

KIC 007767367

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})
007767367-01	OBS	No	3.137132	133.703699	118.6	17.508	10.2	10.9	1.19	6400	1.78	1089.44

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007767367-01	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.

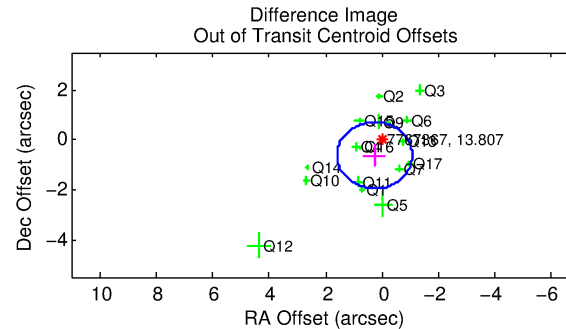
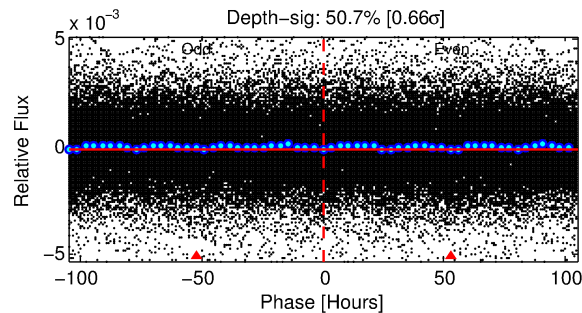
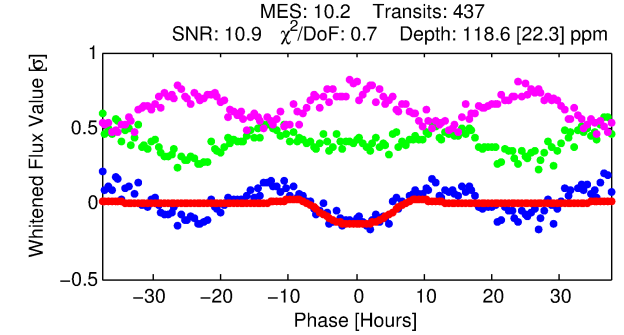
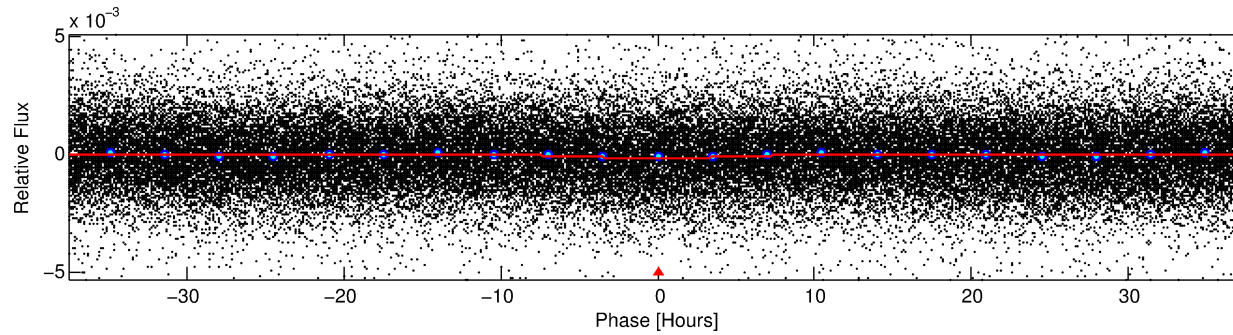
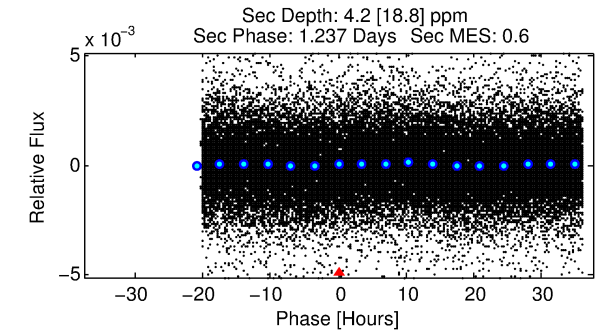
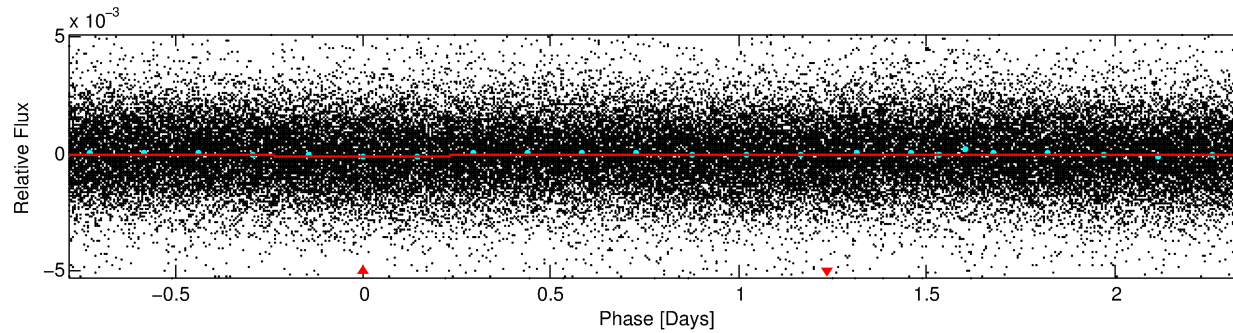
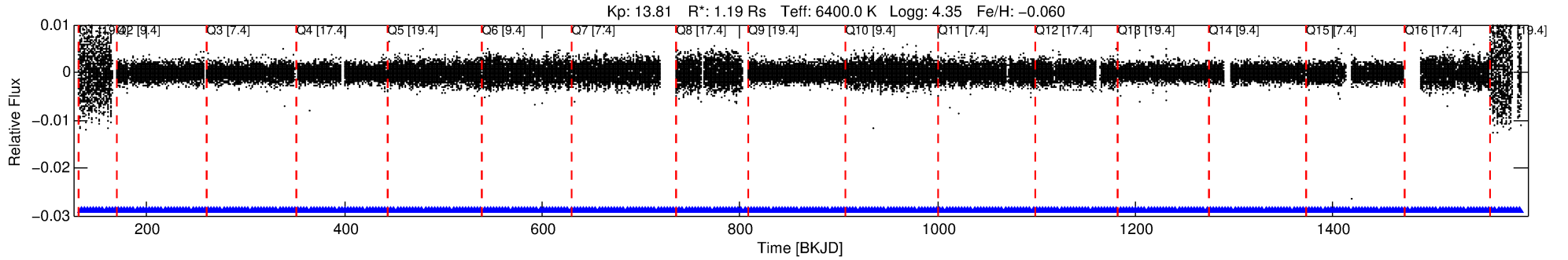
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007767367-01

No Significant Match Found

DV One-Page Summary

KIC: 7767367 Candidate: 1 of 1 Period: 3.137 d



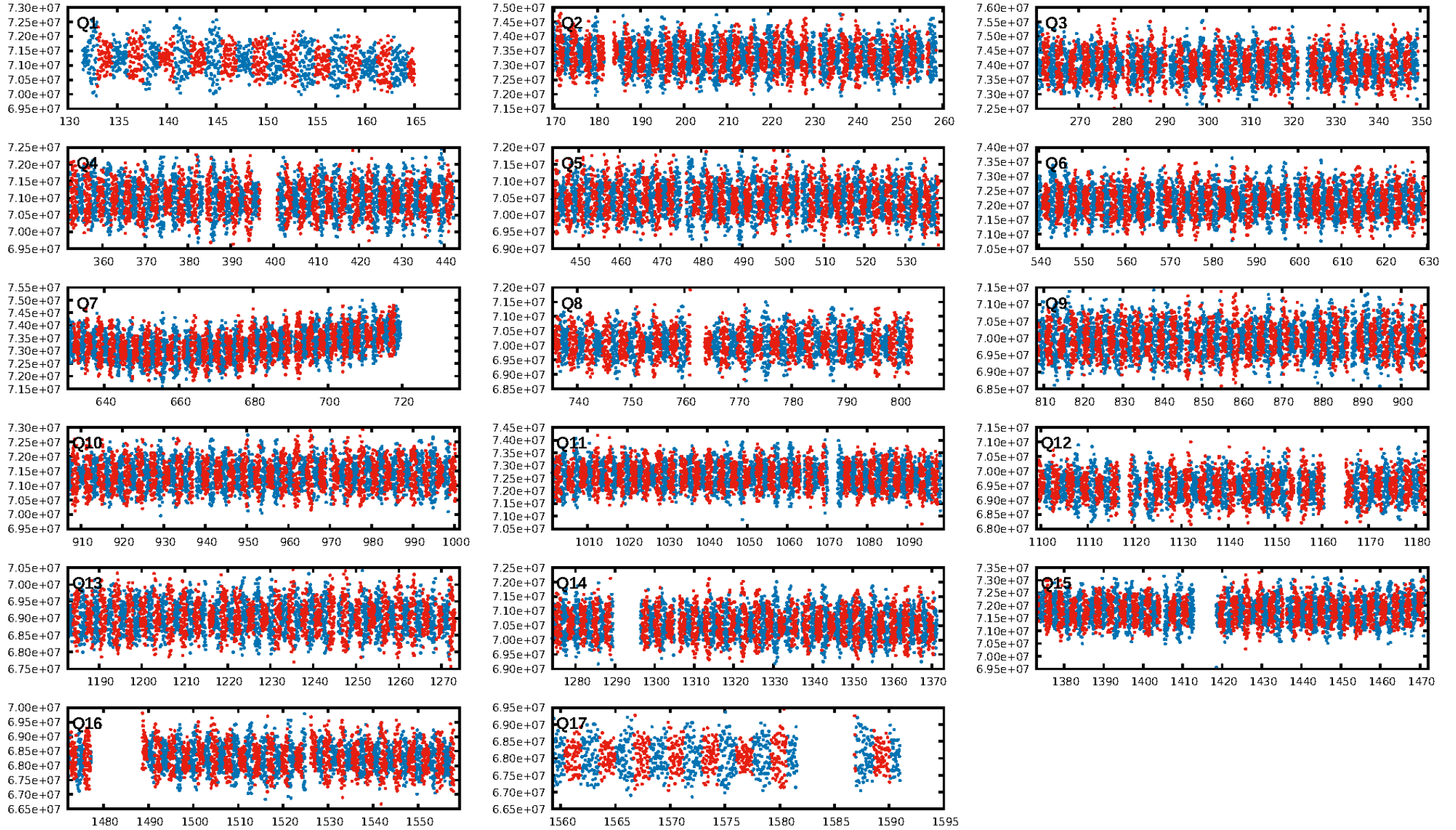
DV Fit Results:

Period = 3.13713 [0.00011] d
Epoch = 133.7037 [0.0289] BKJD
Rp/R* = 0.0137 [0.0018]
a/R* = 1.05 [0.01]
b = 0.99 [0.01]
Seff = 1089.44 [463.02]
Teff = 1465 [156] K
Rp = 1.78 [0.66] Re
a = 0.0441 [0.0125] AU
Ag = 1.42 [6.40] [0.07σ]
Teffp = 2474 [2772] K [0.36σ]

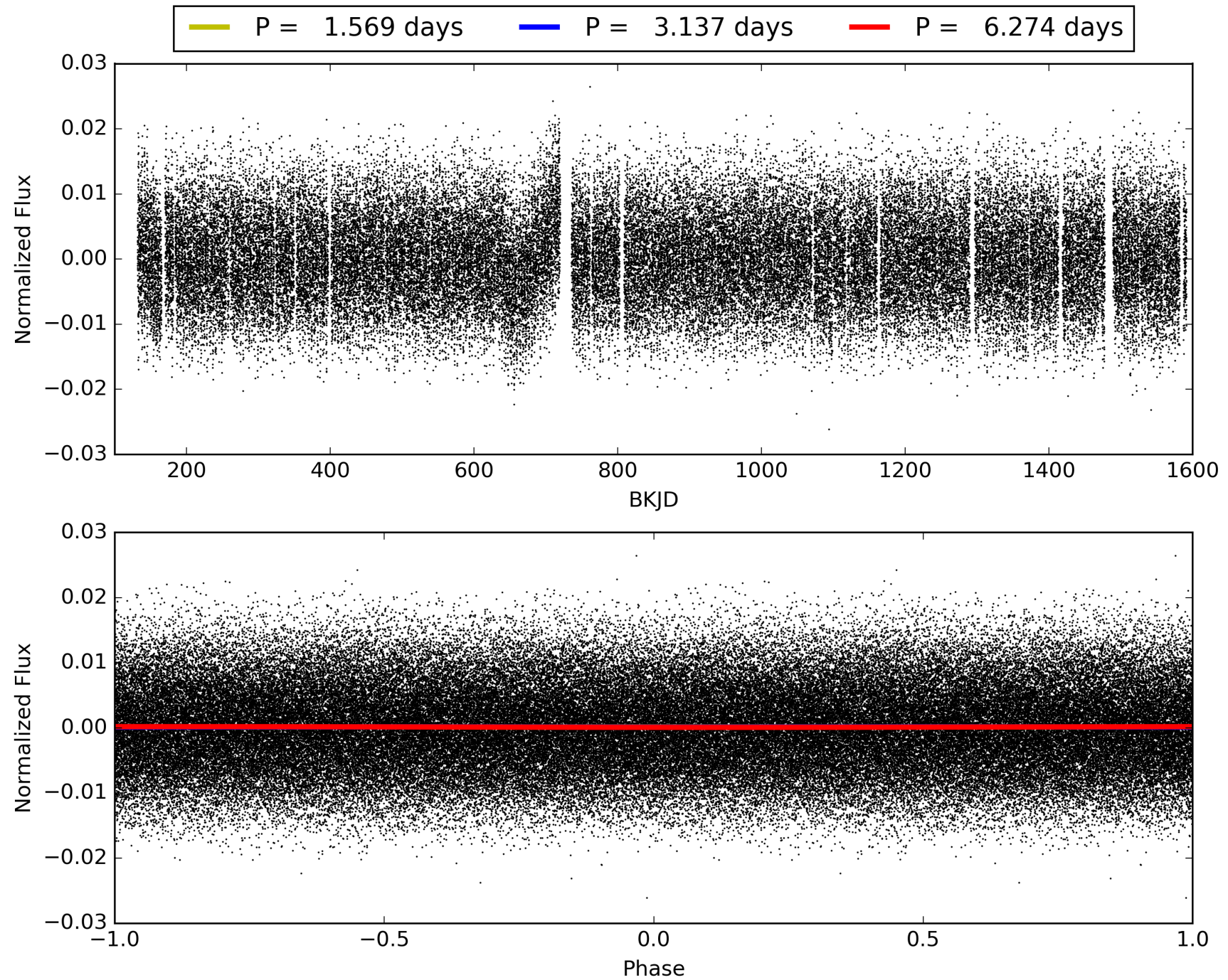
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 6.82e-24
RollingBand-fgt: 1.00 [418/418]
GhostDiagnostic-chr: 1.192
Centroid-sig: 10.0%
Centroid-so: 0.137 arcsec [0.70σ]
OotOffset-rm: 0.681 arcsec [1.53σ]
KicOffset-rm: 0.739 arcsec [1.54σ]
OotOffset-st: 4/4/3/5 [16]
KicOffset-st: 4/4/3/5 [16]
DiffImageQuality-fgm: 0.75 [12/16]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 007767367-01, PDC Light Curves

