

KIC 007605600

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})
007605600-01	OBS	6893.01	3.326193	133.329789	175537.3	2.073	3452.3	2438.3	0.35	3520	14.67	17.47
007605600-02	OBS	No	3.326193	131.666998	46409.7	2.035	930.6	898.2	0.35	3520	7.74	17.47

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007605600-01	OBS	FP	0.00	0	1	0	0	MOD_SEC_DV—MOD_SEC_ALT—HAS_SEC_TCE—CENT_KIC_POS
007605600-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE—CENT_KIC_POS

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.

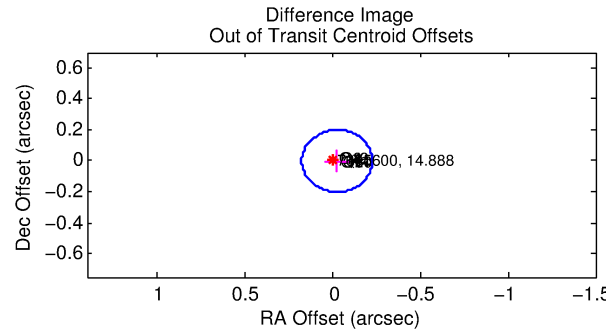
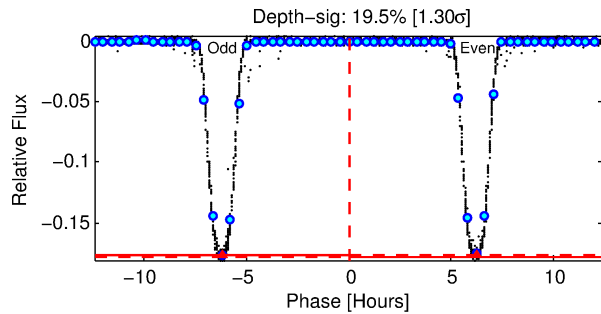
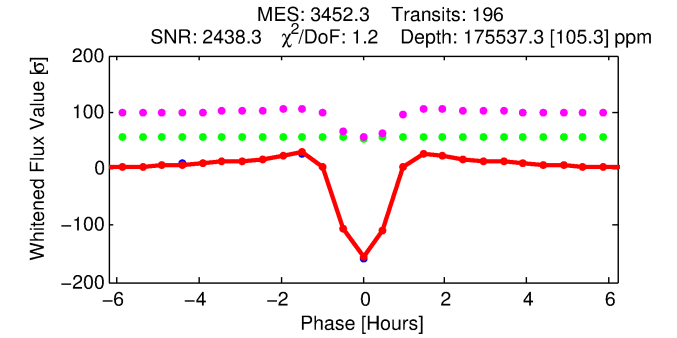
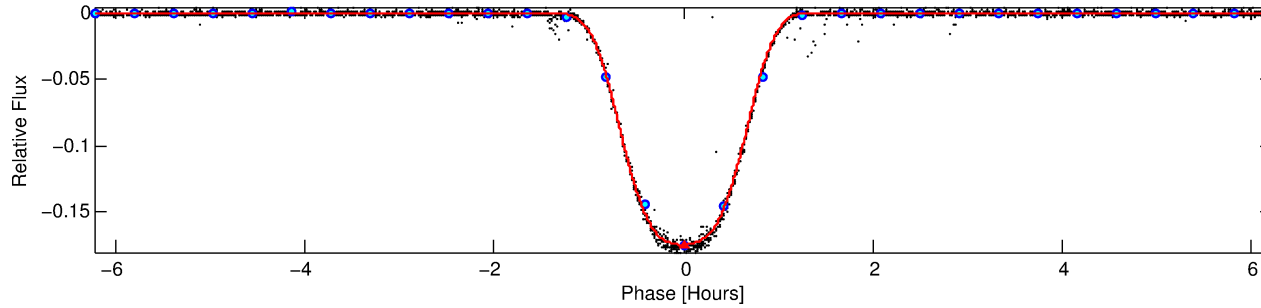
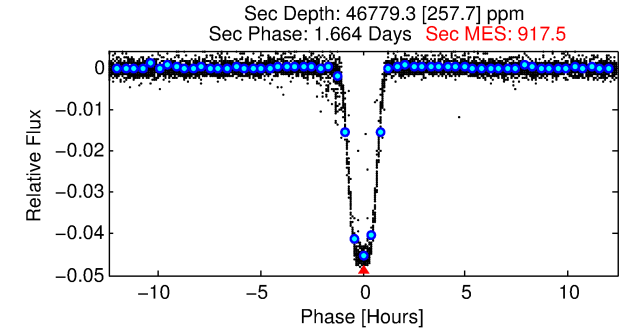
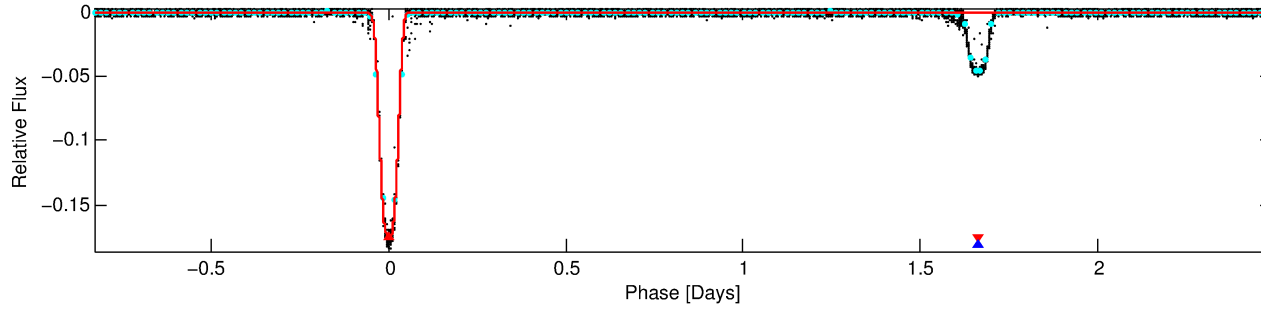
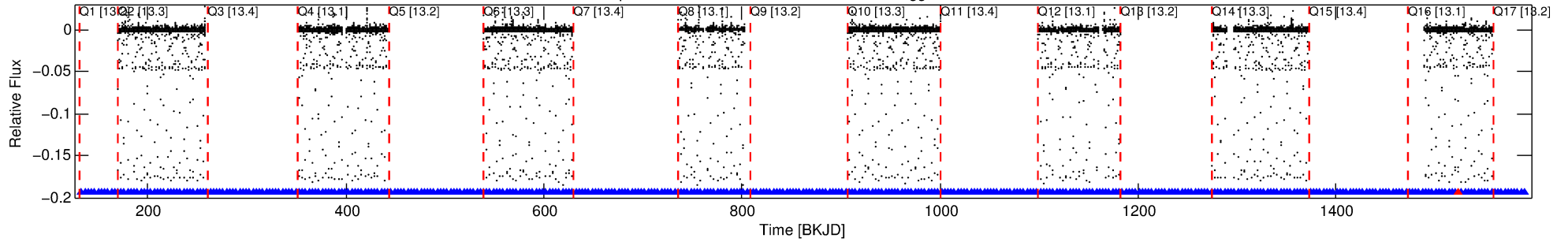
Ephemeris Match Information For 007605600-01

No Significant Match Found

DV One-Page Summary

KIC: 7605600 Candidate: 1 of 2 Period: 3.326 d
KOI: K06893.01 Corr: 0.996

Kp: 14.89 R*: 0.35 Rs Teff: 3520.0 K Logg: 4.91 Fe/H: -0.200



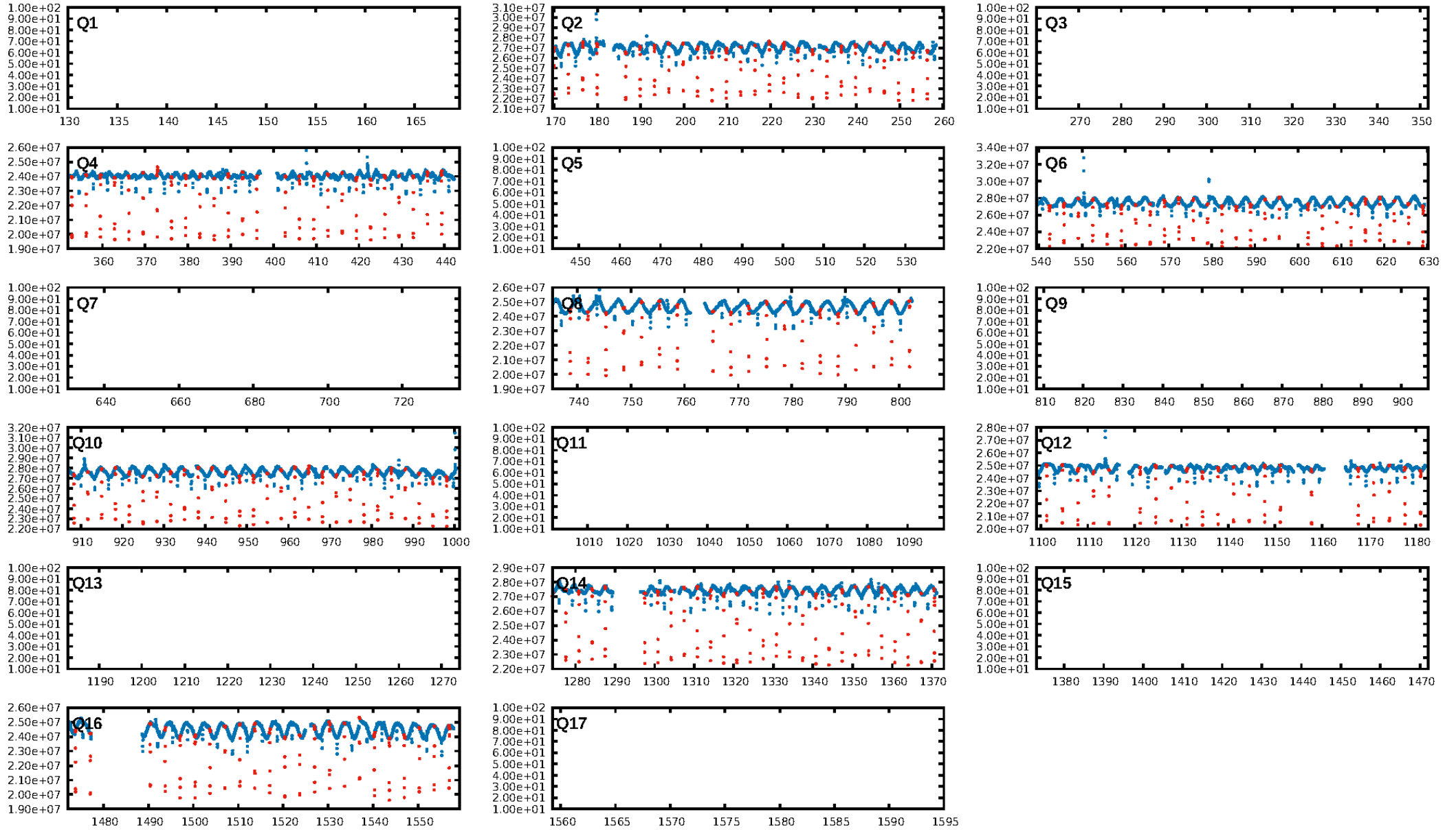
DV Fit Results:

Period = 3.32619 [0.00000] d
Epoch = 133.3298 [0.0000] BKJD
Rp/R* = 0.3852 [0.0003]
a/R* = 17.00 [0.03]
b = 0.00 [37.54]
Seff = 17.47 [1.74]
Teq = 521 [13] K
Rp = 14.67 [1.43] Re
a = 0.0310 [0.0022] AU
Ag = 114.67 [9.69] [11.73σ]
Teffp = 2638 [35] K [56.09σ]

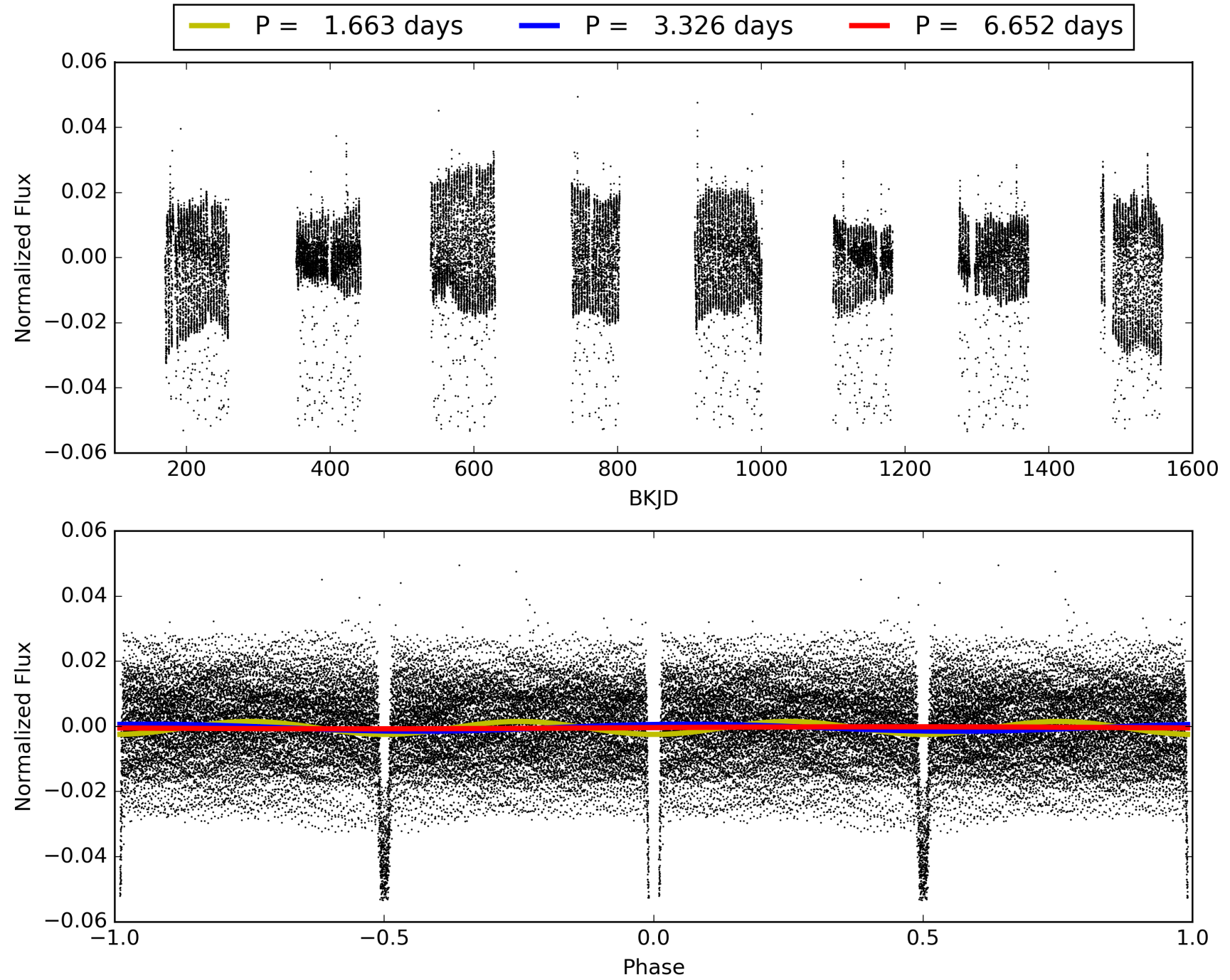
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 0.0% [0.00σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 51.6%
Bootstrap-pfa: N/A
RollingBand-fgt: 0.99 [195/196]
GhostDiagnostic-chr: 1.896
Centroid-sig: 0.0%
Centroid-so: 0.372 arcsec [251.34σ]
OotOffset-rm: 0.025 arcsec [0.37σ]
KicOffset-rm: 0.650 arcsec [7.26σ]
OotOffset-st: 4/0/4/0 [8]
KicOffset-st: 4/0/4/0 [8]
DiffImageQuality-fgm: 1.00 [8/8]
DiffImageOverlap-fno: 1.00 [8/8]

