

KIC 006879171

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})
006879171-01	OBS	4188.01	6.963634	133.006096	64.0	3.466	11.2	12.2	1.69	6040	1.58	671.68

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006879171-01	OBS	PC	0.99	0	0	0	0	NO_COMMENT

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.

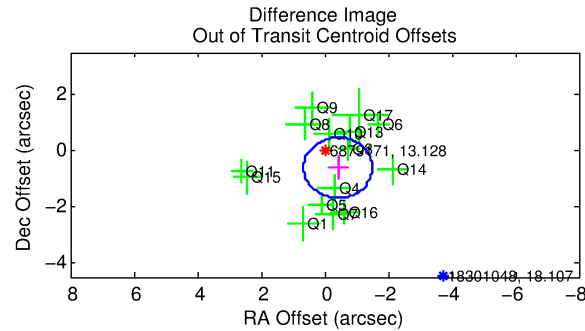
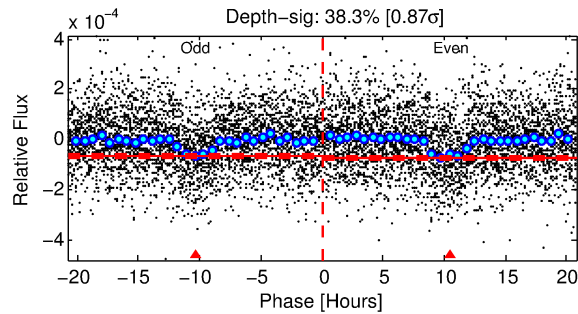
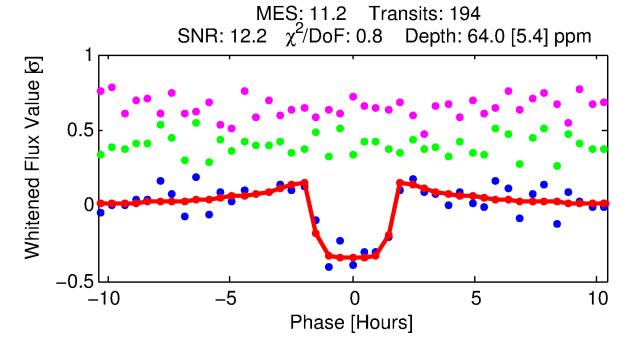
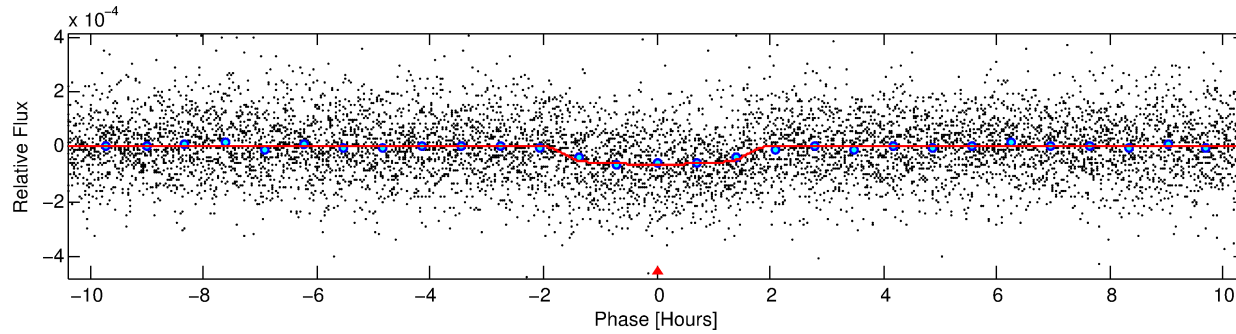
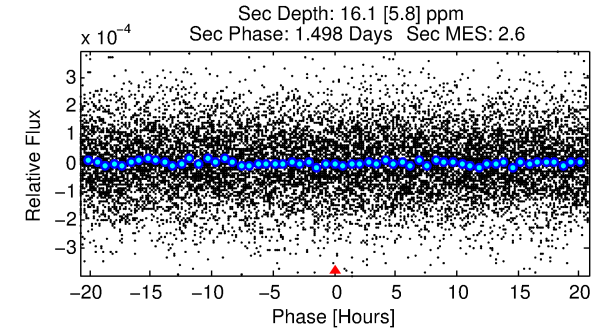
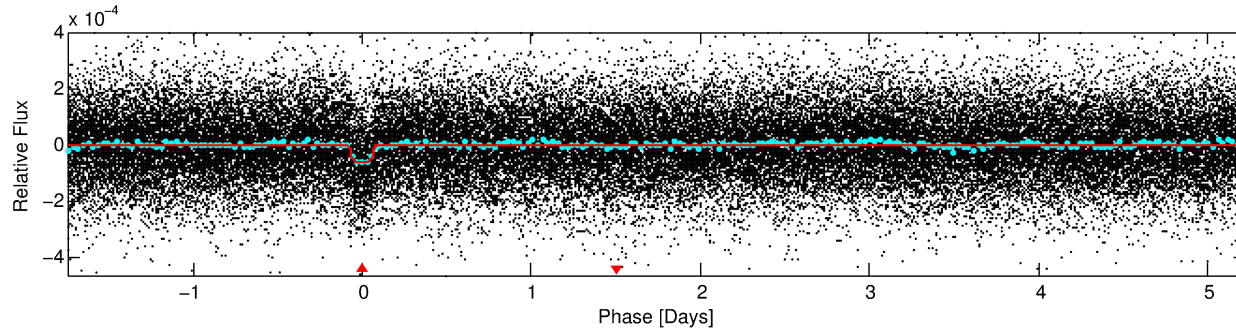
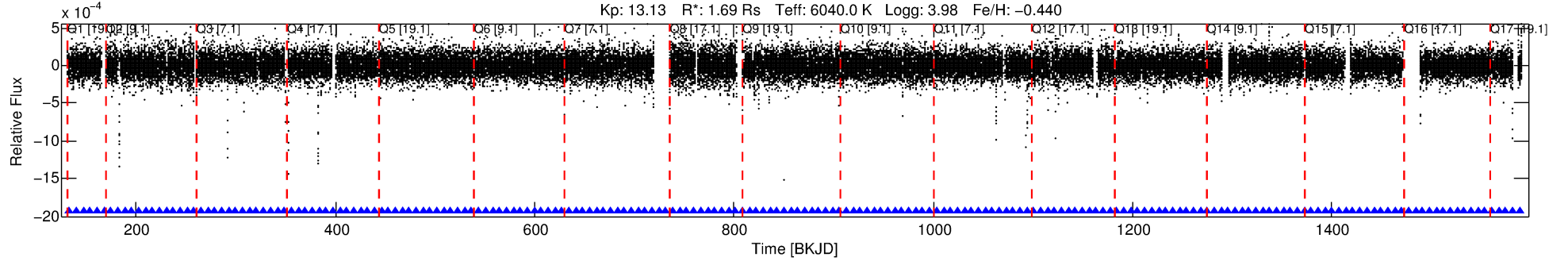
Ephemeris Match Information For 006879171-01

No Significant Match Found

DV One-Page Summary

KIC: 6879171 Candidate: 1 of 1 Period: 6.964 d

KOI: K04188.01 Corr: 0.955



DV Fit Results:

Period = 6.96363 [0.00003] d
Epoch = 133.0061 [0.0036] BKJD
Rp/R* = 0.0086 [0.0026]
a/R* = 7.03 [11.12]
b = 0.90 [0.34]
Seff = 671.69 [516.19]
Teq = 1298 [249] K
Rp = 1.59 [0.82] Re
a = 0.0710 [0.0319] AU
Ag = 17.82 [18.37] [0.92σ]
Teffp = 4124 [734] K [3.64σ]

