

KIC 005560472

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})
005560472-01	OBS	No	337.631942	271.848485	3664.5	6.144	14.2	8.4	0.73	4869	4.37	0.37
005560472-02	OBS	No	347.563204	317.875319	2567.7	2.845	12.3	7.8	0.73	4869	3.80	0.36
005560472-03	OBS	No	393.860133	483.230962	2237.6	3.691	11.8	6.3	0.73	4869	3.38	0.30

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005560472-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_FEW_DIFFS
005560472-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
005560472-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—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.

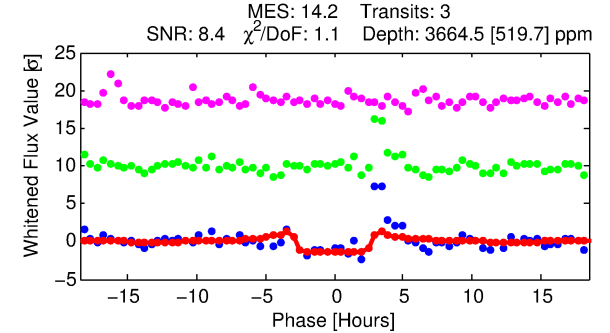
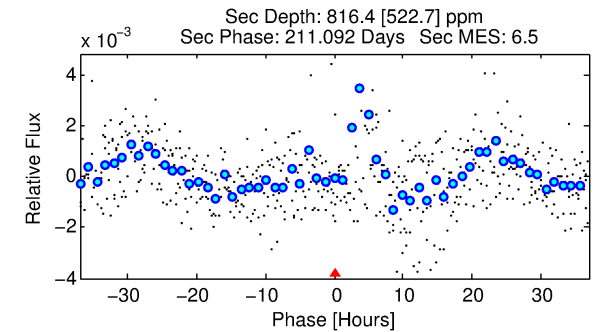
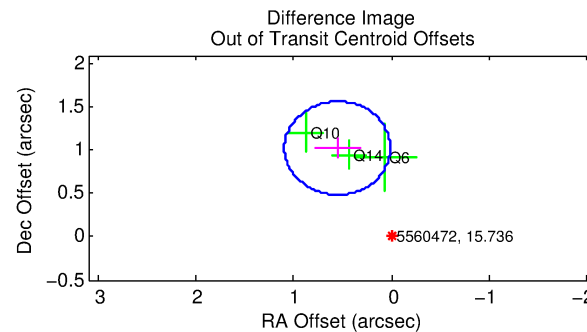
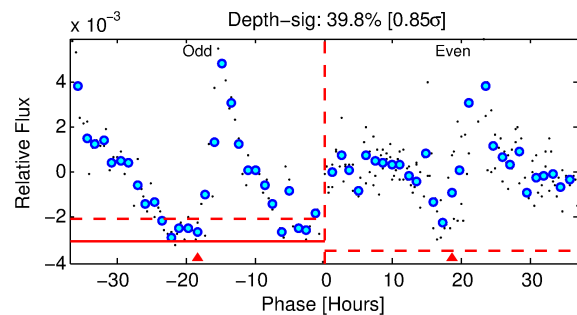
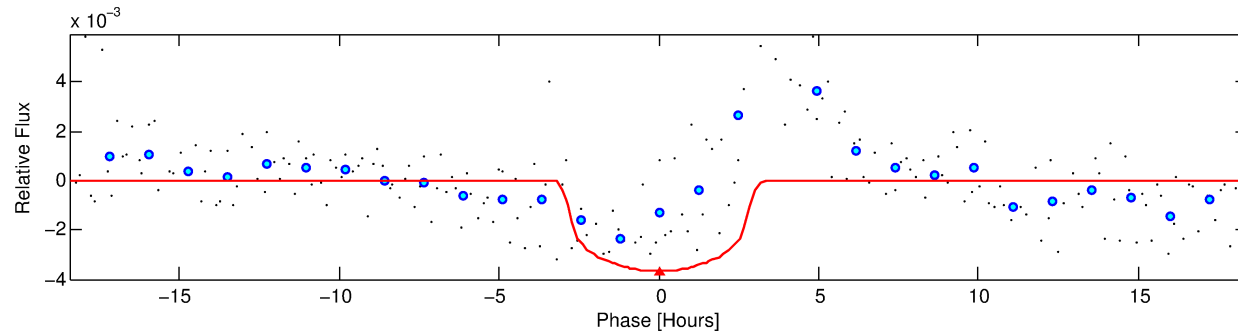
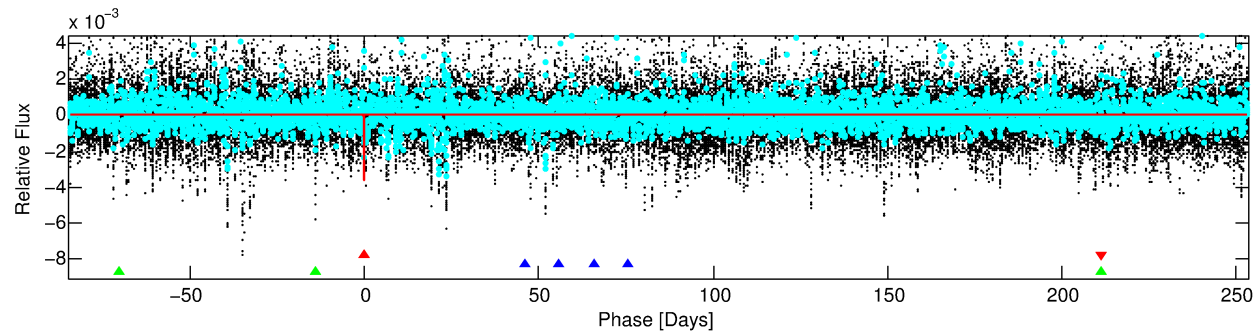
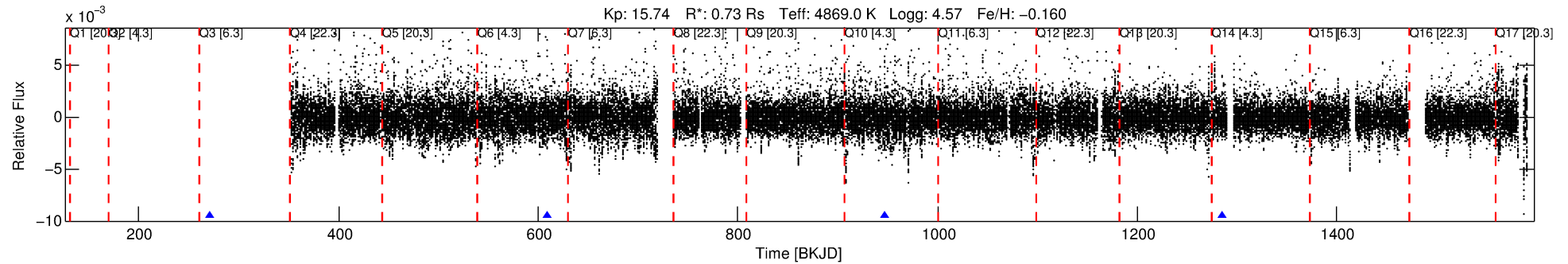
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005560472-01

No Significant Match Found

DV One-Page Summary

KIC: 5560472 Candidate: 1 of 3 Period: 337.632 d



DV Fit Results:

Period = 337.63194 [0.00495] d
Epoch = 271.8485 [0.0106] BKJD
Rp/R* = 0.0552 [0.0304]
a/R* = 405.27 [710.30]
b = 0.43 [3.42]
Seff = 0.37 [0.07]
Teq = 199 [9] K
Rp = 4.37 [2.44] Re
a = 0.8452 [0.0662] AU
Ag = 16802.67 [21494.86] [0.78 σ]
Teffp = 3504 [1124] K [2.94 σ]

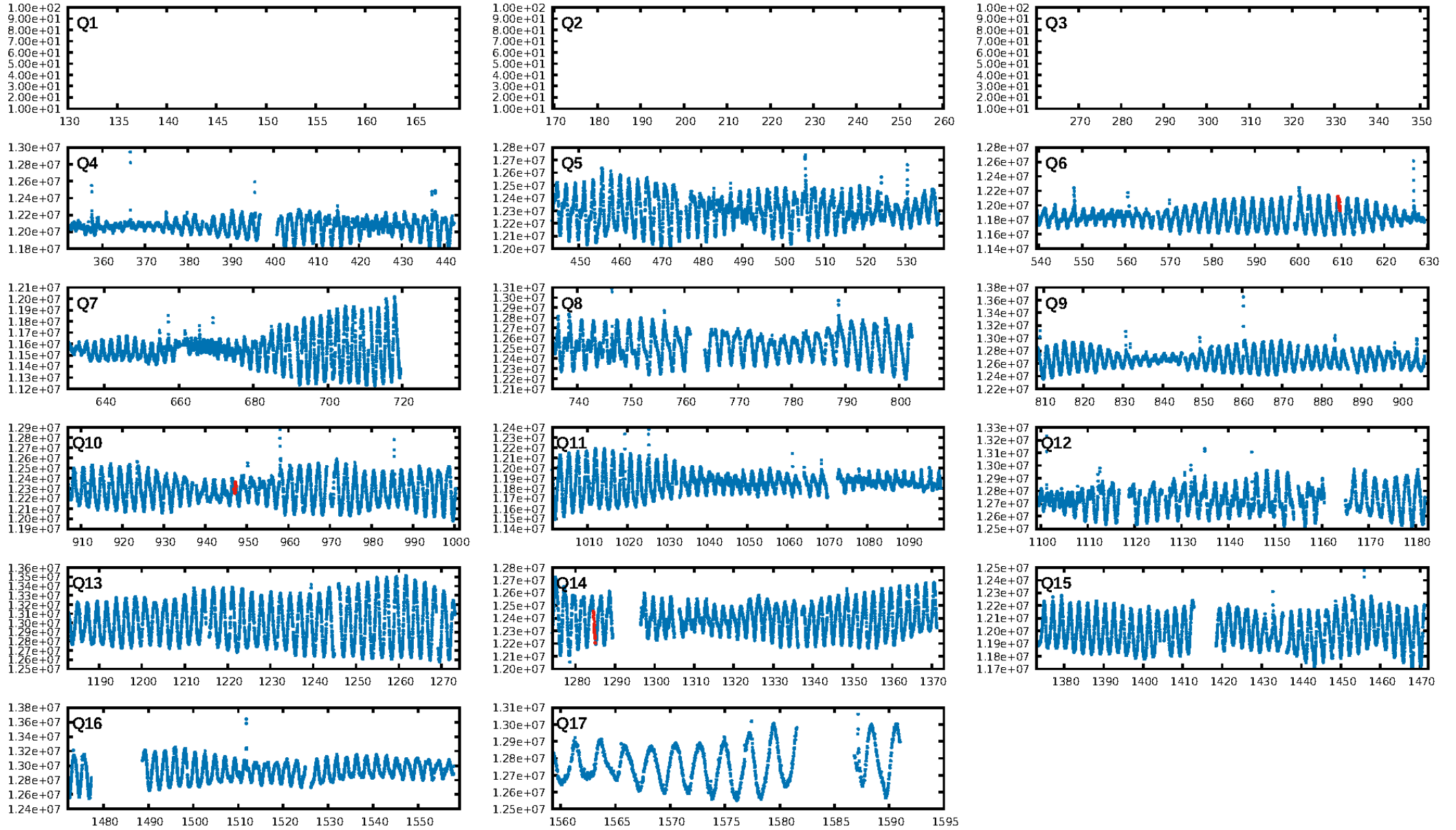
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [35.20 σ]
ModelChiSquare2-sig: 15.5%
ModelChiSquareGoF-sig: 92.9%
Bootstrap-pfa: 1.28e-13
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 1.63
Centroid-sig: 0.0%
Centroid-so: 0.763 arcsec [1.09 σ]
OotOffset-rm: 1.167 arcsec [6.49 σ]
KicOffset-rm: 0.213 arcsec [1.24 σ]
OotOffset-st: 3/0/0/0 [3]
KicOffset-st: 3/0/0/0 [3]
DiffImageQuality-fgm: 0.67 [2/3]
DiffImageOverlap-fno: 1.00 [3/3]

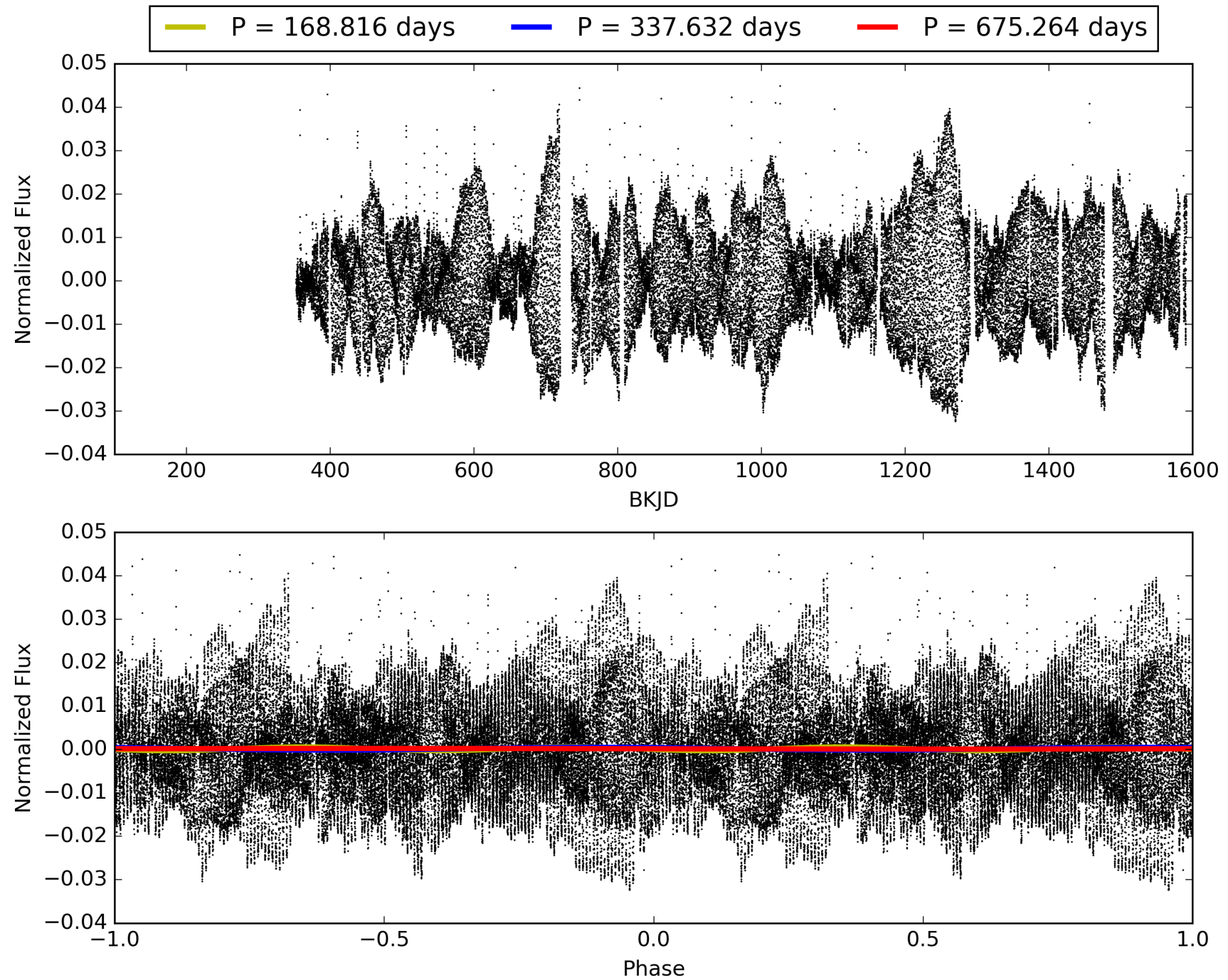
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 03:39:31 Z

