

KIC 006600771

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})
006600771-01	OBS	No	369.172464	310.154679	2351.6	14.684	8.4	7.7	0.50	3770	2.96	0.07
006600771-02	OBS	No	337.689522	297.495086	1478.2	15.122	11.1	7.6	0.50	3770	1.92	0.08

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006600771-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006600771-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—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.

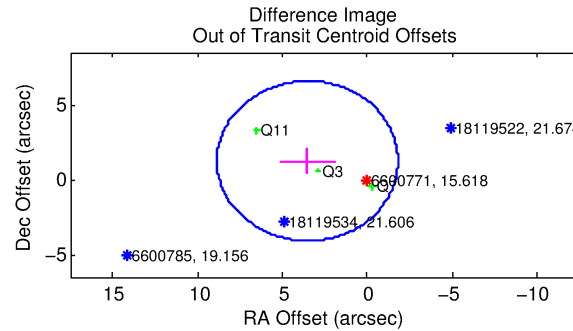
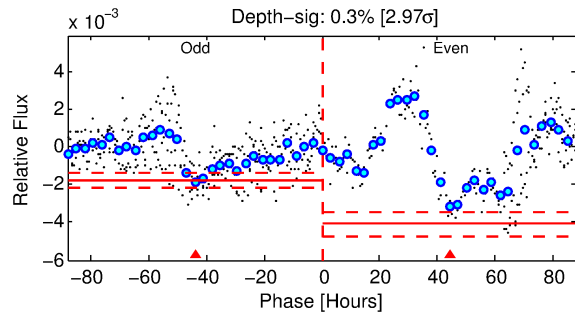
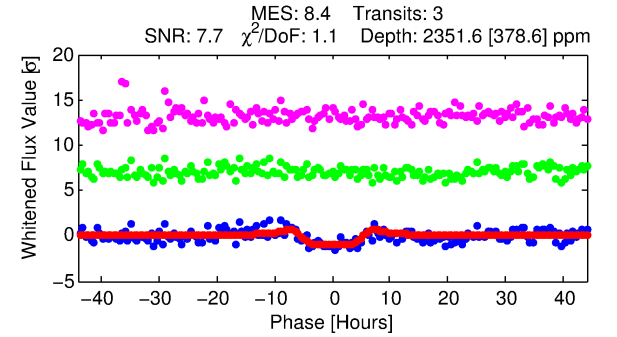
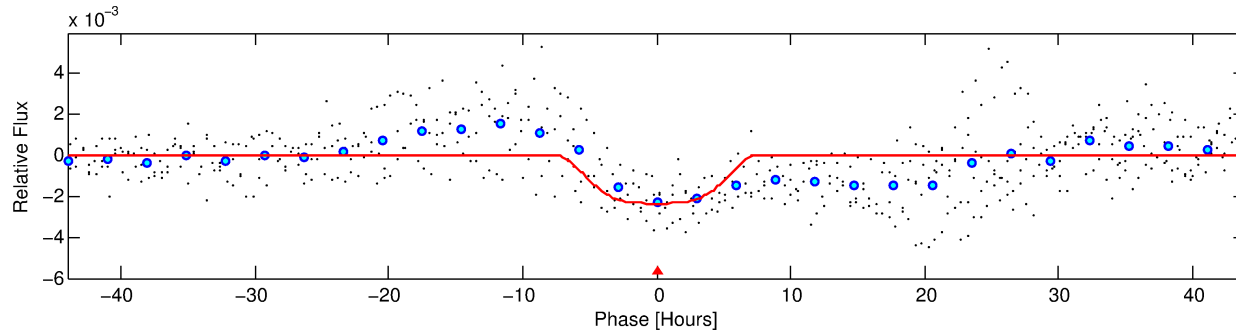
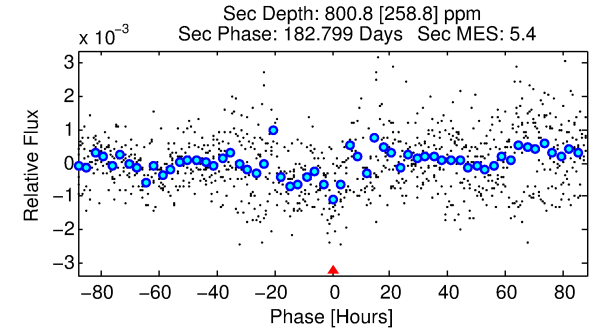
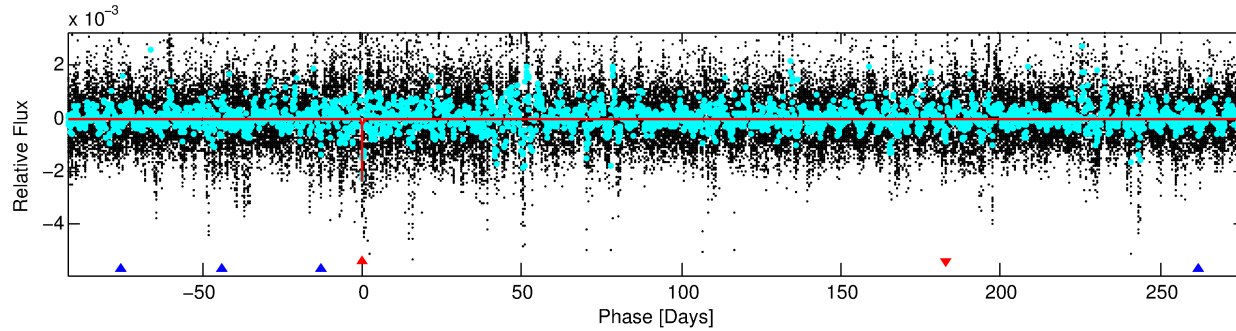
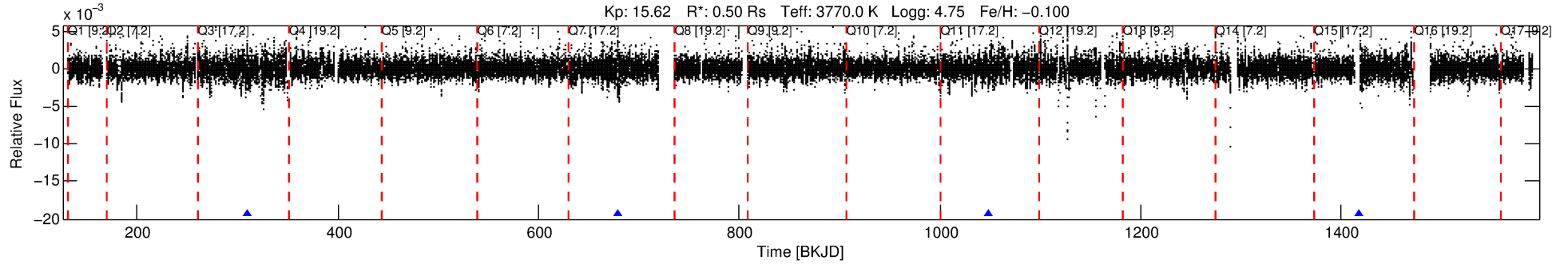
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006600771-01

No Significant Match Found

DV One-Page Summary

KIC: 6600771 Candidate: 1 of 2 Period: 369.172 d



DV Fit Results:

Period = 369.17246 [0.01893] d
Epoch = 310.1547 [0.0246] BKJD
Rp/R* = 0.0544 [0.0054]
a/R* = 98.11 [15.14]
b = 0.92 [0.03]
Seff = 0.07 [0.01]
Teq = 131 [3] K
Rp = 2.96 [0.34] Re
a = 0.8034 [0.0369] AU
Ag = 32420.86 [12439.77] [2.61σ]
Teffp = 2719 [260] K [9.96σ]

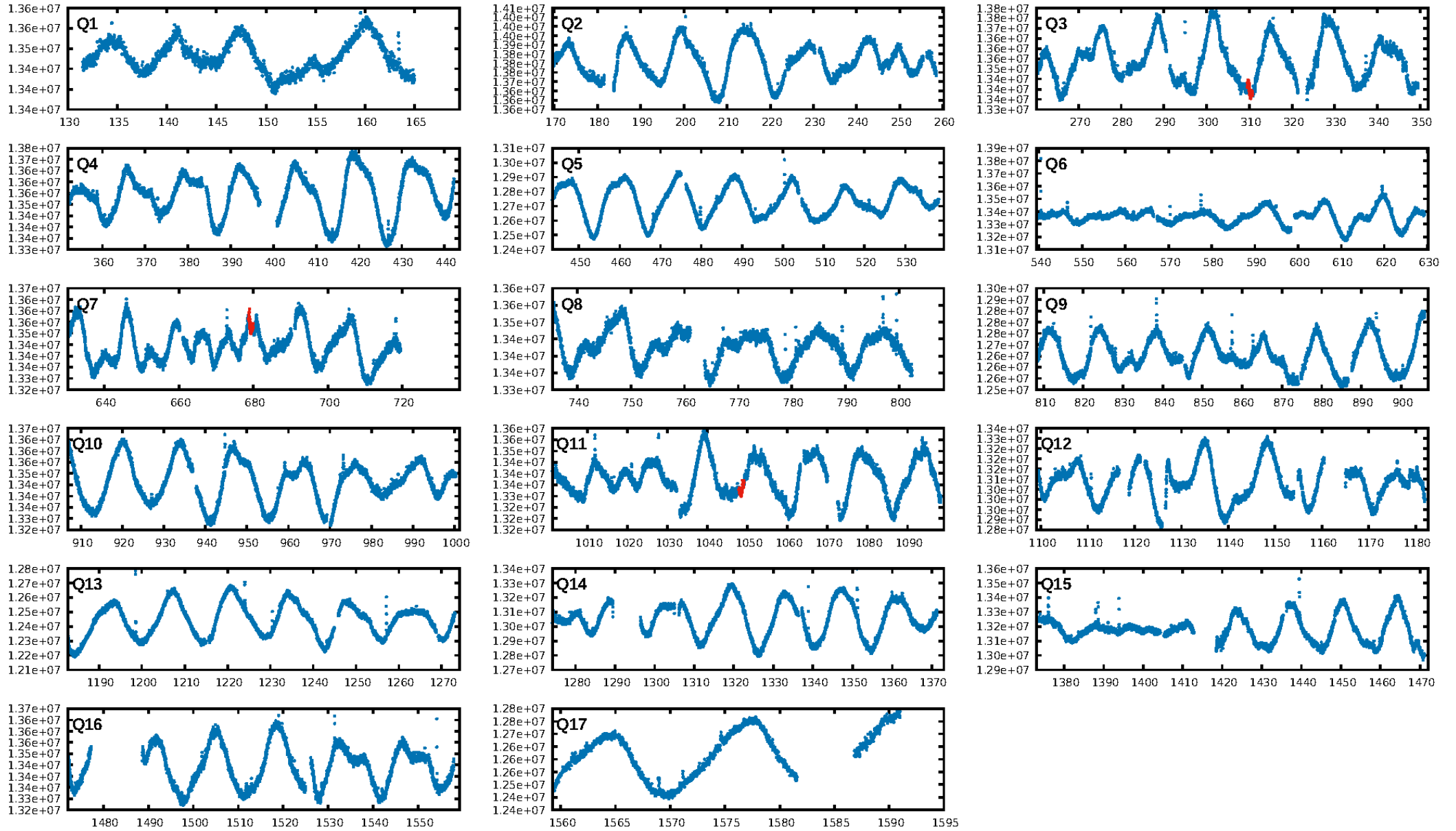
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [35.85σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 14.7%
ModelChiSquareGof-sig: 99.3%
Bootstrap-pfa: 3.14e-08
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -0.7982
Centroid-sig: N/A
Centroid-so: 2.817 arcsec [1.42σ]
OotOffset-rm: 3.726 arcsec [2.09σ]
KicOffset-rm: 4.119 arcsec [2.01σ]
OotOffset-st: 0/3/0/0 [3]
KicOffset-st: 0/3/0/0 [3]
DiffImageQuality-fgm: 0.00 [0/3]
DiffImageOverlap-fno: 1.00 [3/3]

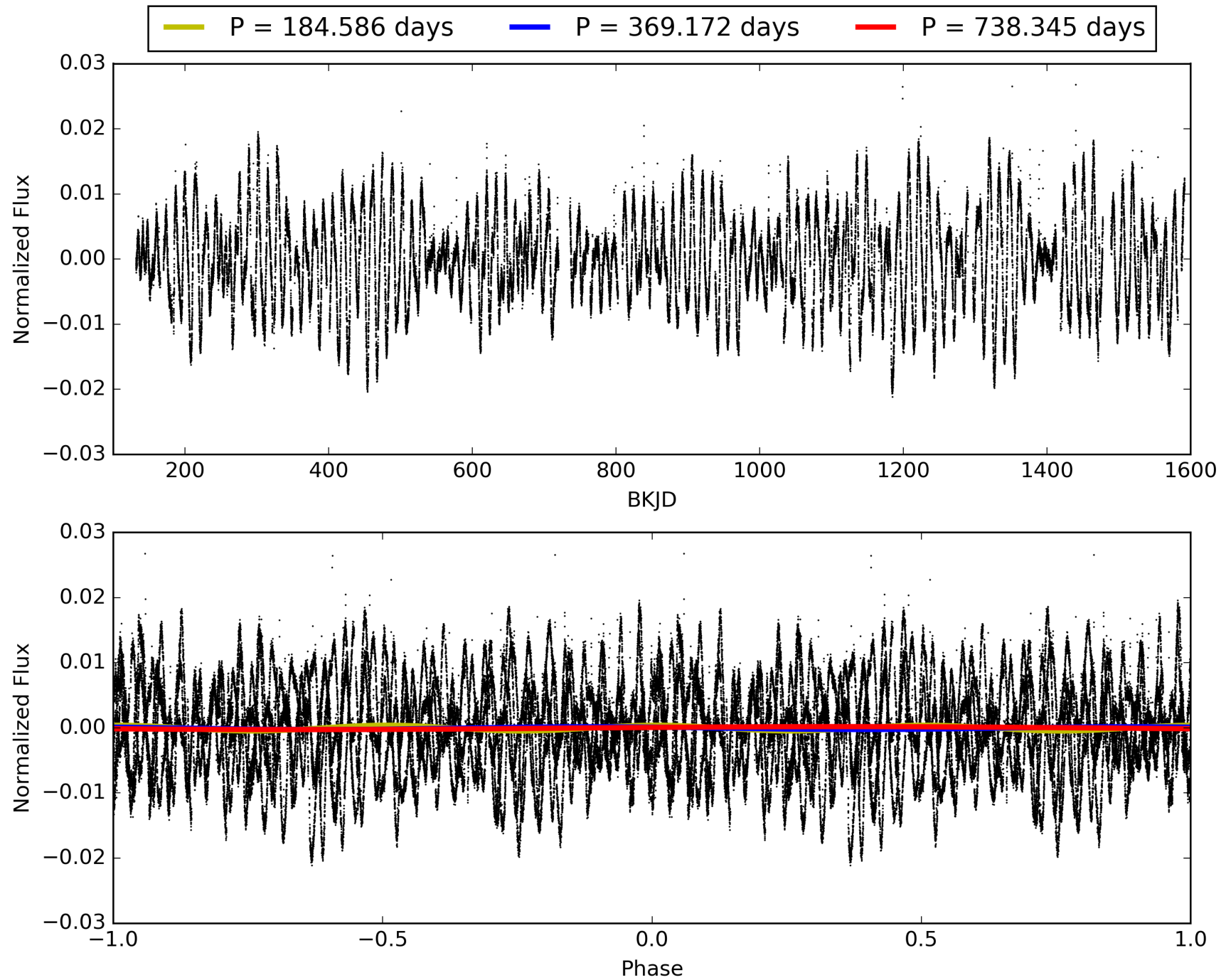
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 22:47:04 Z