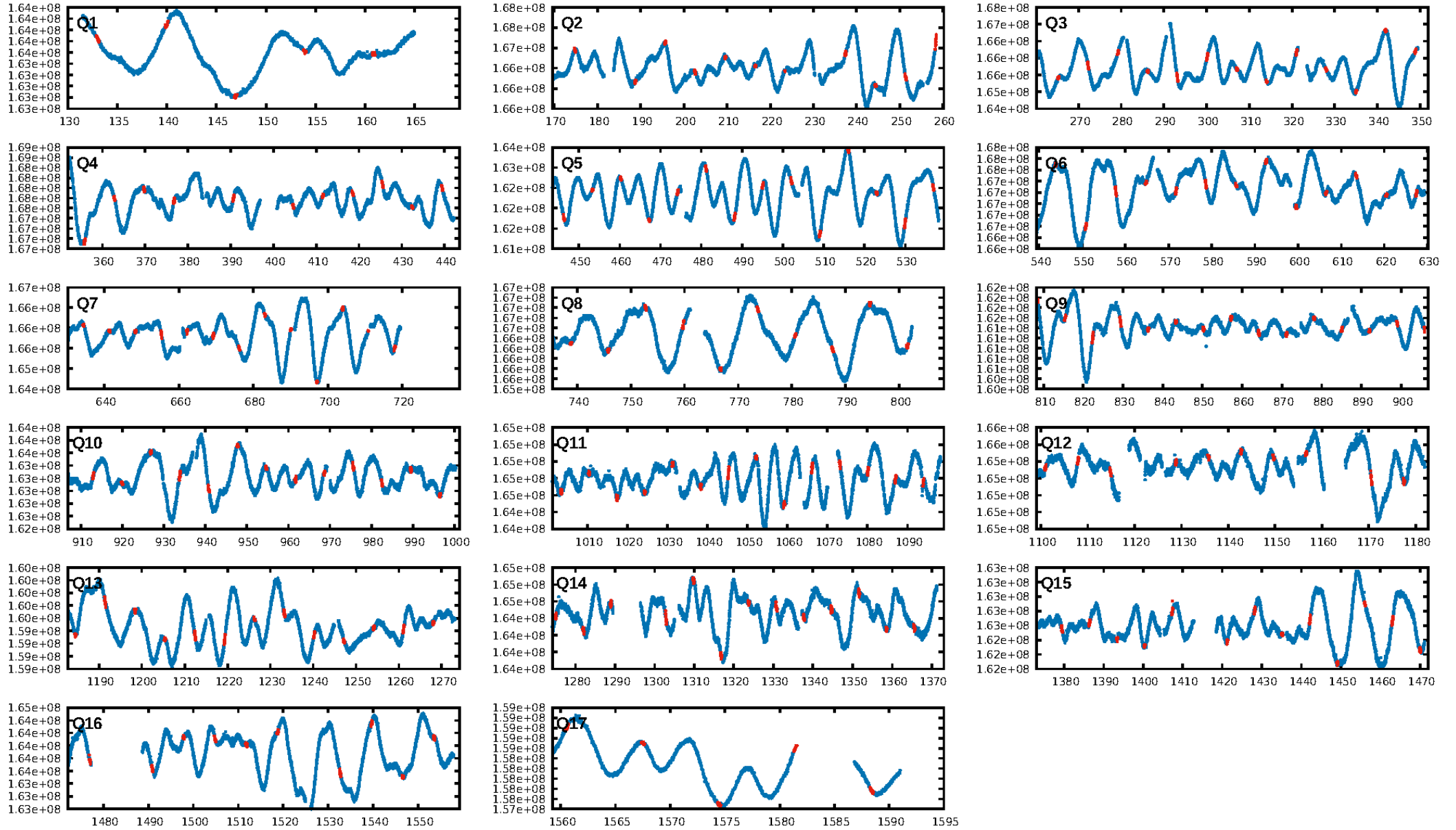
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 100.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 6.43e-26
RollingBand-fgt: 1.00 [184/184]
GhostDiagnostic-chr: 0.9203
Centroid-sig: 0.0%
Centroid-so: 1.356 arcsec [2.31σ]
OotOffset-rm: 0.739 arcsec [2.06σ]
KicOffset-rm: 0.683 arcsec [1.93σ]
OotOffset-st: 3/4/3/5 [15]
KicOffset-st: 3/4/3/5 [15]
DiffImageQuality-fgm: 0.93 [14/15]
DiffImageOverlap-fno: 1.00 [17/17]

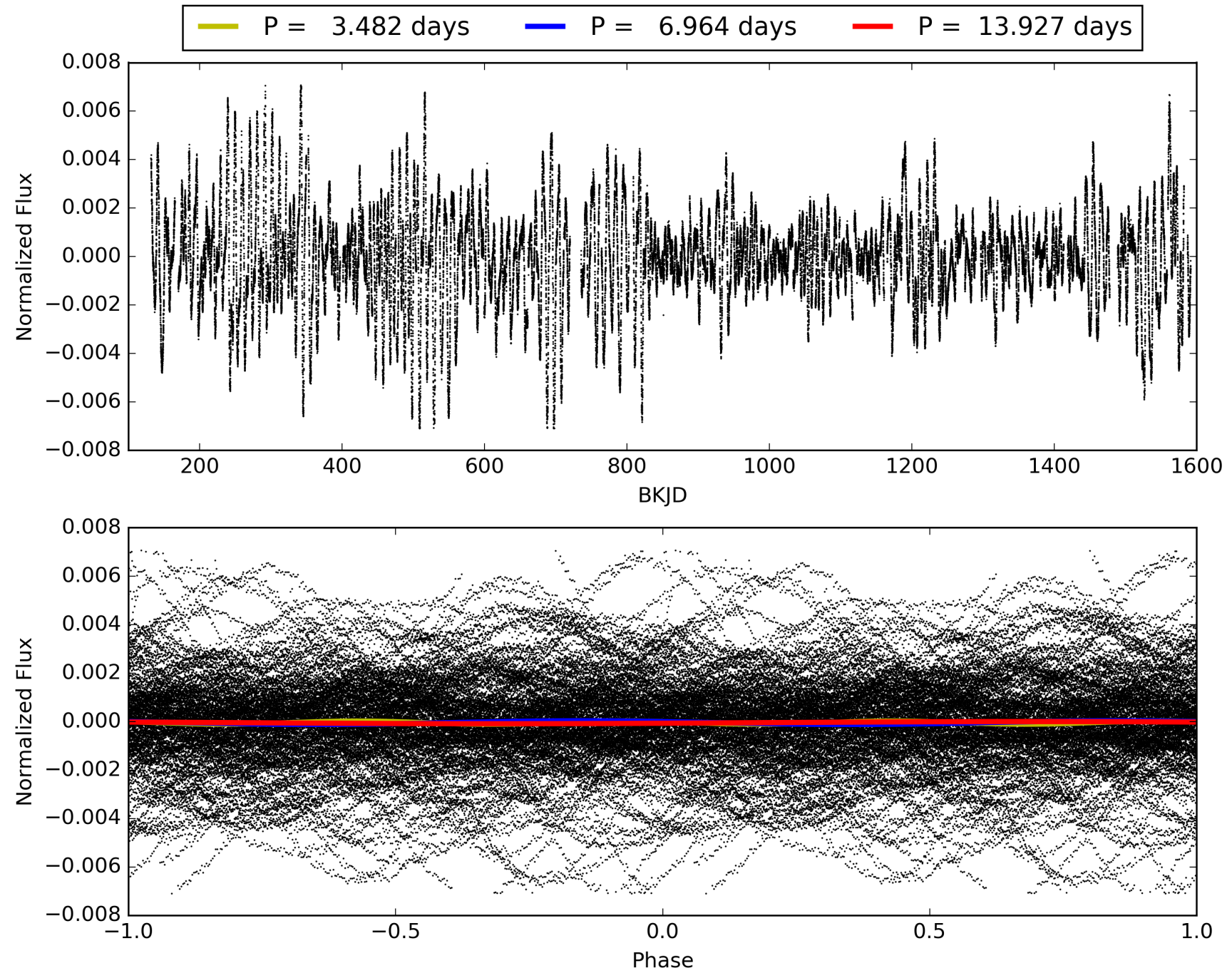
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 15:17:46 Z

