

KIC 007626370

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})
007626370-01	OBS	1706.01	1.921455	131.800694	263.4	1.867	40.2	52.1	0.85	5238	1.67	628.06

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007626370-01	OBS	PC	1.00	0	0	0	0	NO_COMMENT

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

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

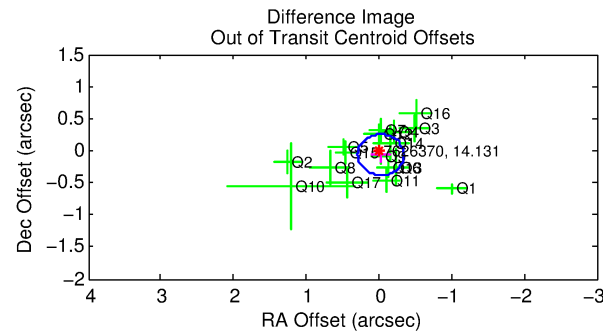
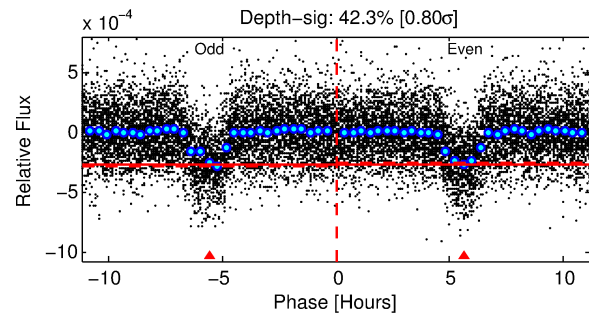
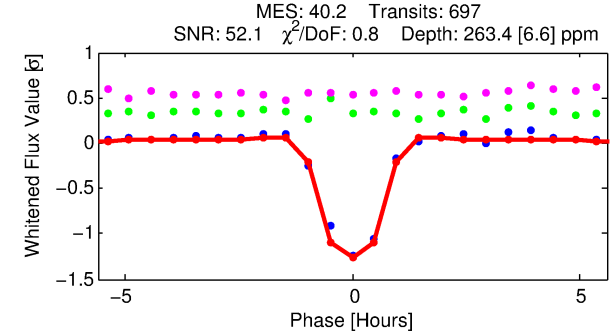
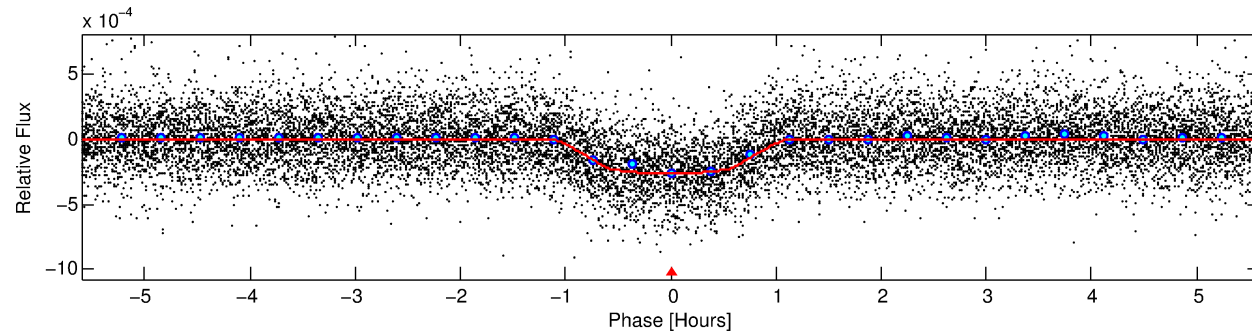
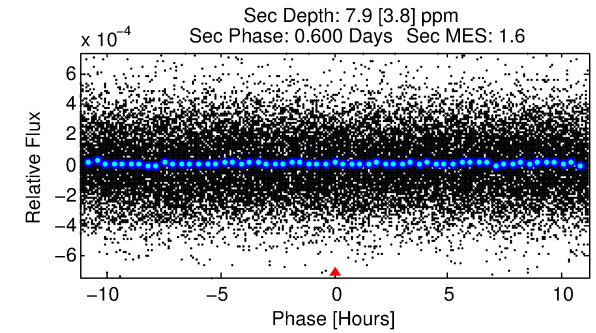
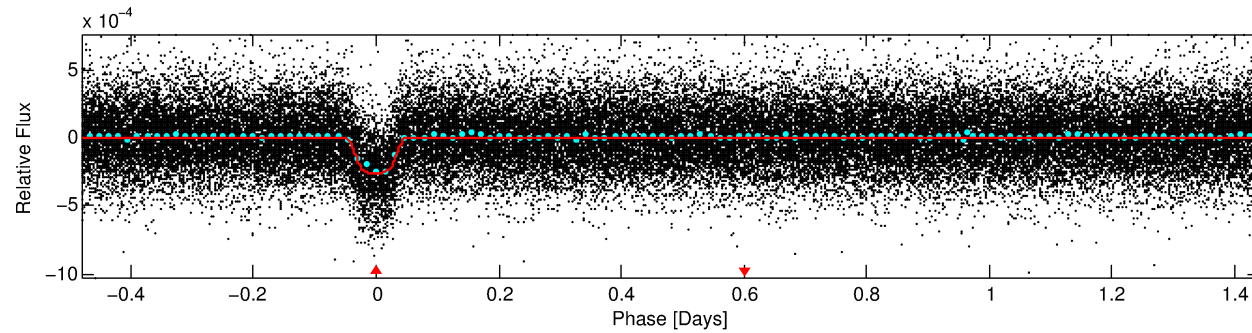
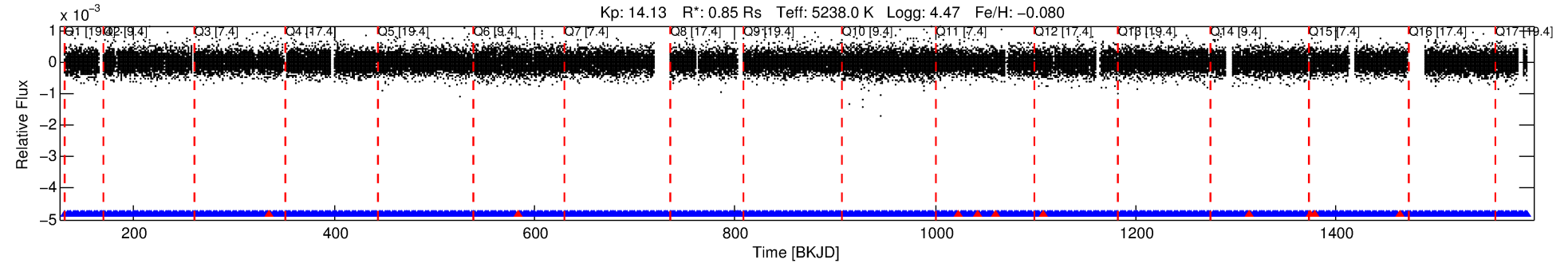
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007626370-01

No Significant Match Found

DV One-Page Summary

KIC: 7626370 Candidate: 1 of 1 Period: 1.921 d
KOI: K01706.01 Corr: 0.950



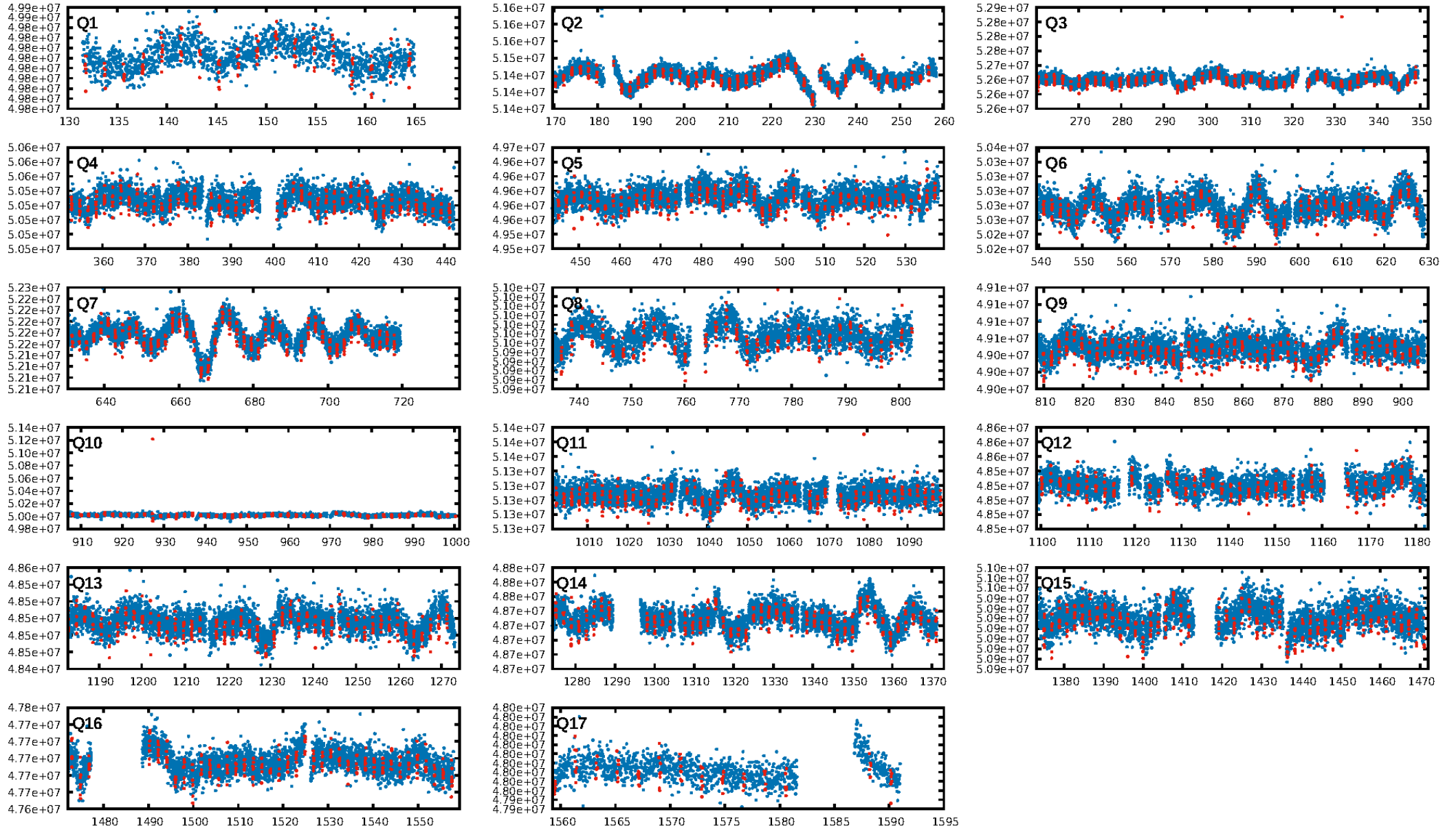
DV Fit Results:

Period = 1.92145 [0.00000] d
Epoch = 131.8007 [0.0006] BKJD
Rp/R* = 0.0180 [0.0031]
a/R* = 3.87 [2.58]
b = 0.90 [0.16]
Seff = 628.06 [290.54]
Teq = 1277 [148] K
Rp = 1.67 [0.48] Re
a = 0.0279 [0.0073] AU
Ag = 1.21 [0.89] [0.23σ]
Teffp = 2070 [312] K [2.30σ]

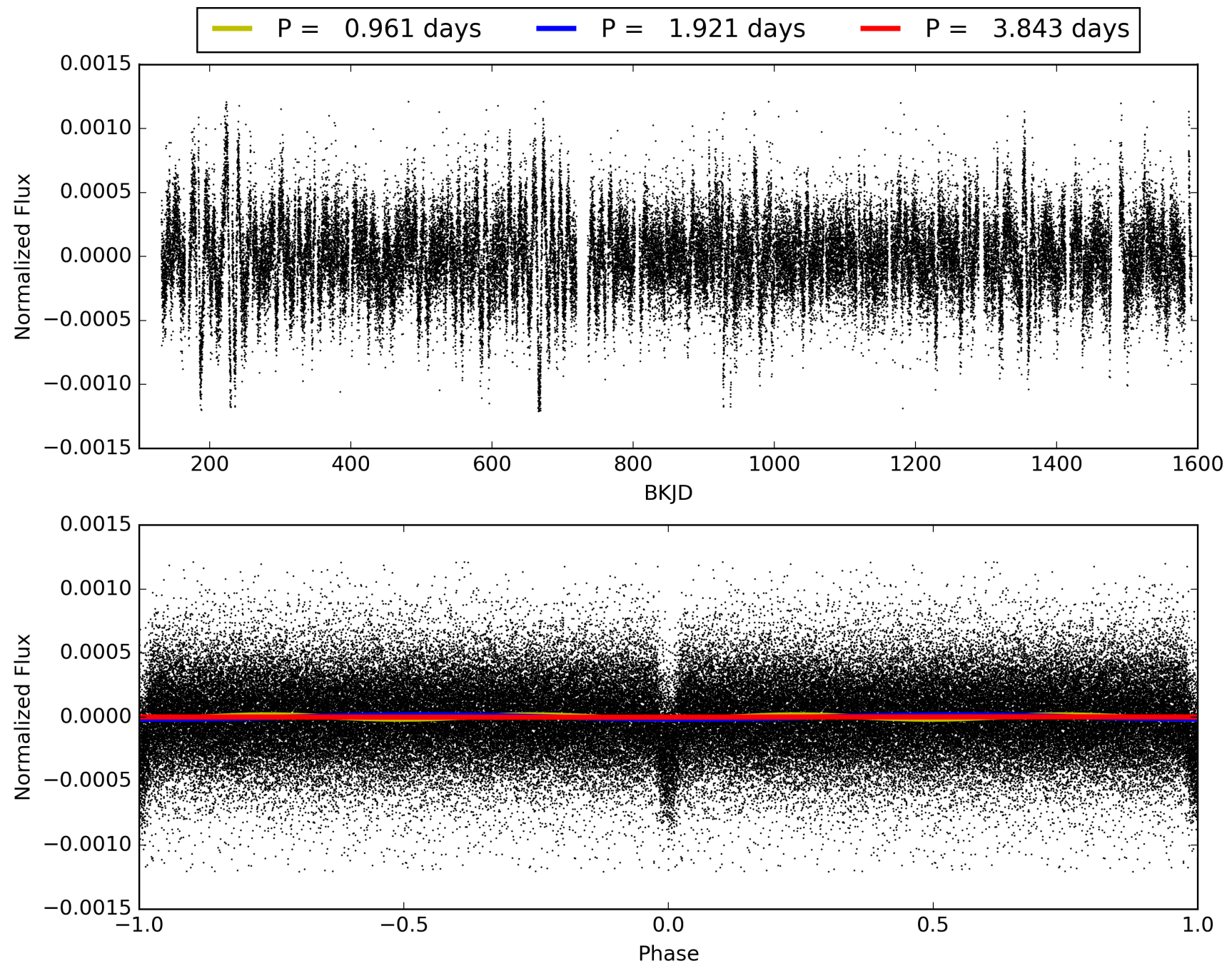
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGoF-sig: N/A
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 0.98 [655/665]
GhostDiagnostic-chr: 6.98
Centroid-sig: 17.0%
Centroid-so: 0.106 arcsec [0.44σ]
OotOffset-rm: 0.070 arcsec [0.66σ]
KicOffset-rm: 0.200 arcsec [2.04σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.94 [16/17]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 007626370-01, PDC Light Curves

