

KIC 012071006

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})
012071006-01	OBS	7511.01	6.096178	135.008538	33820.3	12.000	8050.7	-1.0	2.69	7598	50.24	3253.35
012071006-02	OBS	No	6.096077	131.978408	70579.4	14.737	891.7	808.4	2.69	7598	119.79	3253.43
012071006-05	OBS	No	353.743218	264.175984	4192.0	23.614	24.6	7.5	2.69	7598	19.50	14.48

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
012071006-01	OBS	FP	0.00	0	1	0	0	SWEET_EB—MOD_SEC_ALT—HAS_SEC_TCE—CENT_NOFITS
012071006-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE
012071006-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—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.

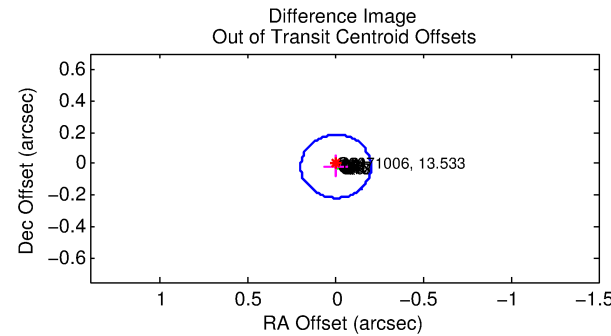
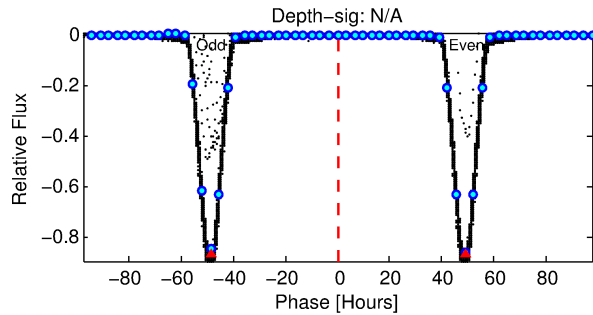
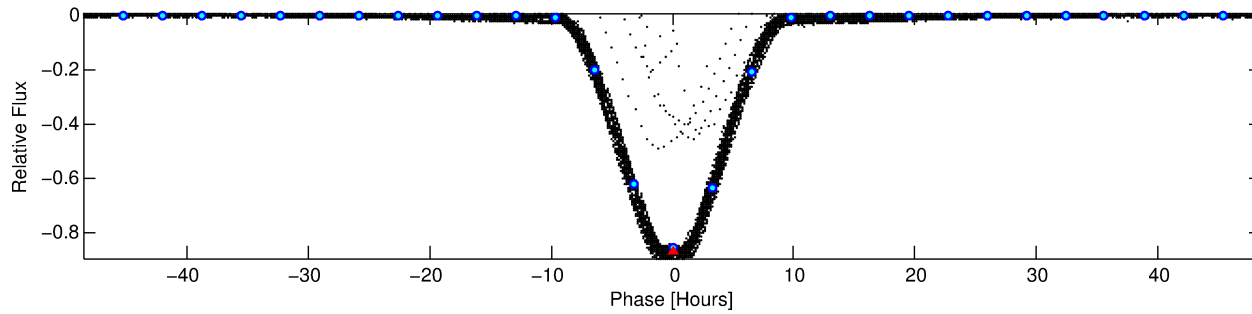
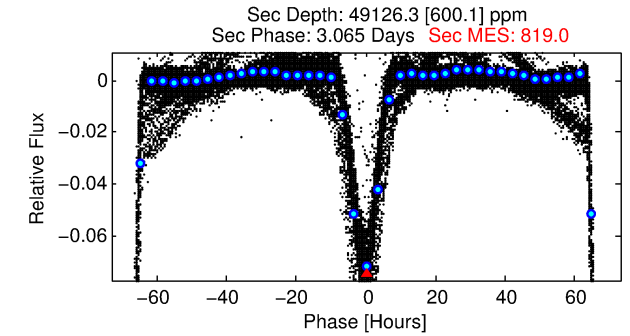
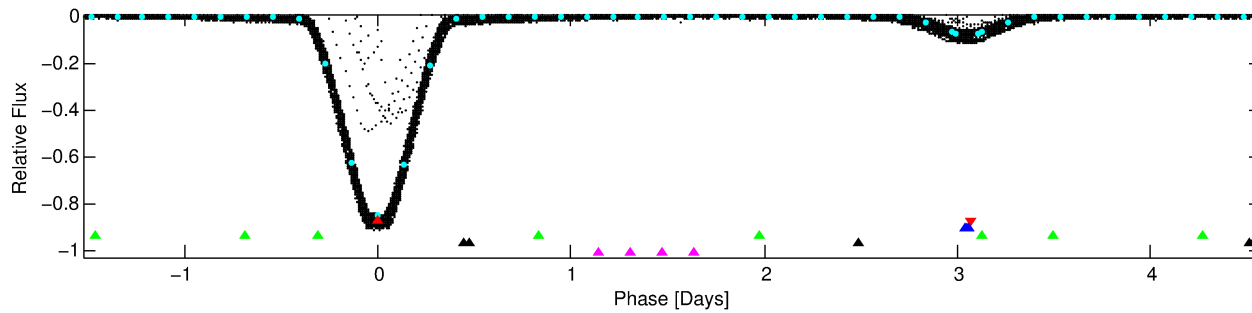
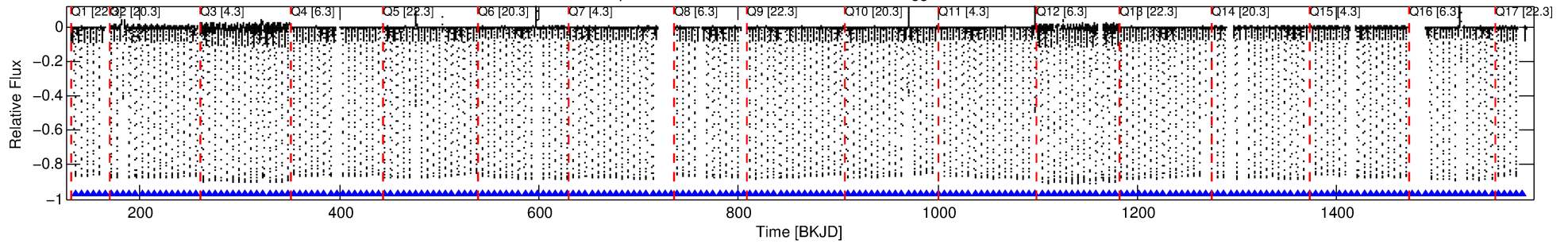
Ephemeris Match Information For 012071006-01

No Significant Match Found

DV One-Page Summary

KIC: 12071006 Candidate: 1 of 5 Period: 6.096 d
KOI: K07511.01 Corr: 0.810

Kp: 13.53 R*: 2.69 Rs Teff: 7598.0 K Logg: 3.87 Fe/H: 0.060



TPS TCE Results:

Period = 6.09618 d
Epoch = 135.0085 BKJD

DV fit results are unavailable

DV Diagnostic Results:

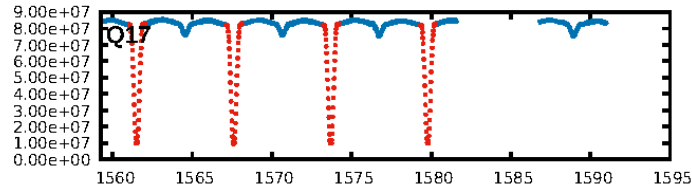
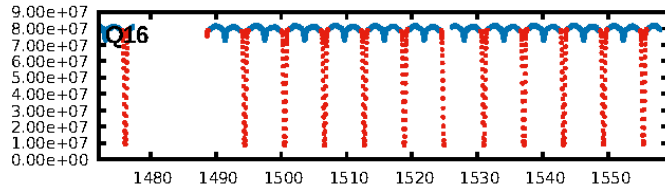
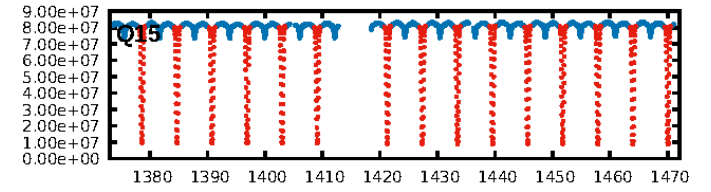
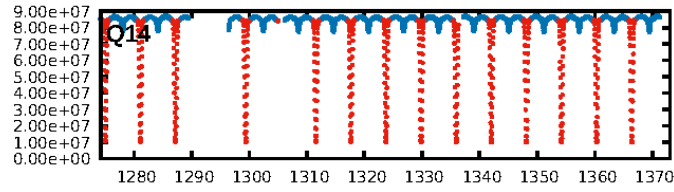
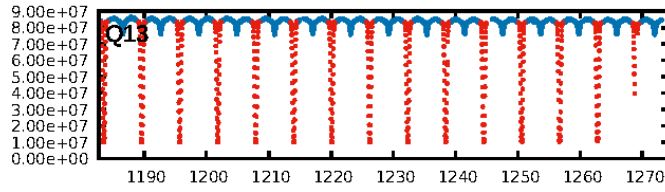
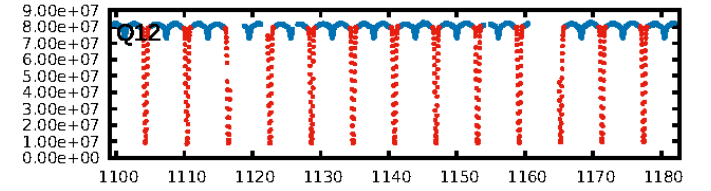
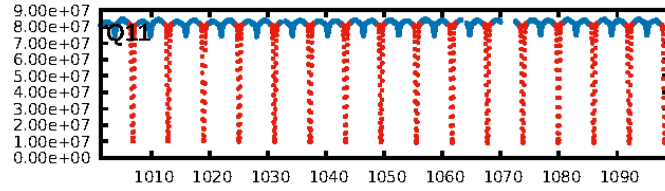
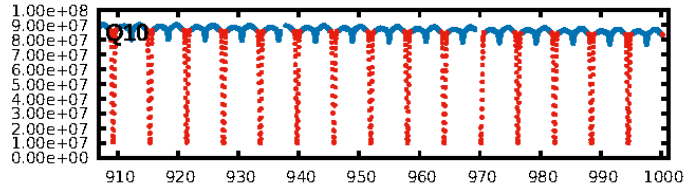
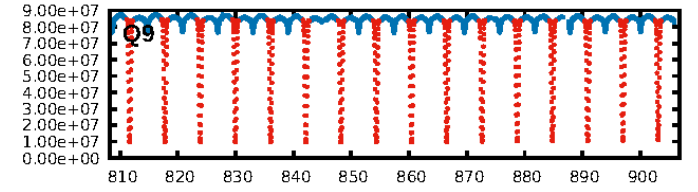
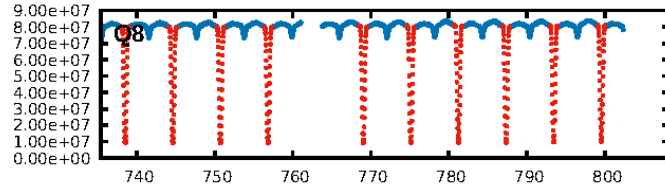
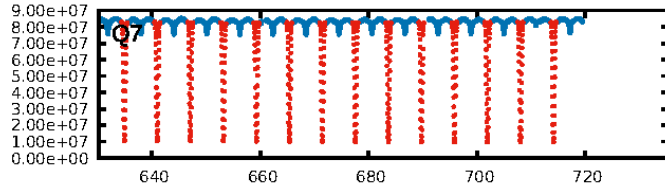
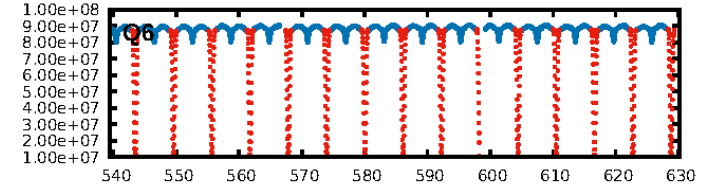
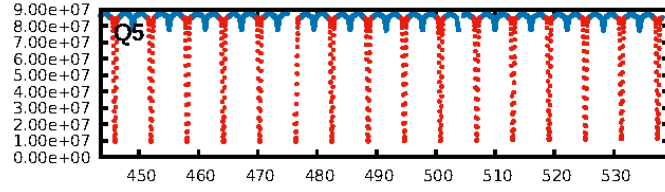
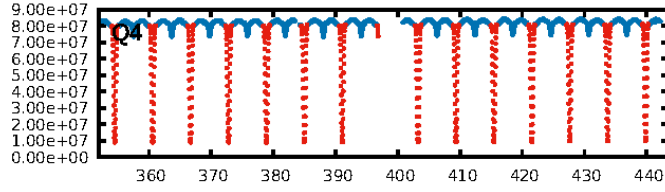
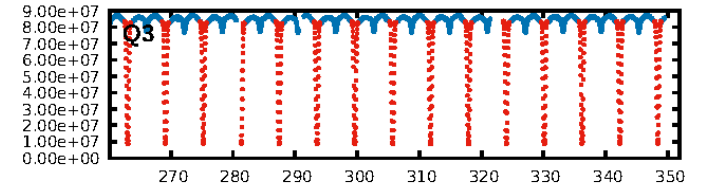
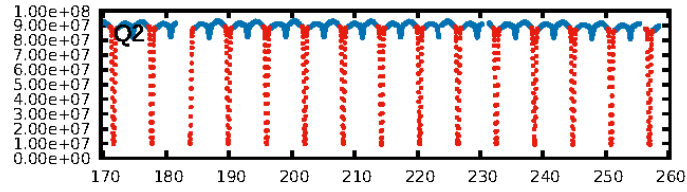
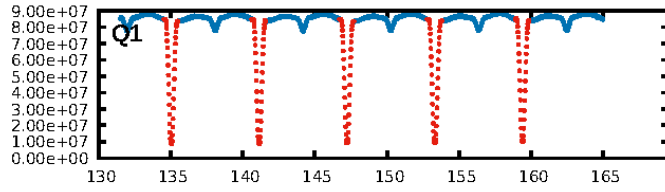
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LongPeriod-sig: 100.0% [329.69 σ]
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Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [216/216]
GhostDiagnostic-chr: 0.9258

Centroid-sig: N/A
Centroid-so: 0.112 arcsec [314.59 σ]
OotOffset-rm: 0.017 arcsec [0.25 σ]
KicOffset-rm: 0.122 arcsec [1.79 σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
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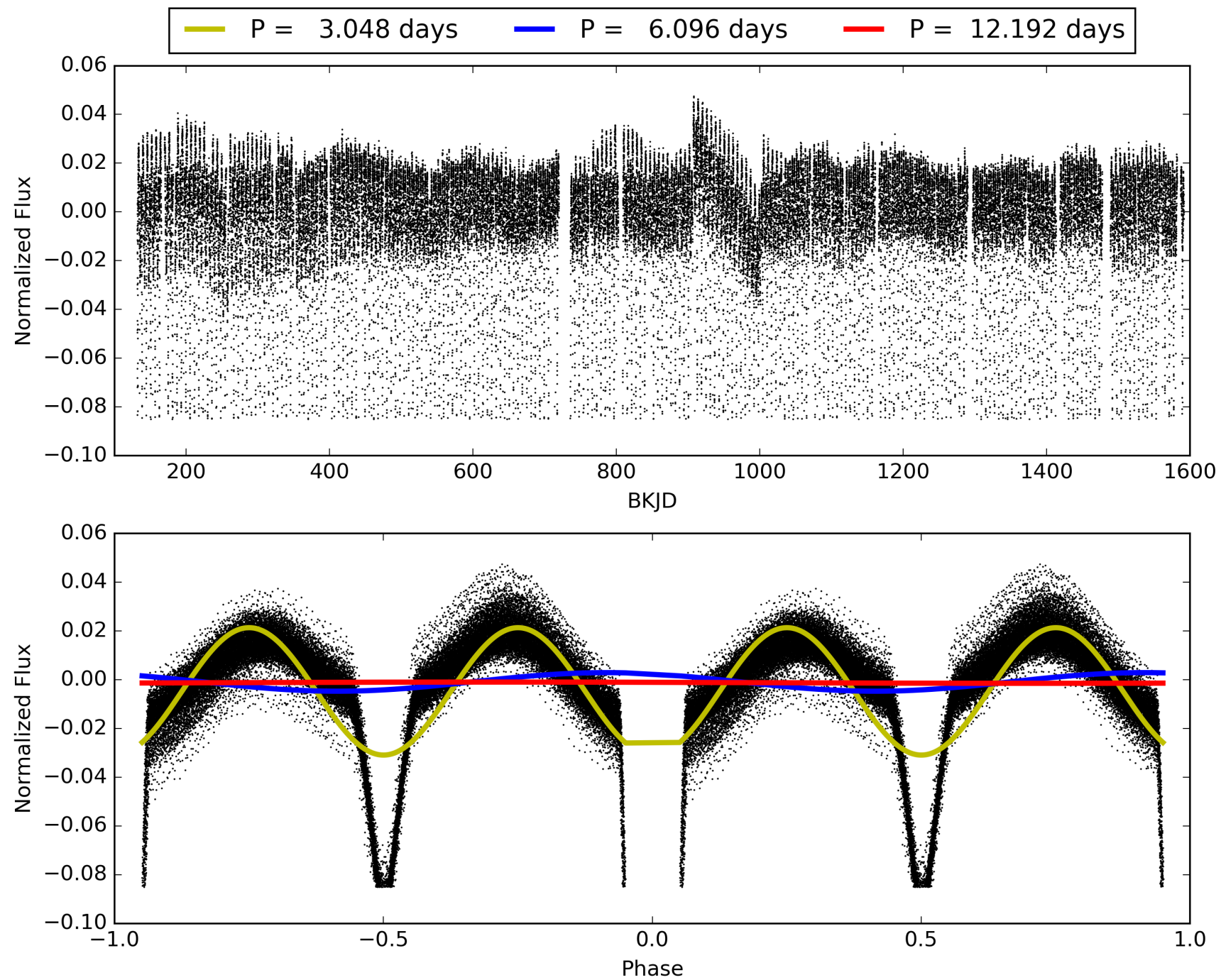
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This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 012071006-01, PDC Light Curves

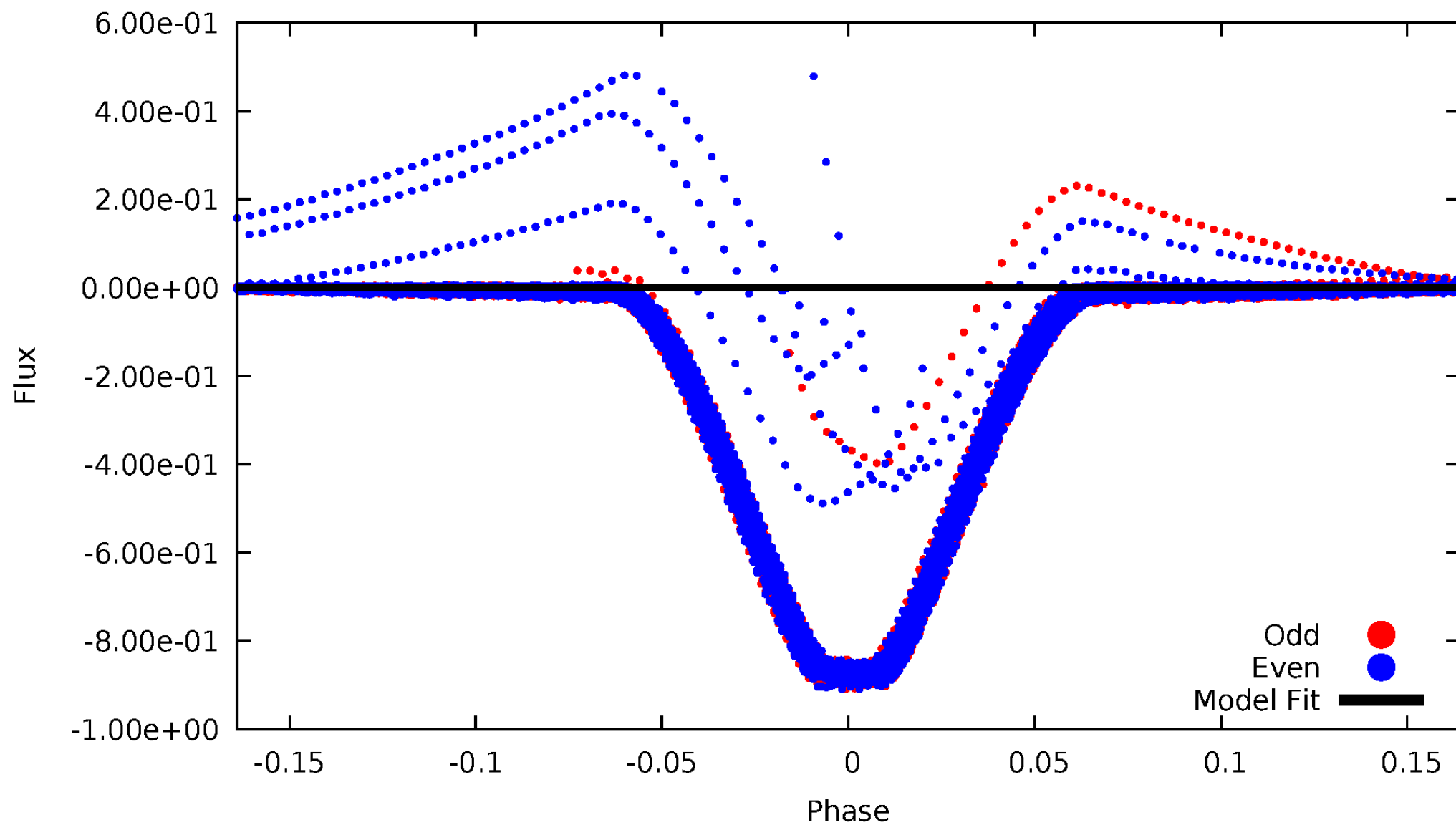


TCE 012071006-01



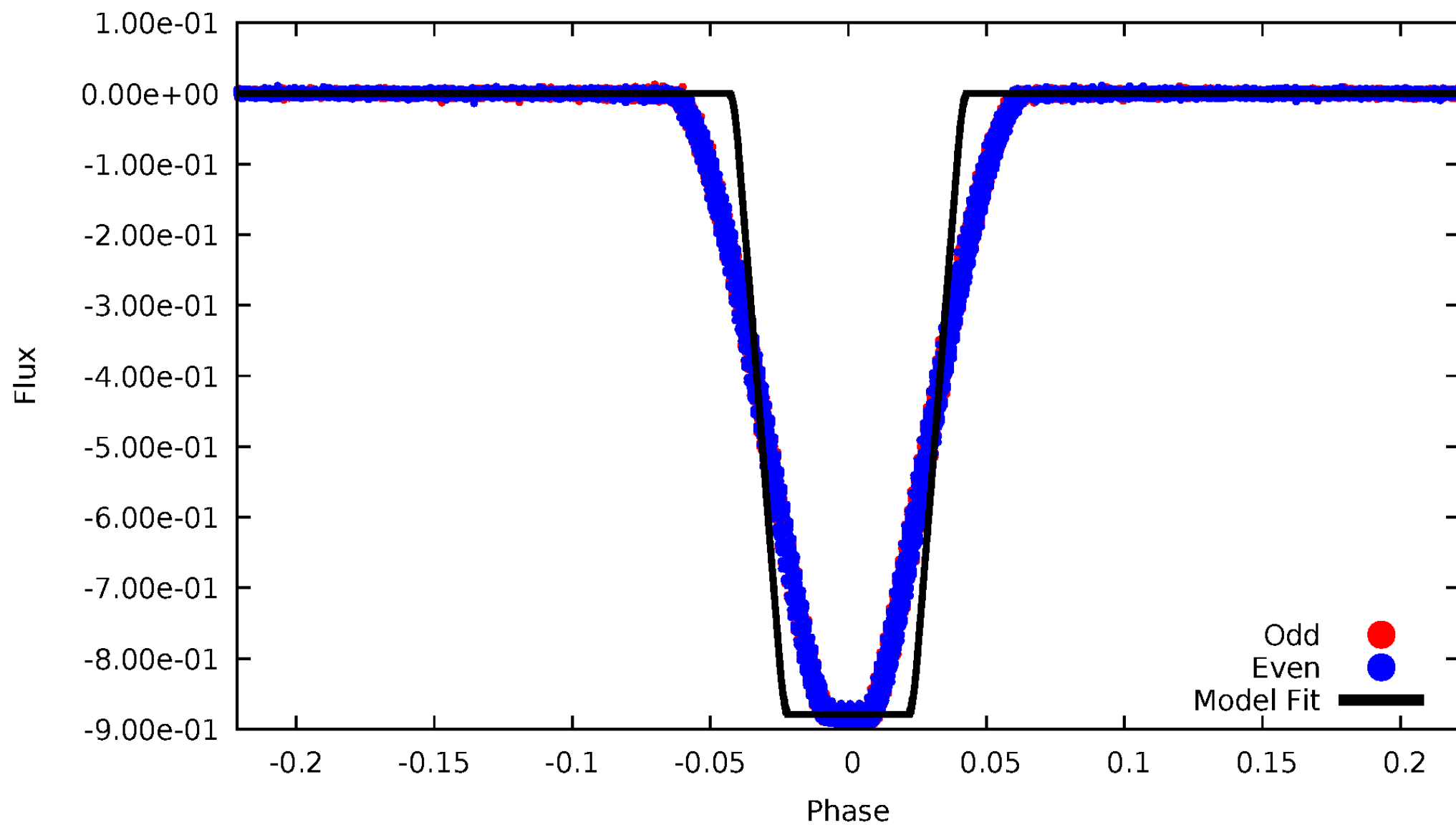
DV Odd/Even

TCE 012071006-01



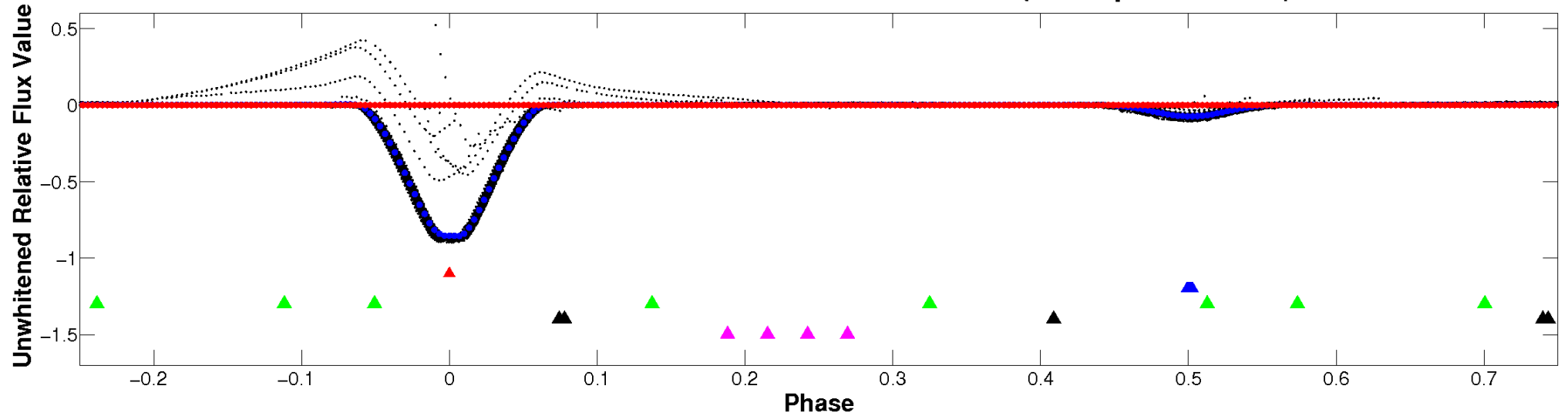
ALT Odd/Even

TCE 012071006-01



Non-Whitened Vs. Whitened Light Curve

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

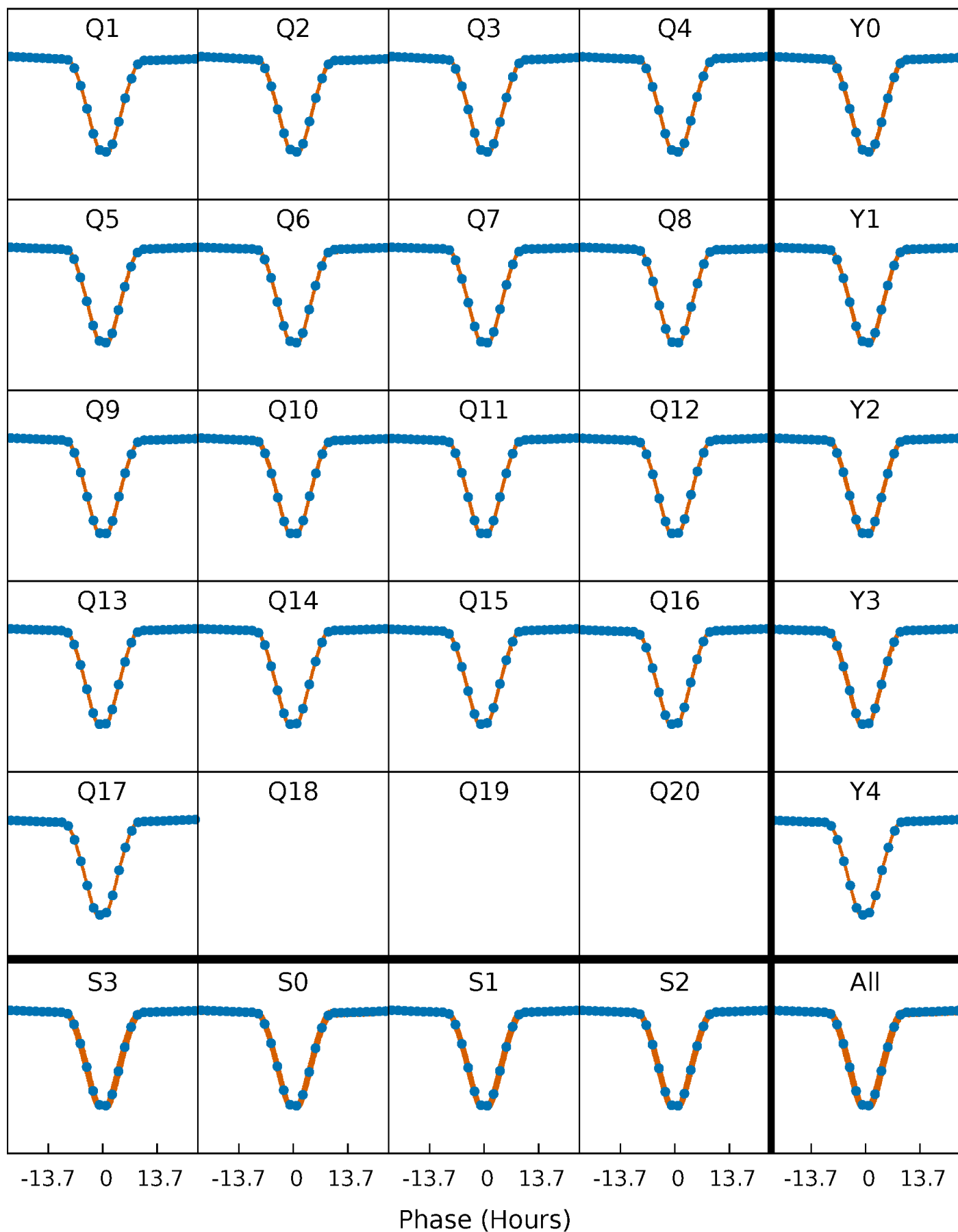


Planet 1 : Phased Whitened Flux Time Series (TPS Epoch/Period)



