

KIC 006693640

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})
006693640-01	OBS	1245.01	13.719329	140.747618	301.7	5.690	36.9	40.5	1.10	6387	2.15	132.19

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006693640-01	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.

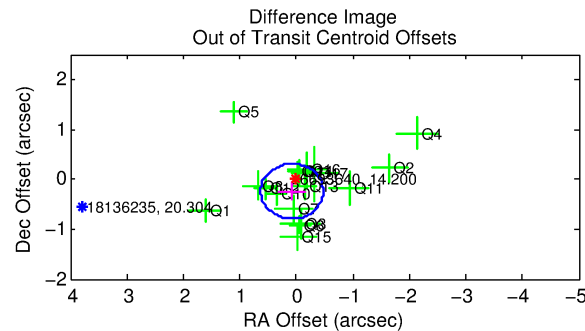
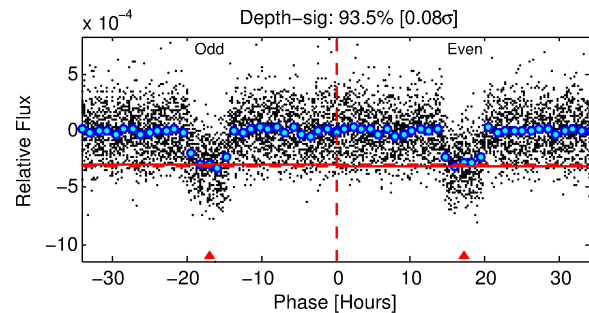
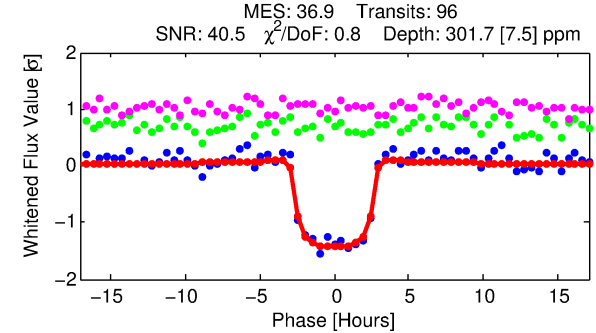
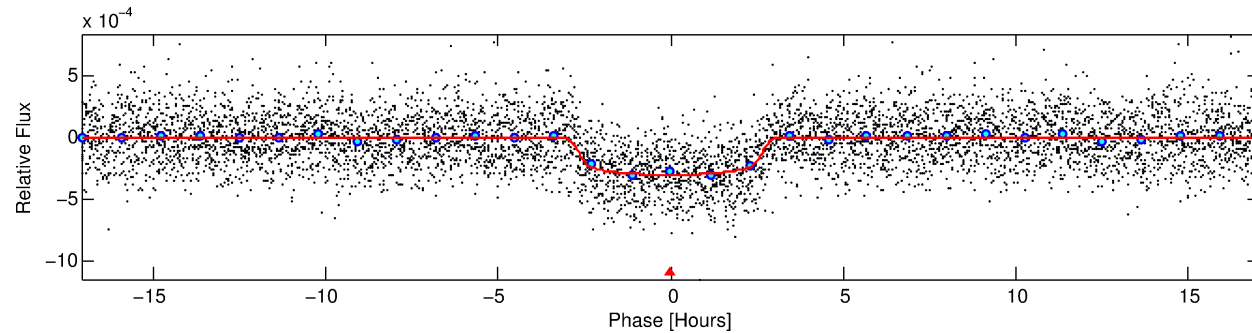
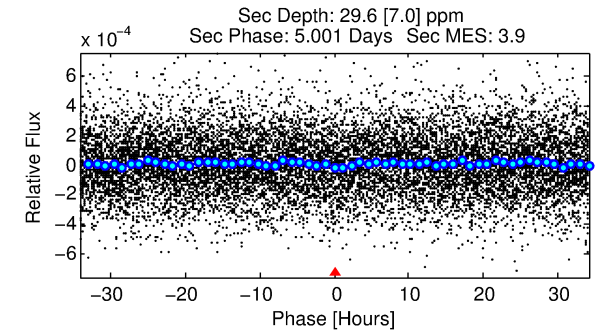
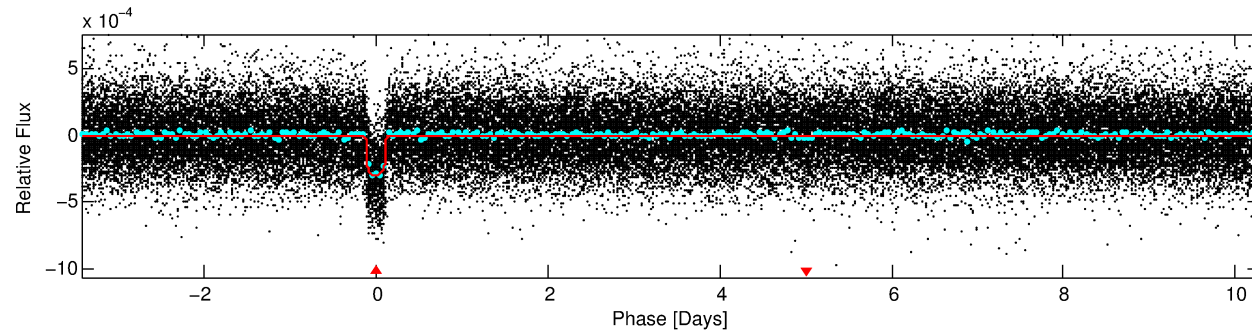
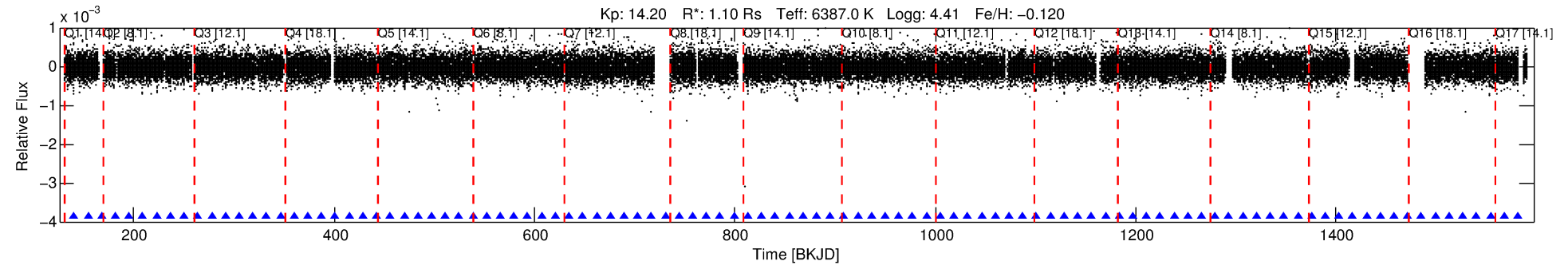
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006693640-01

No Significant Match Found

DV One-Page Summary

KIC: 6693640 Candidate: 1 of 1 Period: 13.719 d
KOI: K01245.01 Corr: 0.987



DV Fit Results:

Period = 13.71933 [0.00005] d
Epoch = 140.7476 [0.0026] BKJD
Rp/R* = 0.0178 [0.0018]
a/R* = 10.98 [6.03]
b = 0.83 [0.21]
Seff = 132.19 [52.37]
Teq = 865 [86] K
Rp = 2.15 [0.71] Re
a = 0.1174 [0.0305] AU
Ag = 48.66 [23.78] [2.00σ]
Teffp = 3531 [302] K [8.50σ]

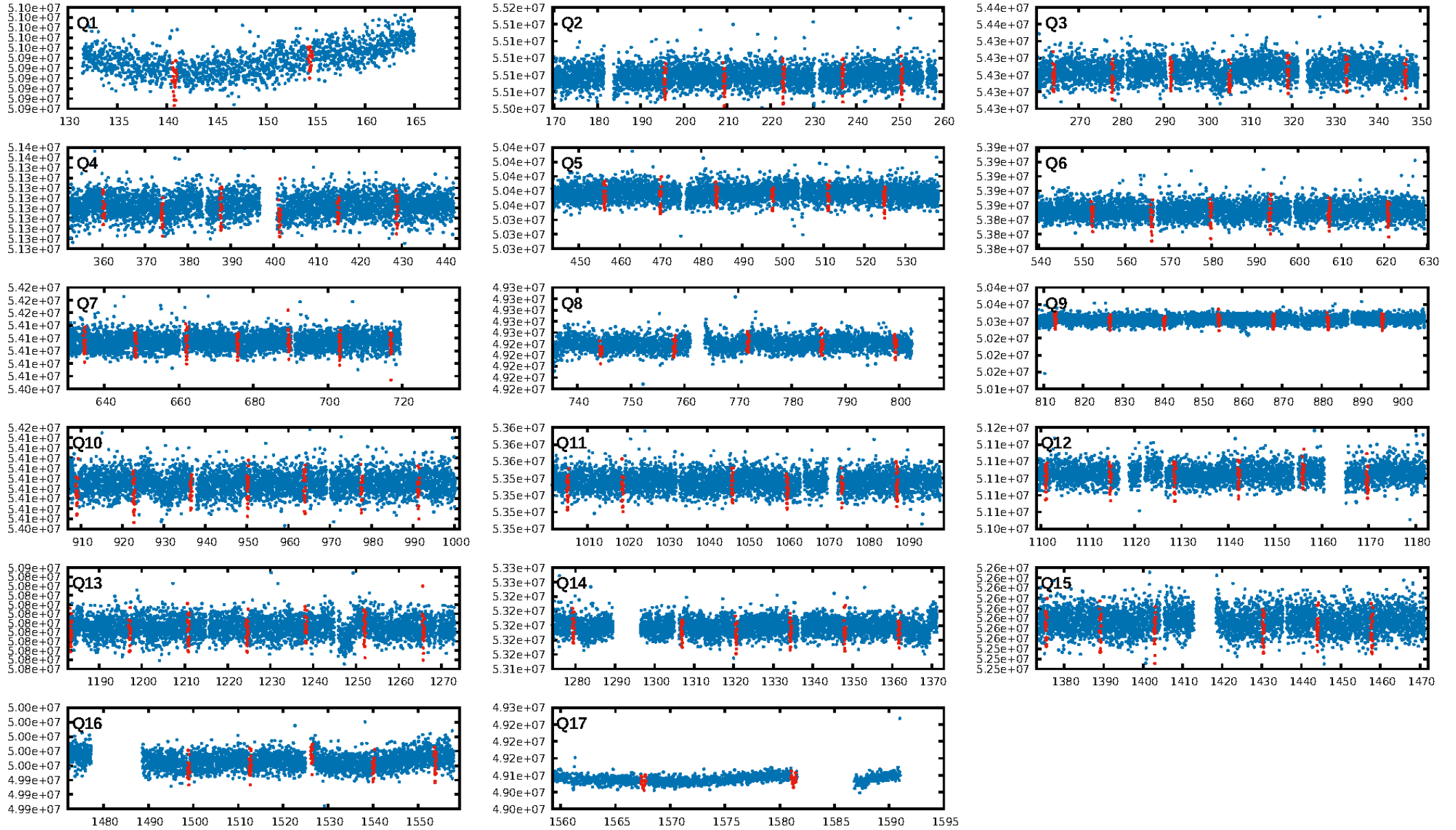
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 100.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 4.30e-282
RollingBand-fgt: 1.00 [92/92]
GhostDiagnostic-chr: 5.554
Centroid-sig: 41.4%
Centroid-so: 0.067 arcsec [0.22σ]
OotOffset-rm: 0.258 arcsec [1.40σ]
KicOffset-rm: 0.310 arcsec [1.47σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 1.00 [17/17]
DiffImageOverlap-fno: 1.00 [17/17]

