

KIC 002574960

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})
002574960-01	OBS	No	1.577647	131.565837	10.2	12.913	9.6	8.0	4.42	7286	1.43	41571.11

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
002574960-01	OBS	FP	0.00	1	0	0	0	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.

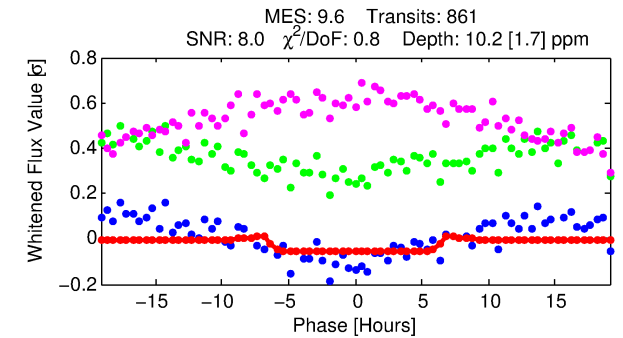
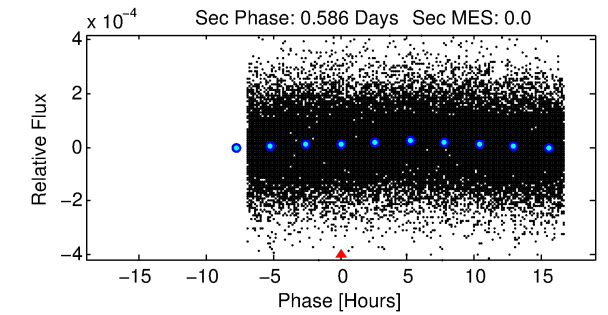
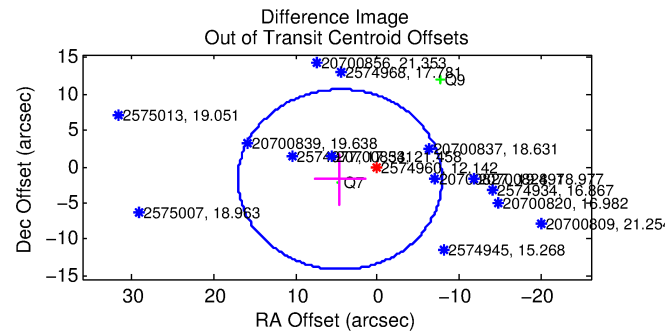
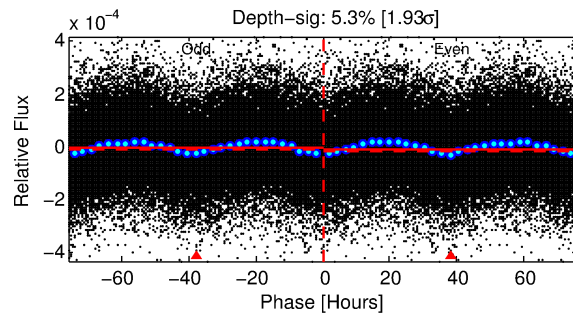
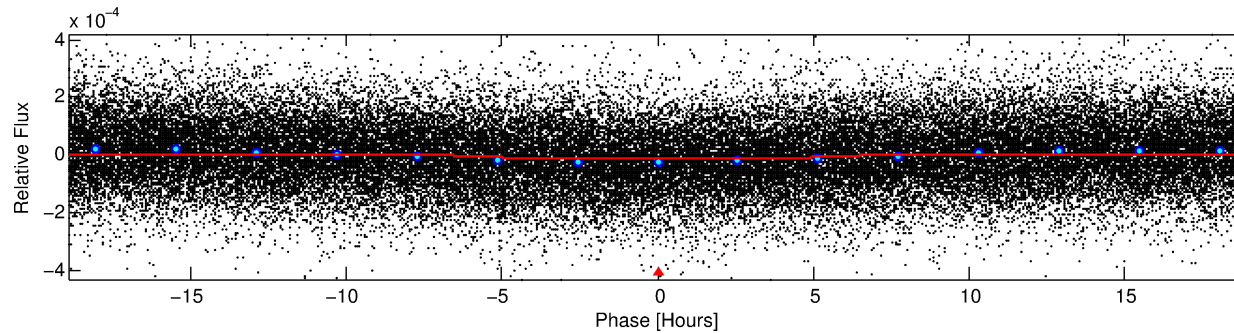
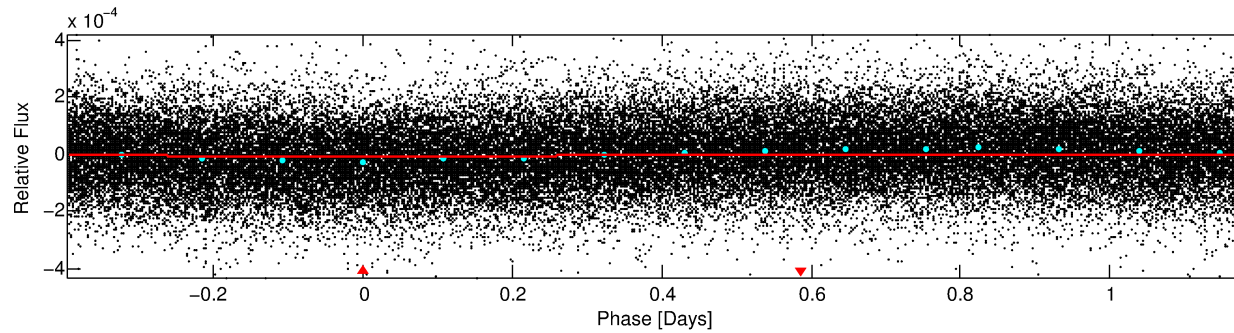
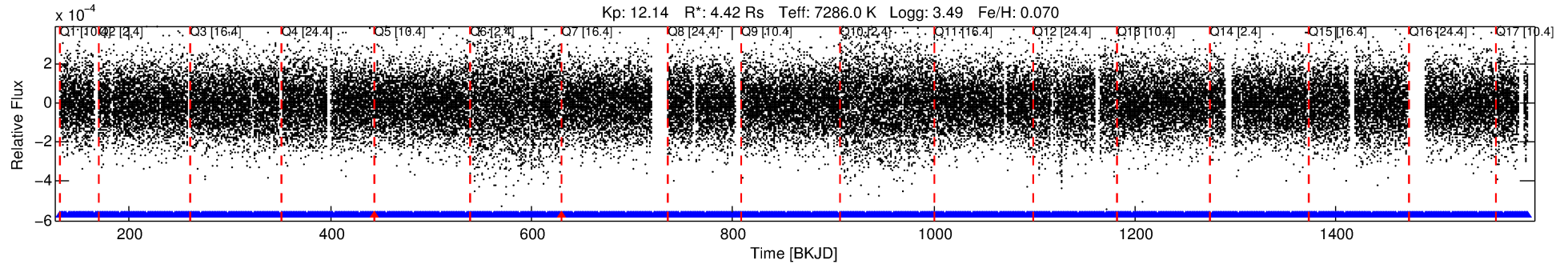
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 002574960-01

No Significant Match Found

DV One-Page Summary

KIC: 2574960 Candidate: 1 of 1 Period: 1.578 d



DV Fit Results:

Period = 1.57765 [0.00003] d
Epoch = 131.5658 [0.0090] BKJD
Rp/R* = 0.0030 [0.0025]
a/R* = 1.14 [1.29]
b = 0.02 [265.12]
Seff = 41571.11 [40750.75]
Teq = 3641 [892] K
Rp = 1.43 [1.45] Re
a = 0.0344 [0.0201] AU
Ag = N/A
Teffp = N/A