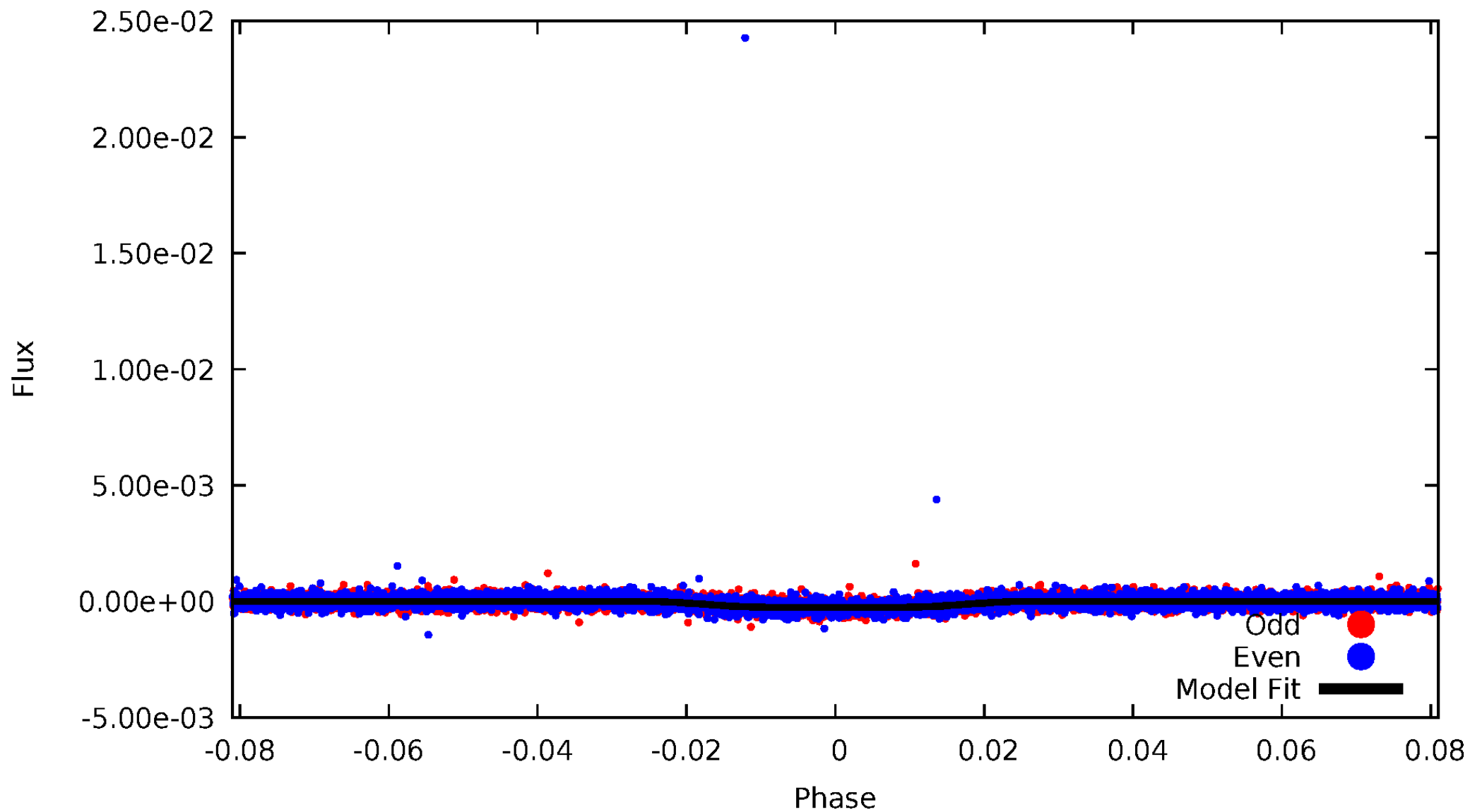


TCE 007626370-01



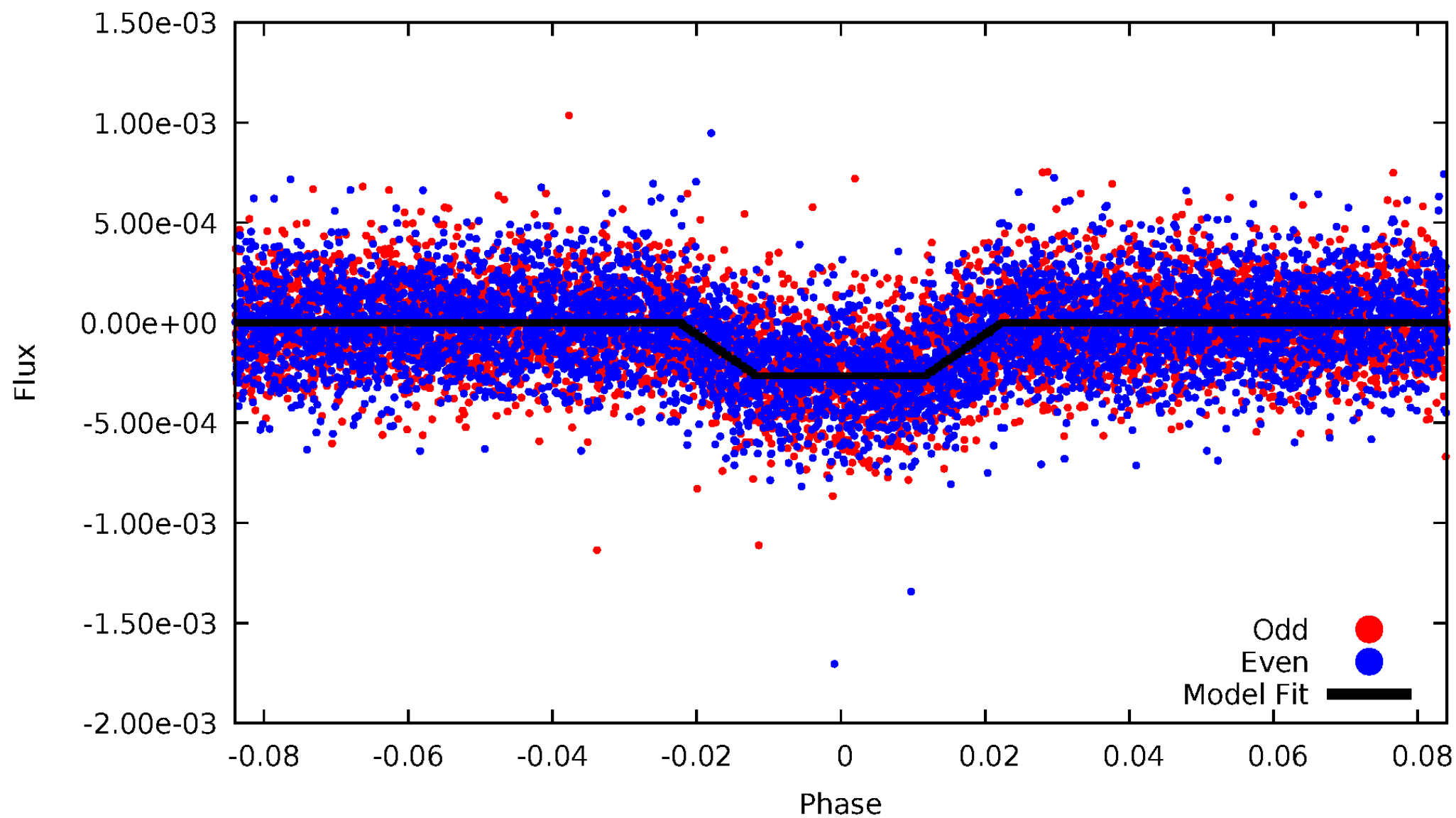
DV Odd/Even

TCE 007626370-01

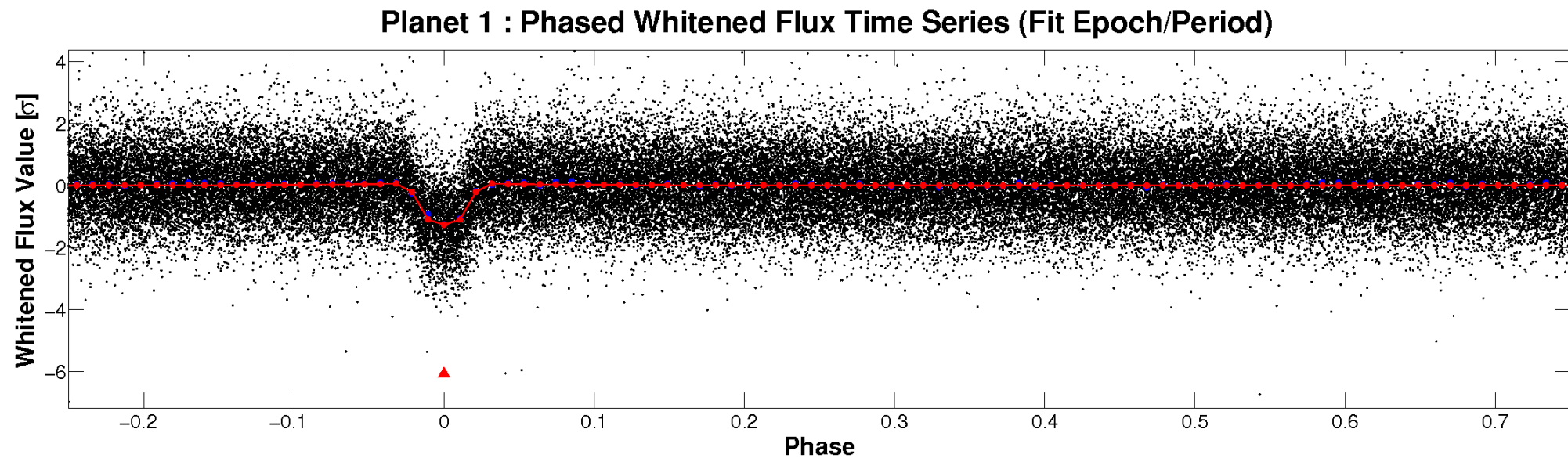
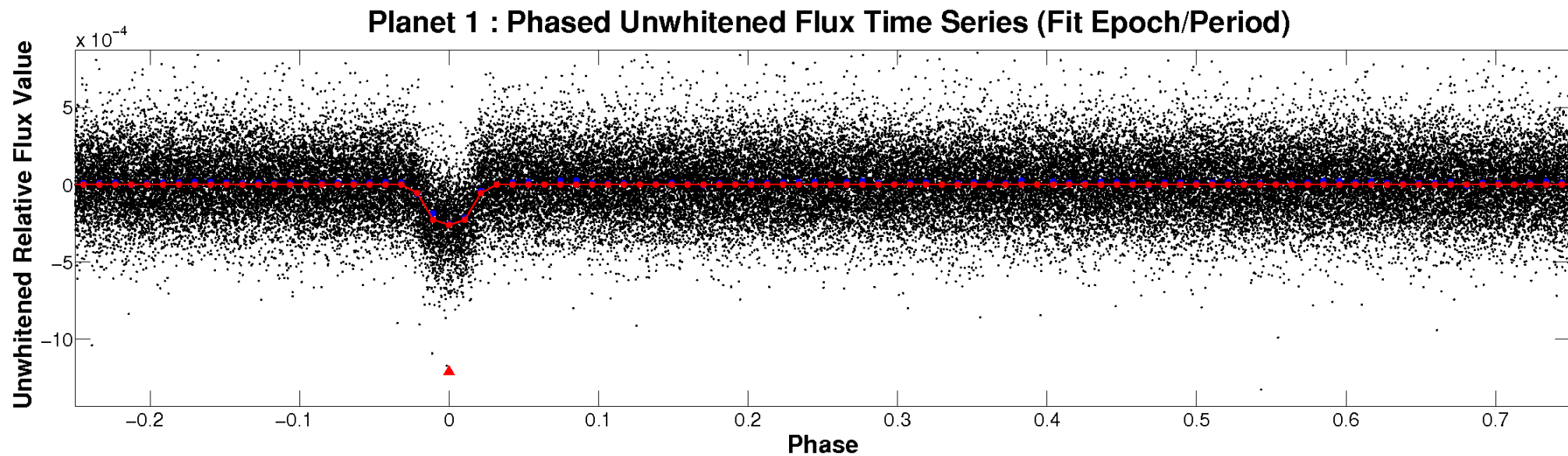


