

KIC 007762886

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})
007762886-01	OBS	No	368.151511	234.215947	1025.6	26.811	7.8	9.8	0.81	4875	5.19	0.39
007762886-02	OBS	8144.01	315.814794	172.529619	739.7	24.052	8.4	9.4	0.81	4875	2.19	0.47

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007762886-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—LPP_DV—CENT_FEW_DIFFS
007762886-02	OBS	FP	0.07	1	0	0	0	ALL_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.

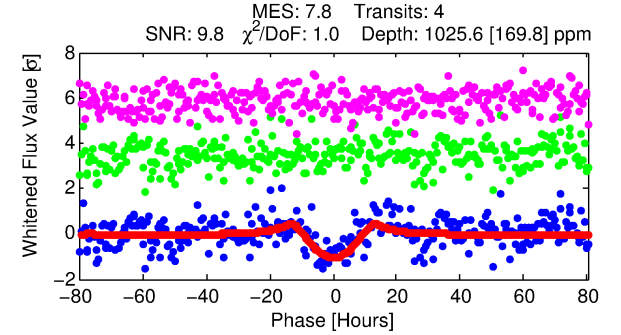
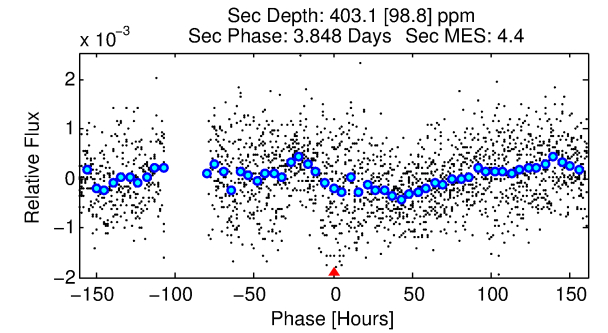
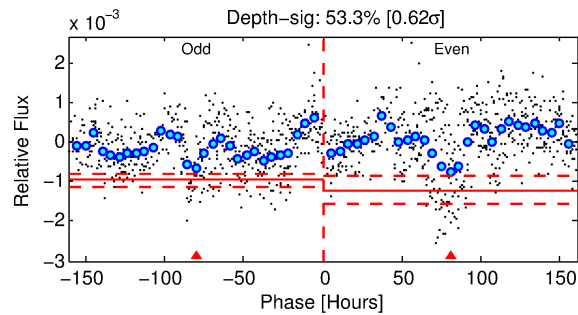
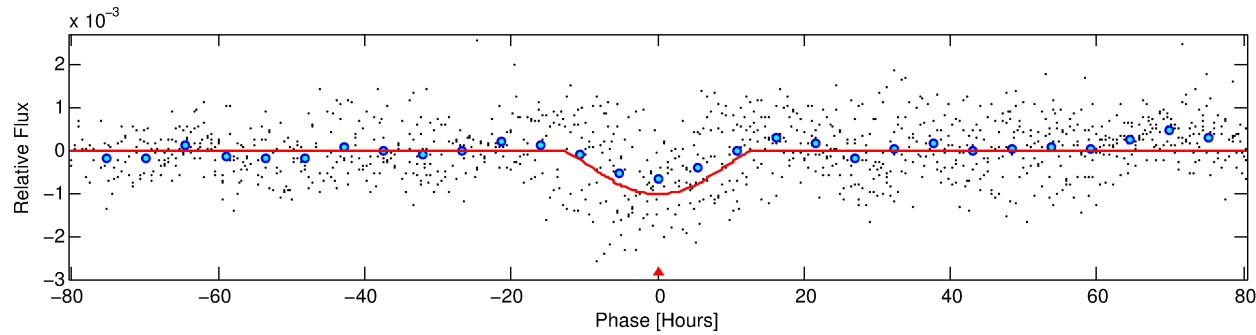
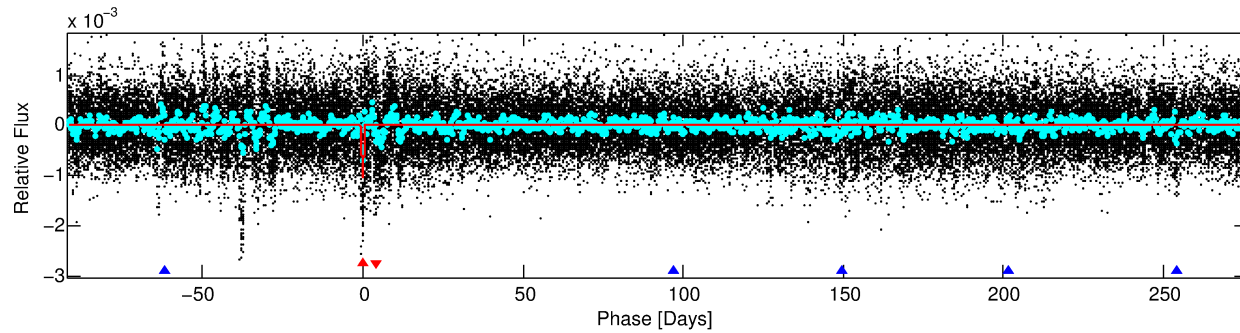
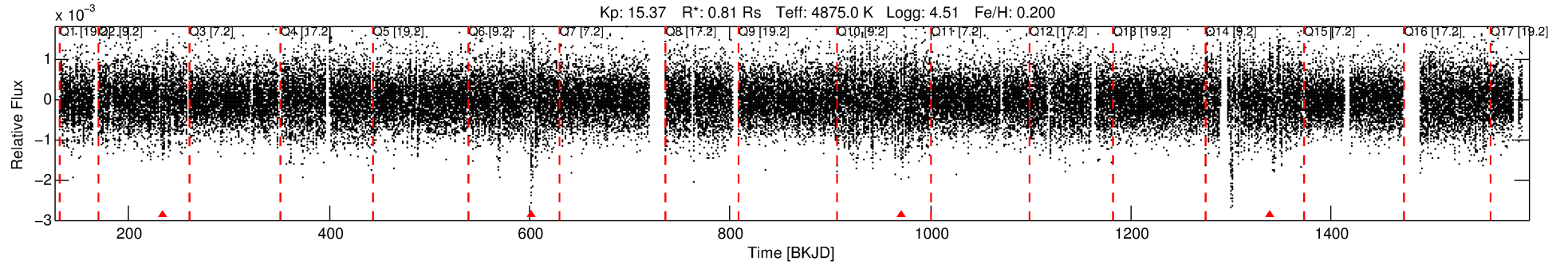
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007762886-01

No Significant Match Found

DV One-Page Summary

KIC: 7762886 Candidate: 1 of 2 Period: 368.152 d



DV Fit Results:

Period = 368.15151 [0.02227] d
Epoch = 234.2159 [0.0421] BKJD
 R_p/R^* = 0.0587 [0.1351]
 a/R^* = 37.11 [20.02]
 b = 1.00 [0.20]
 S_{eff} = 0.39 [0.07]
 T_{eq} = 201 [9] K
 R_p = 5.19 [11.96] R_e
 a = 0.9262 [0.0830] AU
 A_g = 7063.15 [32577.48] [0.22 σ]
 T_{effp} = 2851 [3287] K [0.81 σ]

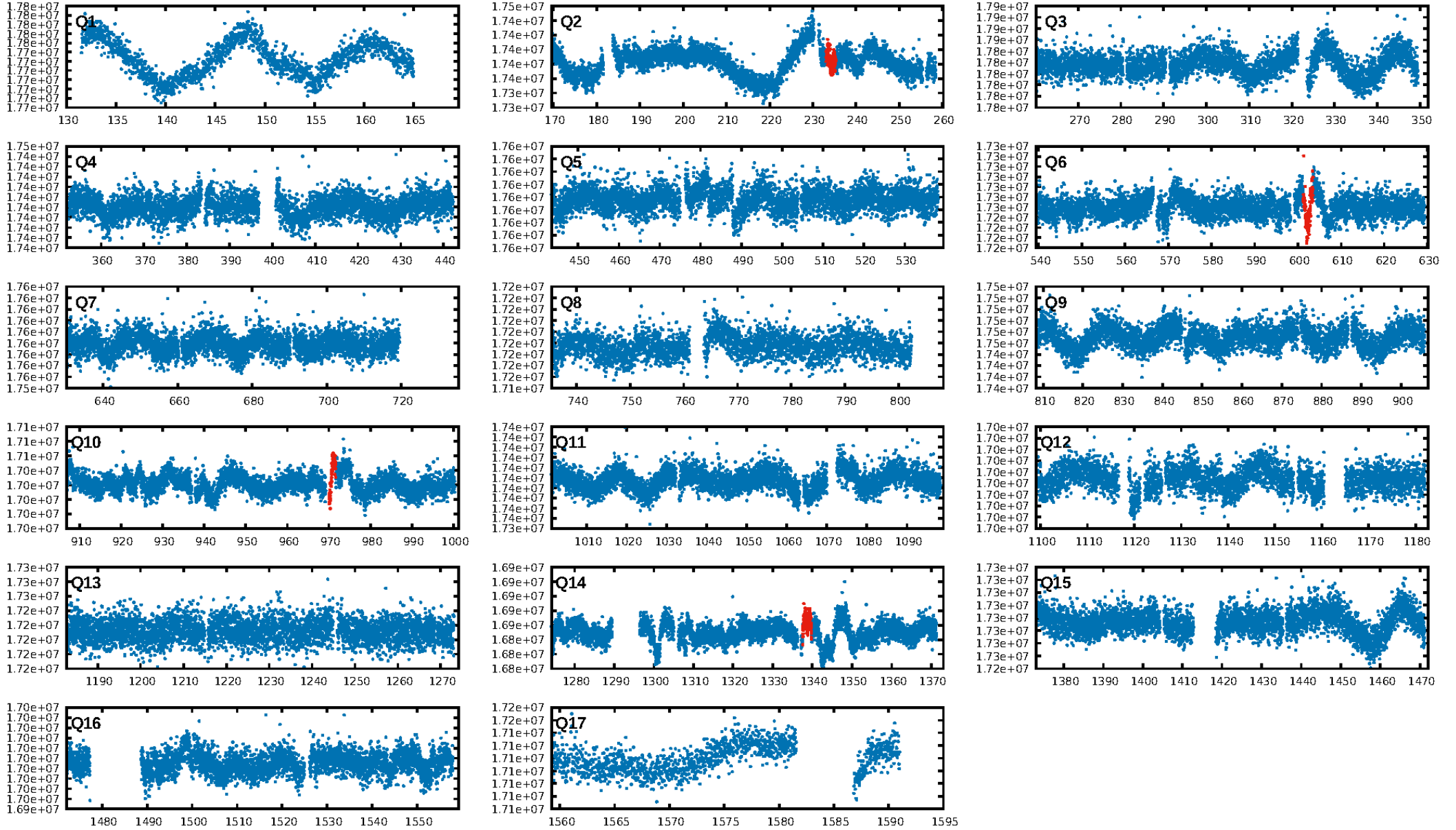
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [34.87 σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 47.8%
ModelChiSquareGof-sig: 99.9%
Bootstrap-pfa: 1.81e-08
RollingBand-fgt: 0.00 [0/4]
GhostDiagnostic-chr: 1.028
Centroid-sig: 0.0%
Centroid-so: 7.724 arcsec [3.55 σ]
OotOffset-rm: N/A
KicOffset-rm: N/A
OotOffset-st: 0/0/0/0 [0]
KicOffset-st: 0/0/0/0 [0]
DiffImageQuality-fgm: N/A
DiffImageOverlap-fno: 1.00 [2/2]

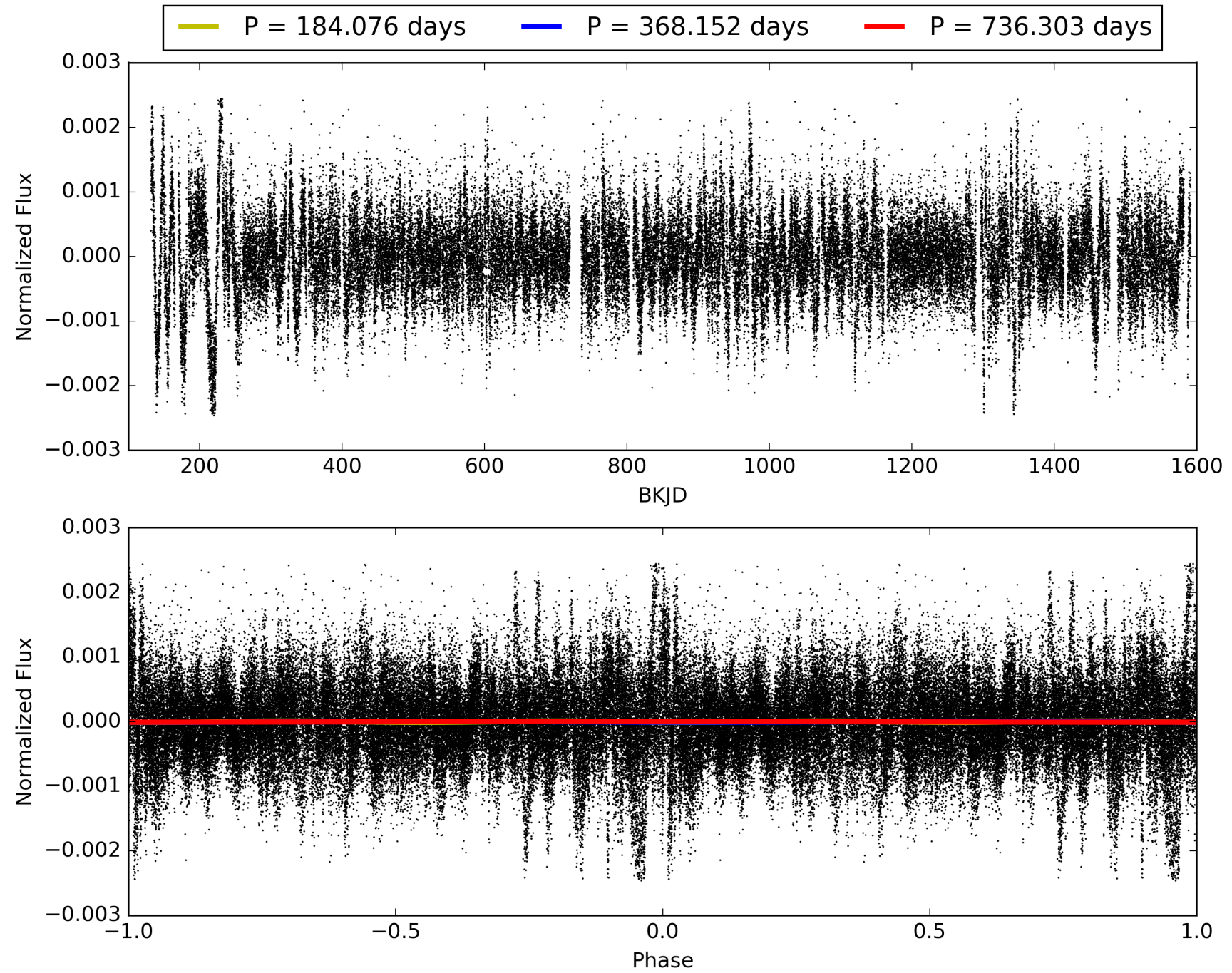
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 05:16:08 Z

