

KIC 008937762

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})
008937762-01	OBS	4668.01	7.536391	136.432374	260.1	0.801	10.6	15.6	0.77	5521	1.32	97.30

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008937762-01	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.

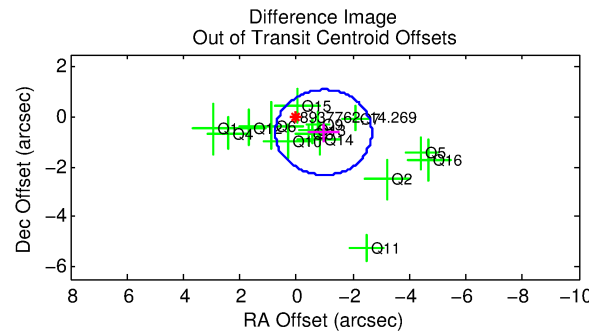
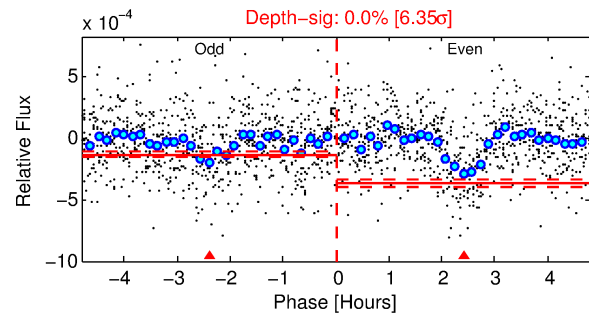
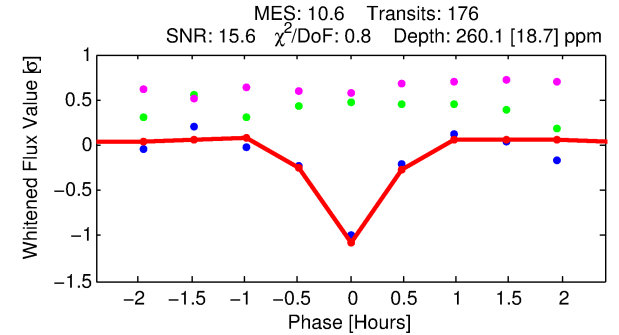
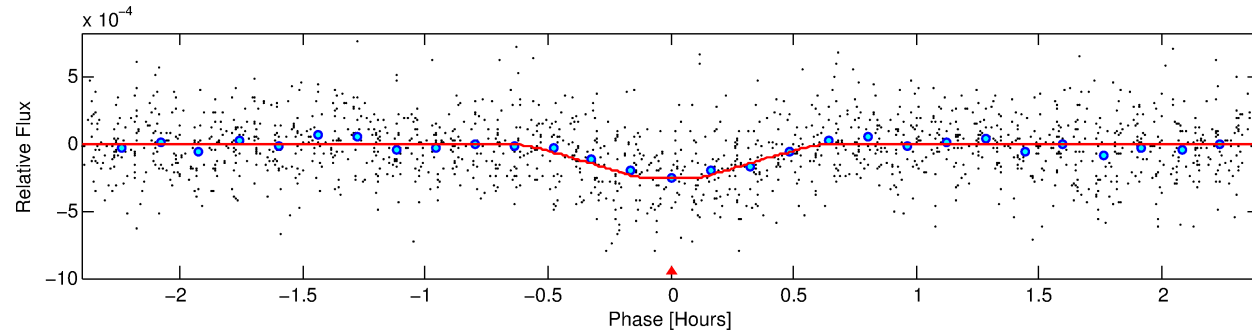
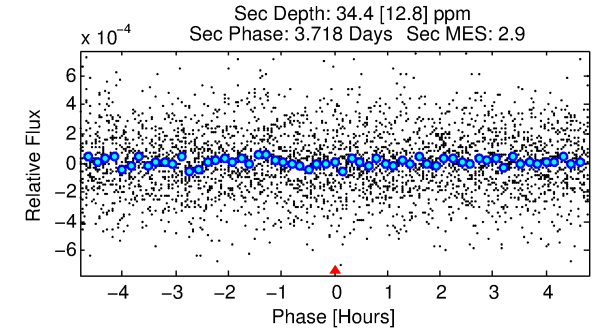
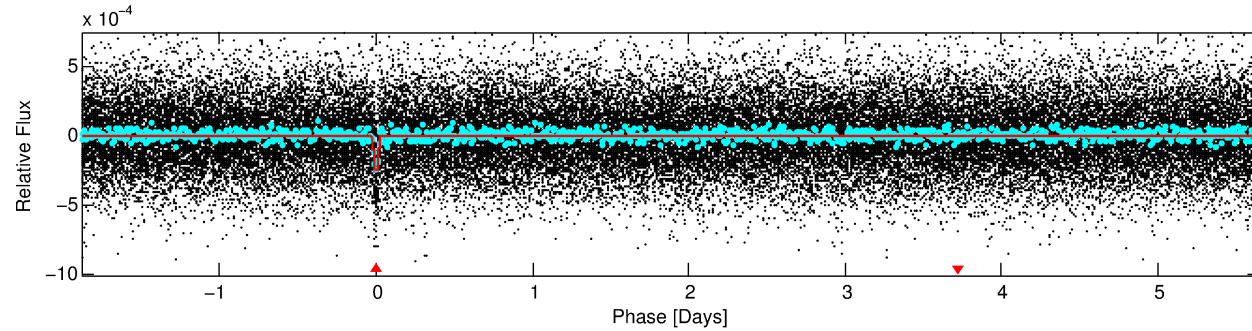
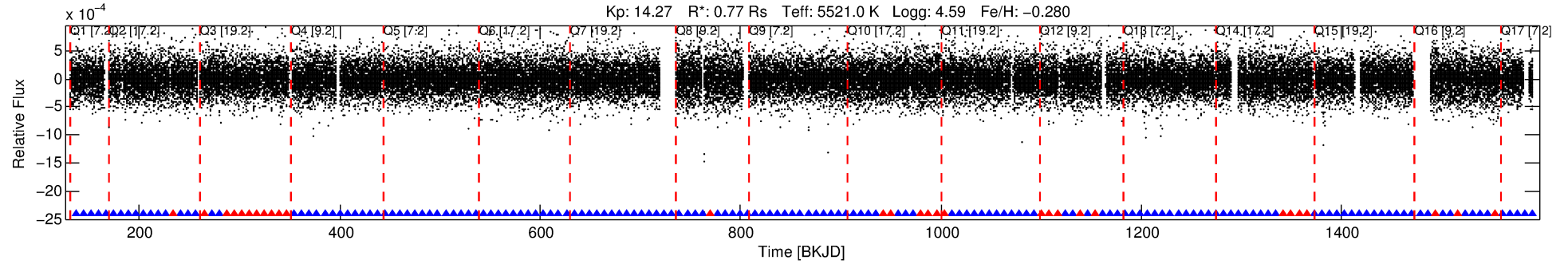
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008937762-01

No Significant Match Found

DV One-Page Summary

KIC: 8937762 Candidate: 1 of 1 Period: 7.536 d
KOI: K04668 Corr: No Ephemeris Match



DV Fit Results:

Period = 7.53639 [0.00001] d
Epoch = 136.4324 [0.0014] BKJD
Rp/R* = 0.0157 [0.0074]
a/R* = 57.61 [114.42]
b = 0.62 [1.98]
Seff = 97.30 [27.11]
Teq = 801 [56] K
Rp = 1.32 [0.68] Re
a = 0.0713 [0.0124] AU
Ag = 55.16 [57.51] [0.94σ]
Teffp = 3375 [860] K [2.99σ]

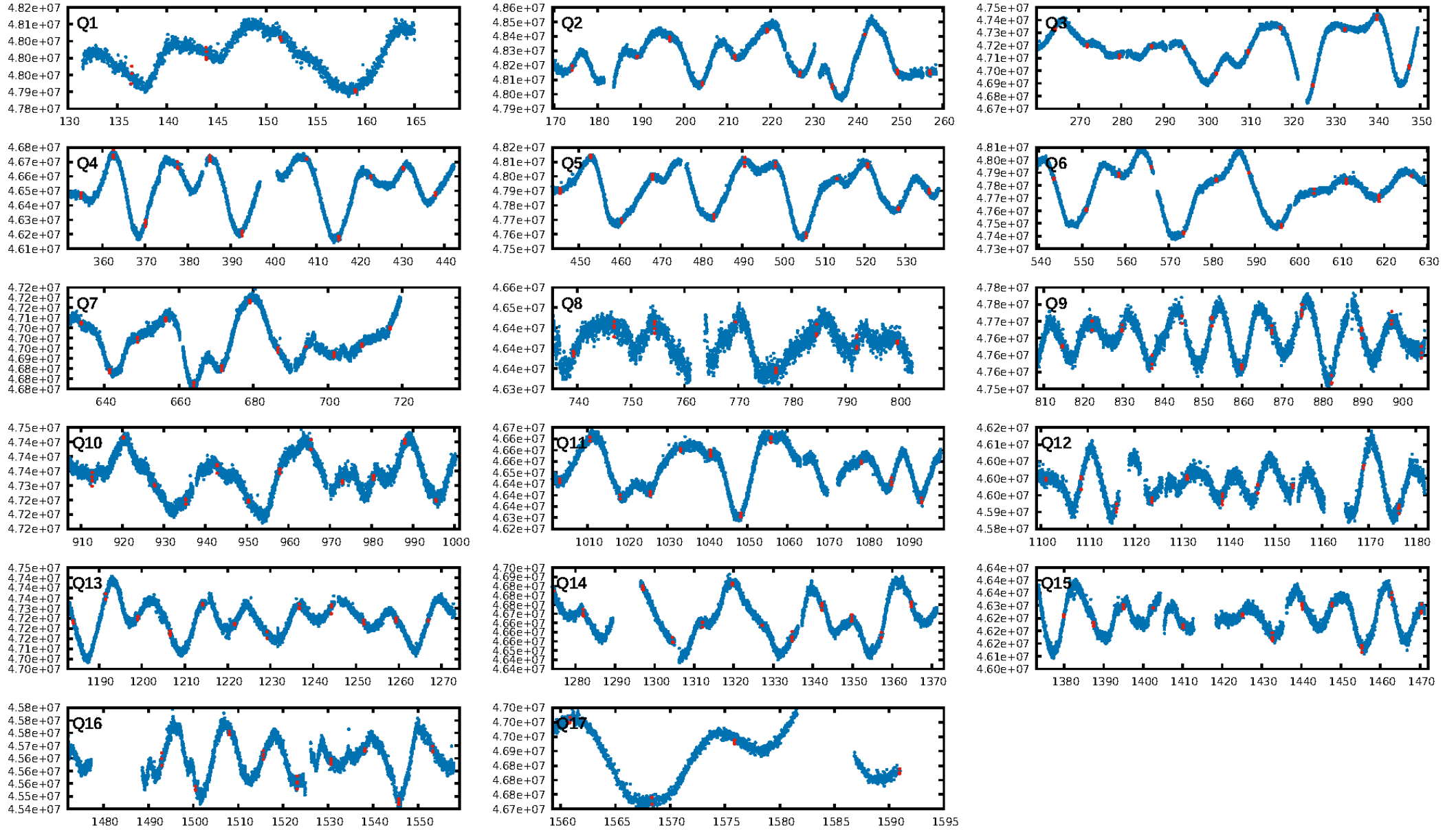
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 95.9%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.96e-25
RollingBand-fgt: 0.82 [138/168]
GhostDiagnostic-chr: -4.872
Centroid-sig: 5.0%
Centroid-so: 1.196 arcsec [1.49σ]
OotOffset-rm: 1.148 arcsec [2.02σ]
KicOffset-rm: 1.119 arcsec [1.84σ]
OotOffset-st: 4/4/3/4 [15]
KicOffset-st: 4/4/3/4 [15]
DiffImageQuality-fgm: 0.60 [9/15]
DiffImageOverlap-fno: 1.00 [17/17]