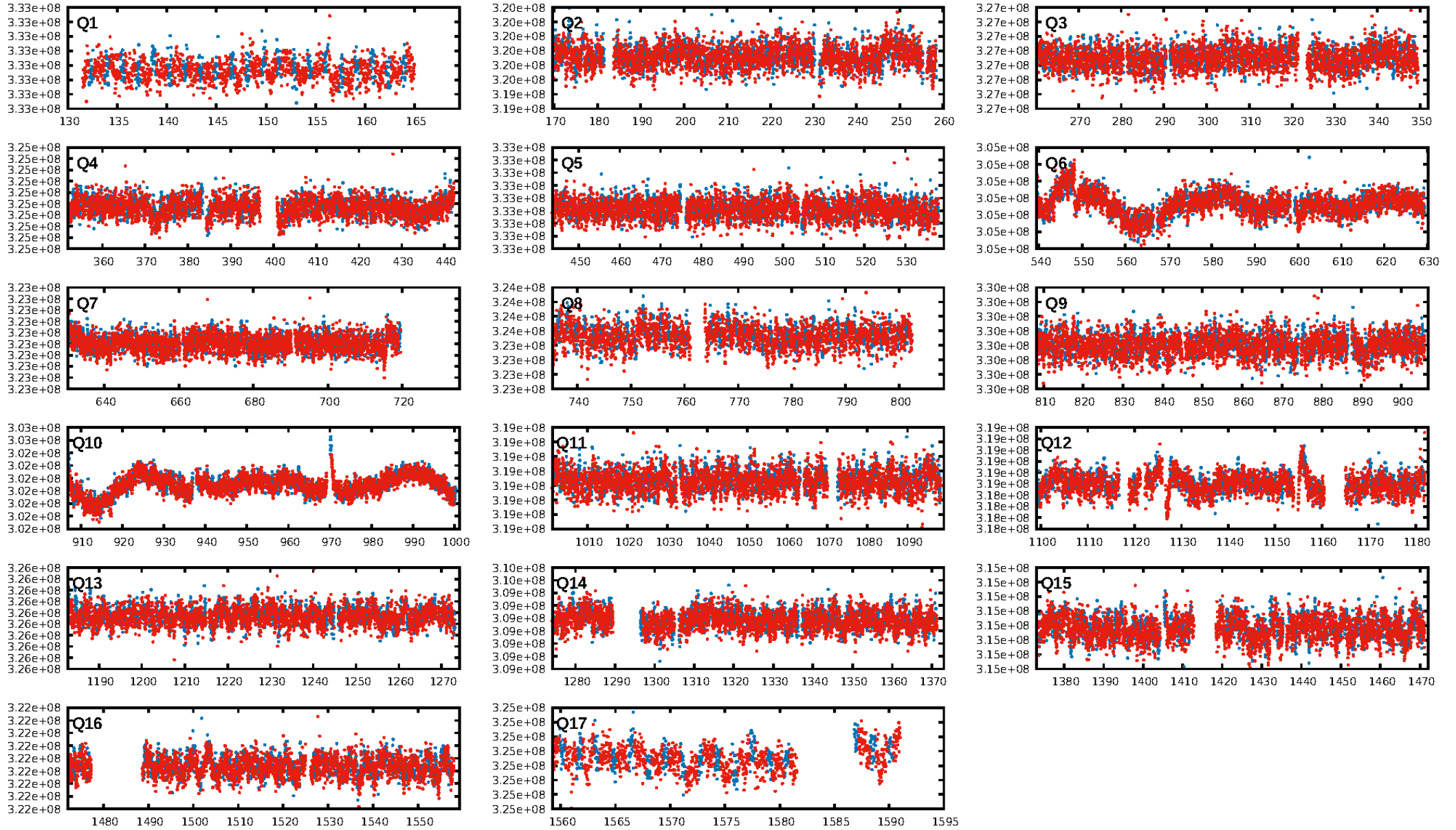
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [819/821]
GhostDiagnostic-chr: 3.053
Centroid-sig: 0.0%
Centroid-so: 2.152 arcsec [2.00σ]
OotOffset-rm: 4.902 arcsec [1.18σ]
KicOffset-rm: 4.816 arcsec [0.61σ]
OotOffset-st: 0/1/0/1 [2]
KicOffset-st: 0/1/0/1 [2]
DiffImageQuality-fgm: 0.00 [0/2]
DiffImageOverlap-fno: 1.00 [17/17]

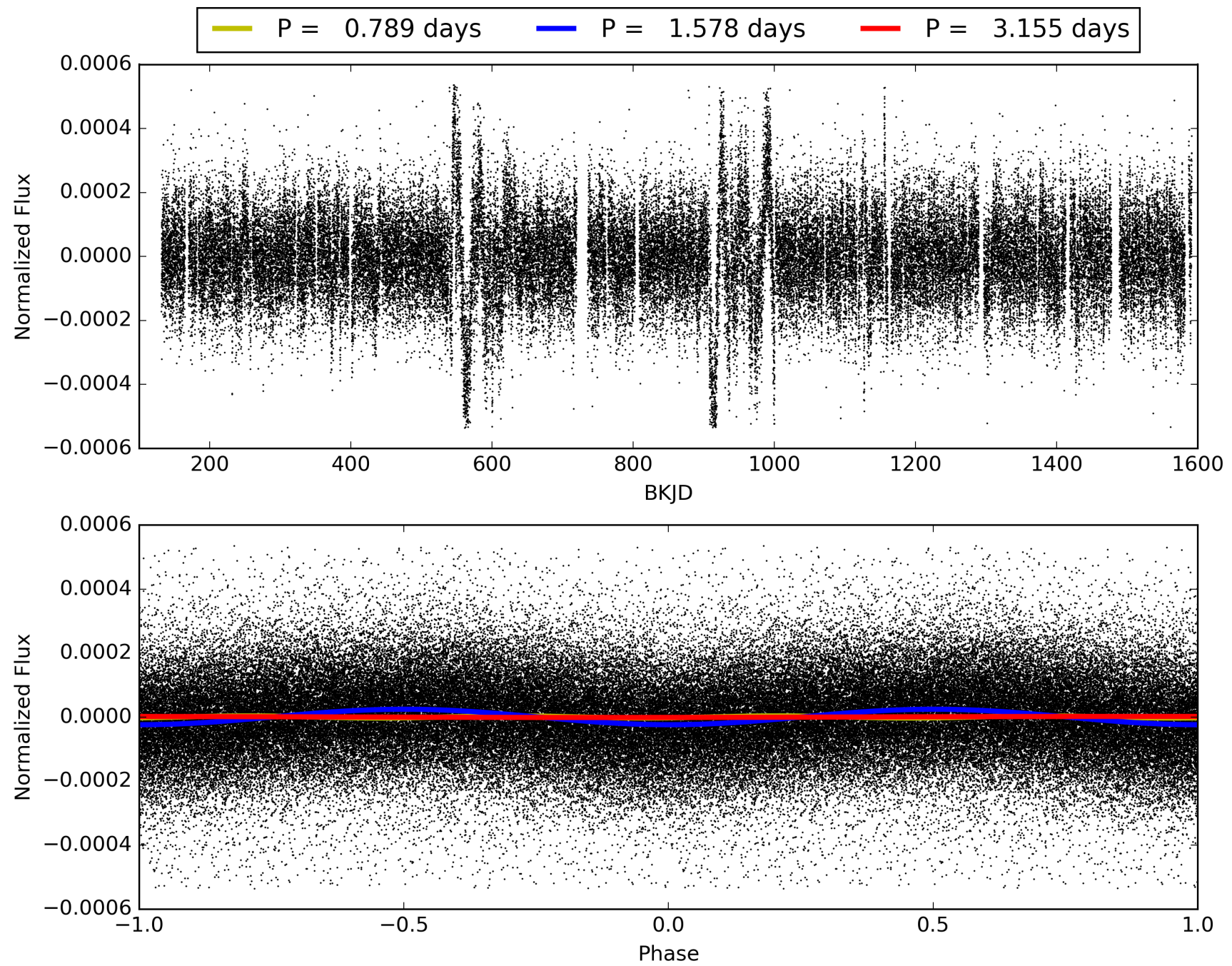
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 15:14:17 Z

