

KIC 005164794

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})
005164794-01	OBS	6531.01	1.042913	131.996287	117.5	11.191	9.6	11.5	1.00	5780	1.10	2467.60

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005164794-01	OBS	FP	0.00	1	0	1	0	LPP_DV—CENT_RESOLVED_OFFSET

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.

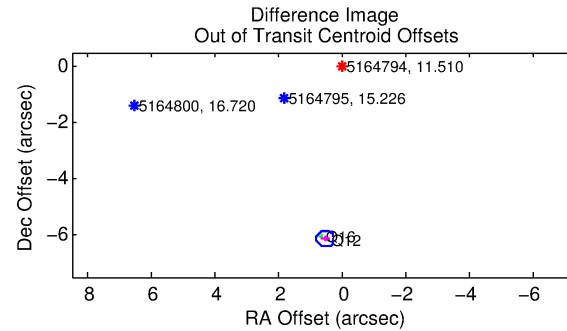
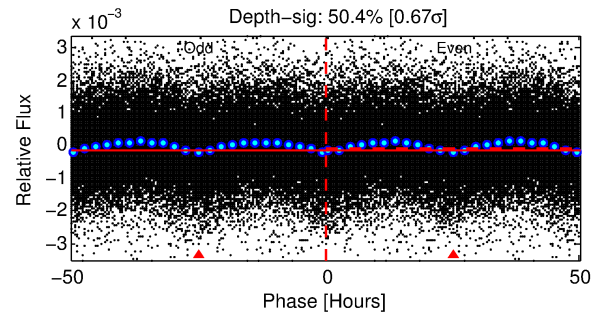
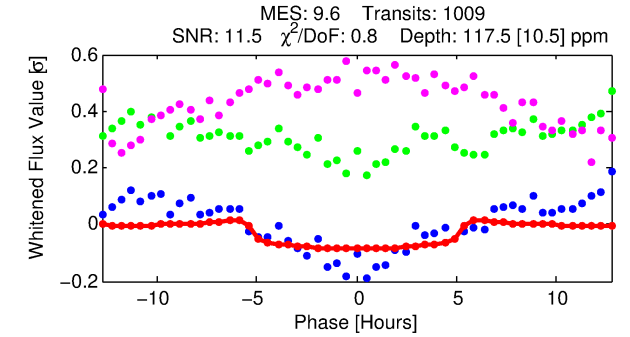
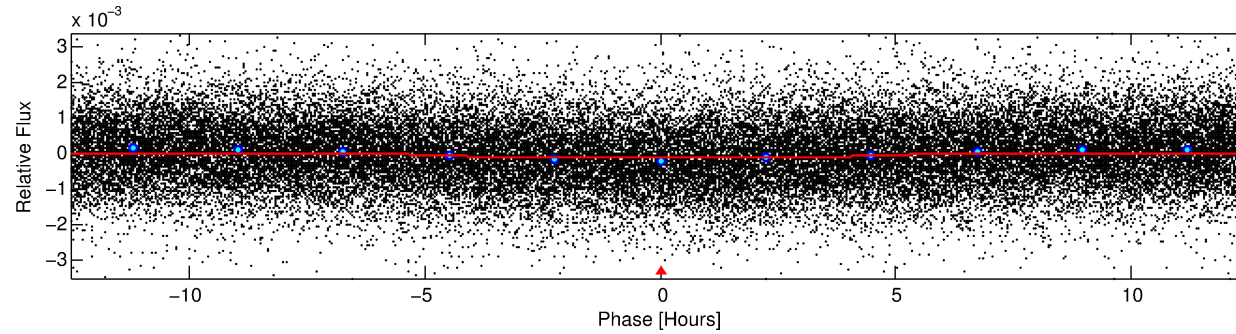
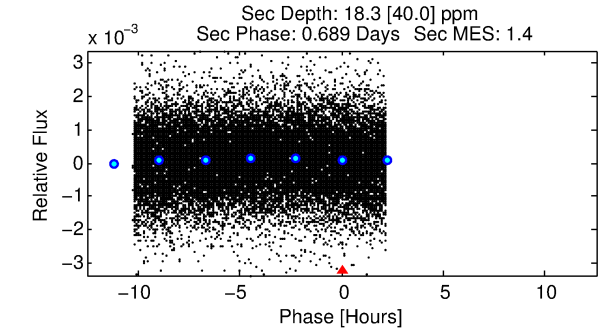
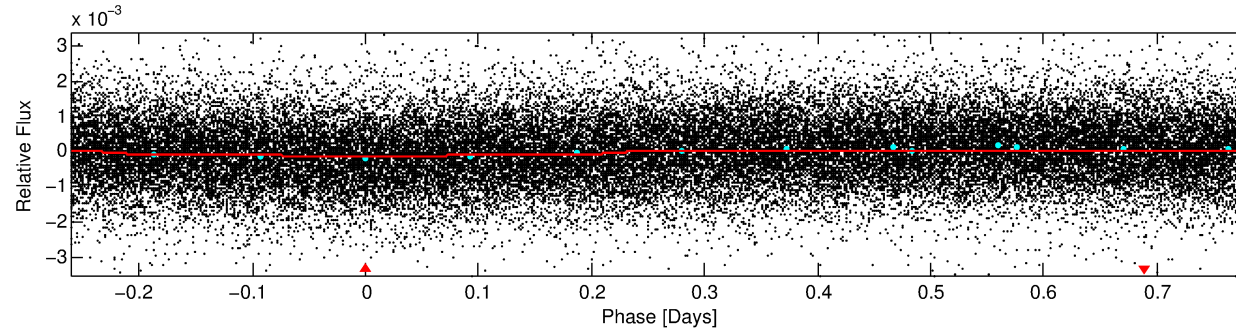
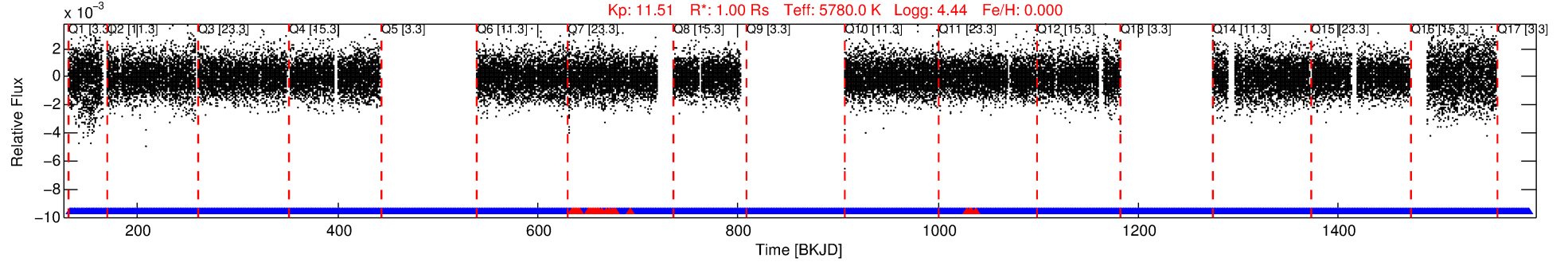
Ephemeris Match Information For 005164794-01

No Significant Match Found

DV One-Page Summary

KIC: 5164794 Candidate: 1 of 1 Period: 1.043 d
KOI: K06531 Corr: No Ephemeris Match

Kp: 11.51 R*: 1.00 Rs Teff: 5780.0 K Logg: 4.44 Fe/H: 0.000



DV Fit Results:

Period = 1.04291 [0.00002] d
Epoch = 131.9963 [0.0079] BKJD
Rp/R* = 0.0101 [0.0042]
a/R* = 1.02 [0.07]
b = 0.48 [3.03]
Seff = 2467.60 [0.06]
Teq = 1797 [0] K
Rp = 1.10 [0.46] Re
a = 0.0201 [0.0000] AU
Ag = 3.35 [7.84] [0.30 σ]
Teffp = 3759 [2201] K [0.89 σ]

