

KIC 008950853

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})
008950853-01	OBS	1412.01	37.814615	134.664240	396.9	9.330	38.7	41.7	1.31	5988	3.08	36.33

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008950853-01	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.

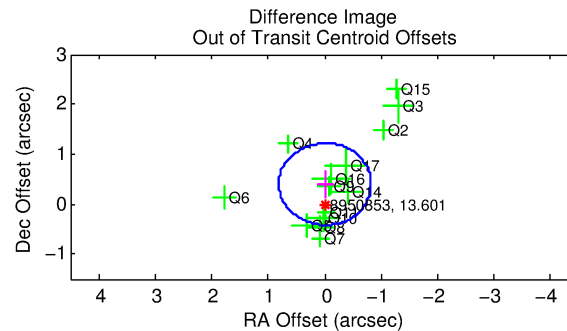
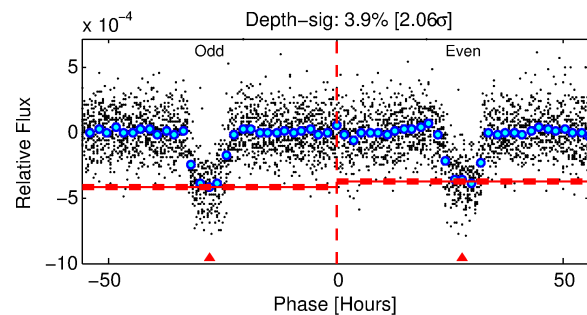
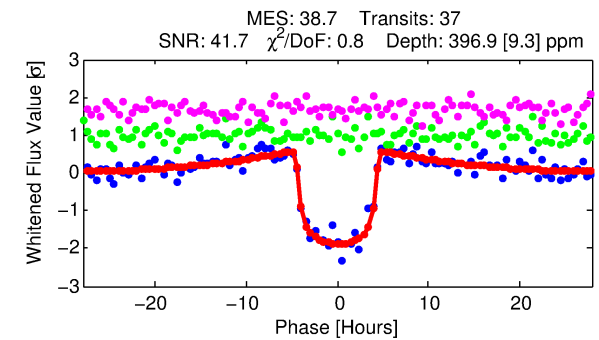
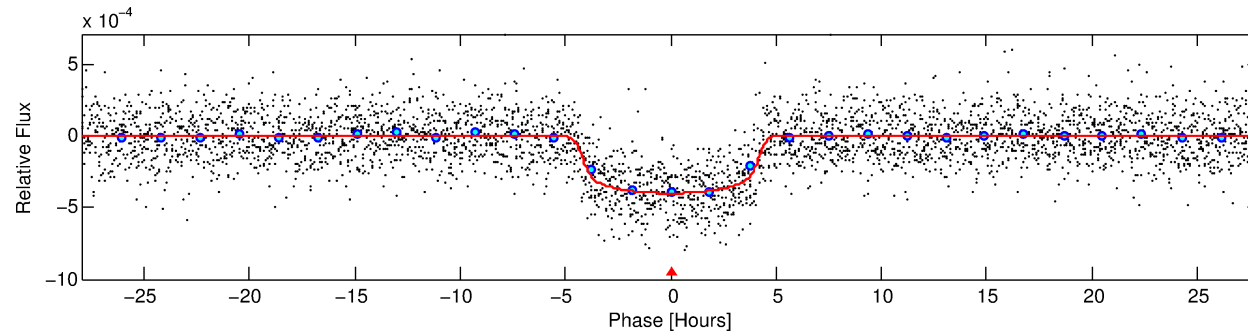
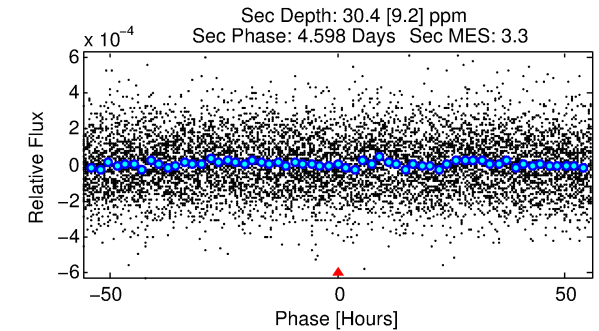
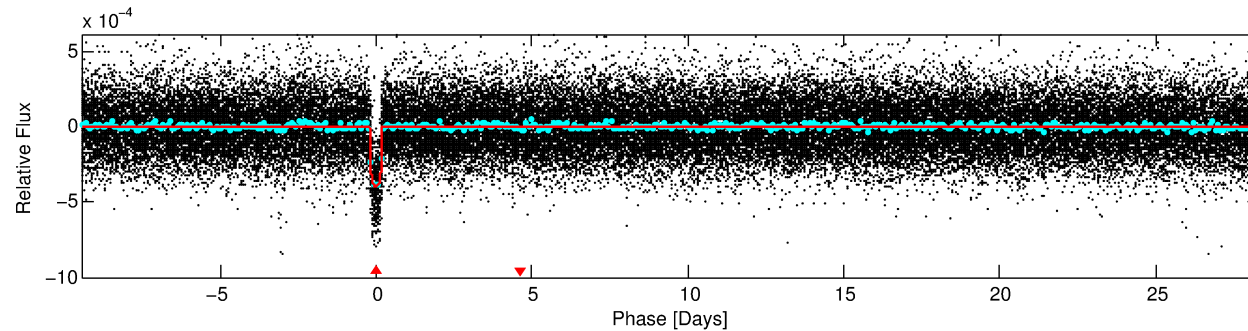
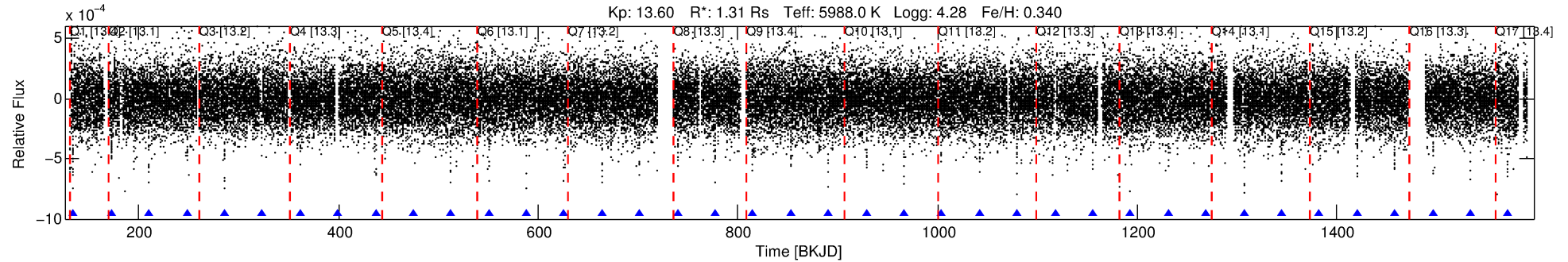
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008950853-01

No Significant Match Found

DV One-Page Summary

KIC: 8950853 Candidate: 1 of 1 Period: 37.815 d
KOI: K01412.01 Corr: 0.959



DV Fit Results:

Period = 37.81462 [0.00016] d
Epoch = 134.6642 [0.0036] BKJD
Rp/R* = 0.0215 [0.0007]
a/R* = 15.43 [2.12]
b = 0.89 [0.03]
Seff = 36.32 [8.60]
Teq = 626 [37] K
Rp = 3.08 [0.55] Re
a = 0.2340 [0.0351] AU
Ag = 96.16 [36.45] [2.61σ]
Teffp = 3031 [243] K [9.78σ]

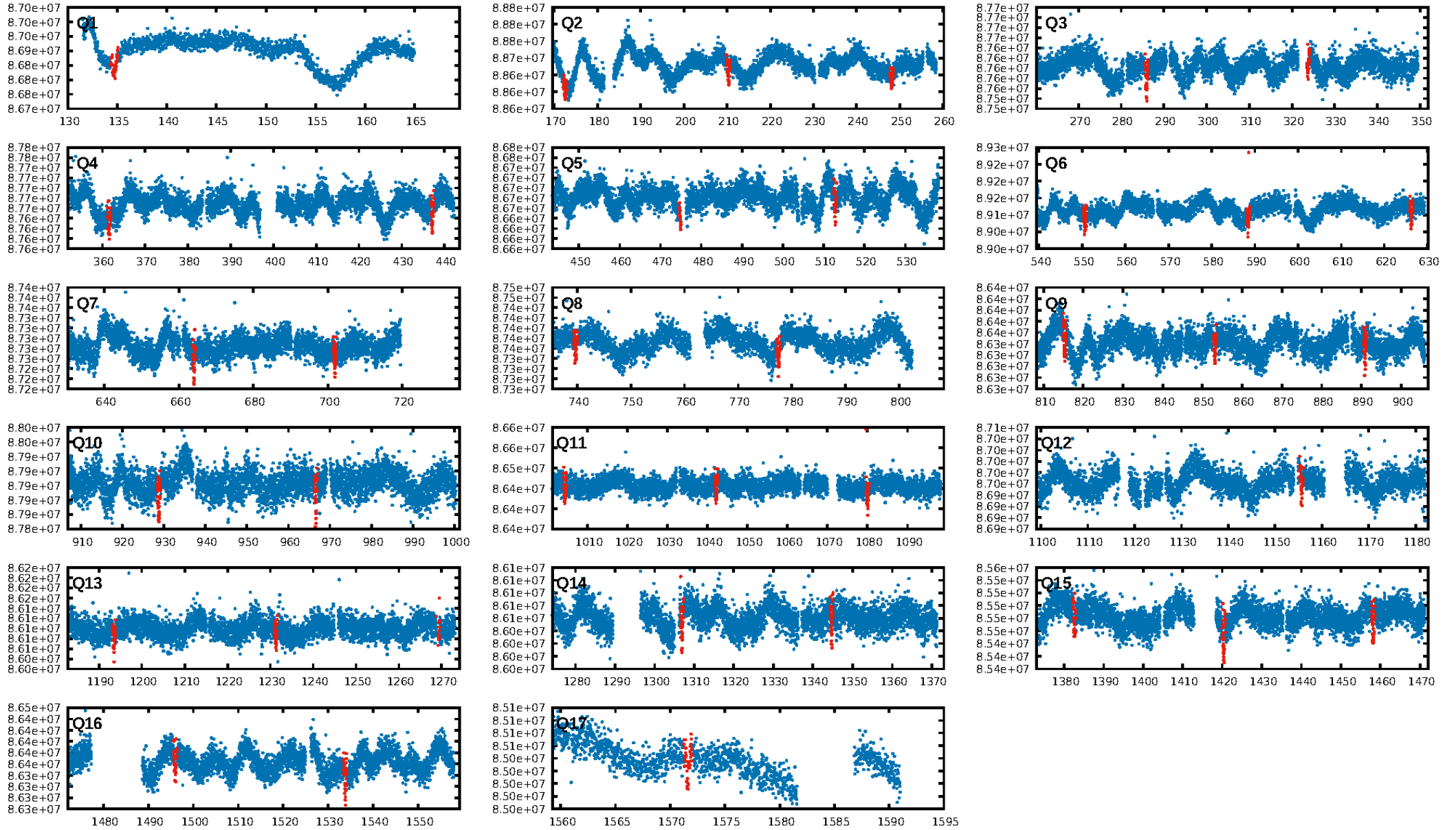
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 57.1%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.57e-308
RollingBand-fgt: 1.00 [35/35]
GhostDiagnostic-chr: -115.8
Centroid-sig: 0.2%
Centroid-so: 0.650 arcsec [2.42σ]
OotOffset-rm: 0.399 arcsec [1.46σ]
KicOffset-rm: 0.317 arcsec [1.17σ]
OotOffset-st: 4/4/3/3 [14]
KicOffset-st: 4/4/3/3 [14]
DiffImageQuality-fgm: 1.00 [14/14]
DiffImageOverlap-fno: 1.00 [15/15]

