

KIC 008819528

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})
008819528-01	OBS	No	2.333838	133.744525	3.1	20.723	12.6	3.0	1.72	7232	0.30	4517.09

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008819528-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT

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

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

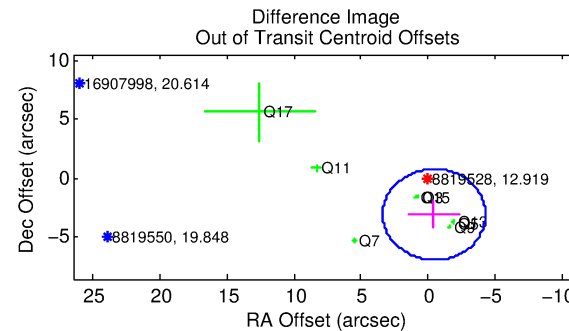
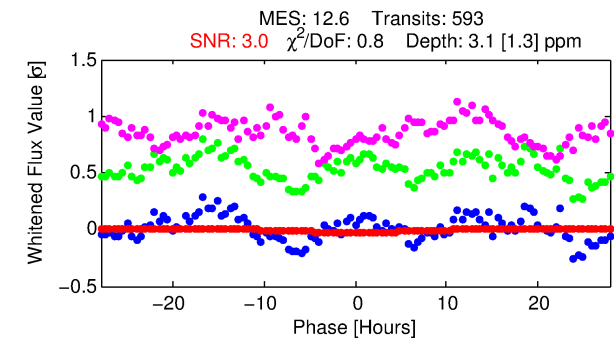
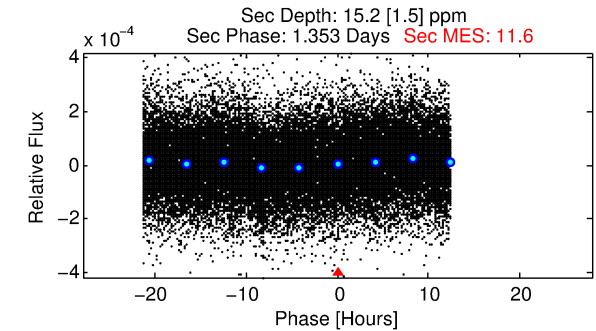
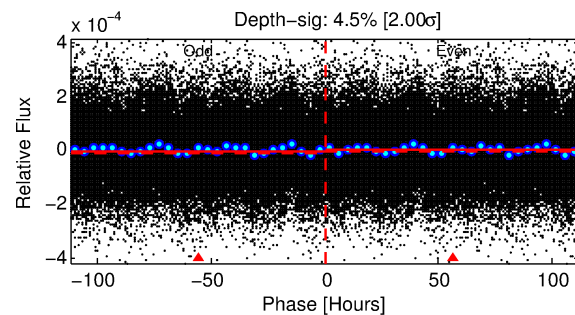
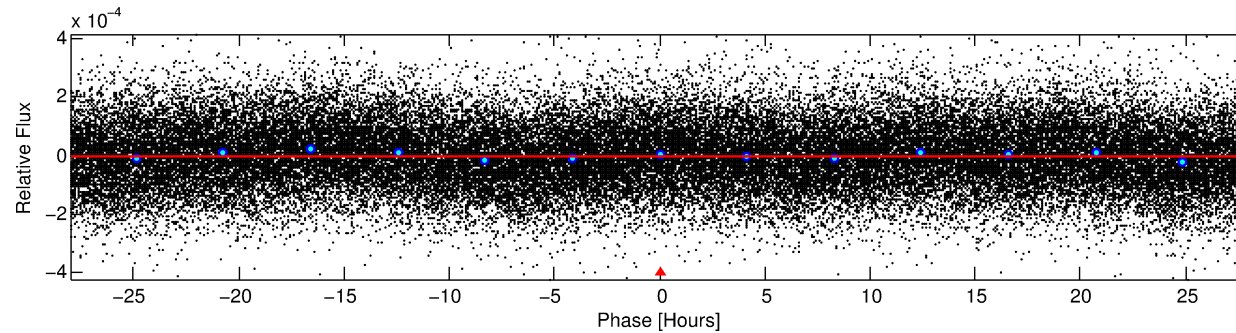
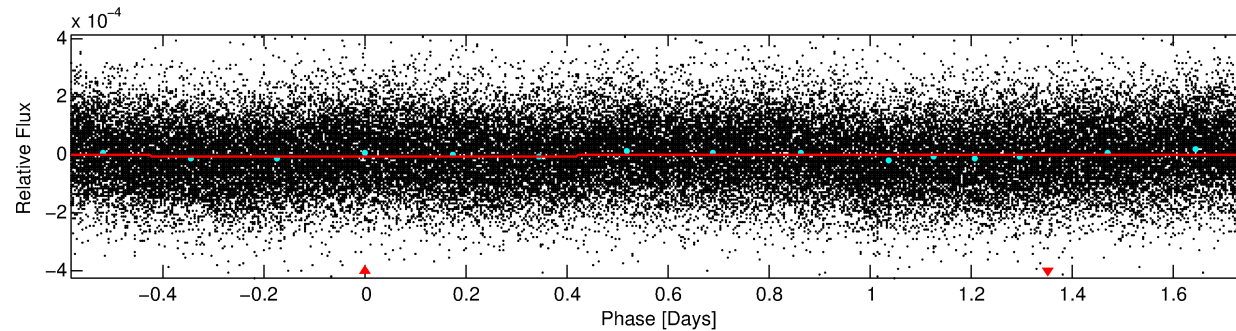
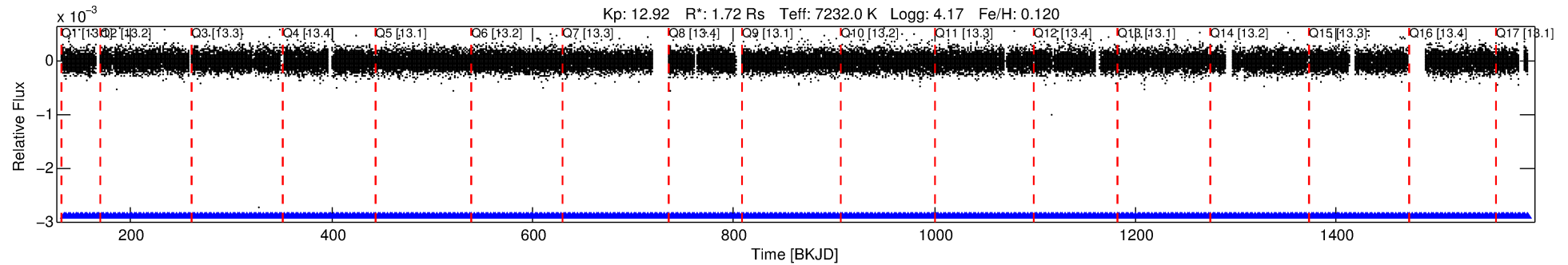
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008819528-01

No Significant Match Found

DV One-Page Summary

KIC: 8819528 Candidate: 1 of 1 Period: 2.334 d



DV Fit Results:

Period = 2.33384 [0.00019] d
Epoch = 133.7445 [0.0452] BKJD
Rp/R* = 0.0016 [0.0051]
a/R* = 1.09 [3.21]
b = 0.11 [168.13]
Seff = 4517.09 [1873.42]
Teq = 2090 [217] K
Rp = 0.31 [0.96] Re
a = 0.0402 [0.0105] AU
Ag = 144.95 [907.42] [0.16 σ]
Teffp = 11215 [17527] K [0.52 σ]

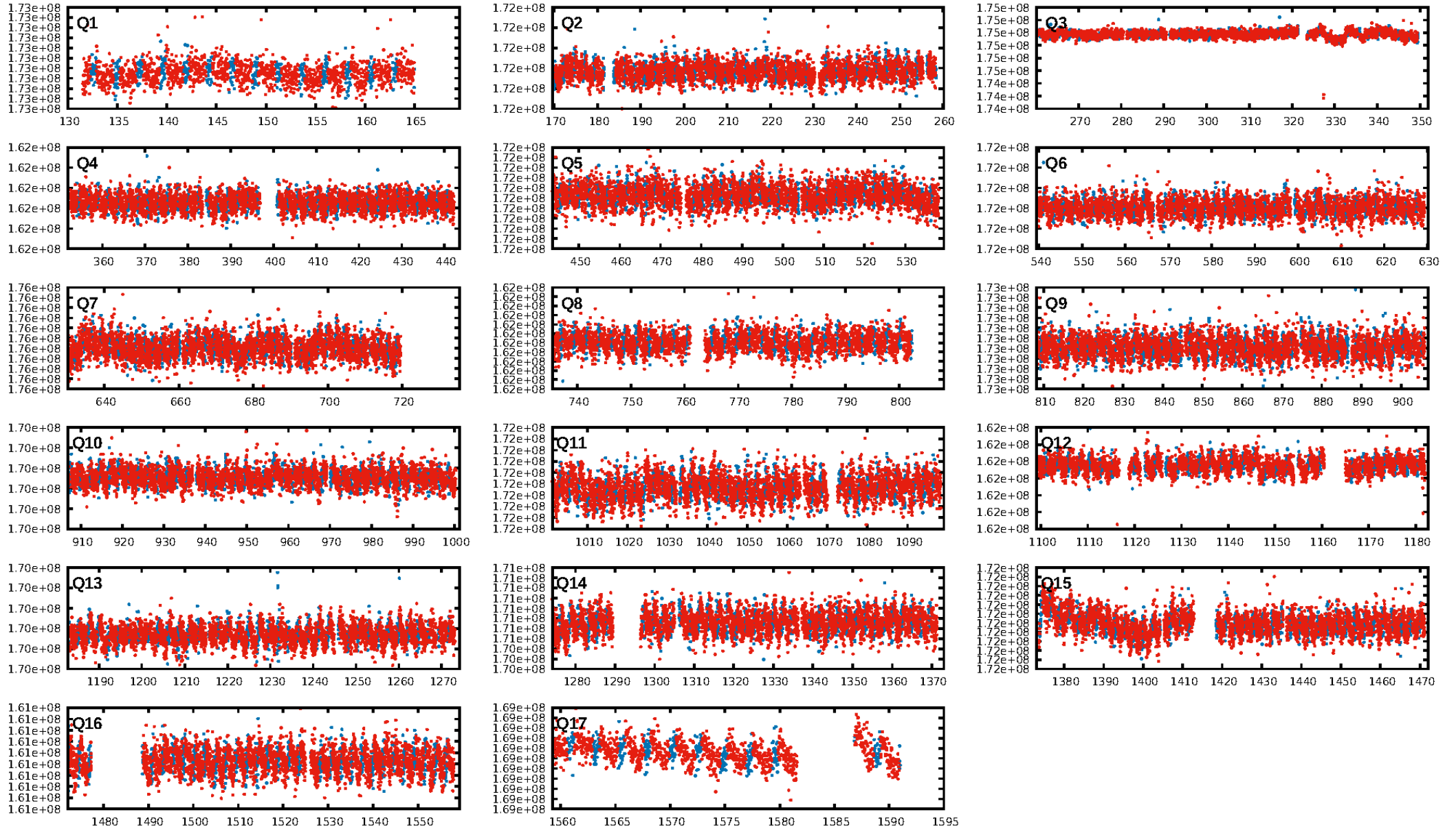
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [566/566]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 3.085 arcsec [2.41 σ]
KicOffset-rm: 3.221 arcsec [2.38 σ]
OotOffset-st: 0/4/0/4 [8]
KicOffset-st: 0/4/0/4 [8]
DiffImageQuality-fgm: 0.25 [2/8]
DiffImageOverlap-fno: 1.00 [17/17]

