

KIC 007273277

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})
007273277-01	OBS	1979.01	2.714085	133.710912	133.9	1.383	30.8	35.7	0.99	5815	1.43	678.06

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007273277-01	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.

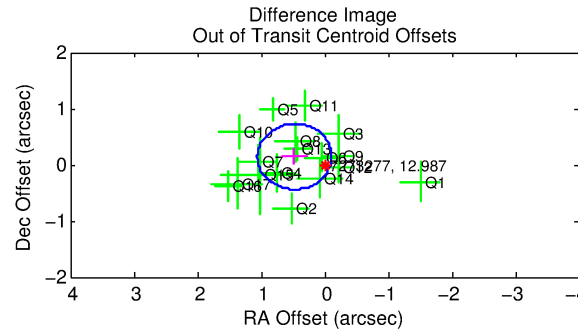
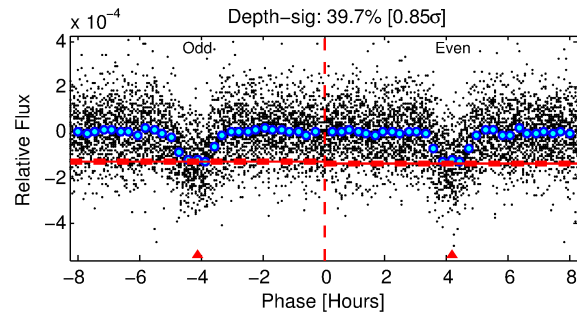
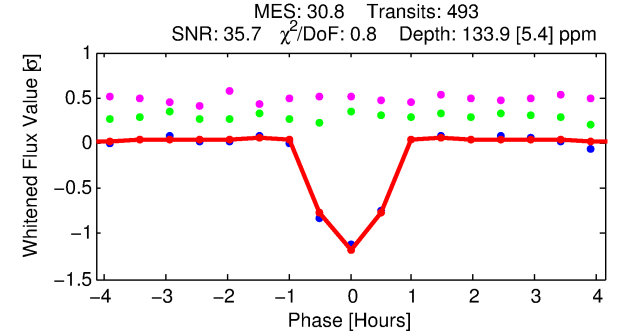
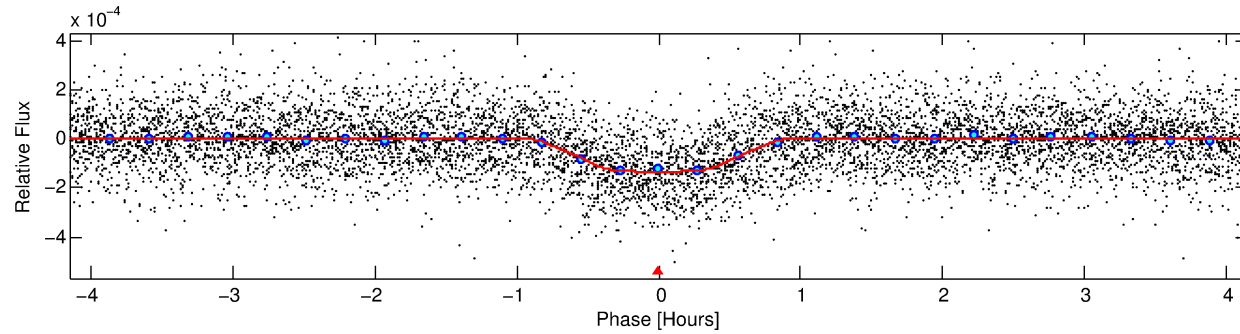
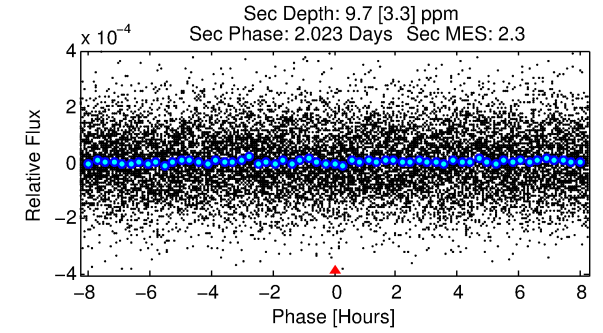
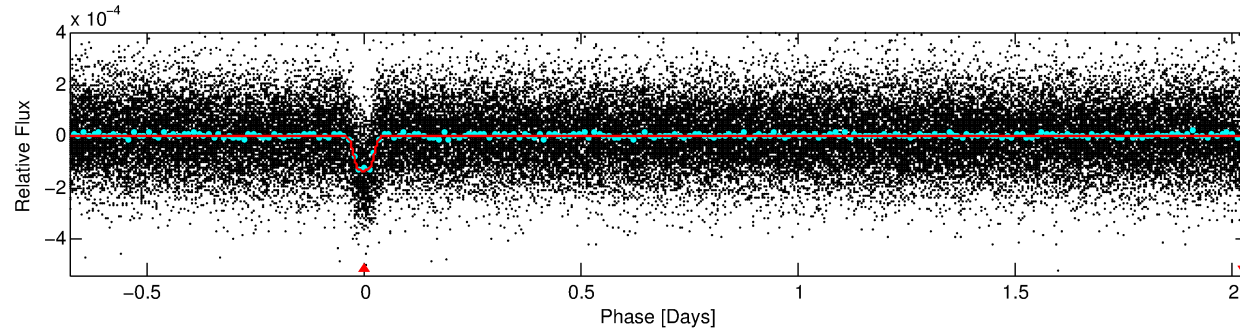
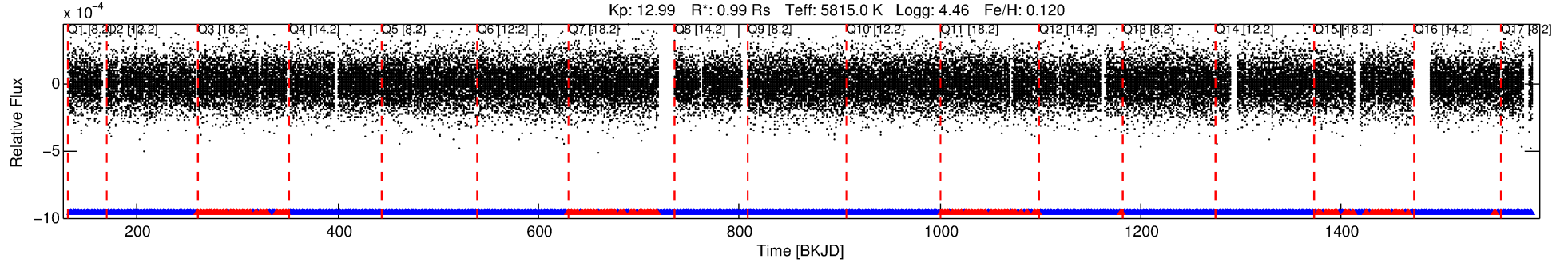
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007273277-01

No Significant Match Found

DV One-Page Summary

KIC: 7273277 Candidate: 1 of 1 Period: 2.714 d
KOI: K01979.01 Corr: 0.954



DV Fit Results:

Period = 2.71409 [0.00000] d
Epoch = 133.7109 [0.0007] BKJD
Rp/R* = 0.0132 [0.0024]
a/R* = 5.99 [5.15]
b = 0.93 [0.13]
Seff = 678.06 [148.48]
Teq = 1301 [71] K
Rp = 1.43 [0.34] Re
a = 0.0386 [0.0053] AU
Ag = 3.92 [2.09] [1.40σ]
Teffp = 2830 [349] K [4.29σ]

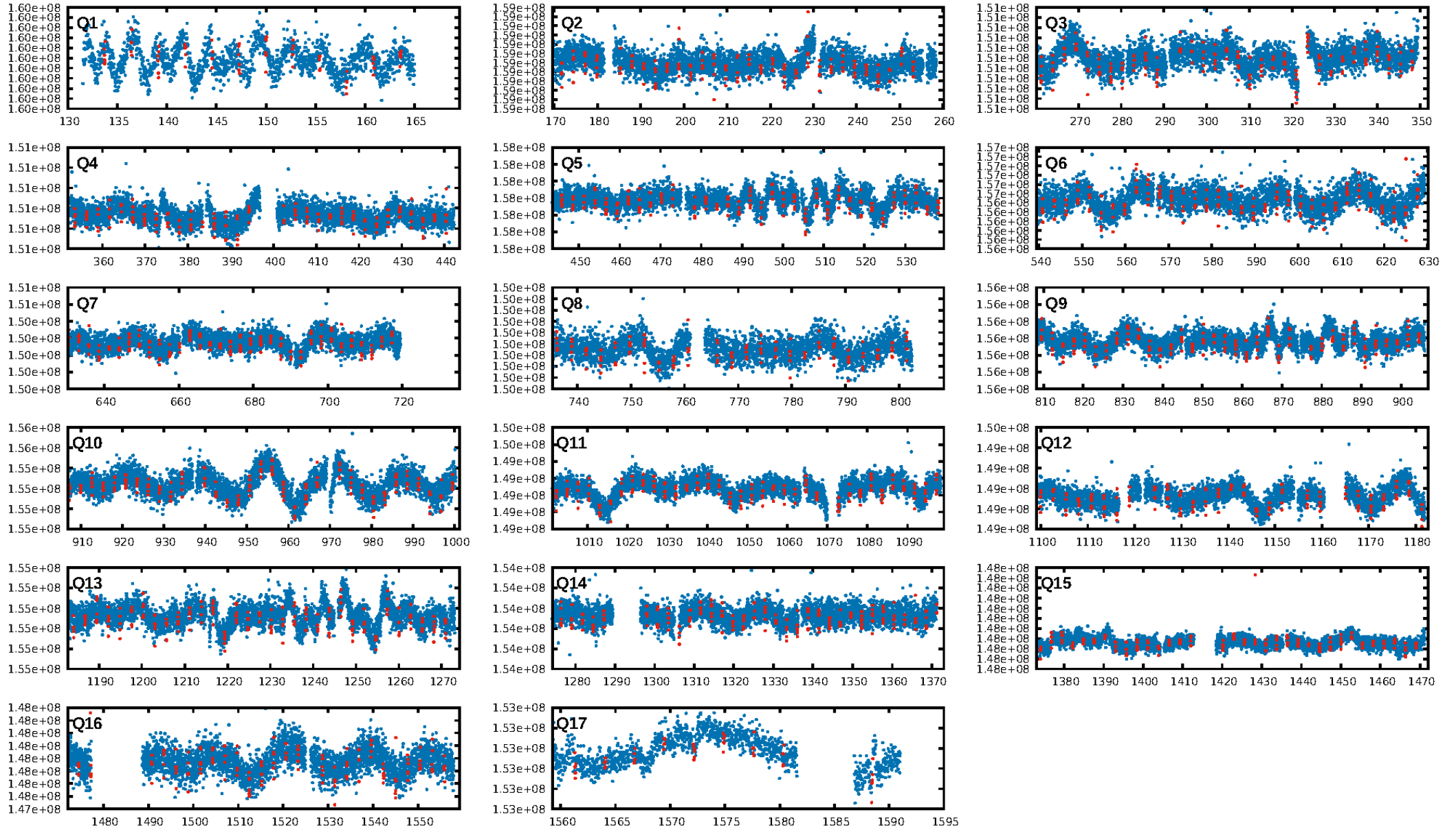
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 6.43e-199
RollingBand-fgt: 0.77 [365/472]
GhostDiagnostic-chr: -113.2
Centroid-sig: 2.2%
Centroid-so: 0.517 arcsec [1.56σ]
OotOffset-rm: 0.497 arcsec [2.55σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-rm: 0.617 arcsec [3.08σ]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 1.00 [17/17]
DiffImageOverlap-fno: 1.00 [17/17]