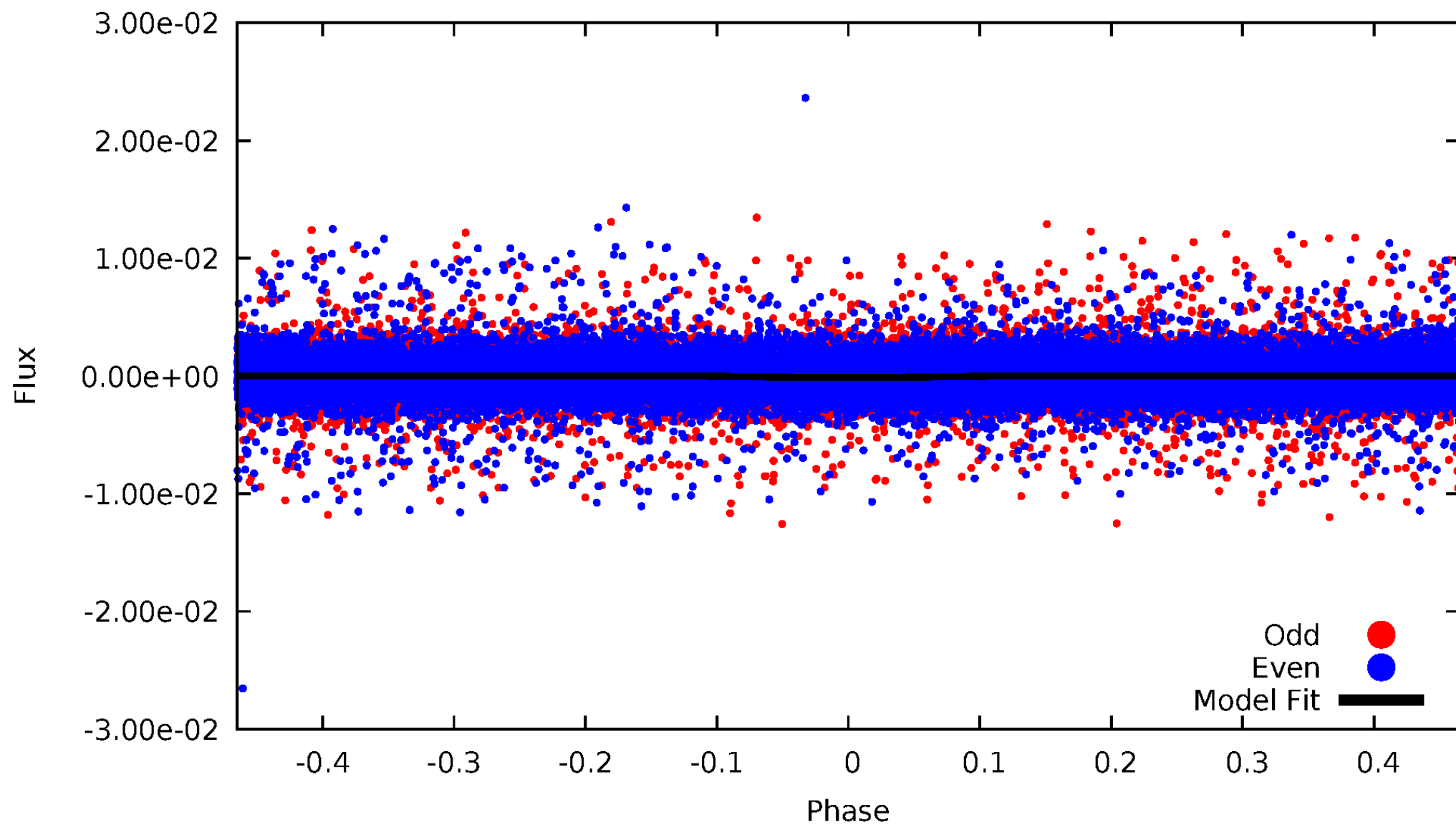


TCE 007767367-01



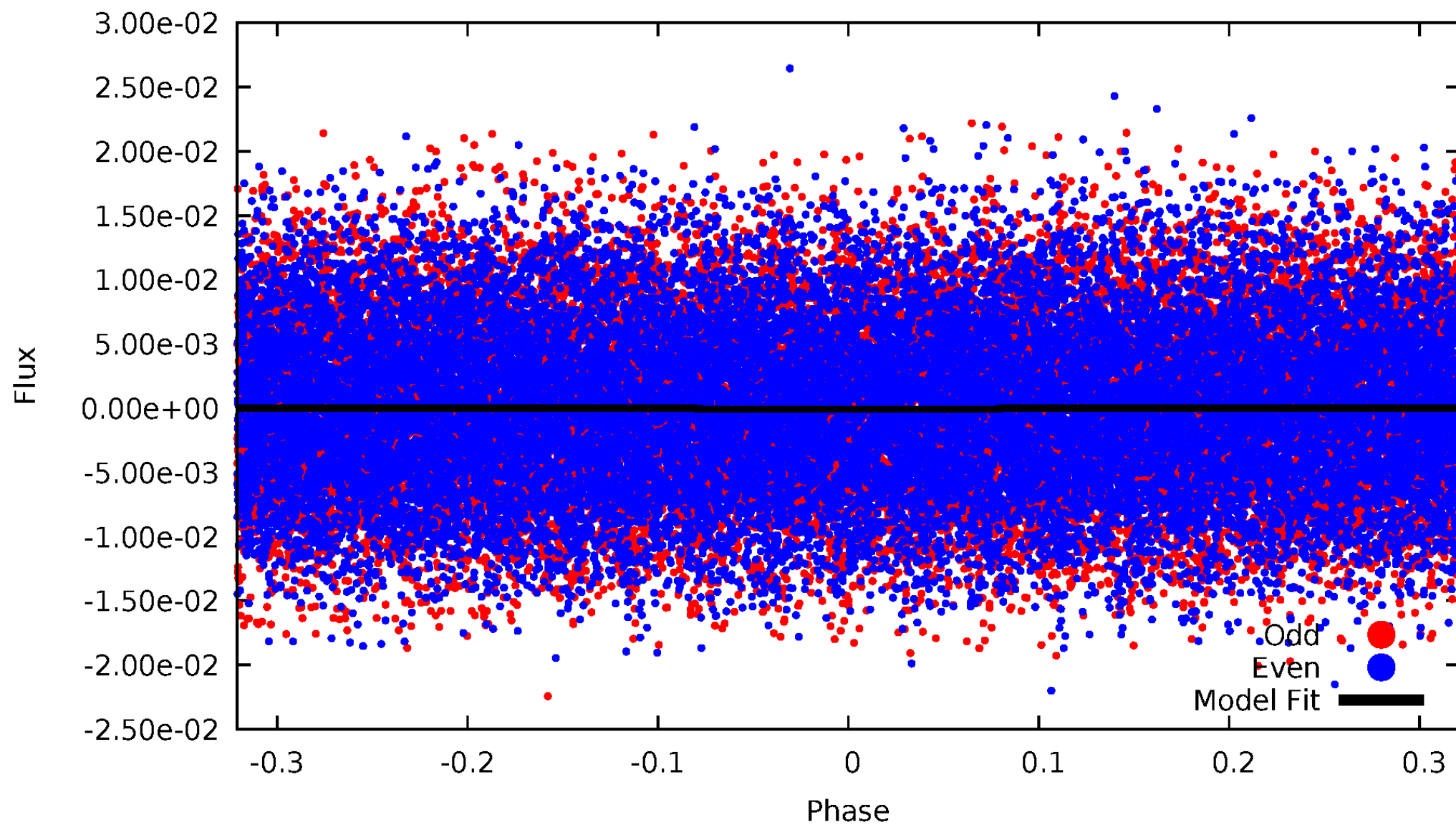
DV Odd/Even

TCE 007767367-01



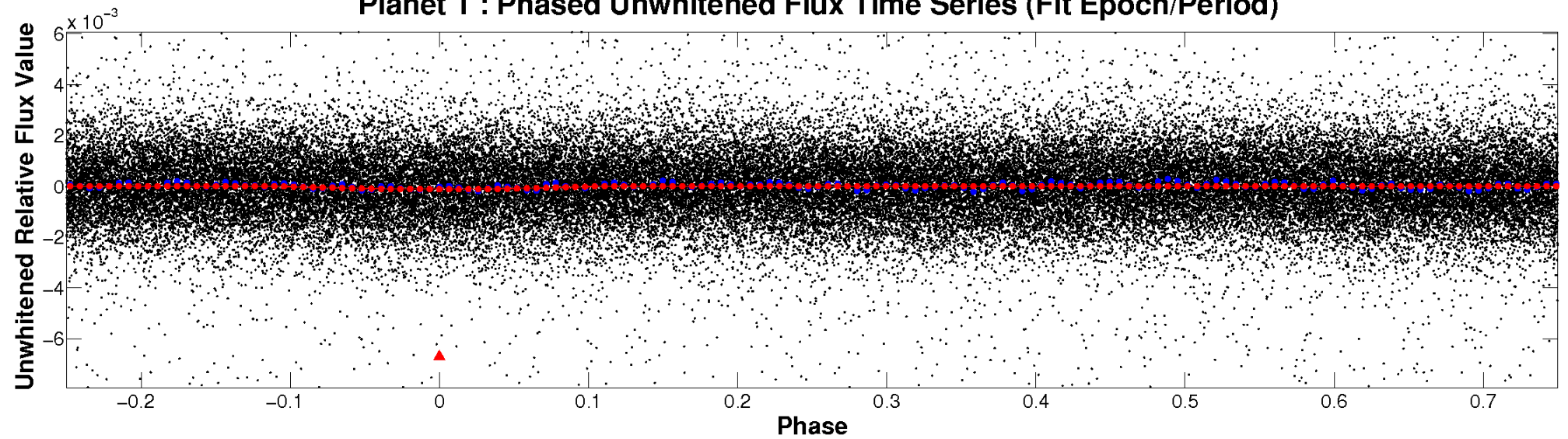
ALT Odd/Even

TCE 007767367-01

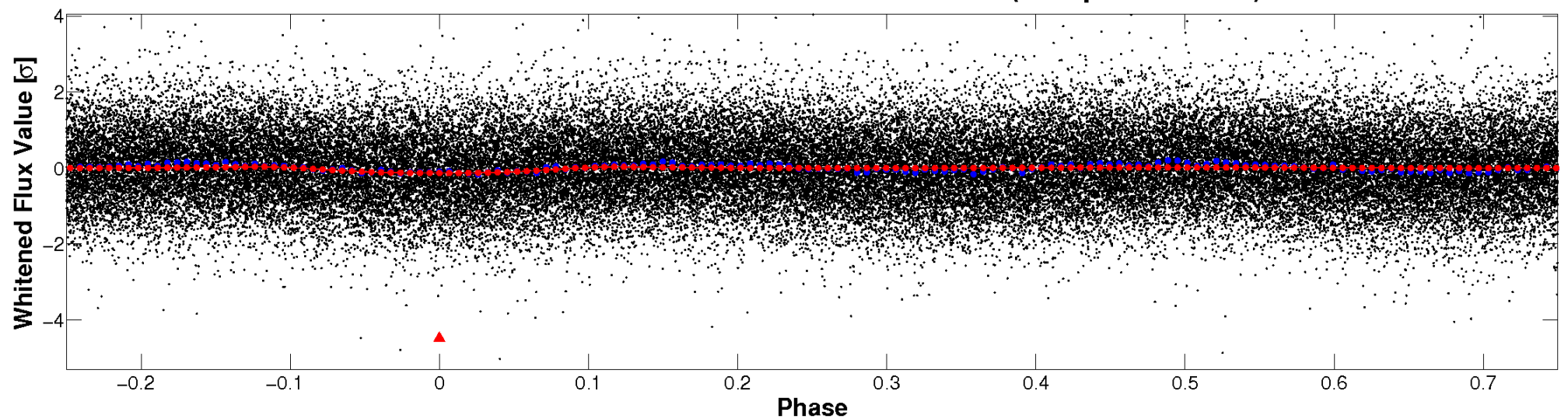


Non-Whitened Vs. Whitened Light Curve

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

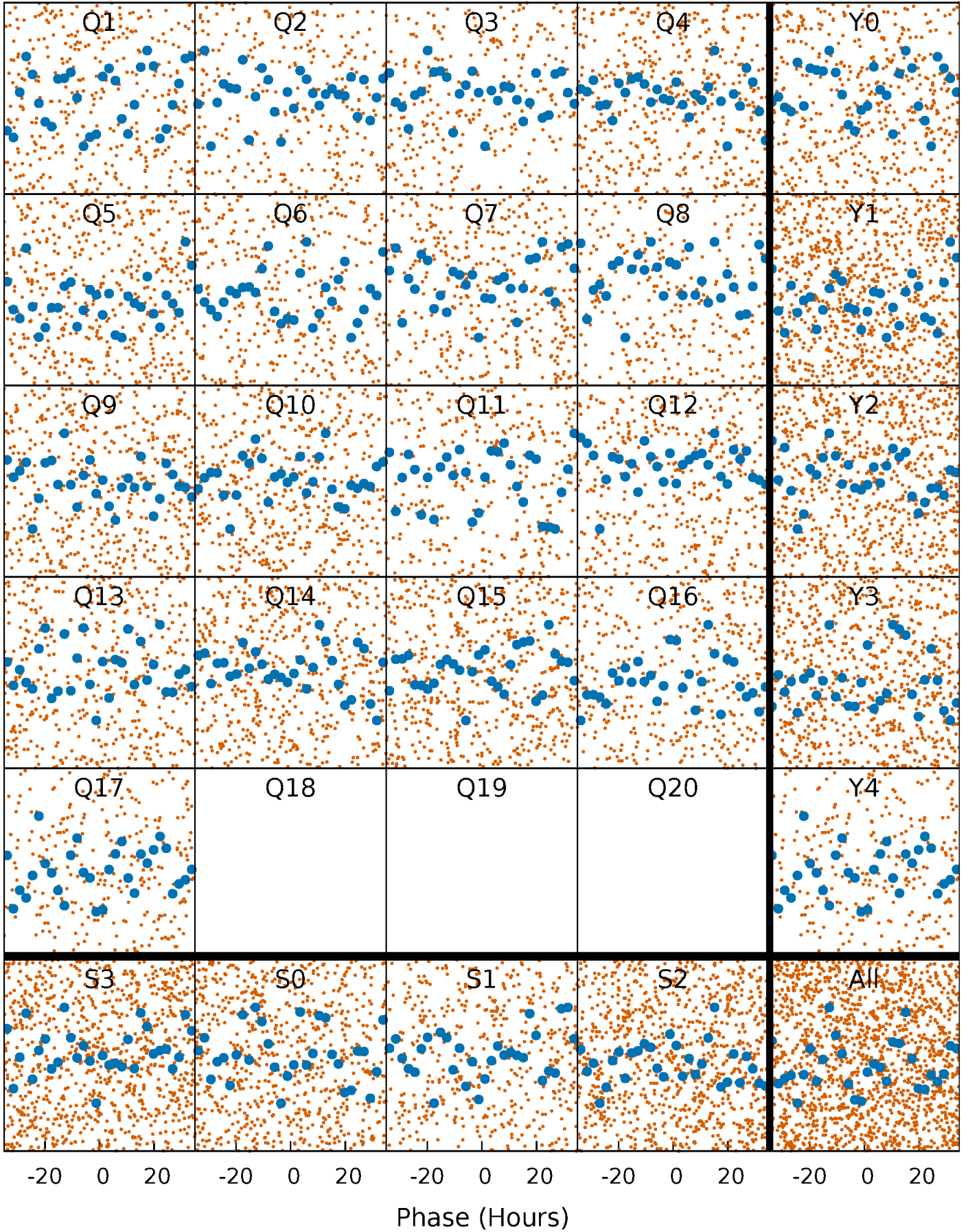


