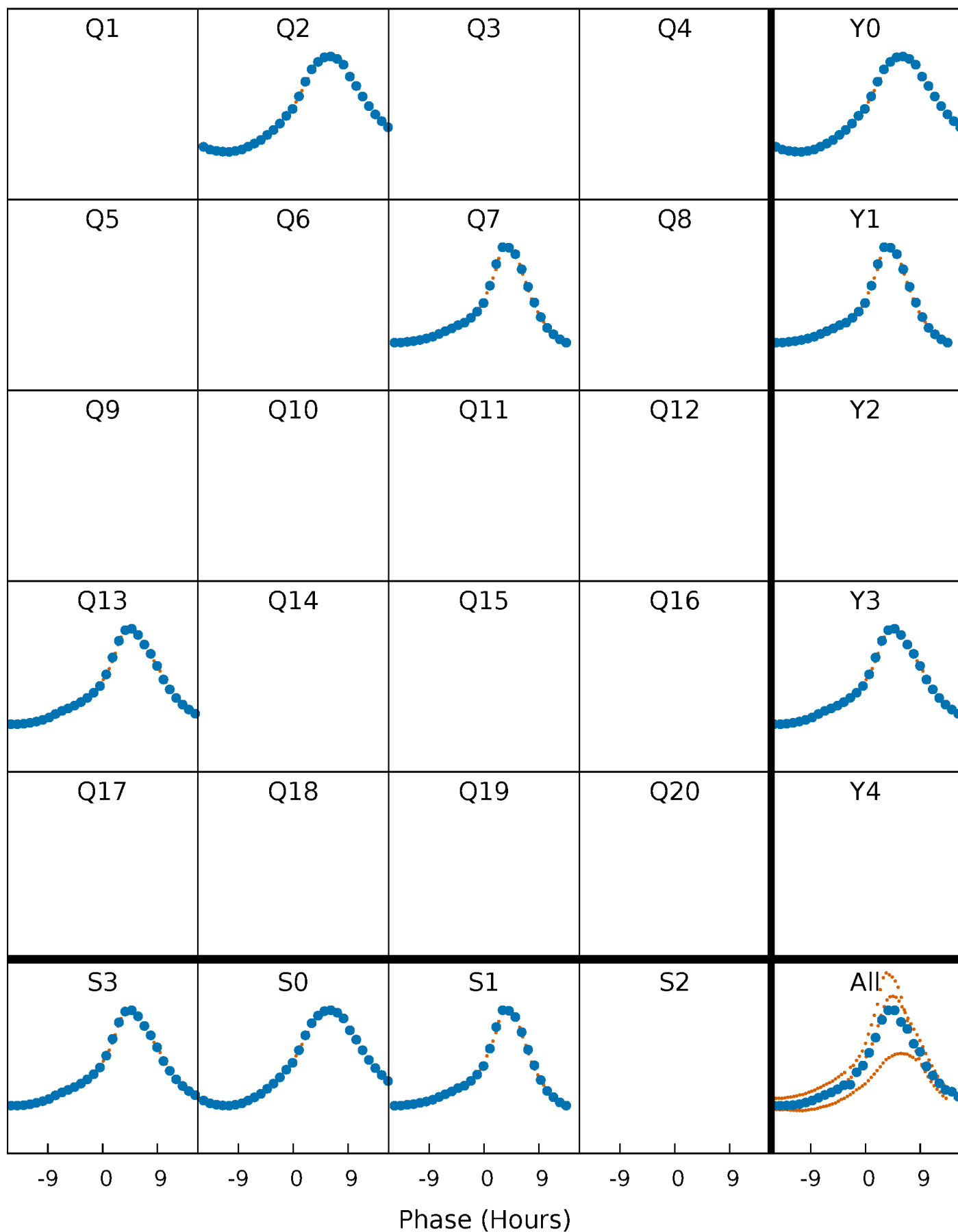


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



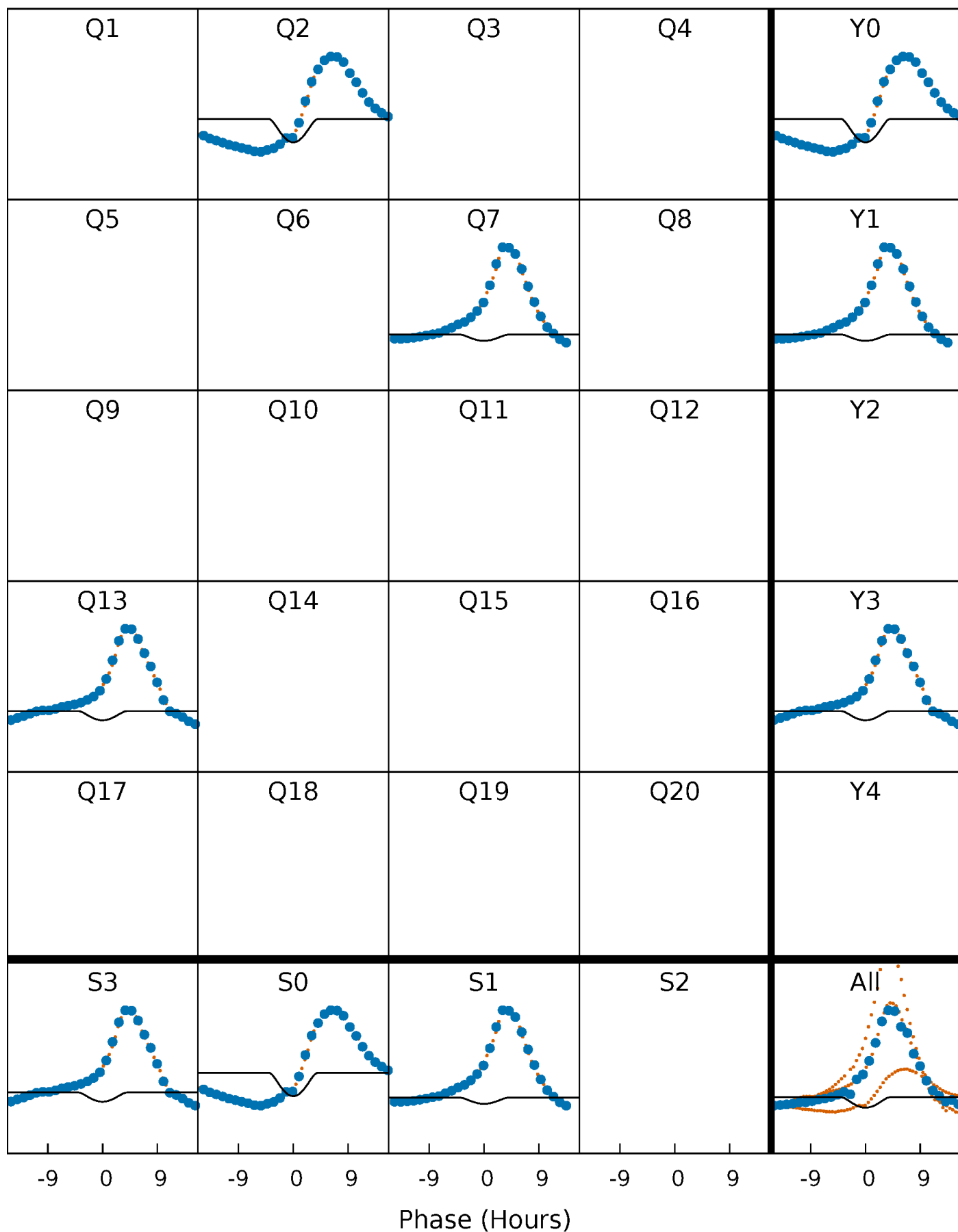
PDC Quarter-Phased Transit Curves

TCE 005977646-02 P=511.222939 Days $T_0=199.131455$ (BKJD)



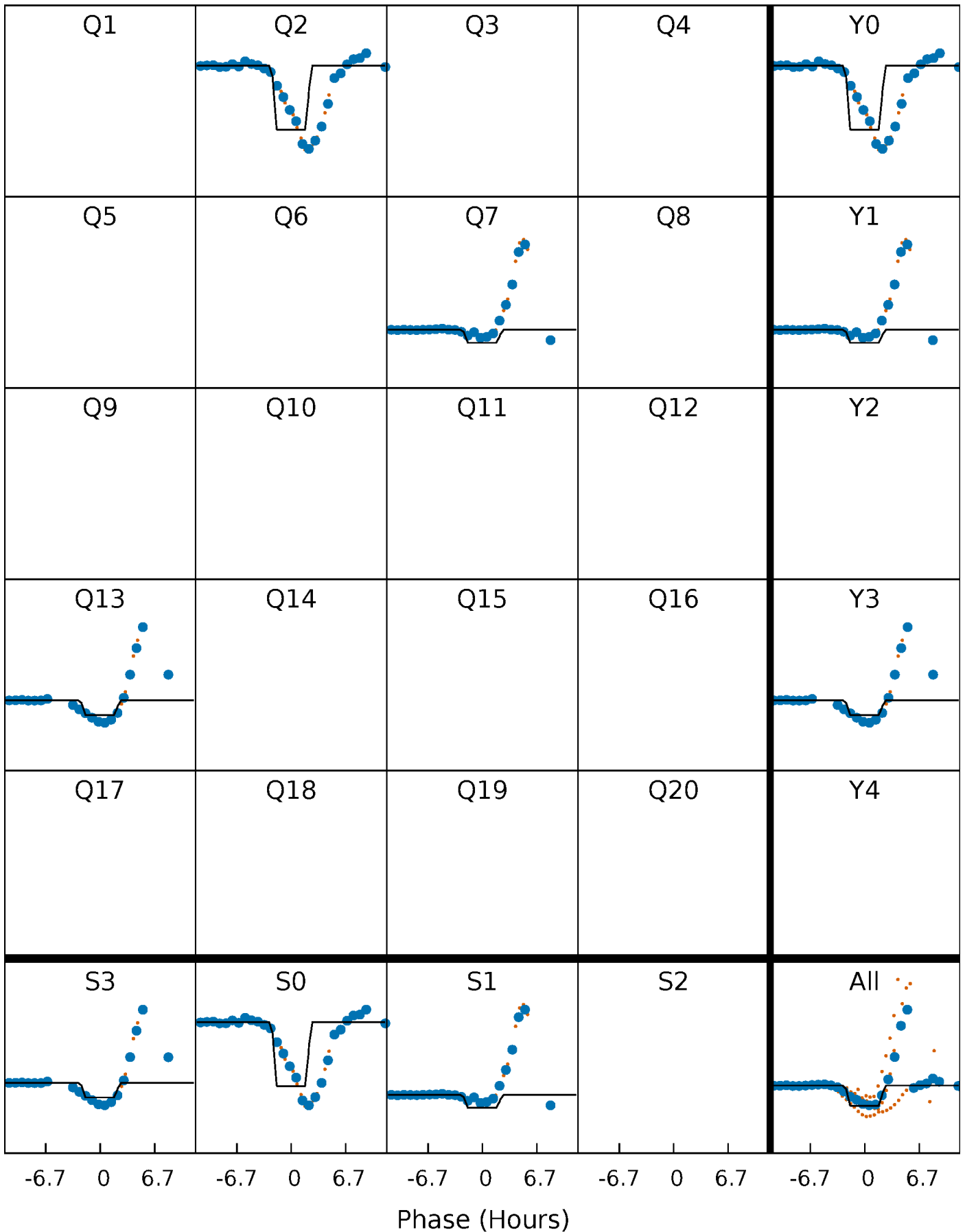
DV Quarter-Phased Transit Curves

TCE 005977646-02 P=511.222939 Days $T_0=199.131455$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

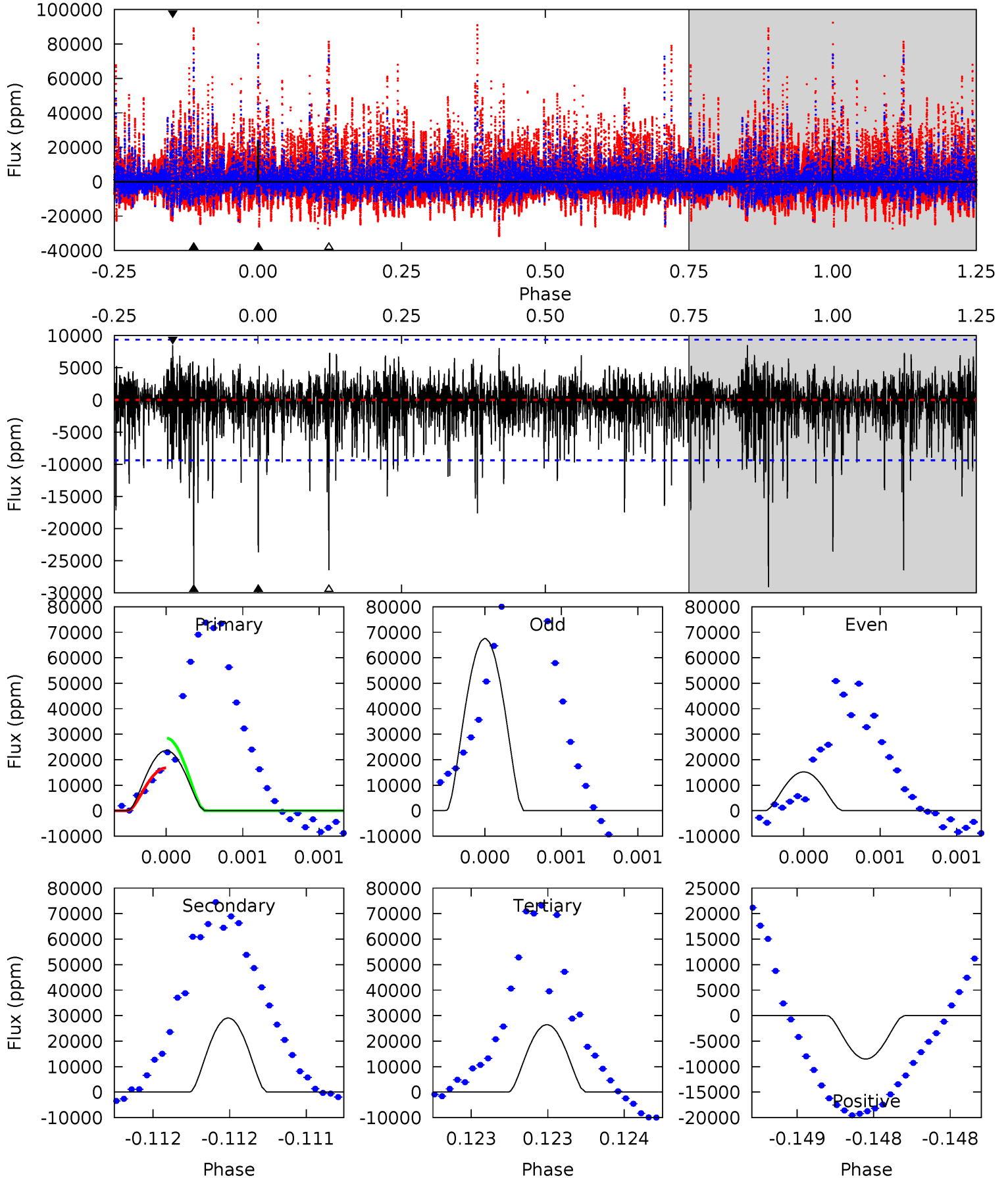
TCE 005977646-02 P=511.227238 Days $T_0=199.058283$ (BKJD)



