

KIC 006314475

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})
006314475-01	OBS	No	2.542337	132.038237	123.3	30.508	10.5	21.1	1.22	6818	1.65	1878.60

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006314475-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_FEW_DIFFS

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

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

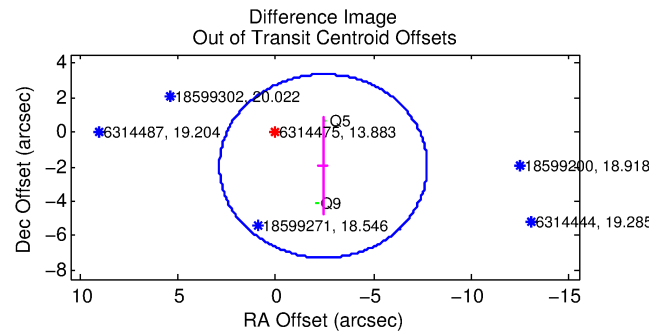
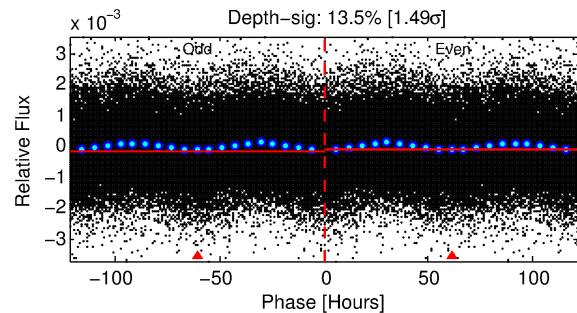
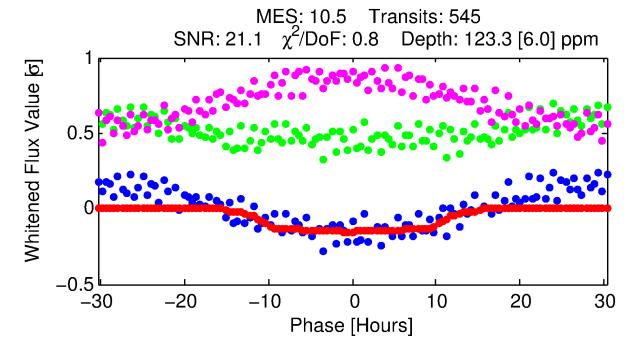
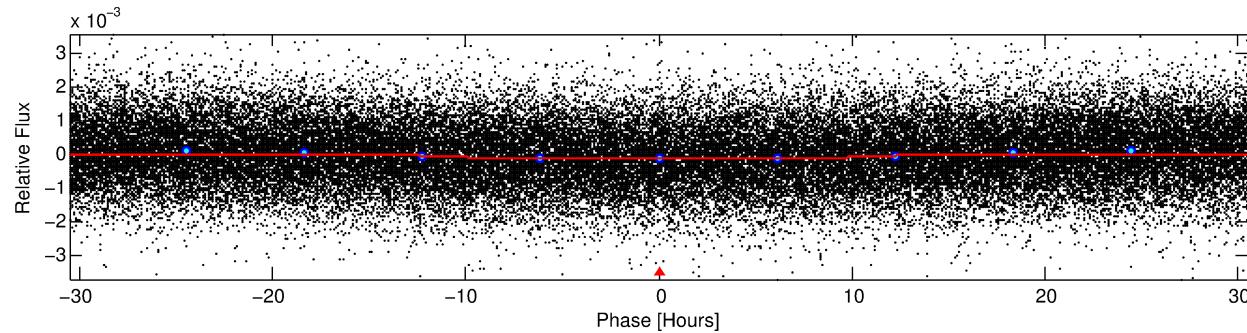
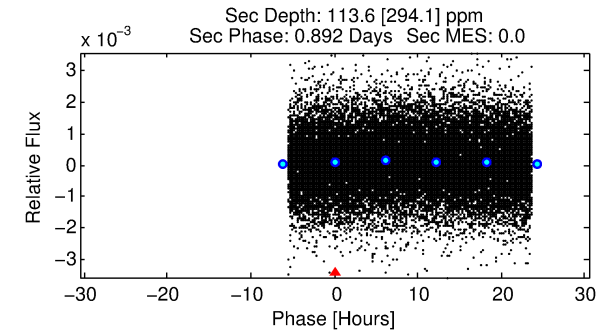
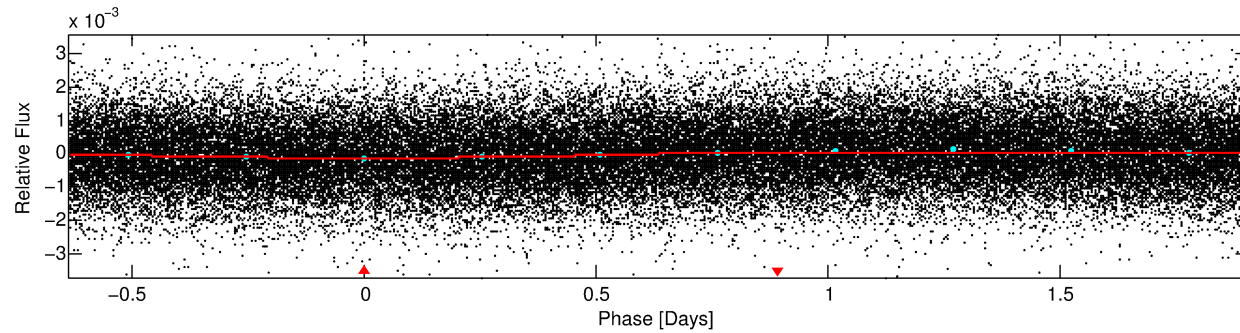
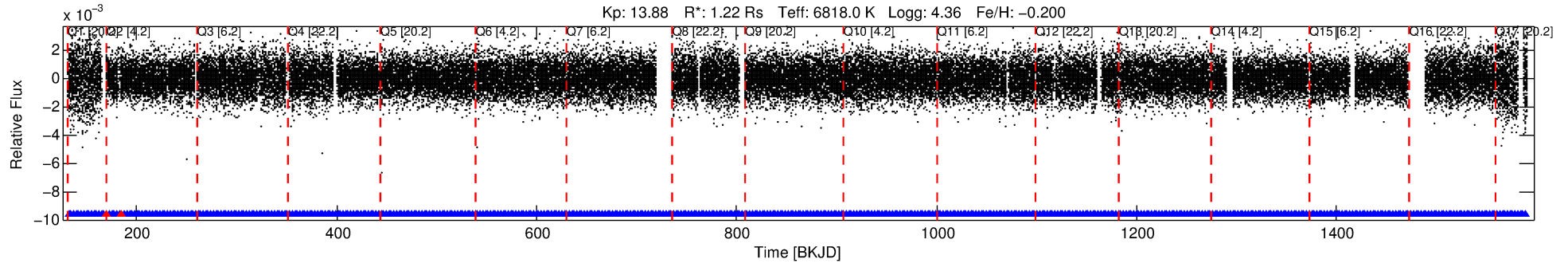
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006314475-01

No Significant Match Found

DV One-Page Summary

KIC: 6314475 Candidate: 1 of 1 Period: 2.542 d



DV Fit Results:

Period = 2.54234 [0.00008] d
Epoch = 132.0382 [0.0244] BKJD
Rp/R* = 0.0124 [0.0004]
a/R* = 1.01 [0.00]
b = 0.95 [0.01]
Seff = 1878.60 [783.21]
Teq = 1679 [175] K
Rp = 1.65 [0.58] Re
a = 0.0390 [0.0109] AU
Ag = 34.98 [91.59] [0.37σ]
Teffp = 6312 [4094] K [1.13σ]

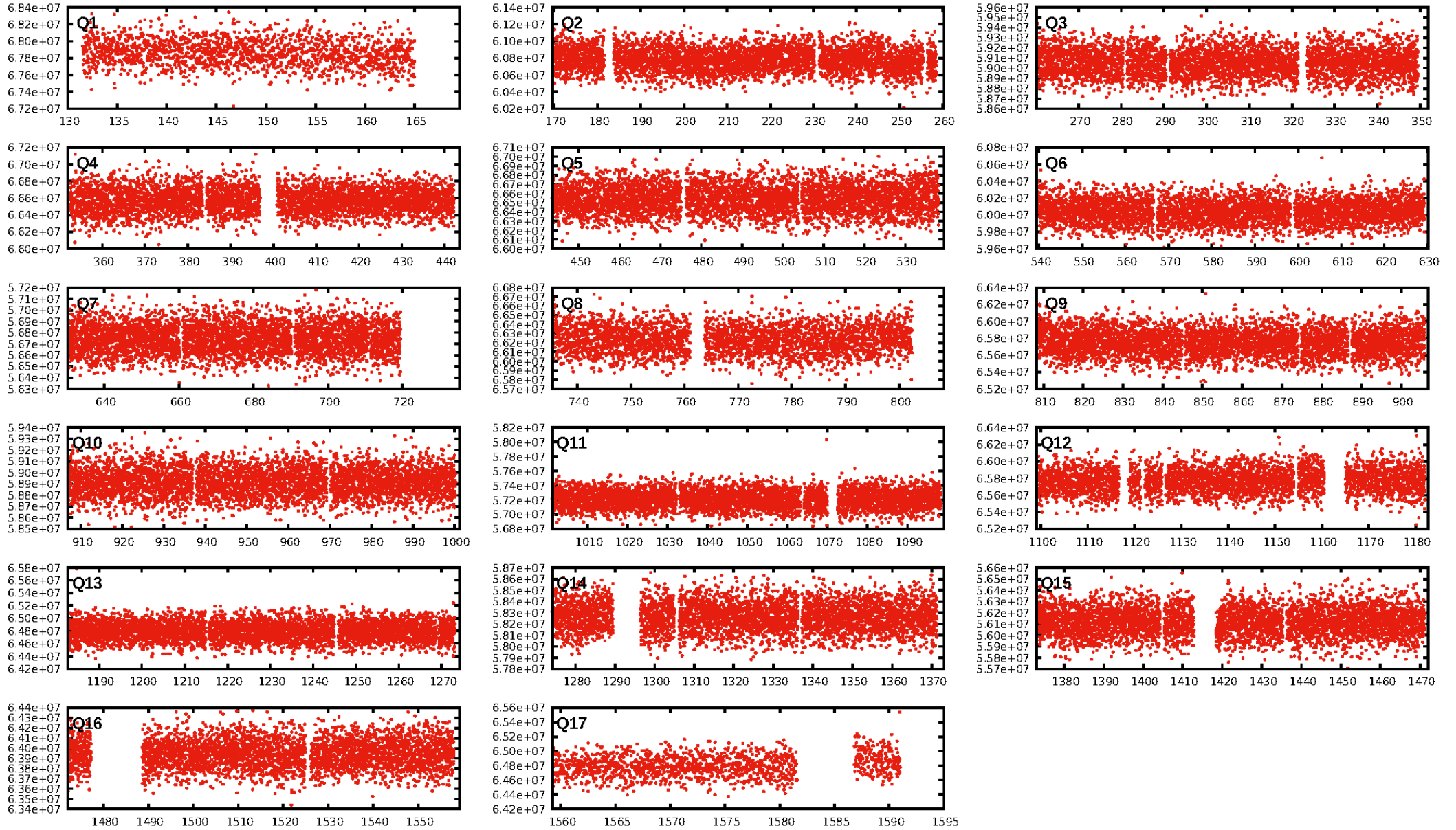
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [517/519]
GhostDiagnostic-chr: 1.725
Centroid-sig: 0.0%
Centroid-so: 0.557 arcsec [2.63σ]
OotOffset-rm: 3.130 arcsec [1.77σ]
KicOffset-rm: 3.335 arcsec [1.82σ]
OotOffset-st: 0/0/0/2 [2]
KicOffset-st: 0/0/0/2 [2]
DiffImageQuality-fgm: 0.00 [0/2]
DiffImageOverlap-fno: 1.00 [17/17]

