

KIC 009665394

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})
009665394-01	OBS	No	1.046129	131.983365	20.6	4.393	9.2	8.5	0.93	5818	0.42	2102.02

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009665394-01	OBS	FP	0.00	1	0	1	0	LPP_DV—CENT_RESOLVED_OFFSET—HALO_GHOST

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

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

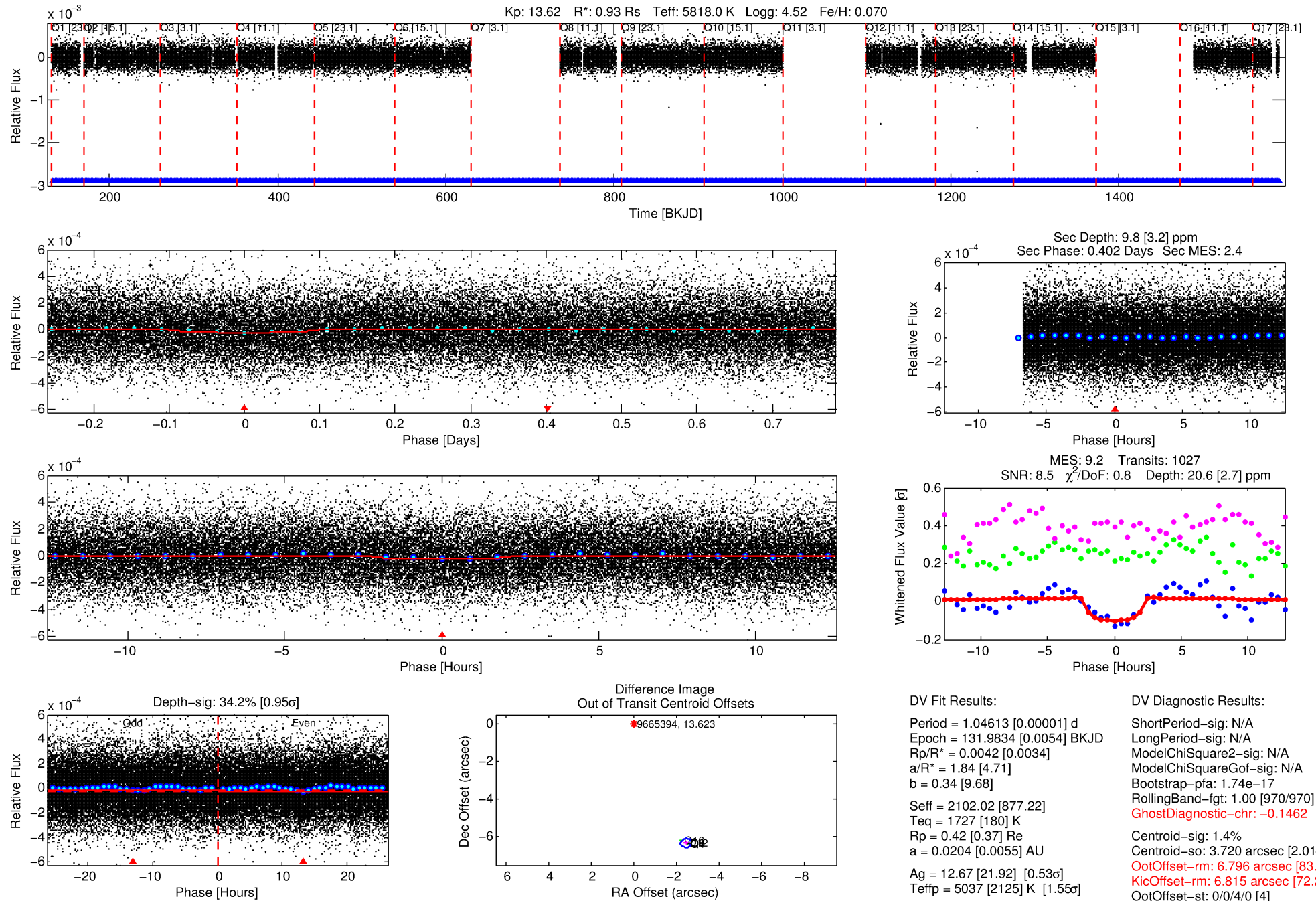
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 009665394-01

No Significant Match Found

DV One-Page Summary

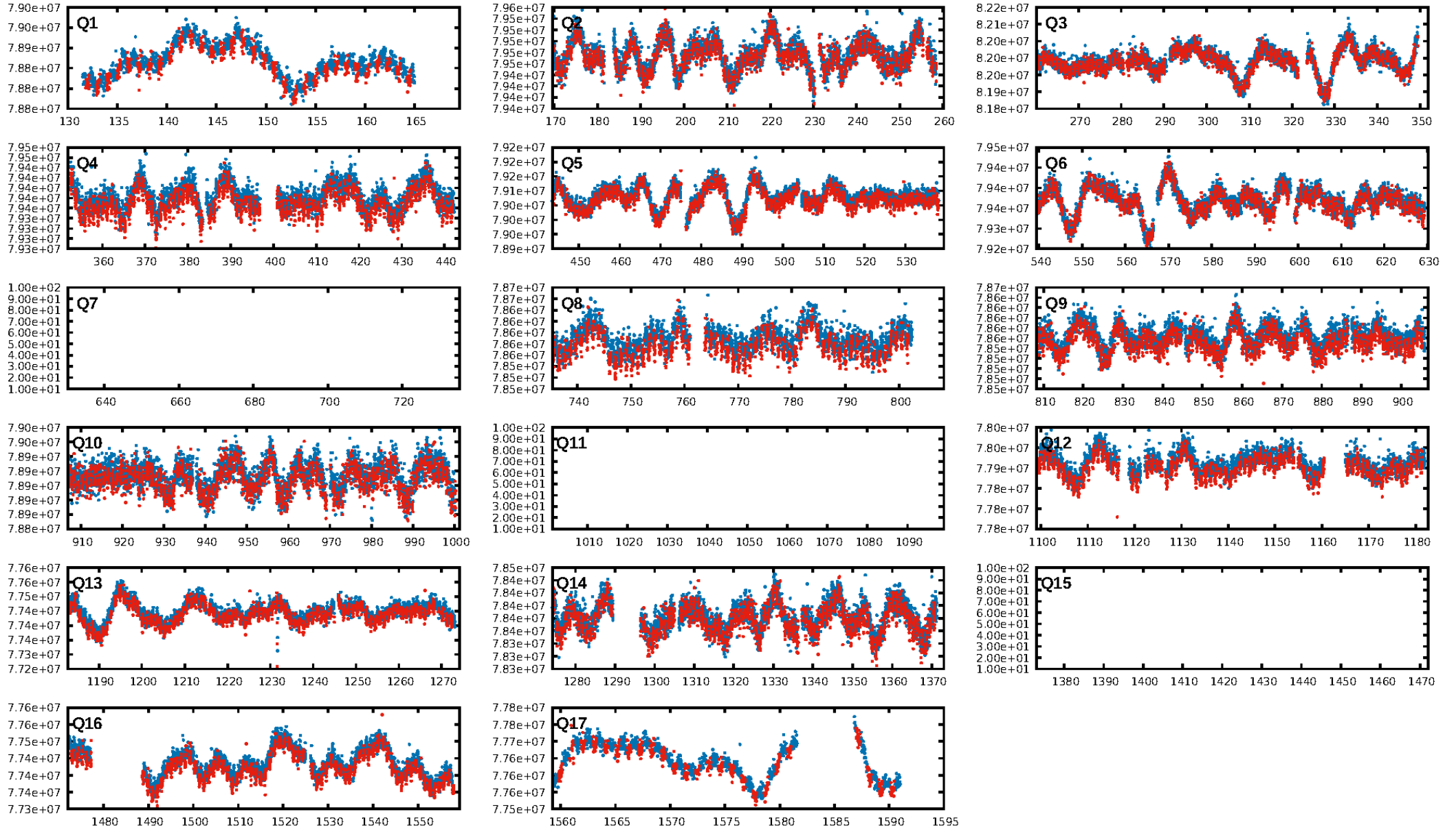
KIC: 9665394 Candidate: 1 of 1 Period: 1.046 d