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

TCE 007762886-01, PDC Light Curves

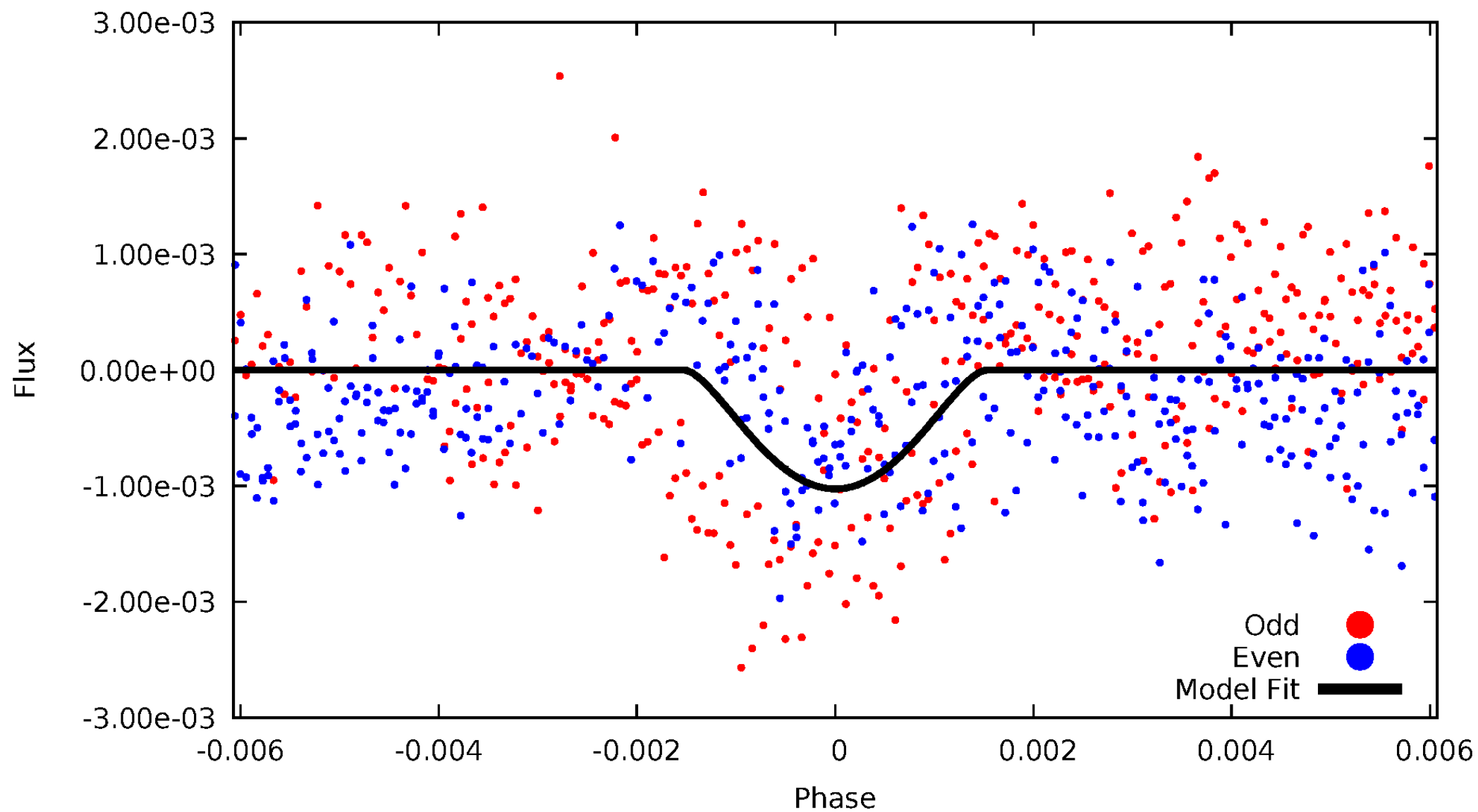


TCE 007762886-01



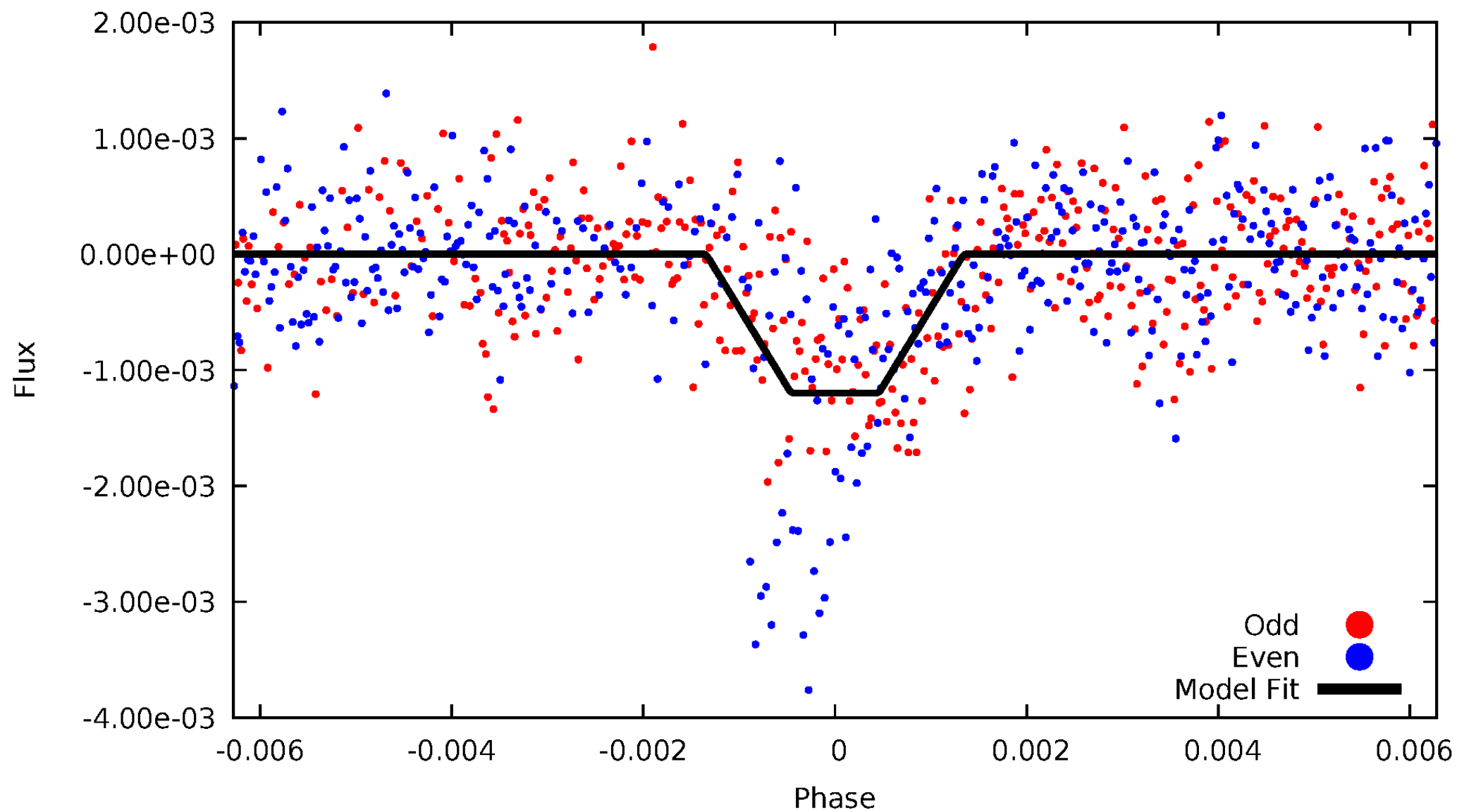
DV Odd/Even

TCE 007762886-01



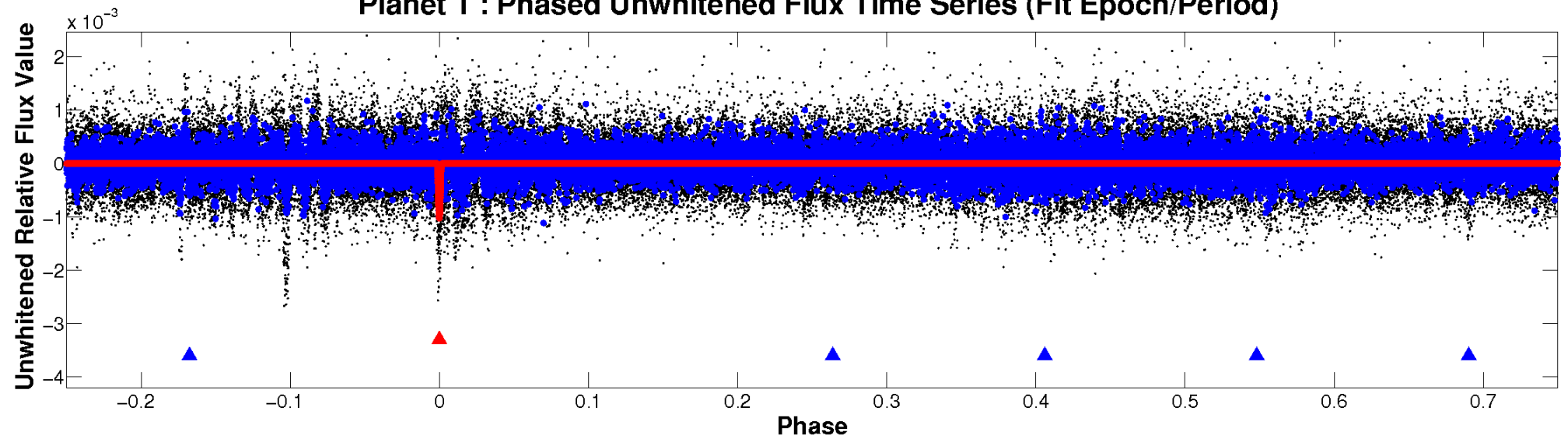
ALT Odd/Even

TCE 007762886-01

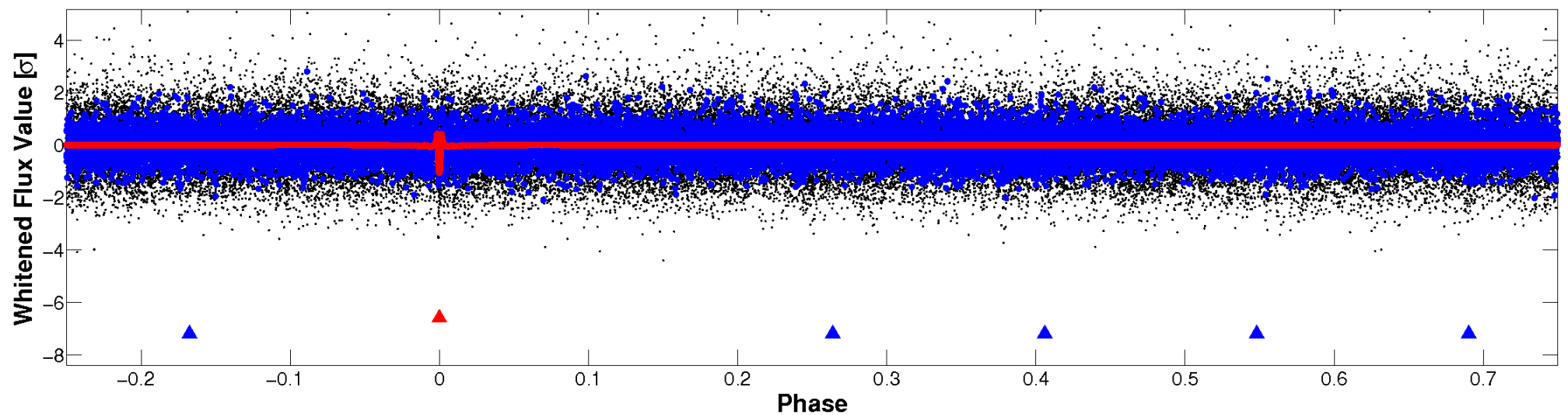


Non-Whitened Vs. Whitened Light Curve

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

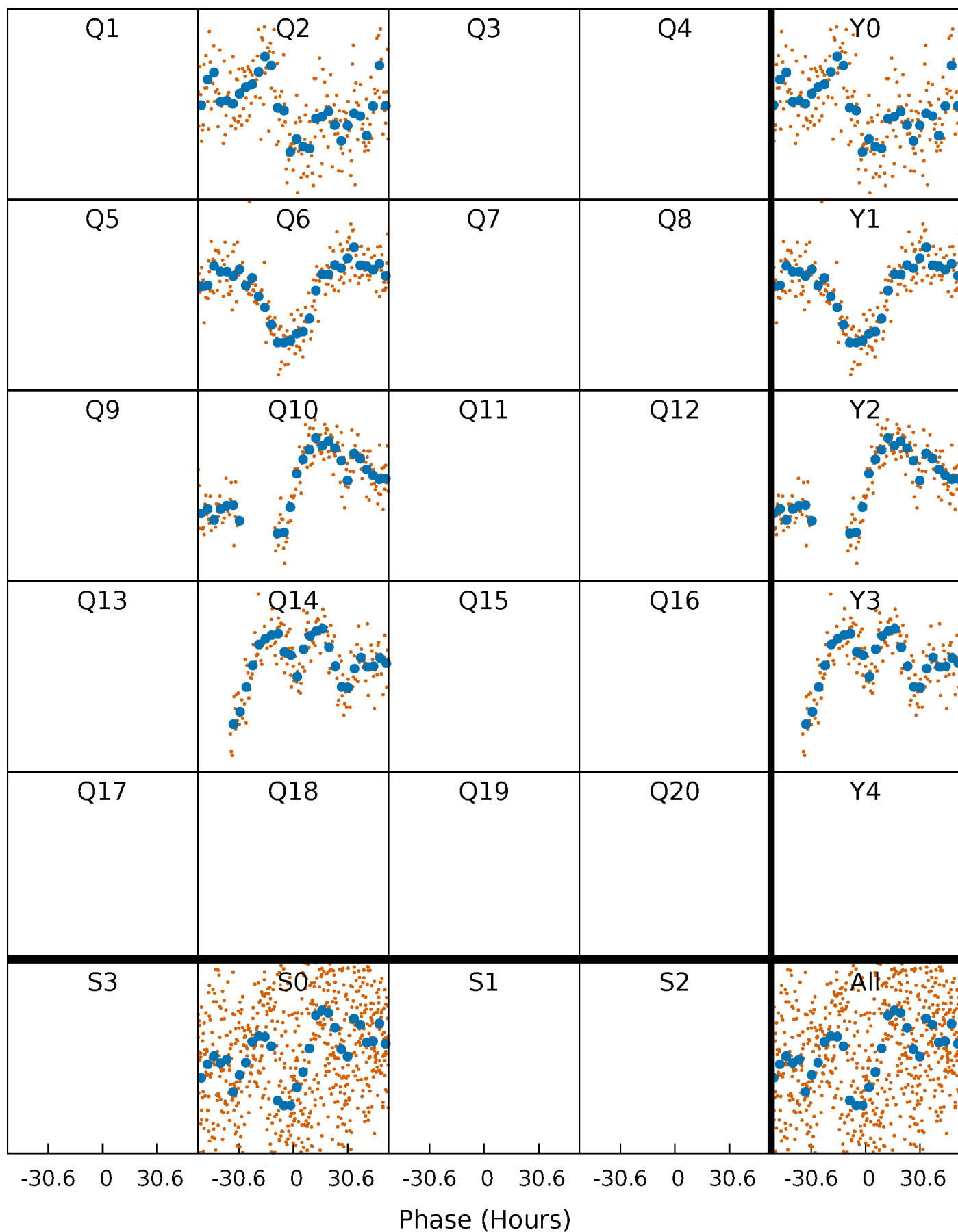


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



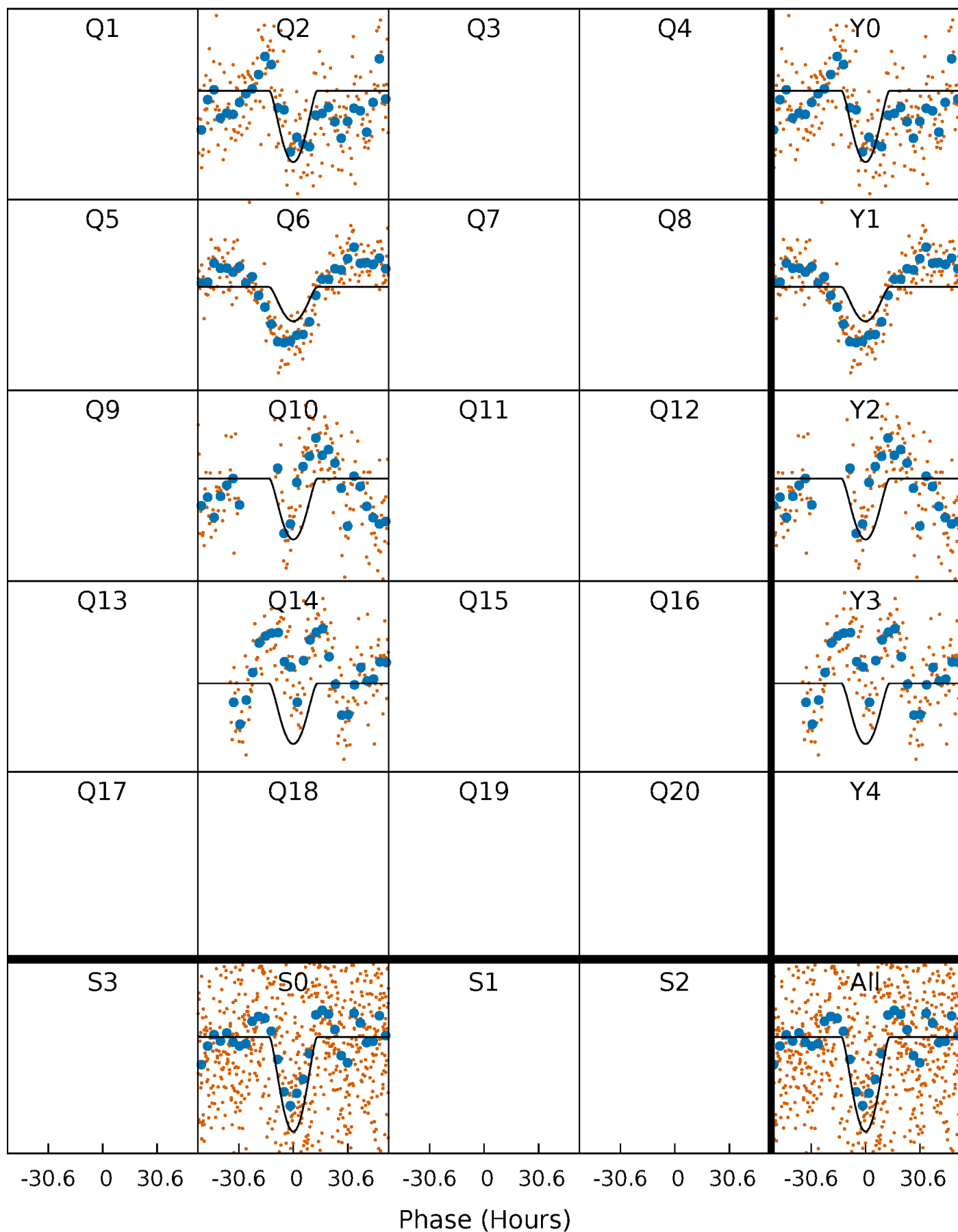
PDC Quarter-Phased Transit Curves

TCE 007762886-01 P=368.151511 Days $T_0=234.215947$ (BKJD)



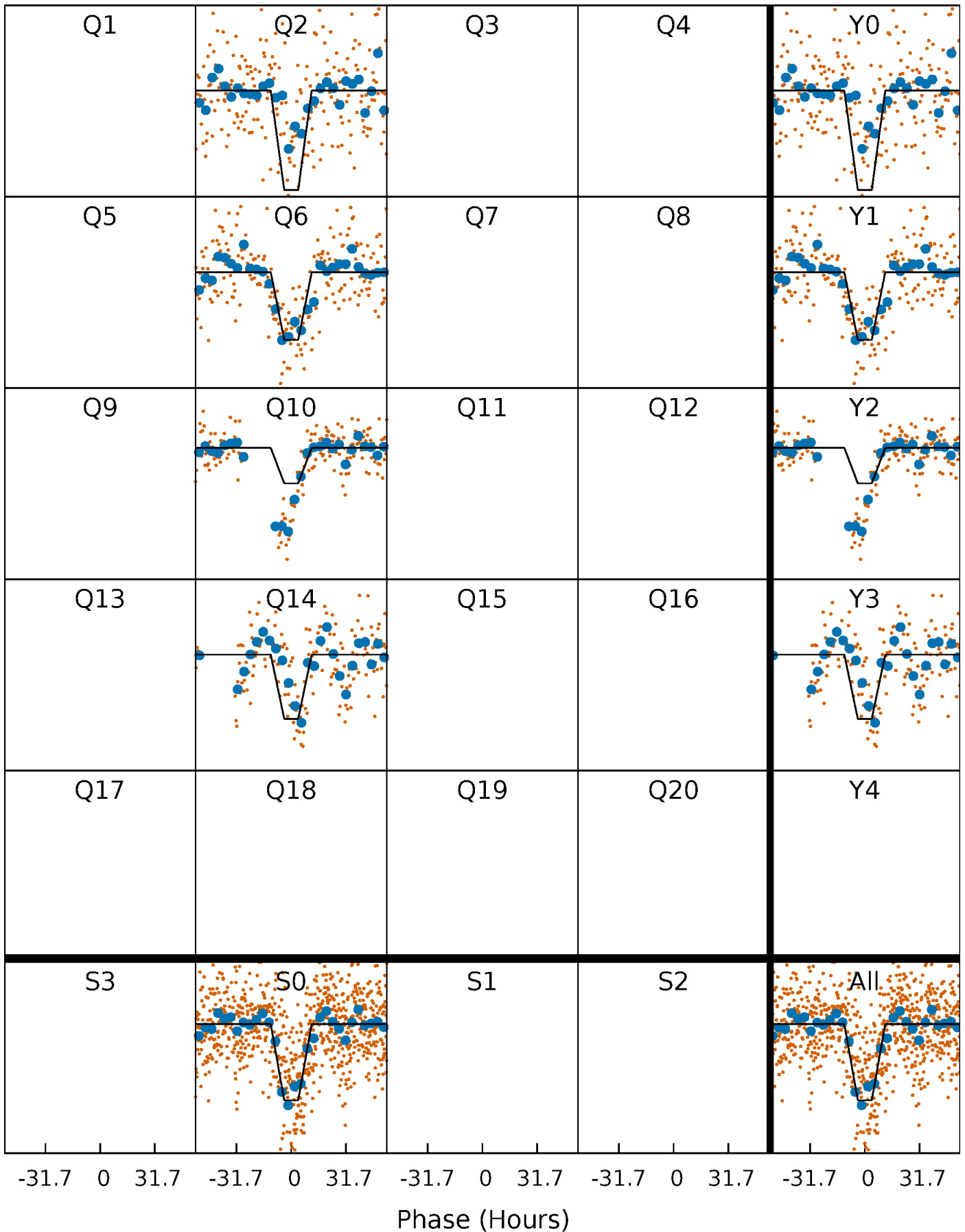
DV Quarter-Phased Transit Curves

TCE 007762886-01 P=368.151511 Days $T_0=234.215947$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