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

TCE 005560472-01, PDC Light Curves

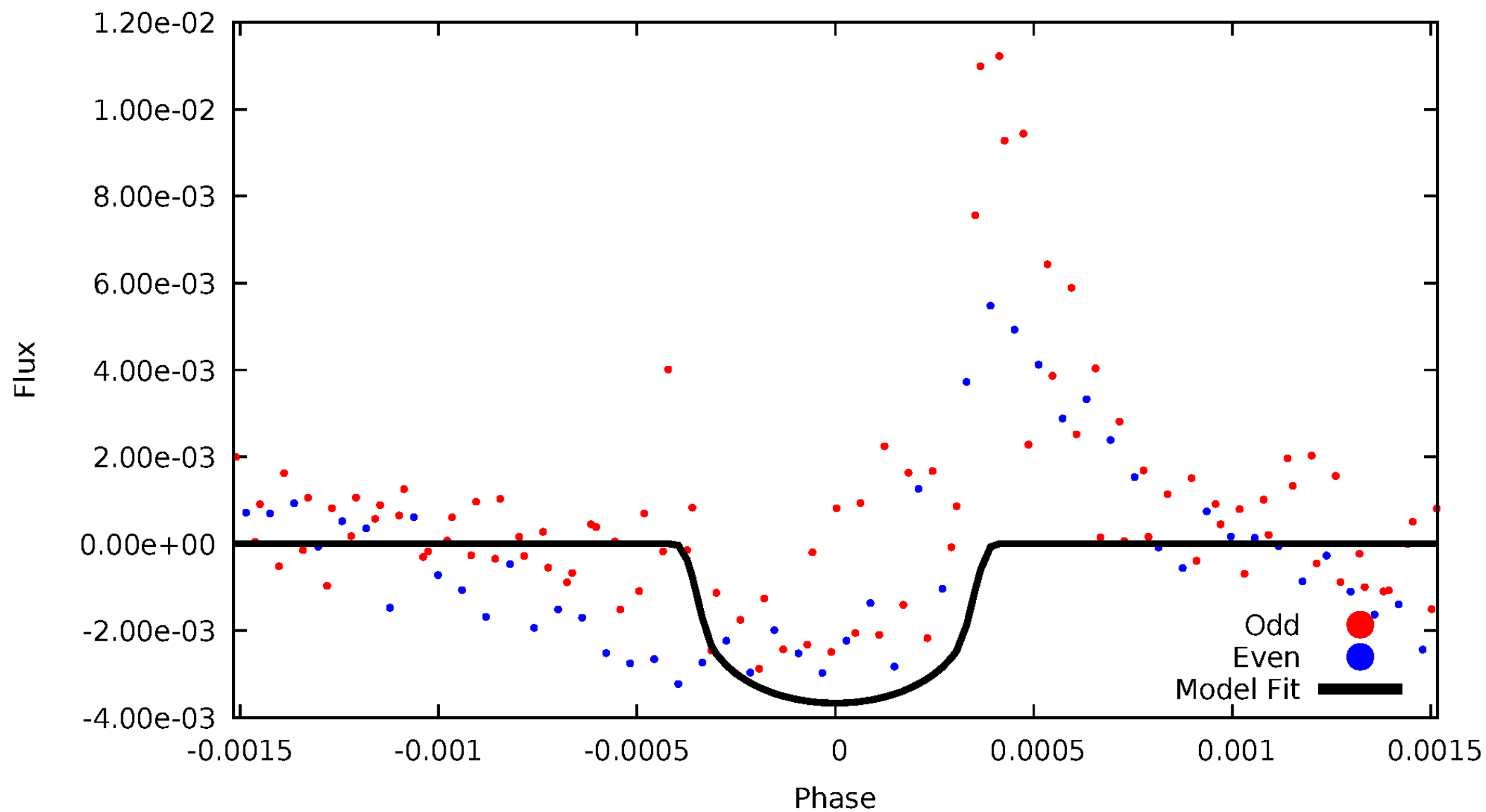


TCE 005560472-01



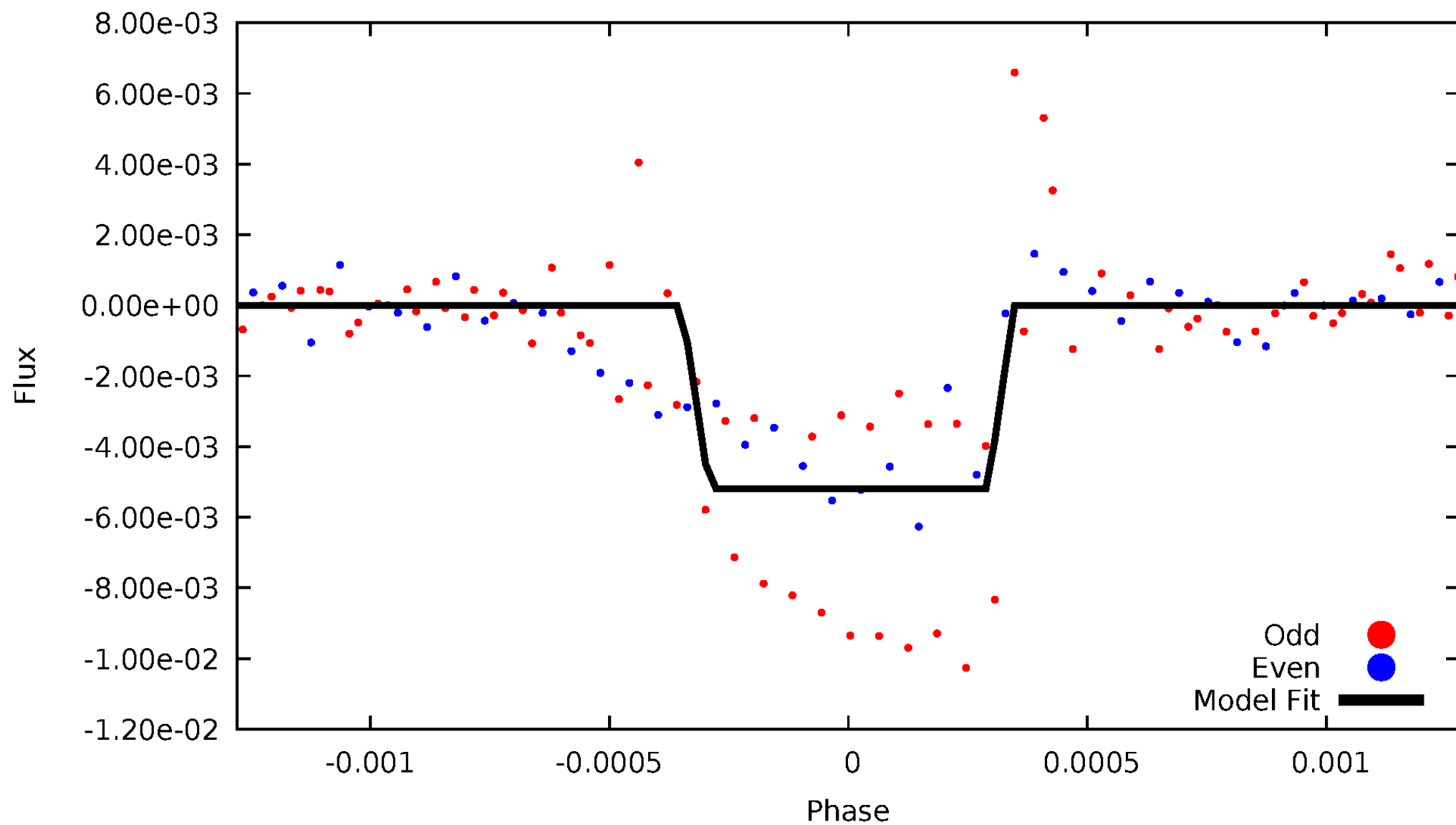
DV Odd/Even

TCE 005560472-01



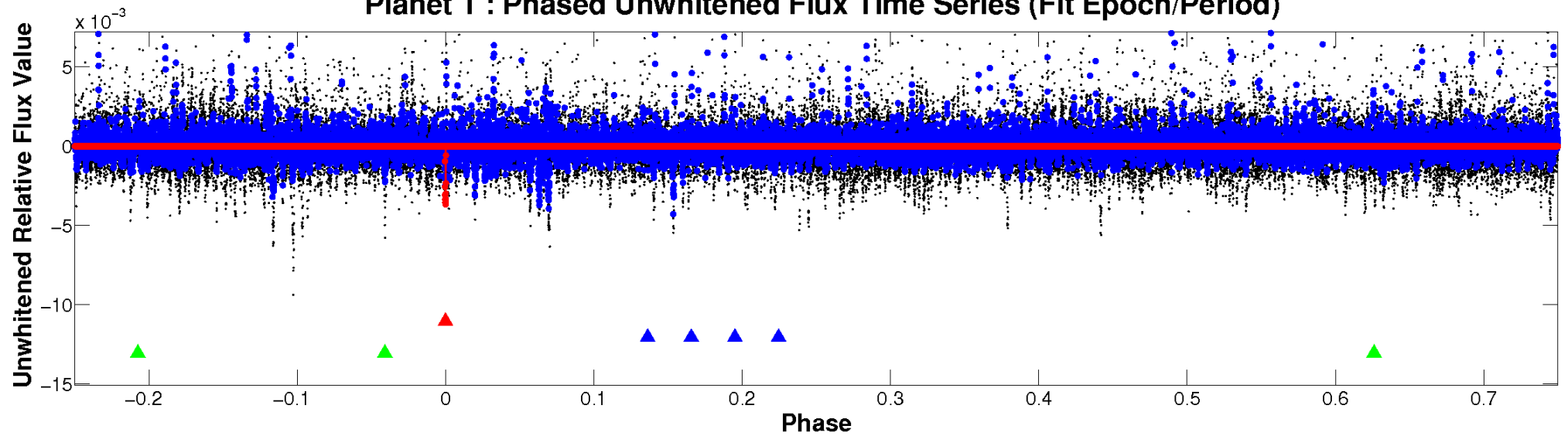
ALT Odd/Even

TCE 005560472-01

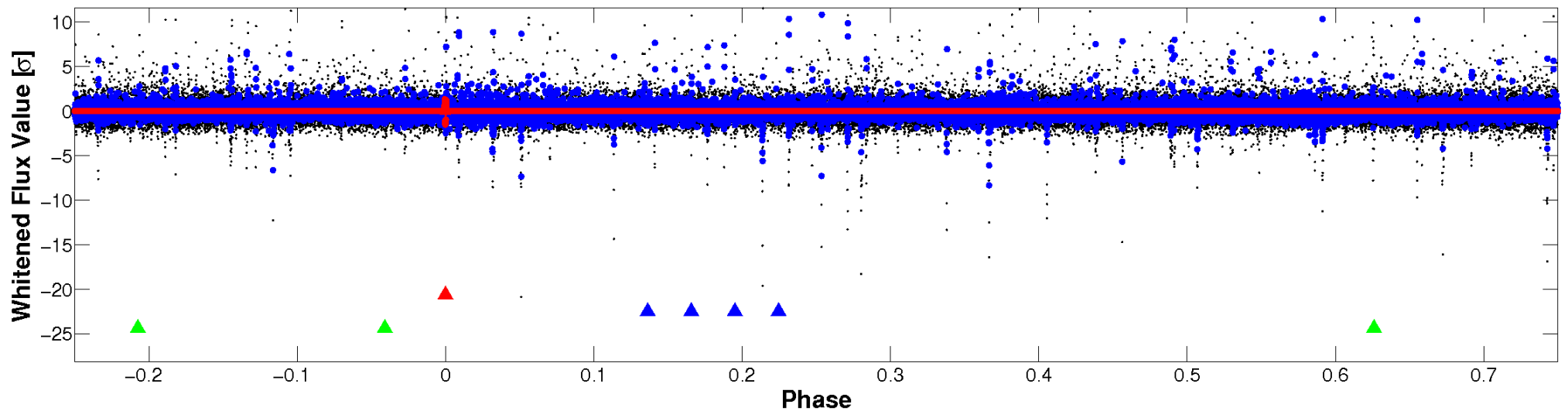


Non-Whitened Vs. Whitened Light Curve

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

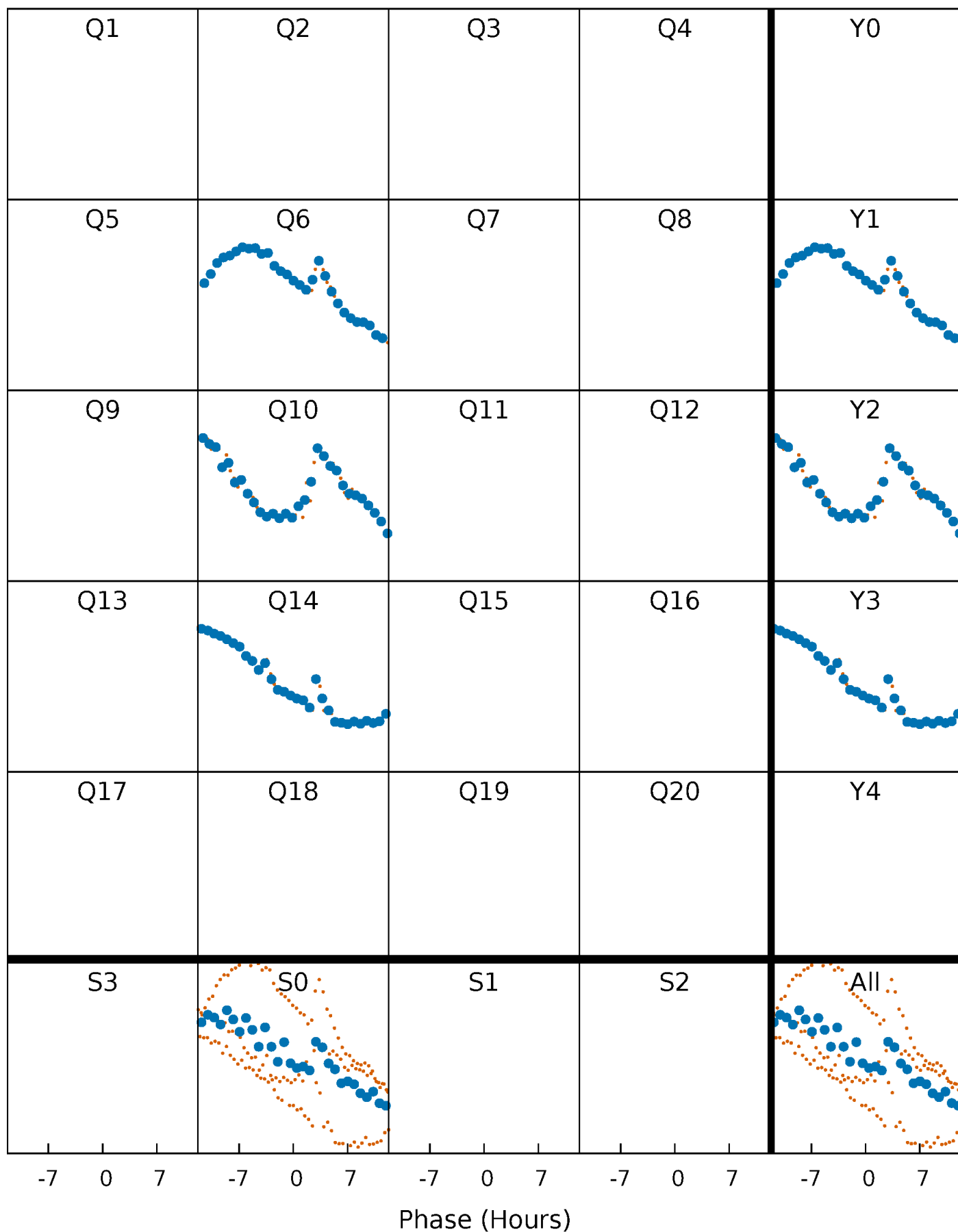


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



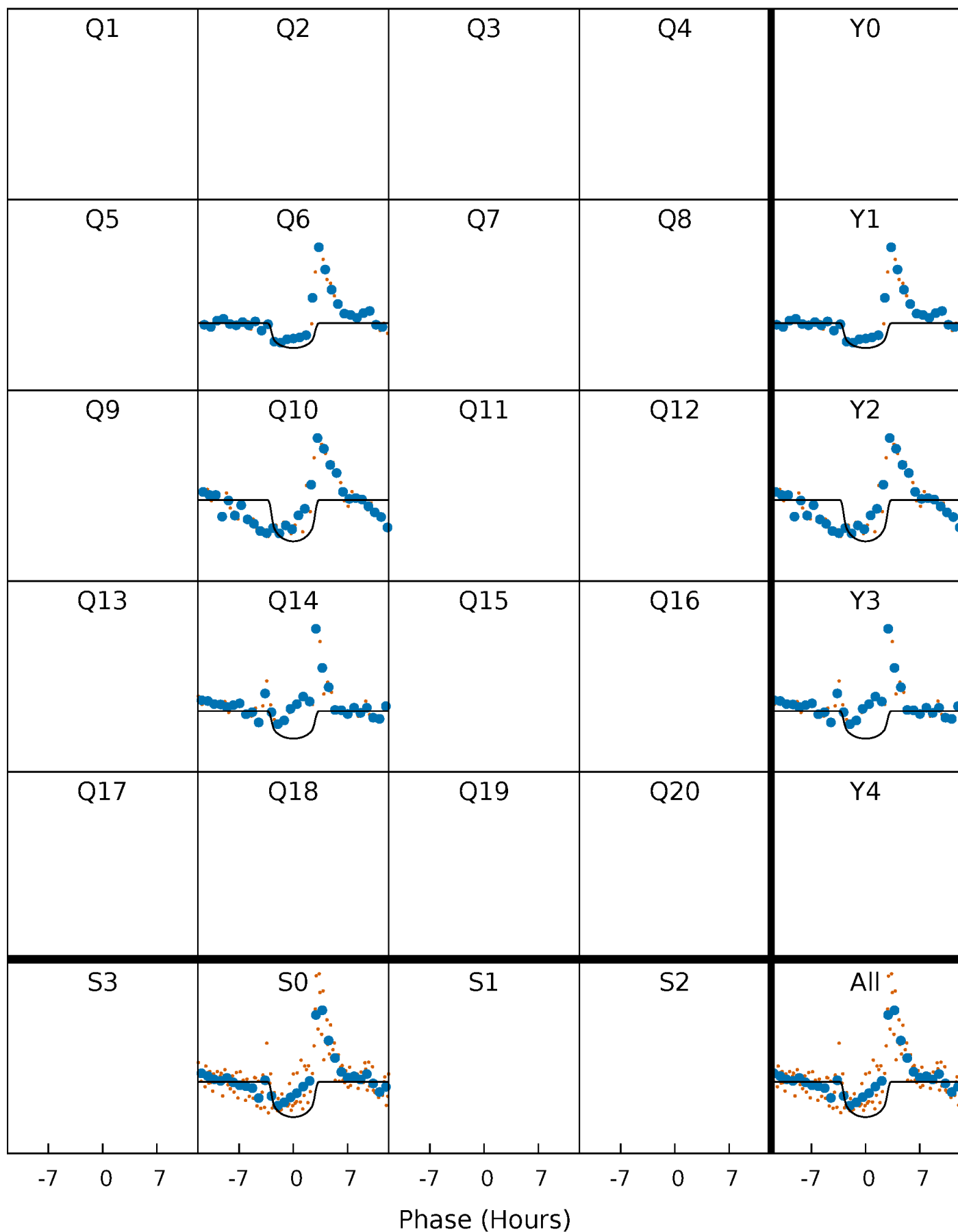
PDC Quarter-Phased Transit Curves

TCE 005560472-01 P=337.631942 Days $T_0=271.848485$ (BKJD)



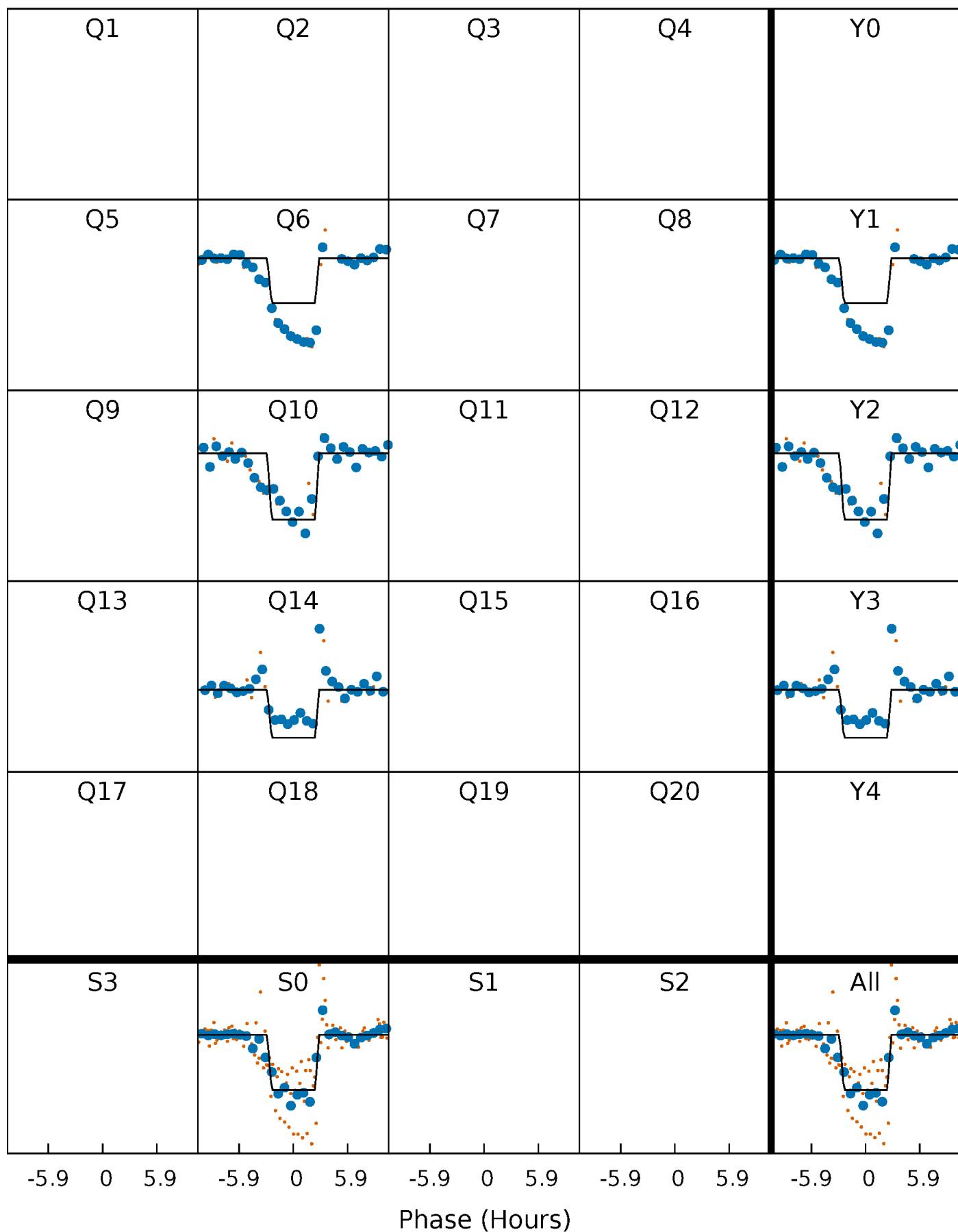
DV Quarter-Phased Transit Curves

TCE 005560472-01 P=337.631942 Days $T_0=271.848485$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

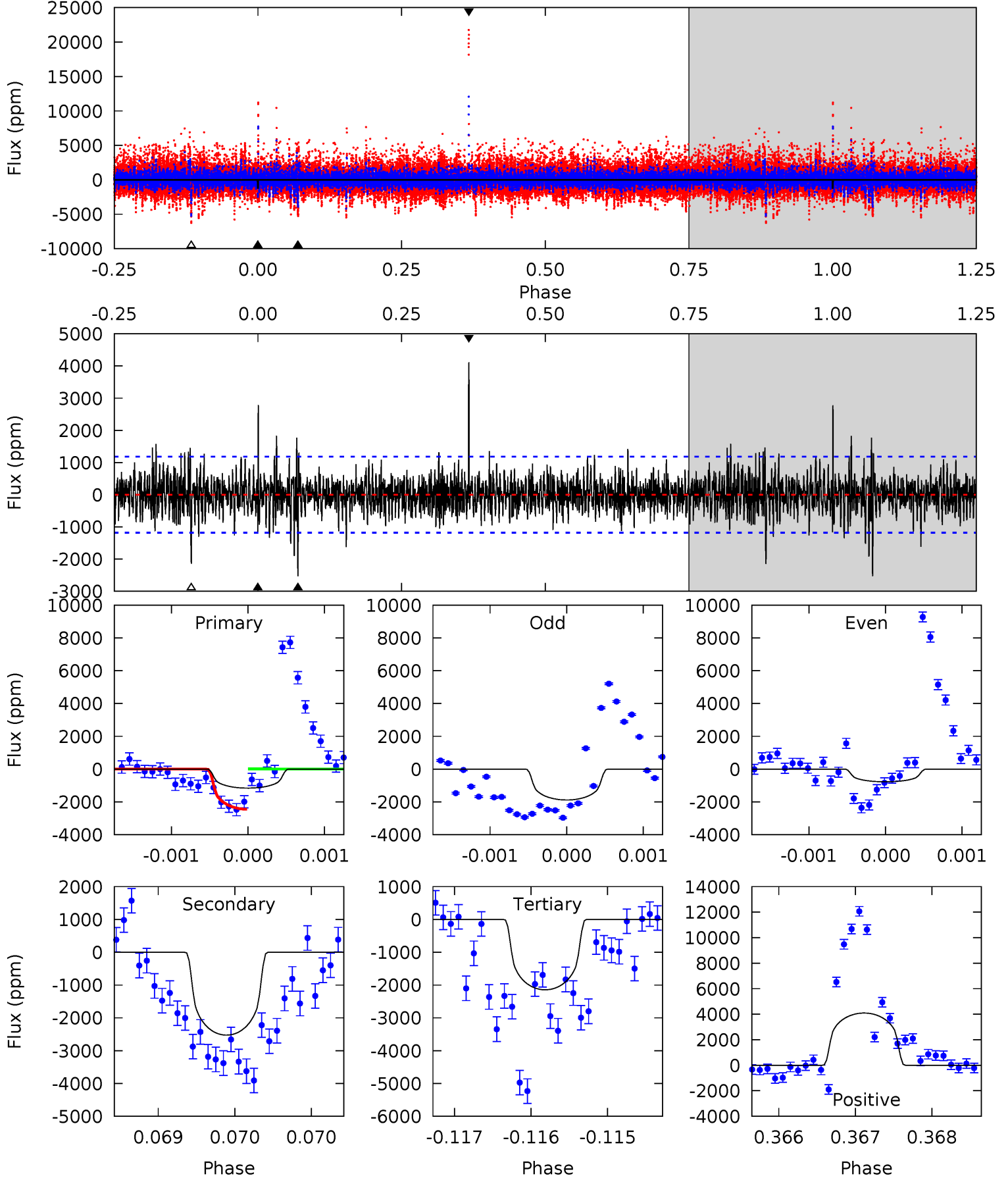
TCE 005560472-01 P=337.637334 Days $T_0=271.838208$ (BKJD)



DV Model-Shift Uniqueness Test

005560472-01, P = 337.631942 Days, E = 271.848485 Days

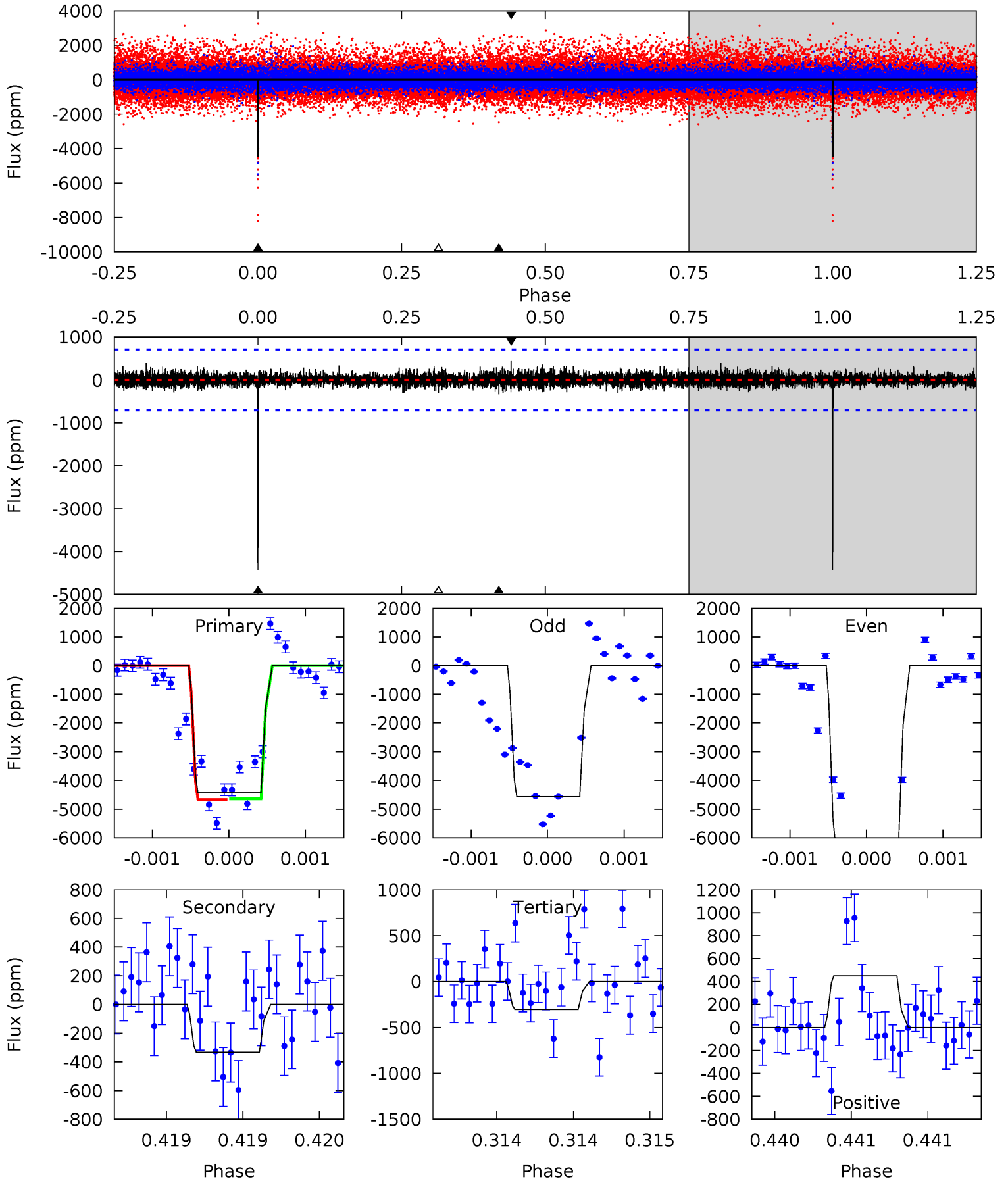
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.39	11.7	9.97	19.0	5.50	3.37	1.98	-4.58	-13.6	1.78	-7.28	2.04	0.58	0.62	5.76



Alt Model-Shift Uniqueness Test

005560472-01, P = 337.637334 Days, E = 271.838208 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
34.5	2.59	2.37	3.50	5.52	3.40	0.63	32.1	31.0	0.22	-0.91	6.66	1.27	0.09	0.12



Stellar Parameters For KIC 005560472

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4869^{+175}_{-175}	$4.565^{+0.060}_{-0.038}$	$-0.160^{+0.300}_{-0.300}$	$0.726^{+0.062}_{-0.069}$	$0.708^{+0.090}_{-0.053}$	$2.601^{+0.734}_{-0.397}$
	+4%/-4%	+1%/-1%	+188%/-188%	+9%/-10%	+13%/-7%	+28%/-15%
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 005560472-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-2526 ± 215	$4.65^{+2.19}_{-2.36}$	277^{+12}_{-12}	4567^{+1708}_{-626}	$46078^{+147297}_{-25346}$
Alt.	-333 ± 129	$5.63^{+2.35}_{-2.34}$	277^{+11}_{-12}	3063^{+592}_{-337}	4078^{+8864}_{-2274}

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

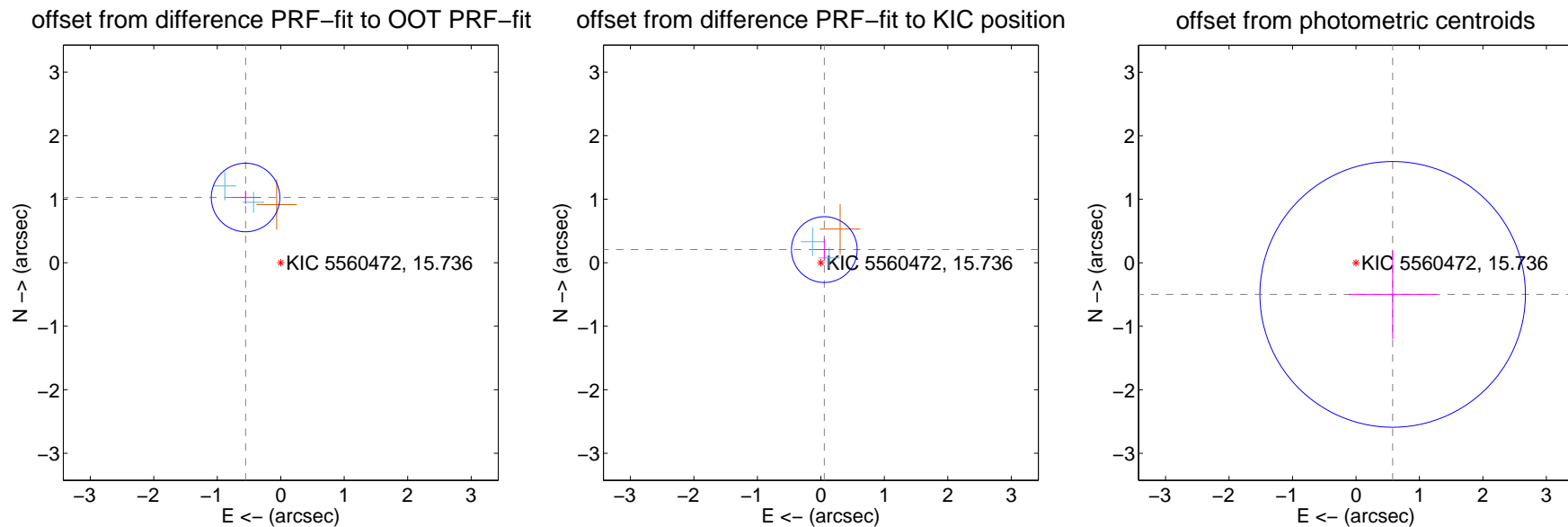
DV Centroid Data

Supplemental centroid analysis for 005560472-01. Kepler magnitude: 15.74. Transit SNR 8.36

There are 2 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 1.04 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.167 ± 0.180	6.49	0.555 ± 0.227	1.027 ± 0.101
PRF-fit source offset from KIC position	0.213 ± 0.173	1.24	-0.054 ± 0.150	0.206 ± 0.174
photometric centroid source offset	0.76 ± 0.70	1.09	-0.58 ± 0.69	-0.50 ± 0.70



