

KIC 004769505

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})
004769505-01	OBS	No	0.639744	131.852778	143.2	7.184	8.9	12.2	3.84	6658	4.70	0.00

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004769505-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT

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

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

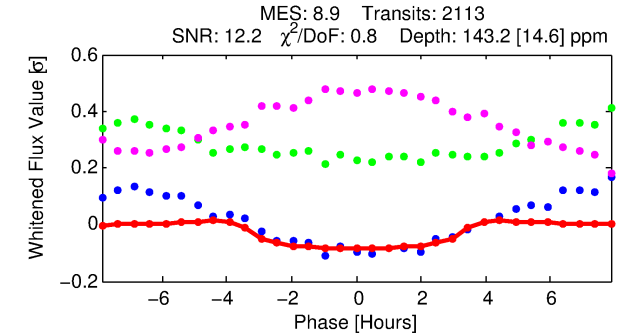
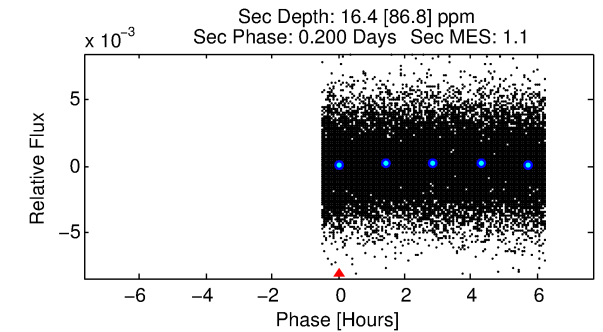
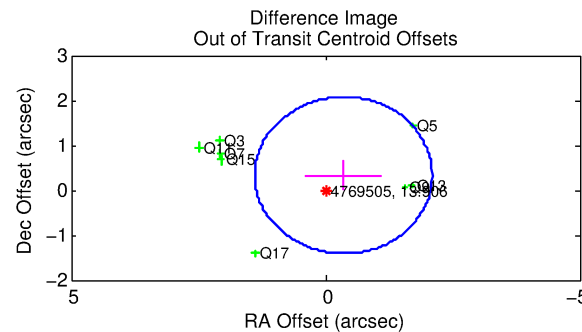
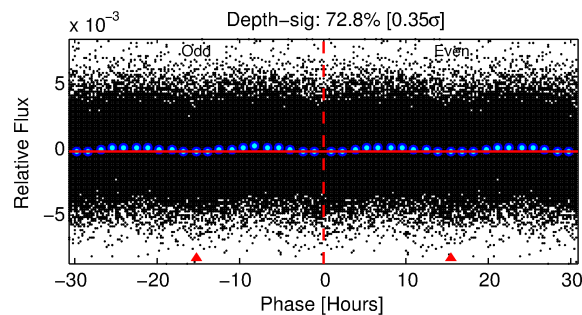
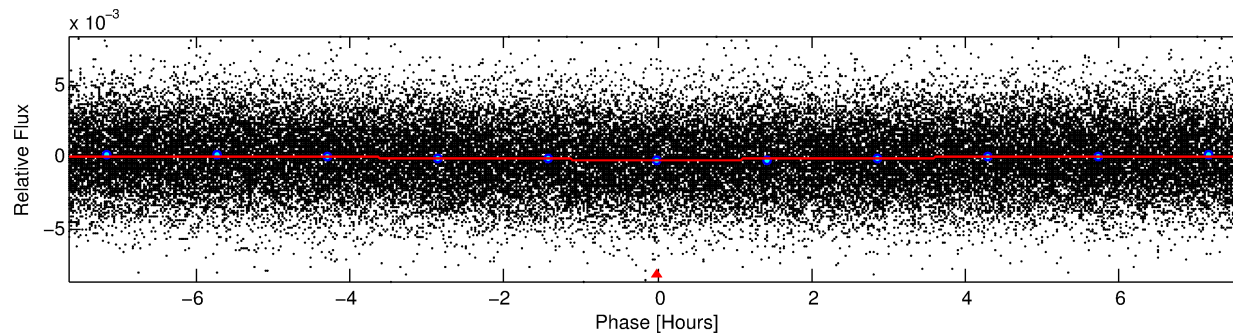
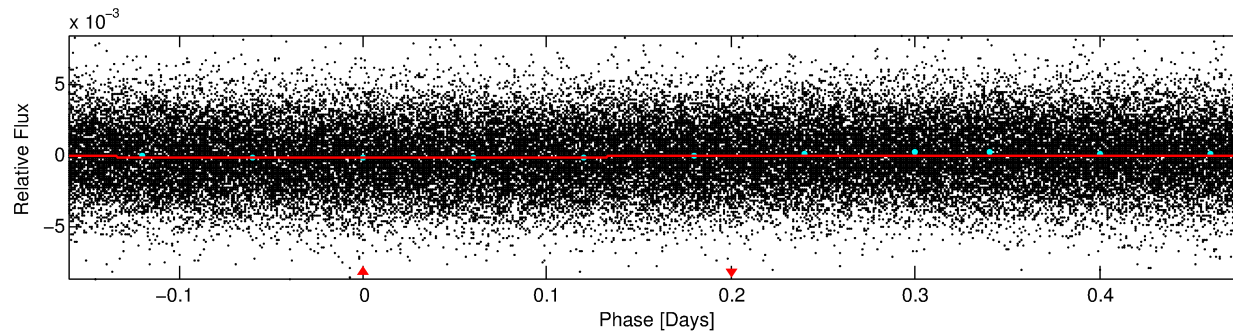
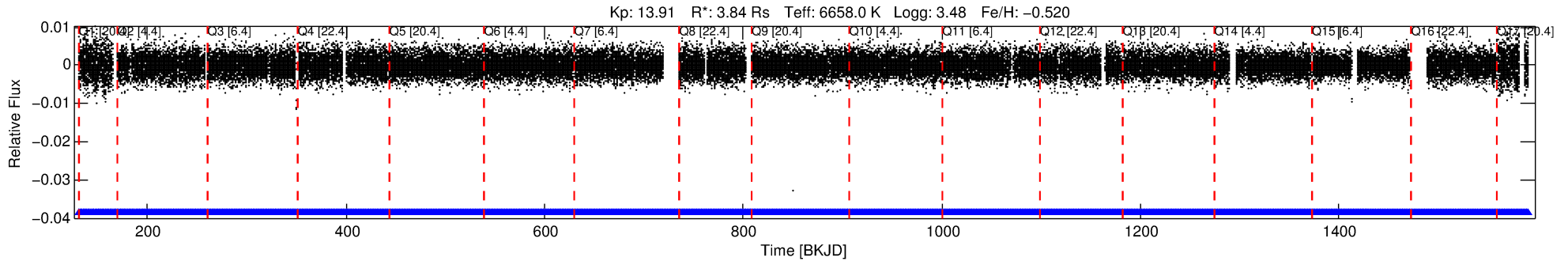
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 004769505-01

No Significant Match Found

DV One-Page Summary

KIC: 4769505 Candidate: 1 of 1 Period: 0.640 d



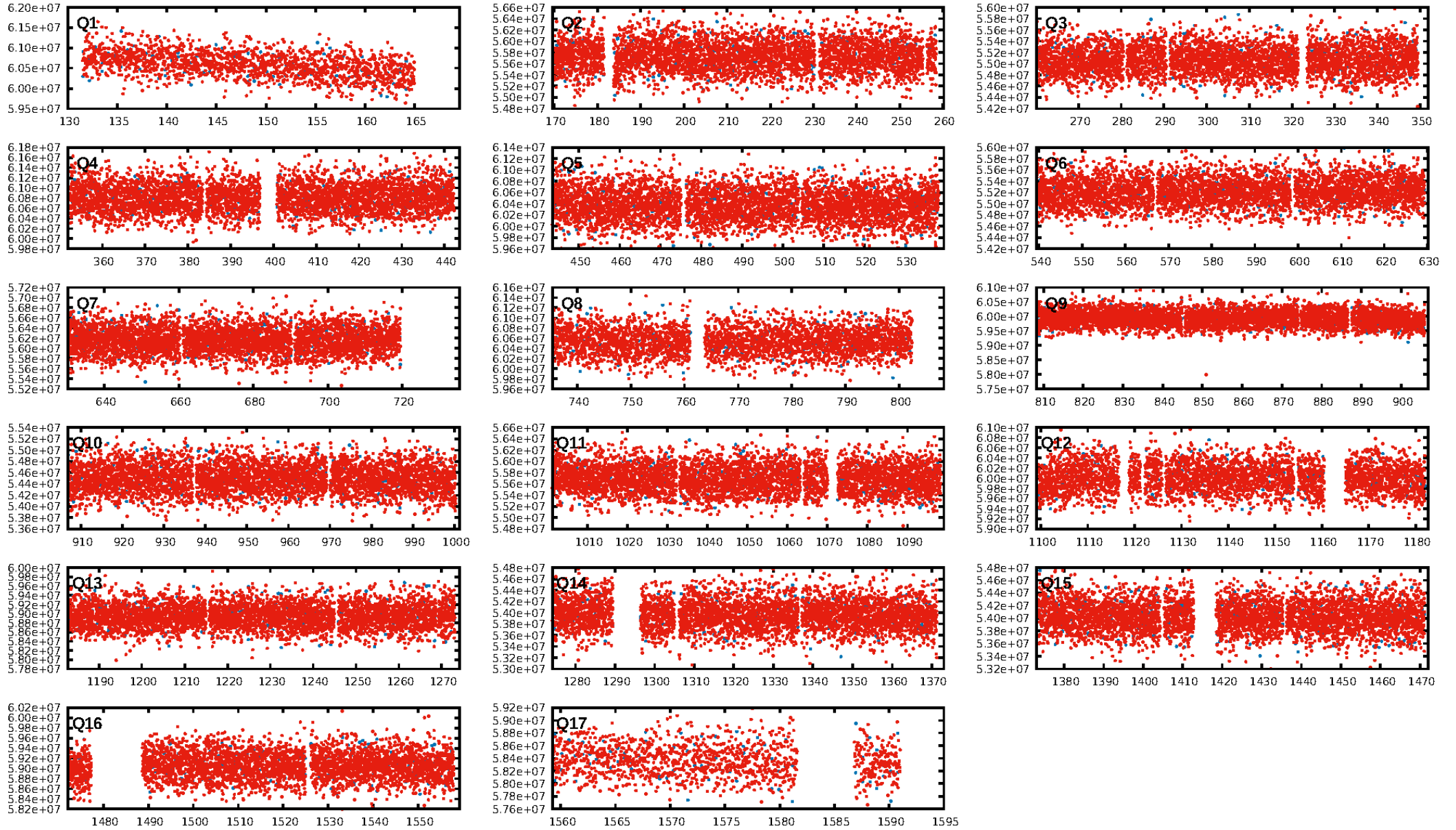
DV Fit Results:

Period = 0.63974 [0.00001] d
Epoch = 131.8528 [0.0066] BKJD
Rp/R* = 0.0112 [0.0064]
a/R* = 1.02 [0.08]
b = 0.40 [6.74]
Seff = N/A
Teq = N/A
Rp = 4.70 [4.09] Re
a = N/A
Ag = N/A
Teffp = N/A

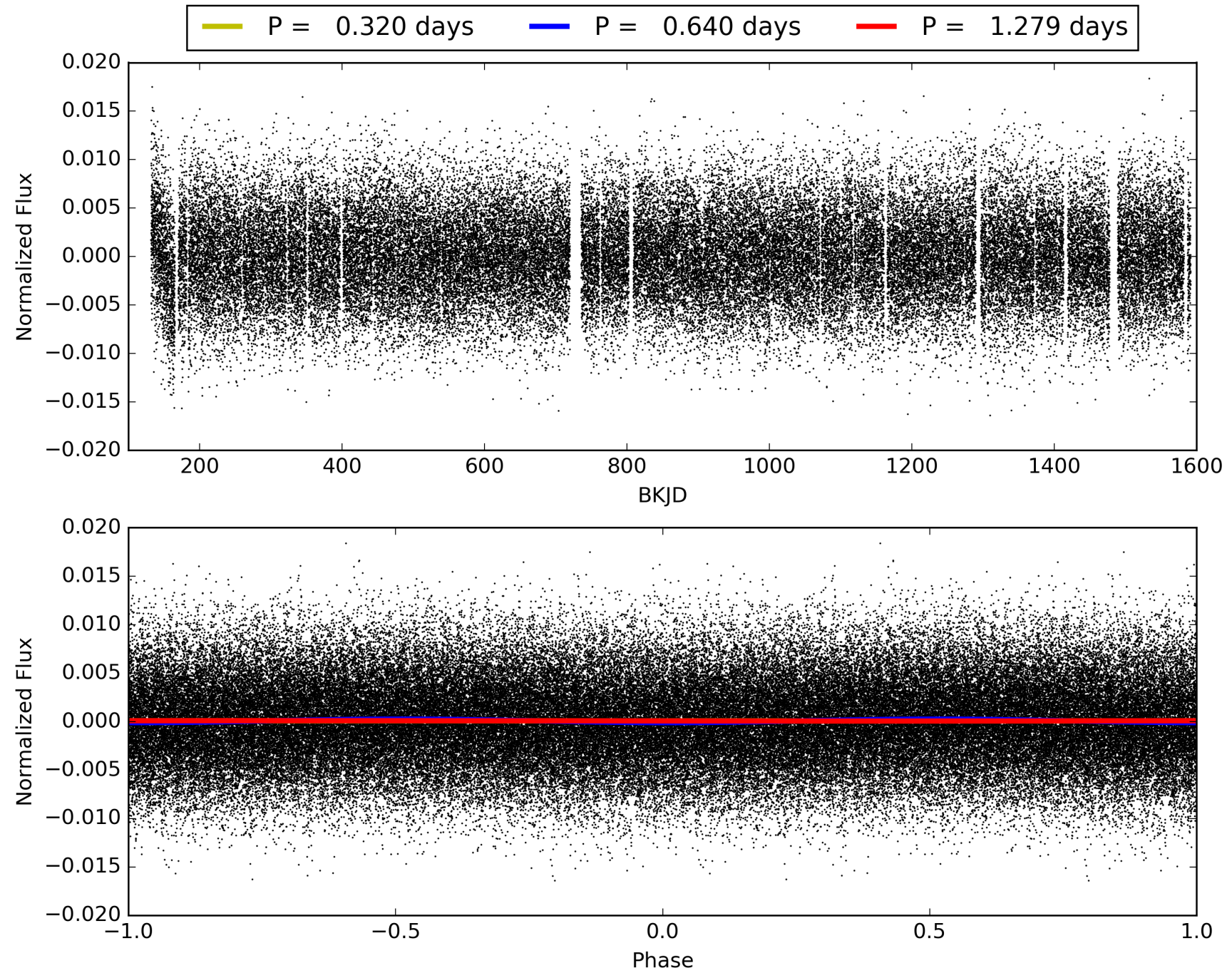
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [2017/2017]
GhostDiagnostic-chr: 1.144
Centroid-sig: 0.0%
Centroid-so: 0.523 arcsec [2.92 σ]
OotOffset-rm: 0.482 arcsec [0.83 σ]
KicOffset-rm: 0.464 arcsec [1.11 σ]
OotOffset-st: 0/4/0/4 [8]
KicOffset-st: 0/4/0/4 [8]
DiffImageQuality-fgm: 0.88 [7/8]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 004769505-01, PDC Light Curves

