

KIC 007773041

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})
007773041-01	OBS	No	0.929678	132.142388	12.0	2.646	8.6	3.1	2.97	6043	1.15	25001.49

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007773041-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT

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

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

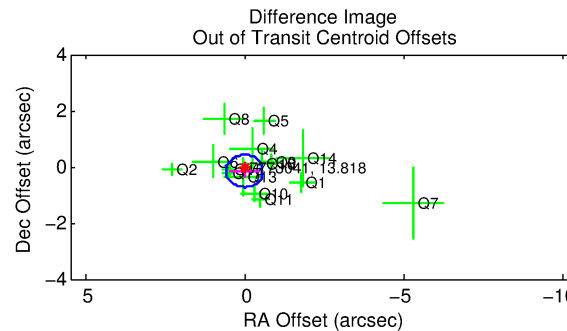
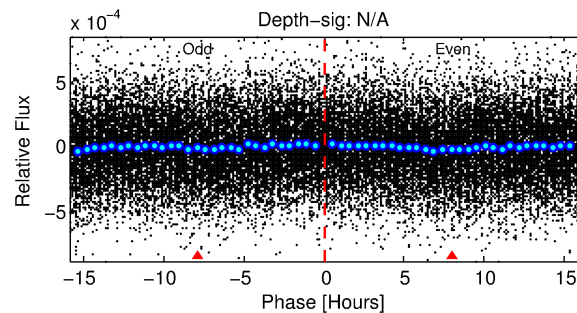
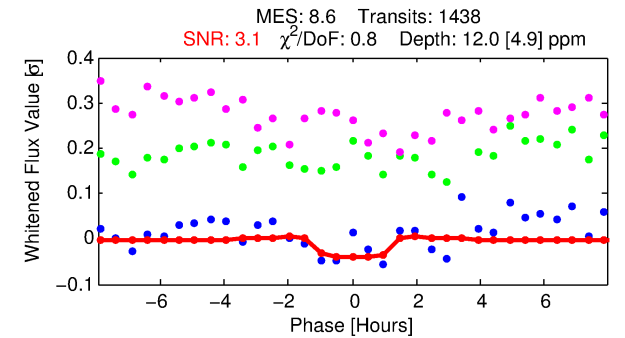
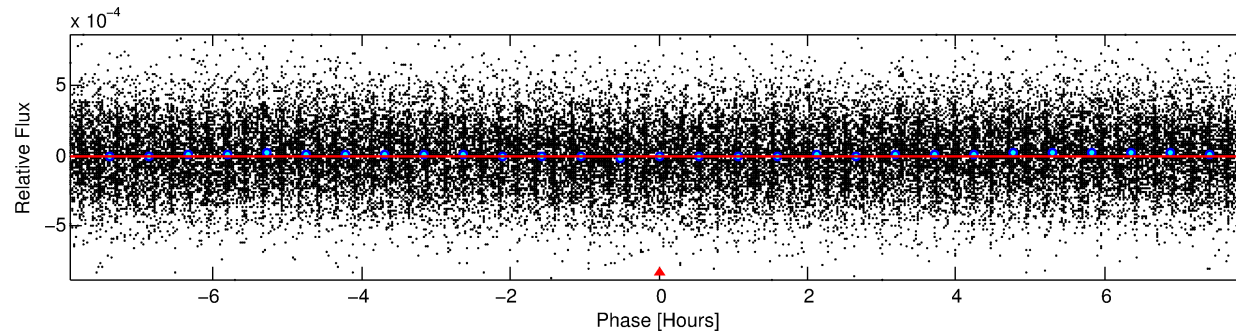
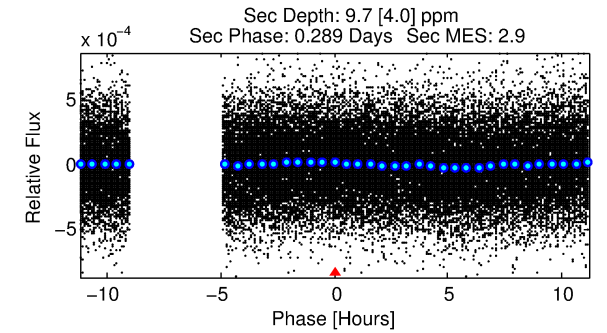
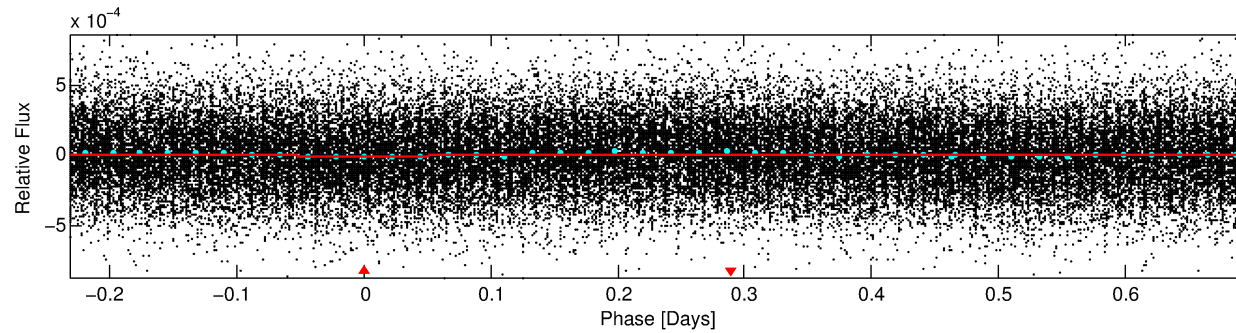
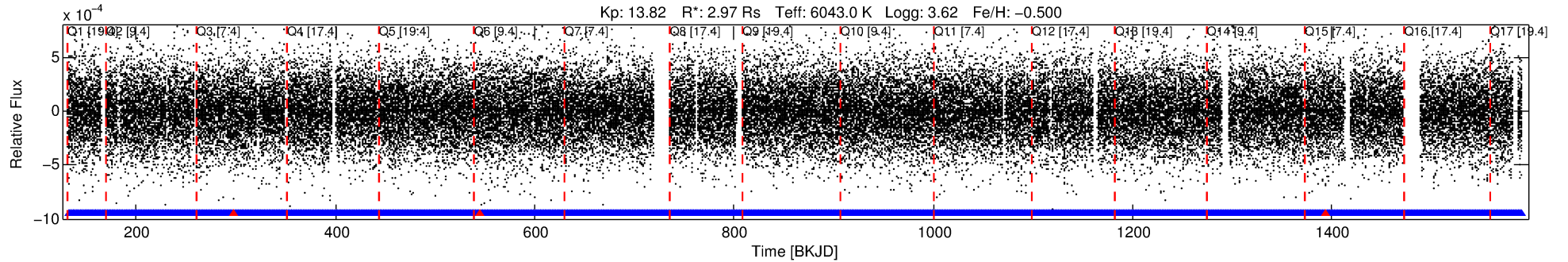
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007773041-01

No Significant Match Found

DV One-Page Summary

KIC: 7773041 Candidate: 1 of 1 Period: 0.930 d



DV Fit Results:

Period = 0.92968 [0.00003] d
Epoch = 132.1424 [0.0085] BKJD
Rp/R* = 0.0036 [0.0015]
a/R* = 1.76 [2.43]
b = 0.83 [0.77]
Seff = 25001.49 [30183.61]
Teff = 3206 [968] K
Rp = 1.15 [0.88] Re
a = 0.0205 [0.0144] AU
Ag = 1.70 [2.61] [0.27σ]
Teffp = 5660 [1369] K [1.46σ]

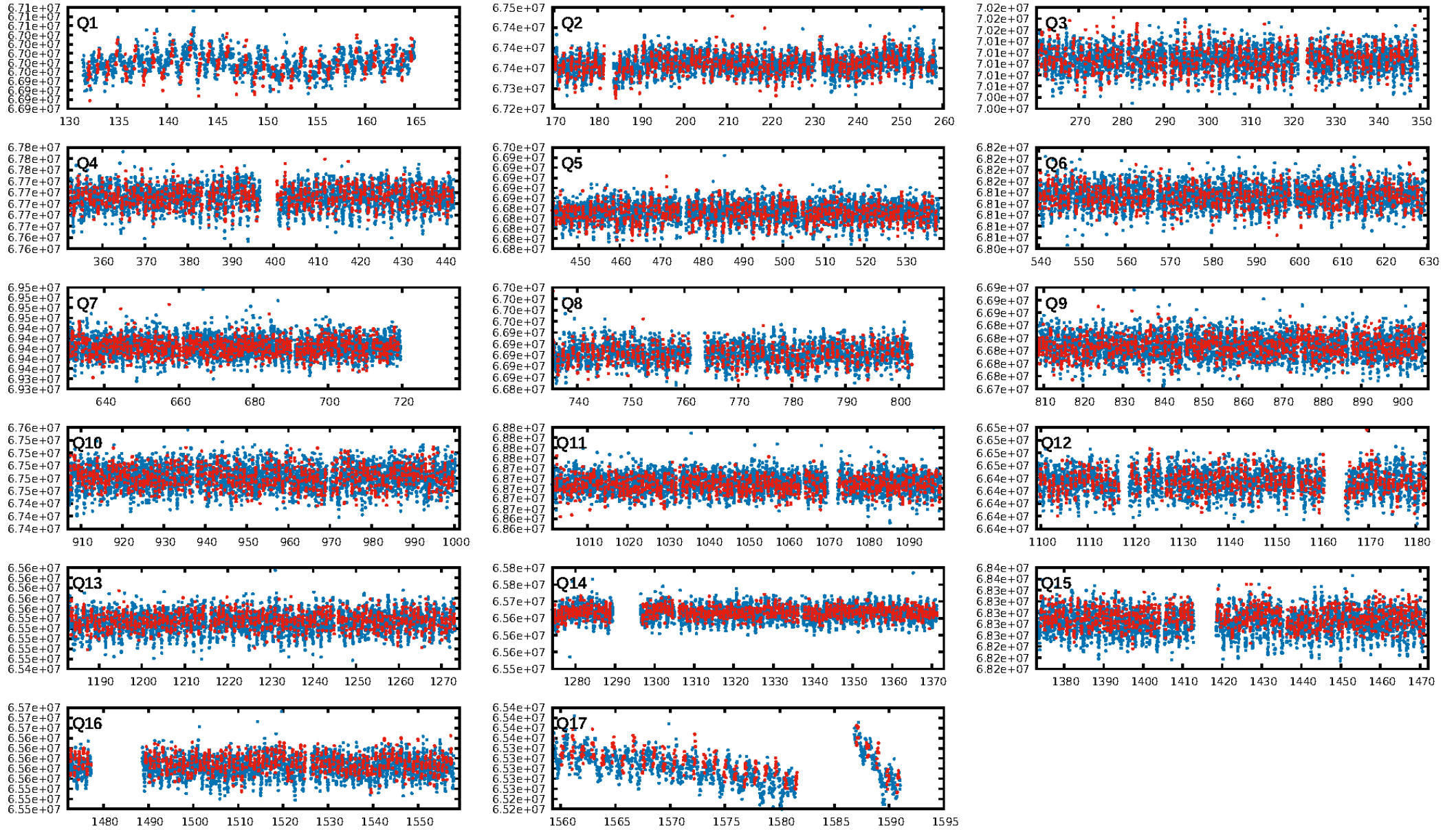
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGoF-sig: N/A
Bootstrap-pfa: 5.17e-15
RollingBand-fgt: 1.00 [1369/1372]
GhostDiagnostic-chr: 1.81
Centroid-sig: 36.0%
Centroid-so: 2.379 arcsec [1.03σ]
OotOffset-rm: 0.157 arcsec [0.81σ]
OotOffset-st: 4/3/3/5 [15]
KicOffset-rm: 0.189 arcsec [0.97σ]
KicOffset-st: 4/3/3/5 [15]
DiffImageQuality-fgm: 0.40 [6/15]
DiffImageOverlap-fno: 1.00 [17/17]

