

KIC 010922659

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})
010922659-01	OBS	3335.01	31.254292	155.047649	447.6	5.802	12.1	13.6	1.09	6246	2.50	38.63

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010922659-01	OBS	PC	0.97	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 010922659-01

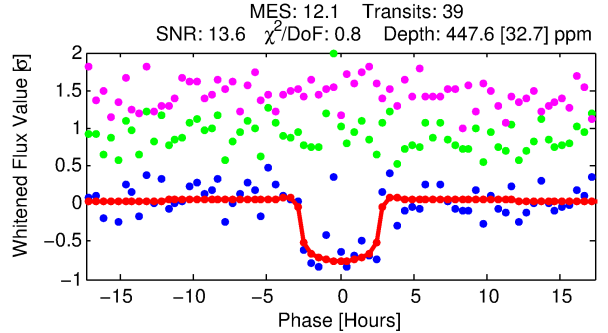
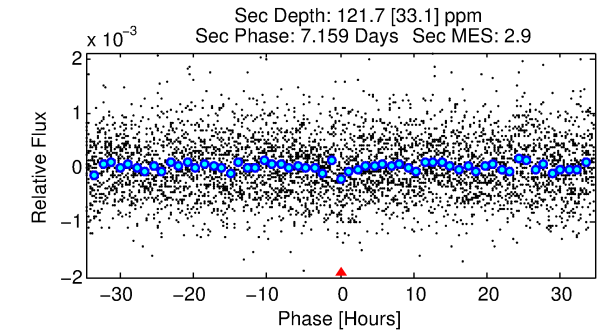
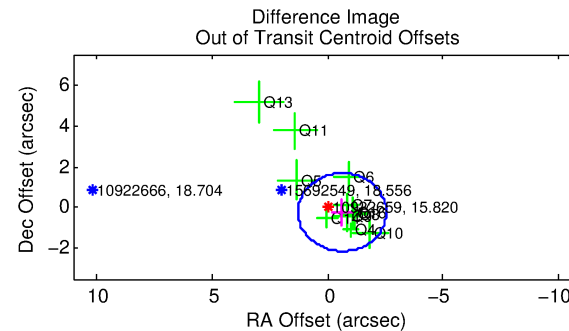
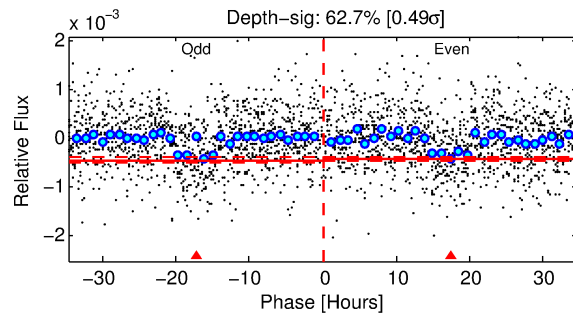
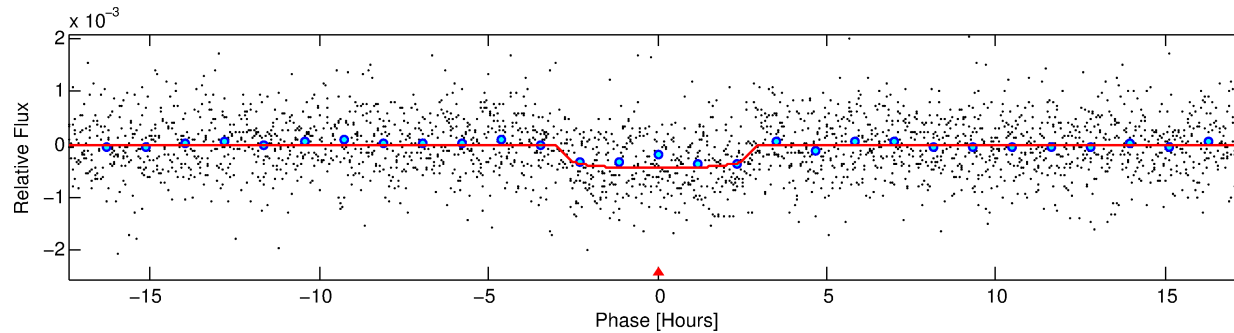
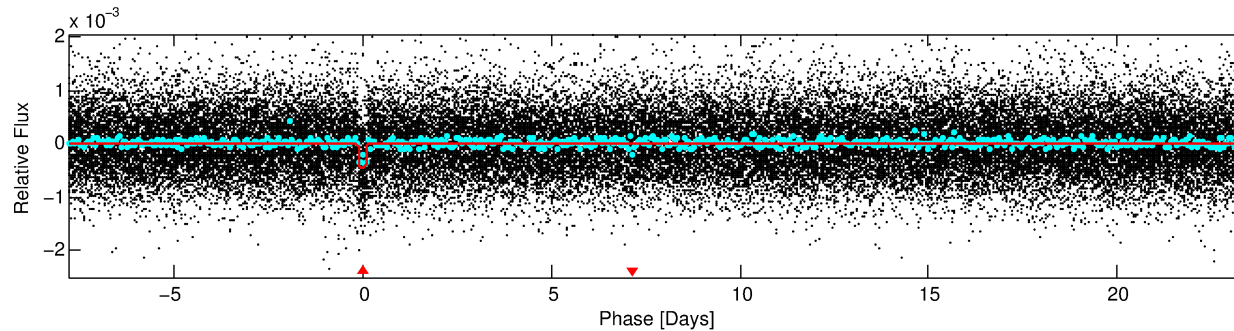
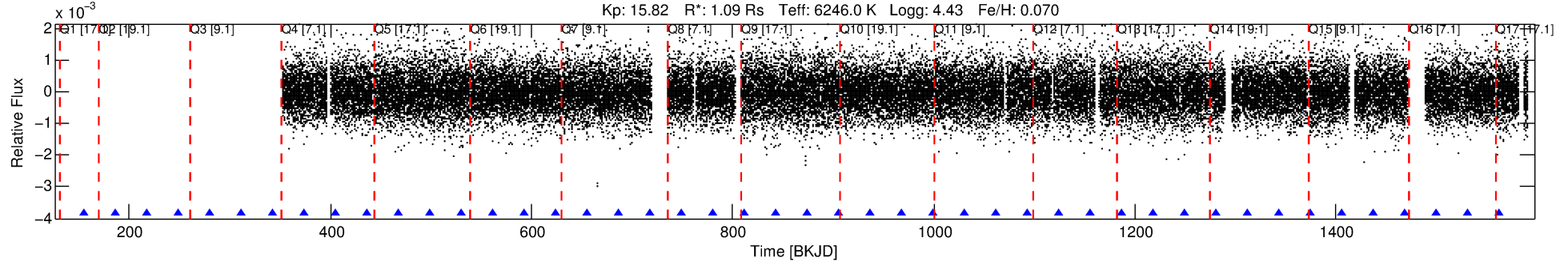
No Significant Match Found

DV One-Page Summary

KIC: 10922659 Candidate: 1 of 1 Period: 31.254 d

KOI: K03335.01 Corr: 0.968

Kp: 15.82 R*: 1.09 Rs Teff: 6246.0 K Logg: 4.43 Fe/H: 0.070



DV Fit Results:

Period = 31.25429 [0.00037] d
Epoch = 155.0476 [0.0102] BKJD
Rp/R* = 0.0209 [0.0099]
a/R* = 29.17 [68.72]
b = 0.74 [1.49]
Seff = 38.63 [16.72]
Teq = 636 [69] K
Rp = 2.50 [1.44] Re
a = 0.2052 [0.0570] AU
Ag = 452.65 [479.57] [0.94σ]
Teffp = 4533 [1128] K [3.45σ]

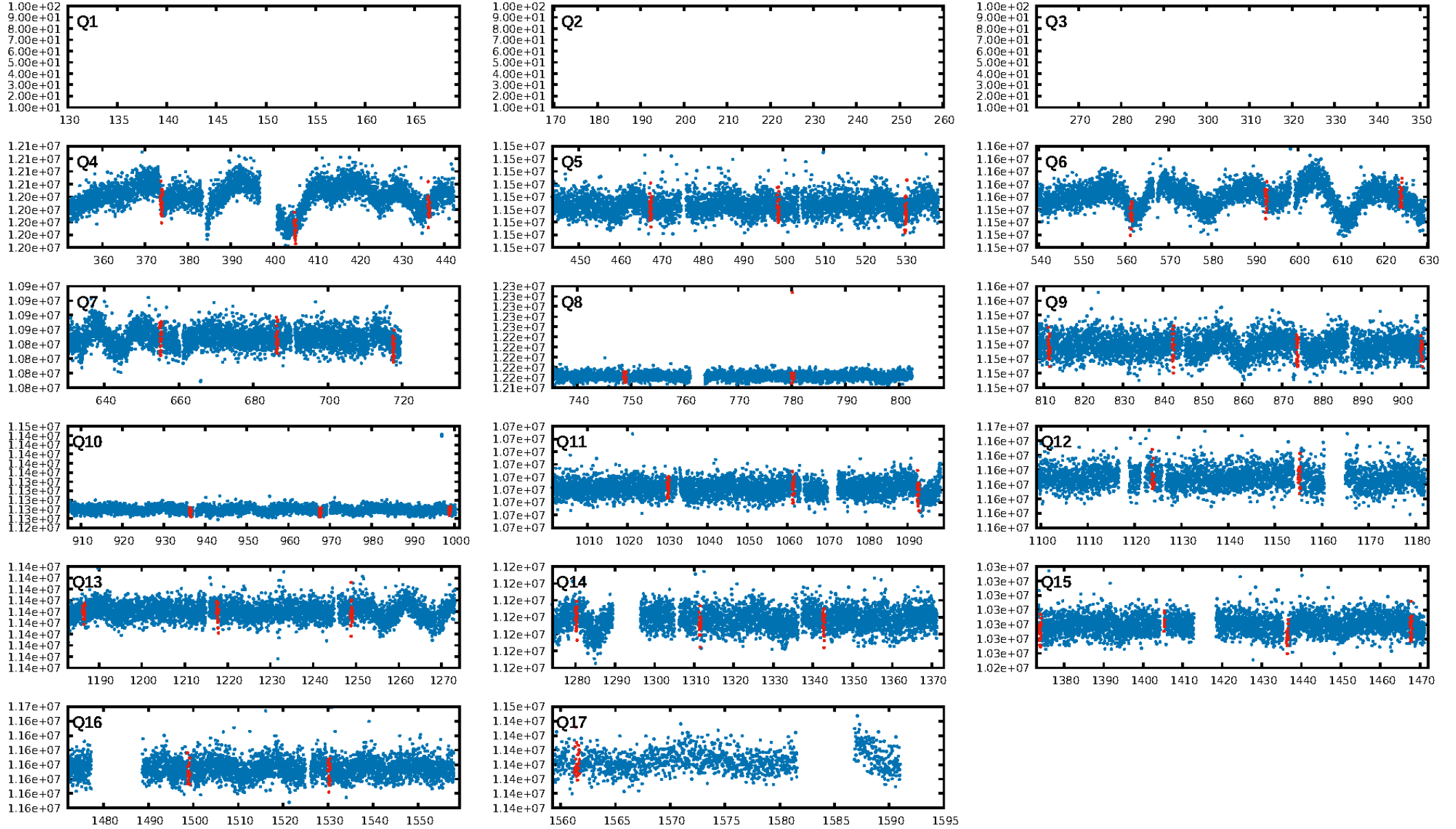
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 44.3%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.78e-33
RollingBand-fgt: 1.00 [38/38]
GhostDiagnostic-chr: 3.768
Centroid-sig: 94.3%
Centroid-so: 0.363 arcsec [0.42σ]
OotOffset-rm: 0.670 arcsec [1.05σ]
KicOffset-rm: 0.639 arcsec [1.11σ]
OotOffset-st: 3/2/3/3 [11]
KicOffset-st: 3/2/3/3 [11]
DiffImageQuality-fgm: 0.73 [8/11]
DiffImageOverlap-fno: 1.00 [13/13]

