

KIC 011090765

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})
011090765-01	OBS	0538.01	21.217133	150.431779	635.4	5.848	43.7	46.1	1.01	6191	2.95	58.76

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011090765-01	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.

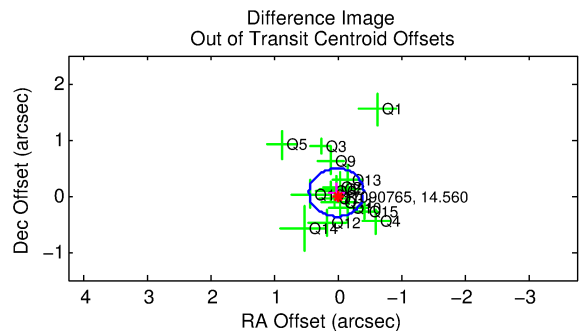
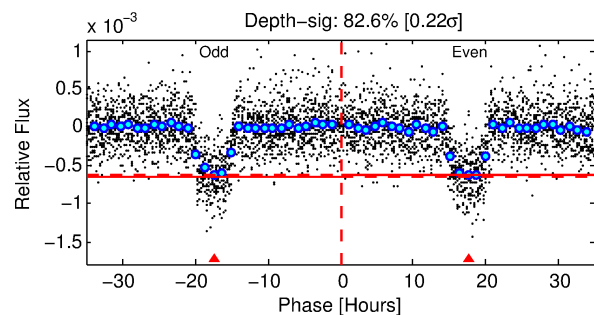
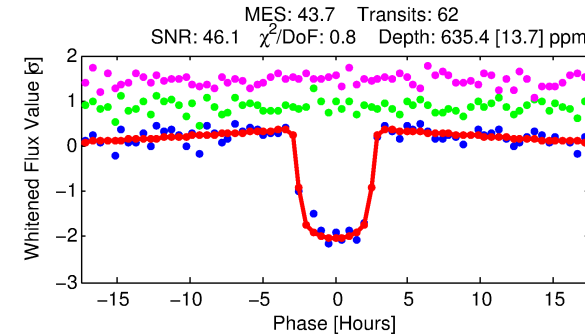
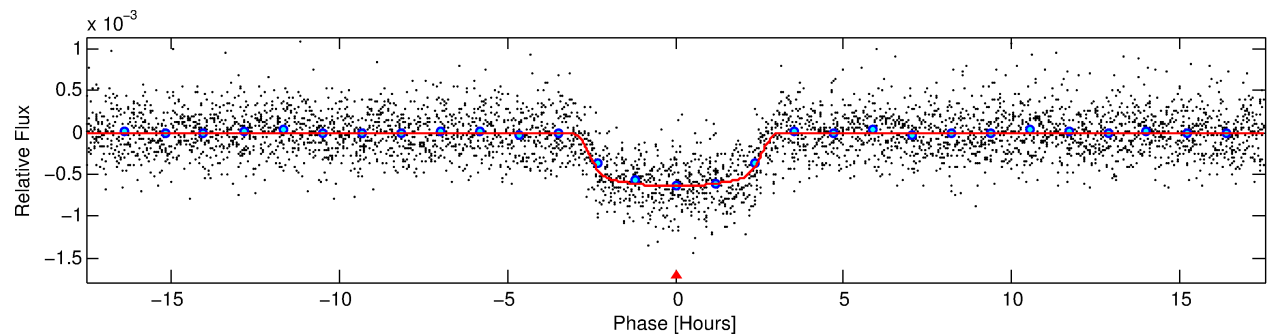
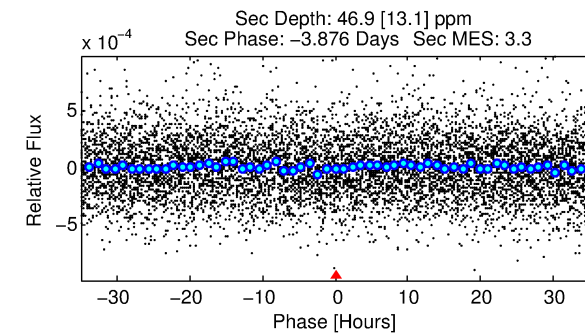
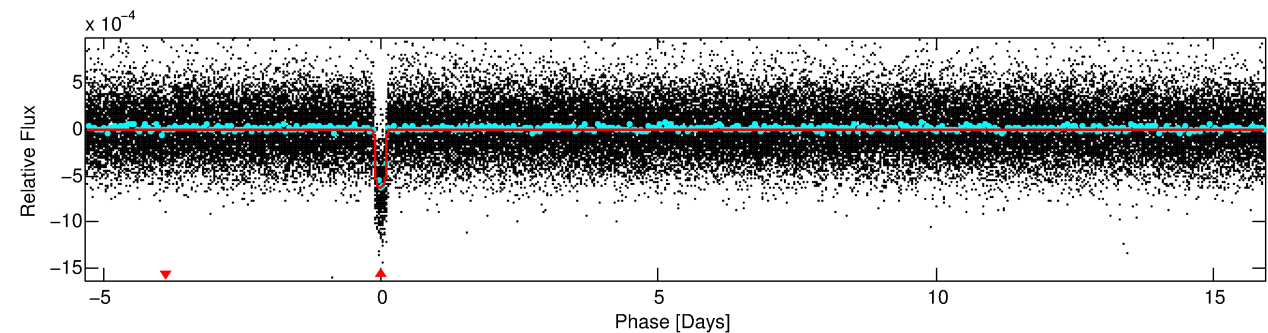
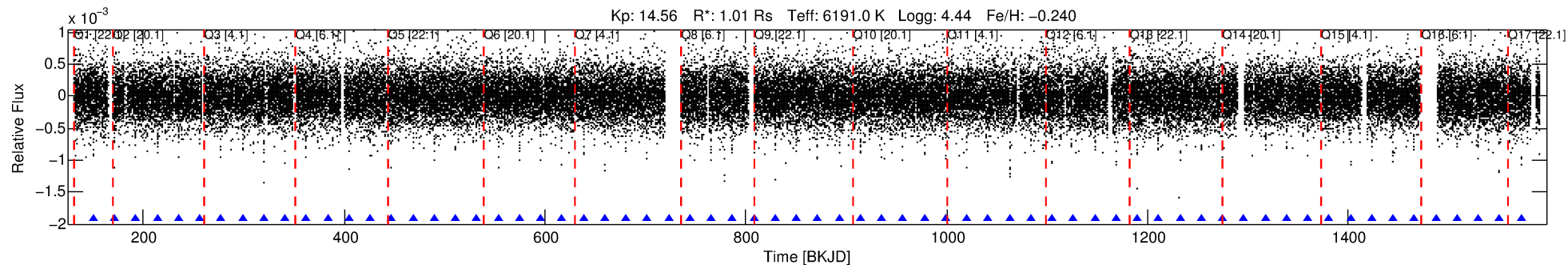
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011090765-01

No Significant Match Found

DV One-Page Summary

KIC: 11090765 Candidate: 1 of 1 Period: 21.217 d
KOI: K00538.01 Corr: 0.958



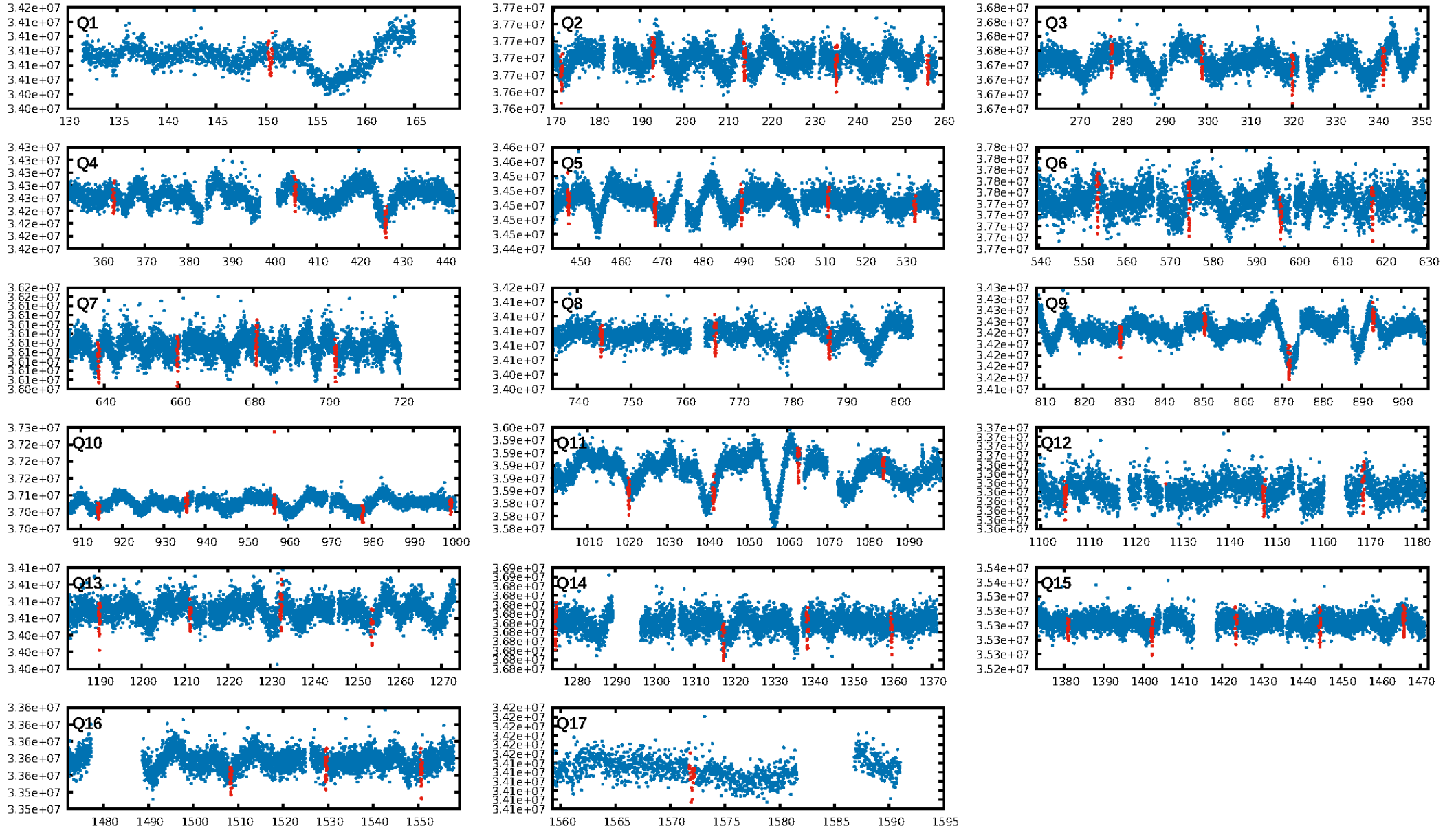
DV Fit Results:

Period = 21.21713 [0.00006] d
Epoch = 150.4318 [0.0023] BKJD
Rp/R* = 0.0269 [0.0008]
a/R* = 14.28 [2.06]
b = 0.89 [0.03]
Seff = 58.75 [24.28]
Teff = 706 [73] K
Rp = 2.95 [0.99] Re
a = 0.1507 [0.0413] AU
Ag = 67.24 [32.58] [2.03σ]
Teffp = 3126 [246] K [9.42σ]

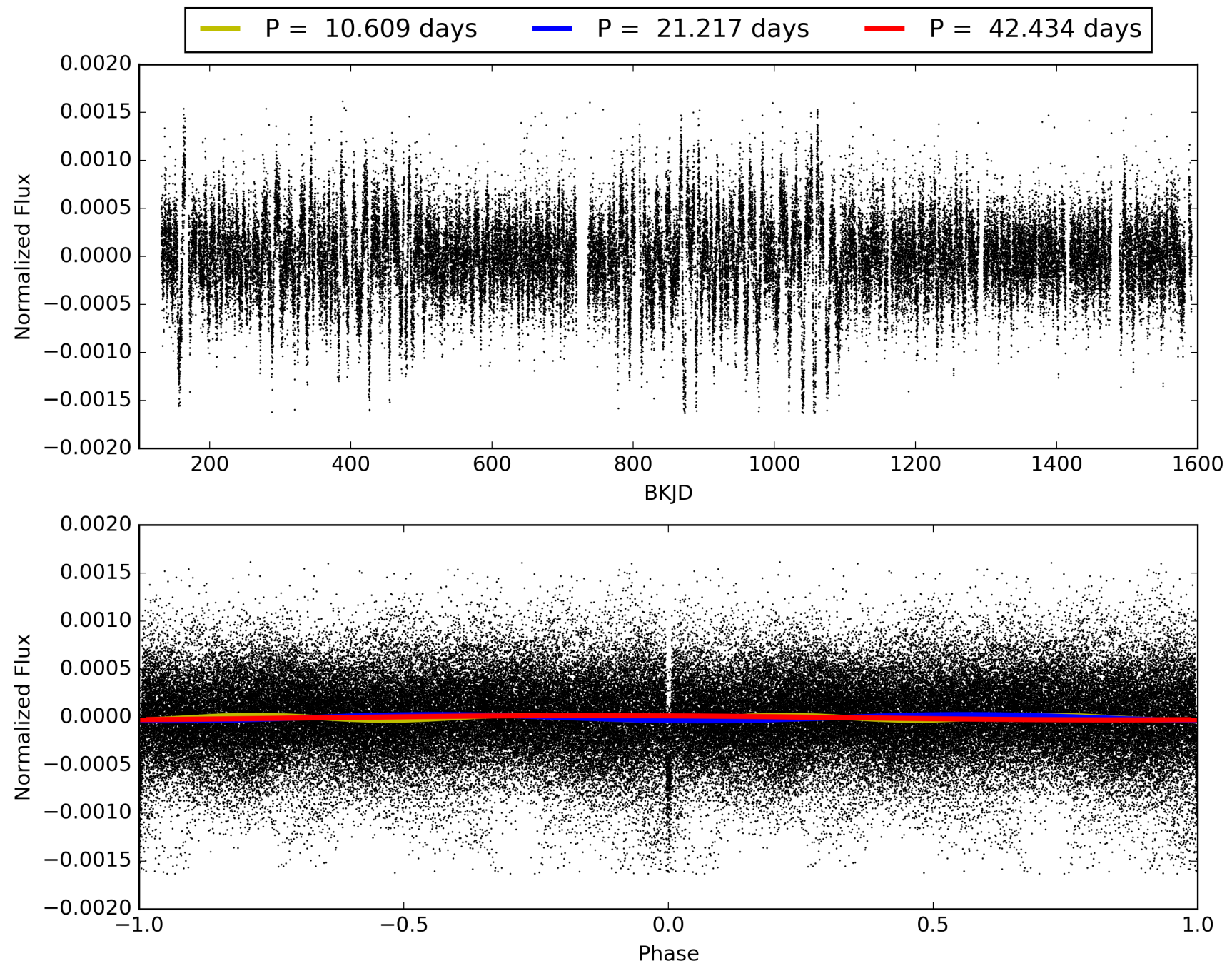
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 99.4%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [60/60]
GhostDiagnostic-chr: 3.136
Centroid-sig: 0.1%
Centroid-so: 0.830 arcsec [2.65σ]
OotOffset-rm: 0.065 arcsec [0.45σ]
KicOffset-rm: 0.046 arcsec [0.37σ]
OotOffset-st: 4/4/4/4 [16]
KicOffset-st: 4/4/4/4 [16]
DiffImageQuality-fgm: 1.00 [16/16]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 011090765-01, PDC Light Curves

