

KIC 011971490

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})
011971490-01	OBS	No	3.222791	132.497746	15.0	35.605	8.3	7.2	2.29	8109	0.98	7387.62

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011971490-01	OBS	FP	0.00	1	0	1	0	SWEET_NTL—LPP_DV—LPP_ALT—CENT_RESOLVED_OFFSET

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

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

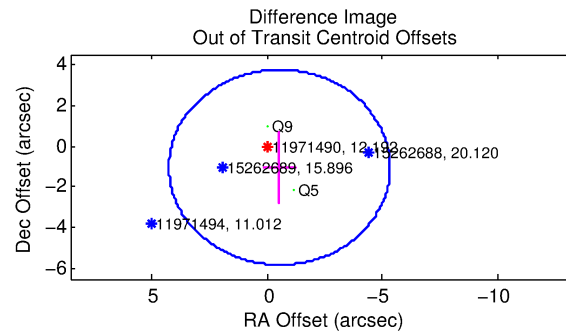
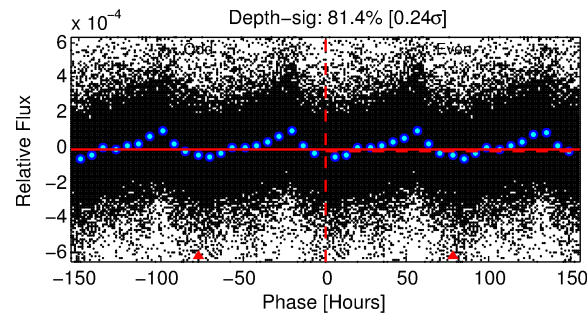
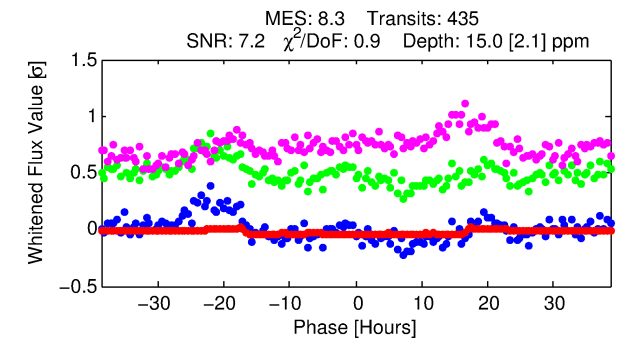
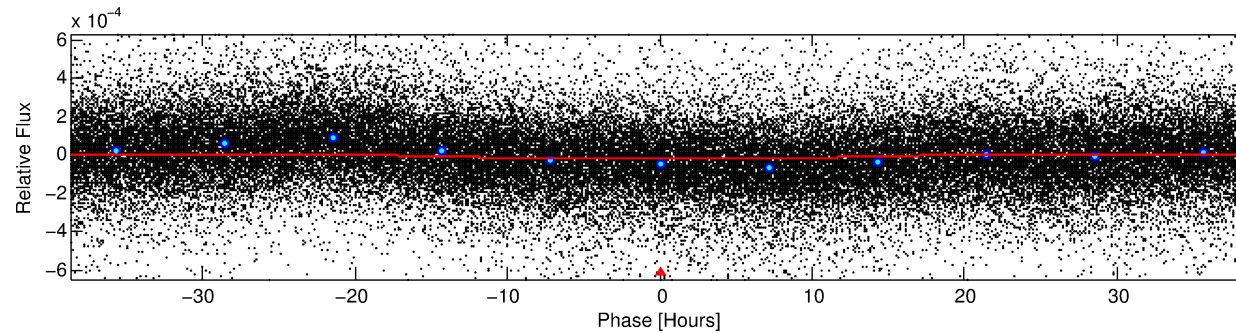
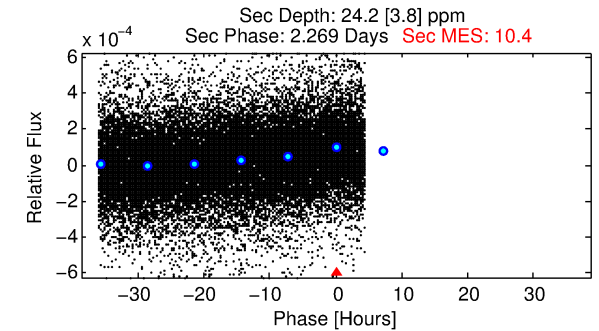
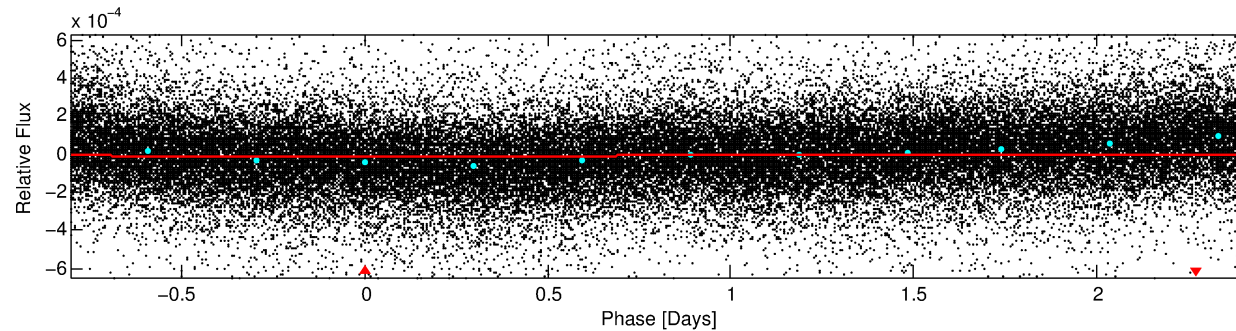
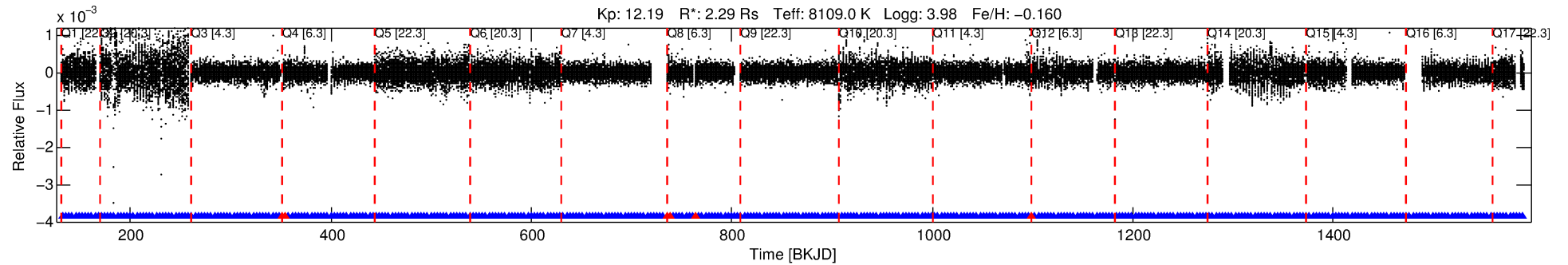
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011971490-01

No Significant Match Found

DV One-Page Summary

KIC: 11971490 Candidate: 1 of 1 Period: 3.223 d



DV Fit Results:

Period = 3.22279 [0.00015] d
Epoch = 132.4977 [0.0345] BKJD
Rp/R* = 0.0039 [0.0006]
a/R* = 1.01 [0.01]
b = 0.81 [0.36]
Seff = 7387.62 [3150.39]
Teq = 2364 [252] K
Rp = 0.98 [0.33] Re
a = 0.0523 [0.0136] AU
Ag = 37.95 [19.88] [1.86 σ]
Teff = 9072 [875] K [7.37 σ]

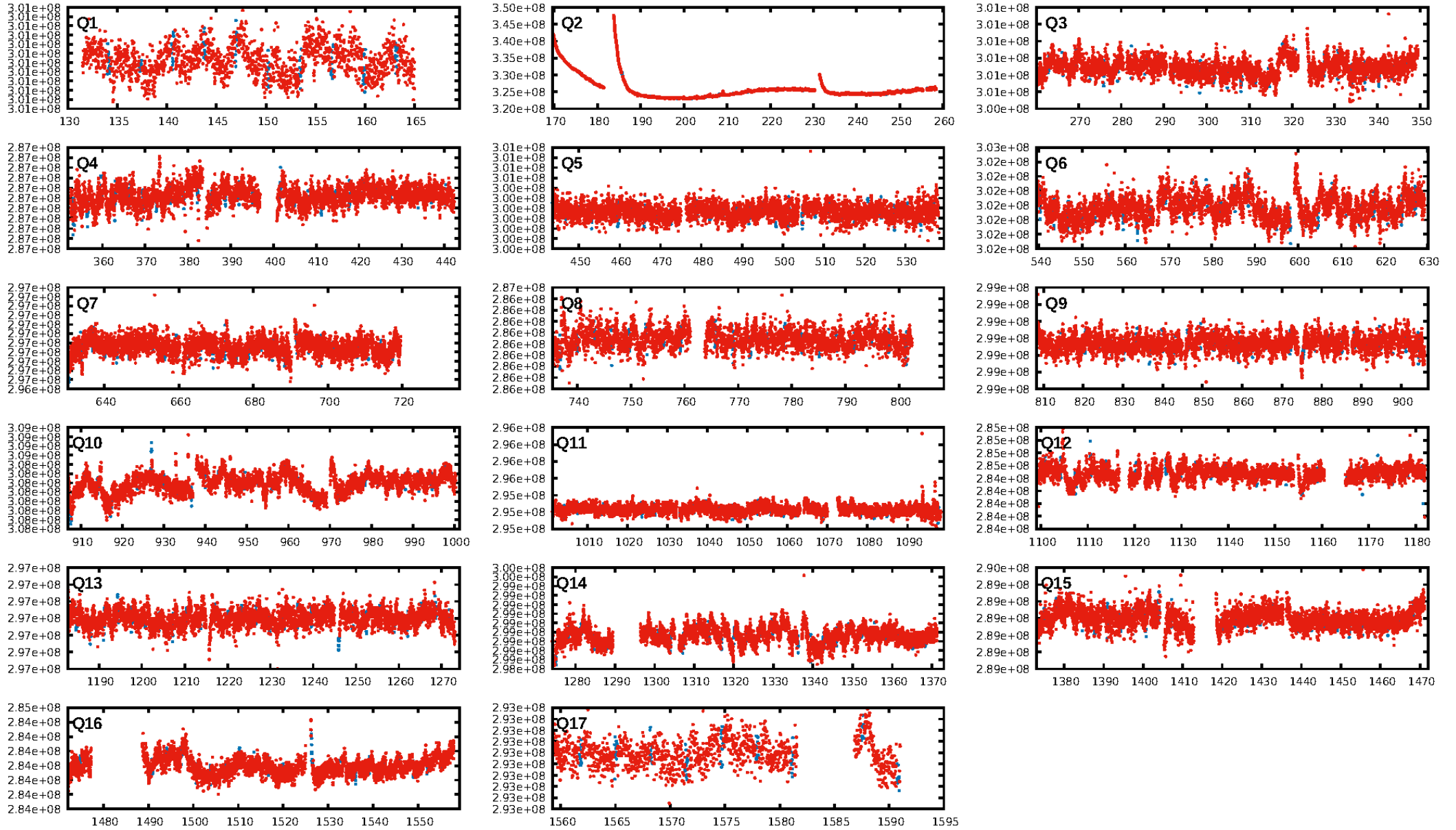
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGoF-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.99 [410/416]
GhostDiagnostic-chr: -1.273
Centroid-sig: 0.0%
Centroid-so: 13.350 arcsec [14.68 σ]
OotOffset-rm: 1.165 arcsec [0.73 σ]
KicOffset-rm: 6.336 arcsec [4.54 σ]
OotOffset-st: 0/0/0/2 [2]
KicOffset-st: 0/0/0/2 [2]
DiffImageQuality-fgm: 1.00 [2/2]
DiffImageOverlap-fno: 1.00 [17/17]

