

KIC 011565924

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})
011565924-01	OBS	2837.01	13.322014	142.719085	130.1	6.406	15.8	16.8	2.27	6995	2.98	673.72

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011565924-01	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.

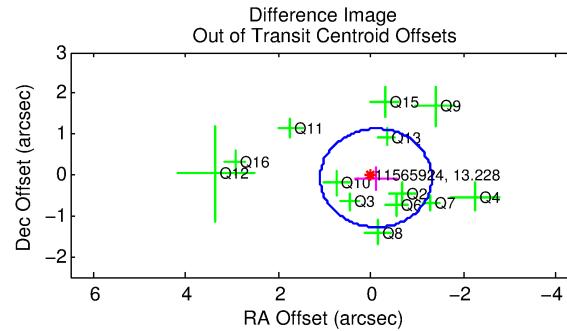
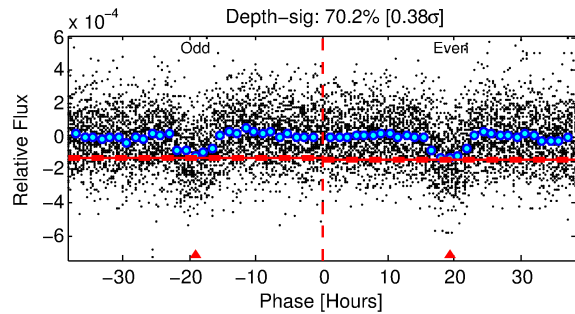
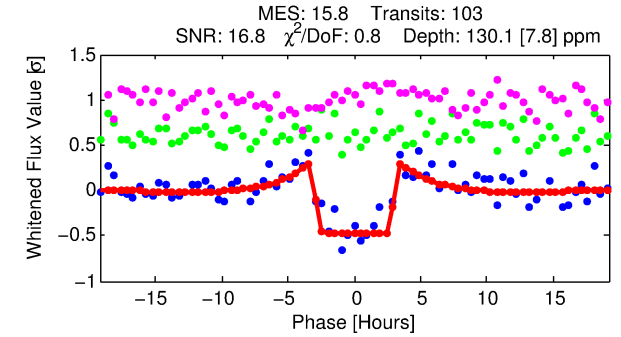
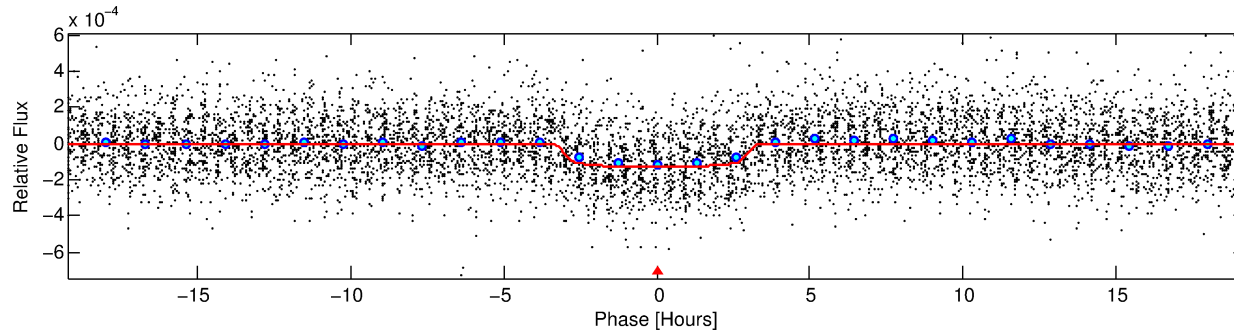
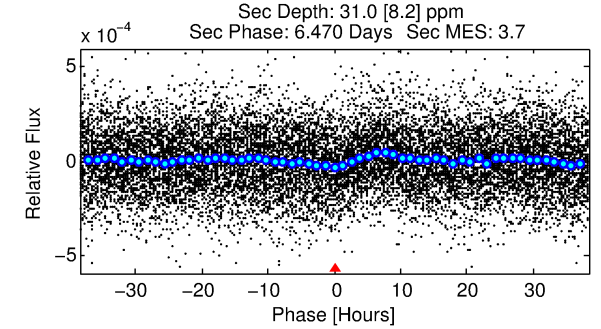
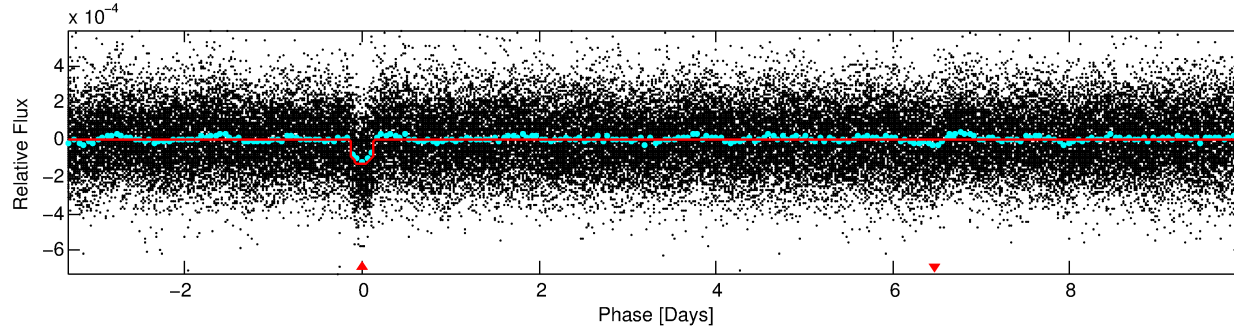
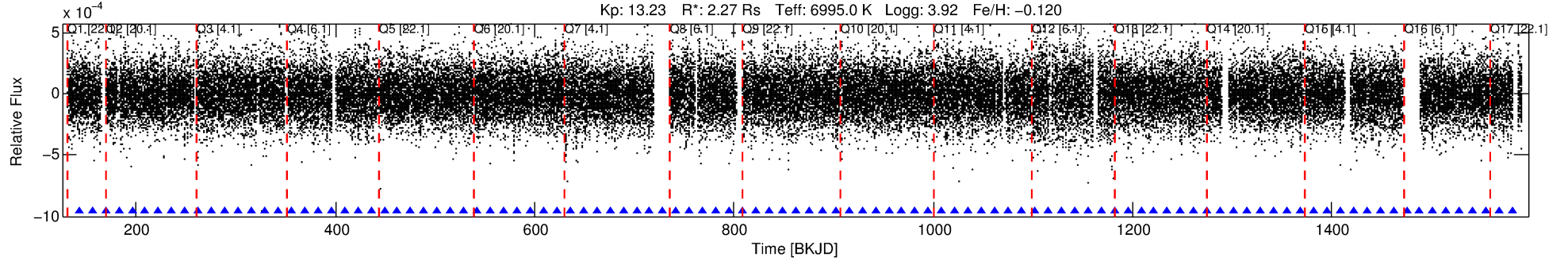
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011565924-01

No Significant Match Found

DV One-Page Summary

KIC: 11565924 Candidate: 1 of 1 Period: 13.322 d
KOI: K02837.01 Corr: 0.986



DV Fit Results:

Period = 13.32201 [0.00007] d
Epoch = 142.7191 [0.0042] BKJD
Rp/R* = 0.0120 [0.0013]
a/R* = 7.83 [4.79]
b = 0.89 [0.15]
Seff = 673.72 [282.15]
Teq = 1299 [136] K
Rp = 2.98 [0.89] Re
a = 0.1283 [0.0327] AU
Ag = 31.62 [16.54] [1.85σ]
Teffp = 4763 [441] K [7.51σ]

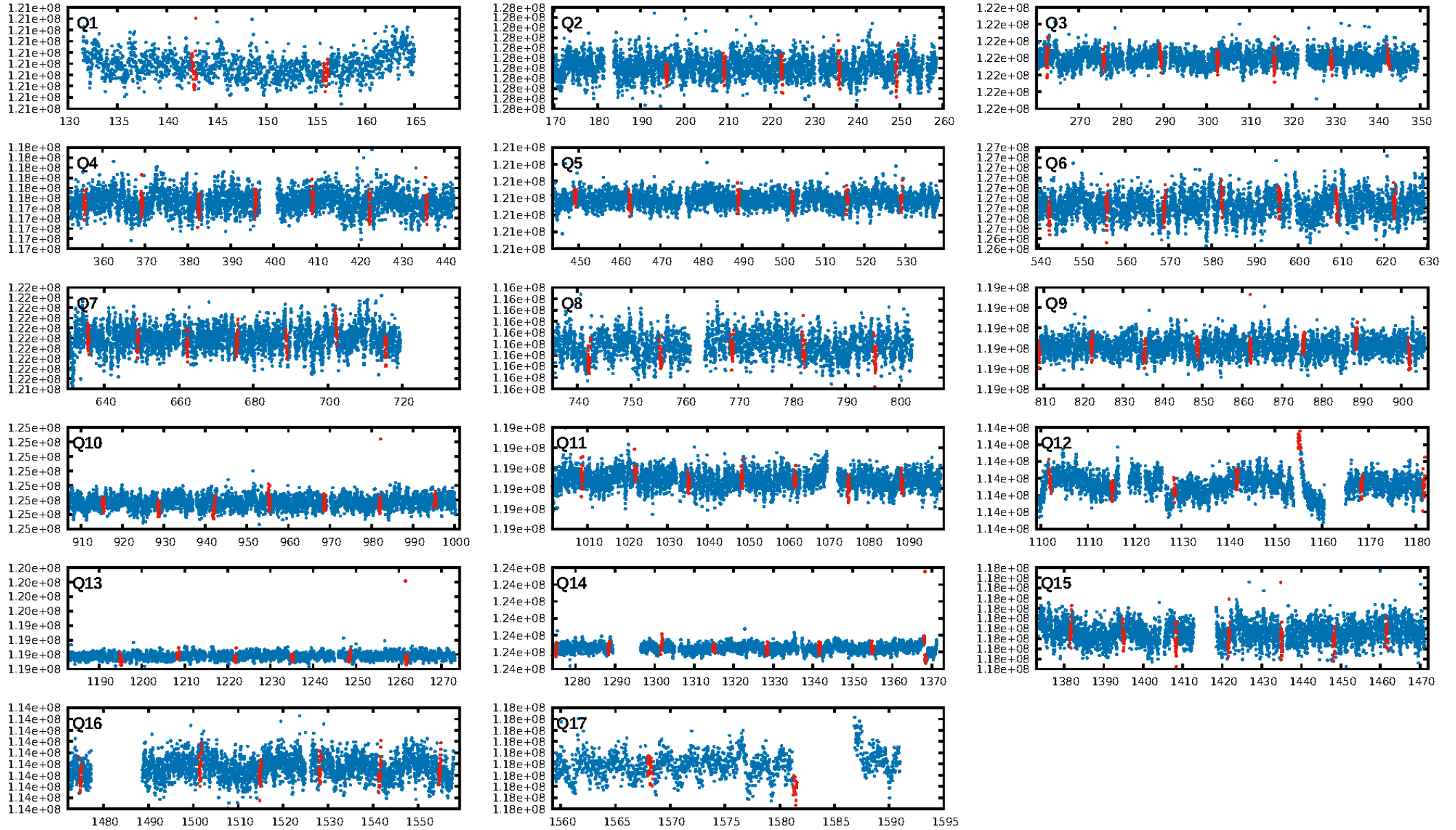
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 90.2%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.06e-53
RollingBand-fgt: 1.00 [99/99]
GhostDiagnostic-chr: 1.746
Centroid-sig: 7.4%
Centroid-so: 0.651 arcsec [1.66σ]
OotOffset-rm: 0.134 arcsec [0.33σ]
KicOffset-rm: 0.118 arcsec [0.29σ]
OotOffset-st: 3/4/4/2 [13]
KicOffset-st: 3/4/4/2 [13]
DiffImageQuality-fgm: 1.00 [13/13]
DiffImageOverlap-fno: 1.00 [17/17]