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



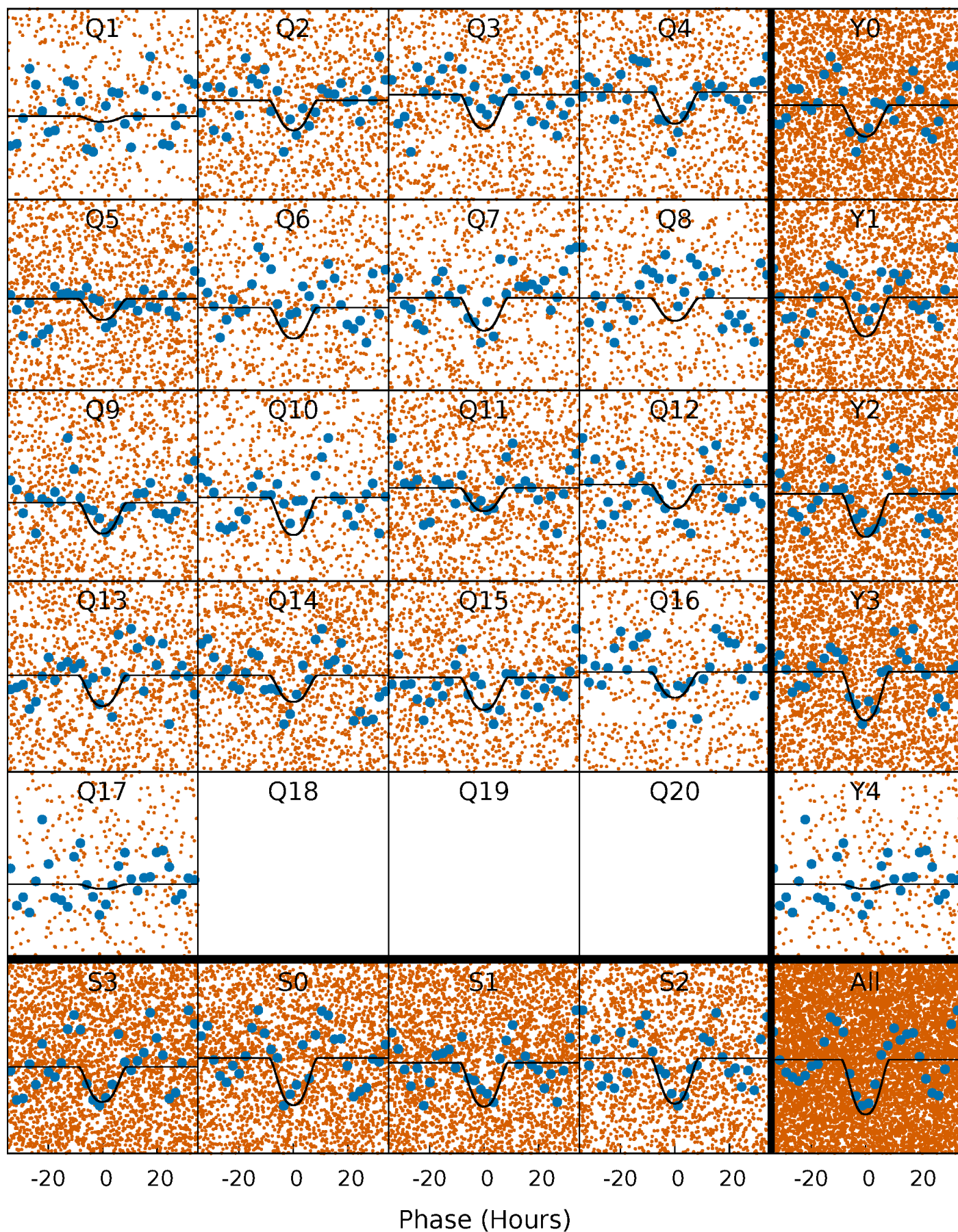
PDC Quarter-Phased Transit Curves

TCE 007767367-01 P= 3.137132 Days $T_0=133.703699$ (BKJD)



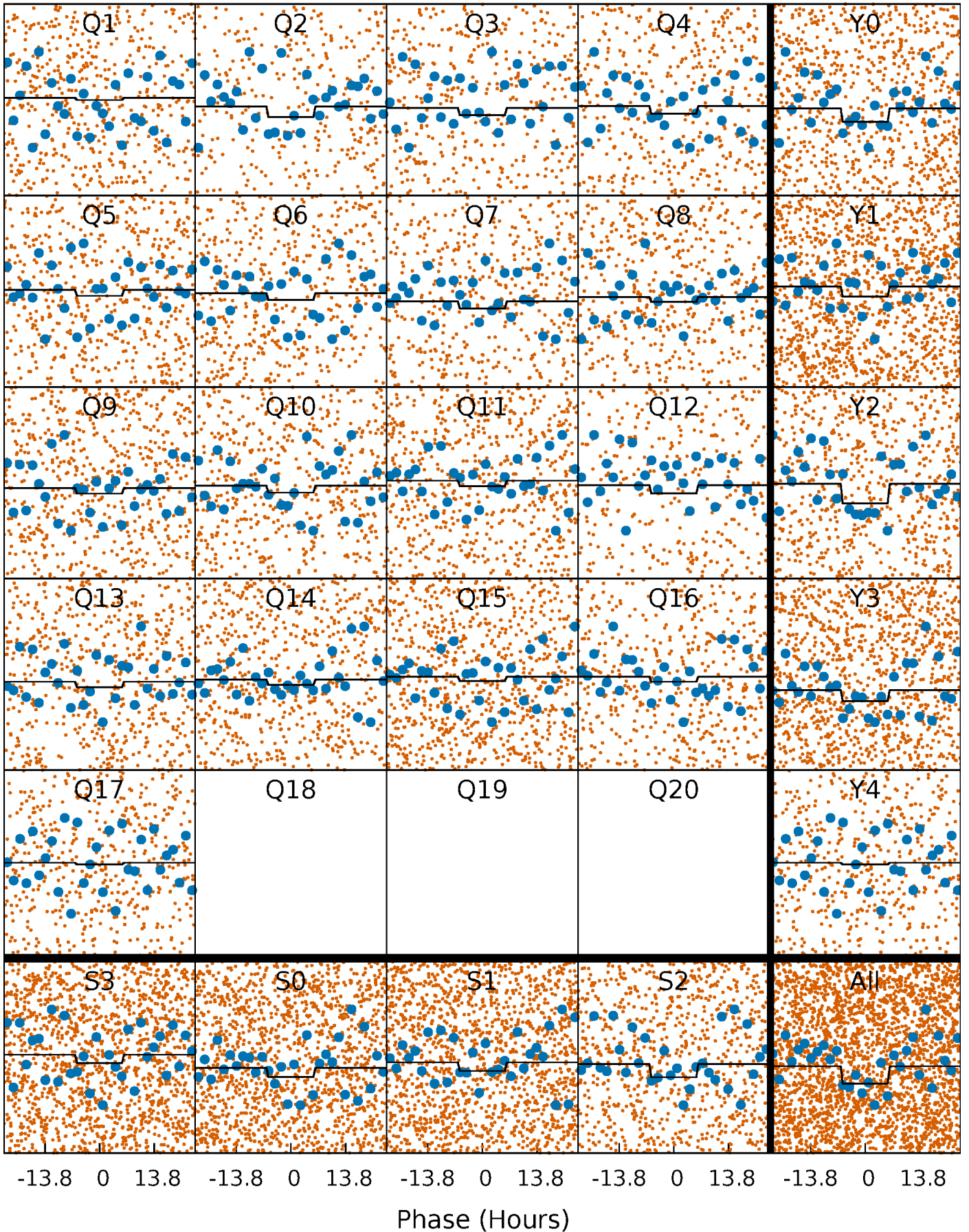
DV Quarter-Phased Transit Curves

TCE 007767367-01 P= 3.137132 Days $T_0=133.703699$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