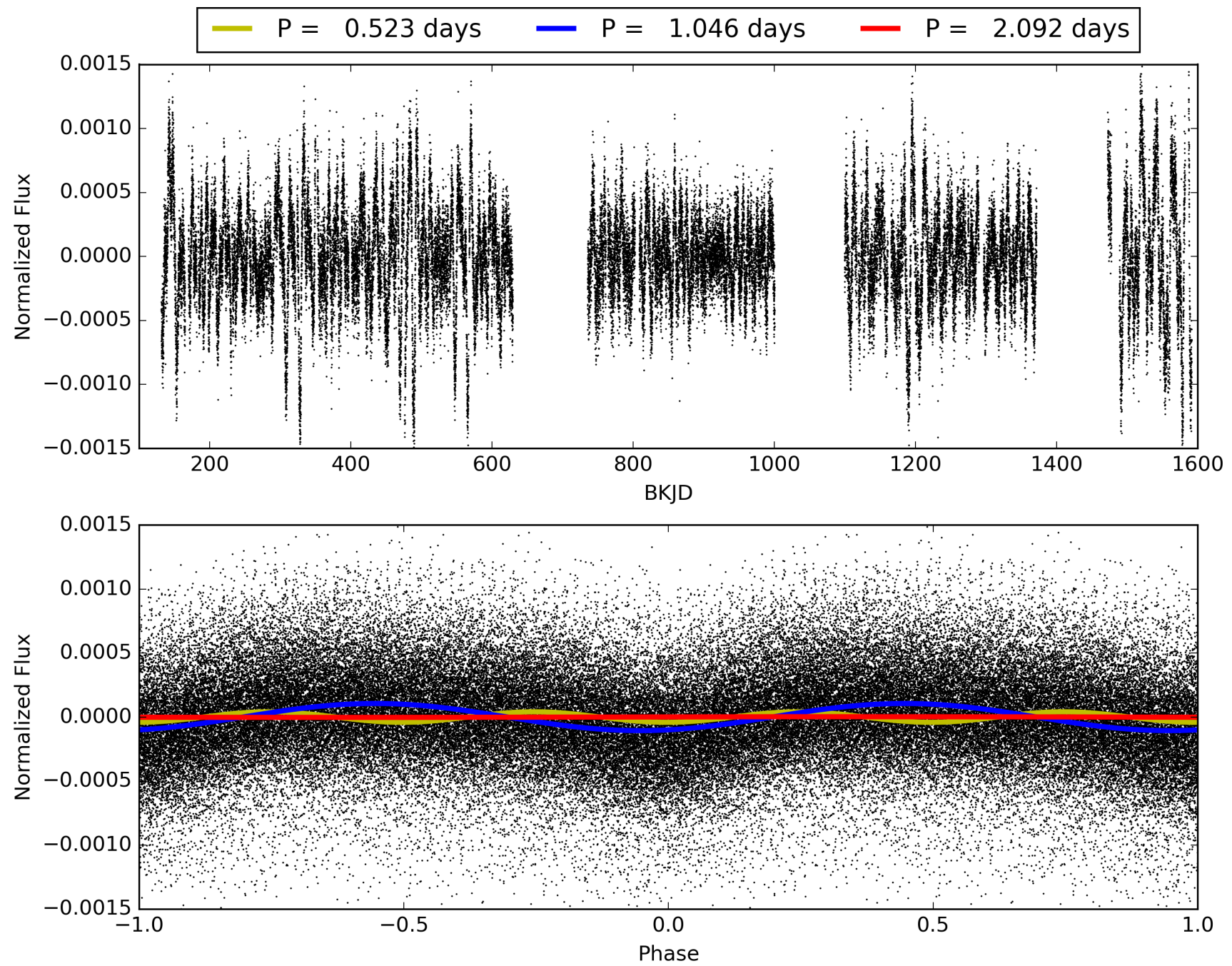
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 12:52:18 Z

