

KIC 005794722

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})
005794722-01	OBS	No	1.653295	132.166705	49.0	15.663	7.1	11.0	0.91	5839	0.65	1188.89

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005794722-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—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.

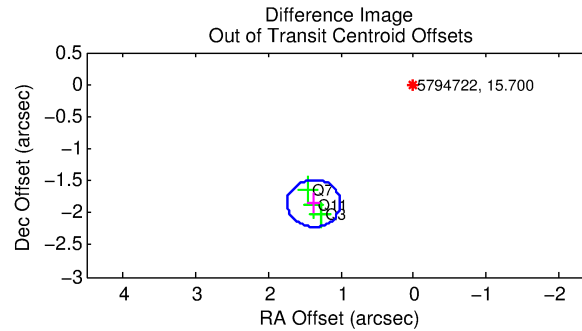
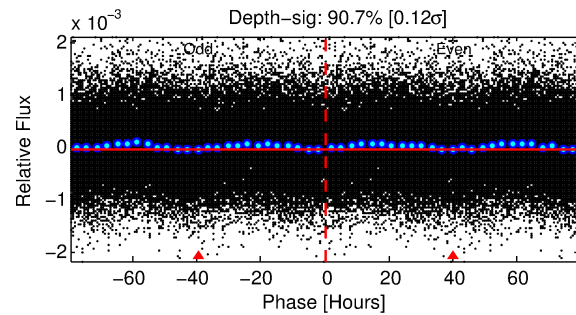
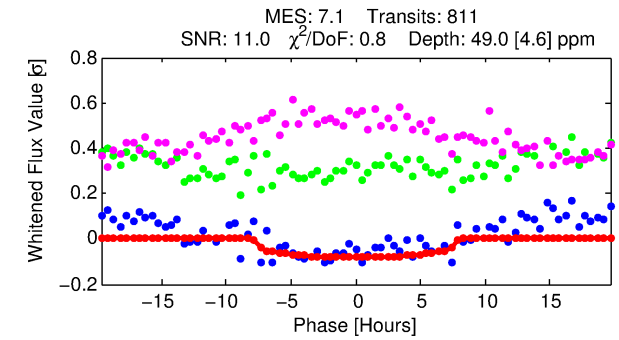
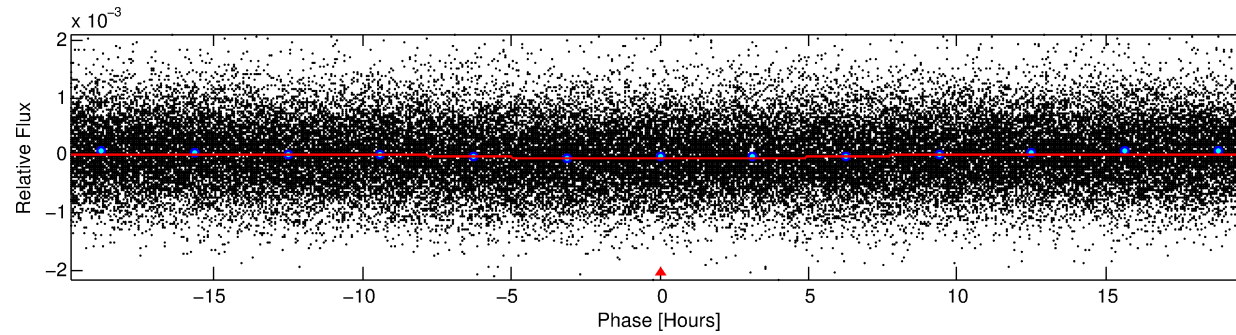
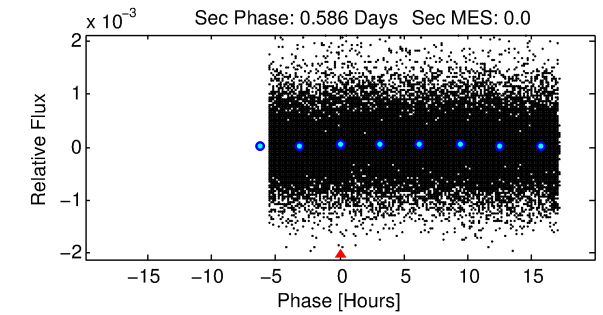
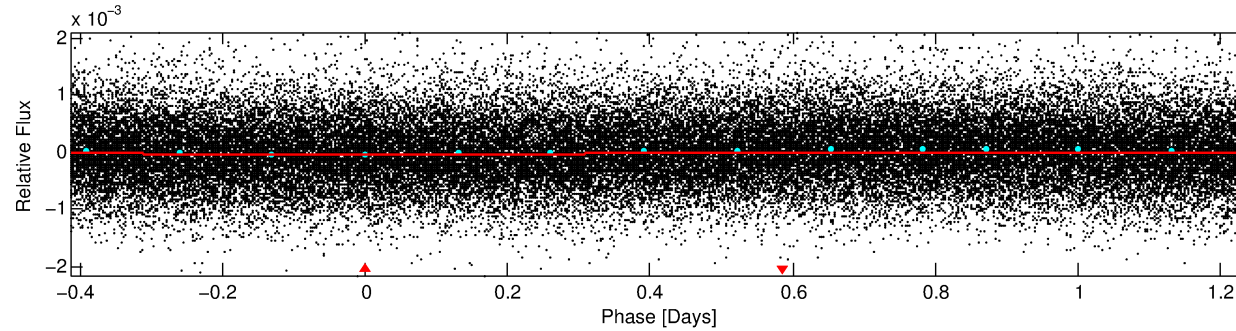
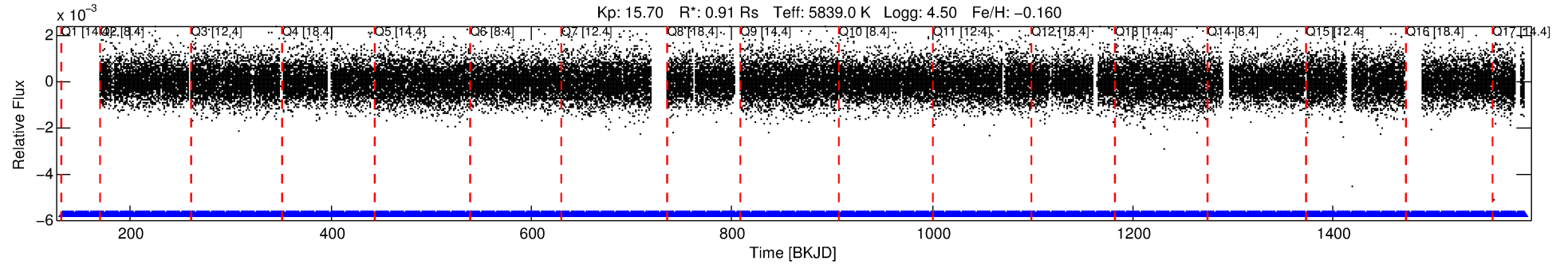
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005794722-01

No Significant Match Found

DV One-Page Summary

KIC: 5794722 Candidate: 1 of 1 Period: 1.653 d



DV Fit Results:

Period = 1.65329 [0.00004] d
Epoch = 132.1667 [0.0137] BKJD
Rp/R* = 0.0065 [0.0060]
a/R* = 1.05 [0.43]
b = 0.44 [7.83]
Seff = 1188.89 [457.15]
Teq = 1497 [144] K
Rp = 0.65 [0.63] Re
a = 0.0269 [0.0068] AU
Ag = N/A
Teffp = N/A

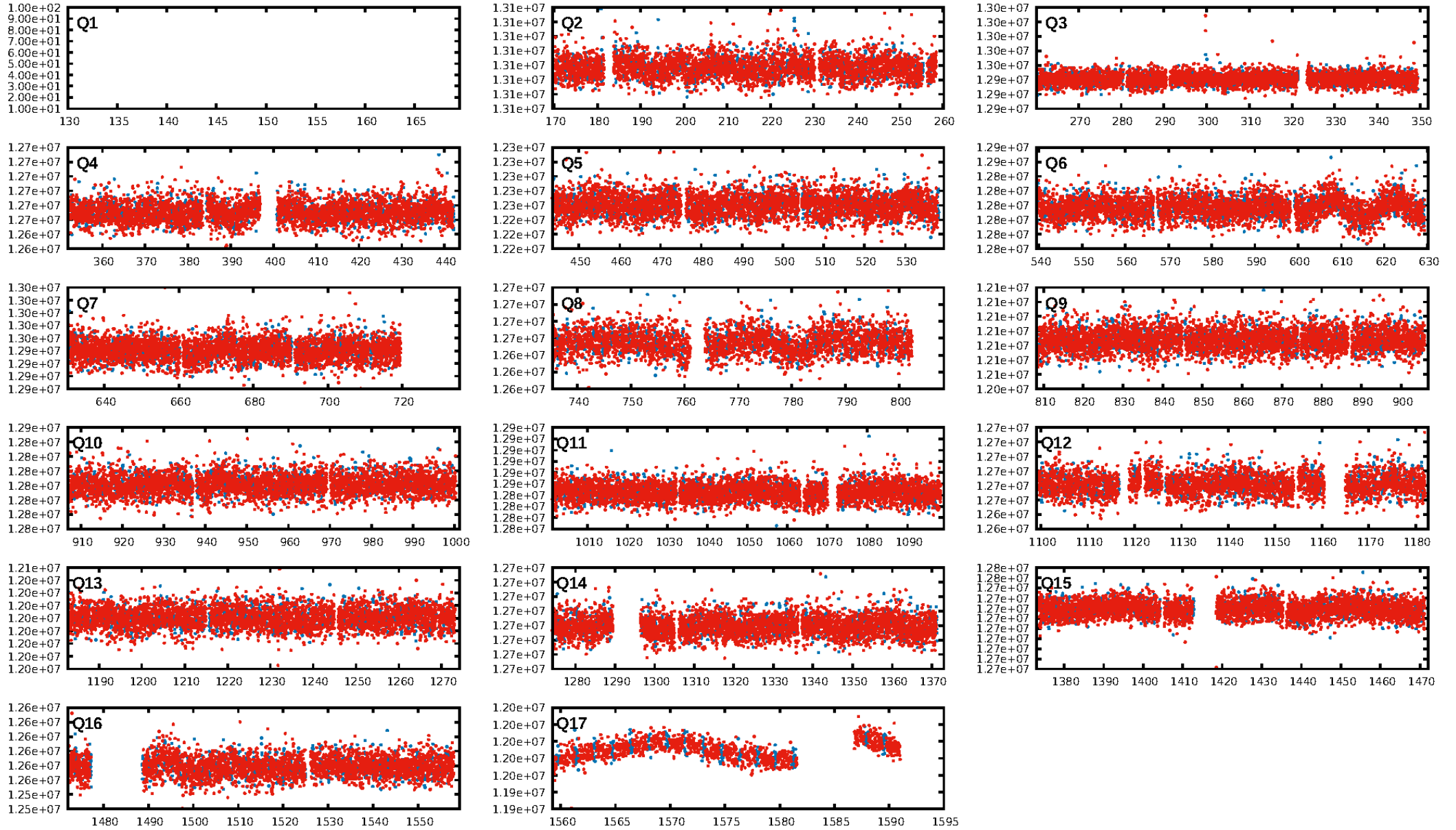
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGoF-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [794/794]
GhostDiagnostic-chr: 2.574
Centroid-sig: 52.3%
Centroid-so: 0.918 arcsec [0.64 σ]
OotOffset-rm: 2.307 arcsec [18.75 σ]
KicOffset-rm: 2.275 arcsec [18.59 σ]
OotOffset-st: 0/3/0/0 [3]
KicOffset-st: 0/3/0/0 [3]
DiffImageQuality-fgm: 1.00 [3/3]
DiffImageOverlap-fno: 1.00 [16/16]