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

TCE 006879171-01, PDC Light Curves

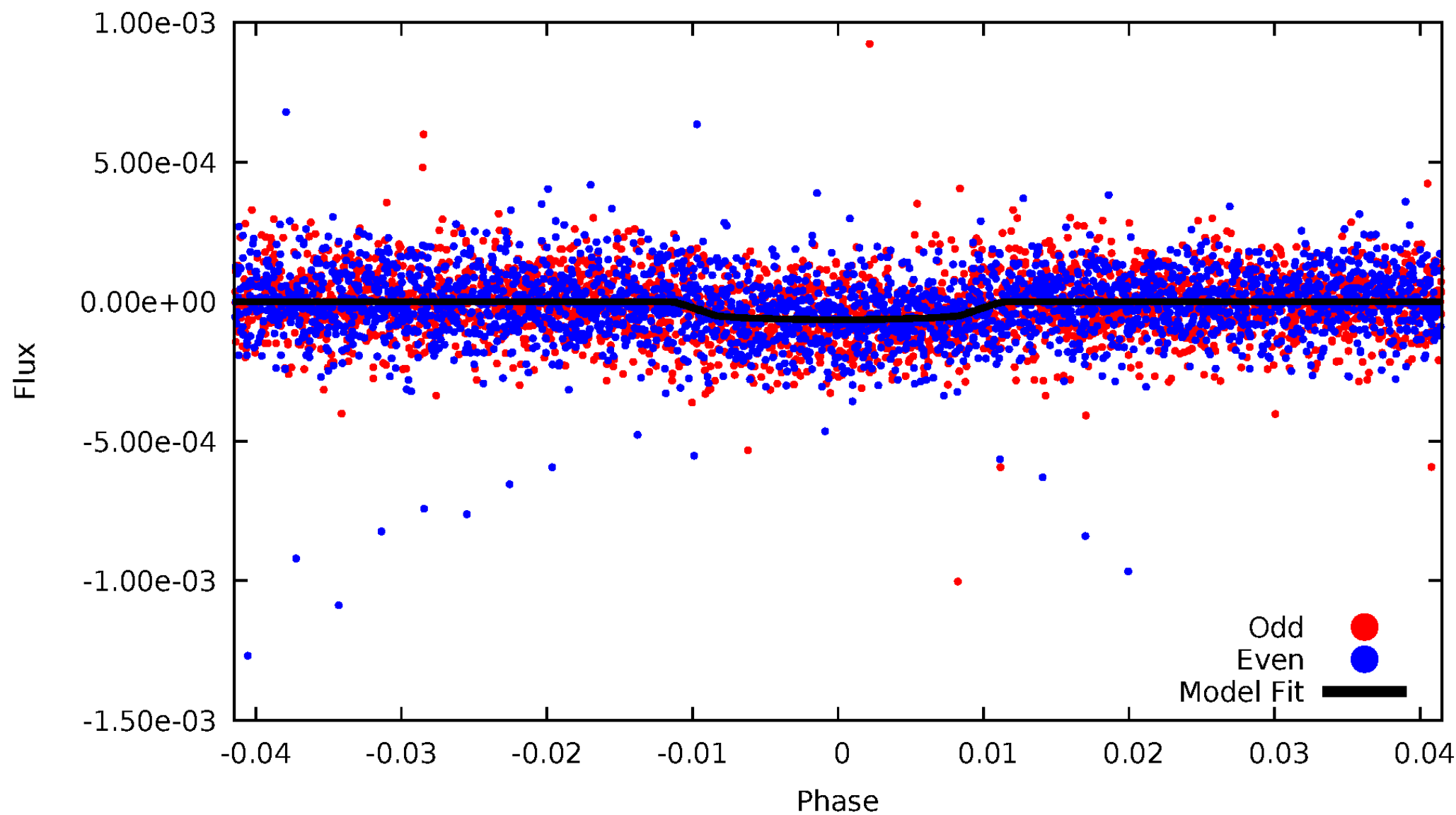


TCE 006879171-01



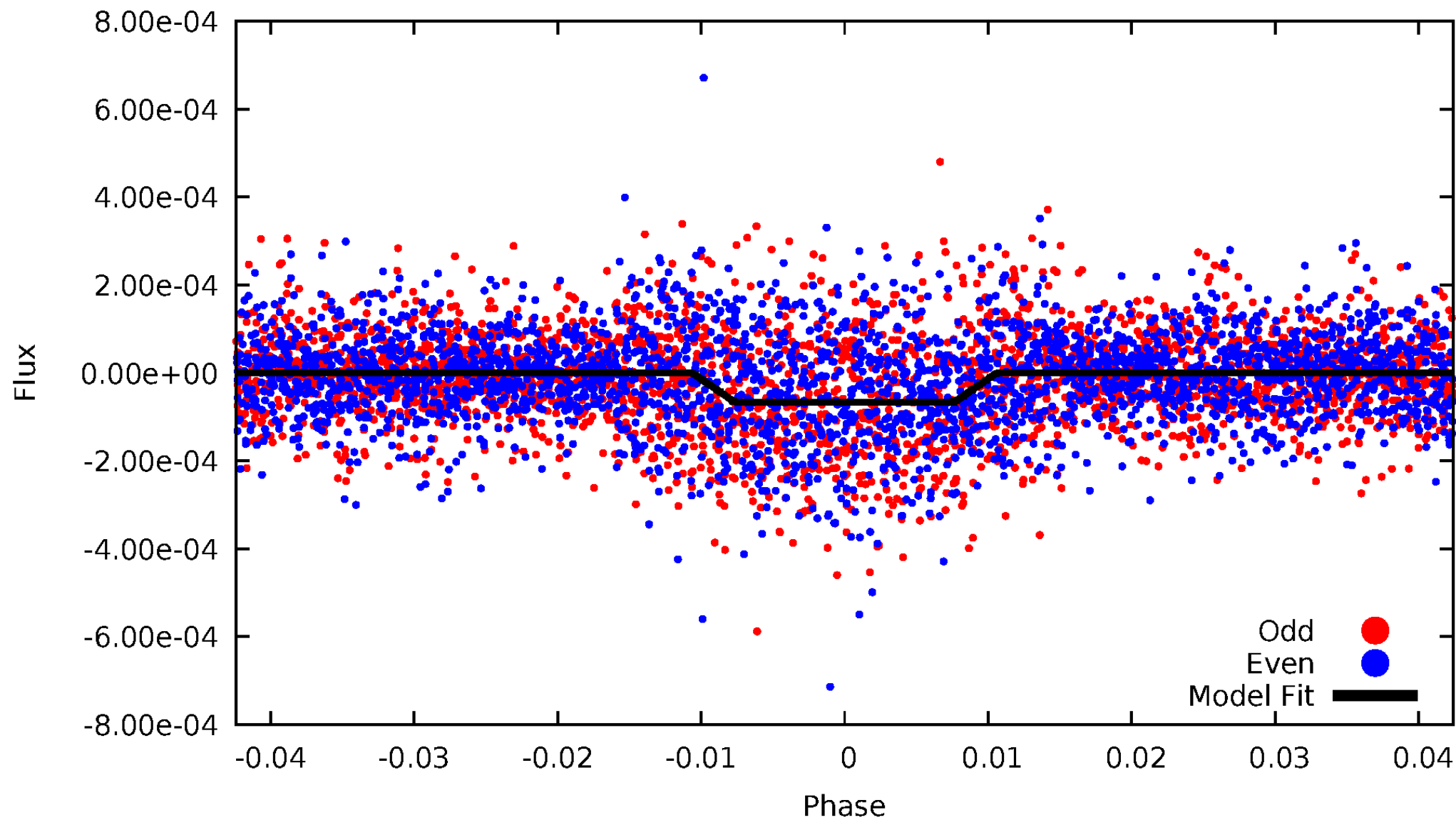
DV Odd/Even

TCE 006879171-01



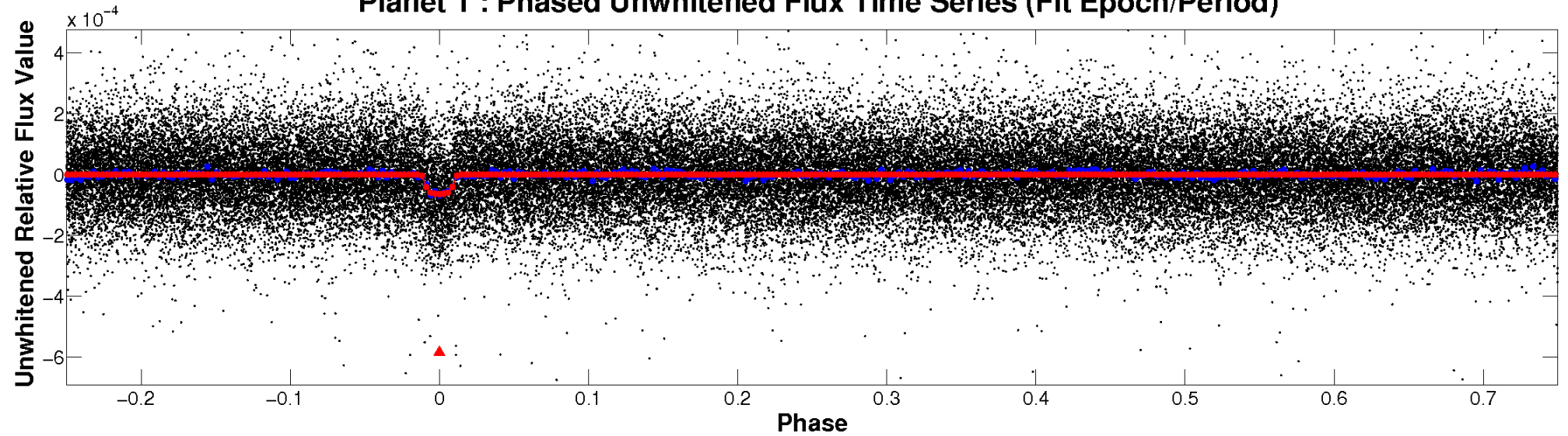
ALT Odd/Even

TCE 006879171-01

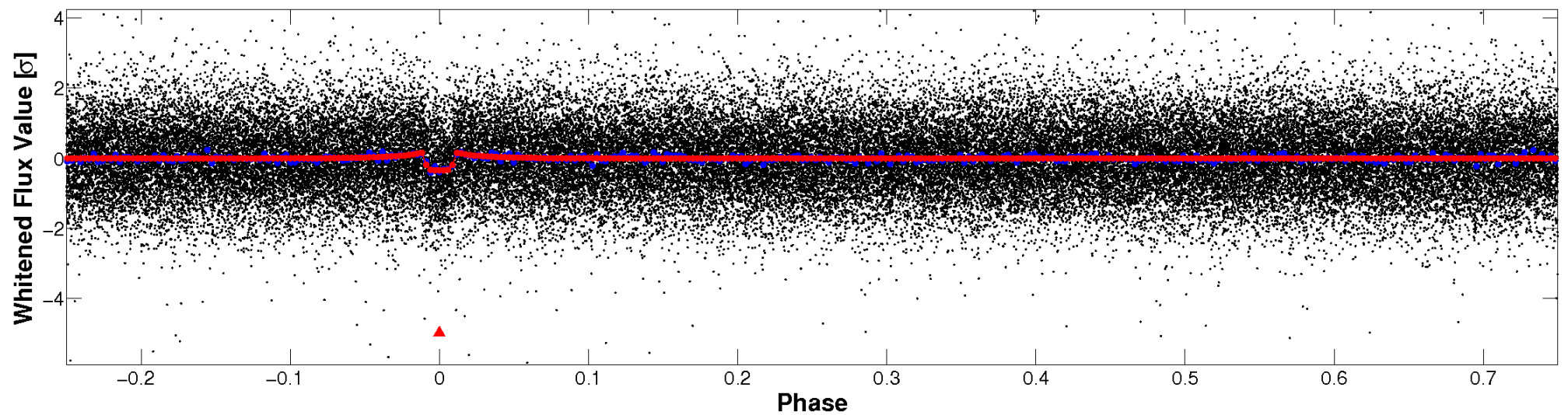