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

TCE 009665394-01, PDC Light Curves

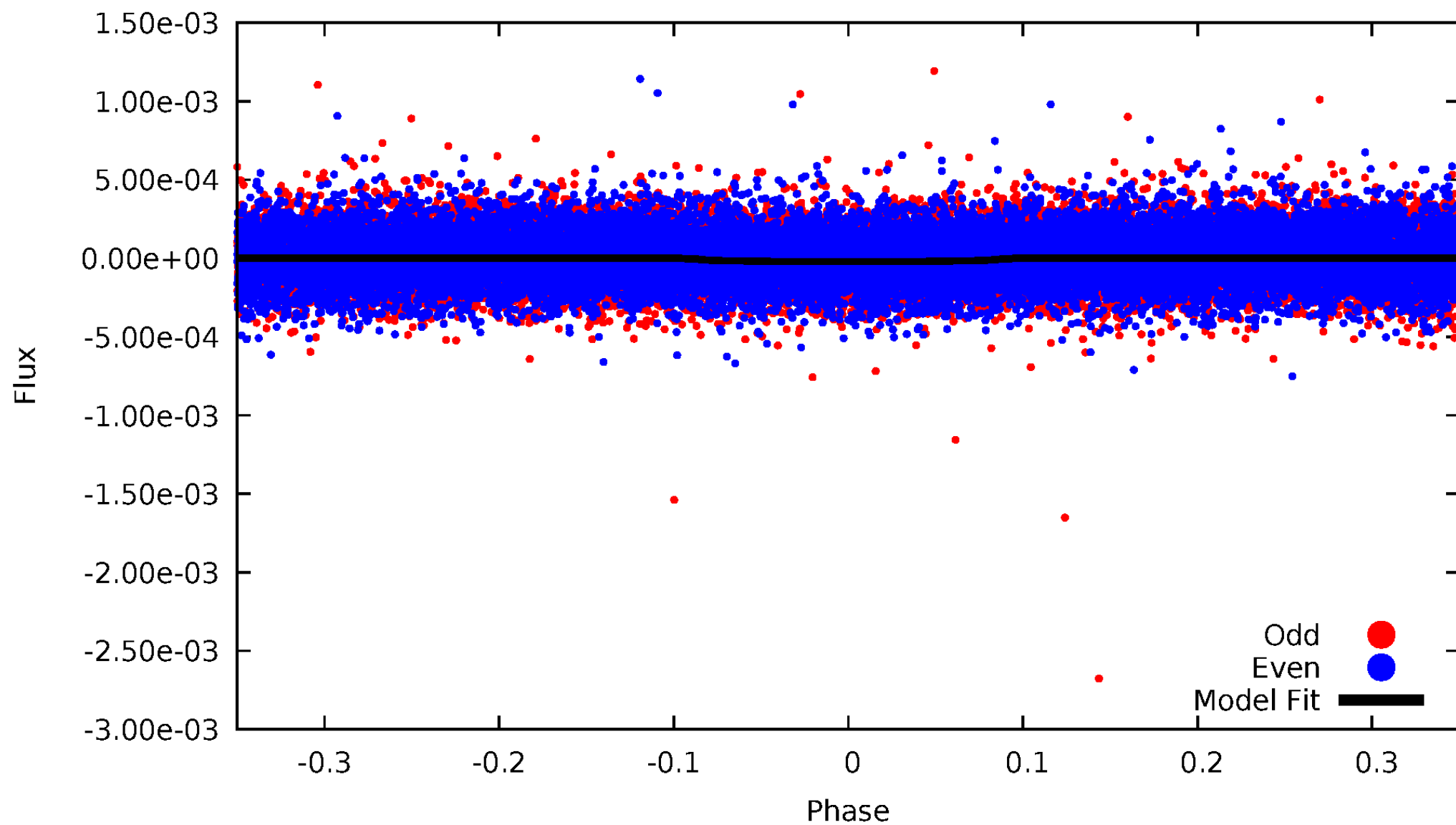


TCE 009665394-01



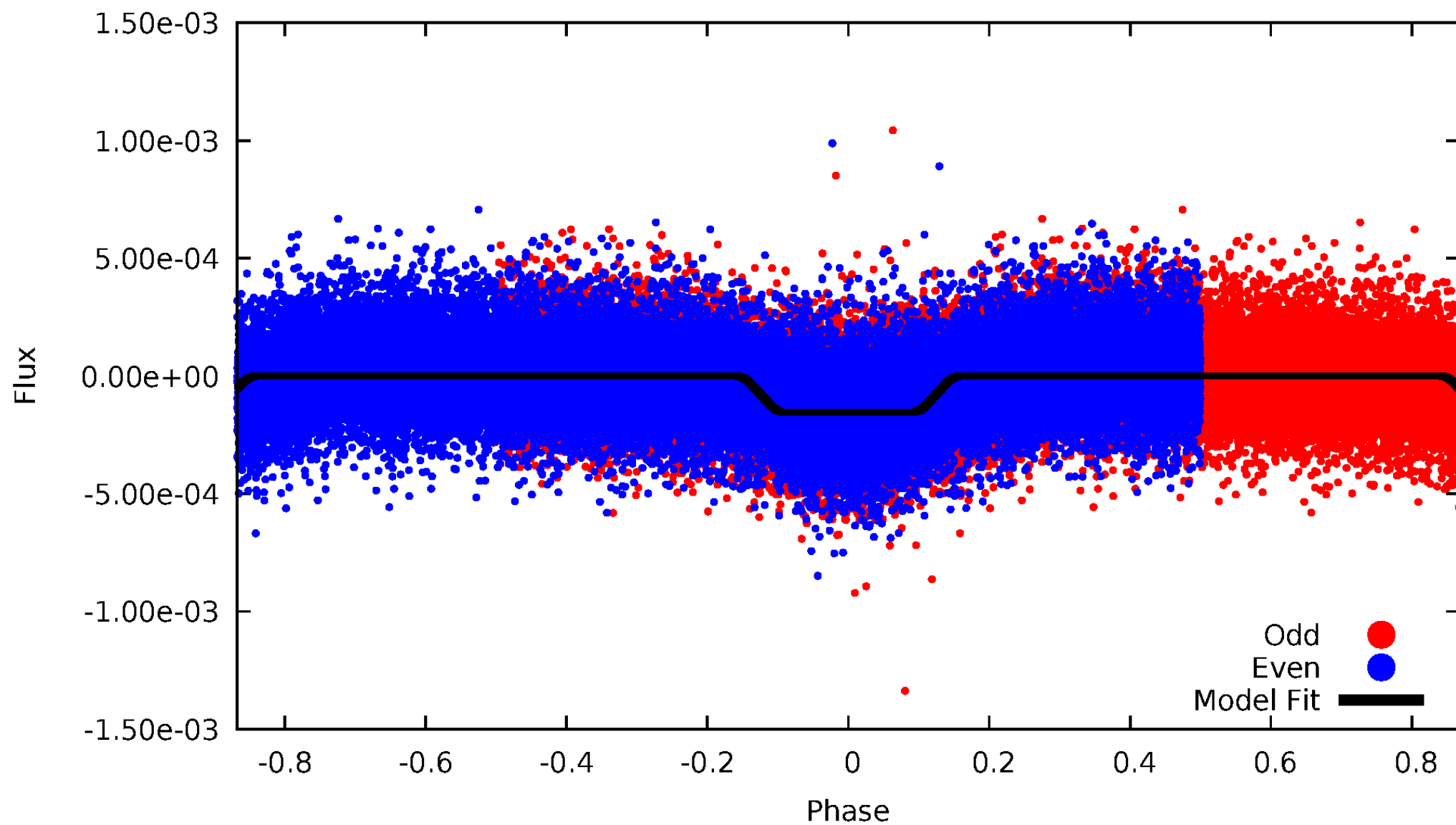
DV Odd/Even

TCE 009665394-01



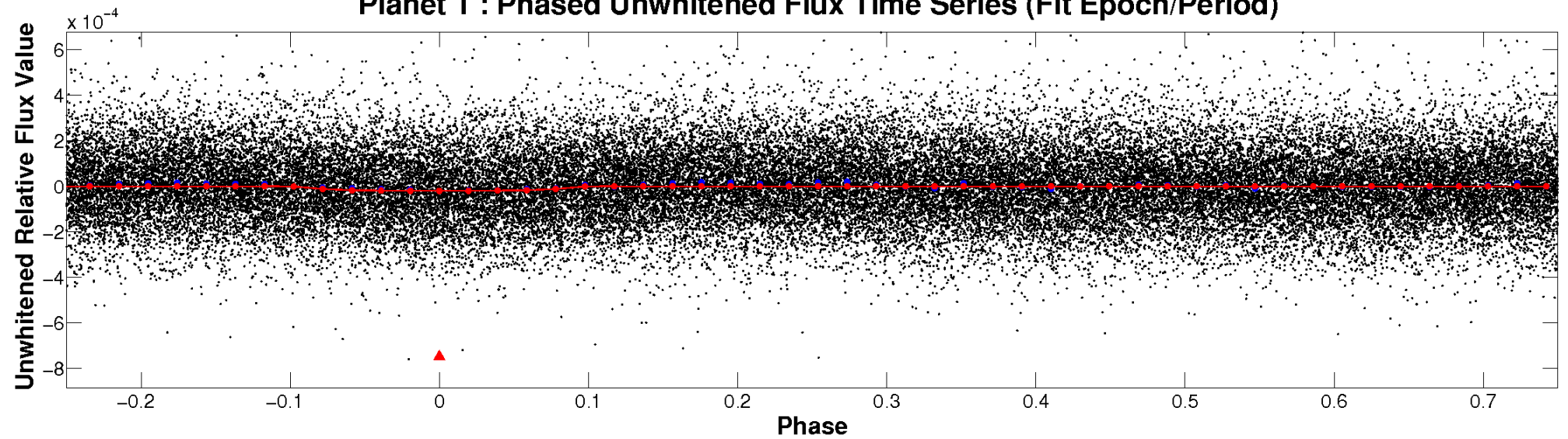
ALT Odd/Even

TCE 009665394-01

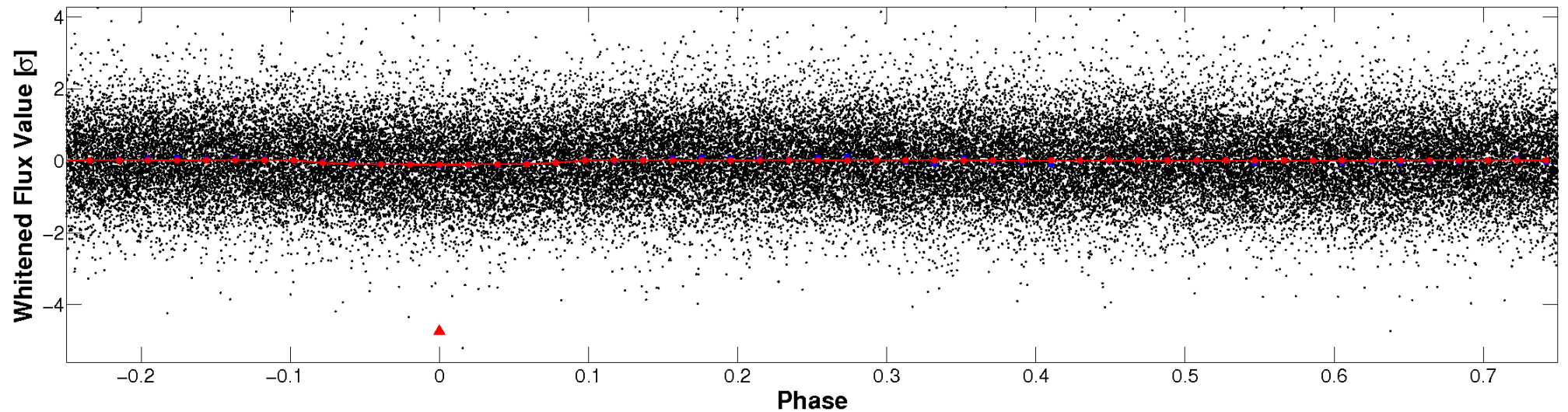


Non-Whitened Vs. Whitened Light Curve

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

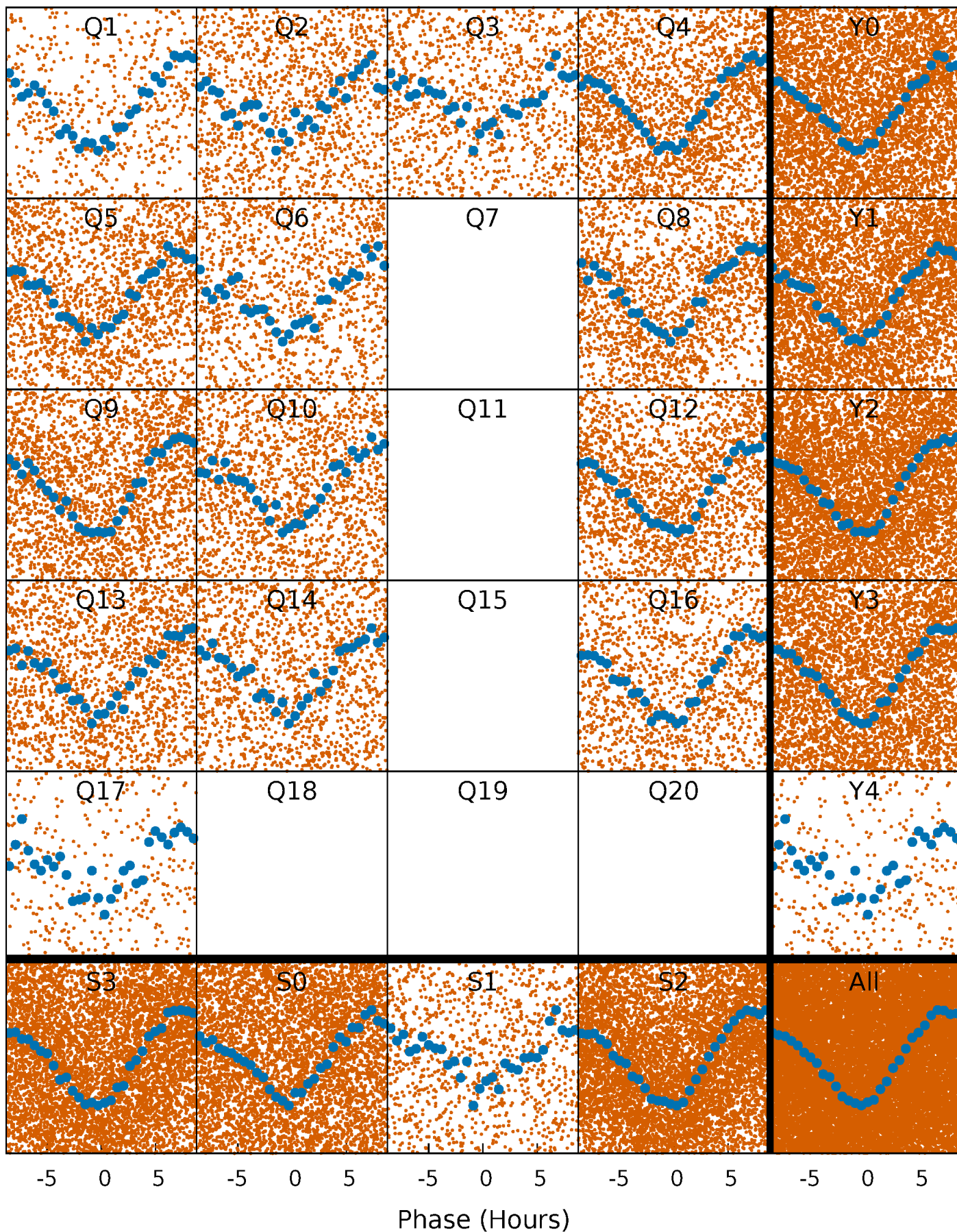


