

KIC 004547321

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})
004547321-01	OBS	No	0.576886	131.572859	25.6	5.043	8.7	11.2	5.00	4927	2.48	0.00

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004547321-01	OBS	FP	0.00	1	0	1	0	LPP_DV—LPP_ALT—CENT_RESOLVED_OFFSET—HALO_GHOST

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

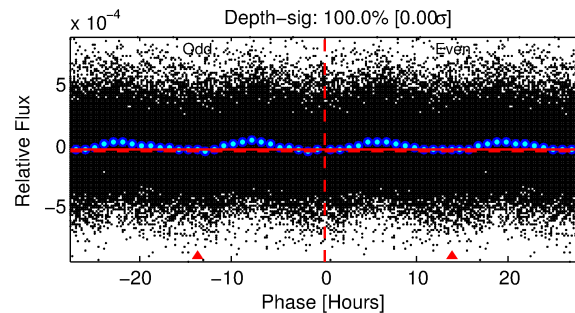
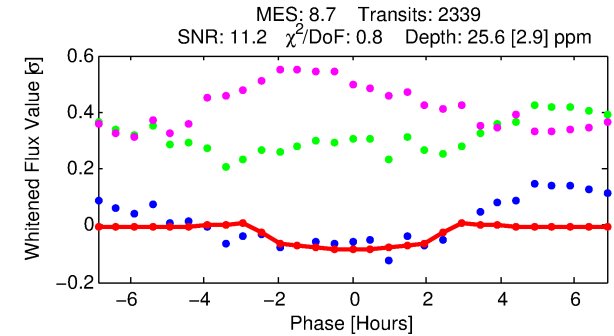
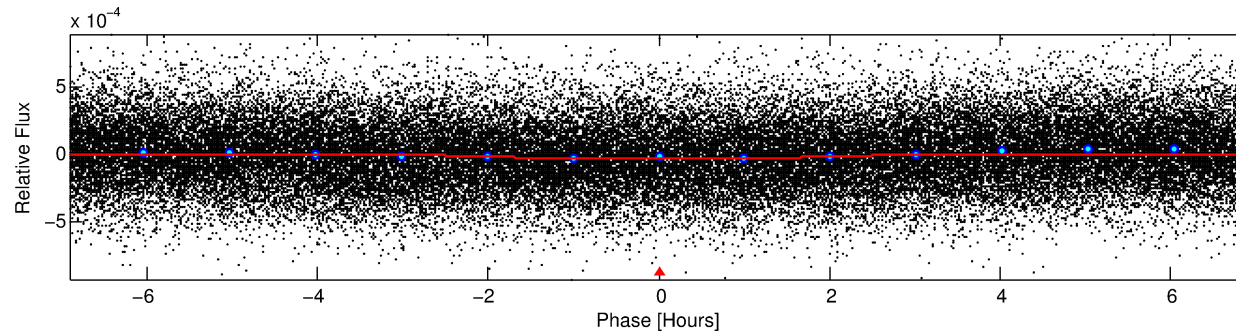
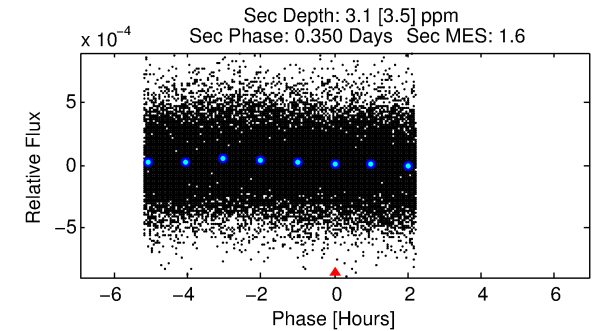
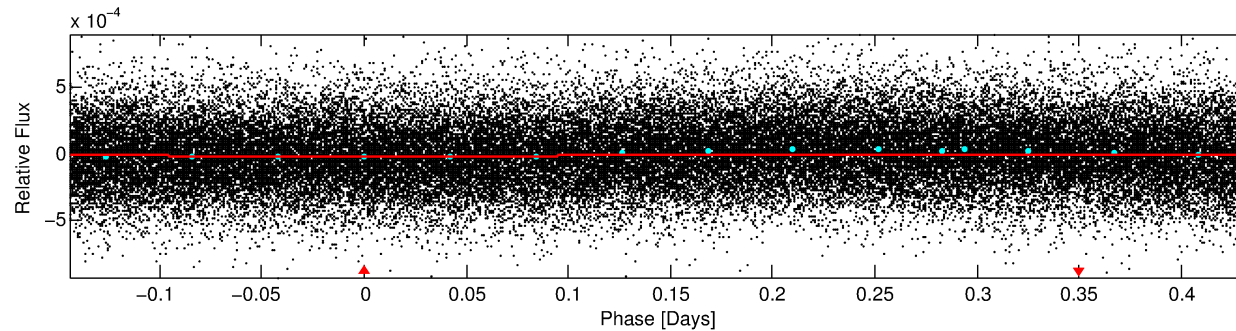
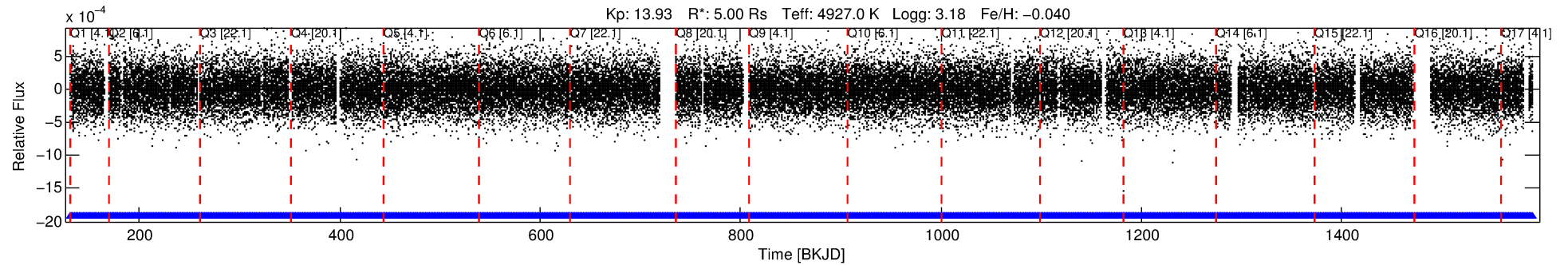
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 004547321-01

No Significant Match Found

DV One-Page Summary

KIC: 4547321 Candidate: 1 of 1 Period: 0.577 d



DV Fit Results:

Period = 0.57689 [0.00001] d
Epoch = 131.5729 [0.0049] BKJD
Rp/R* = 0.0045 [0.0035]
a/R* = 1.09 [0.46]
b = 0.30 [8.20]
Seff = N/A
Teq = N/A
Rp = 2.48 [2.21] Re
a = N/A
Ag = N/A
Teffp = N/A

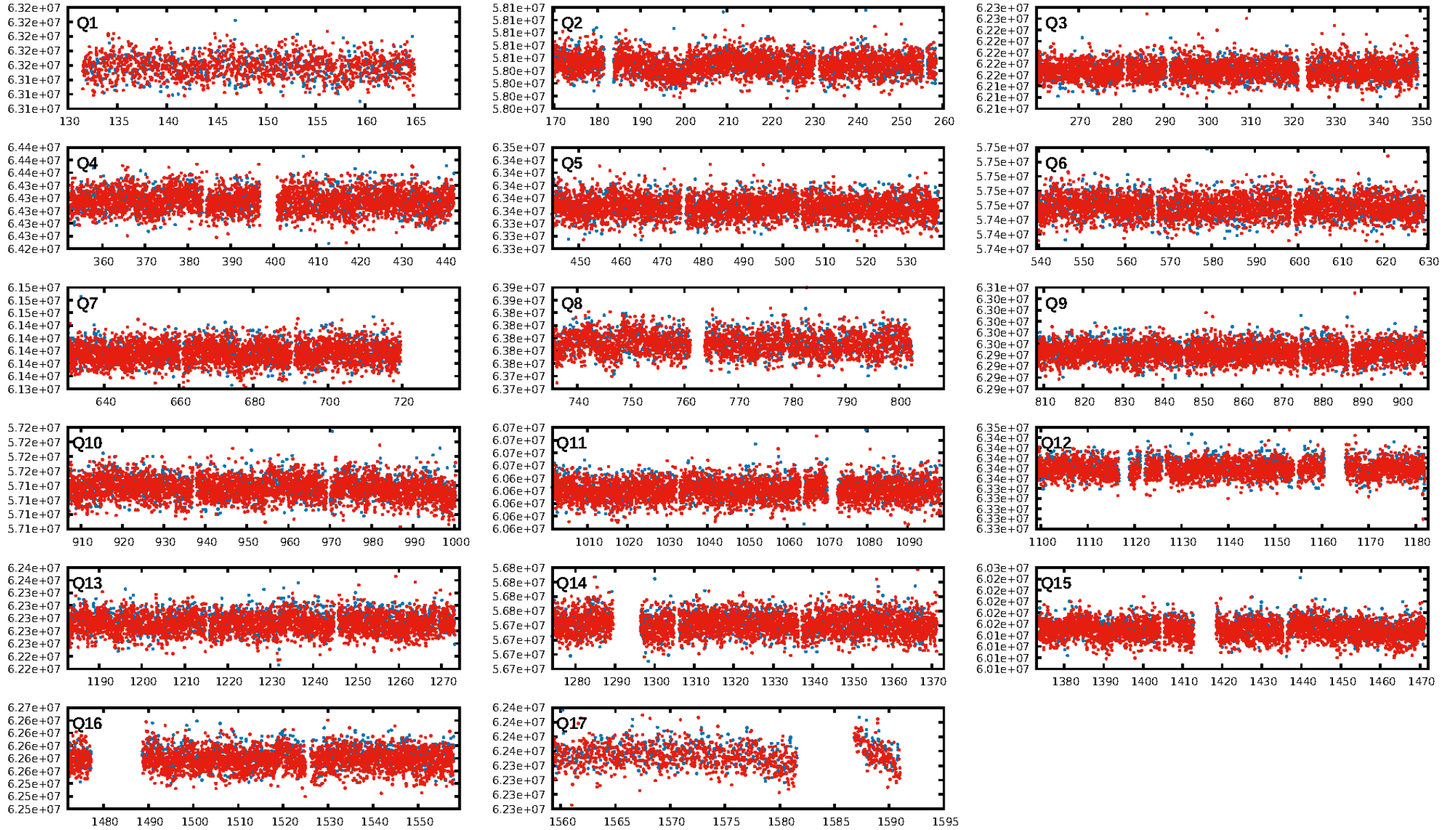
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [2233/2233]
GhostDiagnostic-chr: -0.2457
Centroid-sig: 7.3%
Centroid-so: 1.312 arcsec [1.59σ]
OotOffset-rm: N/A
KicOffset-rm: N/A
OotOffset-st: 0/0/0 [0]
KicOffset-st: 0/0/0 [0]
DiffImageQuality-fgm: N/A
DiffImageOverlap-fno: 1.00 [17/17]

