

KIC 005352640

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})
005352640-01	OBS	4467.01	2.942421	133.863718	265.9	1.548	11.3	13.4	0.82	5436	1.61	344.56

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005352640-01	OBS	PC	0.98	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.

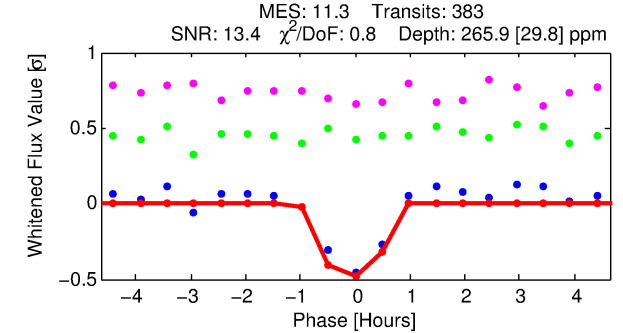
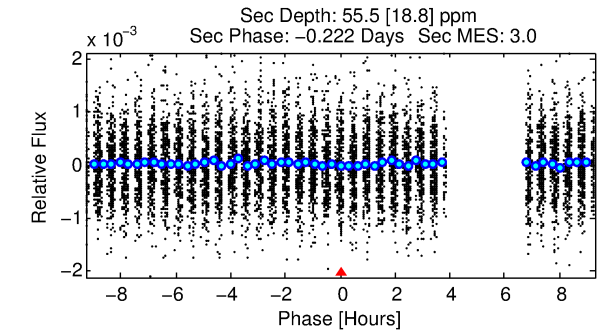
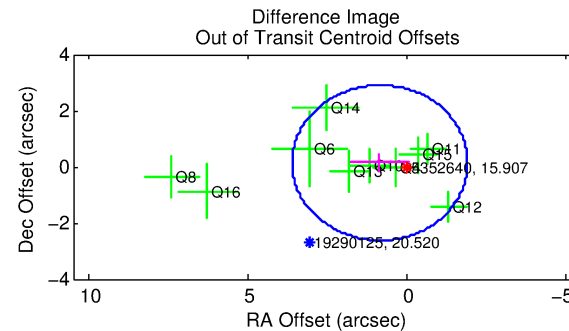
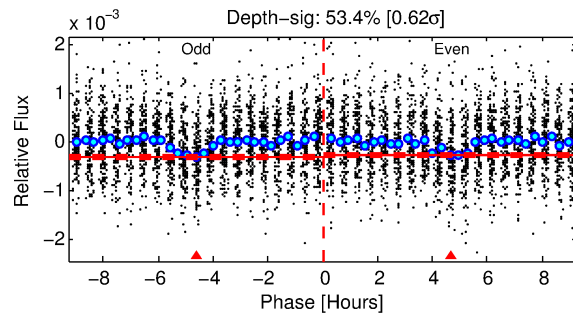
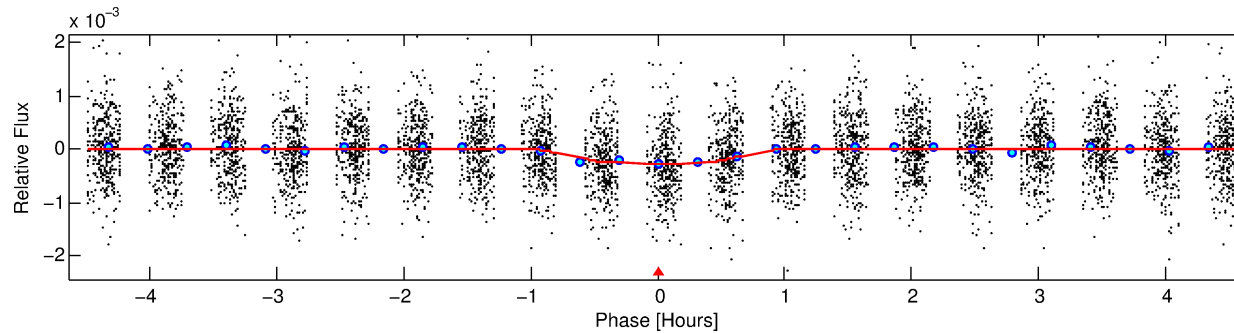
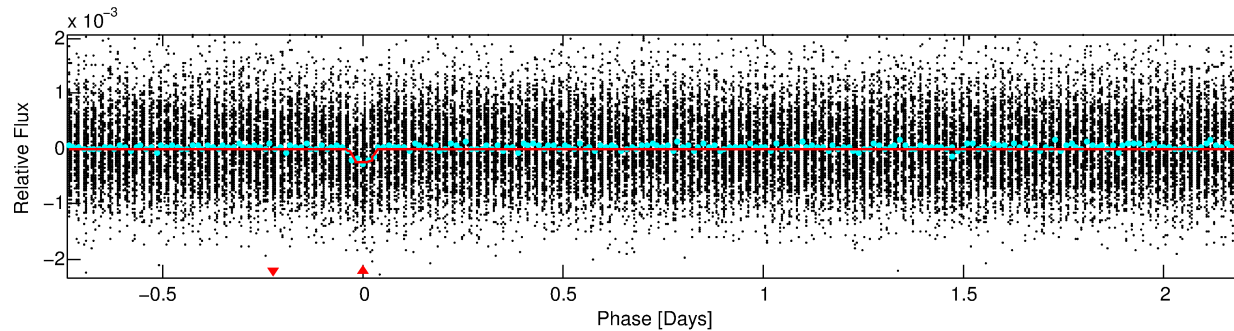
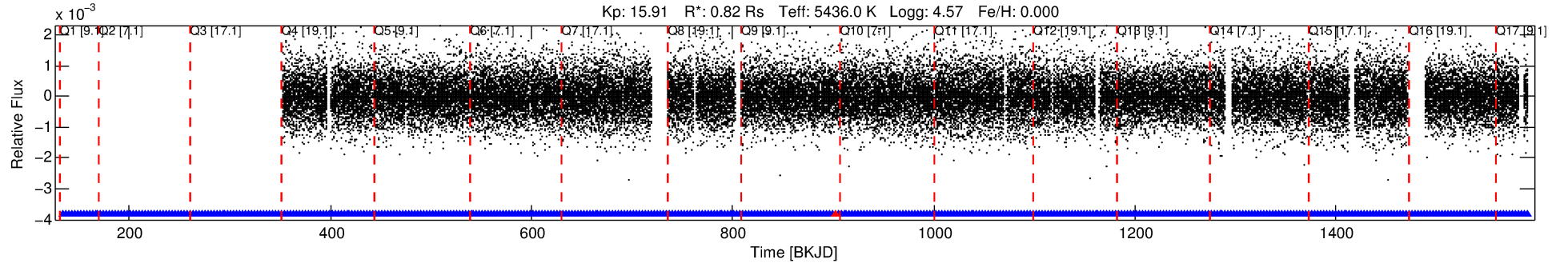
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005352640-01

No Significant Match Found

DV One-Page Summary

KIC: 5352640 Candidate: 1 of 1 Period: 2.942 d
KOI: K04467.01 Corr: 0.970



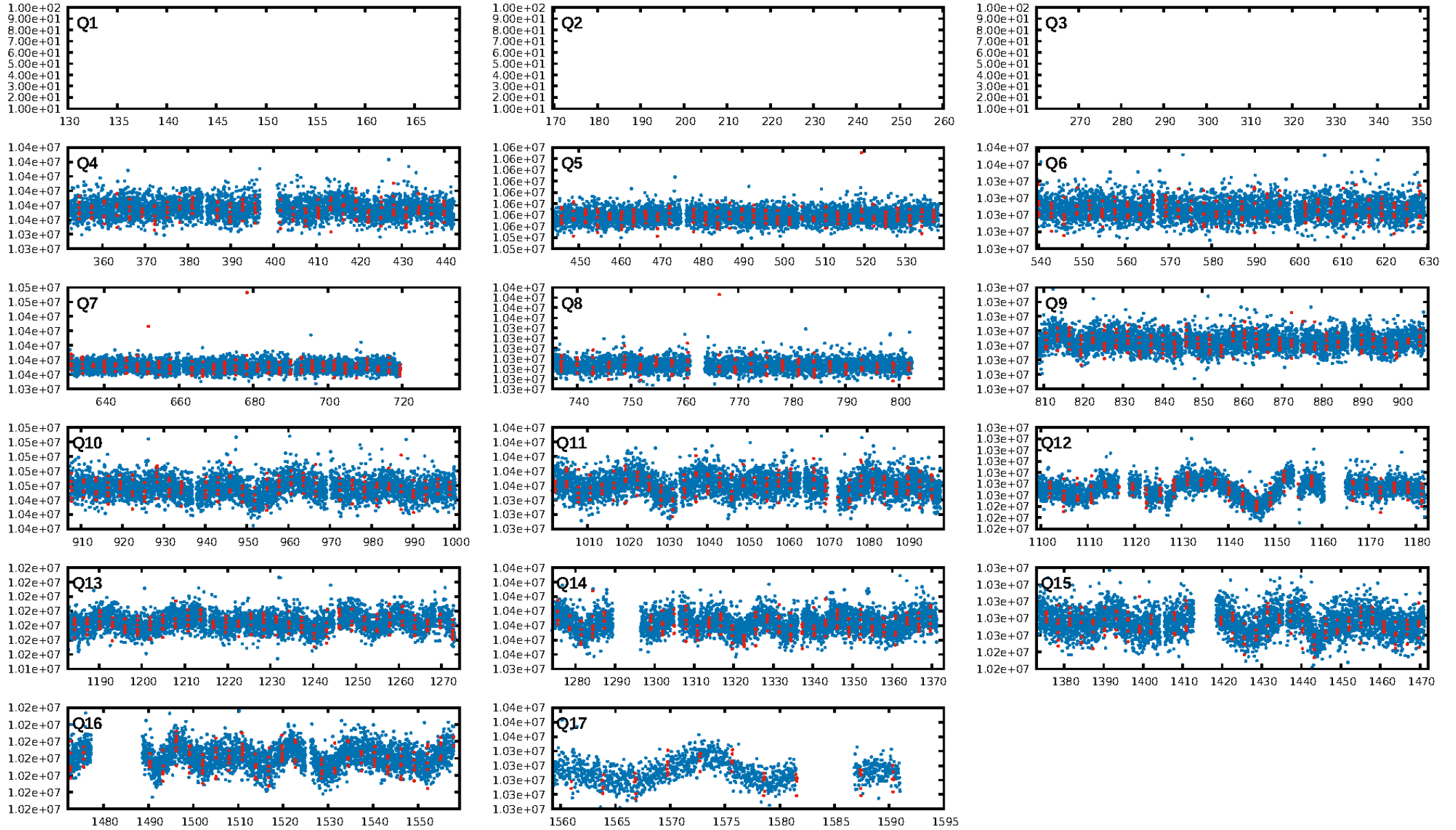
DV Fit Results:

Period = 2.94242 [0.00001] d
Epoch = 133.8637 [0.0022] BKJD
Rp/R* = 0.0181 [0.0106]
a/R* = 6.92 [16.88]
b = 0.90 [0.53]
Seff = 344.56 [103.08]
Teq = 1099 [82] K
Rp = 1.61 [1.01] Re
a = 0.0390 [0.0072] AU
Ag = 17.86 [22.24] [0.76 σ]
Teff = 3492 [1069] K [2.23 σ]

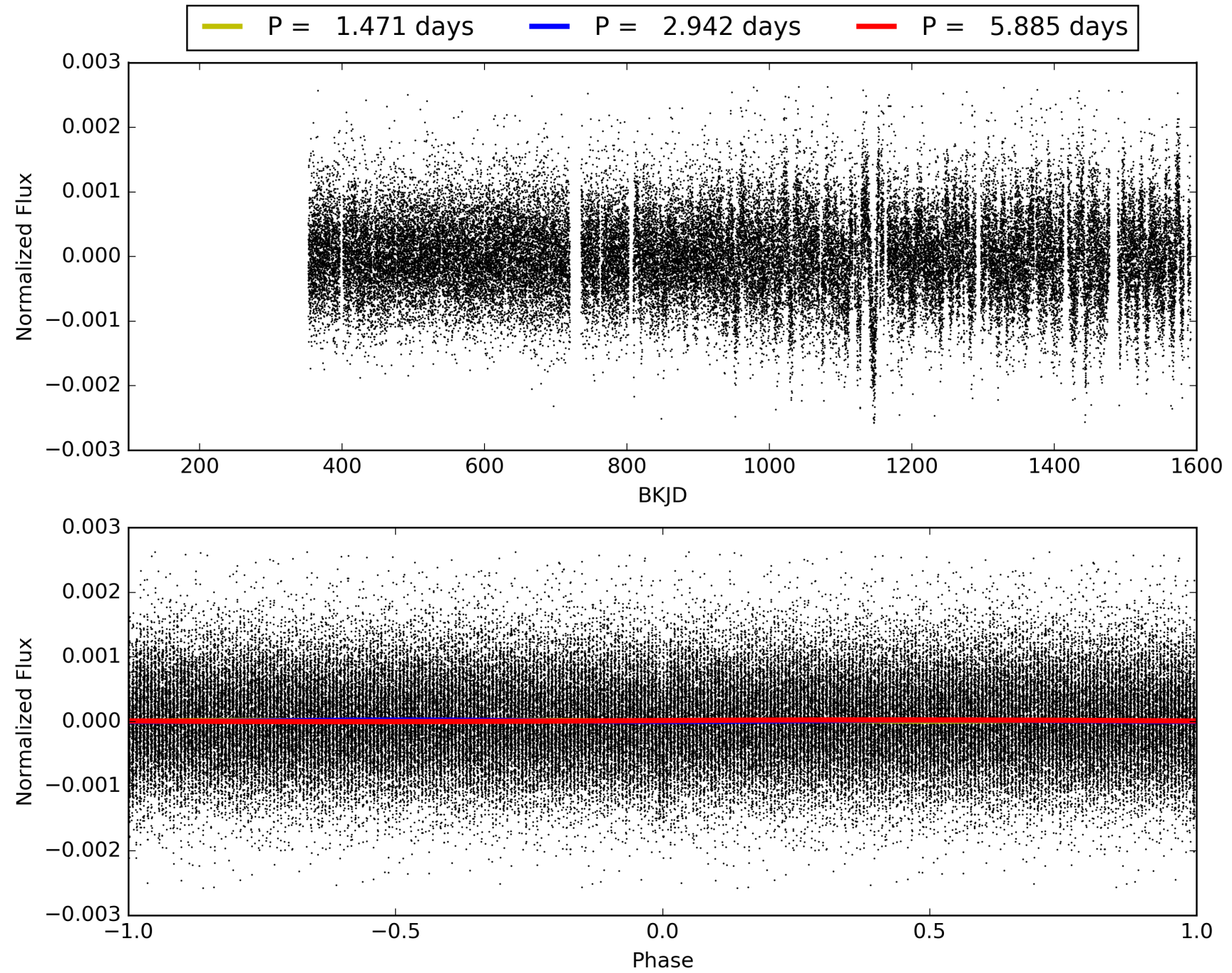
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 2.77e-29
RollingBand-fgt: 1.00 [372/373]
GhostDiagnostic-chr: 3.01
Centroid-sig: 3.8%
Centroid-so: 1.442 arcsec [1.31 σ]
OotOffset-rm: 0.867 arcsec [0.94 σ]
OotOffset-st: 3/2/4/1 [10]
KicOffset-rm: 0.823 arcsec [0.90 σ]
KicOffset-st: 3/2/4/1 [10]
DiffImageQuality-fgm: 0.30 [3/10]
DiffImageOverlap-fno: 1.00 [14/14]