TCE 007605600-01, PDC Light Curves

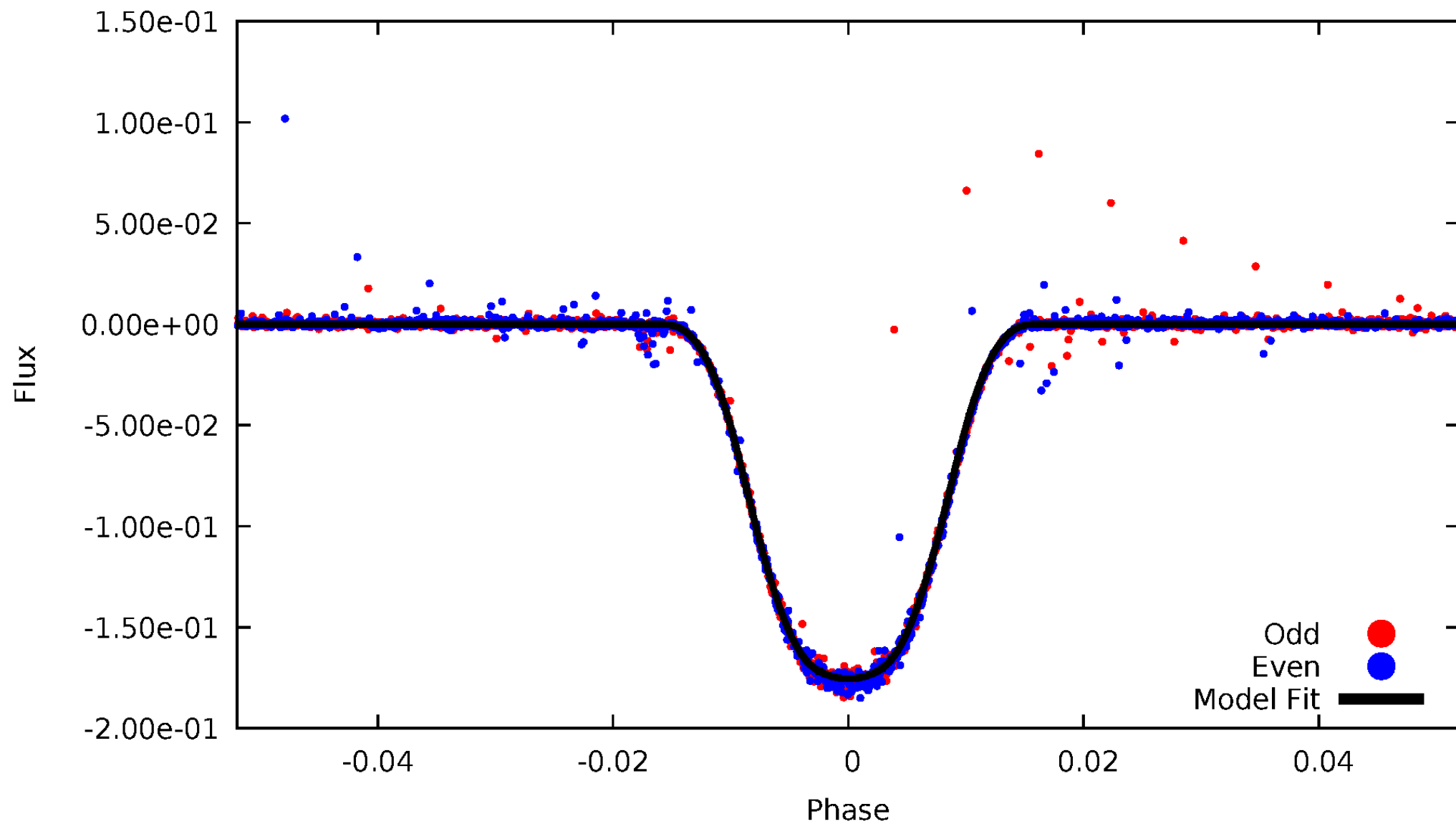


TCE 007605600-01



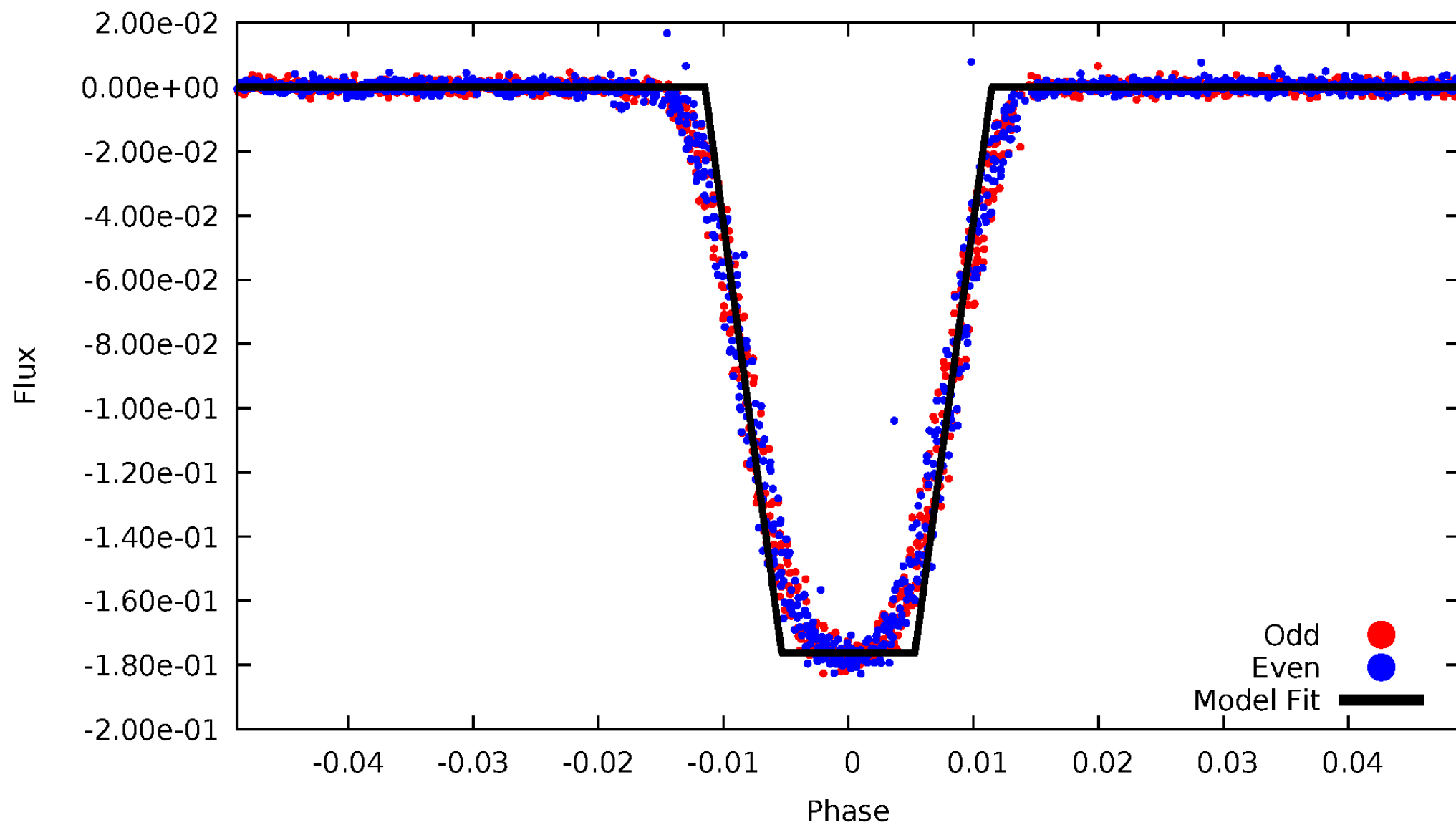
DV Odd/Even

TCE 007605600-01



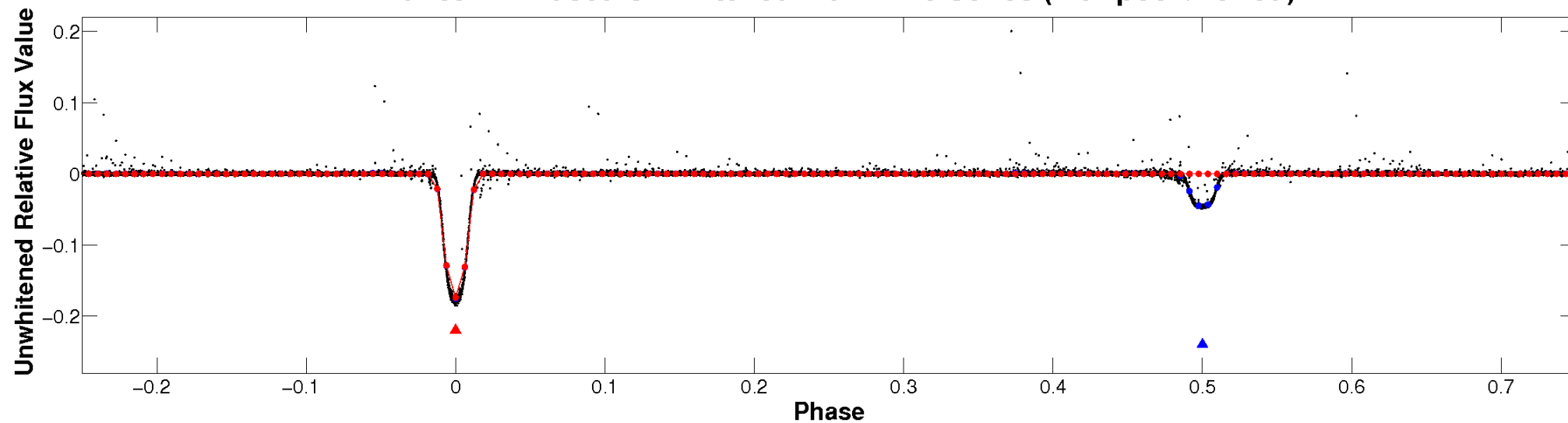
ALT Odd/Even

TCE 007605600-01

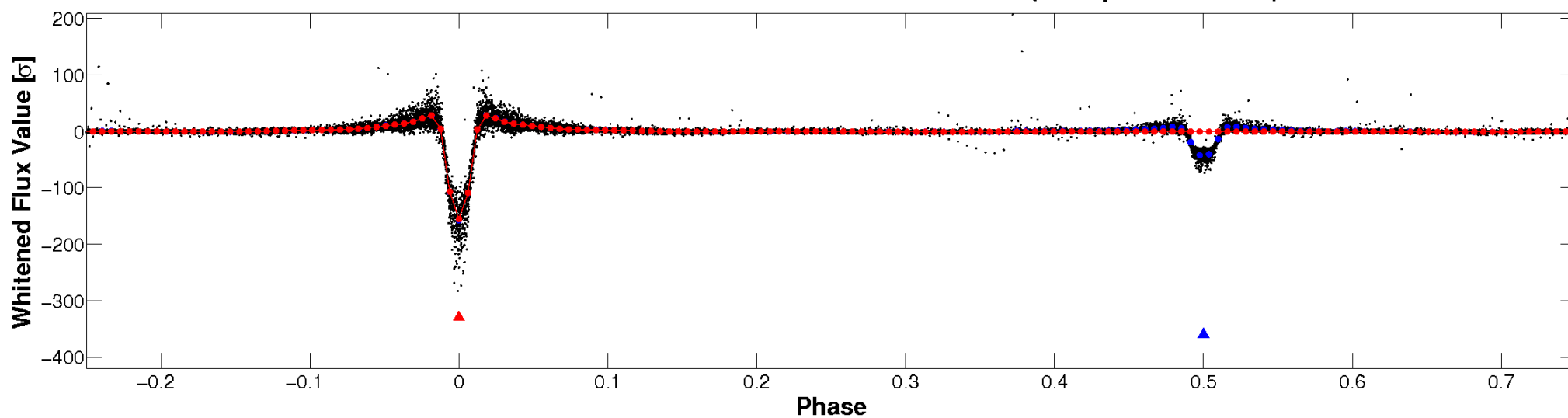


Non-Whitened Vs. Whitened Light Curve

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

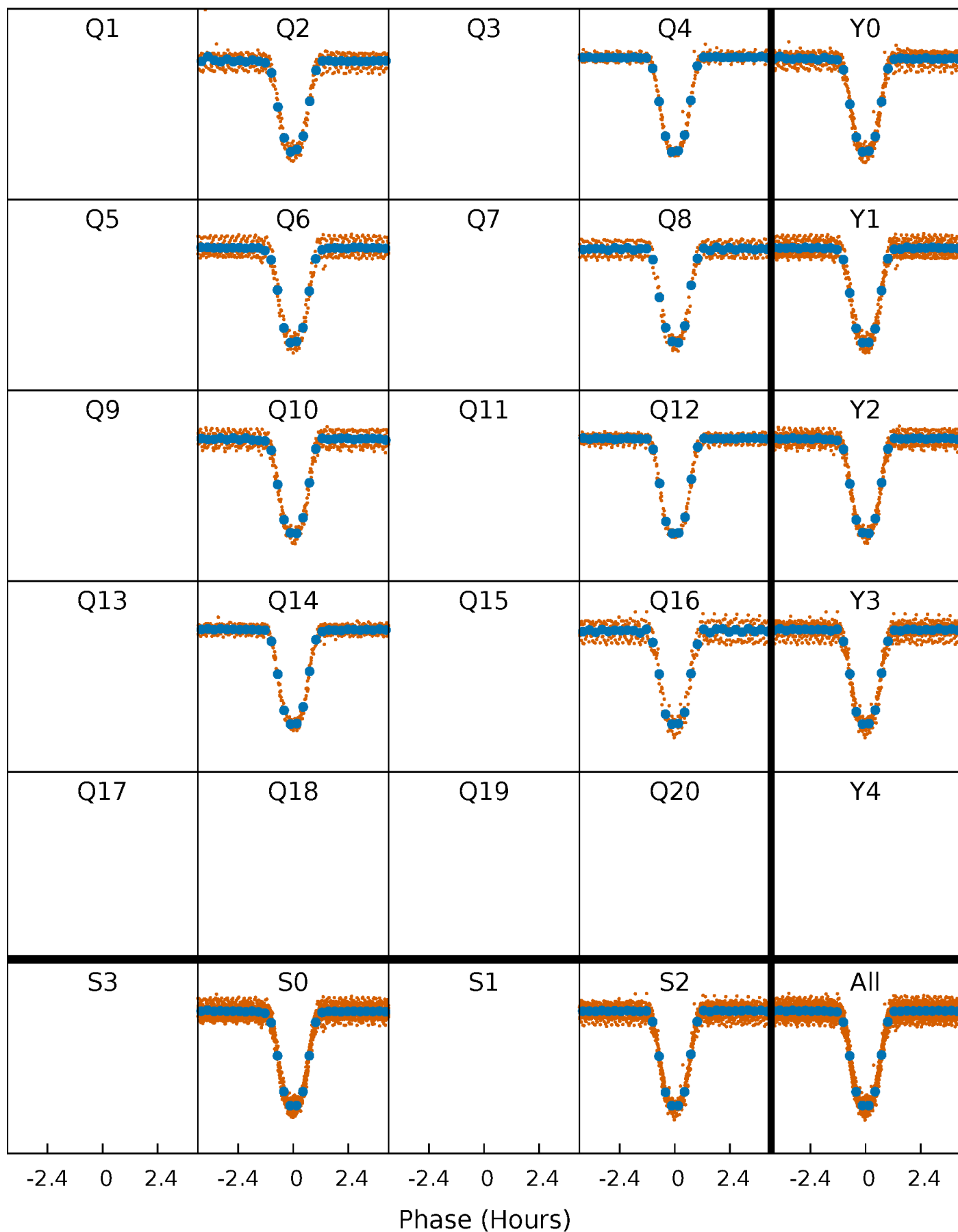


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



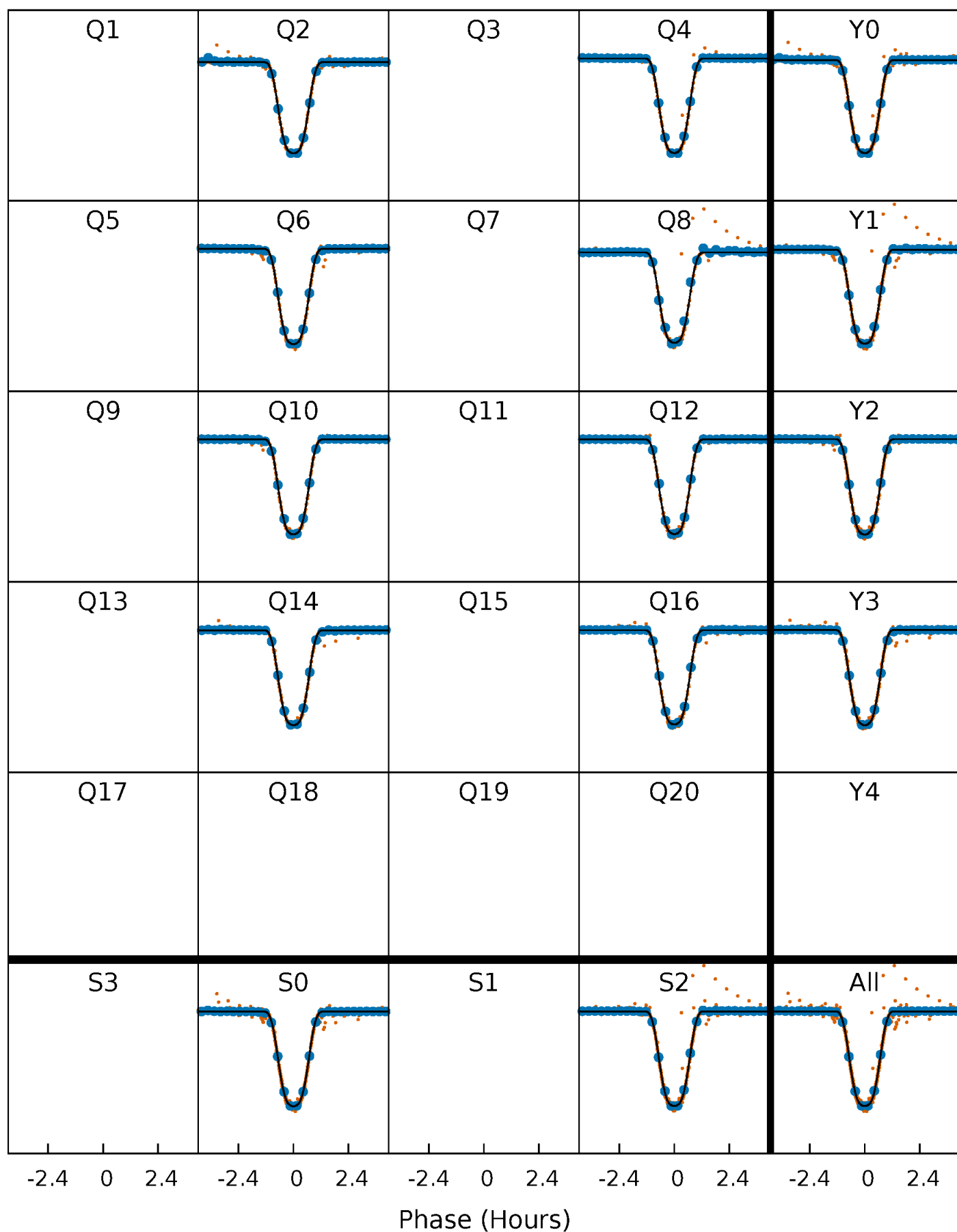
PDC Quarter-Phased Transit Curves

TCE 007605600-01 P= 3.326193 Days $T_0=133.329789$ (BKJD)