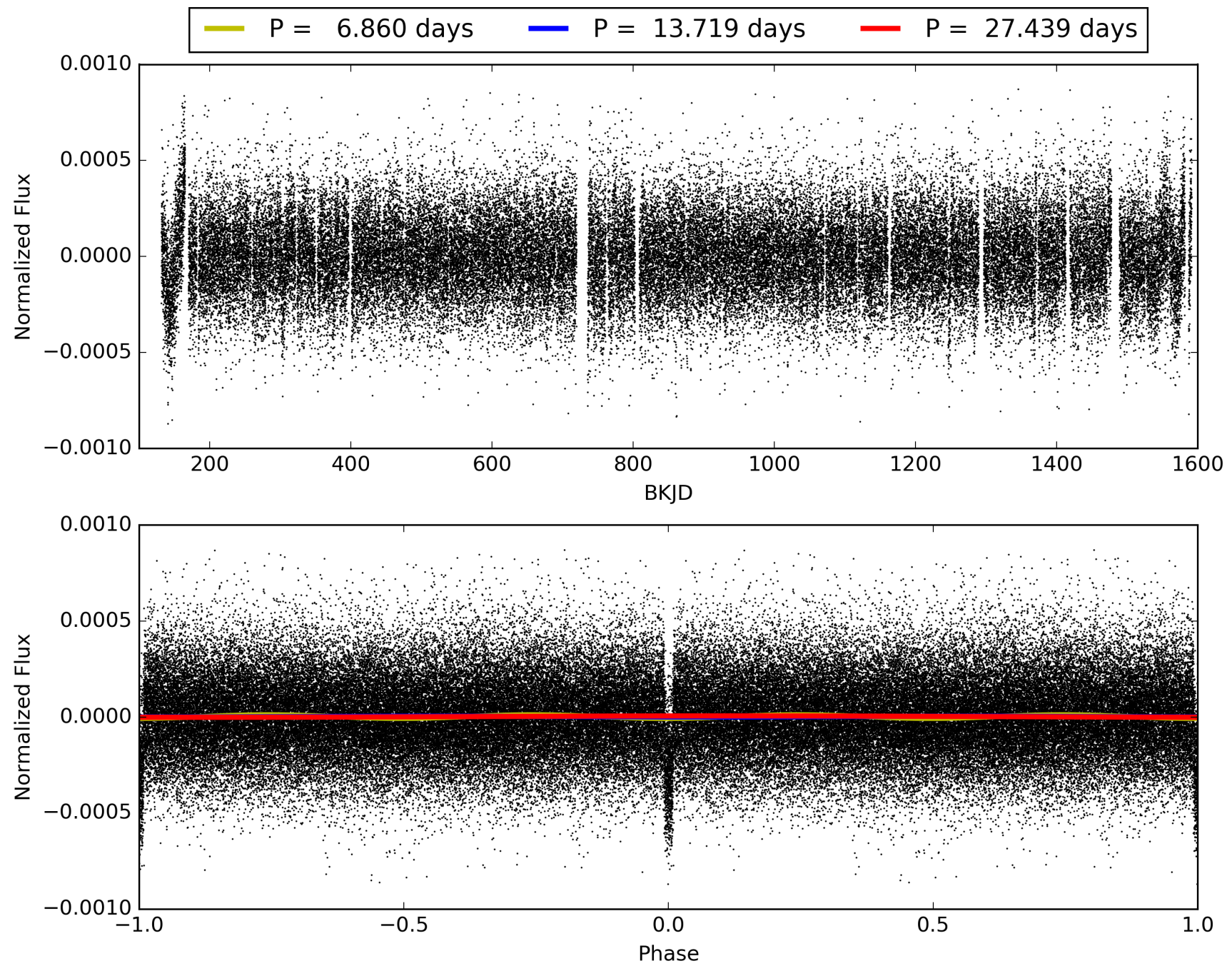
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 04:49:15 Z