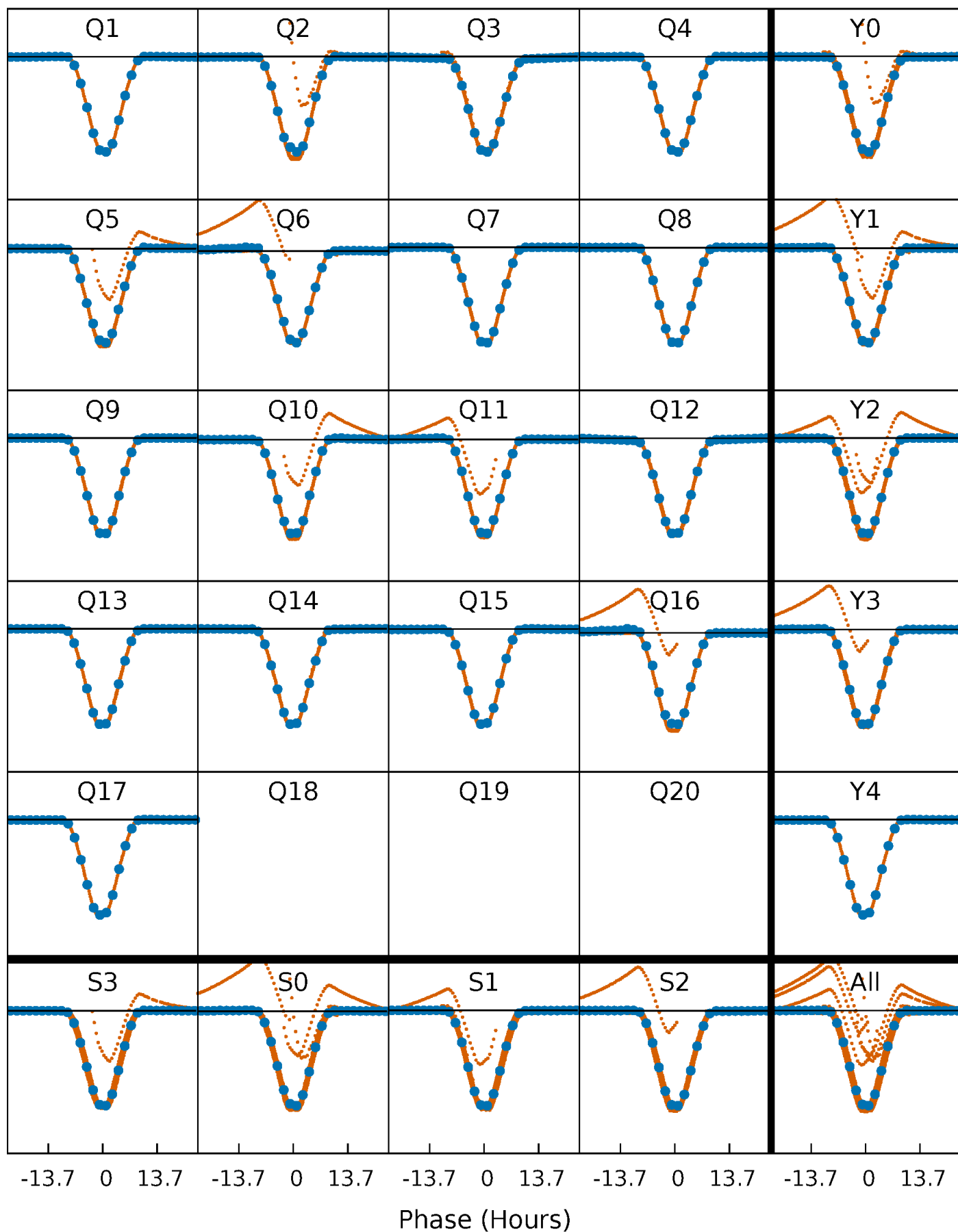
PDC Quarter-Phased Transit Curves

TCE 012071006-01 P= 6.096178 Days $T_0=135.008538$ (BKJD)



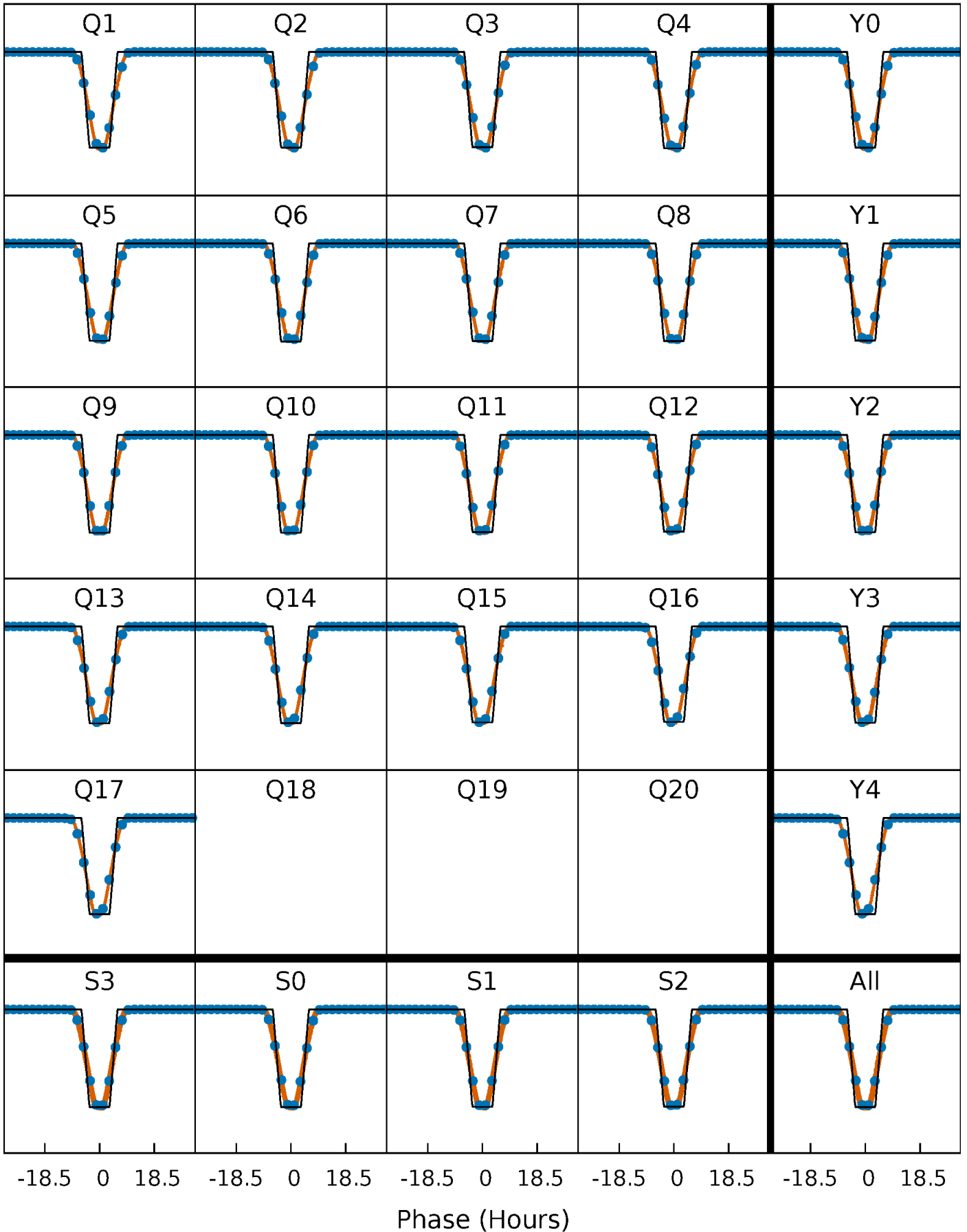
DV Quarter-Phased Transit Curves

TCE 012071006-01 P= 6.096178 Days $T_0=135.008538$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

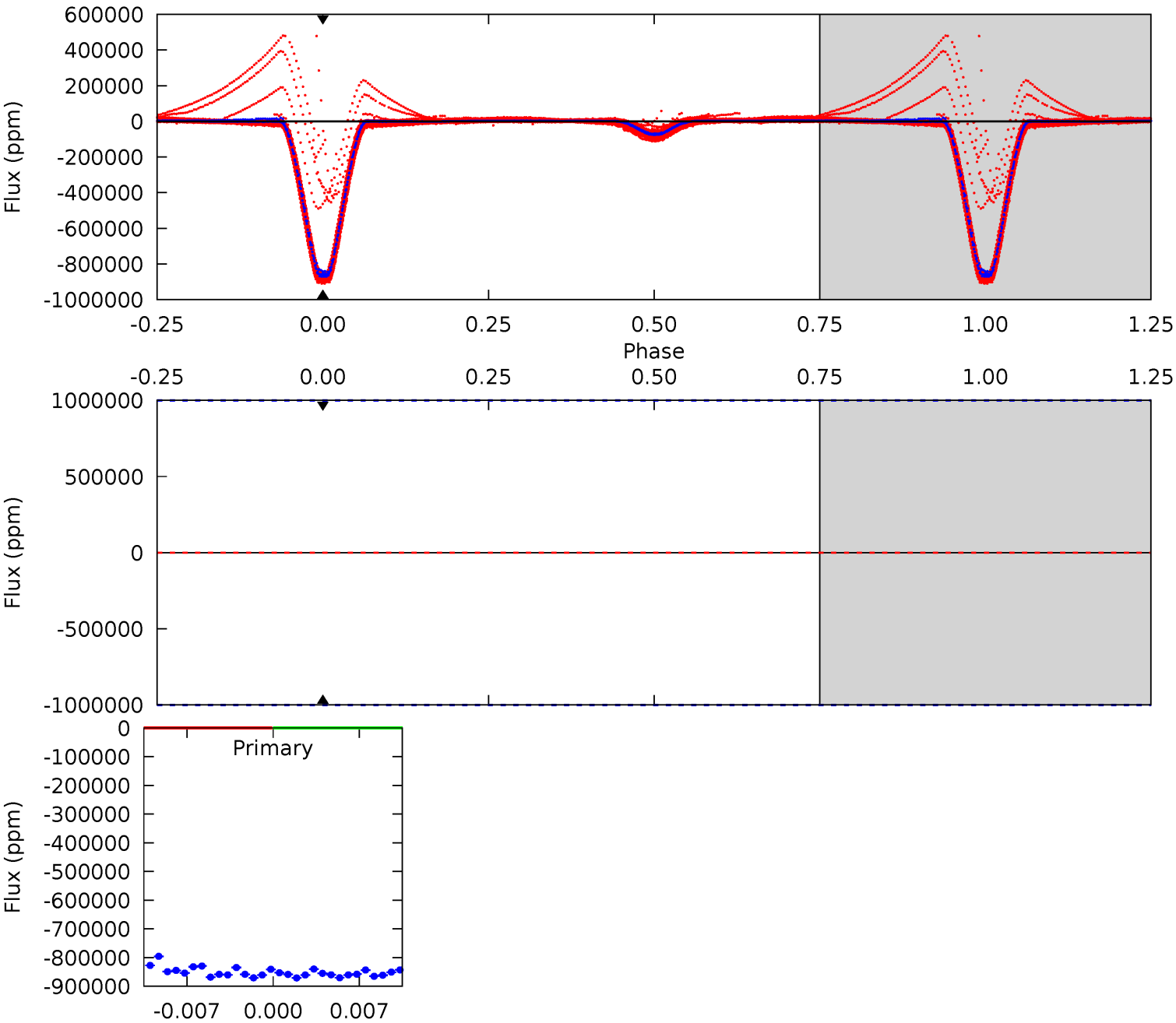
TCE 012071006-01 P= 6.096178 Days $T_0=135.012957$ (BKJD)



DV Model-Shift Uniqueness Test

012071006-01, P = 6.096178 Days, E = 128.912360 Days

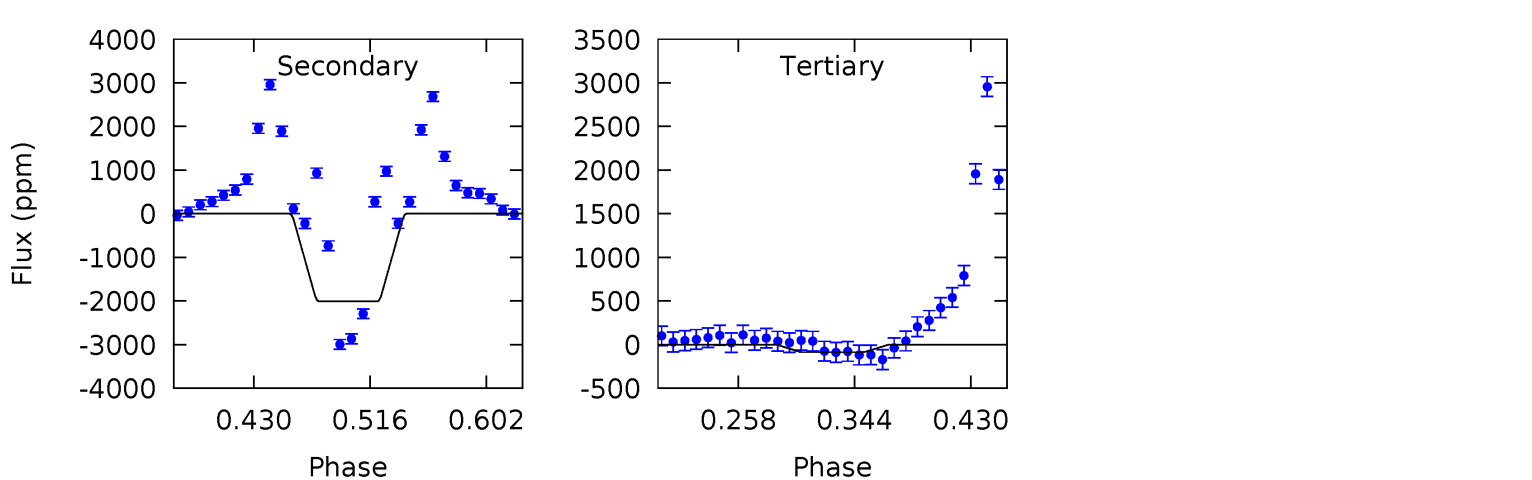
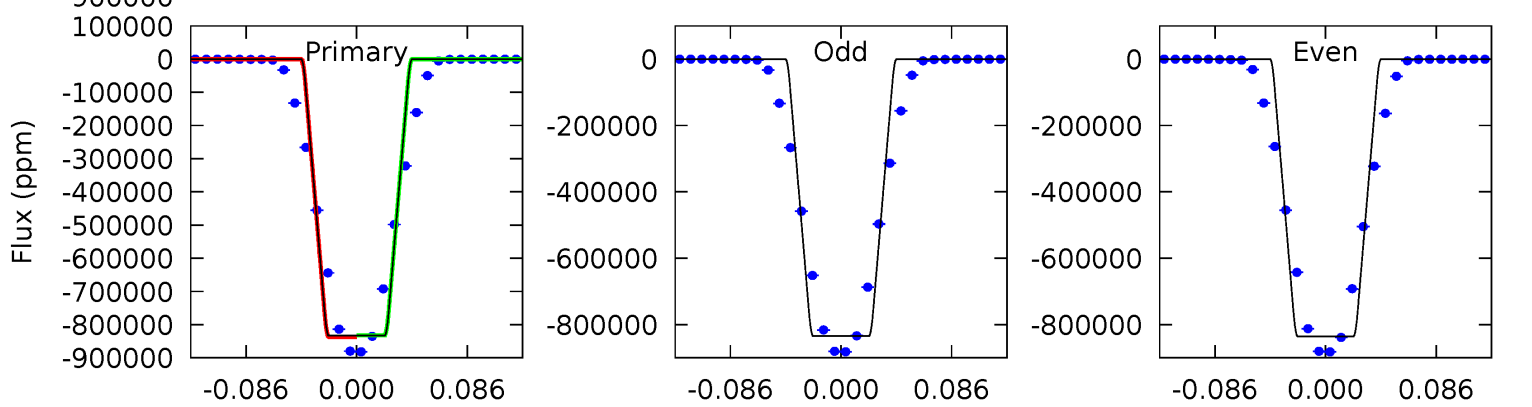
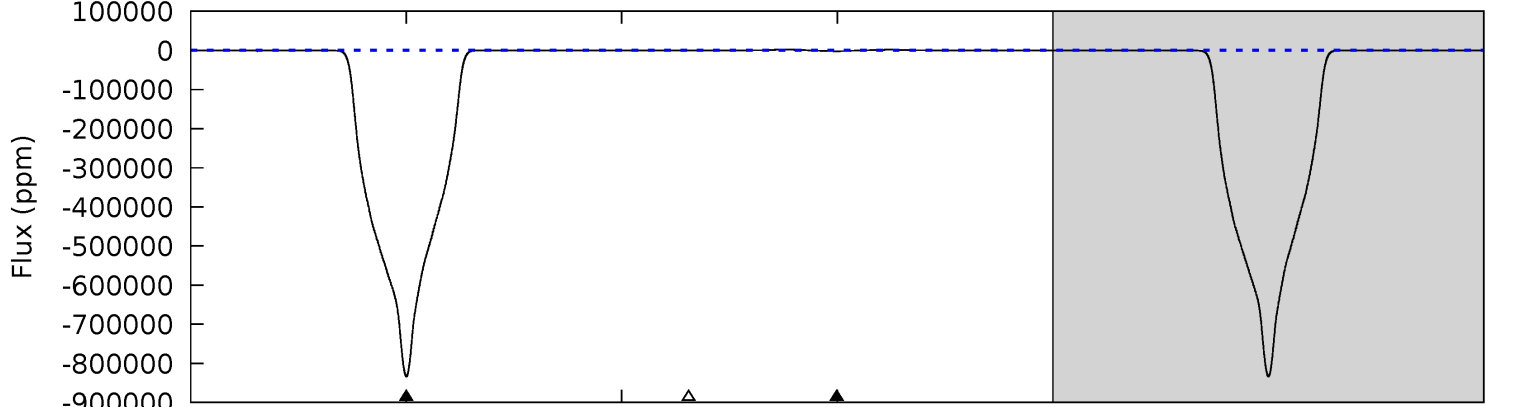
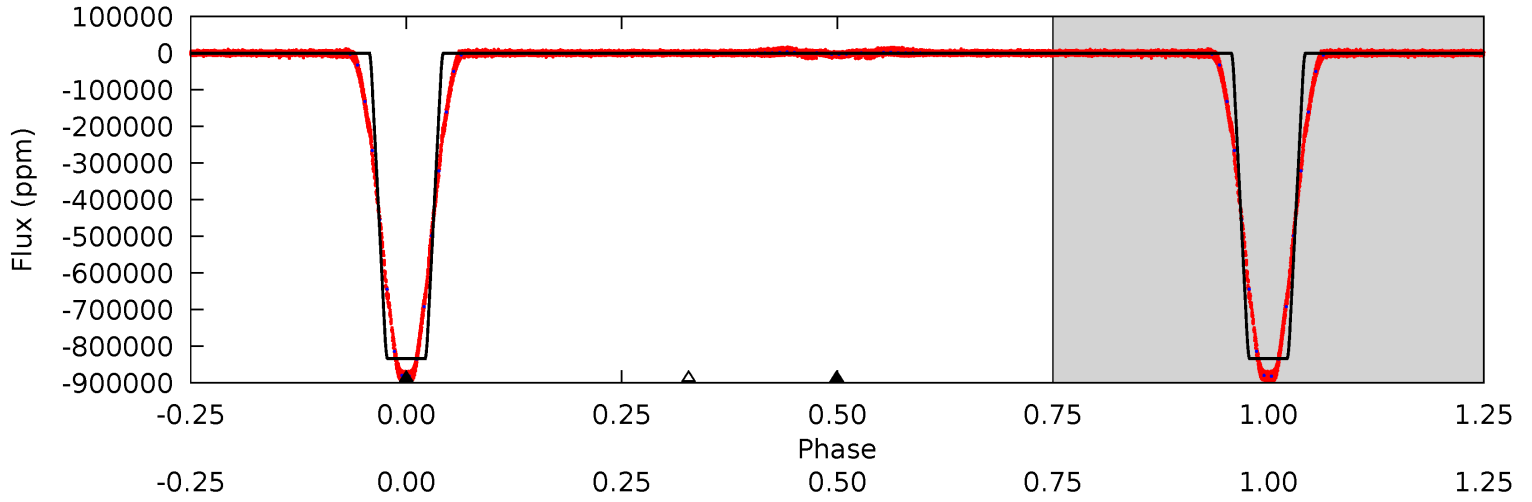
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

012071006-01, P = 6.096178 Days, E = 128.916779 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15126	36.4	1.58	0	4.60	1.72	2.61	15124	15126	34.8	36.4	8.03	1.00	0.00	46.8



Stellar Parameters For KIC 012071006

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	7598^{+75}_{-83}	$3.867^{+0.163}_{-0.075}$	$0.060^{+0.100}_{-0.150}$	$2.692^{+0.260}_{-0.607}$	$1.945^{+0.027}_{-0.228}$	$0.140^{+0.124}_{-0.034}$
	+1%/-1%	+4%/-2%	+167%/-250%	+10%/-23%	+1%/-12%	+89%/-24%
Source	SPE68	SPE68	SPE68	DSEP		

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

Secondary Eclipse Parameters for KIC 012071006-01 / KOI 7511.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	0 ± 1000000	$49.83^{+27.57}_{-27.13}$	2679^{+86}_{-134}	5025^{+9813}_{-16518}	$8.667^{+247.977}_{-158.185}$
Alt.	-2004 ± 55	$266.25^{+38.35}_{-39.08}$	2679^{+85}_{-148}	-2722^{+140}_{-77}	$0.101^{+0.039}_{-0.024}$

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 $A_{obs} \gg 1.0$

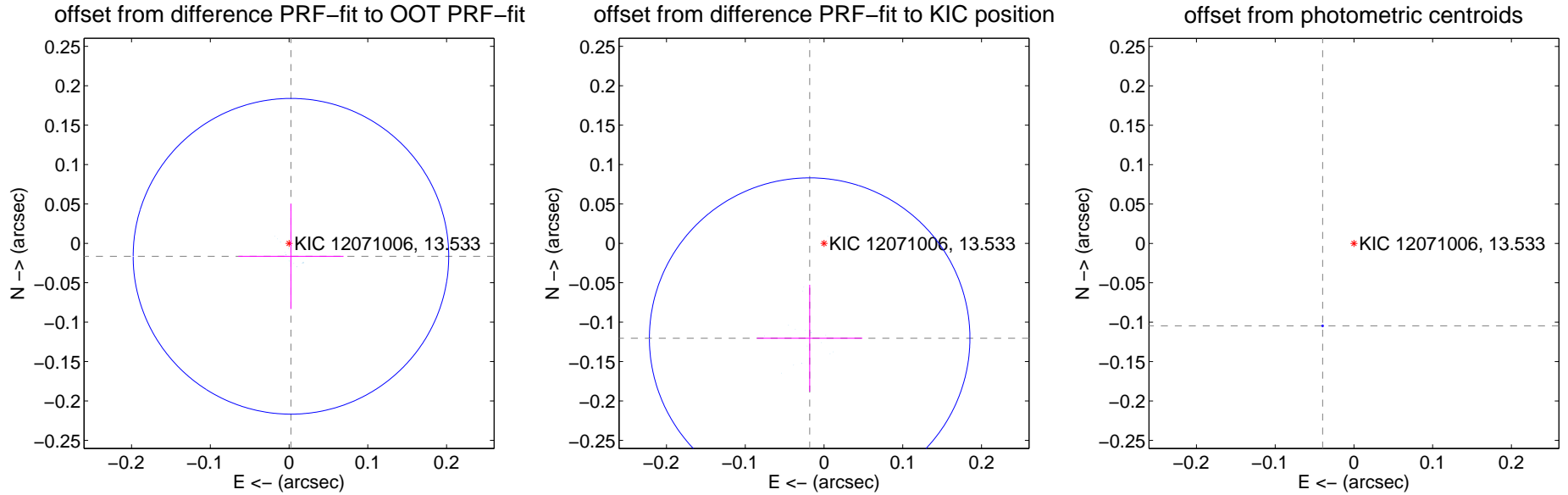
DV Centroid Data

Supplemental centroid analysis for 012071006-01. Kepler magnitude: 13.53. Transit SNR -1.00