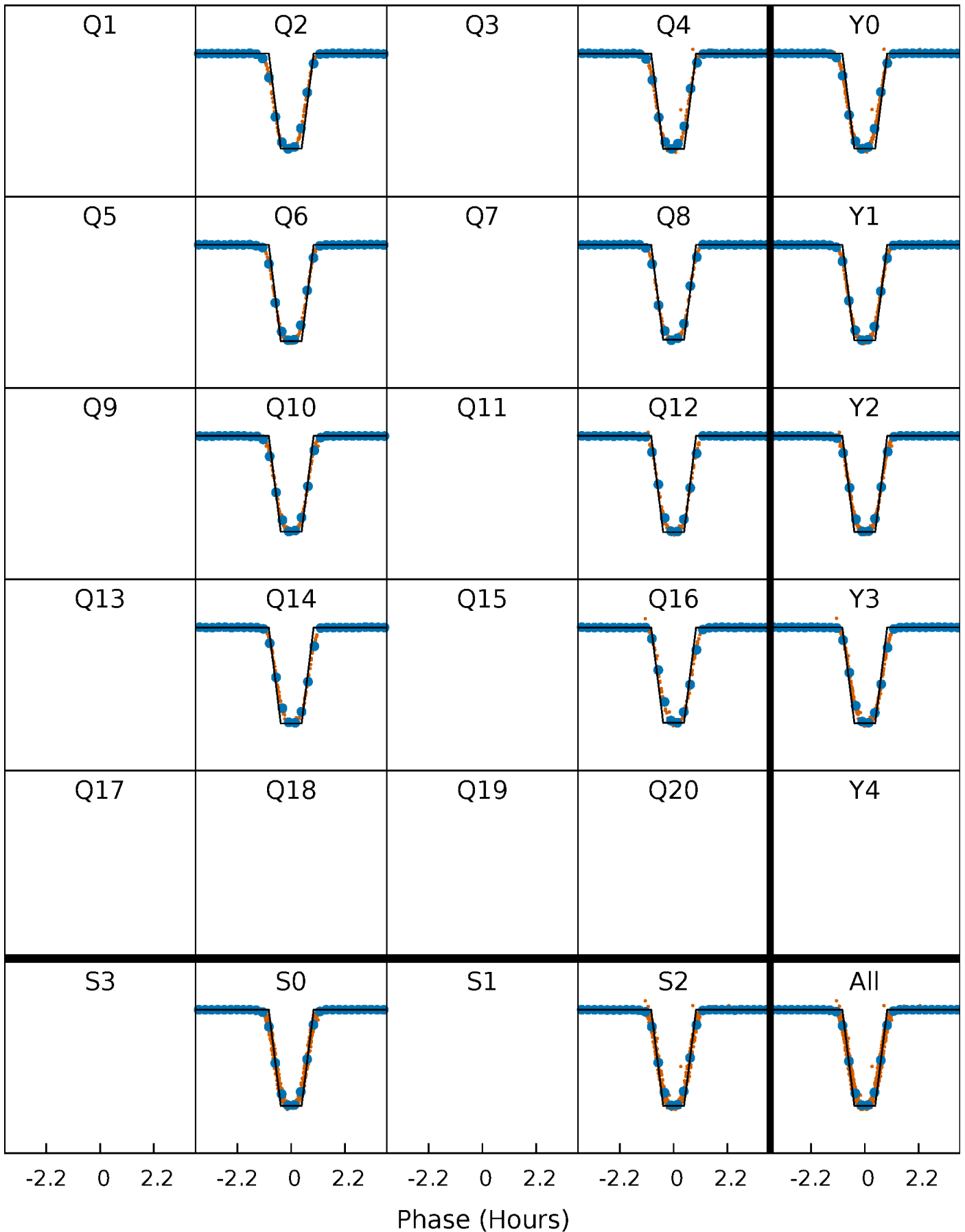
DV Quarter-Phased Transit Curves

TCE 007605600-01 P= 3.326193 Days $T_0=133.329789$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

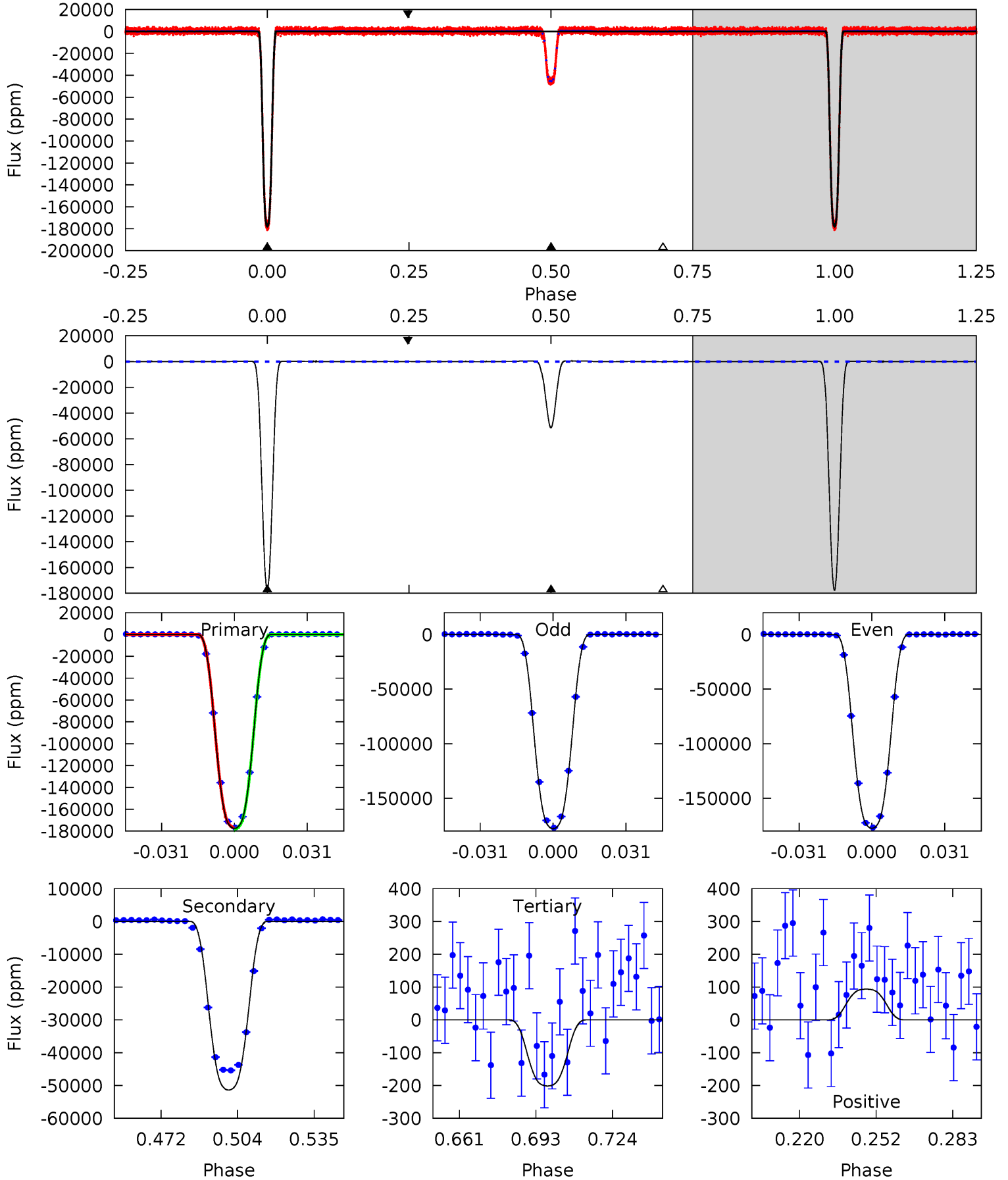
TCE 007605600-01 P= 3.326179 Days $T_0=133.333092$ (BKJD)



DV Model-Shift Uniqueness Test

007605600-01, P = 3.326193 Days, E = 133.329789 Days

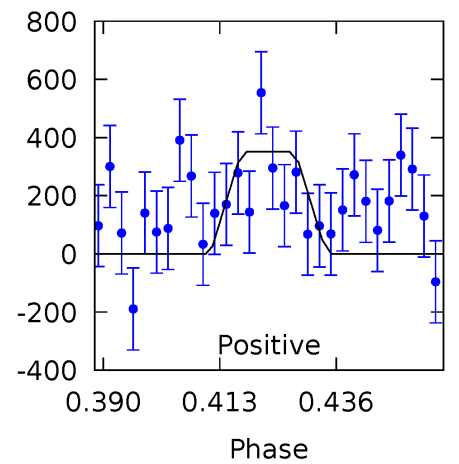
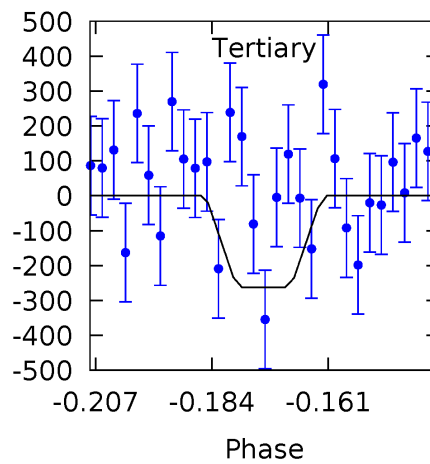
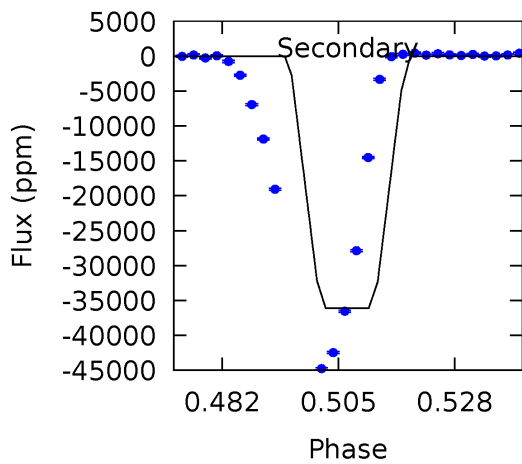
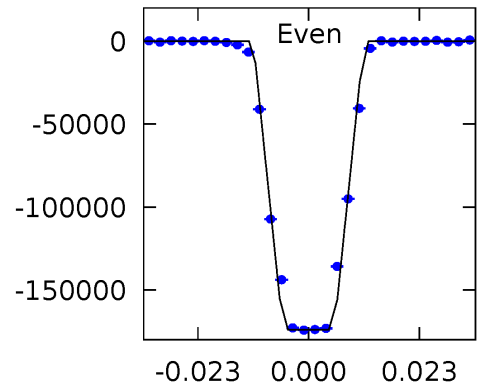
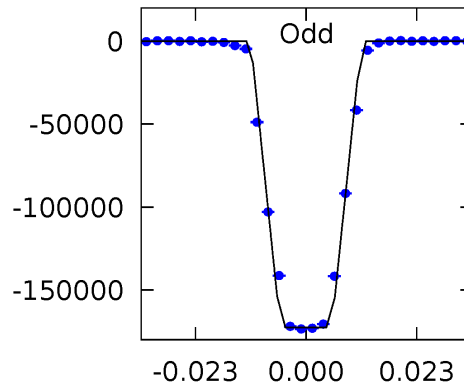
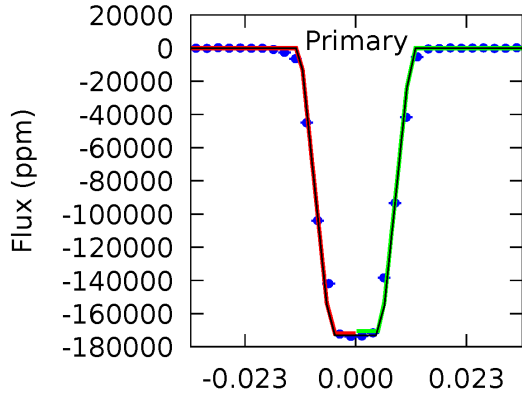
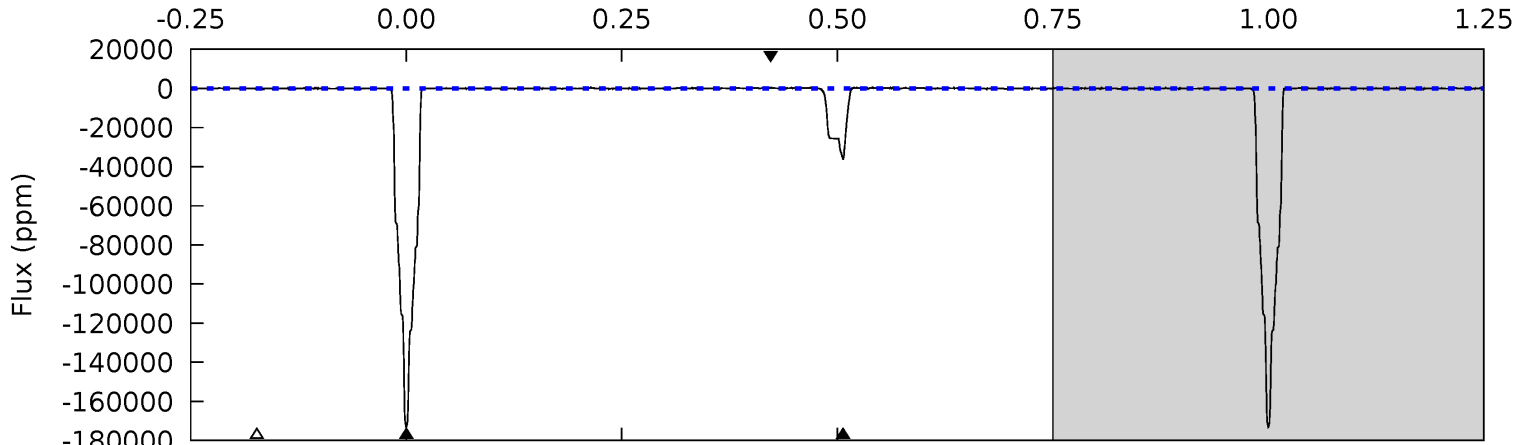
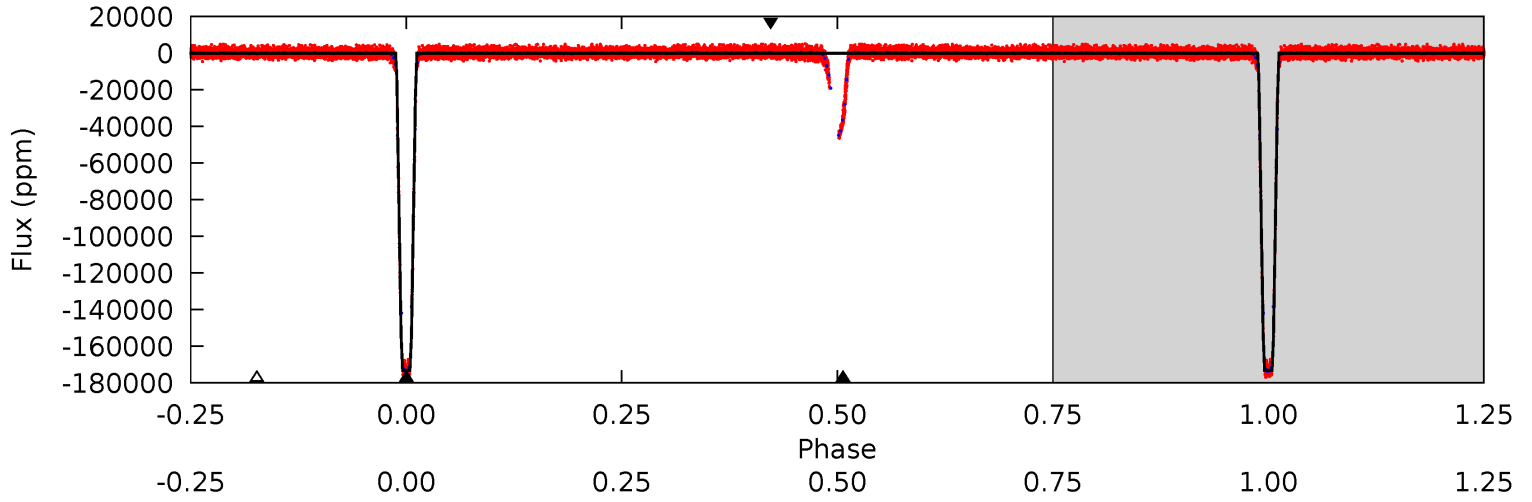
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4996	1446	5.67	2.63	4.80	2.15	3.96	4990	4993	1440	1443	5.58	0.99	0.00	16.9



Alt Model-Shift Uniqueness Test

007605600-01, P = 3.326179 Days, E = 133.333092 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2017	420.7	3.06	4.09	4.86	2.27	1.42	2014	2013	417.6	416.6	7.96	1.00	0.00	8.03



Stellar Parameters For KIC 007605600

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	3520^{+47}_{-47}	$4.906^{+0.035}_{-0.032}$	$-0.200^{+0.100}_{-0.100}$	$0.349^{+0.030}_{-0.034}$	$0.358^{+0.038}_{-0.041}$	$11.890^{+2.257}_{-1.724}$
	+1%/-1%	+1%/-1%	+50%/-50%	+9%/-10%	+11%/-11%	+19%/-14%
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 007605600-01 / KOI 6893.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-51399 ± 36	$14.72^{+0.70}_{-0.81}$	728^{+14}_{-15}	3025^{+36}_{-34}	133^{+9}_{-8}
Alt.	-36118 ± 86	$16.01^{+0.80}_{-0.81}$	728^{+15}_{-15}	2806^{+32}_{-31}	77^{+5}_{-4}

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 $A_{obs} \gg 1.0$

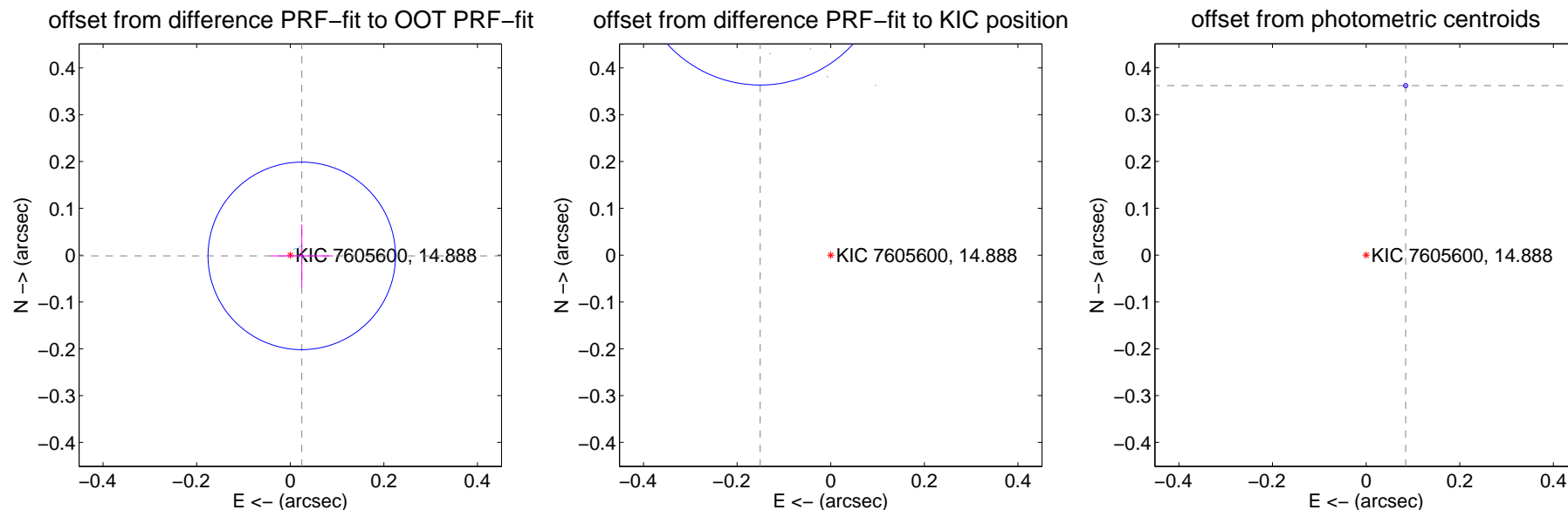
DV Centroid Data

Supplemental centroid analysis for 007605600-01. Kepler magnitude: 14.89. Transit SNR 2438.30

