

KIC 008314902

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})
008314902-01	OBS	No	0.813665	132.237520	499.2	9.429	66.8	15.8	0.72	4420	2.13	763.86

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008314902-01	OBS	FP	0.00	1	0	0	0	LPP_DV

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

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

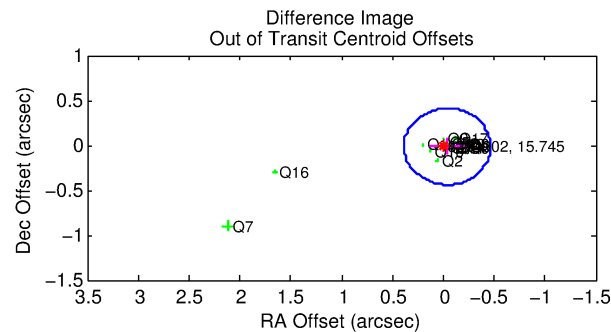
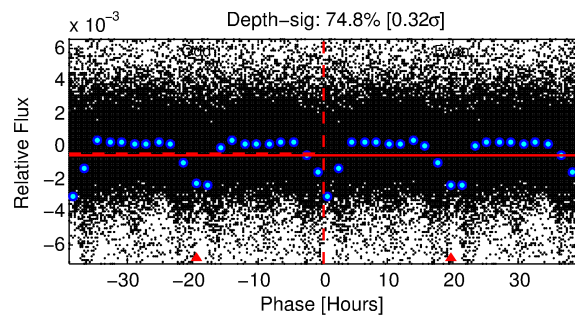
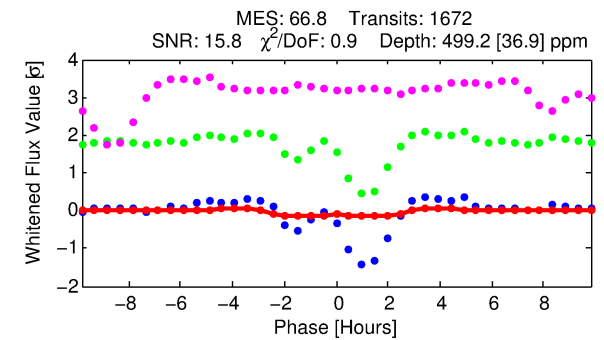
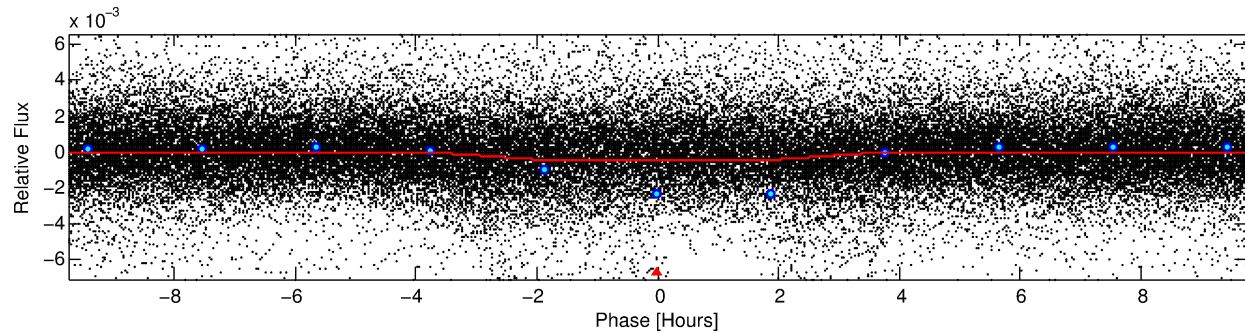
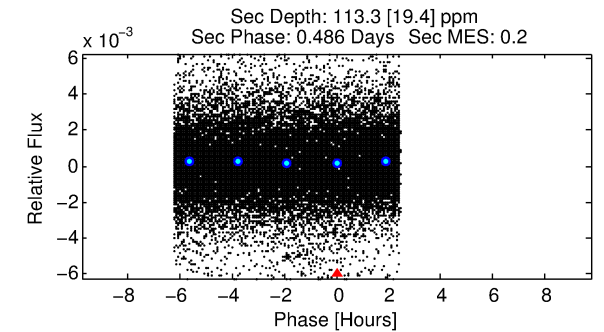
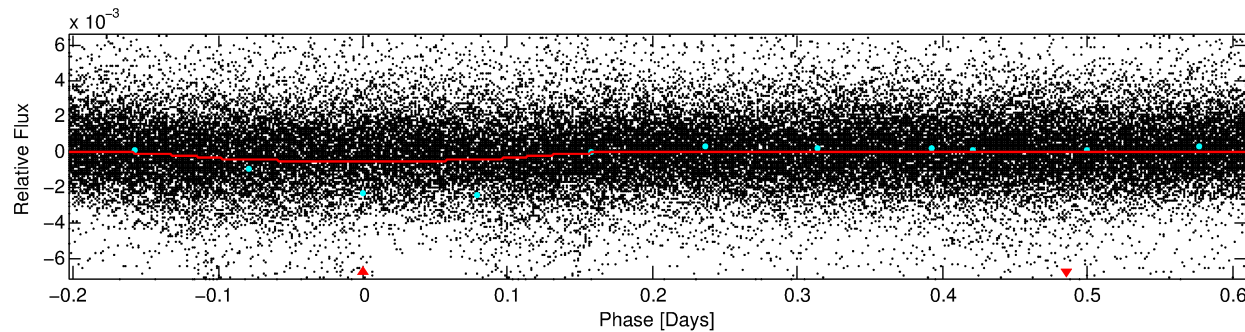
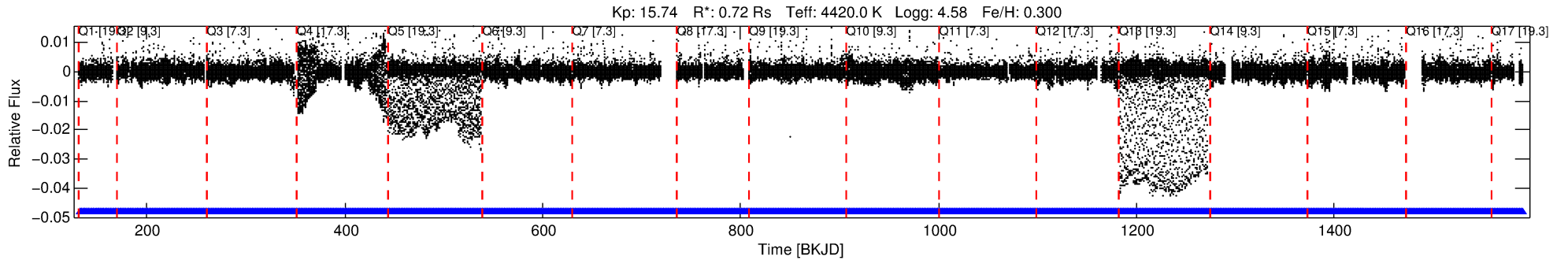
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008314902-01

No Significant Match Found

DV One-Page Summary

KIC: 8314902 Candidate: 1 of 1 Period: 0.814 d



DV Fit Results:

Period = 0.81366 [0.00001] d
Epoch = 132.2375 [0.0035] BKJD
Rp/R* = 0.0270 [0.0011]
a/R* = 1.03 [0.00]
b = 0.94 [0.01]
Seff = 763.86 [131.82]
Teff = 1341 [58] K
Rp = 2.13 [0.19] Re
a = 0.0153 [0.0011] AU
Ag = 3.21 [0.69] [3.21σ]
Teffp = 2773 [163] K [8.30σ]

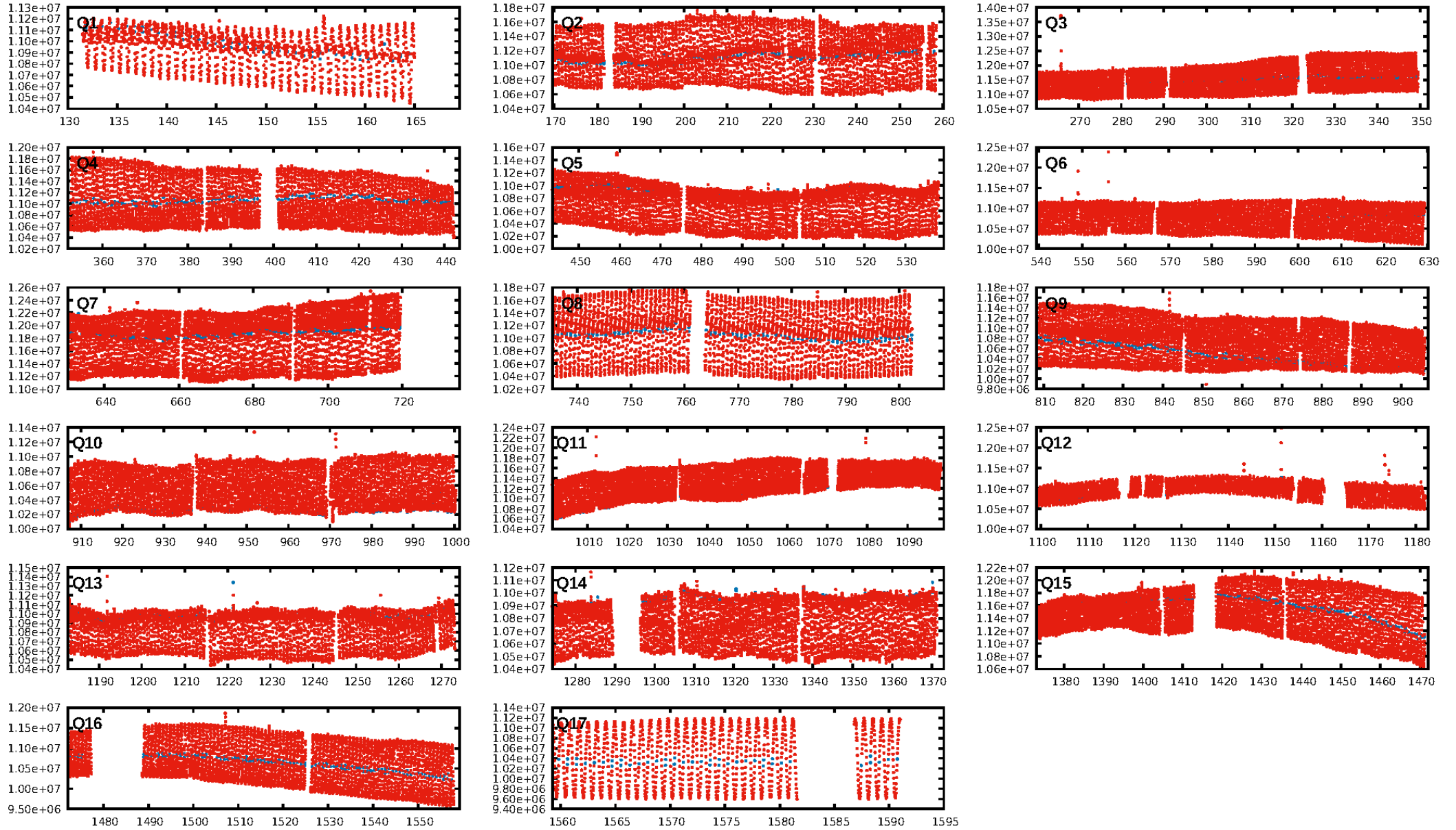
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [1596/1596]
GhostDiagnostic-chr: 1.42
Centroid-sig: 66.3%
Centroid-so: 0.173 arcsec [1.15σ]
OotOffset-rm: 0.041 arcsec [0.29σ]
KicOffset-rm: 0.111 arcsec [1.45σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.53 [9/17]
DiffImageOverlap-fno: 1.00 [17/17]