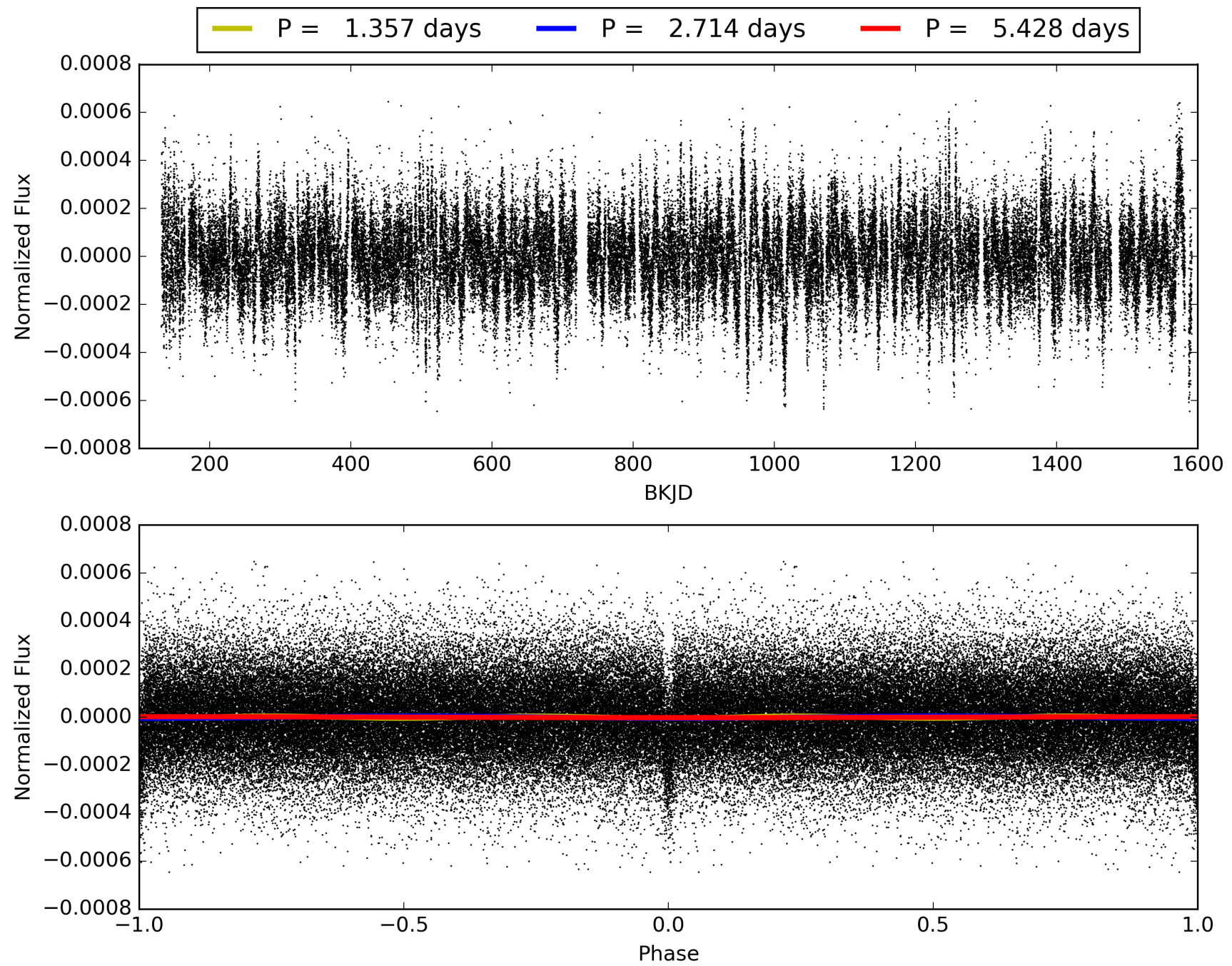
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 19:41:32 Z