Non-Whitened Vs. Whitened Light Curve

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

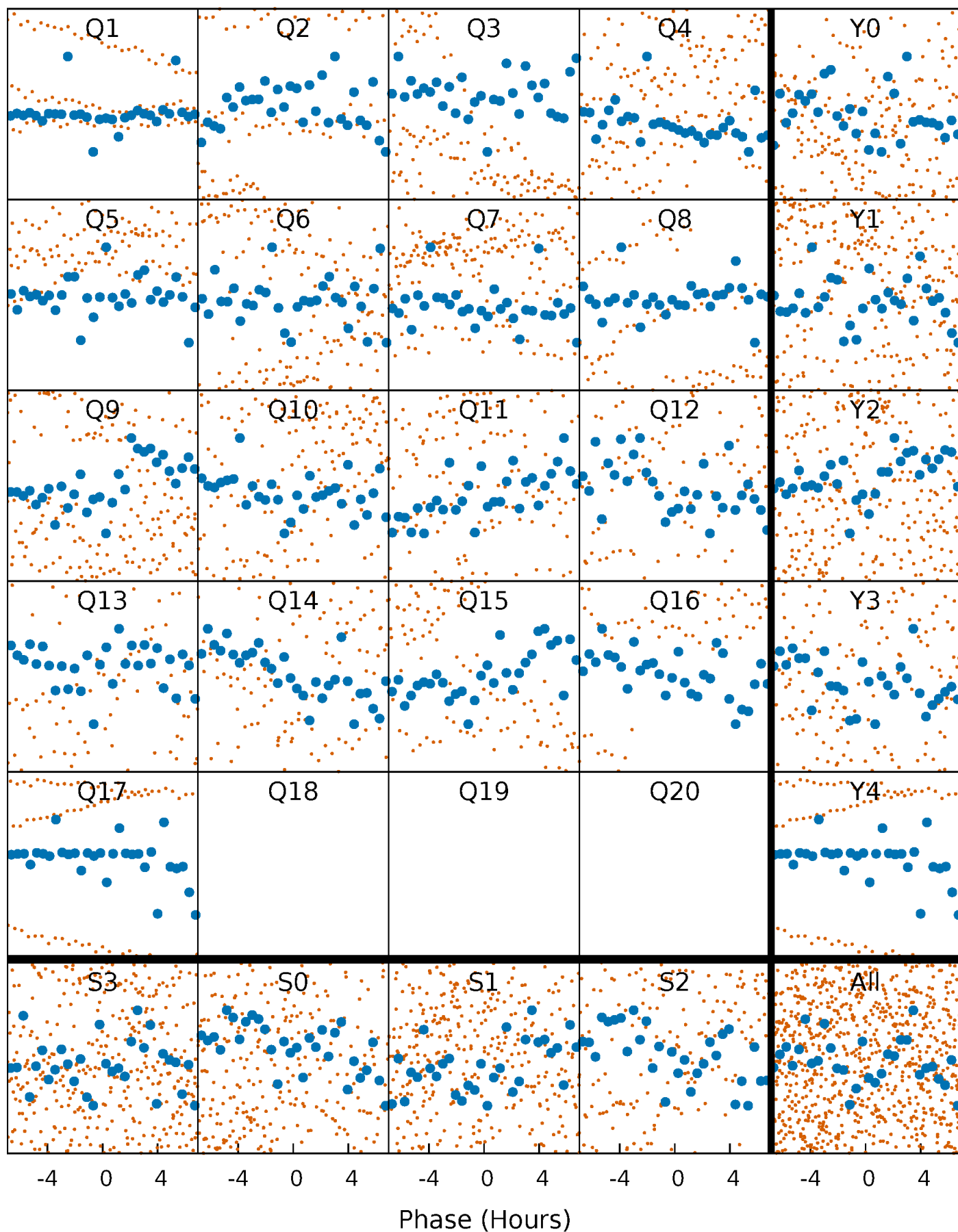


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



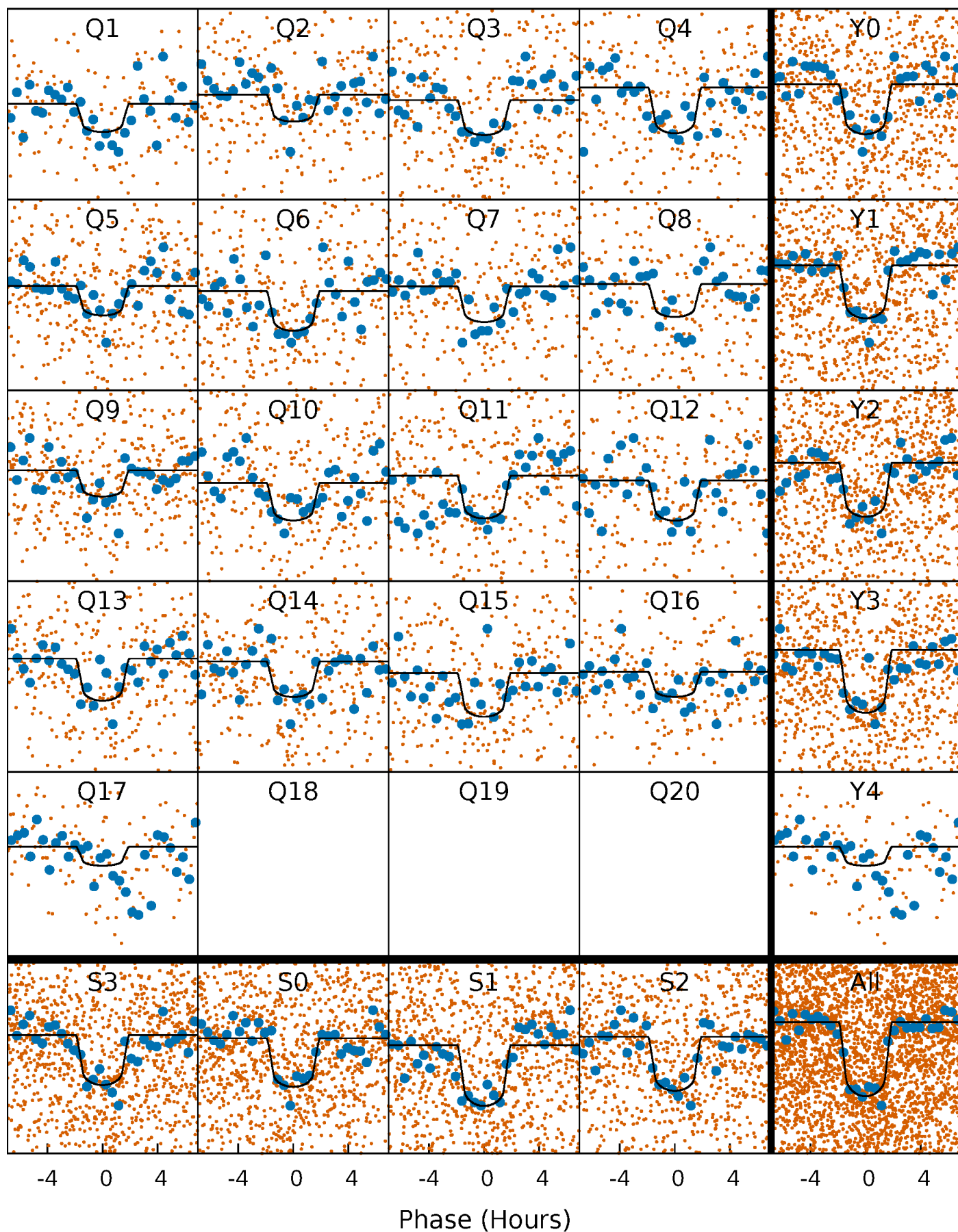
PDC Quarter-Phased Transit Curves

TCE 006879171-01 P= 6.963634 Days $T_0=133.006096$ (BKJD)



