

KIC 011457726

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})
011457726-01	OBS	2047.01	6.221634	131.988605	160.6	3.413	24.6	25.4	1.10	6277	1.58	348.47

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011457726-01	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.

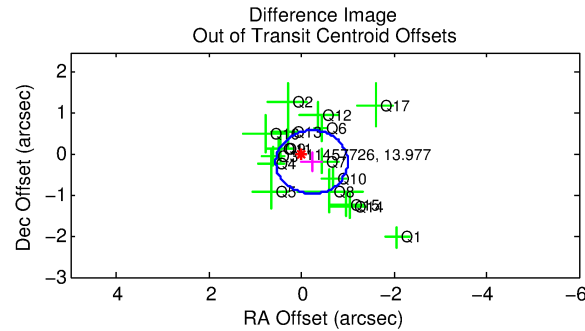
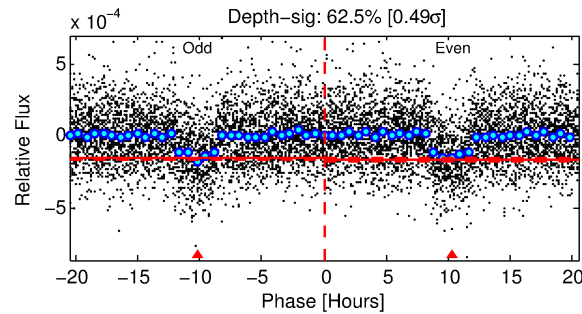
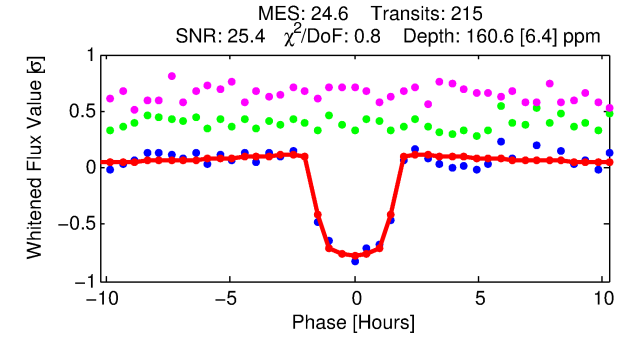
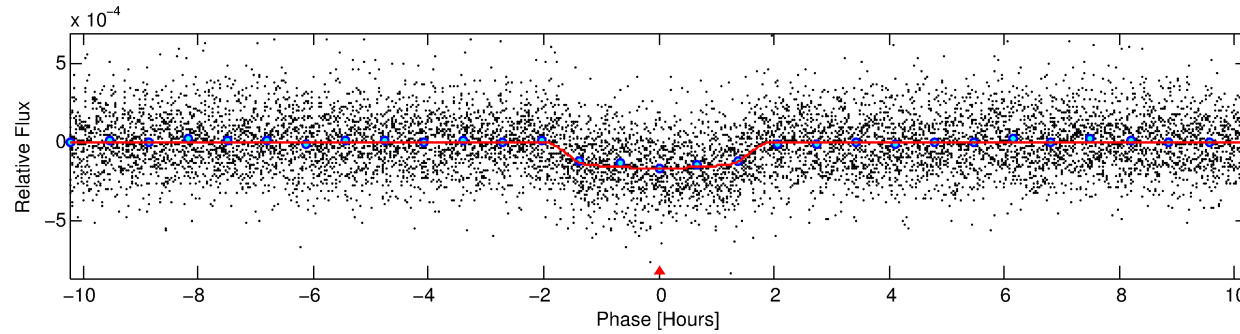
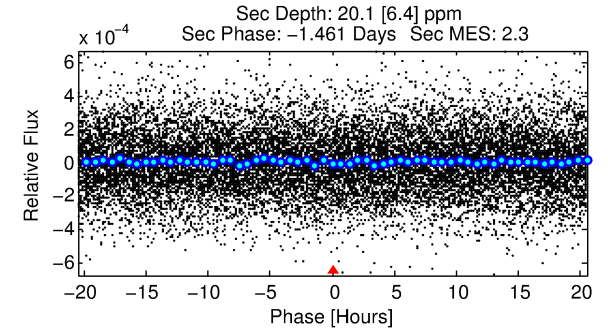
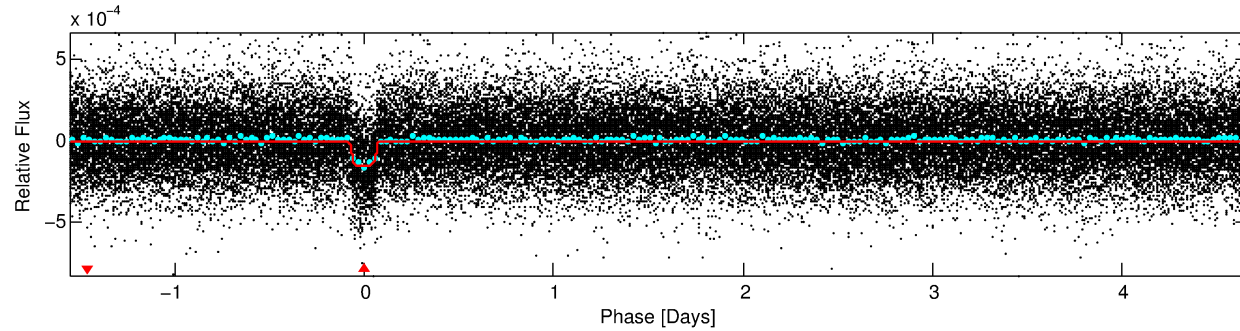
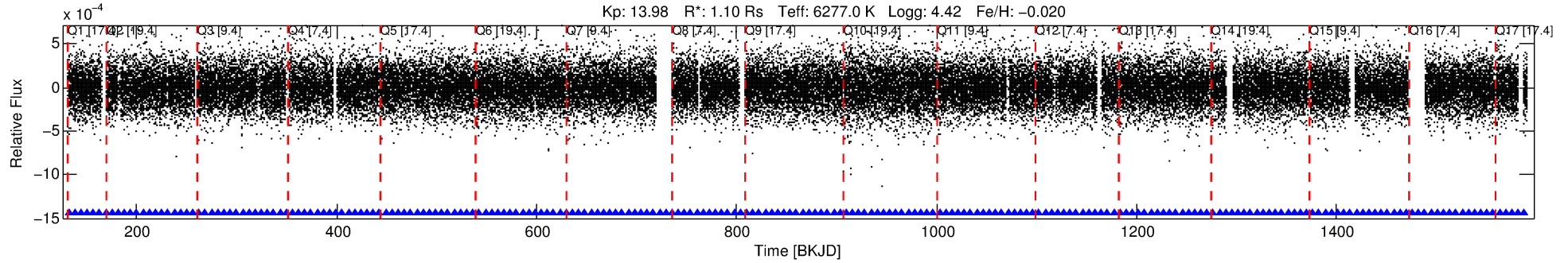
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011457726-01

No Significant Match Found

DV One-Page Summary

KIC: 11457726 Candidate: 1 of 1 Period: 6.222 d
KOI: K02047.01 Corr: 0.977



DV Fit Results:

Period = 6.22163 [0.00002] d
Epoch = 131.9886 [0.0022] BKJD
Rp/R* = 0.0132 [0.0031]
a/R* = 7.66 [9.43]
b = 0.85 [0.40]
Seff = 348.47 [77.13]
Teq = 1102 [61] K
Rp = 1.58 [0.46] Re
a = 0.0693 [0.0101] AU
Ag = 21.26 [12.97] [1.56σ]
Teffp = 3658 [523] K [4.85σ]

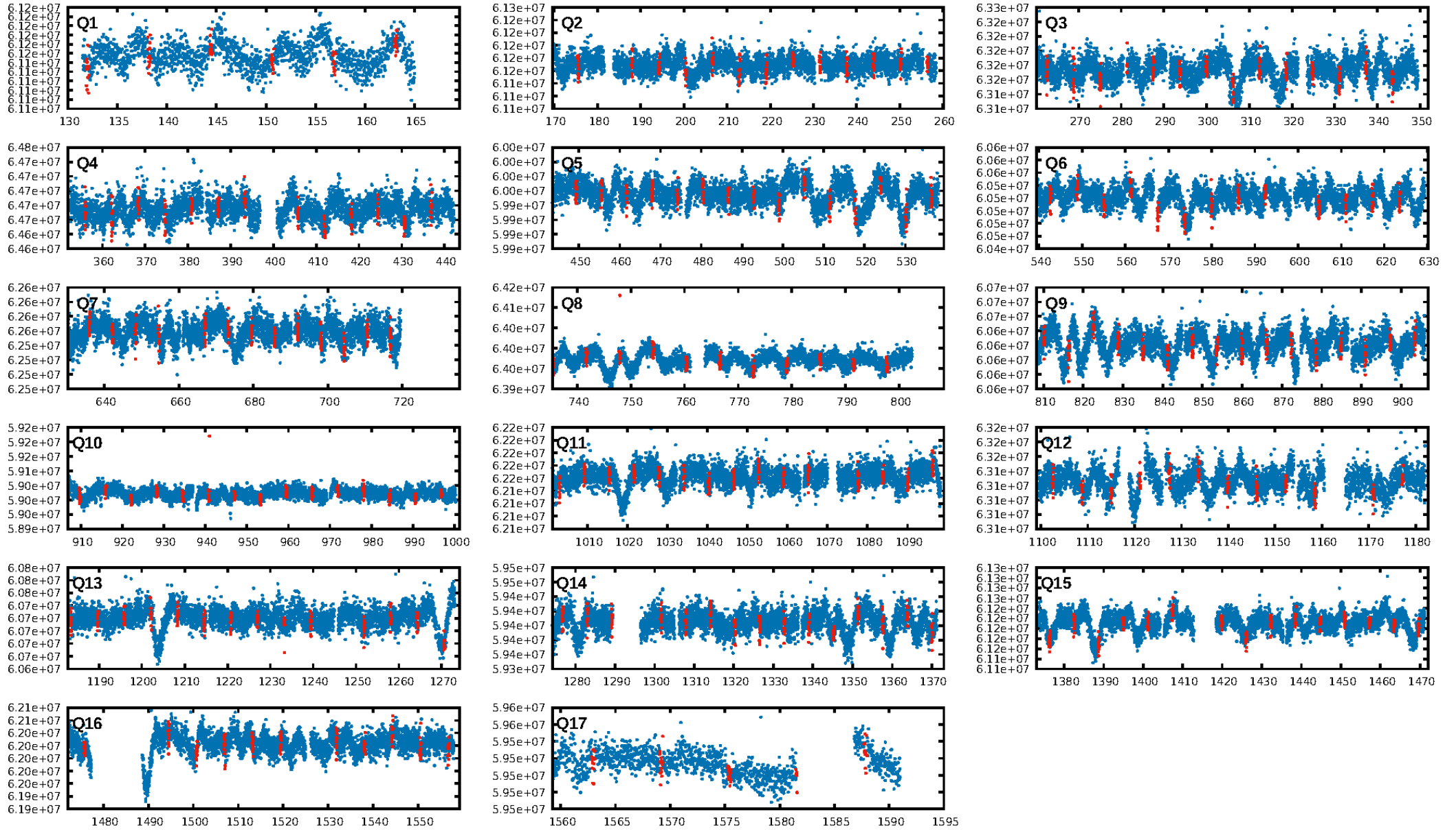
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 5.41e-130
RollingBand-fgt: 1.00 [204/204]
GhostDiagnostic-chr: 2.067
Centroid-sig: 0.1%
Centroid-so: 1.245 arcsec [2.90σ]
OotOffset-rm: 0.289 arcsec [1.12σ]
KicOffset-rm: 0.216 arcsec [0.83σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.94 [16/17]
DiffImageOverlap-fno: 1.00 [17/17]