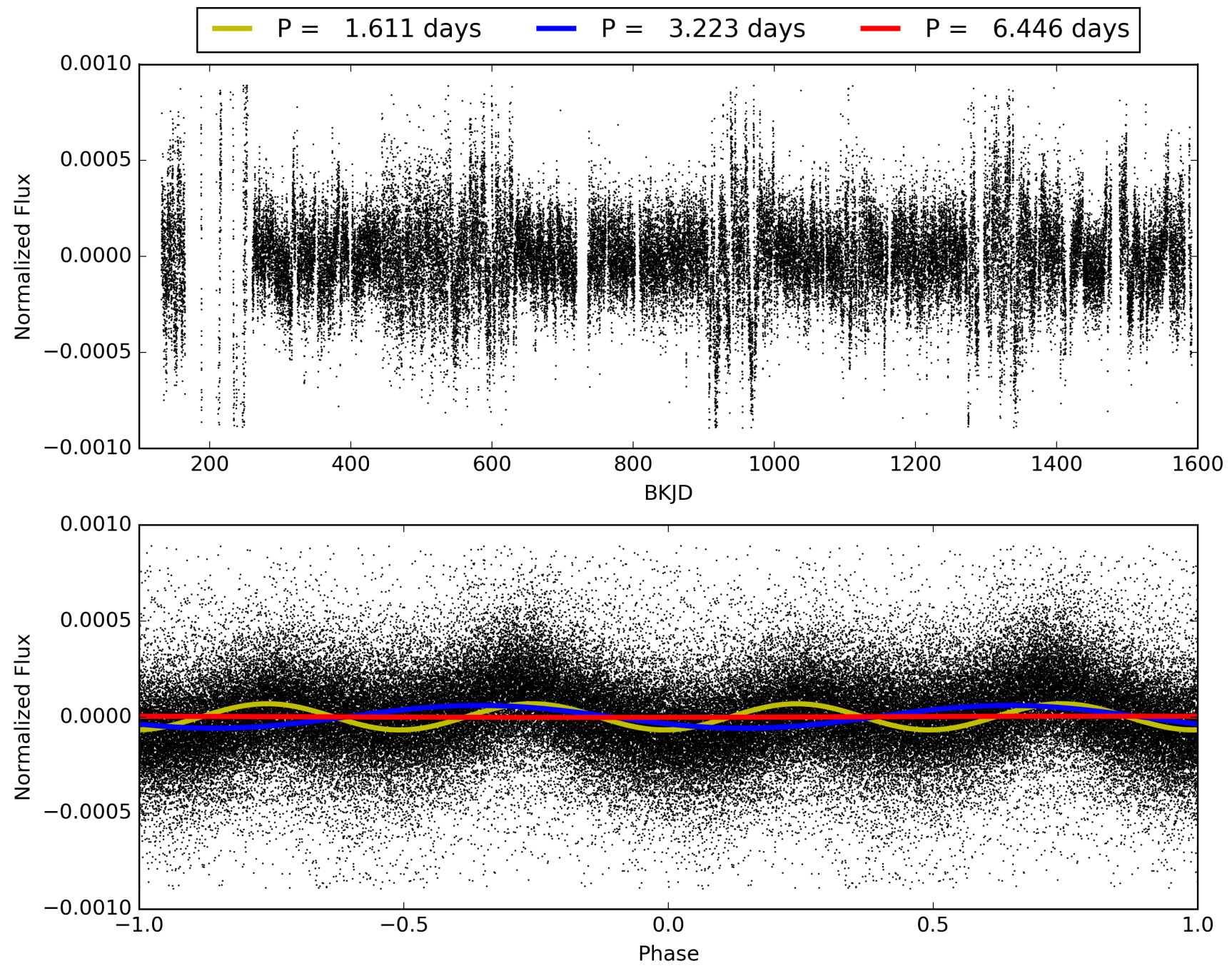
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 22:37:30 Z

