

KIC 007767426

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})
007767426-01	OBS	No	2.963929	133.481875	44.9	14.662	7.5	7.5	0.97	5553	0.65	498.69

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007767426-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_FEW_DIFFS

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

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

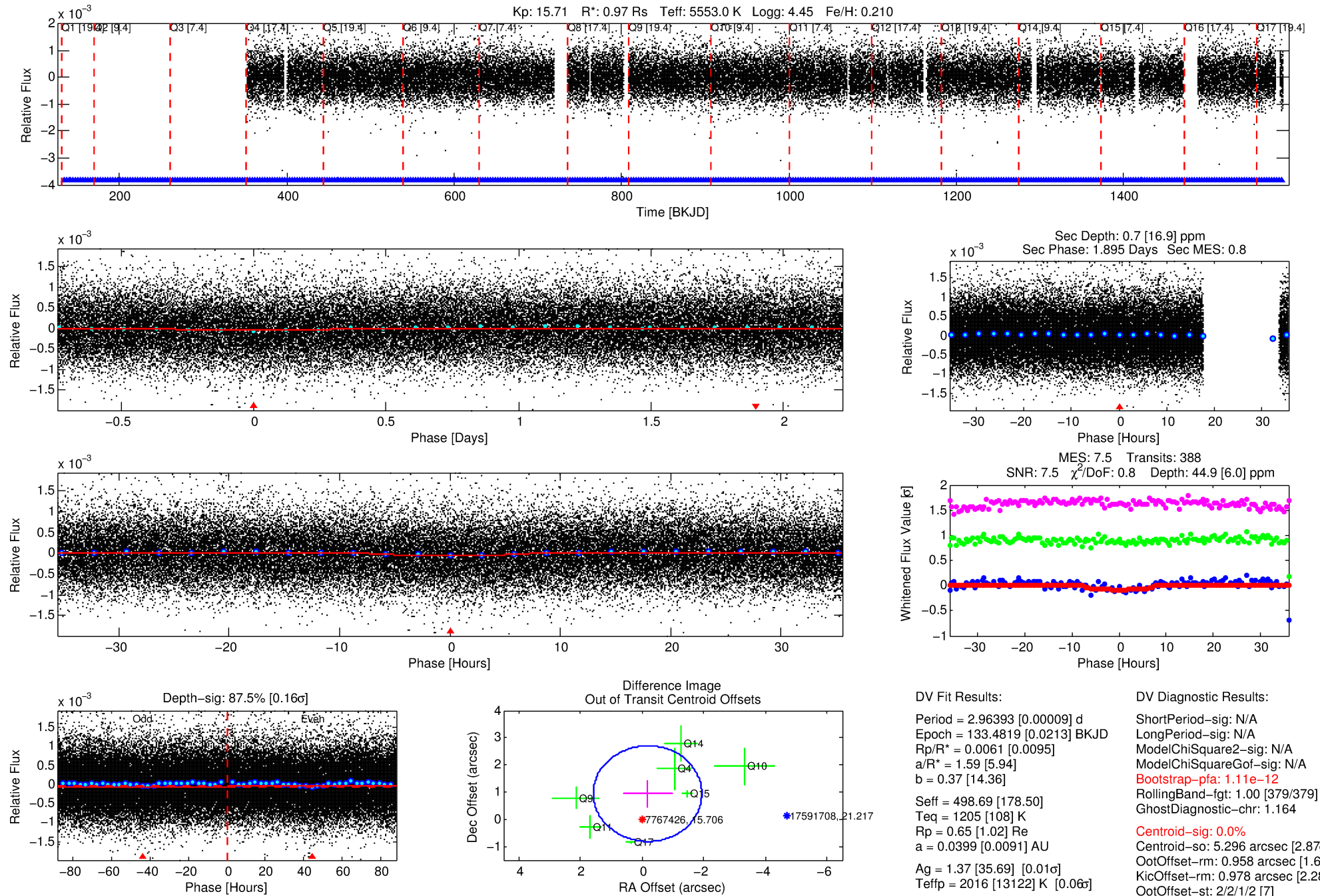
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007767426-01

No Significant Match Found

DV One-Page Summary

KIC: 7767426 Candidate: 1 of 1 Period: 2.964 d



DV Fit Results:

Period = 2.96393 [0.00009] d
Epoch = 133.4819 [0.0213] BKJD
Rp/R* = 0.0061 [0.0095]
a/R* = 1.59 [5.94]
b = 0.37 [14.36]
Seff = 498.69 [178.50]
Teff = 1205 [108] K
Rp = 0.65 [1.02] Re
a = 0.0399 [0.0091] AU
Ag = 1.37 [35.69] [0.01 σ]
Teffp = 2016 [13122] K [0.06 σ]

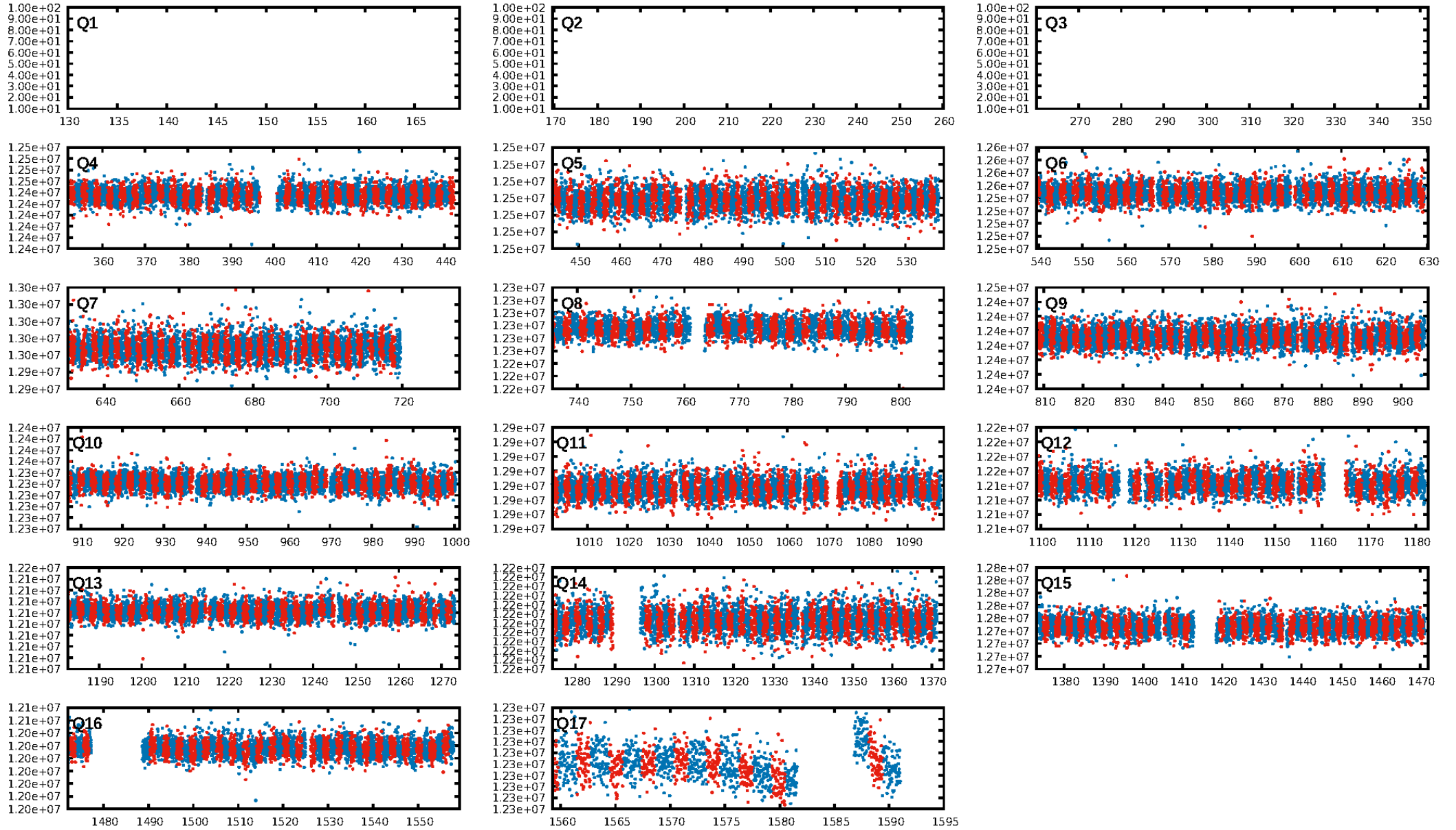
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.11e-12
RollingBand-fgt: 1.00 [379/379]
GhostDiagnostic-chr: 1.164
Centroid-sig: 0.0%
Centroid-so: 5.296 arcsec [2.87 σ]
OotOffset-rm: 0.958 arcsec [1.63 σ]
KicOffset-rm: 0.978 arcsec [2.28 σ]
OotOffset-st: 2/2/1/2 [7]
KicOffset-st: 2/2/1/2 [7]
DiffImageQuality-fgm: 0.57 [4/7]
DiffImageOverlap-fno: 1.00 [14/14]