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



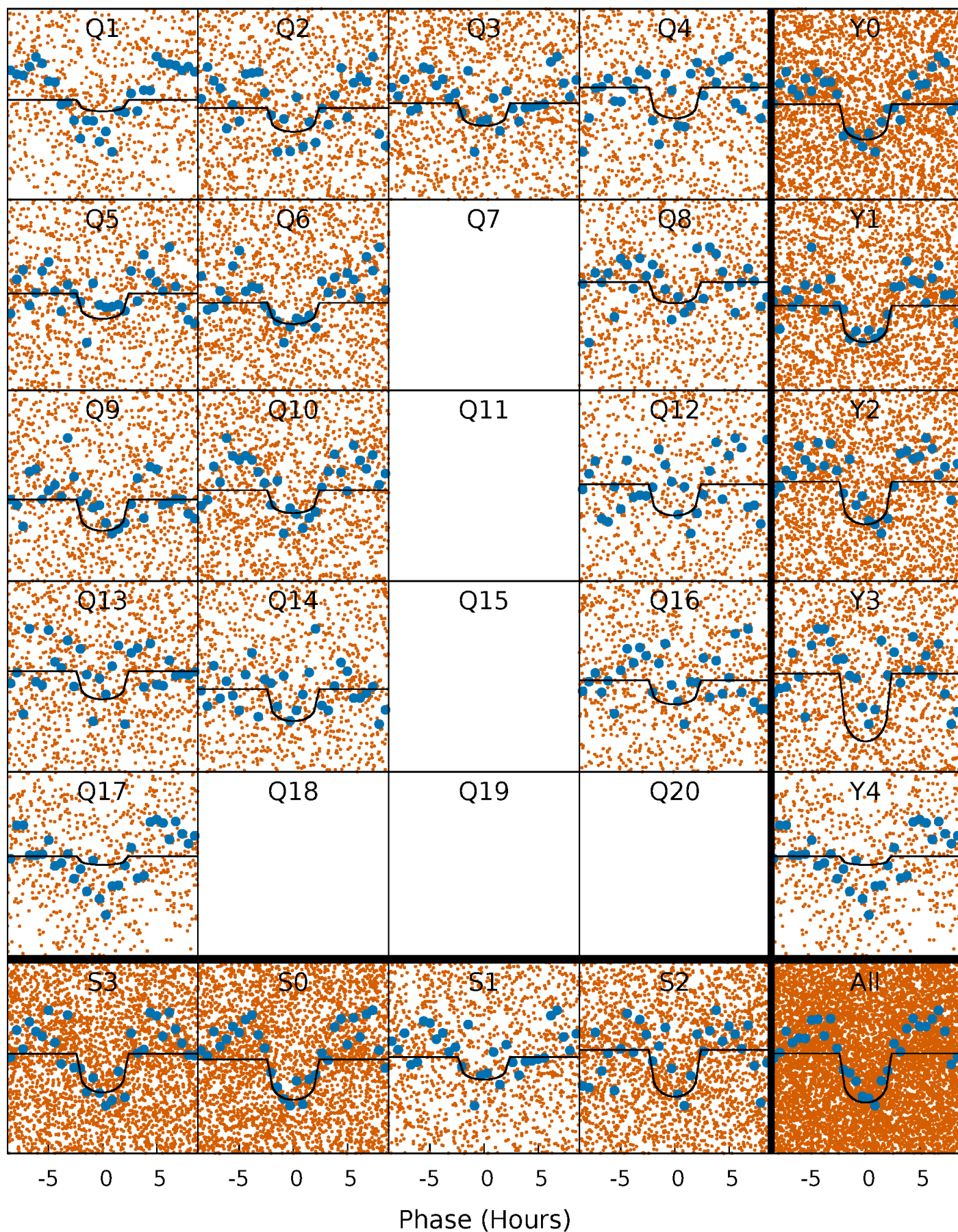
PDC Quarter-Phased Transit Curves

TCE 009665394-01 P= 1.046129 Days $T_0=131.983365$ (BKJD)



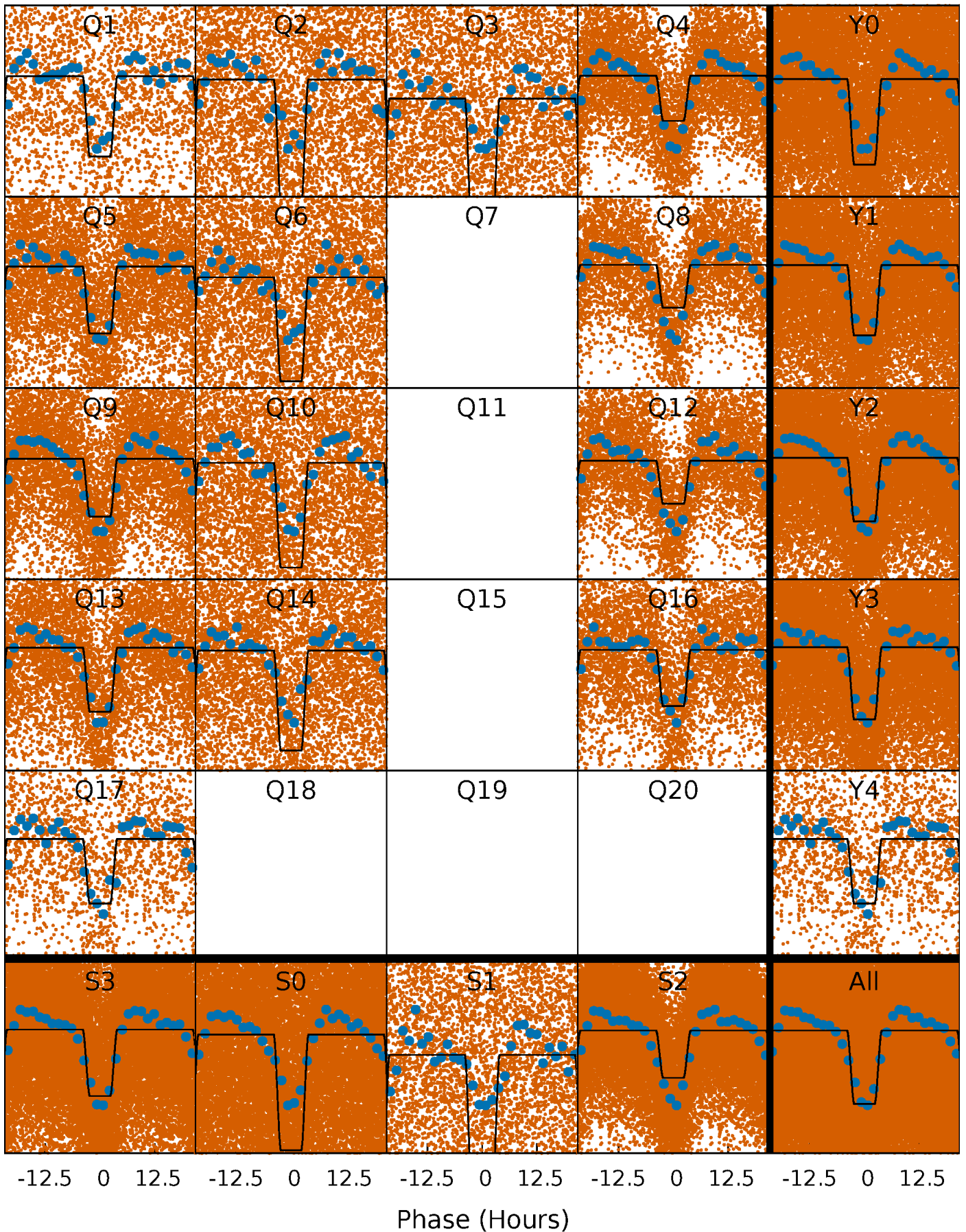
DV Quarter-Phased Transit Curves

TCE 009665394-01 P= 1.046129 Days $T_0=131.983365$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

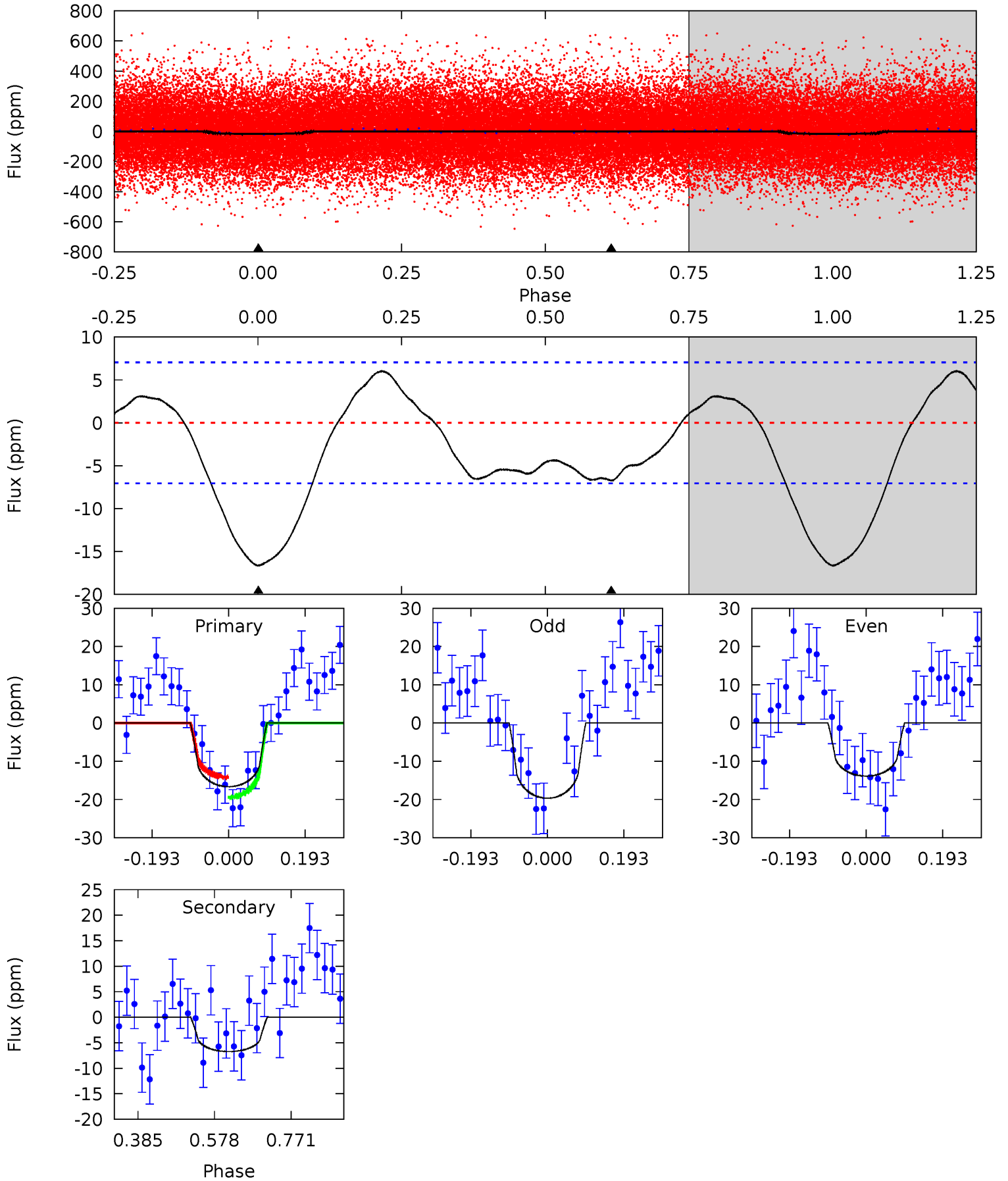
TCE 009665394-01 P= 1.046145 Days $T_0=131.952045$ (BKJD)