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

TCE 007273277-01, PDC Light Curves

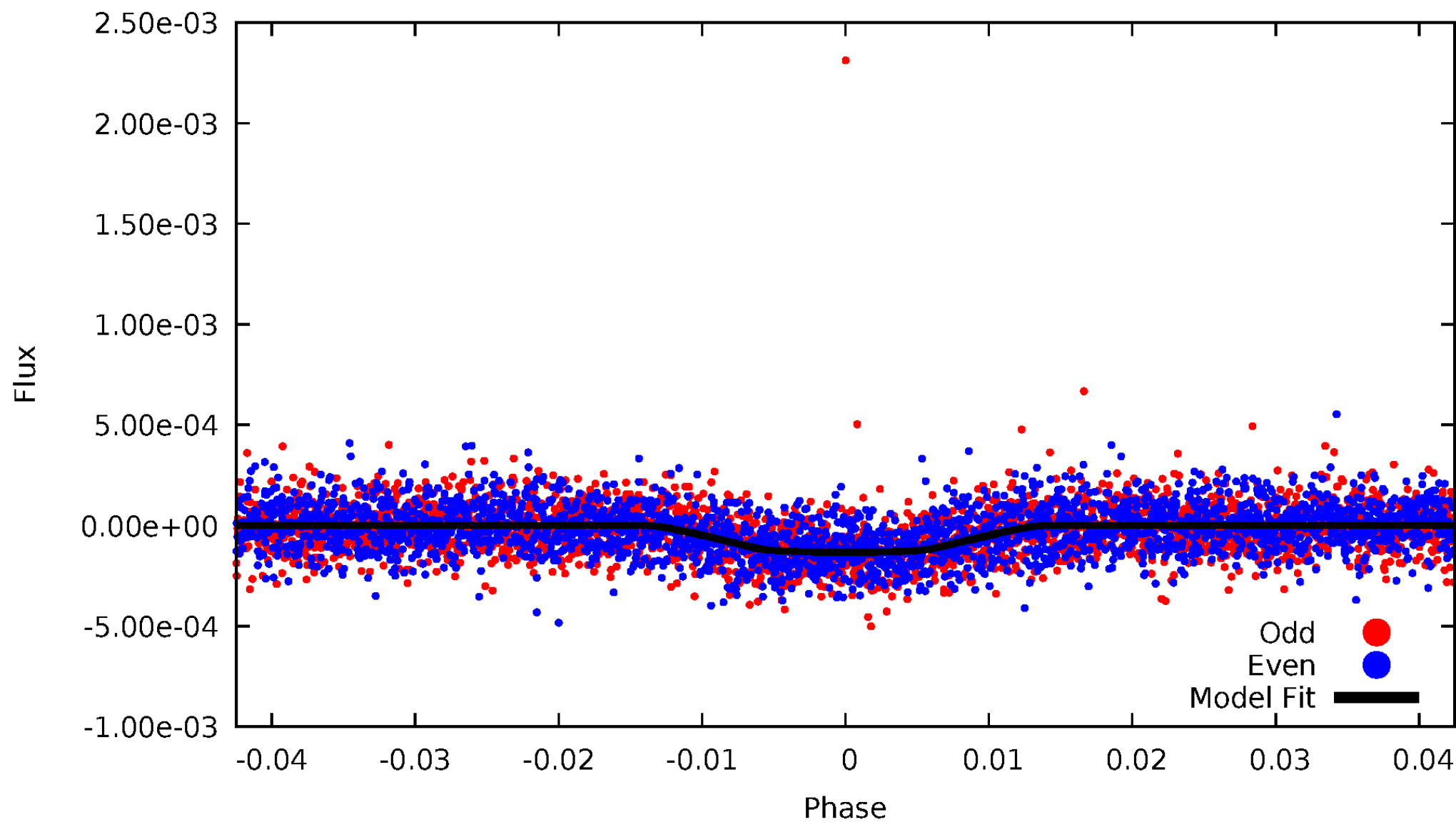


TCE 007273277-01



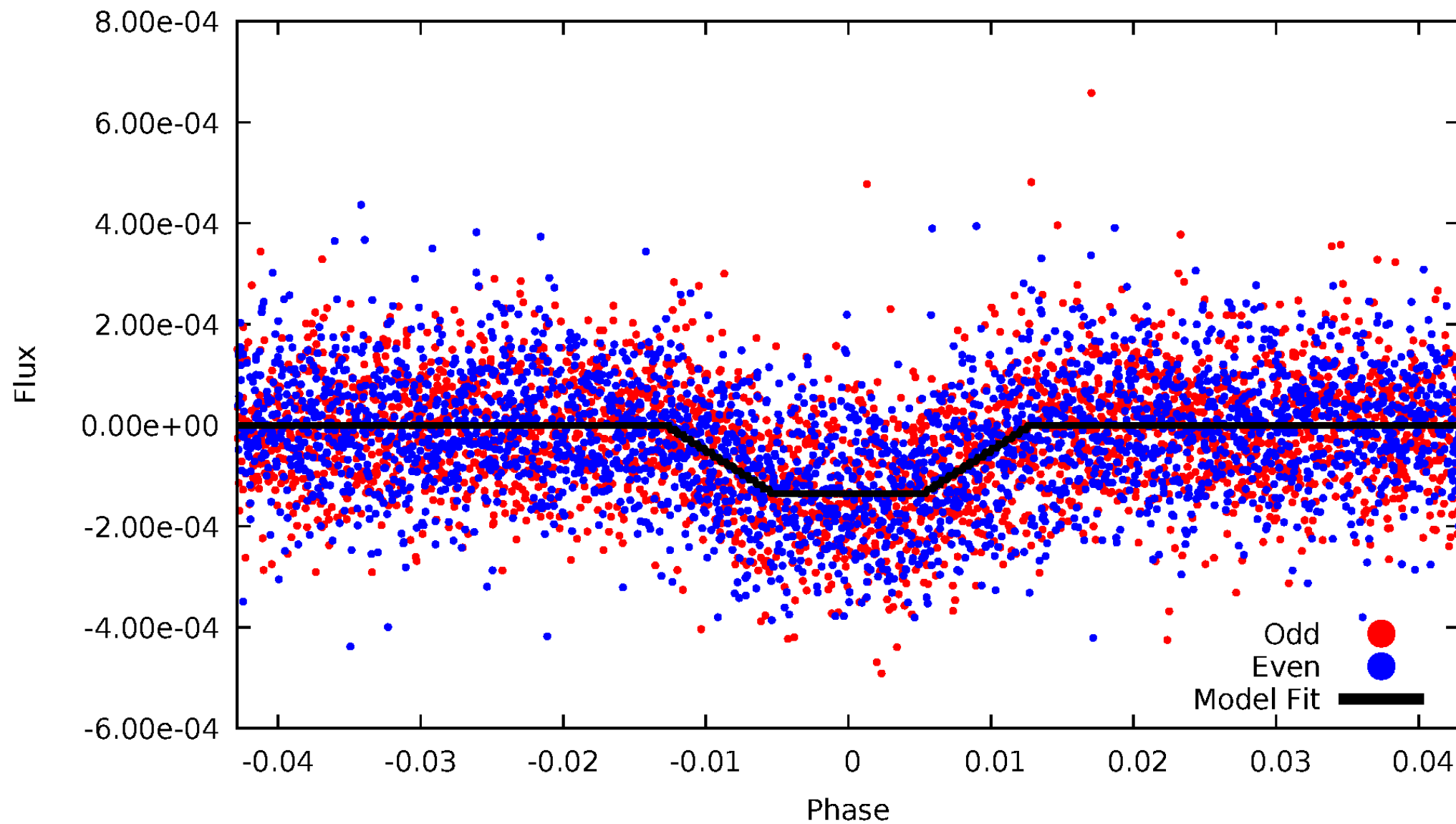
DV Odd/Even

TCE 007273277-01



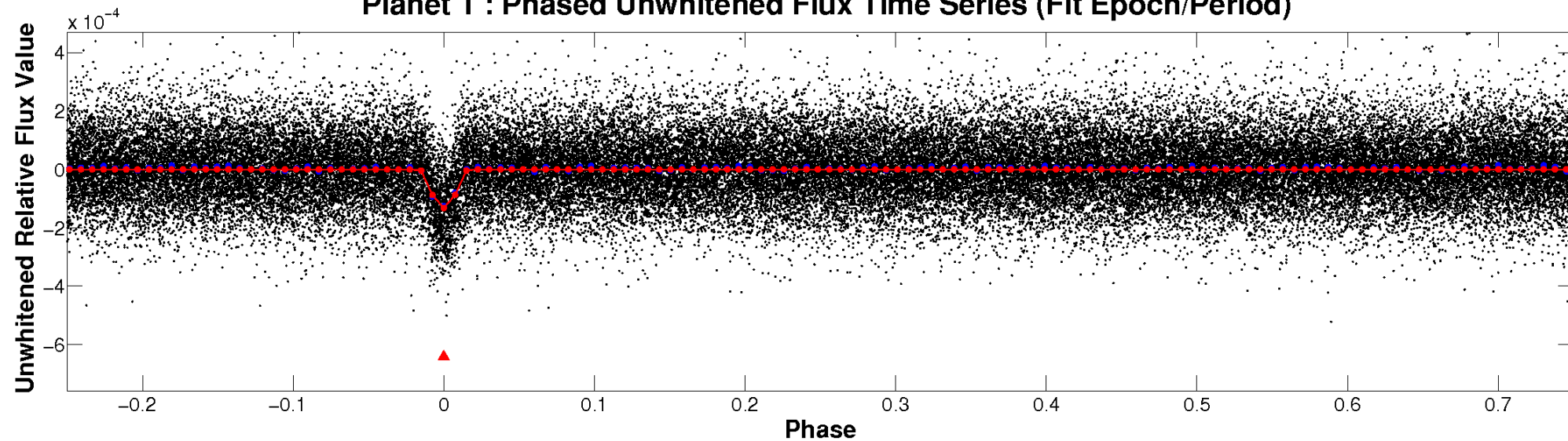
ALT Odd/Even

TCE 007273277-01

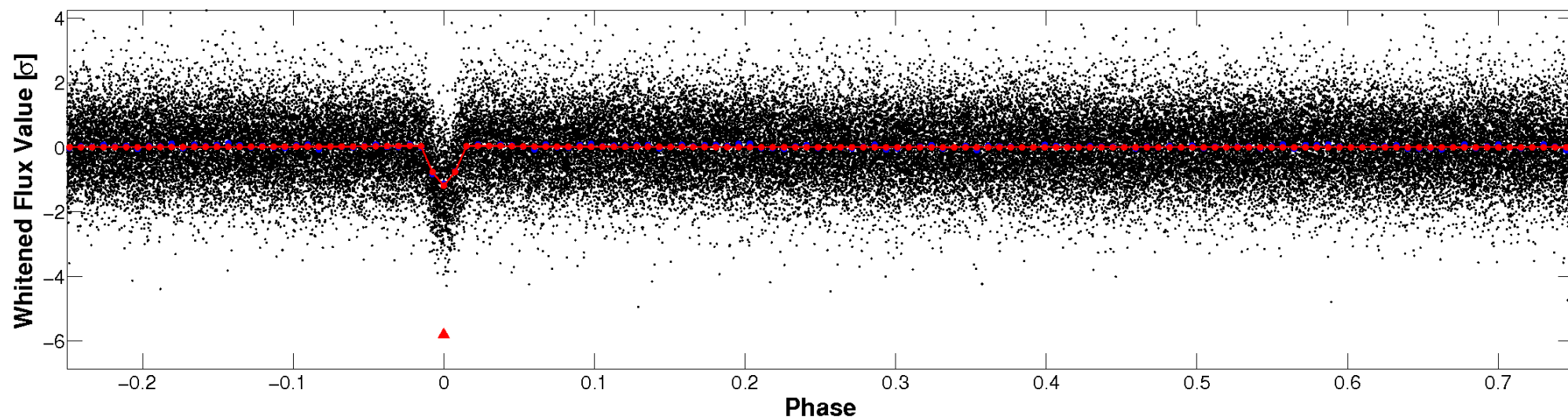


Non-Whitened Vs. Whitened Light Curve

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

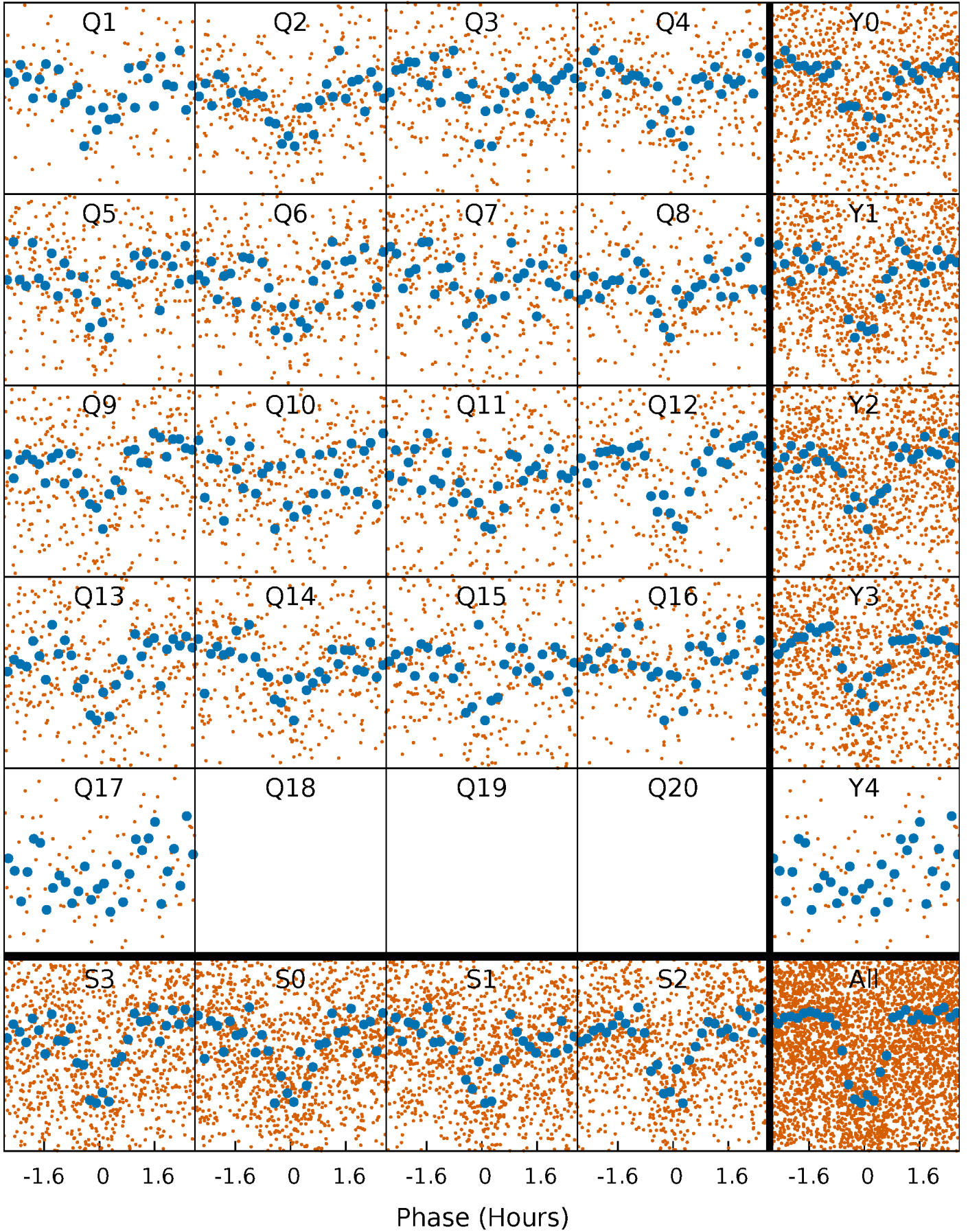


