

KIC 005819807

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})
005819807-01	OBS	No	2.101899	131.734014	14.6	19.361	13.6	6.2	3.14	6233	1.28	9482.27

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005819807-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—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.

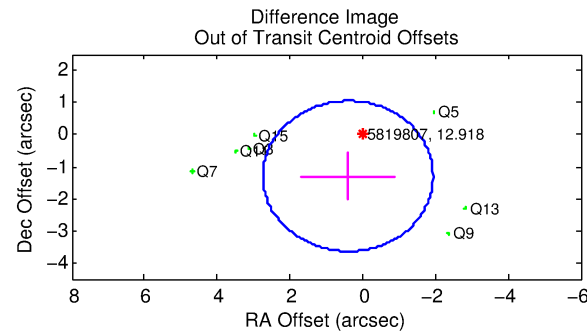
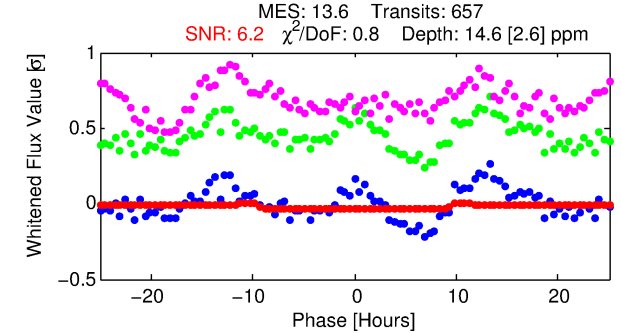
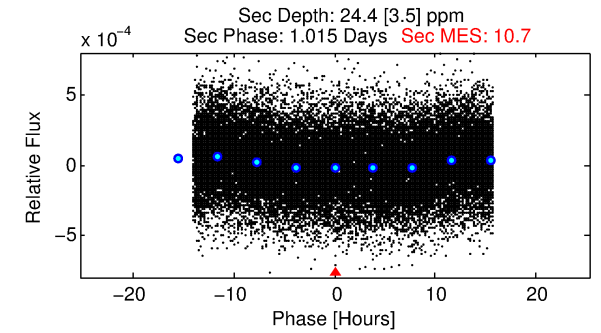
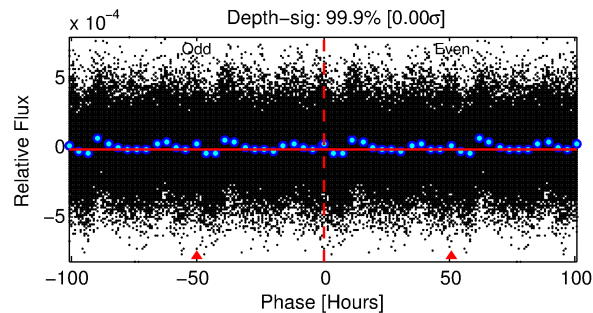
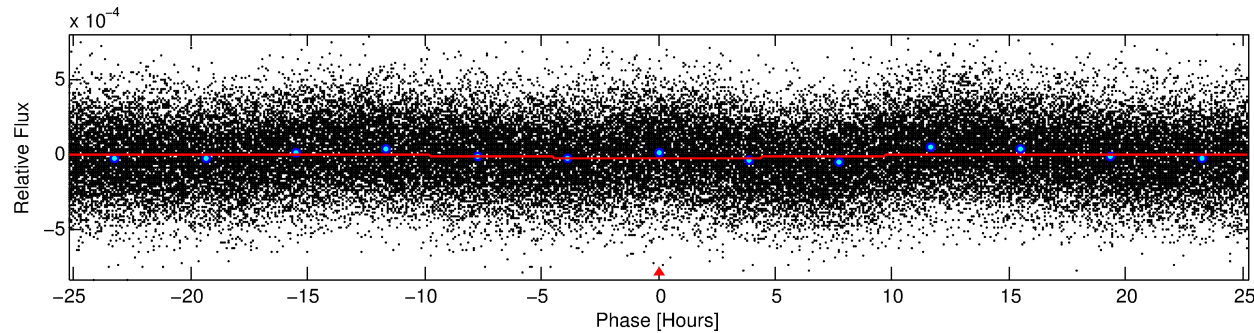
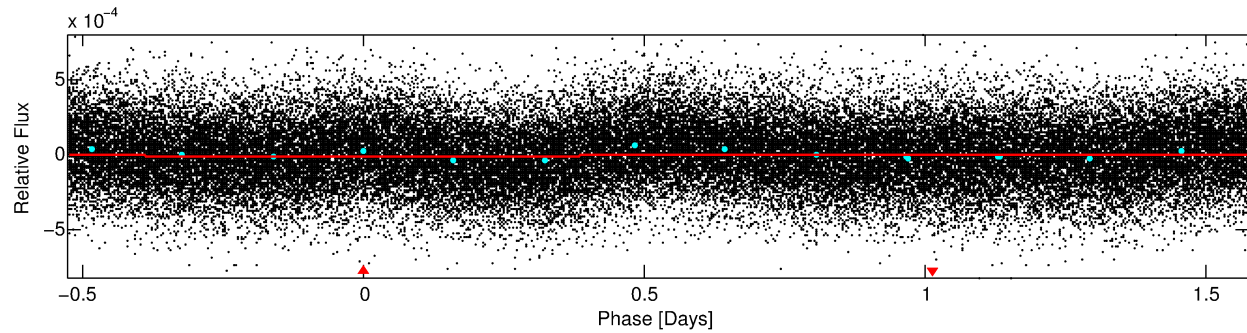
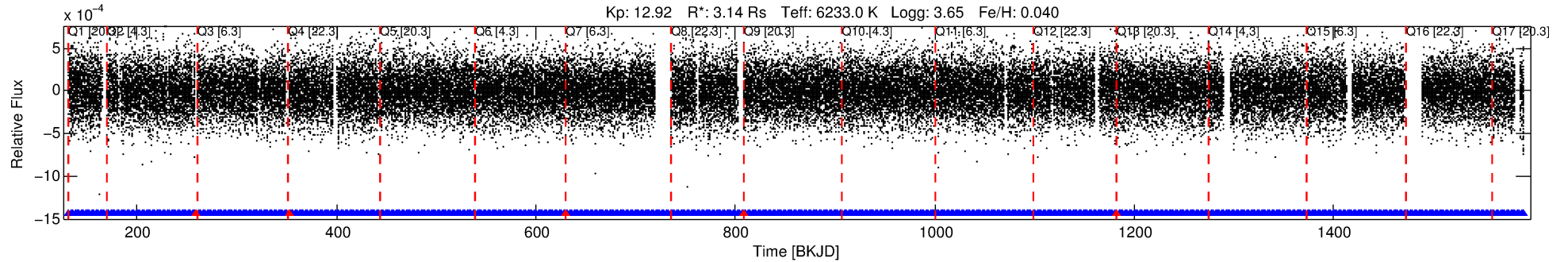
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005819807-01

No Significant Match Found

DV One-Page Summary

KIC: 5819807 Candidate: 1 of 1 Period: 2.102 d



DV Fit Results:

Period = 2.10190 [0.00007] d
Epoch = 131.7340 [0.0164] BKJD
Rp/R* = 0.0037 [0.0039]
a/R* = 1.04 [0.45]
b = 0.69 [4.28]
Seff = 9482.27 [9743.98]
Teq = 2516 [646] K
Rp = 1.28 [1.52] Re
a = 0.0375 [0.0229] AU
Ag = 11.54 [26.76] [0.39σ]
Teffp = 7171 [3744] K [1.23σ]