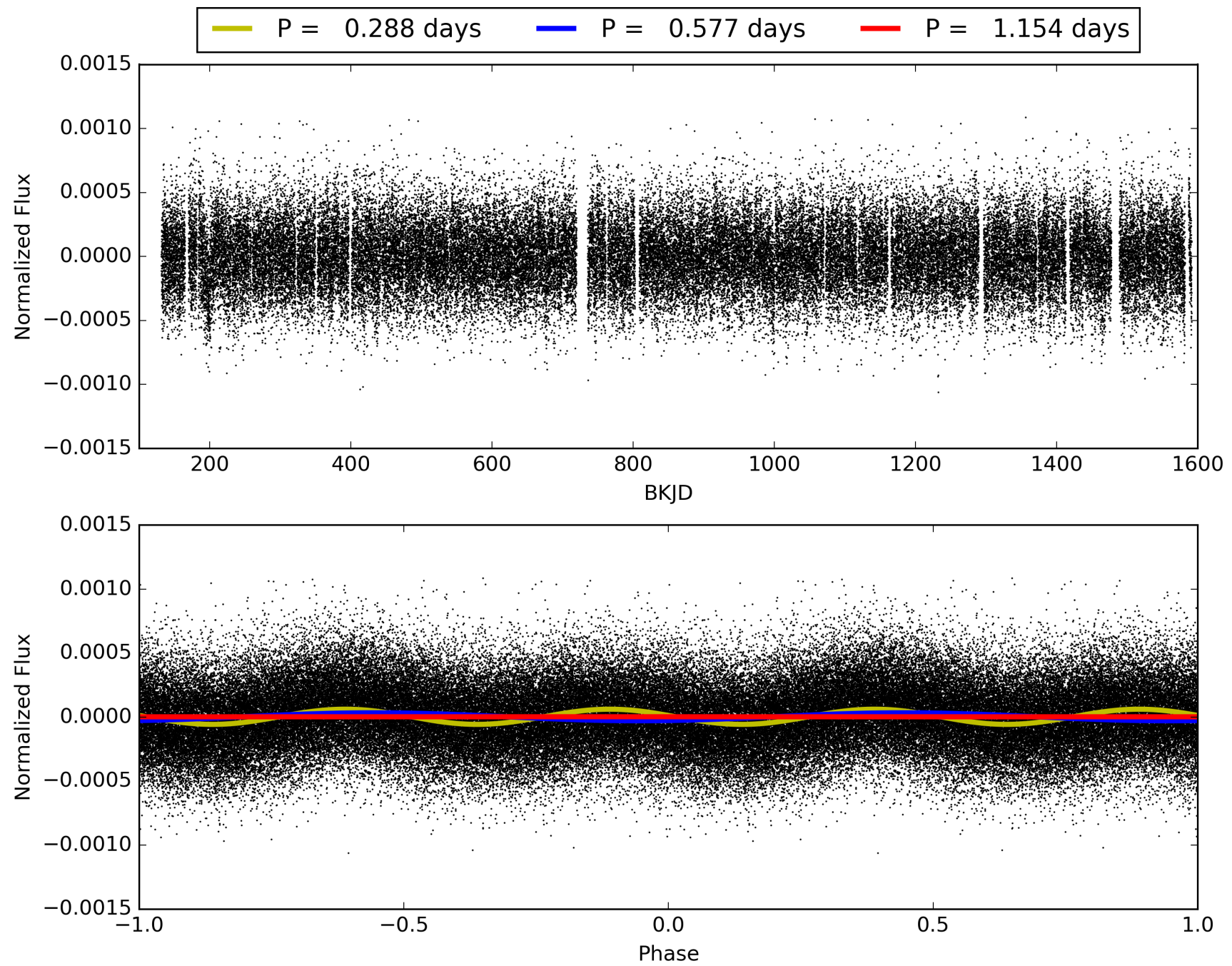
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 03:42:14 Z