There are 8 quarters with good PRF difference image offsets

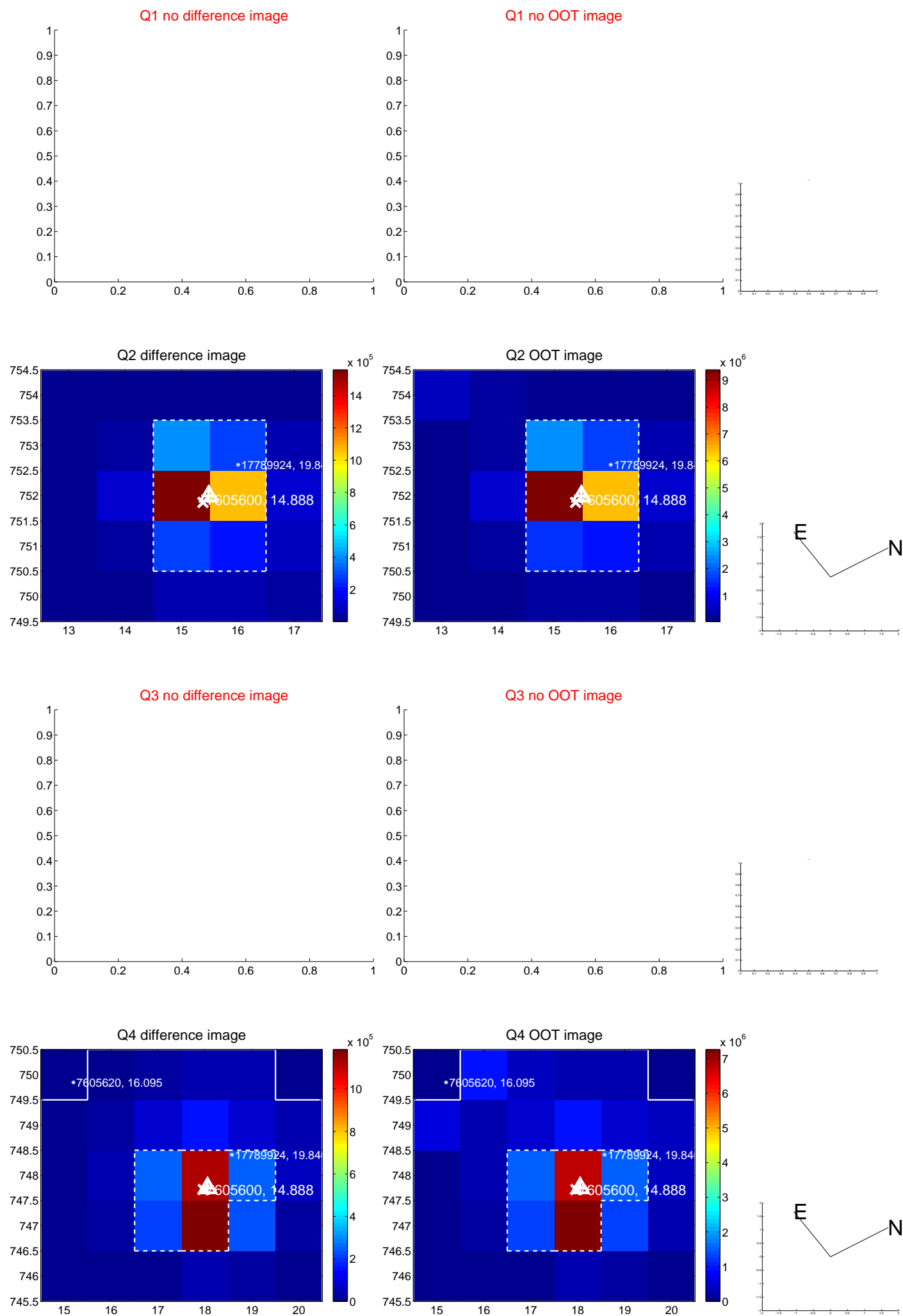
The direct PRF centroid is offset from the target star catalog position by about 0.44 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.025 ± 0.067	0.37	-0.025 ± 0.067	-0.002 ± 0.067
PRF-fit source offset from KIC position	0.650 ± 0.089	7.26	0.151 ± 0.079	0.632 ± 0.085
photometric centroid source offset	0.37 ± 0.00	251.34	-0.08 ± 0.00	0.36 ± 0.00

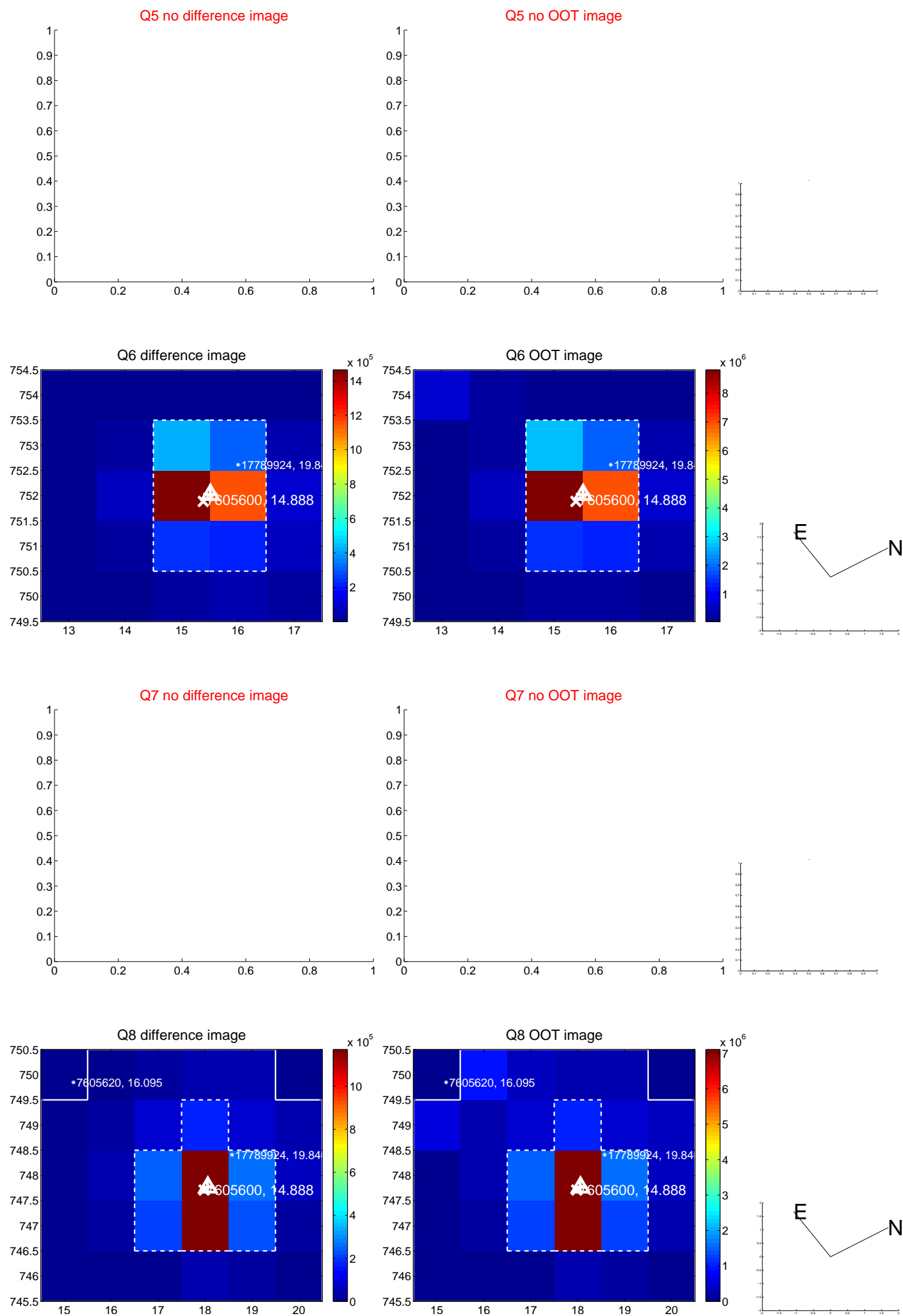


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

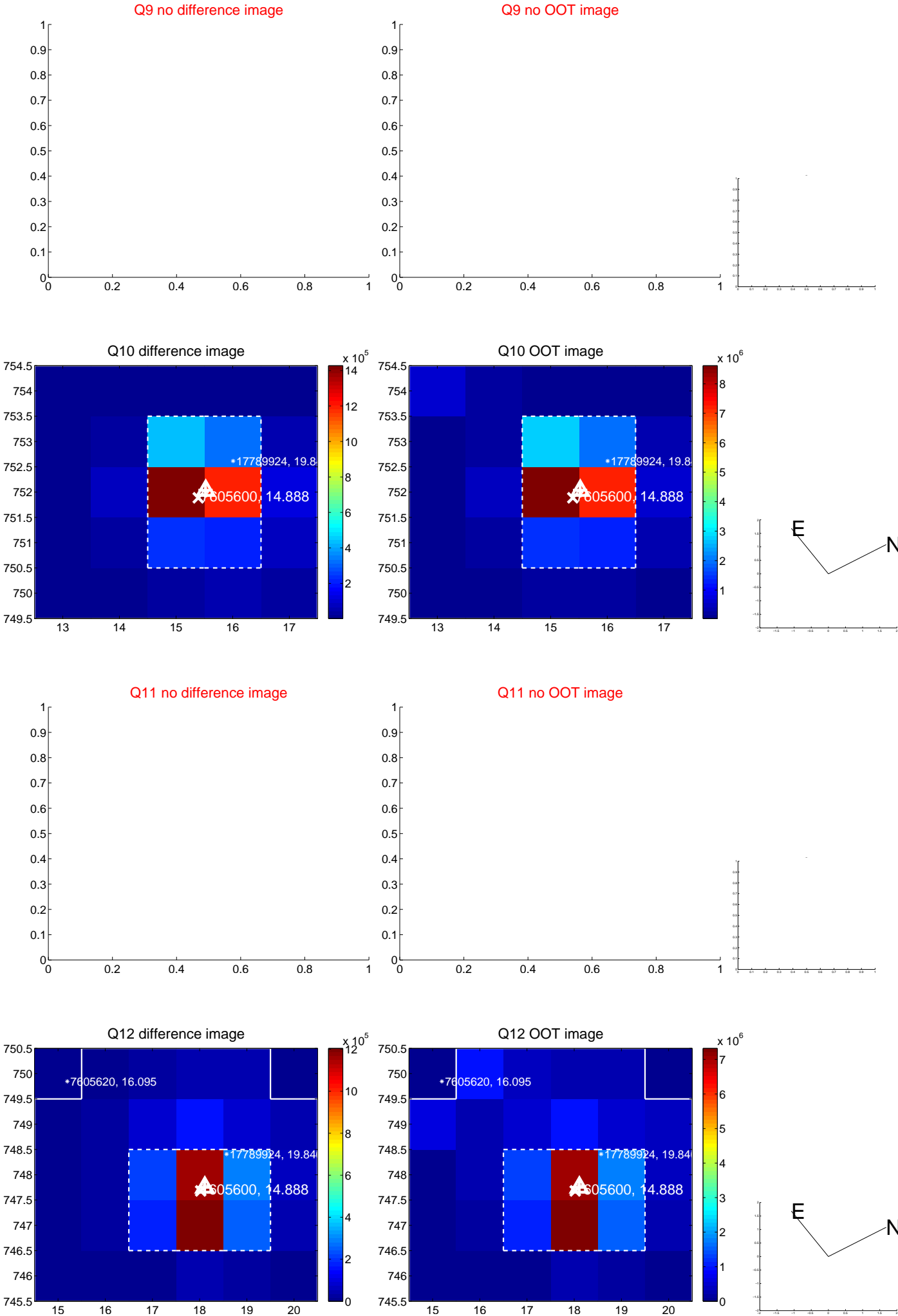
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



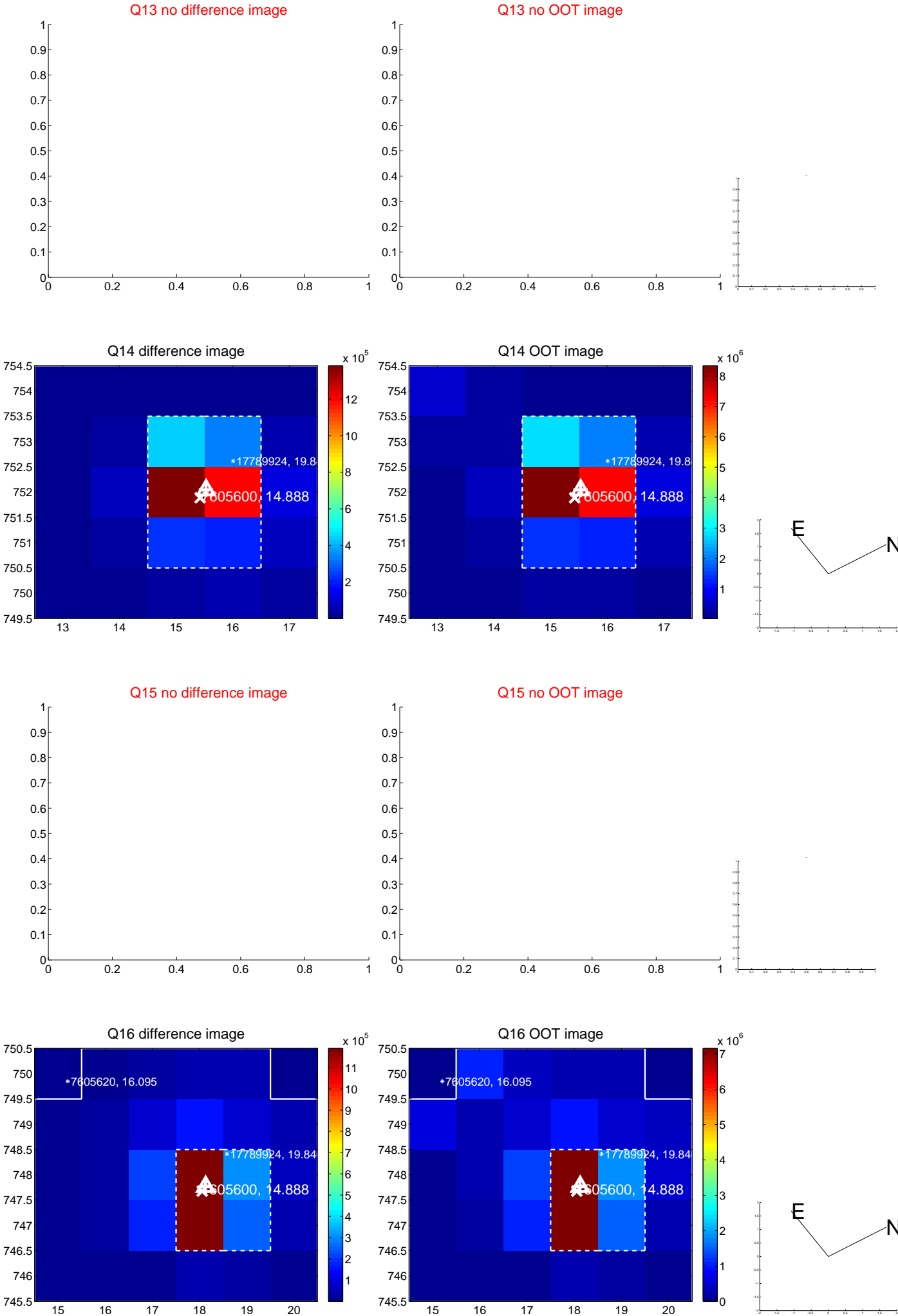
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



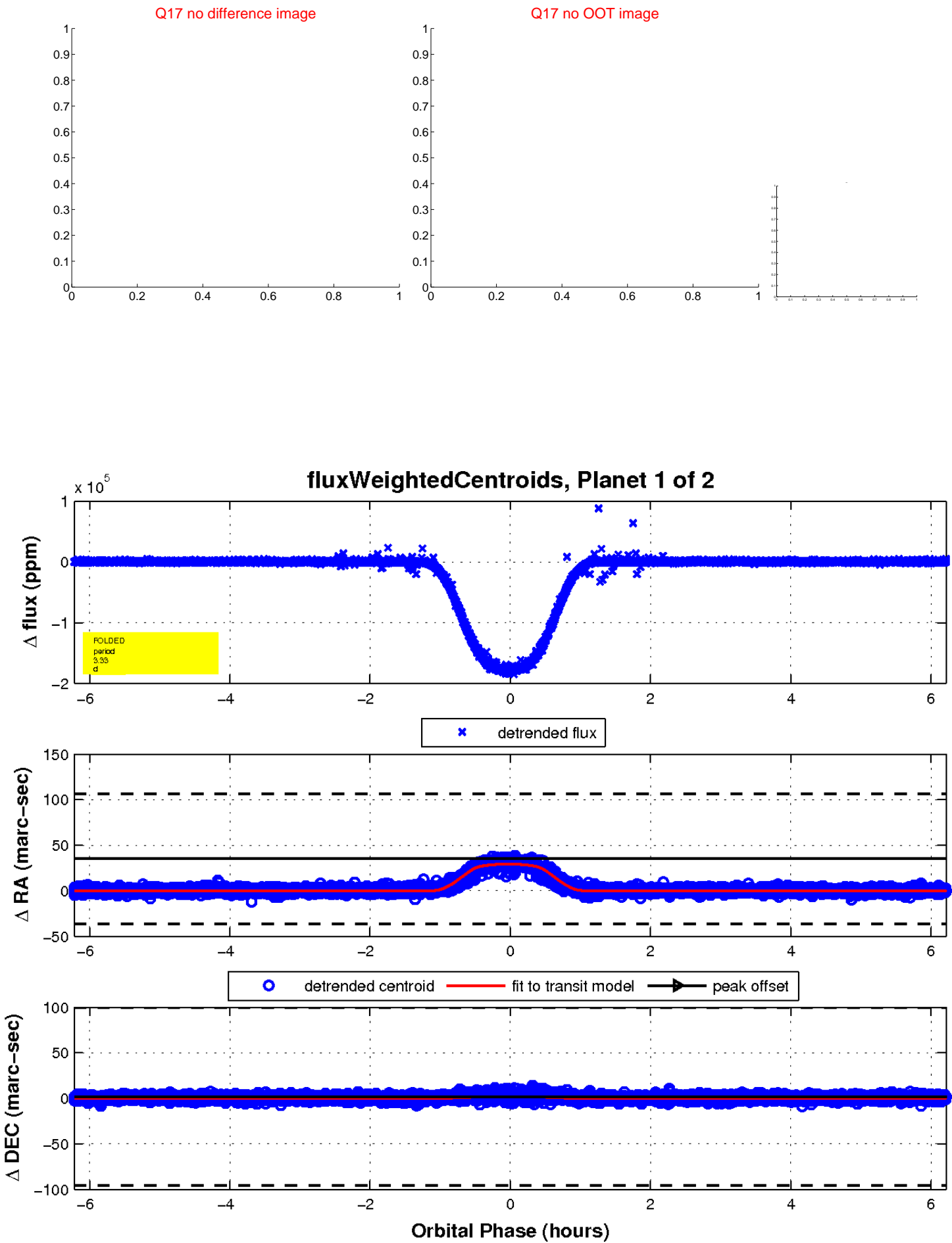
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