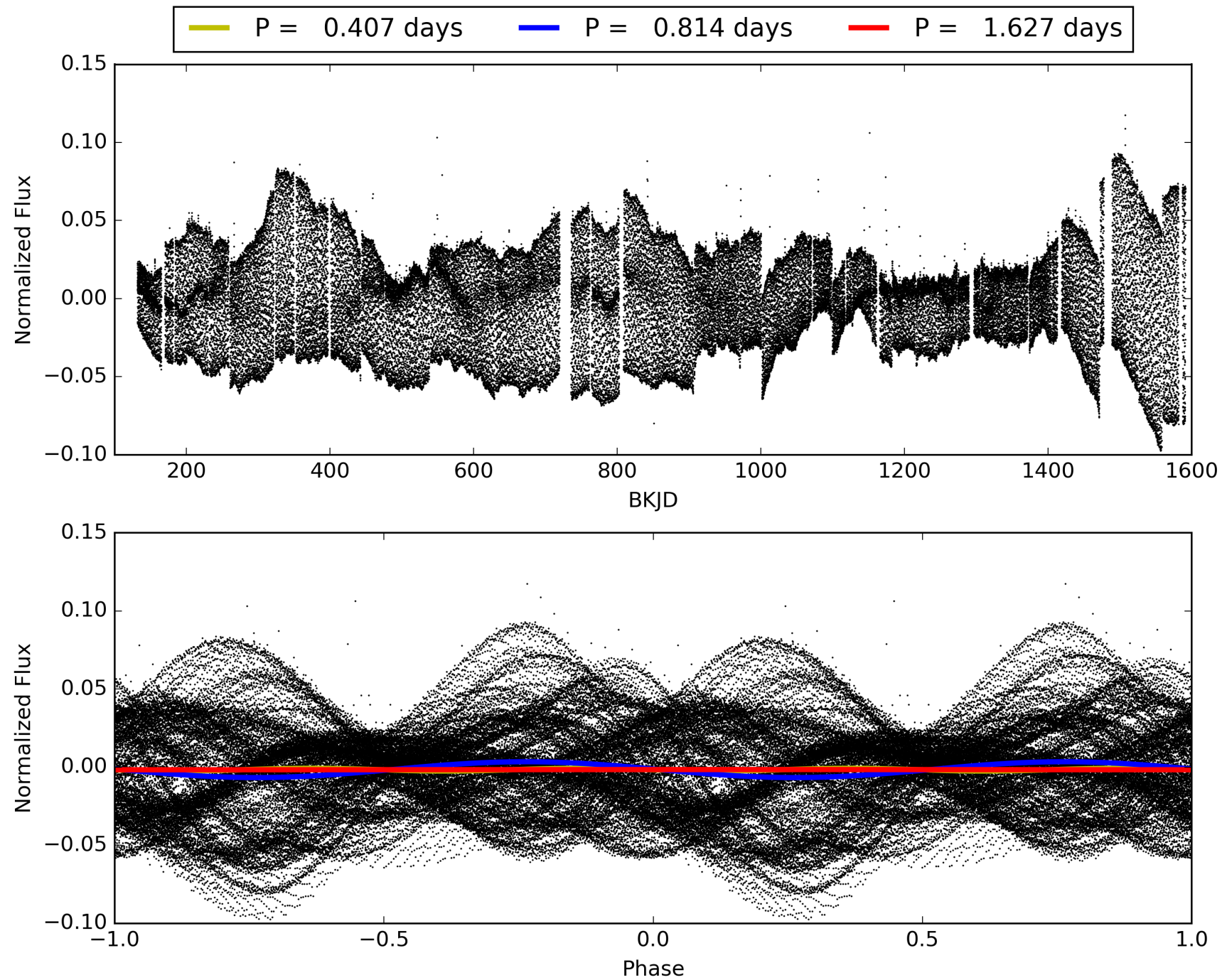
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 18:17:21 Z