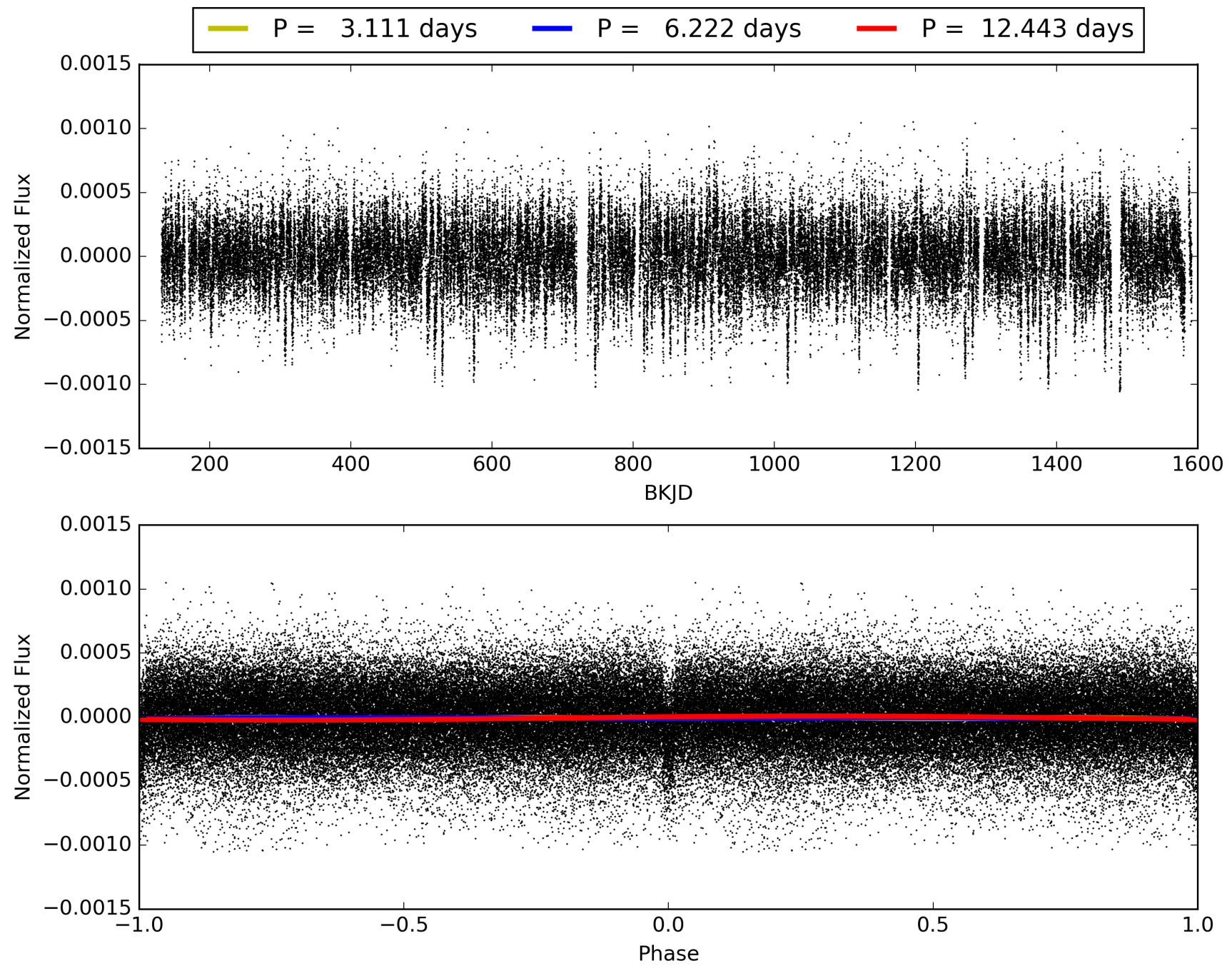
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 22:16:40 Z

