

KIC 003547014

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})
003547014-01	OBS	No	8.376401	133.064894	56.4	27.244	9.6	10.1	1.83	6529	1.84	721.10

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003547014-01	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.

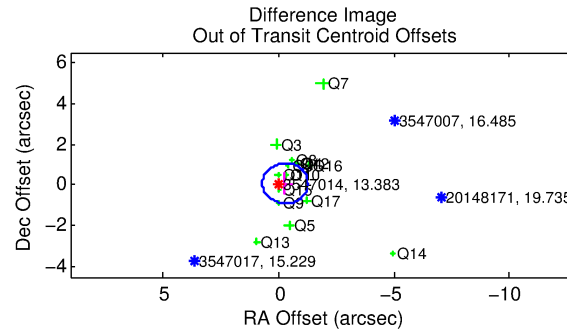
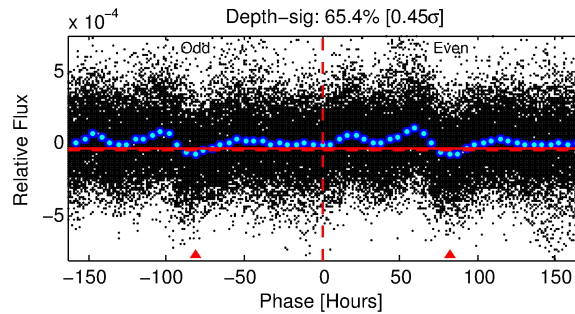
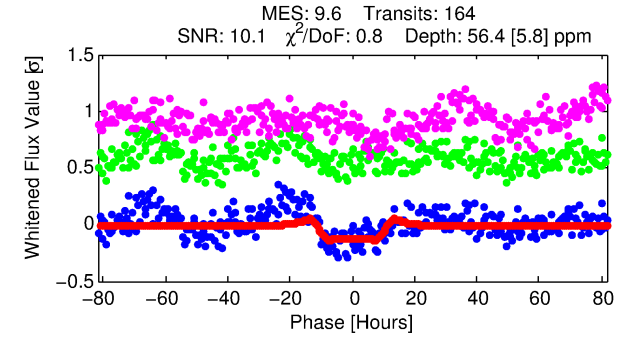
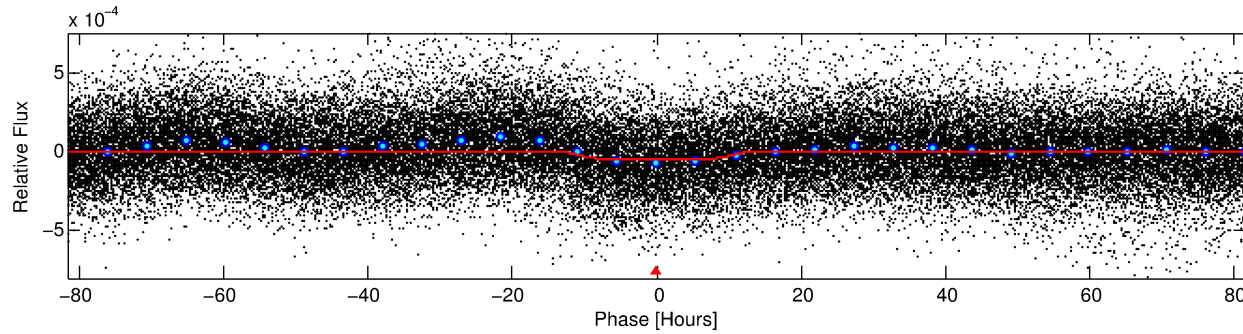
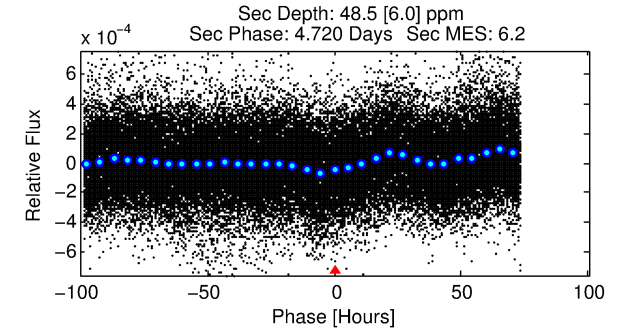
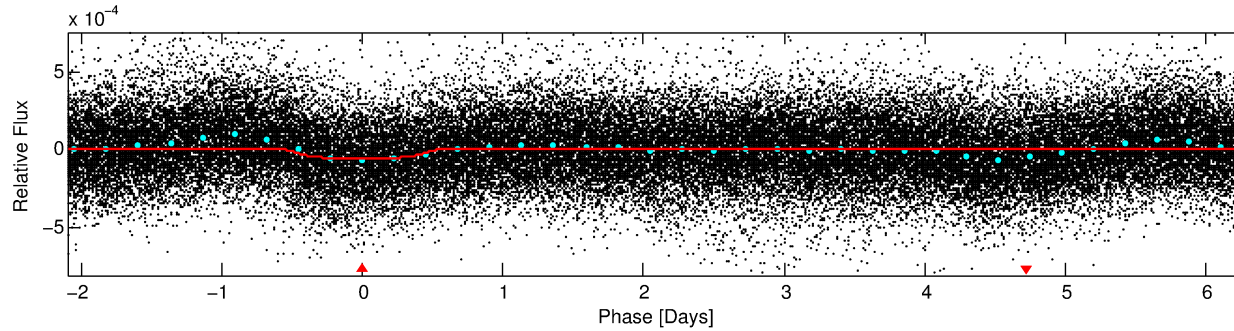
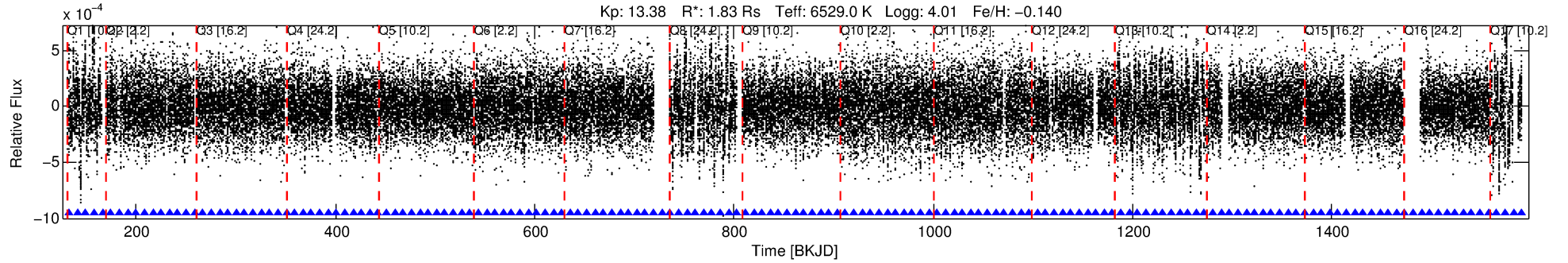
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003547014-01

No Significant Match Found

DV One-Page Summary

KIC: 3547014 Candidate: 1 of 1 Period: 8.376 d



DV Fit Results:

Period = 8.37640 [0.00039] d
Epoch = 133.0649 [0.0386] BKJD
Rp/R* = 0.0092 [0.0006]
a/R* = 1.13 [0.03]
b = 0.98 [0.01]
Seff = 721.10 [246.02]
Teq = 1321 [113] K
Rp = 1.84 [0.45] Re
a = 0.0870 [0.0188] AU
Ag = 59.90 [22.71] [2.59σ]
Teffp = 5684 [254] K [15.72σ]