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

TCE 008314902-01, PDC Light Curves

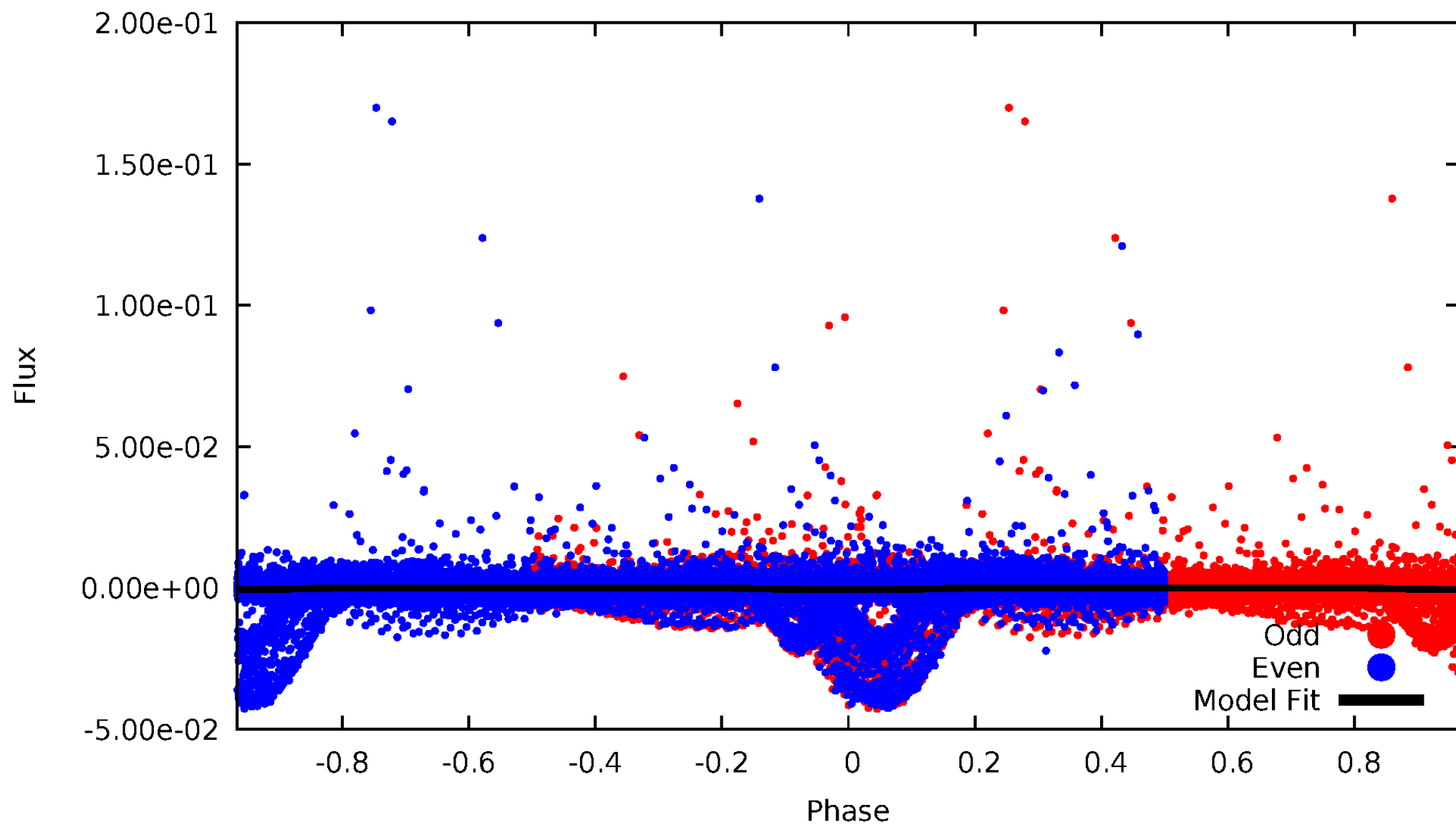


TCE 008314902-01



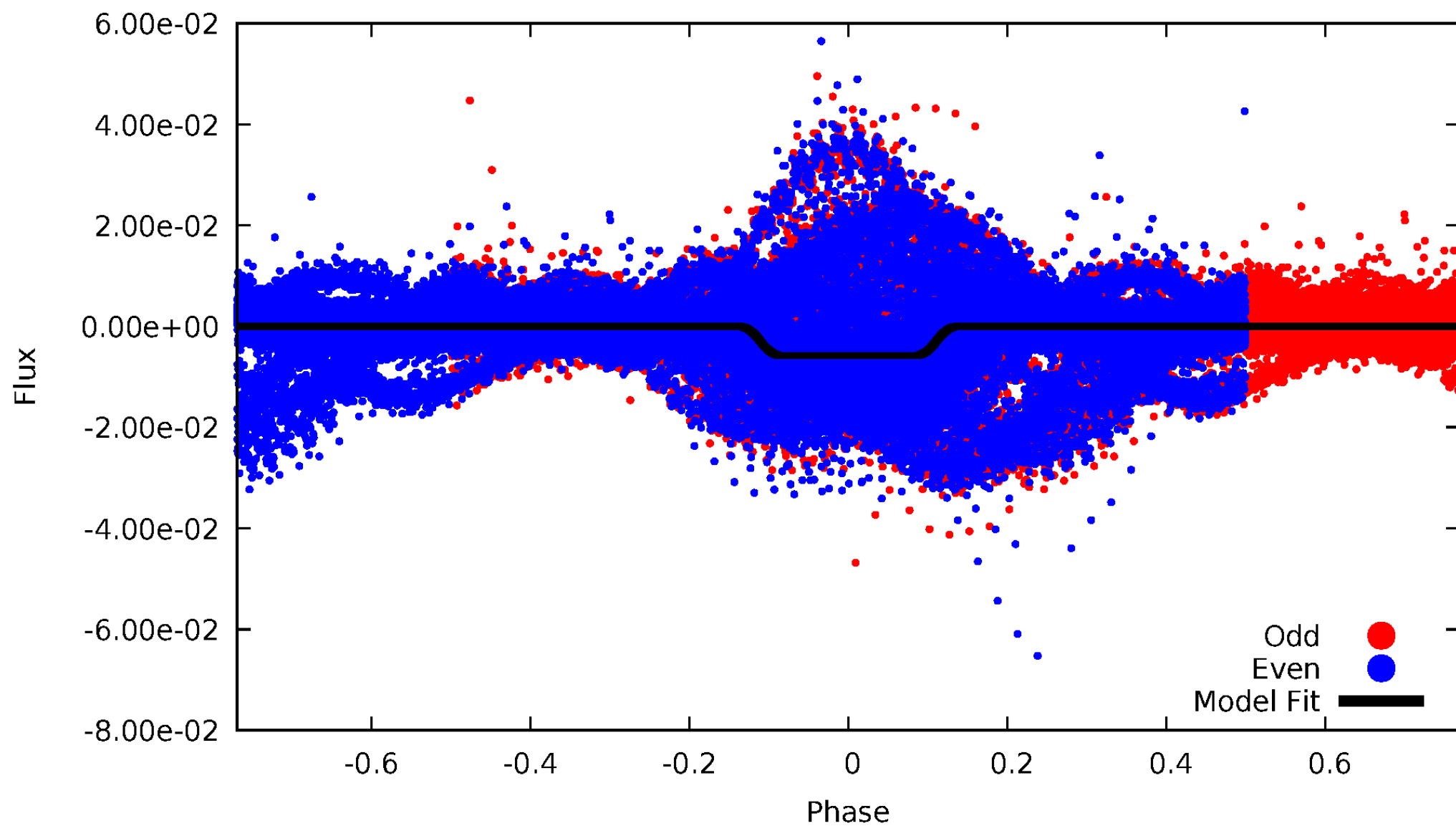
DV Odd/Even

TCE 008314902-01



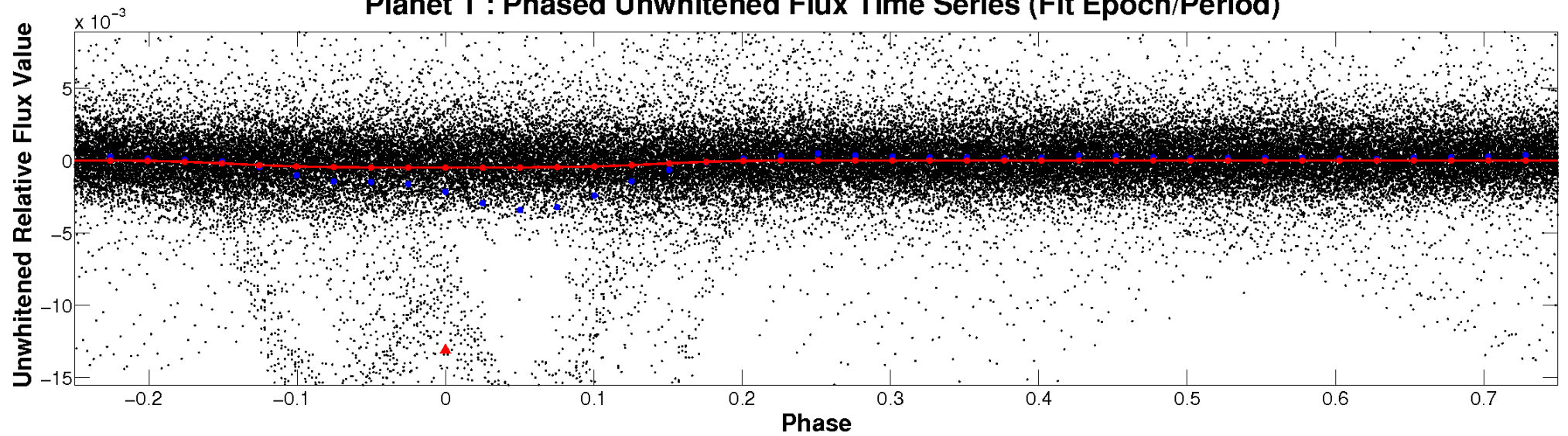
ALT Odd/Even

TCE 008314902-01

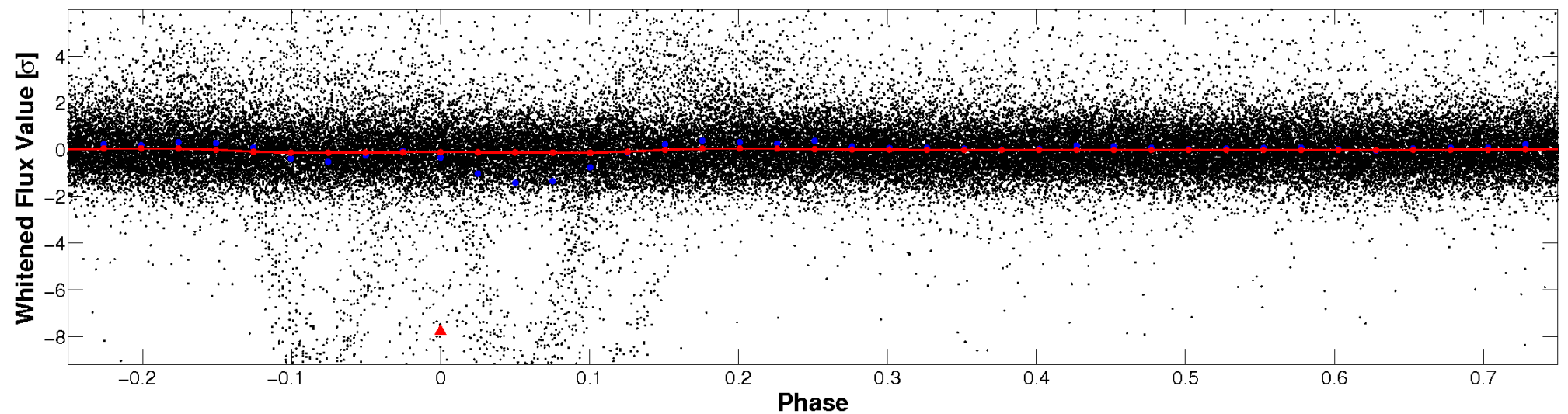


Non-Whitened Vs. Whitened Light Curve

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

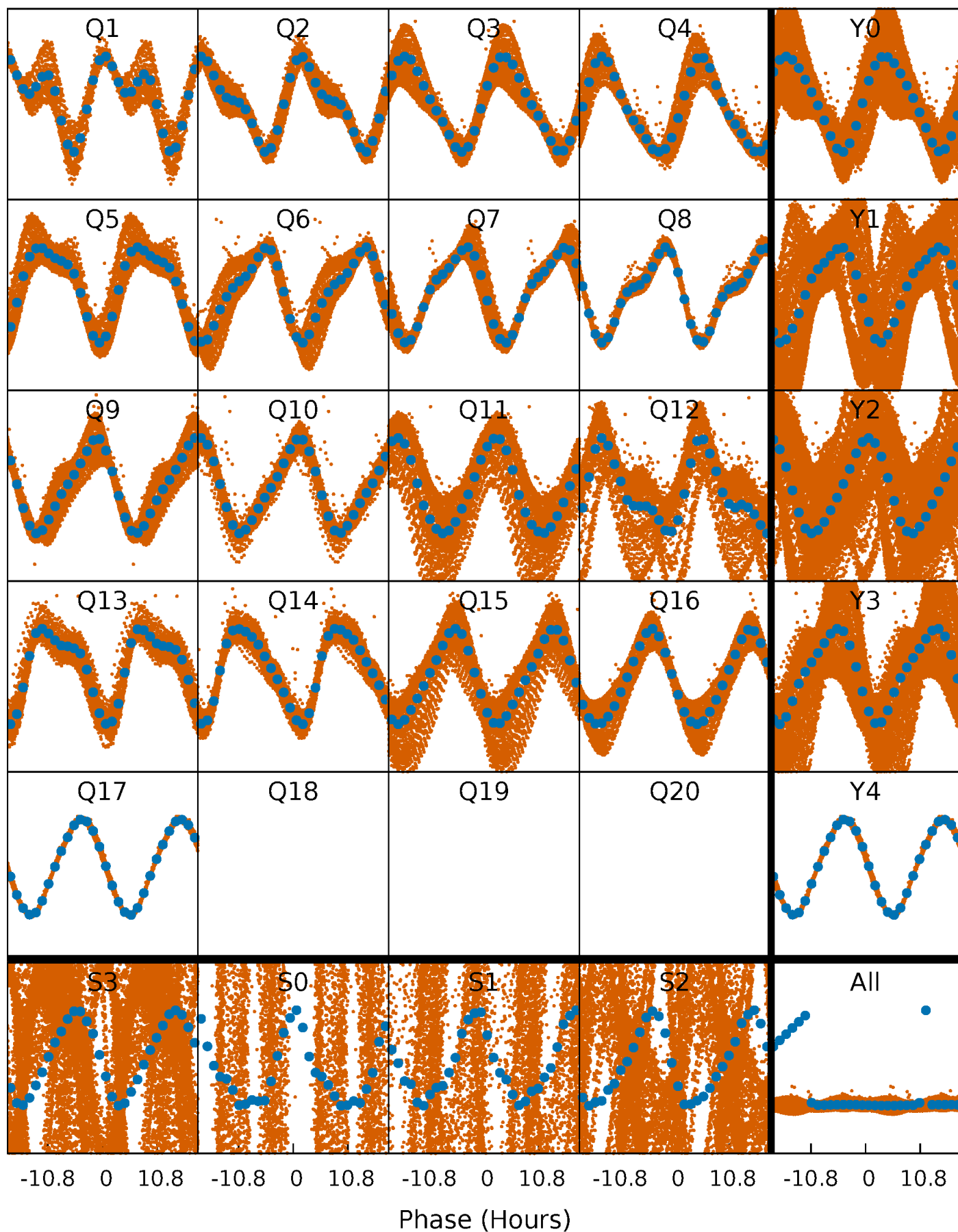


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



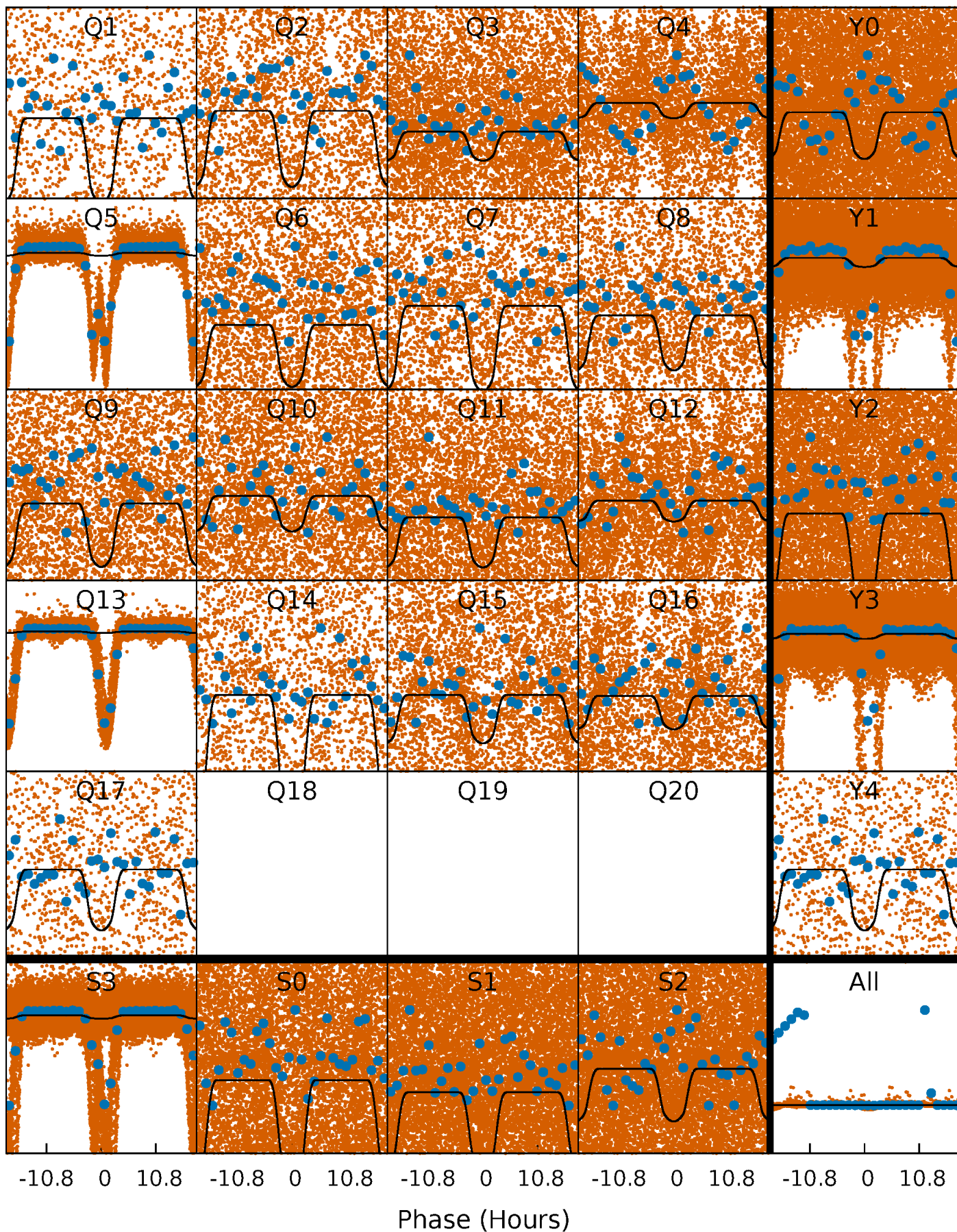
PDC Quarter-Phased Transit Curves

TCE 008314902-01 P= 0.813665 Days $T_0=132.237520$ (BKJD)