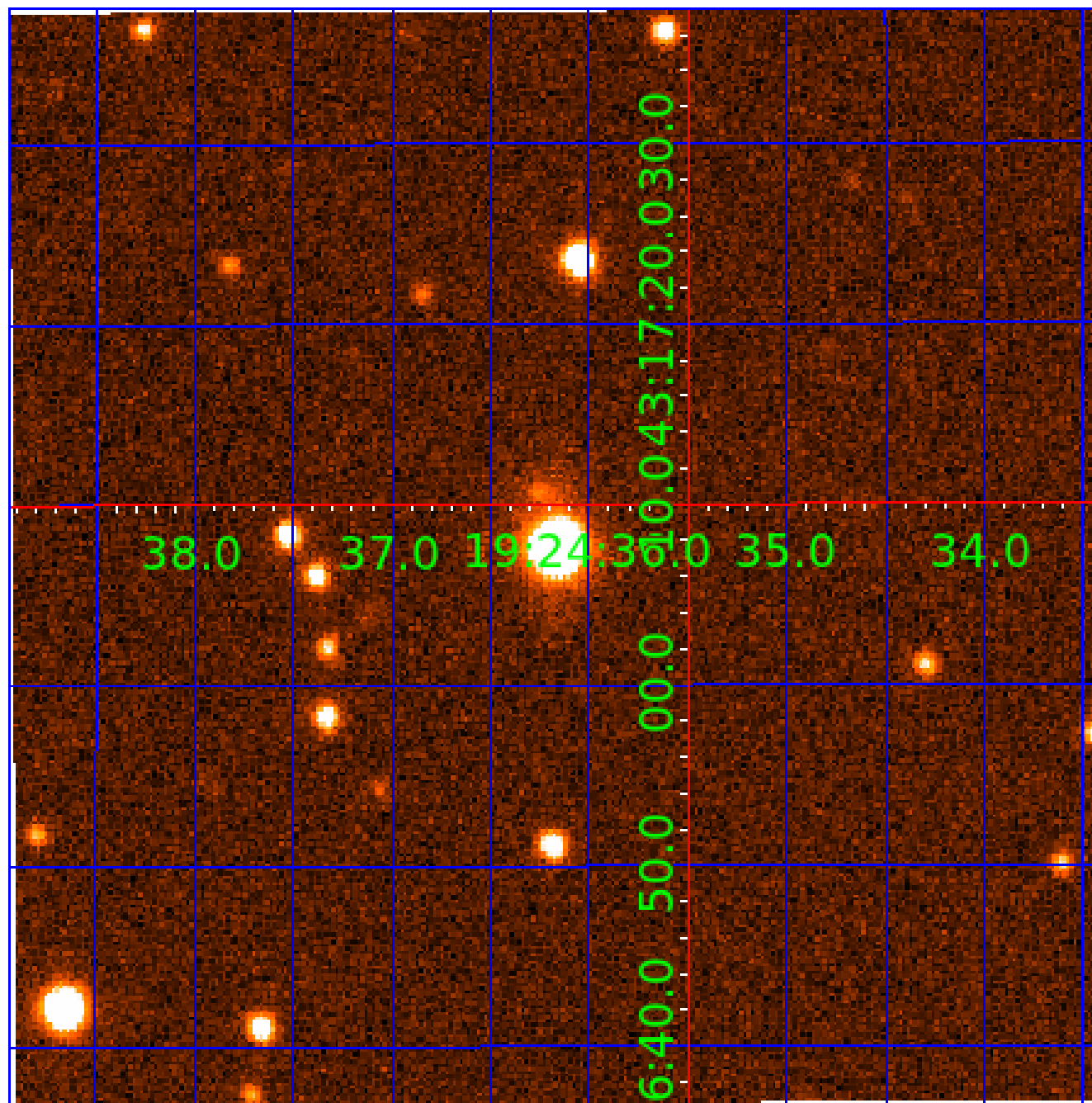


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 007605600

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})
007605600-01	OBS	6893.01	3.326193	133.329789	175537.3	2.073	3452.3	2438.3	0.35	3520	14.67	17.47
007605600-02	OBS	No	3.326193	131.666998	46409.7	2.035	930.6	898.2	0.35	3520	7.74	17.47

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007605600-01	OBS	FP	0.00	0	1	0	0	MOD_SEC_DV—MOD_SEC_ALT—HAS_SEC_TCE—CENT_KIC_POS
007605600-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE—CENT_KIC_POS

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.

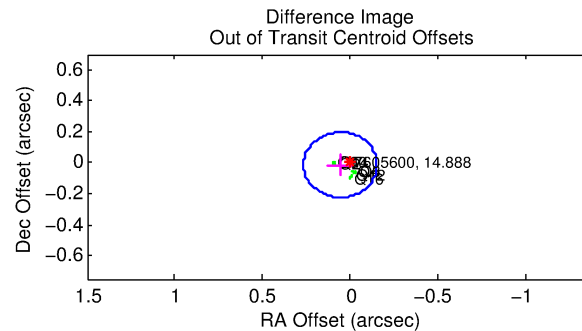
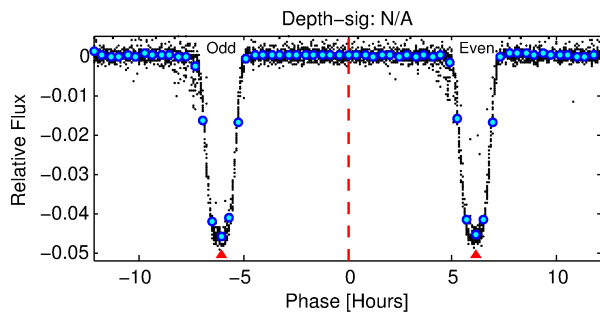
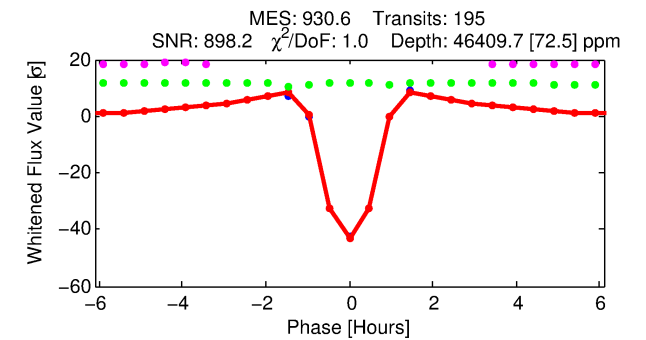
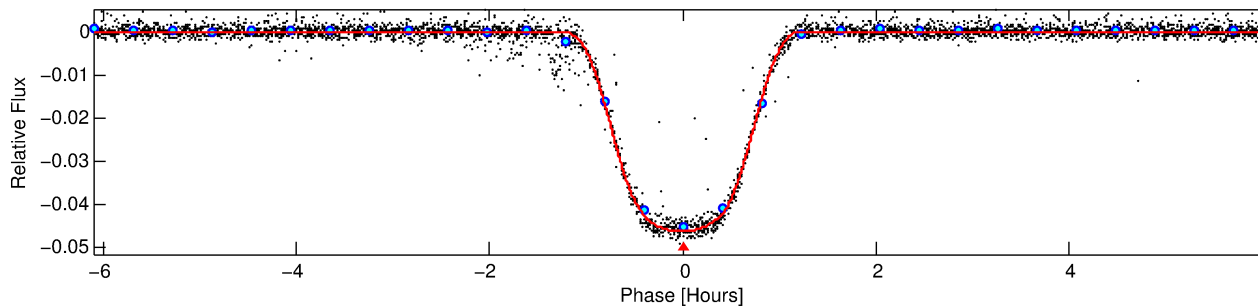
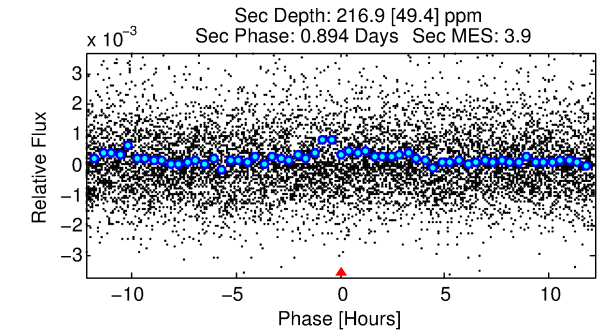
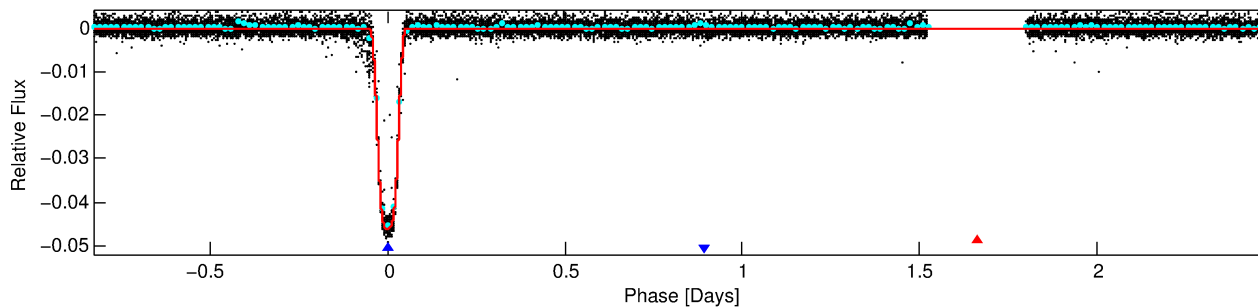
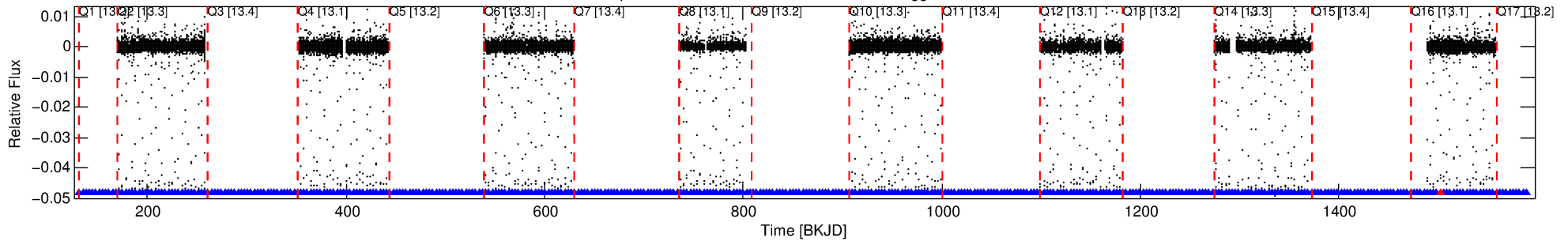
Ephemeris Match Information For 007605600-02

No Significant Match Found

DV One-Page Summary

KIC: 7605600 Candidate: 2 of 2 Period: 3.326 d
KOI: K06893 Corr: No Ephemeris Match

Kp: 14.89 R*: 0.35 Rs Teff: 3520.0 K Logg: 4.91 Fe/H: -0.200



DV Fit Results:

Period = 3.32619 [0.00000] d
Epoch = 131.6670 [0.0000] BKJD
Rp/R* = 0.2032 [0.0005]
a/R* = 13.69 [0.12]
b = 0.50 [0.01]
Seff = 17.47 [1.74]
Teq = 521 [13] K
Rp = 7.74 [0.75] Re
a = 0.0310 [0.0022] AU
Ag = 1.91 [0.46] [1.96σ]
Teffp = 948 [55] K [7.48σ]

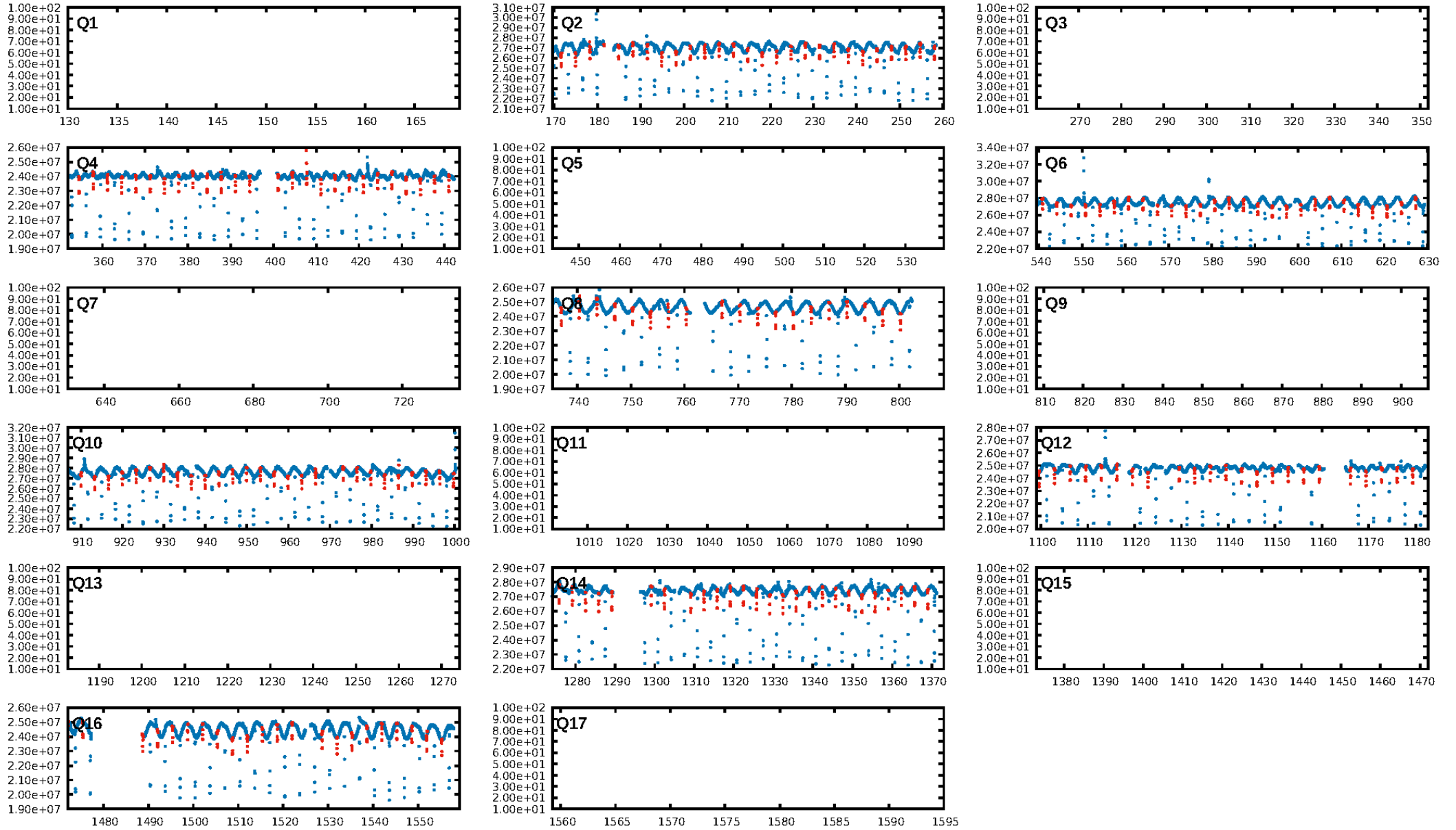
DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 0.99 [194/195]
GhostDiagnostic-chr: 1.598
Centroid-sig: 0.0%
Centroid-so: 0.306 arcsec [60.56σ]
OotOffset-rm: 0.060 arcsec [0.86σ]
KicOffset-rm: 0.665 arcsec [6.46σ]
OotOffset-st: 4/0/4/0 [8]
KicOffset-st: 4/0/4/0 [8]
DiffImageQuality-fgm: 1.00 [8/8]
DiffImageOverlap-fno: 1.00 [8/8]

Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 22:59:00 Z

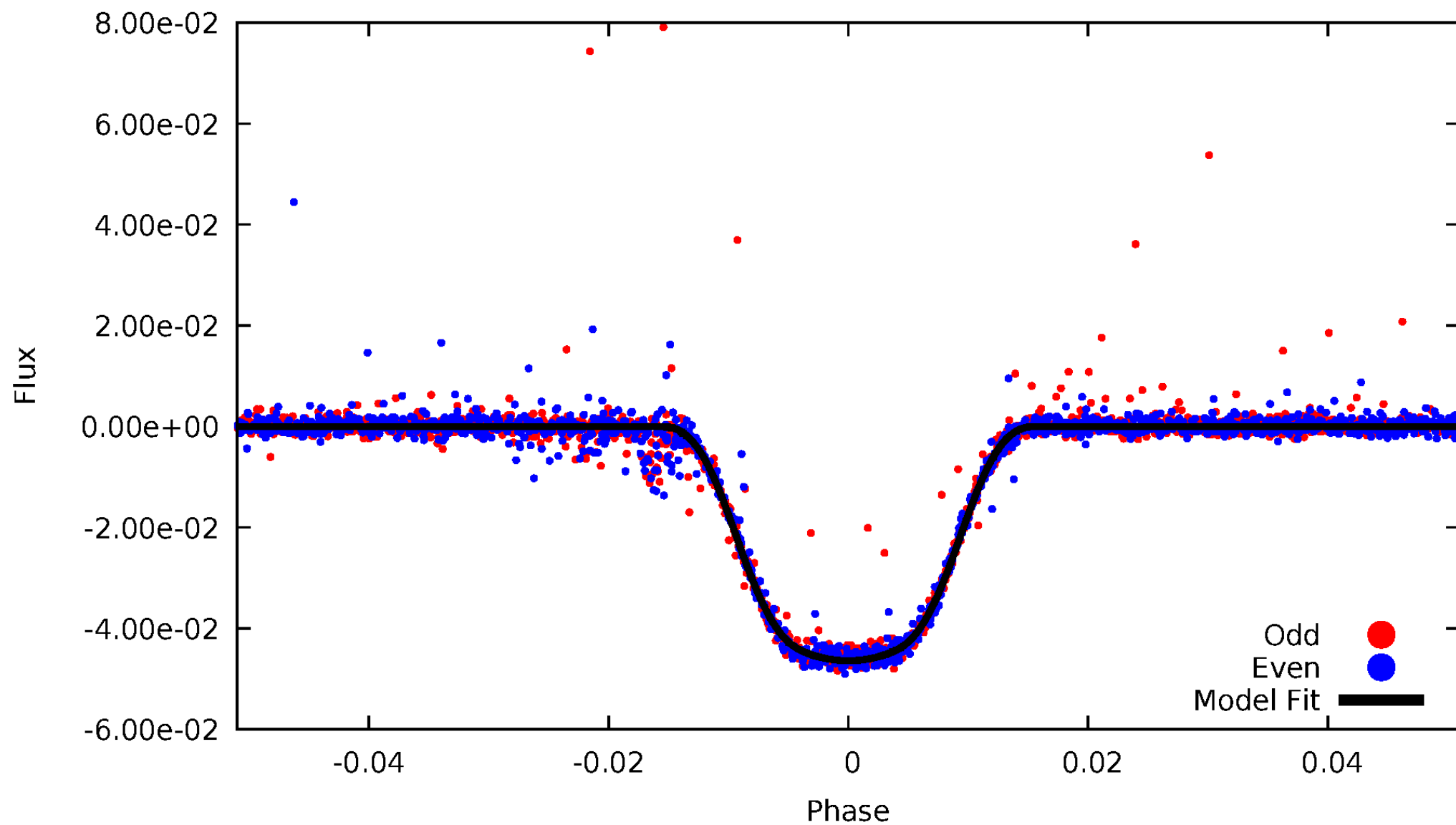
This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 007605600-02, PDC Light Curves