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



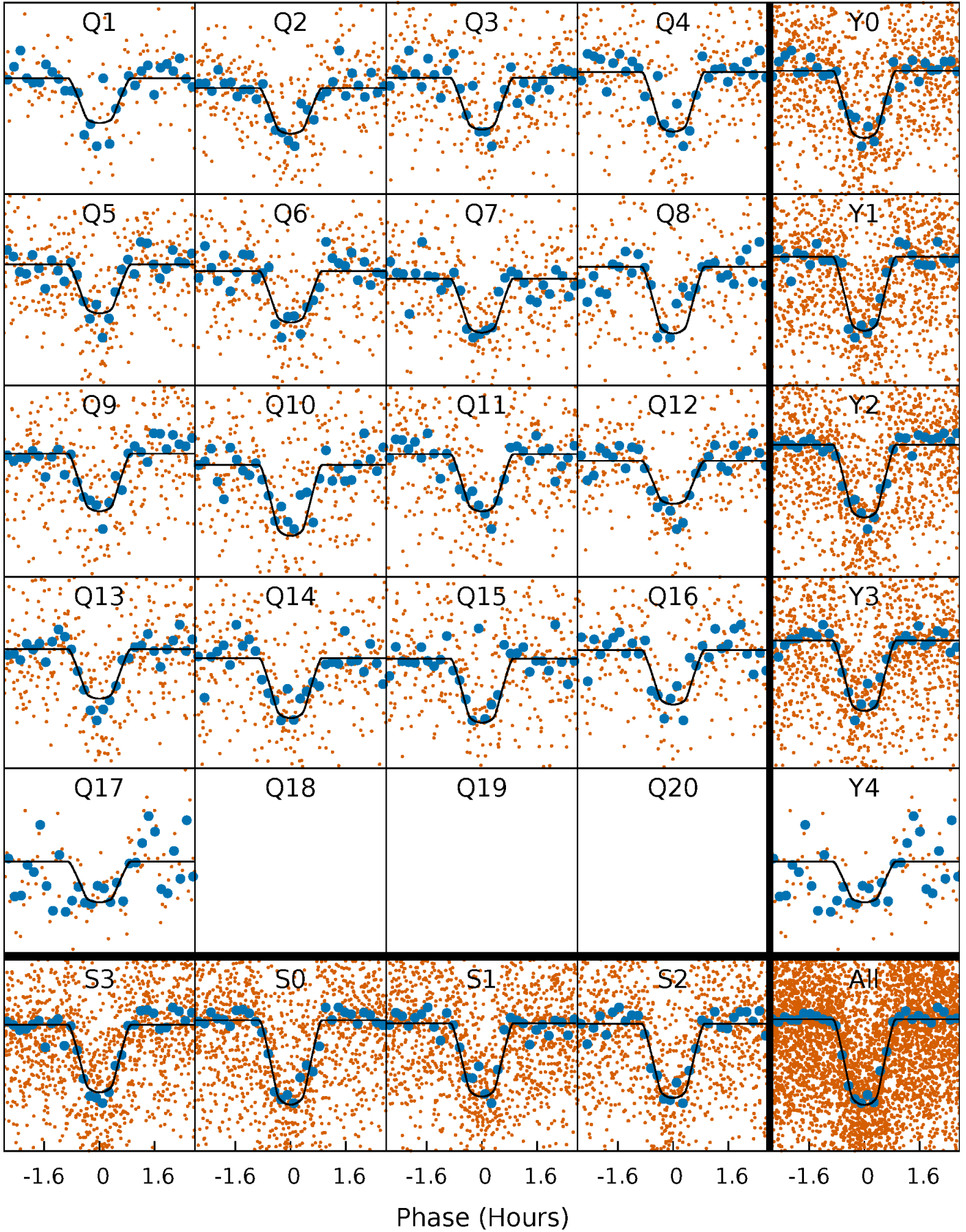
PDC Quarter-Phased Transit Curves

TCE 007273277-01 P= 2.714085 Days $T_0=133.710912$ (BKJD)



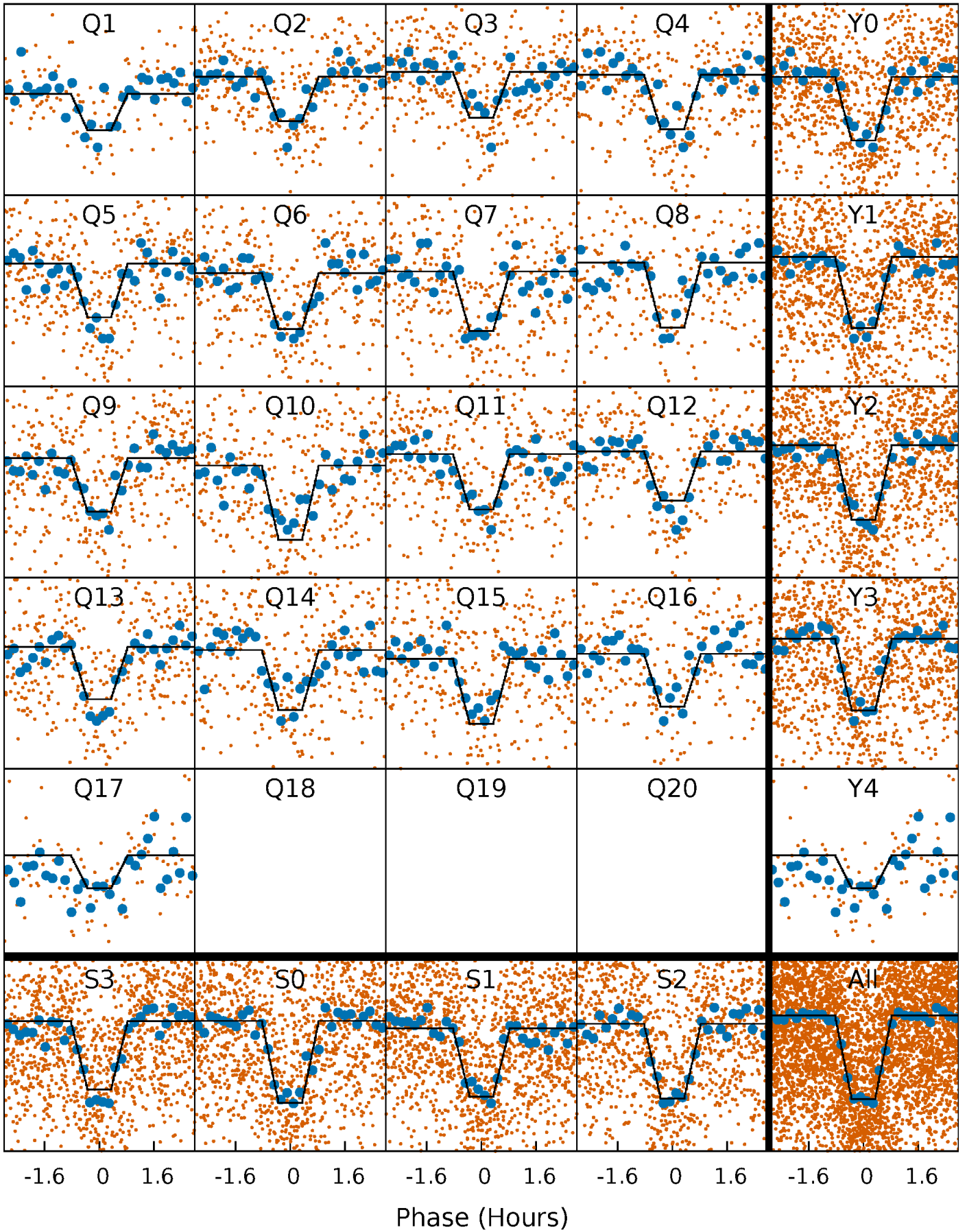
DV Quarter-Phased Transit Curves

TCE 007273277-01 P= 2.714085 Days $T_0=133.710912$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

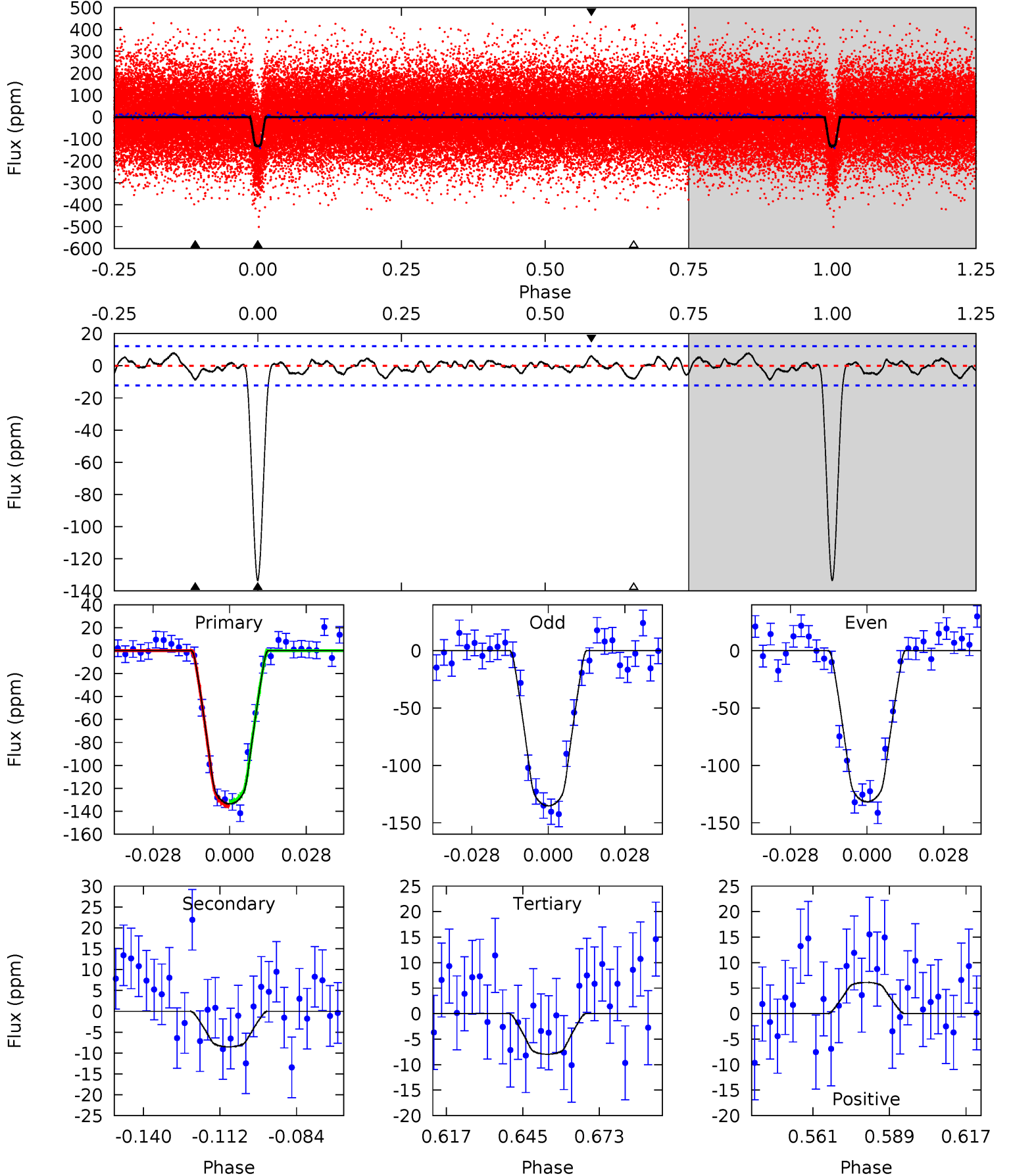
TCE 007273277-01 P= 2.714088 Days $T_0=133.709371$ (BKJD)