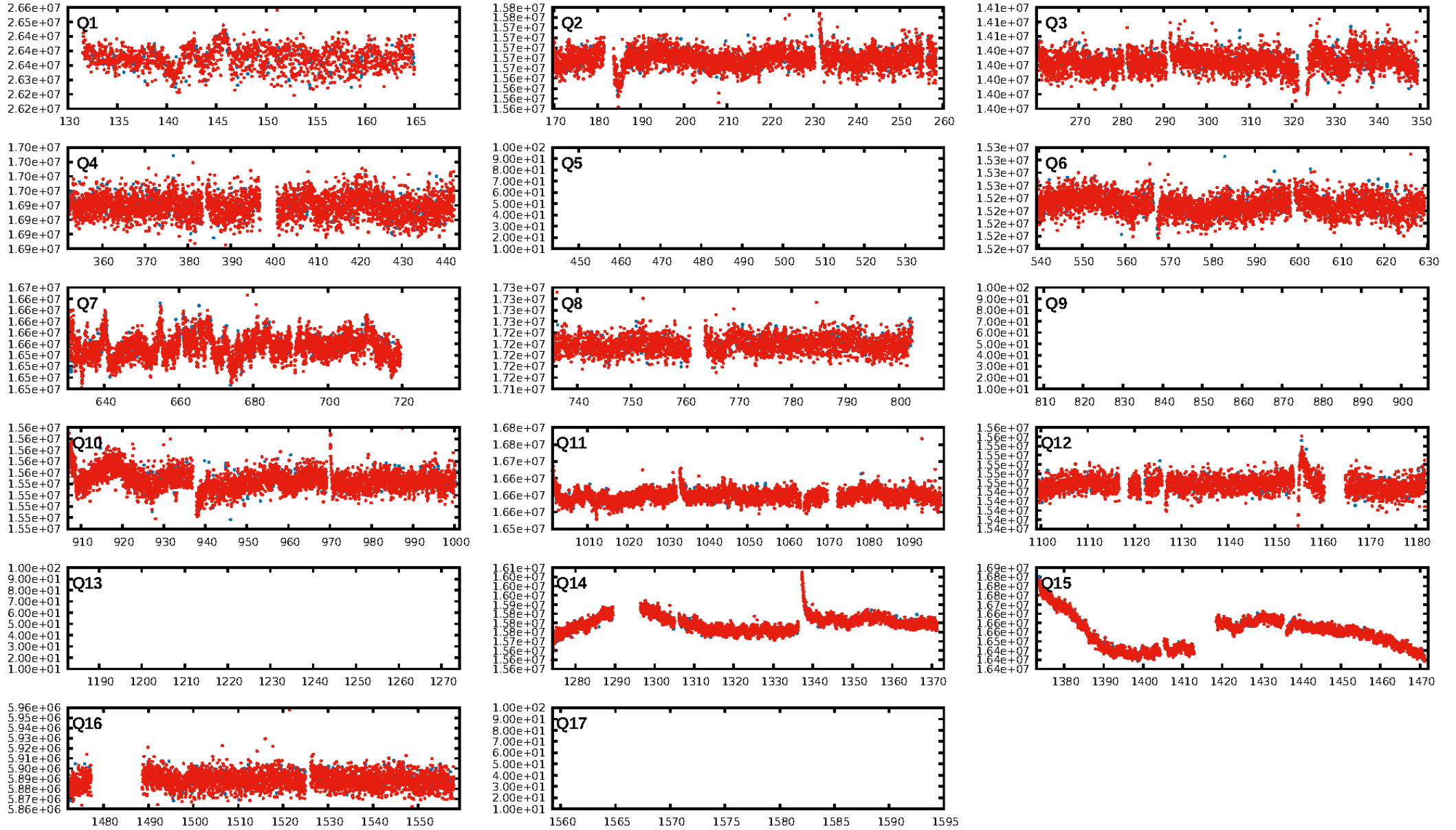
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.97 [949/977]
GhostDiagnostic-chr: -1.235
Centroid-sig: 0.0%
Centroid-so: 9.909 arcsec [82.29 σ]
OotOffset-rm: 6.163 arcsec [65.84 σ]
KicOffset-rm: 8.017 arcsec [12.49 σ]
OotOffset-st: 0/0/2/0 [2]
KicOffset-st: 0/0/4/0 [4]
DiffImageQuality-fgm: 0.00 [0/4]
DiffImageOverlap-fno: 1.00 [13/13]

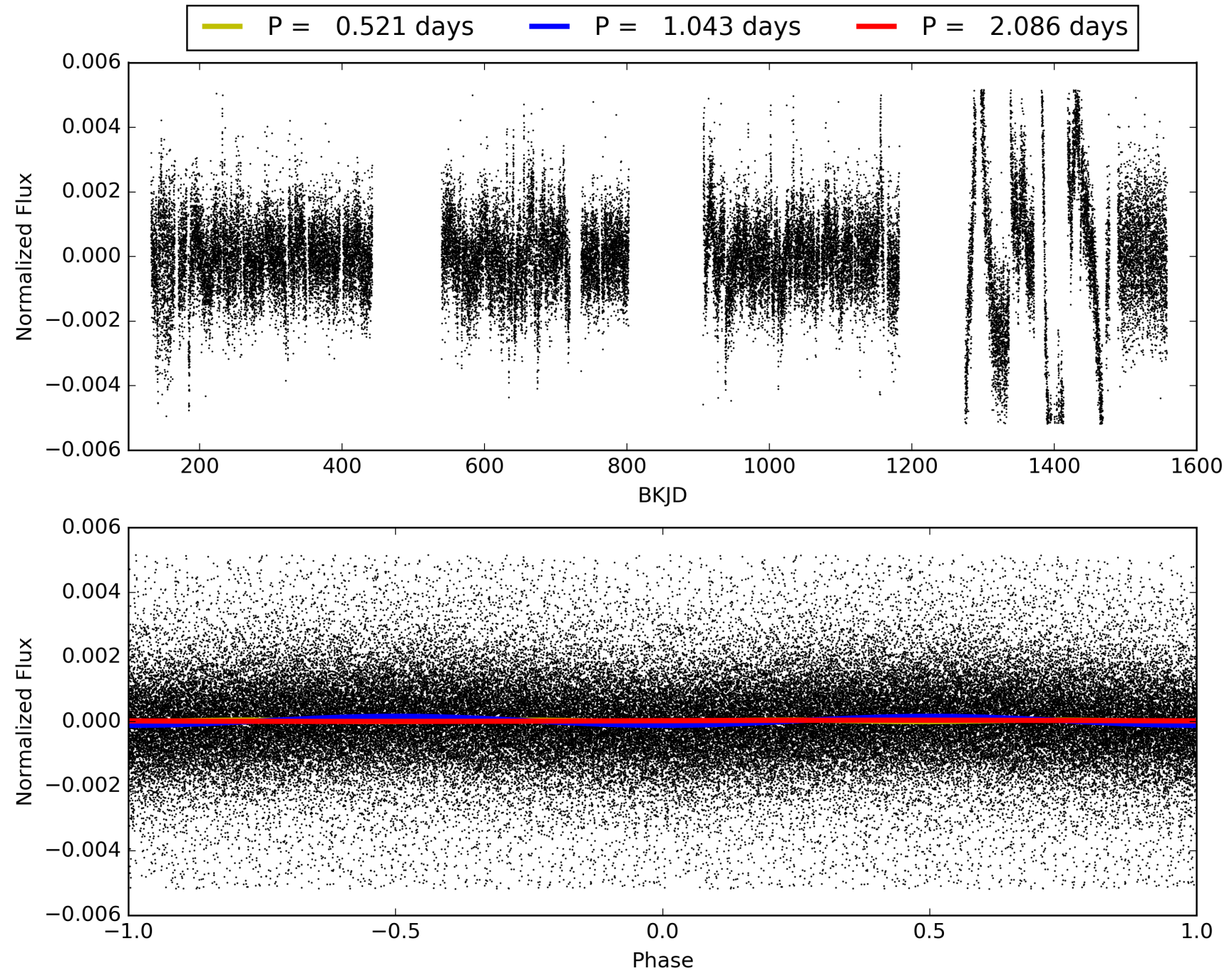
Software Revision: svn-ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 13:23:29 Z