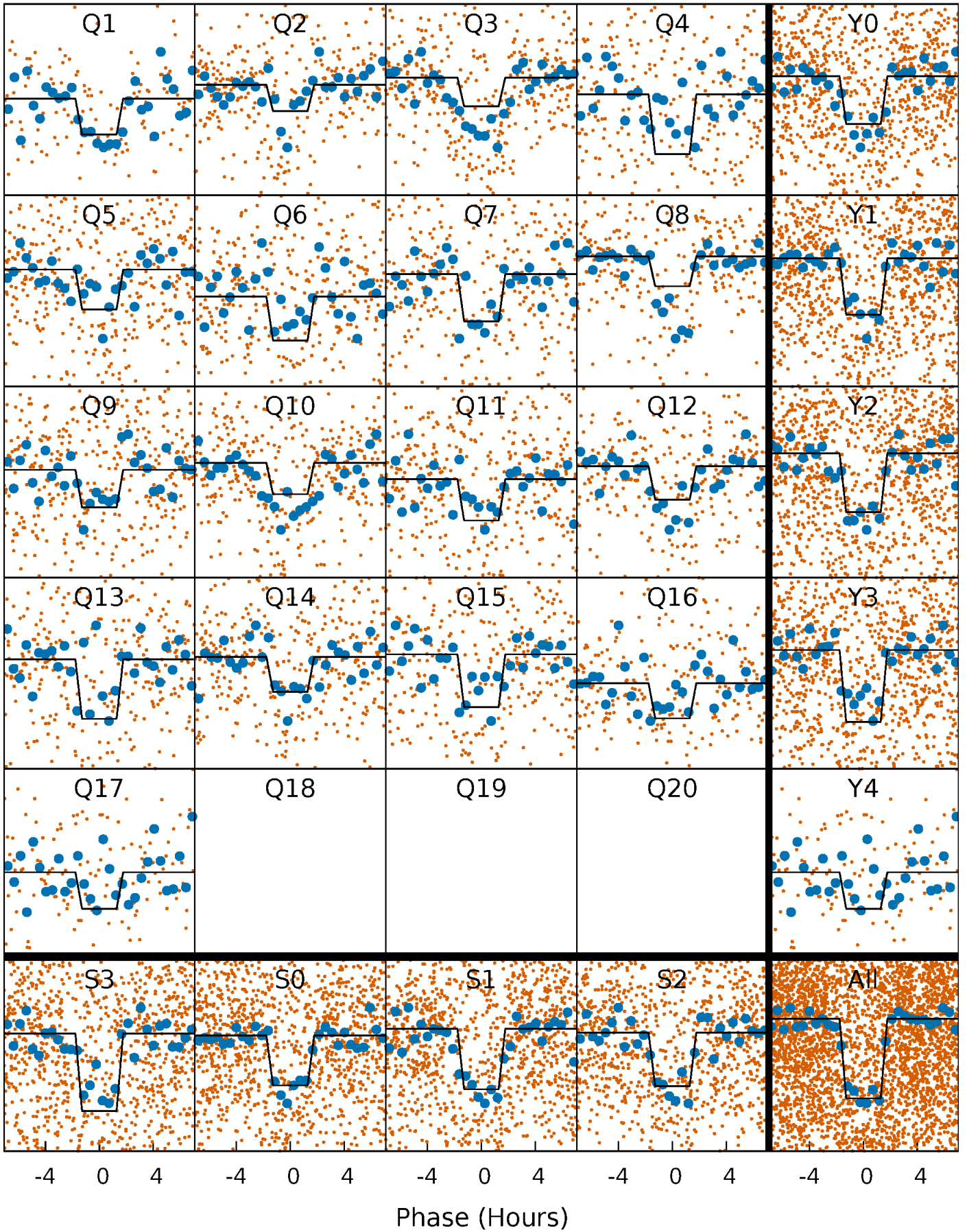
DV Quarter-Phased Transit Curves

TCE 006879171-01 P= 6.963634 Days $T_0=133.006096$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

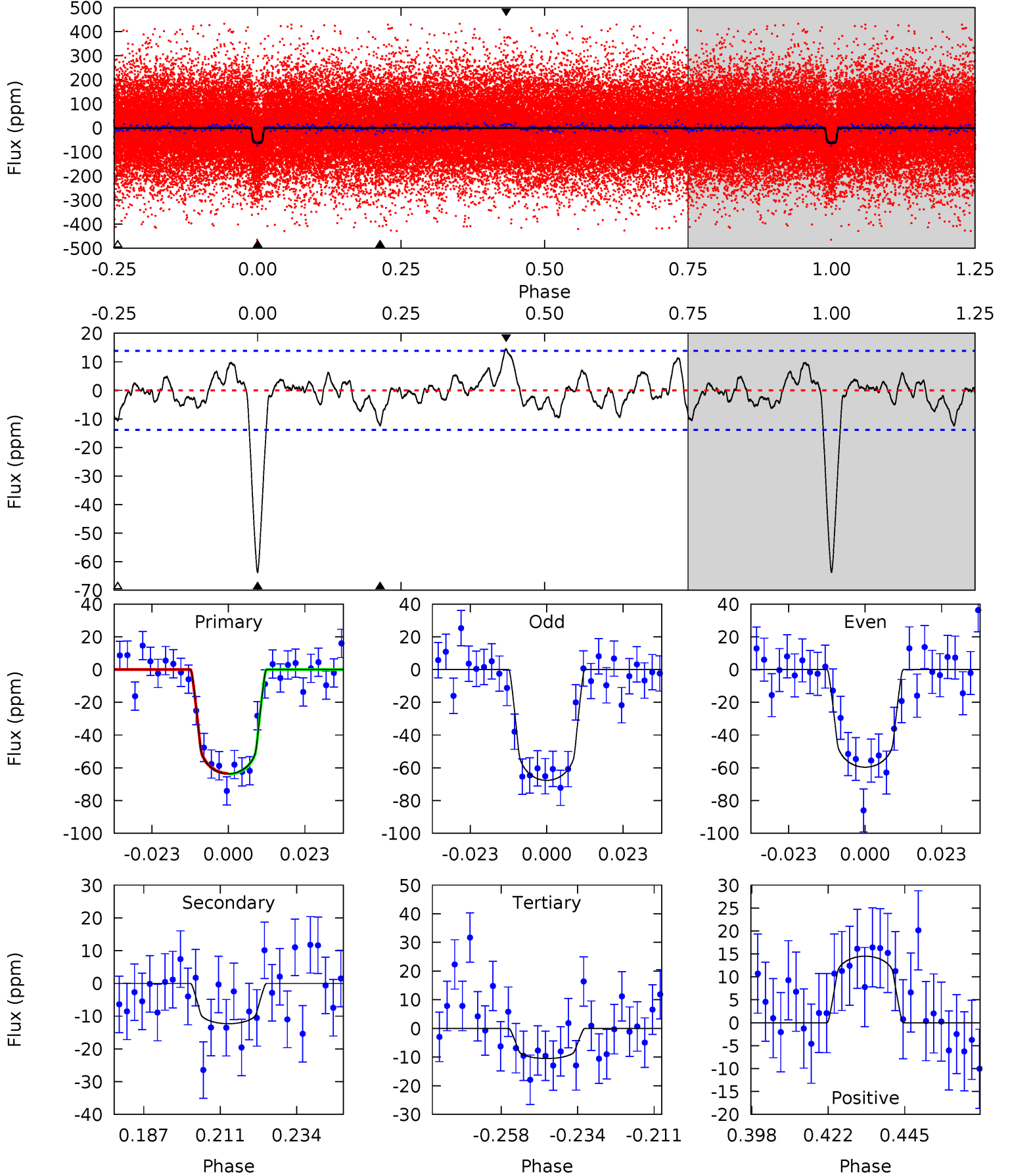
TCE 006879171-01 P= 6.963618 Days $T_0=133.007264$ (BKJD)