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

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



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

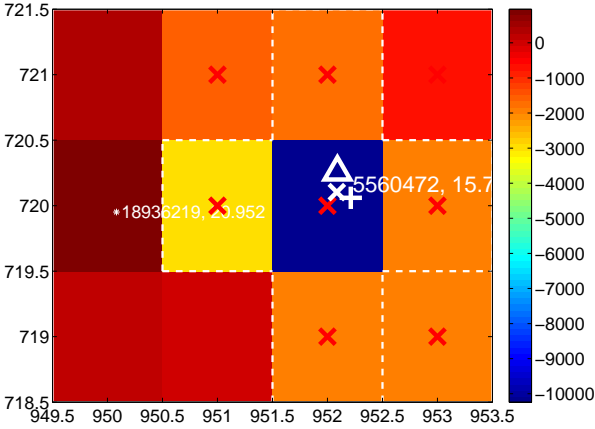
Q5 no difference image



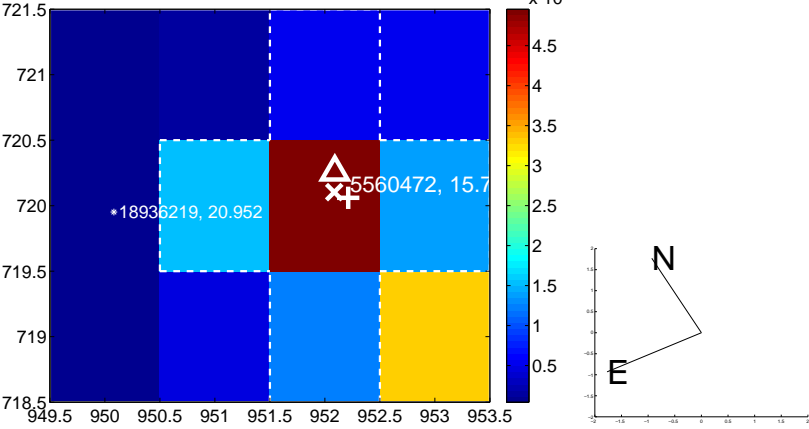
Q5 no OOT image



Q6 difference image. Poor Quality



Q6 OOT image



Q7 no difference image



Q7 no OOT image



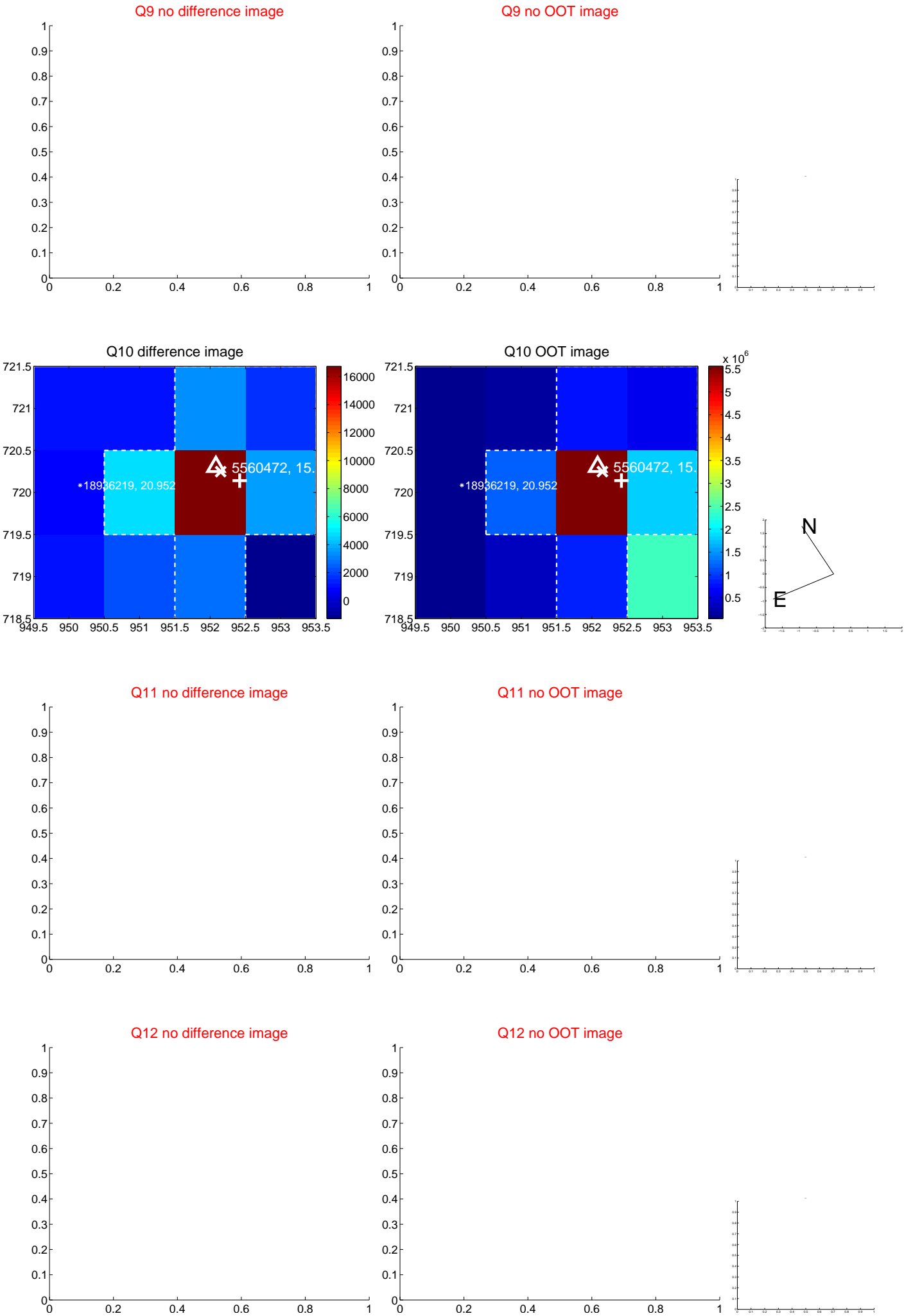
Q8 no difference image



Q8 no OOT image



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

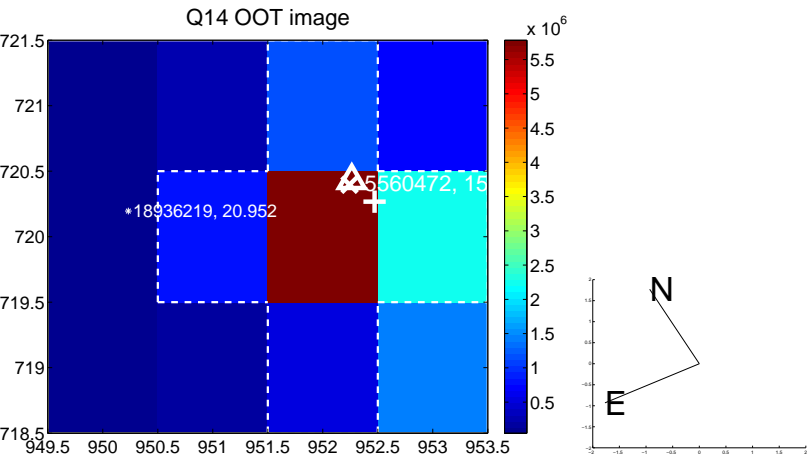
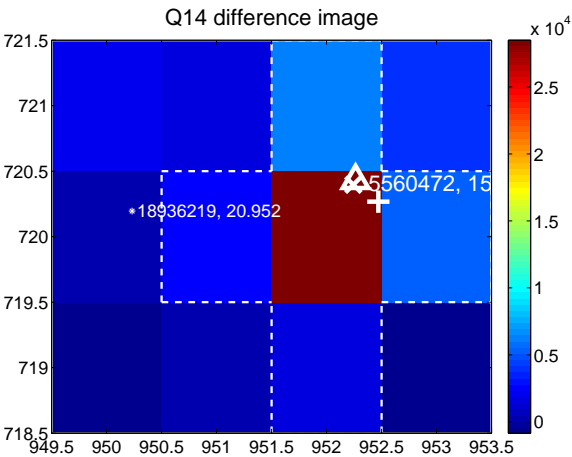


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

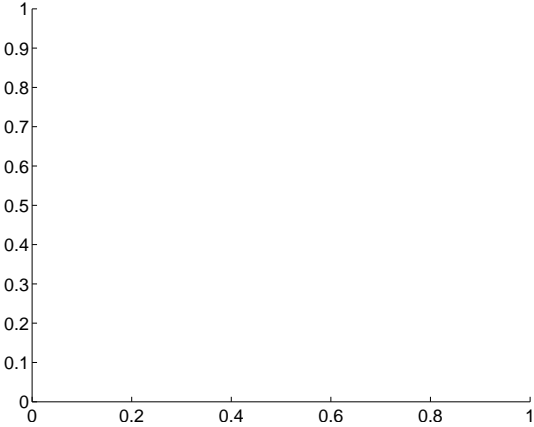
Q13 no difference image



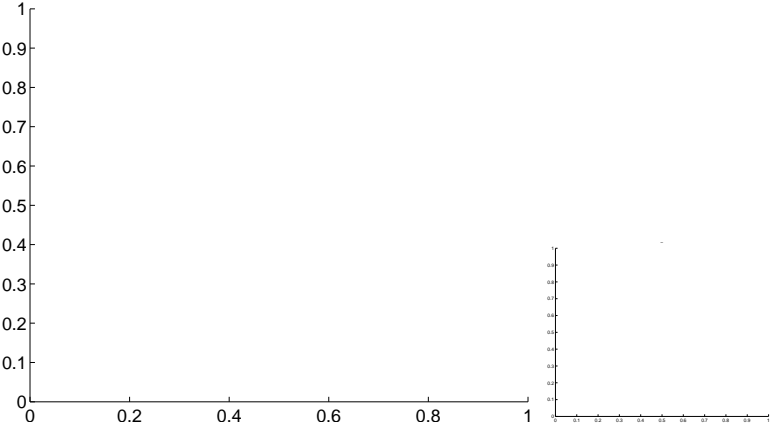
Q13 no OOT image



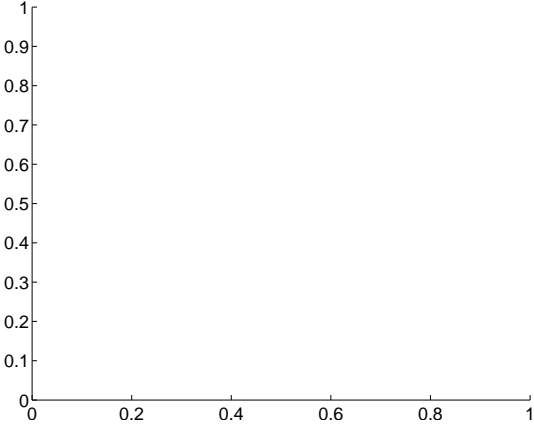
Q15 no difference image



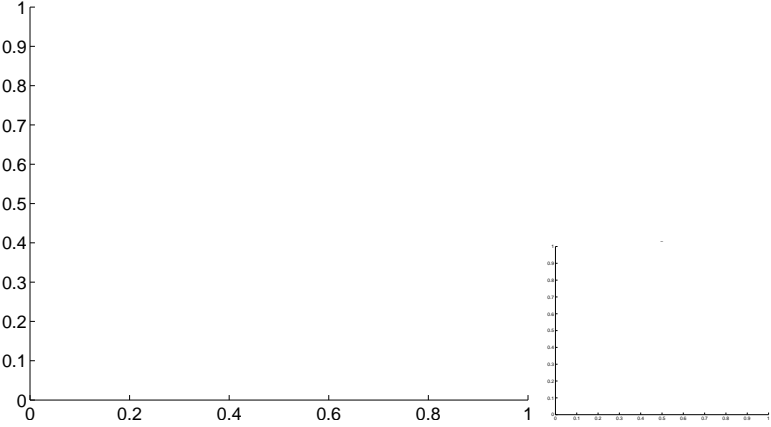
Q15 no OOT image



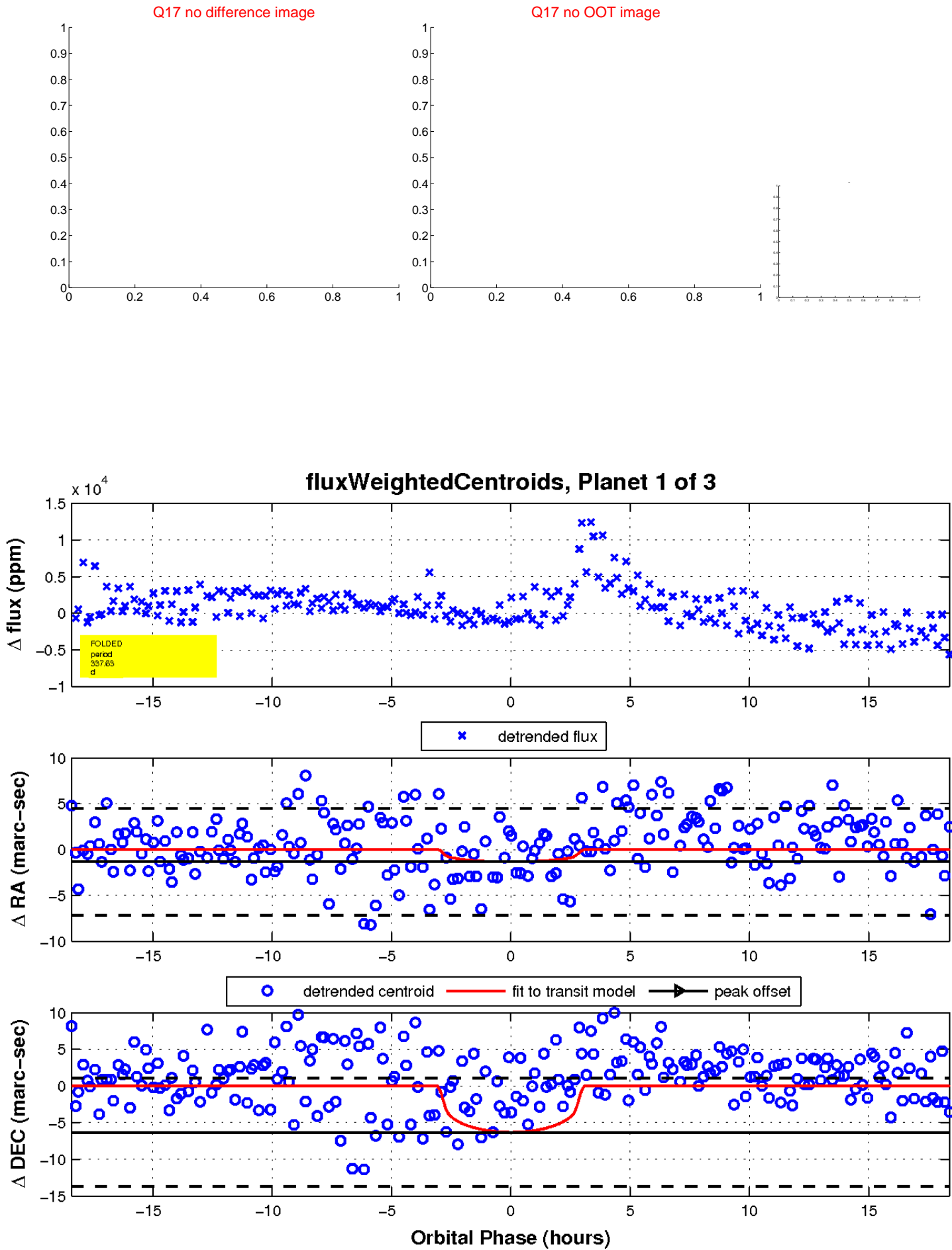
Q16 no difference image



Q16 no OOT image

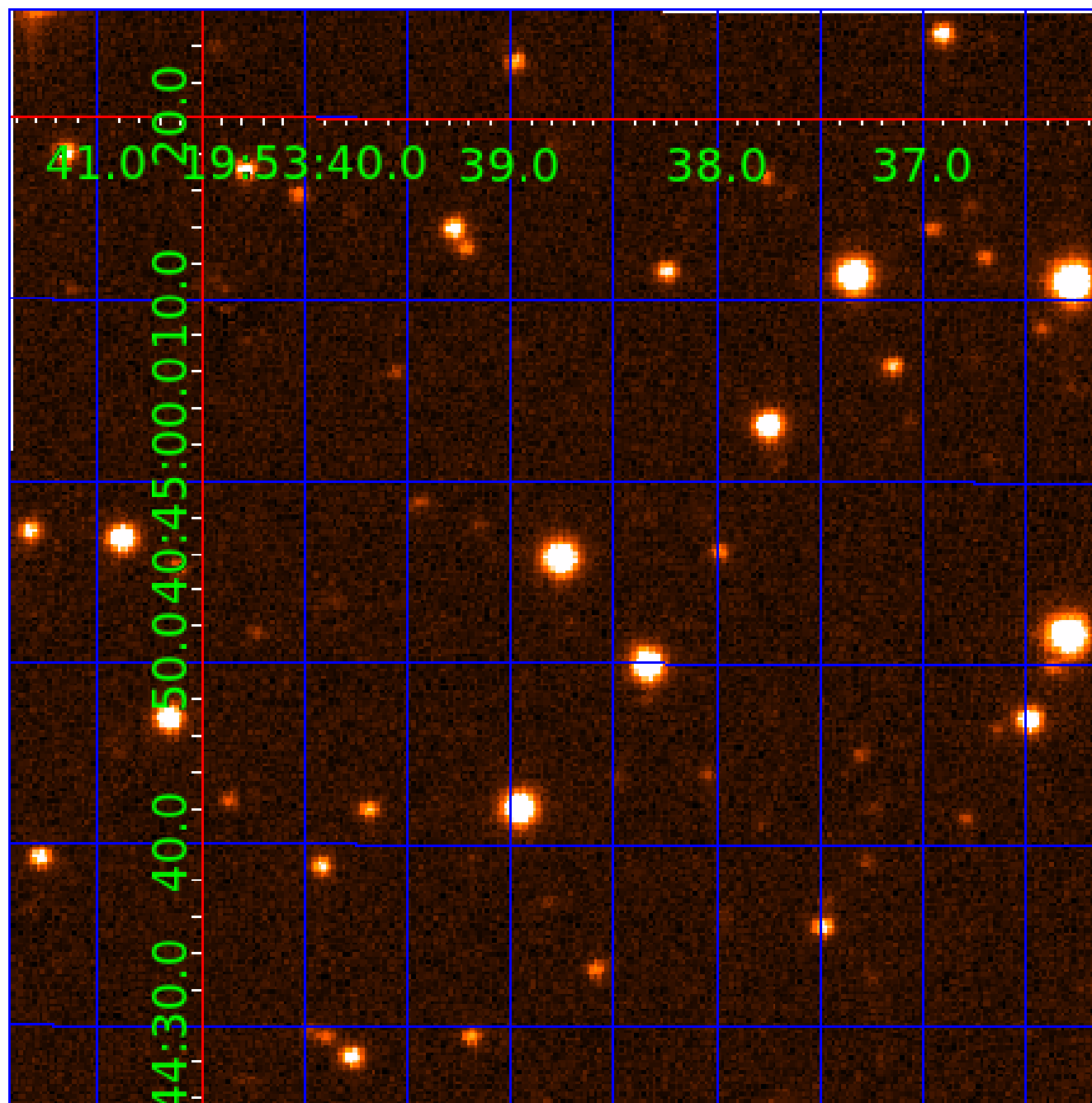


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 005560472

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})
005560472-01	OBS	No	337.631942	271.848485	3664.5	6.144	14.2	8.4	0.73	4869	4.37	0.37
005560472-02	OBS	No	347.563204	317.875319	2567.7	2.845	12.3	7.8	0.73	4869	3.80	0.36
005560472-03	OBS	No	393.860133	483.230962	2237.6	3.691	11.8	6.3	0.73	4869	3.38	0.30

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005560472-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_FEW_DIFFS
005560472-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
005560472-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—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.

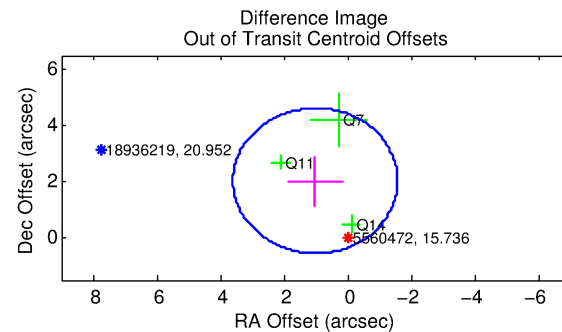
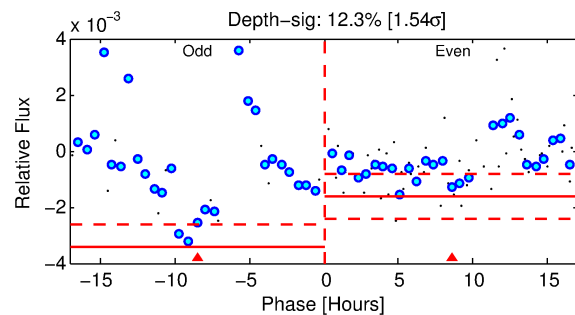
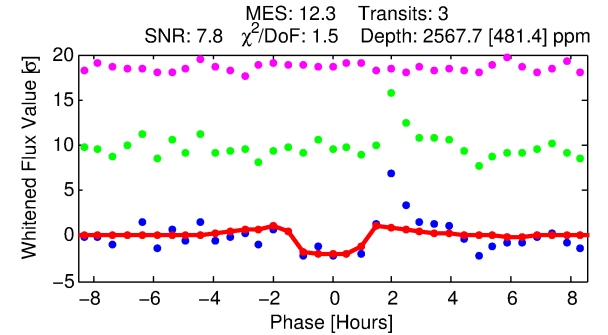
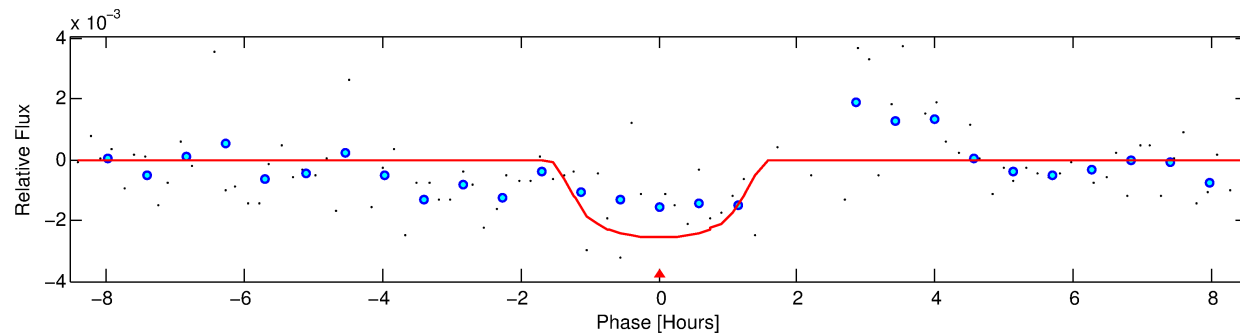
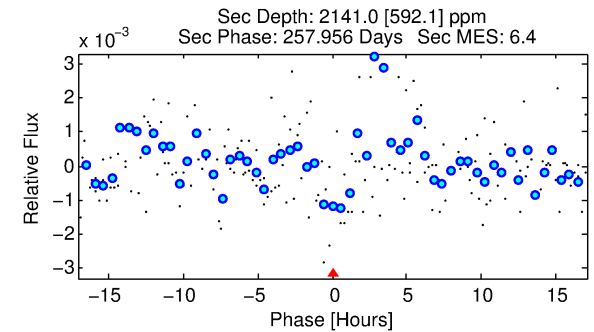
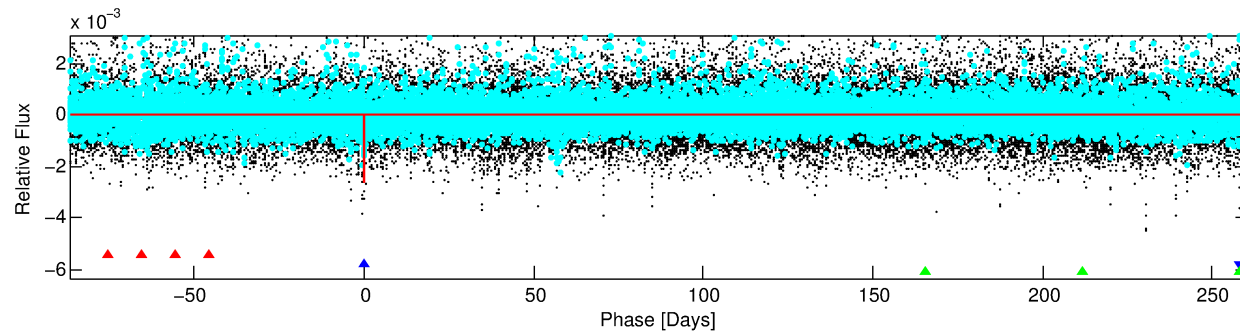
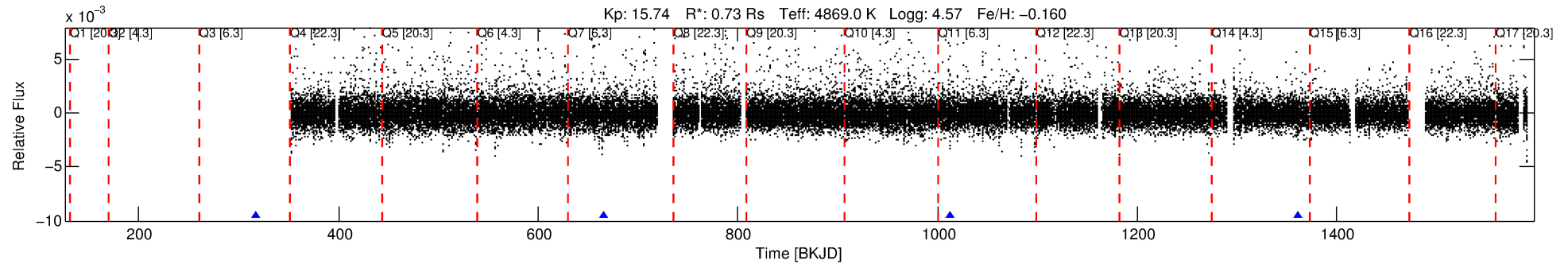
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005560472-02

No Significant Match Found

DV One-Page Summary

KIC: 5560472 Candidate: 2 of 3 Period: 347.563 d



DV Fit Results:

Period = 347.56320 [0.00556] d
Epoch = 317.8753 [0.0141] BKJD
Rp/R* = 0.0480 [0.0704]
a/R* = 800.97 [3829.16]
b = 0.60 [5.20]
Seff = 0.36 [0.07]
Teq = 197 [9] K
Rp = 3.80 [5.59] Re
a = 0.8617 [0.0675] AU
Ag = 60468.08 [178184.75] [0.34 σ]
Teffp = 4780 [3523] K [1.30 σ]

