

KIC 001574792

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})
001574792-01	OBS	No	2.783978	131.850415	0.8	26.734	9.1	0.5	1.62	6818	0.15	2709.24

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
001574792-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_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.

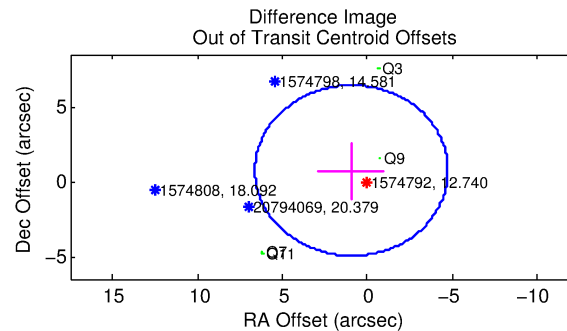
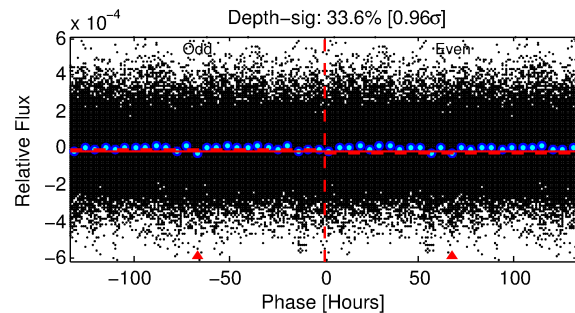
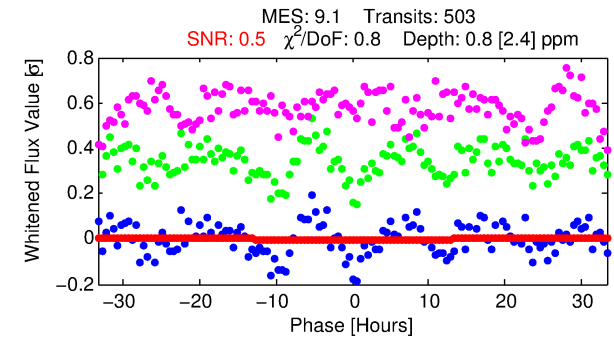
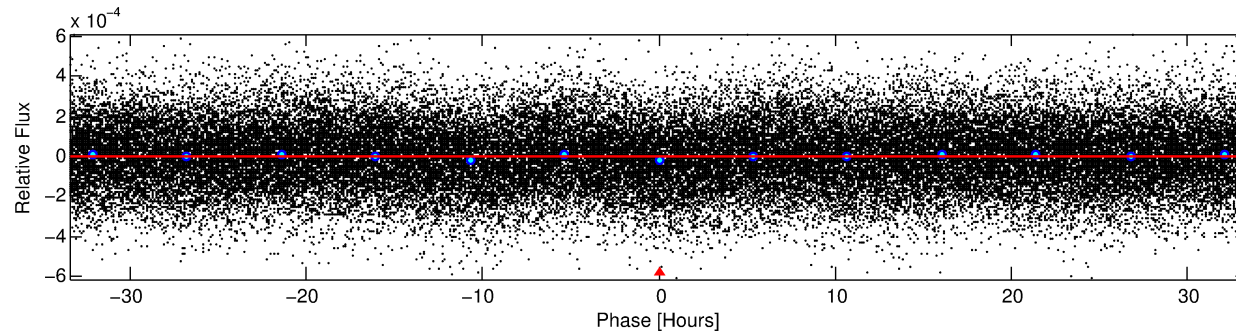
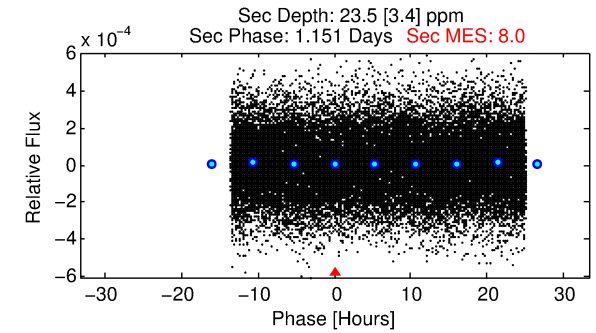
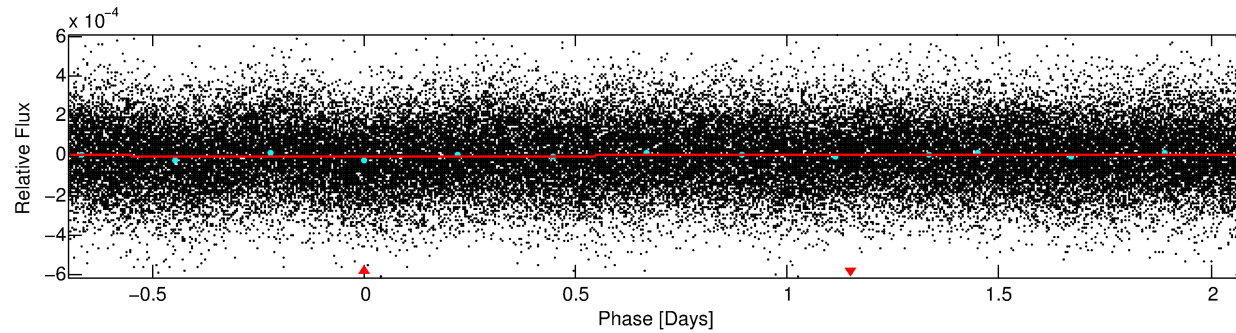
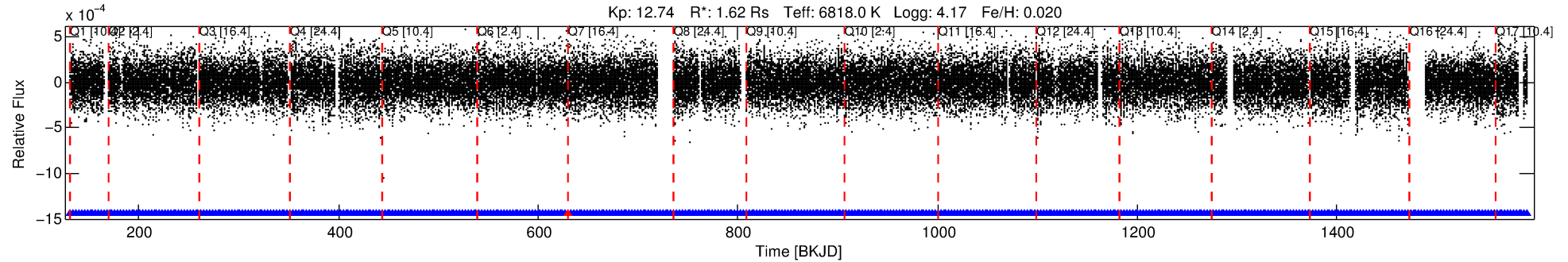
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 001574792-01

No Significant Match Found

DV One-Page Summary

KIC: 1574792 Candidate: 1 of 1 Period: 2.784 d



DV Fit Results:

Period = 2.78398 [0.00129] d
Epoch = 131.8504 [0.2391] BKJD
Rp/R* = 0.0009 [0.0142]
a/R* = 1.05 [9.08]
b = 0.25 [362.40]
Seff = 2709.24 [582.62]
Teq = 1840 [99] K
Rp = 0.15 [2.52] Re
a = 0.0434 [0.0064] AU
Ag = 1058.89 [35230.29] [0.03σ]
Teffp = 16225 [134956] K [0.11σ]