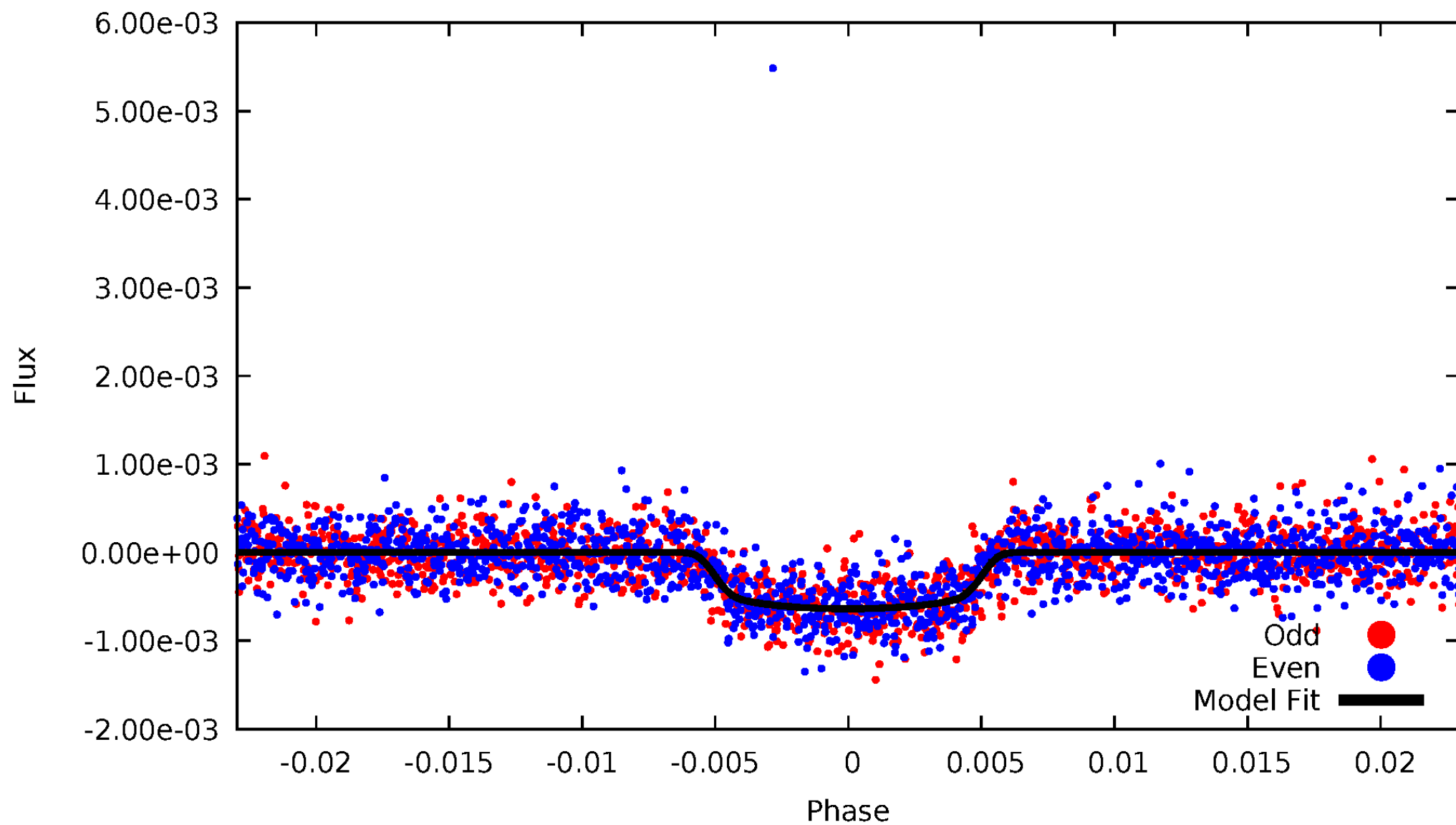


TCE 011090765-01



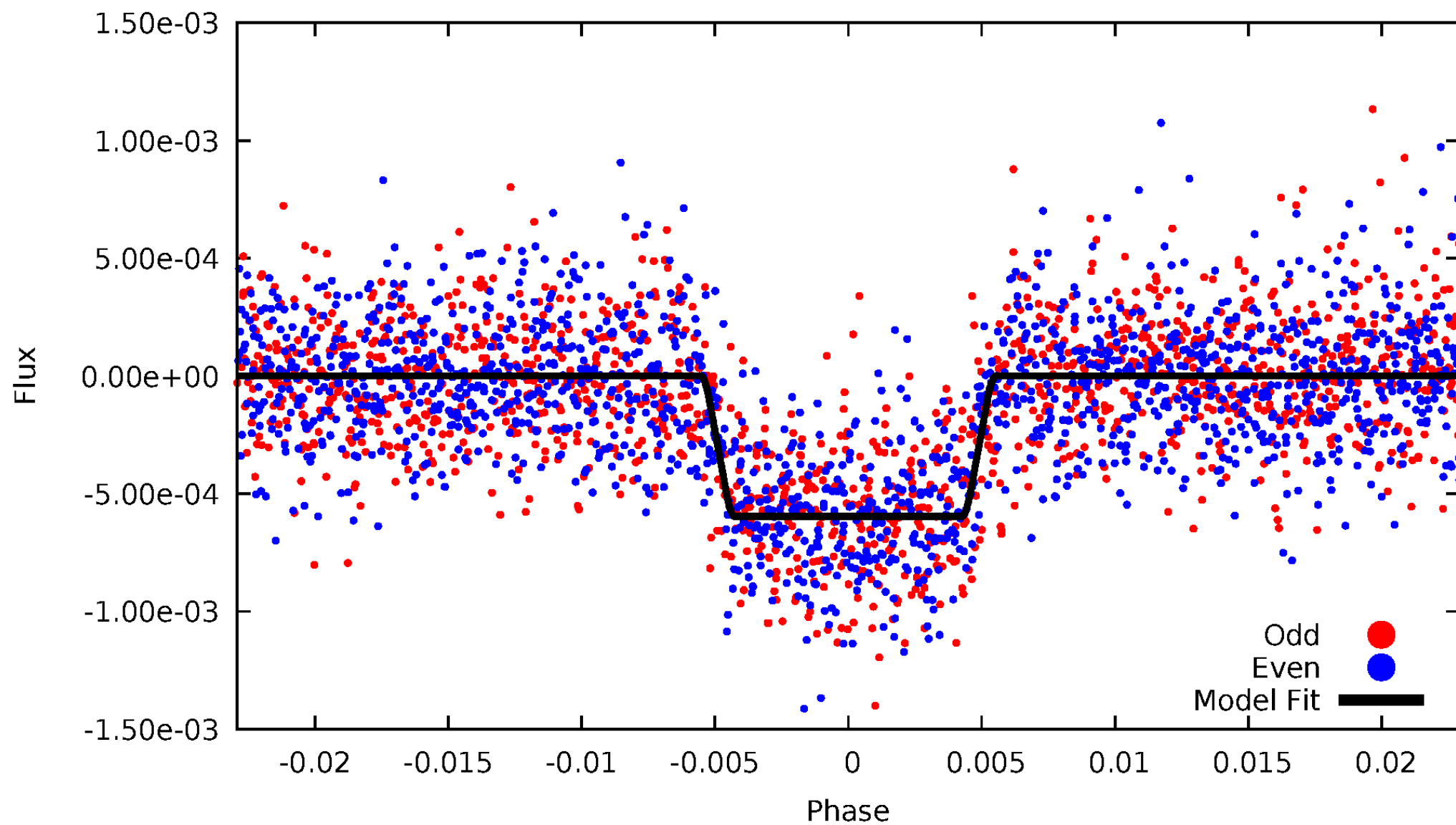
DV Odd/Even

TCE 011090765-01

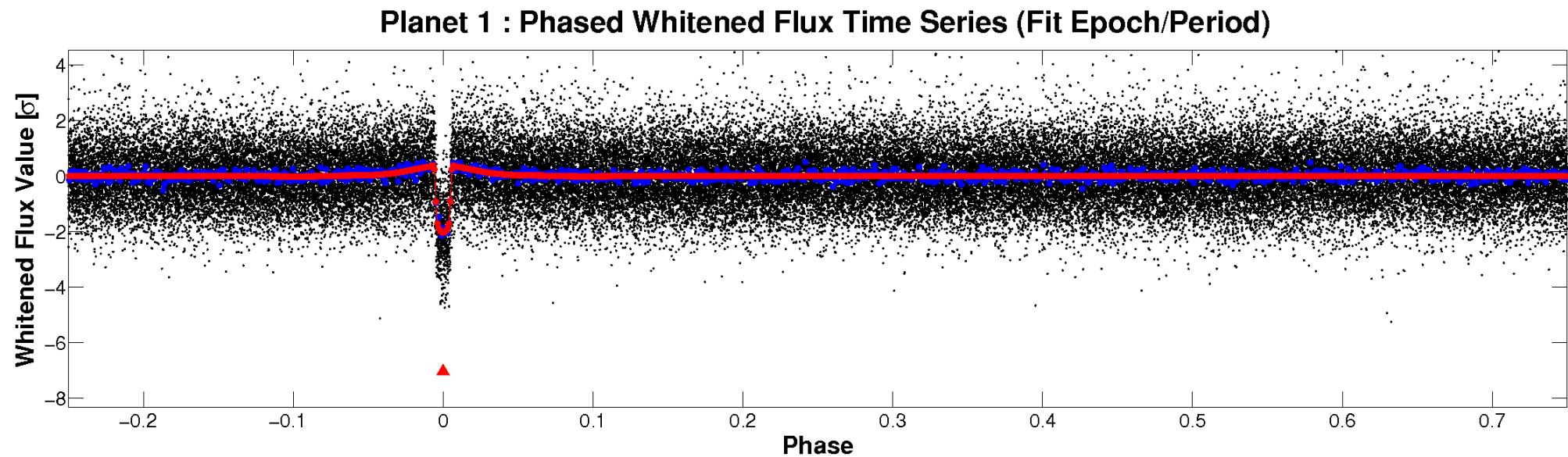
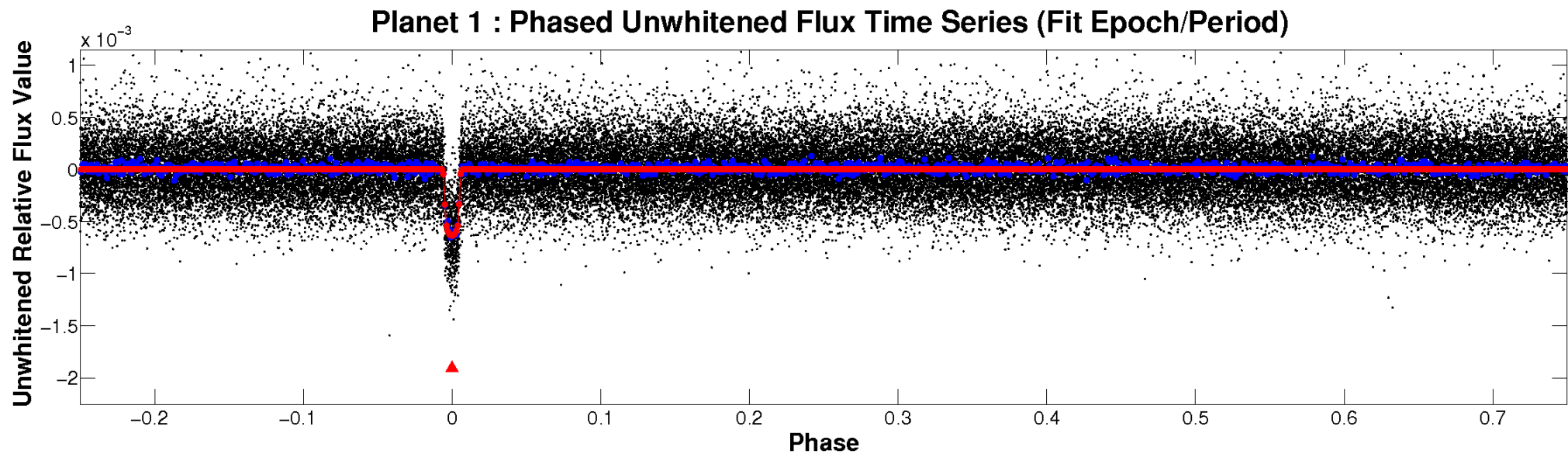


