

KIC 008817929

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})
008817929-01	OBS	No	1.088018	132.392869	16.4	9.693	7.8	9.8	0.88	5750	0.35	1801.76

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008817929-01	OBS	FP	0.00	1	0	1	0	LPP_DV—CENT_FEW_DIFFS—HALO_GHOST

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

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

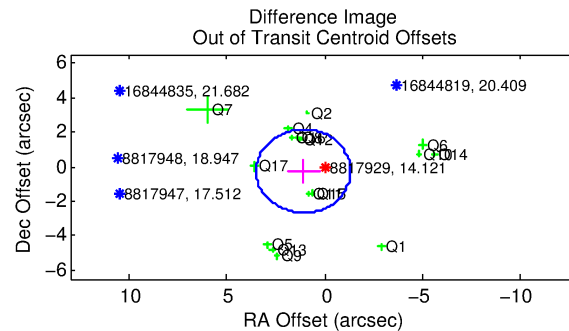
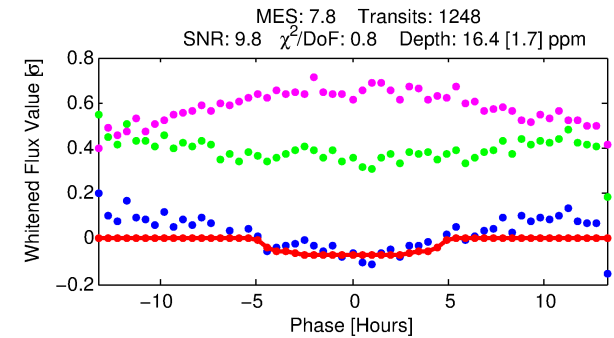
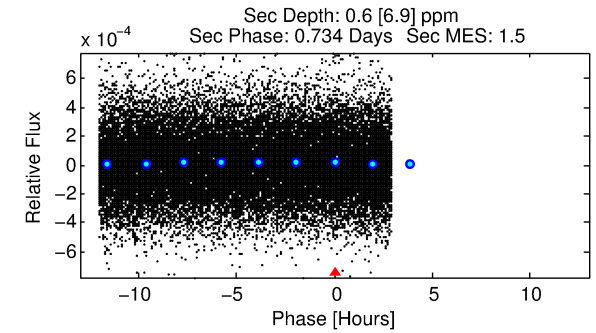
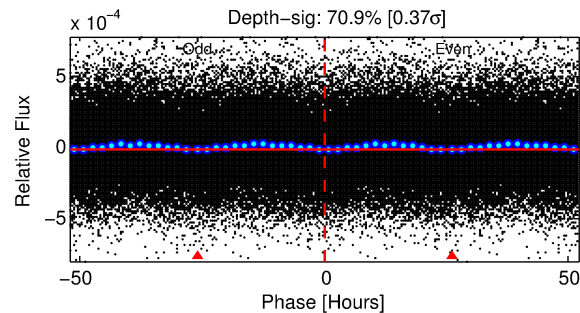
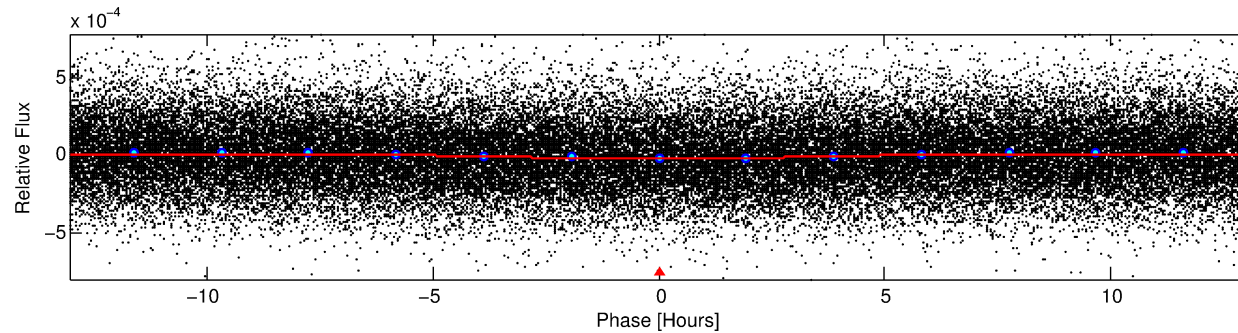
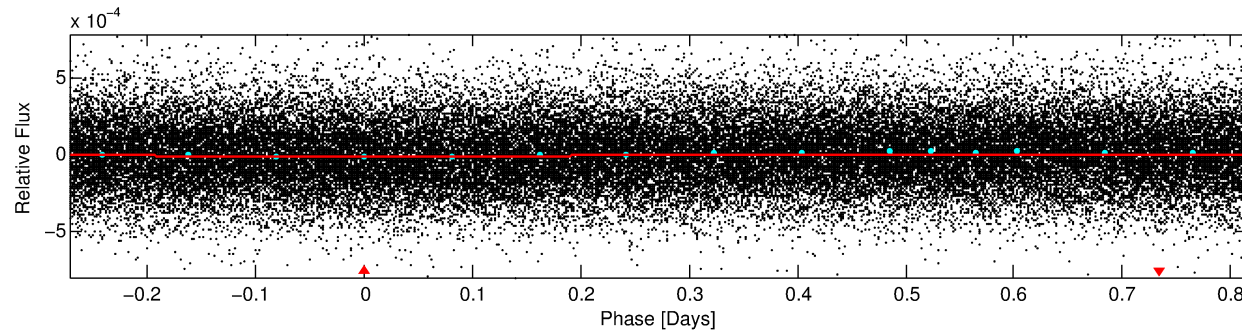
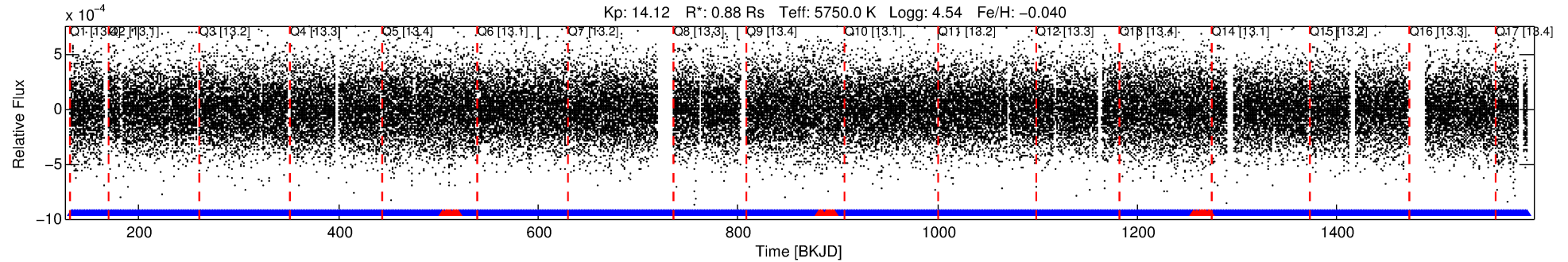
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008817929-01

No Significant Match Found

DV One-Page Summary

KIC: 8817929 Candidate: 1 of 1 Period: 1.088 d



DV Fit Results:

Period = 1.08802 [0.00002] d
Epoch = 132.3929 [0.0103] BKJD
Rp/R* = 0.0037 [0.0050]
a/R* = 1.09 [1.03]
b = 0.03 [219.41]
Seff = 1801.76 [683.87]
Teq = 1661 [158] K
Rp = 0.35 [0.49] Re
a = 0.0206 [0.0051] AU
Ag = 1.07 [13.16] [0.01 σ]
Teffp = 2612 [8034] K [0.12 σ]

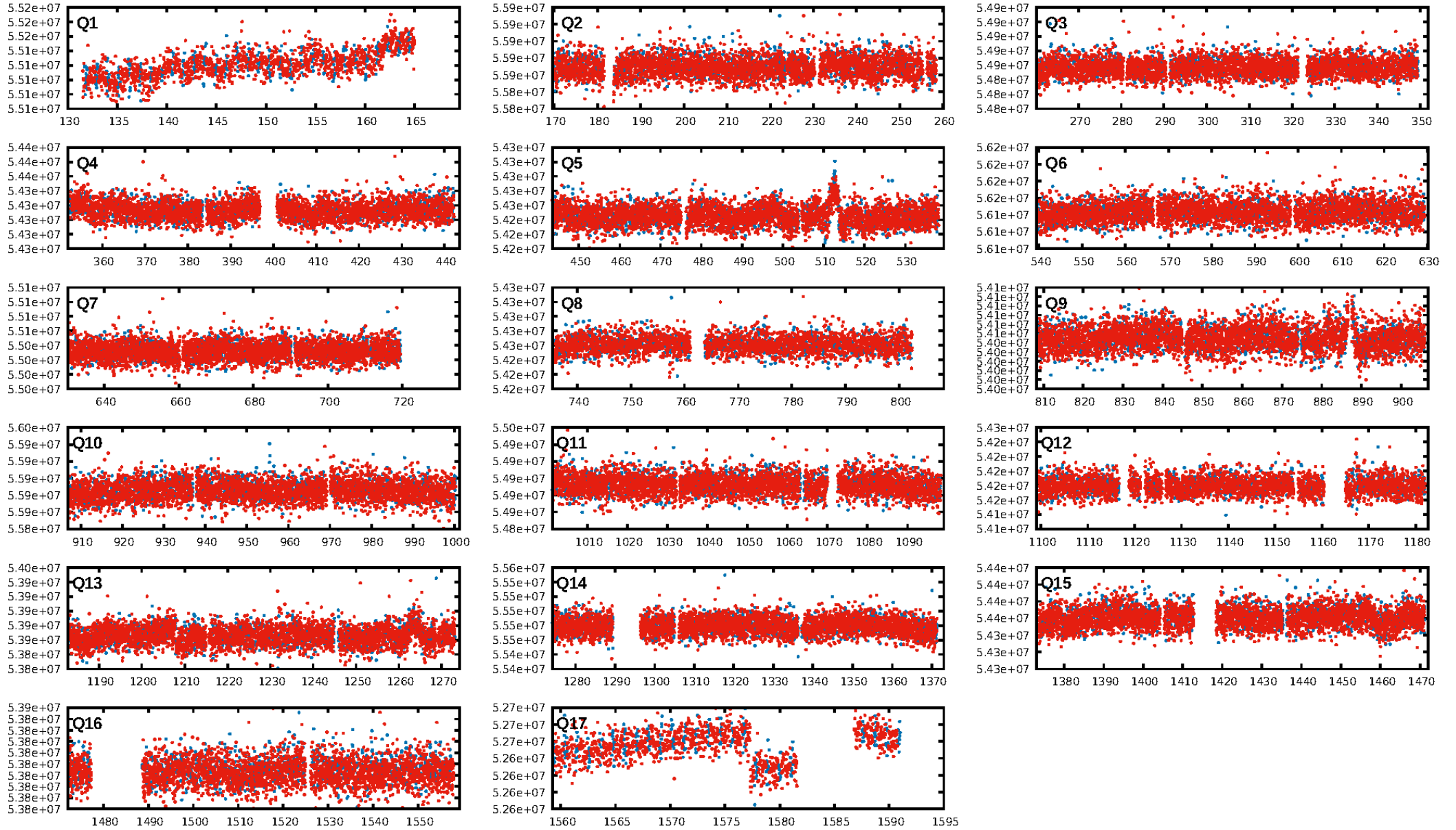
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.97 [1158/1191]
GhostDiagnostic-chr: 0.09263
Centroid-sig: 0.0%
Centroid-so: 4.539 arcsec [3.43 σ]
OotOffset-rm: 1.118 arcsec [1.39 σ]
OotOffset-st: 4/3/4/5 [16]
KicOffset-rm: 1.152 arcsec [1.39 σ]
KicOffset-st: 4/3/4/5 [16]
DiffImageQuality-fgm: 0.31 [5/16]
DiffImageOverlap-fno: 1.00 [17/17]