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

TCE 005164794-01, PDC Light Curves

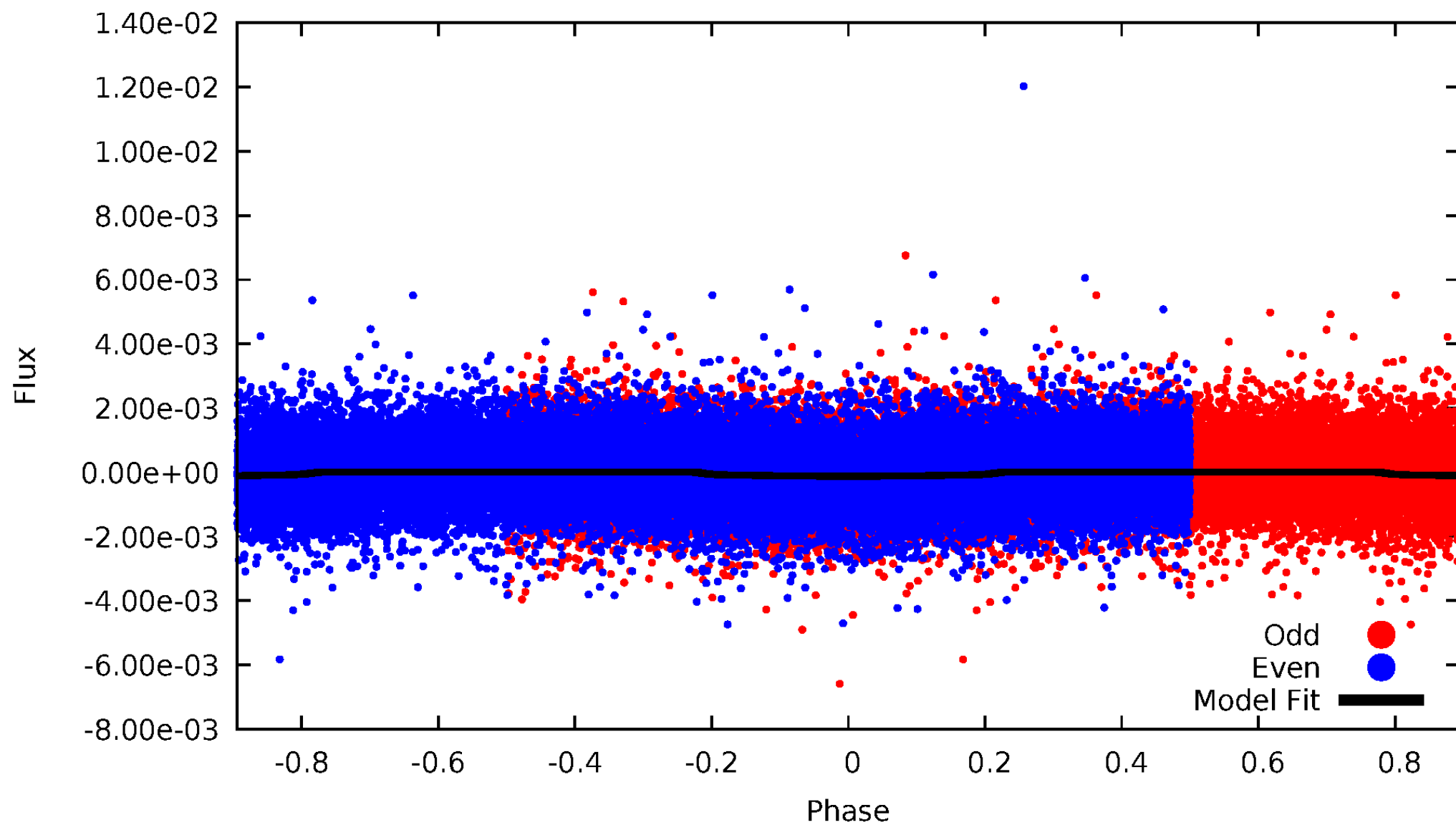


TCE 005164794-01



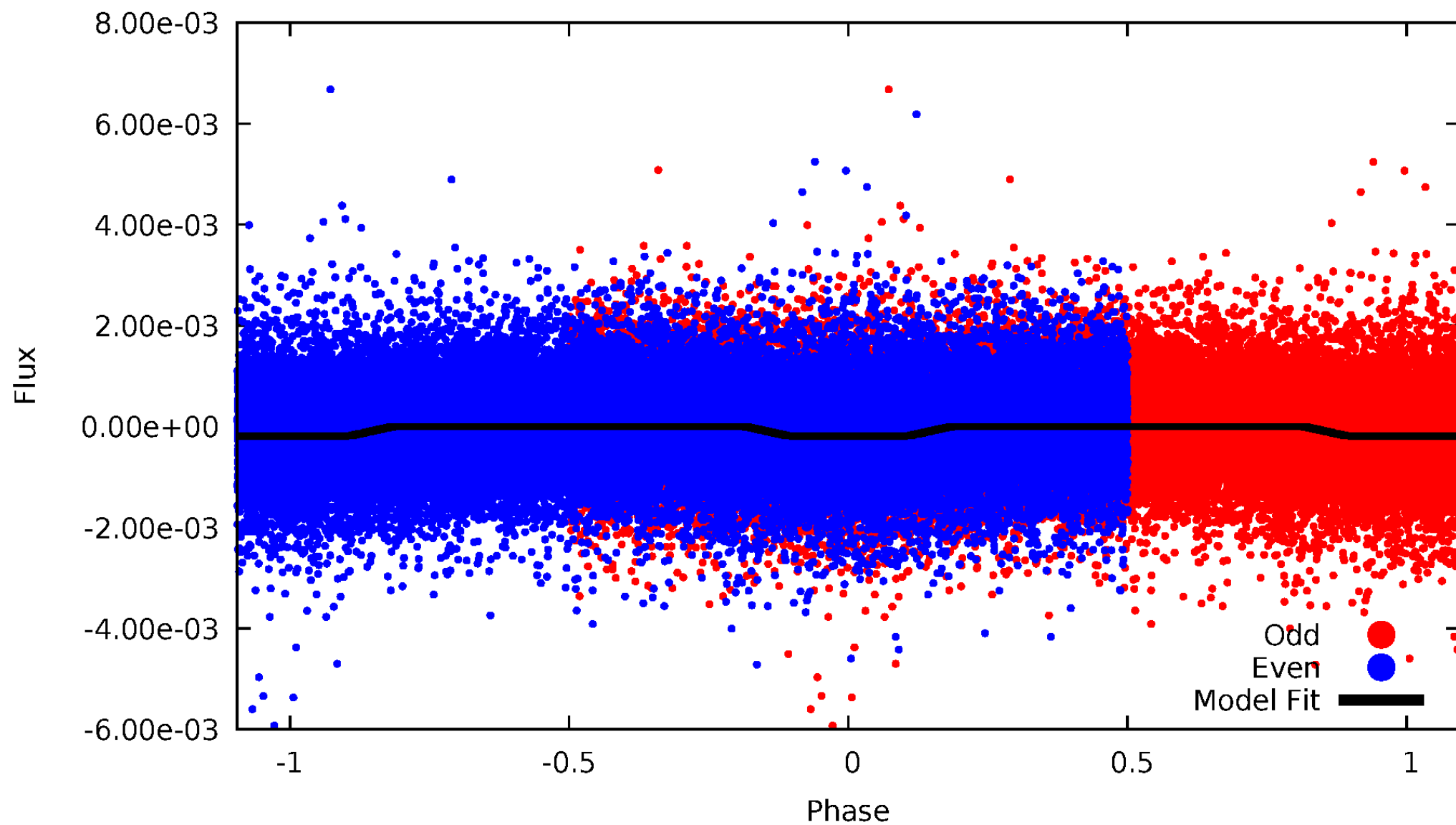
DV Odd/Even

TCE 005164794-01



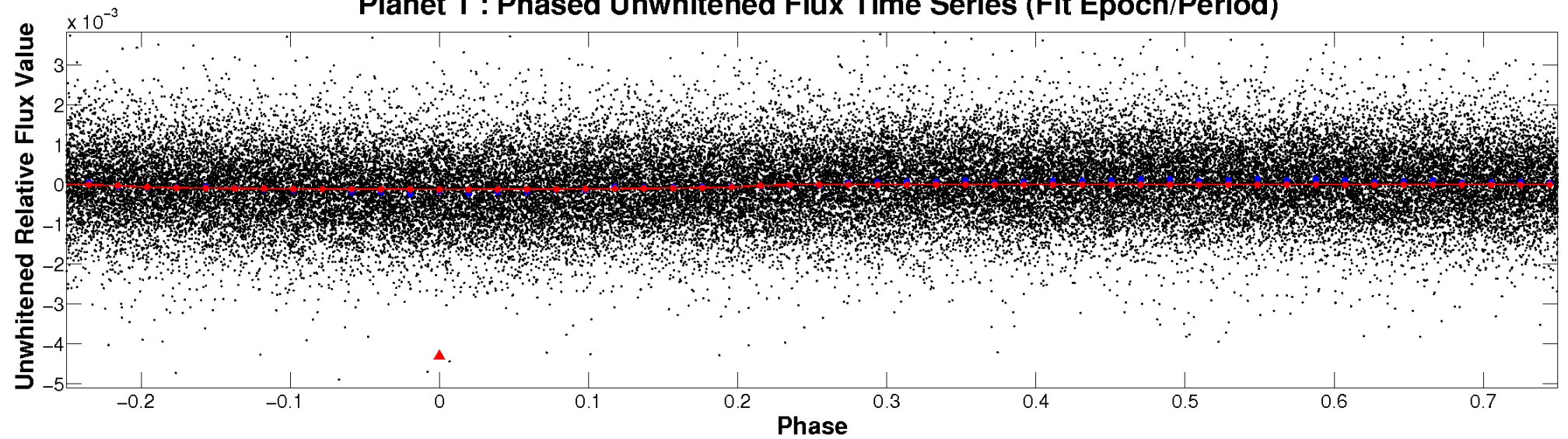
ALT Odd/Even

TCE 005164794-01

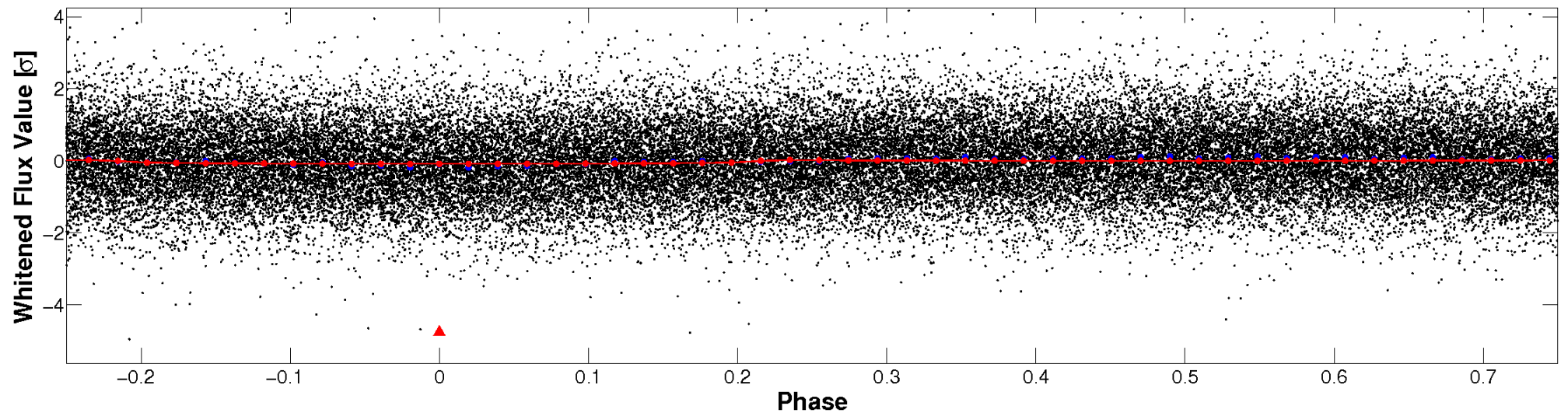