TCE 005352640-01, PDC Light Curves

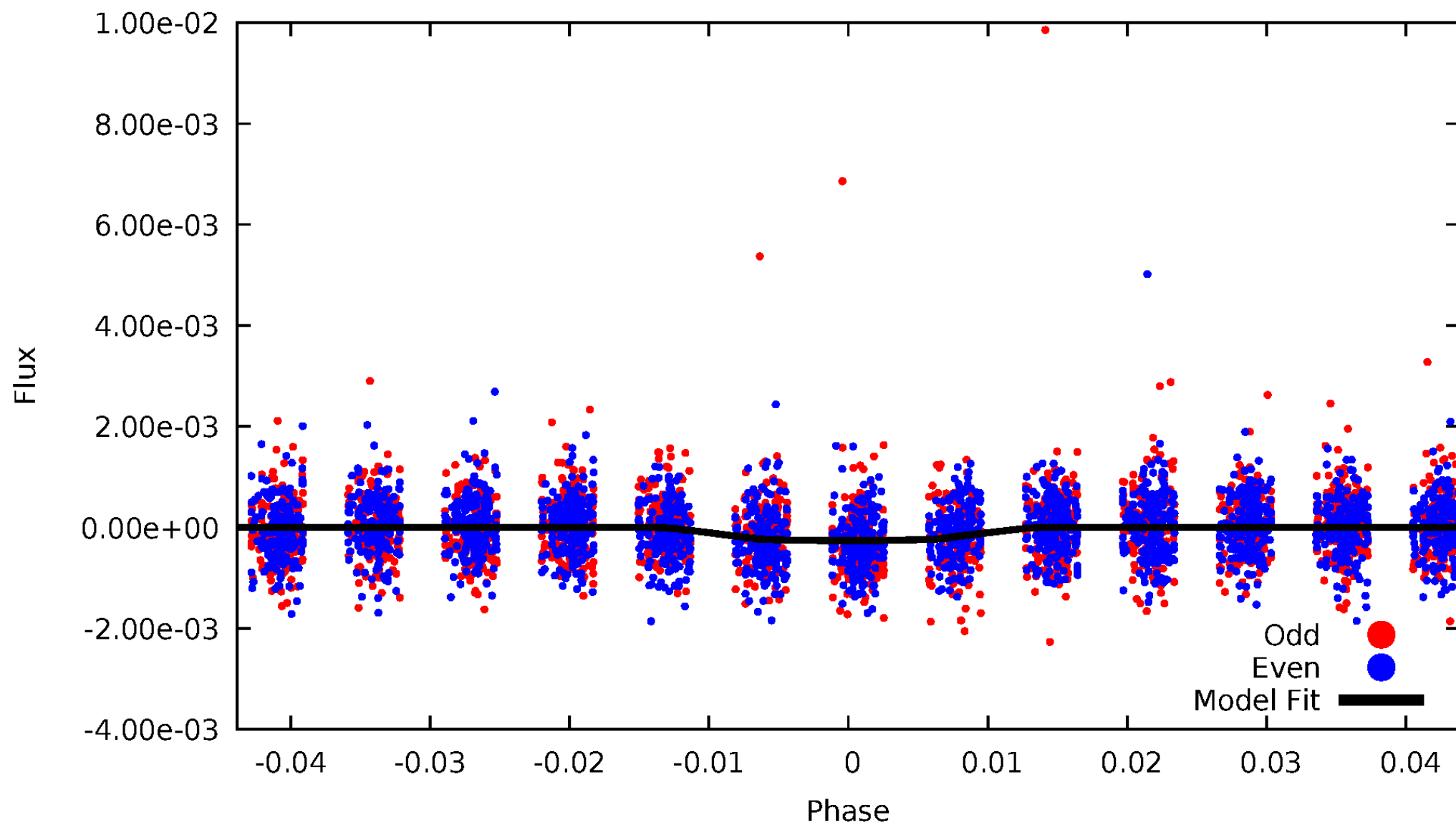


TCE 005352640-01



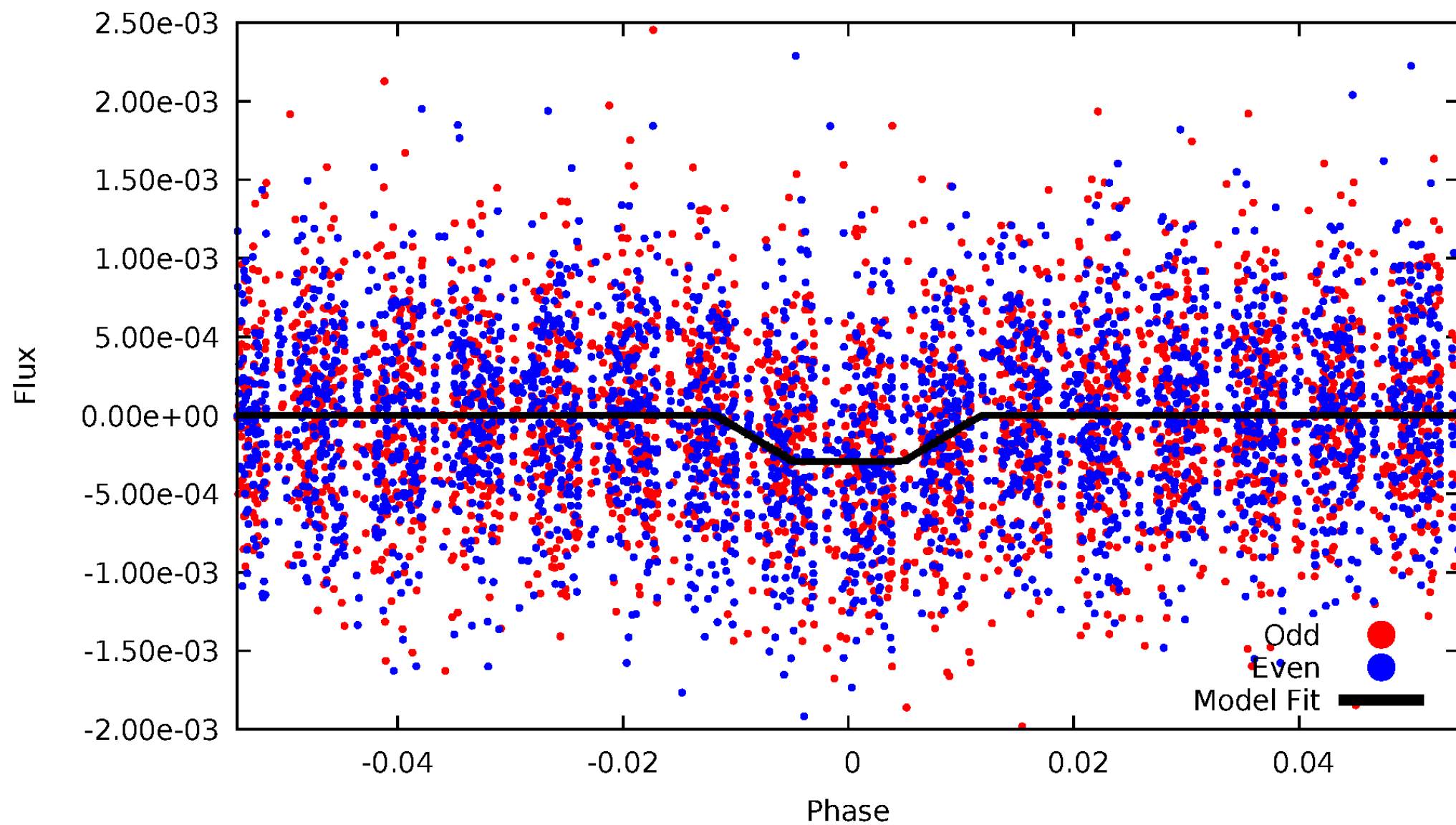
DV Odd/Even

TCE 005352640-01



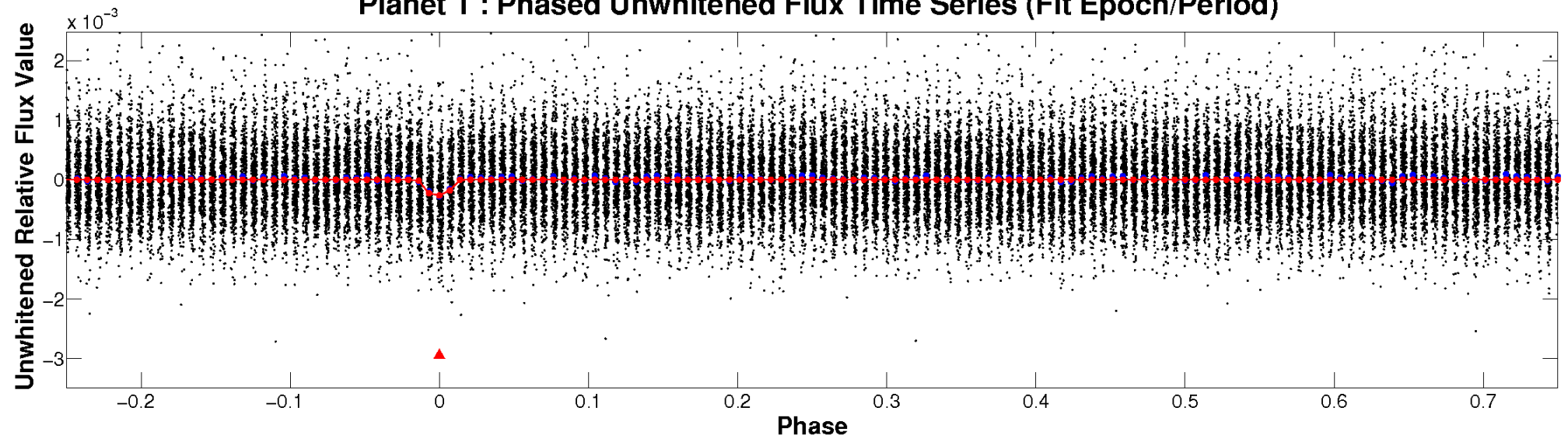
ALT Odd/Even

TCE 005352640-01

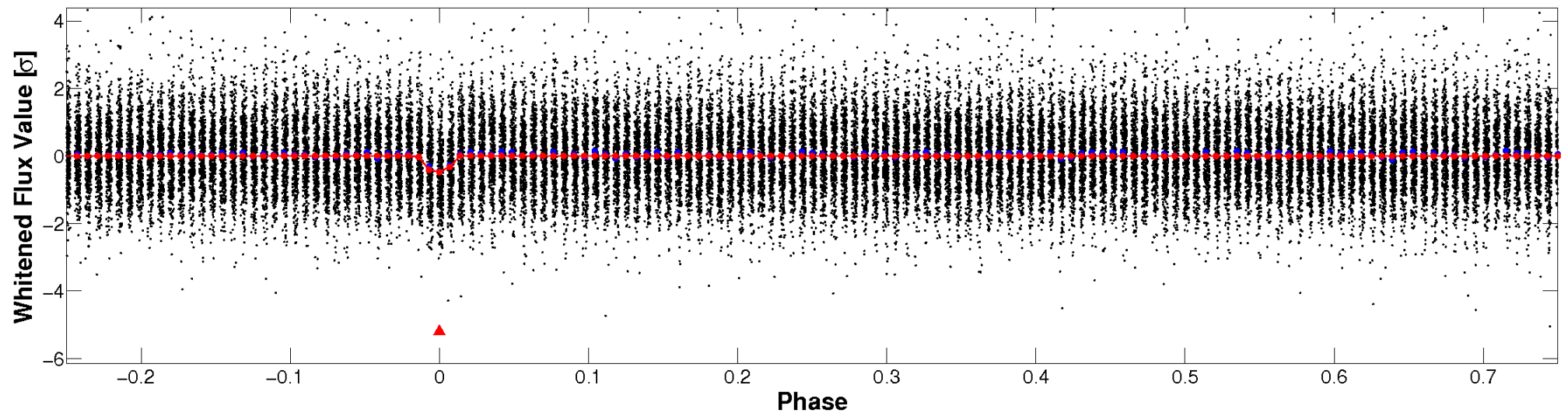


Non-Whitened Vs. Whitened Light Curve

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

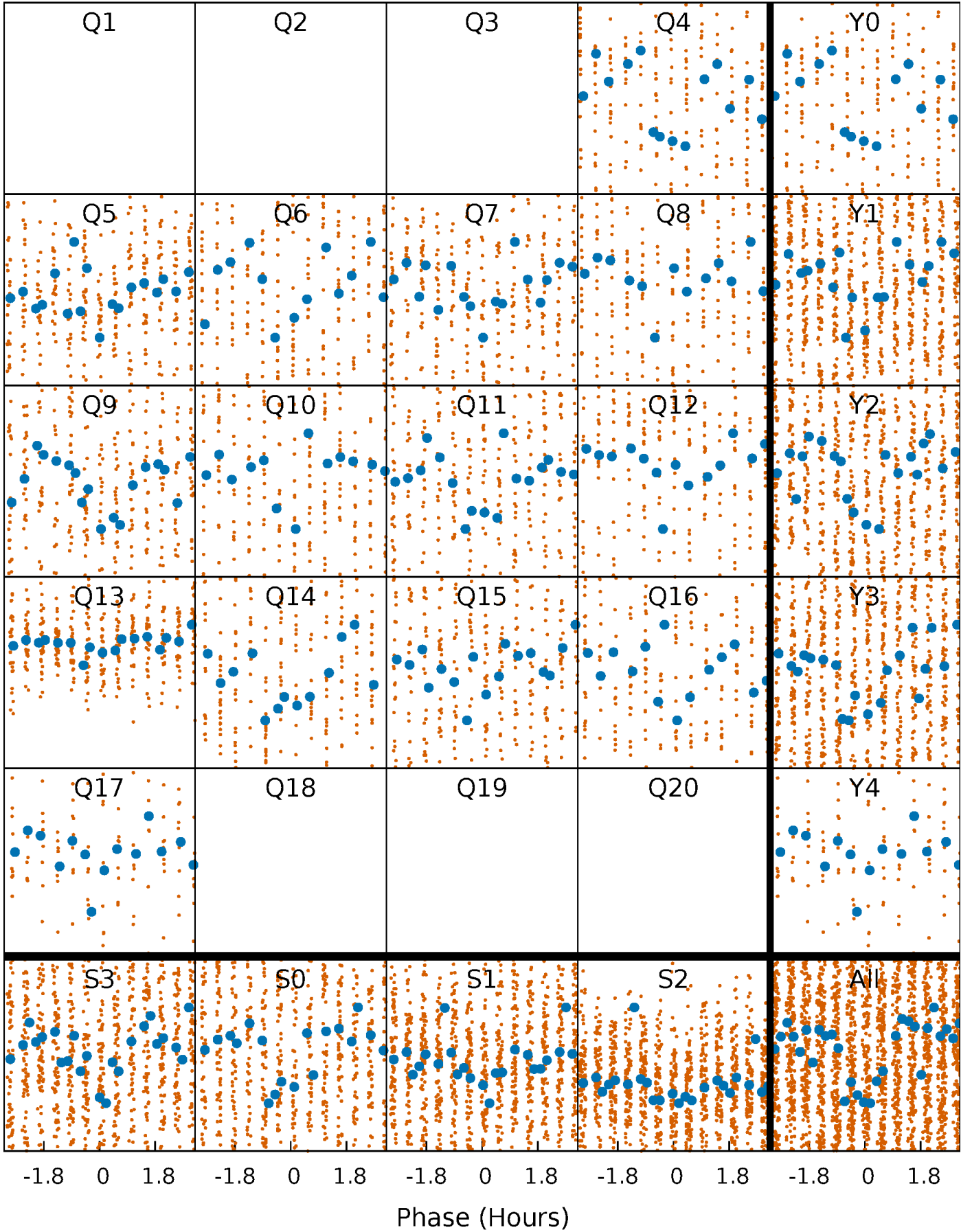