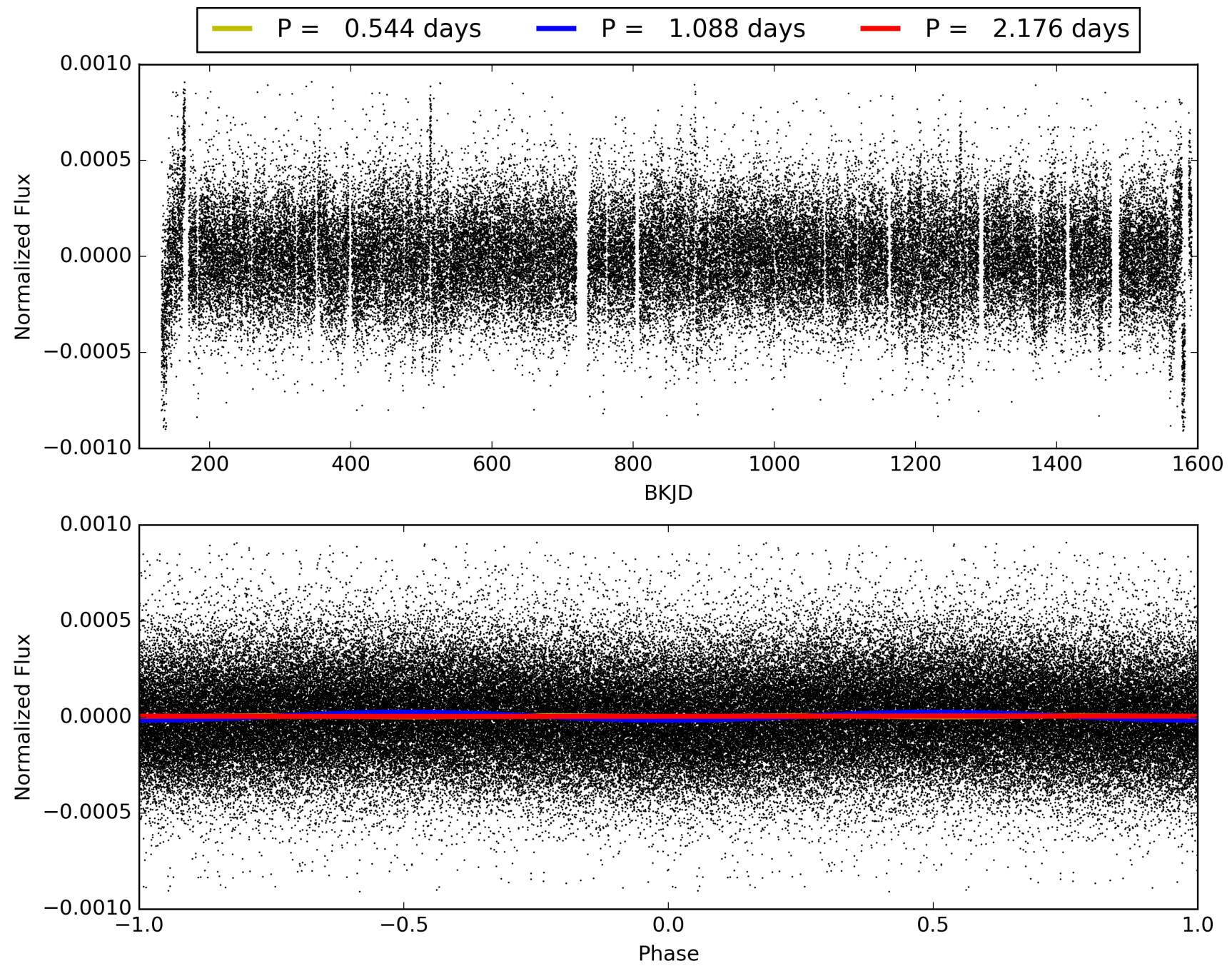
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 14:59:23 Z