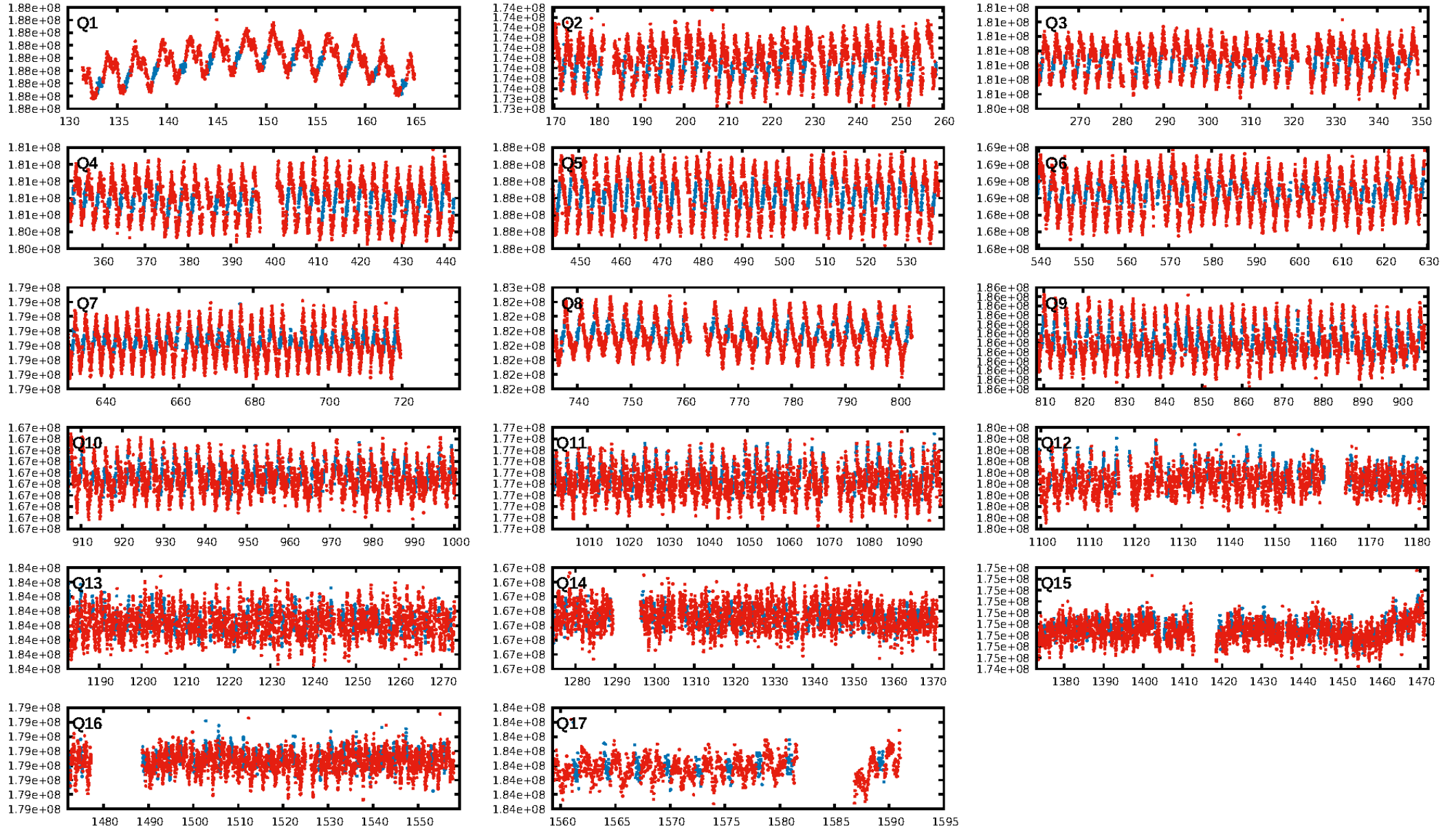
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [479/480]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 1.179 arcsec [0.62σ]
KicOffset-rm: 1.243 arcsec [0.66σ]
OotOffset-st: 0/3/0/1 [4]
KicOffset-st: 0/3/0/1 [4]
DiffImageQuality-fgm: 0.25 [1/4]
DiffImageOverlap-fno: 1.00 [17/17]

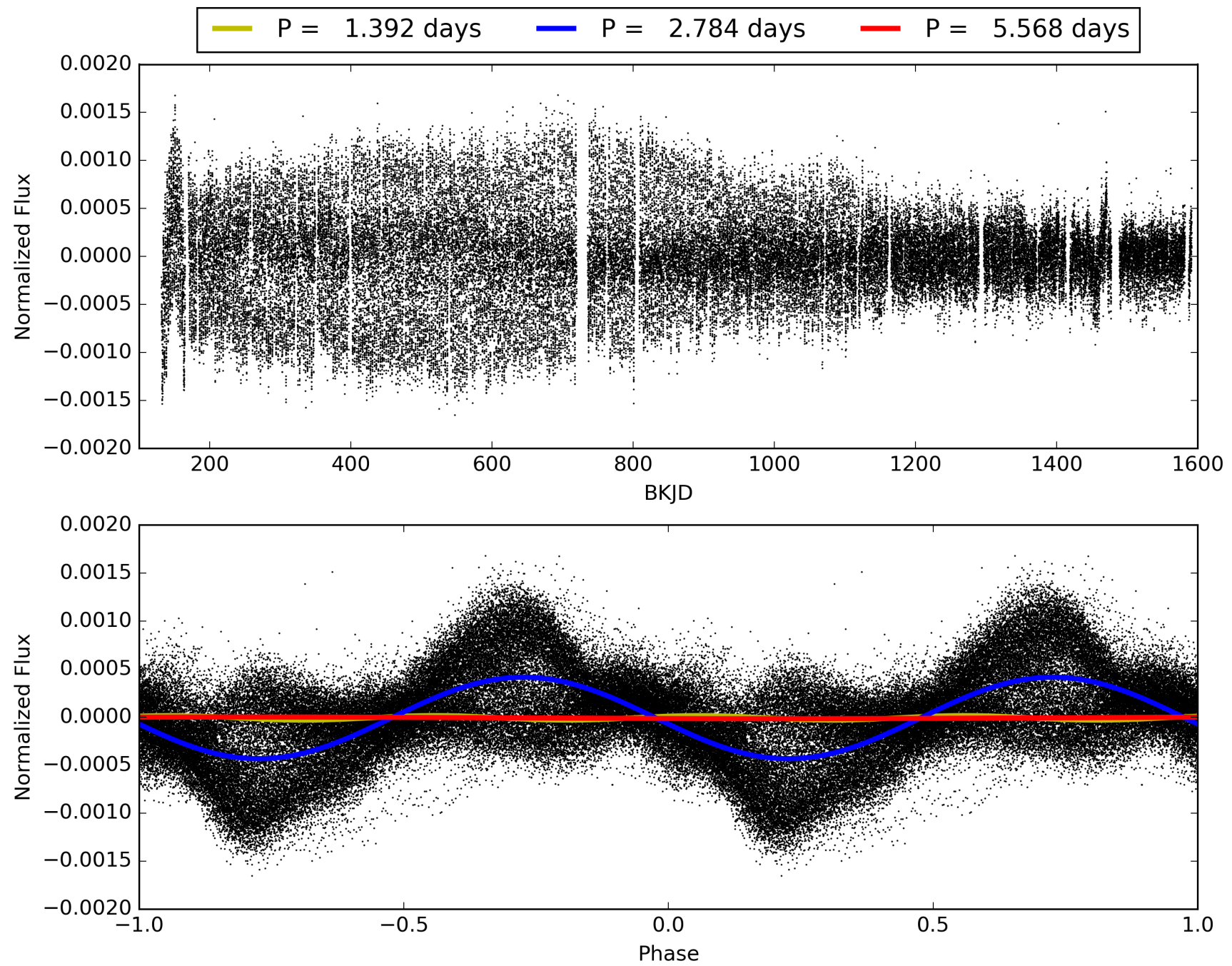
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 15:15:08 Z