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

TCE 011971490-01, PDC Light Curves

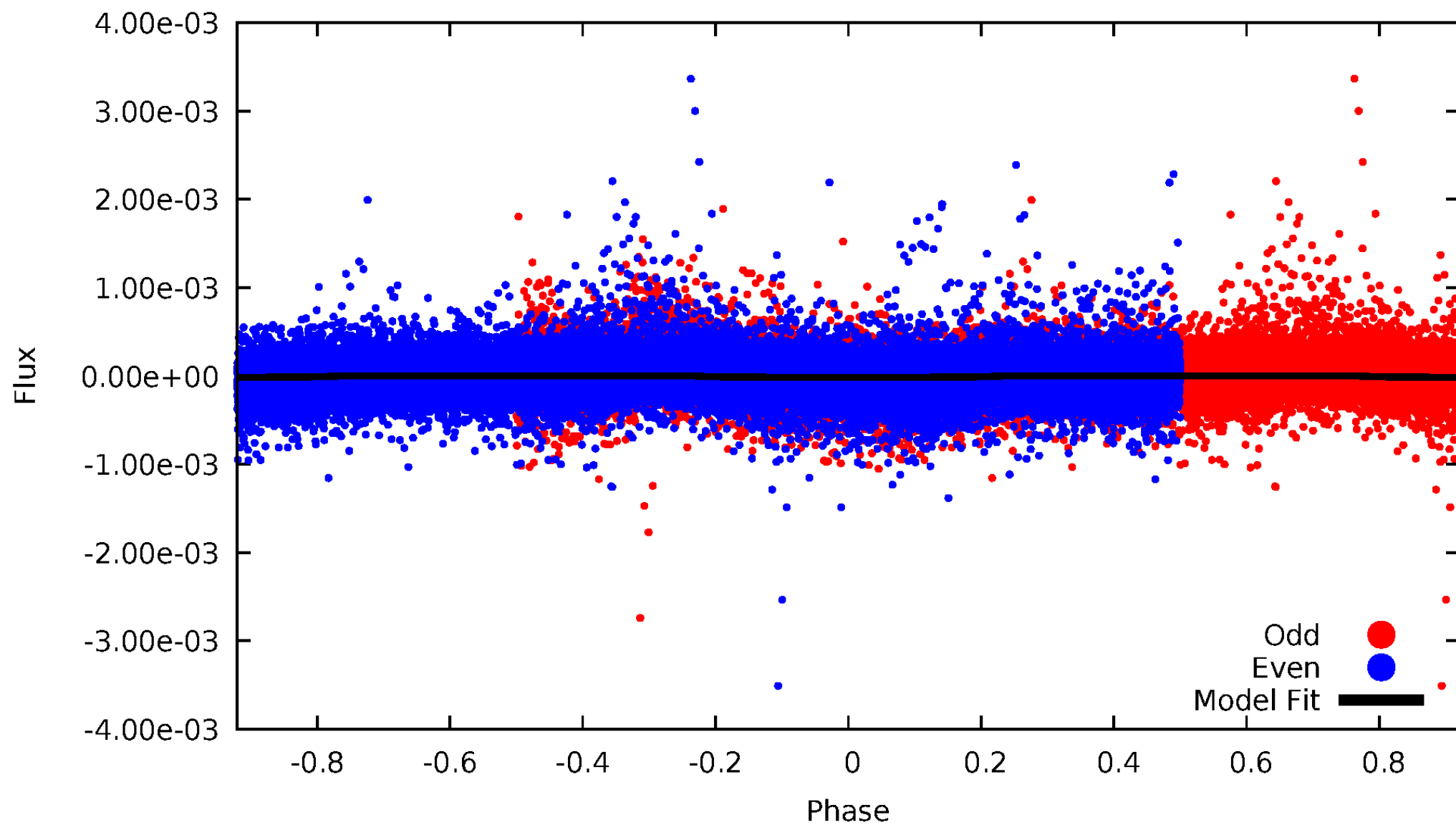


TCE 011971490-01



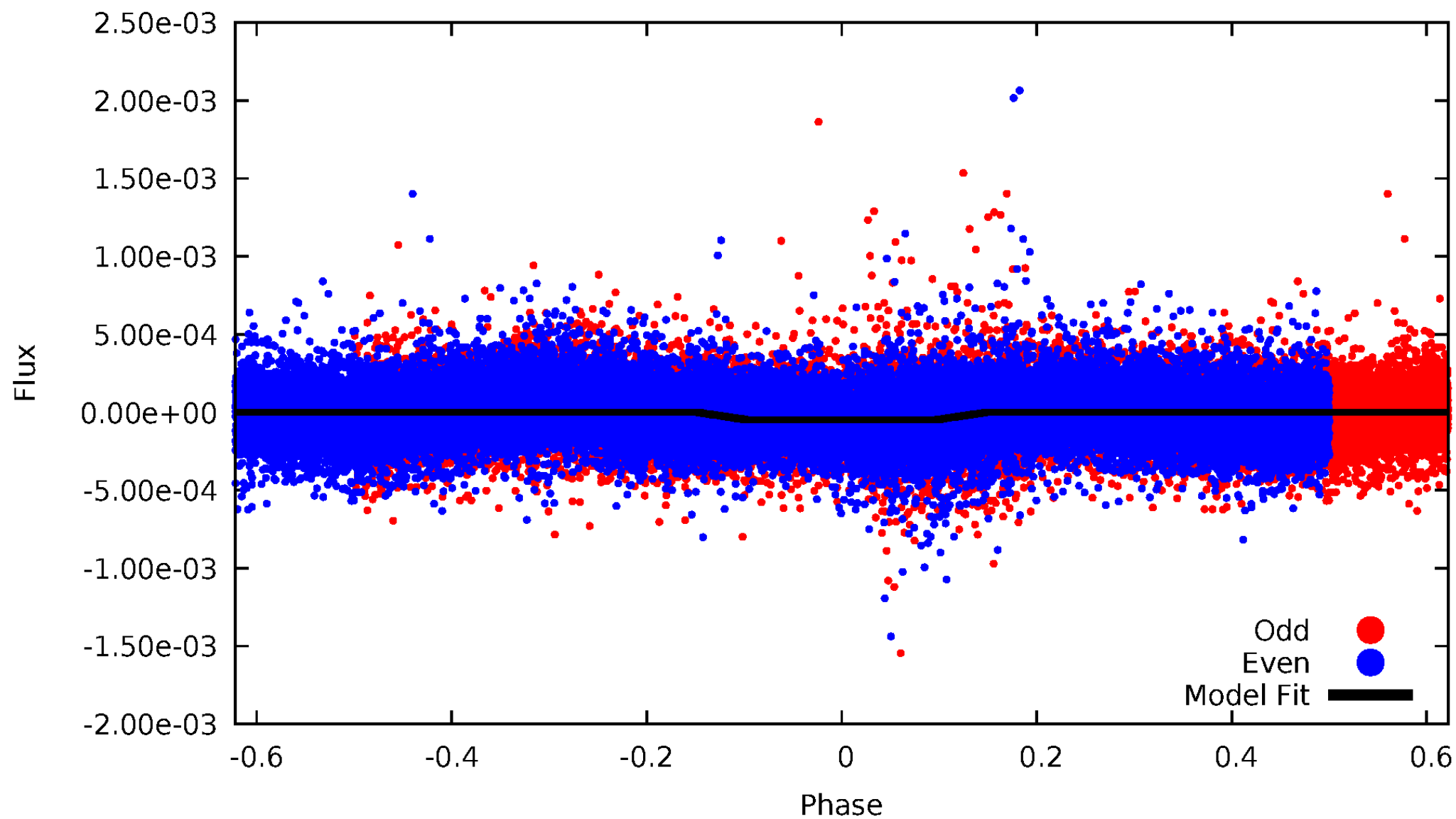
DV Odd/Even

TCE 011971490-01



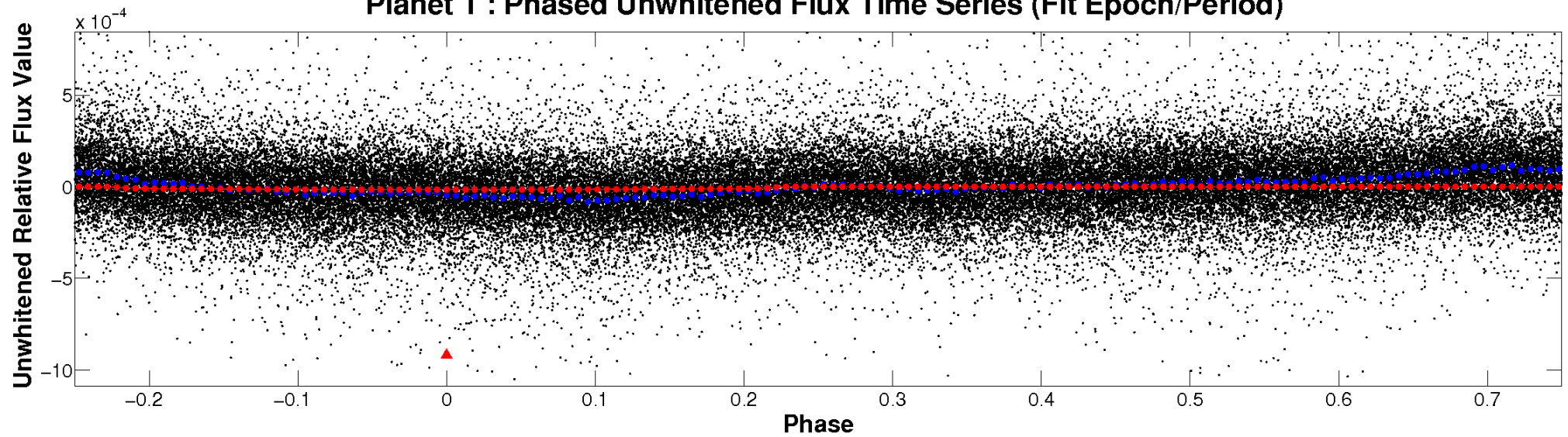
ALT Odd/Even

TCE 011971490-01

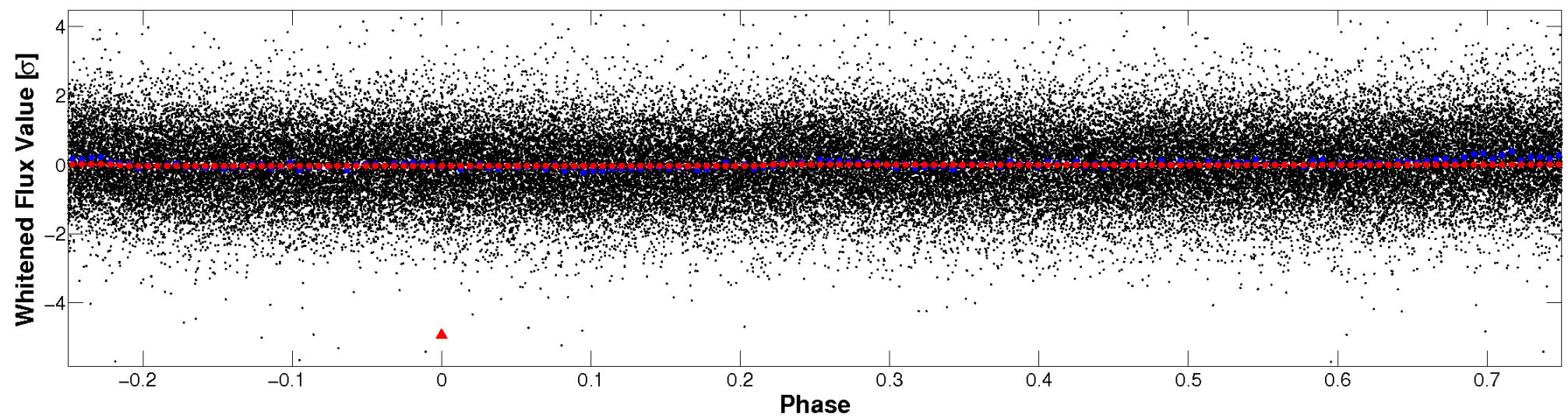


Non-Whitened Vs. Whitened Light Curve

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

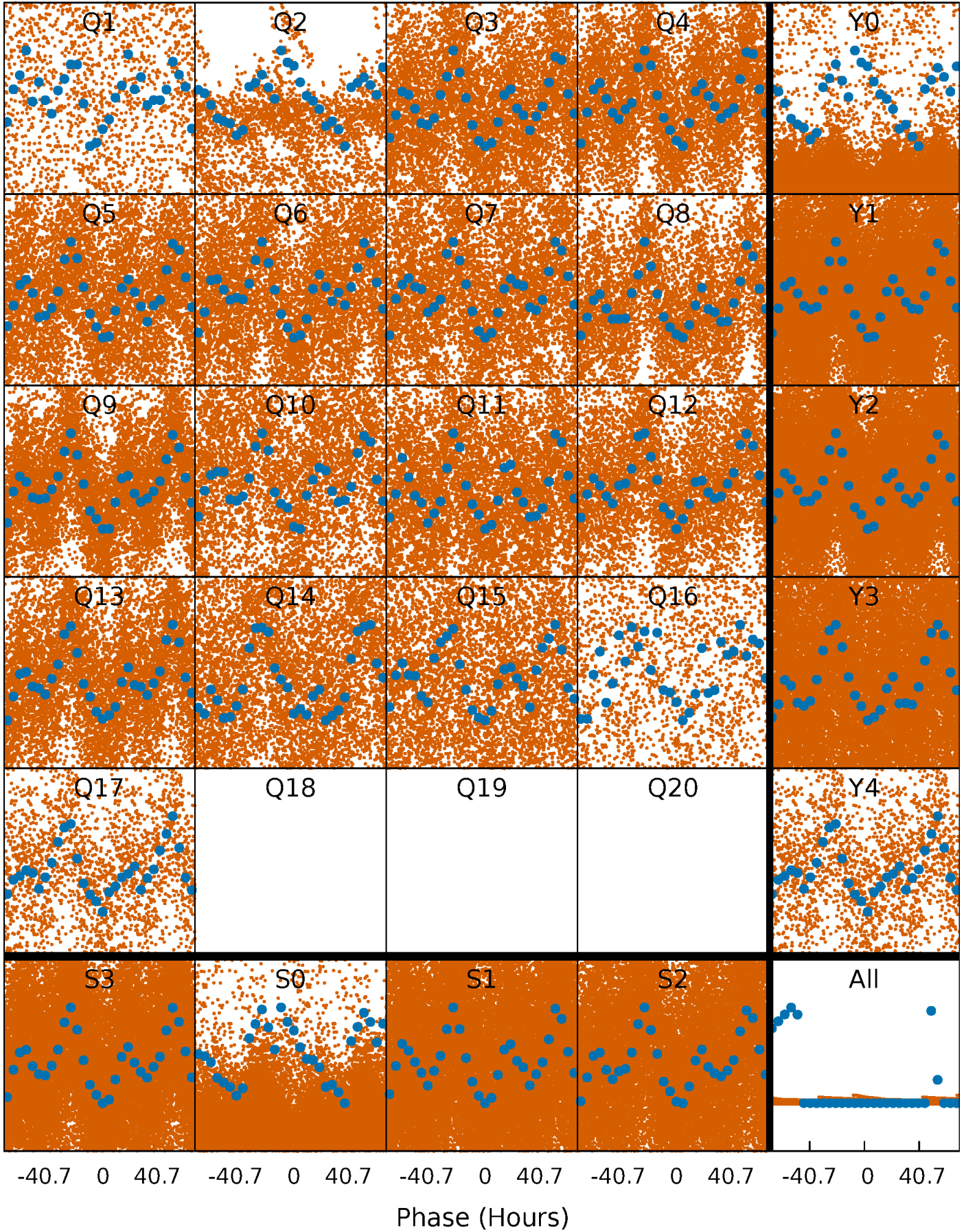


