

KIC 011465950

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})
011465950-01	OBS	2620.01	16.057337	132.389650	563.2	3.372	15.4	16.5	0.81	5644	2.20	41.11

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011465950-01	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 011465950-01

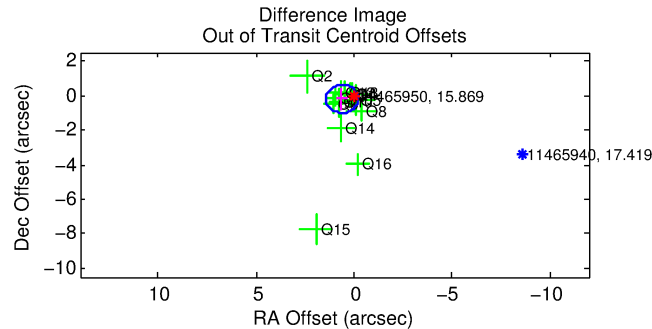
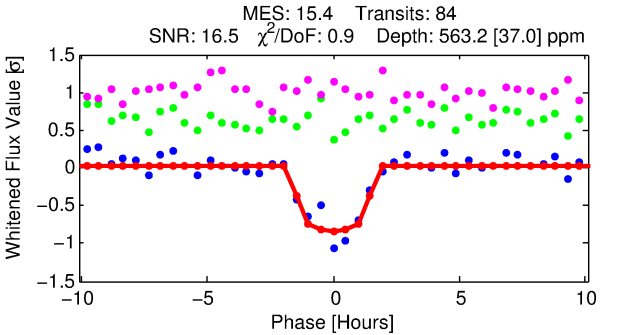
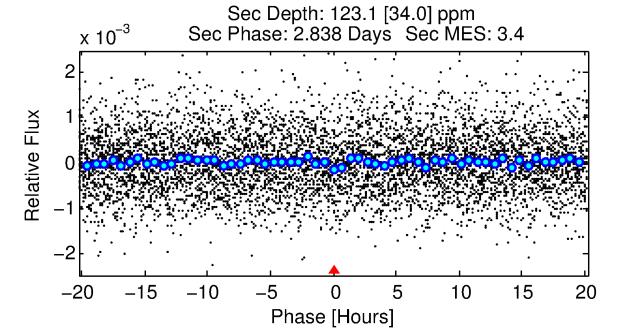
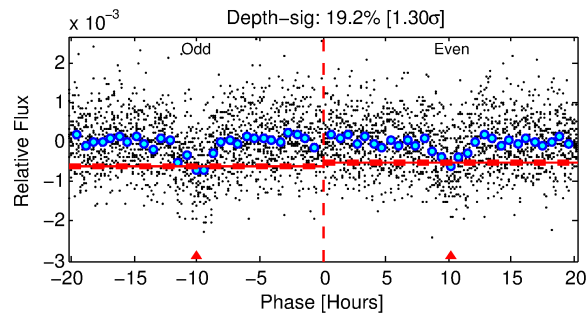
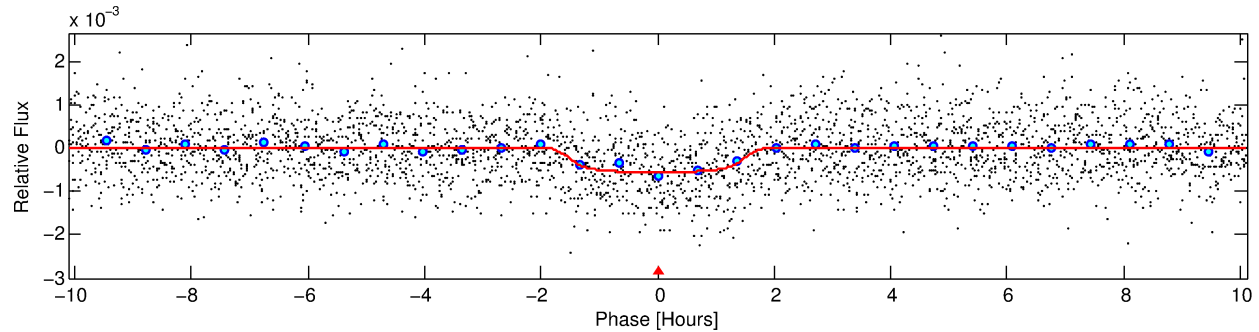
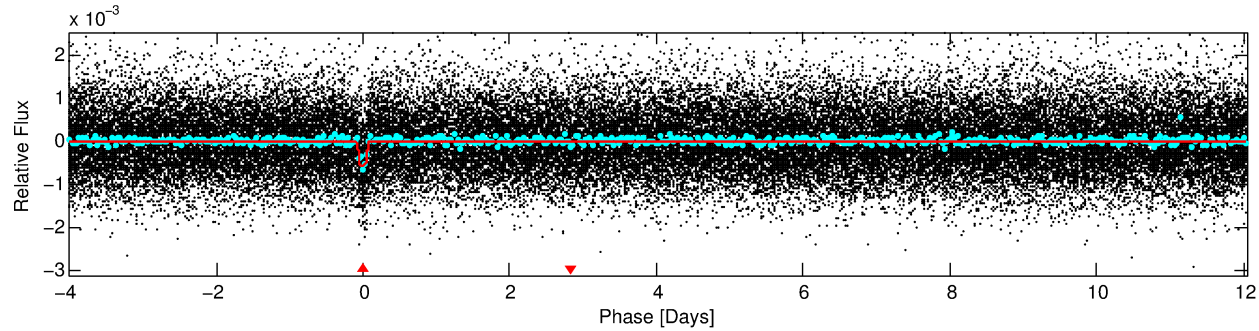
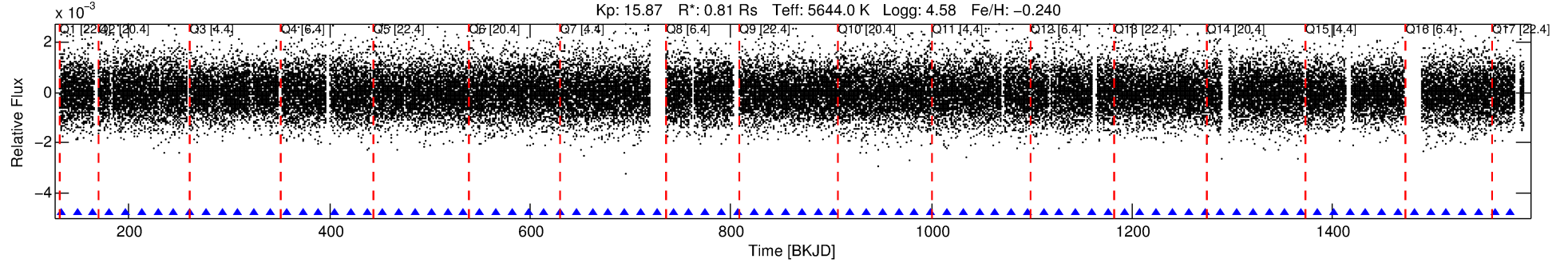
No Significant Match Found

DV One-Page Summary

KIC: 11465950 Candidate: 1 of 1 Period: 16.057 d

KOI: K02620.01 Corr: 0.859

Kp: 15.87 R*: 0.81 Rs Teff: 5644.0 K Logg: 4.58 Fe/H: -0.240



DV Fit Results:

Period = 16.05734 [0.00010] d
Epoch = 132.3896 [0.0048] BKJD
Rp/R* = 0.0250 [0.0078]
a/R* = 20.27 [28.14]
b = 0.86 [0.43]
Seff = 41.11 [11.85]
Teff = 646 [47] K
Rp = 2.20 [0.85] Re
a = 0.1199 [0.0224] AU
Ag = 200.44 [146.31] [1.36σ]
Teffp = 3756 [646] K [4.80σ]

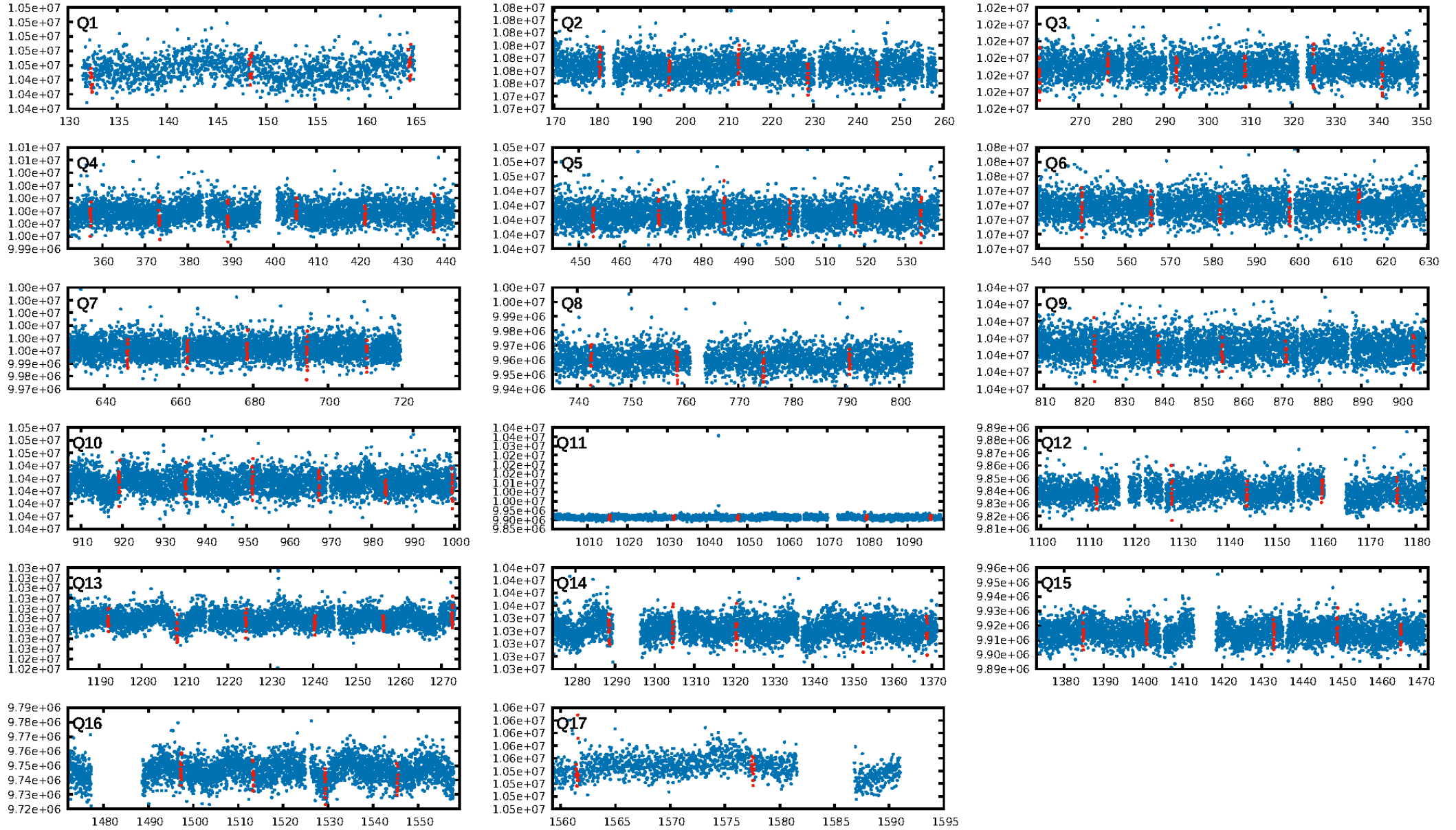
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 90.5%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 9.64e-52
RollingBand-fgt: 1.00 [79/79]
GhostDiagnostic-chr: 7.801
Centroid-sig: 59.0%
Centroid-so: 0.489 arcsec [0.53σ]
OotOffset-rm: 0.652 arcsec [2.37σ]
KicOffset-rm: 0.545 arcsec [1.55σ]
OotOffset-st: 3/2/4/4 [13]
KicOffset-st: 3/2/4/4 [13]
DiffImageQuality-fgm: 0.69 [9/13]
DiffImageOverlap-fno: 1.00 [17/17]