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

TCE 006600771-01, PDC Light Curves

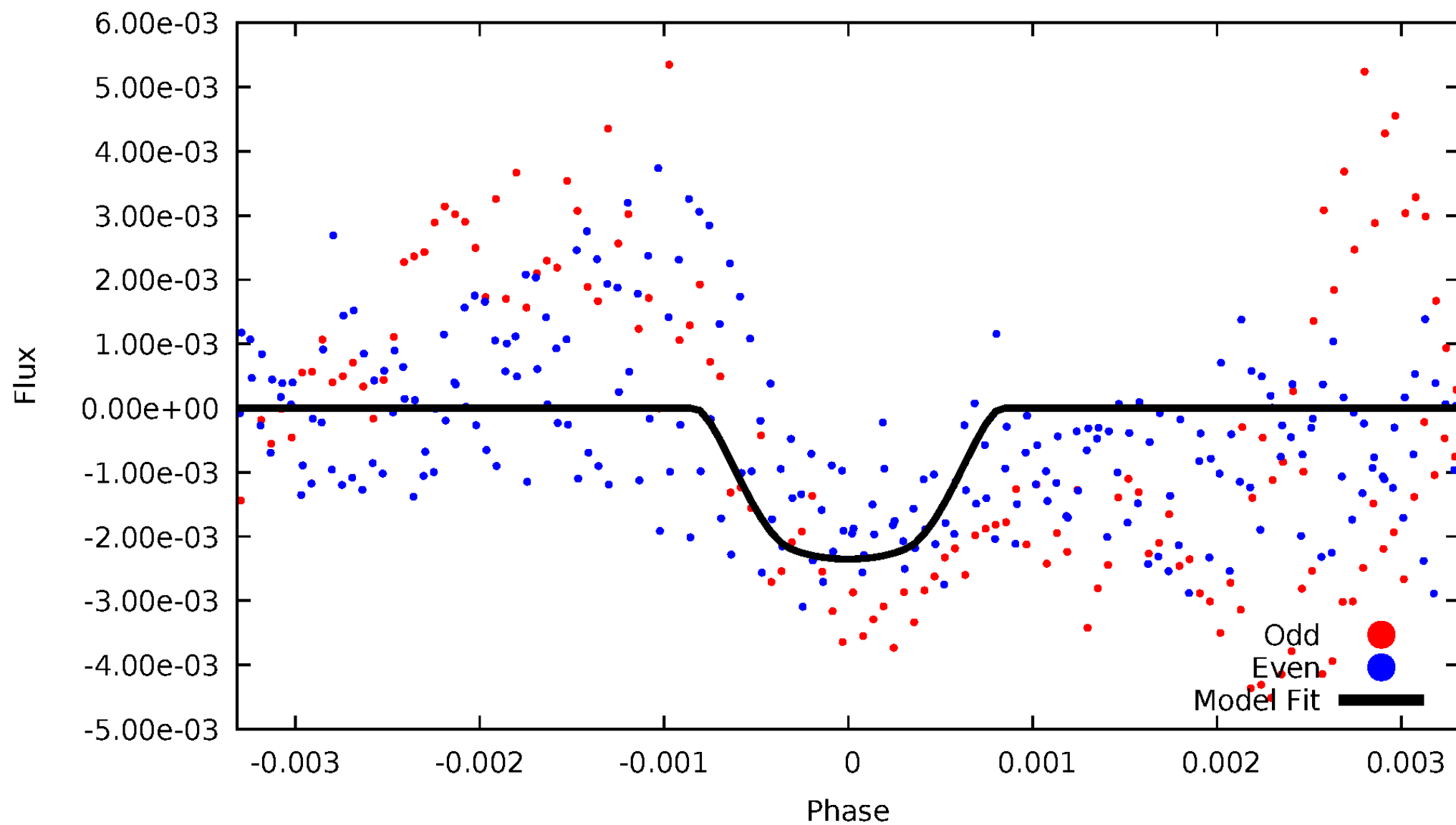


TCE 006600771-01



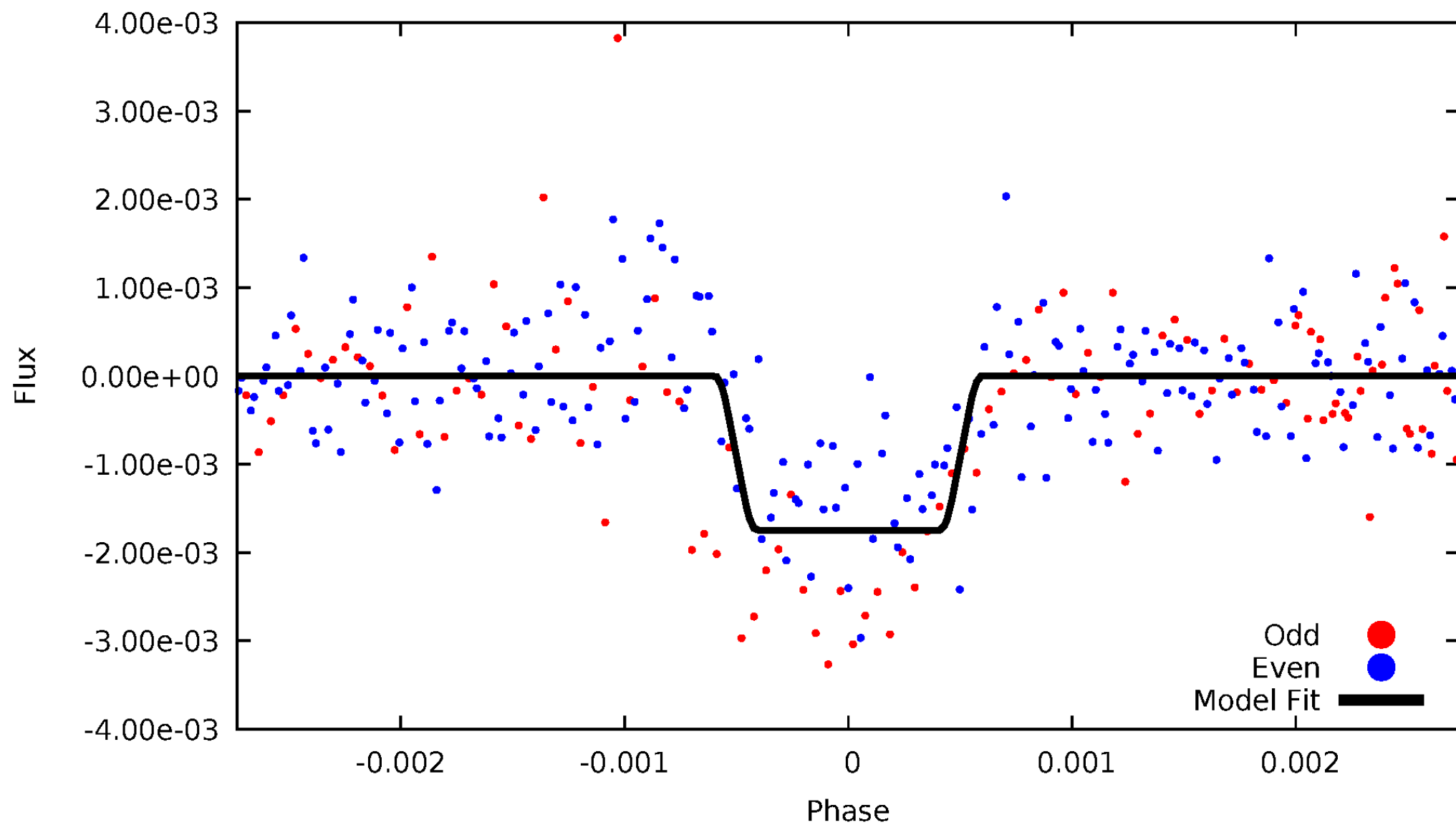
DV Odd/Even

TCE 006600771-01

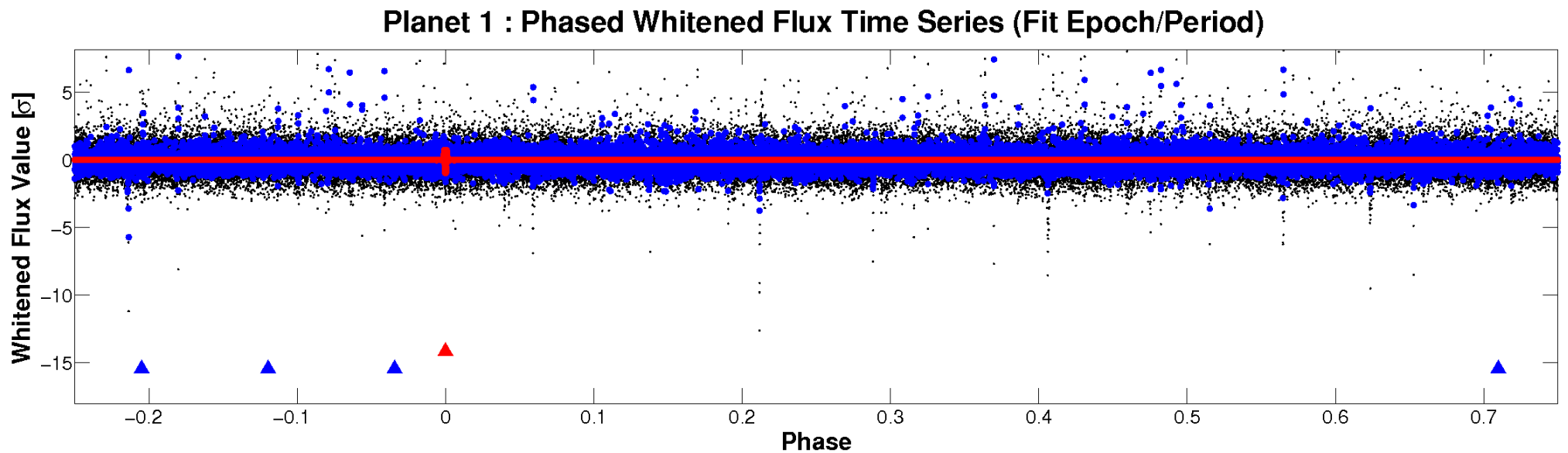
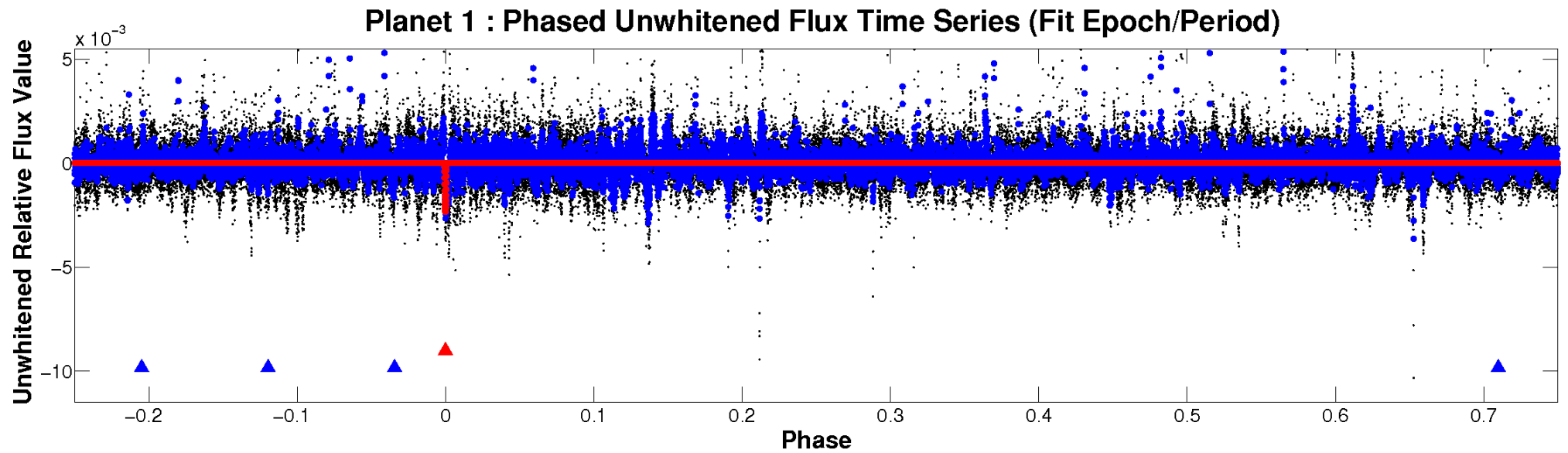


ALT Odd/Even

TCE 006600771-01

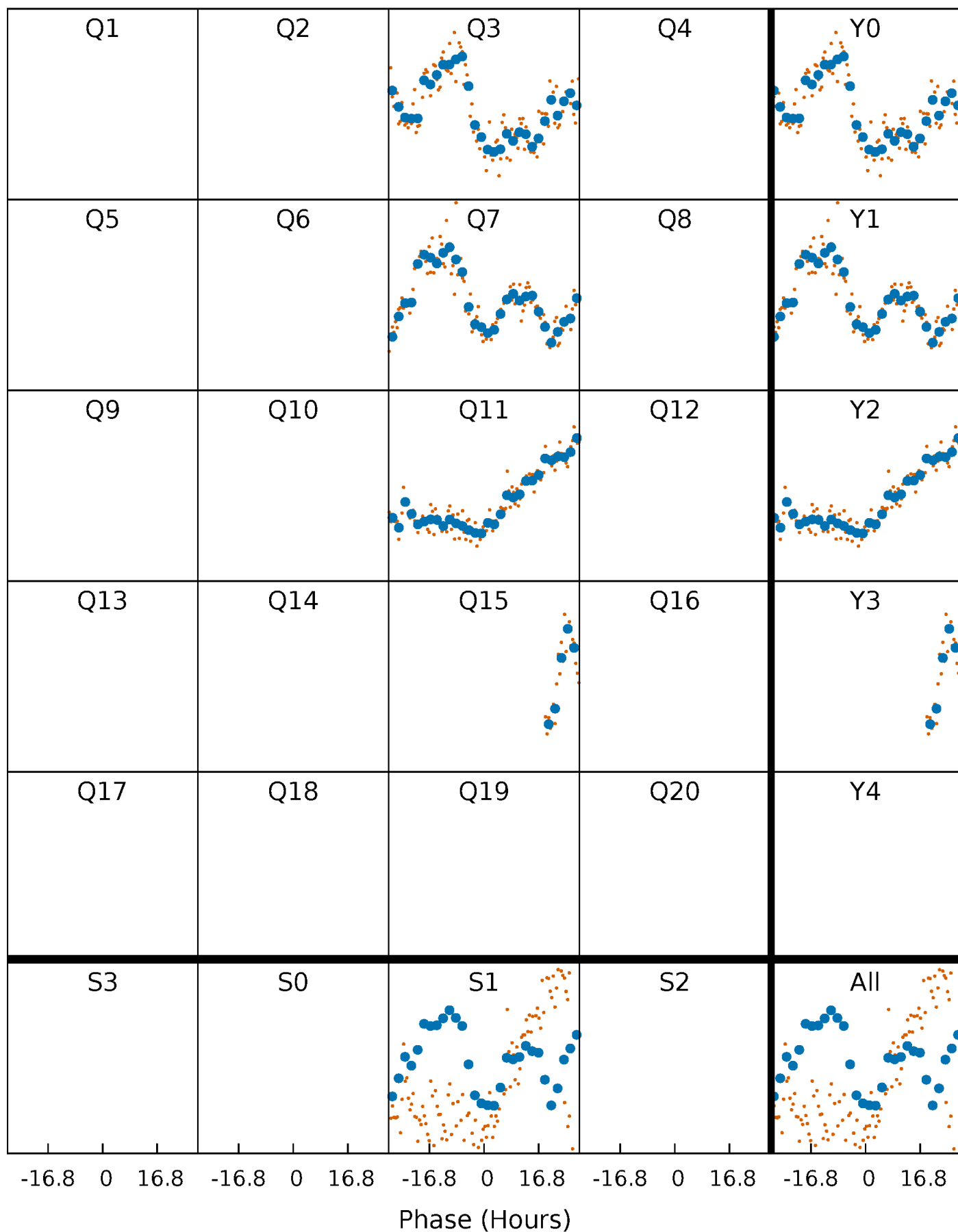


Non-Whitened Vs. Whitened Light Curve



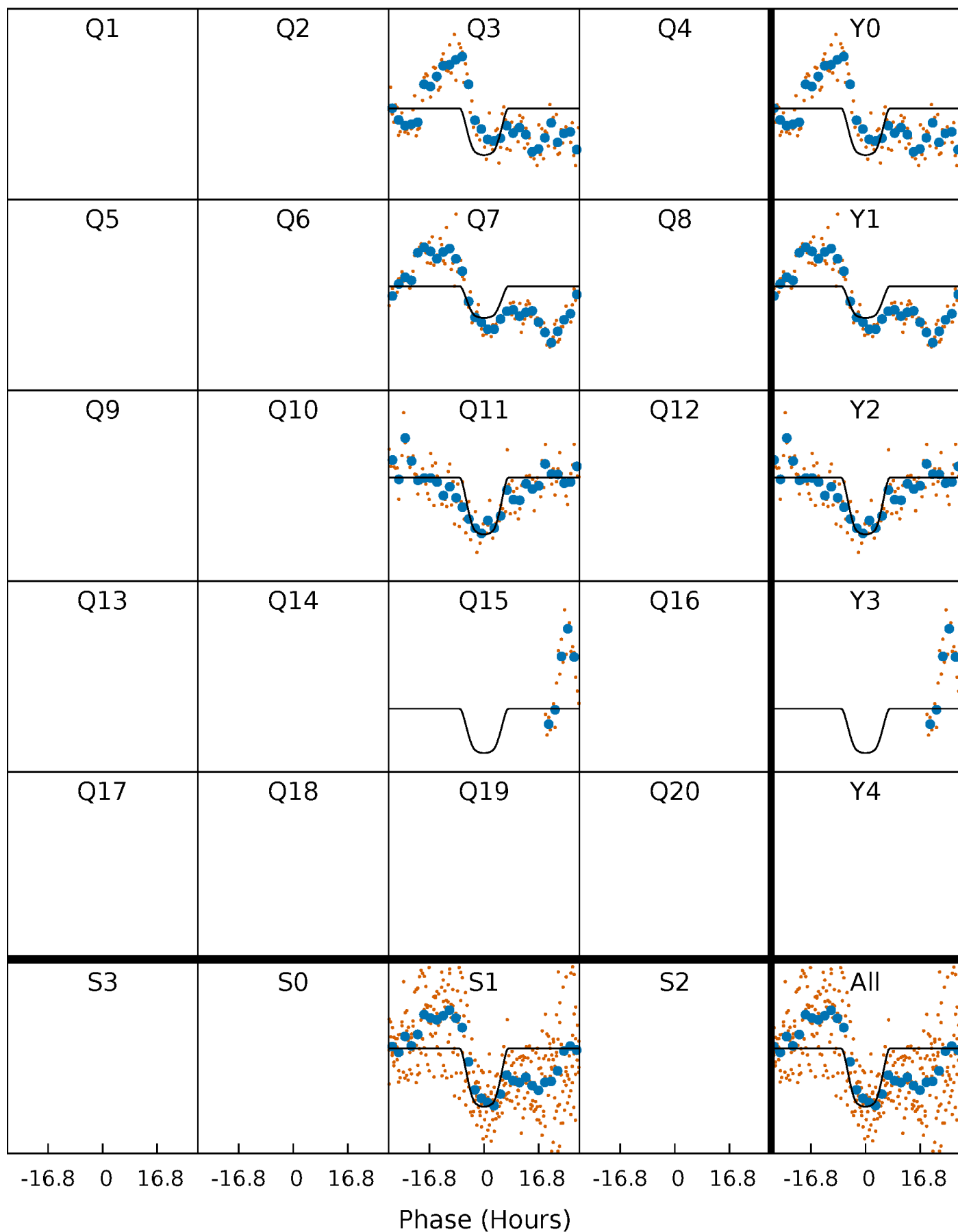
PDC Quarter-Phased Transit Curves

TCE 006600771-01 P=369.172464 Days $T_0=310.154679$ (BKJD)