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

TCE 006693640-01, PDC Light Curves

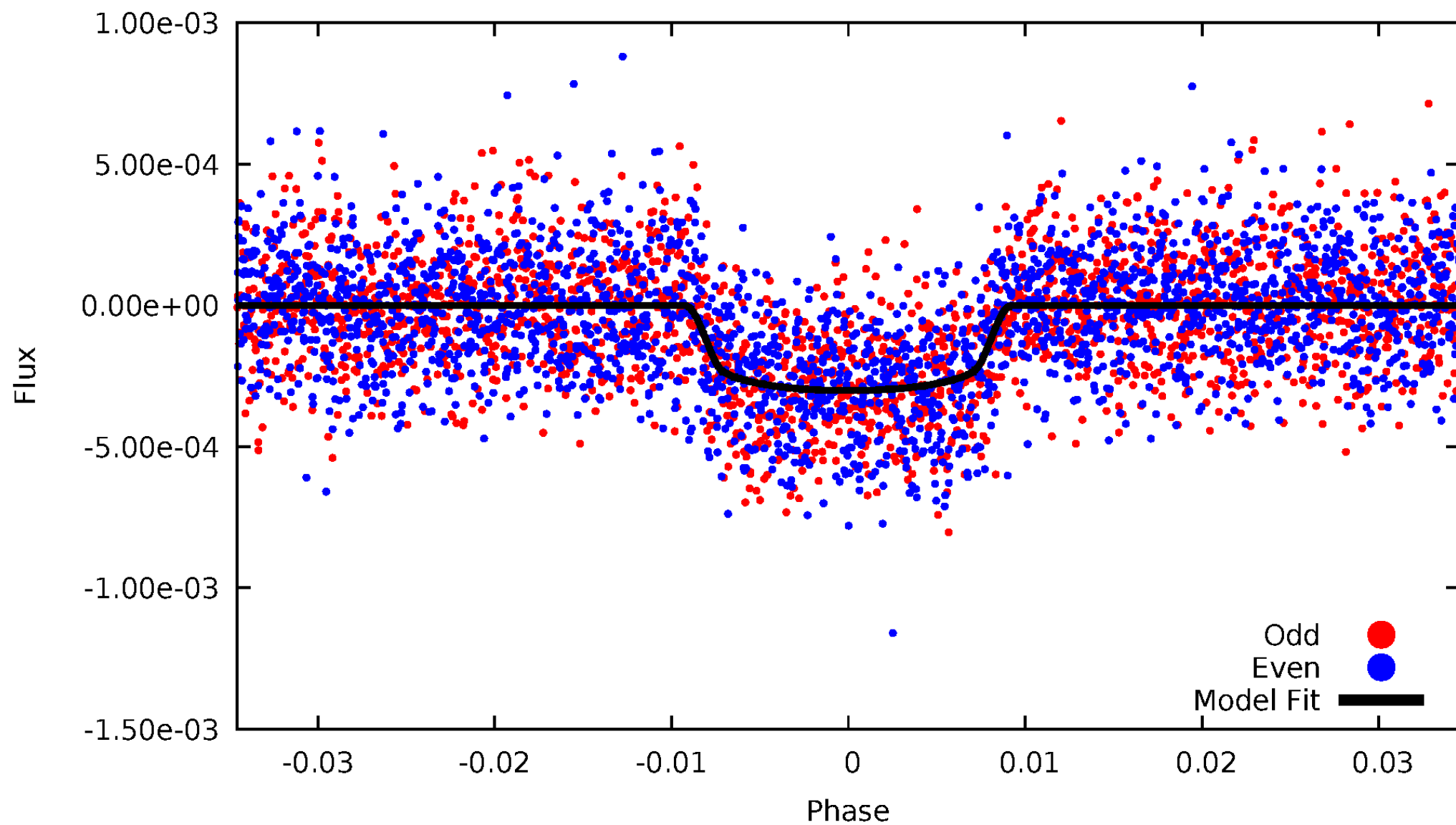


TCE 006693640-01



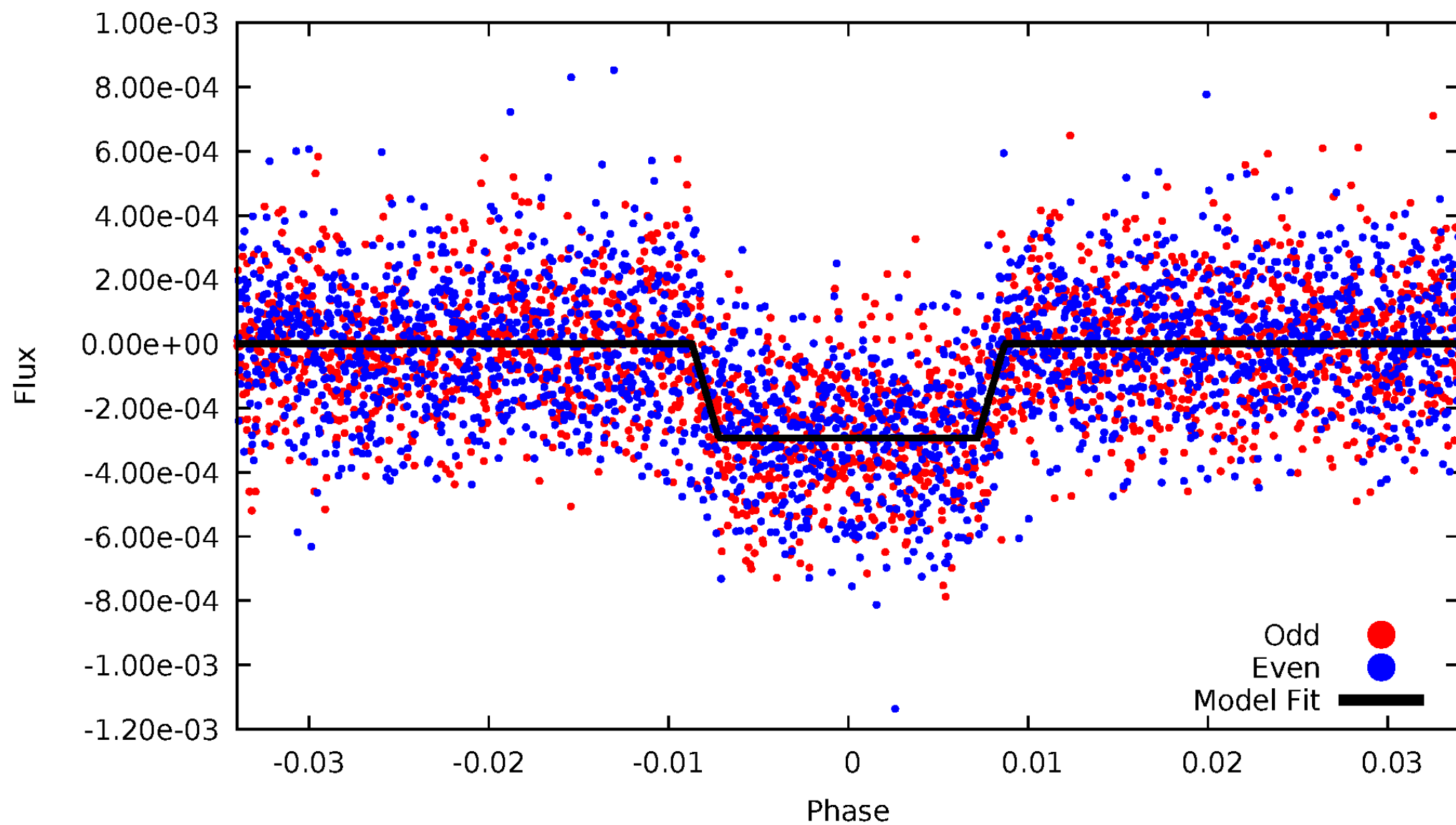
DV Odd/Even

TCE 006693640-01

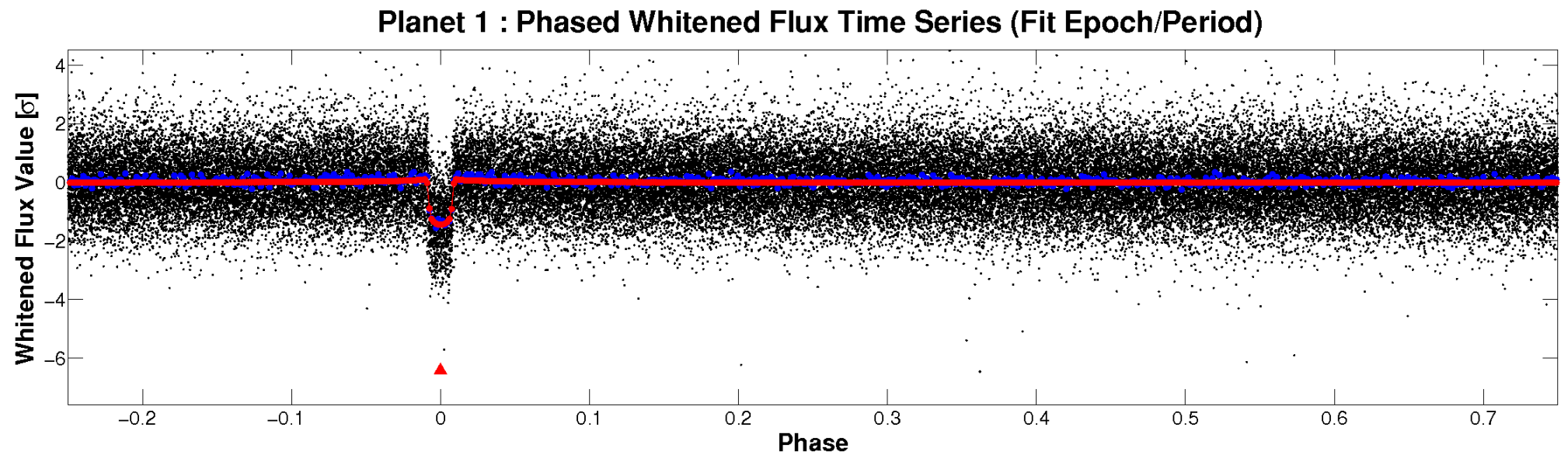
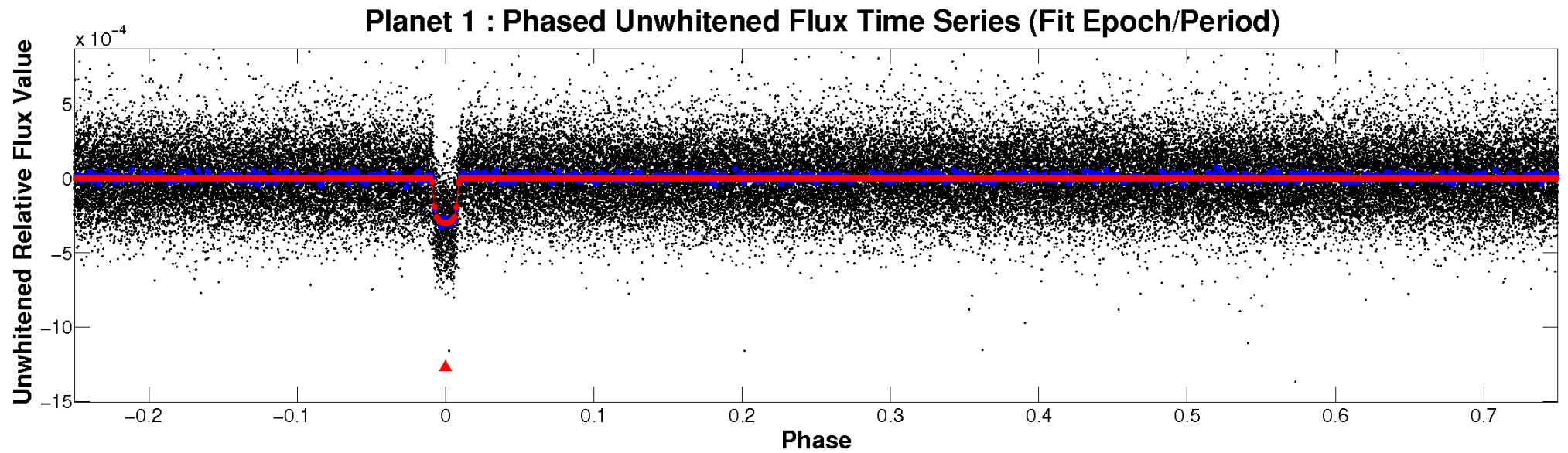


ALT Odd/Even

TCE 006693640-01

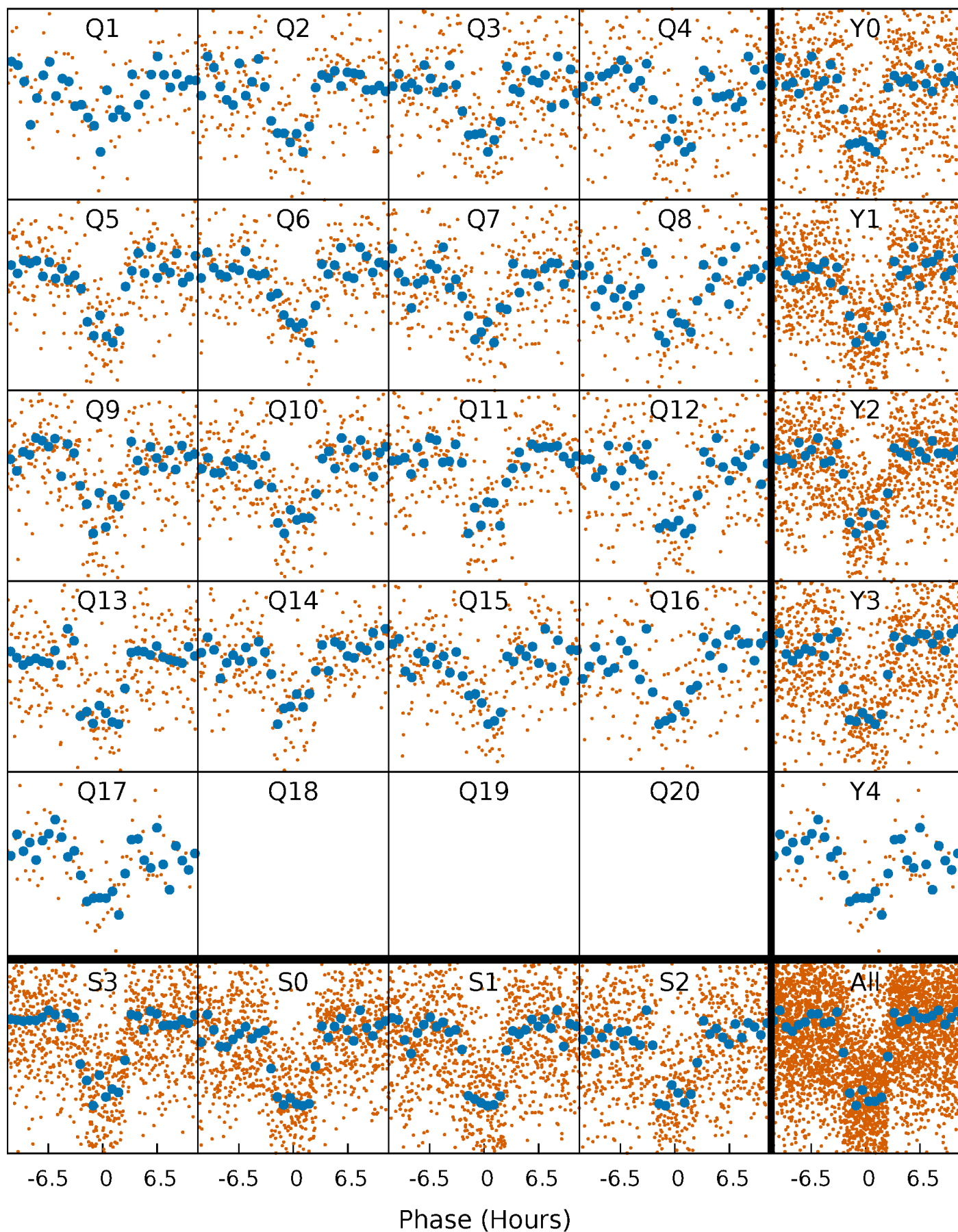


Non-Whitened Vs. Whitened Light Curve



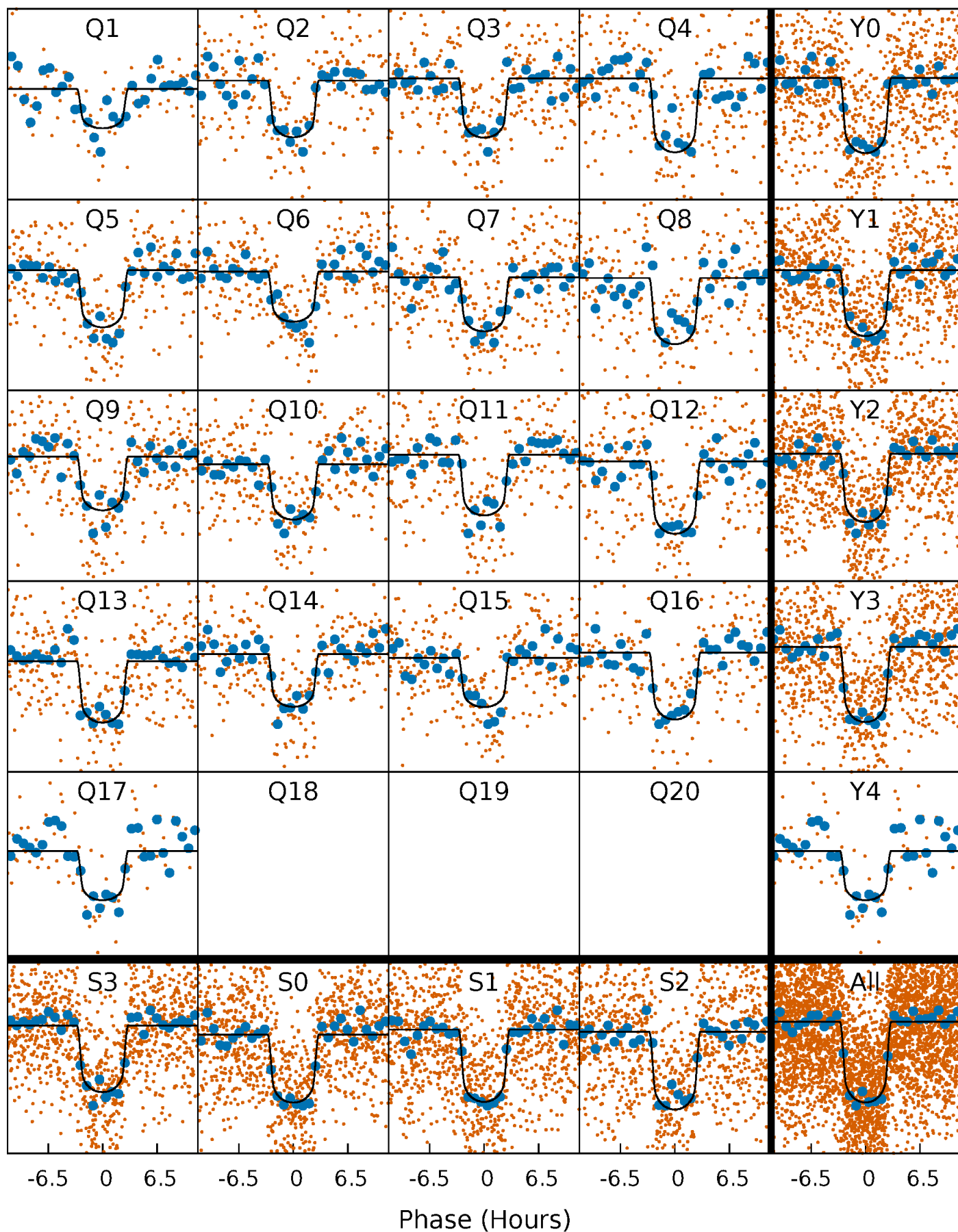
PDC Quarter-Phased Transit Curves

TCE 006693640-01 P= 13.719329 Days $T_0=140.747618$ (BKJD)