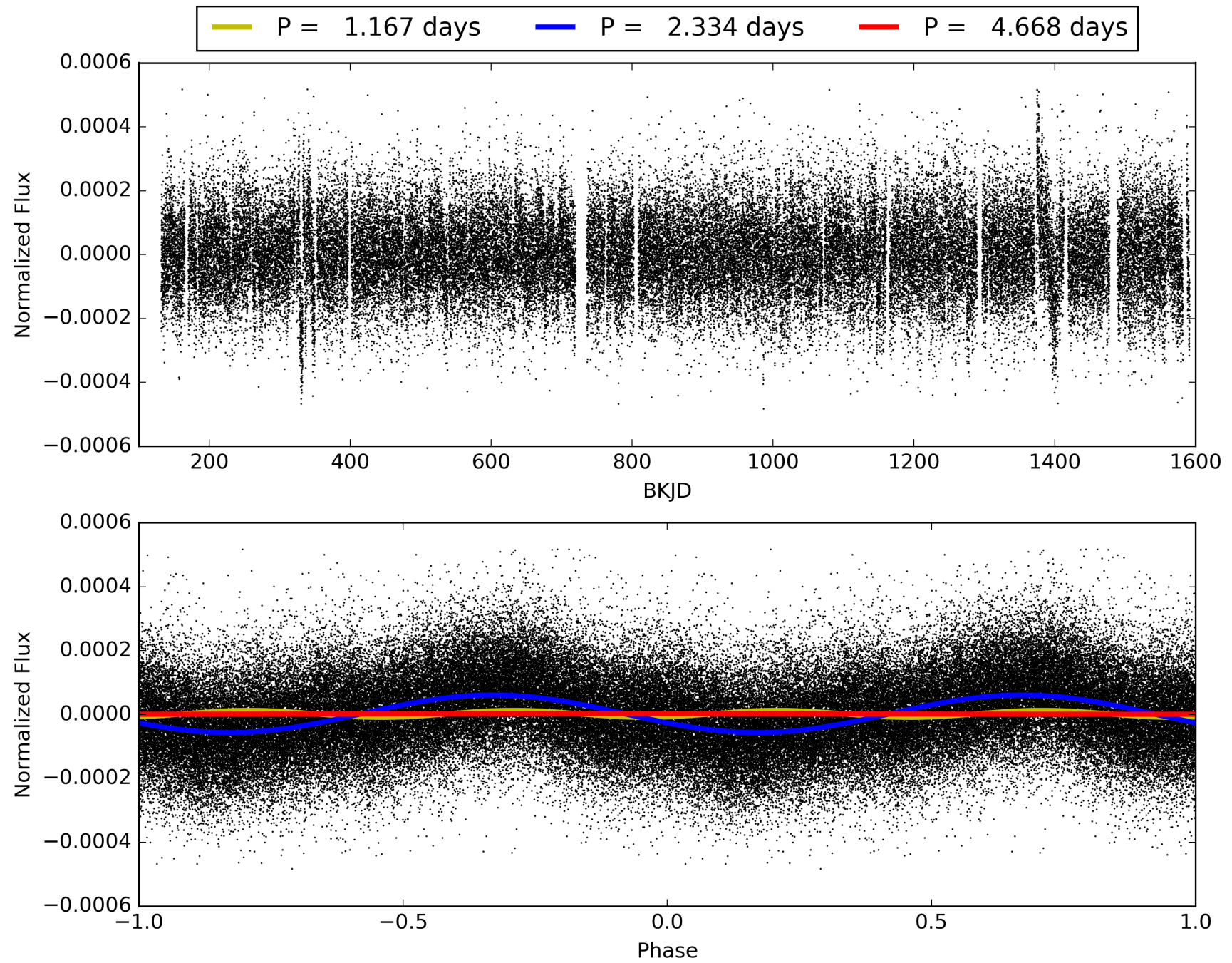
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 08:30:52 Z