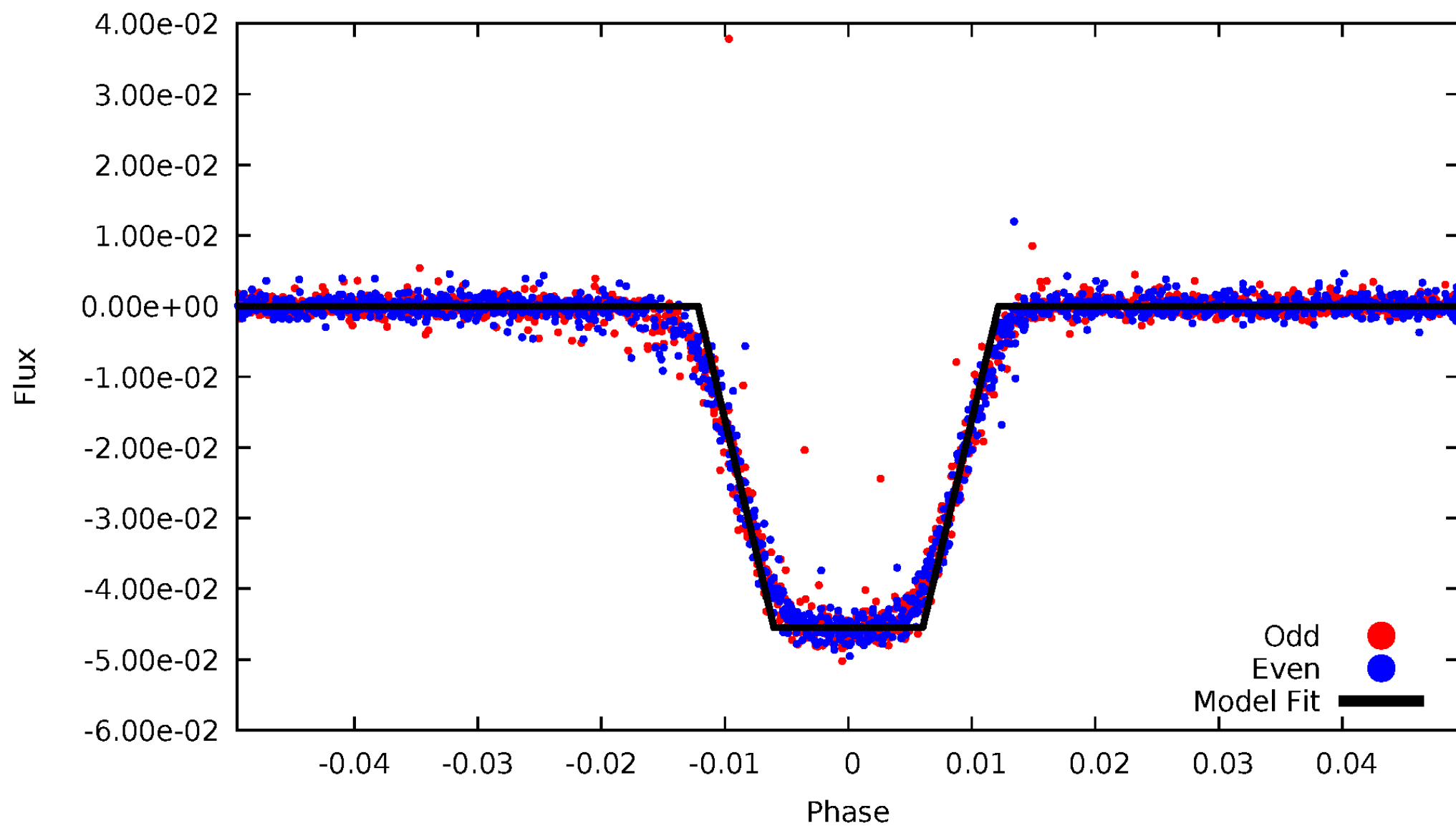
DV Odd/Even

TCE 007605600-02



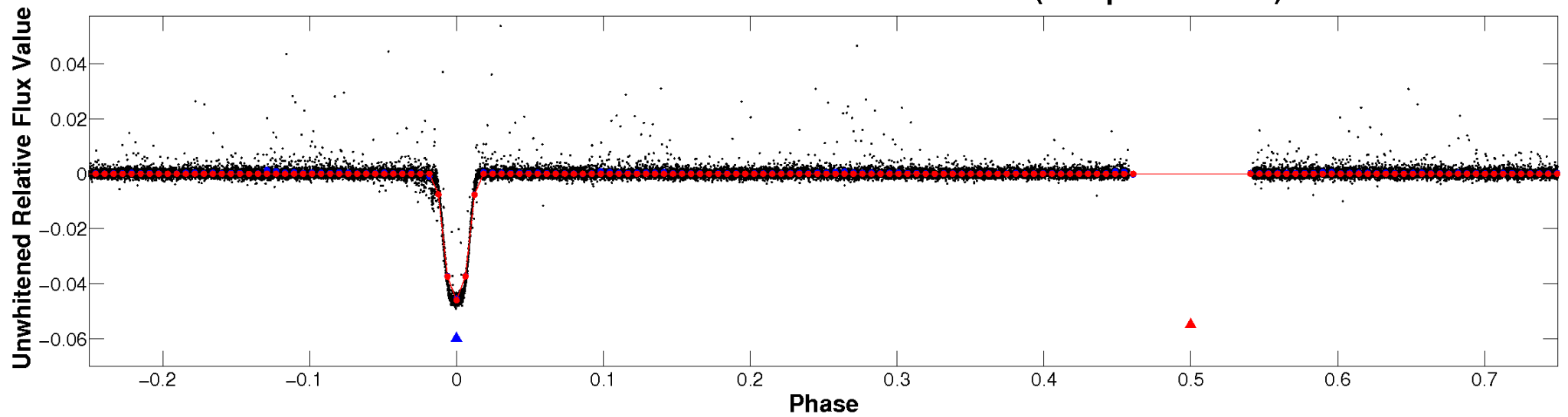
ALT Odd/Even

TCE 007605600-02

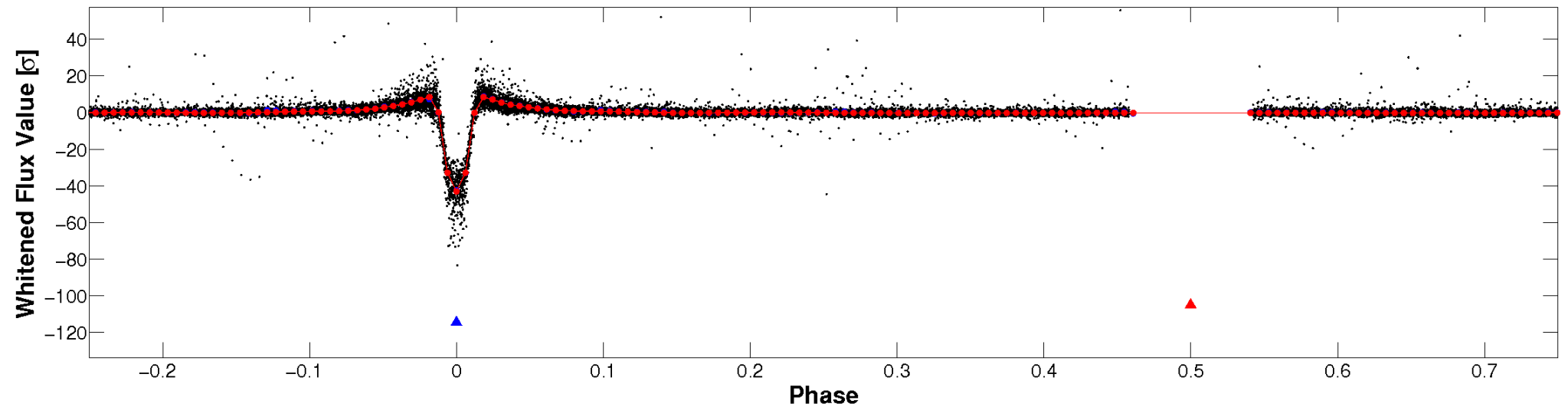


Non-Whitened Vs. Whitened Light Curve

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

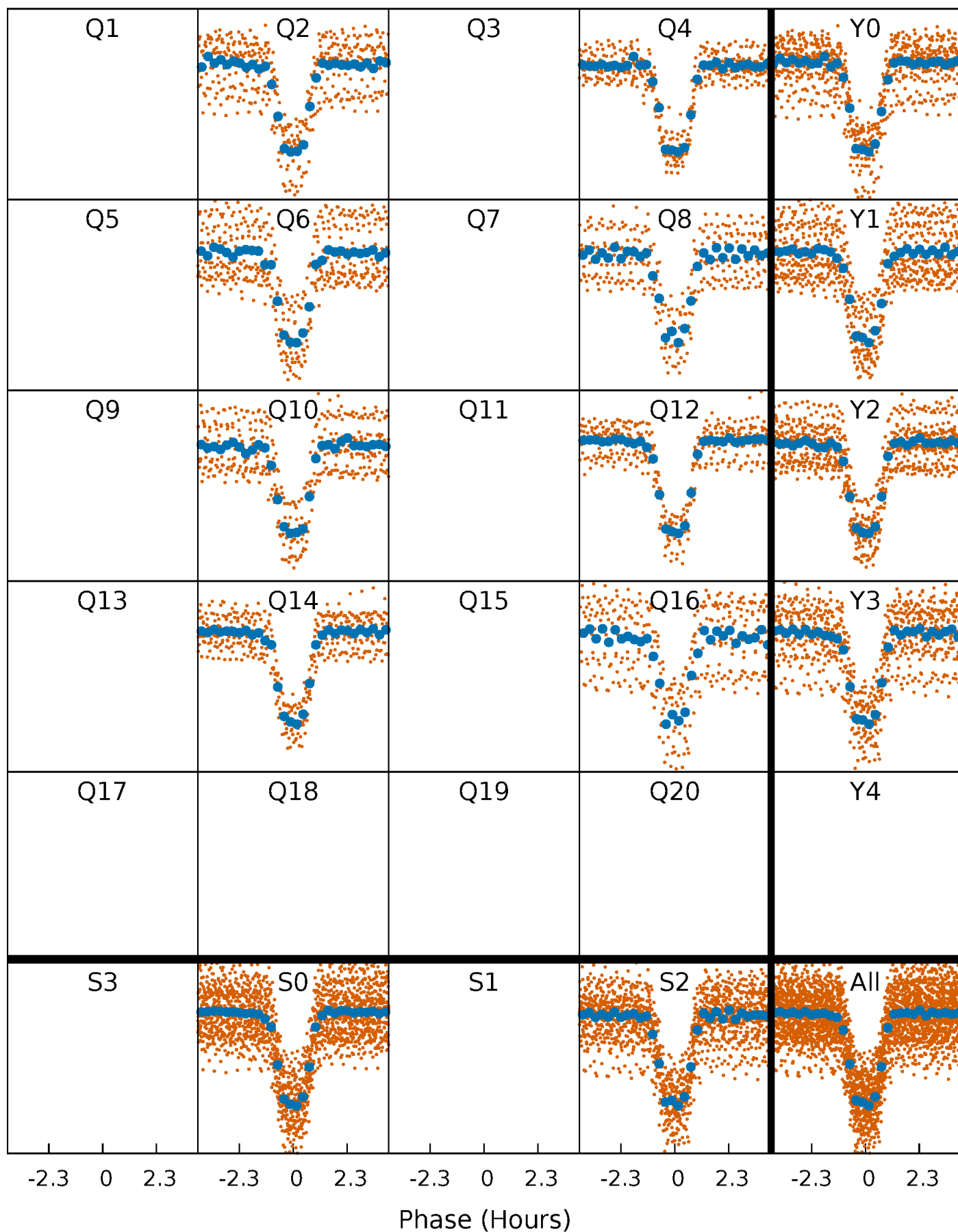


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



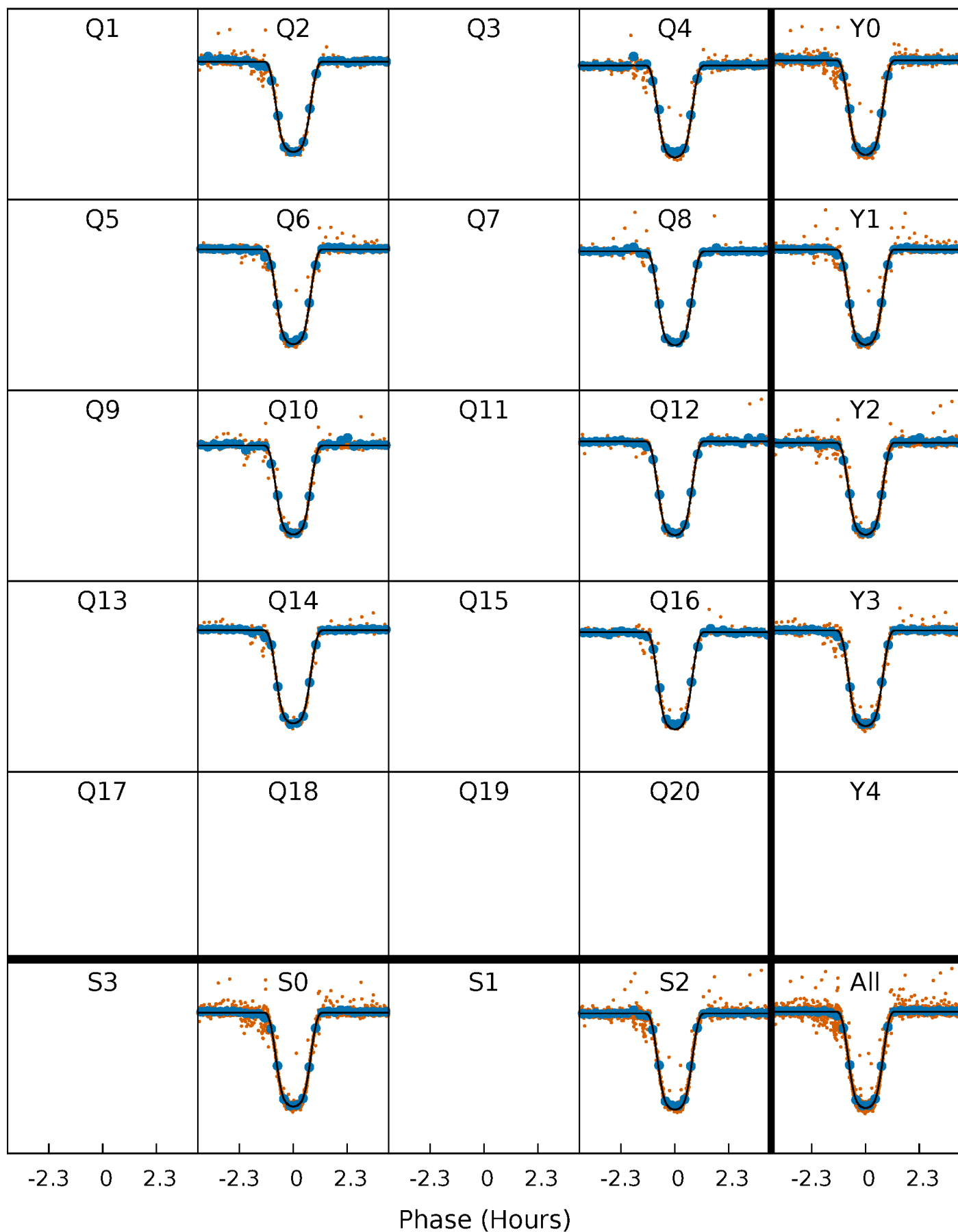
PDC Quarter-Phased Transit Curves

TCE 007605600-02 P= 3.326193 Days $T_0=131.666998$ (BKJD)