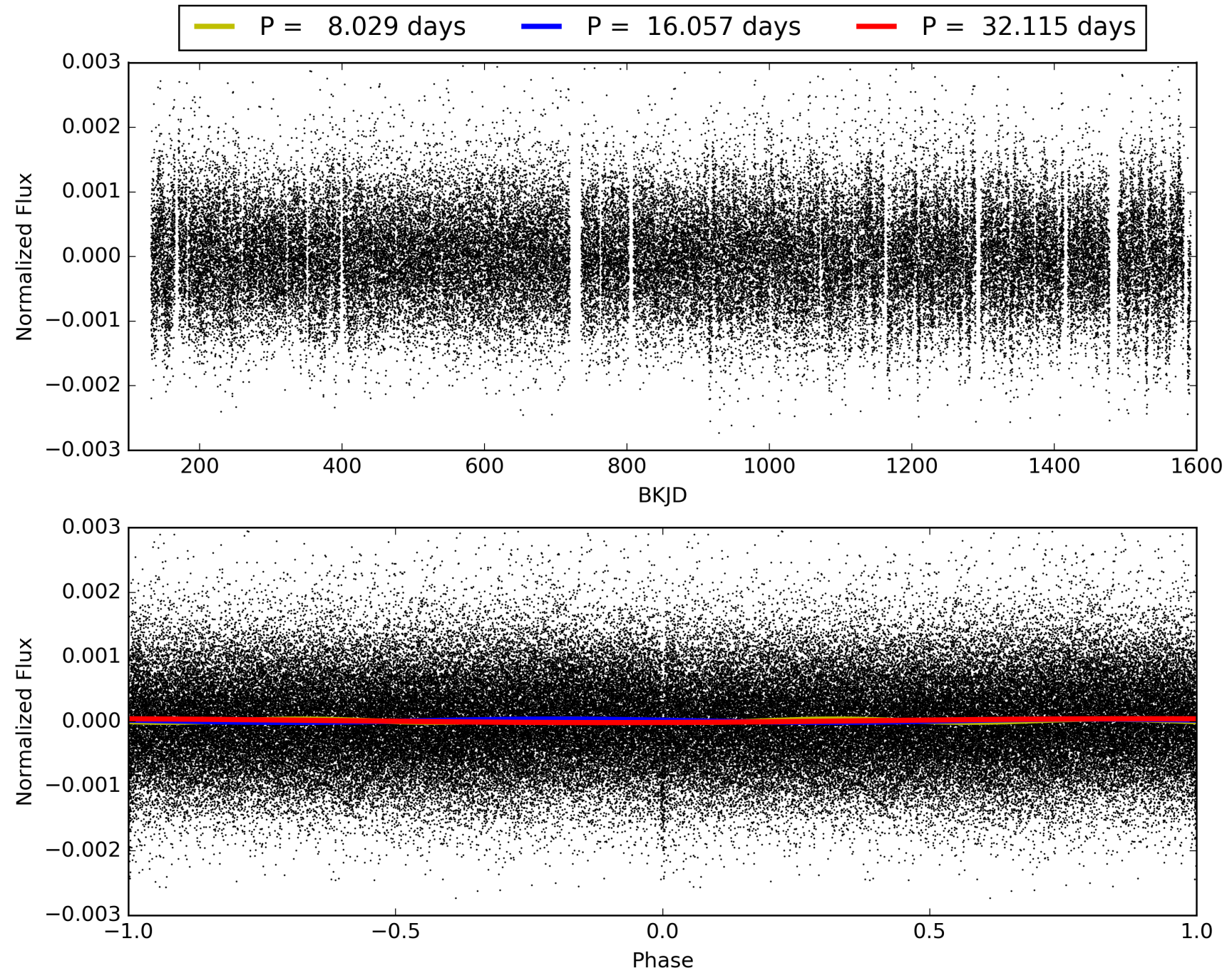
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 21:18:47 Z