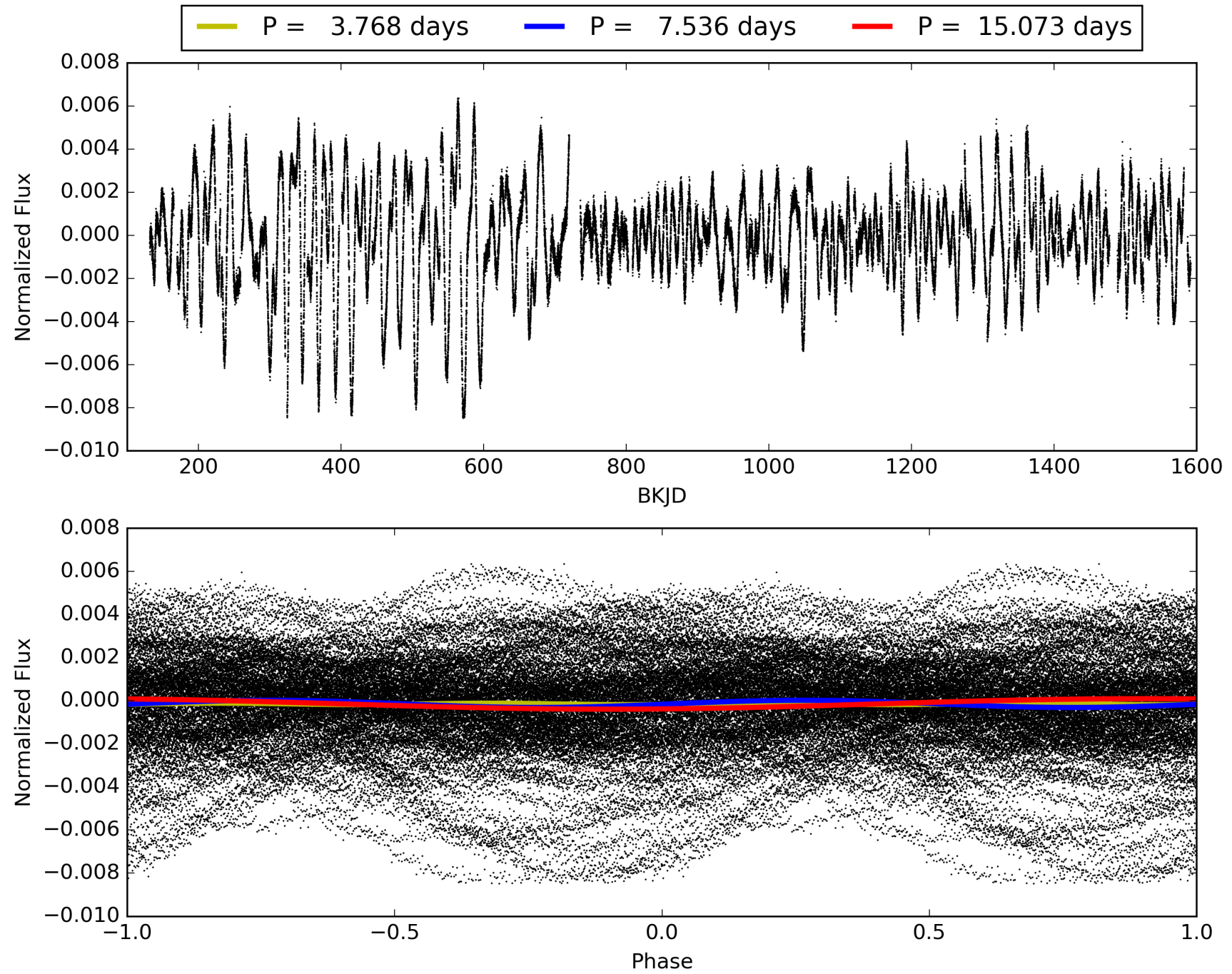
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 21:03:18 Z