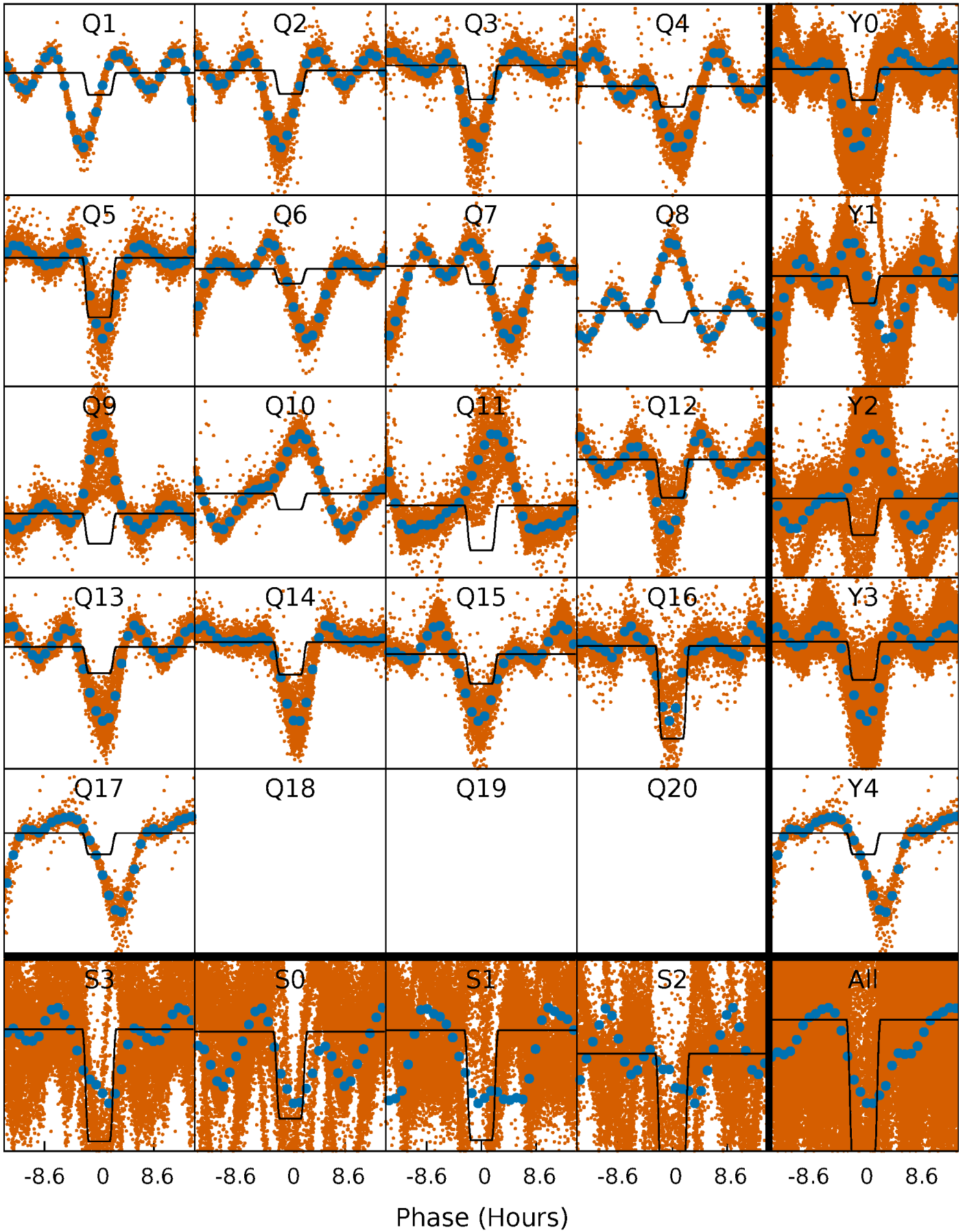
DV Quarter-Phased Transit Curves

TCE 008314902-01 P= 0.813665 Days $T_0=132.237520$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

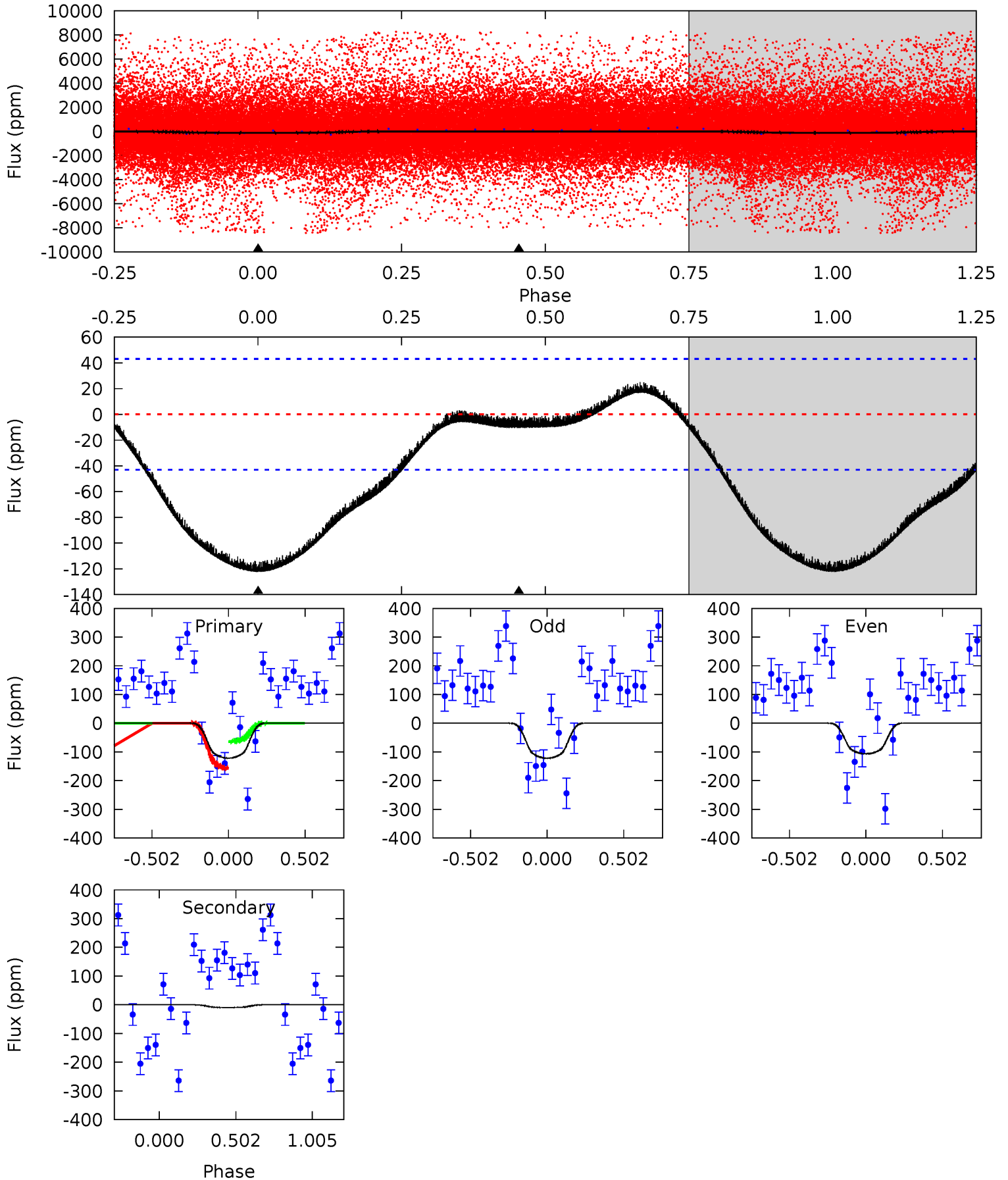
TCE 008314902-01 P= 0.813795 Days $T_0=132.103512$ (BKJD)



DV Model-Shift Uniqueness Test

008314902-01, P = 0.813665 Days, E = 131.423855 Days

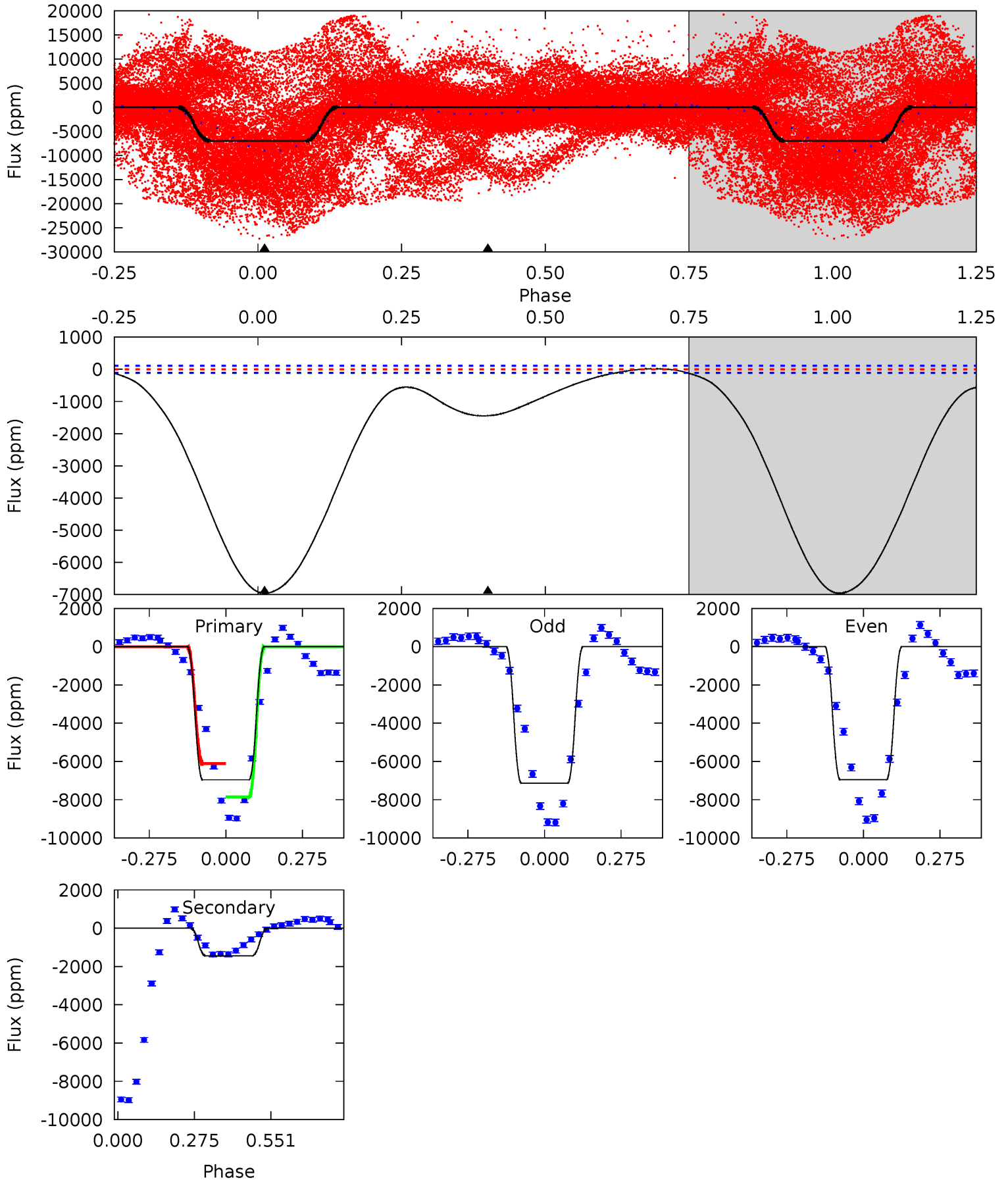
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.9	0.97	0	0	4.21	0.67	1.77	11.9	11.9	0.97	0.97	0.75	-685.1	0.17	4.51