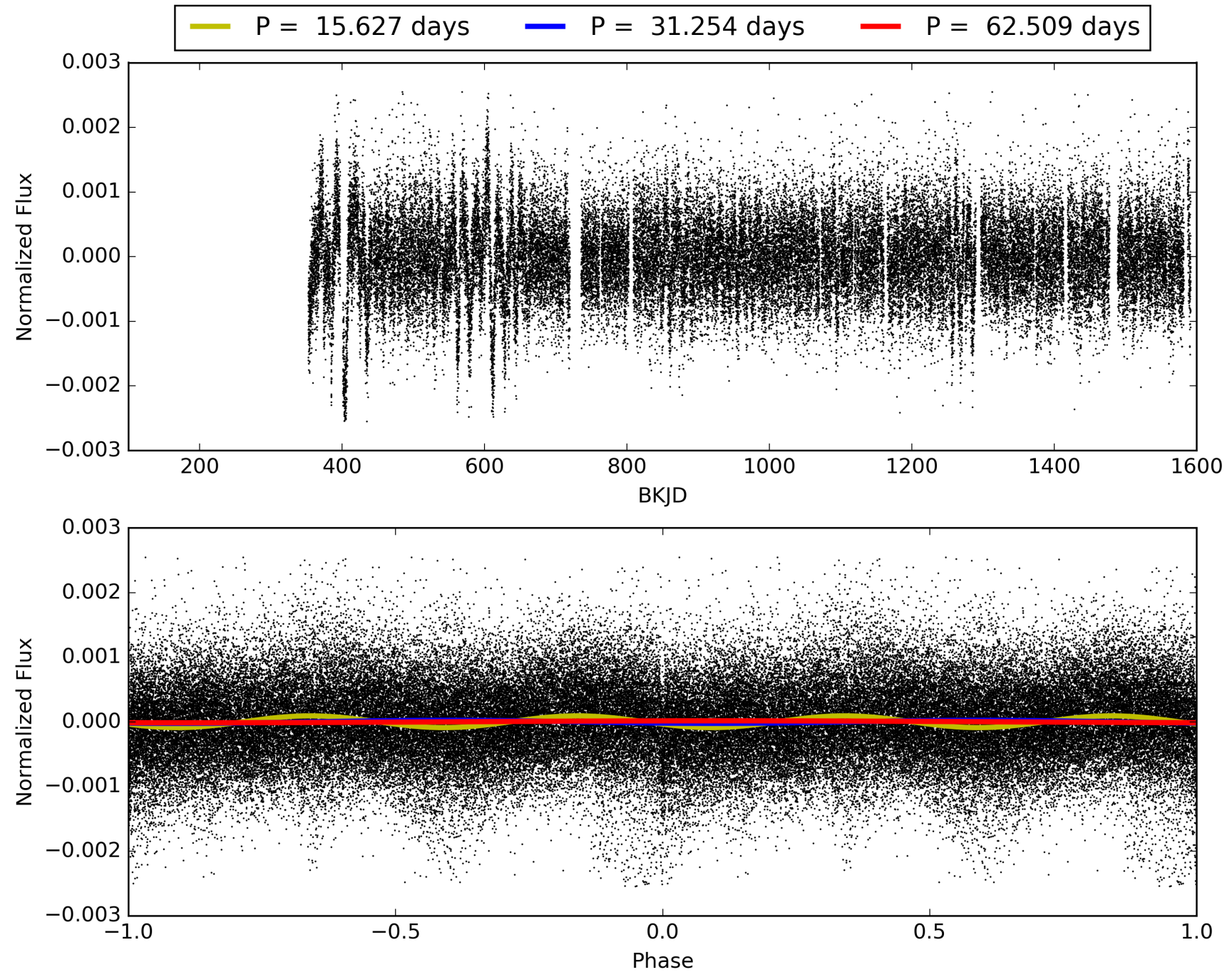
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 20:08:18 Z