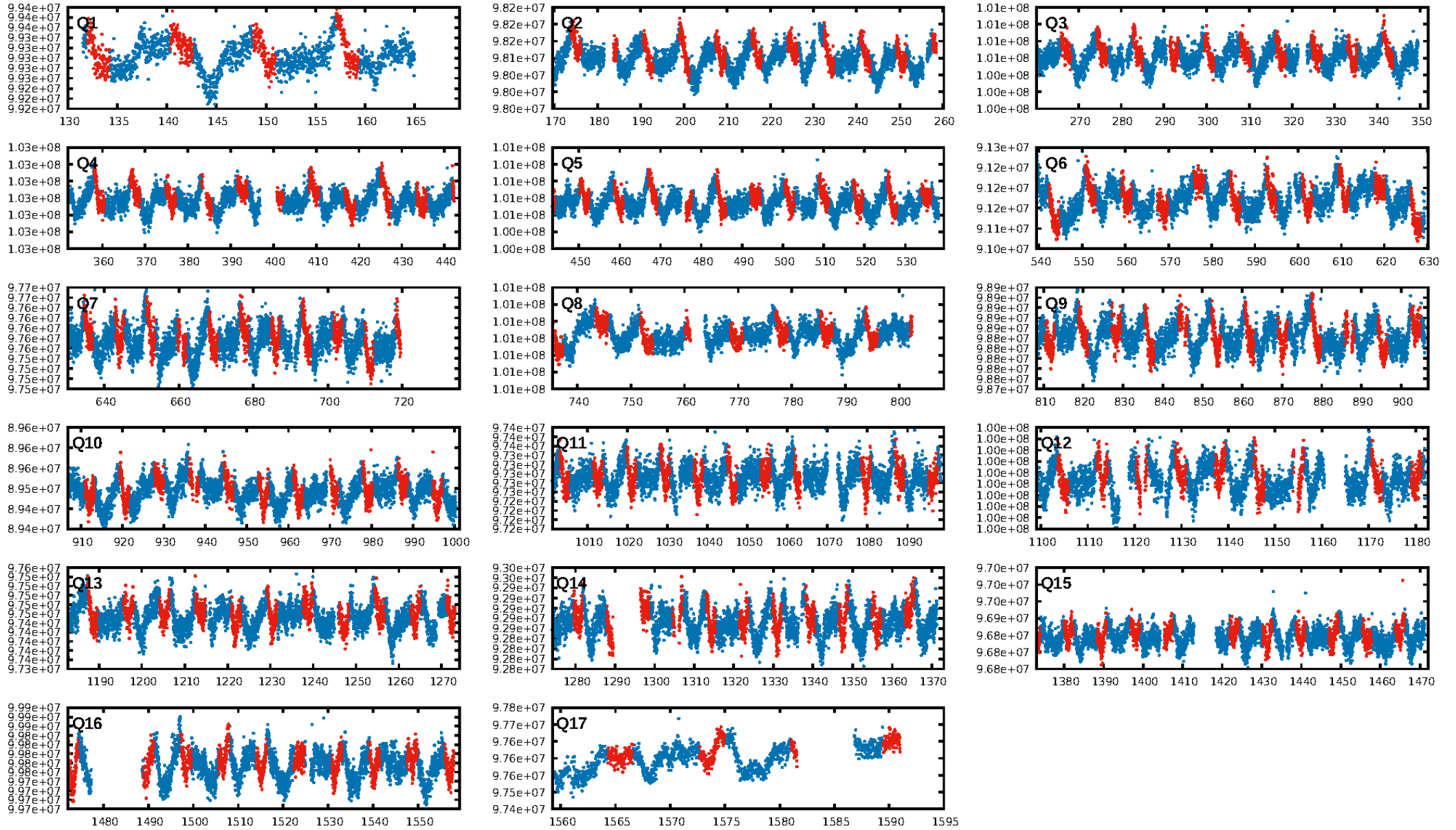
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 100.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 4.51e-20
RollingBand-fgt: 1.00 [157/157]
GhostDiagnostic-chr: 2.143
Centroid-sig: 0.8%
Centroid-so: 0.853 arcsec [1.34σ]
OotOffset-rm: 0.298 arcsec [0.91σ]
KicOffset-rm: 0.162 arcsec [0.44σ]
OotOffset-st: 3/4/4/4 [15]
KicOffset-st: 3/4/4/4 [15]
DiffImageQuality-fgm: 0.87 [13/15]
DiffImageOverlap-fno: 1.00 [17/17]

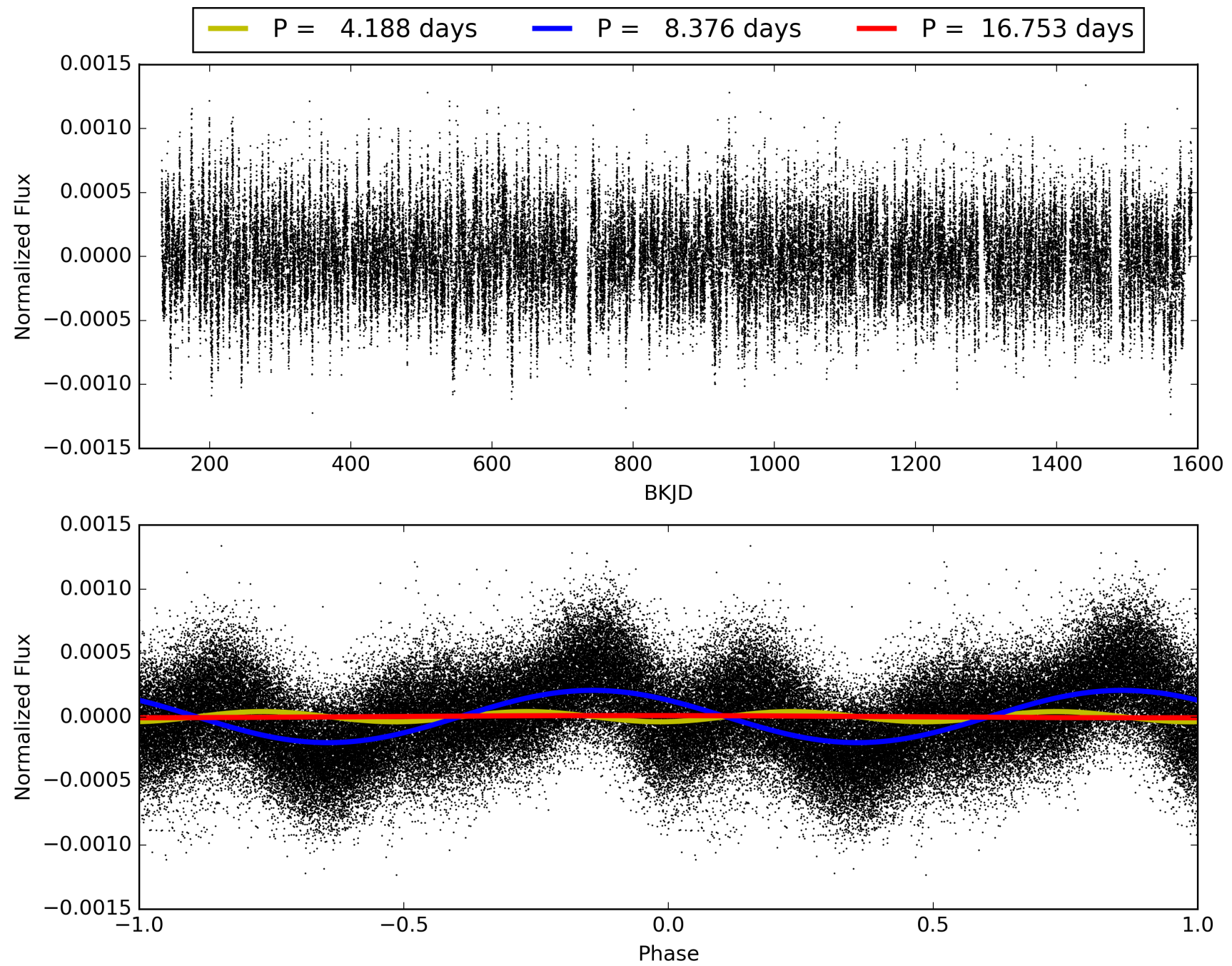
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 22:30:29 Z