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

TCE 008817929-01, PDC Light Curves

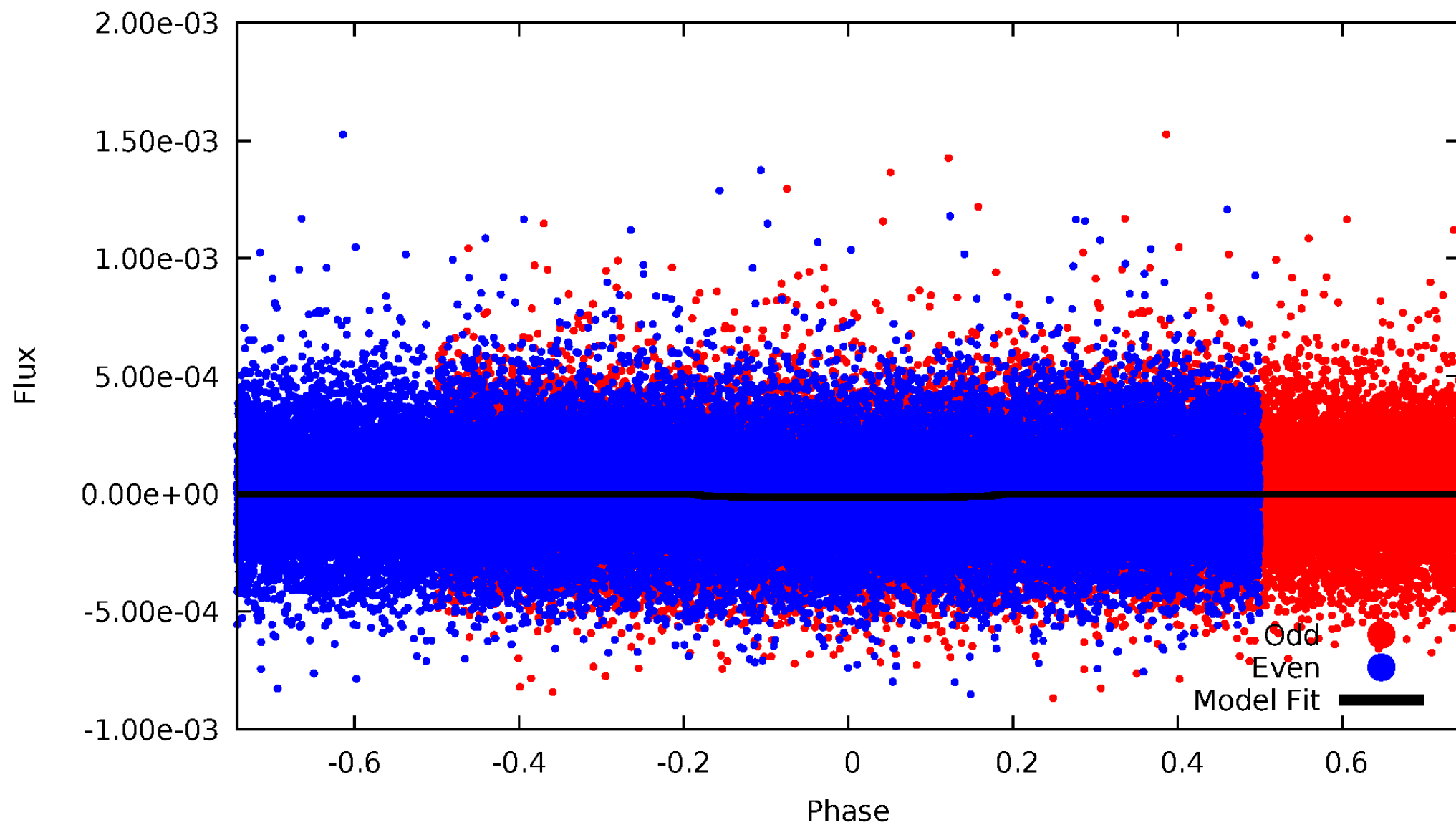


TCE 008817929-01



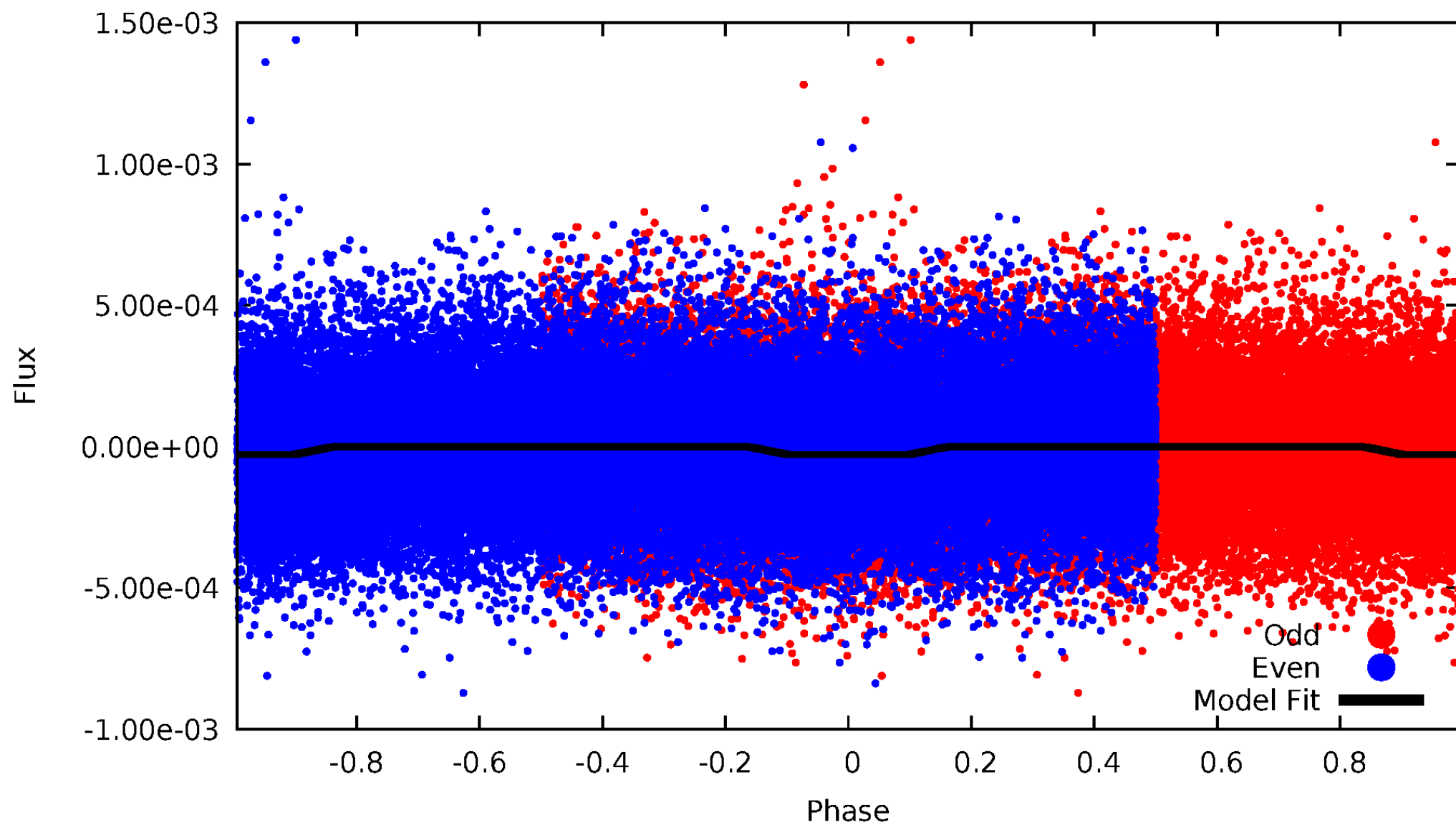
DV Odd/Even

TCE 008817929-01

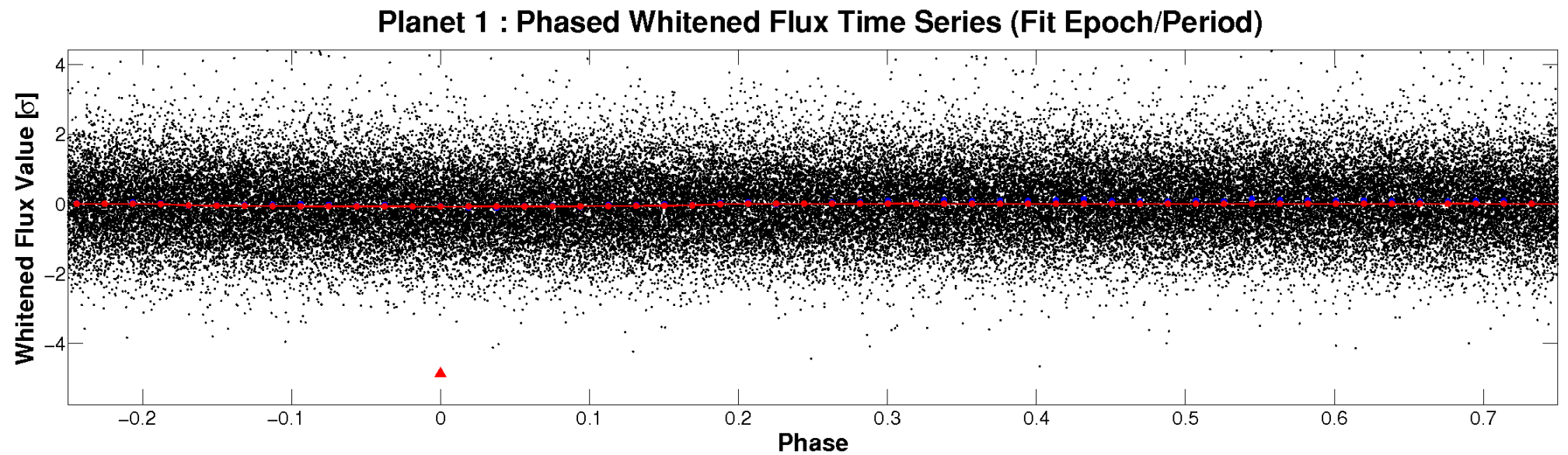
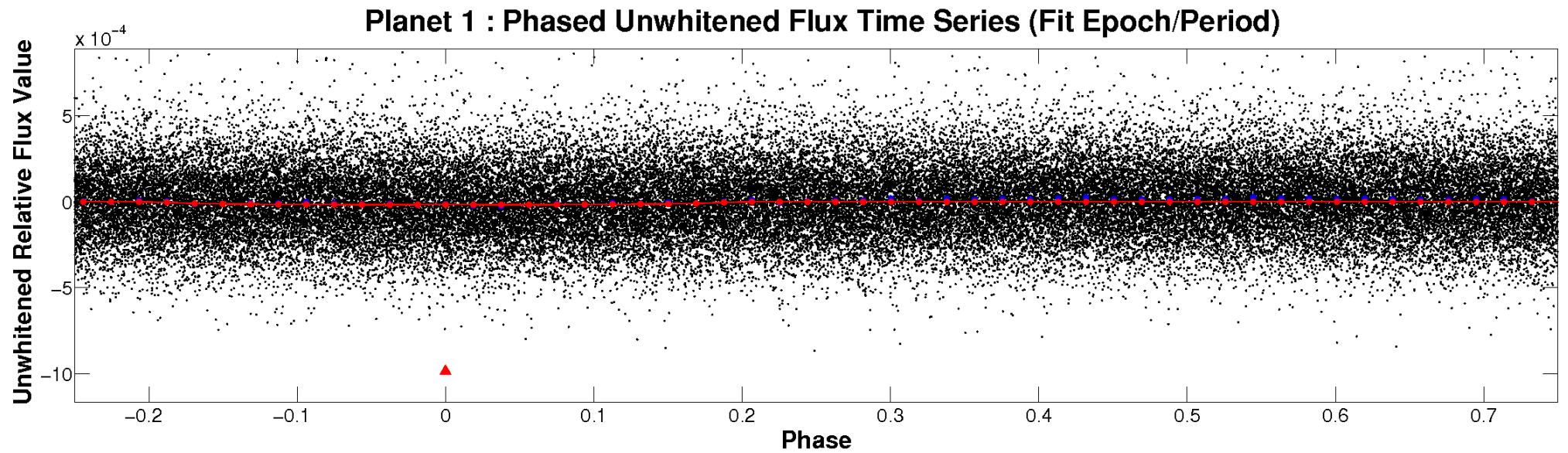


ALT Odd/Even

TCE 008817929-01

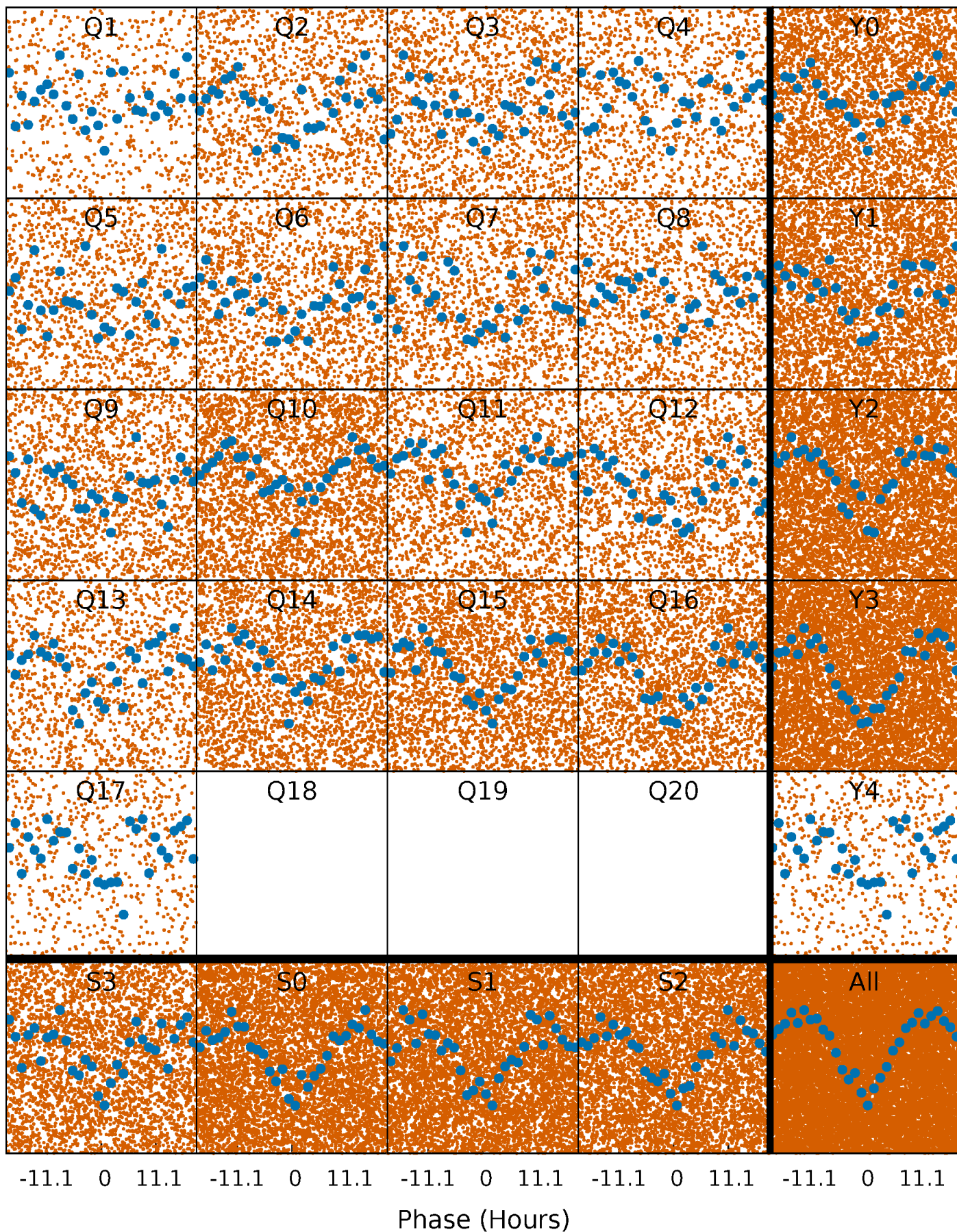


Non-Whitened Vs. Whitened Light Curve



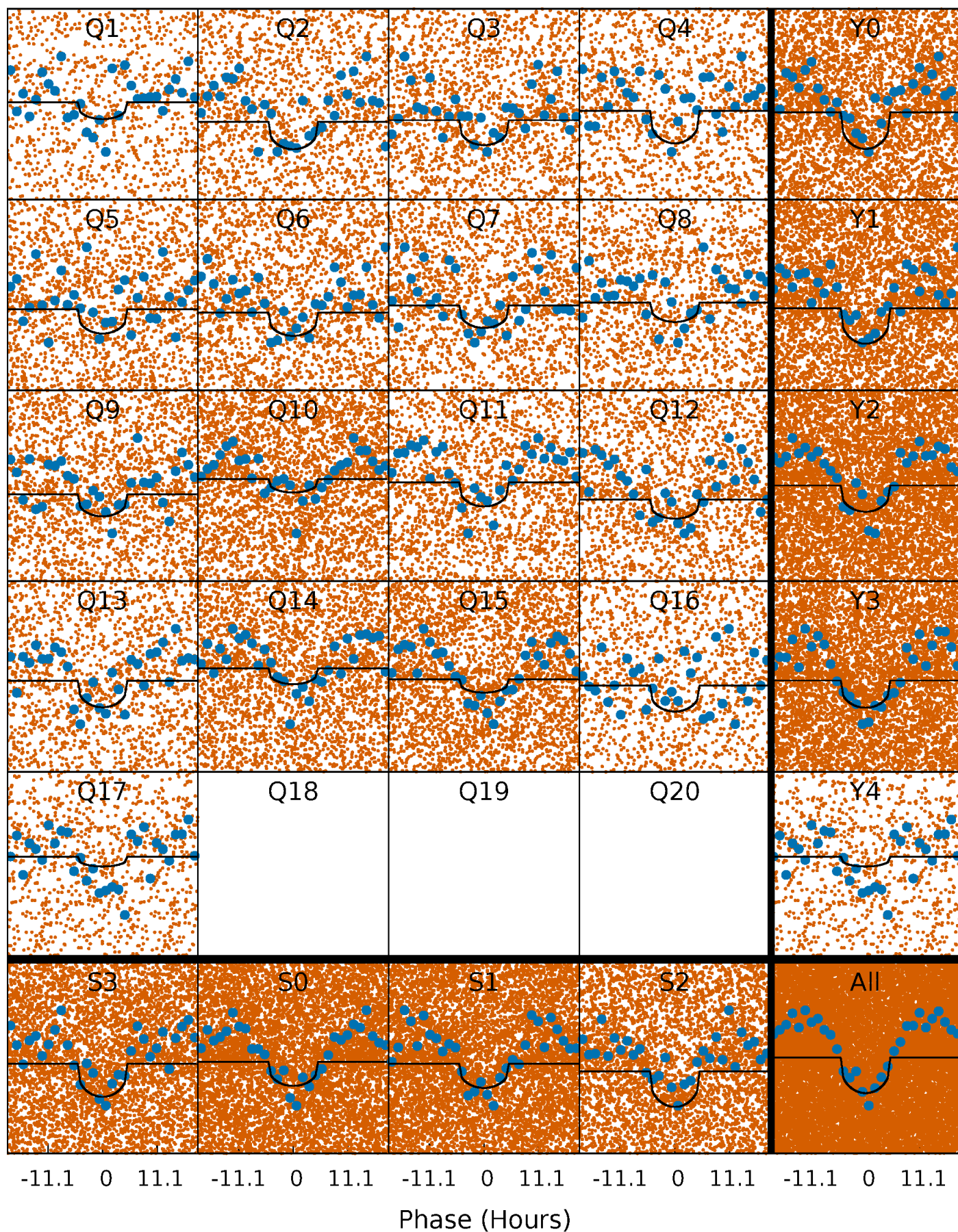
PDC Quarter-Phased Transit Curves

TCE 008817929-01 P= 1.088018 Days $T_0=132.392869$ (BKJD)