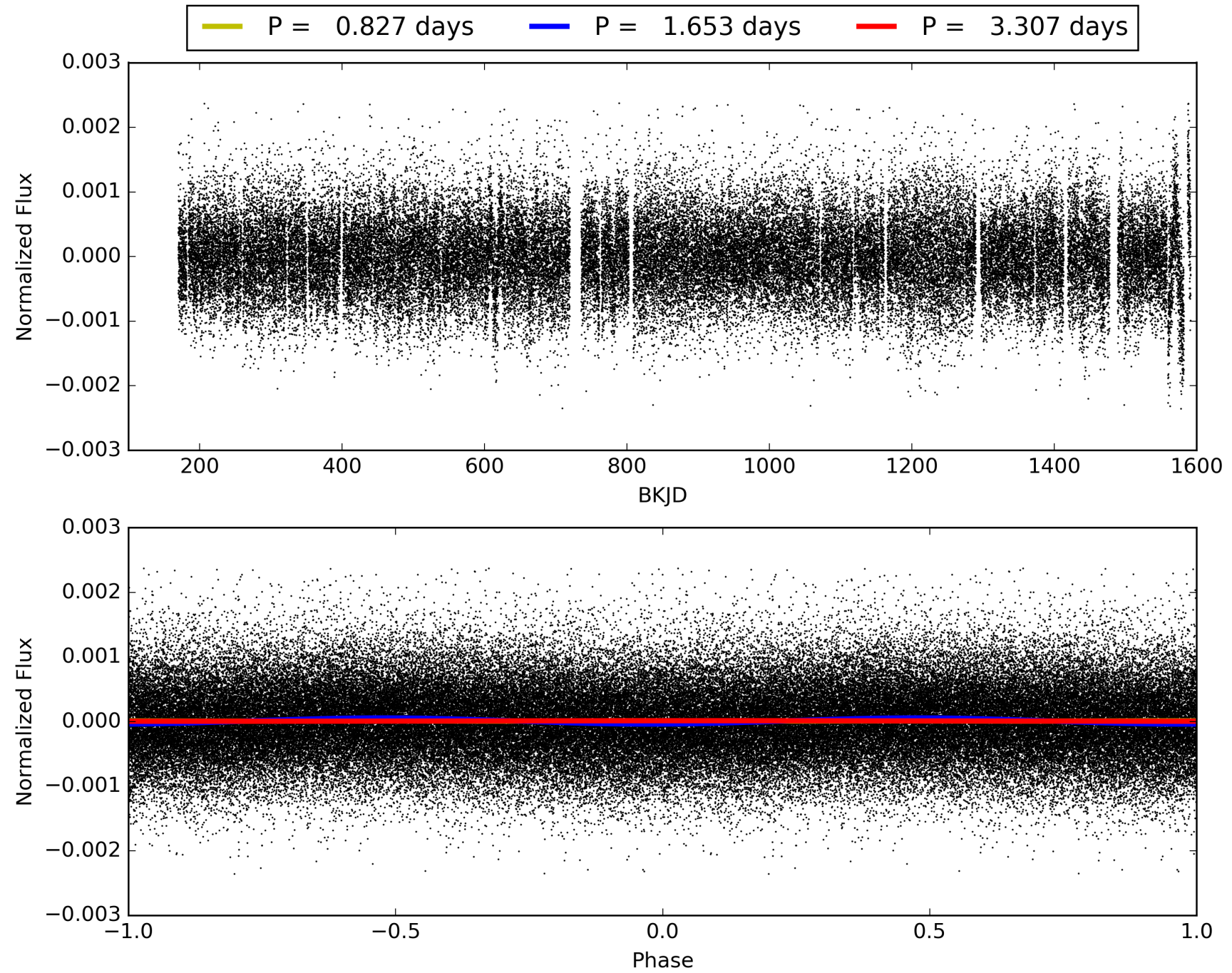
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 15:21:53 Z