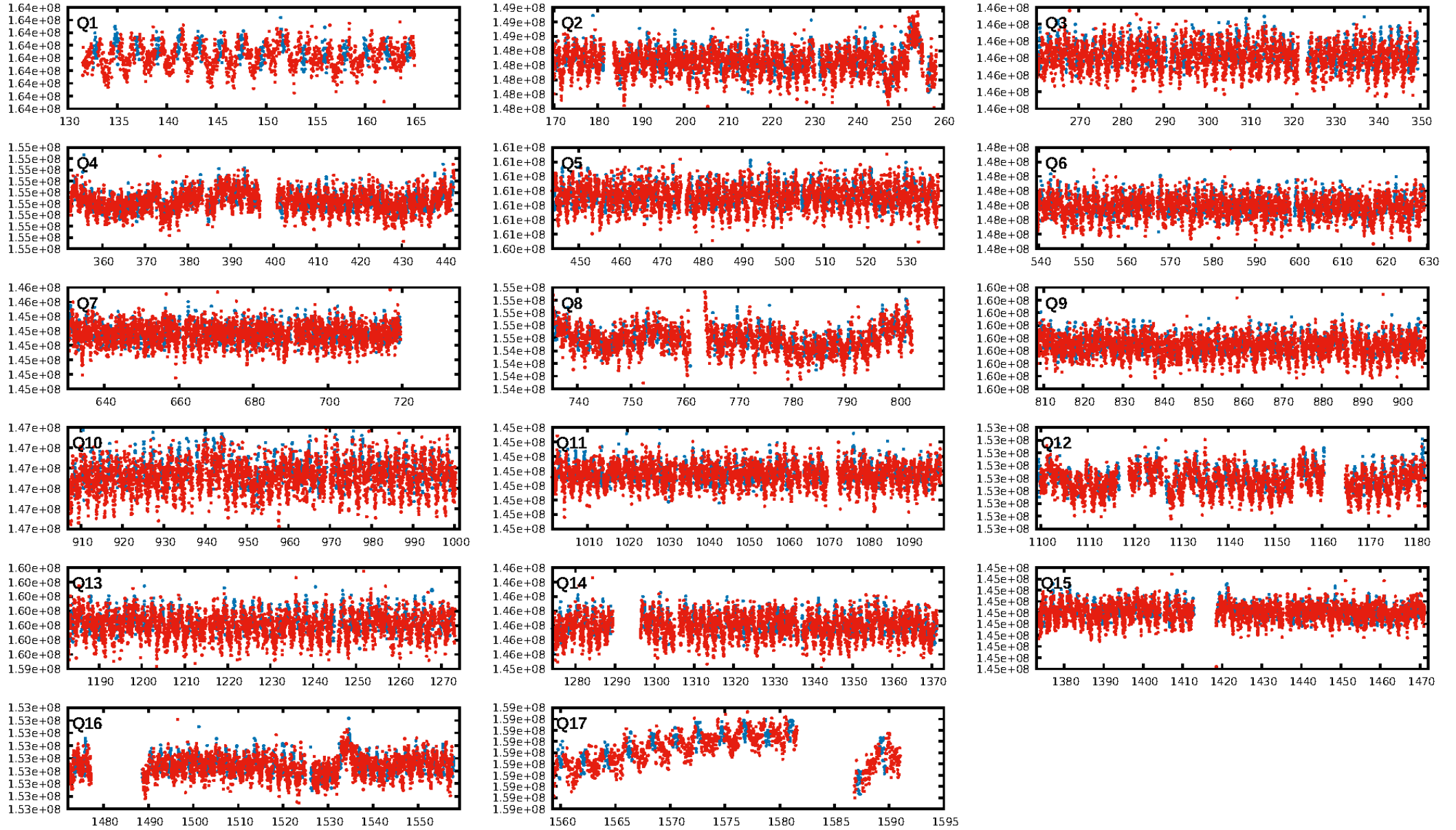
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.99 [622/627]
GhostDiagnostic-chr: 0.7109
Centroid-sig: 0.0%
Centroid-so: 15.239 arcsec [15.58σ]
OotOffset-rm: 1.357 arcsec [1.74σ]
KicOffset-rm: 1.179 arcsec [1.46σ]
OotOffset-st: 0/4/0/3 [7]
KicOffset-st: 0/4/0/3 [7]
DiffImageQuality-fgm: 0.14 [1/7]
DiffImageOverlap-fno: 1.00 [17/17]

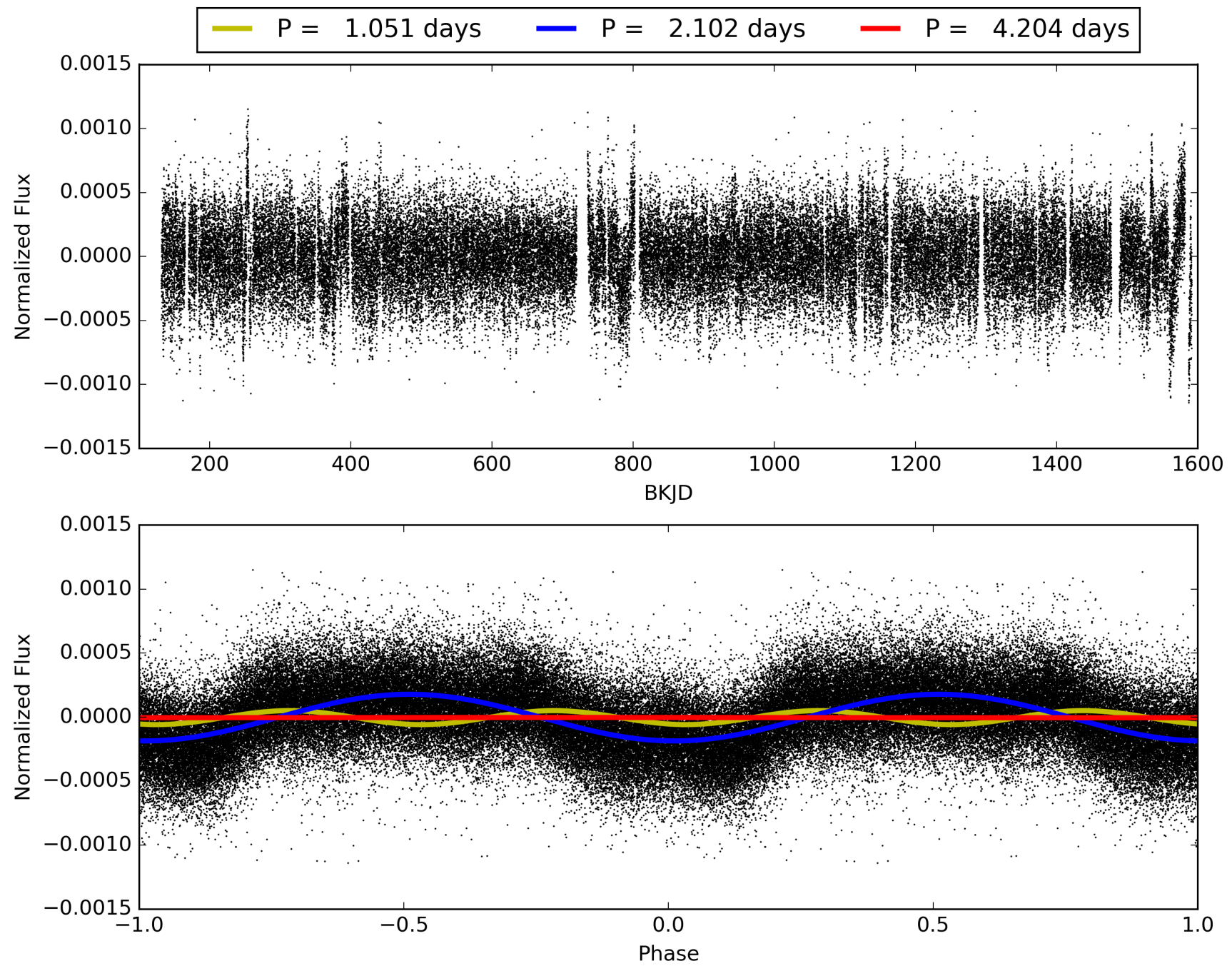
Software Revision: svn-ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 07:21:10 Z