There are 17 quarters with good PRF difference image offsets

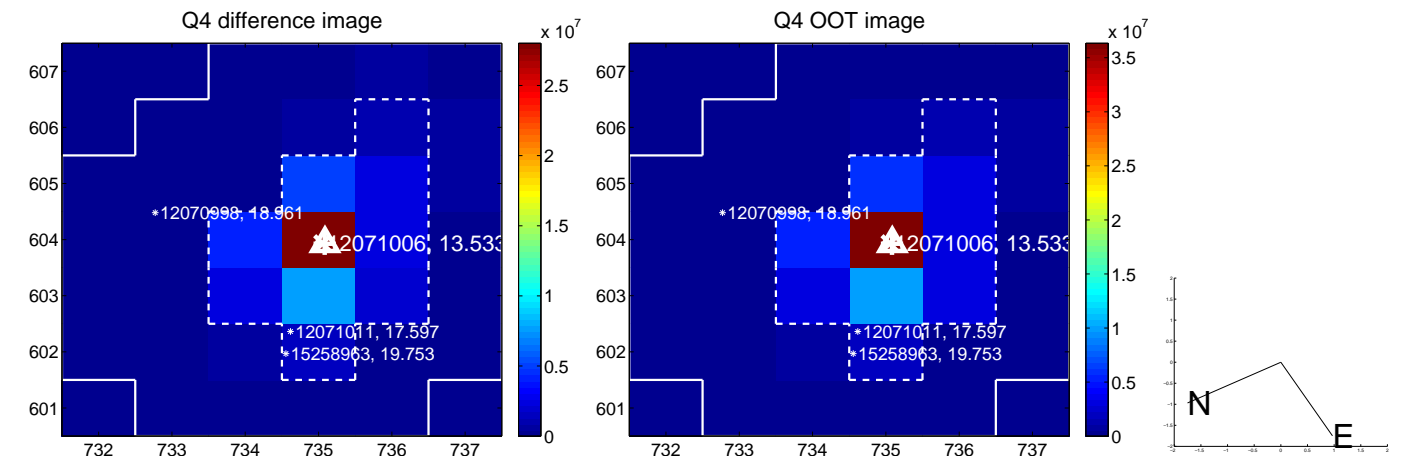
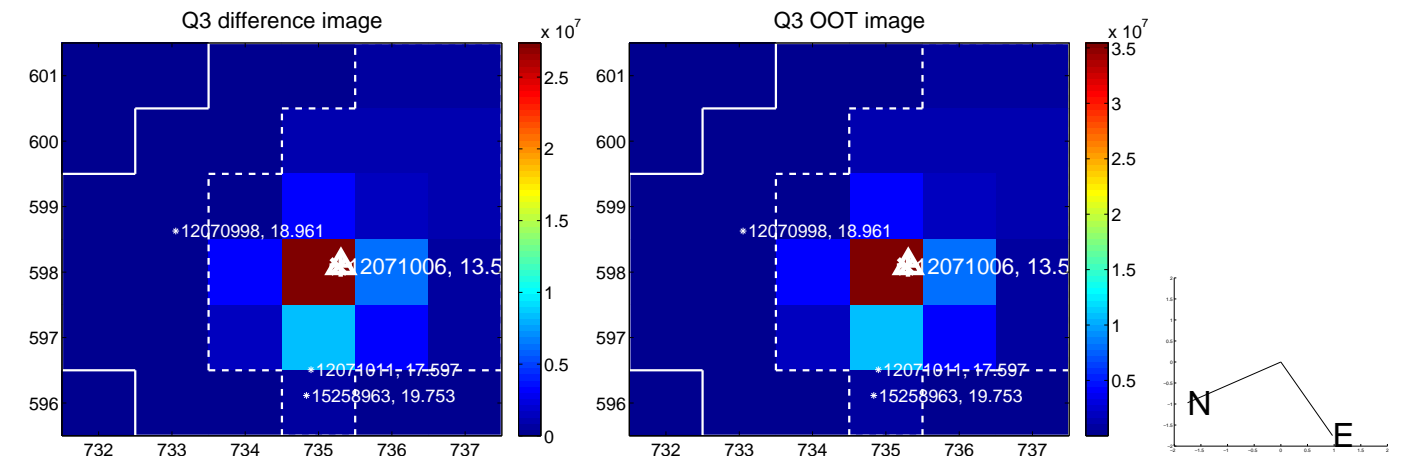
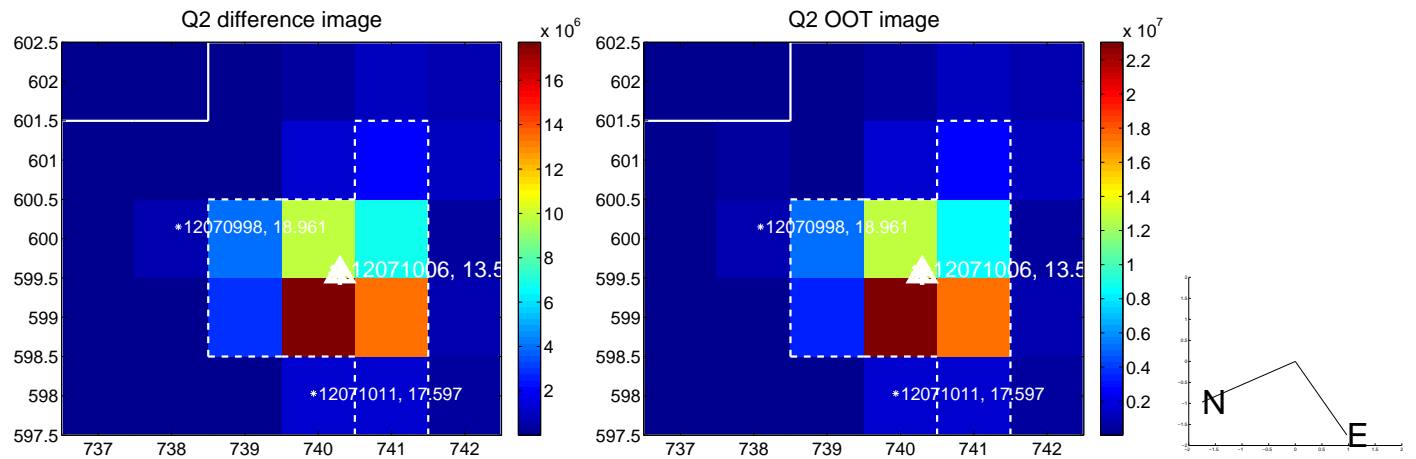
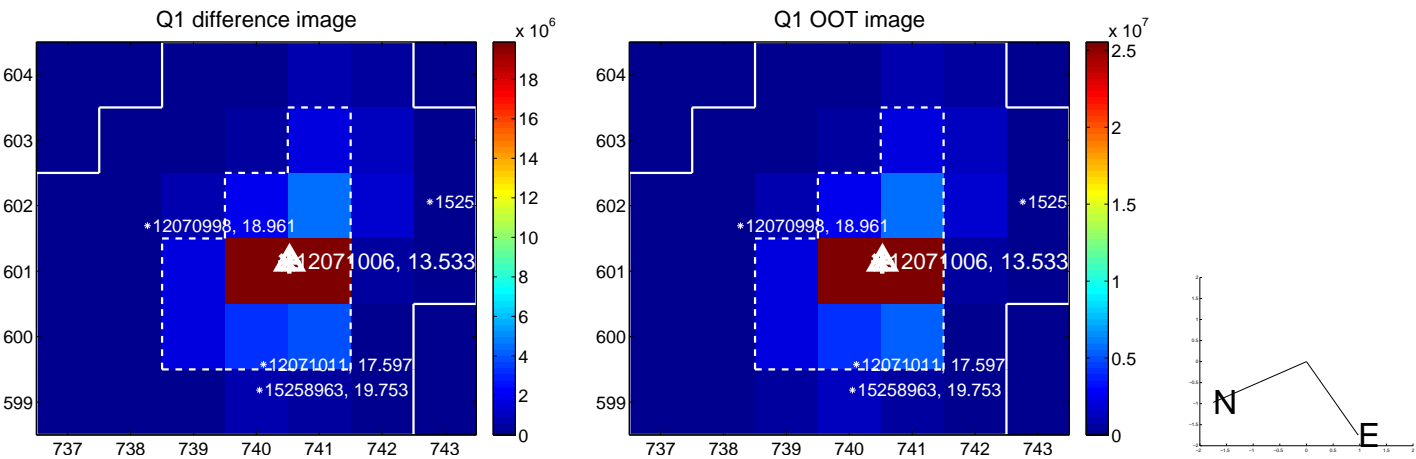
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.017 ± 0.067	0.25	-0.002 ± 0.067	-0.016 ± 0.067
PRF-fit source offset from KIC position	0.122 ± 0.068	1.79	0.018 ± 0.067	-0.120 ± 0.068
photometric centroid source offset	0.11 ± 0.00	314.59	0.04 ± 0.00	-0.10 ± 0.00

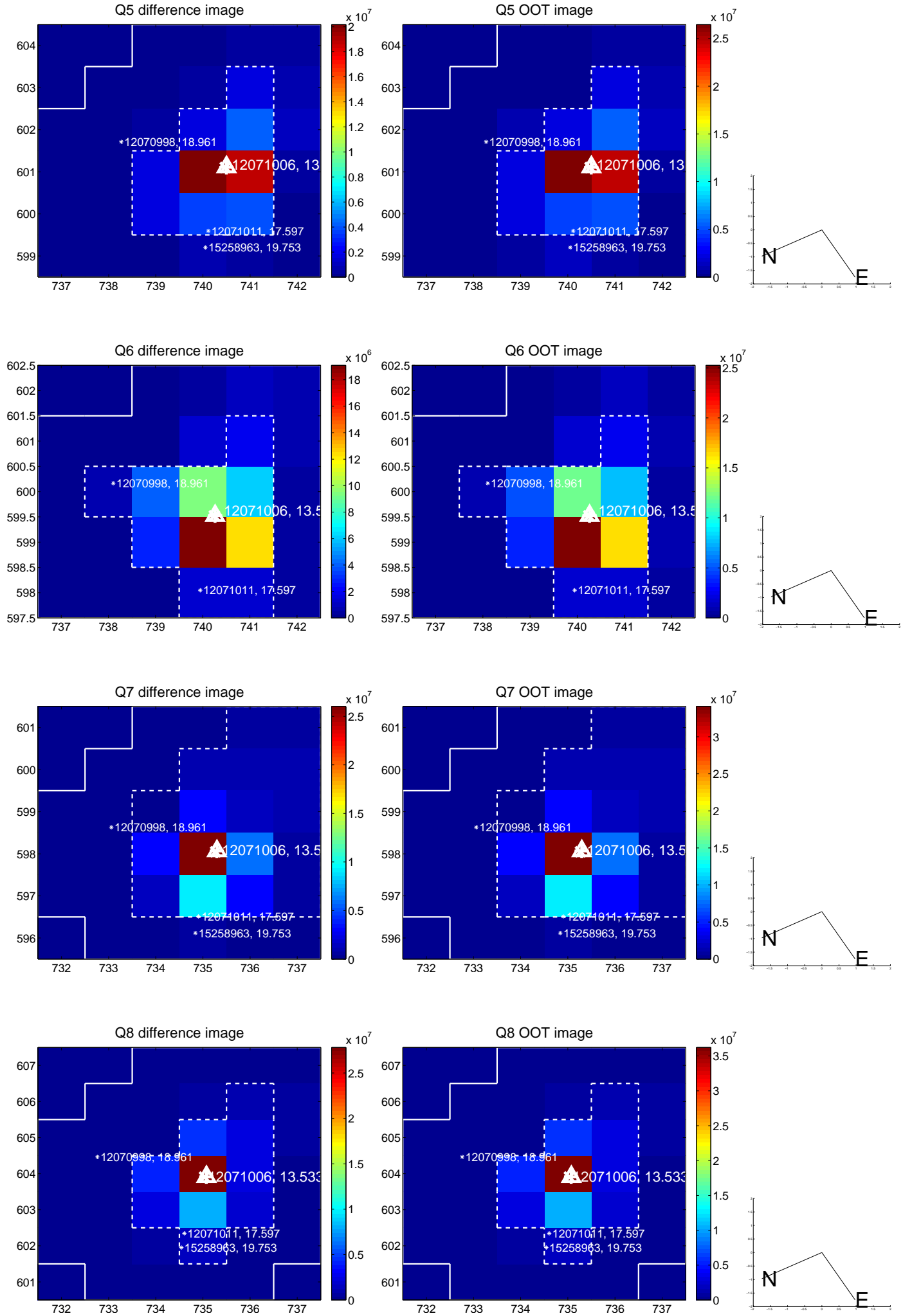


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

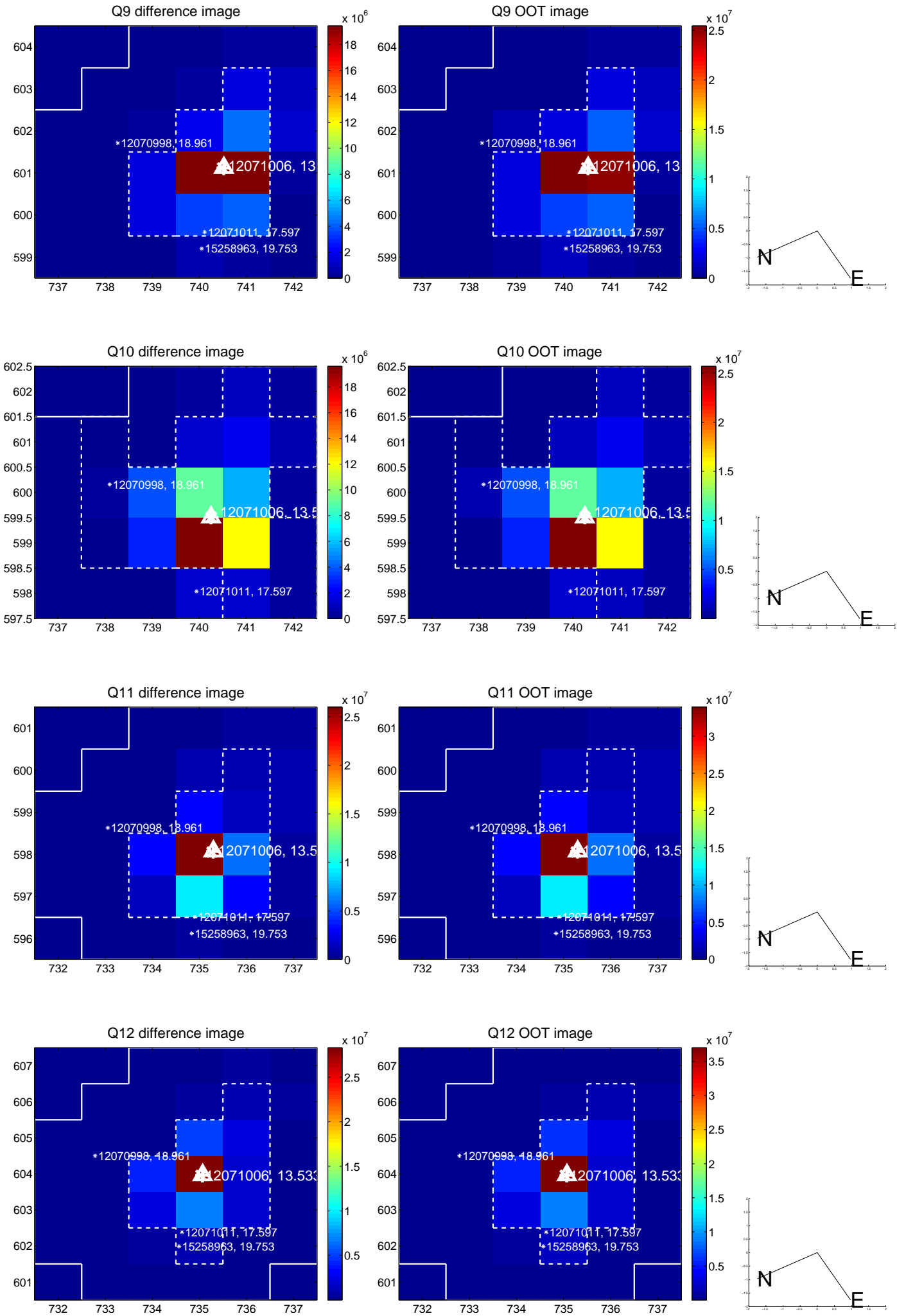
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



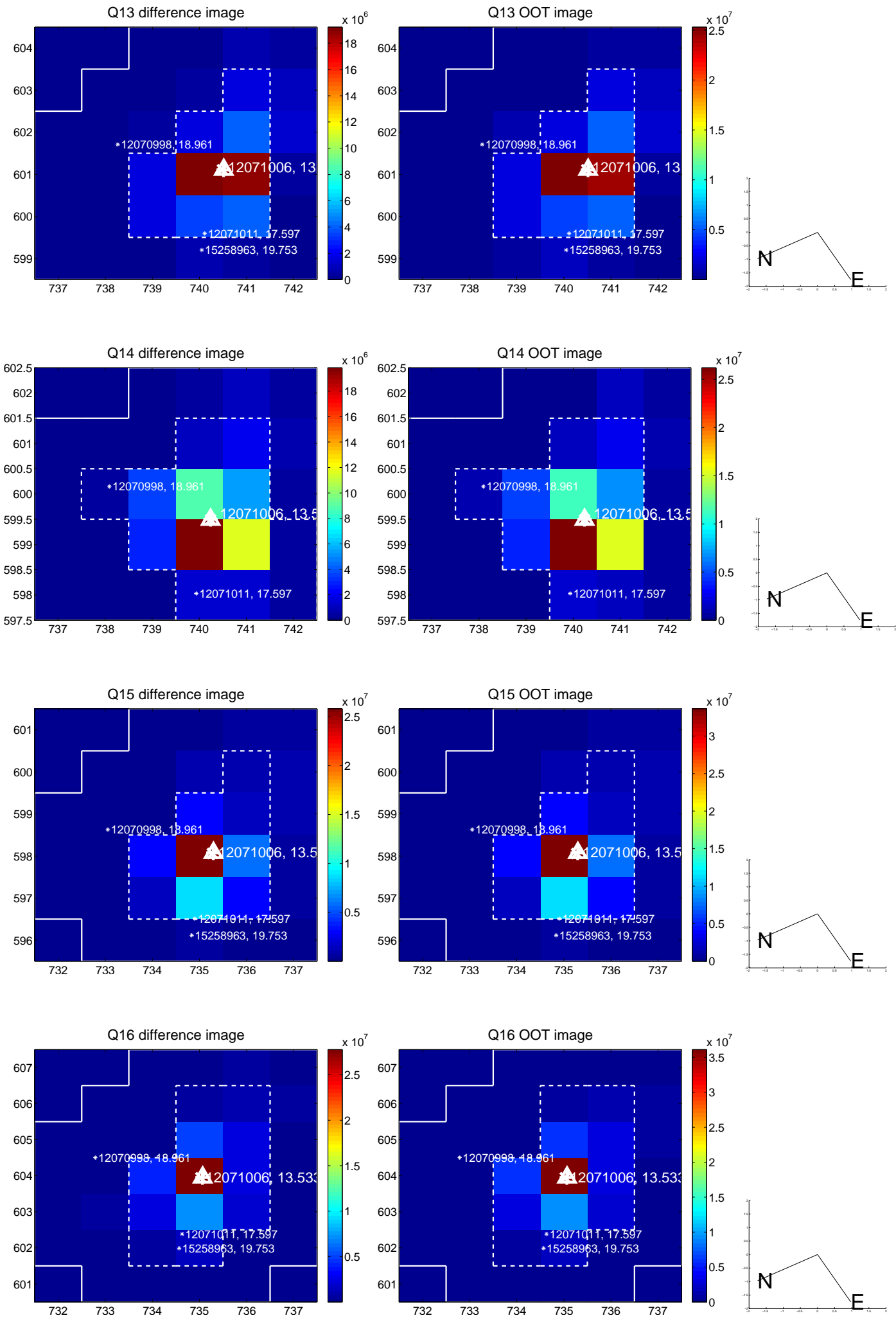
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



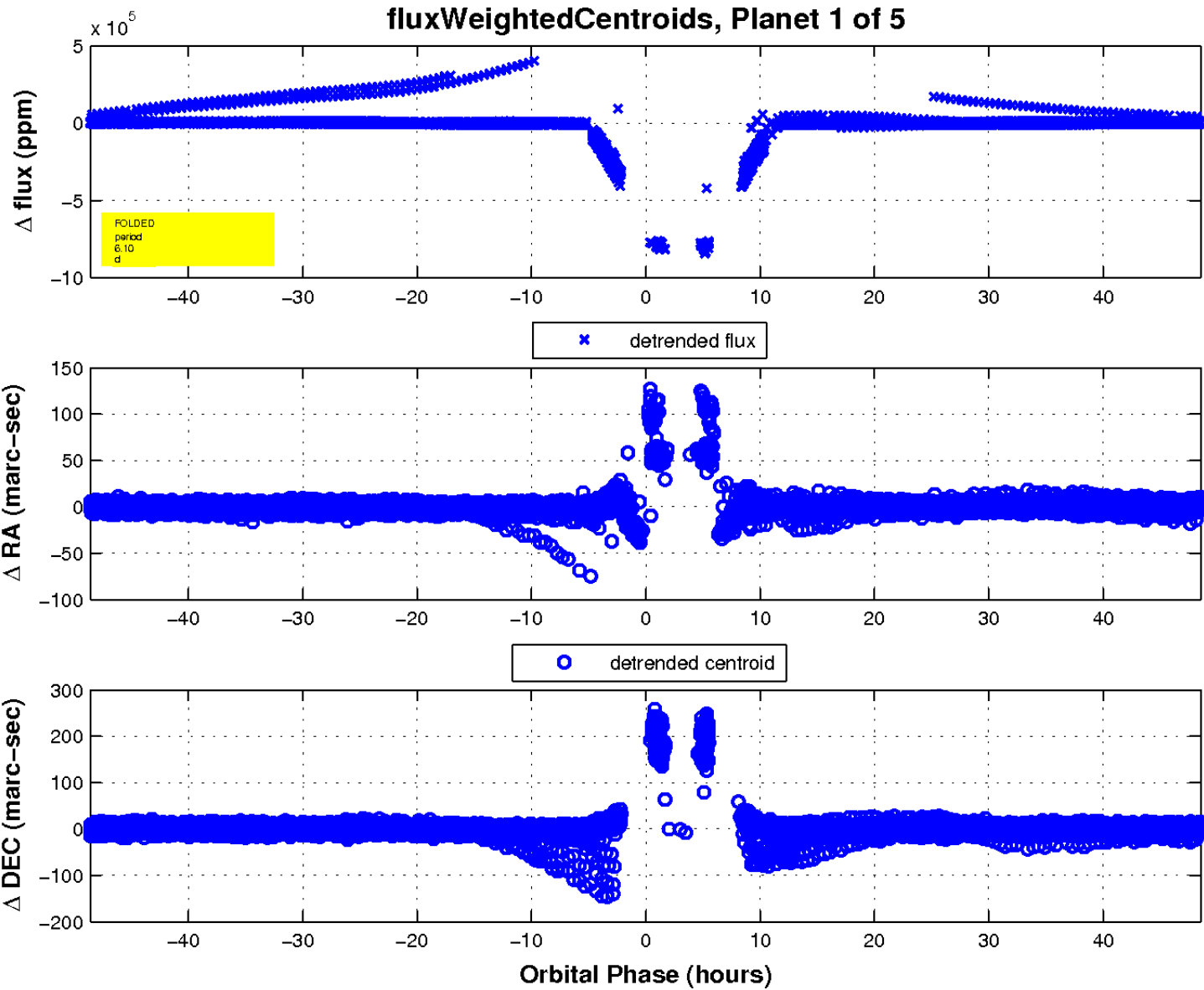
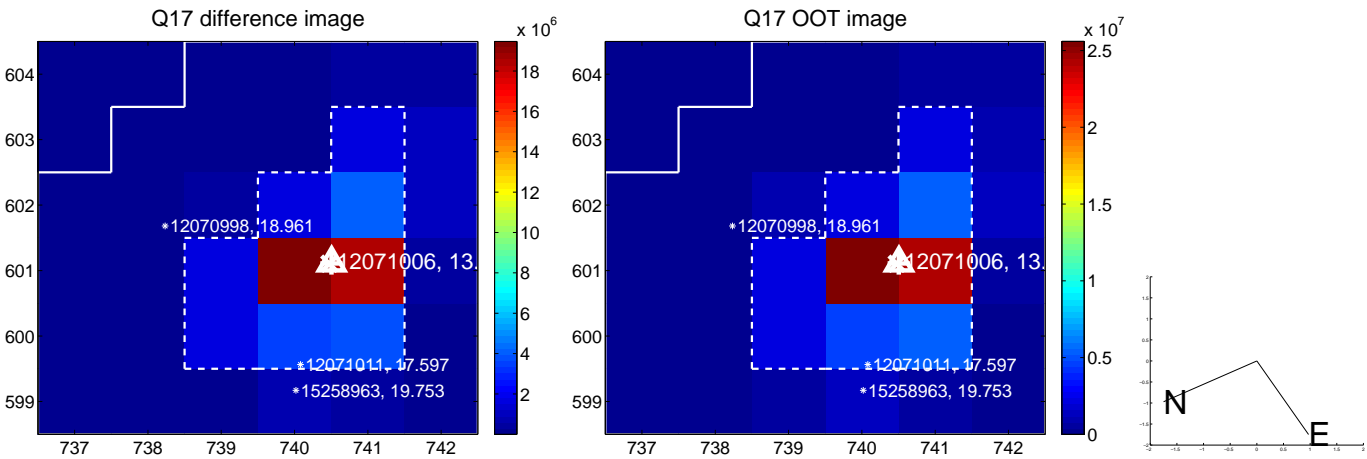
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

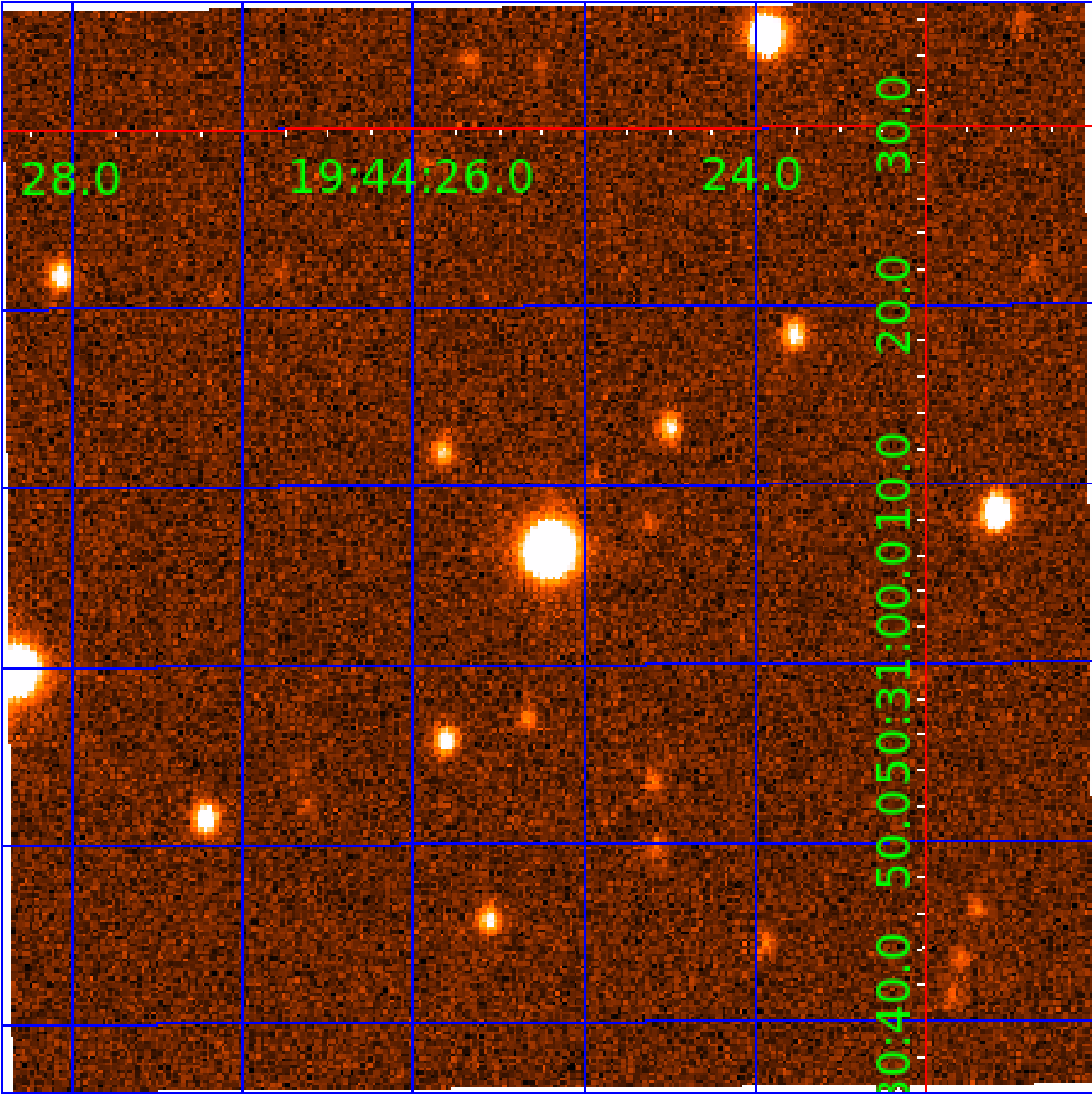


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 012071006

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
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012071006-02	OBS	No	6.096077	131.978408	70579.4	14.737	891.7	808.4	2.69	7598	119.79	3253.43
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Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
012071006-01	OBS	FP	0.00	0	1	0	0	SWEET_EB—MOD_SEC_ALT—HAS_SEC_TCE—CENT_NOFITS
012071006-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE
012071006-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—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.