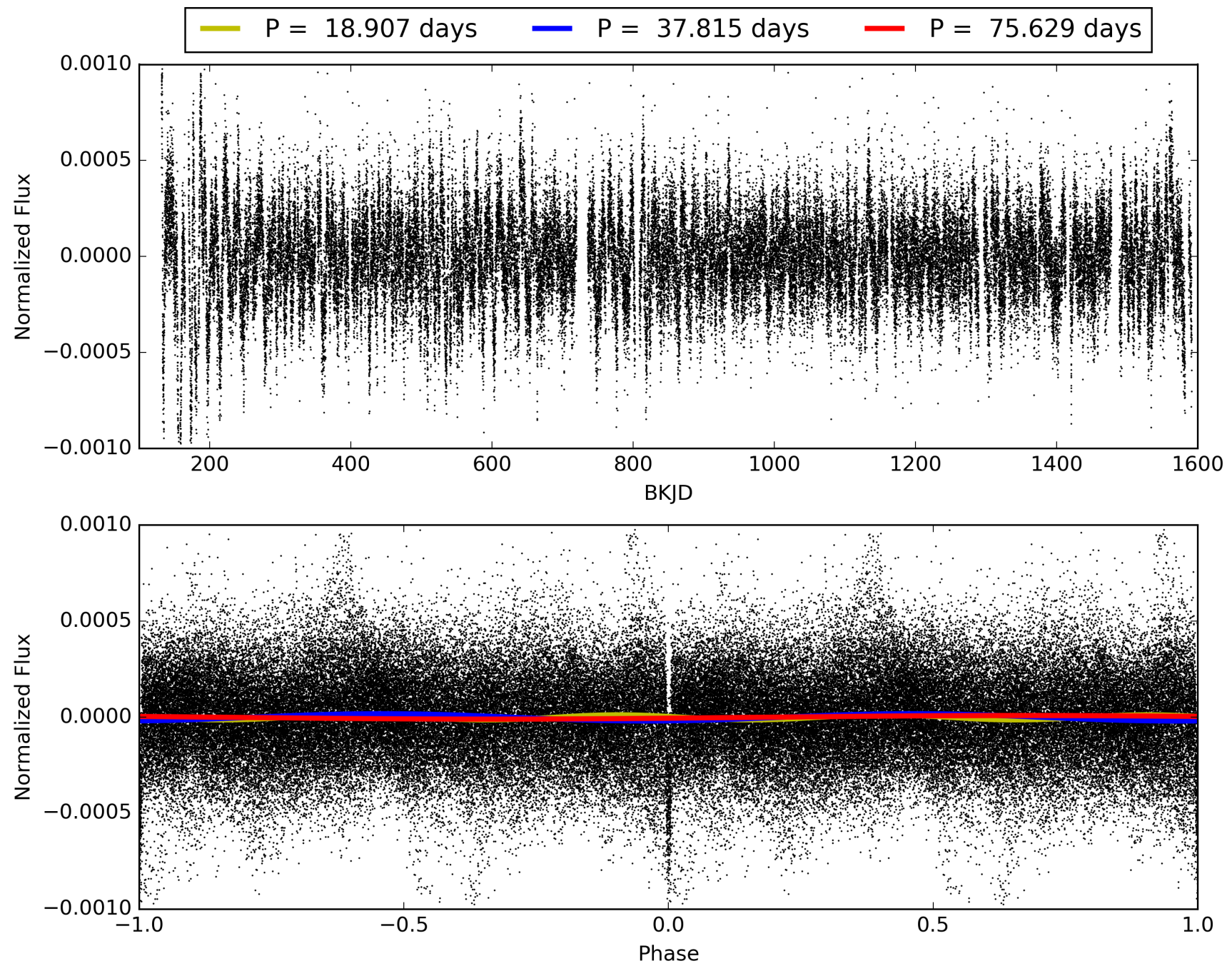
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 14:08:12 Z

