

KIC 004454980

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})
004454980-01	OBS	No	3.743091	134.111755	2.6	42.827	8.4	1.3	2.29	6703	0.38	3082.63

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004454980-01	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.

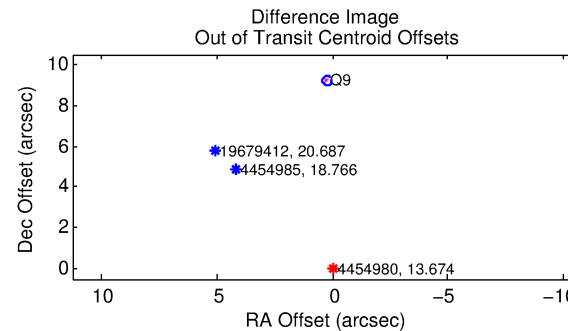
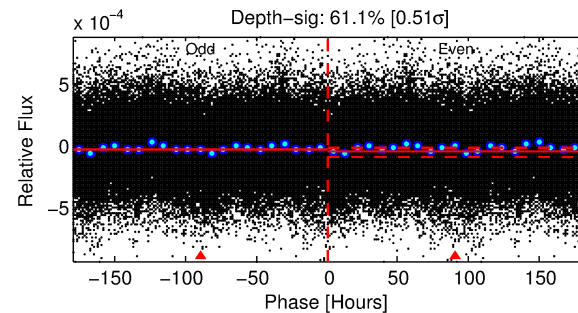
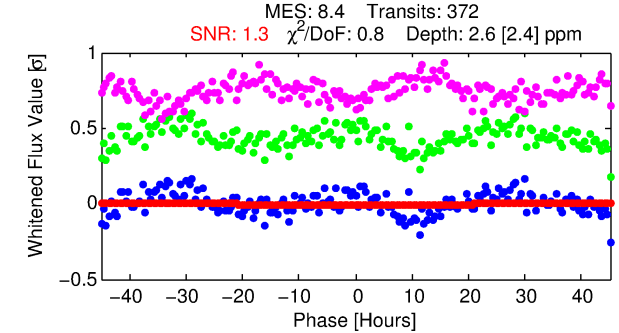
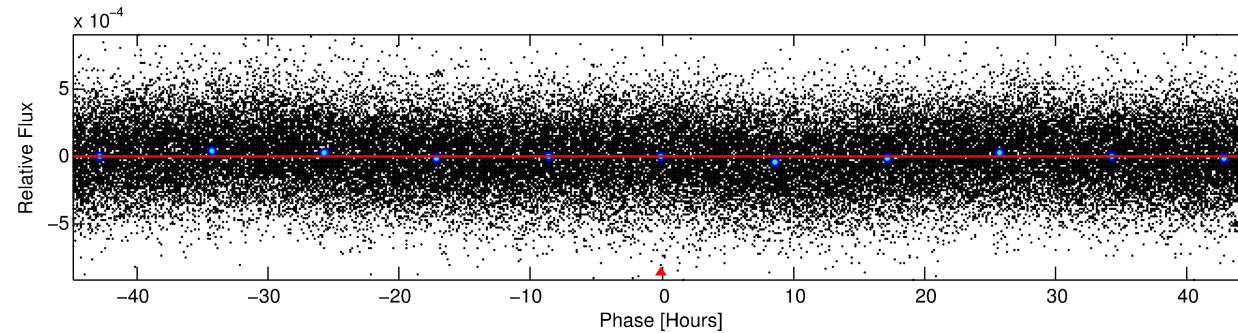
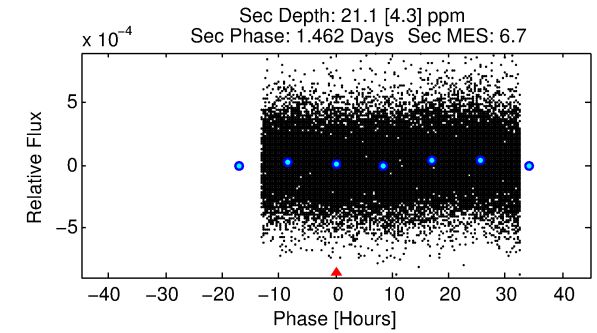
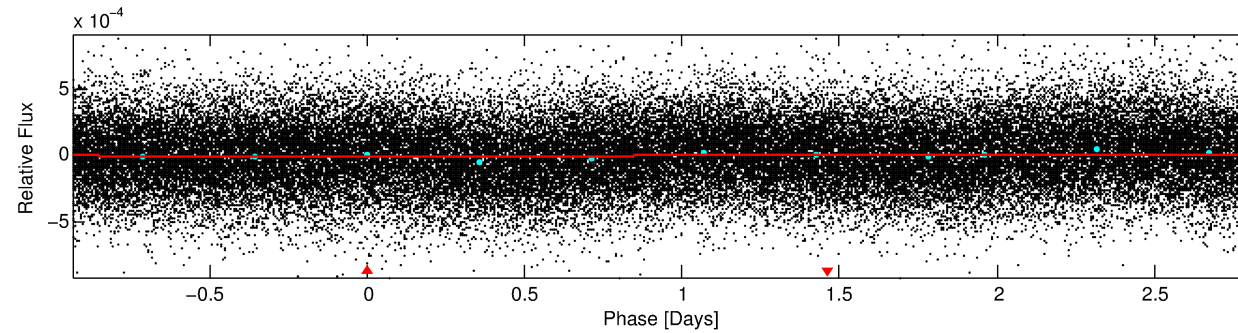
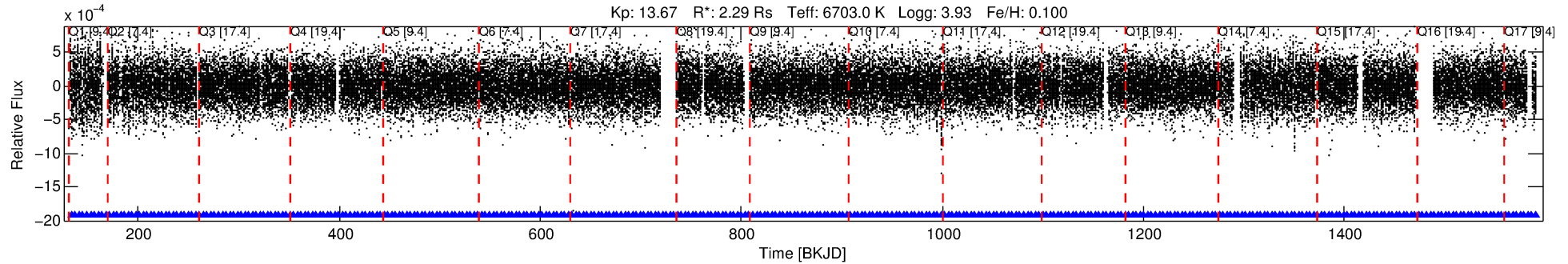
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 004454980-01

No Significant Match Found

DV One-Page Summary

KIC: 4454980 Candidate: 1 of 1 Period: 3.743 d



DV Fit Results:

Period = 3.74309 [0.00128] d
Epoch = 134.1118 [0.2257] BKJD
Rp/R* = 0.0015 [0.0065]
a/R* = 1.00 [0.17]
b = 0.44 [44.34]
Seff = 3082.63 [1100.98]
Teq = 1900 [170] K
Rp = 0.38 [1.63] Re
a = 0.0553 [0.0128] AU
Ag = 248.40 [2139.60] [0.12σ]
Teff = 11662 [25092] K [0.39σ]

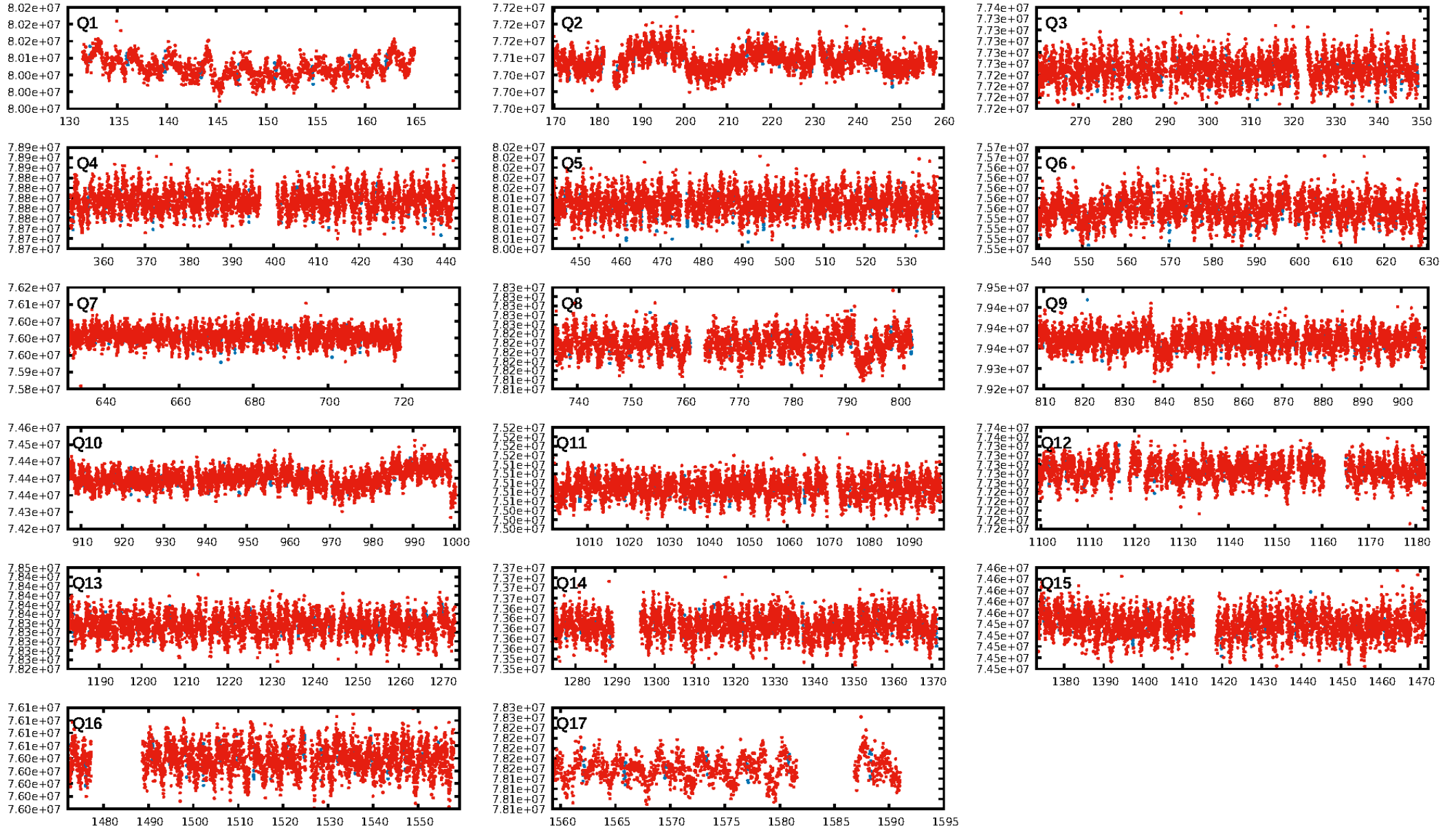
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [355/355]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 9.230 arcsec [119.31σ]
KicOffset-rm: 9.170 arcsec [118.54σ]
OotOffset-st: 0/0/0/1 [1]
KicOffset-st: 0/0/0/1 [1]
DiffImageQuality-fgm: 0.00 [0/1]
DiffImageOverlap-fno: 1.00 [17/17]