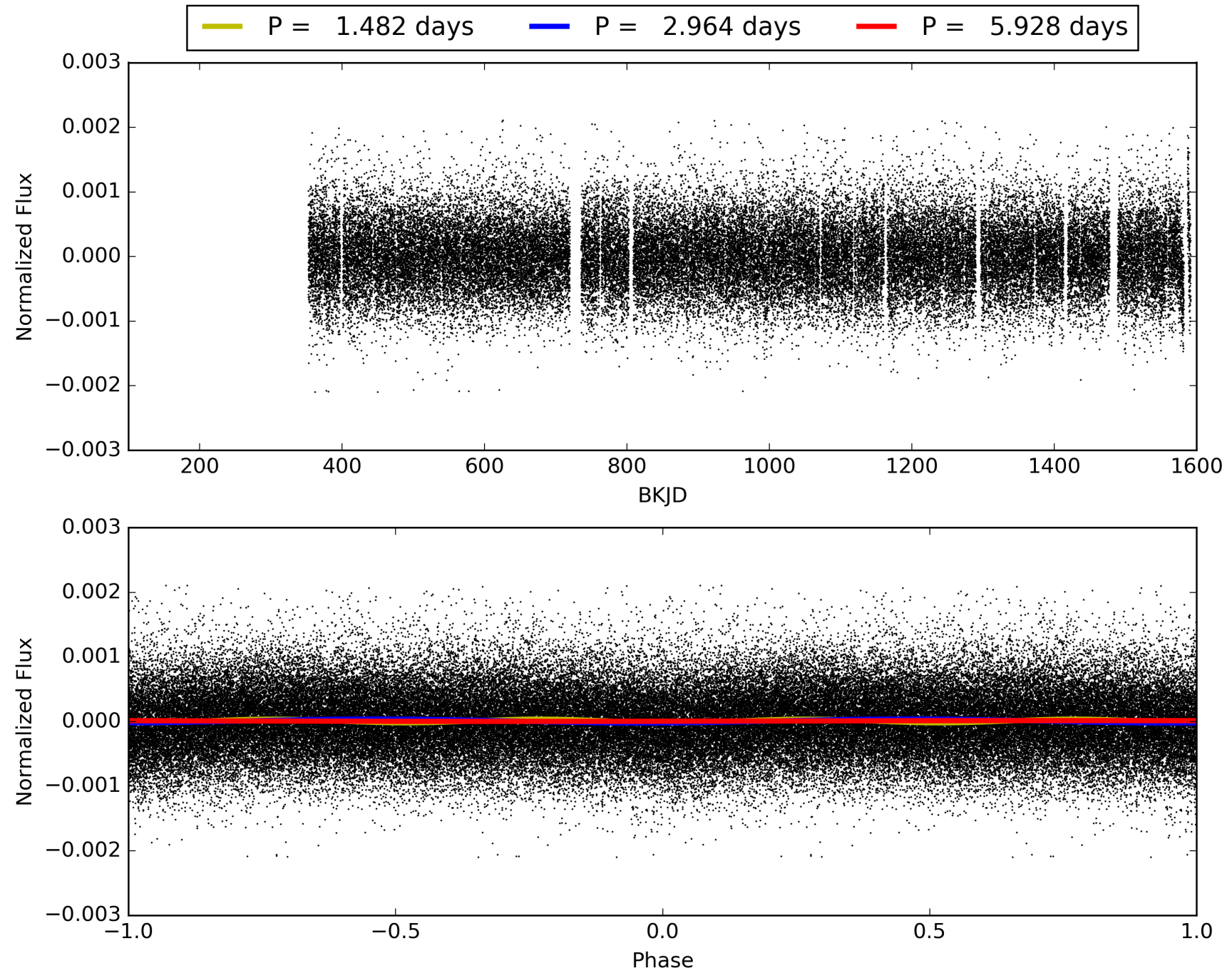
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 20:41:12 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 007767426-01, PDC Light Curves