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

TCE 008950853-01, PDC Light Curves

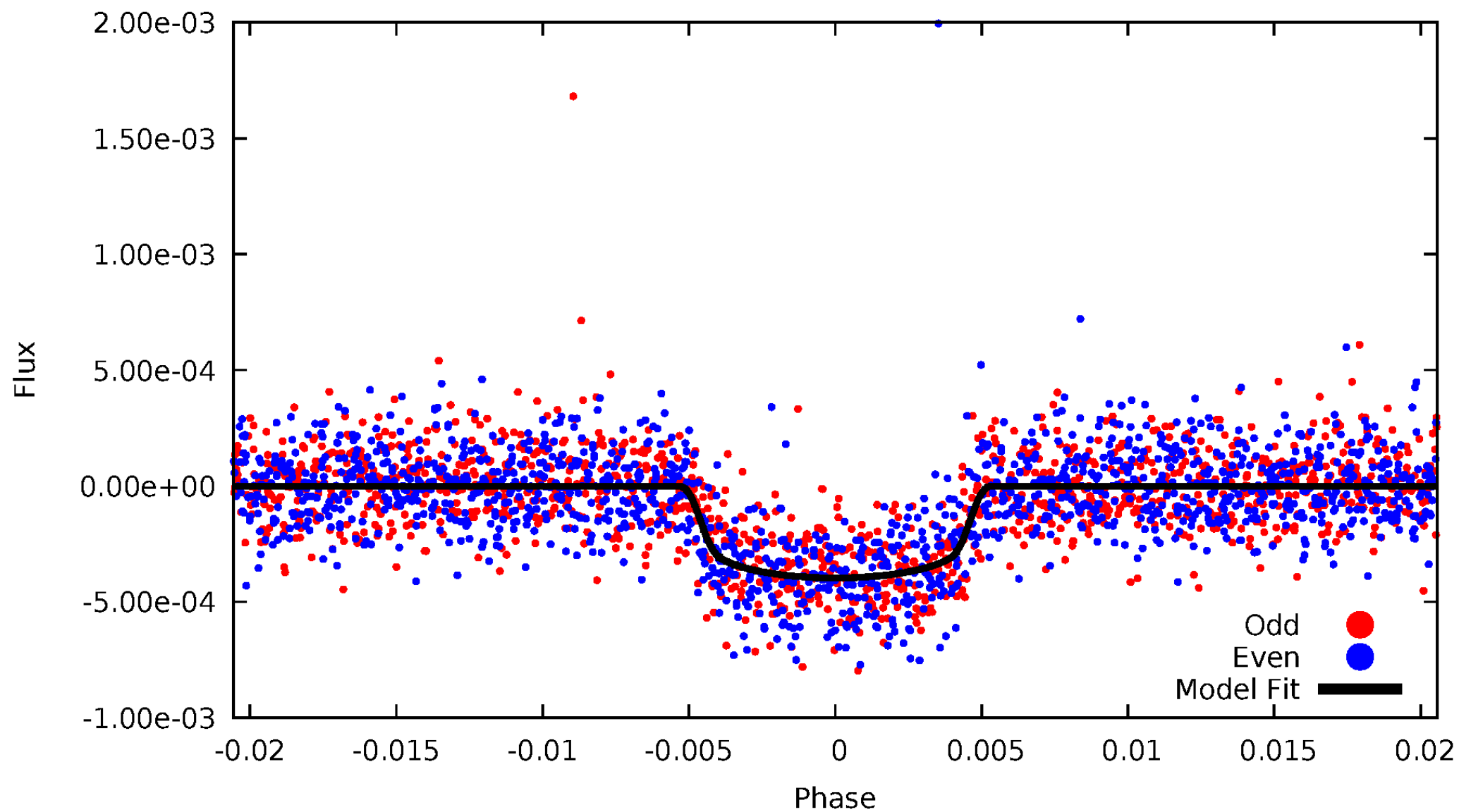


TCE 008950853-01



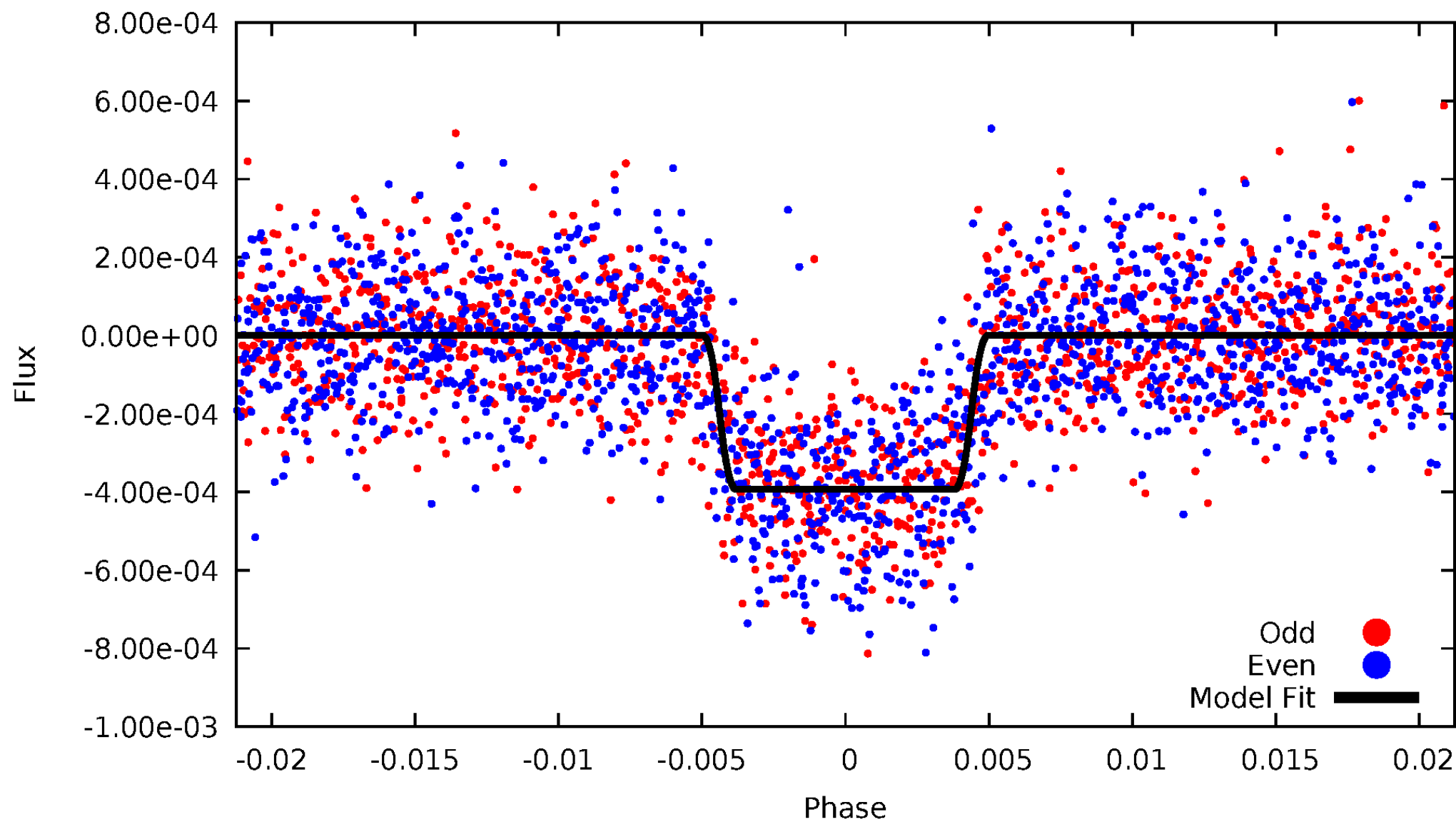
DV Odd/Even

TCE 008950853-01

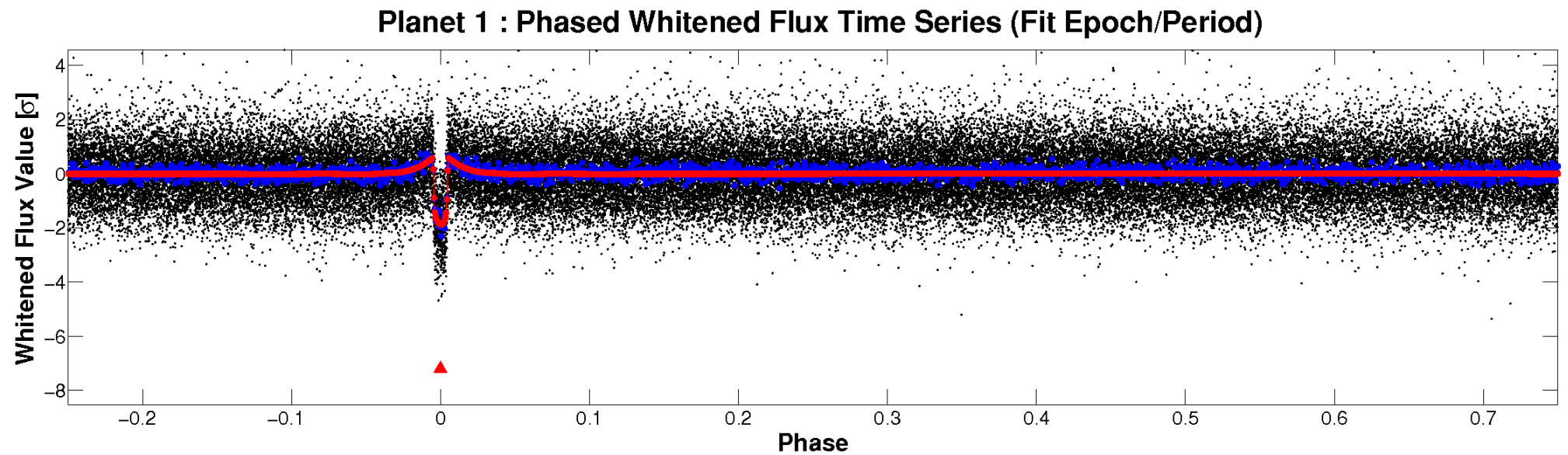
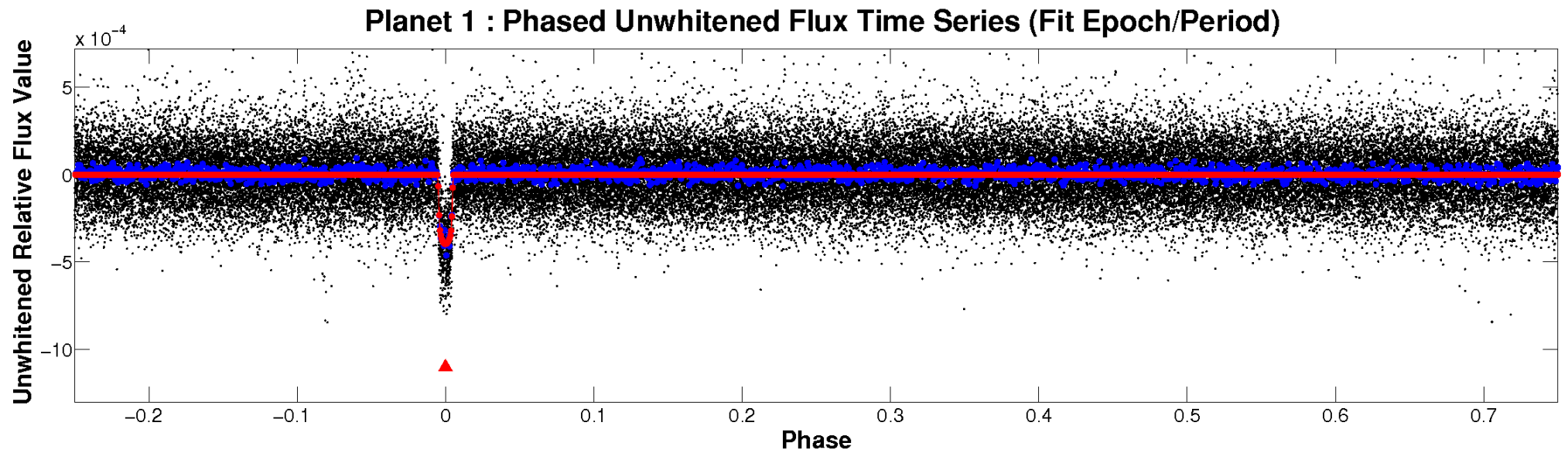