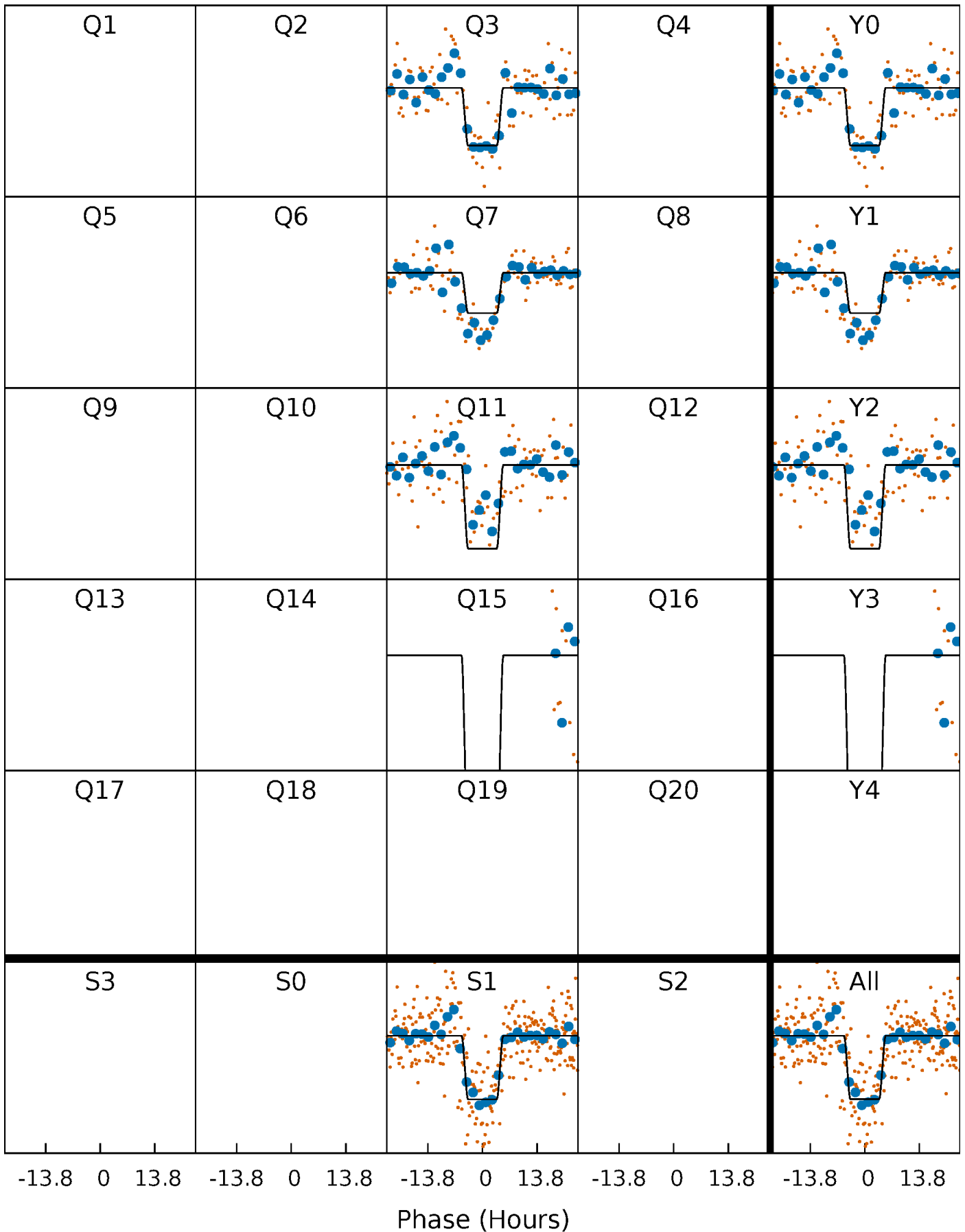
DV Quarter-Phased Transit Curves

TCE 006600771-01 P=369.172464 Days $T_0=310.154679$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

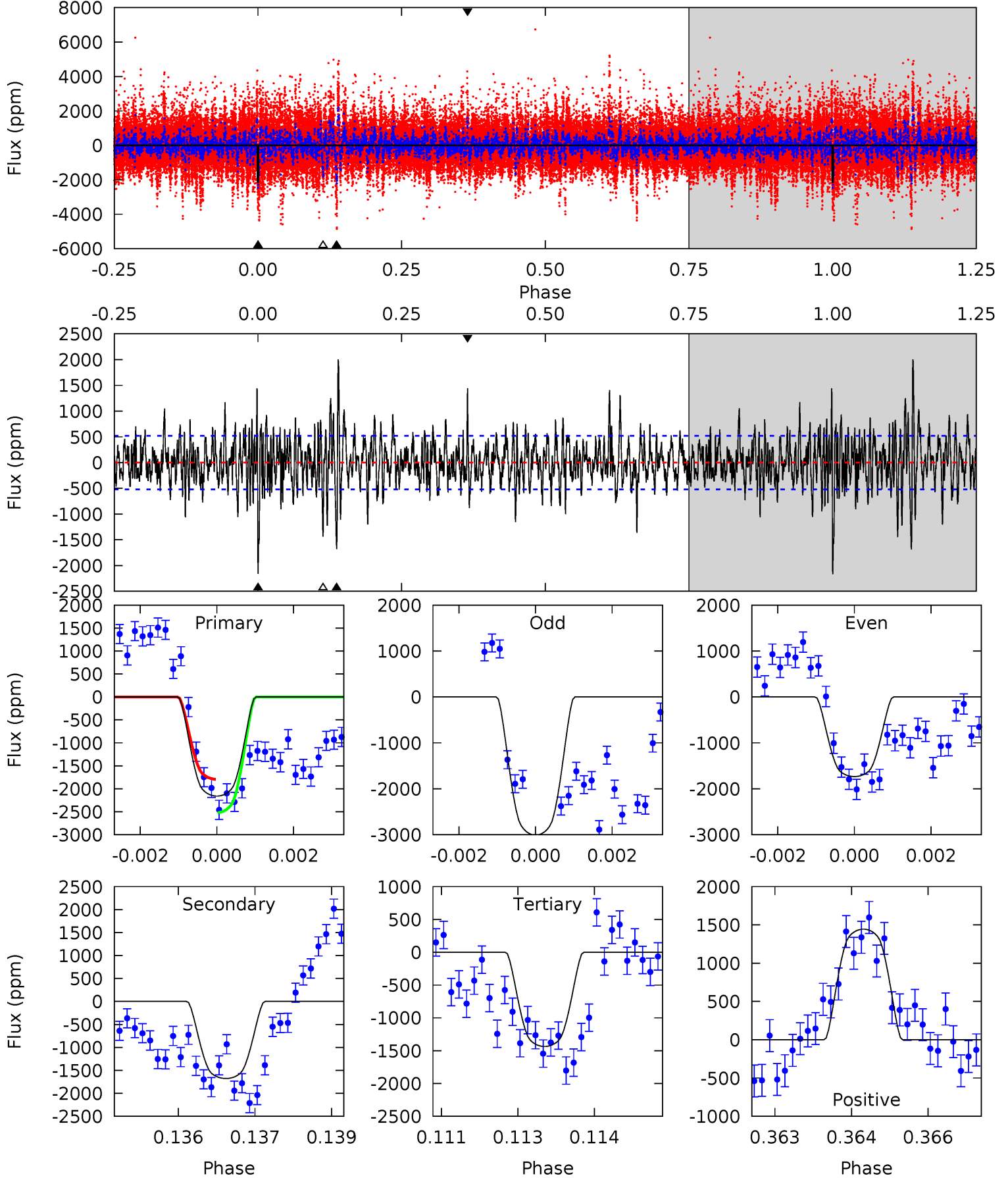
TCE 006600771-01 P=369.186751 Days $T_0=310.162542$ (BKJD)



DV Model-Shift Uniqueness Test

006600771-01, P = 369.172464 Days, E = 310.154679 Days

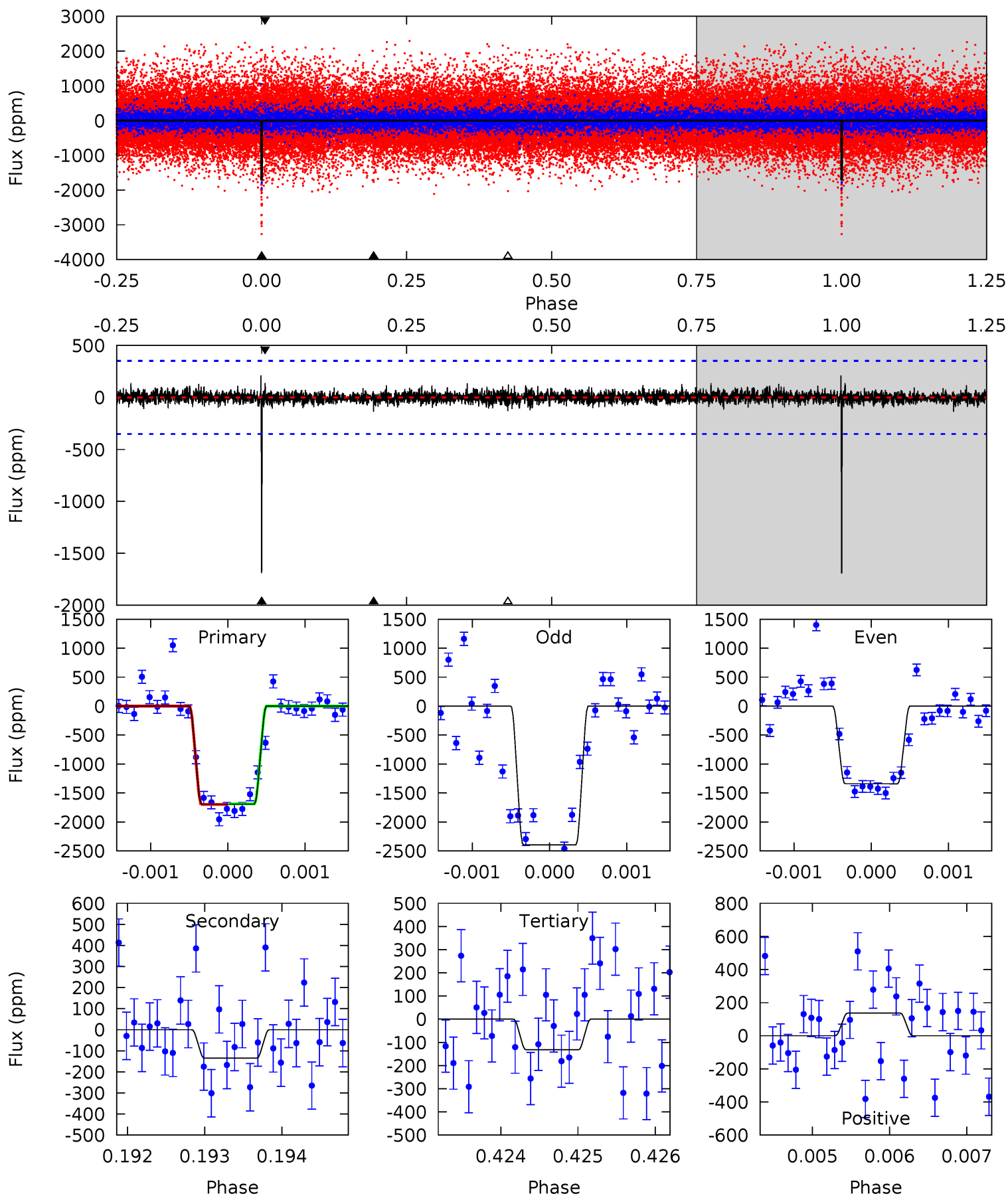
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
22.3	17.3	14.8	14.9	5.36	3.15	3.89	7.46	7.37	2.49	2.41	5.97	0.93	0.48	3.75



Alt Model-Shift Uniqueness Test

006600771-01, P = 369.186751 Days, E = 310.162542 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
26.1	2.08	2.03	2.11	5.42	3.24	0.49	24.1	24.0	0.05	-0.03	7.52	0.99	0.11	0.11



Stellar Parameters For KIC 006600771

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	3770^{+51}_{-51}	$4.747^{+0.032}_{-0.017}$	$-0.100^{+0.100}_{-0.100}$	$0.499^{+0.022}_{-0.029}$	$0.508^{+0.026}_{-0.023}$	$5.743^{+0.828}_{-0.457}$
	+1%/-1%	+1%/-0%	+100%/-100%	+4%/-6%	+5%/-5%	+14%/-8%
Source	PHO2	PHO2	PHO2	DSEP		

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

Secondary Eclipse Parameters for KIC 006600771-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-1677 ± 97	$2.96^{+0.31}_{-0.31}$	183^{+3}_{-3}	3440^{+127}_{-121}	68666^{+17626}_{-12768}
Alt.	-135 ± 65	$2.27^{+0.30}_{-0.28}$	183^{+3}_{-3}	2583^{+180}_{-210}	8679^{+6119}_{-4312}

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

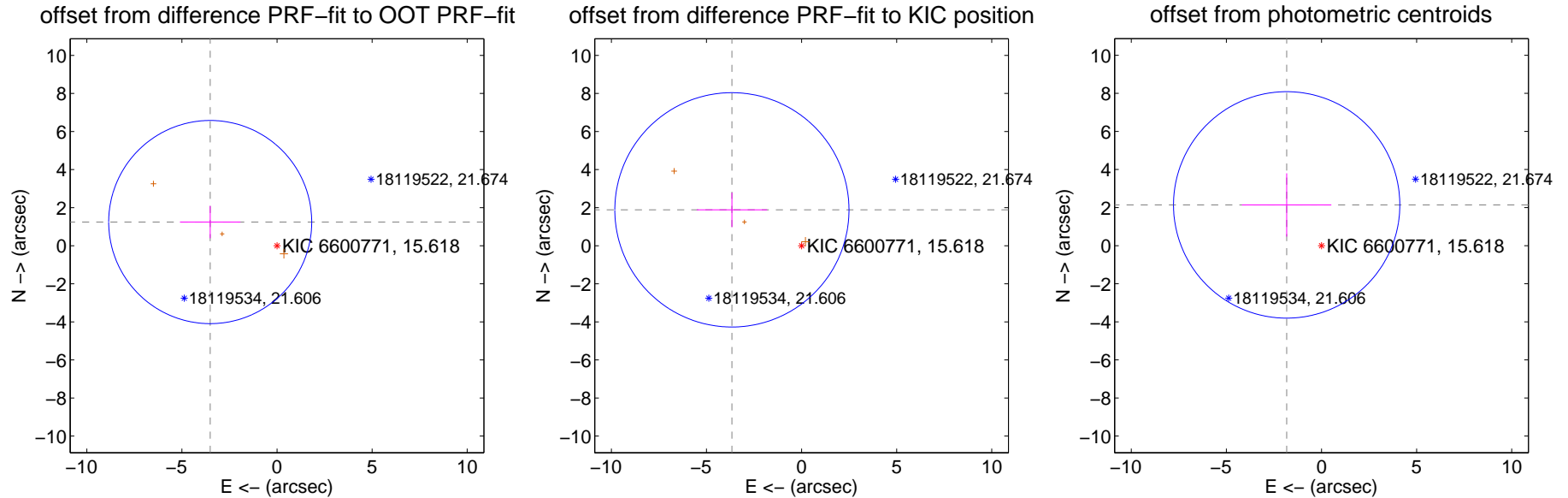
DV Centroid Data

Supplemental centroid analysis for 006600771-01. Kepler magnitude: 15.62. Transit SNR 7.73

There are 0 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.70 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.726 ± 1.779	2.09	3.513 ± 1.590	1.244 ± 0.848
PRF-fit source offset from KIC position	4.119 ± 2.052	2.01	3.663 ± 1.850	1.885 ± 0.903
photometric centroid source offset	2.82 ± 1.98	1.42	1.83 ± 2.35	2.14 ± 1.66