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

TCE 011457726-01, PDC Light Curves

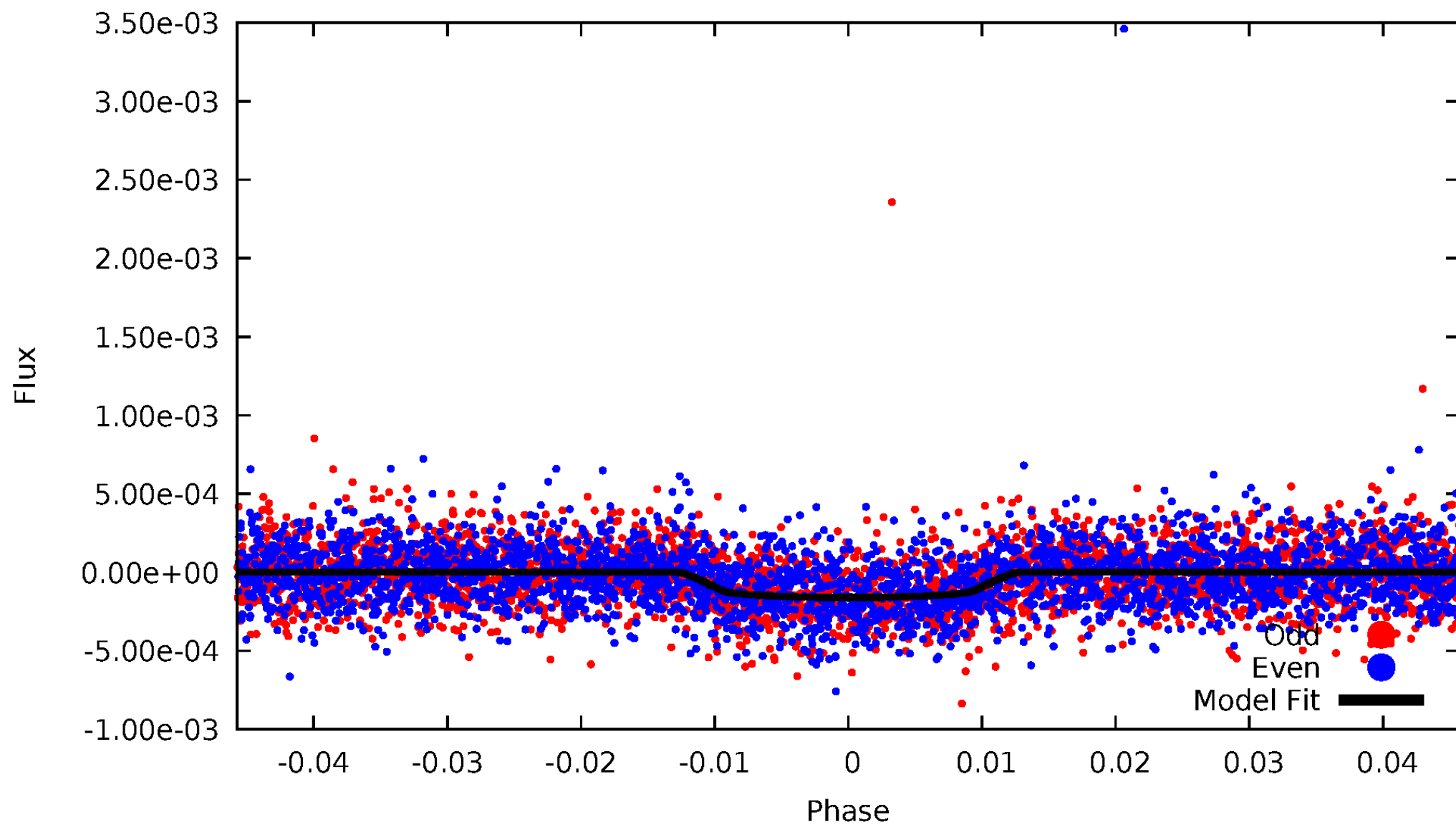


TCE 011457726-01



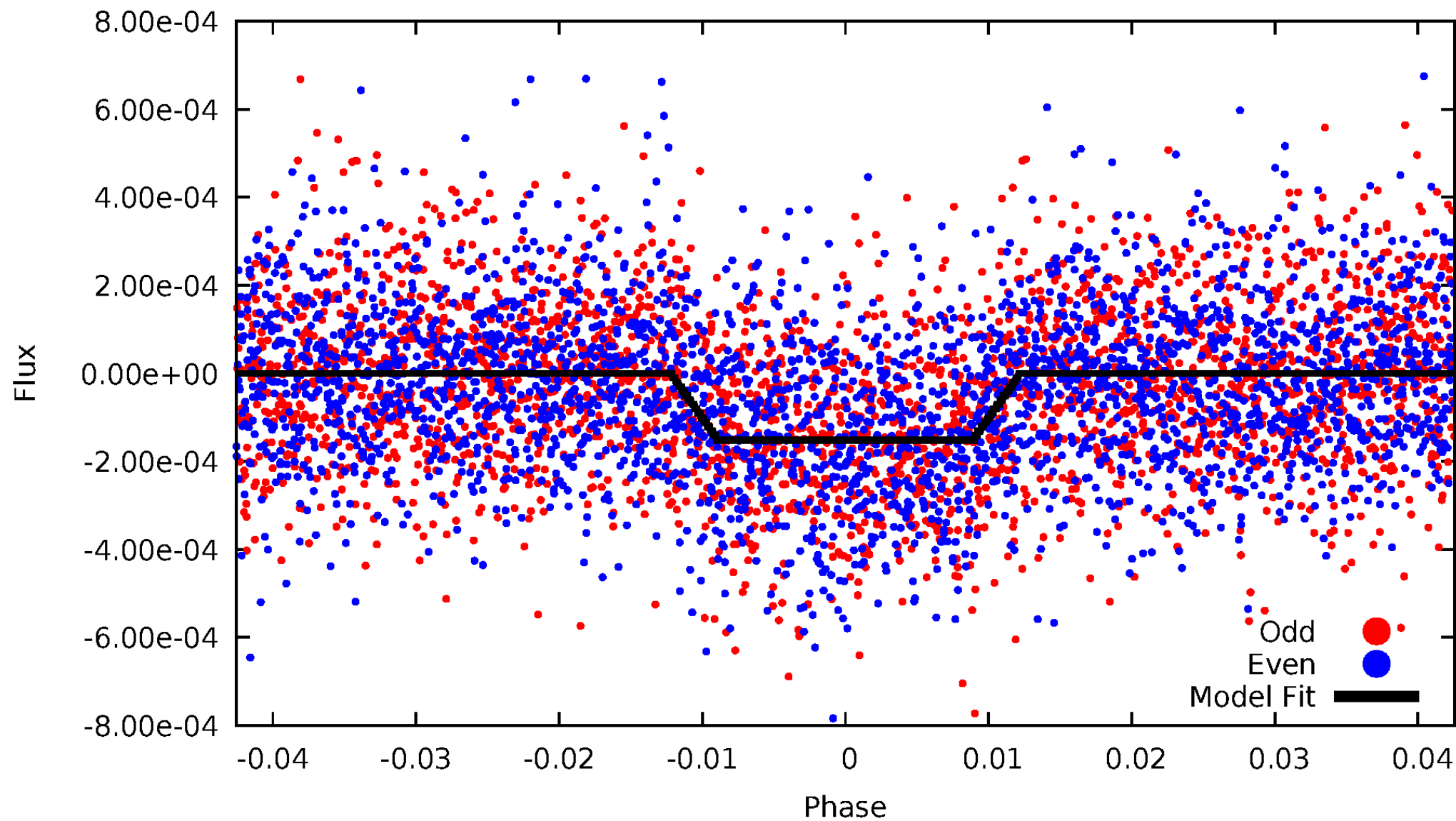
DV Odd/Even

TCE 011457726-01



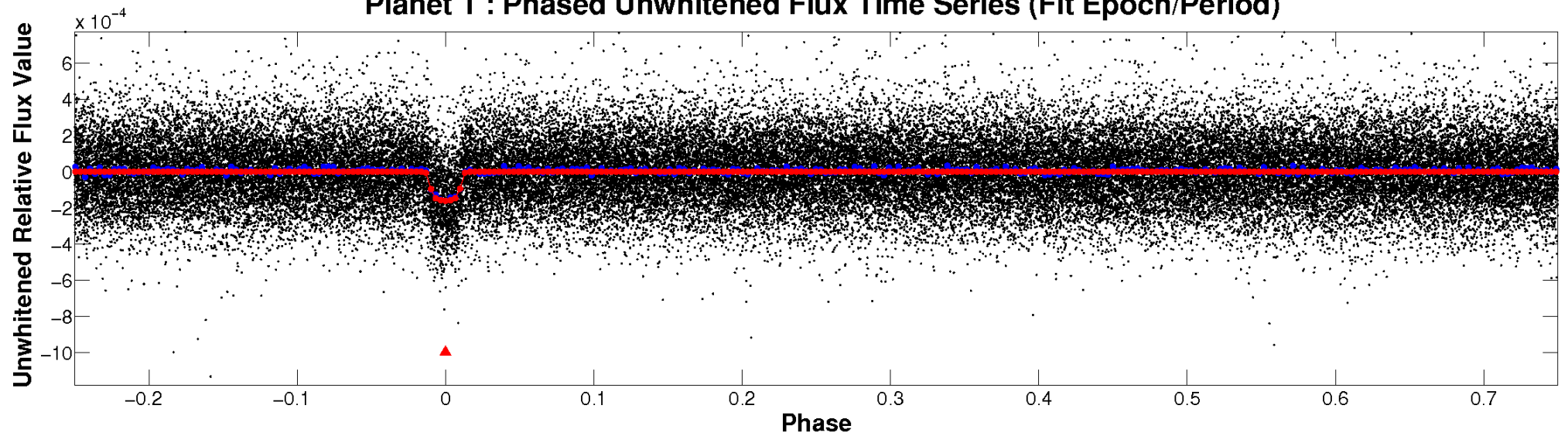
ALT Odd/Even

TCE 011457726-01

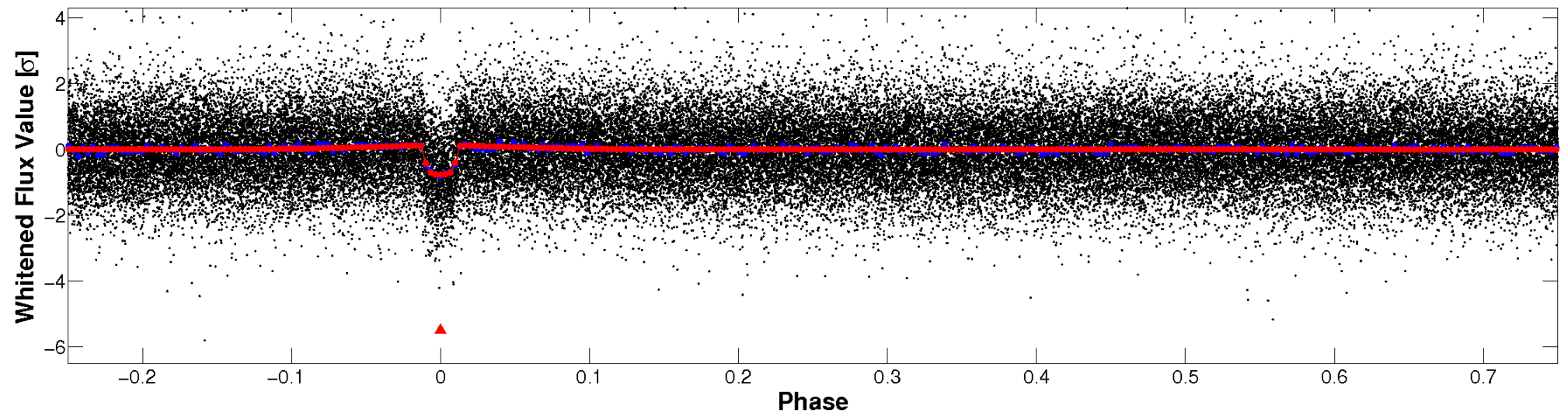


Non-Whitened Vs. Whitened Light Curve

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

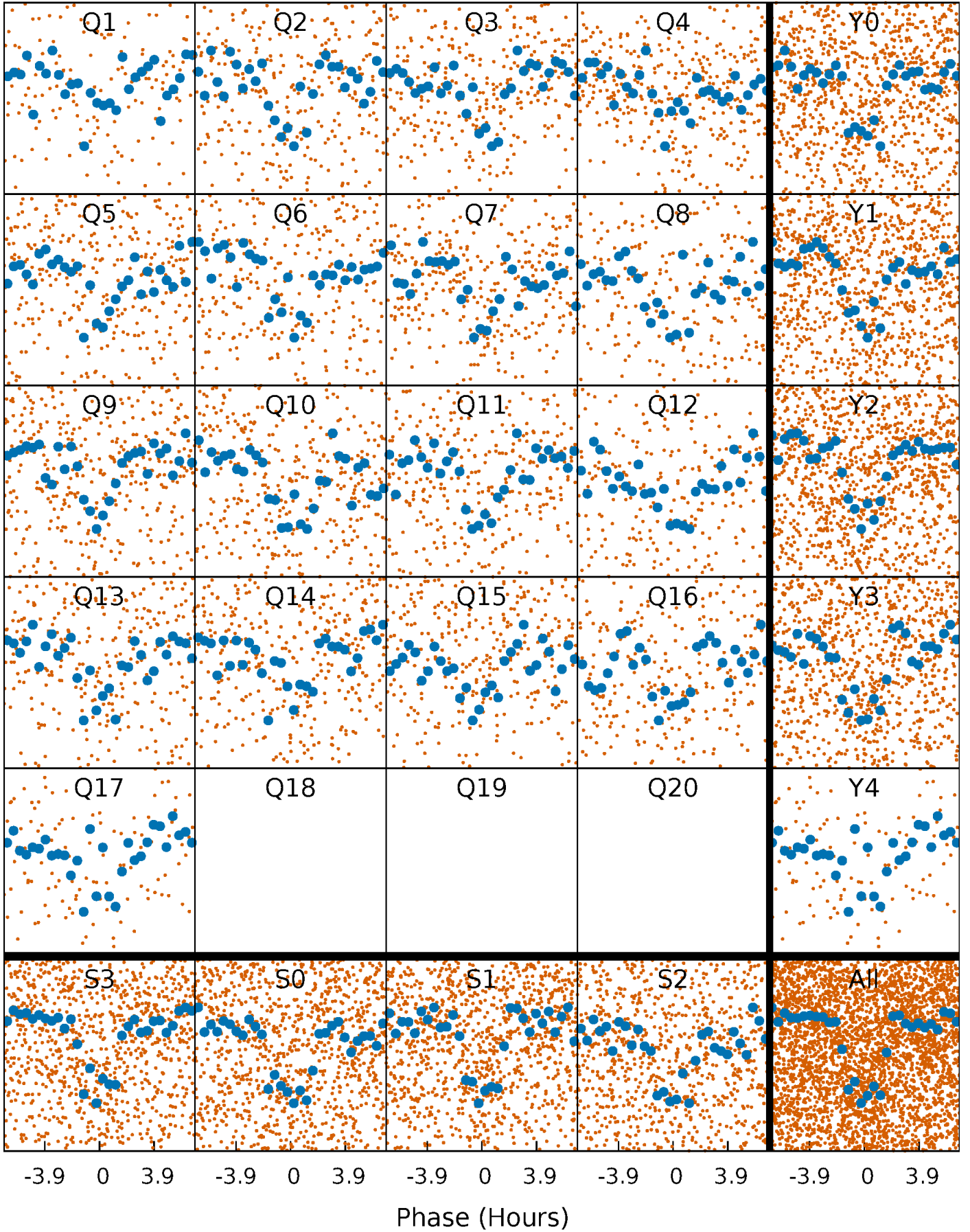


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



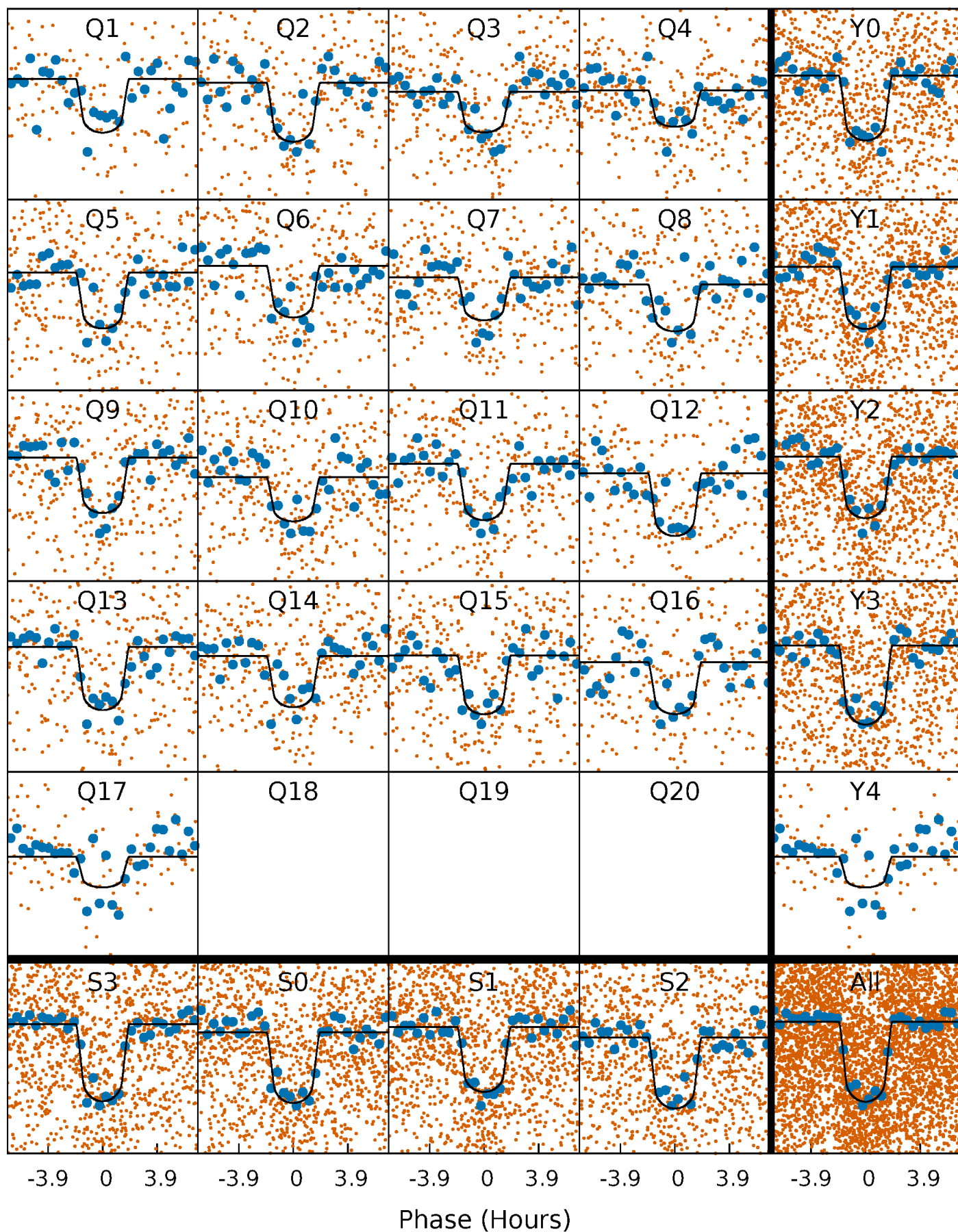
PDC Quarter-Phased Transit Curves

TCE 011457726-01 P= 6.221634 Days $T_0=131.988605$ (BKJD)