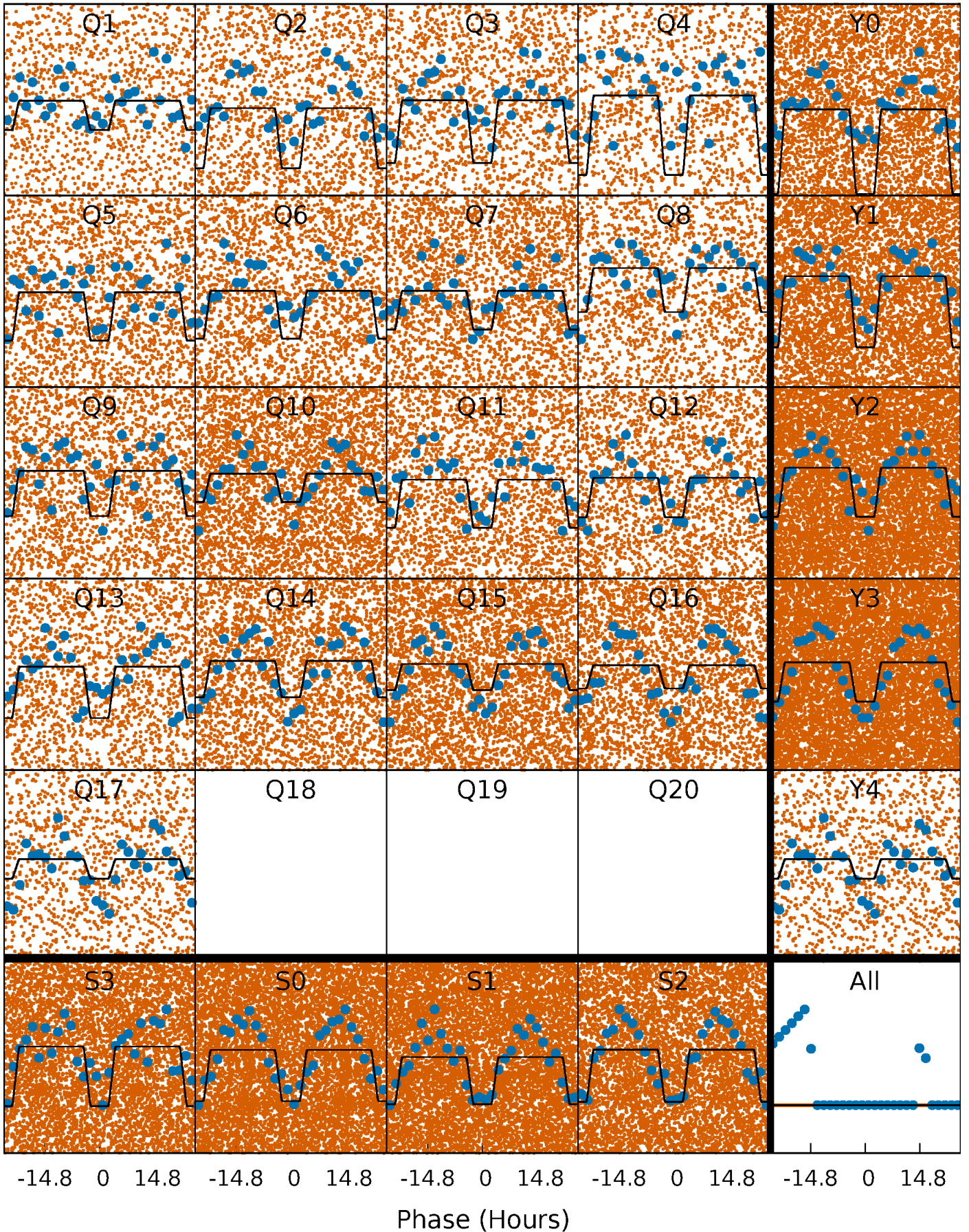
DV Quarter-Phased Transit Curves

TCE 008817929-01 P= 1.088018 Days $T_0=132.392869$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

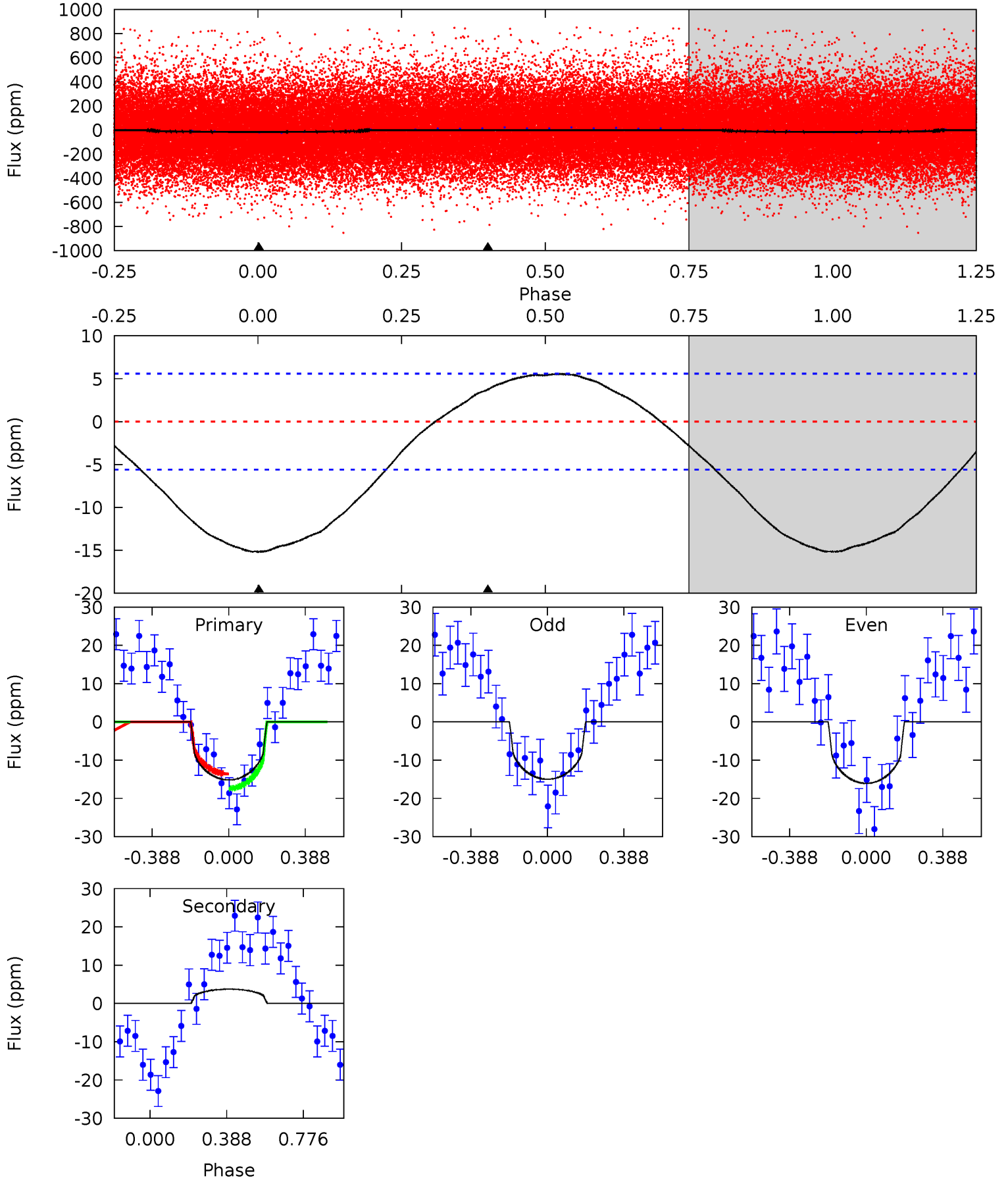
TCE 008817929-01 P= 1.088048 Days $T_0=132.383955$ (BKJD)



DV Model-Shift Uniqueness Test

008817929-01, P = 1.088018 Days, E = 131.304851 Days

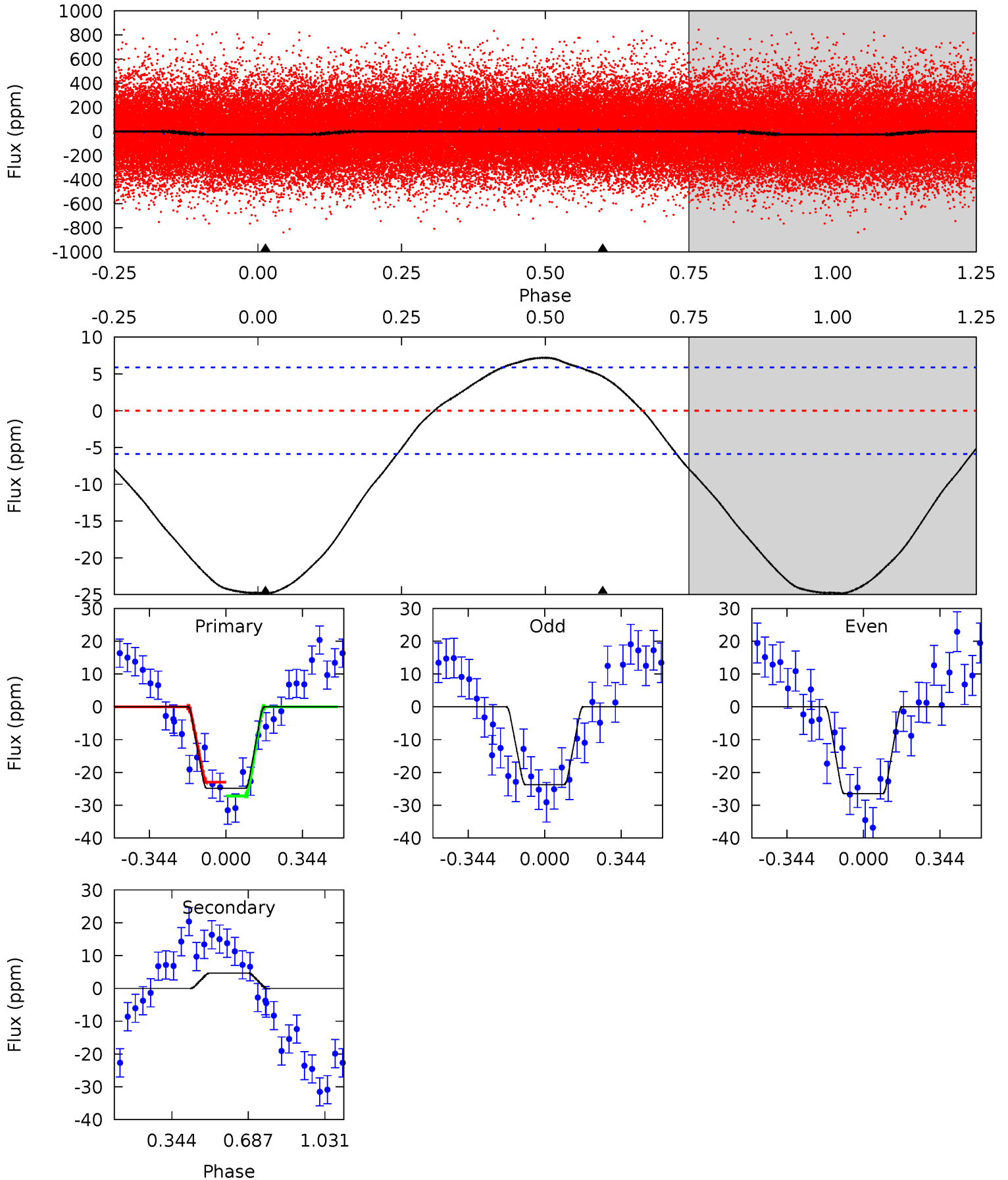
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.6	-2.86	0	0	4.27	0.86	1.20	11.6	11.6	-2.86	-2.86	0.41	0.95	0.27	1.48