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

TCE 008937762-01, PDC Light Curves

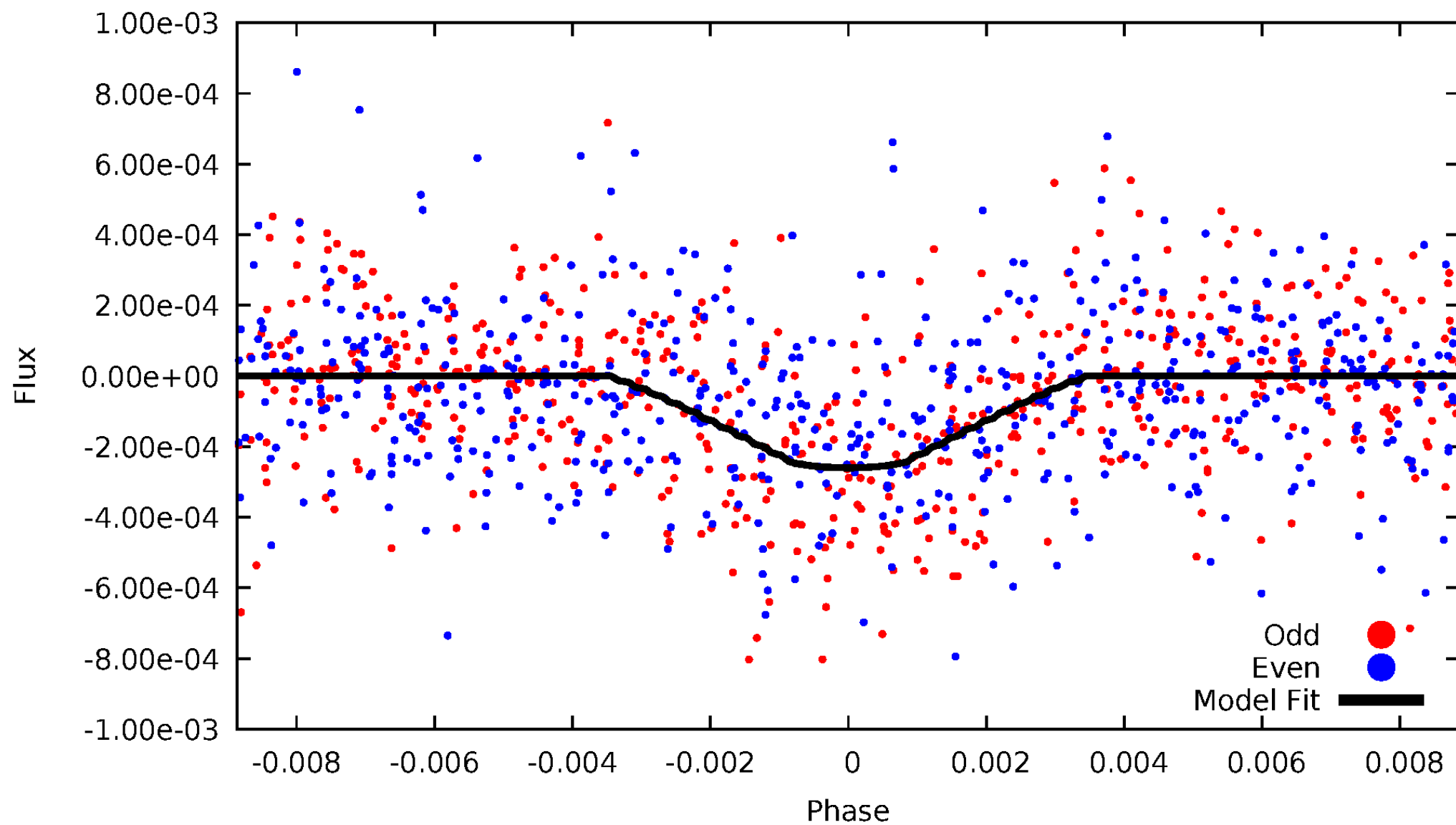


TCE 008937762-01



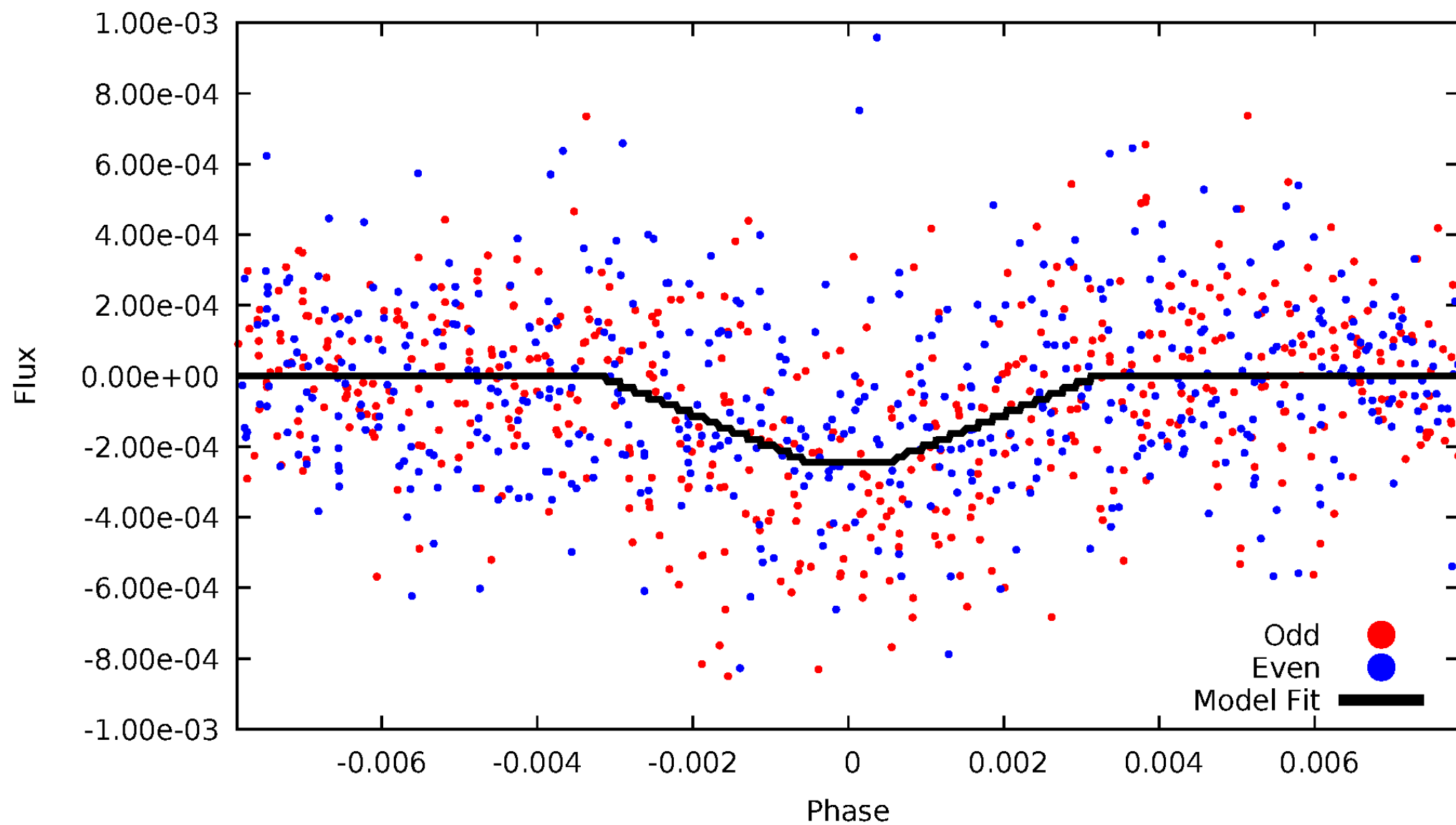
DV Odd/Even

TCE 008937762-01

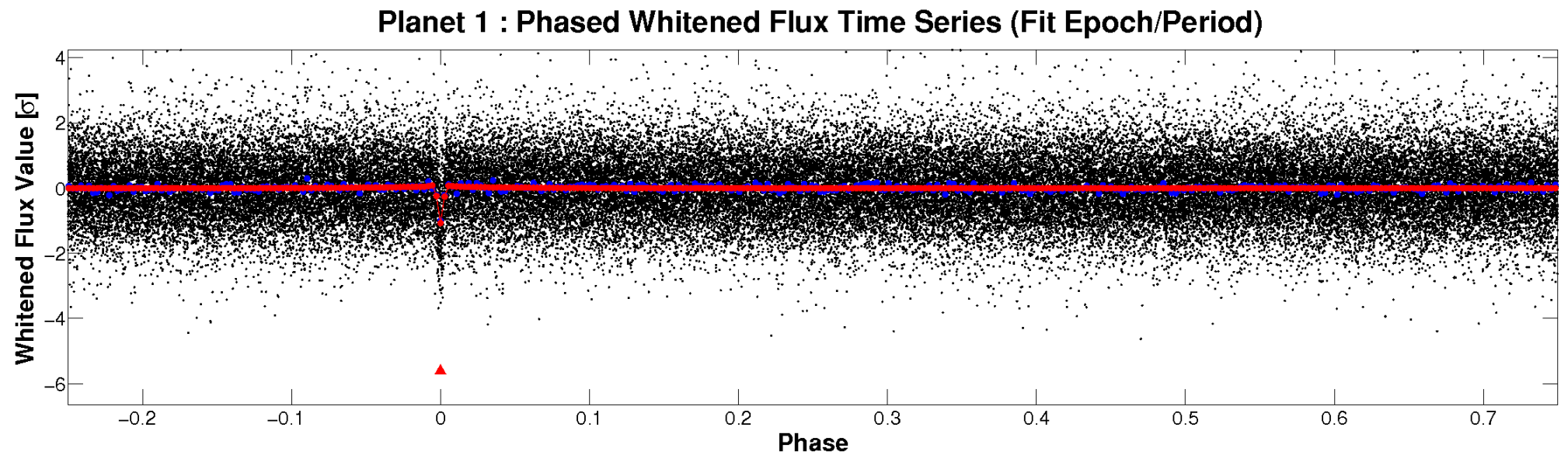
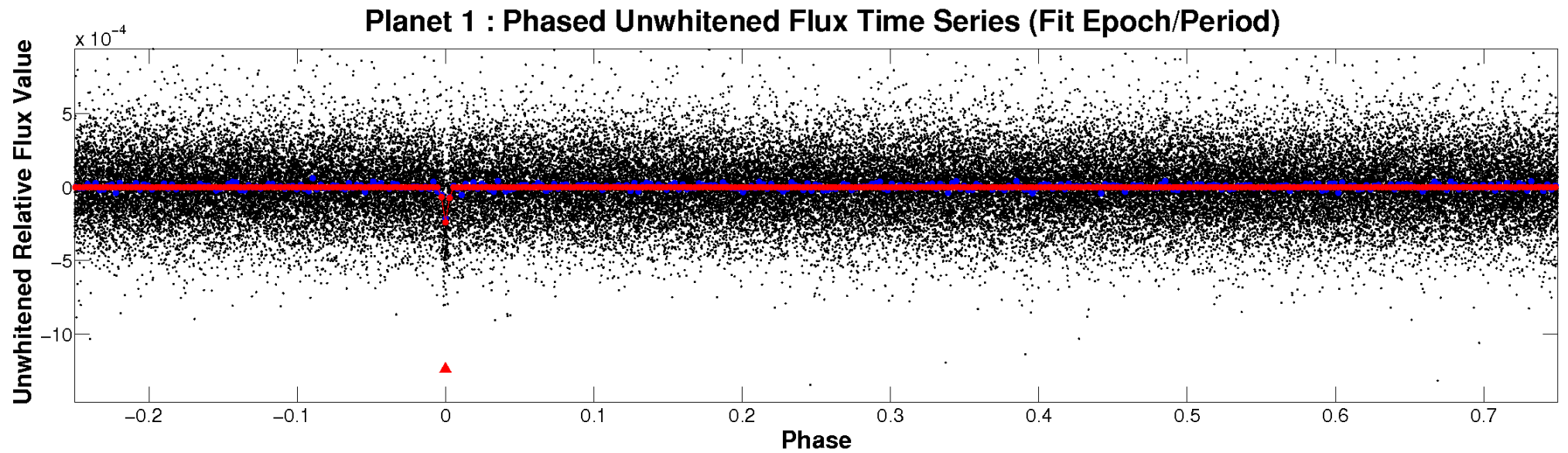


ALT Odd/Even

TCE 008937762-01

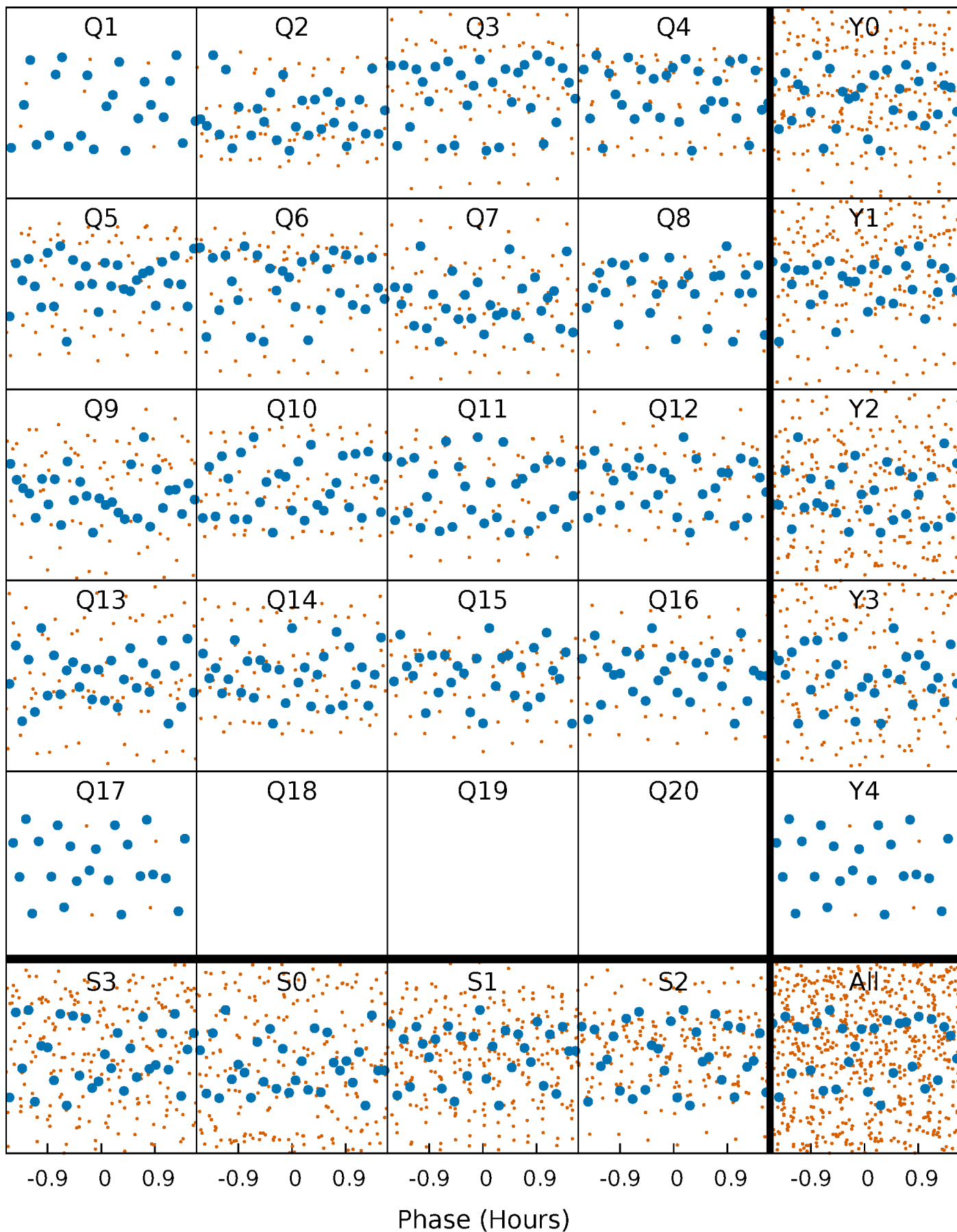


Non-Whitened Vs. Whitened Light Curve



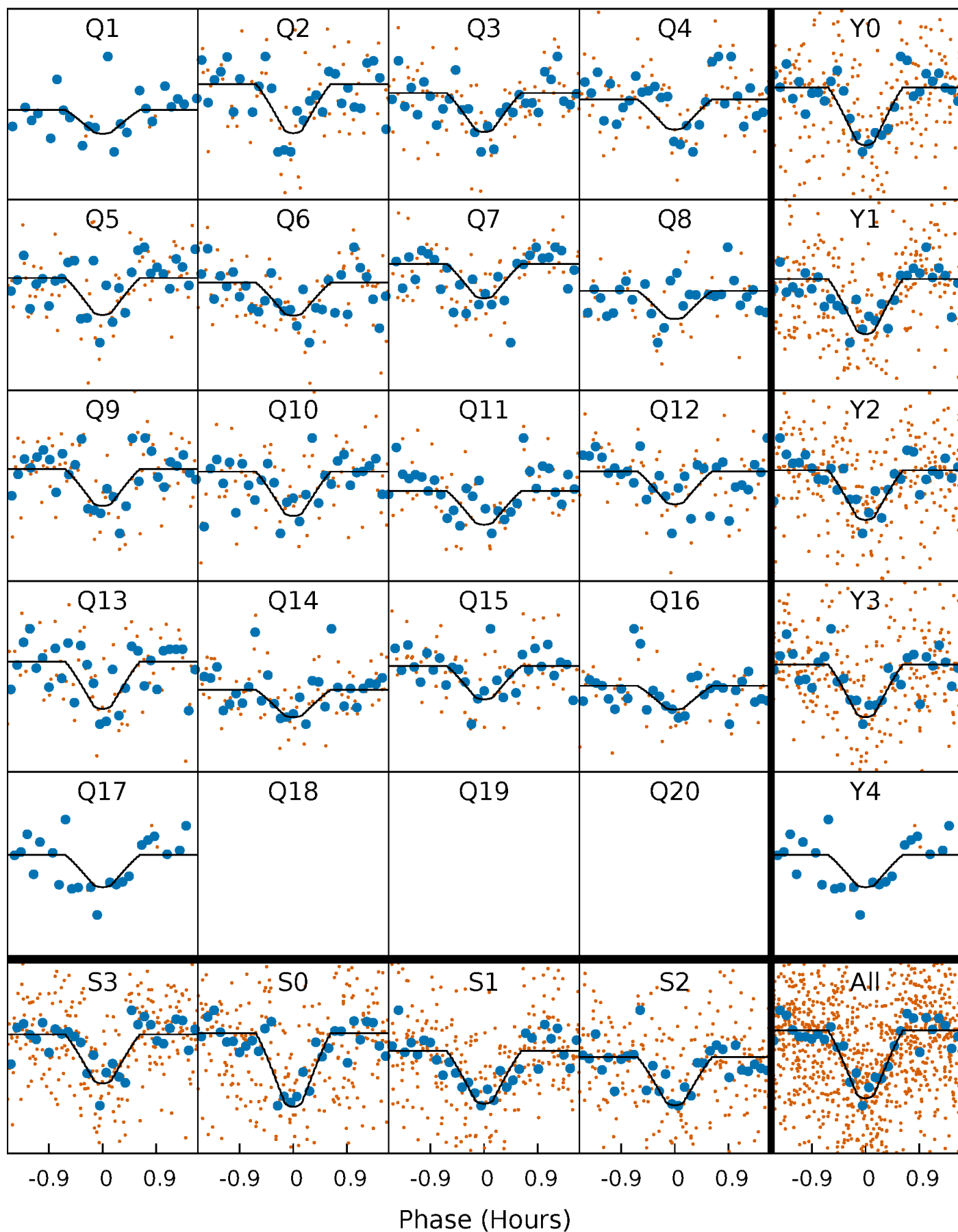
PDC Quarter-Phased Transit Curves

TCE 008937762-01 P= 7.536391 Days $T_0=136.432374$ (BKJD)