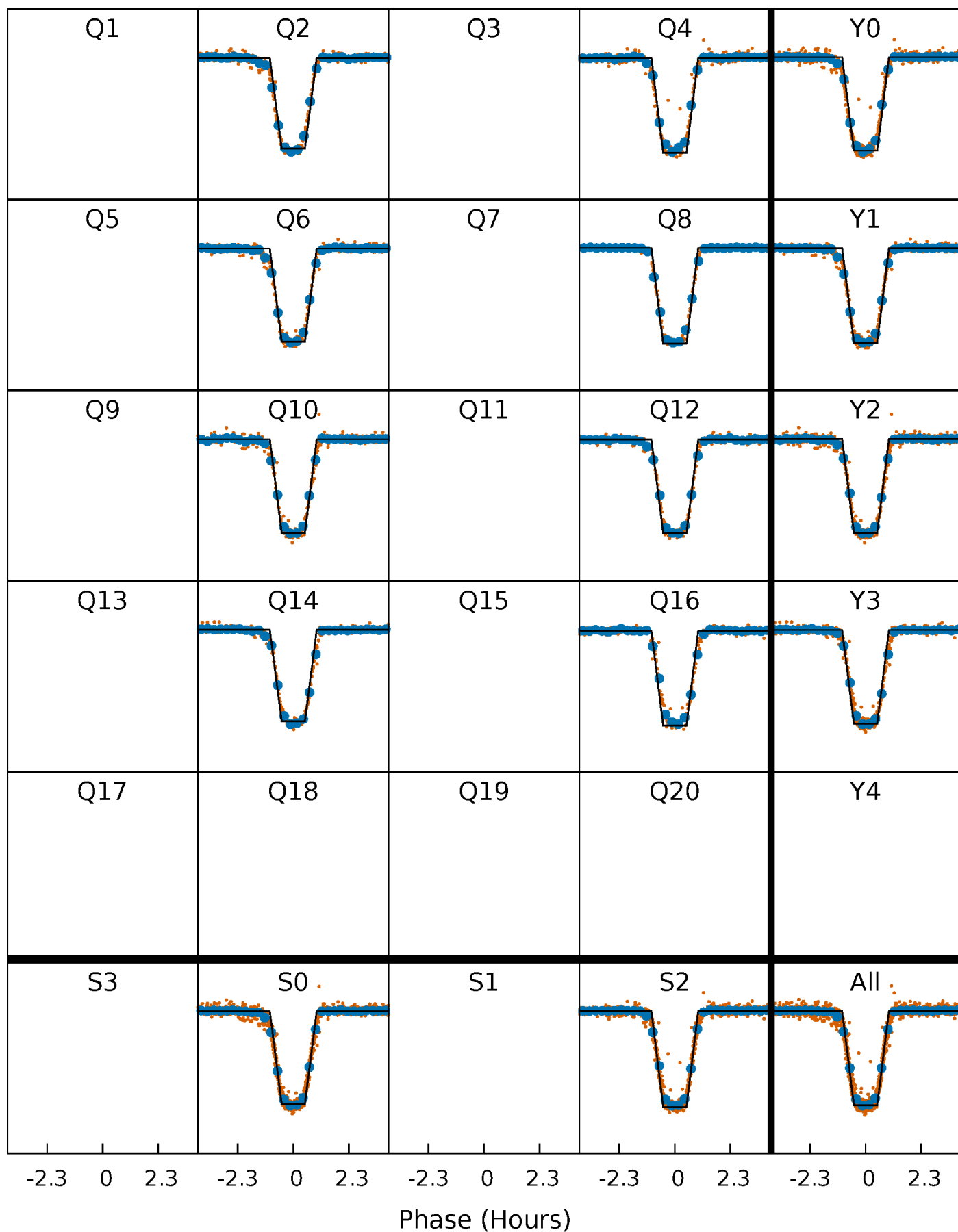
DV Quarter-Phased Transit Curves

TCE 007605600-02 P= 3.326193 Days $T_0=131.666998$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

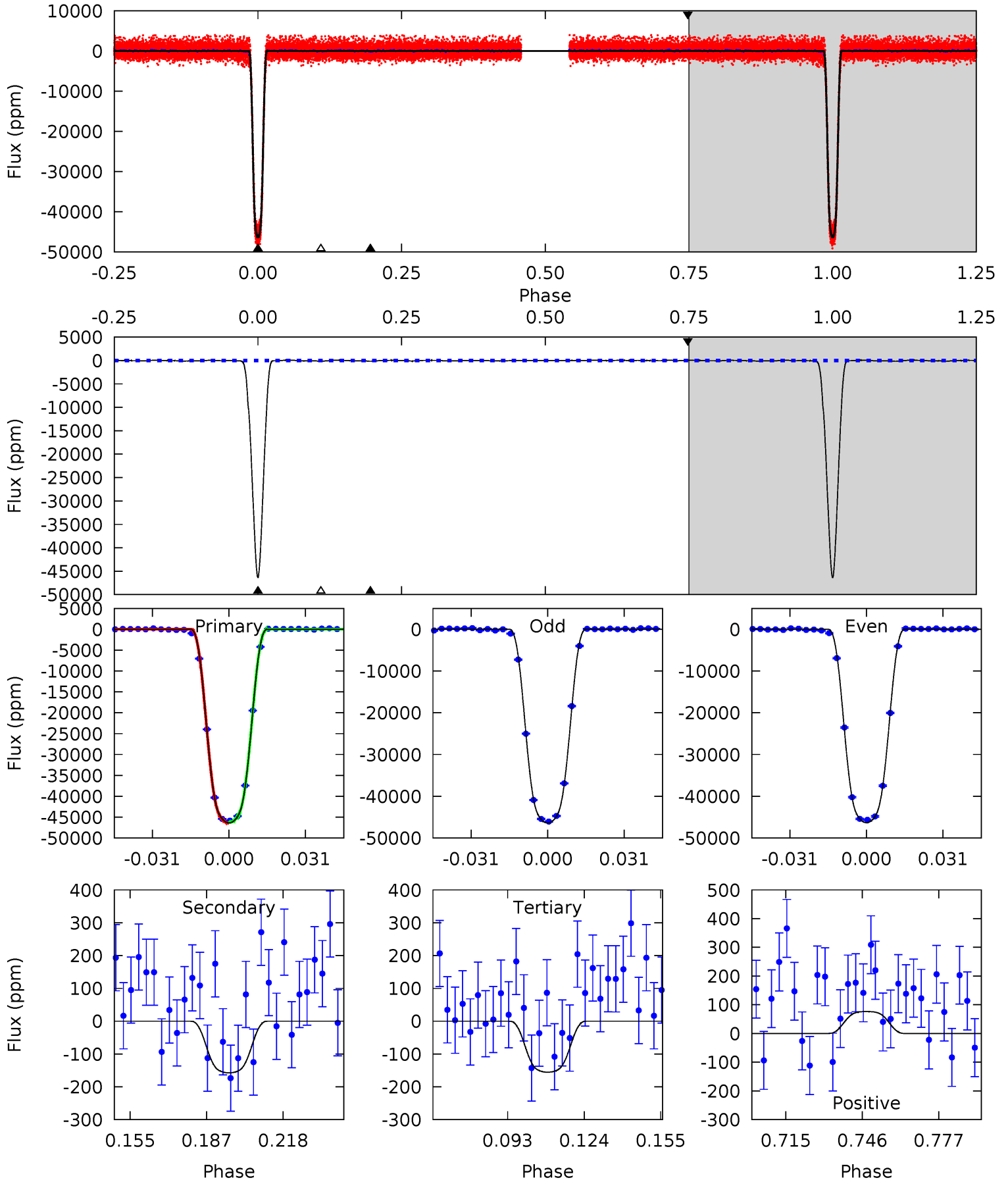
TCE 007605600-02 P= 3.326184 Days $T_0=131.669174$ (BKJD)



DV Model-Shift Uniqueness Test

007605600-02, P = 3.326193 Days, E = 131.666998 Days

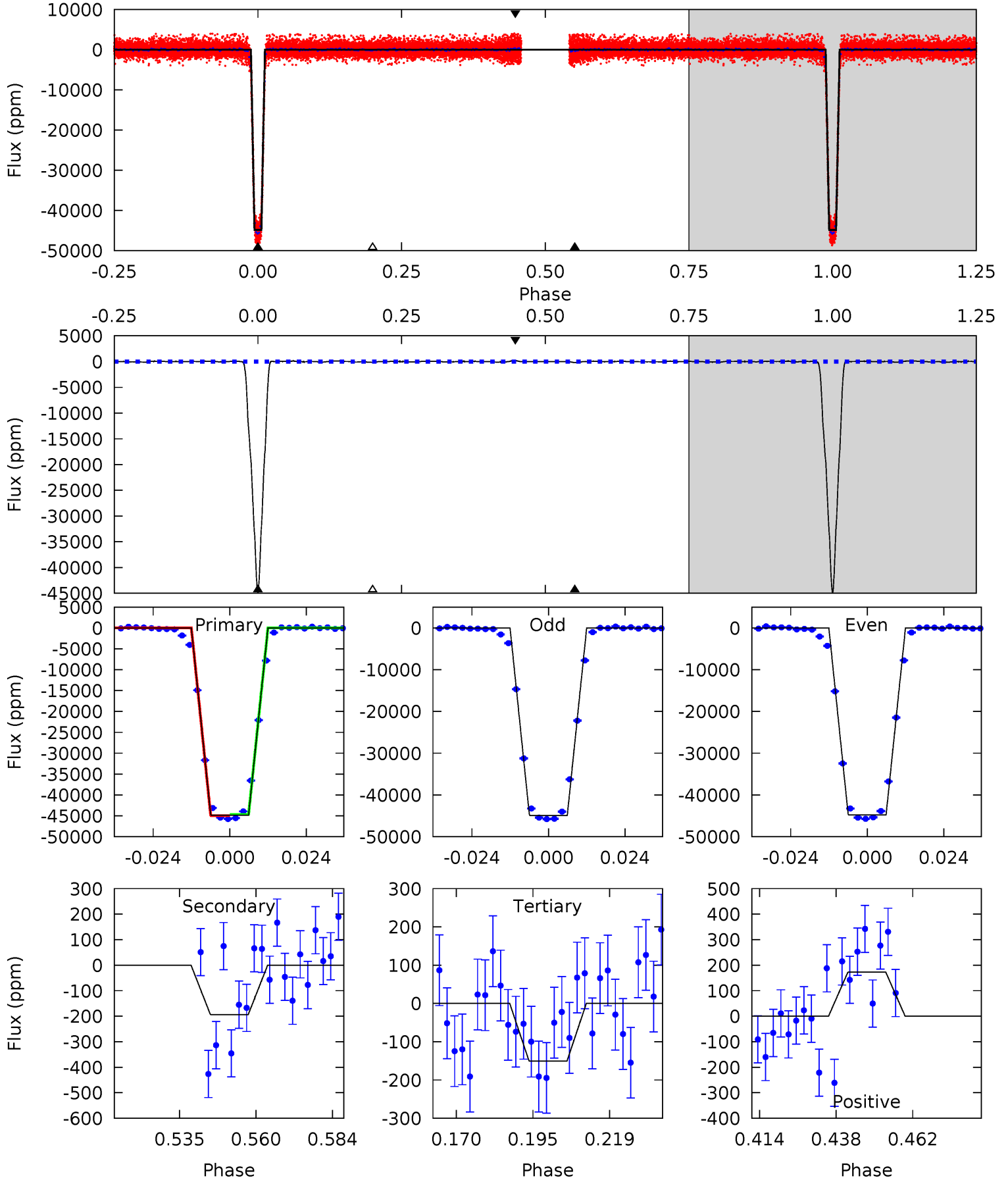
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1355	4.60	4.54	2.24	4.80	2.16	1.48	1350	1352	0.06	2.36	0.98	0.99	0.00	1.73



Alt Model-Shift Uniqueness Test

007605600-02, P = 3.326184 Days, E = 131.669174 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1098	4.74	3.69	4.23	4.85	2.25	1.28	1094	1094	1.05	0.51	1.09	0.99	0.00	3.88



Stellar Parameters For KIC 007605600

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	3520^{+47}_{-47}	$4.906^{+0.035}_{-0.032}$	$-0.200^{+0.100}_{-0.100}$	$0.349^{+0.030}_{-0.034}$	$0.358^{+0.038}_{-0.041}$	$11.890^{+2.257}_{-1.724}$
	+1%/-1%	+1%/-1%	+50%/-50%	+9%/-10%	+11%/-11%	+19%/-14%
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 007605600-02 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-157 ± 34	$7.79^{+0.38}_{-0.42}$	729^{+16}_{-14}	1757^{+42}_{-51}	$1.393^{+0.313}_{-0.306}$
Alt.	-194 ± 41	$8.13^{+0.41}_{-0.45}$	728^{+15}_{-15}	1778^{+40}_{-52}	$1.538^{+0.332}_{-0.339}$

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

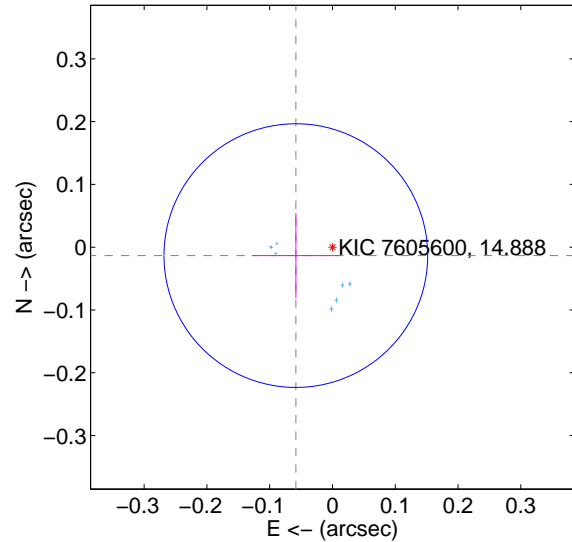
Supplemental centroid analysis for 007605600-02. Kepler magnitude: 14.89. Transit SNR 898.16

There are 8 quarters with good PRF difference image offsets

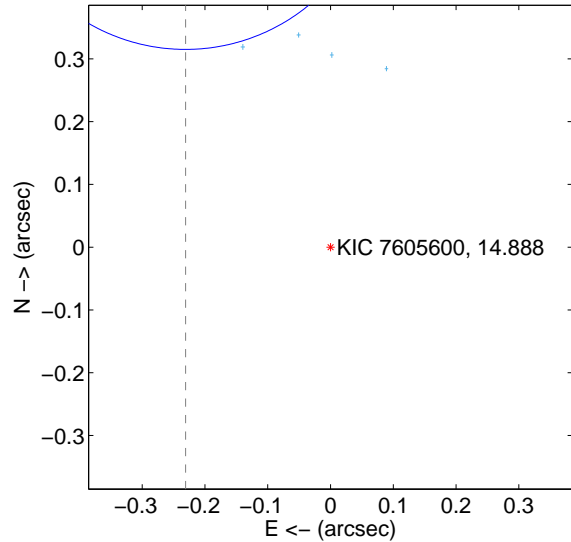
The direct PRF centroid is offset from the target star catalog position by about 0.44 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.060 ± 0.070	0.86	0.058 ± 0.070	-0.013 ± 0.068
PRF-fit source offset from KIC position	0.665 ± 0.103	6.46	0.231 ± 0.086	0.624 ± 0.093
photometric centroid source offset	0.31 ± 0.01	60.56	-0.02 ± 0.01	0.30 ± 0.01

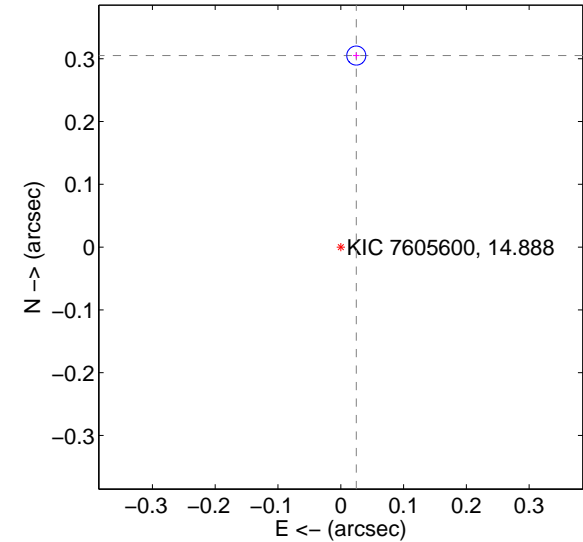
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