DV Model-Shift Uniqueness Test

005977646-02, P = 511.222939 Days, E = 199.131455 Days

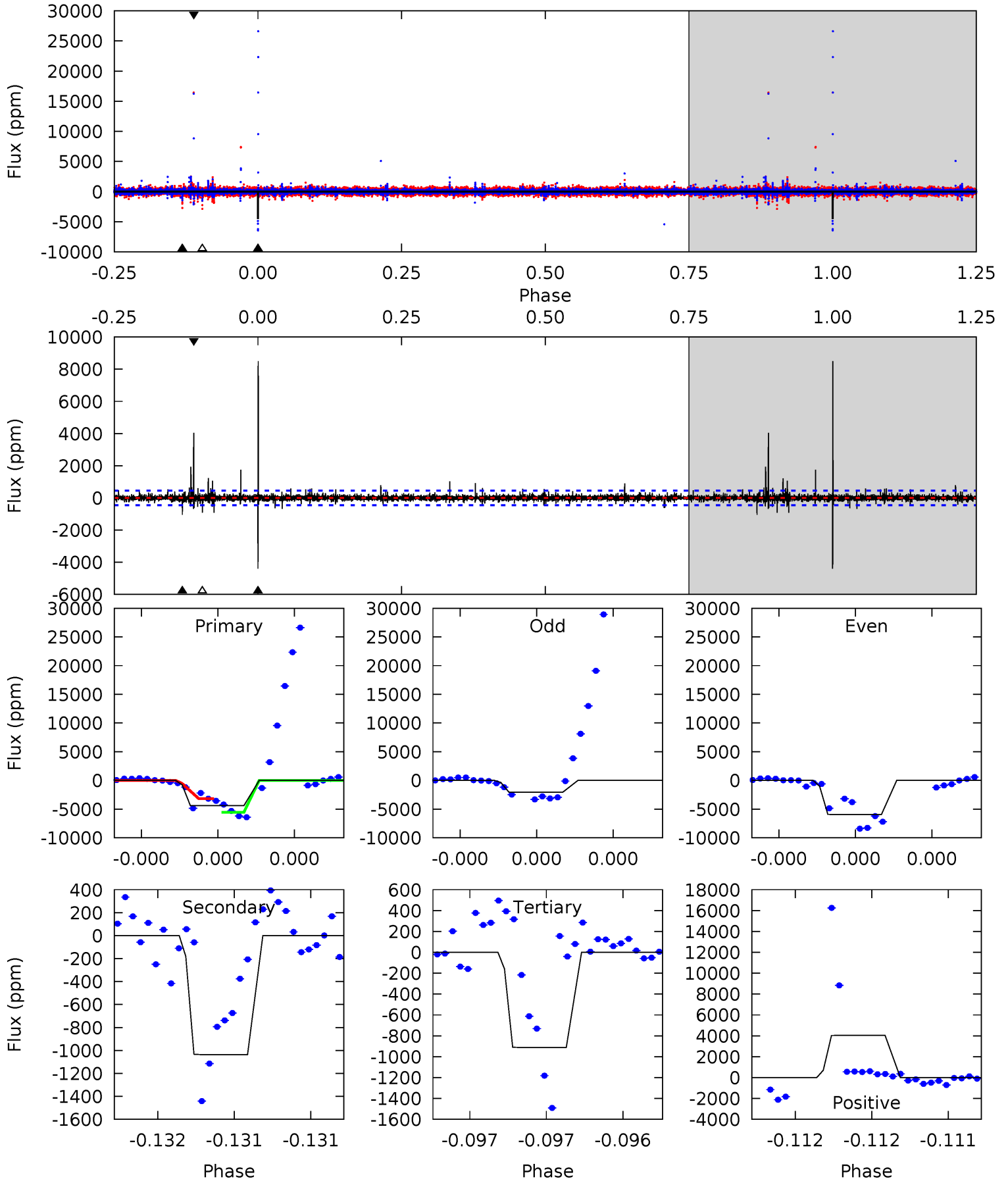
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.9	17.2	15.6	5.02	5.53	3.41	1.83	-1.69	8.90	1.54	12.1	13.7	0.95	0.23	3.25



Alt Model-Shift Uniqueness Test

005977646-02, P = 511.227238 Days, E = 199.058283 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
55.0	13.0	11.4	50.5	5.61	3.54	1.52	43.6	4.47	1.55	-37.6	12.2	1.02	0.66	14.0



Stellar Parameters For KIC 005977646

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7429^{+233}_{-311}	$4.197^{+0.108}_{-0.201}$	$-0.140^{+0.200}_{-0.350}$	$1.607^{+0.530}_{-0.286}$	$1.482^{+0.232}_{-0.232}$	$0.503^{+0.288}_{-0.259}$
	+3%/-4%	+3%/-5%	+143%/-250%	+33%/-18%	+16%/-16%	+57%/-51%
Source	KIC0	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 005977646-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-29087 ± 1696	$36.26^{+27.75}_{-23.33}$	492^{+43}_{-34}	6943^{+7325}_{-1784}	$25610^{+179367}_{-17397}$
Alt.	-1037 ± 80	$26.43^{+26.28}_{-16.34}$	491^{+36}_{-31}	3797^{+1881}_{-729}	1631^{+10093}_{-1215}

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

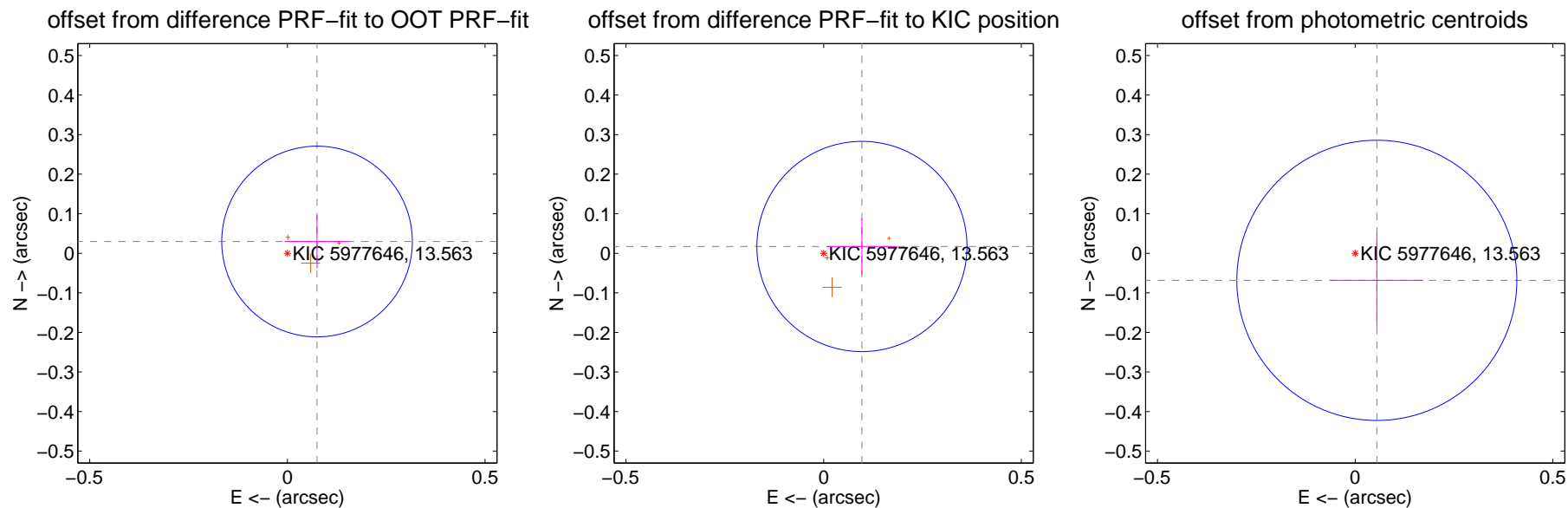
DV Centroid Data

Supplemental centroid analysis for 005977646-02. Kepler magnitude: 13.56. Transit SNR 6.80

There are 0 quarters with good PRF difference image offsets

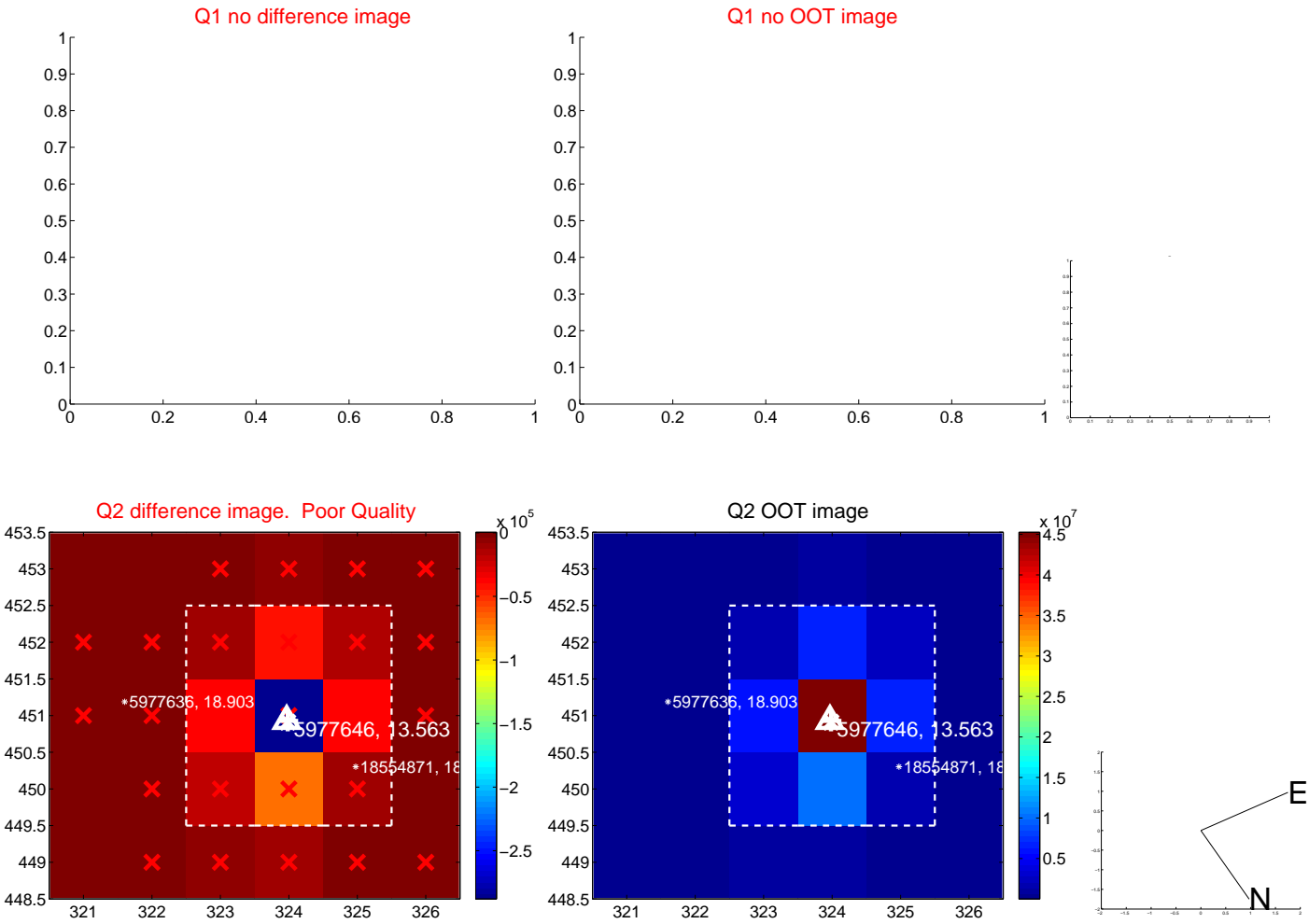
The direct PRF centroid is offset from the target star catalog position by about 0.05 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.081 ± 0.080	1.00	-0.075 ± 0.082	0.030 ± 0.067
PRF-fit source offset from KIC position	0.098 ± 0.089	1.11	-0.097 ± 0.089	0.017 ± 0.071
photometric centroid source offset	0.09 ± 0.12	0.74	-0.05 ± 0.12	-0.07 ± 0.12