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

TCE 002574960-01, PDC Light Curves

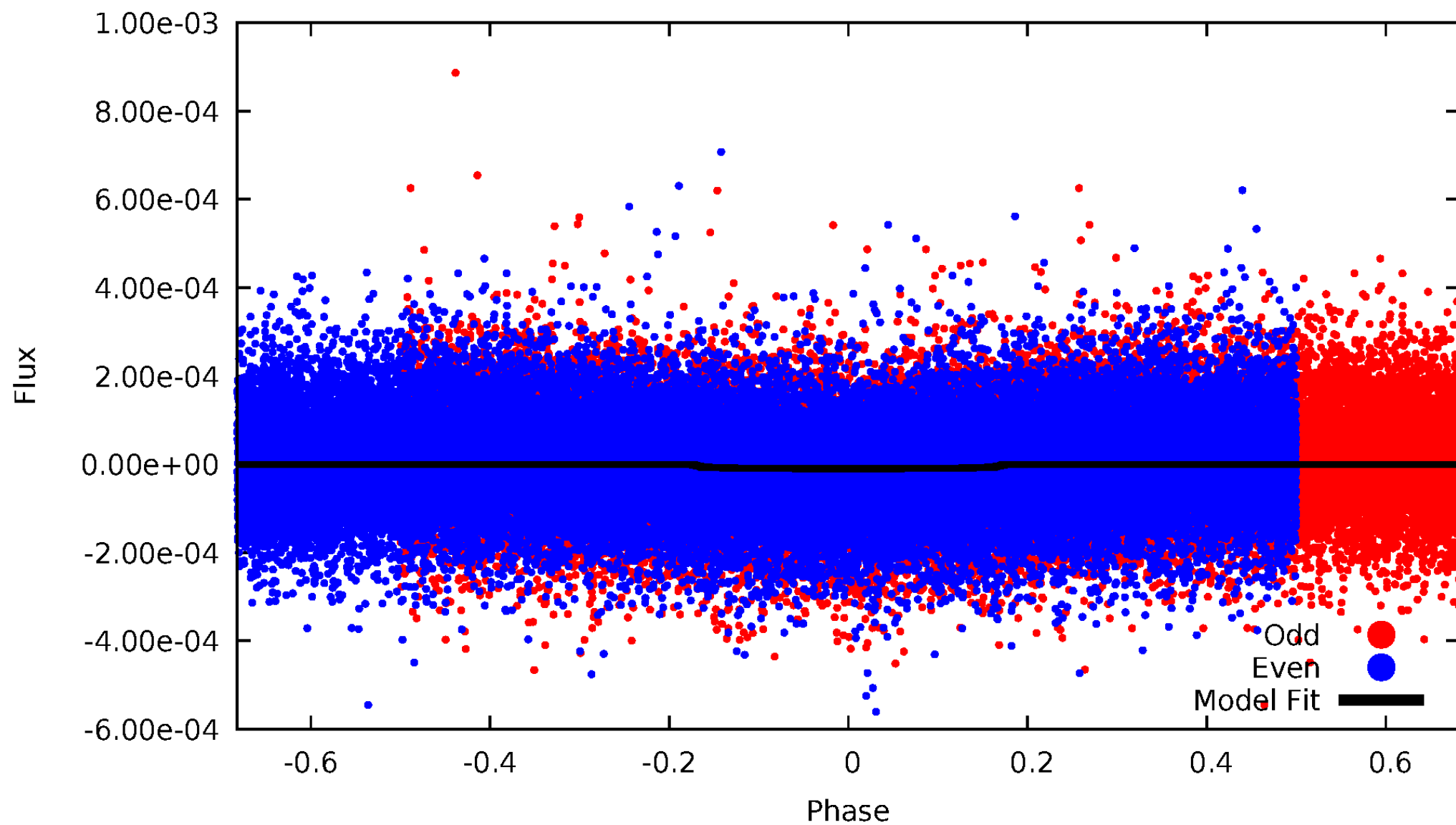


TCE 002574960-01



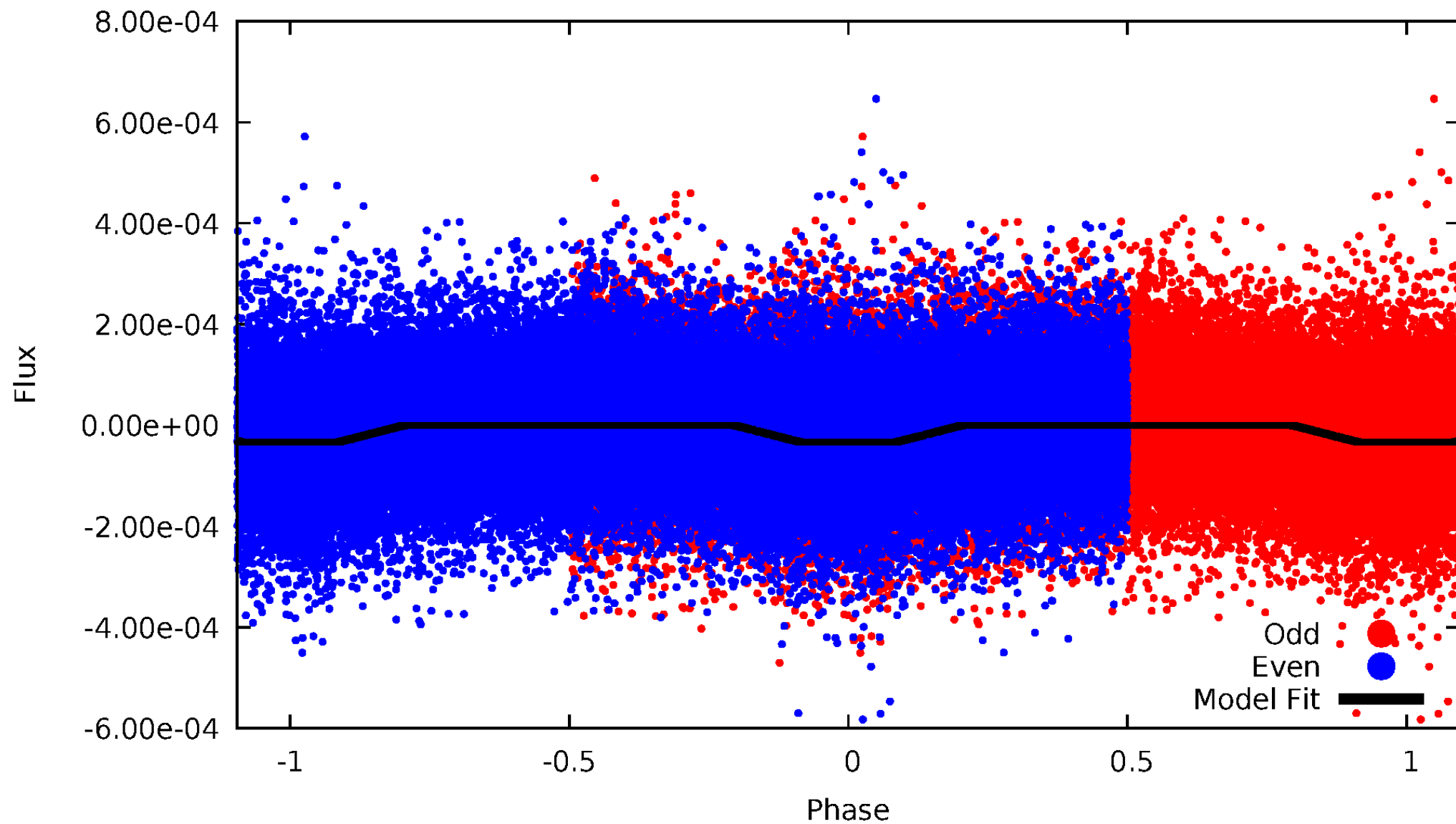
DV Odd/Even

TCE 002574960-01



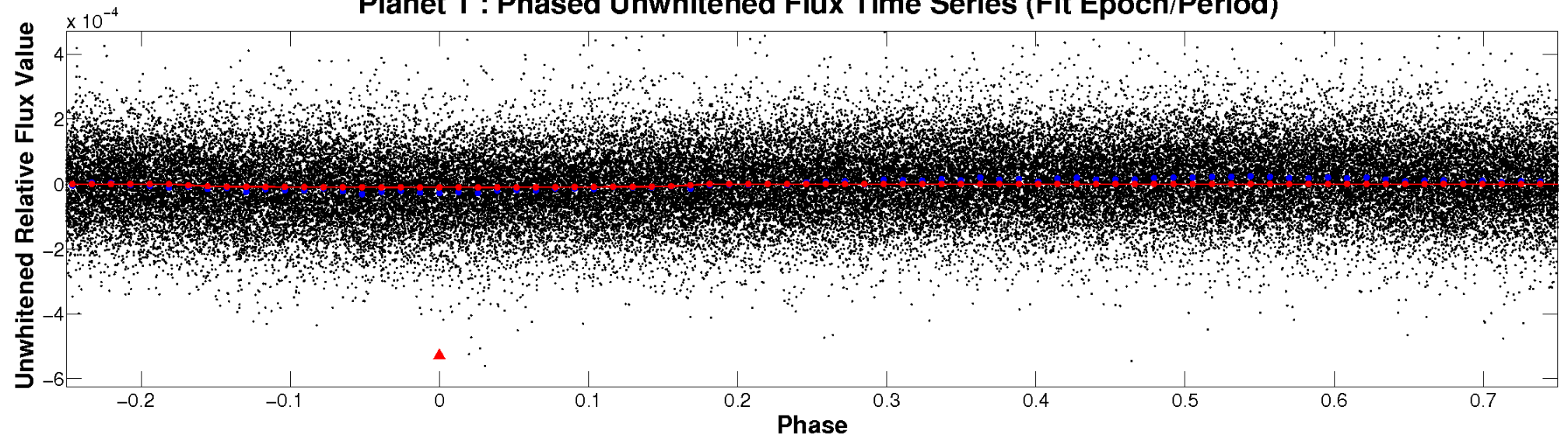
ALT Odd/Even

TCE 002574960-01

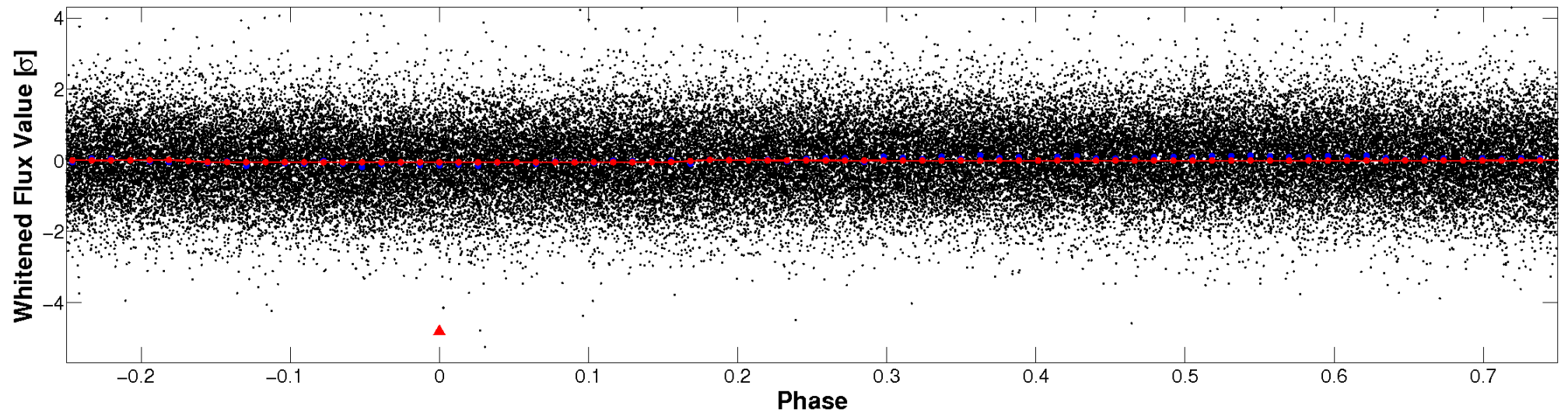


Non-Whitened Vs. Whitened Light Curve

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