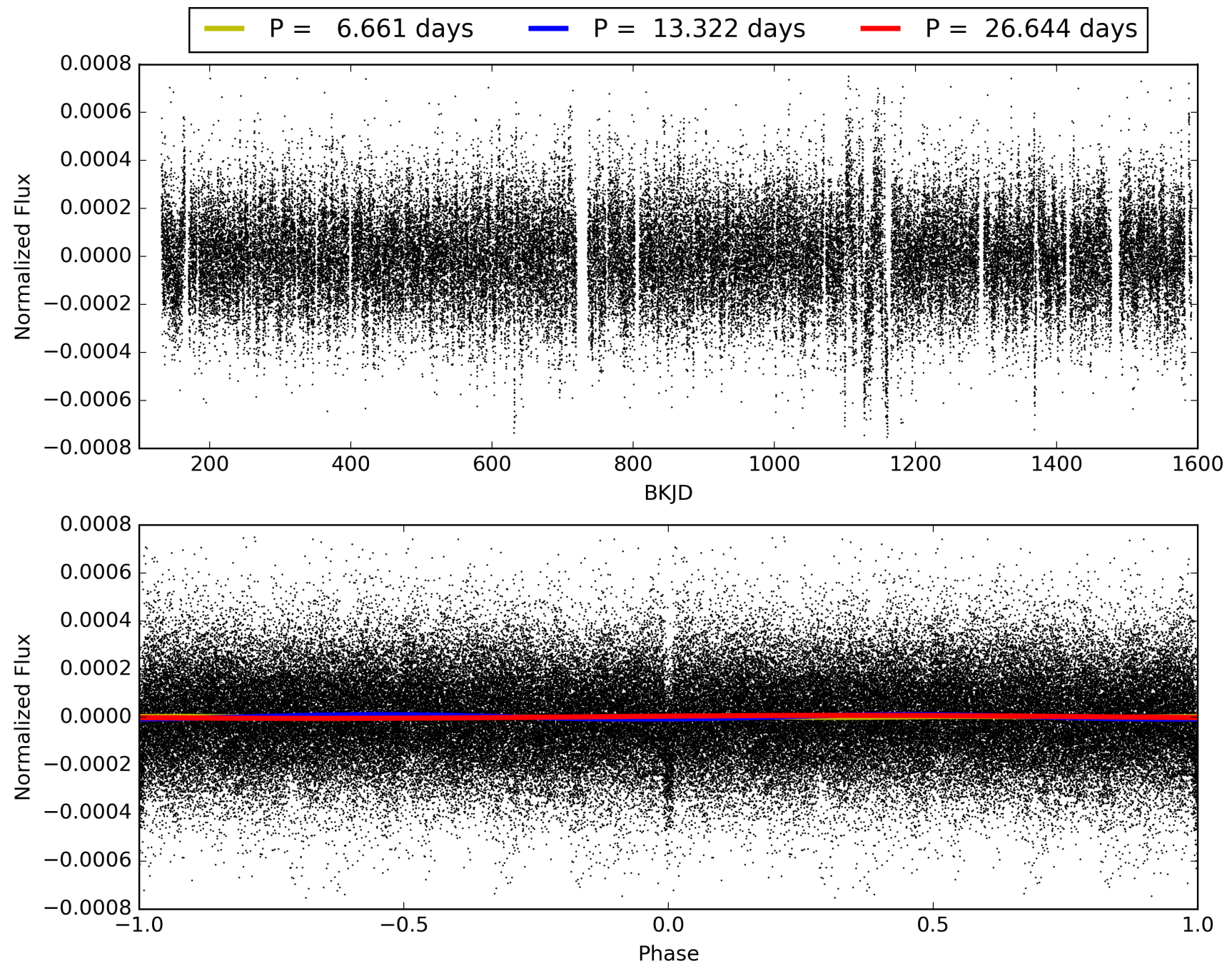
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 21:22:40 Z