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

TCE 003547014-01, PDC Light Curves

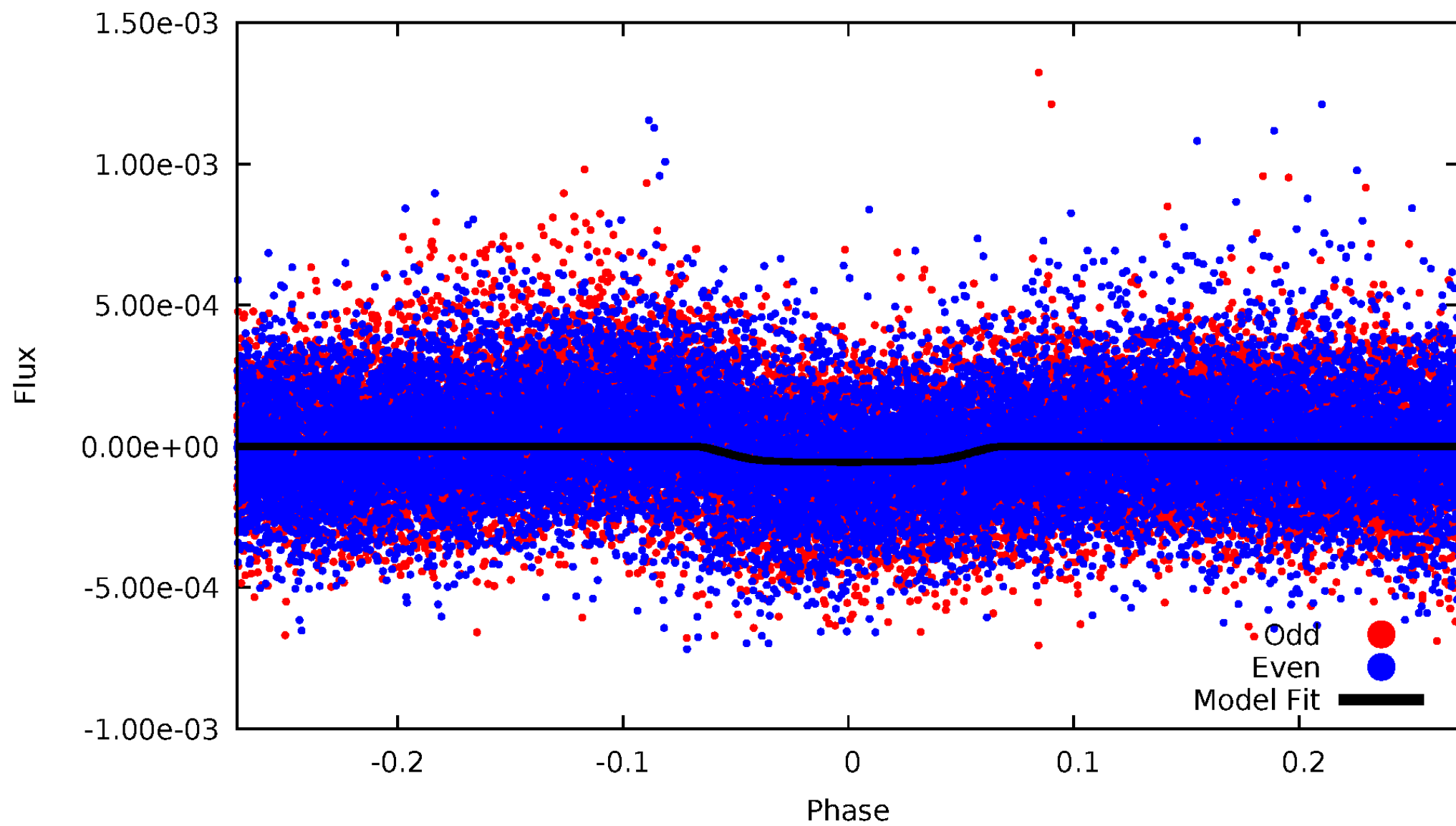


TCE 003547014-01