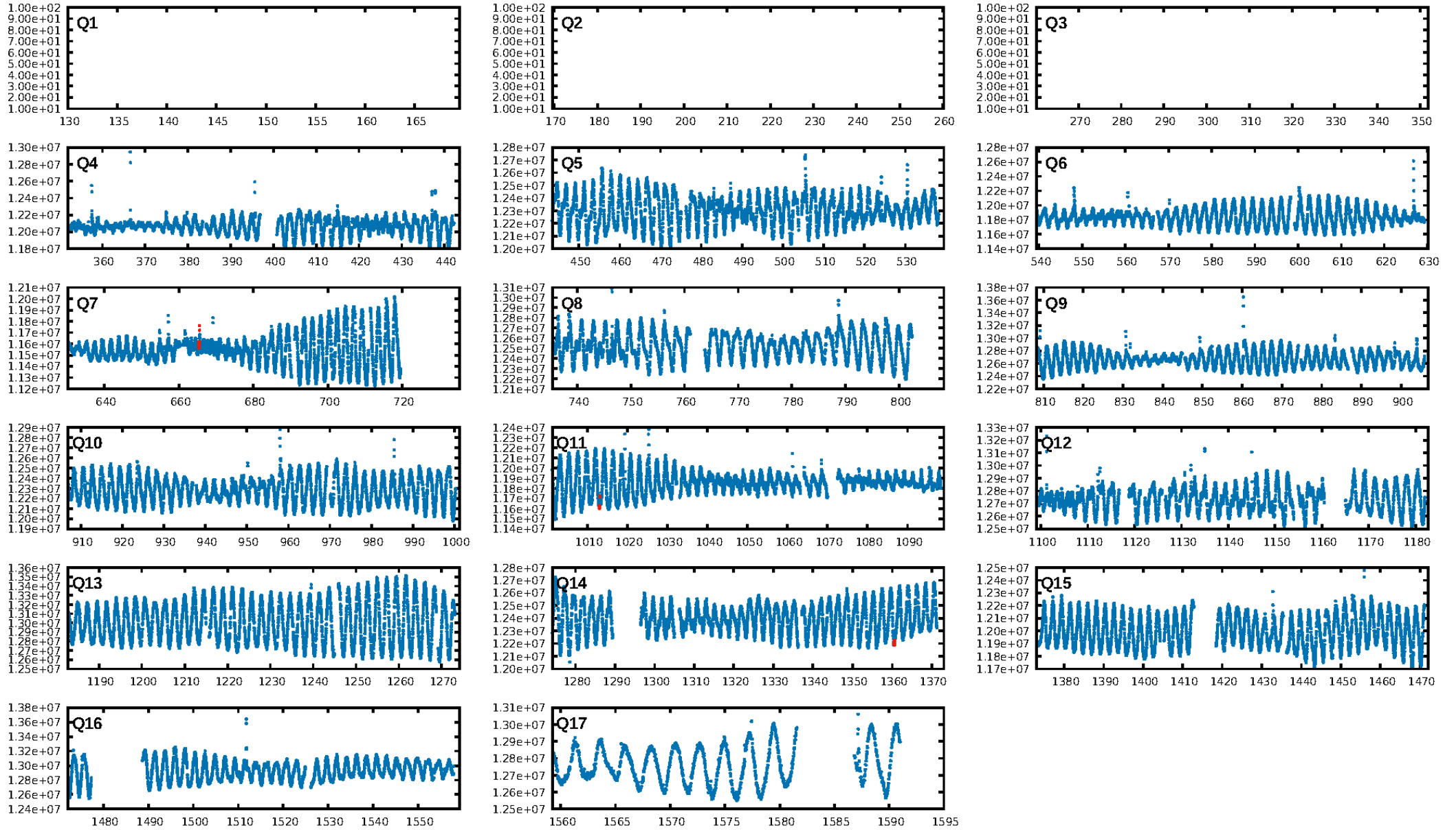
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [35.20 σ]
LongPeriod-sig: 100.0% [238.43 σ]
ModelChiSquare2-sig: 17.0%
ModelChiSquareGof-sig: 60.8%
Bootstrap-pfa: 2.16e-11
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 1.247
Centroid-sig: 28.3%
Centroid-so: 2.438 arcsec [2.17 σ]
OotOffset-rm: 2.268 arcsec [2.63 σ]
KicOffset-rm: 0.391 arcsec [0.49 σ]
OotOffset-st: 1/2/0/0 [3]
KicOffset-st: 1/2/0/0 [3]
DiffImageQuality-fgm: 0.67 [2/3]
DiffImageOverlap-fno: 1.00 [3/3]

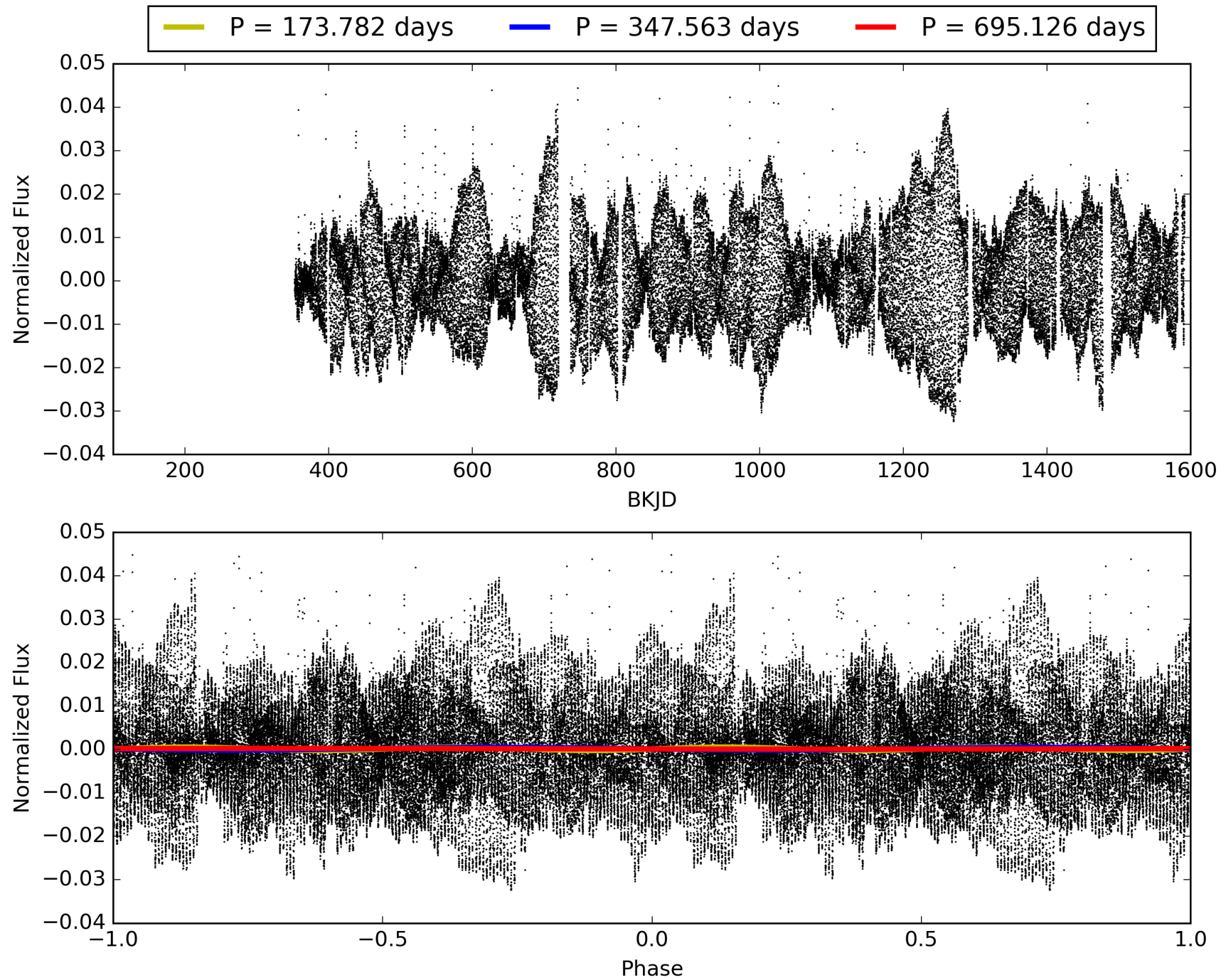
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 03:39:47 Z

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

TCE 005560472-02, PDC Light Curves

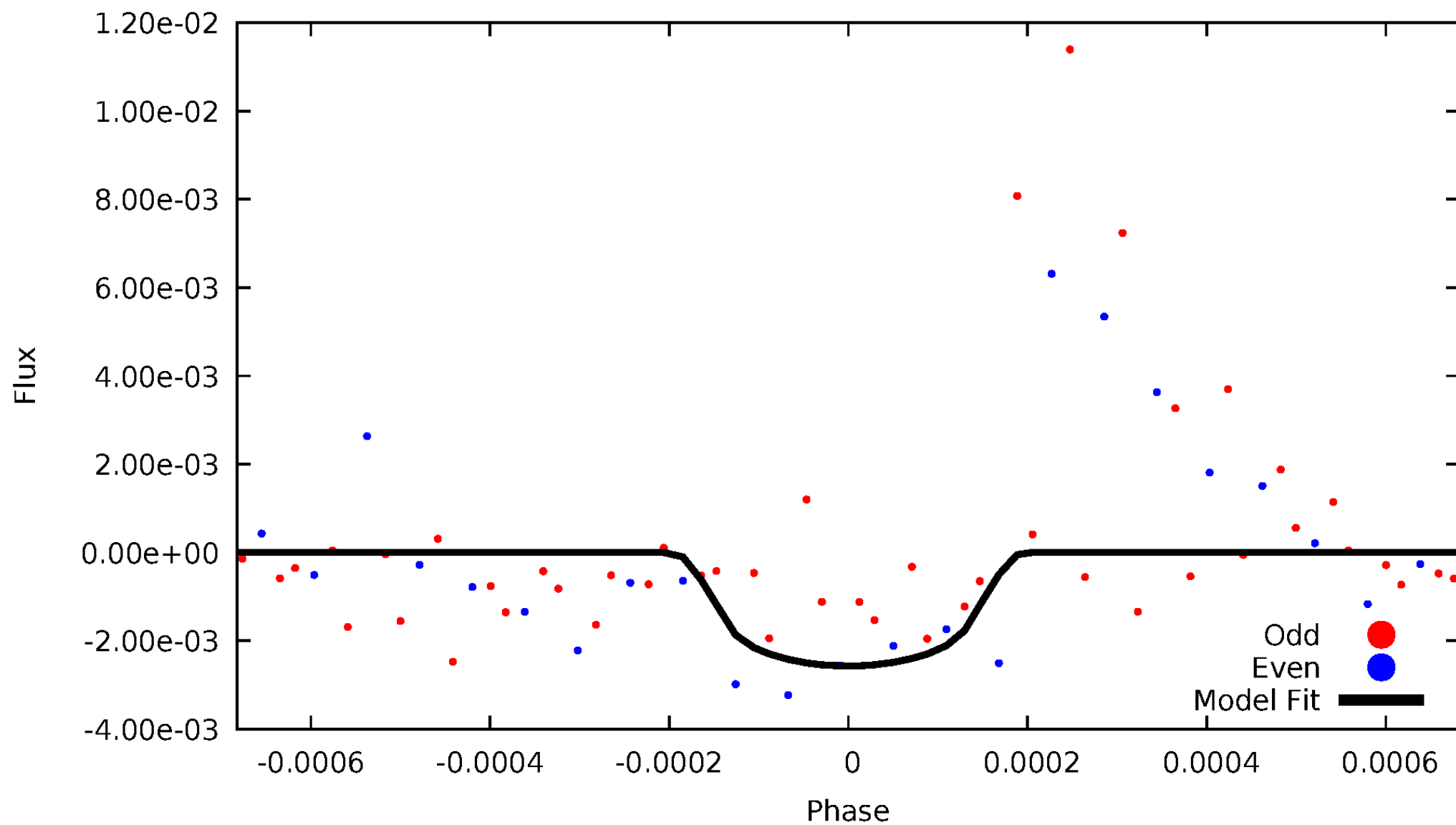


TCE 005560472-02



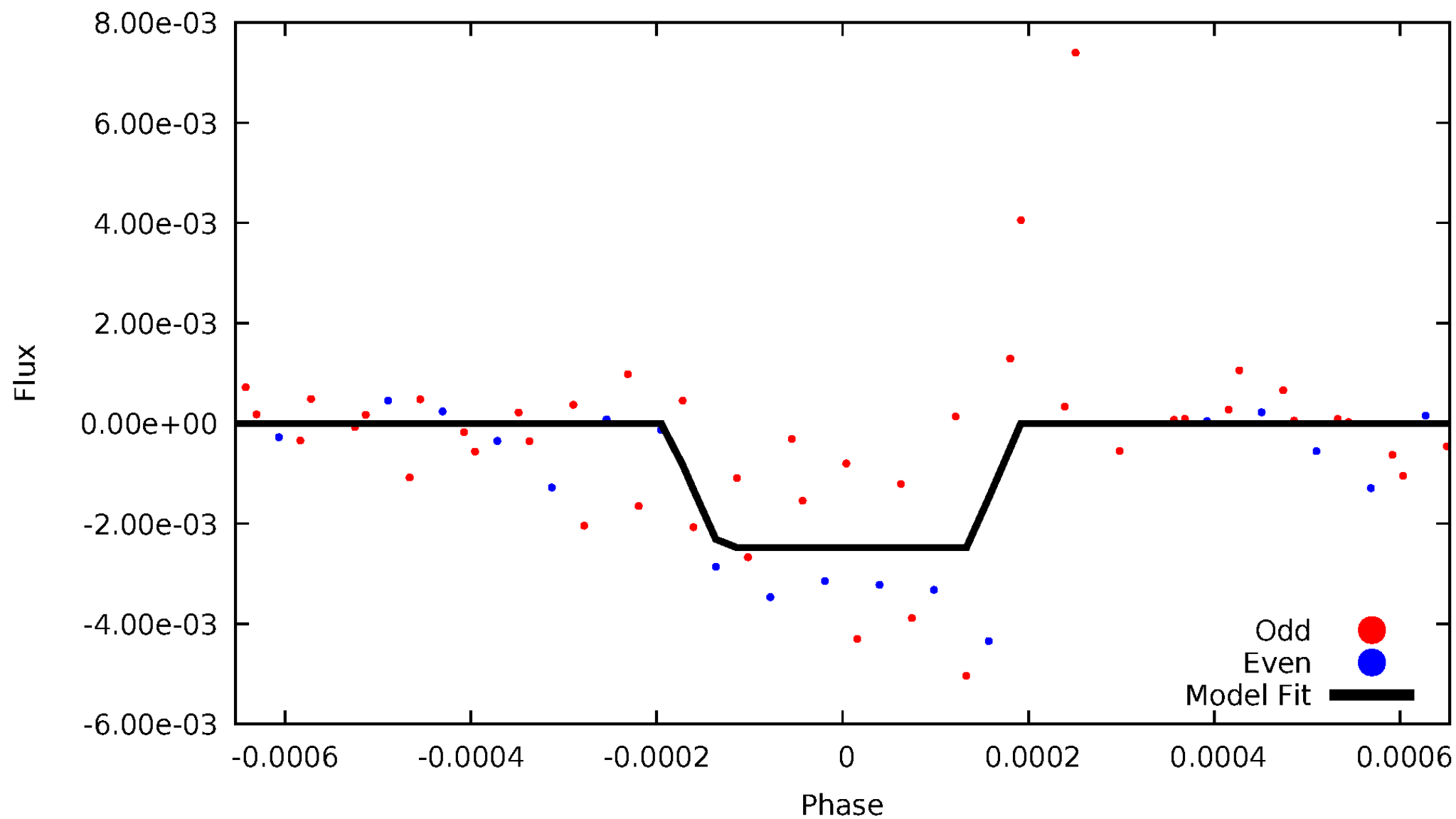
DV Odd/Even

TCE 005560472-02



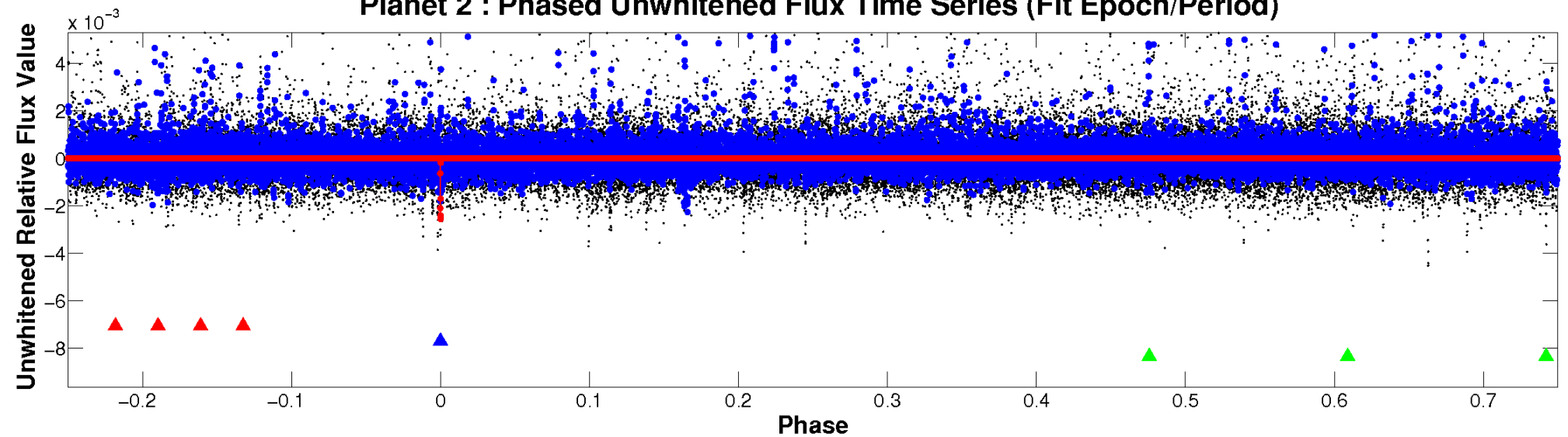
ALT Odd/Even

TCE 005560472-02

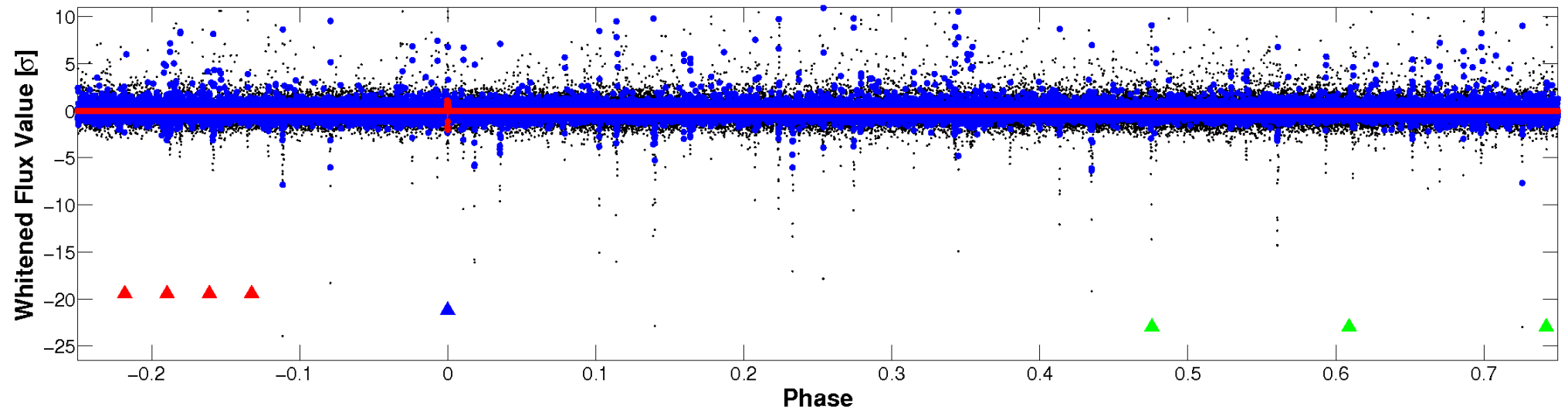


Non-Whitened Vs. Whitened Light Curve

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

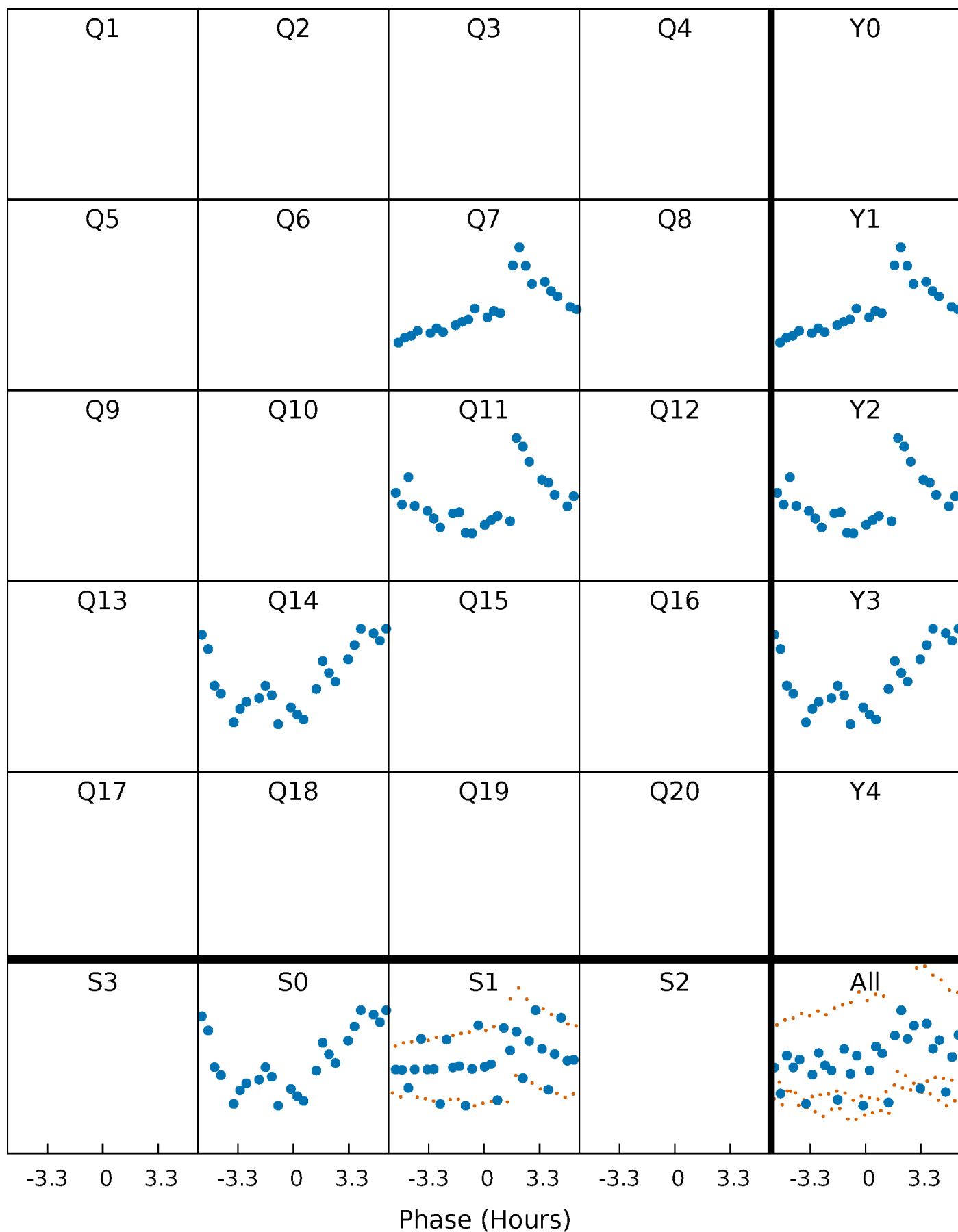


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



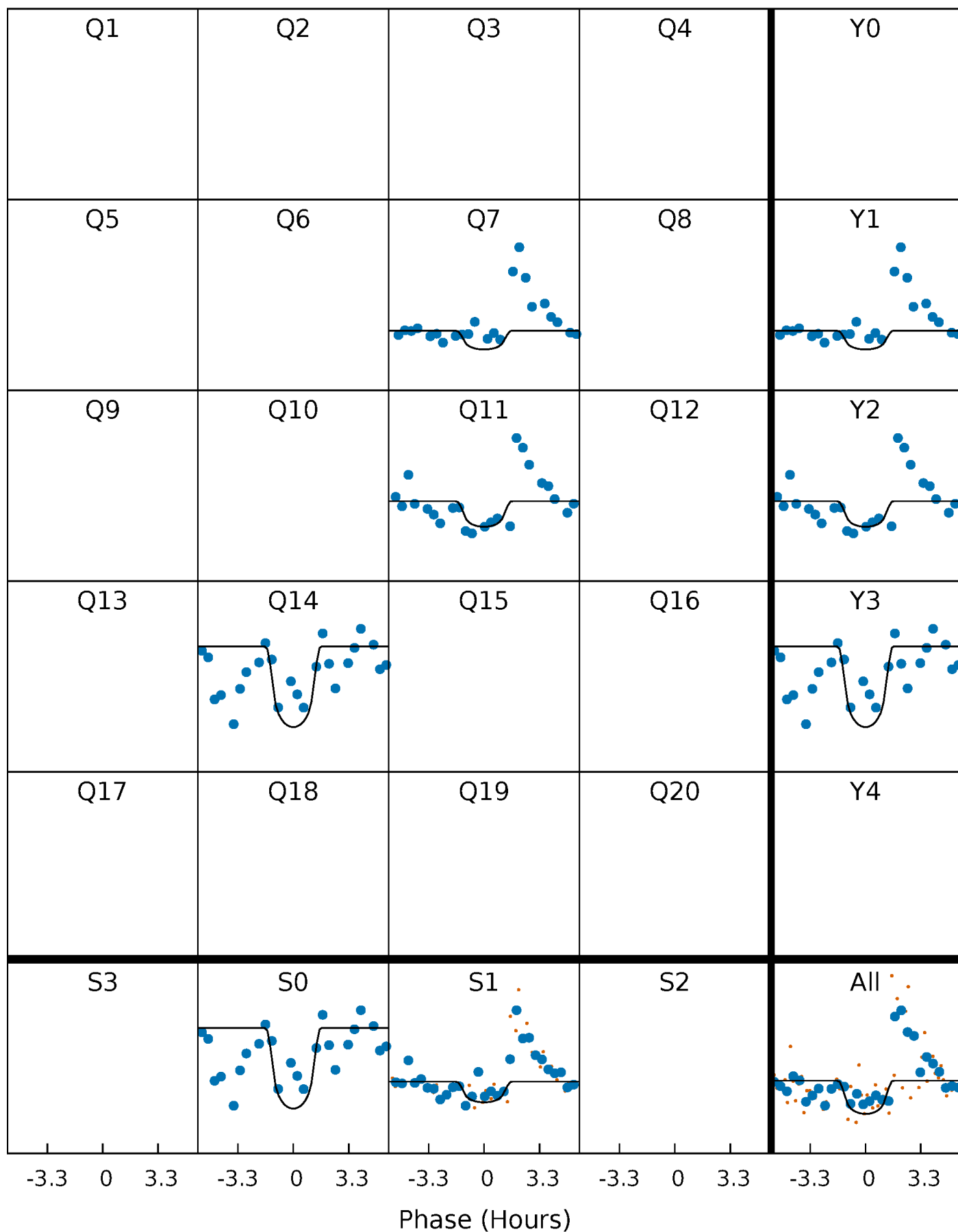
PDC Quarter-Phased Transit Curves

TCE 005560472-02 P=347.563204 Days $T_0=317.875319$ (BKJD)