DV Model-Shift Uniqueness Test

007273277-01, P = 2.714085 Days, E = 130.996827 Days

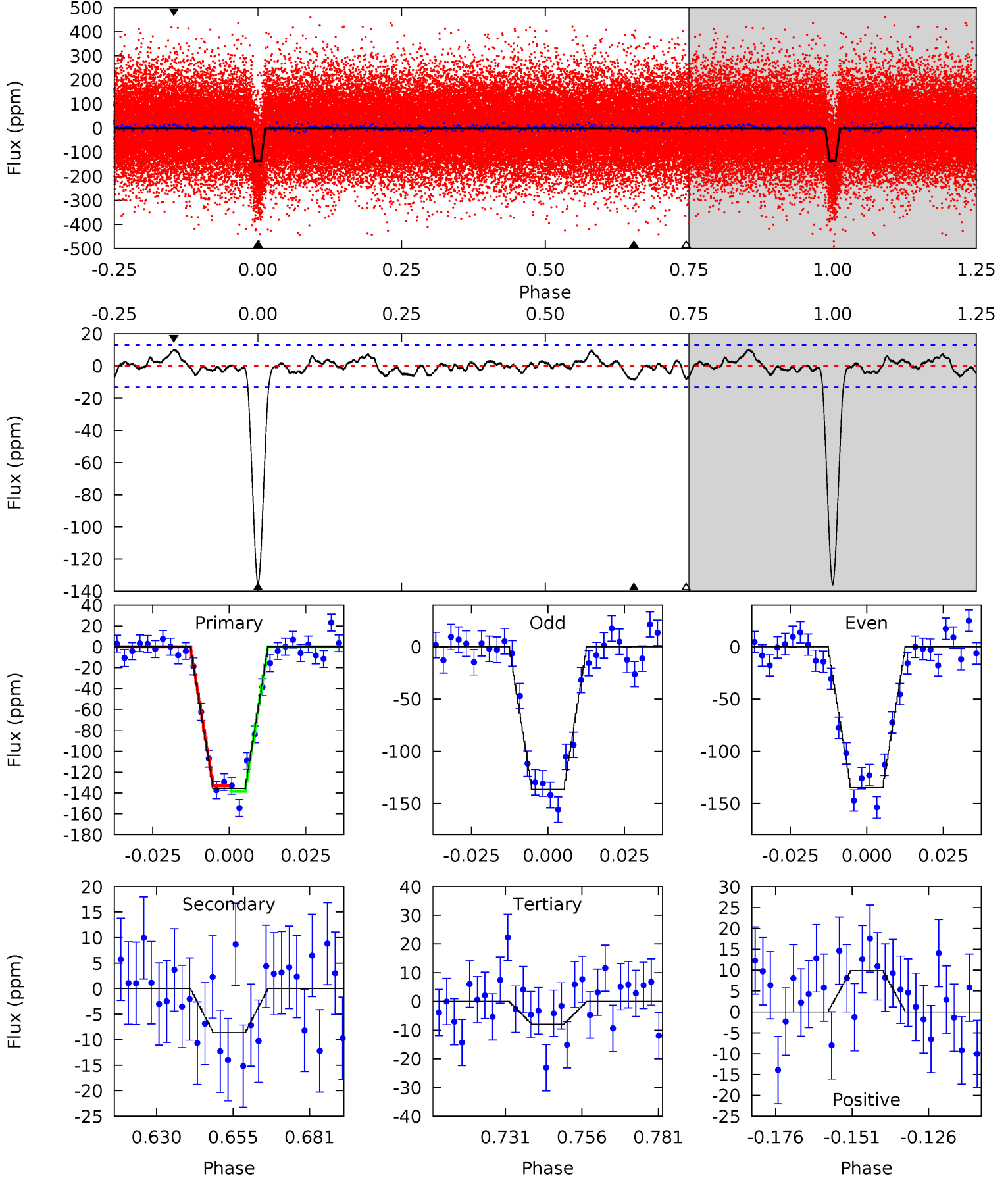
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
52.7	3.37	3.15	2.42	4.82	2.20	1.19	49.6	50.3	0.22	0.95	0.71	0.95	0.06	0.66



Alt Model-Shift Uniqueness Test

007273277-01, P = 2.714088 Days, E = 130.995283 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
49.8	3.15	2.90	3.63	4.85	2.24	1.20	46.9	46.1	0.25	-0.48	0.29	0.98	0.07	0.94



Stellar Parameters For KIC 007273277

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (g \cdot \text{cm}^{-3})$
	5815^{+69}_{-87}	$4.461^{+0.040}_{-0.120}$	$0.120^{+0.150}_{-0.150}$	$0.992^{+0.152}_{-0.065}$	$1.038^{+0.056}_{-0.069}$	$1.496^{+0.231}_{-0.523}$
	+1%/-1%	+1%/-3%	+125%/-125%	+15%/-7%	+5%/-7%	+15%/-35%
Source	SPE90	SPE90	SPE90	DSEP		

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

Secondary Eclipse Parameters for KIC 007273277-01 / KOI 1979.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-9 ± 3	$1.46^{+0.29}_{-0.27}$	1834^{+75}_{-50}	3225^{+268}_{-237}	$3.089^{+1.972}_{-1.183}$
Alt.	-9 ± 3	$1.27^{+0.28}_{-0.25}$	1833^{+69}_{-49}	3398^{+309}_{-297}	$4.277^{+2.841}_{-1.834}$

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

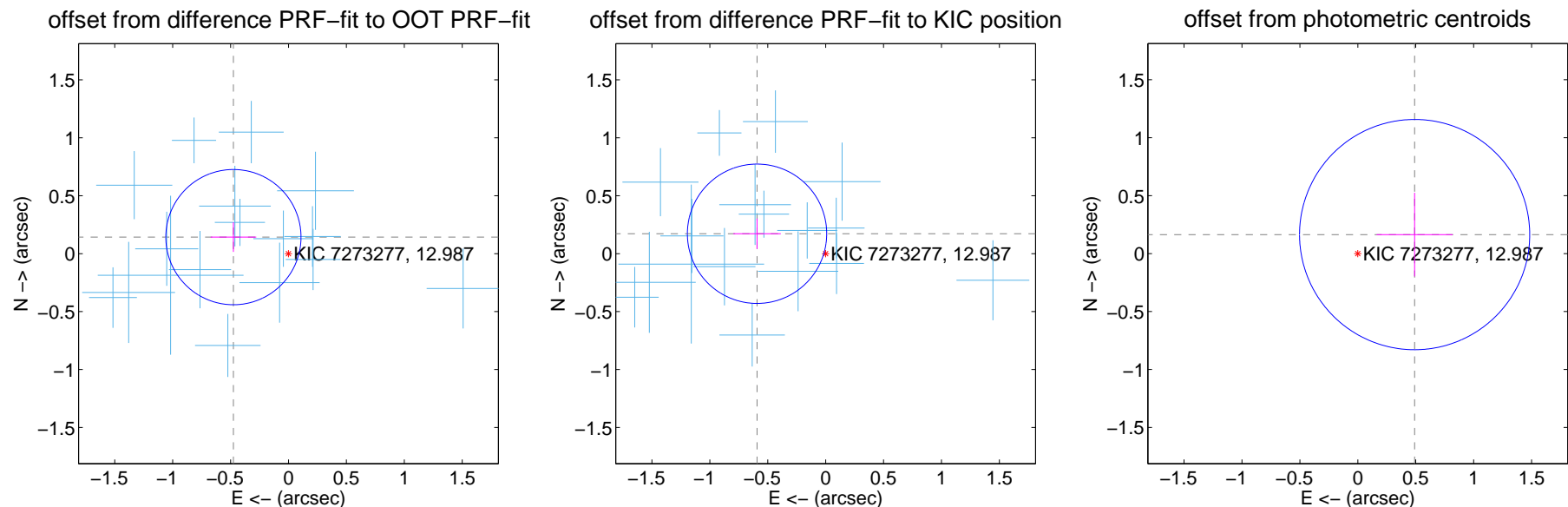
DV Centroid Data

Supplemental centroid analysis for 007273277-01. Kepler magnitude: 12.99. Transit SNR 35.70