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

TCE 005794722-01, PDC Light Curves

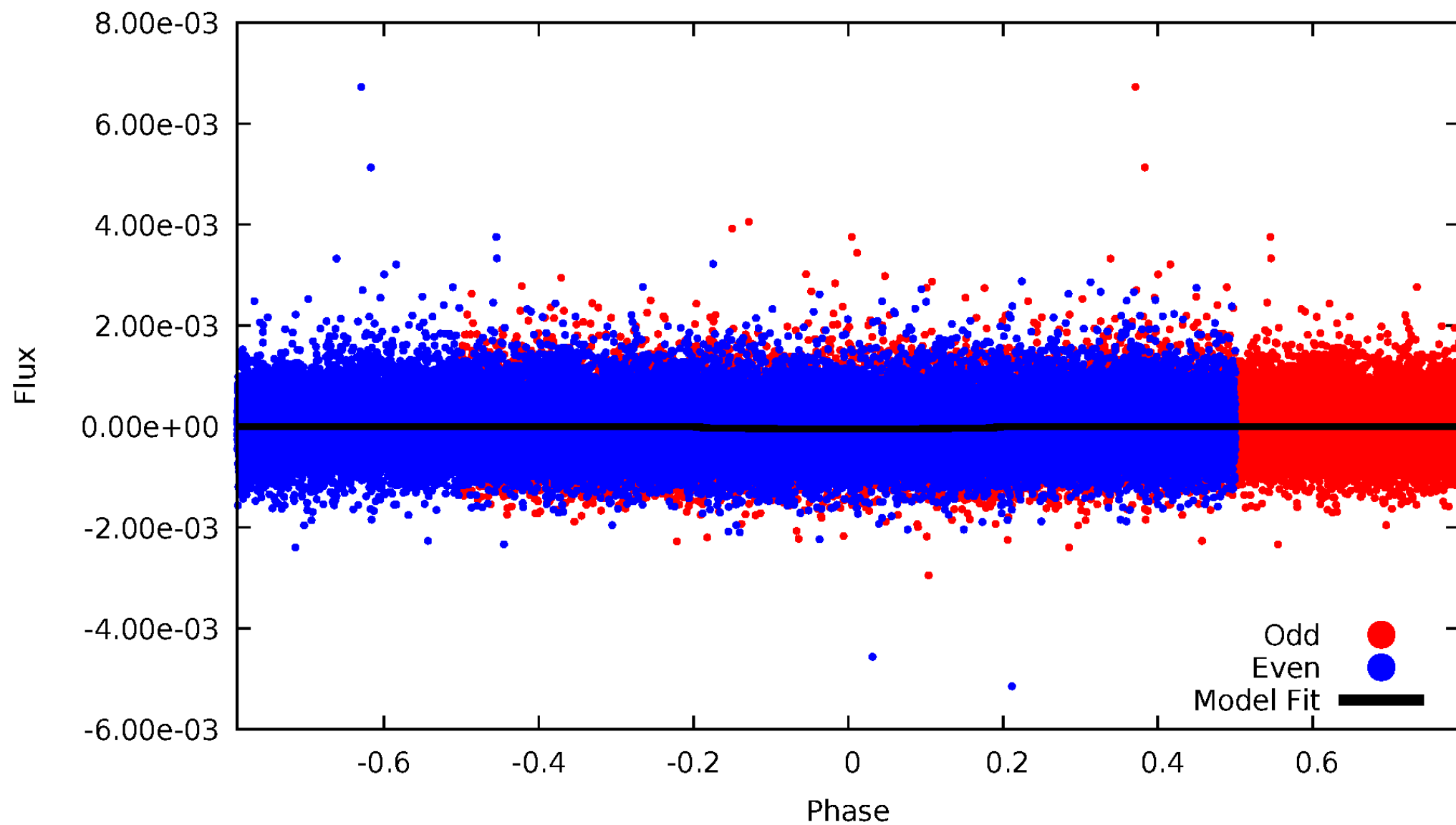


TCE 005794722-01



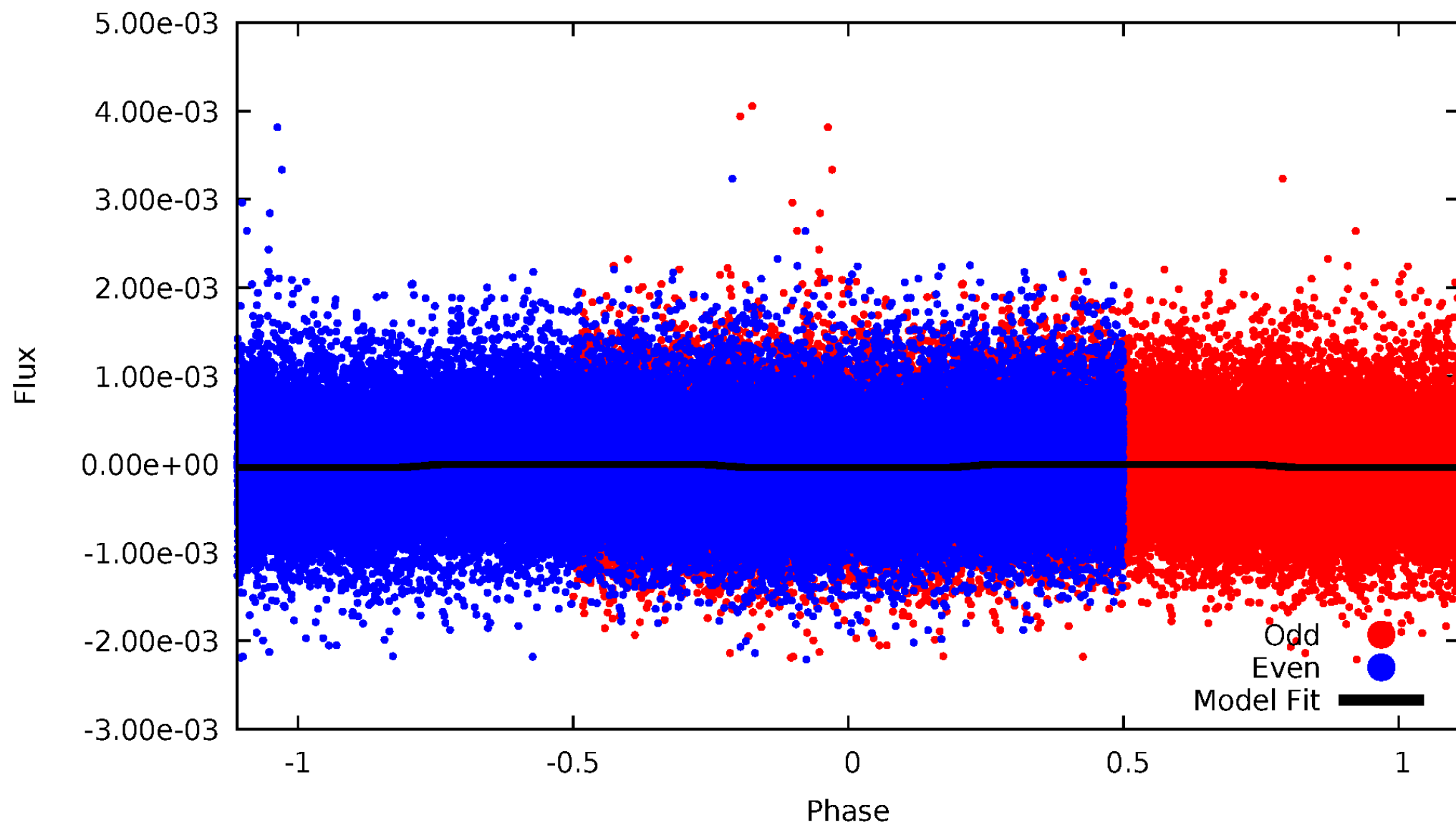
DV Odd/Even

TCE 005794722-01



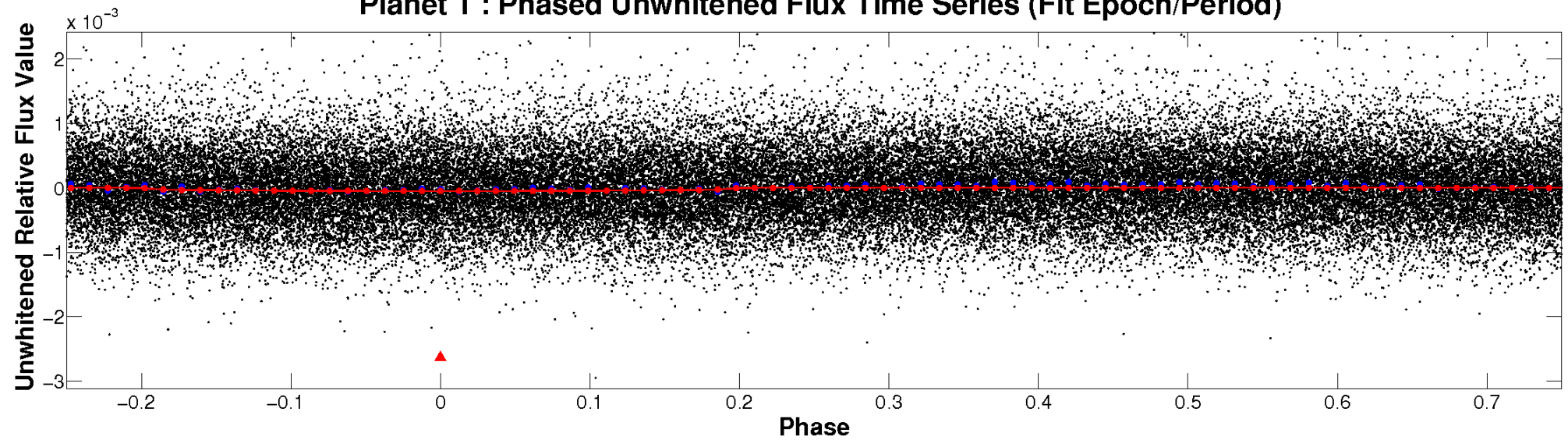
ALT Odd/Even

TCE 005794722-01

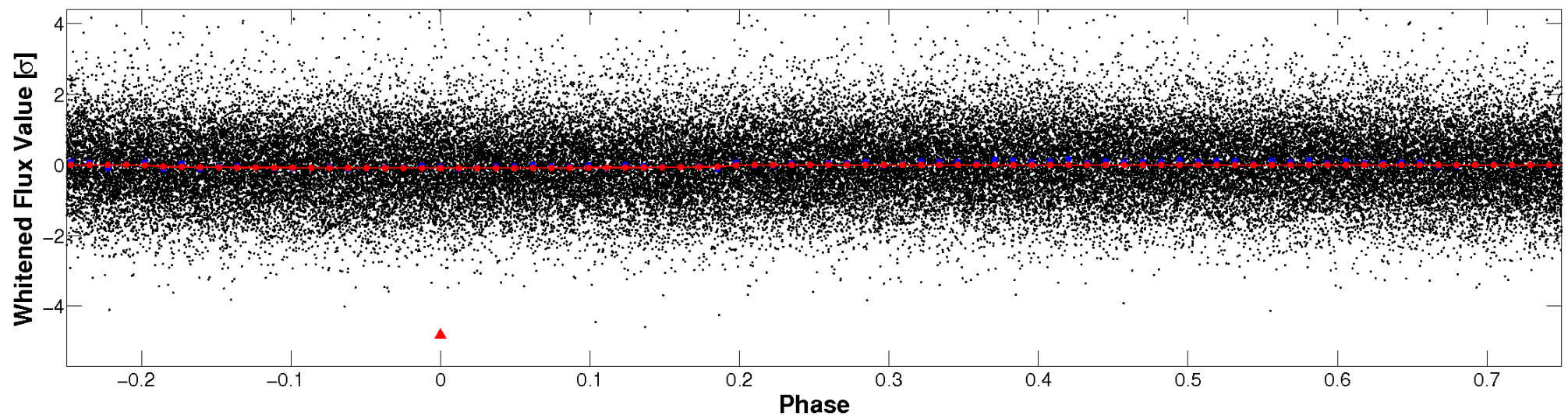


Non-Whitened Vs. Whitened Light Curve

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

