

KIC 007661500

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})
007661500-01	OBS	No	2.902871	133.340567	31.5	5.874	10.2	10.2	2.76	7154	2.12	8654.84

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007661500-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_SATURATED

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

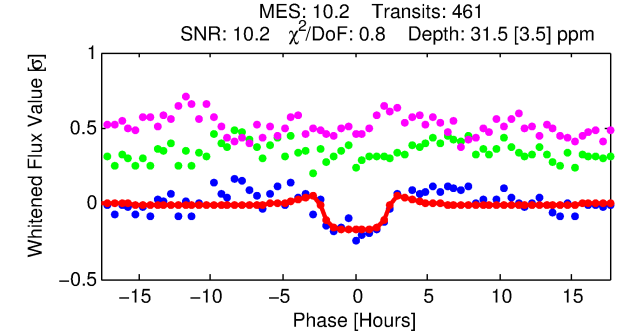
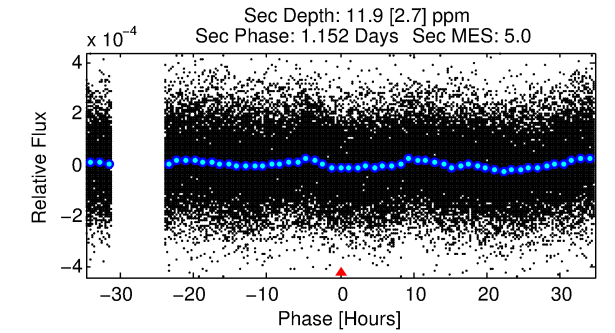
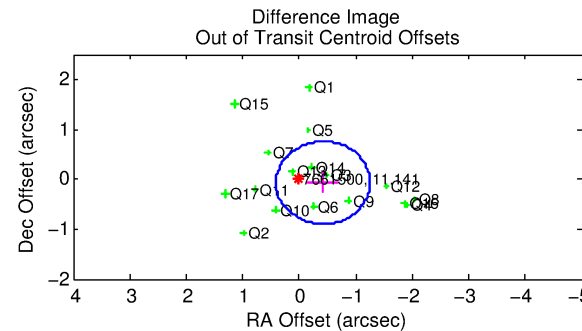
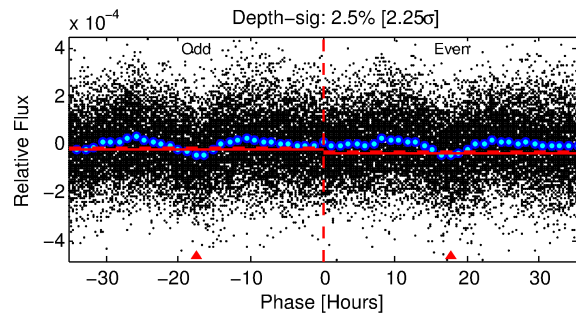
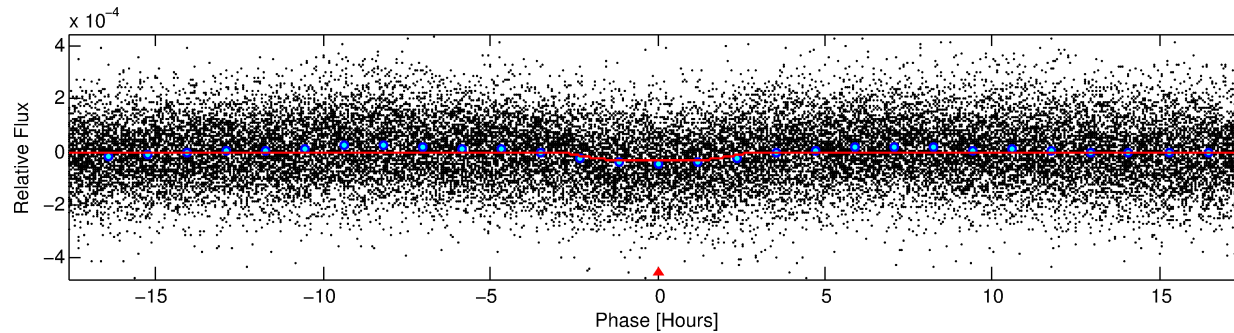
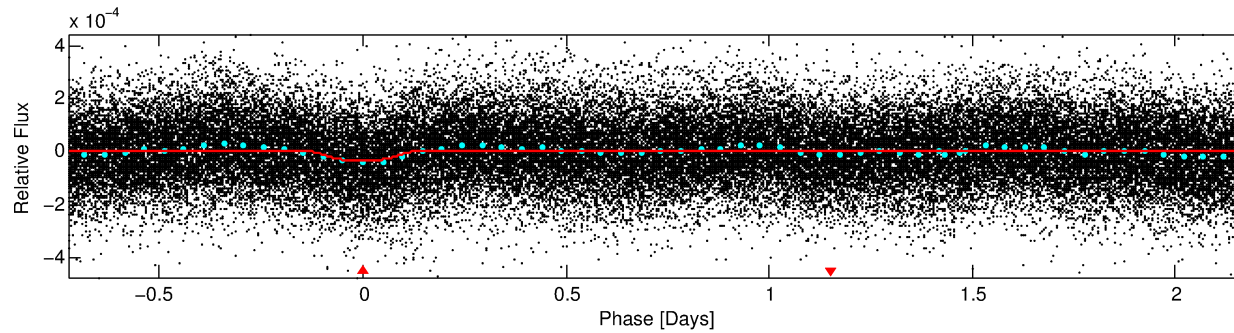
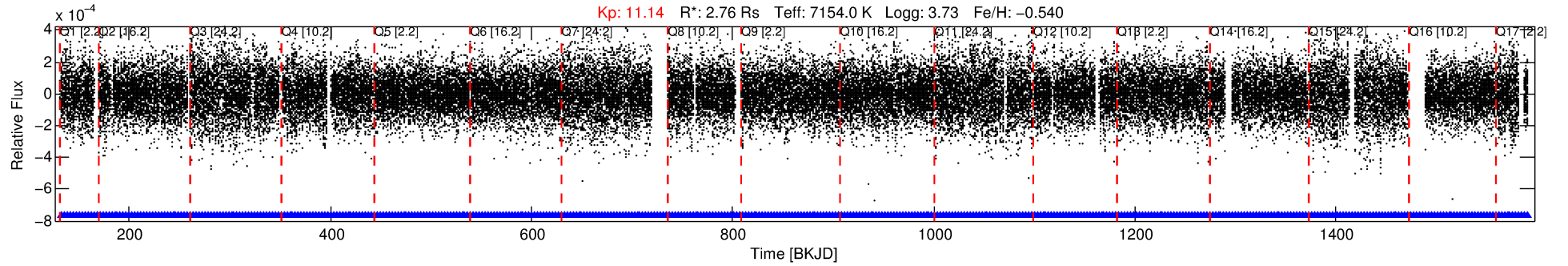
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007661500-01

No Significant Match Found

DV One-Page Summary

KIC: 7661500 Candidate: 1 of 1 Period: 2.903 d



DV Fit Results:

Period = 2.90287 [0.00003] d
Epoch = 133.3406 [0.0075] BKJD
Rp/R* = 0.0070 [0.0004]
a/R* = 1.21 [0.06]
b = 0.99 [0.00]
Seff = 8654.84 [5037.12]
Teq = 2459 [358] K
Rp = 2.12 [0.84] Re
a = 0.0454 [0.0165] AU
Ag = 3.02 [1.88] [1.07 σ]
Teffp = 5013 [367] K [4.98 σ]