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

TCE 011465950-01, PDC Light Curves

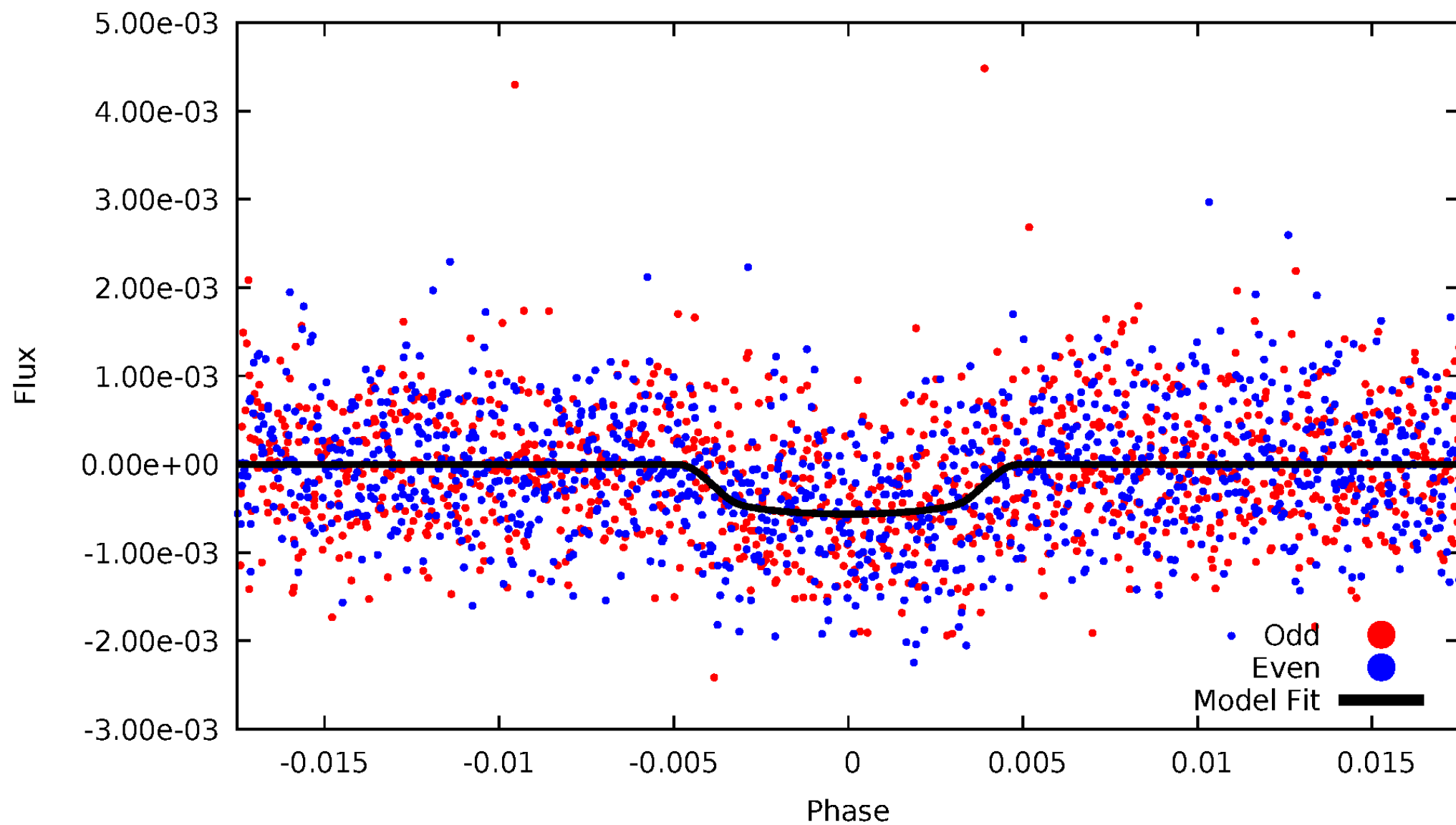


TCE 011465950-01



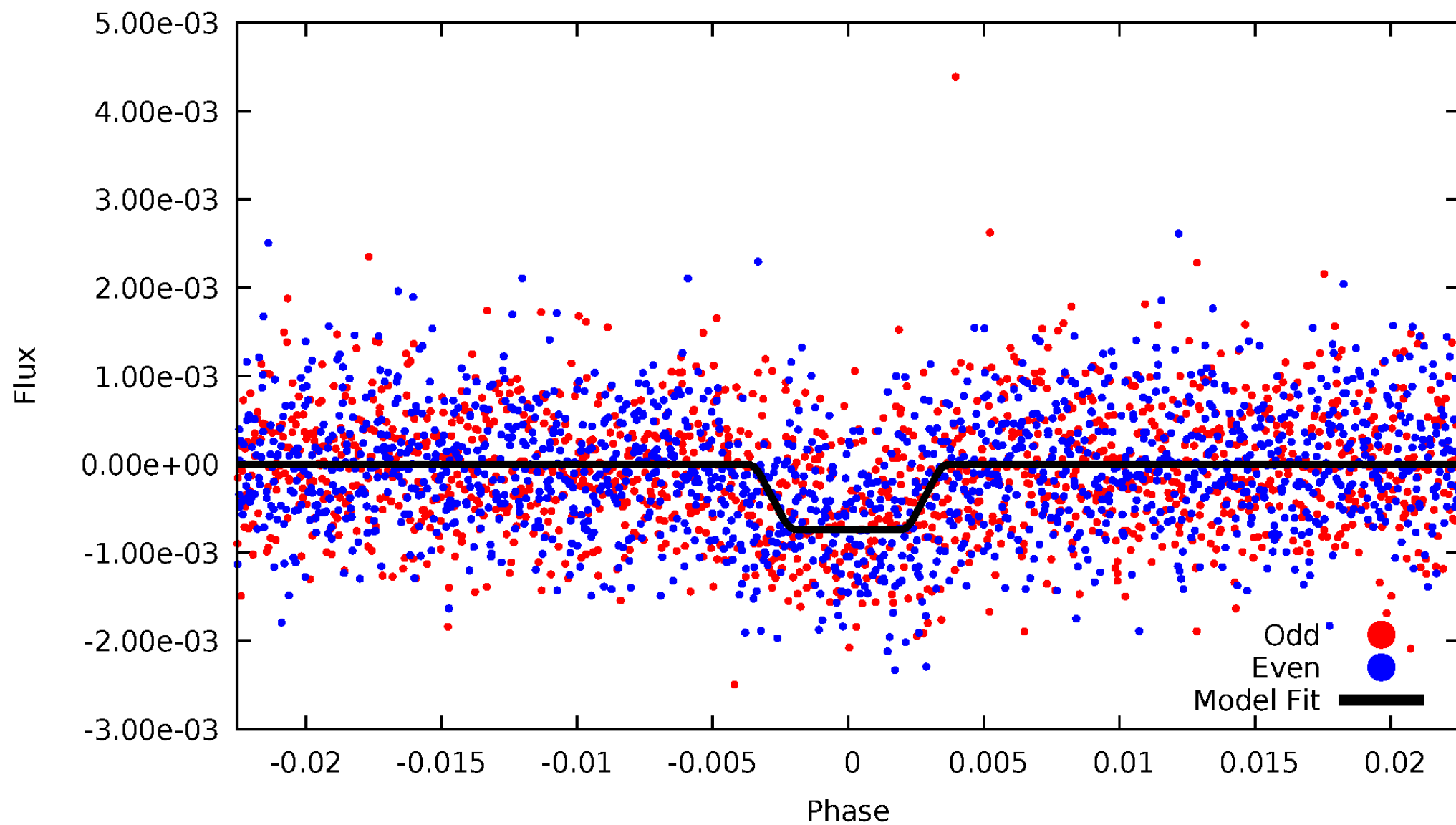
DV Odd/Even

TCE 011465950-01



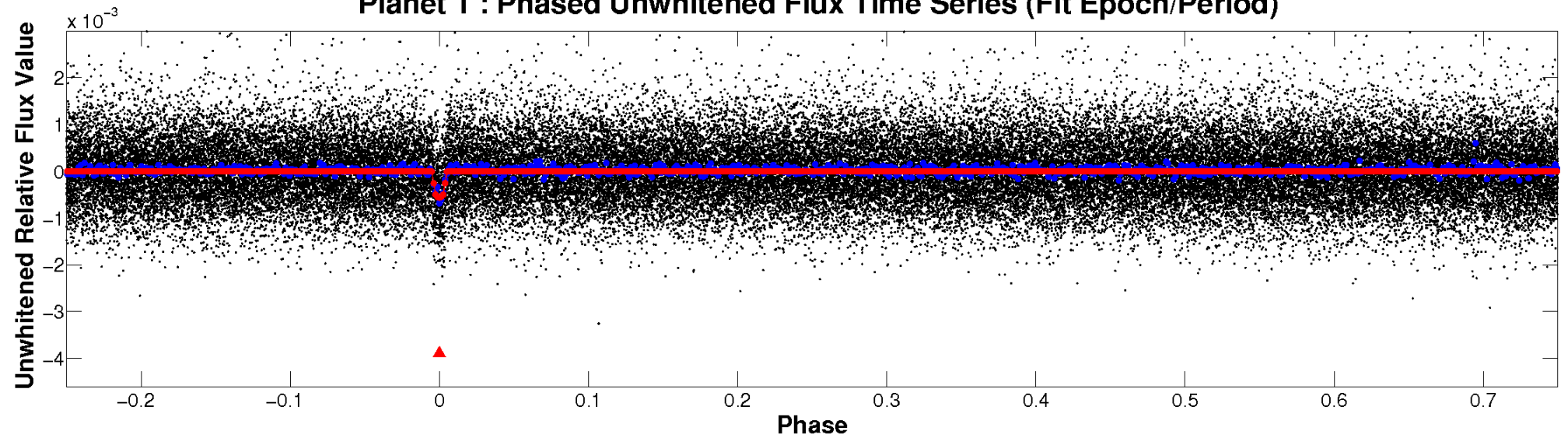
ALT Odd/Even

TCE 011465950-01

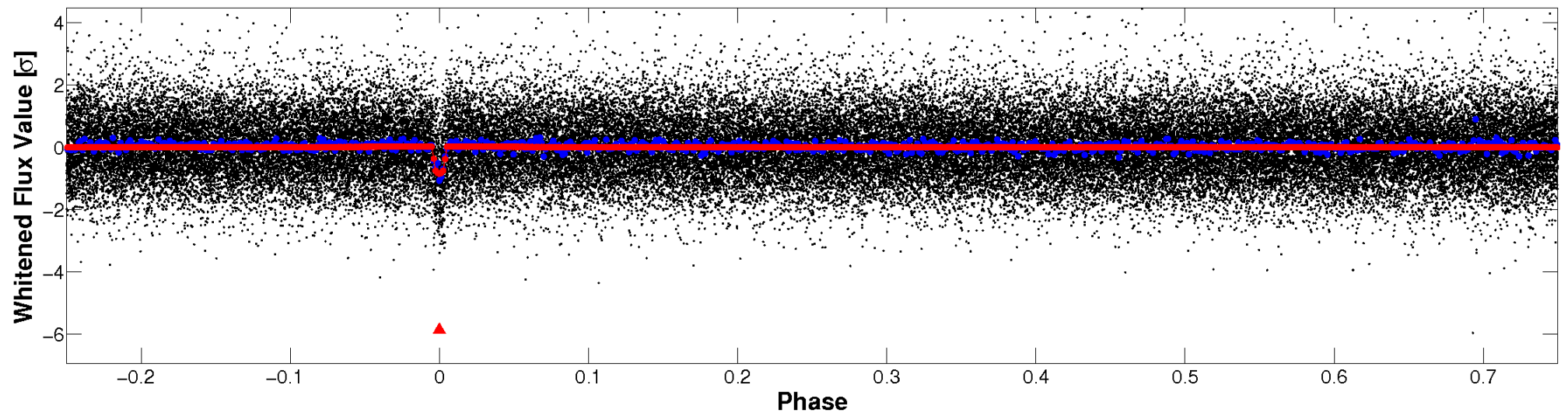


Non-Whitened Vs. Whitened Light Curve

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

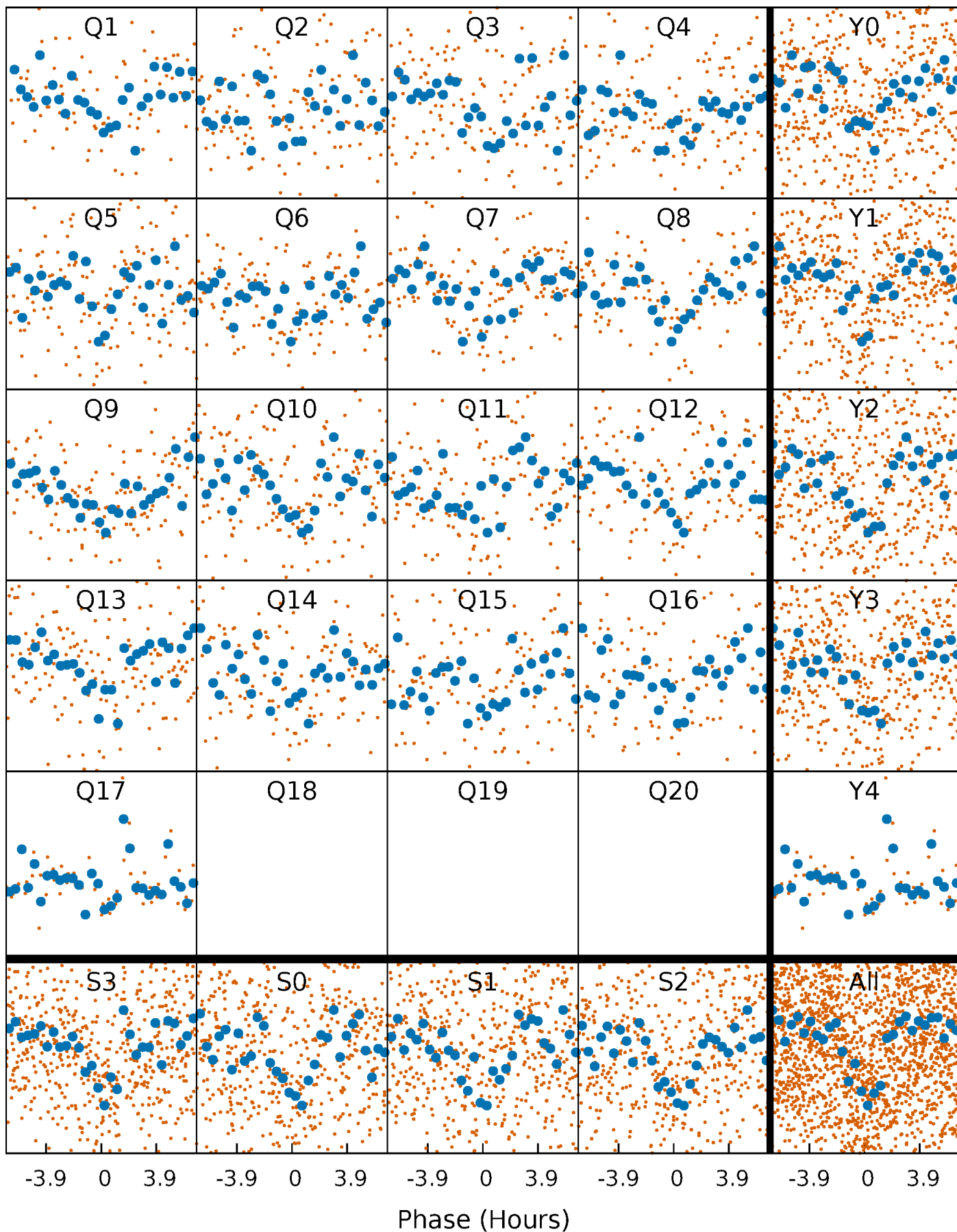


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



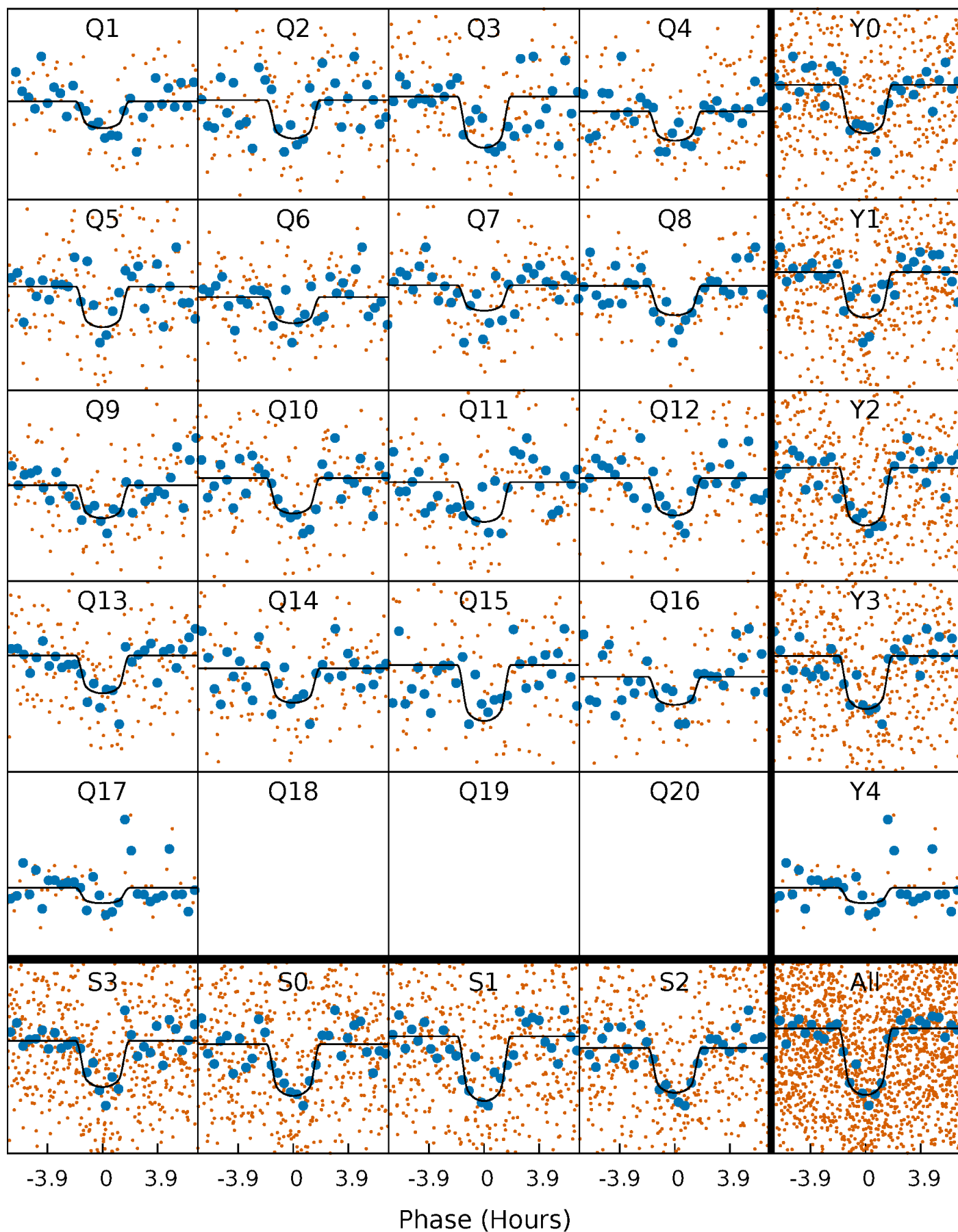
PDC Quarter-Phased Transit Curves

TCE 011465950-01 P= 16.057337 Days $T_0=132.389650$ (BKJD)