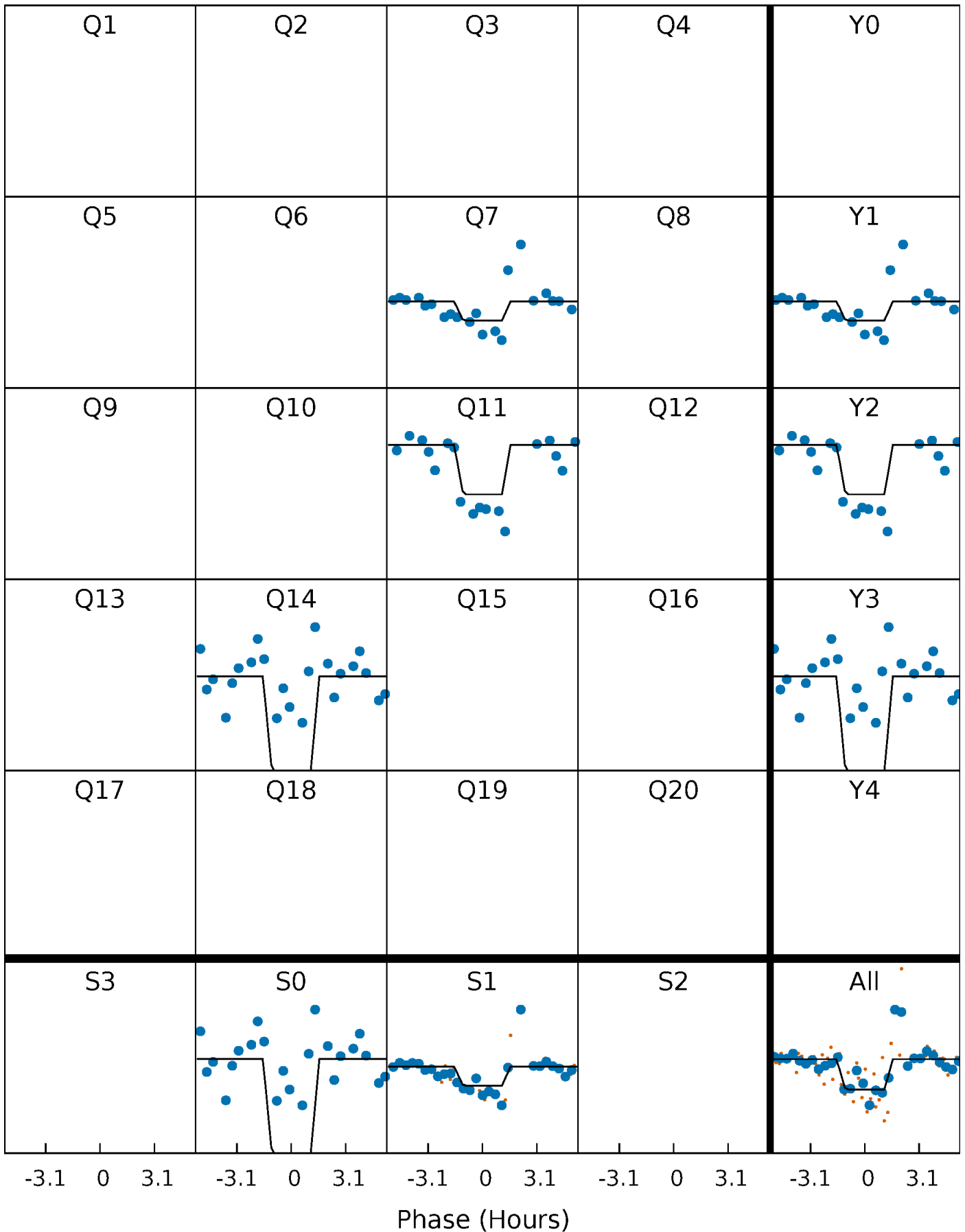
DV Quarter-Phased Transit Curves

TCE 005560472-02 $P=347.563204$ Days $T_0=317.875319$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

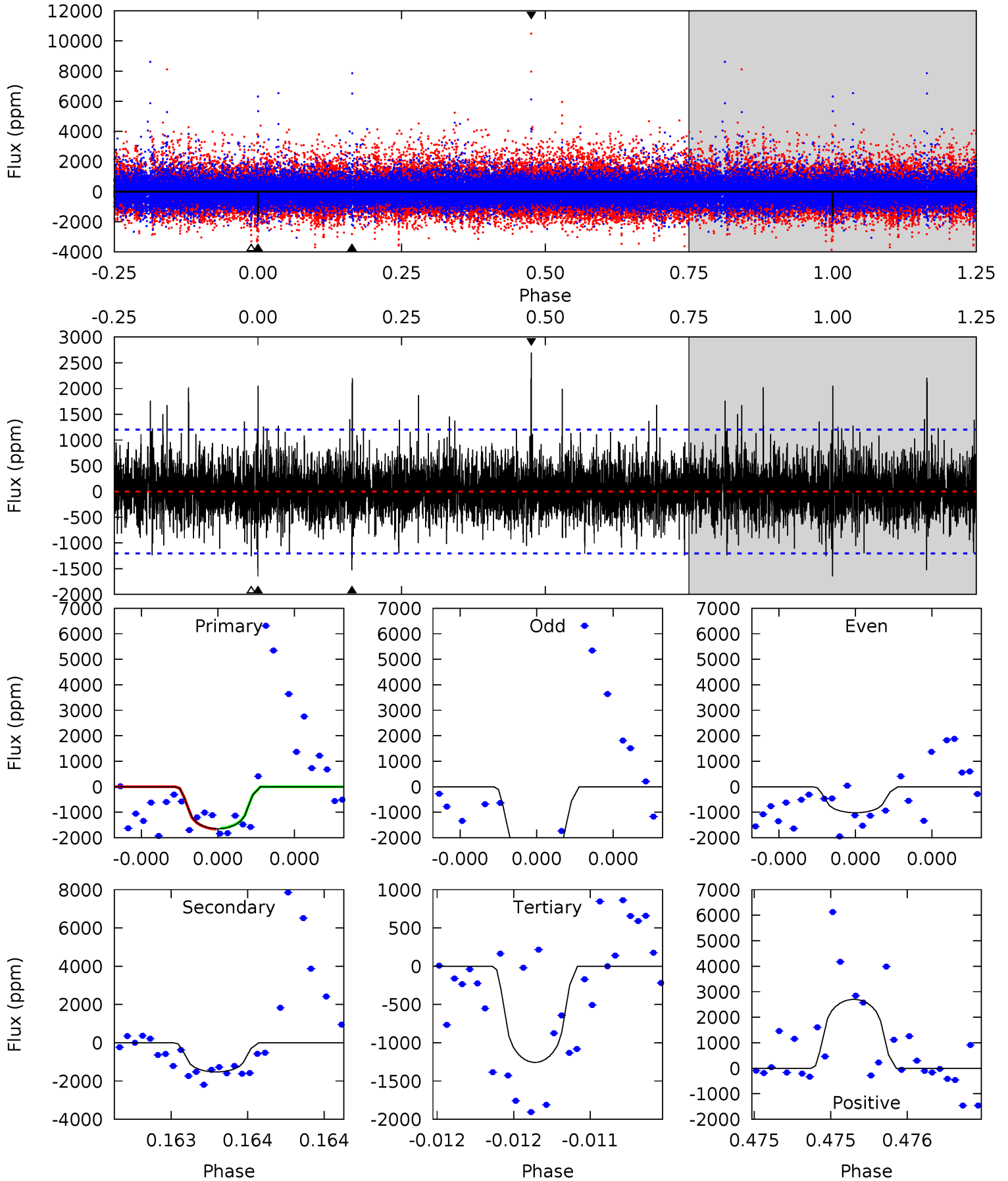
TCE 005560472-02 P=347.568183 Days $T_0=317.869099$ (BKJD)



DV Model-Shift Uniqueness Test

005560472-02, P = 347.563204 Days, E = 317.875319 Days

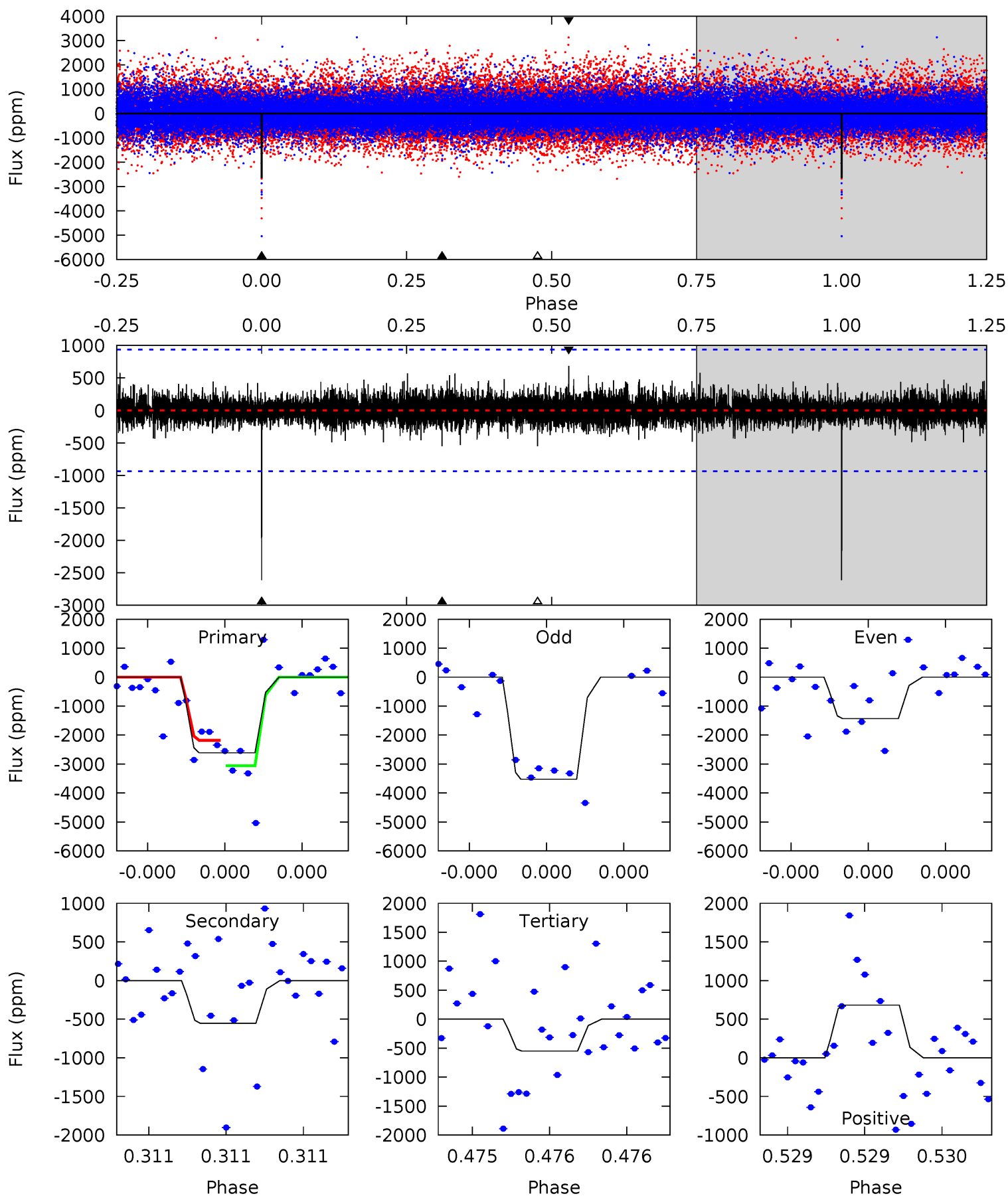
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.71	7.14	5.88	12.6	5.63	3.56	1.67	1.83	-4.93	1.26	-5.50	3.26	0.99	0.62	0.08



Alt Model-Shift Uniqueness Test

005560472-02, P = 347.568183 Days, E = 317.869099 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.7	3.33	3.32	4.11	5.64	3.58	0.72	12.4	11.6	0.01	-0.79	6.24	0.72	0.21	2.65



Stellar Parameters For KIC 005560472

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4869^{+175}_{-175}	$4.565^{+0.060}_{-0.038}$	$-0.160^{+0.300}_{-0.300}$	$0.726^{+0.062}_{-0.069}$	$0.708^{+0.090}_{-0.053}$	$2.601^{+0.734}_{-0.397}$
	+4%/-4%	+1%/-1%	+188%/-188%	+9%/-10%	+13%/-7%	+28%/-15%
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 005560472-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-1524 ± 214	$5.55^{+5.20}_{-3.63}$	275^{+11}_{-13}	3888^{+2125}_{-733}	$19706^{+147683}_{-14311}$
Alt.	-552 ± 166	$5.39^{+5.13}_{-3.49}$	275^{+12}_{-12}	3298^{+1499}_{-553}	7398^{+53271}_{-5427}

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

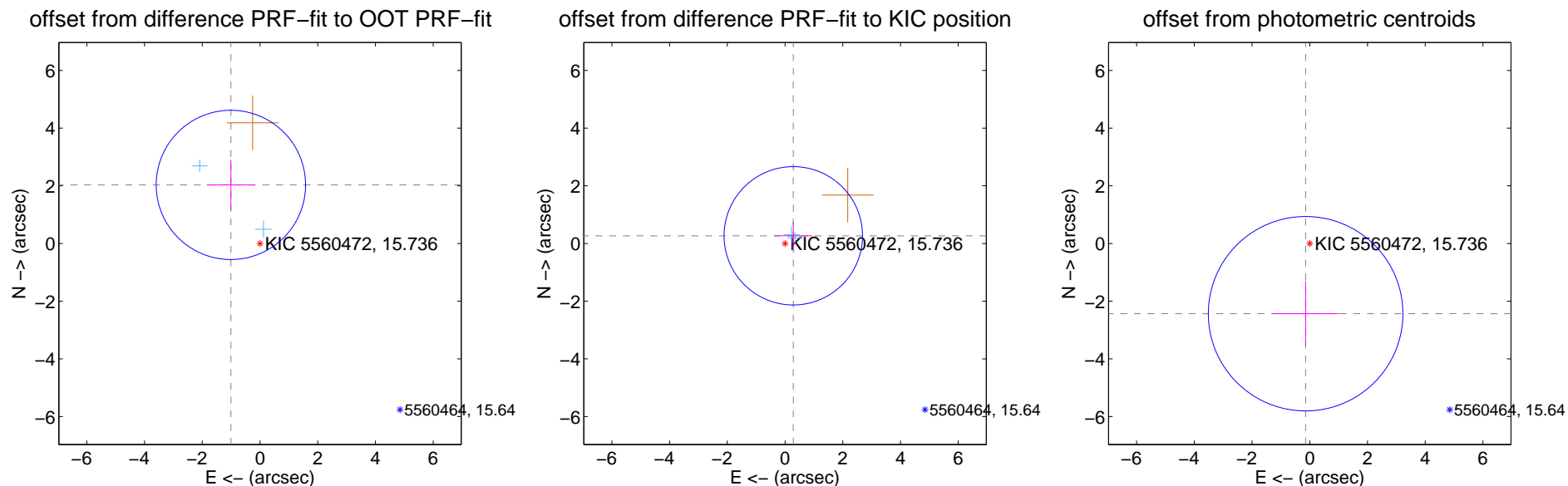
DV Centroid Data

Supplemental centroid analysis for 005560472-02. Kepler magnitude: 15.74. Transit SNR 7.80

There are 2 quarters with good PRF difference image offsets

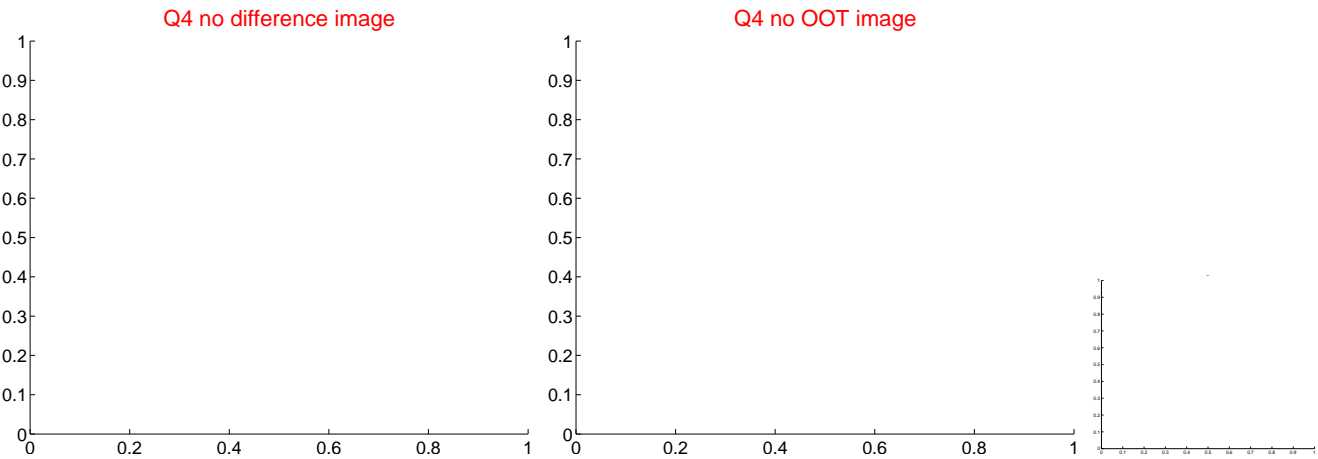
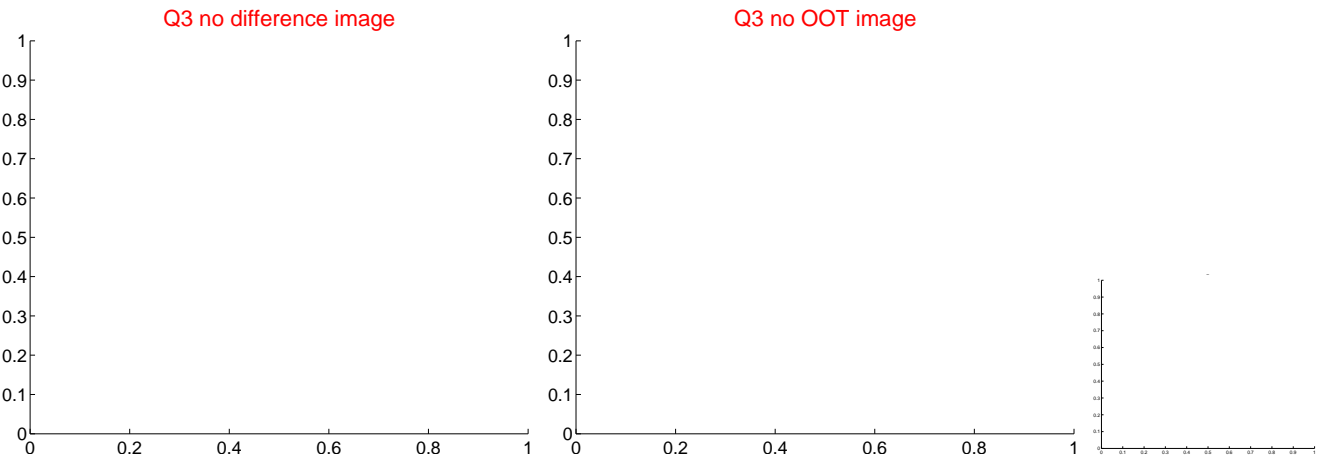
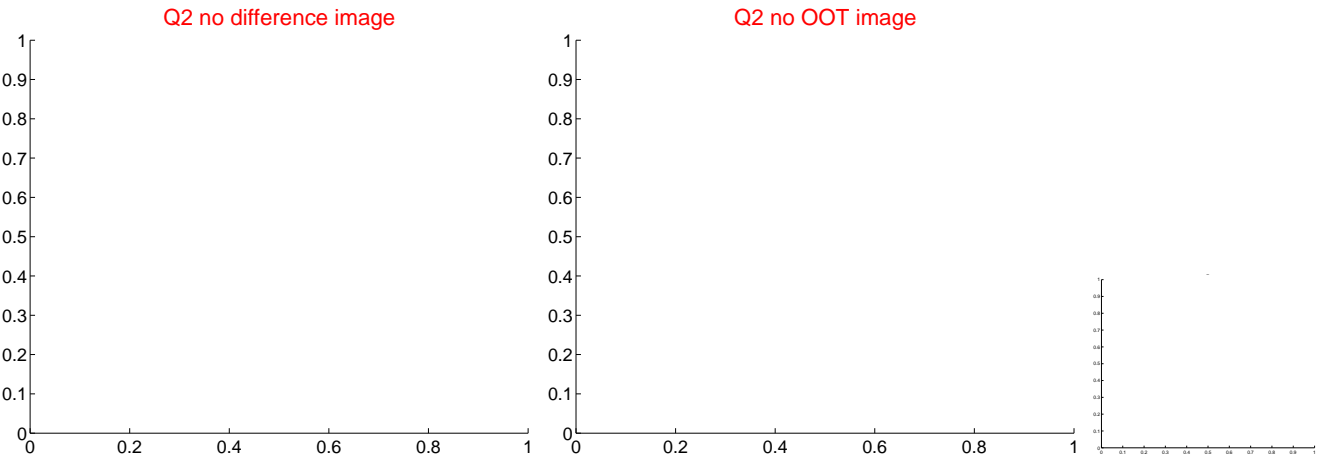
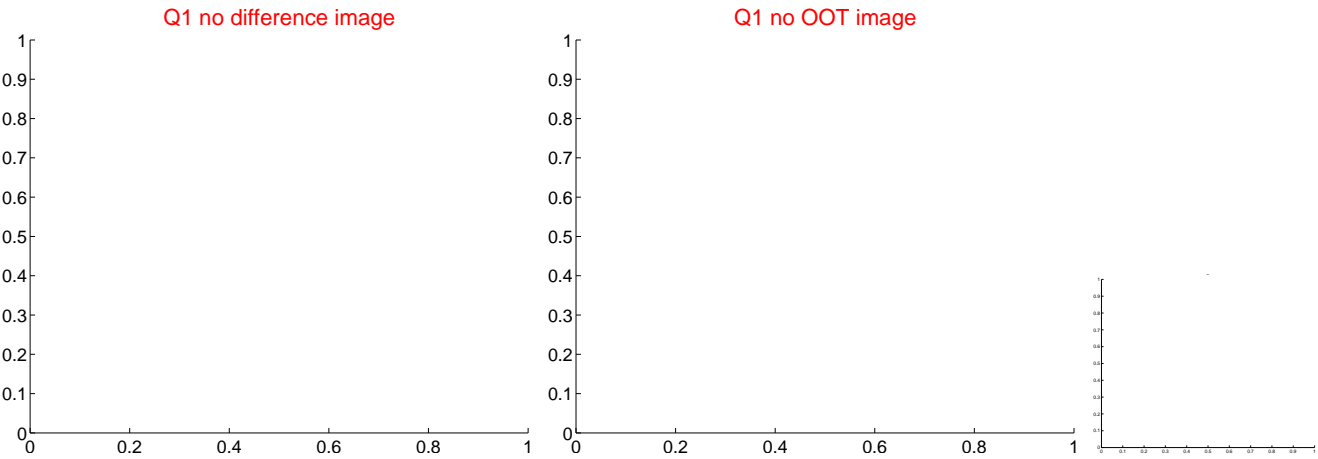
The direct PRF centroid is offset from the target star catalog position by about 0.22 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.268 ± 0.862	2.63	1.009 ± 0.838	2.032 ± 0.868
PRF-fit source offset from KIC position	0.391 ± 0.799	0.49	-0.286 ± 0.646	0.267 ± 0.484
photometric centroid source offset	2.44 ± 1.12	2.17	0.14 ± 1.15	-2.43 ± 1.12