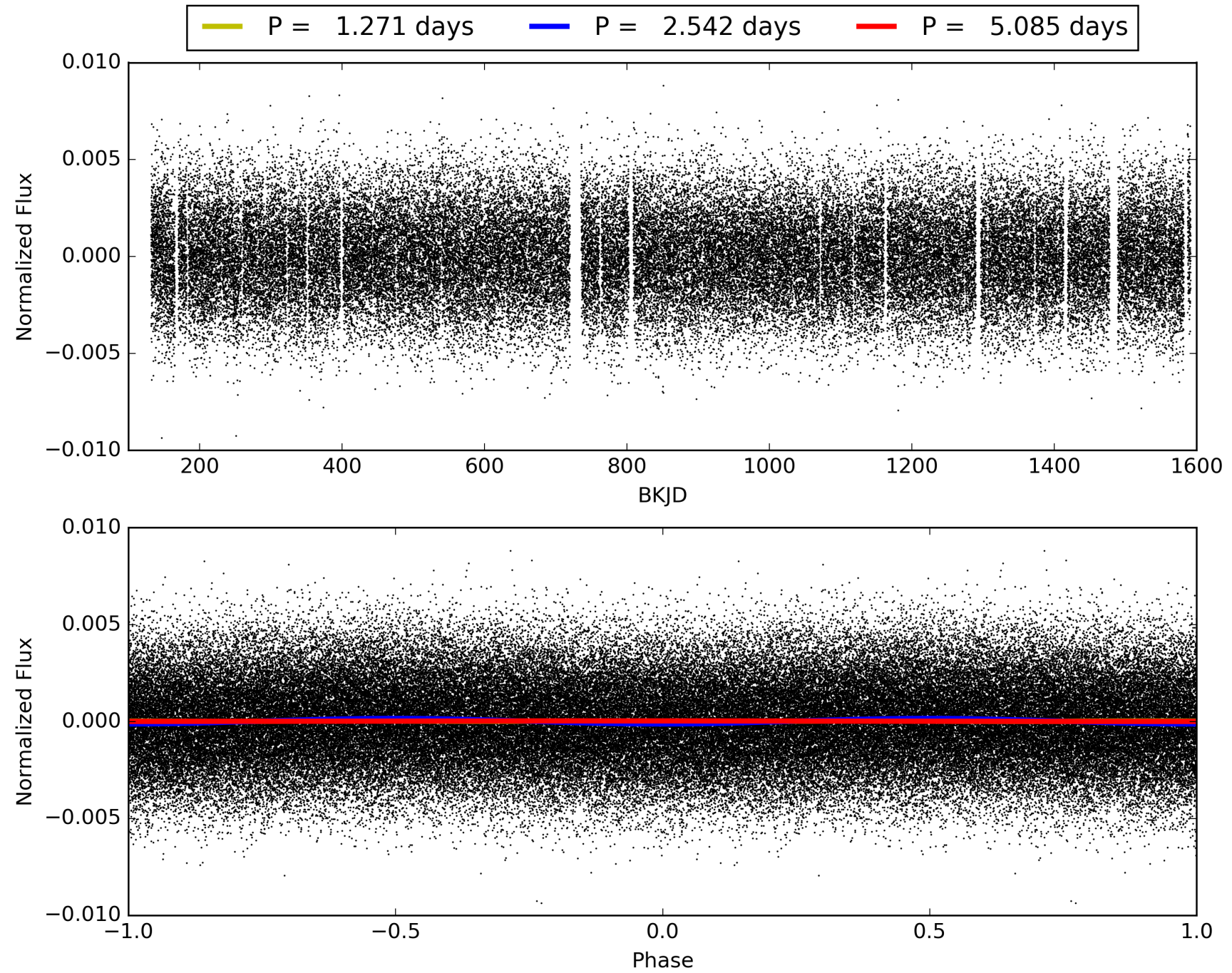
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 14:36:07 Z