ALT Odd/Even

TCE 008950853-01

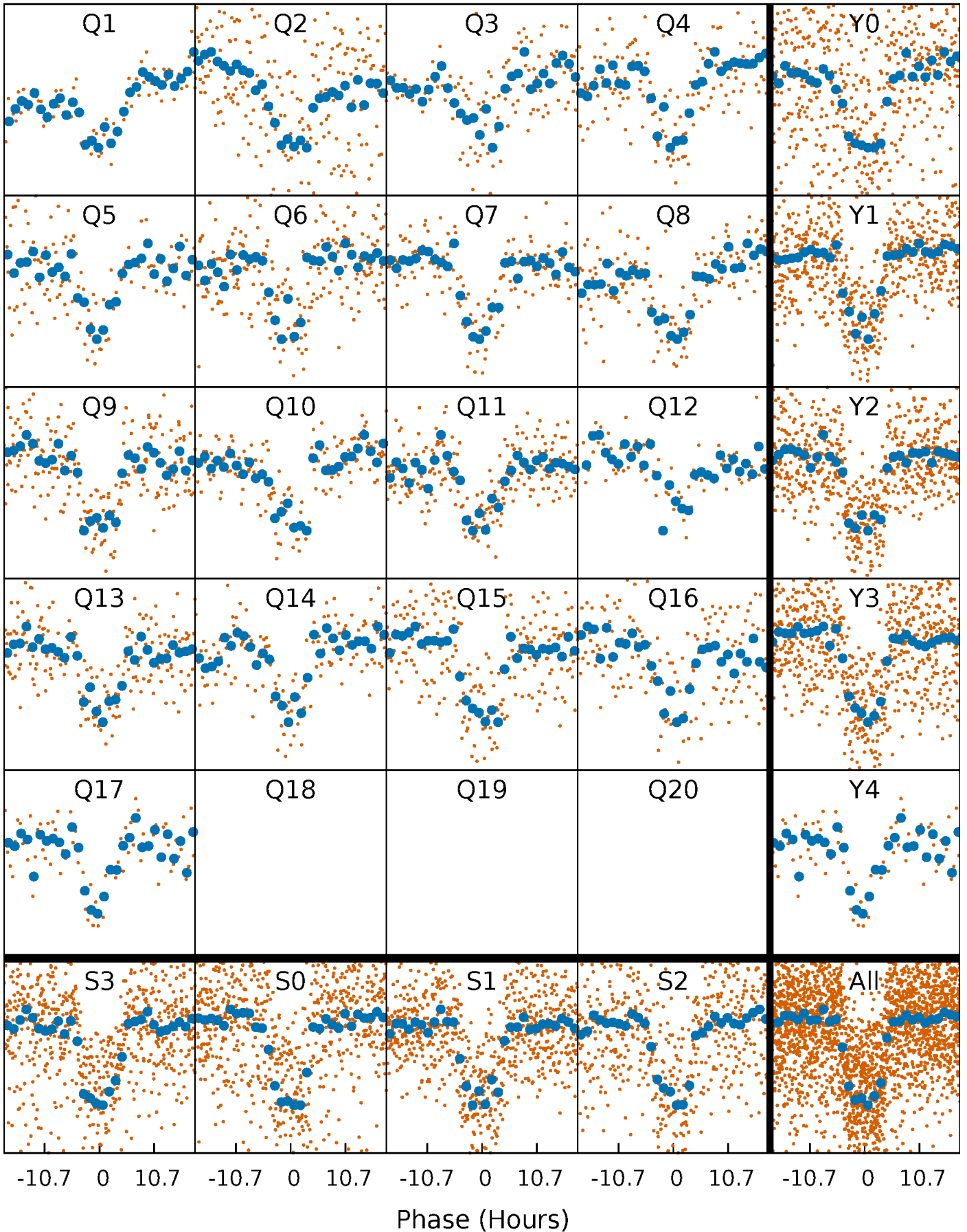


Non-Whitened Vs. Whitened Light Curve



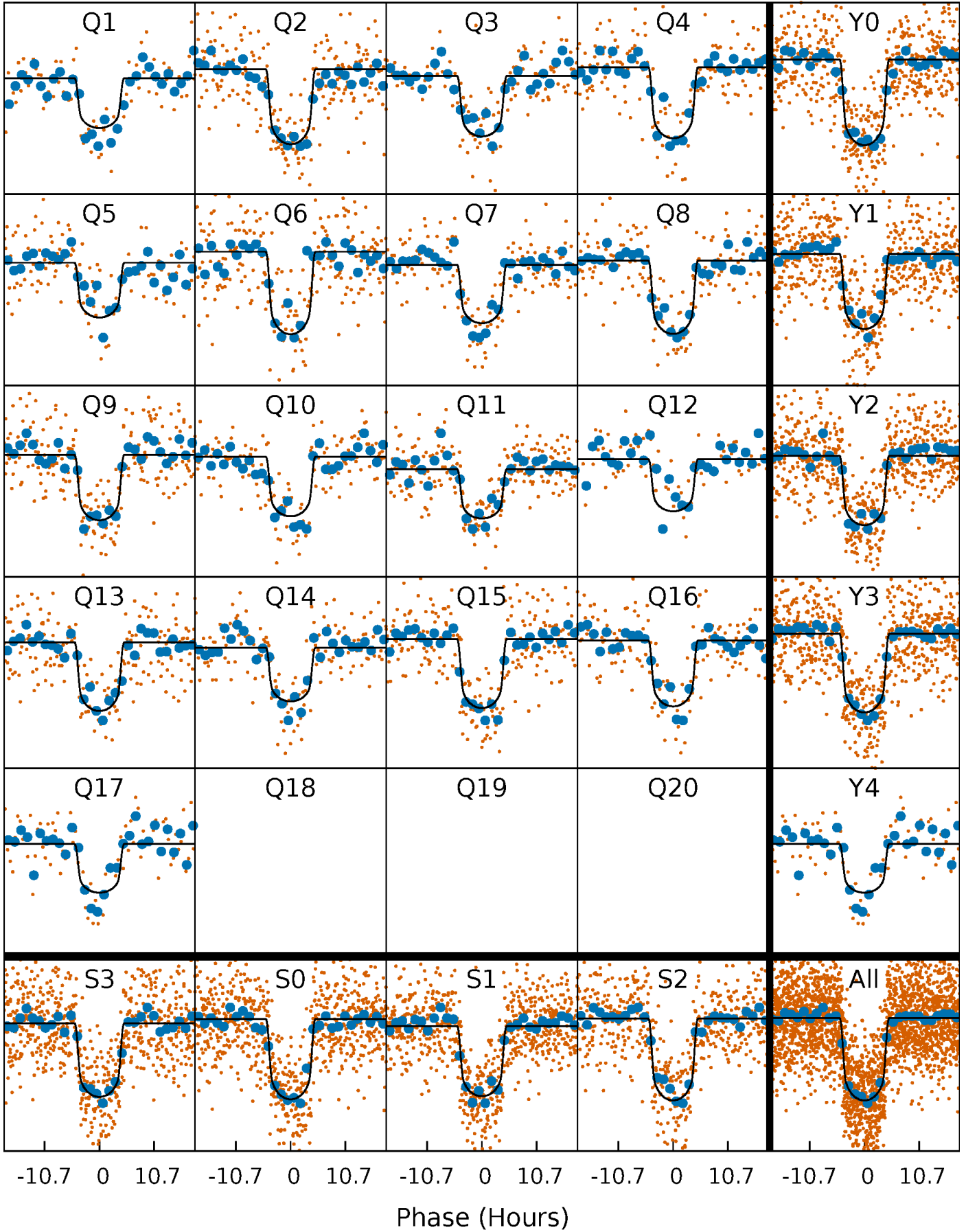
PDC Quarter-Phased Transit Curves

TCE 008950853-01 P= 37.814615 Days $T_0=134.664240$ (BKJD)



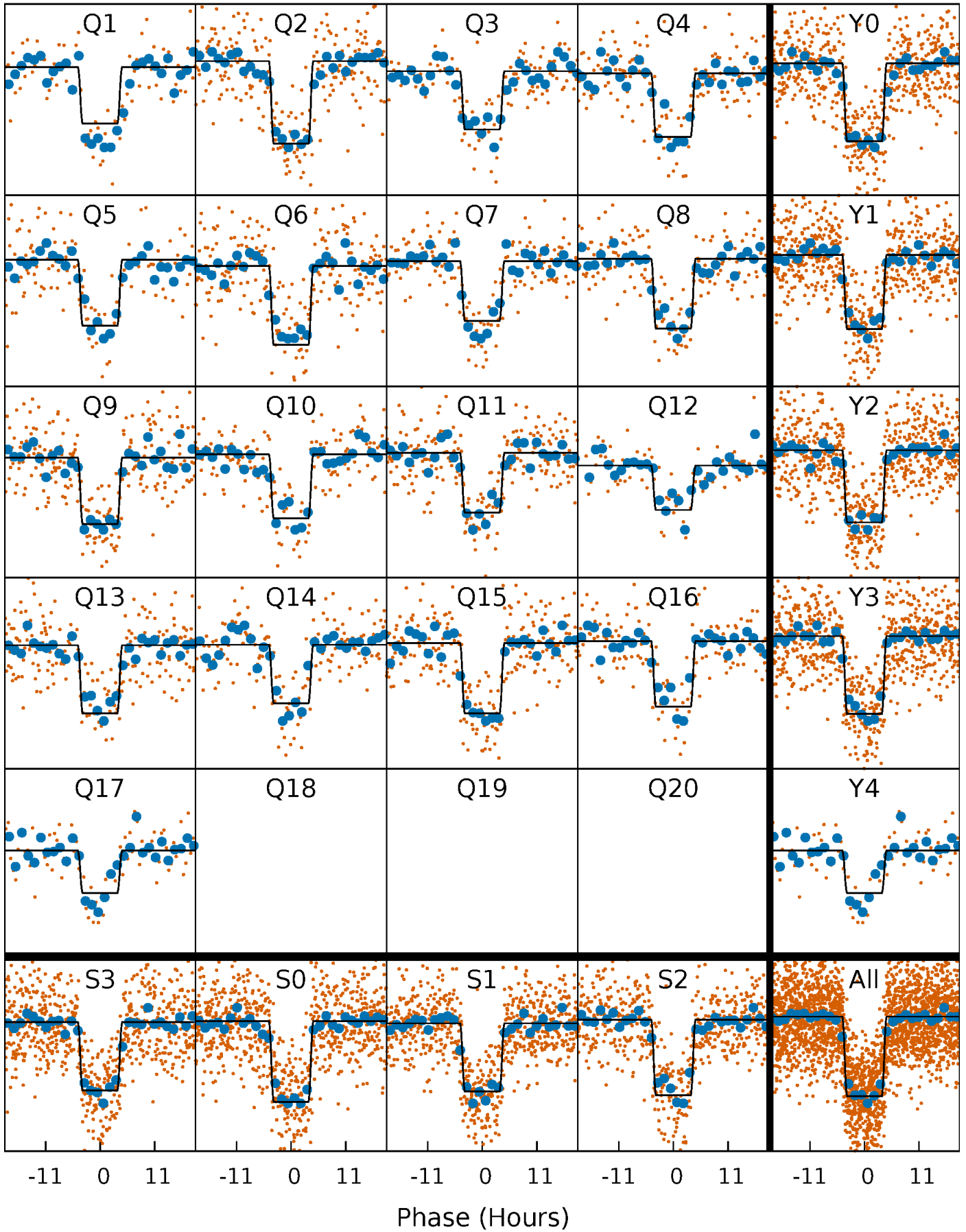
DV Quarter-Phased Transit Curves

TCE 008950853-01 P= 37.814615 Days $T_0=134.664240$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

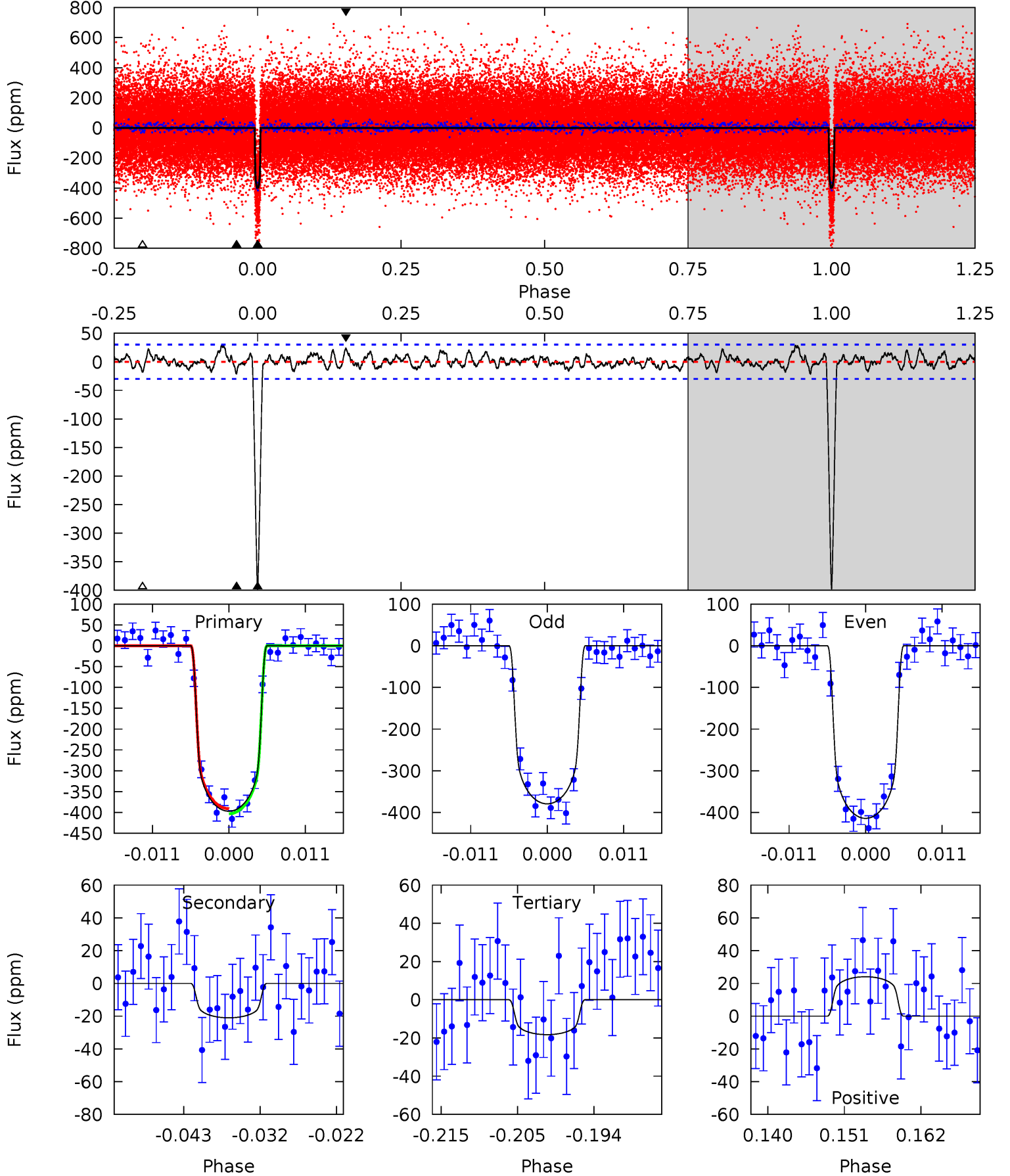
TCE 008950853-01 P= 37.814944 Days $T_0=134.655595$ (BKJD)