Non-Whitened Vs. Whitened Light Curve

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

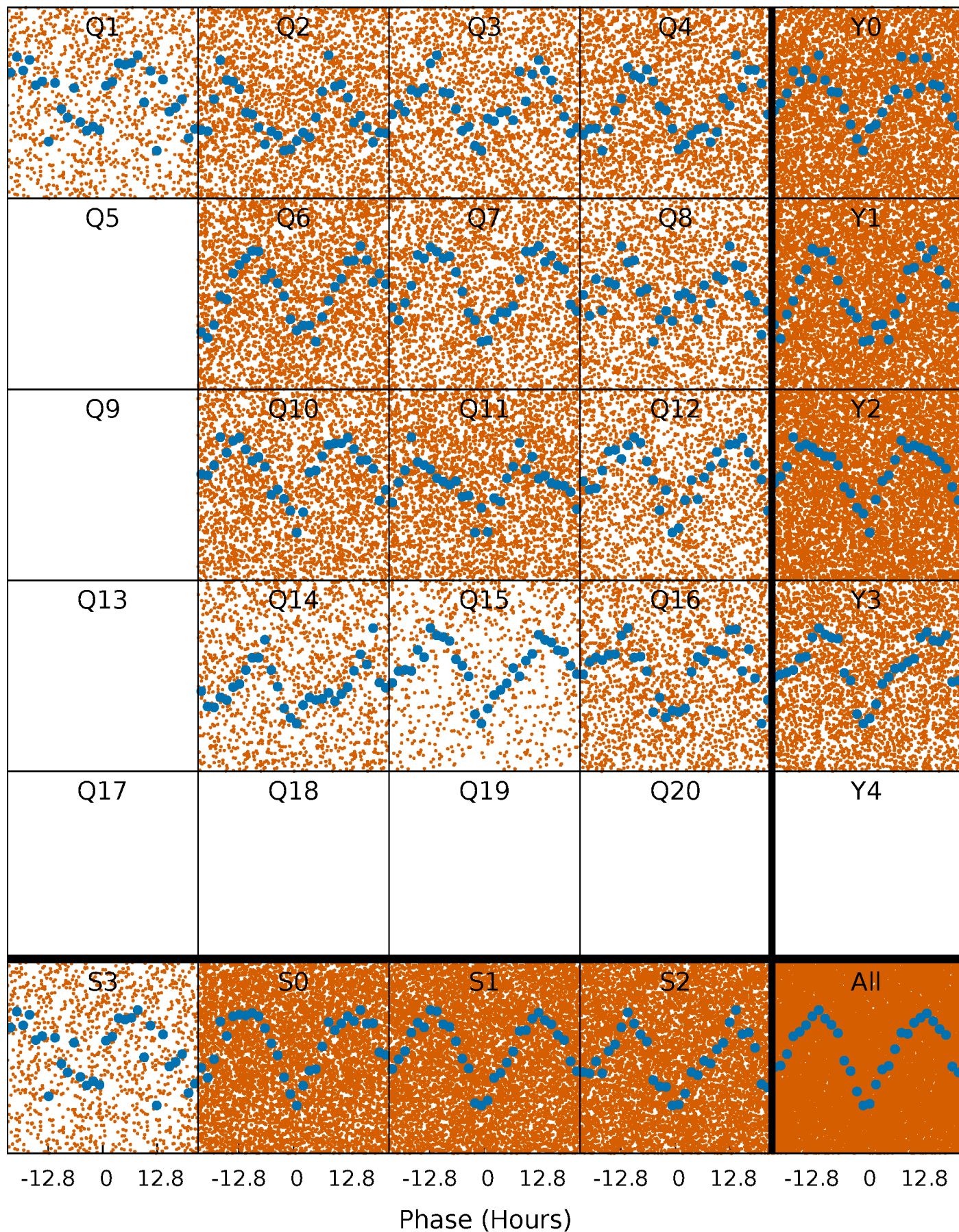


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



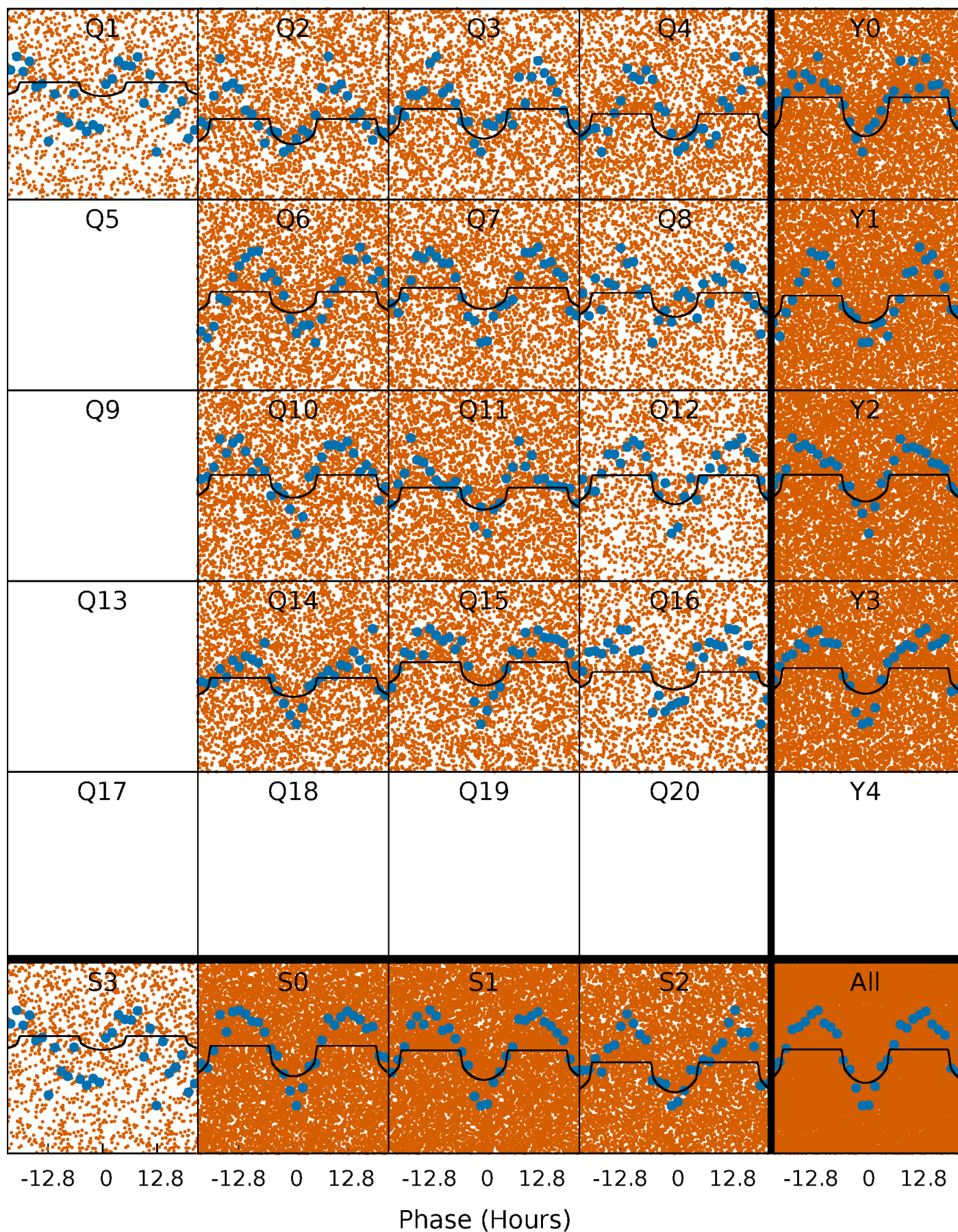
PDC Quarter-Phased Transit Curves

TCE 005164794-01 P= 1.042913 Days $T_0=131.996287$ (BKJD)