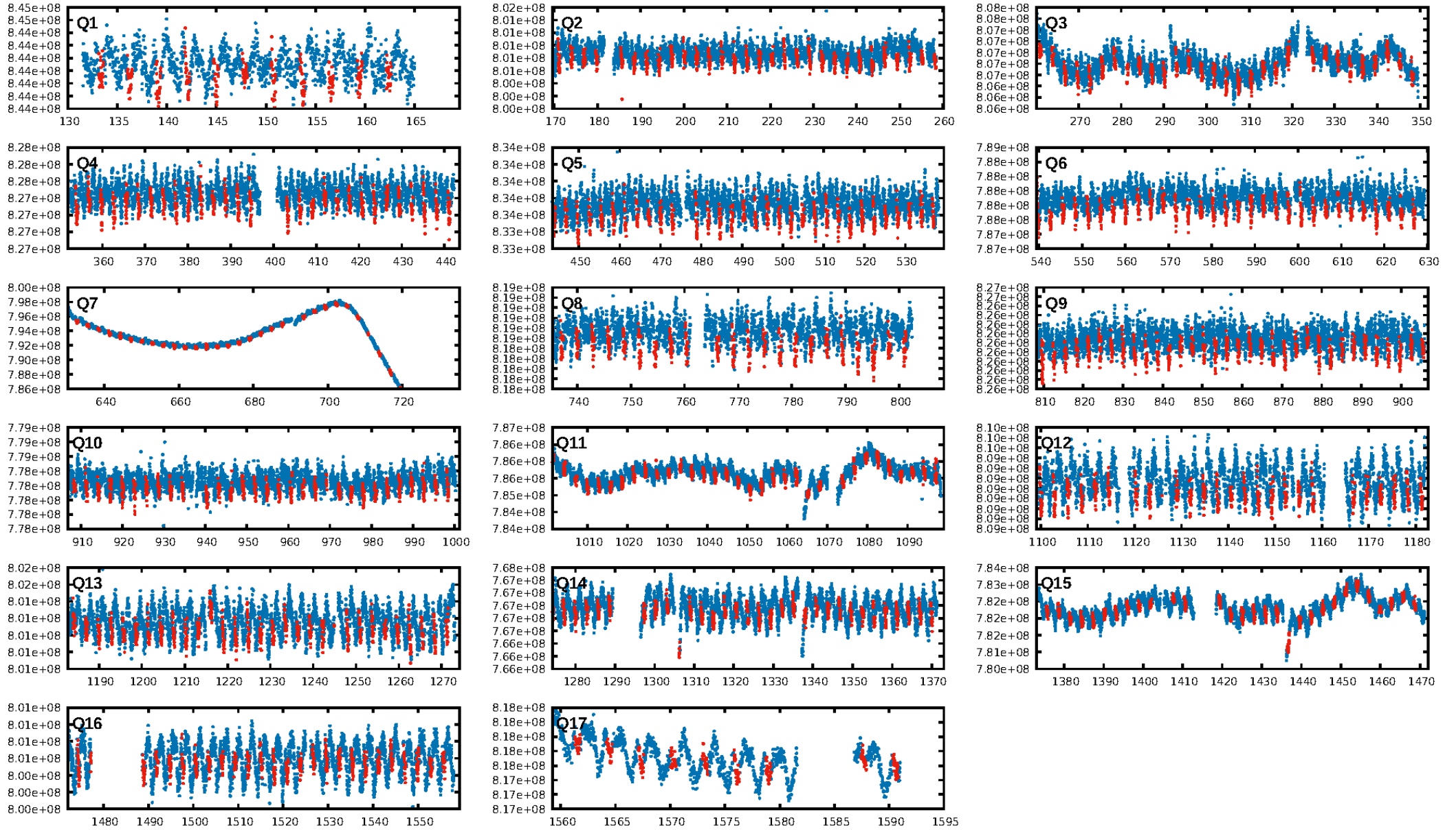
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 2.12e-21
RollingBand-fgt: 1.00 [441/441]
GhostDiagnostic-chr: 0.7911
Centroid-sig: 41.1%
Centroid-so: 0.695 arcsec [1.33 σ]
OotOffset-rm: 0.424 arcsec [1.54 σ]
KicOffset-rm: 0.377 arcsec [1.12 σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.94 [16/17]
DiffImageOverlap-fno: 1.00 [17/17]

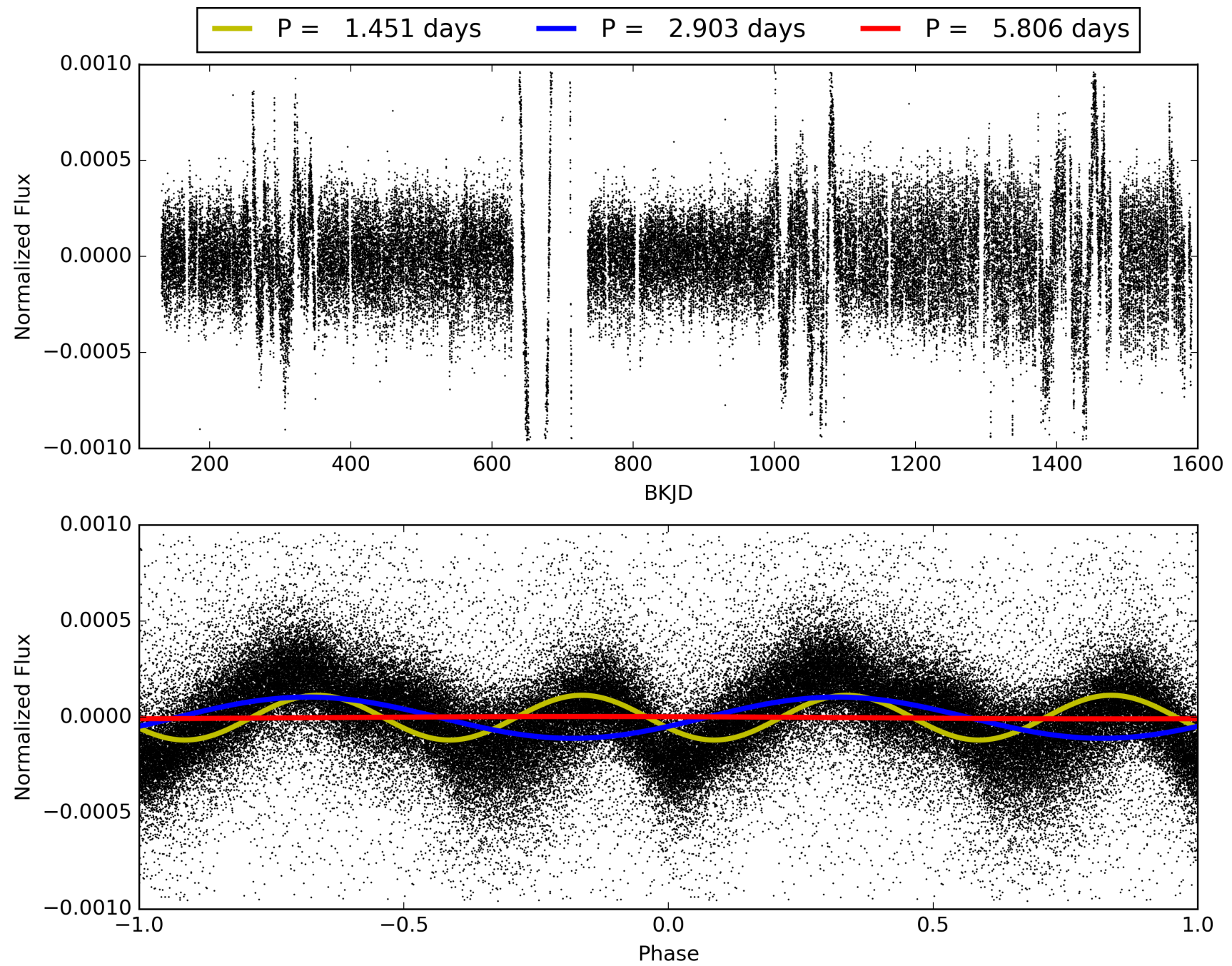
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 02:28:31 Z