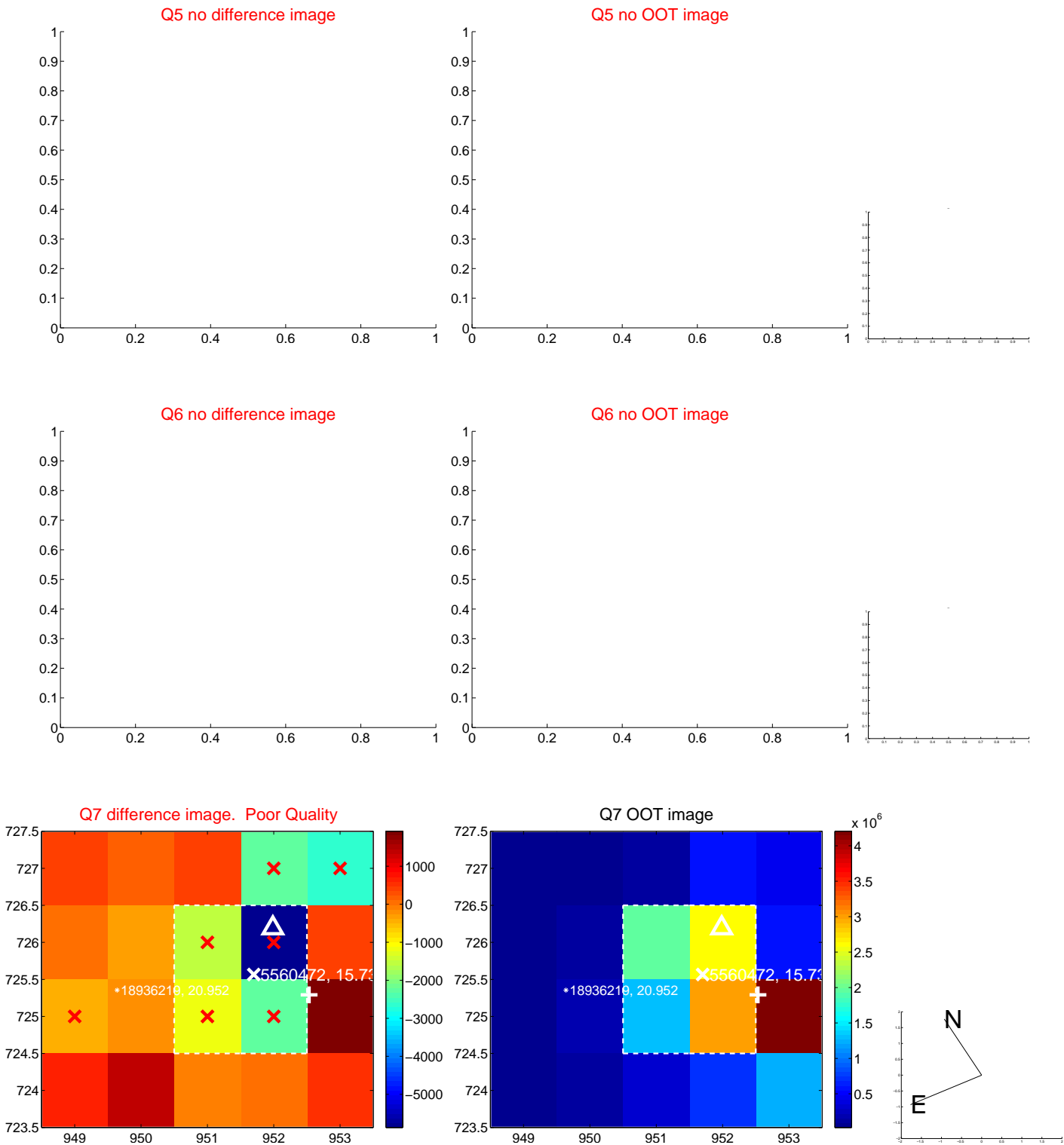


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

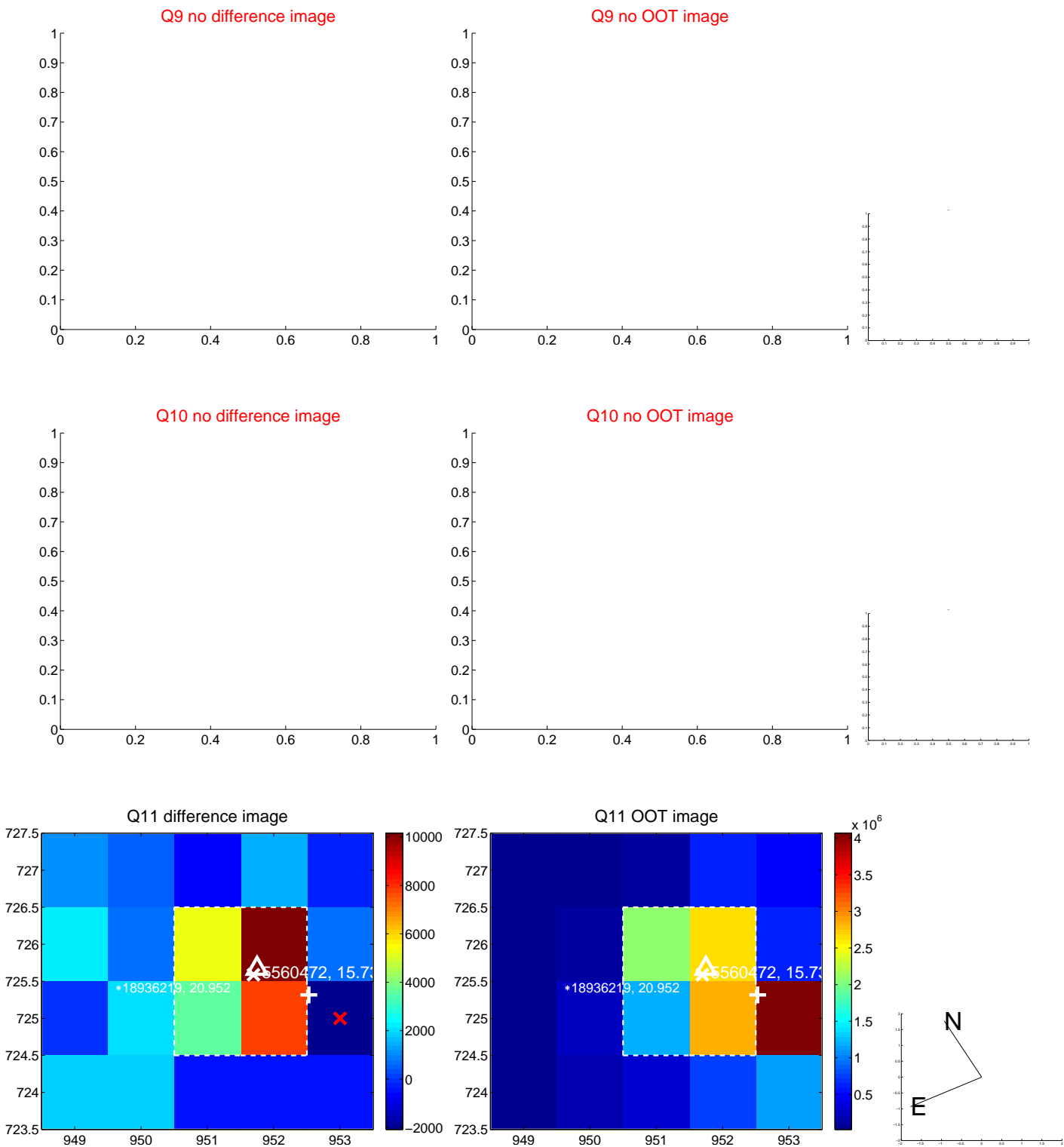
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



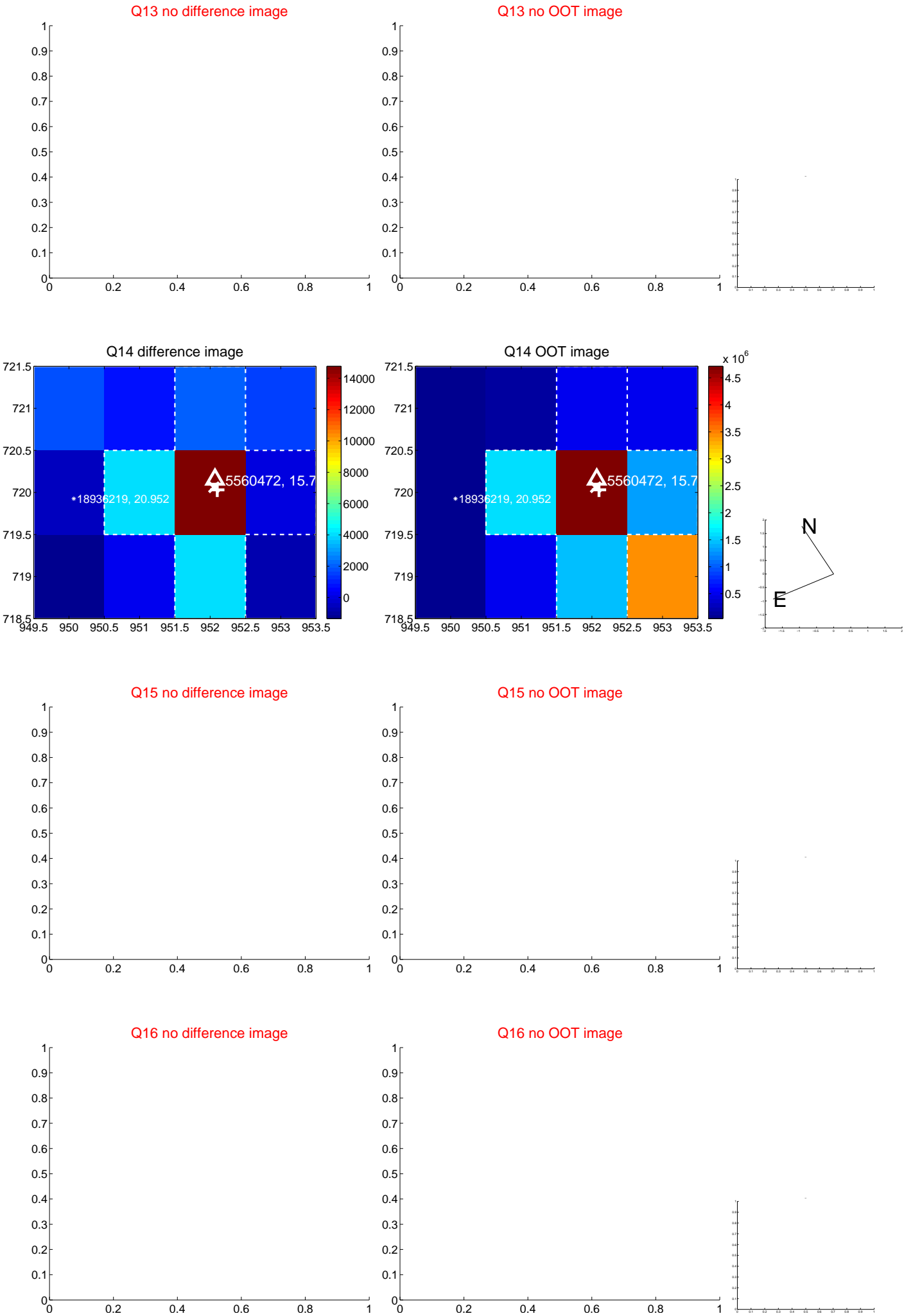
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



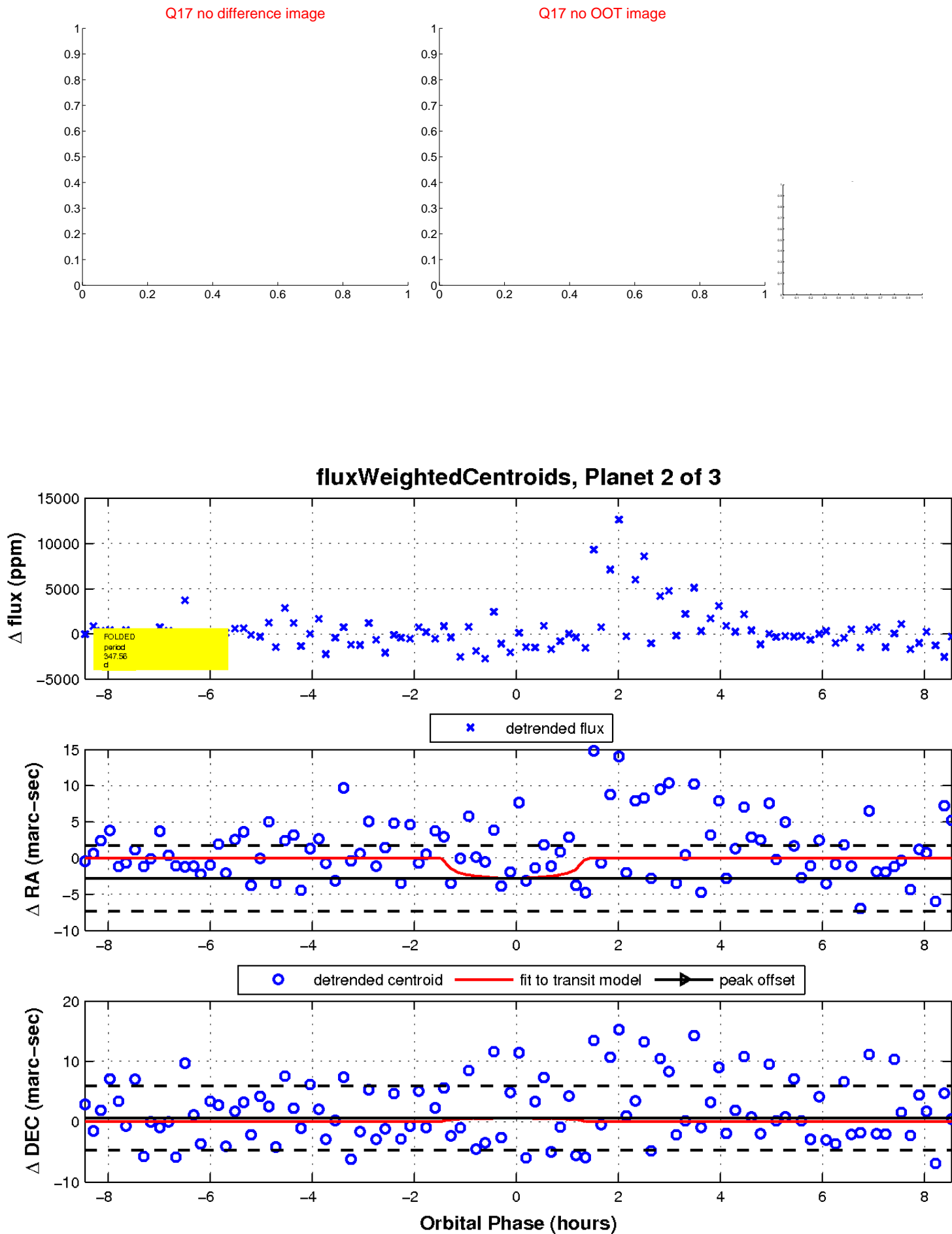
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



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

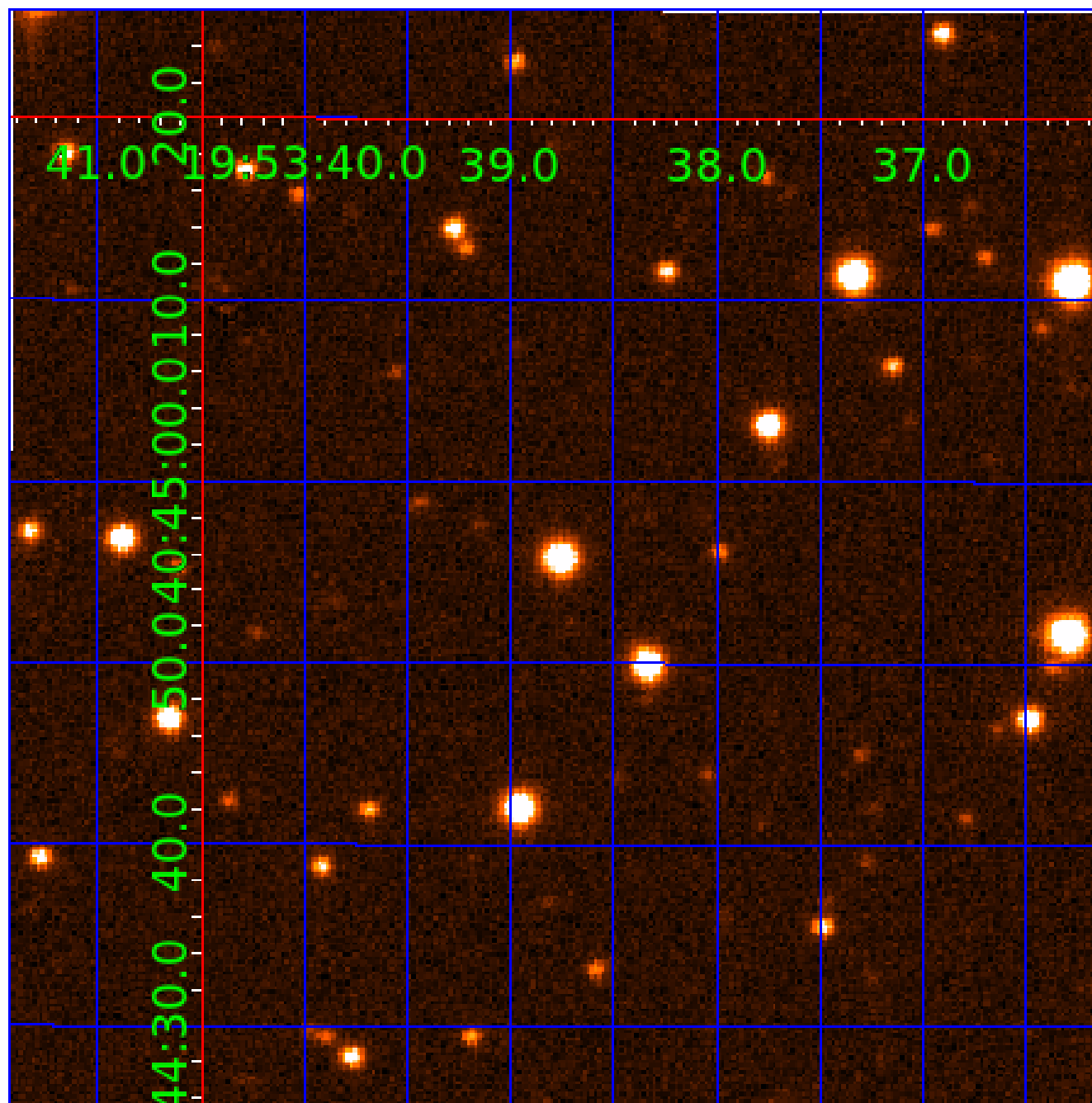


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 005560472

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})
005560472-01	OBS	No	337.631942	271.848485	3664.5	6.144	14.2	8.4	0.73	4869	4.37	0.37
005560472-02	OBS	No	347.563204	317.875319	2567.7	2.845	12.3	7.8	0.73	4869	3.80	0.36
005560472-03	OBS	No	393.860133	483.230962	2237.6	3.691	11.8	6.3	0.73	4869	3.38	0.30

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005560472-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_FEW_DIFFS
005560472-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
005560472-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—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.

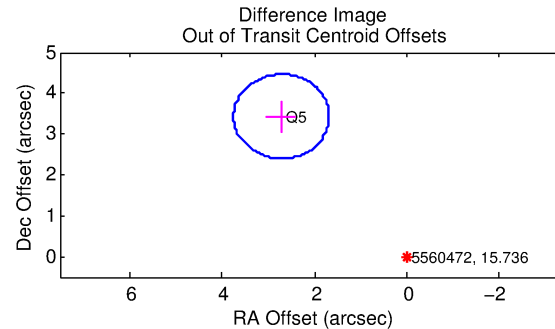
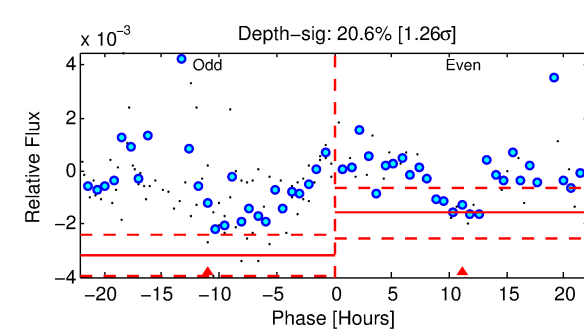
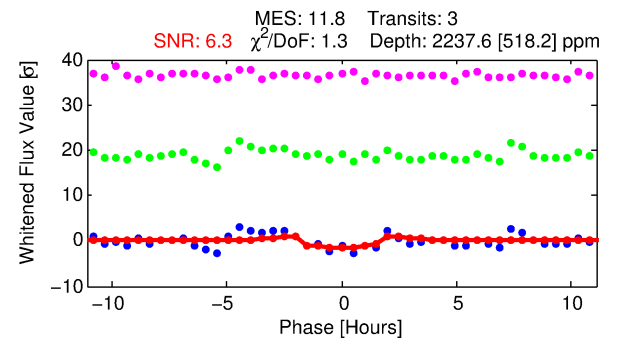
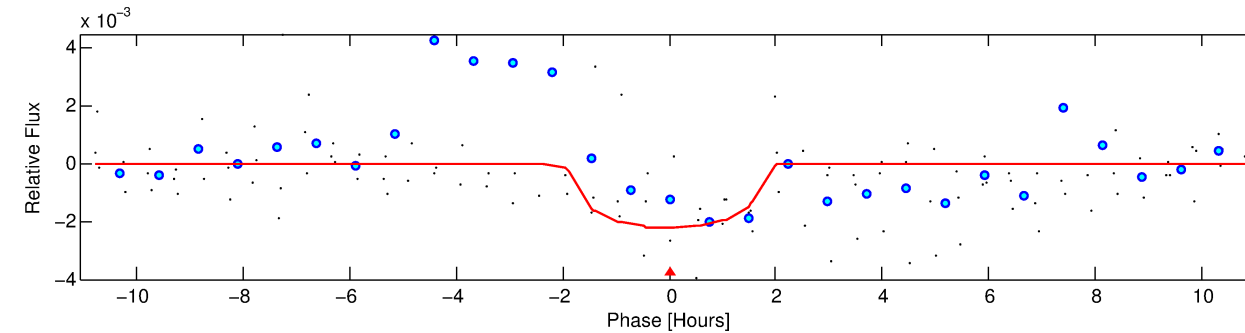
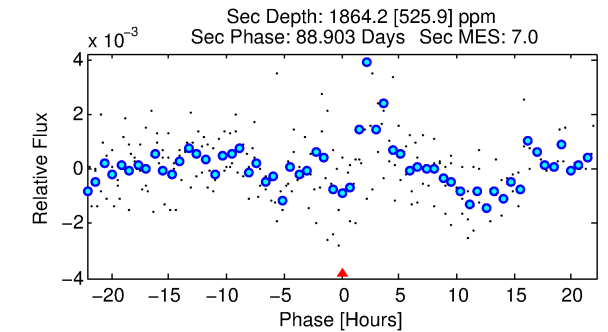
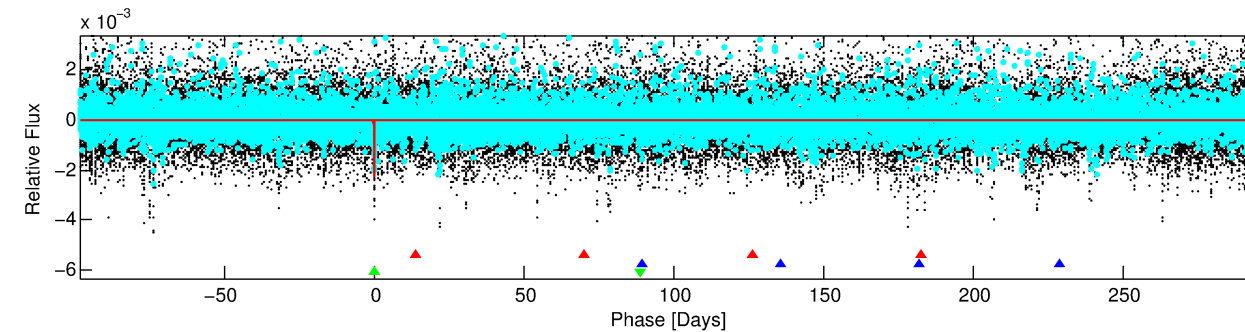
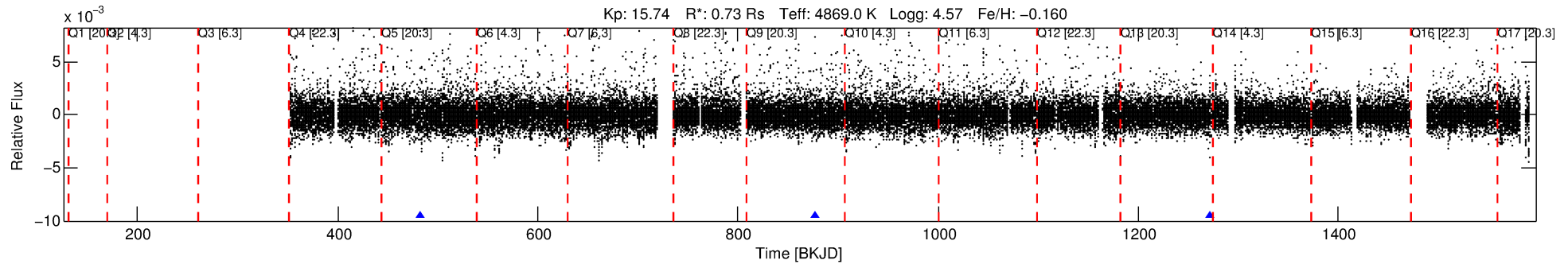
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005560472-03

No Significant Match Found

DV One-Page Summary

KIC: 5560472 Candidate: 3 of 3 Period: 393.860 d



DV Fit Results:

Period = 393.86013 [0.00852] d
Epoch = 483.2310 [0.0110] BKJD
Rp/R* = 0.0426 [0.1096]
a/R* = 804.66 [6721.34]
b = 0.34 [22.44]
Seff = 0.30 [0.06]
Teq = 189 [9] K
Rp = 3.38 [8.69] Re
a = 0.9366 [0.0734] AU
Ag = 78972.99 [407201.53] [0.19σ]
Teffp = 4902 [6319] K [0.75σ]