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

TCE 001574792-01, PDC Light Curves

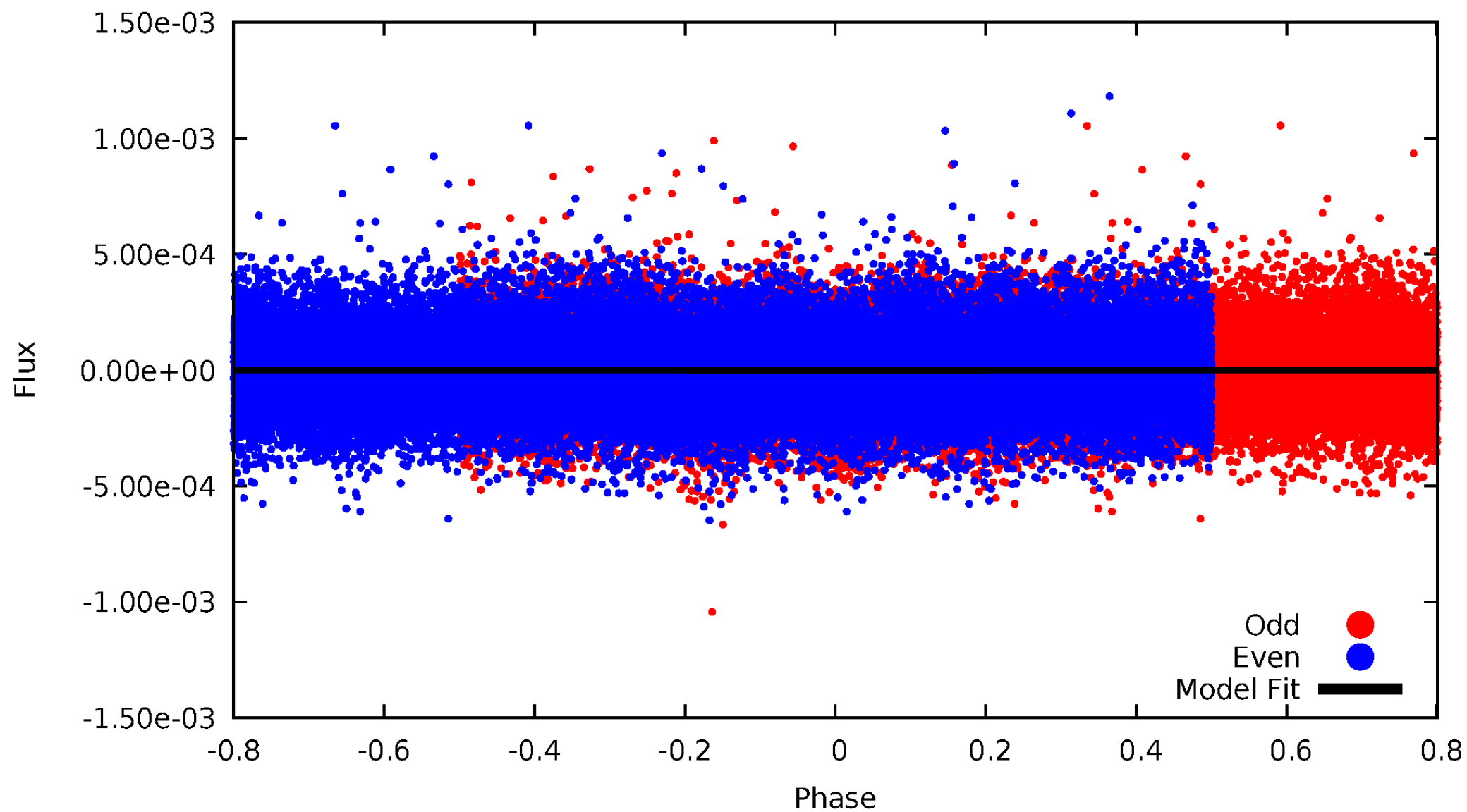


TCE 001574792-01



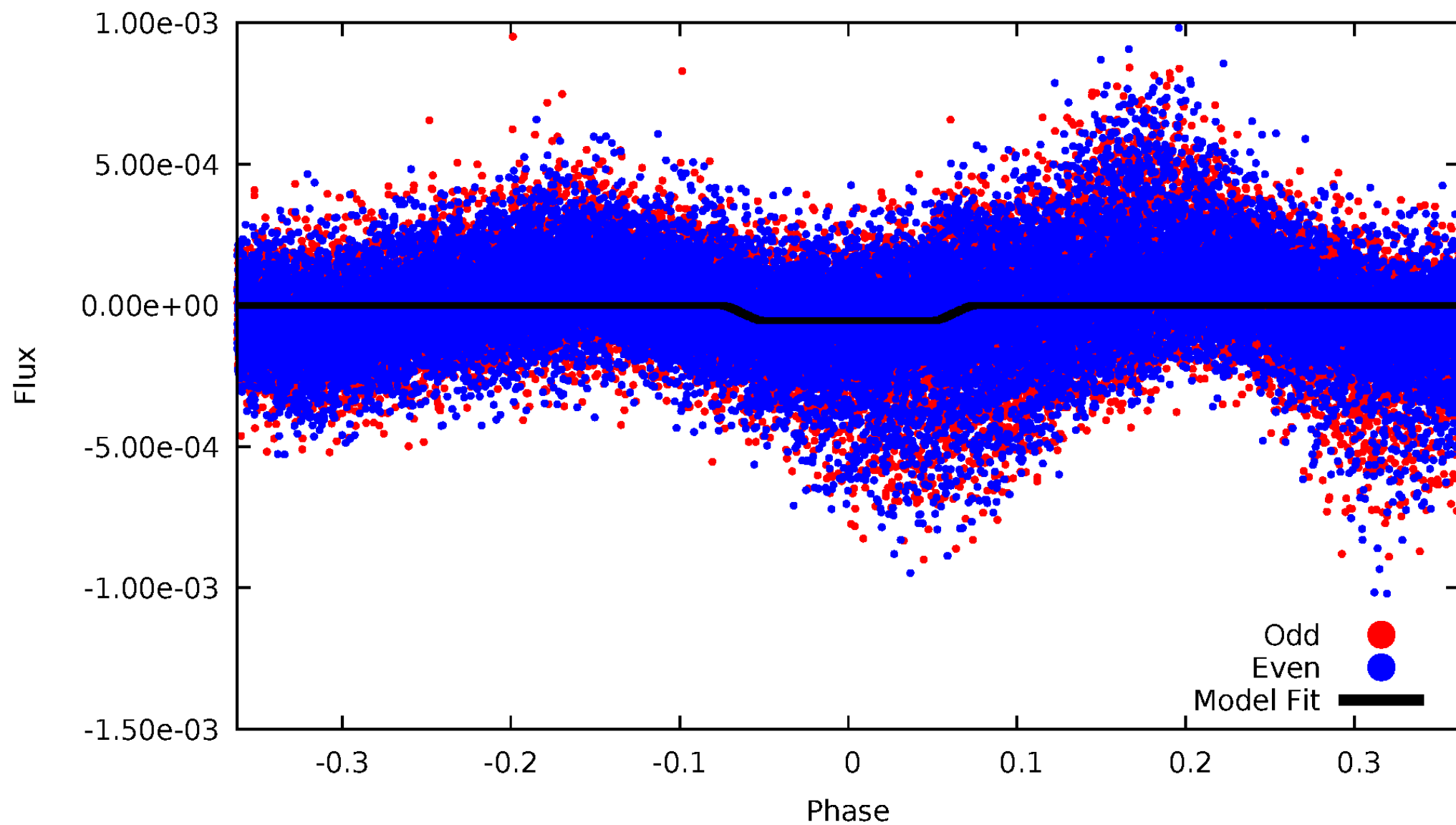
DV Odd/Even

TCE 001574792-01



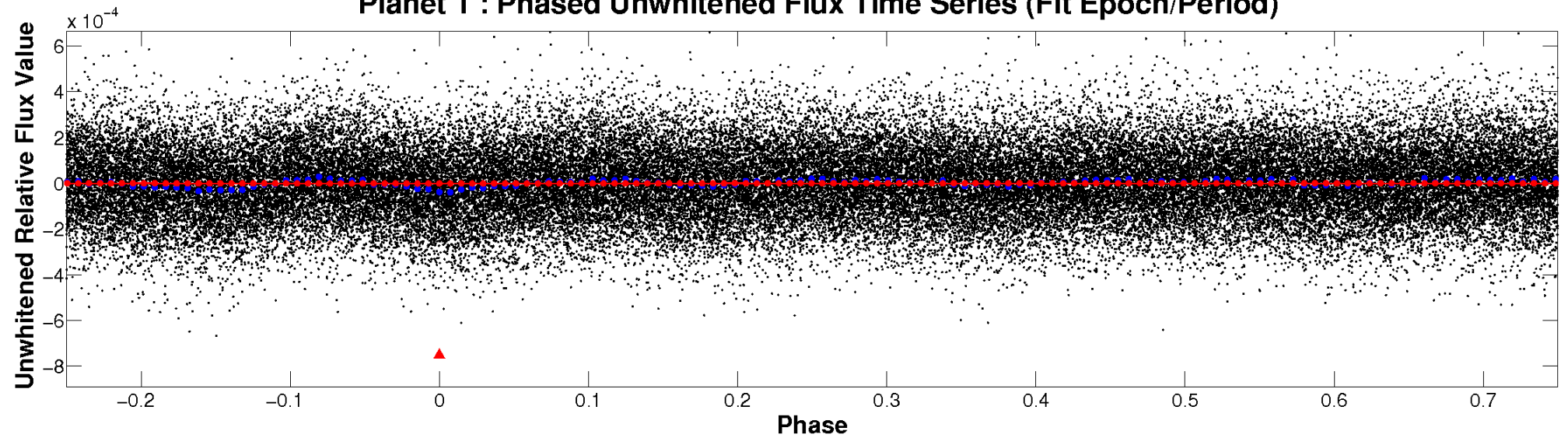
ALT Odd/Even

TCE 001574792-01

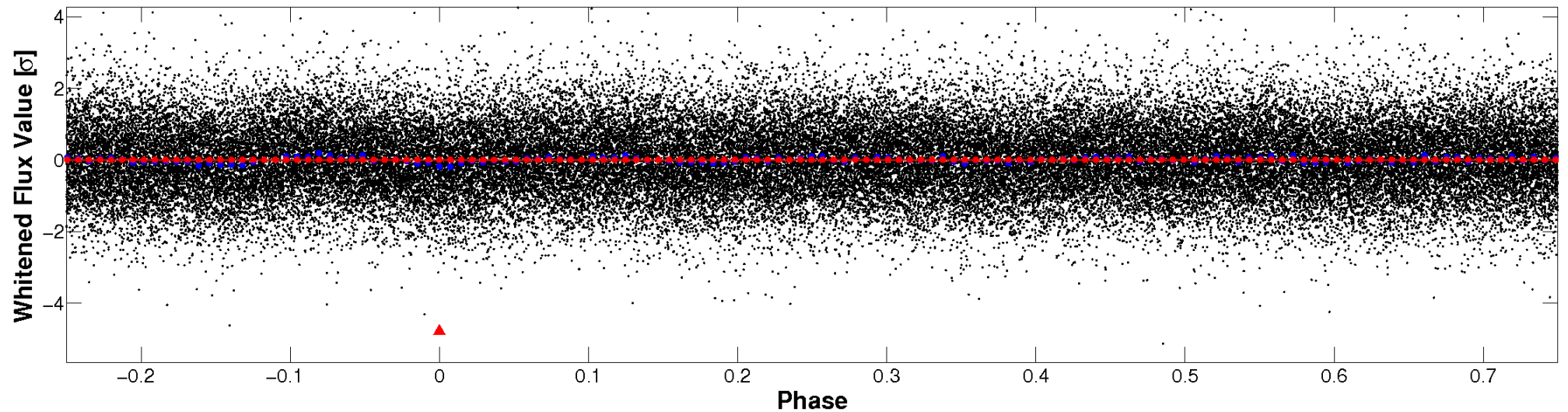