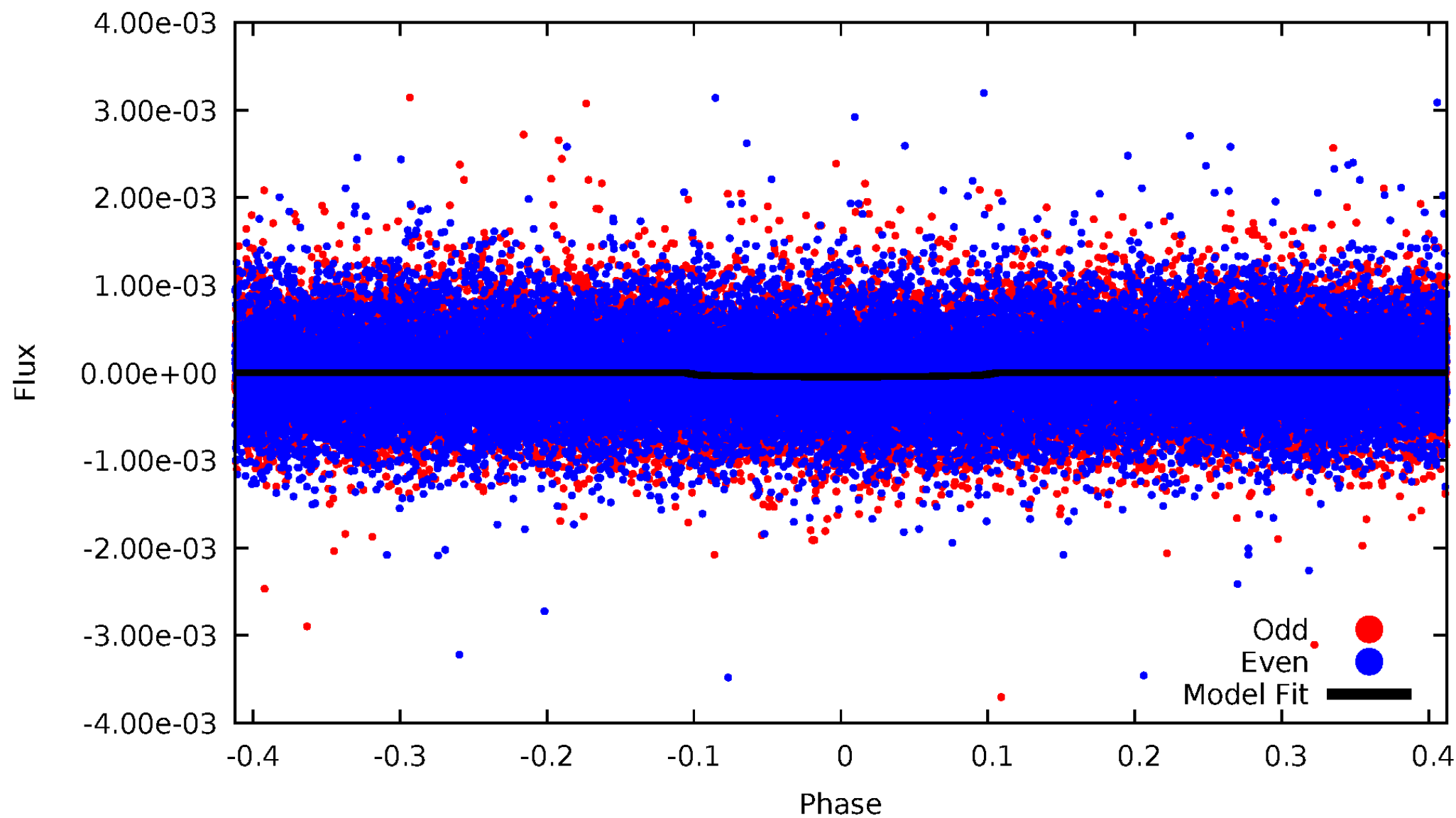


TCE 007767426-01



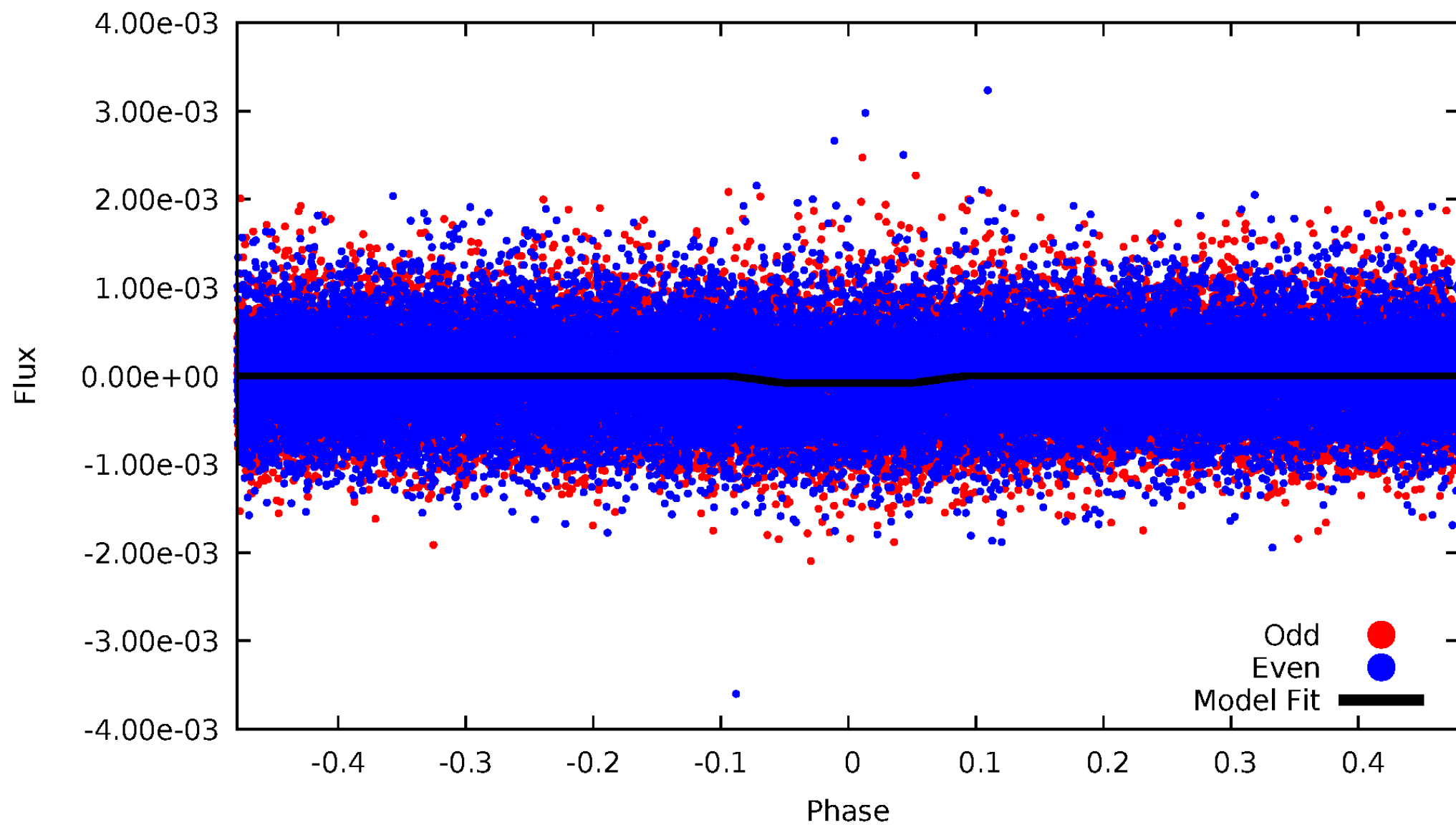
DV Odd/Even

TCE 007767426-01



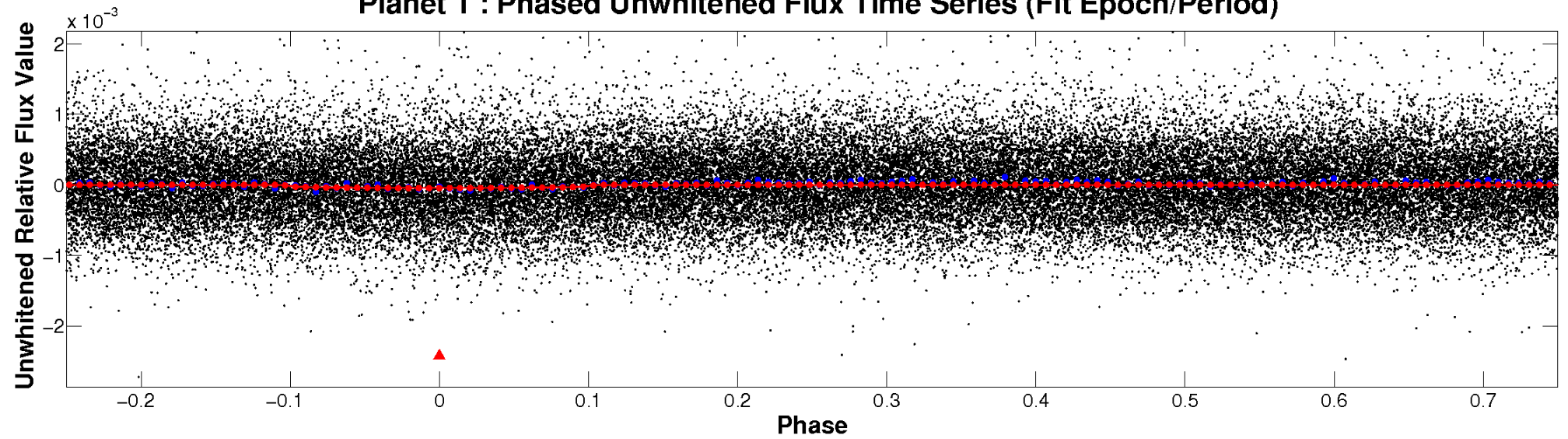
ALT Odd/Even

TCE 007767426-01

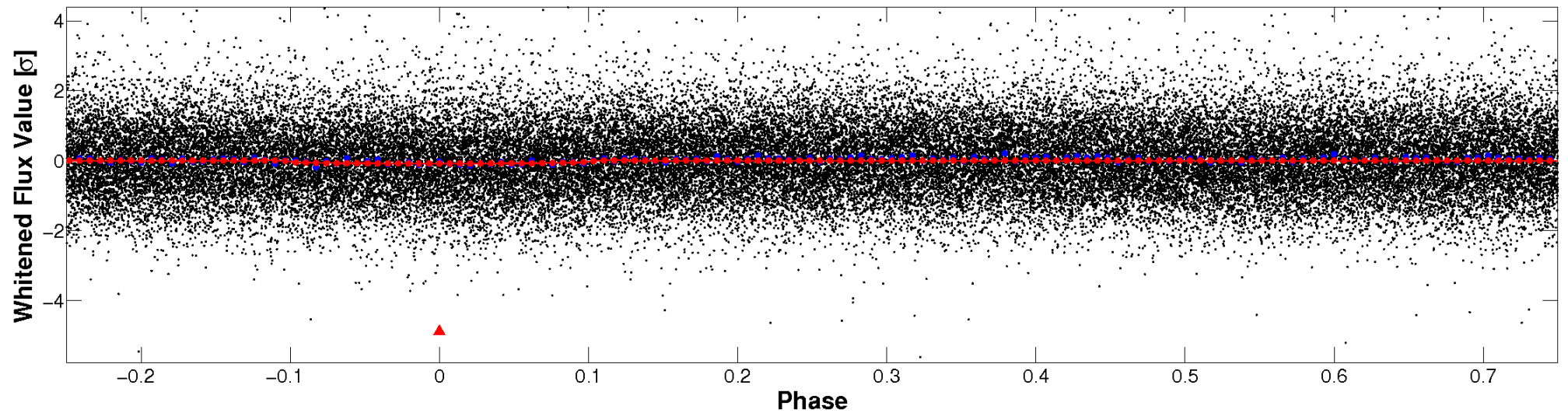


Non-Whitened Vs. Whitened Light Curve

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

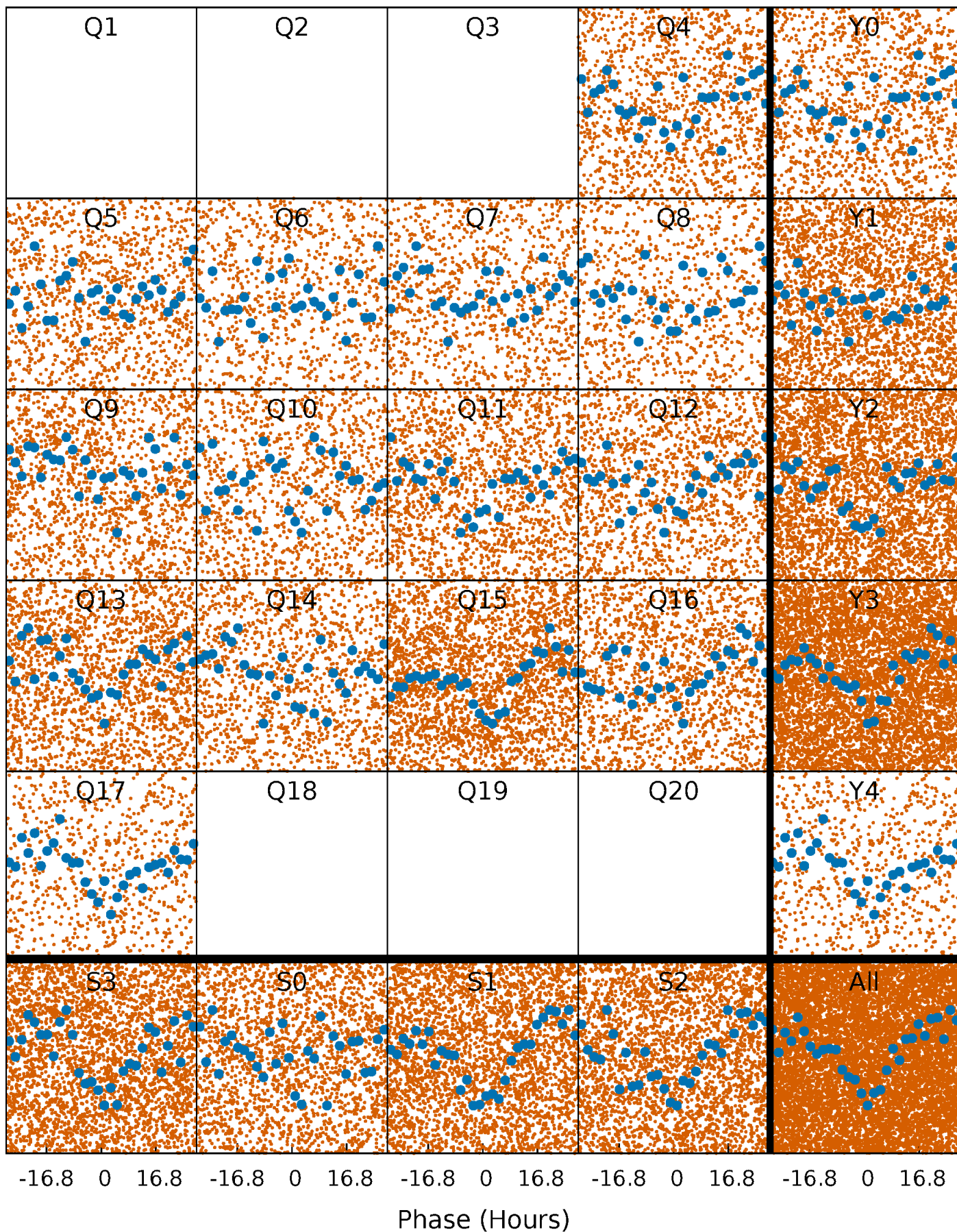


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



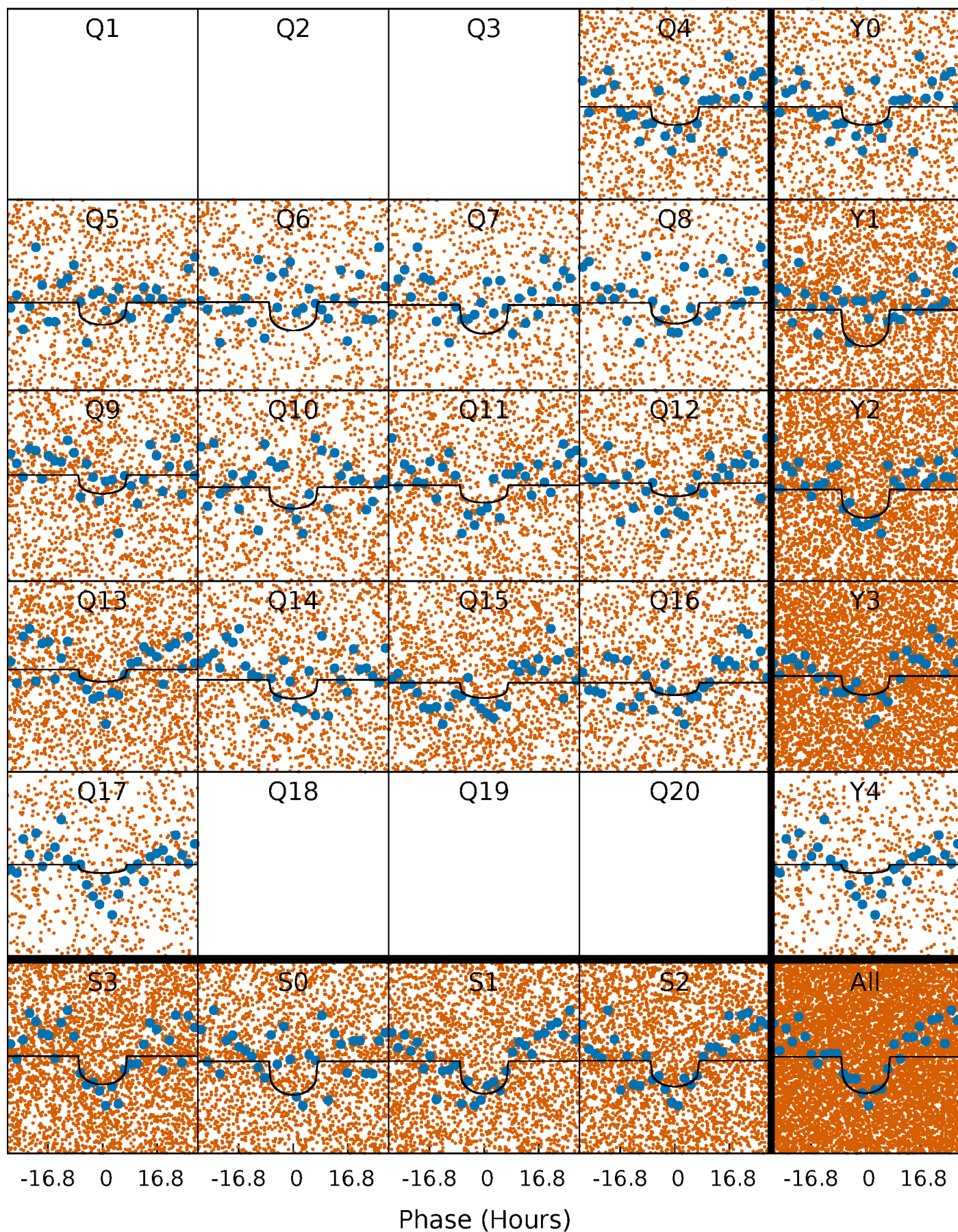
PDC Quarter-Phased Transit Curves

TCE 007767426-01 P= 2.963929 Days $T_0=133.481875$ (BKJD)