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

TCE 004547321-01, PDC Light Curves

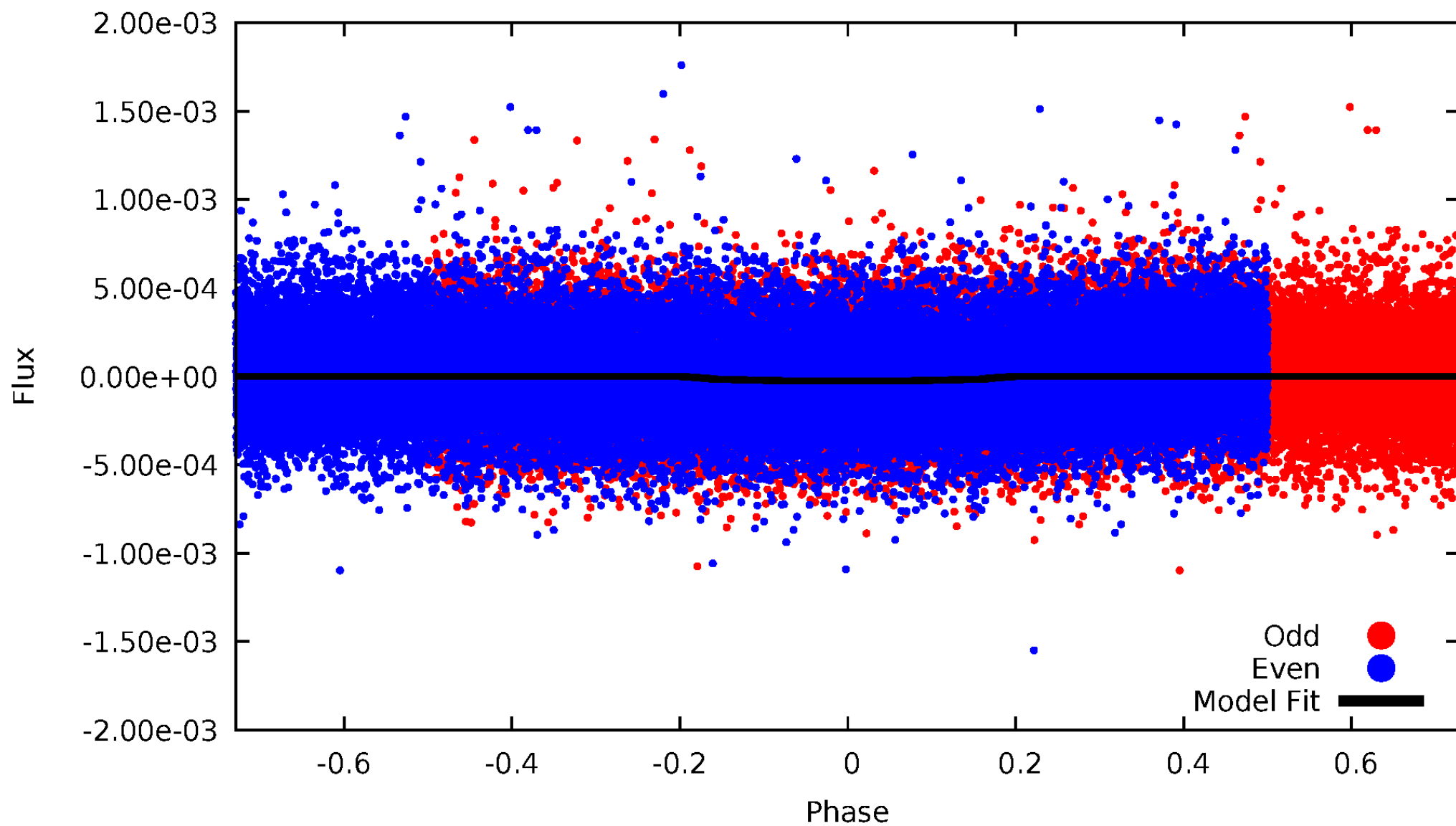


TCE 004547321-01



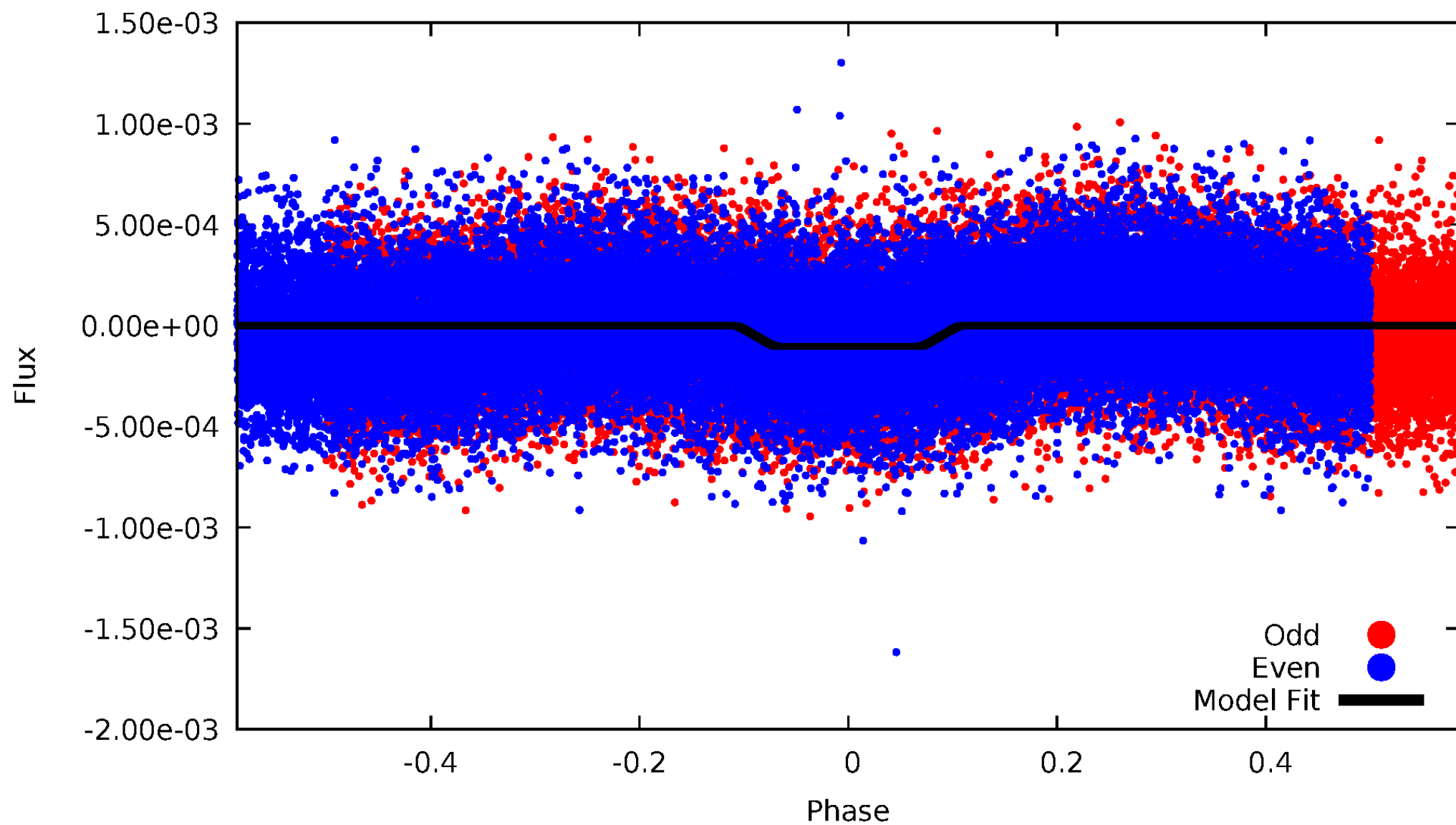
DV Odd/Even

TCE 004547321-01



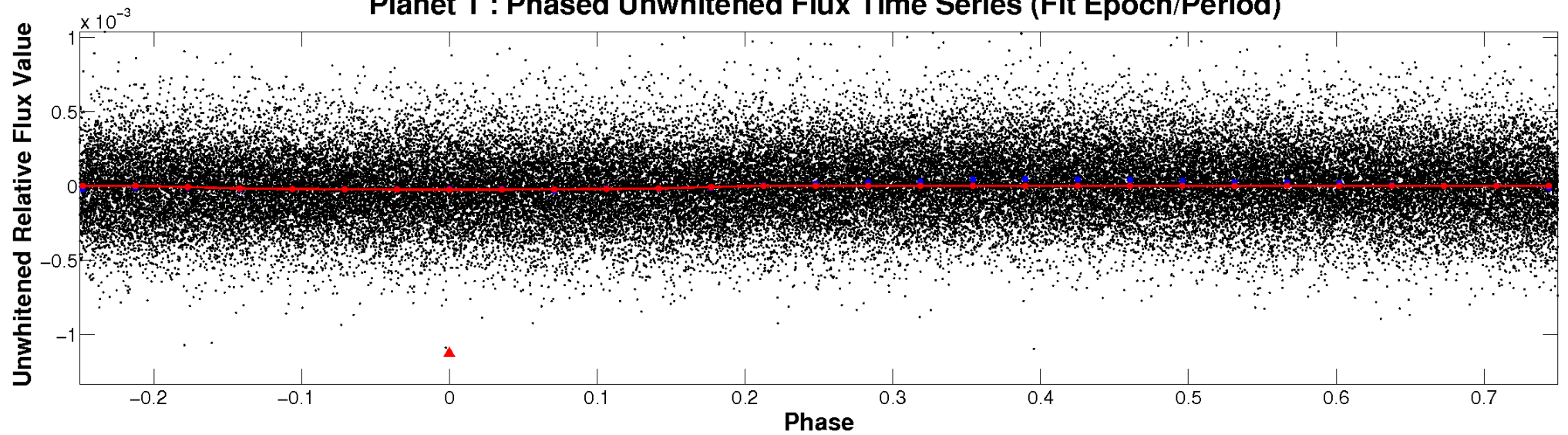
ALT Odd/Even

TCE 004547321-01

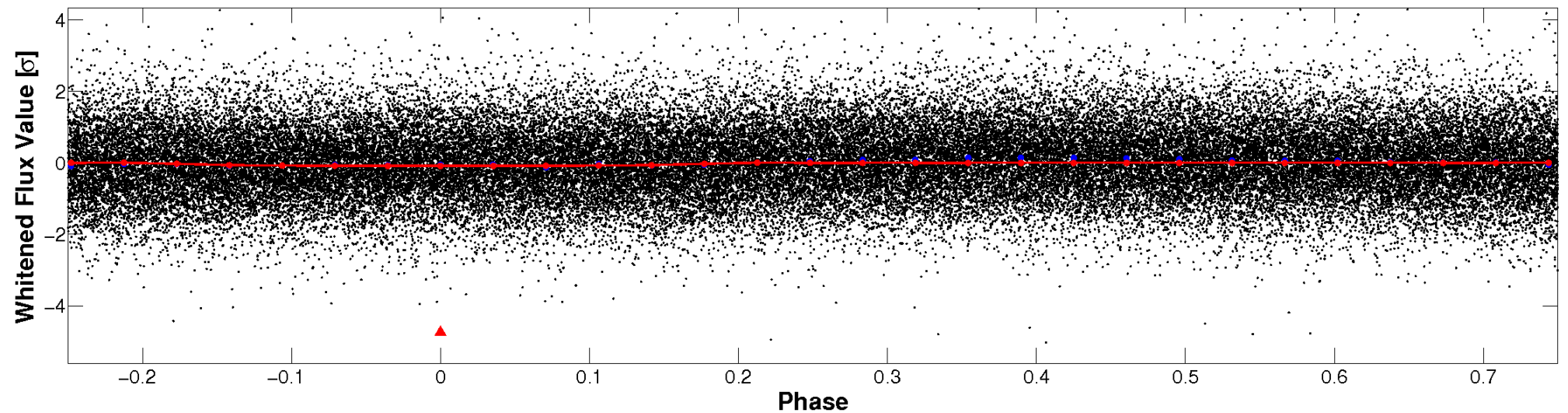


Non-Whitened Vs. Whitened Light Curve

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

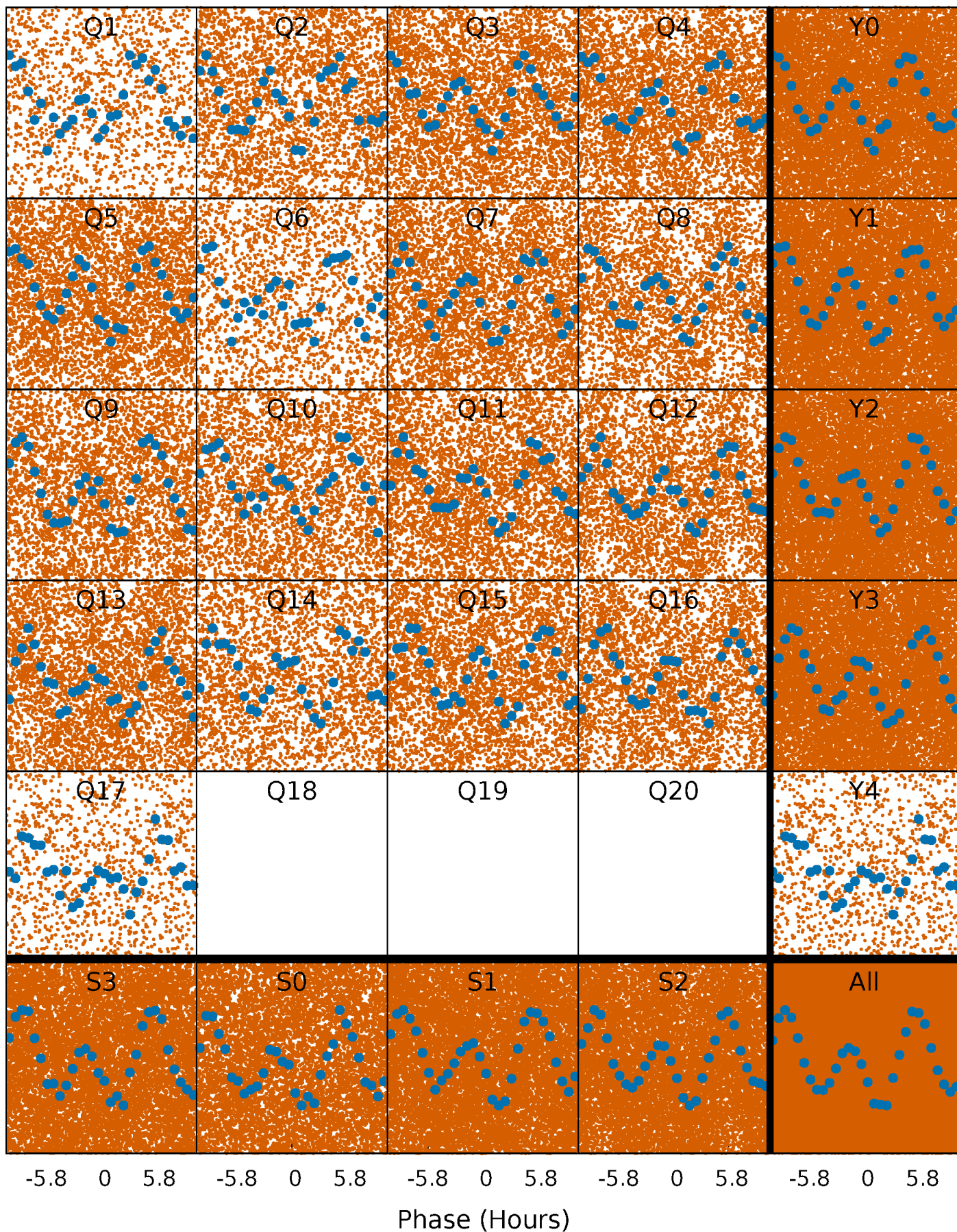


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



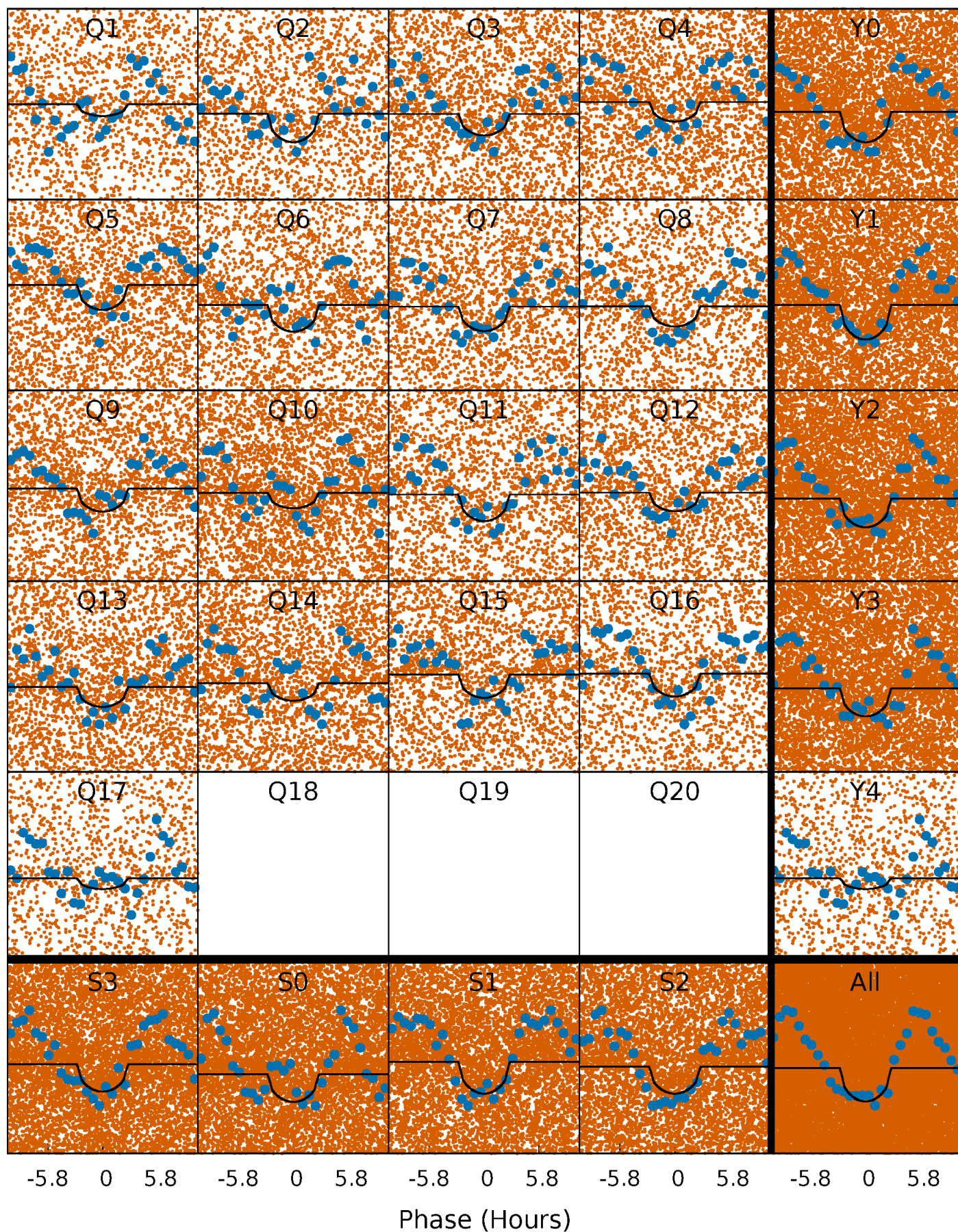
PDC Quarter-Phased Transit Curves

TCE 004547321-01 P= 0.576886 Days $T_0=131.572859$ (BKJD)