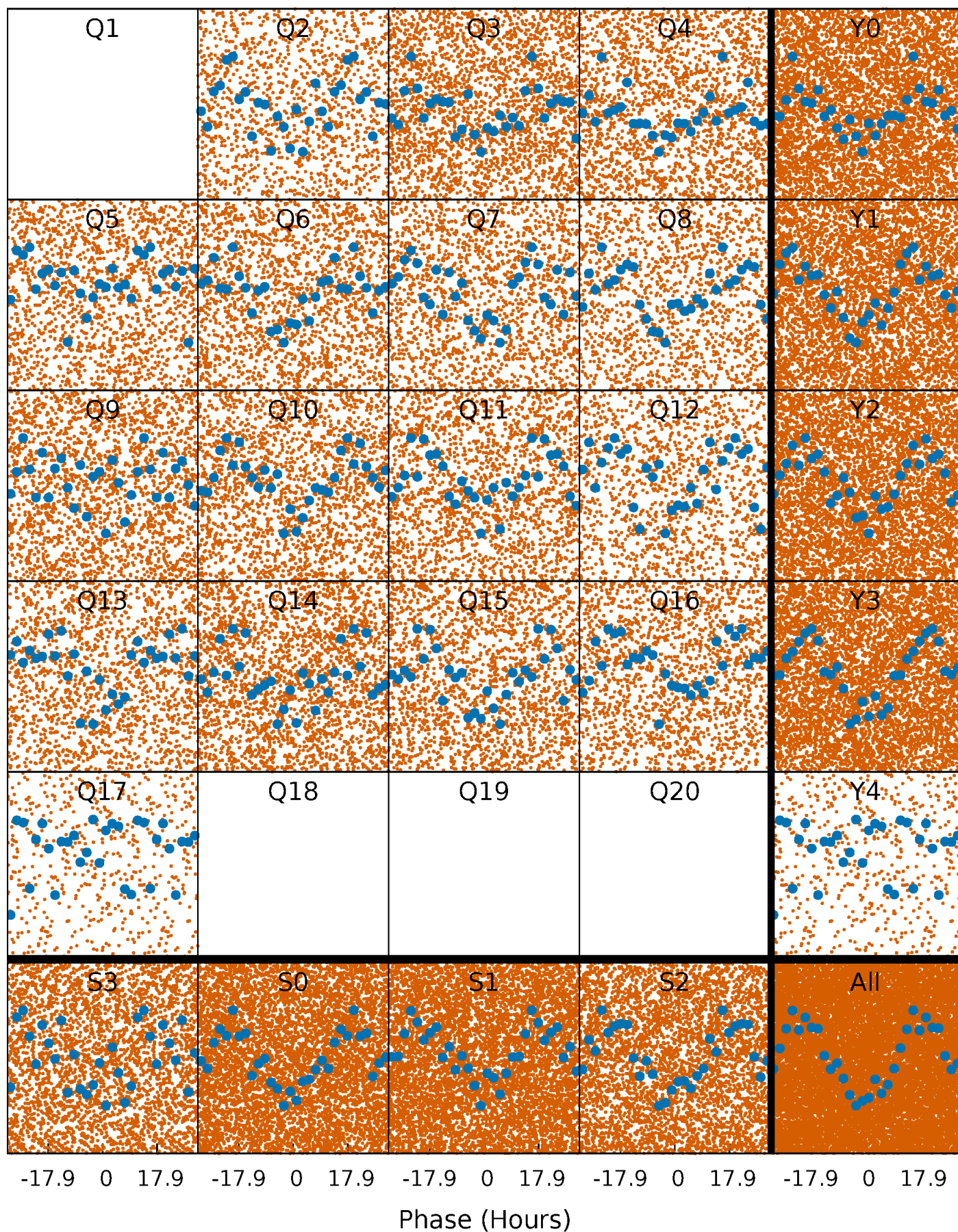


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



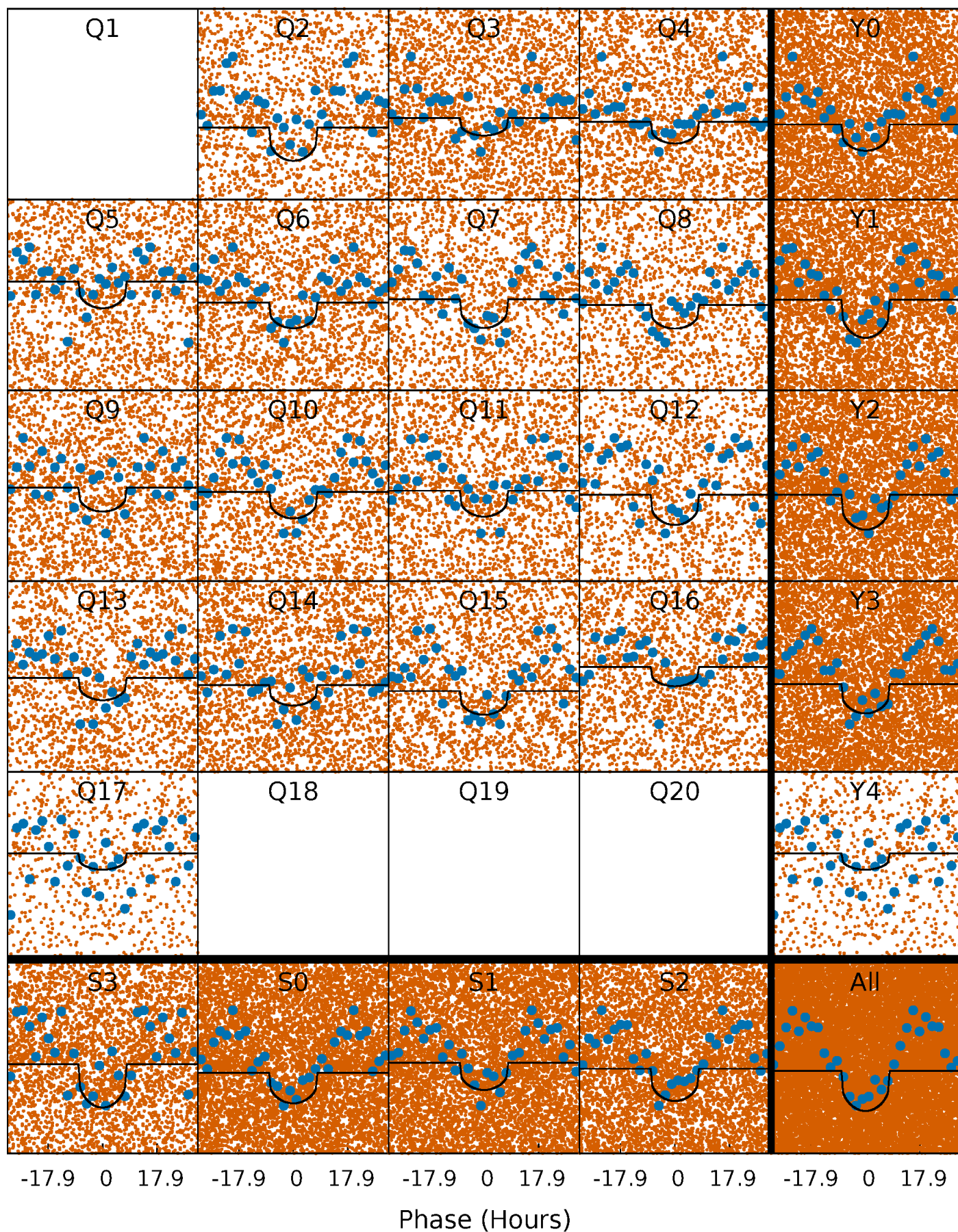
PDC Quarter-Phased Transit Curves

TCE 005794722-01 P= 1.653295 Days $T_0=132.166705$ (BKJD)



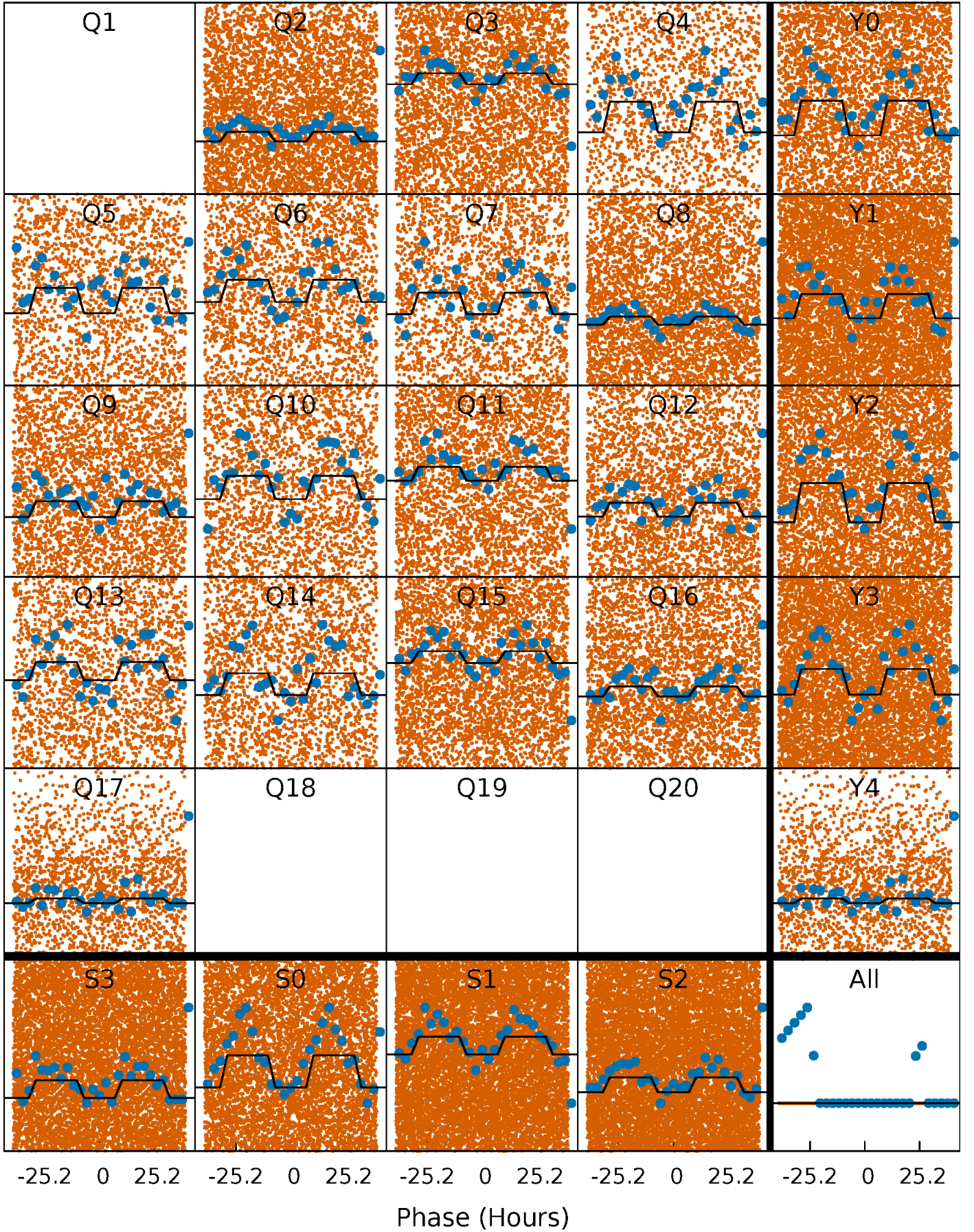
DV Quarter-Phased Transit Curves

TCE 005794722-01 P= 1.653295 Days $T_0=132.166705$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