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

TCE 010922659-01, PDC Light Curves

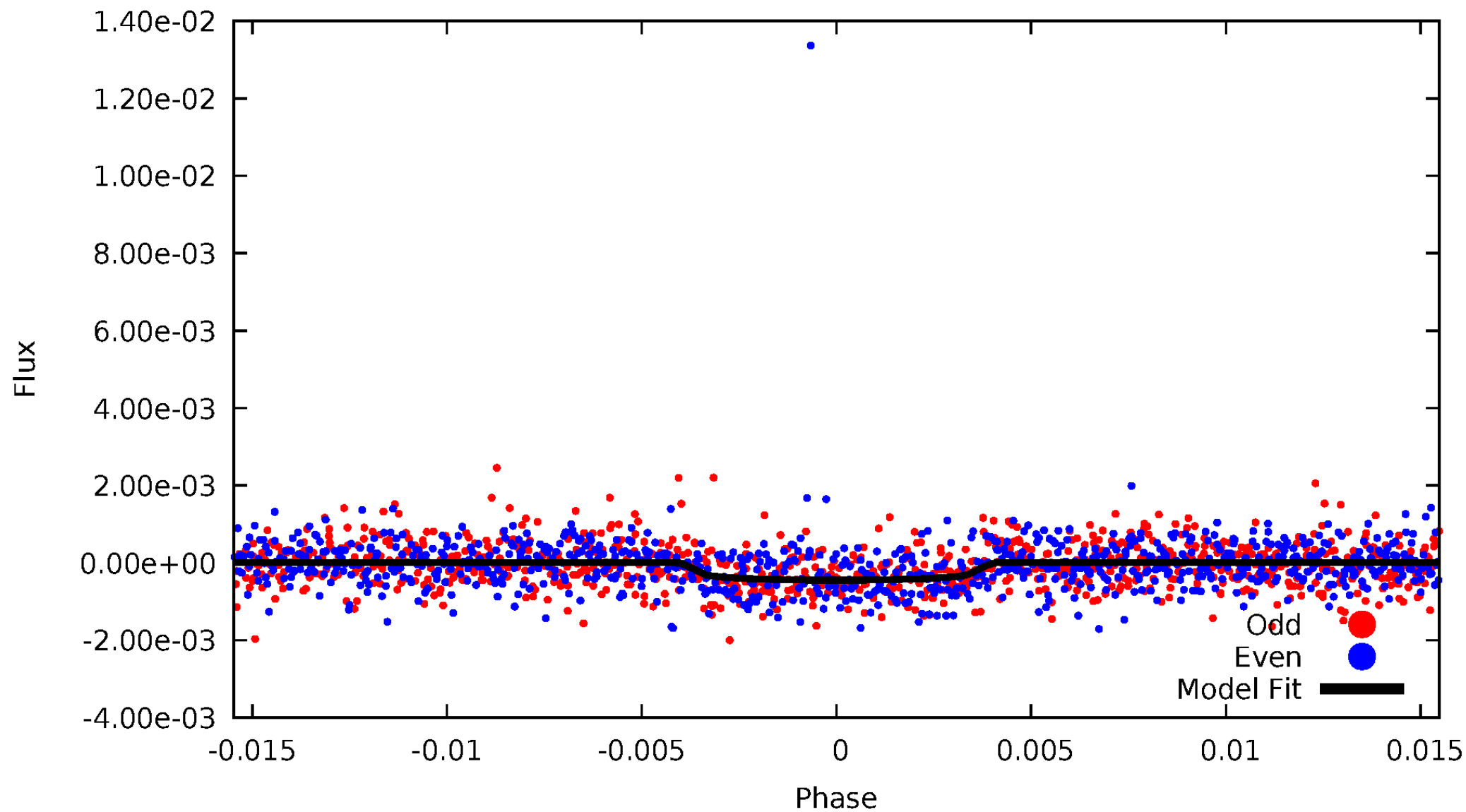


TCE 010922659-01



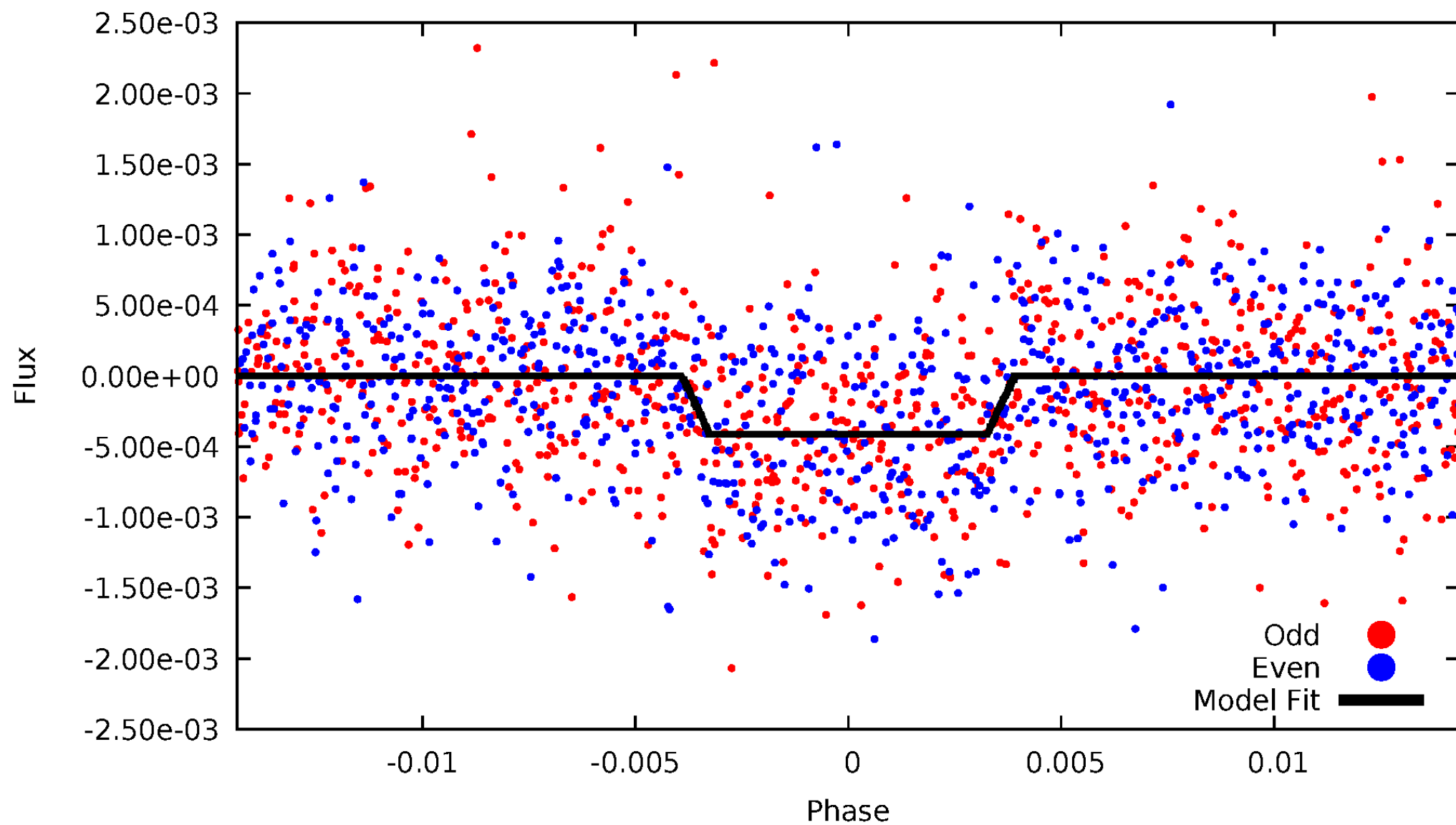
DV Odd/Even

TCE 010922659-01



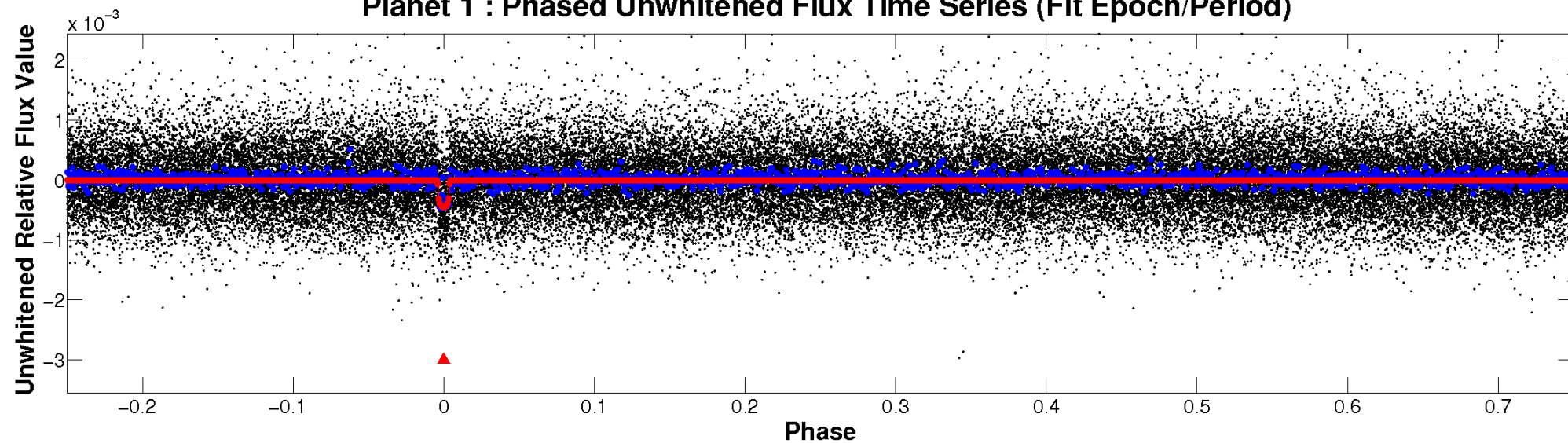
ALT Odd/Even

TCE 010922659-01

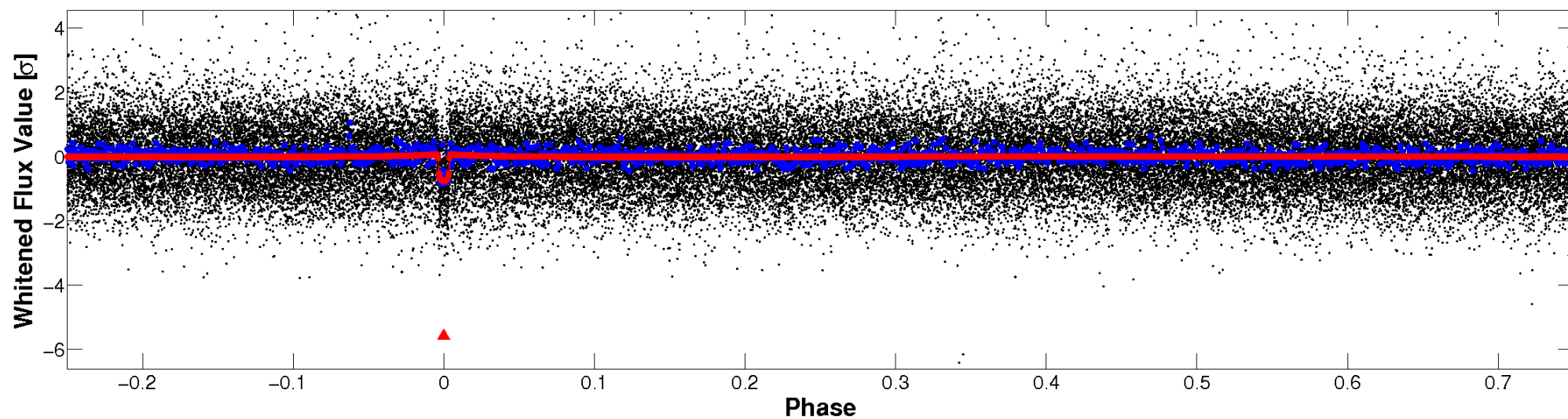


Non-Whitened Vs. Whitened Light Curve

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