DV Model-Shift Uniqueness Test

009665394-01, P = 1.046129 Days, E = 130.937236 Days

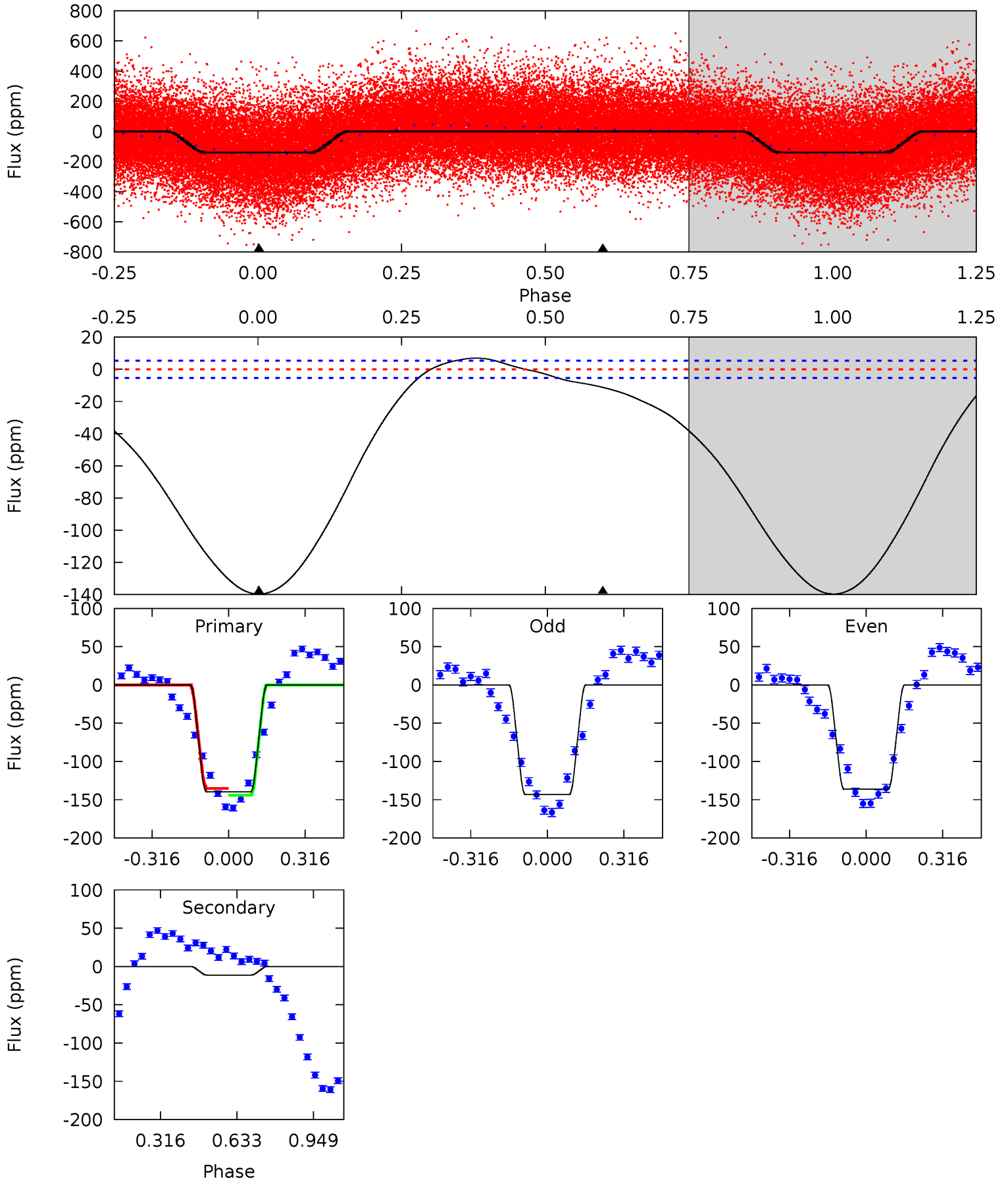
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.4	4.22	0	0	4.43	1.30	2.83	10.4	10.4	4.22	4.22	1.82	0.98	0.27	1.65



Alt Model-Shift Uniqueness Test

009665394-01, P = 1.046145 Days, E = 130.905900 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
112.5	9.01	0	0	4.32	1.00	5.12	112.5	112.5	9.01	9.01	2.77	0.99	0.05	3.69



Stellar Parameters For KIC 009665394

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5818^{+157}_{-175}	$4.523^{+0.039}_{-0.221}$	$0.070^{+0.250}_{-0.300}$	$0.925^{+0.293}_{-0.073}$	$1.039^{+0.116}_{-0.139}$	$1.852^{+0.394}_{-1.045}$
	+3%/-3%	+1%/-5%	+357%/-429%	+32%/-8%	+11%/-13%	+21%/-56%
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 009665394-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-7 ± 2	$0.49^{+0.38}_{-0.28}$	2460^{+194}_{-105}	4516^{+2024}_{-932}	$6.321^{+26.350}_{-4.365}$
Alt.	-11 ± 1	$1.32^{+0.41}_{-0.37}$	2469^{+177}_{-112}	3380^{+428}_{-330}	$1.445^{+1.308}_{-0.579}$

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

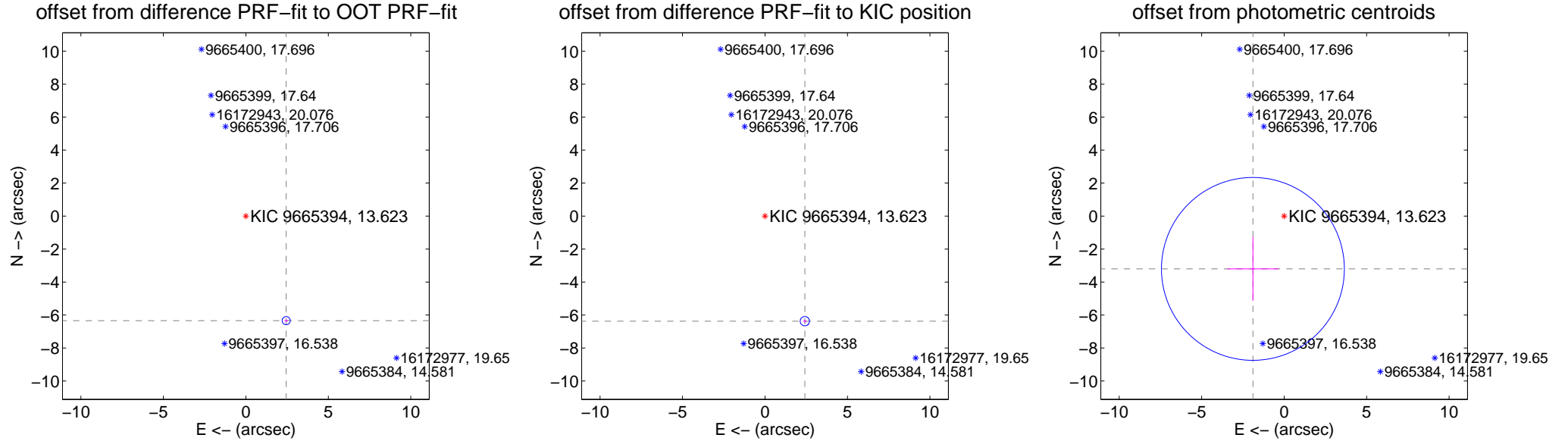
DV Centroid Data

Supplemental centroid analysis for 009665394-01. Kepler magnitude: 13.62. Transit SNR 8.49