Alt Model-Shift Uniqueness Test

008314902-01, P = 0.813795 Days, E = 131.289717 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
271.7	56.3	0	0	4.35	1.09	1.71	271.7	271.7	56.3	56.3	3.50	0.41	0.00	13.4



Stellar Parameters For KIC 008314902

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4420^{+154}_{-154}	$4.577^{+0.056}_{-0.018}$	$0.300^{+0.150}_{-0.300}$	$0.722^{+0.029}_{-0.059}$	$0.718^{+0.041}_{-0.050}$	$2.686^{+0.662}_{-0.178}$
	+3%/-3%	+1%/-0%	+50%/-100%	+4%/-8%	+6%/-7%	+25%/-7%
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 008314902-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-10 ± 10	$2.11^{+0.11}_{-0.11}$	1859^{+67}_{-71}	-1820^{+4179}_{-566}	$0.275^{+0.332}_{-0.291}$
Alt.	-1442 ± 26	$5.97^{+0.20}_{-0.29}$	1856^{+75}_{-67}	3443^{+100}_{-101}	$5.259^{+0.442}_{-0.313}$

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

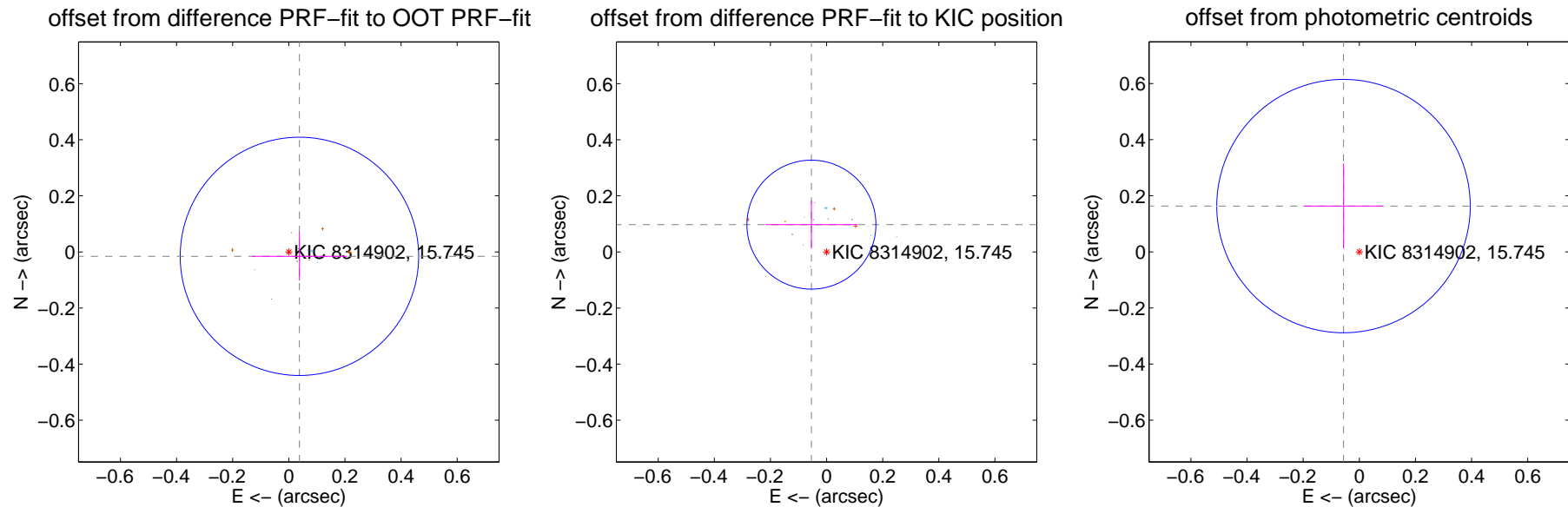
DV Centroid Data

Supplemental centroid analysis for 008314902-01. Kepler magnitude: 15.74. Transit SNR 15.83

There are 9 quarters with good PRF difference image offsets

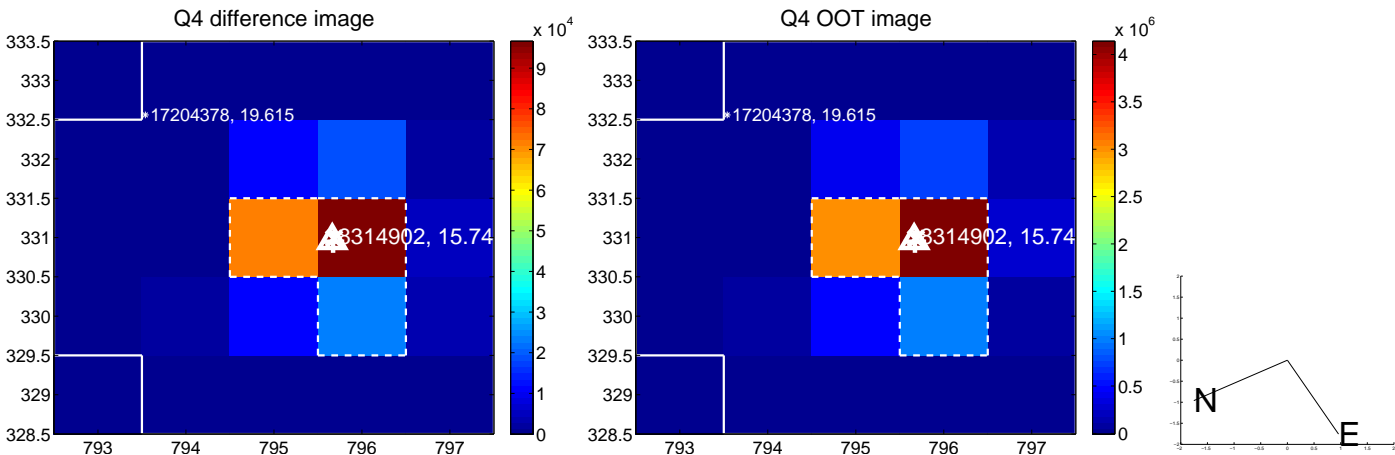
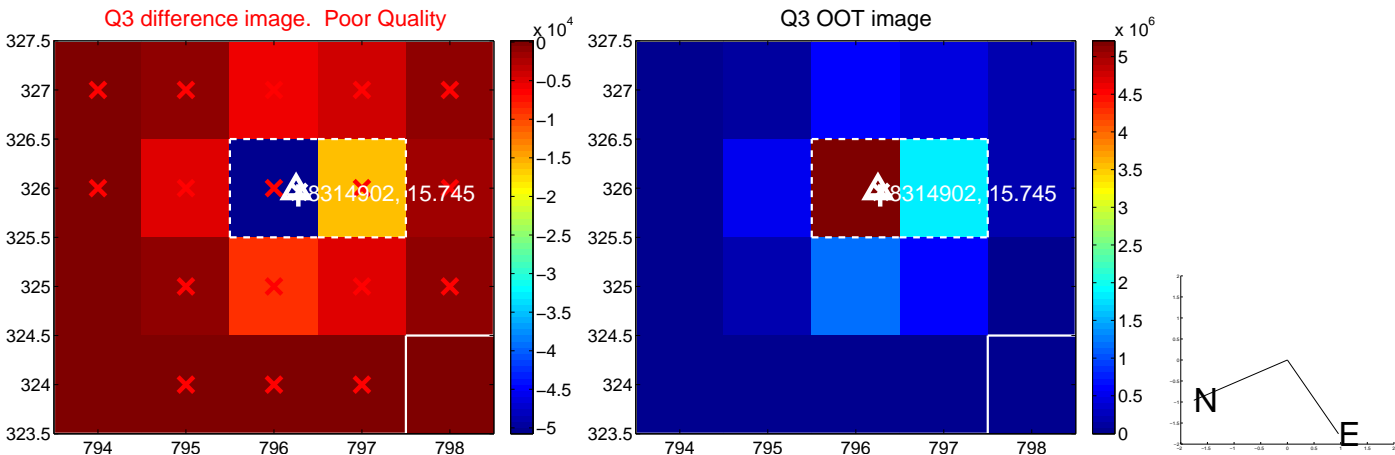
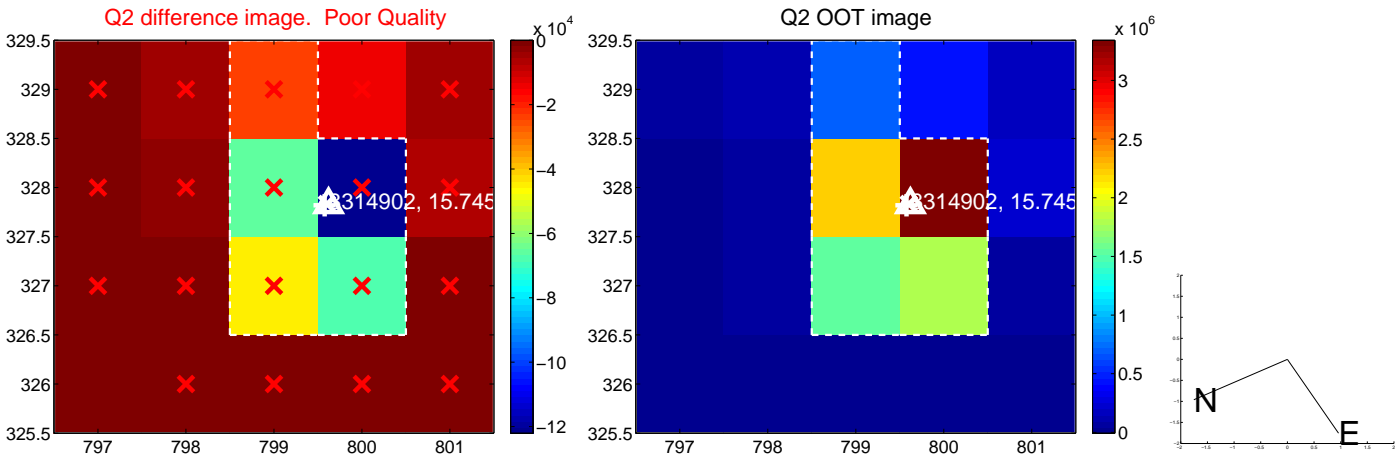
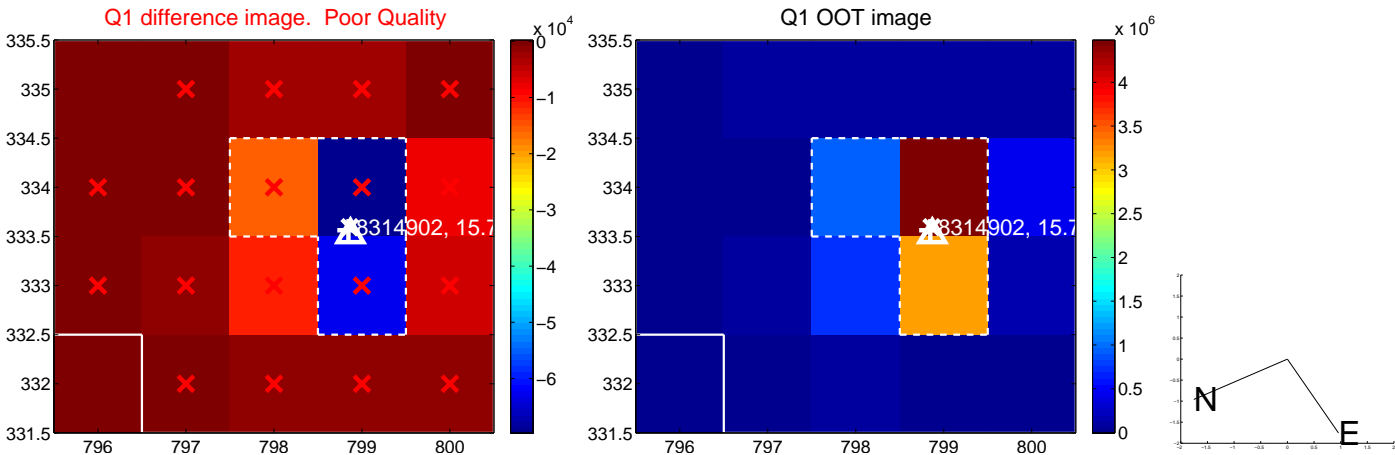
The direct PRF centroid is offset from the target star catalog position by about 0.12 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.041 ± 0.142	0.29	-0.038 ± 0.169	-0.016 ± 0.086
PRF-fit source offset from KIC position	0.111 ± 0.077	1.45	0.054 ± 0.164	0.097 ± 0.086
photometric centroid source offset	0.17 ± 0.15	1.15	0.06 ± 0.14	0.16 ± 0.15