ALT Odd/Even

TCE 011090765-01

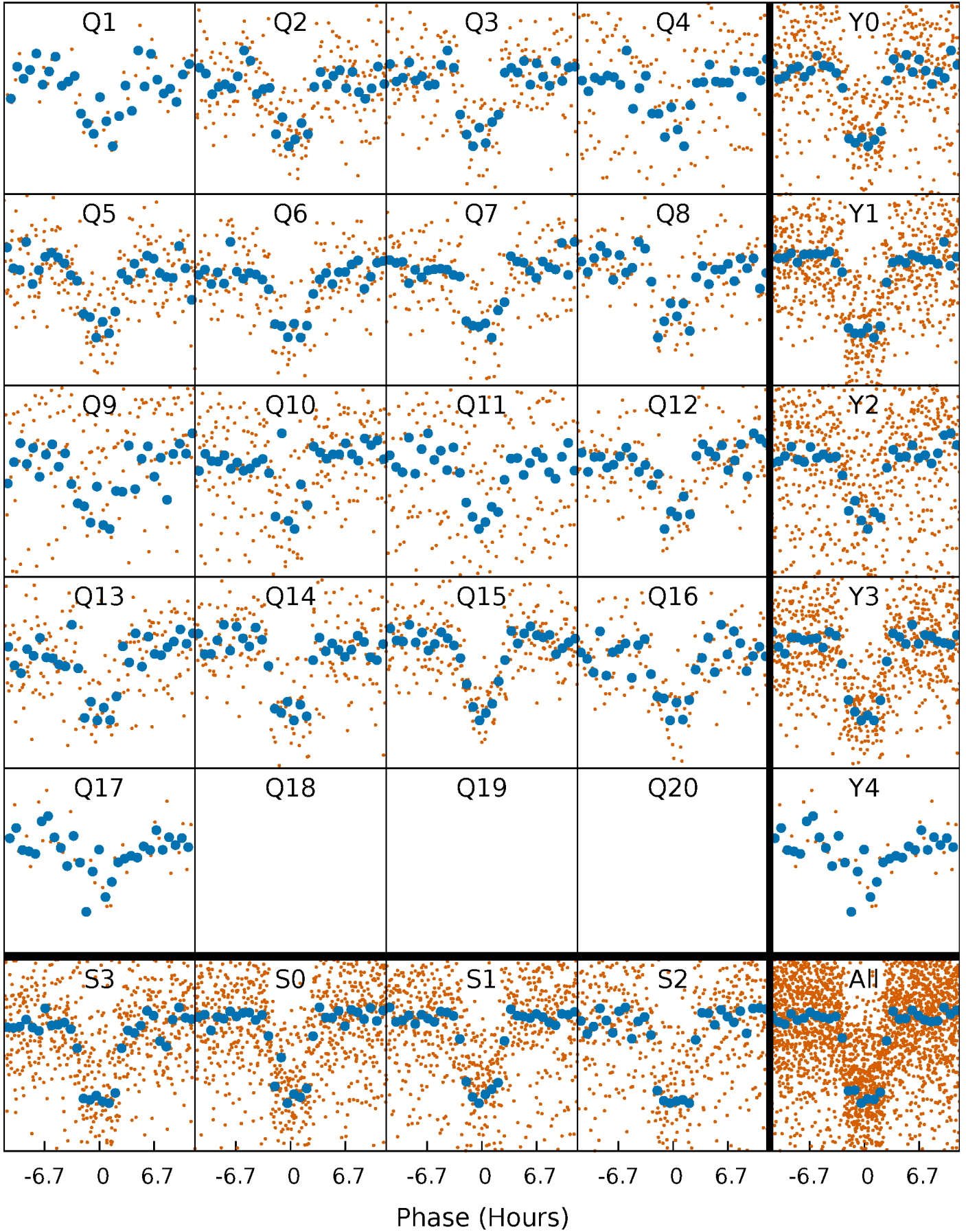


Non-Whitened Vs. Whitened Light Curve



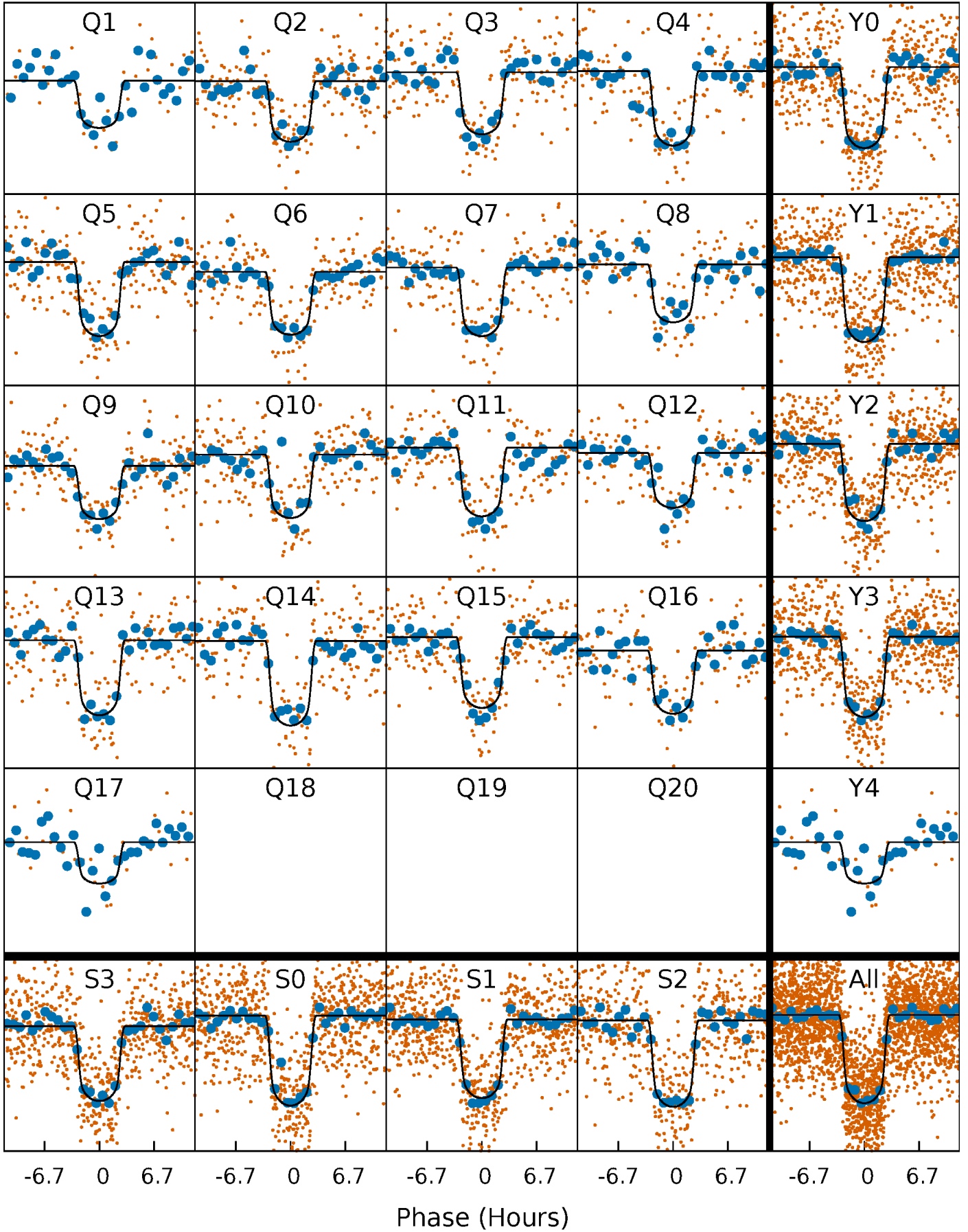
PDC Quarter-Phased Transit Curves

TCE 011090765-01 P= 21.217133 Days $T_0=150.431779$ (BKJD)



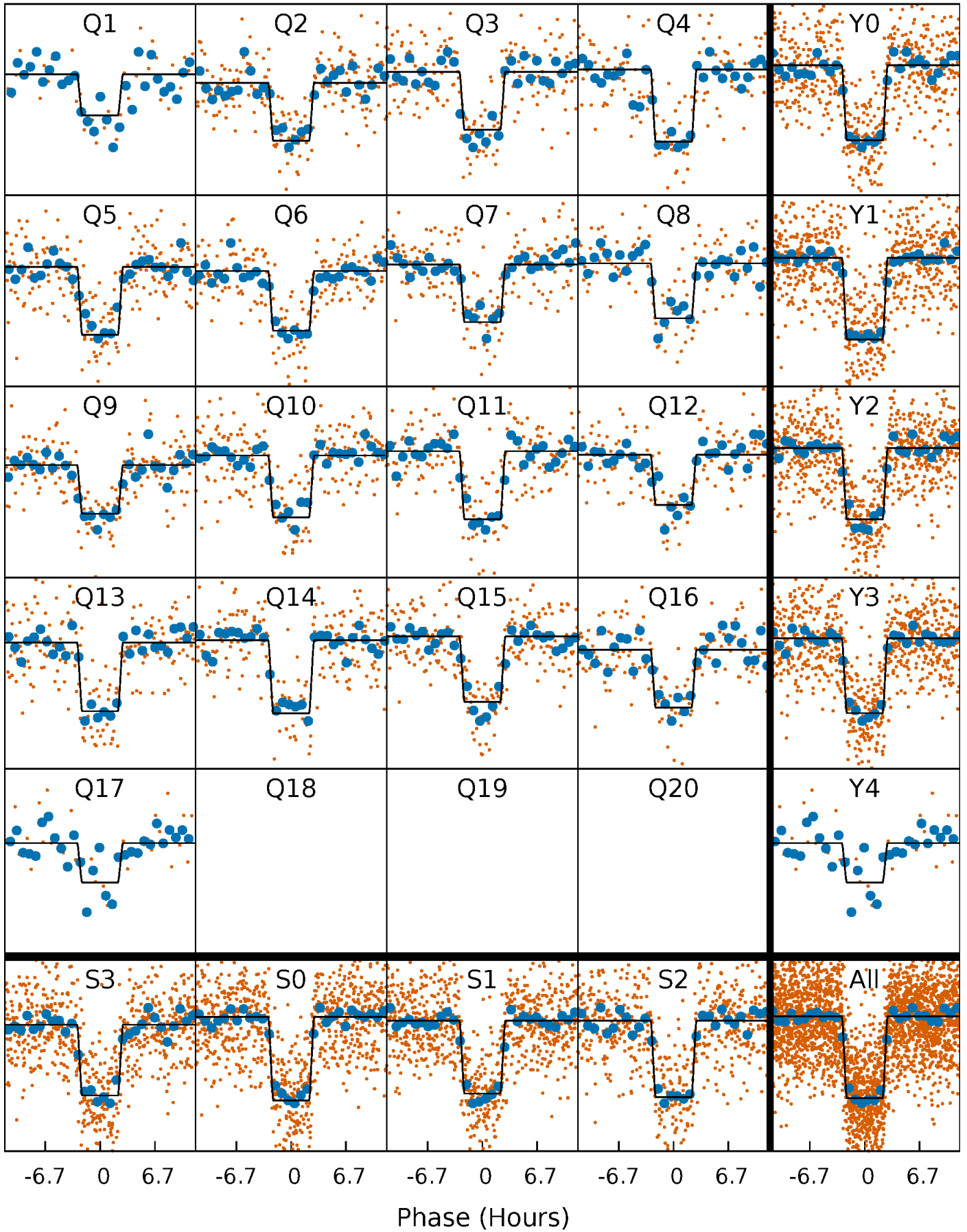
DV Quarter-Phased Transit Curves

TCE 011090765-01 P= 21.217133 Days $T_0=150.431779$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

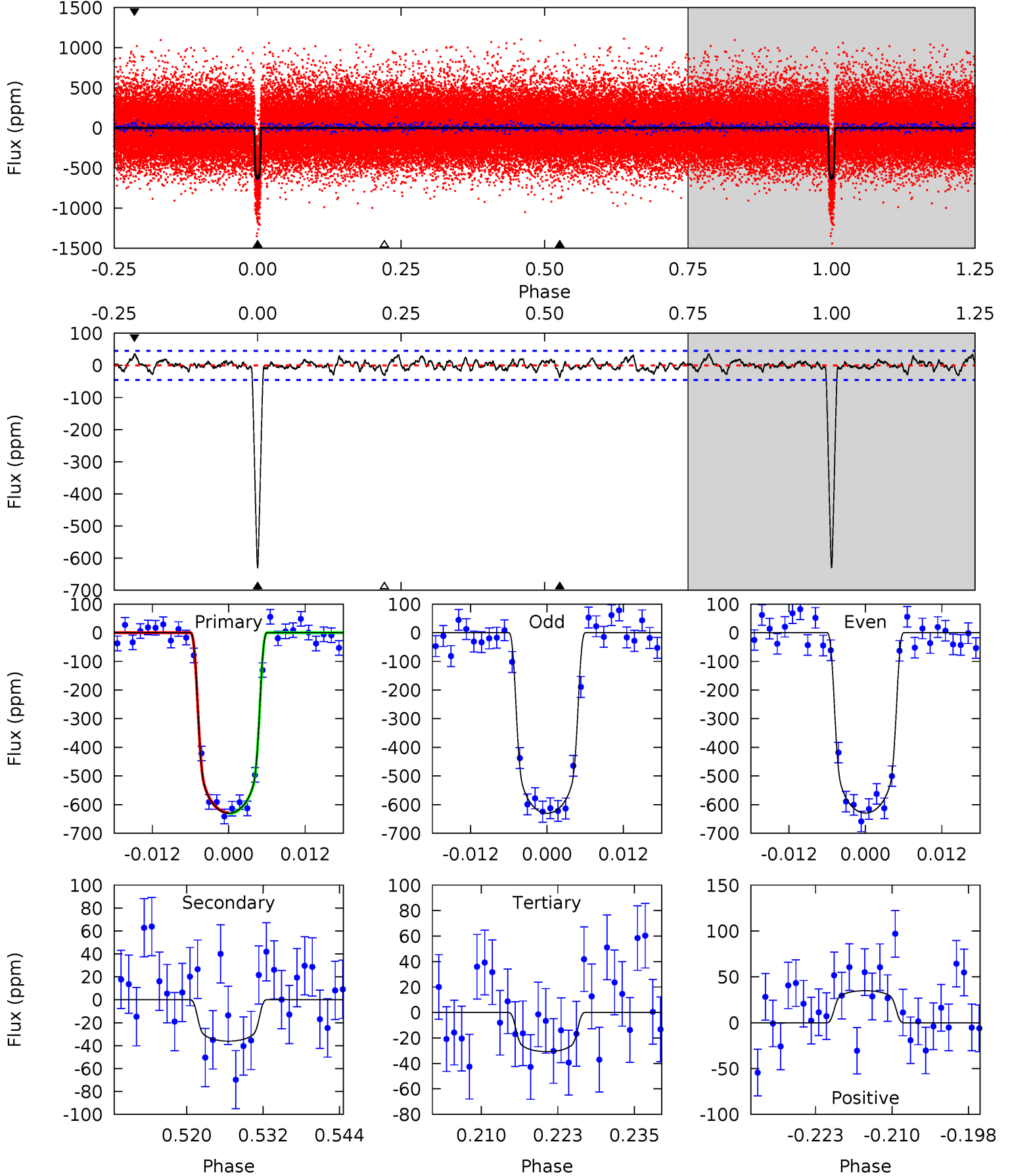
TCE 011090765-01 P= 21.217127 Days $T_0=150.432345$ (BKJD)