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

TCE 011565924-01, PDC Light Curves

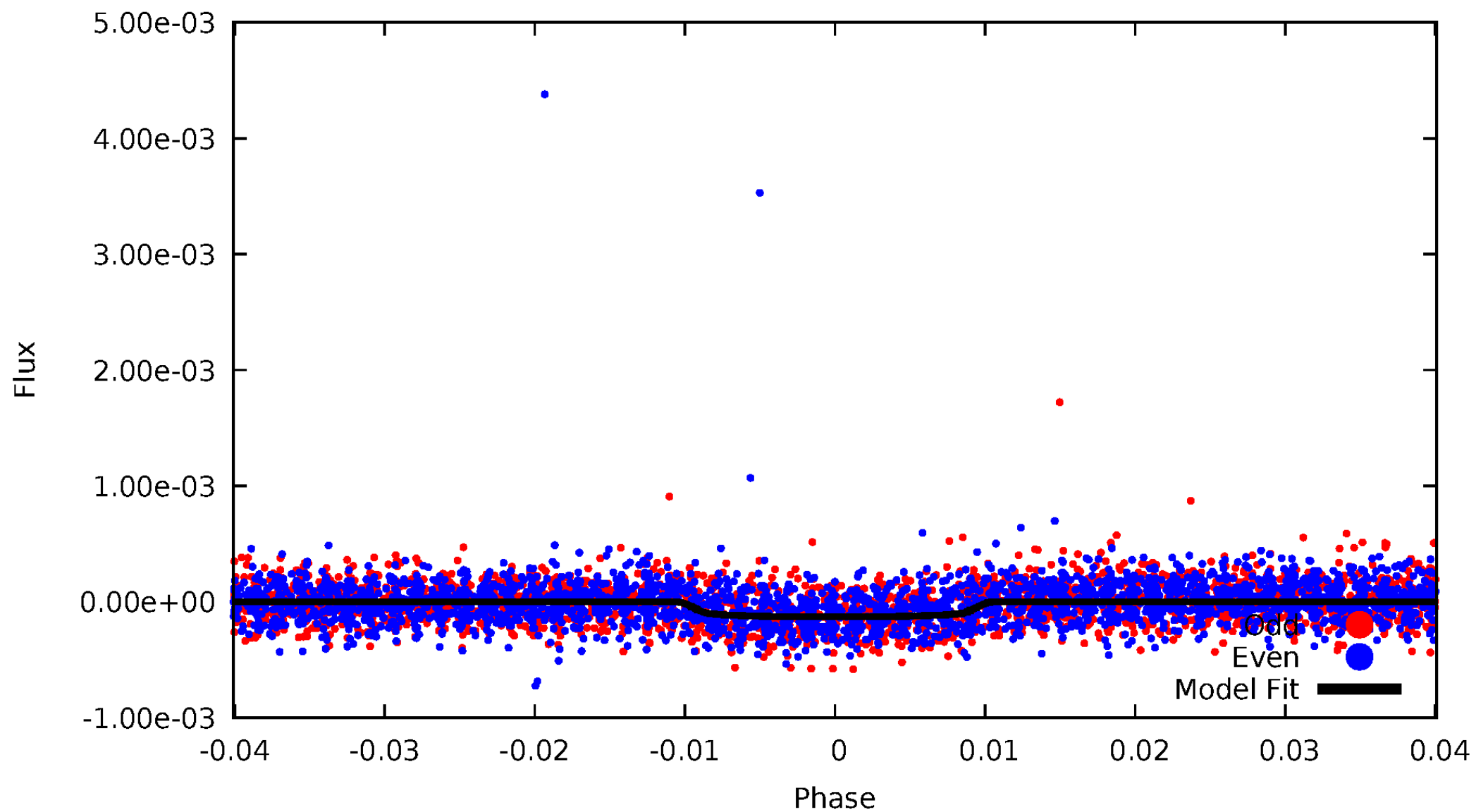


TCE 011565924-01



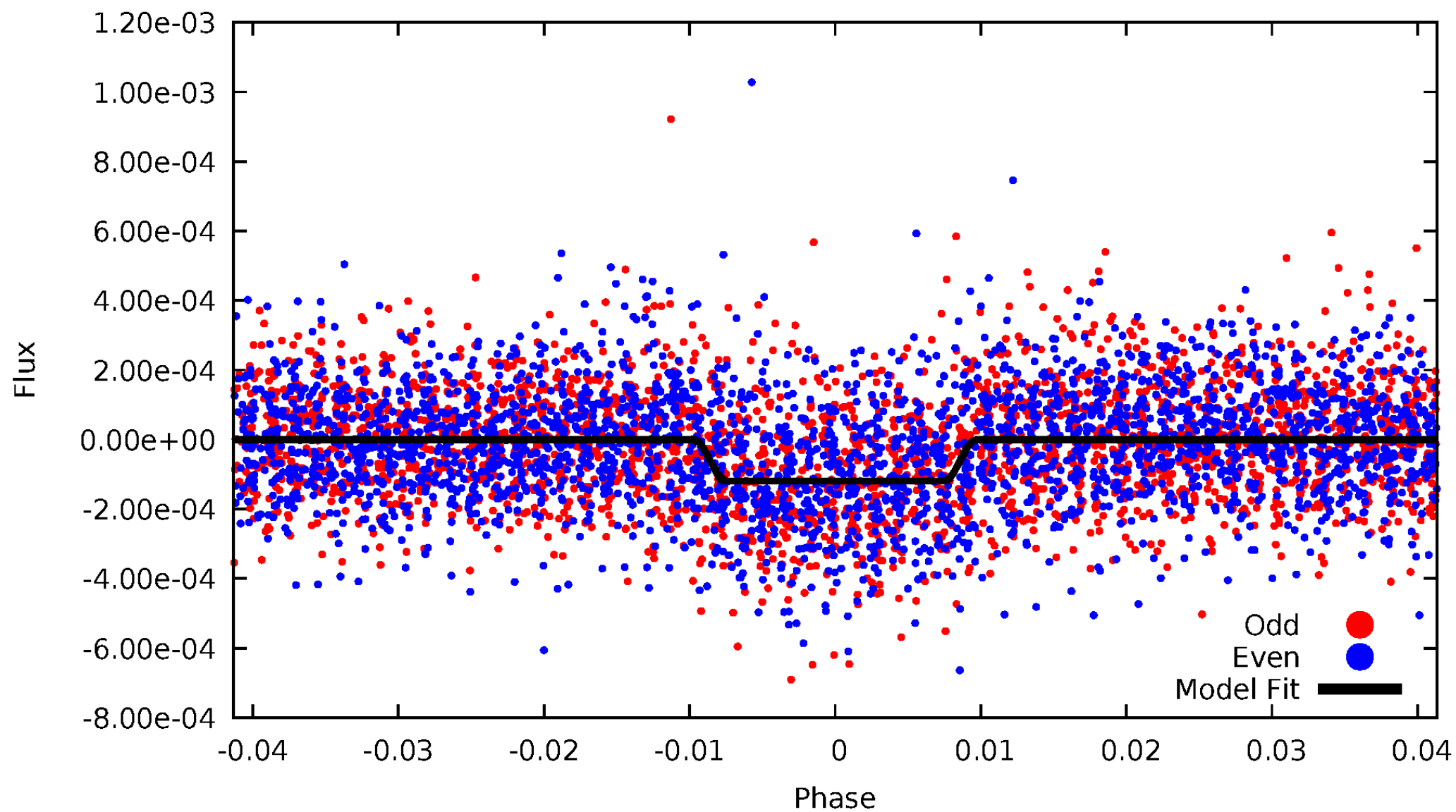
DV Odd/Even

TCE 011565924-01



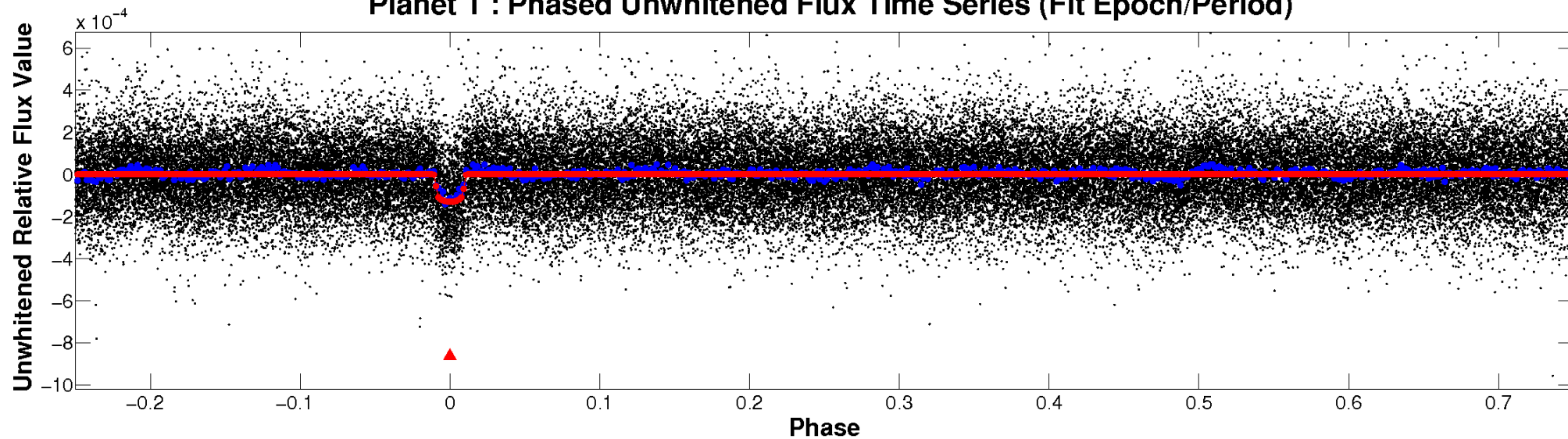
ALT Odd/Even

TCE 011565924-01

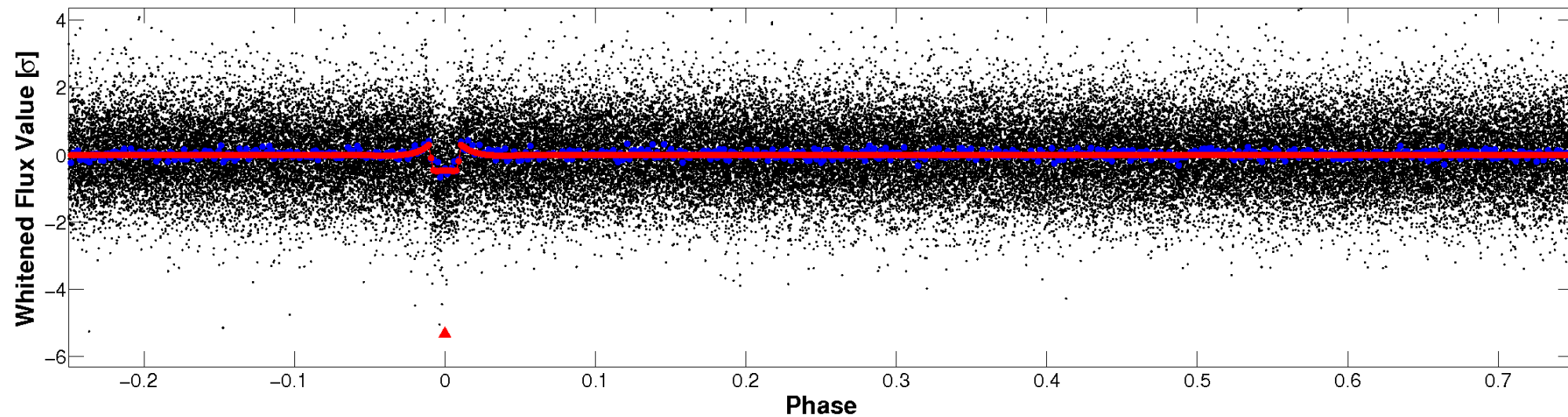


Non-Whitened Vs. Whitened Light Curve

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