DV Model-Shift Uniqueness Test

006879171-01, P = 6.963634 Days, E = 126.042462 Days

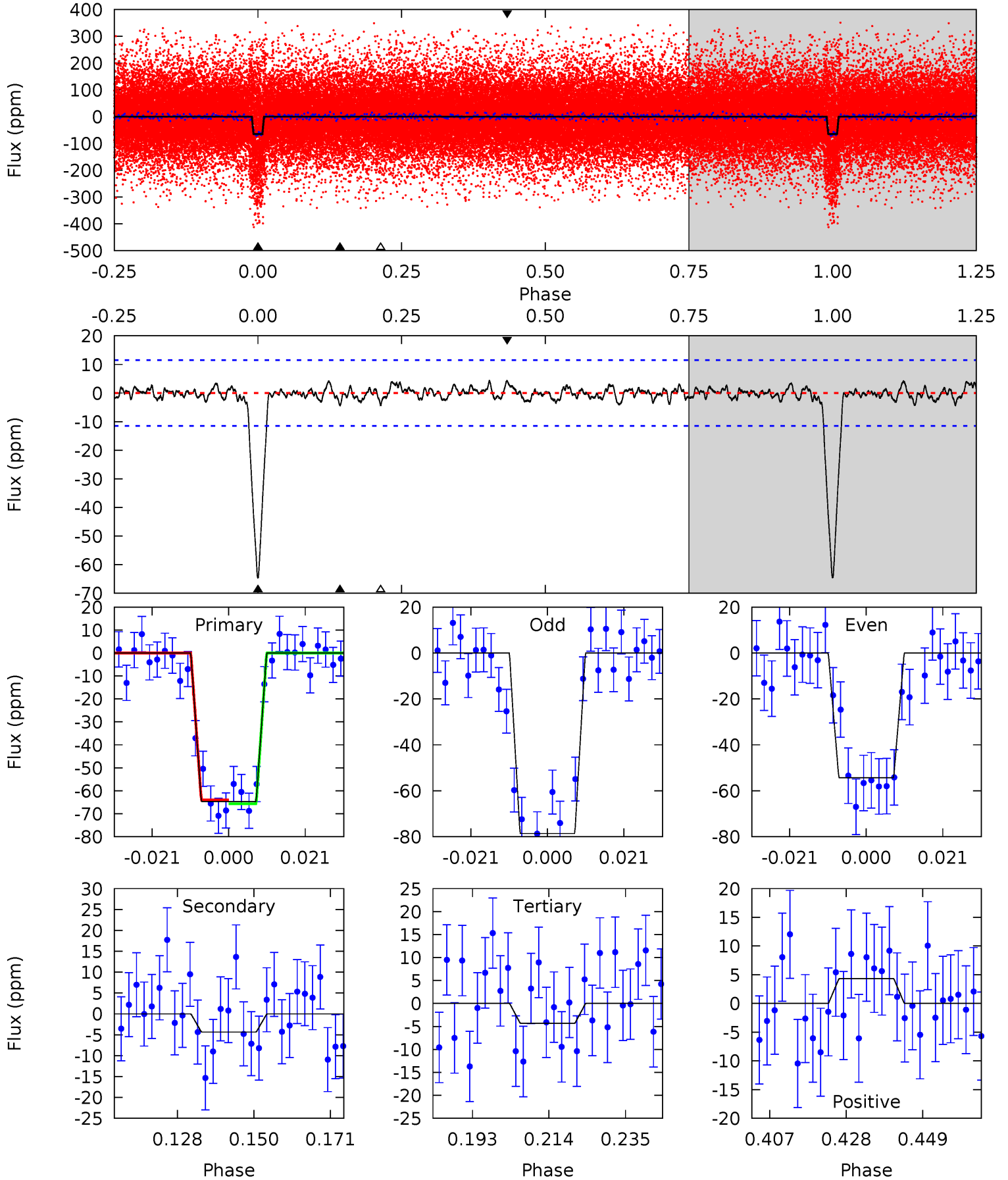
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
22.4	4.33	3.70	5.10	4.86	2.27	1.58	18.7	17.3	0.63	-0.77	1.42	1.09	0.19	0.08



Alt Model-Shift Uniqueness Test

006879171-01, P = 6.963618 Days, E = 126.043646 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
27.4	1.84	1.82	1.83	4.88	2.30	0.67	25.6	25.6	0.02	0.01	5.14	1.00	0.06	0.34



Stellar Parameters For KIC 006879171

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6040^{+201}_{-201}	$3.978^{+0.458}_{-0.153}$	$-0.440^{+0.300}_{-0.300}$	$1.686^{+0.413}_{-0.709}$	$0.984^{+0.137}_{-0.137}$	$0.289^{+1.183}_{-0.120}$
	+3%/-3%	+12%/-4%	+68%/-68%	+24%/-42%	+14%/-14%	+409%/-41%
Source	PHO54	PHO54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 006879171-01 / KOI 4188.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-12 ± 3	$1.46^{+0.61}_{-0.50}$	1779^{+154}_{-202}	4115^{+616}_{-410}	16^{+21}_{-8}
Alt.	-4 ± 2	$1.34^{+0.61}_{-0.45}$	1780^{+149}_{-215}	3491^{+552}_{-474}	$6.140^{+10.035}_{-3.792}$

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 $A_{obs} \gg 1.0$

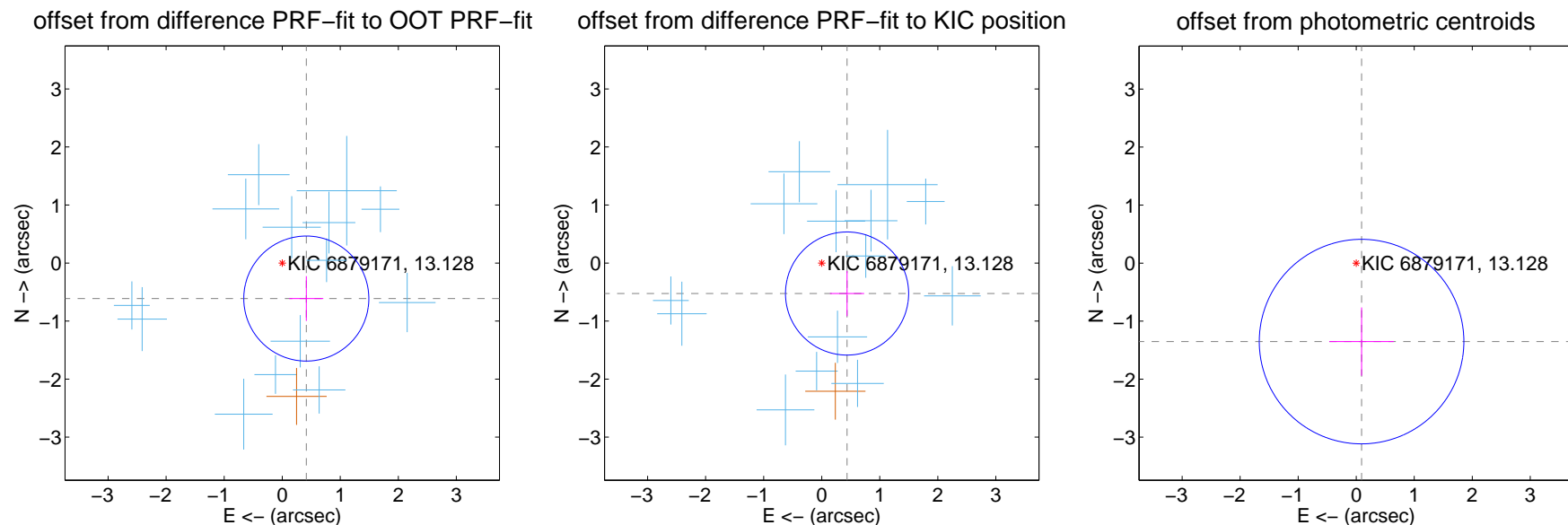
DV Centroid Data

Supplemental centroid analysis for 006879171-01. Kepler magnitude: 13.13. Transit SNR 12.21

There are 14 quarters with good PRF difference image offsets

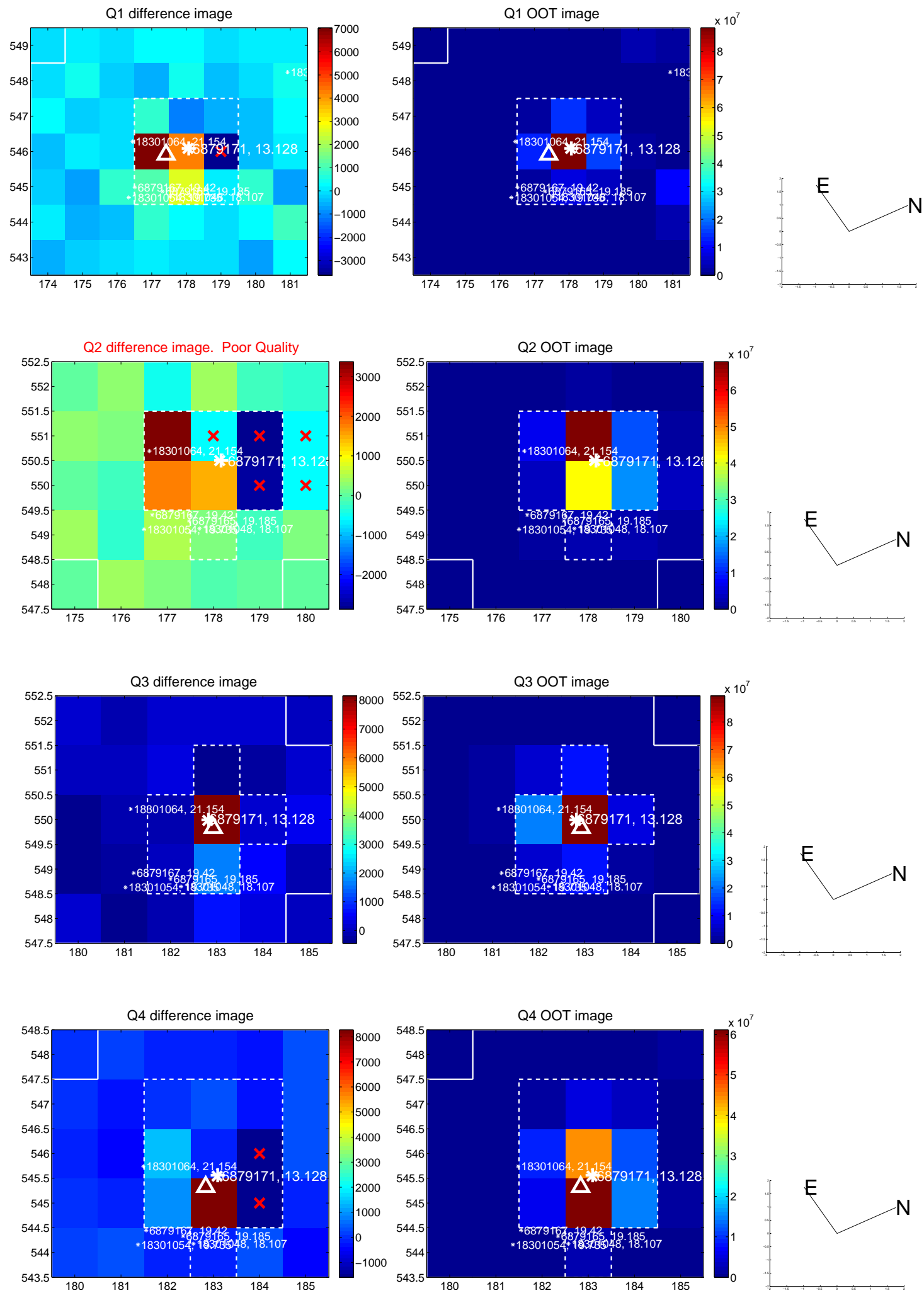
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.739 ± 0.359	2.06	-0.415 ± 0.293	-0.612 ± 0.386
PRF-fit source offset from KIC position	0.683 ± 0.354	1.93	-0.437 ± 0.294	-0.525 ± 0.390
photometric centroid source offset	1.36 ± 0.59	2.31	-0.09 ± 0.56	-1.35 ± 0.59