Alt Model-Shift Uniqueness Test

008817929-01, P = 1.088048 Days, E = 131.295907 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
18.1	-3.39	0	0	4.30	0.95	1.49	18.1	18.1	-3.39	-3.39	0.98	0.95	0.22	1.52



Stellar Parameters For KIC 008817929

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5750^{+156}_{-156}	$4.538^{+0.037}_{-0.200}$	$-0.040^{+0.300}_{-0.300}$	$0.882^{+0.258}_{-0.069}$	$0.980^{+0.102}_{-0.114}$	$2.011^{+0.392}_{-1.020}$
	+3%/-3%	+1%/-4%	+750%/-750%	+29%/-8%	+10%/-12%	+19%/-51%
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 008817929-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	4 ± 1	$0.49^{+0.45}_{-0.31}$	2371^{+169}_{-92}	-3949^{+647}_{-1960}	$-3.274^{+2.378}_{-21.808}$
Alt.	5 ± 1	$0.66^{+0.48}_{-0.41}$	2379^{+173}_{-104}	-3761^{+497}_{-1558}	$-2.369^{+1.601}_{-13.022}$

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

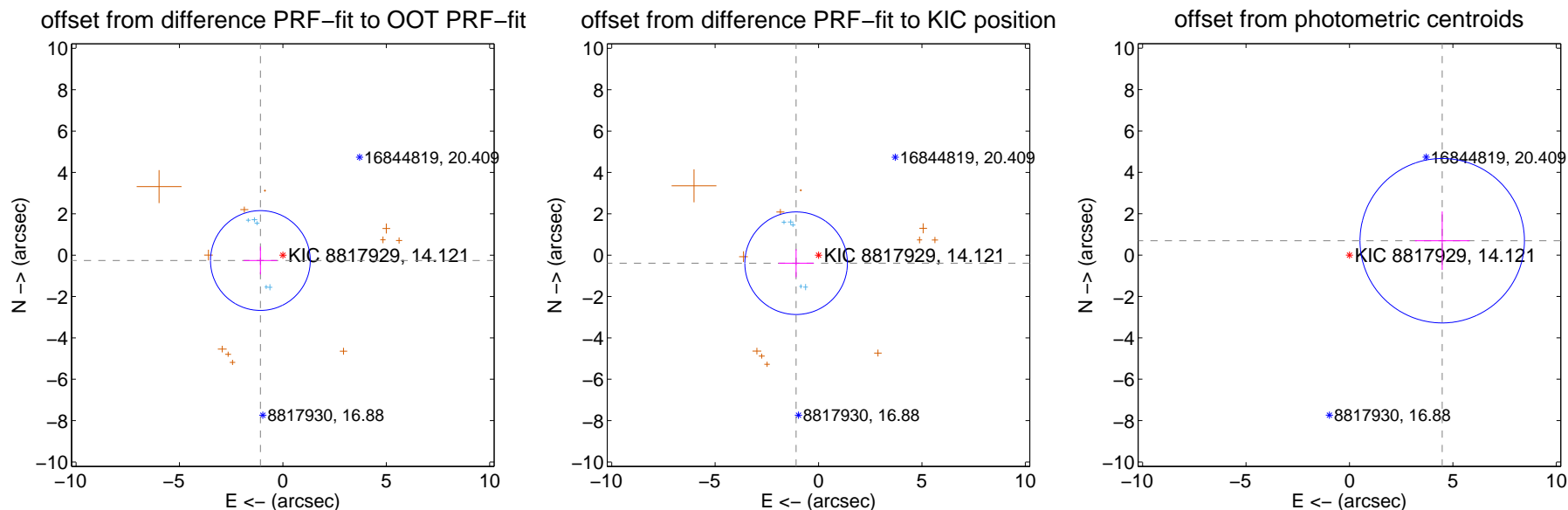
DV Centroid Data

Supplemental centroid analysis for 008817929-01. Kepler magnitude: 14.12. Transit SNR 9.80

There are 5 quarters with good PRF difference image offsets

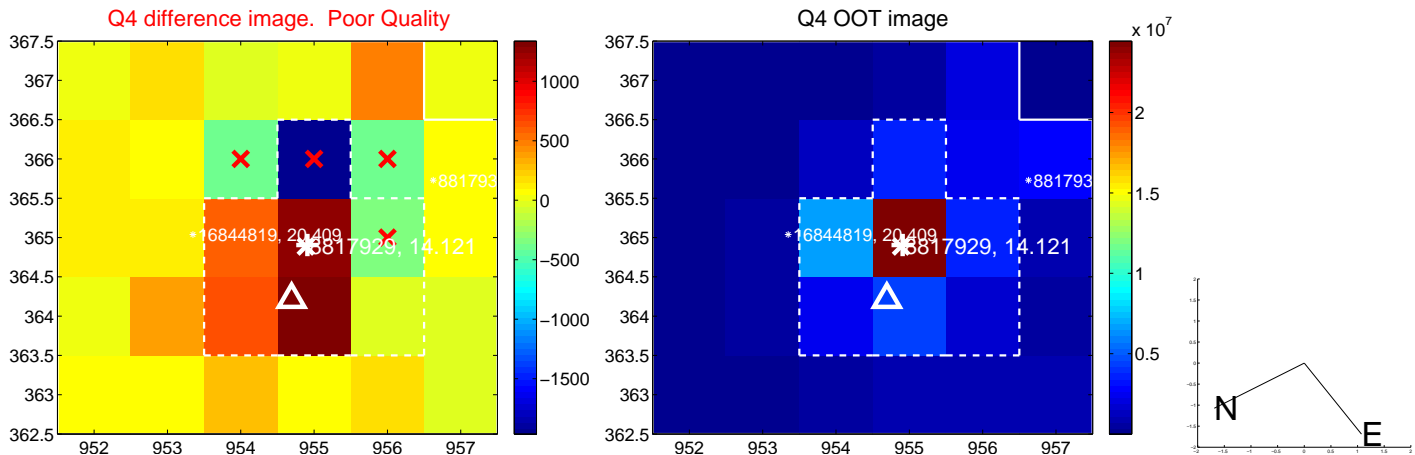
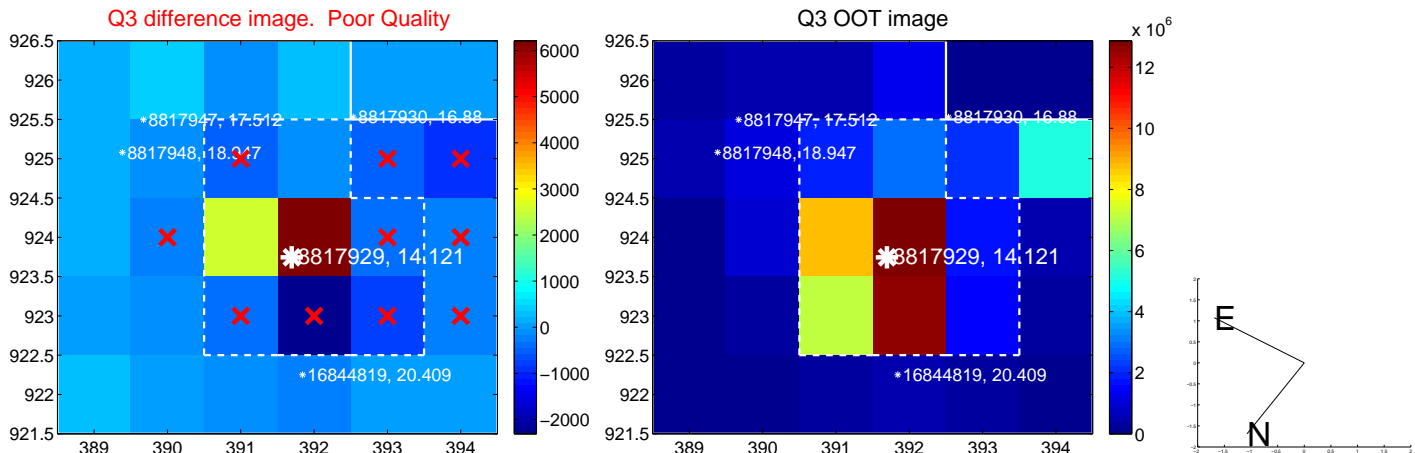
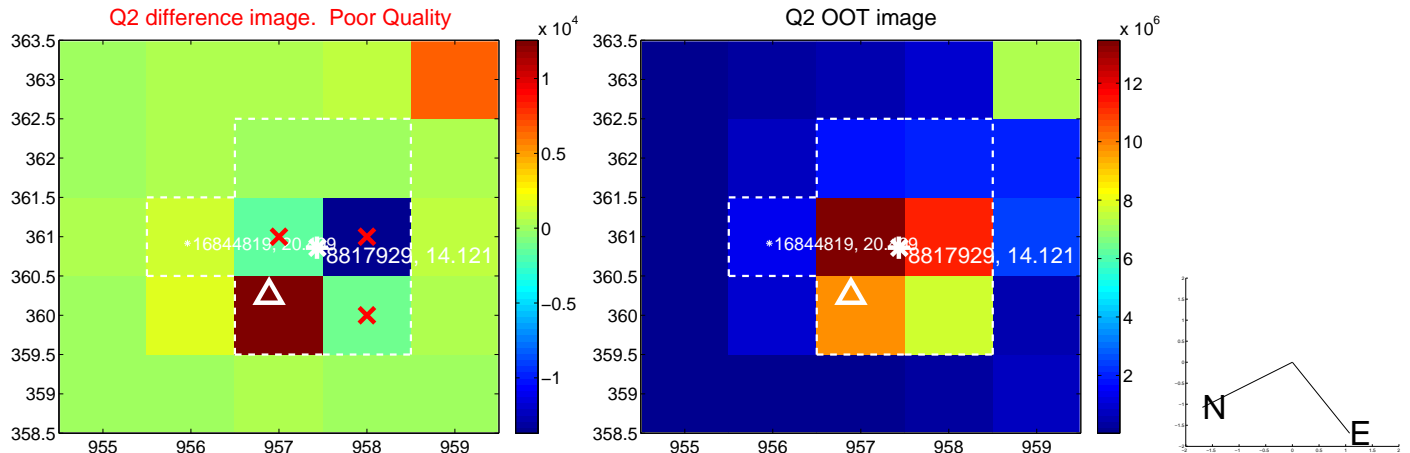
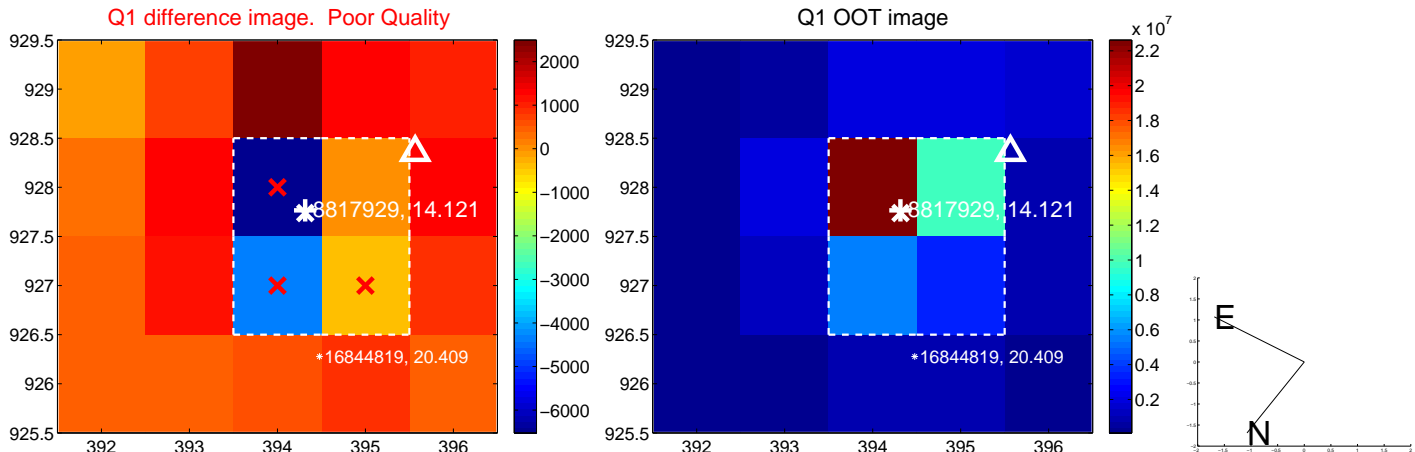
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.118 ± 0.804	1.39	1.087 ± 0.809	-0.260 ± 0.673
PRF-fit source offset from KIC position	1.152 ± 0.827	1.39	1.084 ± 0.844	-0.390 ± 0.677
photometric centroid source offset	4.54 ± 1.33	3.43	-4.49 ± 1.32	0.70 ± 1.41