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



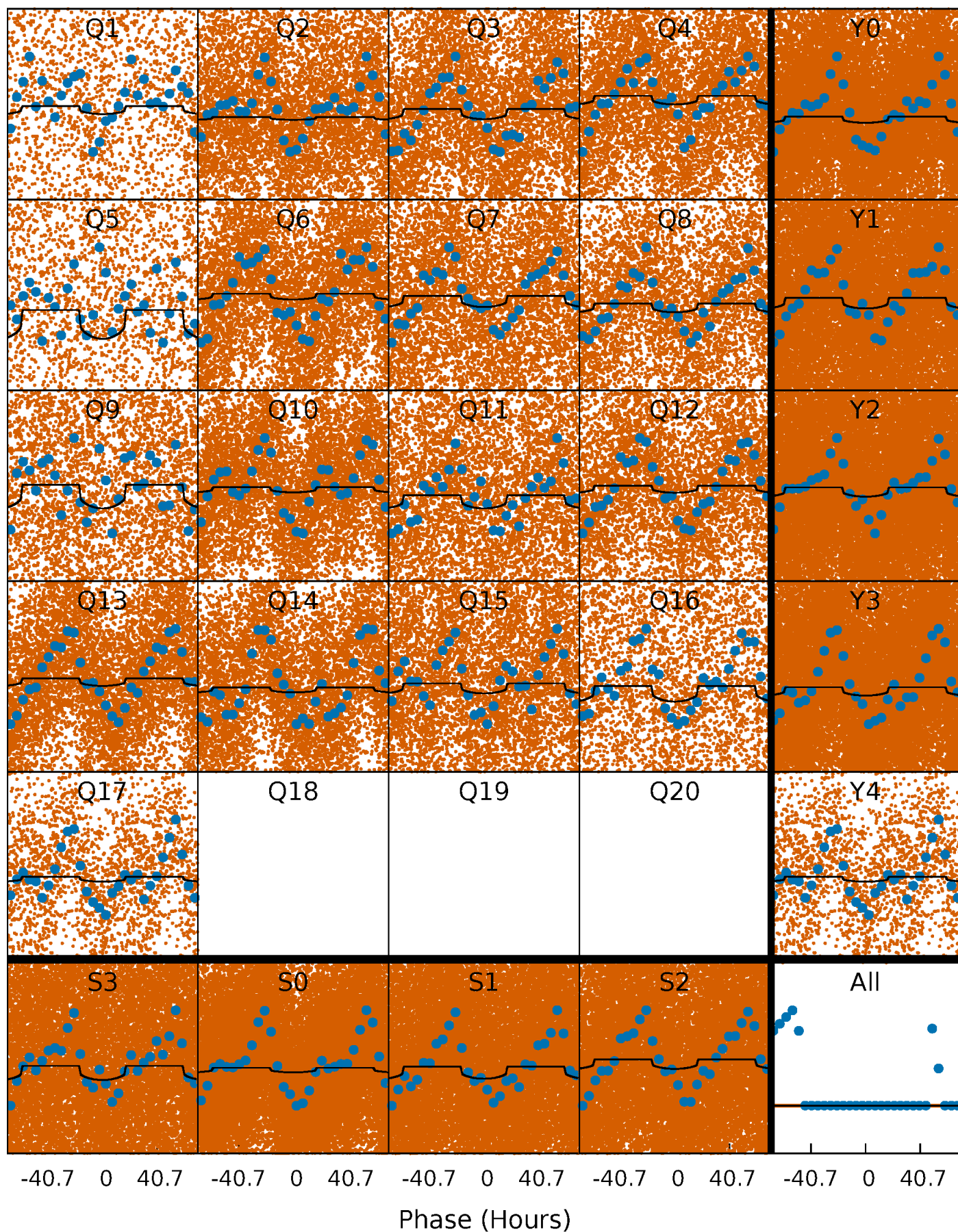
PDC Quarter-Phased Transit Curves

TCE 011971490-01 P= 3.222791 Days $T_0=132.497746$ (BKJD)



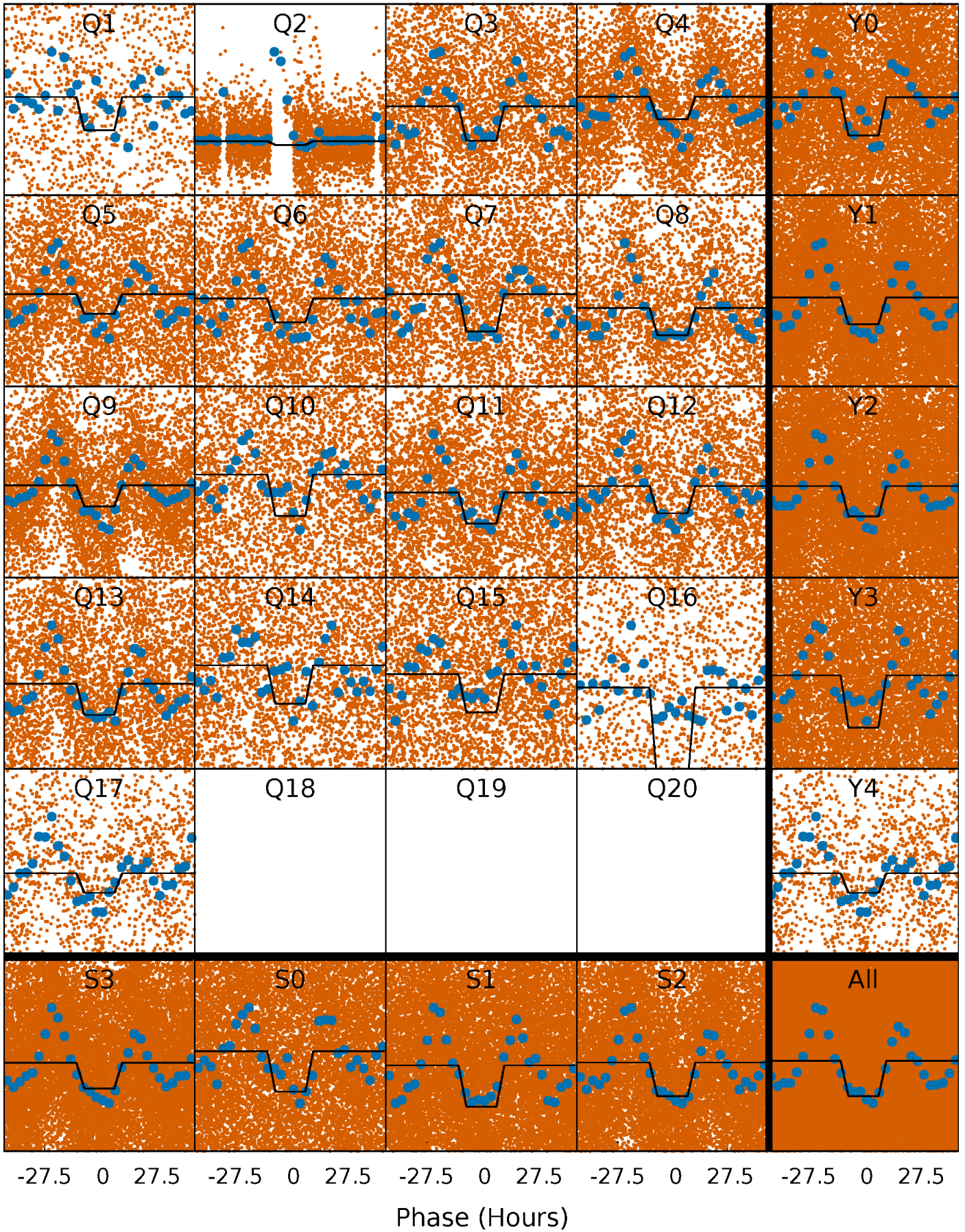
DV Quarter-Phased Transit Curves

TCE 011971490-01 P= 3.222791 Days $T_0=132.497746$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

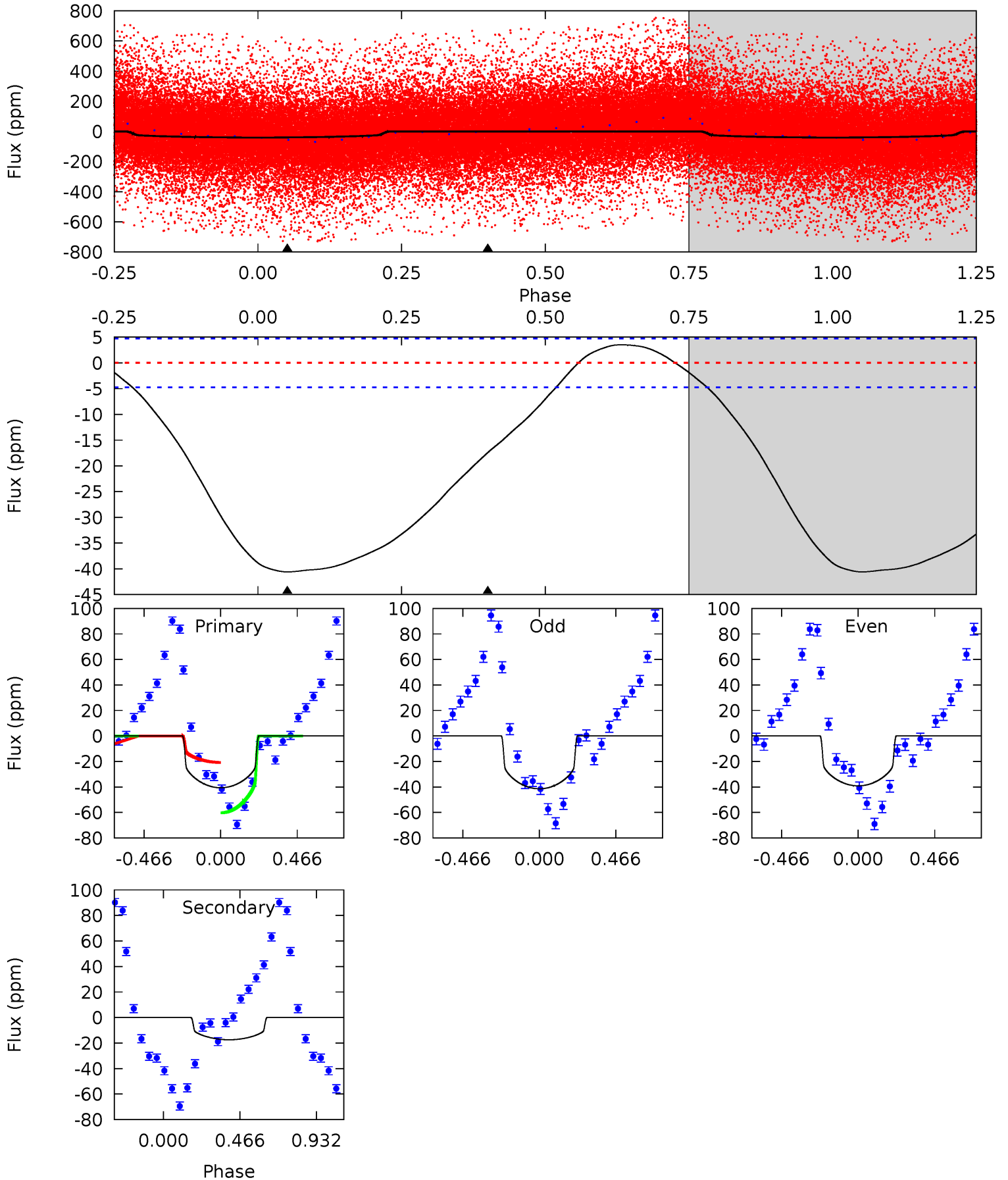
TCE 011971490-01 P= 3.222794 Days $T_0=132.548832$ (BKJD)