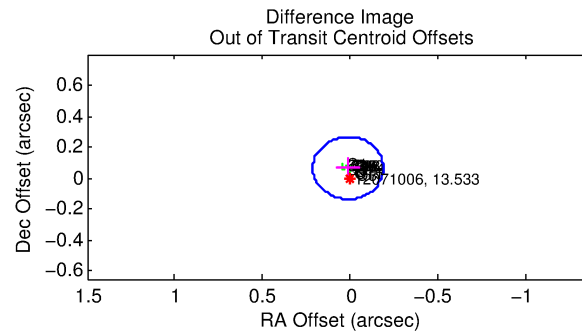
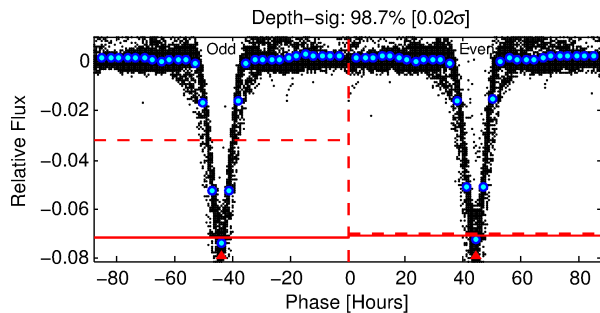
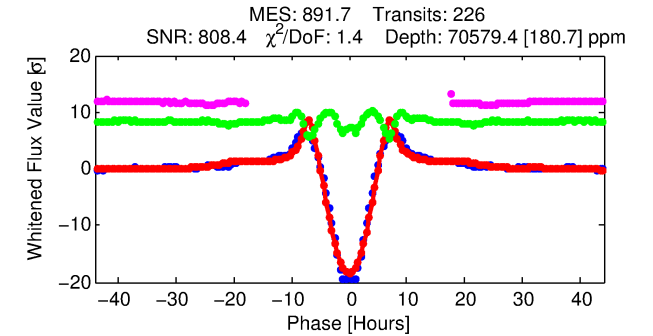
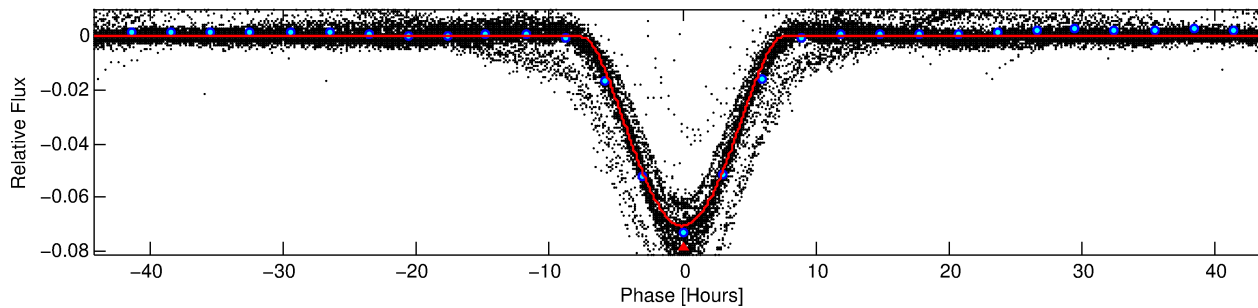
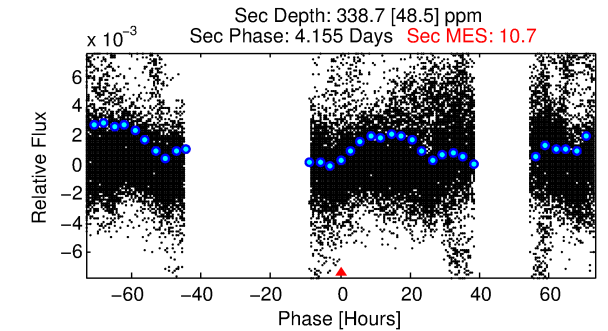
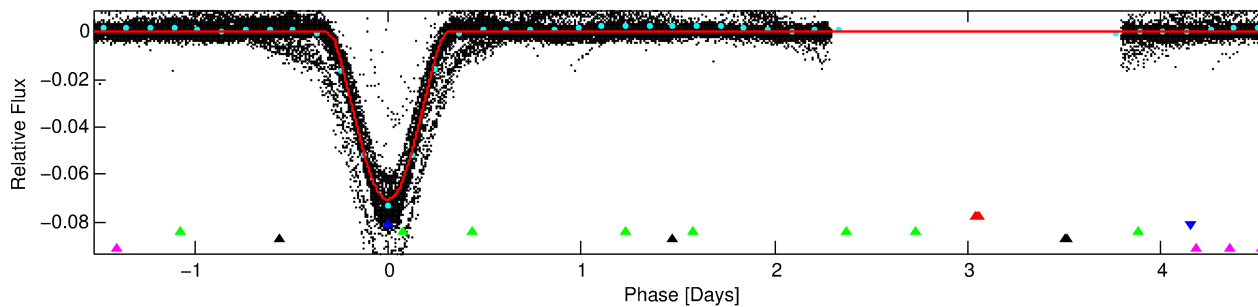
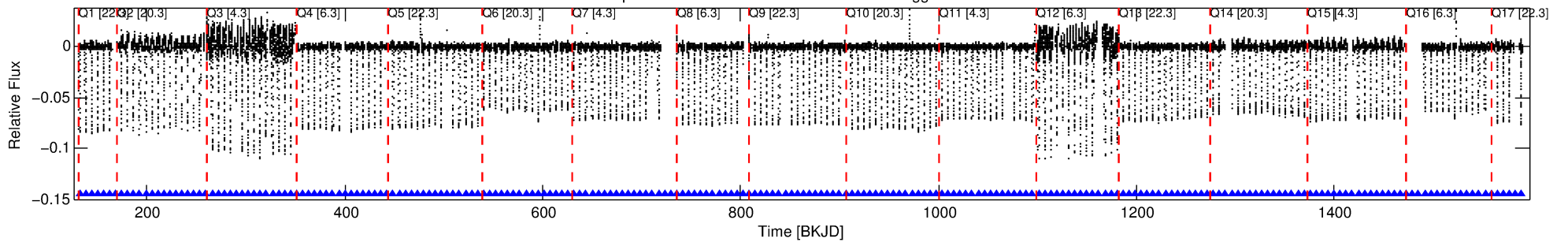
Ephemeris Match Information For 012071006-02

No Significant Match Found

DV One-Page Summary

KIC: 12071006 Candidate: 2 of 5 Period: 6.096 d
KOI: K07511 Corr: No Ephemeris Match

Kp: 13.53 R*: 2.69 Rs Teff: 7598.0 K Logg: 3.87 Fe/H: 0.060



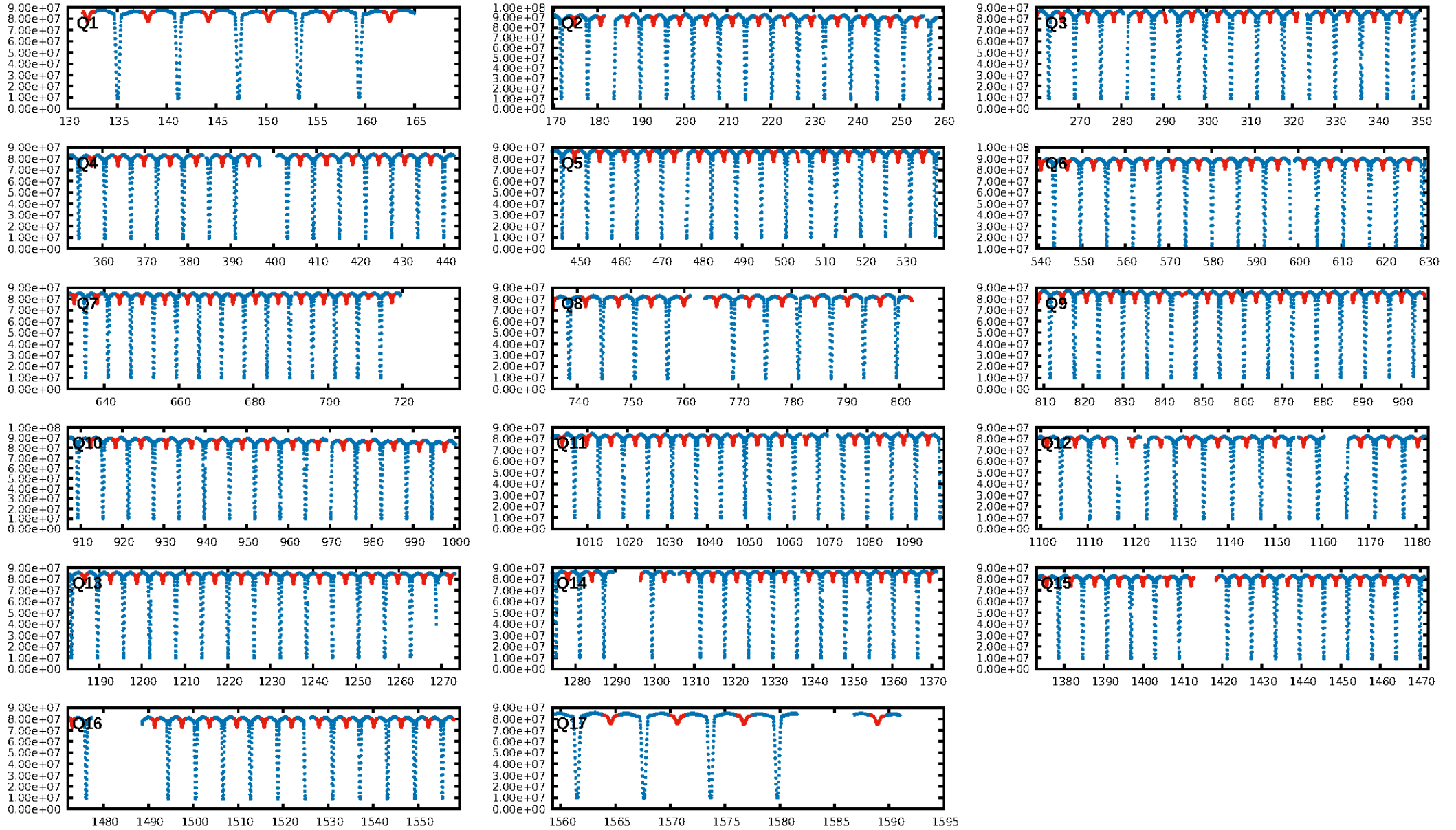
DV Fit Results:

Period = 6.09608 [0.00000] d
Epoch = 131.9784 [0.0003] BKJD
Rp/R* = 0.4078 [0.0299]
a/R* = 3.35 [0.02]
b = 1.00 [0.04]
Seff = 3253.43 [960.25]
Teq = 1926 [142] K
Rp = 119.79 [28.40] Re
a = 0.0816 [0.0159] AU
Ag = 0.09 [0.03] [-29.67σ]
Teffp = 1614 [84] K [-1.89σ]

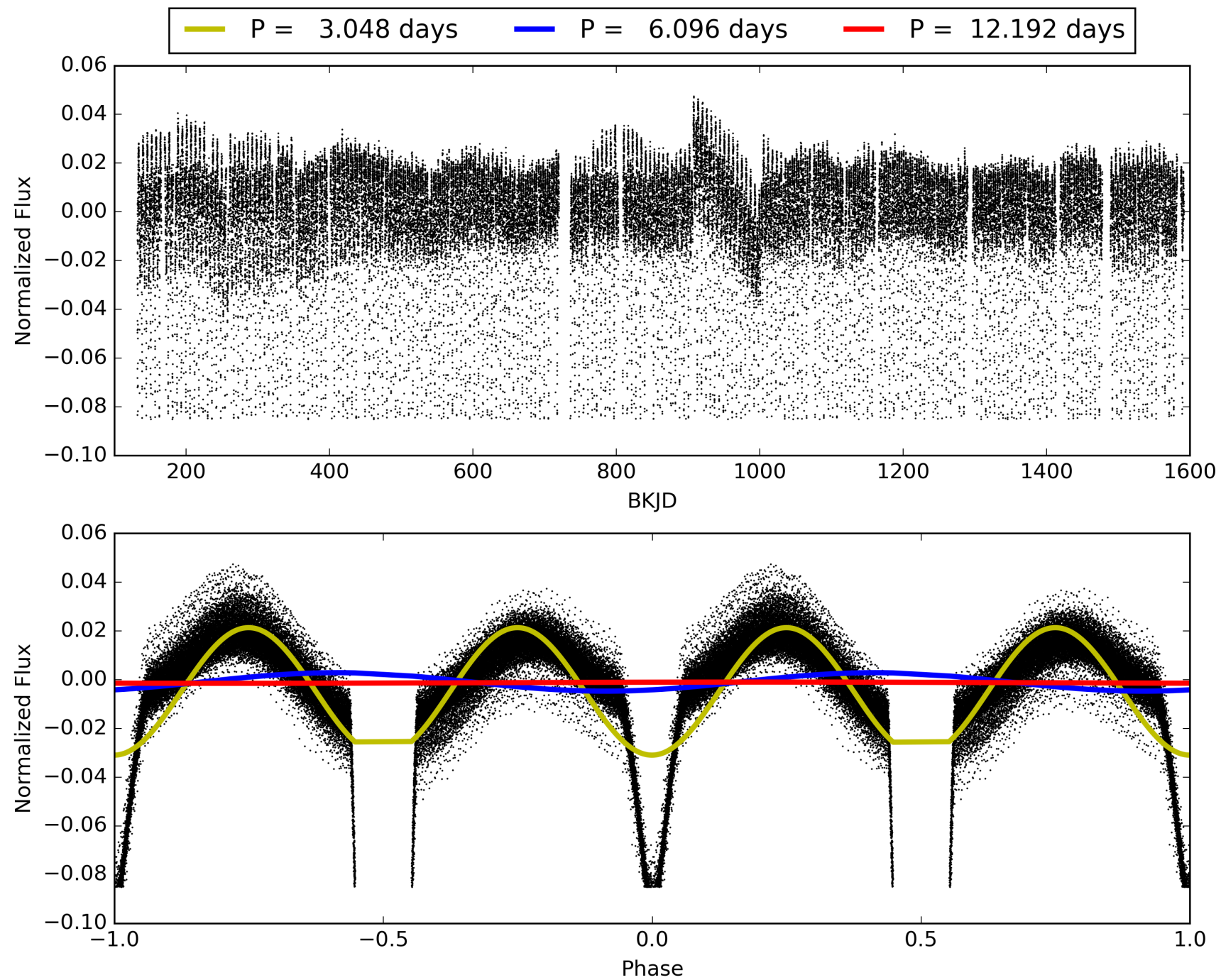
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 0.0% [0.00σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [216/216]
GhostDiagnostic-chr: 1.189
Centroid-sig: N/A
Centroid-so: 0.134 arcsec [57.04σ]
OotOffset-rm: 0.068 arcsec [1.01σ]
KicOffset-rm: 0.040 arcsec [0.59σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 1.00 [17/17]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 012071006-02, PDC Light Curves

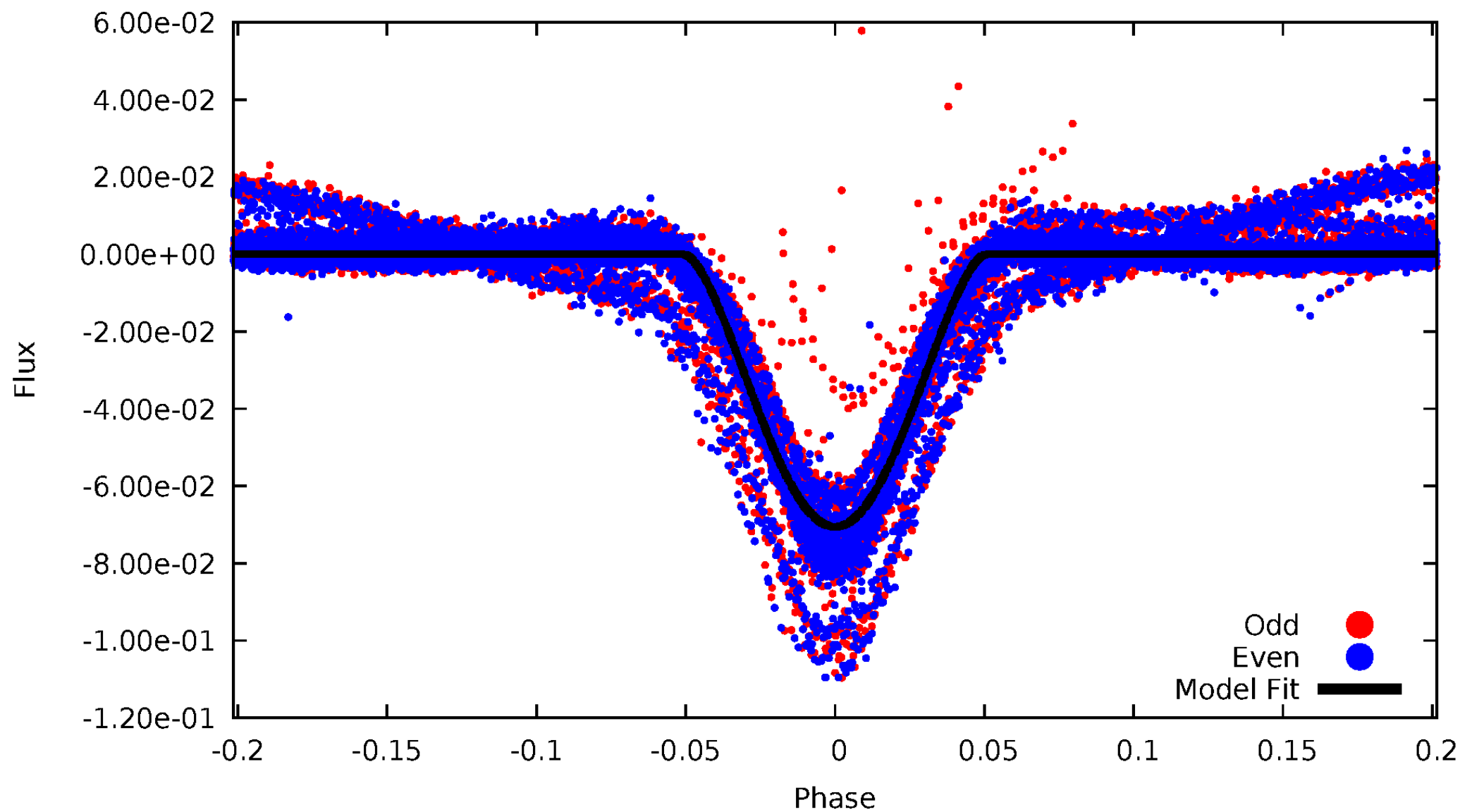


TCE 012071006-02



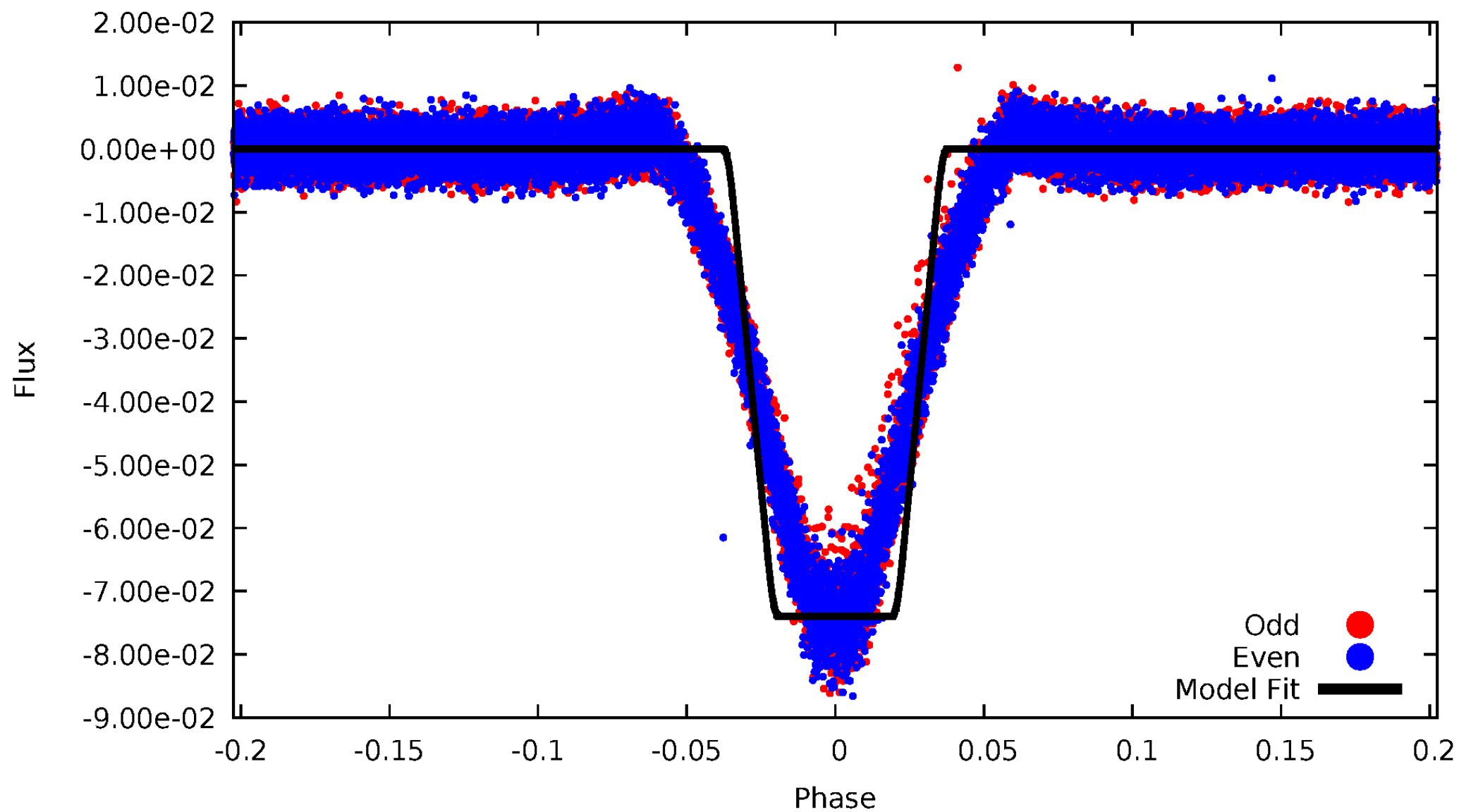
DV Odd/Even

TCE 012071006-02



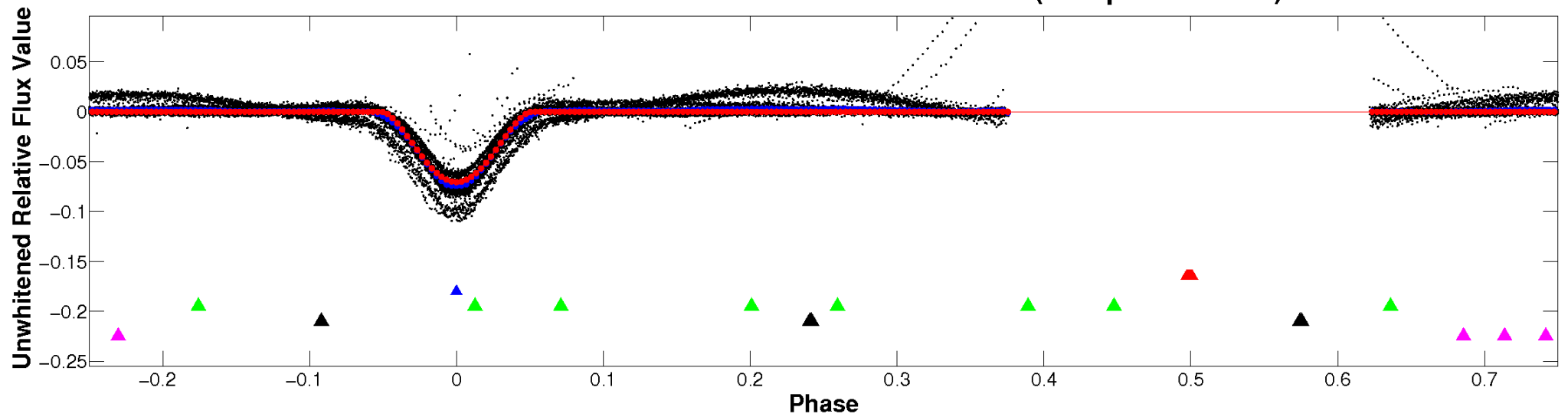
ALT Odd/Even

TCE 012071006-02

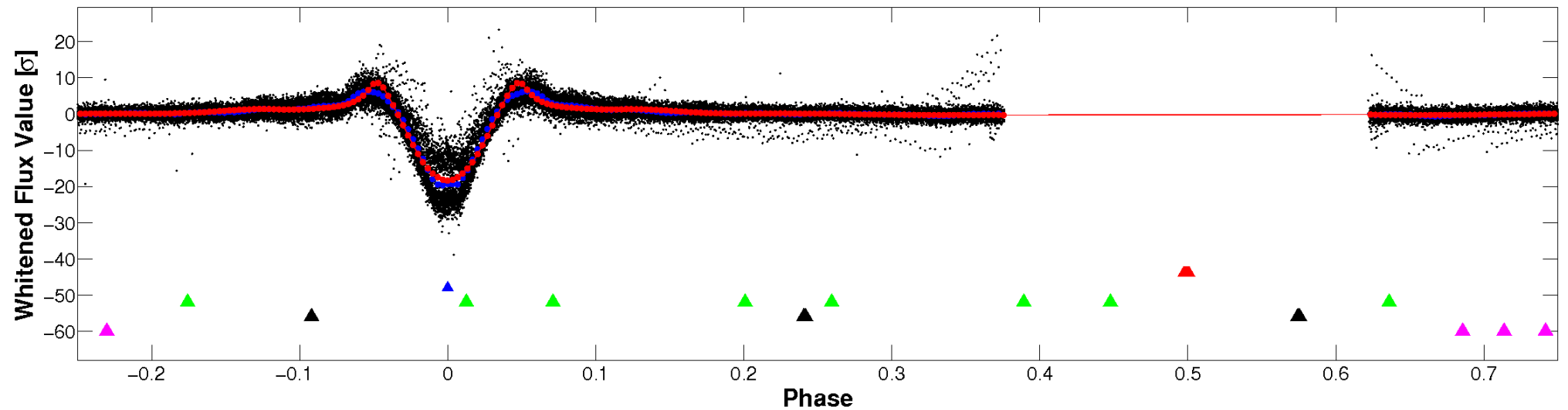


Non-Whitened Vs. Whitened Light Curve

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

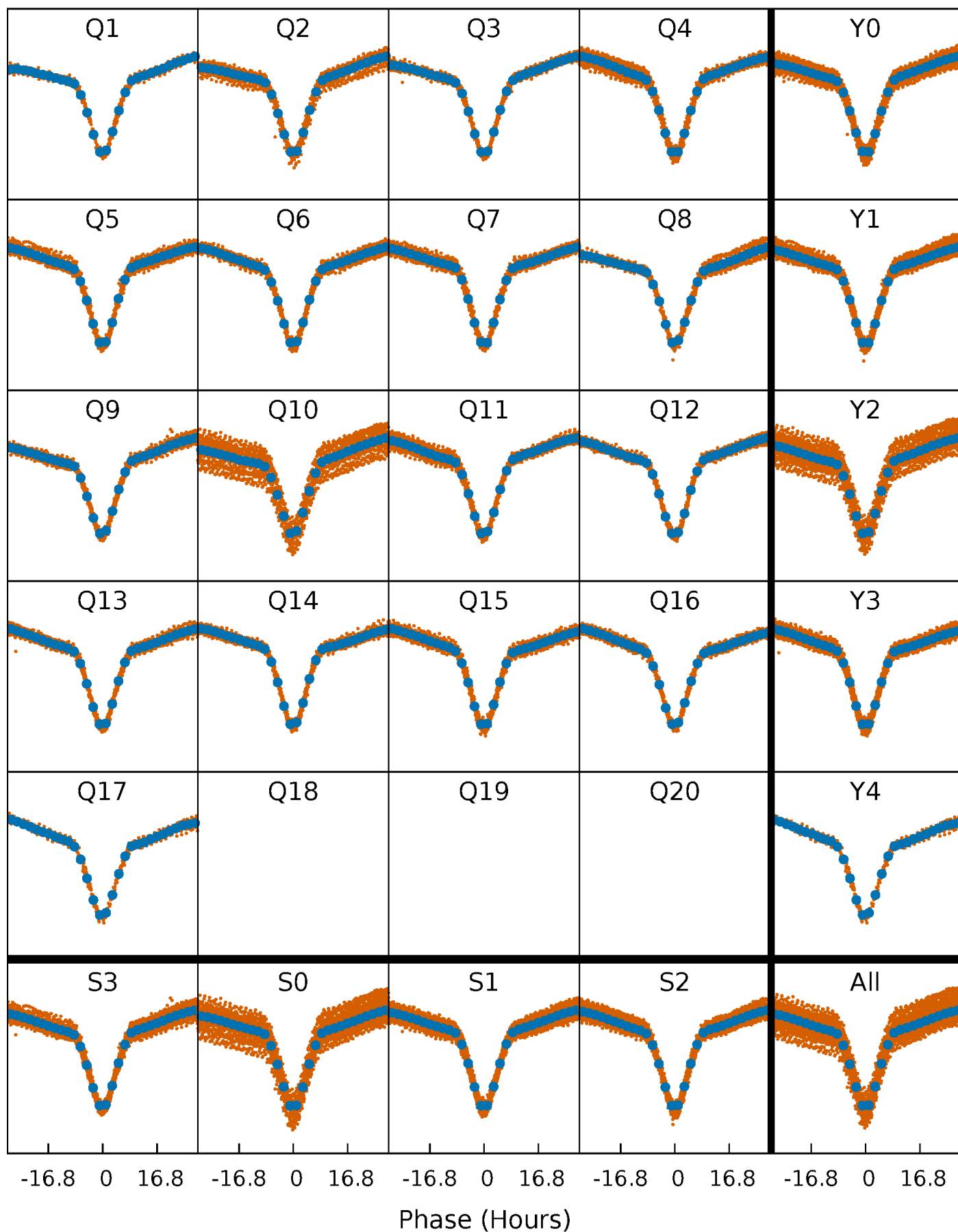


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



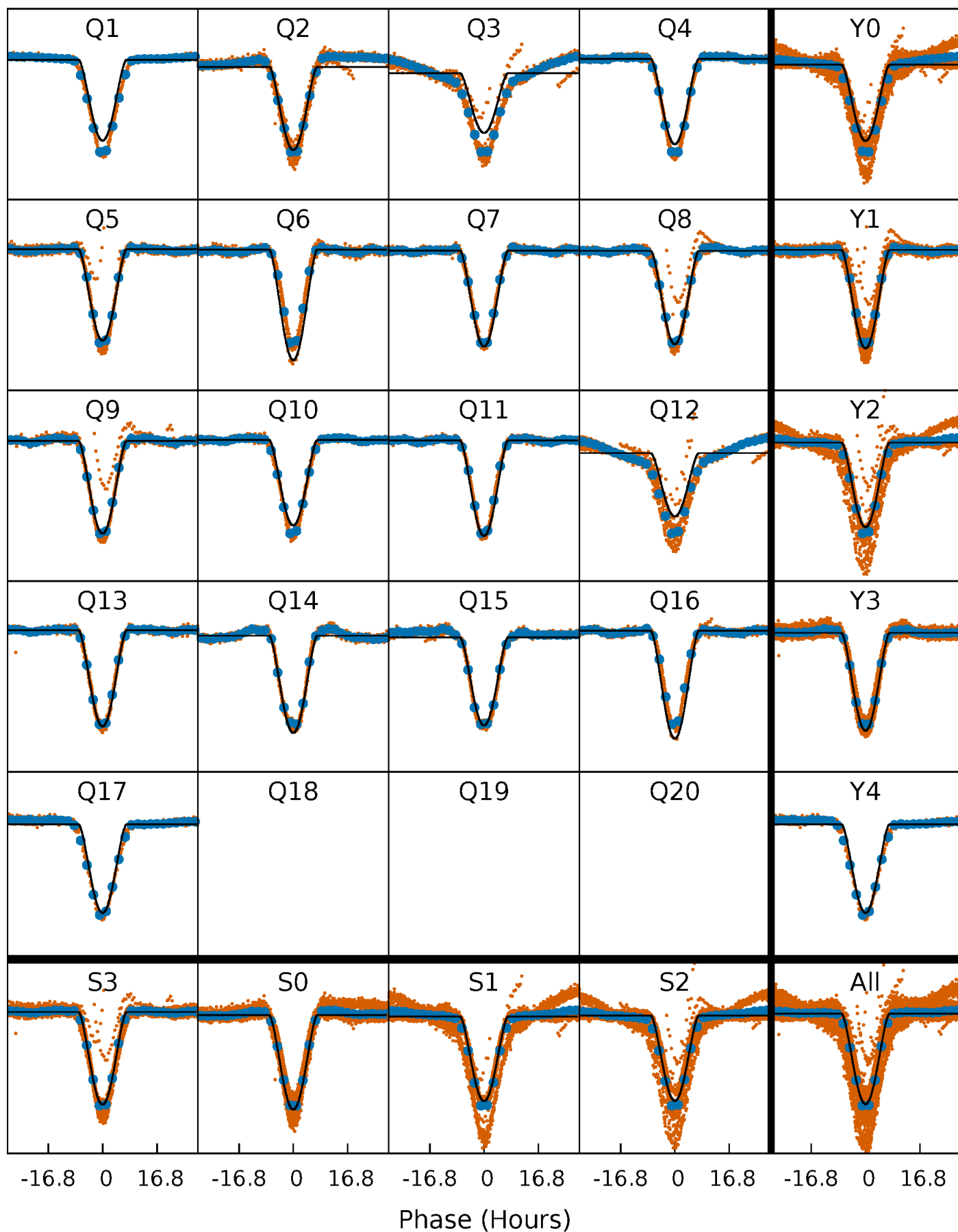
PDC Quarter-Phased Transit Curves

TCE 012071006-02 P= 6.096077 Days $T_0=131.978408$ (BKJD)