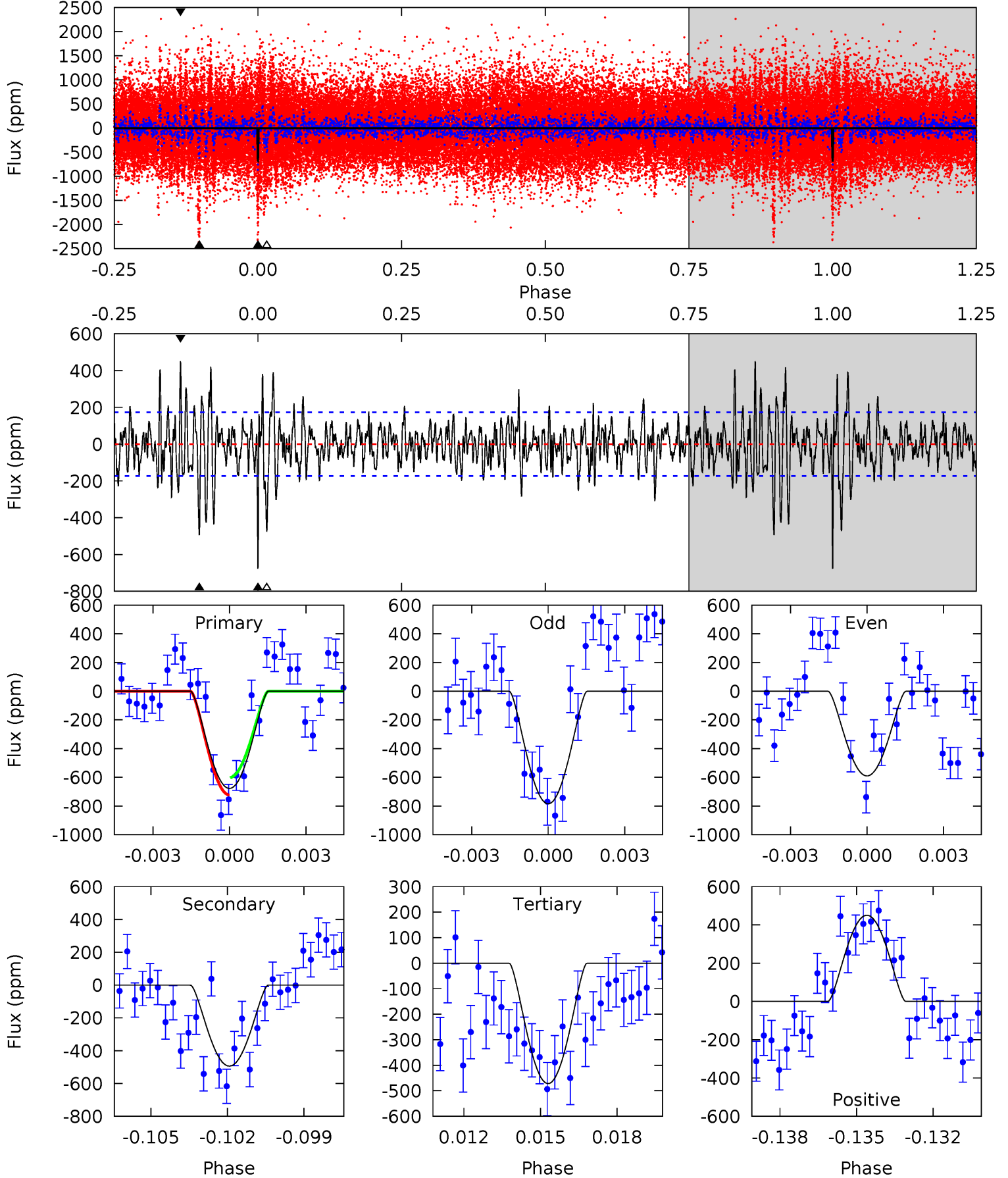
TCE 007762886-01 P=368.137828 Days $T_0=234.138803$ (BKJD)



DV Model-Shift Uniqueness Test

007762886-01, P = 368.151511 Days, E = 234.215947 Days

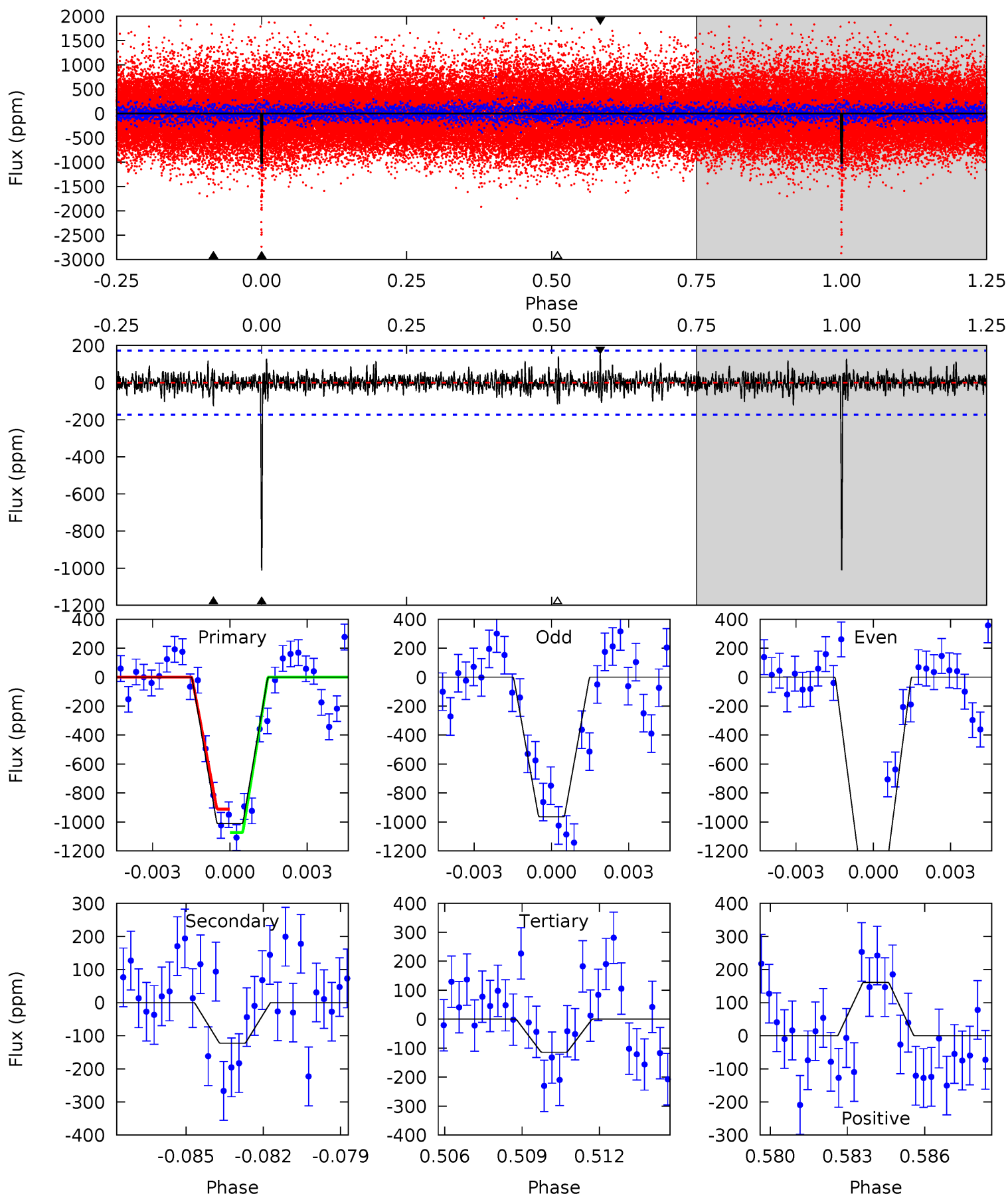
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
20.5	15.0	14.3	13.6	5.25	2.97	3.30	6.23	6.88	0.68	1.32	2.97	1.16	0.40	1.83



Alt Model-Shift Uniqueness Test

007762886-01, P = 368.137828 Days, E = 234.138803 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
30.9	3.75	3.49	4.93	5.27	3.00	0.96	27.5	26.0	0.26	-1.17	5.90	1.20	0.14	2.46



Stellar Parameters For KIC 007762886

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (g \cdot \text{cm}^{-3})$
	4875^{+145}_{-145}	$4.514^{+0.078}_{-0.042}$	$0.200^{+0.200}_{-0.300}$	$0.810^{+0.050}_{-0.081}$	$0.781^{+0.067}_{-0.054}$	$2.074^{+0.681}_{-0.294}$
	+3%/-3%	+2%/-1%	+100%/-150%	+6%/-10%	+9%/-7%	+33%/-14%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 007762886-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-494 ± 33	$9.79^{+9.30}_{-6.69}$	279^{+10}_{-10}	2860^{+1218}_{-444}	2510^{+21528}_{-1865}
Alt.	-123 ± 33	$8.99^{+8.41}_{-6.35}$	280^{+10}_{-11}	2447^{+966}_{-362}	723^{+7632}_{-545}

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

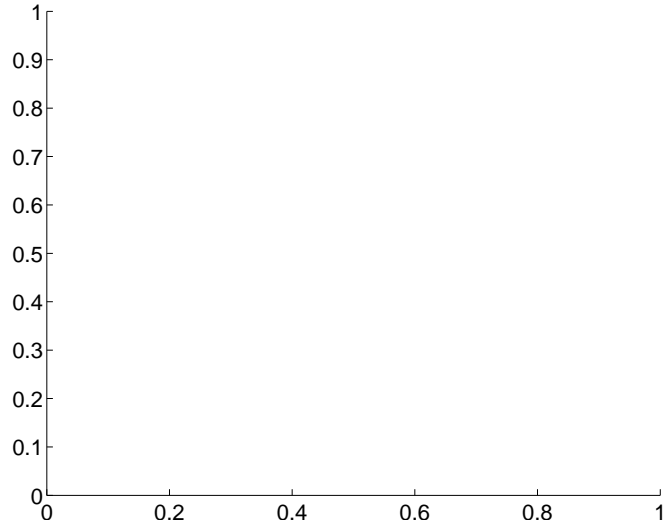
Supplemental centroid analysis for 007762886-01. Kepler magnitude: 15.37. Transit SNR 9.81

There are 0 quarters with good PRF difference image offsets

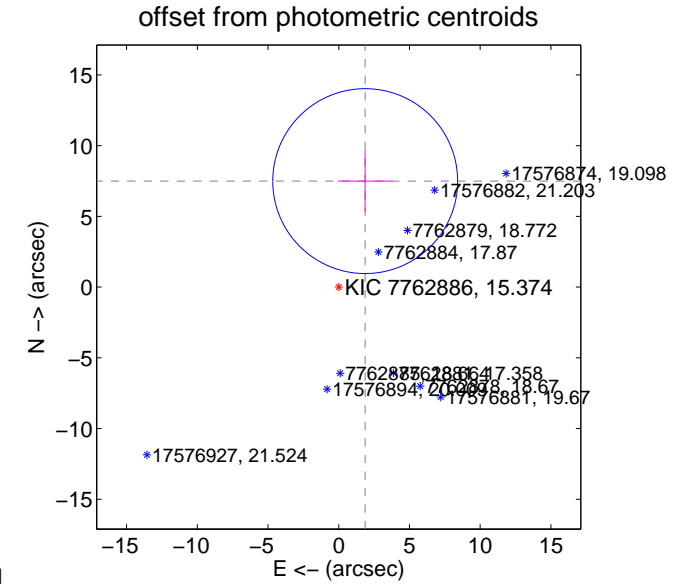
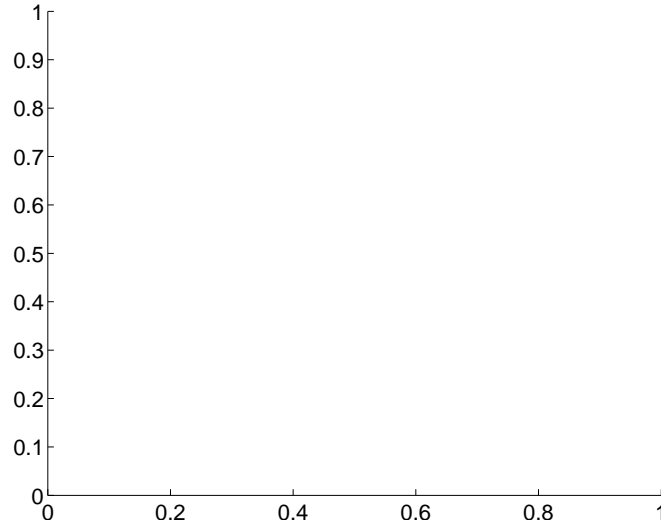
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	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	7.72 ± 2.18	3.55	-1.87 ± 1.93	7.49 ± 2.19

There is no PRF-fit offset from OOT-fit



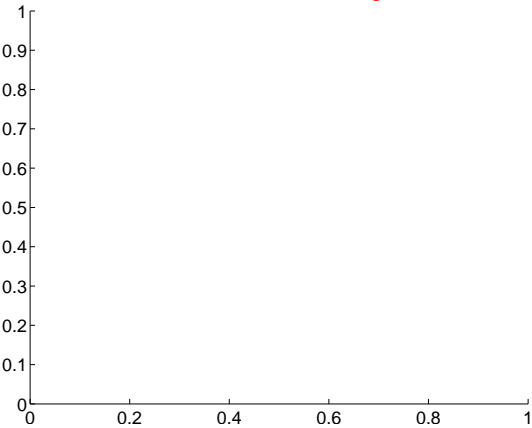
There is no PRF-fit offset from KIC



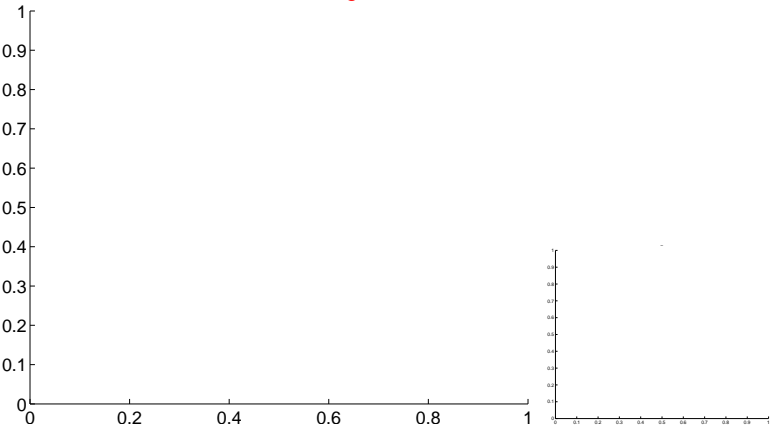
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