ALT Odd/Even

TCE 007626370-01

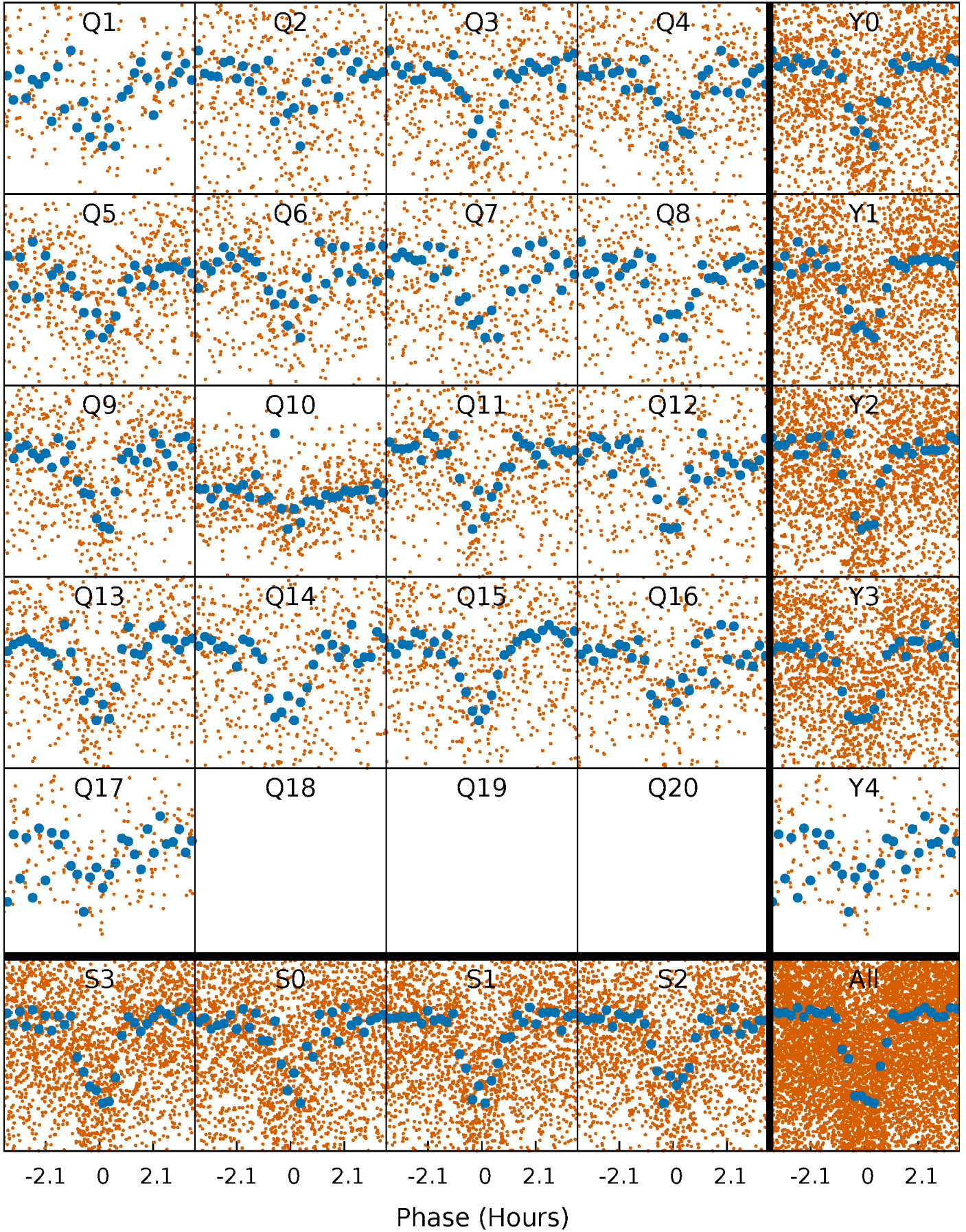


Non-Whitened Vs. Whitened Light Curve



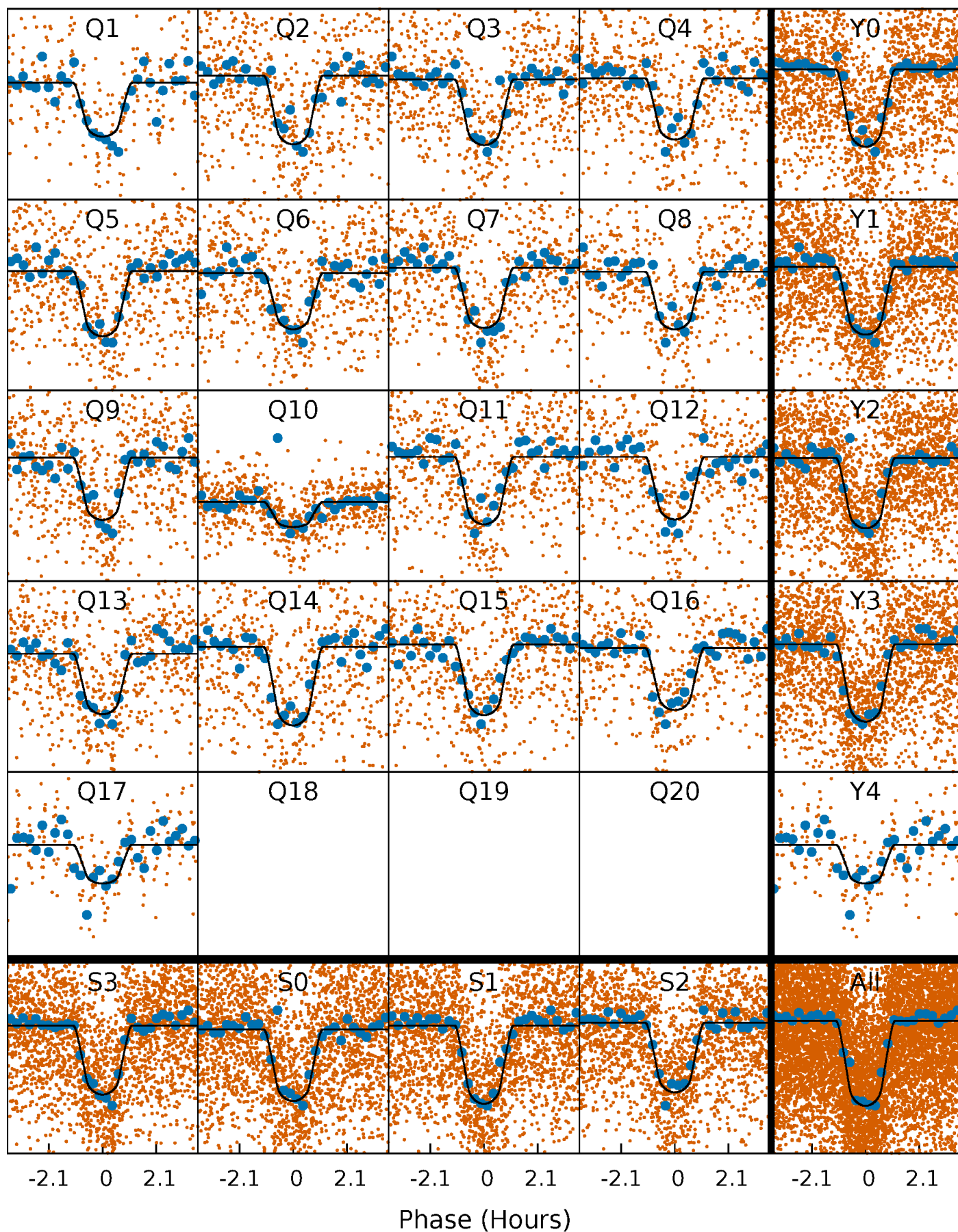
PDC Quarter-Phased Transit Curves

TCE 007626370-01 P= 1.921455 Days $T_0=131.800694$ (BKJD)



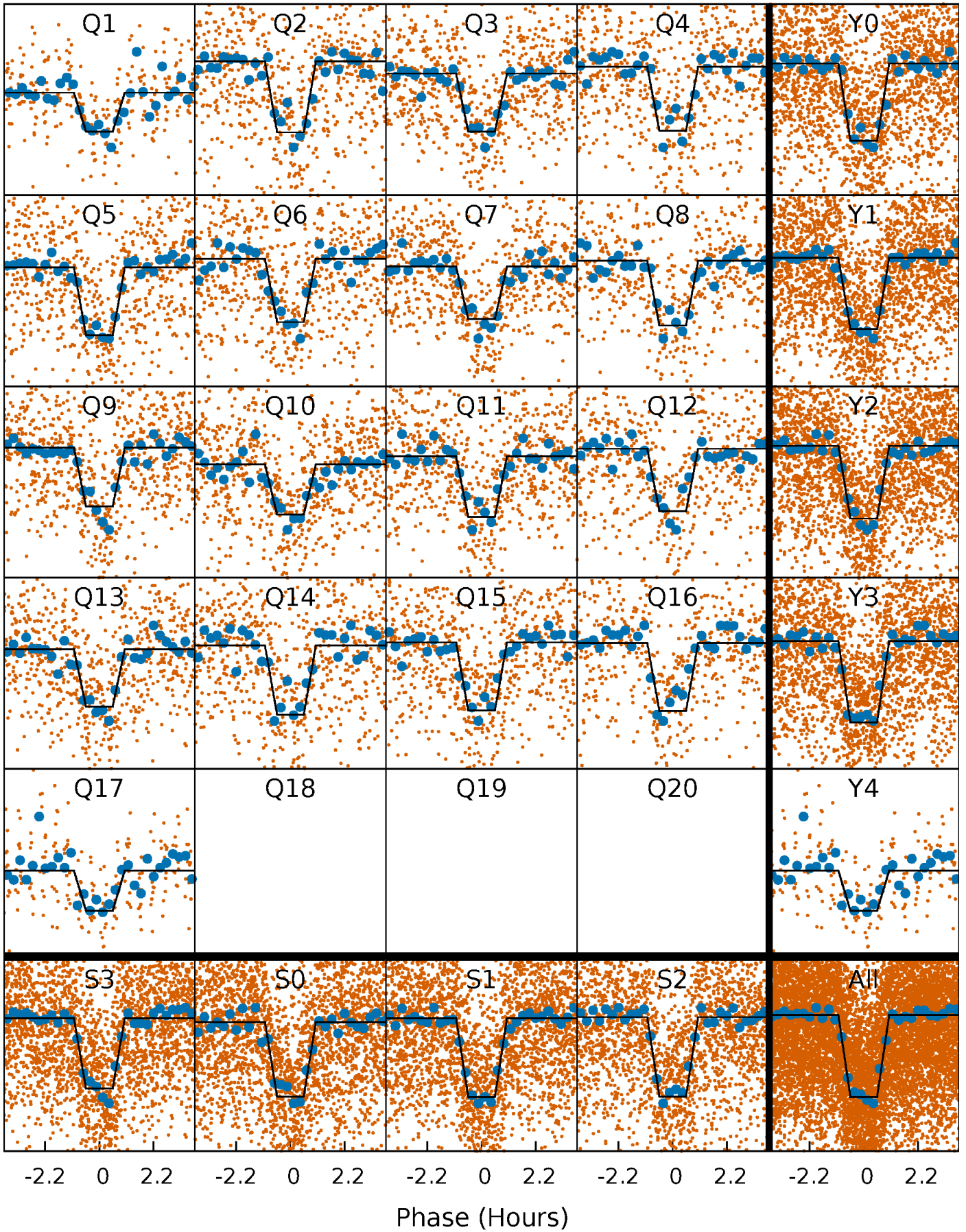
DV Quarter-Phased Transit Curves

TCE 007626370-01 P= 1.921455 Days $T_0=131.800694$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

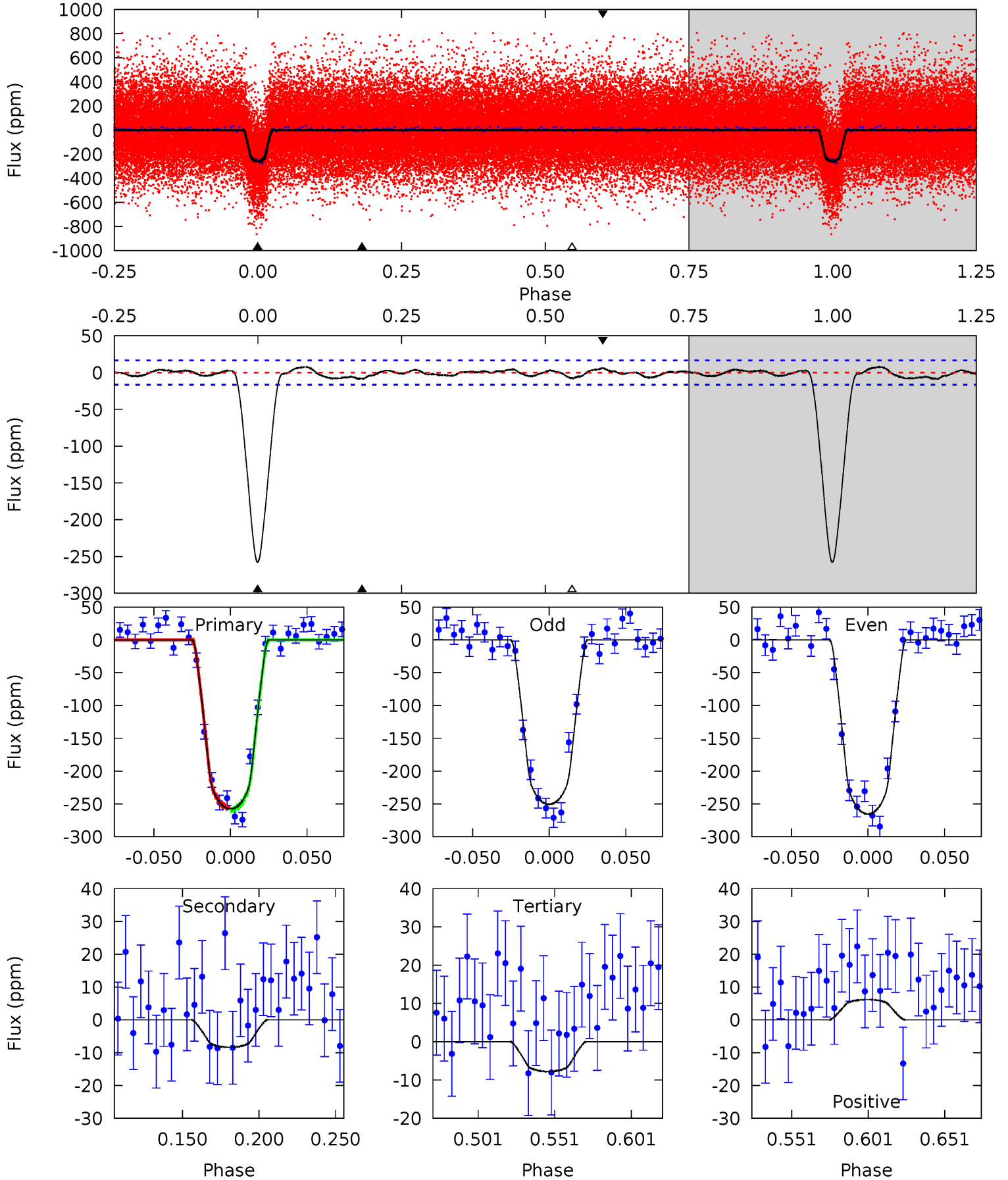
TCE 007626370-01 P= 1.921449 Days $T_0=131.801933$ (BKJD)