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

TCE 007661500-01, PDC Light Curves

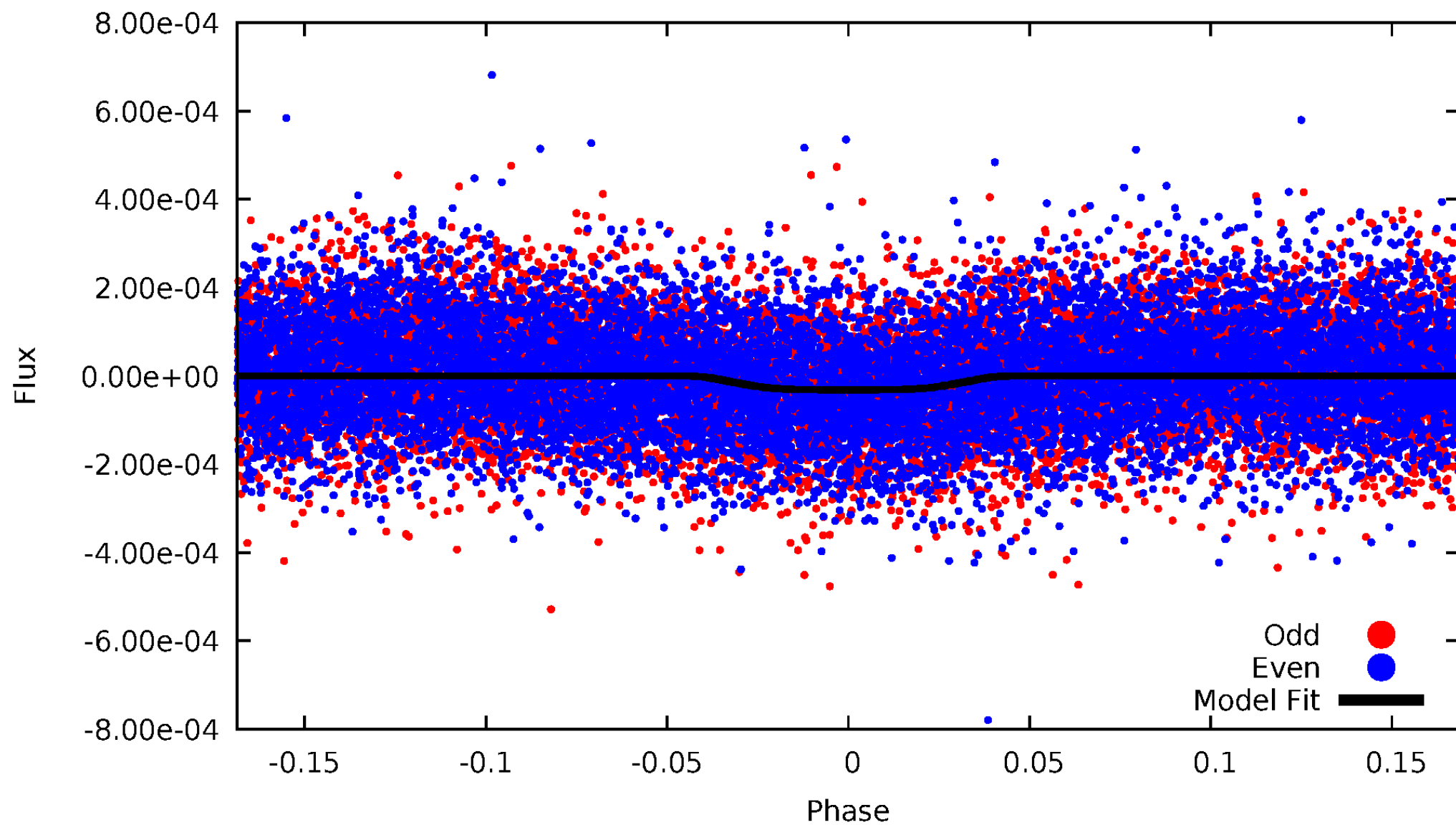


TCE 007661500-01



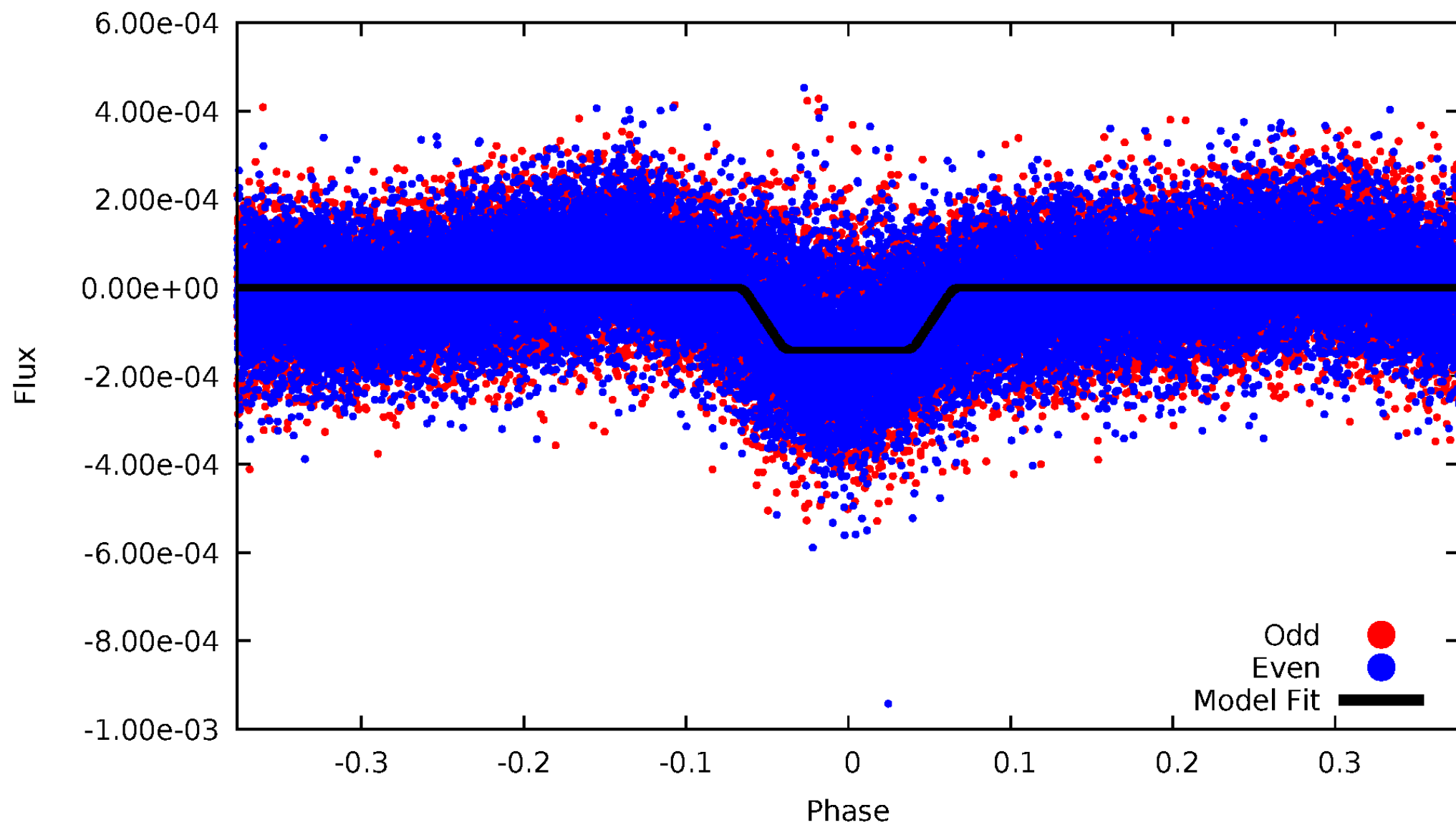
DV Odd/Even

TCE 007661500-01



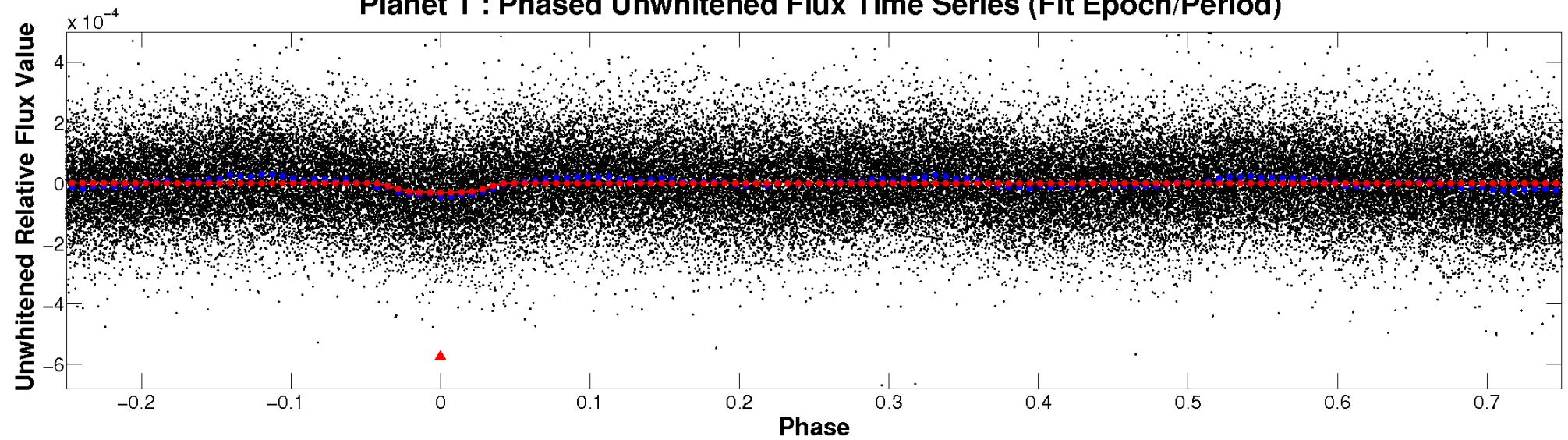
ALT Odd/Even

TCE 007661500-01

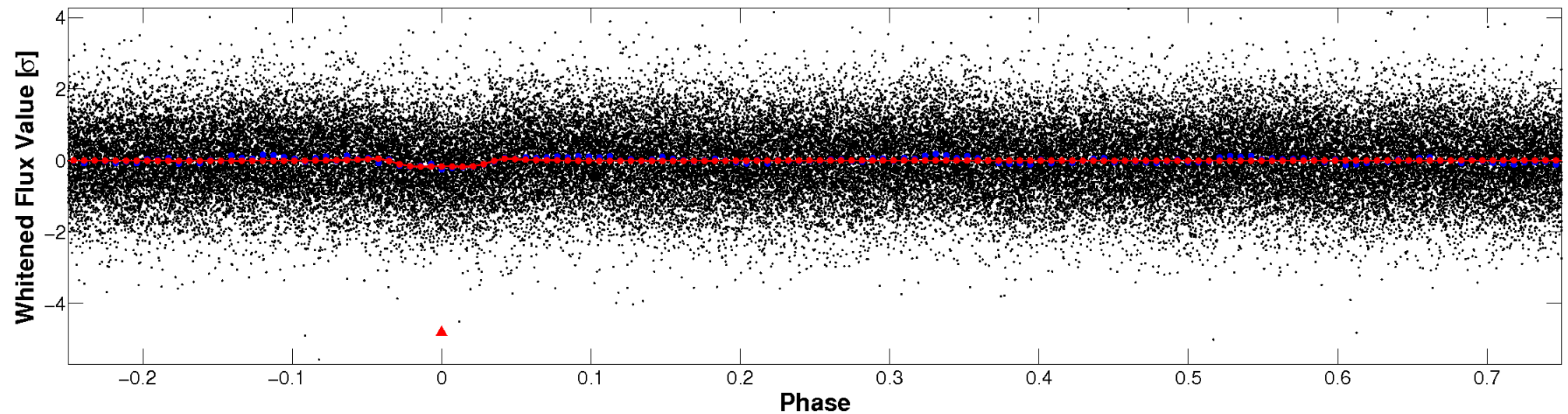