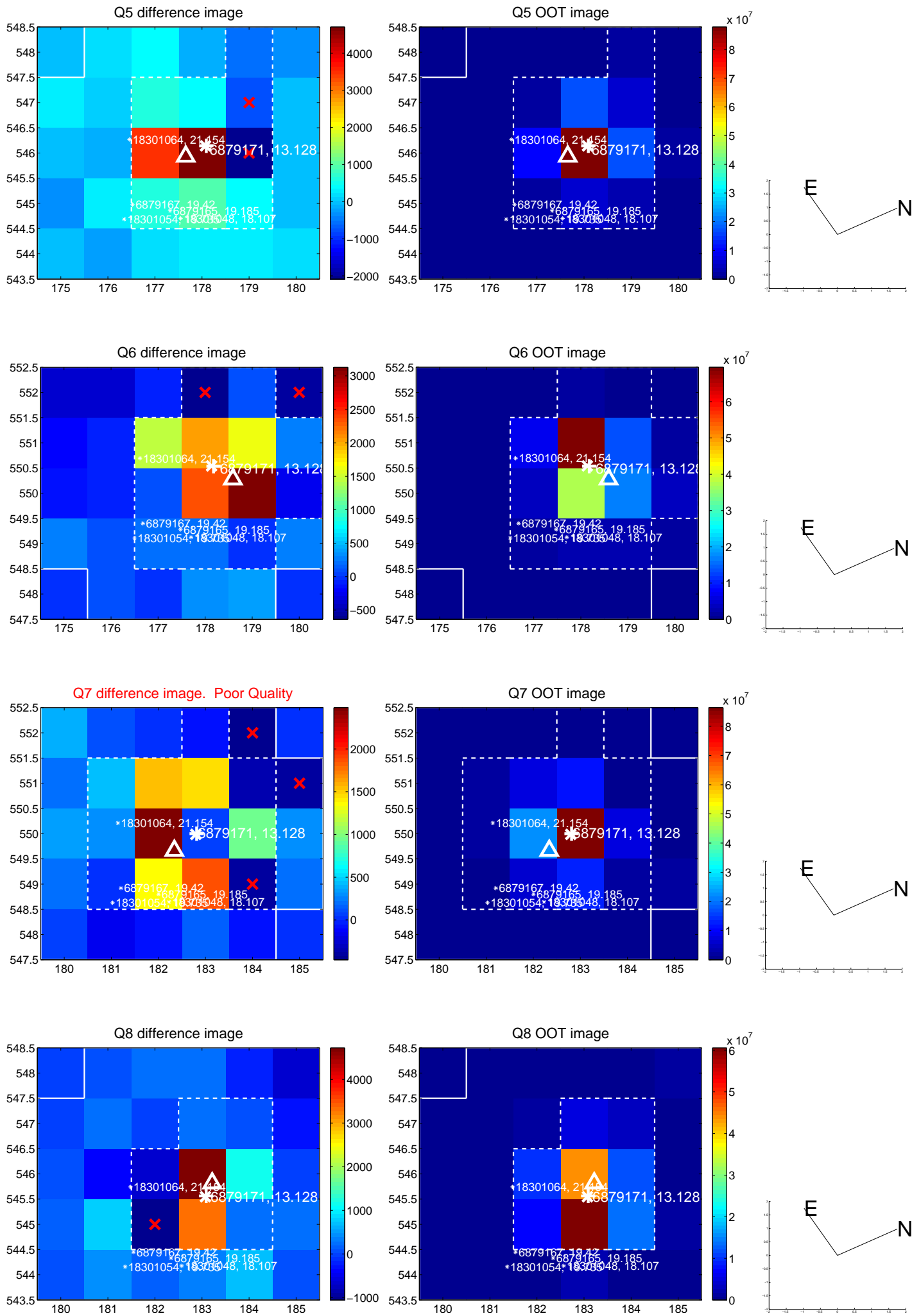


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

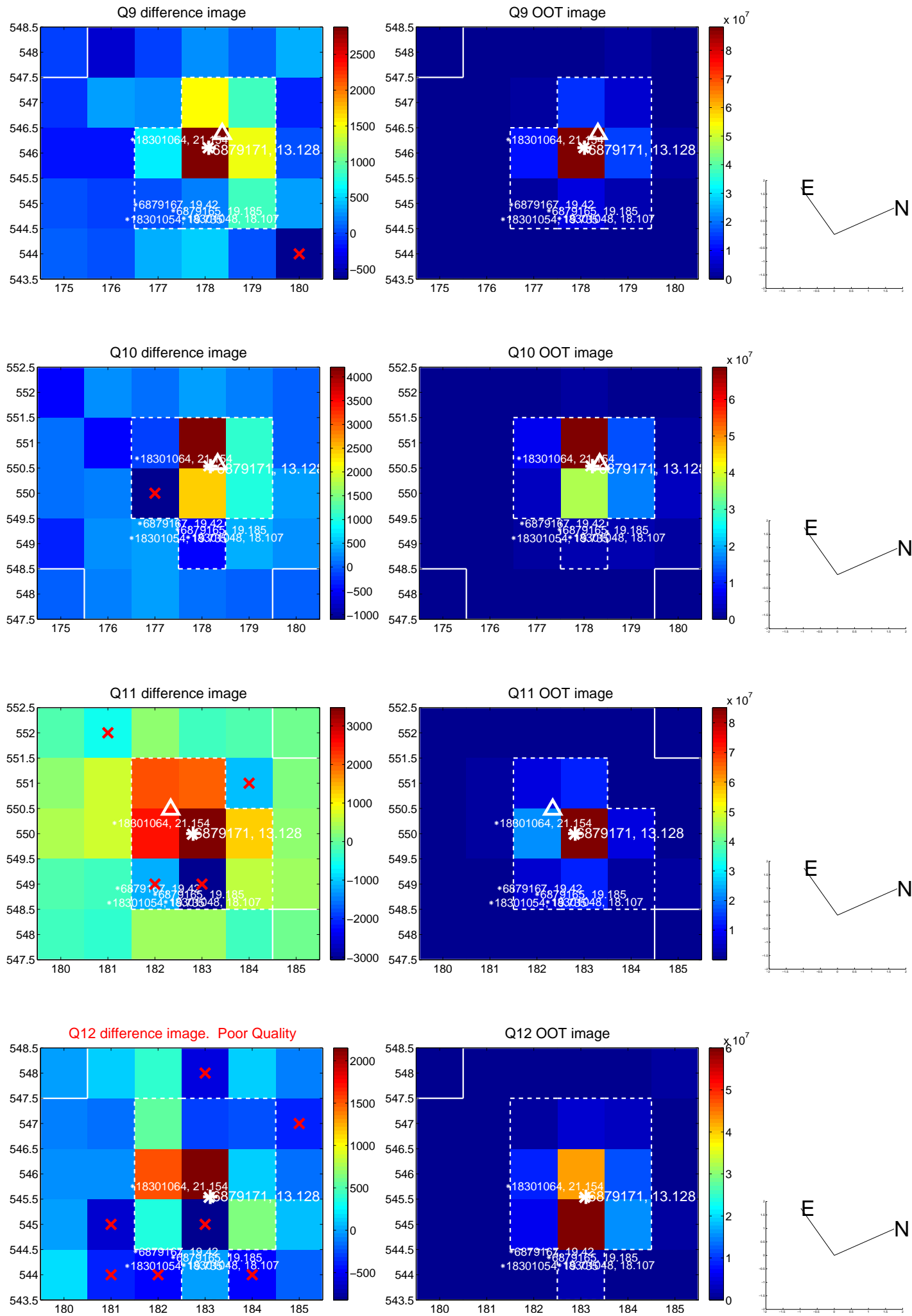
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