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



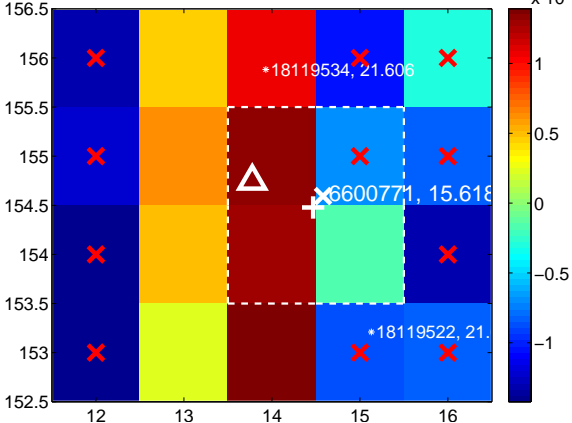
Q2 no difference image



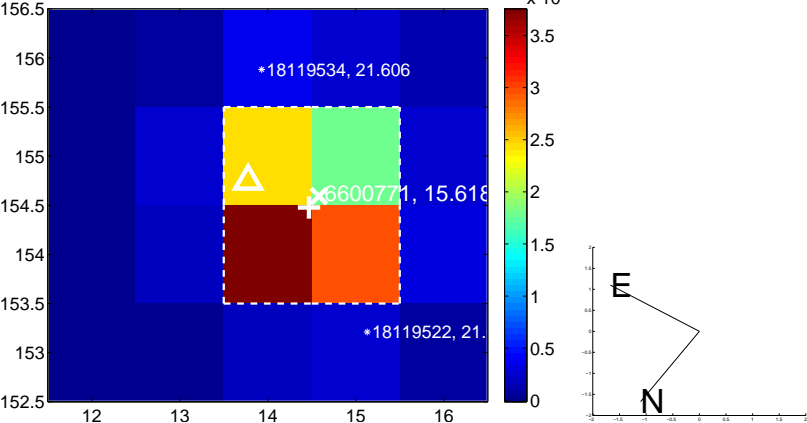
Q2 no OOT image



Q3 difference image. Poor Quality



Q3 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



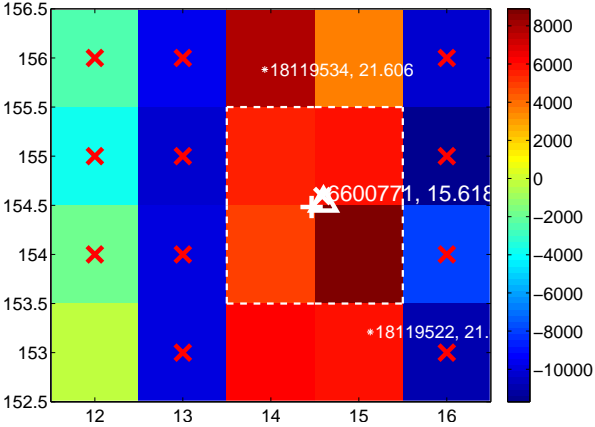
Q6 no difference image



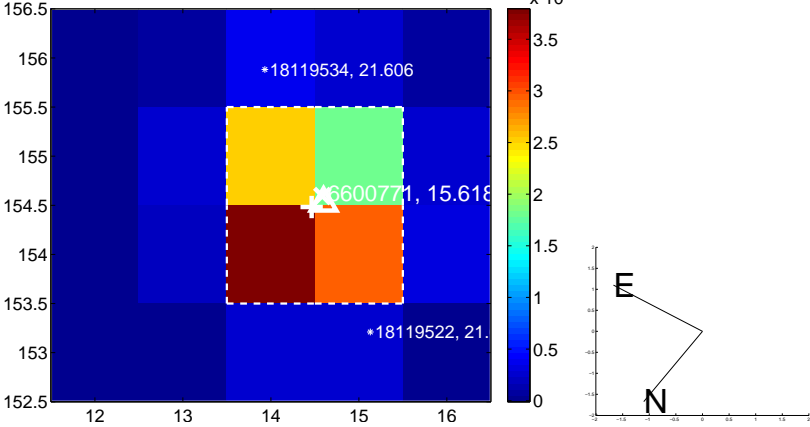
Q6 no OOT image



Q7 difference image. Poor Quality



Q7 OOT image



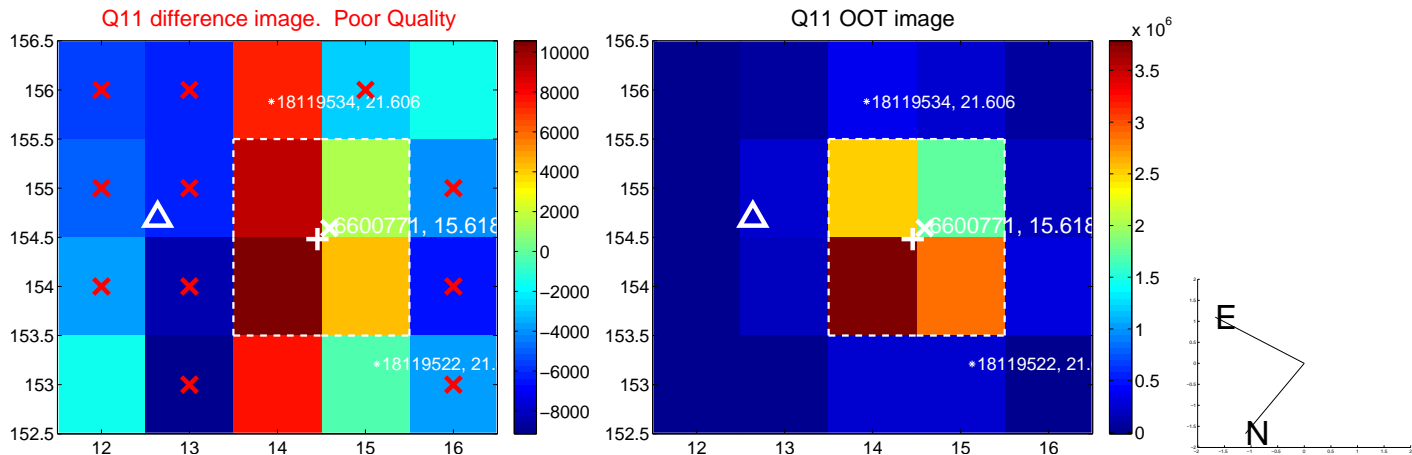
Q8 no difference image



Q8 no OOT image



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



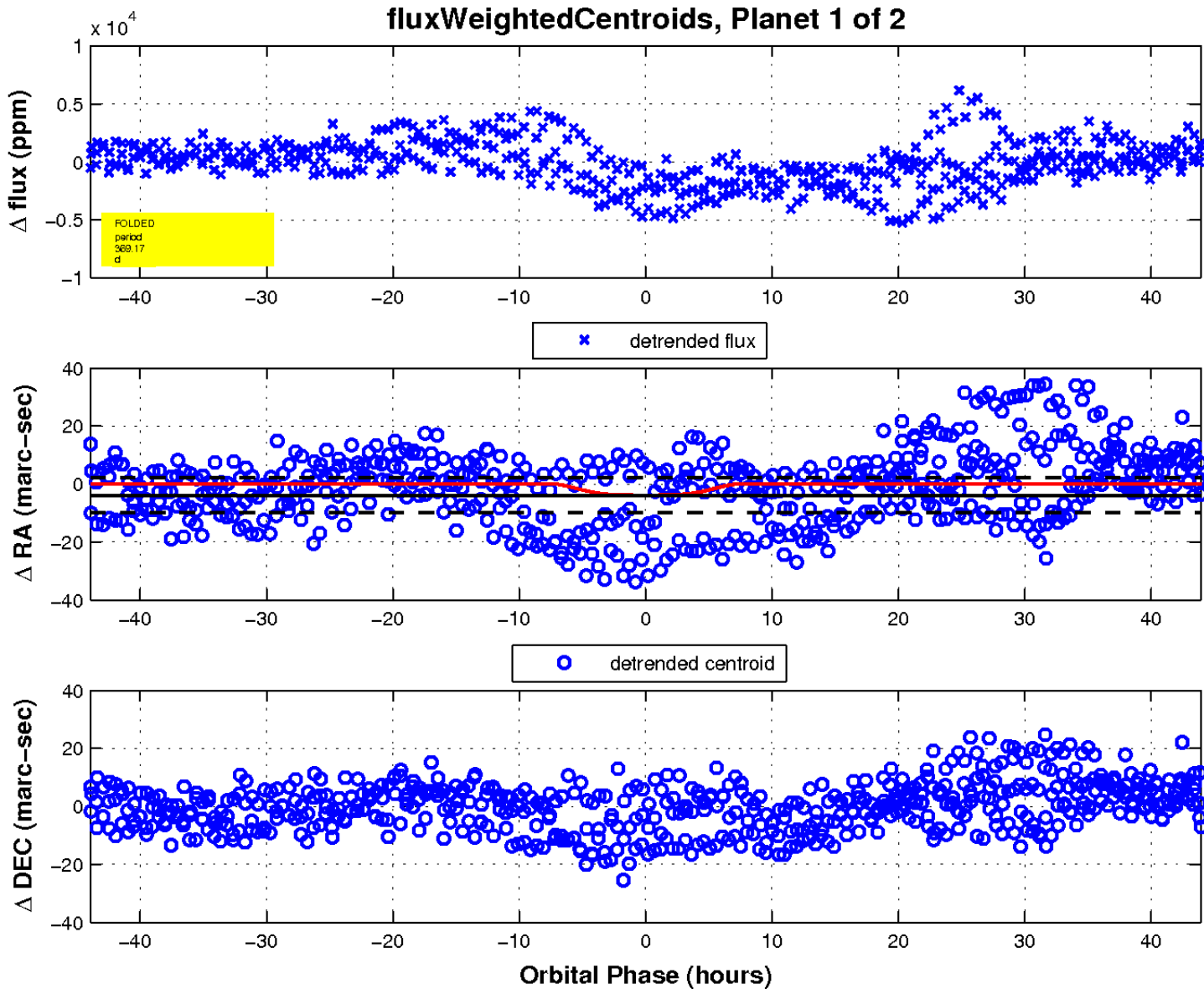
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

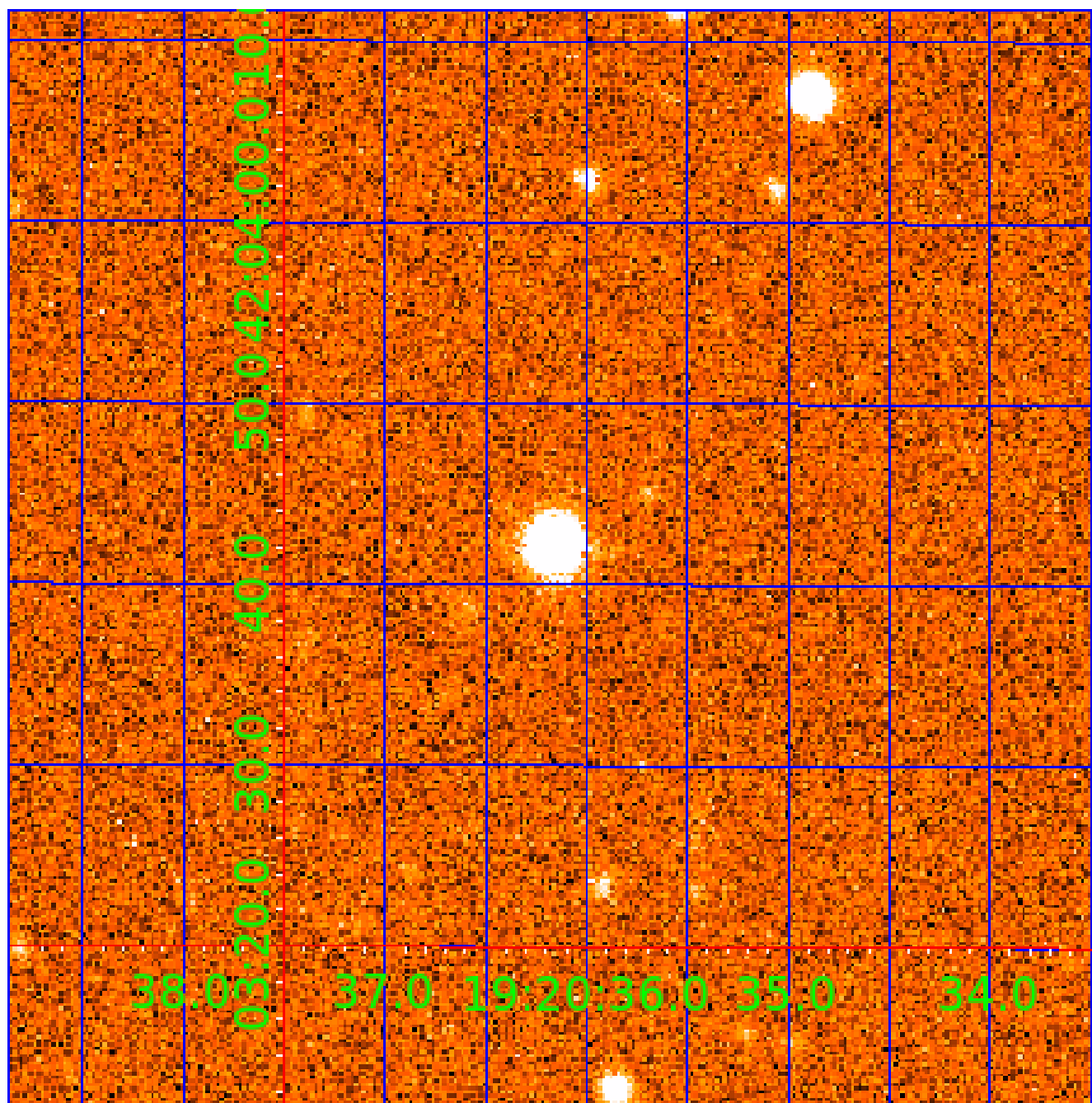
Q17 no difference image

Q17 no OOT image



UKIRT Image

Declination



KIC 006600771

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})
006600771-01	OBS	No	369.172464	310.154679	2351.6	14.684	8.4	7.7	0.50	3770	2.96	0.07
006600771-02	OBS	No	337.689522	297.495086	1478.2	15.122	11.1	7.6	0.50	3770	1.92	0.08

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006600771-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006600771-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—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.

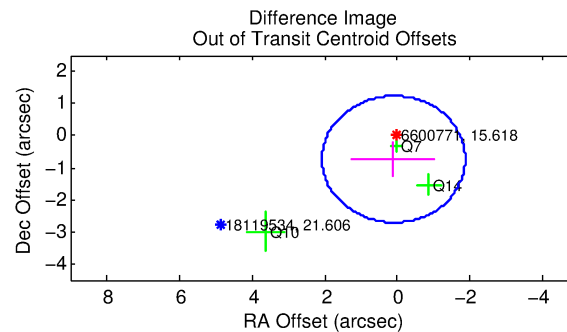
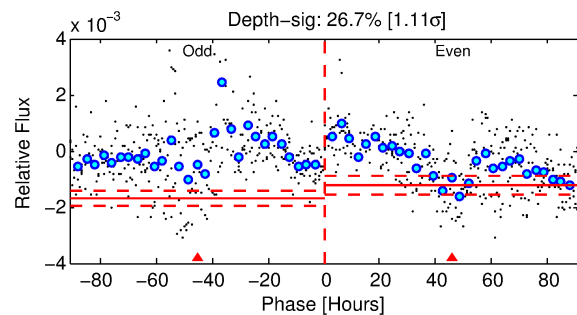
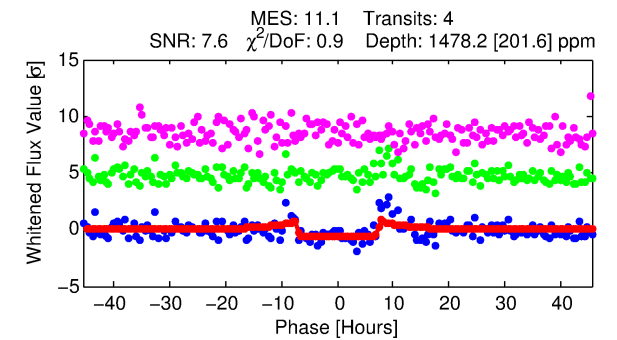
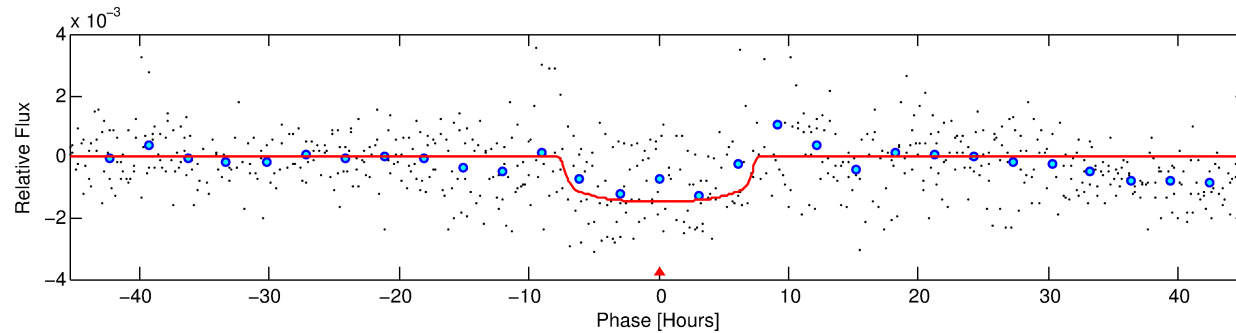
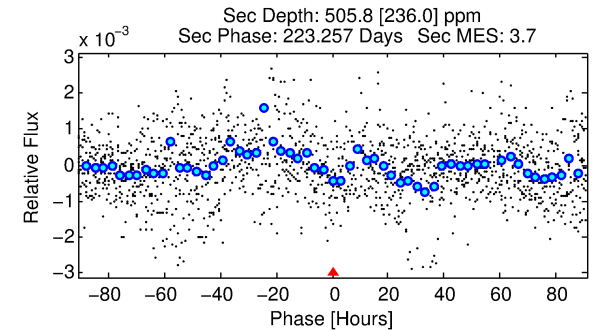
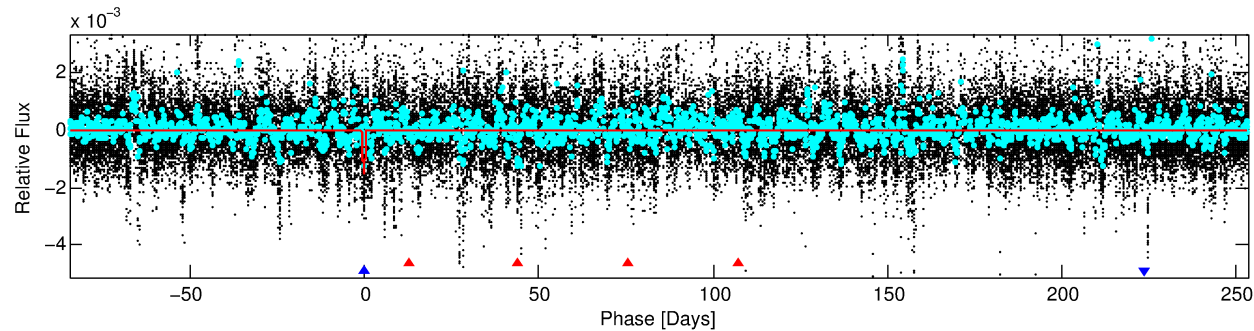
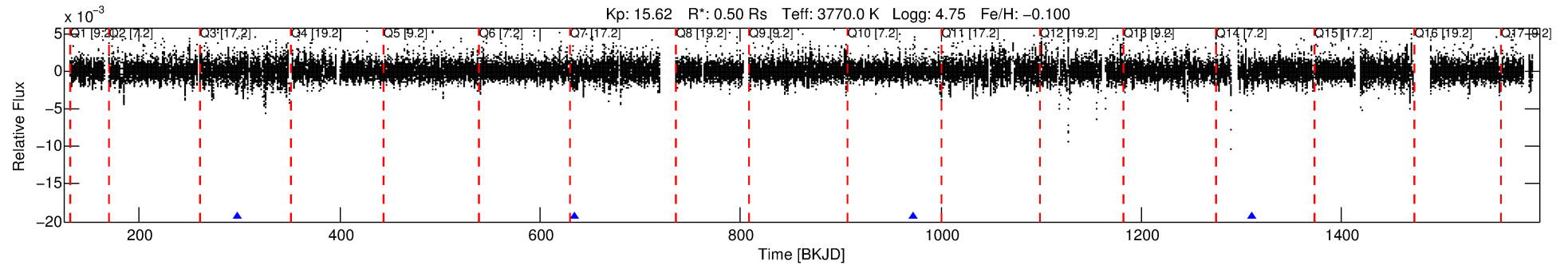
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006600771-02