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



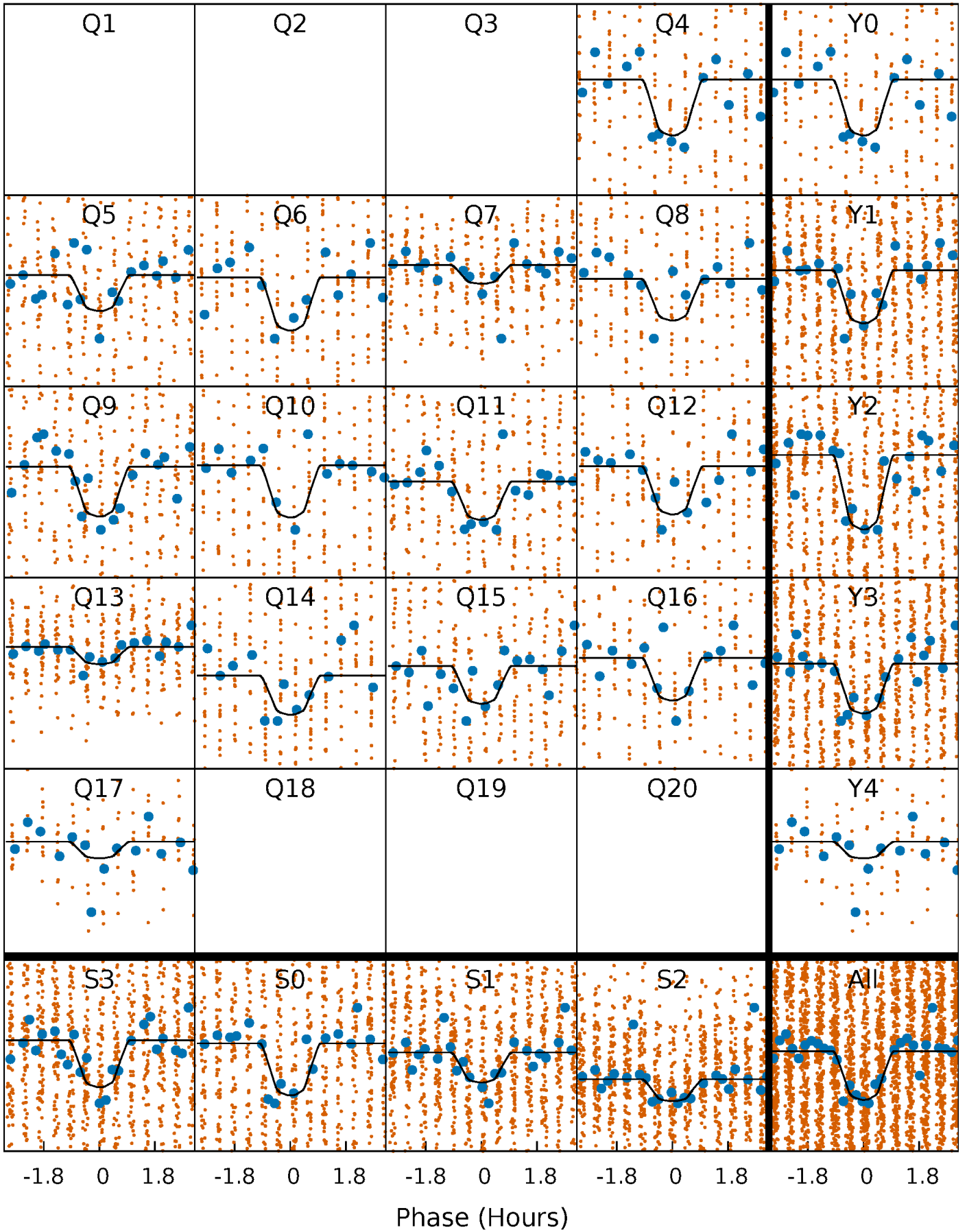
PDC Quarter-Phased Transit Curves

TCE 005352640-01 P= 2.942421 Days $T_0=133.863718$ (BKJD)



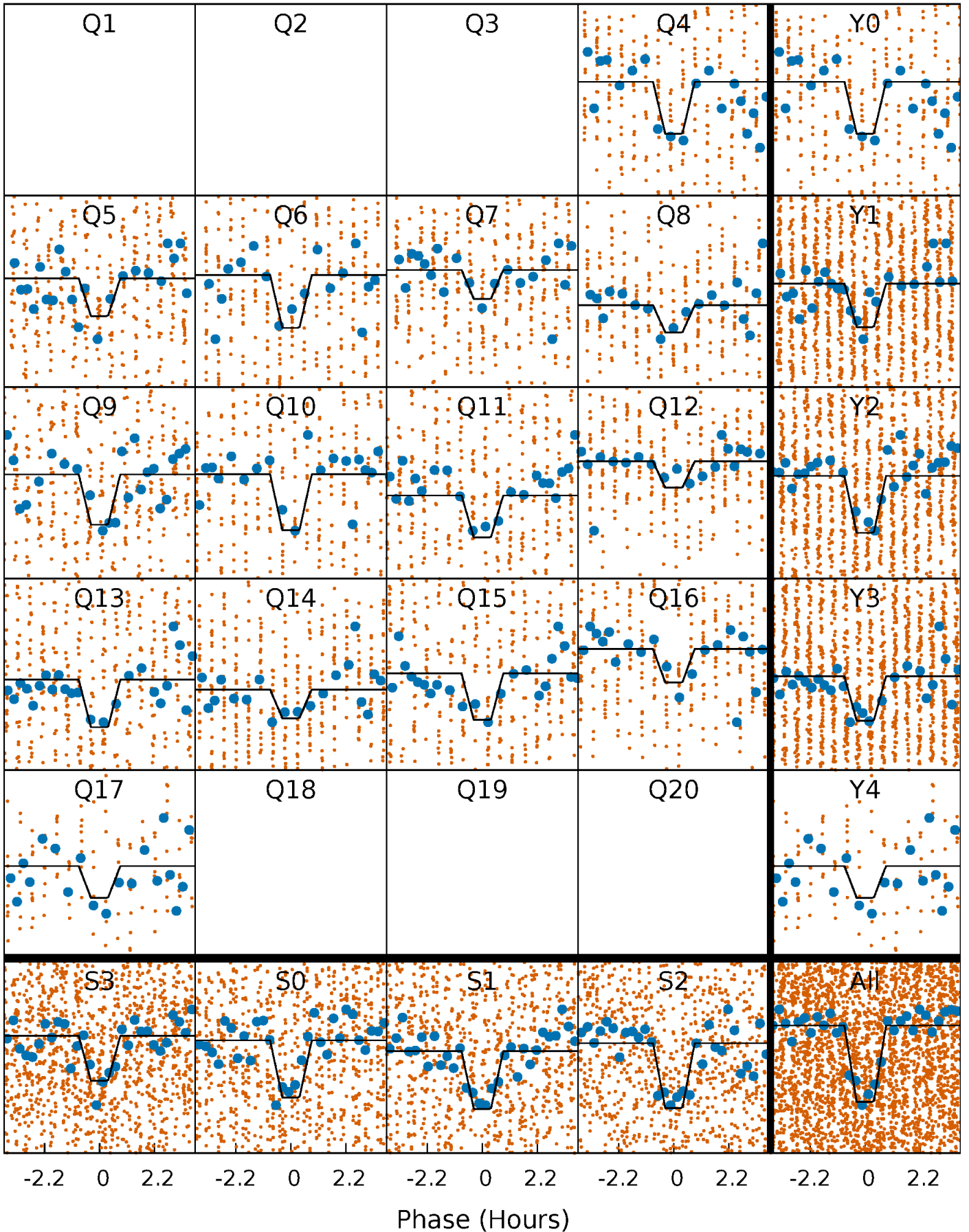
DV Quarter-Phased Transit Curves

TCE 005352640-01 P= 2.942421 Days $T_0=133.863718$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

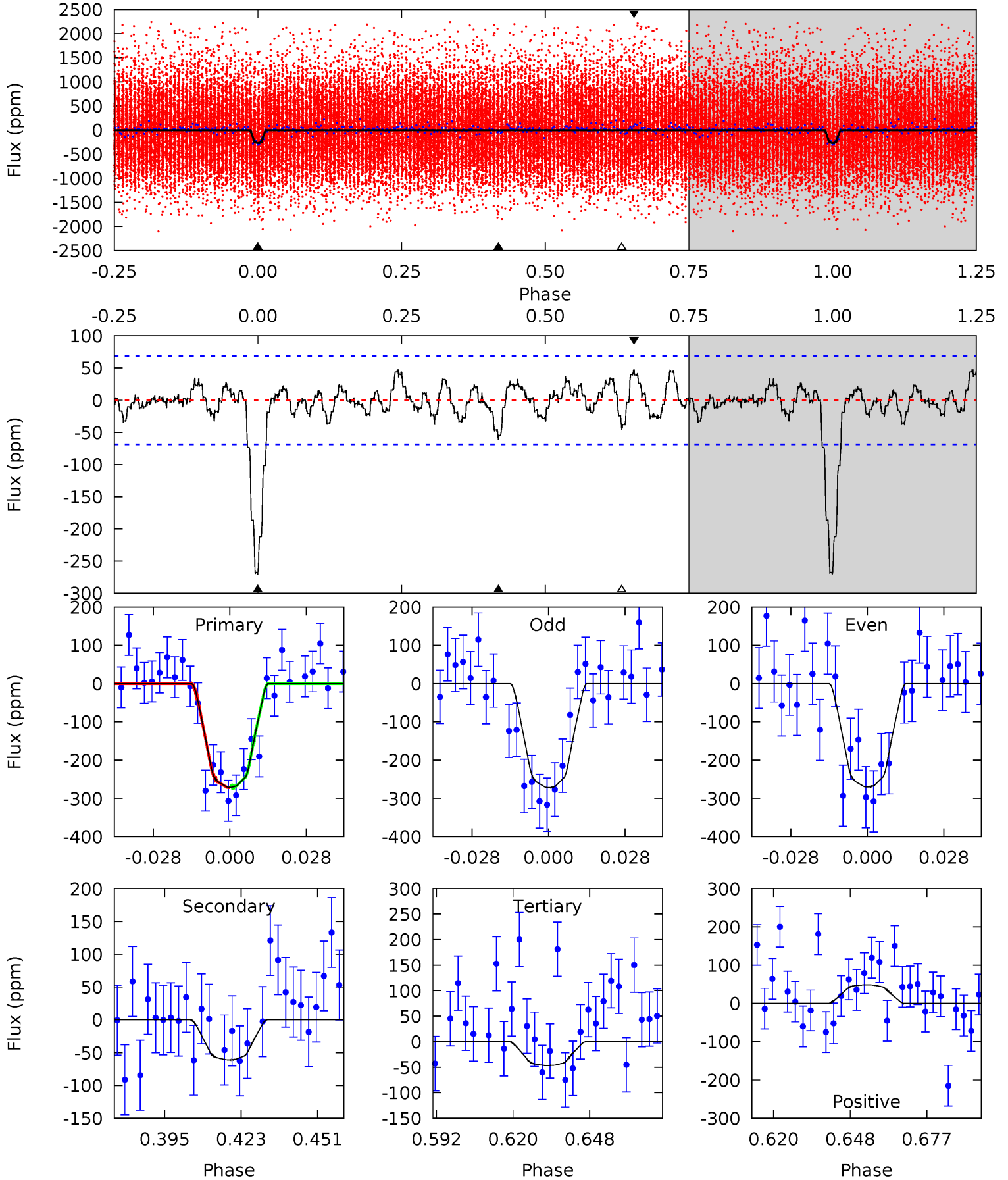
TCE 005352640-01 P= 2.942402 Days $T_0=133.867787$ (BKJD)