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

TCE 006314475-01, PDC Light Curves

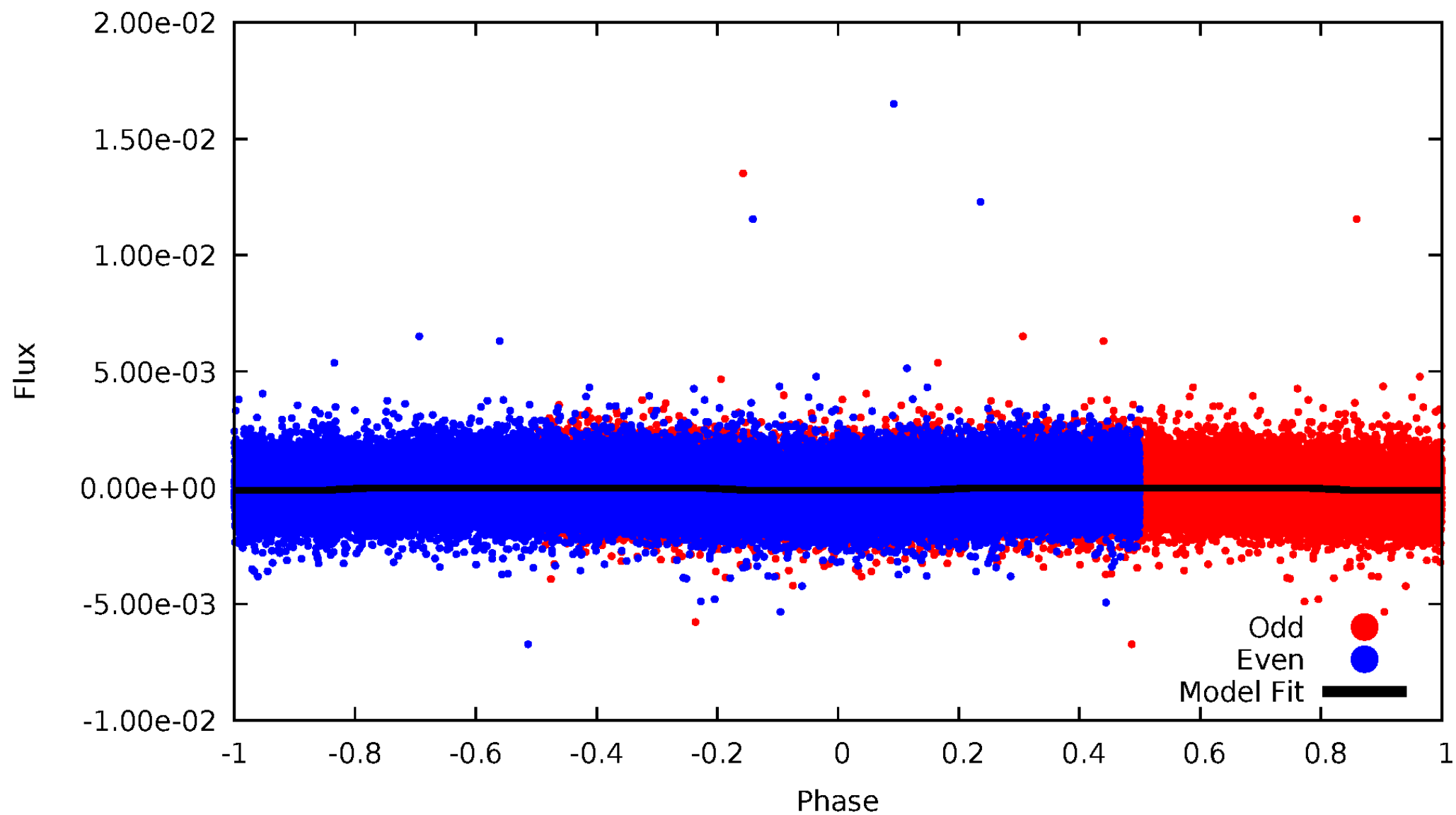


TCE 006314475-01



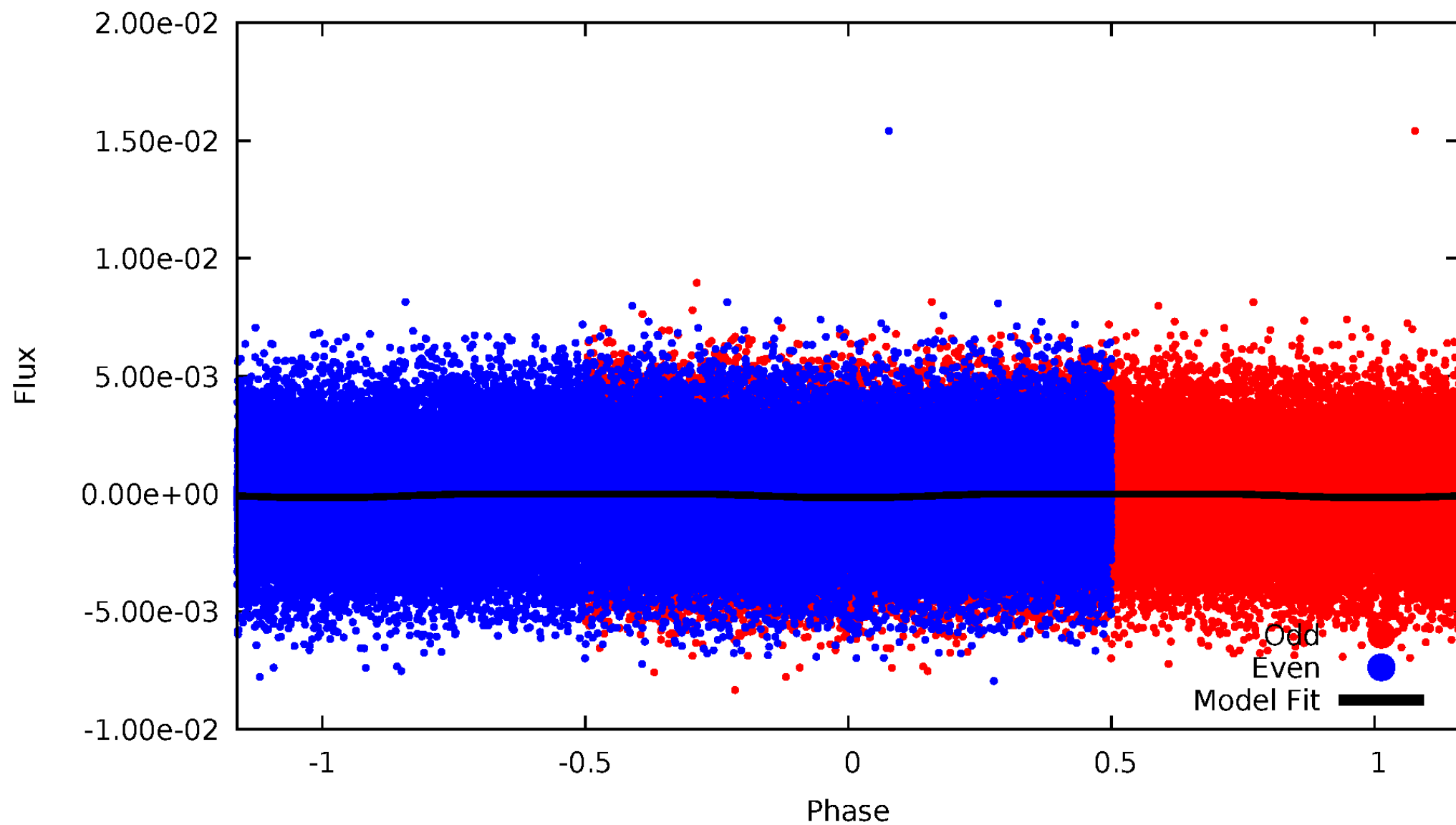
DV Odd/Even

TCE 006314475-01

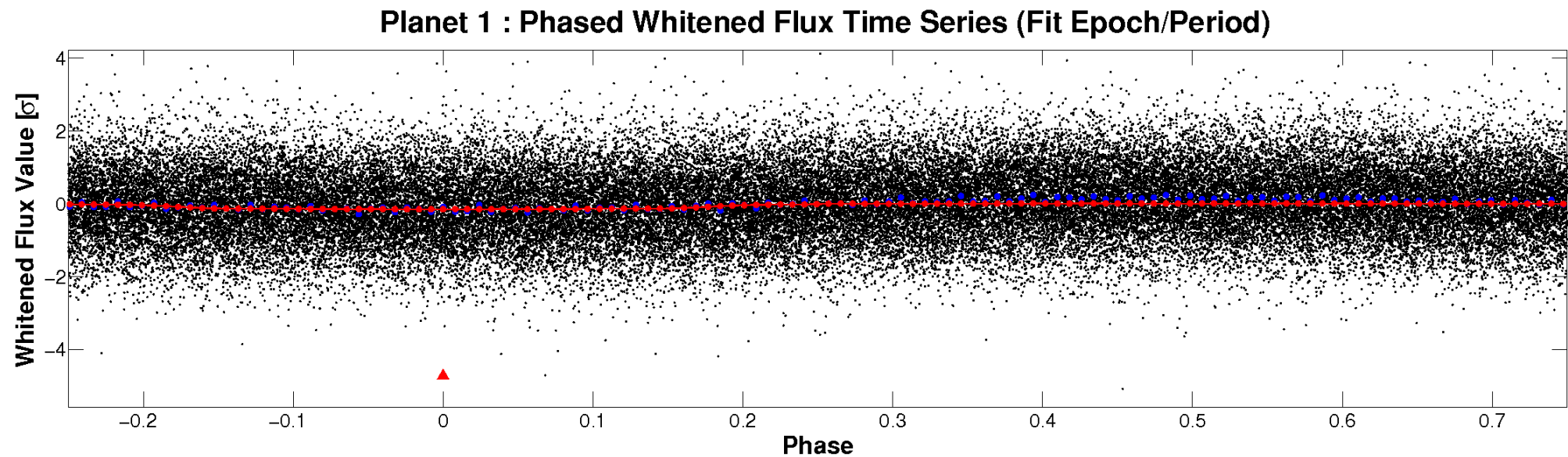
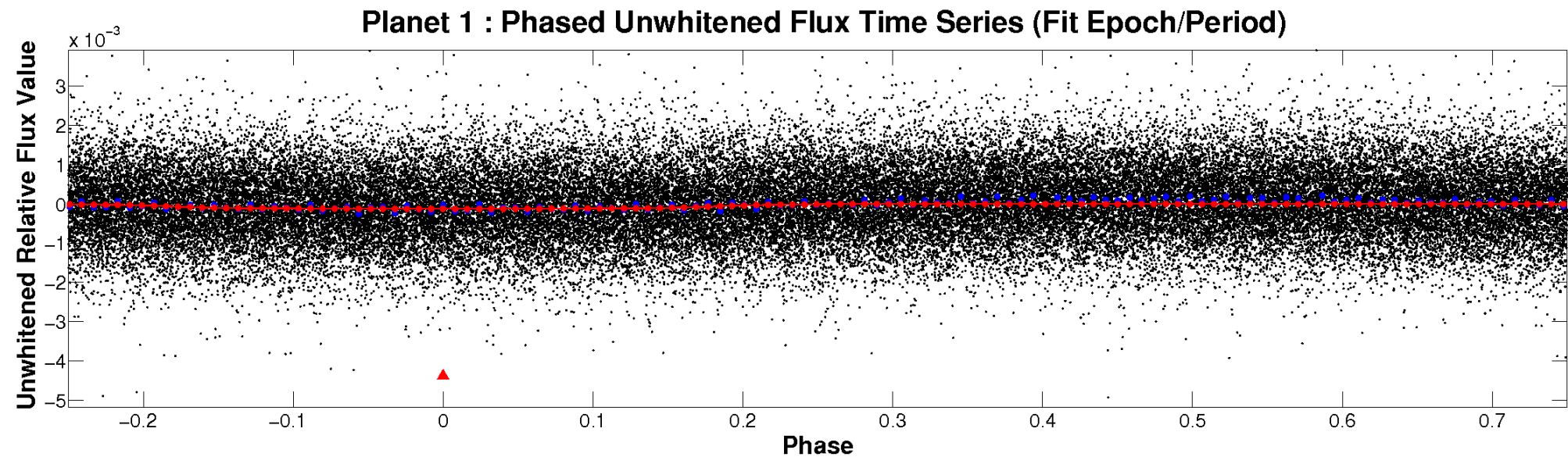