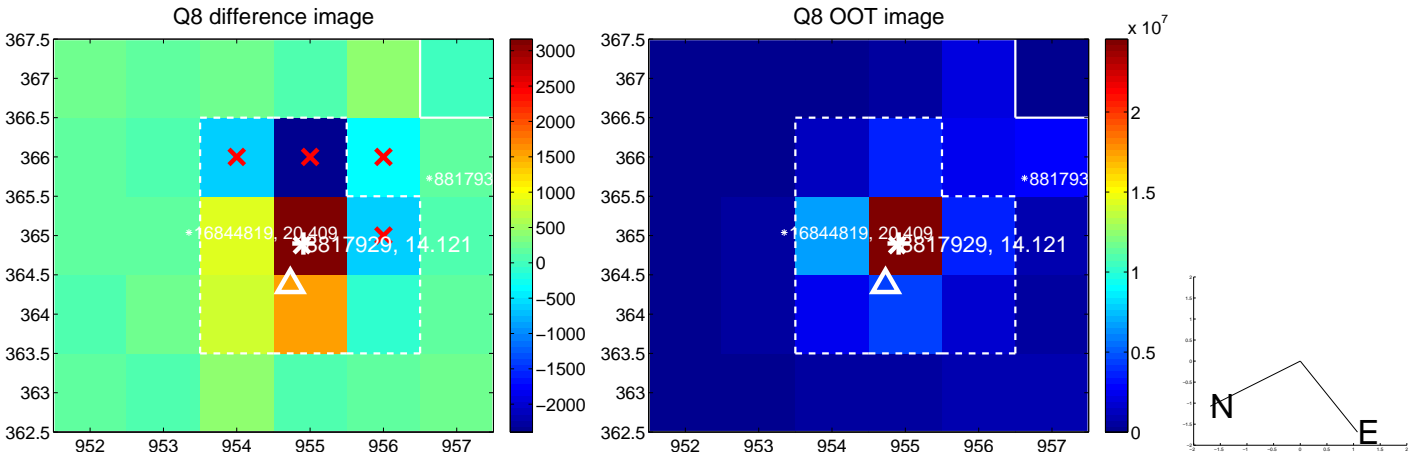
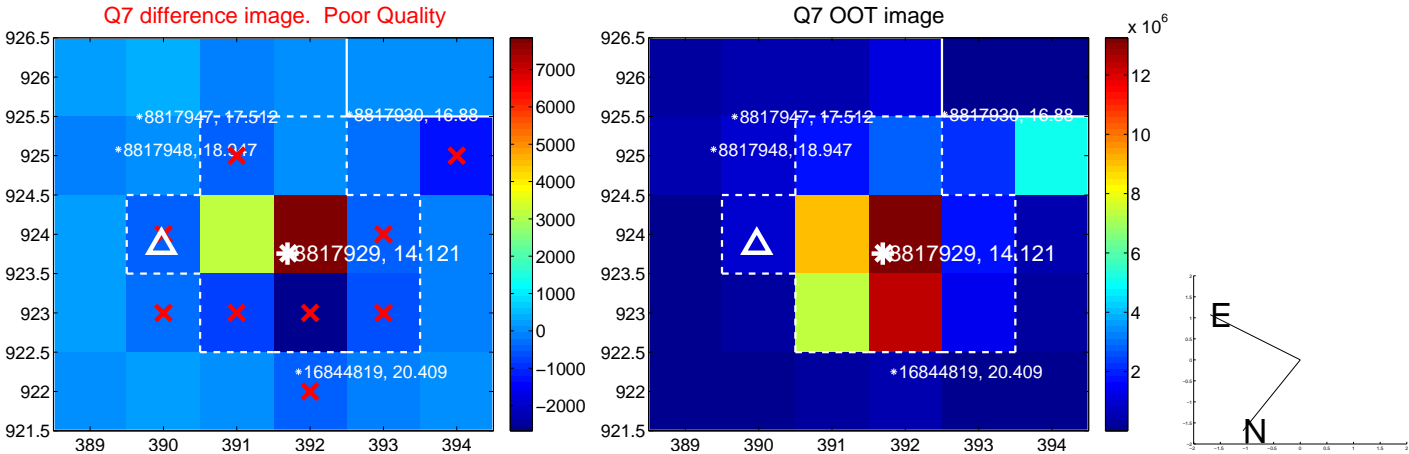
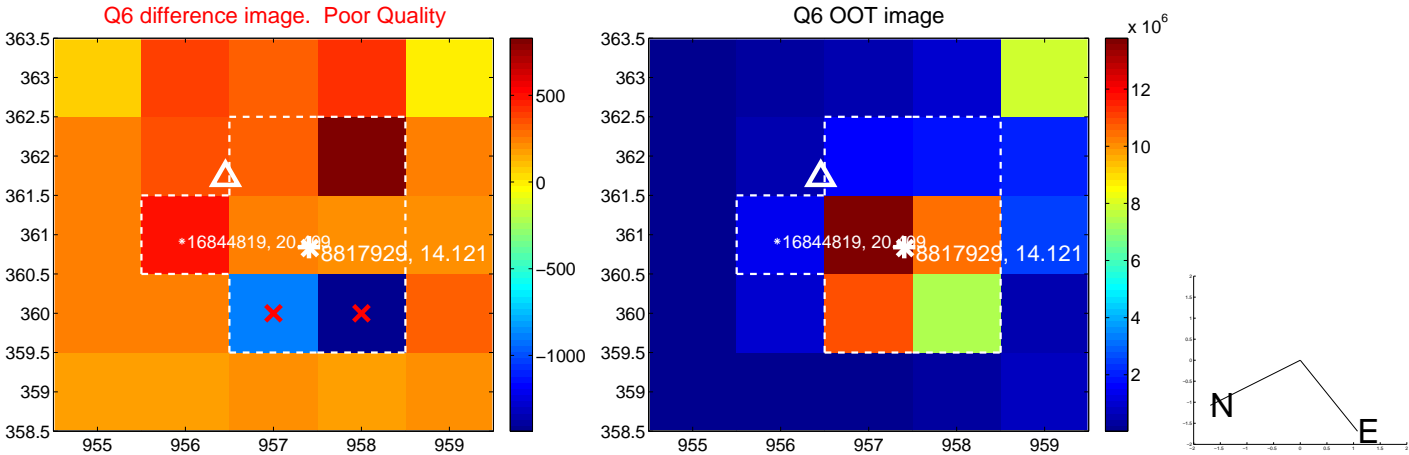
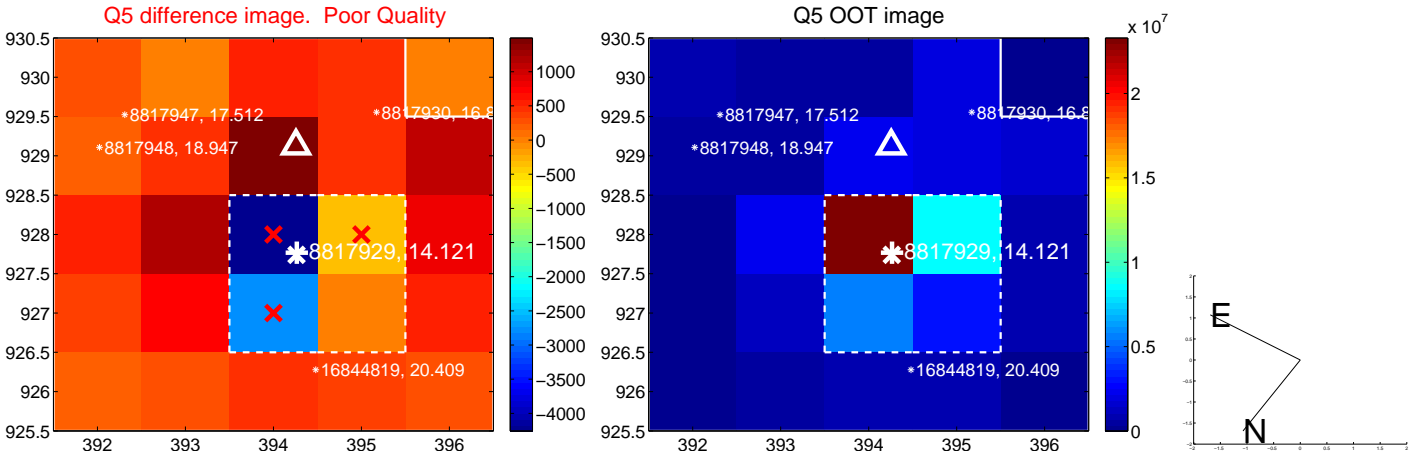