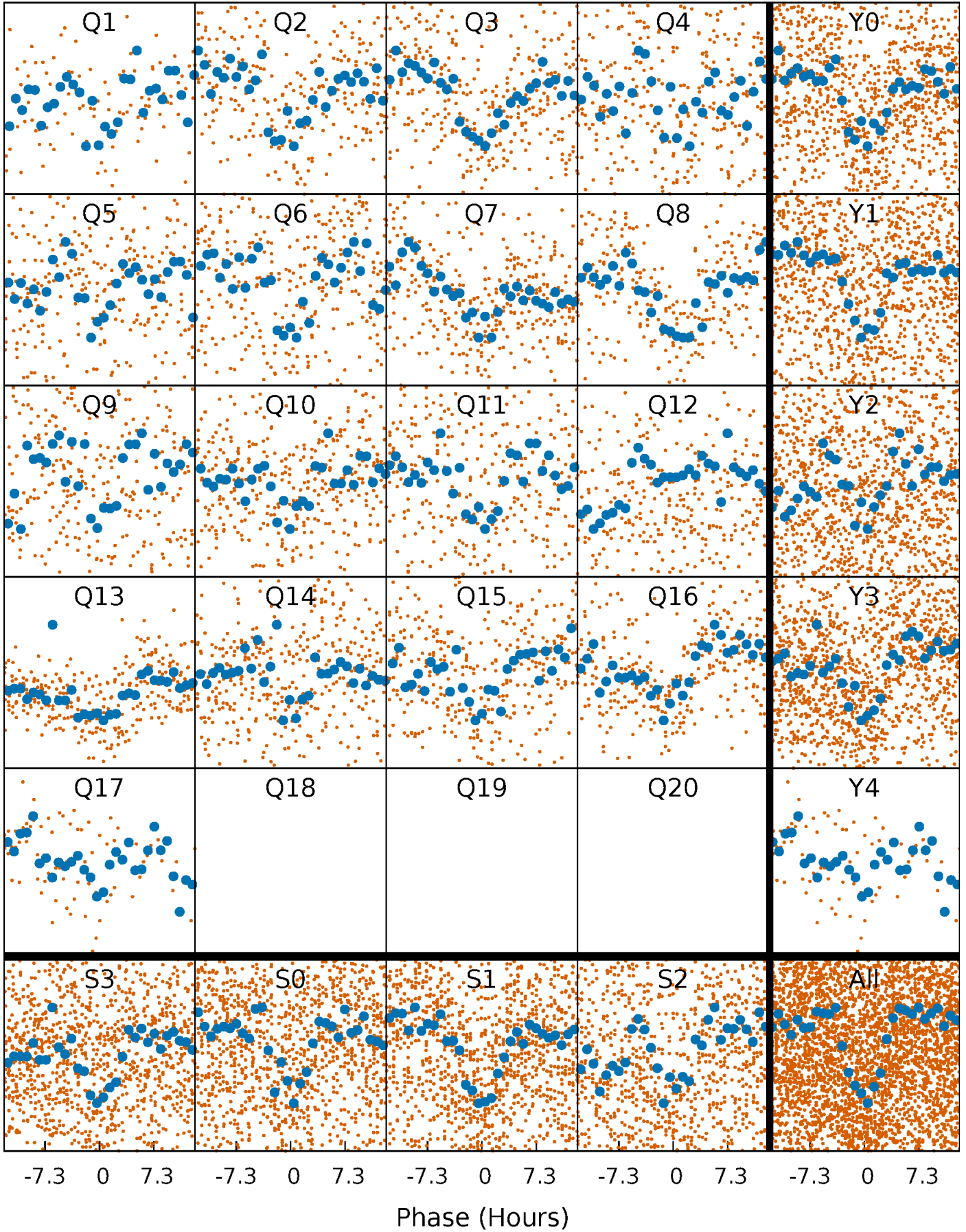


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



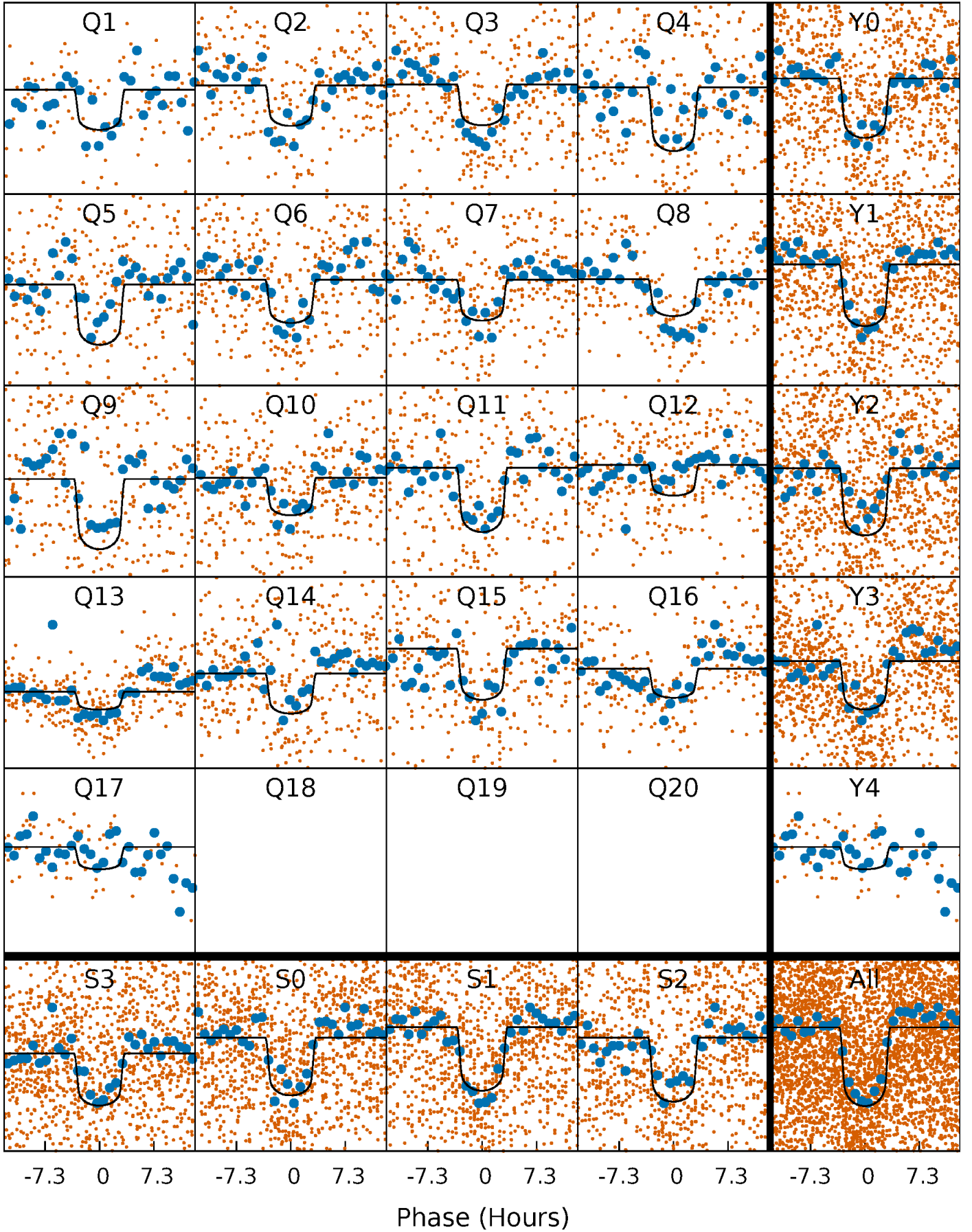
PDC Quarter-Phased Transit Curves

TCE 011565924-01 P= 13.322014 Days $T_0=142.719085$ (BKJD)



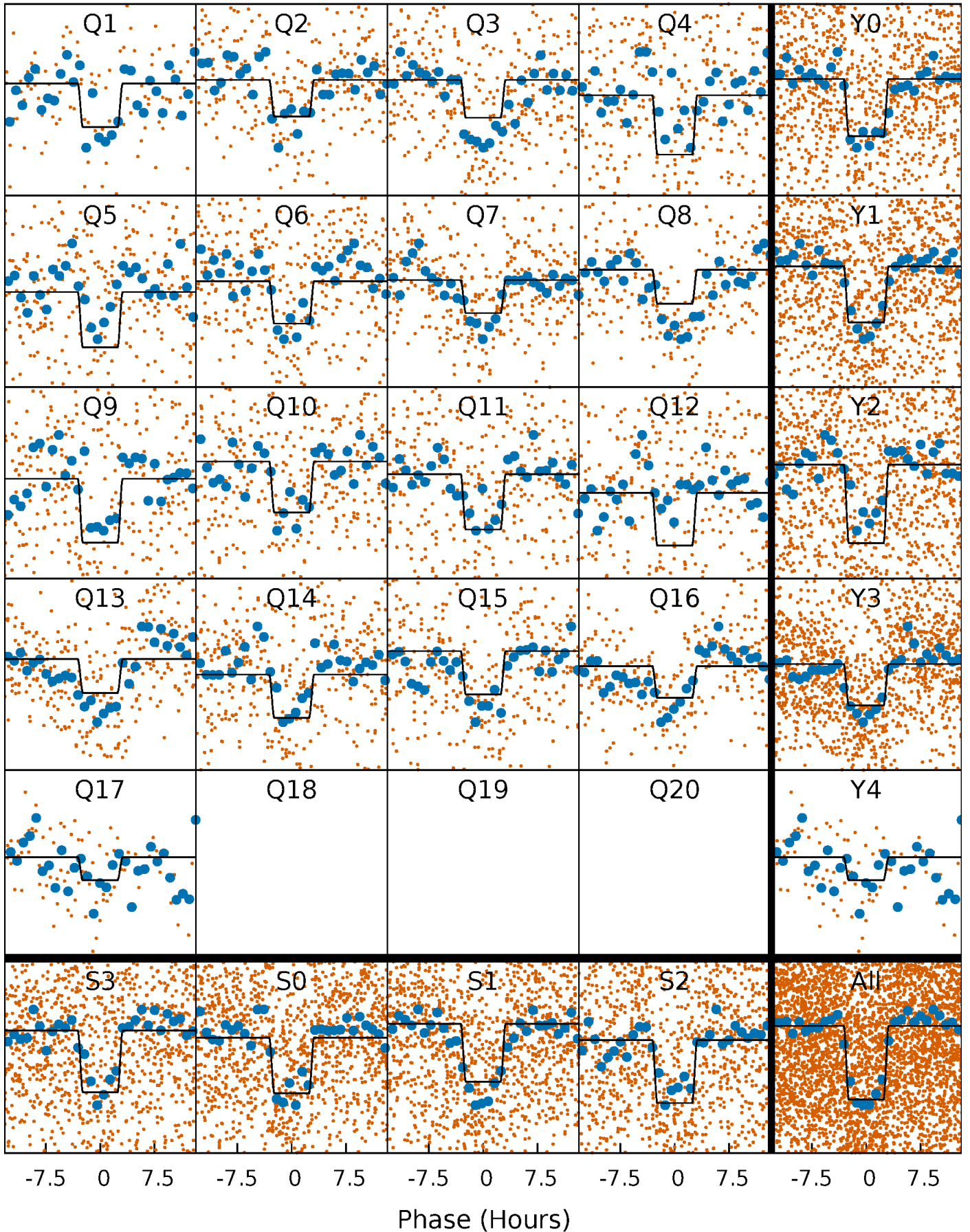
DV Quarter-Phased Transit Curves

TCE 011565924-01 P= 13.322014 Days $T_0=142.719085$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