DV Model-Shift Uniqueness Test

011971490-01, P = 3.222791 Days, E = 129.274955 Days

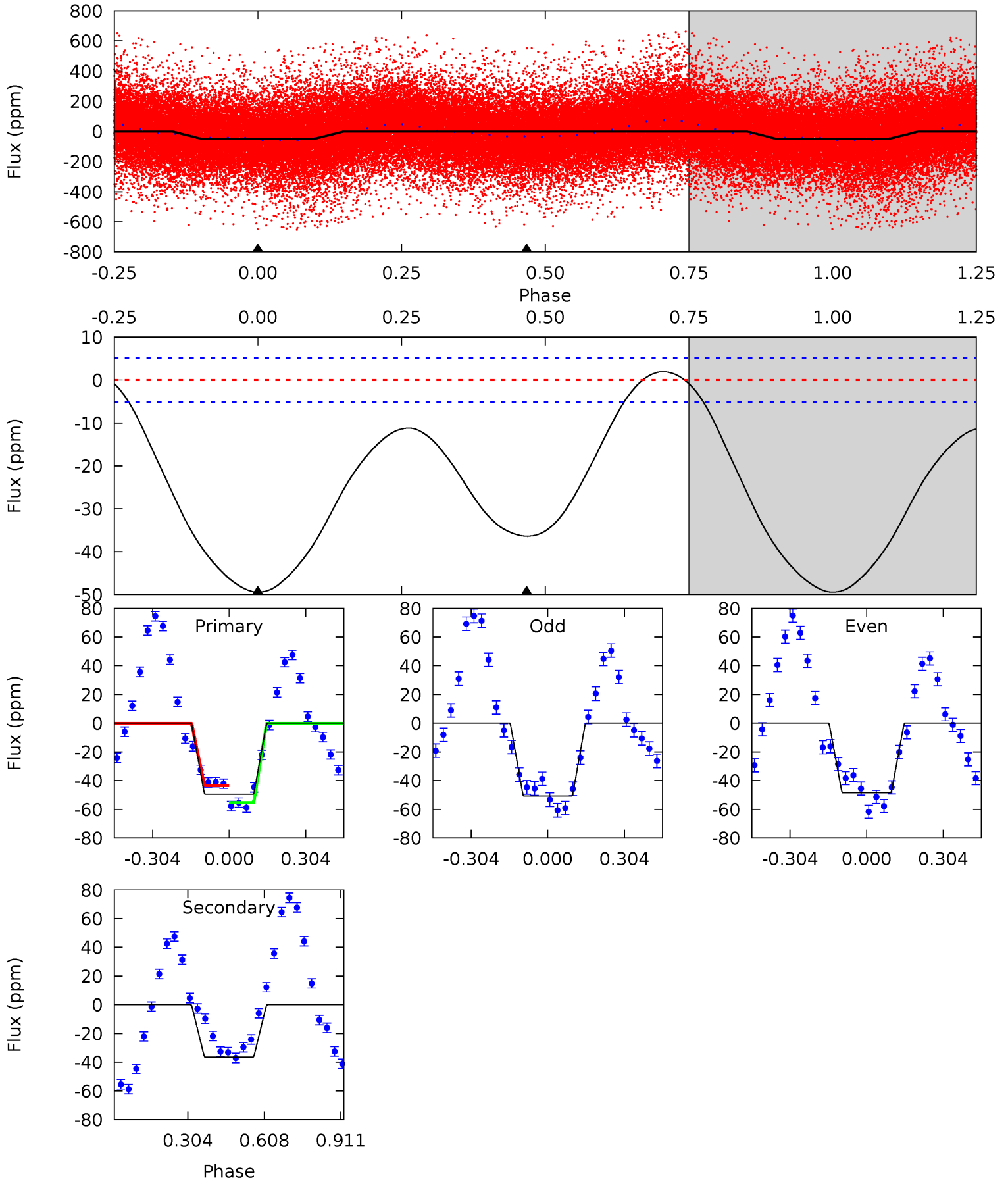
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
36.1	15.5	0	0	4.23	0.73	1.89	36.1	36.1	15.5	15.5	1.04	1.07	0.08	20.1



Alt Model-Shift Uniqueness Test

011971490-01, P = 3.222794 Days, E = 129.326038 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
41.5	30.5	0	0	4.33	1.03	4.24	41.5	41.5	30.5	30.5	0.95	0.97	0.04	5.27



Stellar Parameters For KIC 011971490

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	8109^{+226}_{-340}	$3.985^{+0.221}_{-0.136}$	$-0.160^{+0.250}_{-0.300}$	$2.286^{+0.449}_{-0.674}$	$1.841^{+0.134}_{-0.336}$	$0.217^{+0.294}_{-0.080}$
	+3%/-4%	+6%/-3%	+156%/-188%	+20%/-29%	+7%/-18%	+135%/-37%
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 011971490-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-17 ± 1	$0.95^{+0.22}_{-0.20}$	3275^{+225}_{-244}	8287^{+1086}_{-747}	28^{+16}_{-9}
Alt.	-36 ± 1	$1.73^{+0.27}_{-0.32}$	3293^{+195}_{-266}	7364^{+506}_{-469}	18^{+9}_{-4}

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

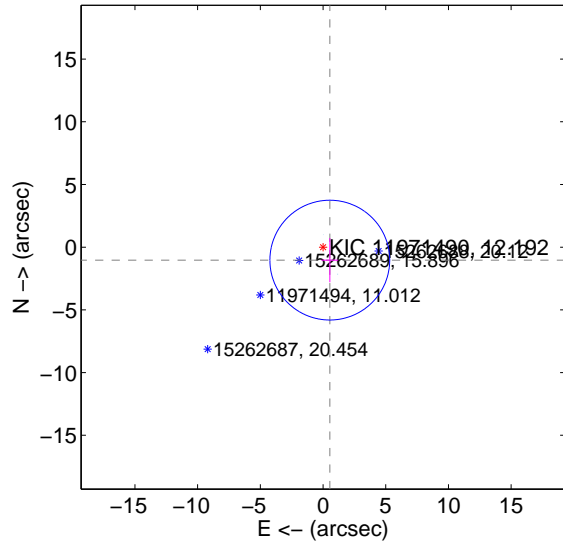
Supplemental centroid analysis for 011971490-01. Kepler magnitude: 12.19. Transit SNR 7.19

There are 2 quarters with good PRF difference image offsets

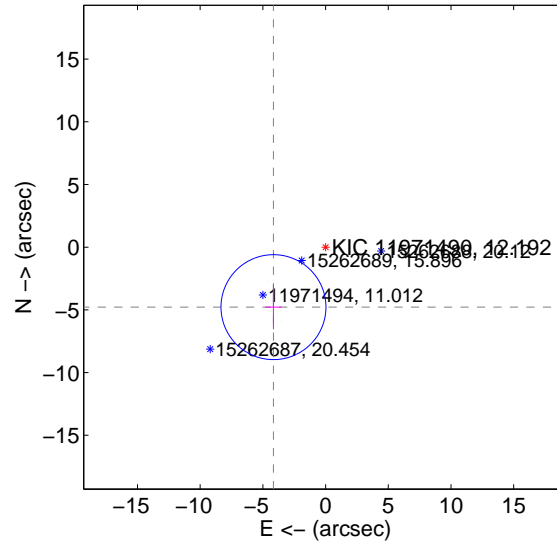
The OOT PRF centroid is offset from the target star catalog position by about 6.00 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.165 ± 1.592	0.73	-0.540 ± 0.667	-1.032 ± 1.763
PRF-fit source offset from KIC position	6.336 ± 1.395	4.54	4.156 ± 0.653	-4.782 ± 1.759
photometric centroid source offset	13.35 ± 0.91	14.68	11.63 ± 0.99	-6.56 ± 0.56

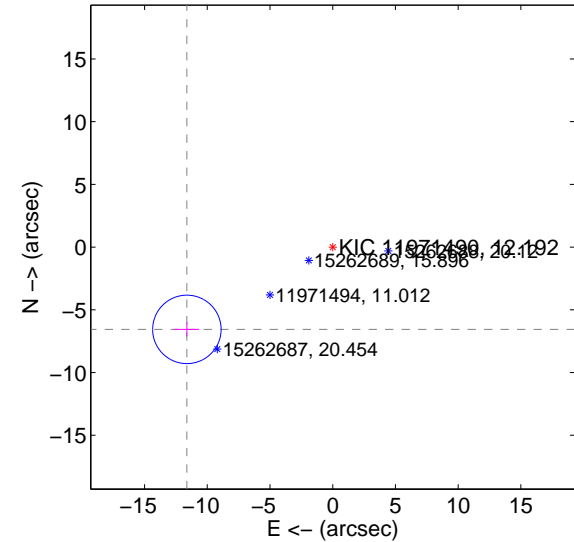
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