DV Model-Shift Uniqueness Test

007626370-01, P = 1.921455 Days, E = 129.879239 Days

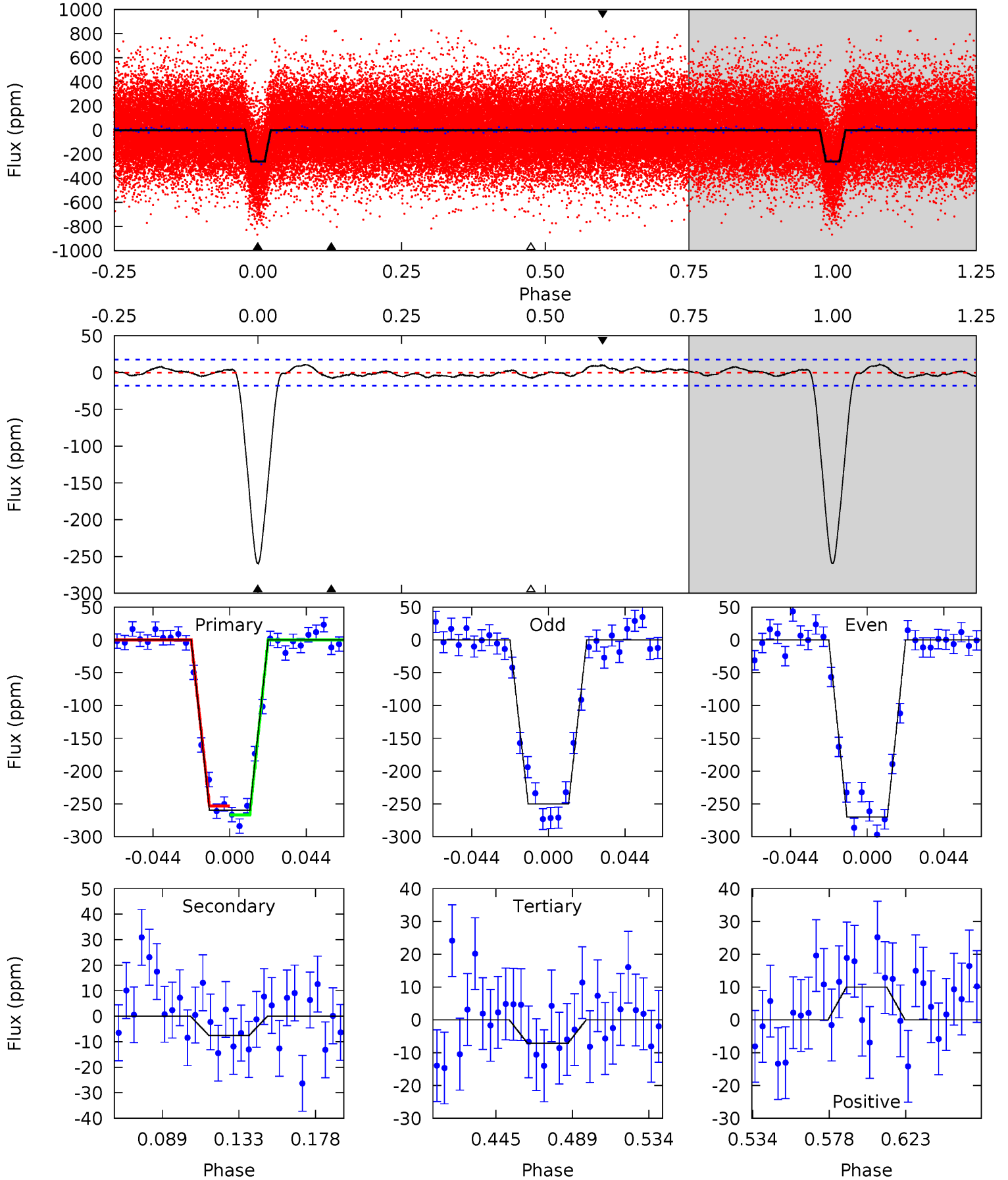
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
73.6	2.39	2.22	1.76	4.71	1.96	0.94	71.4	71.9	0.17	0.63	2.10	0.95	0.03	0.37



Alt Model-Shift Uniqueness Test

007626370-01, P = 1.921449 Days, E = 129.880484 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
69.1	2.00	1.90	2.66	4.73	2.01	1.13	67.2	66.4	0.10	-0.66	2.65	0.98	0.04	1.81



Stellar Parameters For KIC 007626370

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5238^{+158}_{-142}	$4.472^{+0.117}_{-0.273}$	$-0.080^{+0.300}_{-0.250}$	$0.851^{+0.197}_{-0.112}$	$0.784^{+0.114}_{-0.057}$	$1.791^{+0.879}_{-0.933}$
	+3%/-3%	+3%/-6%	+375%/-312%	+23%/-13%	+15%/-7%	+49%/-52%
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 007626370-01 / KOI 1706.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-8 ± 3	$1.73^{+0.40}_{-0.34}$	1810^{+136}_{-106}	2718^{+263}_{-335}	$1.218^{+0.919}_{-0.613}$
Alt.	-8 ± 4	$1.57^{+0.38}_{-0.34}$	1808^{+148}_{-105}	2736^{+300}_{-379}	$1.264^{+1.178}_{-0.726}$

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 $A_{obs} \gg 1.0$

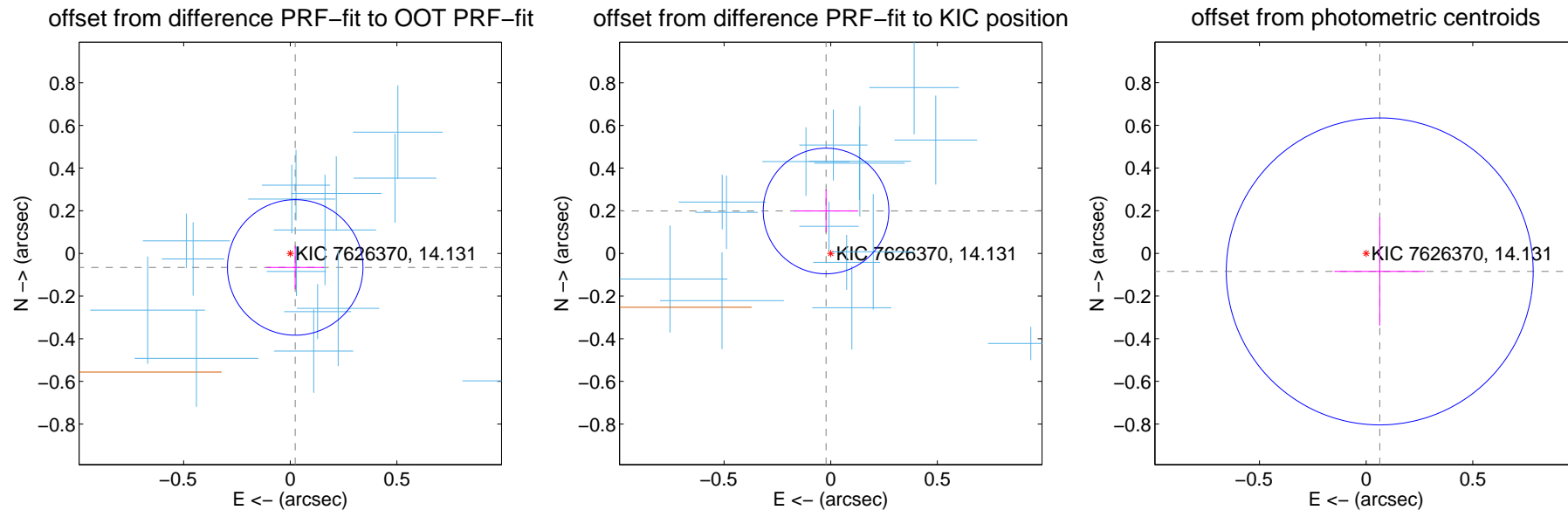
DV Centroid Data

Supplemental centroid analysis for 007626370-01. Kepler magnitude: 14.13. Transit SNR 52.08

There are 16 quarters with good PRF difference image offsets

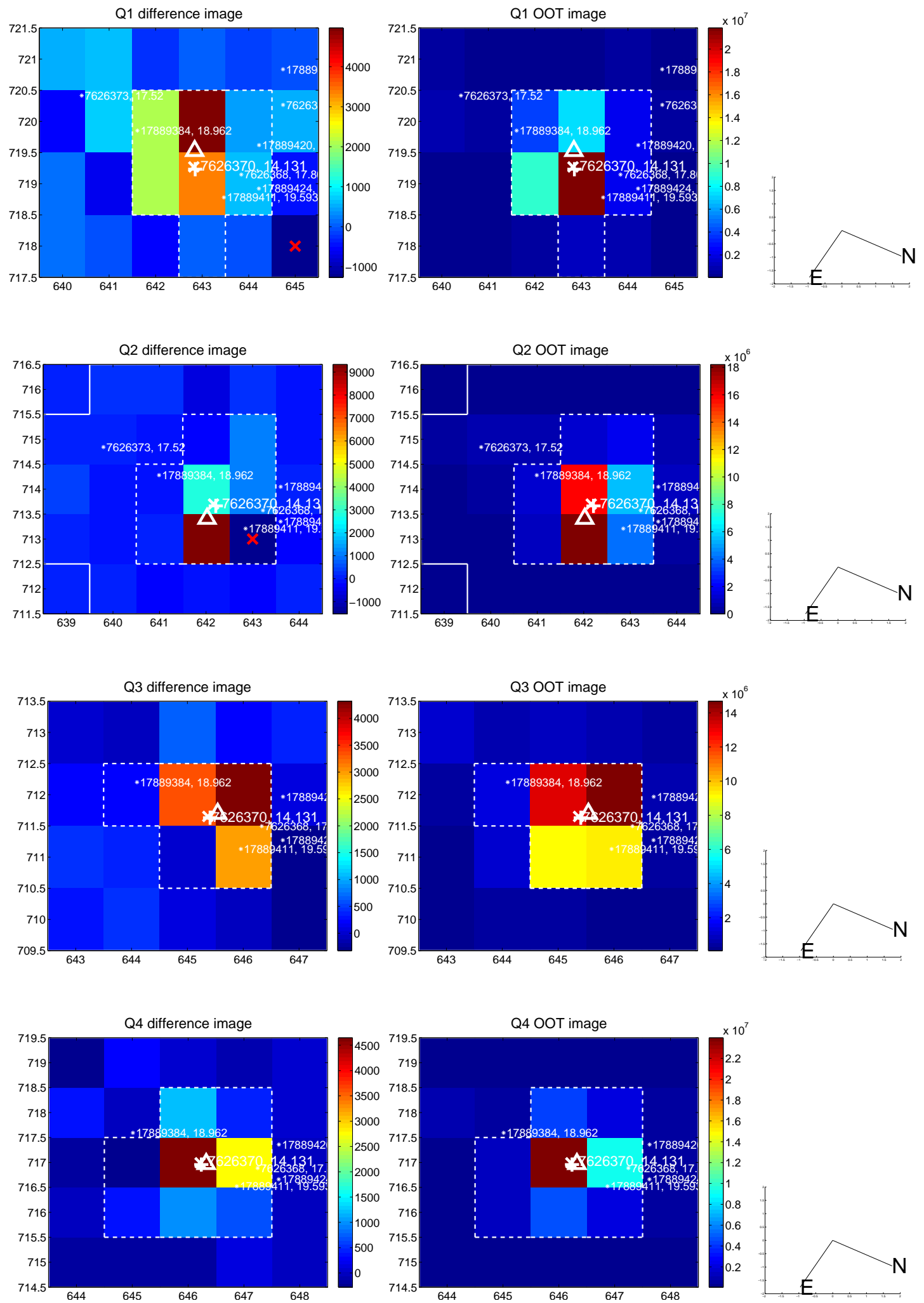
The direct PRF centroid is offset from the target star catalog position by about 0.28 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.070 ± 0.106	0.66	-0.023 ± 0.135	-0.066 ± 0.102
PRF-fit source offset from KIC position	0.200 ± 0.098	2.04	0.022 ± 0.152	0.199 ± 0.101
photometric centroid source offset	0.11 ± 0.24	0.44	-0.06 ± 0.21	-0.08 ± 0.25

