

KIC 011665531

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})
011665531-01	OBS	No	0.832853	132.004412	22.2	3.191	8.2	9.6	1.91	7234	1.05	22214.81

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011665531-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

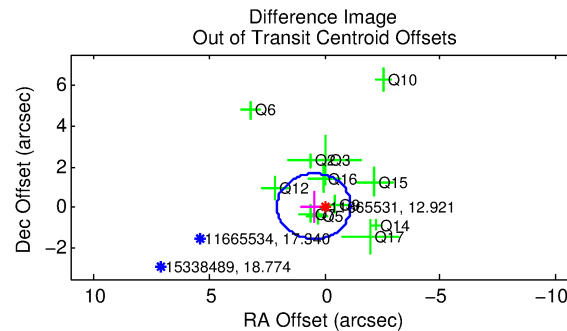
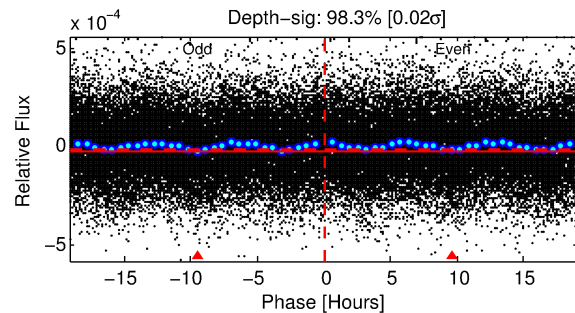
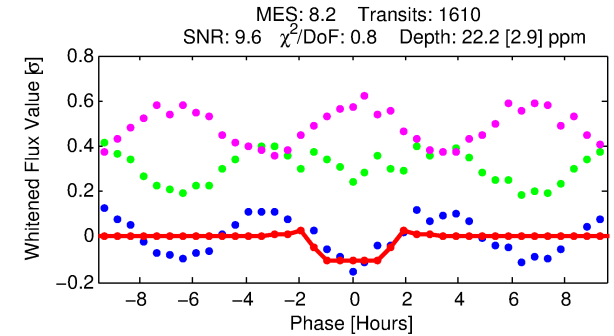
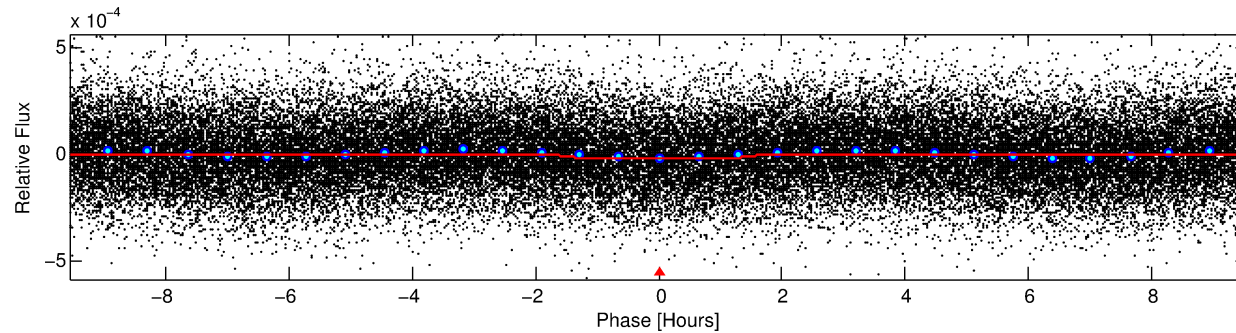
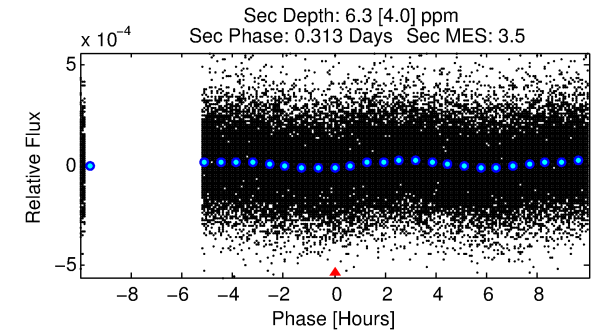
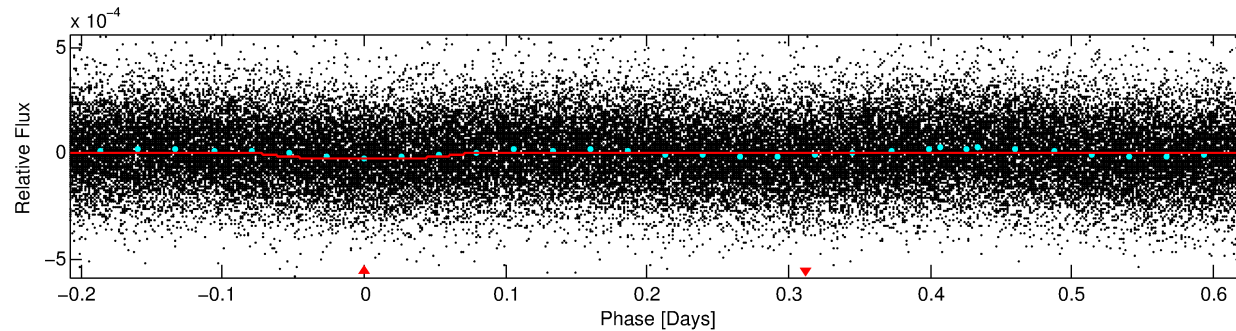
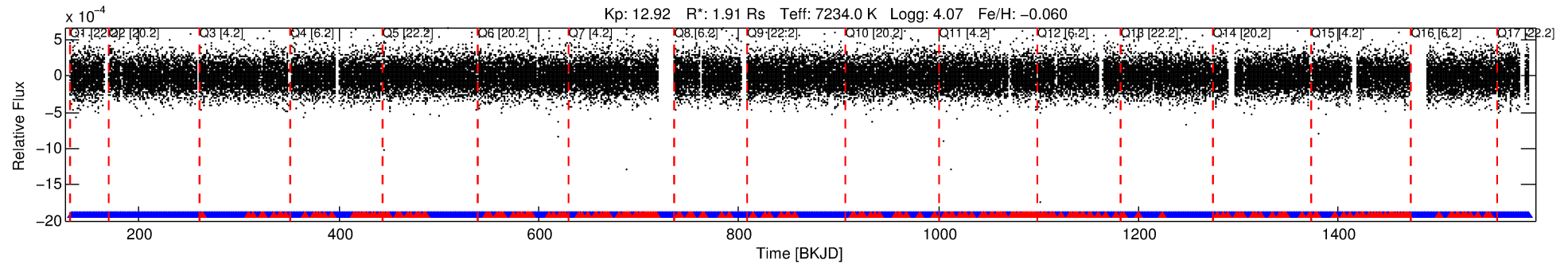
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011665531-01

No Significant Match Found

DV One-Page Summary

KIC: 11665531 Candidate: 1 of 1 Period: 0.833 d



DV Fit Results:

Period = 0.83285 [0.00001] d
Epoch = 132.0044 [0.0029] BKJD
Rp/R* = 0.0050 [0.0016]
a/R* = 1.28 [0.98]
b = 0.91 [0.39]
Seff = 22214.81 [8320.28]
Teq = 3113 [291] K
Rp = 1.05 [0.45] Re
a = 0.0201 [0.0047] AU
Ag = 1.28 [1.20] [0.23σ]
Teffp = 5117 [1147] K [1.69σ]

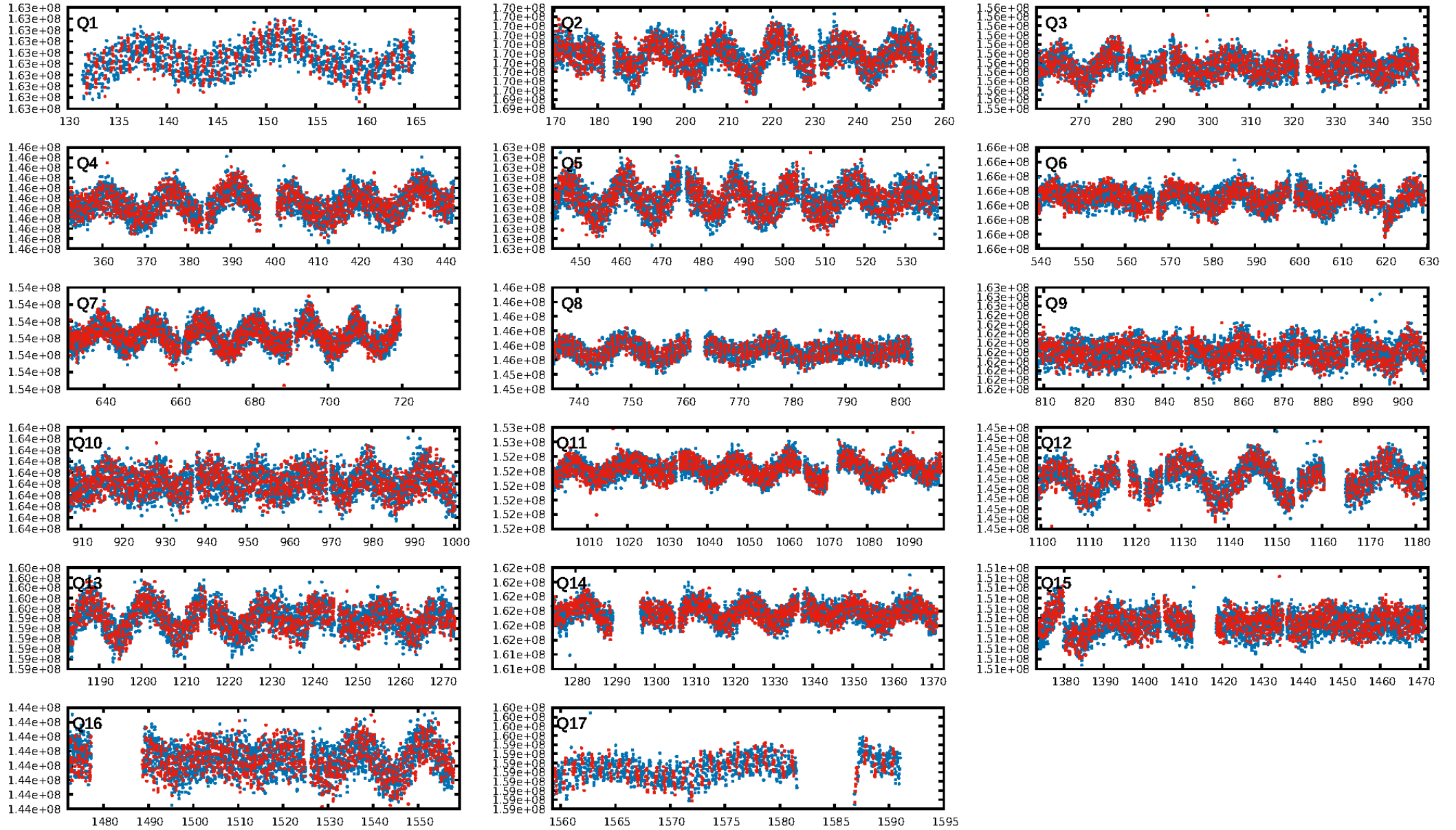
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 9.08e-14
RollingBand-fgt: 0.84 [1293/1538]
GhostDiagnostic-chr: 10.94
Centroid-sig: 55.3%
Centroid-so: 0.688 arcsec [0.87σ]
OotOffset-rm: 0.471 arcsec [0.88σ]
OotOffset-st: 4/3/2/3 [12]
KicOffset-rm: 0.707 arcsec [1.03σ]
KicOffset-st: 4/3/2/3 [12]
DiffImageQuality-fgm: 0.67 [8/12]
DiffImageOverlap-fno: 1.00 [17/17]