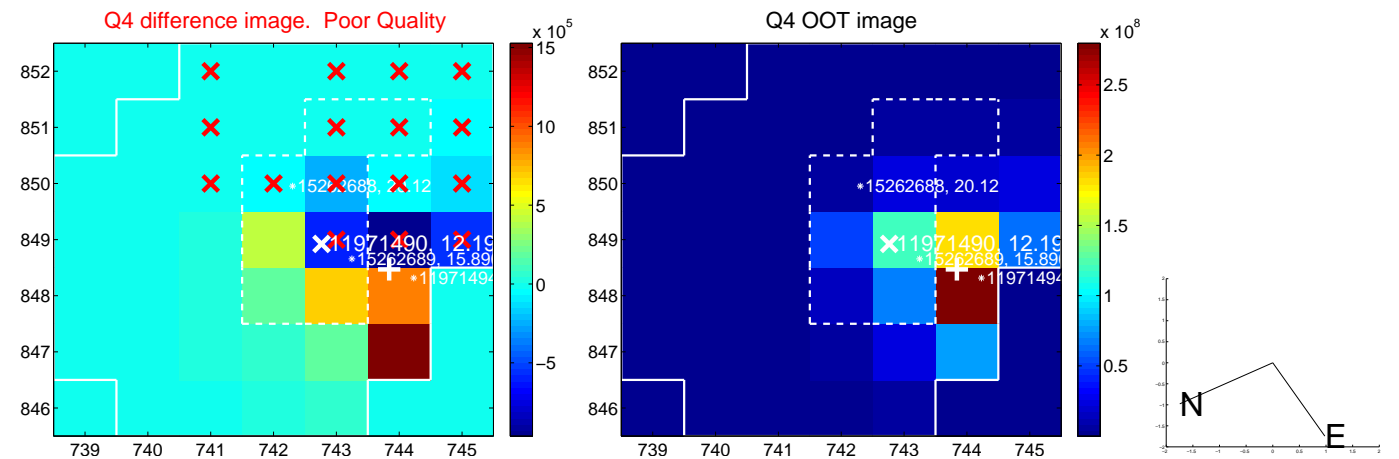
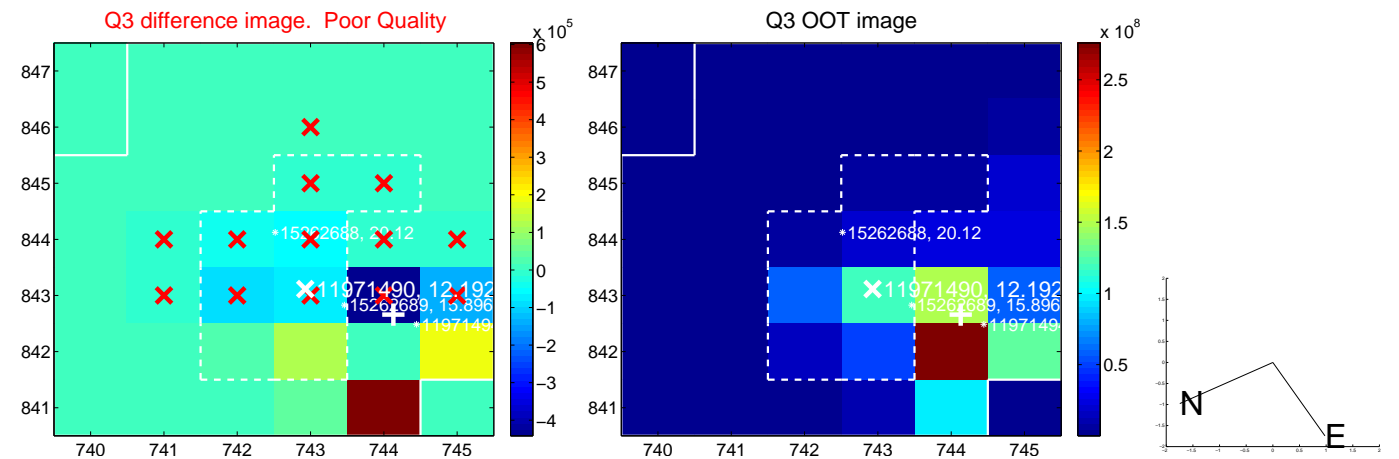
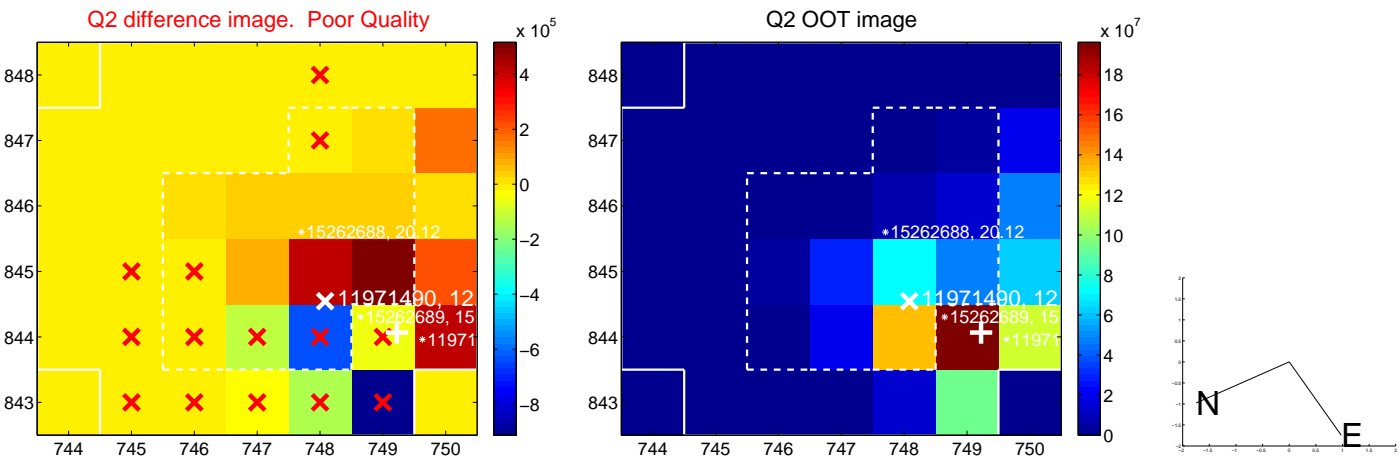
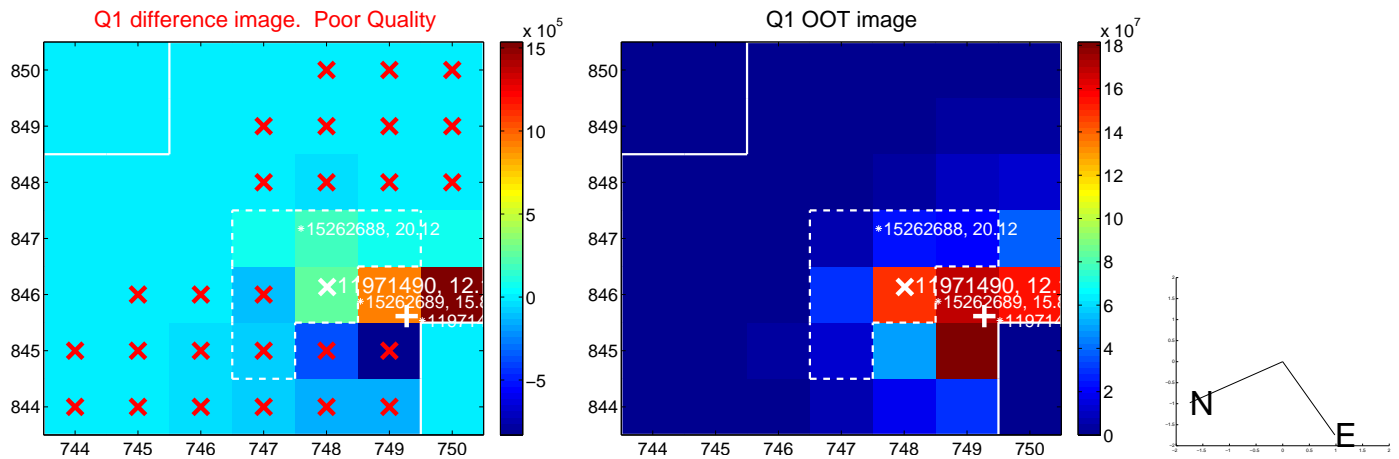


offset from photometric centroids

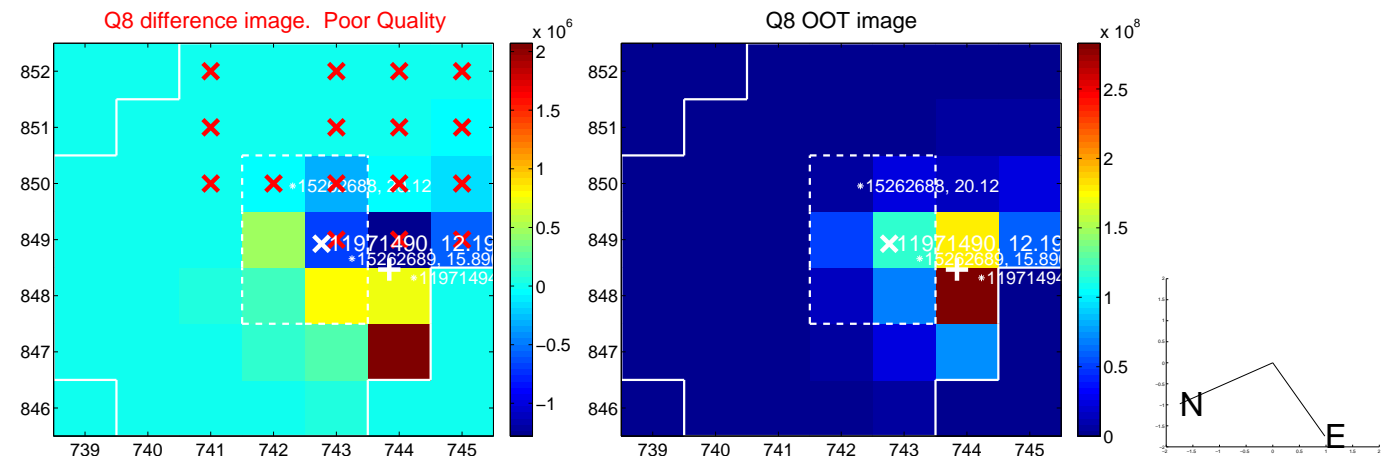
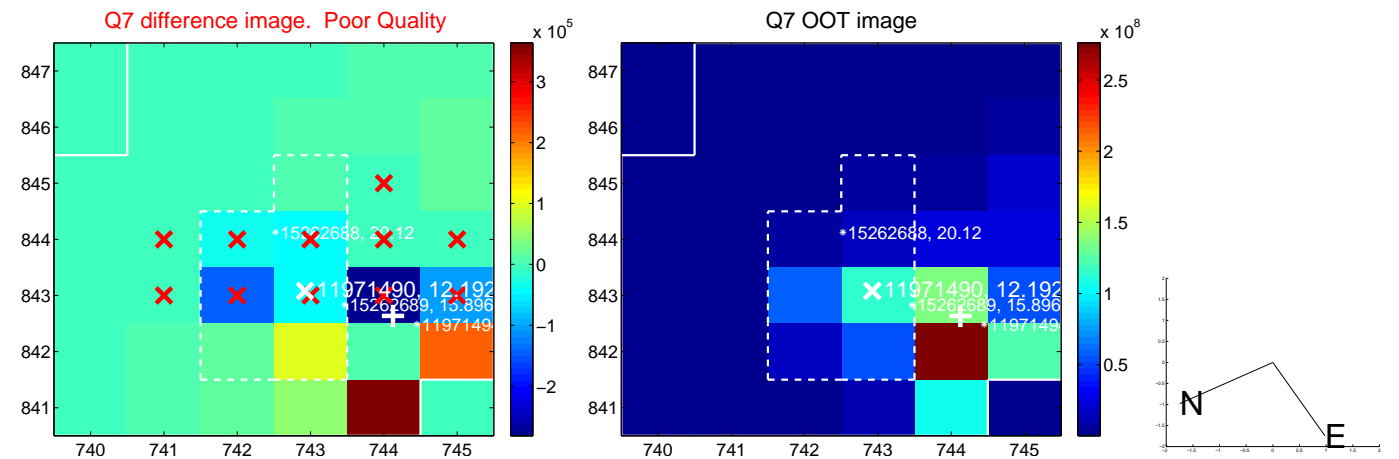
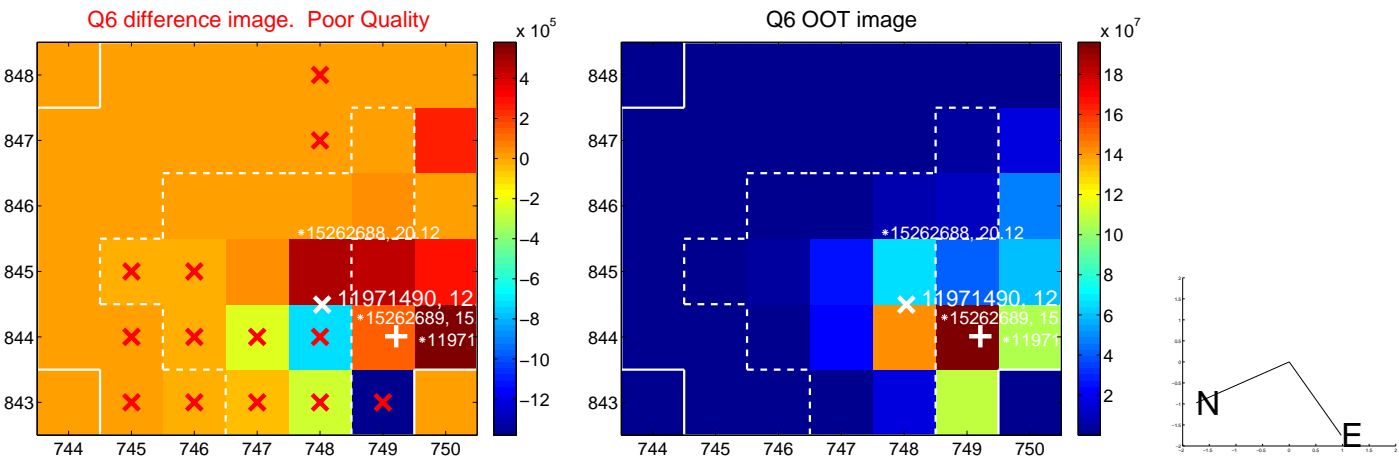
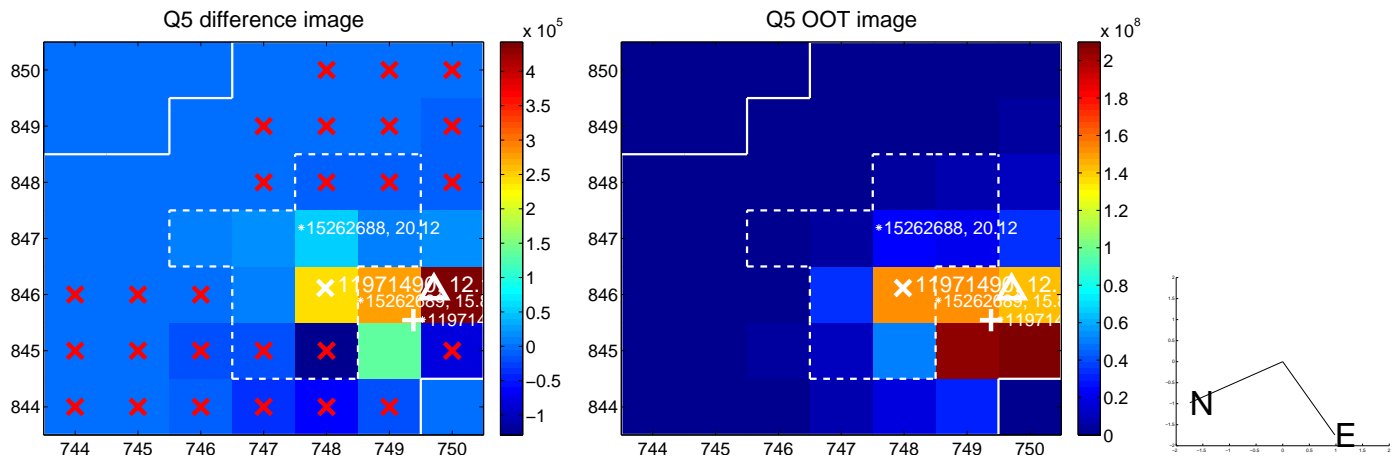