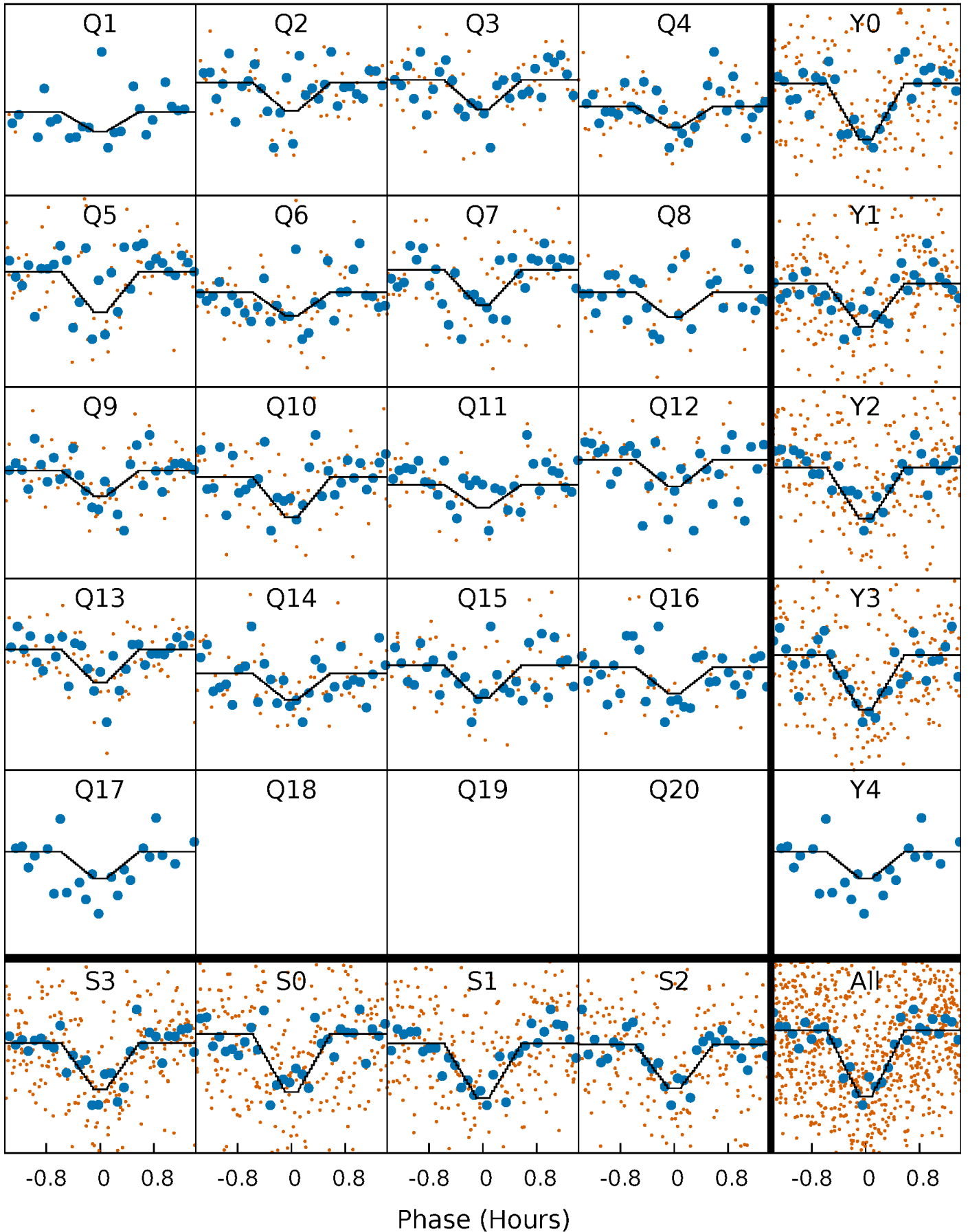
DV Quarter-Phased Transit Curves

TCE 008937762-01 P= 7.536391 Days $T_0=136.432374$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

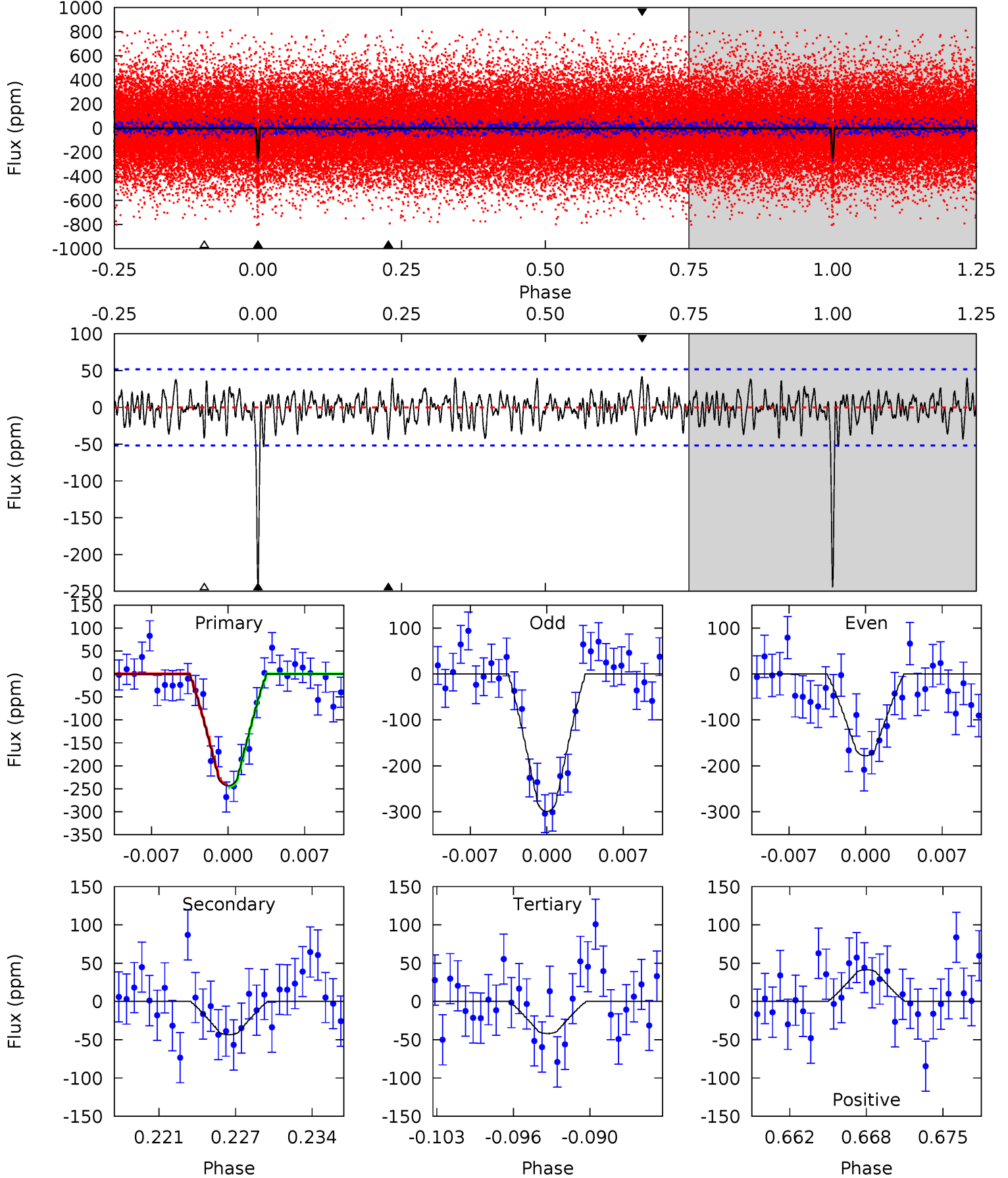
TCE 008937762-01 P= 7.536361 Days $T_0=136.436243$ (BKJD)



DV Model-Shift Uniqueness Test

008937762-01, P = 7.536391 Days, E = 128.895983 Days

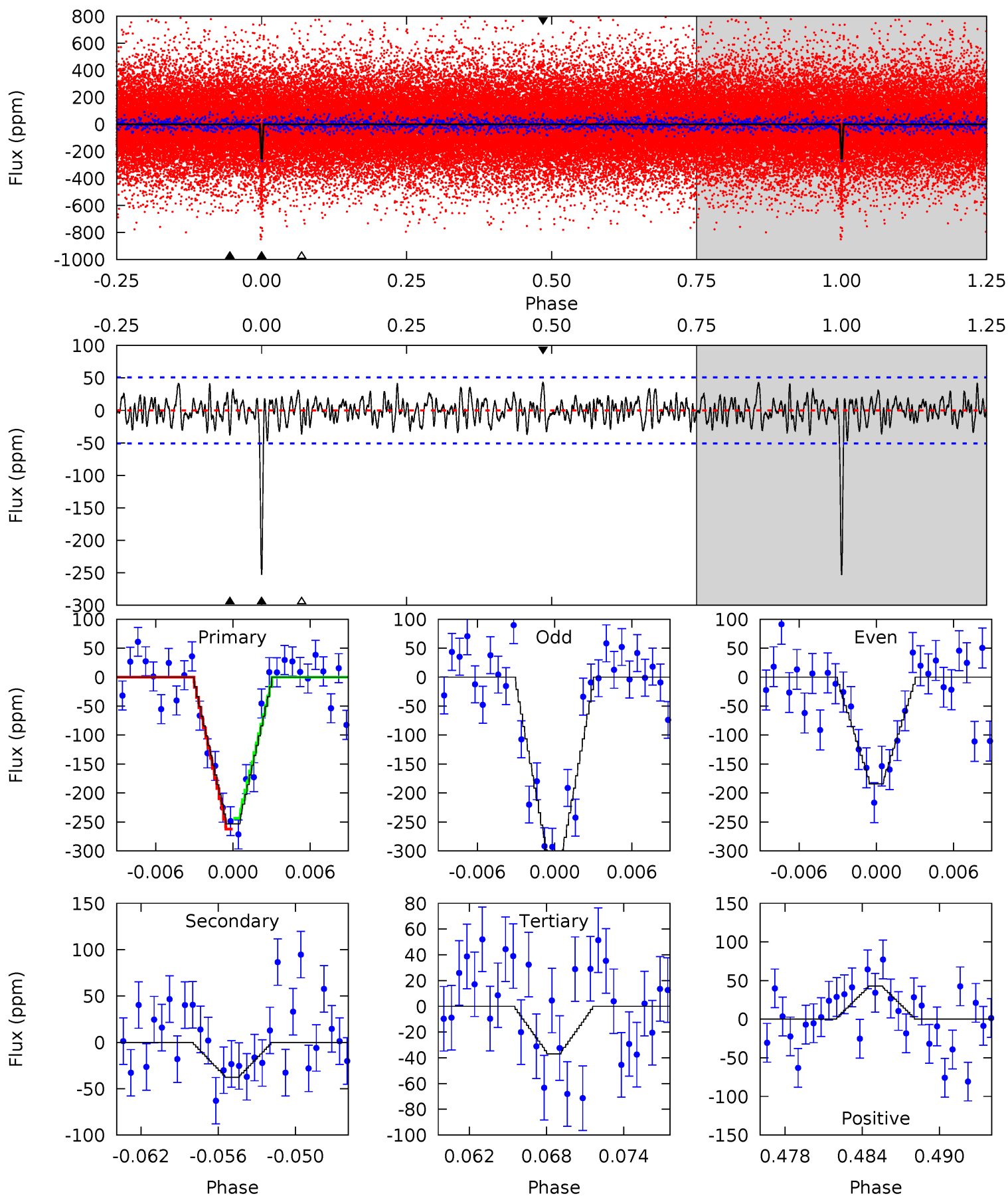
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
24.0	4.28	4.13	4.08	5.10	2.70	1.45	19.9	19.9	0.15	0.20	6.00	1.03	0.15	0.22