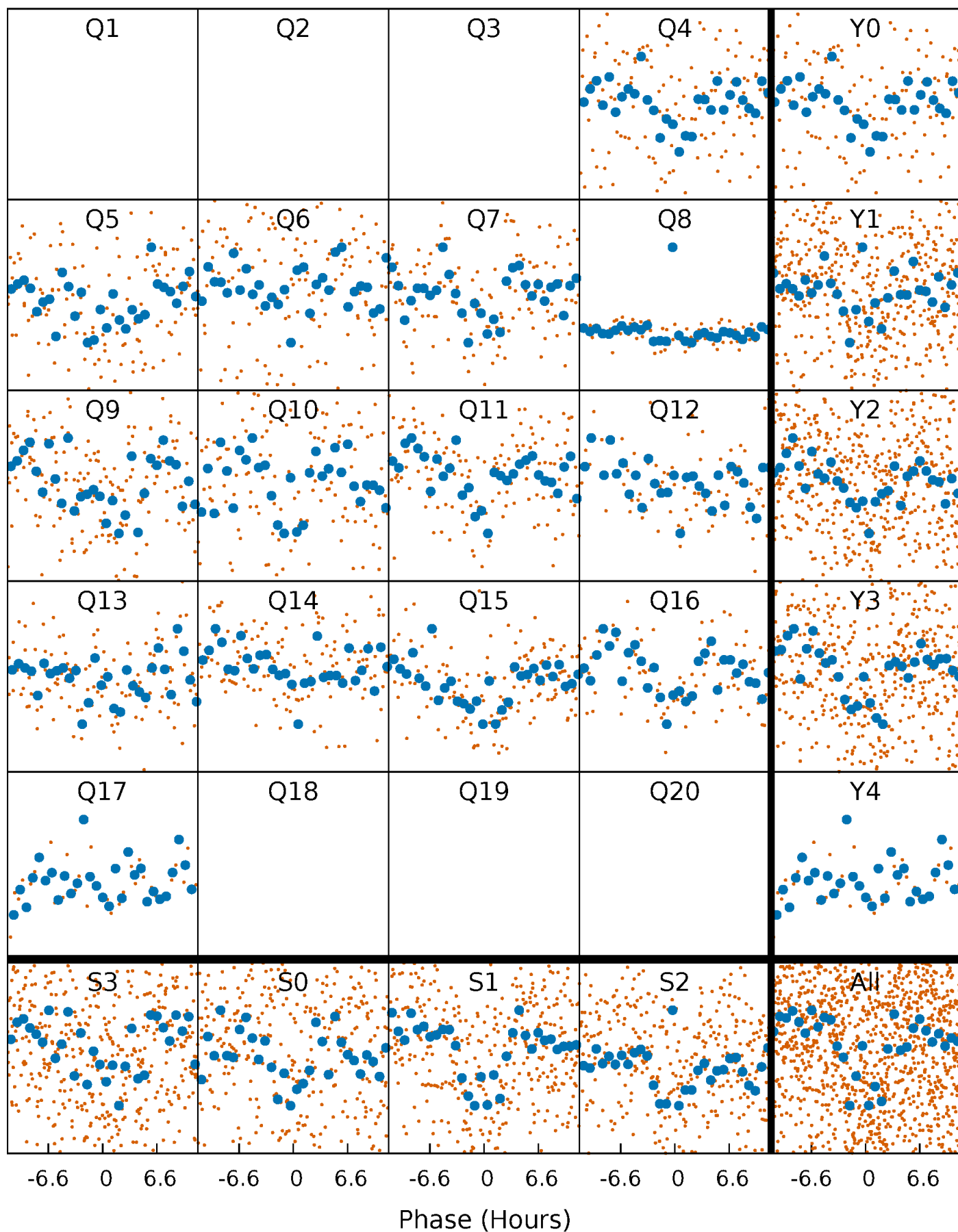


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



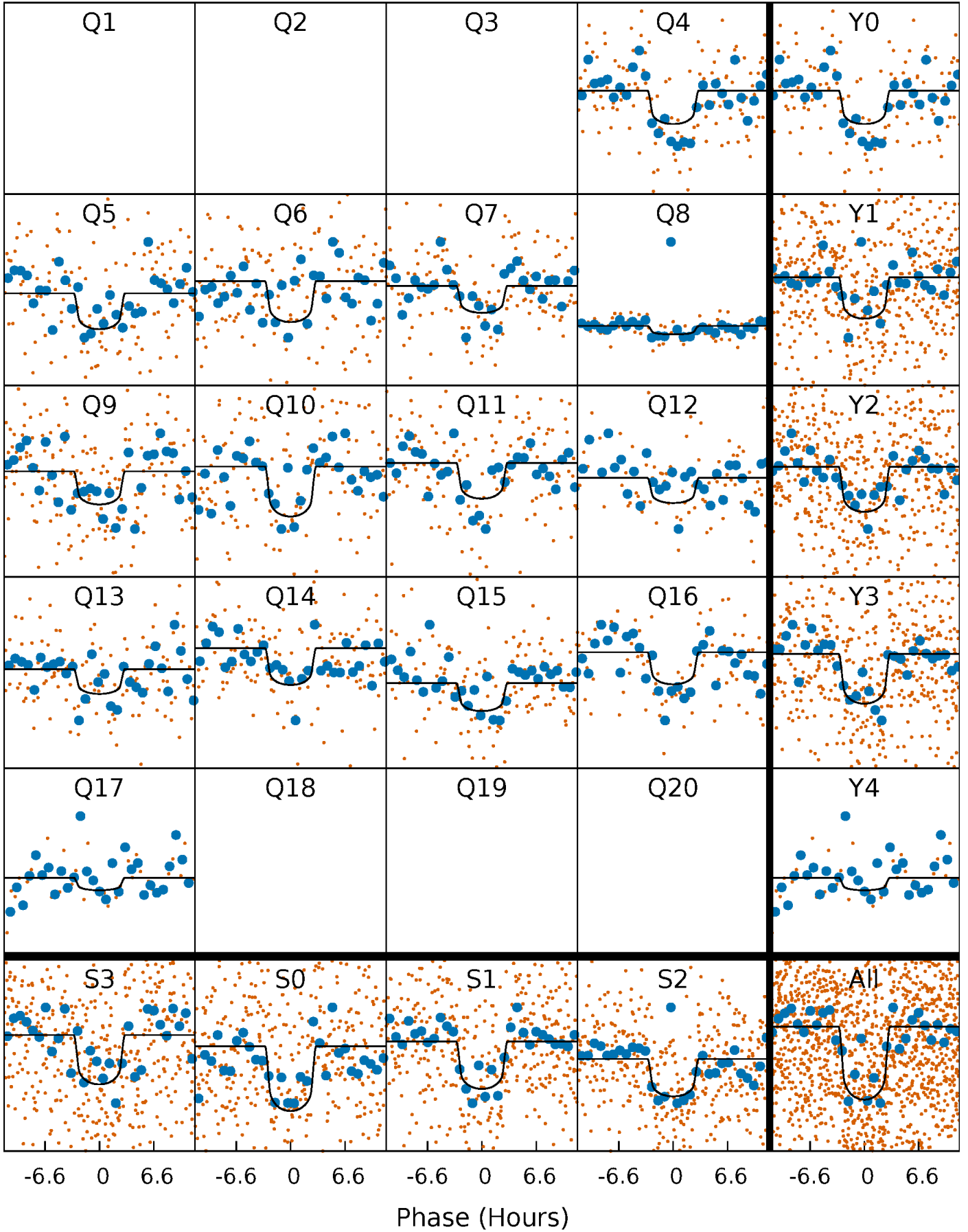
PDC Quarter-Phased Transit Curves

TCE 010922659-01 P= 31.254292 Days $T_0=155.047649$ (BKJD)



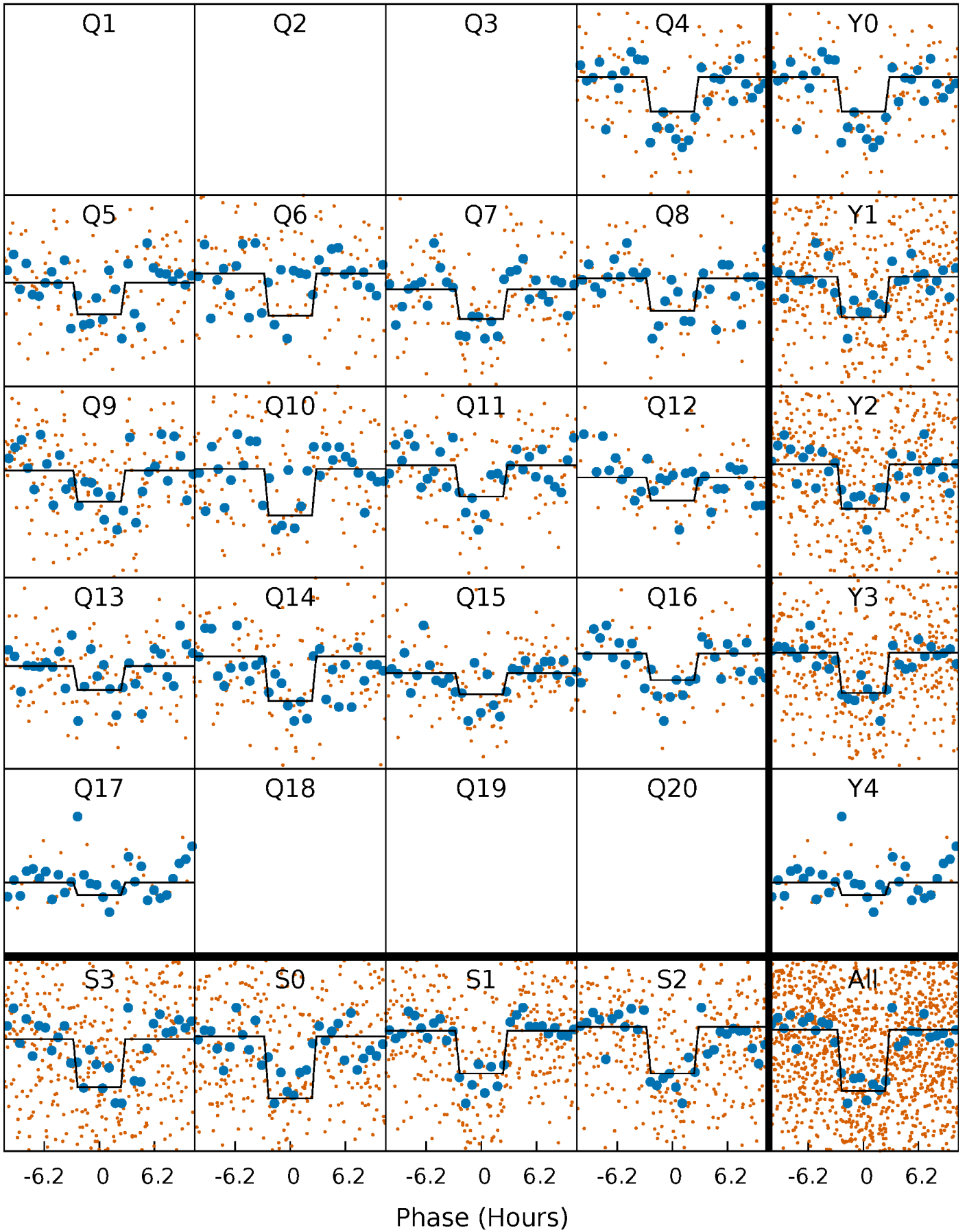
DV Quarter-Phased Transit Curves

TCE 010922659-01 P= 31.254292 Days $T_0=155.047649$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