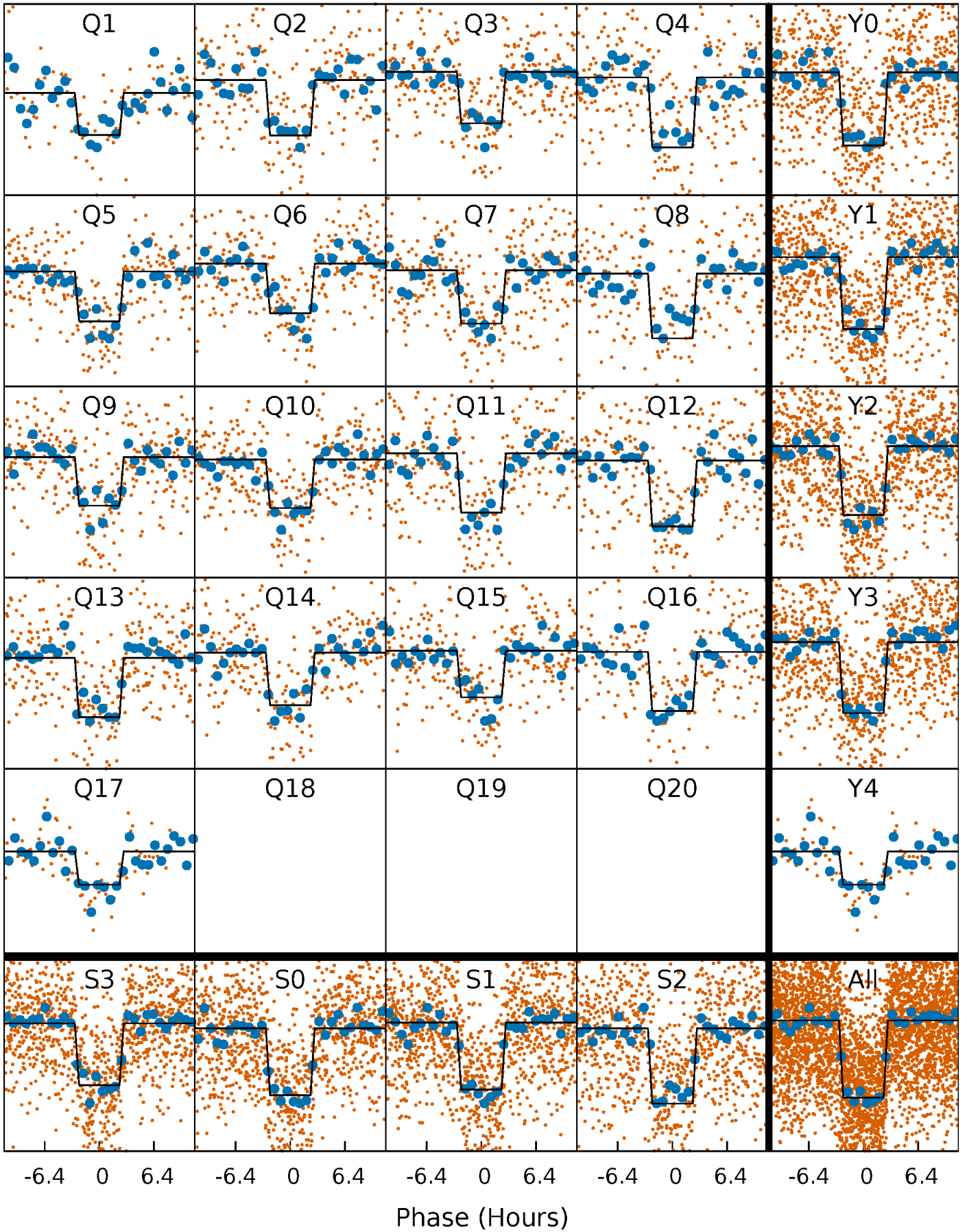
DV Quarter-Phased Transit Curves

TCE 006693640-01 P= 13.719329 Days $T_0=140.747618$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

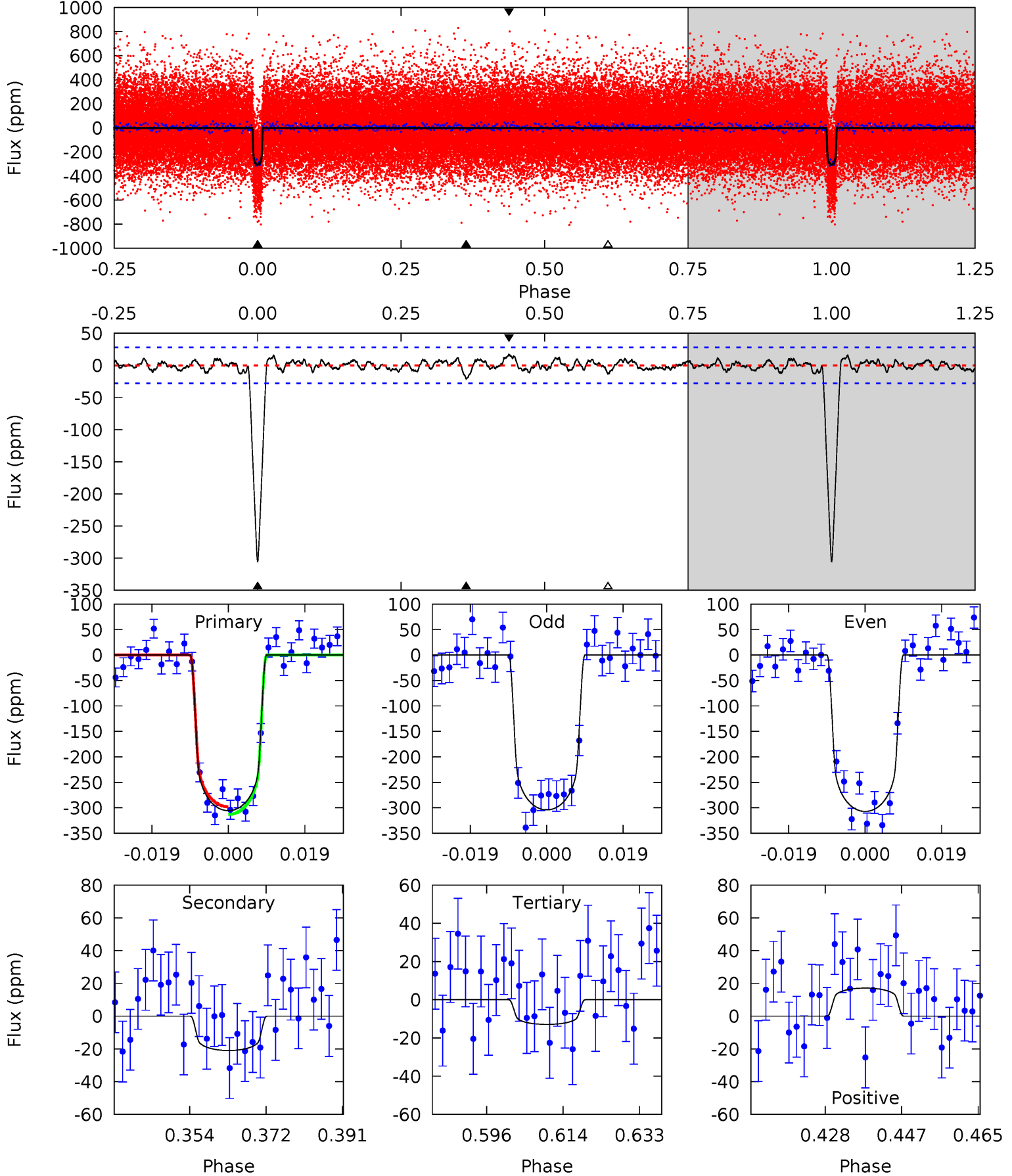
TCE 006693640-01 P= 13.719455 Days $T_0=140.741020$ (BKJD)



DV Model-Shift Uniqueness Test

006693640-01, P = 13.719329 Days, E = 127.028289 Days

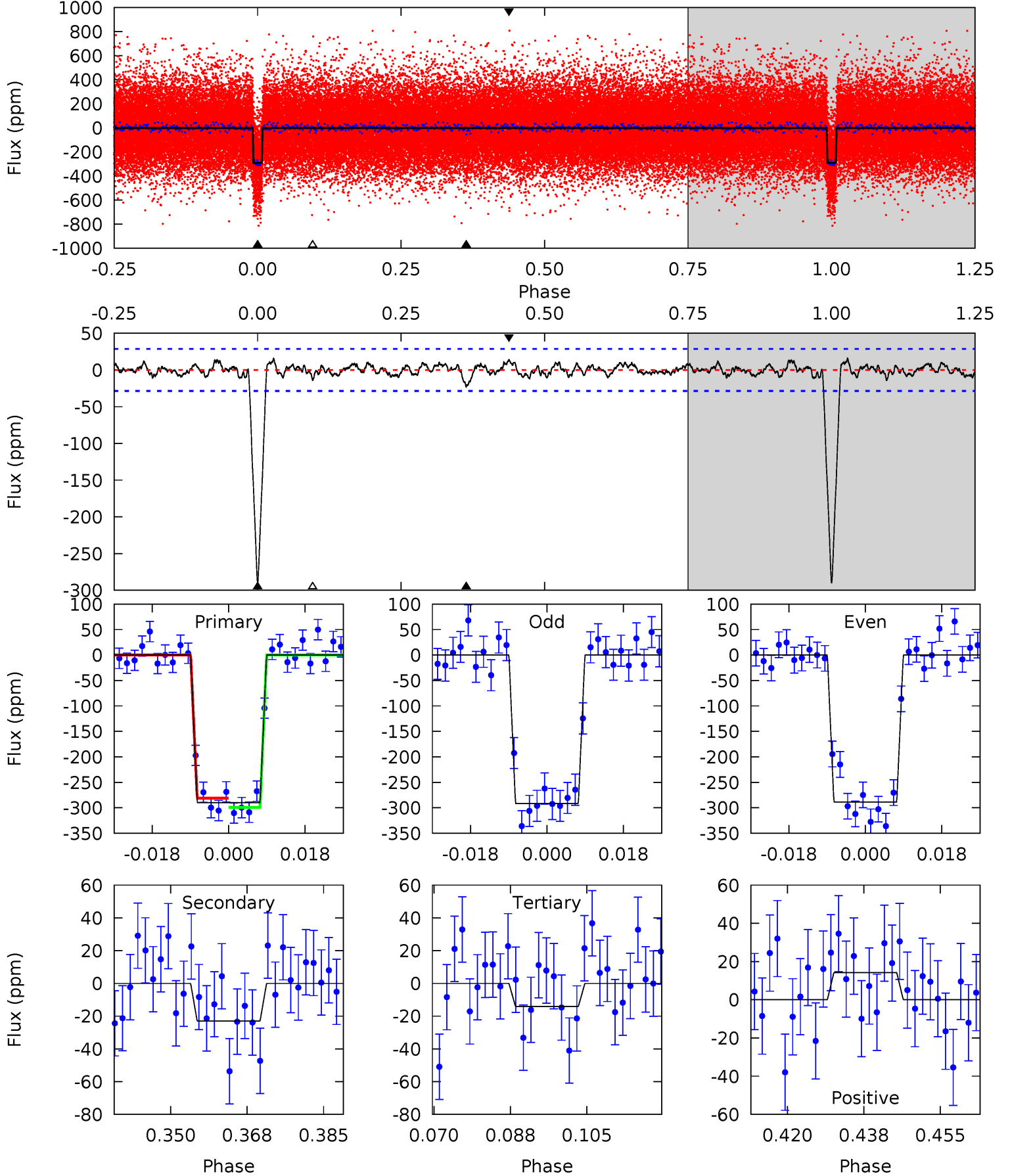
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
53.7	3.69	2.27	3.01	4.91	2.35	1.03	51.4	50.7	1.42	0.68	0.27	0.99	0.05	1.33