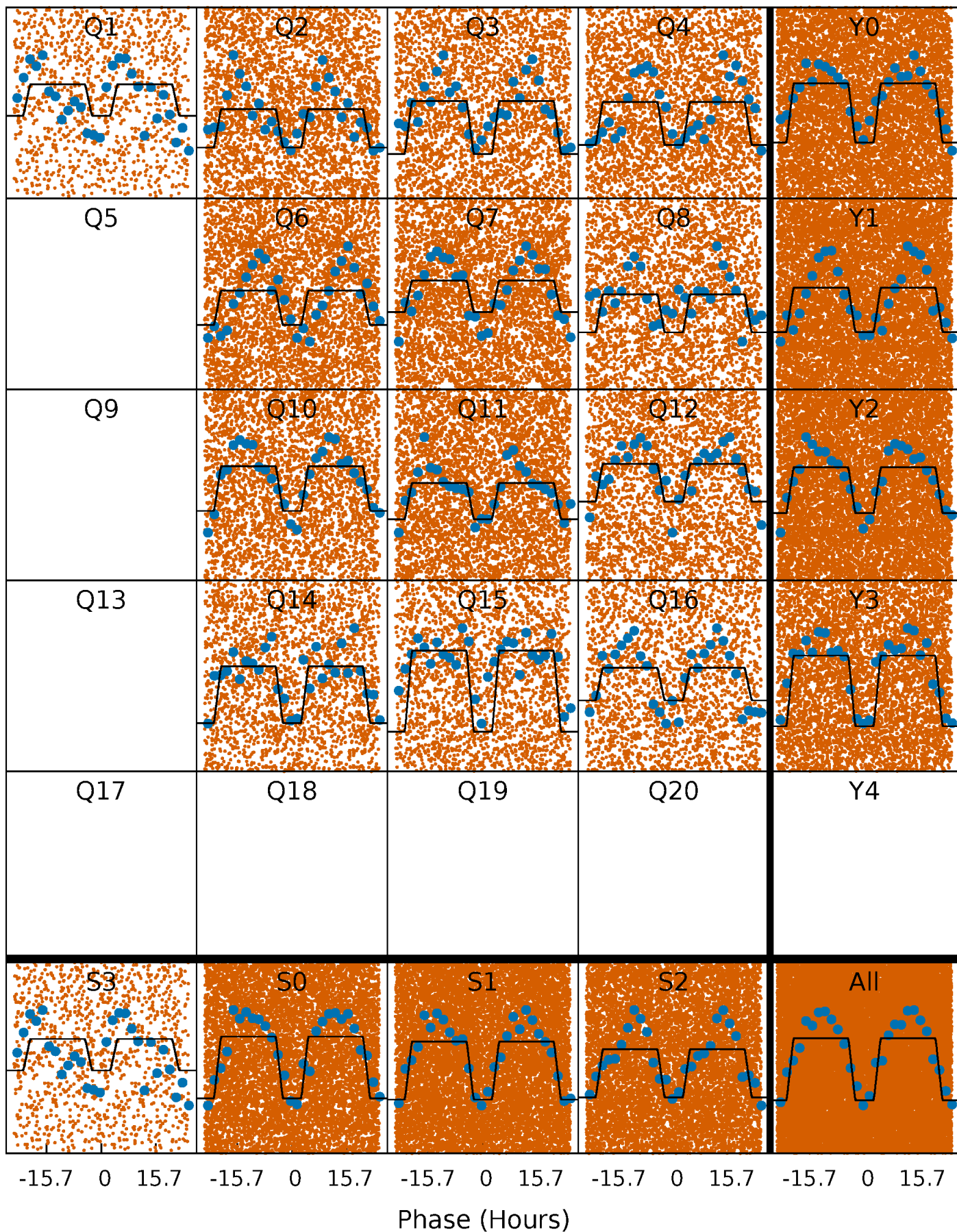
DV Quarter-Phased Transit Curves

TCE 005164794-01 P= 1.042913 Days $T_0=131.996287$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

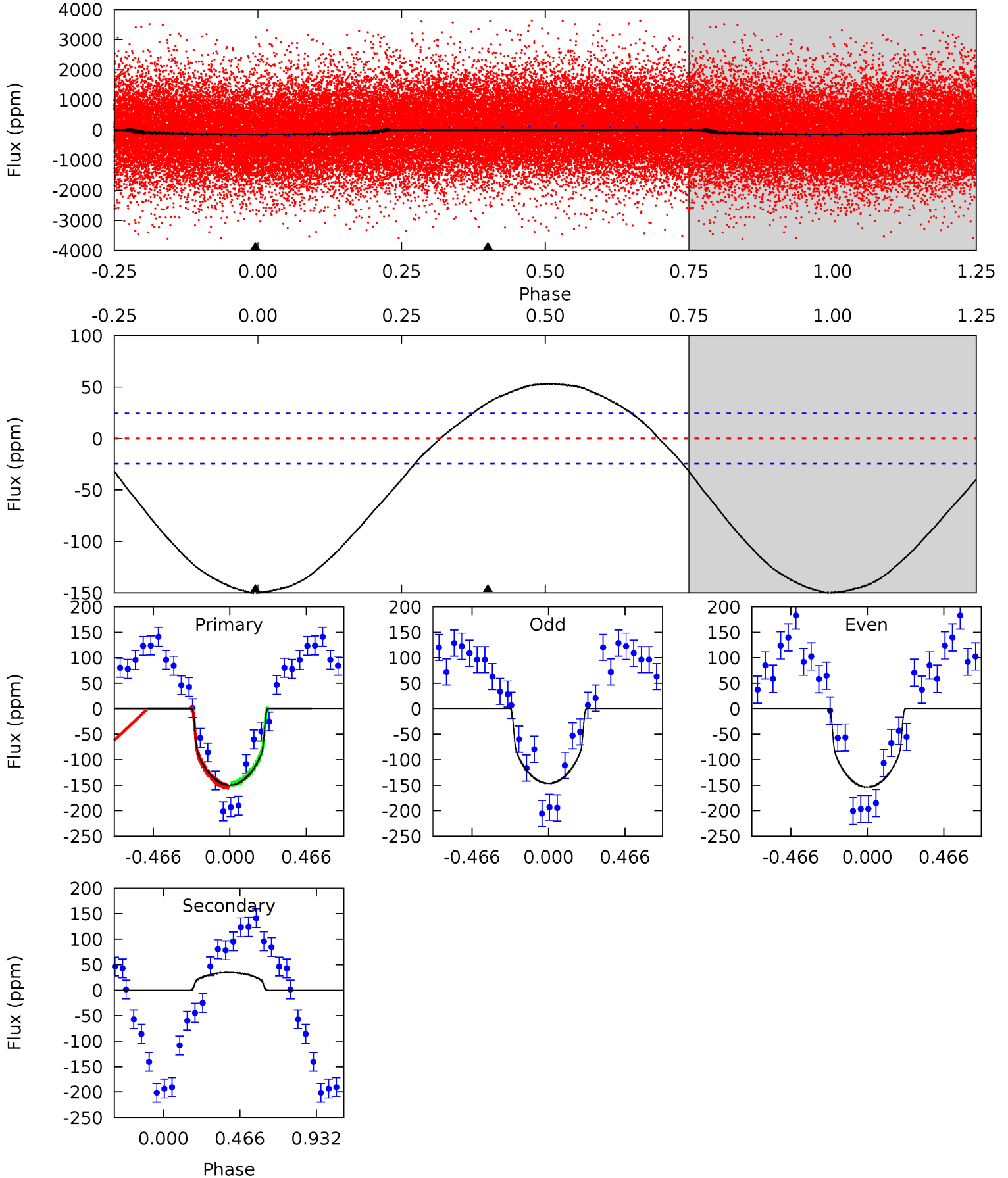
TCE 005164794-01 P= 1.042932 Days $T_0=131.982598$ (BKJD)