Non-Whitened Vs. Whitened Light Curve

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

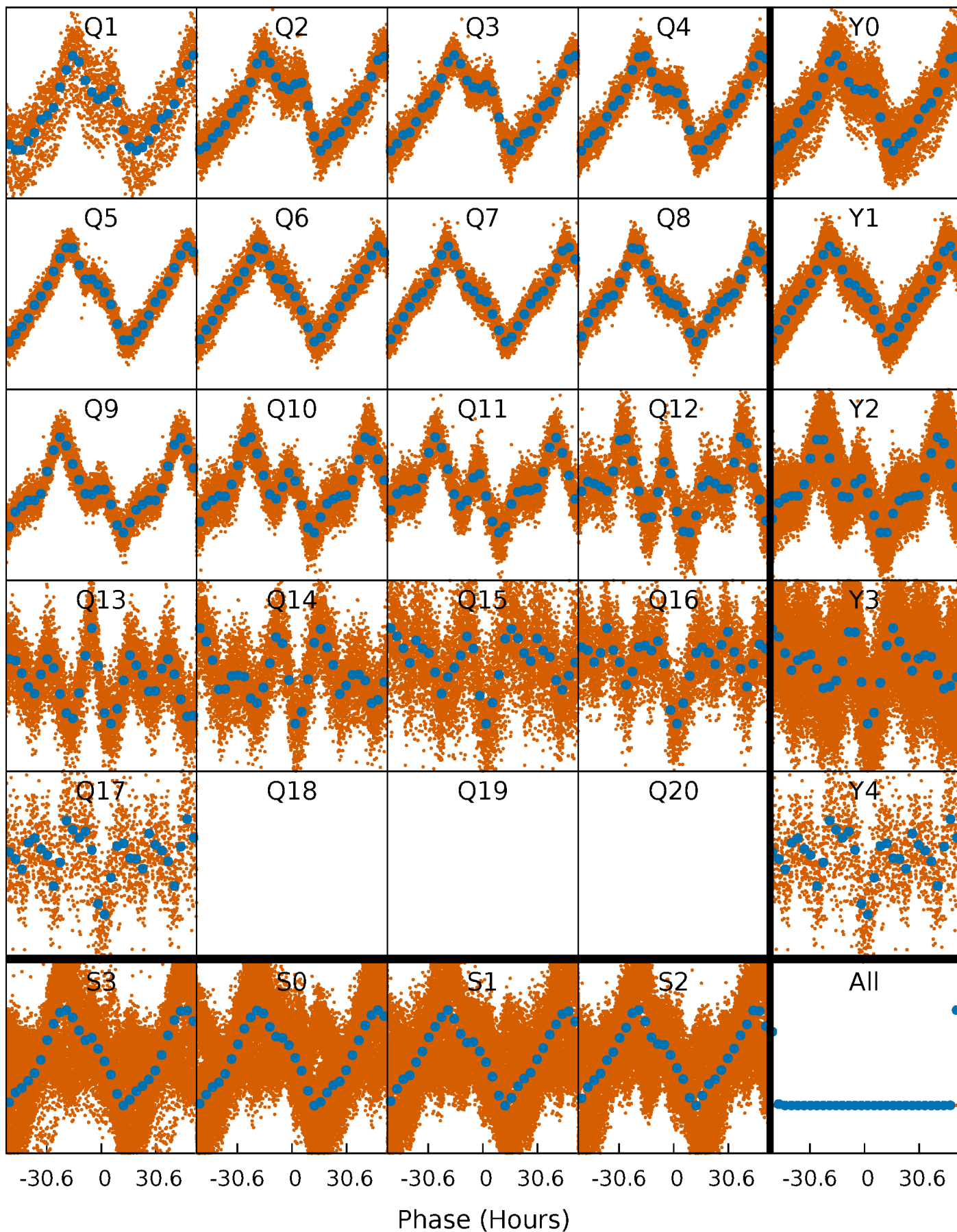


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



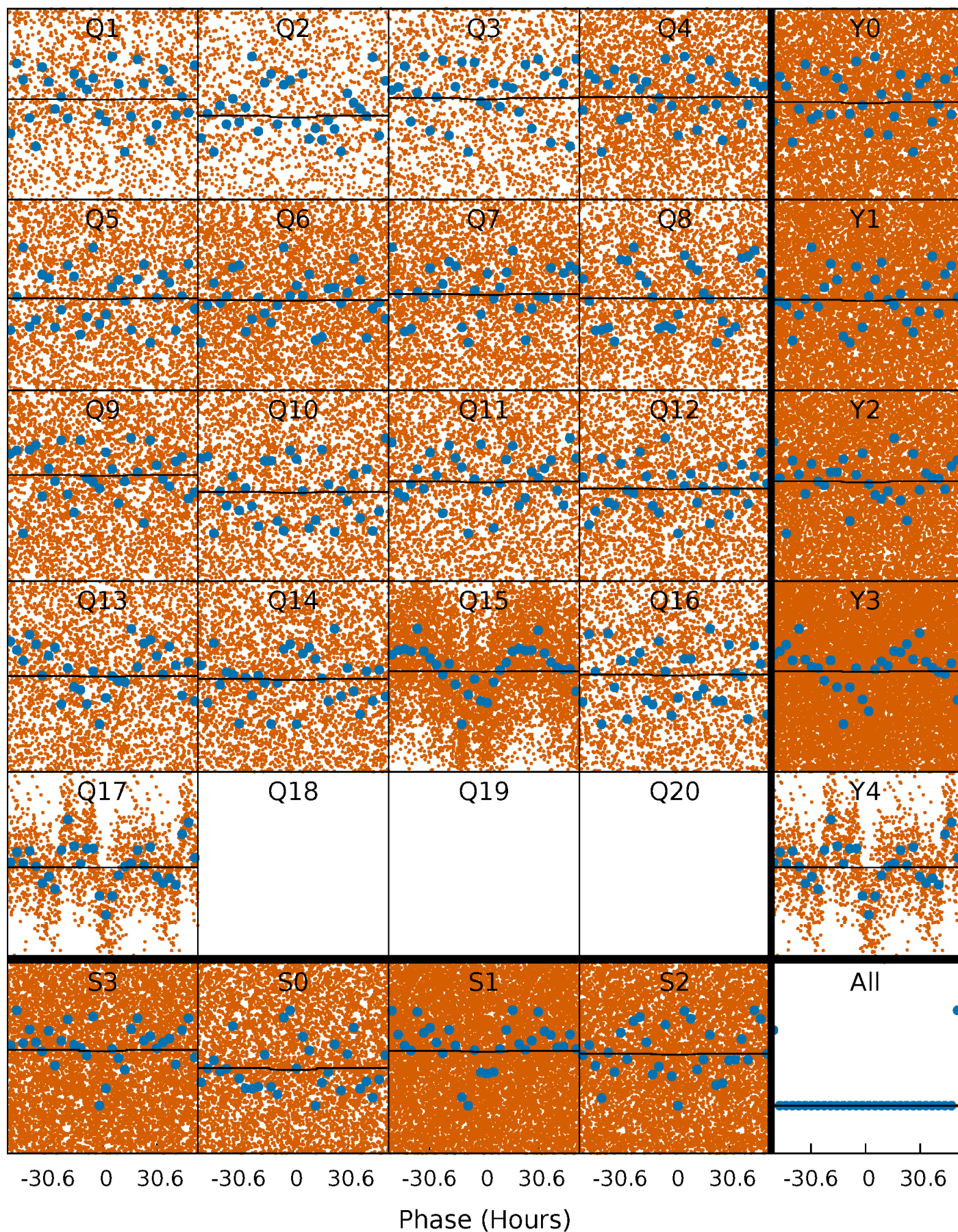
PDC Quarter-Phased Transit Curves

TCE 001574792-01 P= 2.783978 Days $T_0=131.850415$ (BKJD)