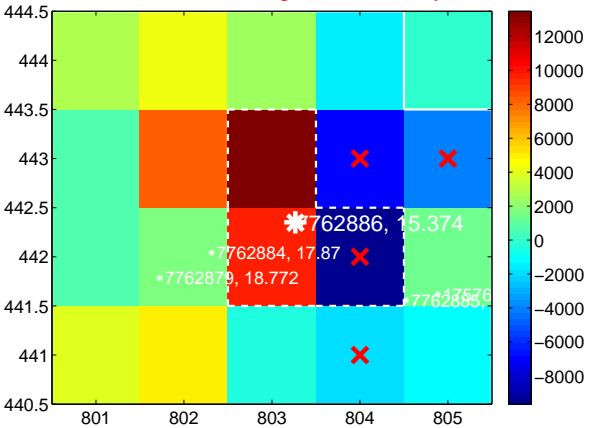
Q1 no difference image



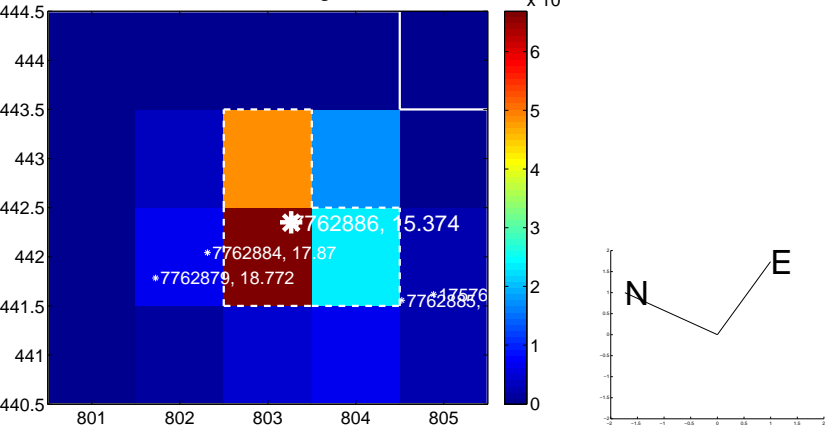
Q1 no OOT image



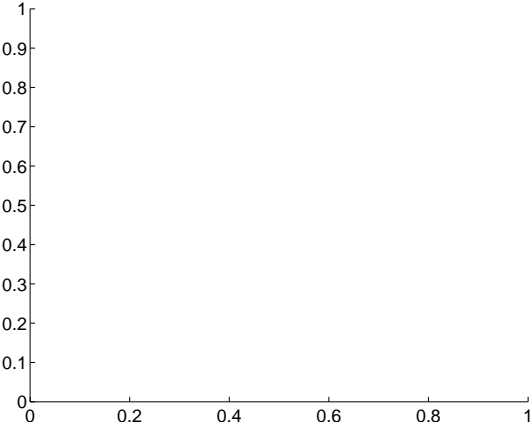
Q2 difference image. Poor Quality



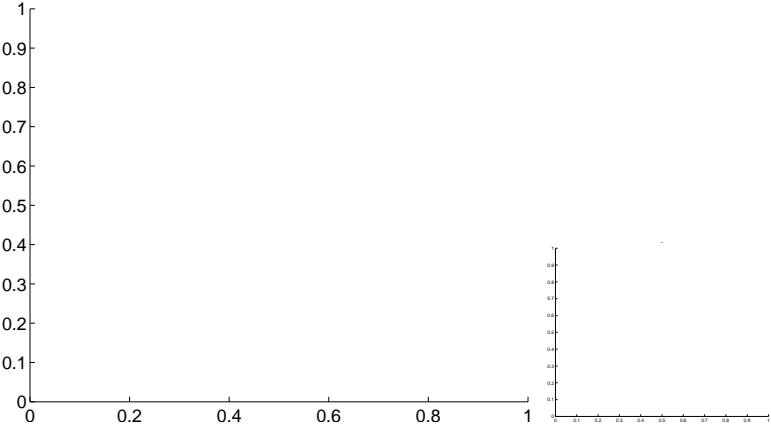
Q2 OOT image



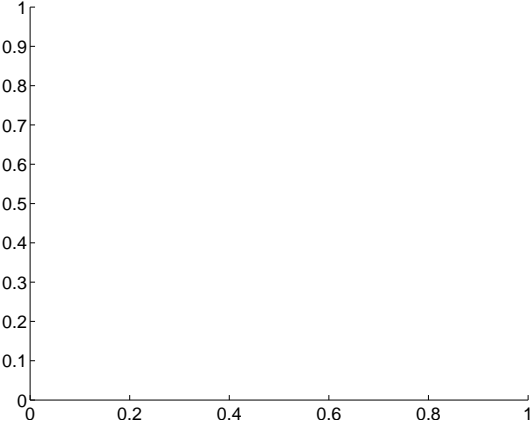
Q3 no difference image



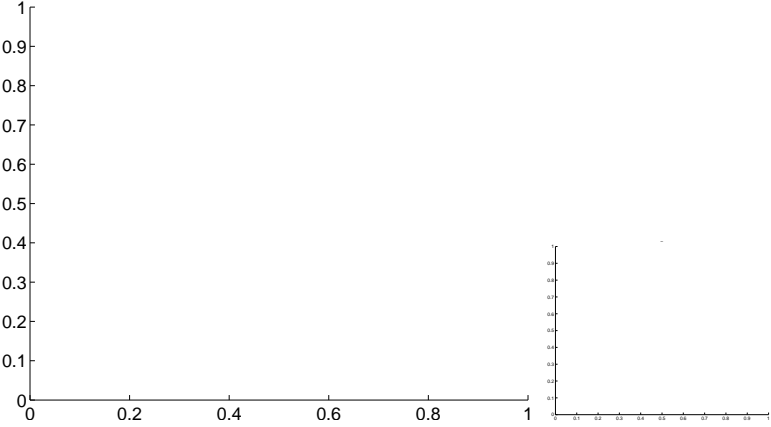
Q3 no OOT image



Q4 no difference image

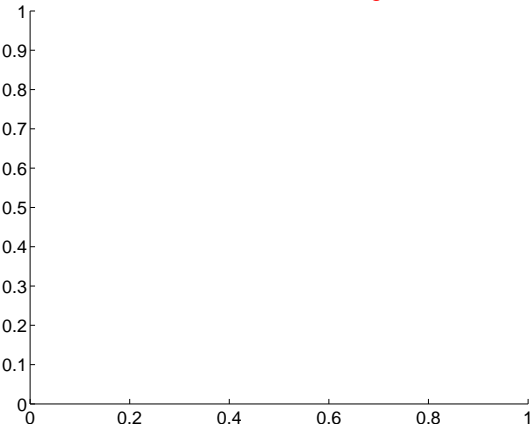


Q4 no OOT image

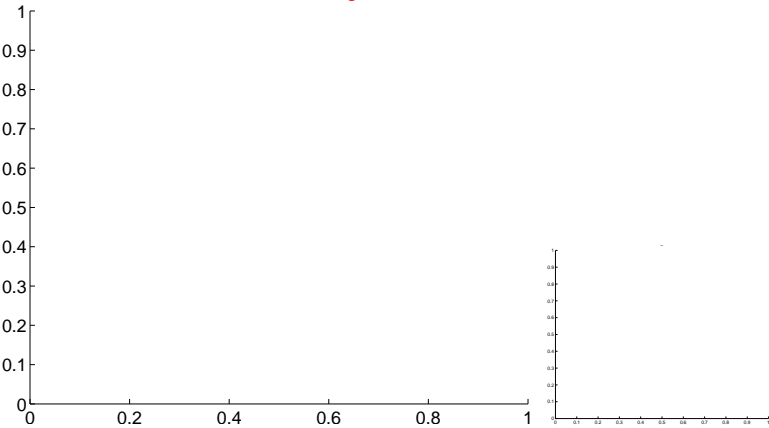


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

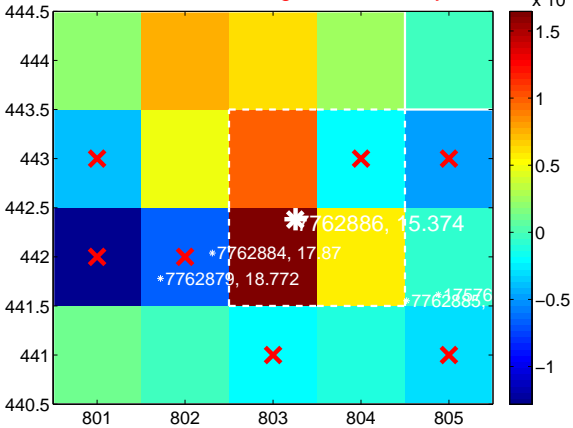
Q5 no difference image



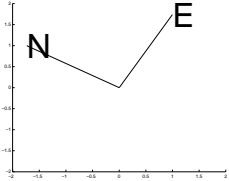
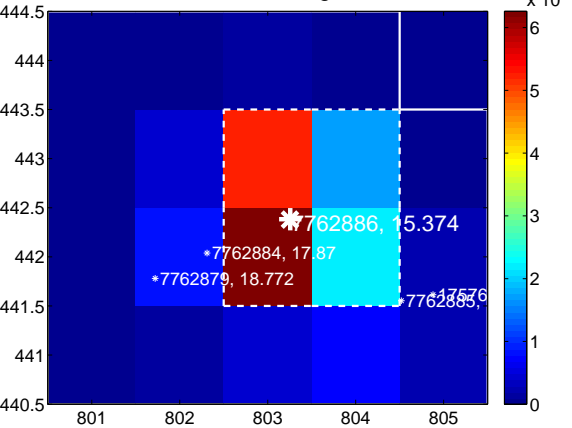
Q5 no OOT image



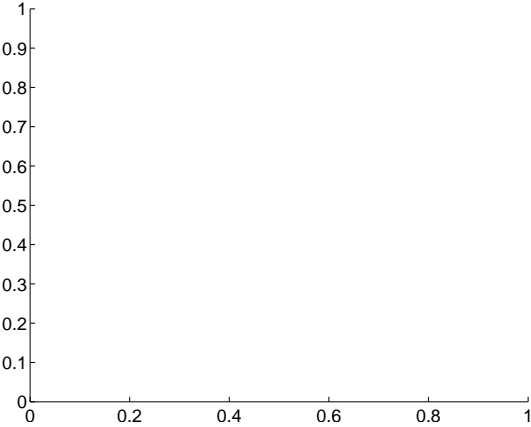
Q6 difference image. Poor Quality



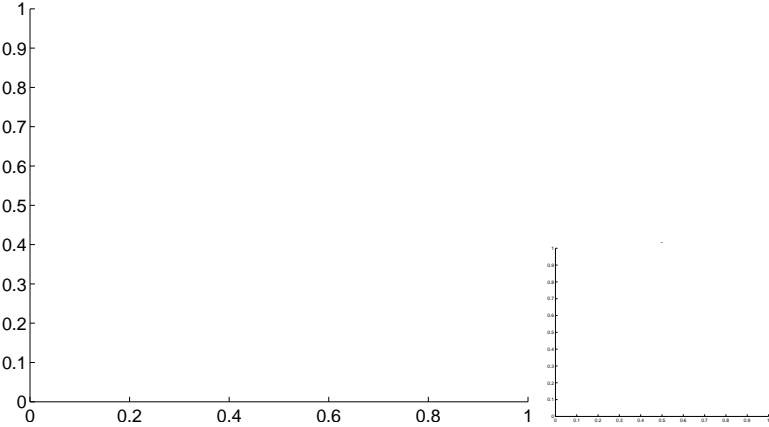
Q6 OOT image



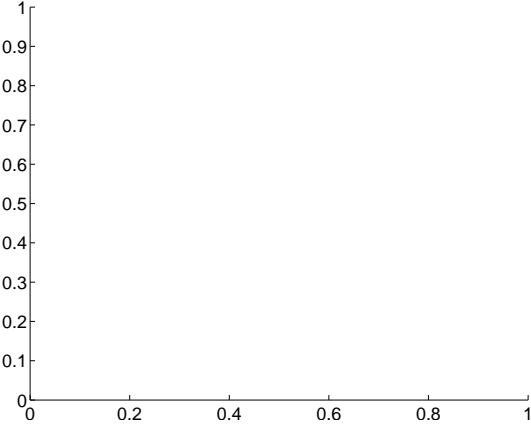
Q7 no difference image



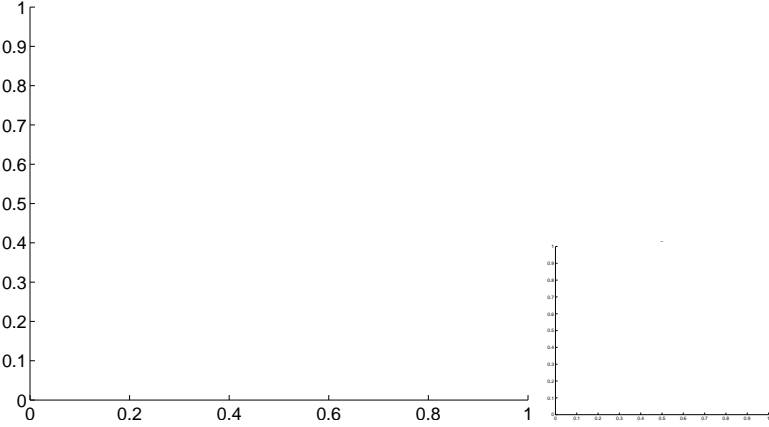
Q7 no OOT image



Q8 no difference image



Q8 no OOT image



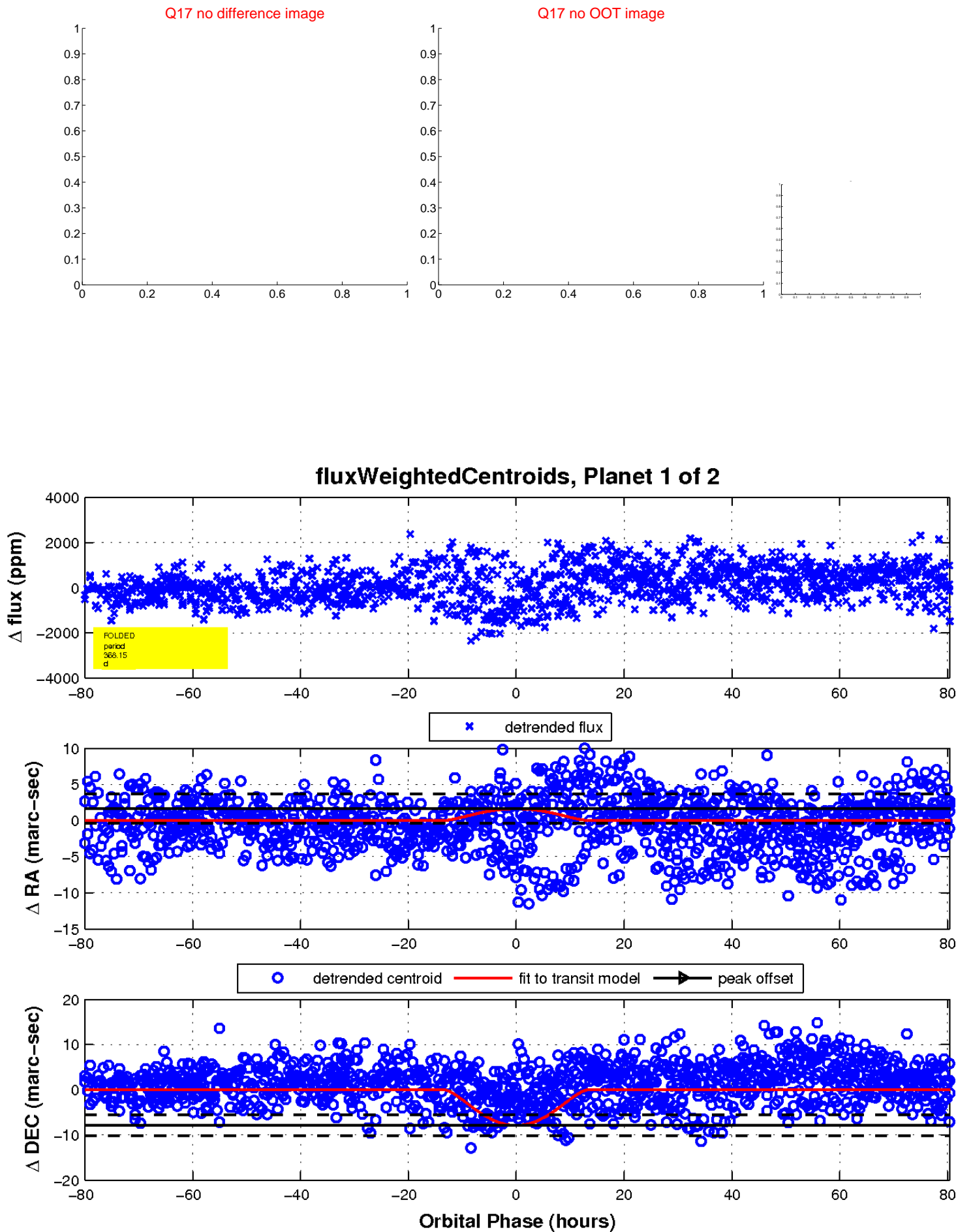
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

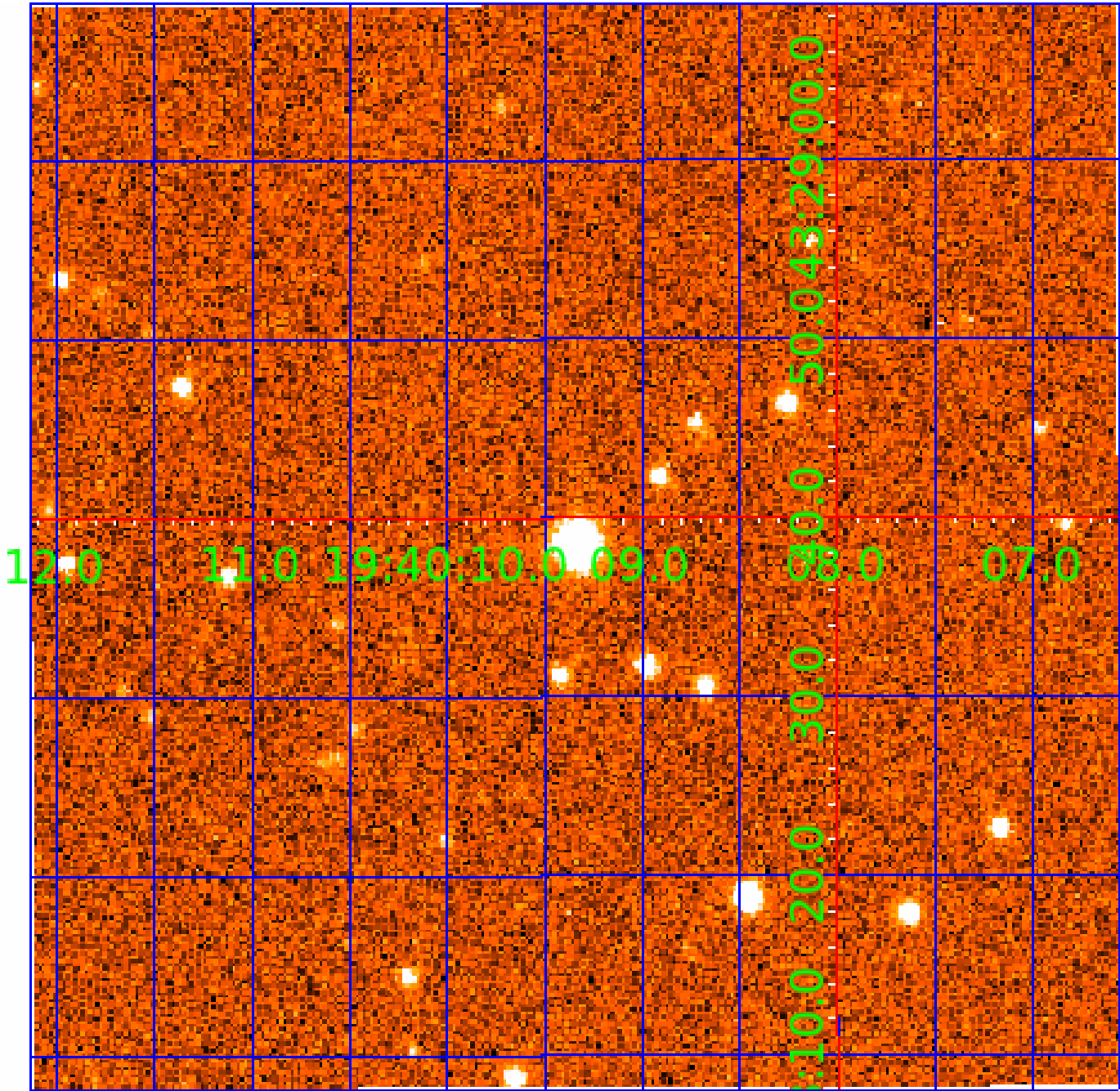


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 007762886

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})
007762886-01	OBS	No	368.151511	234.215947	1025.6	26.811	7.8	9.8	0.81	4875	5.19	0.39
007762886-02	OBS	8144.01	315.814794	172.529619	739.7	24.052	8.4	9.4	0.81	4875	2.19	0.47

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007762886-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—LPP_DV—CENT_FEW_DIFFS
007762886-02	OBS	FP	0.07	1	0	0	0	ALL_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.