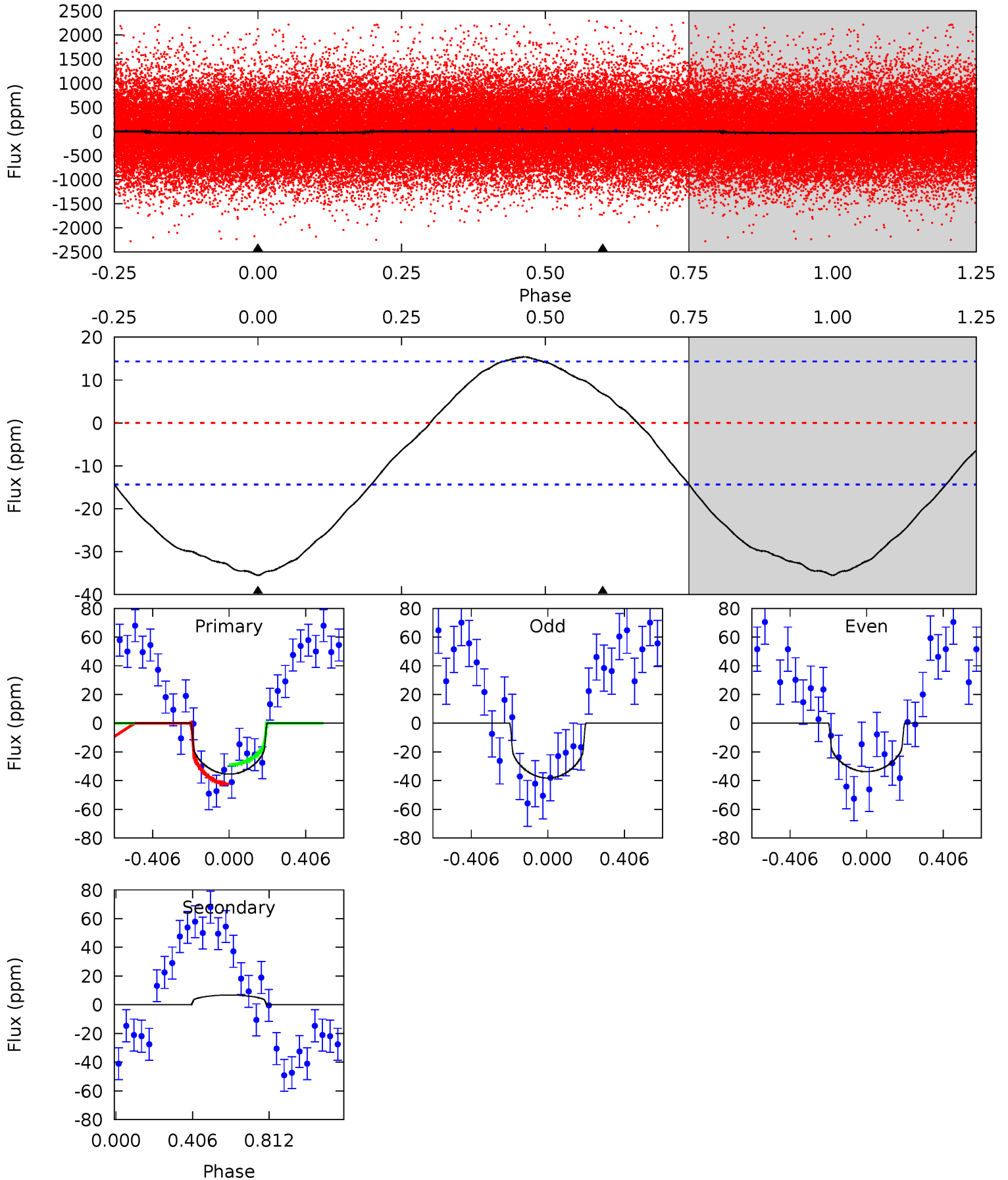
TCE 005794722-01 P= 1.653256 Days $T_0=132.247442$ (BKJD)



DV Model-Shift Uniqueness Test

005794722-01, P = 1.653295 Days, E = 132.166705 Days

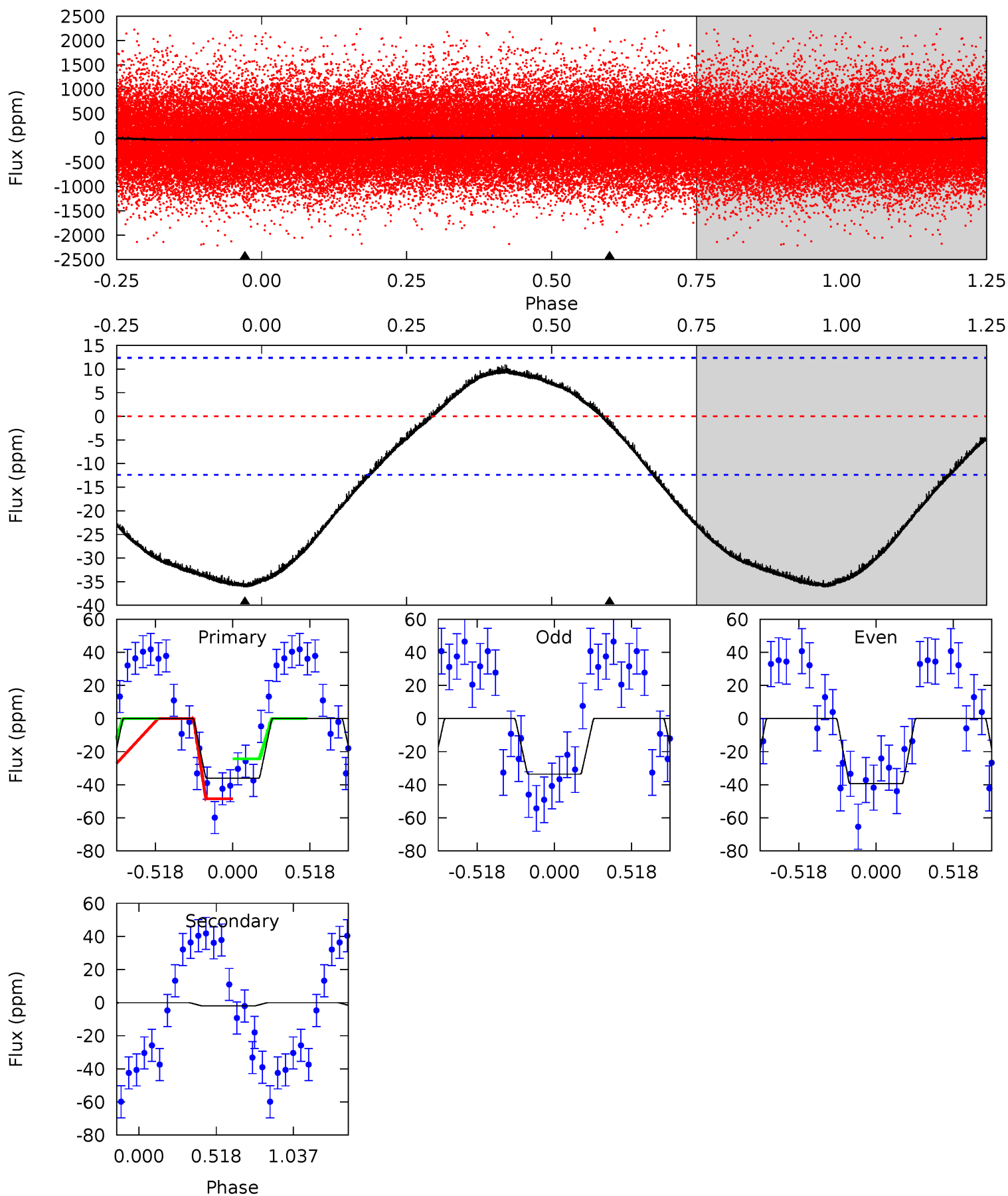
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.6	-2.02	0	0	4.26	0.83	1.19	10.6	10.6	-2.02	-2.02	0.66	1.05	0.30	1.99



Alt Model-Shift Uniqueness Test

005794722-01, P = 1.653256 Days, E = 132.247442 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.2	0.66	0	0	4.21	0.65	1.07	12.2	12.2	0.66	0.66	0.96	0.96	0.23	4.08



Stellar Parameters For KIC 005794722

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5839^{+158}_{-194}	$4.499^{+0.065}_{-0.195}$	$-0.160^{+0.300}_{-0.300}$	$0.910^{+0.275}_{-0.092}$	$0.952^{+0.120}_{-0.108}$	$1.783^{+0.478}_{-0.902}$
	+3%/-3%	+1%/-4%	+188%/-188%	+30%/-10%	+13%/-11%	+27%/-51%
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 005794722-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	7 ± 3	$0.77^{+0.60}_{-0.50}$	2130^{+144}_{-100}	-3819^{+660}_{-1841}	$-4.067^{+3.073}_{-26.405}$
Alt.	-2 ± 3	$0.74^{+0.57}_{-0.46}$	2126^{+148}_{-99}	2891^{+1503}_{-5861}	$1.050^{+8.894}_{-1.628}$

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 $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

DV Centroid Data

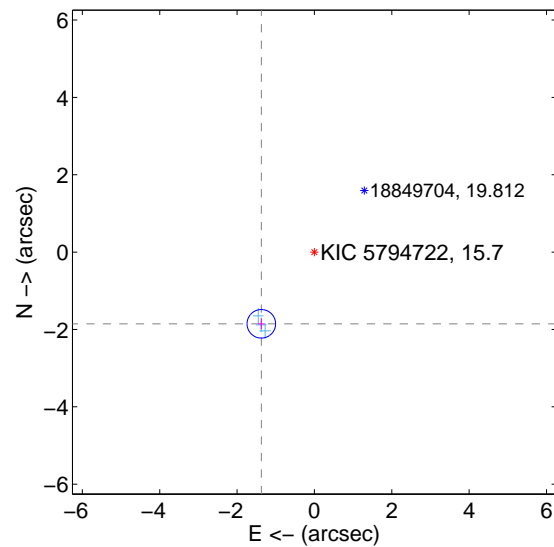
Supplemental centroid analysis for 005794722-01. Kepler magnitude: 15.70. Transit SNR 11.01

There are 3 quarters with good PRF difference image offsets

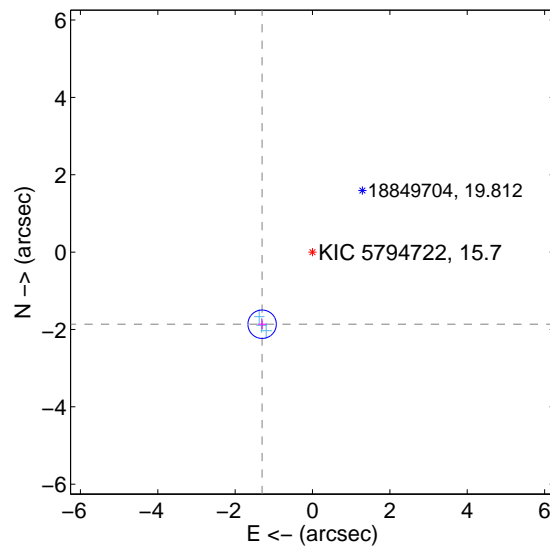
The direct PRF centroid is offset from the target star catalog position by about 0.06 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.307 ± 0.123	18.75	1.373 ± 0.086	-1.854 ± 0.139
PRF-fit source offset from KIC position	2.275 ± 0.122	18.59	1.303 ± 0.104	-1.865 ± 0.130
photometric centroid source offset	0.92 ± 1.43	0.64	0.48 ± 1.49	0.78 ± 1.41