Non-Whitened Vs. Whitened Light Curve

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

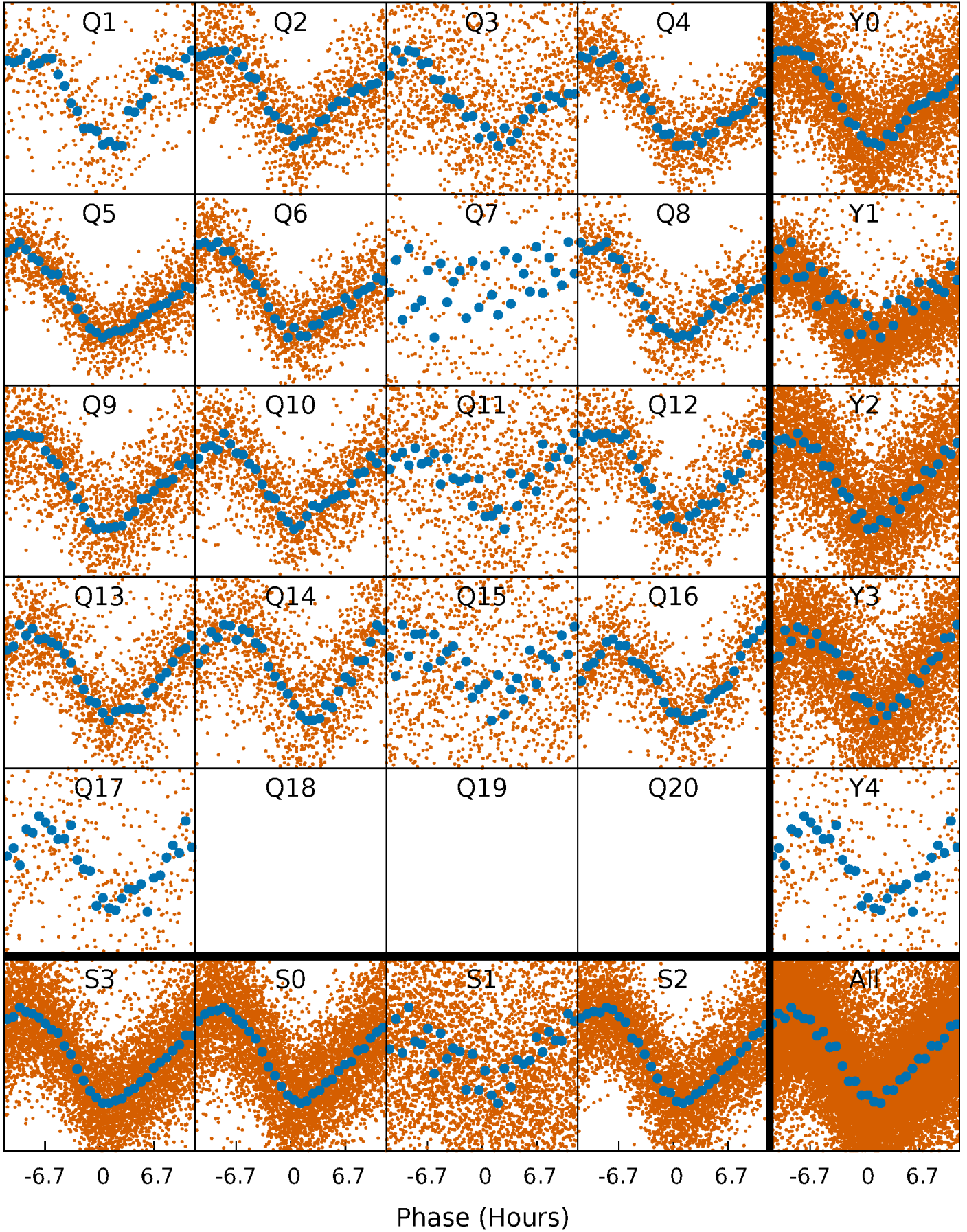


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



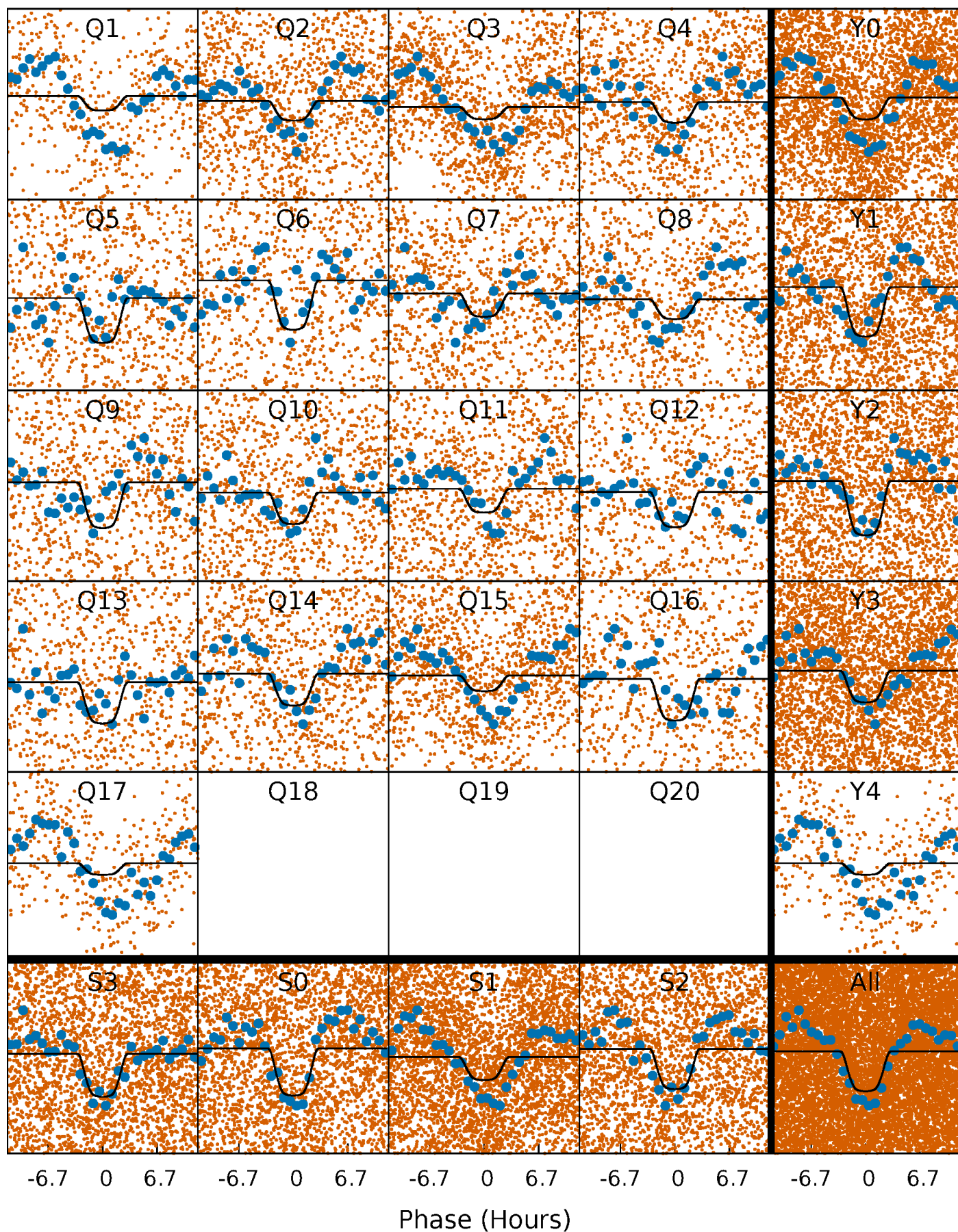
PDC Quarter-Phased Transit Curves

TCE 007661500-01 P= 2.902871 Days $T_0=133.340567$ (BKJD)