There are 4 quarters with good PRF difference image offsets

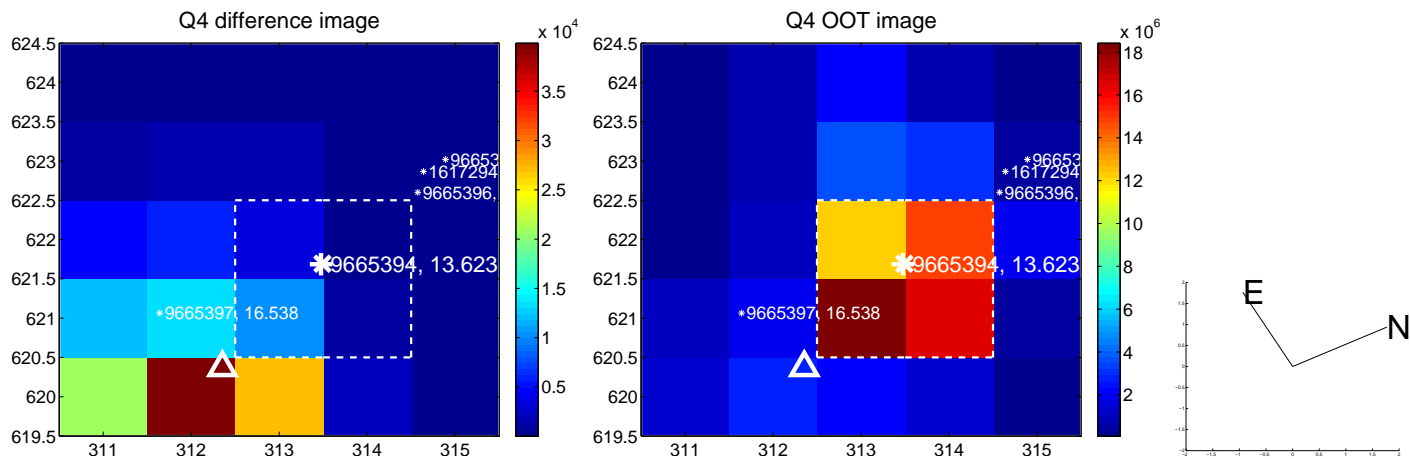
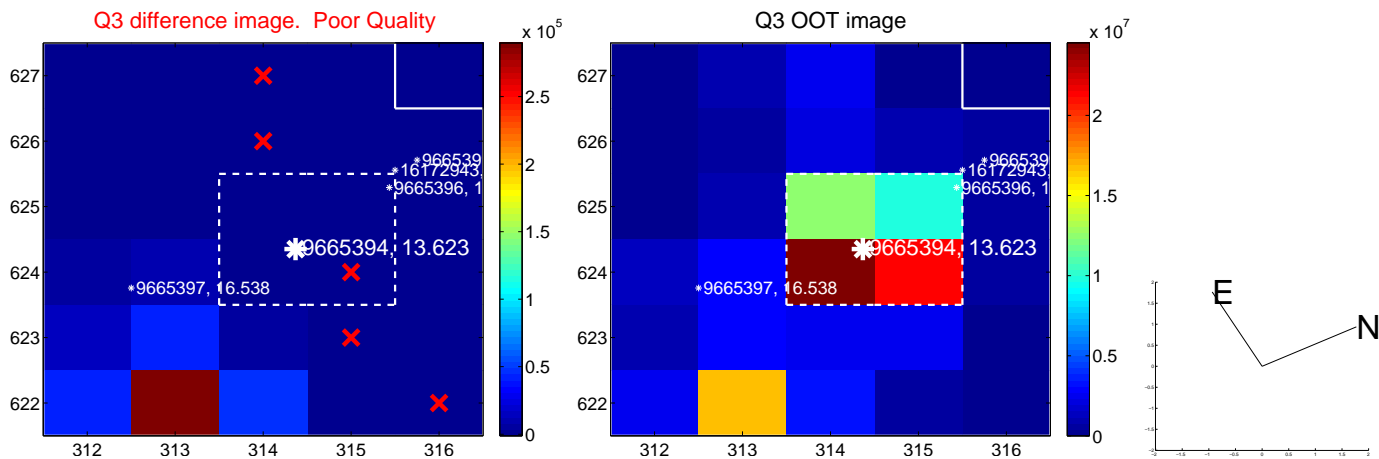
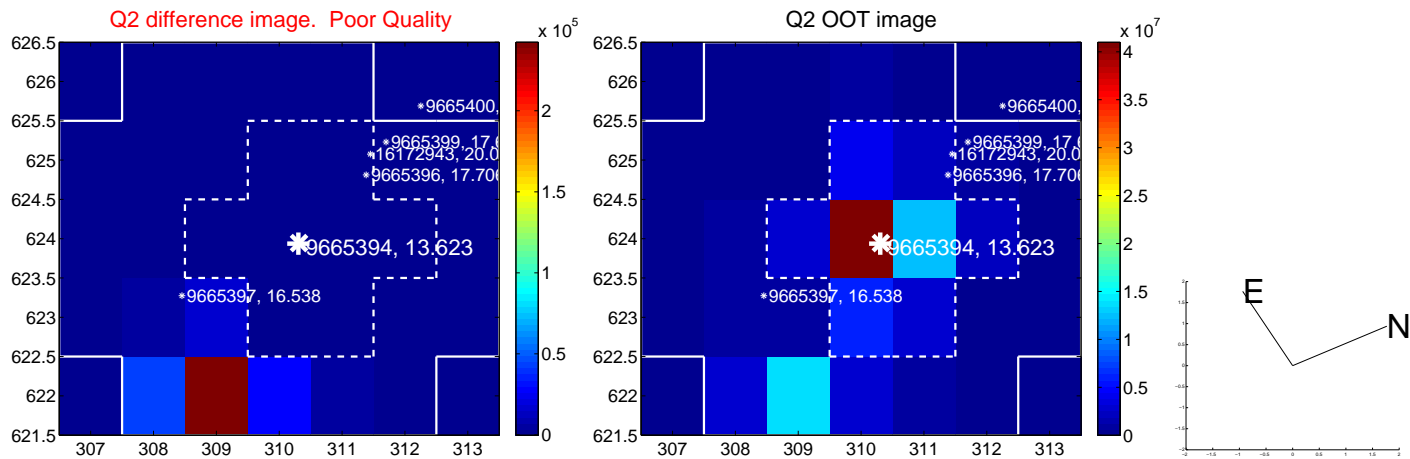
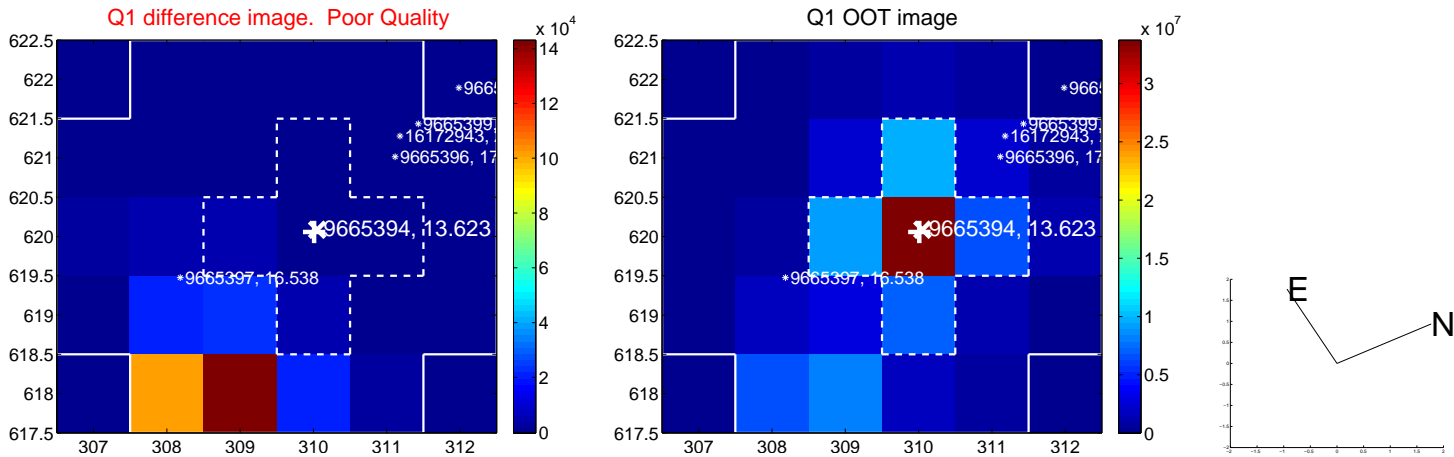
The direct PRF centroid is offset from the target star catalog position by about 0.06 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	6.796 \pm 0.082	83.08	-2.446 \pm 0.105	-6.341 \pm 0.078
PRF-fit source offset from KIC position	6.815 \pm 0.094	72.24	-2.415 \pm 0.100	-6.373 \pm 0.079
photometric centroid source offset	3.72 \pm 1.85	2.01	1.89 \pm 1.56	-3.20 \pm 1.94

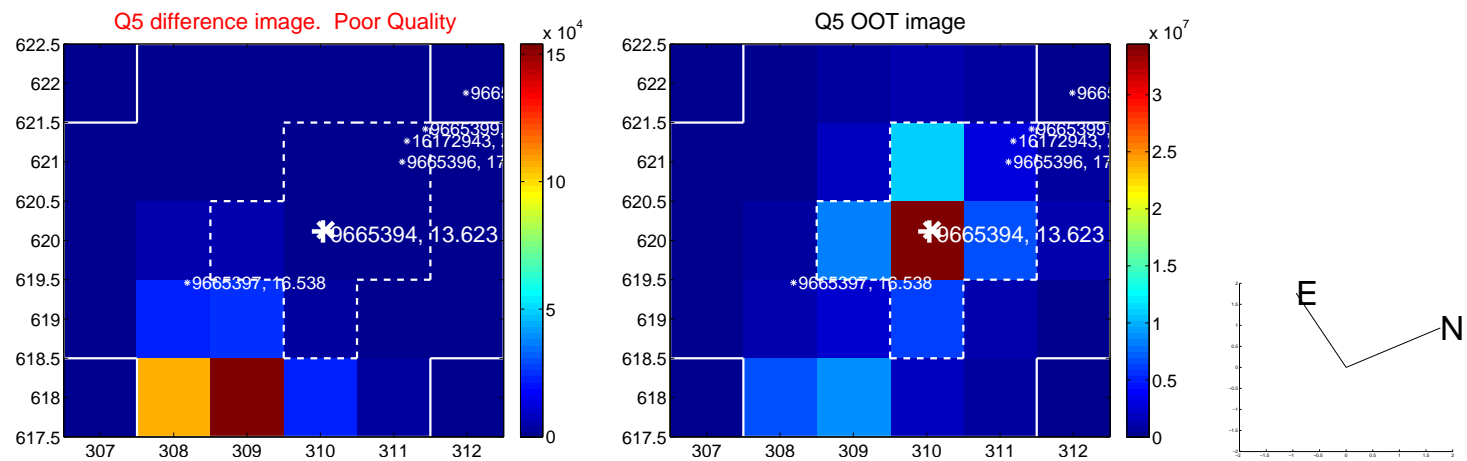


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000 are from the UKIRT catalog.