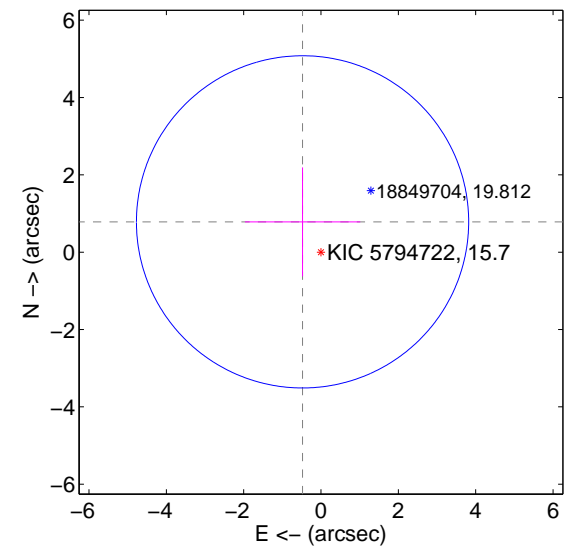
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

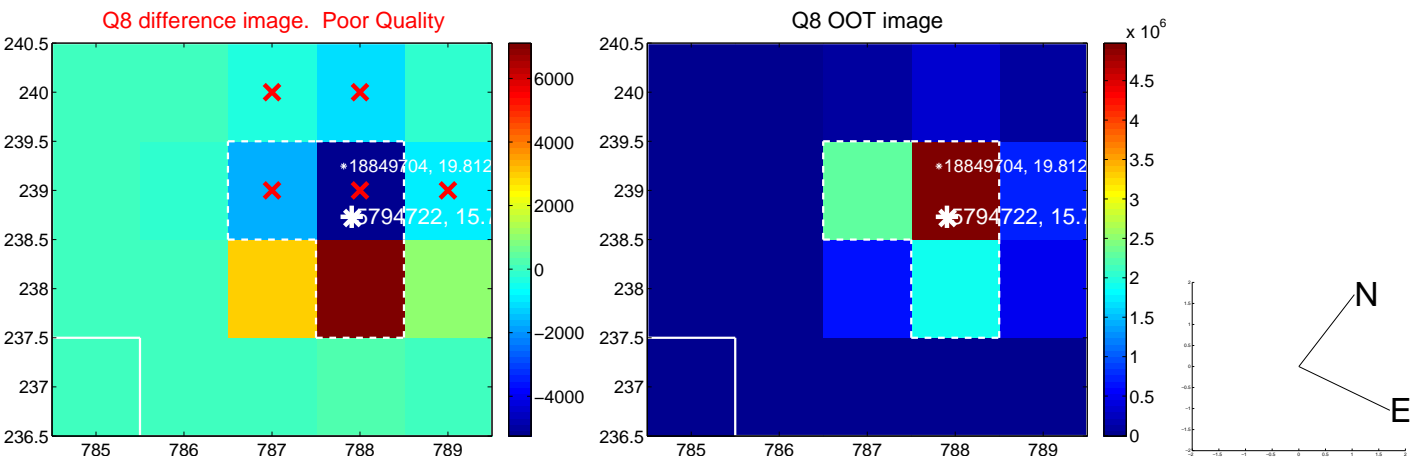
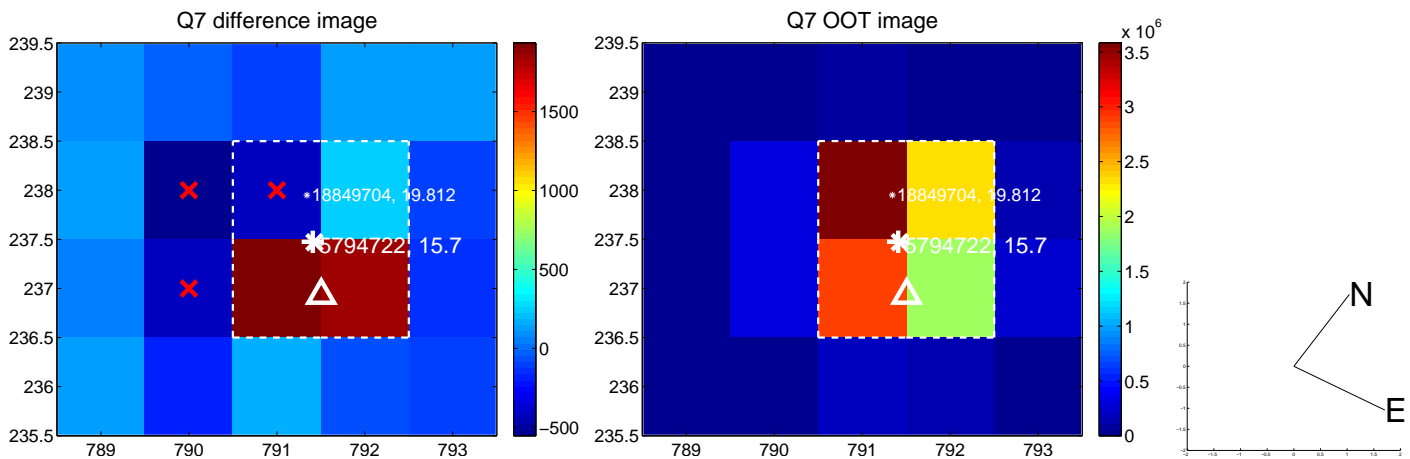
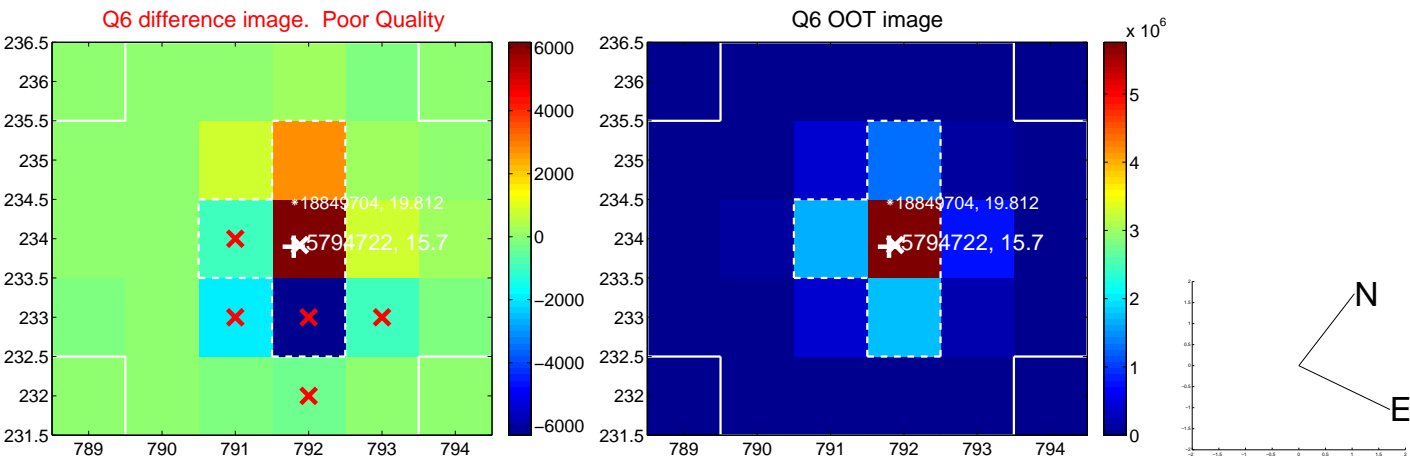
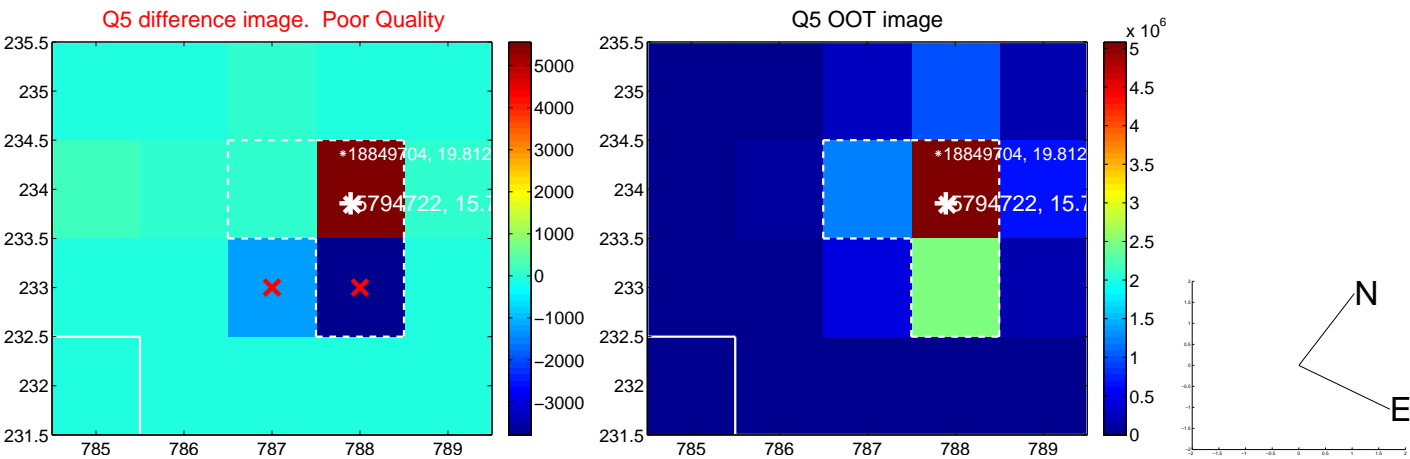