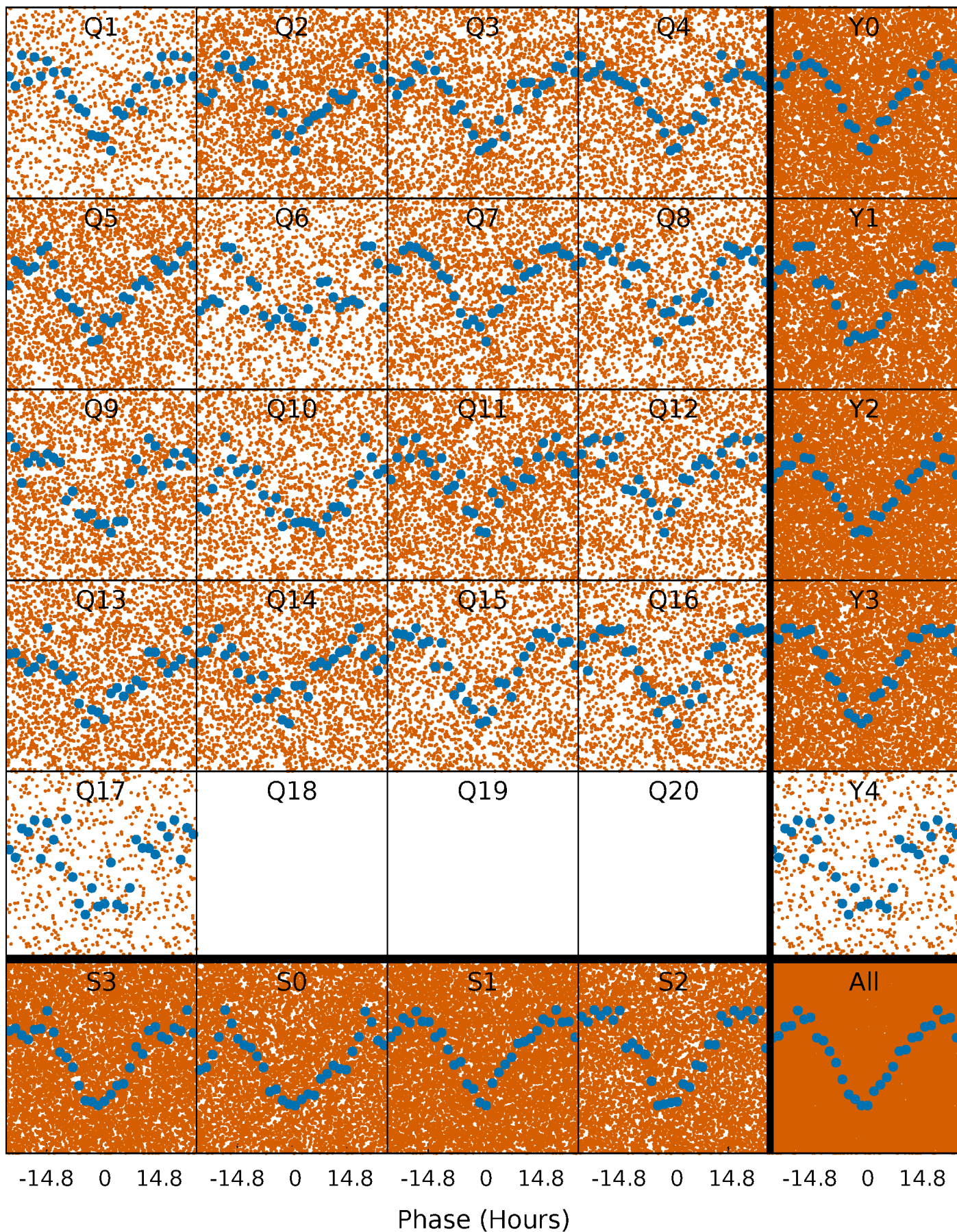


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



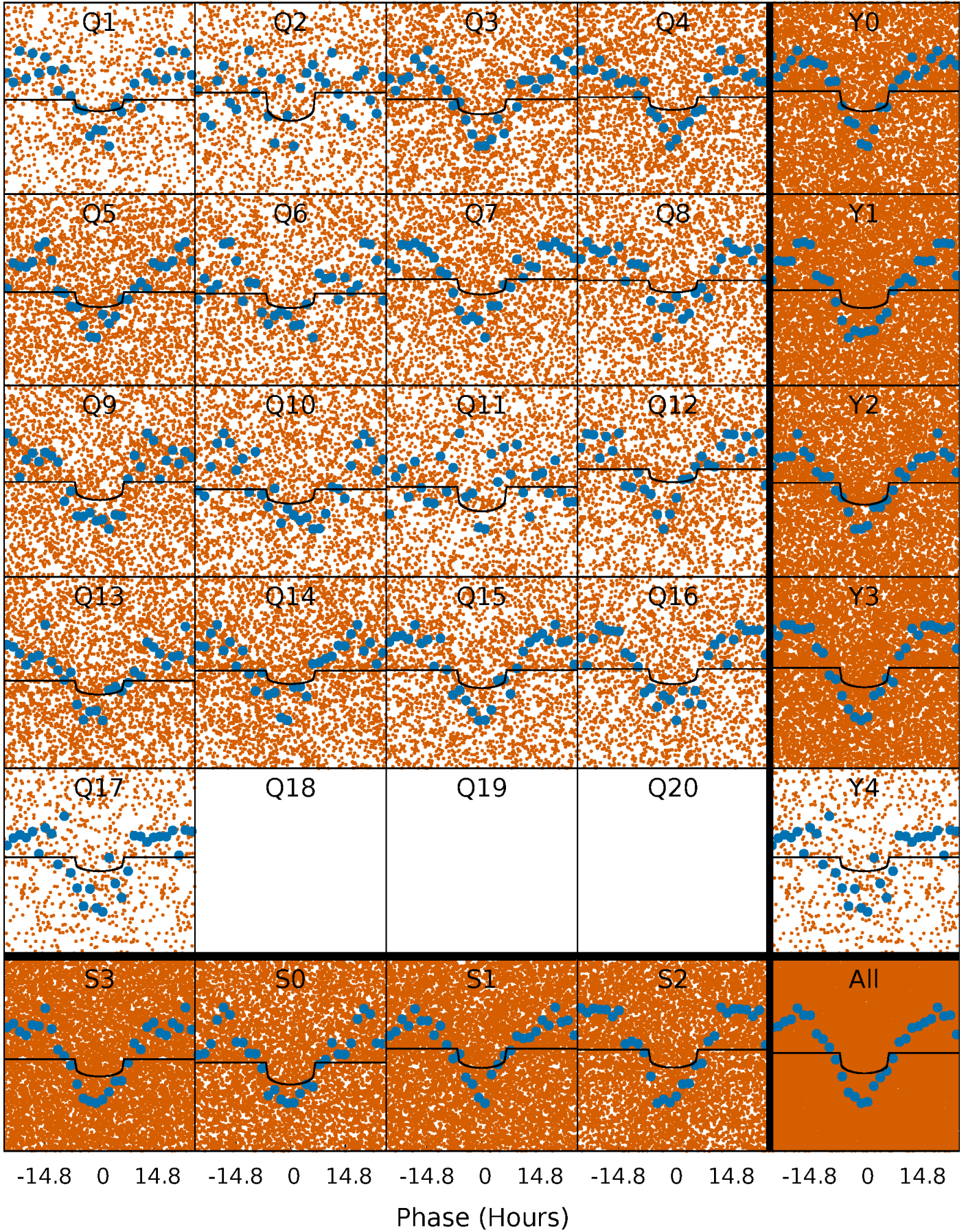
PDC Quarter-Phased Transit Curves

TCE 002574960-01 P= 1.577647 Days $T_0=131.565837$ (BKJD)



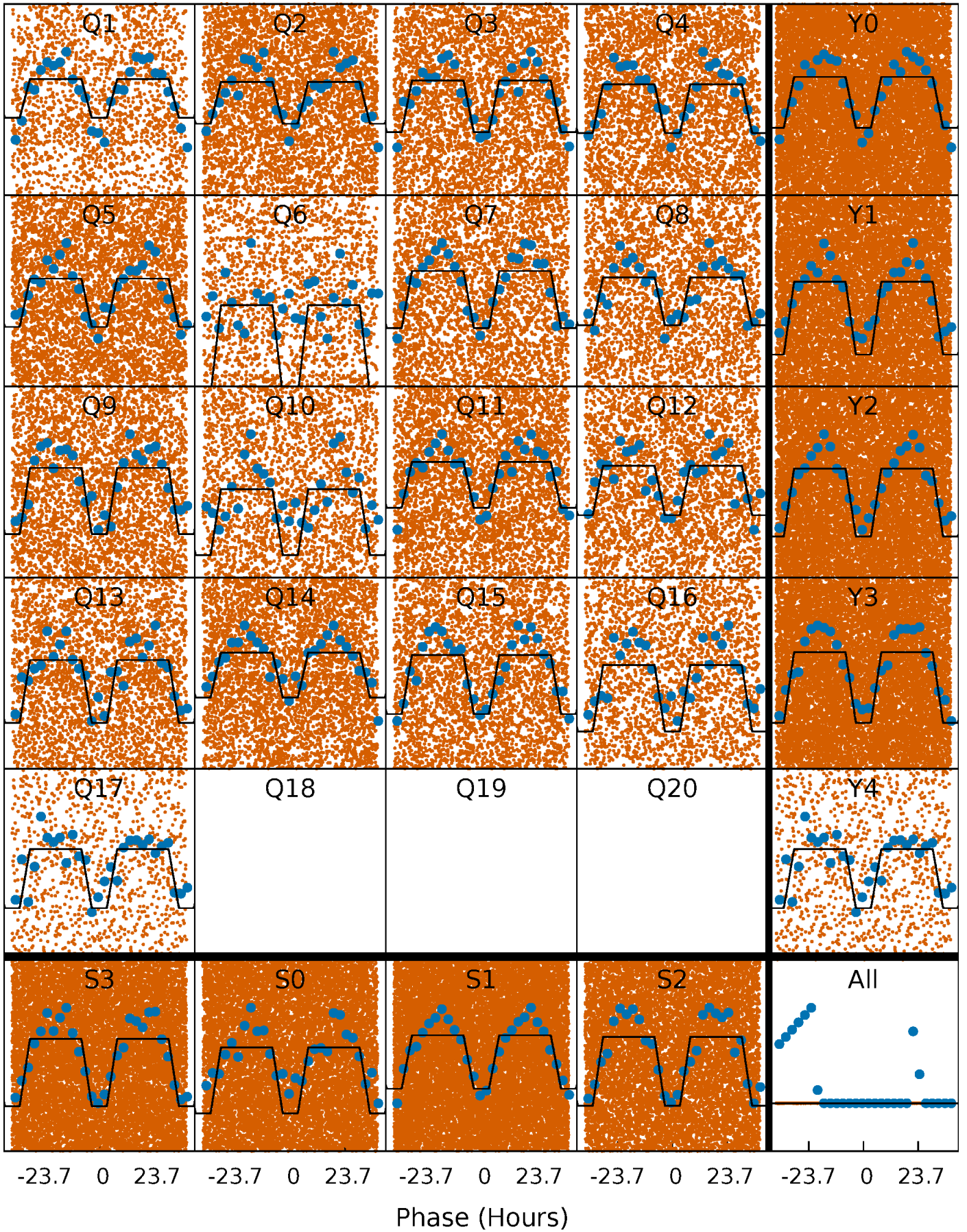
DV Quarter-Phased Transit Curves

TCE 002574960-01 P= 1.577647 Days $T_0=131.565837$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