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

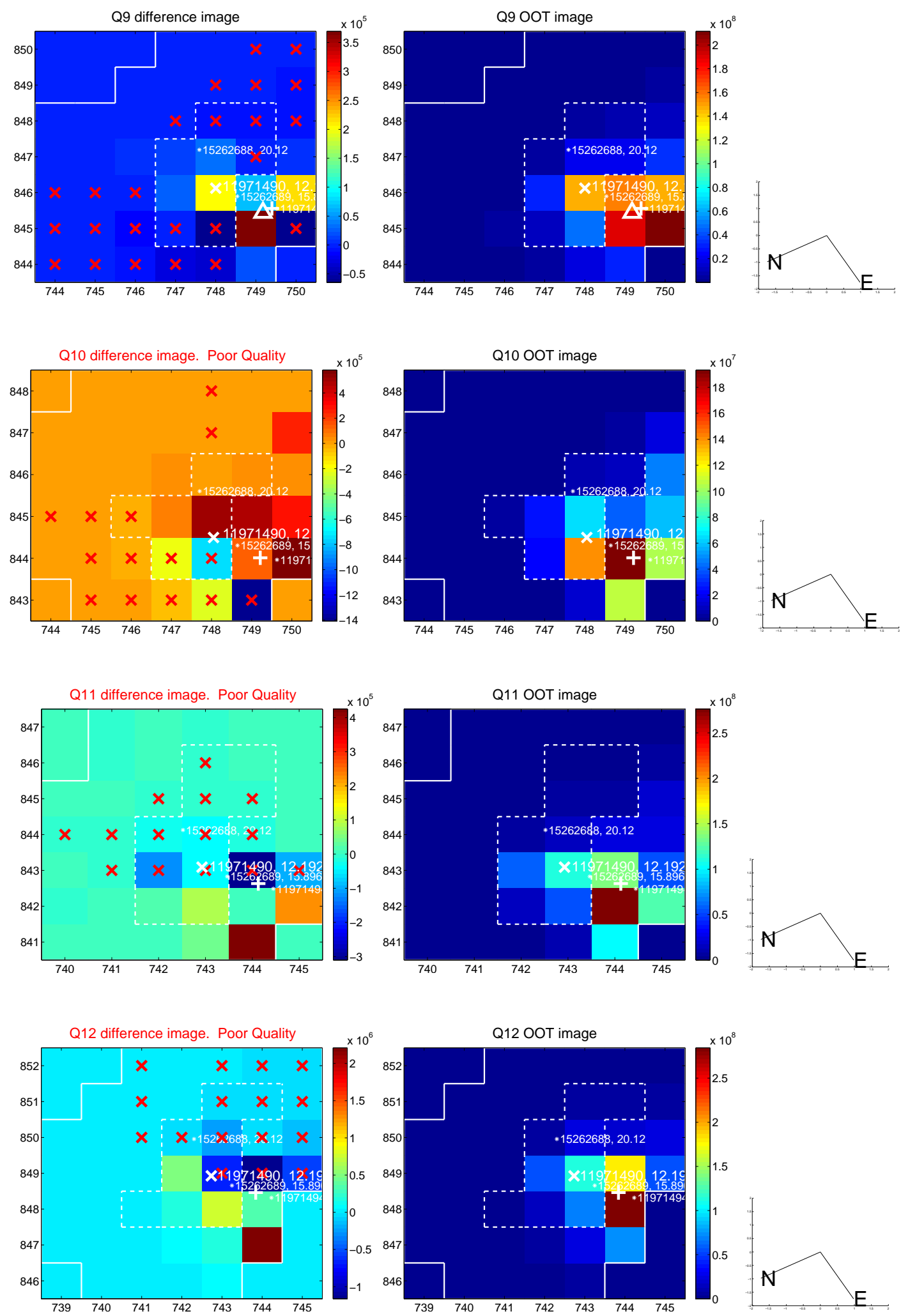
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