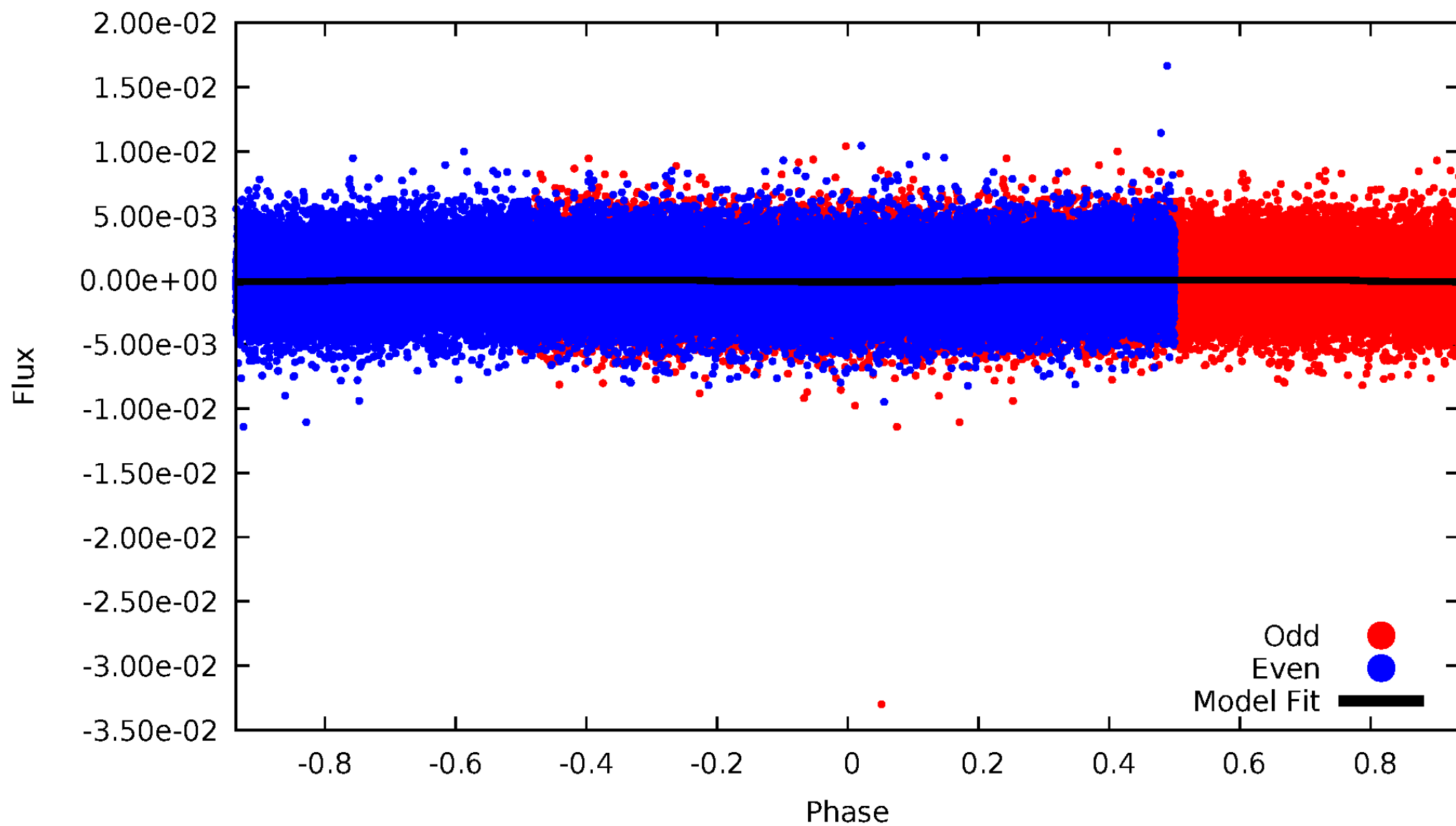


TCE 004769505-01



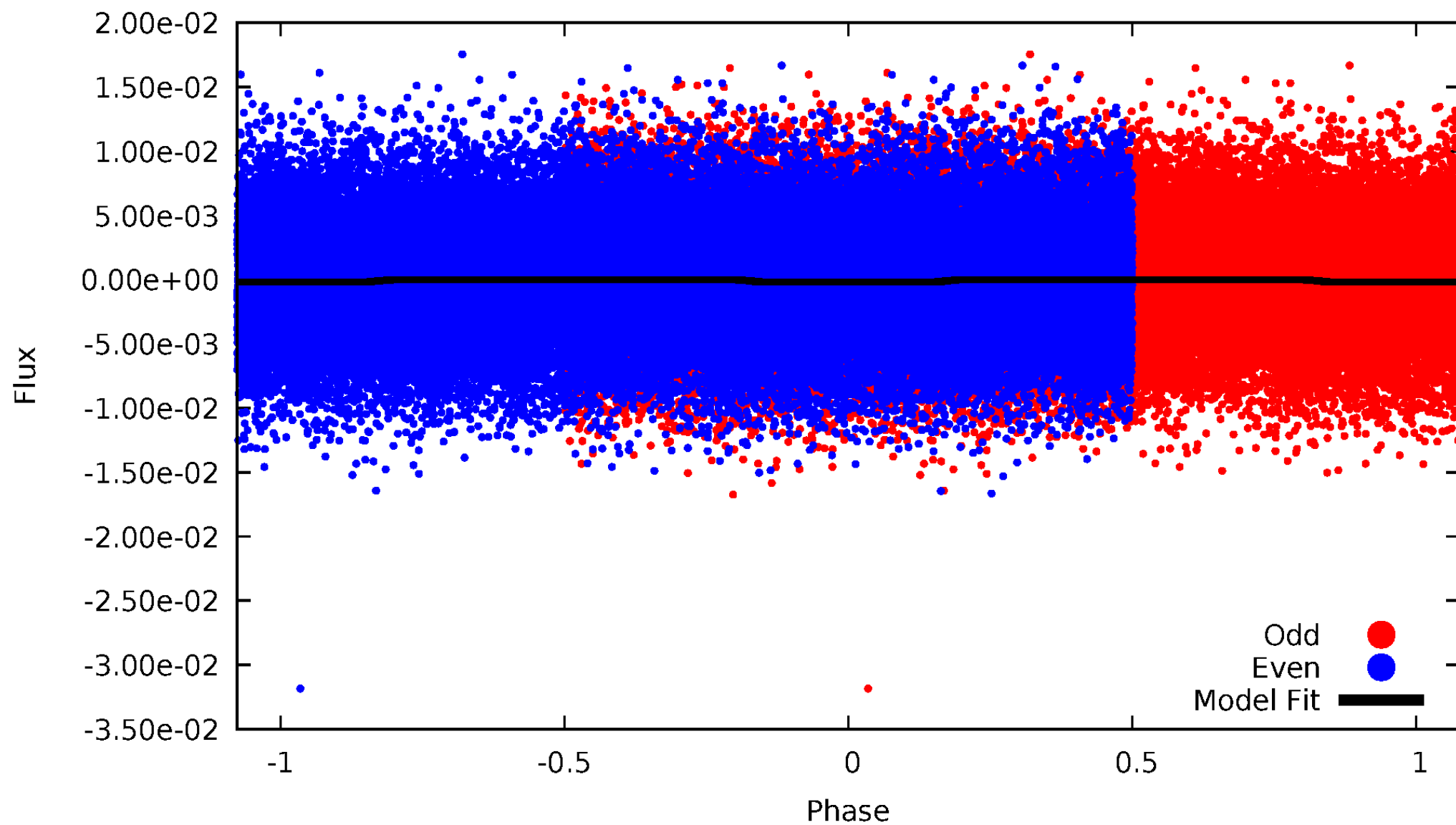
DV Odd/Even

TCE 004769505-01

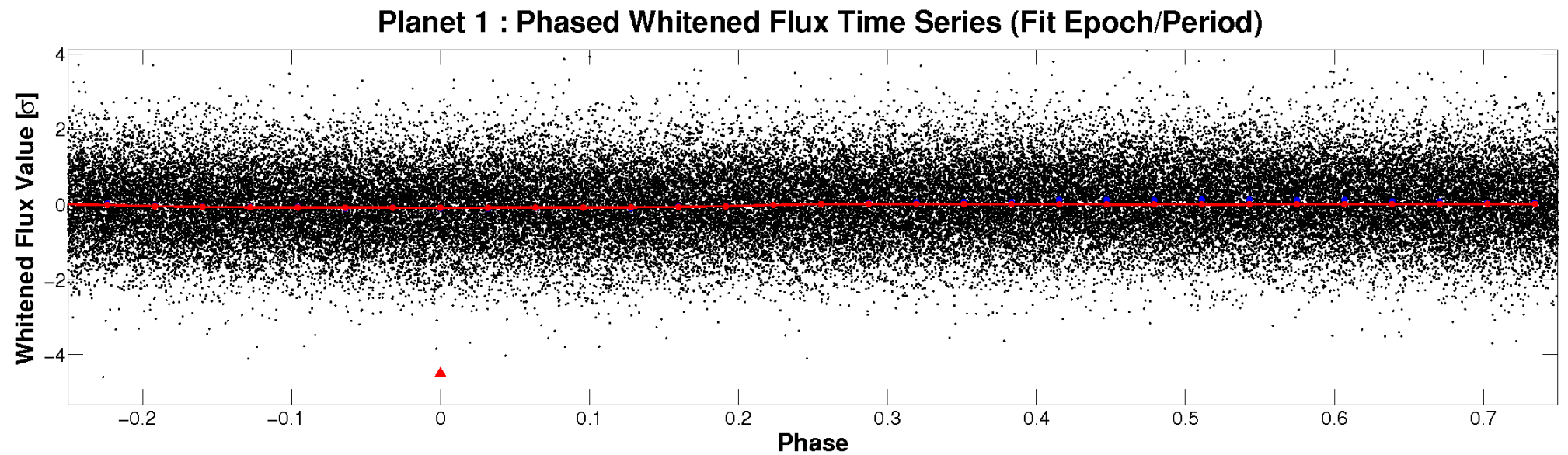
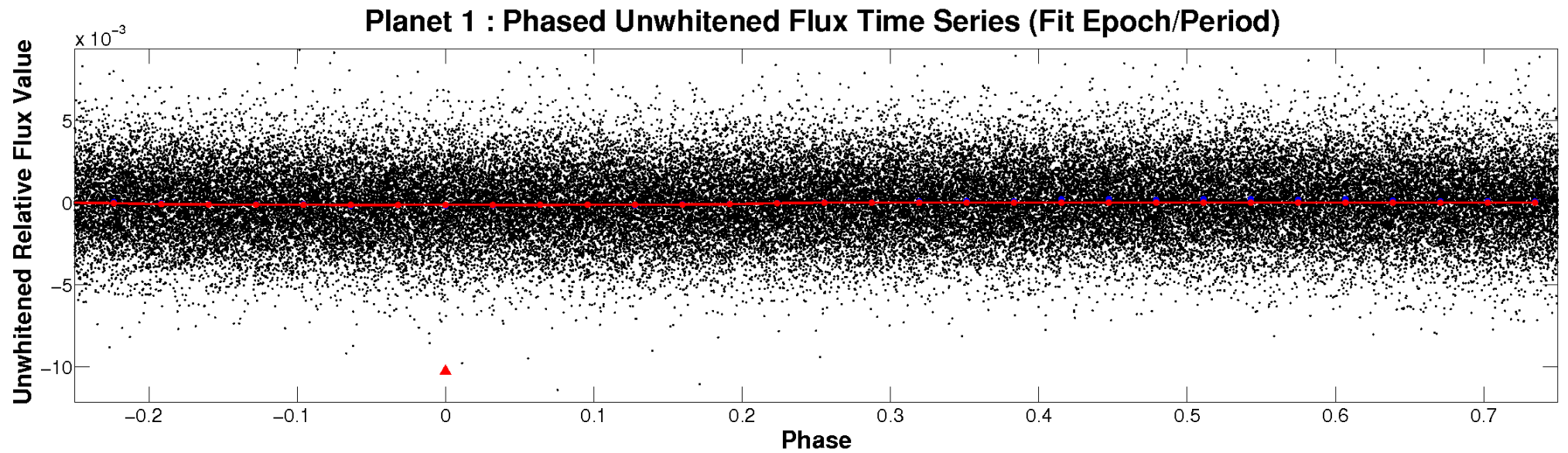