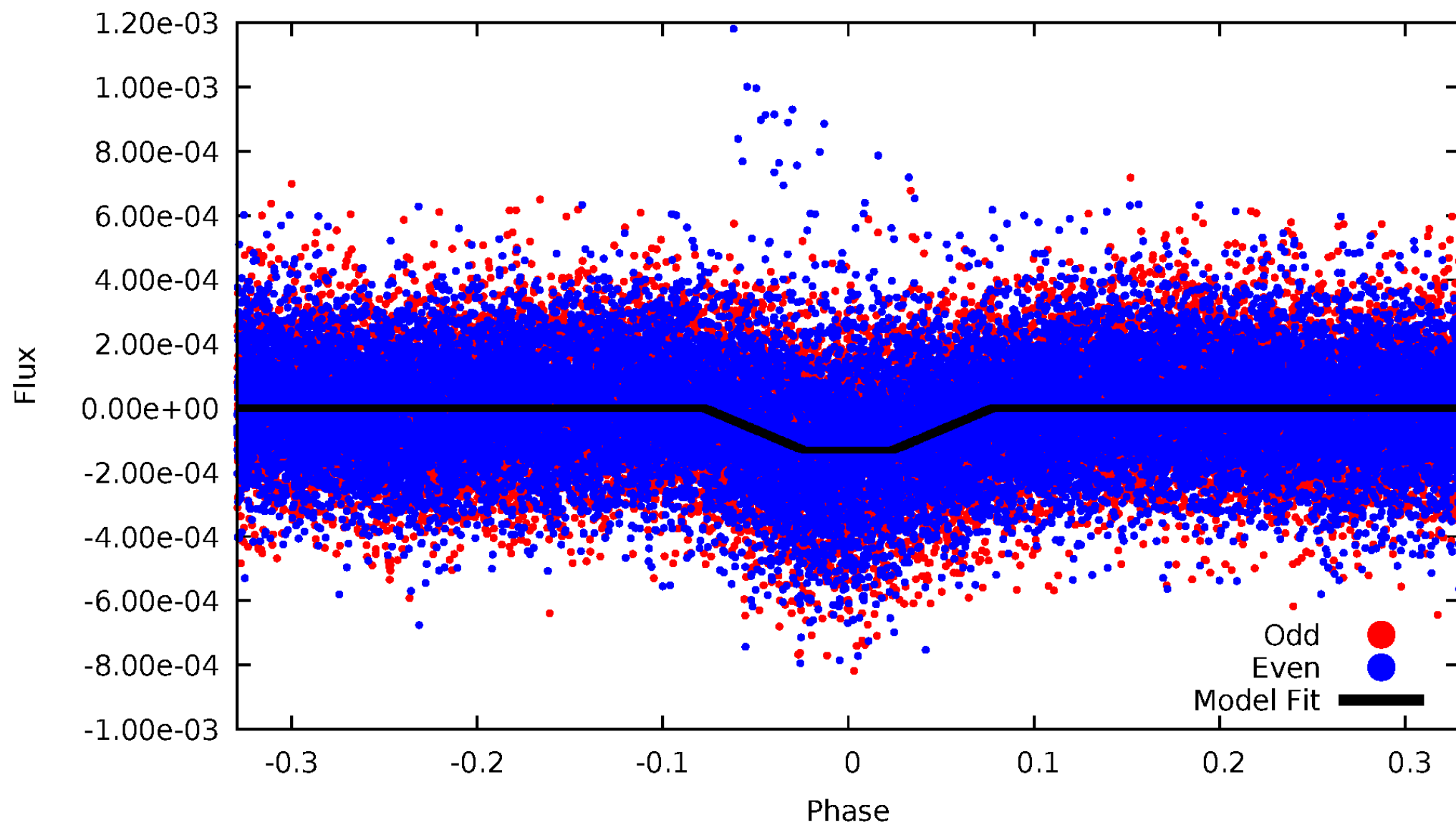
DV Odd/Even

TCE 003547014-01

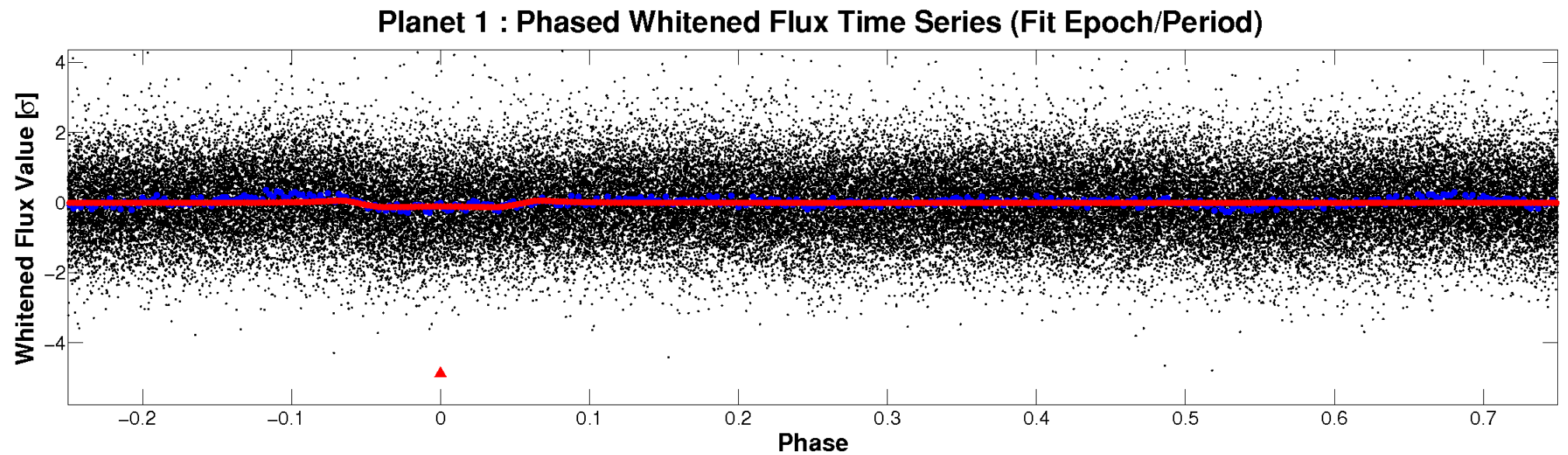
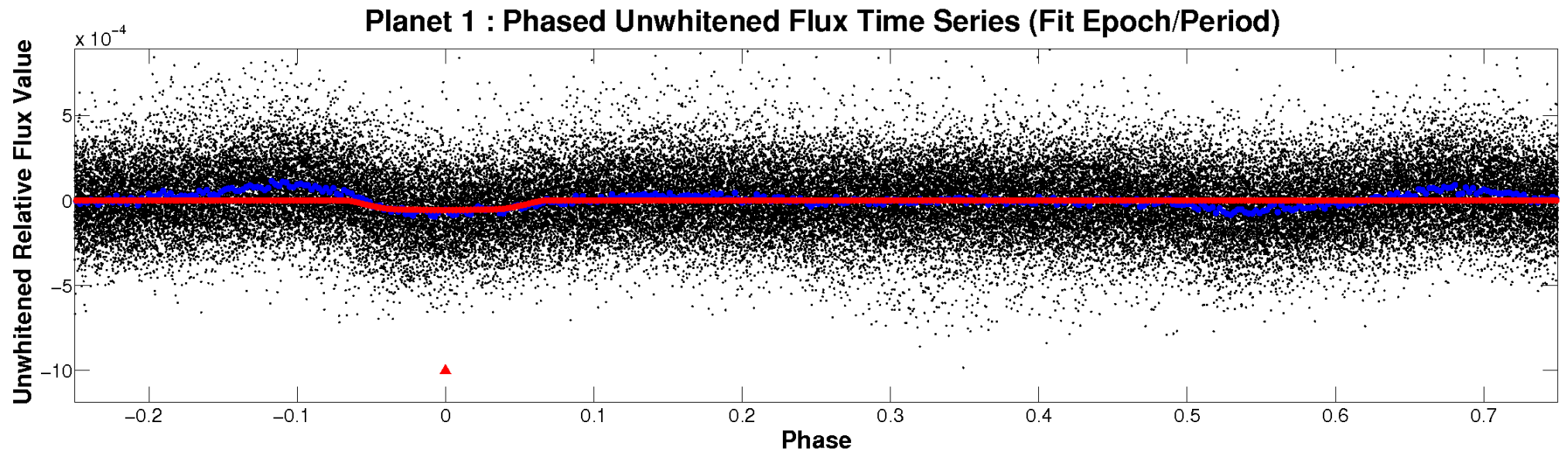