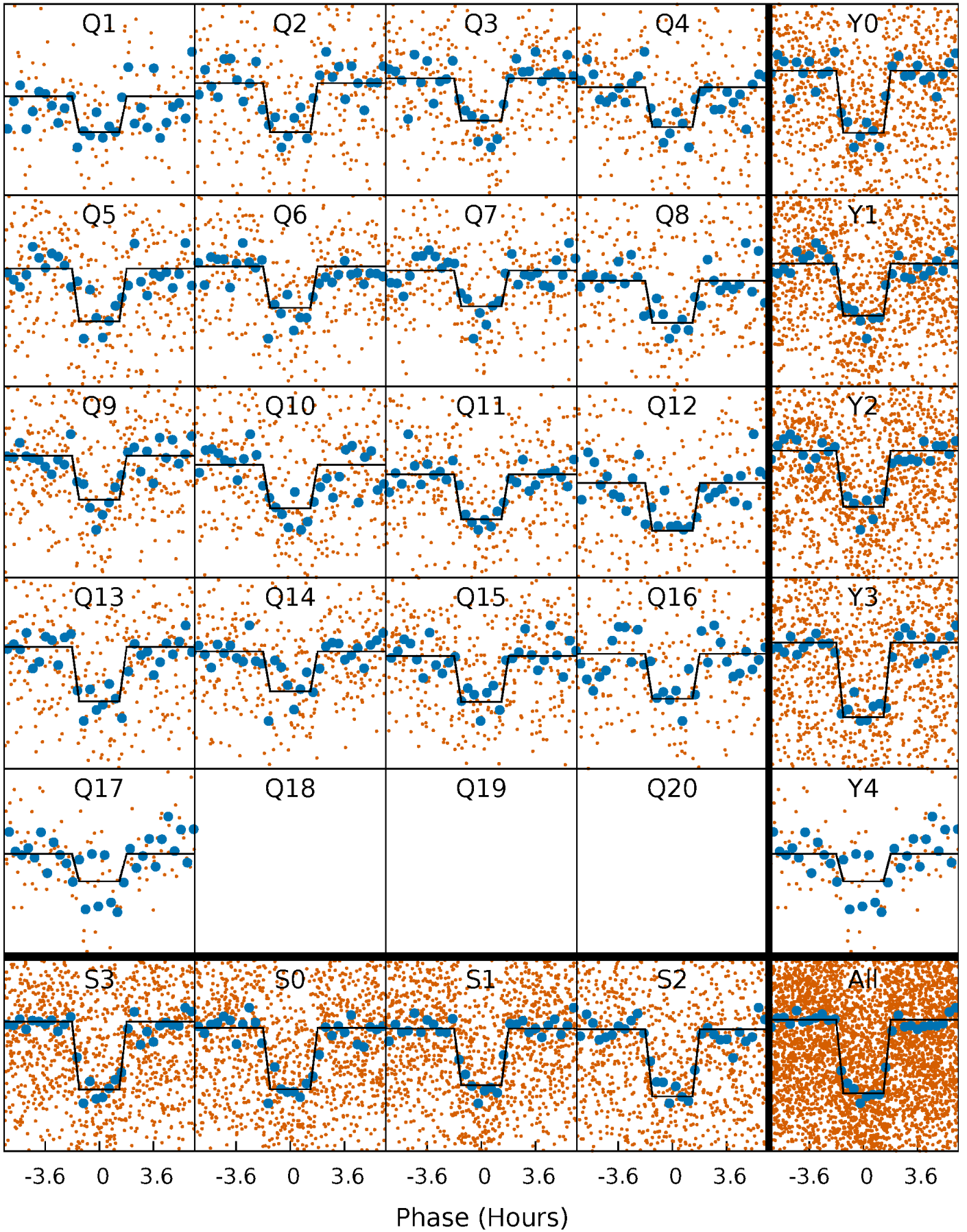
DV Quarter-Phased Transit Curves

TCE 011457726-01 P= 6.221634 Days $T_0=131.988605$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

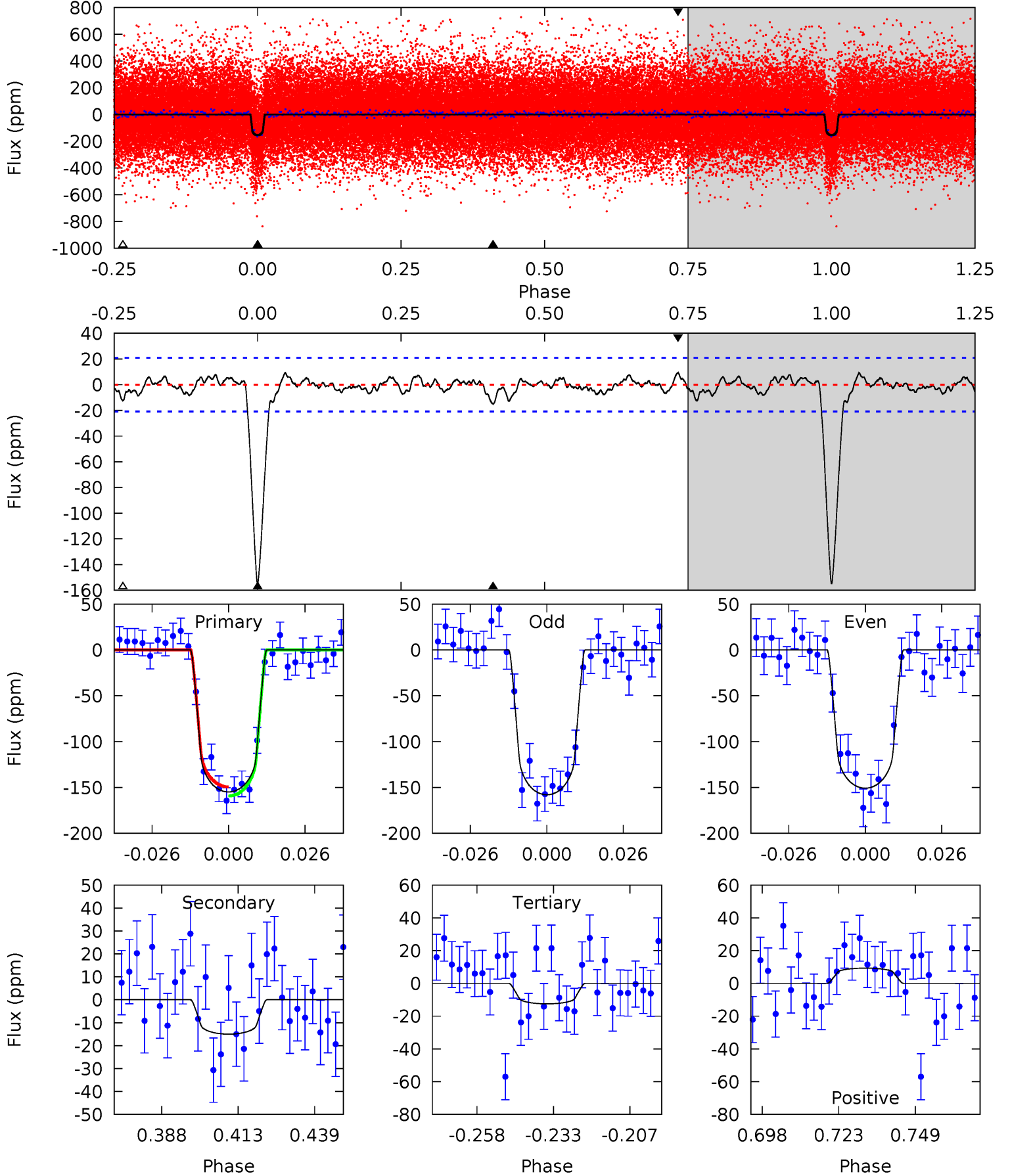
TCE 011457726-01 P= 6.221587 Days $T_0=131.993421$ (BKJD)



DV Model-Shift Uniqueness Test

011457726-01, P = 6.221634 Days, E = 125.766971 Days

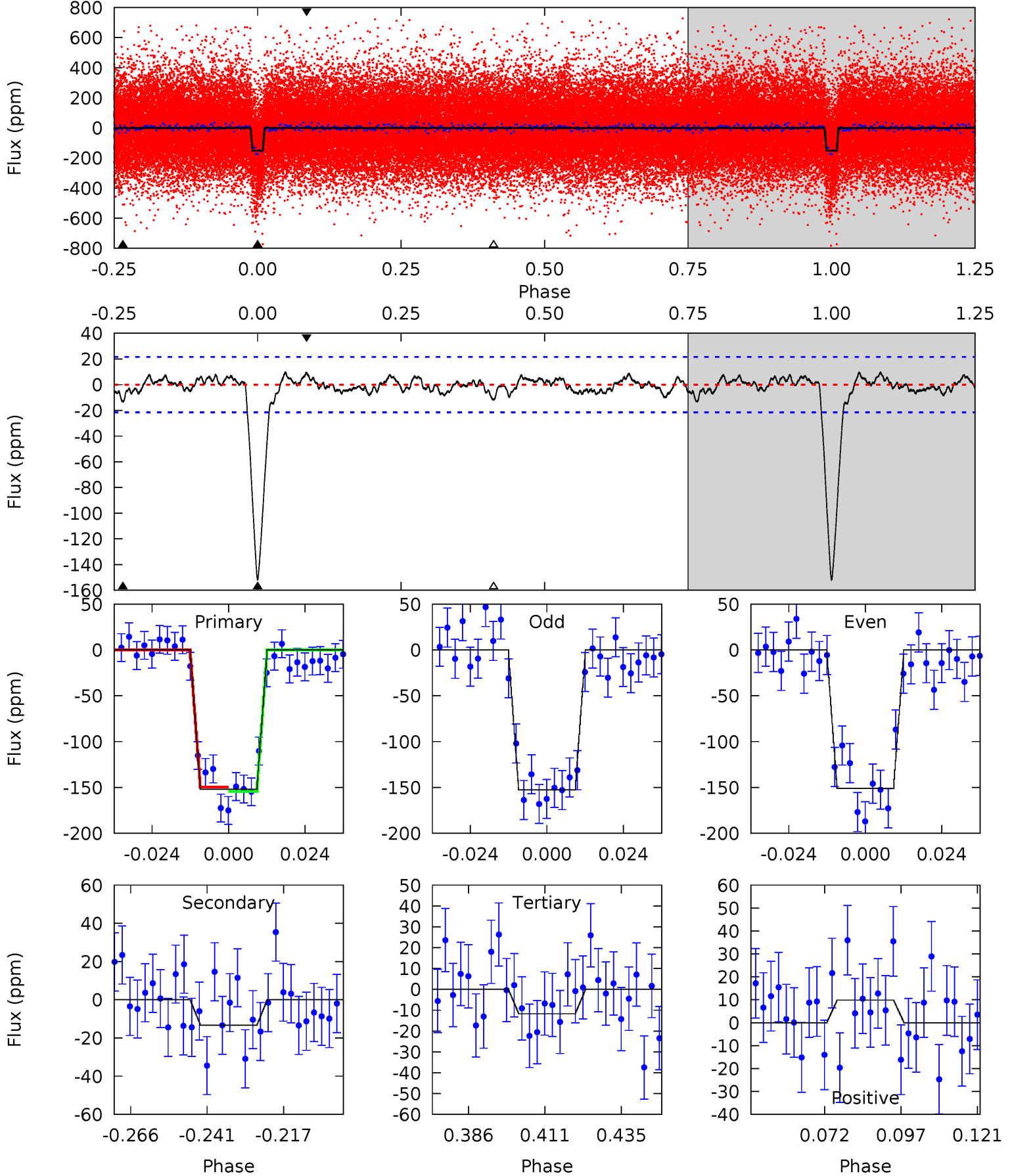
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
35.9	3.48	2.90	2.15	4.84	2.23	0.97	33.0	33.7	0.58	1.32	0.84	0.98	0.06	1.14