Alt Model-Shift Uniqueness Test

008937762-01, P = 7.536361 Days, E = 128.899882 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
25.4	3.80	3.71	4.31	5.12	2.74	1.46	21.7	21.1	0.09	-0.52	6.79	0.97	0.15	0.93



Stellar Parameters For KIC 008937762

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5521^{+167}_{-150}	$4.594^{+0.034}_{-0.136}$	$-0.280^{+0.300}_{-0.300}$	$0.771^{+0.161}_{-0.058}$	$0.864^{+0.080}_{-0.100}$	$2.650^{+0.487}_{-1.055}$
	+3%/-3%	+1%/-3%	+107%/-107%	+21%/-8%	+9%/-12%	+18%/-40%
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 008937762-01 / KOI 4668.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-43 ± 10	$1.34^{+0.62}_{-0.59}$	1141^{+56}_{-45}	3917^{+992}_{-481}	66^{+146}_{-37}
Alt.	-38 ± 10	$1.43^{+0.61}_{-0.68}$	1142^{+58}_{-44}	3768^{+1123}_{-457}	49^{+152}_{-26}

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

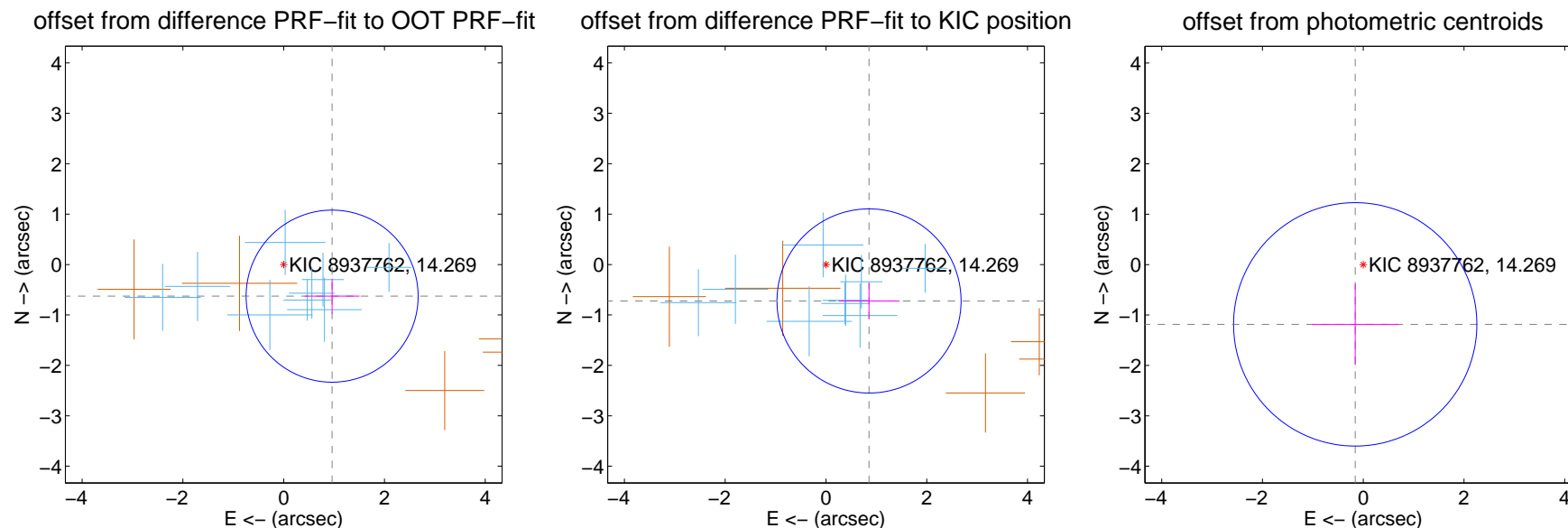
DV Centroid Data

Supplemental centroid analysis for 008937762-01. Kepler magnitude: 14.27. Transit SNR 15.58

There are 9 quarters with good PRF difference image offsets

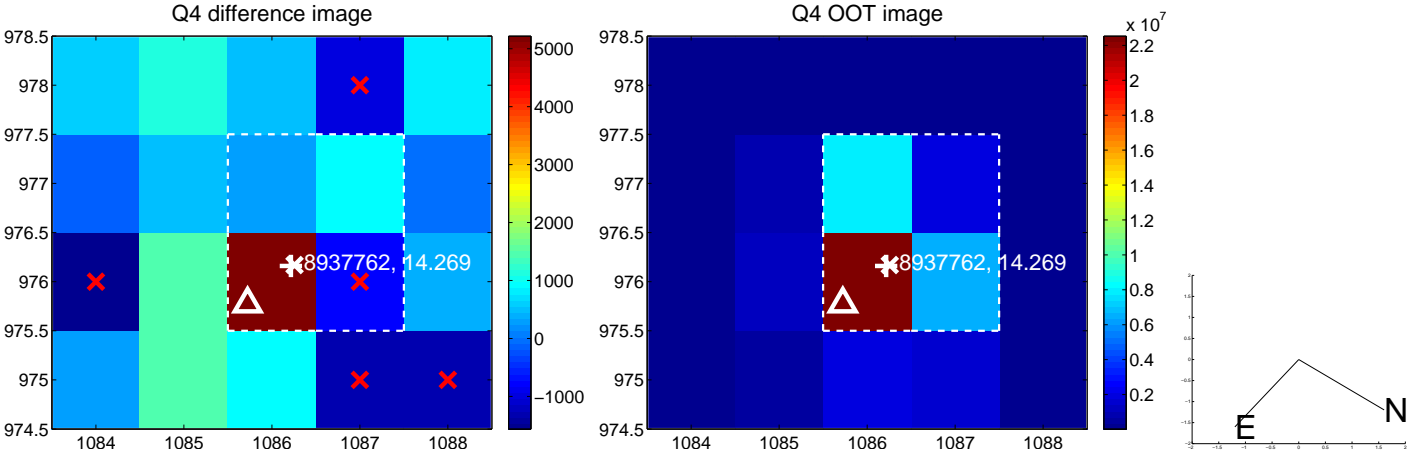
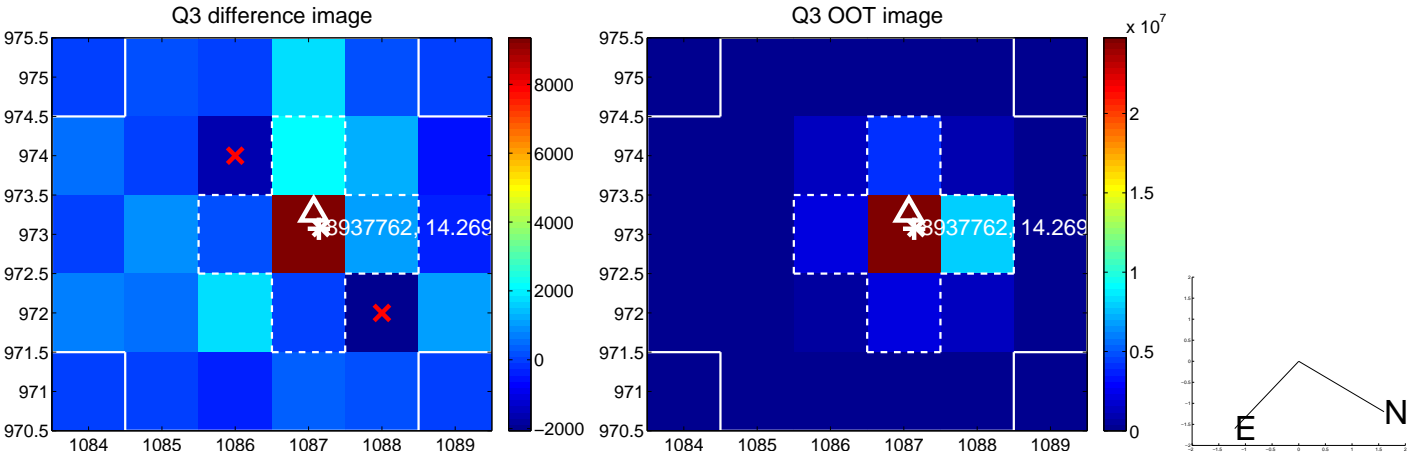
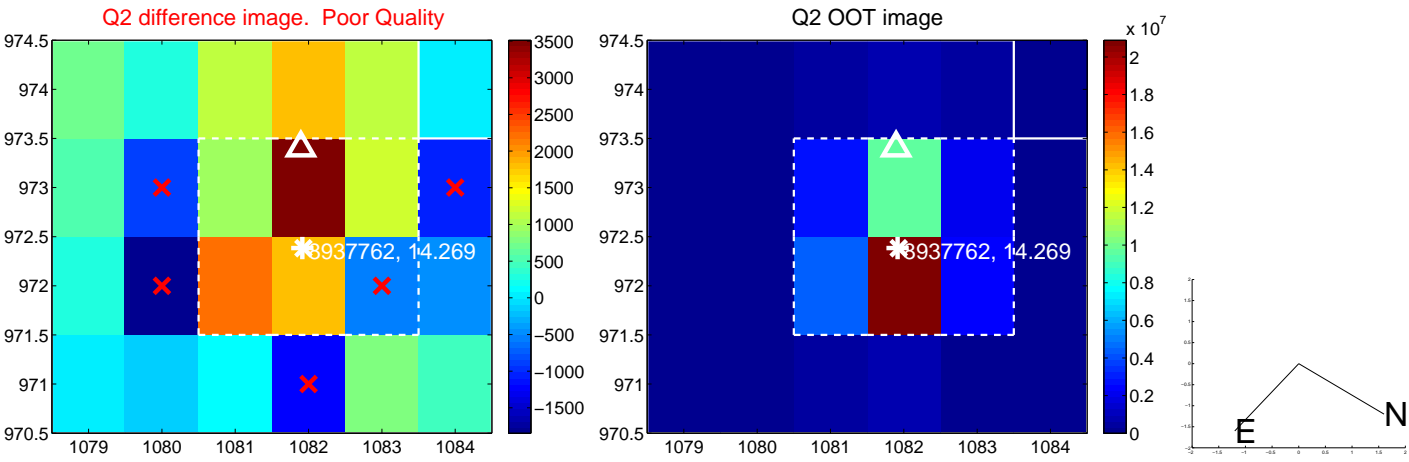
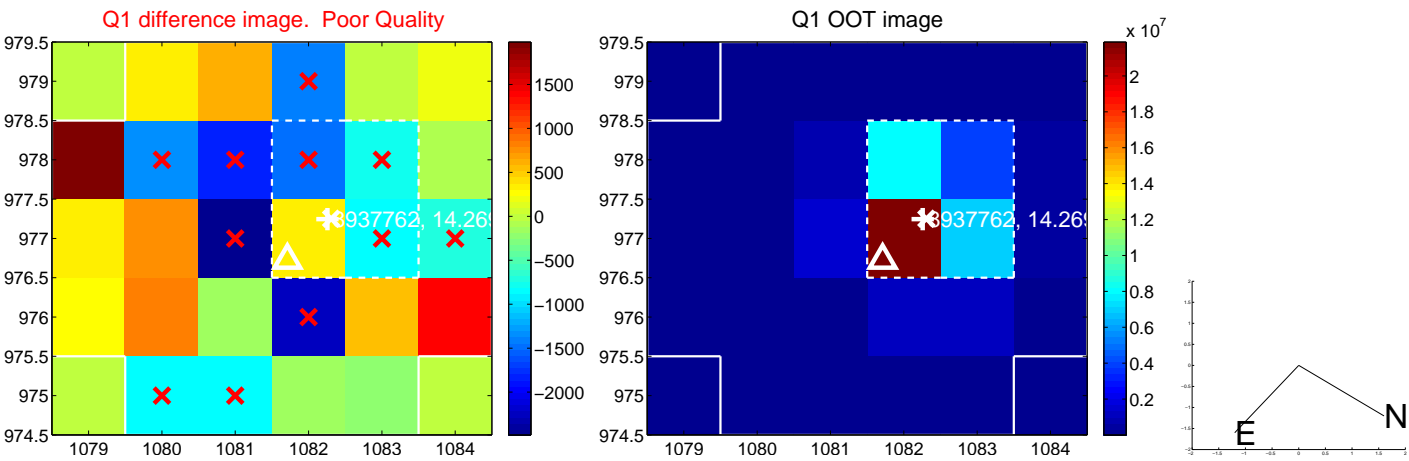
The direct PRF centroid is offset from the target star catalog position by about 0.18 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.148 ± 0.569	2.02	-0.961 ± 0.541	-0.627 ± 0.346
PRF-fit source offset from KIC position	1.119 ± 0.609	1.84	-0.854 ± 0.607	-0.722 ± 0.355
photometric centroid source offset	1.20 ± 0.80	1.49	0.16 ± 0.86	-1.19 ± 0.80