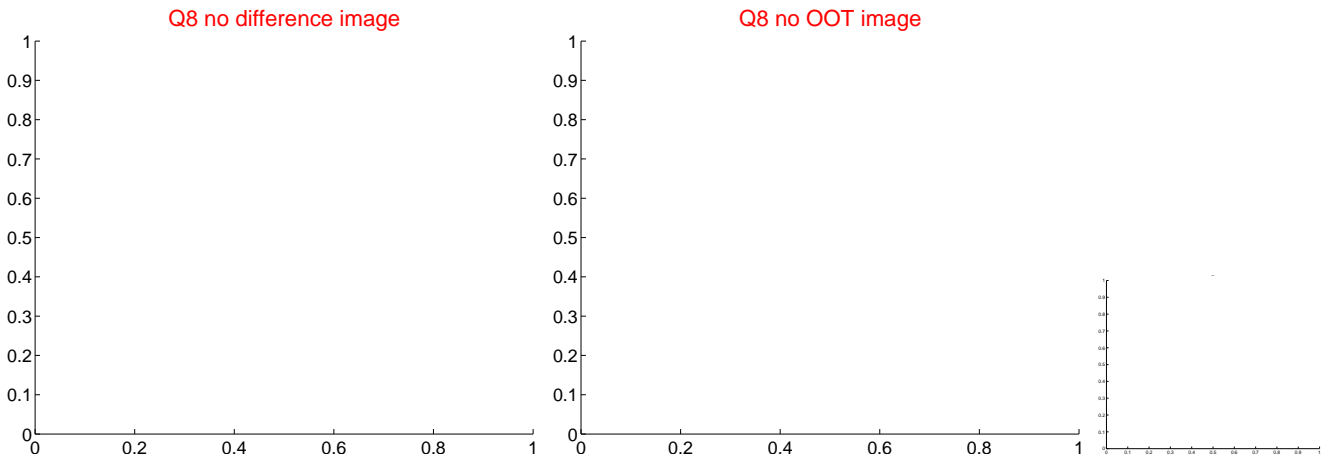
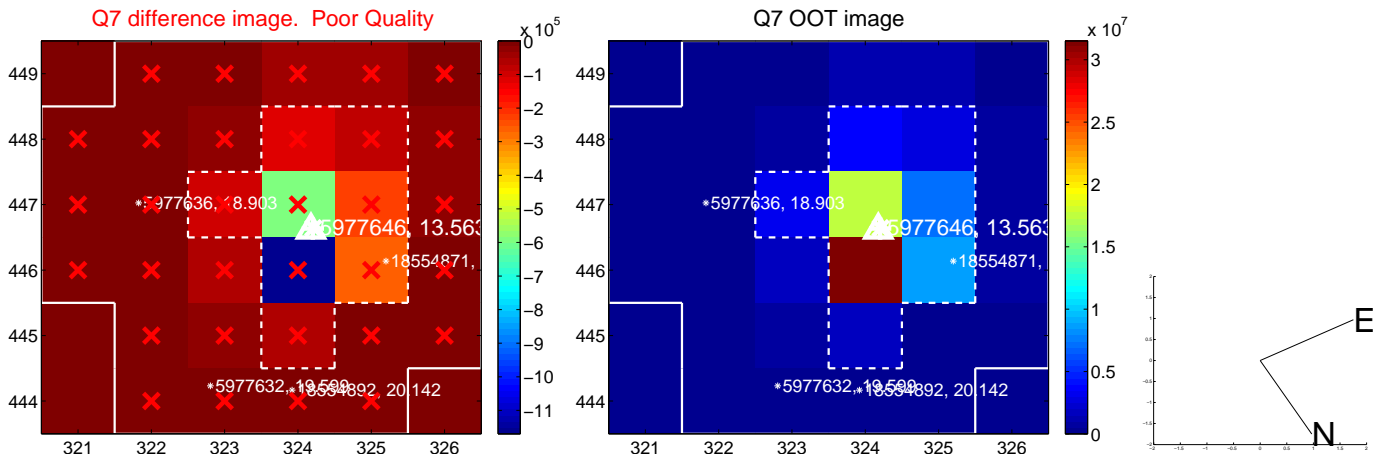
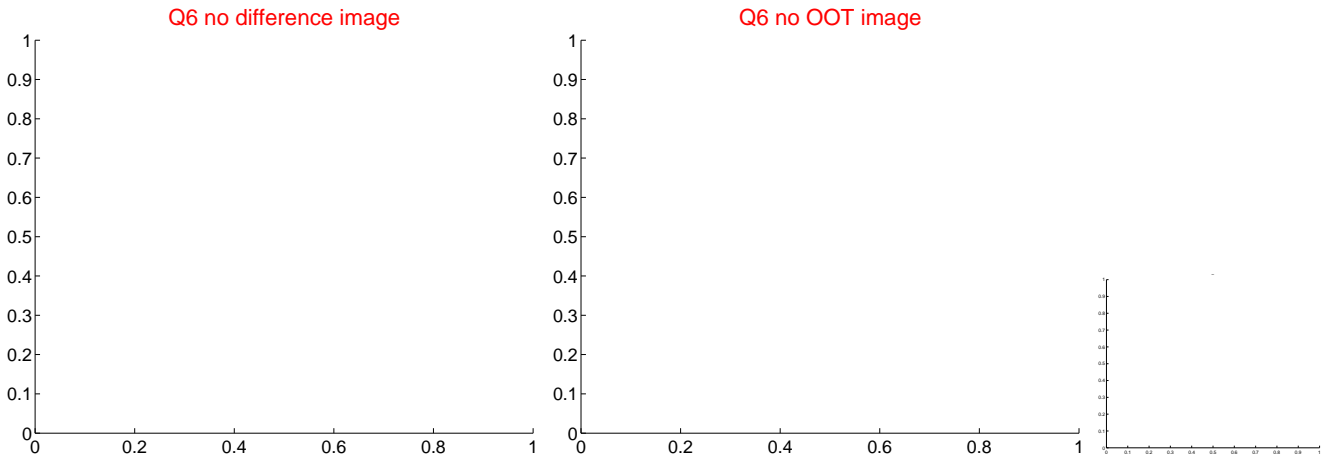
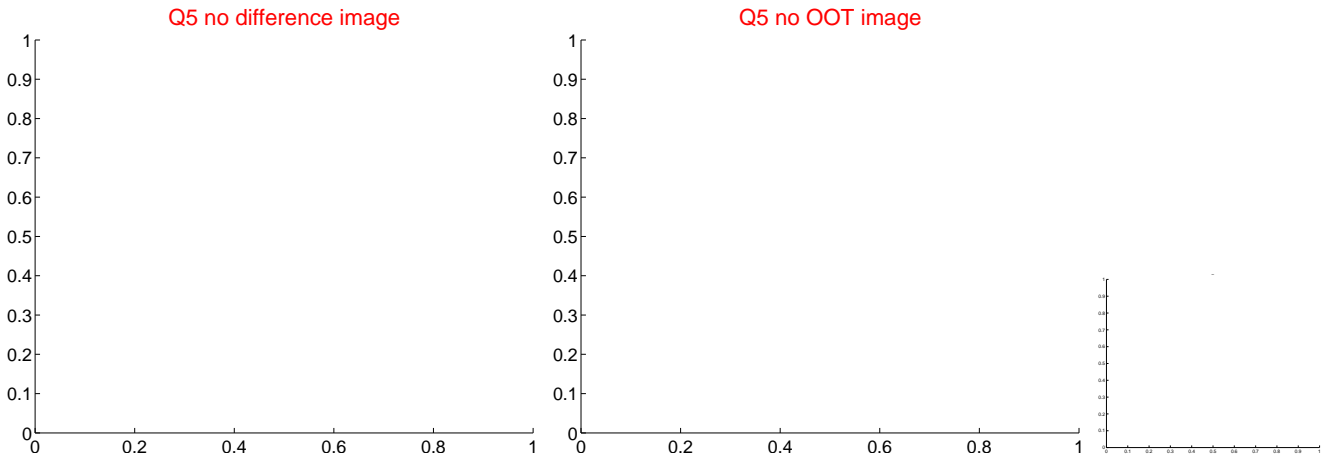


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



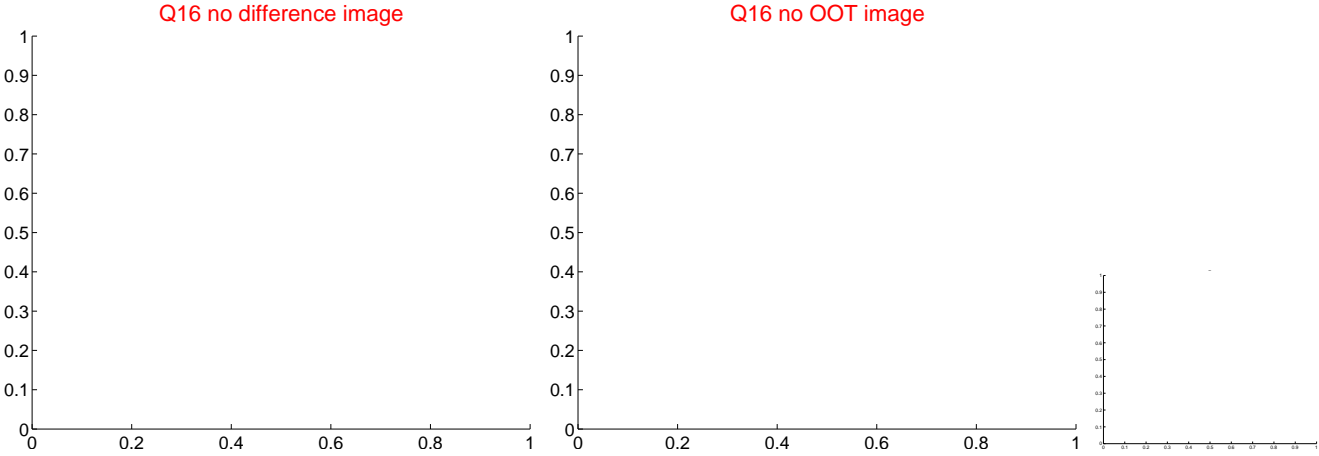
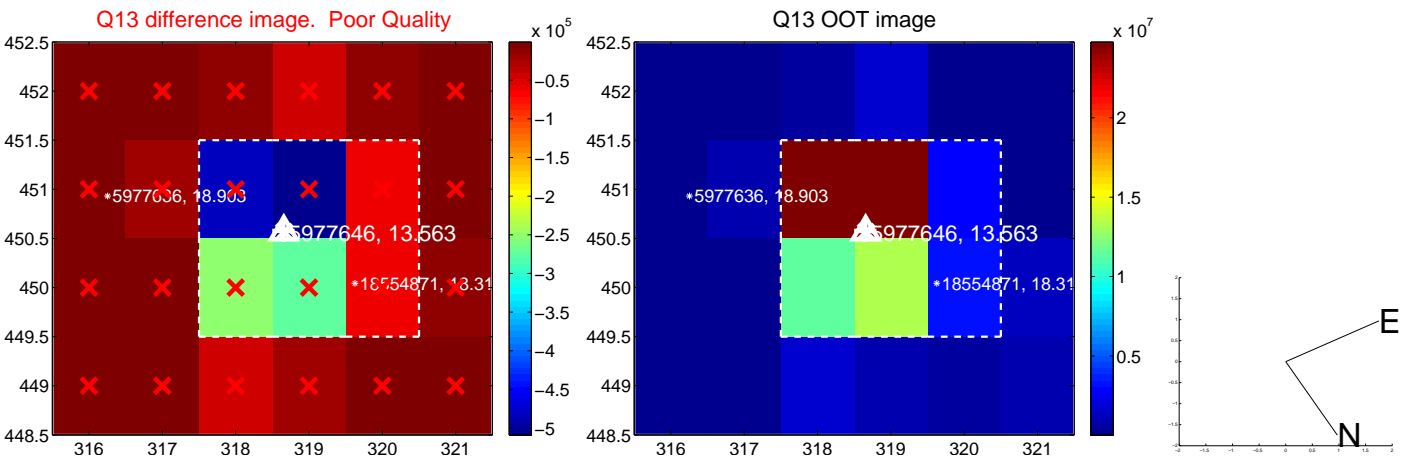
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