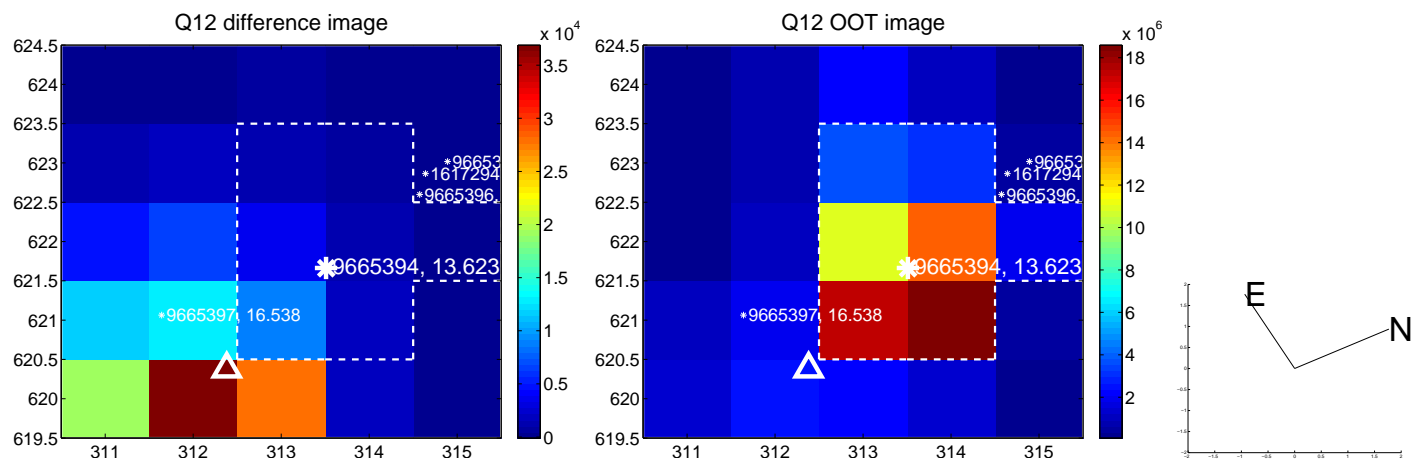
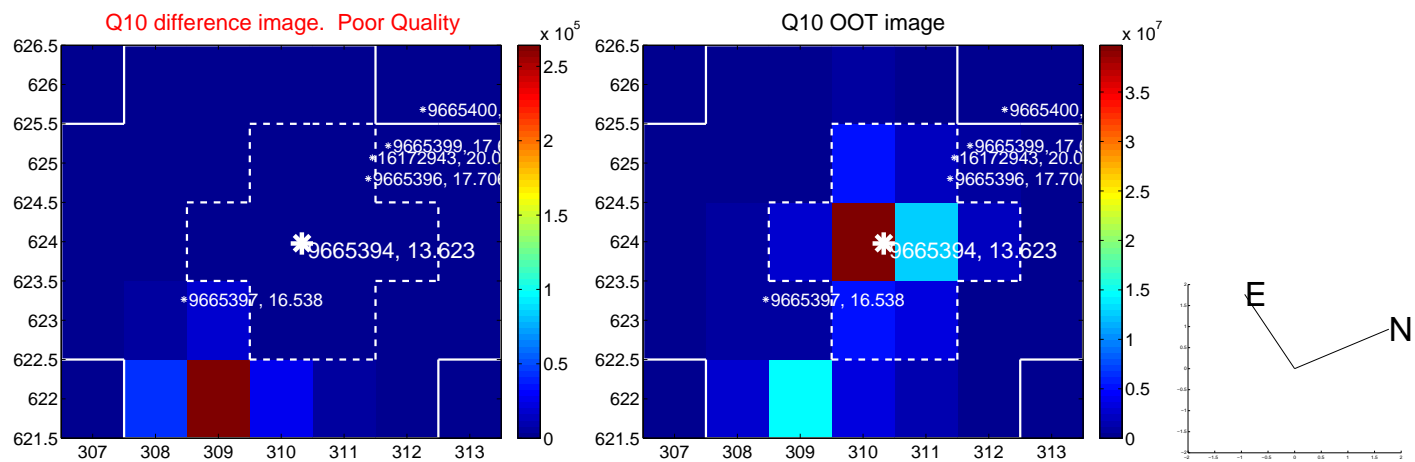
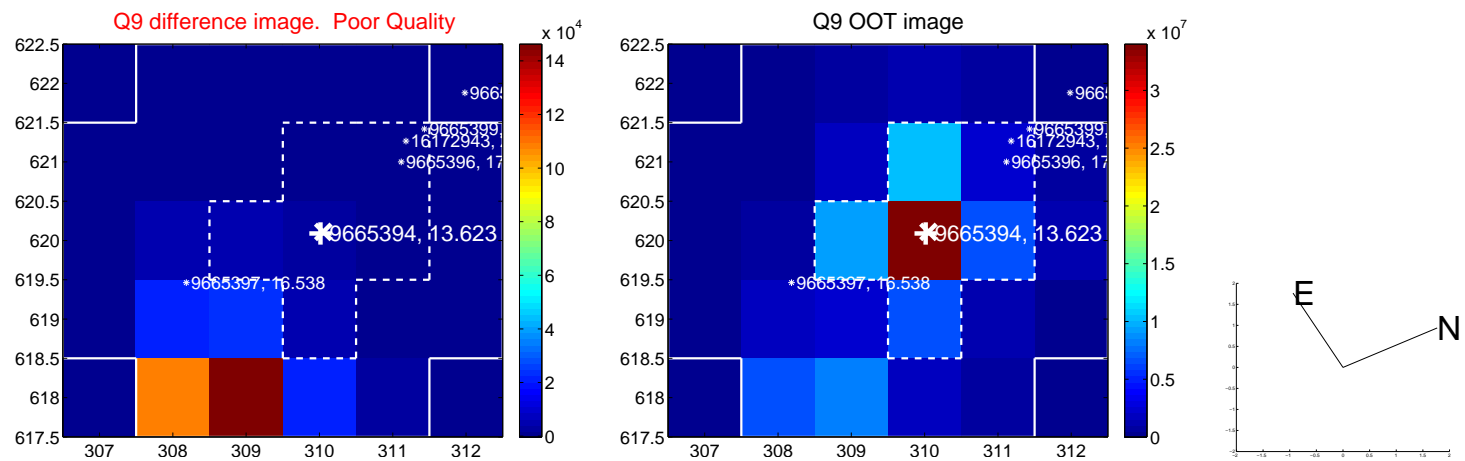
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