DV Model-Shift Uniqueness Test

008950853-01, P = 37.814615 Days, E = 96.849625 Days

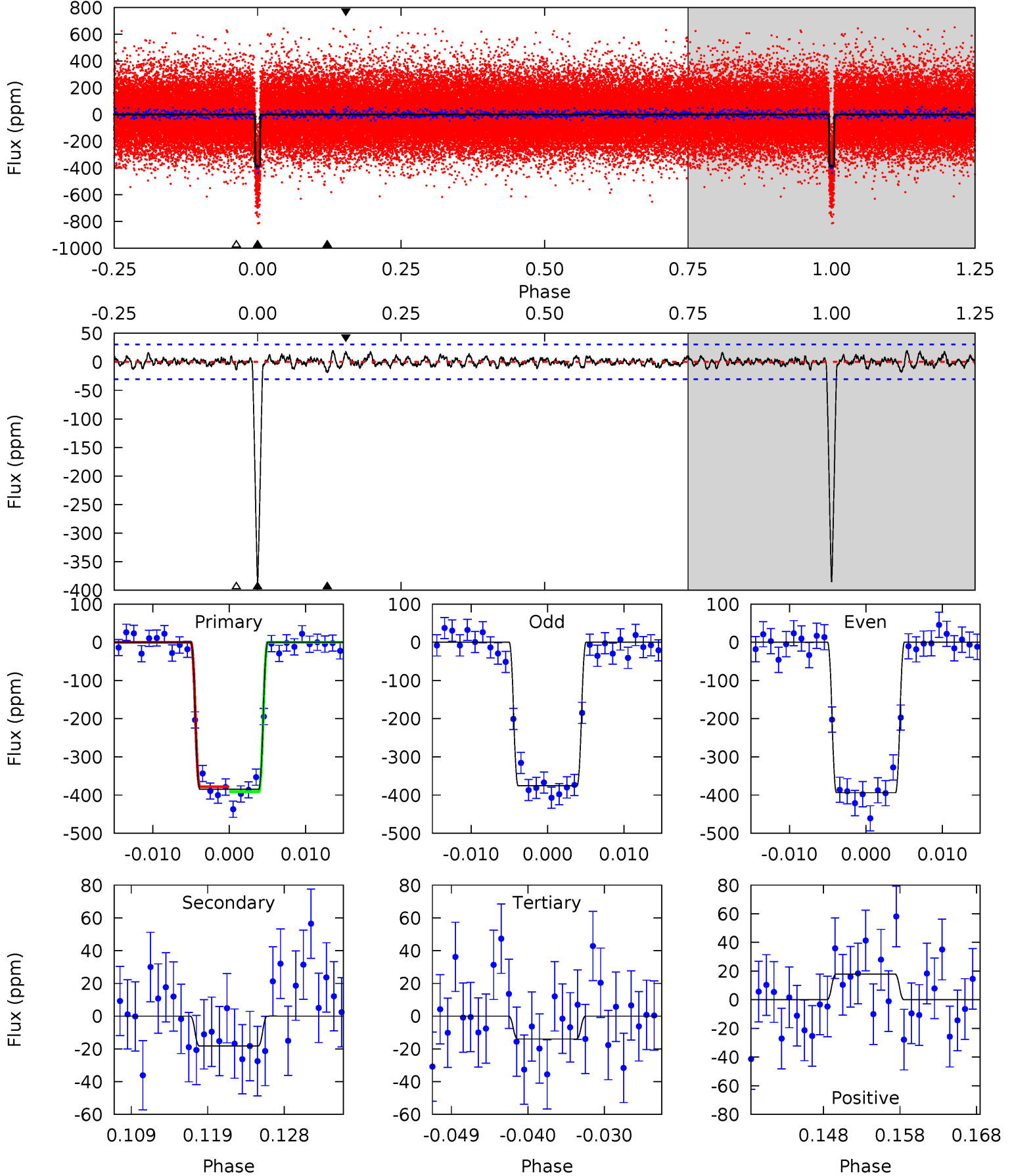
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
66.1	3.50	3.04	4.01	5.01	2.55	1.38	63.1	62.1	0.46	-0.51	2.91	0.96	0.07	1.01



Alt Model-Shift Uniqueness Test

008950853-01, P = 37.814944 Days, E = 96.840651 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
63.3	2.99	2.30	2.95	5.03	2.58	0.88	61.0	60.4	0.69	0.04	1.52	0.99	0.05	1.04



Stellar Parameters For KIC 008950853

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5988^{+107}_{-131}	$4.278^{+0.110}_{-0.121}$	$0.340^{+0.100}_{-0.150}$	$1.314^{+0.232}_{-0.174}$	$1.196^{+0.074}_{-0.089}$	$0.742^{+0.363}_{-0.242}$
	+2%/-2%	+3%/-3%	+29%/-44%	+18%/-13%	+6%/-7%	+49%/-33%
Source	SPE59	SPE59	SPE59	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 008950853-01 / KOI 1412.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-21 ± 6	$3.08^{+0.32}_{-0.26}$	873^{+44}_{-38}	3304^{+141}_{-171}	64^{+24}_{-20}
Alt.	-18 ± 6	$2.85^{+0.29}_{-0.24}$	876^{+40}_{-40}	3317^{+176}_{-194}	66^{+28}_{-22}

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 $A_{obs} \gg 1.0$

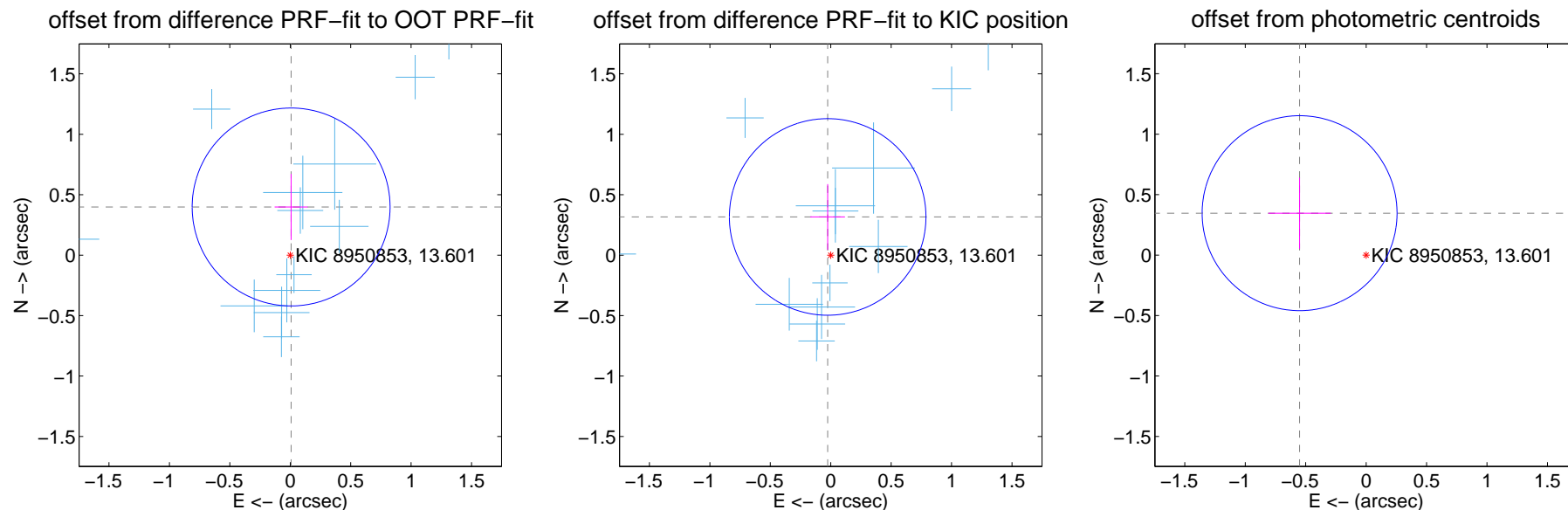
DV Centroid Data

Supplemental centroid analysis for 008950853-01. Kepler magnitude: 13.60. Transit SNR 41.66