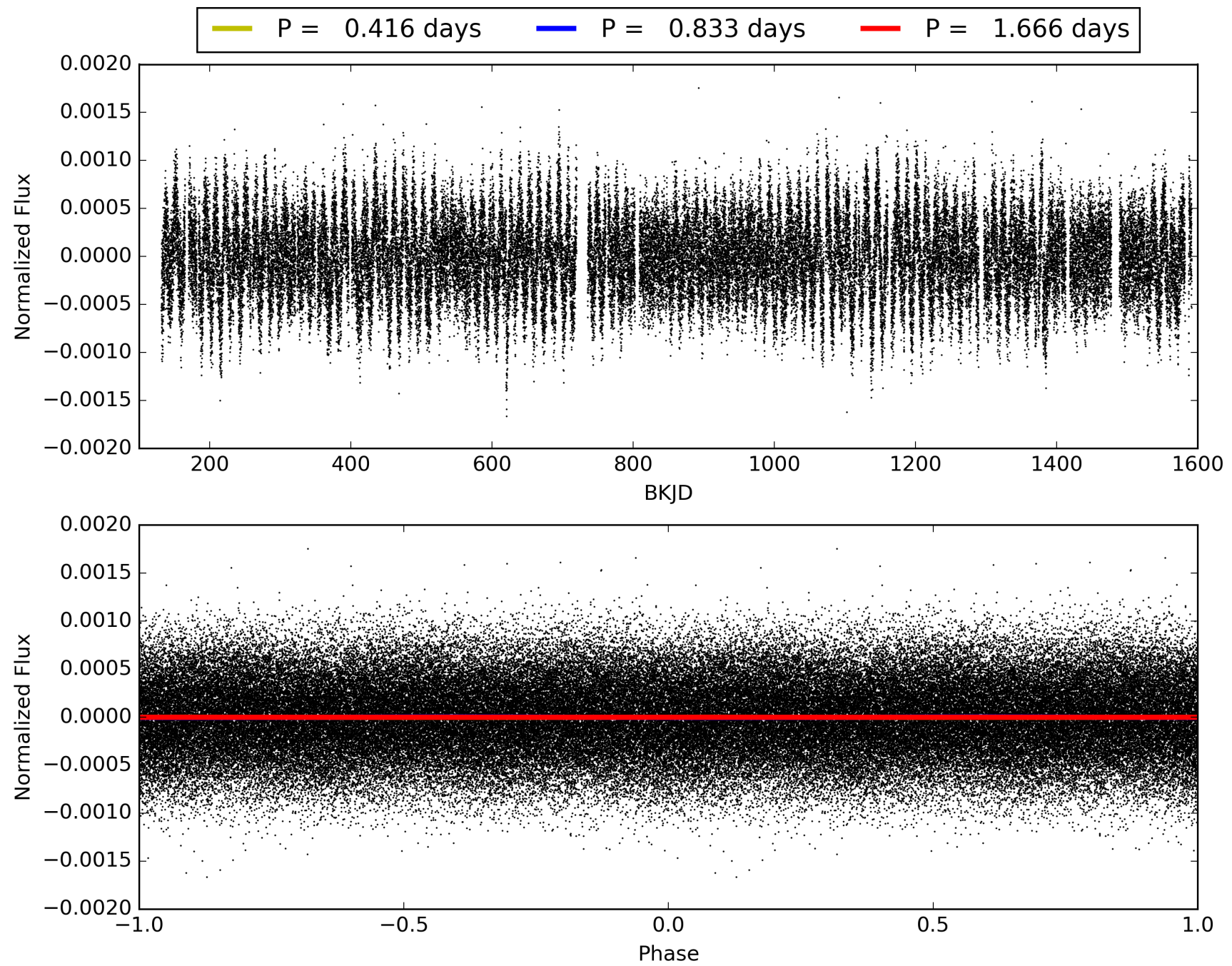
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 02:30:33 Z