Alt Model-Shift Uniqueness Test

006693640-01, P = 13.719455 Days, E = 127.021565 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
49.7	3.95	2.41	2.44	4.92	2.38	0.94	47.3	47.3	1.54	1.51	0.25	0.98	0.05	1.54



Stellar Parameters For KIC 006693640

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6387^{+153}_{-211}	$4.410^{+0.067}_{-0.202}$	$-0.120^{+0.250}_{-0.300}$	$1.105^{+0.345}_{-0.123}$	$1.145^{+0.157}_{-0.157}$	$1.195^{+0.339}_{-0.632}$
	+2%/-3%	+2%/-5%	+208%/-250%	+31%/-11%	+14%/-14%	+28%/-53%
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 006693640-01 / KOI 1245.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-21 ± 6	$2.22^{+0.39}_{-0.32}$	1225^{+90}_{-59}	3652^{+220}_{-212}	31^{+14}_{-11}
Alt.	-23 ± 6	$2.14^{+0.35}_{-0.28}$	1225^{+83}_{-57}	3738^{+237}_{-217}	36^{+17}_{-12}

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 $A_{obs} \gg 1.0$

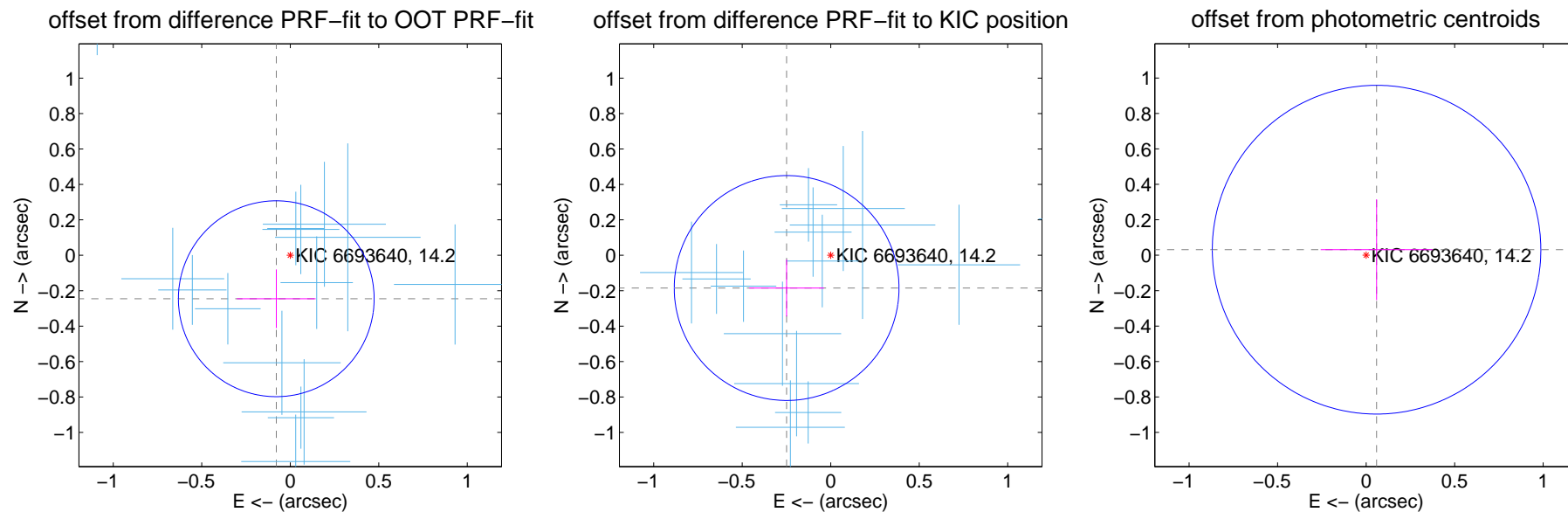
DV Centroid Data

Supplemental centroid analysis for 006693640-01. Kepler magnitude: 14.20. Transit SNR 40.46

There are 17 quarters with good PRF difference image offsets

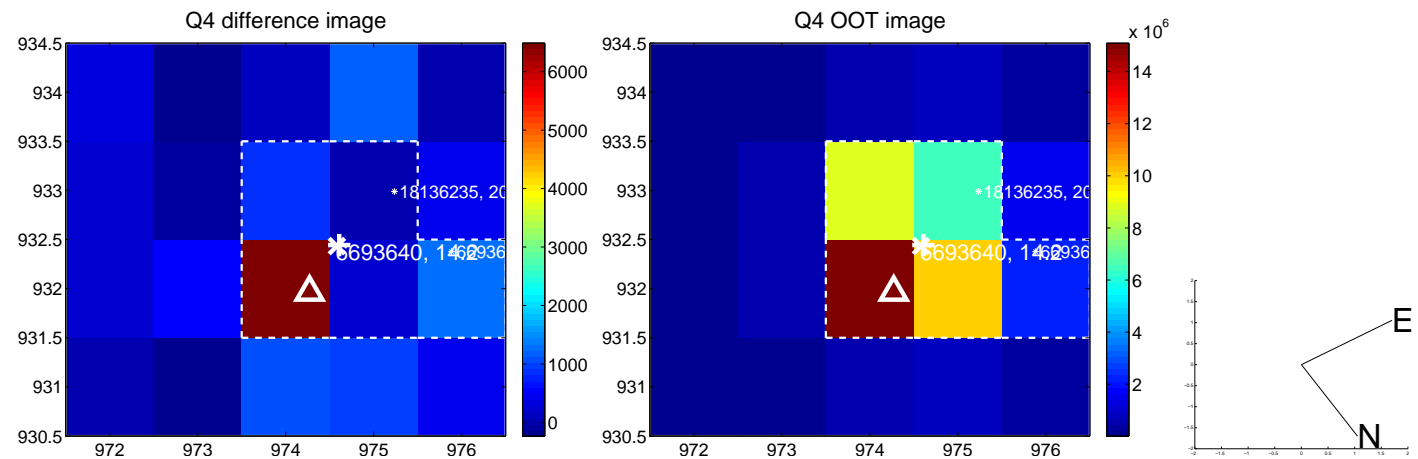
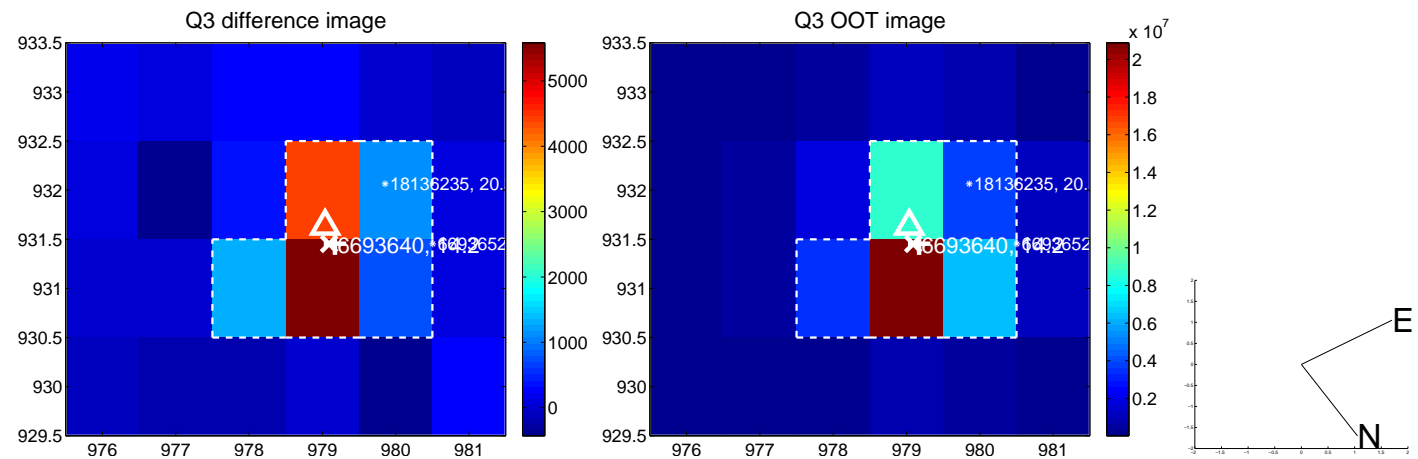
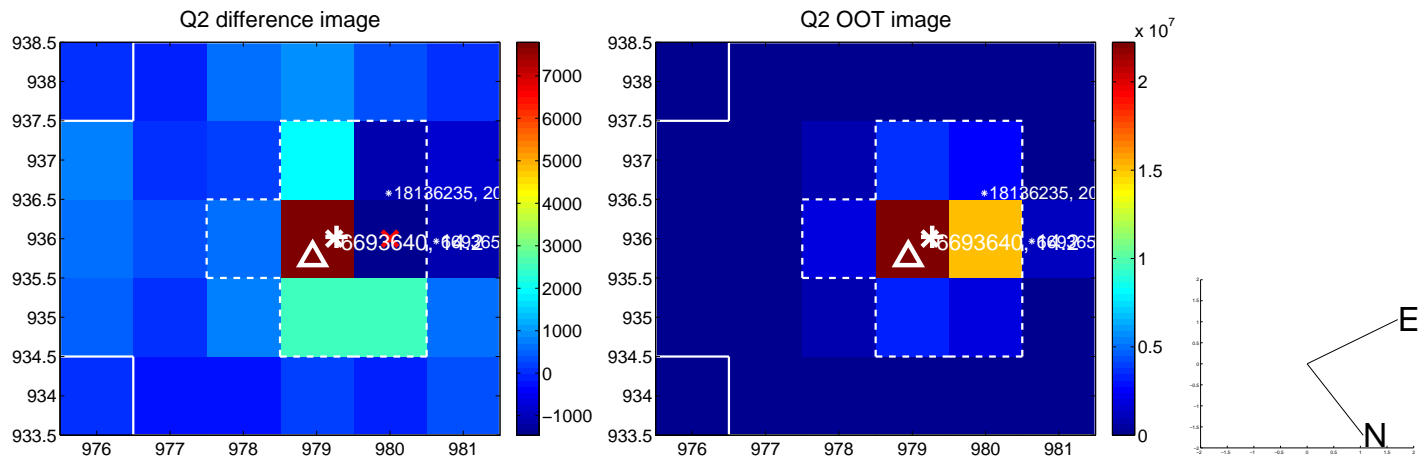
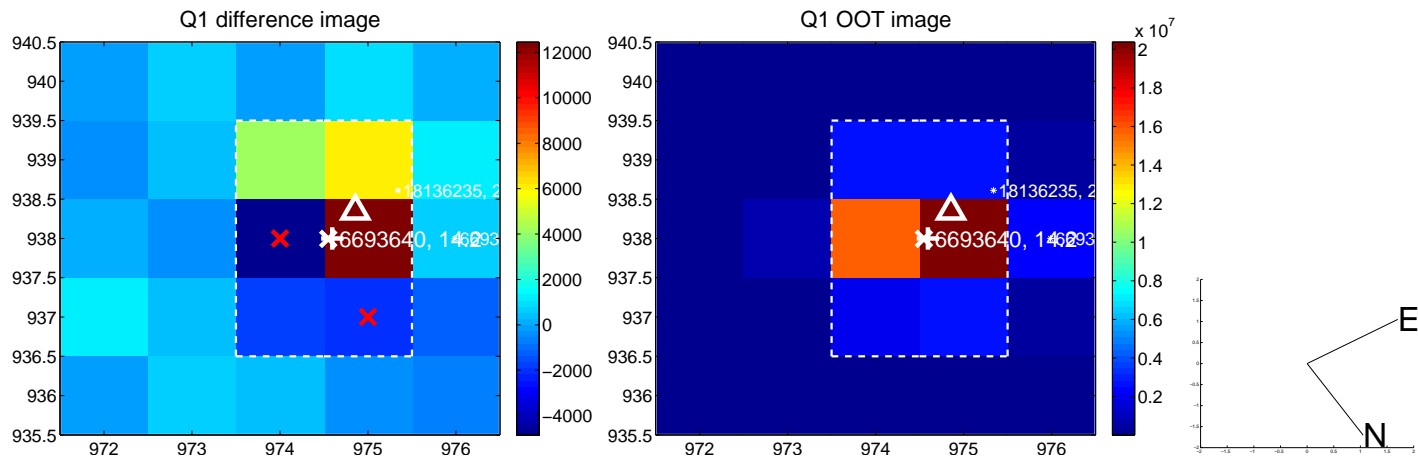
The direct PRF centroid is offset from the target star catalog position by about 0.16 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.258 ± 0.184	1.40	0.079 ± 0.223	-0.245 ± 0.166
PRF-fit source offset from KIC position	0.310 ± 0.212	1.47	0.249 ± 0.211	-0.185 ± 0.161
photometric centroid source offset	0.07 ± 0.31	0.22	-0.06 ± 0.32	0.03 ± 0.28