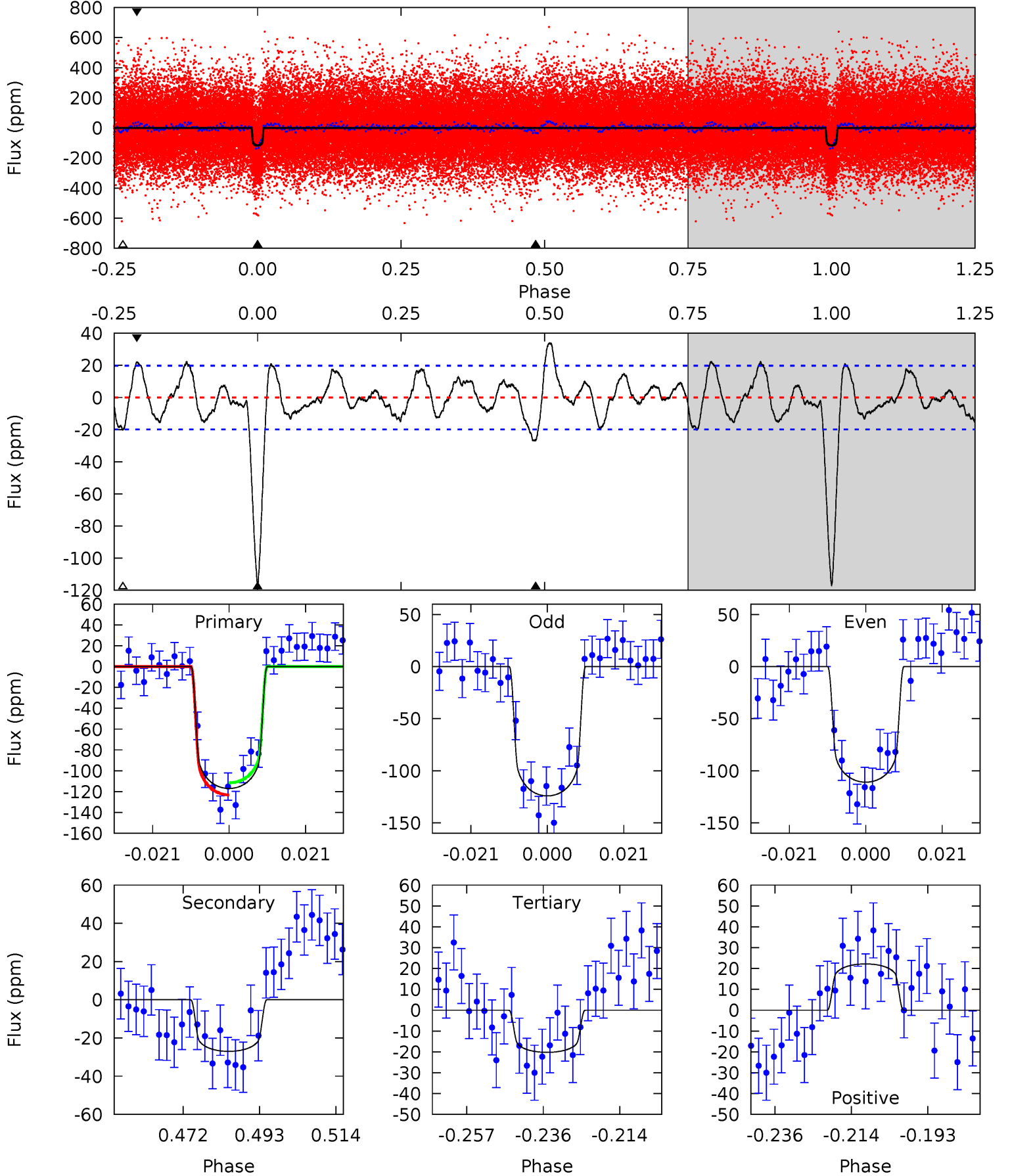
TCE 011565924-01 P= 13.322059 Days $T_0=142.718063$ (BKJD)



DV Model-Shift Uniqueness Test

011565924-01, P = 13.322014 Days, E = 129.397071 Days

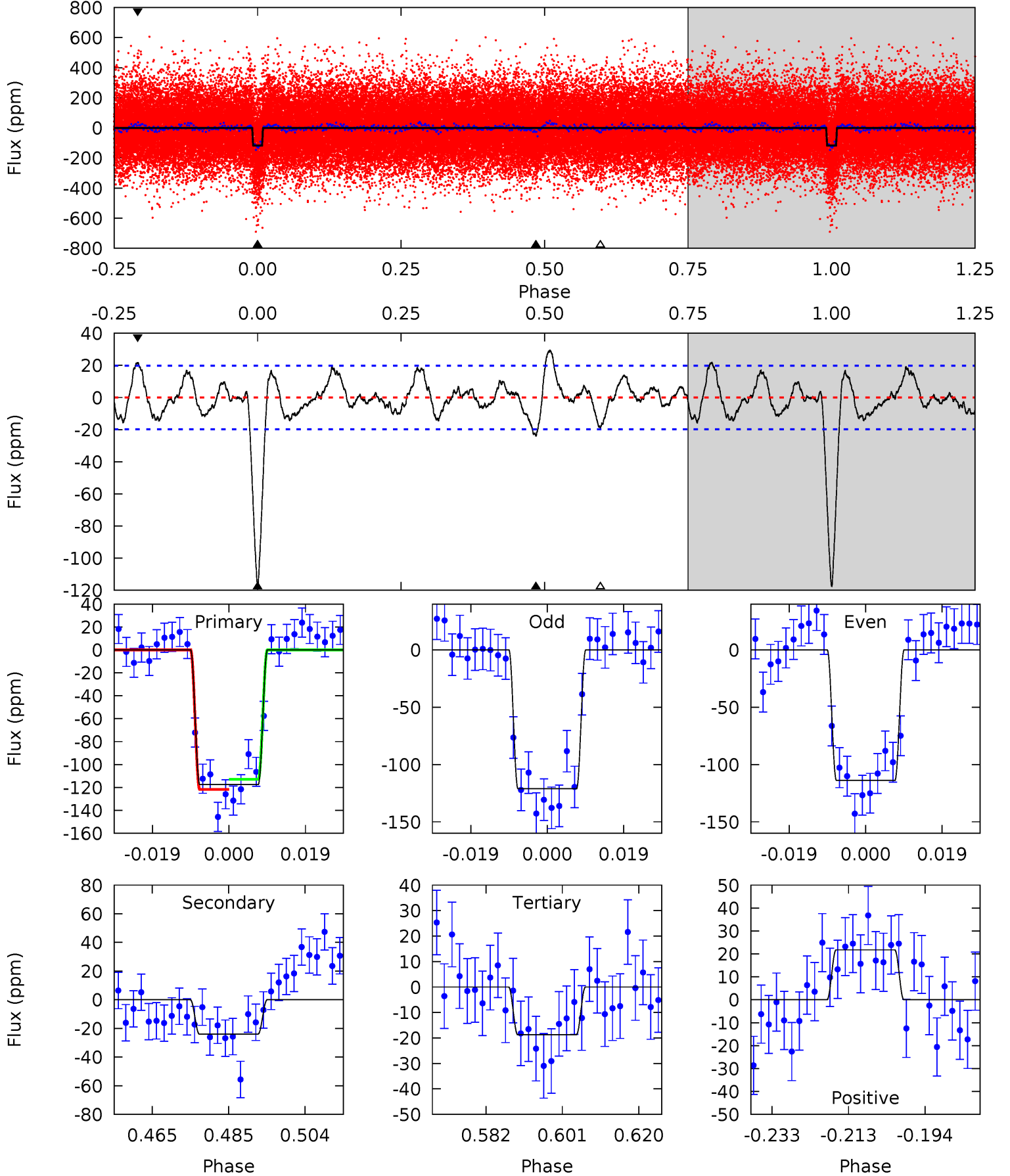
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
28.8	6.64	4.97	5.46	4.88	2.30	2.40	23.8	23.3	1.67	1.18	1.62	1.04	0.22	1.42



Alt Model-Shift Uniqueness Test

011565924-01, $P = 13.322059$ Days, $E = 129.396004$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
29.0	5.93	4.63	5.38	4.90	2.34	2.10	24.4	23.6	1.30	0.55	0.91	1.03	0.20	1.08



Stellar Parameters For KIC 011565924

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6995^{+194}_{-243}	$3.925^{+0.227}_{-0.122}$	$-0.120^{+0.300}_{-0.300}$	$2.274^{+0.462}_{-0.635}$	$1.584^{+0.188}_{-0.258}$	$0.190^{+0.255}_{-0.069}$
	+3%/-3%	+6%/-3%	+250%/-250%	+20%/-28%	+12%/-16%	+134%/-36%
Source	PHO1	FLK73	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 011565924-01 / KOI 2837.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-27 ± 4	$2.87^{+0.55}_{-0.50}$	1789^{+119}_{-135}	4700^{+279}_{-278}	30^{+14}_{-10}
Alt.	-24 ± 4	$2.66^{+0.49}_{-0.49}$	1795^{+122}_{-139}	4746^{+337}_{-286}	31^{+15}_{-10}