ALT Odd/Even

TCE 003547014-01

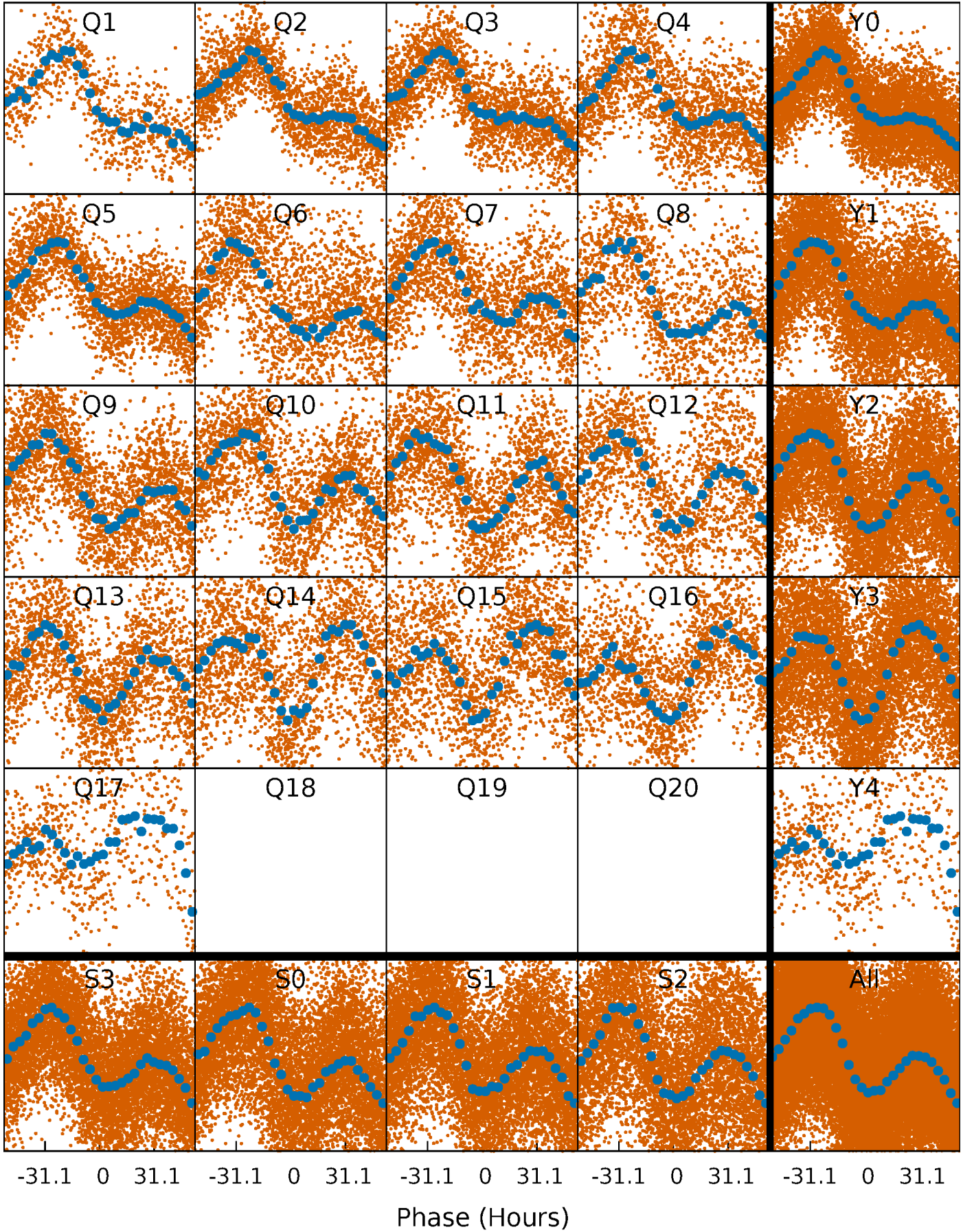


Non-Whitened Vs. Whitened Light Curve



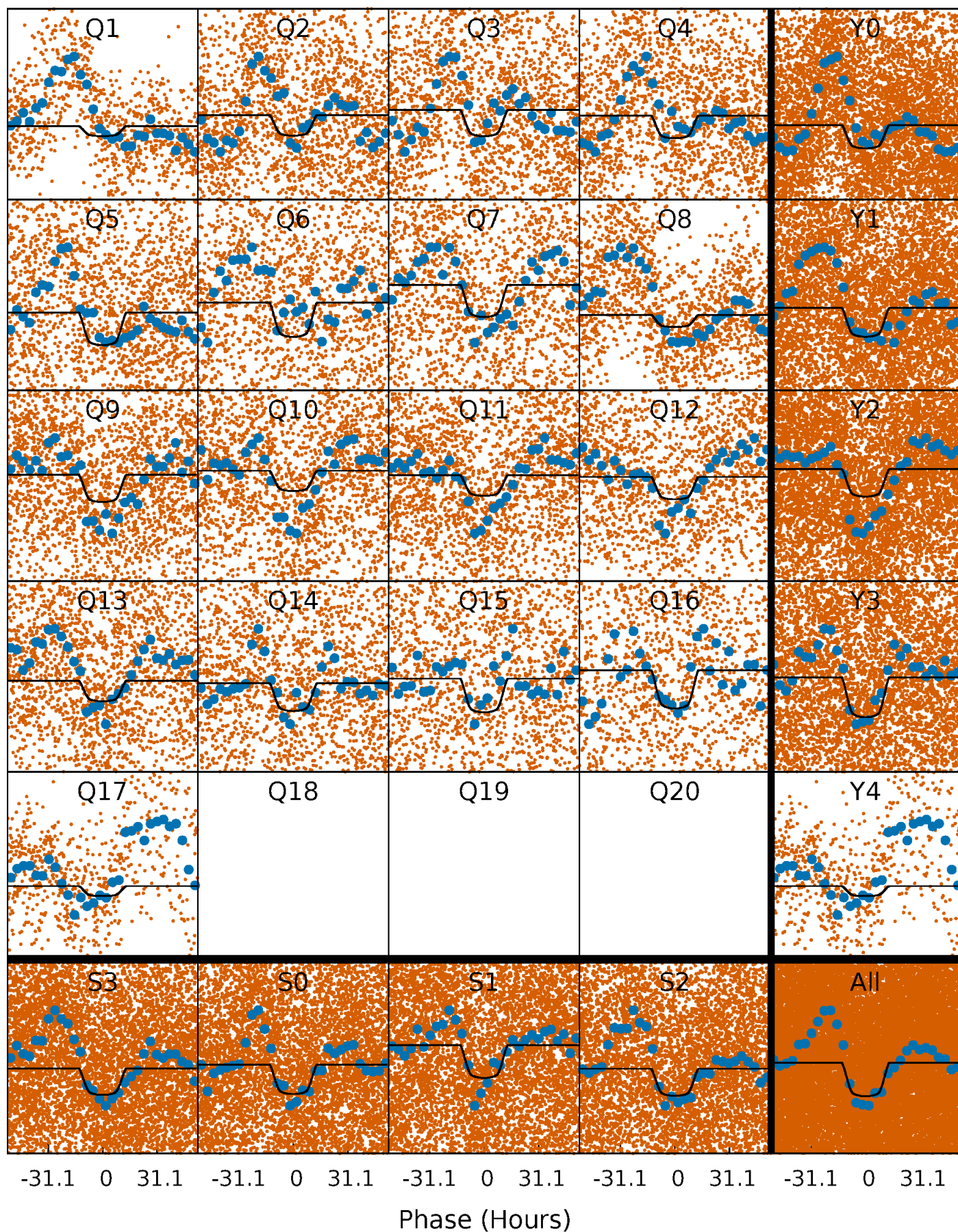
PDC Quarter-Phased Transit Curves

TCE 003547014-01 P= 8.376401 Days $T_0=133.064894$ (BKJD)