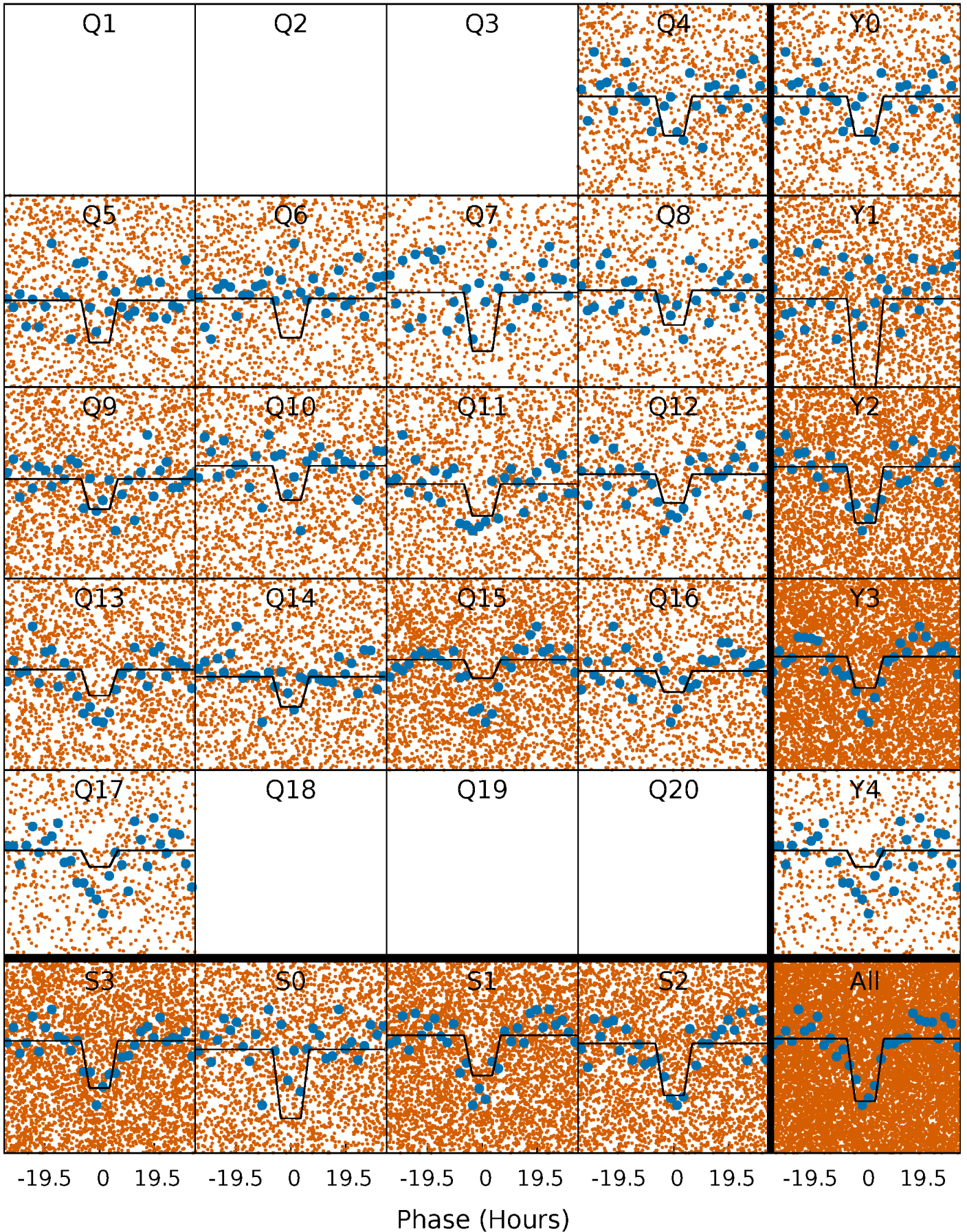
DV Quarter-Phased Transit Curves

TCE 007767426-01 P= 2.963929 Days $T_0=133.481875$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

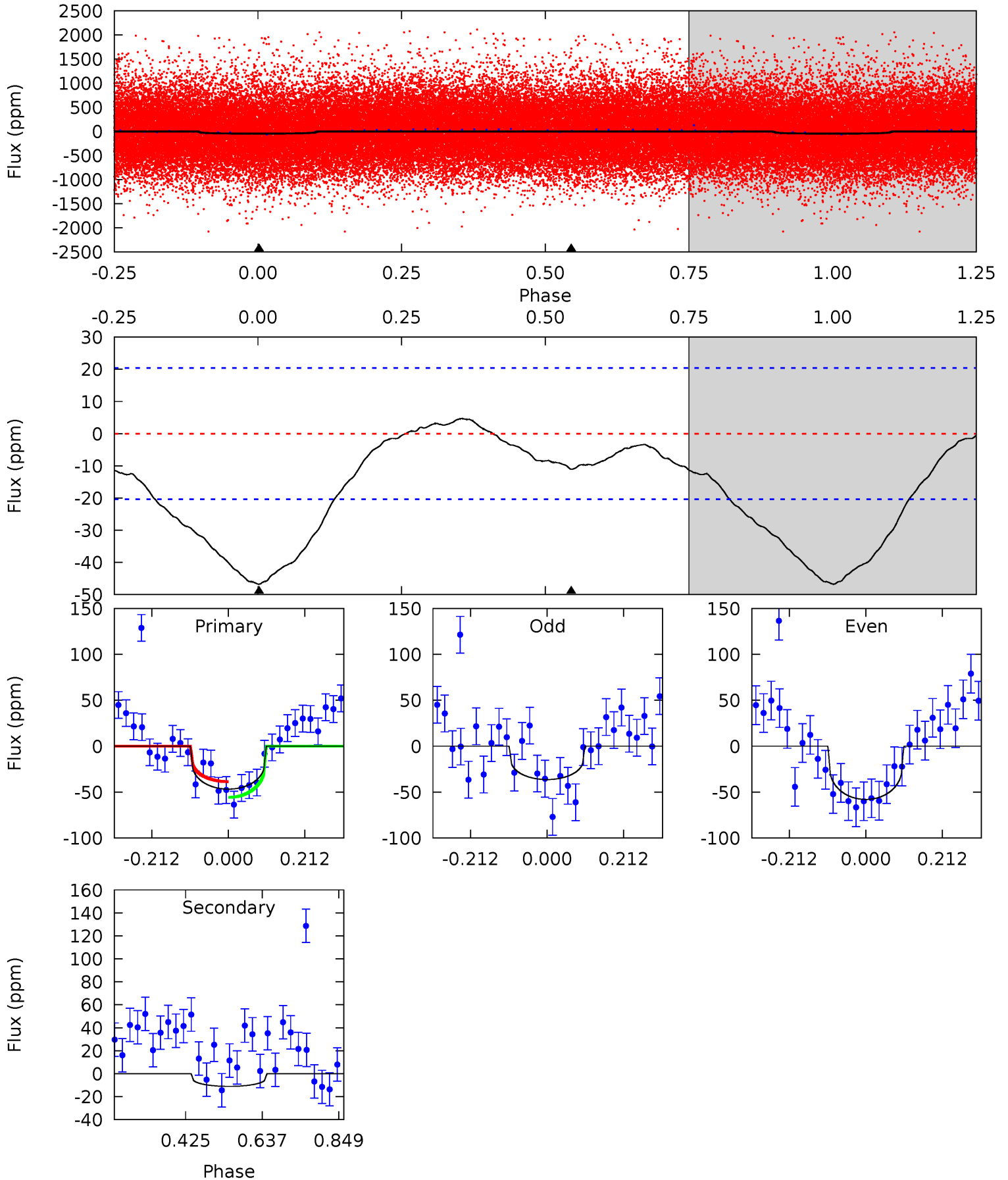
TCE 007767426-01 P= 2.964643 Days $T_0=133.258926$ (BKJD)