ALT Odd/Even

TCE 006314475-01

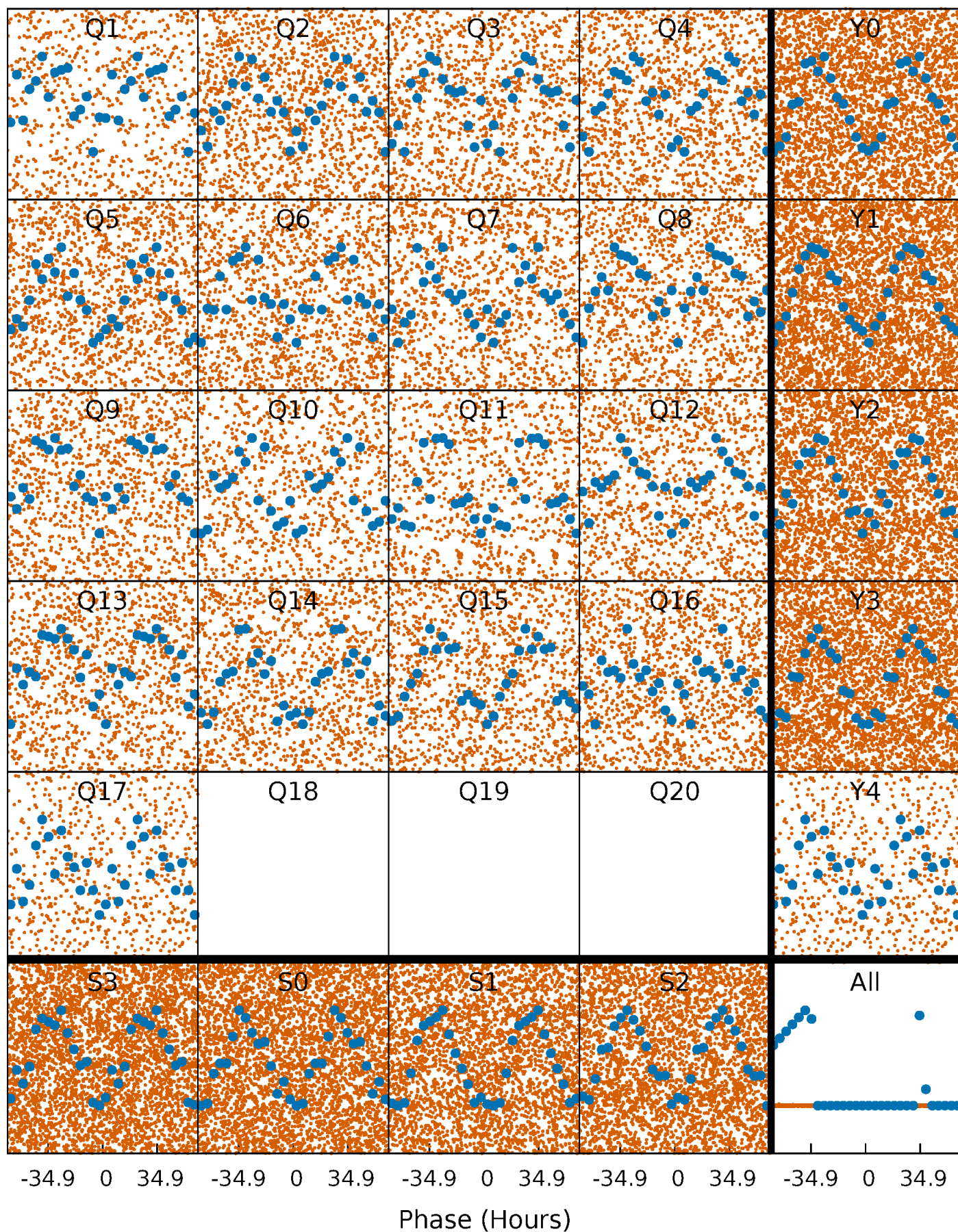


Non-Whitened Vs. Whitened Light Curve



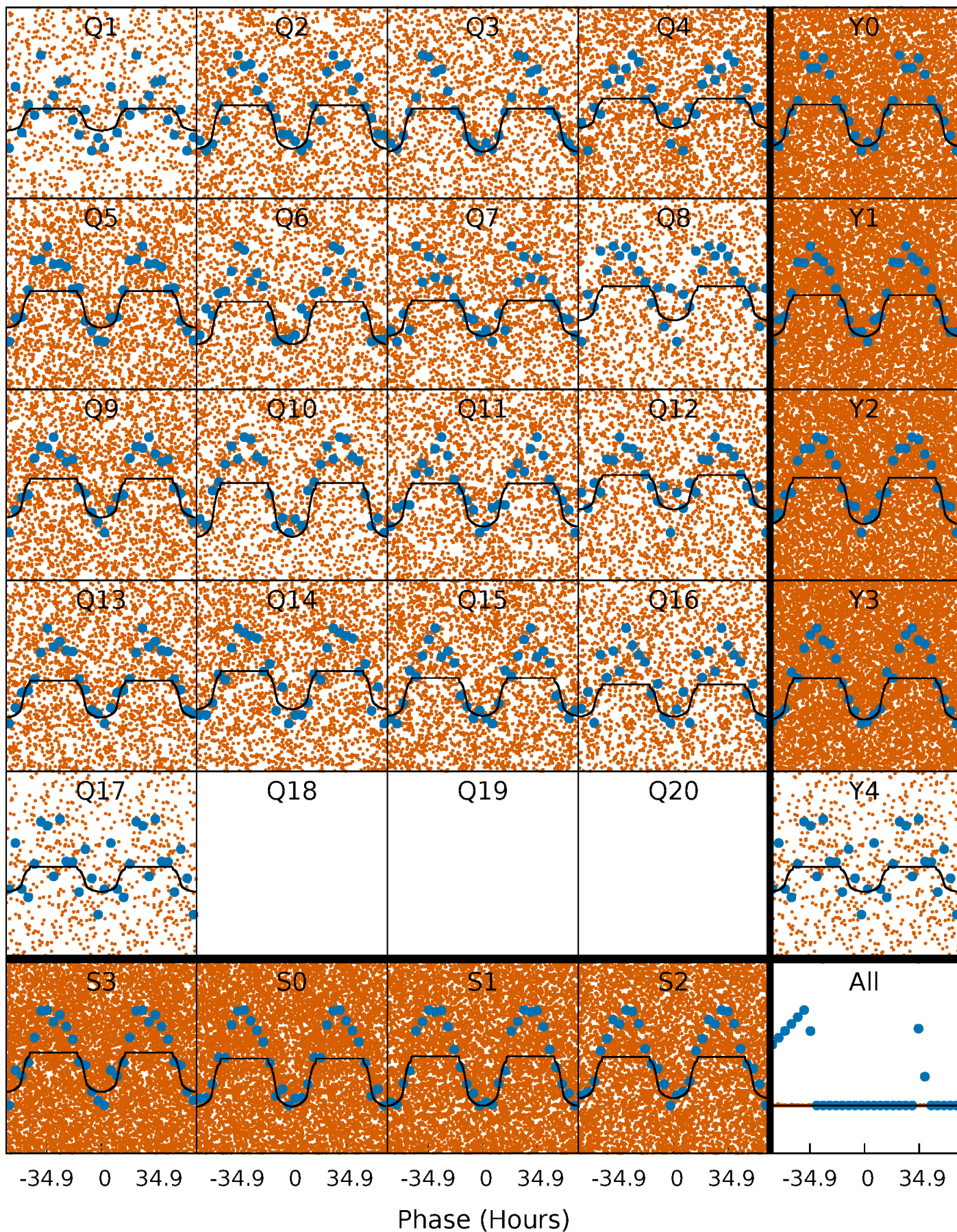
PDC Quarter-Phased Transit Curves

TCE 006314475-01 P= 2.542337 Days $T_0=132.038237$ (BKJD)



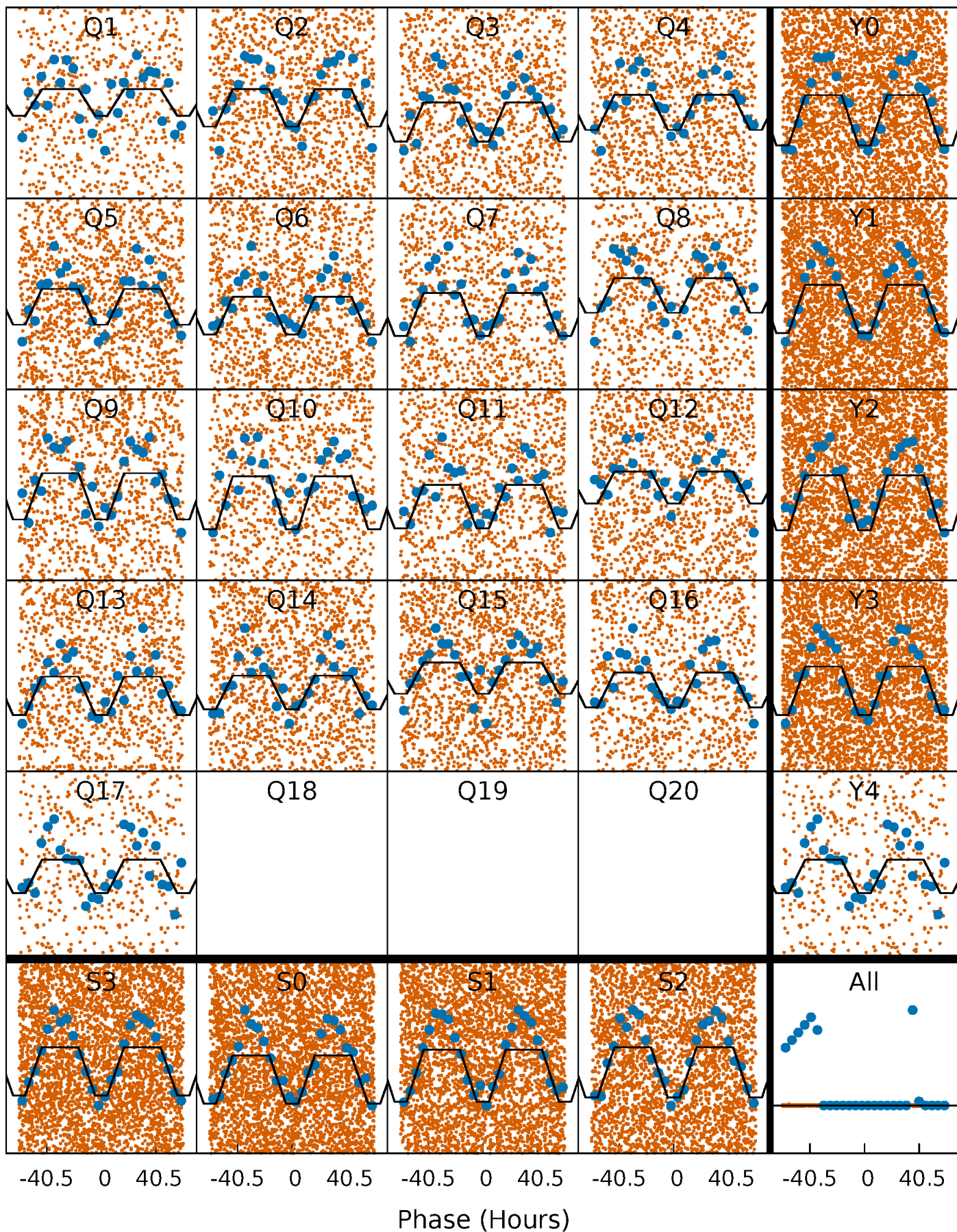
DV Quarter-Phased Transit Curves

TCE 006314475-01 P= 2.542337 Days $T_0=132.038237$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

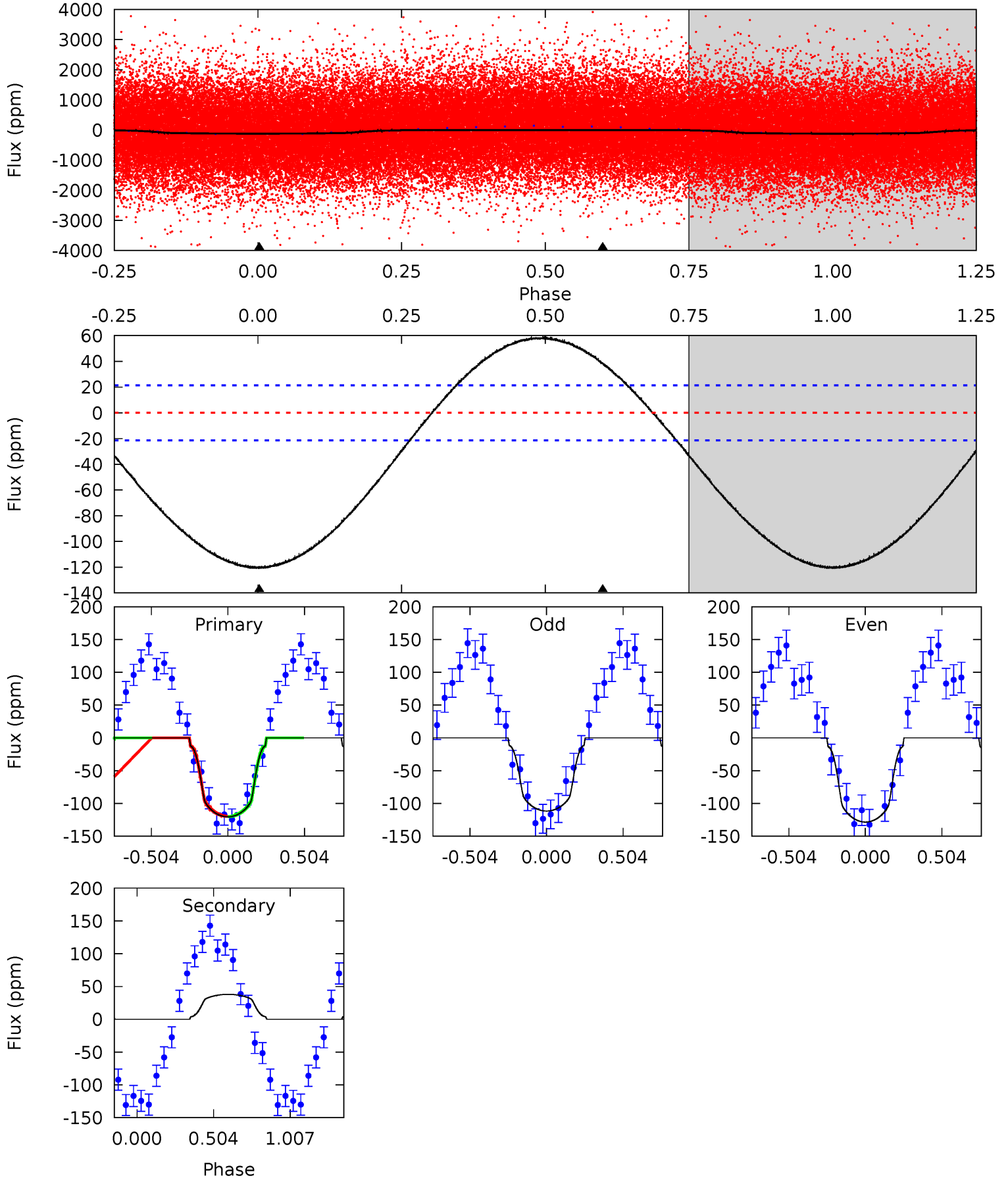
TCE 006314475-01 P= 2.542586 Days $T_0=131.974151$ (BKJD)