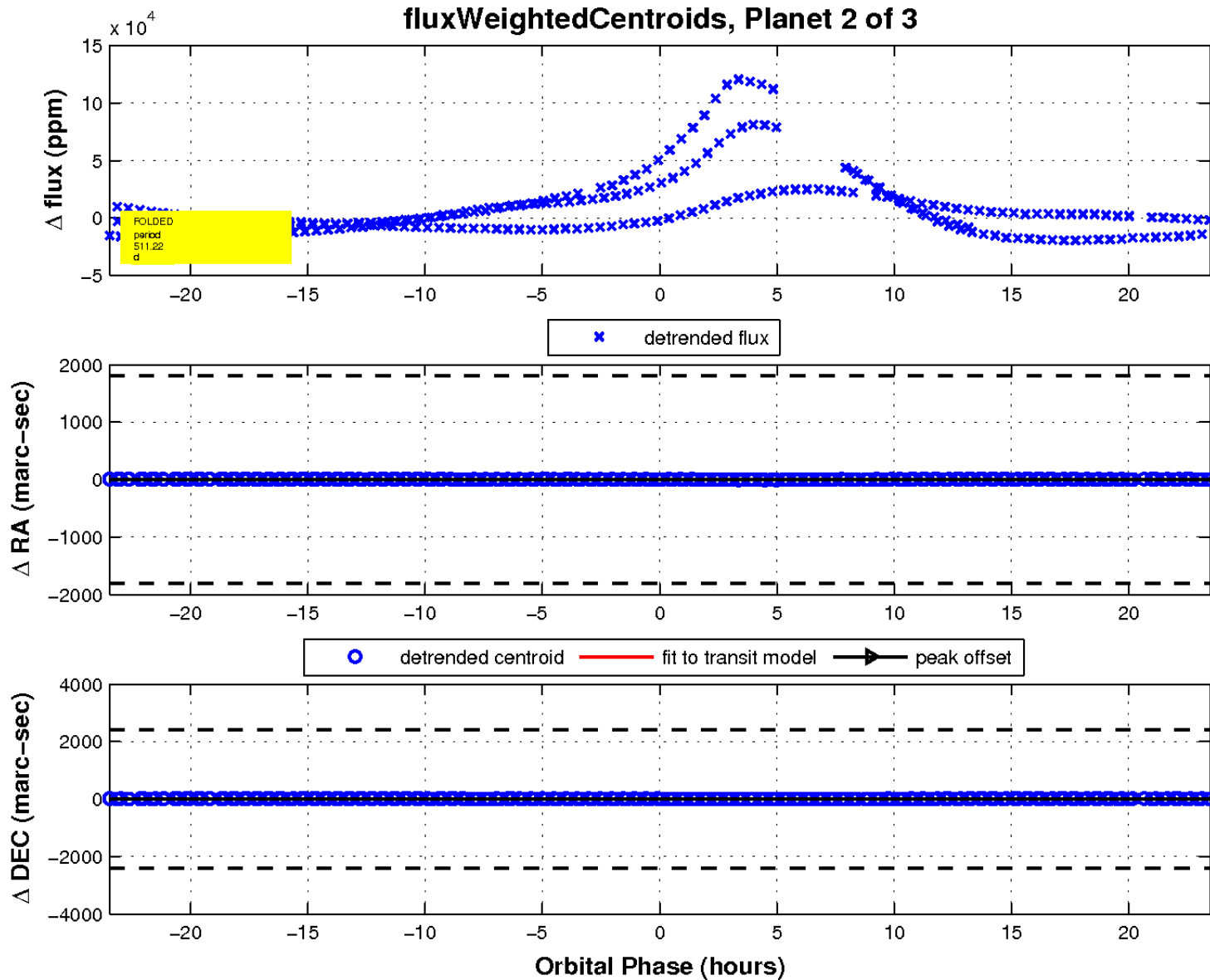
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



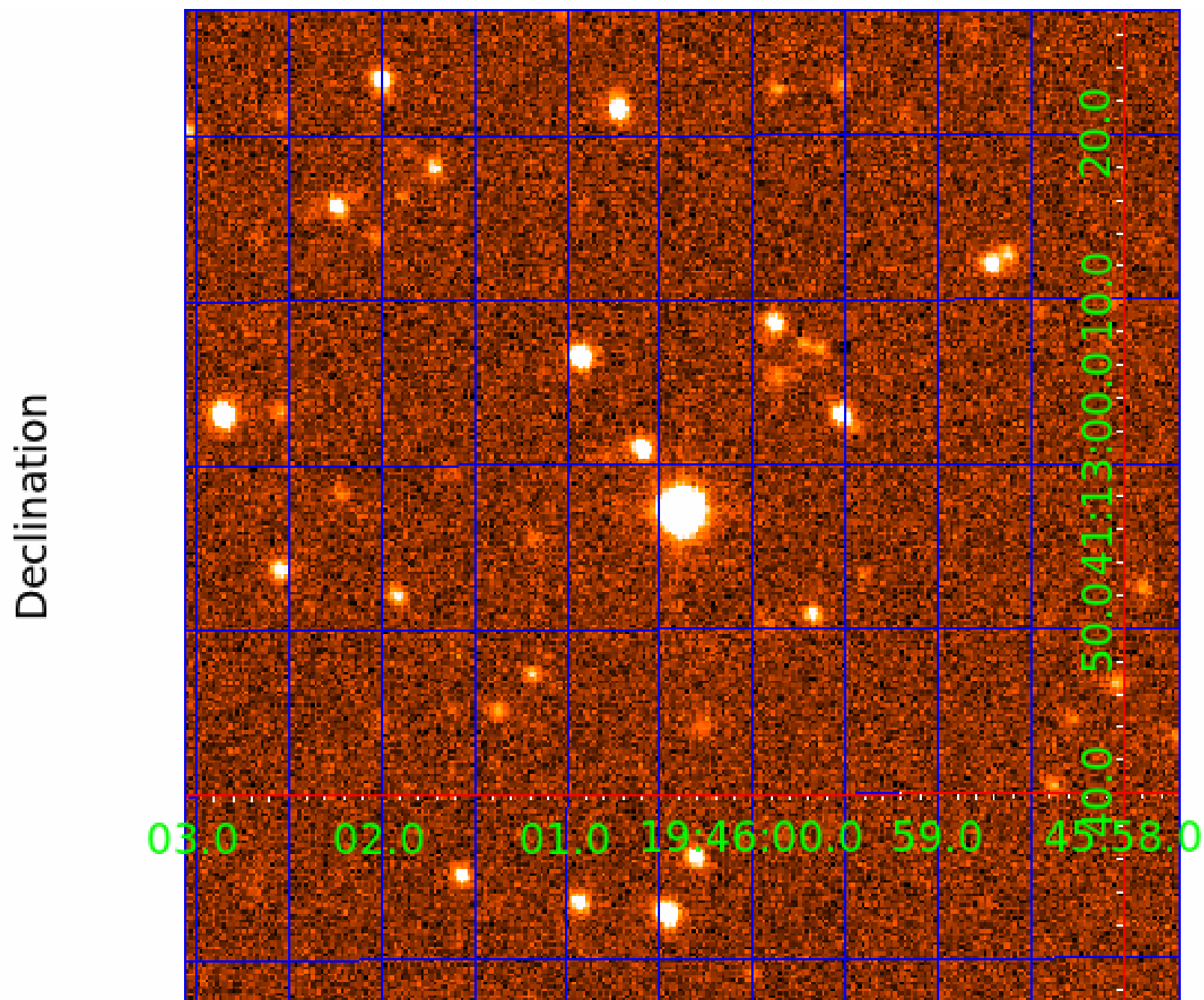
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image



KIC 005977646

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})
005977646-01	OBS	No	397.677411	303.696760	18285.5	8.422	20.9	16.8	1.61	7429	37.66	4.84
005977646-02	OBS	No	511.222939	199.131455	8189.4	7.833	21.3	6.8	1.61	7429	25.64	3.46
005977646-03	OBS	No	426.802579	501.831807	736.7	6.000	20.0	-1.0	1.61	7429	4.41	4.40

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005977646-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—LPP_DV—ALL_TRANS_CHASES—CENT_FEW_DIFFS
005977646-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_TER_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
005977646-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—LPP_DV—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_NOFITS

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.

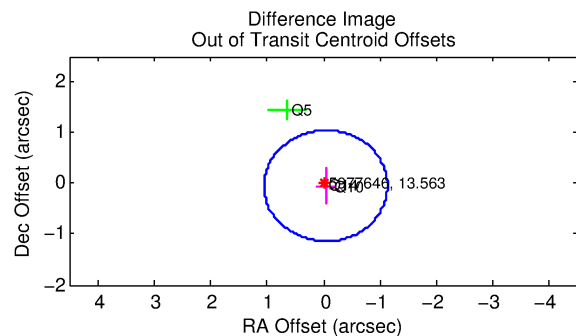
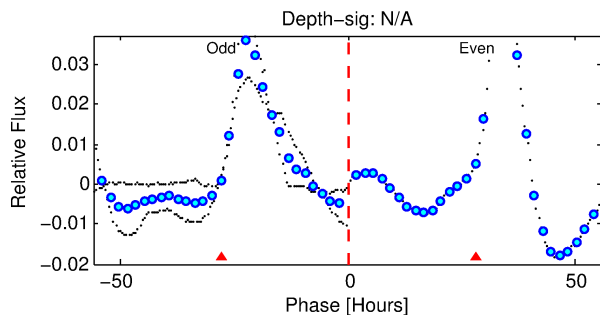
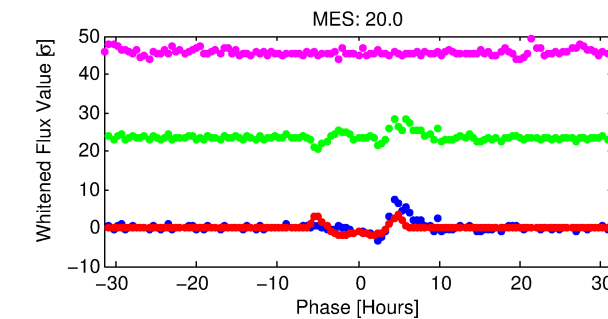
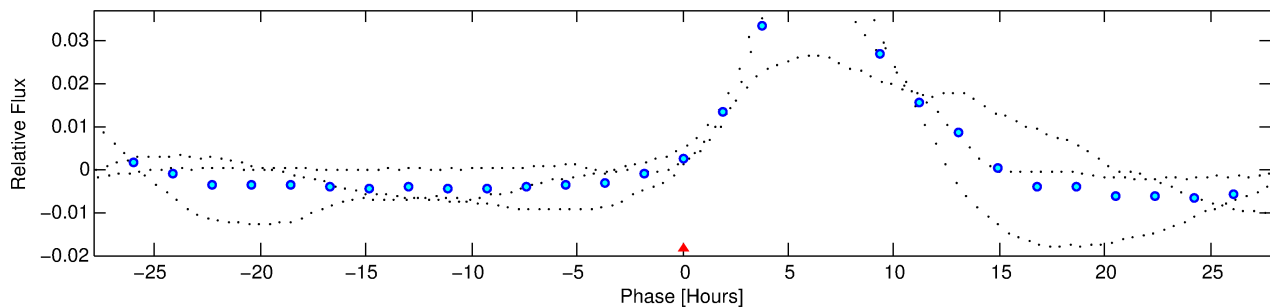
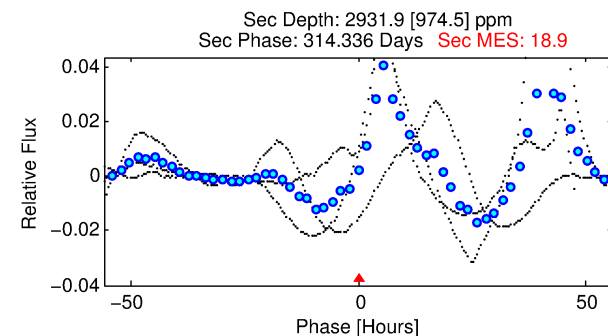
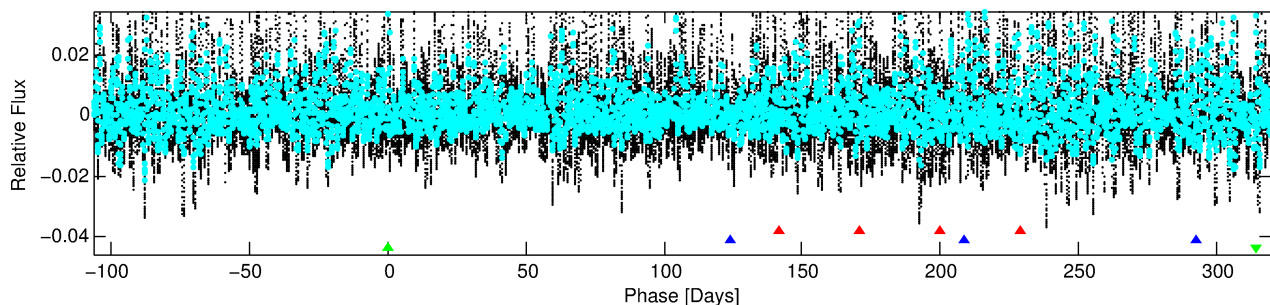
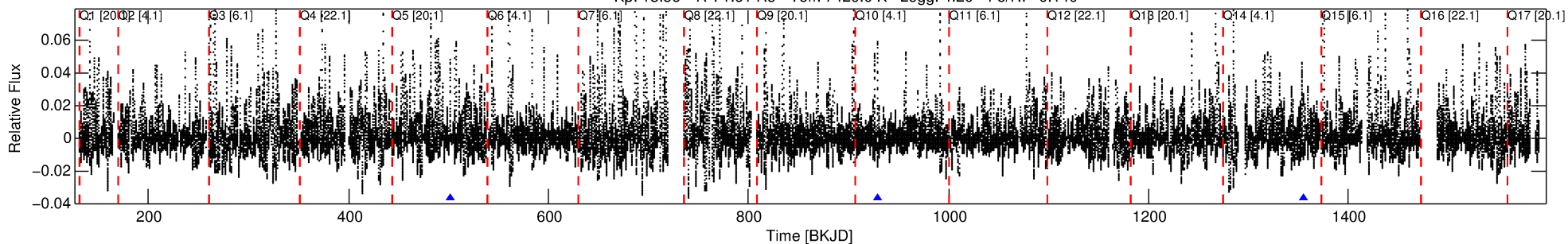
Ephemeris Match Information For 005977646-03

No Significant Match Found

DV One-Page Summary

KIC: 5977646 Candidate: 3 of 3 Period: 426.803 d

Kp: 13.56 R*: 1.61 Rs Teff: 7429.0 K Logg: 4.20 Fe/H: -0.140



TPS TCE Results:

Period = 426.80258 d
Epoch = 501.8318 BKJD

DV fit results are unavailable

DV Diagnostic Results:

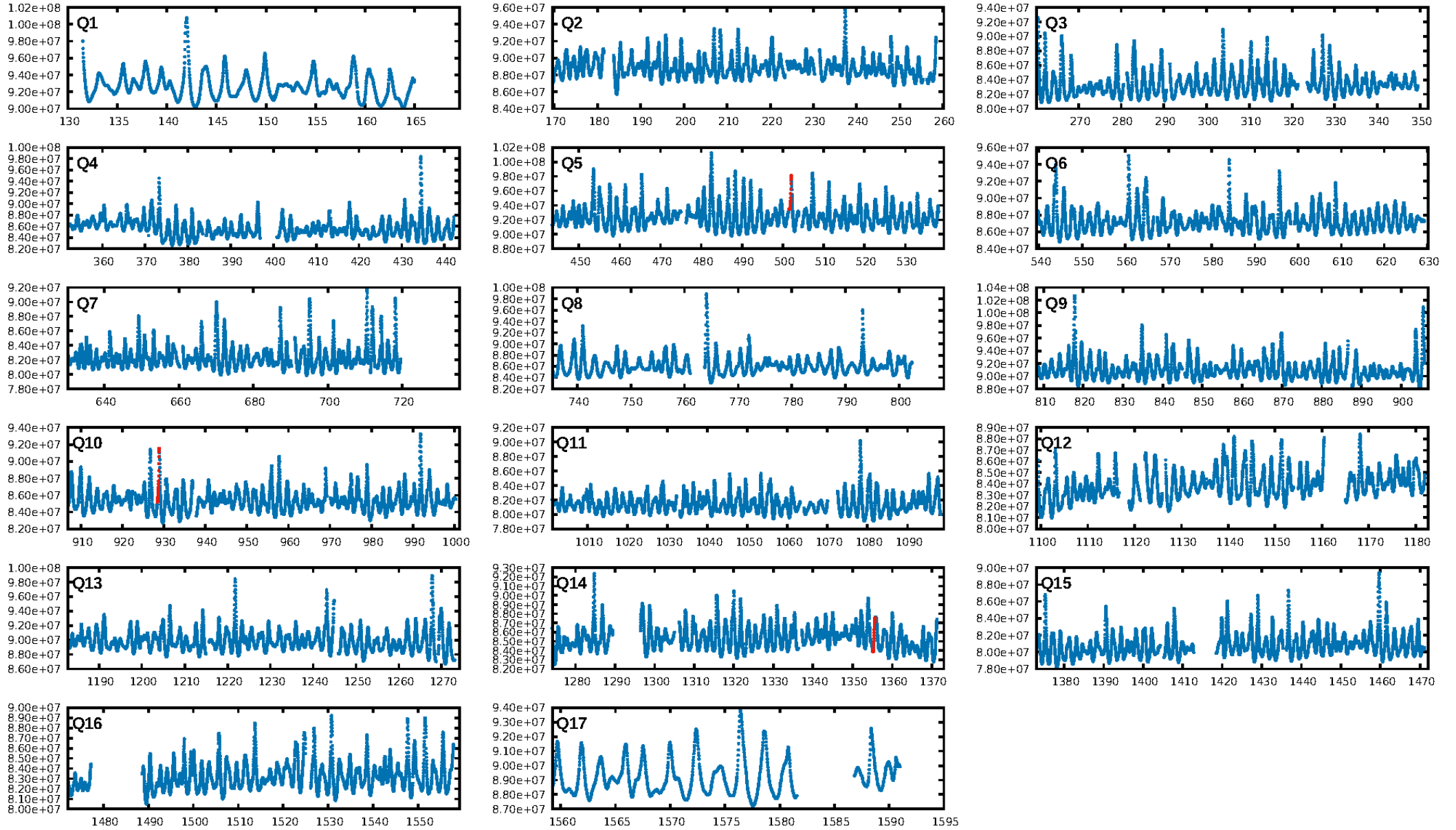
ShortPeriod-sig: 100.0% [67.60σ]
LongPeriod-sig: 100.0% [205.35σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 1.693

Centroid-sig: 34.8%
Centroid-so: 0.034 arcsec [0.71σ]
OotOffset-rm: 0.060 arcsec [0.17σ]
KicOffset-rm: 0.134 arcsec [0.71σ]
OotOffset-st: 2/0/0/1 [3]
KicOffset-st: 2/0/0/1 [3]
DiffImageQuality-fgm: 0.67 [2/3]
DiffImageOverlap-fno: 1.00 [3/3]

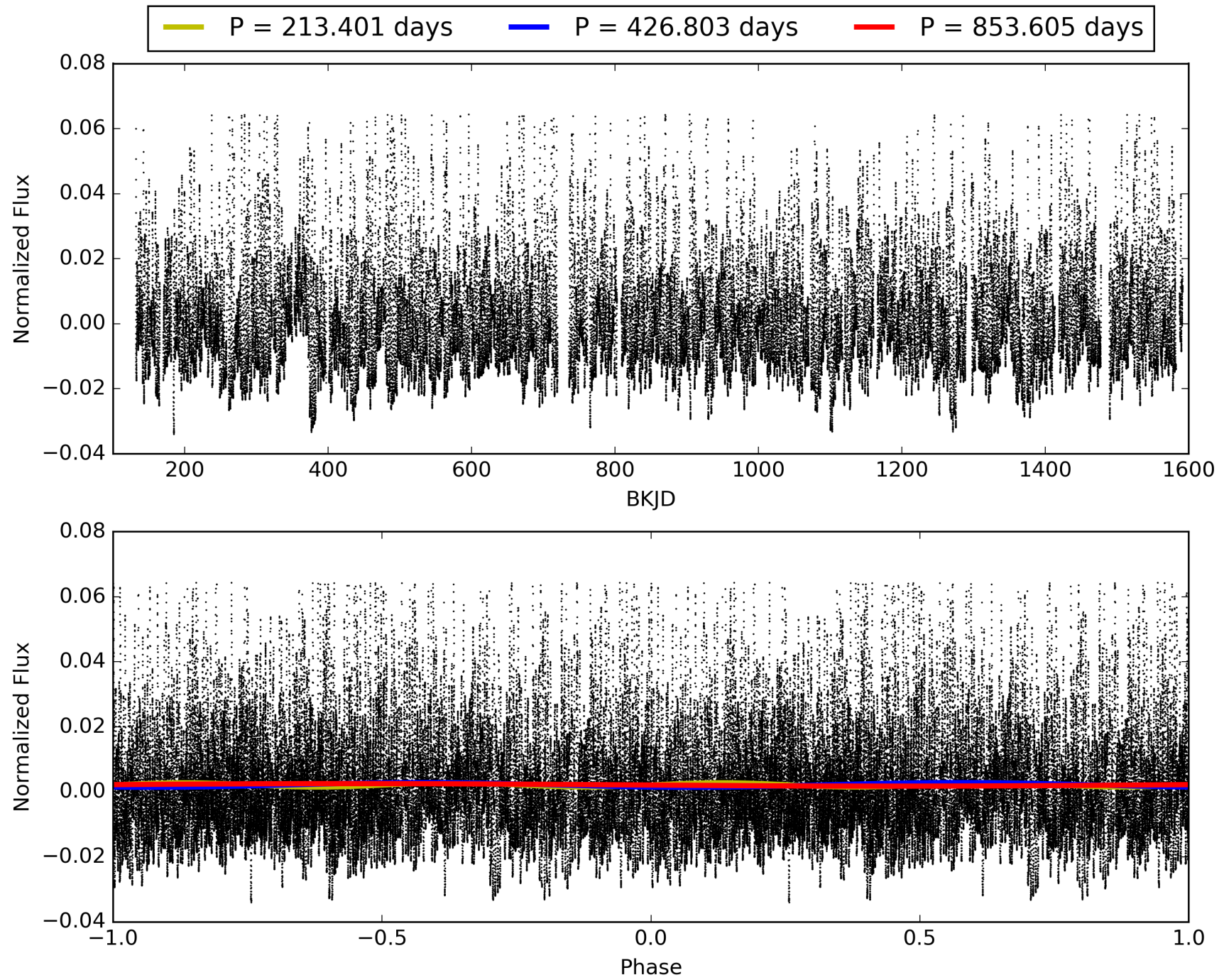
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 03-Feb-2016 08:09:00 Z