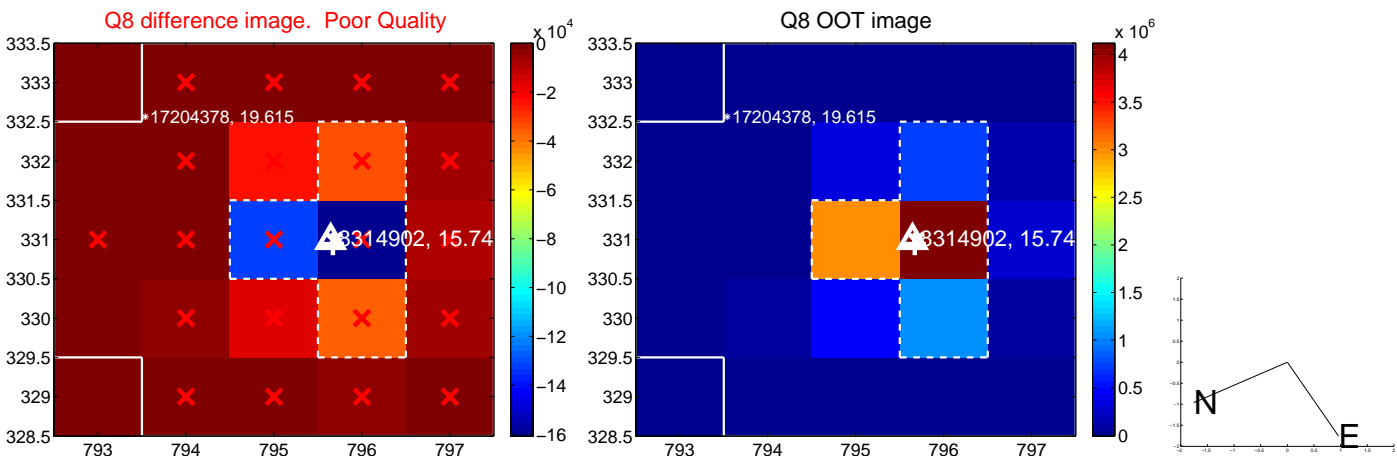
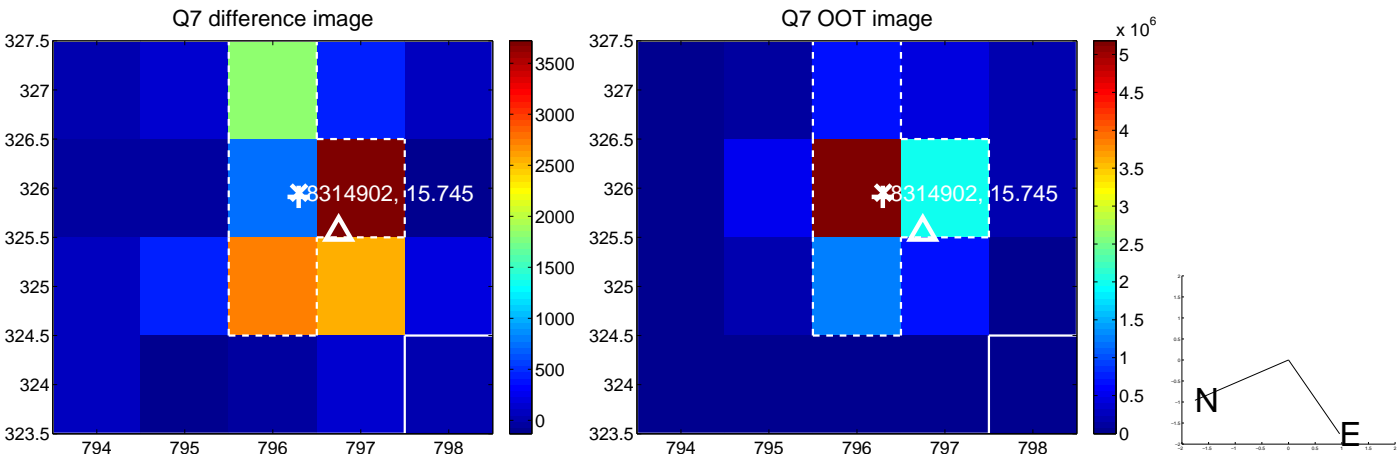
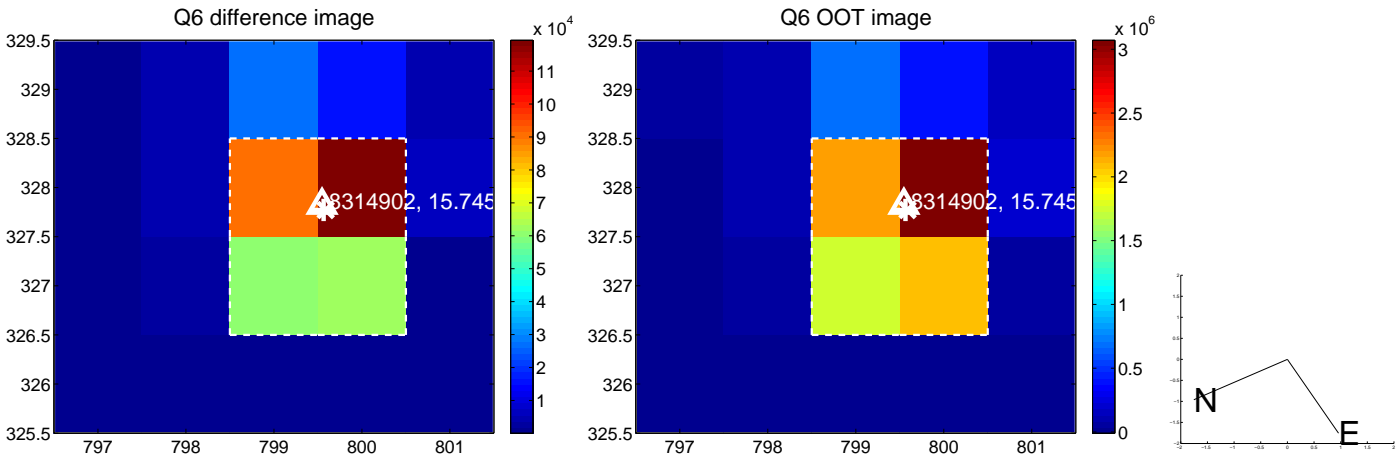
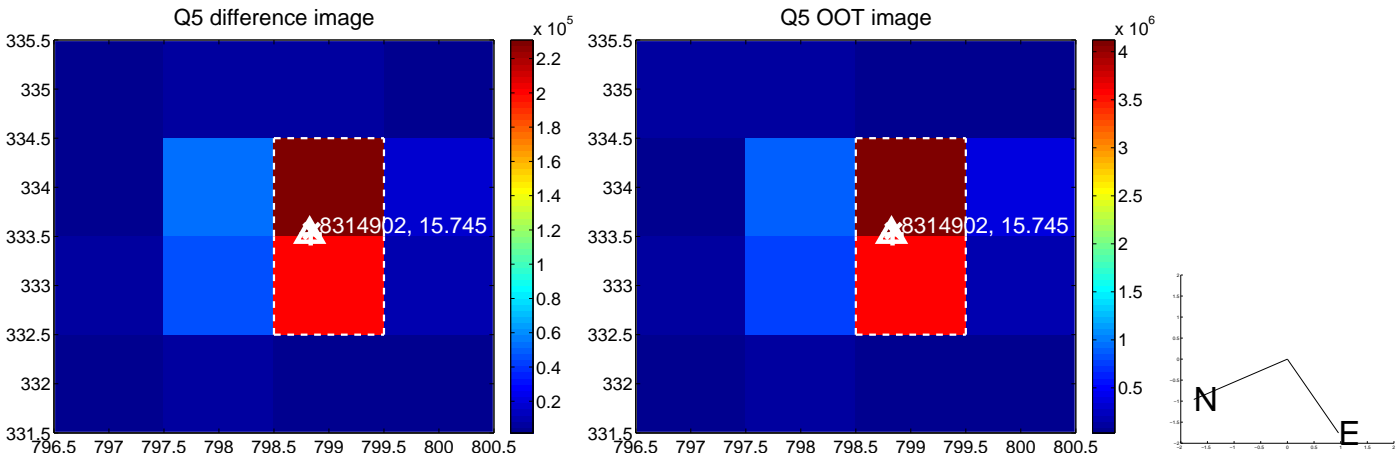