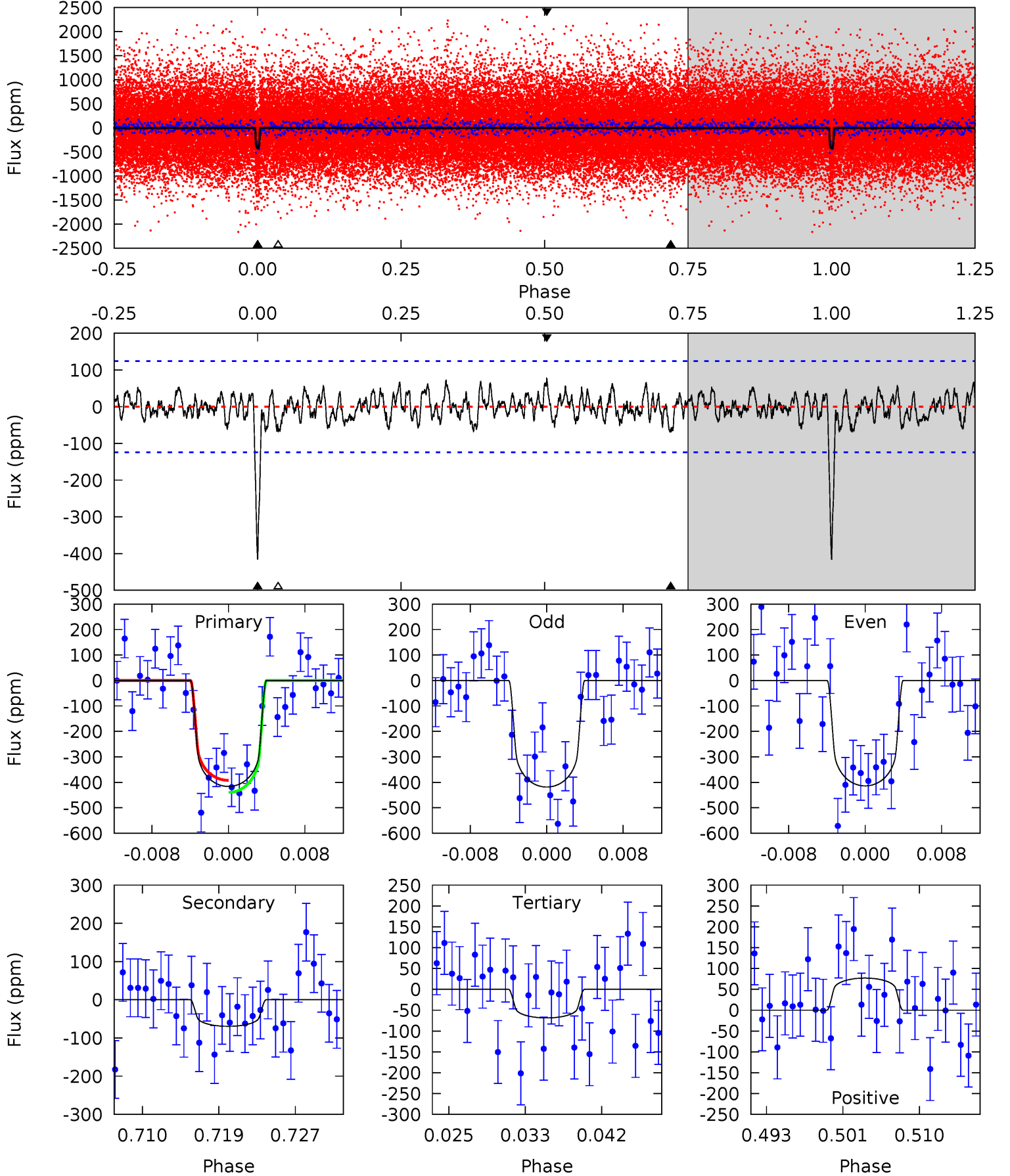
TCE 010922659-01 P= 31.254283 Days $T_0=155.047857$ (BKJD)



DV Model-Shift Uniqueness Test

010922659-01, P = 31.254292 Days, E = 155.047649 Days

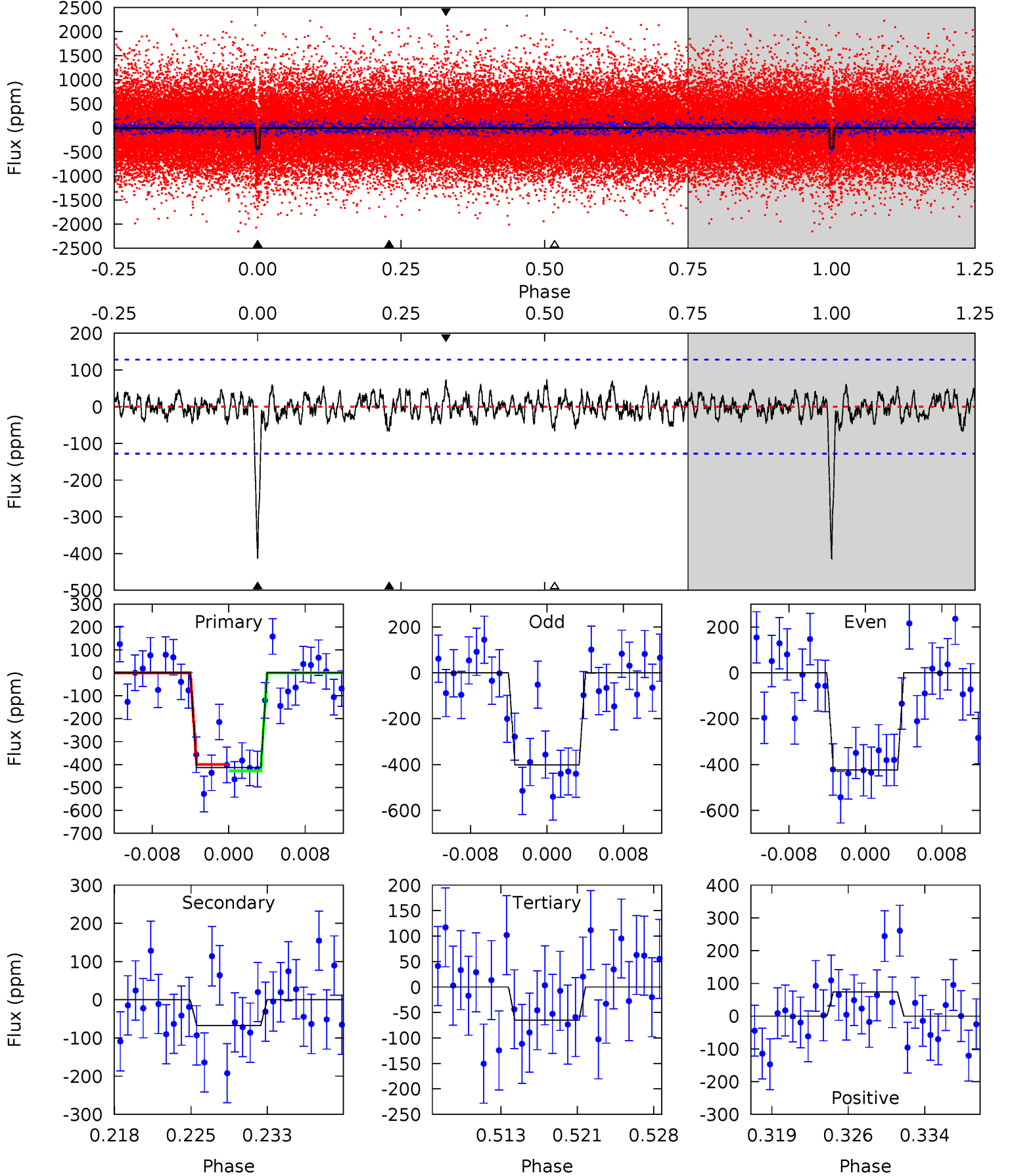
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.9	2.83	2.79	3.14	5.06	2.64	1.13	14.1	13.8	0.04	-0.31	0.09	0.93	0.16	0.97



Alt Model-Shift Uniqueness Test

010922659-01, $P = 31.254283$ Days, $E = 155.047857$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.4	2.66	2.58	2.93	5.07	2.66	0.97	13.8	13.5	0.08	-0.27	0.45	1.00	0.15	0.56



Stellar Parameters For KIC 010922659

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6246^{+173}_{-260}	$4.433^{+0.054}_{-0.216}$	$0.070^{+0.250}_{-0.300}$	$1.092^{+0.365}_{-0.122}$	$1.180^{+0.158}_{-0.173}$	$1.276^{+0.375}_{-0.723}$
	+3%/-4%	+1%/-5%	+357%/-429%	+33%/-11%	+13%/-15%	+29%/-57%
Source	KIC0	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 010922659-01 / KOI 3335.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-69 ± 25	$2.60^{+1.37}_{-1.14}$	910^{+77}_{-52}	4213^{+1128}_{-640}	225^{+546}_{-139}
Alt.	-67 ± 25	$2.56^{+1.47}_{-1.20}$	909^{+67}_{-54}	4147^{+1328}_{-582}	215^{+608}_{-130}

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 $A_{obs} \gg 1.0$

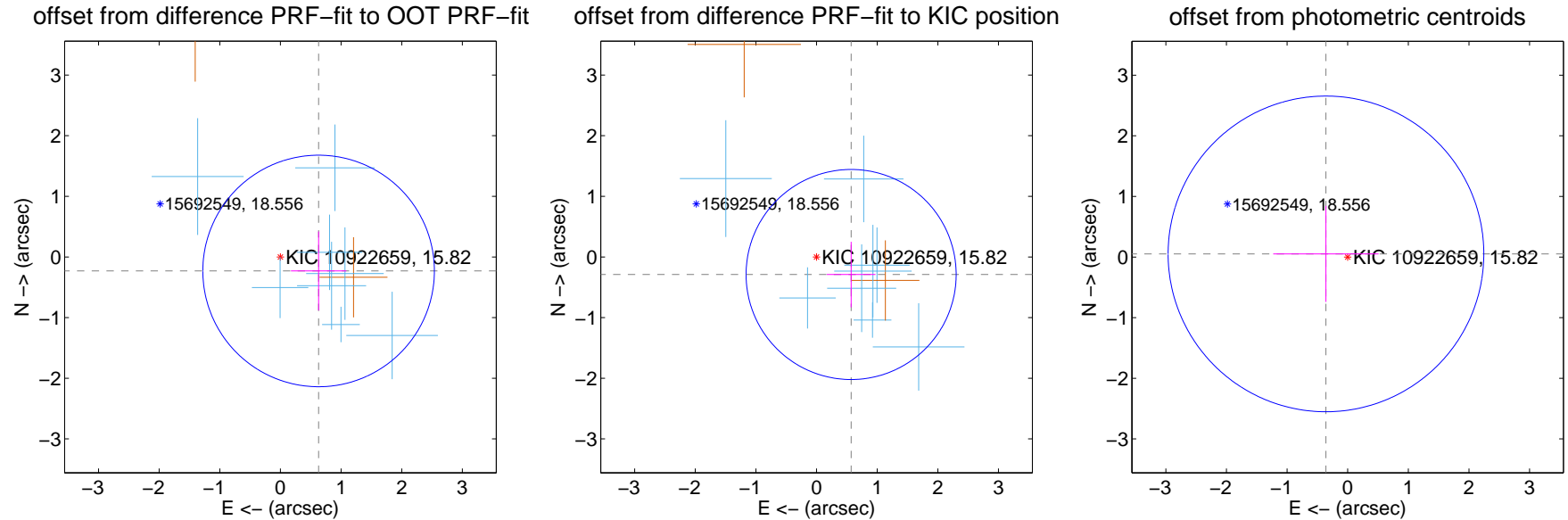
DV Centroid Data

Supplemental centroid analysis for 010922659-01. Kepler magnitude: 15.82. Transit SNR 13.57