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

TCE 008819528-01, PDC Light Curves

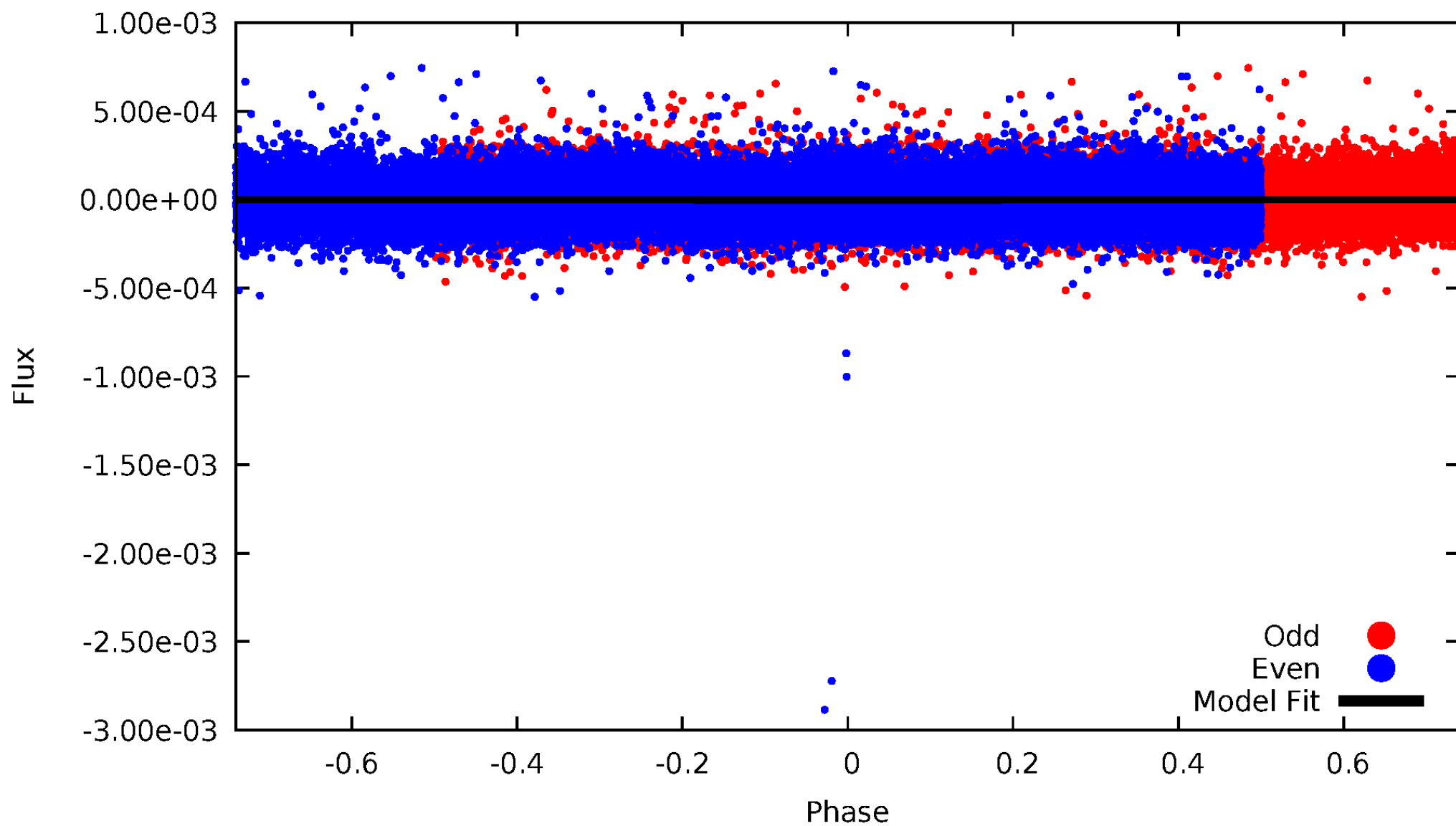


TCE 008819528-01



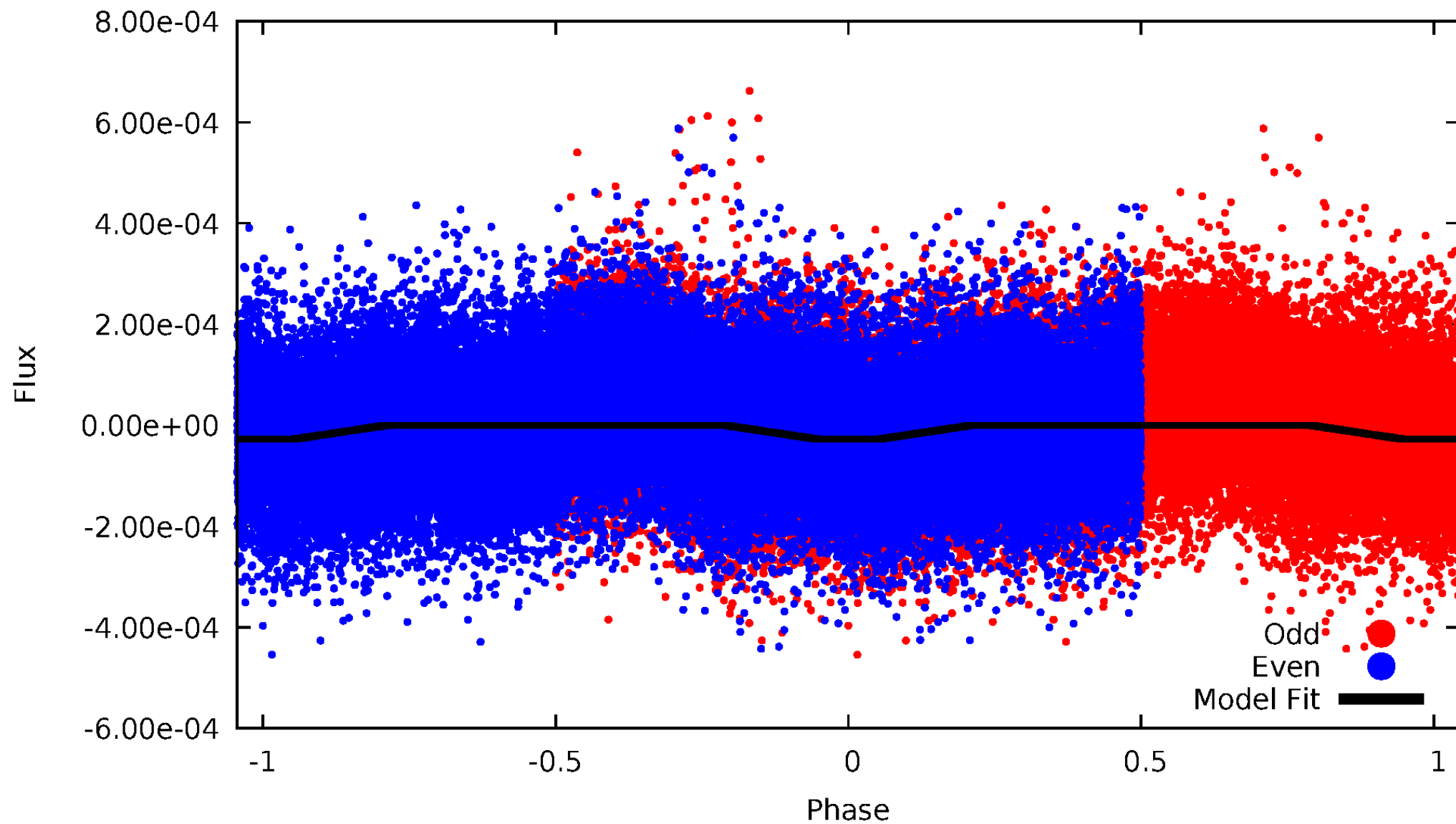
DV Odd/Even

TCE 008819528-01



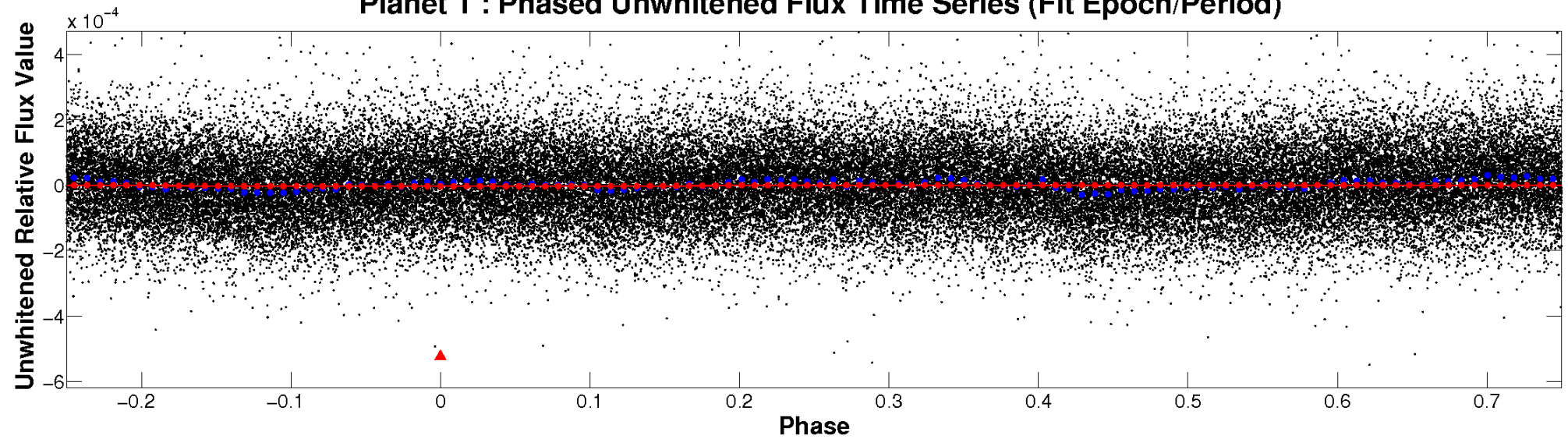
ALT Odd/Even

TCE 008819528-01

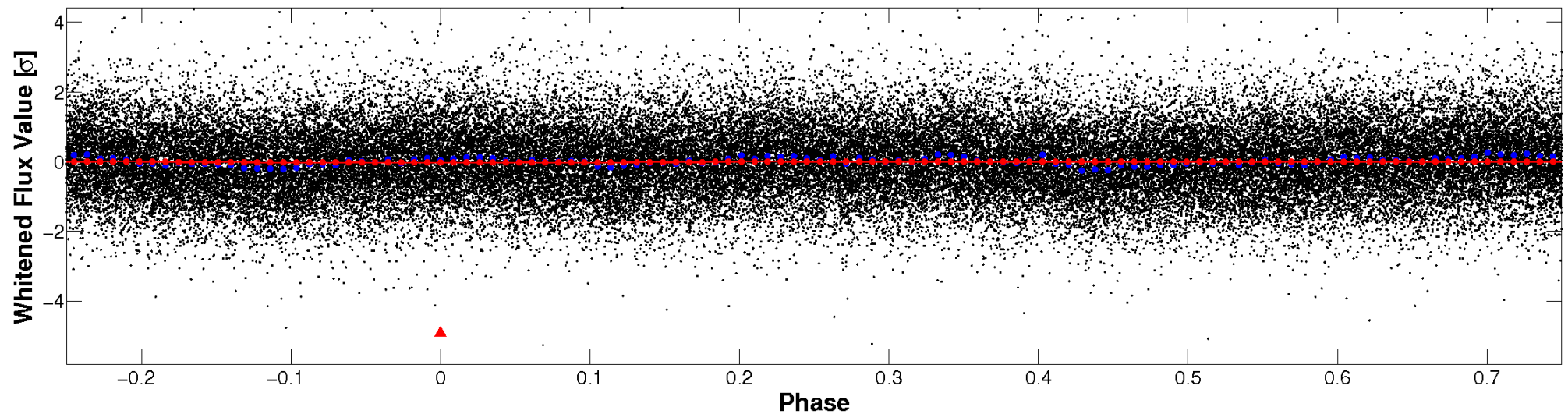


Non-Whitened Vs. Whitened Light Curve

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