There are 14 quarters with good PRF difference image offsets

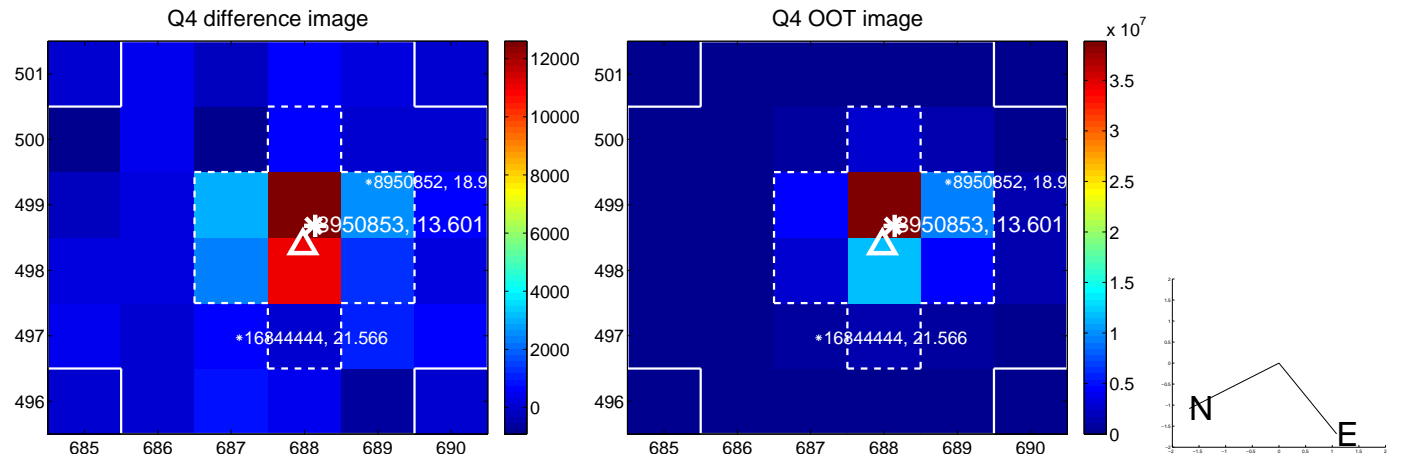
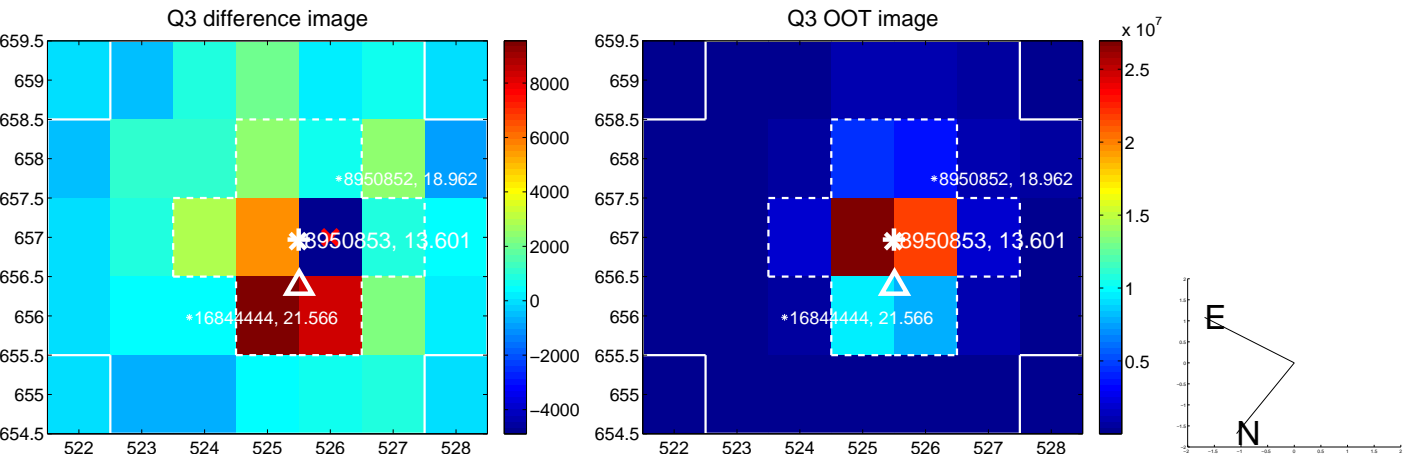
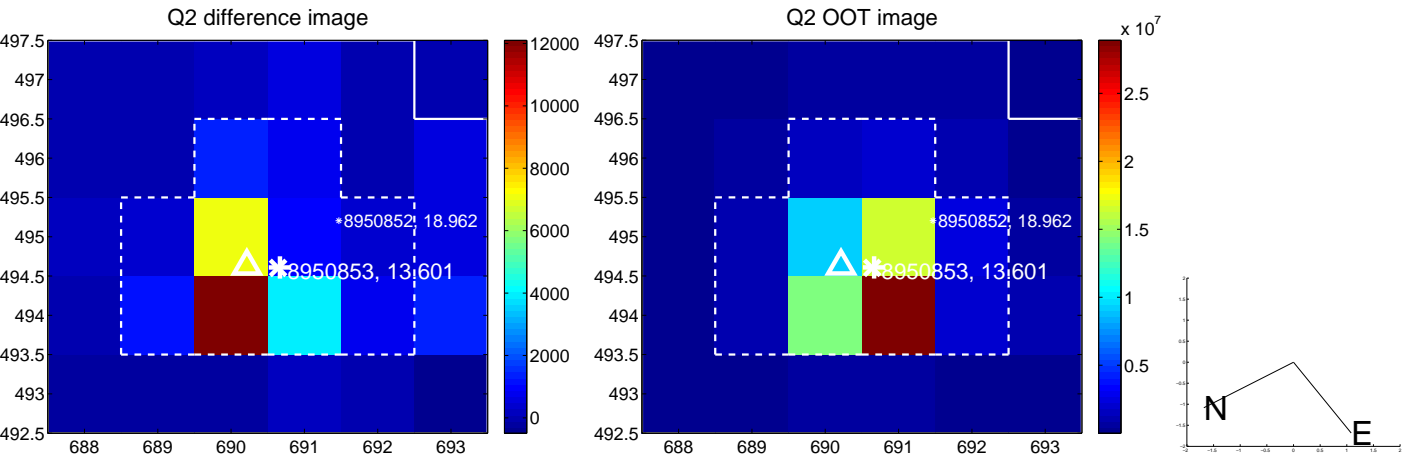
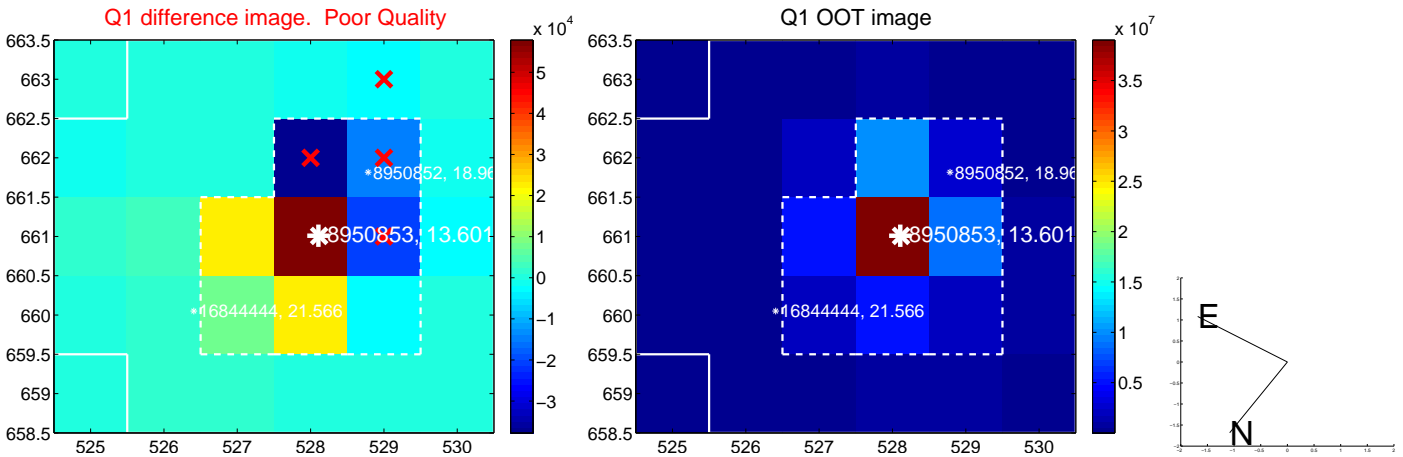
The direct PRF centroid is offset from the target star catalog position by about 0.04 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.399 ± 0.273	1.46	-0.007 ± 0.137	0.399 ± 0.273
PRF-fit source offset from KIC position	0.317 ± 0.271	1.17	0.025 ± 0.143	0.316 ± 0.272
photometric centroid source offset	0.65 ± 0.27	2.42	0.55 ± 0.26	0.35 ± 0.29

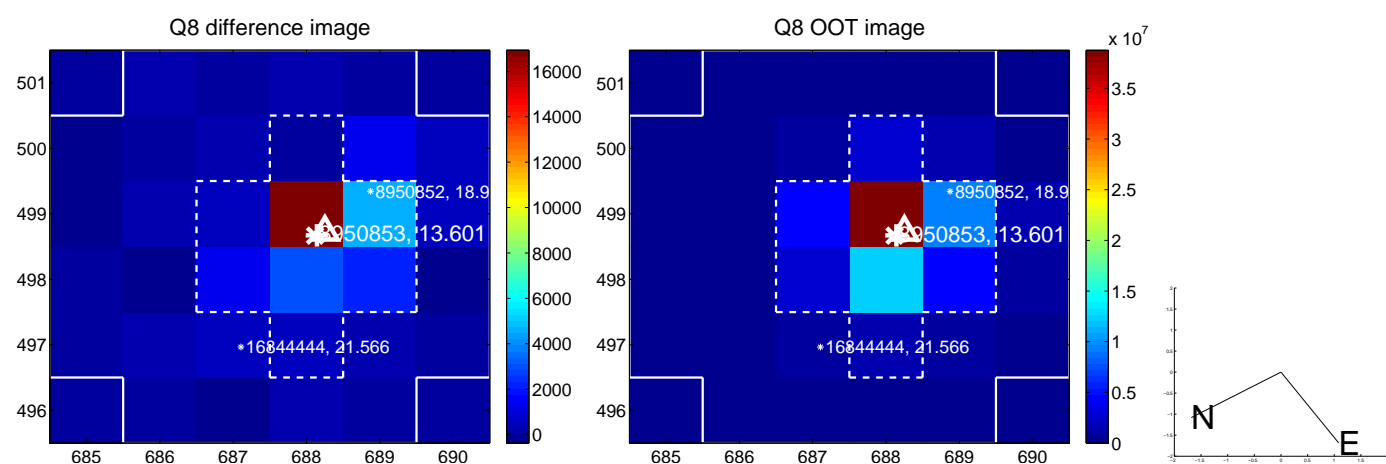
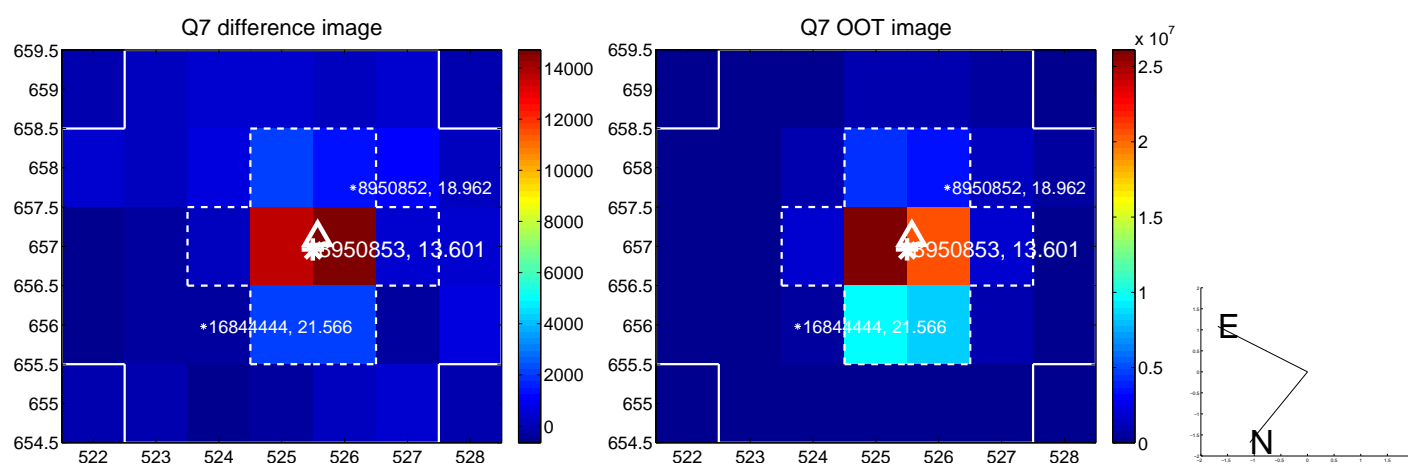
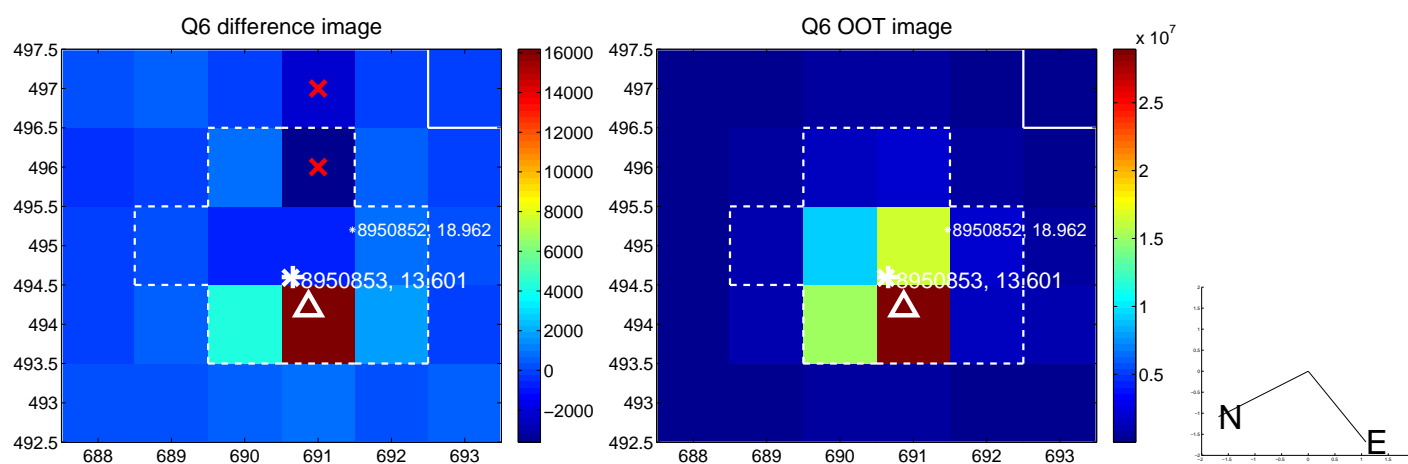
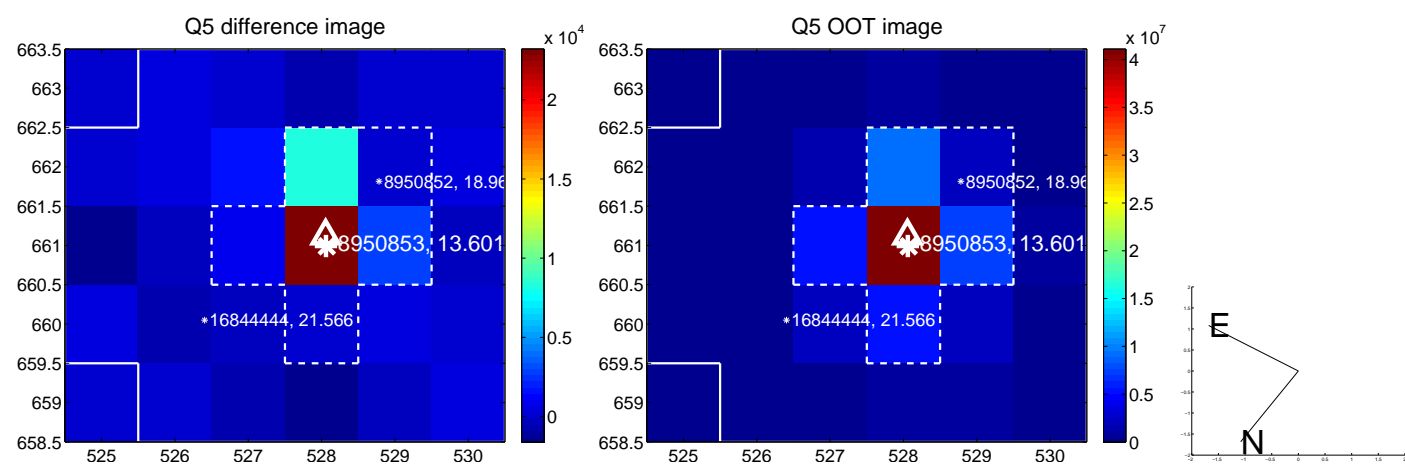