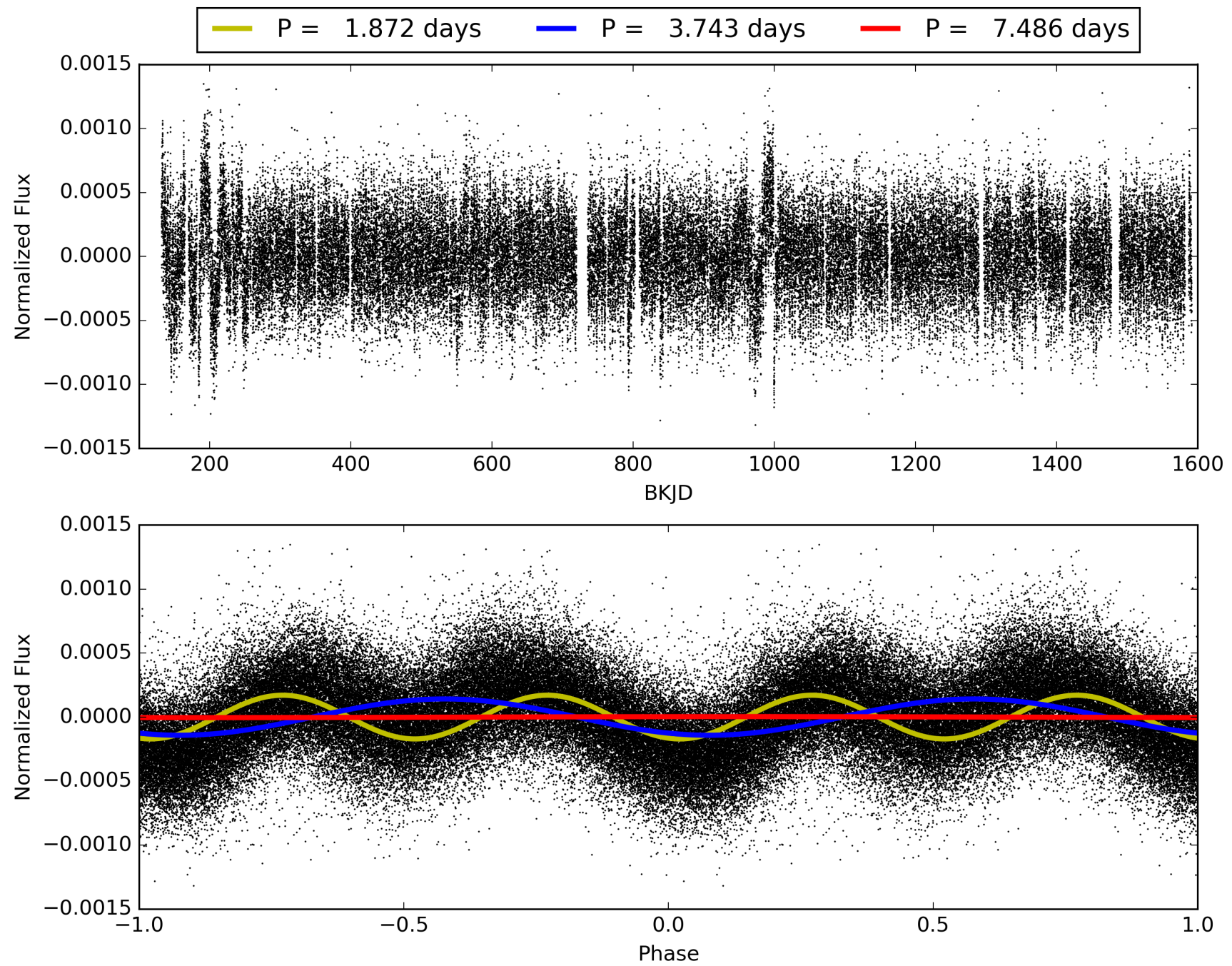
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 15:40:21 Z