ALT Odd/Even

TCE 004769505-01

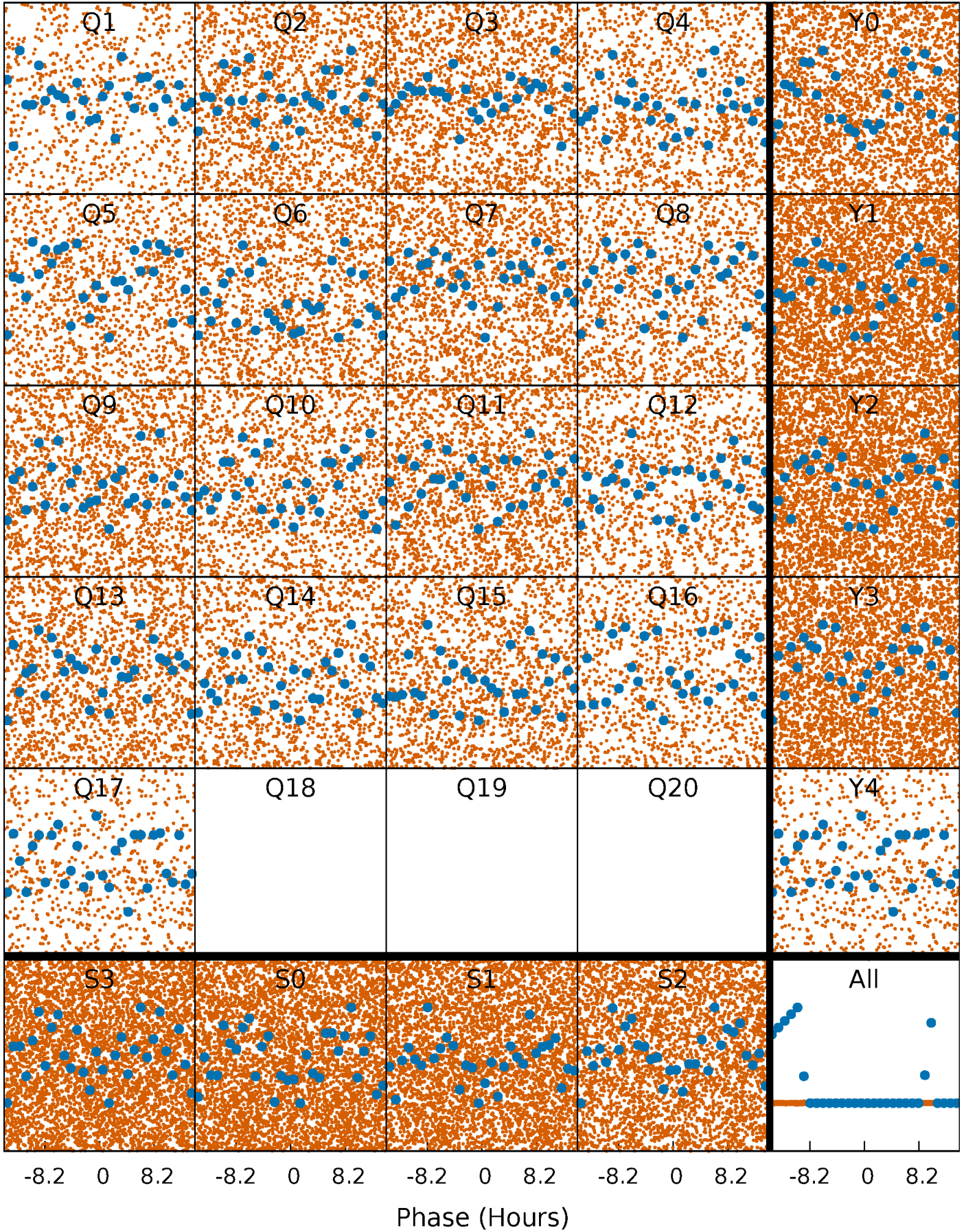


Non-Whitened Vs. Whitened Light Curve



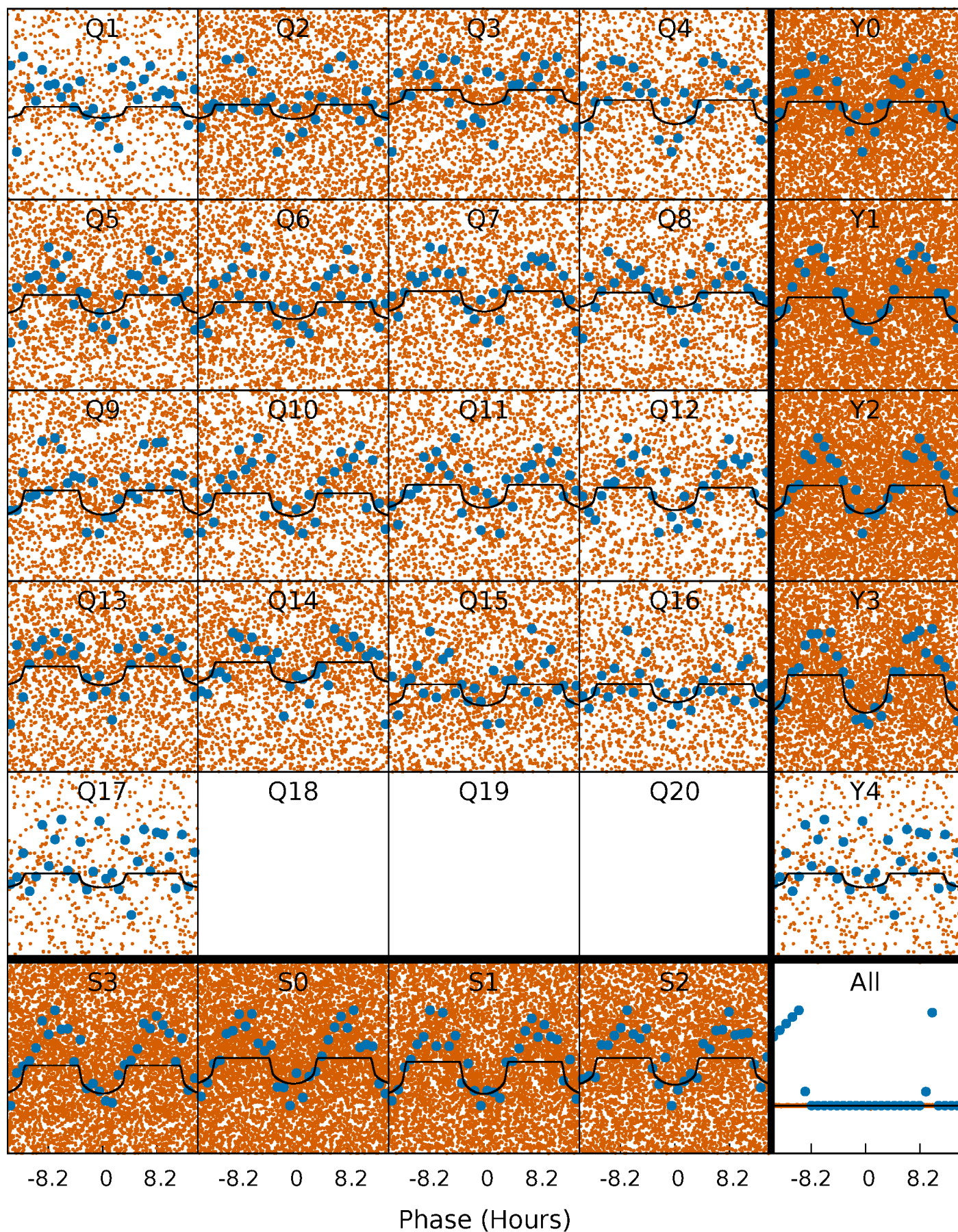
PDC Quarter-Phased Transit Curves

TCE 004769505-01 P= 0.639744 Days $T_0=131.852778$ (BKJD)



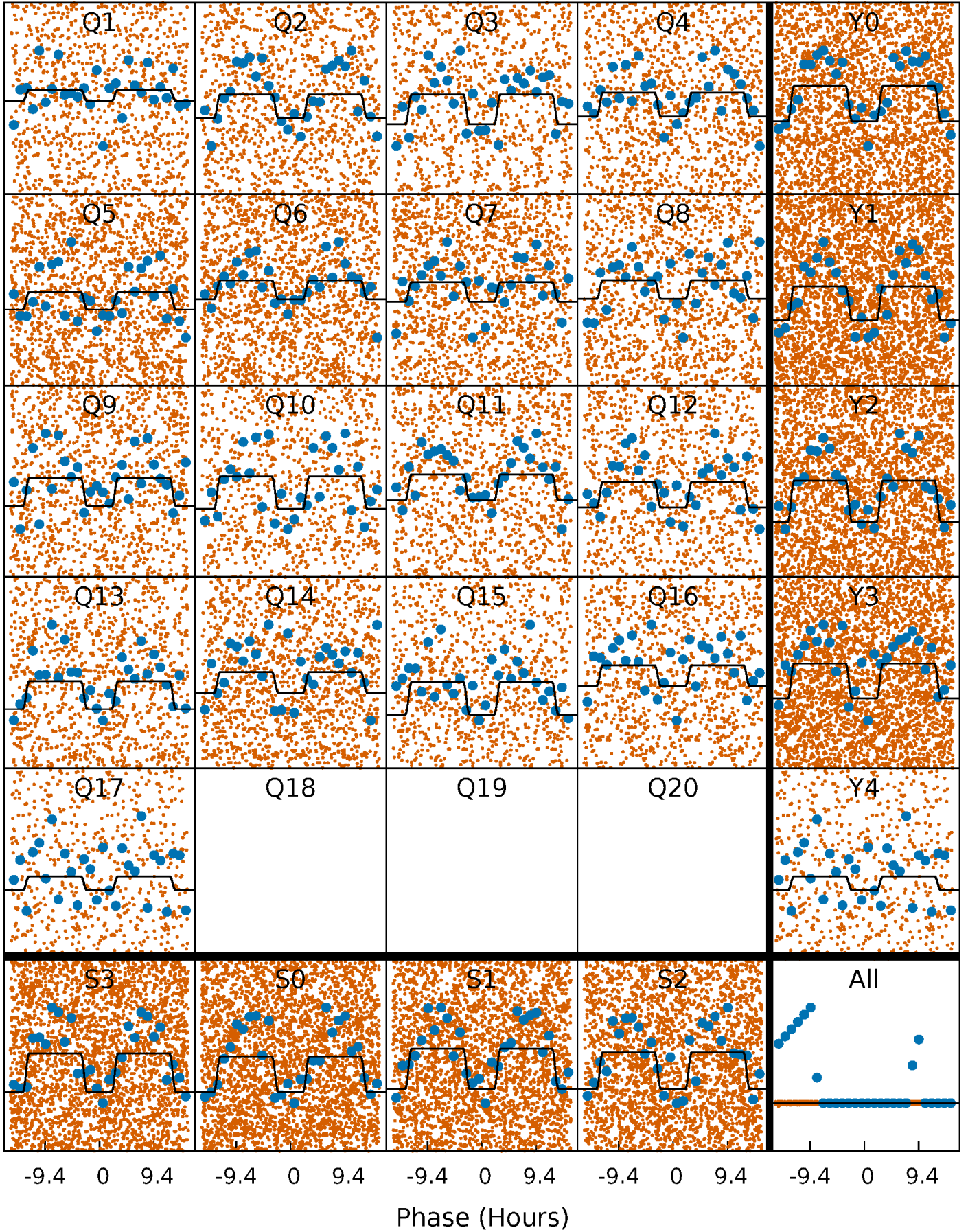
DV Quarter-Phased Transit Curves

TCE 004769505-01 P= 0.639744 Days $T_0=131.852778$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