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

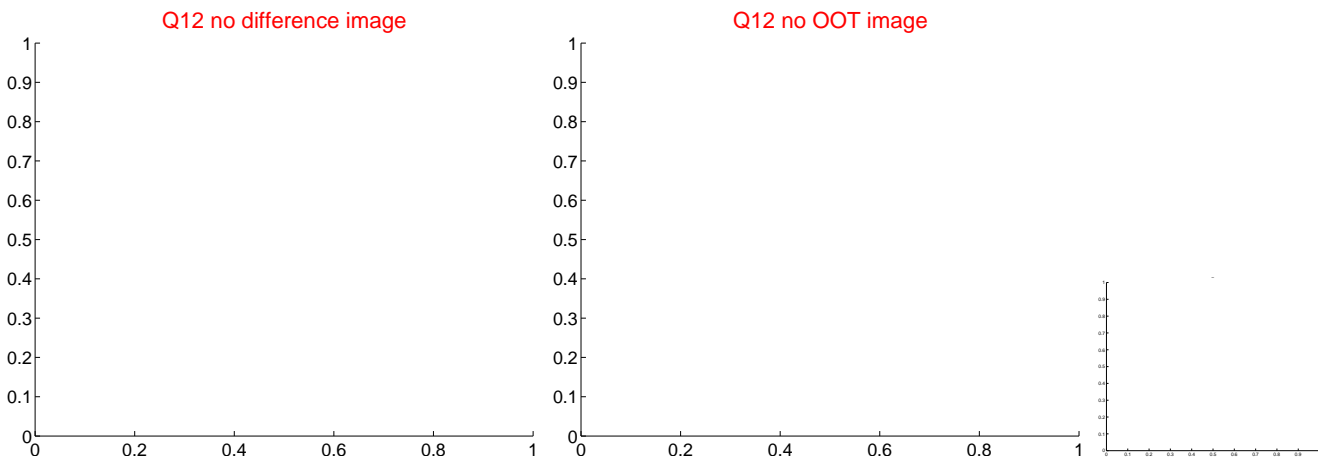
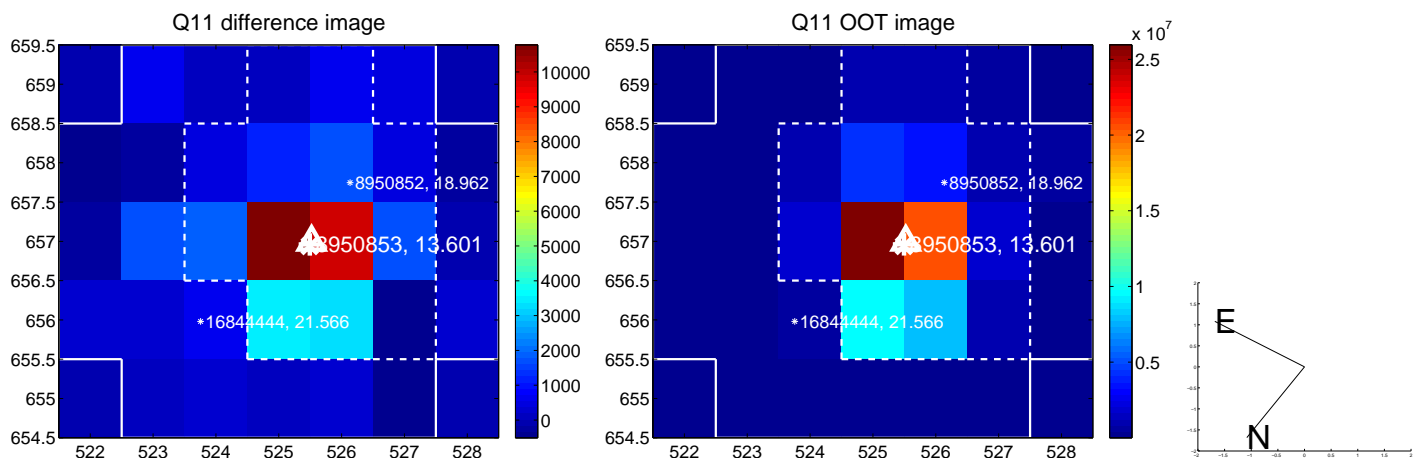
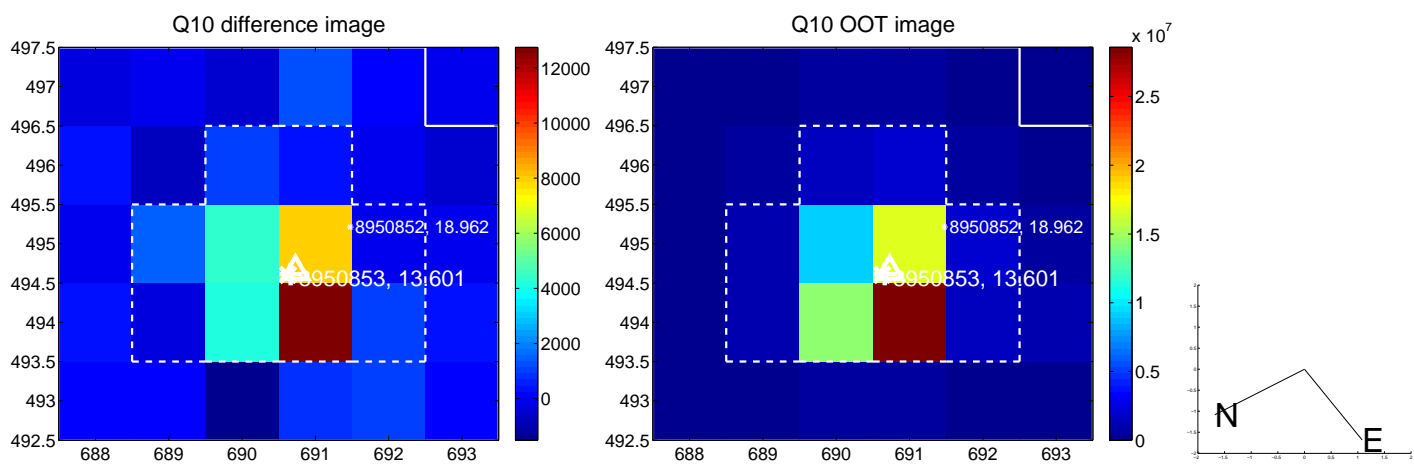
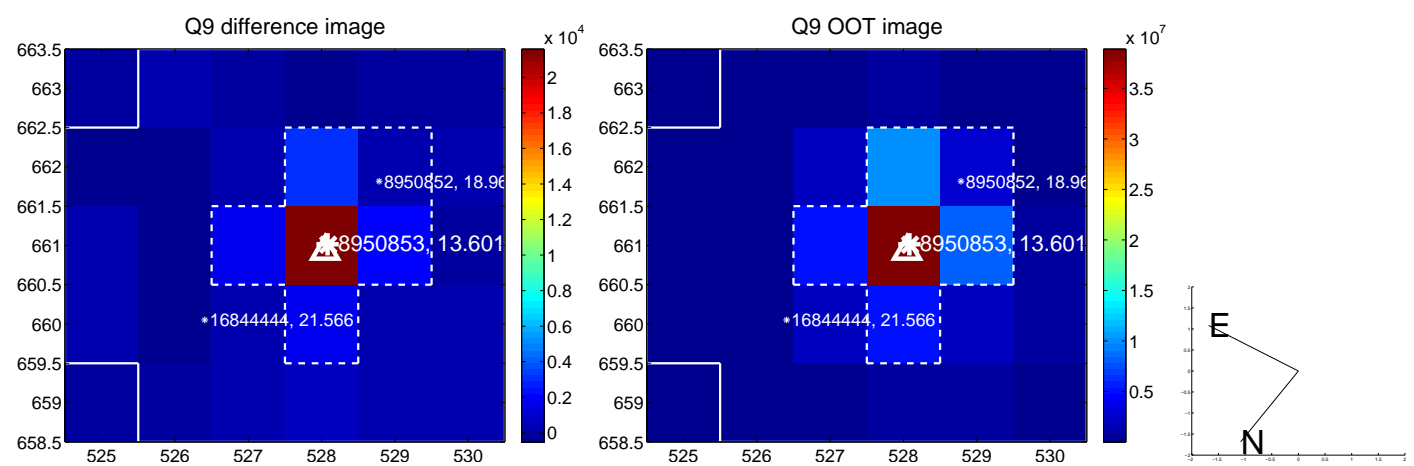
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