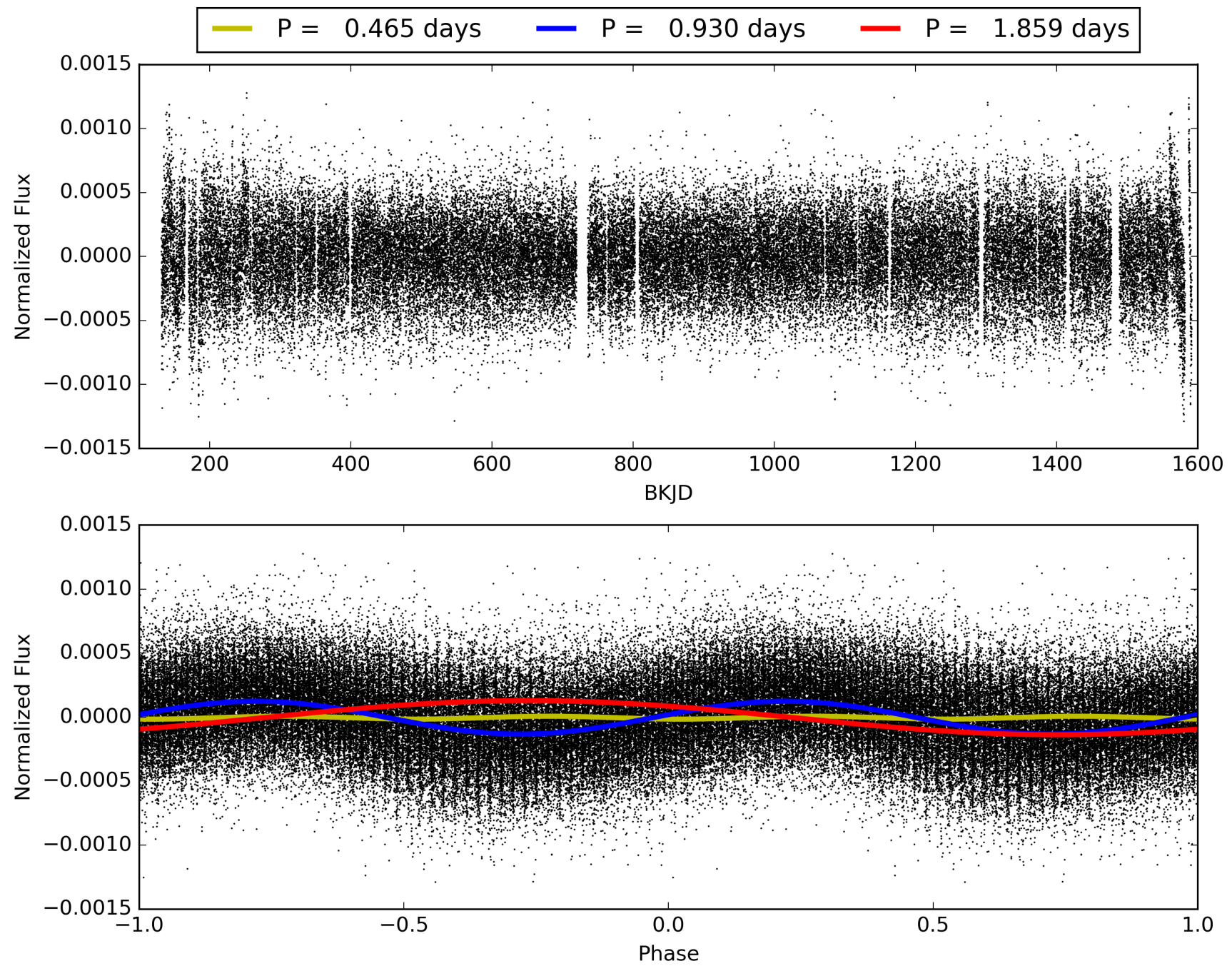
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 00:48:48 Z