DV Model-Shift Uniqueness Test

006314475-01, P = 2.542337 Days, E = 129.495900 Days

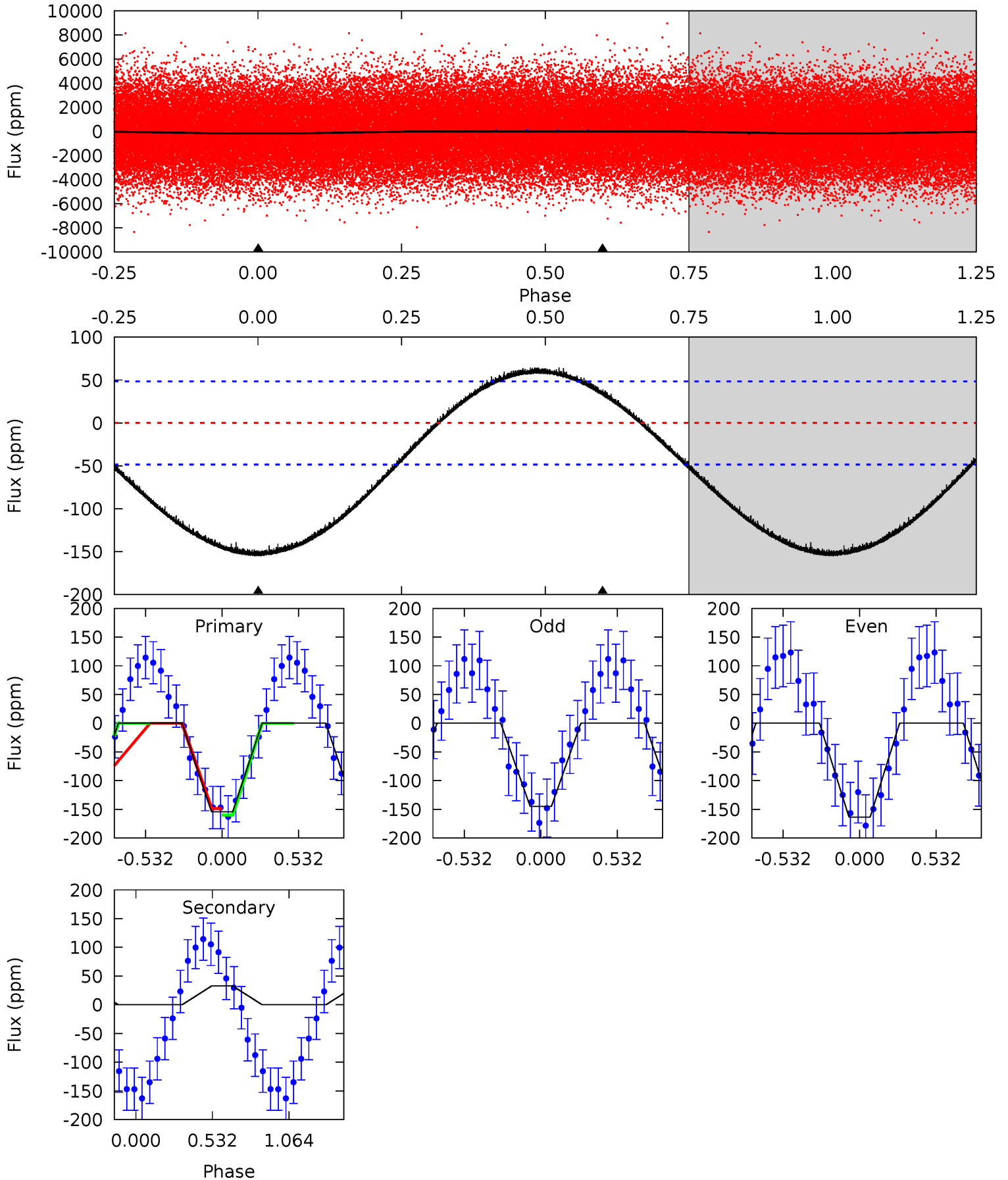
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
23.7	-7.49	0	0	4.21	0.67	3.15	23.7	23.7	-7.49	-7.49	1.67	1.30	0.33	0.05



Alt Model-Shift Uniqueness Test

006314475-01, P = 2.542586 Days, E = 129.431565 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.4	-2.83	0	0	4.20	0.62	1.62	13.4	13.4	-2.83	-2.83	0.80	1.01	0.30	0.49



Stellar Parameters For KIC 006314475

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6818^{+191}_{-262}	$4.357^{+0.067}_{-0.202}$	$-0.200^{+0.250}_{-0.350}$	$1.216^{+0.424}_{-0.141}$	$1.240^{+0.184}_{-0.166}$	$0.971^{+0.282}_{-0.521}$
	+3%/-4%	+2%/-5%	+125%/-175%	+35%/-12%	+15%/-13%	+29%/-54%
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 006314475-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	38 ± 5	$1.68^{+0.30}_{-0.14}$	2379^{+175}_{-118}	-4907^{+203}_{-182}	$-10.879^{+2.778}_{-2.710}$
Alt.	33 ± 12	$1.69^{+0.29}_{-0.15}$	2378^{+178}_{-124}	-4744^{+427}_{-325}	$-8.760^{+3.301}_{-4.228}$

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 $A_{obs} \gg 1.0$

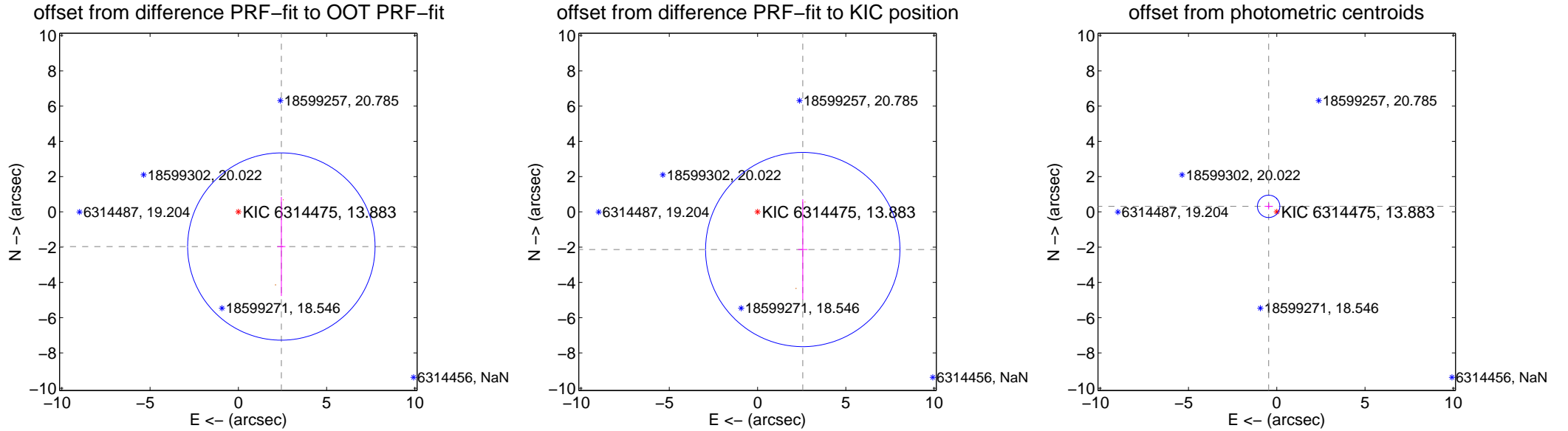
DV Centroid Data

Supplemental centroid analysis for 006314475-01. Kepler magnitude: 13.88. Transit SNR 21.14

There are 0 quarters with good PRF difference image offsets

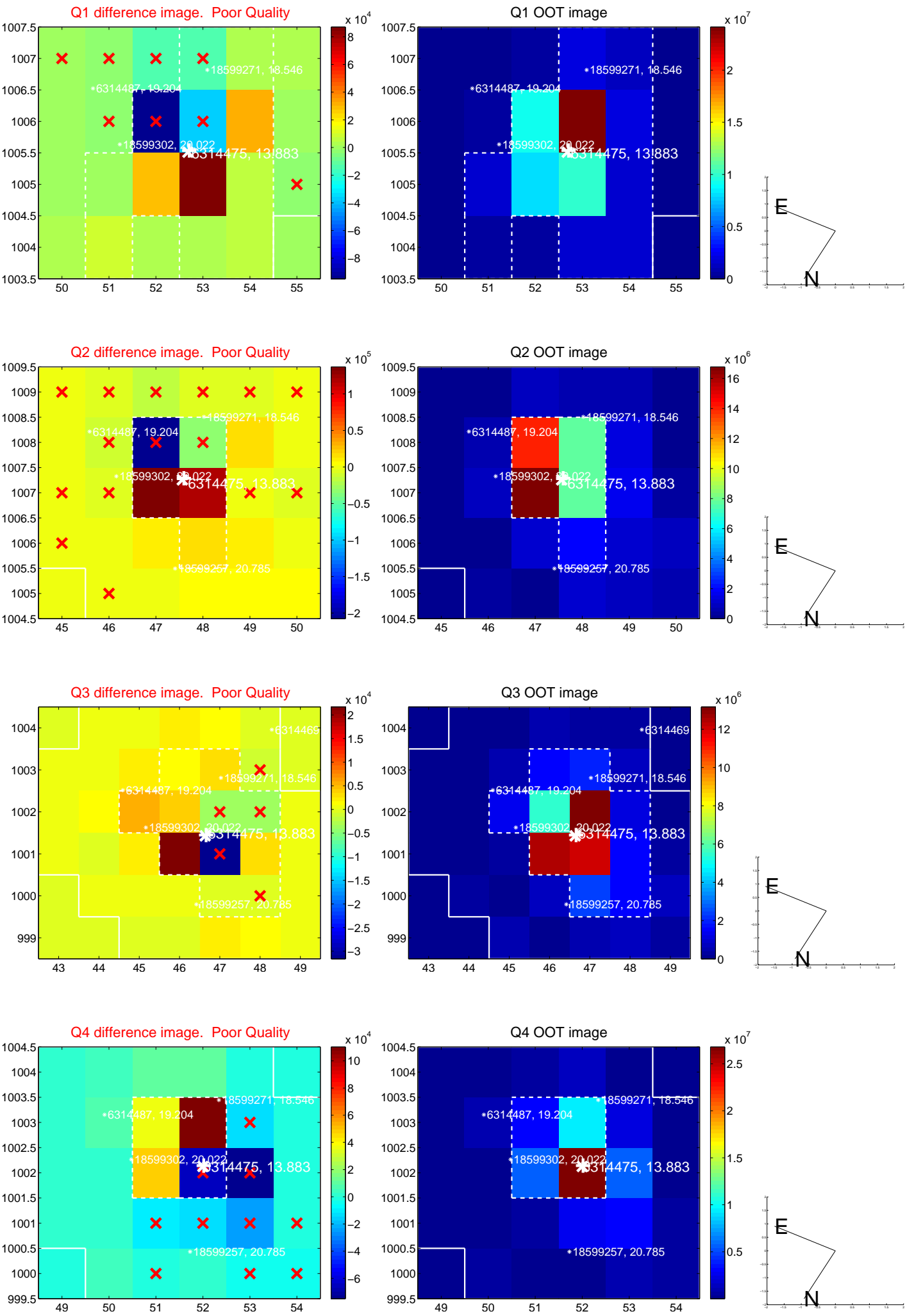
The direct PRF centroid is offset from the target star catalog position by about 0.22 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.130 ± 1.770	1.77	-2.436 ± 0.231	-1.966 ± 2.805
PRF-fit source offset from KIC position	3.335 ± 1.836	1.82	-2.562 ± 0.265	-2.135 ± 2.850
photometric centroid source offset	0.56 ± 0.21	2.63	0.46 ± 0.23	0.31 ± 0.18