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

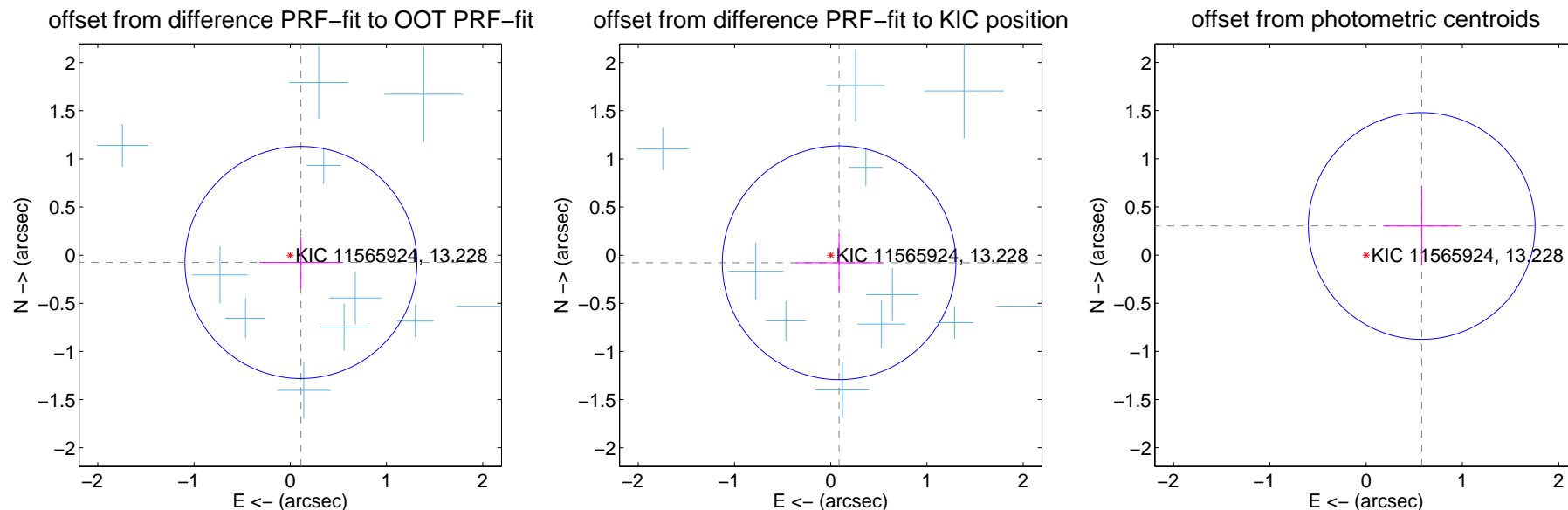
DV Centroid Data

Supplemental centroid analysis for 011565924-01. Kepler magnitude: 13.23. Transit SNR 16.81

There are 13 quarters with good PRF difference image offsets

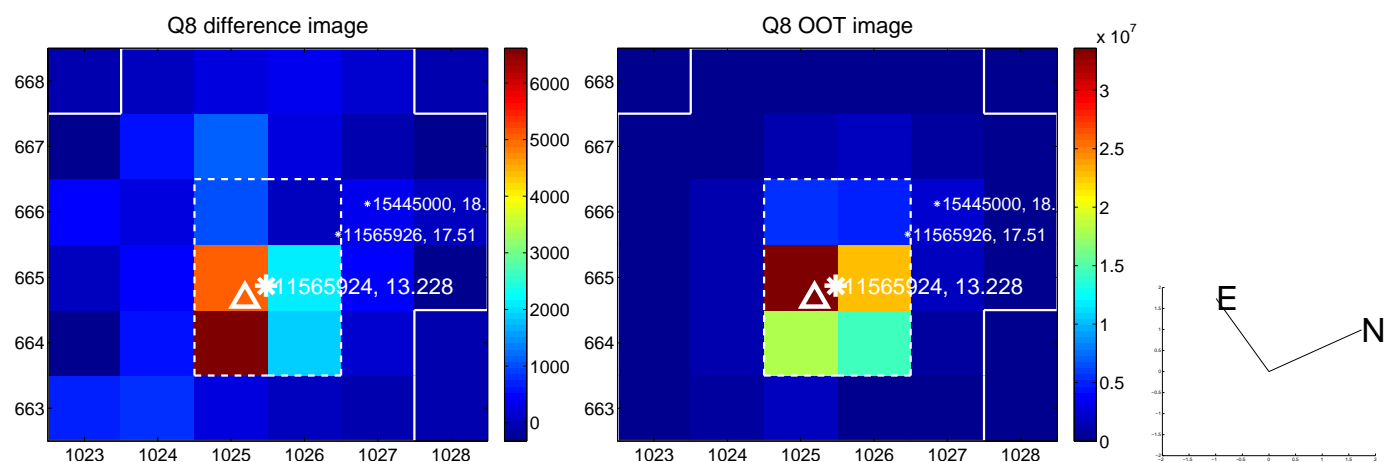
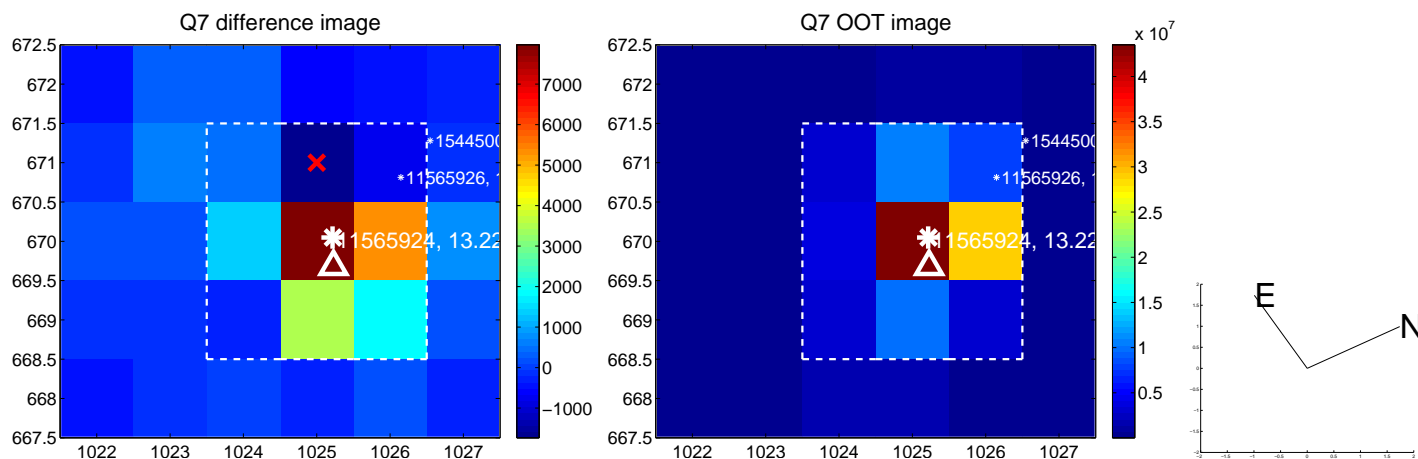
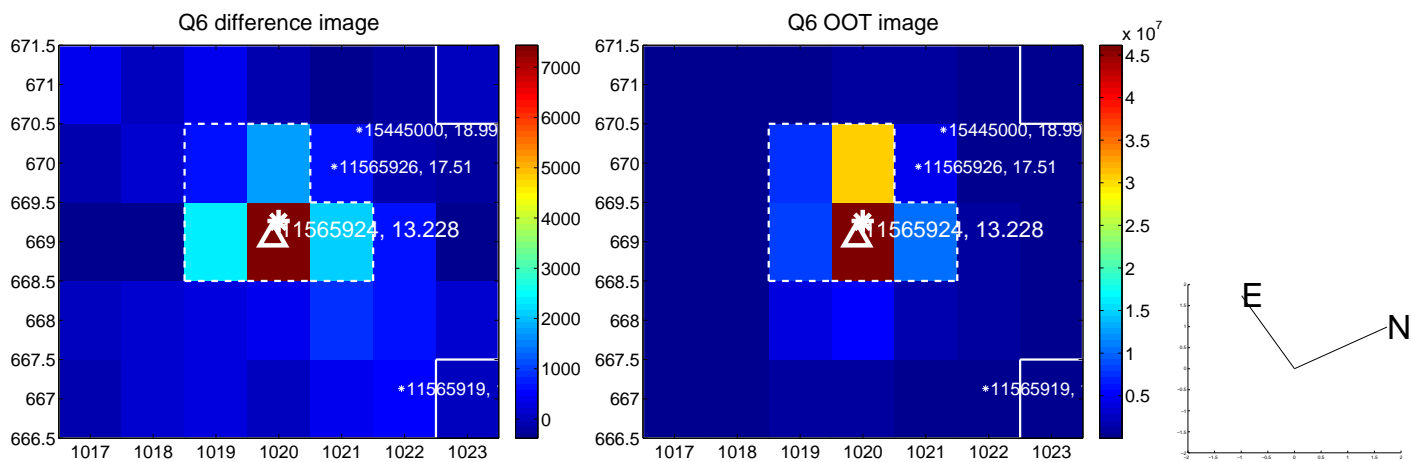
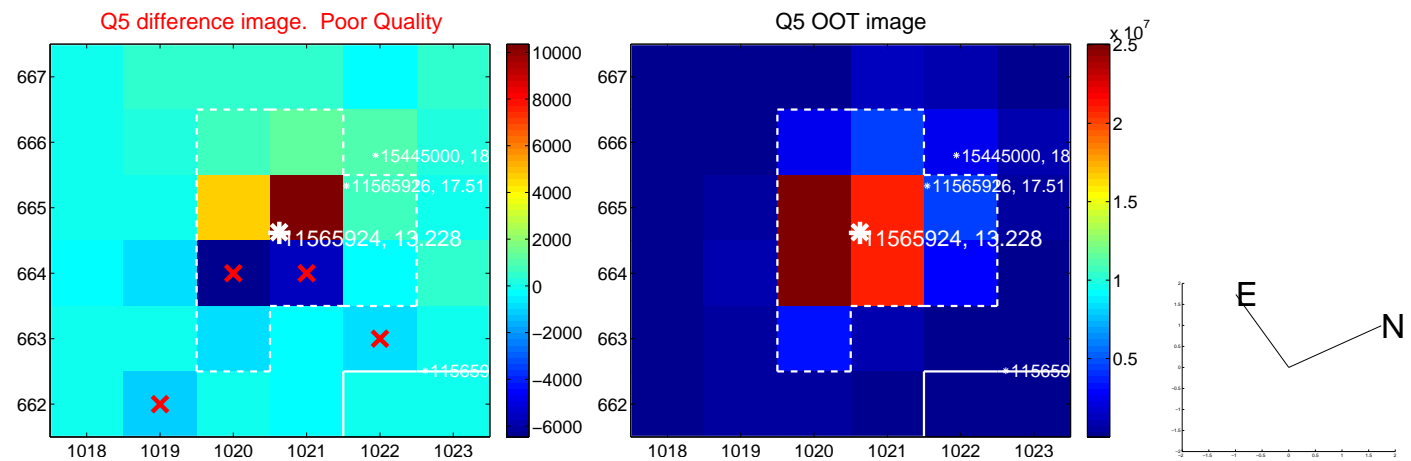
The direct PRF centroid is offset from the target star catalog position by about 0.03 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.134 ± 0.402	0.33	-0.111 ± 0.431	-0.076 ± 0.270
PRF-fit source offset from KIC position	0.118 ± 0.405	0.29	-0.087 ± 0.450	-0.079 ± 0.297
photometric centroid source offset	0.65 ± 0.39	1.66	-0.58 ± 0.39	0.30 ± 0.41