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

TCE 011665531-01, PDC Light Curves

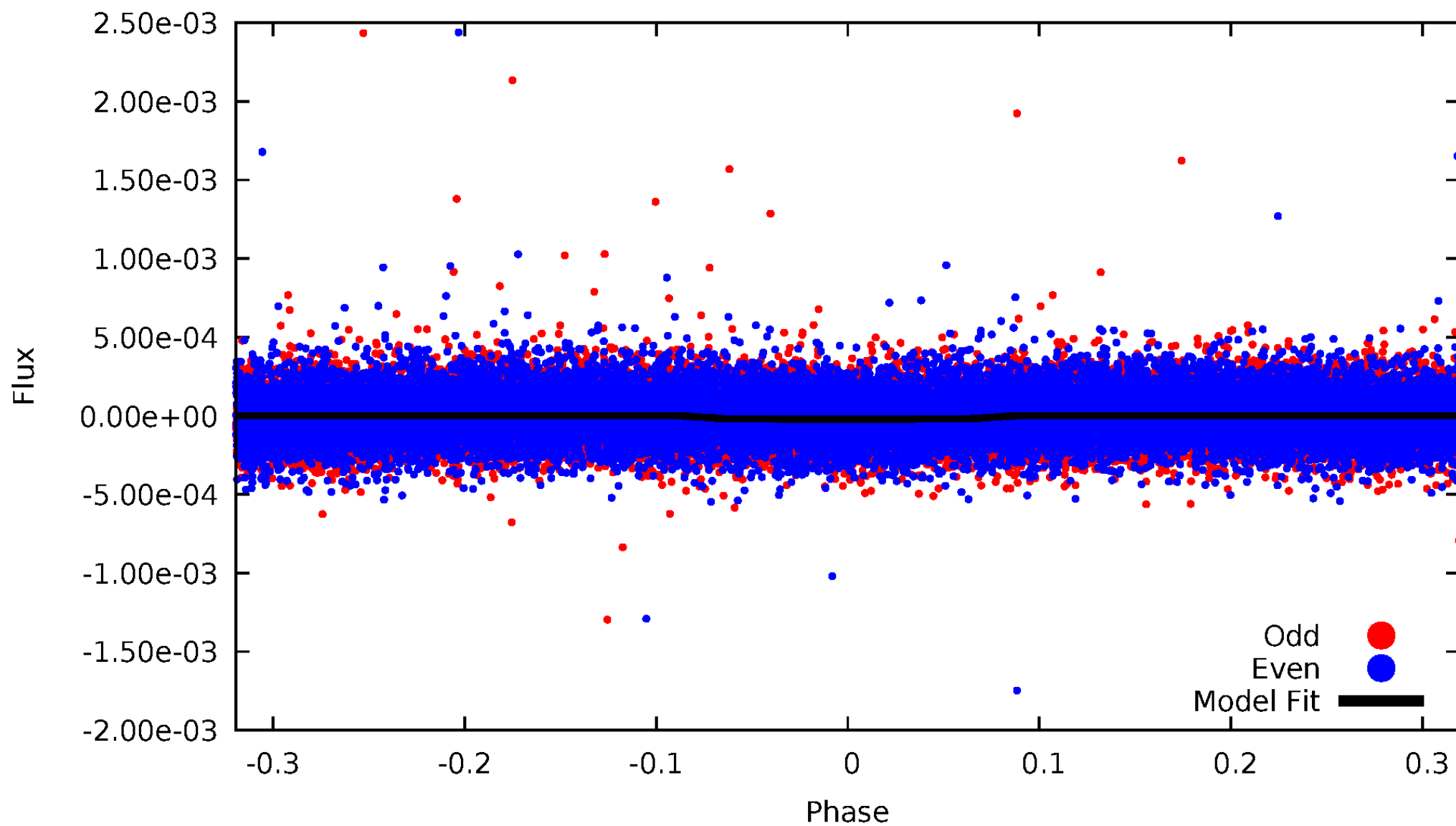


TCE 011665531-01



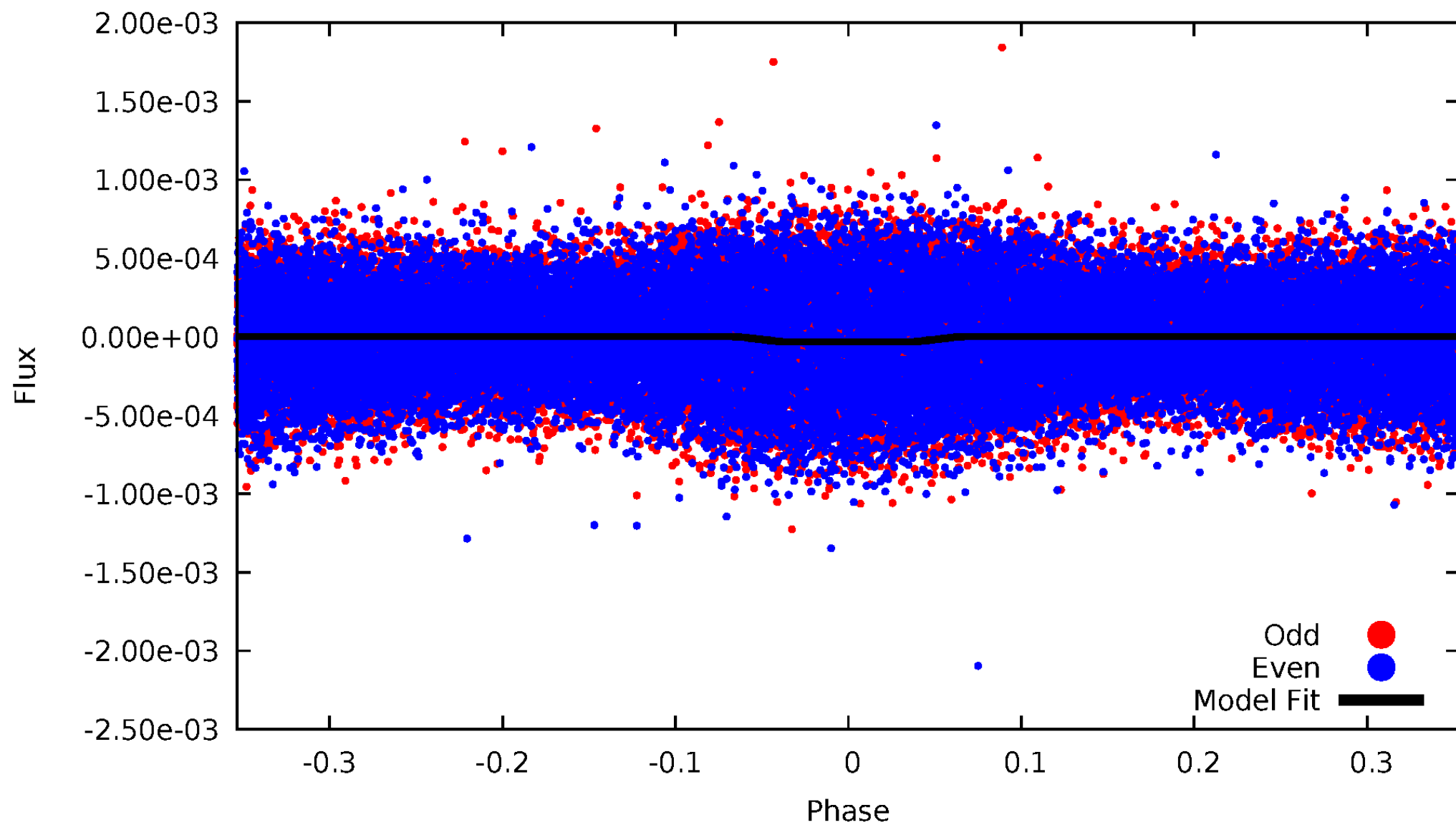
DV Odd/Even

TCE 011665531-01



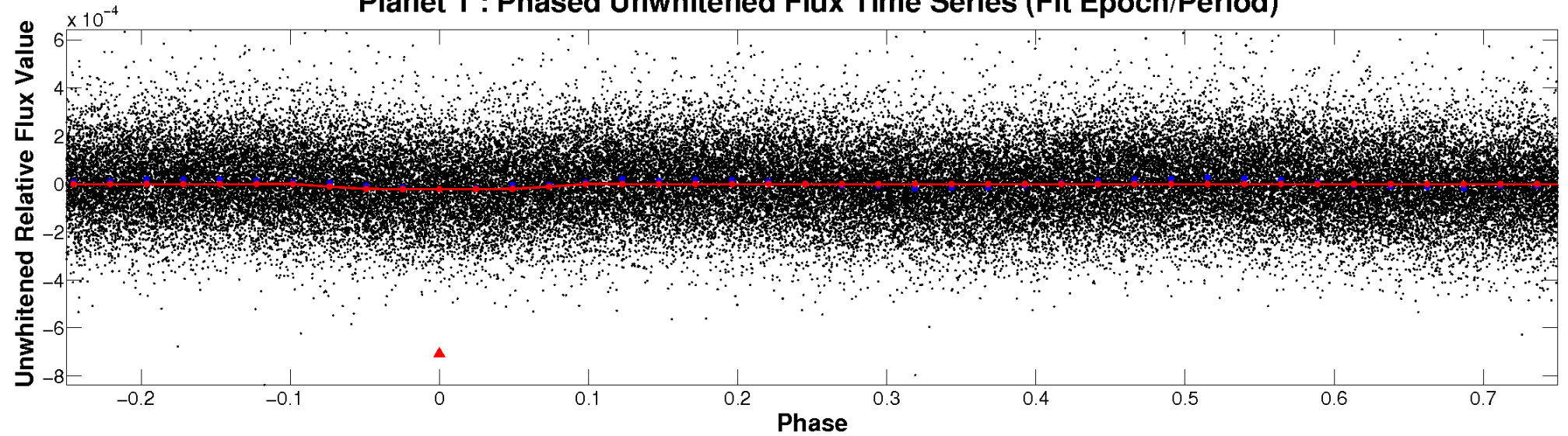
ALT Odd/Even

TCE 011665531-01

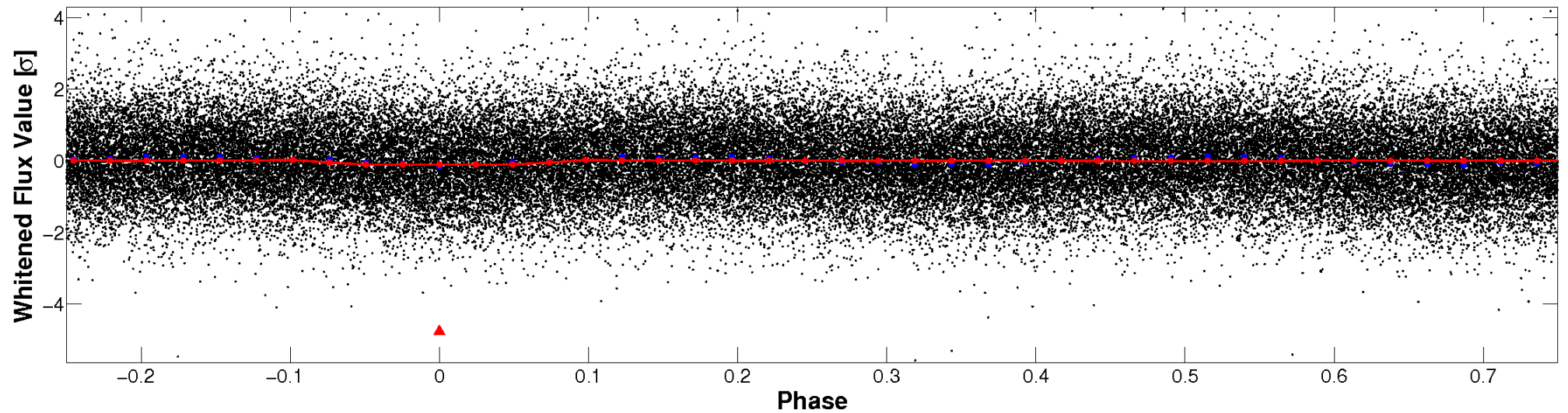


Non-Whitened Vs. Whitened Light Curve

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

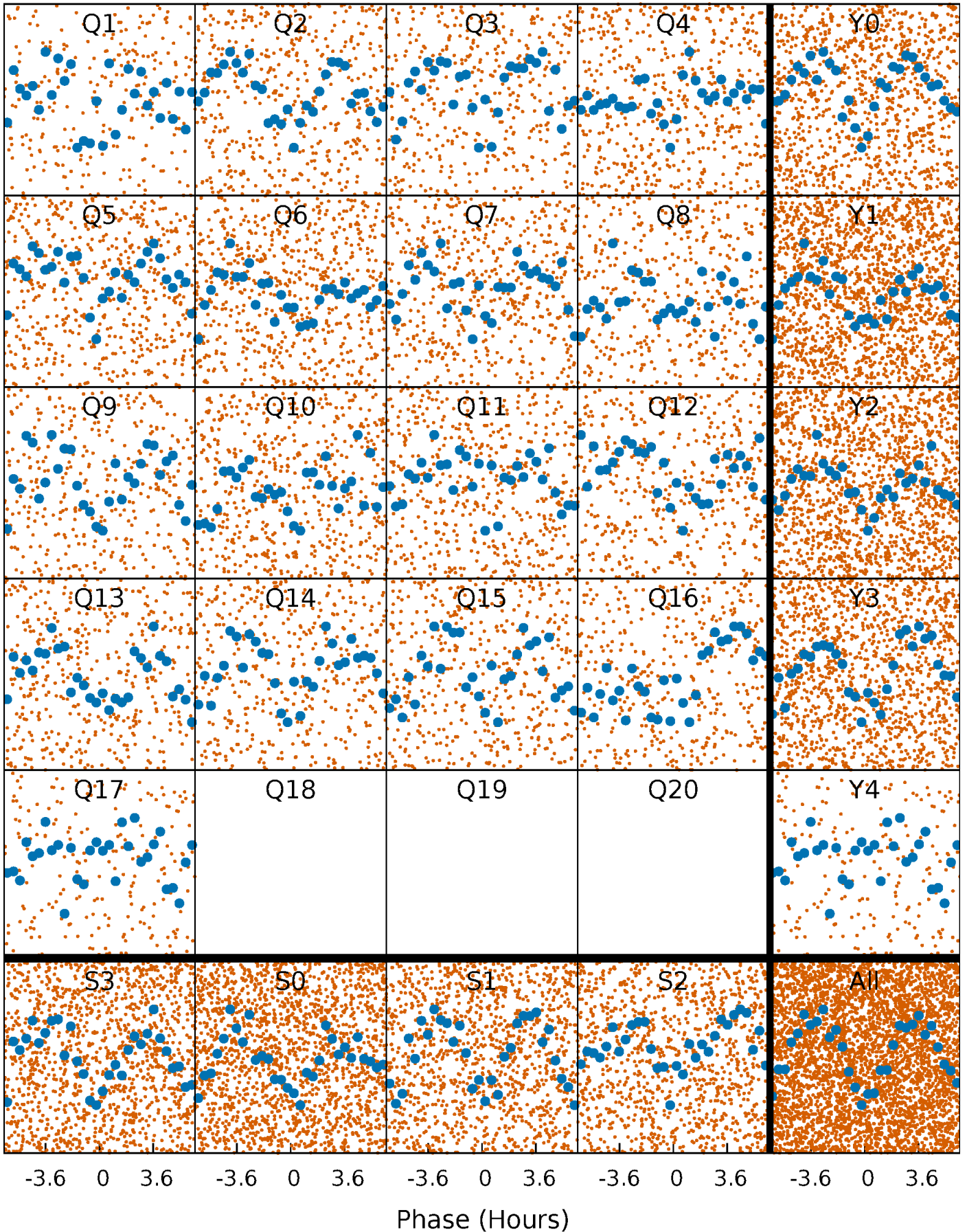