No Significant Match Found

DV One-Page Summary

KIC: 6600771 Candidate: 2 of 2 Period: 337.690 d



DV Fit Results:

Period = 337.68952 [0.00736] d
Epoch = 297.4951 [0.0142] BKJD
Rp/R* = 0.0353 [0.0094]
a/R* = 166.65 [183.38]
b = 0.34 [2.83]
Seff = 0.08 [0.01]
Teq = 135 [3] K
Rp = 1.92 [0.52] Re
a = 0.7570 [0.0347] AU
Ag = 43062.32 [30514.42] [1.41σ]
Teffp = 3007 [532] K [5.40σ]

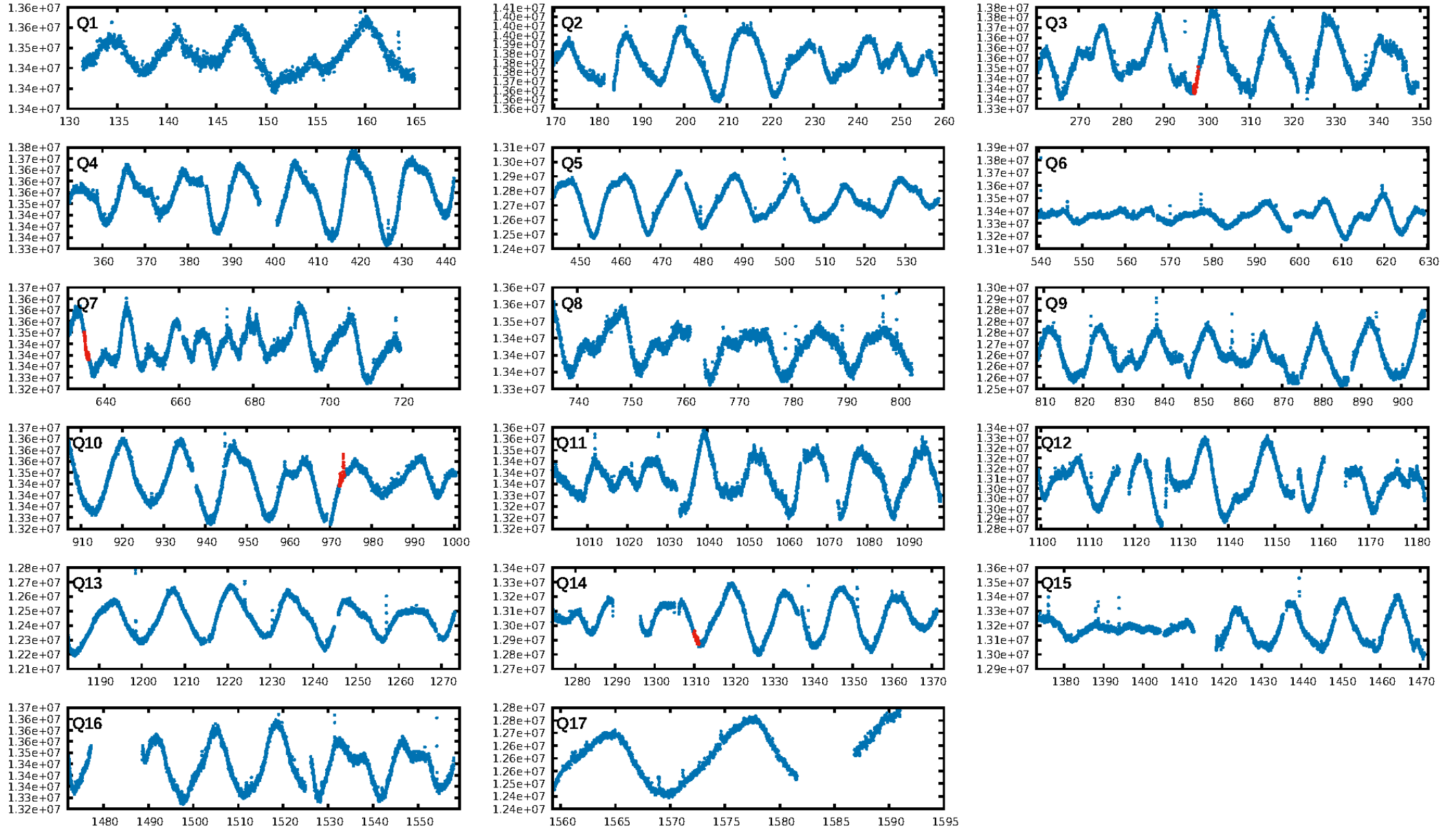
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [35.85σ]
ModelChiSquare2-sig: 13.9%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 5.06e-12
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: -1.378
Centroid-sig: N/A
Centroid-so: 1.022 arcsec [1.30σ]
OotOffset-rm: 0.744 arcsec [1.13σ]
OotOffset-st: 2/1/0/0 [3]
KicOffset-rm: 0.286 arcsec [0.20σ]
KicOffset-st: 2/1/0/0 [3]
DiffImageQuality-fgm: 0.33 [1/3]
DiffImageOverlap-fno: 1.00 [4/4]

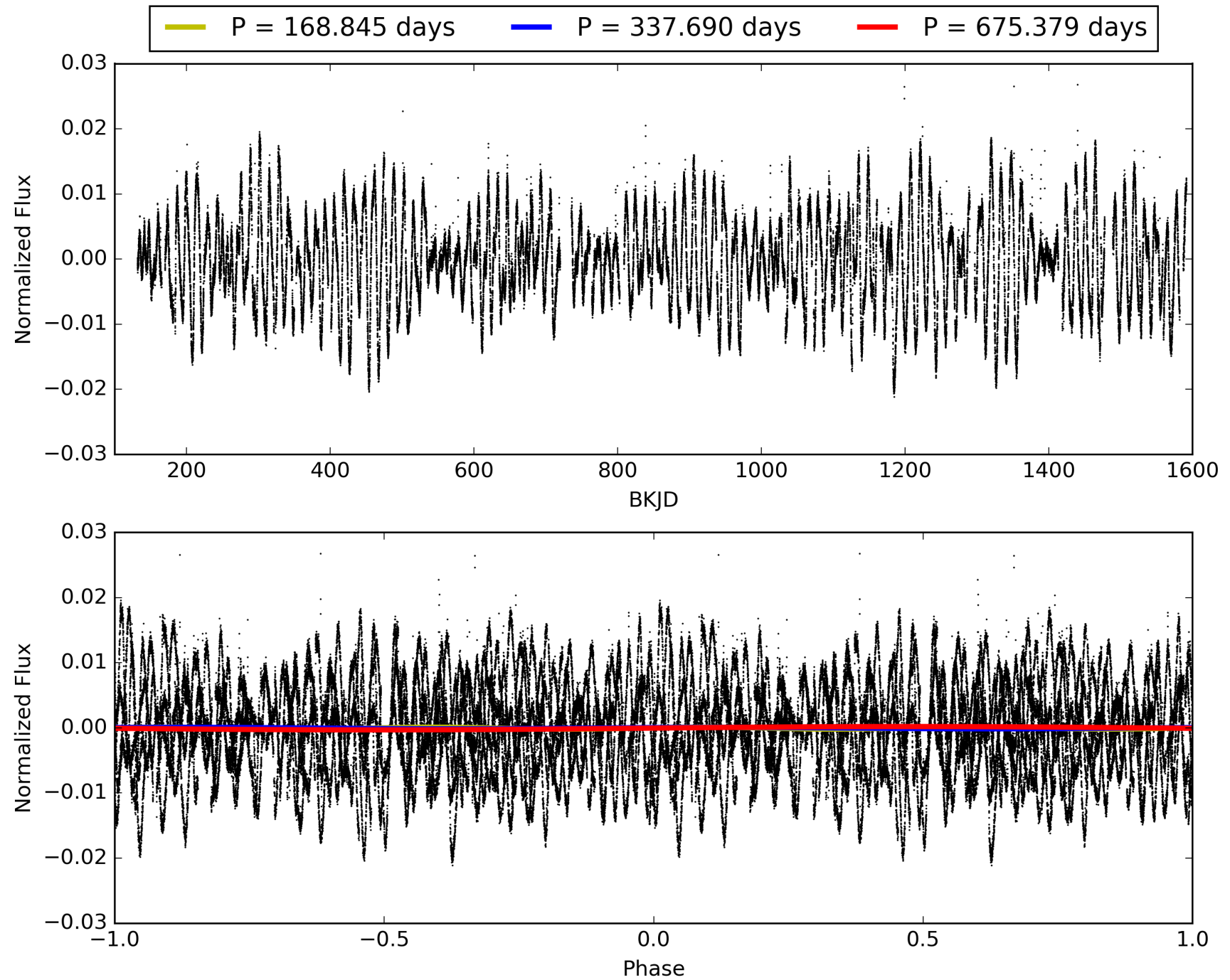
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 22:47:13 Z