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

TCE 005977646-03, PDC Light Curves

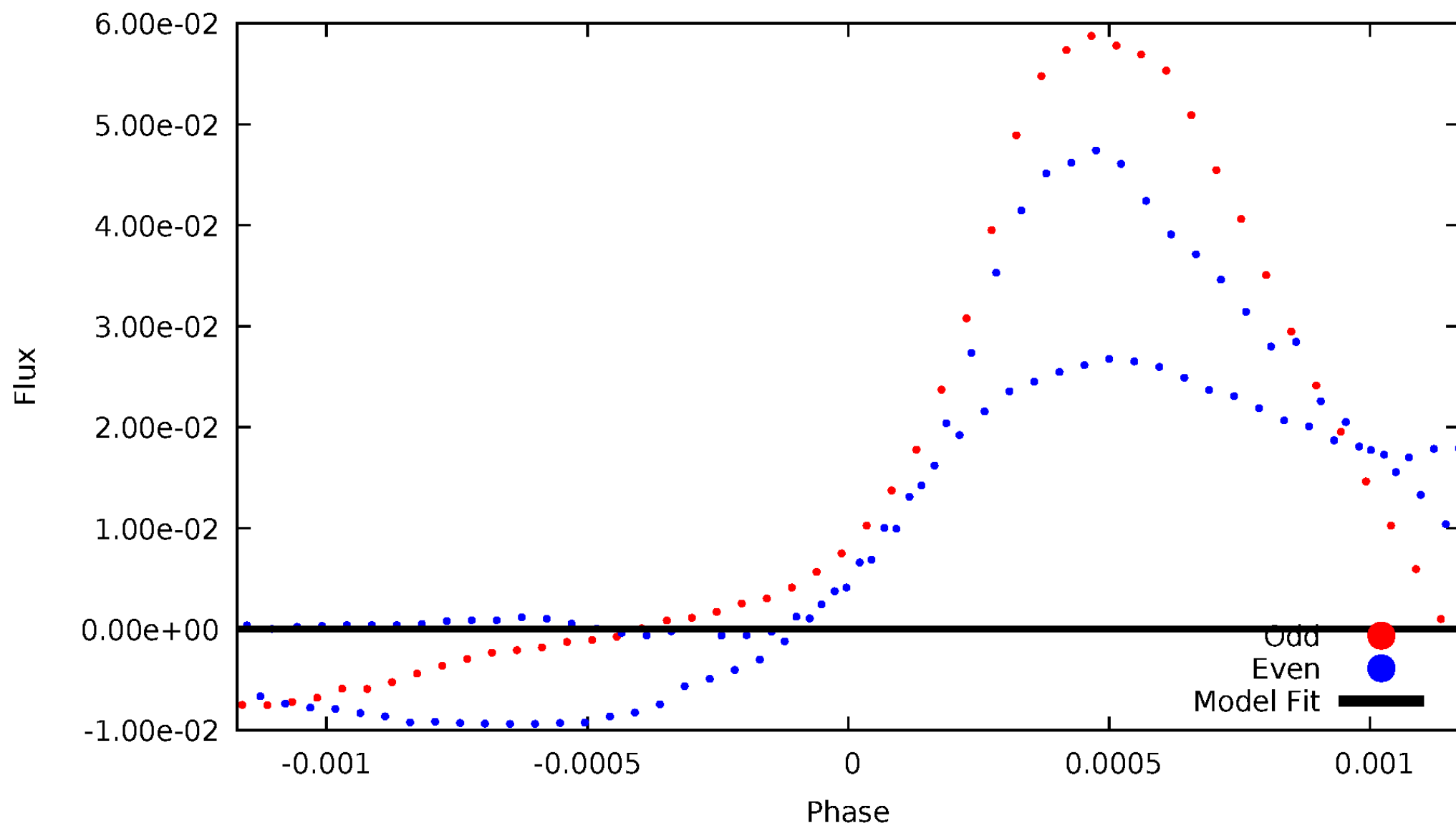


TCE 005977646-03



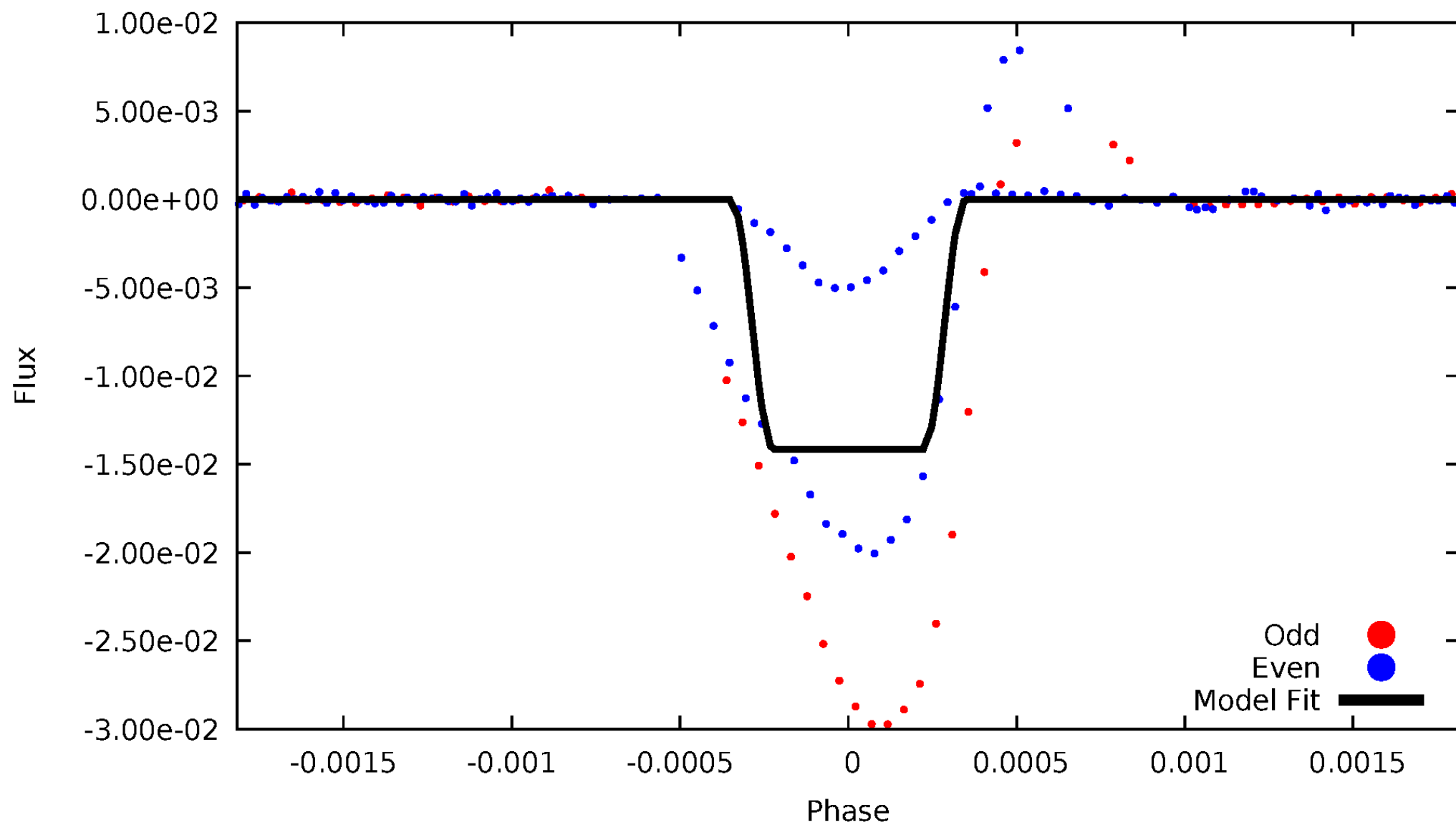
DV Odd/Even

TCE 005977646-03



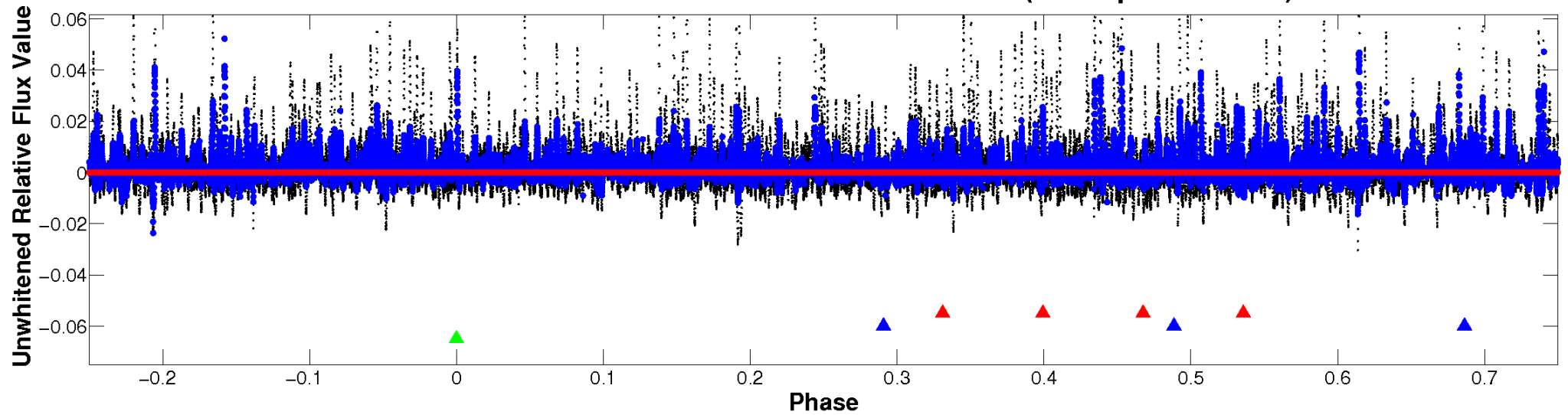
ALT Odd/Even

TCE 005977646-03



Non-Whitened Vs. Whitened Light Curve

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

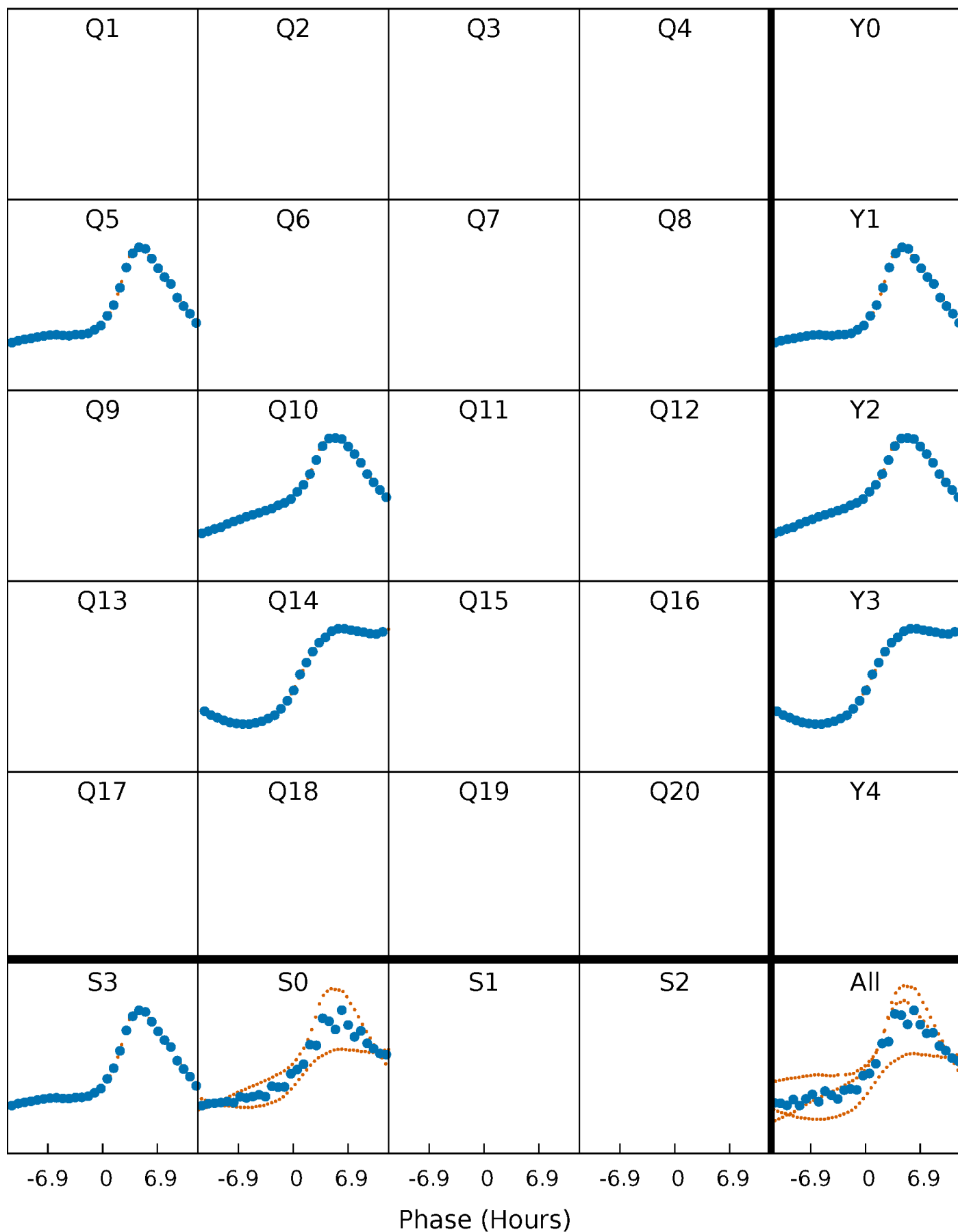


Planet 3 : Phased Whitened Flux Time Series (TPS Epoch/Period)



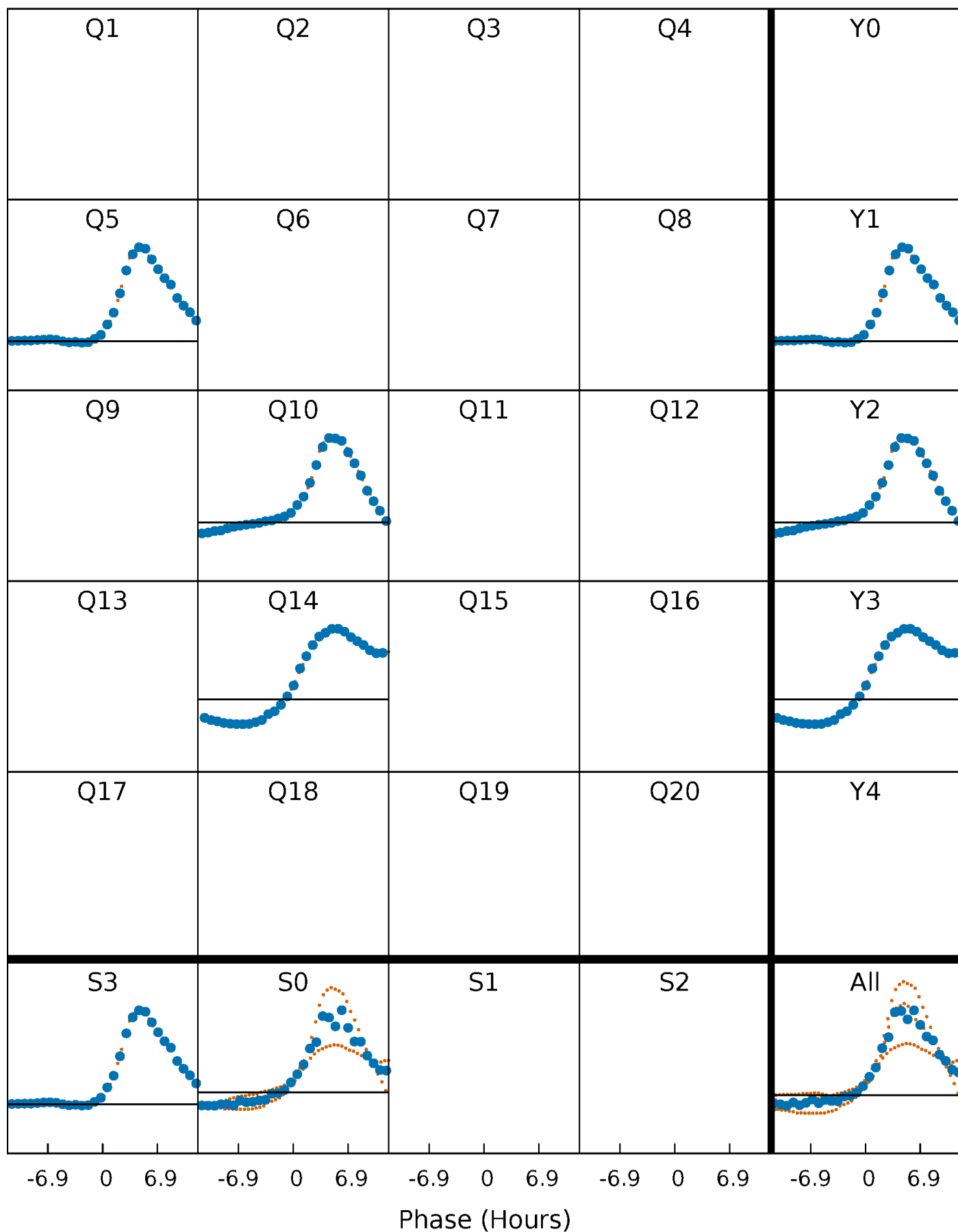
PDC Quarter-Phased Transit Curves

TCE 005977646-03 P=426.802579 Days $T_0=501.831807$ (BKJD)