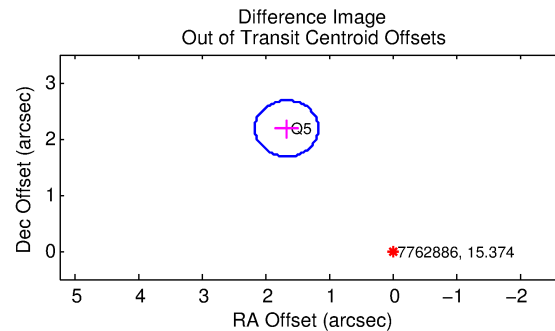
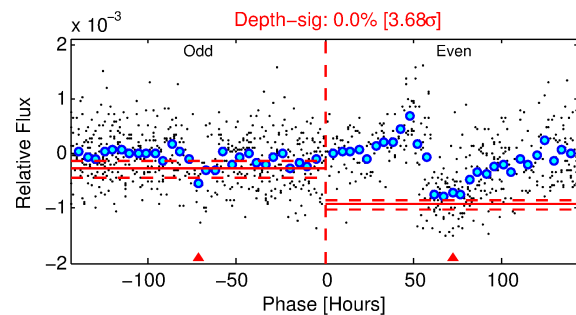
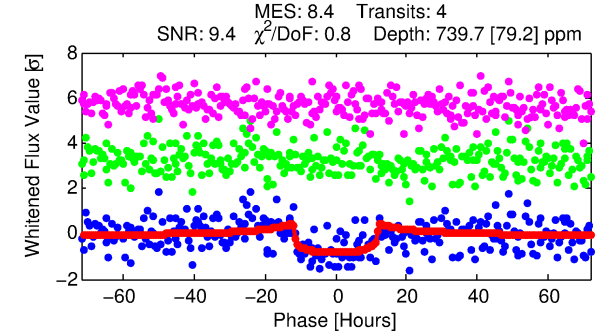
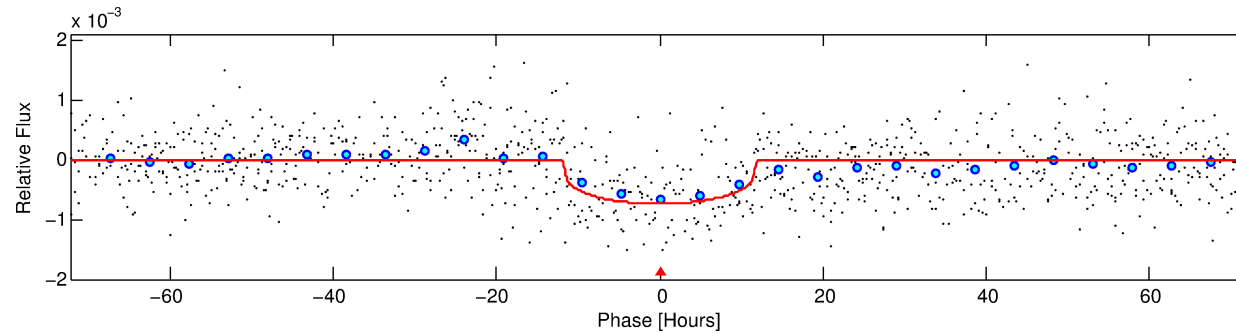
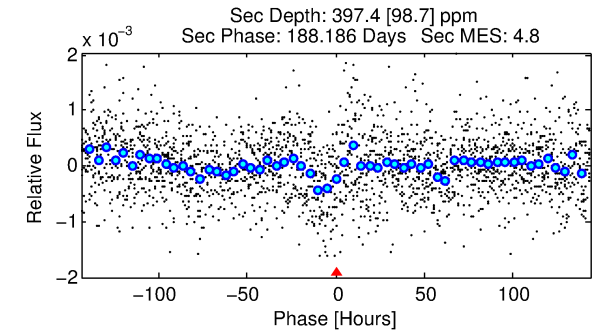
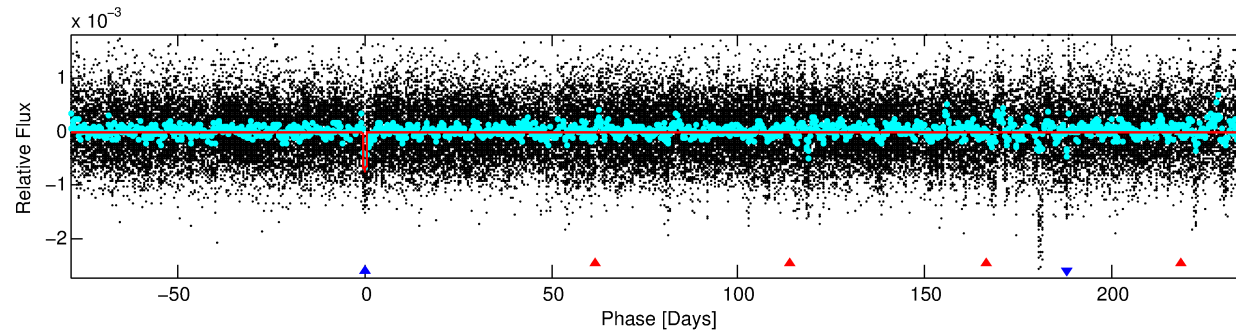
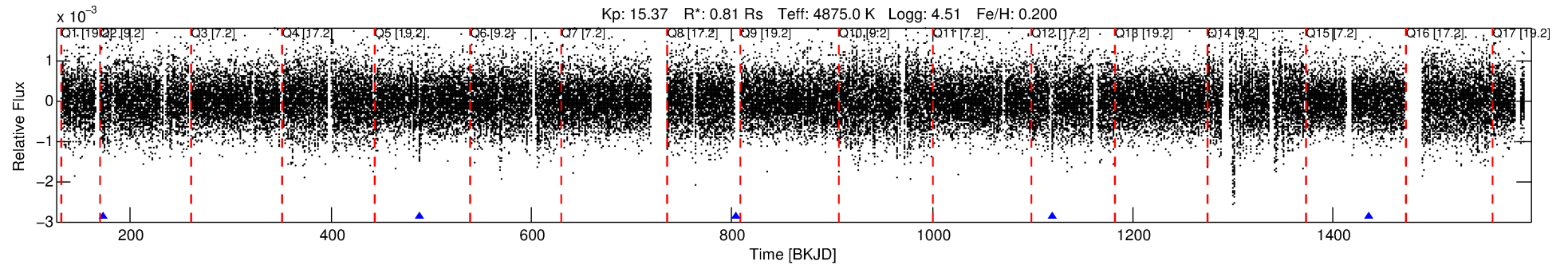
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007762886-02

No Significant Match Found

DV One-Page Summary

KIC: 7762886 Candidate: 2 of 2 Period: 315.815 d



DV Fit Results:

Period = 315.81479 [0.00747] d
Epoch = 172.5296 [0.0200] BKJD
Rp/R* = 0.0247 [0.0104]
a/R* = 93.13 [125.23]
b = 0.43 [2.55]
Seff = 0.47 [0.09]
Teq = 212 [10] K
Rp = 2.19 [0.94] Re
a = 0.8362 [0.0749] AU
Ag = 31978.37 [28359.07] [1.13σ]
Teff = 4376 [967] K [4.30σ]

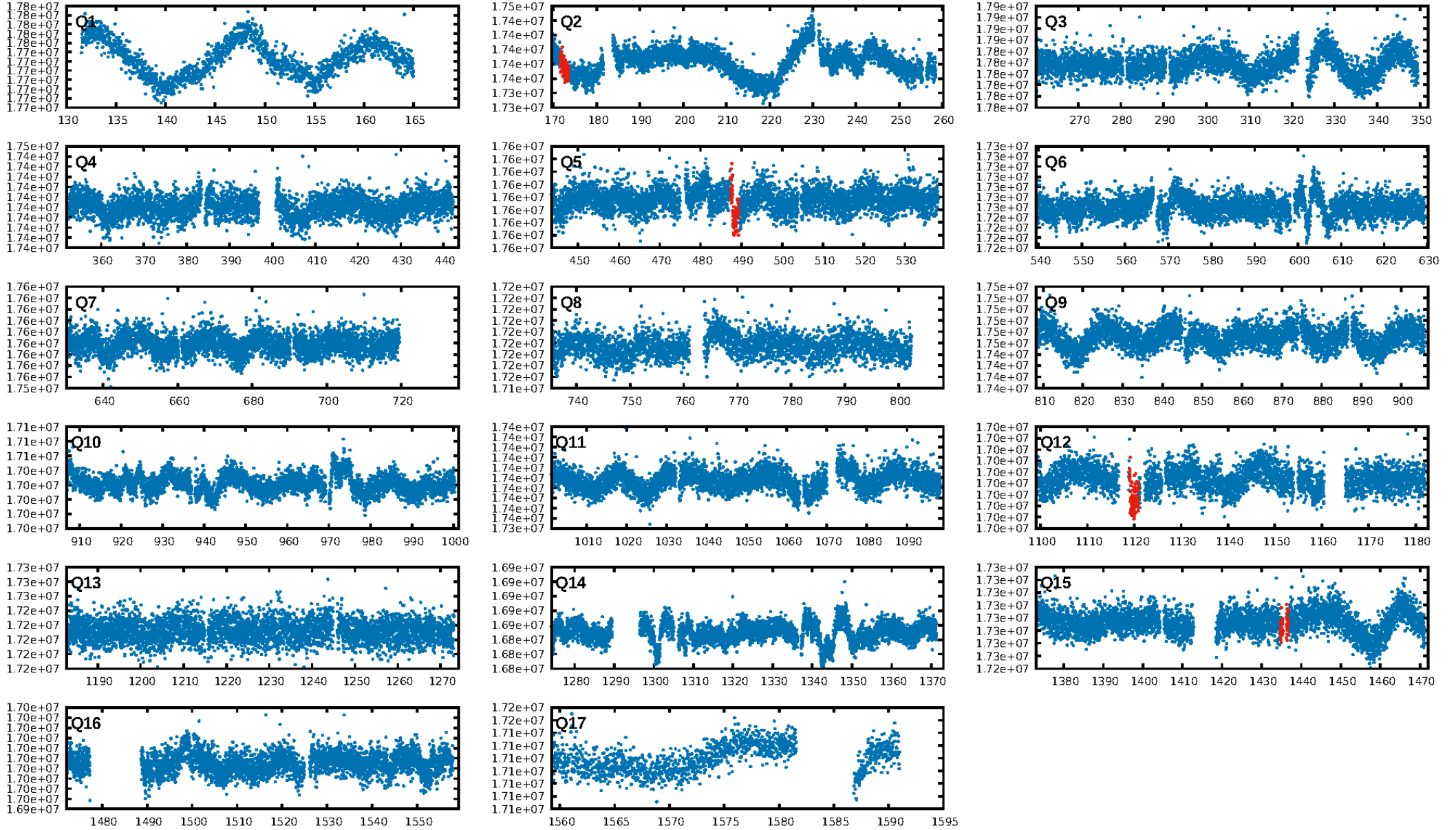
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [34.87σ]
ModelChiSquare2-sig: 31.8%
ModelChiSquareGoF-sig: 100.0%
Bootstrap-pfa: 3.09e-10
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: 6.433
Centroid-sig: 0.1%
Centroid-so: 2.881 arcsec [1.94σ]
OotOffset-rm: 2.751 arcsec [16.56σ]
KicOffset-rm: 2.700 arcsec [16.36σ]
OotOffset-st: 0/0/0/1 [1]
KicOffset-st: 0/0/0/1 [1]
DiffImageQuality-fgm: 1.00 [1/1]
DiffImageOverlap-fno: 1.00 [2/2]

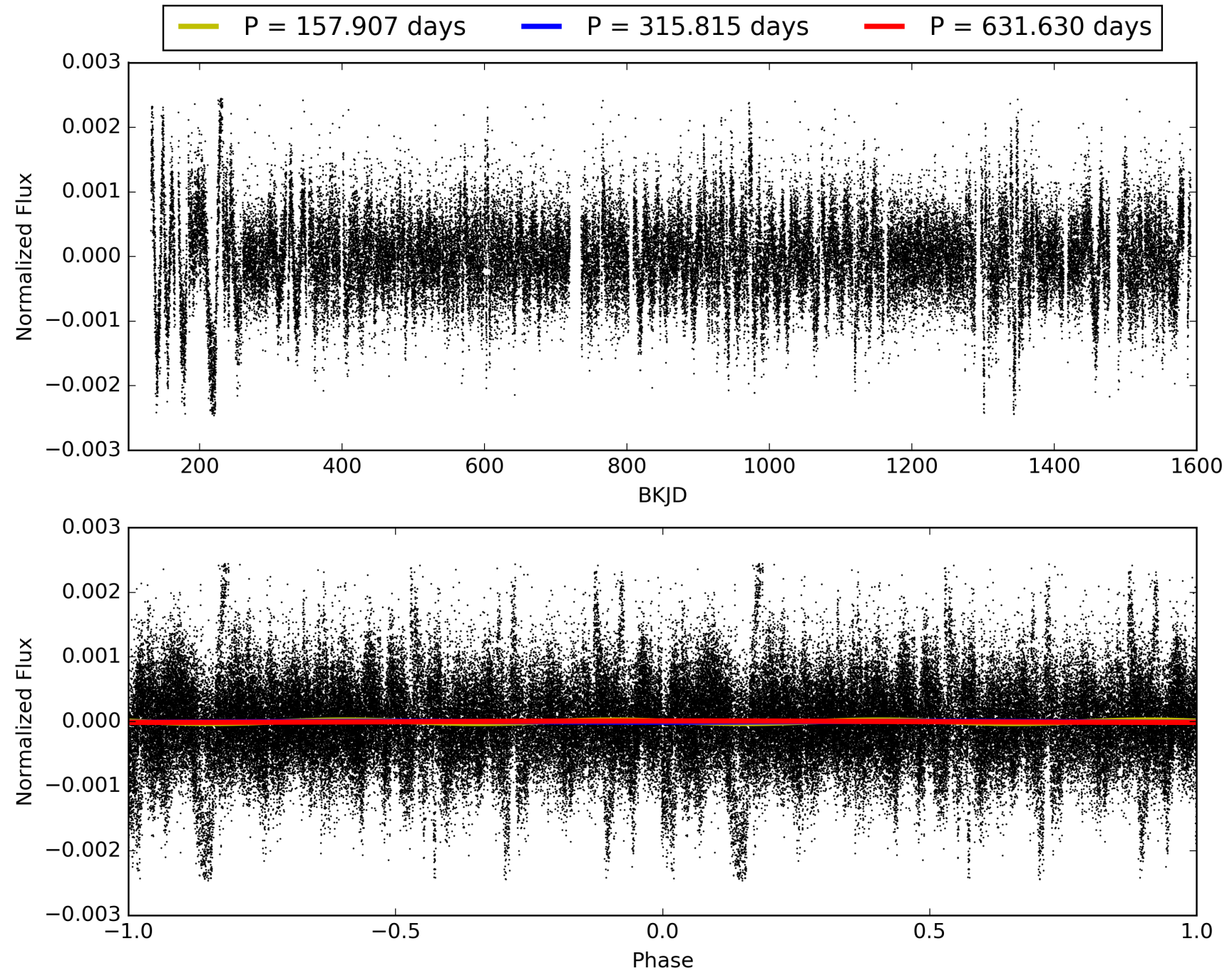
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 05:16:16 Z