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



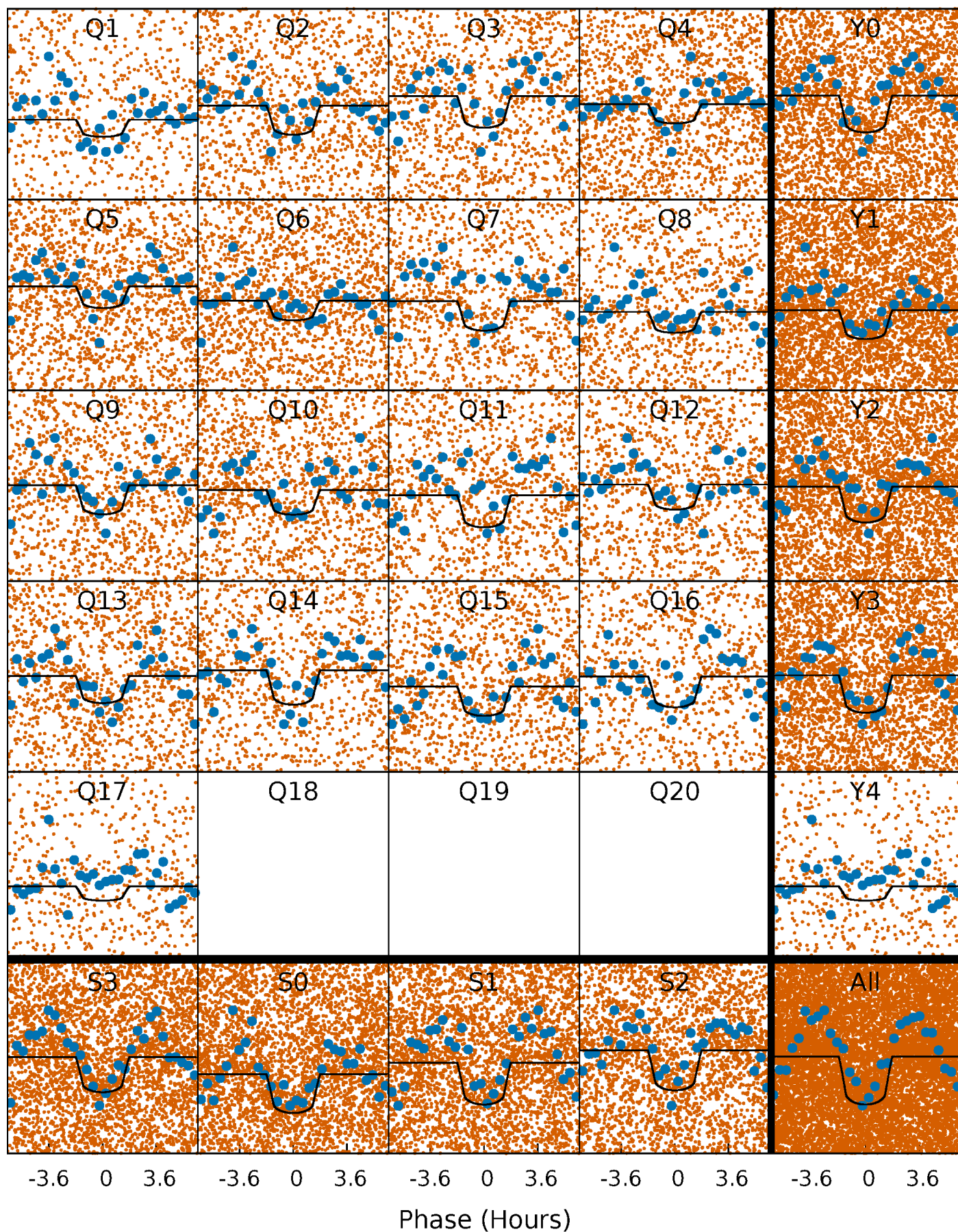
PDC Quarter-Phased Transit Curves

TCE 011665531-01 P= 0.832853 Days $T_0=132.004412$ (BKJD)



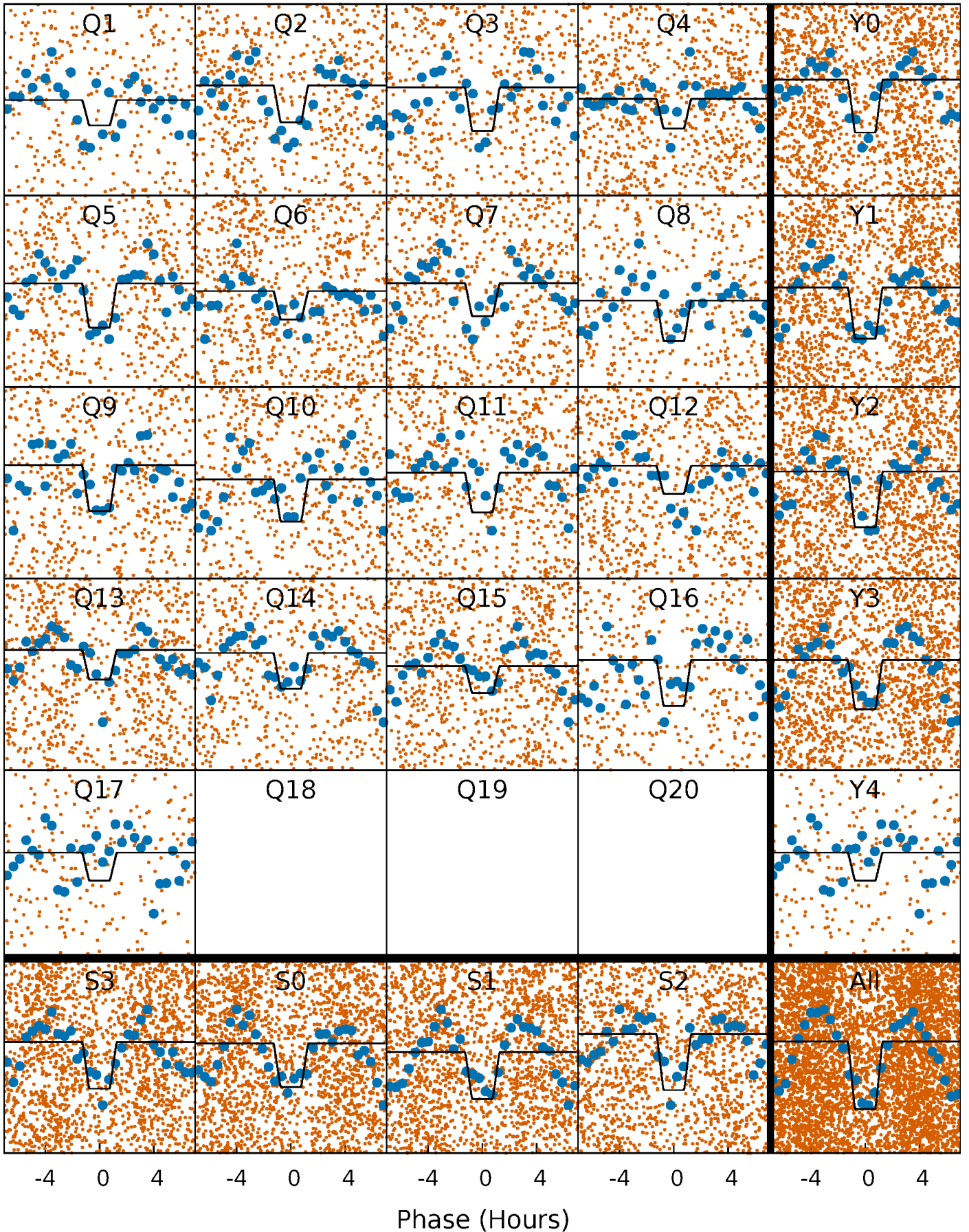
DV Quarter-Phased Transit Curves

TCE 011665531-01 P= 0.832853 Days $T_0=132.004412$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

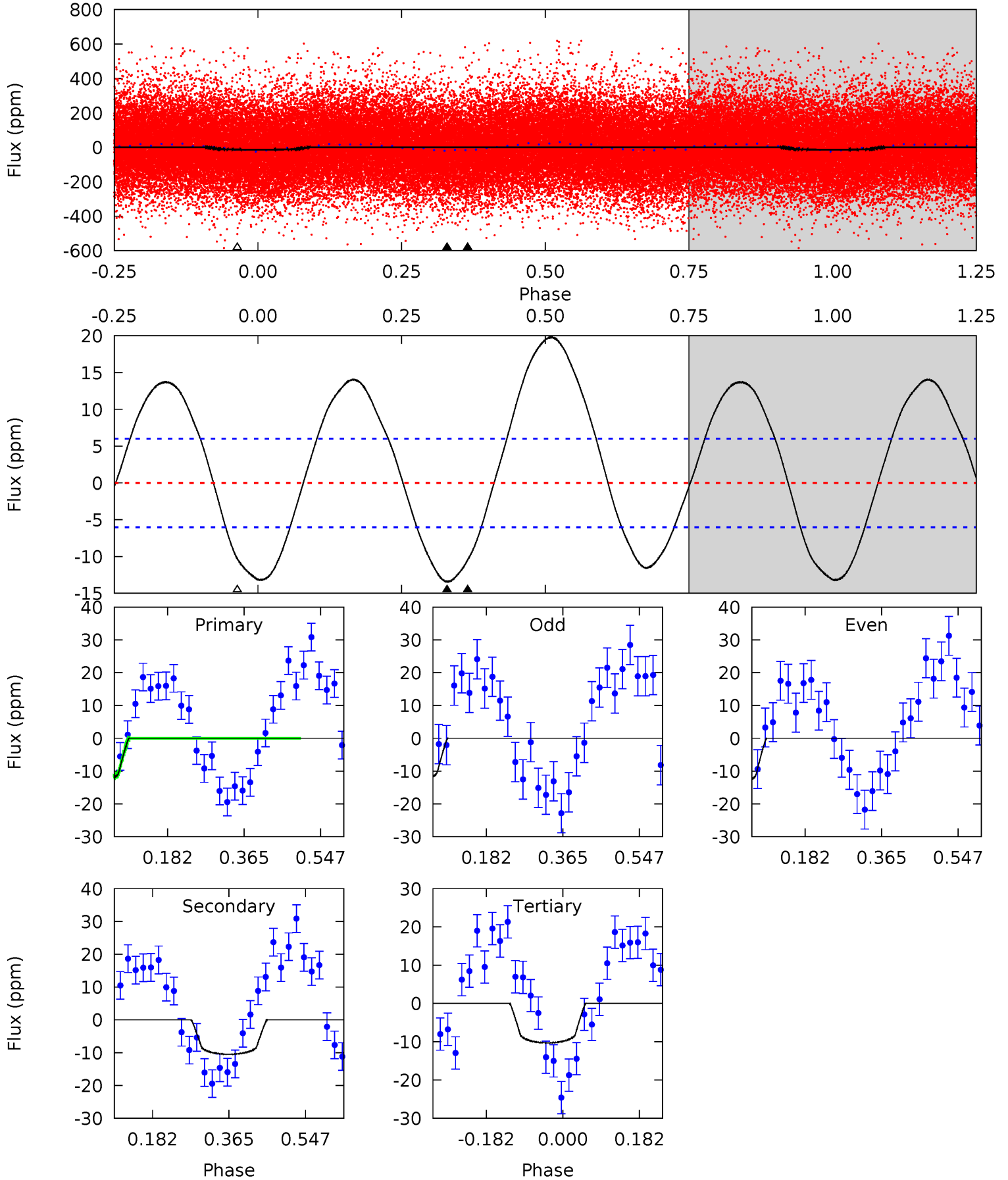
TCE 011665531-01 P= 0.832865 Days $T_0=132.001604$ (BKJD)