DV Model-Shift Uniqueness Test

005164794-01, P = 1.042913 Days, E = 130.953374 Days

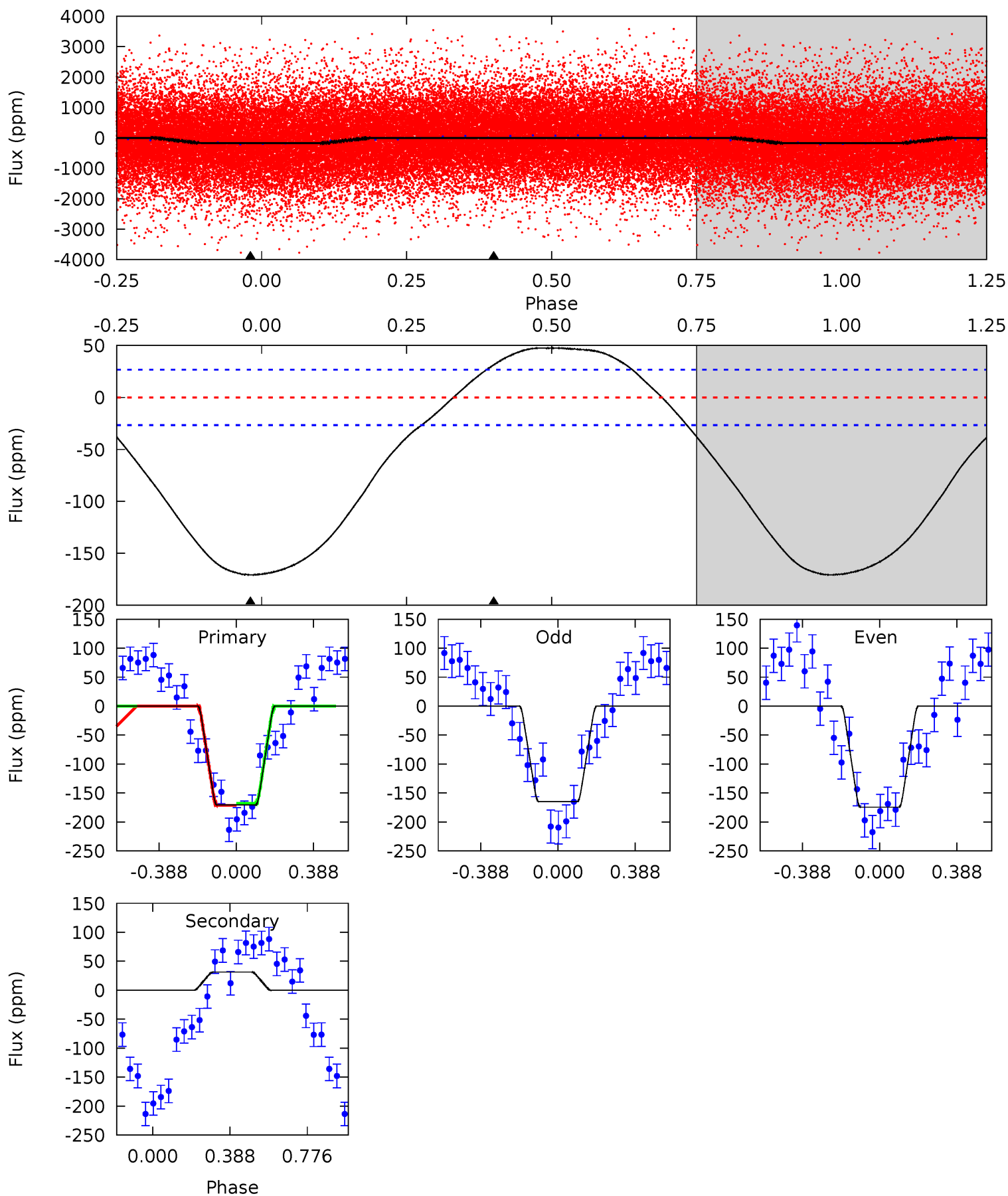
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
26.0	-6.02	0	0	4.23	0.73	2.87	26.0	26.0	-6.02	-6.02	0.63	1.15	0.26	0.43



Alt Model-Shift Uniqueness Test

005164794-01, P = 1.042932 Days, E = 130.939666 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
27.3	-5.02	0	0	4.27	0.86	2.73	27.3	27.3	-5.02	-5.02	0.78	1.06	0.22	0.25



Stellar Parameters For KIC 005164794

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5780^{+1}_{-1}	$4.438^{+1.000}_{-1.000}$	$0.000^{+1.000}_{-1.000}$	$1.000^{+1.000}_{-1.000}$	$-1.000^{+1.000}_{-1.000}$	$-1.000^{+1.000}_{-1.000}$
	+0%/-0%	+23%/-23%	+inf%/-inf%	+100%/-100%	+100%/-100%	+100%/-100%
Source	Solar	Solar	Solar	Solar		

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

Secondary Eclipse Parameters for KIC 005164794-01 / KOI 6531.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	35 ± 6	$1.08^{+0.48}_{-0.45}$	2513^{+117}_{-117}	-4658^{+598}_{-1230}	$-6.423^{+3.355}_{-12.895}$
Alt.	31 ± 6	$1.51^{+0.45}_{-0.48}$	2509^{+131}_{-117}	-4050^{+358}_{-624}	$-2.993^{+1.315}_{-3.569}$

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

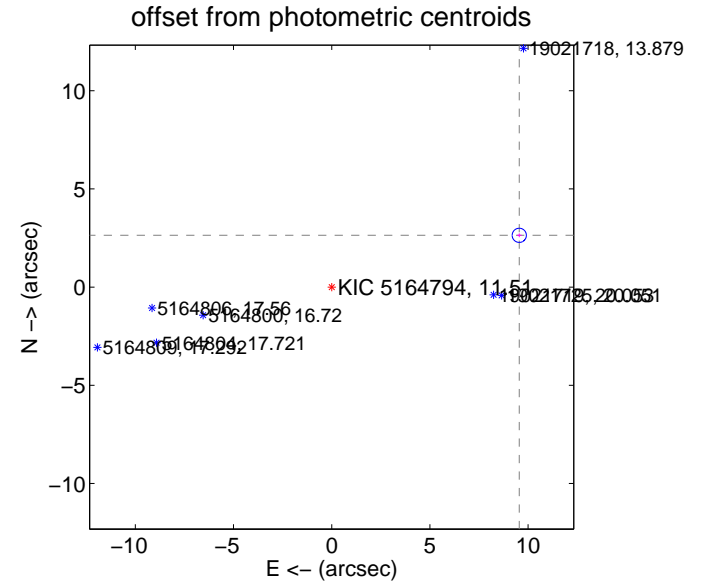
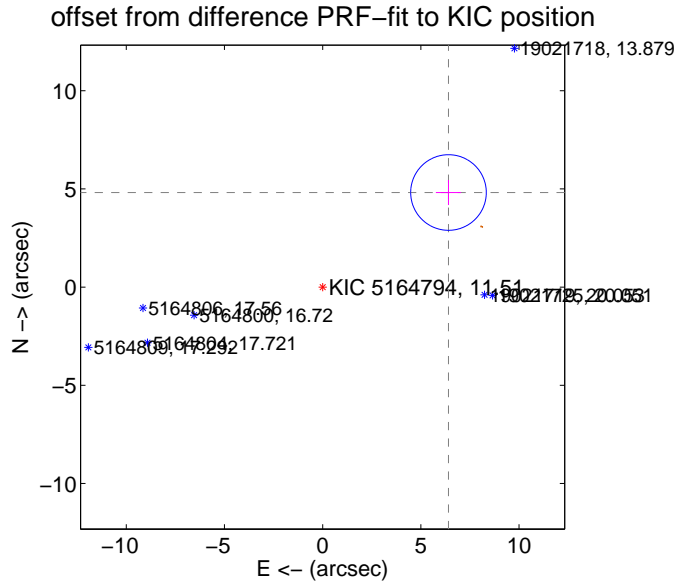
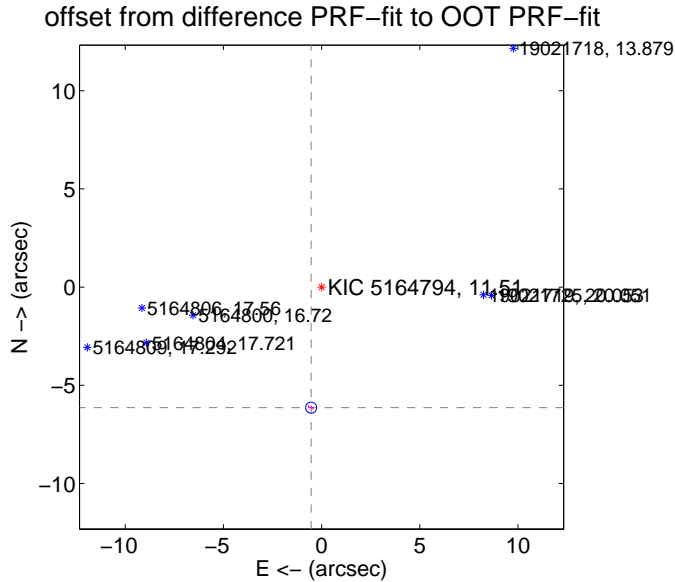
DV Centroid Data

Supplemental centroid analysis for 005164794-01. **Kepler magnitude: 11.51.** Transit SNR 11.49