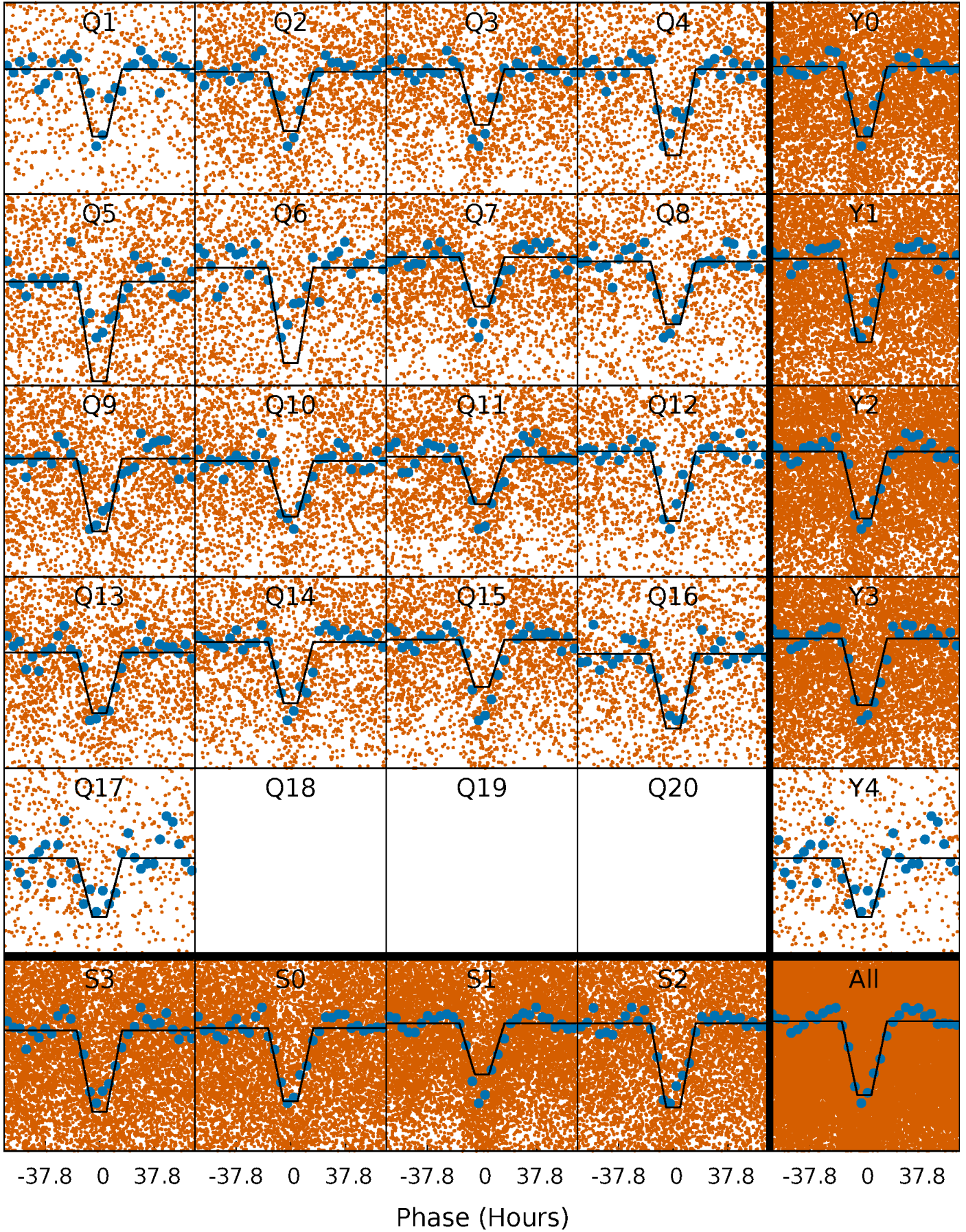
DV Quarter-Phased Transit Curves

TCE 003547014-01 P= 8.376401 Days $T_0=133.064894$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

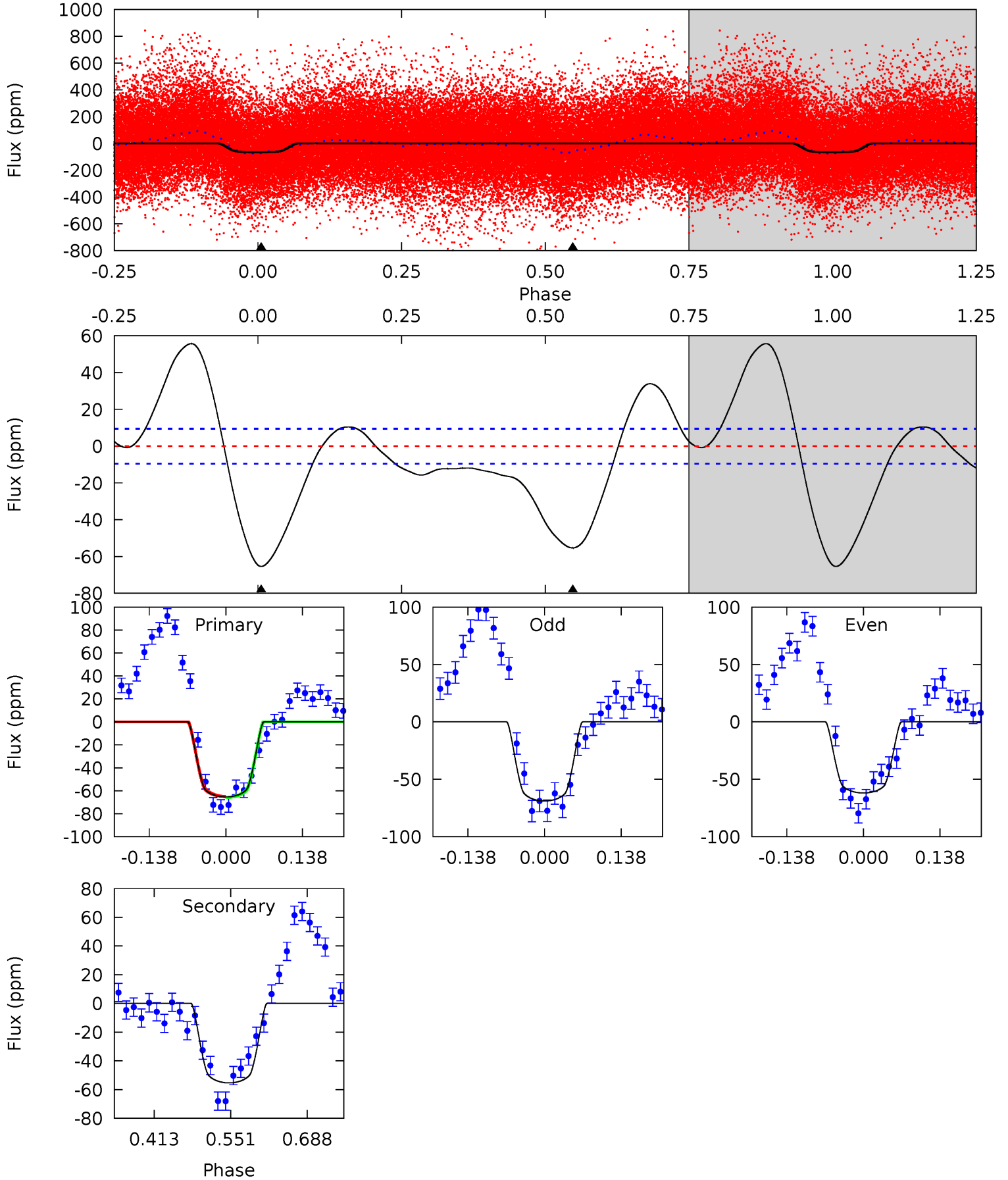
TCE 003547014-01 P= 8.375525 Days $T_0=133.054428$ (BKJD)