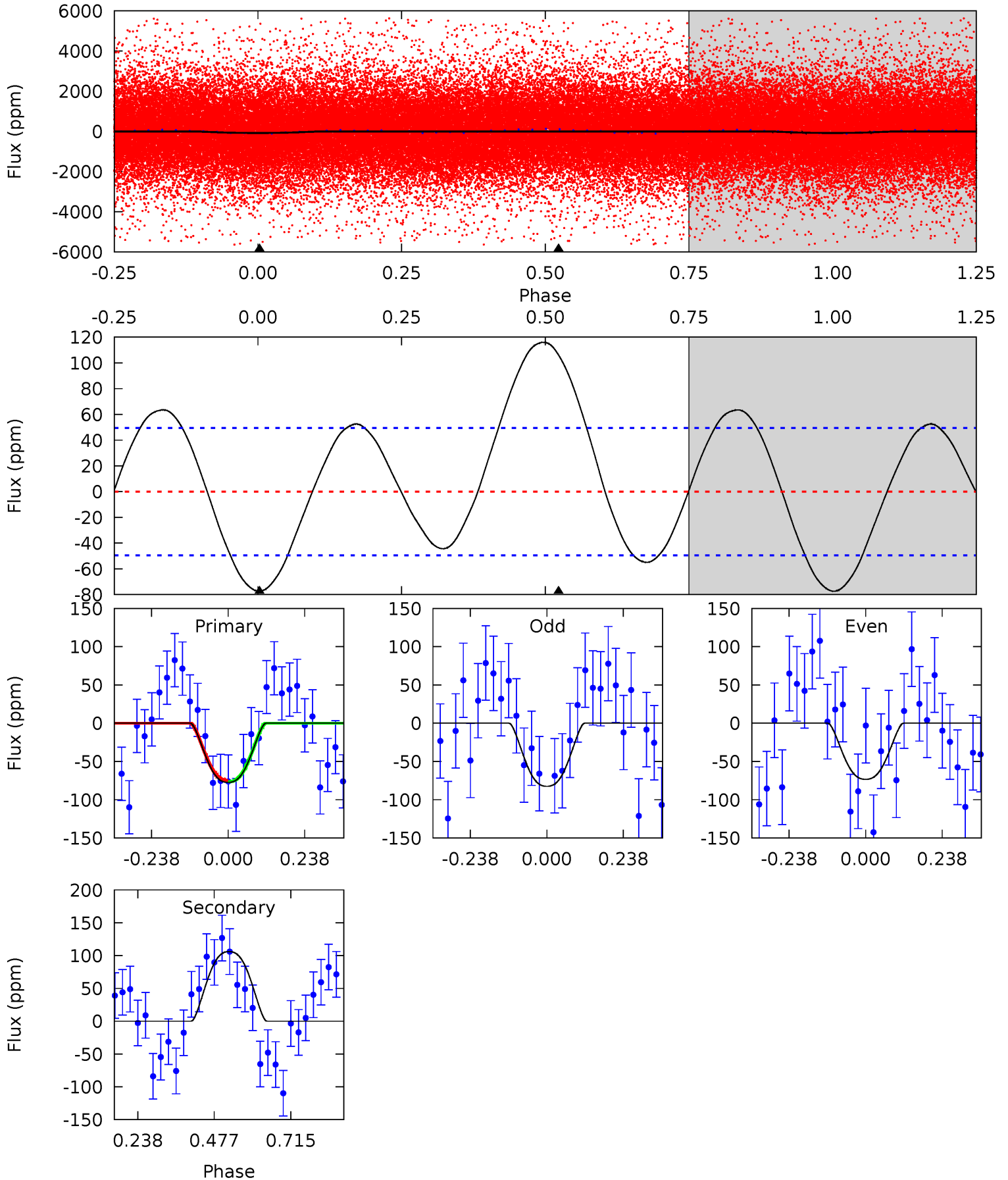
TCE 007767367-01 P= 3.137216 Days $T_0=133.680595$ (BKJD)



DV Model-Shift Uniqueness Test

007767367-01, P = 3.137132 Days, E = 130.566567 Days

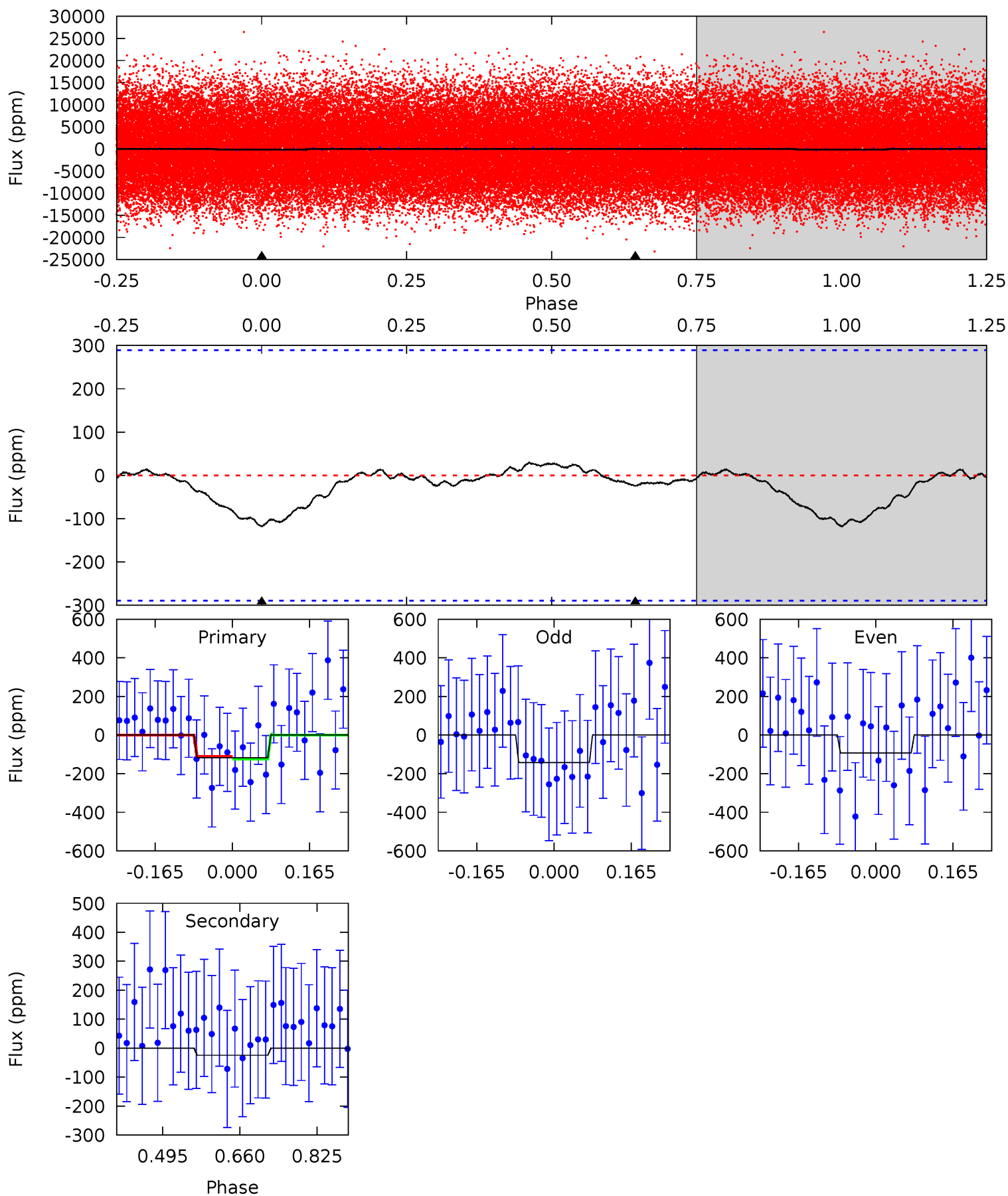
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.85	-9.39	0	0	4.38	1.18	1.79	6.85	6.85	-9.39	-9.39	0.41	0.32	0.60	0.08



Alt Model-Shift Uniqueness Test

007767367-01, P = 3.137216 Days, E = 130.543379 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.81	0.37	0	0	4.46	1.39	0.20	1.81	1.81	0.37	0.37	0.38	0.92	0.20	0.11



Stellar Parameters For KIC 007767367

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6400^{+160}_{-208}	$4.354^{+0.072}_{-0.217}$	$-0.060^{+0.250}_{-0.300}$	$1.187^{+0.409}_{-0.163}$	$1.162^{+0.185}_{-0.152}$	$0.977^{+0.377}_{-0.521}$
	+2%/-3%	+2%/-5%	+417%/-500%	+34%/-14%	+16%/-13%	+39%/-53%
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 007767367-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	106 ± 11	$1.85^{+0.40}_{-0.30}$	2085^{+175}_{-112}	-5567^{+341}_{-456}	$-32.604^{+9.974}_{-14.707}$
Alt.	-24 ± 65	$1.36^{+0.34}_{-0.29}$	2087^{+164}_{-111}	4684^{+1721}_{-9665}	14^{+43}_{-34}

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

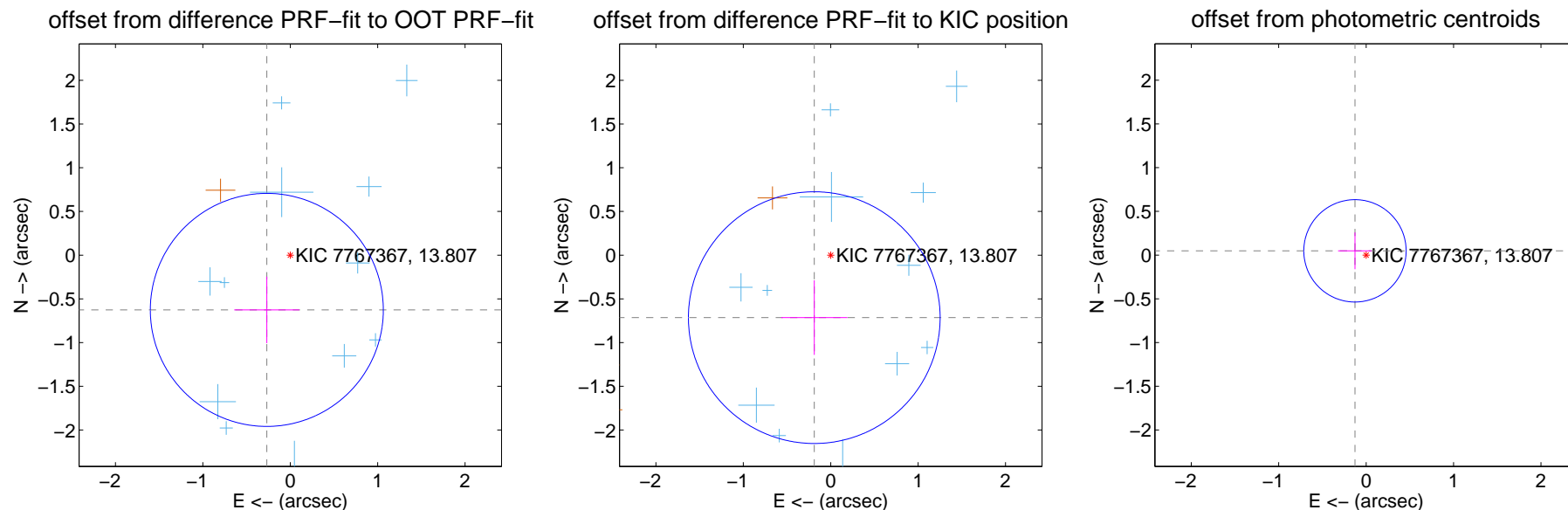
DV Centroid Data

Supplemental centroid analysis for 007767367-01. Kepler magnitude: 13.81. Transit SNR 10.89