There are 0 quarters with good PRF difference image offsets

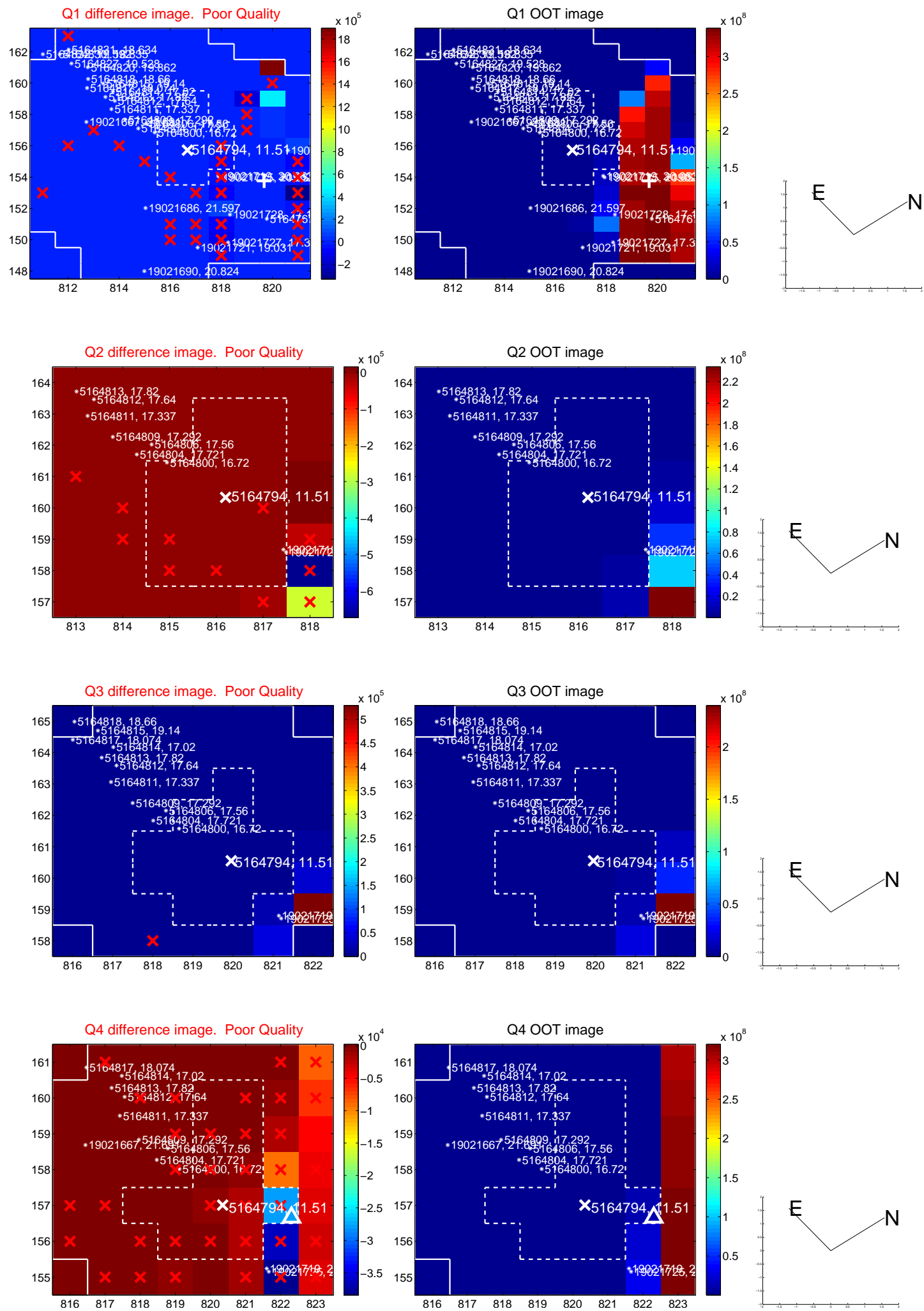
The OOT PRF centroid is offset from the target star catalog position by about 12.66 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	6.163 ± 0.094	65.84	0.532 ± 0.142	-6.140 ± 0.093
PRF-fit source offset from KIC position	8.017 ± 0.642	12.49	-6.408 ± 0.644	4.817 ± 0.638
photometric centroid source offset	9.91 ± 0.12	82.29	-9.55 ± 0.12	2.64 ± 0.09

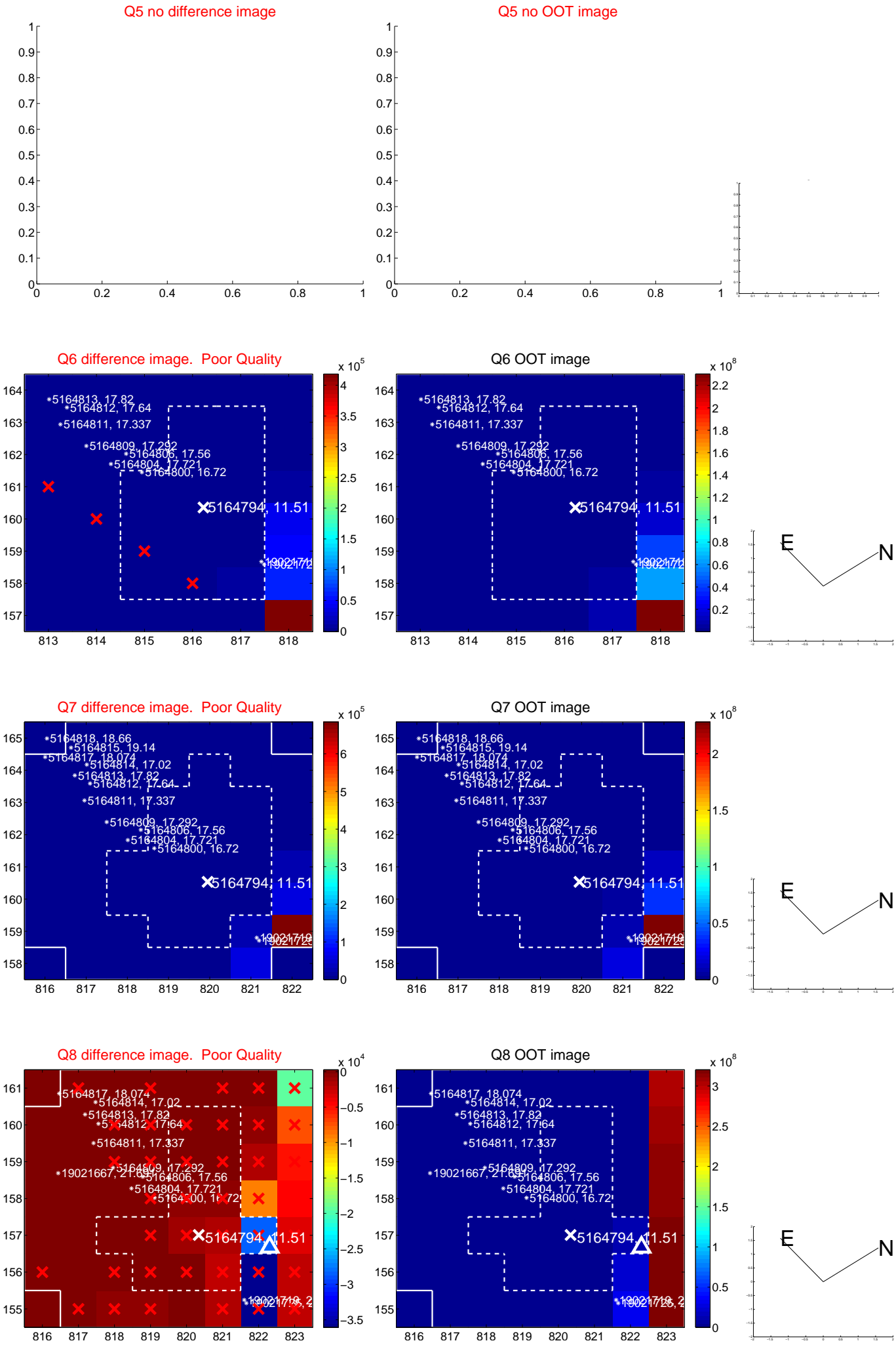


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

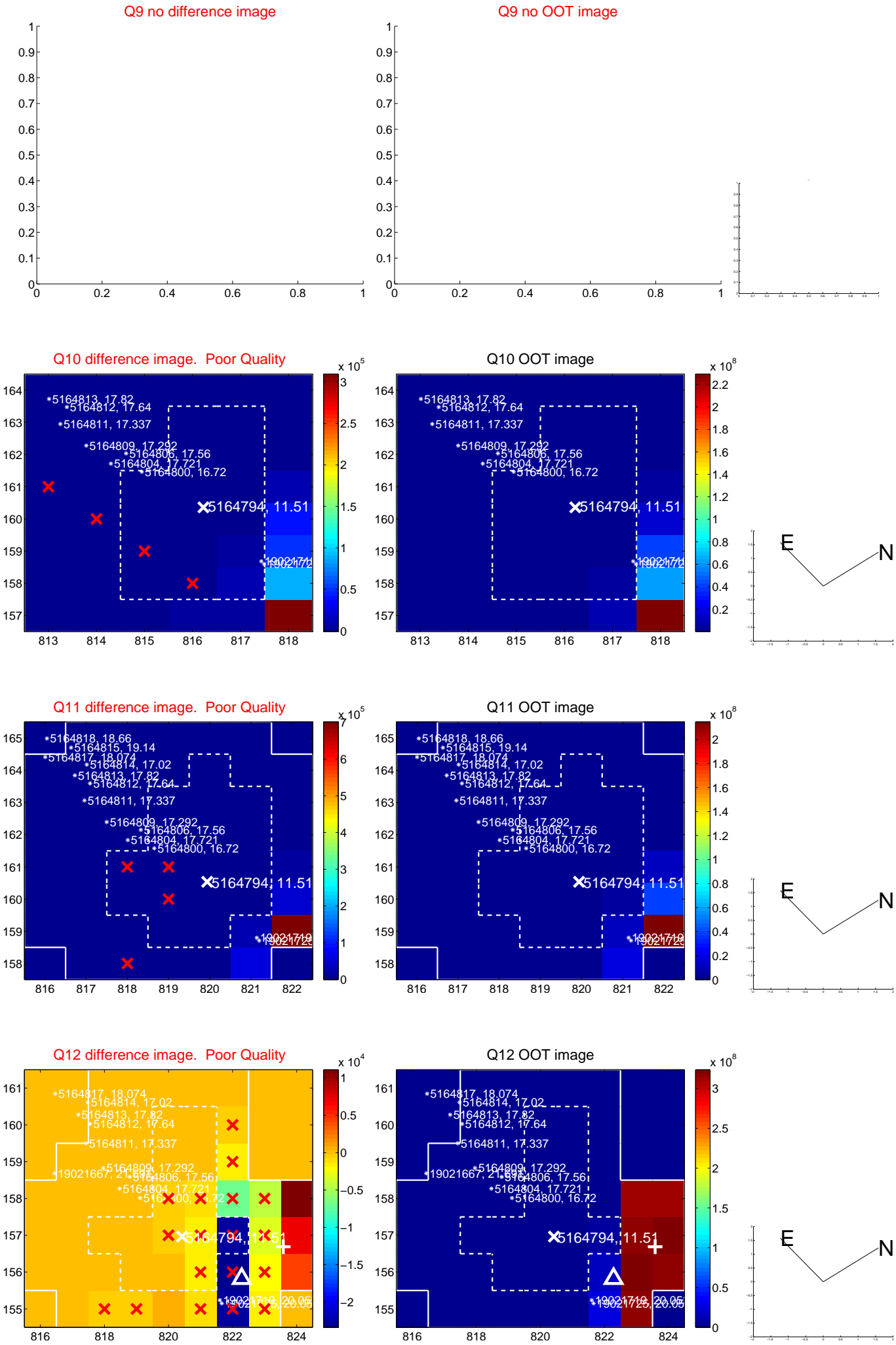
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