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

TCE 007773041-01, PDC Light Curves

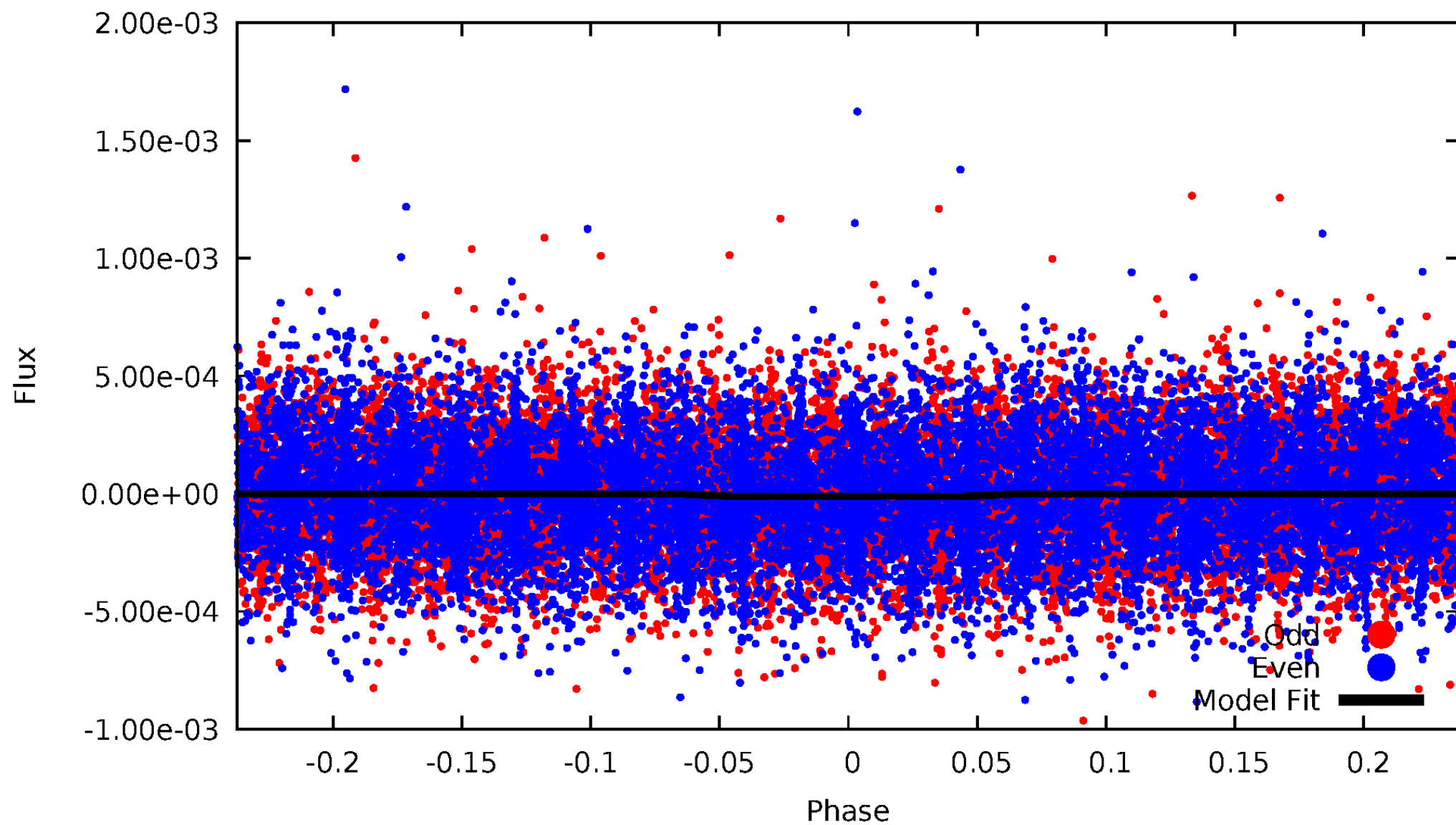


TCE 007773041-01



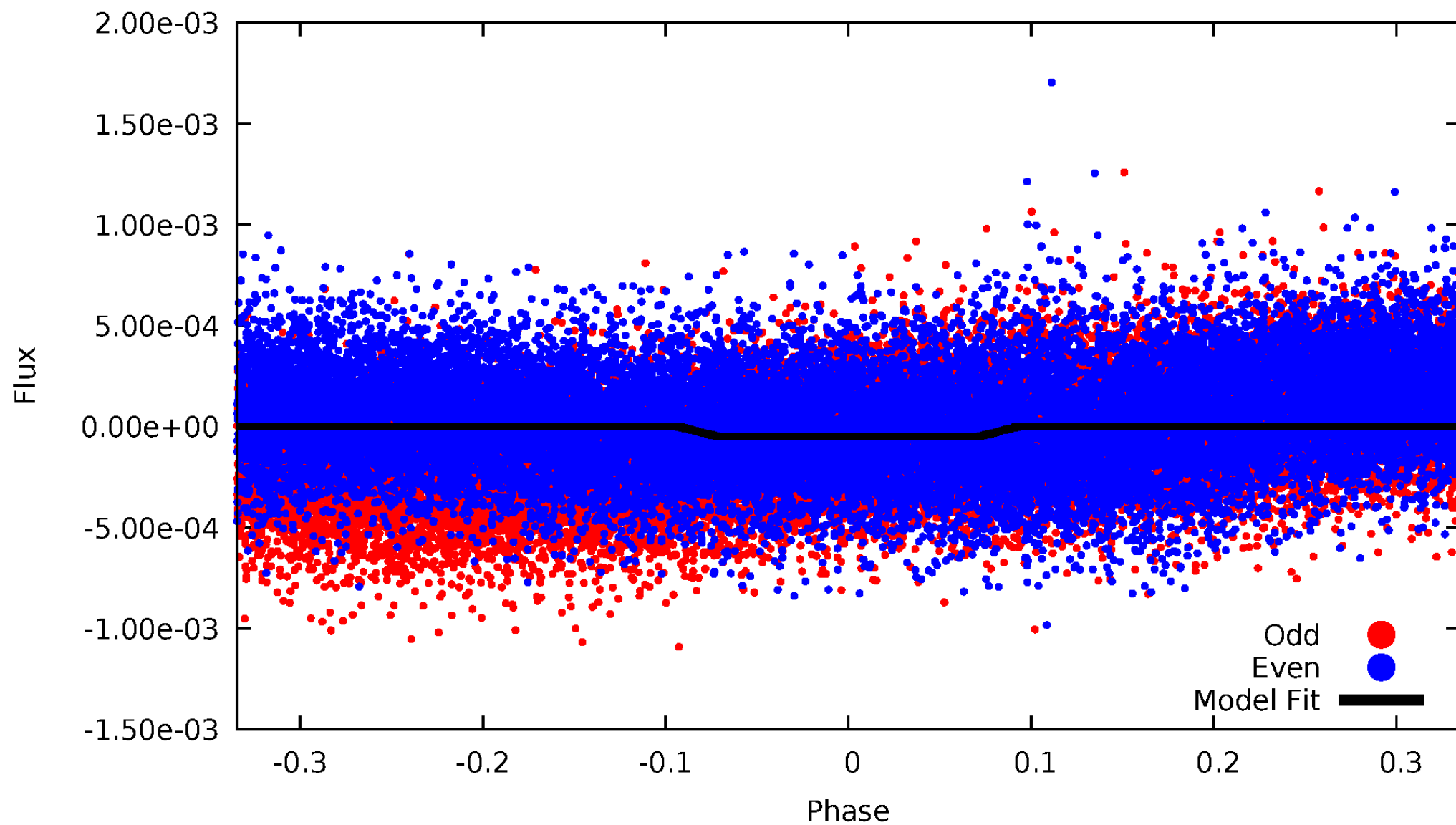
DV Odd/Even

TCE 007773041-01



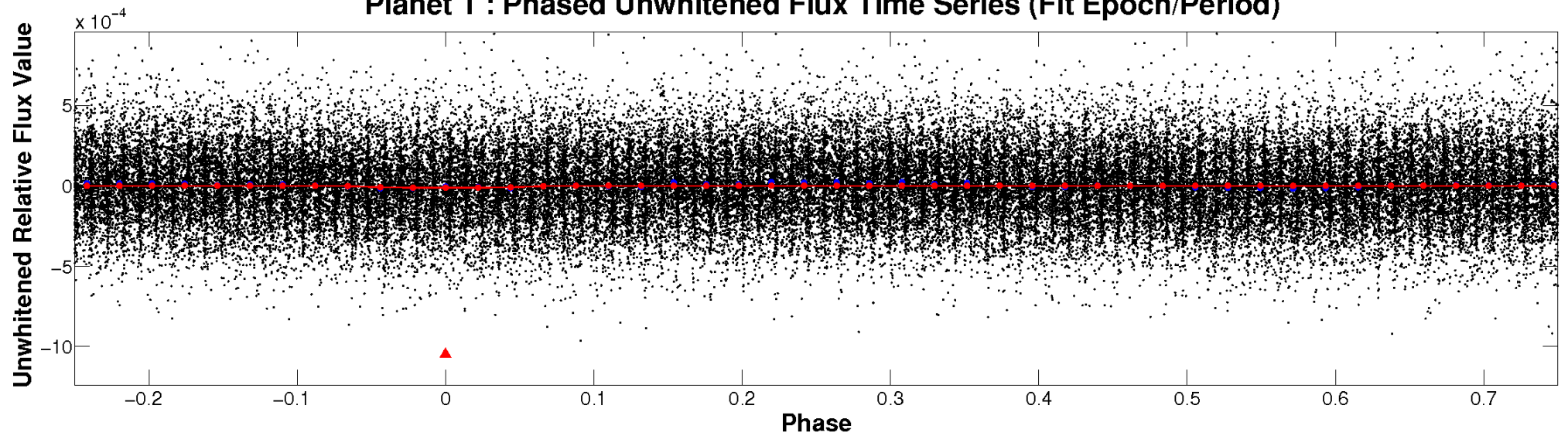
ALT Odd/Even

TCE 007773041-01

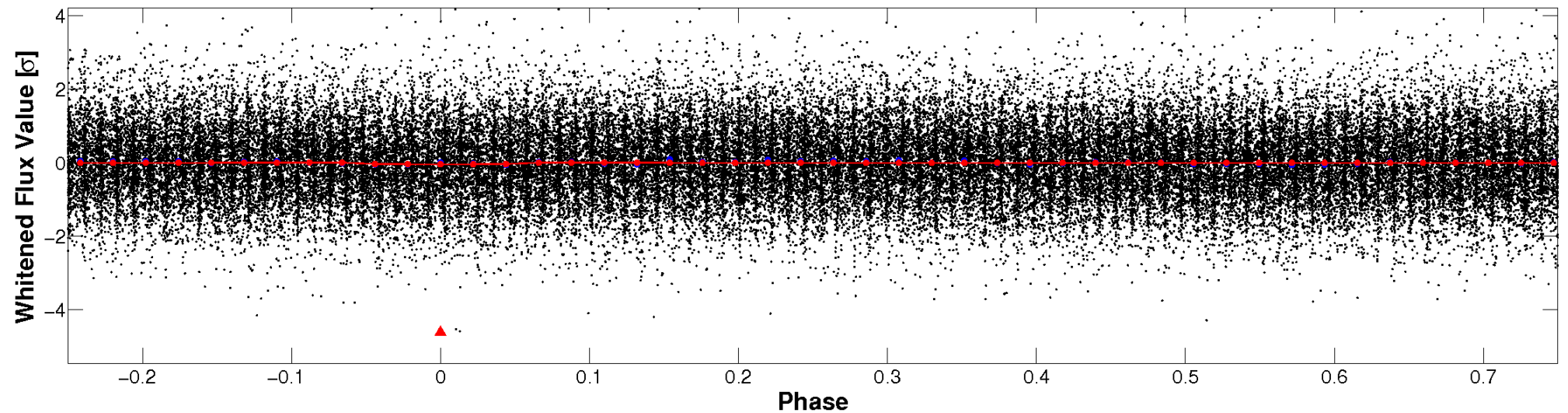


Non-Whitened Vs. Whitened Light Curve

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

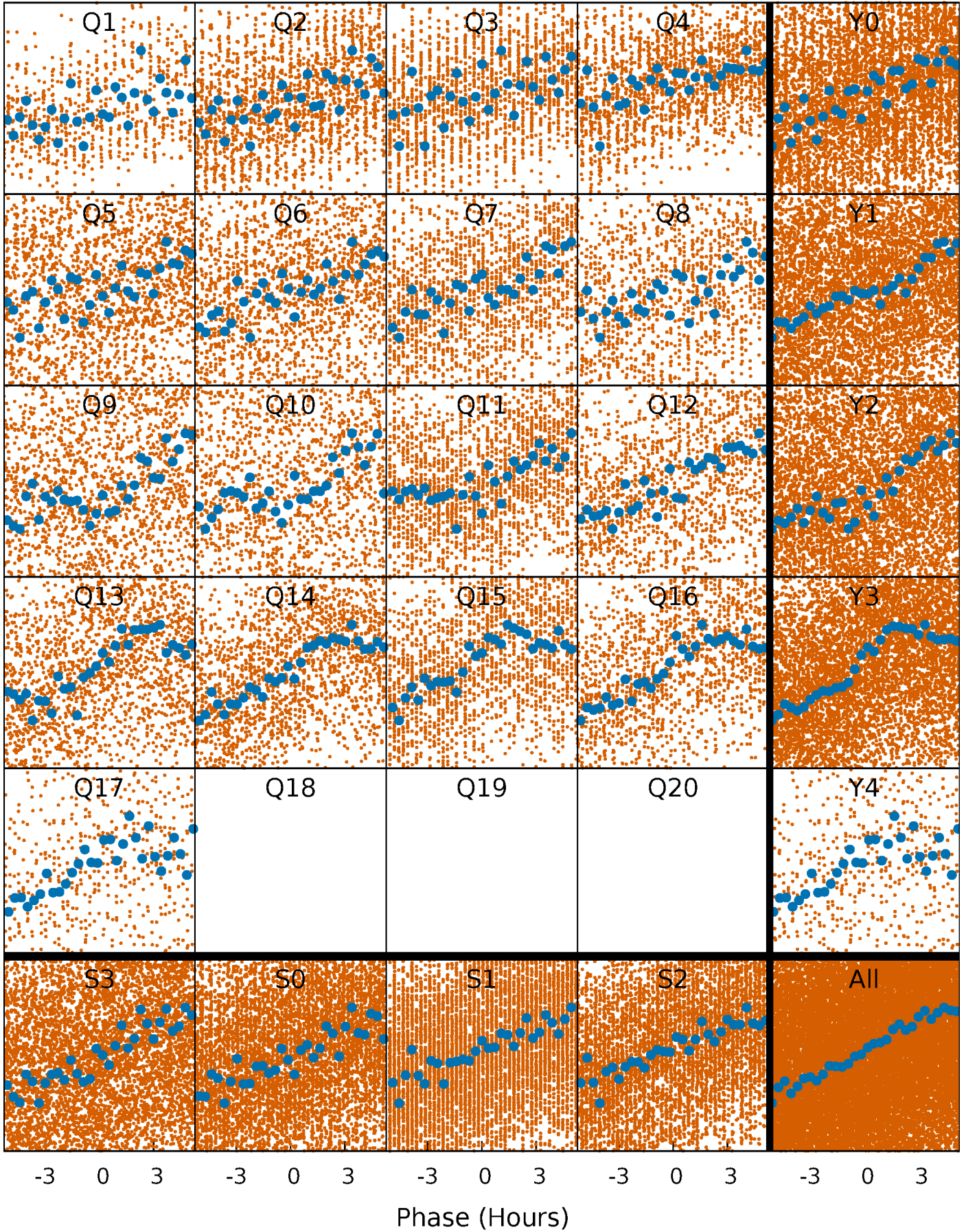