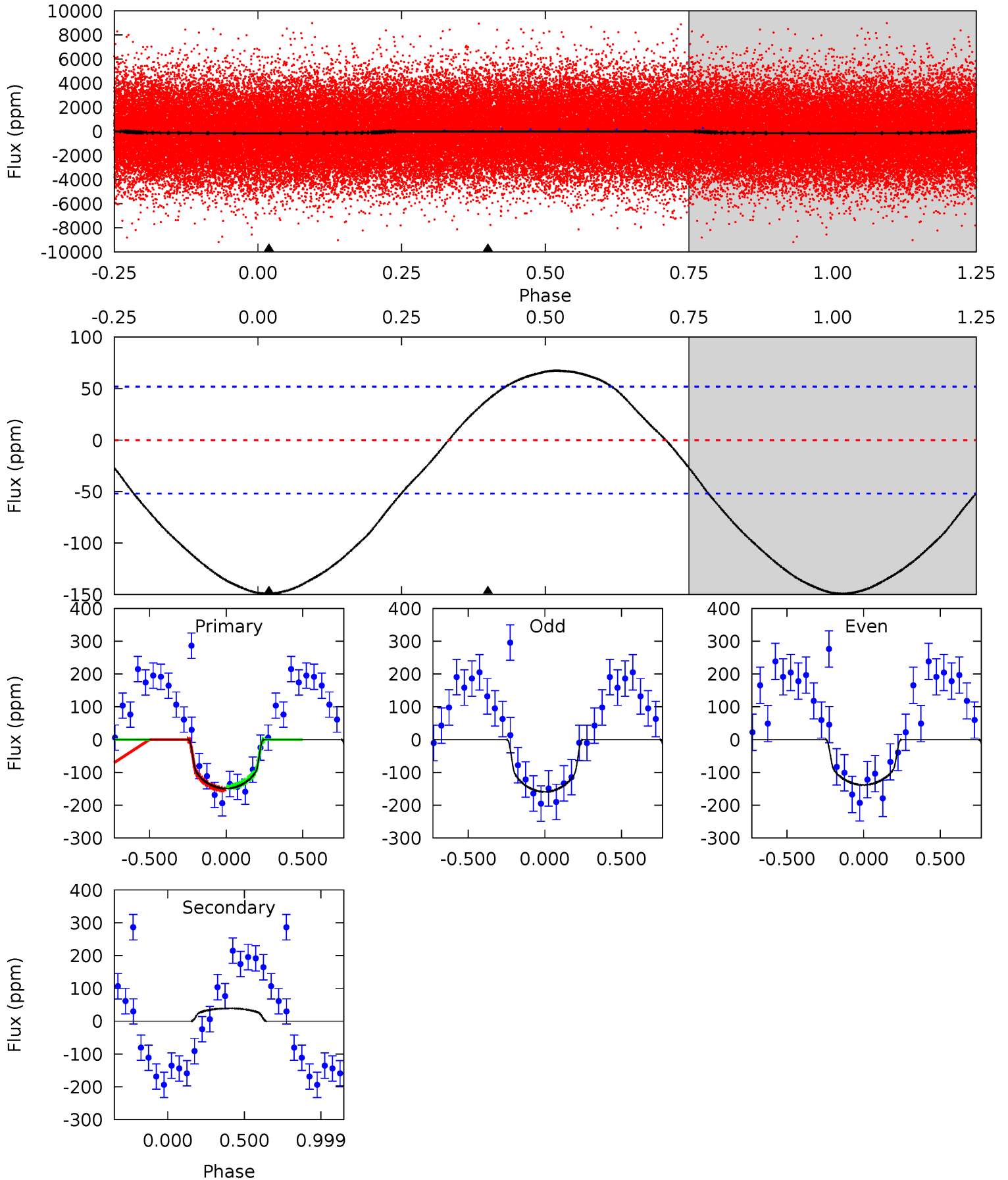
TCE 004769505-01 P= 0.639799 Days $T_0=131.801239$ (BKJD)



DV Model-Shift Uniqueness Test

004769505-01, P = 0.639744 Days, E = 131.213034 Days

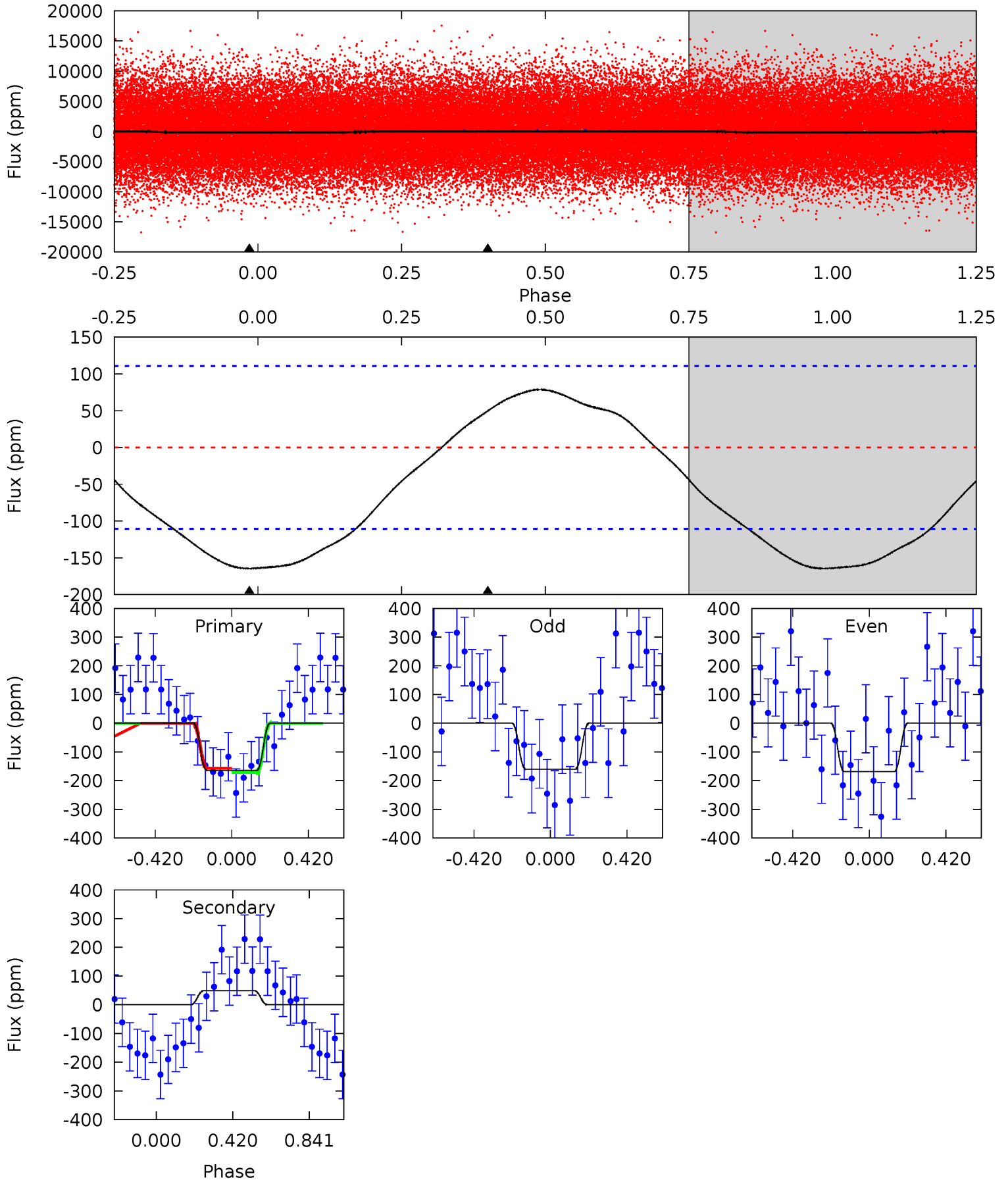
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.1	-3.18	0	0	4.21	0.68	1.50	12.1	12.1	-3.18	-3.18	0.85	1.00	0.31	0.28



Alt Model-Shift Uniqueness Test

004769505-01, P = 0.639799 Days, E = 131.161440 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.33	-1.91	0	0	4.25	0.81	0.83	6.33	6.33	-1.91	-1.91	0.17	0.97	0.32	0.29



Stellar Parameters For KIC 004769505

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6658^{+245}_{-299}	$3.485^{+0.723}_{-0.128}$	$-0.520^{+0.300}_{-0.300}$	$3.837^{+0.626}_{-2.504}$	$1.641^{+0.162}_{-0.608}$	$0.041^{+0.620}_{-0.010}$
	+4%/-4%	+21%/-4%	+58%/-58%	+16%/-65%	+10%/-37%	+1516%/-25%
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 004769505-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	39 ± 12	$3.91^{+2.87}_{-2.20}$	5913^{+531}_{-945}	-5871^{+723}_{-1825}	$-0.389^{+0.269}_{-1.548}$
Alt.	50 ± 26	$4.83^{+2.87}_{-2.48}$	5903^{+534}_{-994}	-5712^{+676}_{-1460}	$-0.302^{+0.205}_{-1.137}$