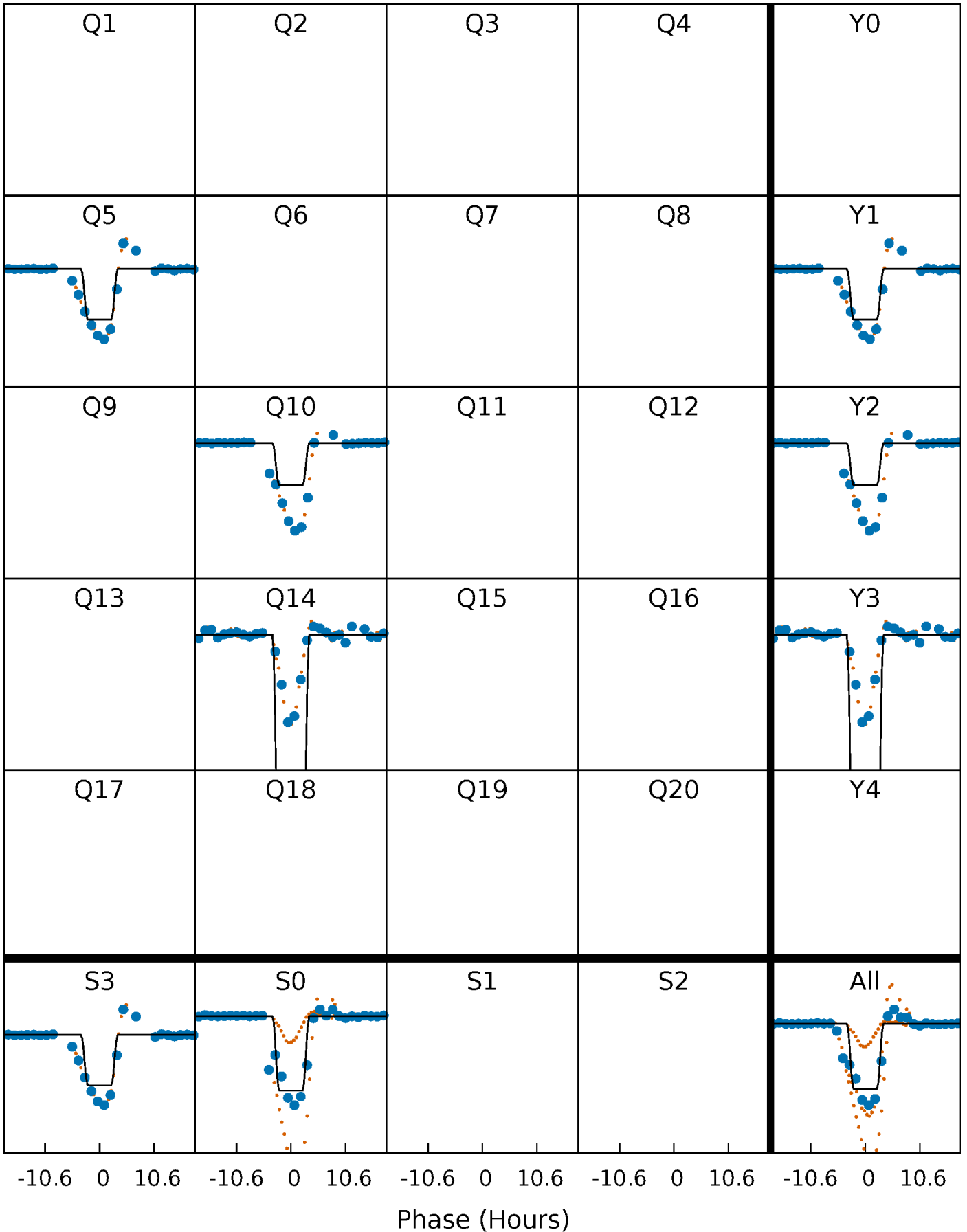
DV Quarter-Phased Transit Curves

TCE 005977646-03 P=426.802579 Days $T_0=501.831807$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

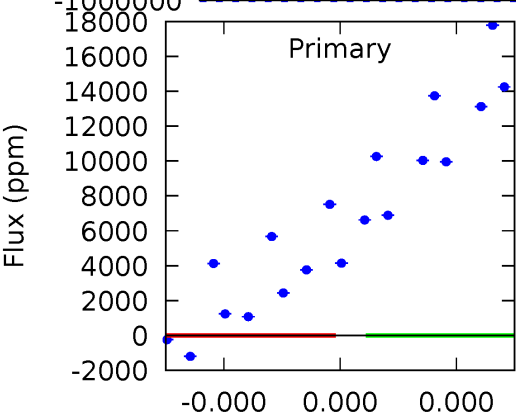
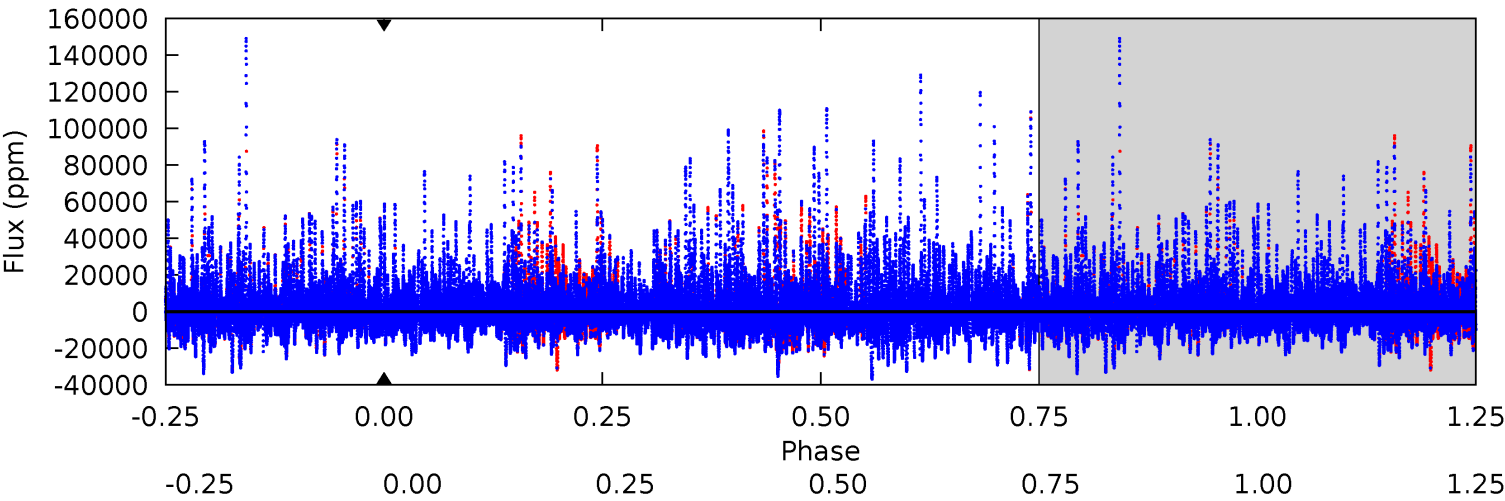
TCE 005977646-03 $P=426.802579$ Days $T_0=501.796850$ (BKJD)



DV Model-Shift Uniqueness Test

005977646-03, P = 426.802579 Days, E = 75.029228 Days

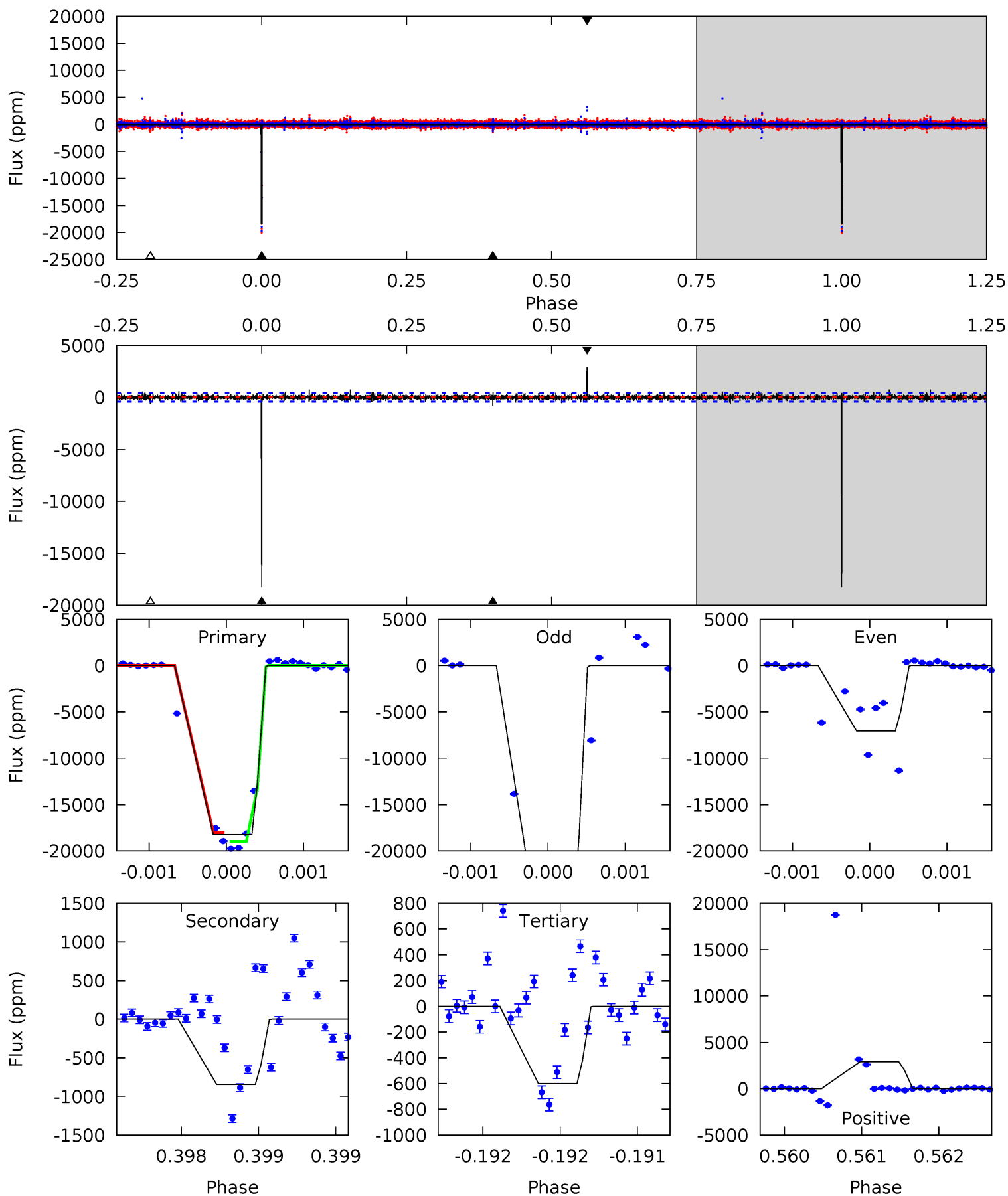
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

005977646-03, P = 426.802579 Days, E = 74.994271 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
249.6	11.6	8.23	40.0	5.52	3.40	1.24	241.4	209.7	3.37	-28.4	114.7	0.88	0.14	5.91



Stellar Parameters For KIC 005977646

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7429^{+233}_{-311}	$4.197^{+0.108}_{-0.201}$	$-0.140^{+0.200}_{-0.350}$	$1.607^{+0.530}_{-0.286}$	$1.482^{+0.232}_{-0.232}$	$0.503^{+0.288}_{-0.259}$
	+3%/-4%	+3%/-5%	+143%/-250%	+33%/-18%	+16%/-16%	+57%/-51%
Source	KIC0	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 005977646-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	0 ± 1000000	$14.72^{+14.28}_{-9.80}$	519^{+41}_{-29}	-4309^{+36934}_{-26572}	$-2966.188^{+674238.938}_{-681902.926}$
Alt.	-848 ± 73	$23.22^{+18.06}_{-13.73}$	522^{+41}_{-32}	3827^{+1675}_{-607}	1411^{+7077}_{-966}

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 $A_{obs} \gg 1.0$

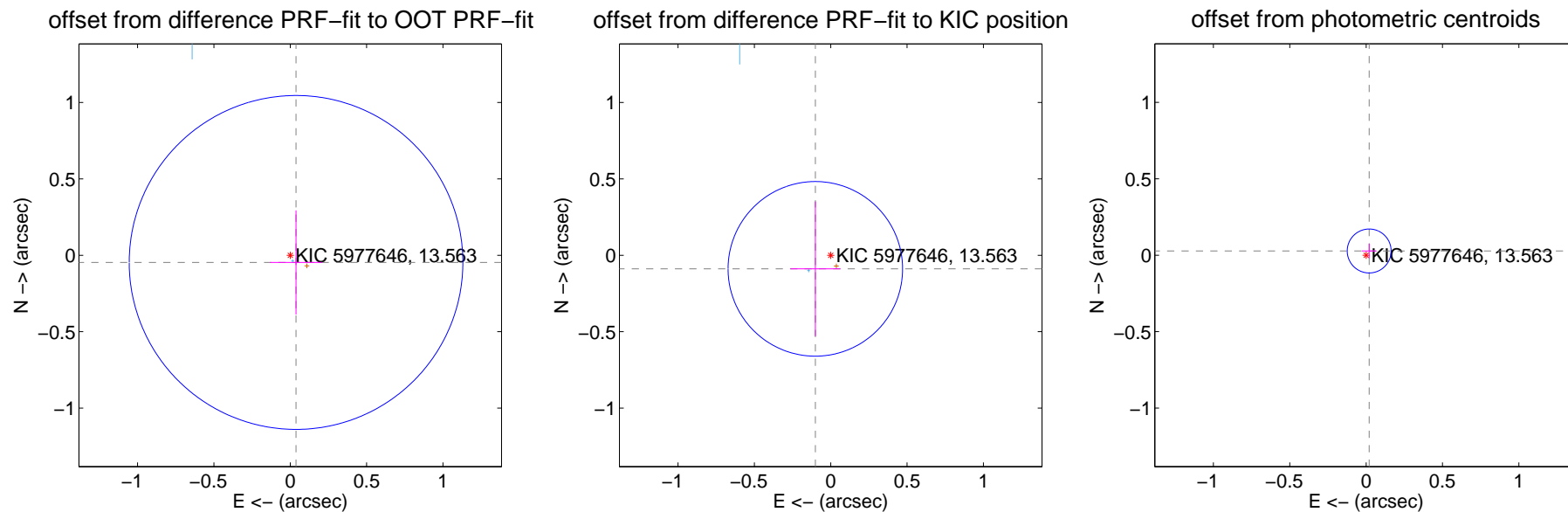
DV Centroid Data

Supplemental centroid analysis for 005977646-03. Kepler magnitude: 13.56. Transit SNR -1.00

There are 2 quarters with good PRF difference image offsets

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

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.060 ± 0.364	0.17	-0.038 ± 0.170	-0.047 ± 0.341
PRF-fit source offset from KIC position	0.134 ± 0.190	0.71	0.101 ± 0.164	-0.089 ± 0.441
photometric centroid source offset	0.03 ± 0.05	0.71	-0.02 ± 0.05	0.03 ± 0.05