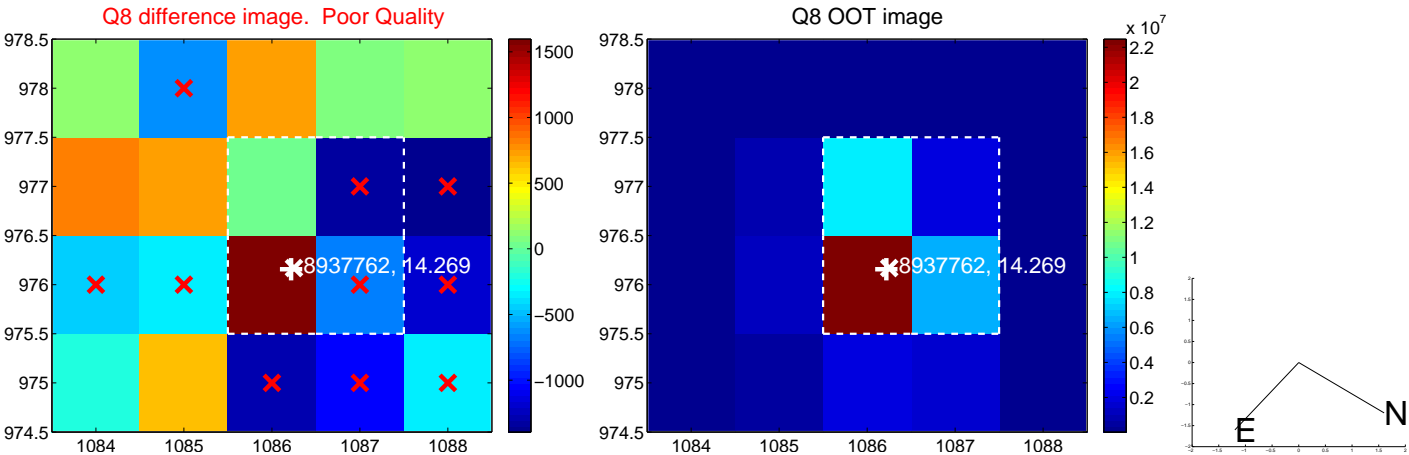
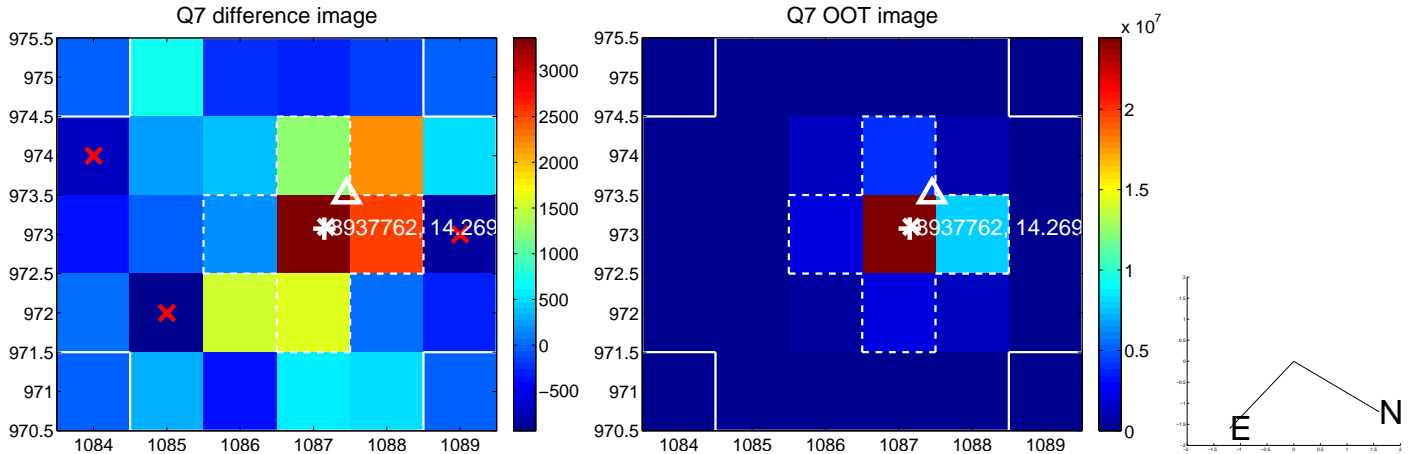
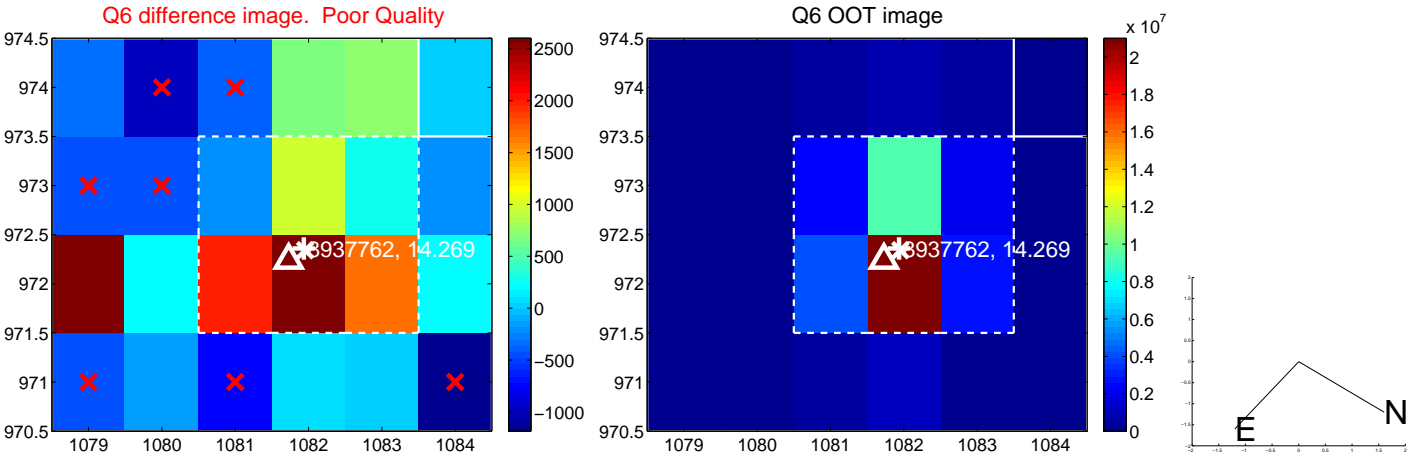
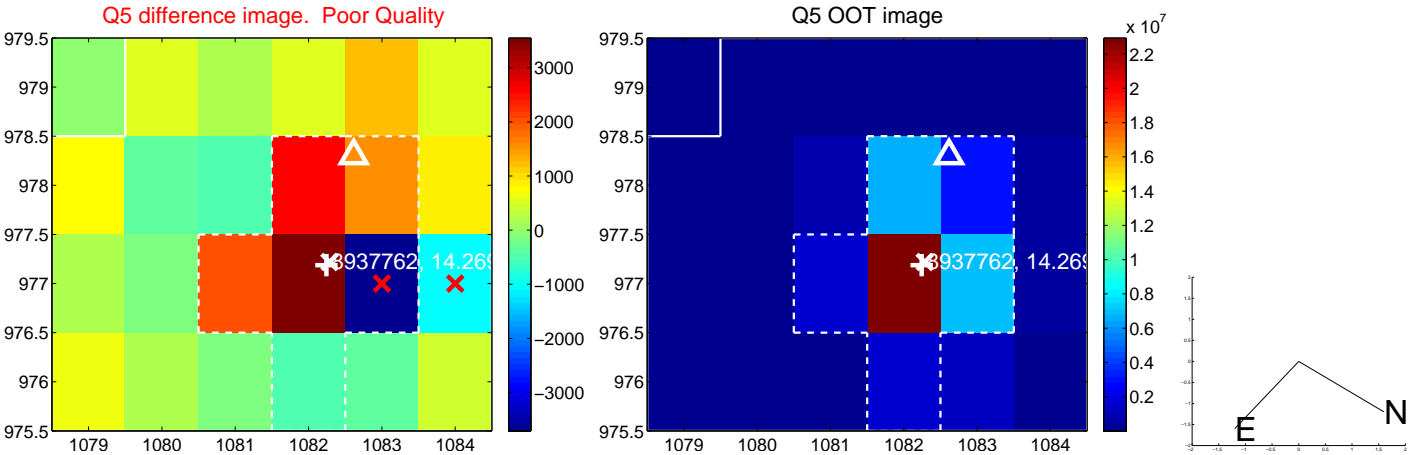