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 $A_{obs} \gg 1.0$

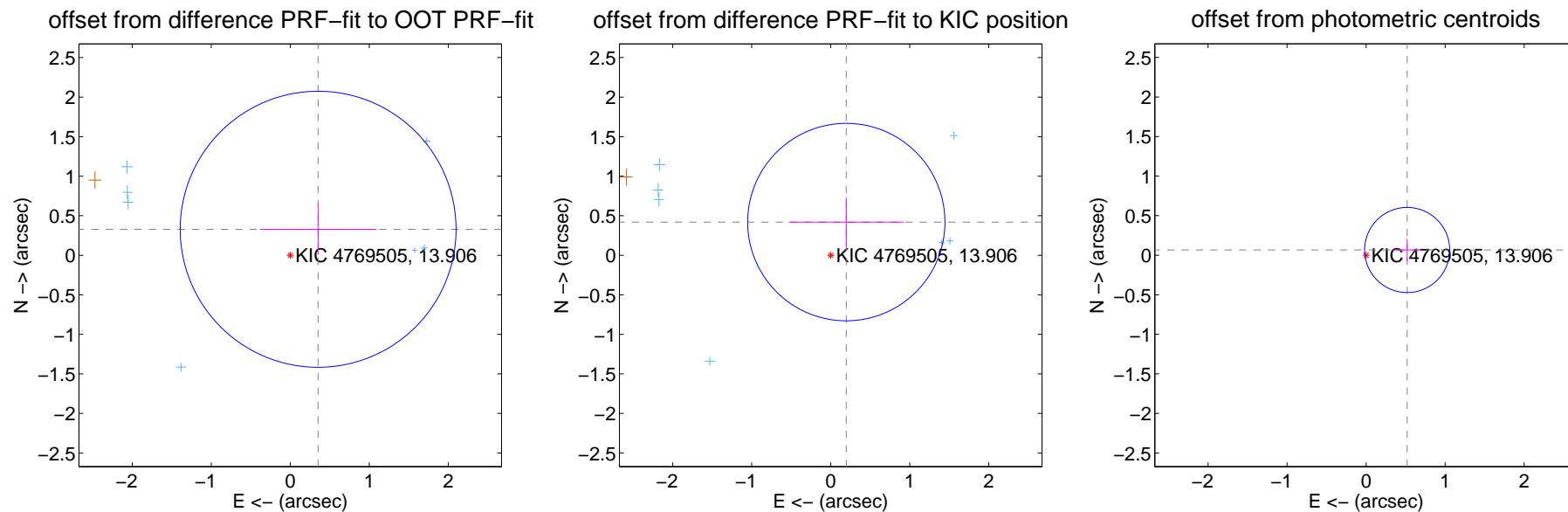
DV Centroid Data

Supplemental centroid analysis for 004769505-01. Kepler magnitude: 13.91. Transit SNR 12.20

There are 7 quarters with good PRF difference image offsets

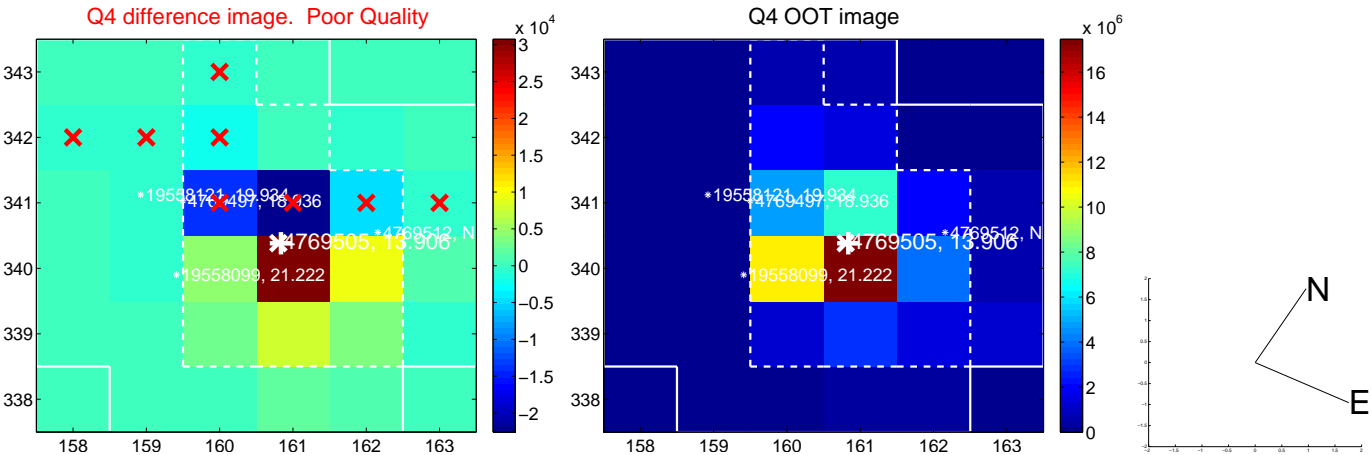
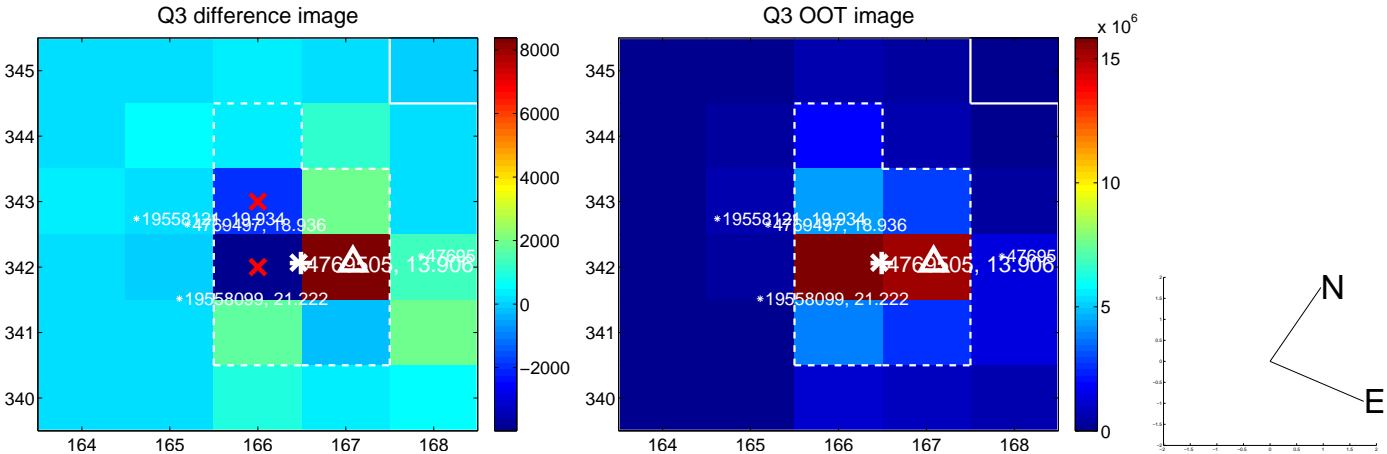
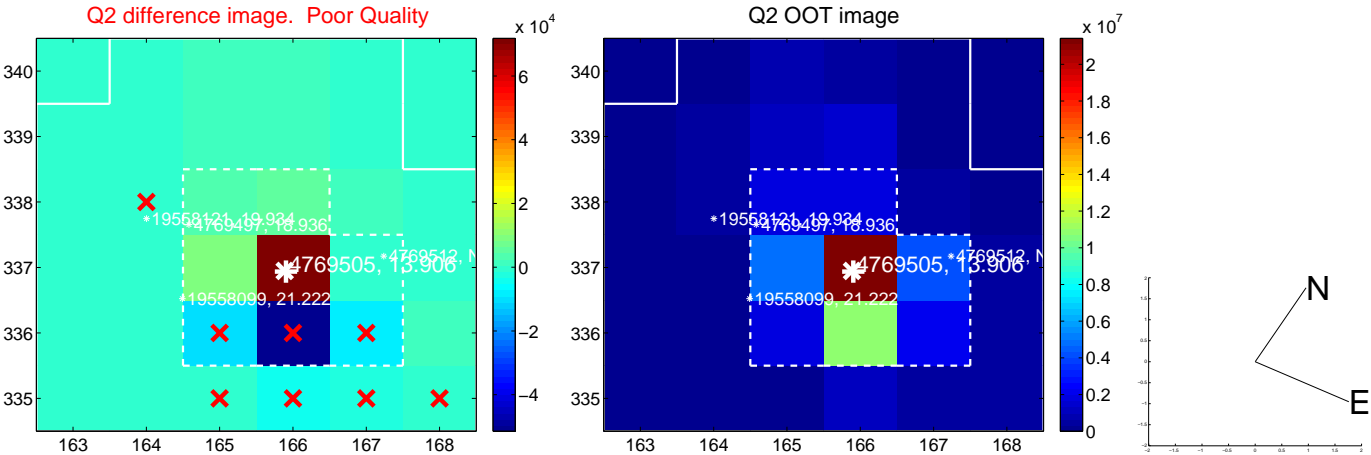
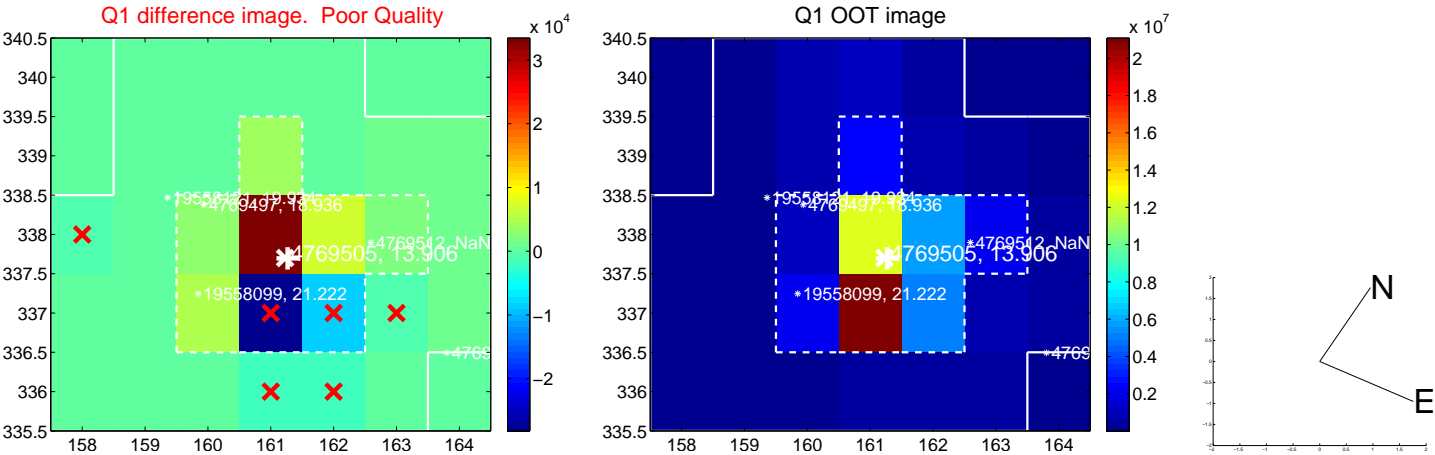
The direct PRF centroid is offset from the target star catalog position by about 0.16 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.482 ± 0.582	0.83	-0.353 ± 0.736	0.329 ± 0.325
PRF-fit source offset from KIC position	0.464 ± 0.416	1.11	-0.197 ± 0.726	0.420 ± 0.309
photometric centroid source offset	0.52 ± 0.18	2.92	-0.52 ± 0.18	0.07 ± 0.14