Alt Model-Shift Uniqueness Test

011457726-01, P = 6.221587 Days, E = 125.771834 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
34.2	2.99	2.64	2.21	4.85	2.25	0.99	31.5	31.9	0.35	0.77	0.19	1.00	0.06	0.55



Stellar Parameters For KIC 011457726

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6277^{+75}_{-75}	$4.417^{+0.032}_{-0.120}$	$-0.020^{+0.150}_{-0.150}$	$1.097^{+0.186}_{-0.062}$	$1.148^{+0.080}_{-0.080}$	$1.223^{+0.144}_{-0.441}$
	+1%/-1%	+1%/-3%	+750%/-750%	+17%/-6%	+7%/-7%	+12%/-36%
Source	SPE68	SPE68	SPE68	DSEP		

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

Secondary Eclipse Parameters for KIC 011457726-01 / KOI 2047.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-15 ± 4	$1.63^{+0.41}_{-0.40}$	1558^{+59}_{-38}	3769^{+424}_{-348}	15^{+12}_{-6}
Alt.	-13 ± 4	$1.50^{+0.42}_{-0.36}$	1556^{+60}_{-38}	3783^{+457}_{-374}	15^{+14}_{-7}

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 $A_{obs} \gg 1.0$

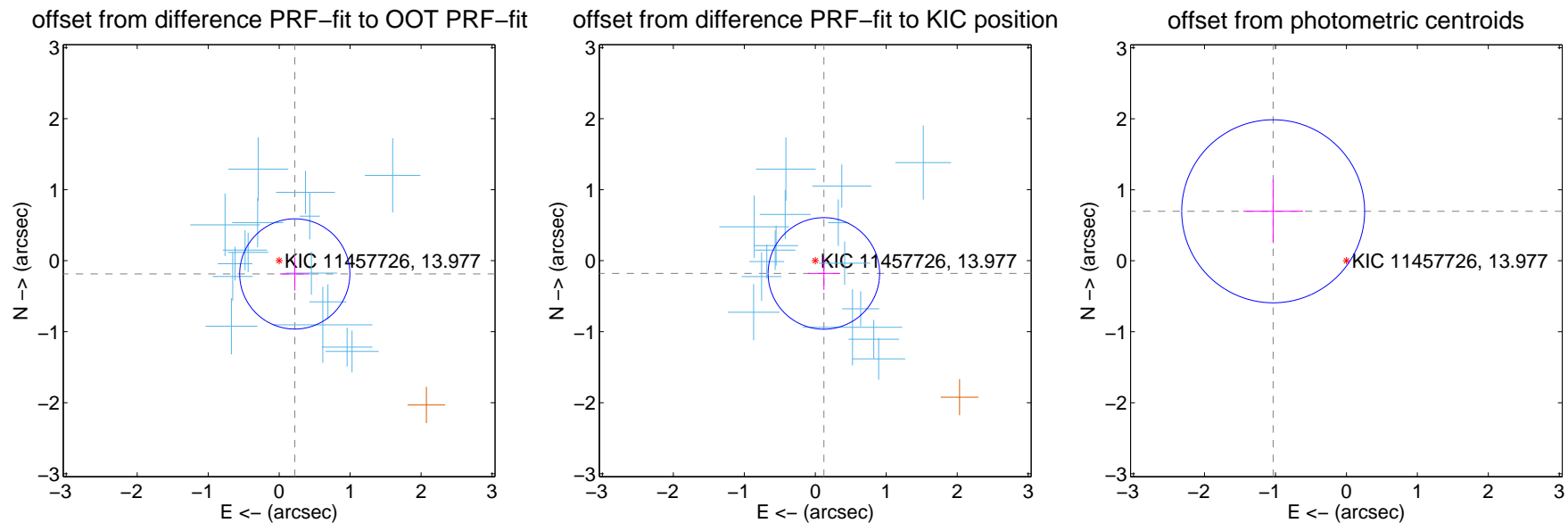
DV Centroid Data

Supplemental centroid analysis for 011457726-01. Kepler magnitude: 13.98. Transit SNR 25.44

There are 16 quarters with good PRF difference image offsets

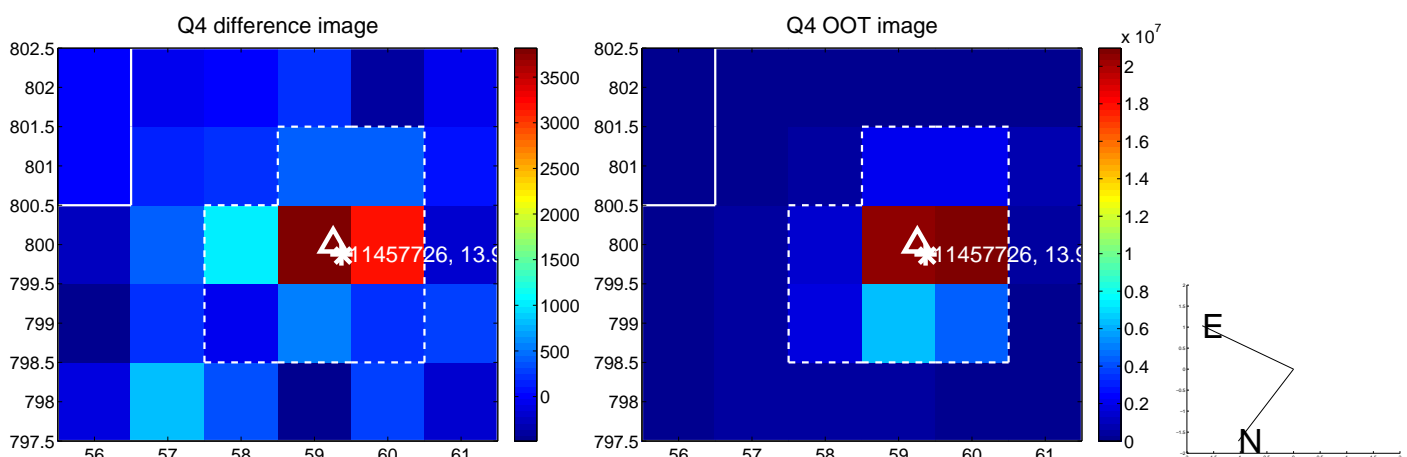
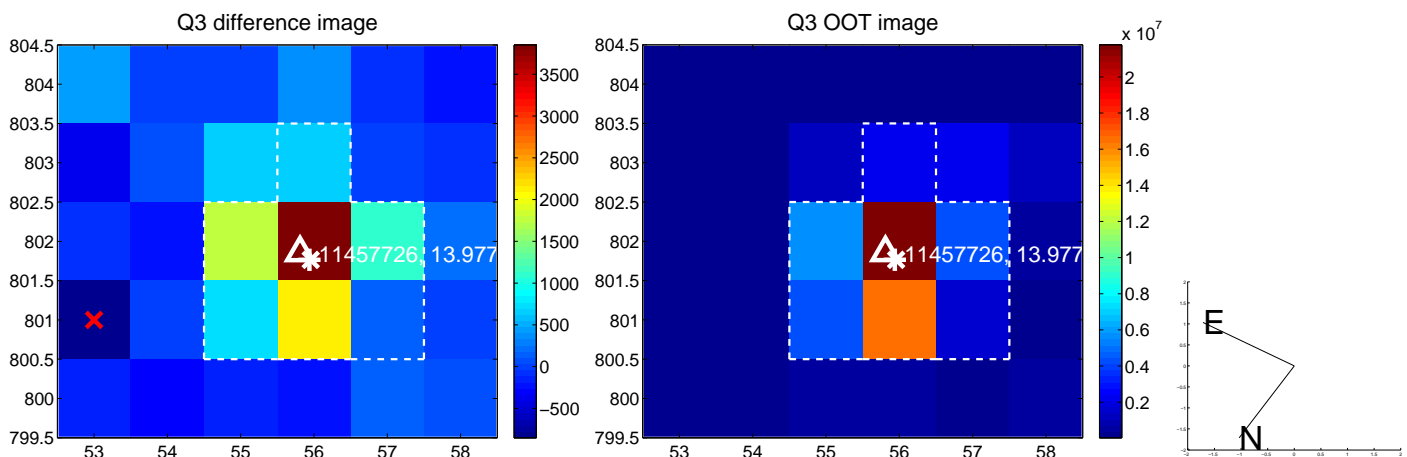
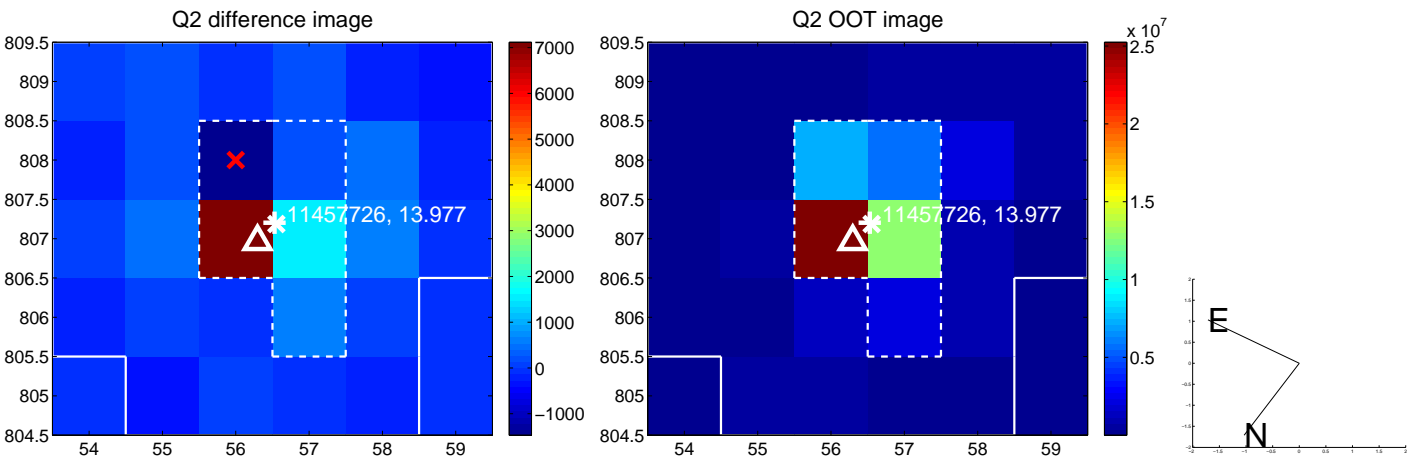
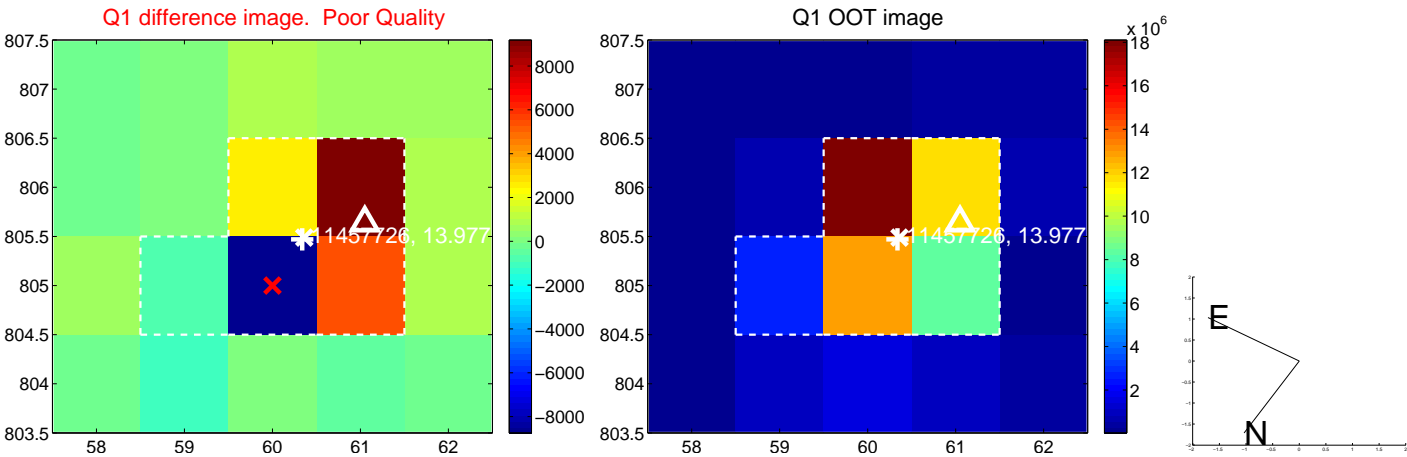
The direct PRF centroid is offset from the target star catalog position by about 0.20 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.289 ± 0.259	1.12	-0.220 ± 0.210	-0.186 ± 0.234
PRF-fit source offset from KIC position	0.216 ± 0.262	0.83	-0.121 ± 0.223	-0.179 ± 0.233
photometric centroid source offset	1.25 ± 0.43	2.90	1.03 ± 0.42	0.70 ± 0.45