DV Model-Shift Uniqueness Test

007767426-01, P = 2.963929 Days, E = 133.481875 Days

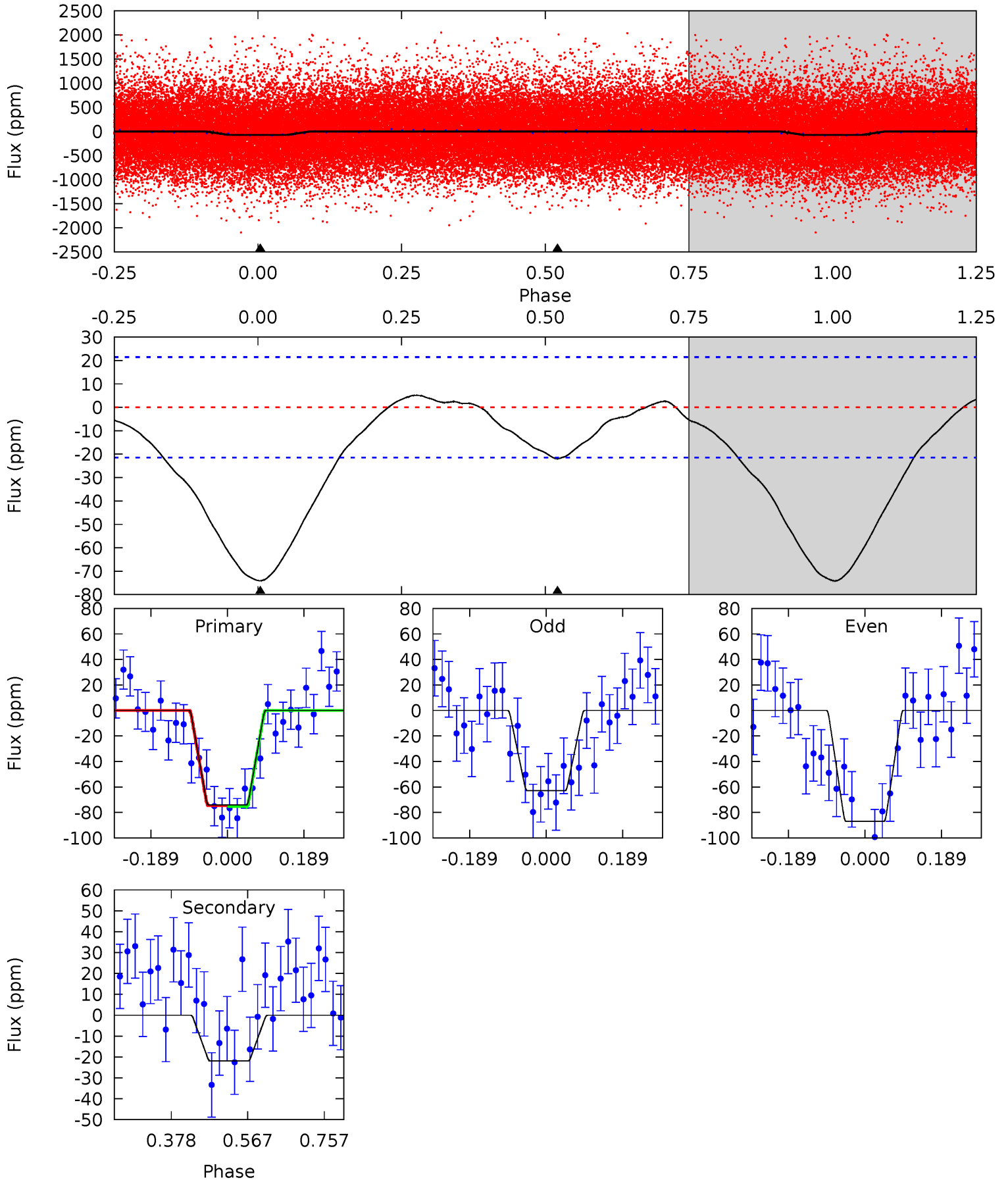
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.1	2.39	0	0	4.40	1.25	1.23	10.1	10.1	2.39	2.39	2.35	1.09	0.09	1.85



Alt Model-Shift Uniqueness Test

007767426-01, P = 2.964643 Days, E = 133.258926 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.3	4.53	0	0	4.43	1.31	1.19	15.3	15.3	4.53	4.53	2.49	0.94	0.07	0.08



Stellar Parameters For KIC 007767426

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5553^{+166}_{-183}	$4.453^{+0.078}_{-0.182}$	$0.210^{+0.200}_{-0.300}$	$0.966^{+0.262}_{-0.112}$	$0.967^{+0.094}_{-0.094}$	$1.510^{+0.502}_{-0.733}$
	+3%/-3%	+2%/-4%	+95%/-143%	+27%/-12%	+10%/-10%	+33%/-49%
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 007767426-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-11 ± 5	$1.05^{+0.83}_{-0.72}$	1704^{+122}_{-81}	3659^{+2152}_{-704}	$8.744^{+76.949}_{-6.396}$
Alt.	-22 ± 5	$1.16^{+0.97}_{-0.66}$	1707^{+108}_{-89}	3935^{+1583}_{-730}	14^{+64}_{-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 $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

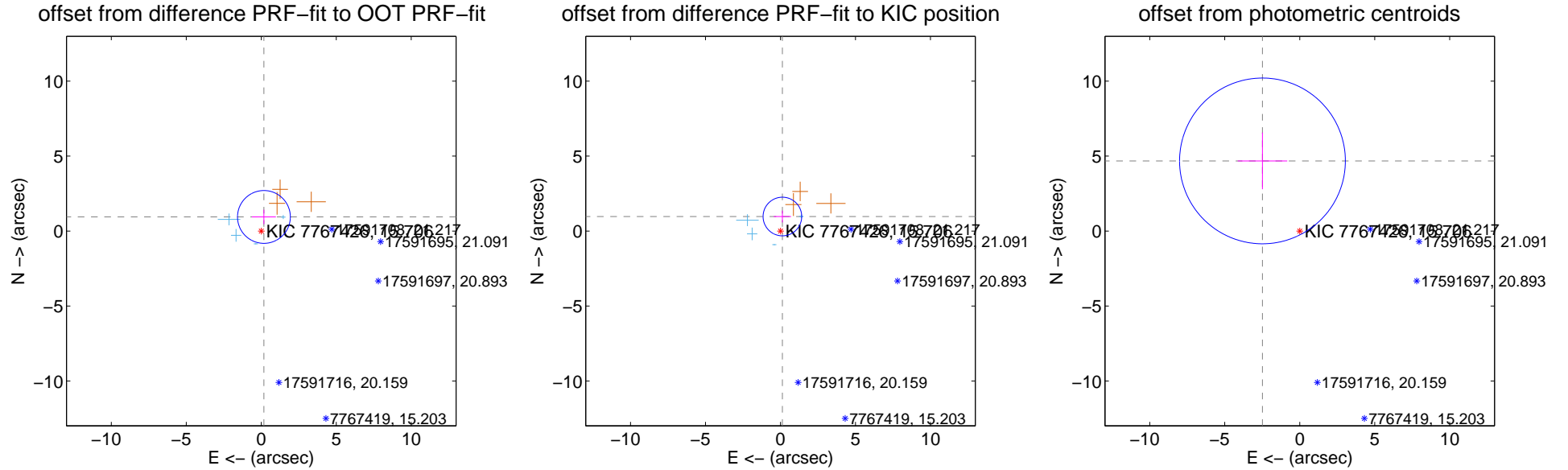
DV Centroid Data

Supplemental centroid analysis for 007767426-01. Kepler magnitude: 15.71. Transit SNR 7.49

There are 4 quarters with good PRF difference image offsets

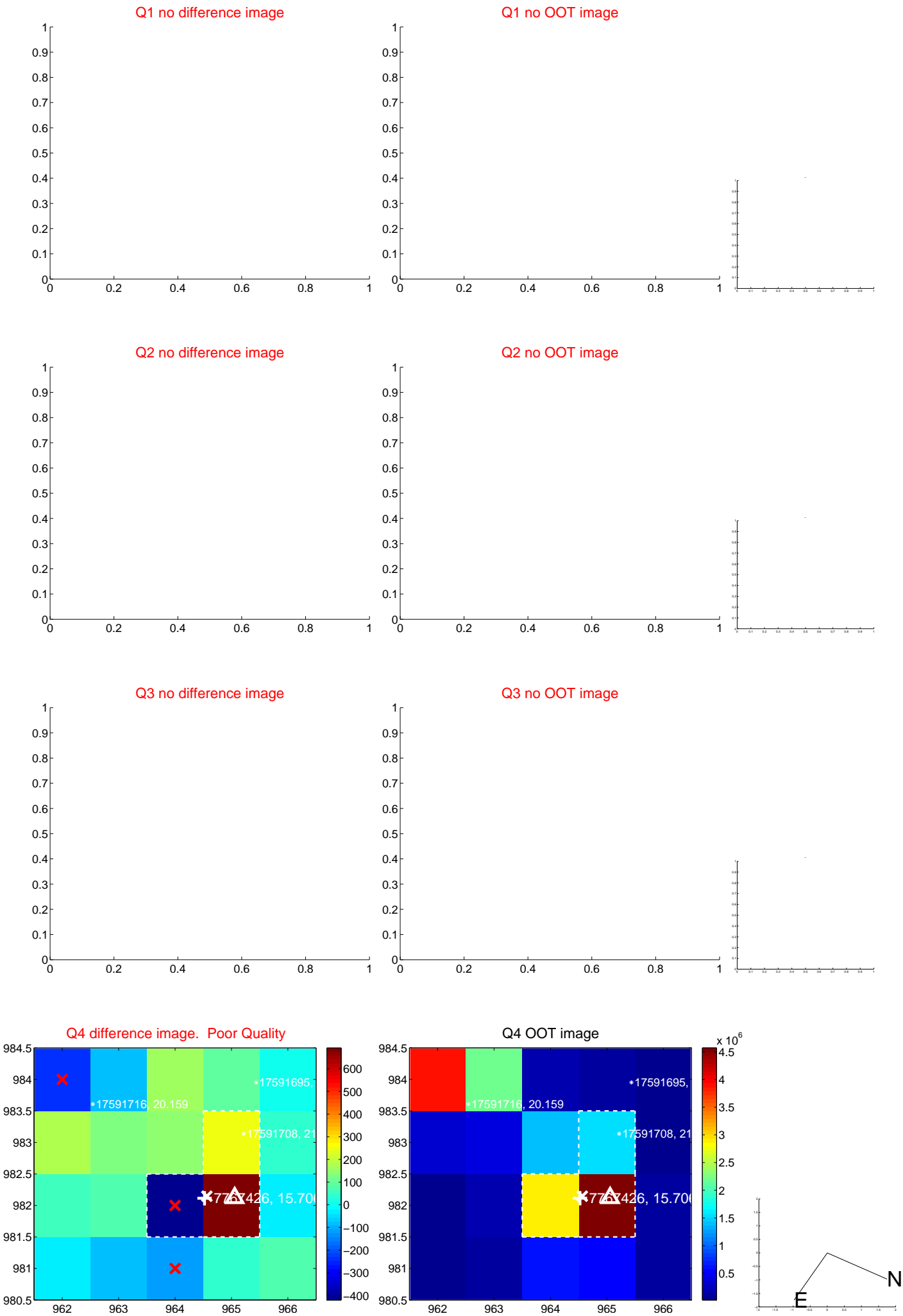
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.958 ± 0.587	1.63	-0.178 ± 0.794	0.941 ± 0.481
PRF-fit source offset from KIC position	0.978 ± 0.429	2.28	-0.127 ± 0.574	0.970 ± 0.394
photometric centroid source offset	5.30 ± 1.84	2.87	2.48 ± 1.65	4.68 ± 1.89