There are 17 quarters with good PRF difference image offsets

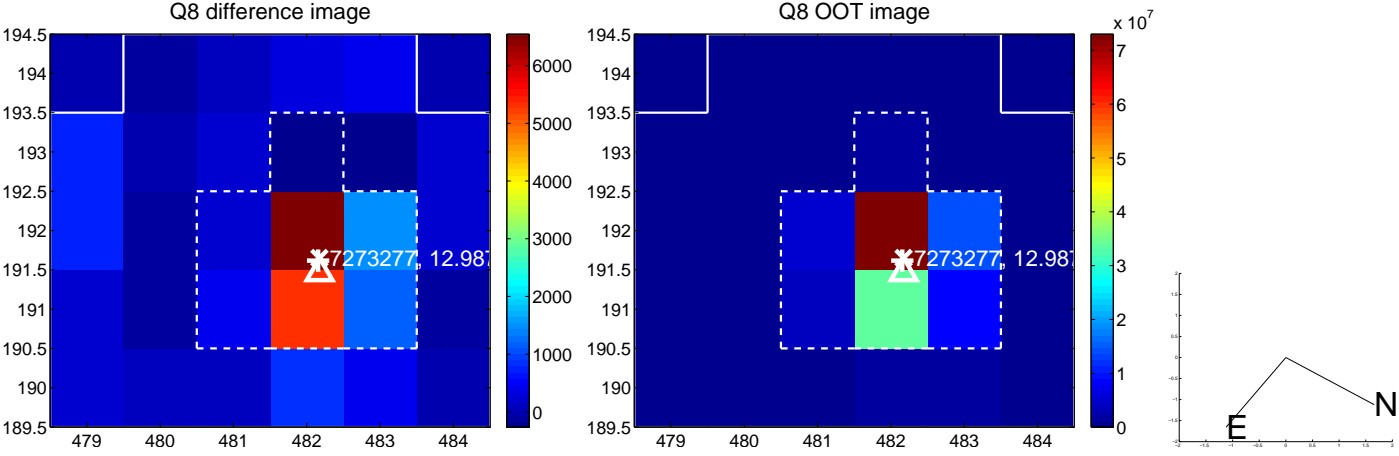
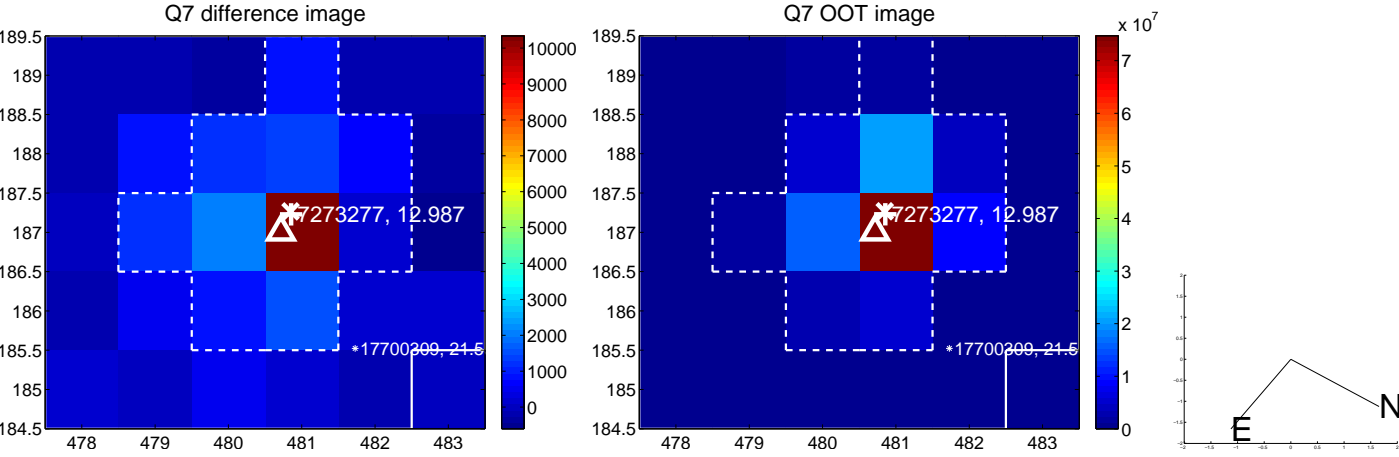
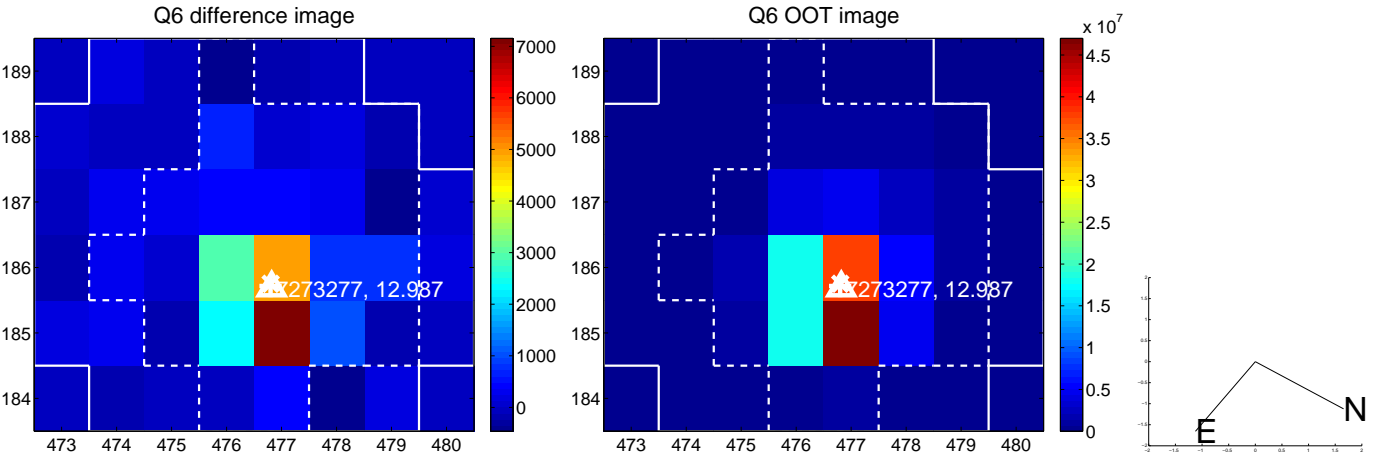
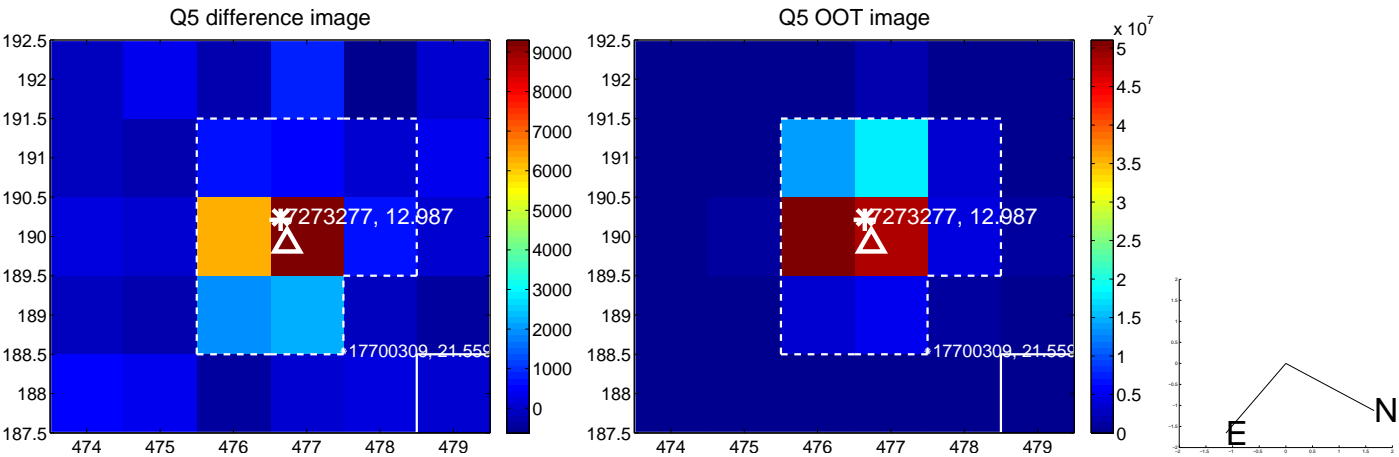
The direct PRF centroid is offset from the target star catalog position by about 0.17 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.497 ± 0.195	2.55	0.476 ± 0.197	0.143 ± 0.128
PRF-fit source offset from KIC position	0.617 ± 0.200	3.08	0.592 ± 0.205	0.172 ± 0.131
photometric centroid source offset	0.52 ± 0.33	1.56	-0.49 ± 0.33	0.16 ± 0.36