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

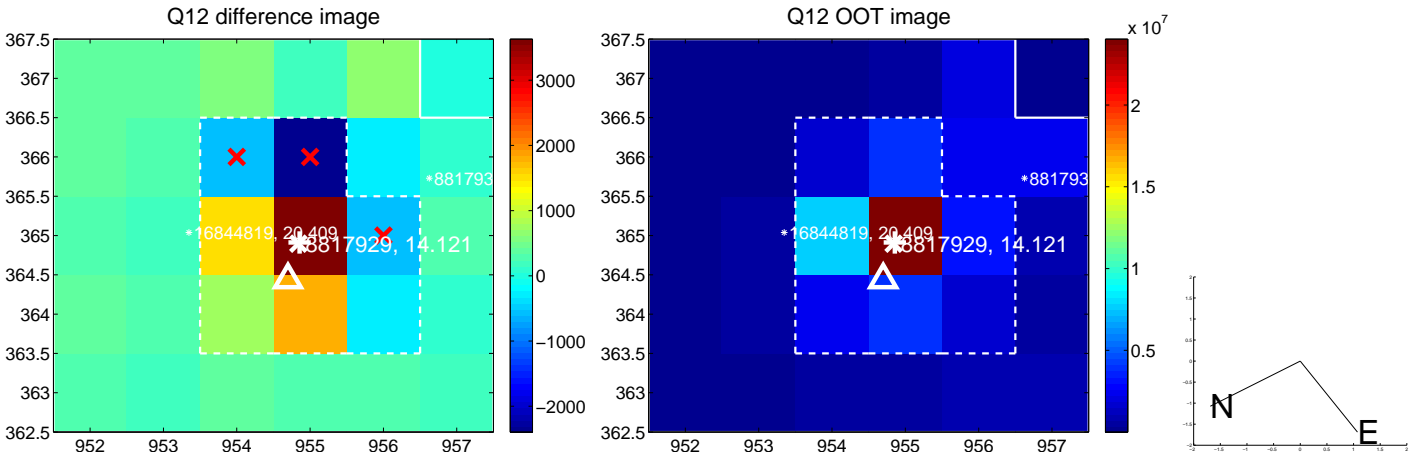
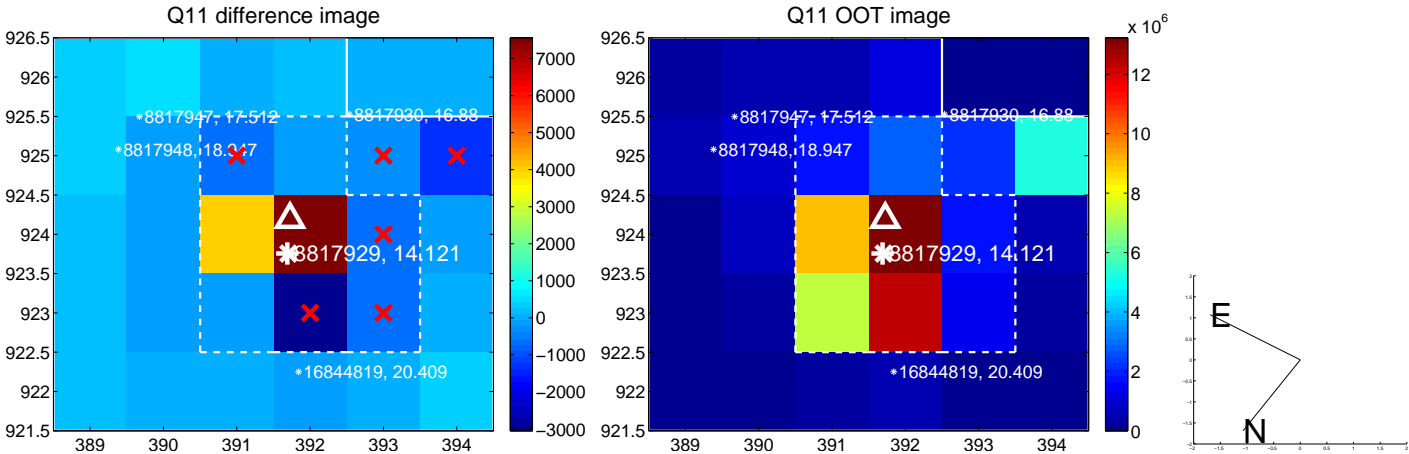
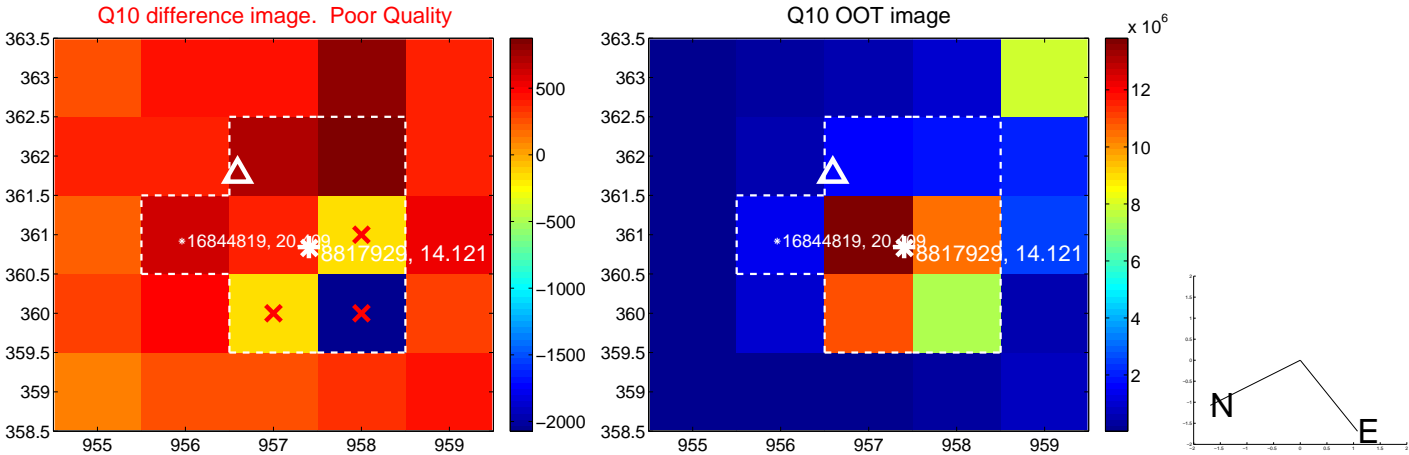
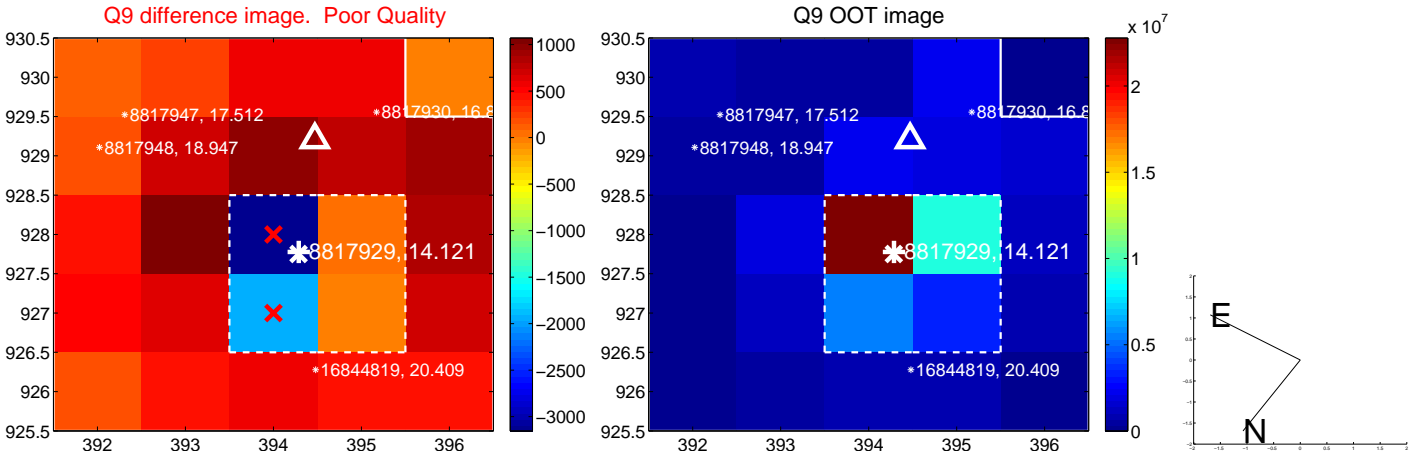
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