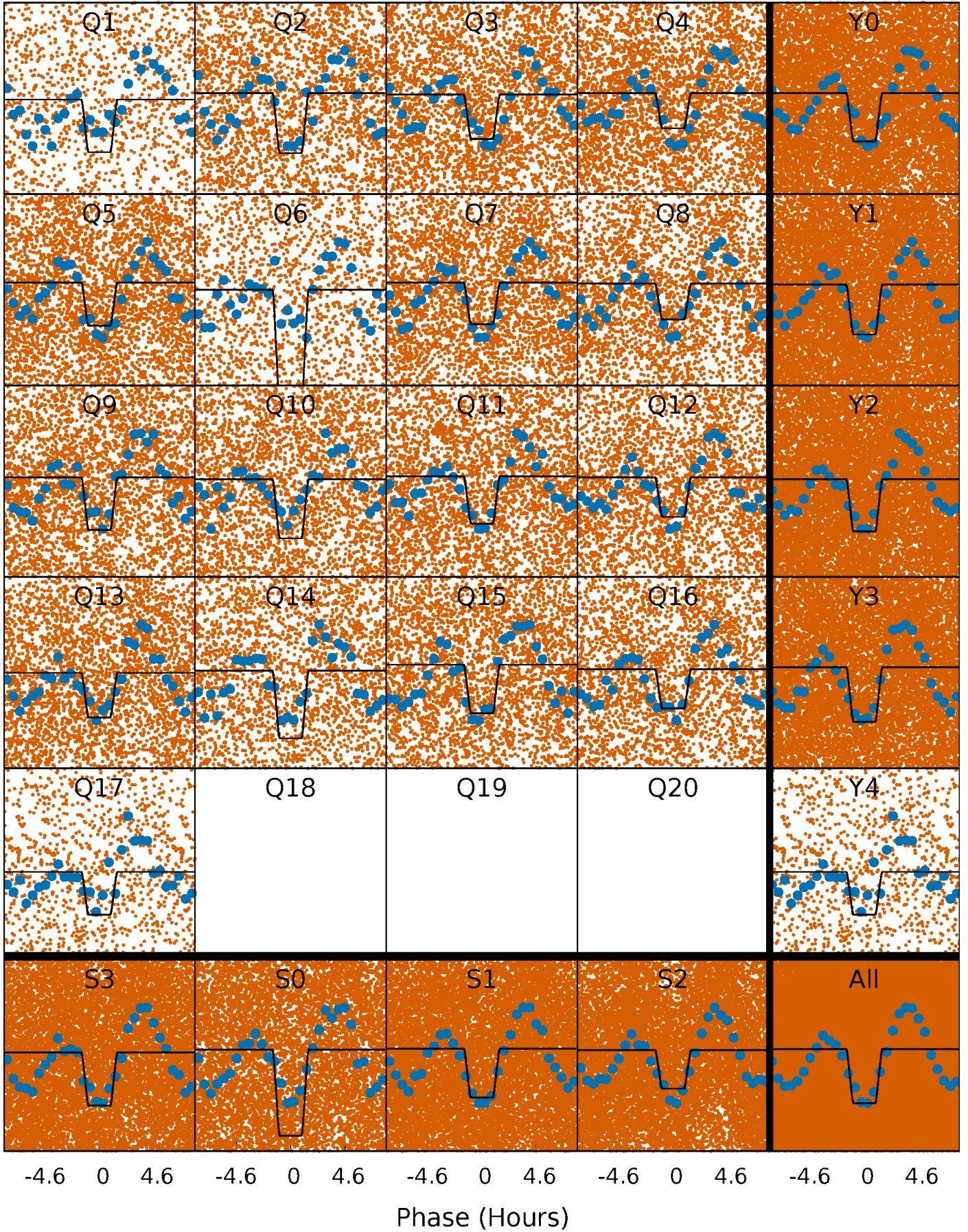
DV Quarter-Phased Transit Curves

TCE 004547321-01 P= 0.576886 Days $T_0=131.572859$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

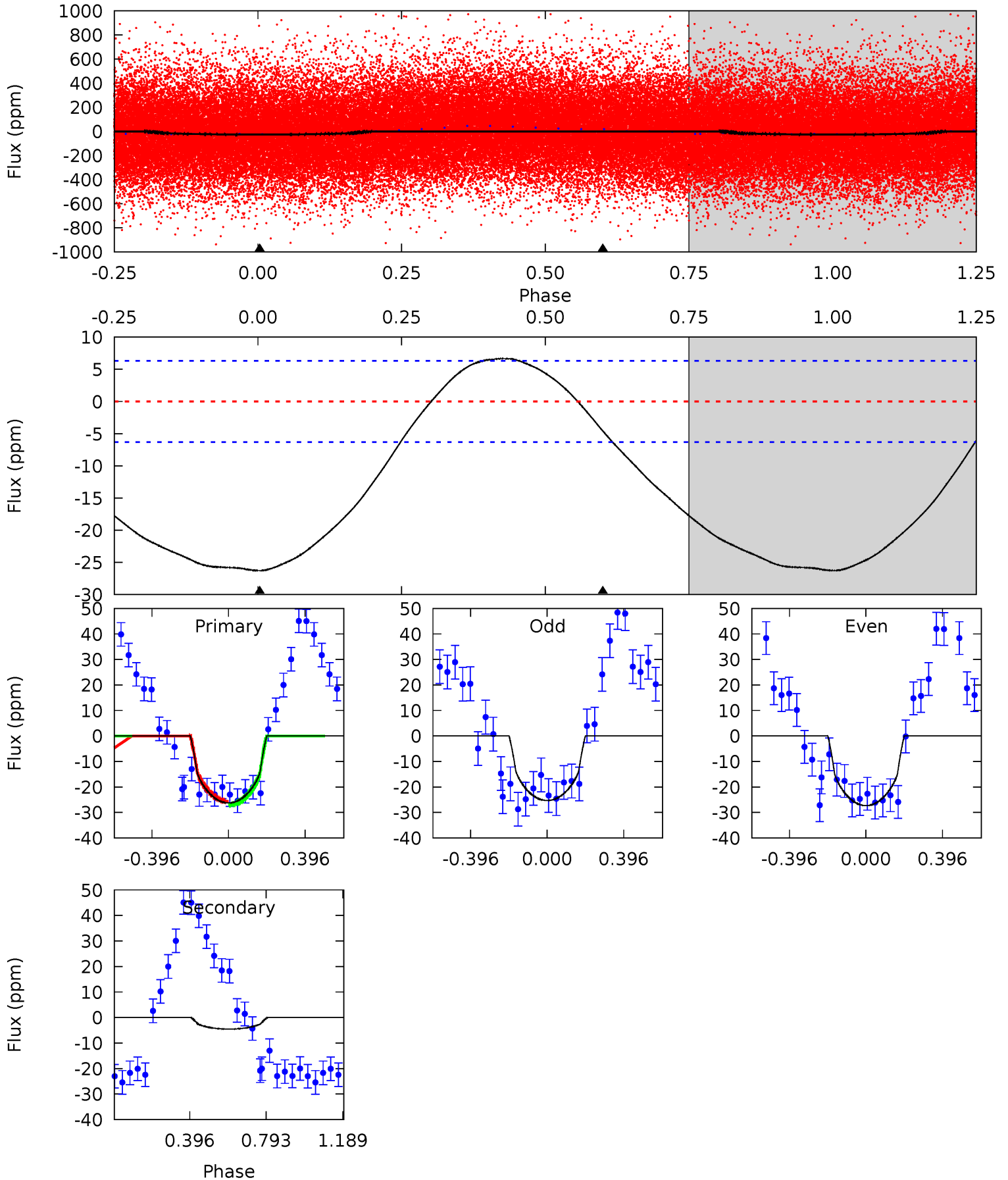
TCE 004547321-01 P= 0.576941 Days $T_0=131.575116$ (BKJD)



DV Model-Shift Uniqueness Test

004547321-01, P = 0.576886 Days, E = 130.995973 Days

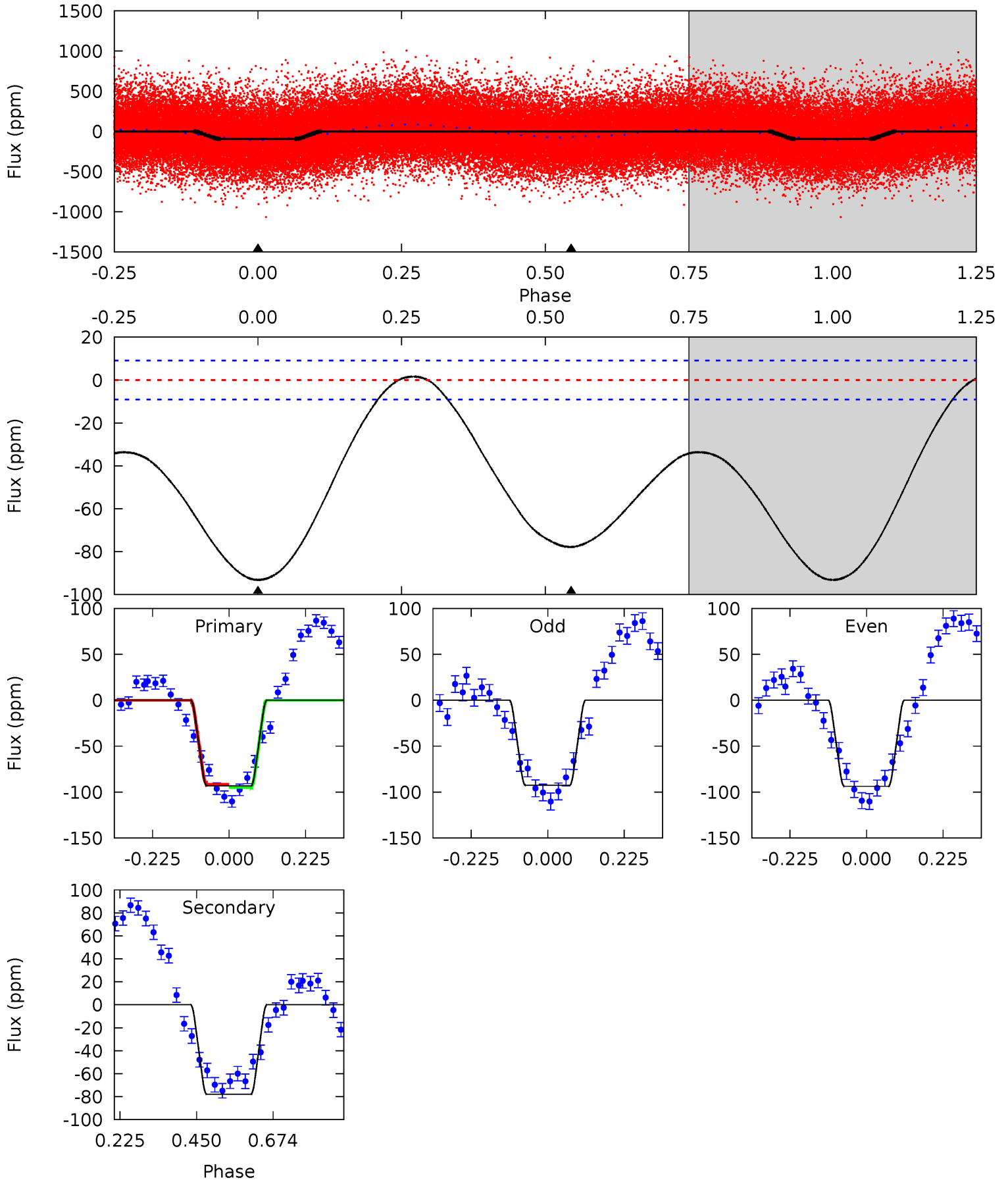
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17.7	3.08	0	0	4.27	0.85	2.08	17.7	17.7	3.08	3.08	0.68	1.00	0.20	0.46