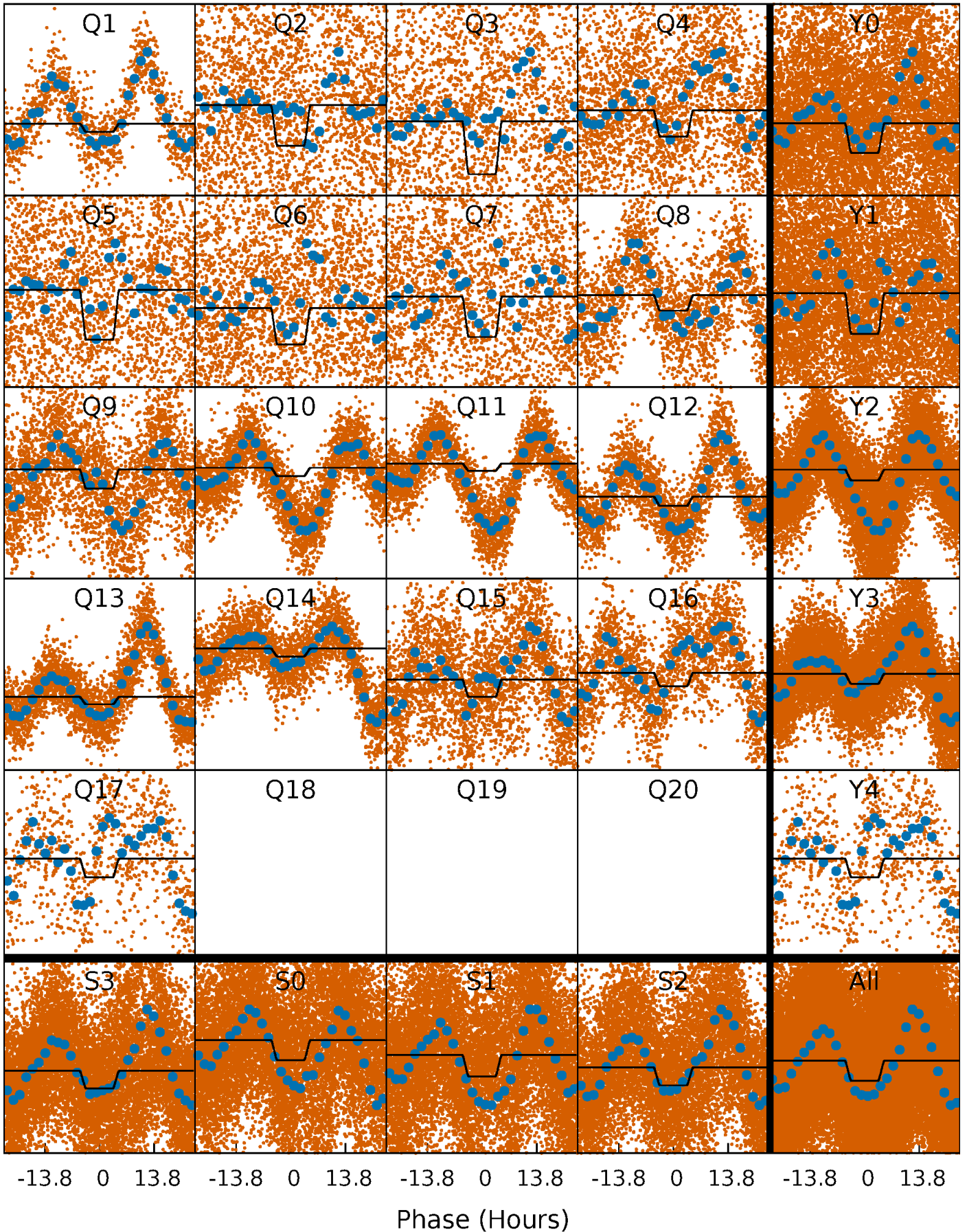
DV Quarter-Phased Transit Curves

TCE 001574792-01 P= 2.783978 Days $T_0=131.850415$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

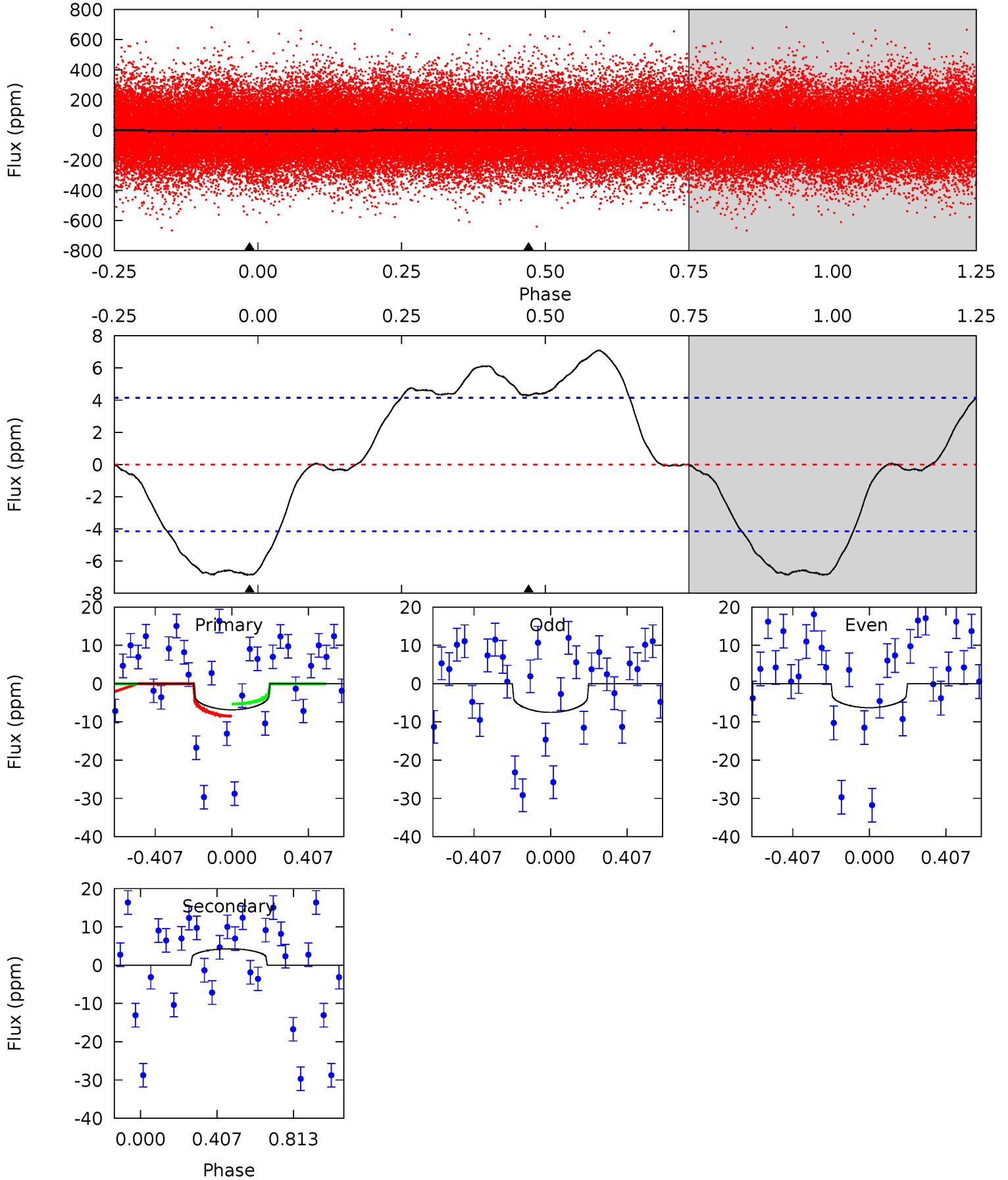
TCE 001574792-01 P= 2.782592 Days $T_0=131.660077$ (BKJD)