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

TCE 005819807-01, PDC Light Curves

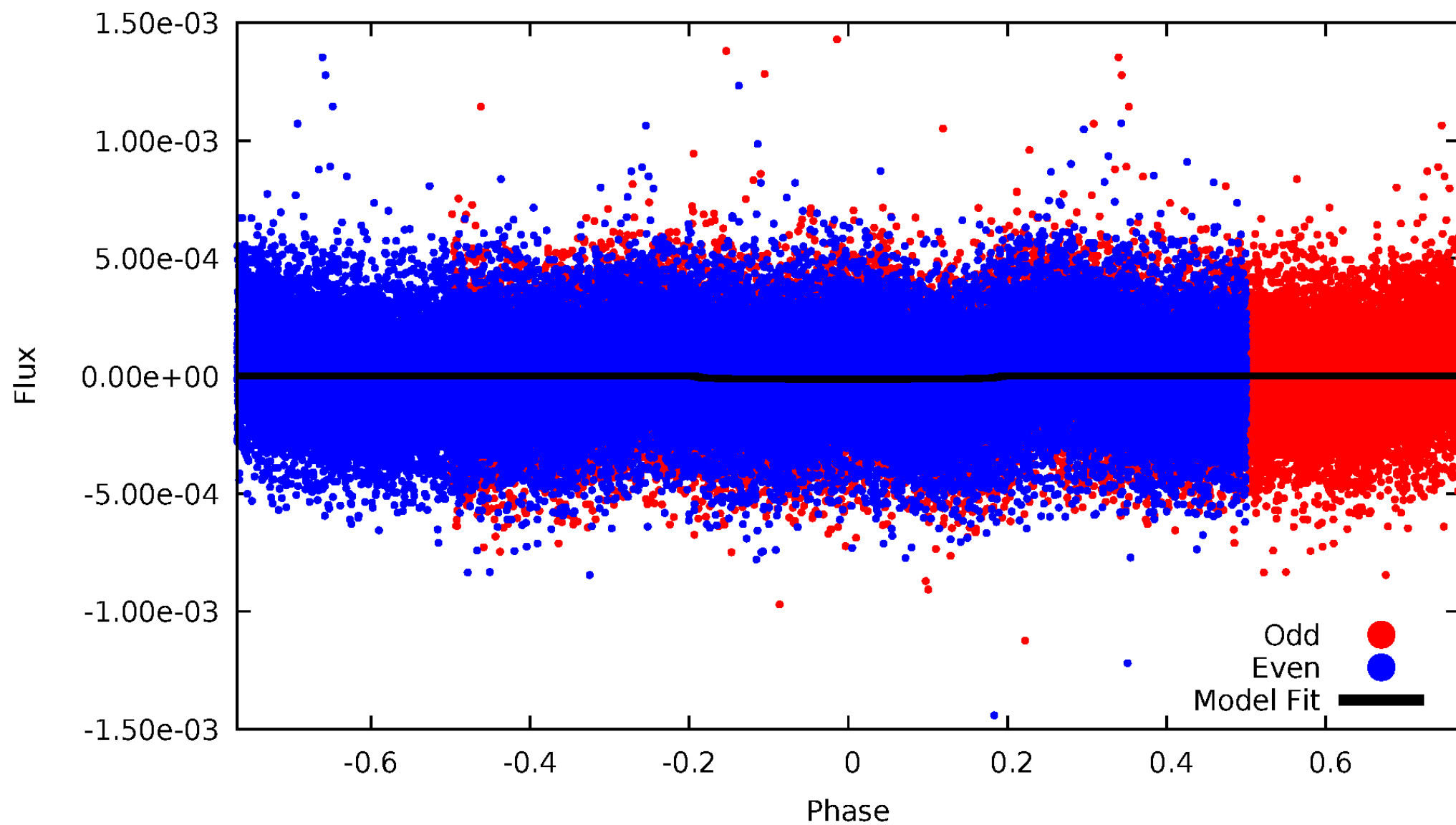


TCE 005819807-01



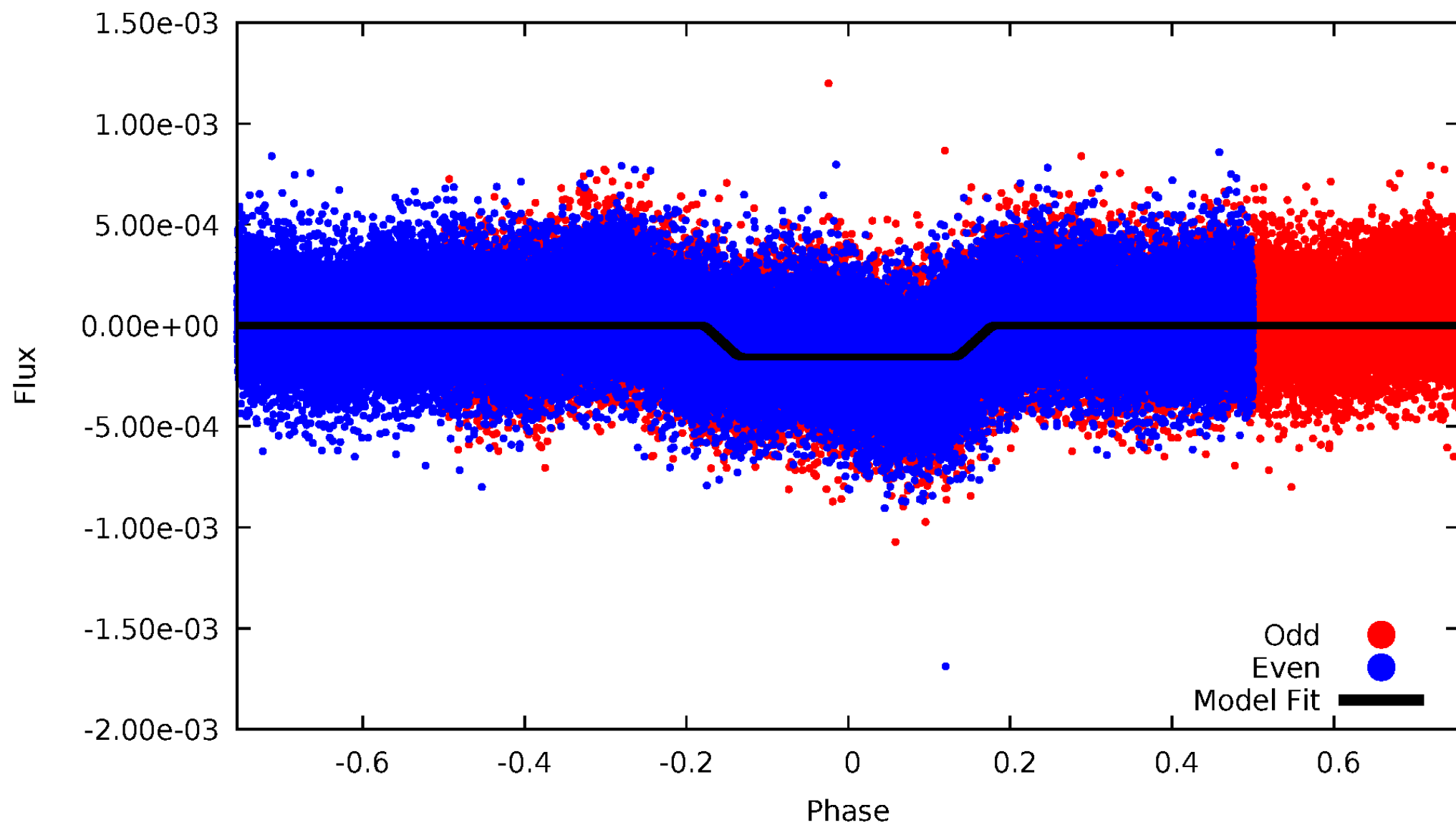
DV Odd/Even

TCE 005819807-01

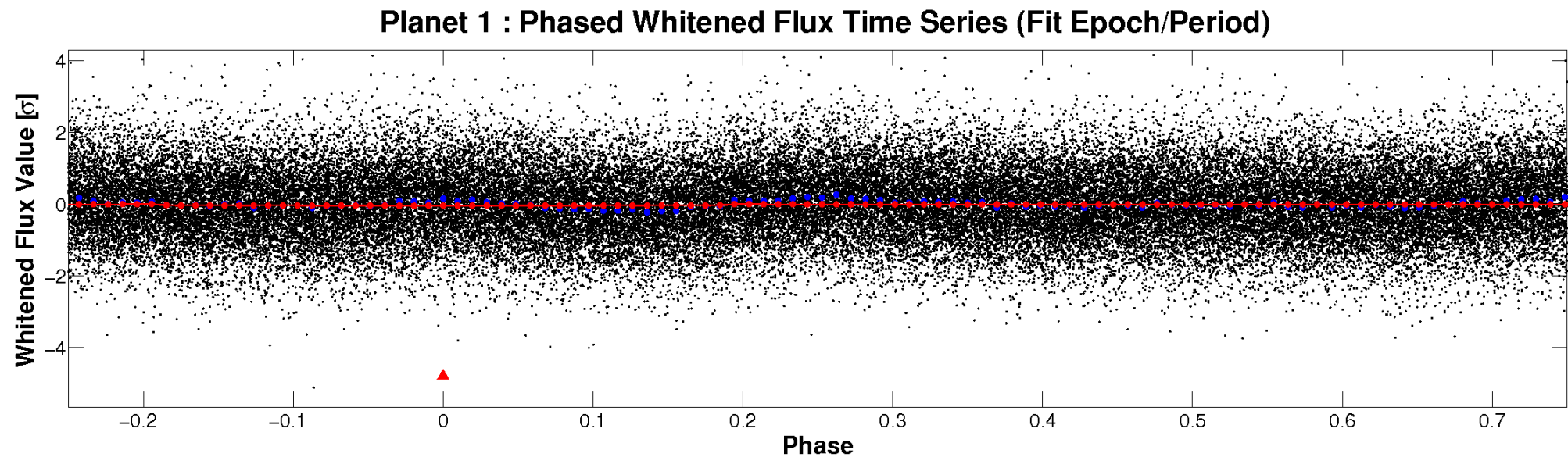
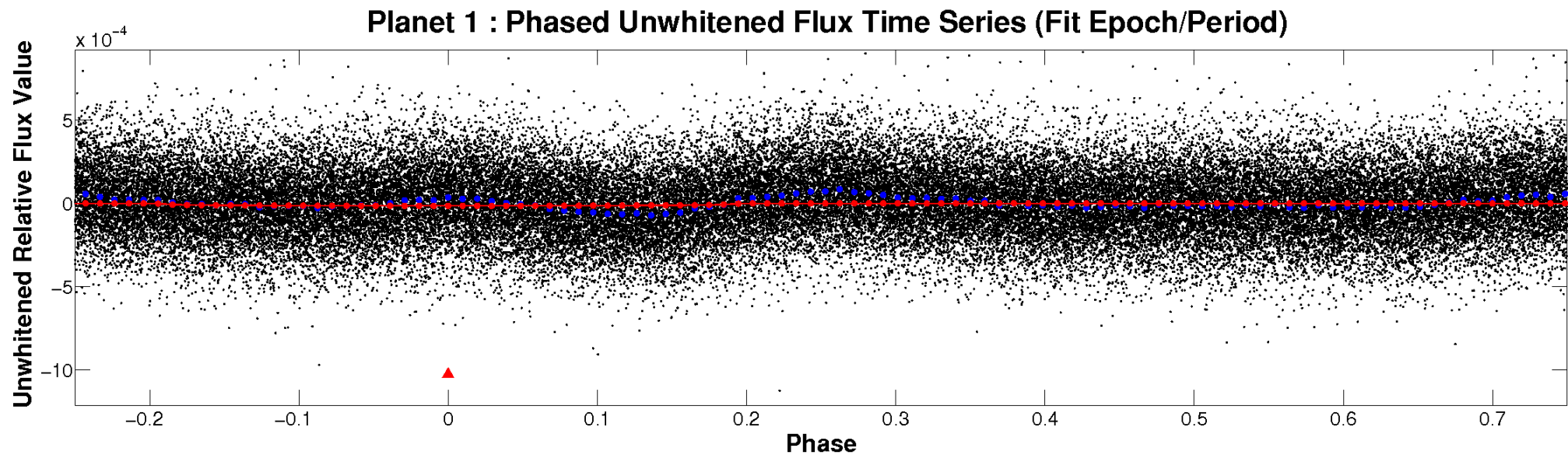