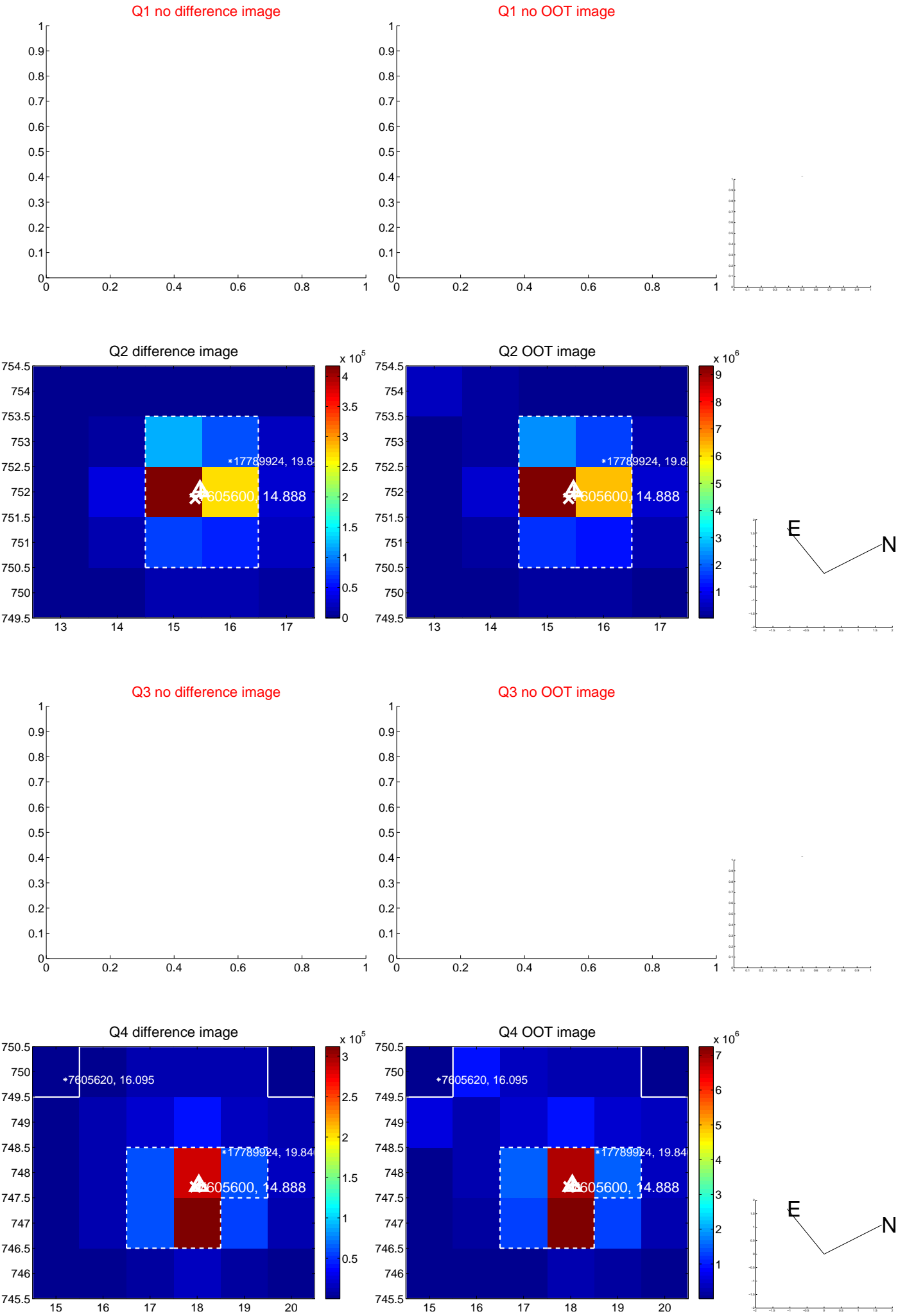


offset from photometric centroids

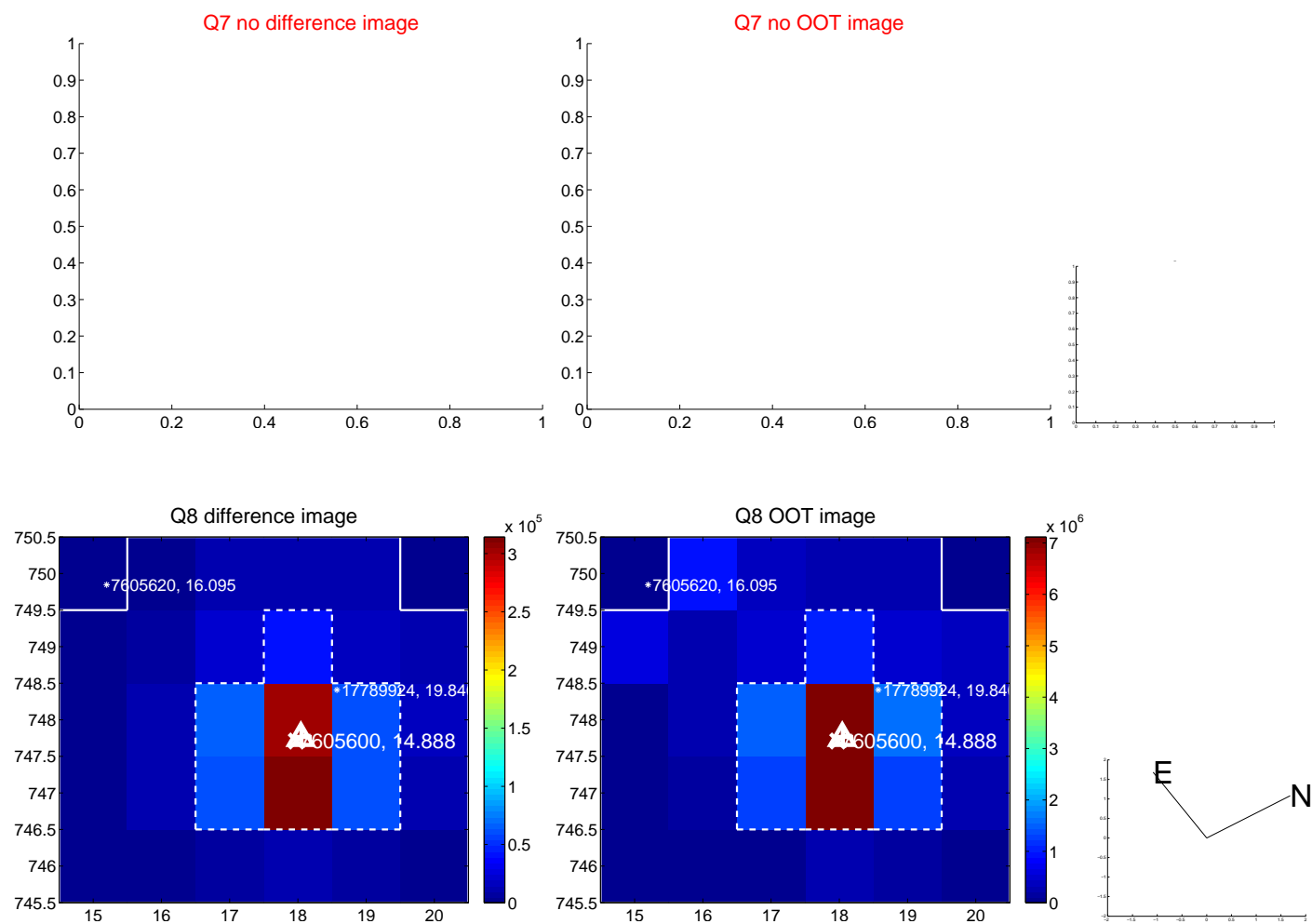
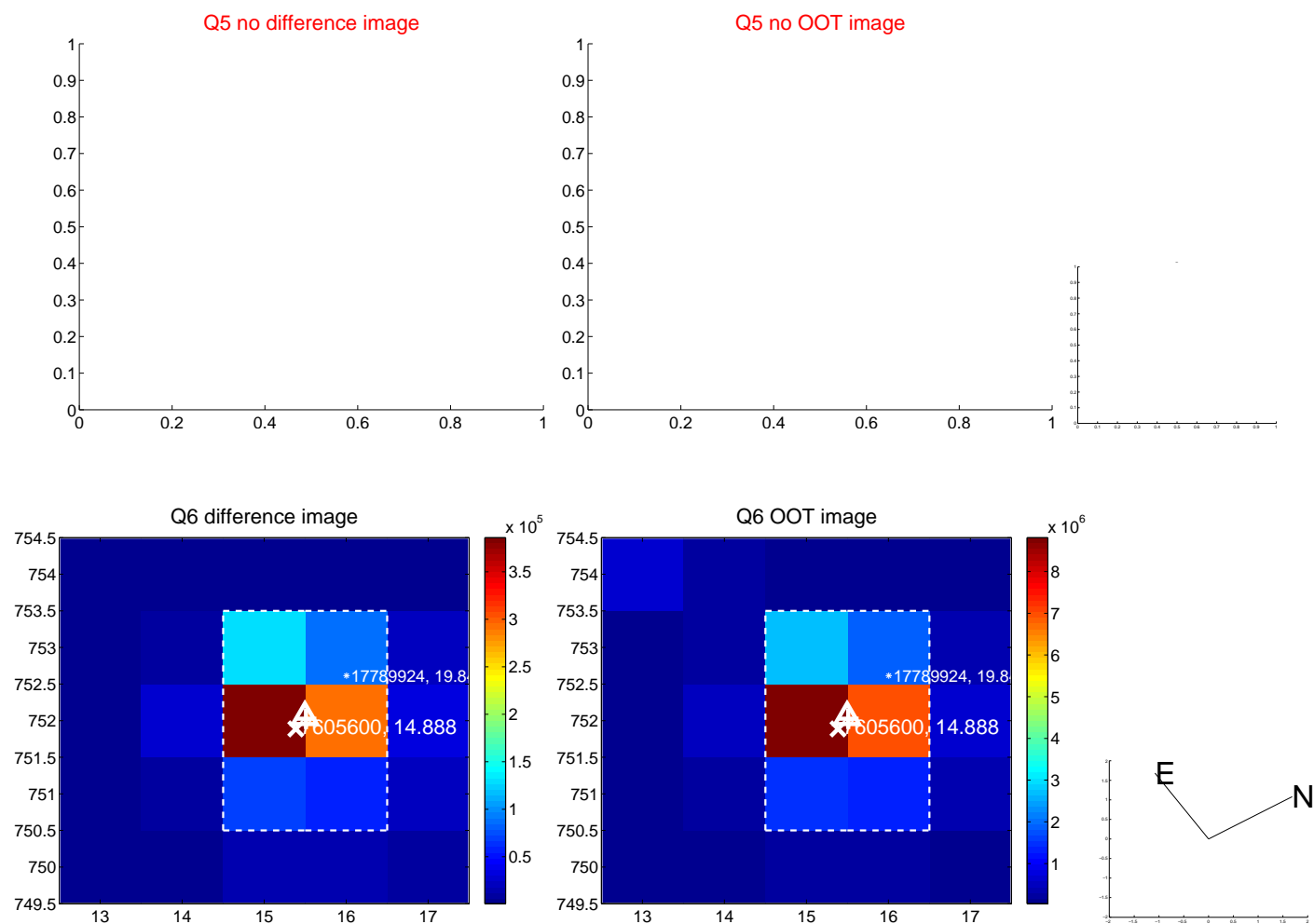


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

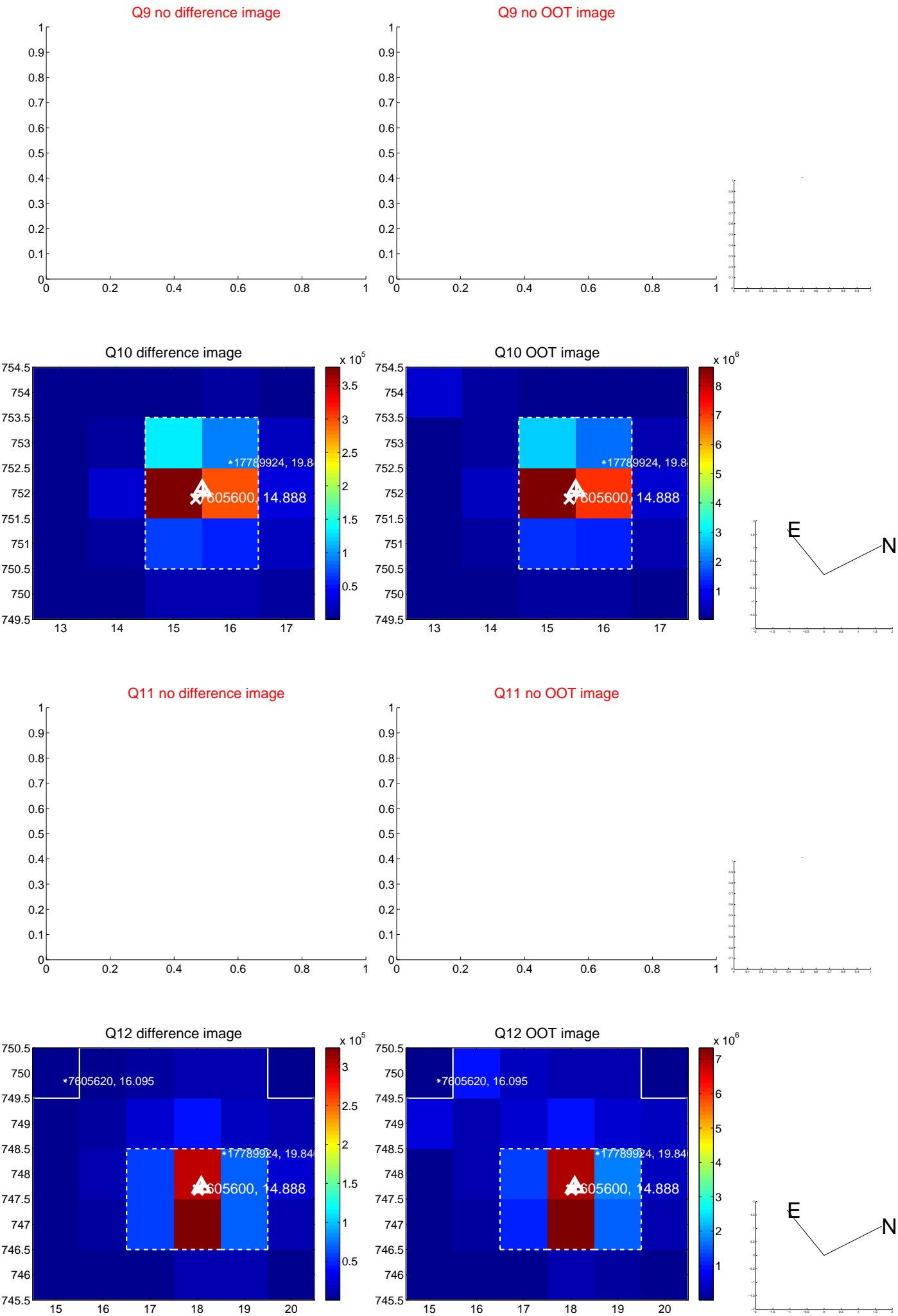
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



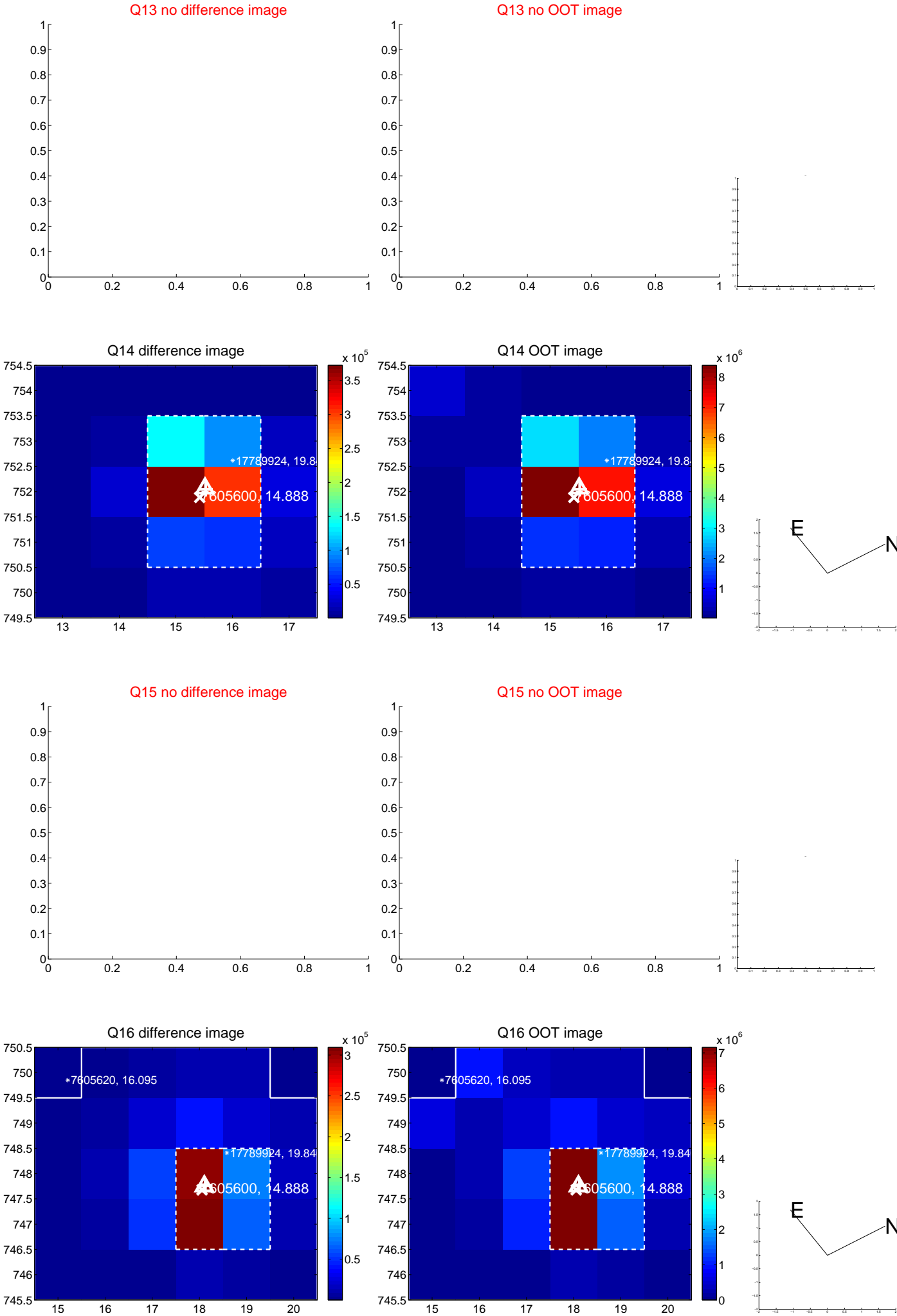
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



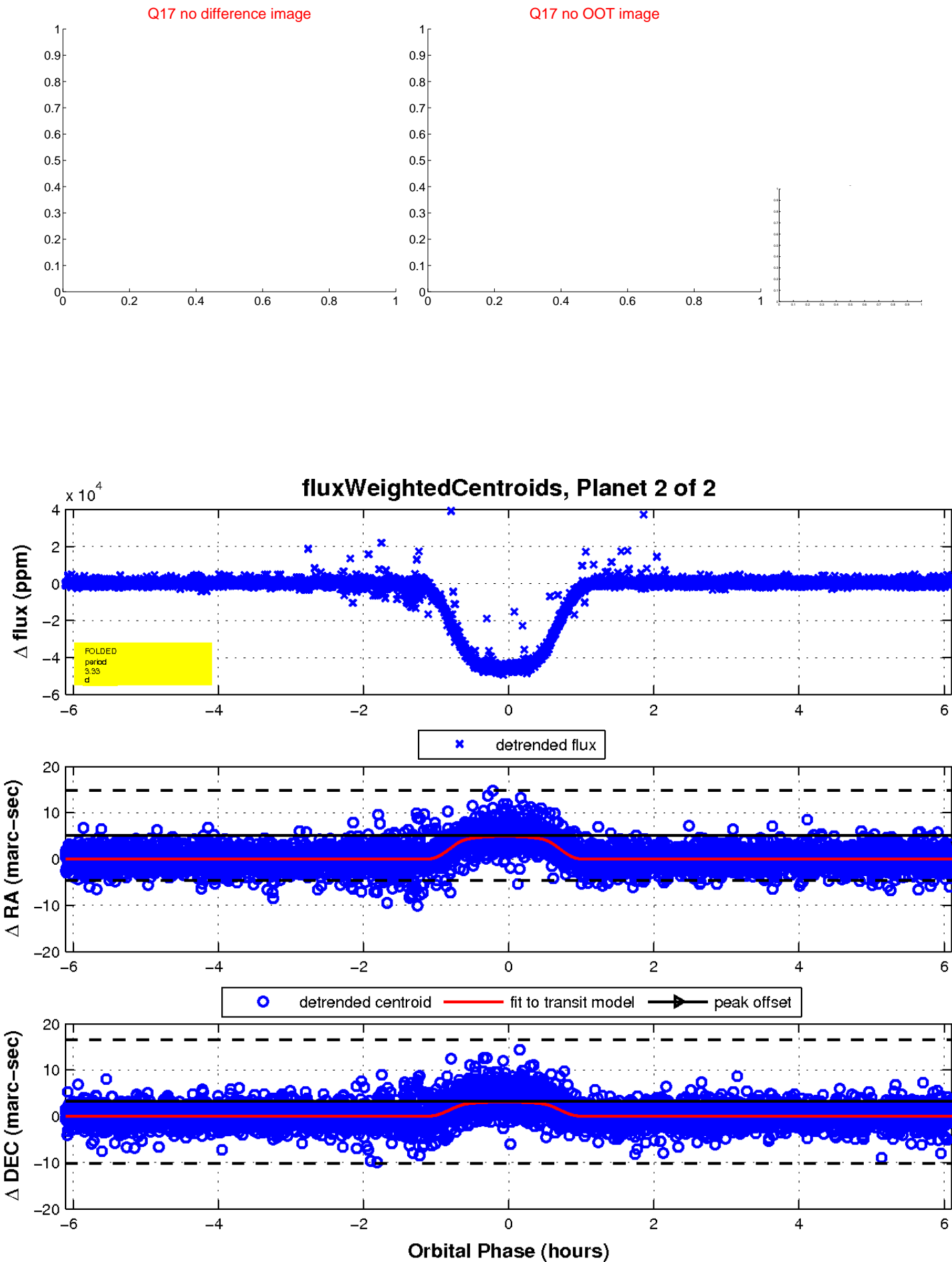
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