offset from photometric centroids

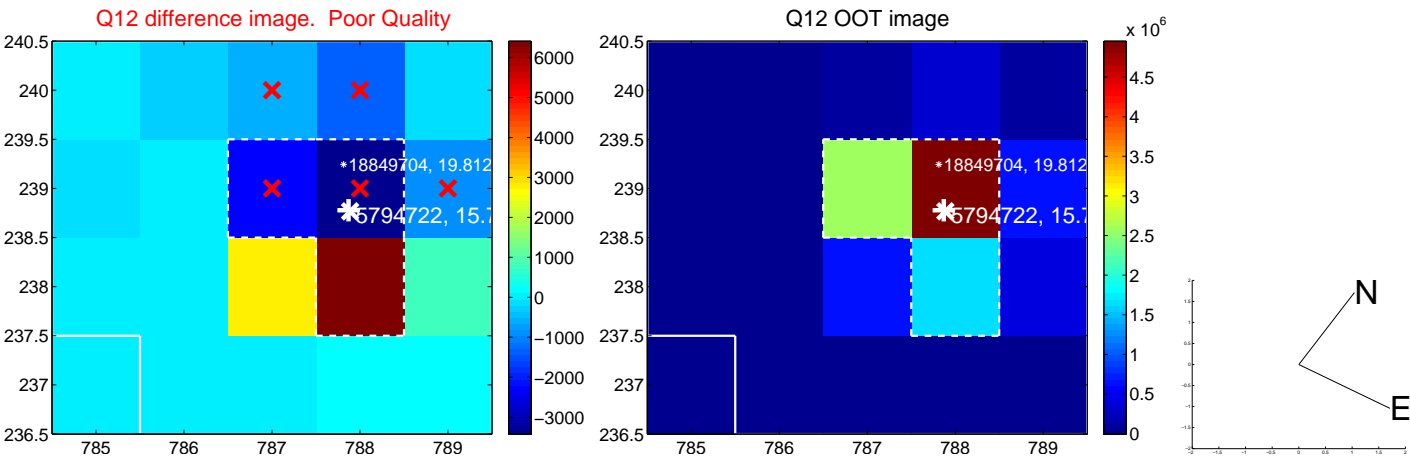
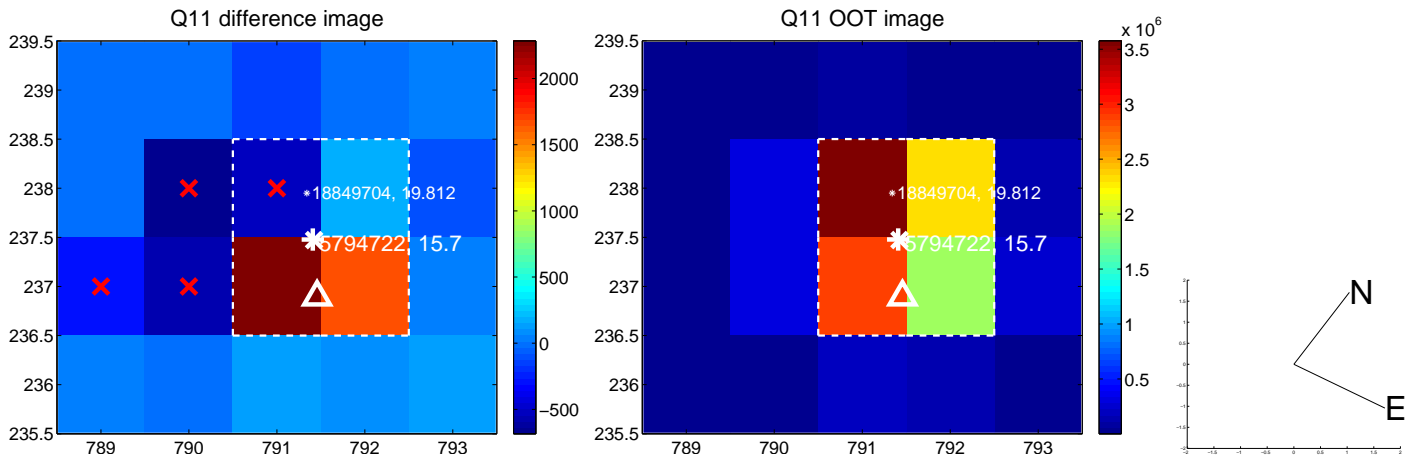
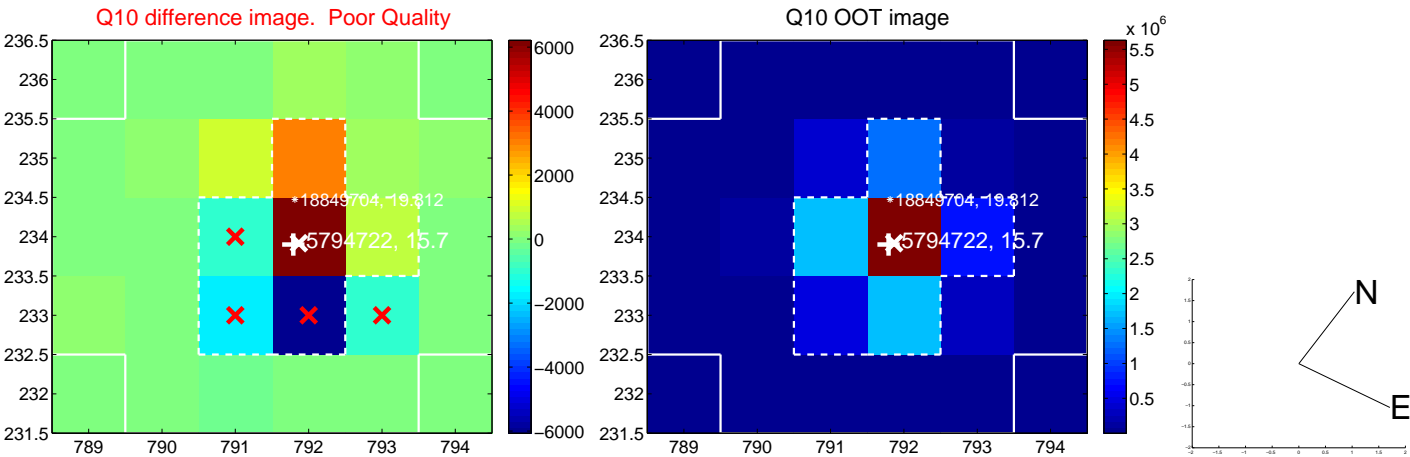
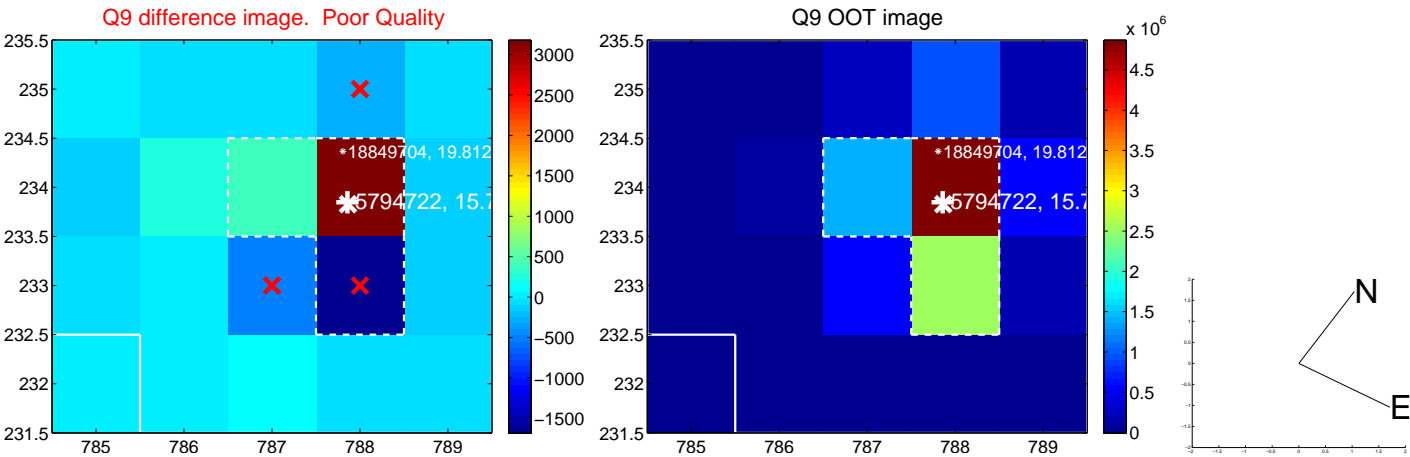