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

TCE 004454980-01, PDC Light Curves

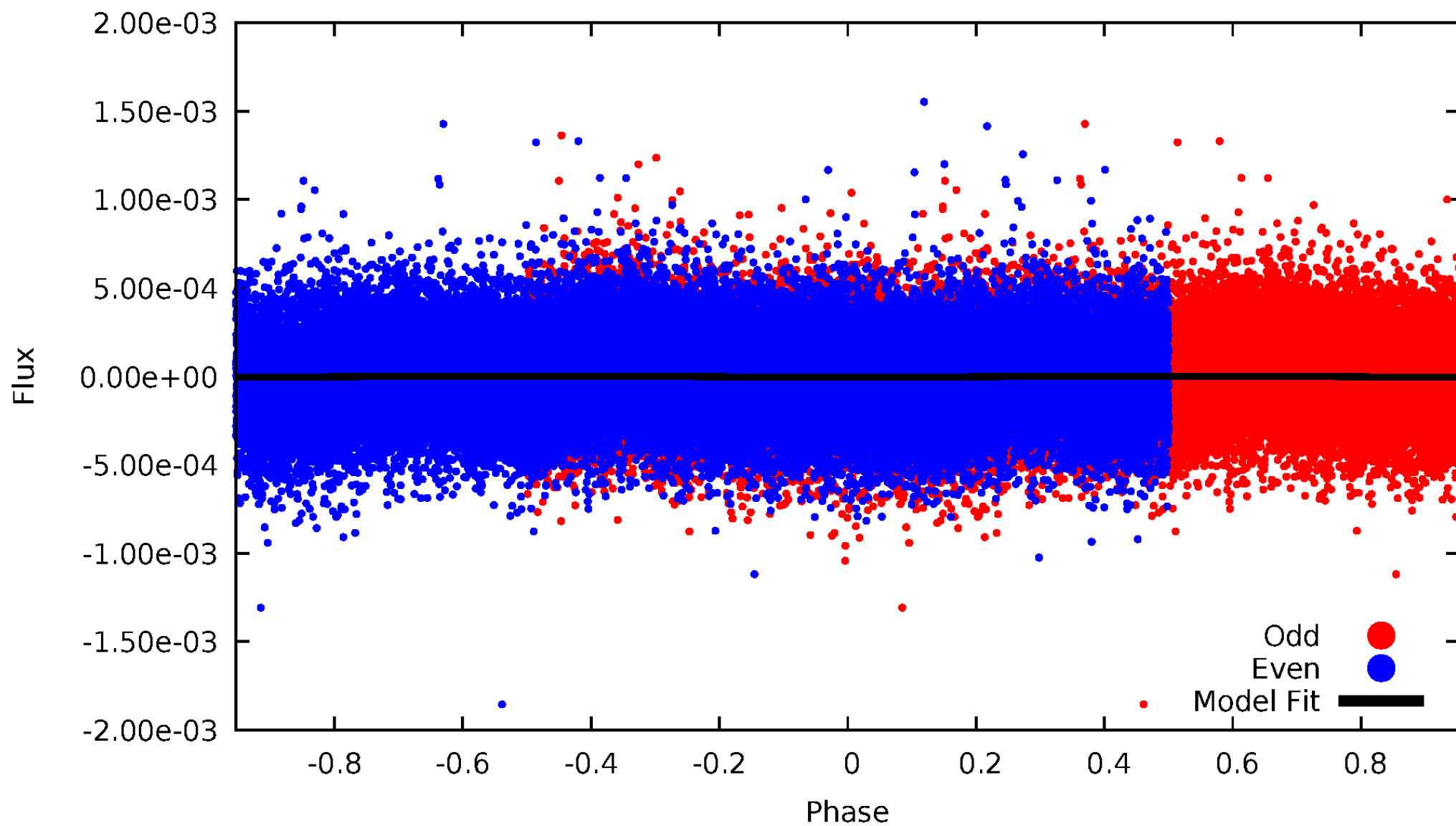


TCE 004454980-01



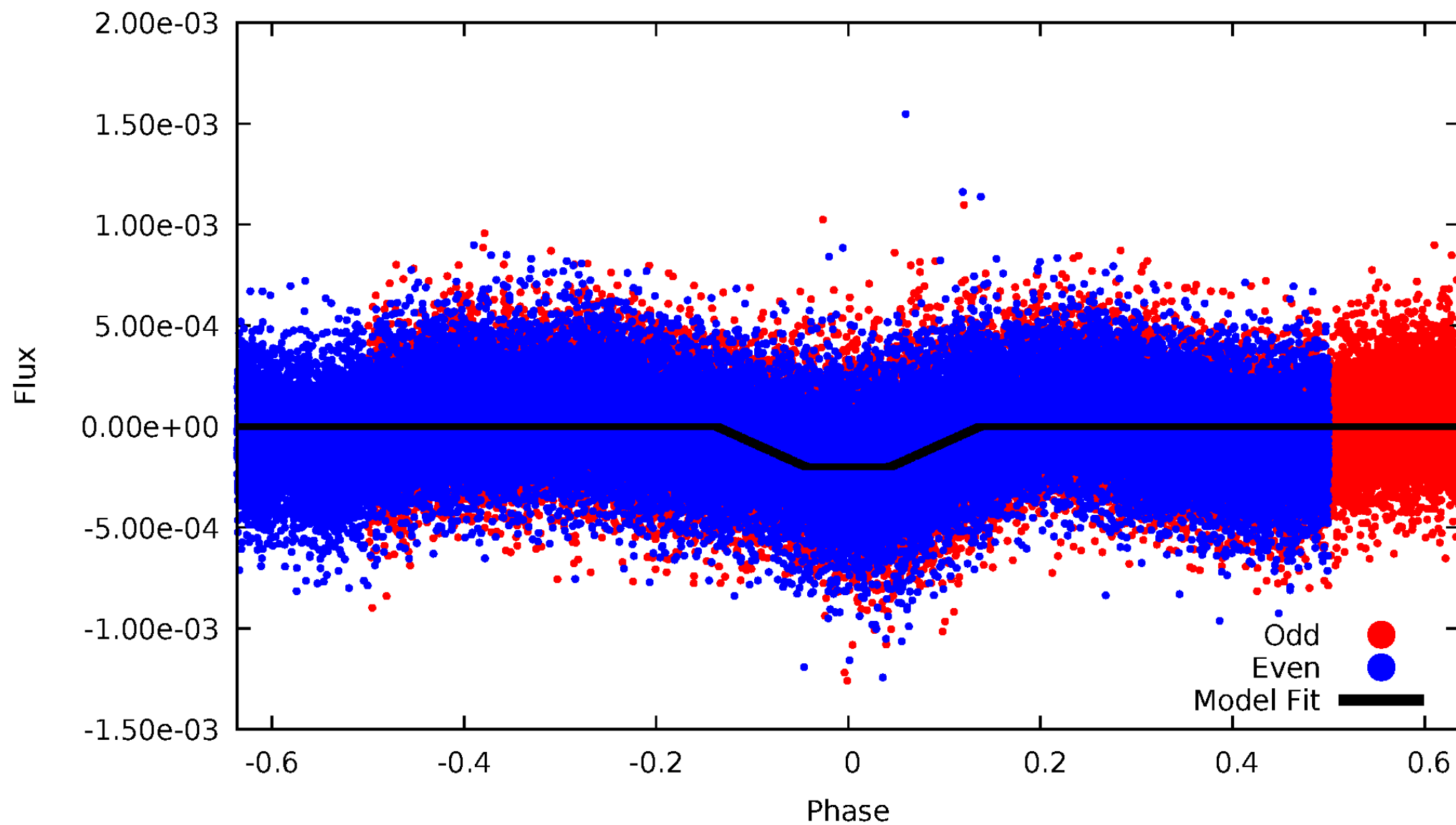
DV Odd/Even

TCE 004454980-01



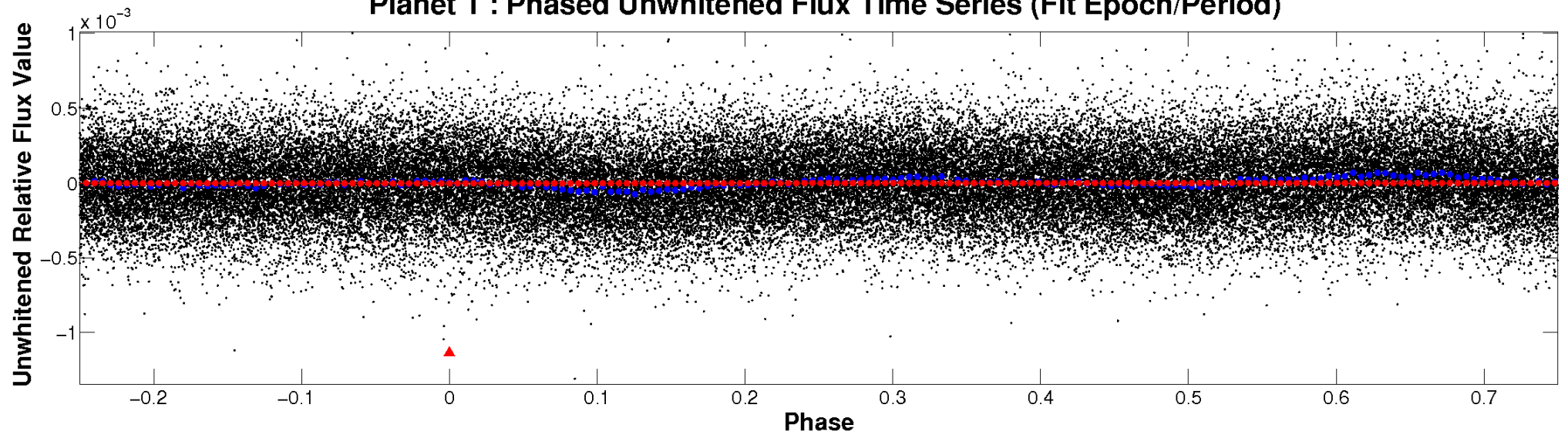
ALT Odd/Even

TCE 004454980-01

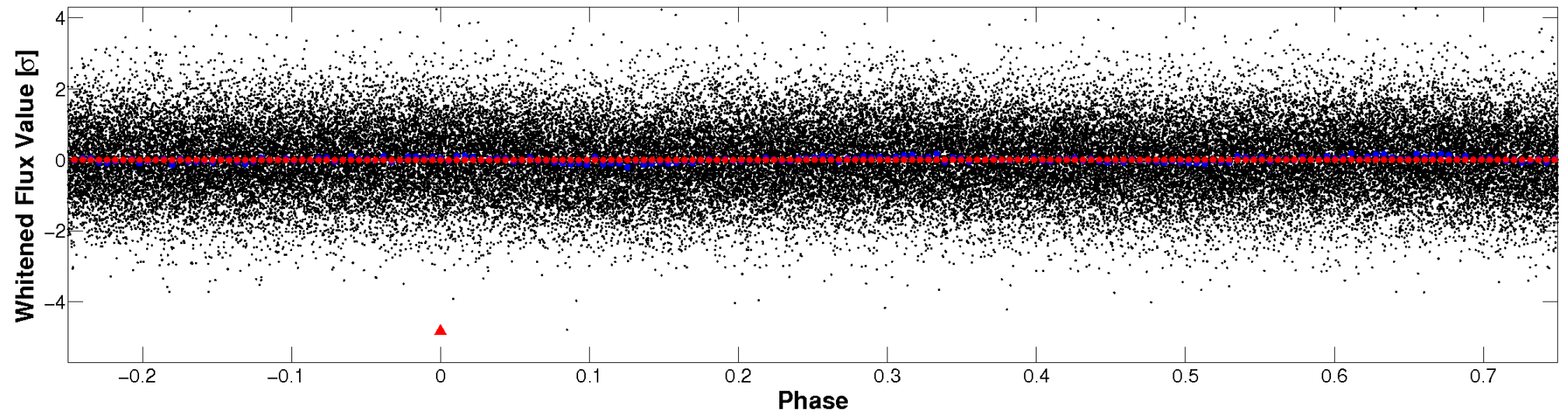


Non-Whitened Vs. Whitened Light Curve

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

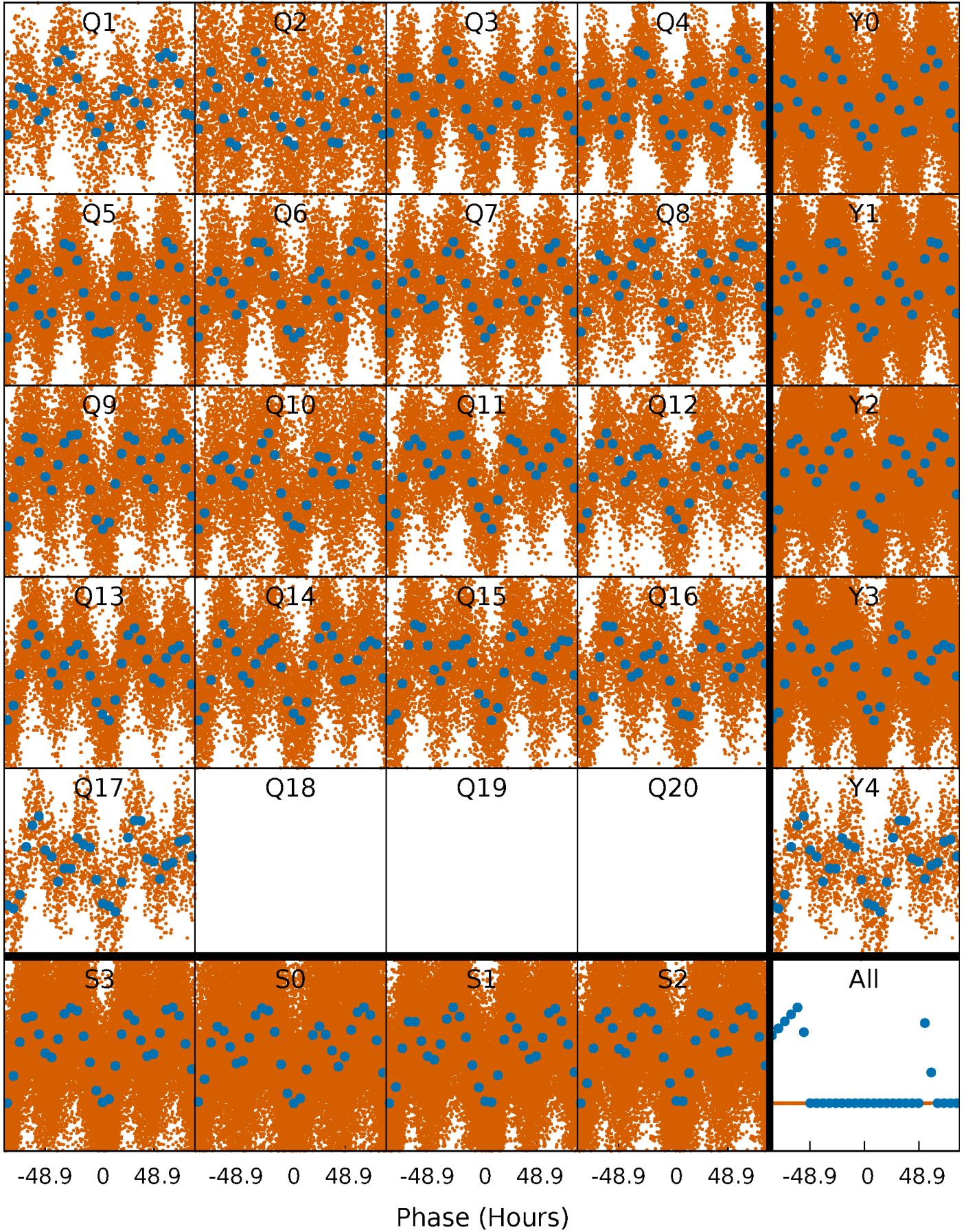