Alt Model-Shift Uniqueness Test

004547321-01, P = 0.576941 Days, E = 130.998175 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
44.9	37.5	0	0	4.39	1.21	3.81	44.9	44.9	37.5	37.5	0.25	1.00	0.02	0.89



Stellar Parameters For KIC 004547321

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	ρ_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	4927^{+110}_{-122}	$3.182^{+0.384}_{-0.256}$	$-0.040^{+0.250}_{-0.250}$	$4.996^{+1.978}_{-2.175}$	$1.385^{+0.231}_{-0.375}$	$0.016^{+0.044}_{-0.009}$
	+2%/-2%	+12%/-8%	+625%/-625%	+40%/-44%	+17%/-27%	+282%/-57%
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 004547321-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-5 ± 1	$2.50^{+1.96}_{-1.52}$	5519^{+583}_{-658}	-4158^{+8465}_{-573}	$0.088^{+0.480}_{-0.064}$
Alt.	-78 ± 2	$5.30^{+2.55}_{-2.12}$	5485^{+639}_{-613}	3194^{+1898}_{-7282}	$0.340^{+0.598}_{-0.181}$

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

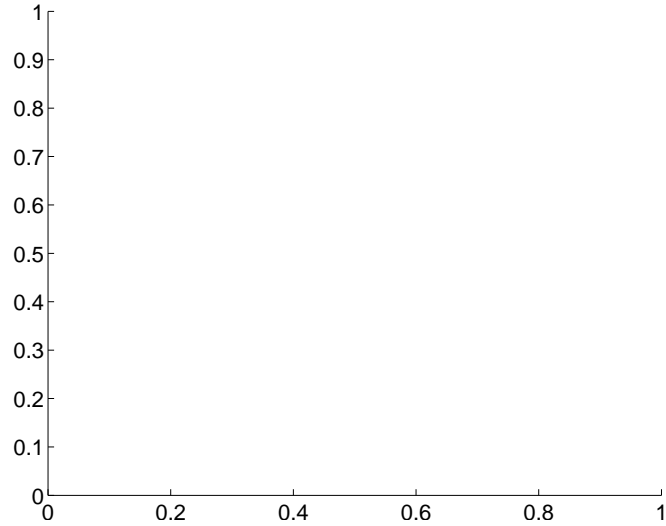
Supplemental centroid analysis for 004547321-01. Kepler magnitude: 13.93. Transit SNR 11.16

There are 0 quarters with good PRF difference image offsets

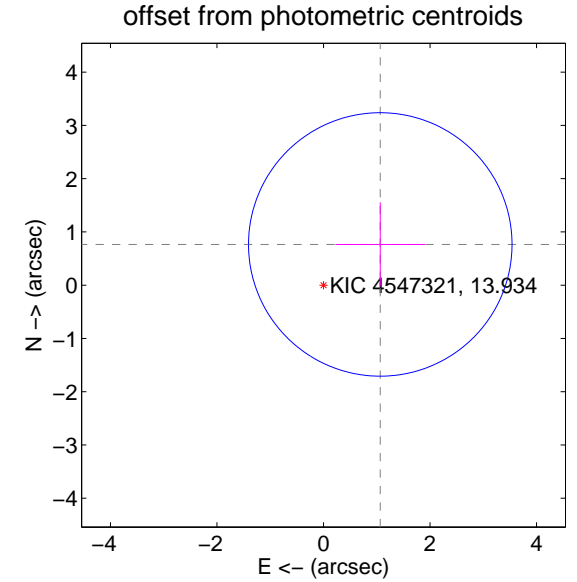
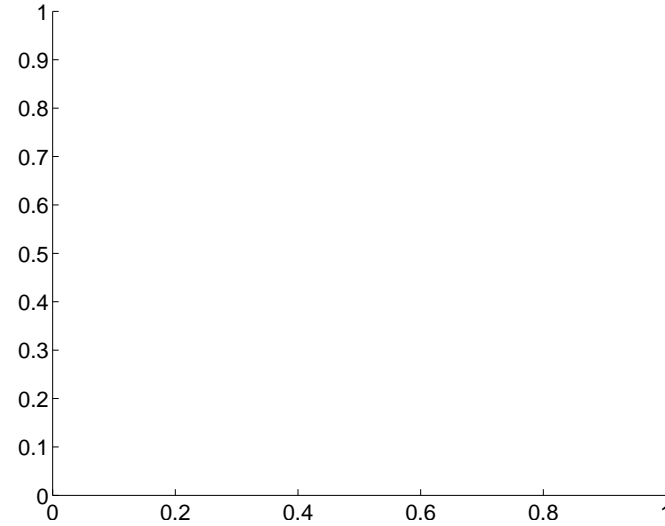
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	—	—	—	—
PRF-fit source offset from KIC position	—	—	—	—
photometric centroid source offset	1.31 ± 0.82	1.59	-1.07 ± 0.84	0.76 ± 0.79

There is no PRF-fit offset from OOT-fit

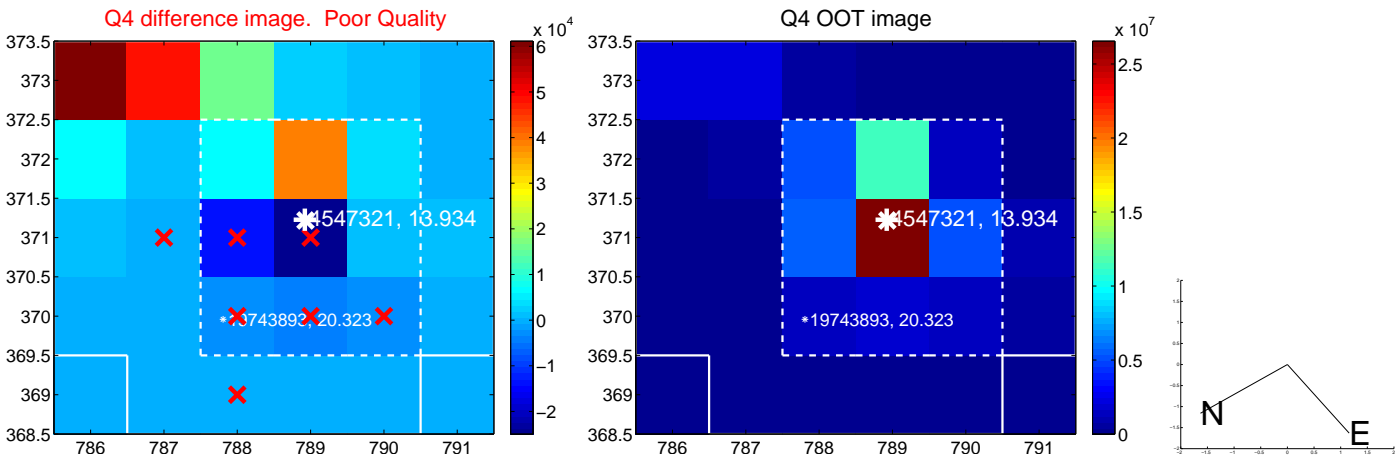
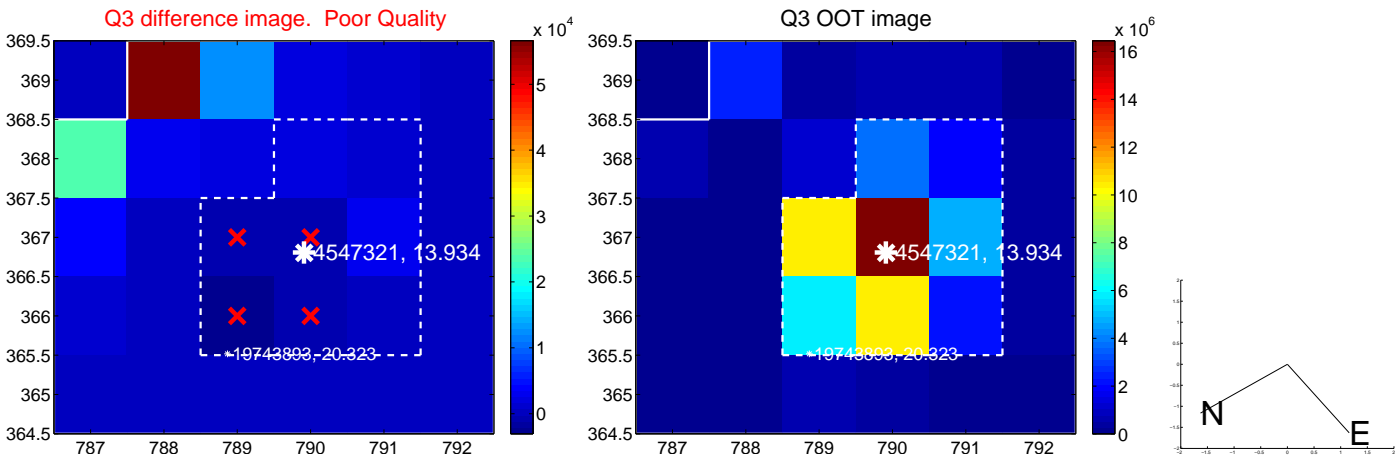
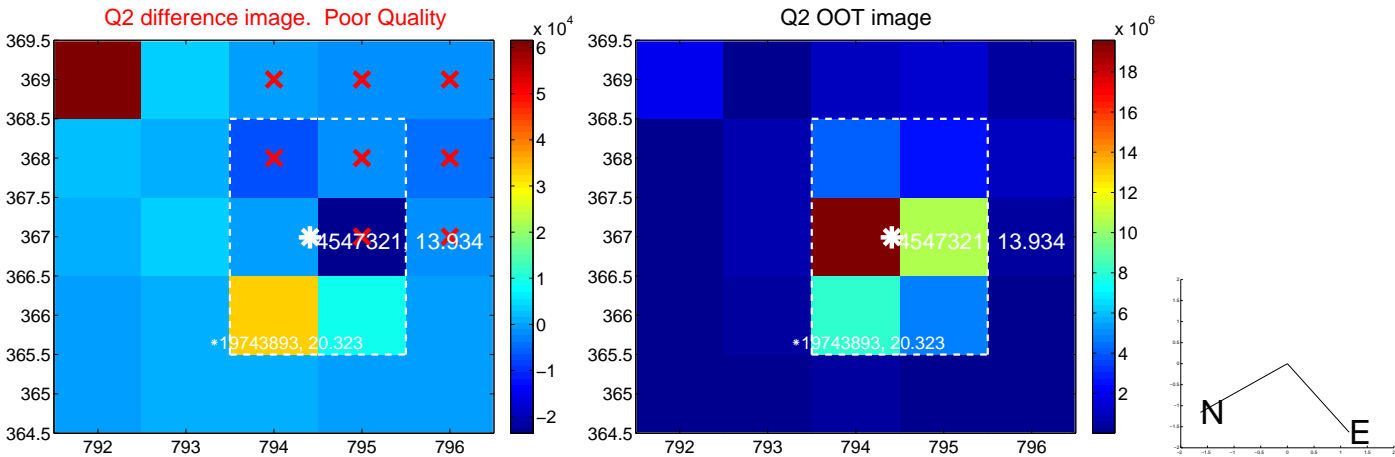
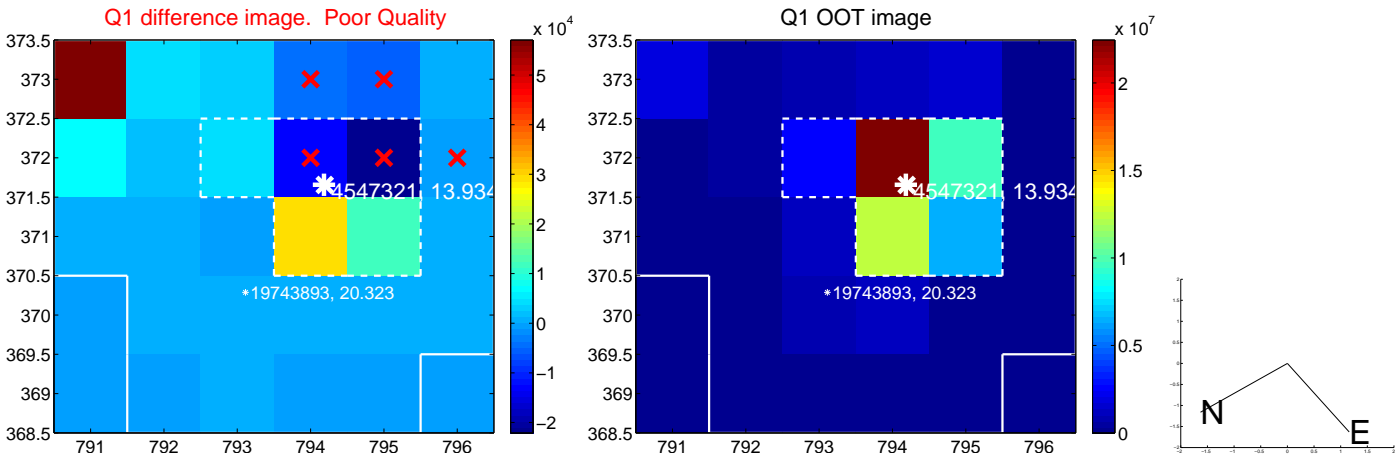