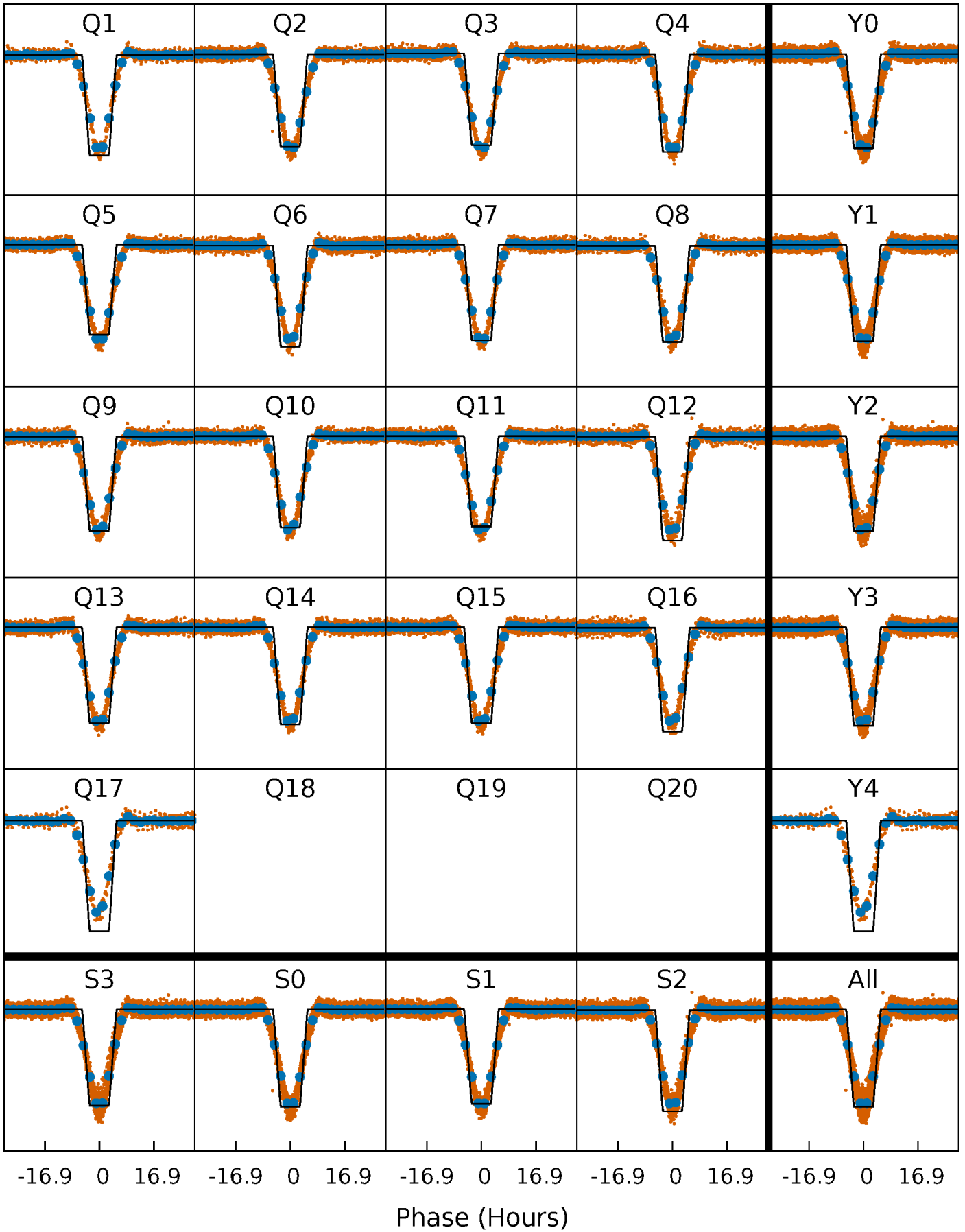
DV Quarter-Phased Transit Curves

TCE 012071006-02 P= 6.096077 Days $T_0=131.978408$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

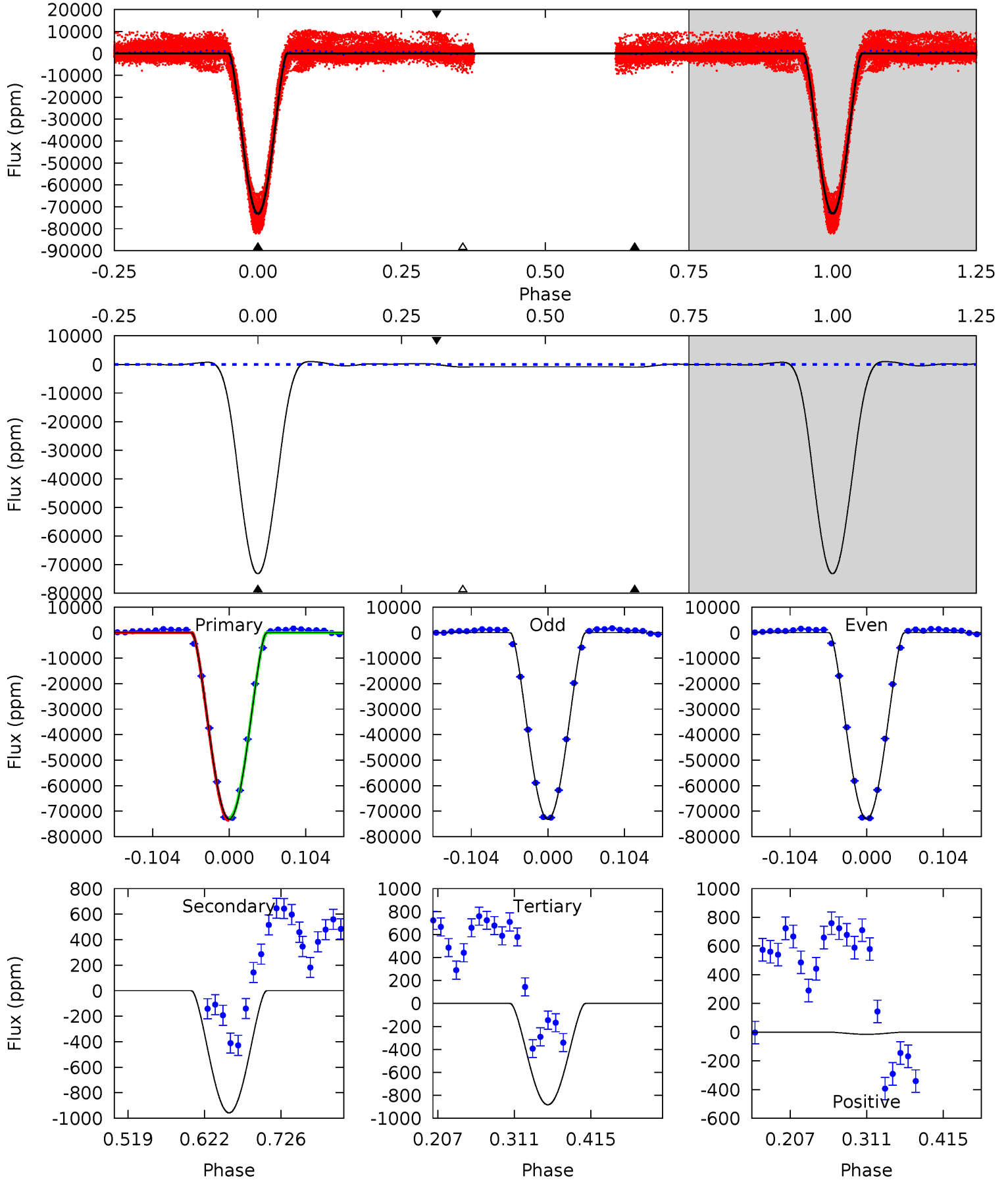
TCE 012071006-02 $P = 6.096110$ Days $T_0 = 131.973732$ (BKJD)



DV Model-Shift Uniqueness Test

012071006-02, P = 6.096077 Days, E = 125.882331 Days

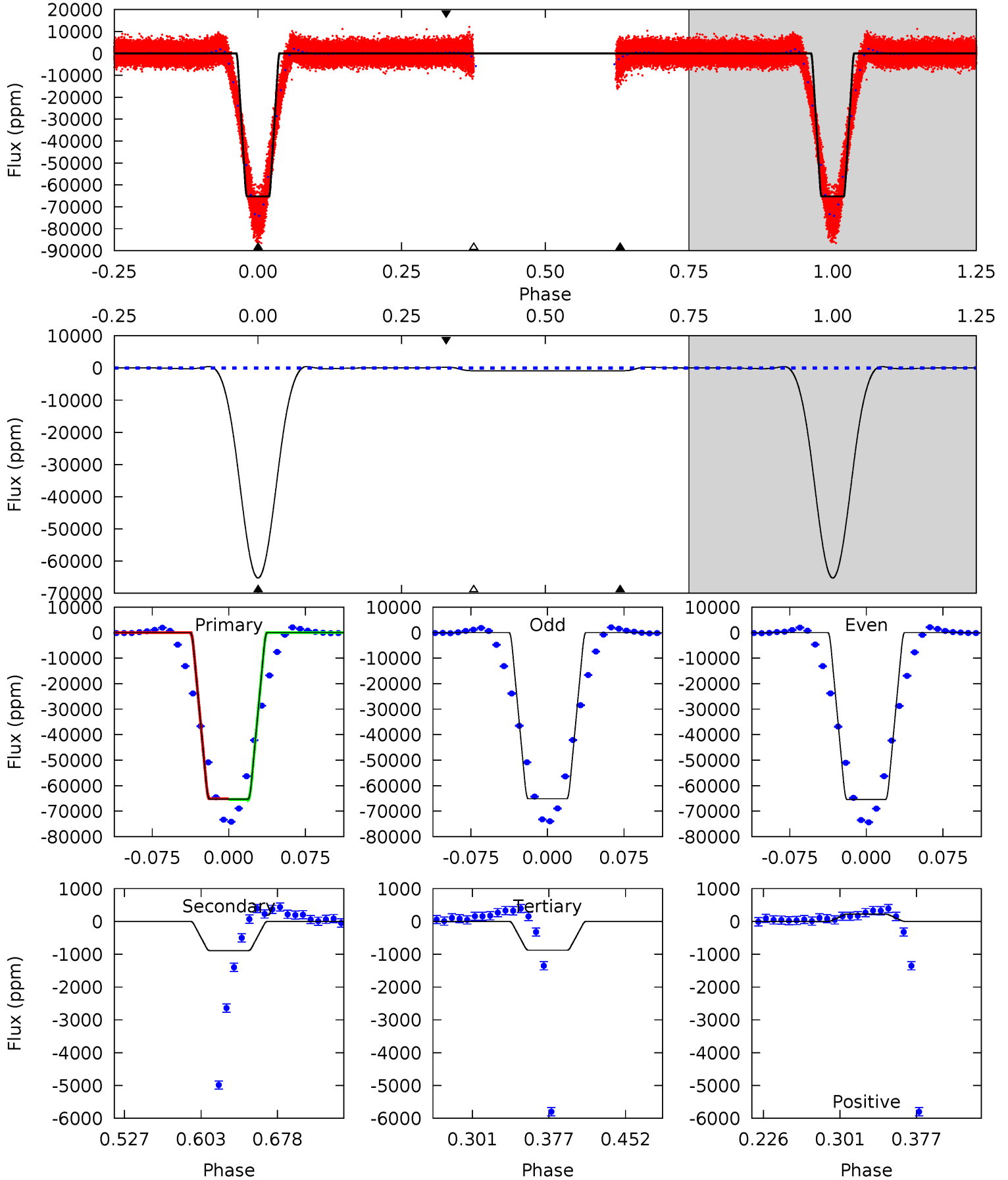
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2335	30.6	28.2	-0.48	4.56	1.63	11.4	2307	2335	2.39	31.0	1.79	1.02	0.01	0



Alt Model-Shift Uniqueness Test

012071006-02, P = 6.096110 Days, E = 125.877622 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1658	22.6	22.3	5.59	4.62	1.78	5.04	1635	1652	0.33	17.0	3.01	1.00	0.01	3.79



Stellar Parameters For KIC 012071006

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	7598^{+75}_{-83}	$3.867^{+0.163}_{-0.075}$	$0.060^{+0.100}_{-0.150}$	$2.692^{+0.260}_{-0.607}$	$1.945^{+0.027}_{-0.228}$	$0.140^{+0.124}_{-0.034}$
	+1%/-1%	+4%/-2%	+167%/-250%	+10%/-23%	+1%/-12%	+89%/-24%
Source	SPE68	SPE68	SPE68	DSEP		

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

Secondary Eclipse Parameters for KIC 012071006-02 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-957 ± 31	$116.95^{+13.23}_{-15.03}$	2683^{+90}_{-152}	-2293^{+4402}_{-219}	$0.251^{+0.077}_{-0.047}$
Alt.	-890 ± 39	$77.64^{+11.26}_{-11.15}$	2677^{+94}_{-138}	2766^{+198}_{-226}	$0.531^{+0.191}_{-0.124}$

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 $A_{obs} \gg 1.0$

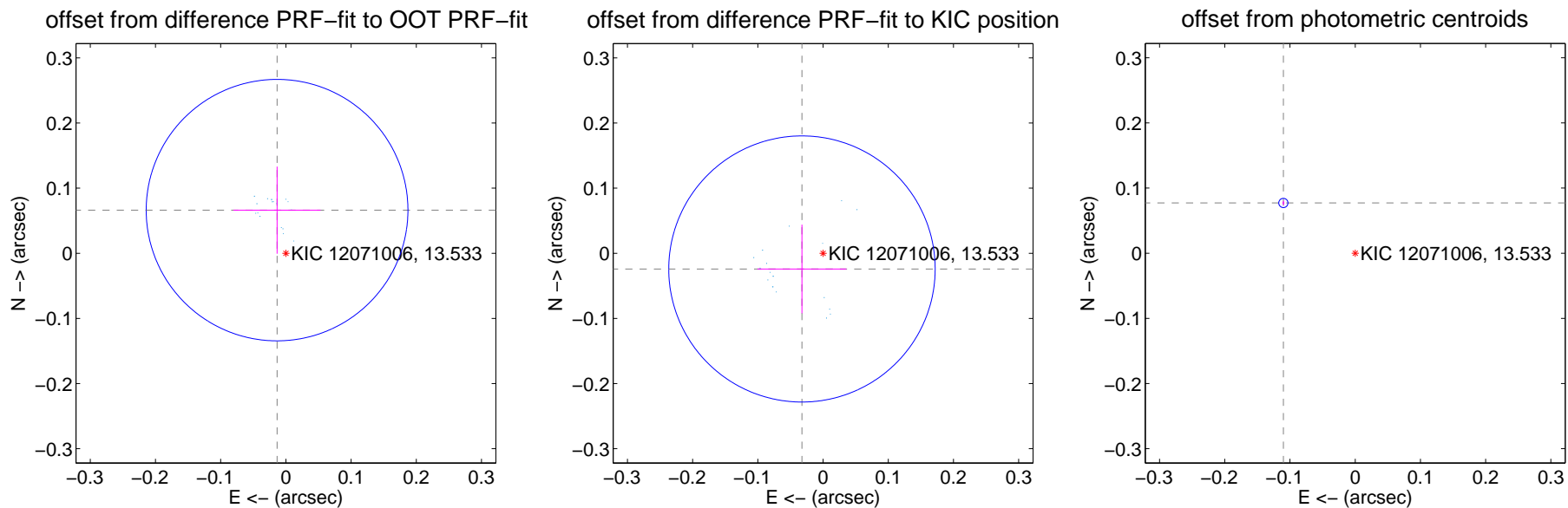
DV Centroid Data

Supplemental centroid analysis for 012071006-02. Kepler magnitude: 13.53. Transit SNR 808.45

There are 17 quarters with good PRF difference image offsets

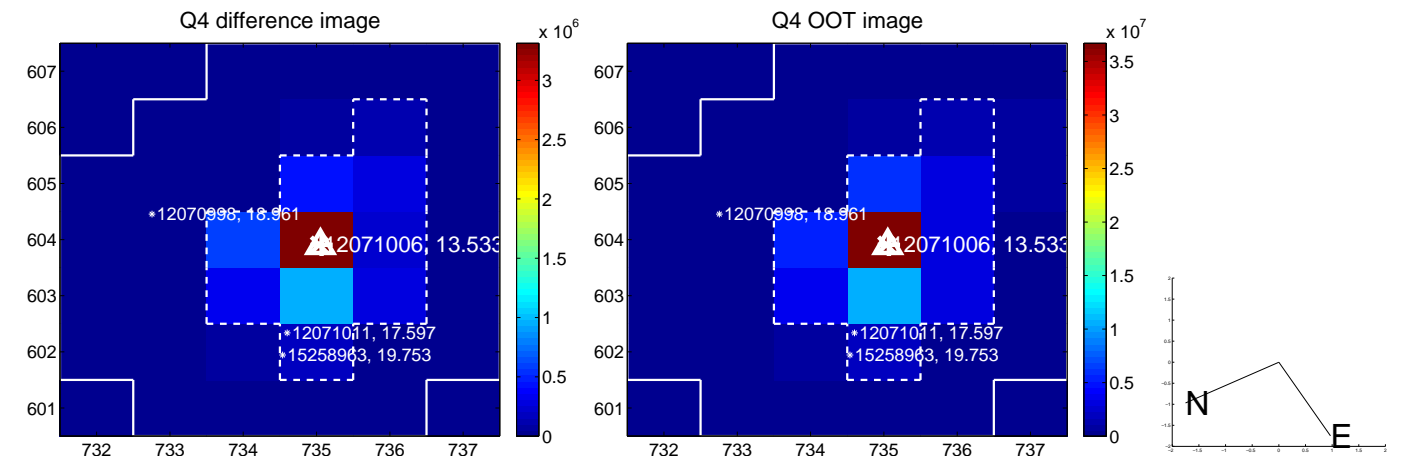
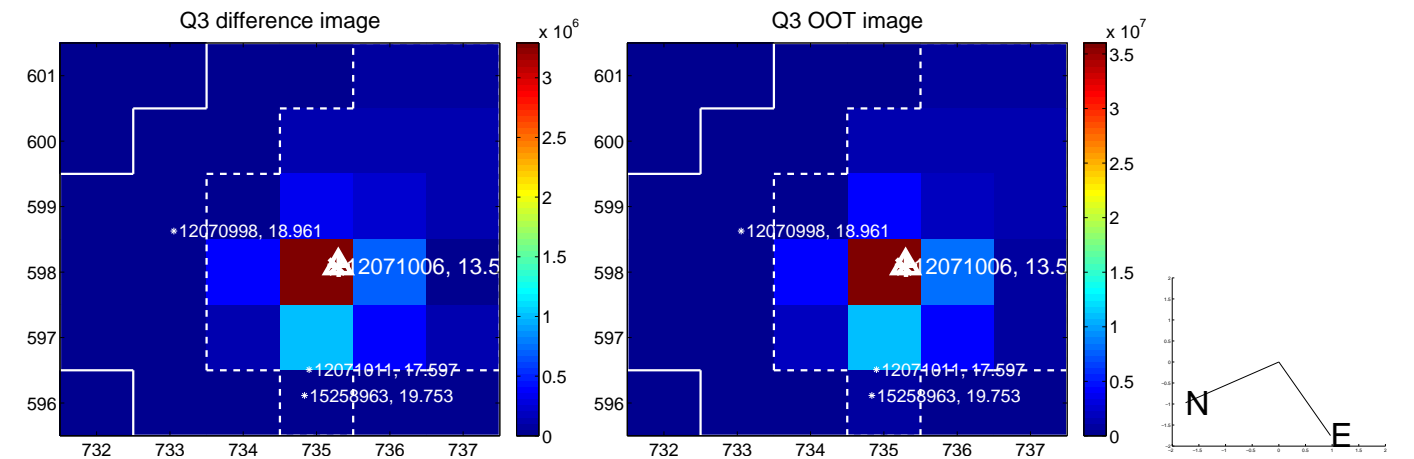
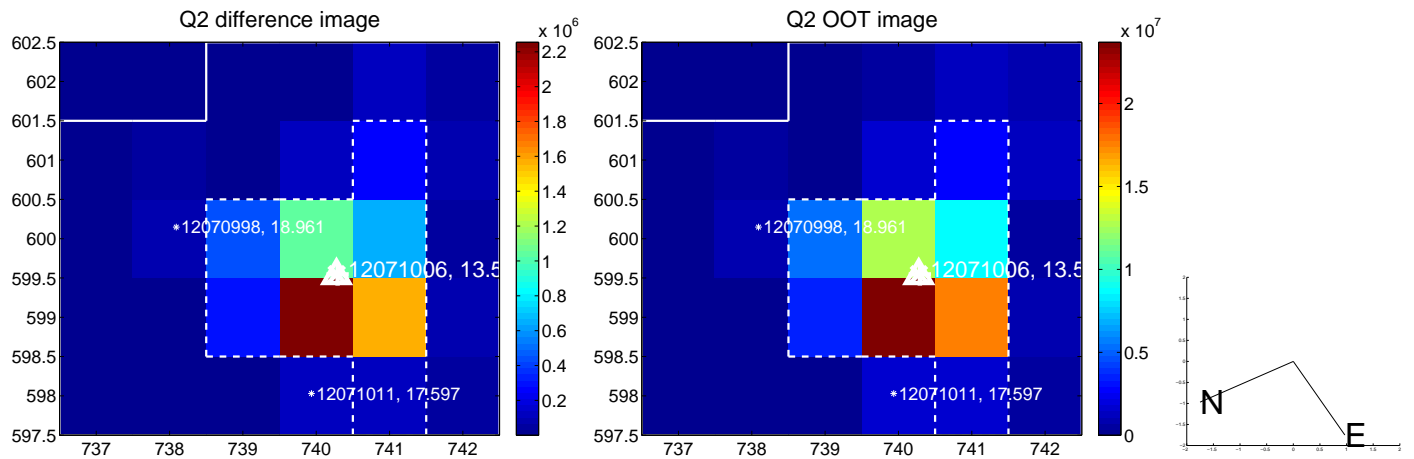
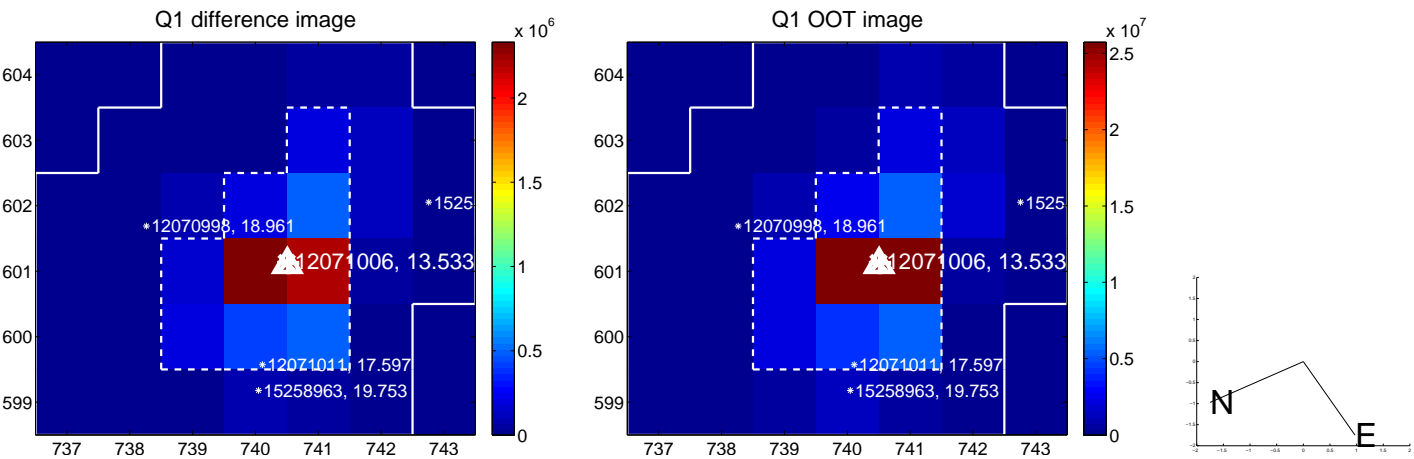
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.068 ± 0.067	1.01	0.014 ± 0.067	0.066 ± 0.067
PRF-fit source offset from KIC position	0.040 ± 0.068	0.59	0.032 ± 0.068	-0.024 ± 0.068
photometric centroid source offset	0.13 ± 0.00	57.04	0.11 ± 0.00	0.08 ± 0.00