ALT Odd/Even

TCE 005819807-01

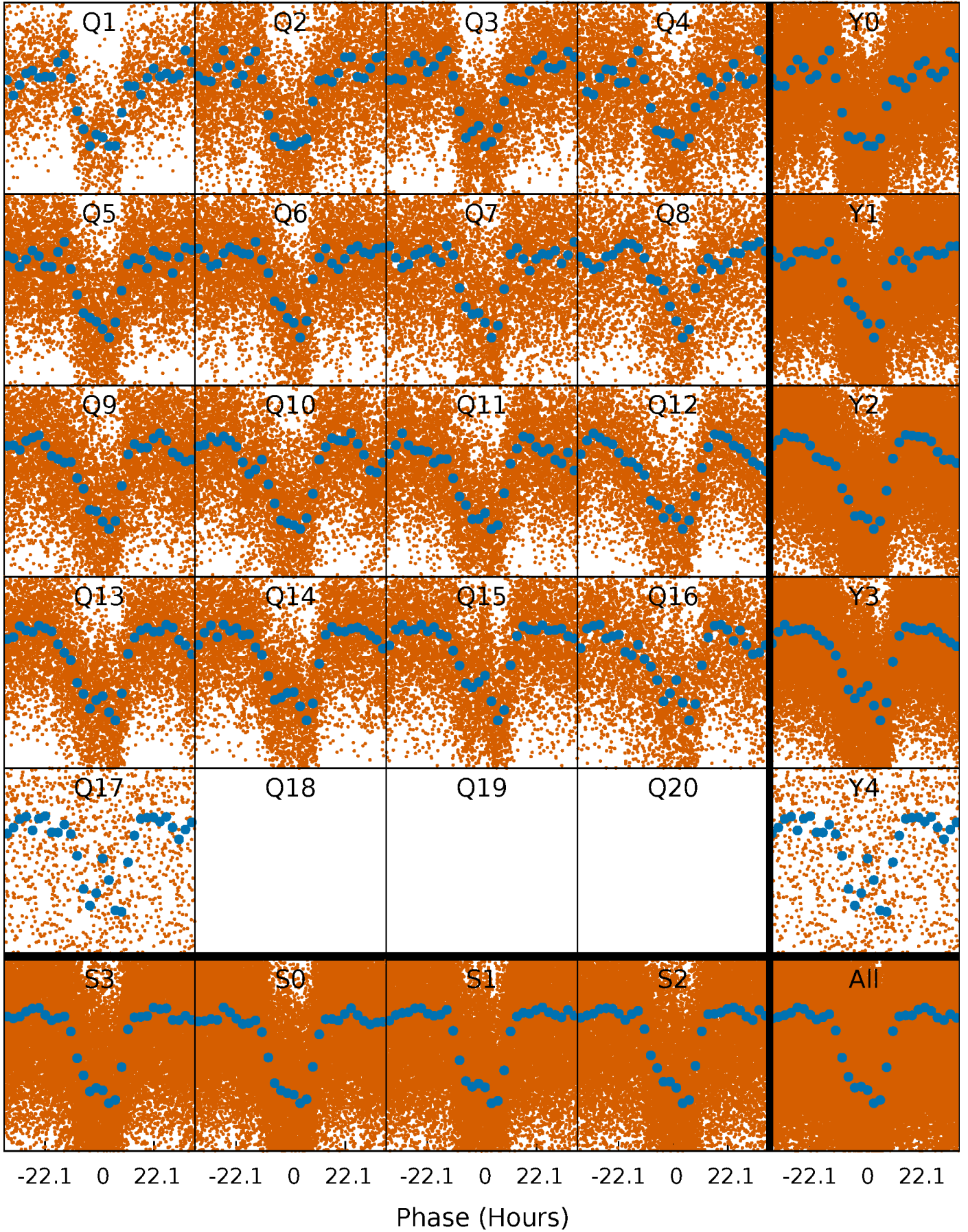


Non-Whitened Vs. Whitened Light Curve



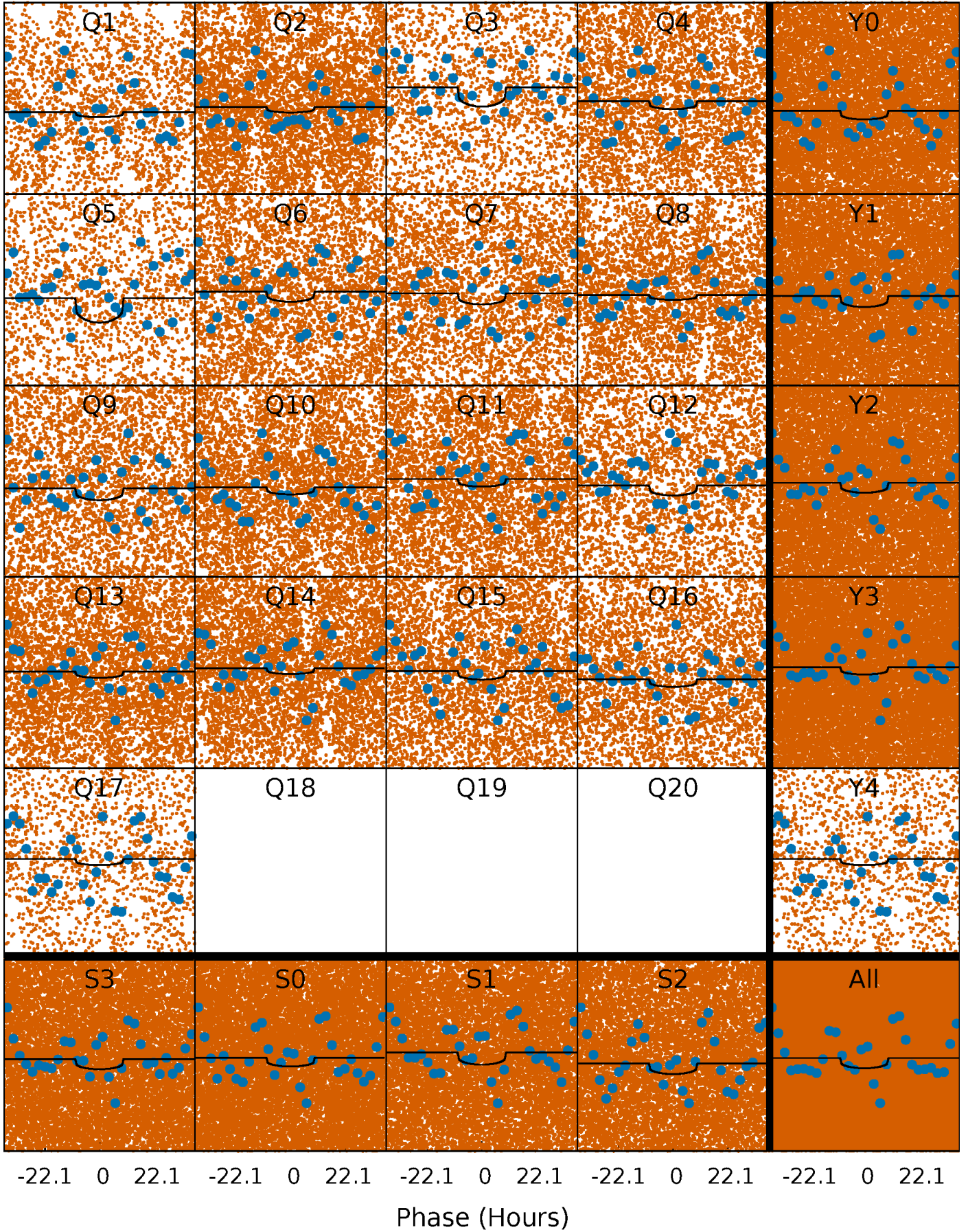
PDC Quarter-Phased Transit Curves

TCE 005819807-01 P= 2.101899 Days $T_0=131.734014$ (BKJD)