DV Model-Shift Uniqueness Test

001574792-01, P = 2.783978 Days, E = 129.066437 Days

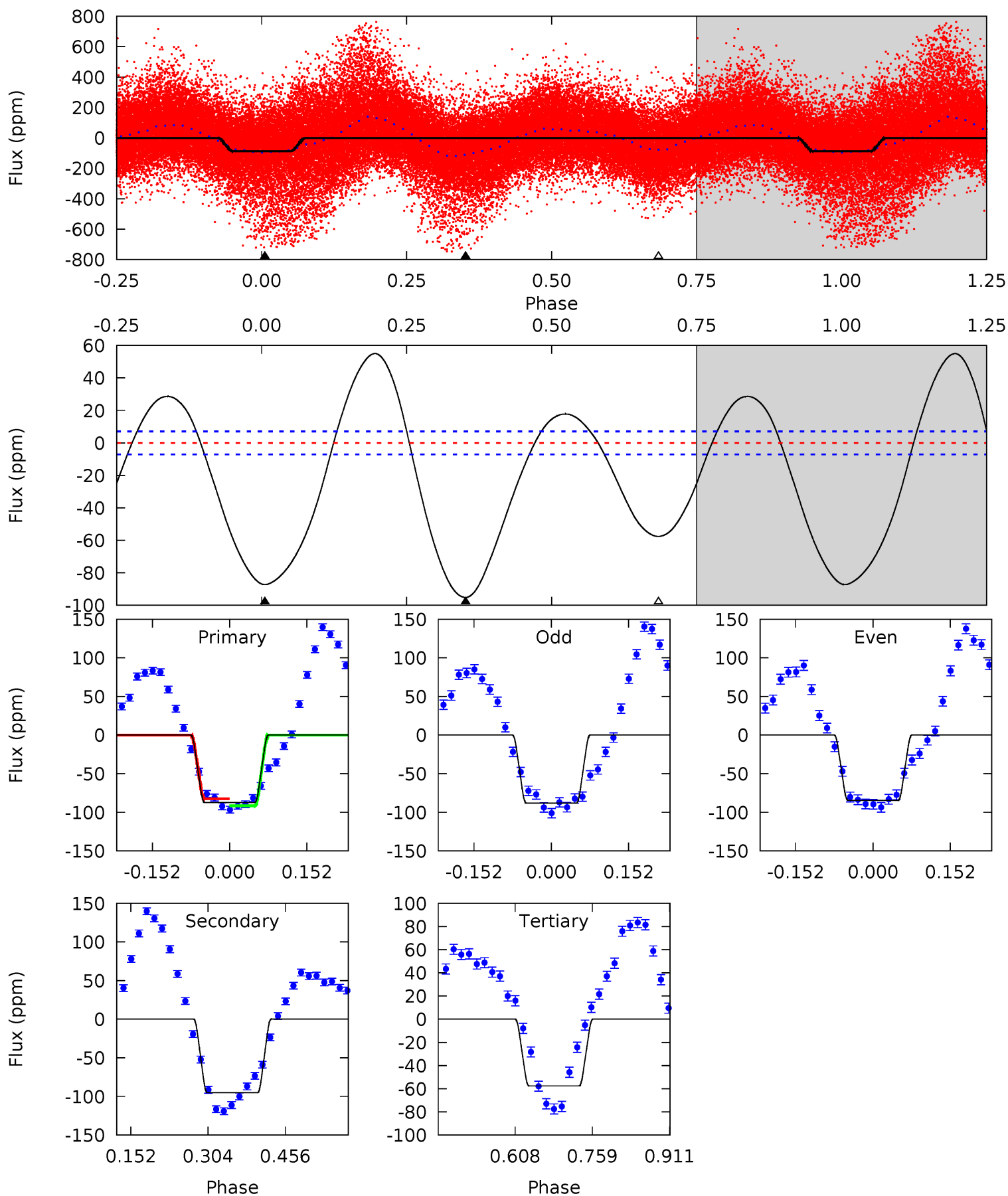
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.04	-4.41	0	0	4.26	0.83	1.61	7.04	7.04	-4.41	-4.41	0.62	1.36	0.51	1.64



Alt Model-Shift Uniqueness Test

001574792-01, P = 2.782592 Days, E = 128.877485 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
55.3	60.3	36.5	0	4.48	1.43	21.7	18.8	55.3	23.8	60.3	1.11	2.41	0.37	2.56



Stellar Parameters For KIC 001574792

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6818^{+70}_{-91}	$4.165^{+0.090}_{-0.110}$	$0.020^{+0.150}_{-0.150}$	$1.623^{+0.297}_{-0.183}$	$1.406^{+0.105}_{-0.086}$	$0.463^{+0.180}_{-0.164}$
	+1%/-1%	+2%/-3%	+750%/-750%	+18%/-11%	+7%/-6%	+39%/-35%
Source	SPE68	SPE68	SPE68	DSEP		

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

Secondary Eclipse Parameters for KIC 001574792-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	4 ± 1	$1.72^{+1.94}_{-1.17}$	2572^{+117}_{-84}	-3688^{+542}_{-1962}	$-1.417^{+1.082}_{-14.101}$
Alt.	-95 ± 2	$2.29^{+2.02}_{-1.57}$	2561^{+108}_{-84}	5906^{+6457}_{-1462}	19^{+180}_{-14}

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

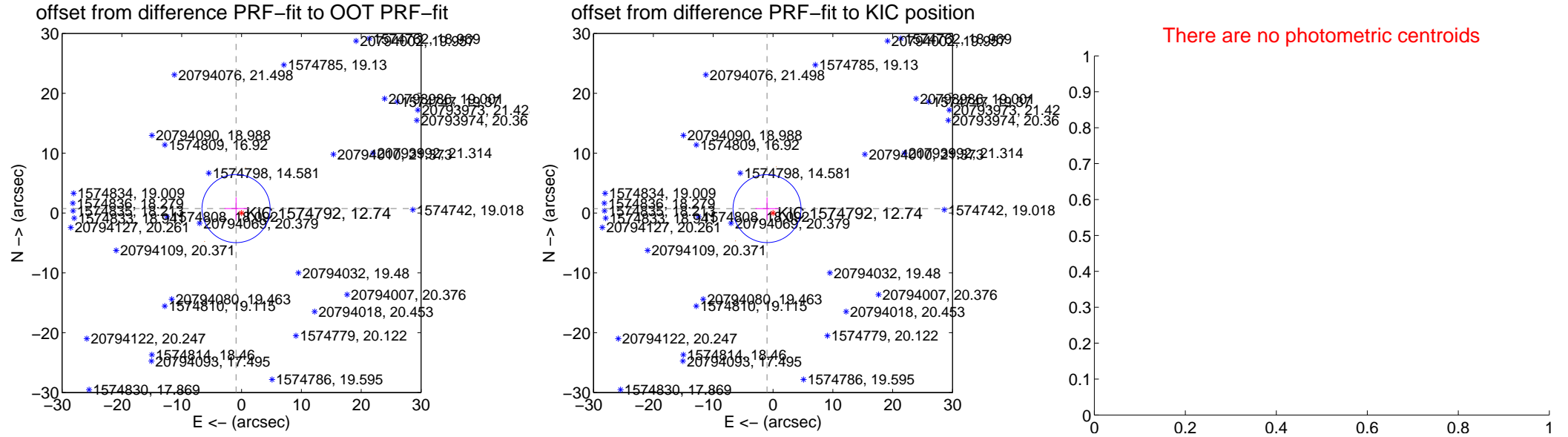
DV Centroid Data

Supplemental centroid analysis for 001574792-01. Kepler magnitude: 12.74. Transit SNR 0.48