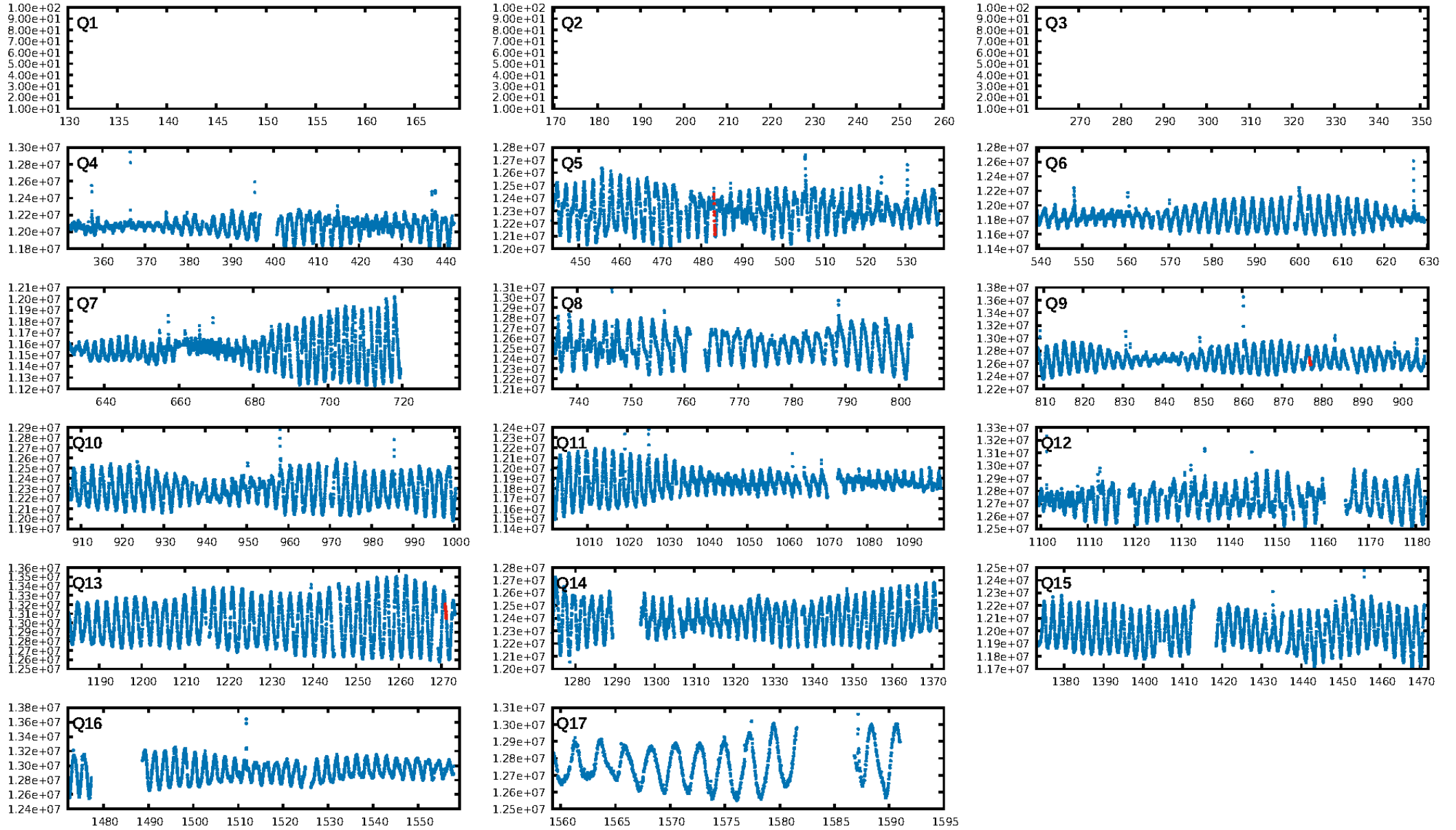
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [238.43σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.8%
ModelChiSquareGof-sig: 75.2%
Bootstrap-pfa: 3.28e-10
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 0.4378
Centroid-sig: 22.8%
Centroid-so: 1.618 arcsec [1.18σ]
OotOffset-rm: 4.375 arcsec [12.72σ]
KicOffset-rm: 0.791 arcsec [2.29σ]
OotOffset-st: 0/0/0/1 [1]
KicOffset-st: 0/0/0/1 [1]
DiffImageQuality-fgm: 1.00 [1/1]
DiffImageOverlap-fno: 1.00 [3/3]

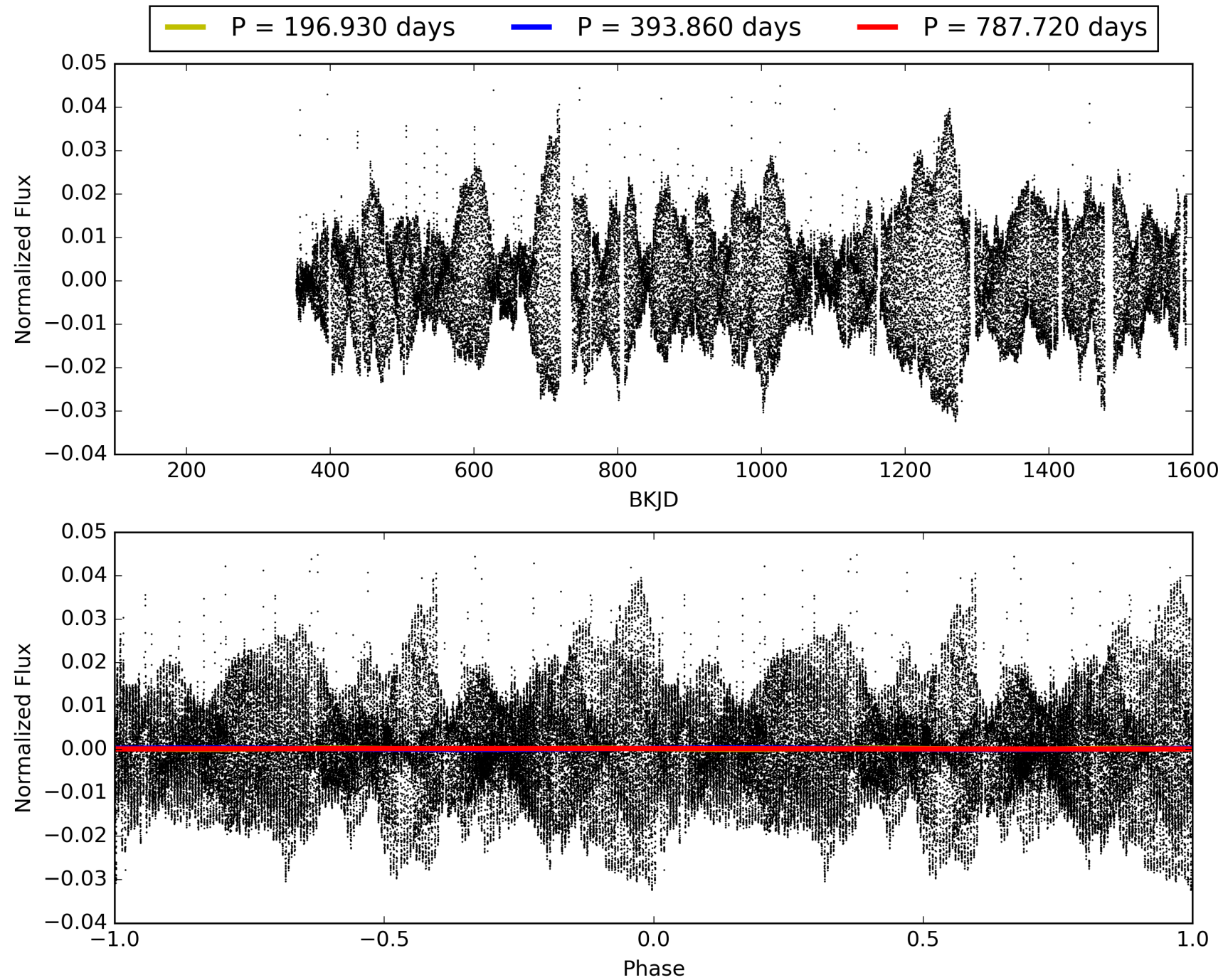
Software Revision: svn-ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 03:40:02 Z

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

TCE 005560472-03, PDC Light Curves

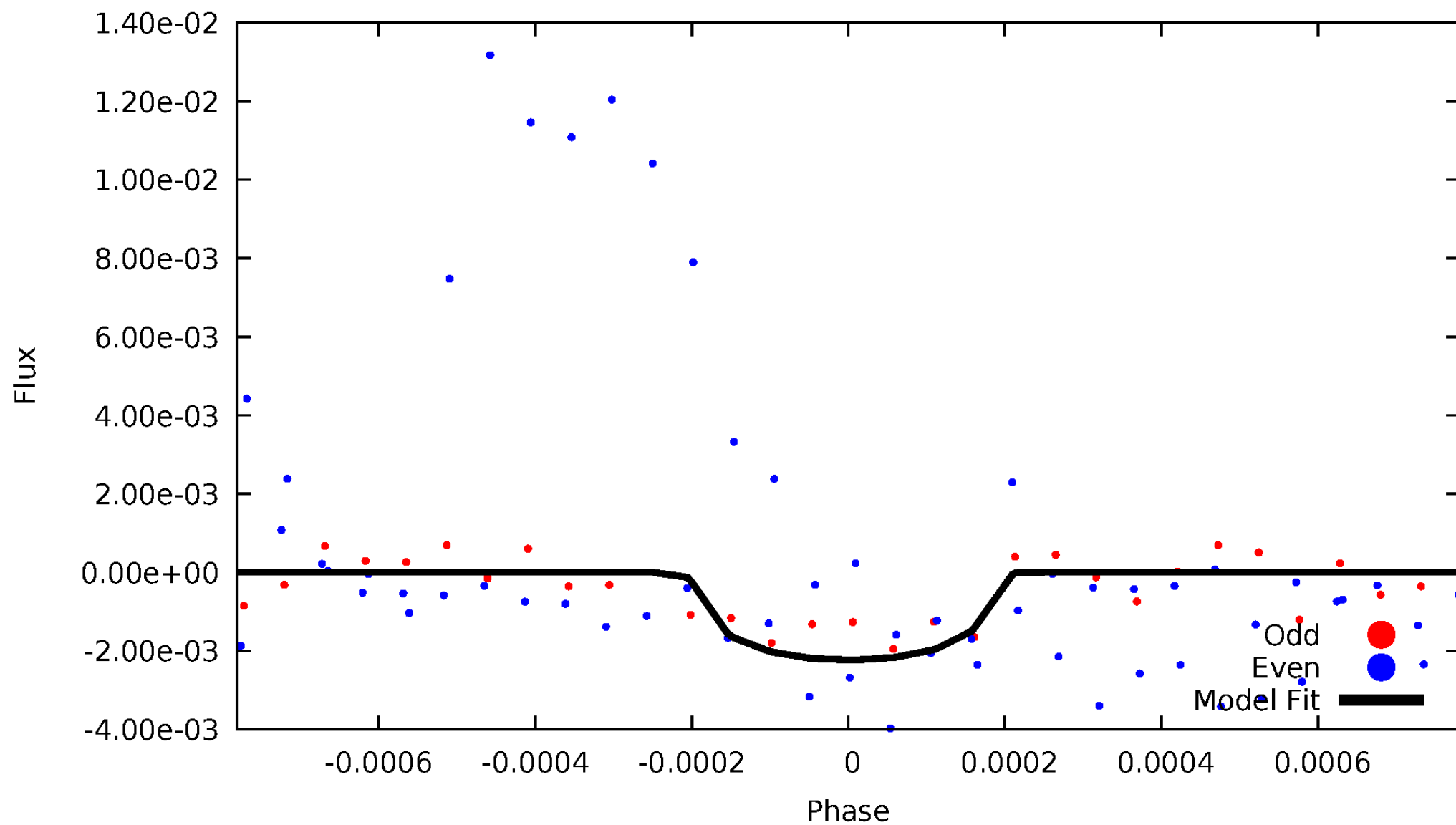


TCE 005560472-03



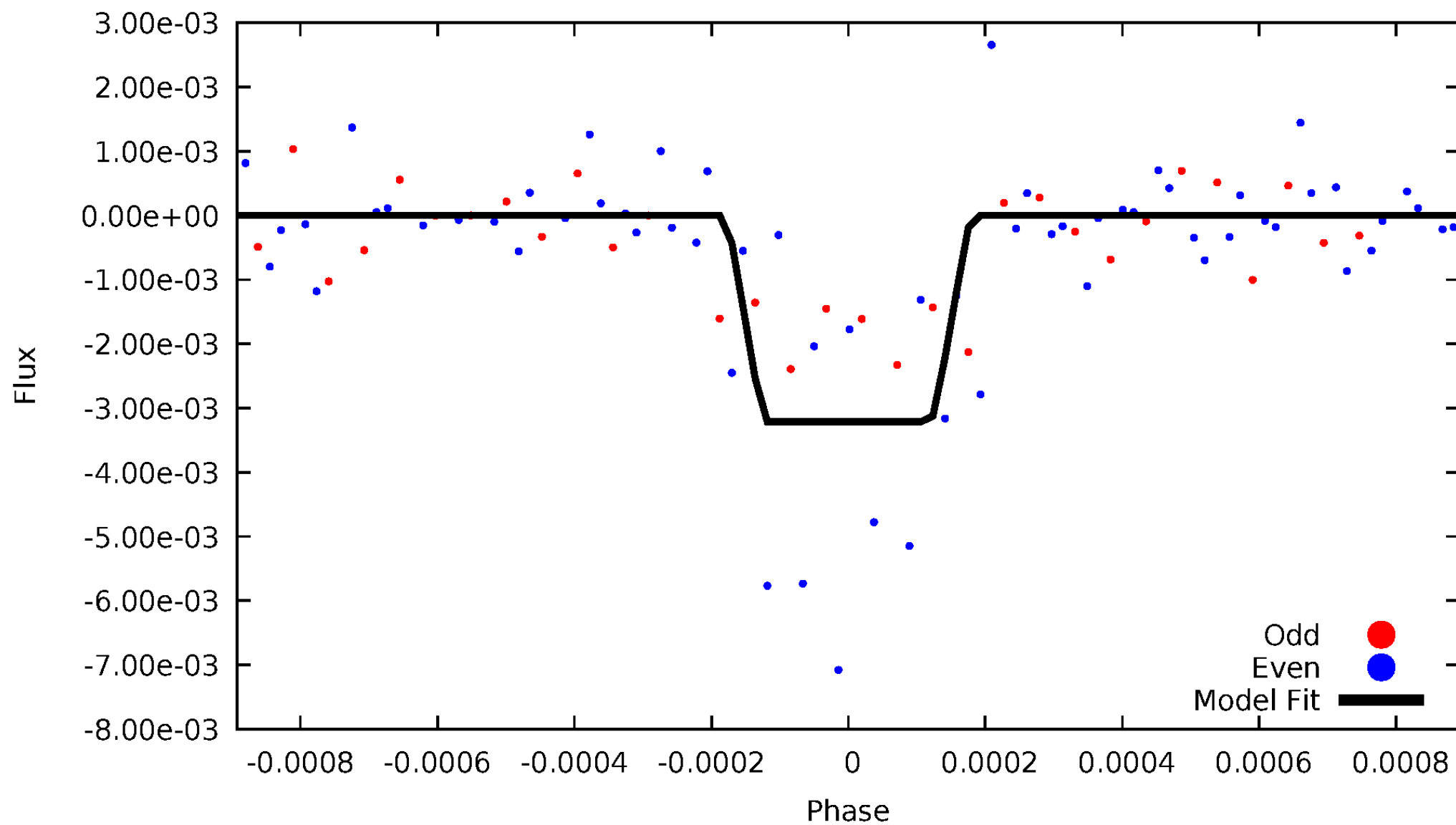
DV Odd/Even

TCE 005560472-03

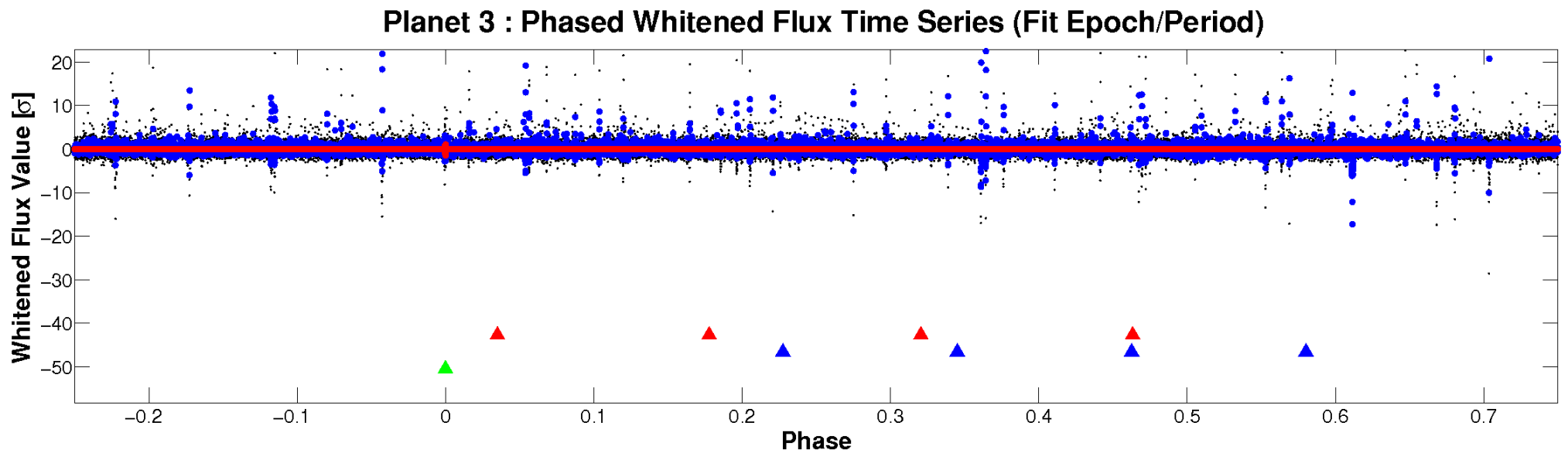
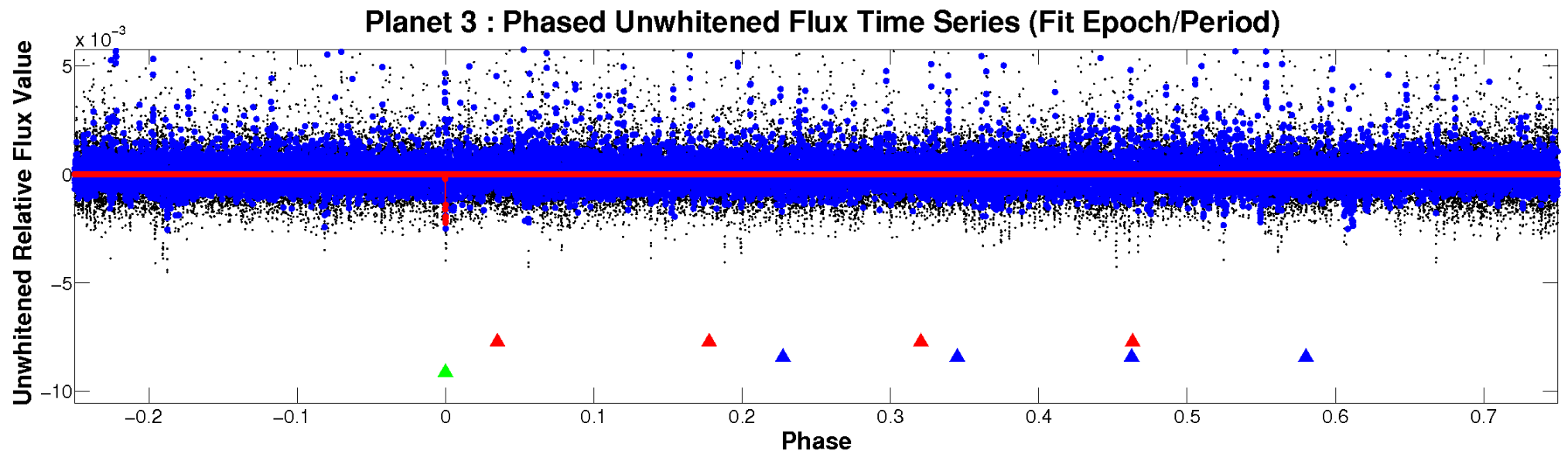


ALT Odd/Even

TCE 005560472-03

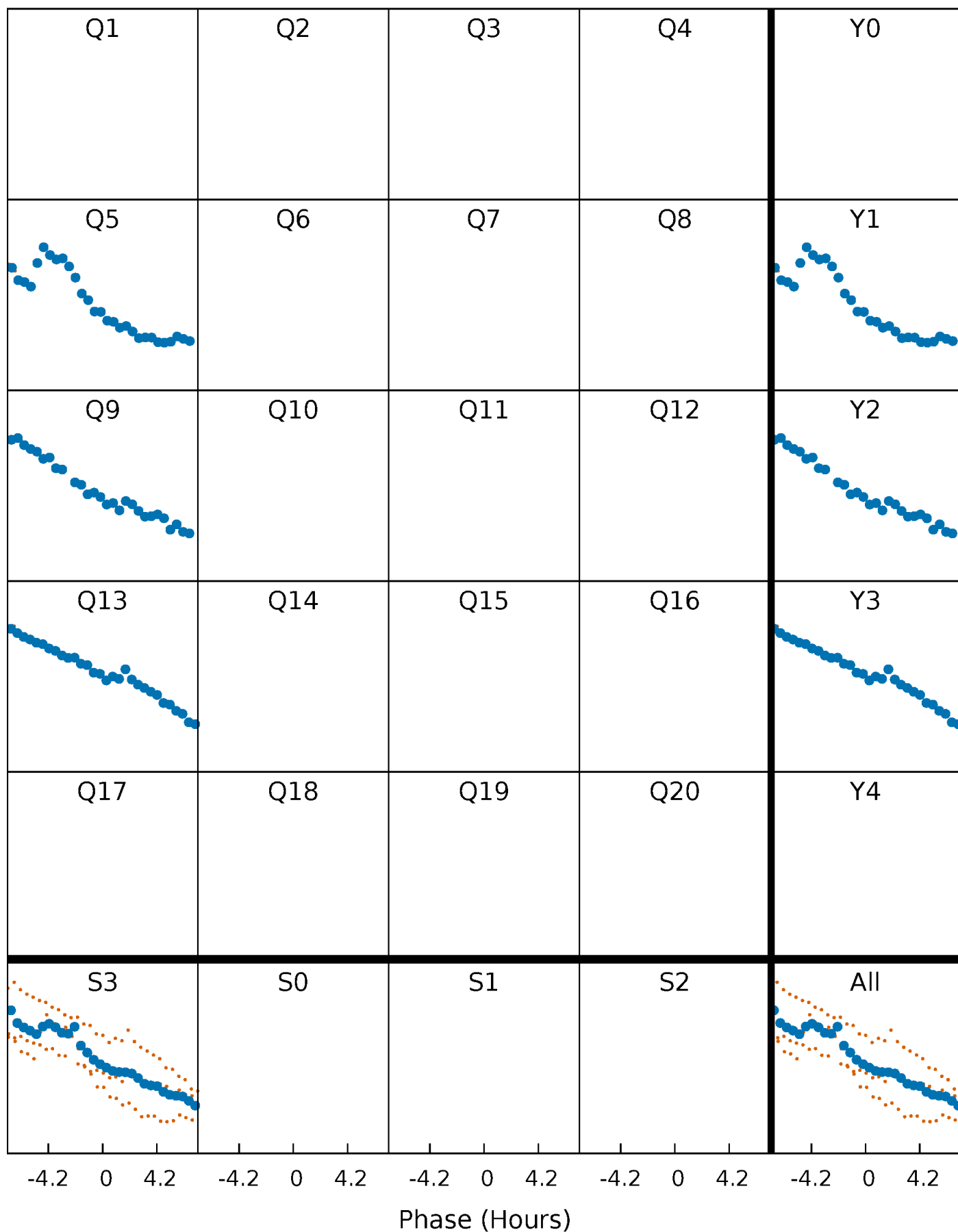


Non-Whitened Vs. Whitened Light Curve



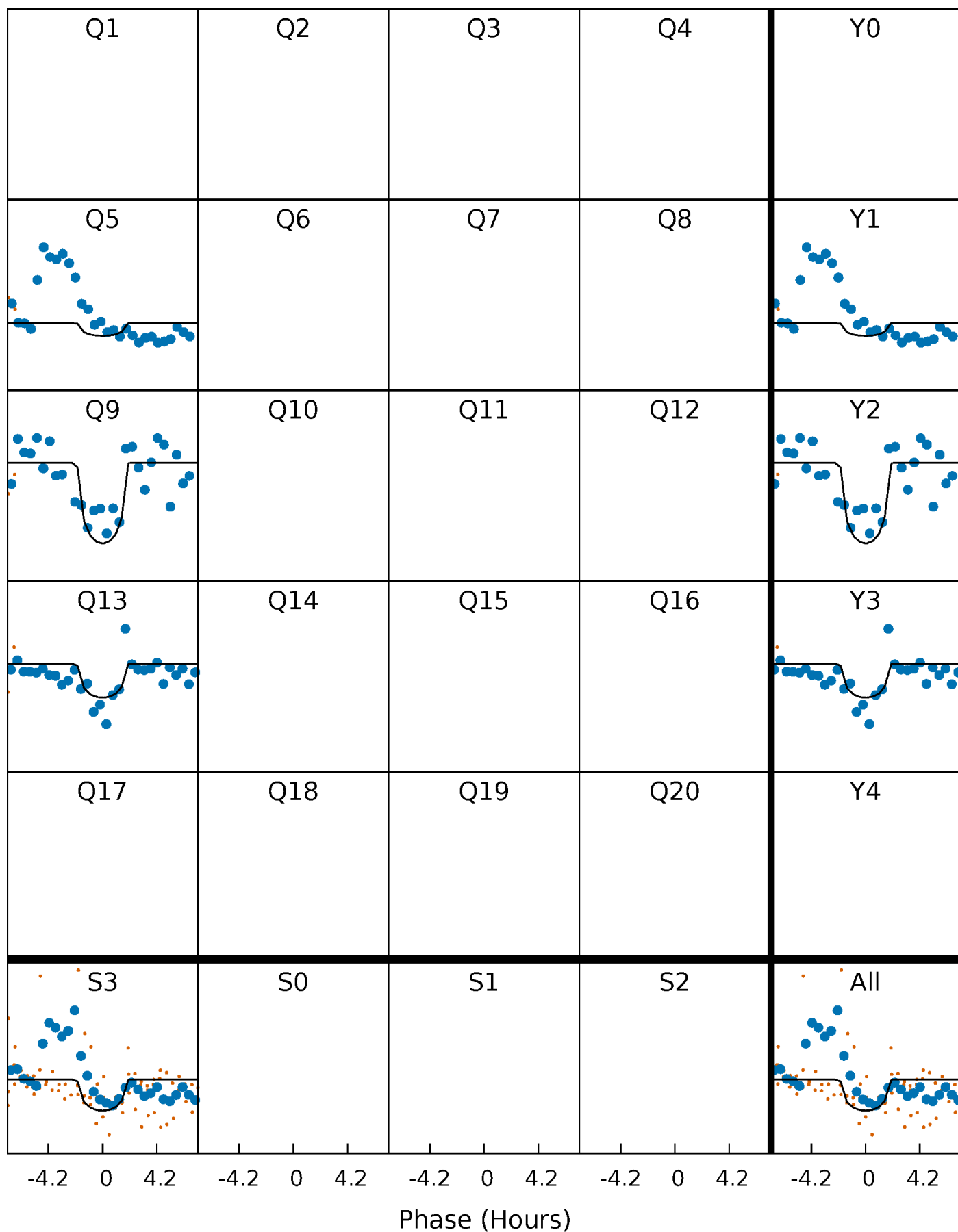
PDC Quarter-Phased Transit Curves

TCE 005560472-03 P=393.860133 Days $T_0=483.230962$ (BKJD)