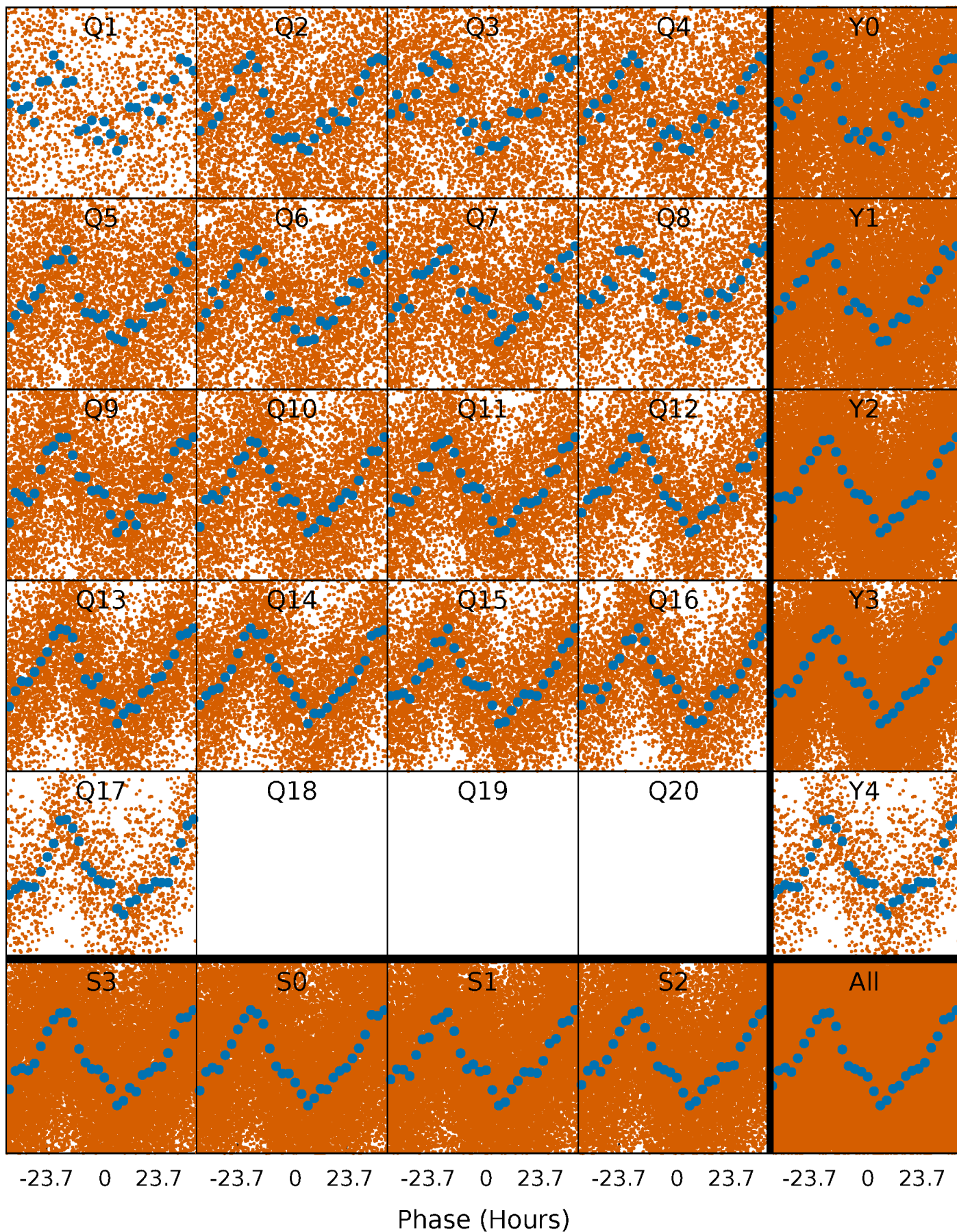


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



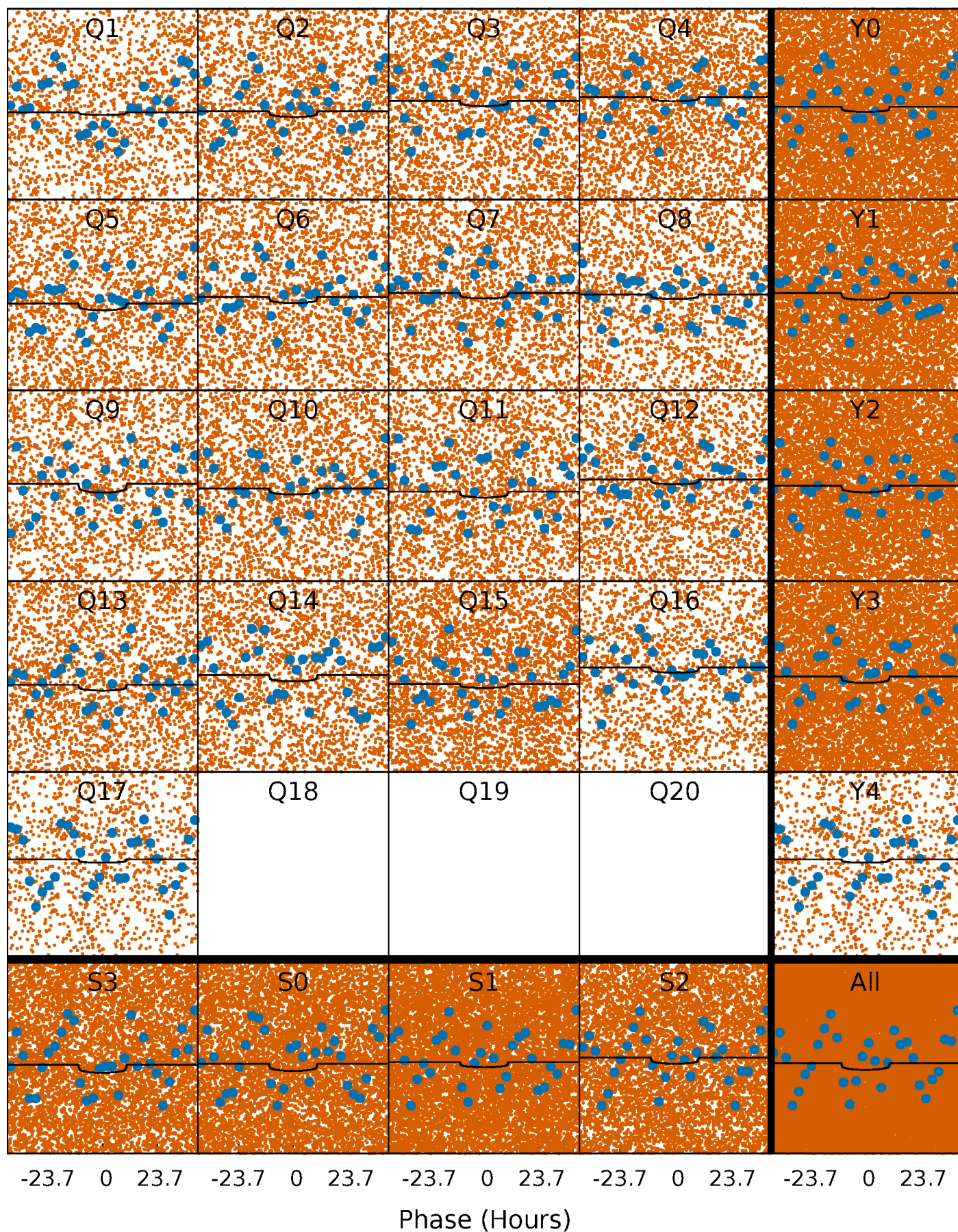
PDC Quarter-Phased Transit Curves

TCE 008819528-01 P= 2.333838 Days $T_0=133.744525$ (BKJD)



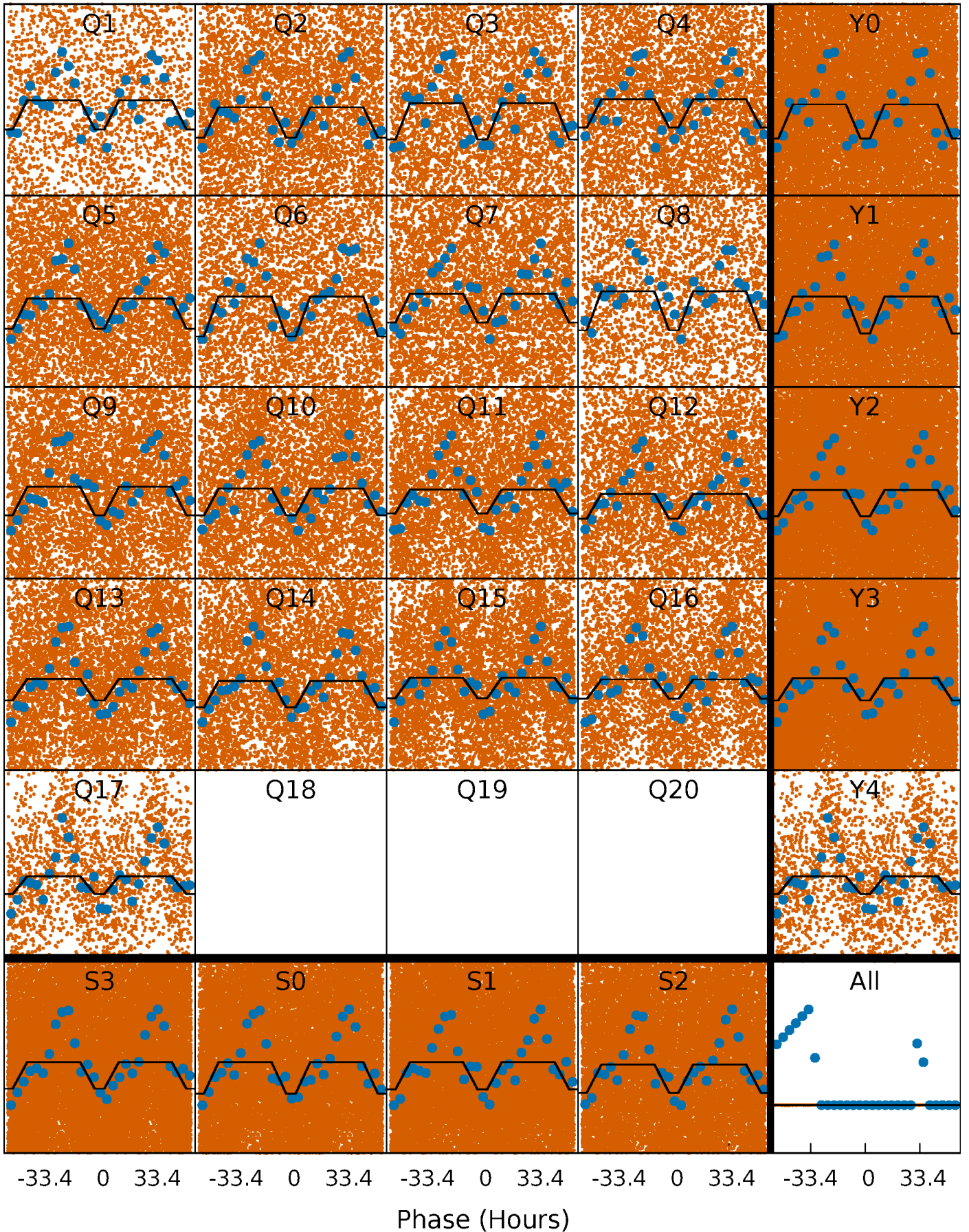
DV Quarter-Phased Transit Curves

TCE 008819528-01 P= 2.333838 Days $T_0=133.744525$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