There is no PRF-fit offset from KIC

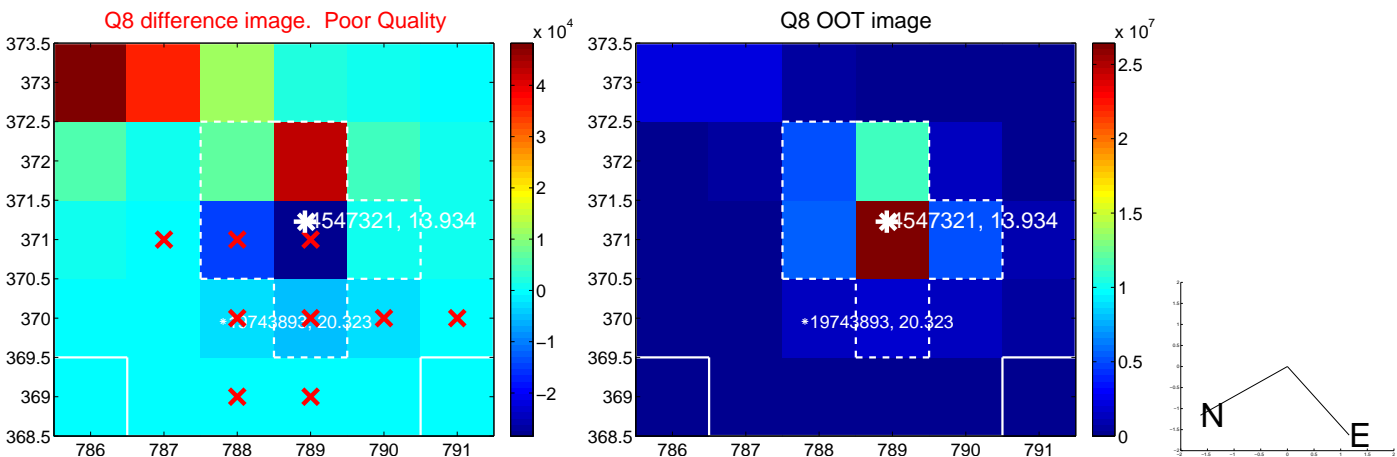
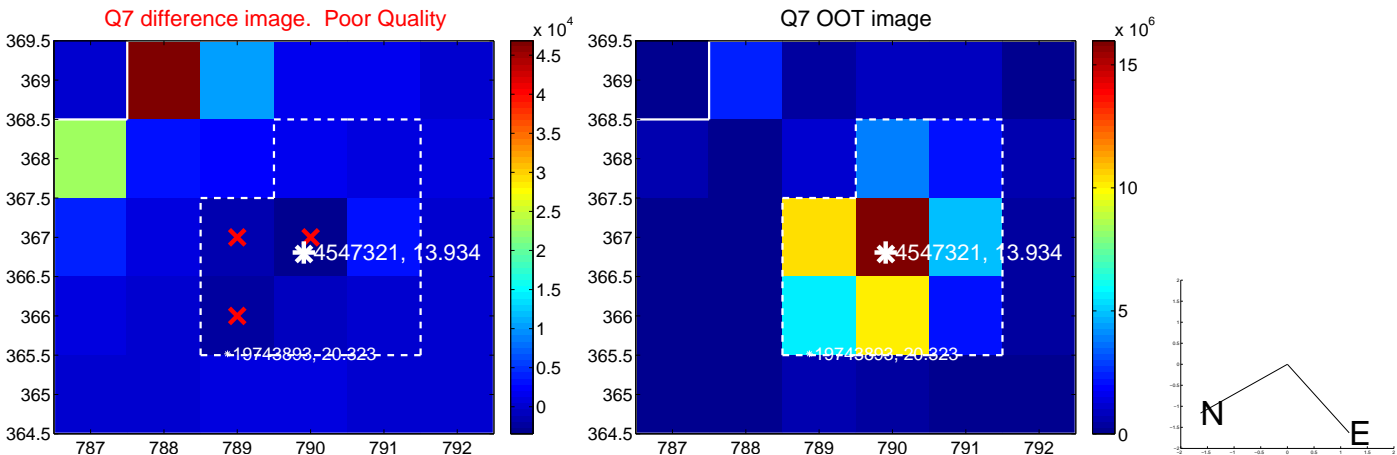
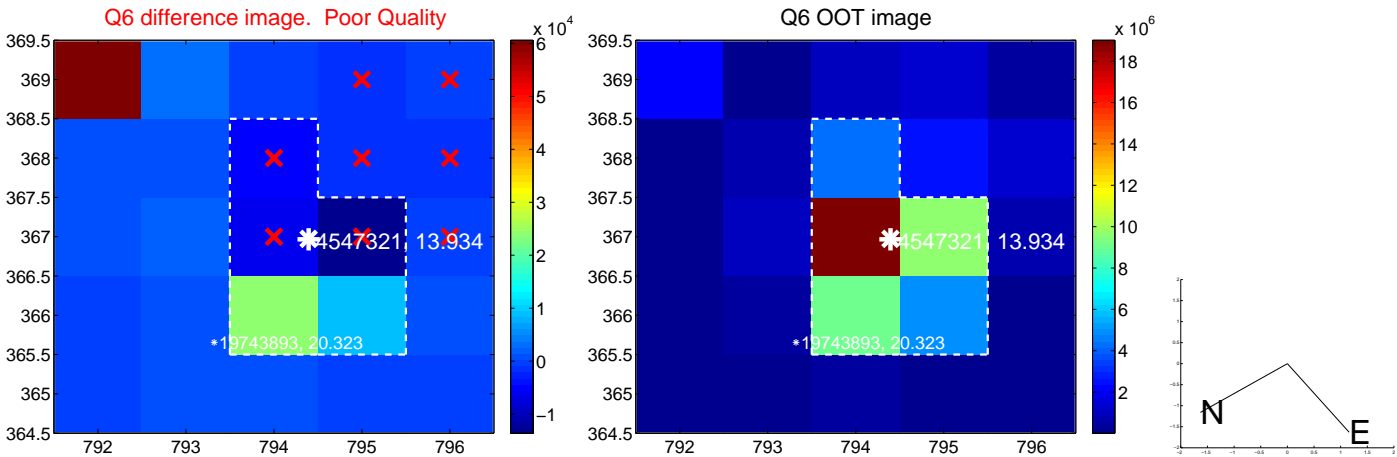
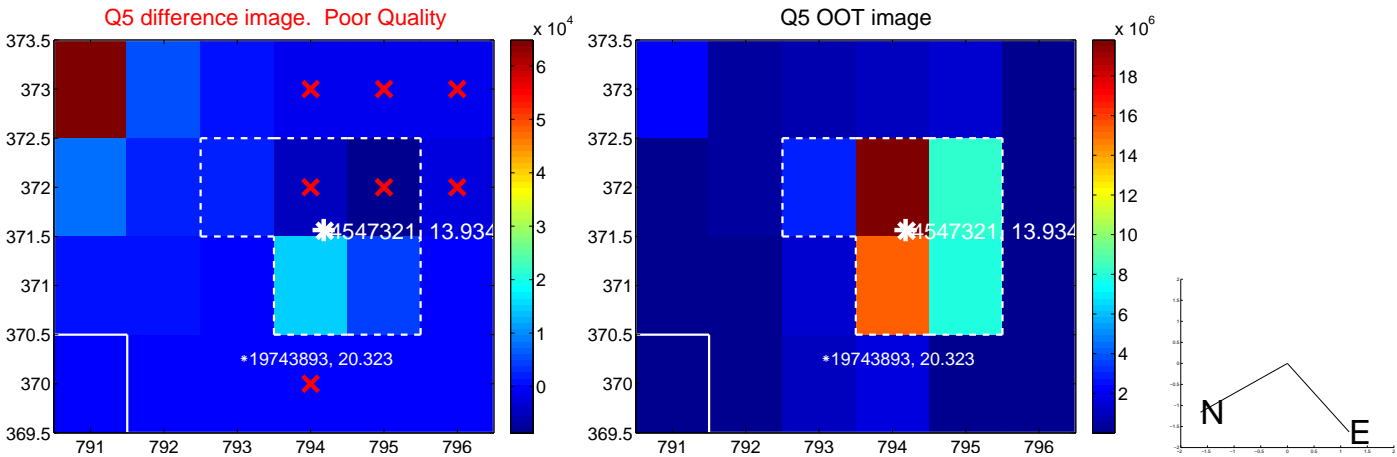