DV Model-Shift Uniqueness Test

005352640-01, P = 2.942421 Days, E = 133.863718 Days

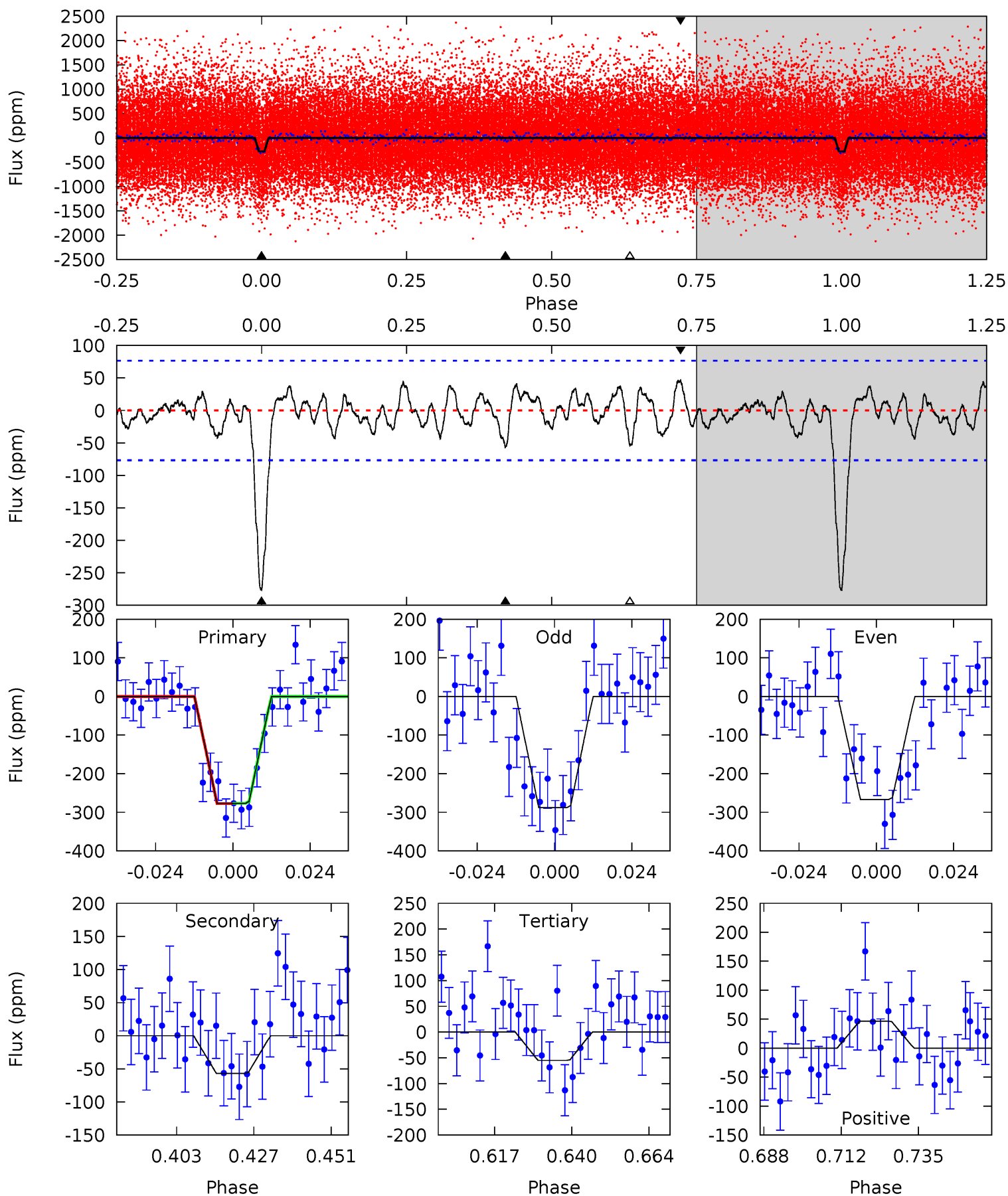
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
19.0	4.28	3.27	3.41	4.82	2.19	1.28	15.7	15.6	1.01	0.86	0.06	0.87	0.15	0.03



Alt Model-Shift Uniqueness Test

005352640-01, P = 2.942402 Days, E = 133.867787 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17.6	3.60	3.49	2.96	4.86	2.26	1.26	14.1	14.6	0.11	0.64	0.67	1.00	0.14	0.02



Stellar Parameters For KIC 005352640

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5436^{+187}_{-187}	$4.573^{+0.036}_{-0.144}$	$0.000^{+0.250}_{-0.300}$	$0.819^{+0.181}_{-0.073}$	$0.919^{+0.072}_{-0.108}$	$2.355^{+0.449}_{-1.012}$
	+3%/-3%	+1%/-3%	+inf%/-inf%	+22%/-9%	+8%/-12%	+19%/-43%
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 005352640-01 / KOI 4467.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-61 ± 14	$1.74^{+0.92}_{-0.95}$	1560^{+86}_{-69}	3839^{+1380}_{-548}	16^{+67}_{-9}
Alt.	-57 ± 16	$1.66^{+0.98}_{-0.86}$	1566^{+82}_{-72}	3833^{+1234}_{-596}	16^{+54}_{-10}

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 $A_{\text{obs}} \gg 1.0$

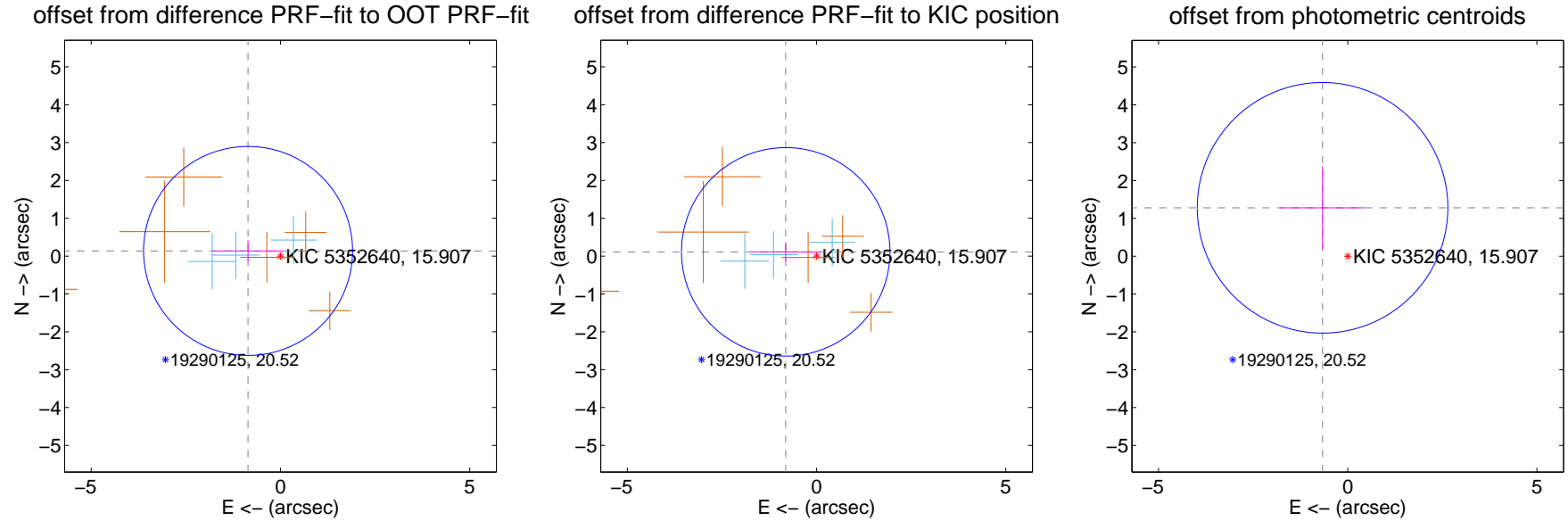
DV Centroid Data

Supplemental centroid analysis for 005352640-01. Kepler magnitude: 15.91. Transit SNR 13.39

There are 3 quarters with good PRF difference image offsets

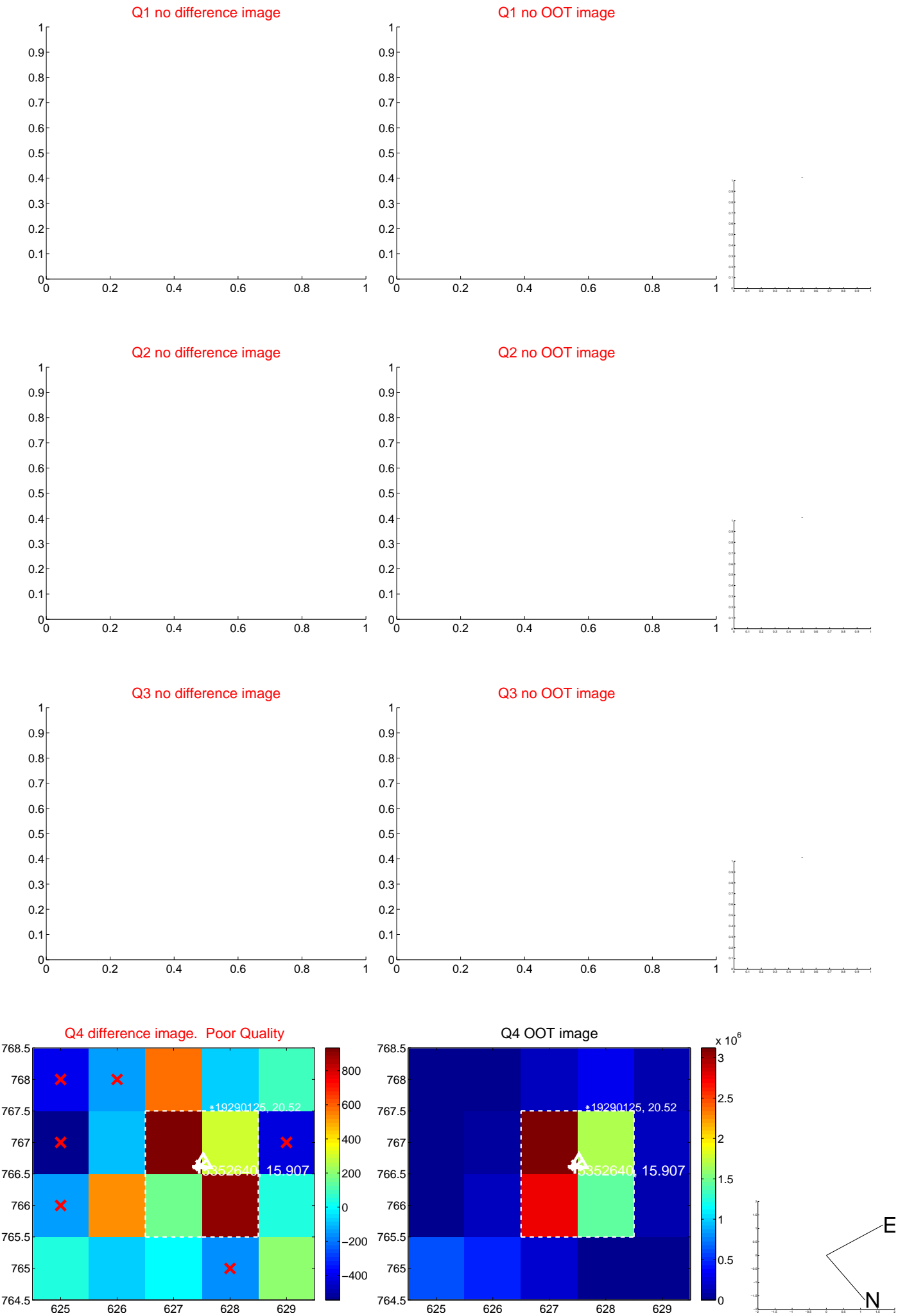
The direct PRF centroid is offset from the target star catalog position by about 0.15 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.867 ± 0.920	0.94	0.856 ± 0.934	0.137 ± 0.279
PRF-fit source offset from KIC position	0.823 ± 0.918	0.90	0.815 ± 0.926	0.113 ± 0.249
photometric centroid source offset	1.44 ± 1.10	1.31	0.67 ± 1.12	1.28 ± 1.10