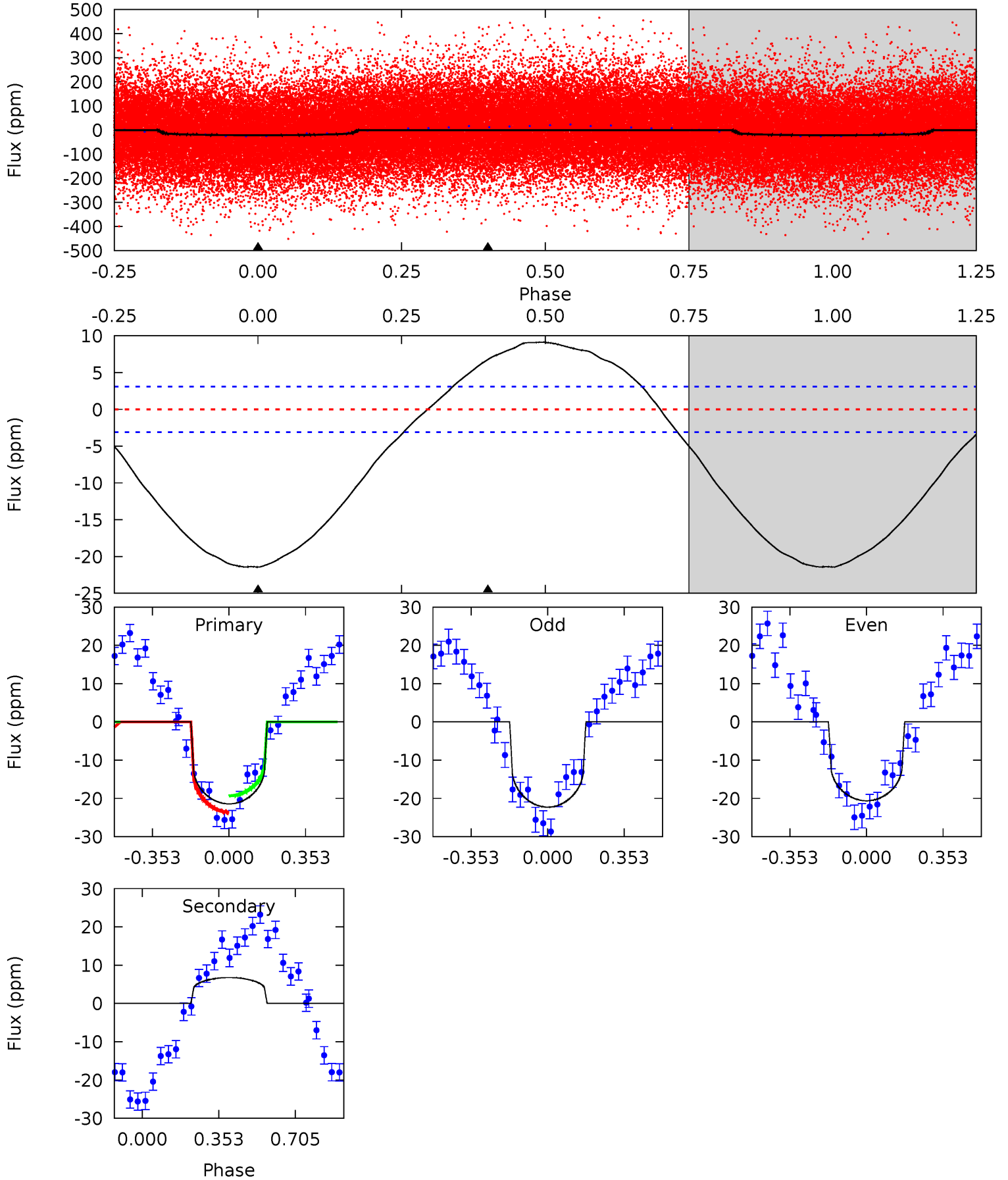
TCE 002574960-01 P= 1.577552 Days $T_0=131.583183$ (BKJD)



DV Model-Shift Uniqueness Test

002574960-01, P = 1.577647 Days, E = 129.988190 Days

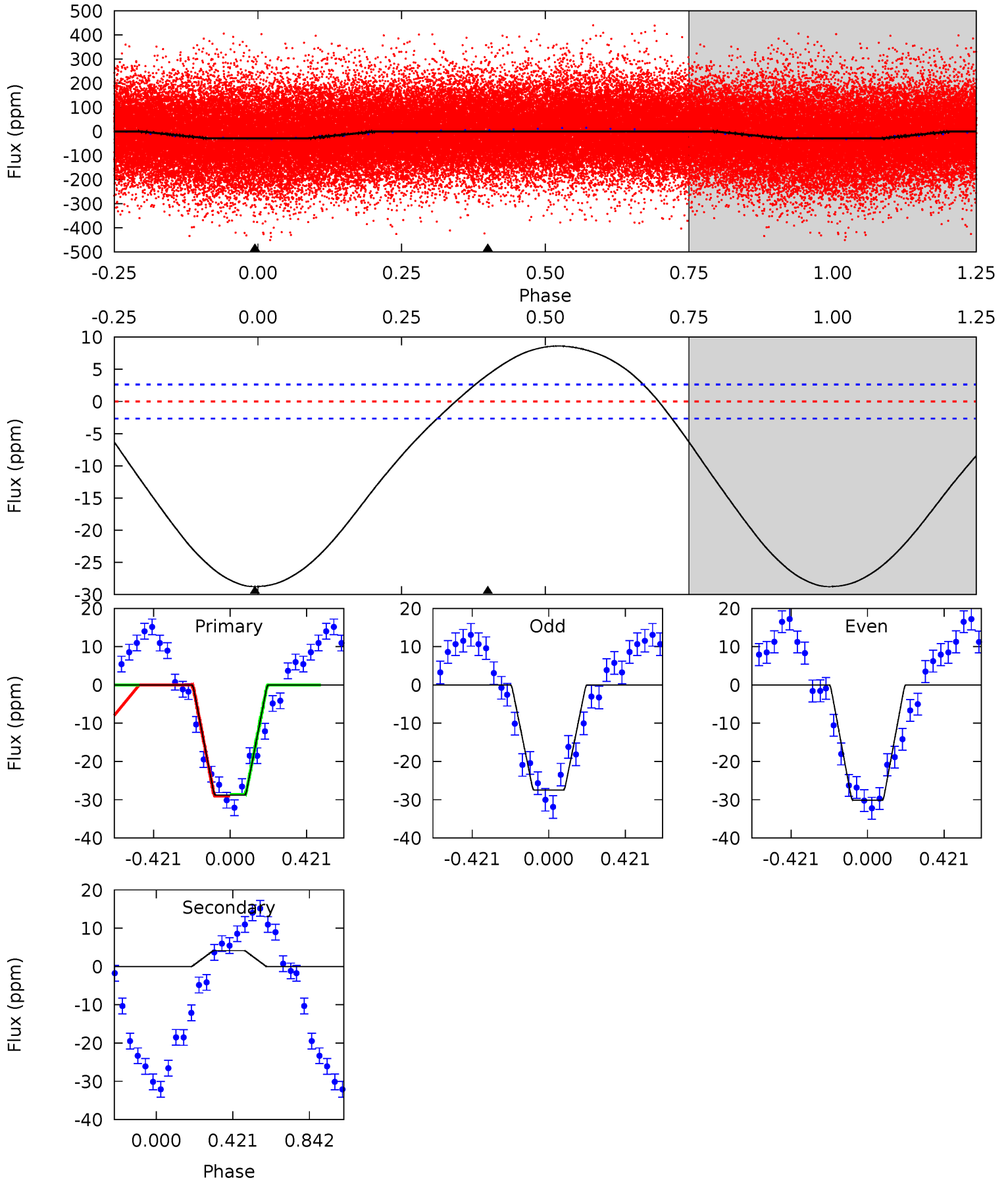
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
29.7	-9.39	0	0	4.29	0.93	4.03	29.7	29.7	-9.39	-9.39	1.14	1.02	0.30	2.97



Alt Model-Shift Uniqueness Test

002574960-01, P = 1.577552 Days, E = 130.005631 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
46.1	-6.66	0	0	4.25	0.80	5.01	46.1	46.1	-6.66	-6.66	2.12	1.00	0.23	0.32



Stellar Parameters For KIC 002574960

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	7286^{+202}_{-304}	$3.487^{+0.578}_{-0.068}$	$0.070^{+0.200}_{-0.300}$	$4.415^{+0.281}_{-2.529}$	$2.182^{+0.246}_{-0.614}$	$0.036^{+0.276}_{-0.004}$
	+3%/-4%	+17%/-2%	+286%/-429%	+6%/-57%	+11%/-28%	+772%/-11%
Source	KIC0	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 002574960-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	7 ± 1	$1.38^{+1.15}_{-0.85}$	4915^{+305}_{-607}	-6646^{+1279}_{-4956}	$-2.370^{+1.666}_{-12.407}$
Alt.	4 ± 1	$2.37^{+1.45}_{-1.13}$	4911^{+312}_{-629}	-4975^{+374}_{-1003}	$-0.449^{+0.263}_{-1.239}$