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

TCE 006600771-02, PDC Light Curves

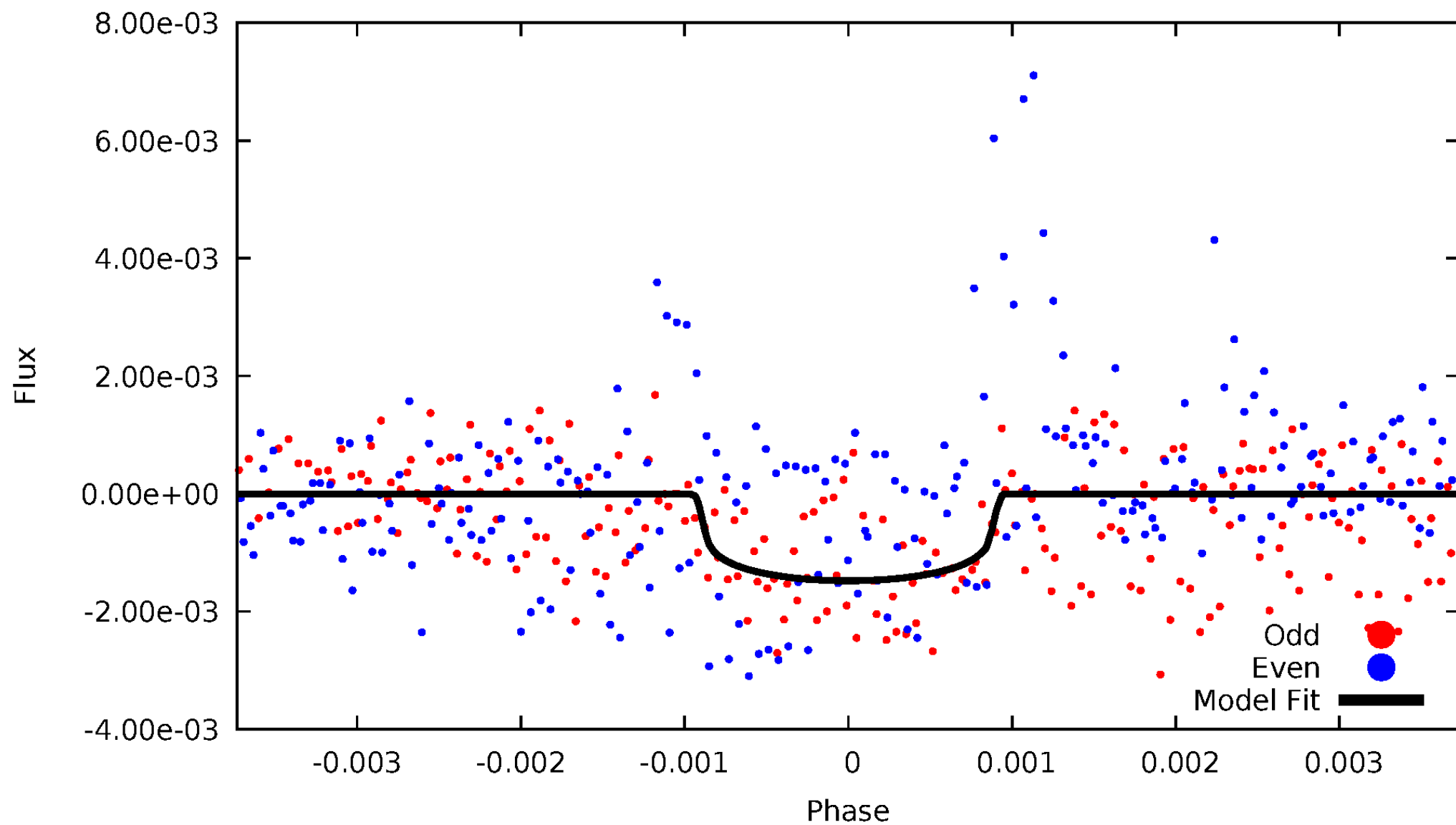


TCE 006600771-02



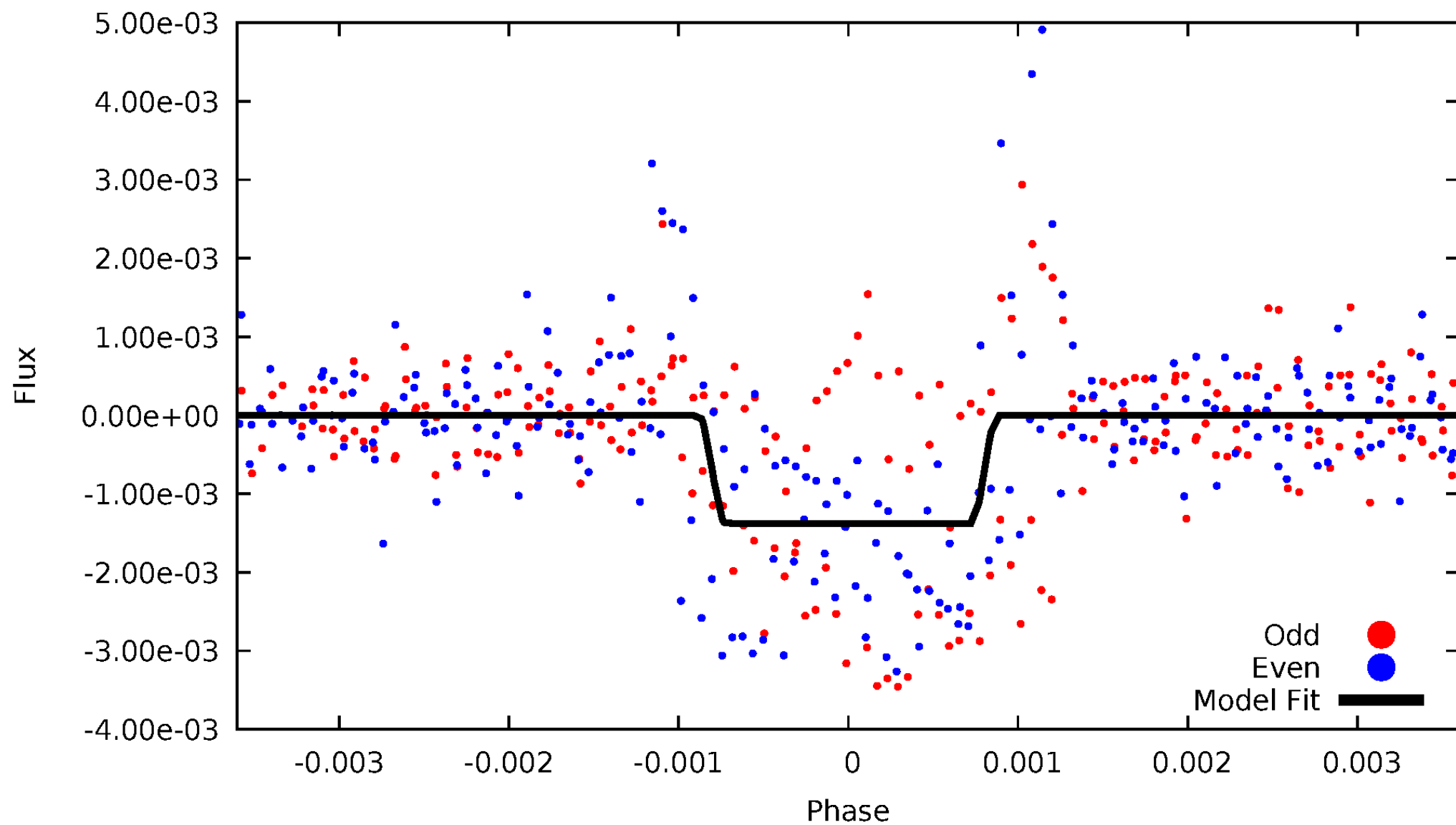
DV Odd/Even

TCE 006600771-02



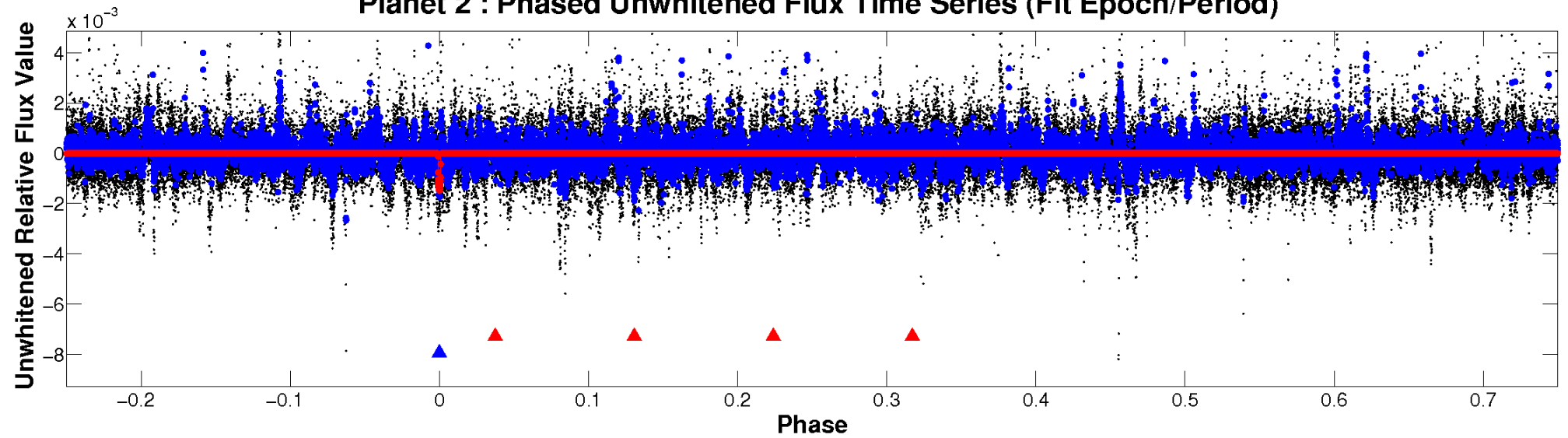
ALT Odd/Even

TCE 006600771-02

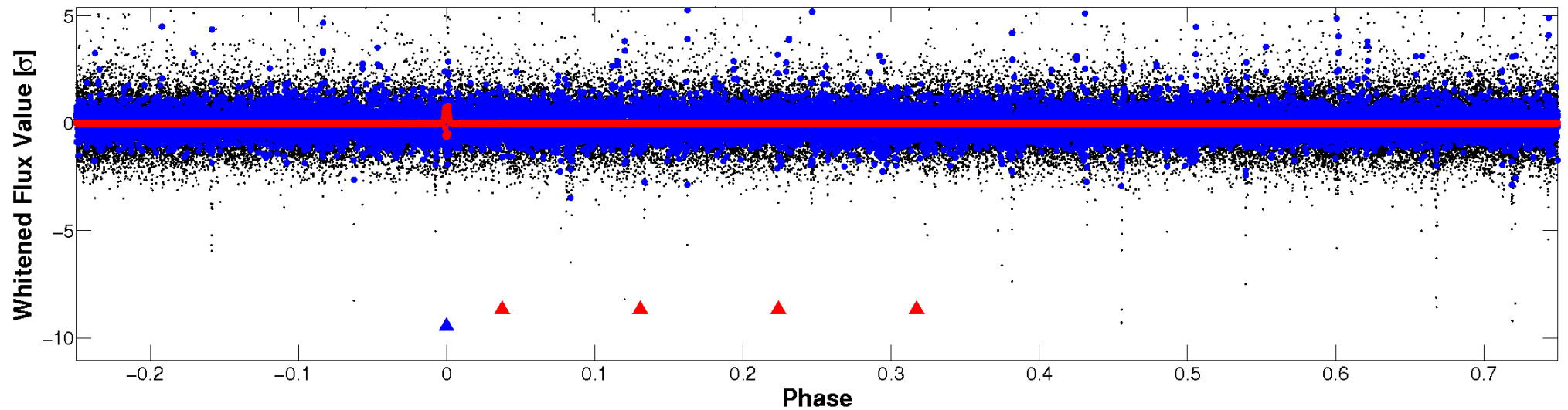


Non-Whitened Vs. Whitened Light Curve

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

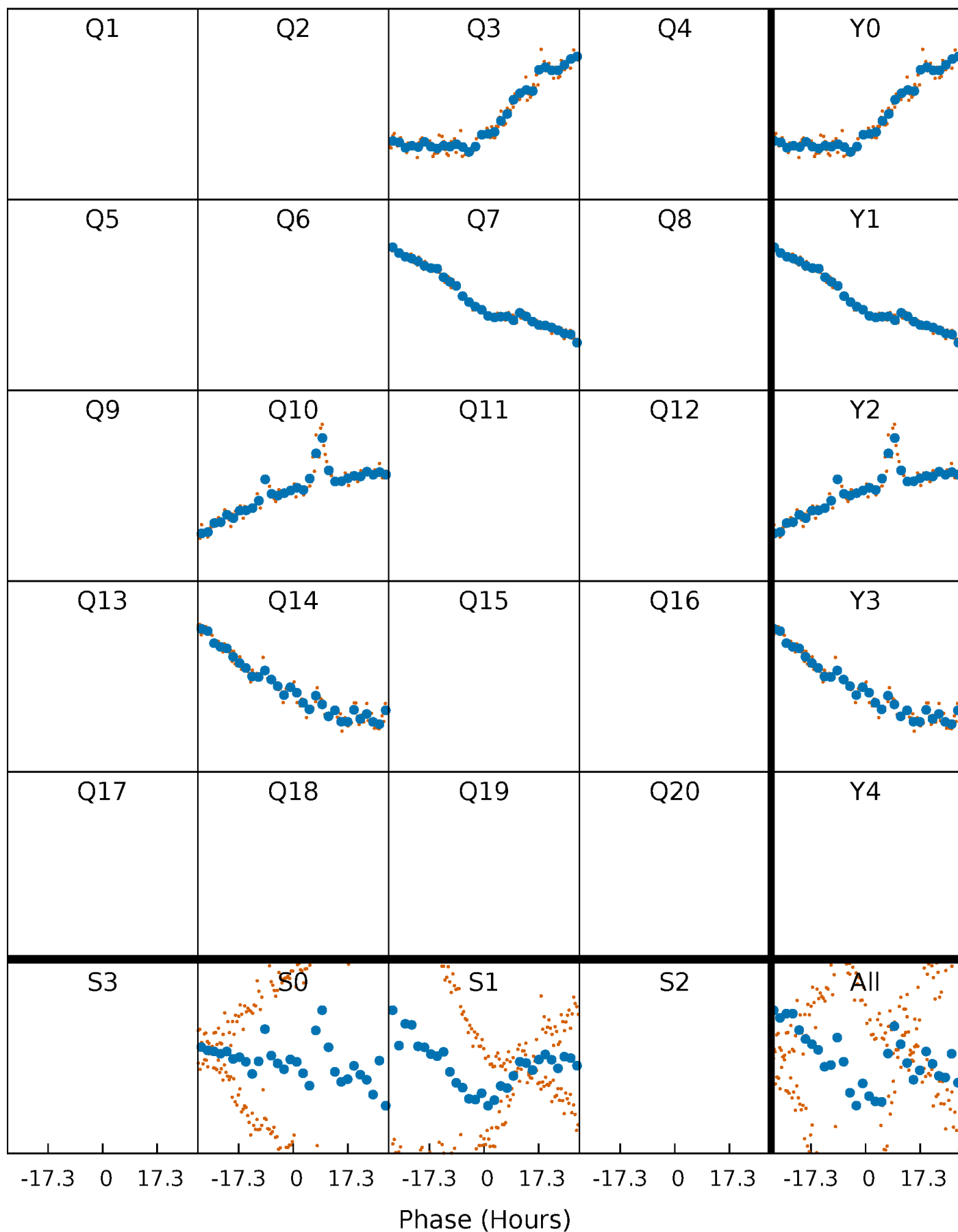


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



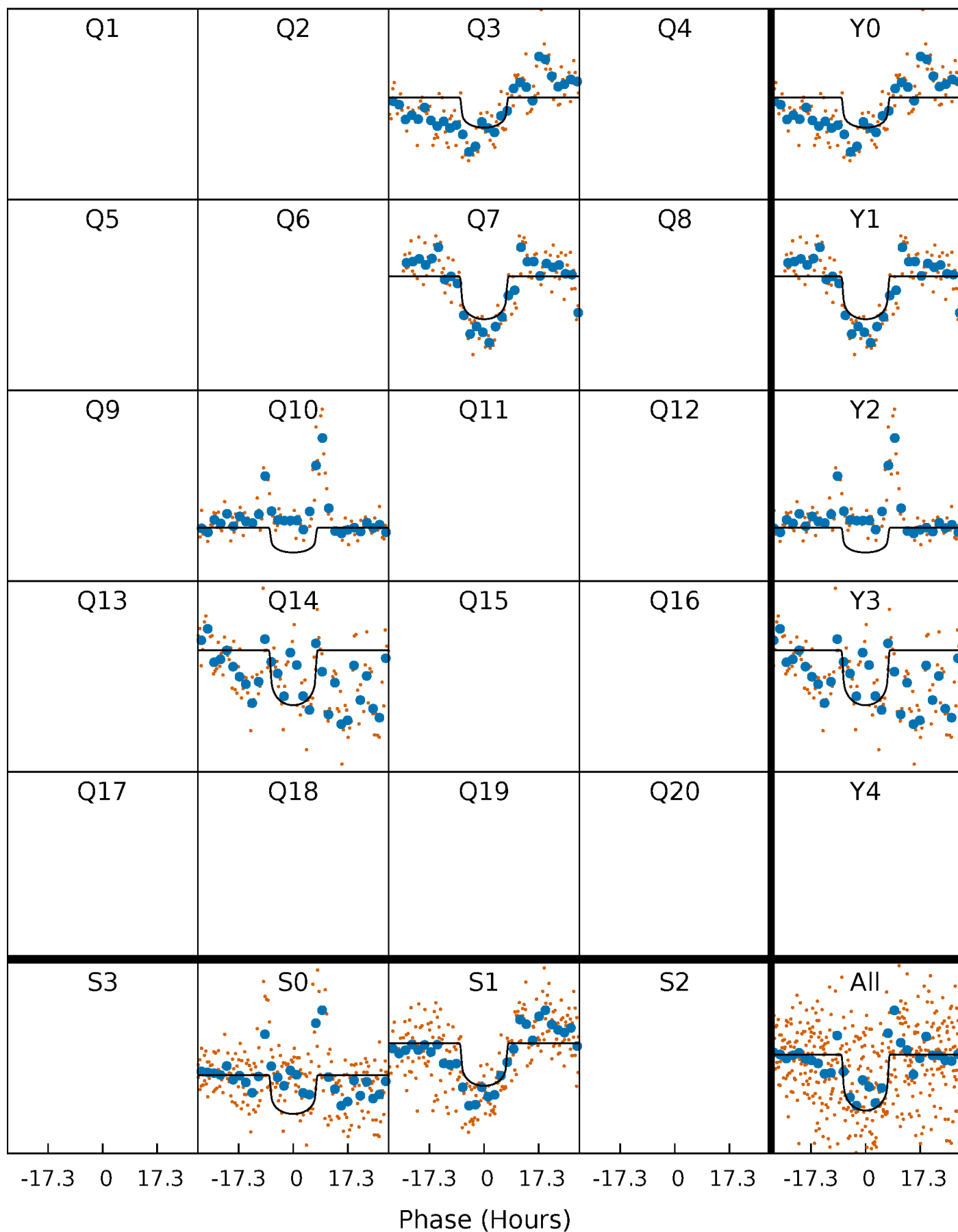
PDC Quarter-Phased Transit Curves

TCE 006600771-02 $P=337.689522$ Days $T_0=297.495086$ (BKJD)



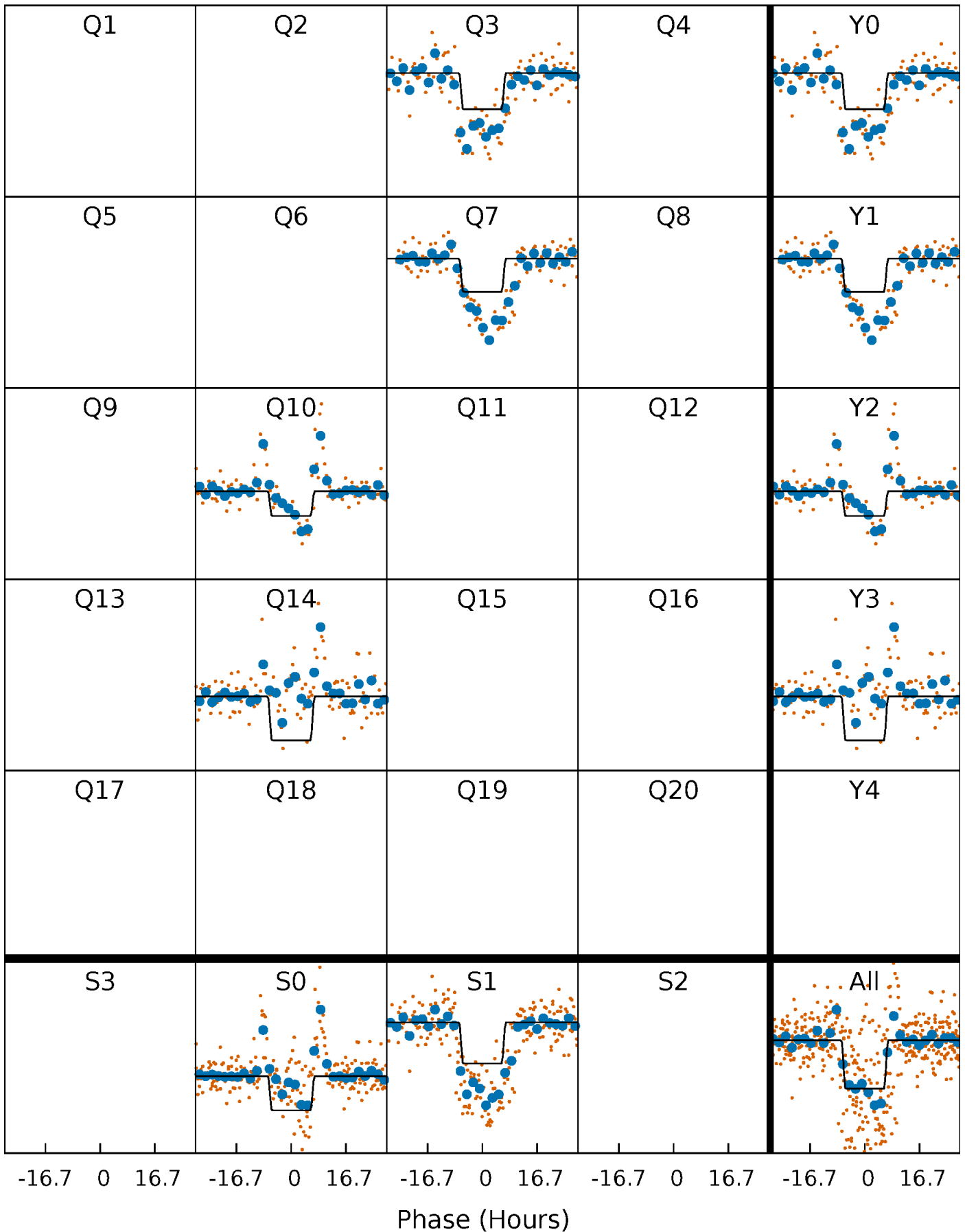
DV Quarter-Phased Transit Curves

TCE 006600771-02 $P=337.689522$ Days $T_0=297.495086$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