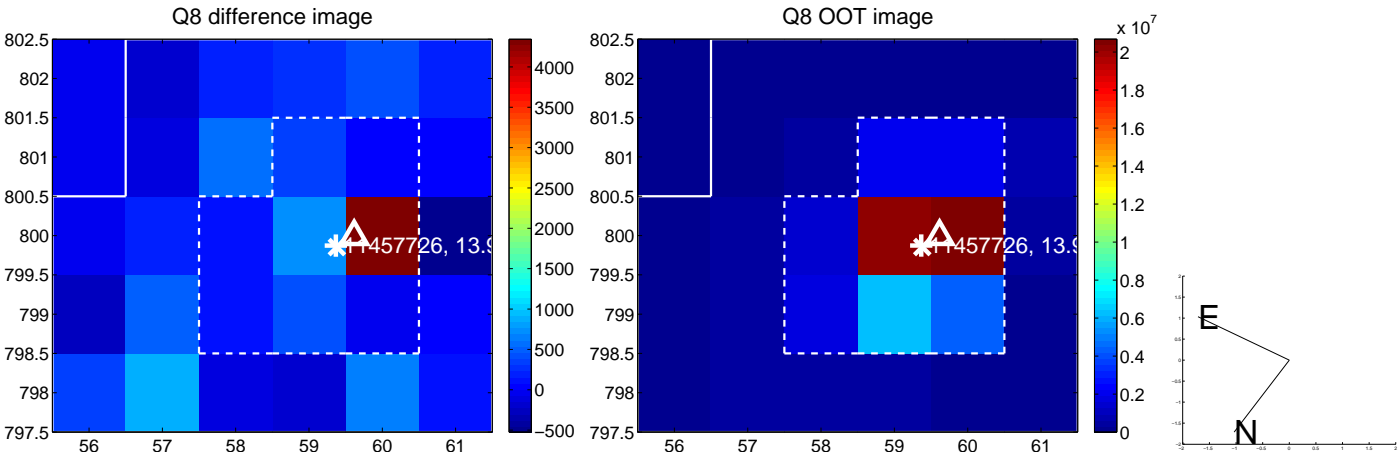
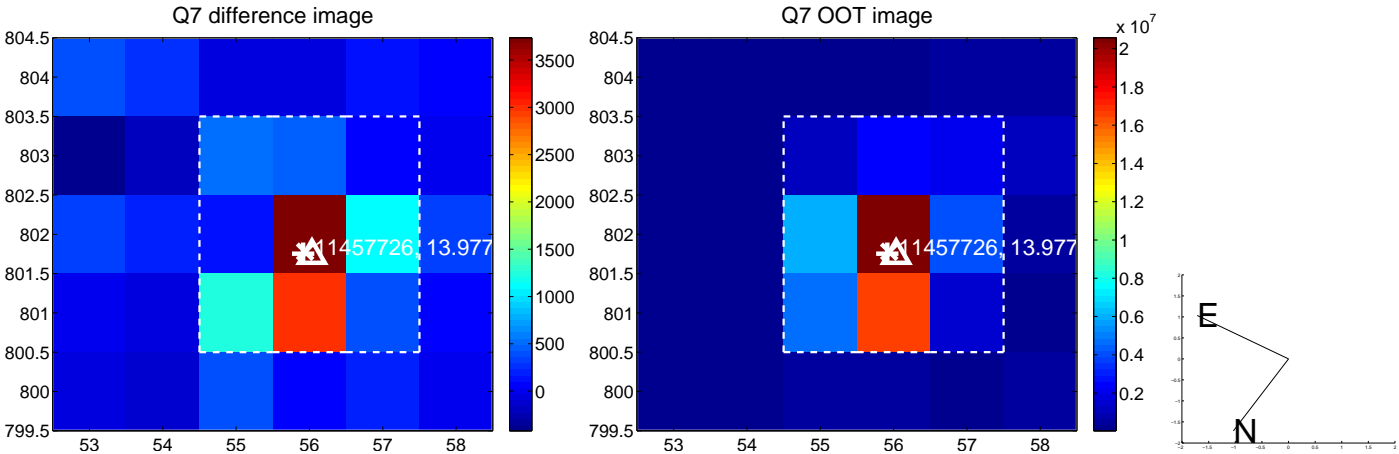
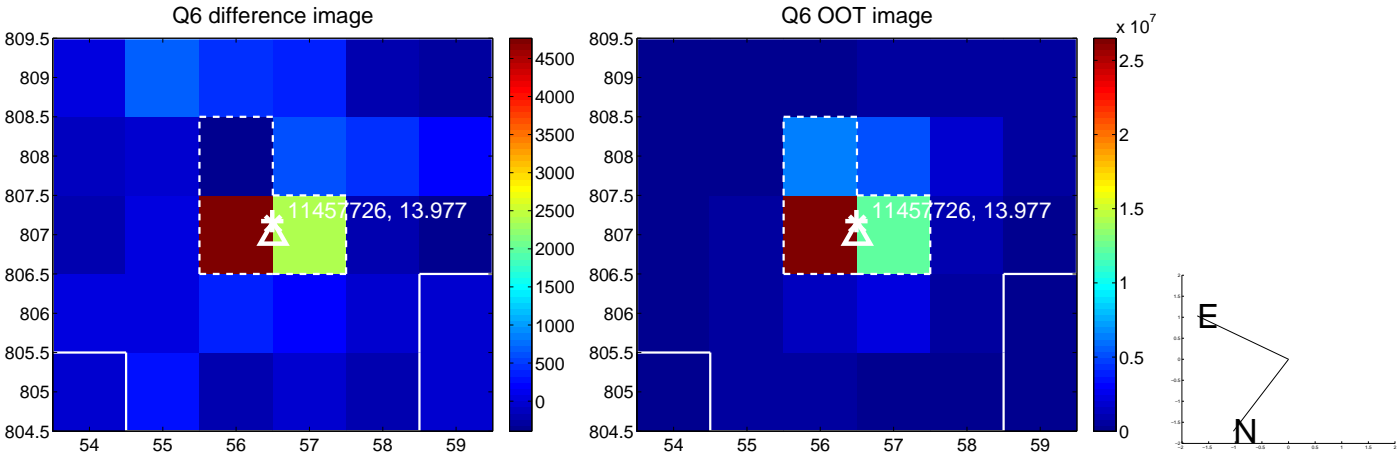
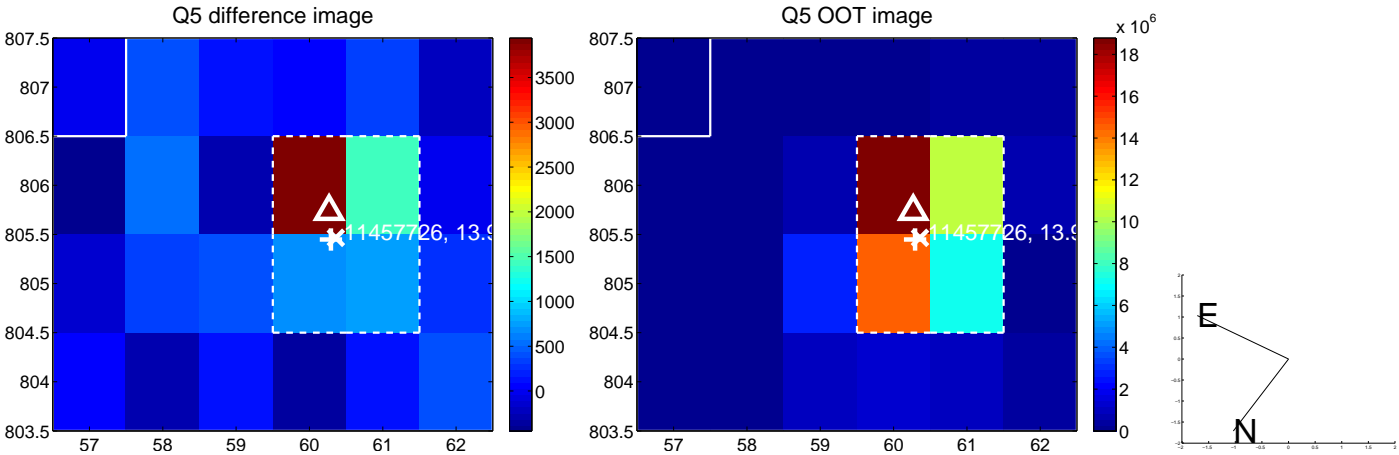