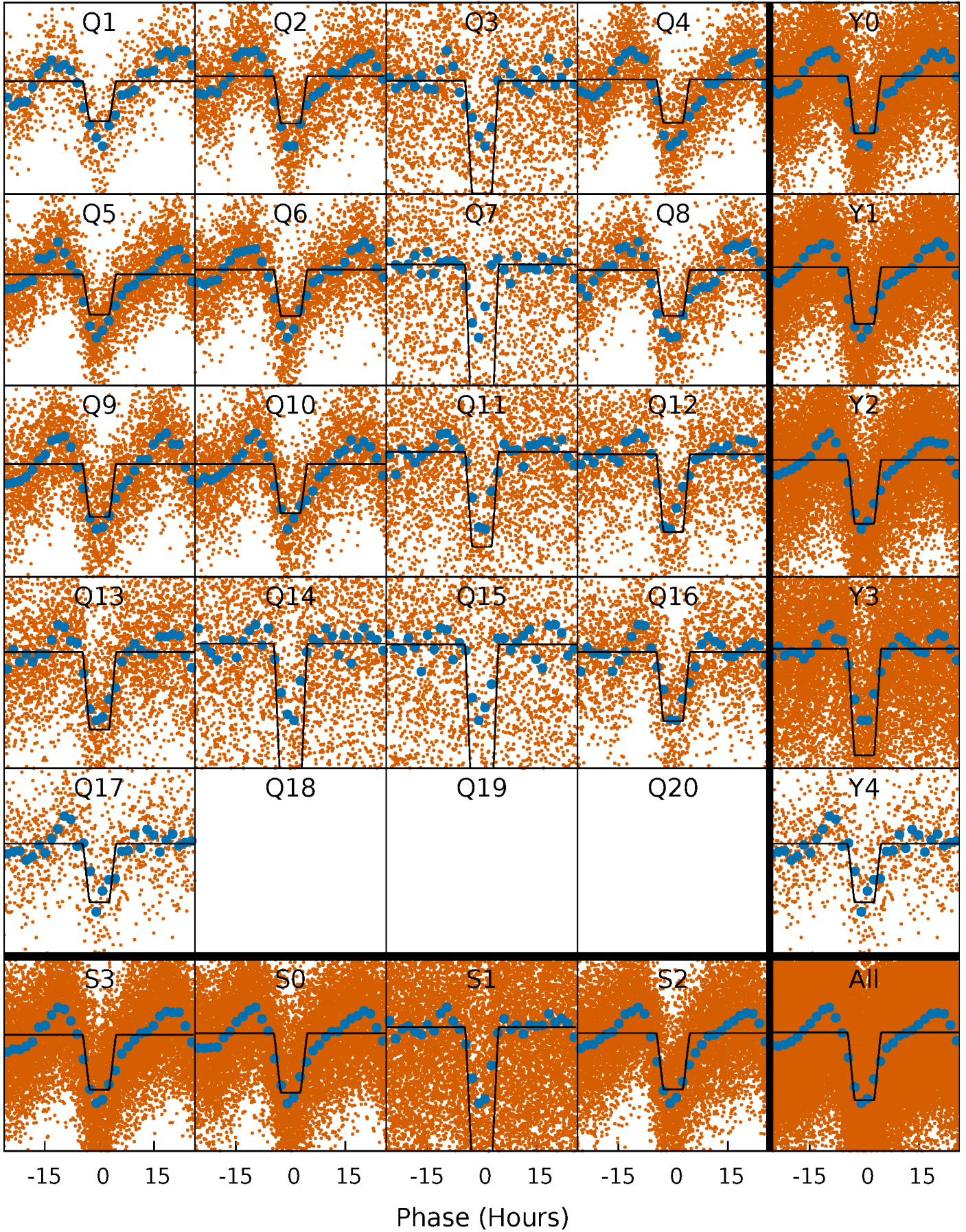
DV Quarter-Phased Transit Curves

TCE 007661500-01 P= 2.902871 Days $T_0=133.340567$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

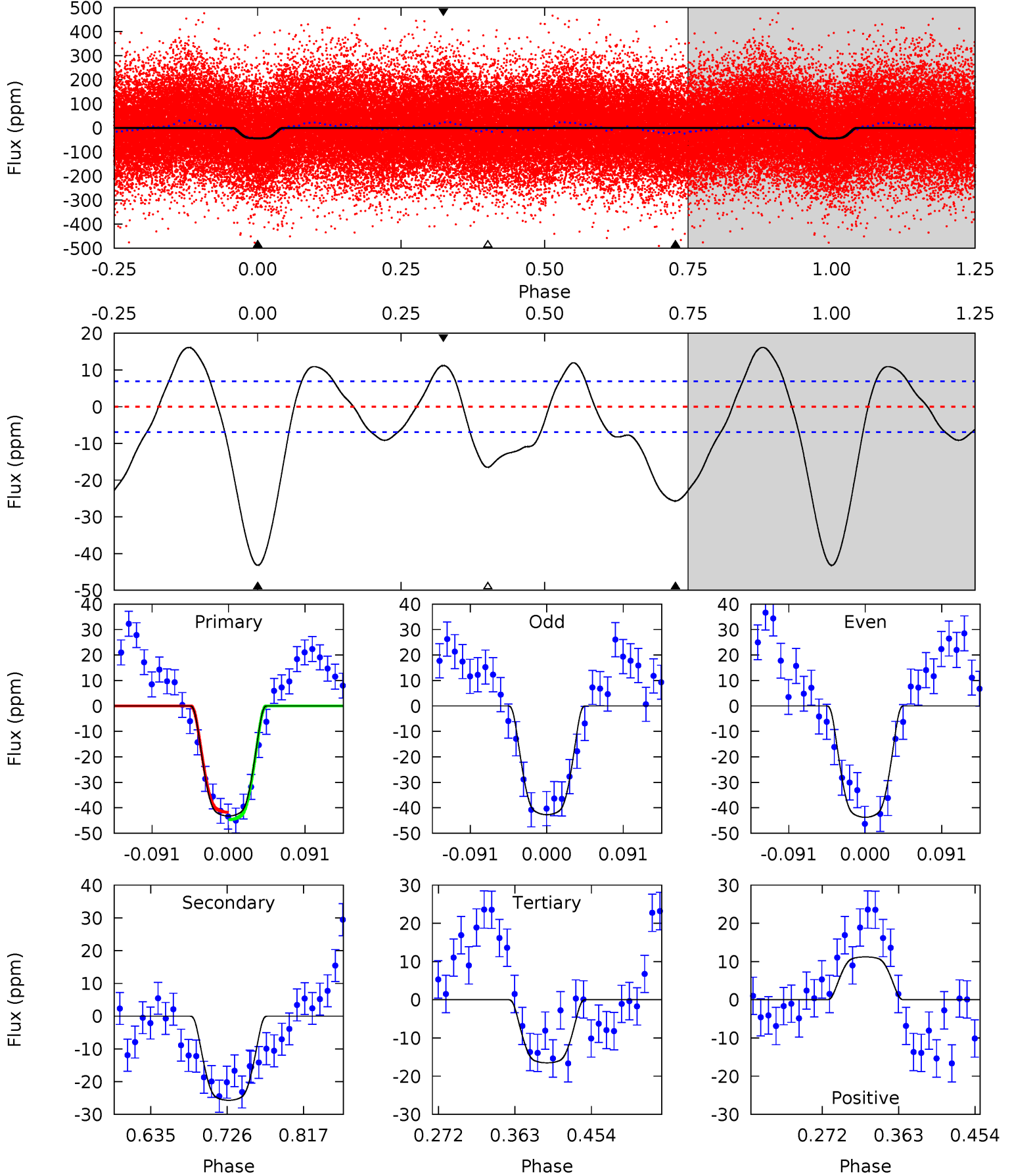
TCE 007661500-01 P= 2.902882 Days $T_0=133.380841$ (BKJD)



DV Model-Shift Uniqueness Test

007661500-01, P = 2.902871 Days, E = 130.437696 Days

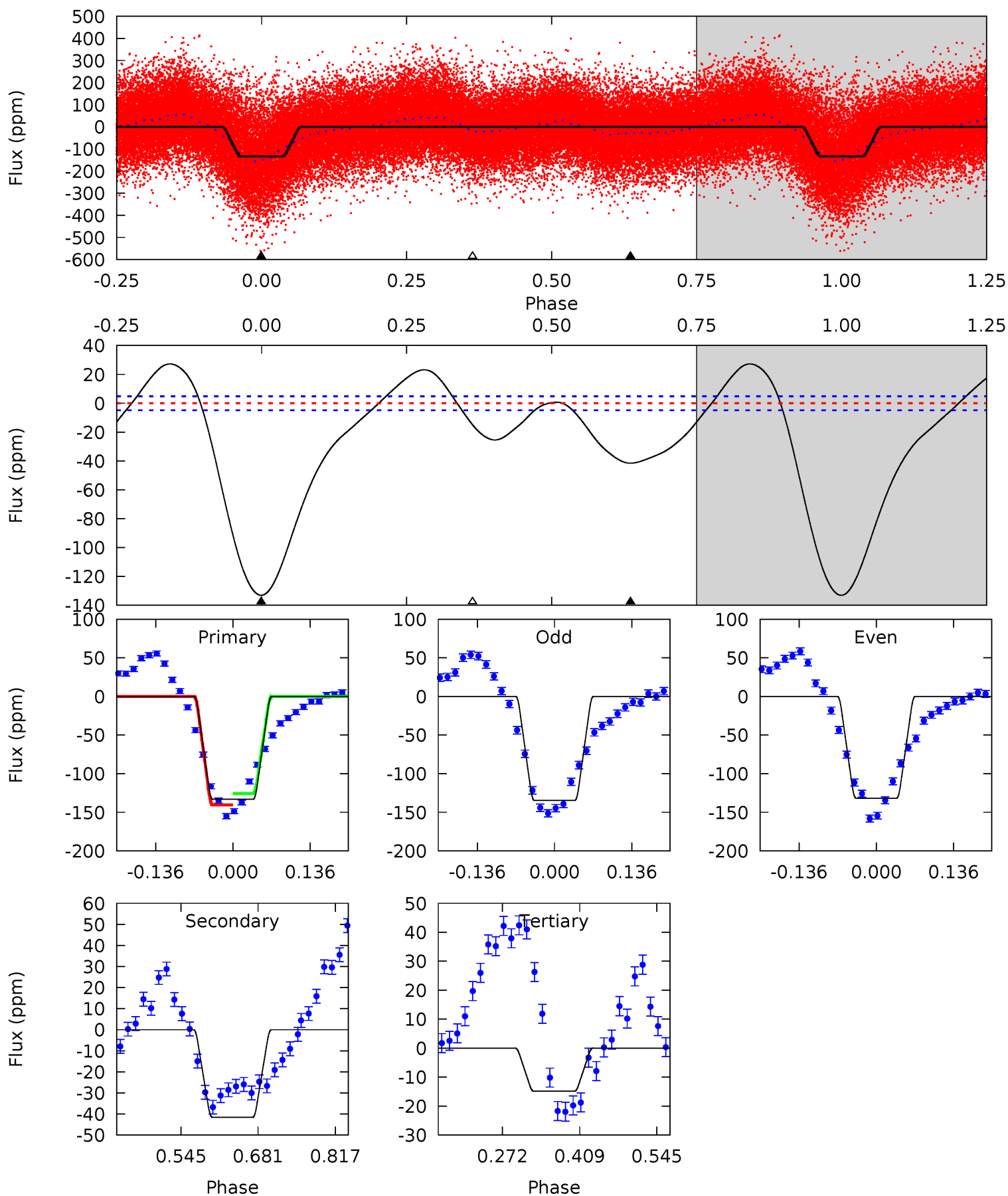
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
28.7	17.0	11.0	7.44	4.59	1.69	6.07	17.7	21.2	6.09	9.61	0.34	0.94	0.27	0.96