DV Model-Shift Uniqueness Test

011665531-01, P = 0.832853 Days, E = 131.171559 Days

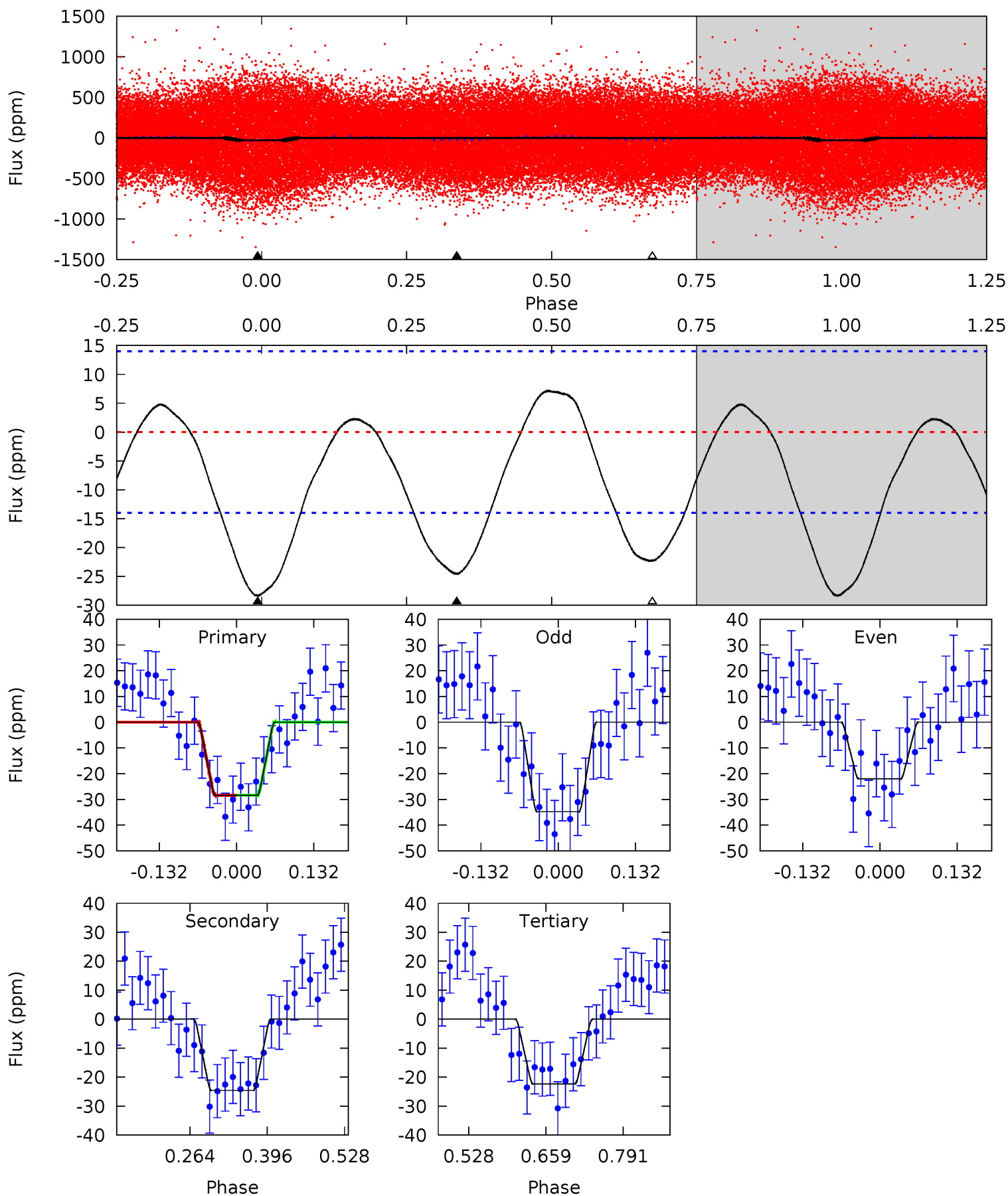
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.89	7.73	7.59	0	4.44	1.33	6.75	2.30	9.89	0.13	7.73	0.35	1.06	0.60	0.21



Alt Model-Shift Uniqueness Test

011665531-01, P = 0.832865 Days, E = 131.168739 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.14	7.92	7.19	0	4.51	1.51	3.21	1.95	9.14	0.73	7.92	2.06	1.06	0.20	0.02



Stellar Parameters For KIC 011665531

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7234^{+230}_{-316}	$4.068^{+0.175}_{-0.175}$	$-0.060^{+0.200}_{-0.350}$	$1.912^{+0.556}_{-0.455}$	$1.558^{+0.212}_{-0.259}$	$0.314^{+0.296}_{-0.153}$
	+3%/-4%	+4%/-4%	+333%/-583%	+29%/-24%	+14%/-17%	+94%/-49%
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 011665531-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-10 ± 1	$1.07^{+0.37}_{-0.34}$	4348^{+352}_{-302}	5462^{+1242}_{-746}	$2.009^{+2.276}_{-0.950}$
Alt.	-25 ± 3	$1.20^{+0.41}_{-0.37}$	4341^{+329}_{-303}	6506^{+1377}_{-913}	$3.751^{+4.025}_{-1.613}$

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

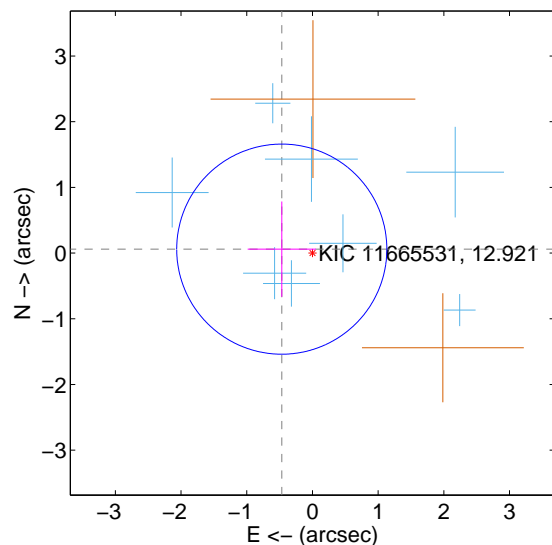
Supplemental centroid analysis for 011665531-01. Kepler magnitude: 12.92. Transit SNR 9.62

There are 8 quarters with good PRF difference image offsets

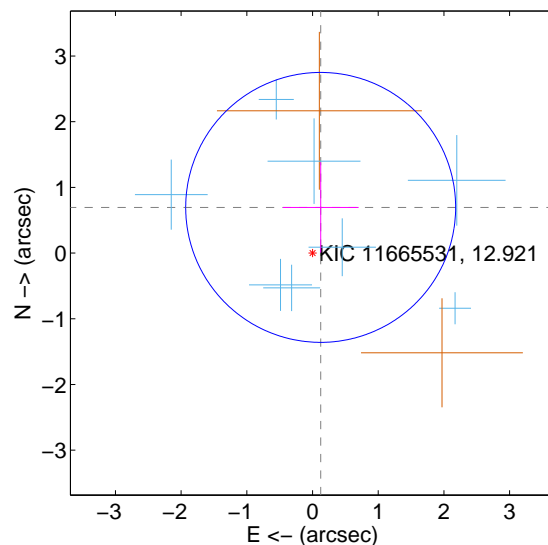
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.471 ± 0.533	0.88	0.467 ± 0.520	0.060 ± 0.726
PRF-fit source offset from KIC position	0.707 ± 0.685	1.03	-0.124 ± 0.577	0.696 ± 0.688
photometric centroid source offset	0.69 ± 0.79	0.87	-0.68 ± 0.79	0.08 ± 0.92

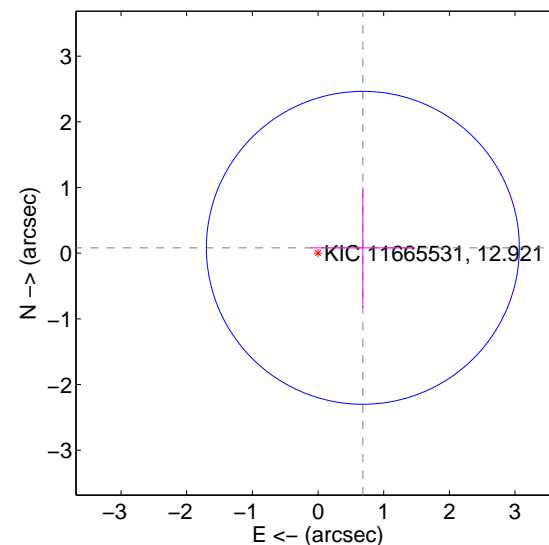
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