There are 8 quarters with good PRF difference image offsets

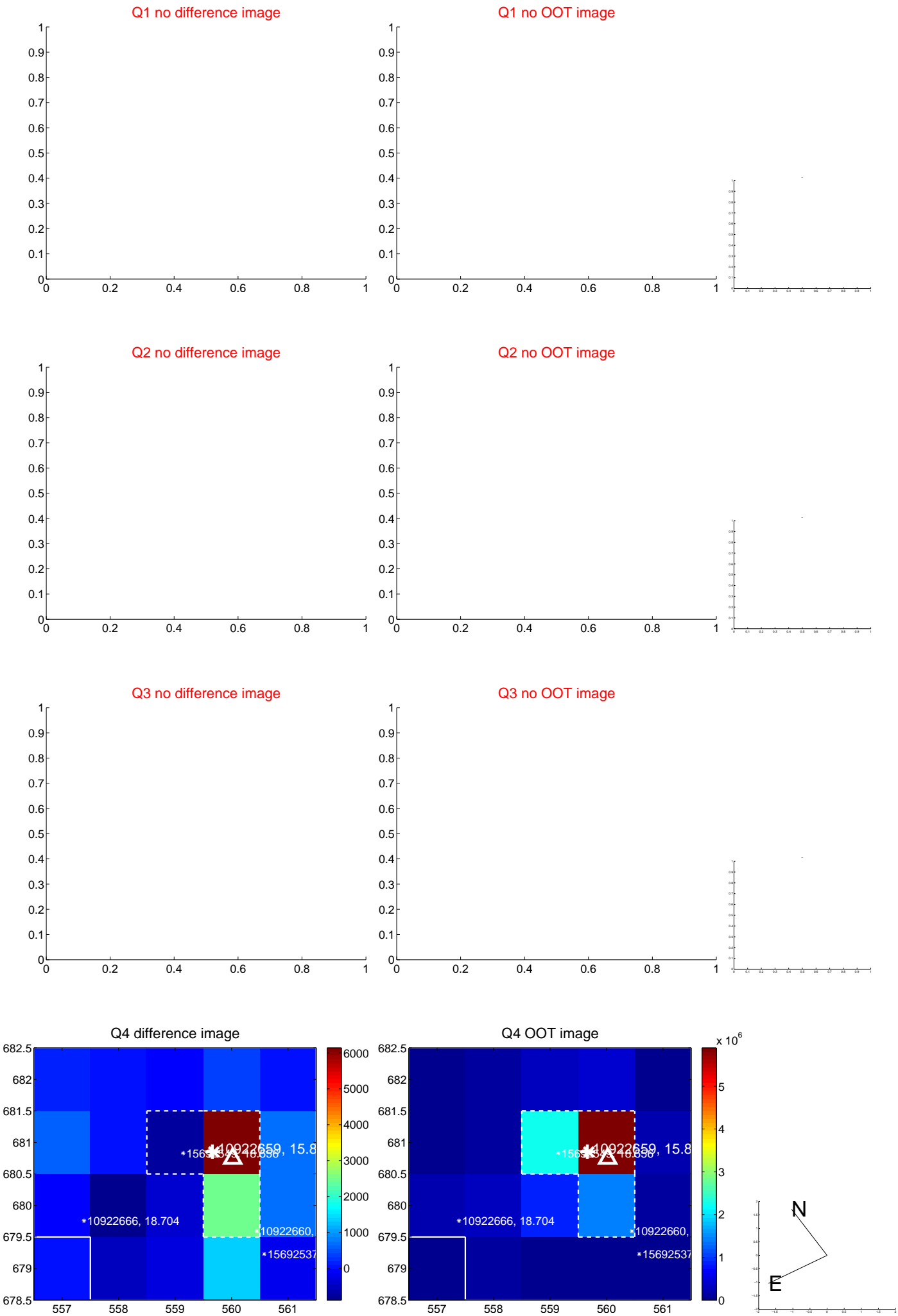
The direct PRF centroid is offset from the target star catalog position by about 0.14 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.670 ± 0.636	1.05	-0.629 ± 0.456	-0.231 ± 0.651
PRF-fit source offset from KIC position	0.639 ± 0.577	1.11	-0.570 ± 0.401	-0.289 ± 0.540
photometric centroid source offset	0.36 ± 0.87	0.42	0.36 ± 0.87	0.05 ± 0.79

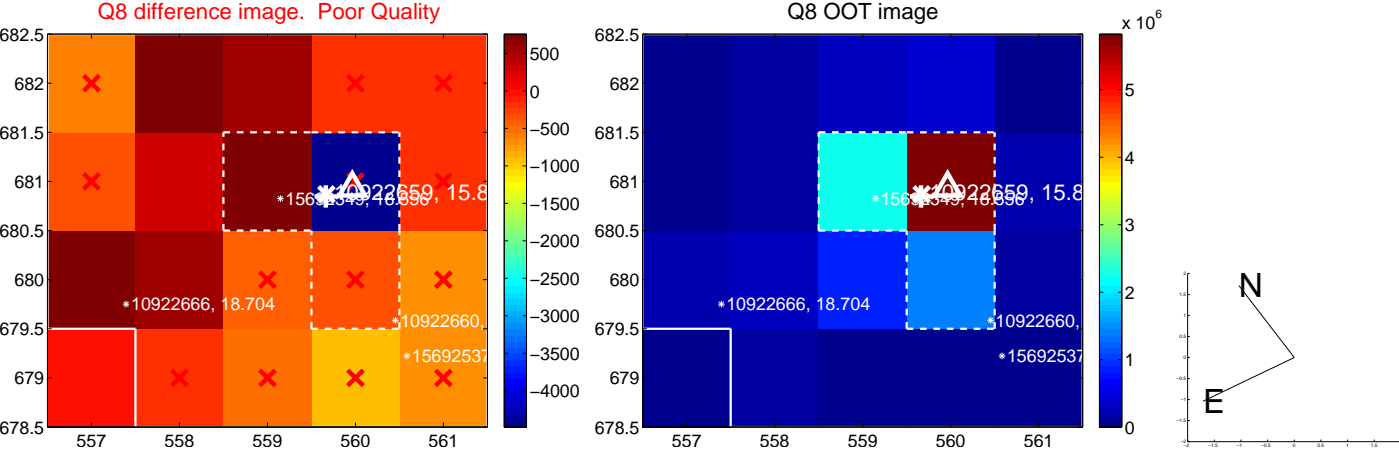
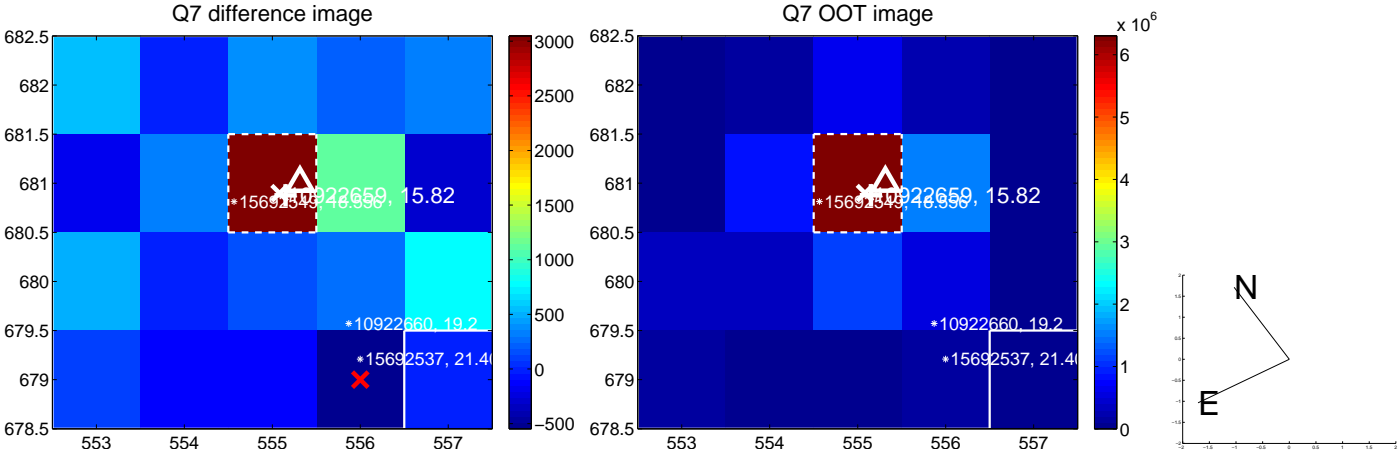
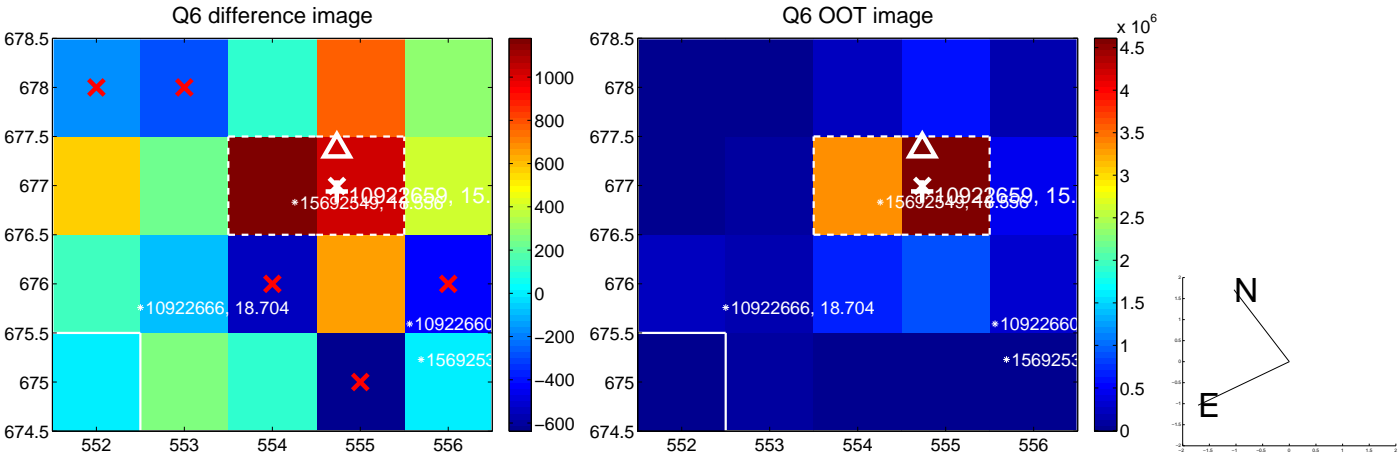
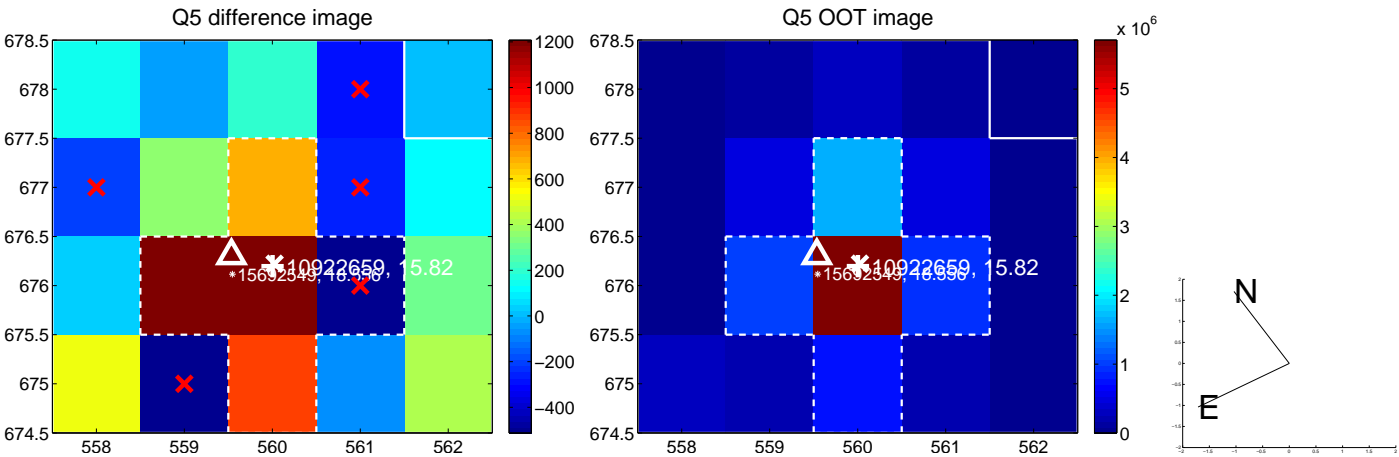