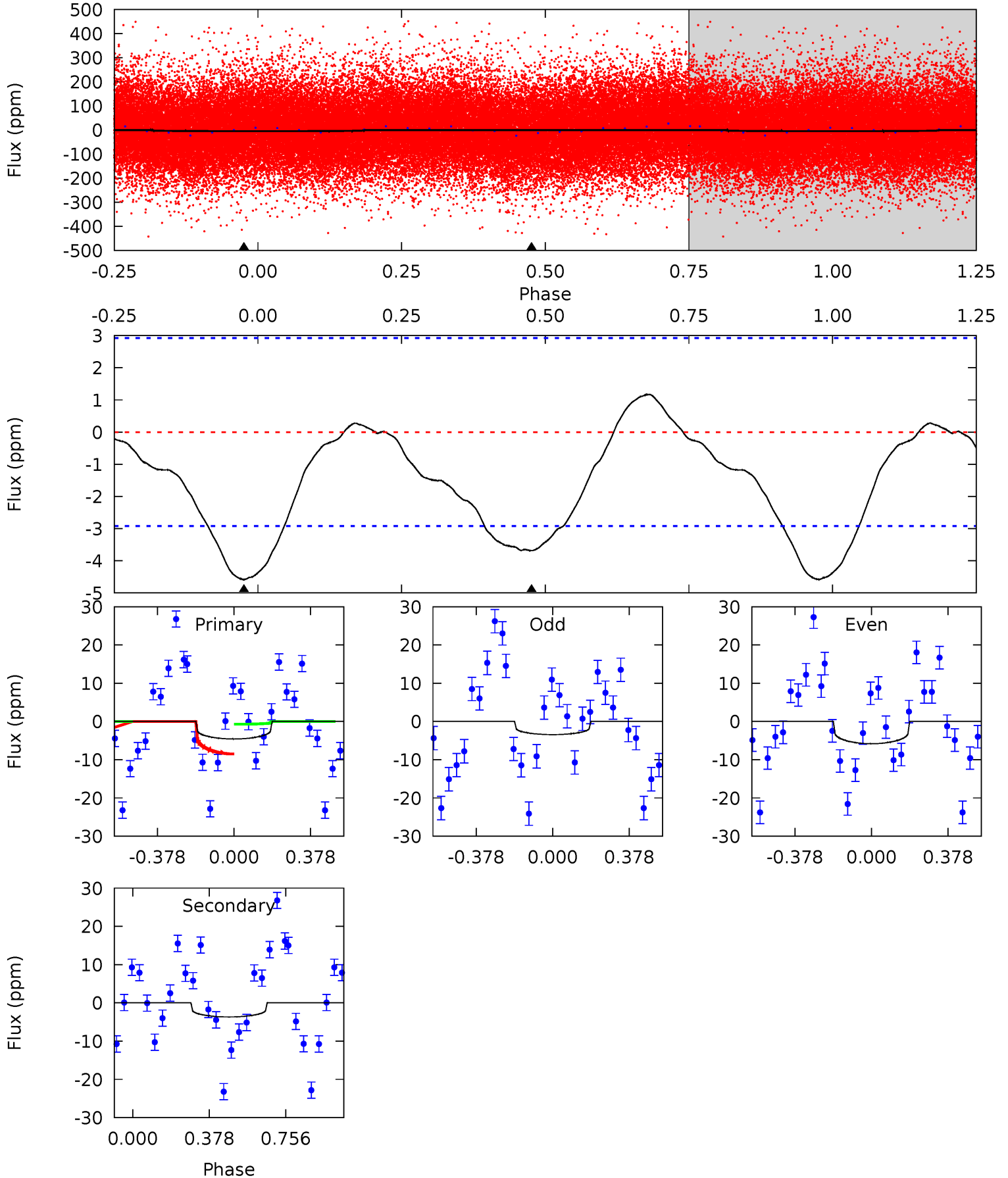
TCE 008819528-01 P= 2.334061 Days $T_0=133.855147$ (BKJD)



DV Model-Shift Uniqueness Test

008819528-01, P = 2.333838 Days, E = 131.410687 Days

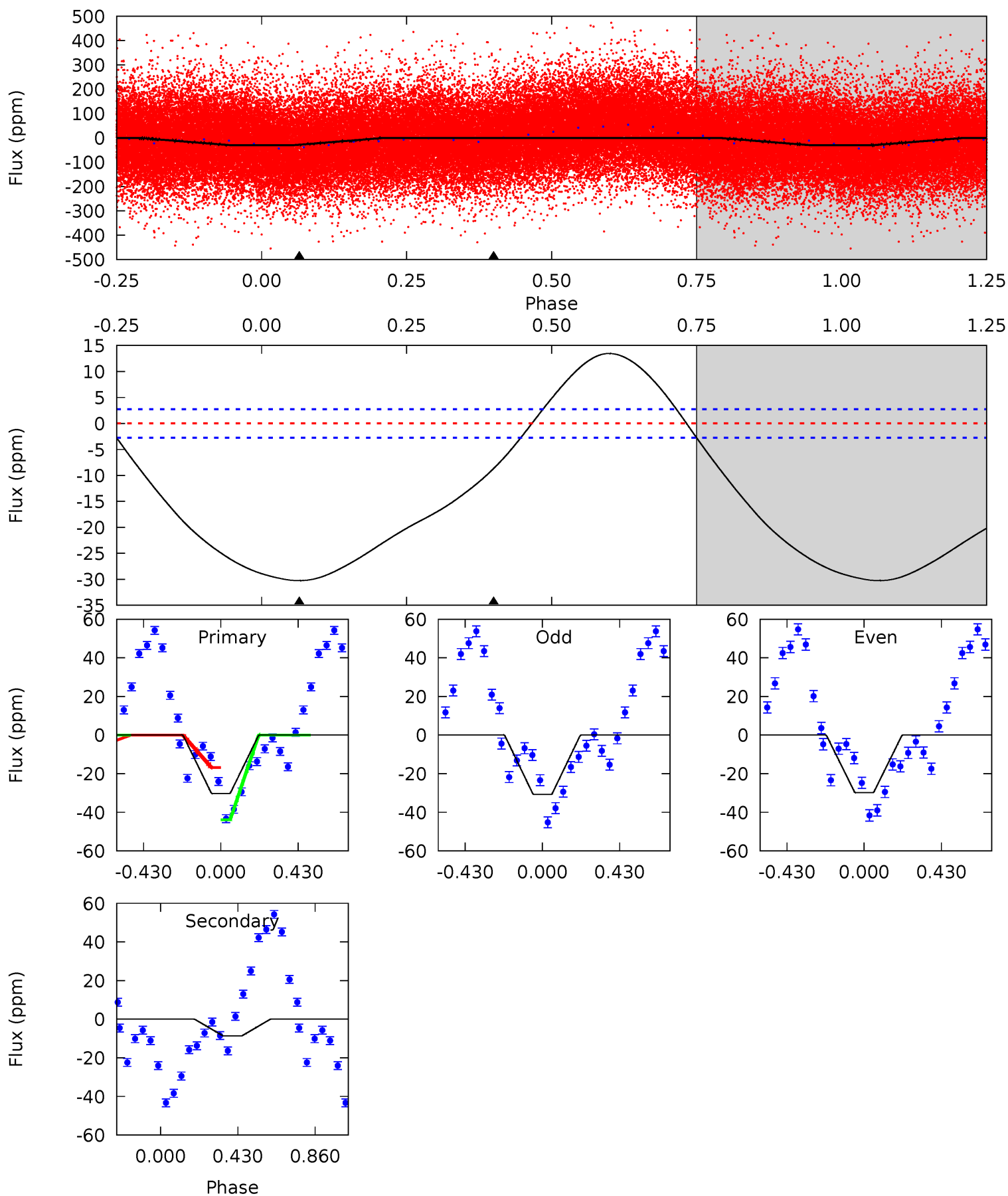
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.71	5.40	0	0	4.28	0.88	0.46	6.71	6.71	5.40	5.40	1.73	0.88	0.20	5.72



Alt Model-Shift Uniqueness Test

008819528-01, P = 2.334061 Days, E = 129.187025 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
46.9	13.4	0	0	4.25	0.79	6.97	46.9	46.9	13.4	13.4	0.71	1.11	0.31	21.6



Stellar Parameters For KIC 008819528

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	7232^{+200}_{-314}	$4.165^{+0.087}_{-0.203}$	$0.120^{+0.200}_{-0.350}$	$1.724^{+0.547}_{-0.294}$	$1.583^{+0.226}_{-0.204}$	$0.435^{+0.212}_{-0.228}$
	+3%/-4%	+2%/-5%	+167%/-292%	+32%/-17%	+14%/-13%	+49%/-52%
Source	PHO1	KIC0	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 008819528-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-4 ± 1	$0.81^{+0.84}_{-0.54}$	2971^{+212}_{-181}	4958^{+4050}_{-1349}	$5.052^{+40.486}_{-3.889}$
Alt.	-9 ± 1	$1.24^{+0.93}_{-0.77}$	2964^{+234}_{-175}	4915^{+3261}_{-1073}	$4.915^{+30.089}_{-3.262}$

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 $A_{obs} \gg 1.0$

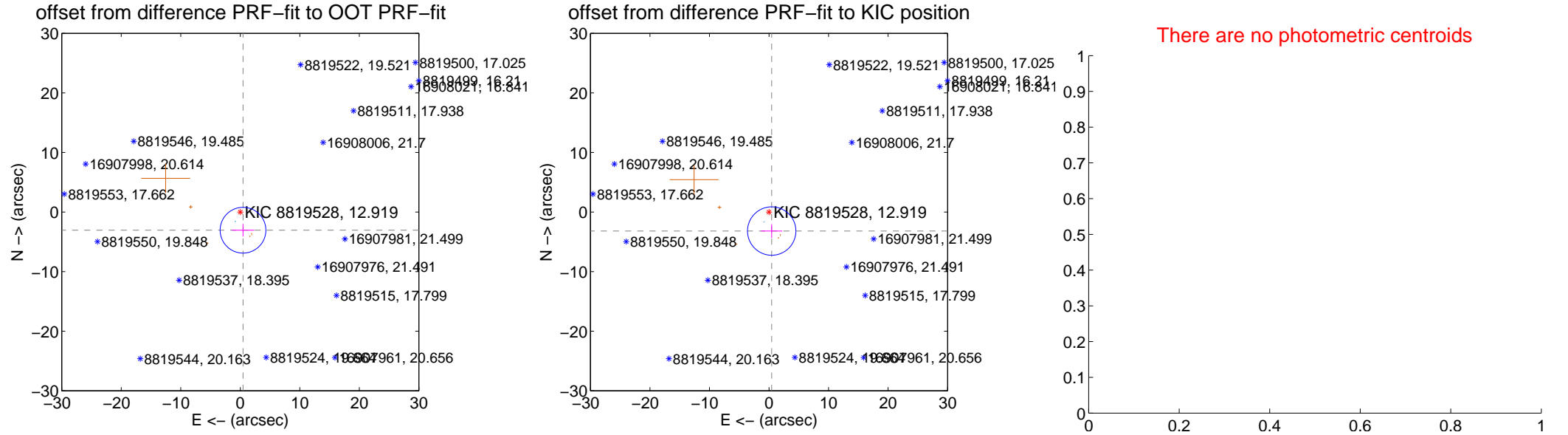
DV Centroid Data

Supplemental centroid analysis for 008819528-01. Kepler magnitude: 12.92. Transit SNR 3.04