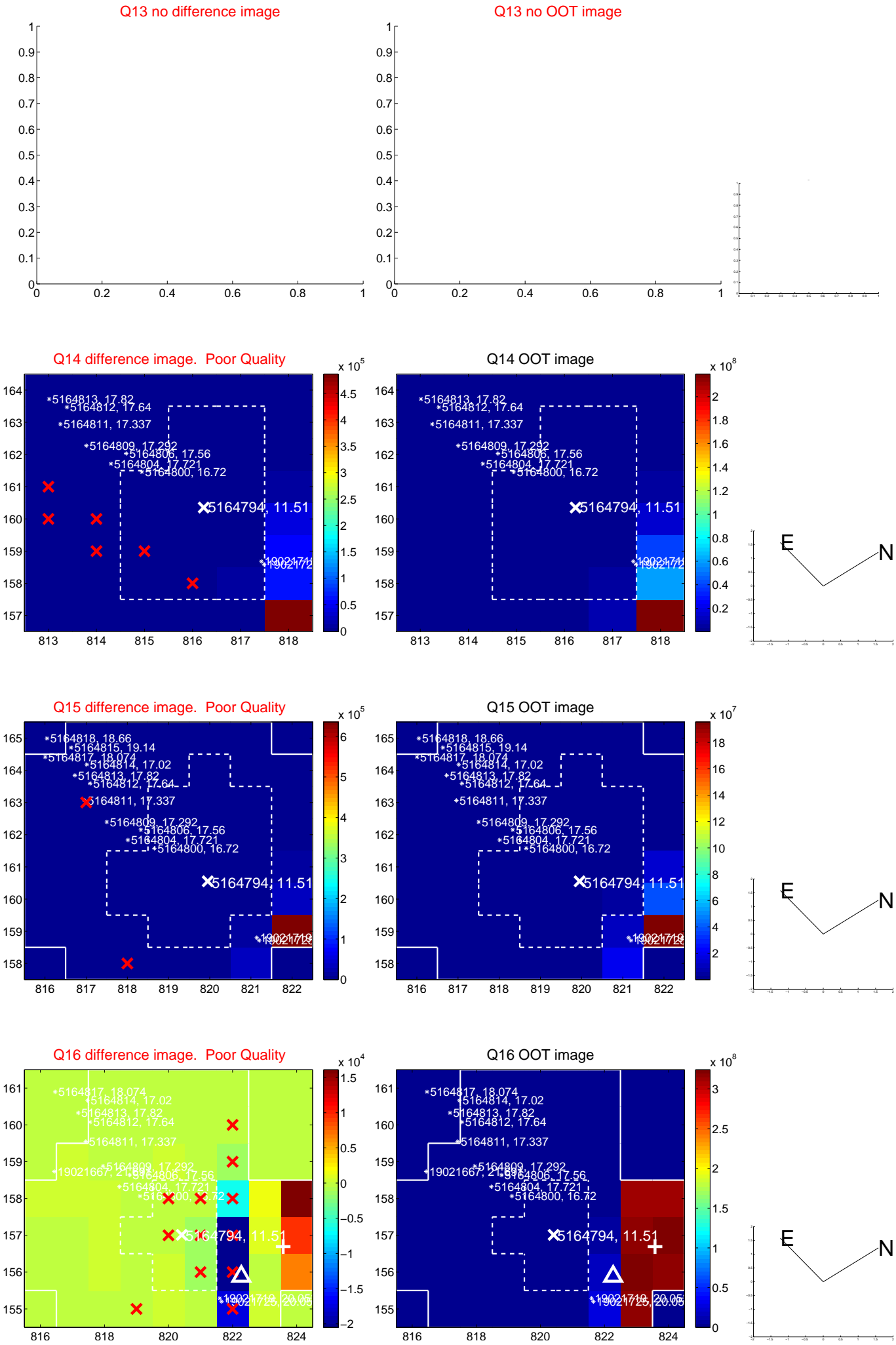
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



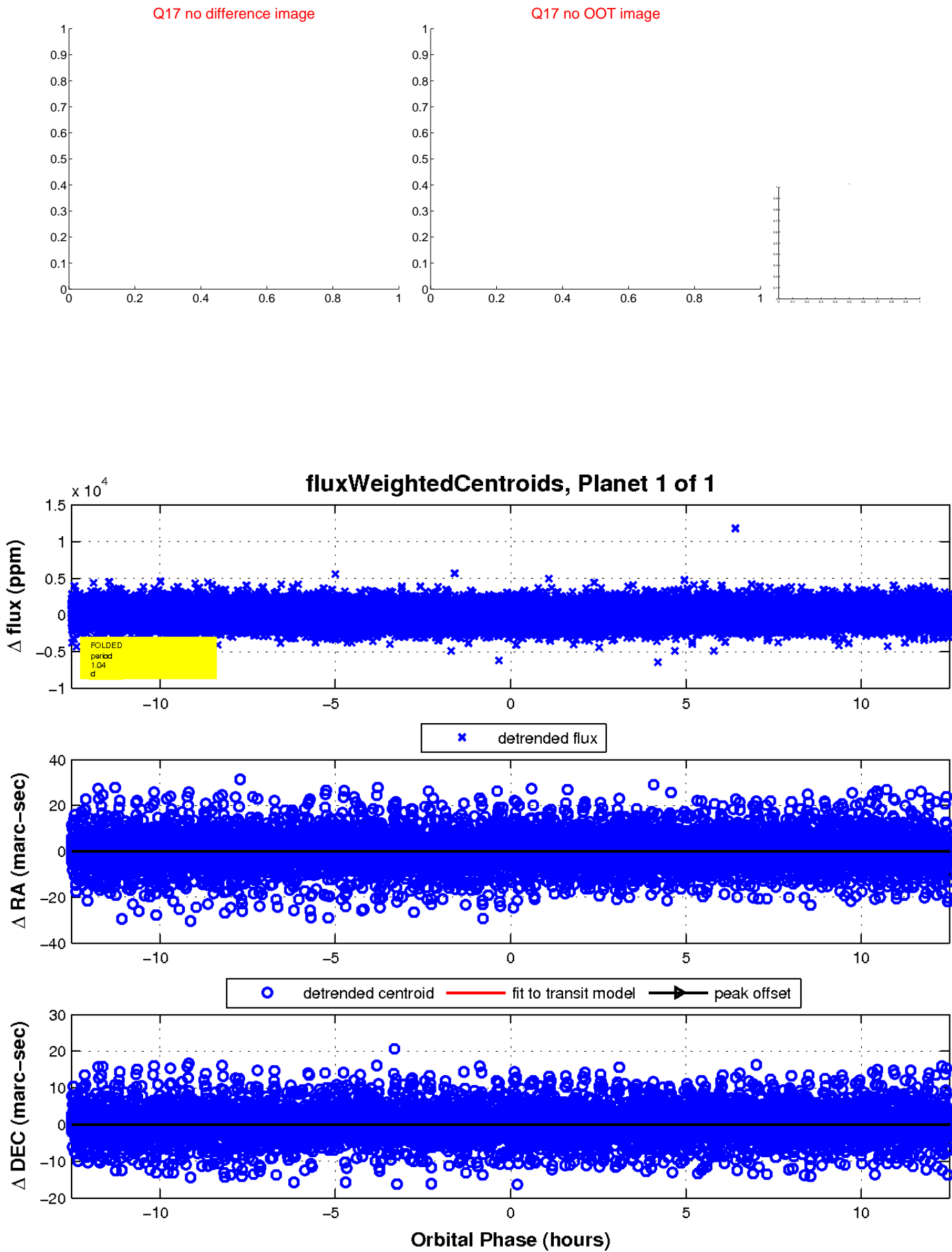
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