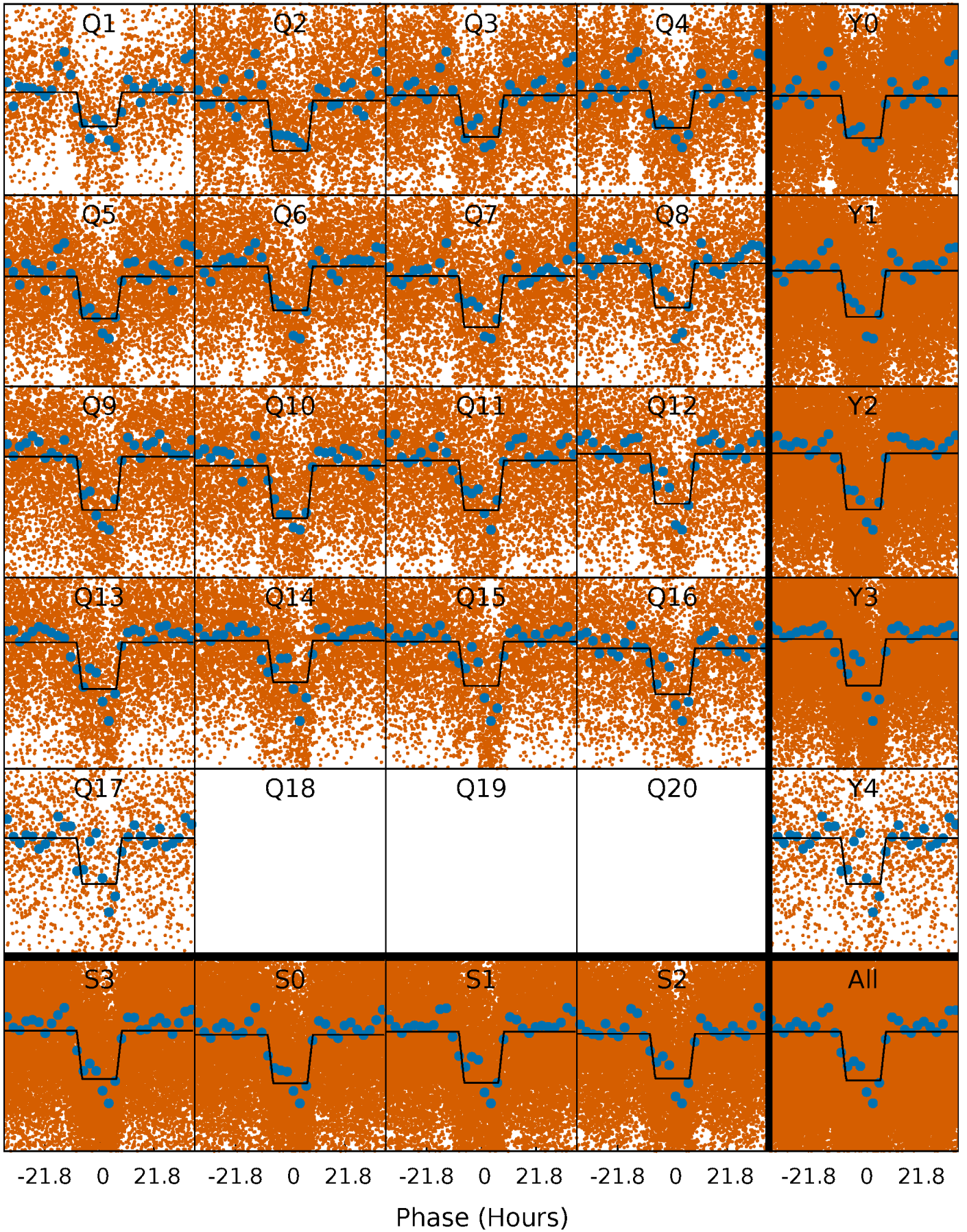
DV Quarter-Phased Transit Curves

TCE 005819807-01 P= 2.101899 Days $T_0=131.734014$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

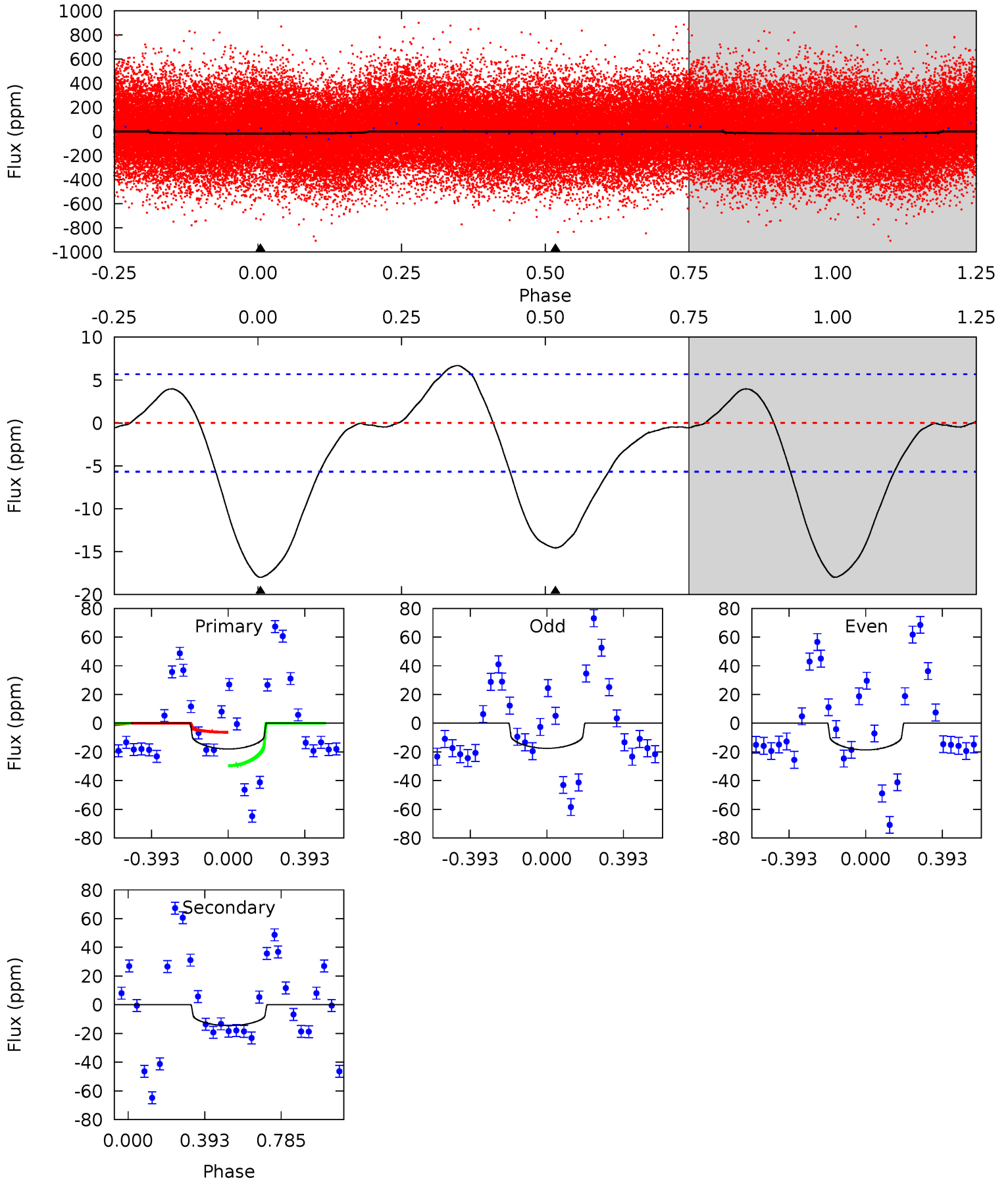
TCE 005819807-01 P= 2.102122 Days $T_0=131.730194$ (BKJD)