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

TCE 007762886-02, PDC Light Curves

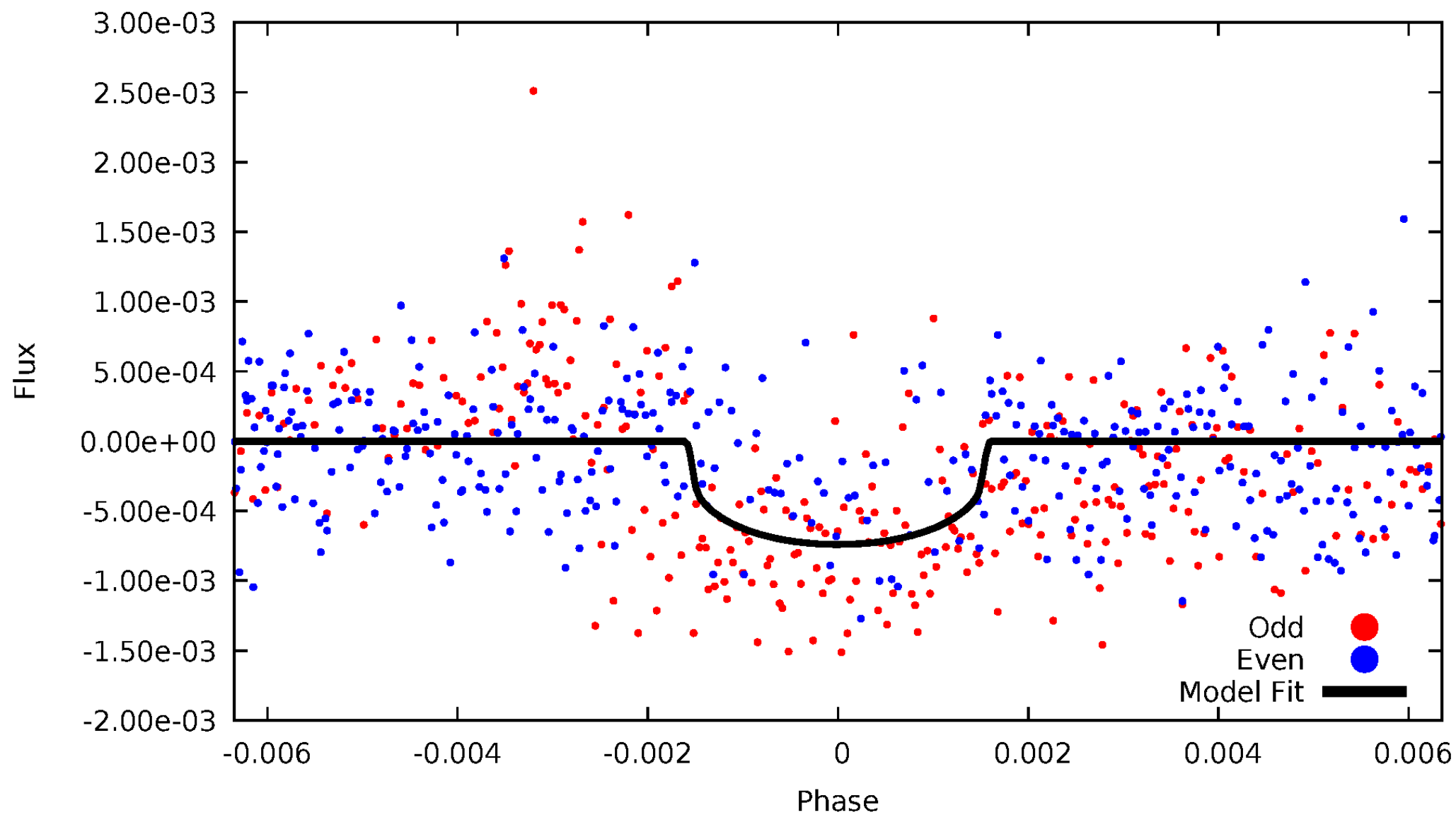


TCE 007762886-02



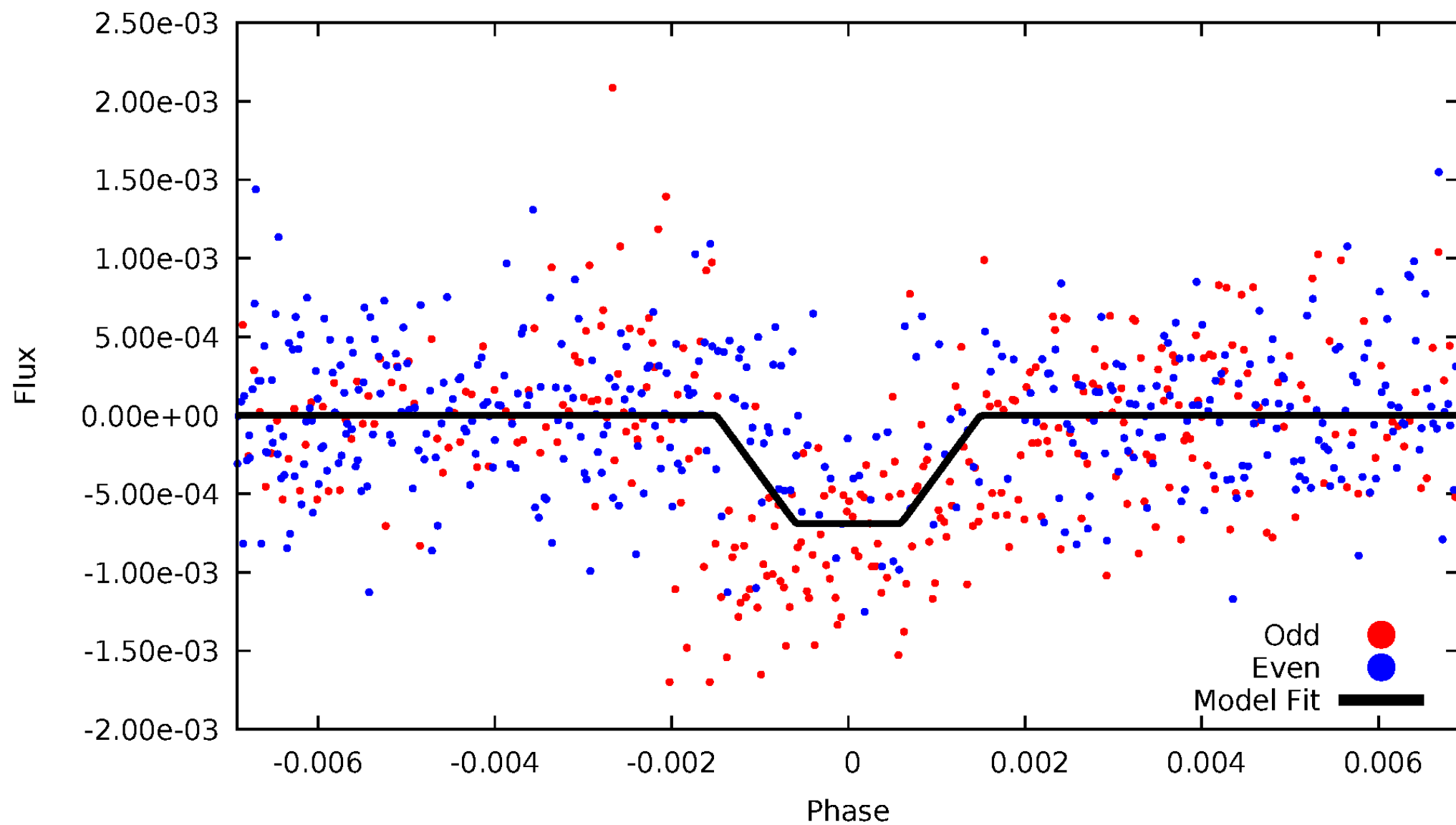
DV Odd/Even

TCE 007762886-02



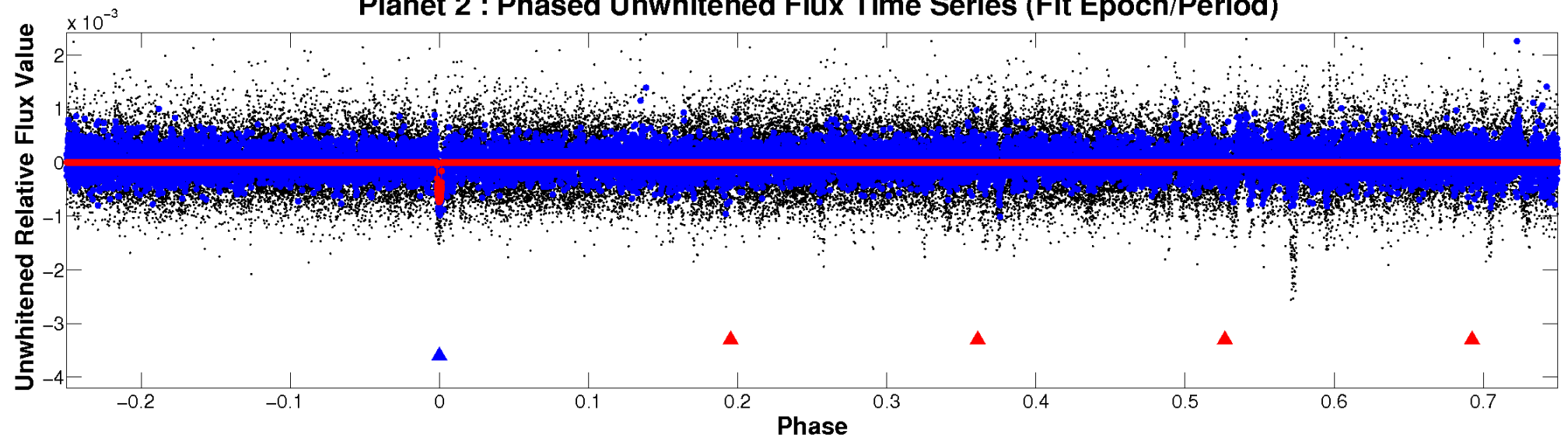
ALT Odd/Even

TCE 007762886-02

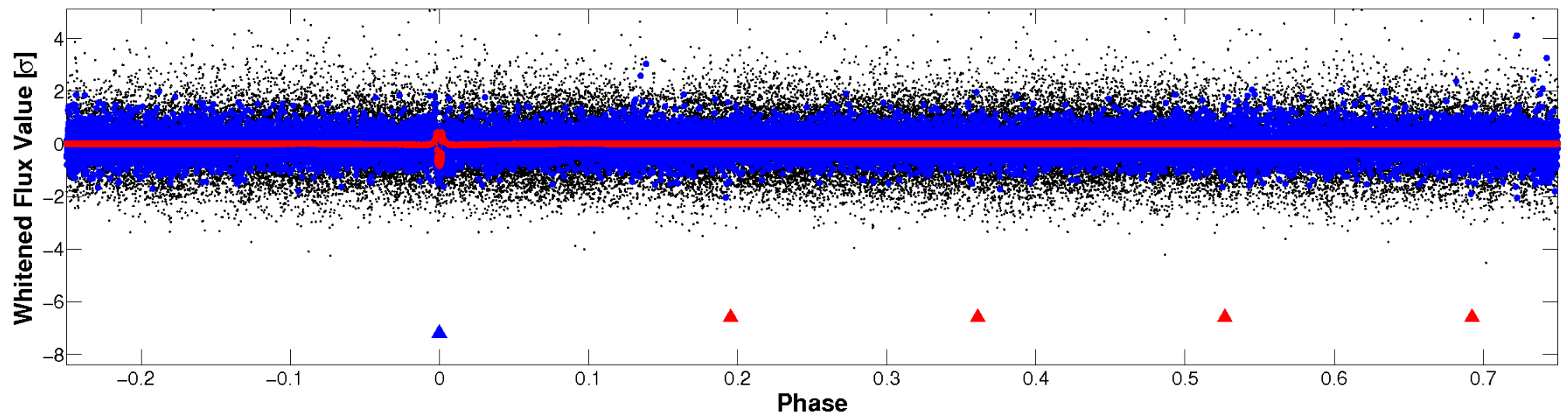


Non-Whitened Vs. Whitened Light Curve

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



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



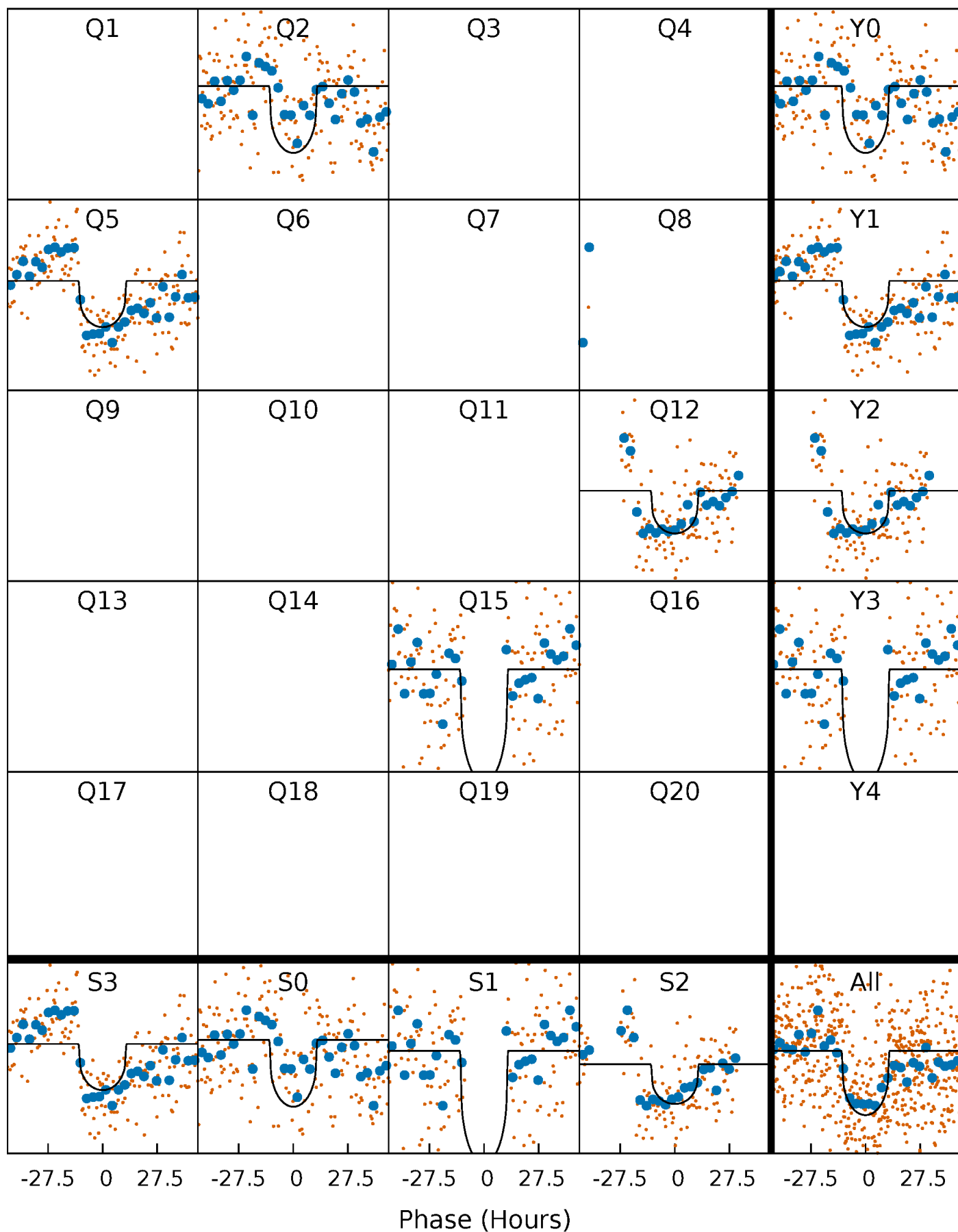
PDC Quarter-Phased Transit Curves

TCE 007762886-02 $P=315.814794$ Days $T_0=172.529619$ (BKJD)



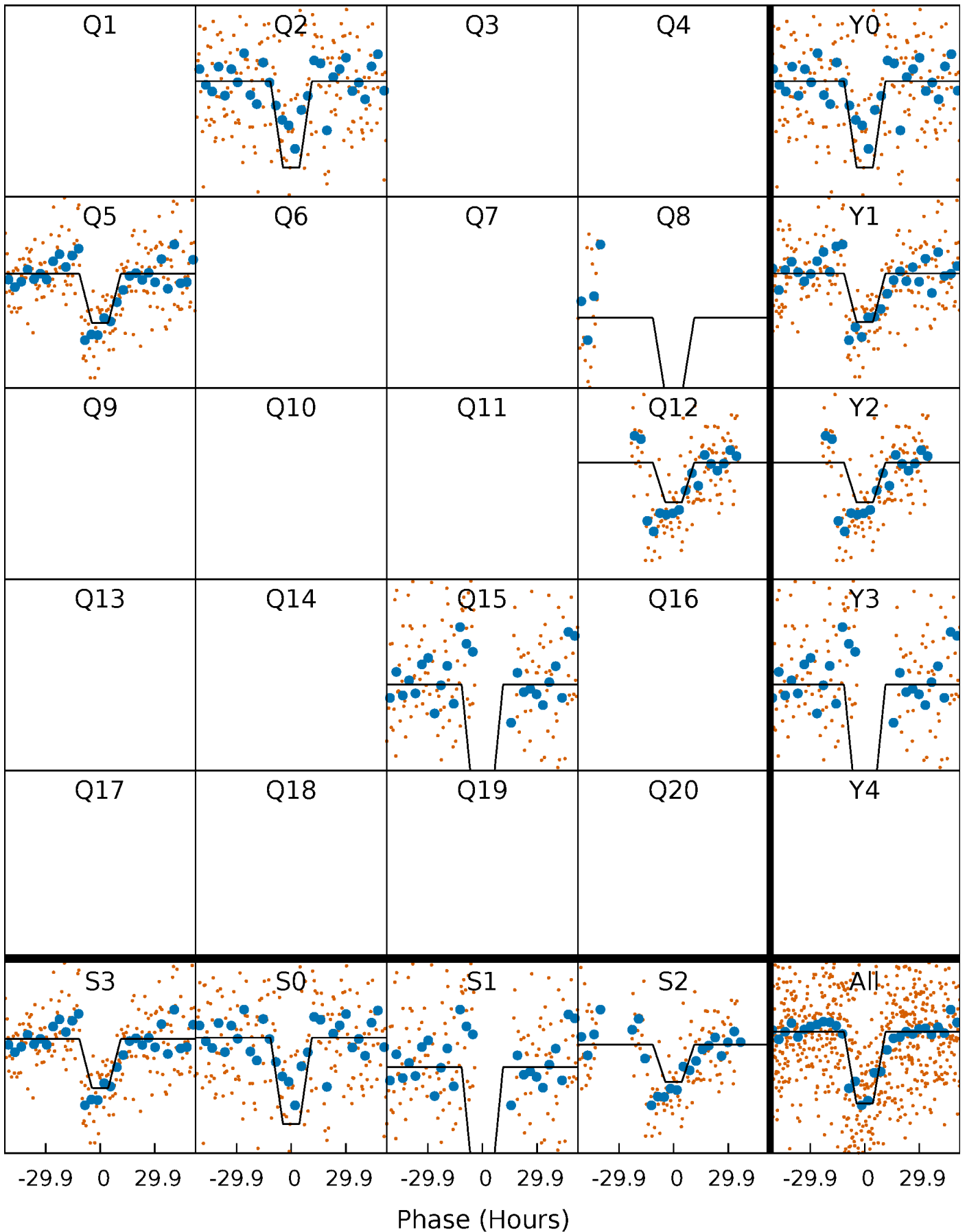
DV Quarter-Phased Transit Curves

TCE 007762886-02 $P=315.814794$ Days $T_0=172.529619$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