There are 12 quarters with good PRF difference image offsets

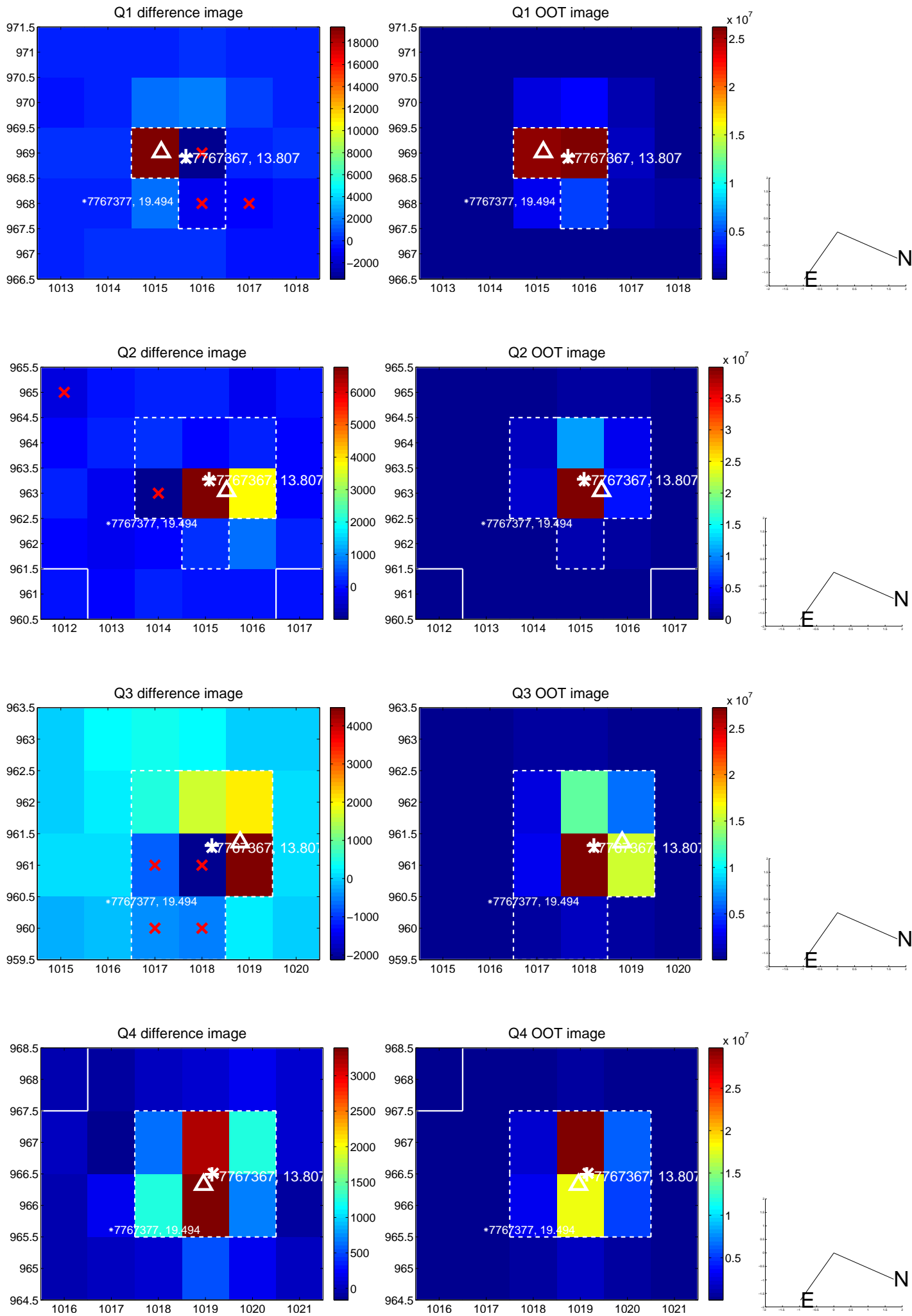
The direct PRF centroid is offset from the target star catalog position by about 0.16 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.681 ± 0.444	1.53	0.268 ± 0.373	-0.626 ± 0.381
PRF-fit source offset from KIC position	0.739 ± 0.480	1.54	0.188 ± 0.379	-0.715 ± 0.427
photometric centroid source offset	0.14 ± 0.20	0.70	0.13 ± 0.19	0.05 ± 0.21