DV Model-Shift Uniqueness Test

005819807-01, P = 2.101899 Days, E = 129.632115 Days

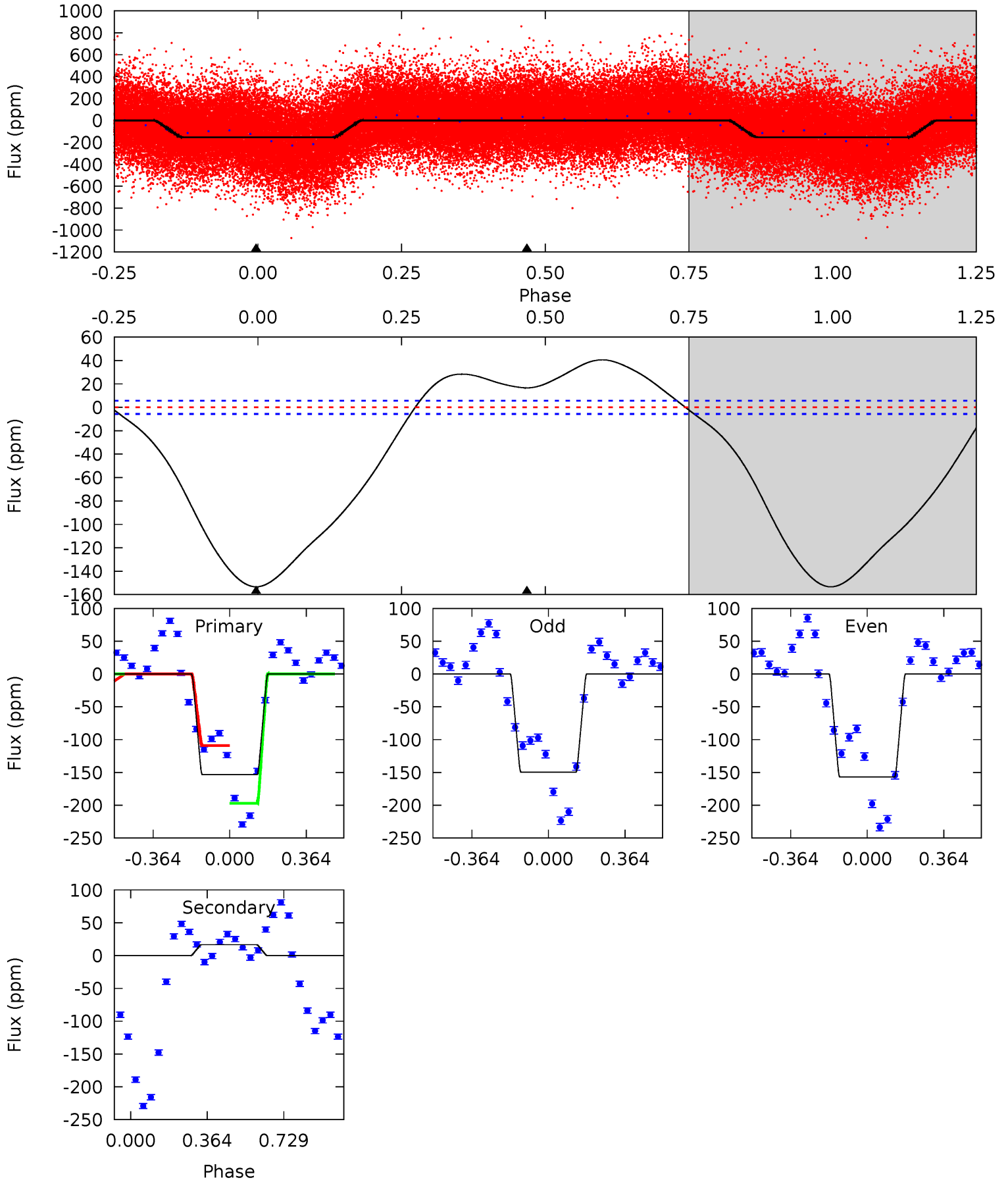
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.5	10.9	0	0	4.27	0.85	0.90	13.5	13.5	10.9	10.9	0.41	1.13	0.27	8.63



Alt Model-Shift Uniqueness Test

005819807-01, P = 2.102122 Days, E = 129.628072 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
116.5	-12.6	0	0	4.29	0.91	12.9	116.5	116.5	-12.6	-12.6	2.71	1.03	0.21	32.7



Stellar Parameters For KIC 005819807

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6233^{+188}_{-226}	$3.646^{+0.612}_{-0.102}$	$0.040^{+0.250}_{-0.300}$	$3.141^{+0.460}_{-1.839}$	$1.589^{+0.199}_{-0.497}$	$0.072^{+0.619}_{-0.022}$
	+3%/-4%	+17%/-3%	+625%/-750%	+15%/-59%	+13%/-31%	+856%/-30%
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 005819807-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-15 ± 1	$1.30^{+1.19}_{-0.82}$	3438^{+259}_{-460}	5792^{+5109}_{-1471}	$6.596^{+45.468}_{-4.826}$
Alt.	17 ± 1	$3.75^{+1.50}_{-1.56}$	3430^{+242}_{-562}	-4145^{+301}_{-529}	$-0.883^{+0.415}_{-1.628}$

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 $A_{obs} \gg 1.0$

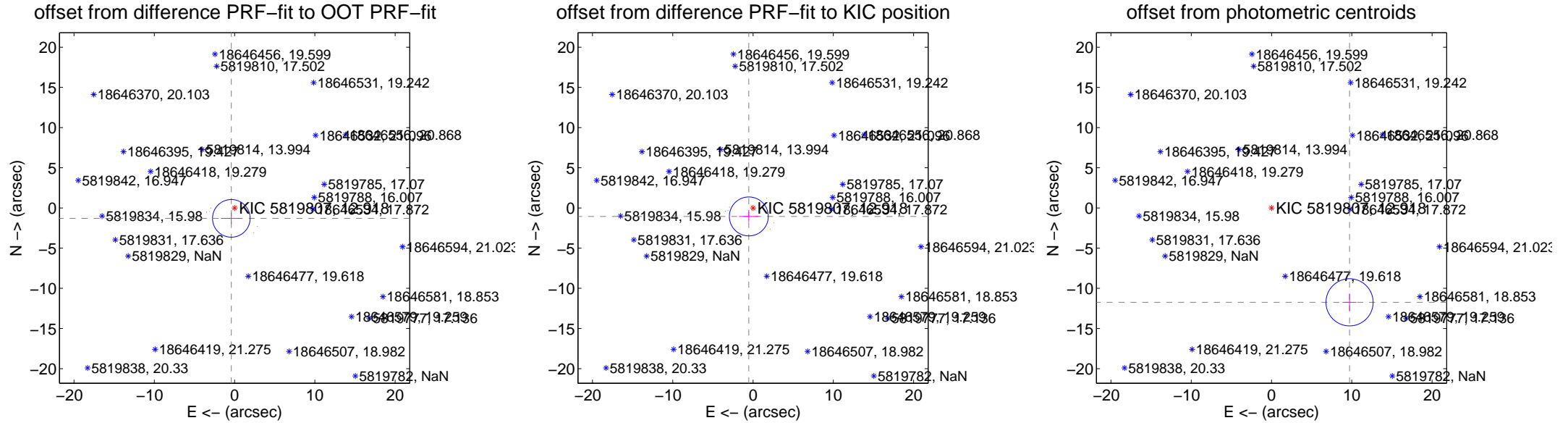
DV Centroid Data

Supplemental centroid analysis for 005819807-01. Kepler magnitude: 12.92. Transit SNR 6.22

There are 1 quarters with good PRF difference image offsets

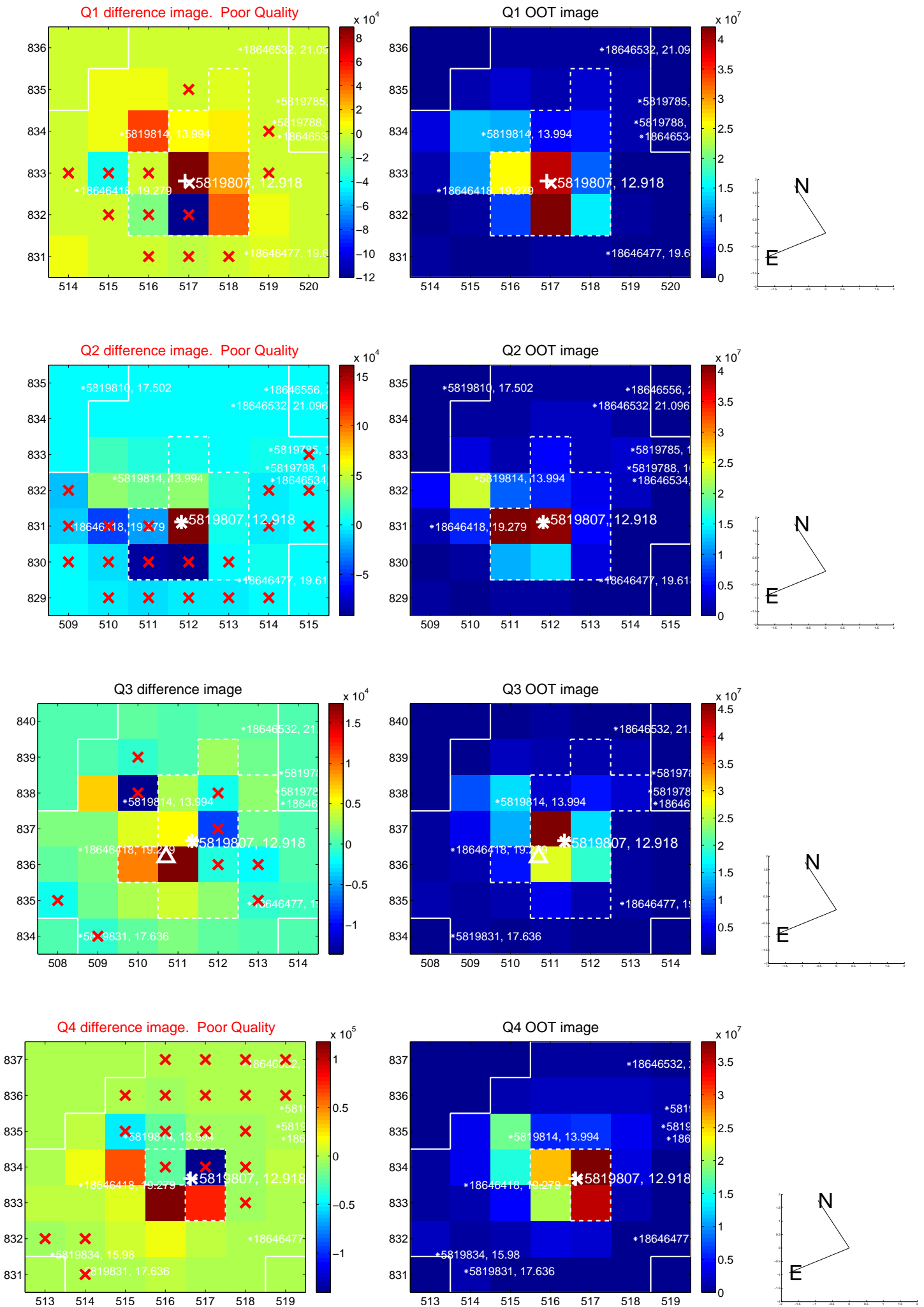
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.357 ± 0.781	1.74	0.405 ± 1.291	-1.295 ± 0.712
PRF-fit source offset from KIC position	1.179 ± 0.808	1.46	0.527 ± 1.227	-1.055 ± 0.663
photometric centroid source offset	15.24 ± 0.98	15.58	-9.72 ± 0.87	-11.74 ± 1.05