There are 1 quarters with good PRF difference image offsets

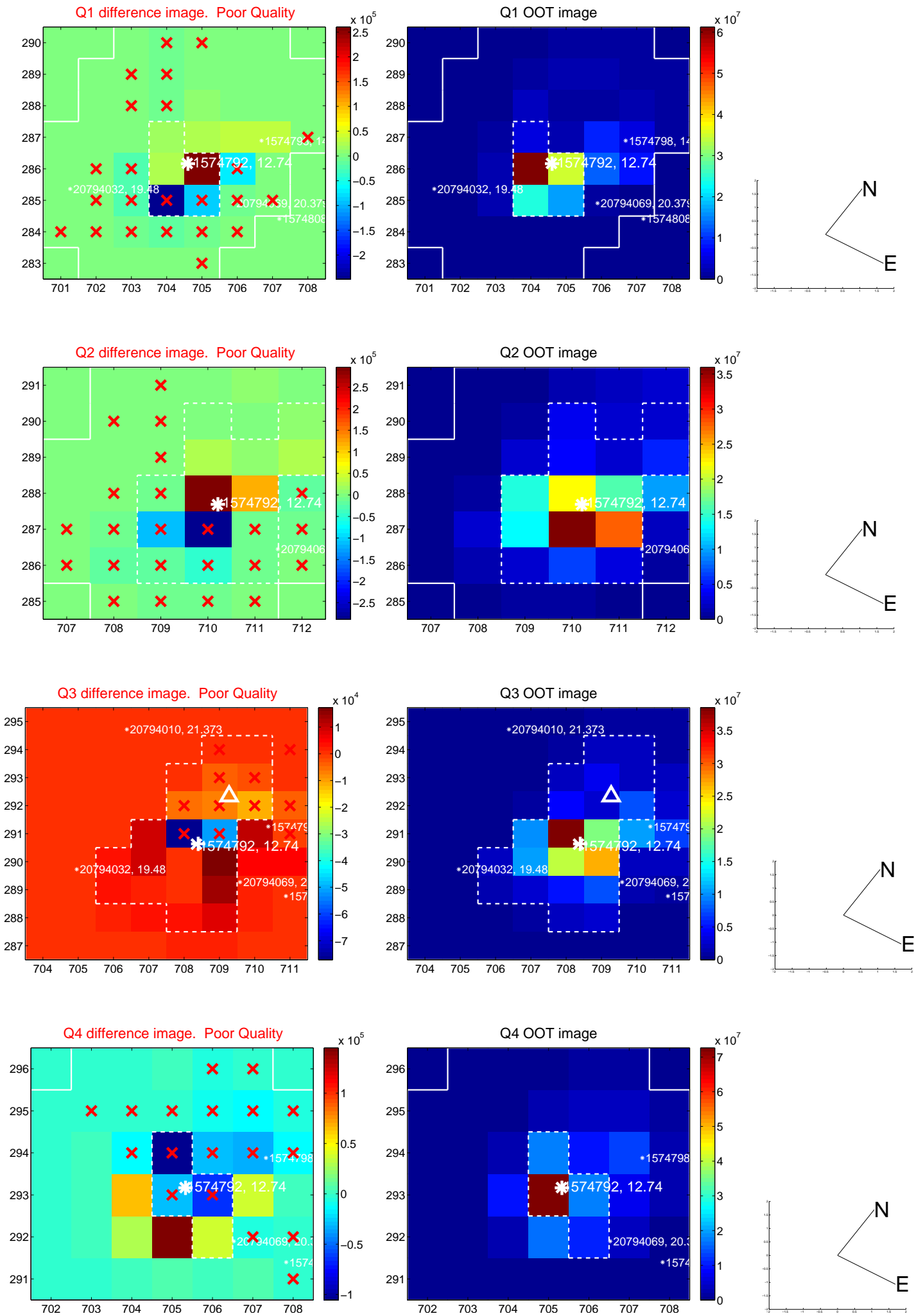
The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.179 ± 1.897	0.62	0.917 ± 1.914	0.741 ± 1.871
PRF-fit source offset from KIC position	1.243 ± 1.893	0.66	1.000 ± 1.916	0.738 ± 1.851
photometric centroid source offset	—	—	—	—