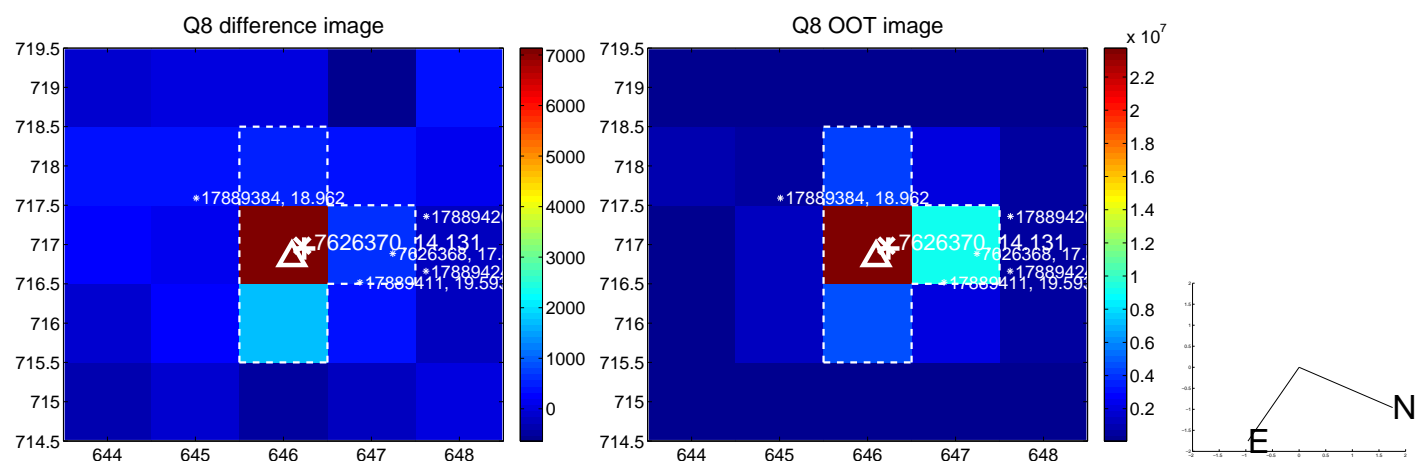
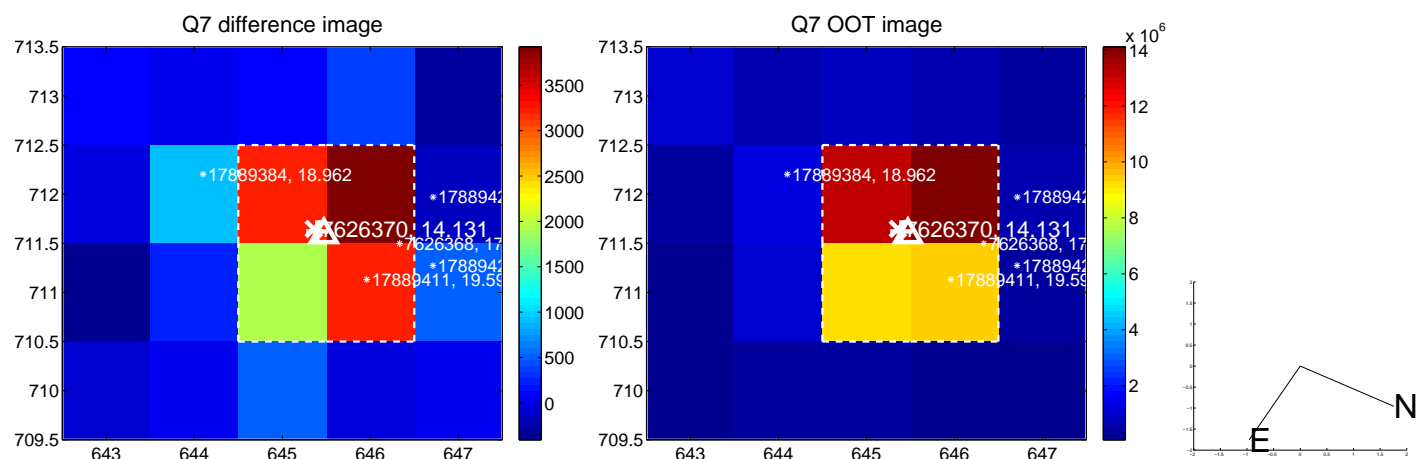
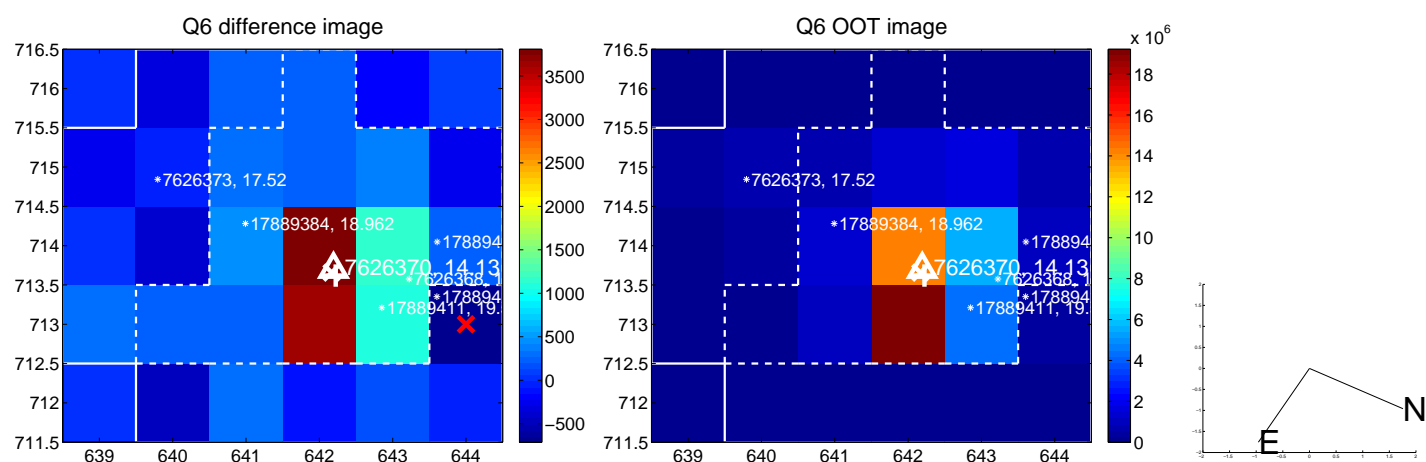
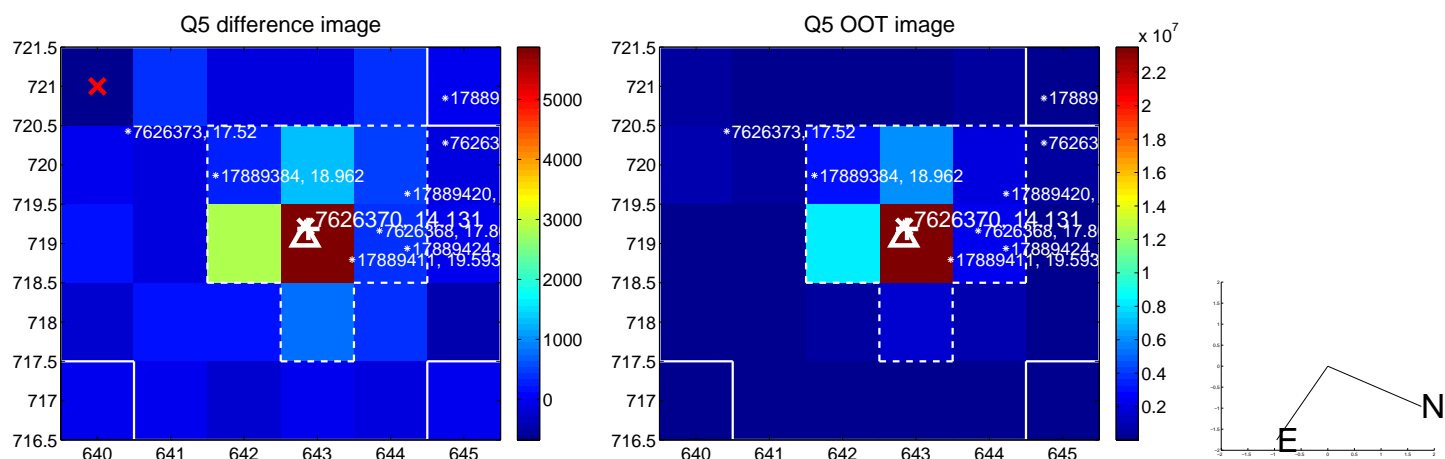