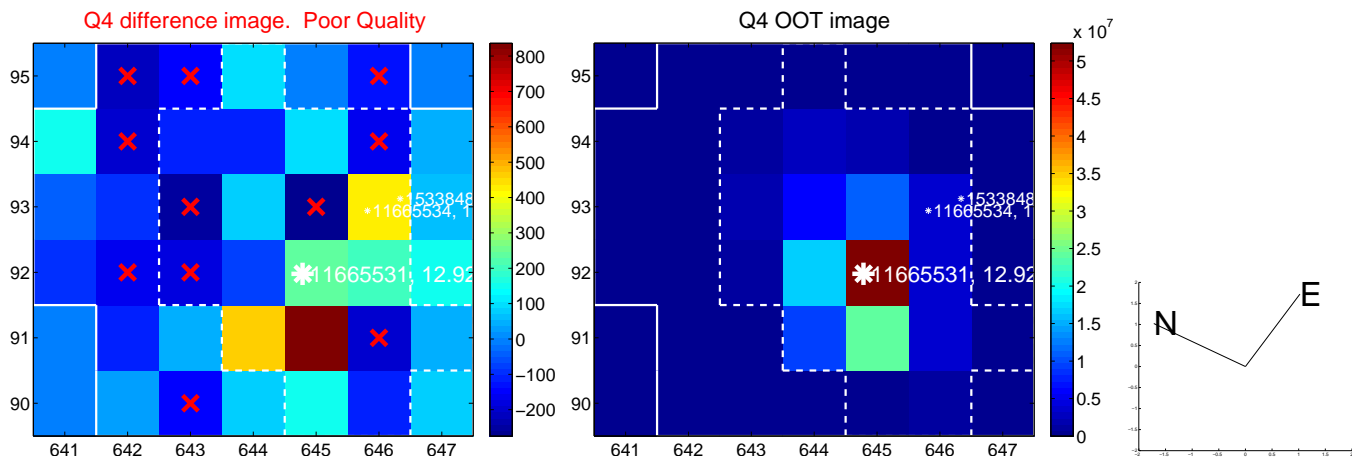
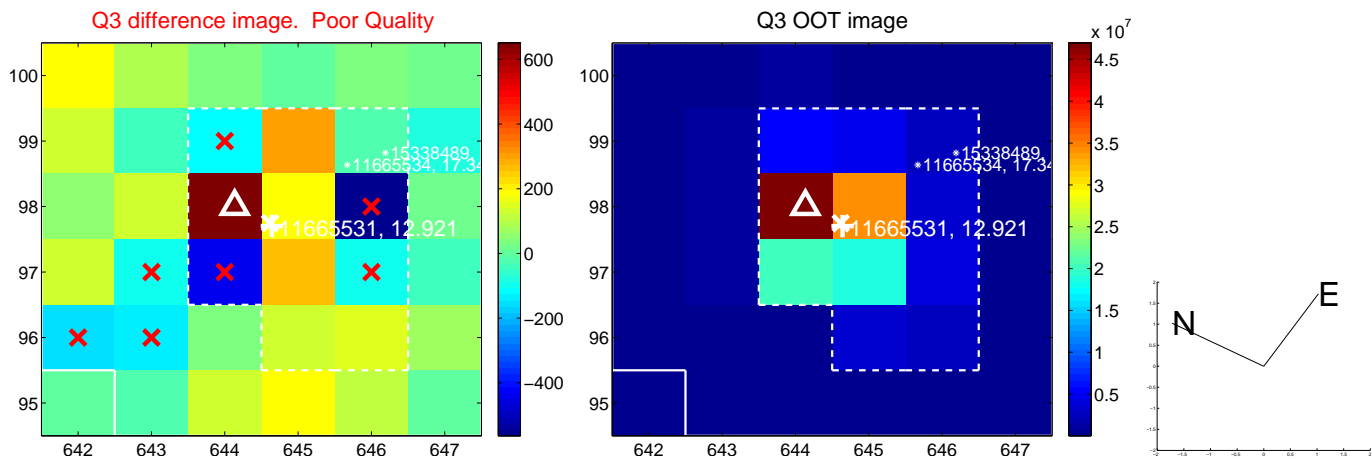
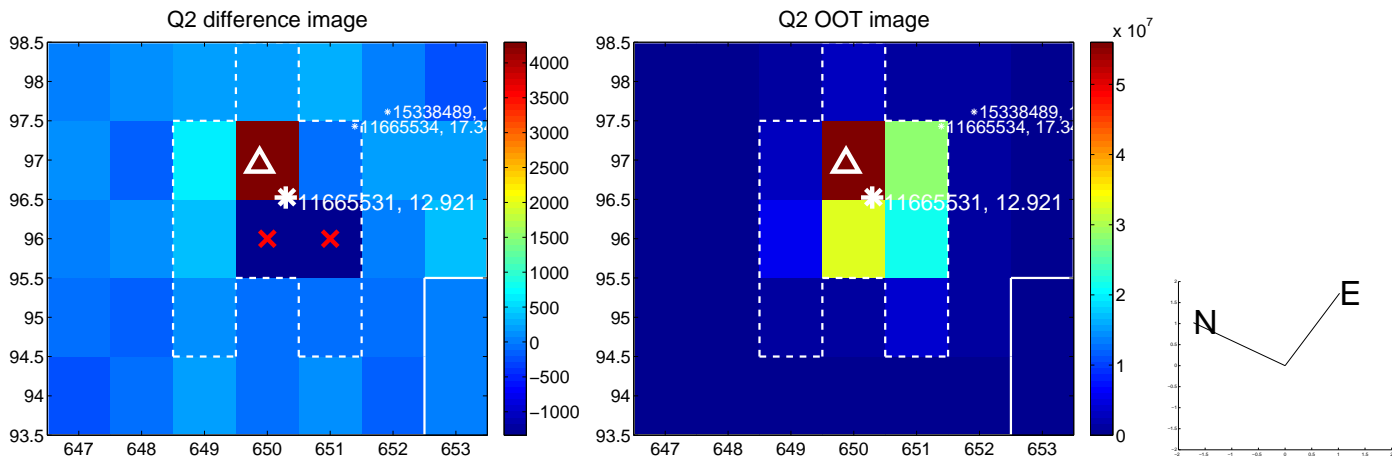
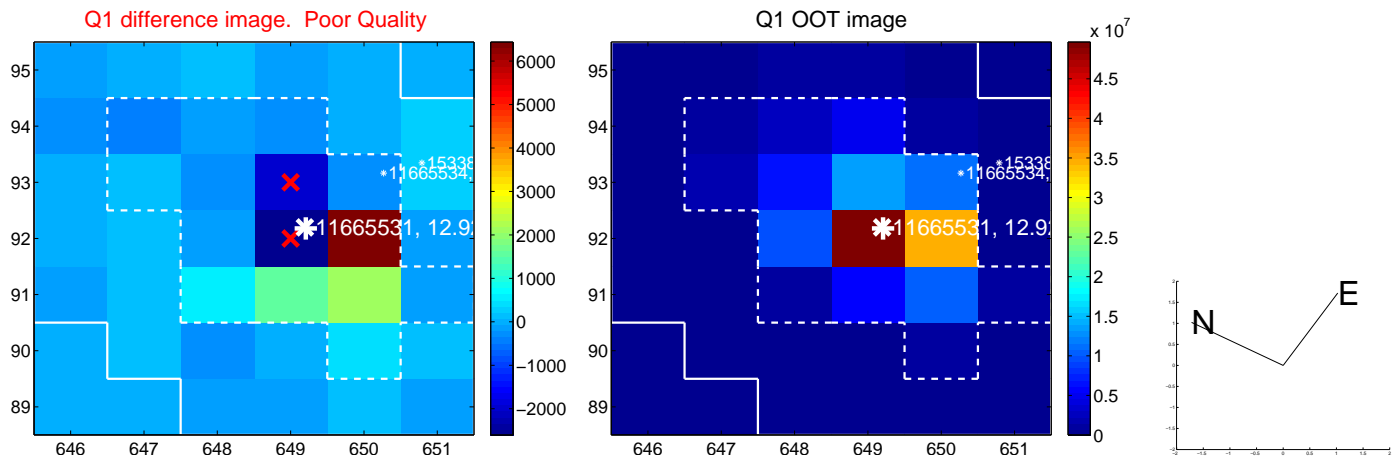