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

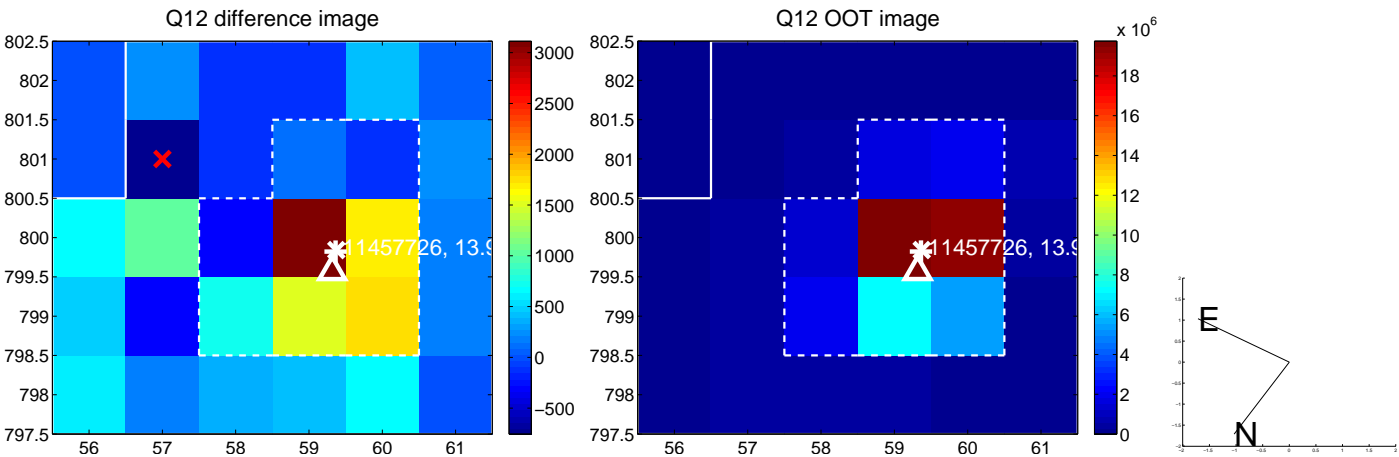
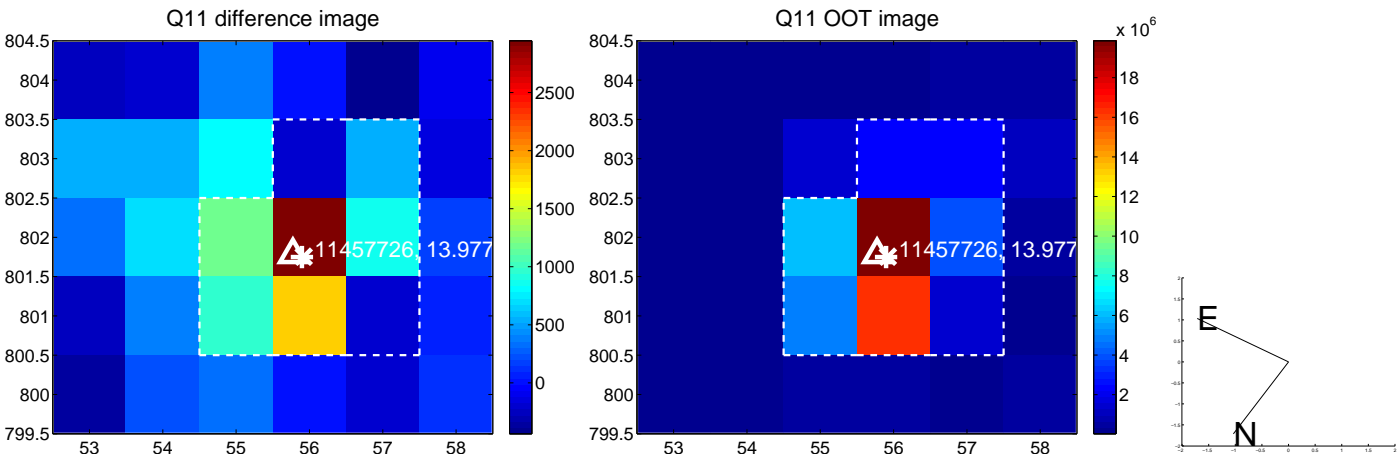
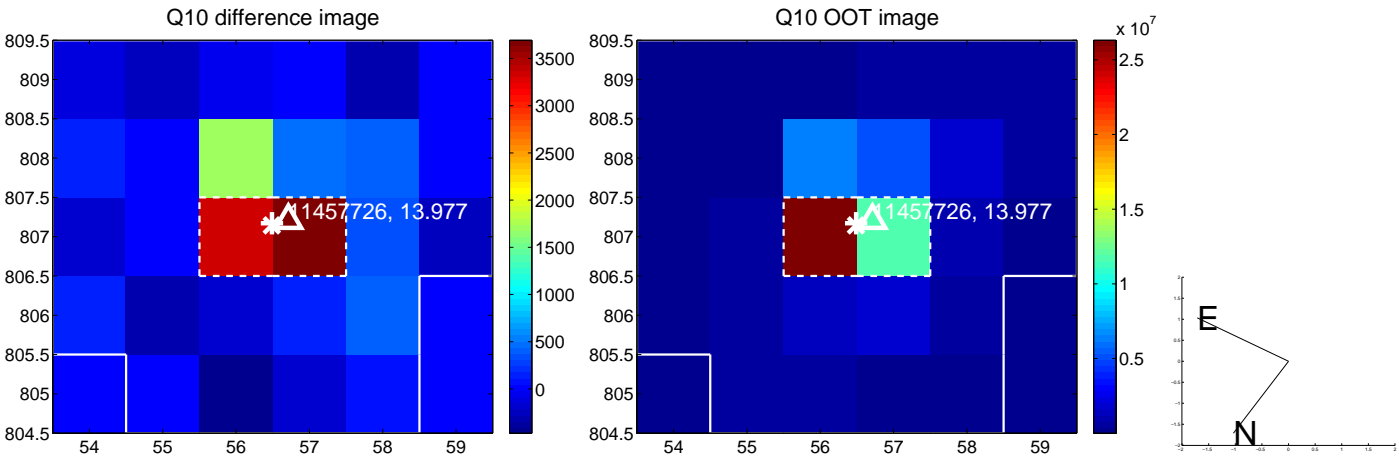
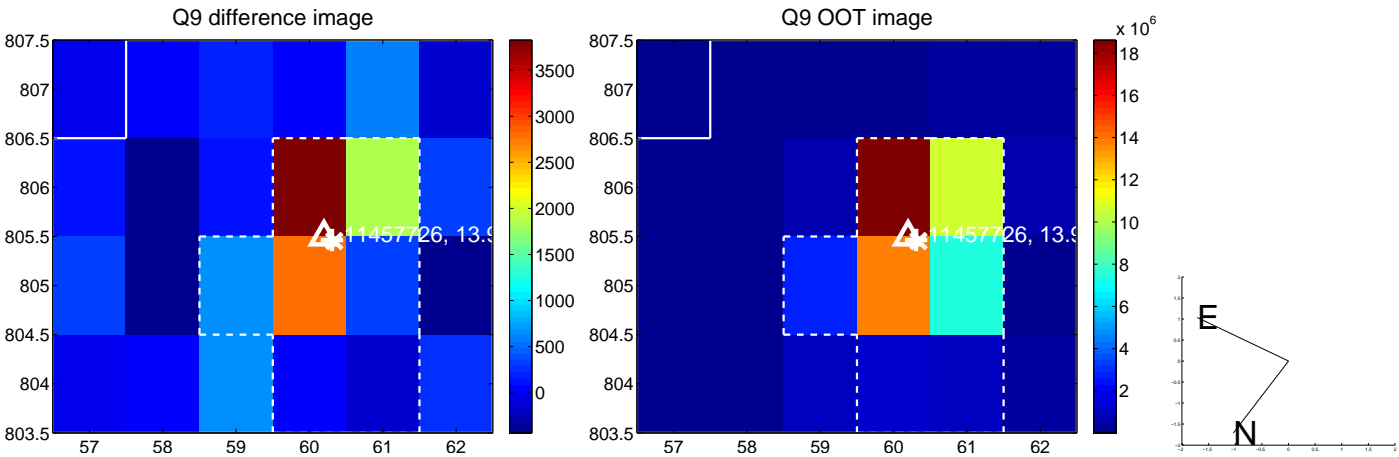
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