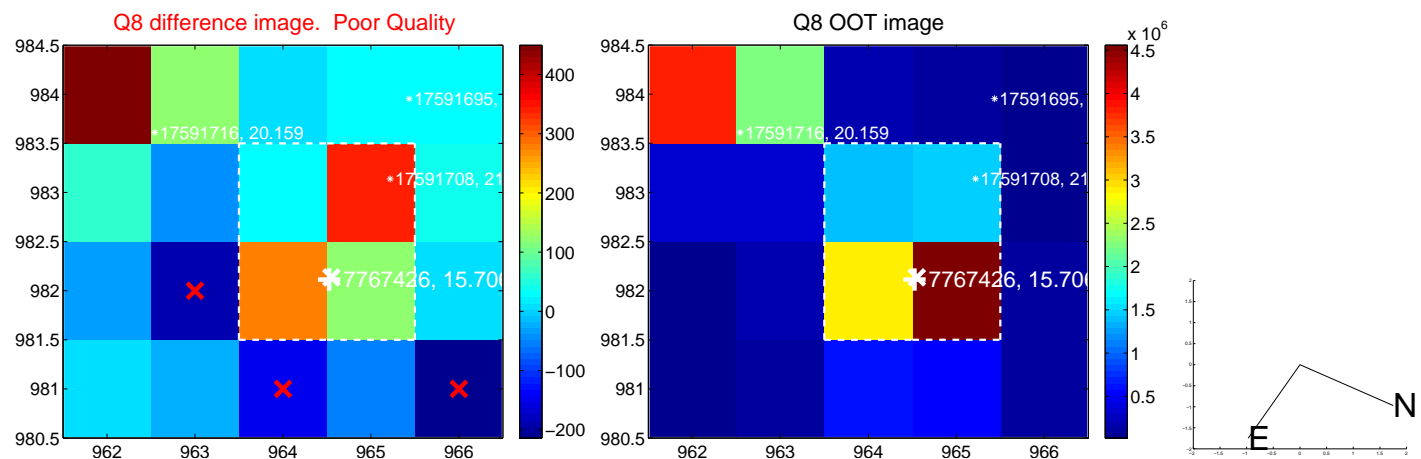
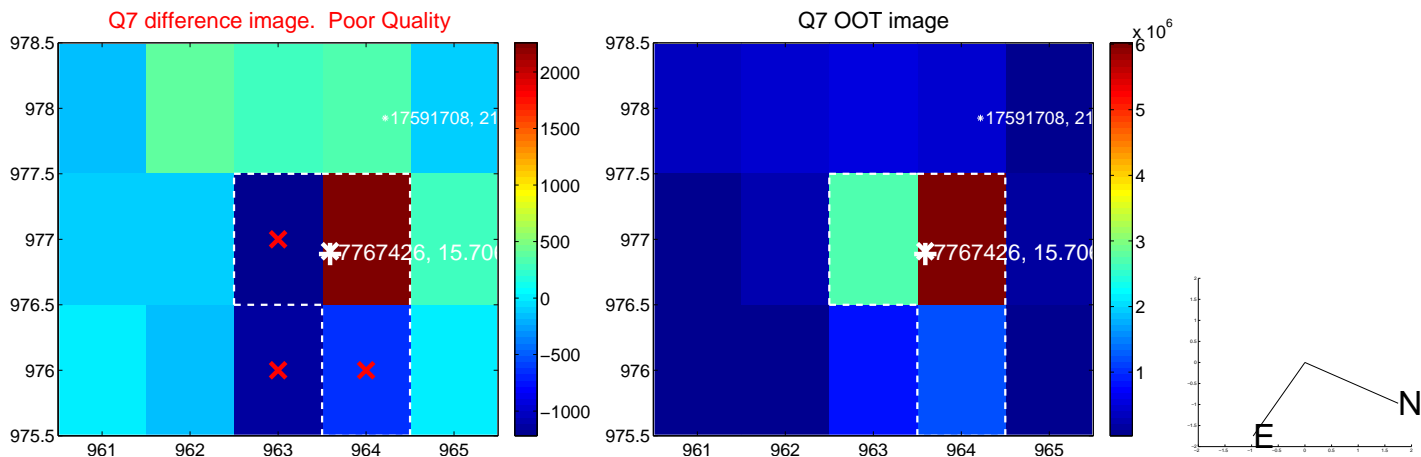
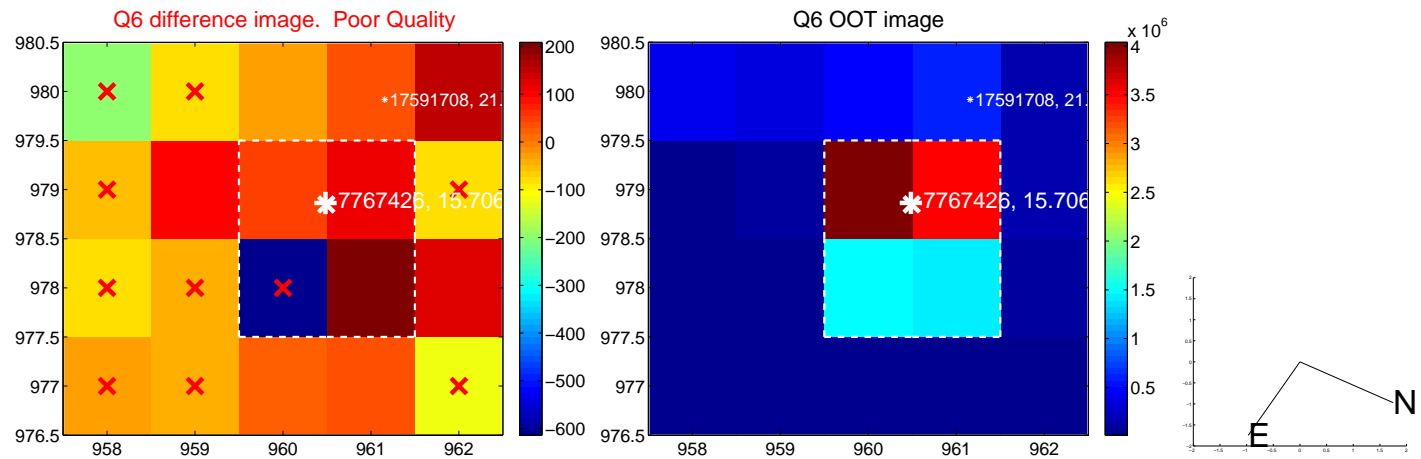
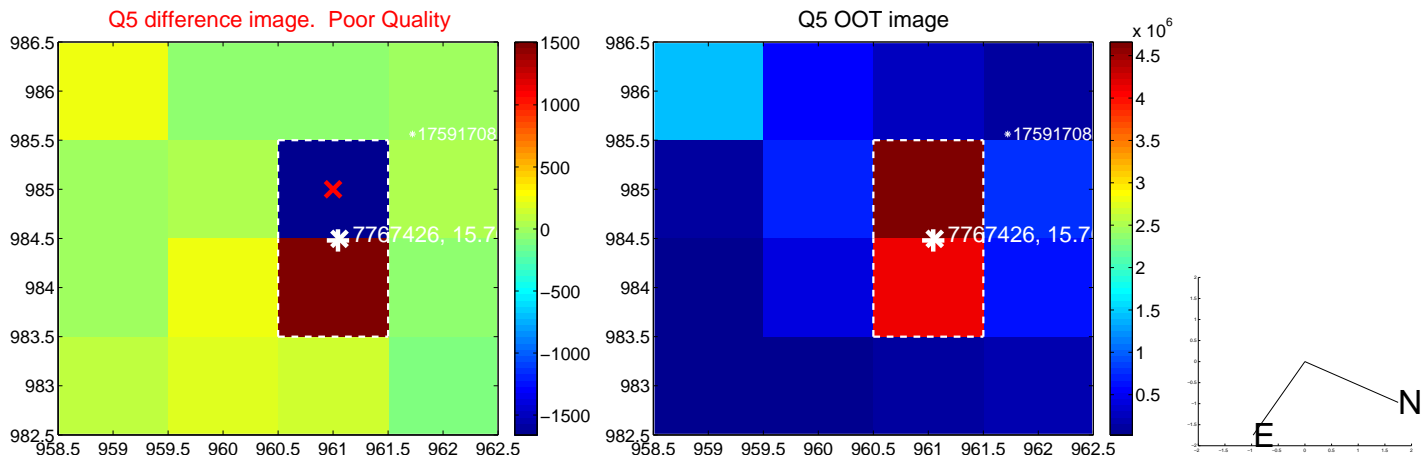