offset from photometric centroids

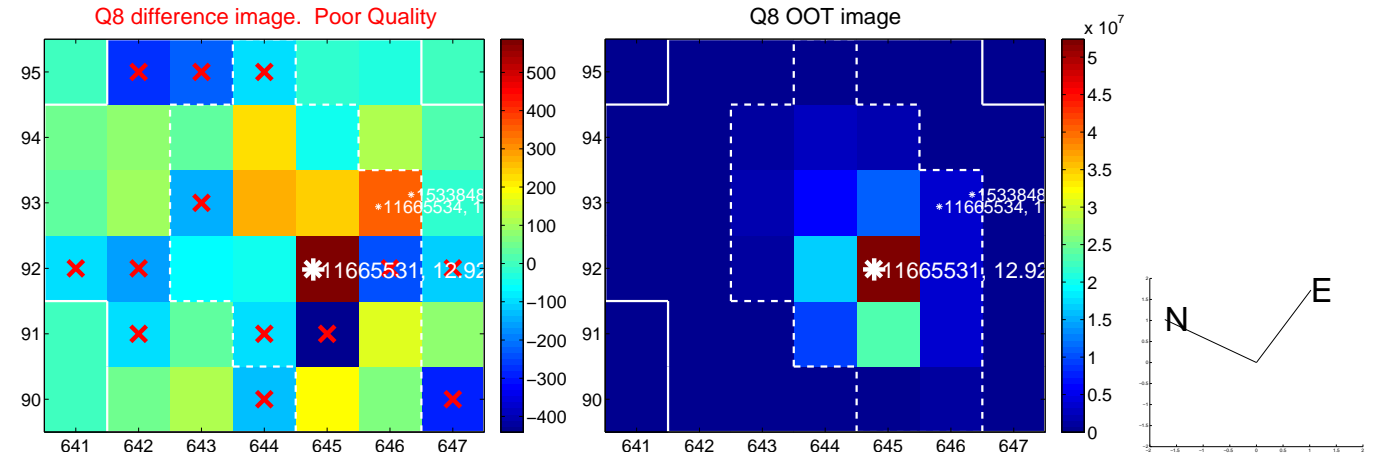
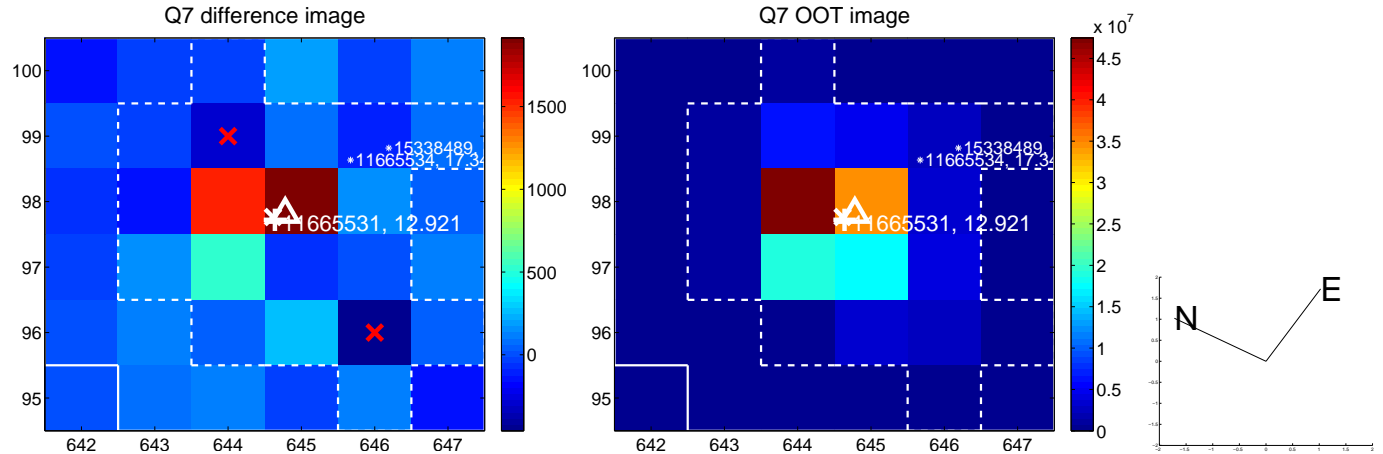
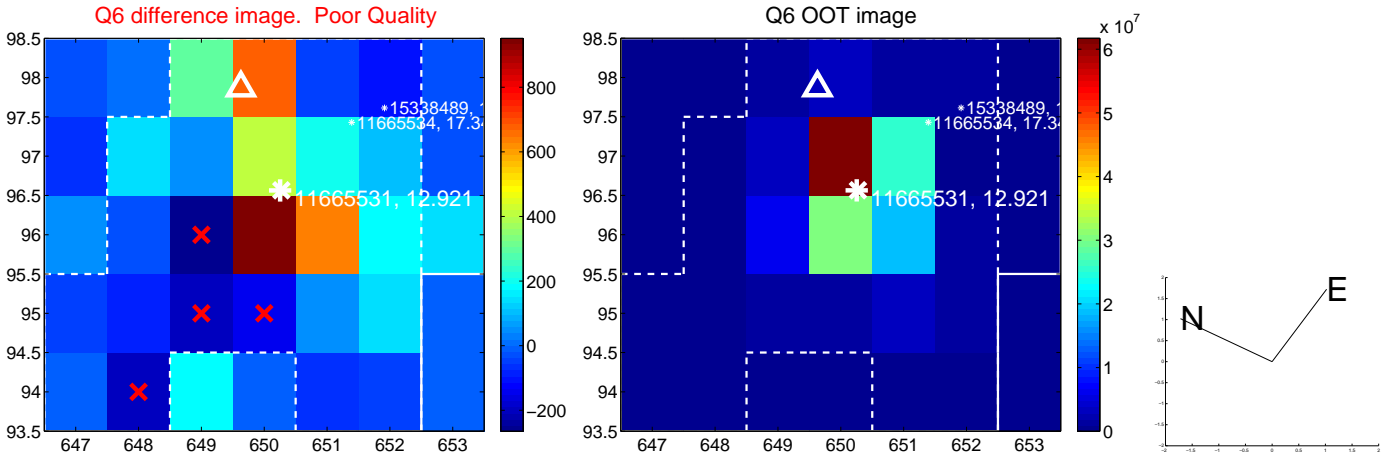
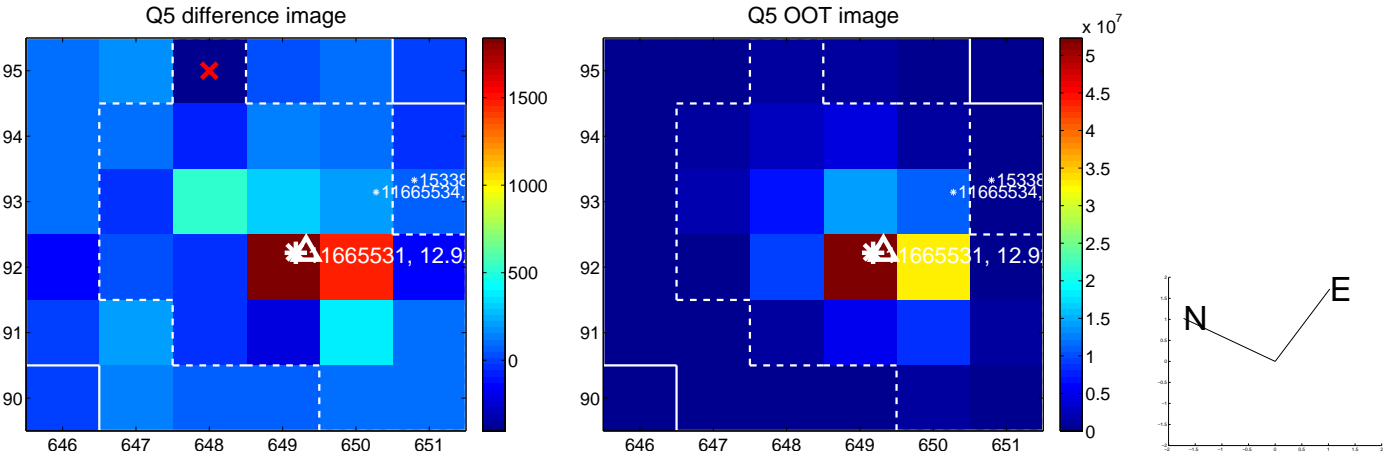


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

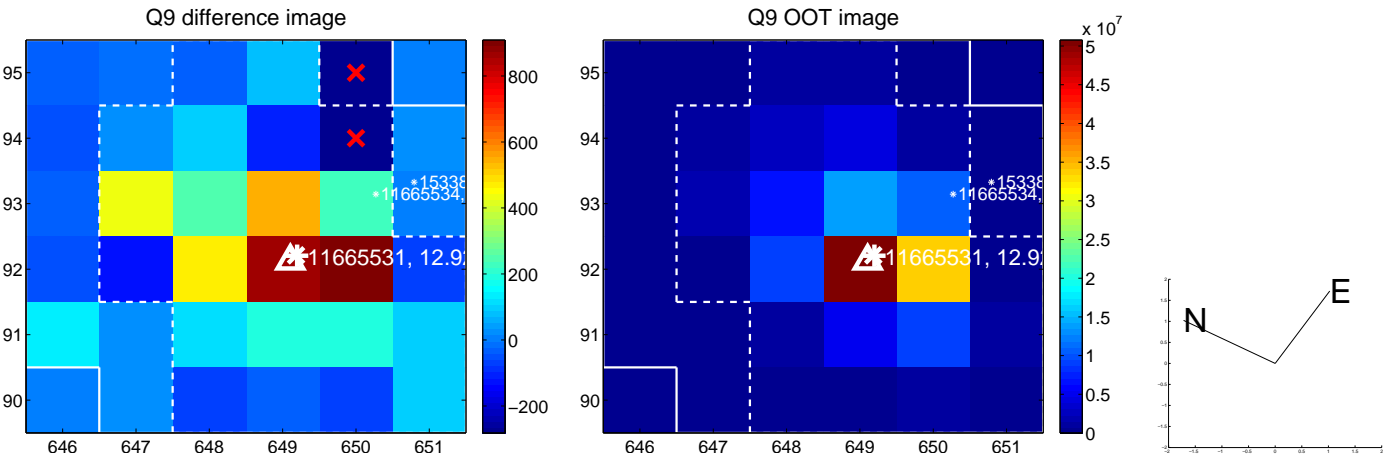
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