DV Model-Shift Uniqueness Test

011090765-01, P = 21.217133 Days, E = 129.214646 Days

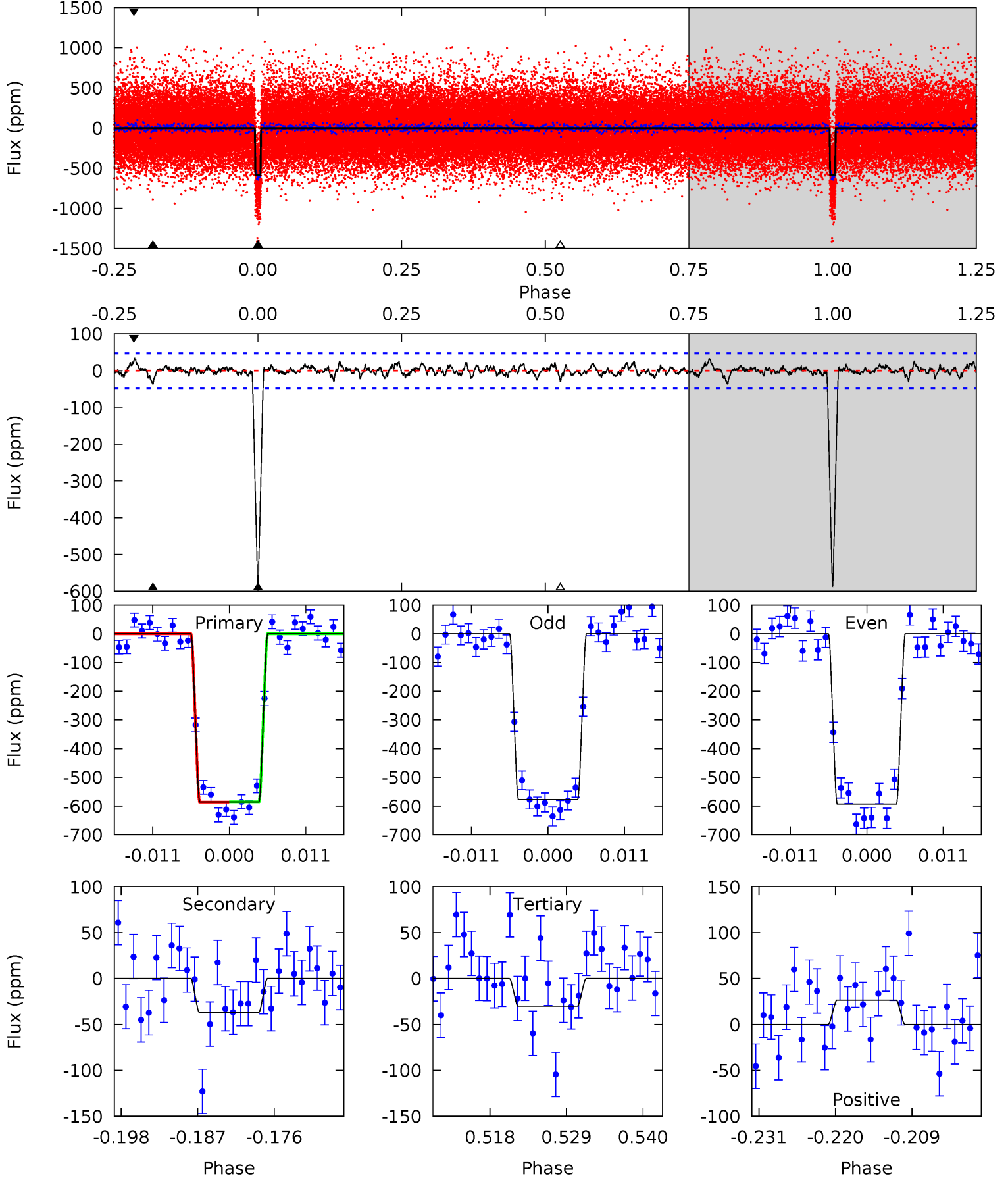
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
69.4	3.98	3.39	3.84	4.99	2.50	1.24	66.0	65.5	0.59	0.14	0.06	1.00	0.05	0.17



Alt Model-Shift Uniqueness Test

011090765-01, P = 21.217127 Days, E = 129.215218 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
62.0	3.92	3.20	2.79	5.01	2.54	0.97	58.8	59.2	0.72	1.12	0.82	1.02	0.05	0.04



Stellar Parameters For KIC 011090765

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6191^{+169}_{-206}	$4.438^{+0.070}_{-0.210}$	$-0.240^{+0.250}_{-0.300}$	$1.007^{+0.335}_{-0.112}$	$1.010^{+0.158}_{-0.115}$	$1.394^{+0.422}_{-0.772}$
	+3%/-3%	+2%/-5%	+104%/-125%	+33%/-11%	+16%/-11%	+30%/-55%
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 011090765-01 / KOI 0538.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-36 ± 9	$3.03^{+0.52}_{-0.27}$	1002^{+76}_{-50}	3421^{+152}_{-158}	46^{+17}_{-14}
Alt.	-37 ± 9	$2.75^{+0.52}_{-0.25}$	1002^{+79}_{-50}	3539^{+156}_{-183}	56^{+24}_{-18}

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 $A_{obs} \gg 1.0$

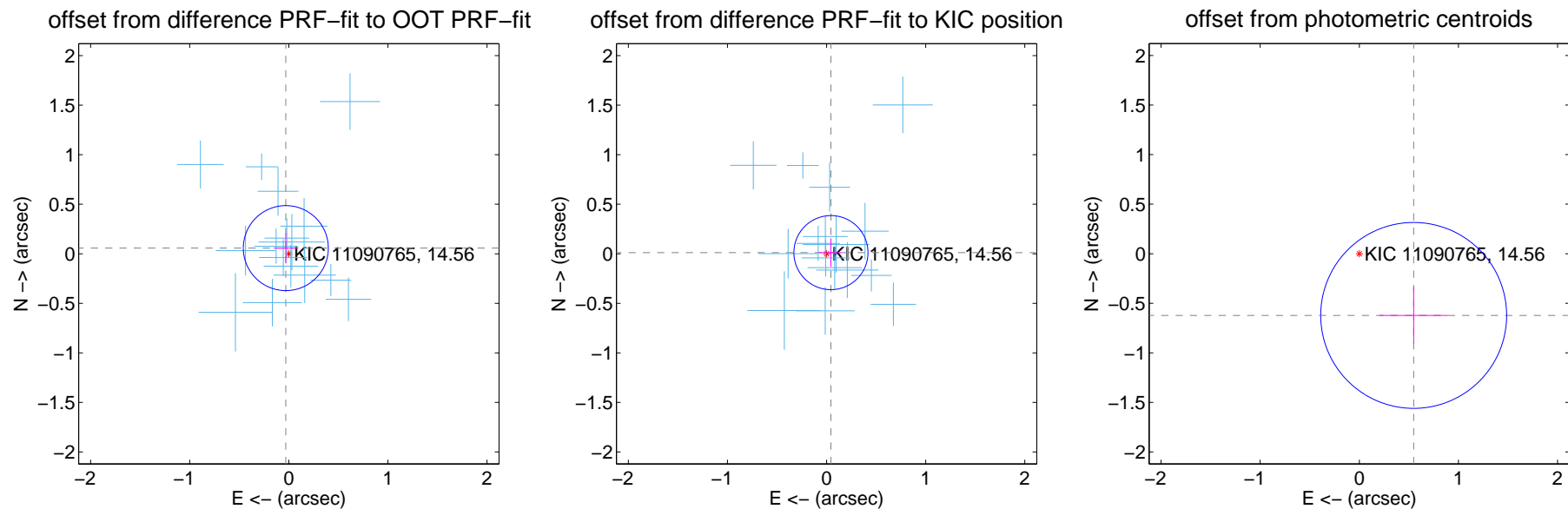
DV Centroid Data

Supplemental centroid analysis for 011090765-01. Kepler magnitude: 14.56. Transit SNR 46.14