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



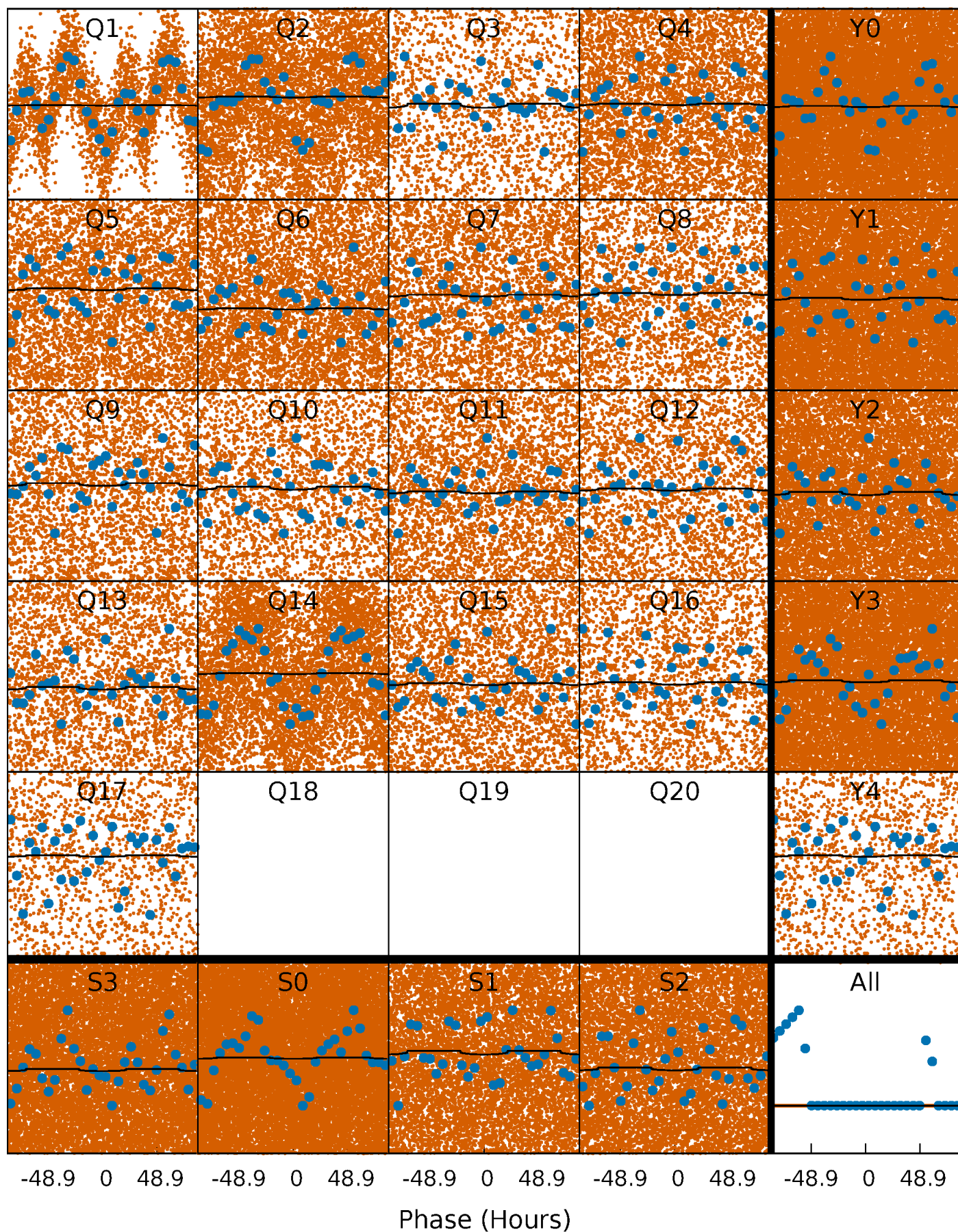
PDC Quarter-Phased Transit Curves

TCE 004454980-01 P= 3.743091 Days $T_0=134.111755$ (BKJD)



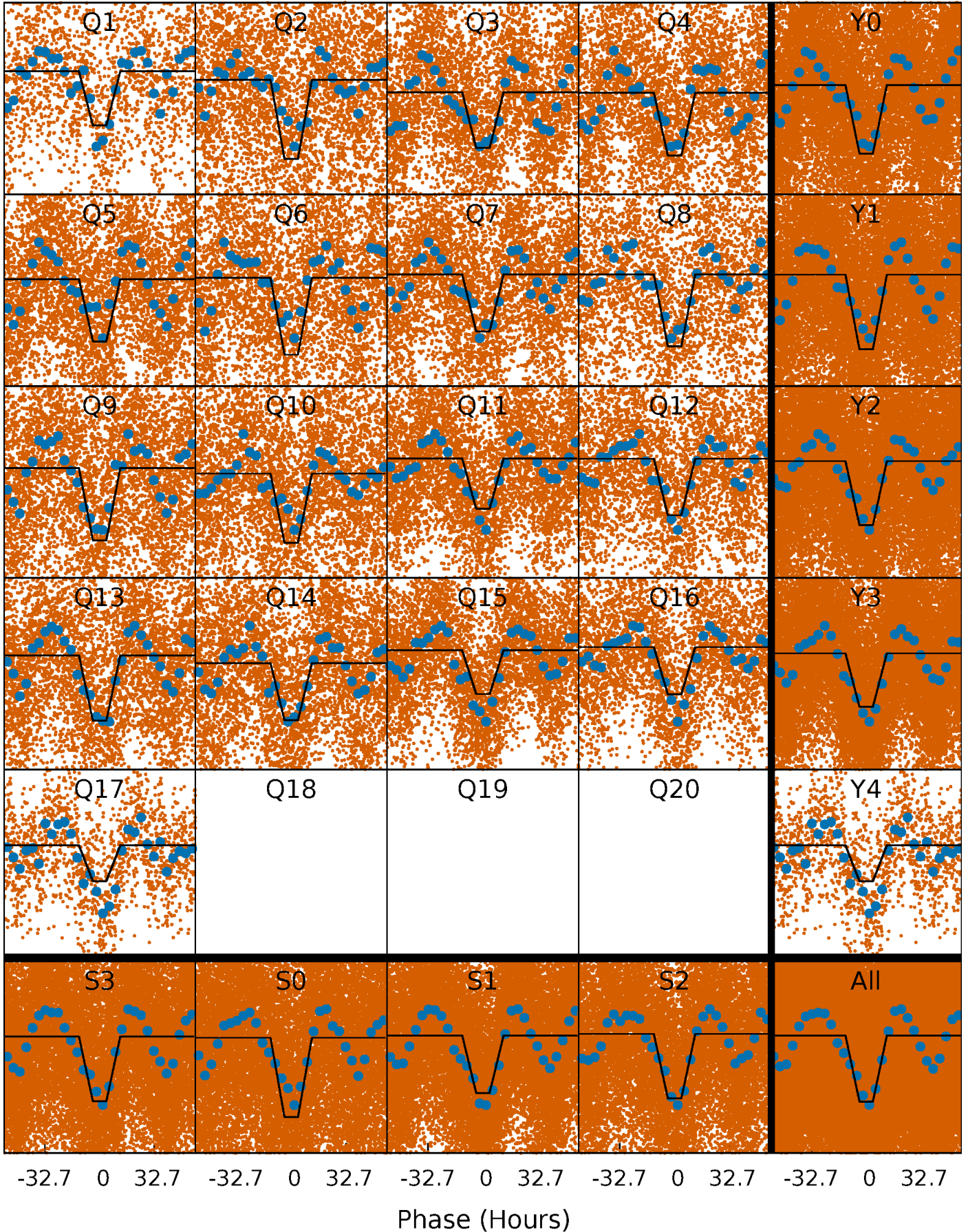
DV Quarter-Phased Transit Curves

TCE 004454980-01 P= 3.743091 Days $T_0=134.111755$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

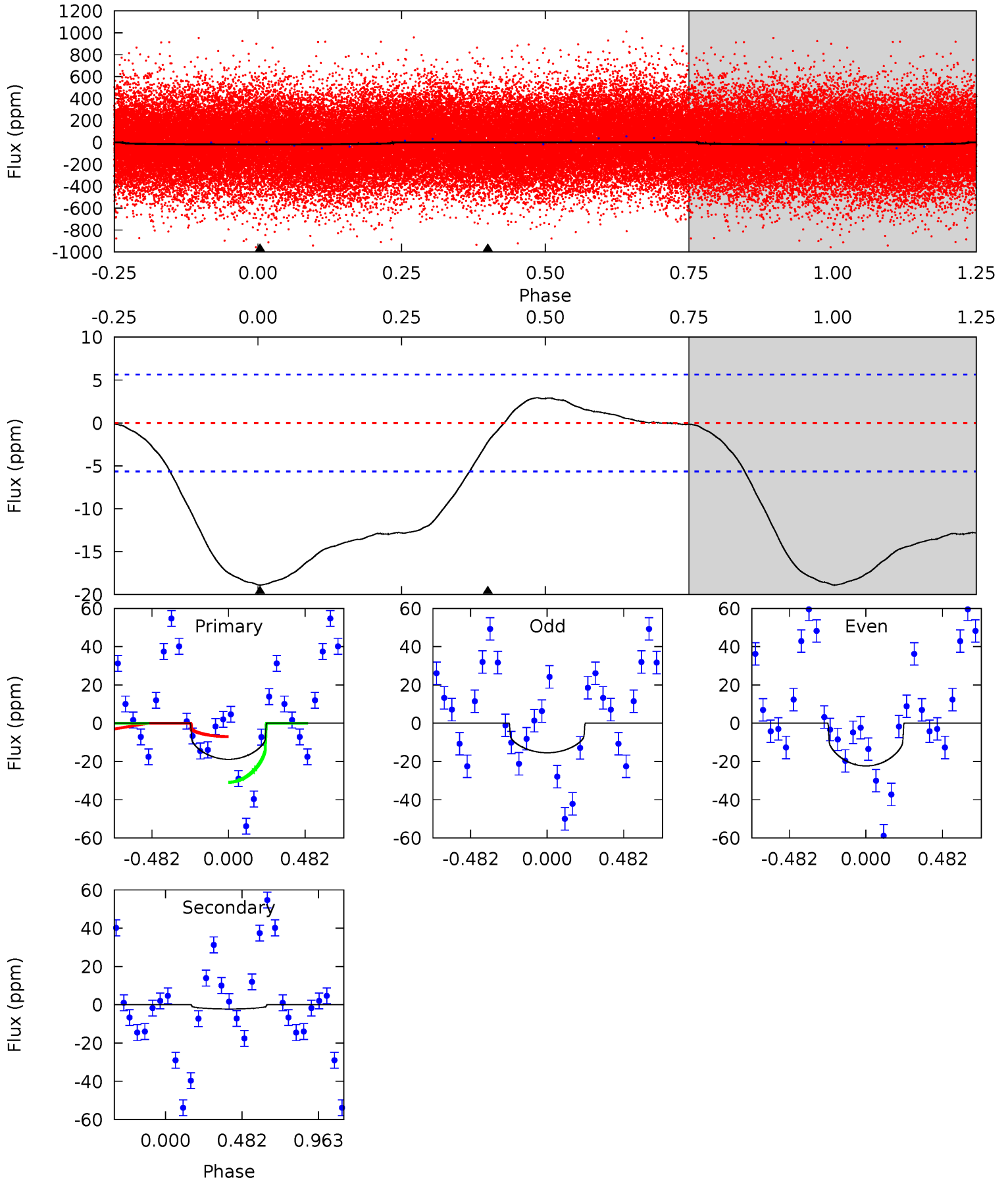
TCE 004454980-01 P= 3.744048 Days $T_0=134.212692$ (BKJD)