There are 2 quarters with good PRF difference image offsets

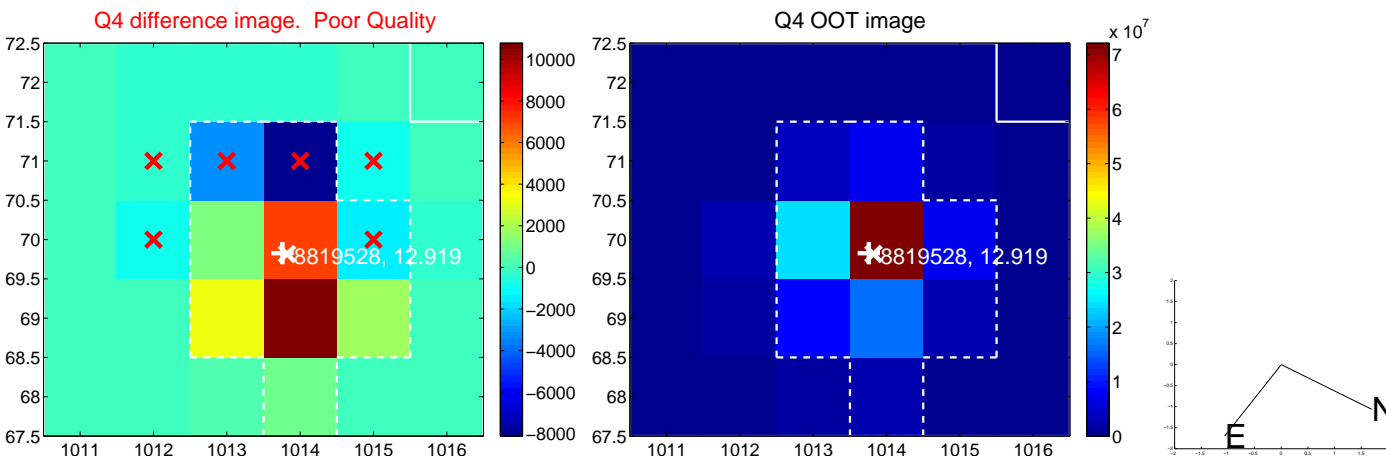
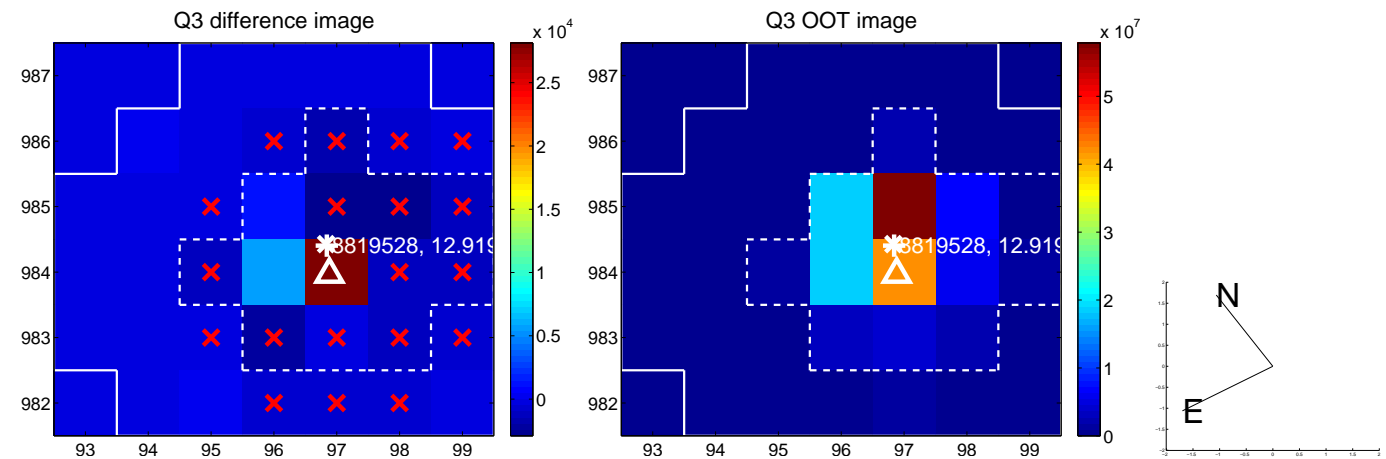
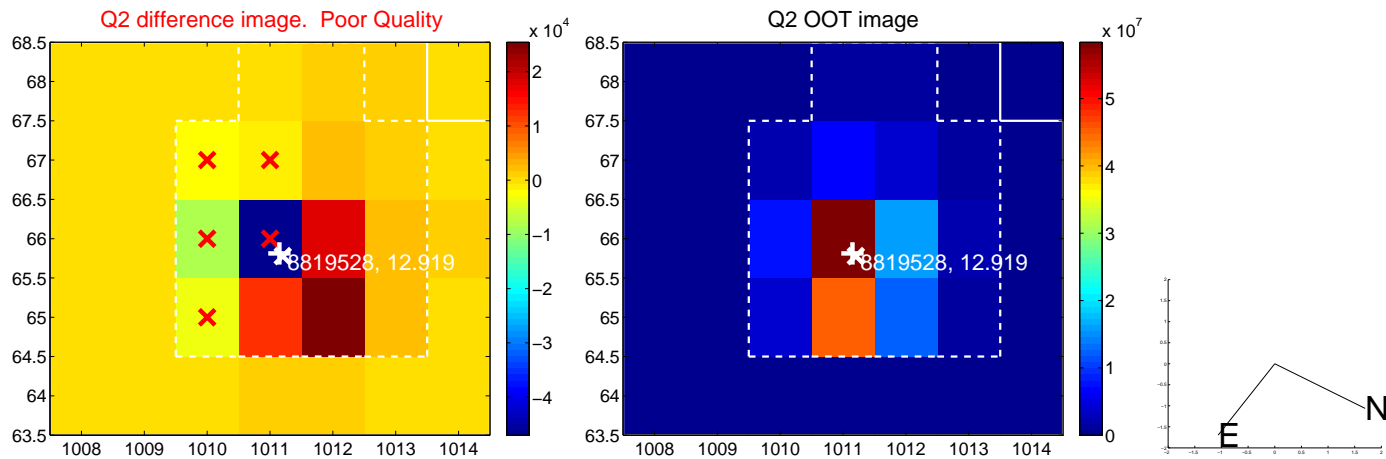
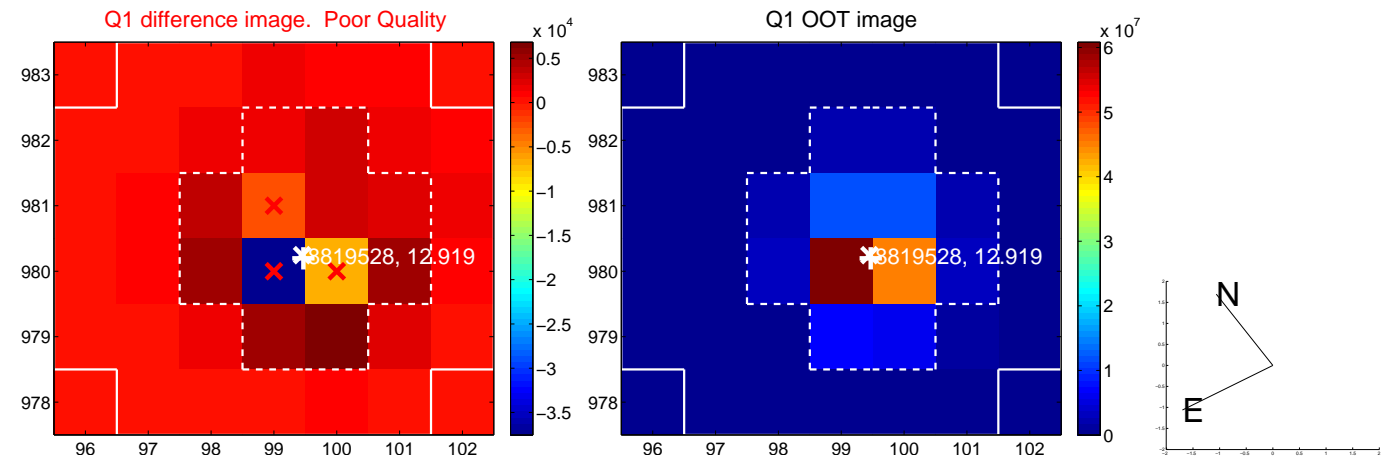
The direct PRF centroid is offset from the target star catalog position by about 0.22 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.085 ± 1.280	2.41	-0.456 ± 1.873	-3.051 ± 1.055
PRF-fit source offset from KIC position	3.221 ± 1.354	2.38	-0.453 ± 1.787	-3.189 ± 1.158
photometric centroid source offset	—	—	—	—