There are 16 quarters with good PRF difference image offsets

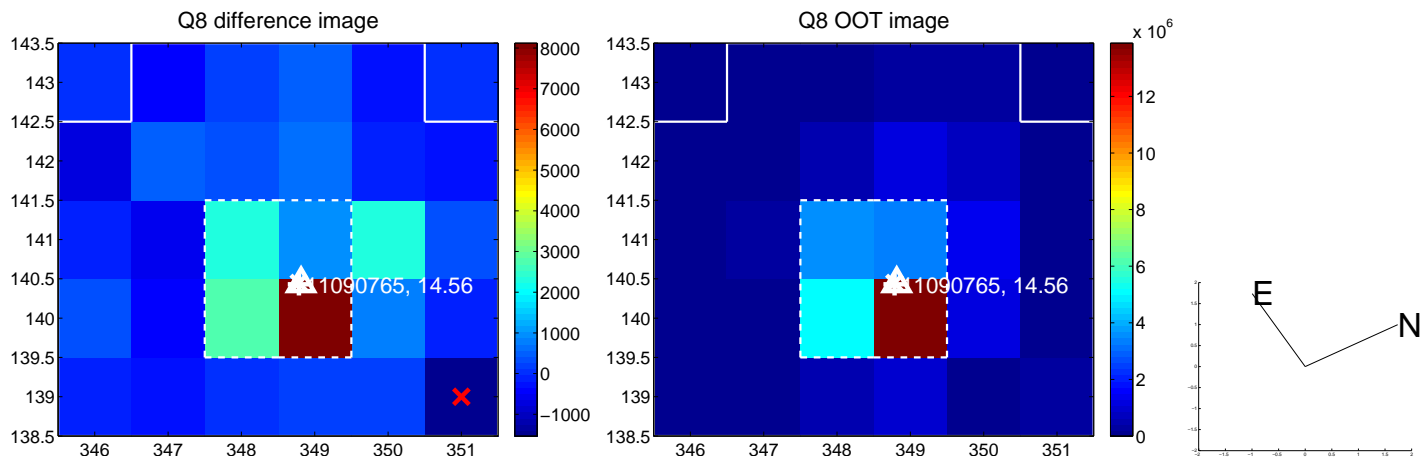
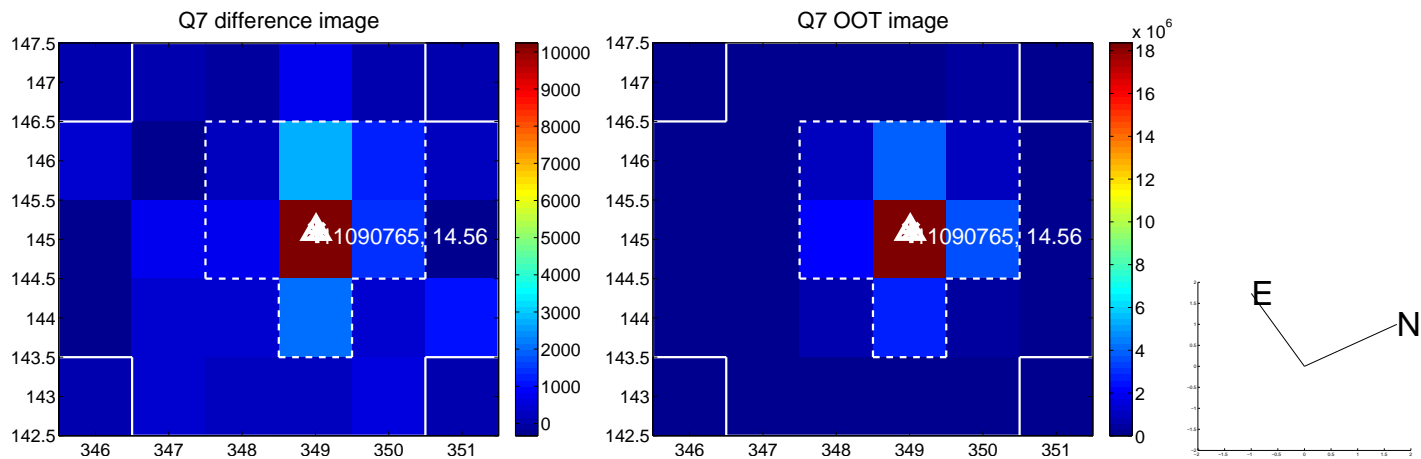
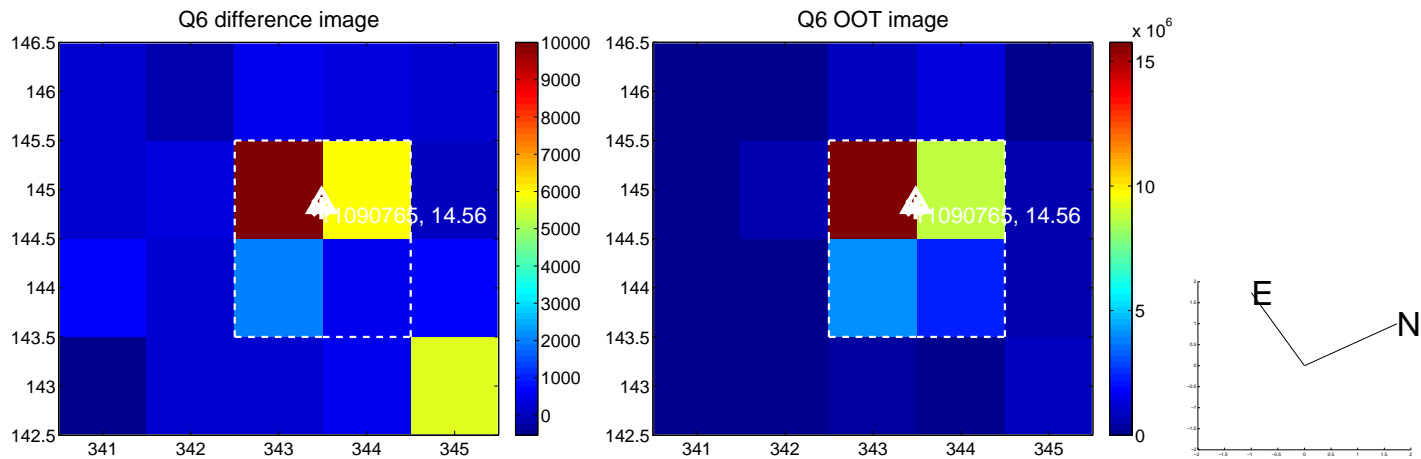
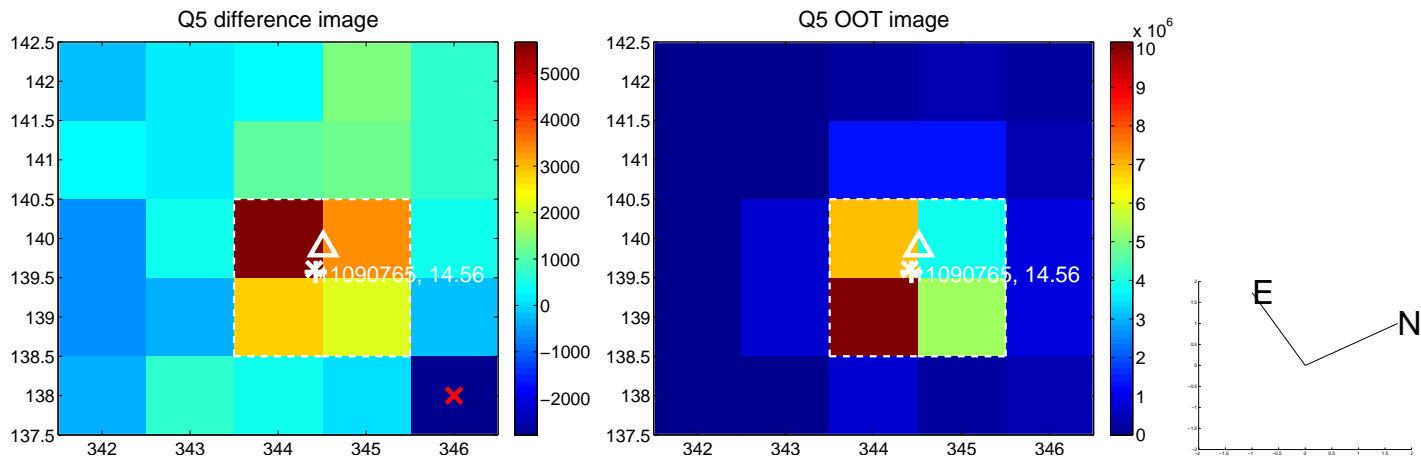
The direct PRF centroid is offset from the target star catalog position by about 0.06 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.065 ± 0.143	0.45	0.030 ± 0.121	0.057 ± 0.149
PRF-fit source offset from KIC position	0.046 ± 0.125	0.37	-0.044 ± 0.123	0.012 ± 0.144
photometric centroid source offset	0.83 ± 0.31	2.65	-0.55 ± 0.35	-0.62 ± 0.28