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



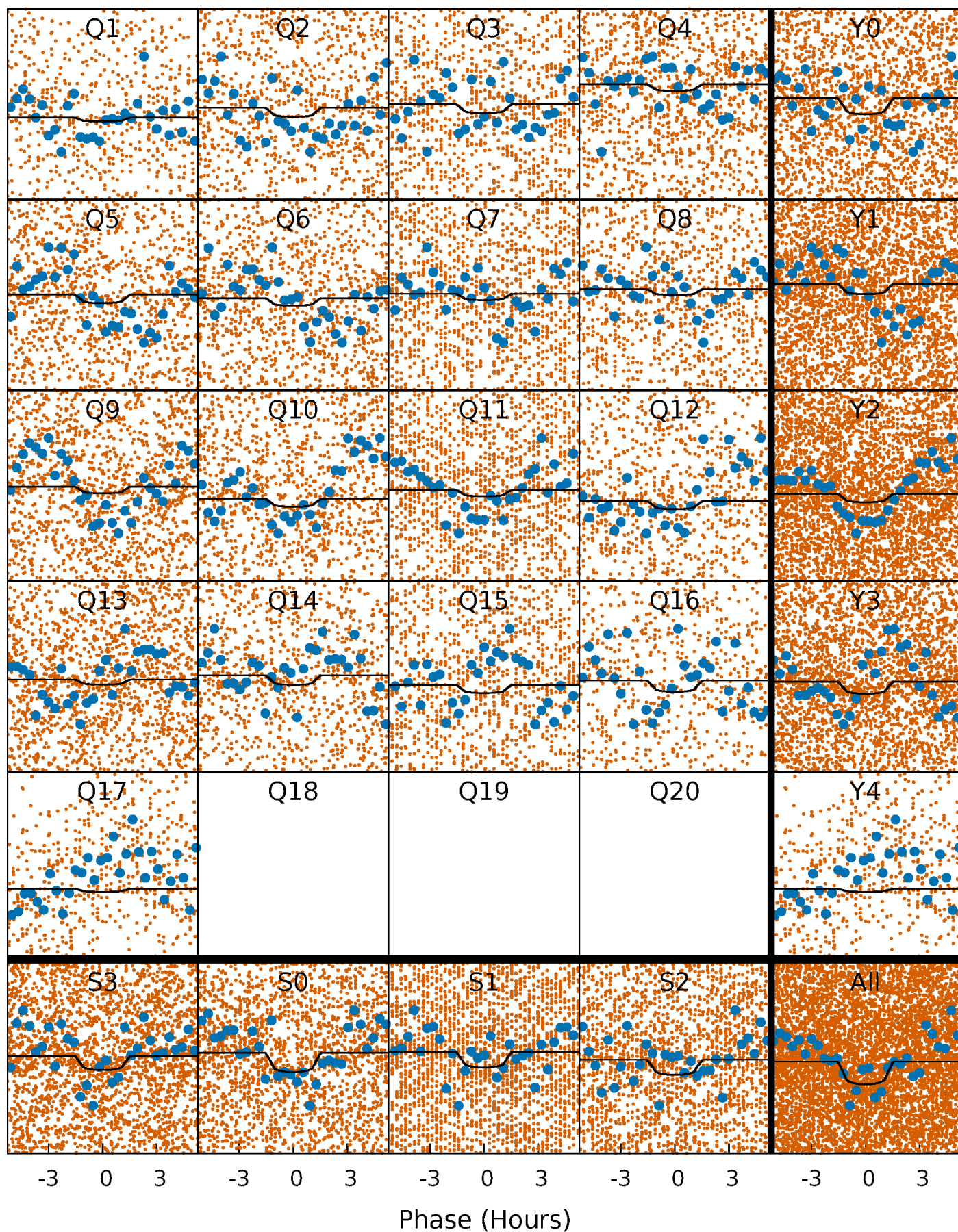
PDC Quarter-Phased Transit Curves

TCE 007773041-01 P= 0.929678 Days $T_0=132.142388$ (BKJD)



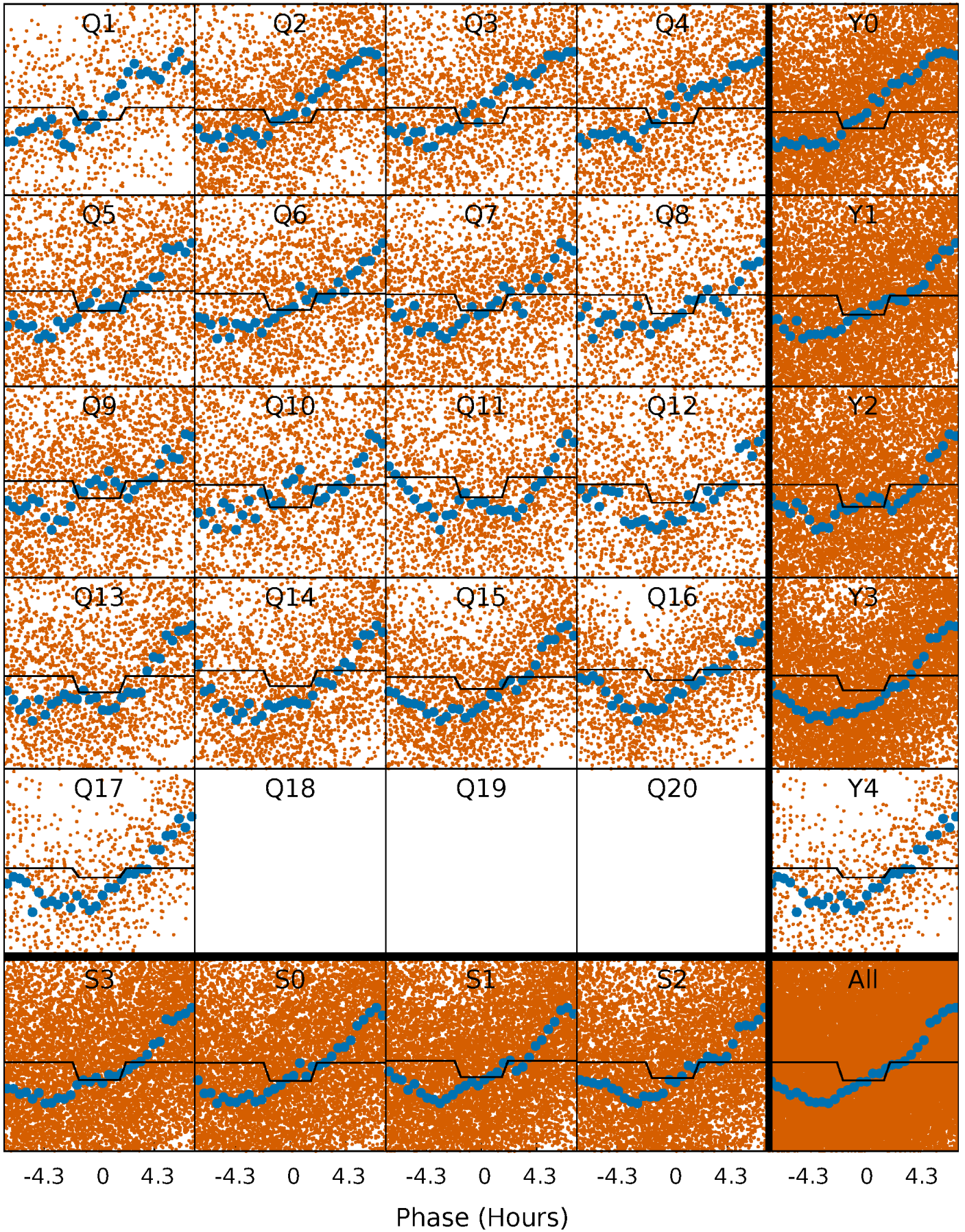
DV Quarter-Phased Transit Curves

TCE 007773041-01 P= 0.929678 Days $T_0=132.142388$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

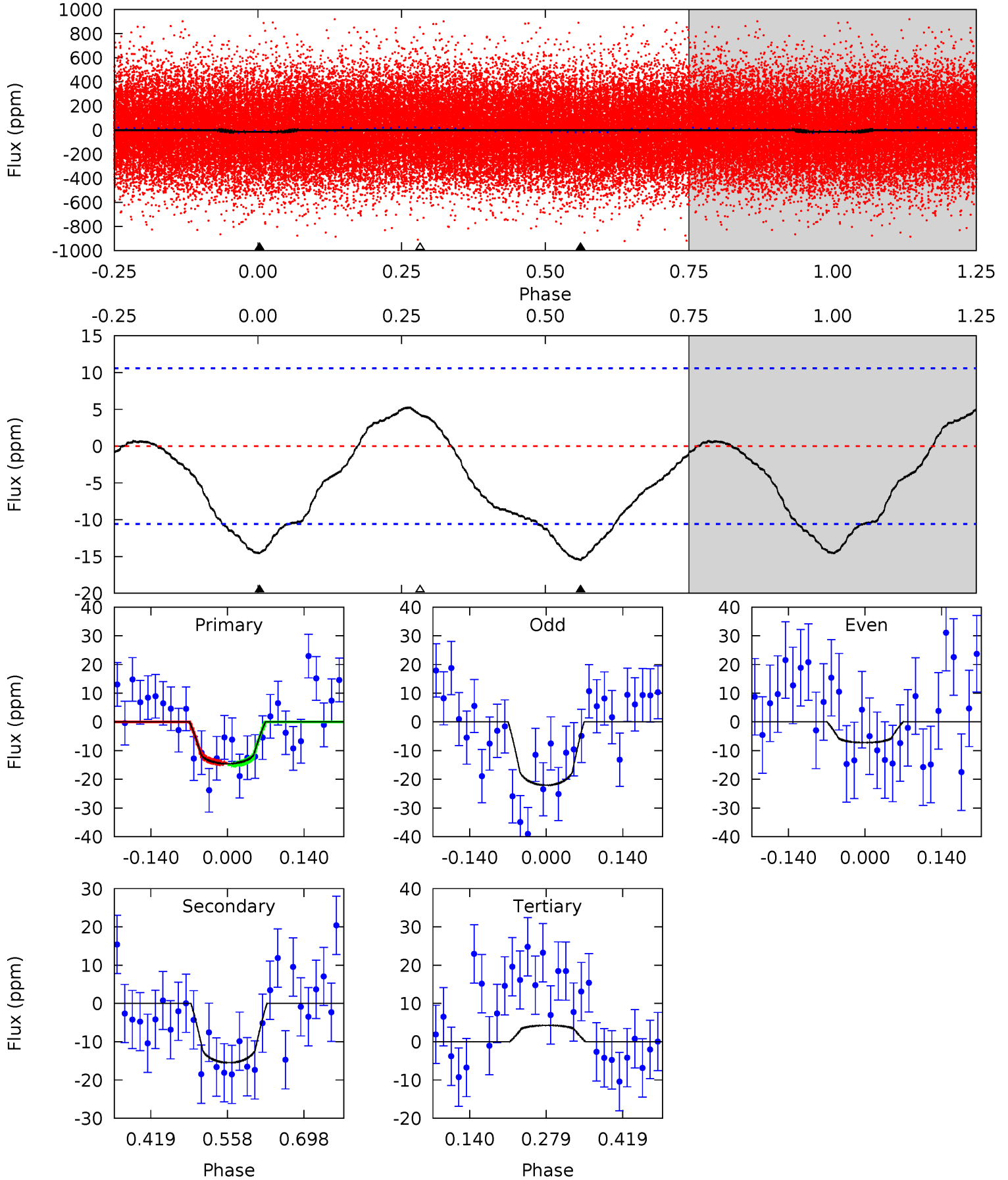
TCE 007773041-01 P= 0.929539 Days $T_0=132.132179$ (BKJD)