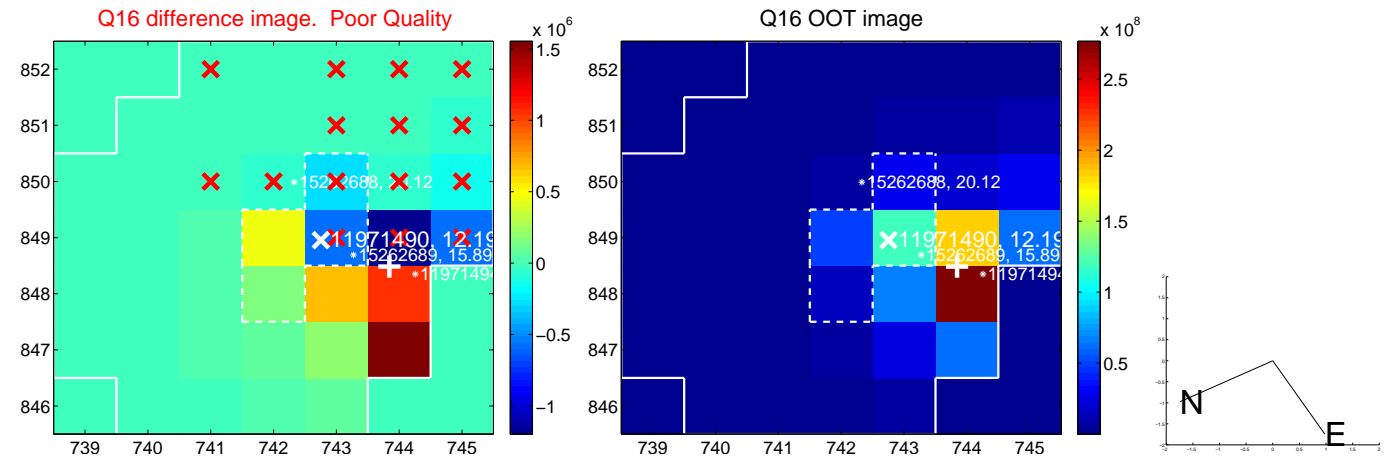
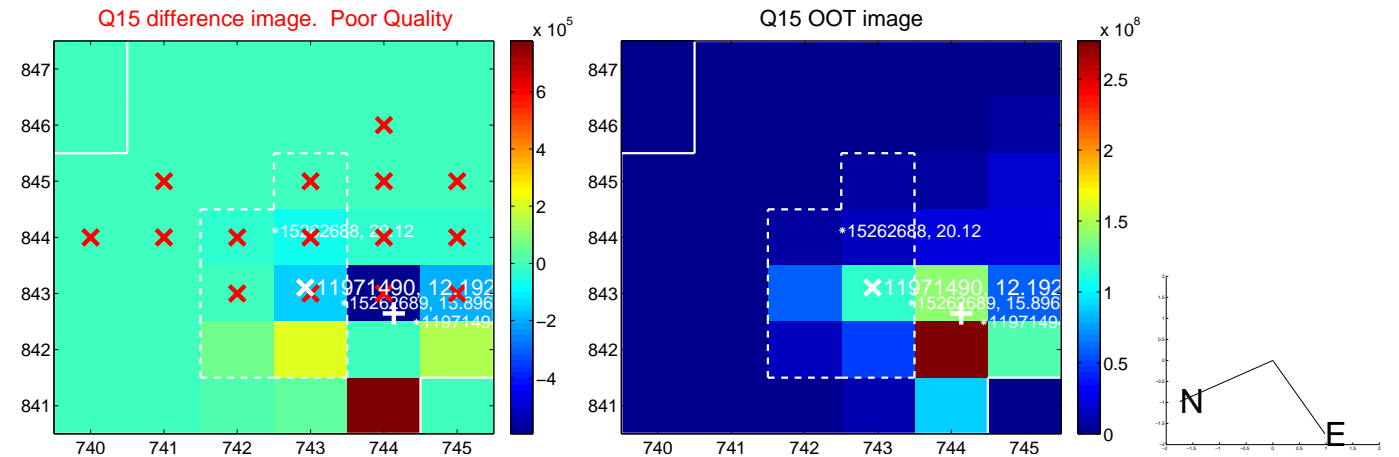
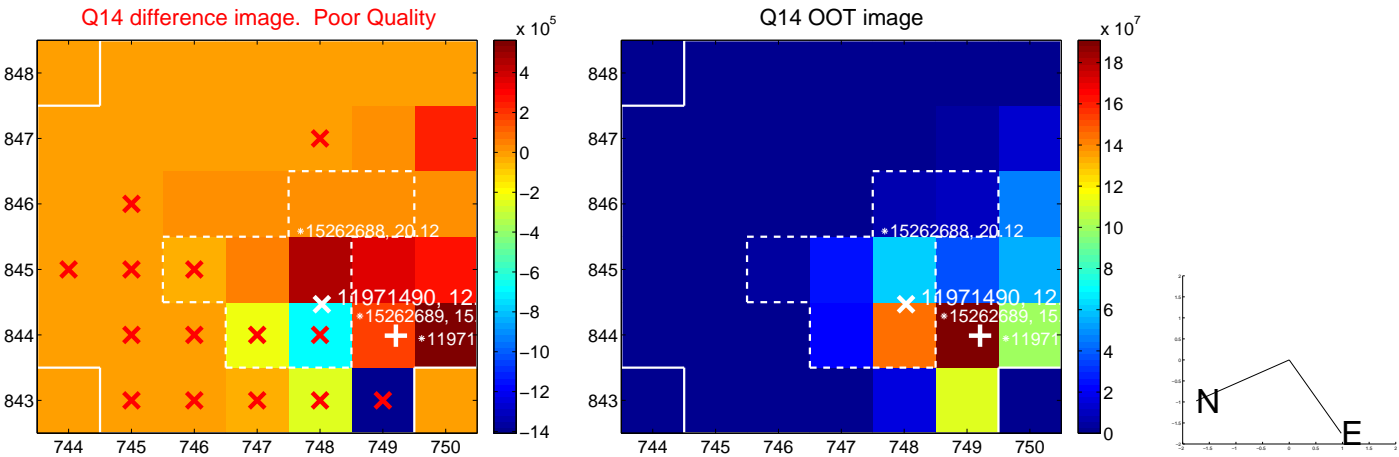
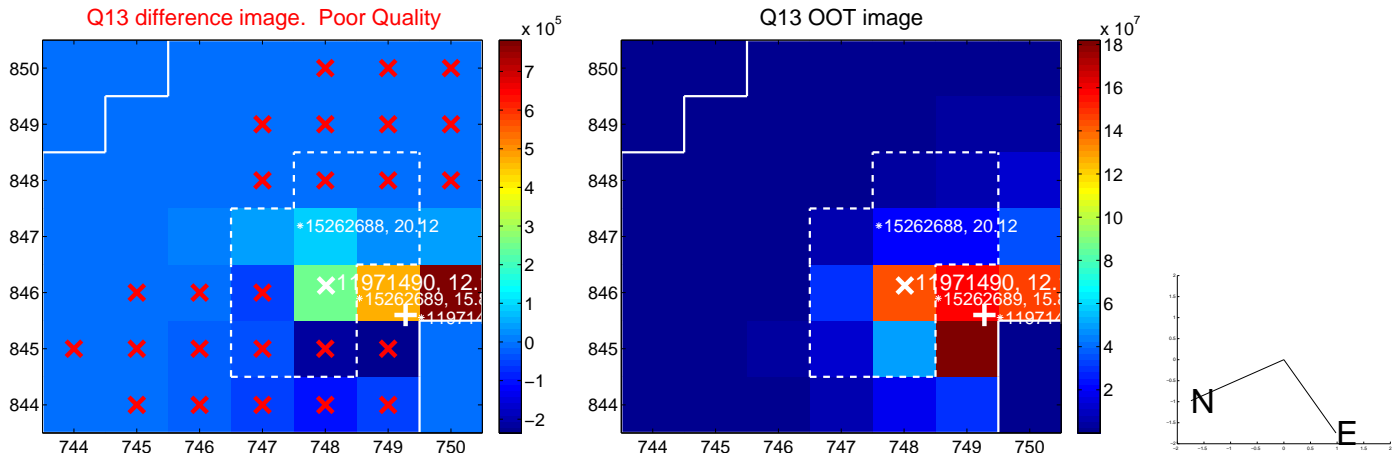
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



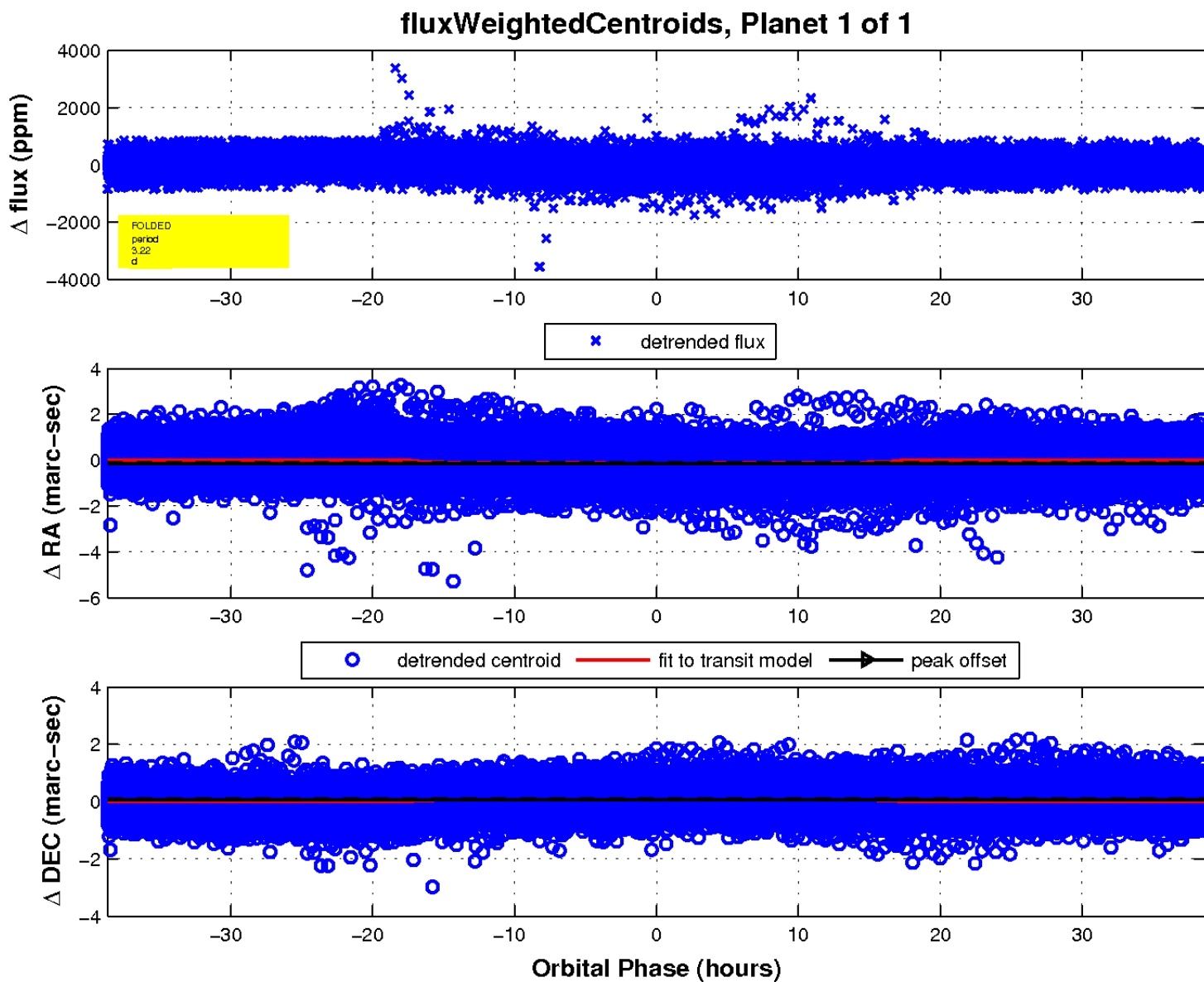
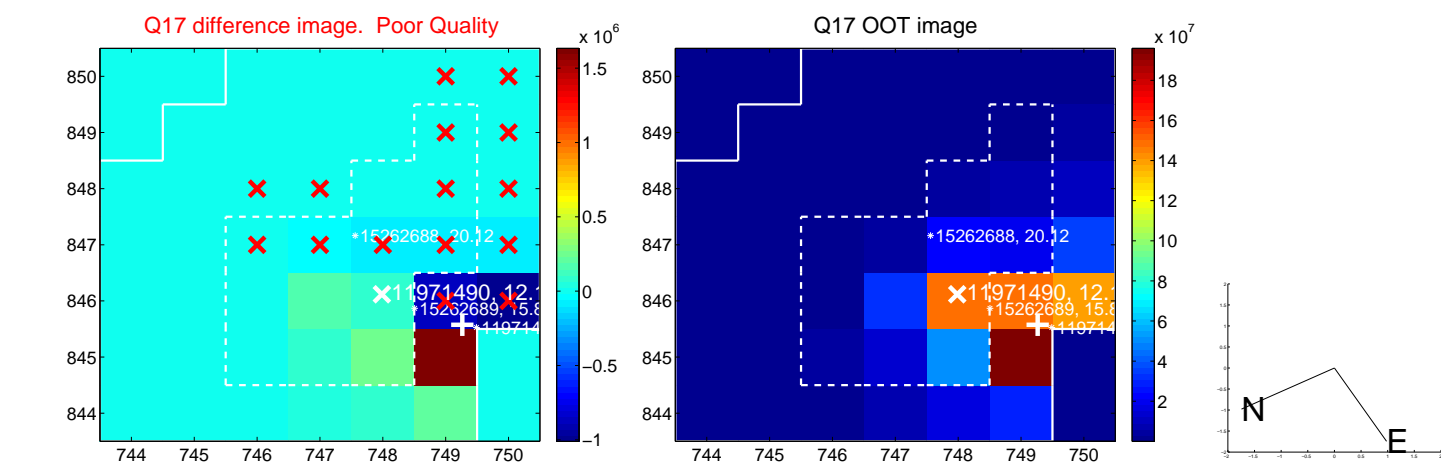
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