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

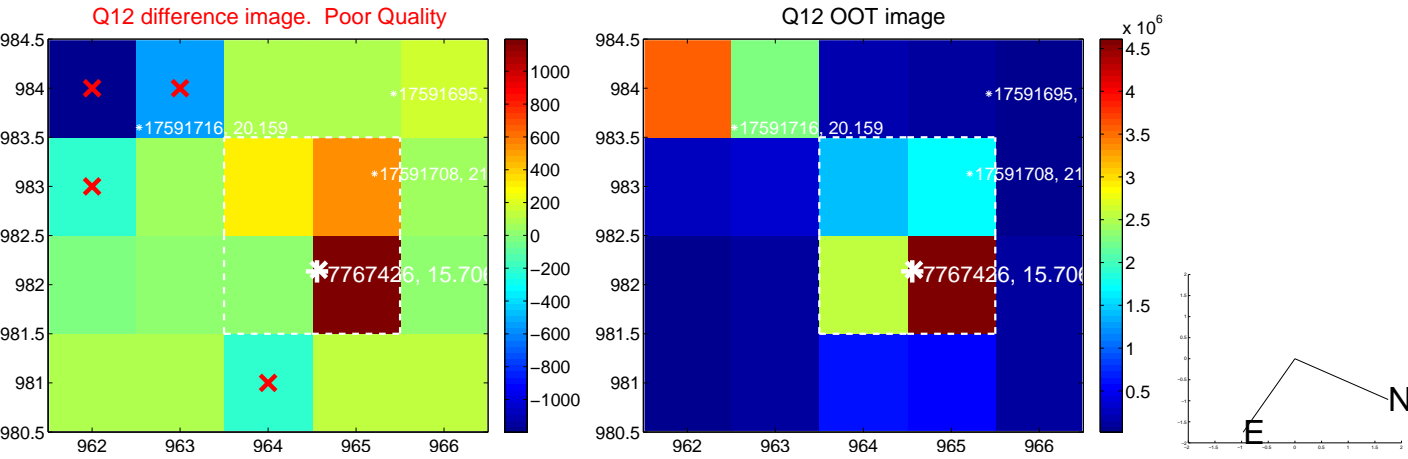
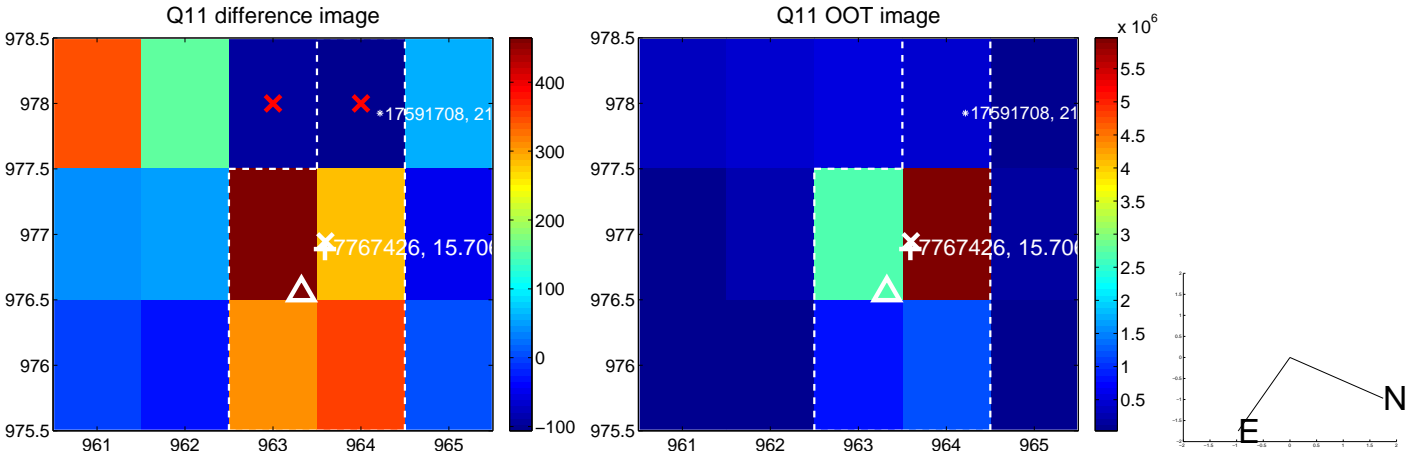
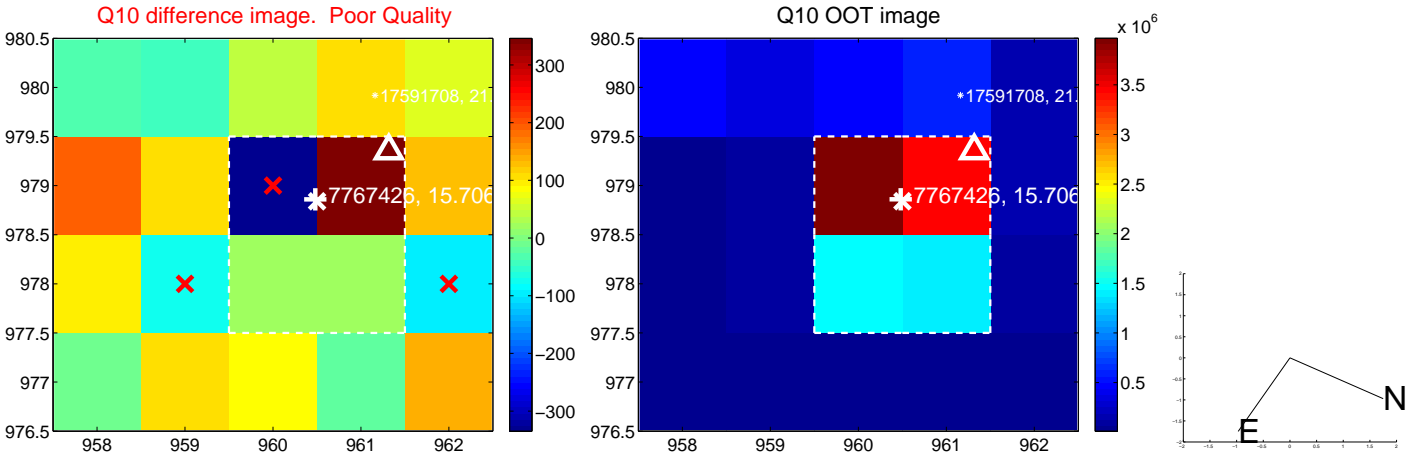
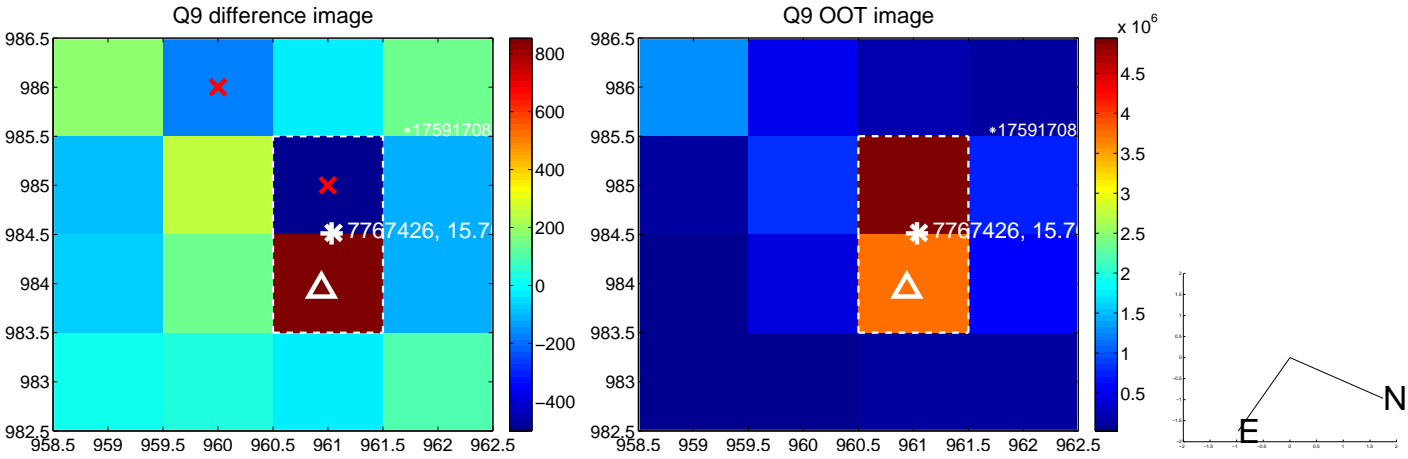
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