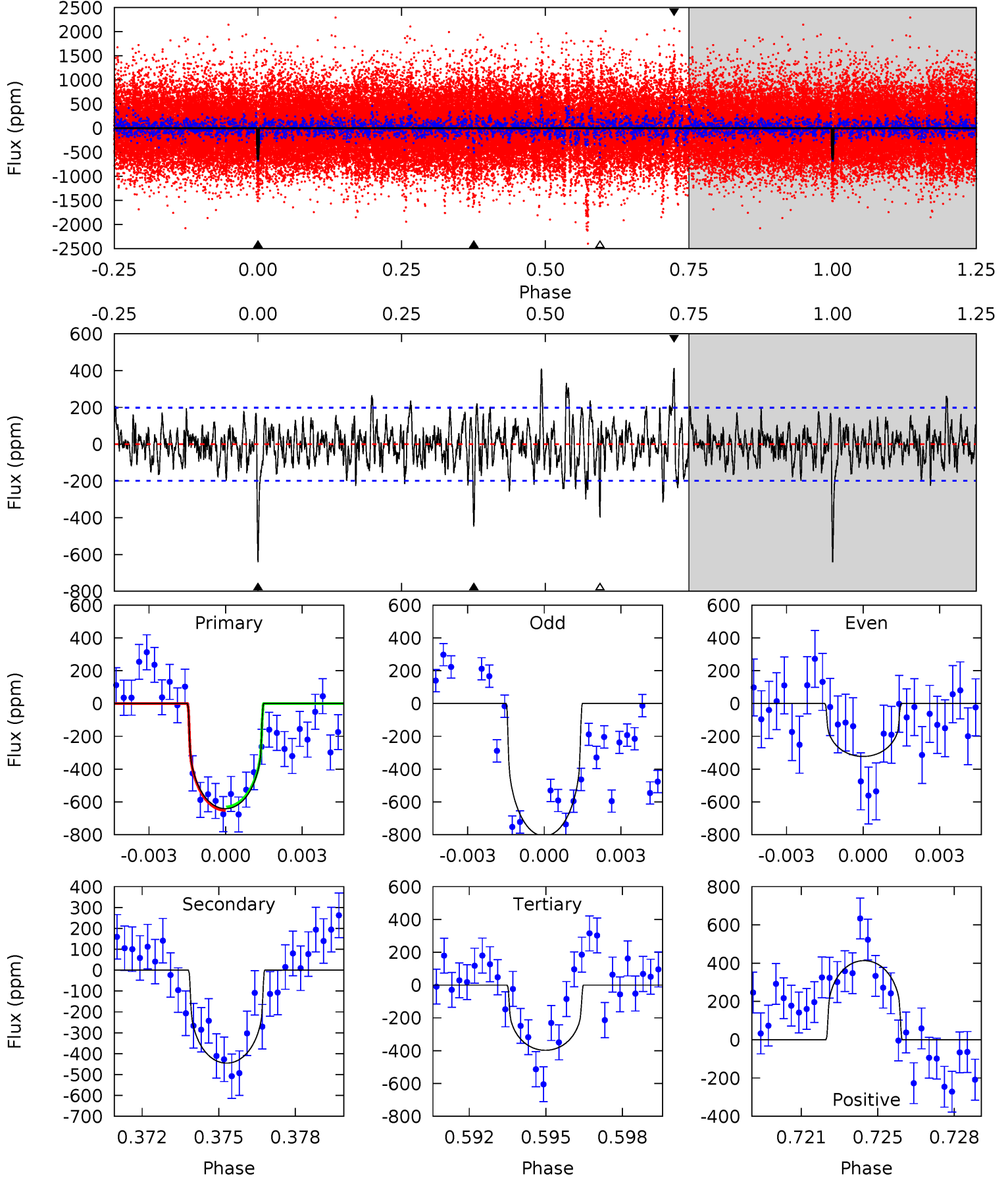
TCE 007762886-02 $P=315.752992$ Days $T_0=172.546807$ (BKJD)



DV Model-Shift Uniqueness Test

007762886-02, P = 315.814794 Days, E = 172.529619 Days

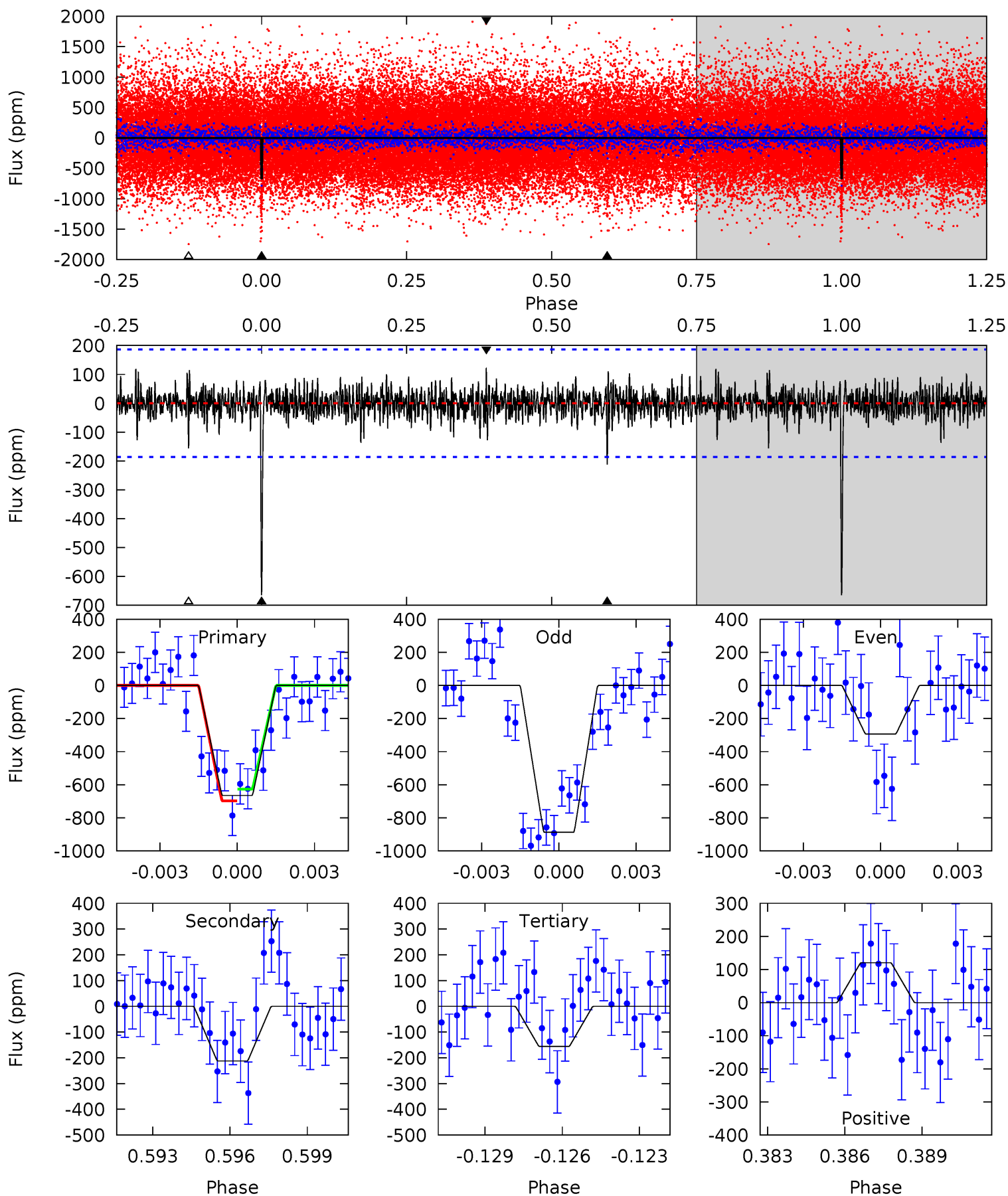
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.9	11.7	10.5	10.9	5.24	2.94	2.46	6.42	6.01	1.26	0.85	6.20	1.09	0.39	0.28



Alt Model-Shift Uniqueness Test

007762886-02, P = 315.752992 Days, E = 172.546807 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
18.7	5.98	4.39	3.39	5.25	2.97	1.01	14.3	15.3	1.59	2.59	8.21	0.76	0.15	0.98



Stellar Parameters For KIC 007762886

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (g \cdot \text{cm}^{-3})$
	4875^{+145}_{-145}	$4.514^{+0.078}_{-0.042}$	$0.200^{+0.200}_{-0.300}$	$0.810^{+0.050}_{-0.081}$	$0.781^{+0.067}_{-0.054}$	$2.074^{+0.681}_{-0.294}$
	+3%/-3%	+2%/-1%	+100%/-150%	+6%/-10%	+9%/-7%	+33%/-14%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 007762886-02 / KOI 8144.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-446 ± 38	$2.18^{+0.96}_{-0.87}$	295^{+11}_{-11}	4589^{+1095}_{-617}	36167^{+63764}_{-18994}
Alt.	-212 ± 35	$2.27^{+0.90}_{-0.90}$	294^{+11}_{-12}	3915^{+767}_{-459}	15526^{+27379}_{-7978}

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 $A_{obs} \gg 1.0$

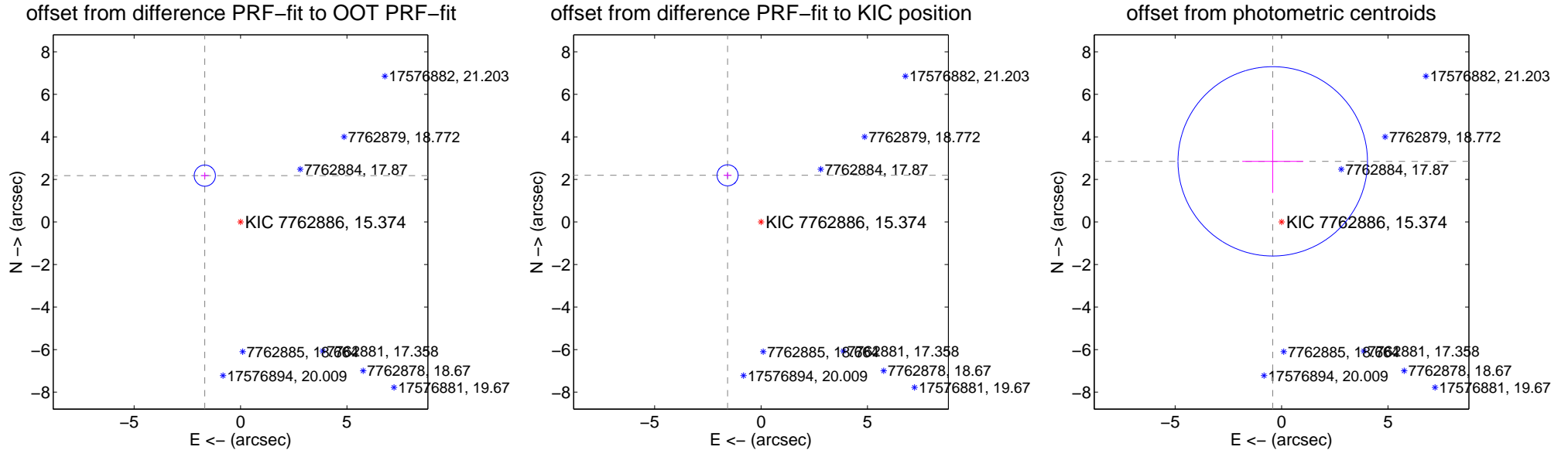
DV Centroid Data

Supplemental centroid analysis for 007762886-02. Kepler magnitude: 15.37. Transit SNR 9.38

There are 1 quarters with good PRF difference image offsets

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

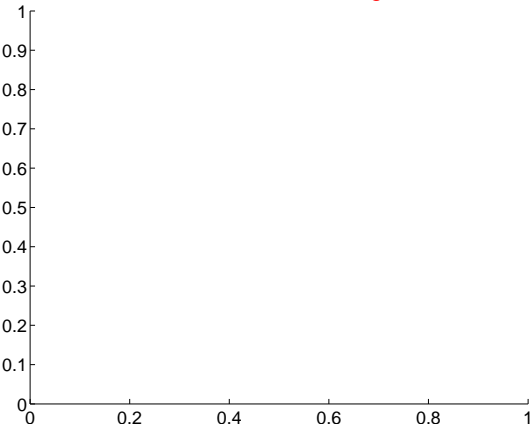
	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.751 ± 0.166	16.56	1.679 ± 0.185	2.179 ± 0.154
PRF-fit source offset from KIC position	2.700 ± 0.165	16.36	1.572 ± 0.185	2.195 ± 0.154
photometric centroid source offset	2.88 ± 1.48	1.94	0.41 ± 1.43	2.85 ± 1.48



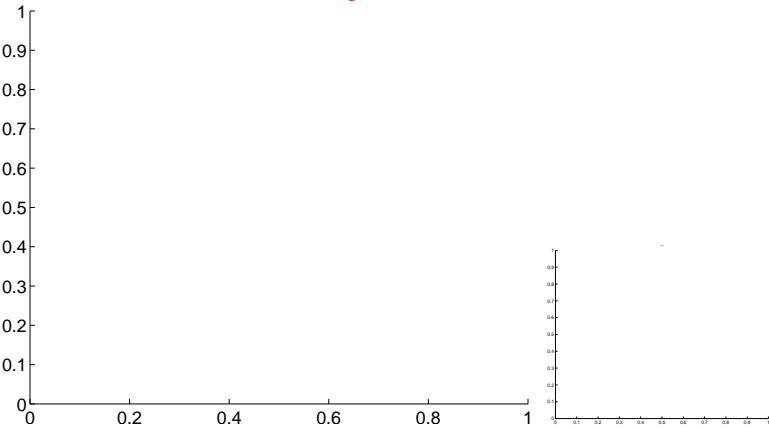
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

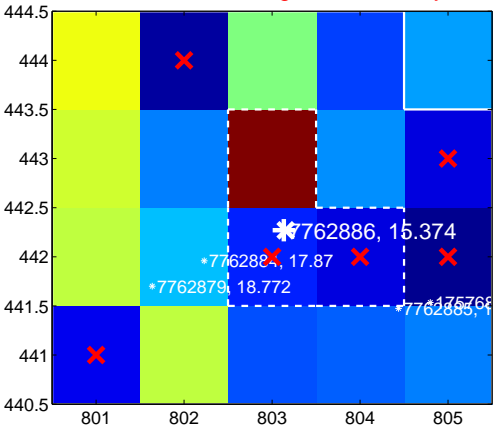
Q1 no difference image



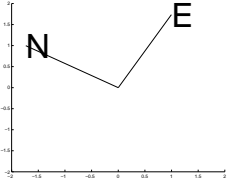
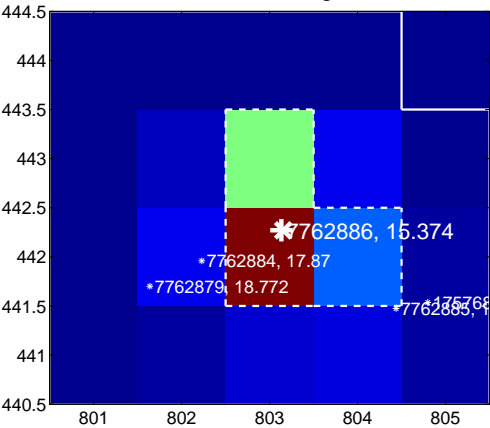
Q1 no OOT image