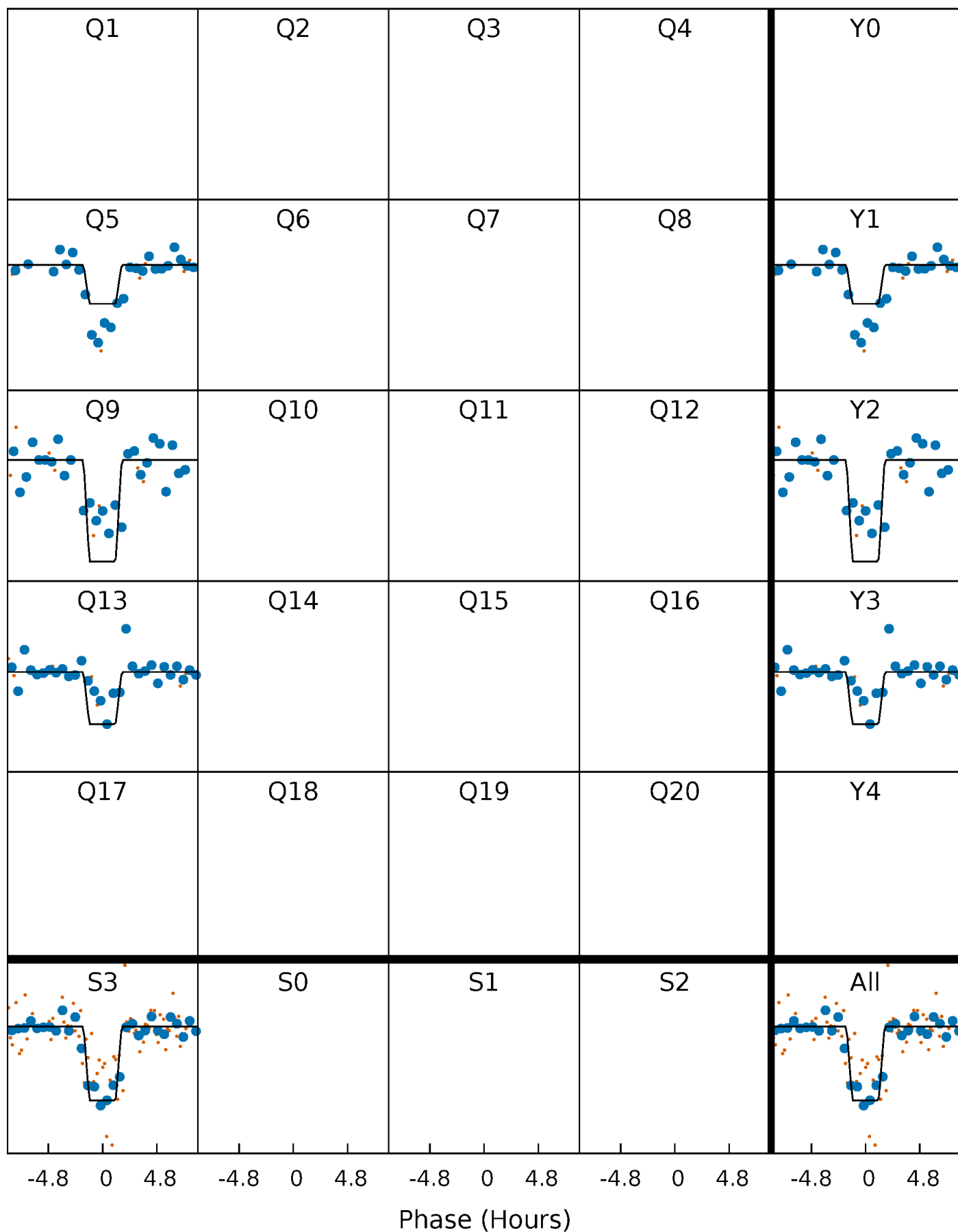
DV Quarter-Phased Transit Curves

TCE 005560472-03 $P=393.860133$ Days $T_0=483.230962$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

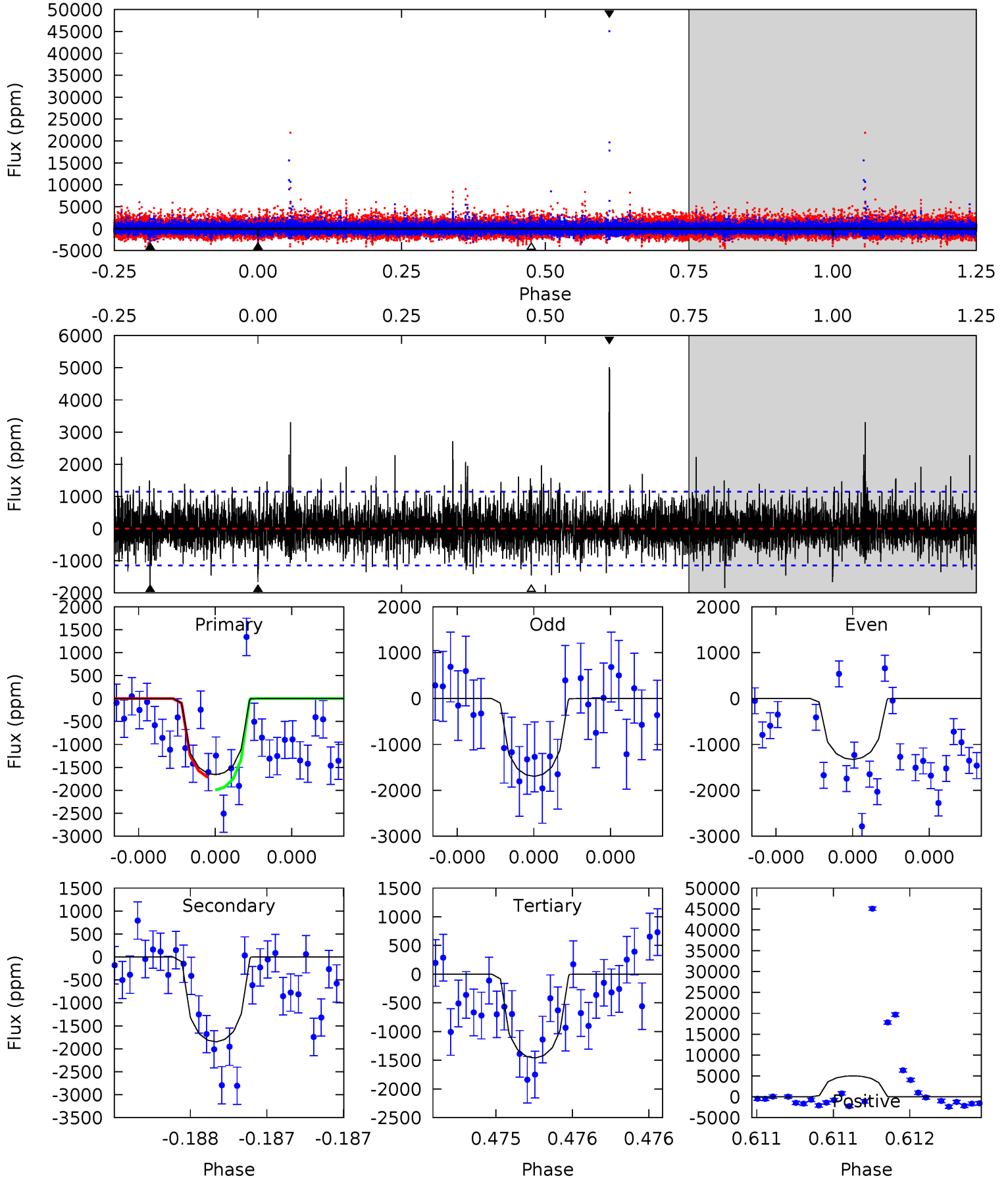
TCE 005560472-03 $P=393.865694$ Days $T_0=483.219870$ (BKJD)



DV Model-Shift Uniqueness Test

005560472-03, P = 393.860133 Days, E = 89.370829 Days

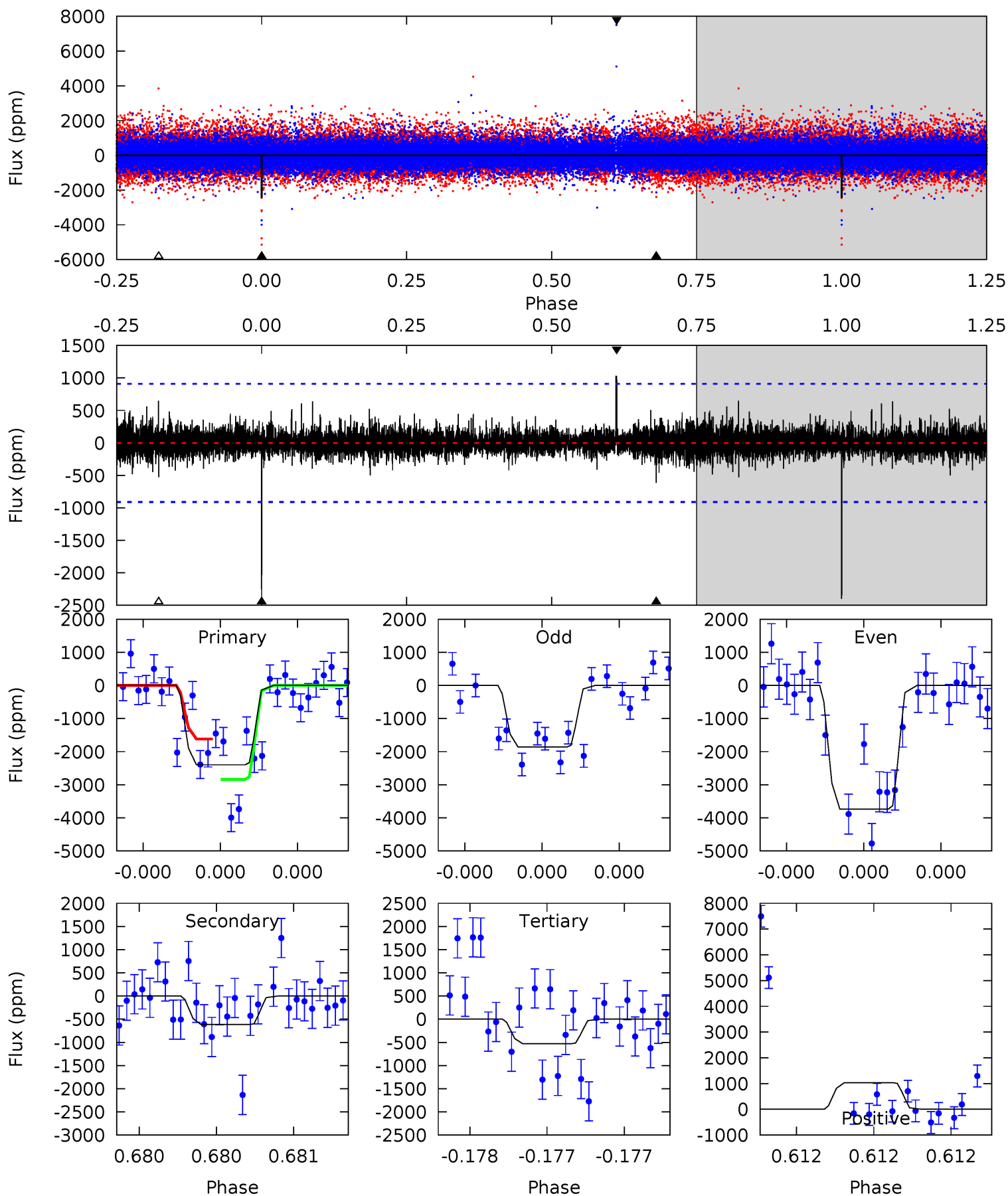
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.07	8.98	7.10	24.4	5.59	3.50	2.13	0.97	-16.3	1.88	-15.4	0.64	0.81	0.73	0.62



Alt Model-Shift Uniqueness Test

005560472-03, P = 393.865694 Days, E = 89.354176 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.9	3.82	3.28	6.42	5.65	3.59	0.72	11.6	8.48	0.54	-2.60	5.66	1.66	0.30	0



Stellar Parameters For KIC 005560472

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4869^{+175}_{-175}	$4.565^{+0.060}_{-0.038}$	$-0.160^{+0.300}_{-0.300}$	$0.726^{+0.062}_{-0.069}$	$0.708^{+0.090}_{-0.053}$	$2.601^{+0.734}_{-0.397}$
	+4%/-4%	+1%/-1%	+188%/-188%	+9%/-10%	+13%/-7%	+28%/-15%
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 005560472-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-1847 ± 206	$7.03^{+7.27}_{-4.79}$	263^{+11}_{-11}	3717^{+2169}_{-734}	$18174^{+165914}_{-13997}$
Alt.	-615 ± 161	$7.26^{+7.70}_{-4.78}$	263^{+11}_{-10}	3068^{+1335}_{-524}	5268^{+42333}_{-4010}

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

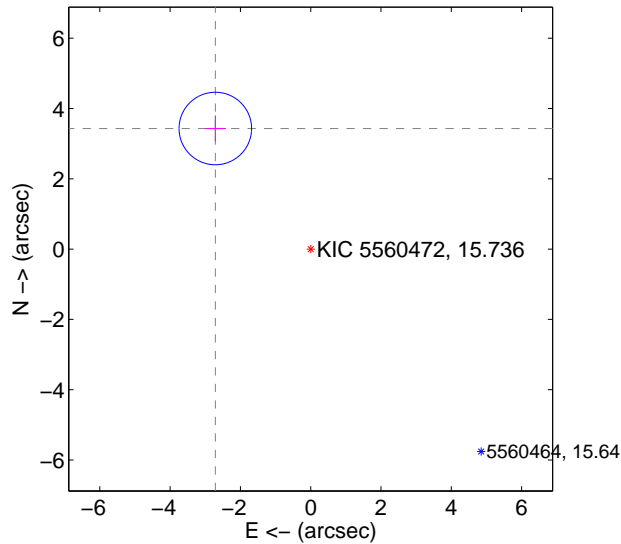
Supplemental centroid analysis for 005560472-03. Kepler magnitude: 15.74. Transit SNR 6.31

There are 1 quarters with good PRF difference image offsets

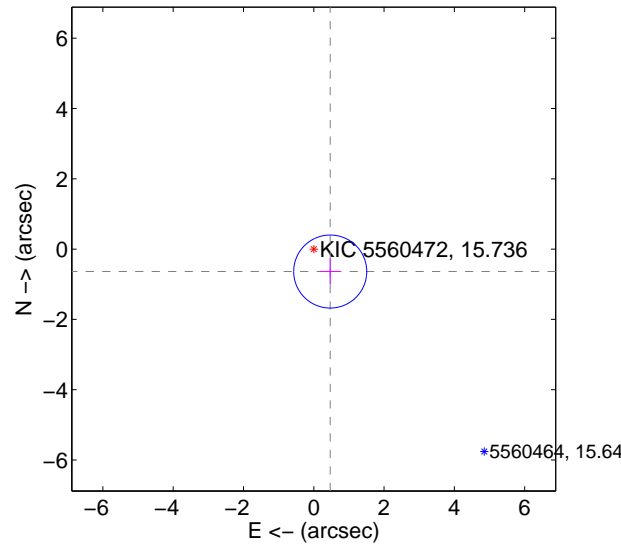
The OOT PRF centroid is offset from the target star catalog position by about 5.17 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	4.375 ± 0.344	12.72	2.714 ± 0.300	3.431 ± 0.369
PRF-fit source offset from KIC position	0.791 ± 0.346	2.29	-0.468 ± 0.300	-0.638 ± 0.369
photometric centroid source offset	1.62 ± 1.37	1.18	-1.24 ± 1.28	-1.04 ± 1.49

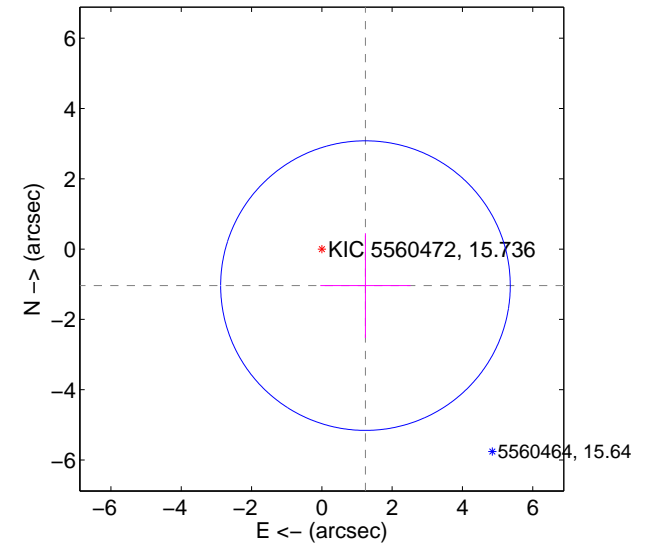
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position



offset from photometric centroids

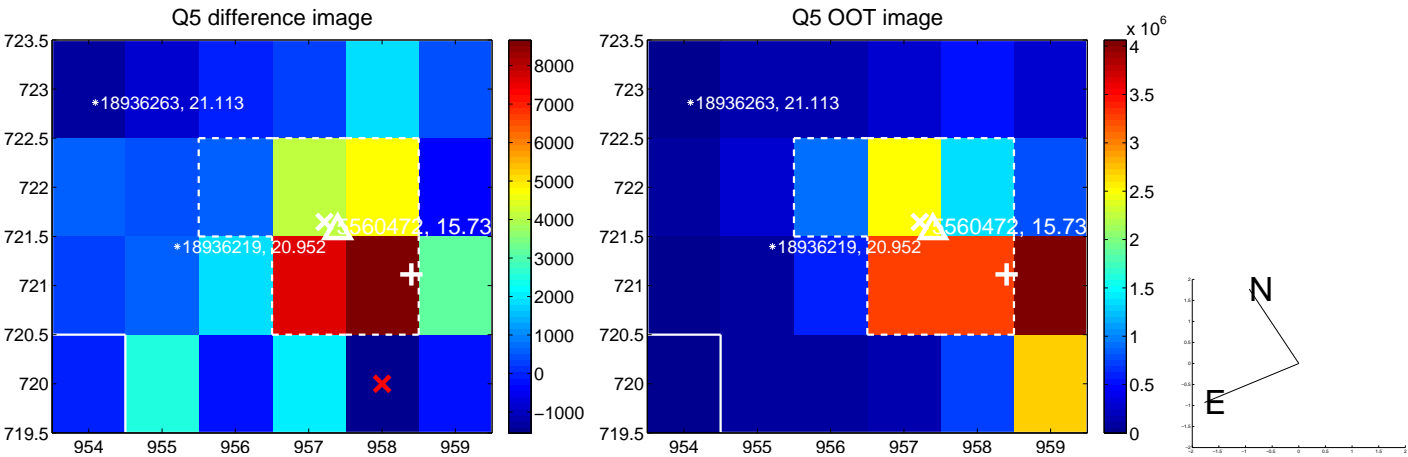


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

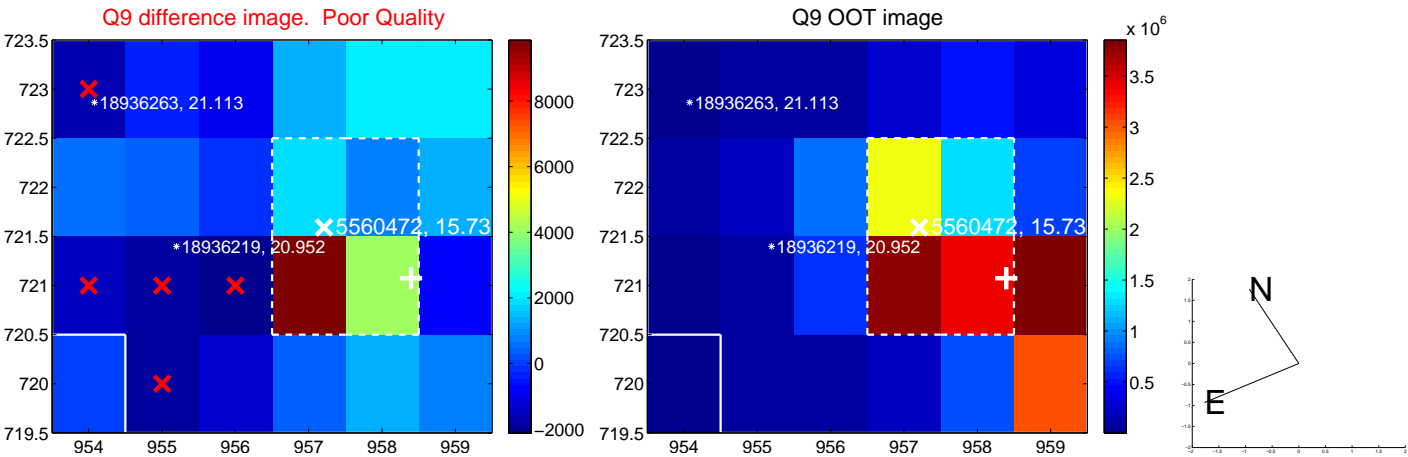
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



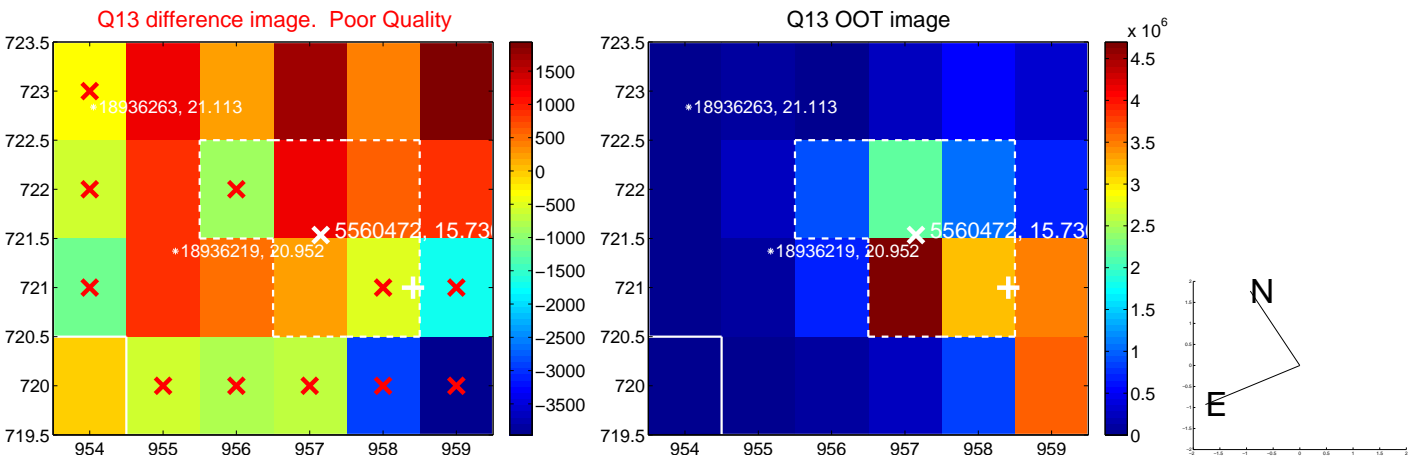
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



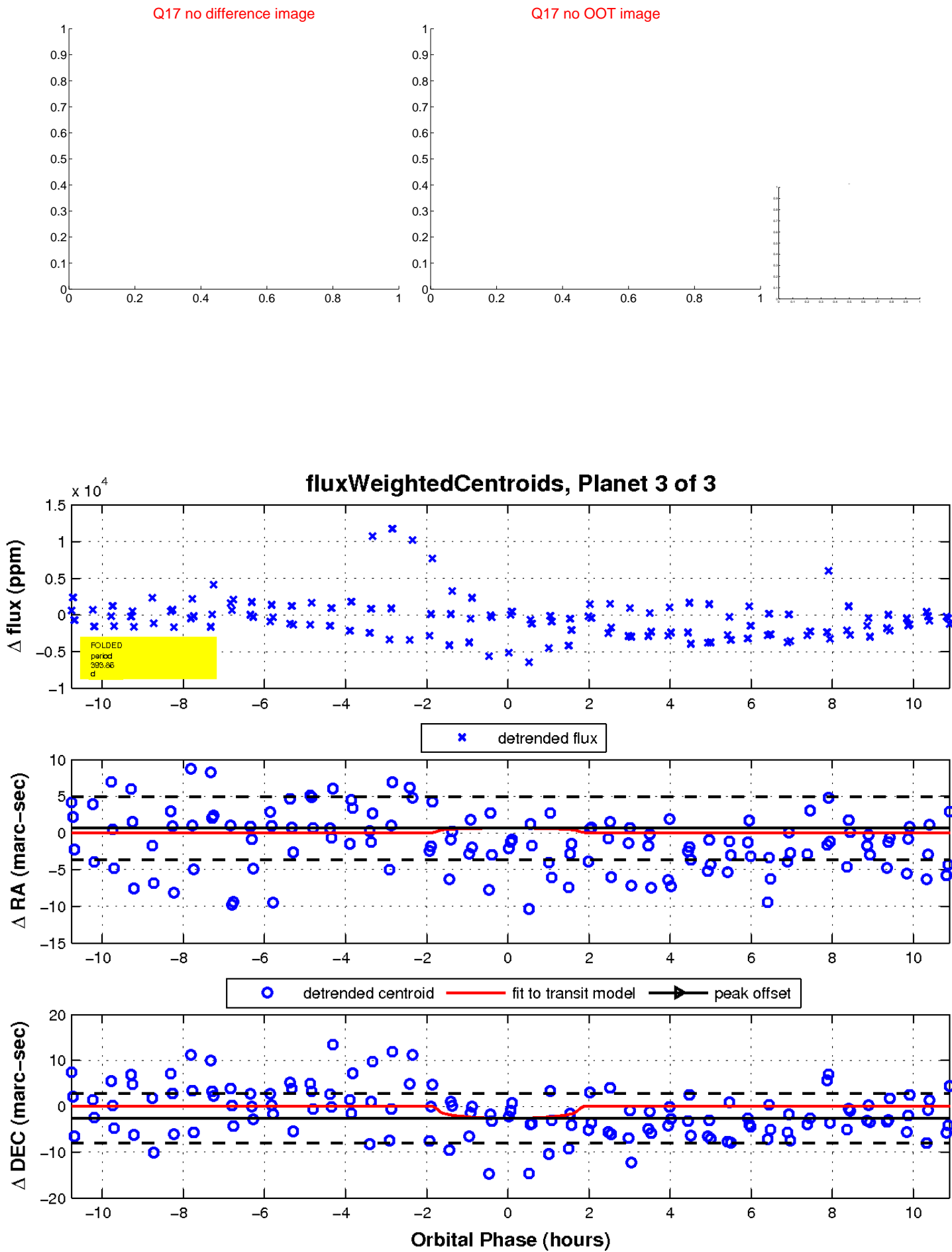
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



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



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



UKIRT Image

Declination