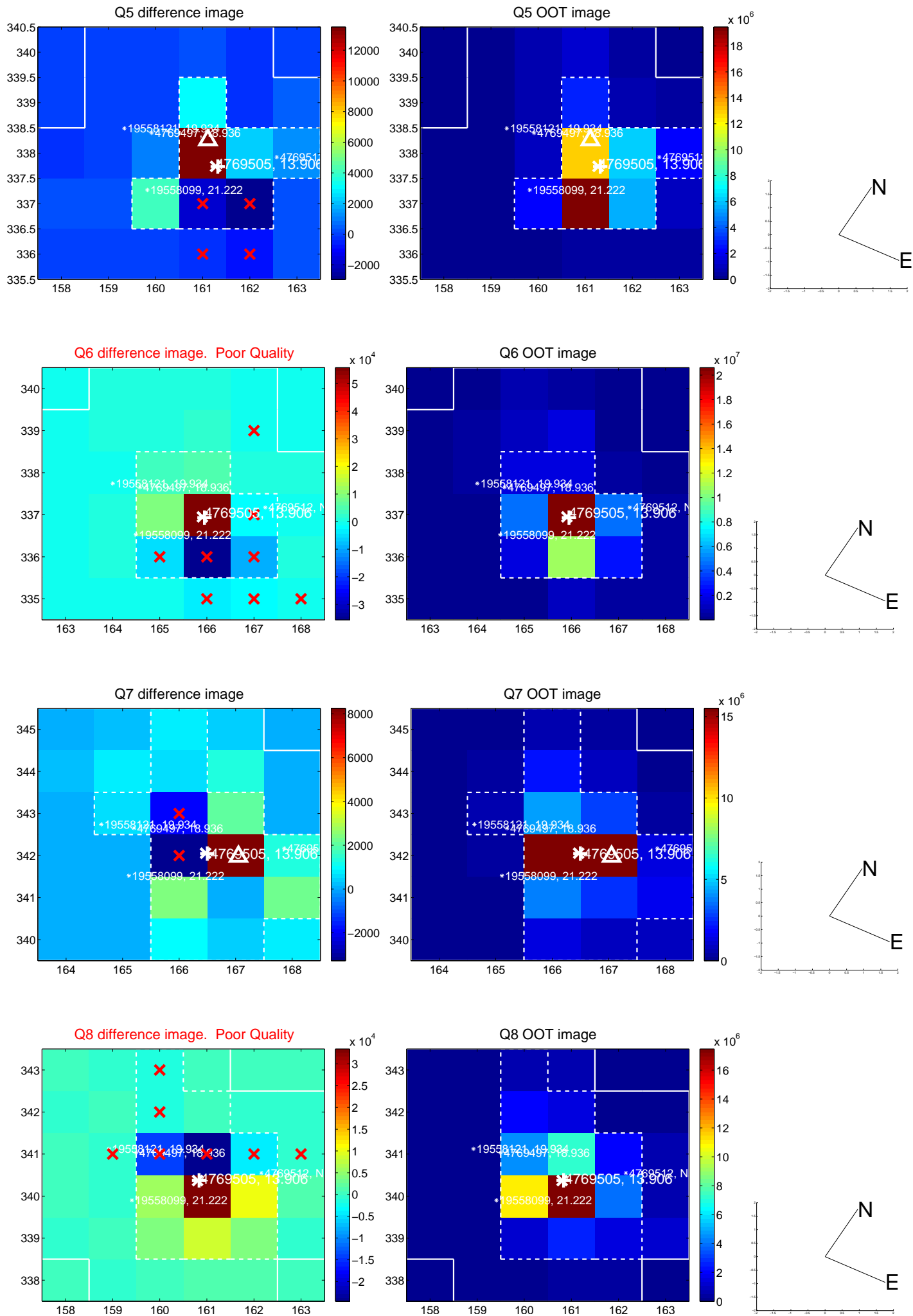


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

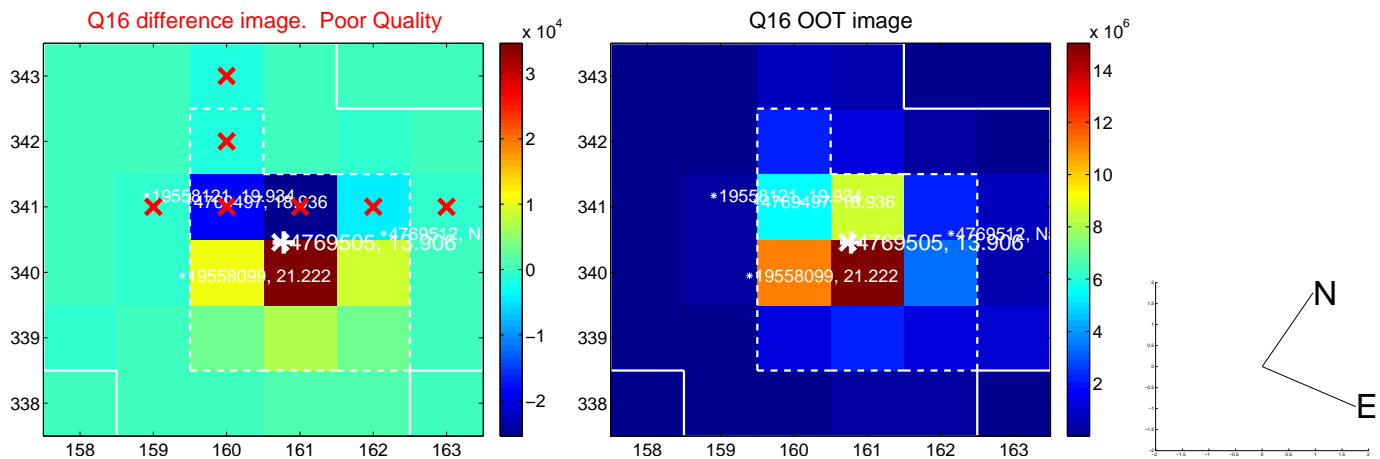
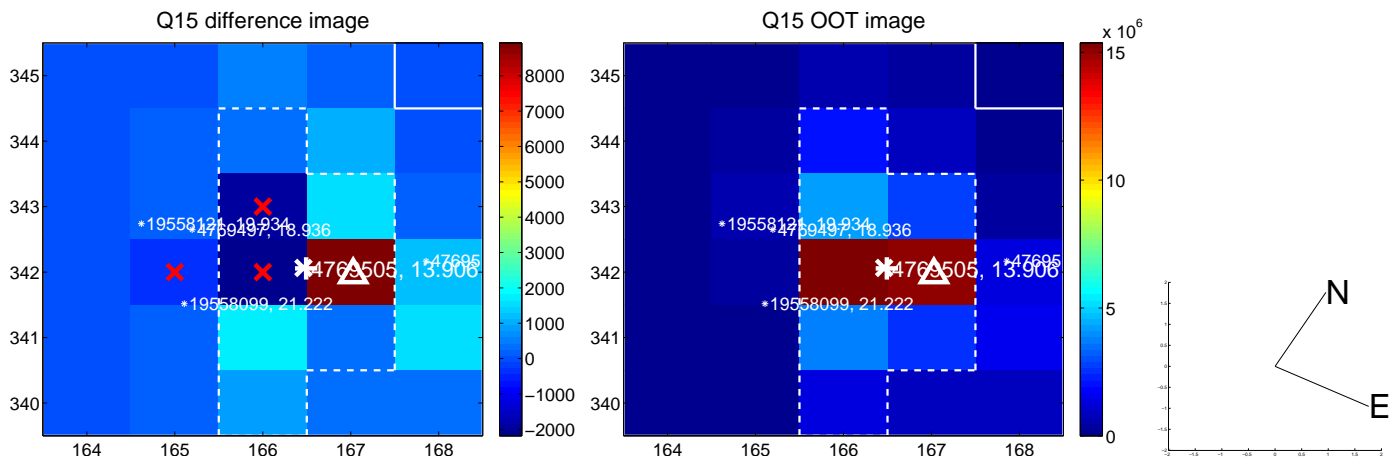
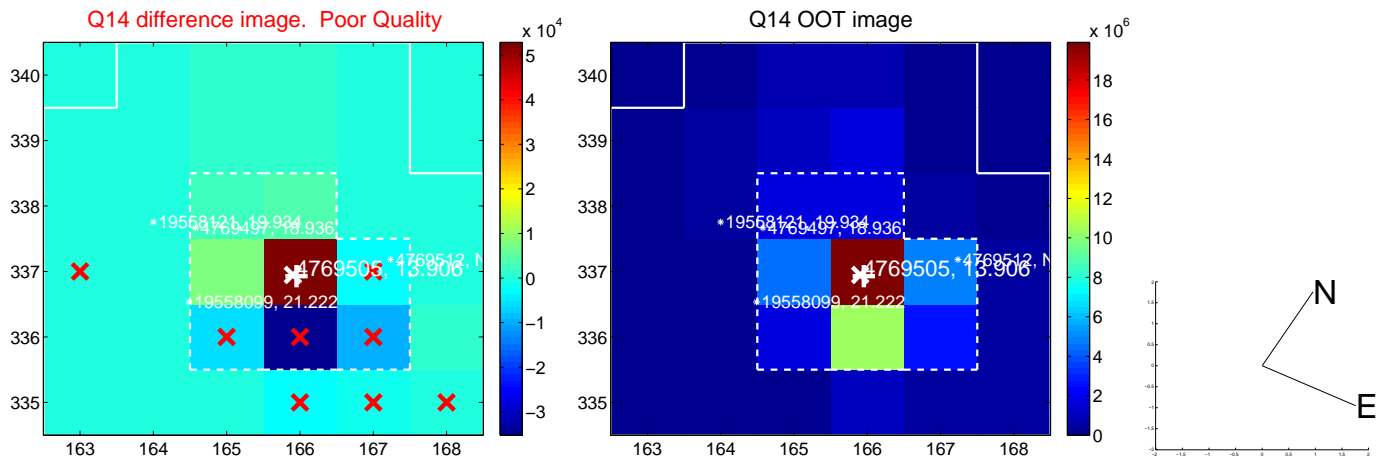
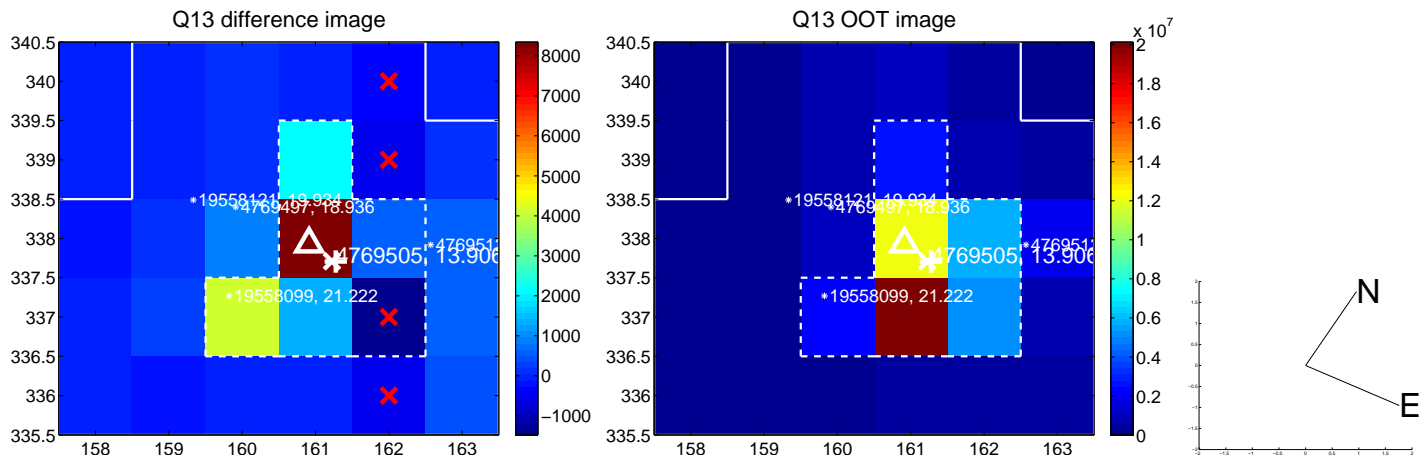
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