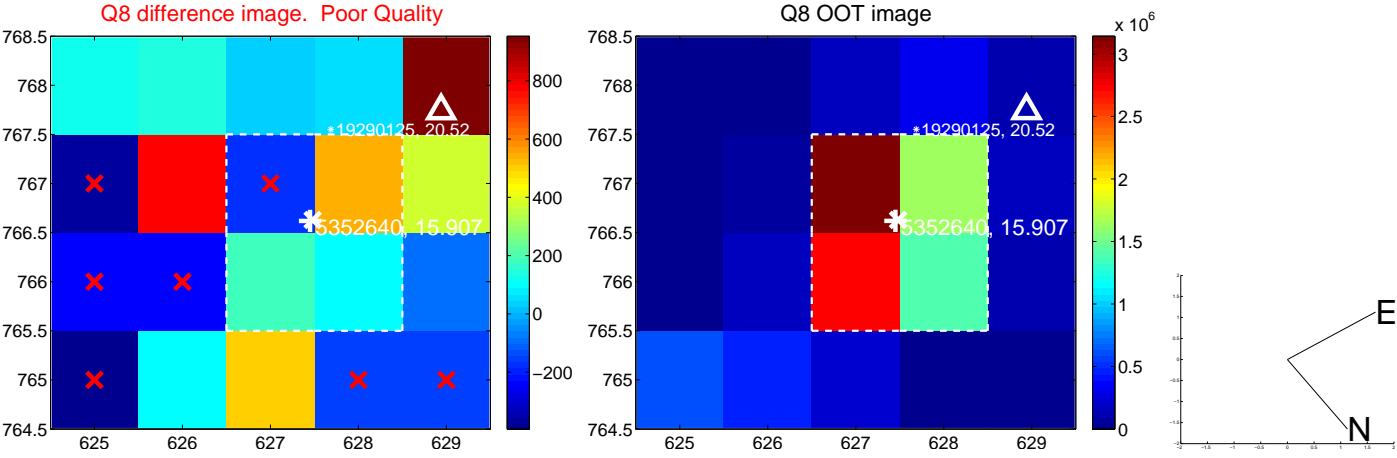
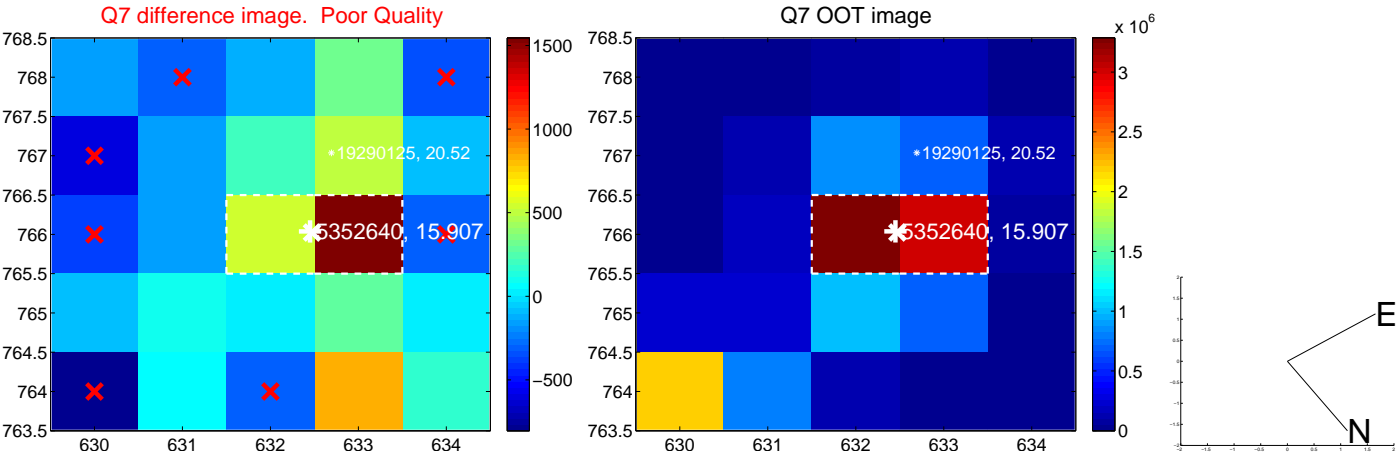
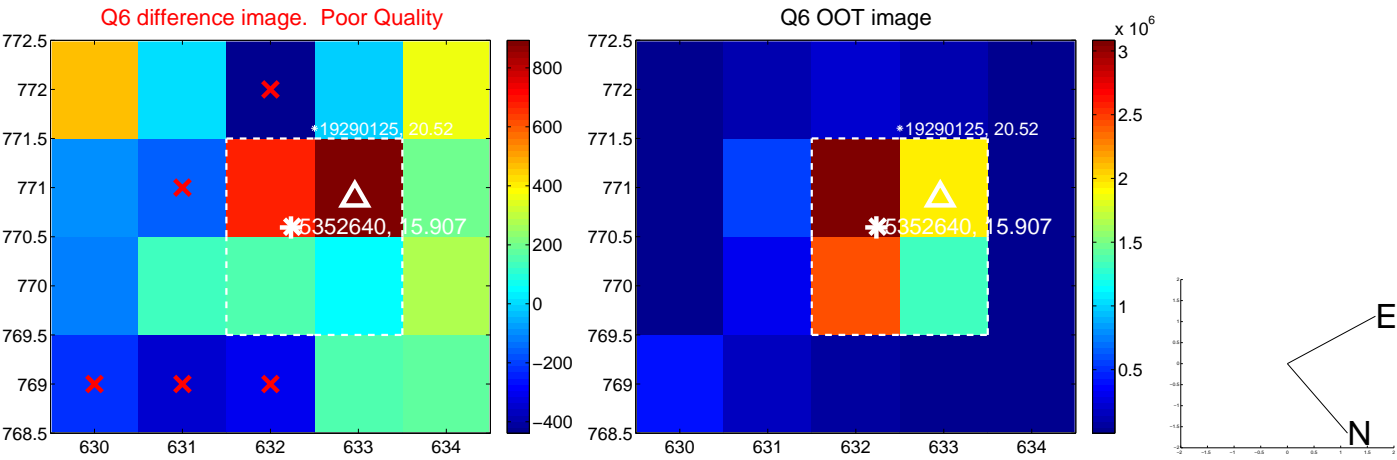
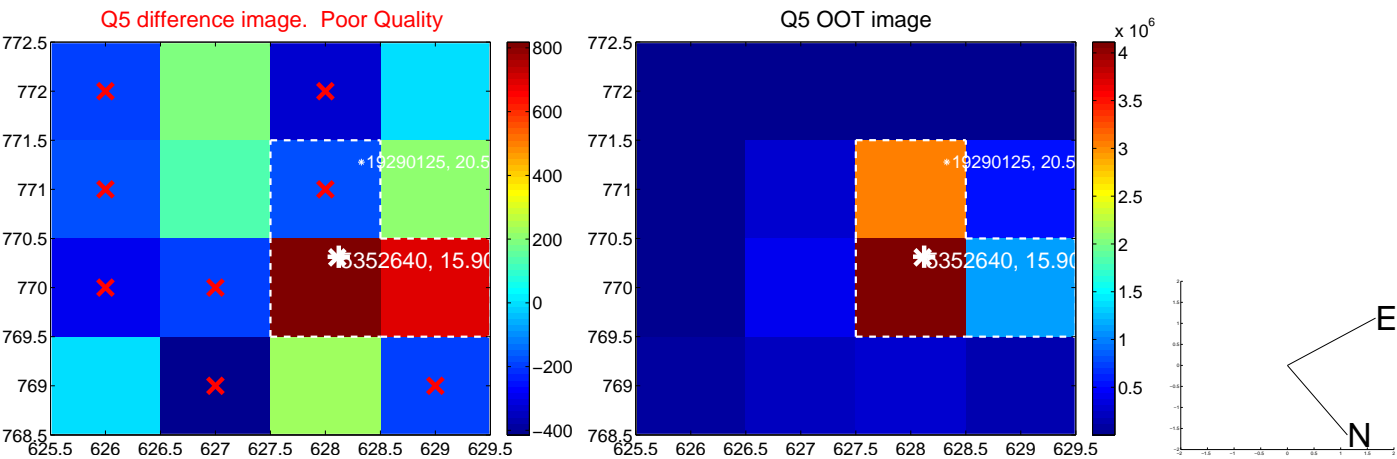