DV Model-Shift Uniqueness Test

004454980-01, P = 3.743091 Days, E = 130.368664 Days

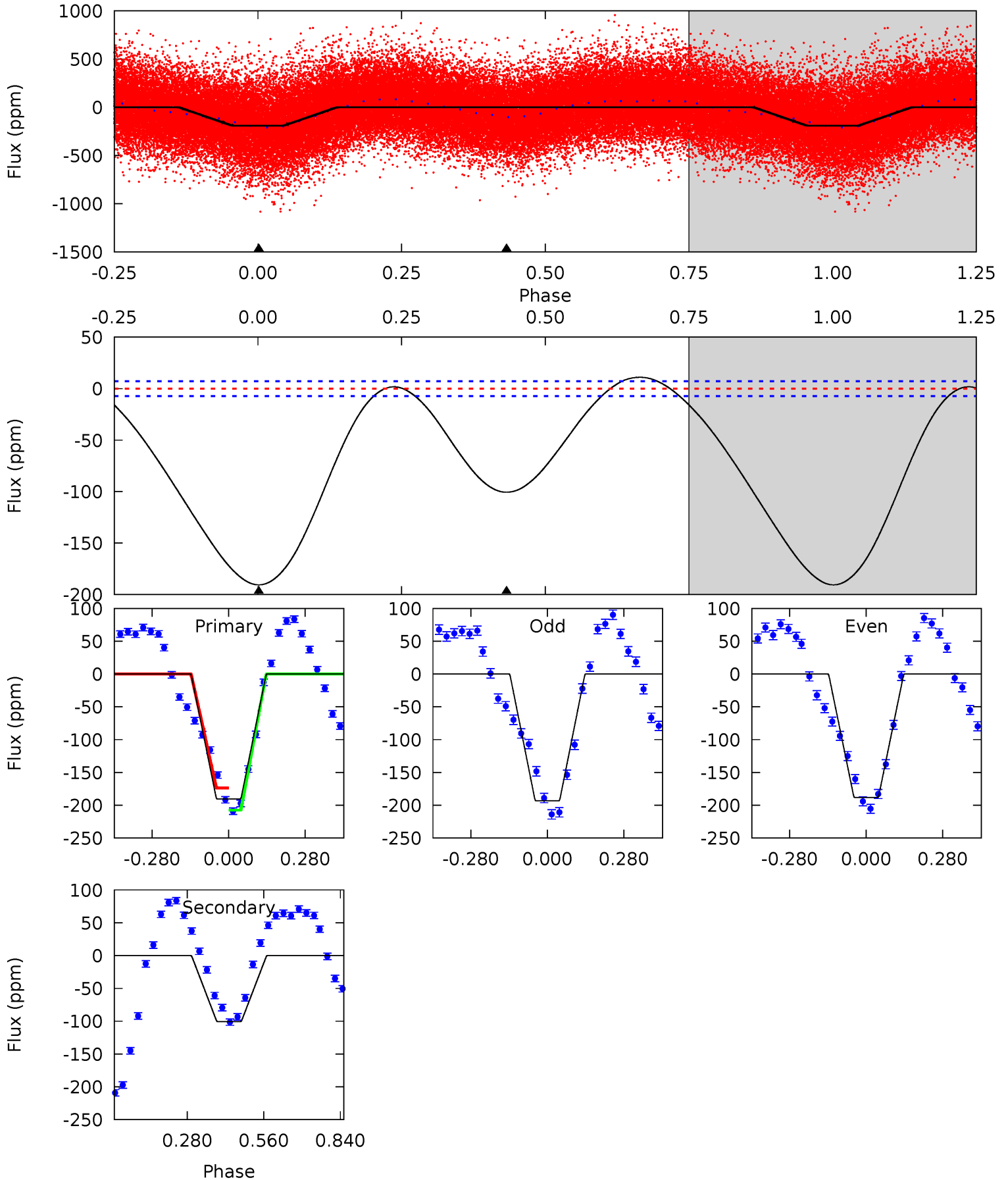
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.1	1.66	0	0	4.22	0.70	0.11	14.1	14.1	1.66	1.66	2.58	1.57	0.13	9.31



Alt Model-Shift Uniqueness Test

004454980-01, P = 3.744048 Days, E = 130.468644 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
114.3	60.3	0	0	4.34	1.08	6.80	114.3	114.3	60.3	60.3	1.53	1.09	0.05	10.2



Stellar Parameters For KIC 004454980

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6703^{+73}_{-80}	$3.928^{+0.202}_{-0.109}$	$0.100^{+0.150}_{-0.150}$	$2.285^{+0.390}_{-0.585}$	$1.612^{+0.128}_{-0.192}$	$0.190^{+0.213}_{-0.063}$
	+1%/-1%	+5%/-3%	+150%/-150%	+17%/-26%	+8%/-12%	+112%/-33%
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 004454980-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-2 ± 1	$1.22^{+1.23}_{-0.83}$	2645^{+117}_{-158}	3724^{+2799}_{-1347}	$2.076^{+24.568}_{-1.713}$
Alt.	-101 ± 2	$3.45^{+1.57}_{-1.66}$	2637^{+123}_{-177}	5563^{+2256}_{-817}	14^{+38}_{-8}

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

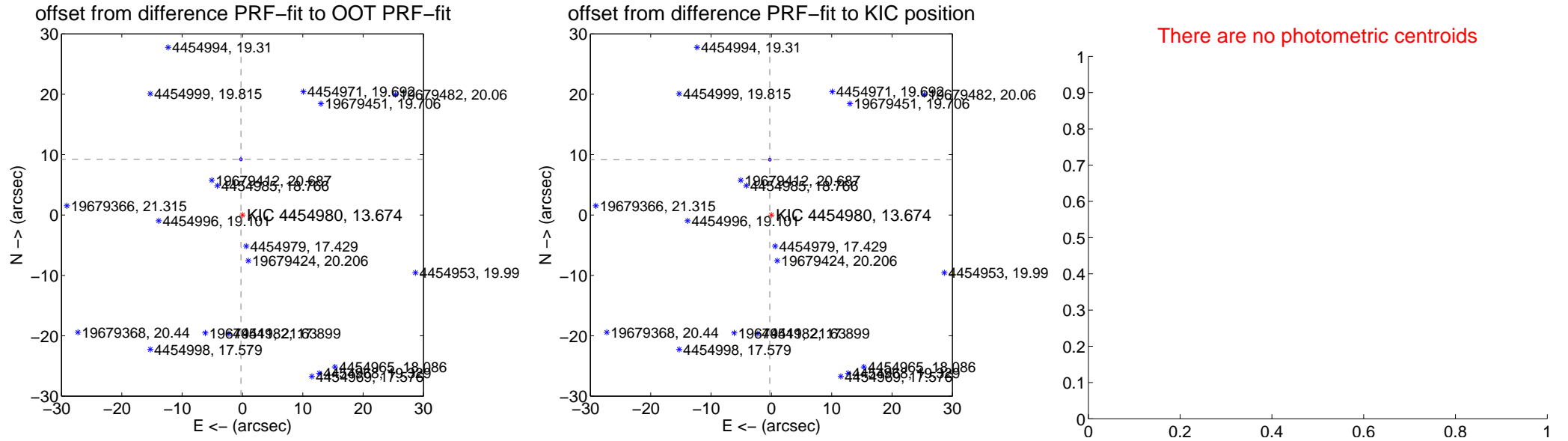
DV Centroid Data

Supplemental centroid analysis for 004454980-01. Kepler magnitude: 13.67. Transit SNR 1.30