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

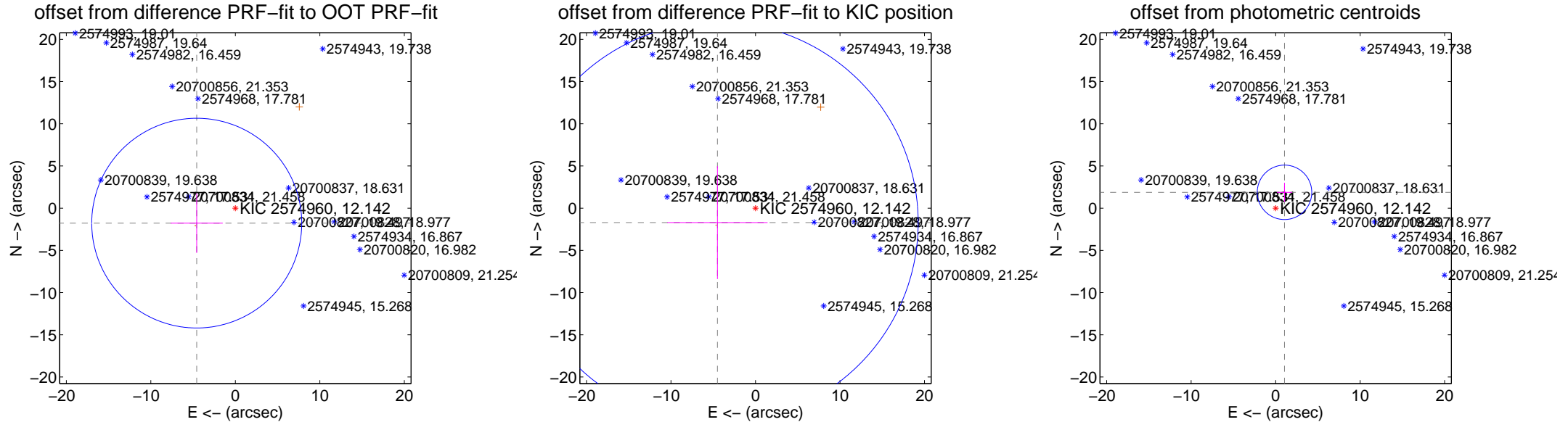
DV Centroid Data

Supplemental centroid analysis for 002574960-01. Kepler magnitude: 12.14. Transit SNR 8.05

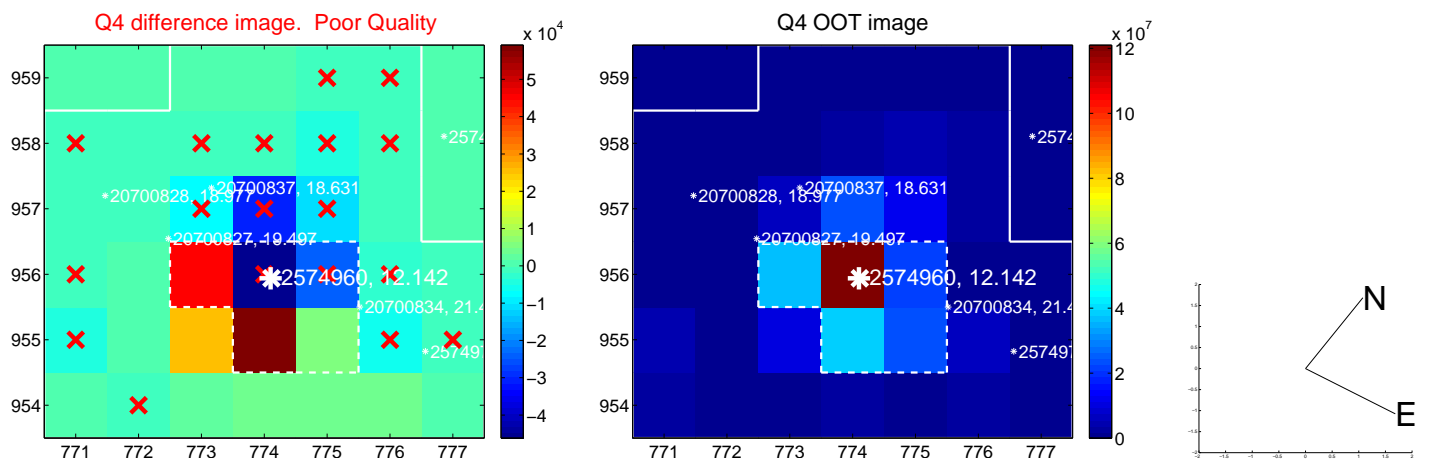
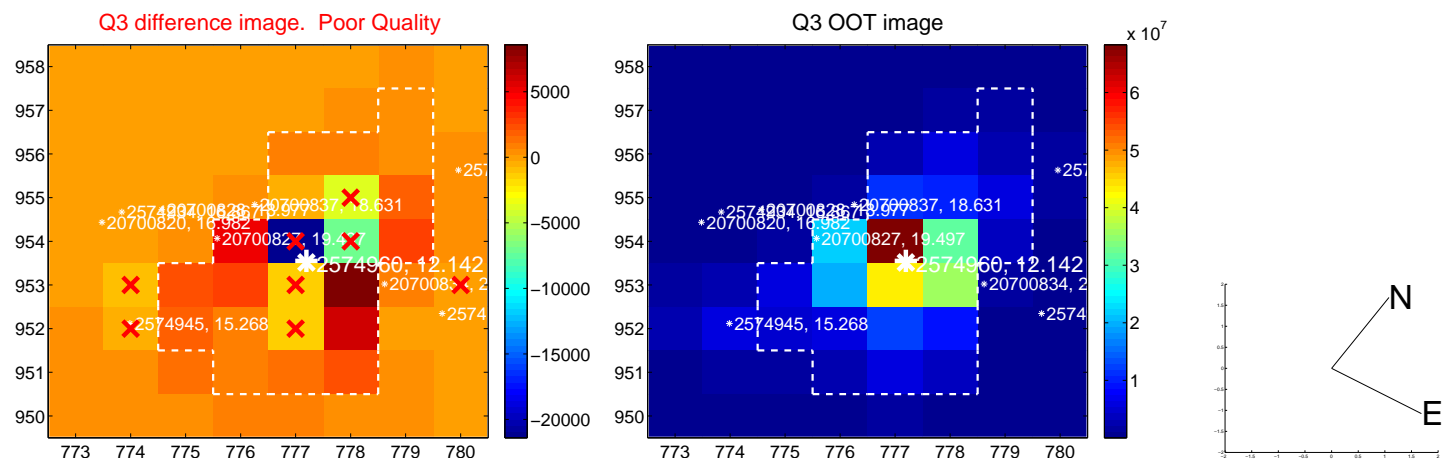
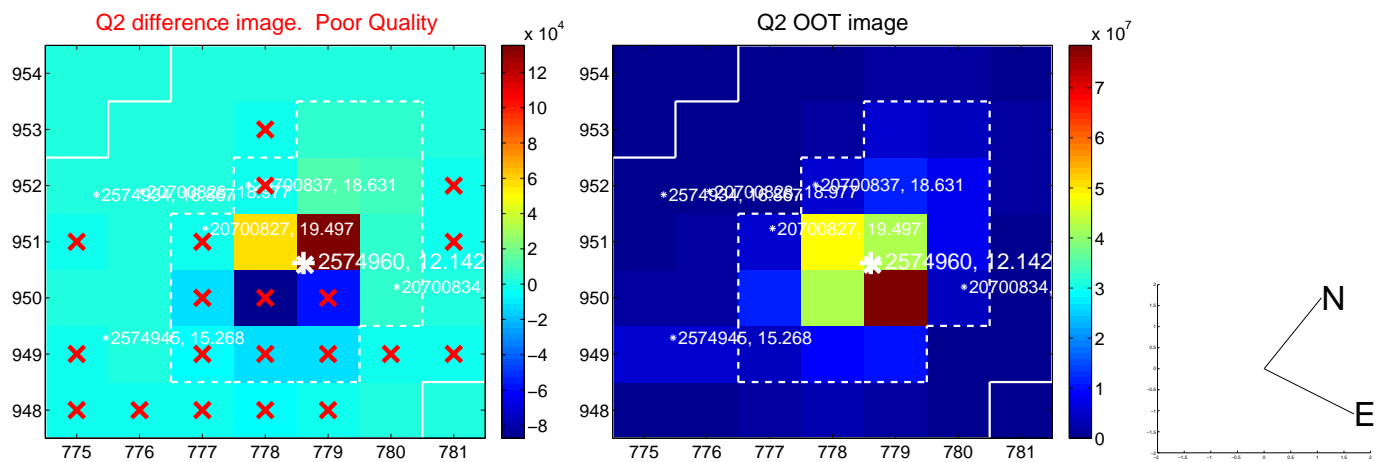
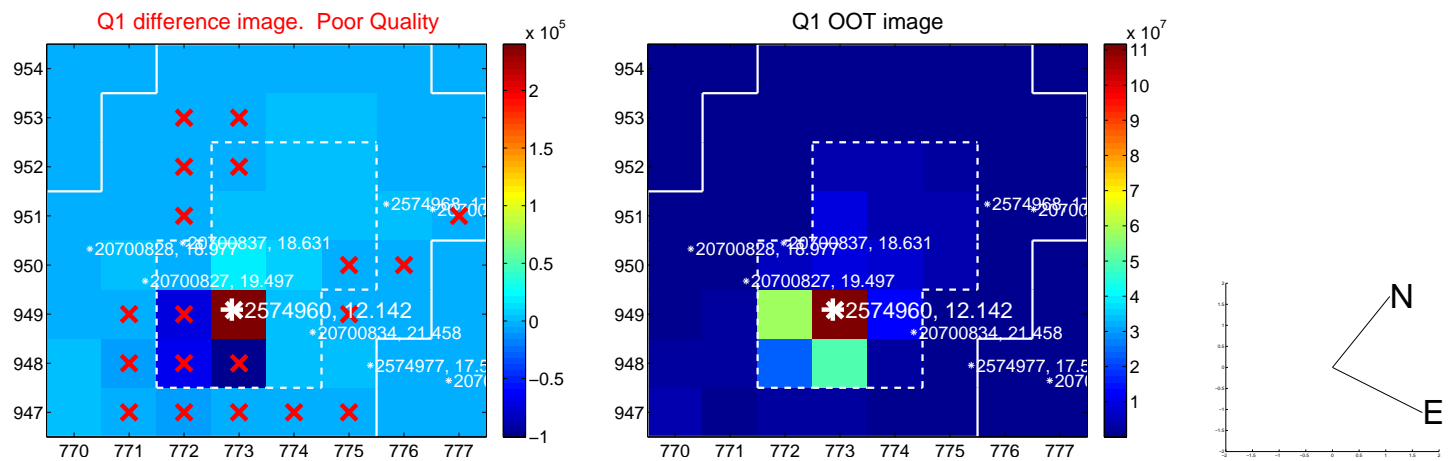
There are 0 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.15 arcsec