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

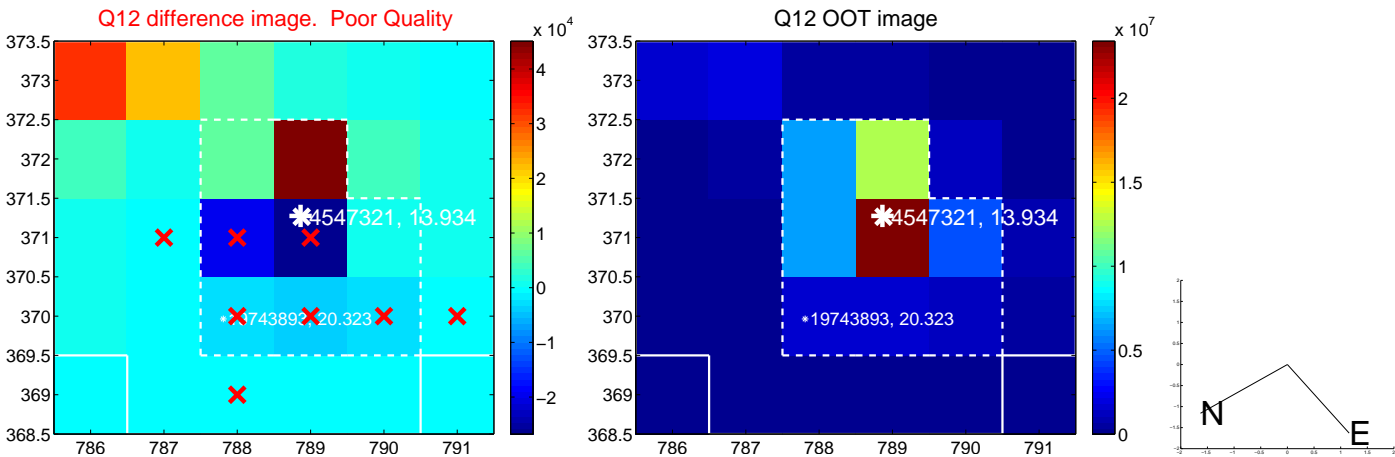
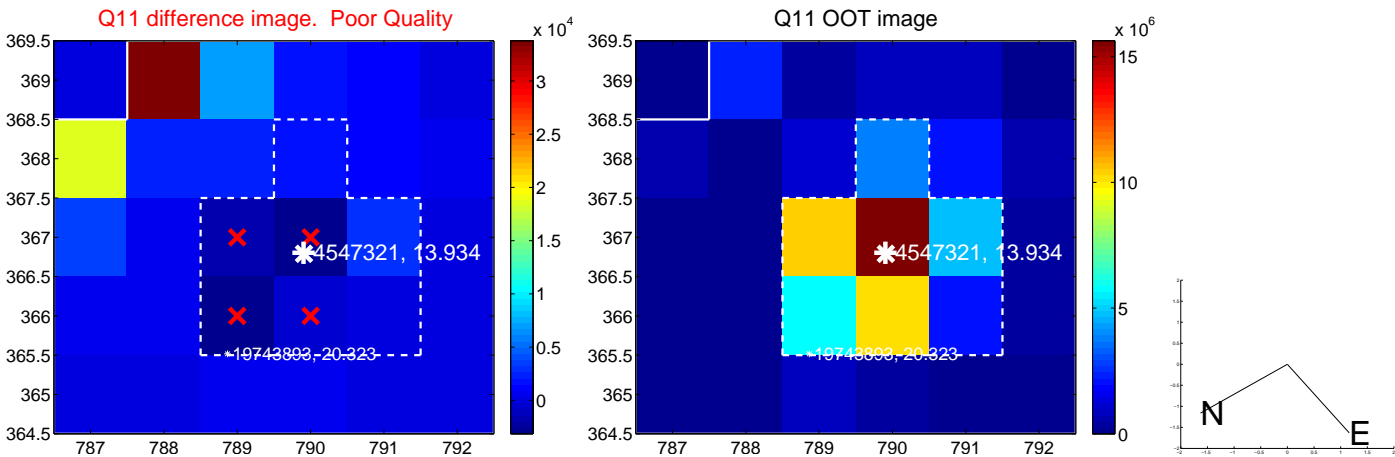
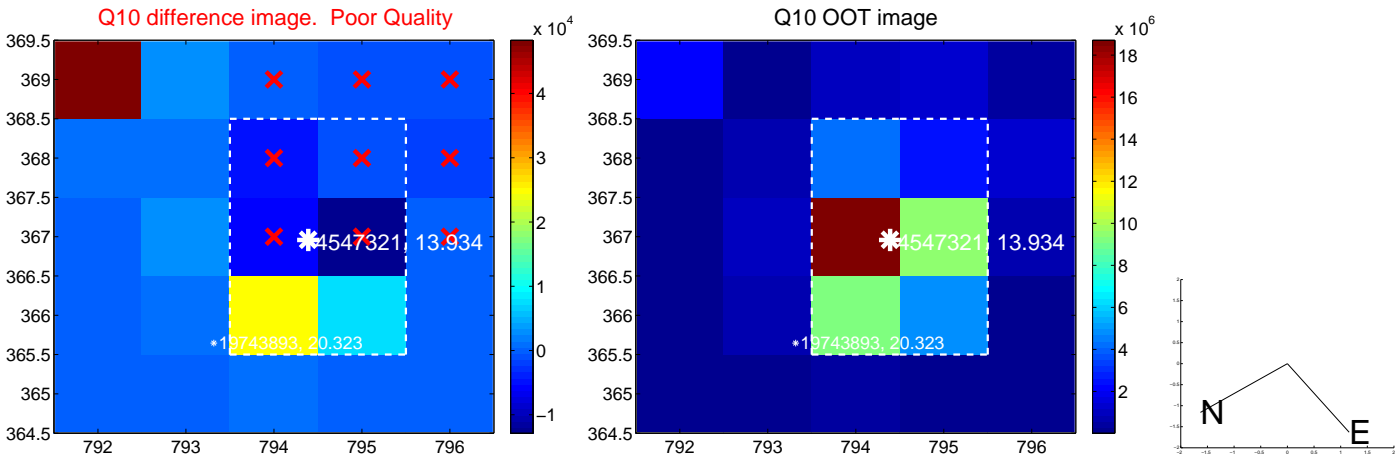
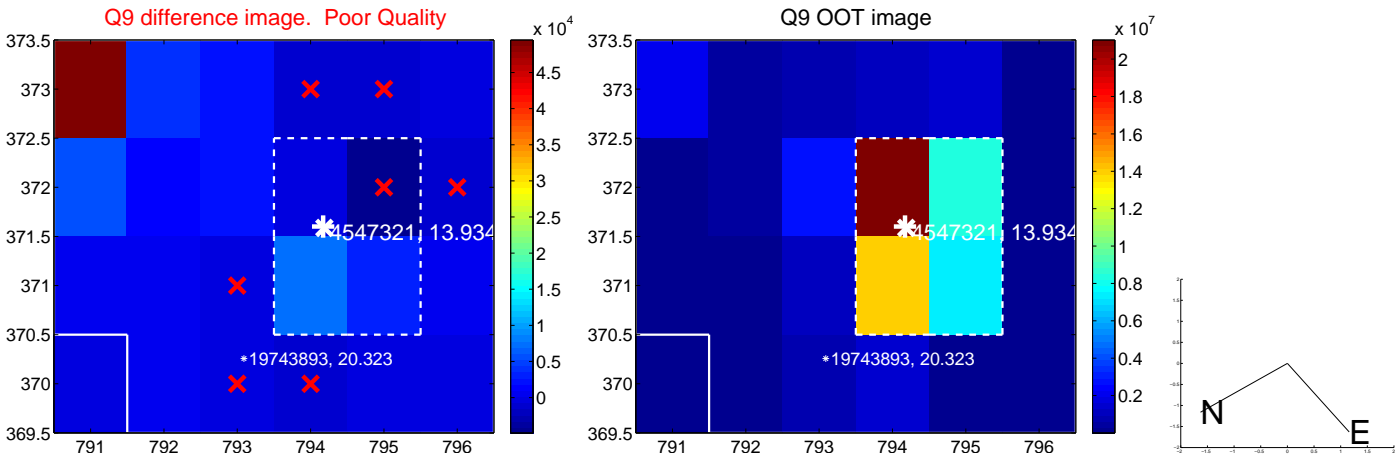
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