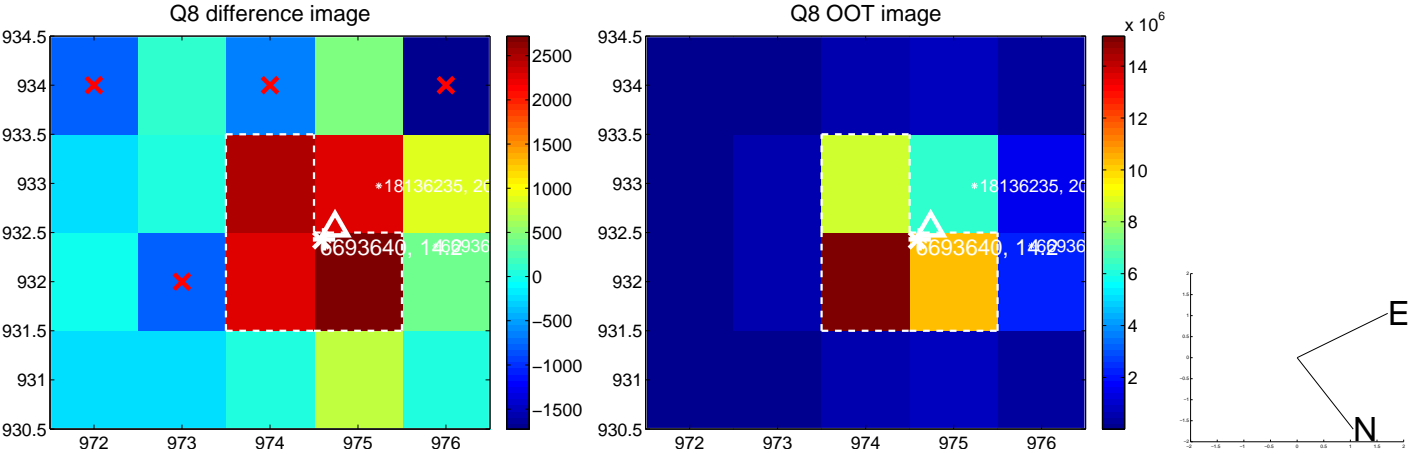
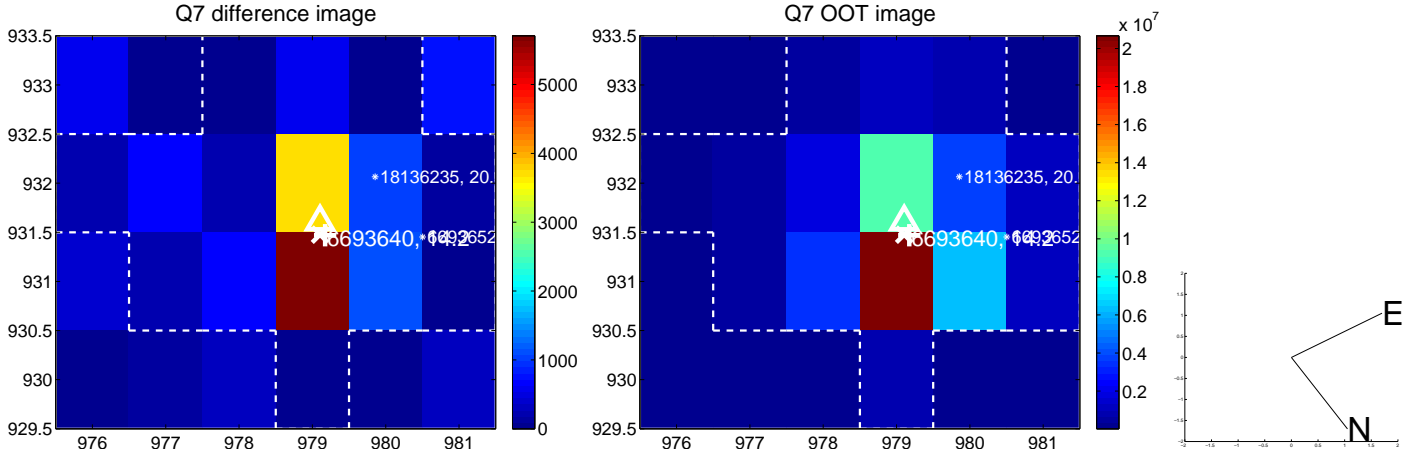
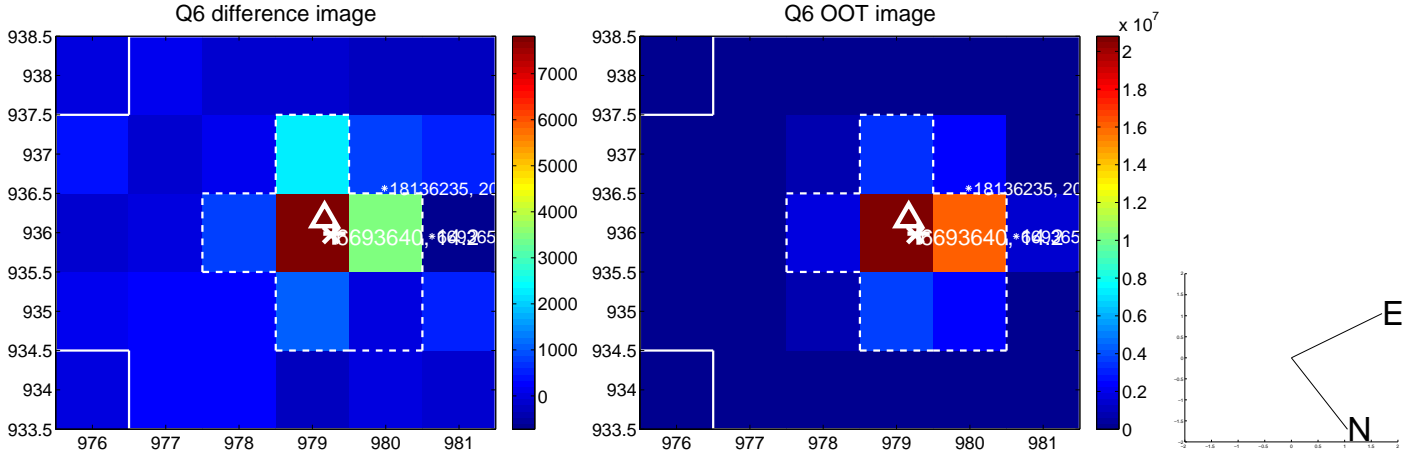
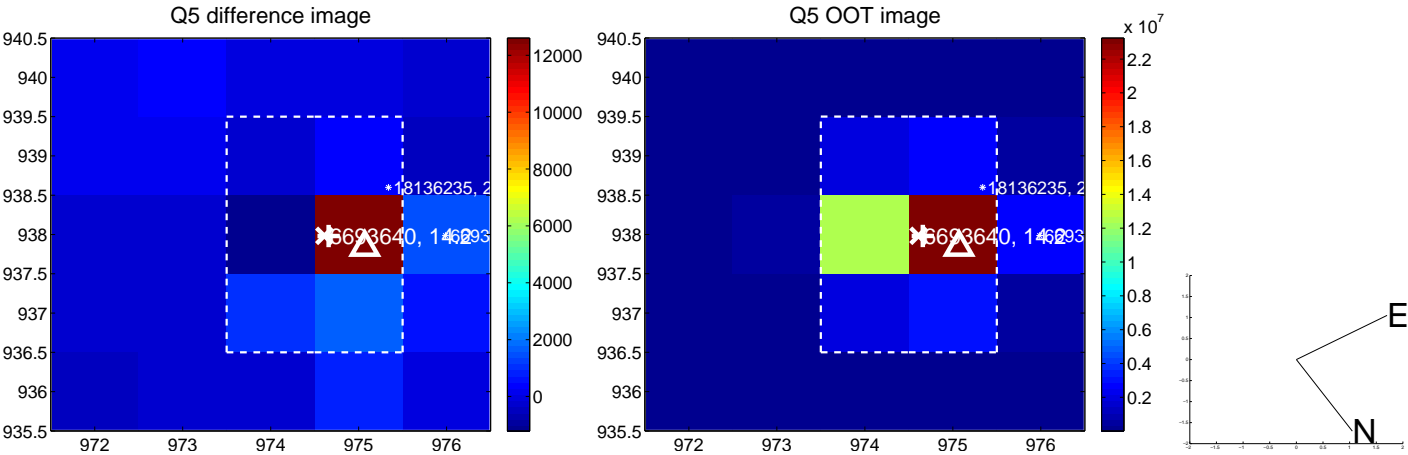