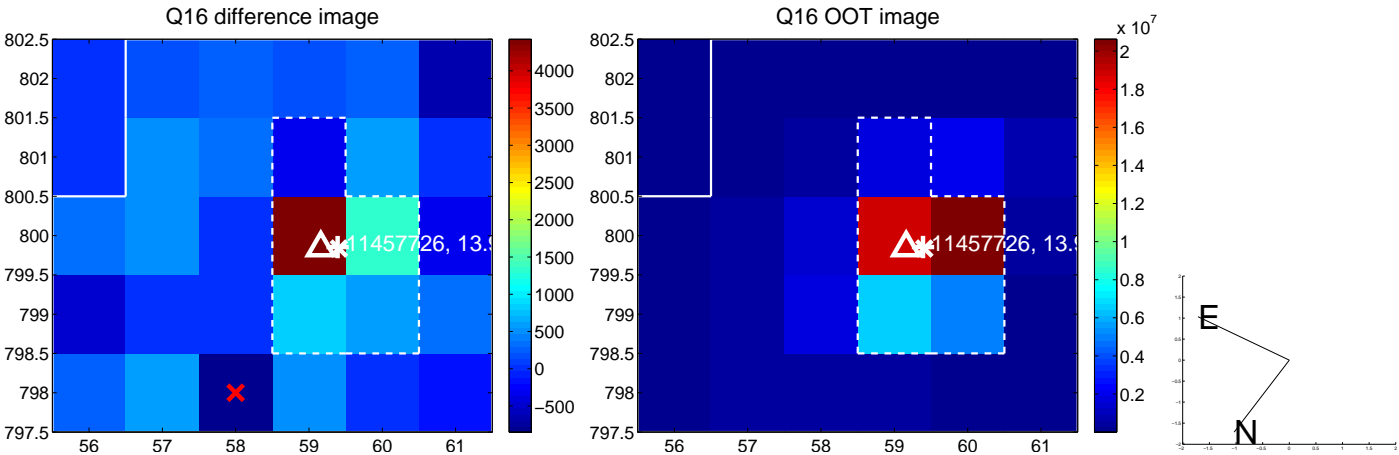
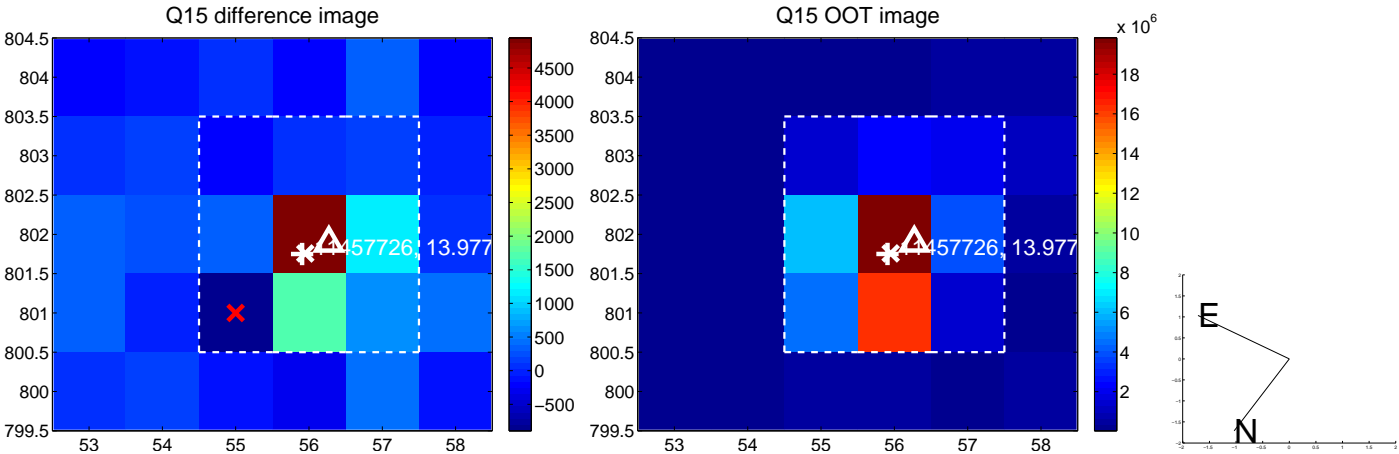
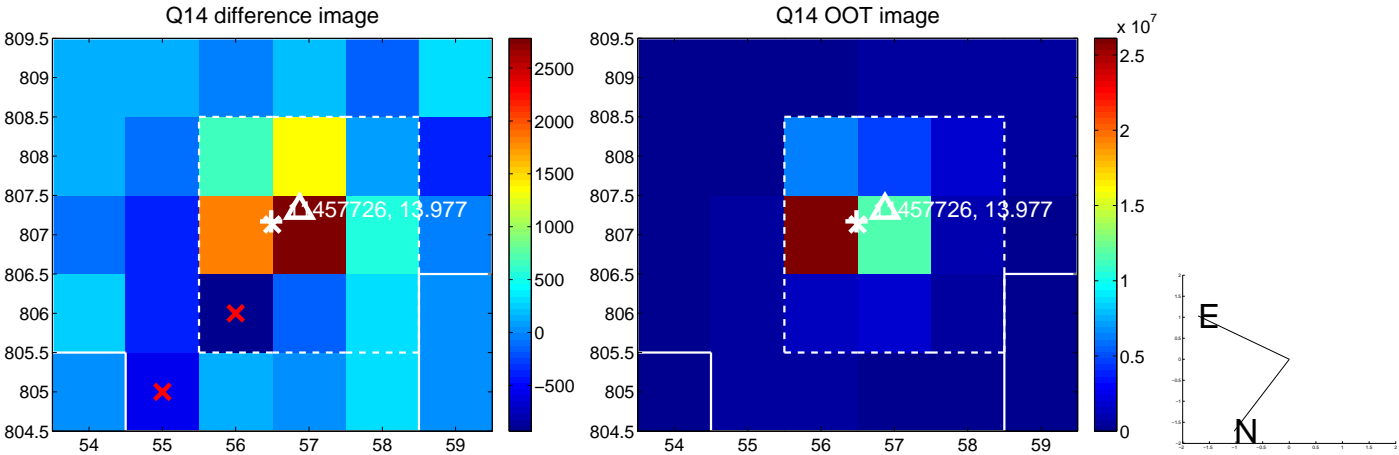
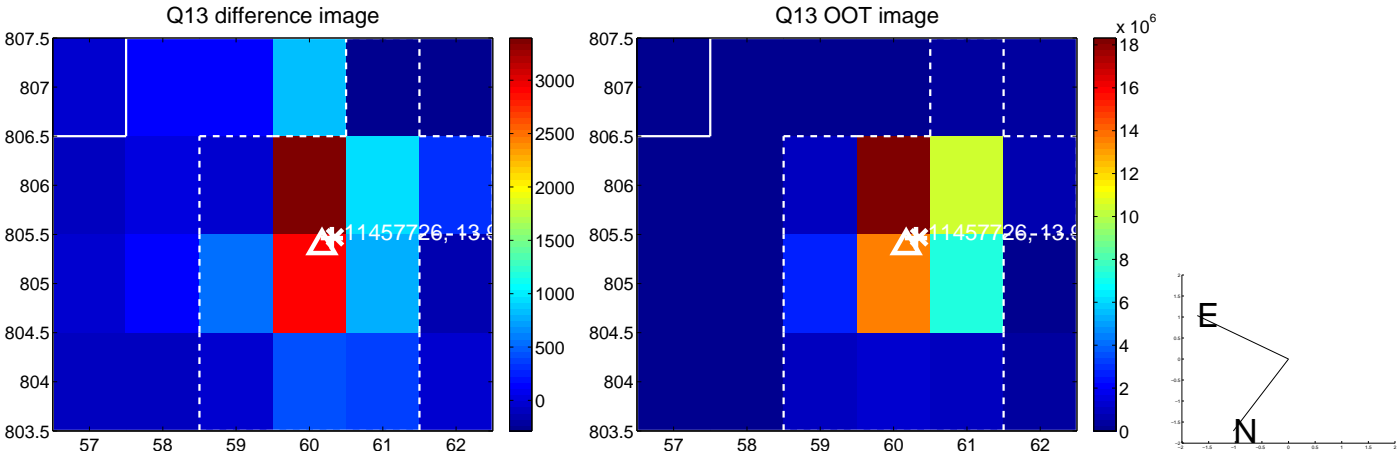
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



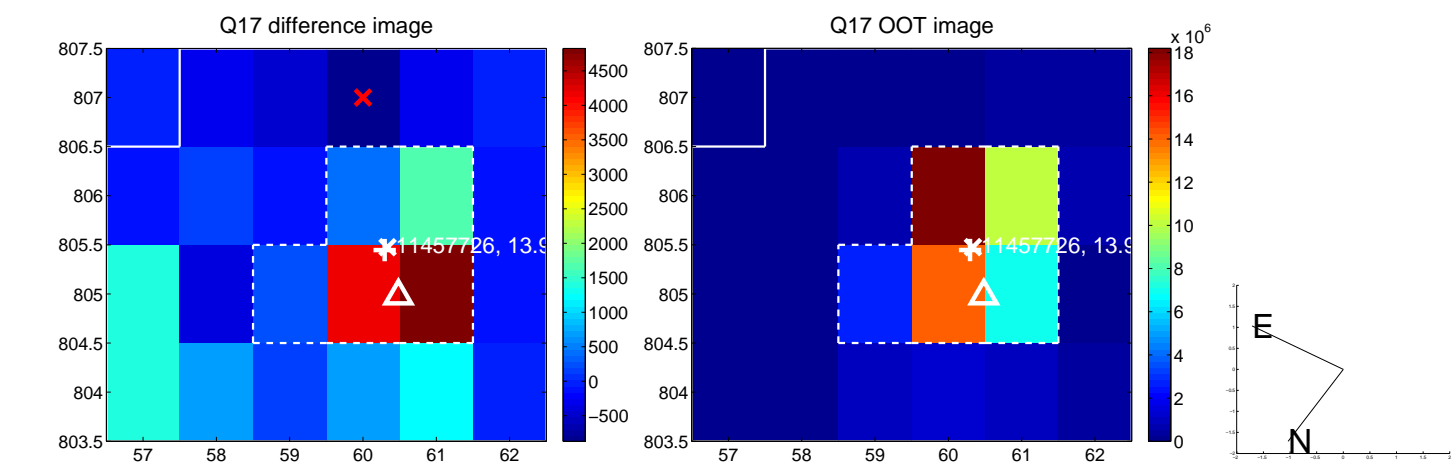
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



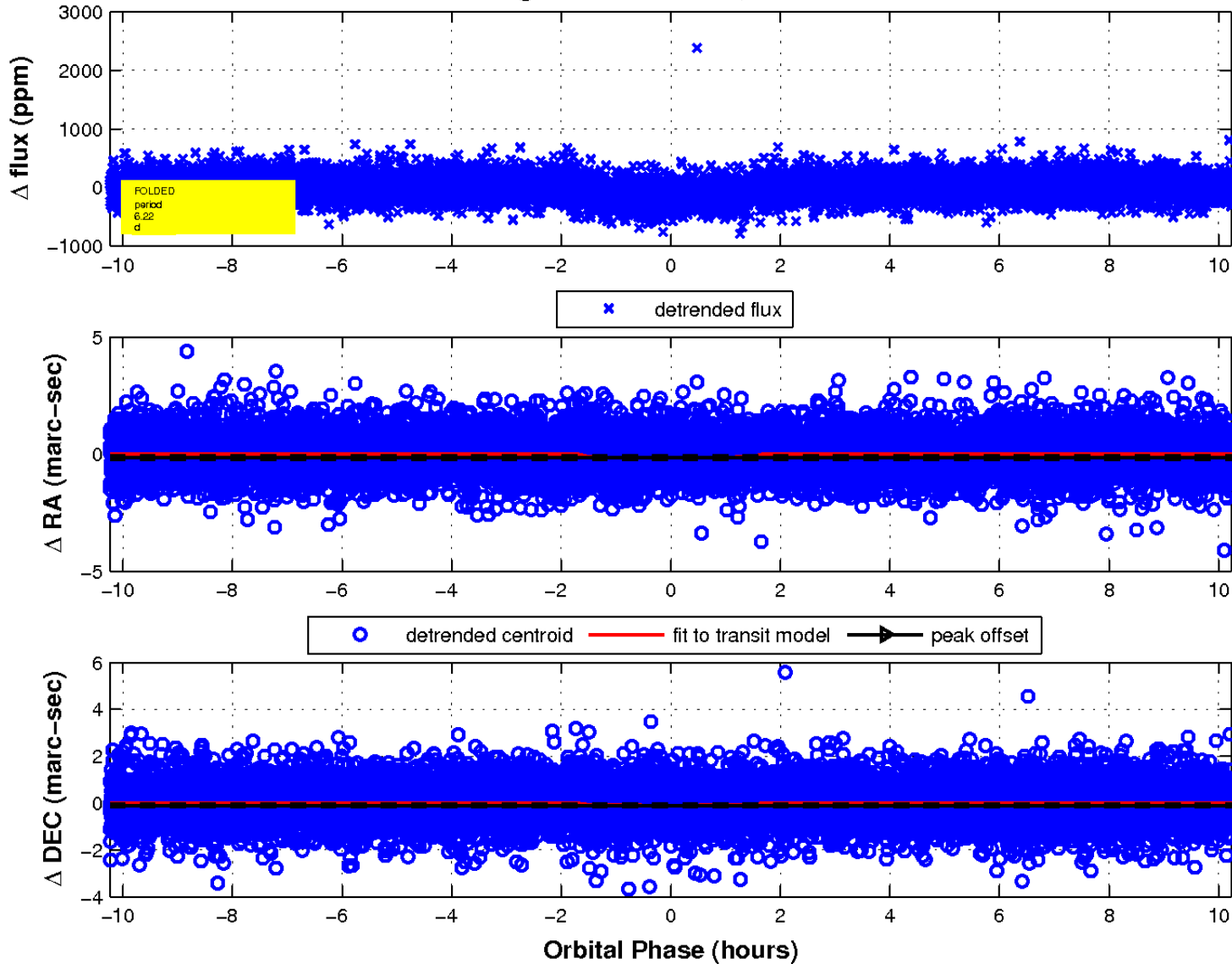
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