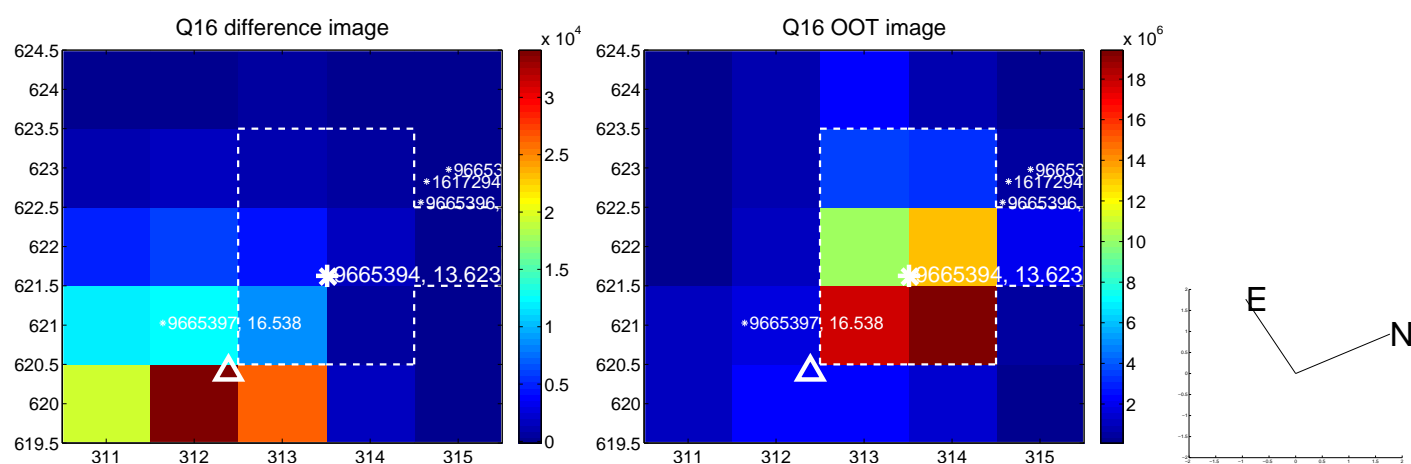
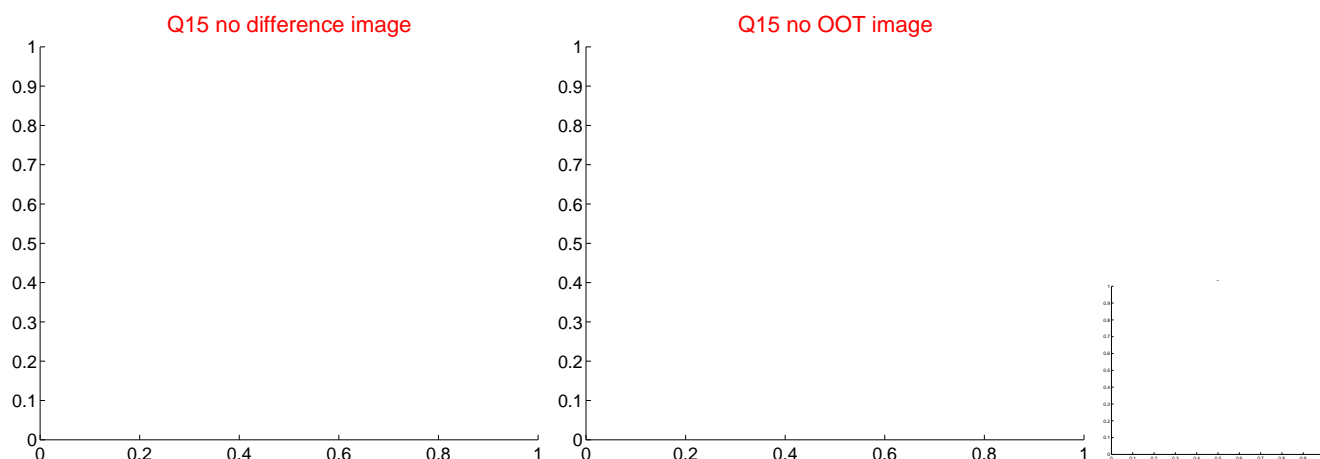
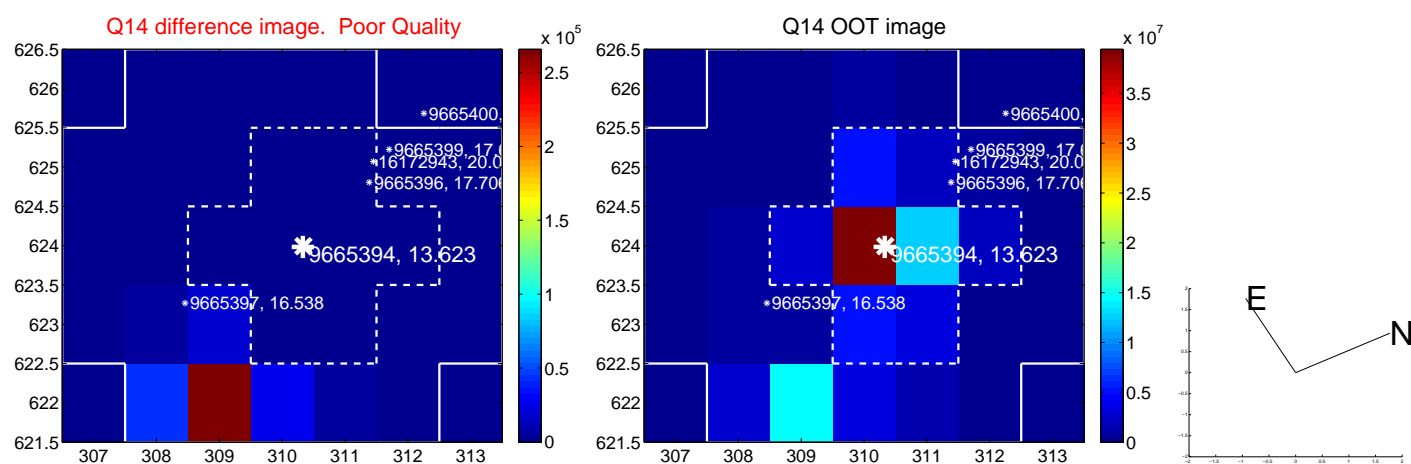
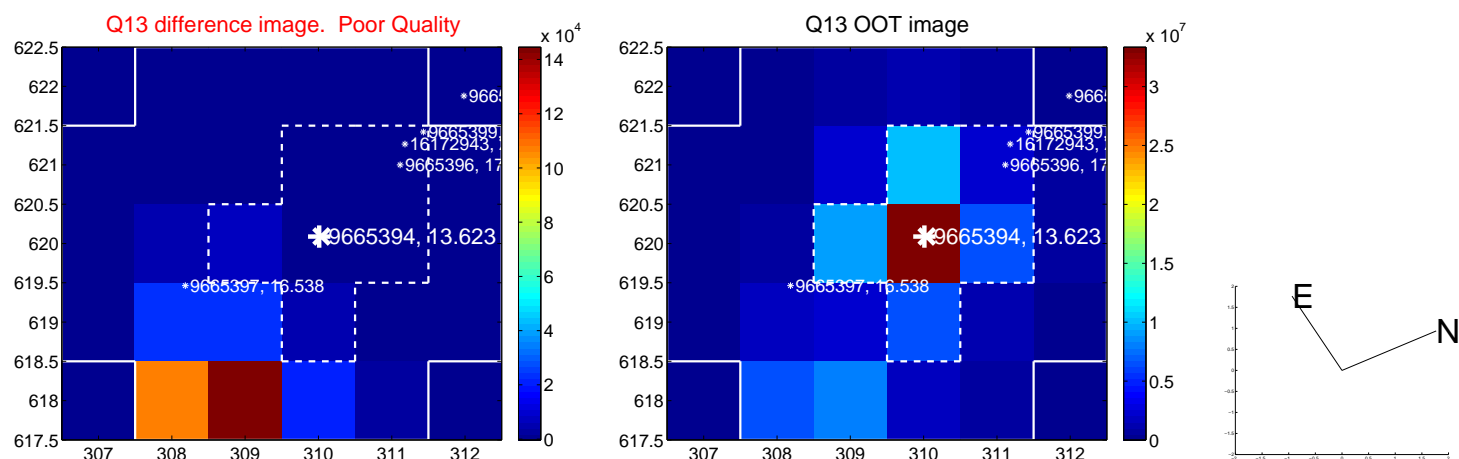
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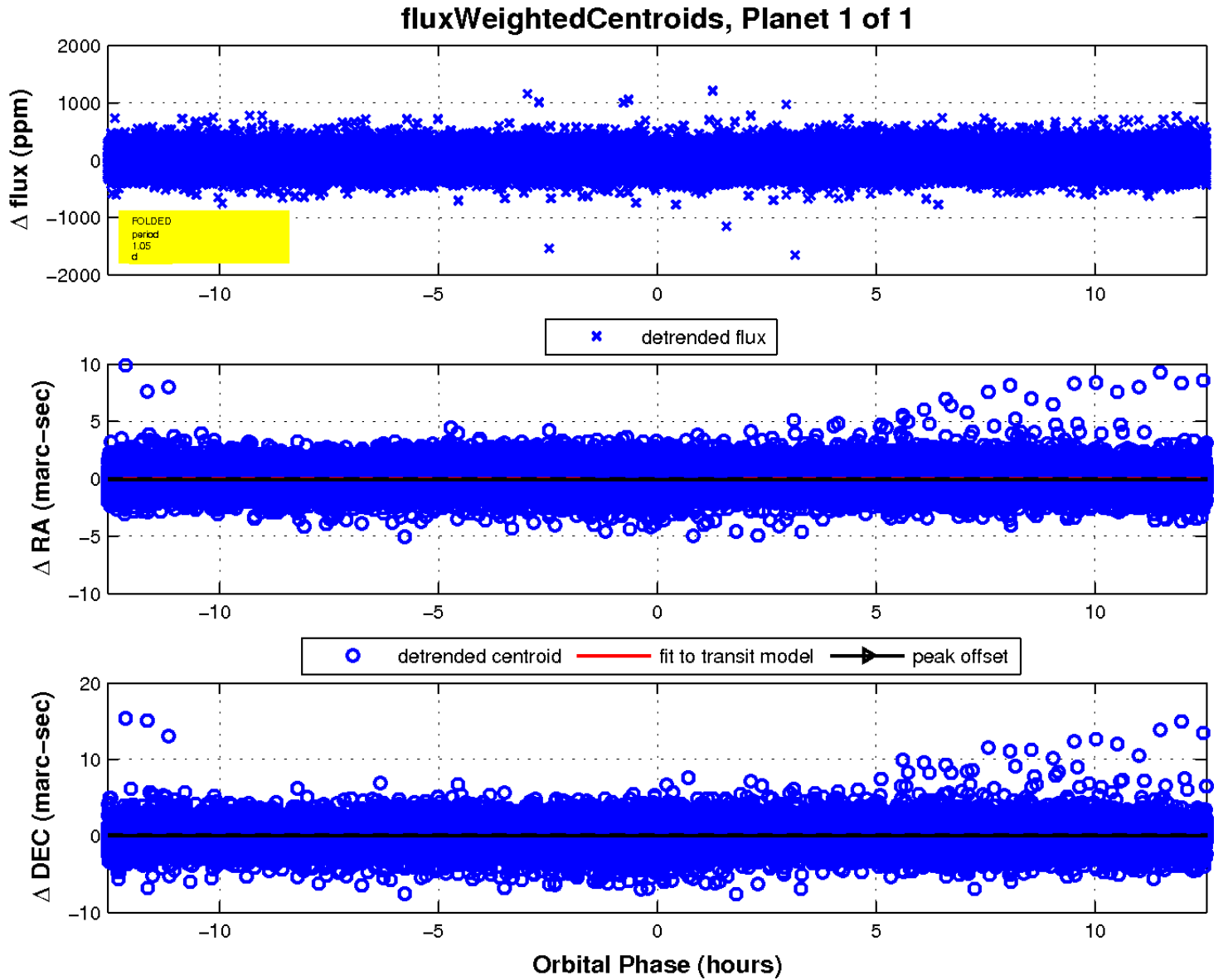
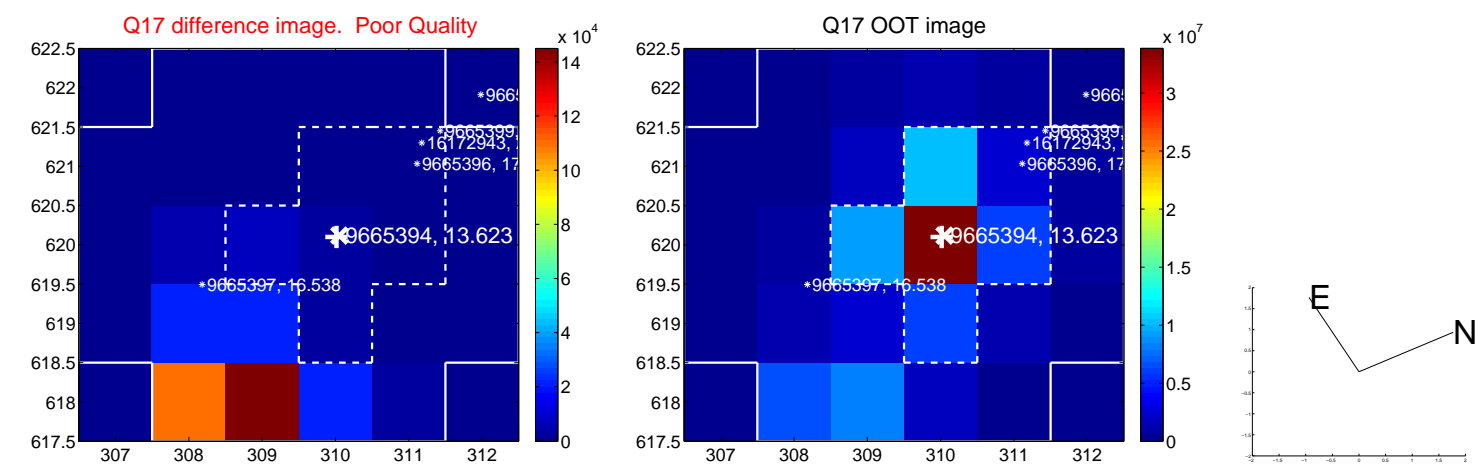
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UKIRT Image

Declination