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

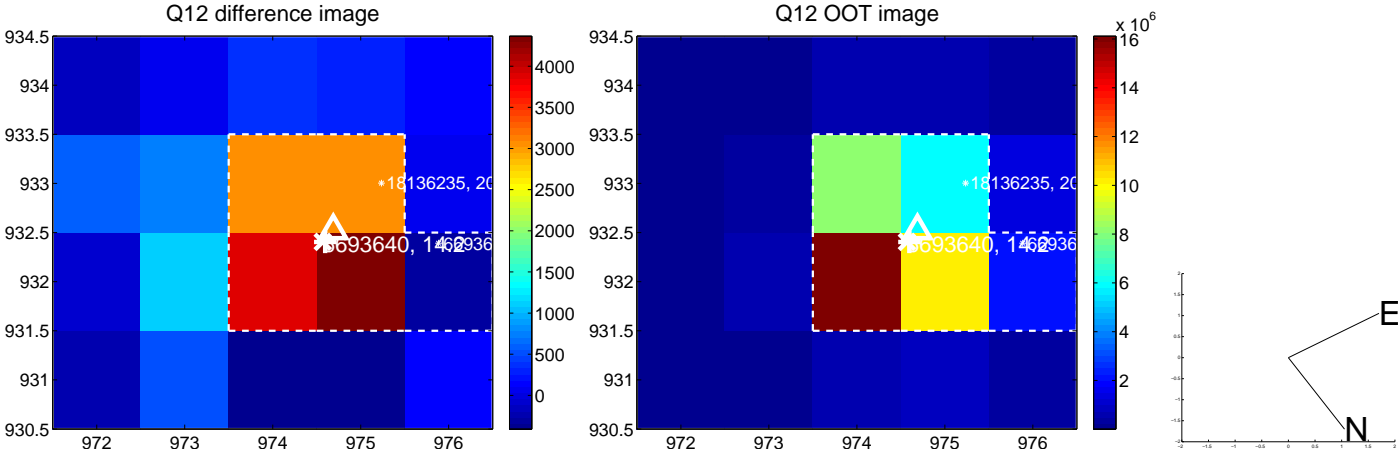
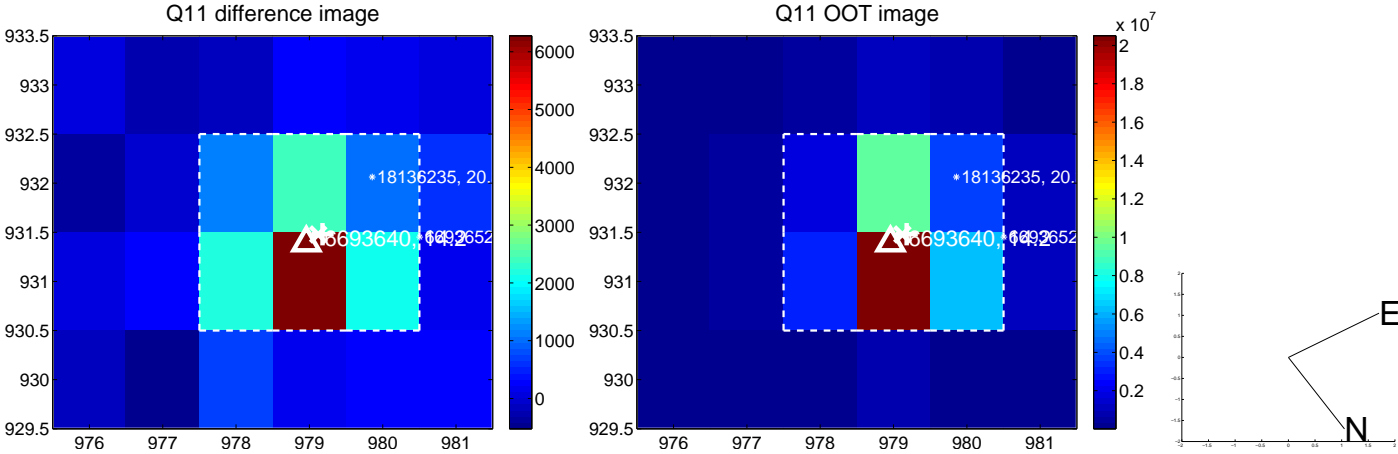
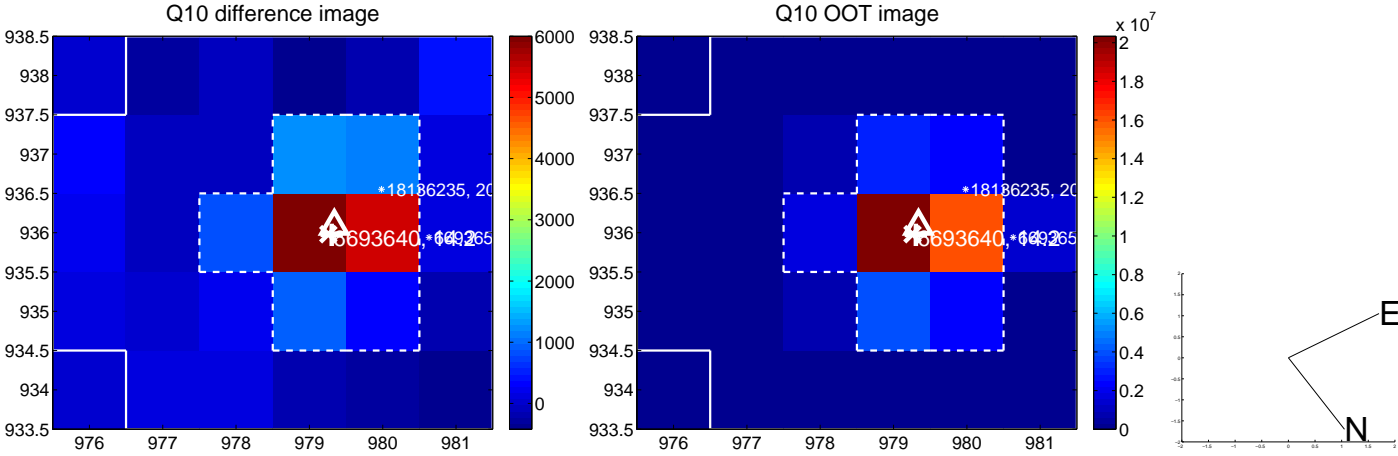
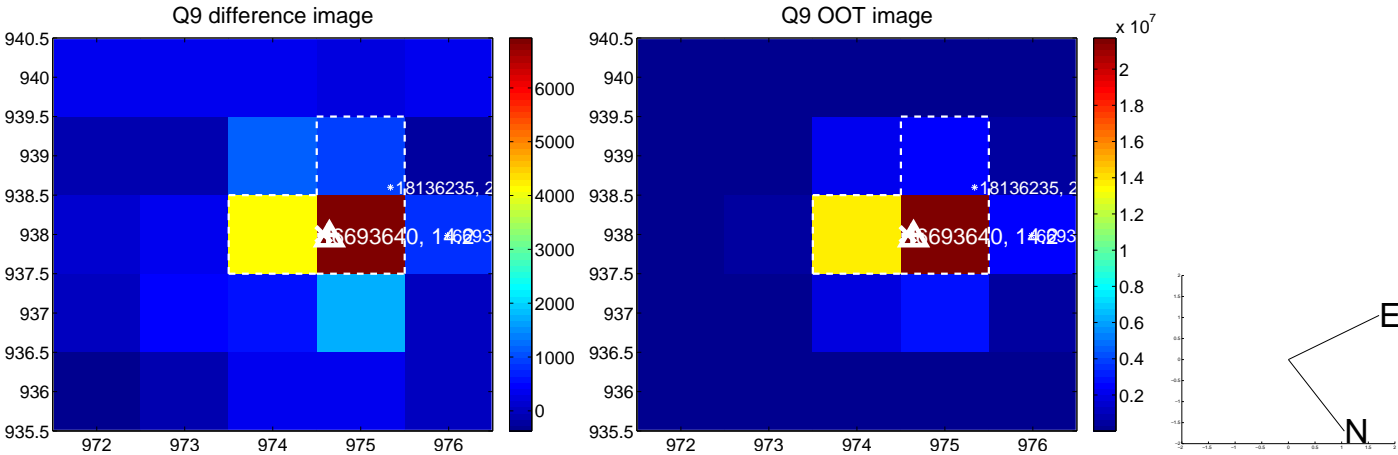
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