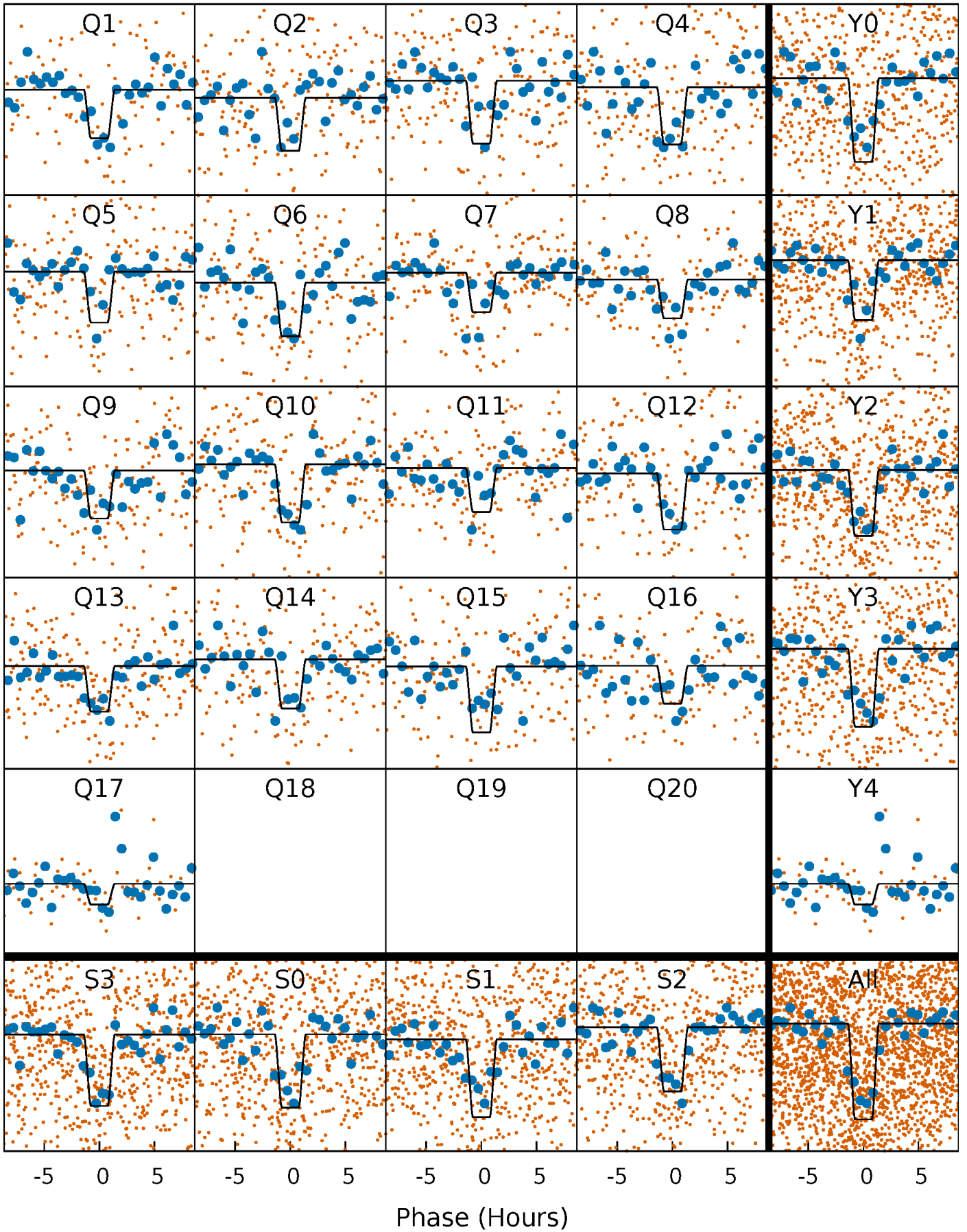
DV Quarter-Phased Transit Curves

TCE 011465950-01 P= 16.057337 Days $T_0=132.389650$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

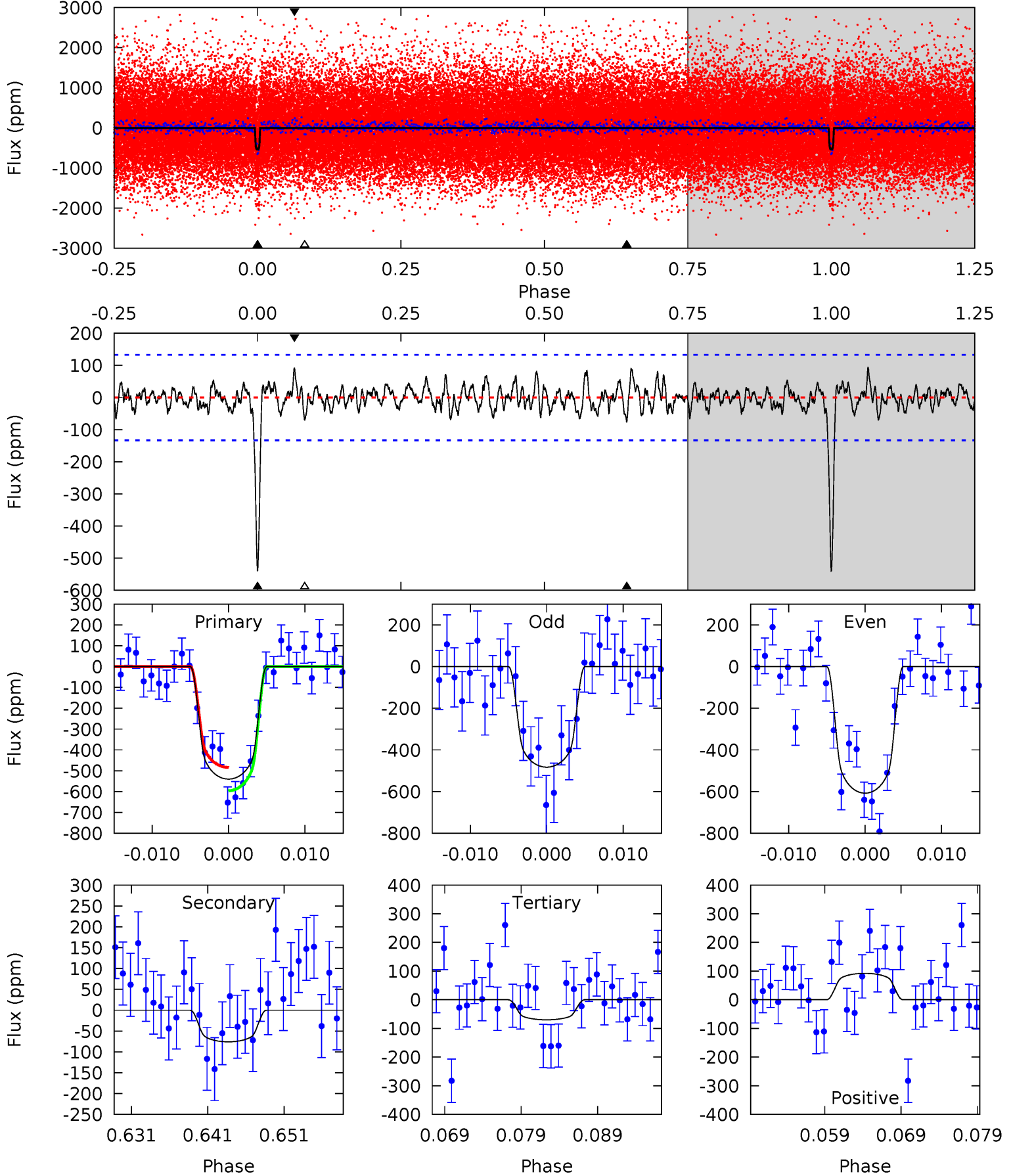
TCE 011465950-01 P= 16.057216 Days $T_0=132.399658$ (BKJD)



DV Model-Shift Uniqueness Test

011465950-01, $P = 16.057337$ Days, $E = 116.332313$ Days

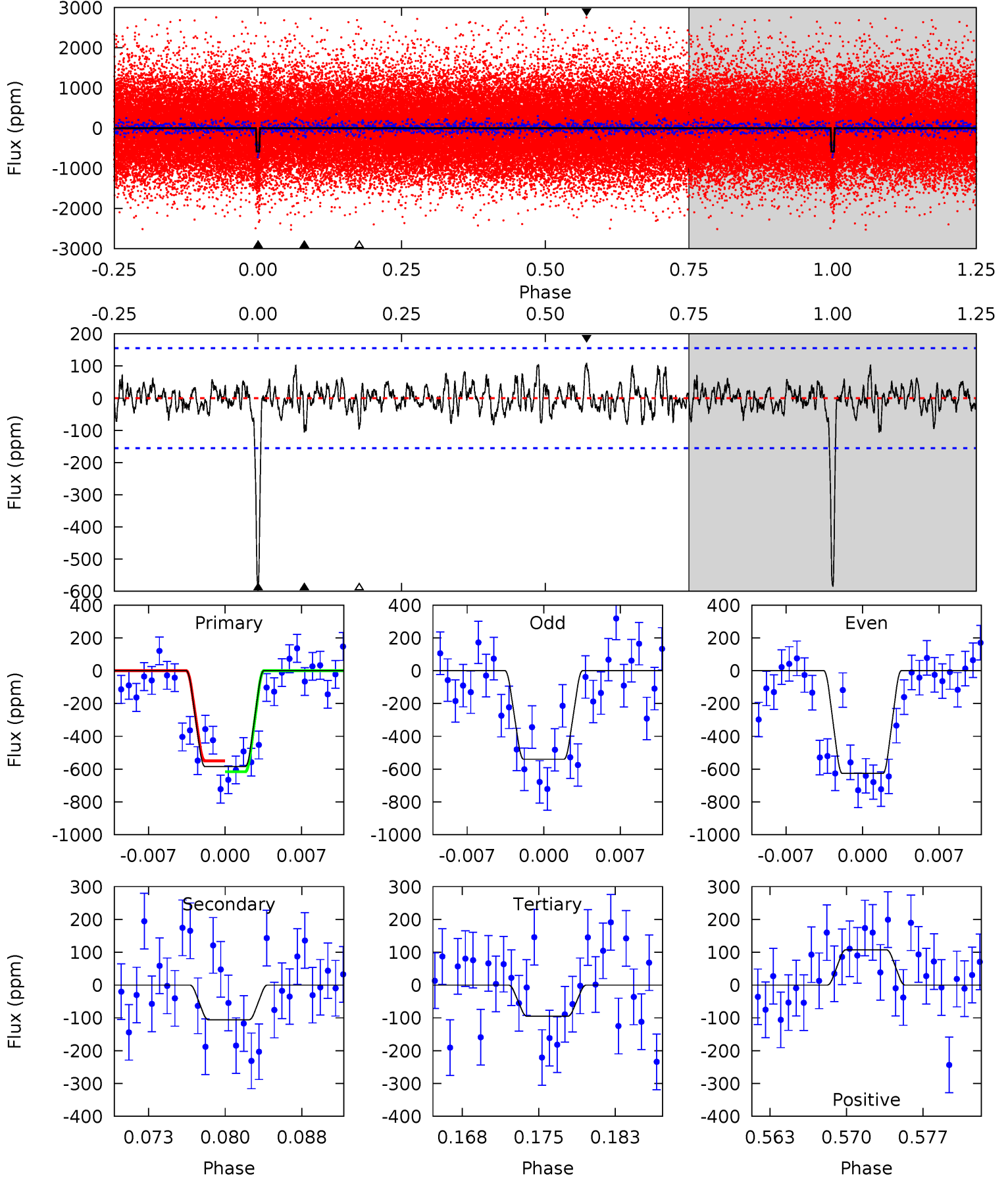
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
20.4	2.87	2.64	3.49	5.03	2.58	1.09	17.8	16.9	0.23	-0.62	2.36	0.91	0.15	2.12