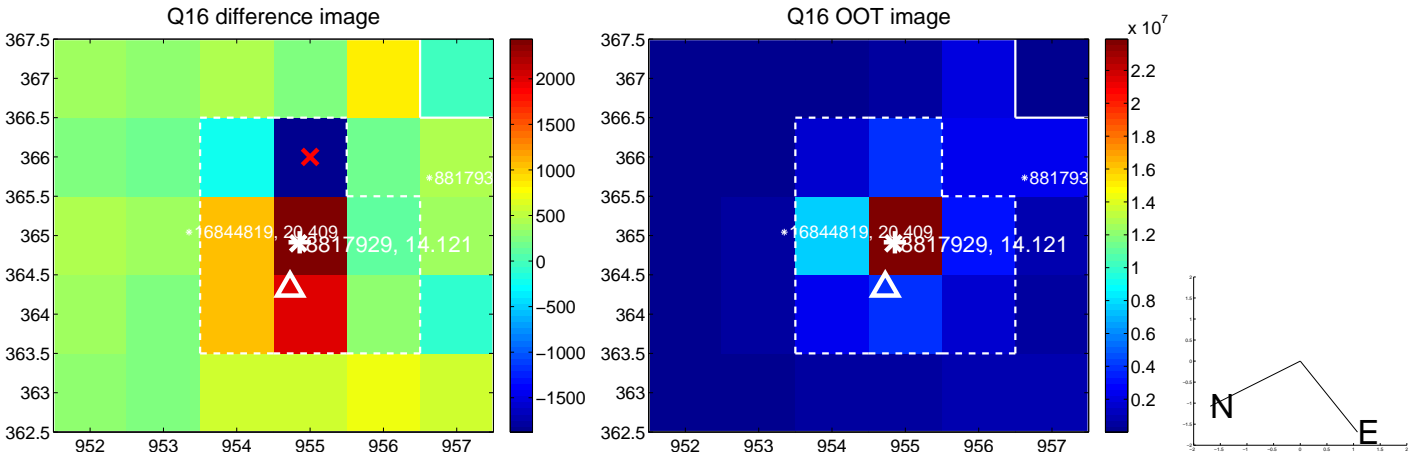
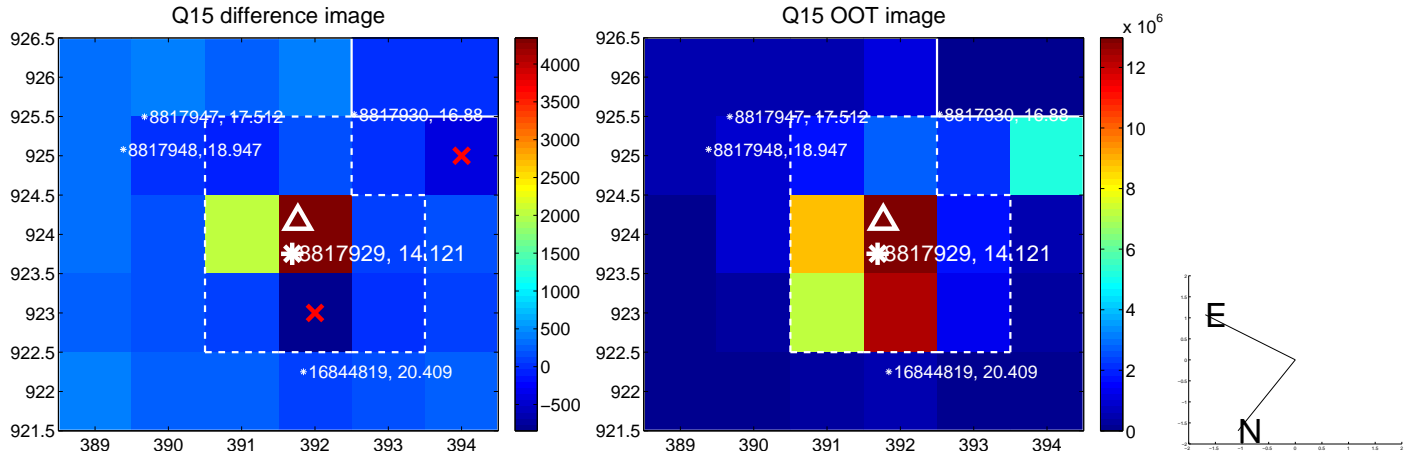
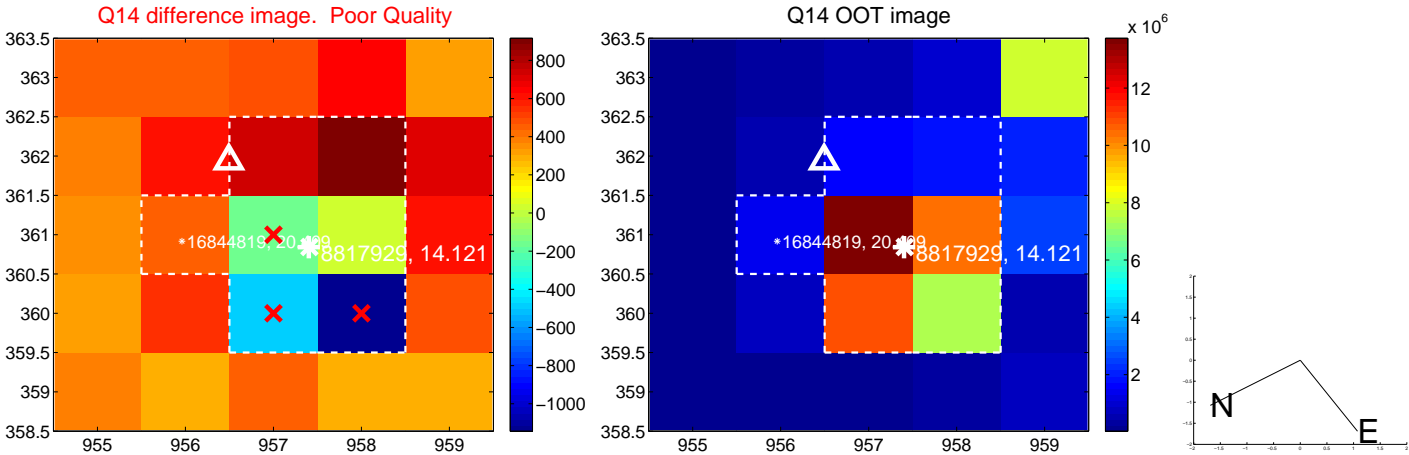
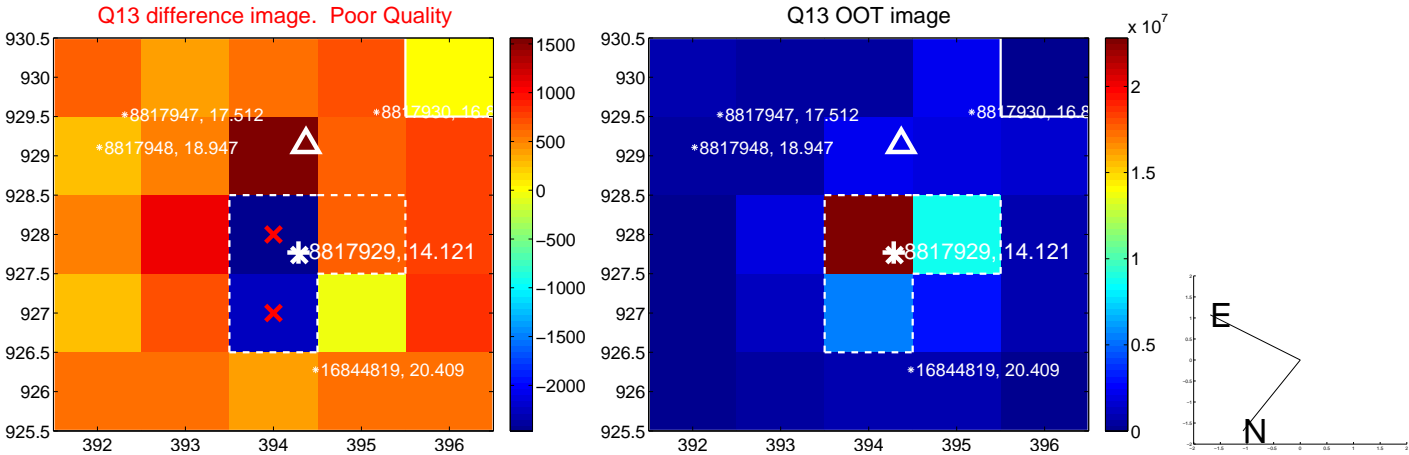
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



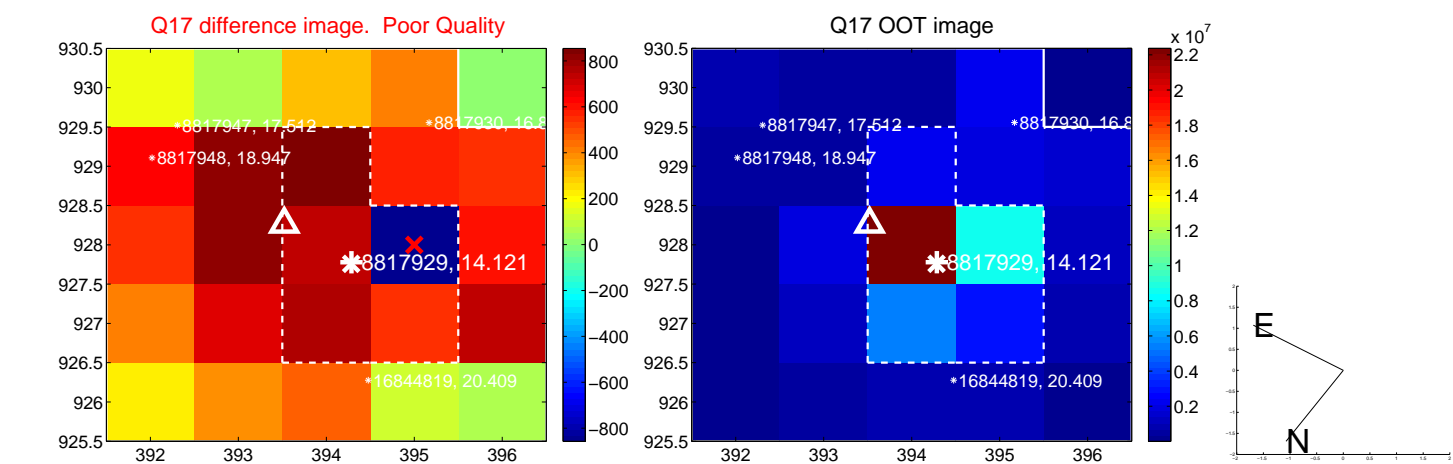
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



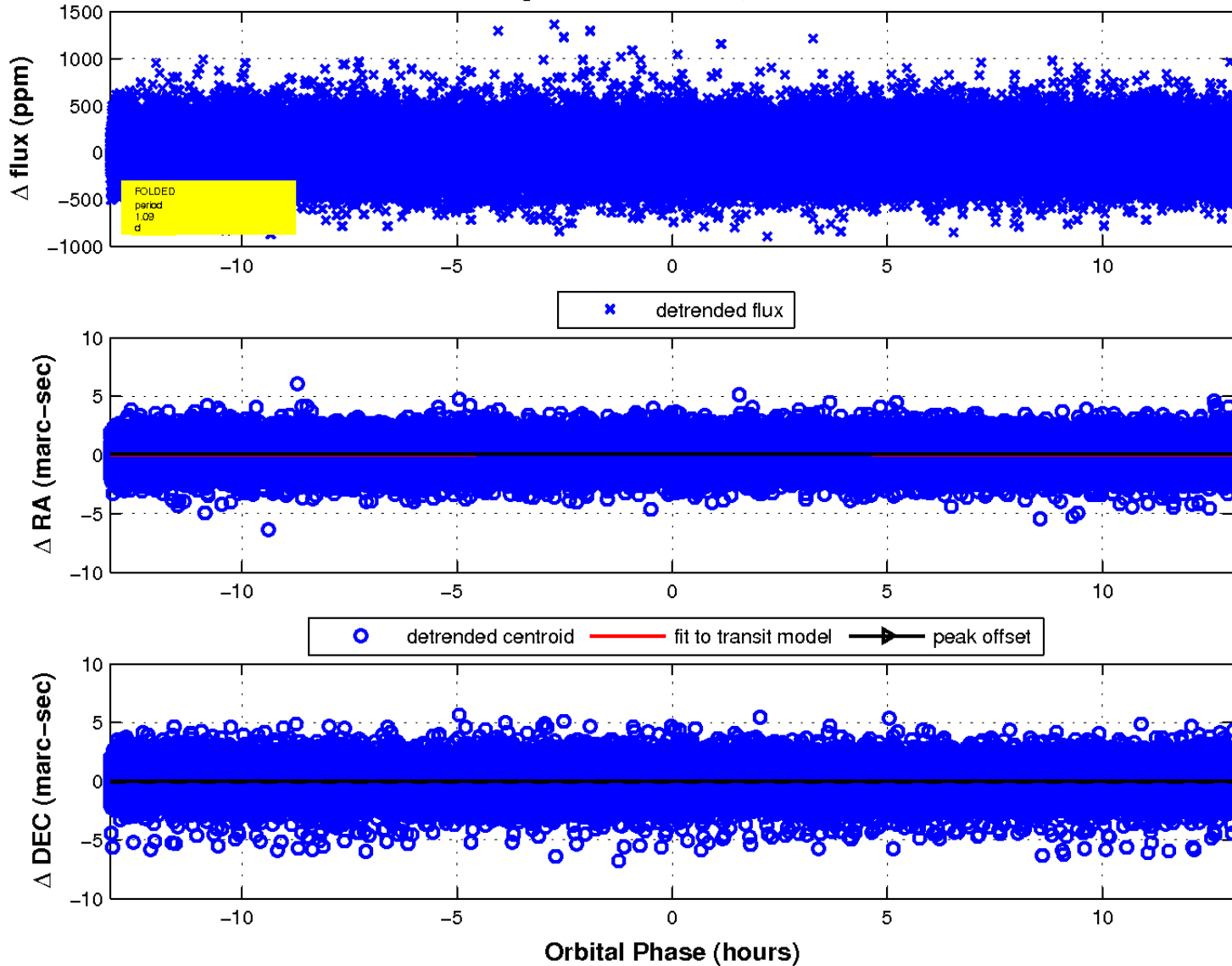
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