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

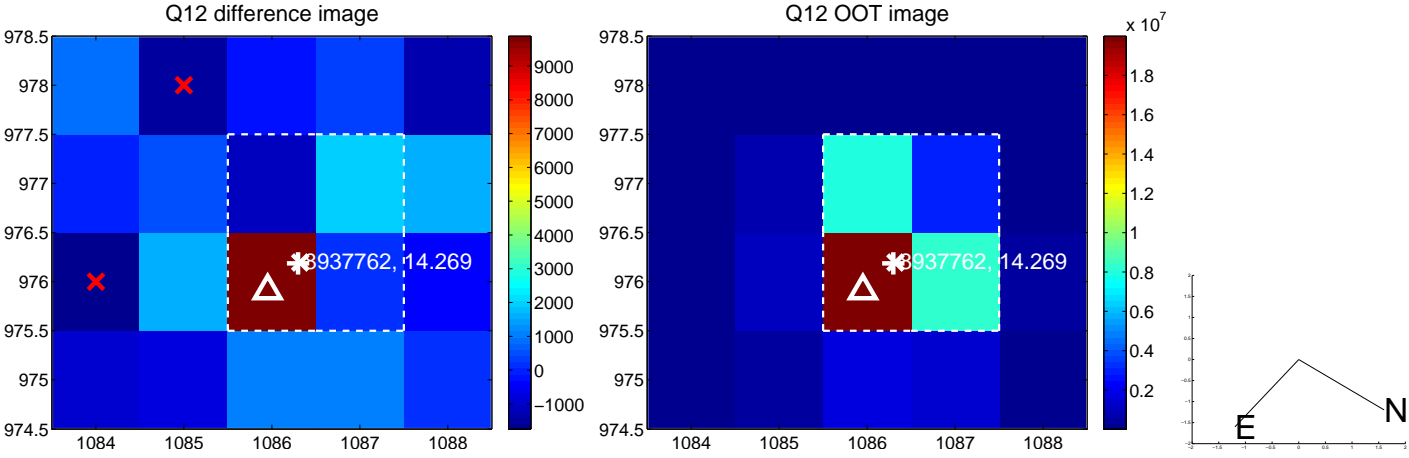
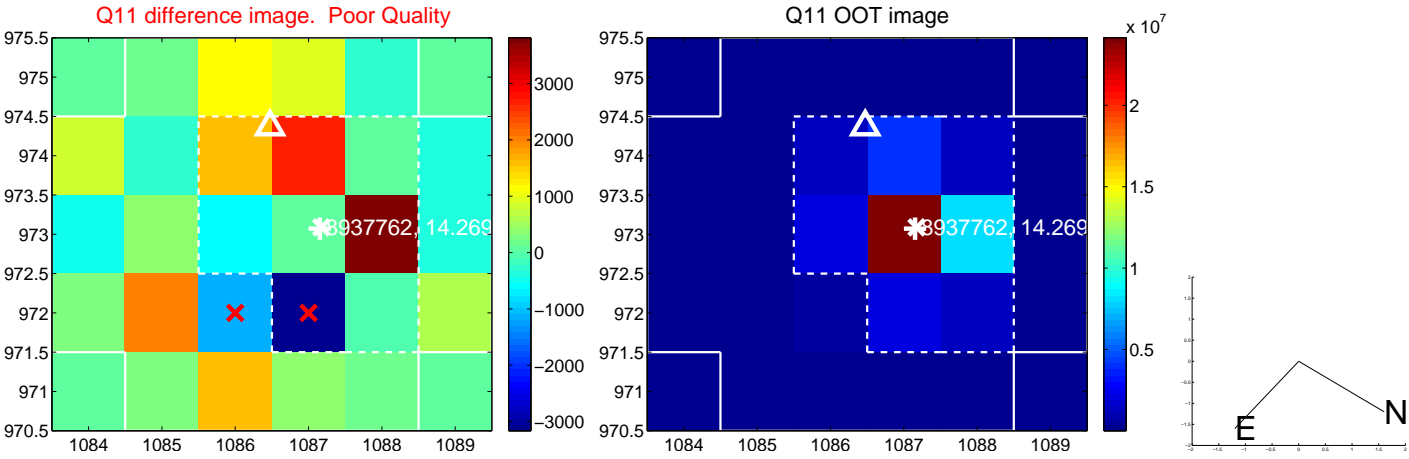
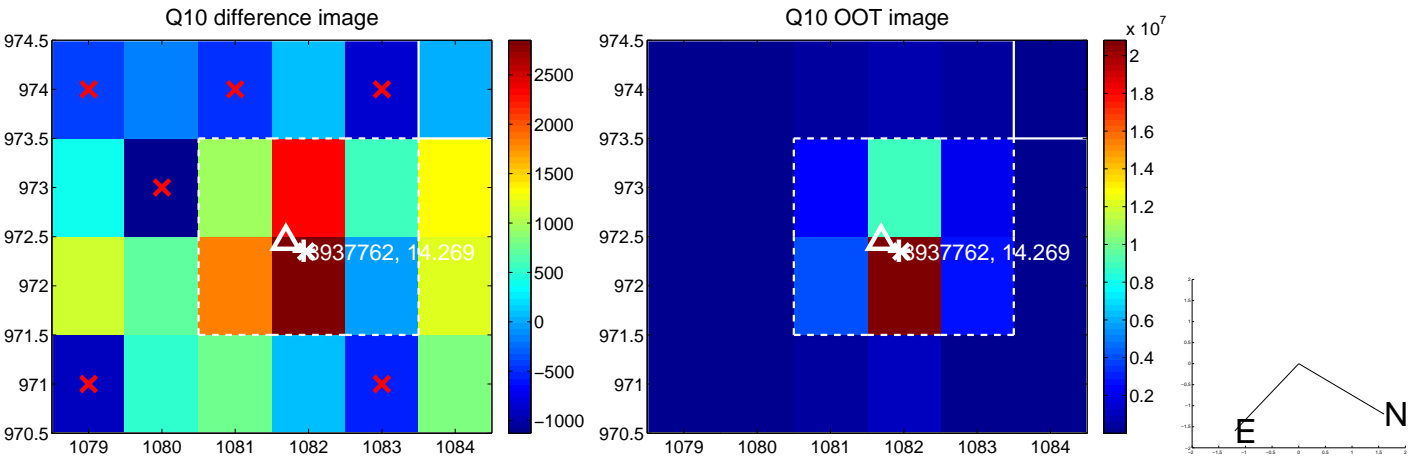
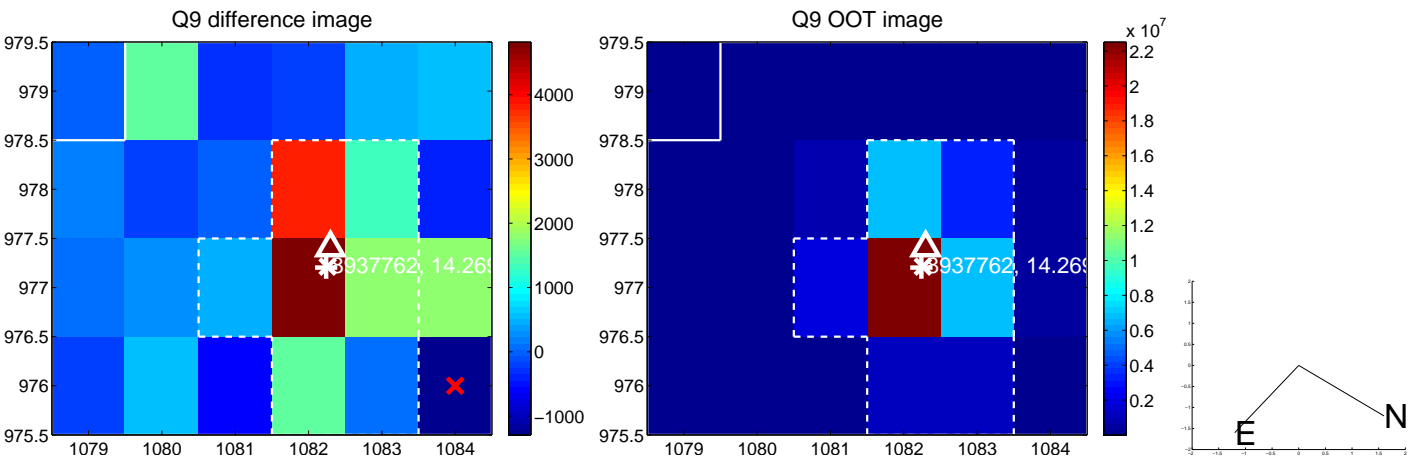
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