Alt Model-Shift Uniqueness Test

011465950-01, $P = 16.057216$ Days, $E = 116.342442$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
19.1	3.47	3.12	3.52	5.09	2.68	1.11	16.0	15.6	0.35	-0.05	1.43	0.98	0.16	1.09



Stellar Parameters For KIC 011465950

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5644^{+152}_{-152}	$4.575^{+0.036}_{-0.144}$	$-0.240^{+0.300}_{-0.300}$	$0.806^{+0.182}_{-0.061}$	$0.900^{+0.088}_{-0.107}$	$2.422^{+0.458}_{-0.982}$
	+3%/-3%	+1%/-3%	+125%/-125%	+23%/-8%	+10%/-12%	+19%/-41%
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 011465950-01 / KOI 2620.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-76 ± 26	$2.27^{+0.77}_{-0.71}$	918^{+49}_{-35}	3726^{+594}_{-413}	114^{+144}_{-60}
Alt.	-106 ± 31	$2.47^{+0.82}_{-0.73}$	918^{+50}_{-35}	3830^{+560}_{-369}	133^{+148}_{-62}

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 $A_{obs} \gg 1.0$

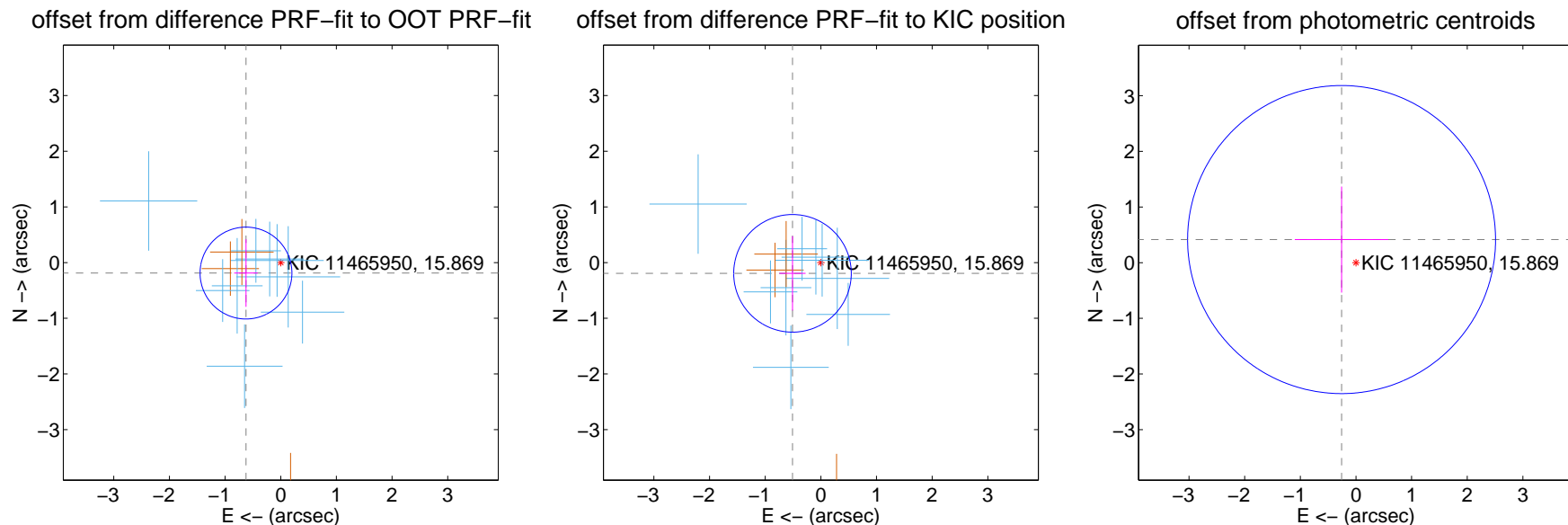
DV Centroid Data

Supplemental centroid analysis for 011465950-01. Kepler magnitude: 15.87. Transit SNR 16.46

There are 9 quarters with good PRF difference image offsets

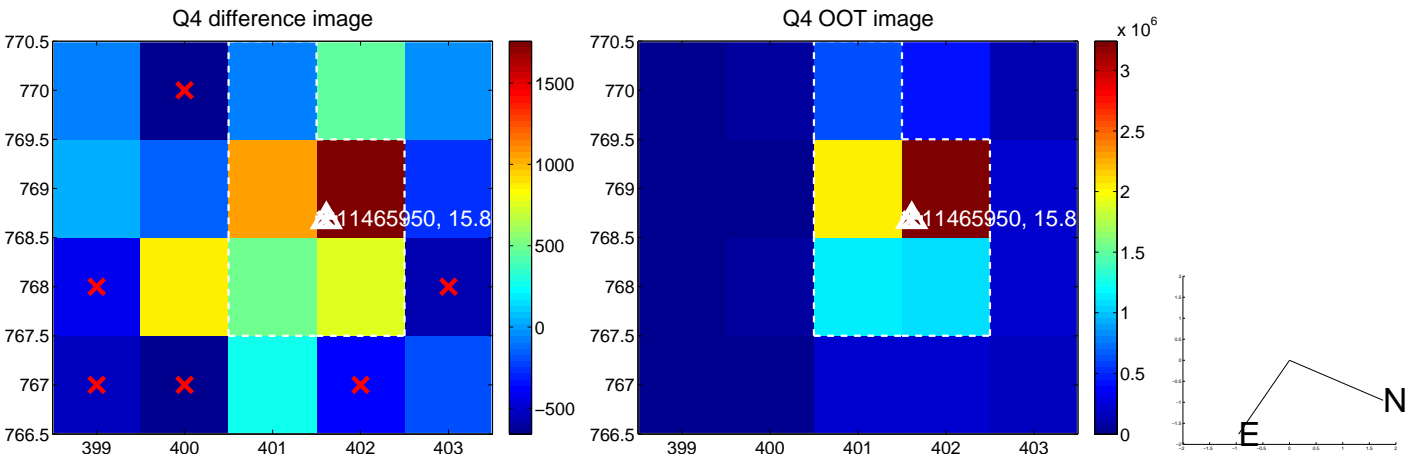
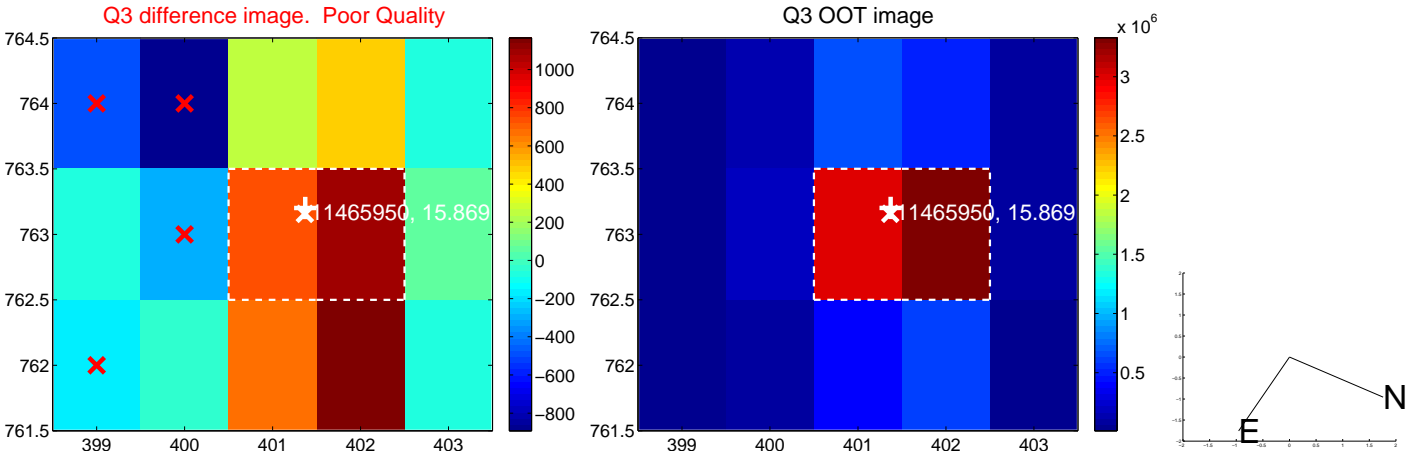
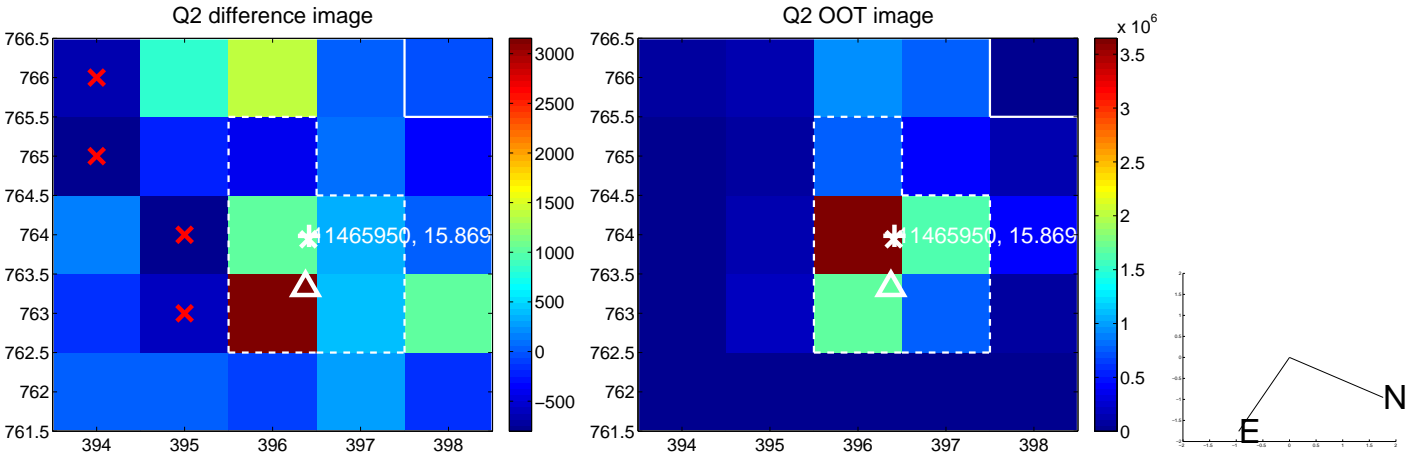
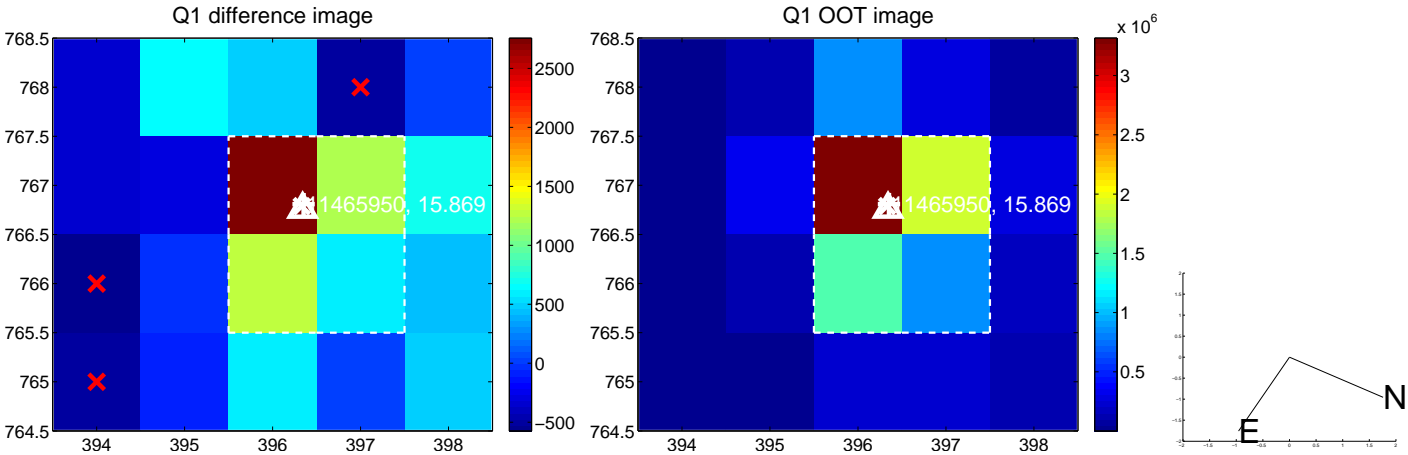
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.652 ± 0.275	2.37	0.625 ± 0.212	-0.188 ± 0.607
PRF-fit source offset from KIC position	0.545 ± 0.352	1.55	0.510 ± 0.235	-0.193 ± 0.667
photometric centroid source offset	0.49 ± 0.92	0.53	0.26 ± 0.84	0.41 ± 0.95