DV Model-Shift Uniqueness Test

003547014-01, P = 8.376401 Days, E = 124.688493 Days

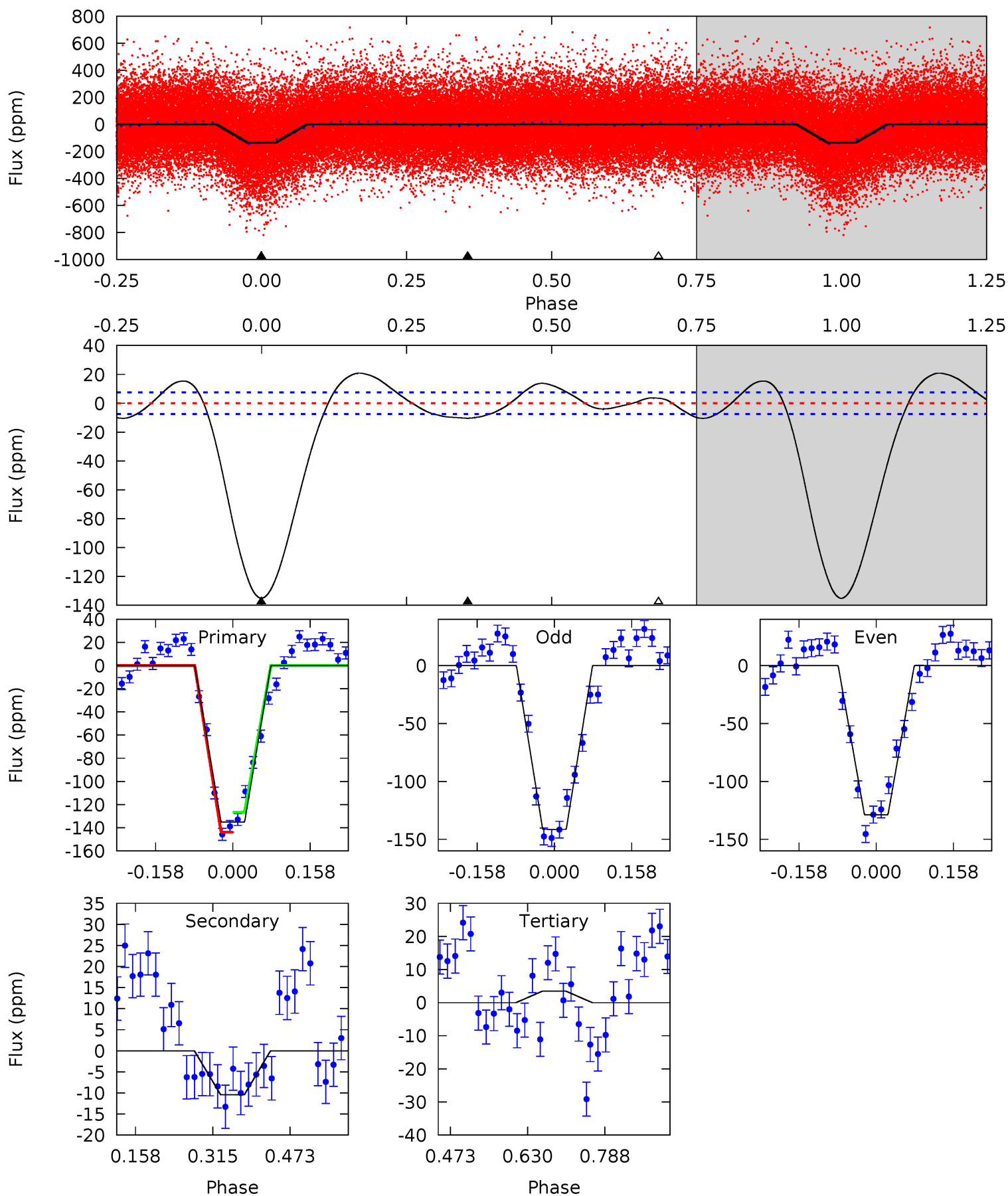
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
30.9	26.2	0	0	4.50	1.48	8.39	30.9	30.9	26.2	26.2	1.65	1.26	0.46	0.20



Alt Model-Shift Uniqueness Test

003547014-01, P = 8.375525 Days, E = 124.678903 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
80.8	6.25	-2.07	0	4.47	1.41	4.91	82.8	80.8	8.32	6.25	3.79	1.10	0.13	5.16



Stellar Parameters For KIC 003547014

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6529^{+78}_{-78}	$4.010^{+0.195}_{-0.105}$	$-0.140^{+0.150}_{-0.150}$	$1.831^{+0.352}_{-0.430}$	$1.254^{+0.148}_{-0.111}$	$0.287^{+0.281}_{-0.106}$
	+1%/-1%	+5%/-3%	+107%/-107%	+19%/-23%	+12%/-9%	+98%/-37%
Source	SPE68	SPE68	SPE68	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 003547014-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-55 ± 2	$1.81^{+0.23}_{-0.25}$	1828^{+94}_{-109}	5875^{+199}_{-190}	72^{+25}_{-16}
Alt.	-10 ± 2	$2.25^{+0.25}_{-0.28}$	1831^{+86}_{-114}	3818^{+121}_{-130}	$8.624^{+3.065}_{-1.948}$

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

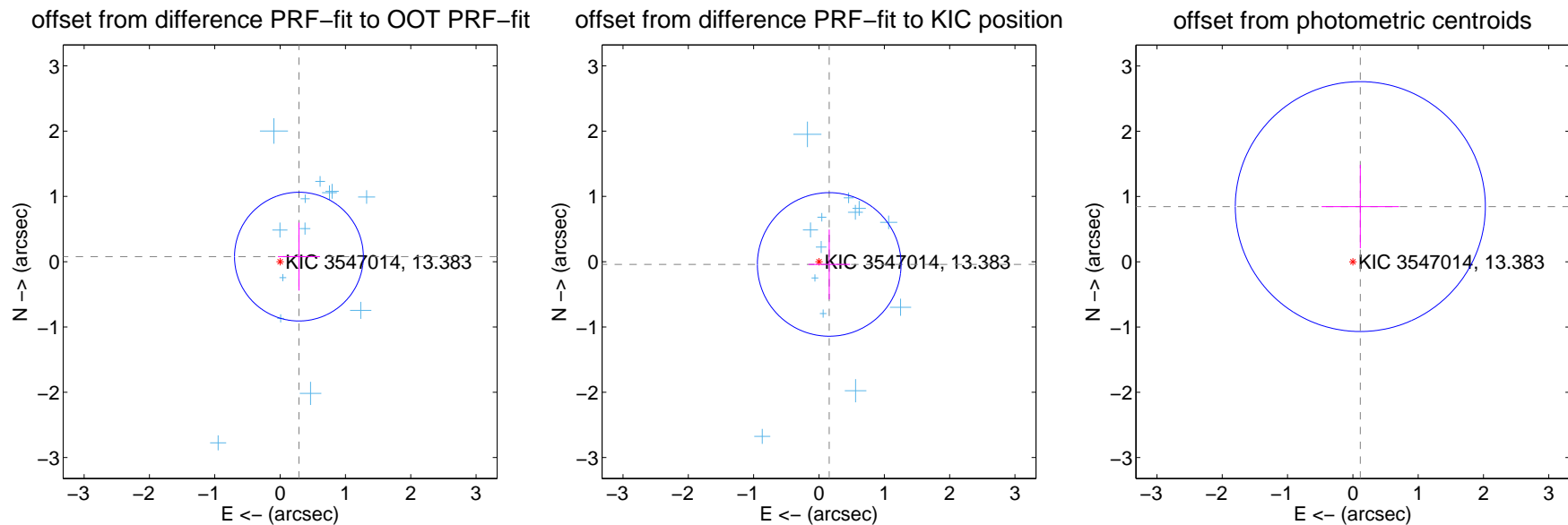
DV Centroid Data

Supplemental centroid analysis for 003547014-01. Kepler magnitude: 13.38. Transit SNR 10.07