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

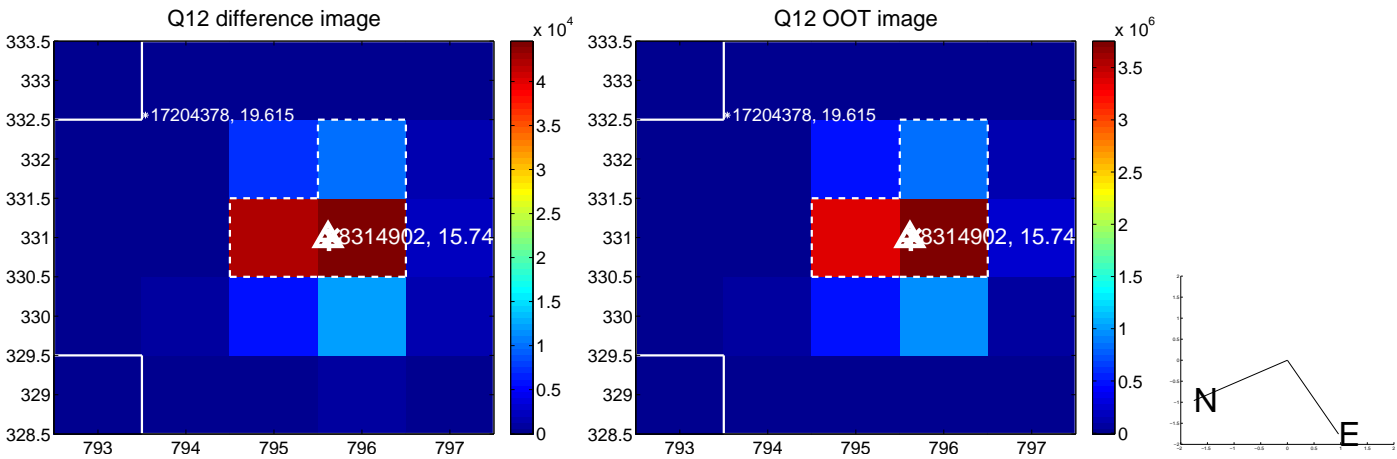
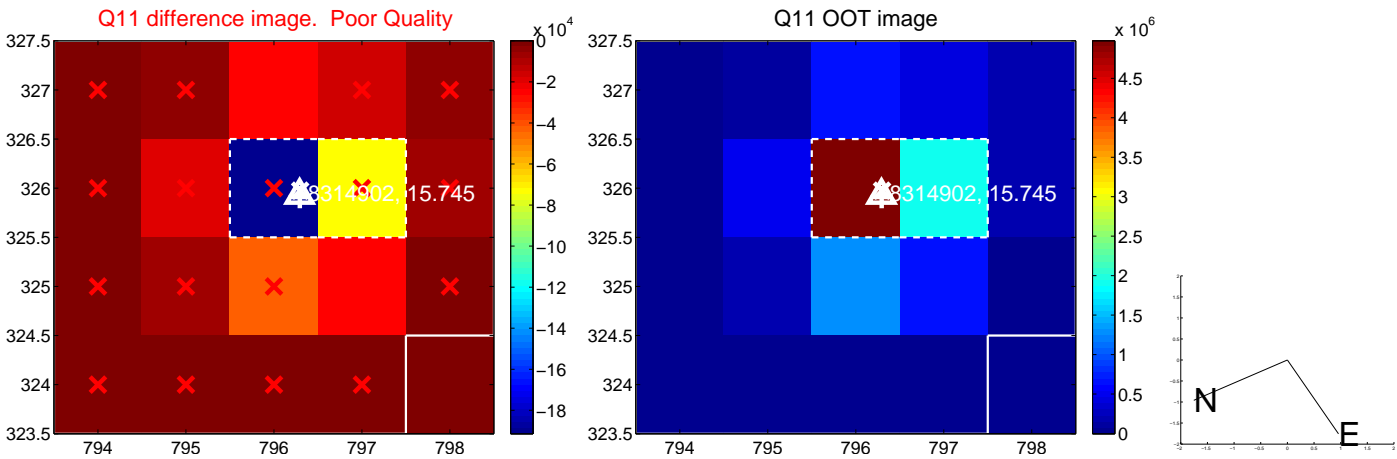
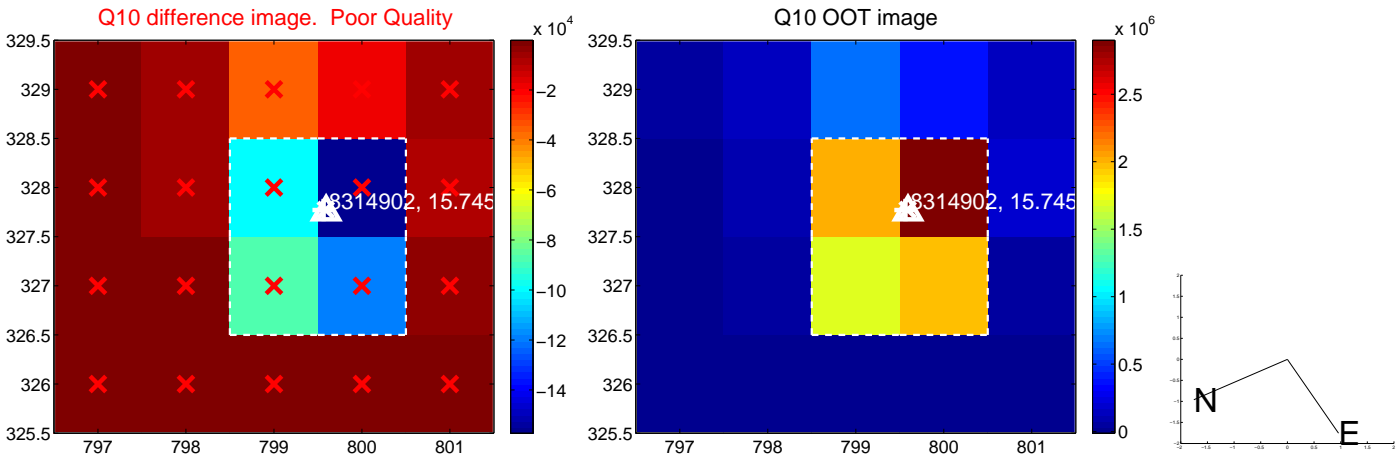
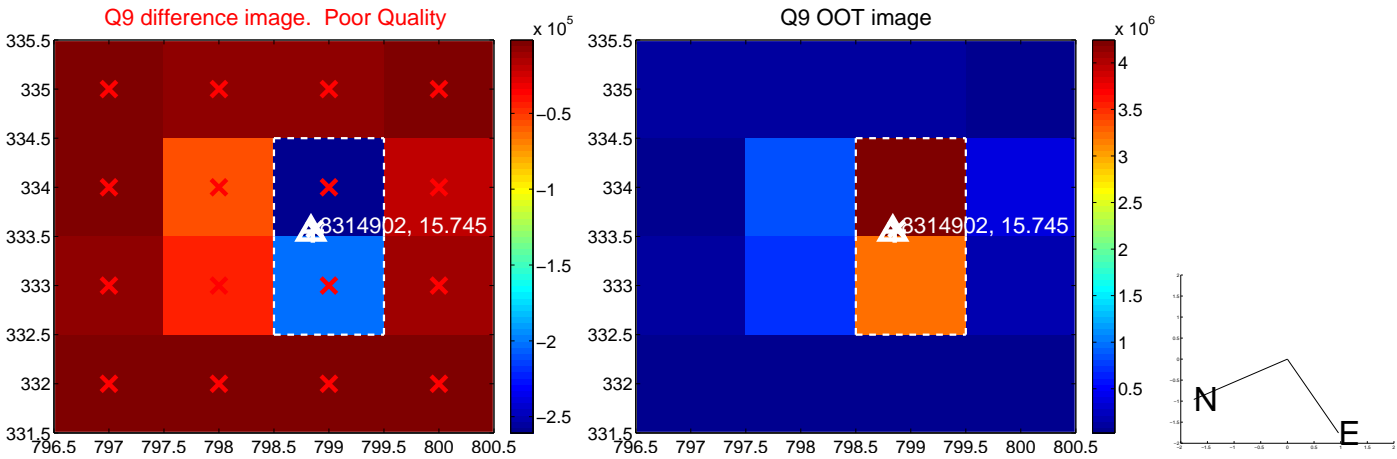
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