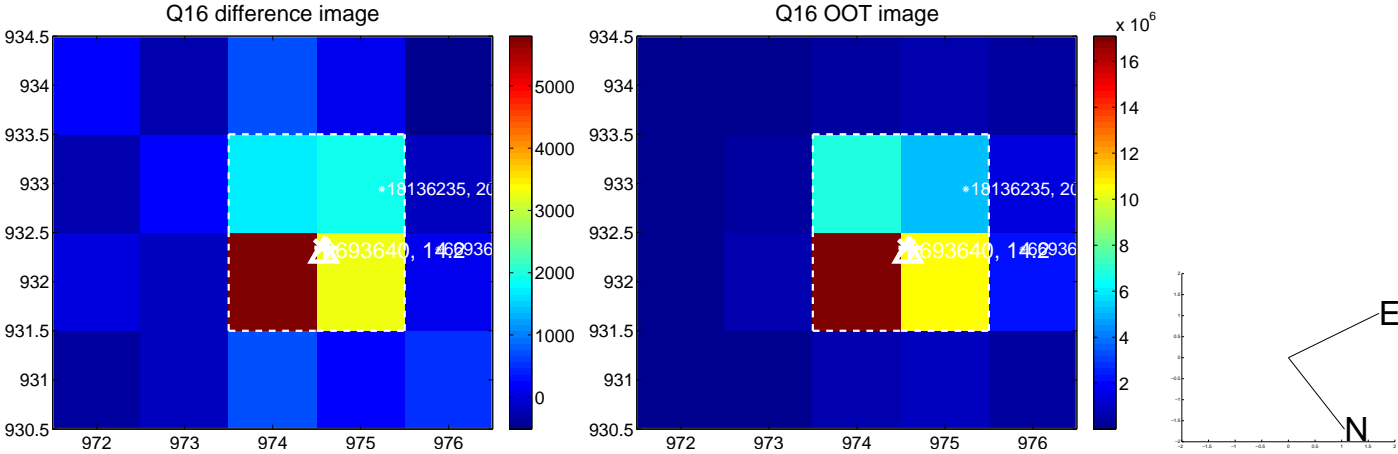
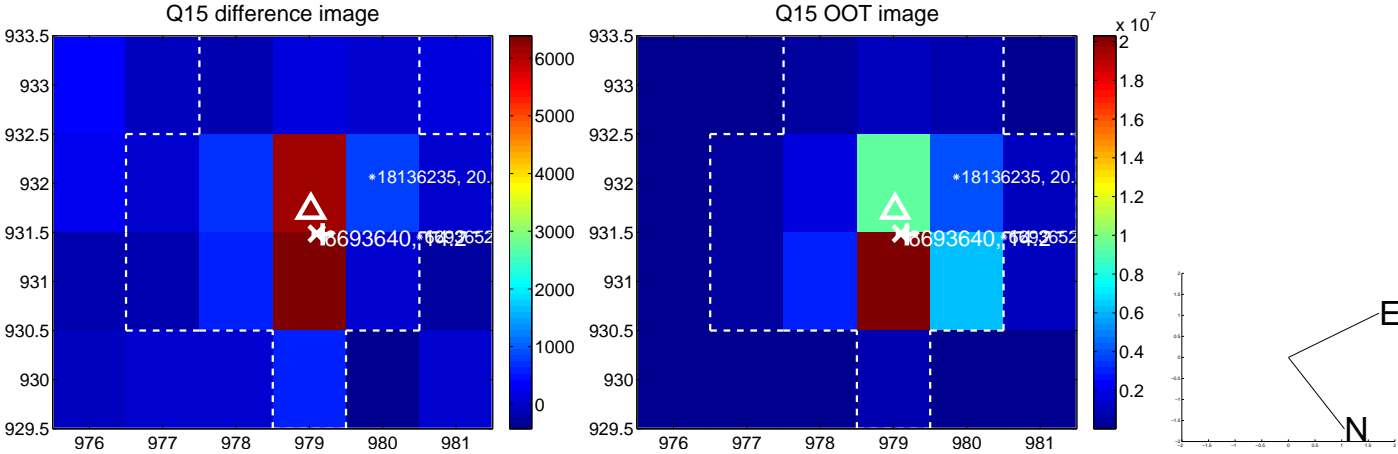
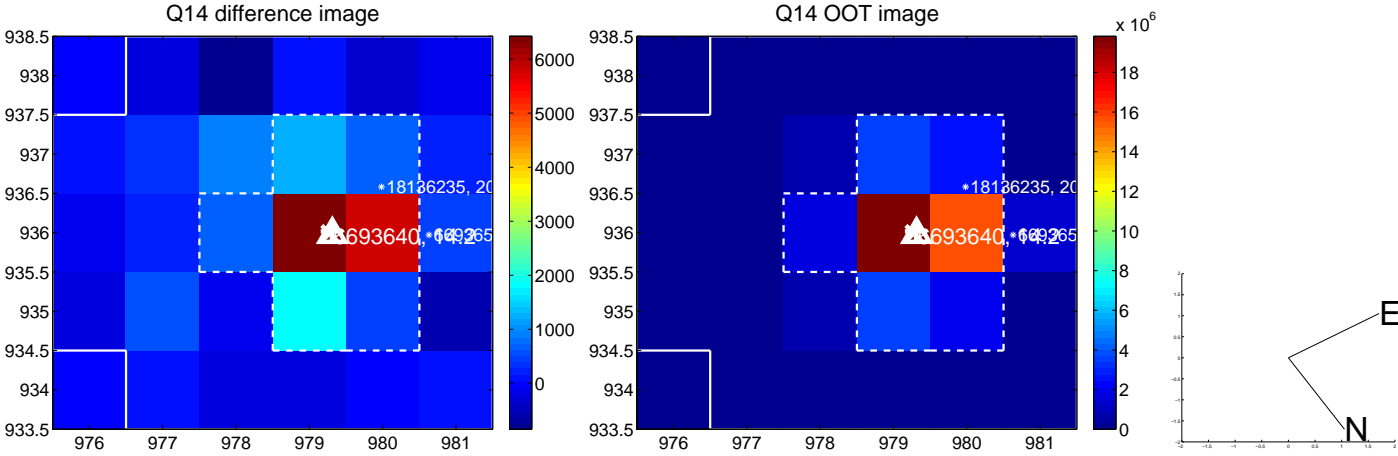
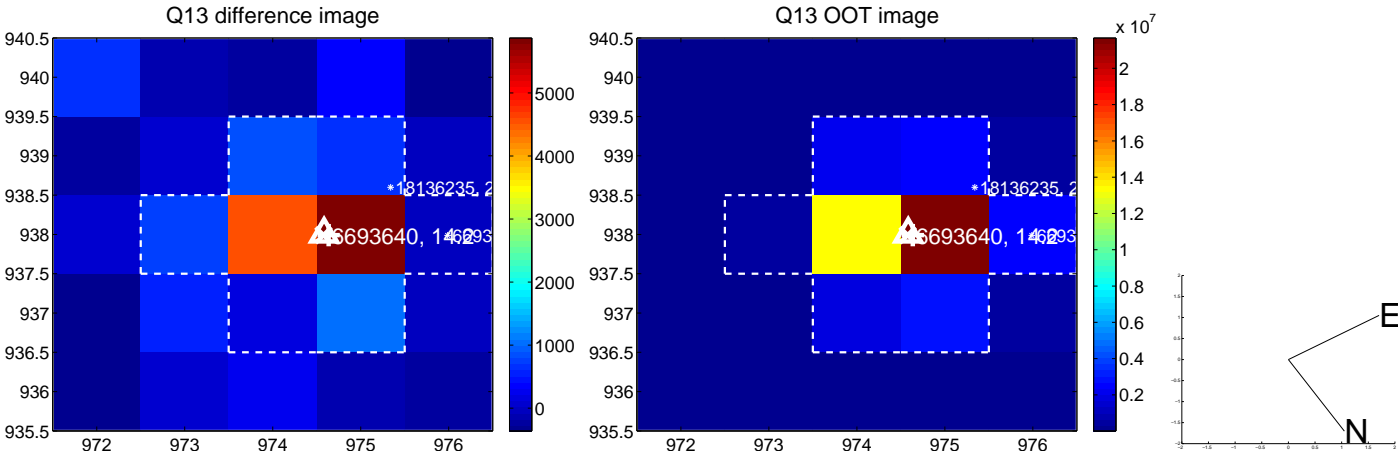
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



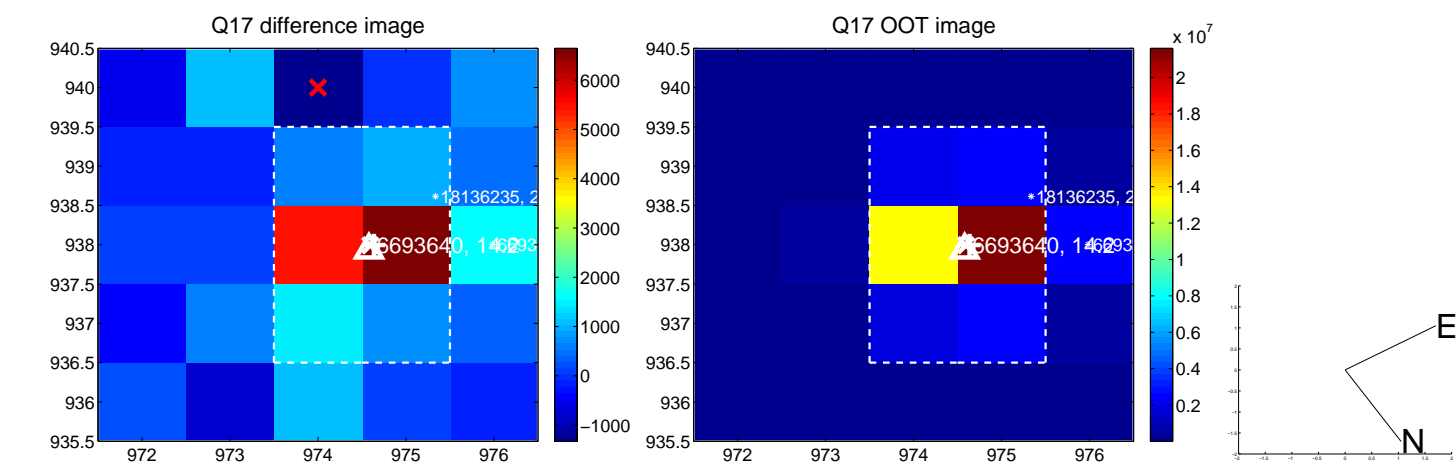
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



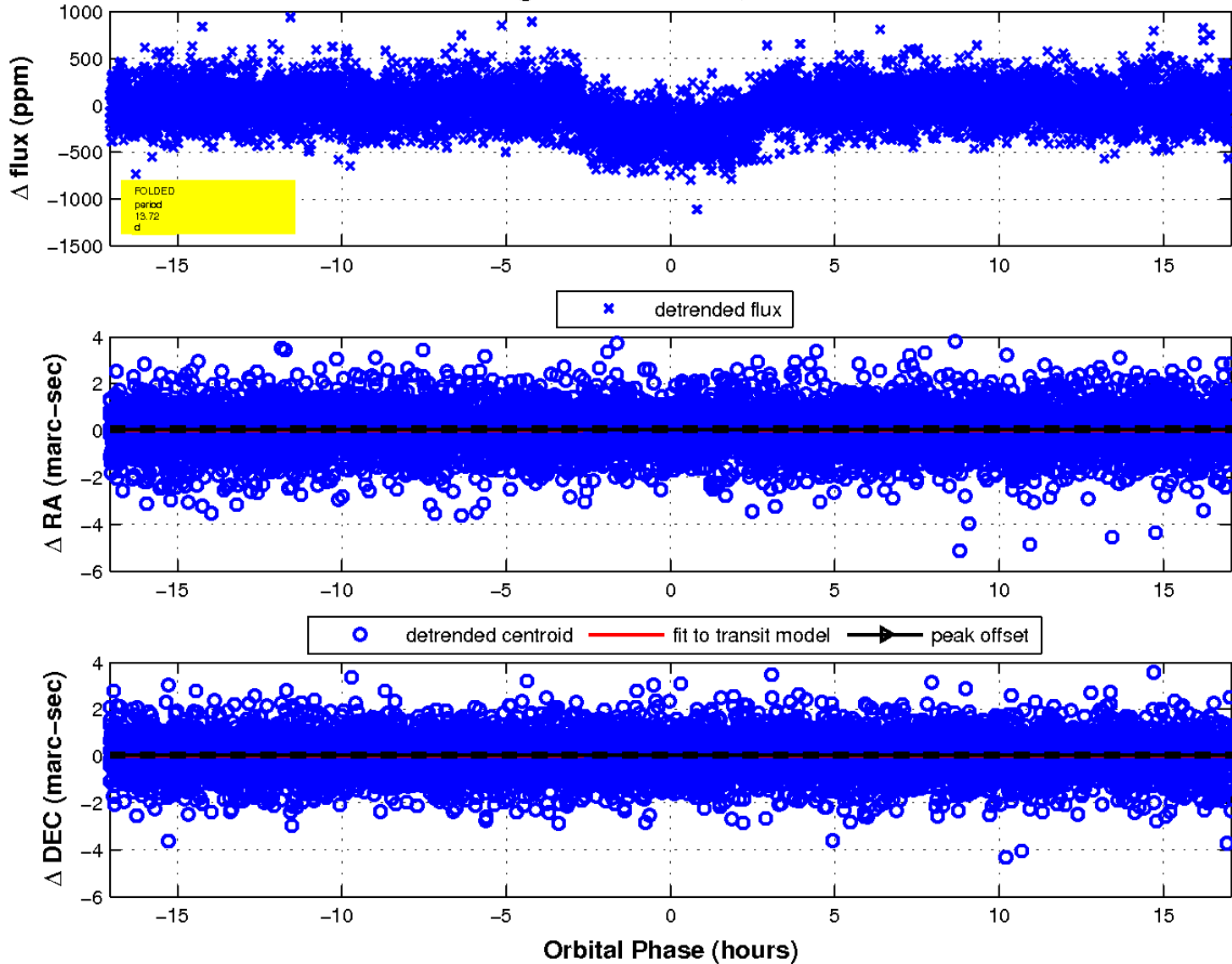
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