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

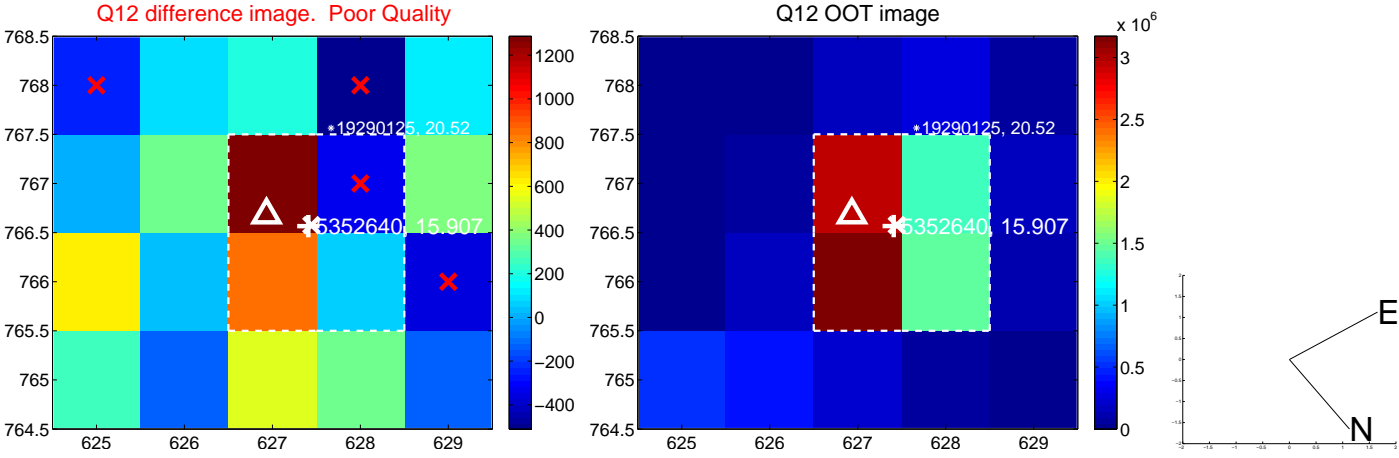
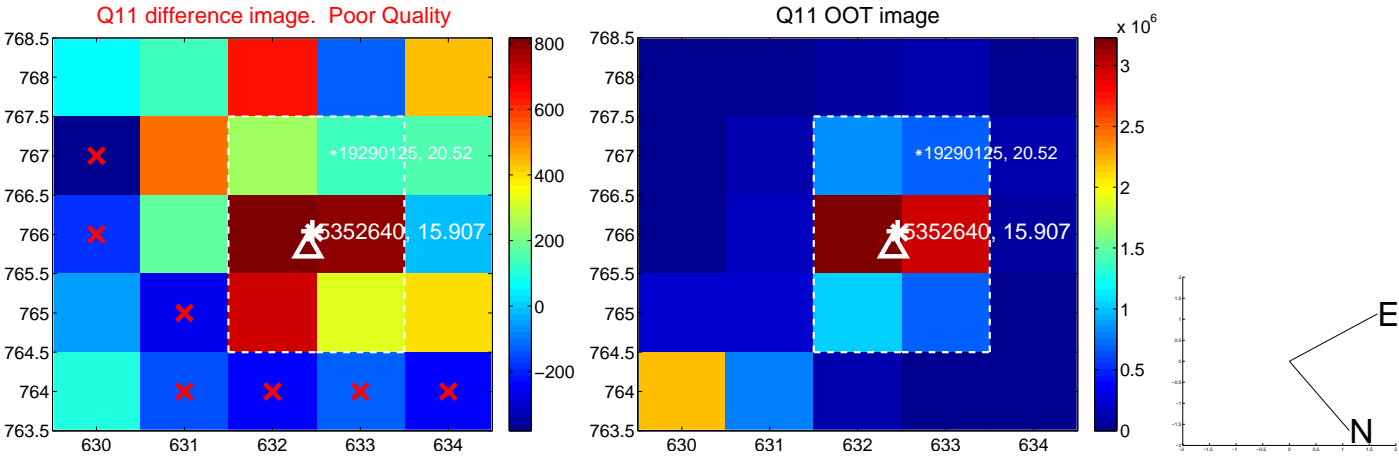
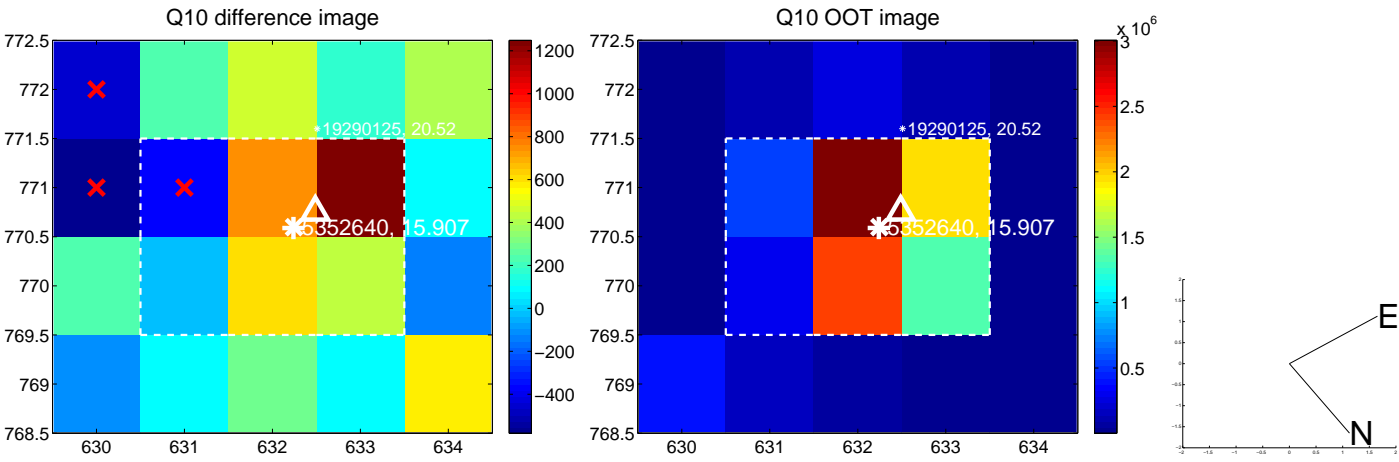
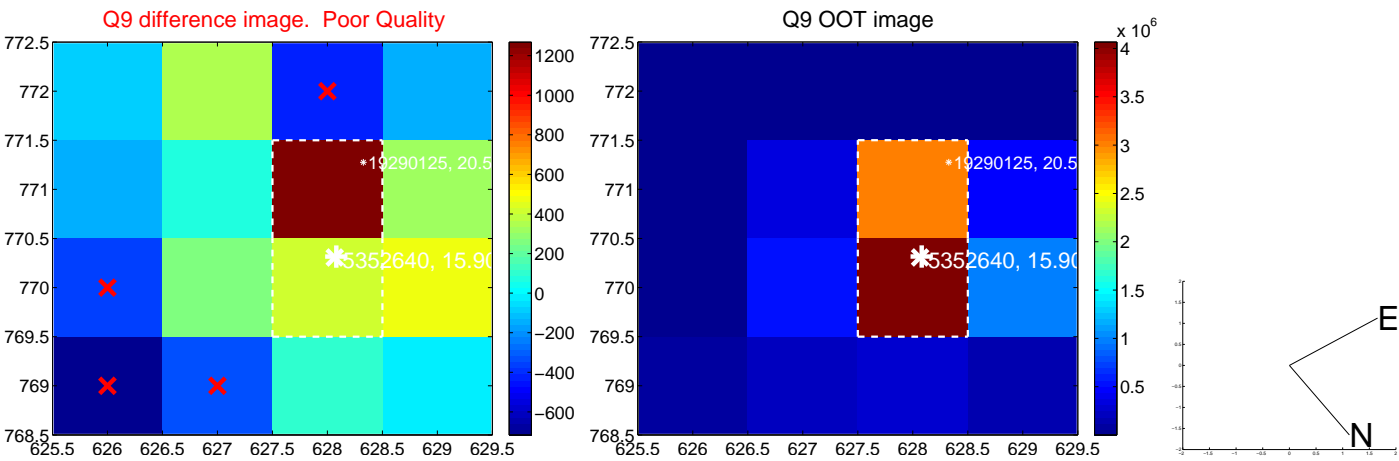
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