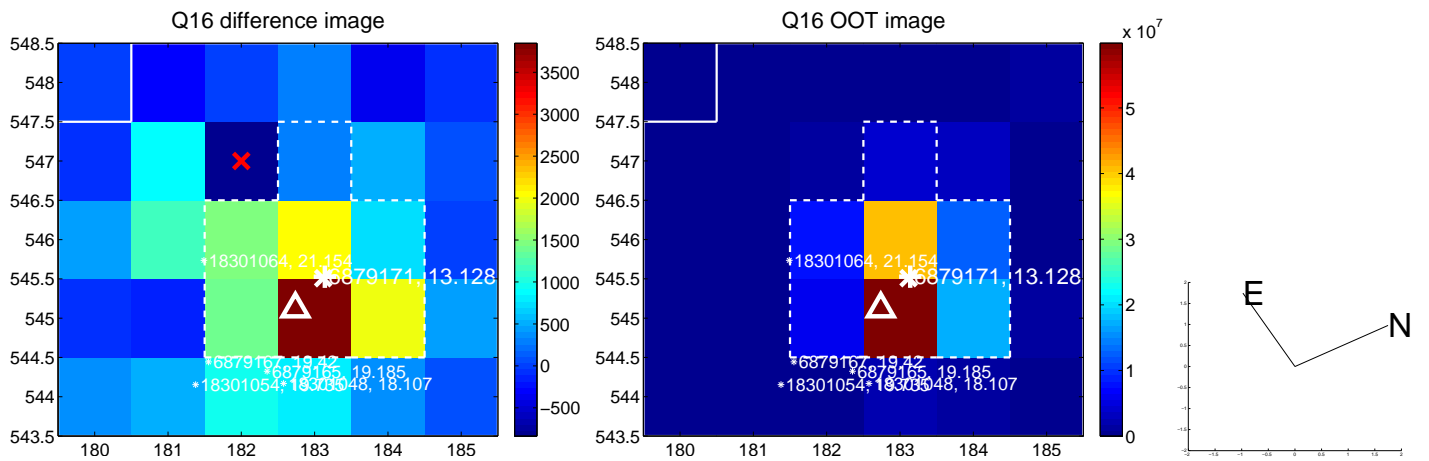
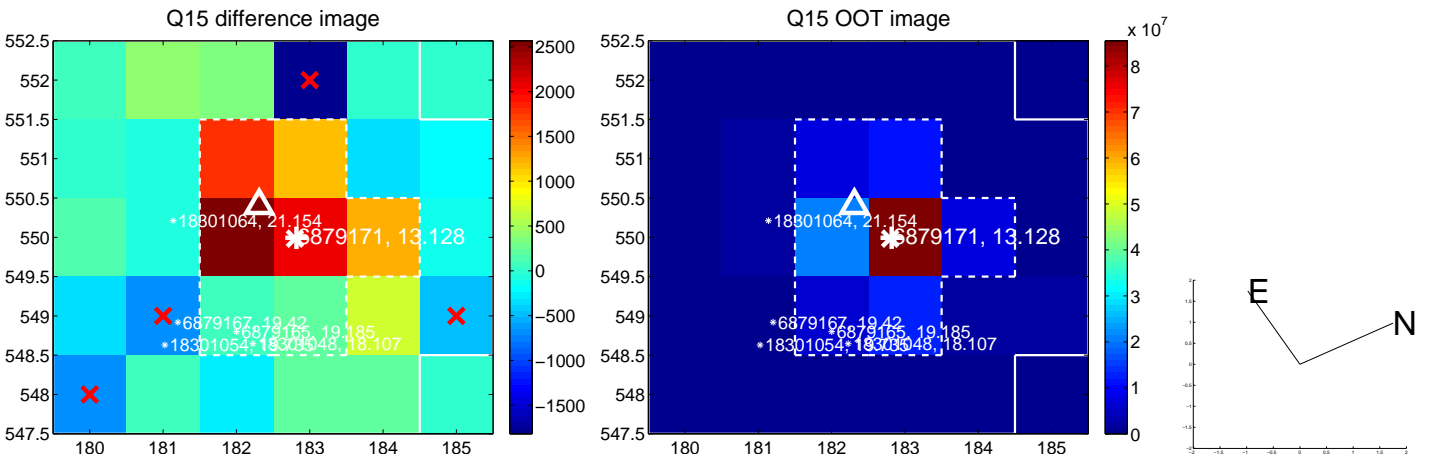
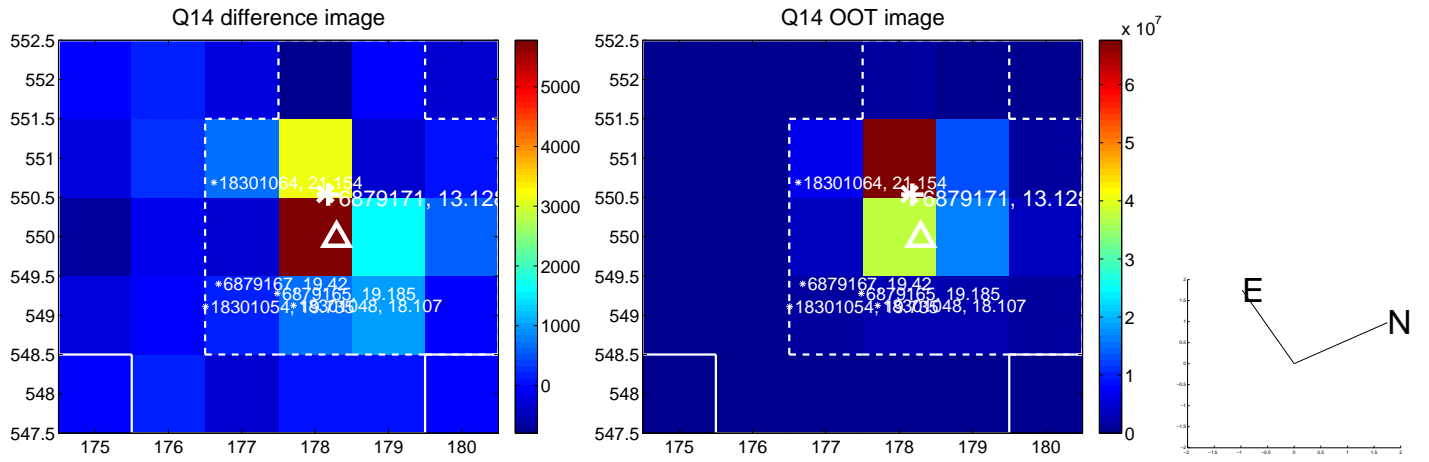
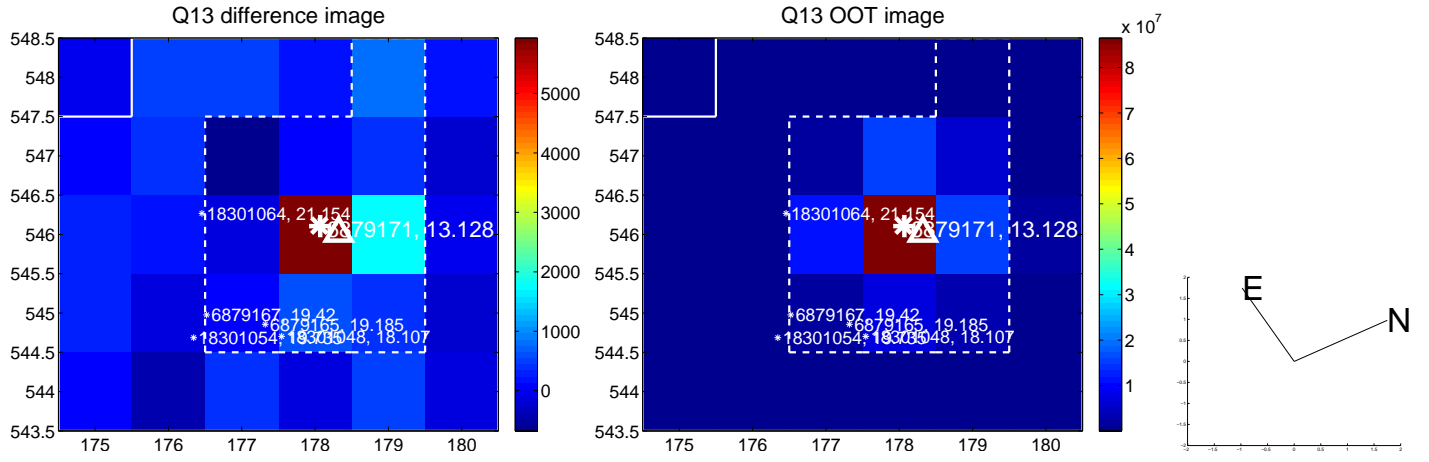
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