There are 0 quarters with good PRF difference image offsets

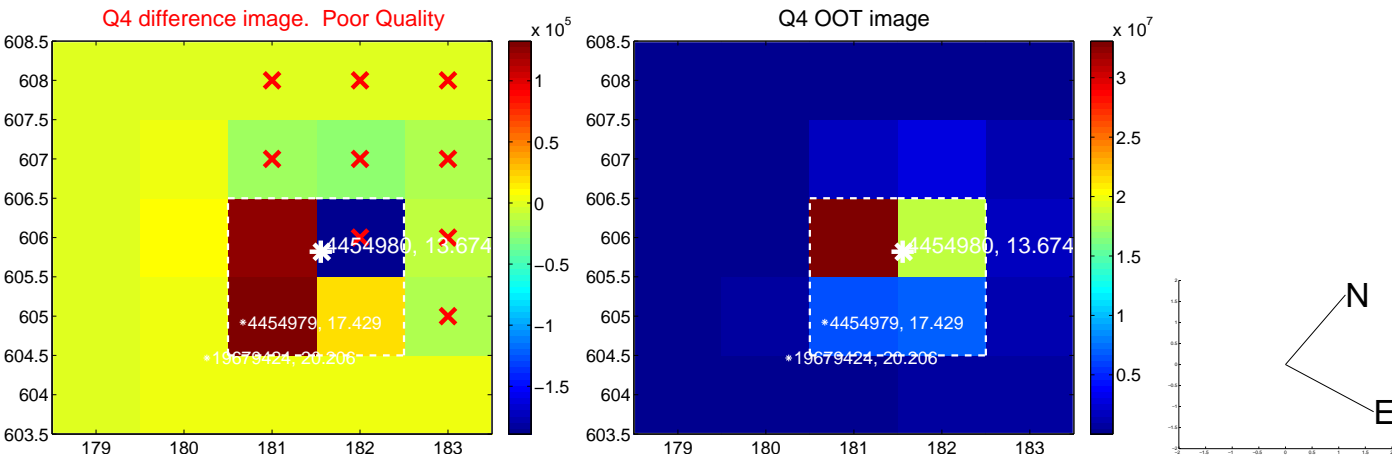
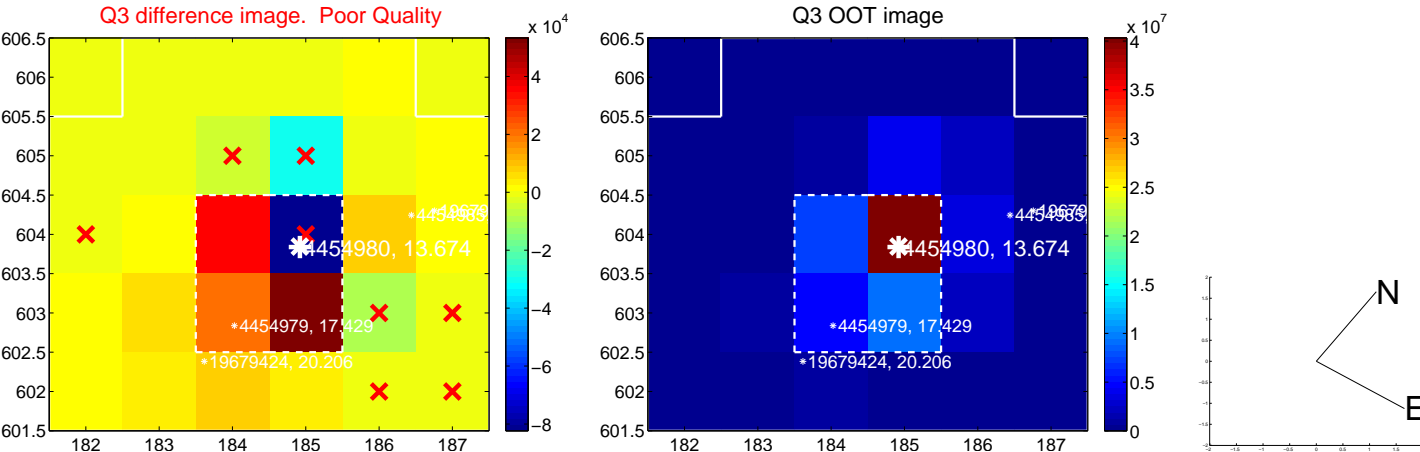
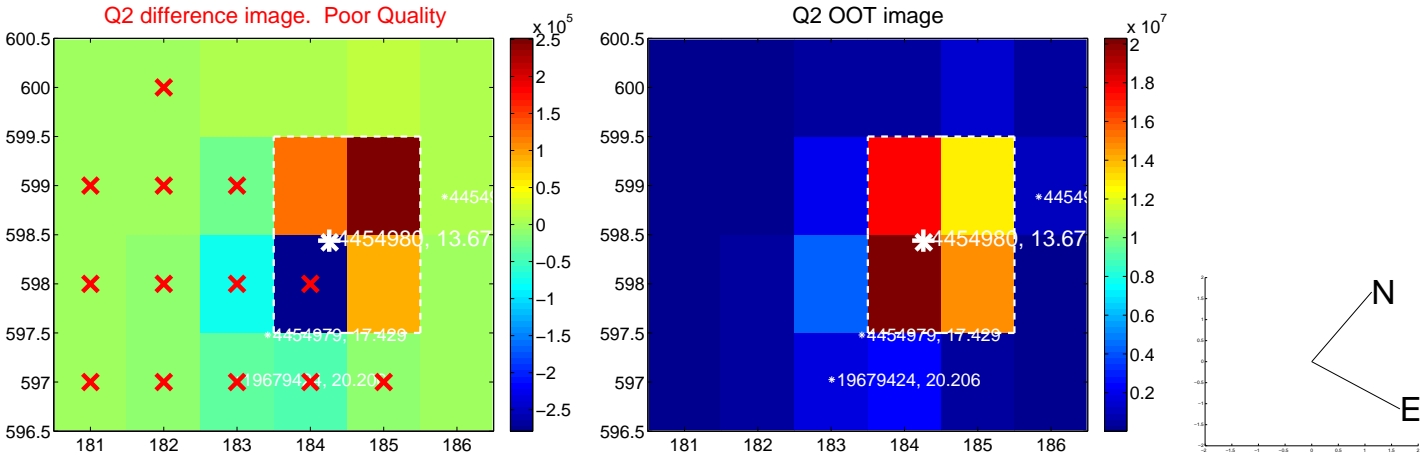
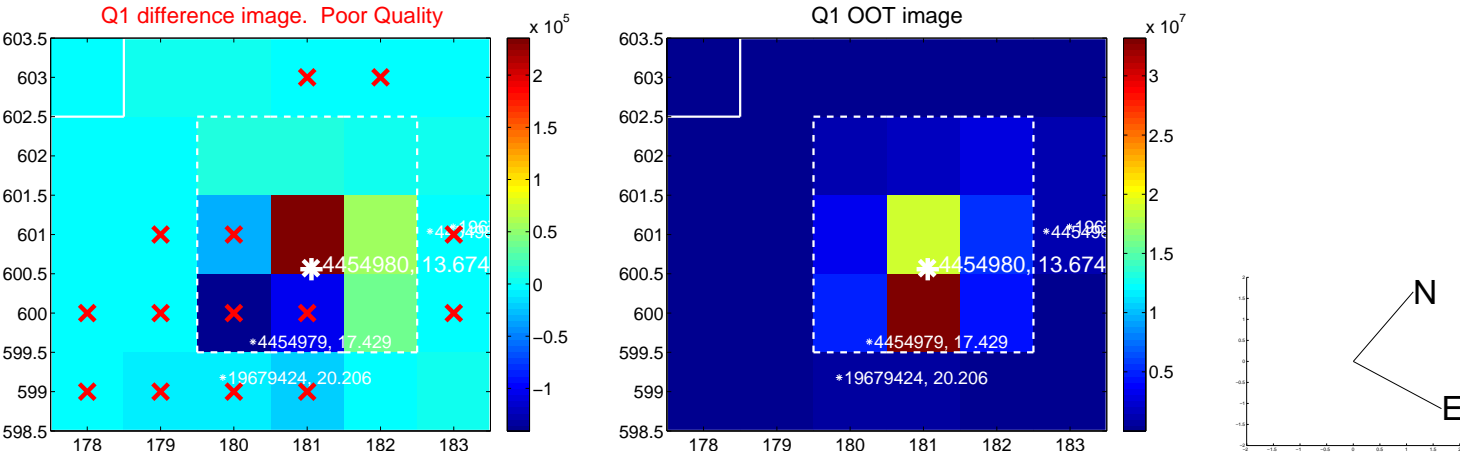
The direct PRF centroid is offset from the target star catalog position by about 0.06 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	9.230 \pm 0.077	119.31	0.253 \pm 0.075	9.226 \pm 0.077
PRF-fit source offset from KIC position	9.170 \pm 0.077	118.54	0.259 \pm 0.075	9.166 \pm 0.077
photometric centroid source offset	—	—	—	—