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

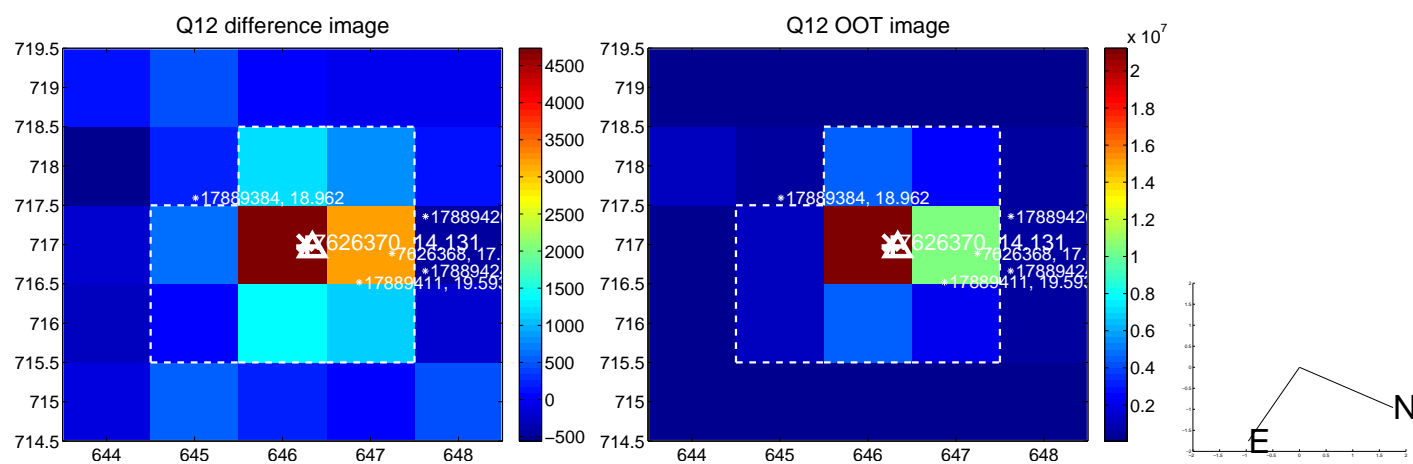
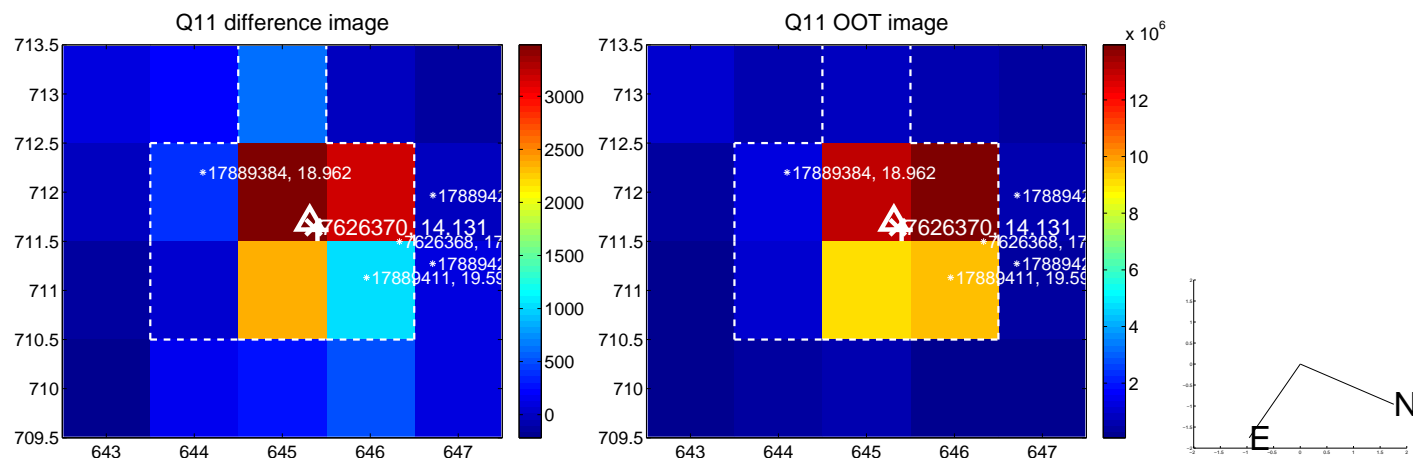
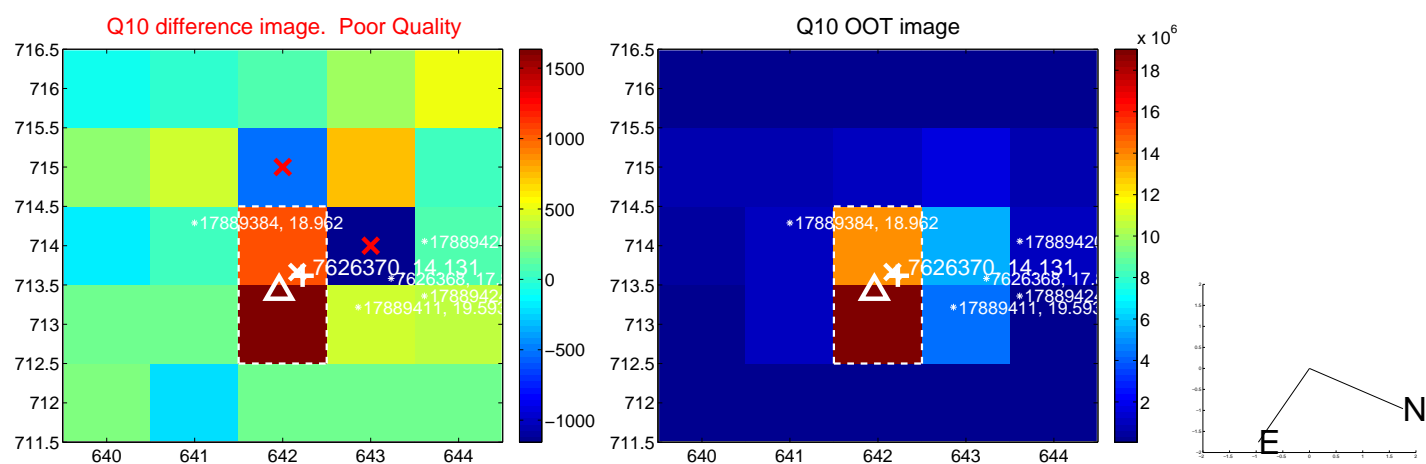
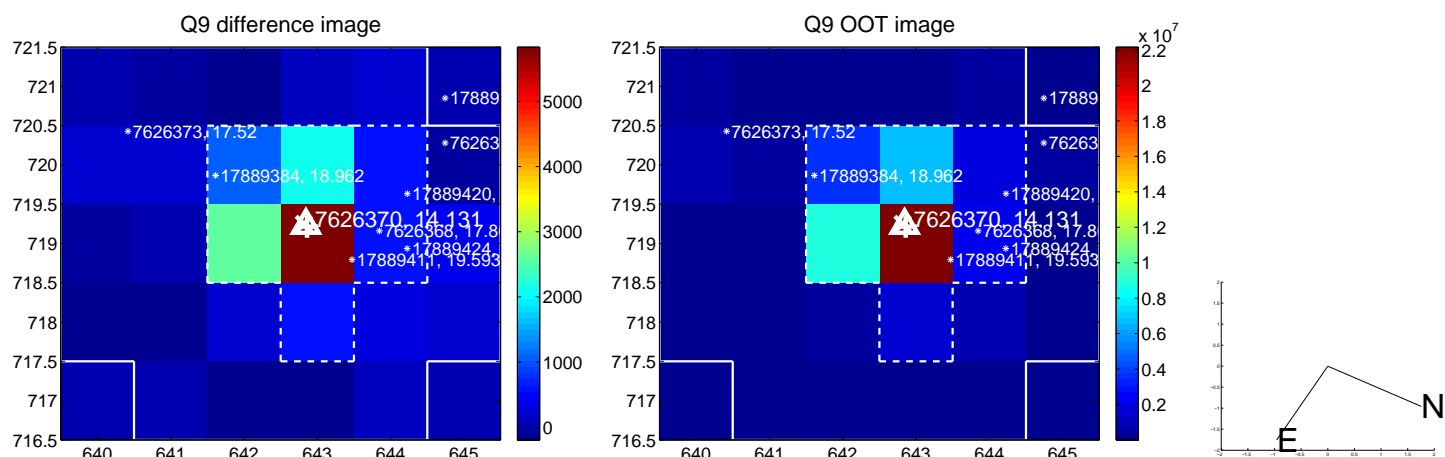
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