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

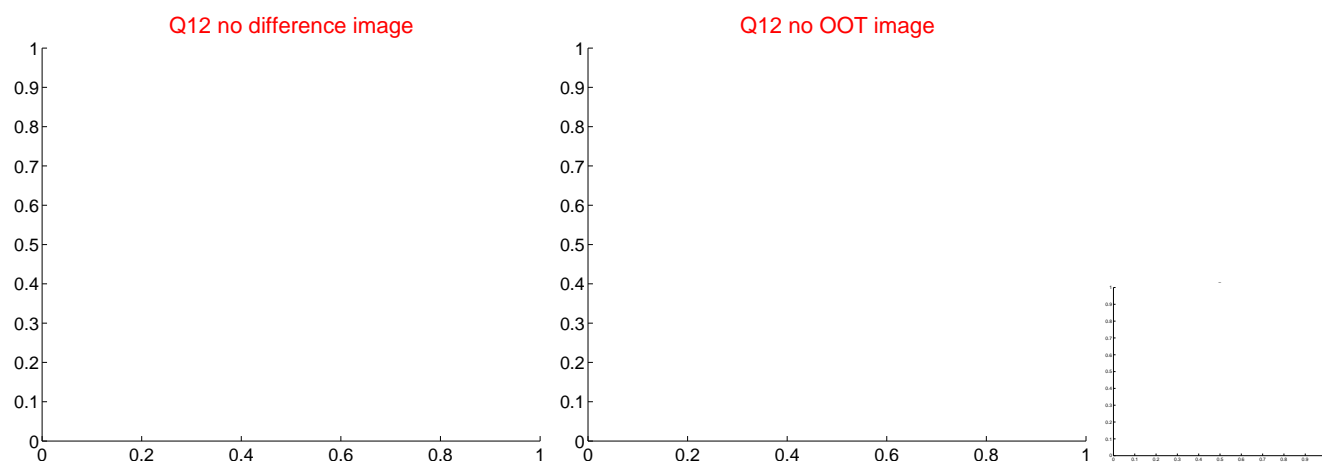
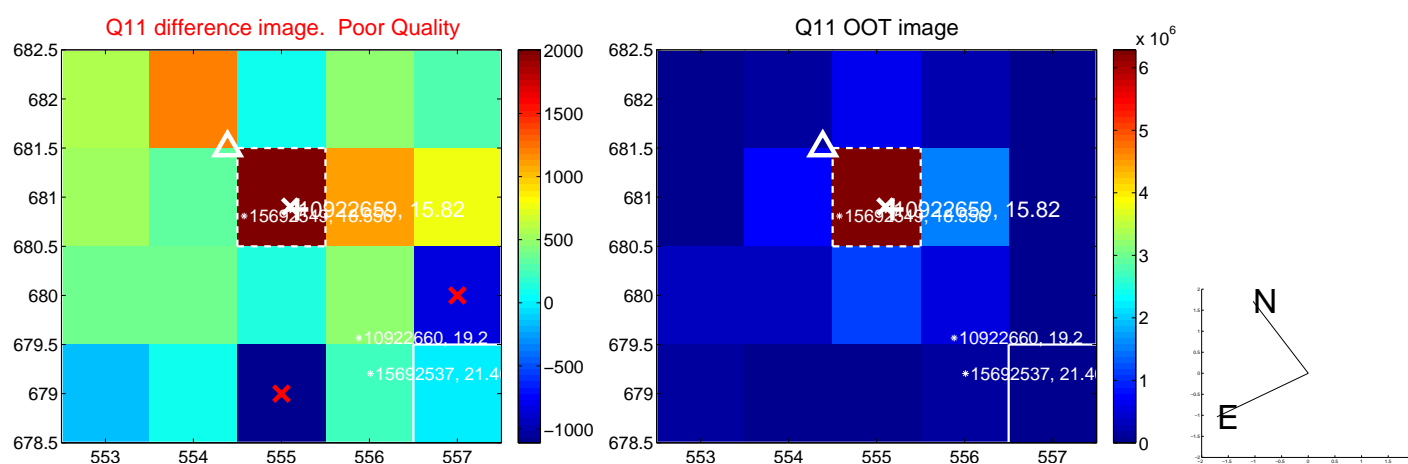
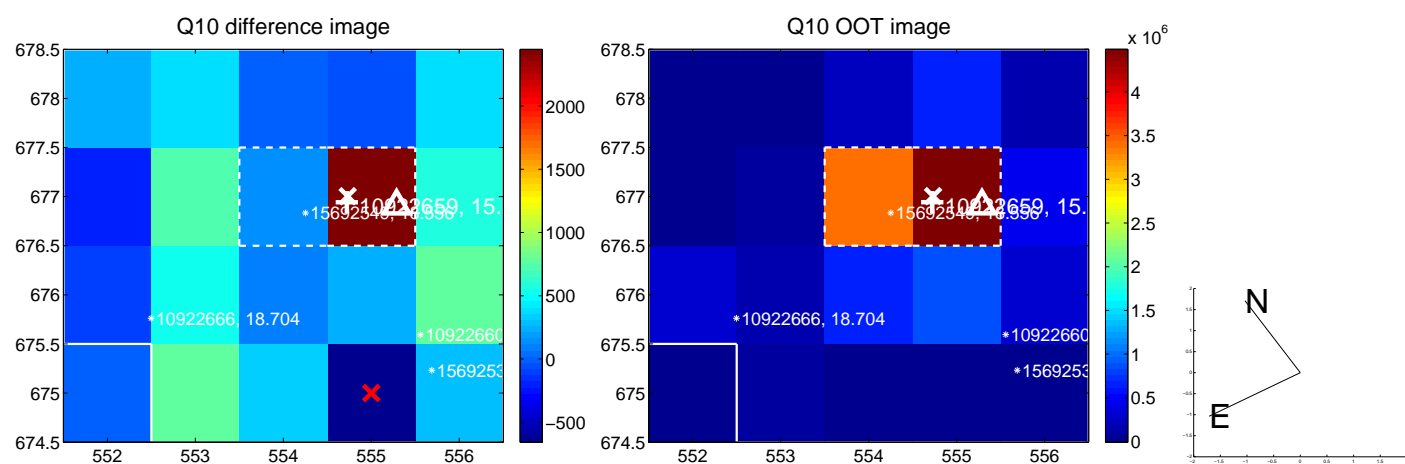
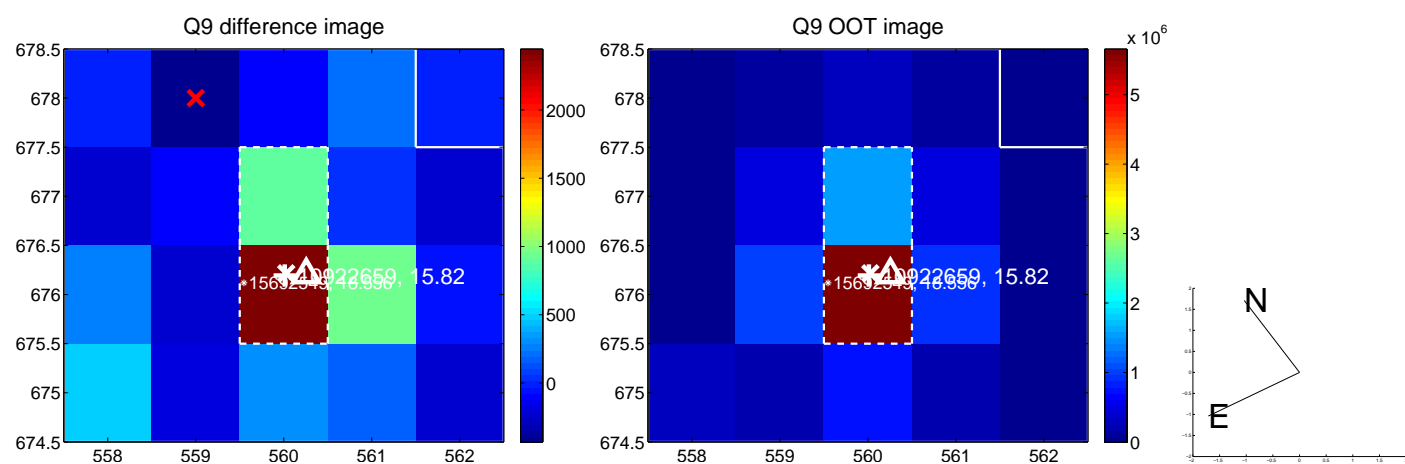
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