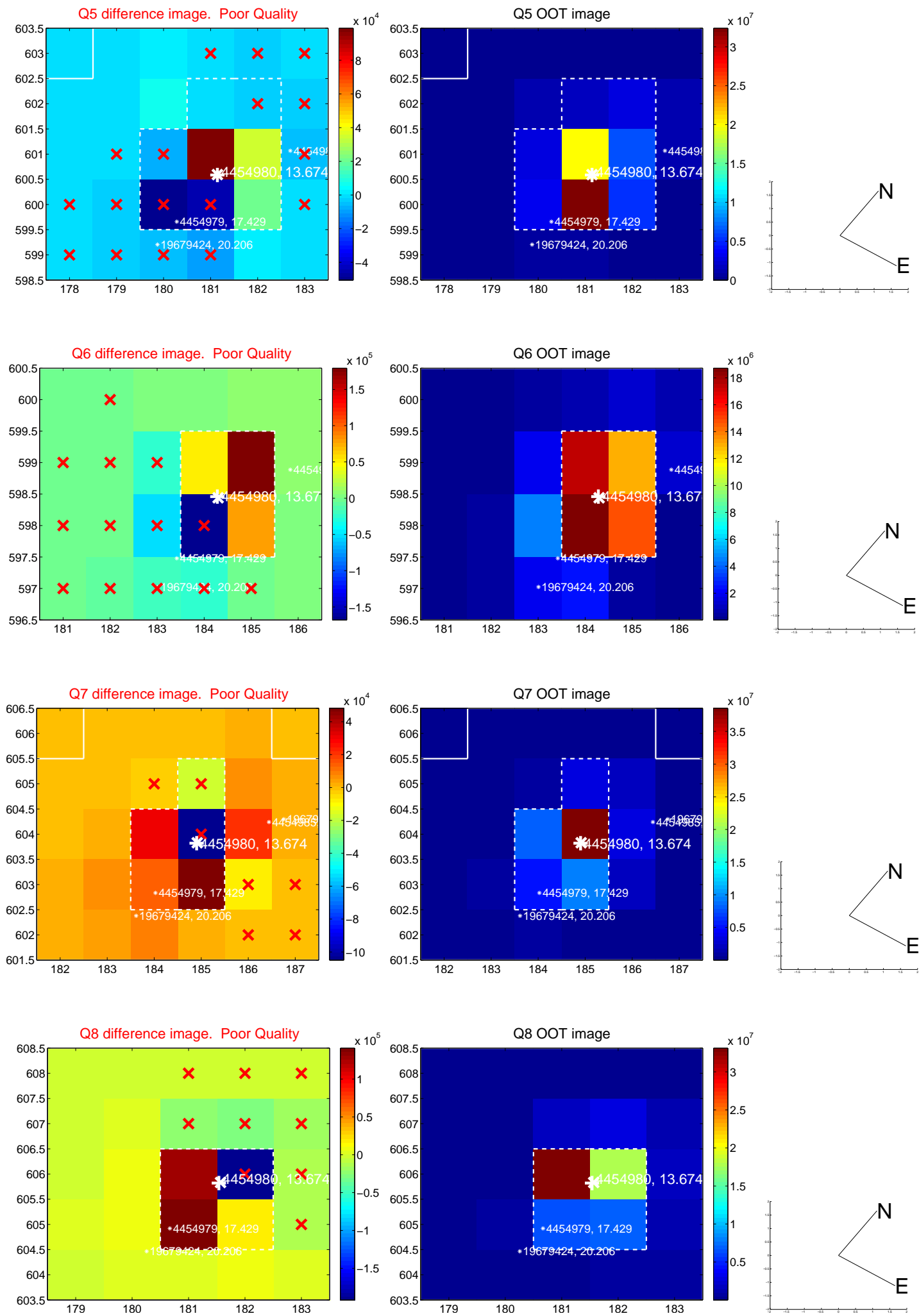


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

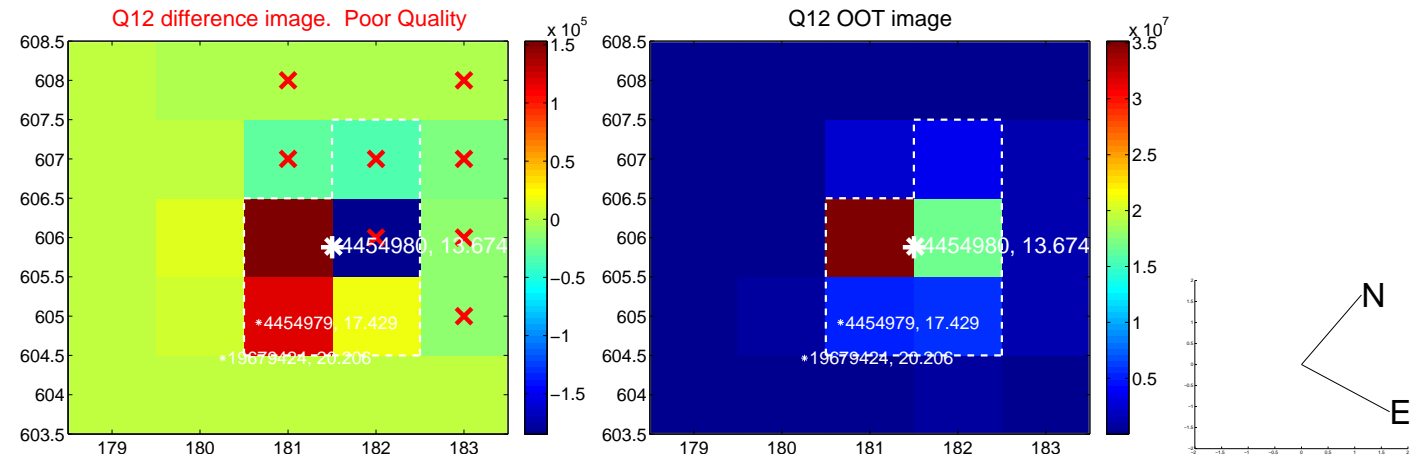
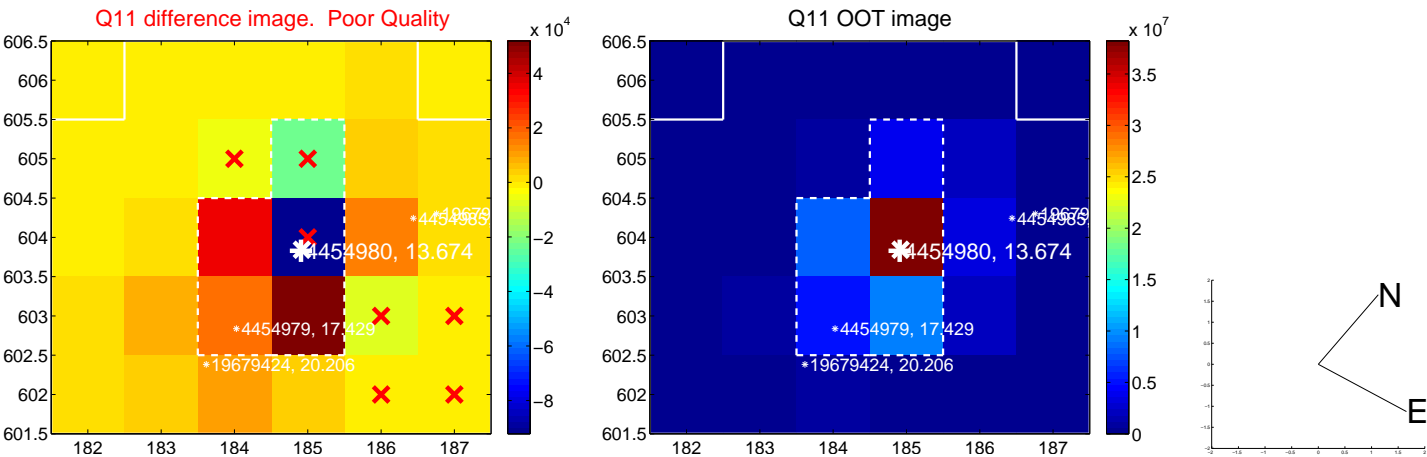
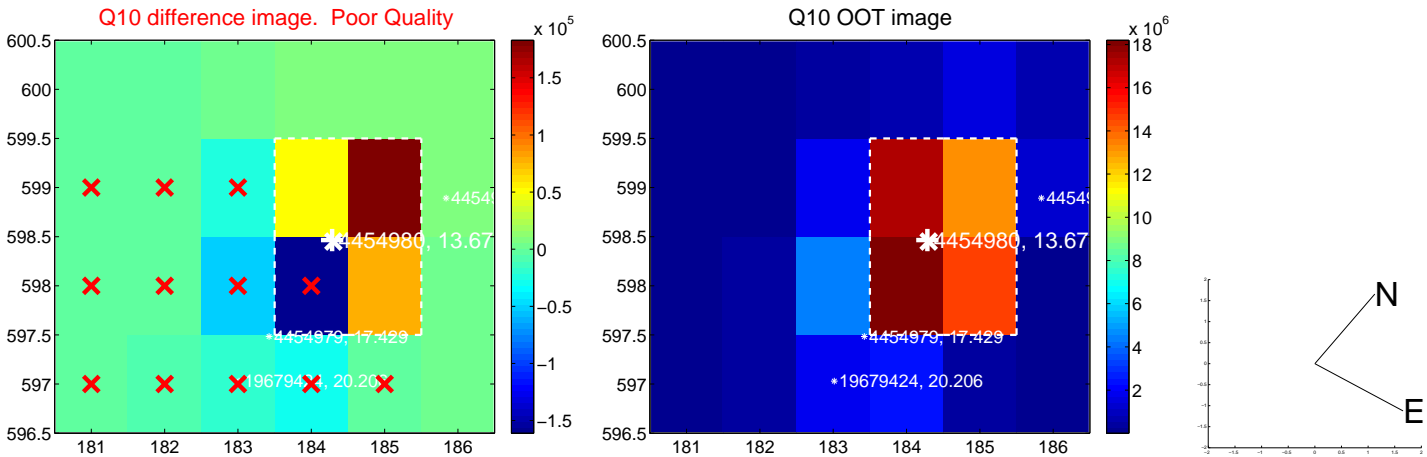
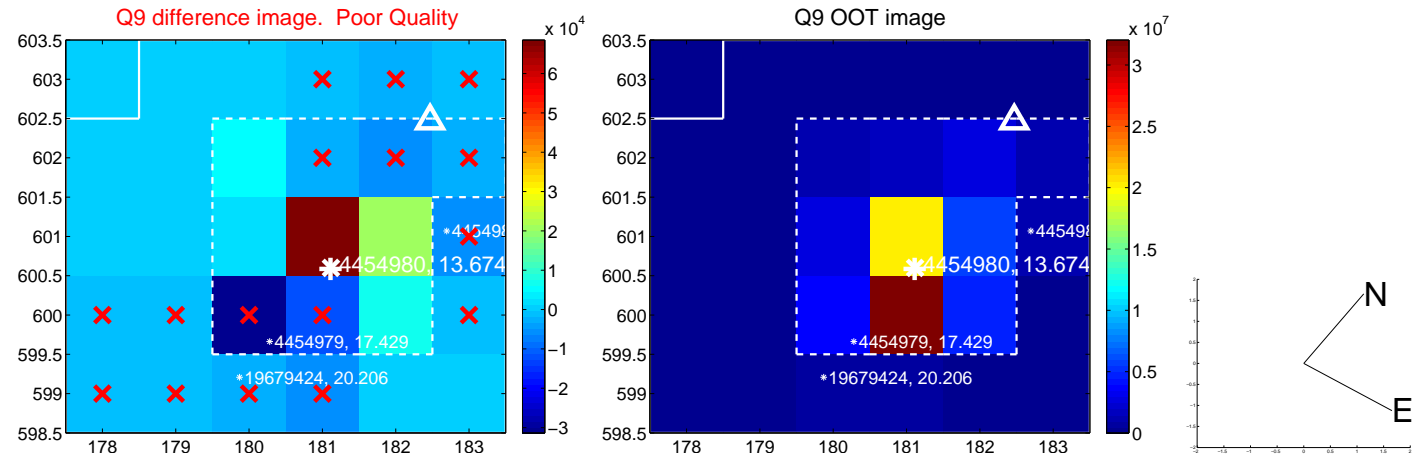
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