Alt Model-Shift Uniqueness Test

007661500-01, P = 2.902882 Days, E = 130.477959 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
123.8	38.6	13.8	0	4.50	1.49	15.5	110.0	123.8	24.8	38.6	1.25	0.99	0.17	6.81



Stellar Parameters For KIC 007661500

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	ρ_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	7154^{+171}_{-236}	$3.728^{+0.328}_{-0.082}$	$-0.540^{+0.300}_{-0.250}$	$2.760^{+0.359}_{-1.078}$	$1.483^{+0.204}_{-0.280}$	$0.099^{+0.237}_{-0.026}$
	+2%/-3%	+9%/-2%	+56%/-46%	+13%/-39%	+14%/-19%	+238%/-26%
Source	PHO1	FLK73	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 007661500-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-26 ± 2	$2.07^{+0.25}_{-0.44}$	3356^{+180}_{-317}	5947^{+269}_{-257}	$7.116^{+3.549}_{-1.517}$
Alt.	-42 ± 1	$3.51^{+0.37}_{-0.73}$	3362^{+199}_{-309}	5187^{+153}_{-155}	$3.973^{+1.987}_{-0.702}$

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

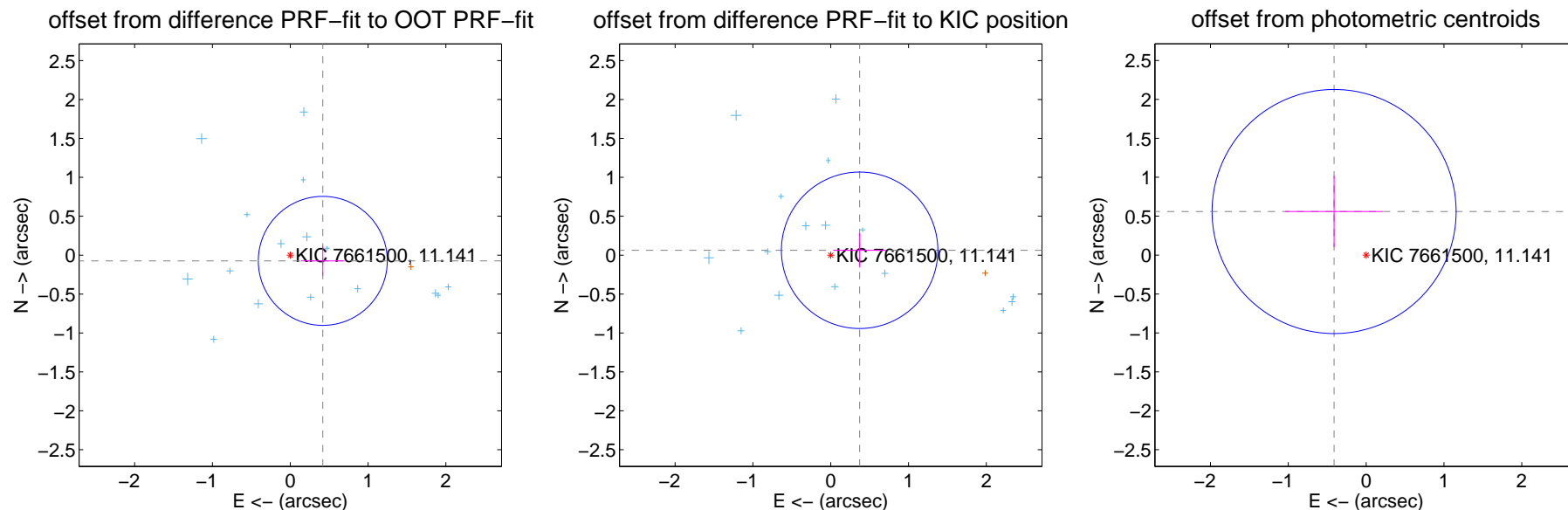
DV Centroid Data

Supplemental centroid analysis for 007661500-01. **Kepler magnitude: 11.14.** Transit SNR 10.23

There are 16 quarters with good PRF difference image offsets

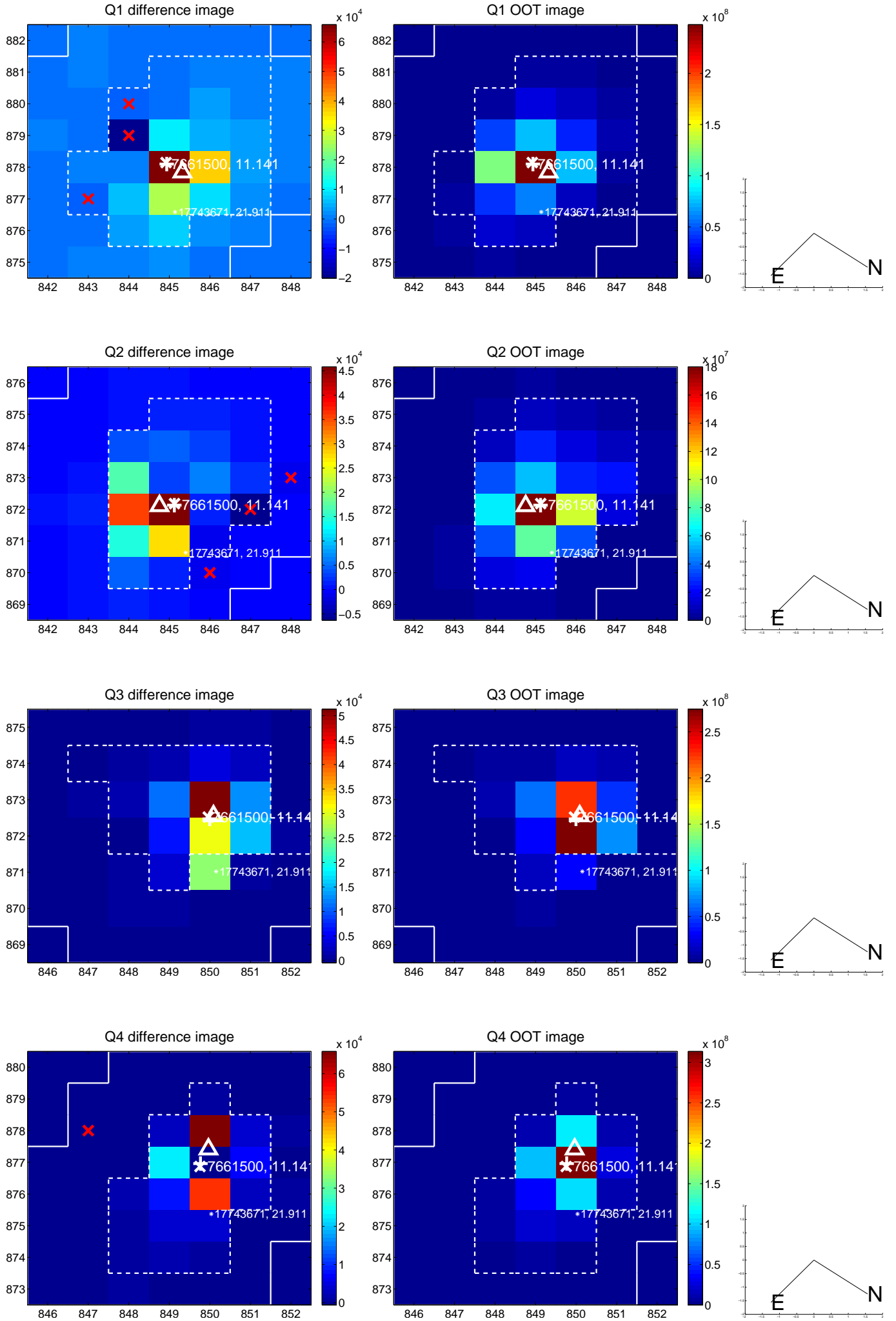
The direct PRF centroid is offset from the target star catalog position by about 0.37 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.424 ± 0.276	1.54	-0.418 ± 0.278	-0.073 ± 0.191
PRF-fit source offset from KIC position	0.377 ± 0.335	1.12	-0.371 ± 0.338	0.063 ± 0.220
photometric centroid source offset	0.69 ± 0.52	1.33	0.41 ± 0.63	0.56 ± 0.46