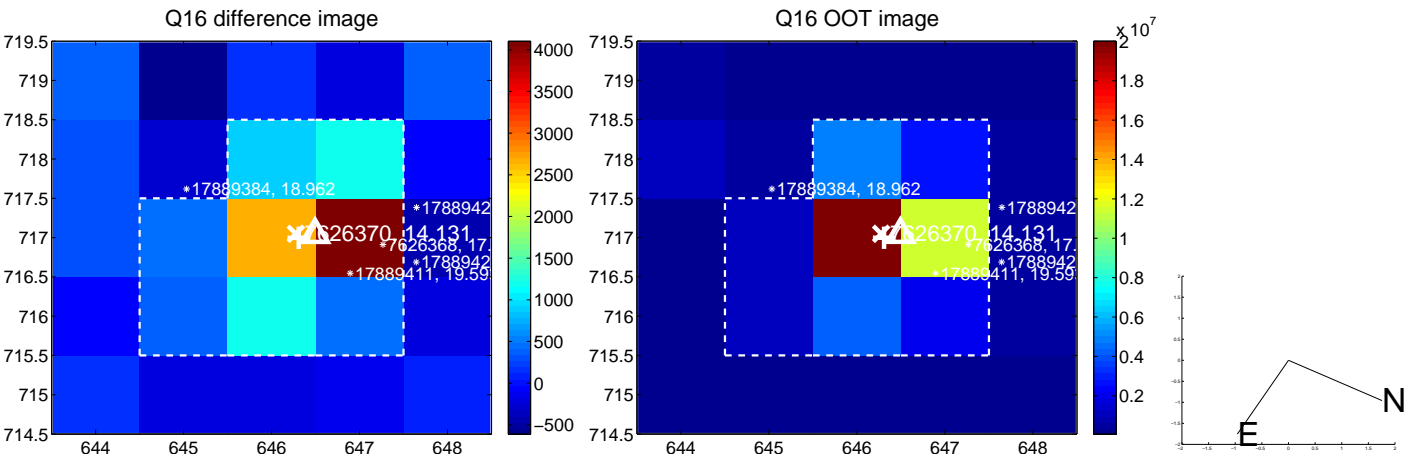
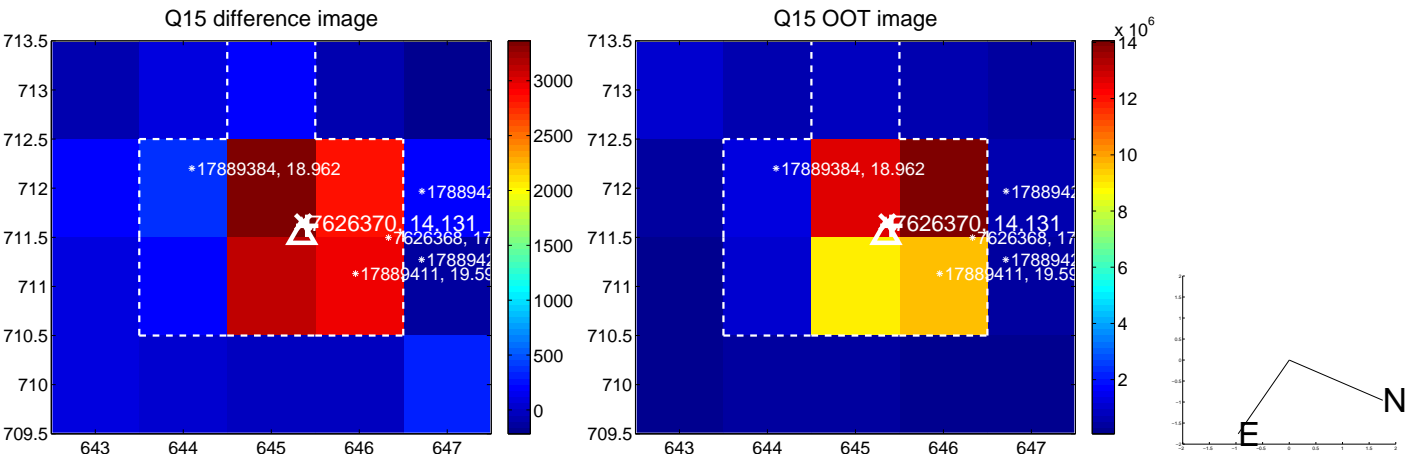
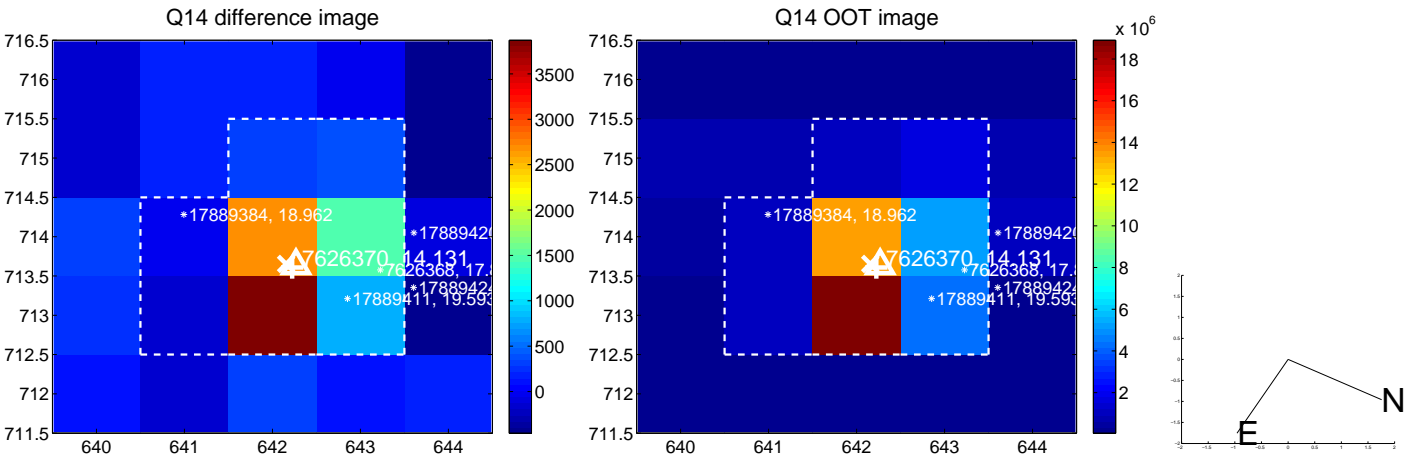
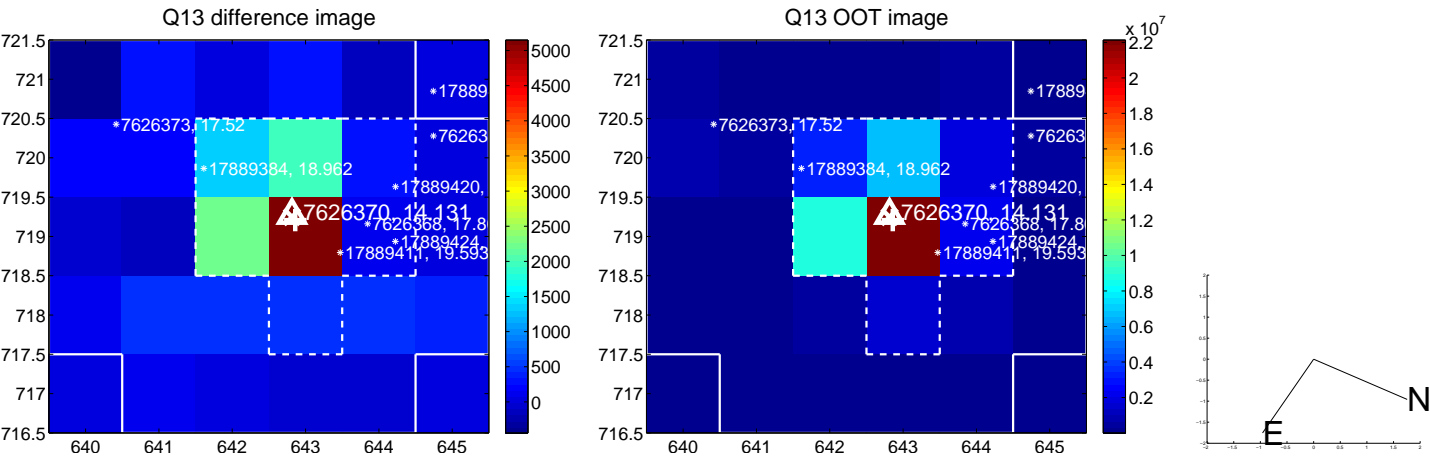
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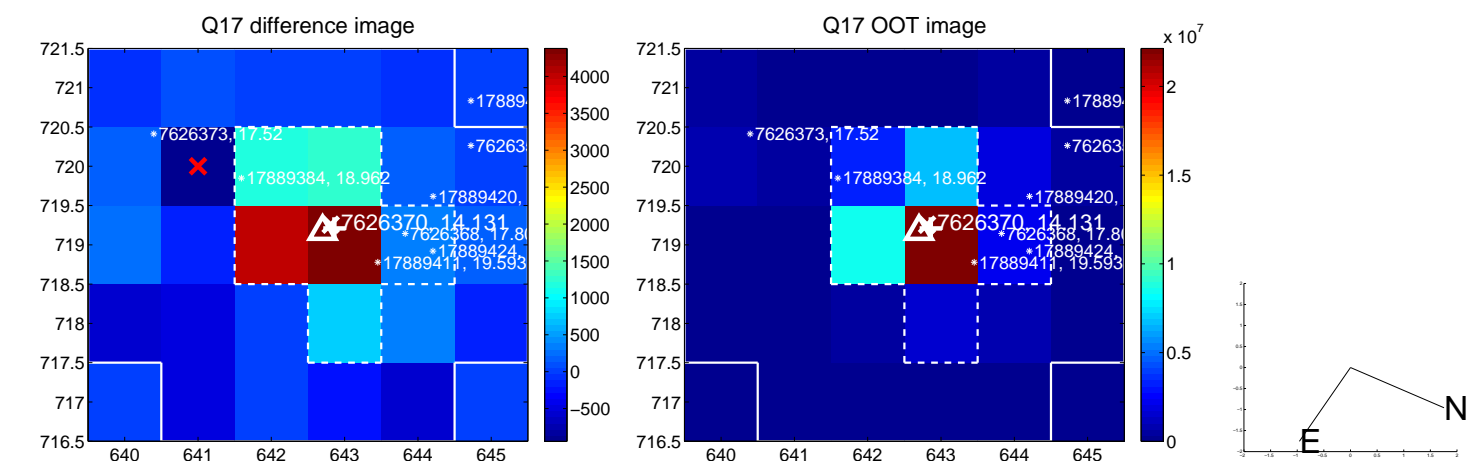
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



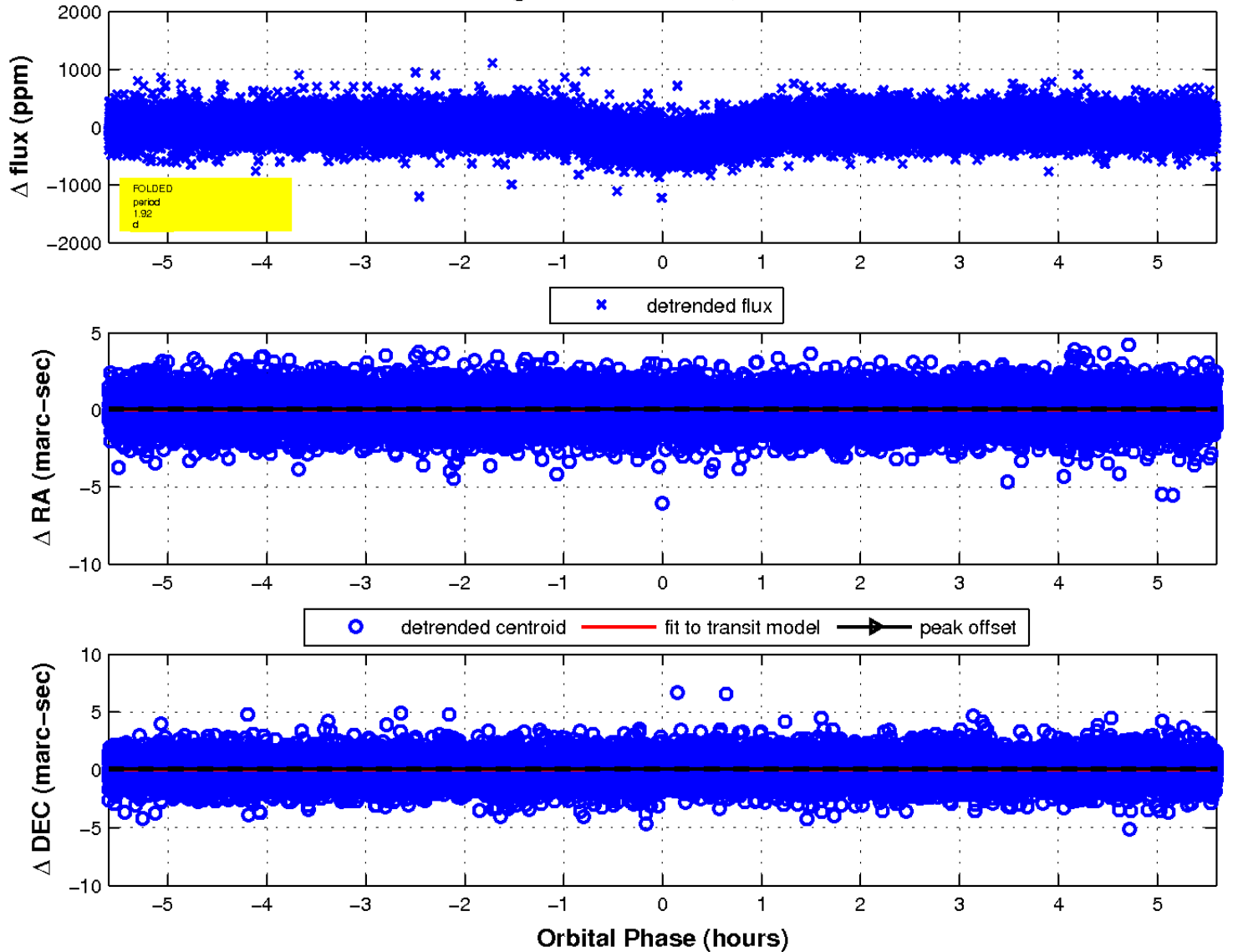
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fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