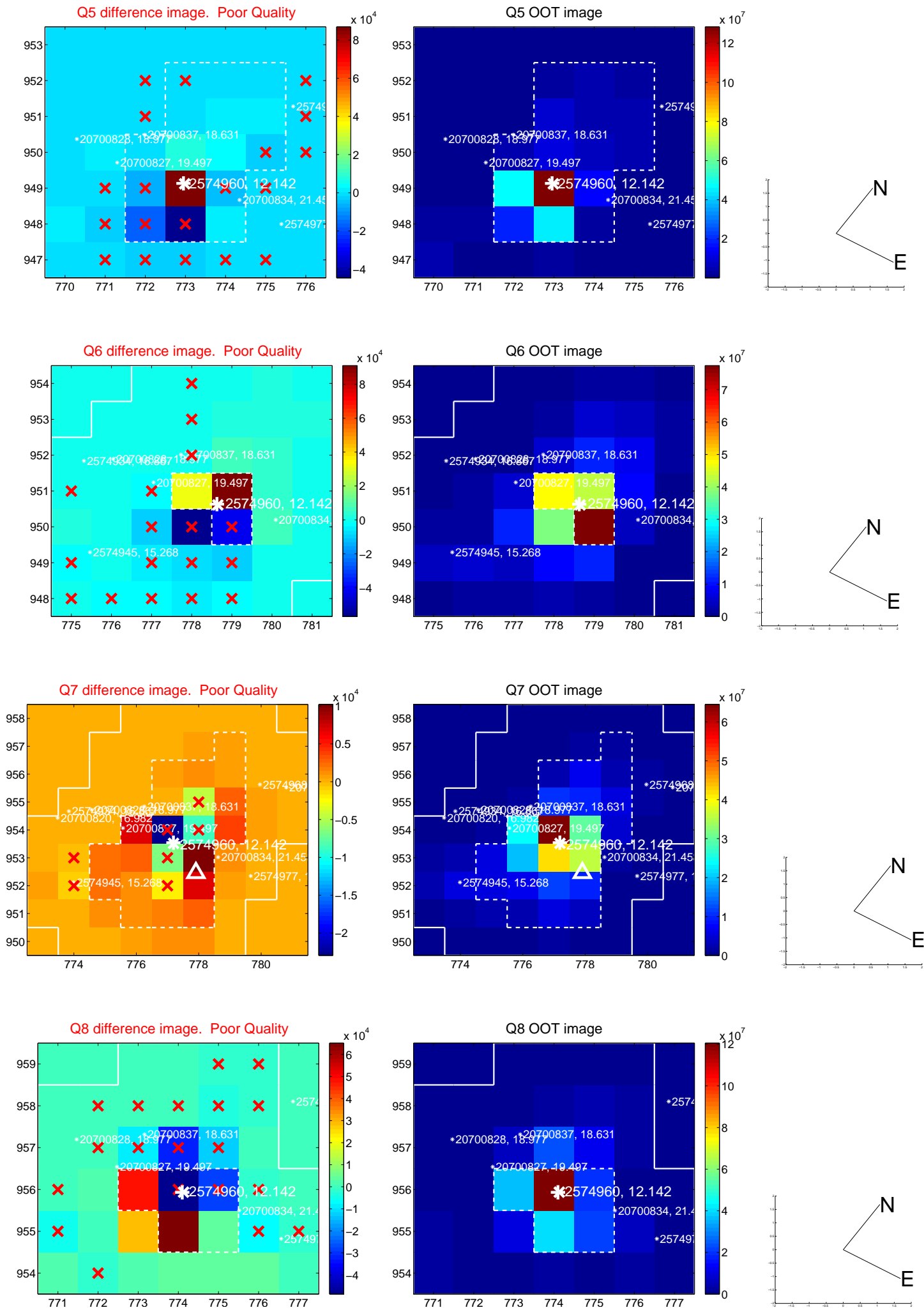
	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	4.902 ± 4.143	1.18	4.570 ± 3.078	-1.772 ± 3.523
PRF-fit source offset from KIC position	4.816 ± 7.921	0.61	4.503 ± 5.931	-1.708 ± 6.697
photometric centroid source offset	2.15 ± 1.08	2.00	-1.05 ± 0.90	1.88 ± 1.13



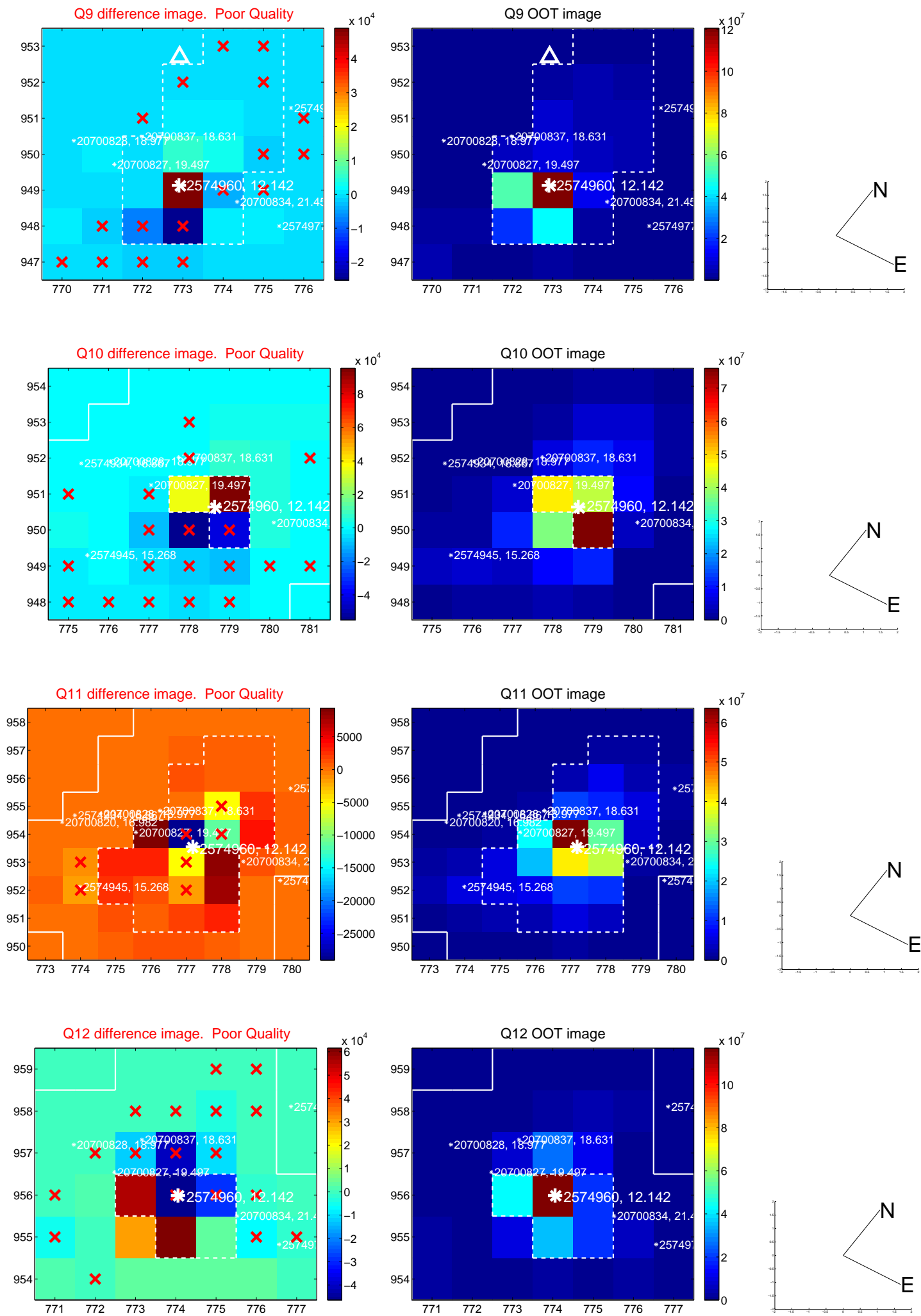
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