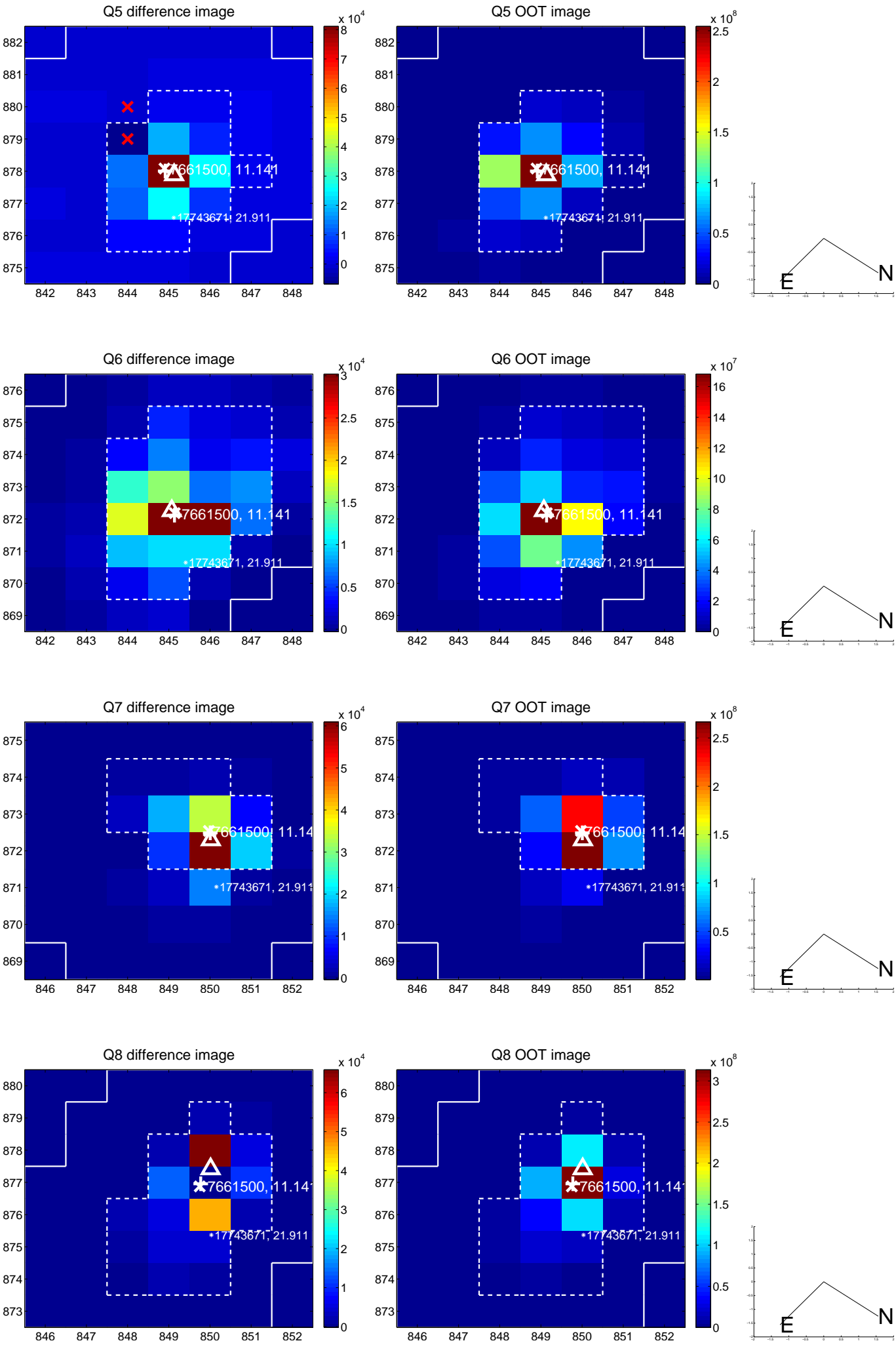


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

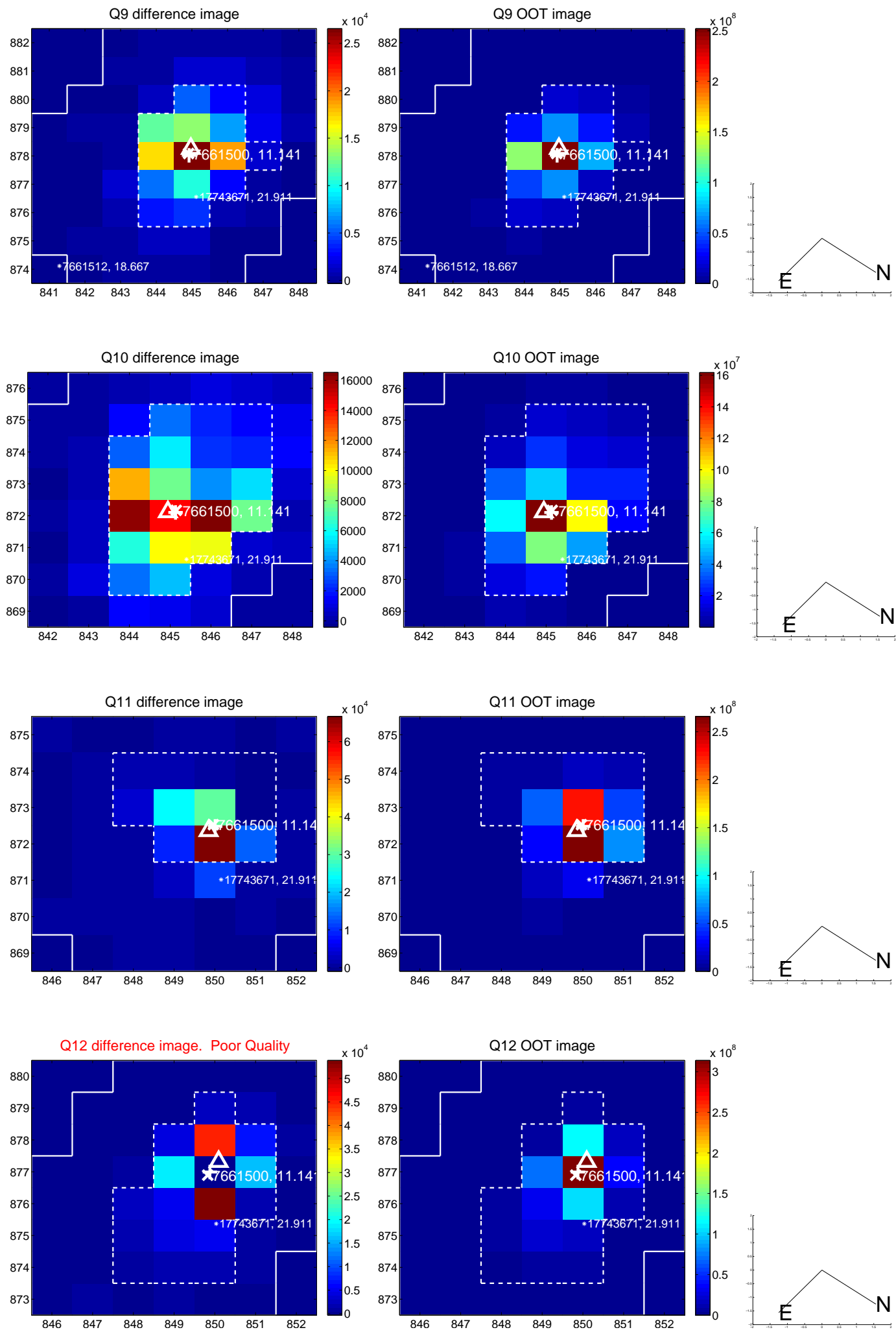
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