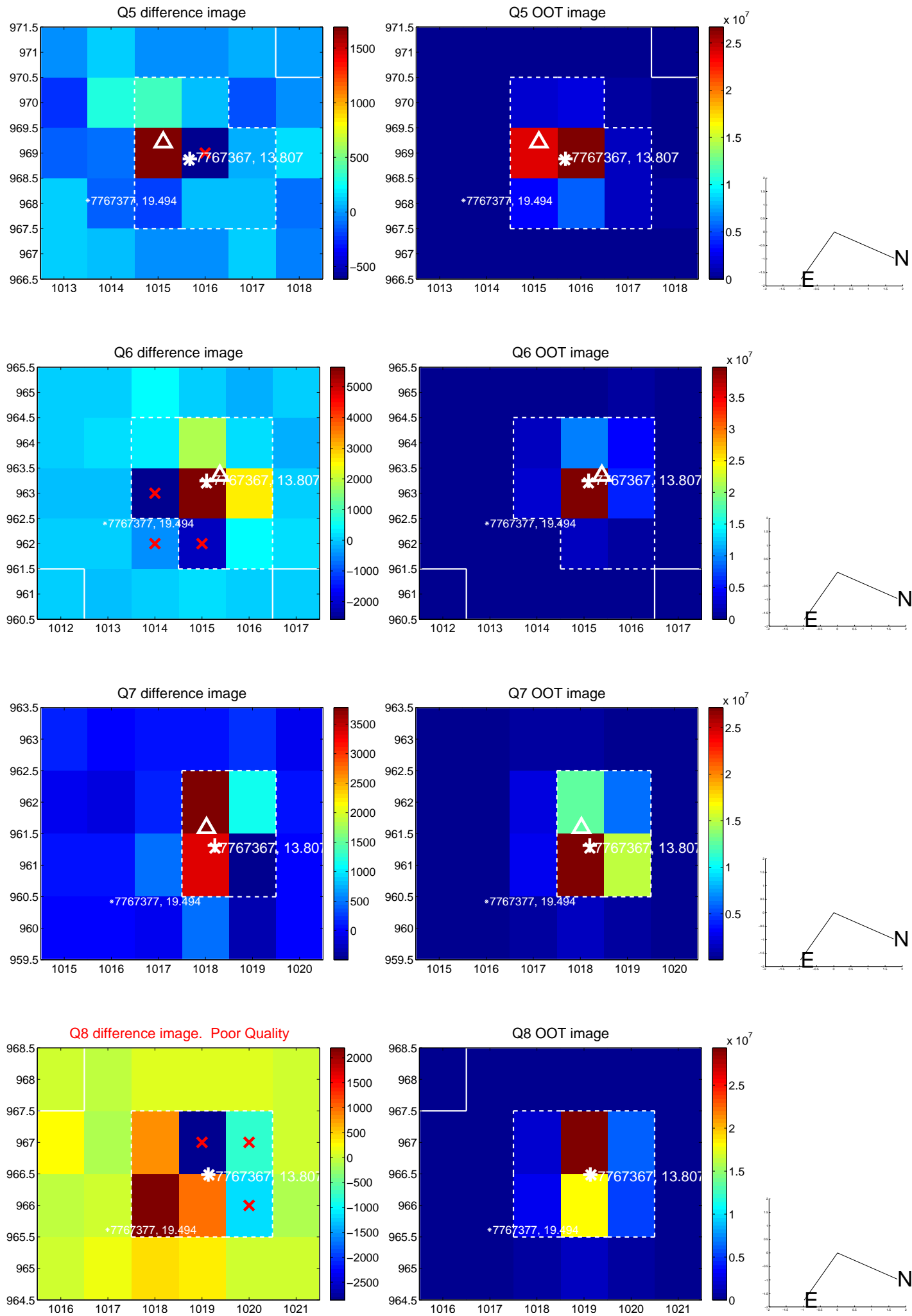


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

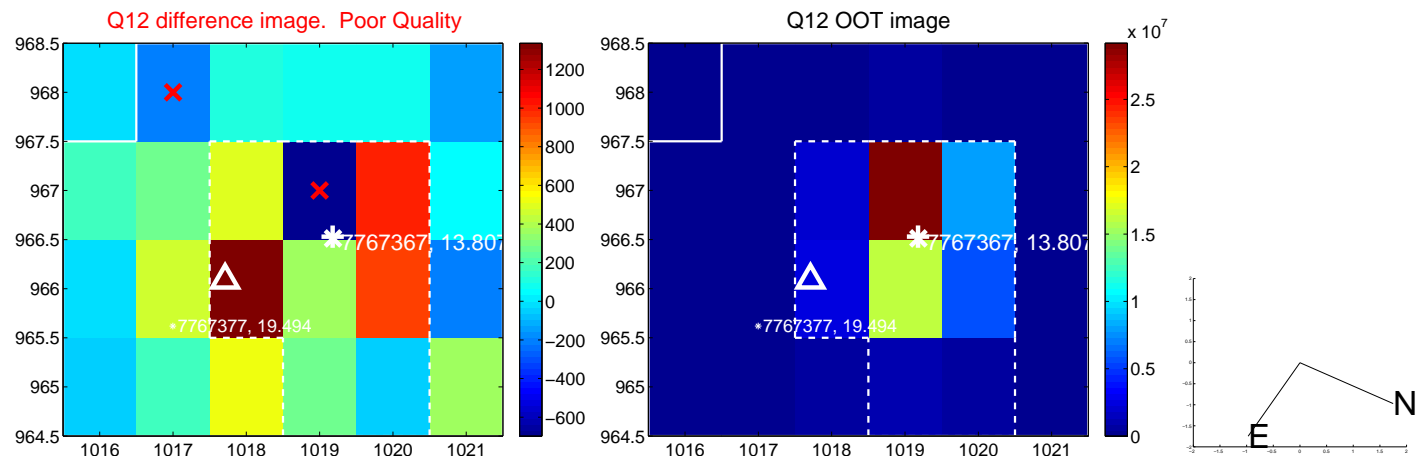
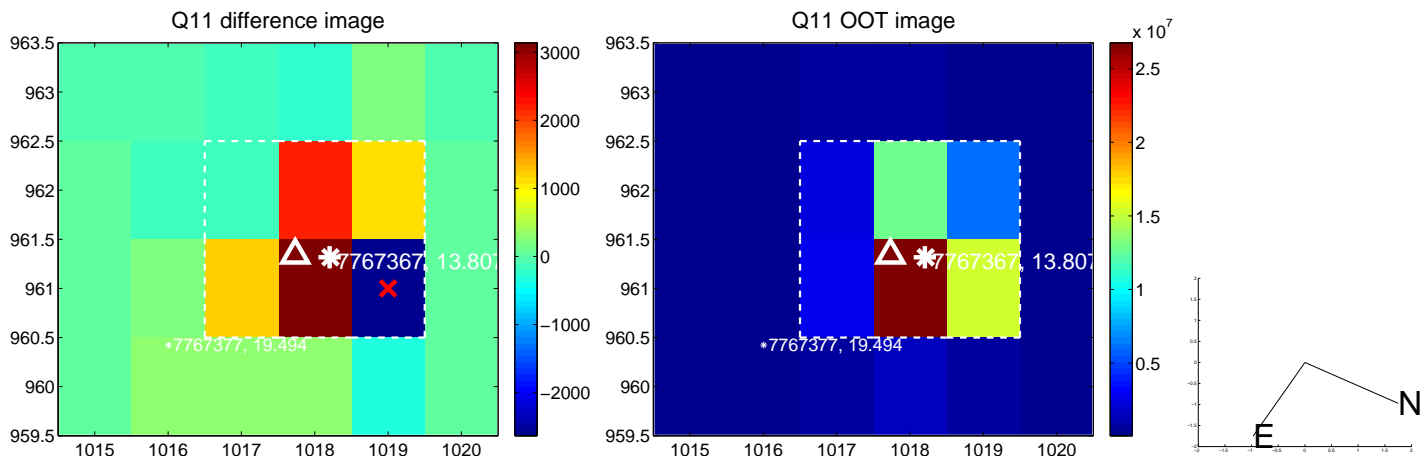
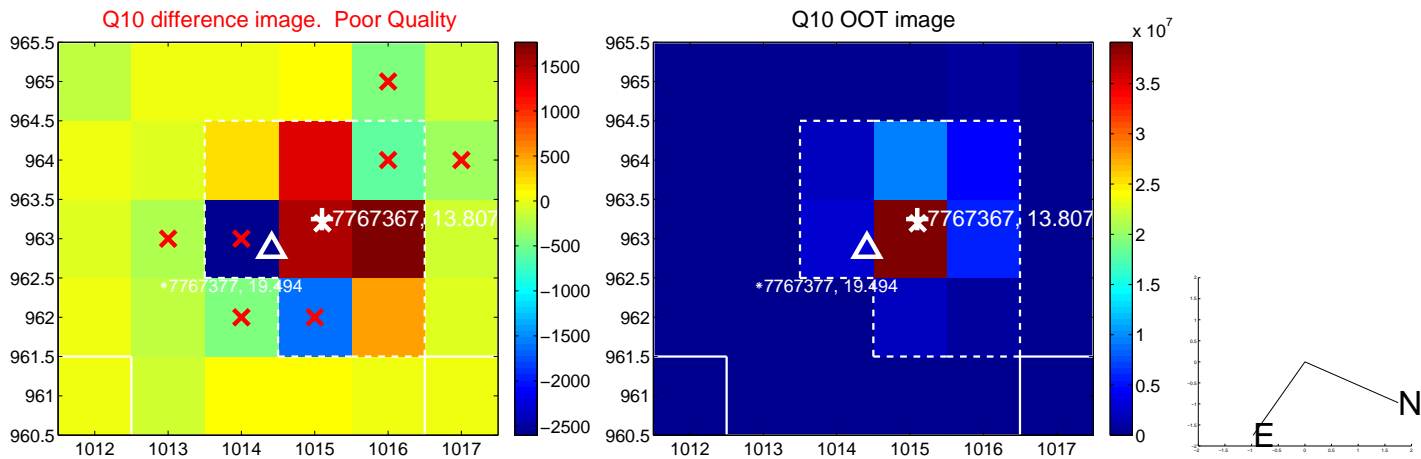
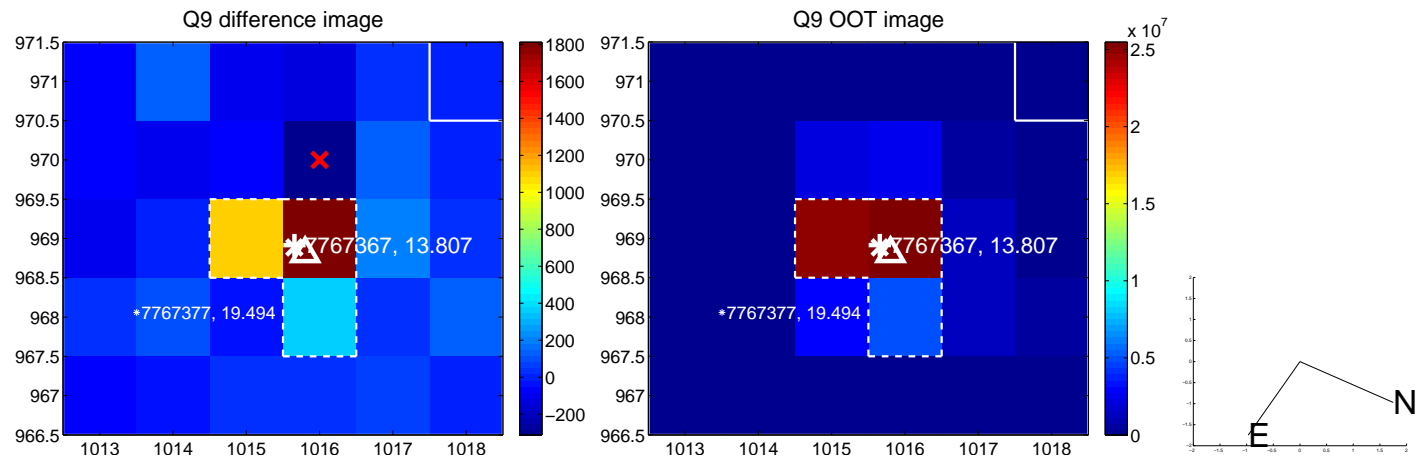
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



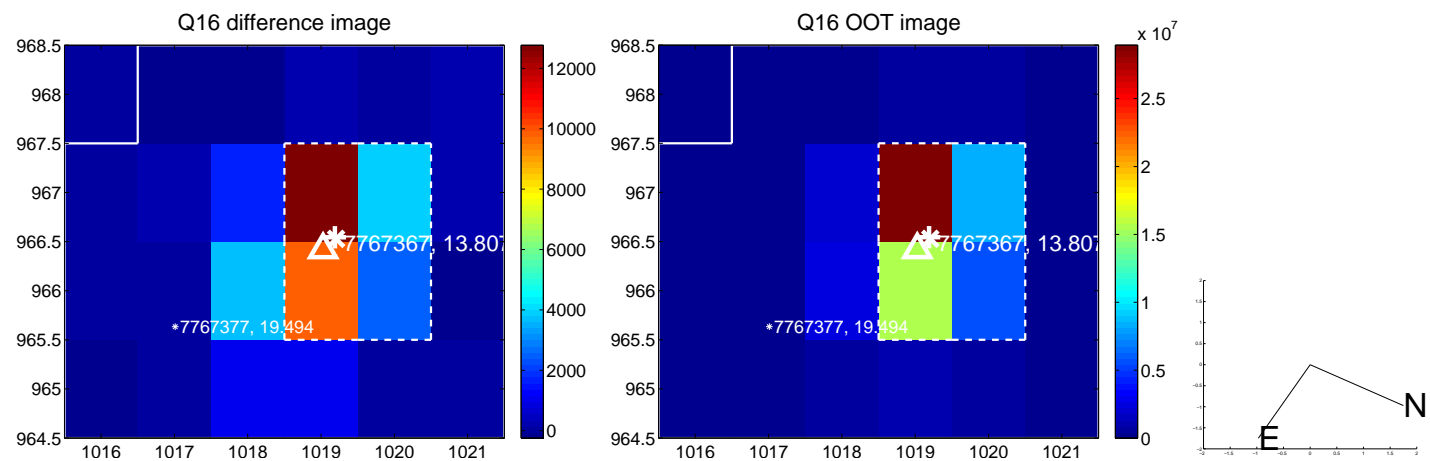
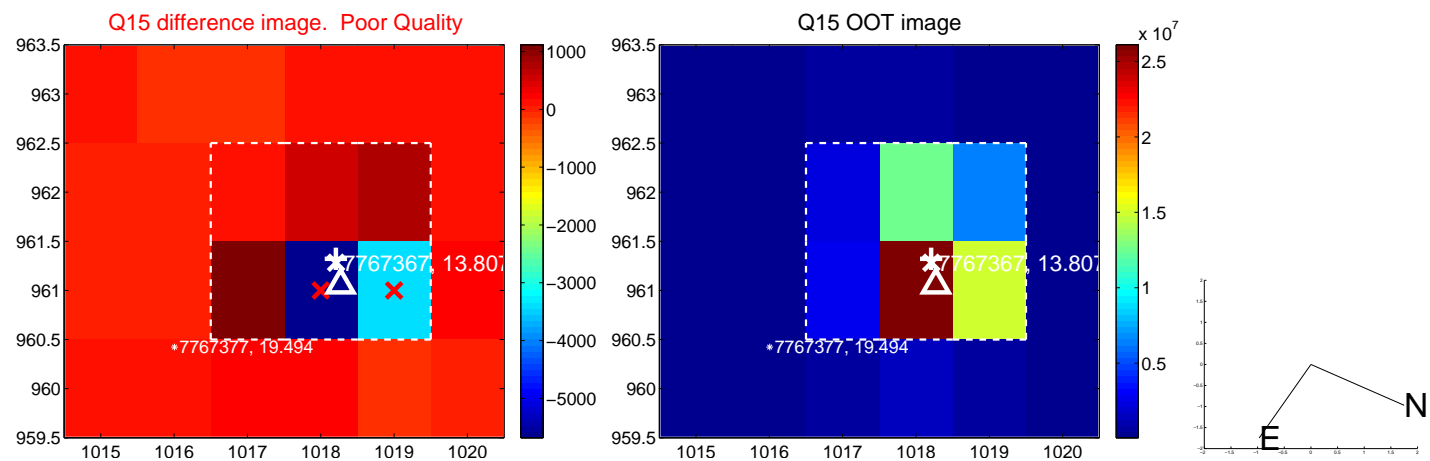
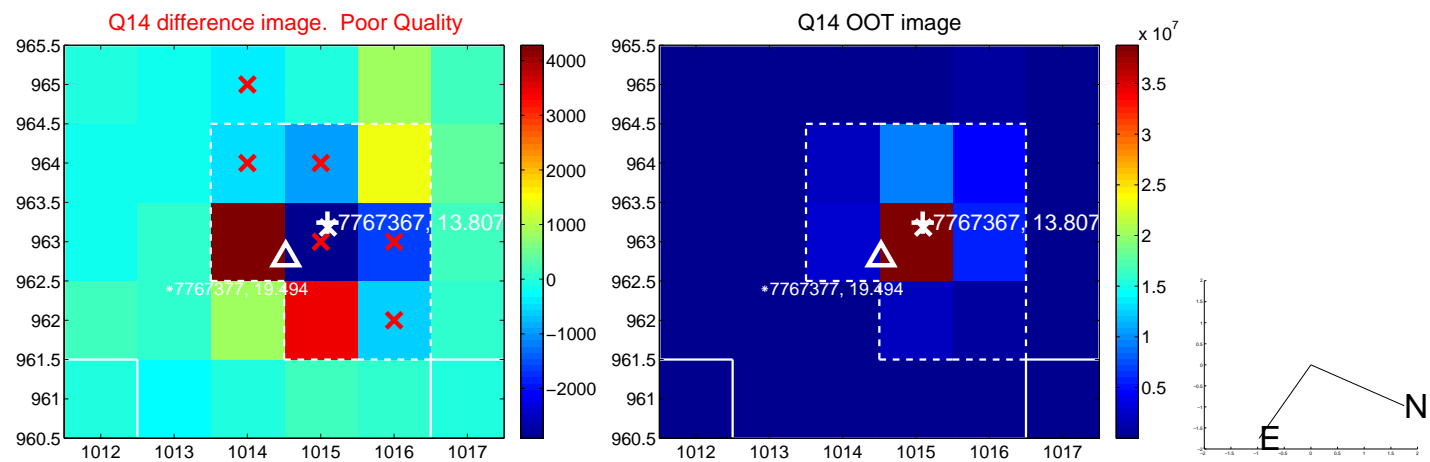
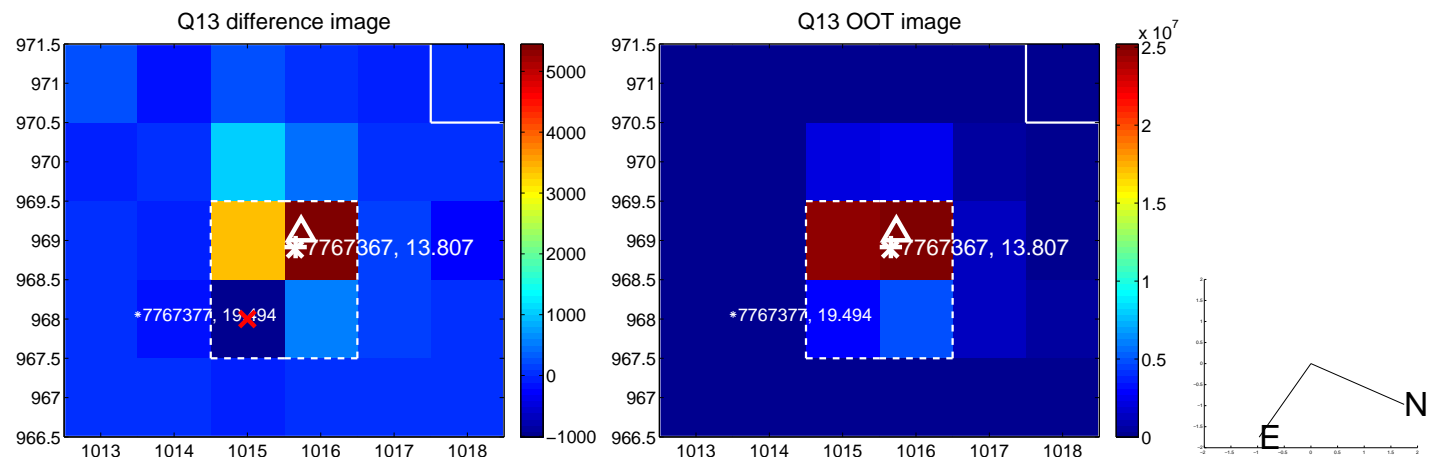
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