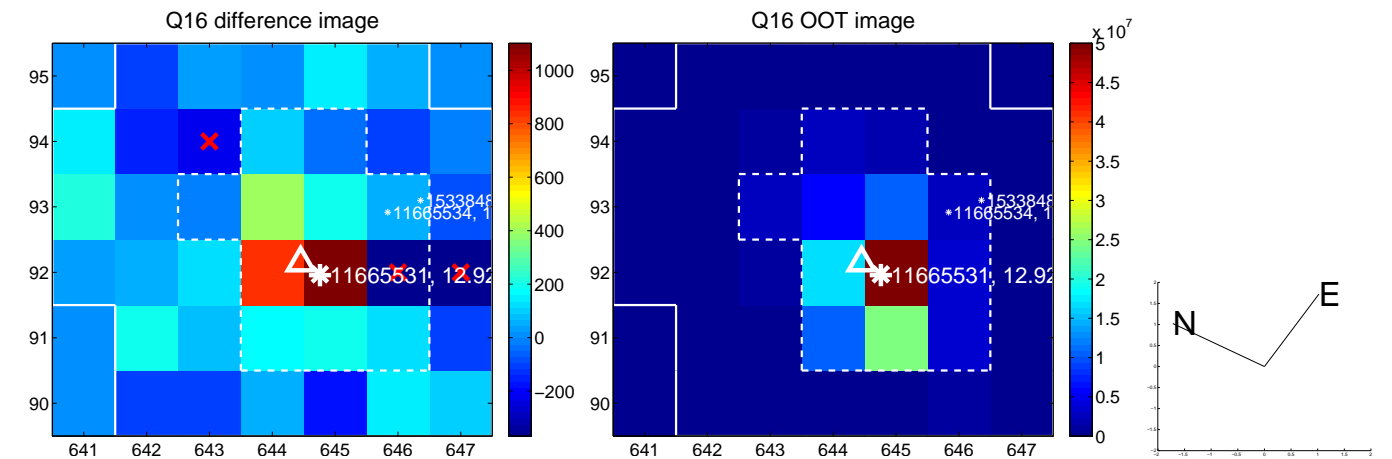
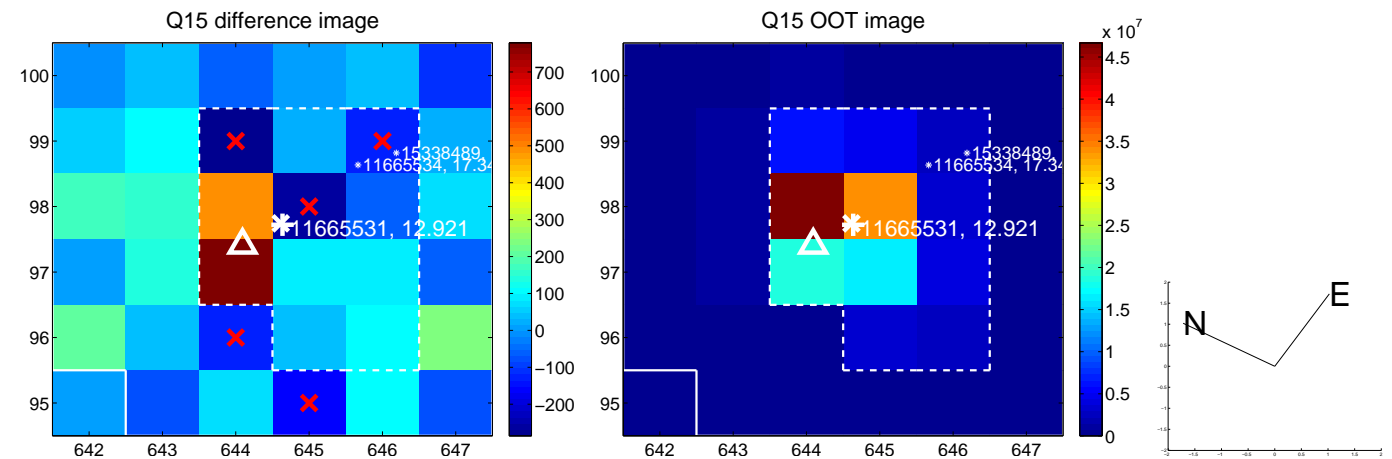
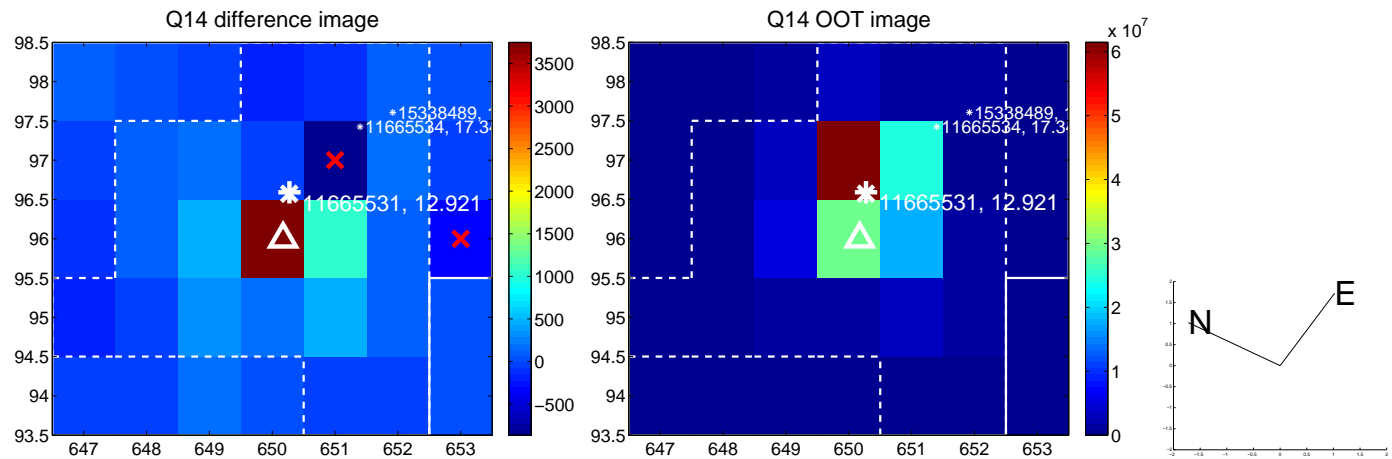
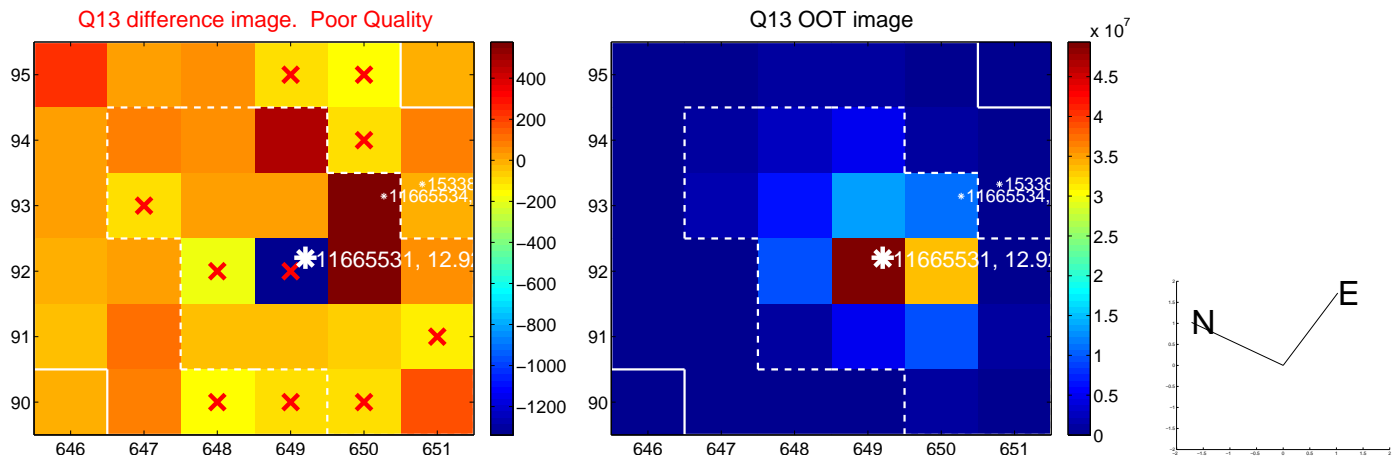
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



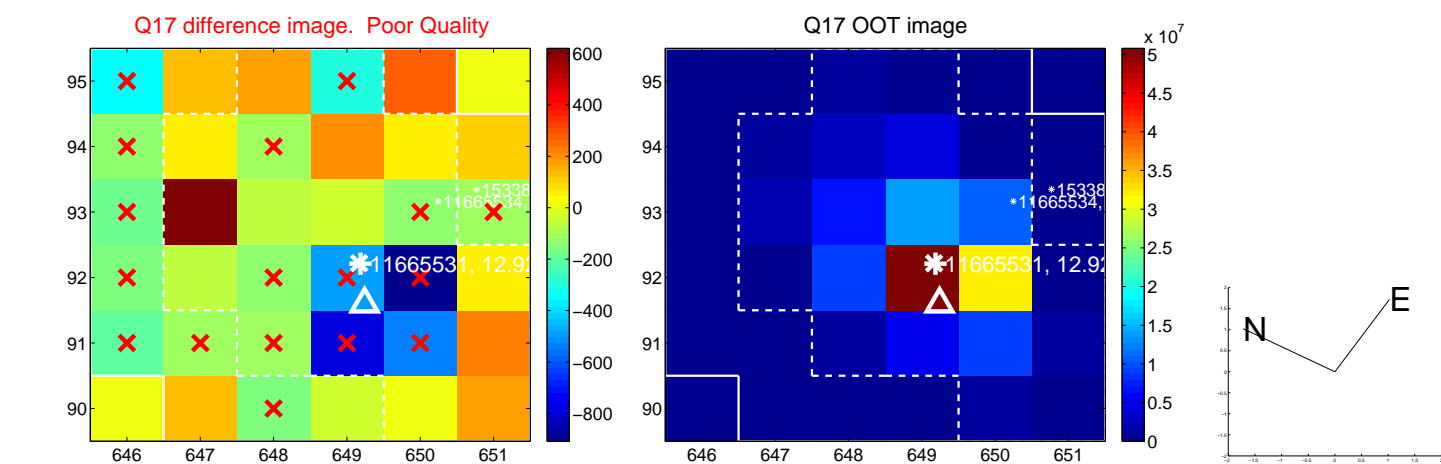
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



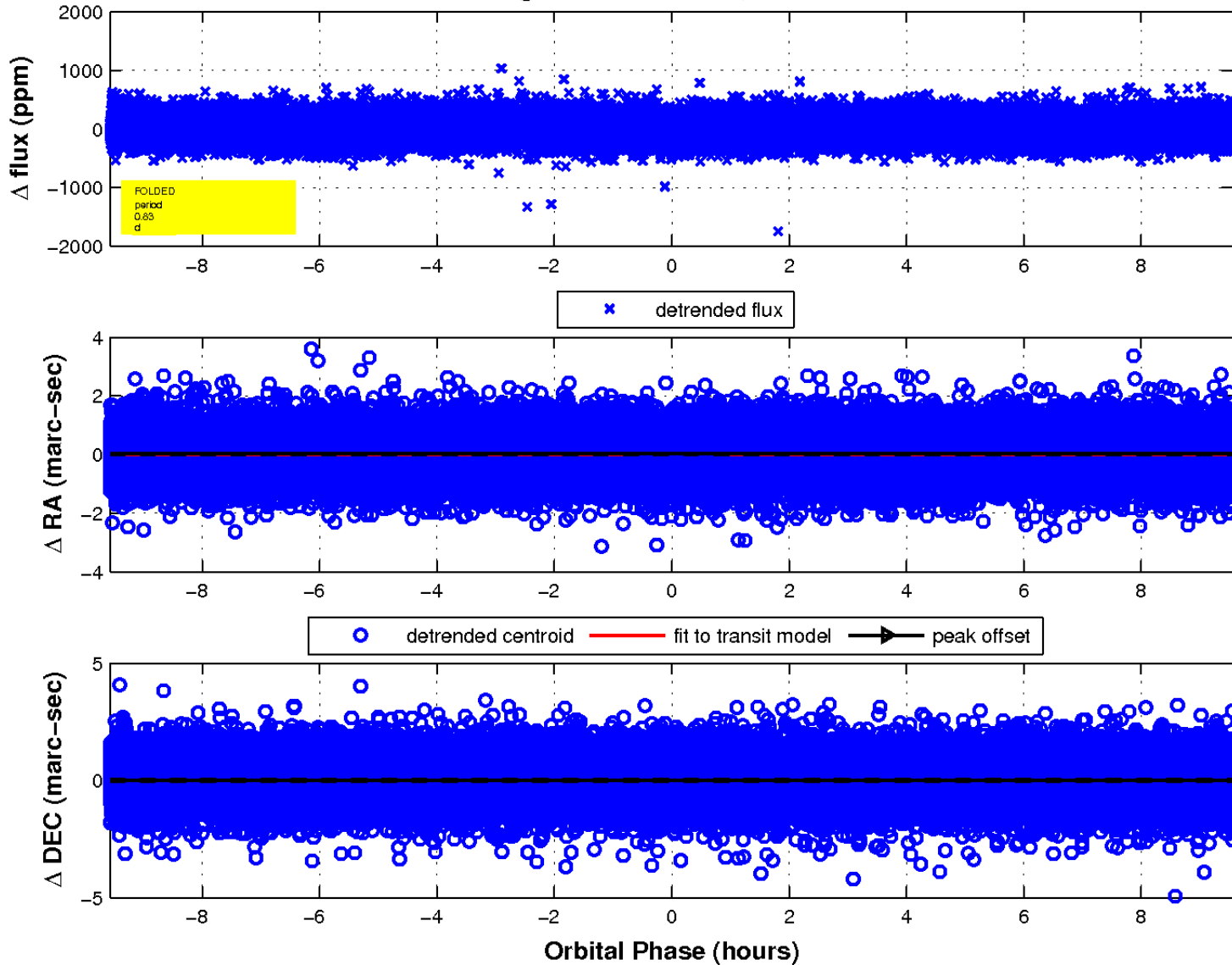
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