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

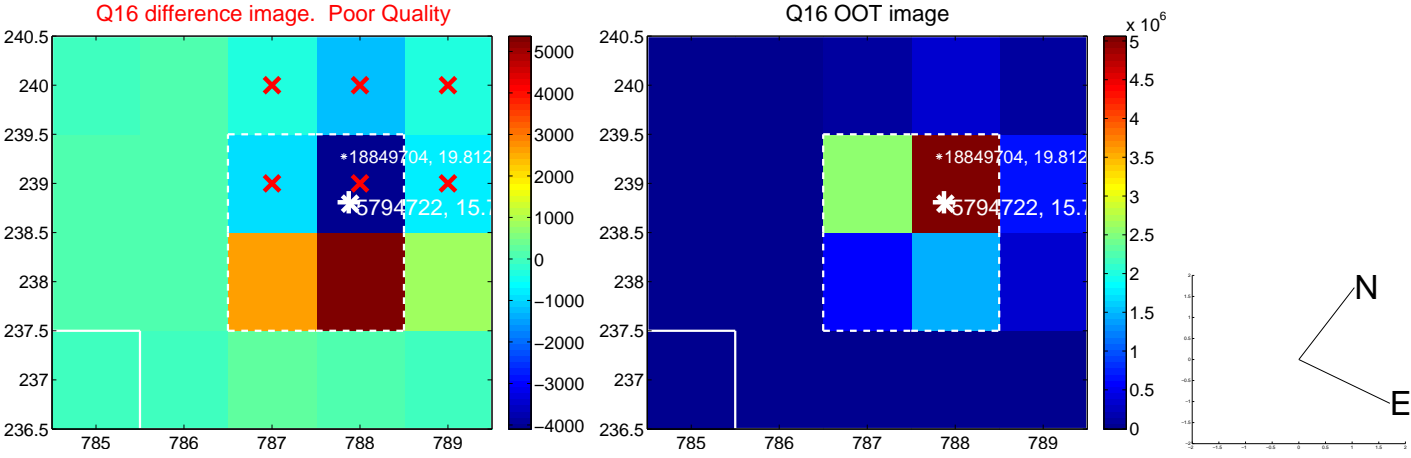
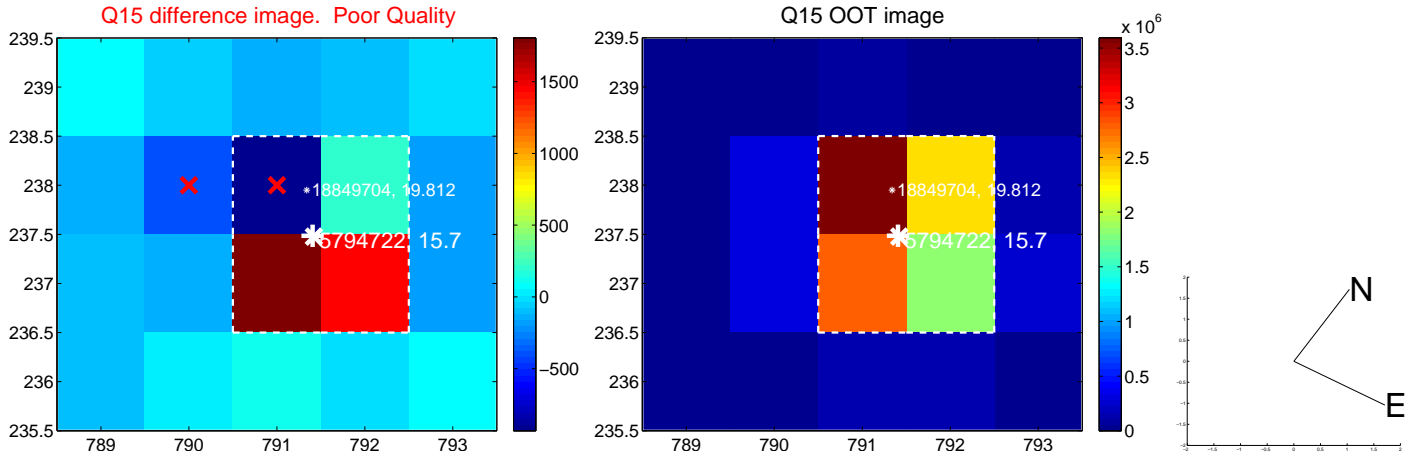
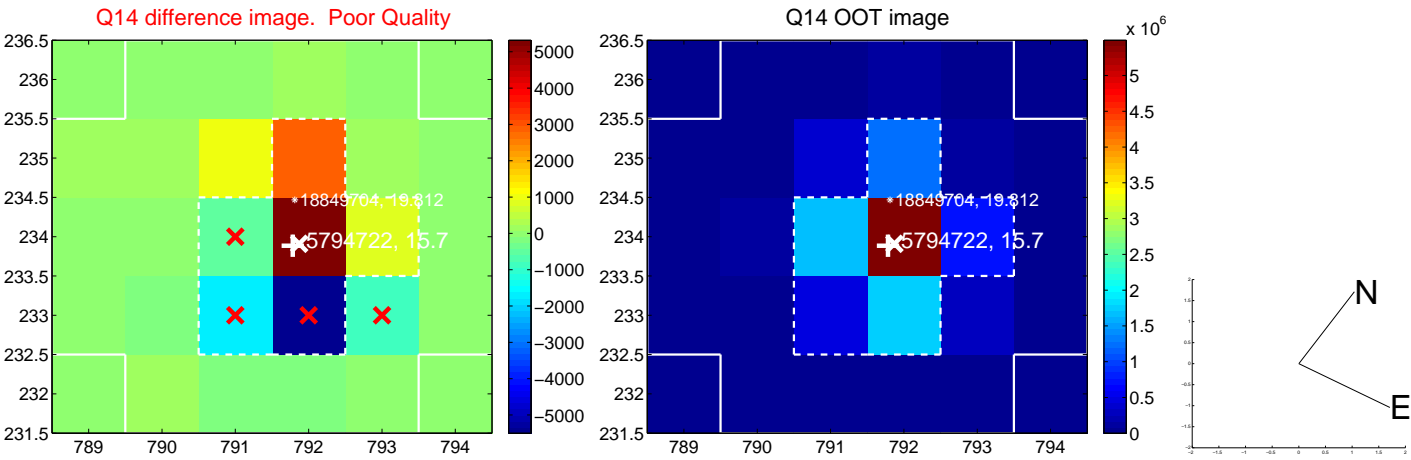
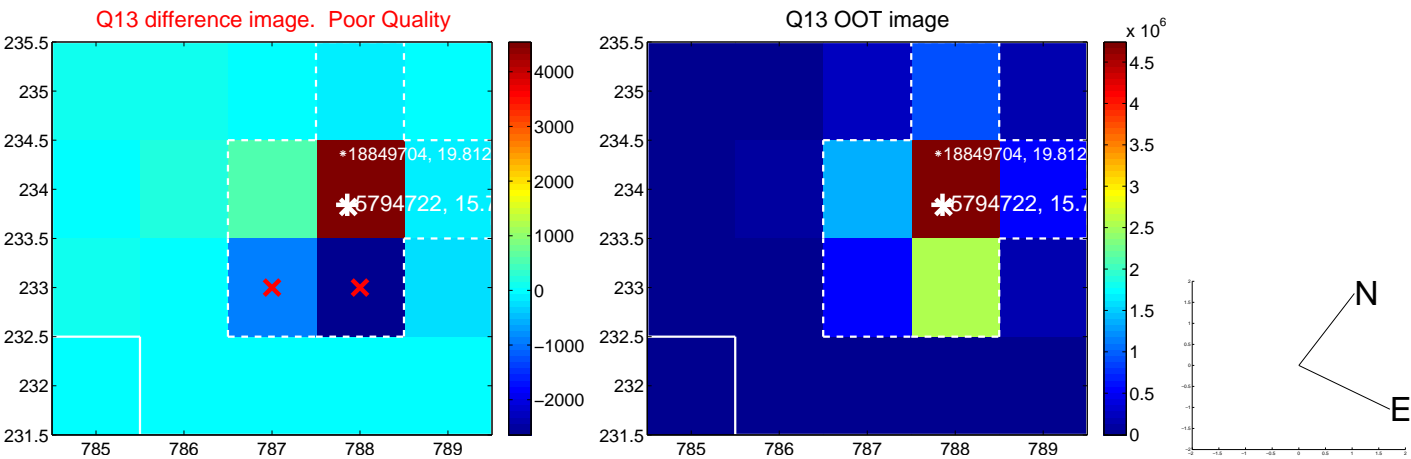
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



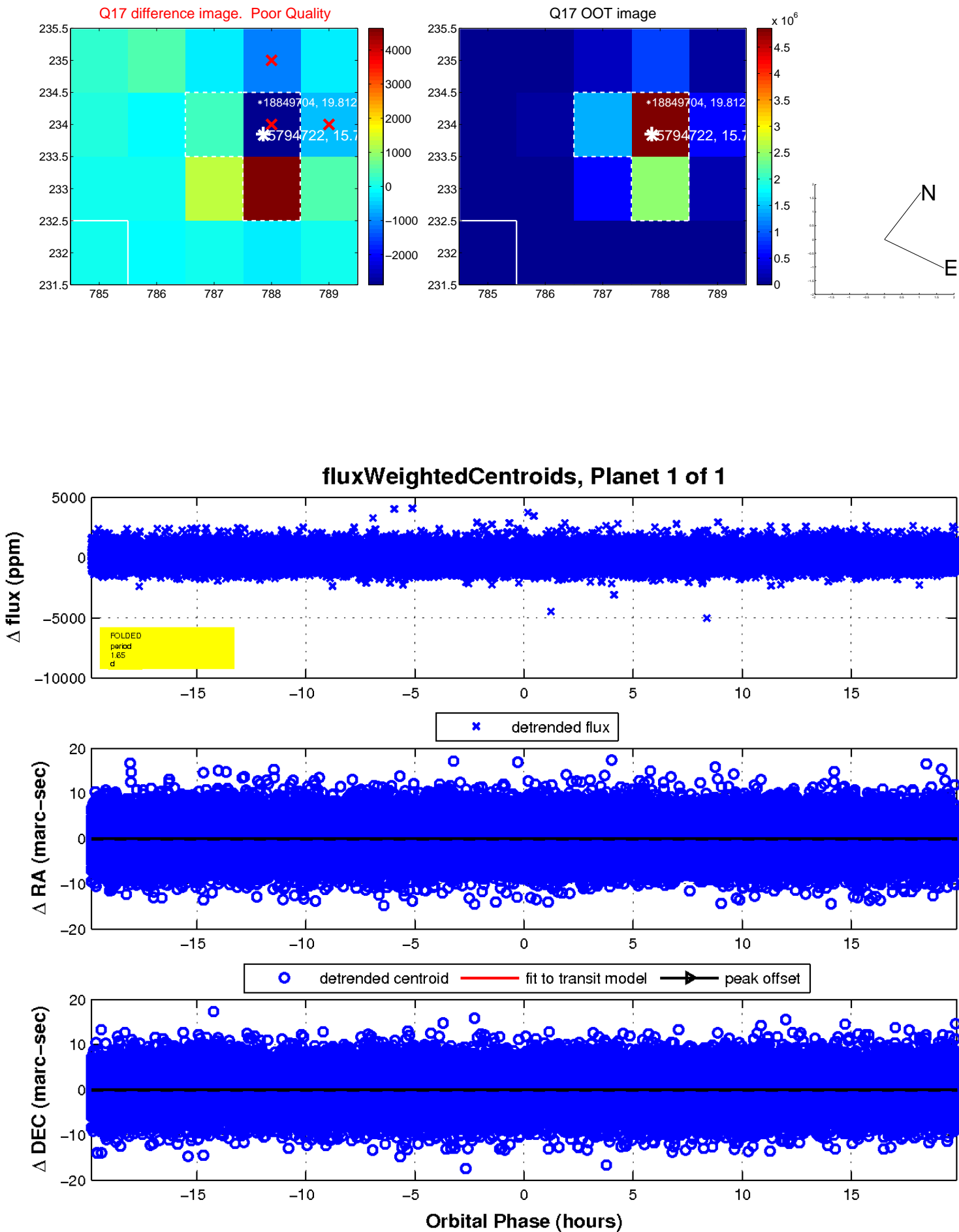
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



UKIRT Image

Declination