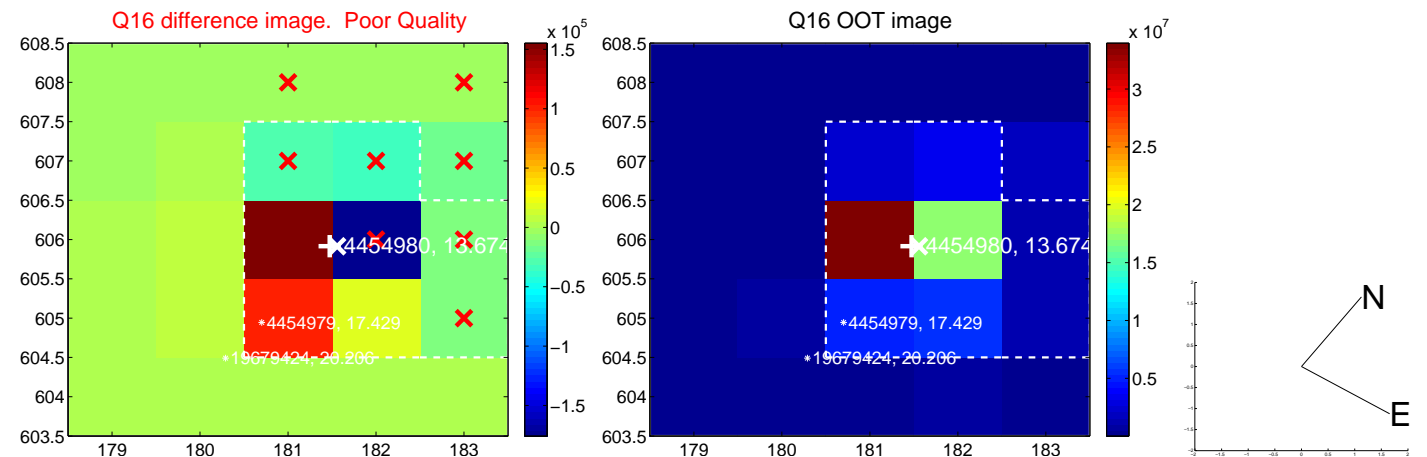
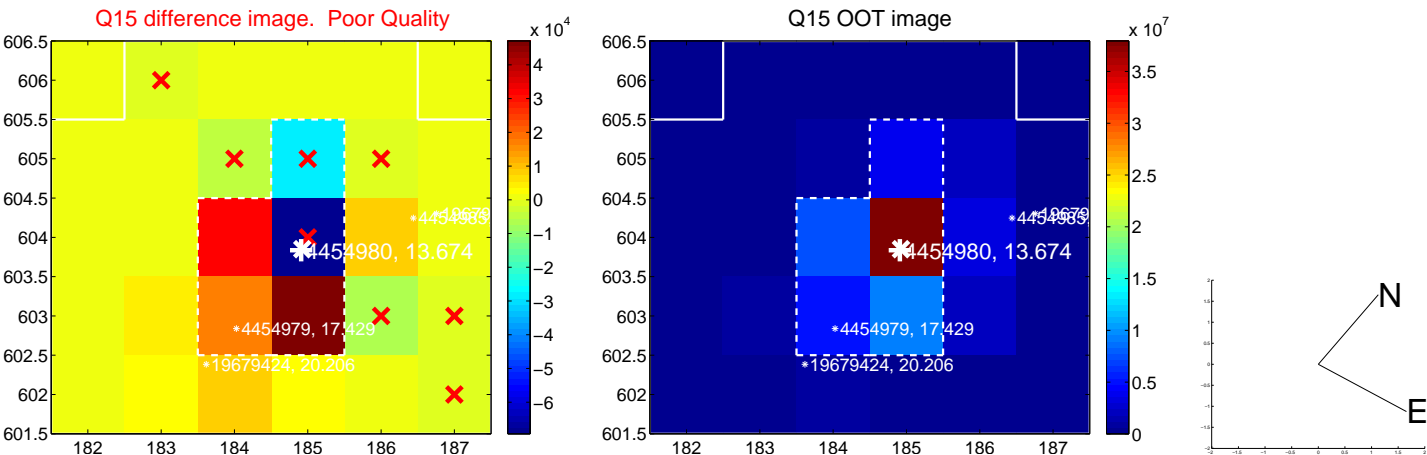
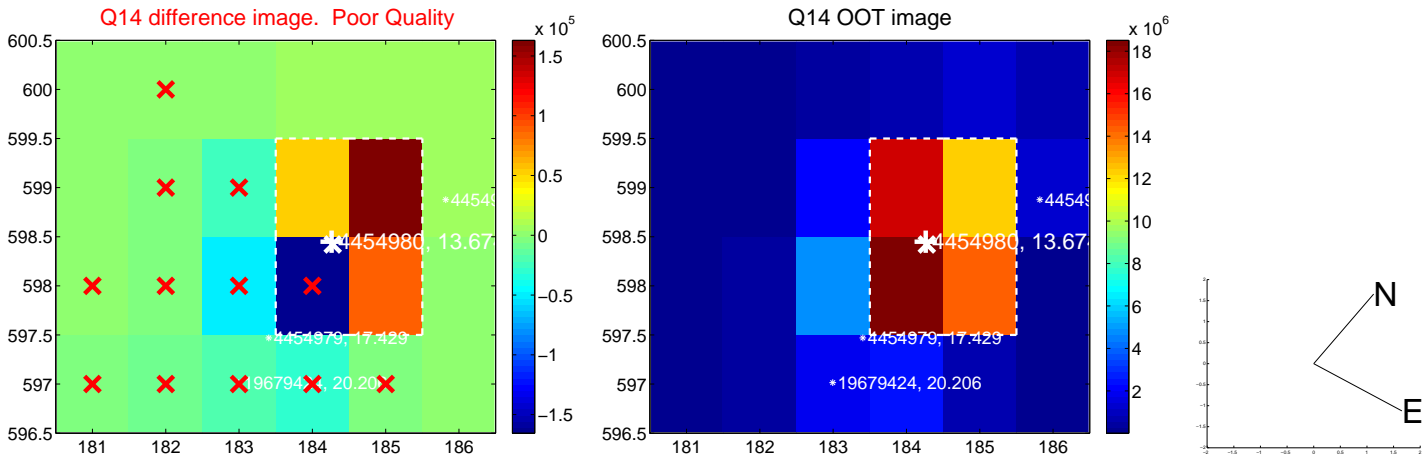
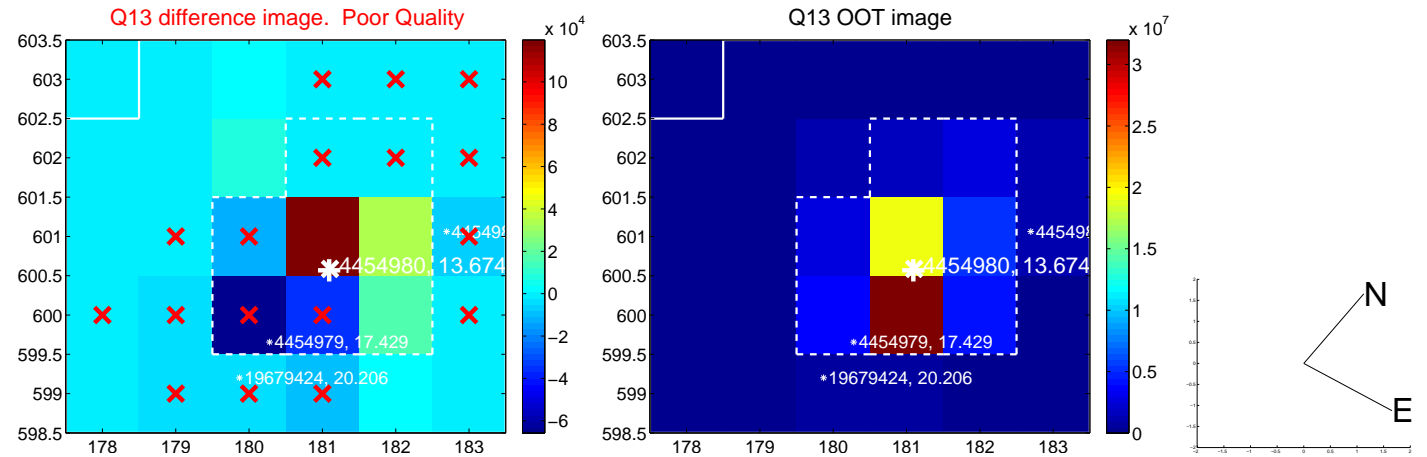
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



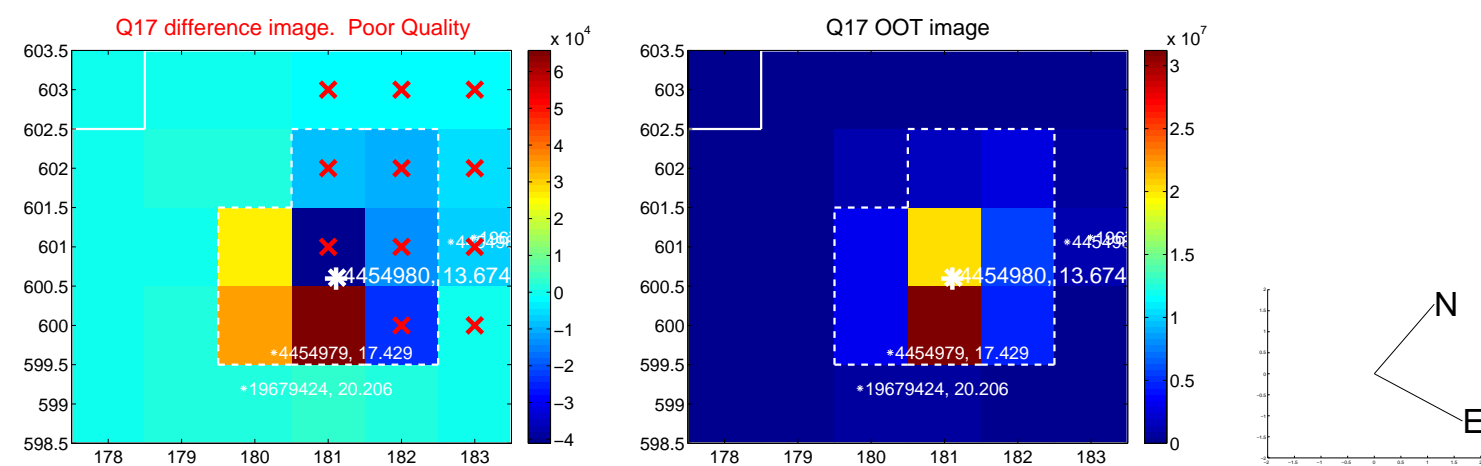
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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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