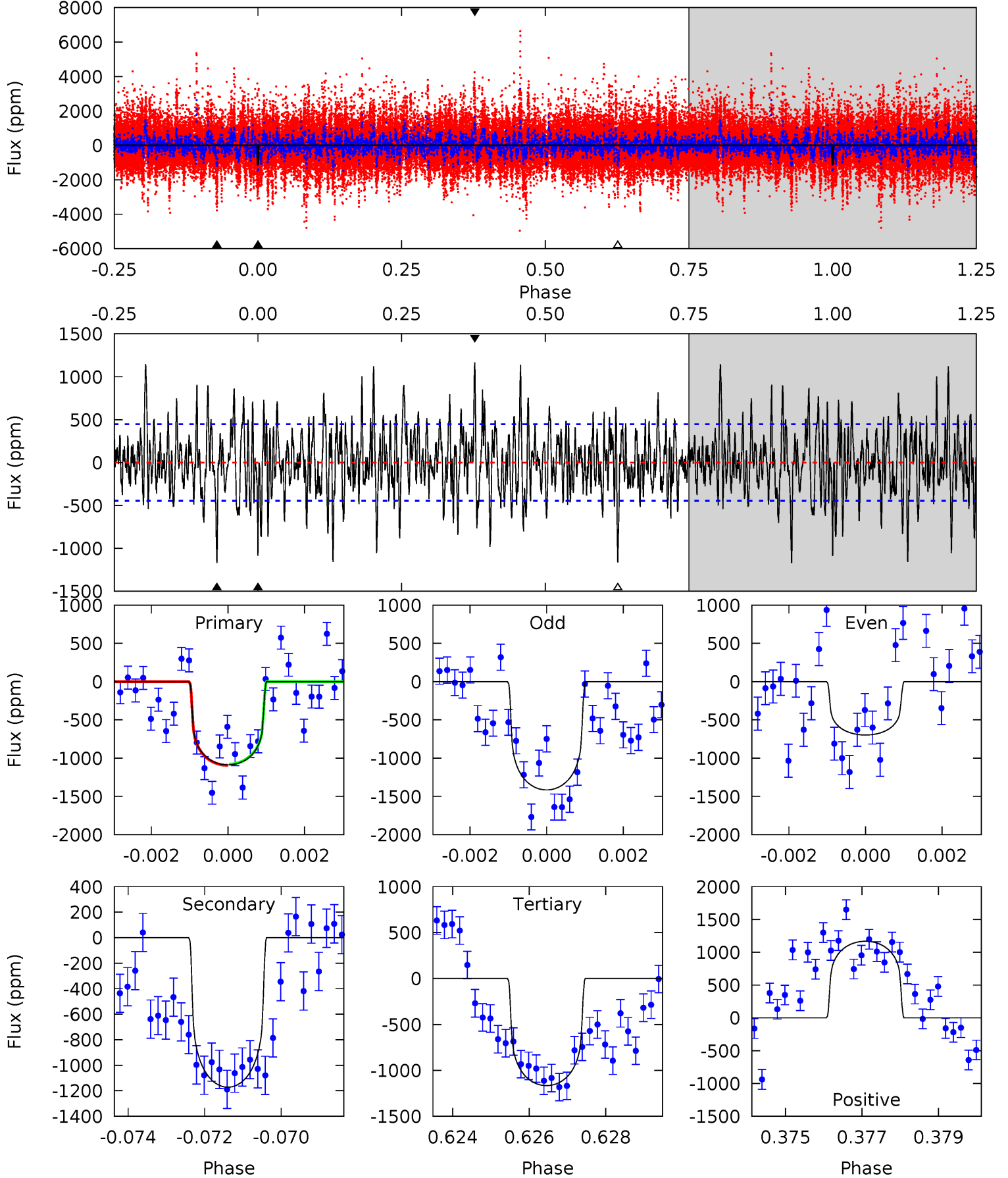
TCE 006600771-02 P=337.664579 Days $T_0=297.541103$ (BKJD)



DV Model-Shift Uniqueness Test

006600771-02, P = 337.689522 Days, E = 297.495086 Days

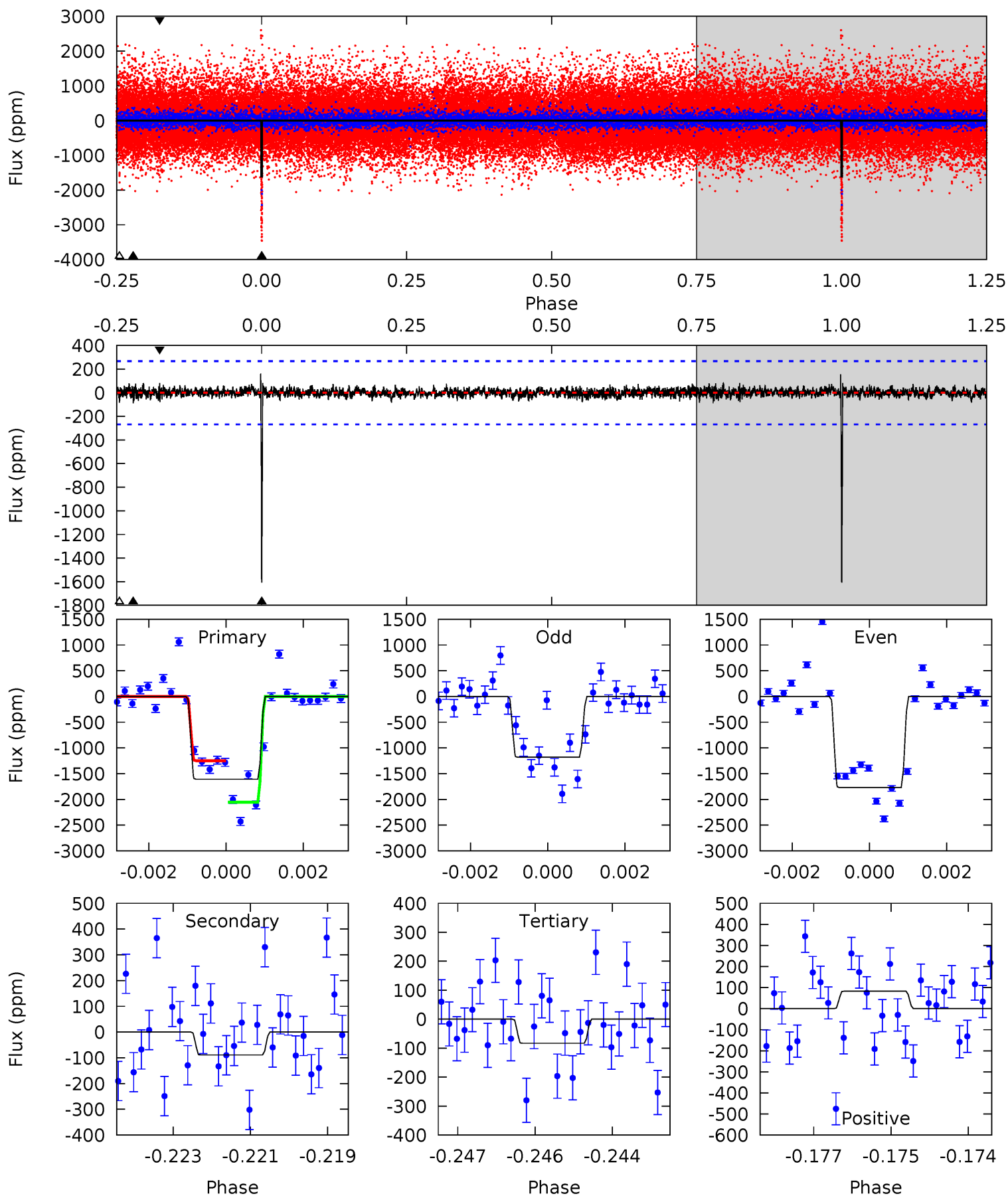
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.0	14.0	13.9	13.9	5.34	3.11	3.92	-0.94	-0.96	0.07	0.05	4.16	0.74	0.50	0.09



Alt Model-Shift Uniqueness Test

006600771-02, $P = 337.664579$ Days, $E = 297.541103$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
32.1	1.78	1.66	1.65	5.35	3.13	0.44	30.4	30.4	0.12	0.13	6.00	0.86	0.09	7.96



Stellar Parameters For KIC 006600771

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	3770^{+51}_{-51}	$4.747^{+0.032}_{-0.017}$	$-0.100^{+0.100}_{-0.100}$	$0.499^{+0.022}_{-0.029}$	$0.508^{+0.026}_{-0.023}$	$5.743^{+0.828}_{-0.457}$
	+1%/-1%	+1%/-0%	+100%/-100%	+4%/-6%	+5%/-5%	+14%/-8%
Source	PHO2	PHO2	PHO2	DSEP		

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

Secondary Eclipse Parameters for KIC 006600771-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-1172 ± 84	$1.93^{+0.49}_{-0.56}$	188^{+3}_{-3}	3725^{+448}_{-269}	100145^{+97954}_{-37595}
Alt.	-89 ± 50	$2.02^{+0.52}_{-0.50}$	188^{+3}_{-4}	2535^{+239}_{-256}	6754^{+6610}_{-4035}

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

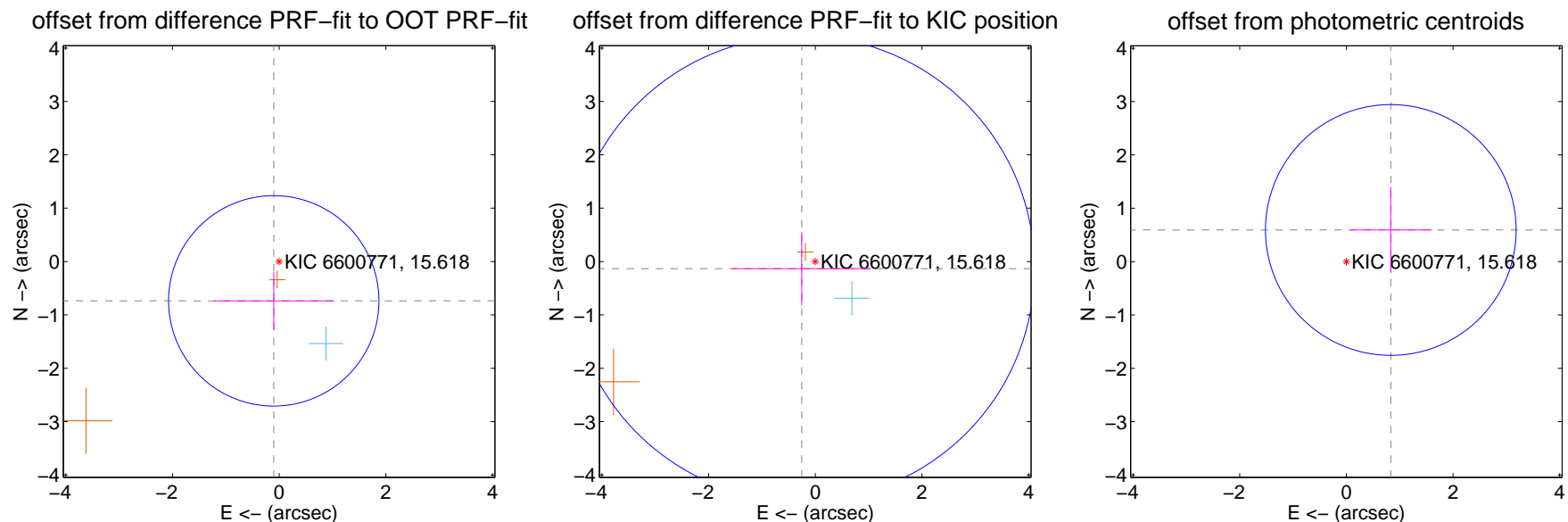
DV Centroid Data

Supplemental centroid analysis for 006600771-02. Kepler magnitude: 15.62. Transit SNR 7.64

There are 1 quarters with good PRF difference image offsets

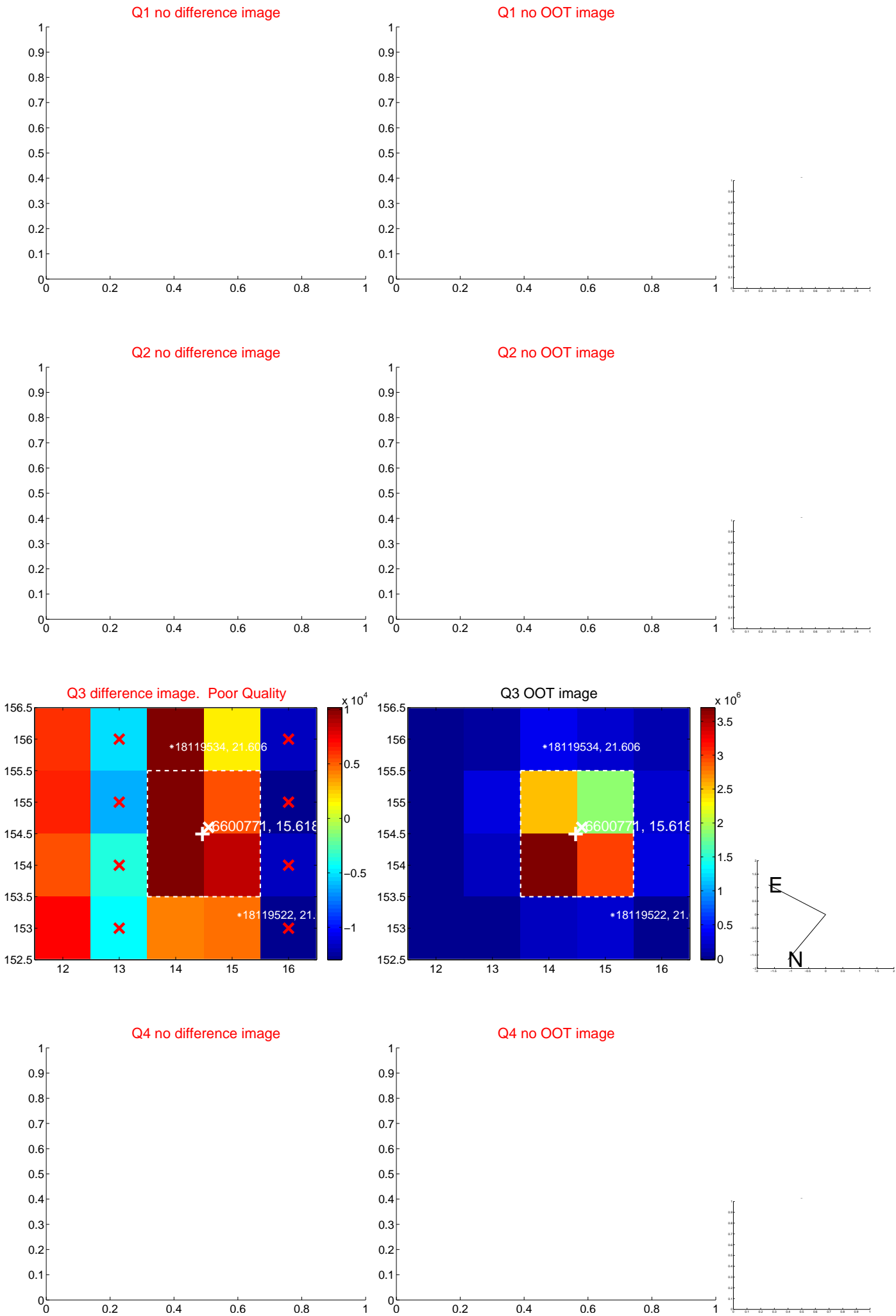
The direct PRF centroid is offset from the target star catalog position by about 0.87 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.744 ± 0.657	1.13	0.101 ± 1.128	-0.737 ± 0.539
PRF-fit source offset from KIC position	0.286 ± 1.454	0.20	0.253 ± 1.302	-0.133 ± 0.687
photometric centroid source offset	1.02 ± 0.78	1.30	-0.83 ± 0.77	0.59 ± 0.81