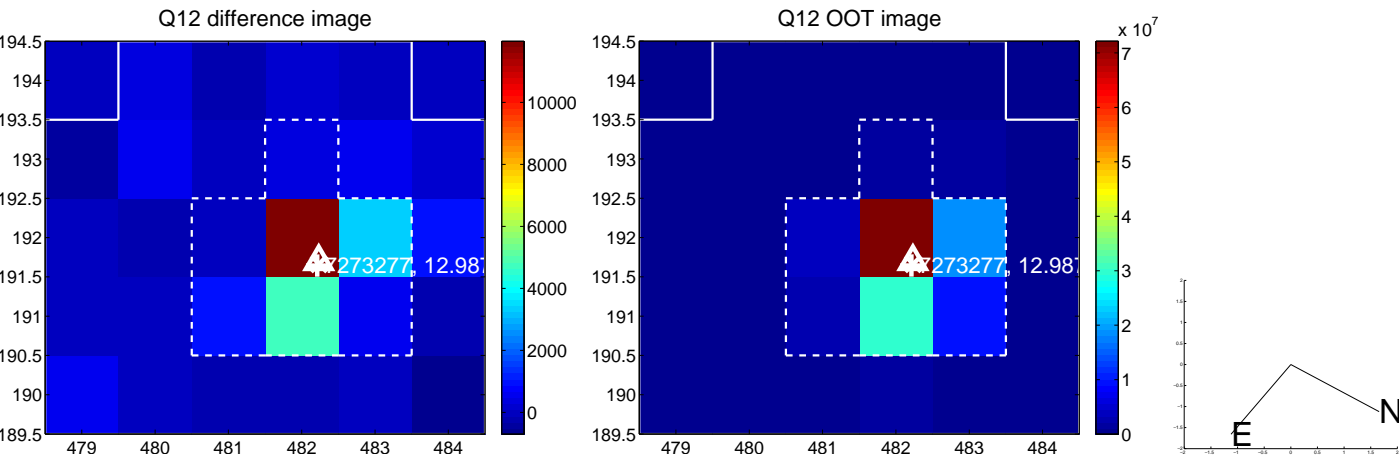
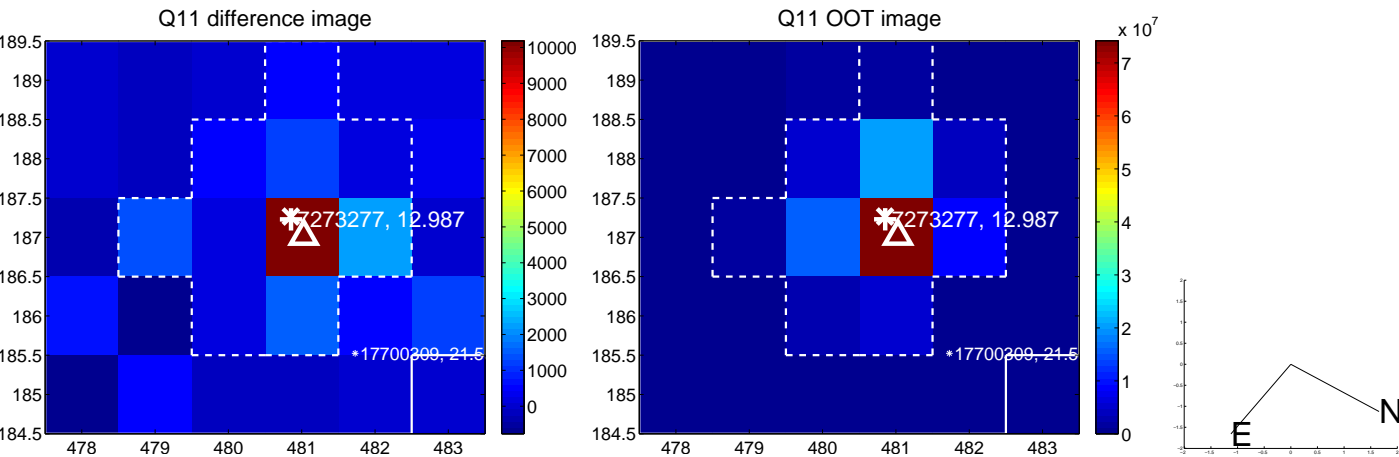
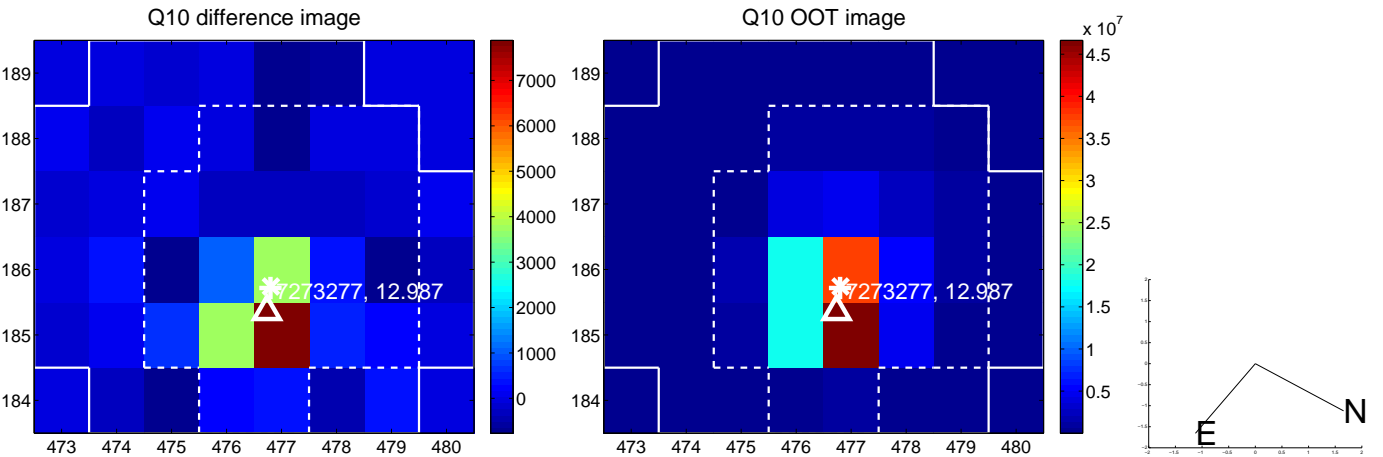
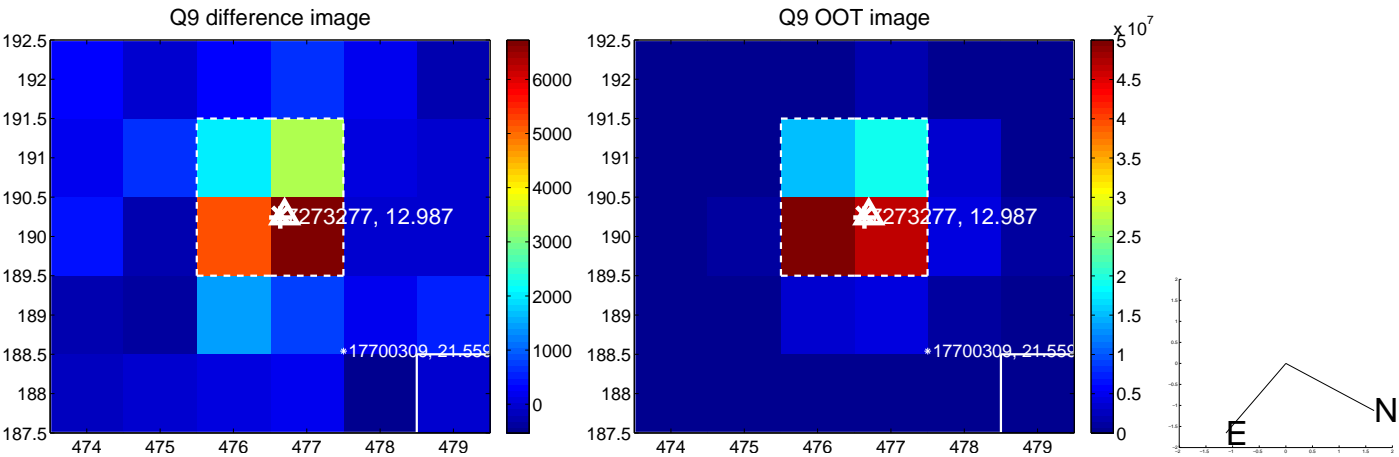