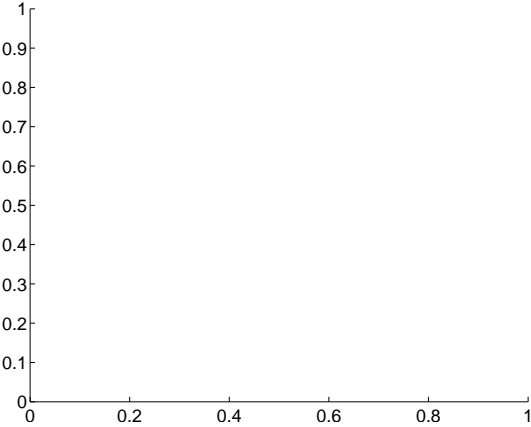
Q2 difference image. Poor Quality



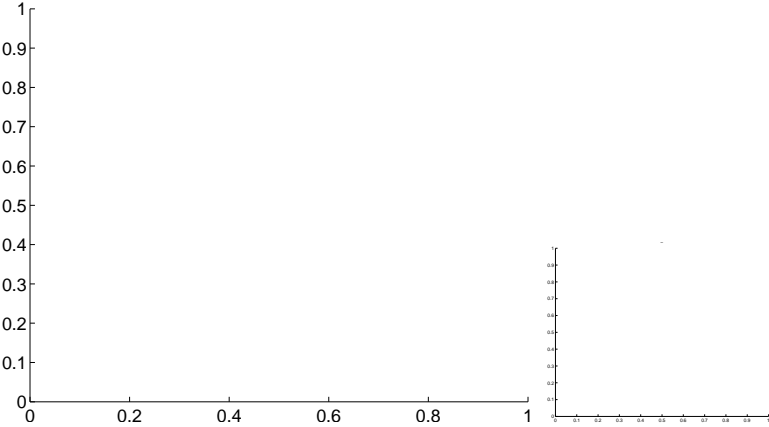
Q2 OOT image



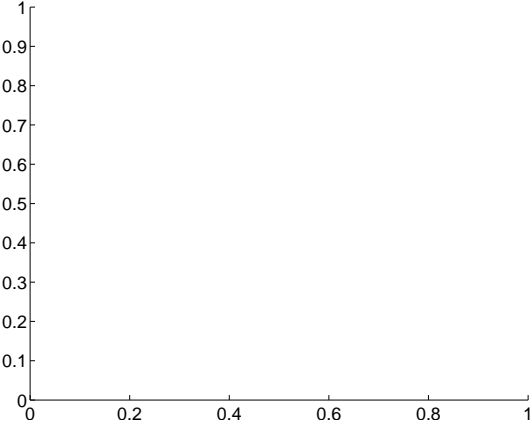
Q3 no difference image



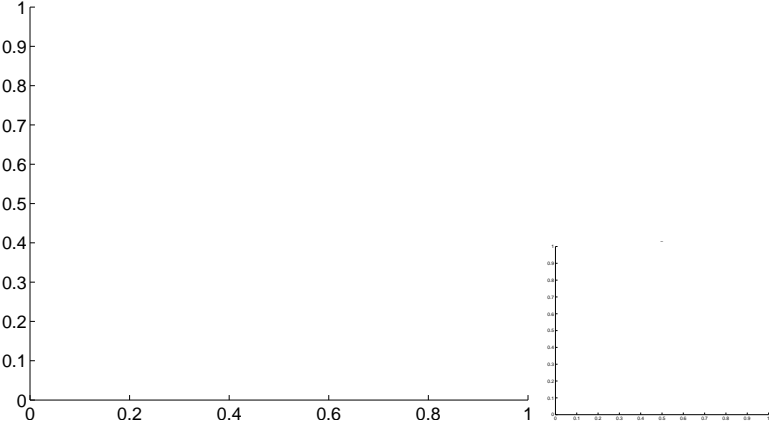
Q3 no OOT image



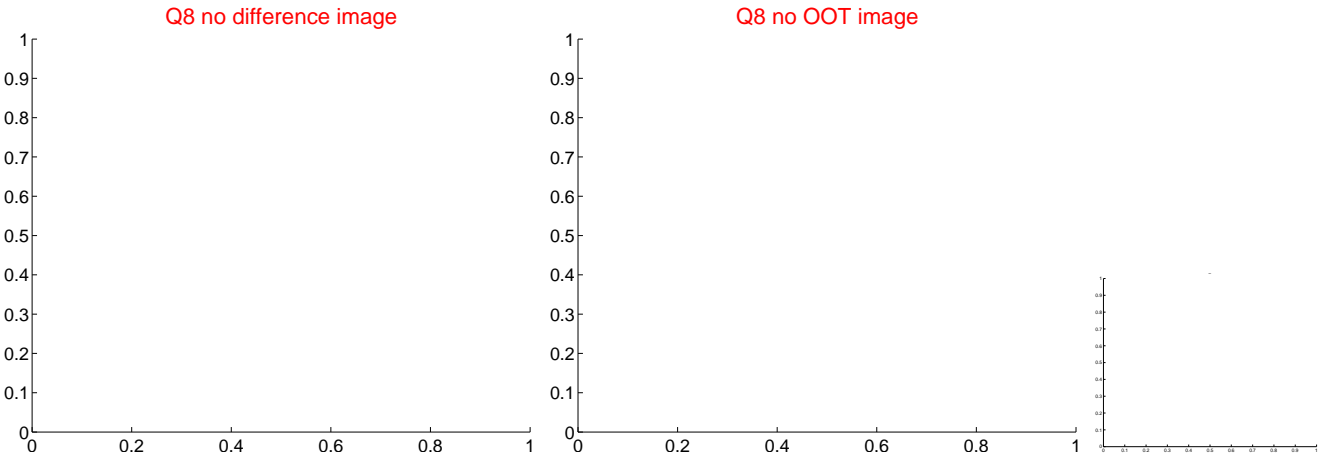
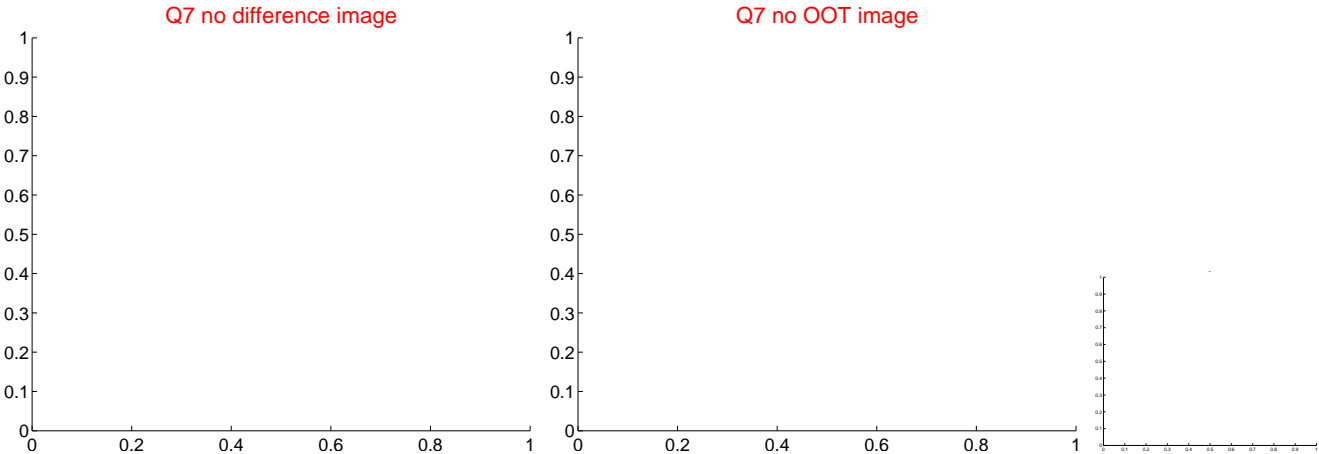
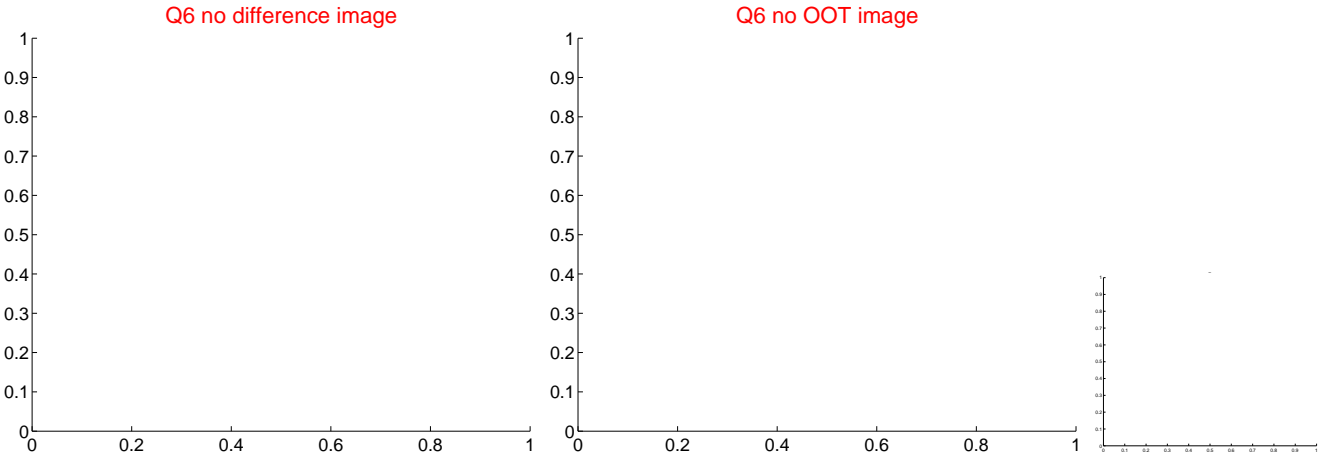
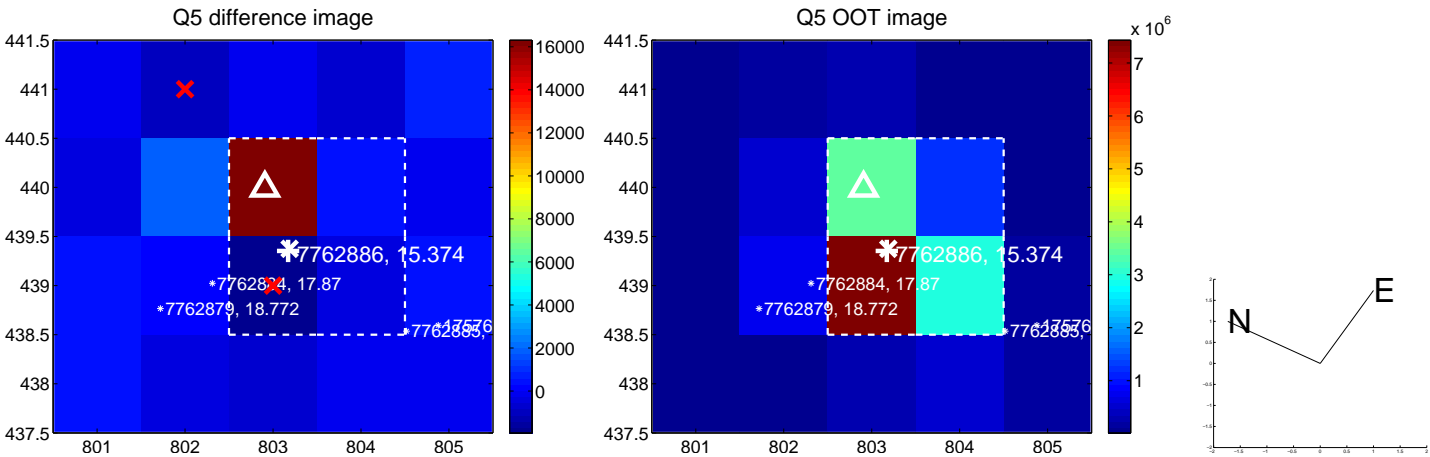
Q4 no difference image



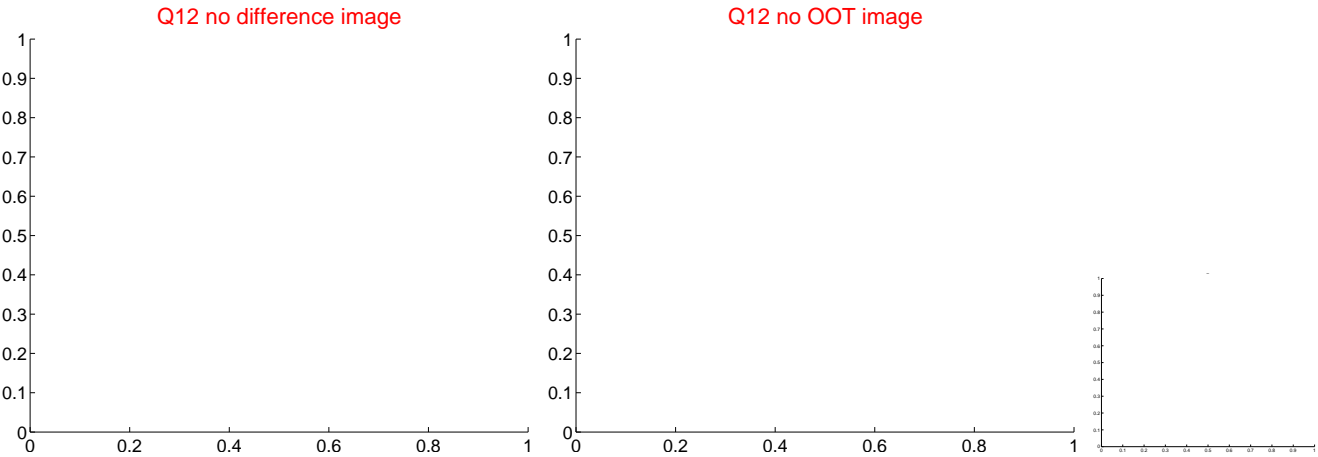
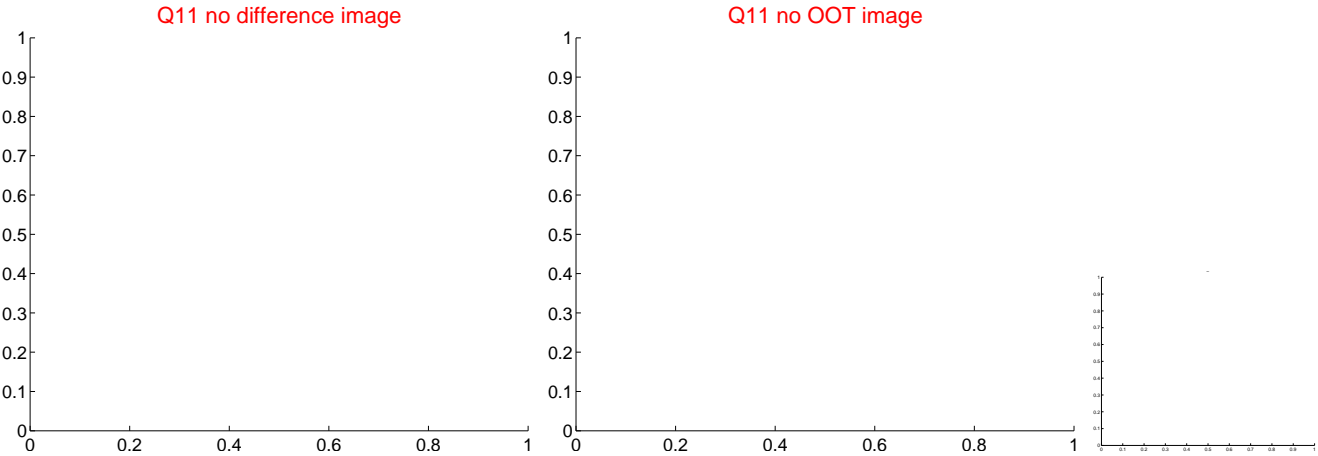
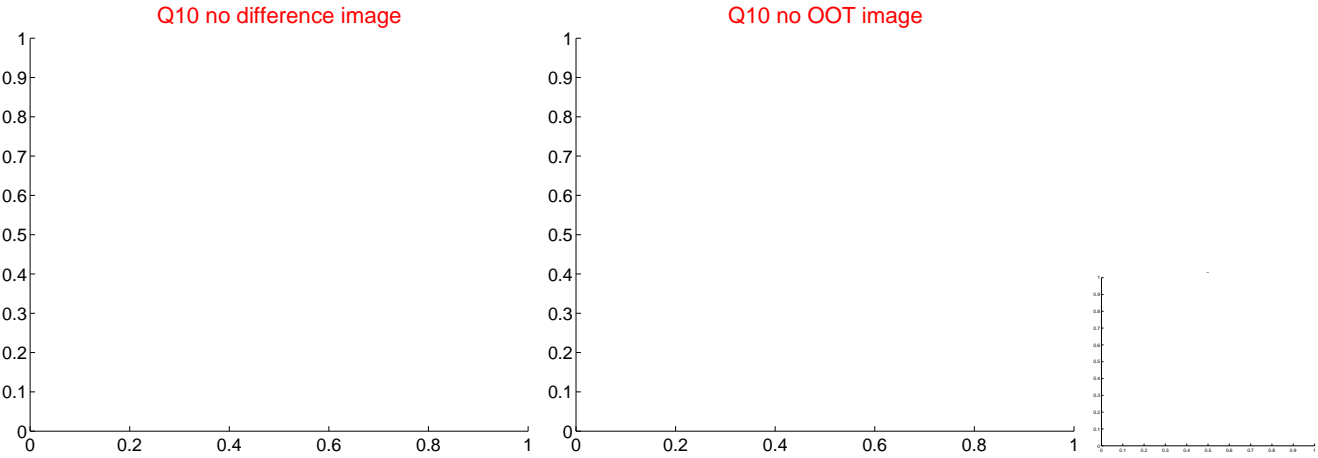
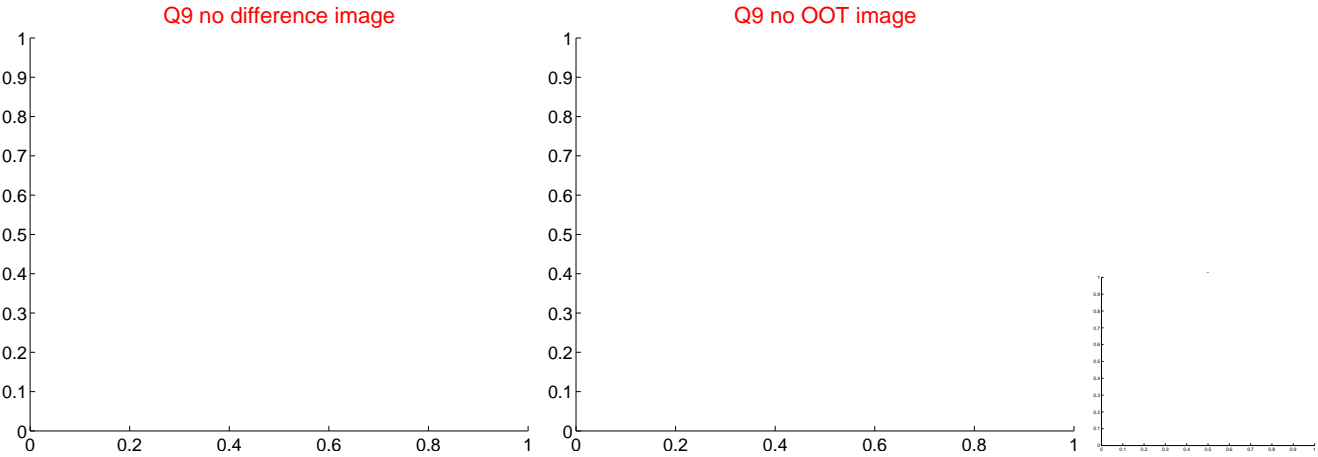
Q4 no OOT image



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



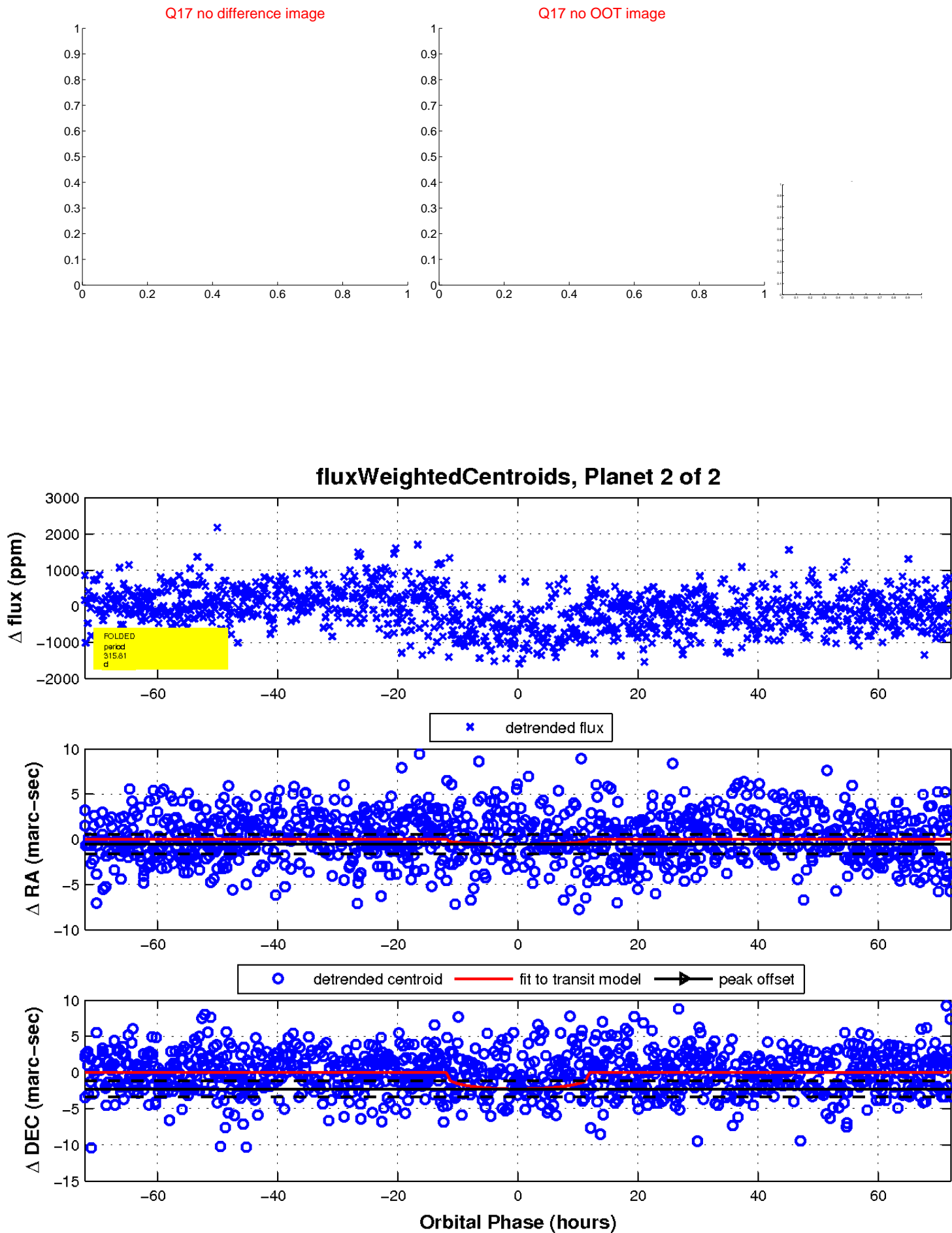
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