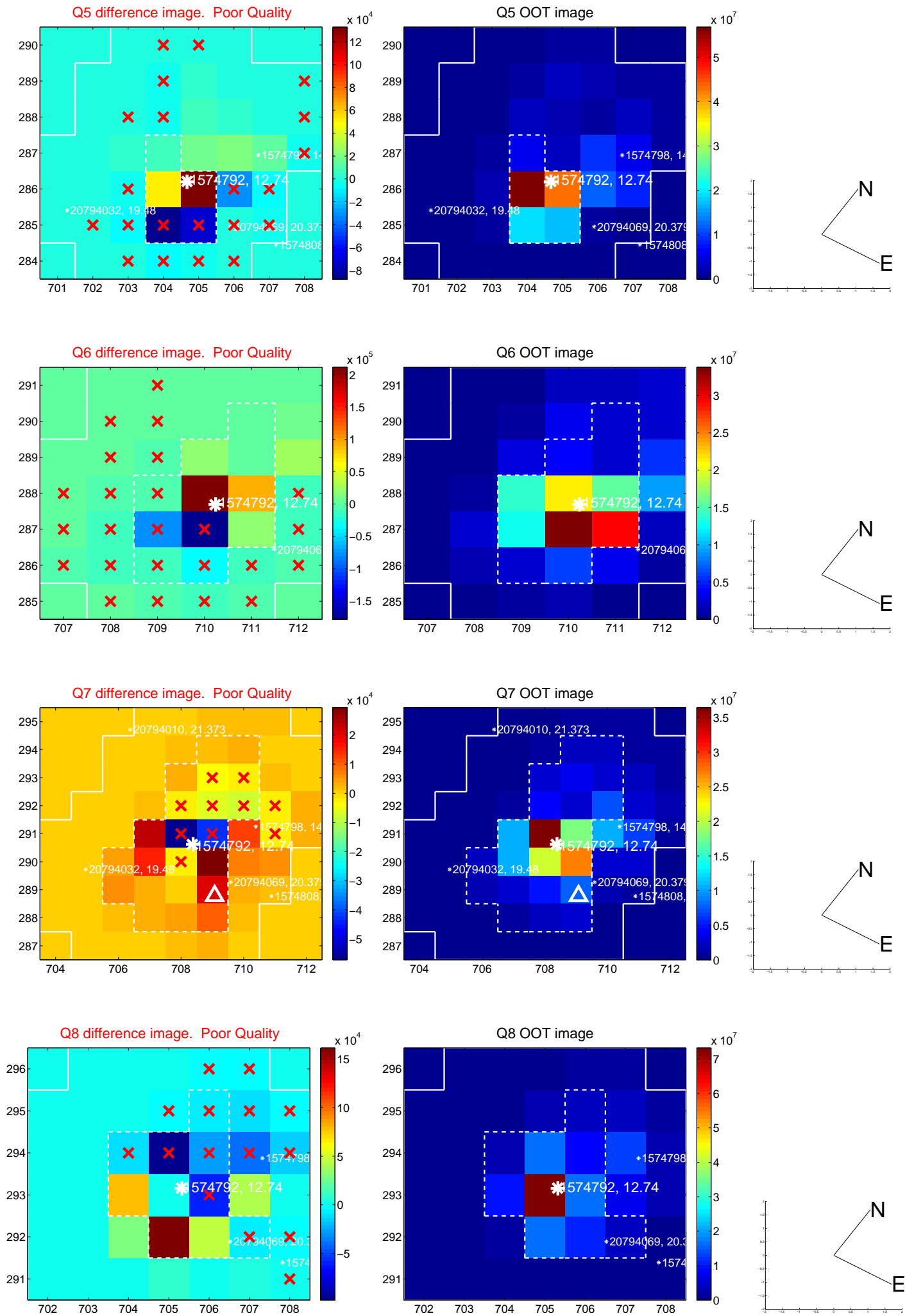


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

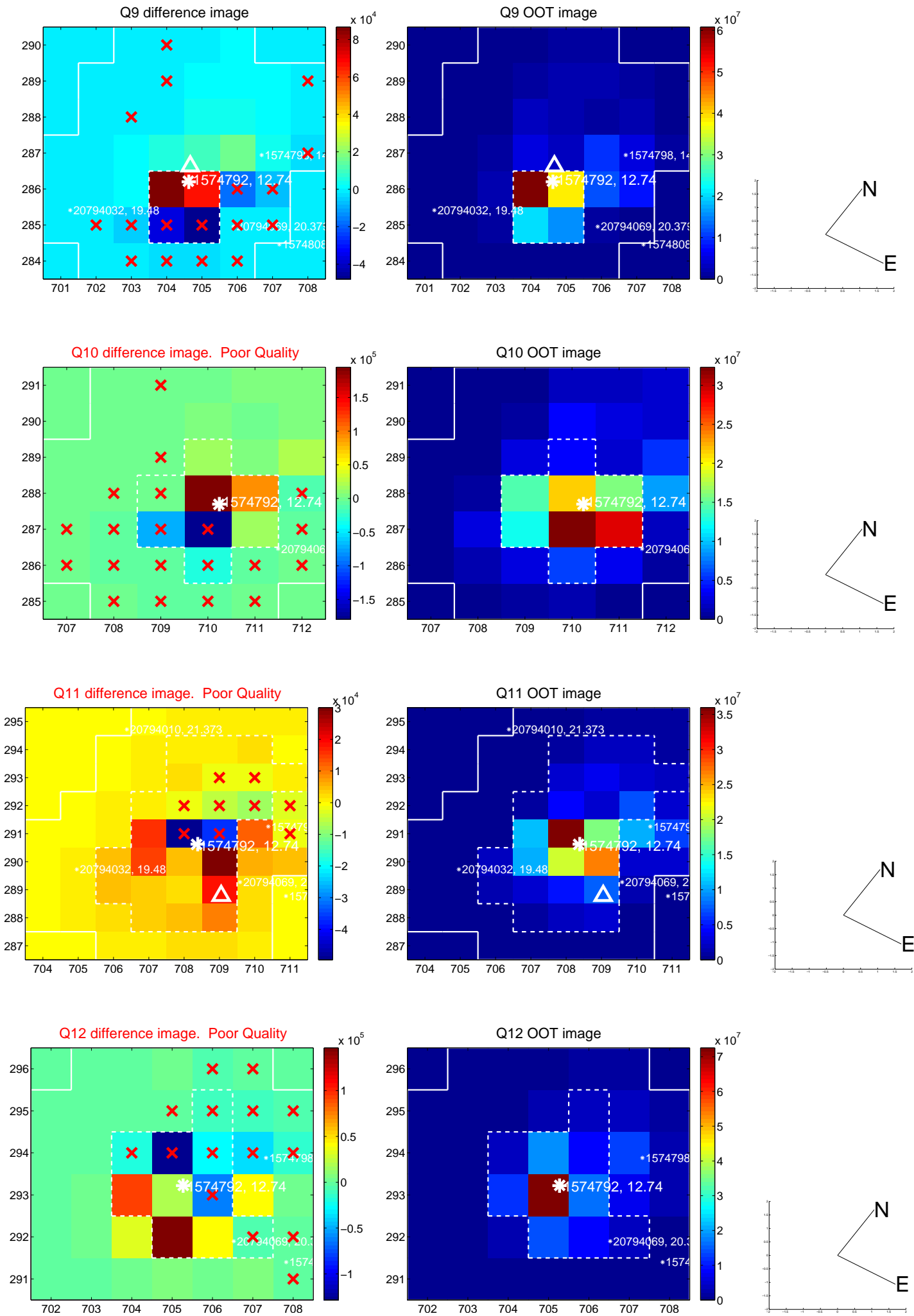
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



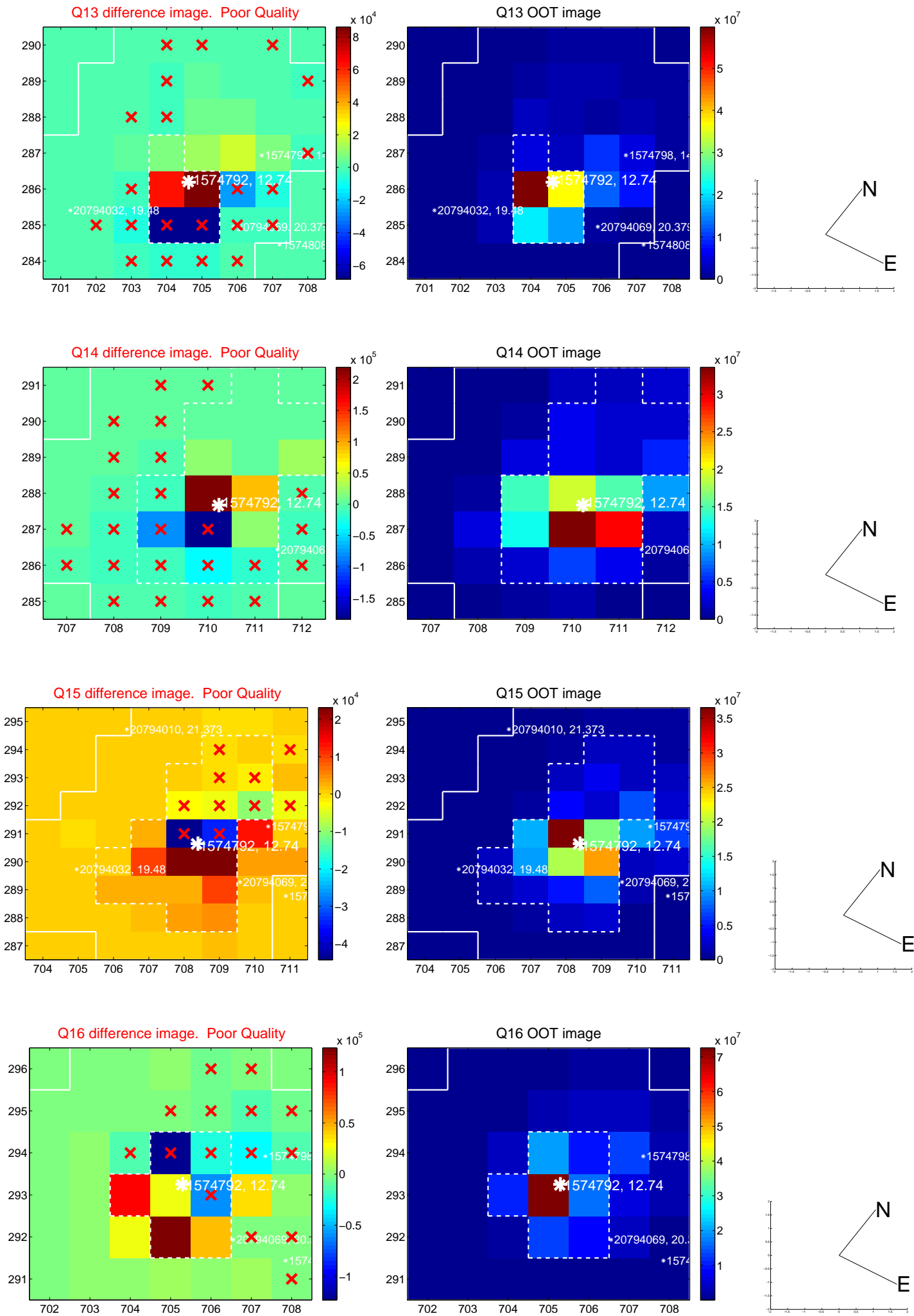
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



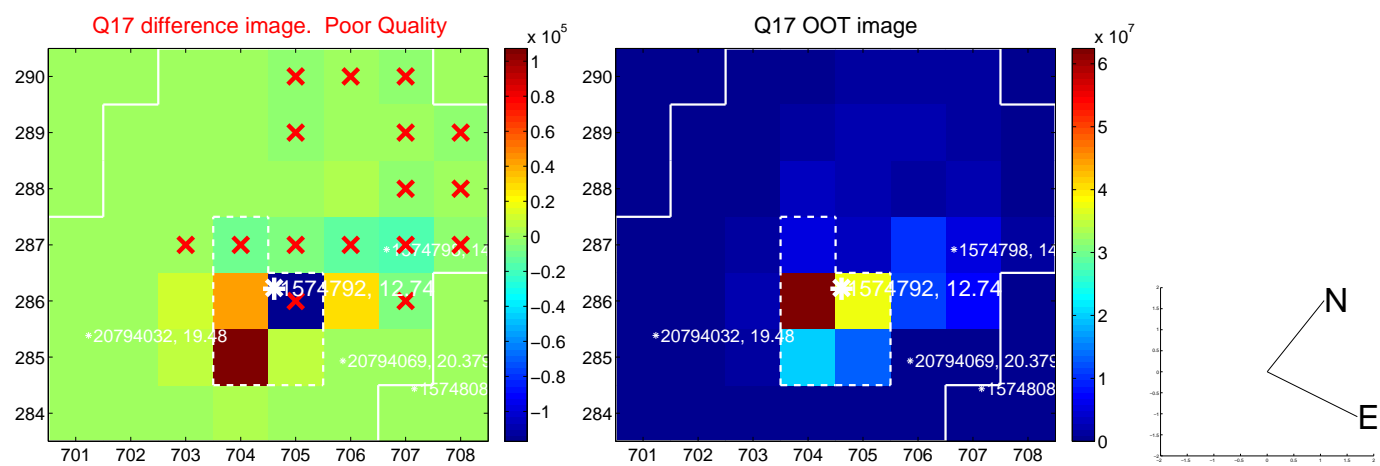
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



folded centroid time series figure for this object.

UKIRT Image

Declination