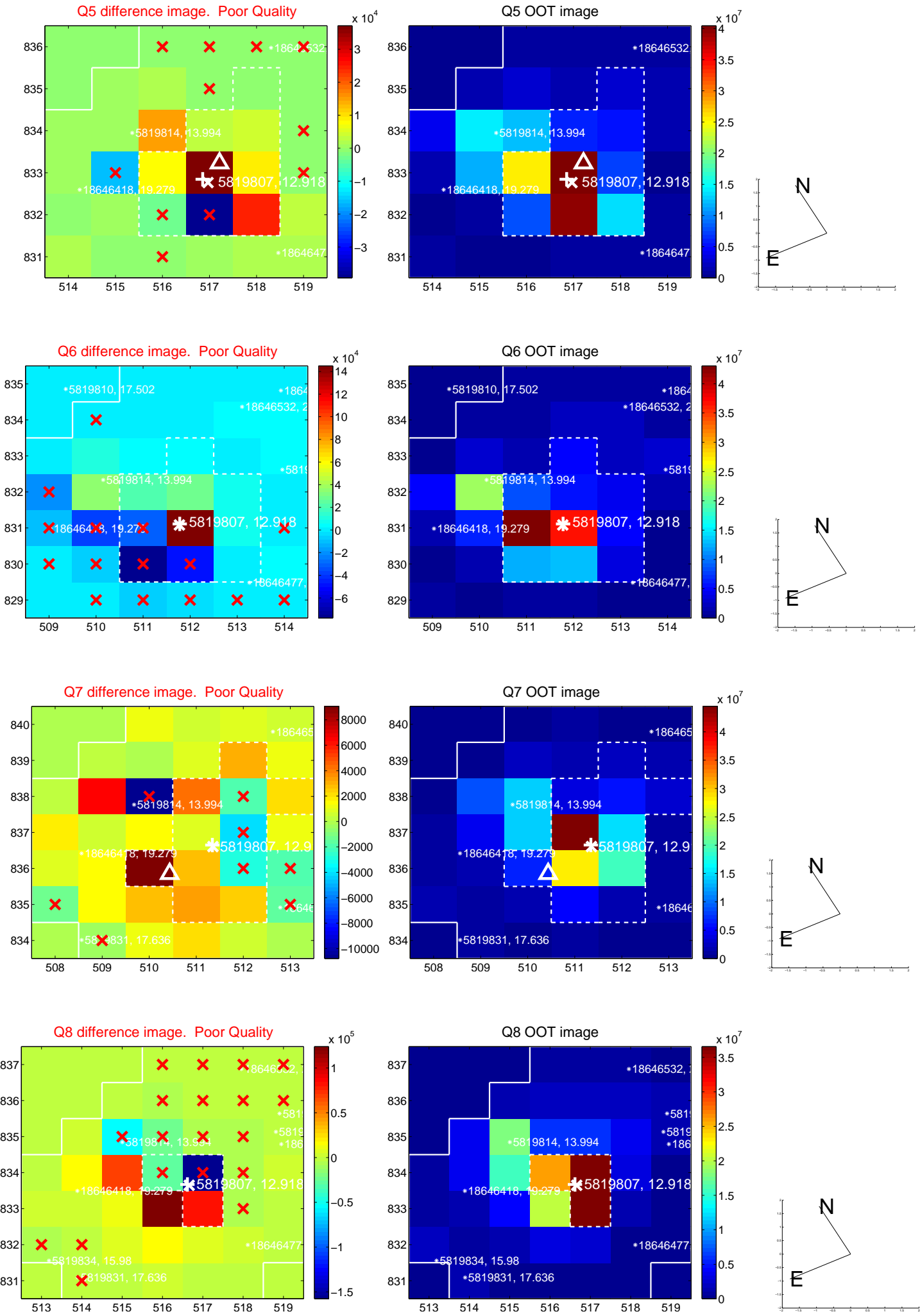


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

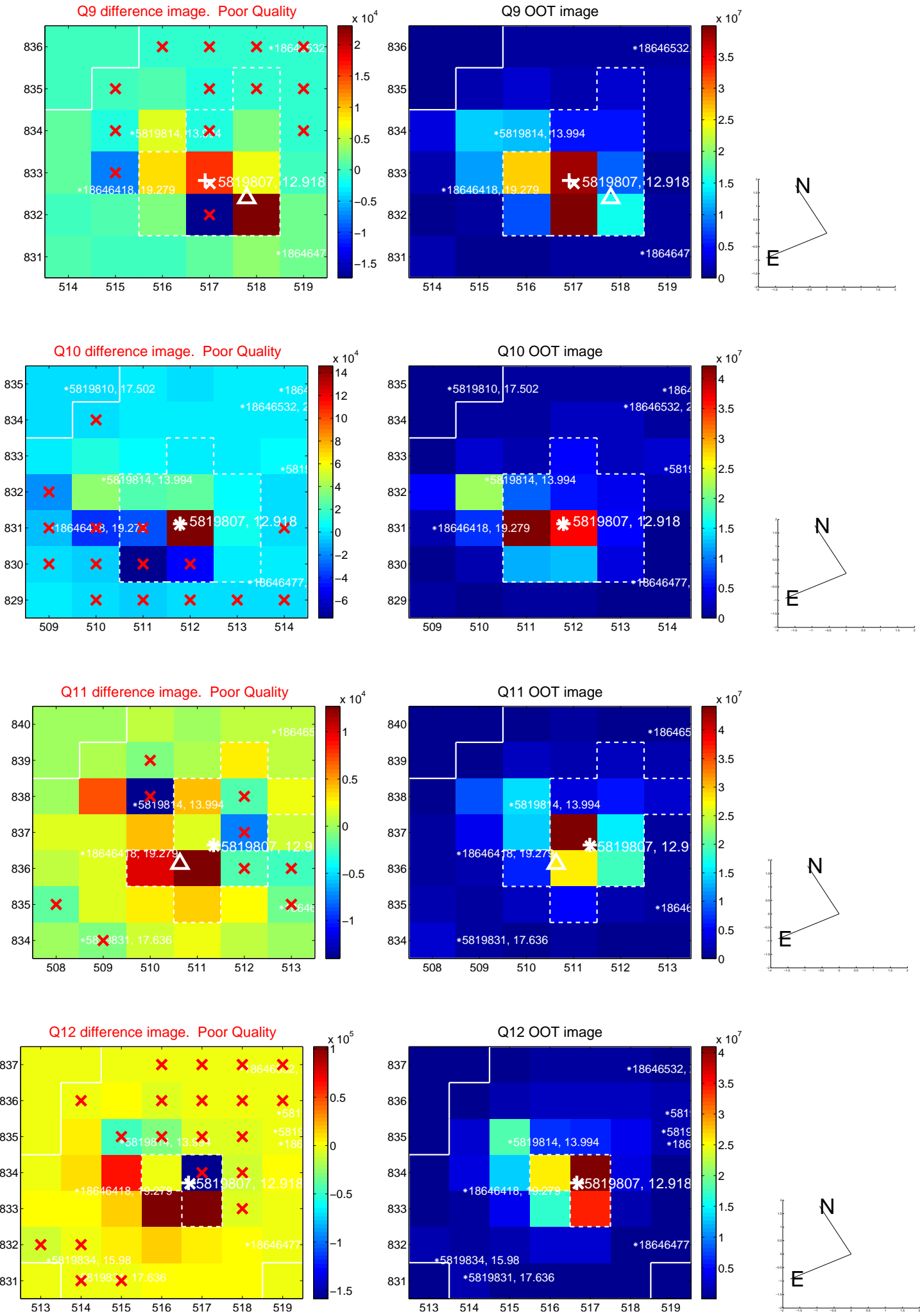
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