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

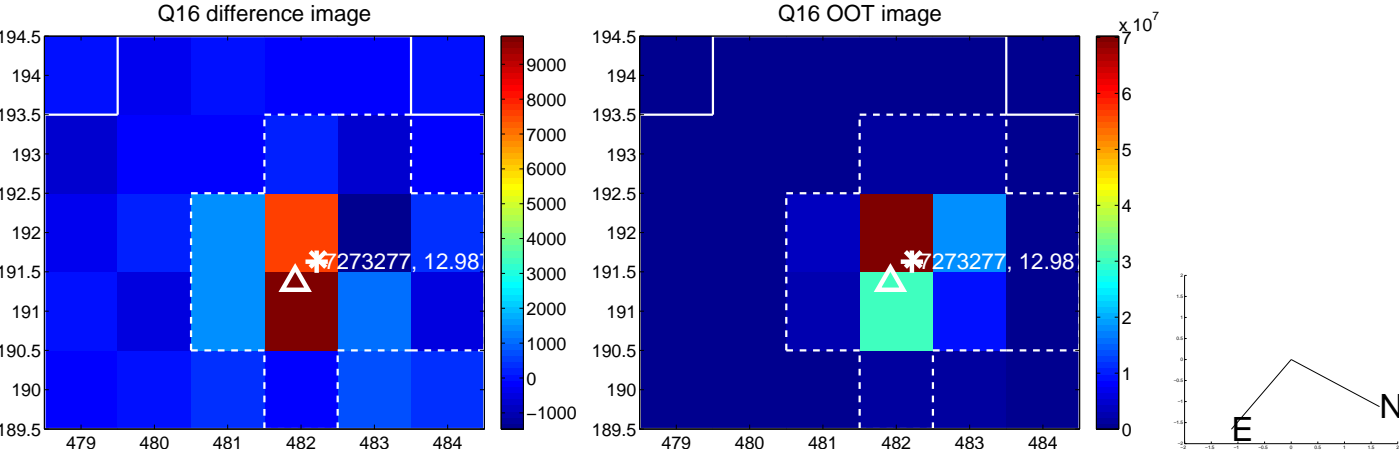
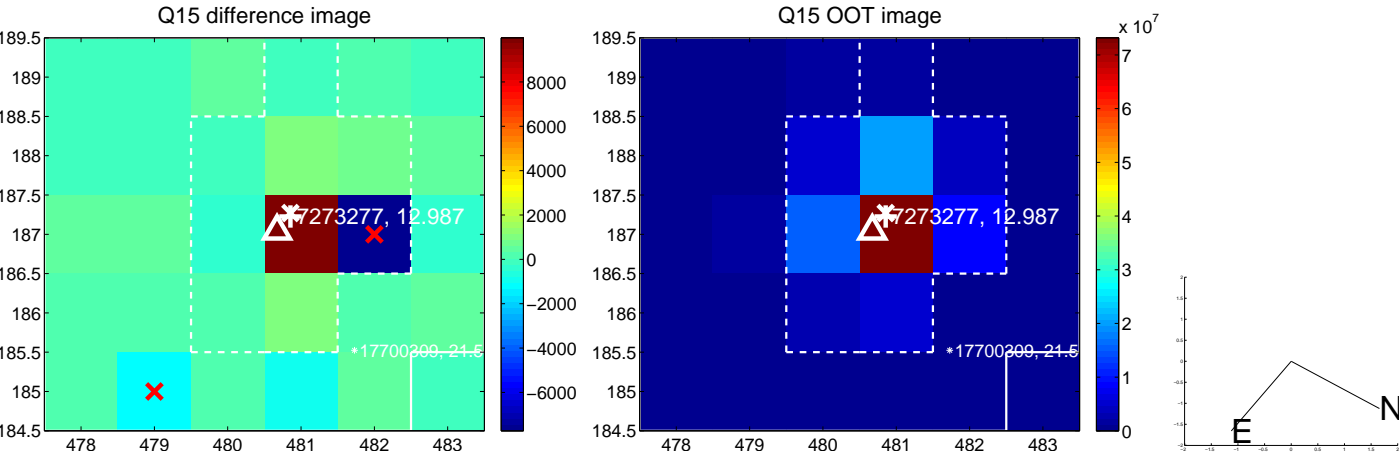
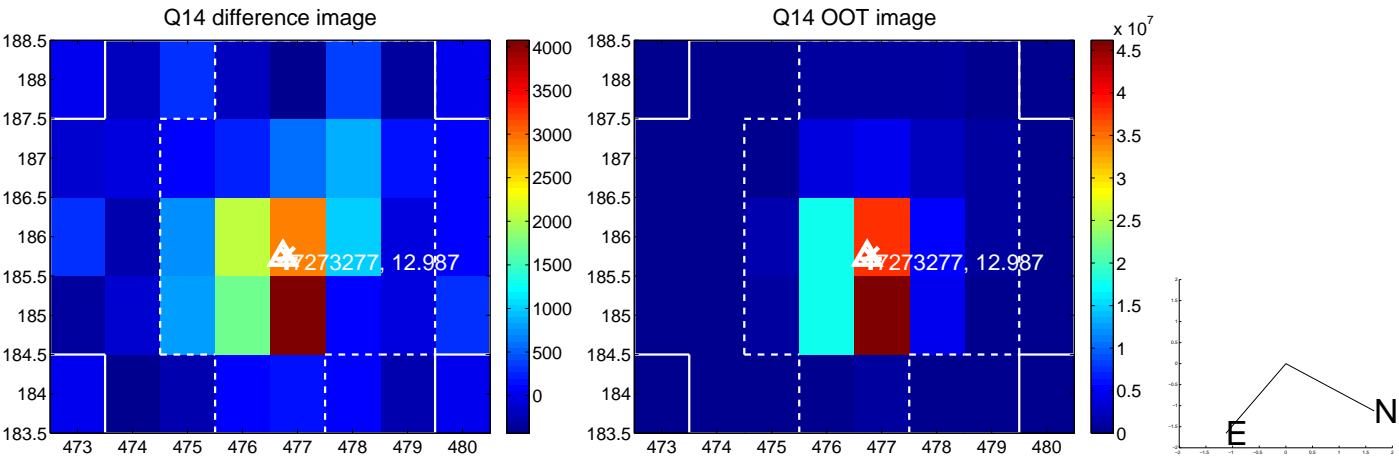
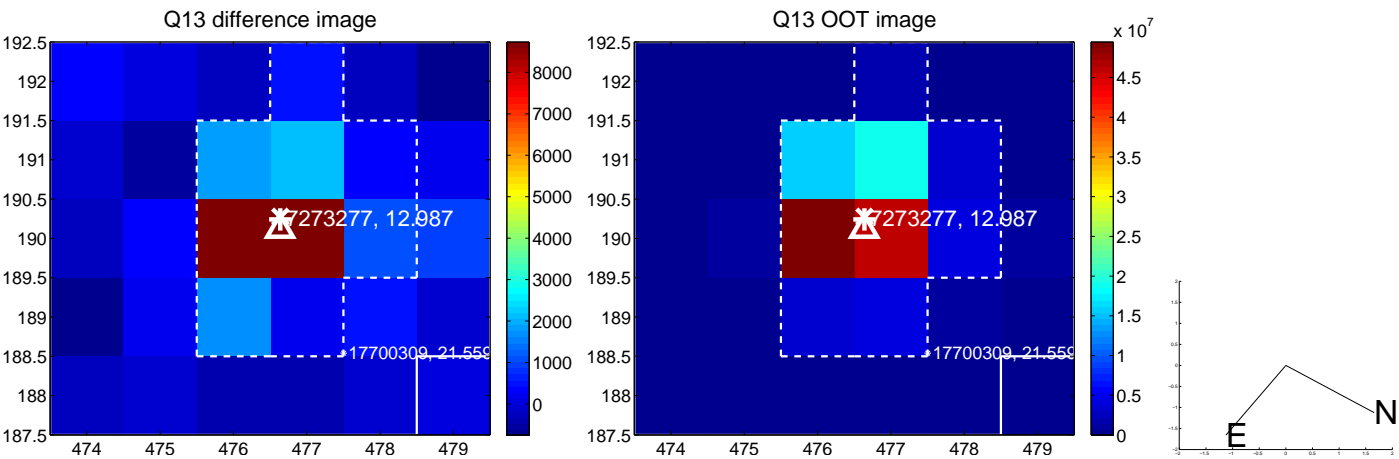
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



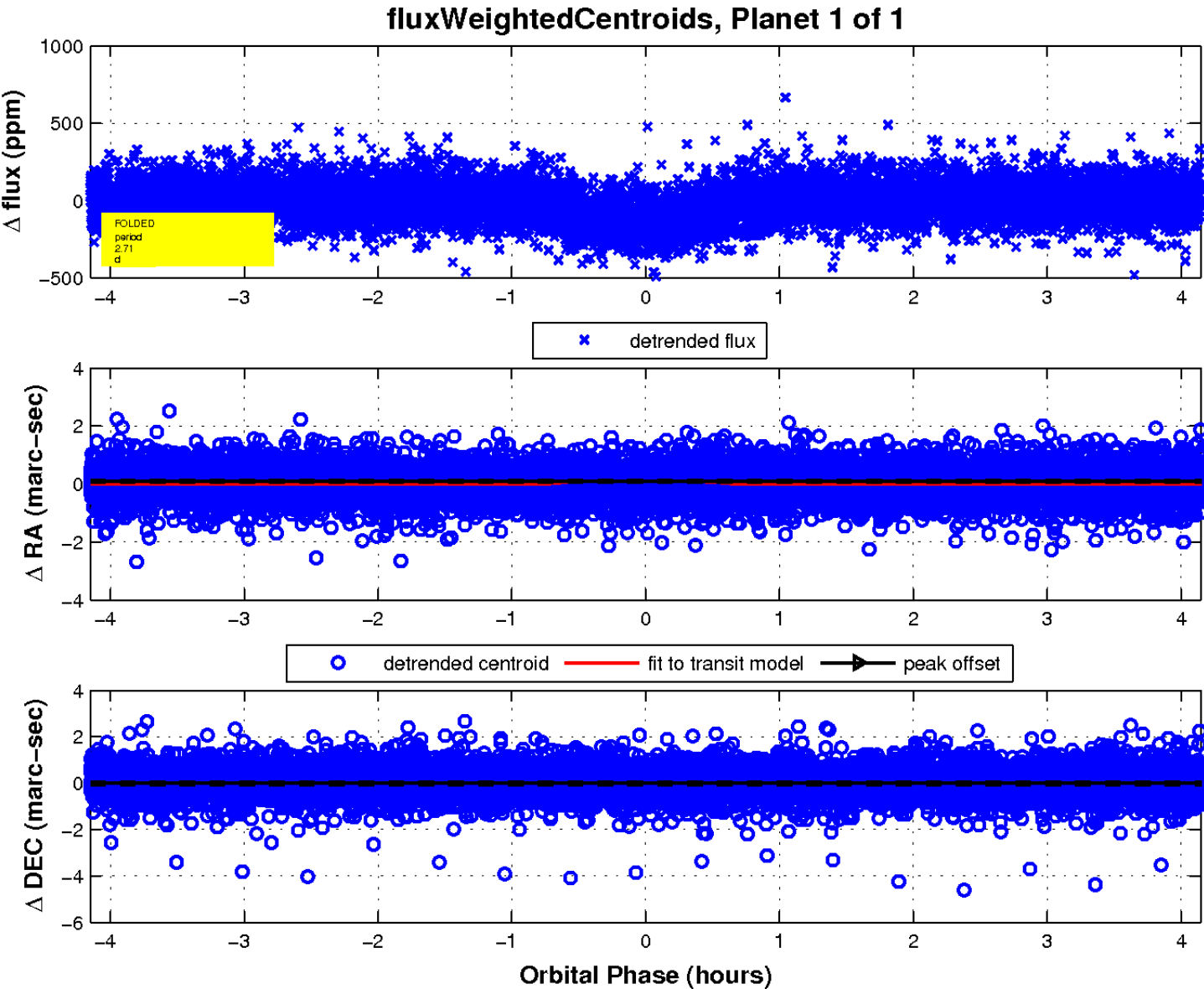
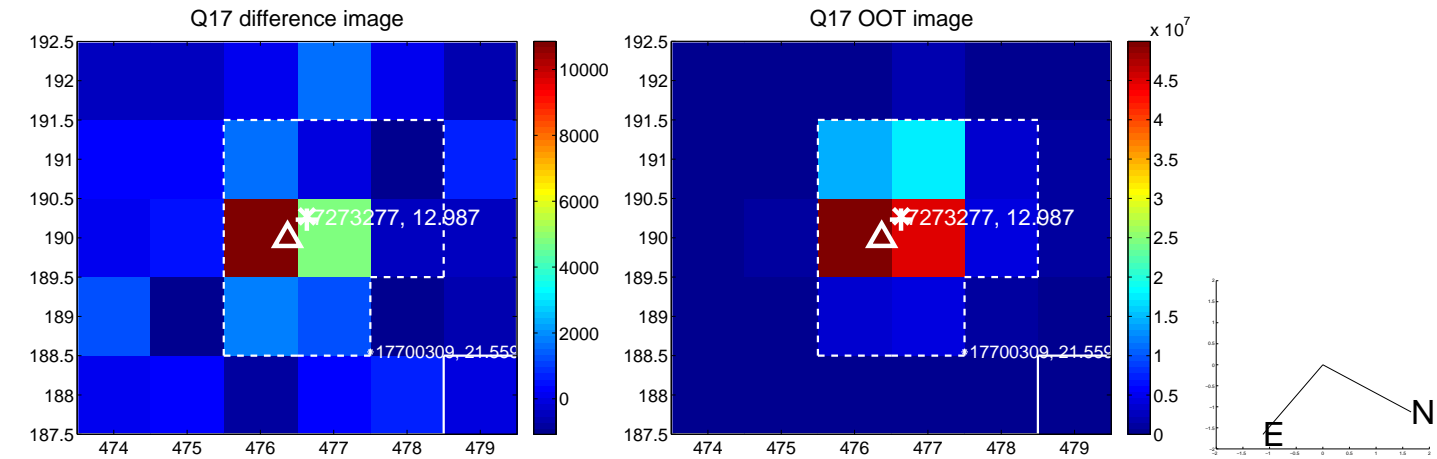
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



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



UKIRT Image

Declination