DV Model-Shift Uniqueness Test

007773041-01, P = 0.929678 Days, E = 131.212710 Days

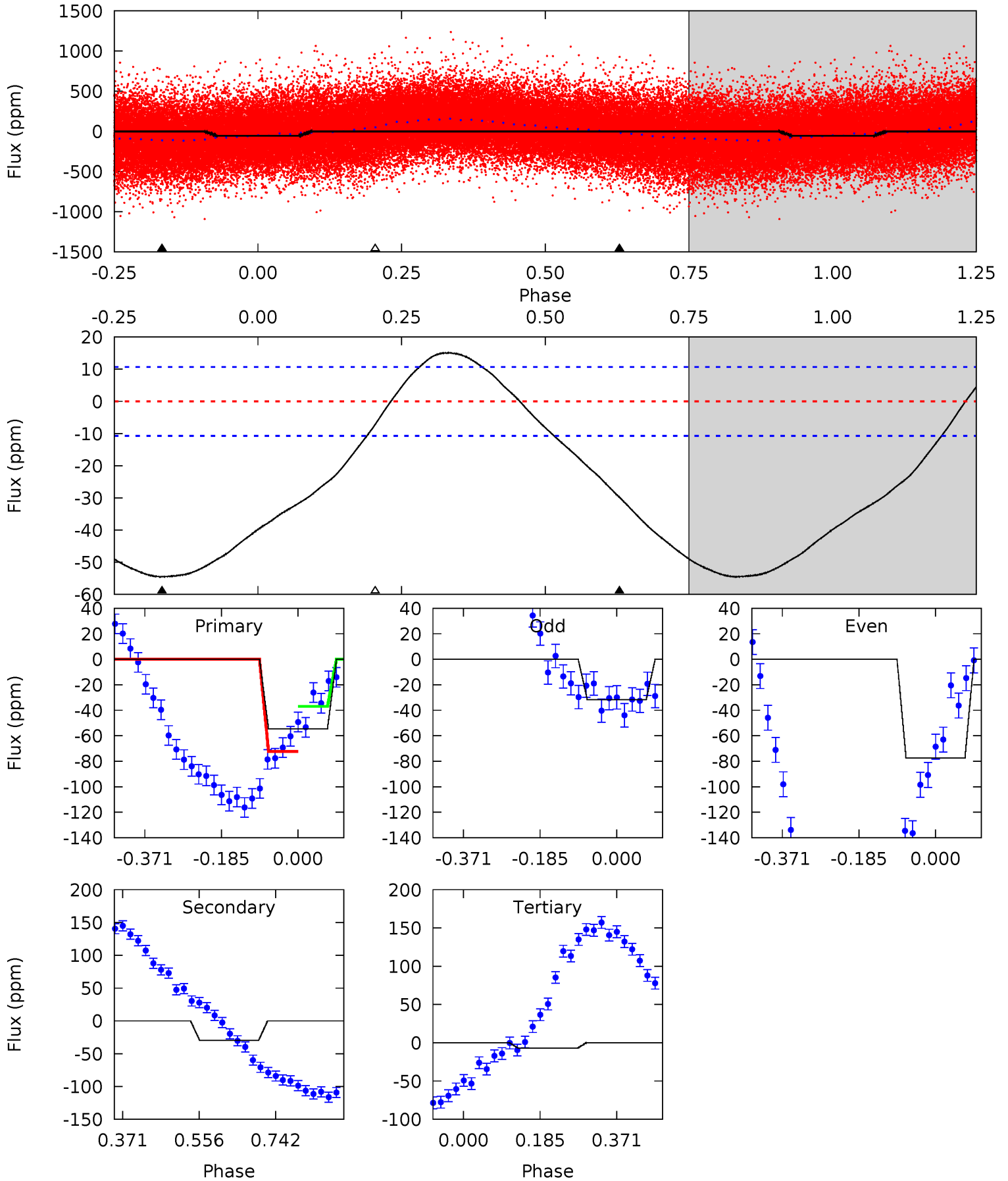
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.18	6.58	-1.81	0	4.49	1.48	1.52	8.00	6.18	8.39	6.58	3.16	1.12	0.25	0.12



Alt Model-Shift Uniqueness Test

007773041-01, P = 0.929539 Days, E = 131.202640 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
22.6	12.4	2.97	0	4.43	1.32	7.50	19.6	22.6	9.38	12.4	9.50	0.98	0.22	7.15



Stellar Parameters For KIC 007773041

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6043^{+213}_{-192}	$3.618^{+0.731}_{-0.129}$	$-0.500^{+0.350}_{-0.250}$	$2.970^{+0.807}_{-1.882}$	$1.335^{+0.185}_{-0.433}$	$0.072^{+1.018}_{-0.033}$
	+4%/-3%	+20%/-4%	+70%/-50%	+27%/-63%	+14%/-32%	+1419%/-47%
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 007773041-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-15 ± 2	$0.97^{+0.56}_{-0.47}$	4326^{+421}_{-763}	6220^{+2341}_{-1157}	$3.684^{+9.263}_{-2.180}$
Alt.	-30 ± 2	$2.06^{+0.75}_{-0.71}$	4330^{+390}_{-683}	5085^{+780}_{-599}	$1.623^{+1.933}_{-0.735}$

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 $A_{obs} \gg 1.0$

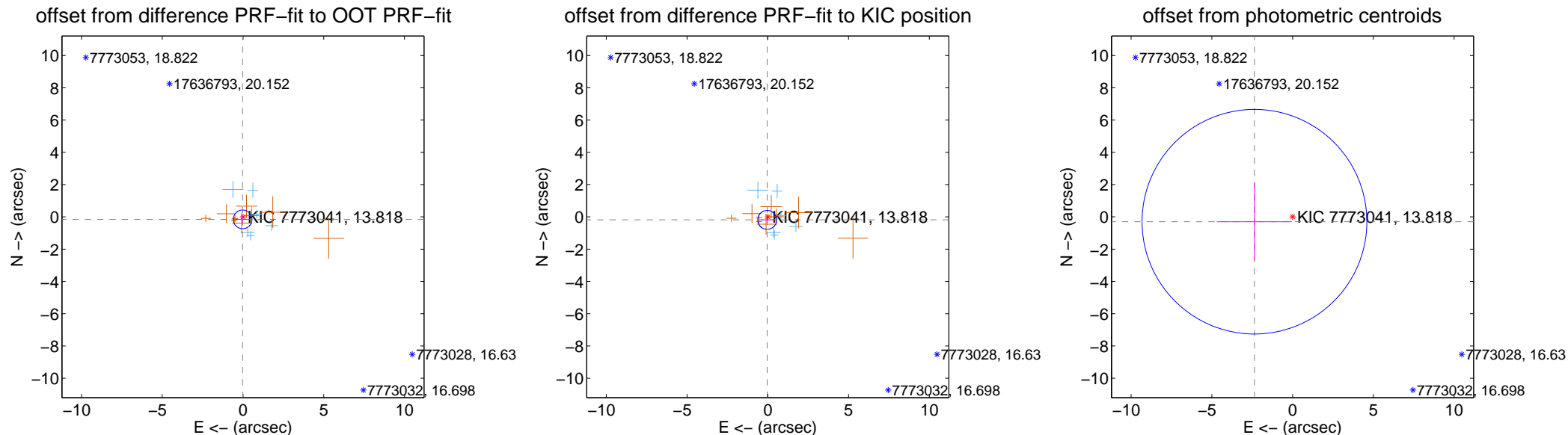
DV Centroid Data

Supplemental centroid analysis for 007773041-01. Kepler magnitude: 13.82. Transit SNR 3.06

There are 6 quarters with good PRF difference image offsets

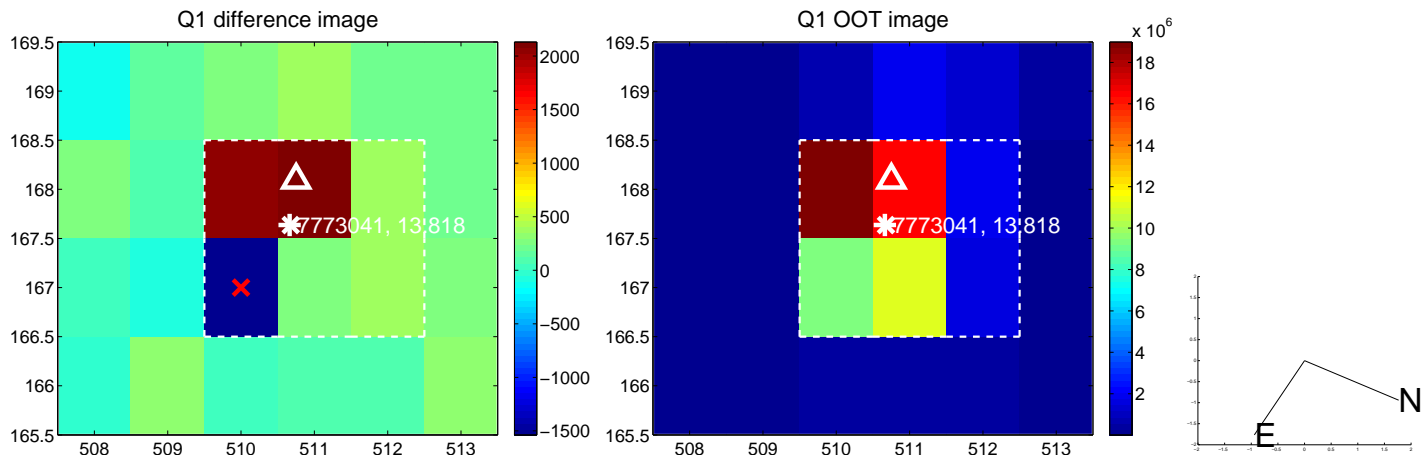
The direct PRF centroid is offset from the target star catalog position by about 0.09 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.157 ± 0.193	0.81	0.024 ± 0.448	-0.155 ± 0.212
PRF-fit source offset from KIC position	0.189 ± 0.195	0.97	0.039 ± 0.423	-0.184 ± 0.218
photometric centroid source offset	2.38 ± 2.32	1.03	2.36 ± 2.32	-0.30 ± 2.40