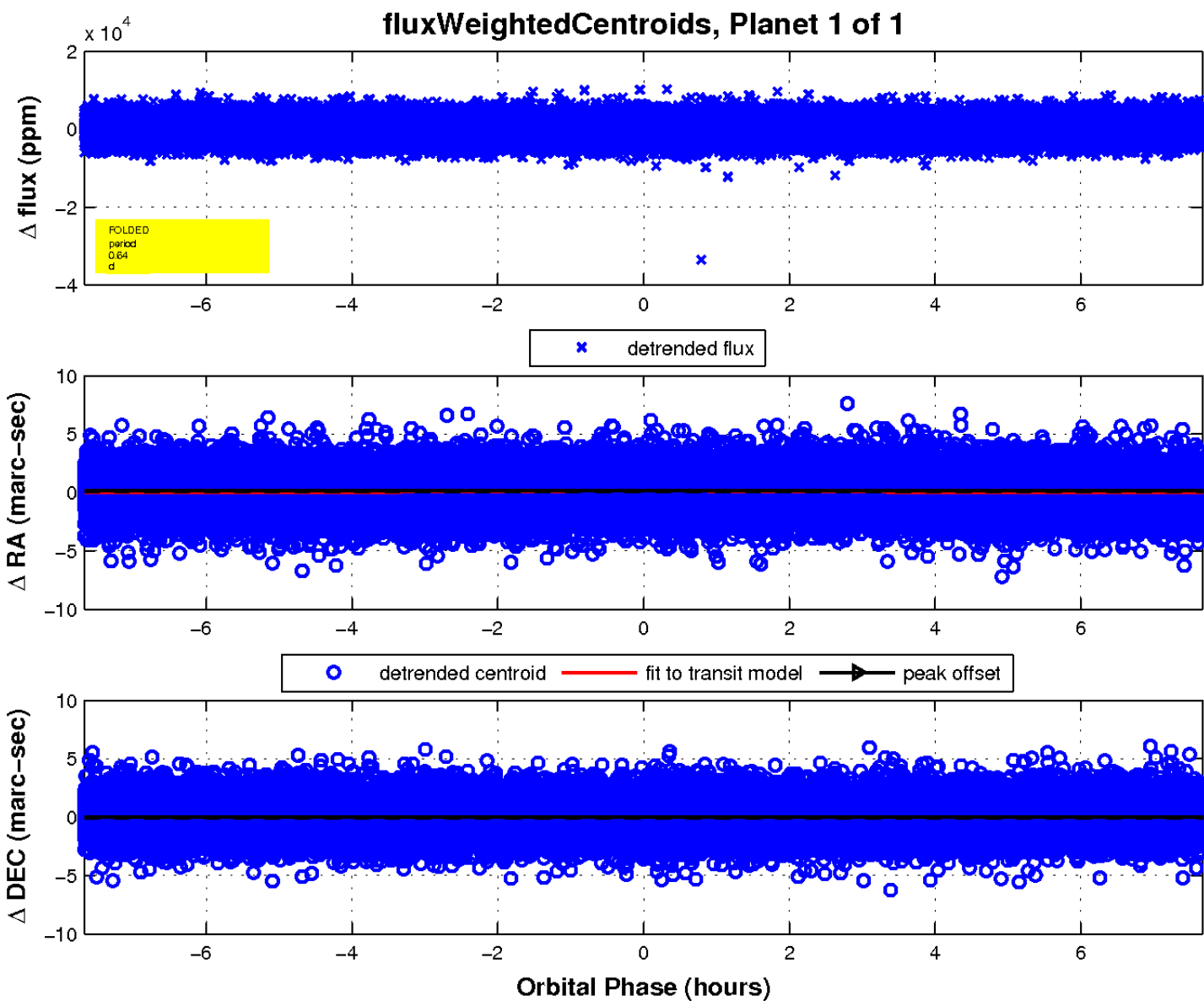
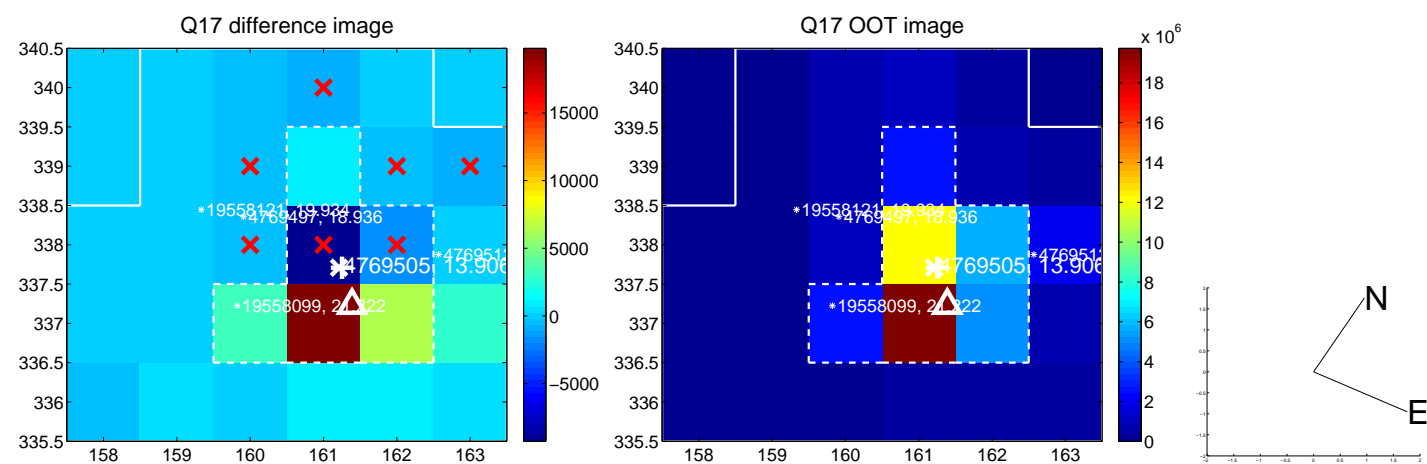
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