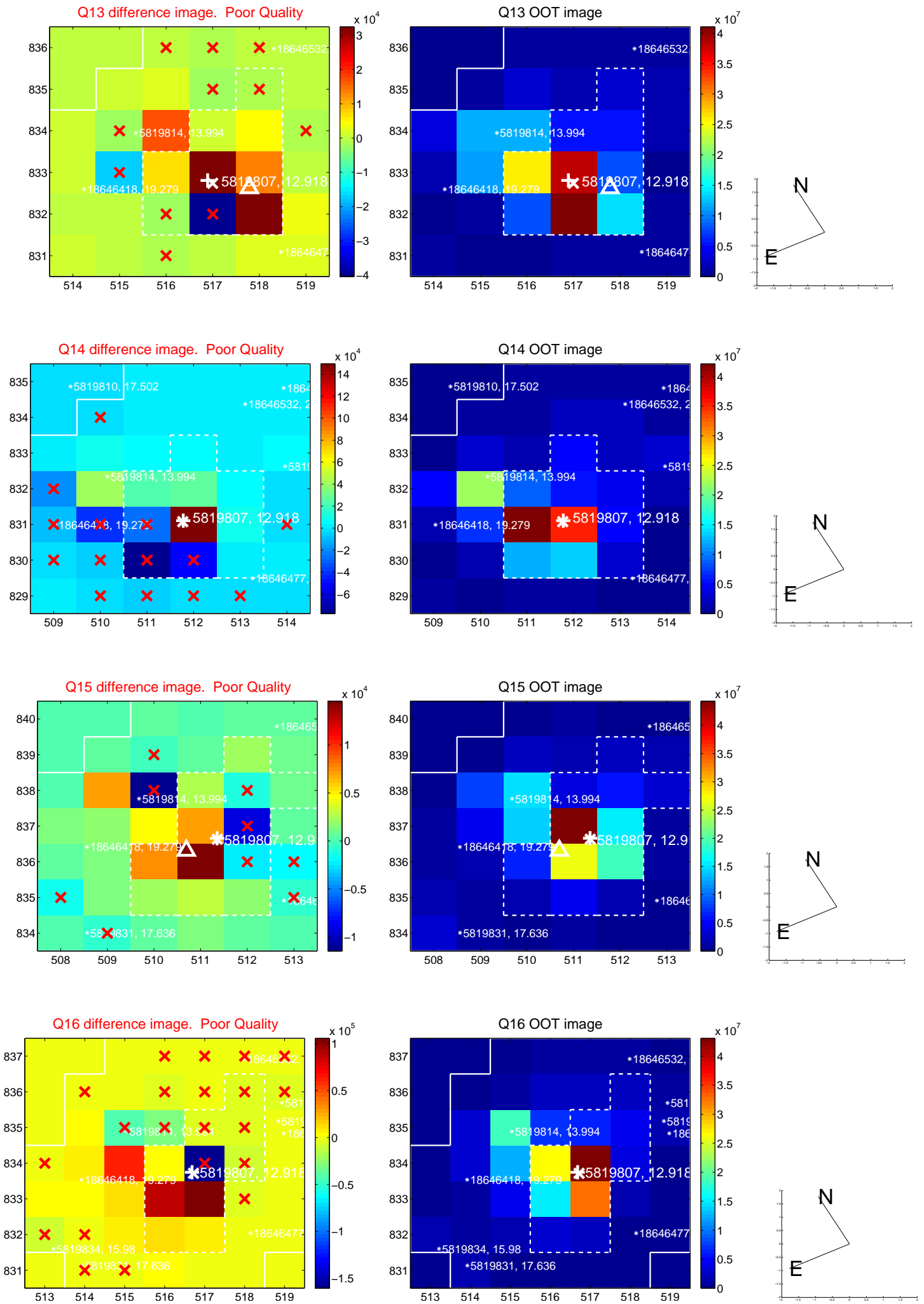
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



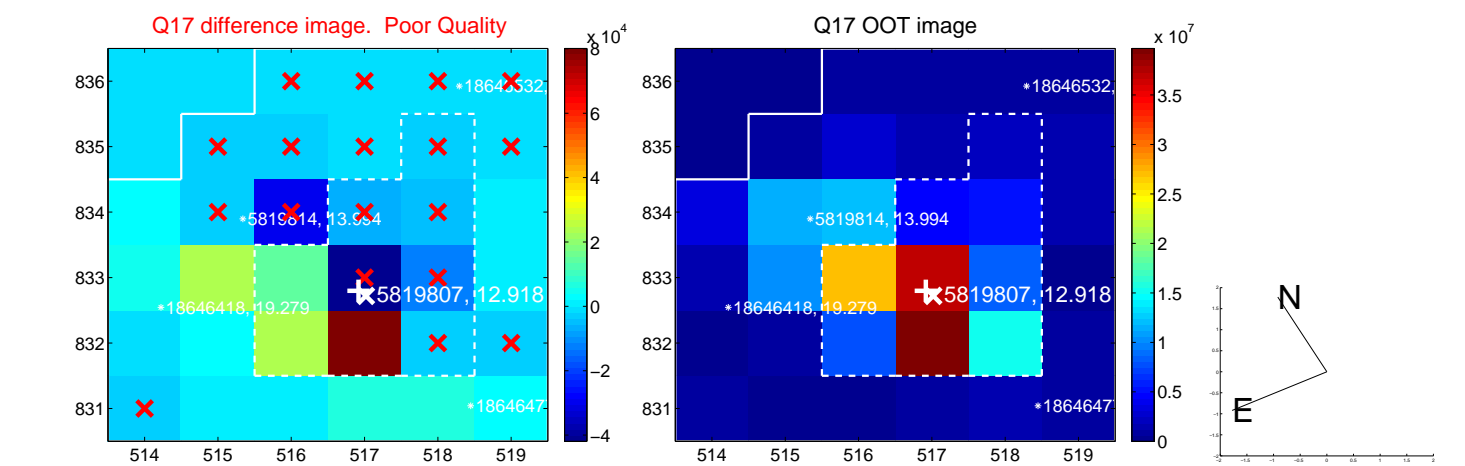
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



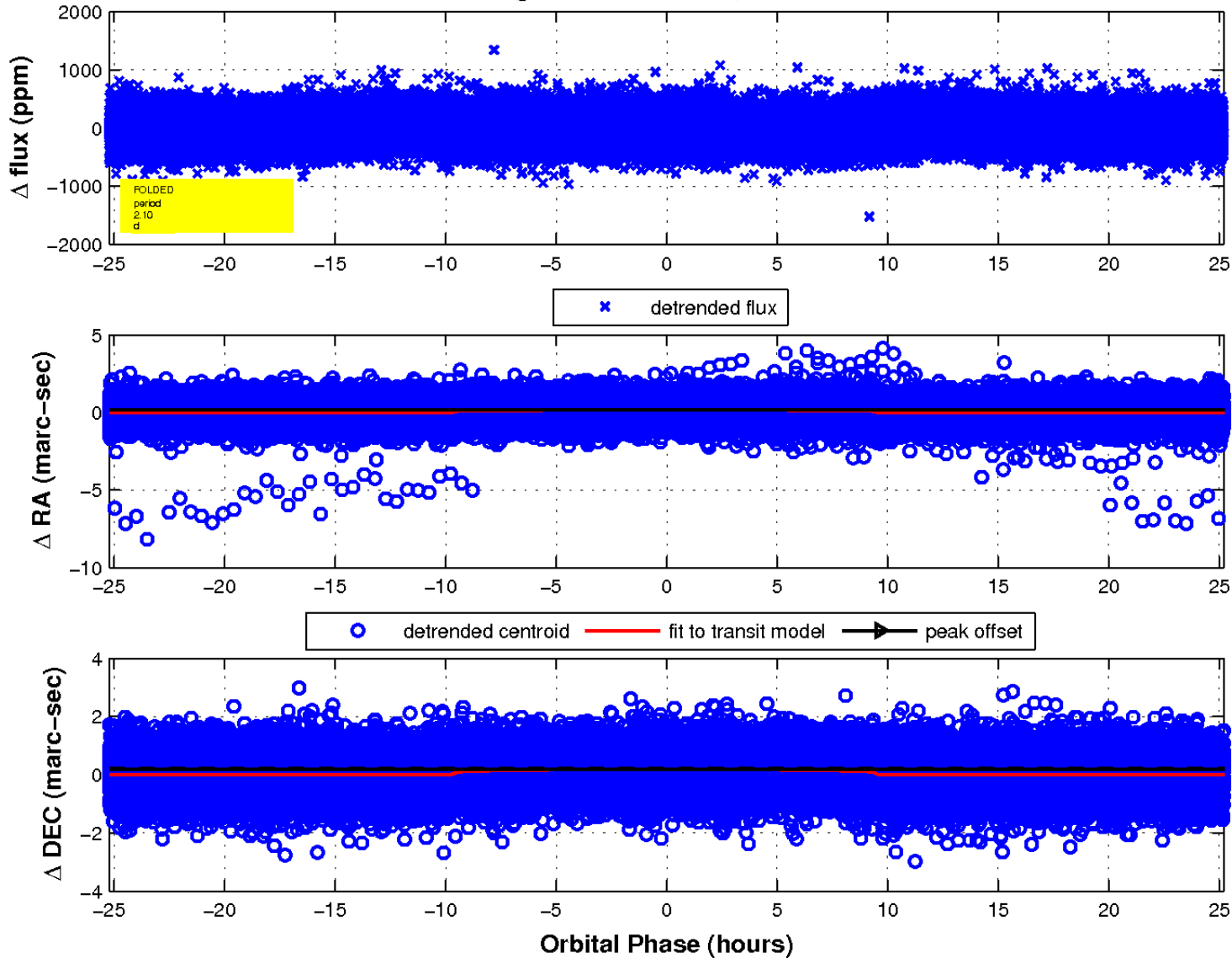
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