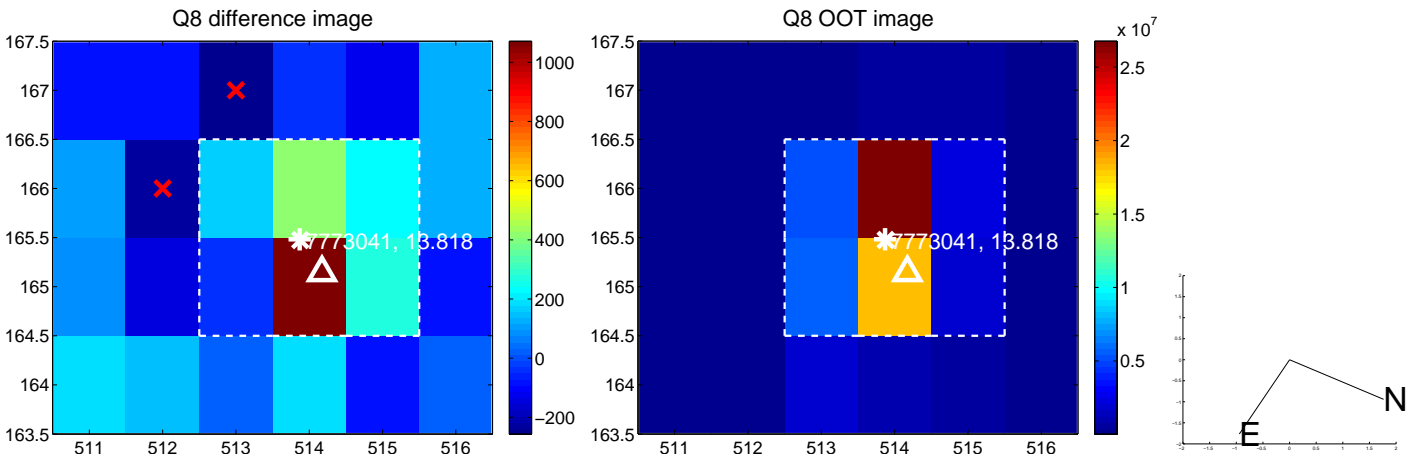
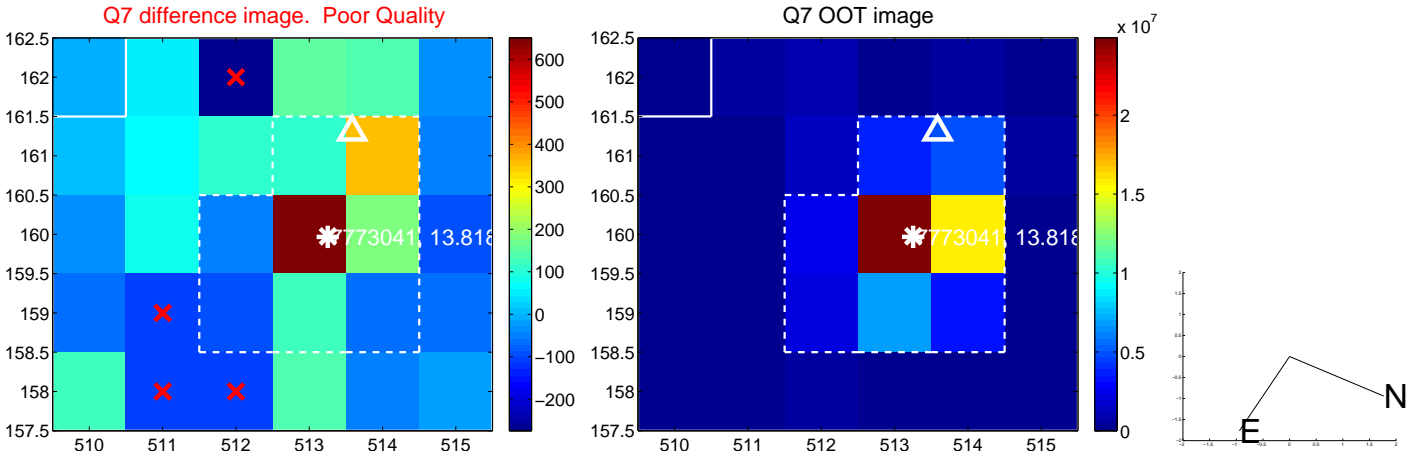
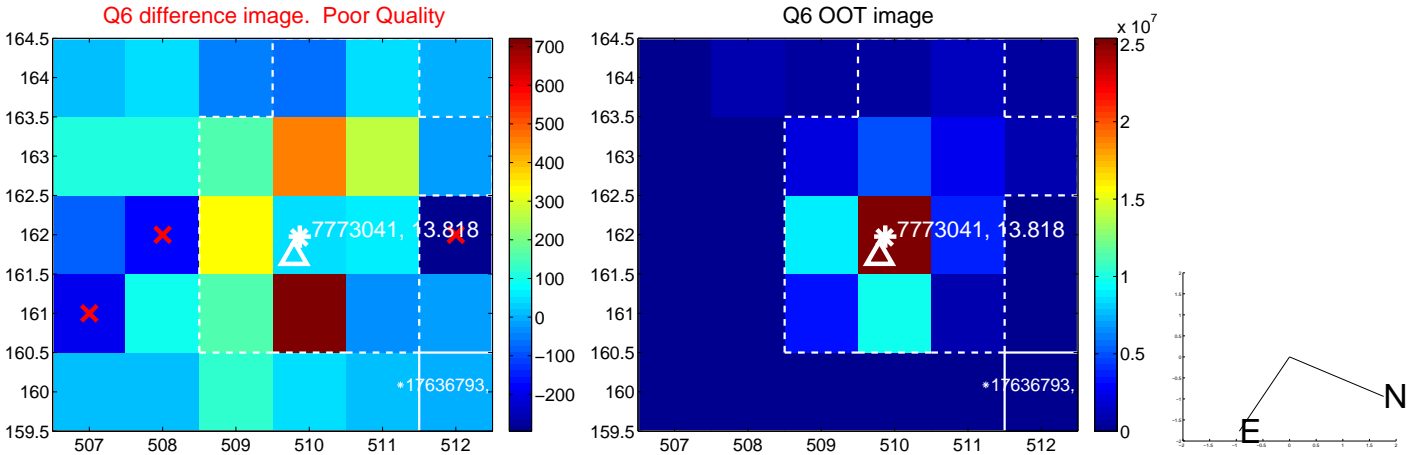
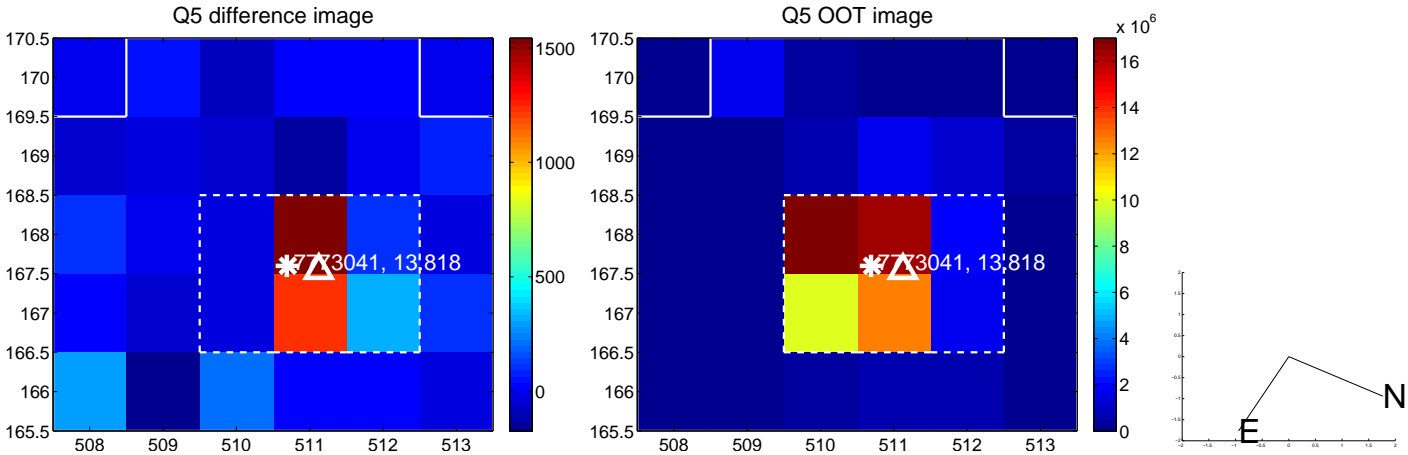