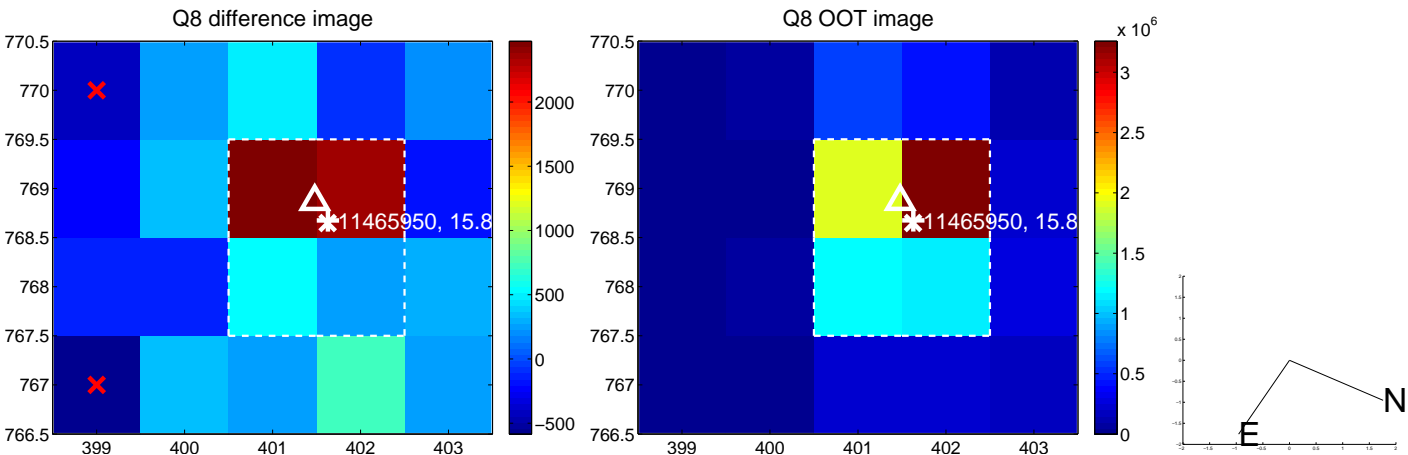
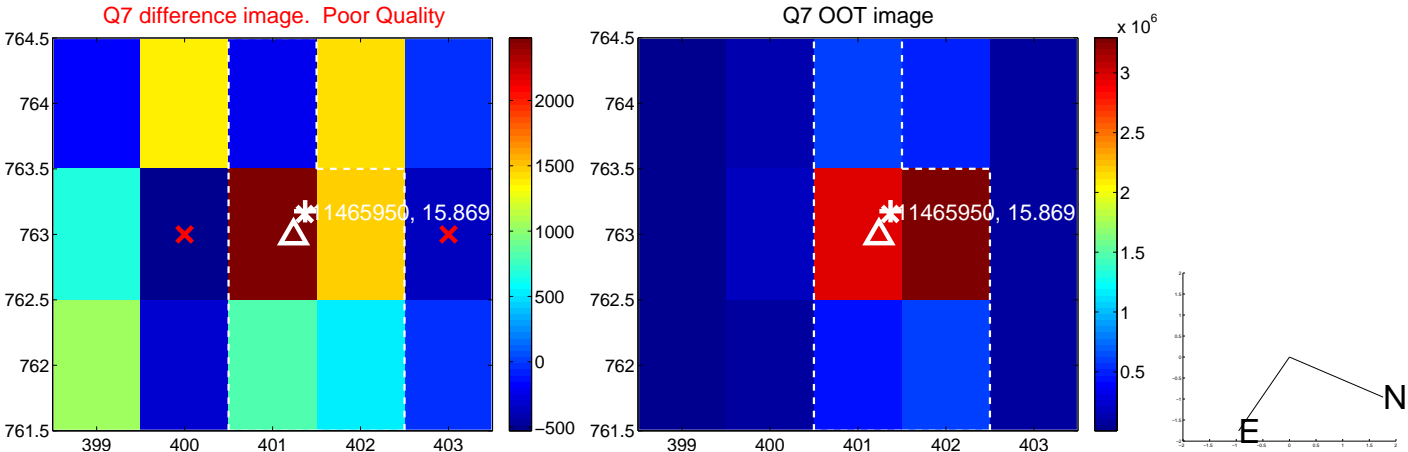
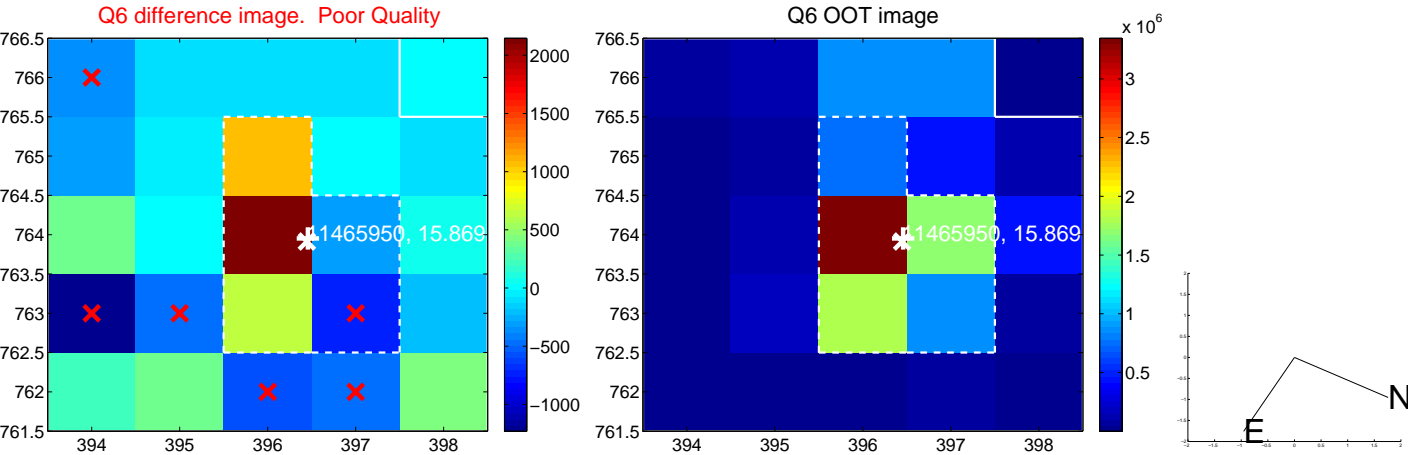
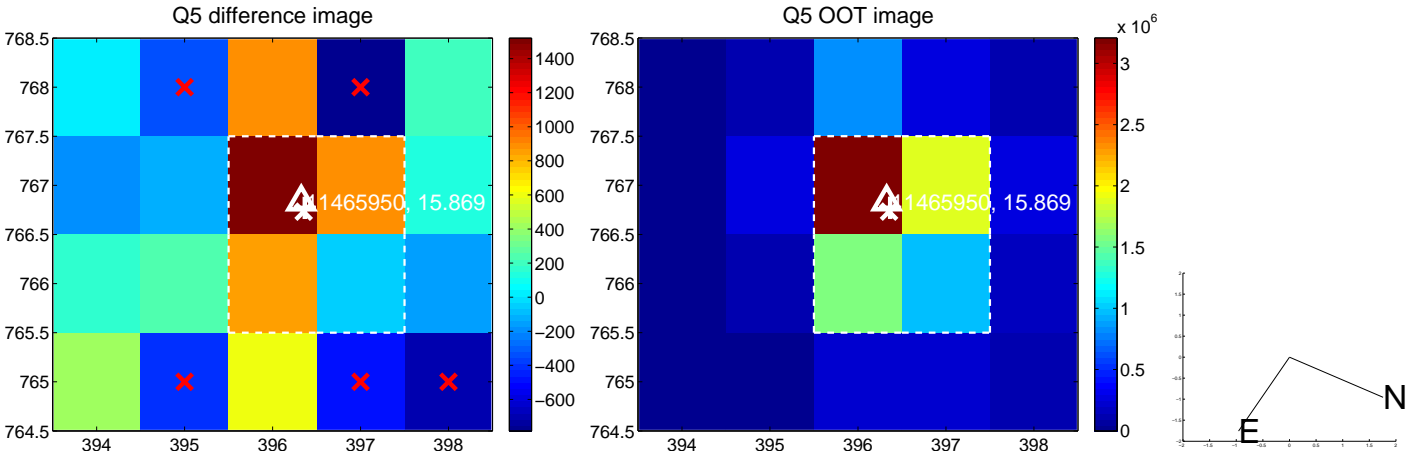