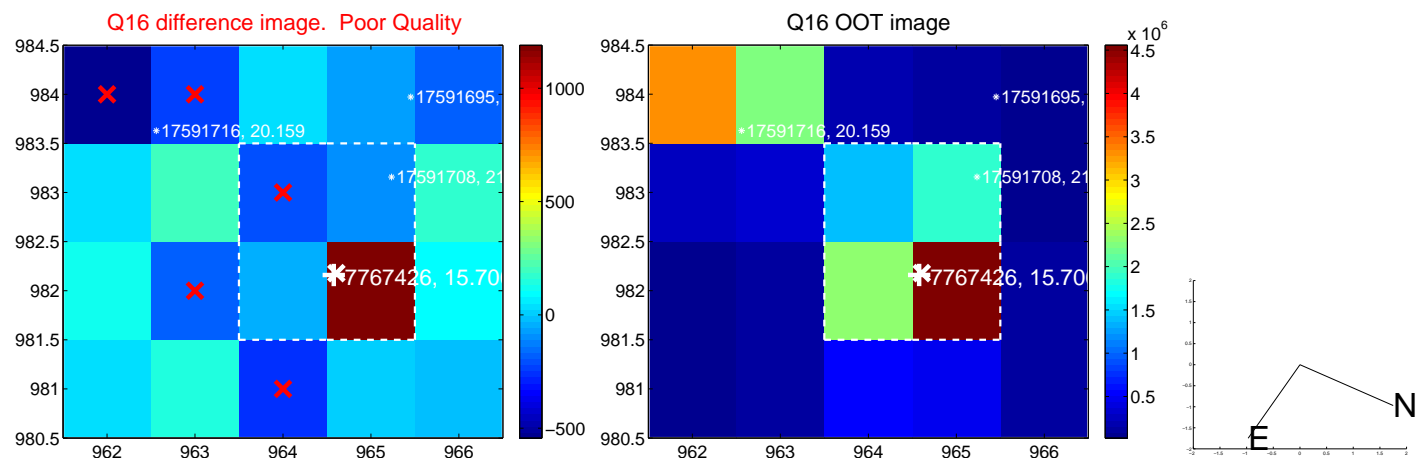
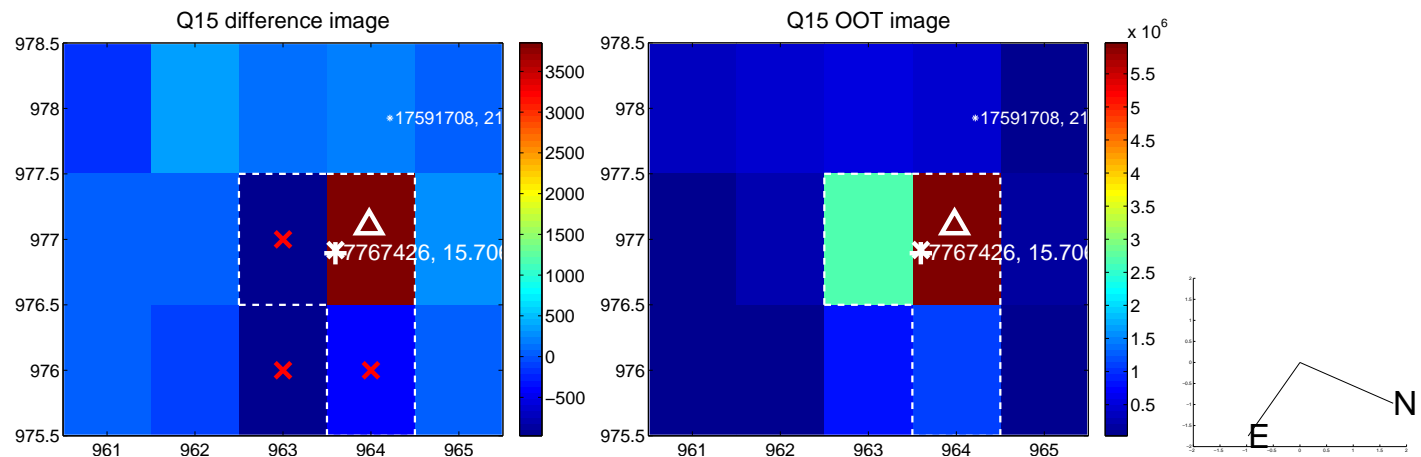
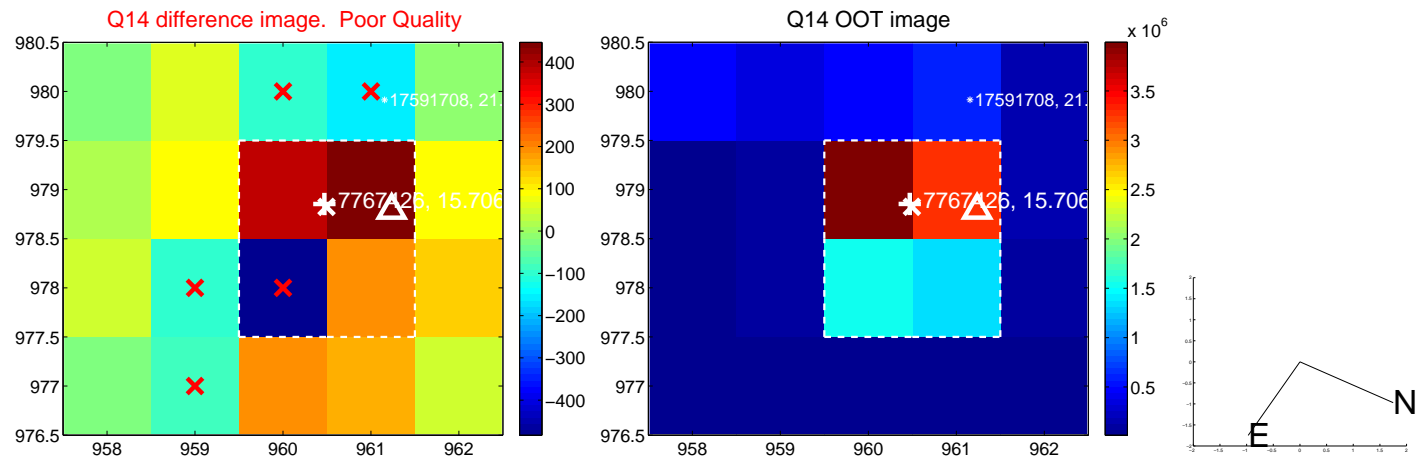
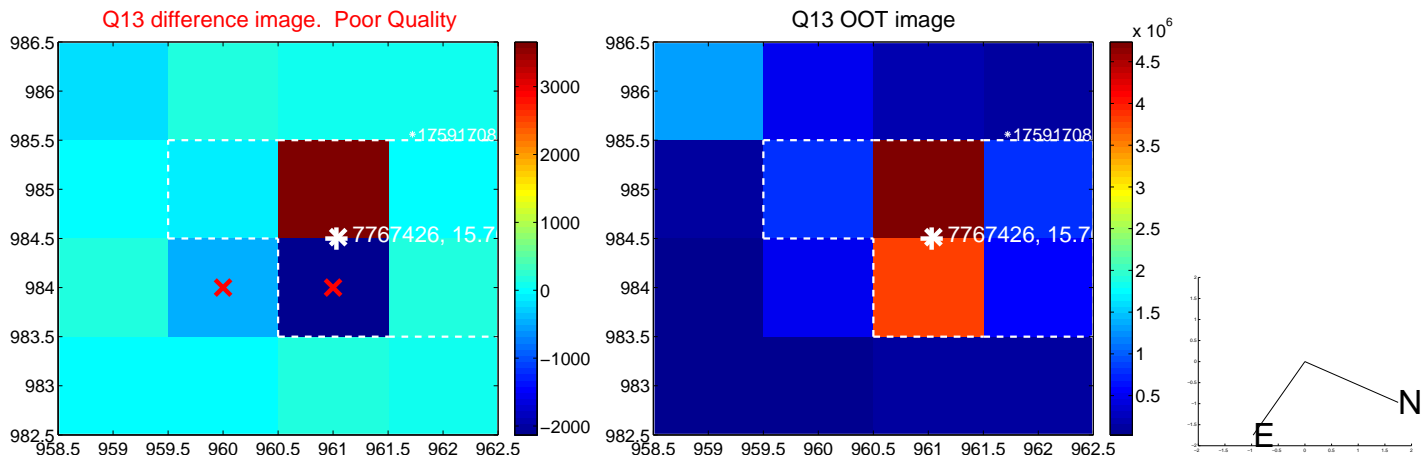
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



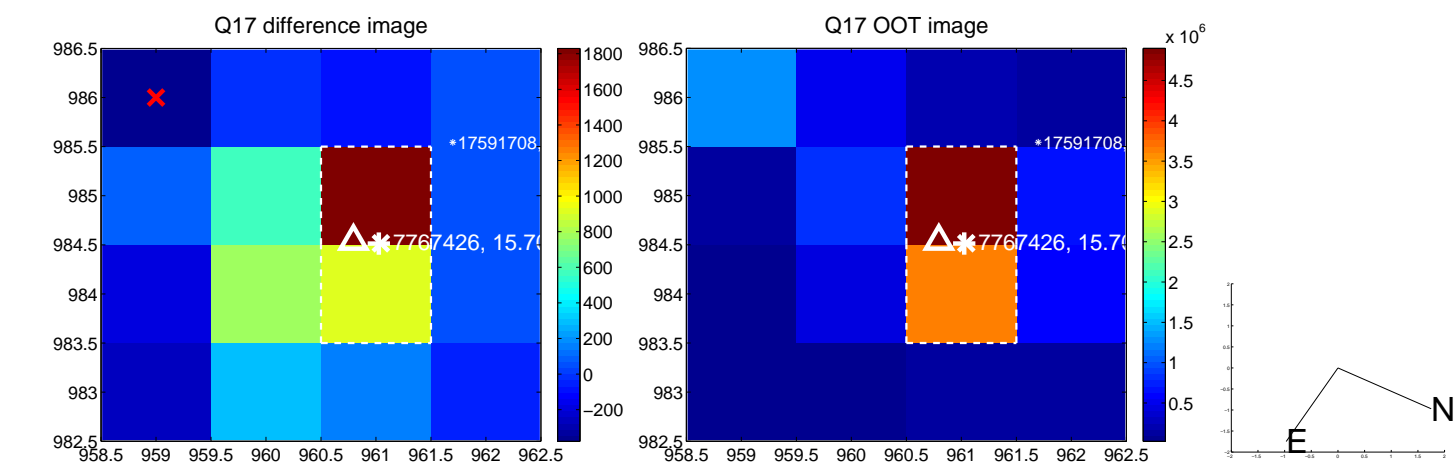
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



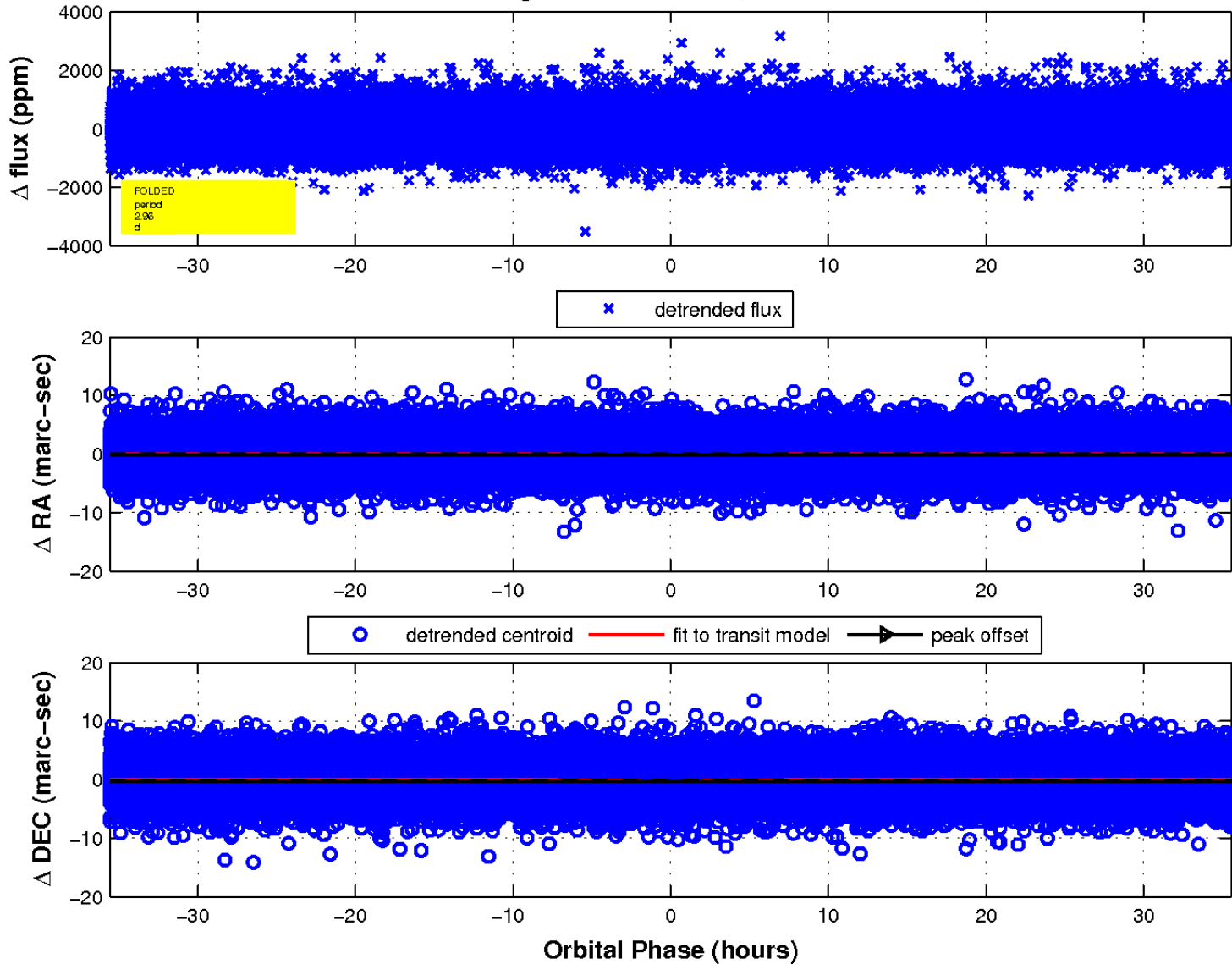
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