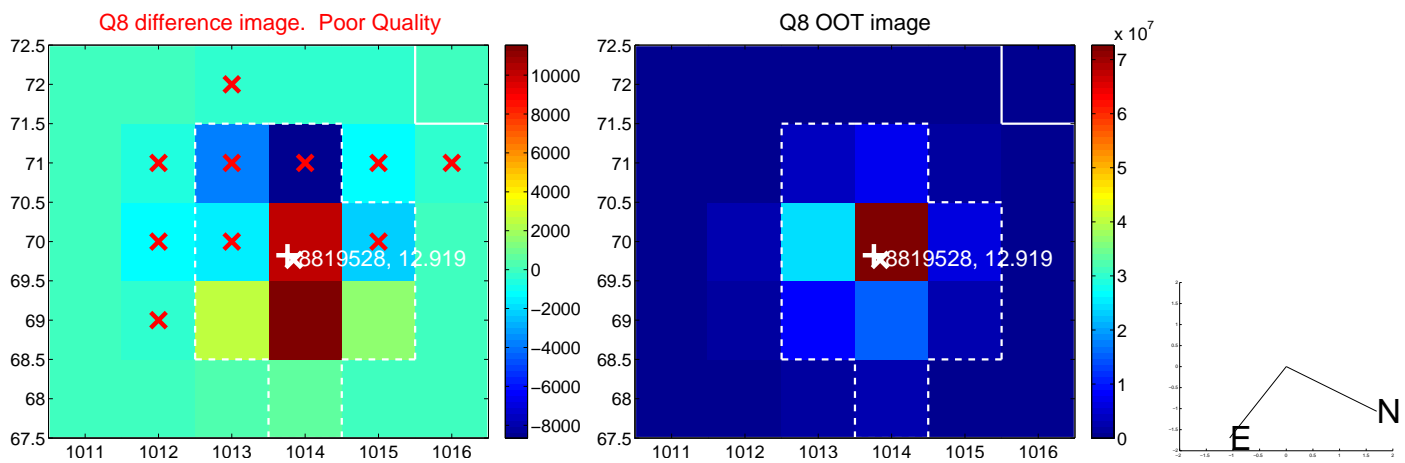
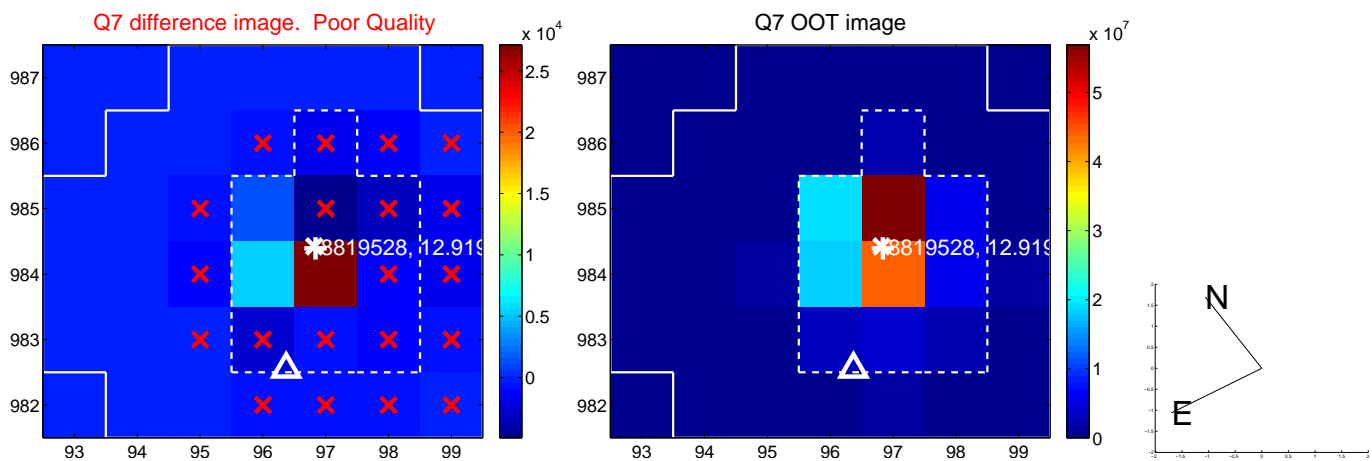
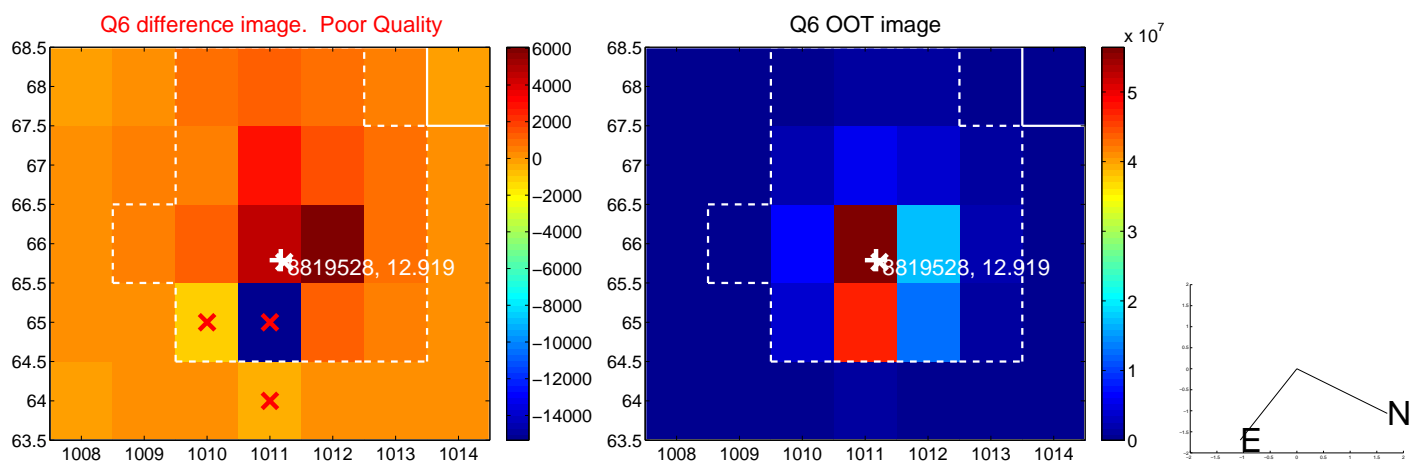
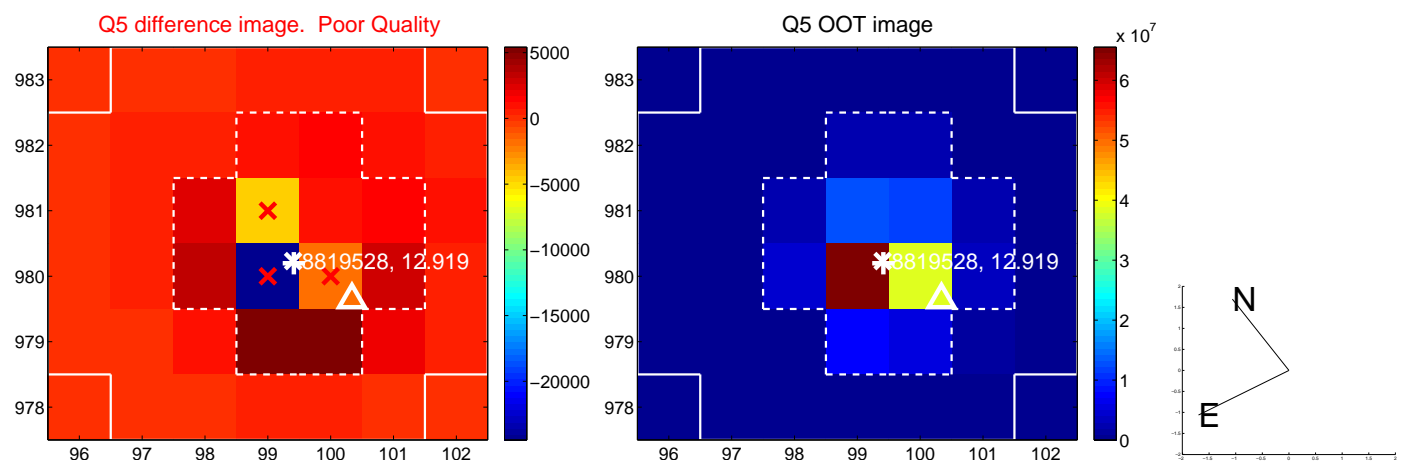


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

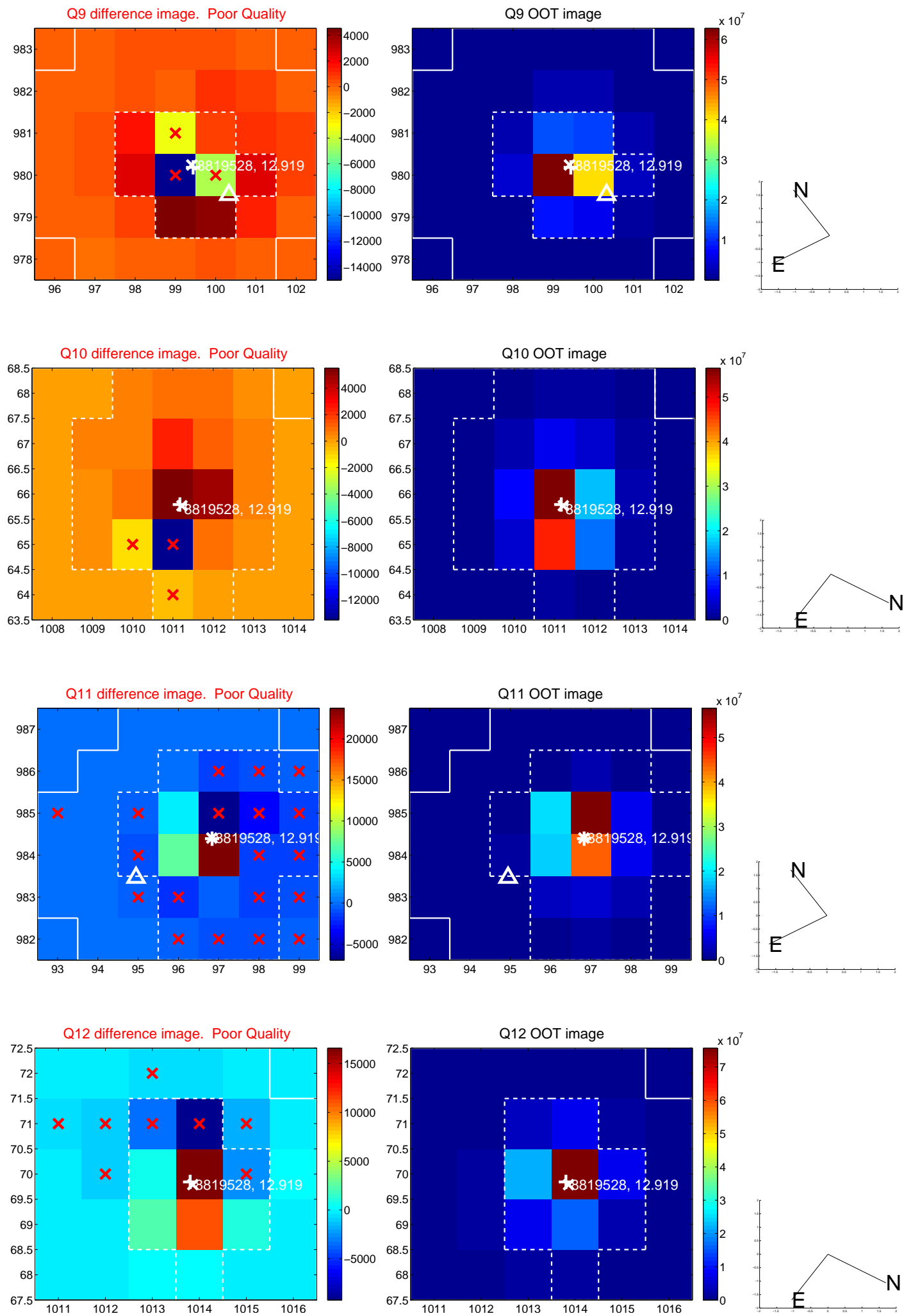
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