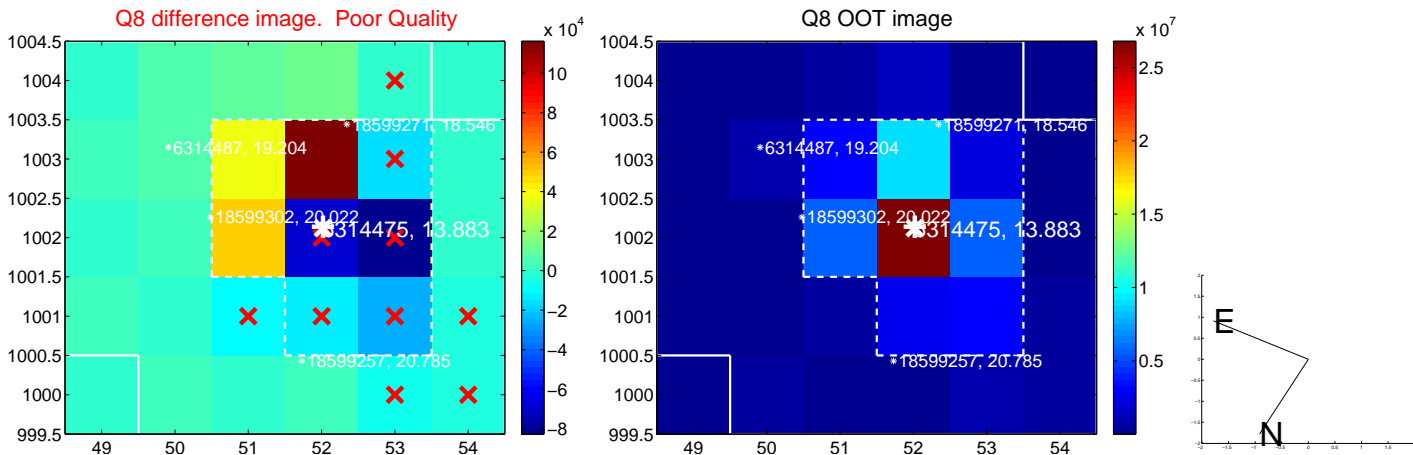
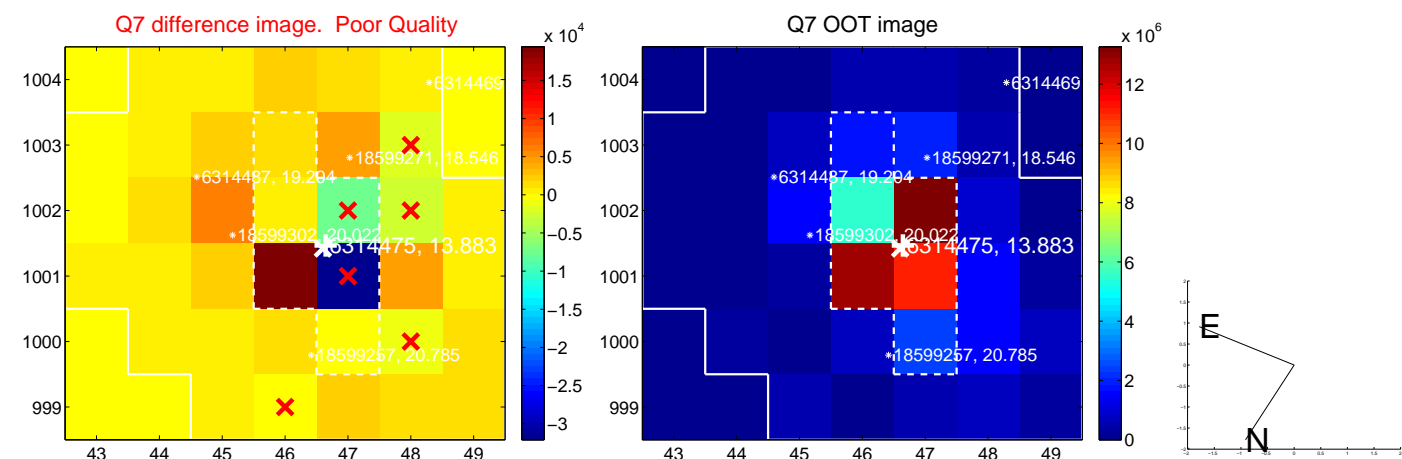
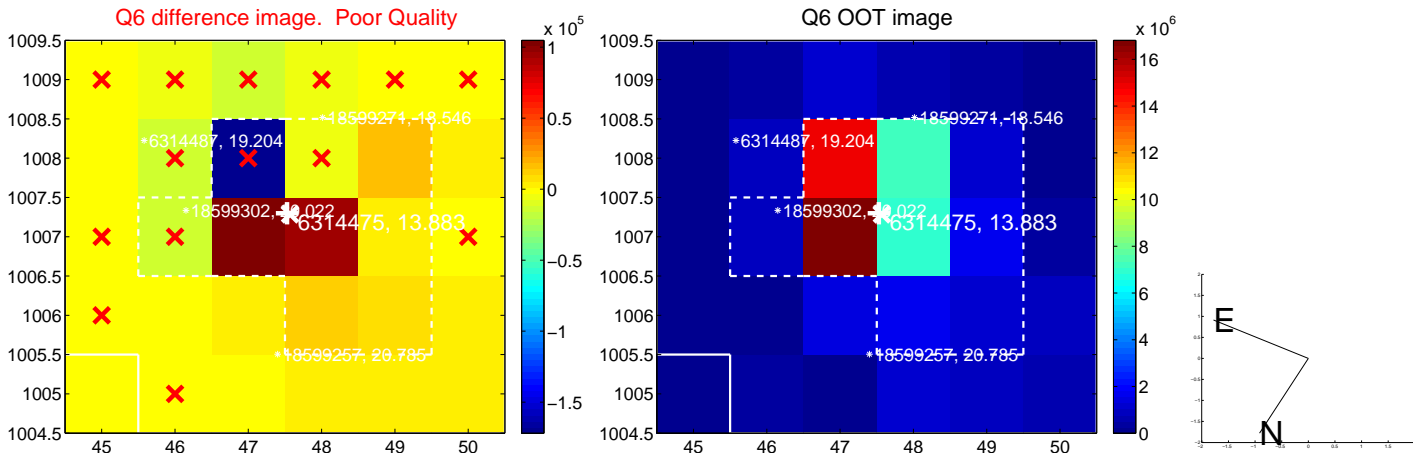
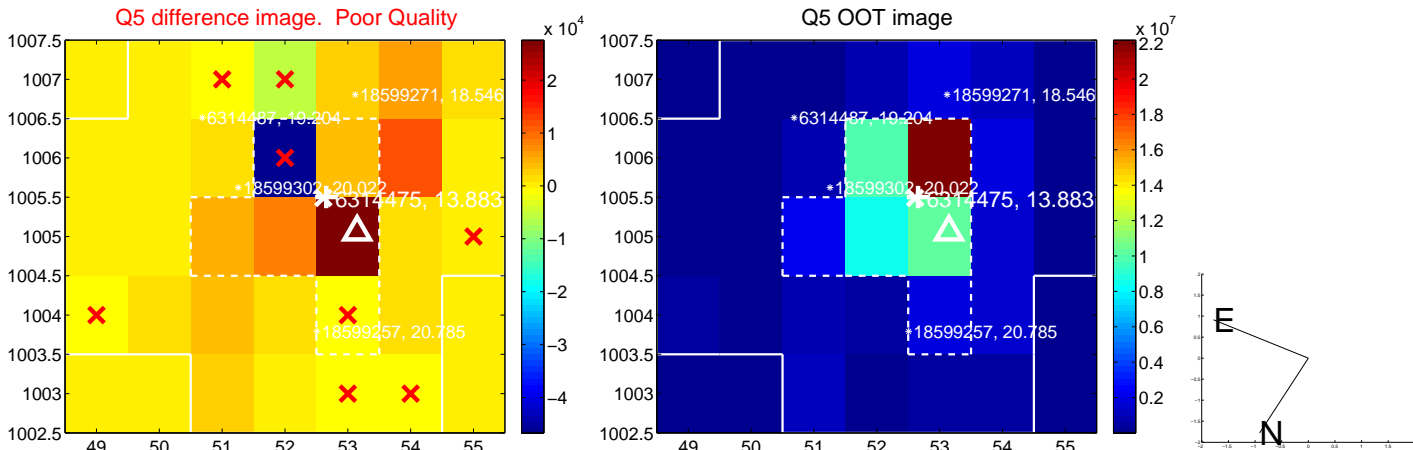