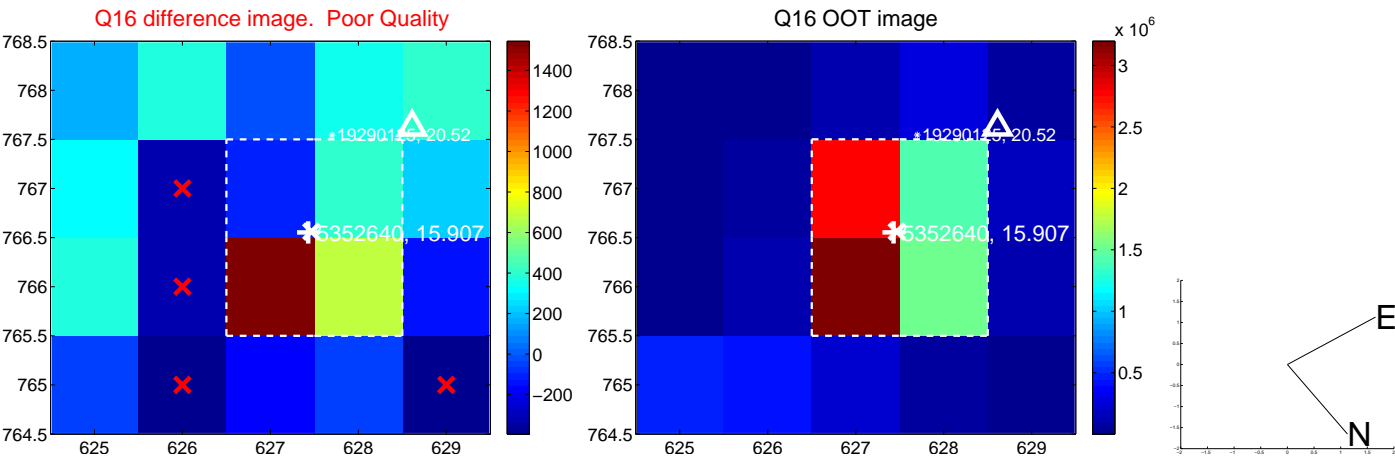
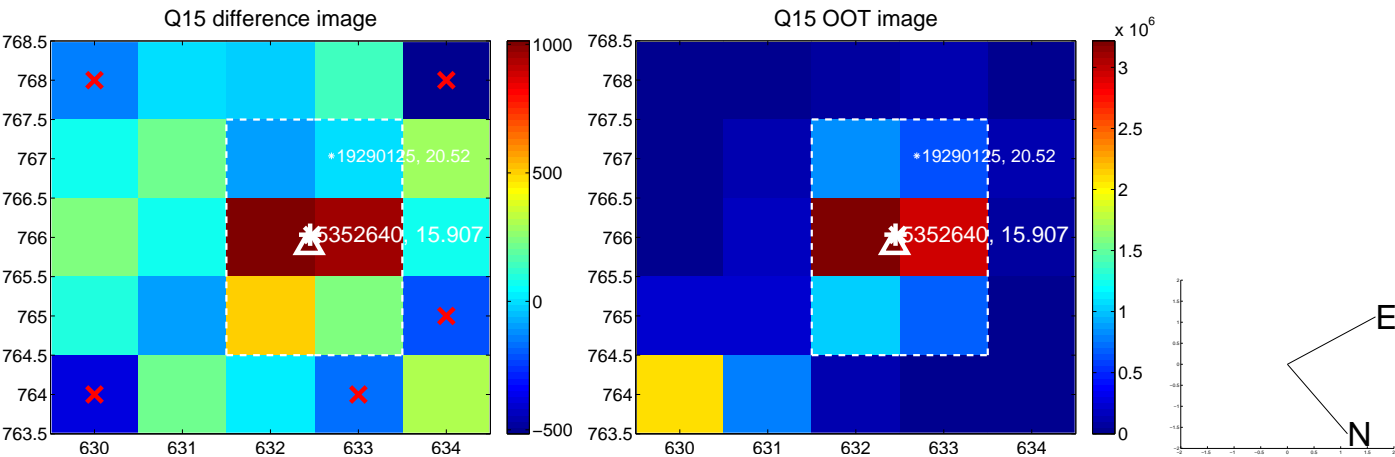
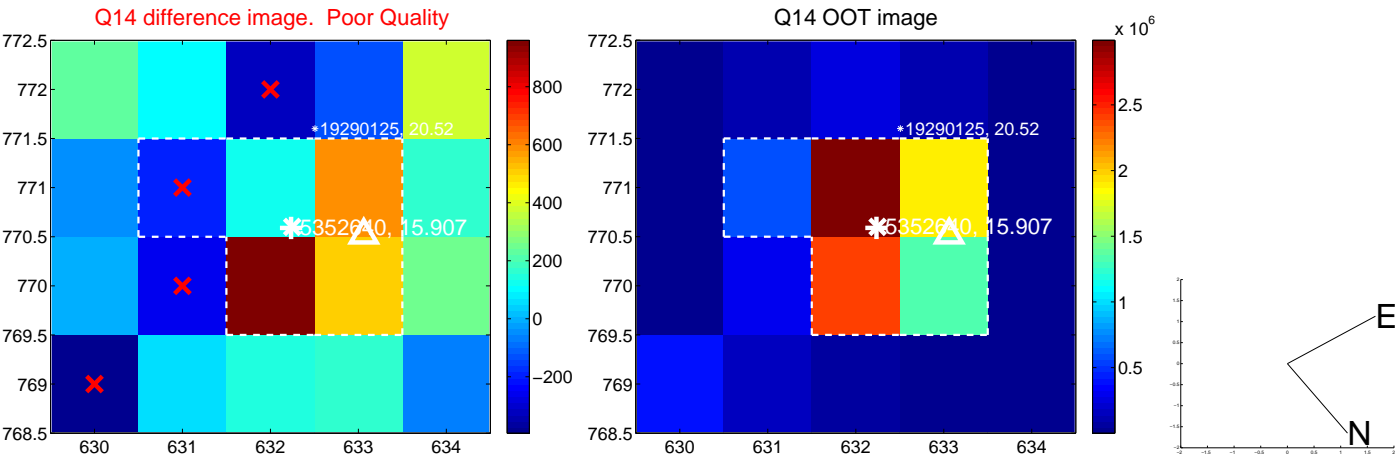
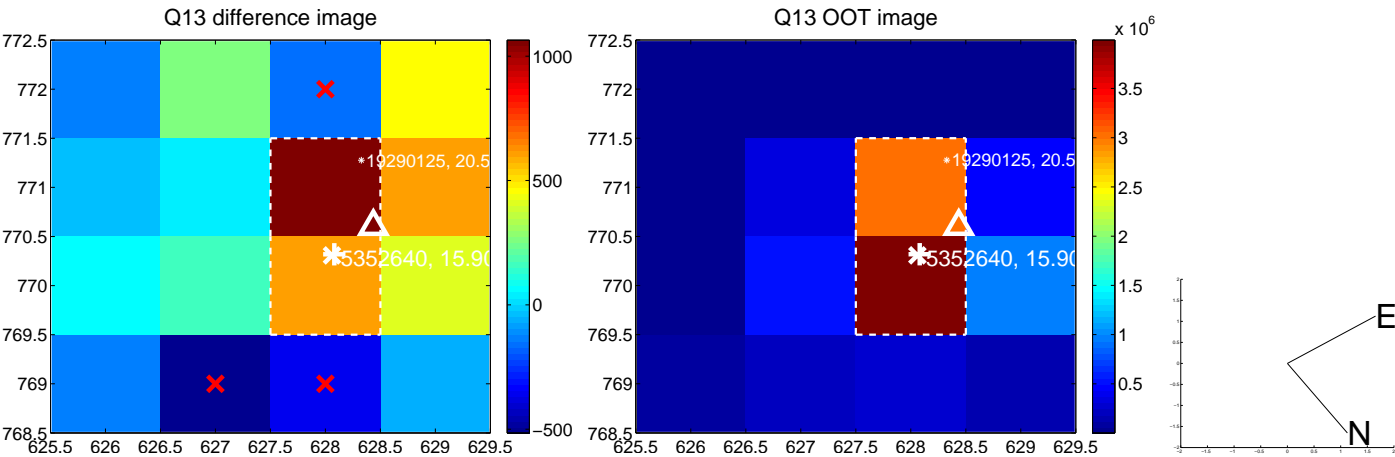
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



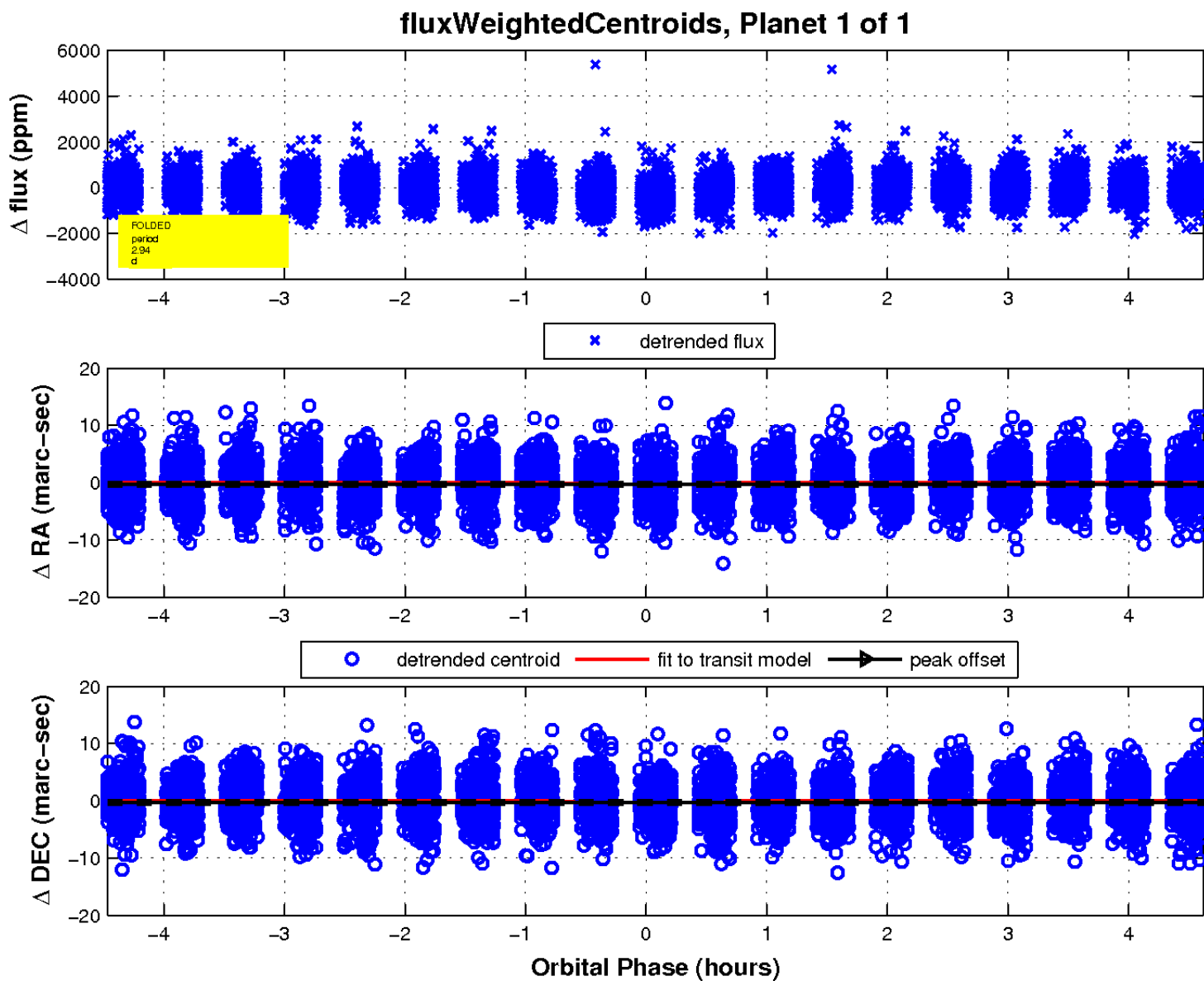
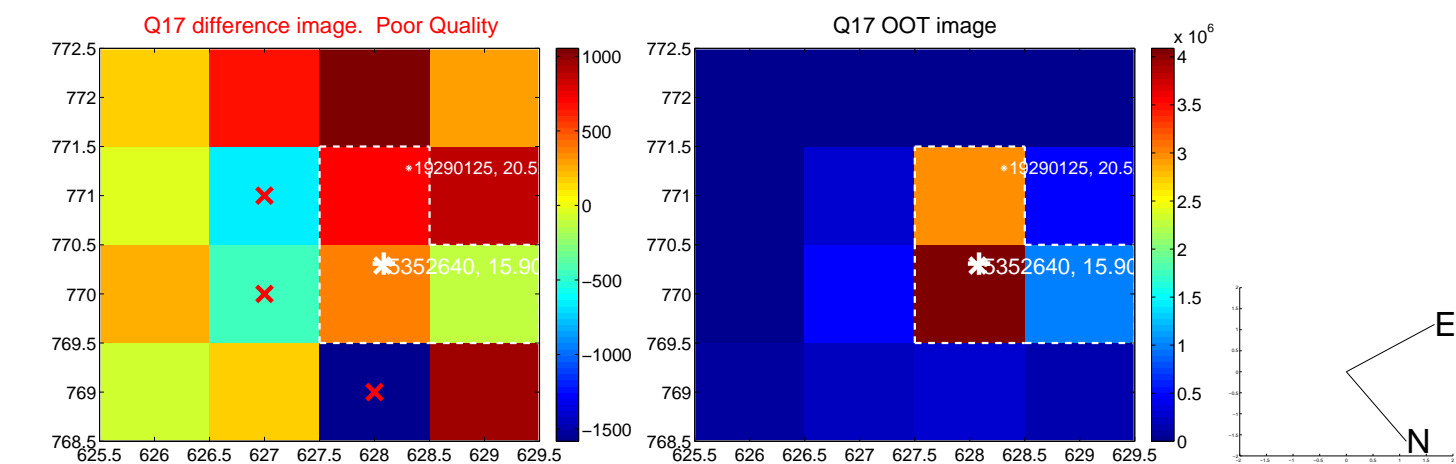
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UKIRT Image

Declination