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

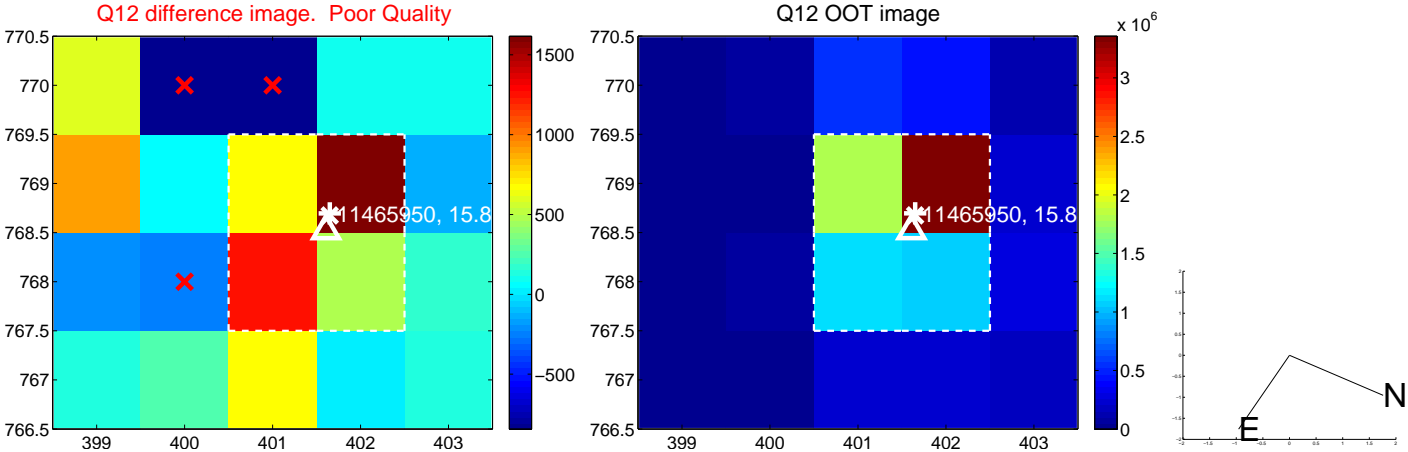
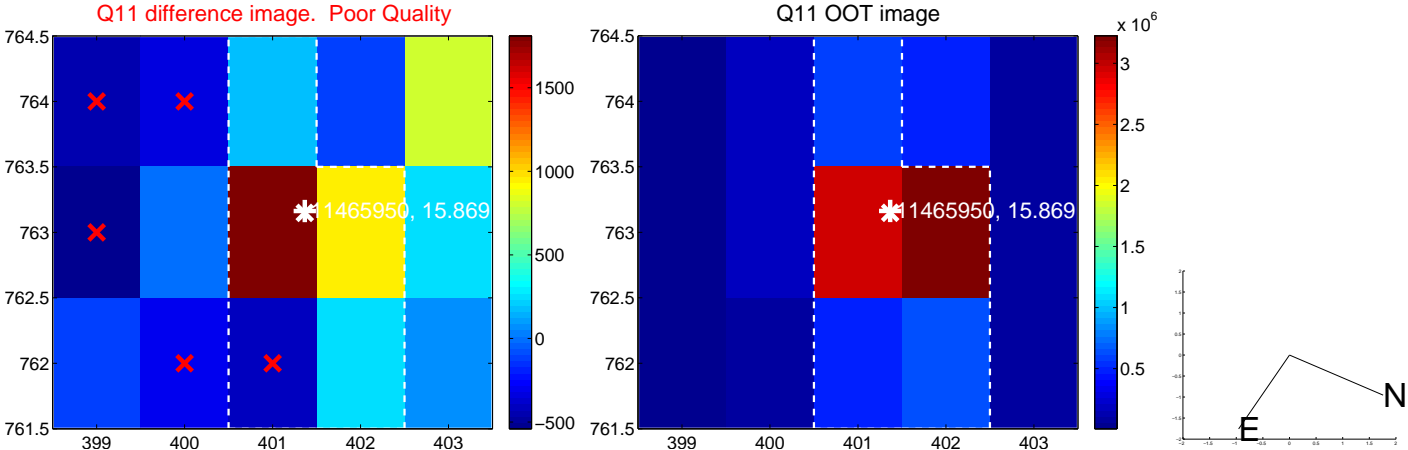
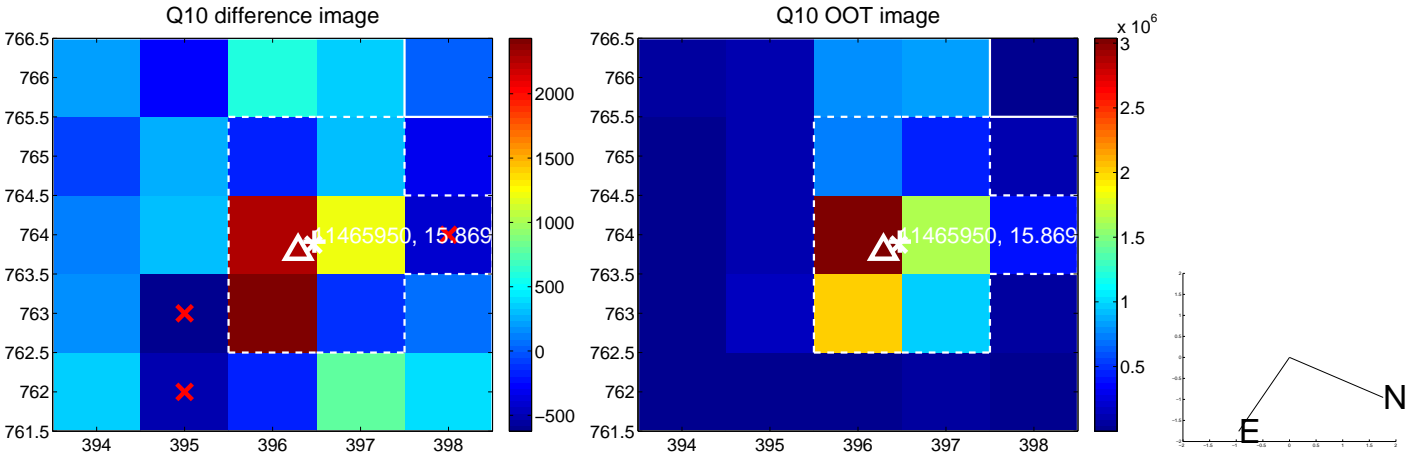
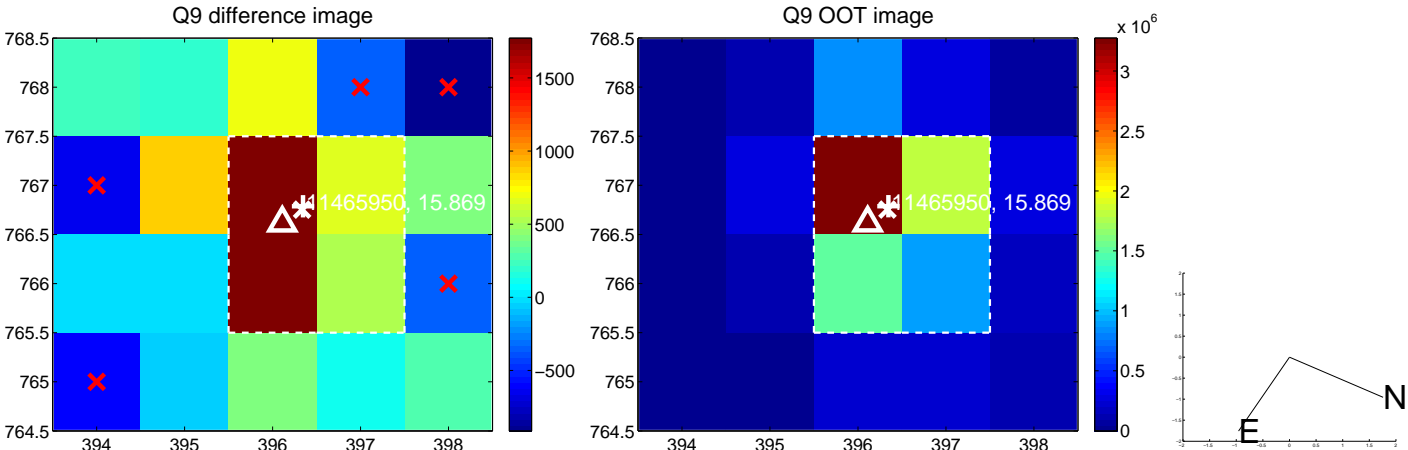
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