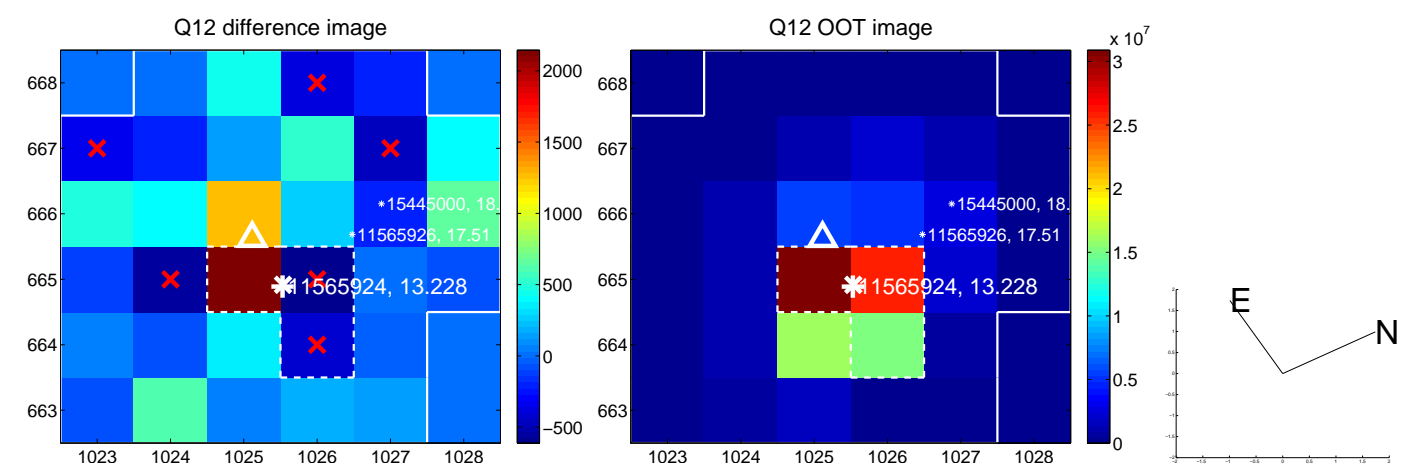
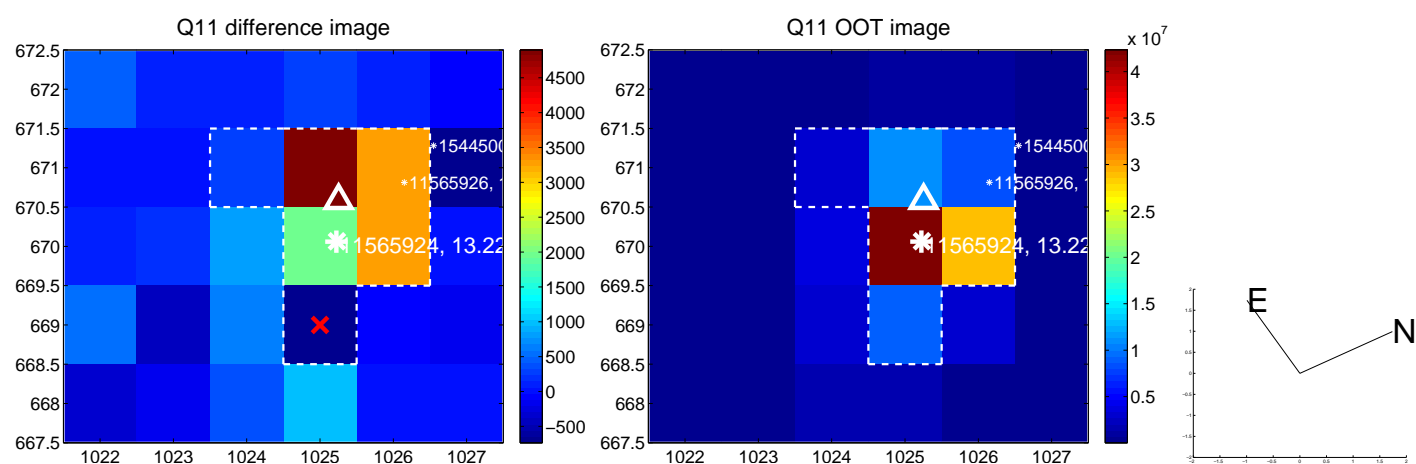
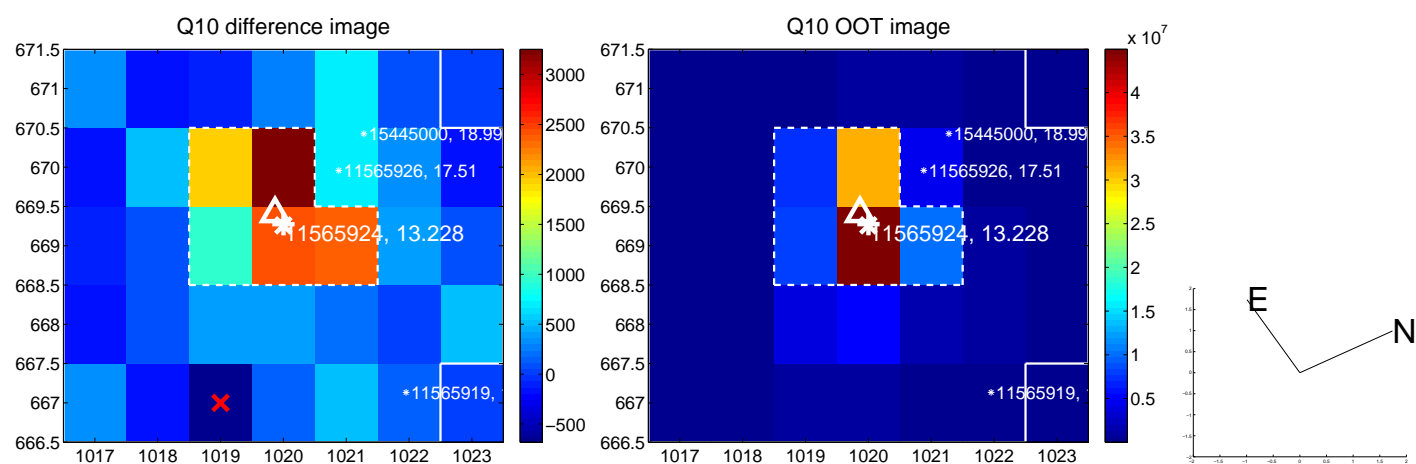
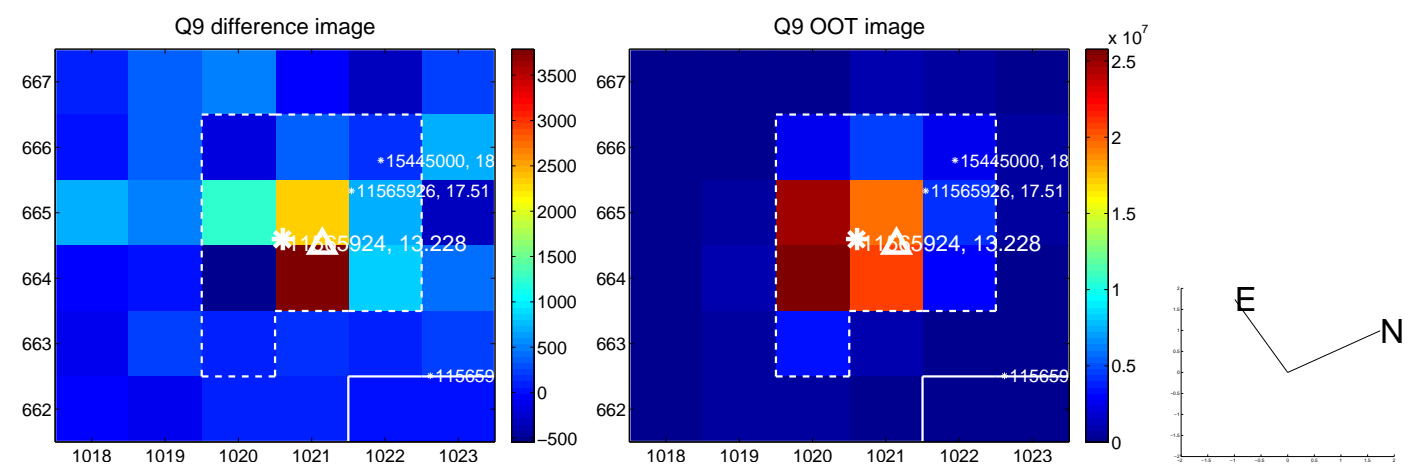