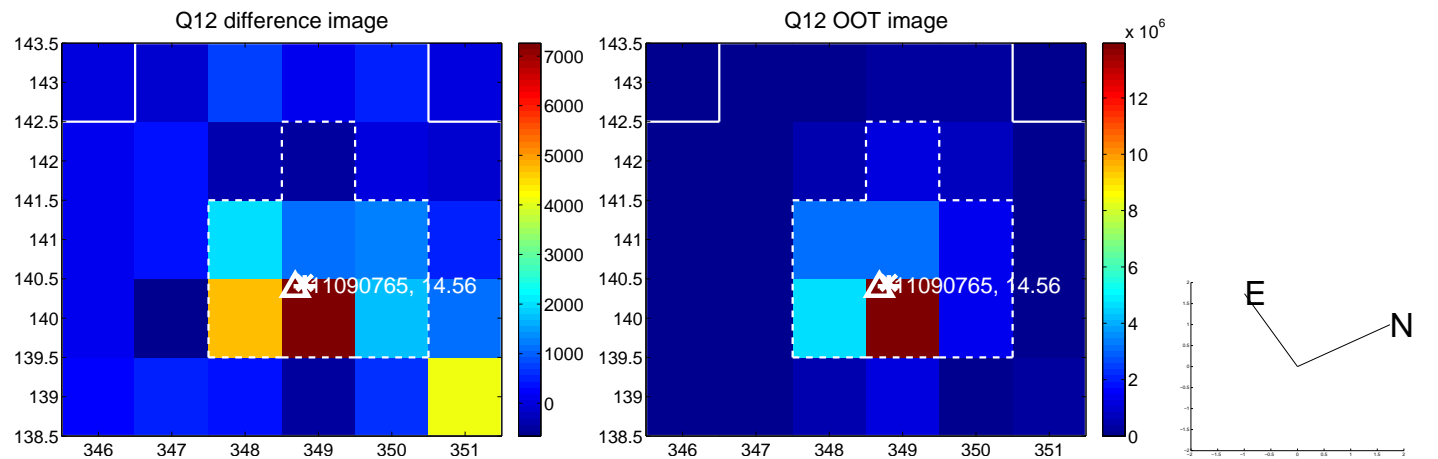
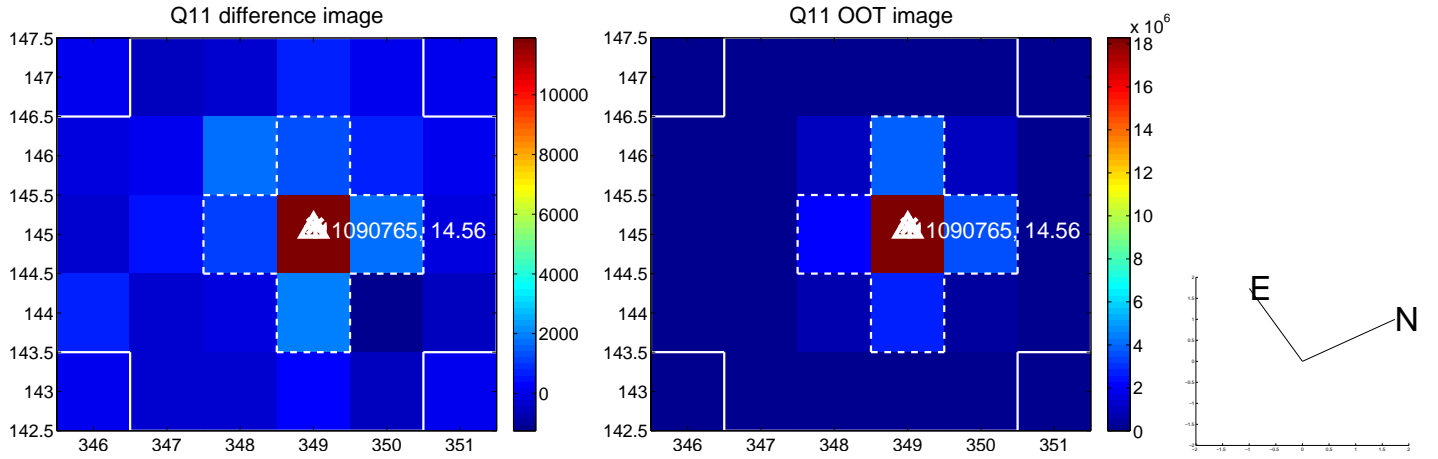
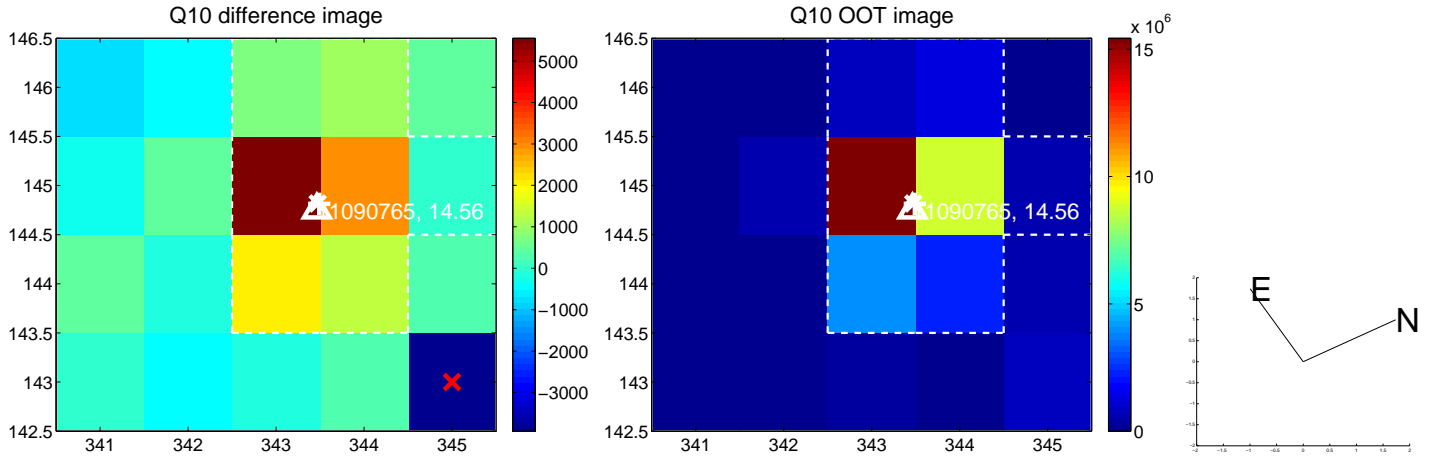
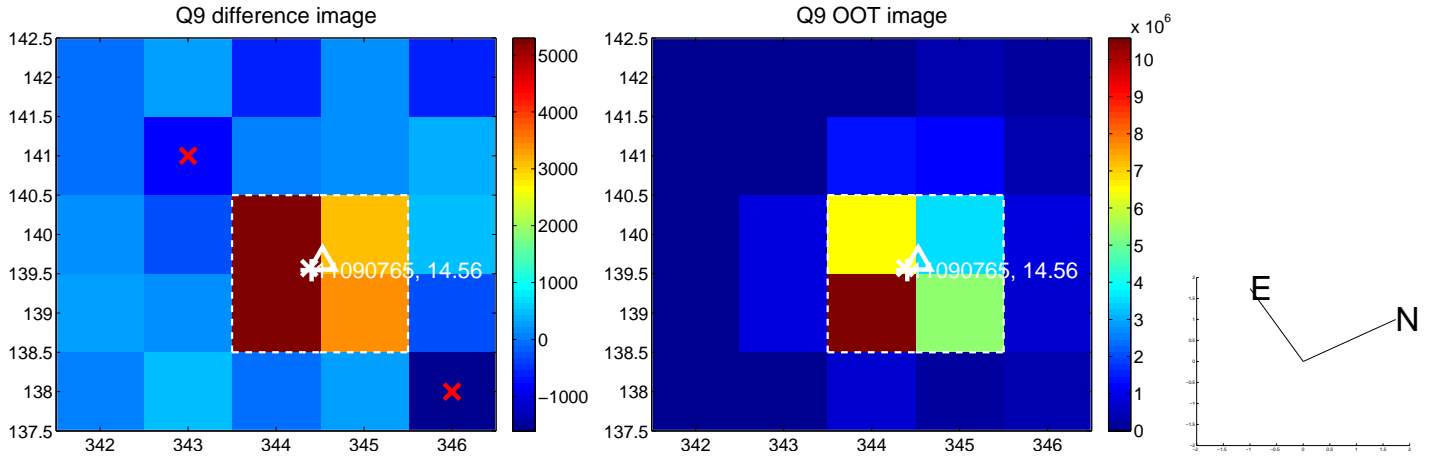