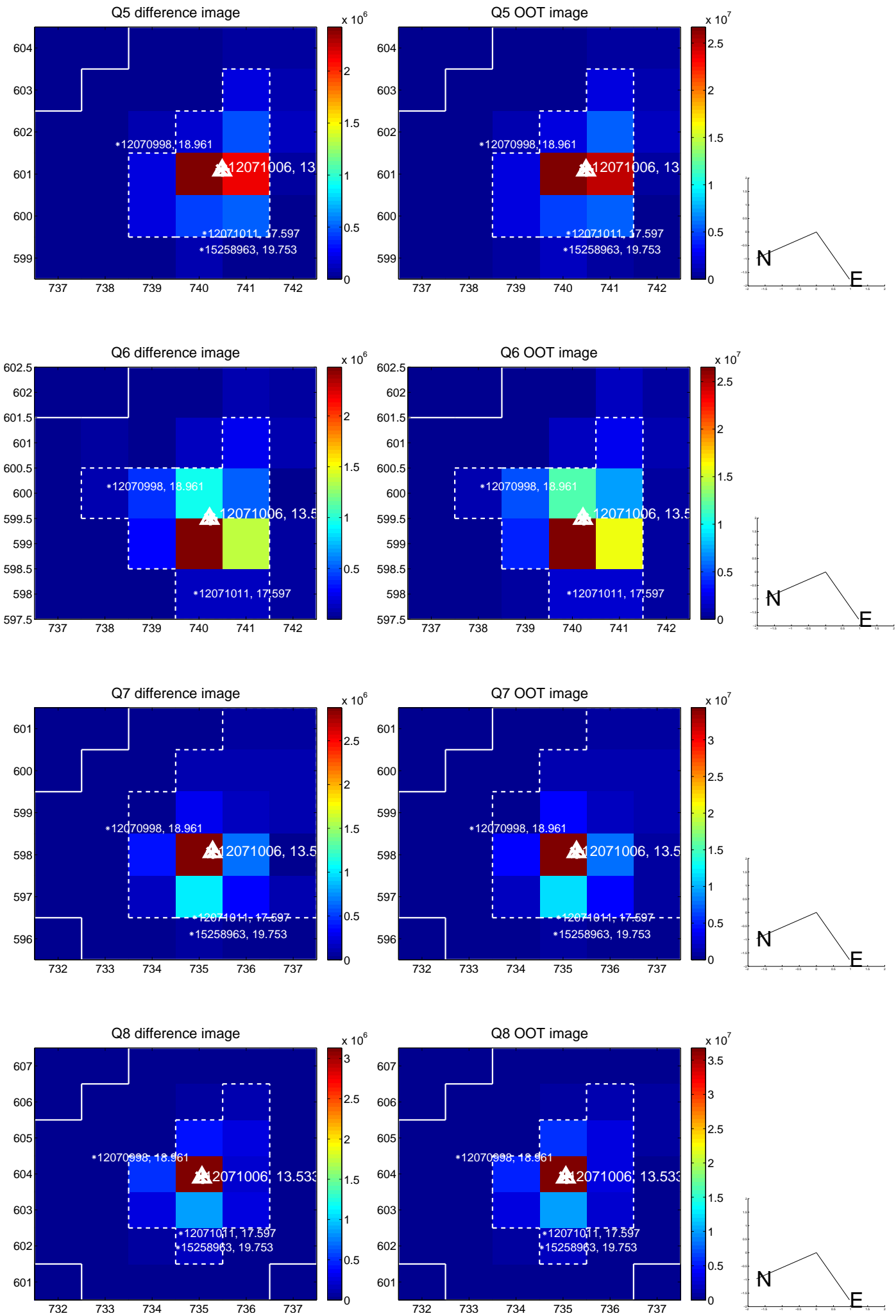


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

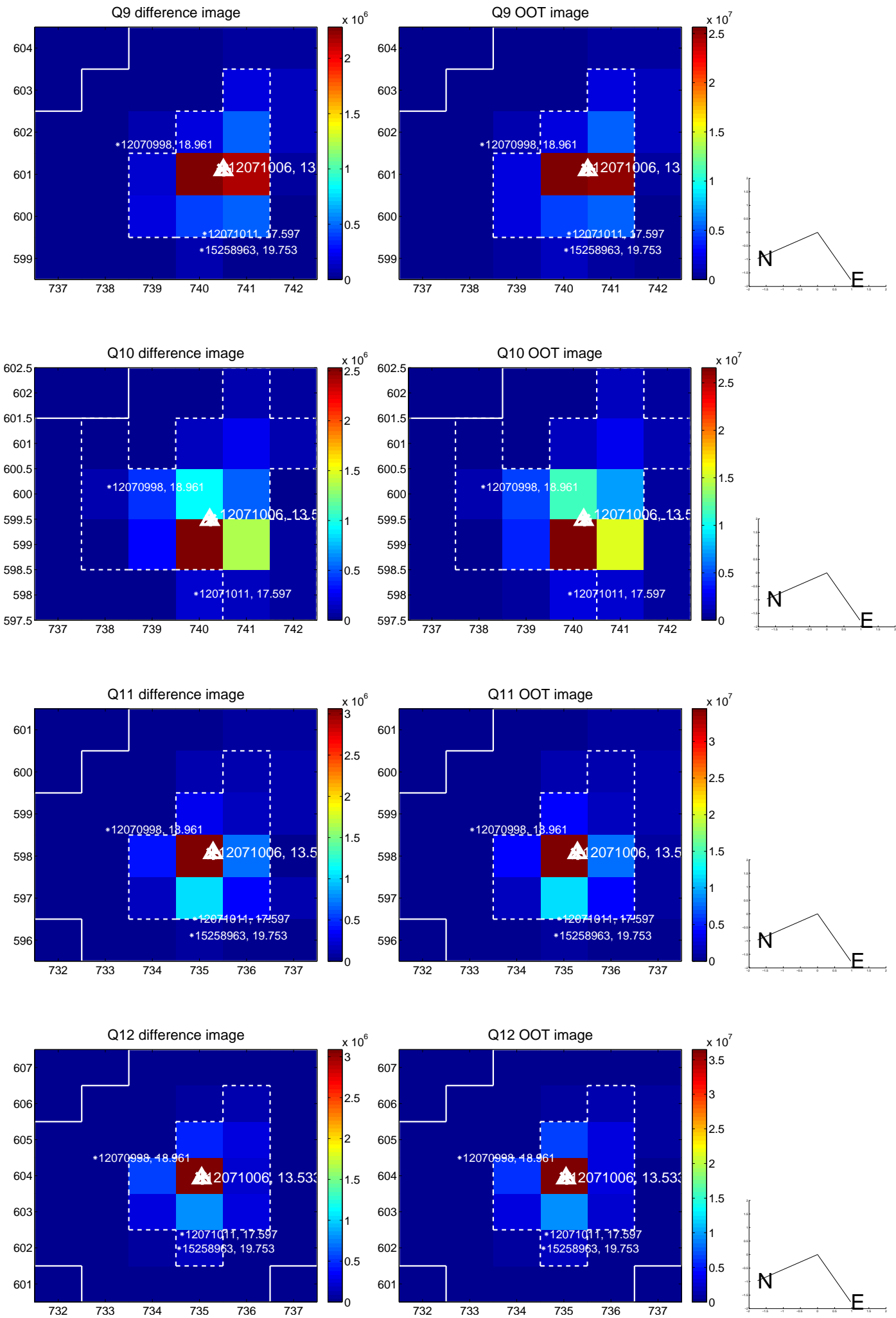
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



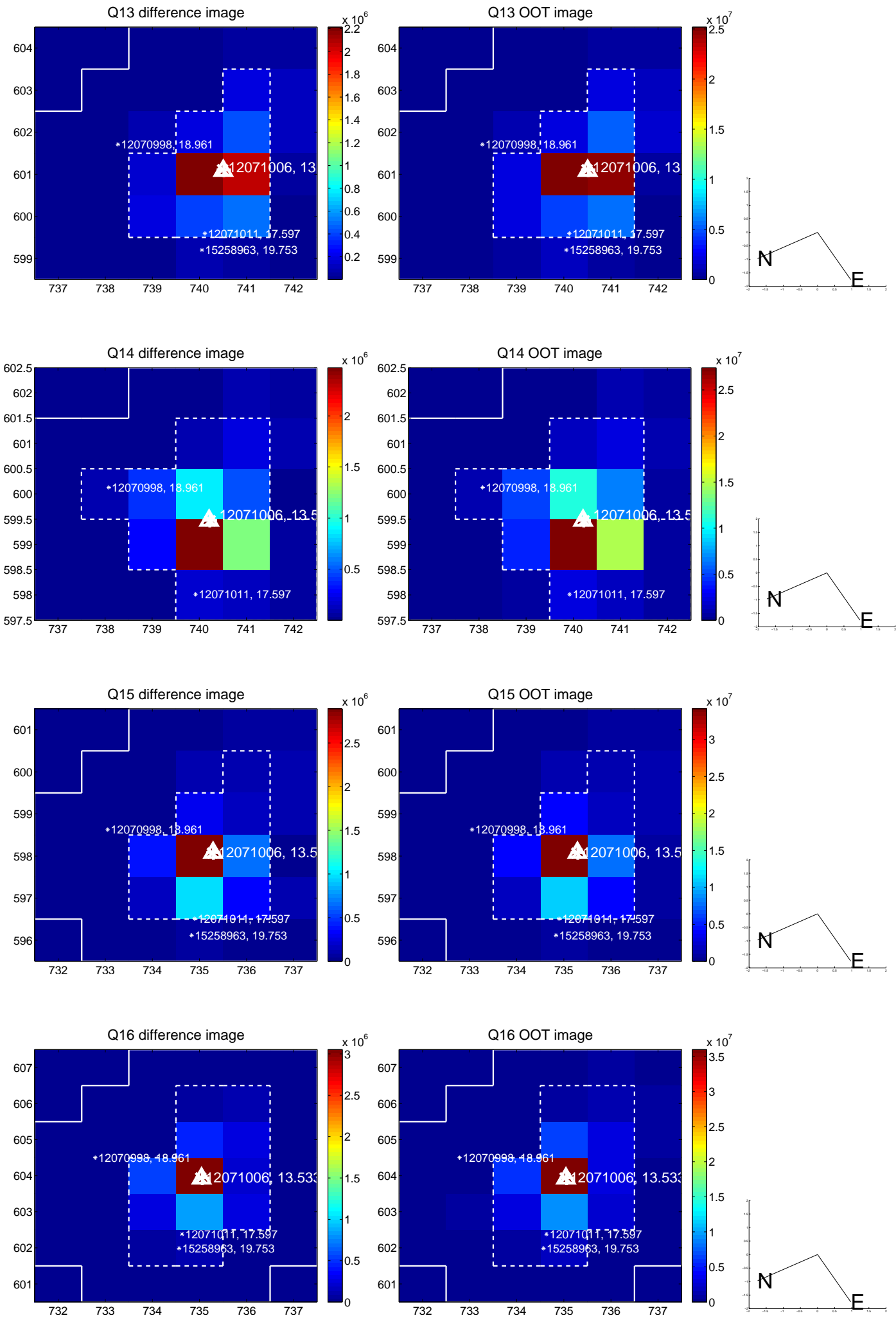
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



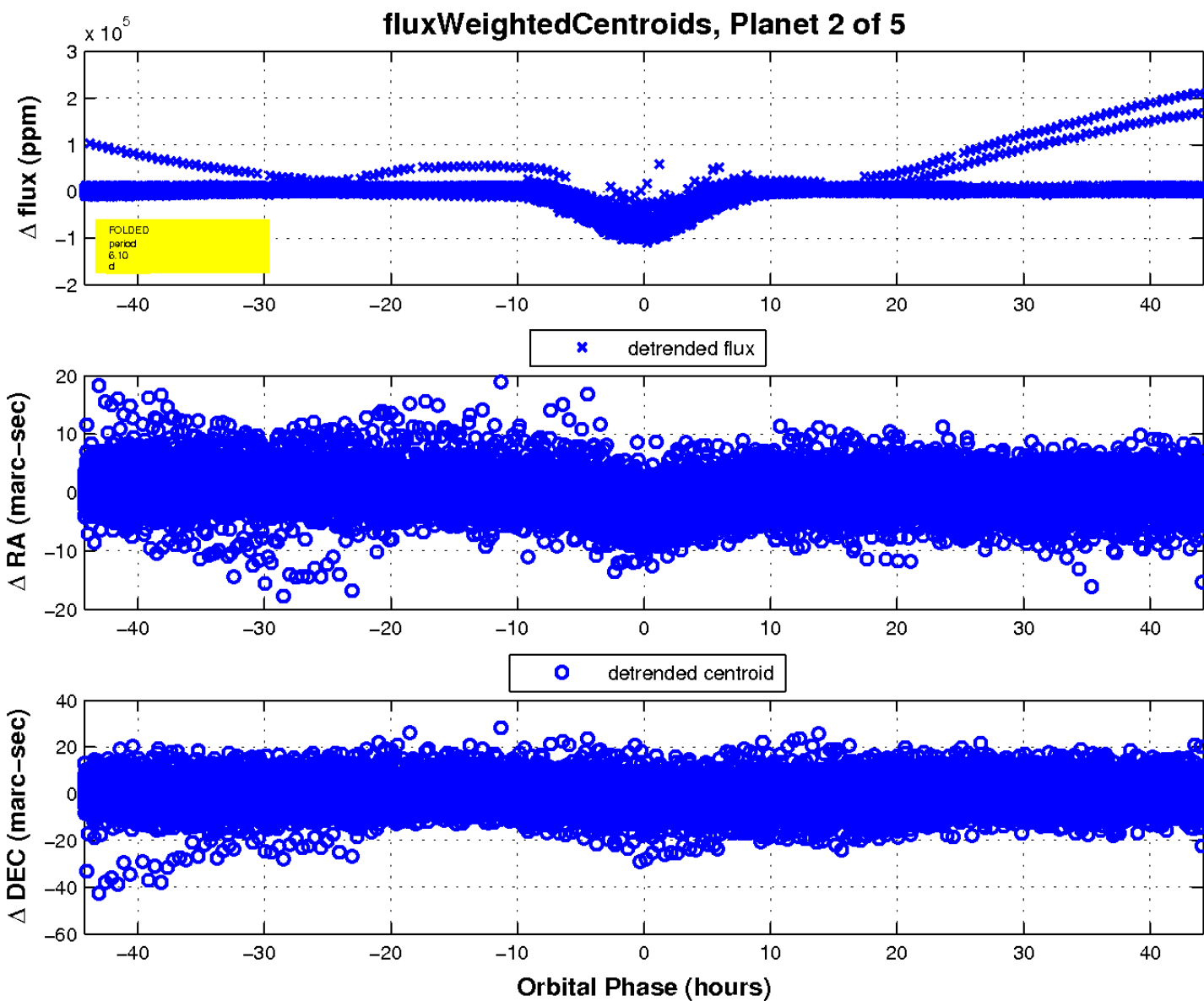
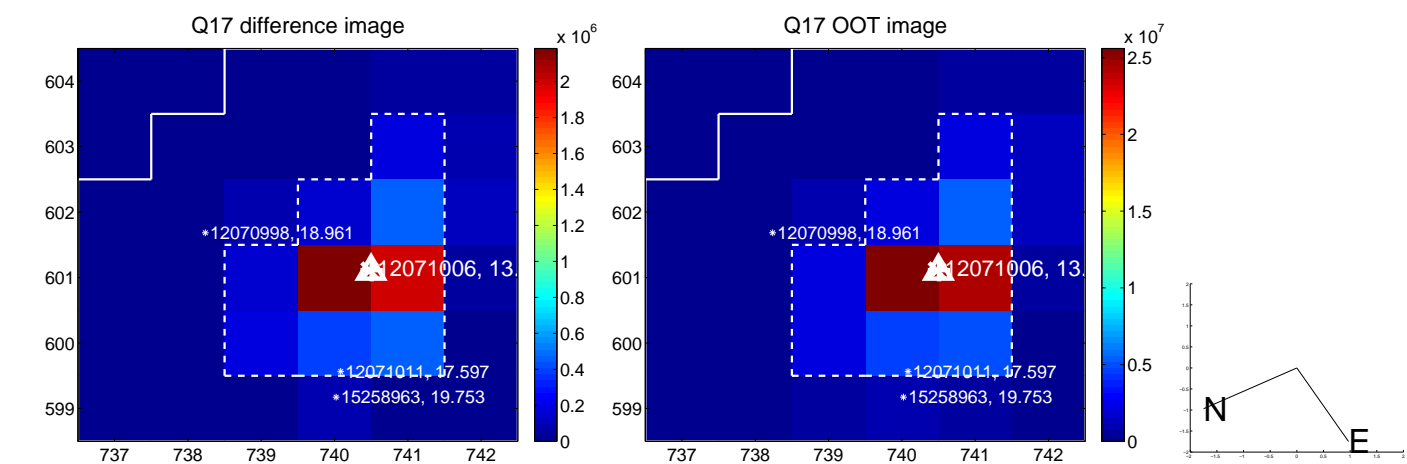
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

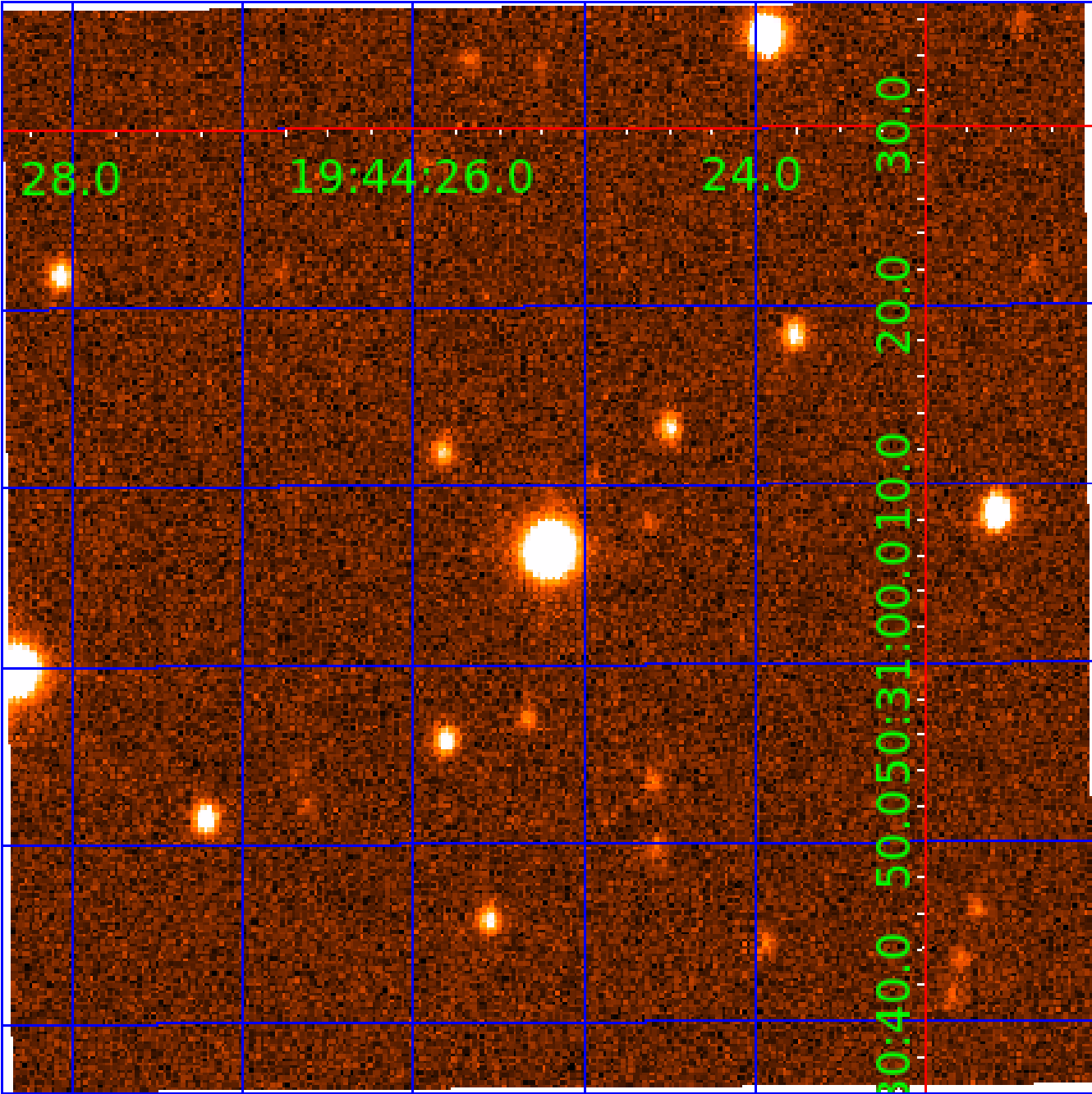


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 012071006

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})
012071006-01	OBS	7511.01	6.096178	135.008538	33820.3	12.000	8050.7	-1.0	2.69	7598	50.24	3253.35
012071006-02	OBS	No	6.096077	131.978408	70579.4	14.737	891.7	808.4	2.69	7598	119.79	3253.43
012071006-05	OBS	No	353.743218	264.175984	4192.0	23.614	24.6	7.5	2.69	7598	19.50	14.48

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
012071006-01	OBS	FP	0.00	0	1	0	0	SWEET_EB—MOD_SEC_ALT—HAS_SEC_TCE—CENT_NOFITS
012071006-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE
012071006-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—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 012071006-05

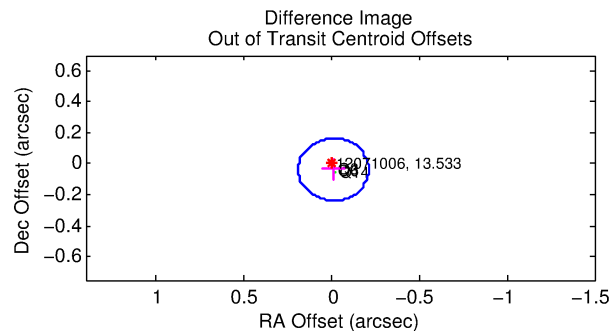
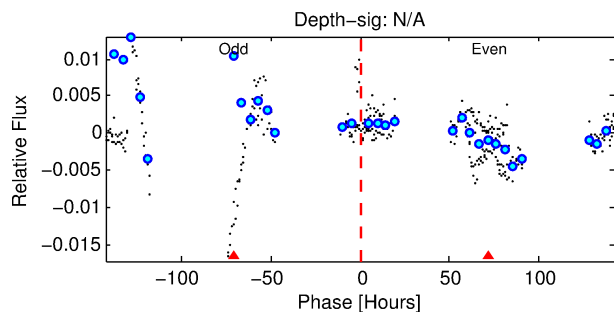
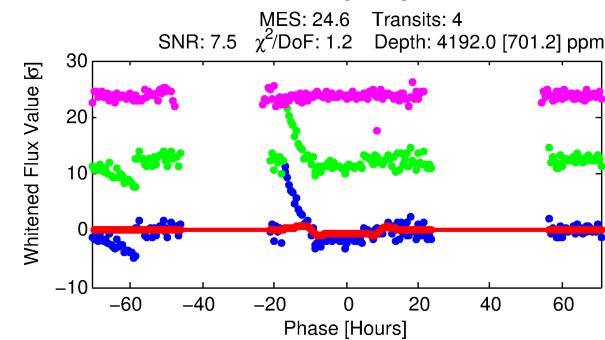
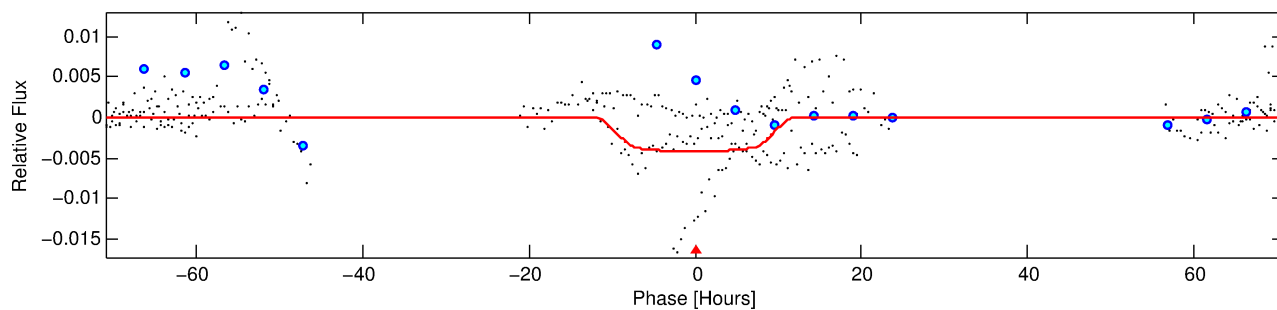
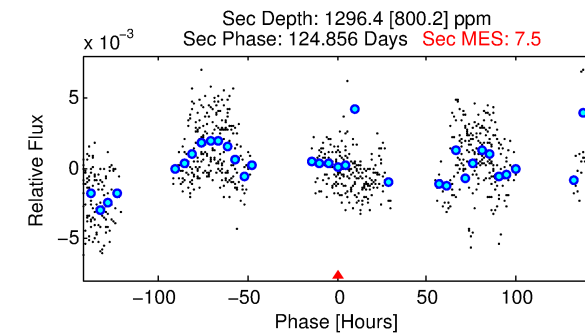
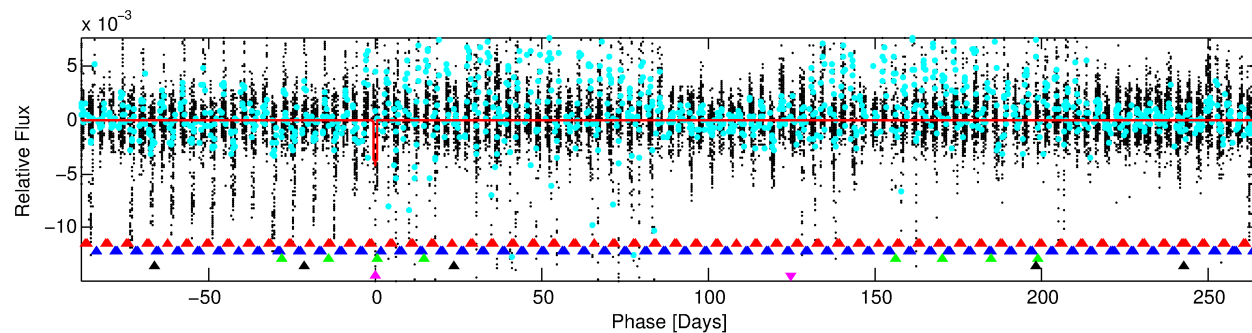
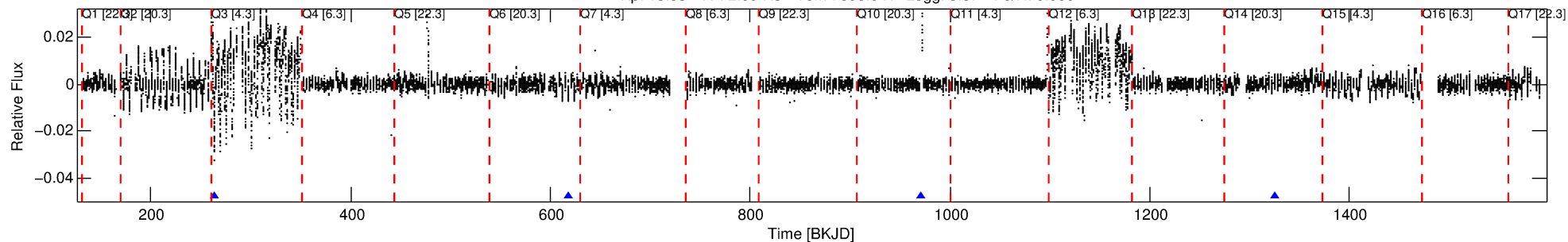
No Significant Match Found

DV One-Page Summary

KIC: 12071006 Candidate: 5 of 5 Period: 353.743 d

KOI: K07511 Corr: No Ephemeris Match

Kp: 13.53 R*: 2.69 Rs Teff: 7598.0 K Logg: 3.87 Fe/H: 0.060



DV Fit Results:

Period = 353.74322 [0.01639] d
Epoch = 264.1760 [0.0342] BKJD
Rp/R* = 0.0664 [0.0060]
a/R* = 75.96 [11.29]
b = 0.83 [0.05]
Seff = 14.48 [4.27]
Teq = 497 [37] K
Rp = 19.50 [4.74] Re
a = 1.2224 [0.2391] AU
Ag = 2801.28 [1978.85] [1.42σ]
Teff = 5595 [902] K [5.65σ]