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

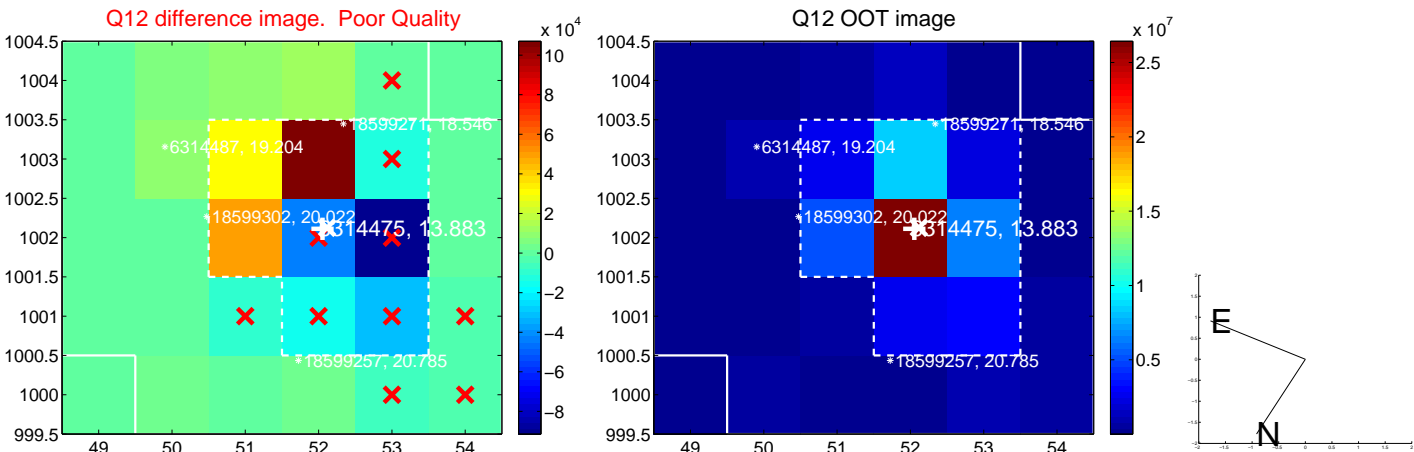
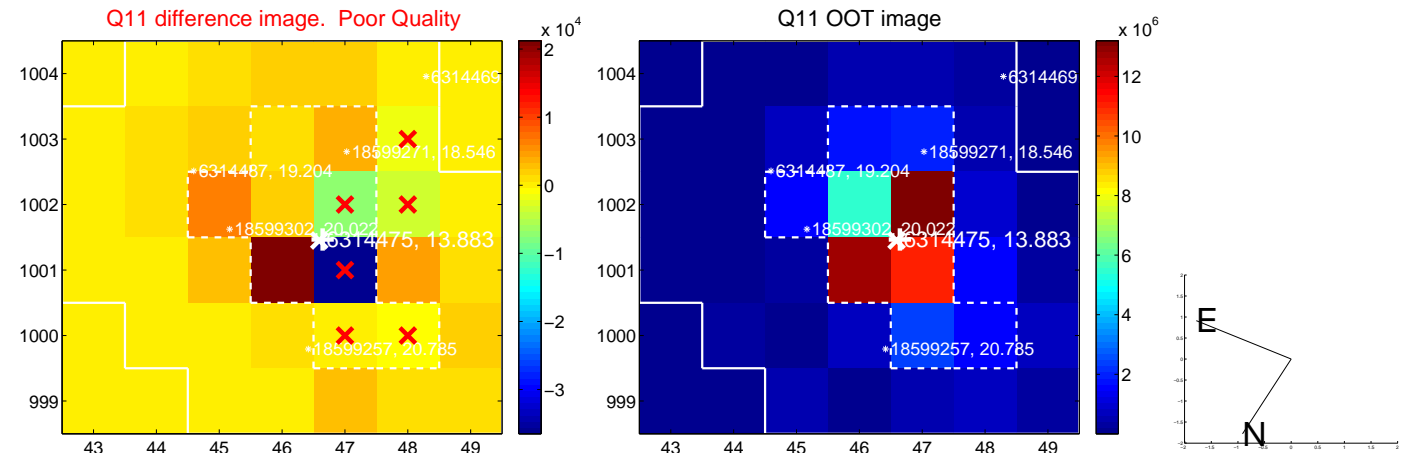
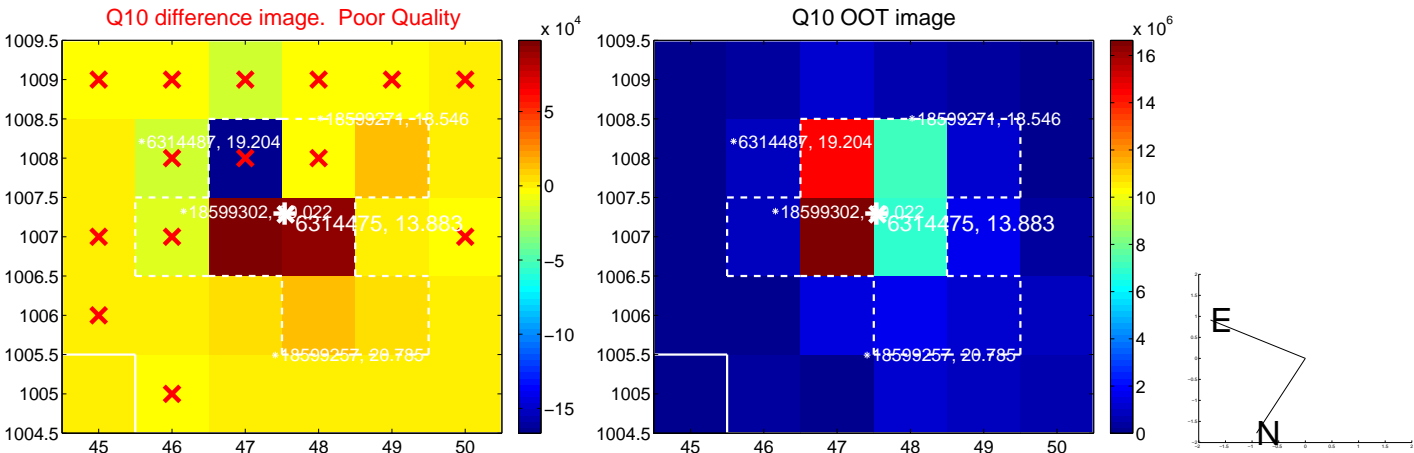
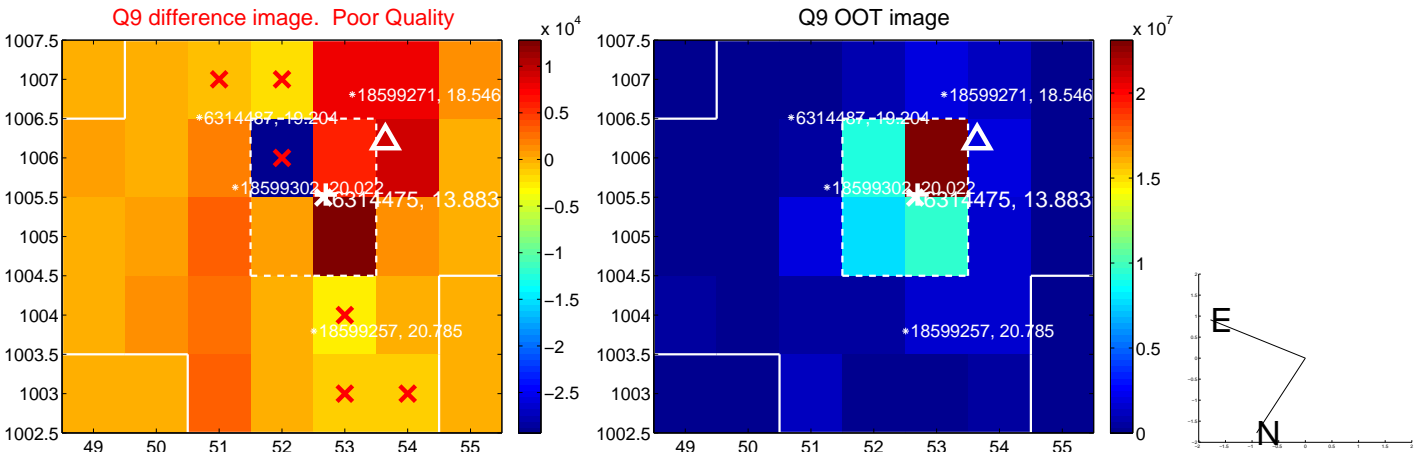
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