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

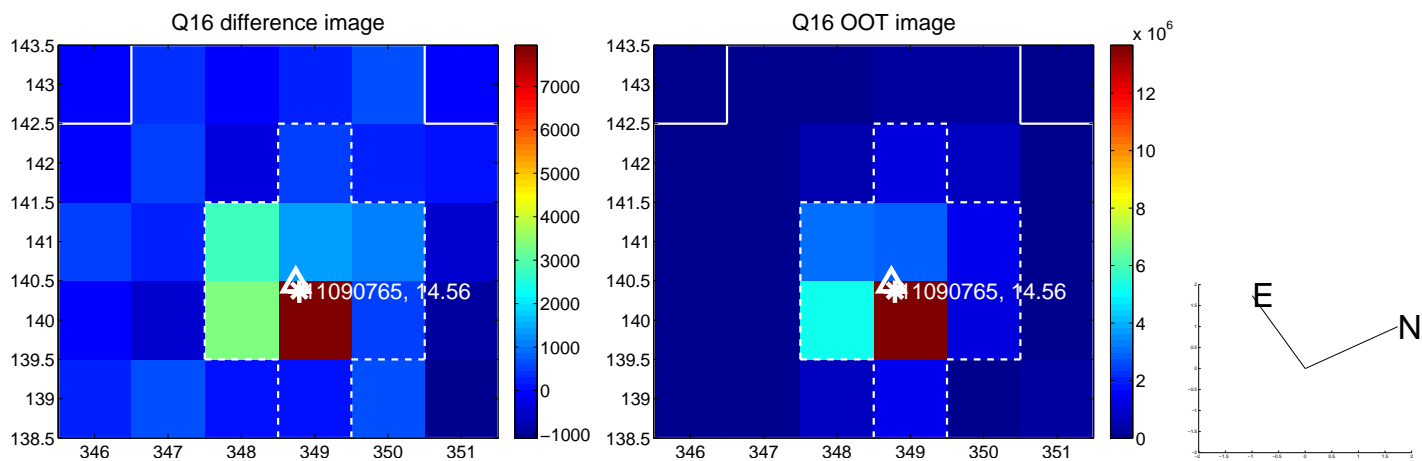
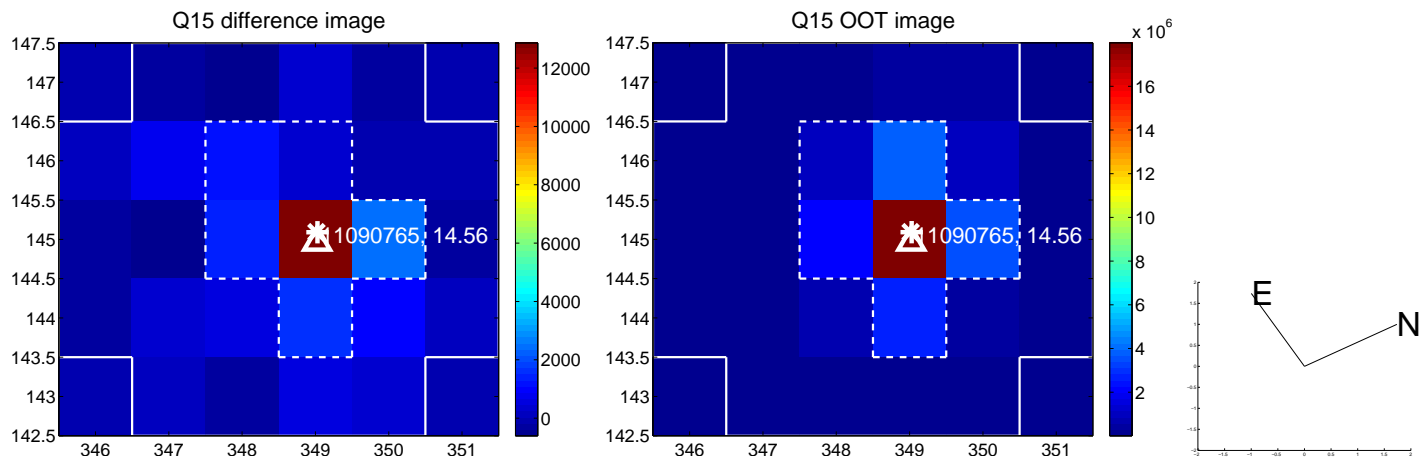
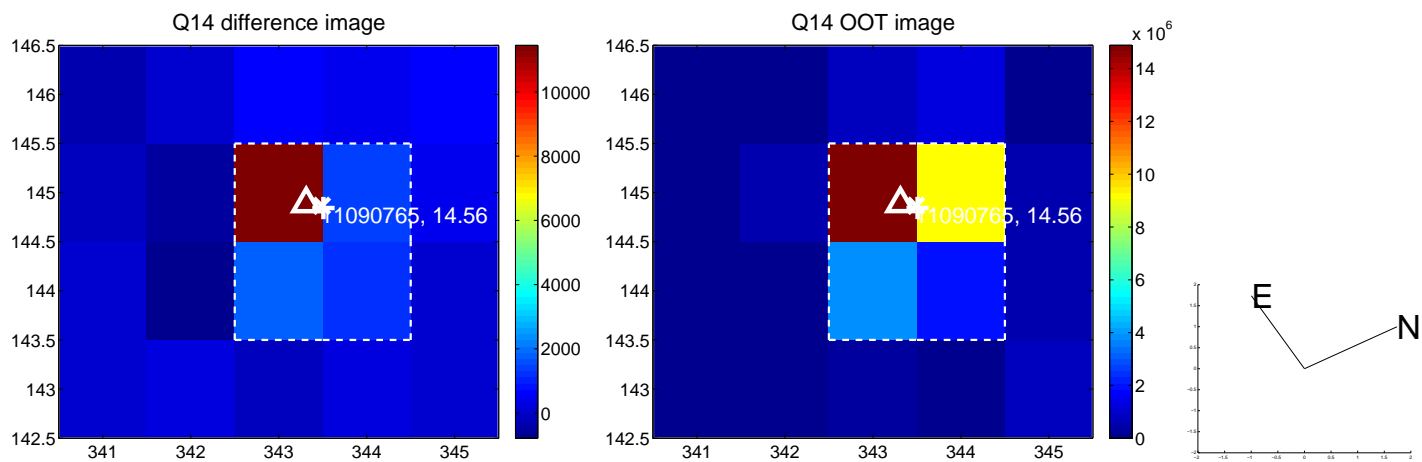
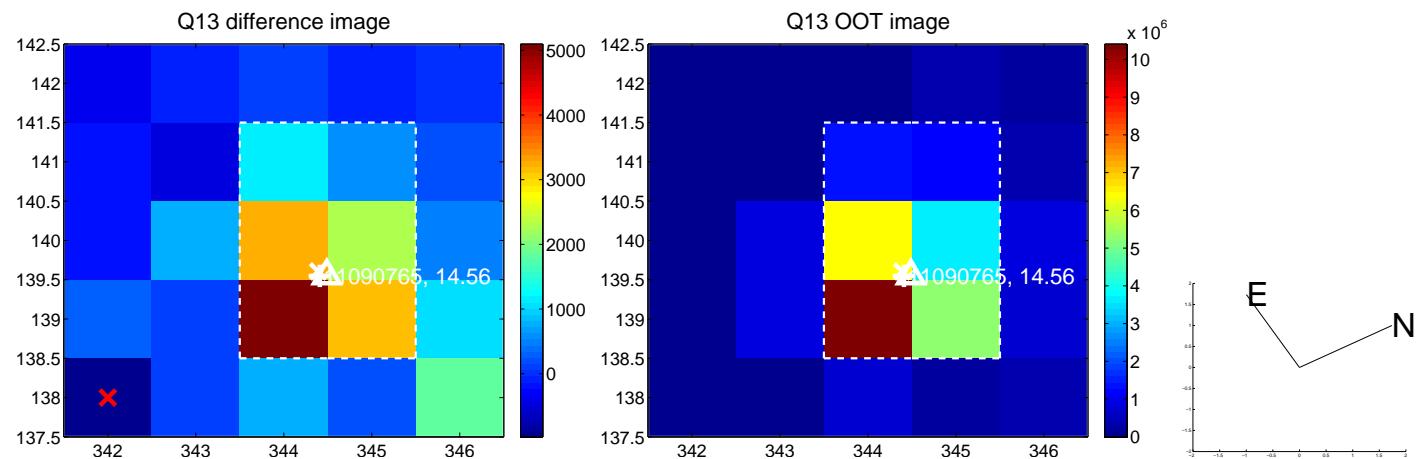
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



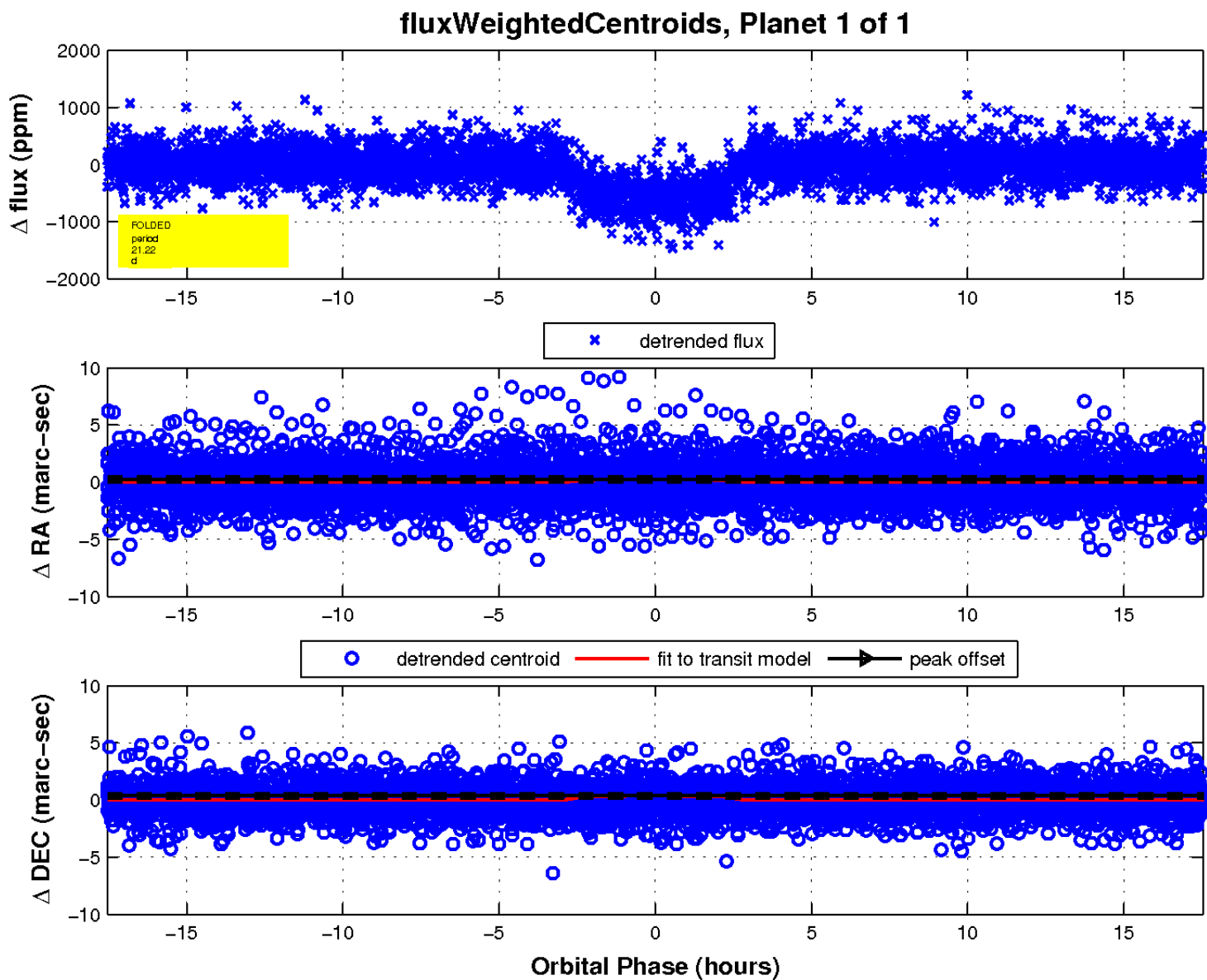
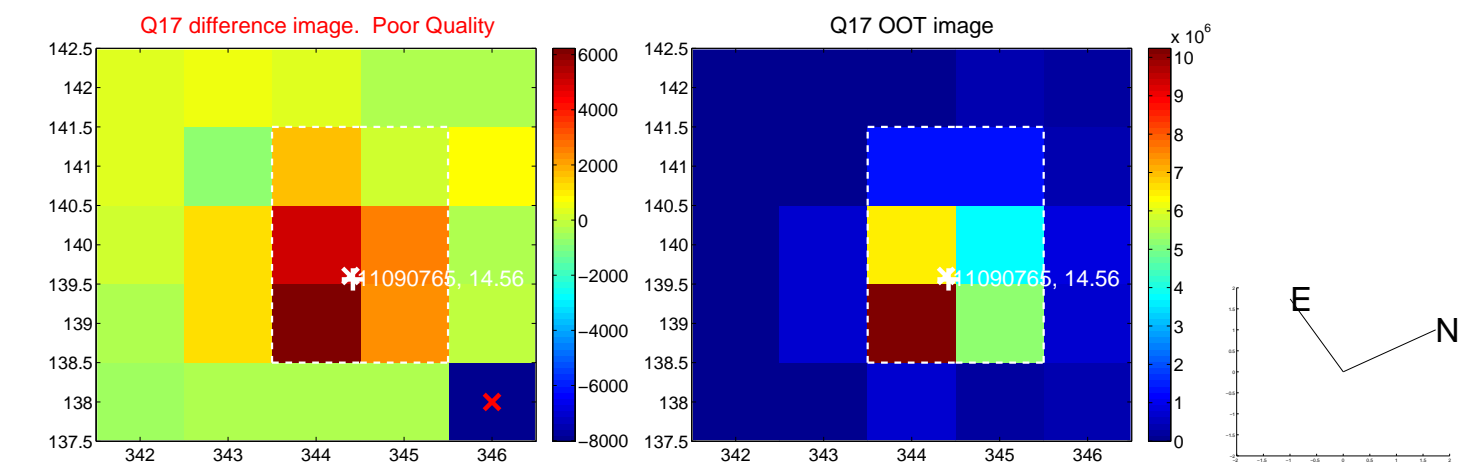
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



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



UKIRT Image

Declination