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

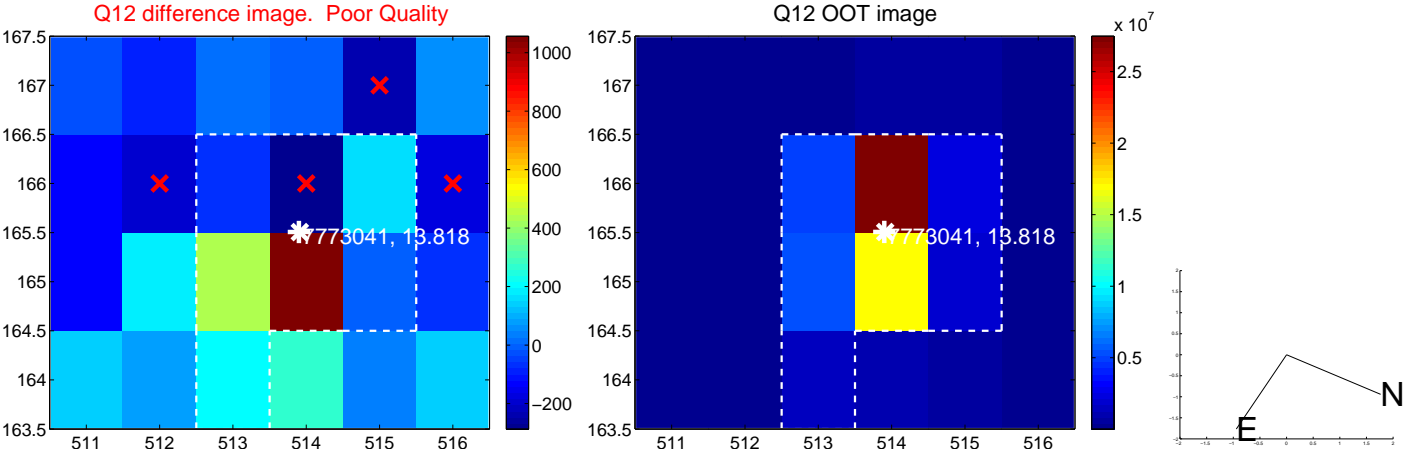
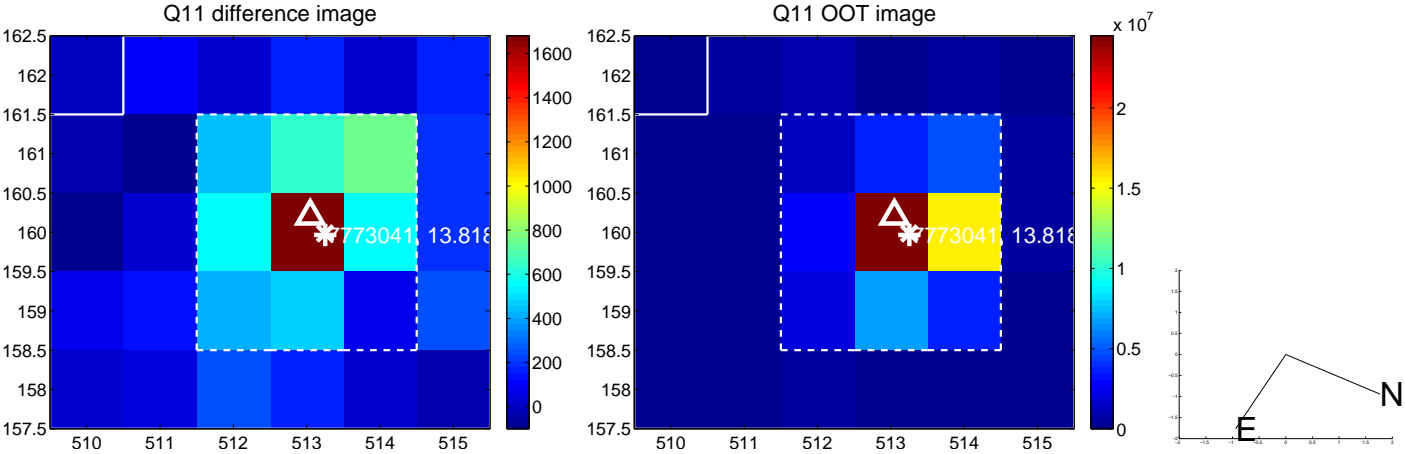
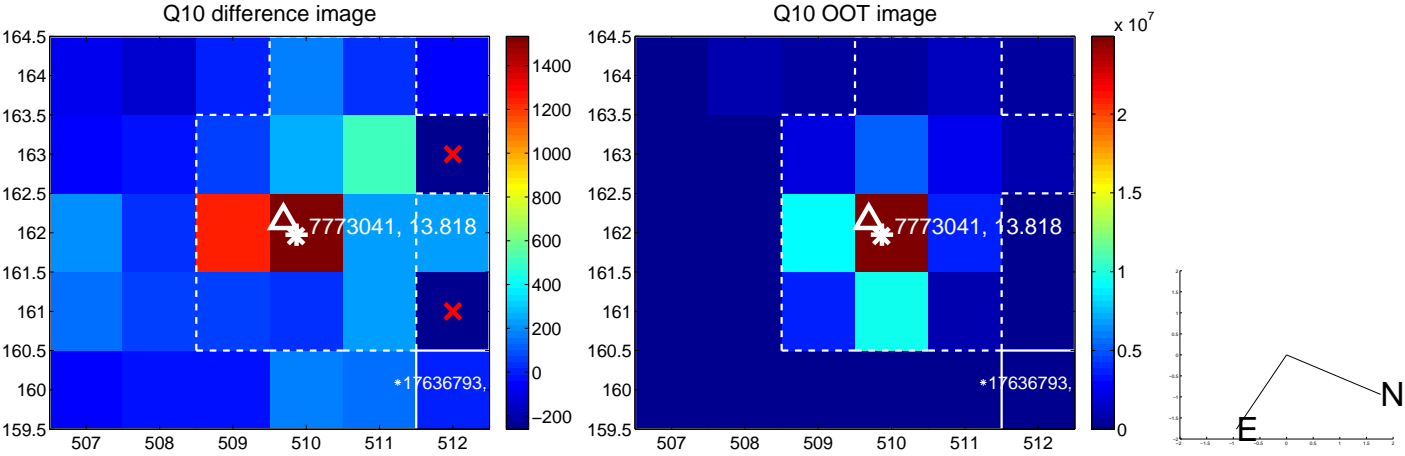
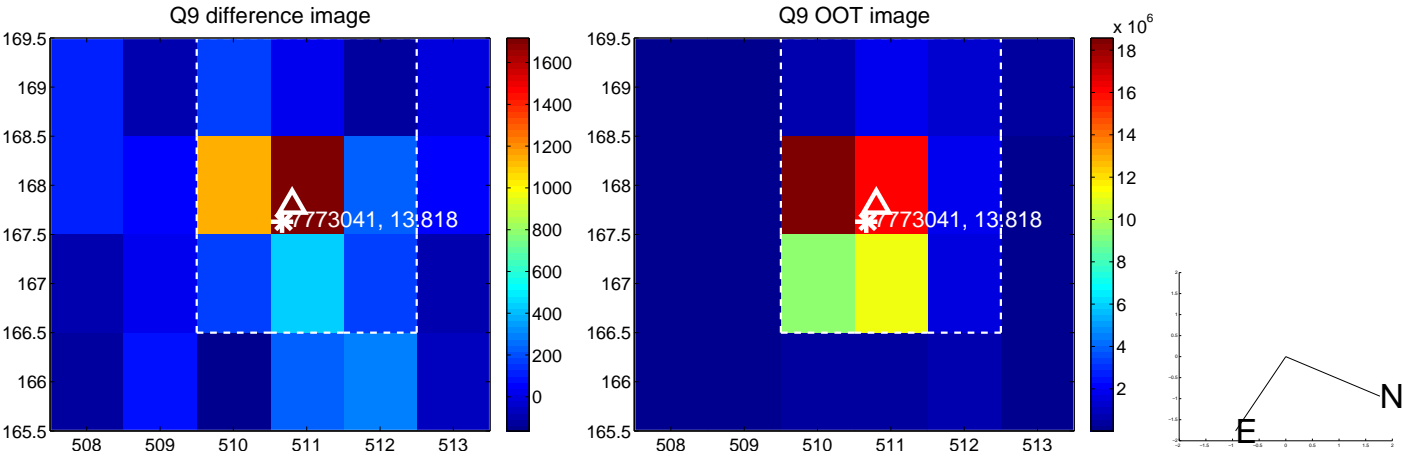
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