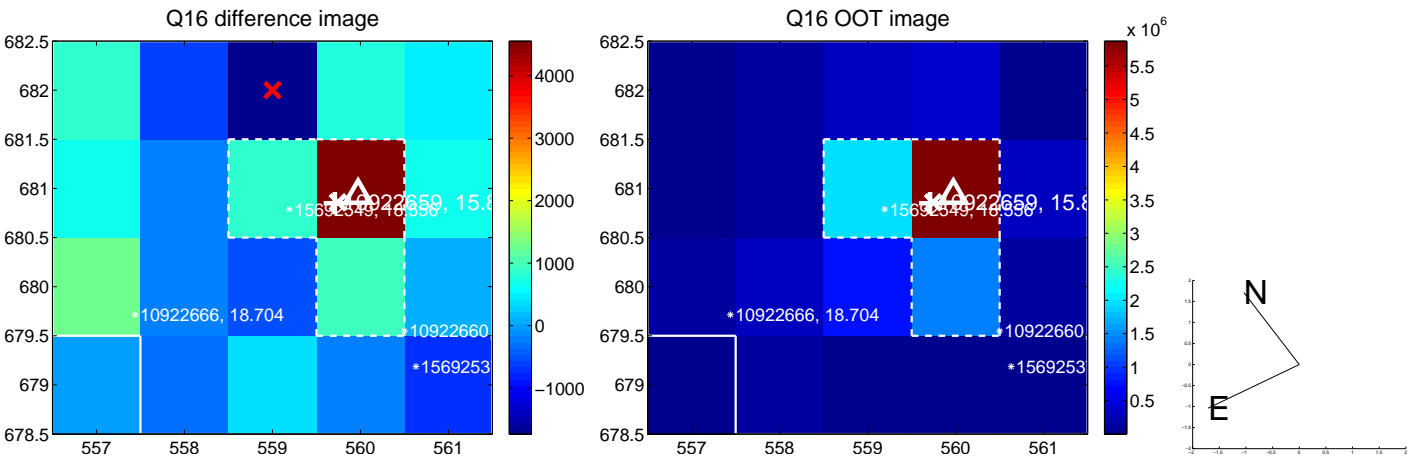
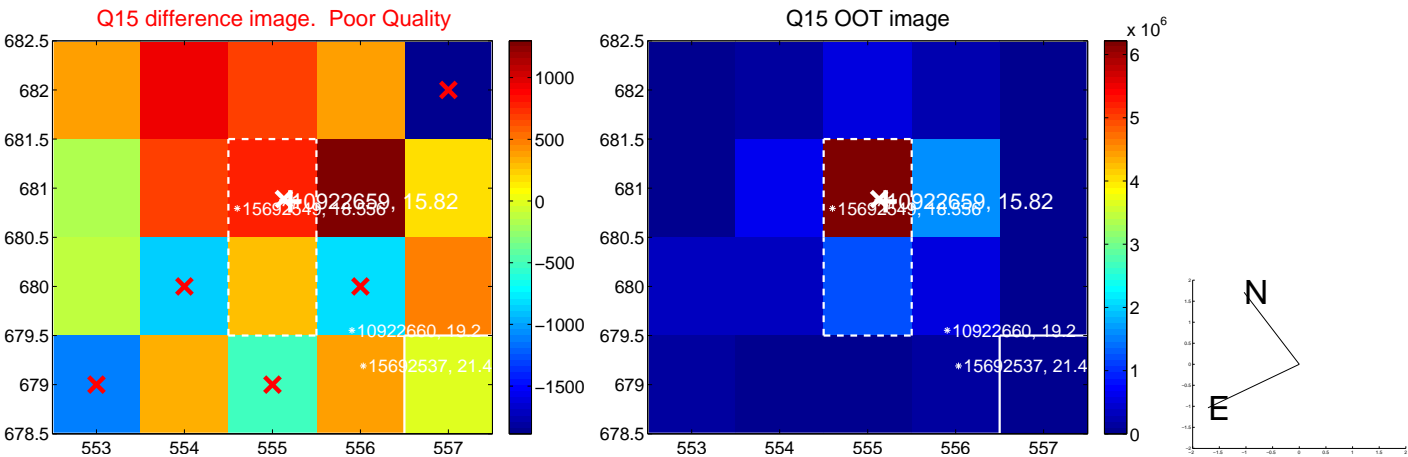
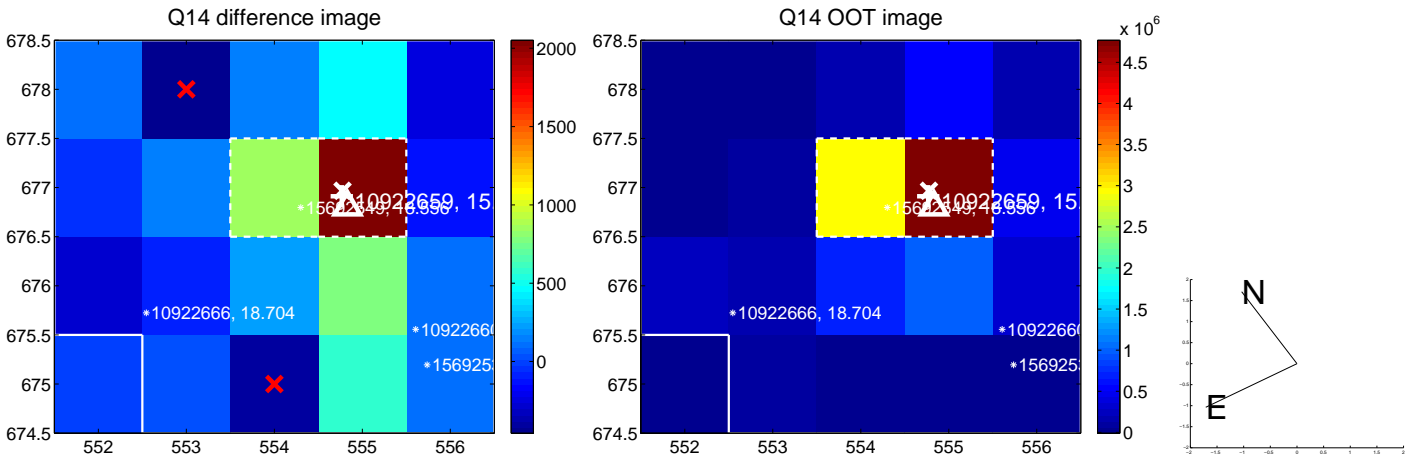
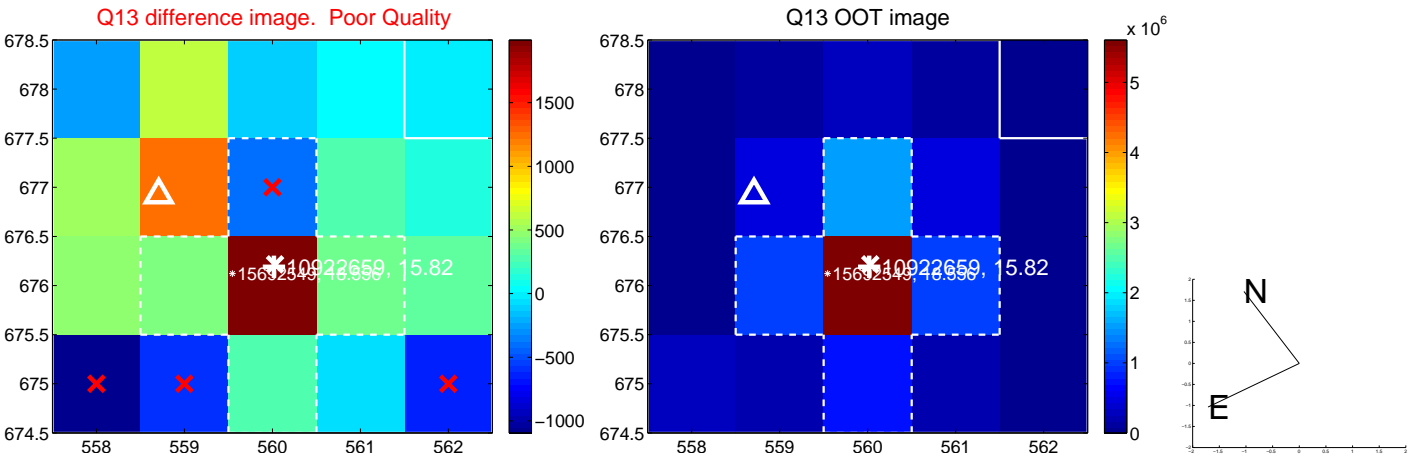
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



UKIRT Image

Declination