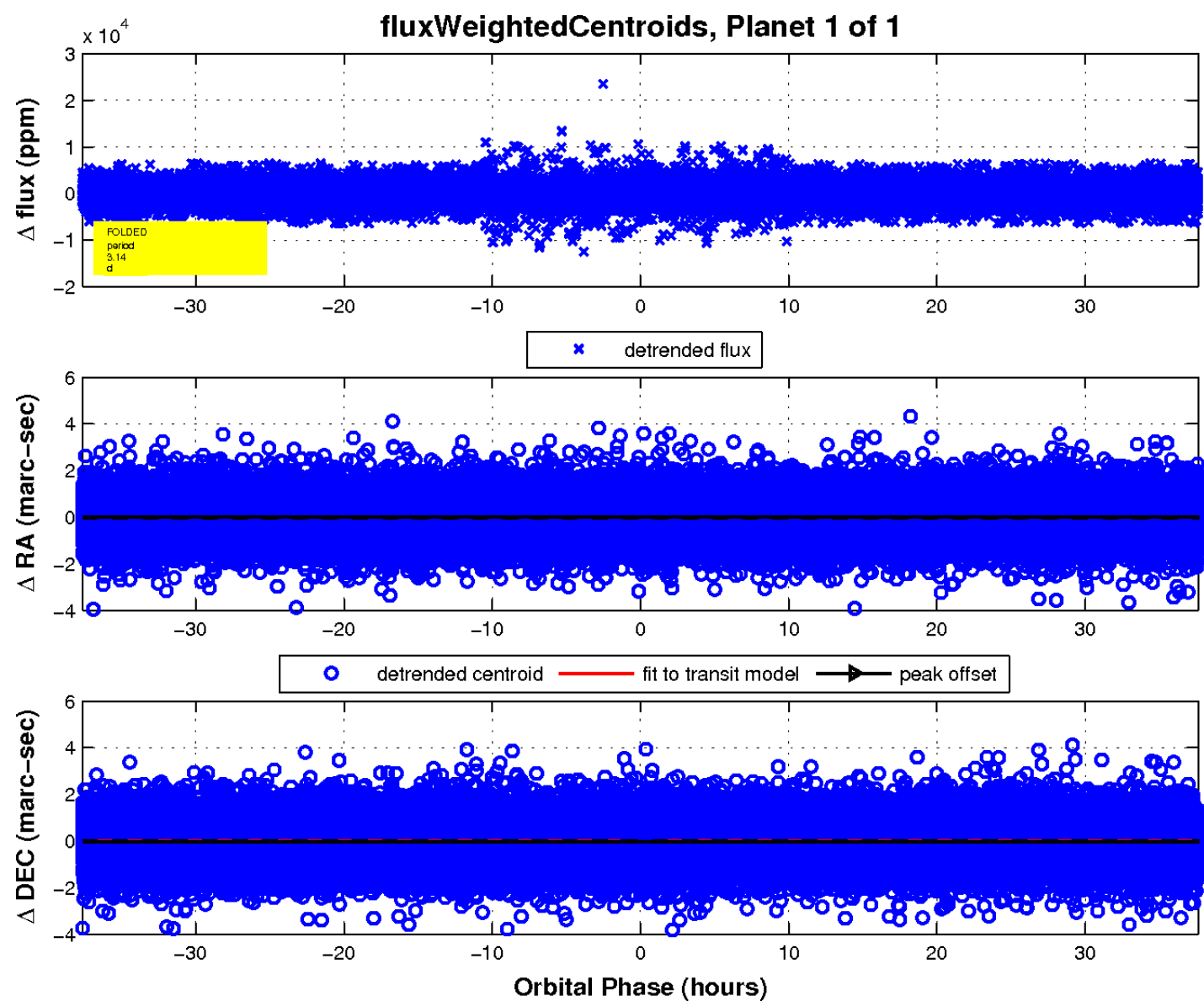
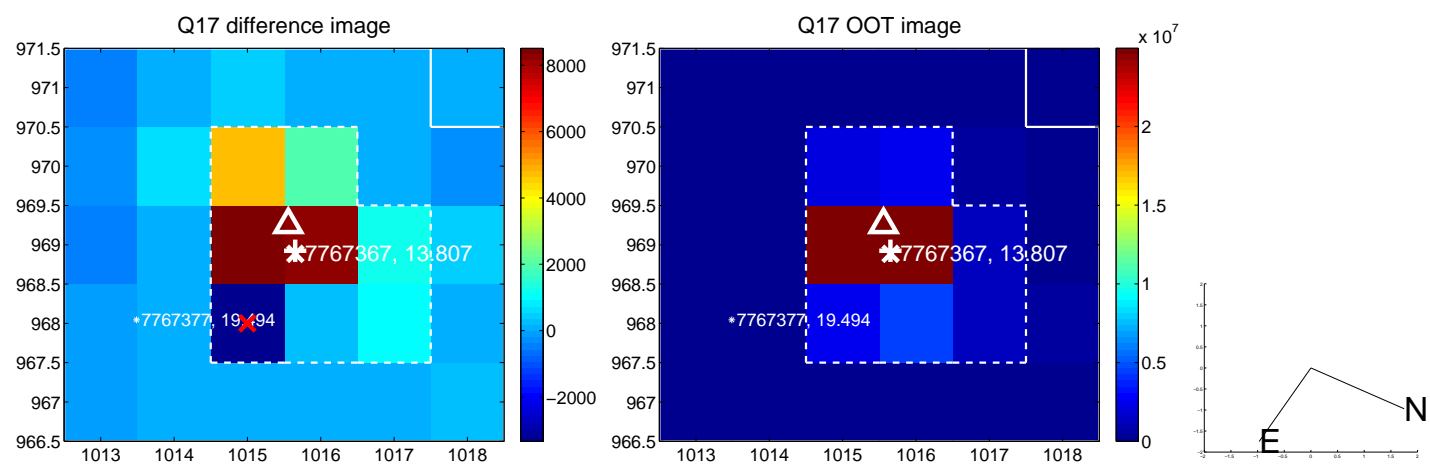
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UKIRT Image

Declination