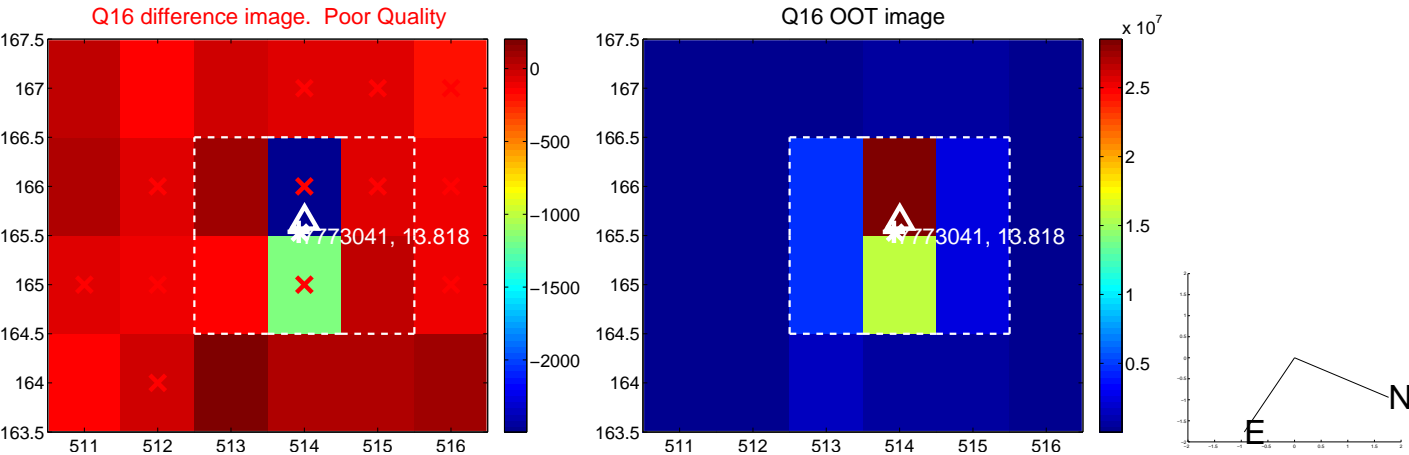
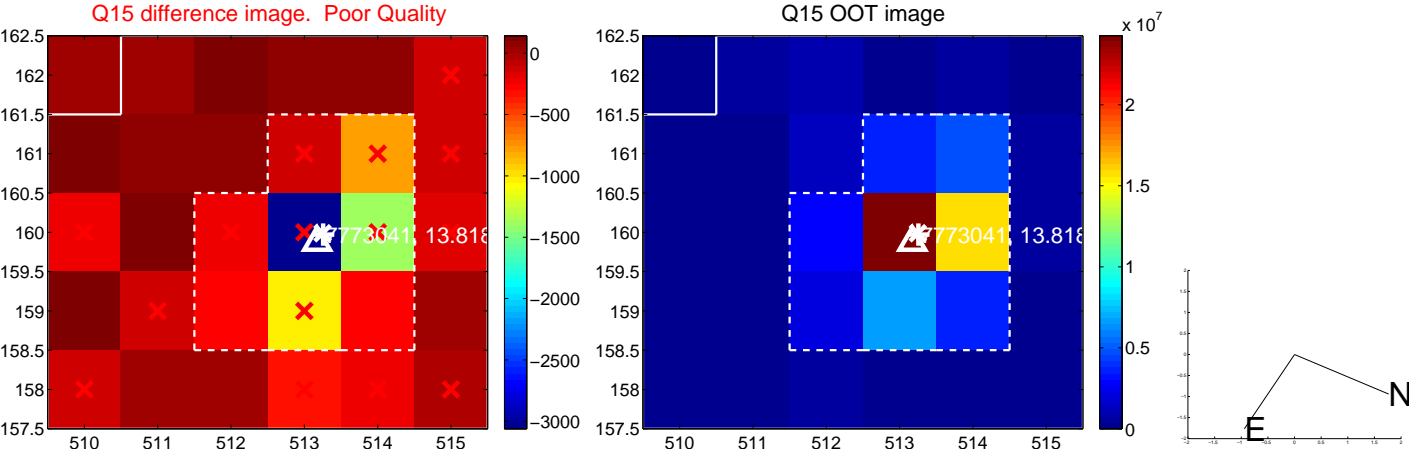
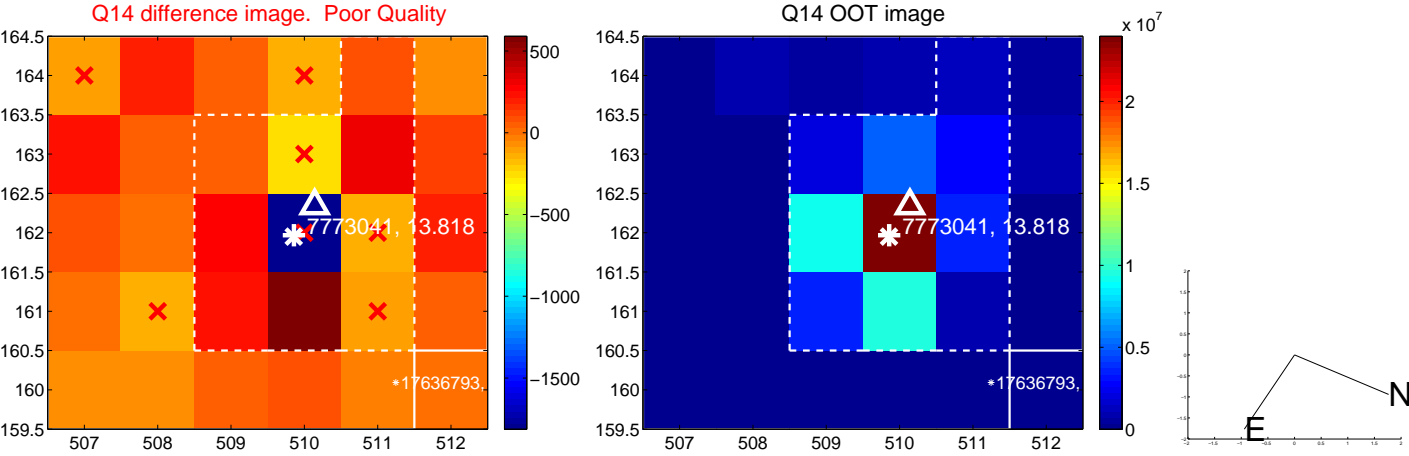
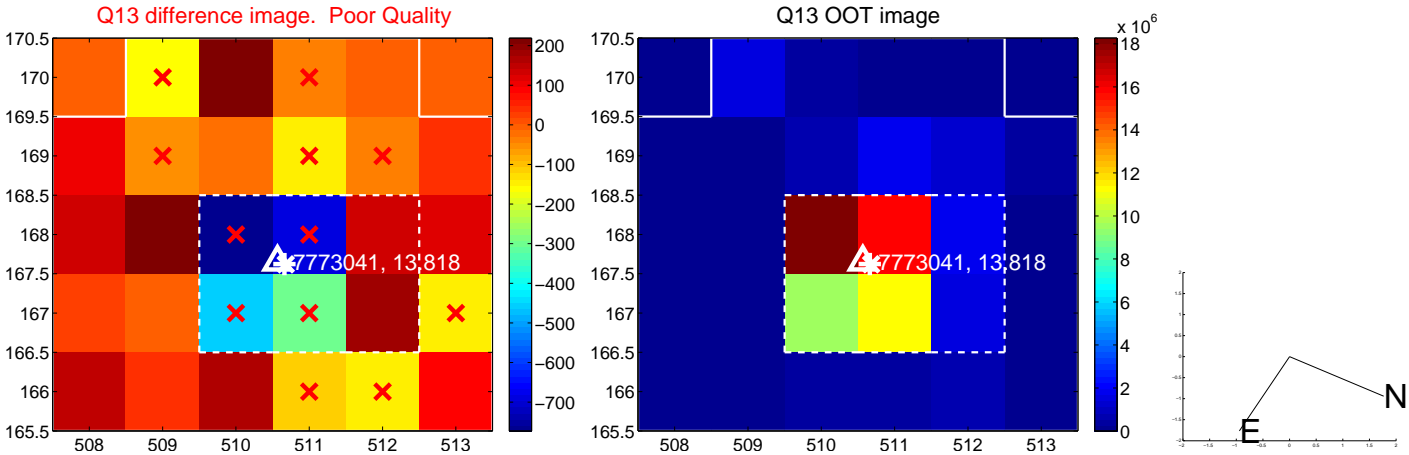
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



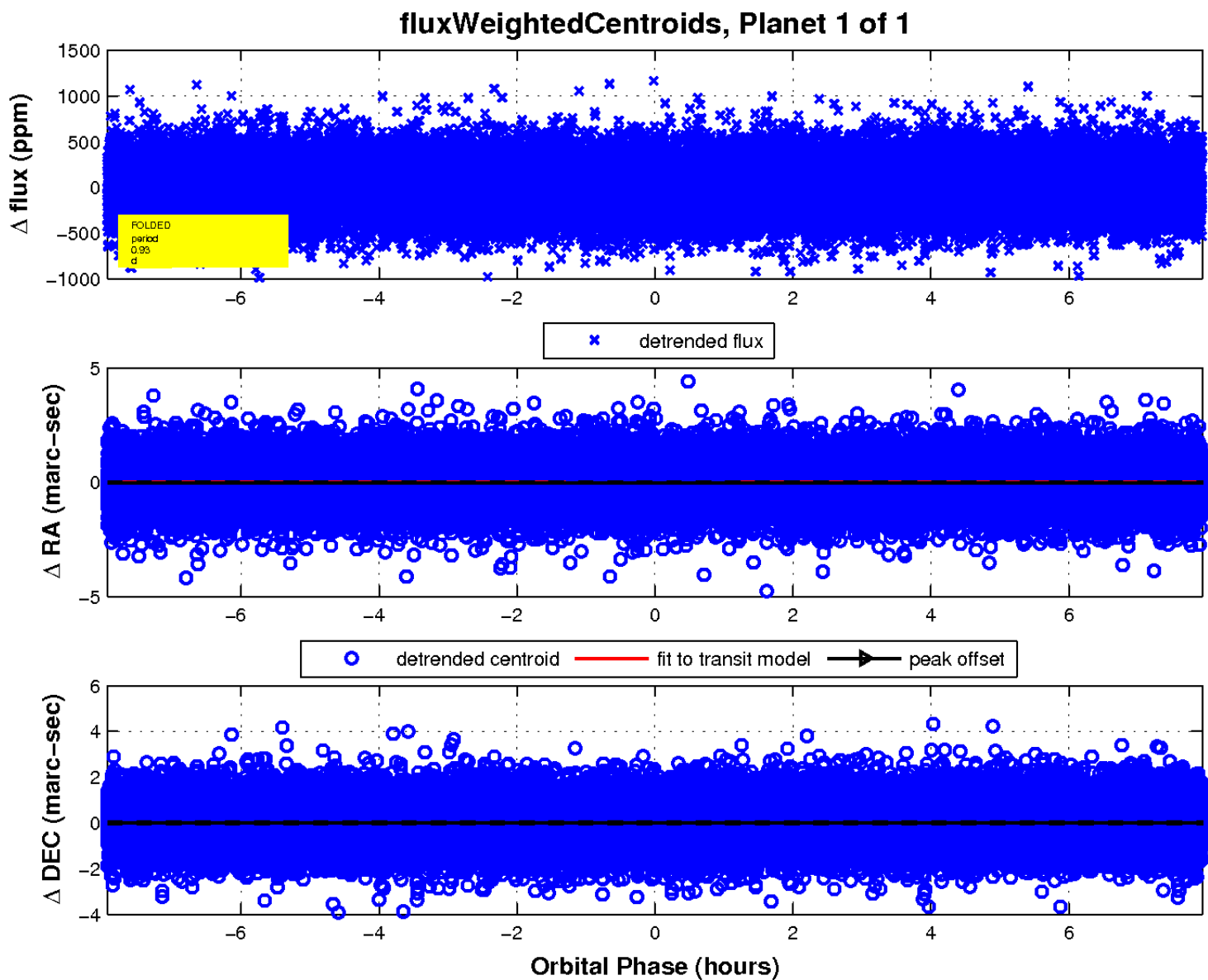
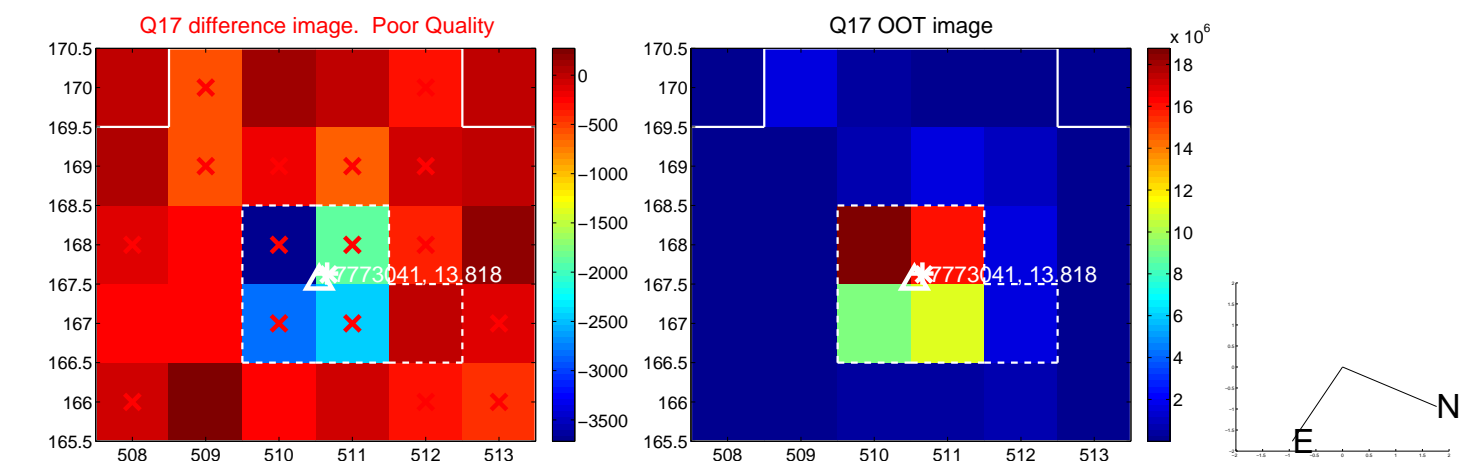
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