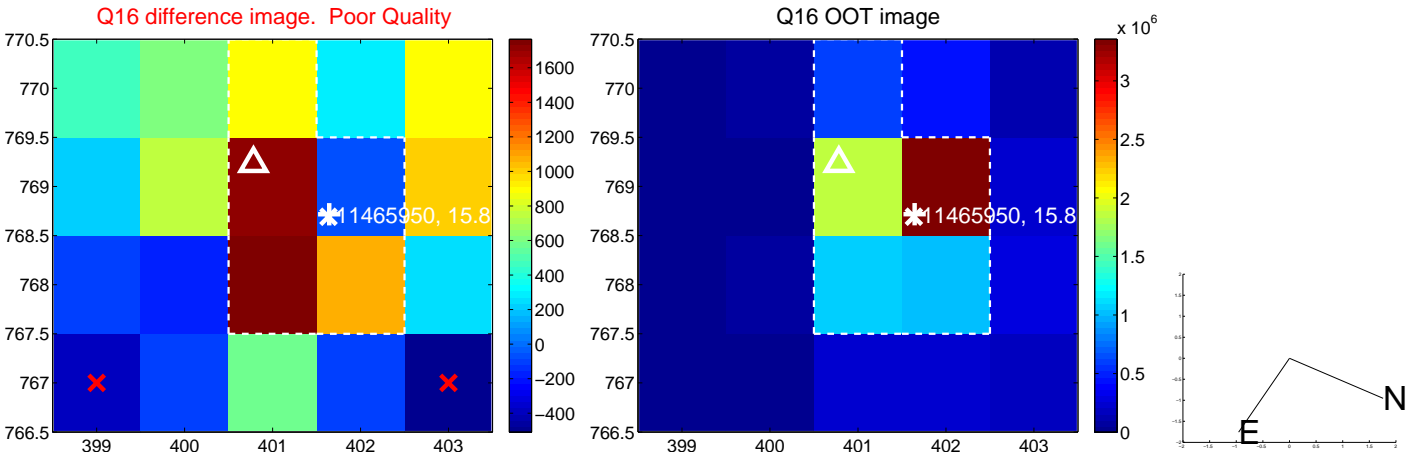
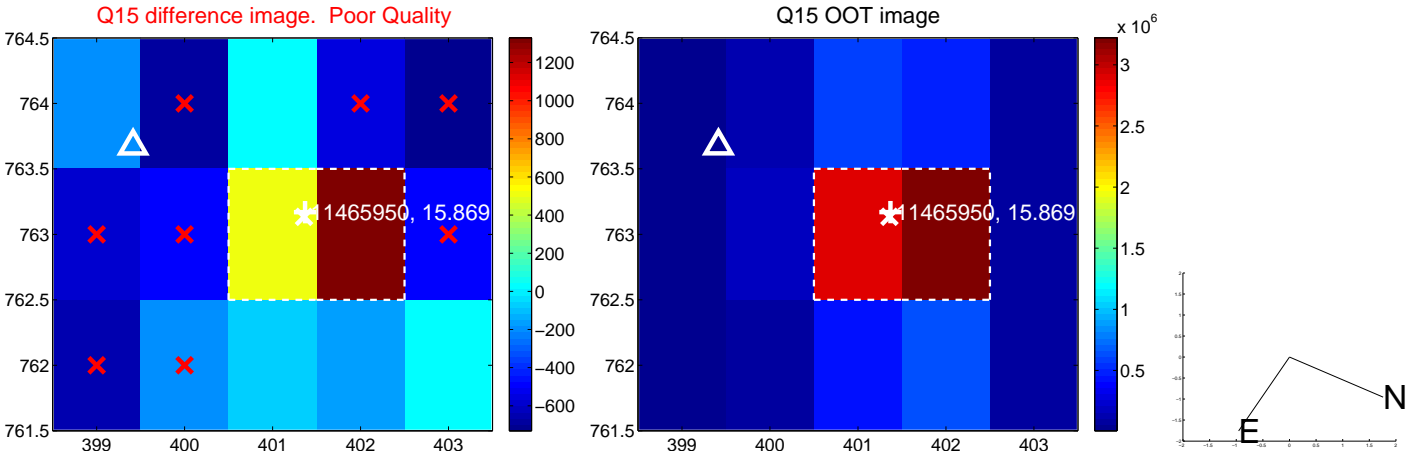
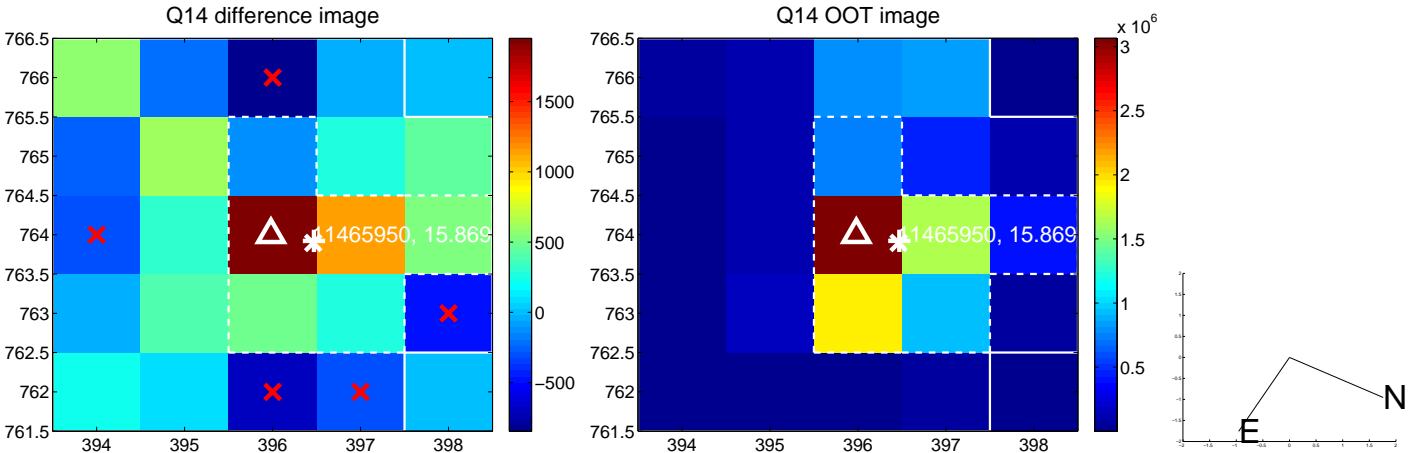
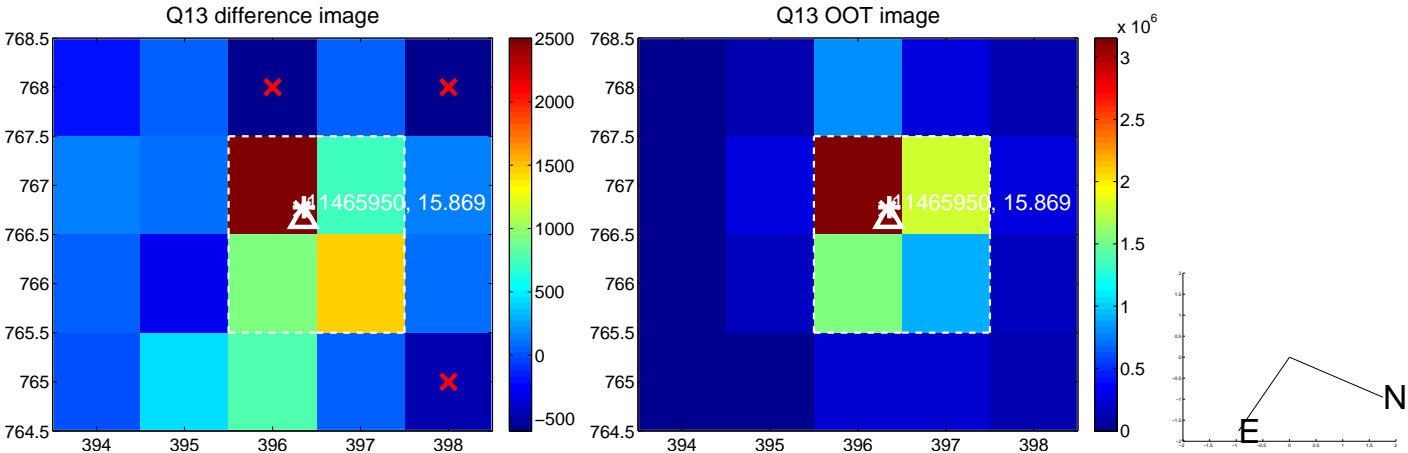
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



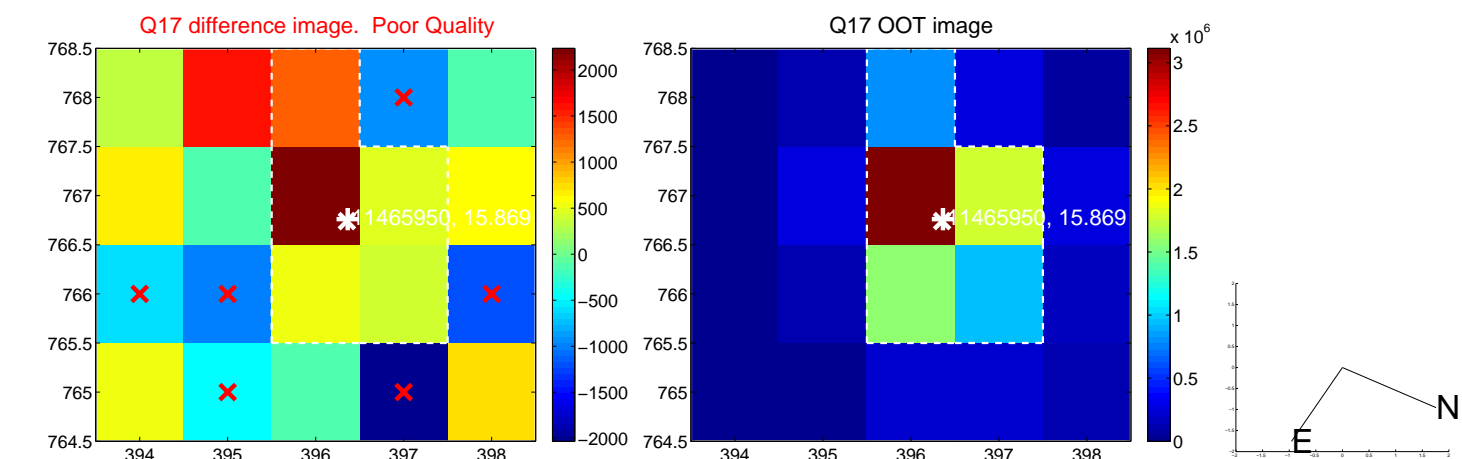
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



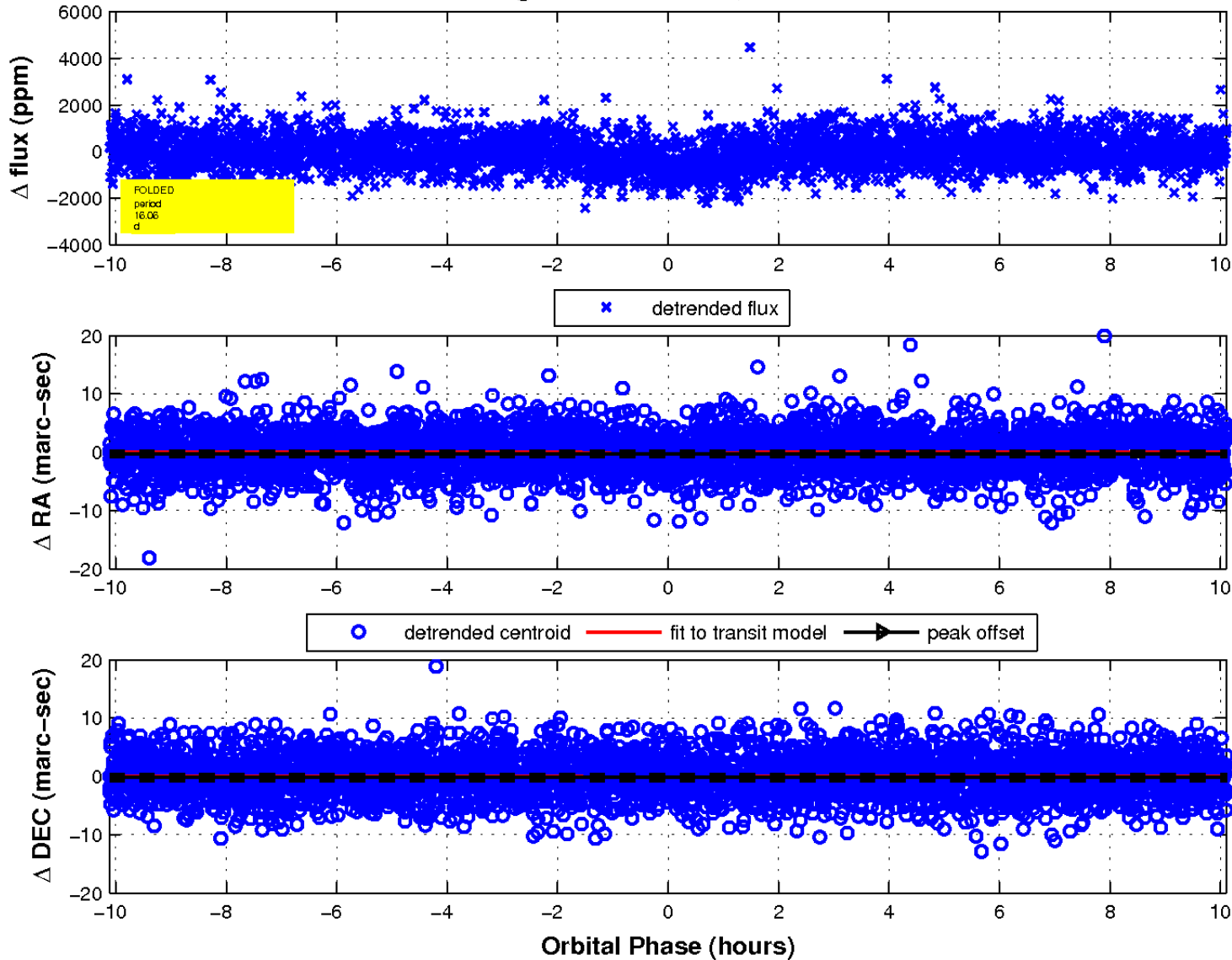
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