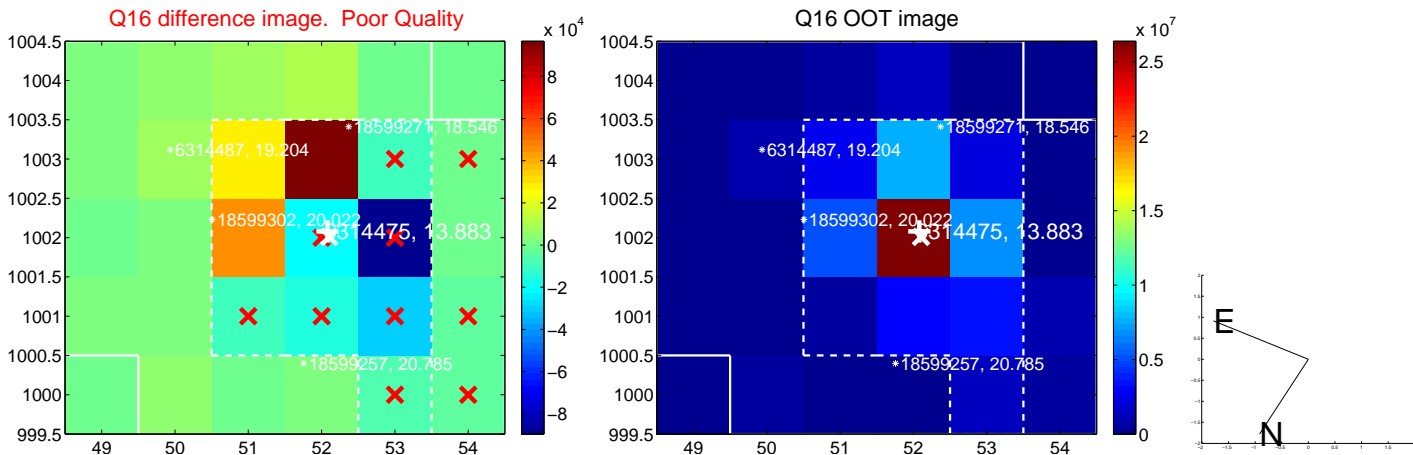
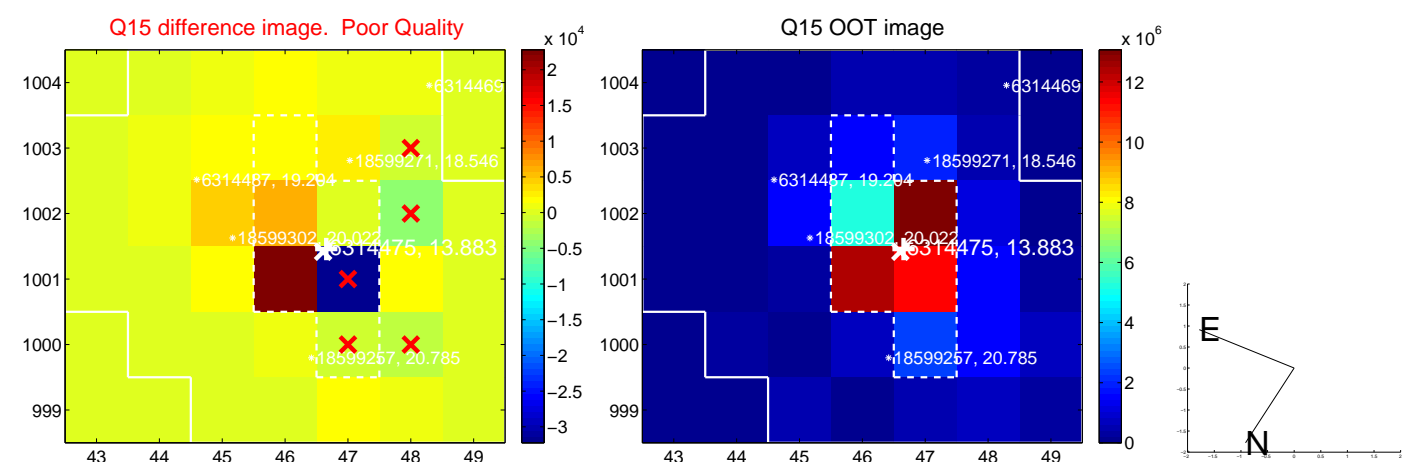
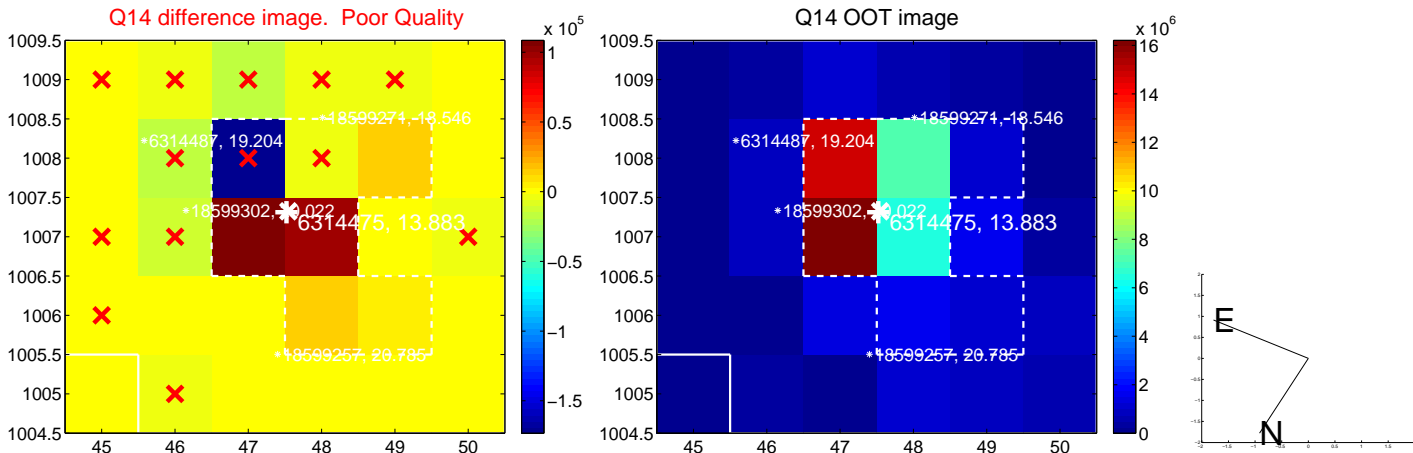
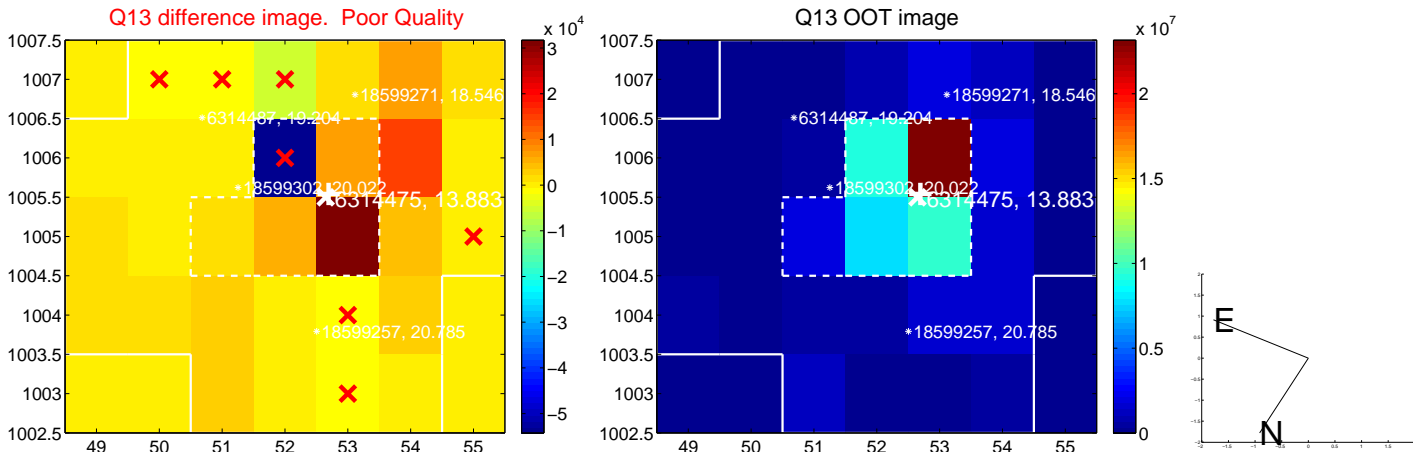
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



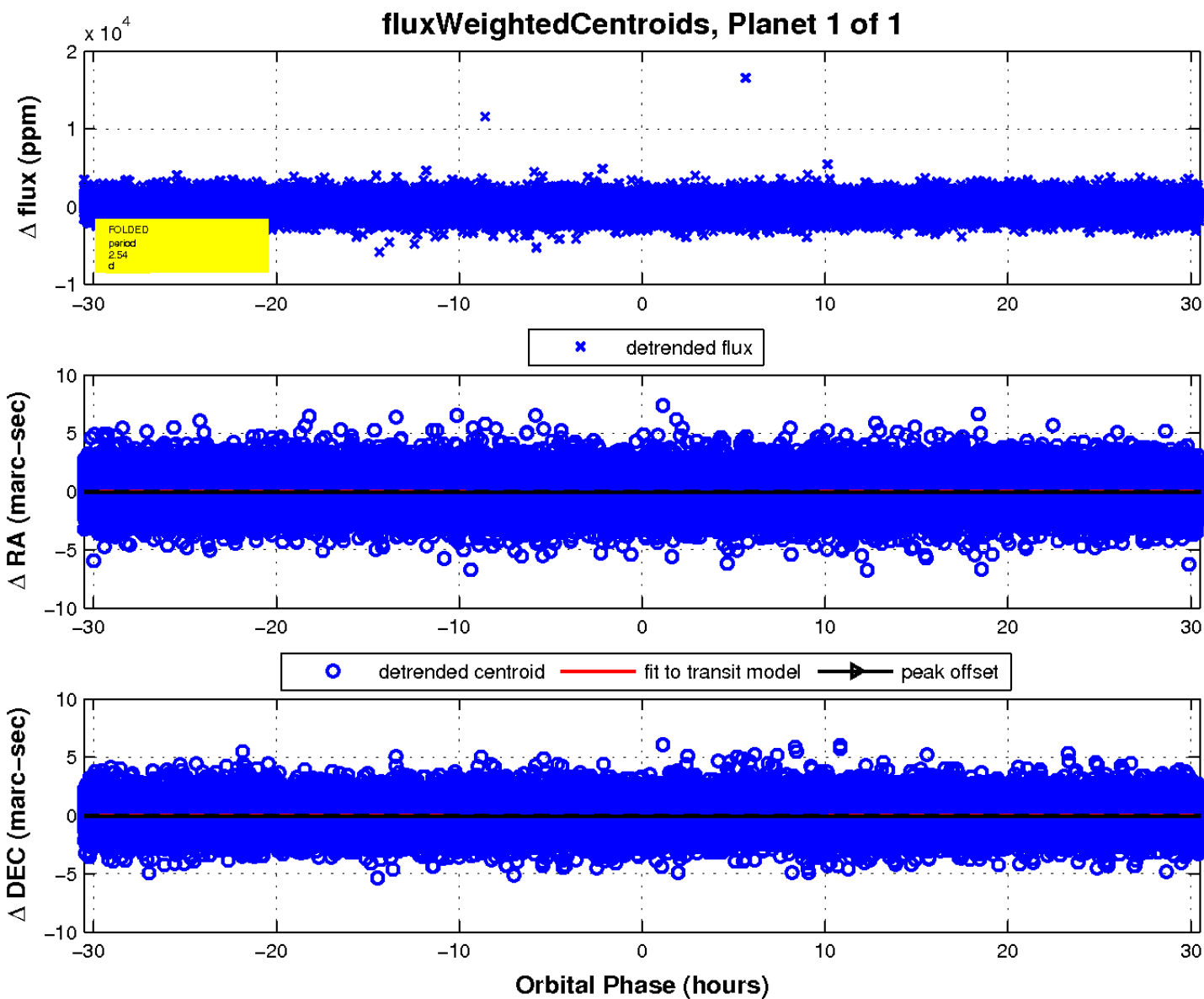
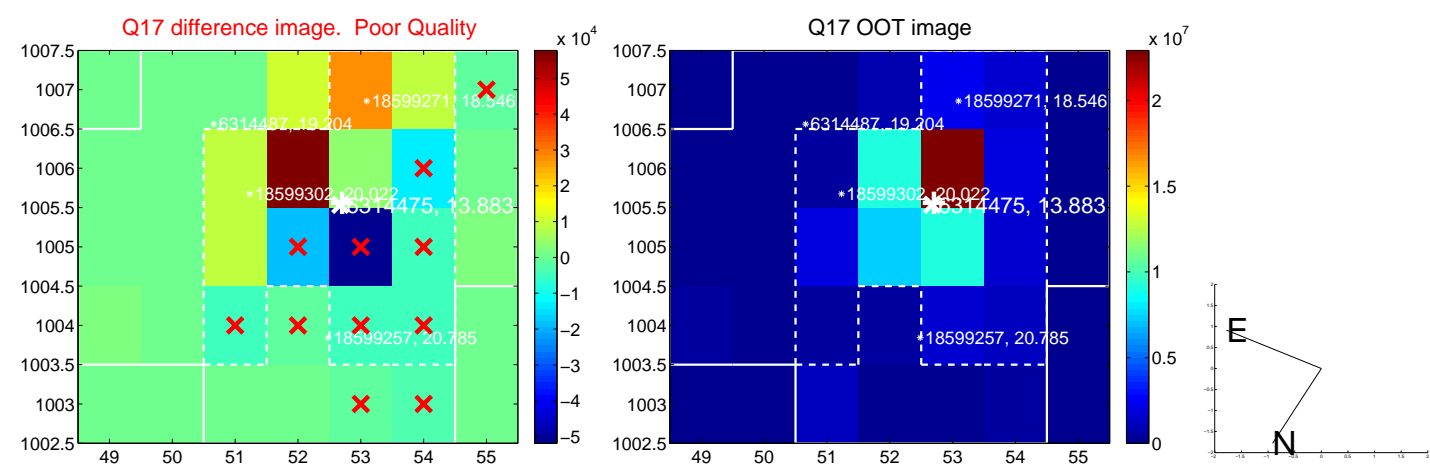
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UKIRT Image