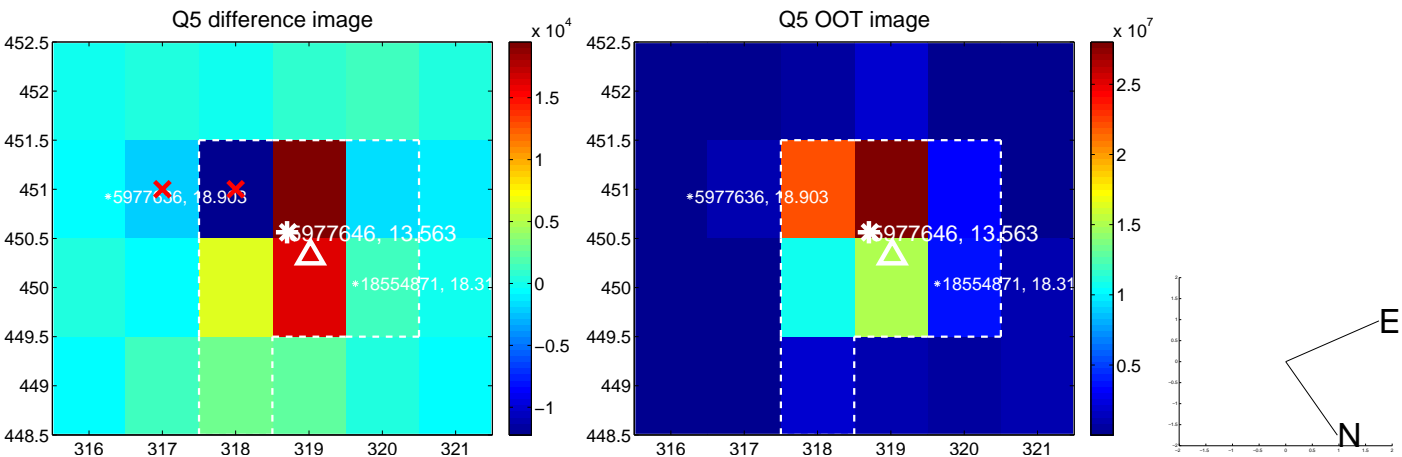


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

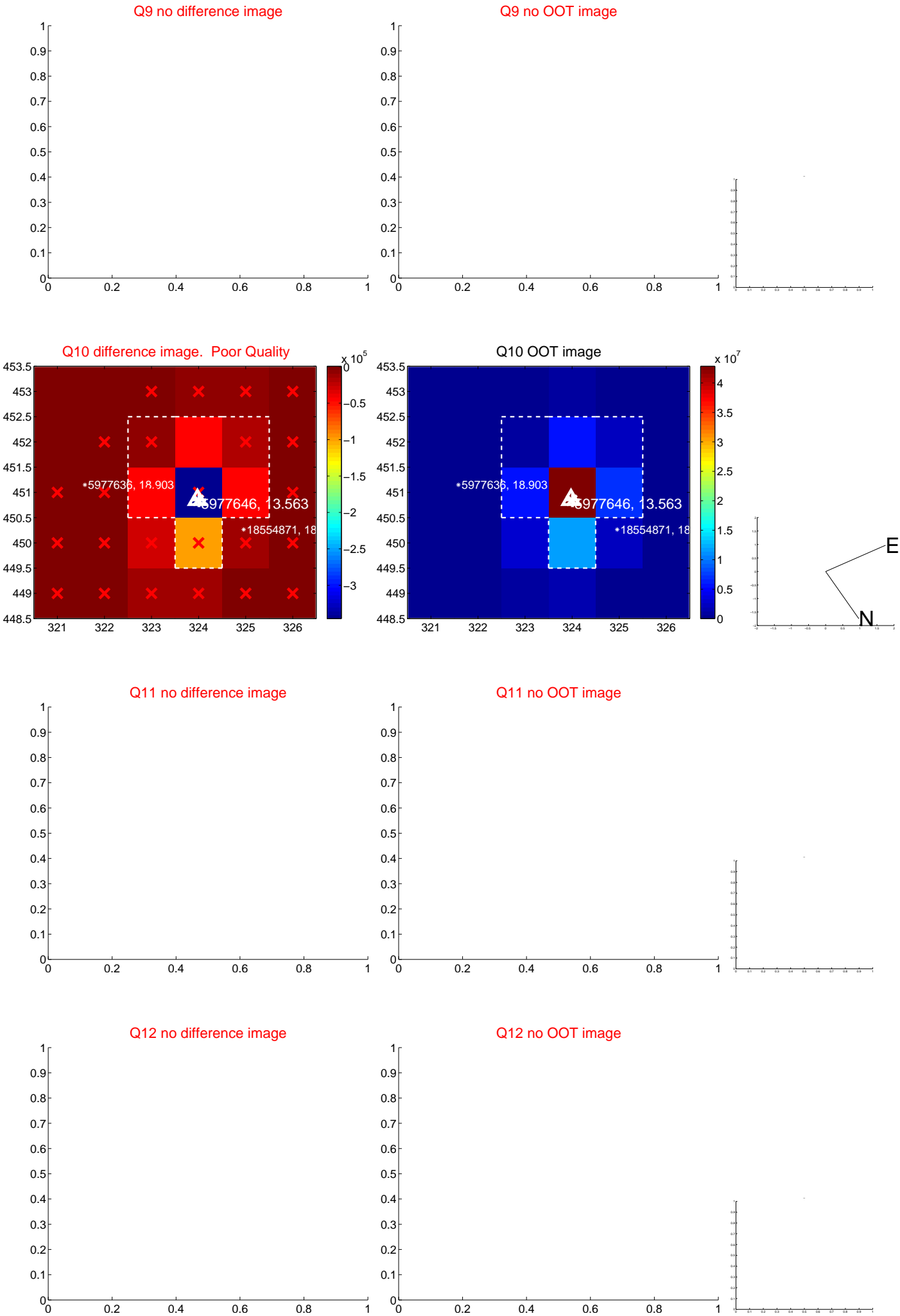
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



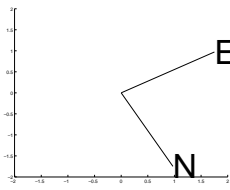
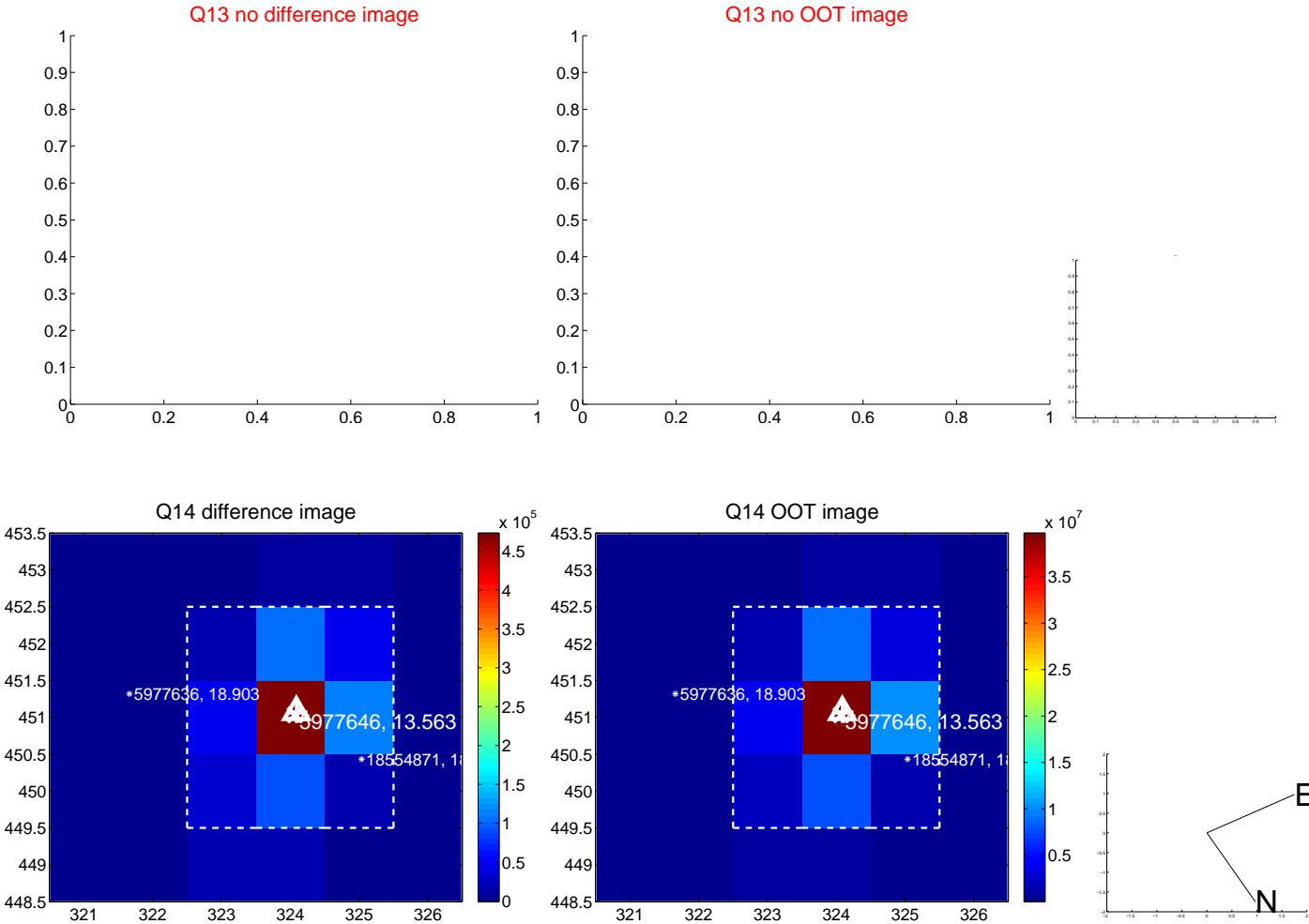
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



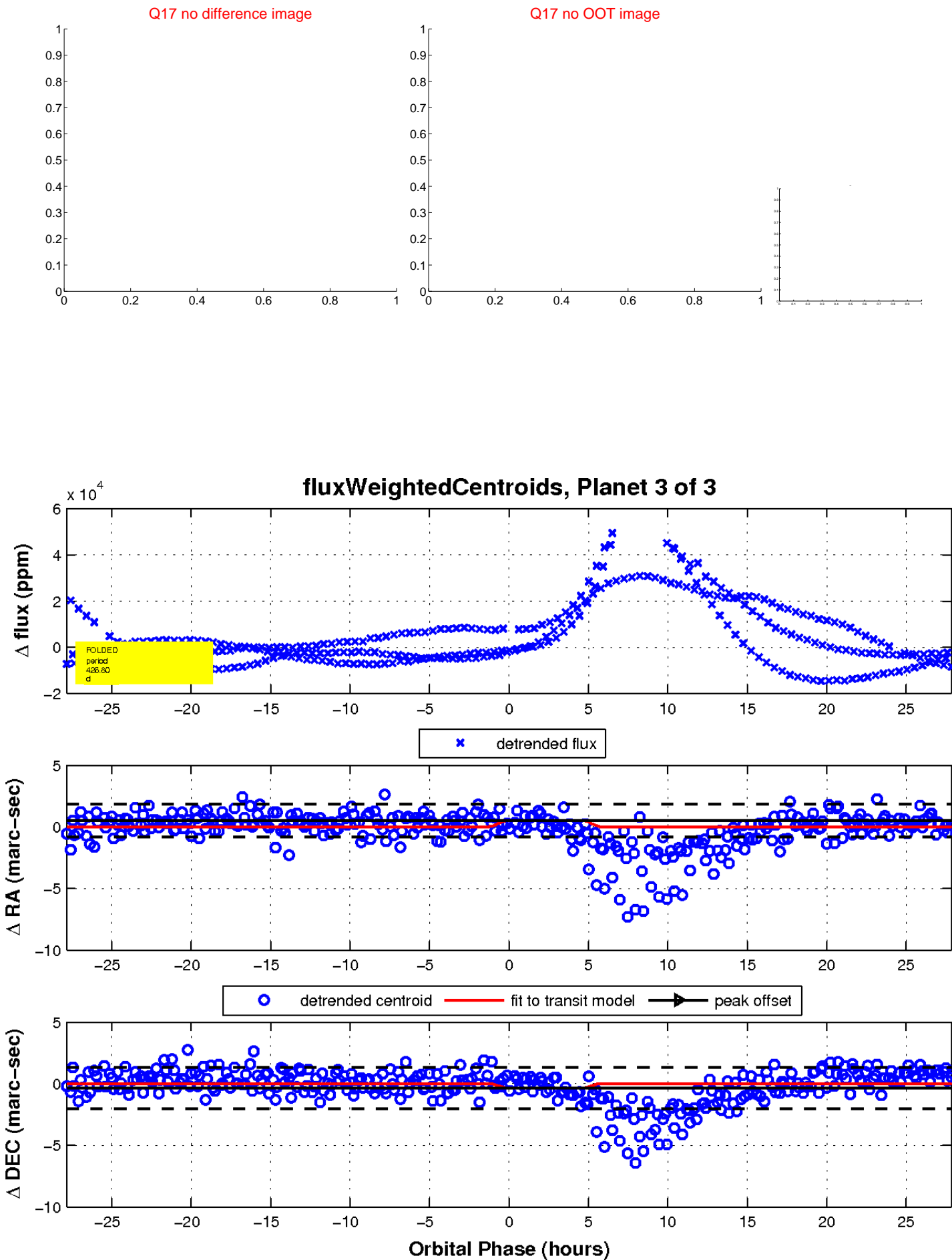
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