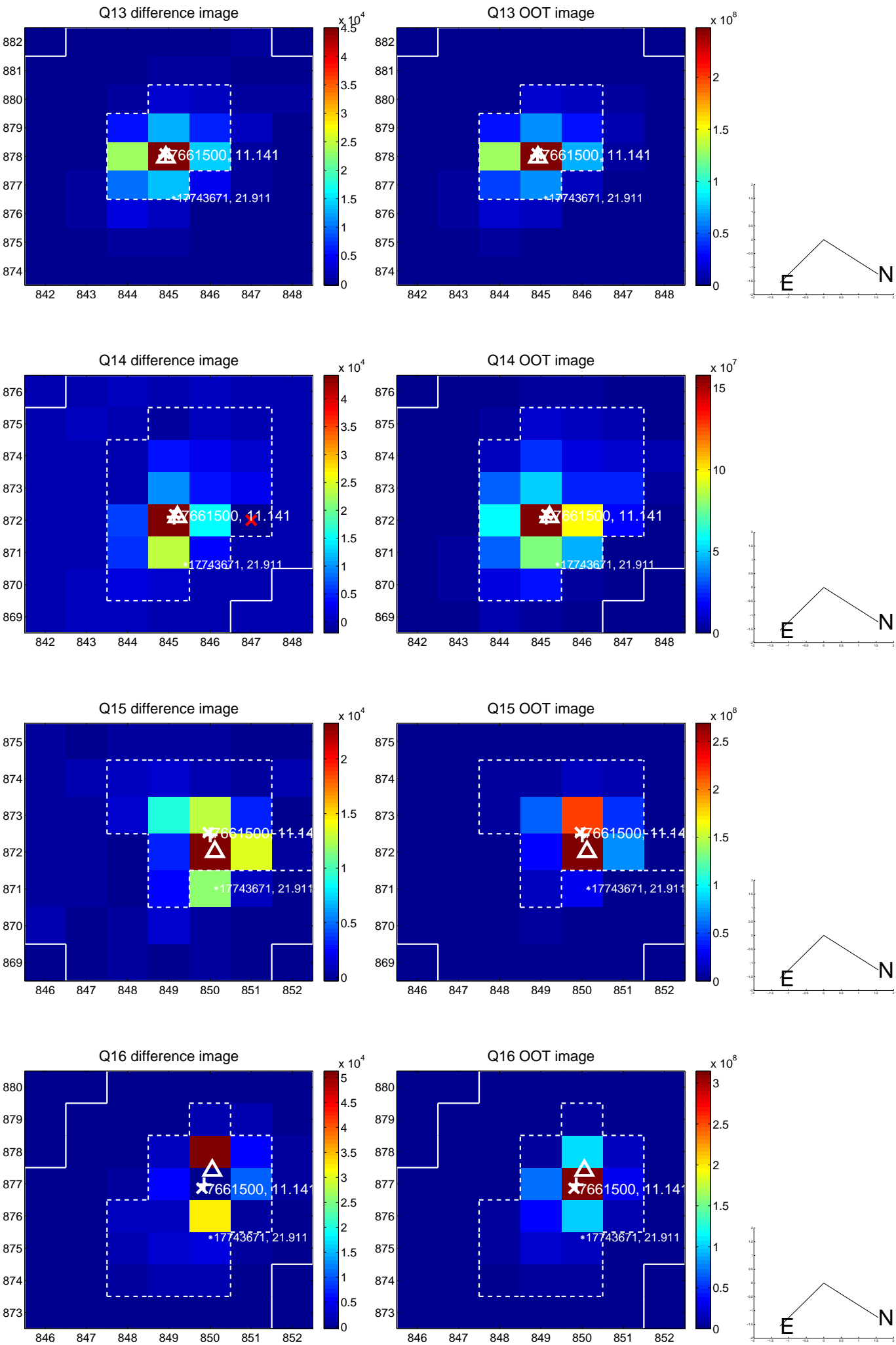
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



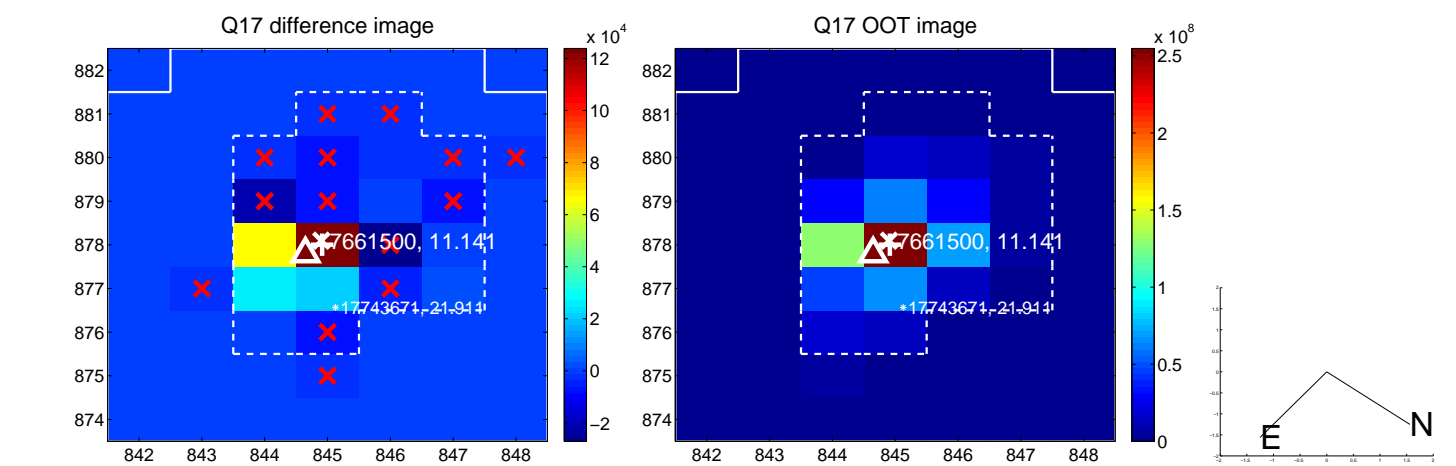
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



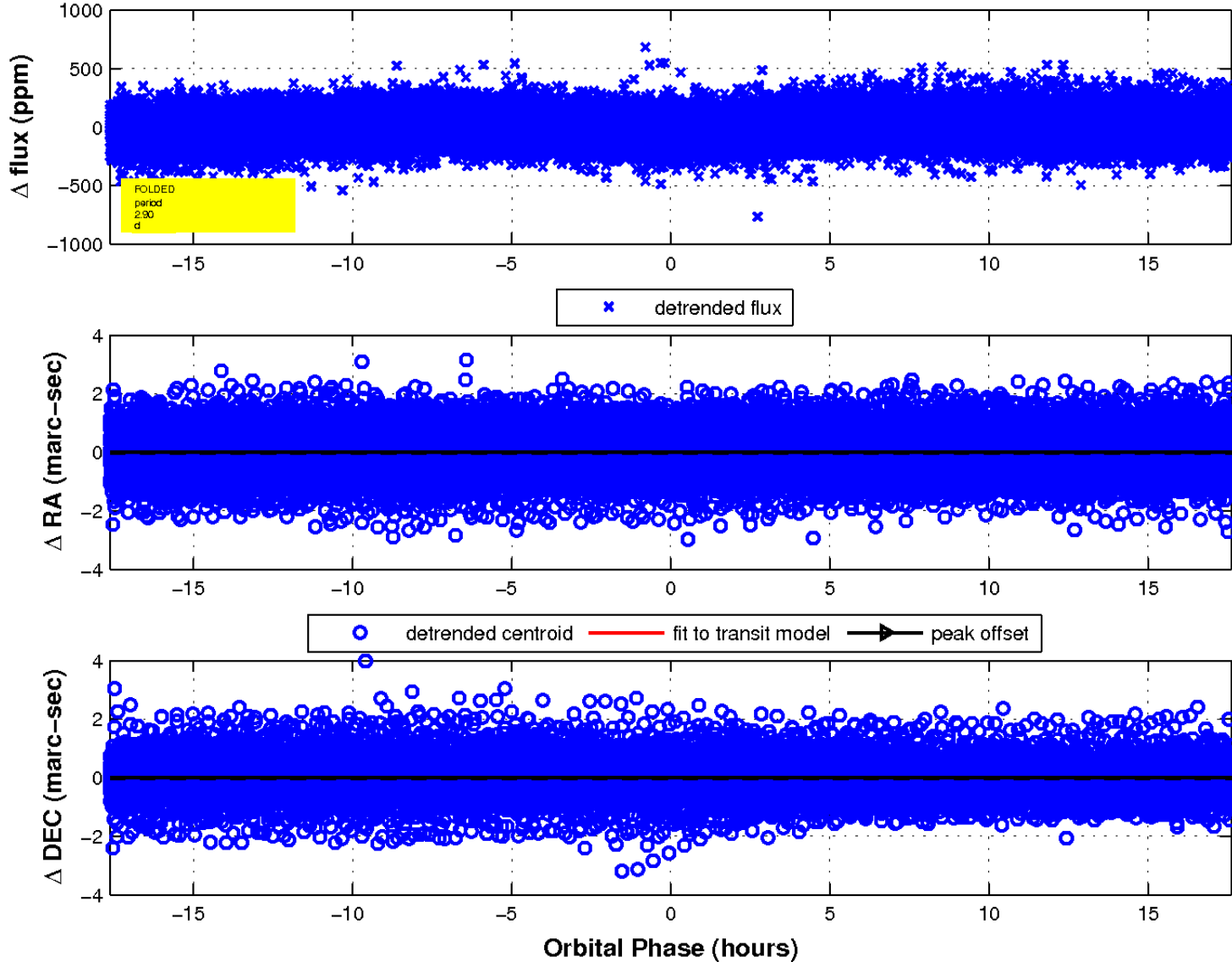
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