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

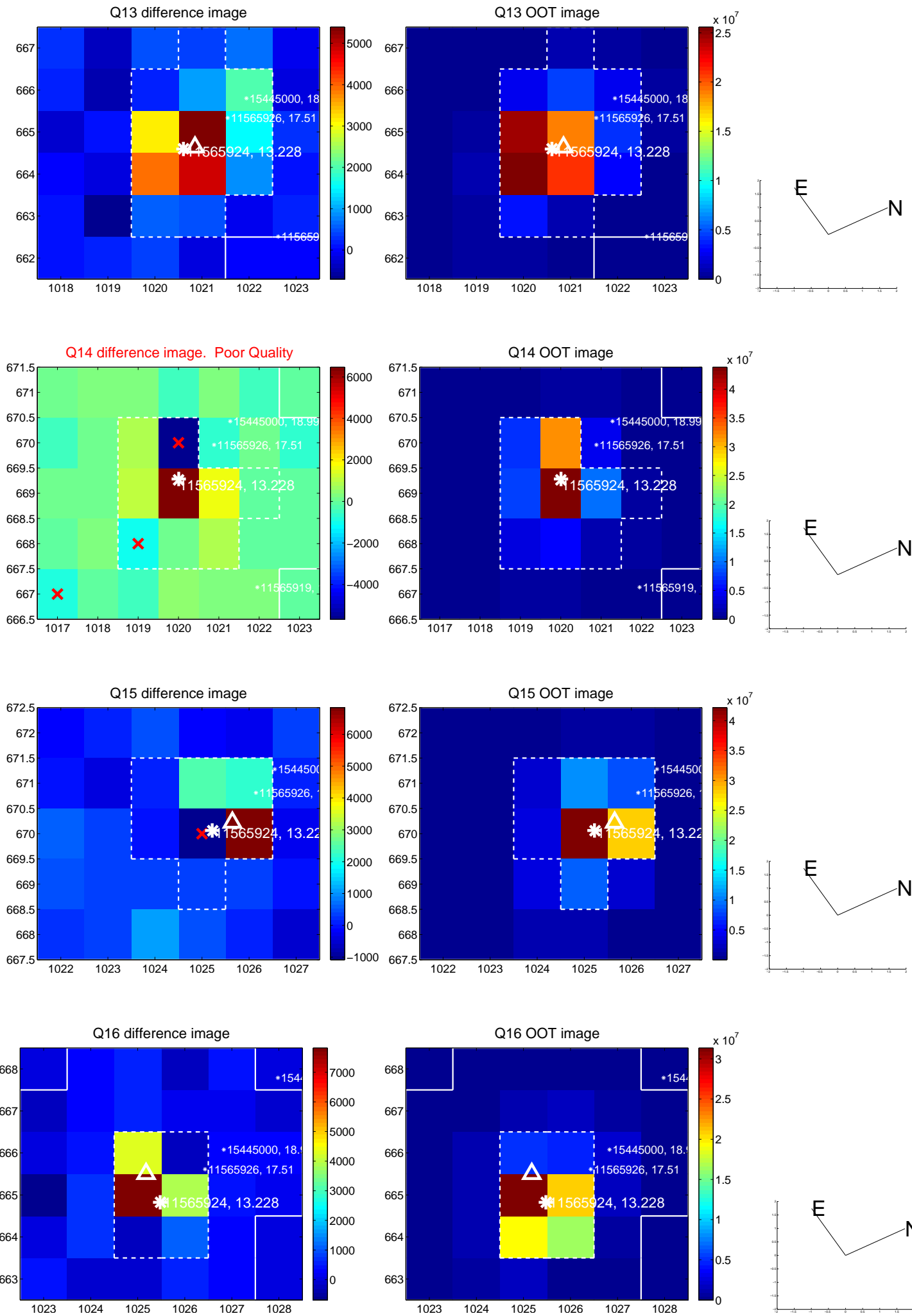
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



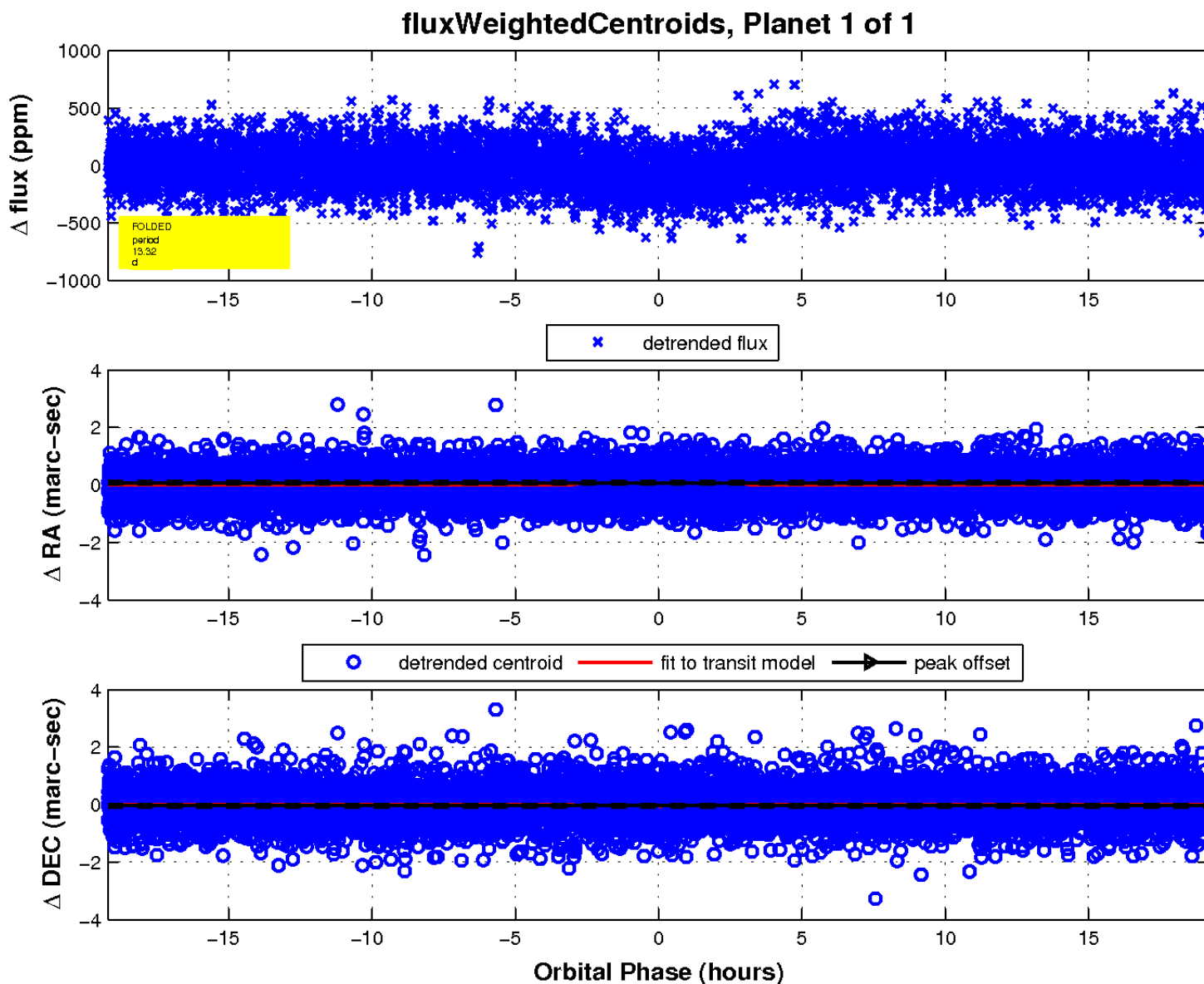
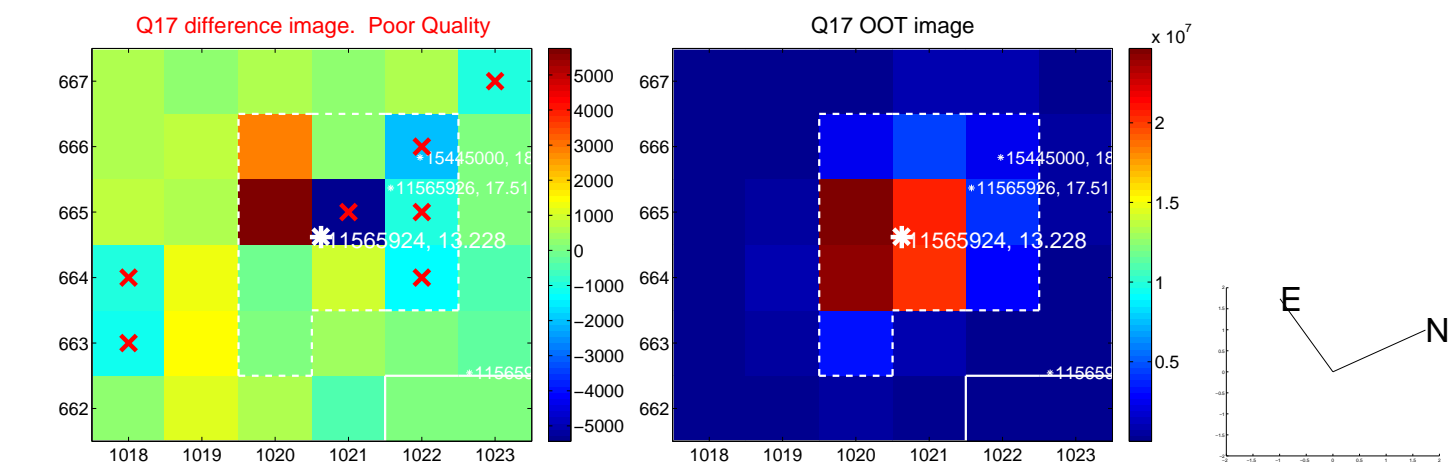
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



UKIRT Image

Declination