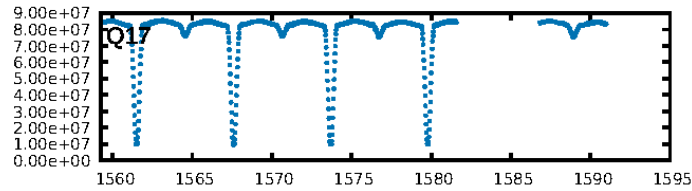
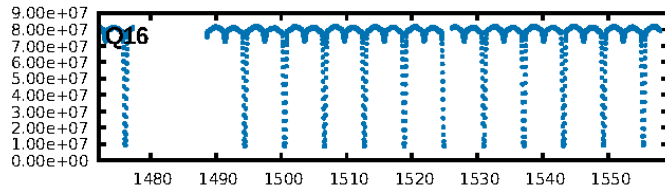
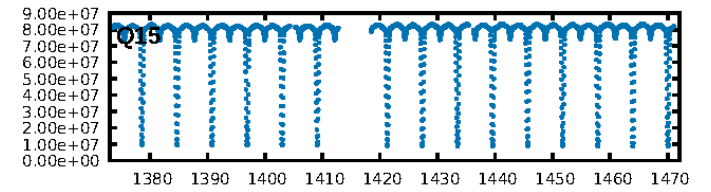
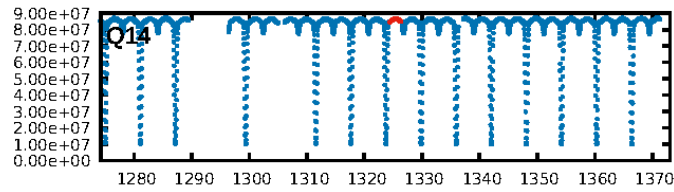
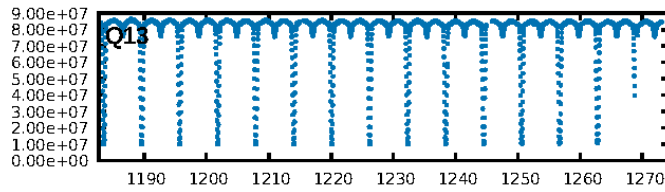
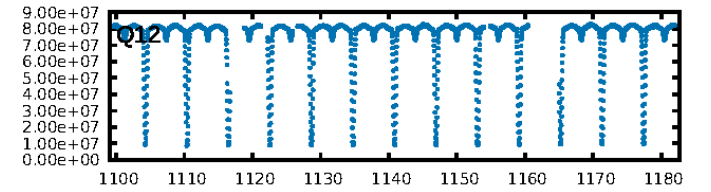
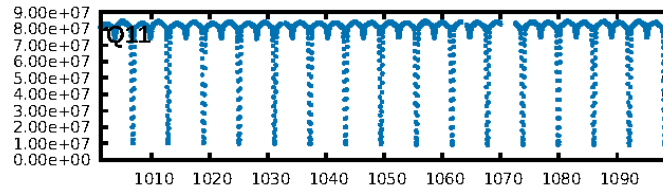
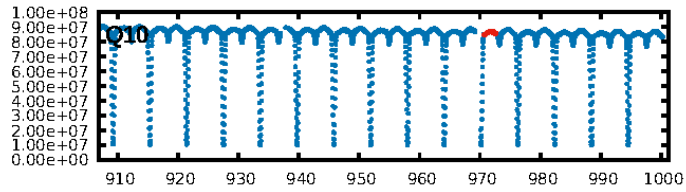
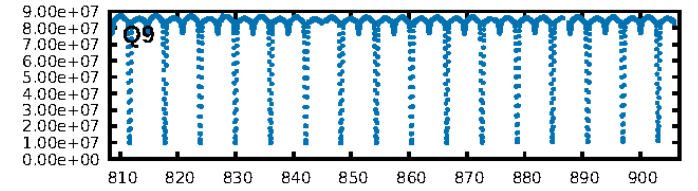
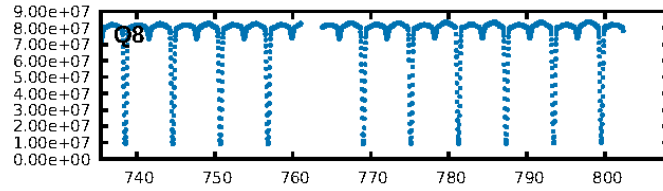
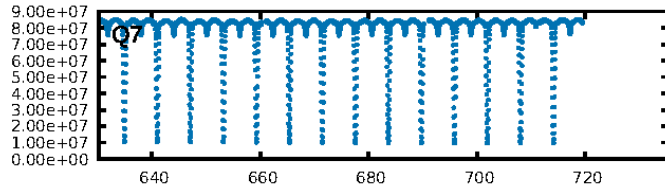
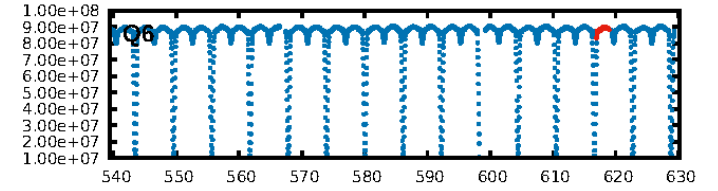
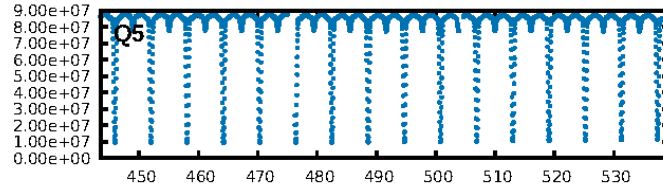
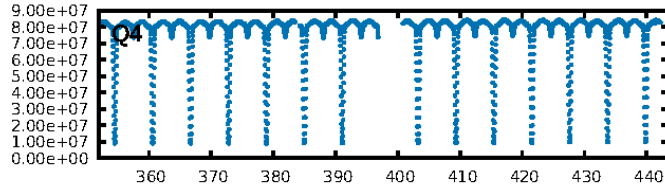
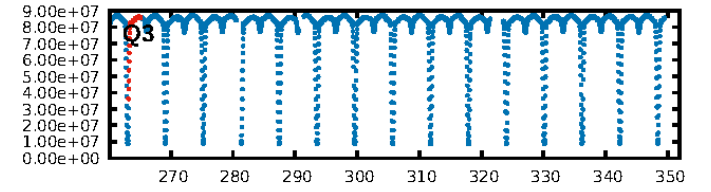
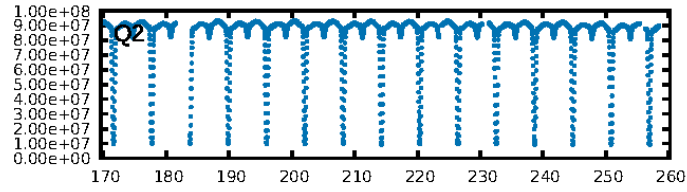
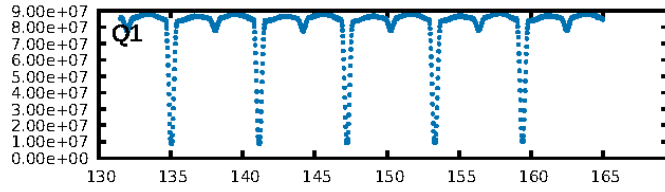
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [26.77σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 99.9%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: 2.107
Centroid-sig: N/A
Centroid-so: 1.220 arcsec [1.82σ]
OotOffset-rm: 0.039 arcsec [0.58σ]
KicOffset-rm: 0.119 arcsec [1.72σ]
OotOffset-st: 2/1/0/0 [3]
KicOffset-st: 2/1/0/0 [3]
DiffImageQuality-fgm: 0.00 [0/3]
DiffImageOverlap-fno: 0.00 [0/3]

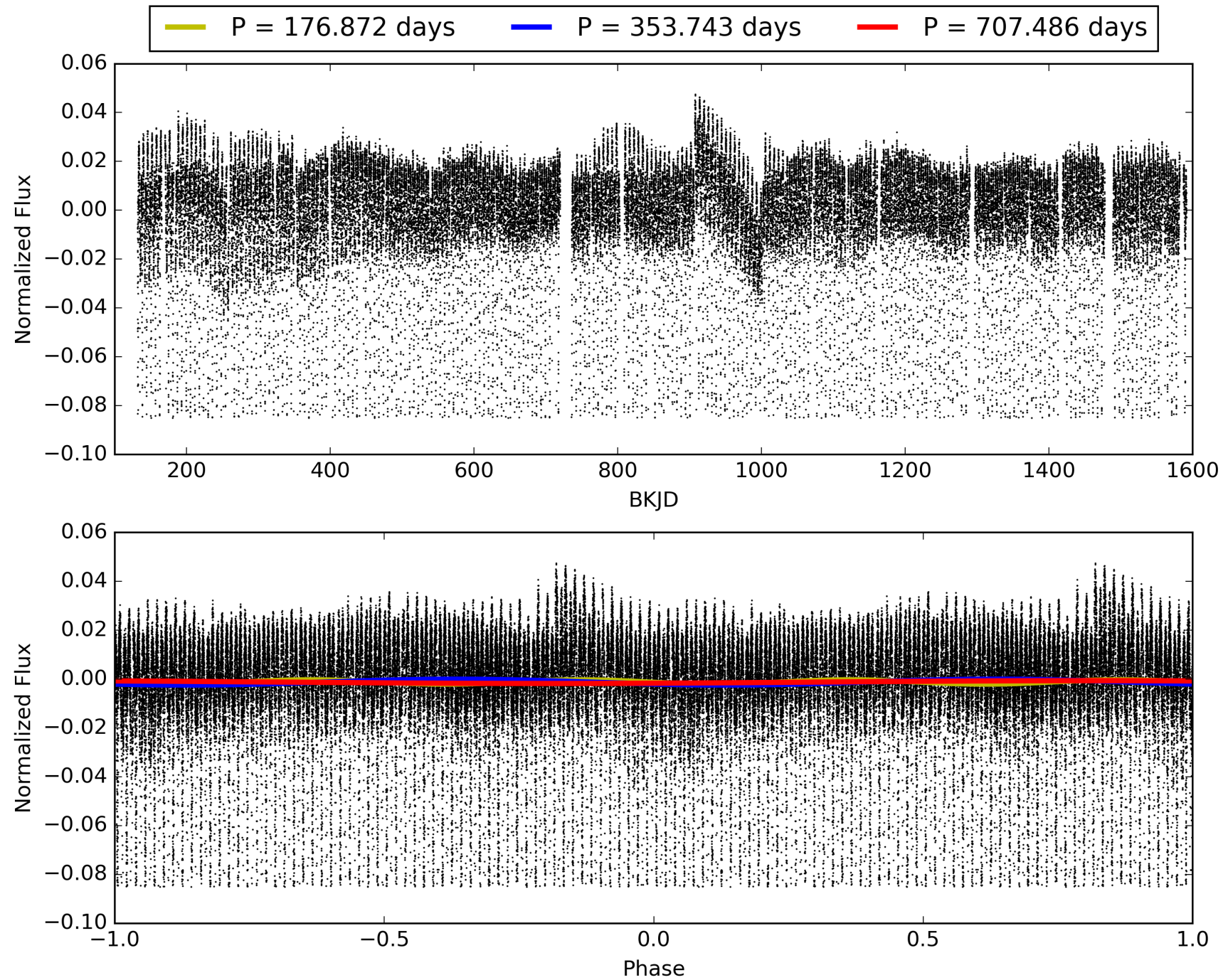
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 07:30:19 Z

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

TCE 012071006-05, PDC Light Curves

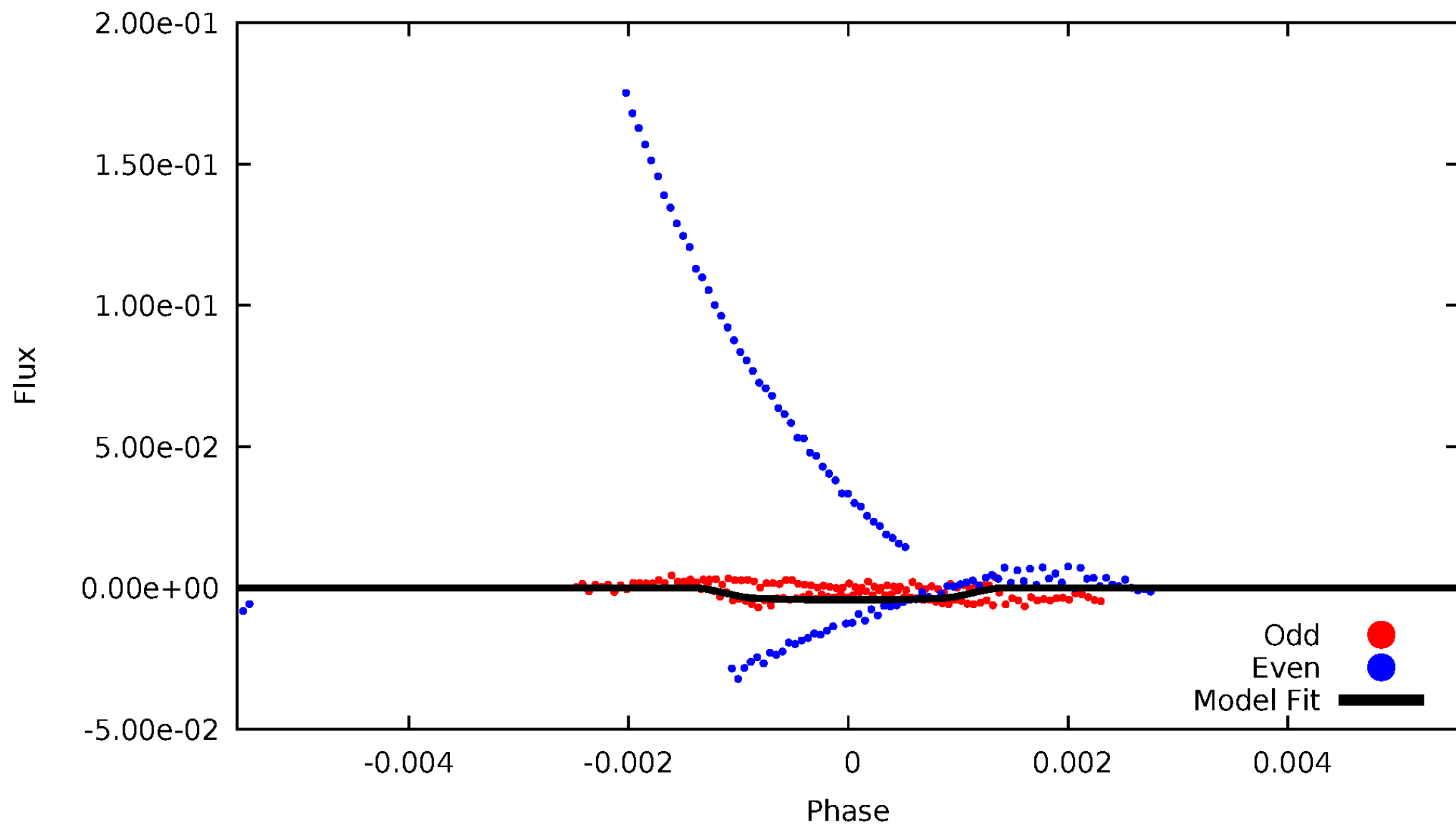


TCE 012071006-05



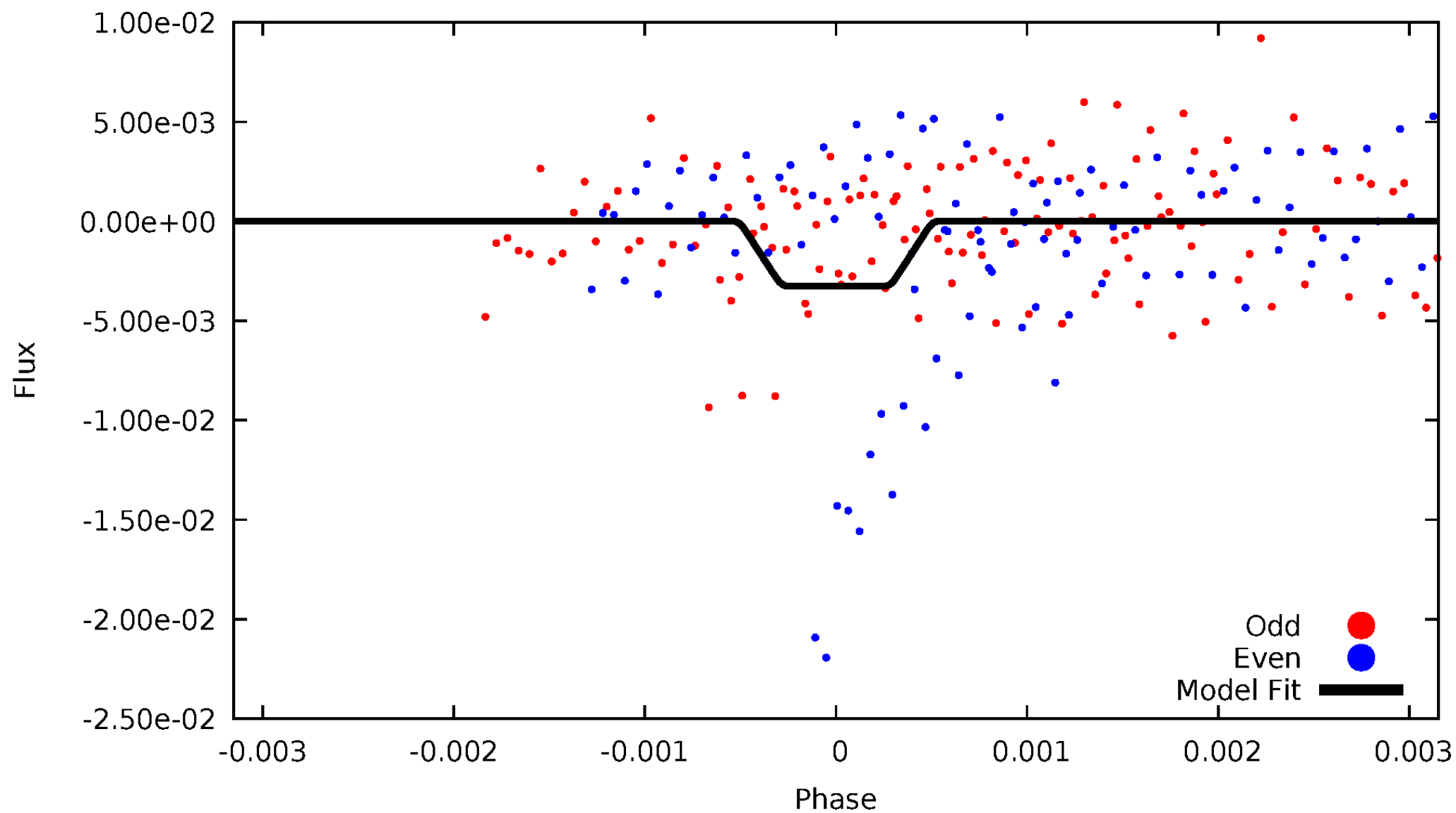
DV Odd/Even

TCE 012071006-05



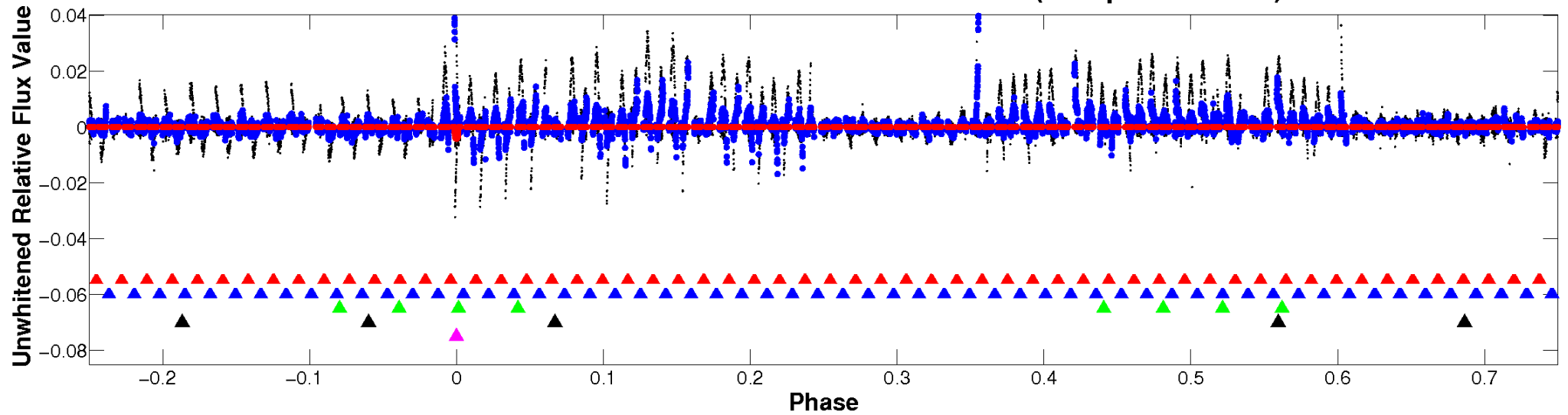
ALT Odd/Even

TCE 012071006-05

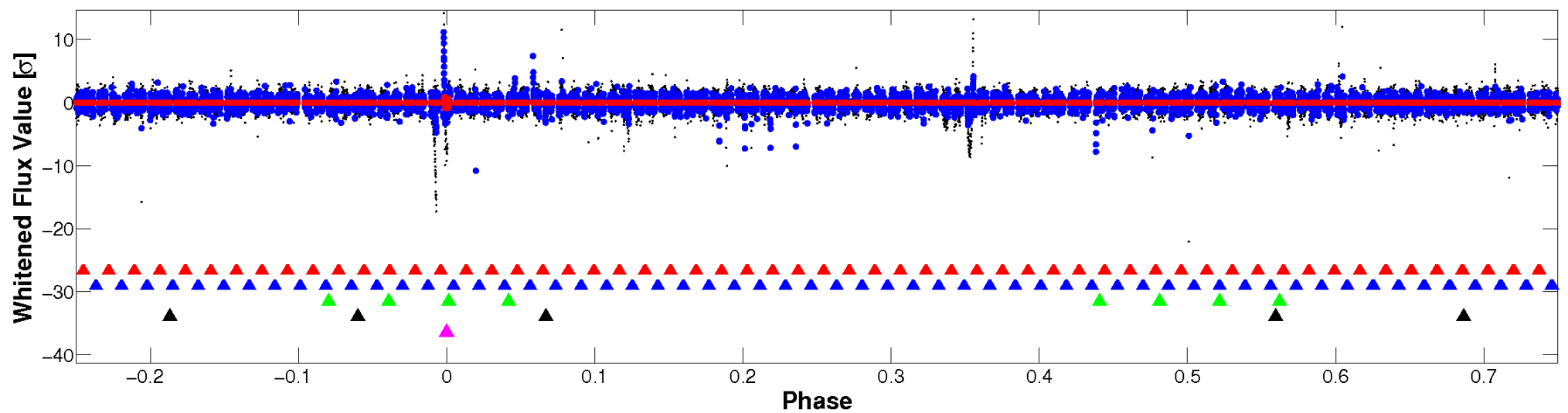


Non-Whitened Vs. Whitened Light Curve

Planet 5 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

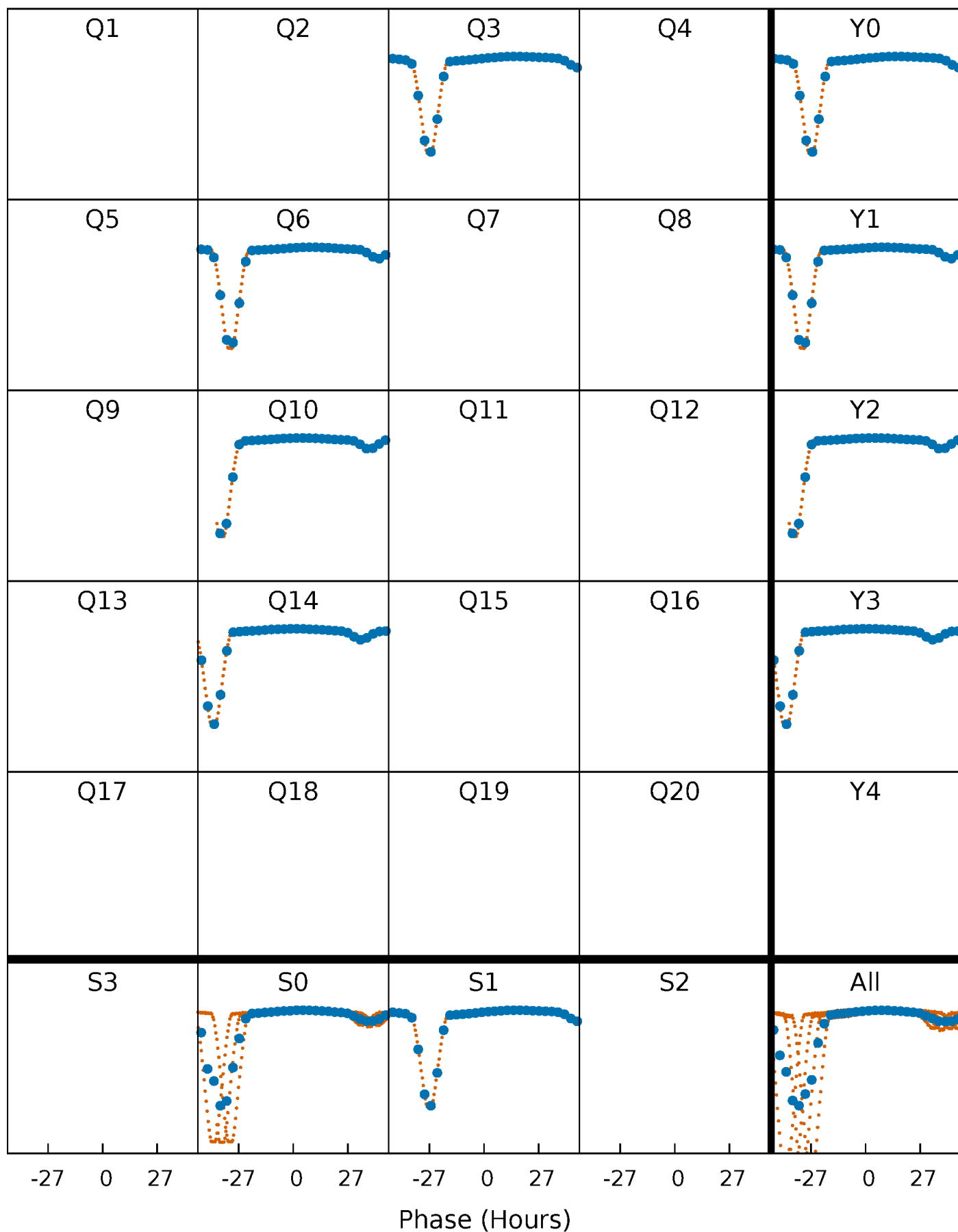


Planet 5 : Phased Whitened Flux Time Series (Fit Epoch/Period)



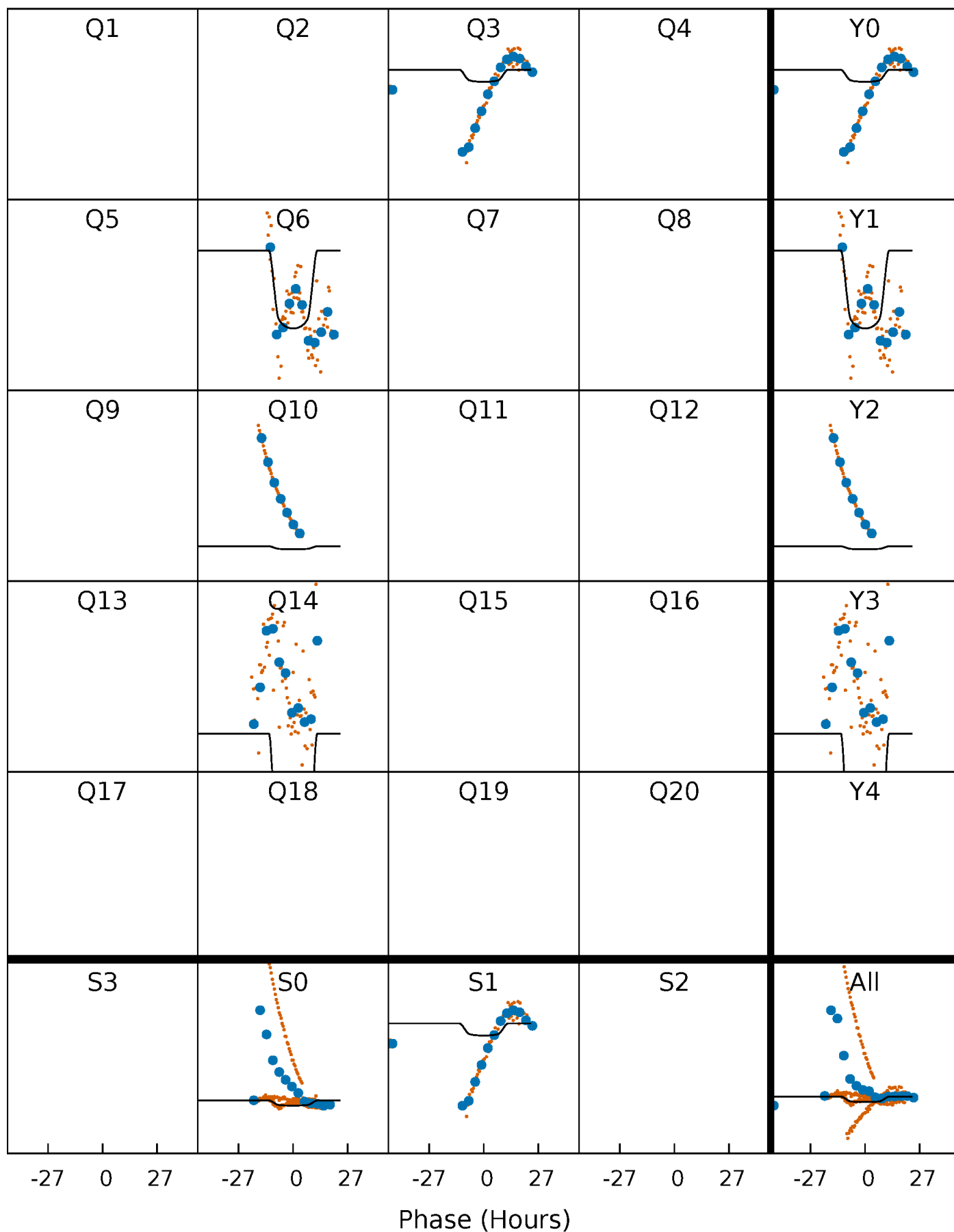
PDC Quarter-Phased Transit Curves

TCE 012071006-05 $P=353.743218$ Days $T_0=264.175984$ (BKJD)