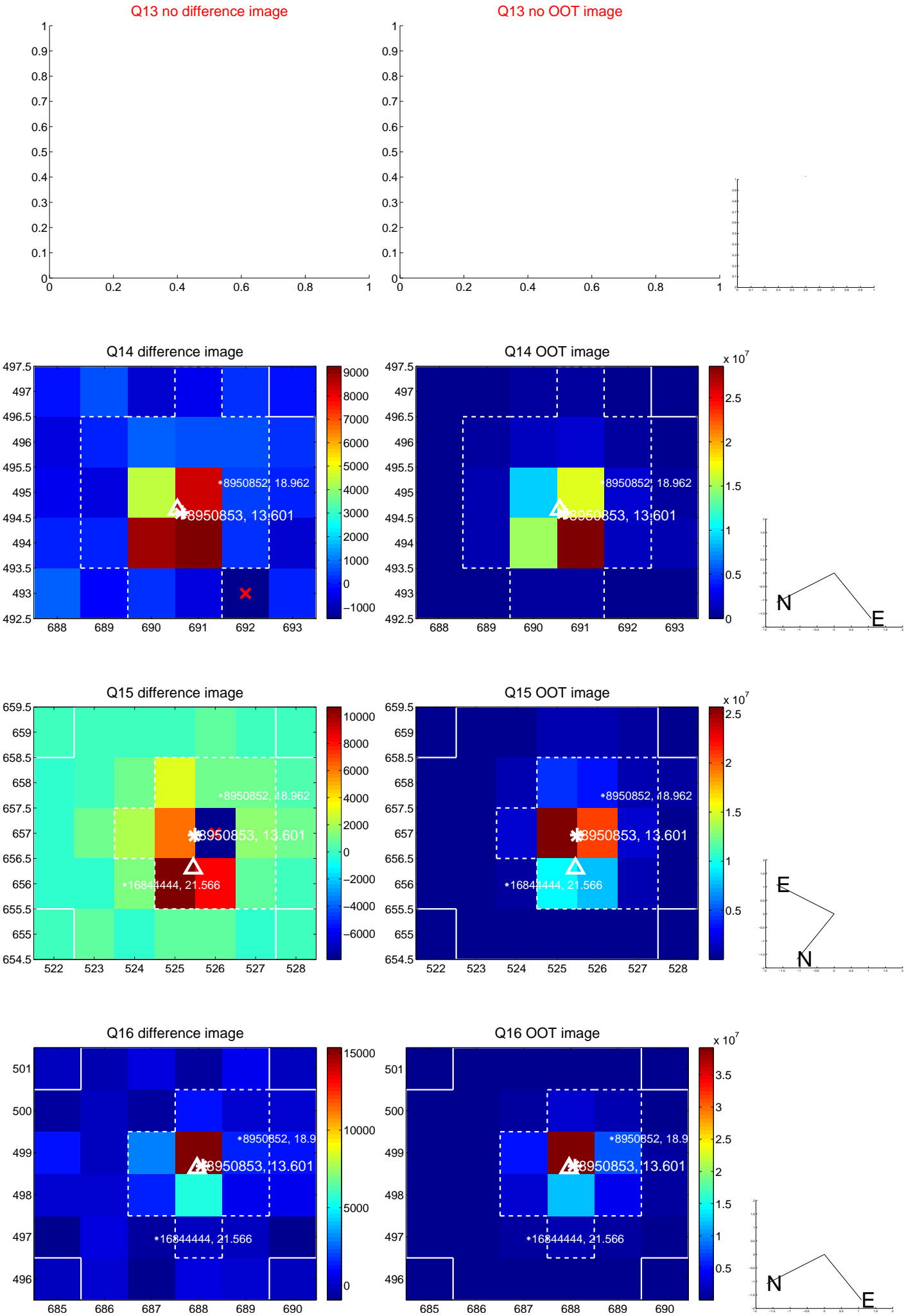
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



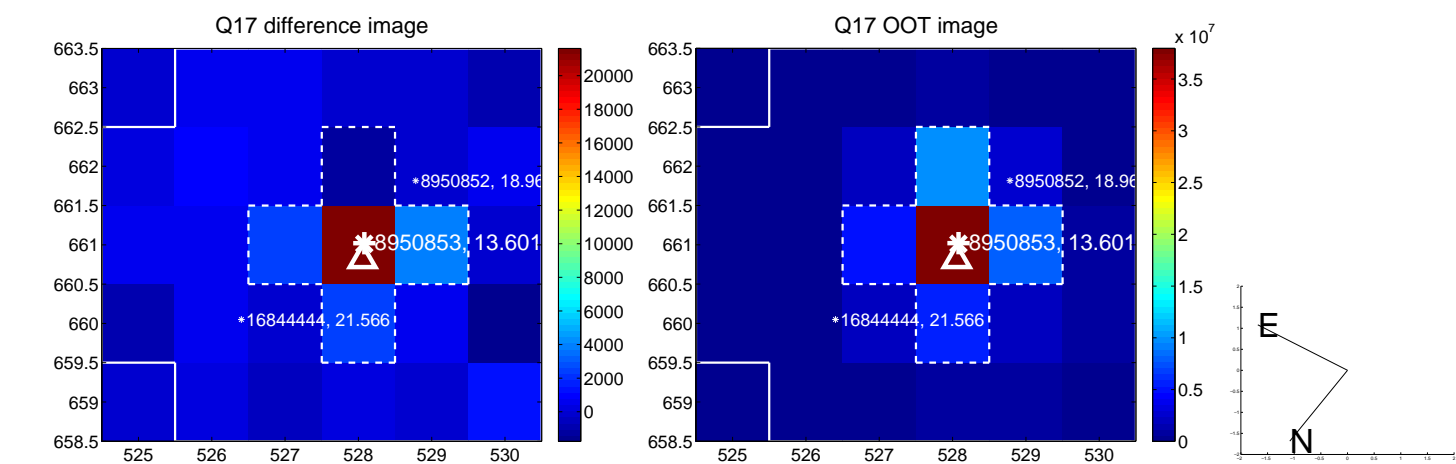
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



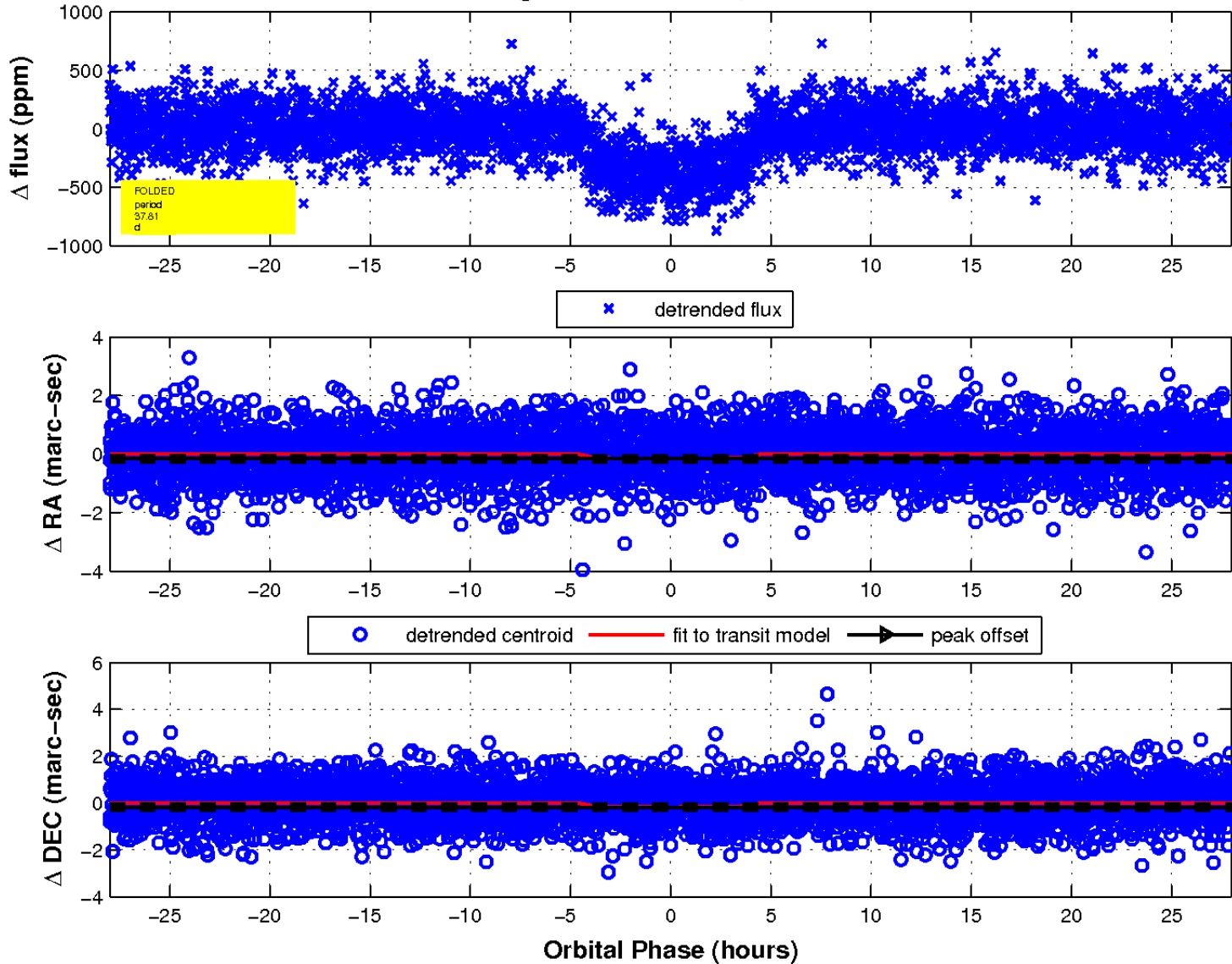
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