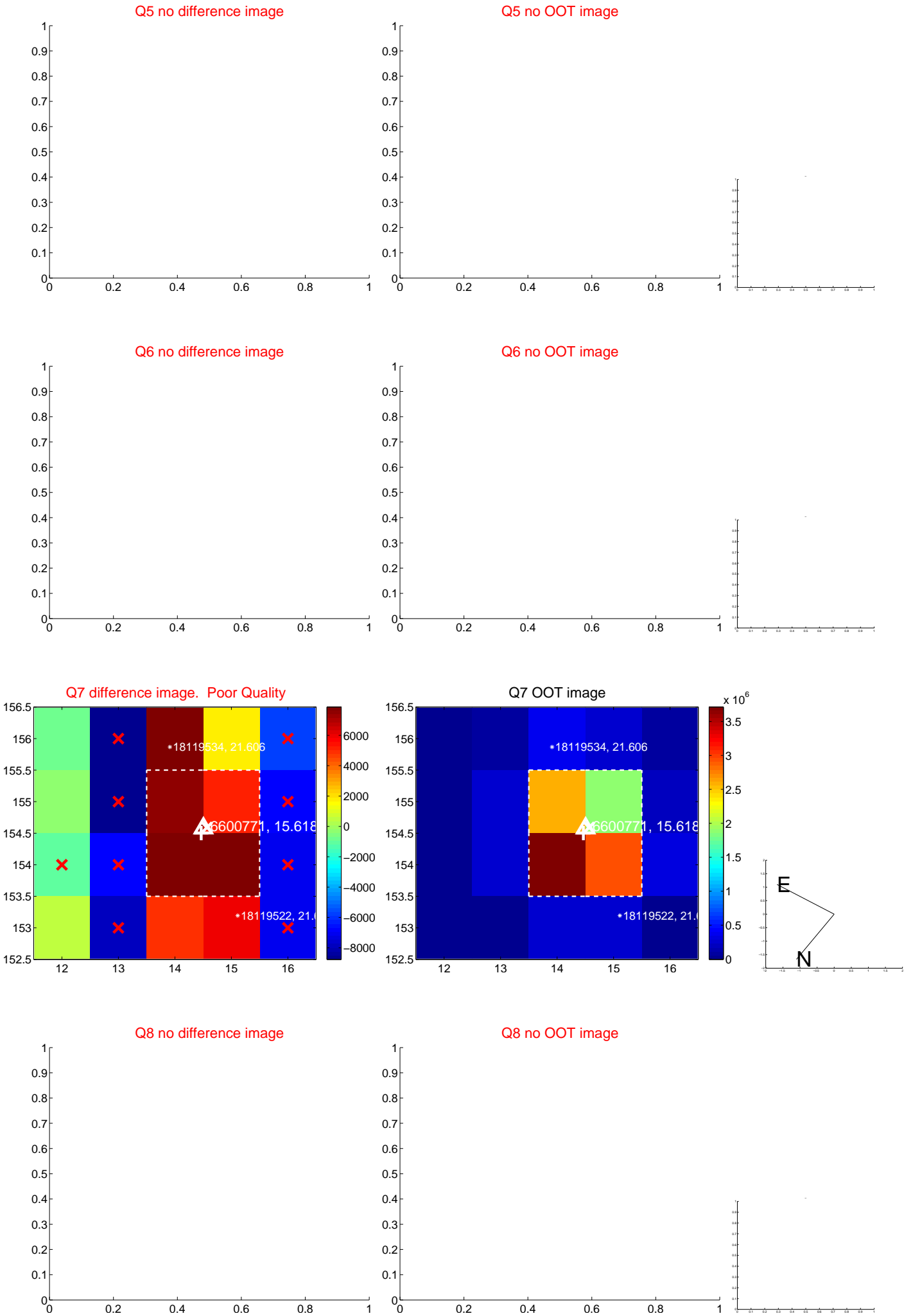


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

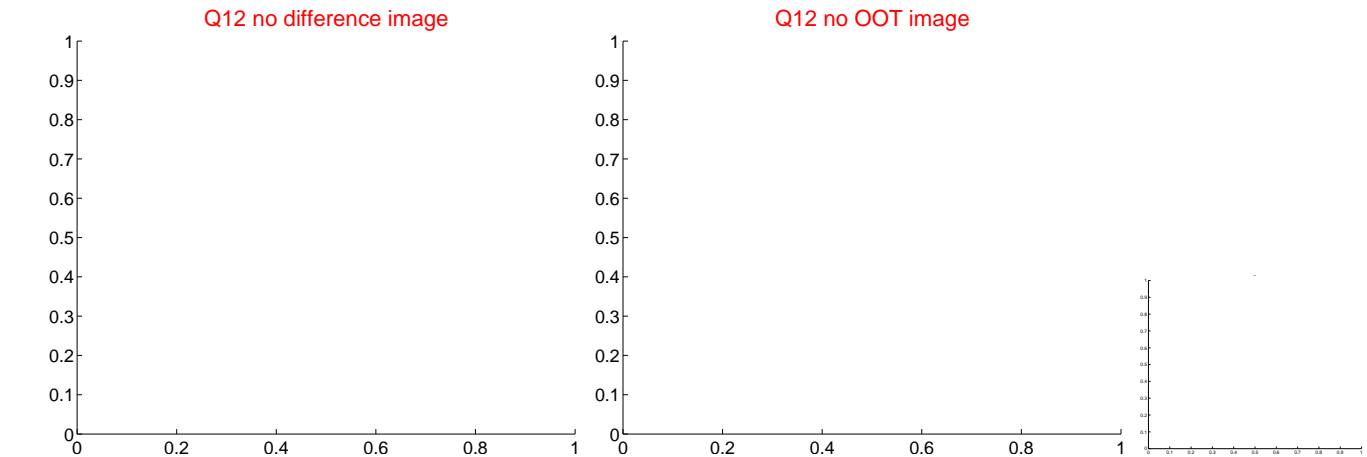
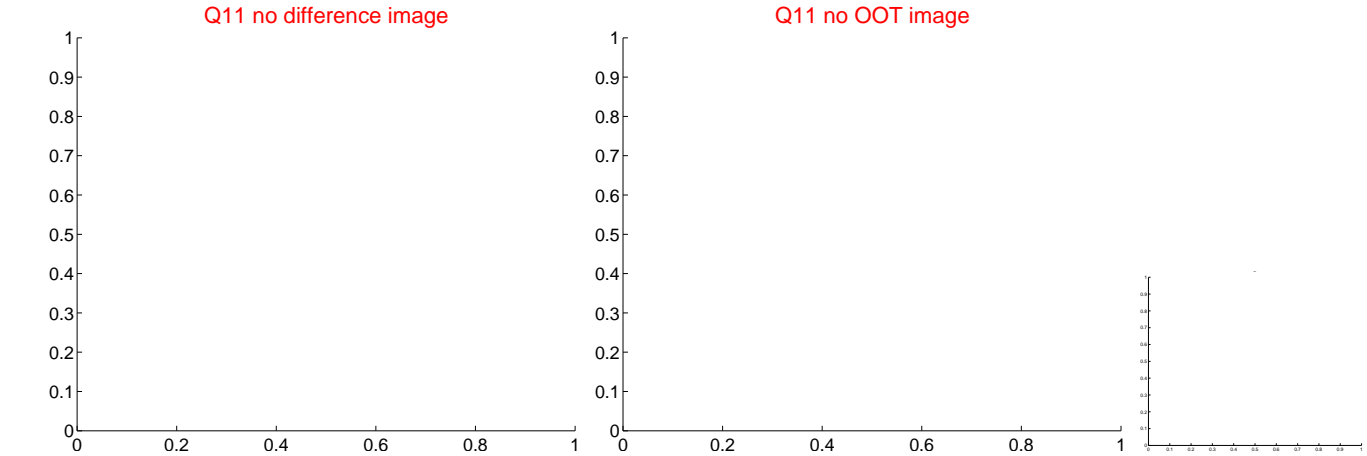
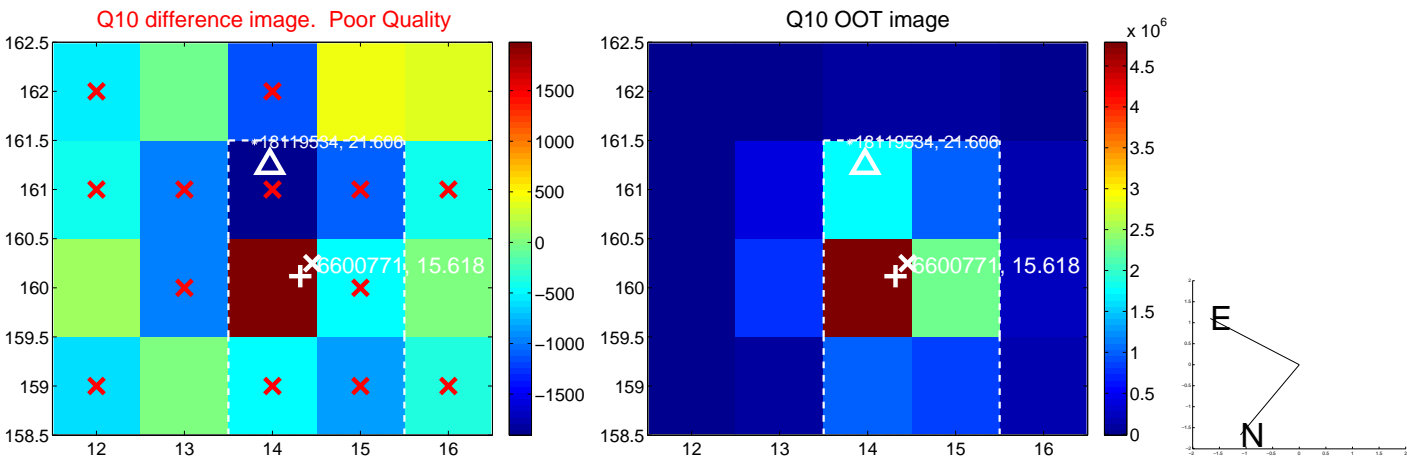
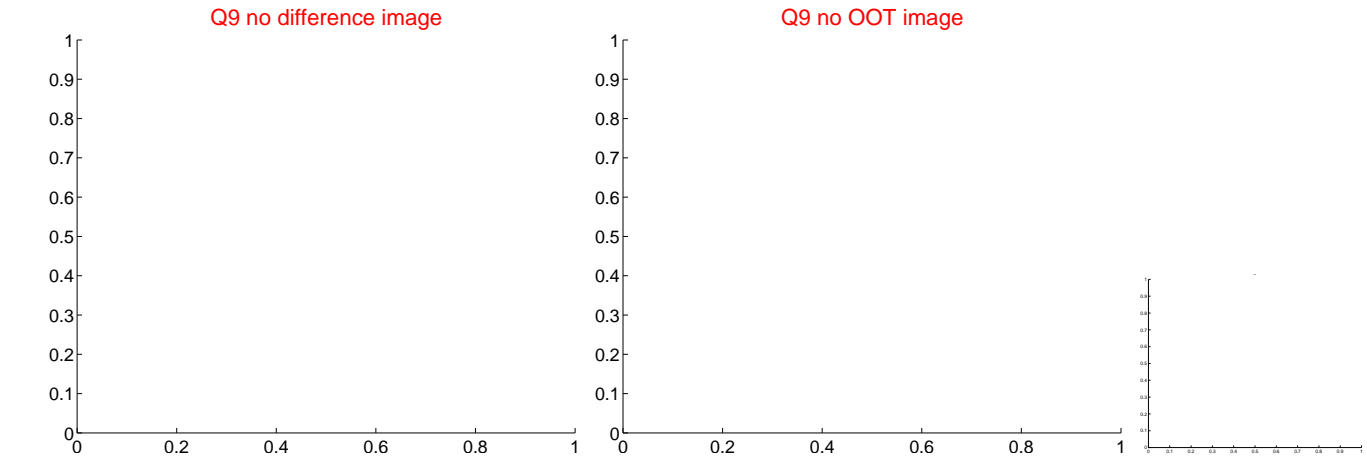
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



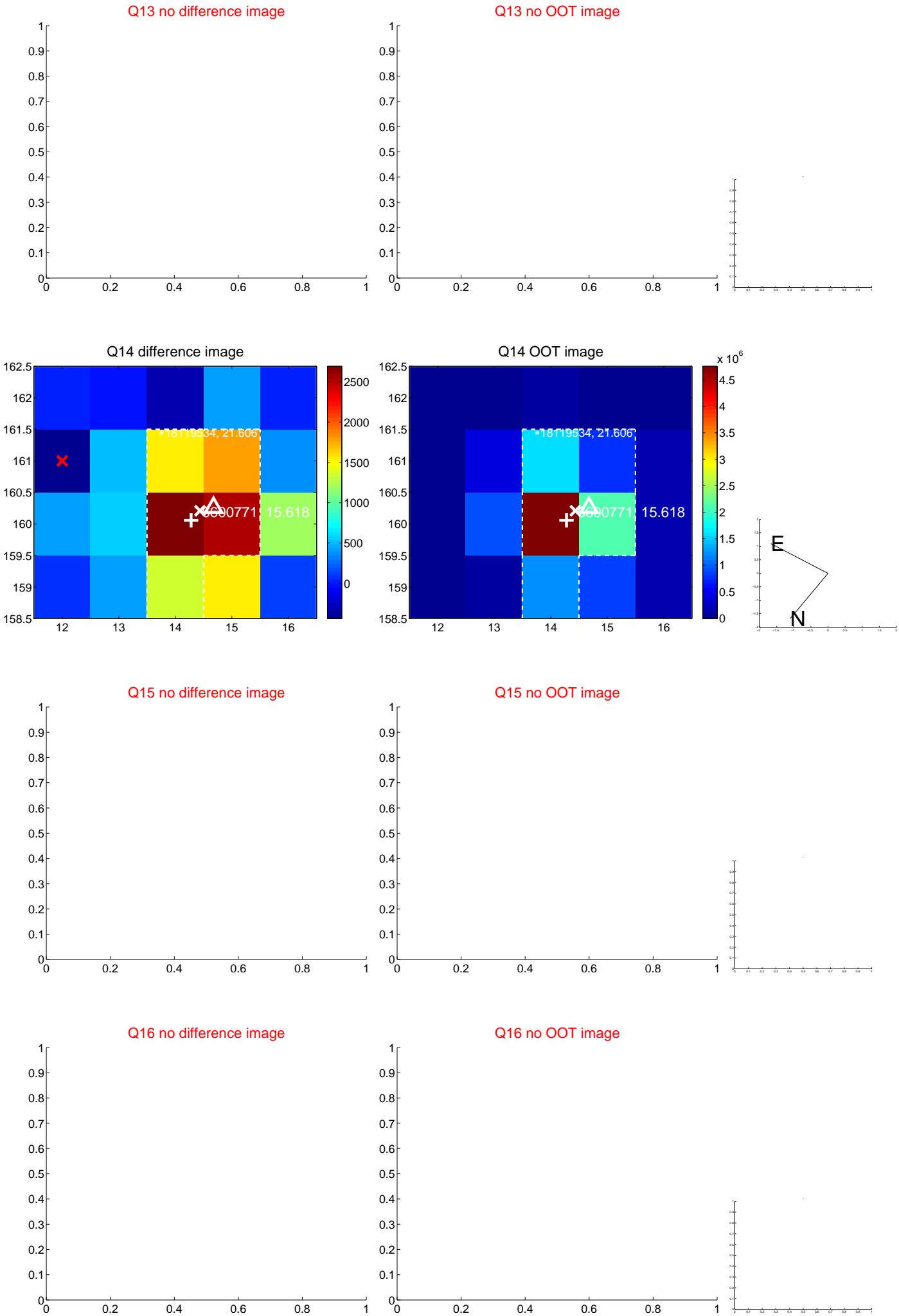
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



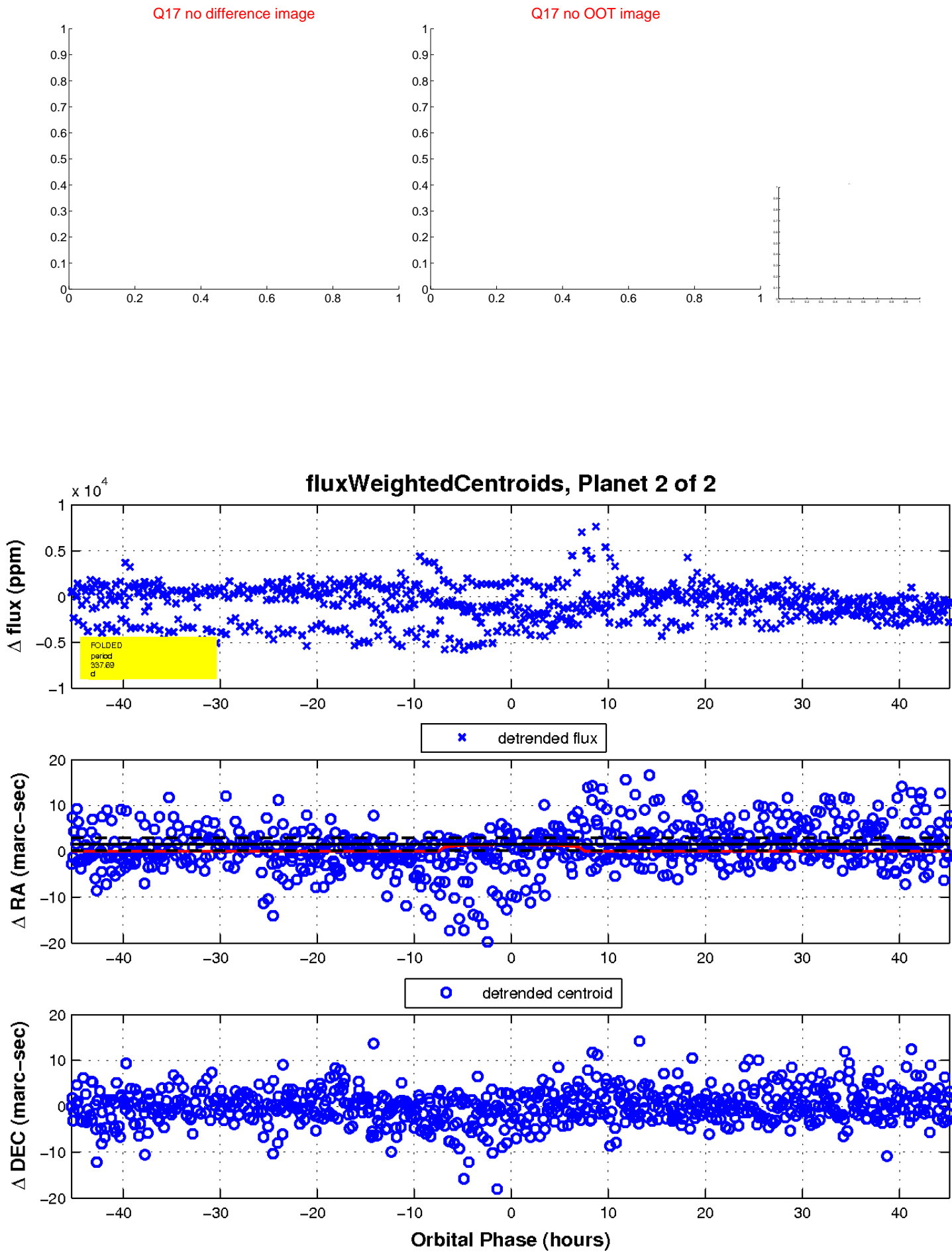
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white ×: 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