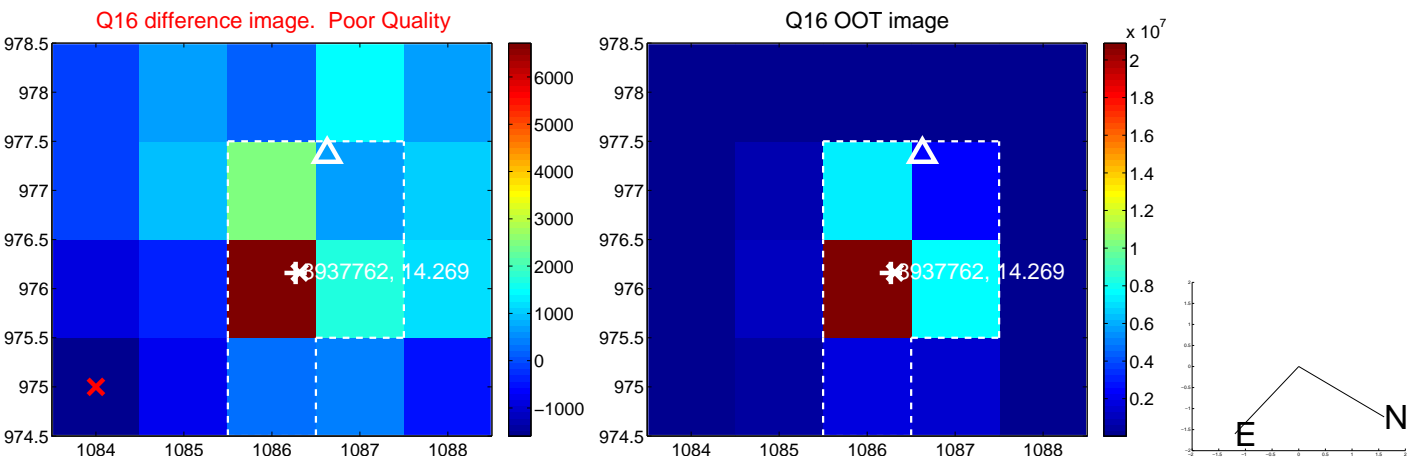
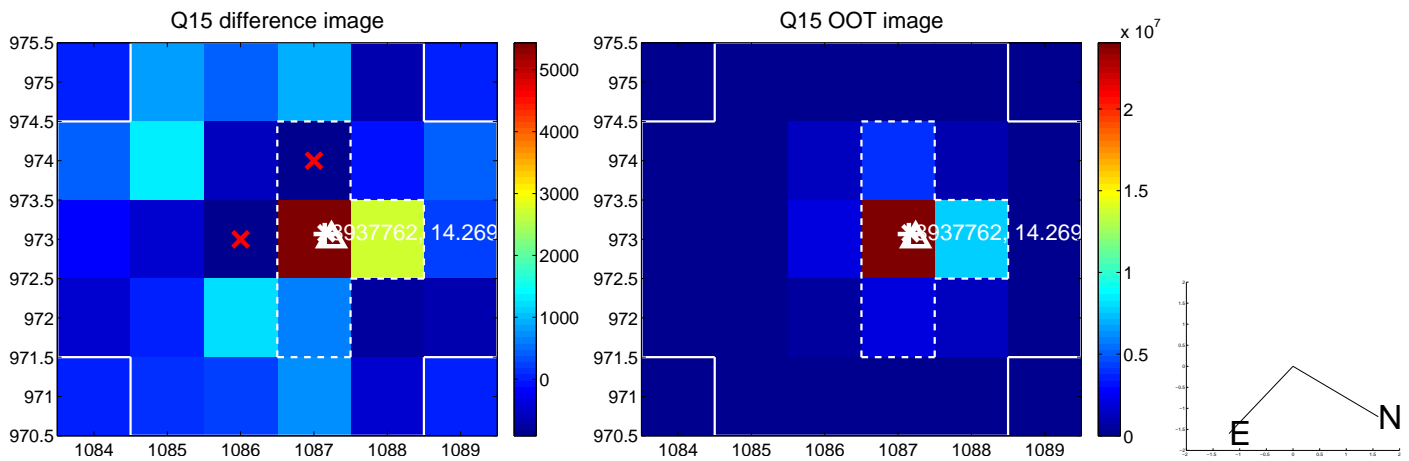
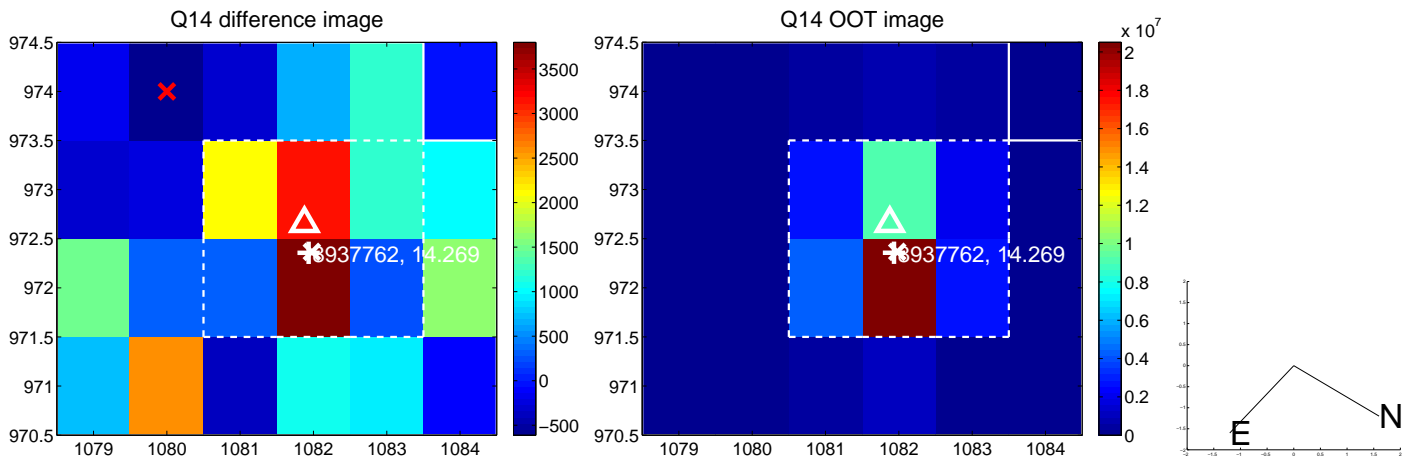
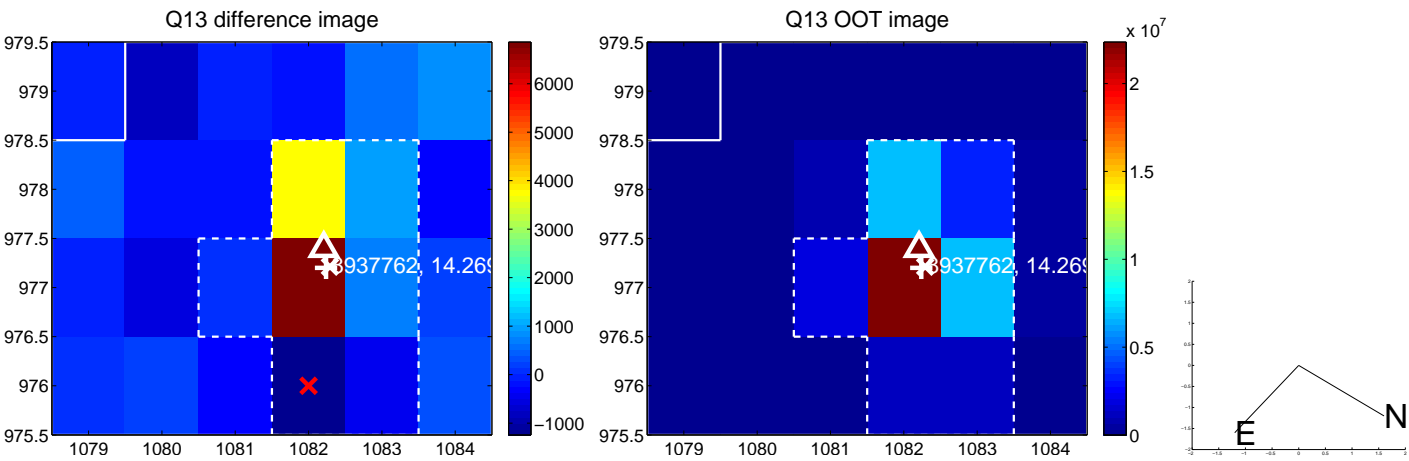
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



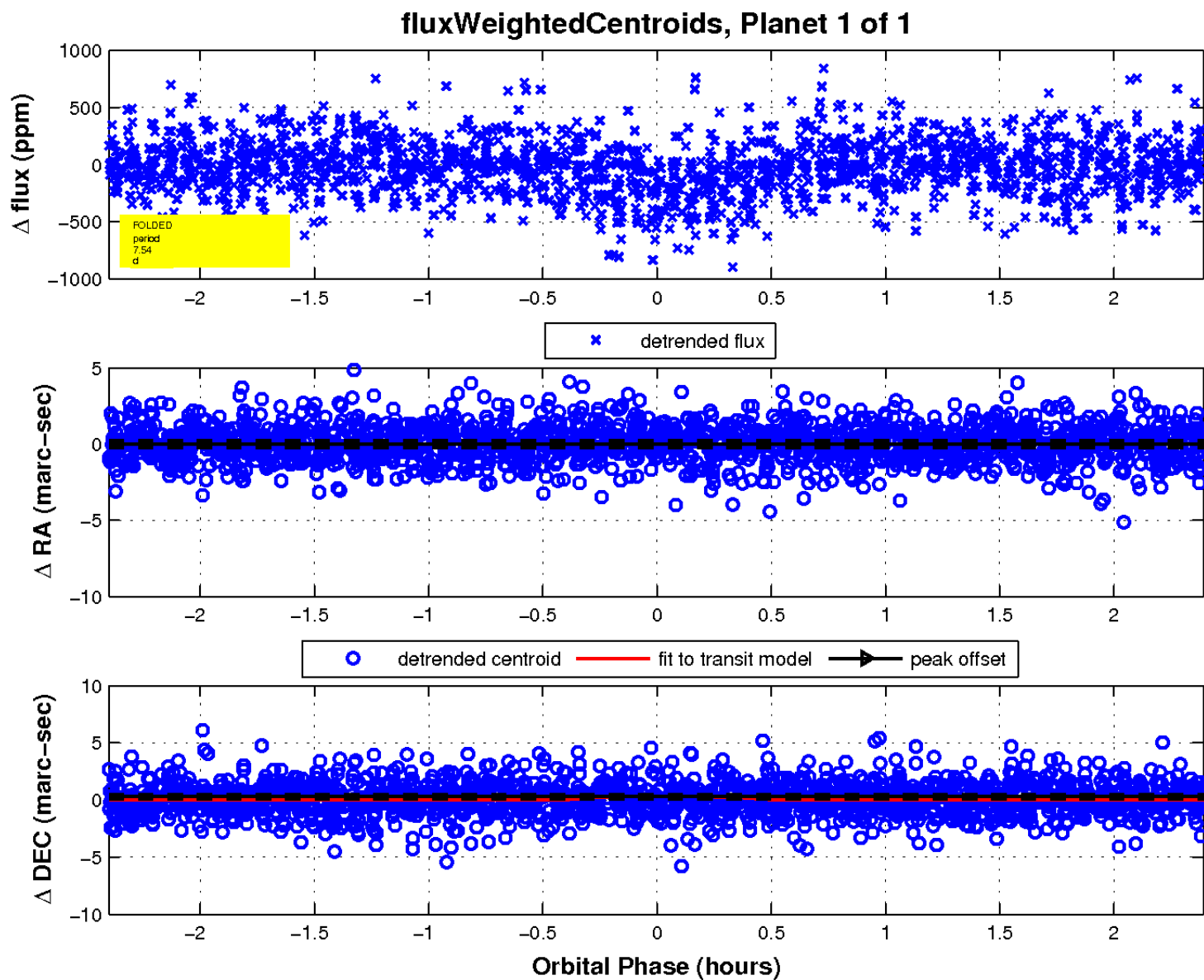
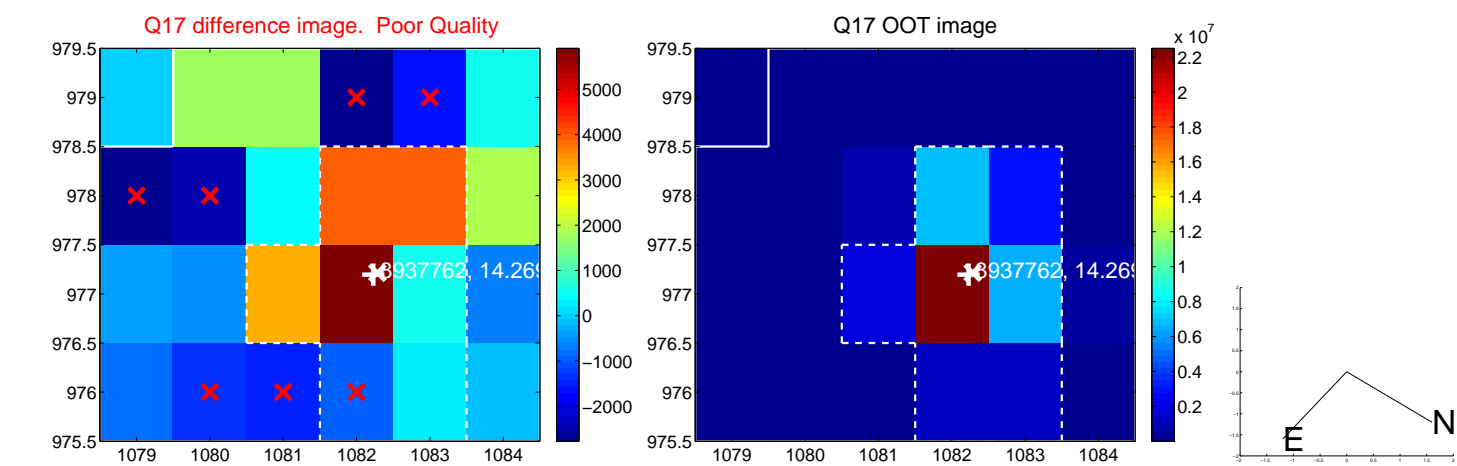
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UKIRT Image

Declination