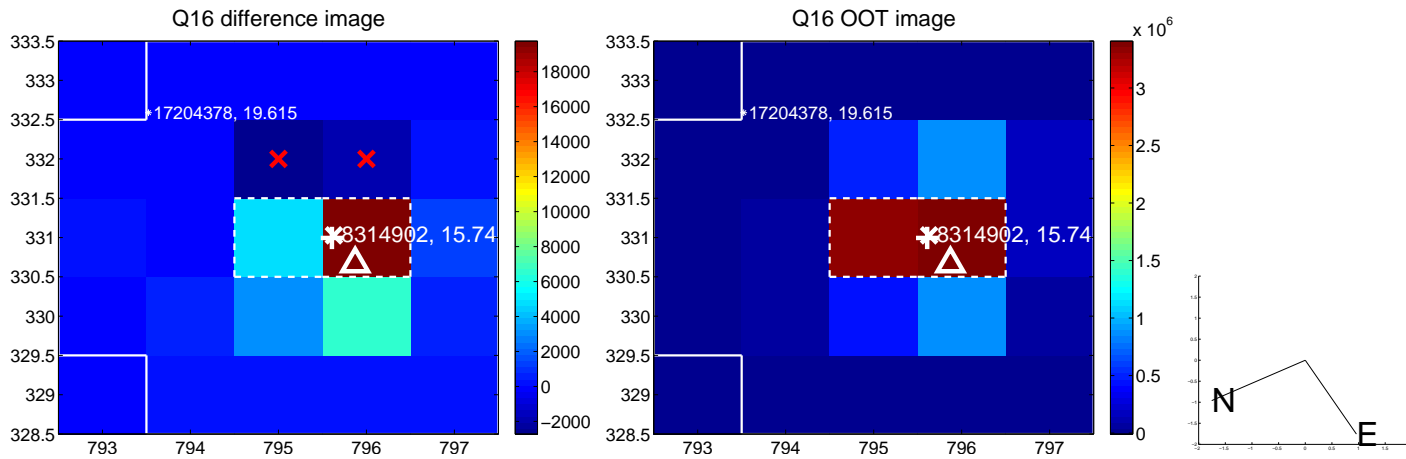
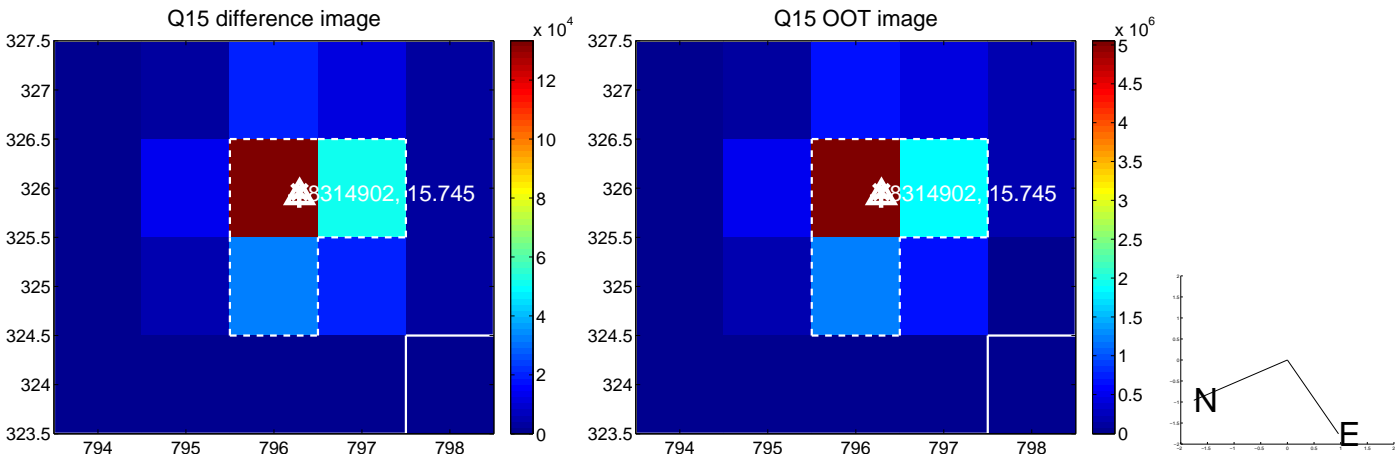
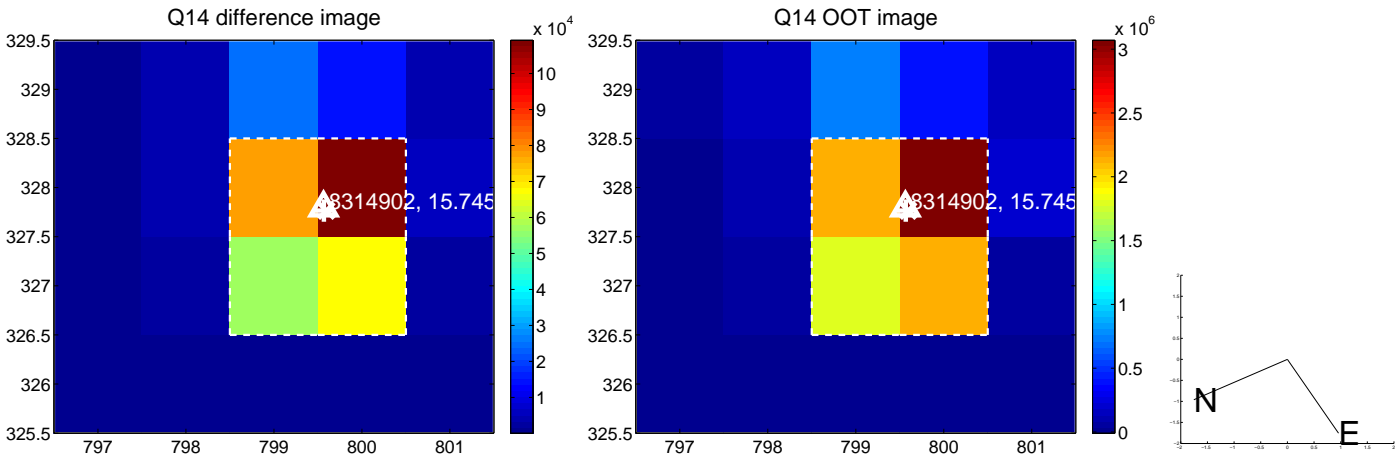
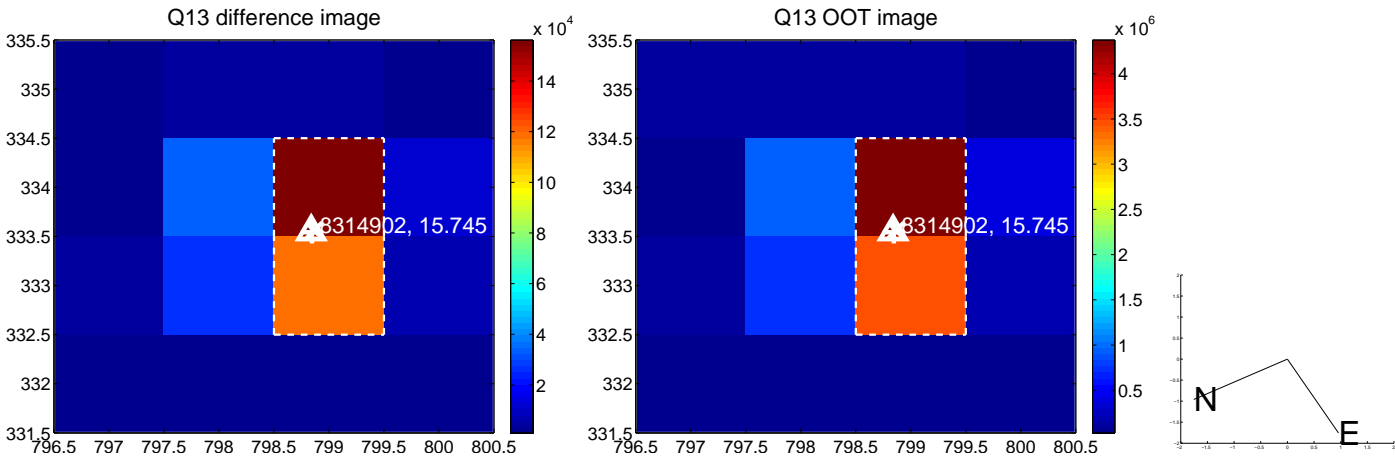
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



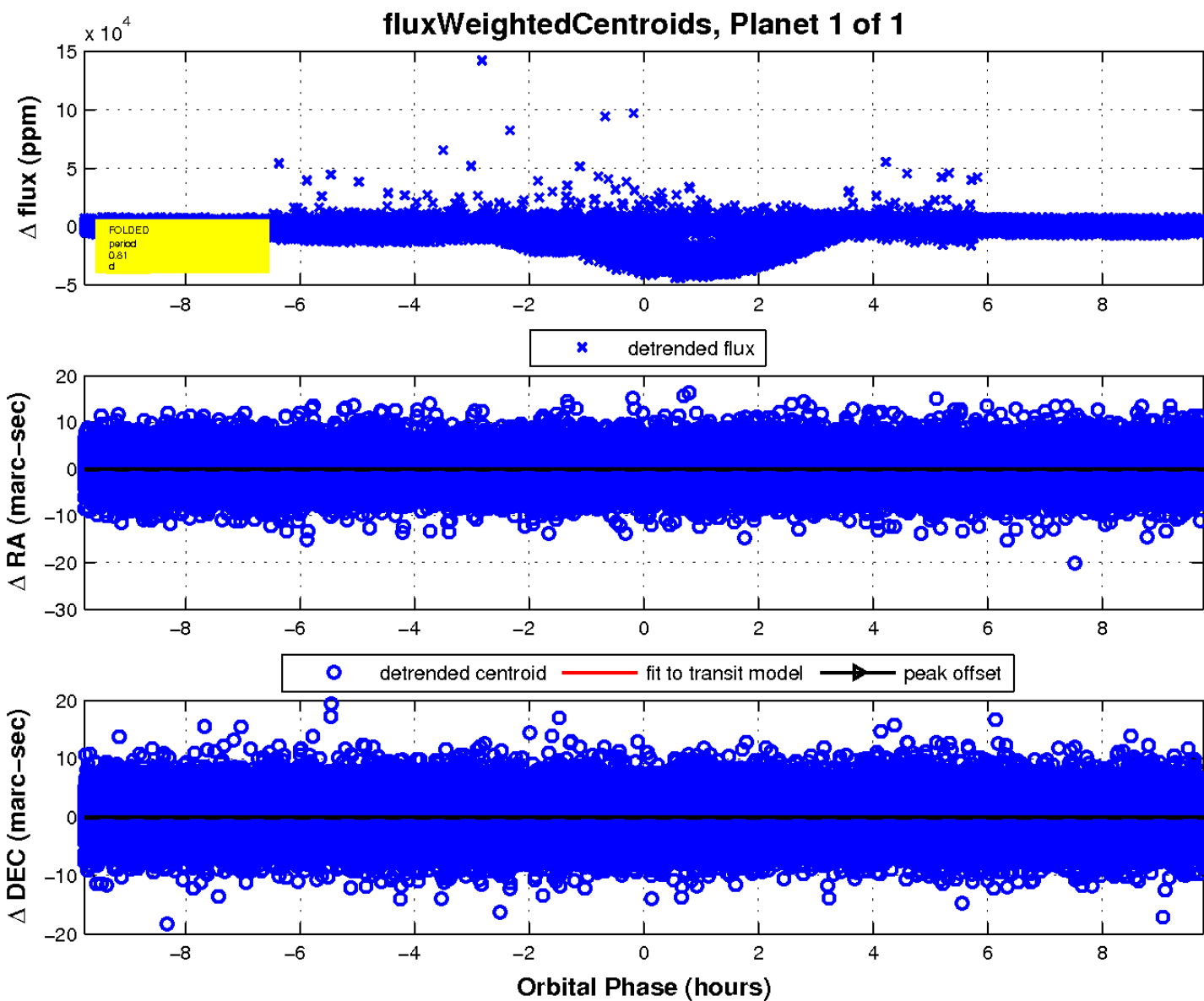
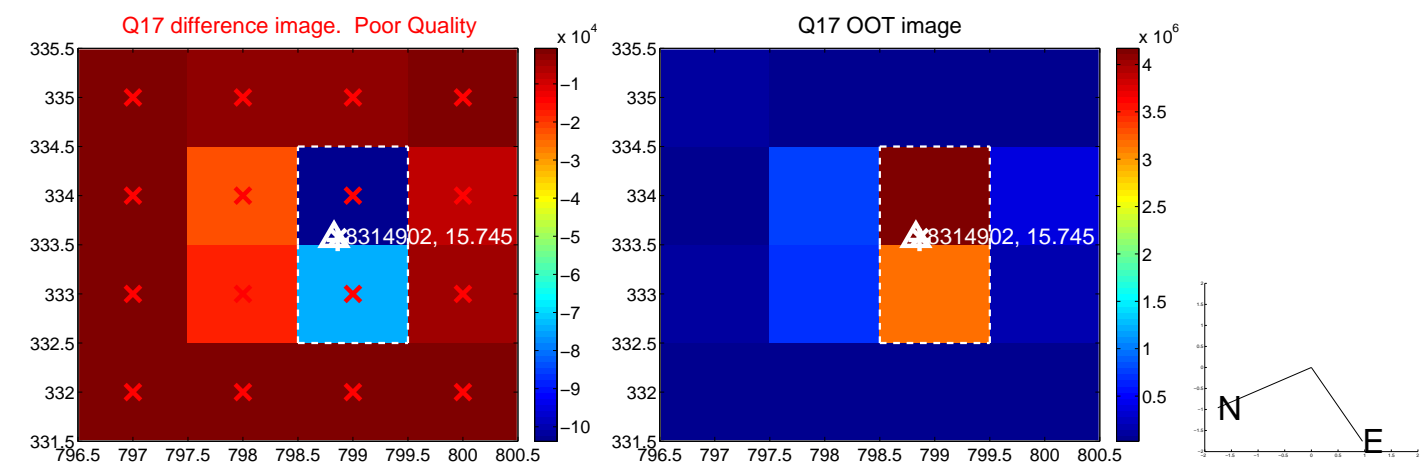
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UKIRT Image

Declination