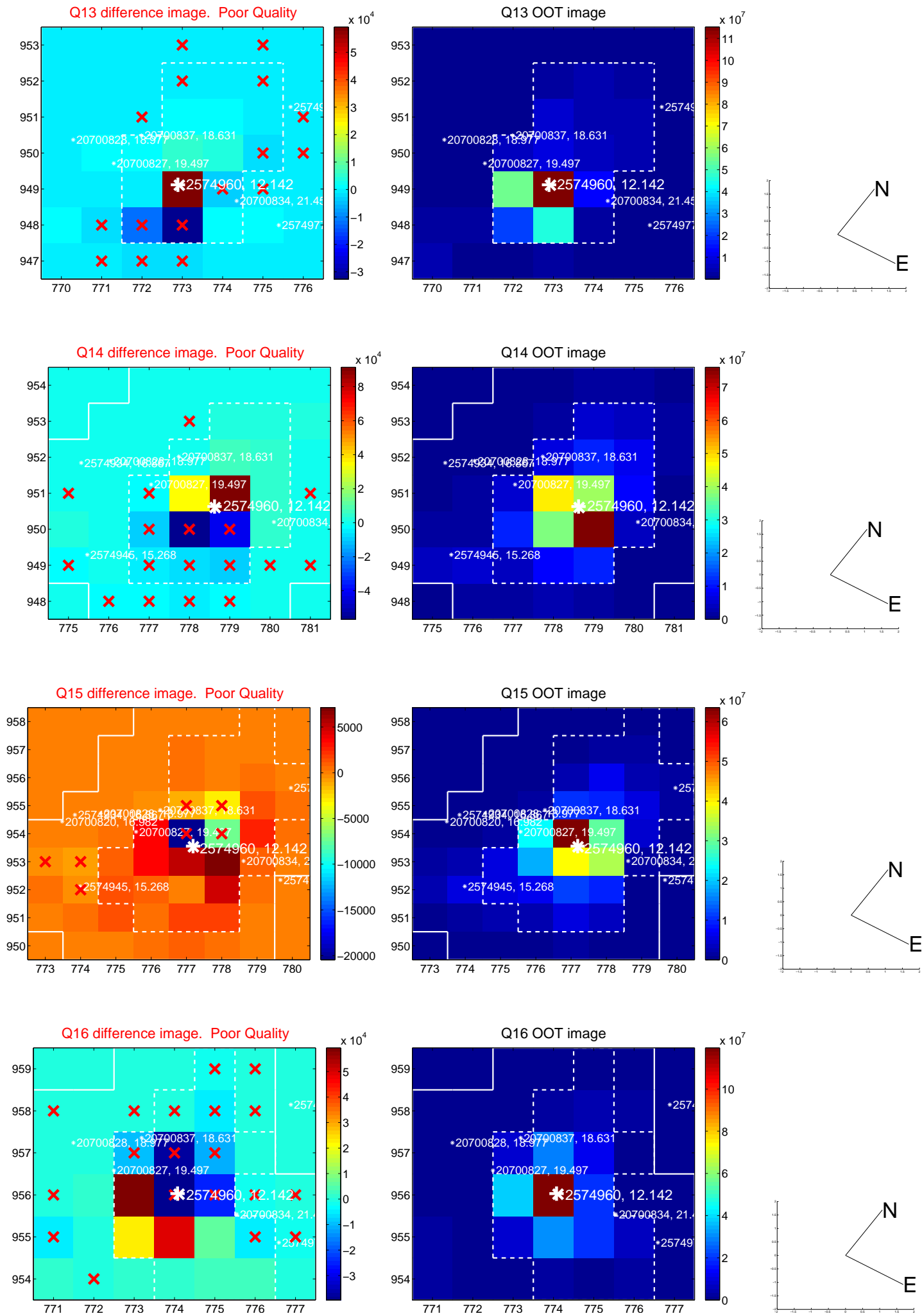
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



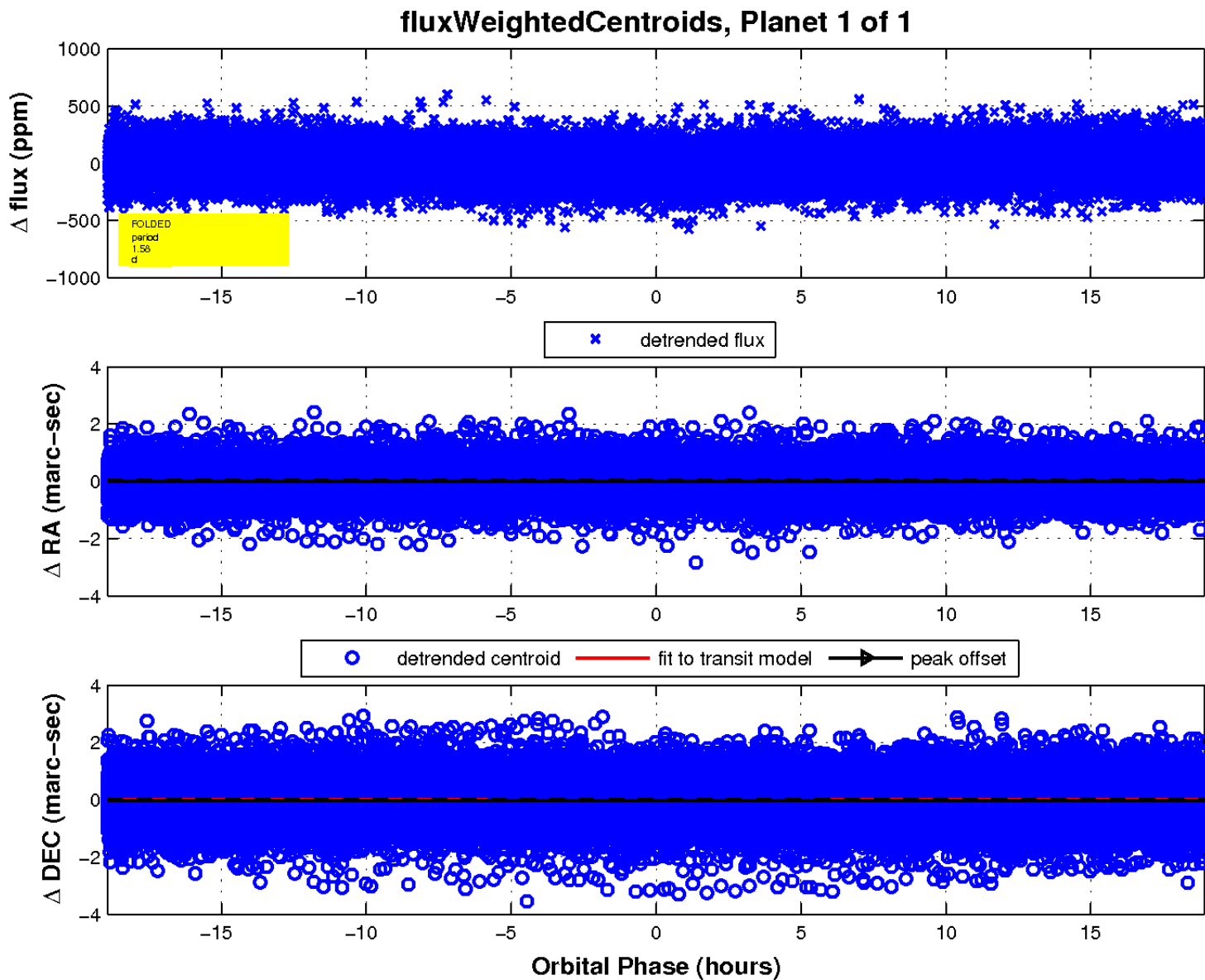
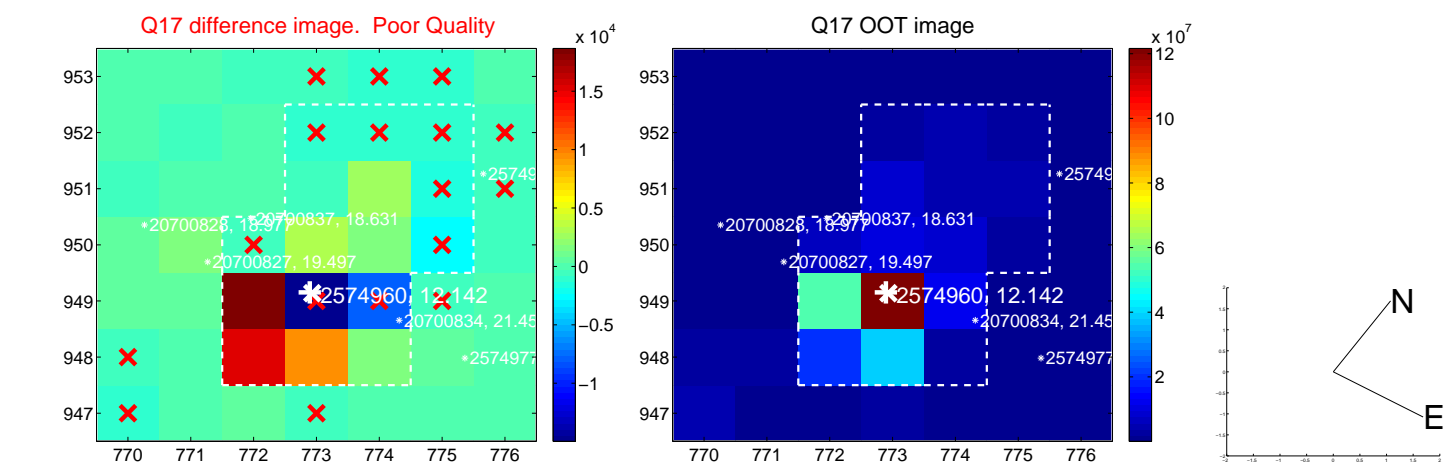
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