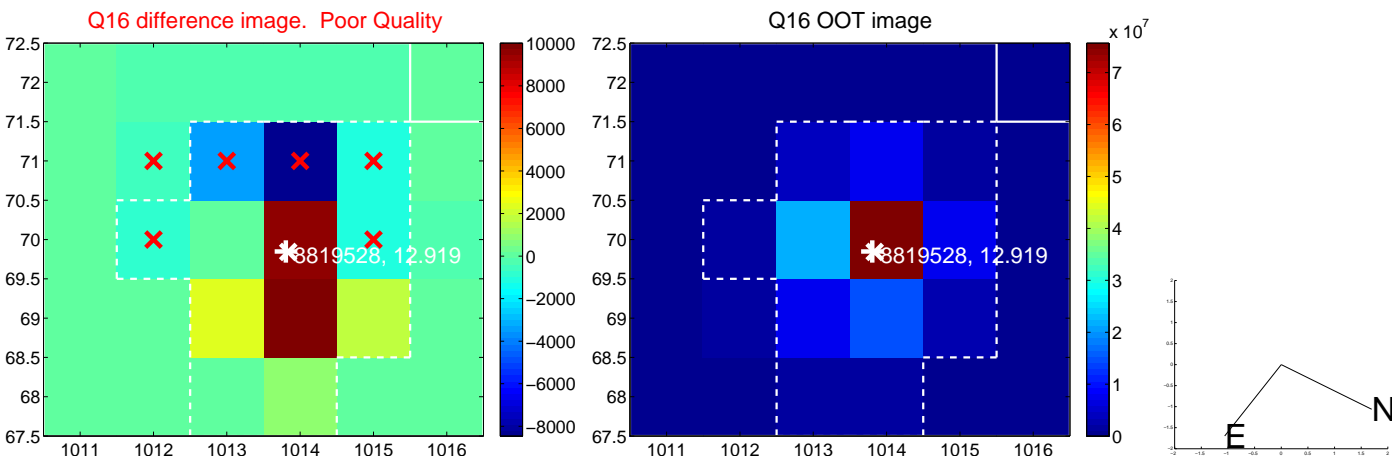
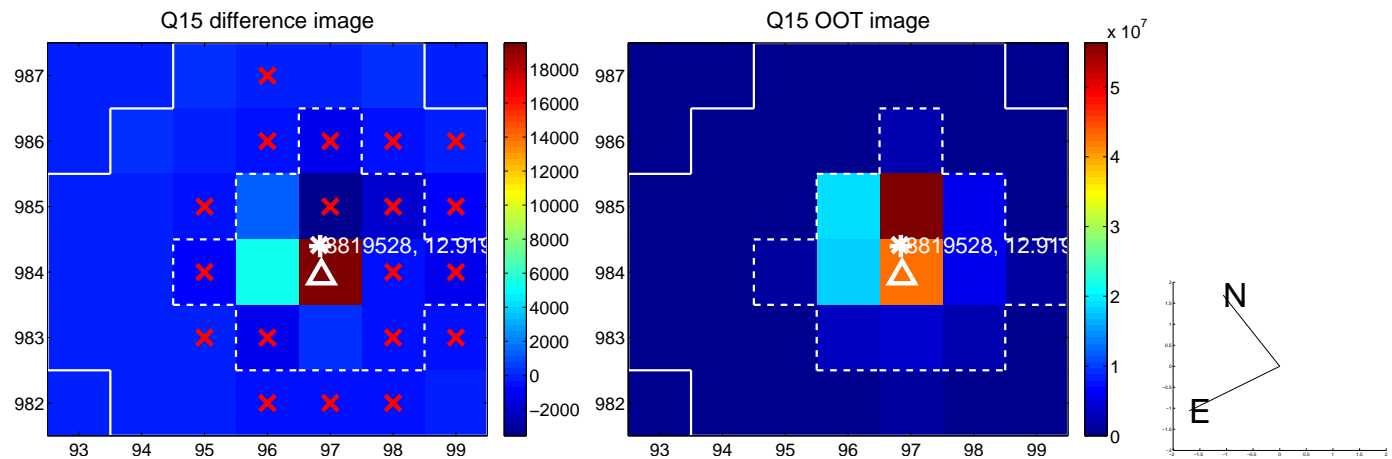
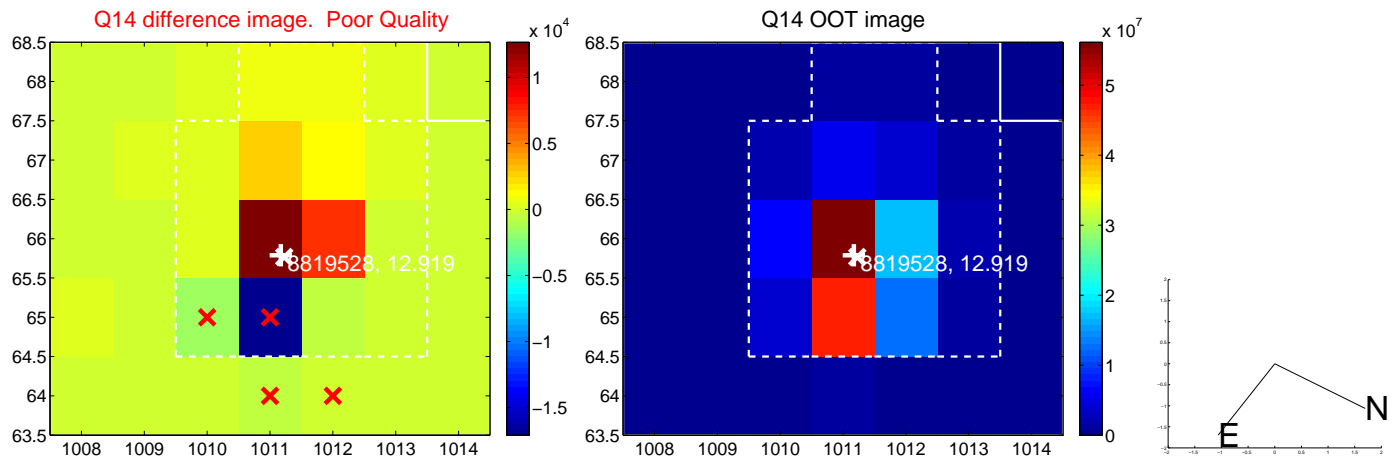
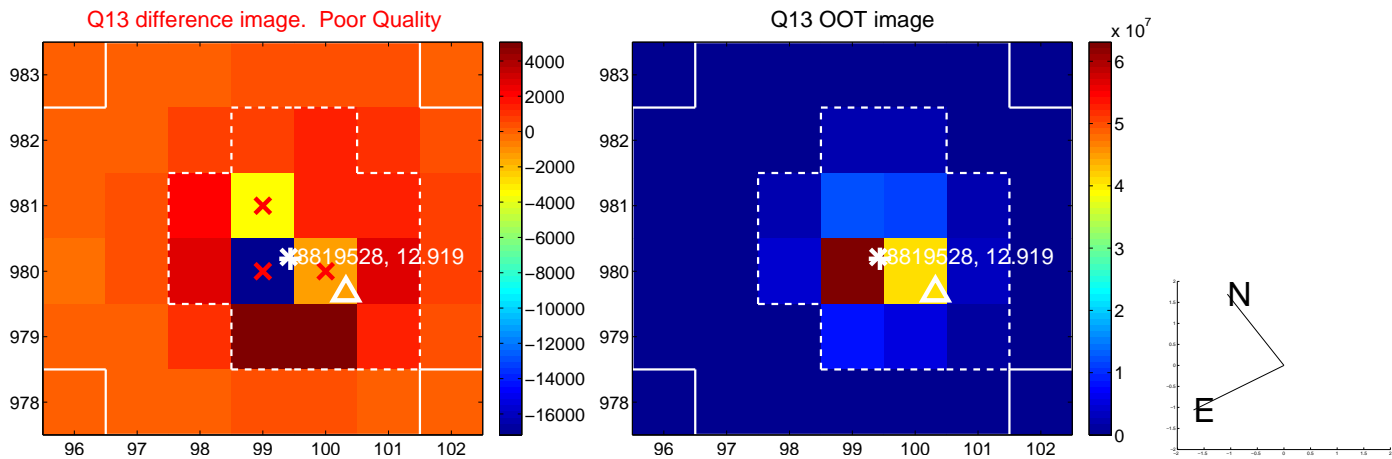
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



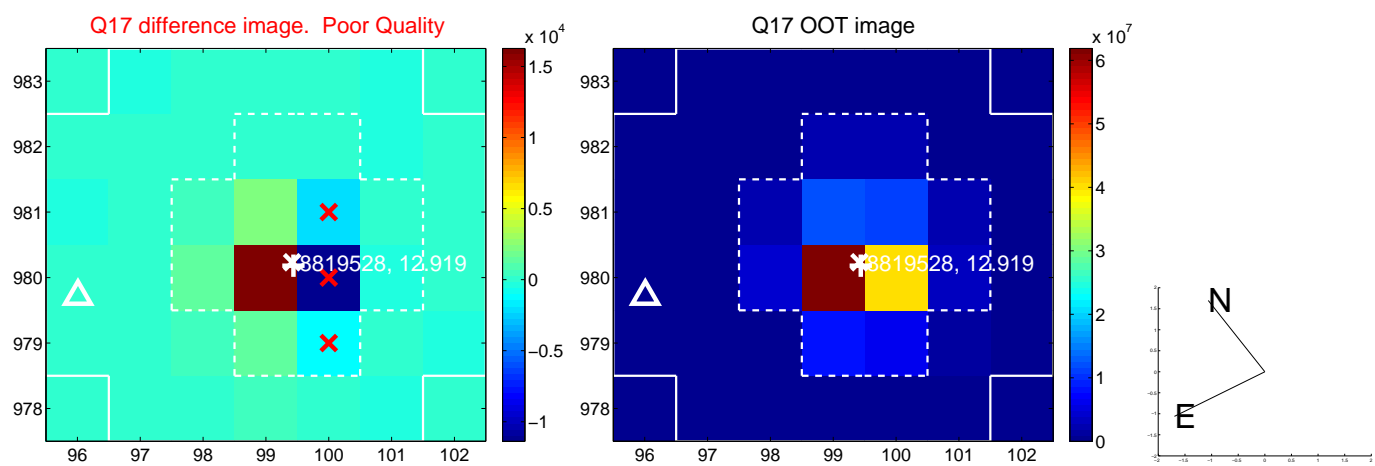
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



folded centroid time series figure for this object.

UKIRT Image

Declination