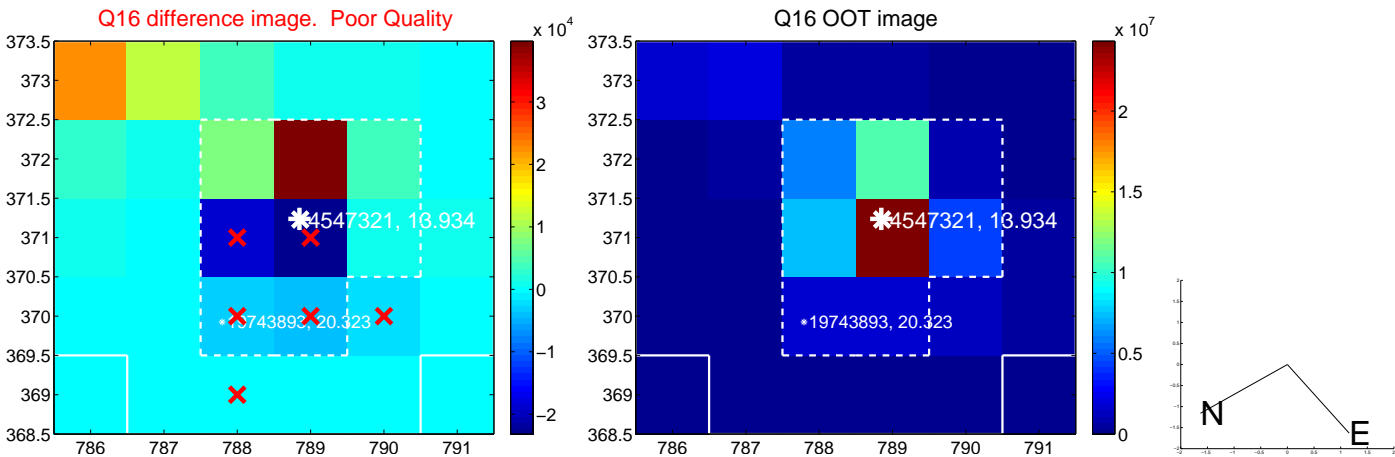
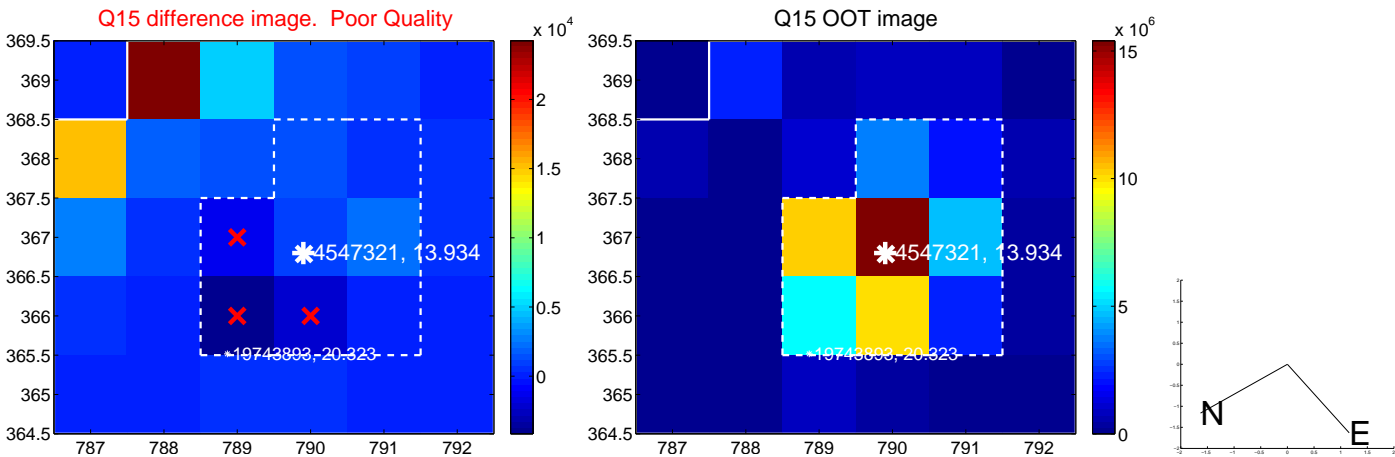
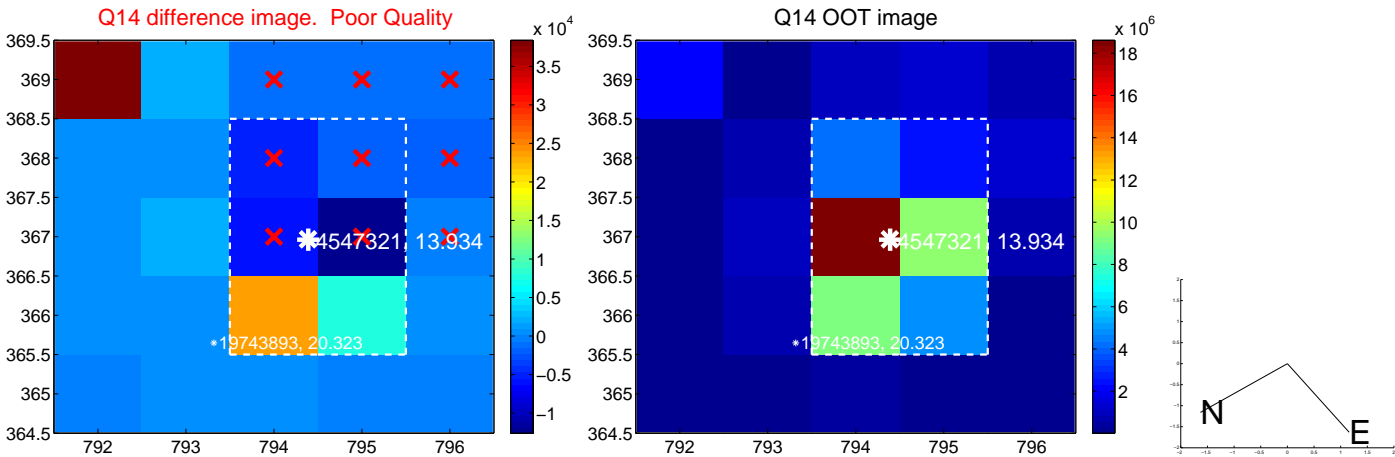
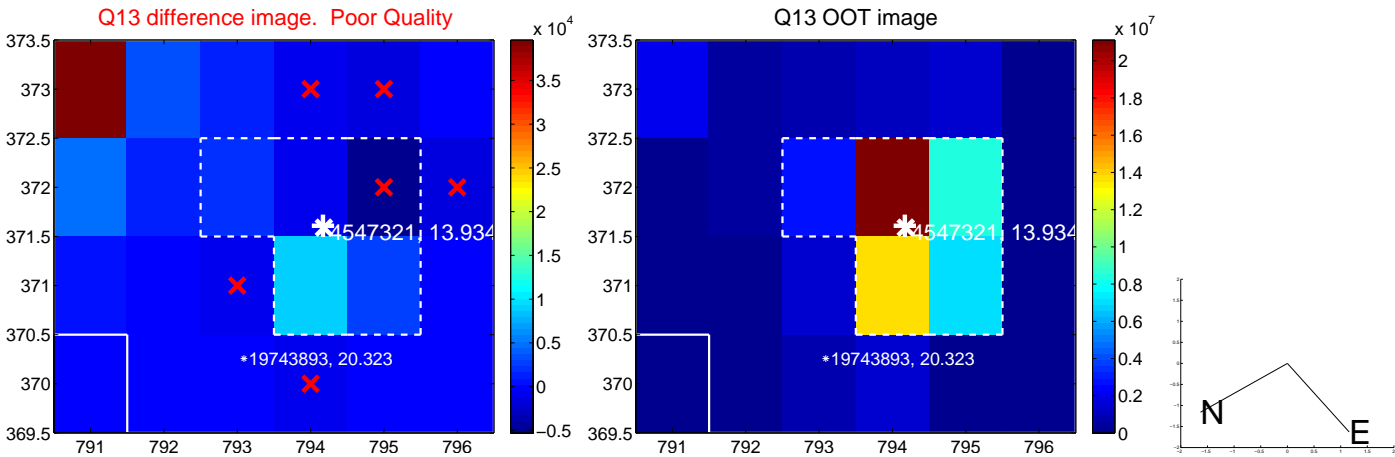
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



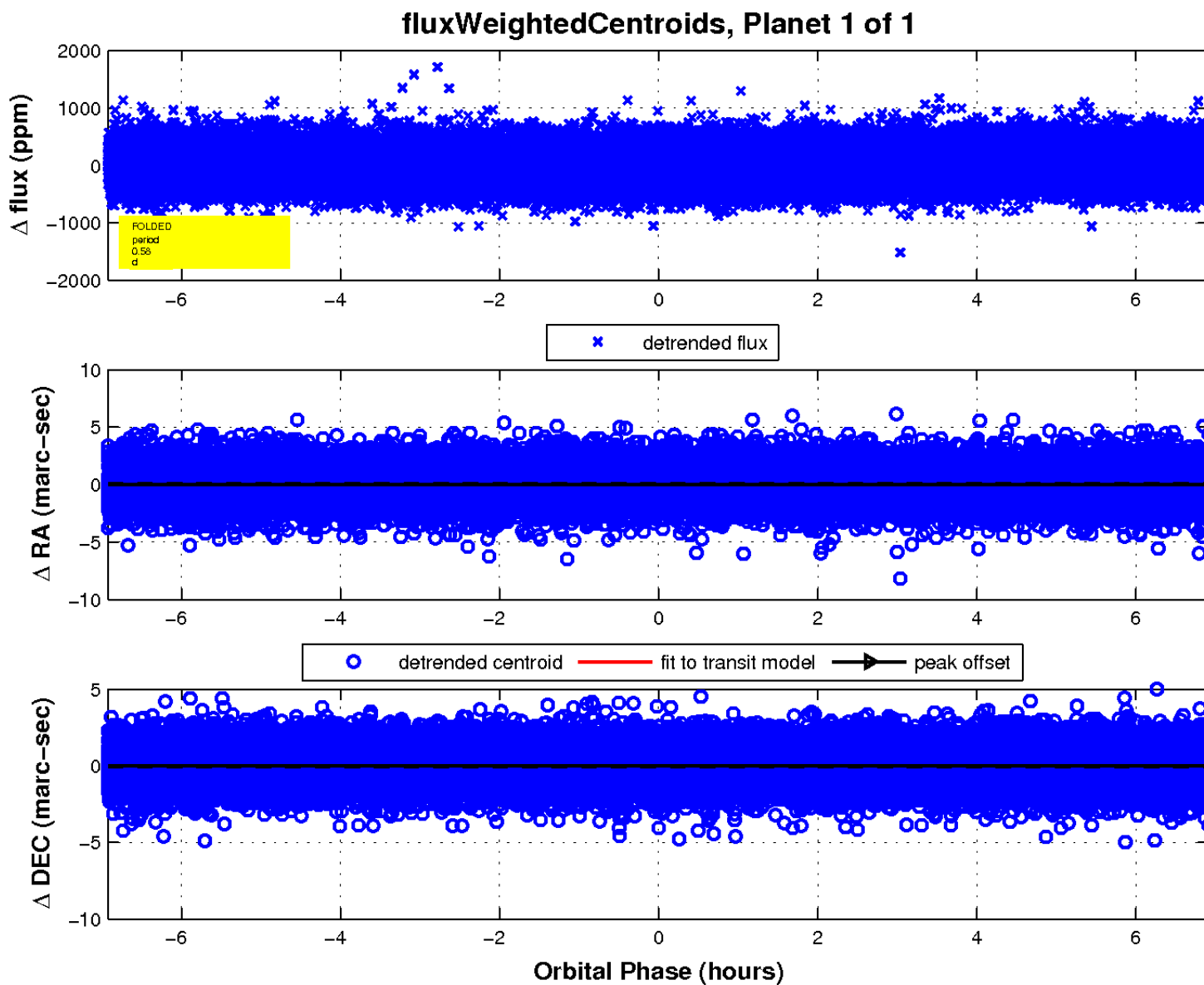
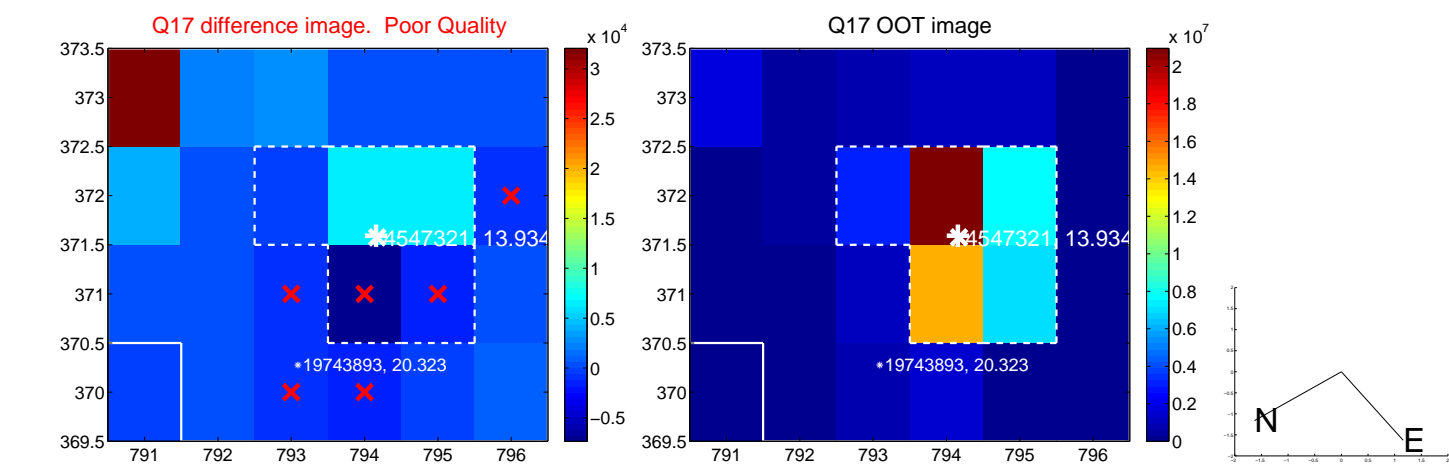
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



UKIRT Image

Declination