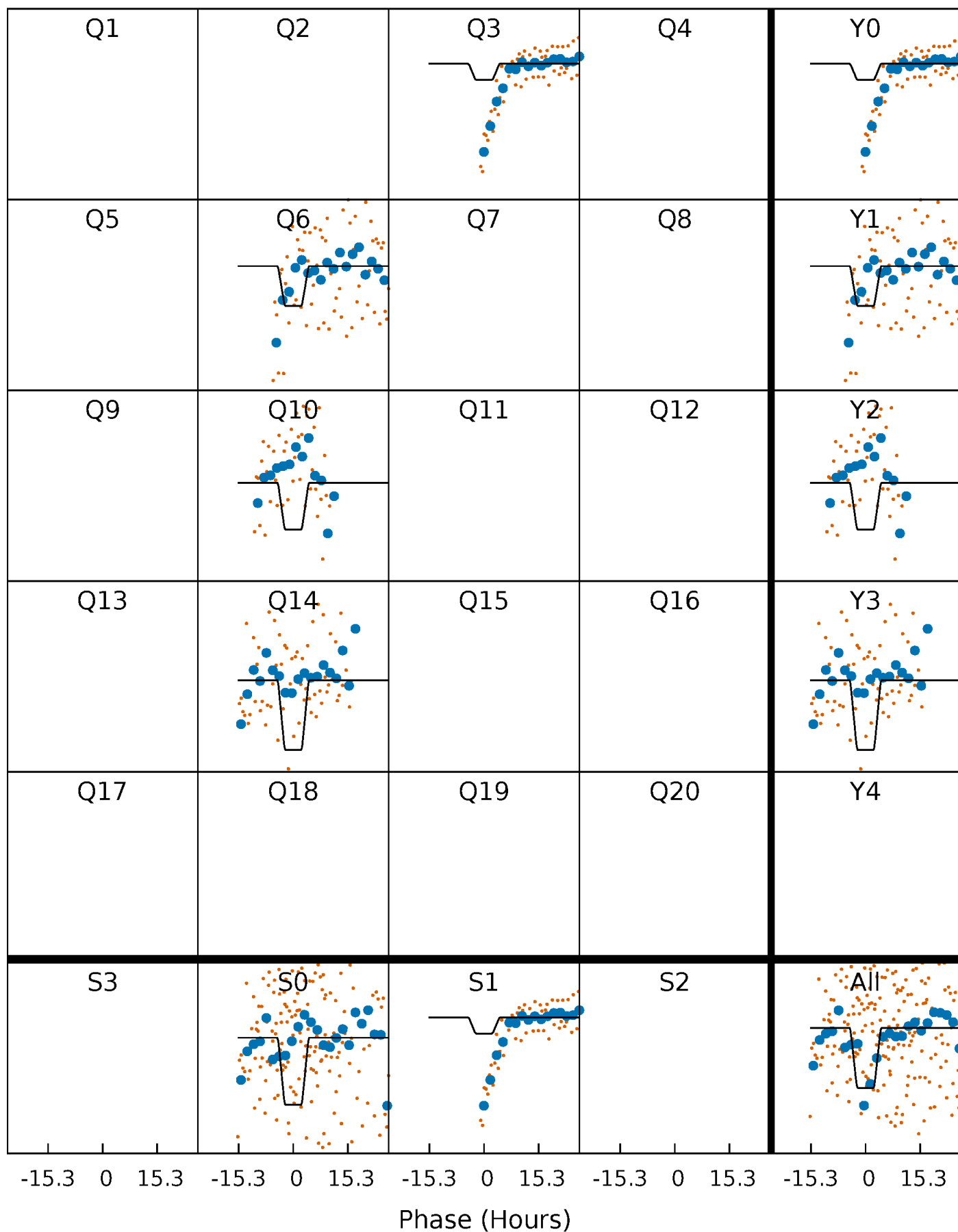
DV Quarter-Phased Transit Curves

TCE 012071006-05 $P=353.743218$ Days $T_0=264.175984$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

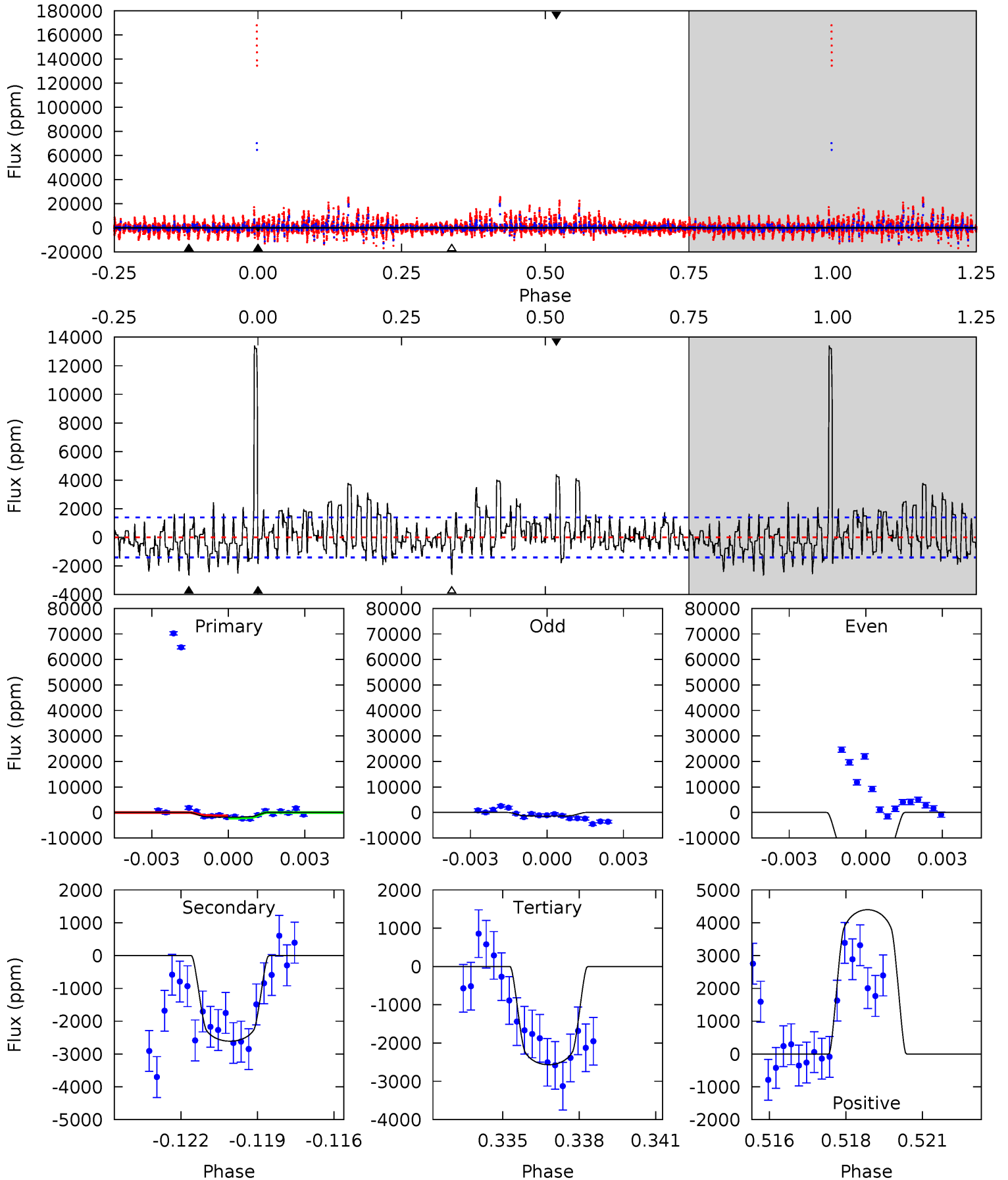
TCE 012071006-05 P=353.779847 Days $T_0=263.839141$ (BKJD)



DV Model-Shift Uniqueness Test

012071006-05, P = 353.743218 Days, E = 264.175984 Days

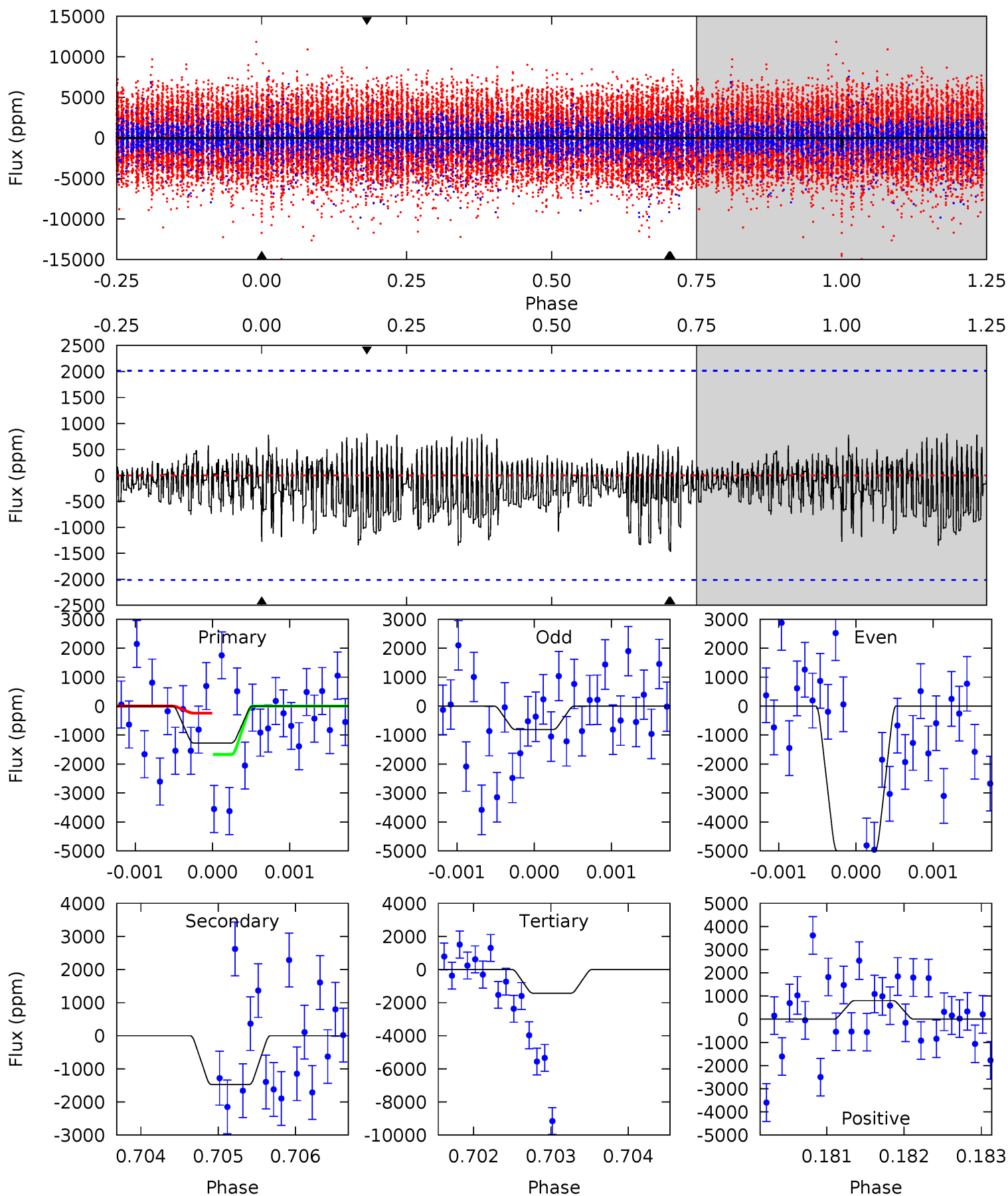
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.92	9.84	9.68	16.6	5.27	2.99	4.37	-2.76	-9.66	0.17	-6.74	17.9	-6.09	0.84	0



Alt Model-Shift Uniqueness Test

012071006-05, P = 353.779847 Days, E = 263.839141 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.45	3.98	3.86	2.17	5.45	3.28	0.93	-0.42	1.27	0.12	1.81	5.88	4.57	0.35	1.91



Stellar Parameters For KIC 012071006

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7598^{+75}_{-83}	$3.867^{+0.163}_{-0.075}$	$0.060^{+0.100}_{-0.150}$	$2.692^{+0.260}_{-0.607}$	$1.945^{+0.027}_{-0.228}$	$0.140^{+0.124}_{-0.034}$
	+1%/-1%	+4%/-2%	+167%/-250%	+10%/-23%	+1%/-12%	+89%/-24%
Source	SPE68	SPE68	SPE68	DSEP		

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

Secondary Eclipse Parameters for KIC 012071006-05 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-2610 ± 265	$19.16^{+2.41}_{-2.52}$	693^{+23}_{-35}	6546^{+388}_{-345}	5800^{+2023}_{-1326}
Alt.	-1472 ± 370	$16.29^{+2.20}_{-2.26}$	693^{+22}_{-36}	6118^{+530}_{-515}	4434^{+2055}_{-1397}

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 $A_{obs} \gg 1.0$

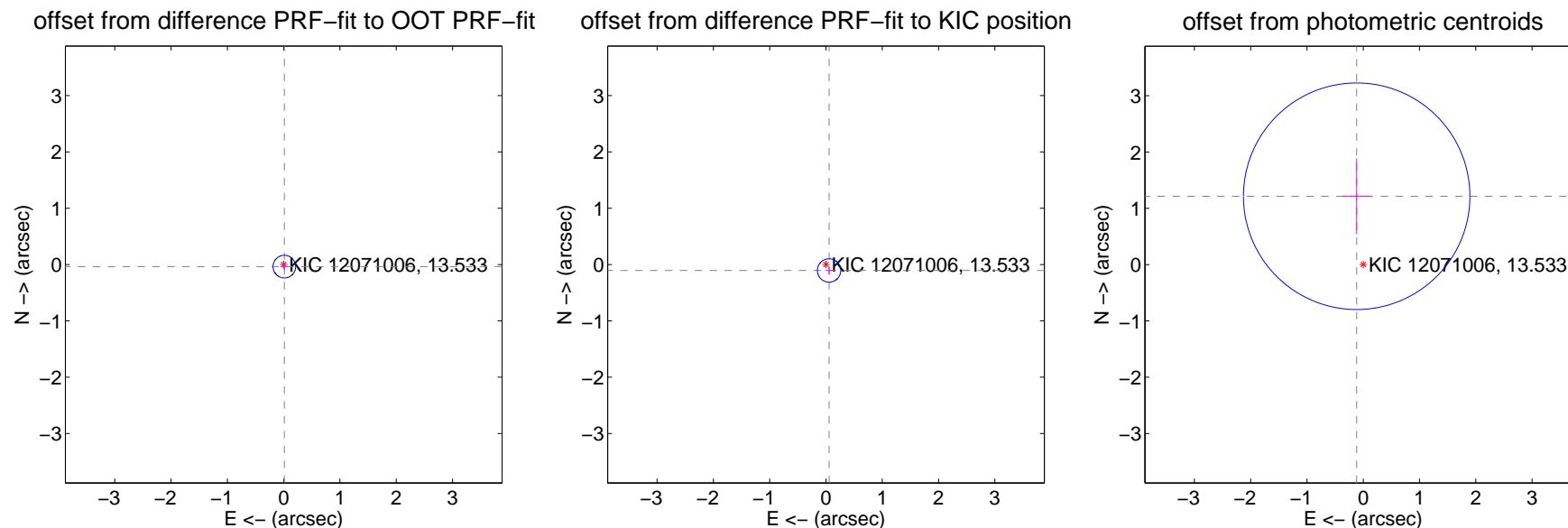
DV Centroid Data

Supplemental centroid analysis for 012071006-05. Kepler magnitude: 13.53. Transit SNR 7.54

There are 0 quarters with good PRF difference image offsets

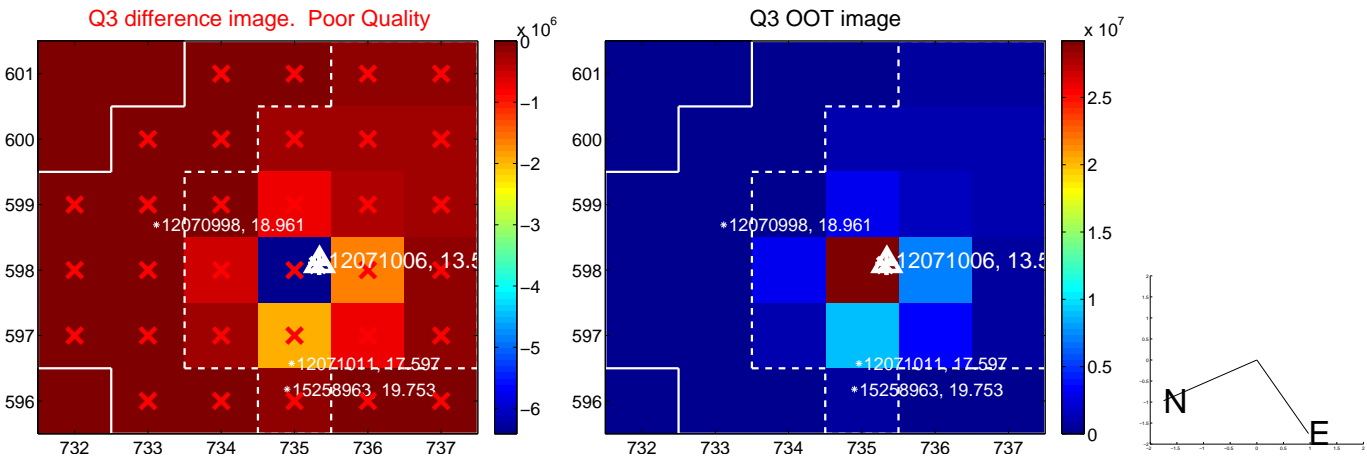
The direct PRF centroid is offset from the target star catalog position by about 0.03 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.039 ± 0.067	0.58	-0.012 ± 0.067	-0.037 ± 0.067
PRF-fit source offset from KIC position	0.119 ± 0.069	1.72	-0.055 ± 0.067	-0.105 ± 0.071
photometric centroid source offset	1.22 ± 0.67	1.82	0.12 ± 0.25	1.21 ± 0.67

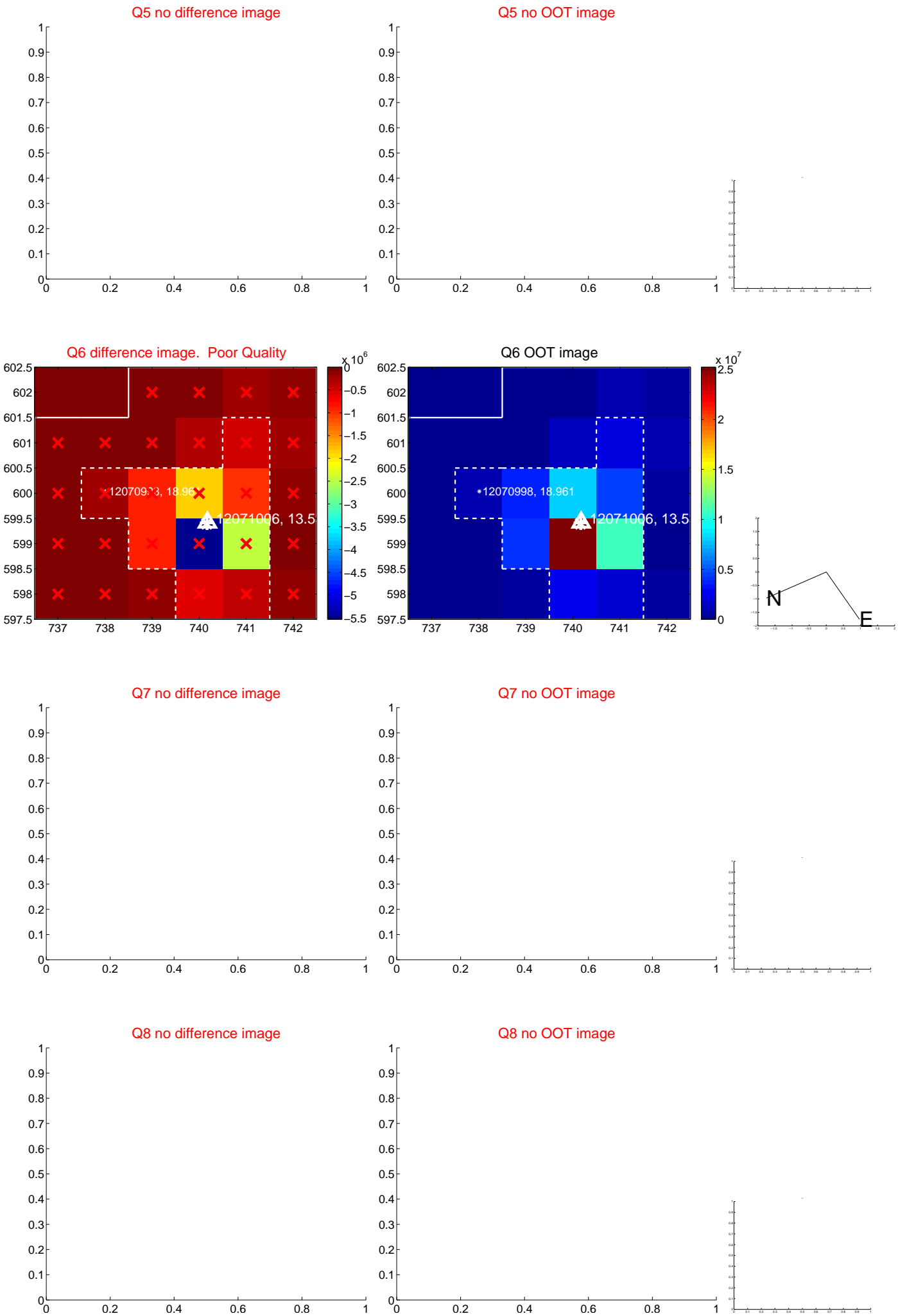


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

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



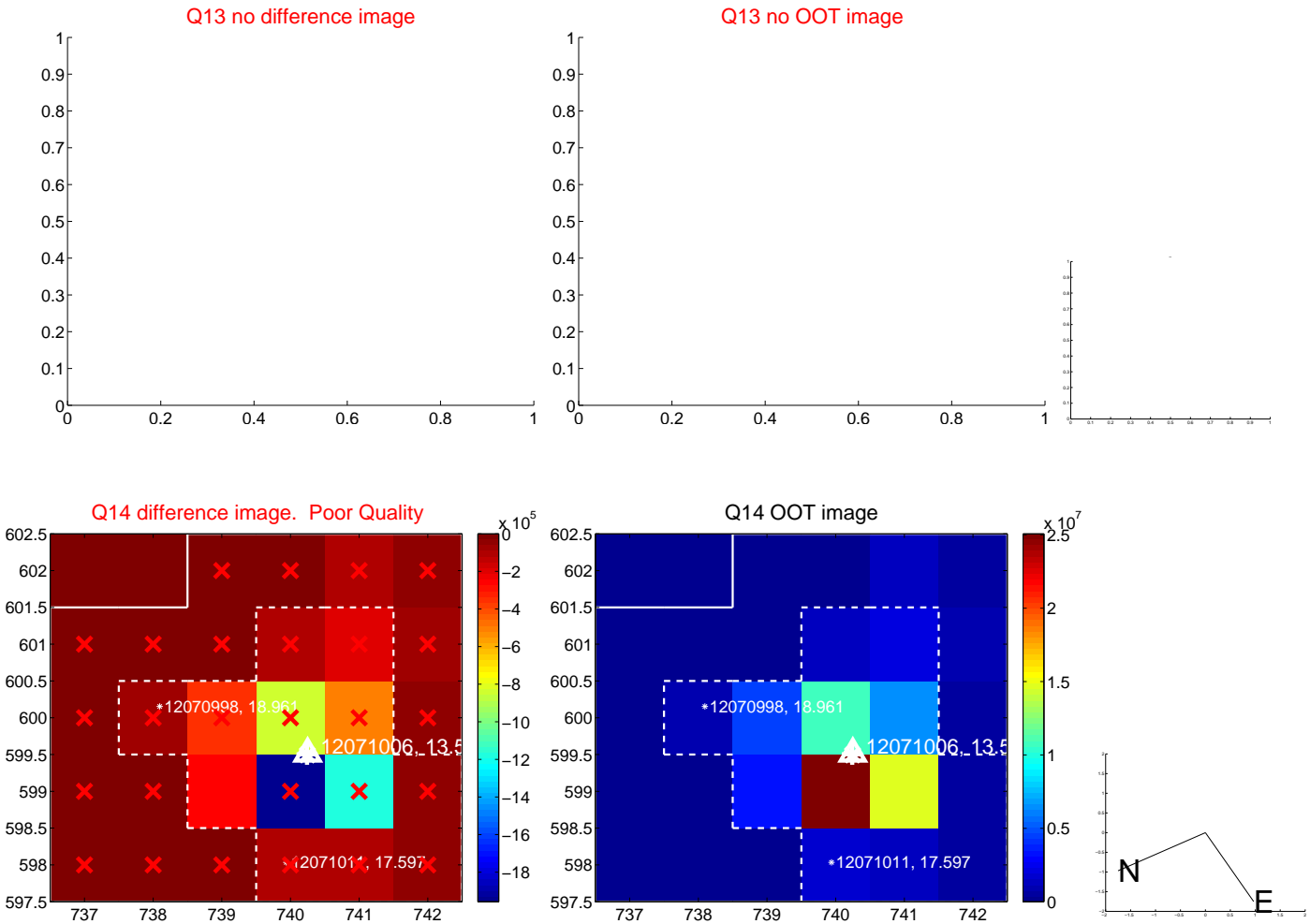
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



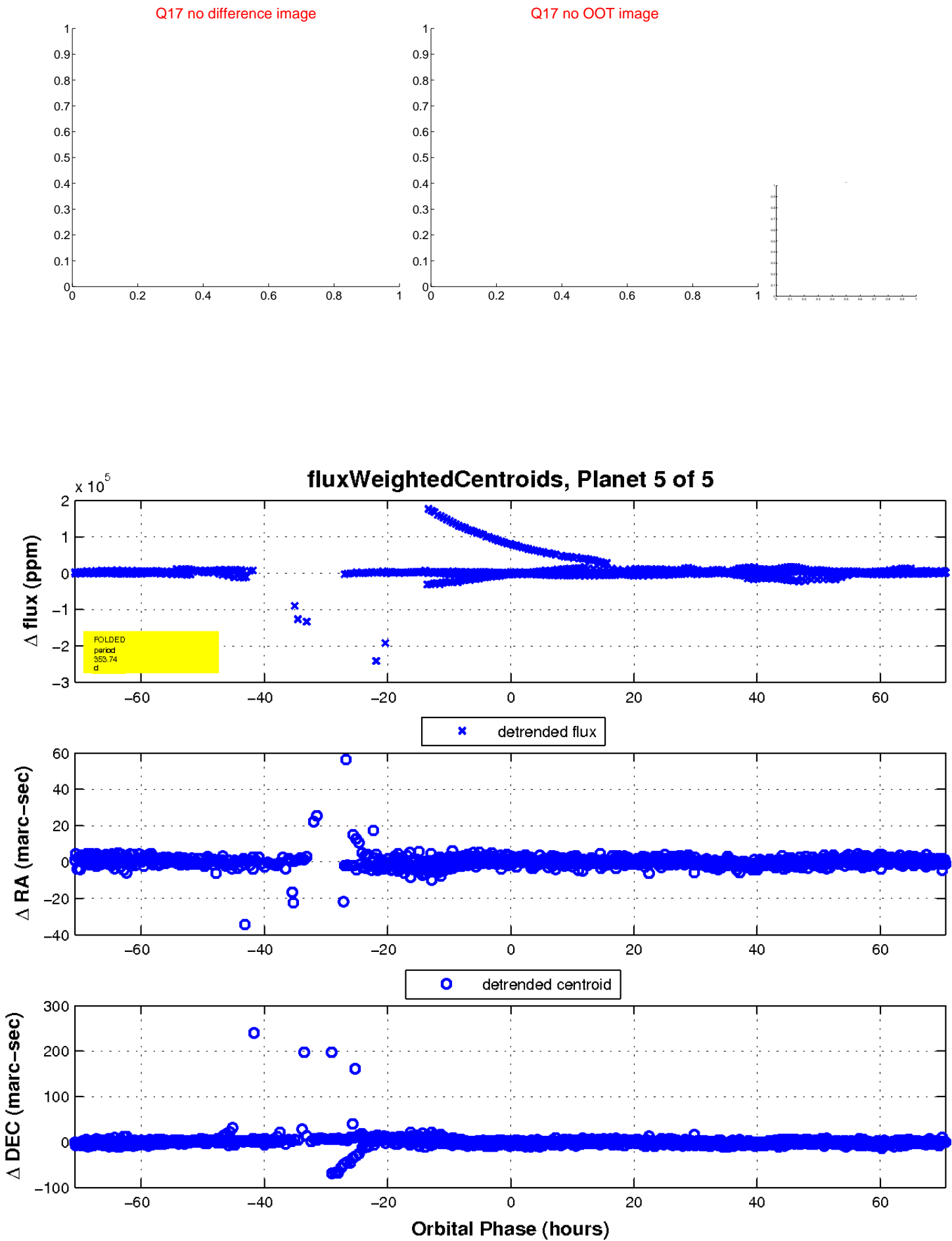
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



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



UKIRT Image

Declination