There are 13 quarters with good PRF difference image offsets

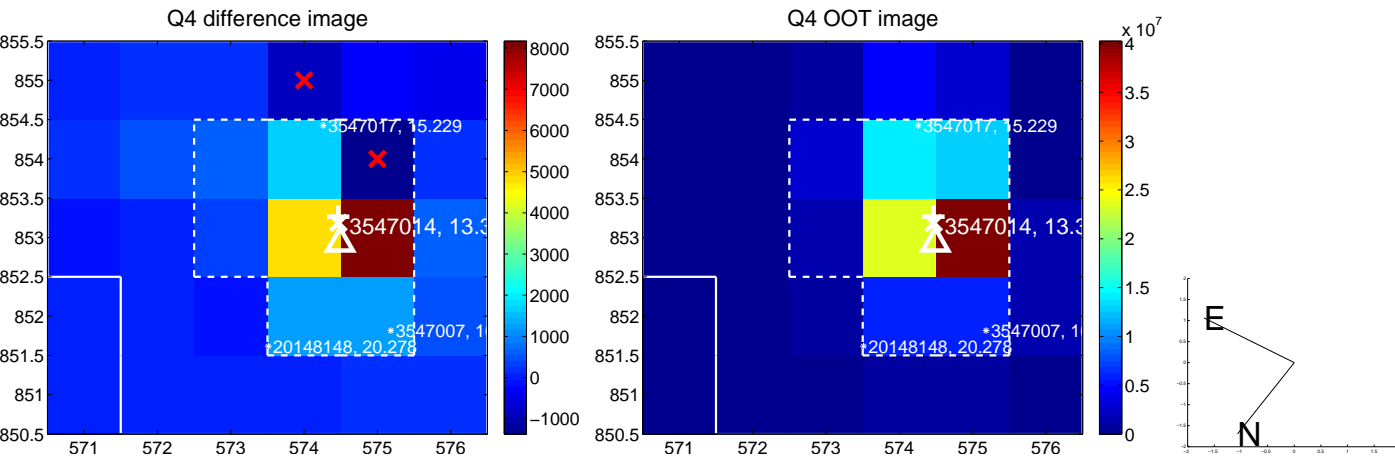
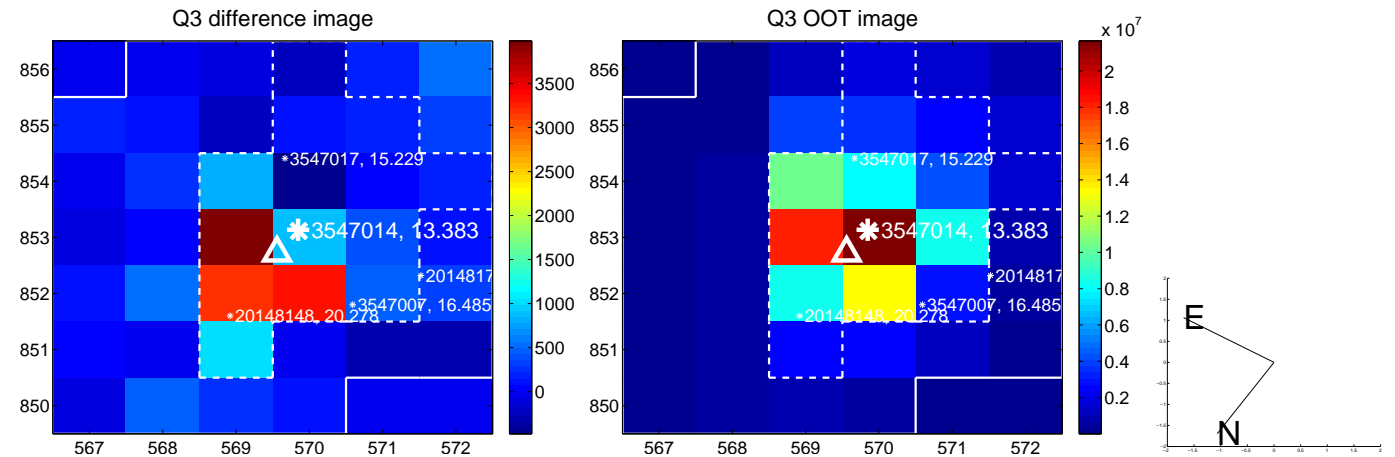
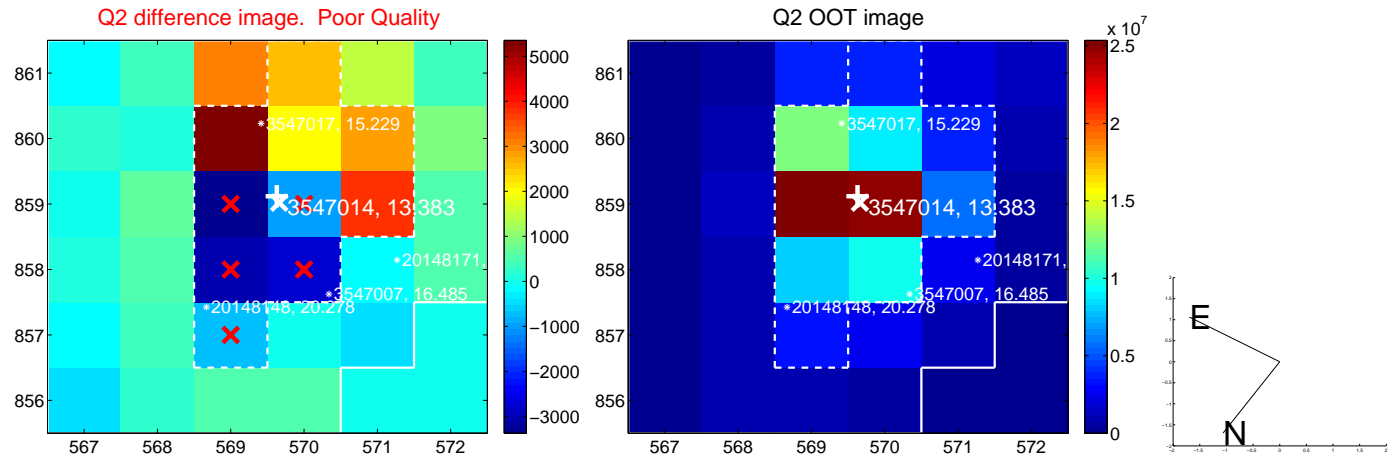
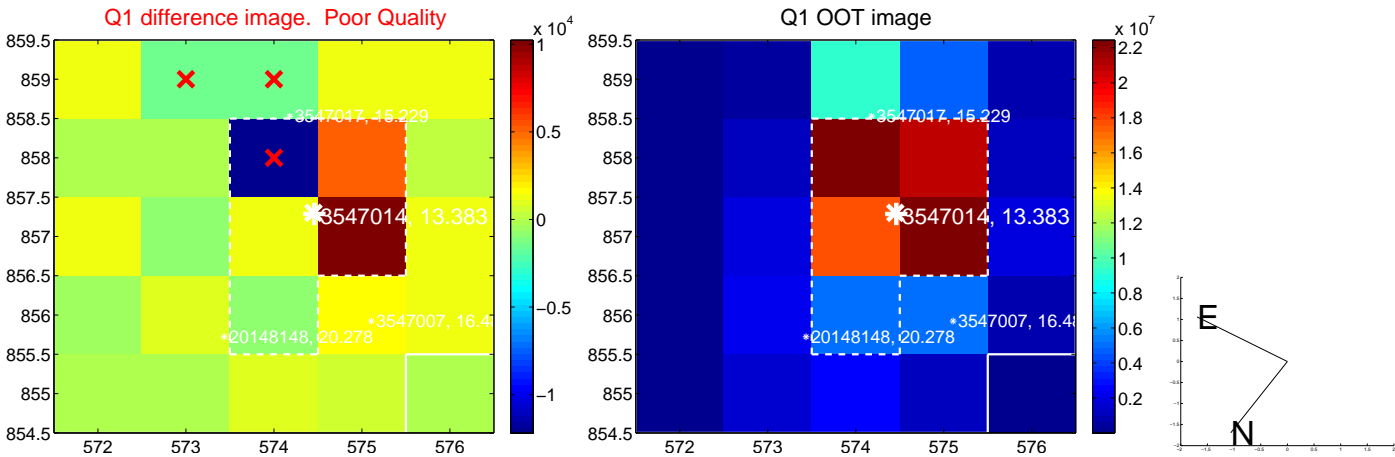
The direct PRF centroid is offset from the target star catalog position by about 0.05 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.298 ± 0.329	0.91	-0.288 ± 0.322	0.078 ± 0.521
PRF-fit source offset from KIC position	0.162 ± 0.367	0.44	-0.157 ± 0.318	-0.042 ± 0.535
photometric centroid source offset	0.85 ± 0.64	1.34	-0.11 ± 0.59	0.85 ± 0.64

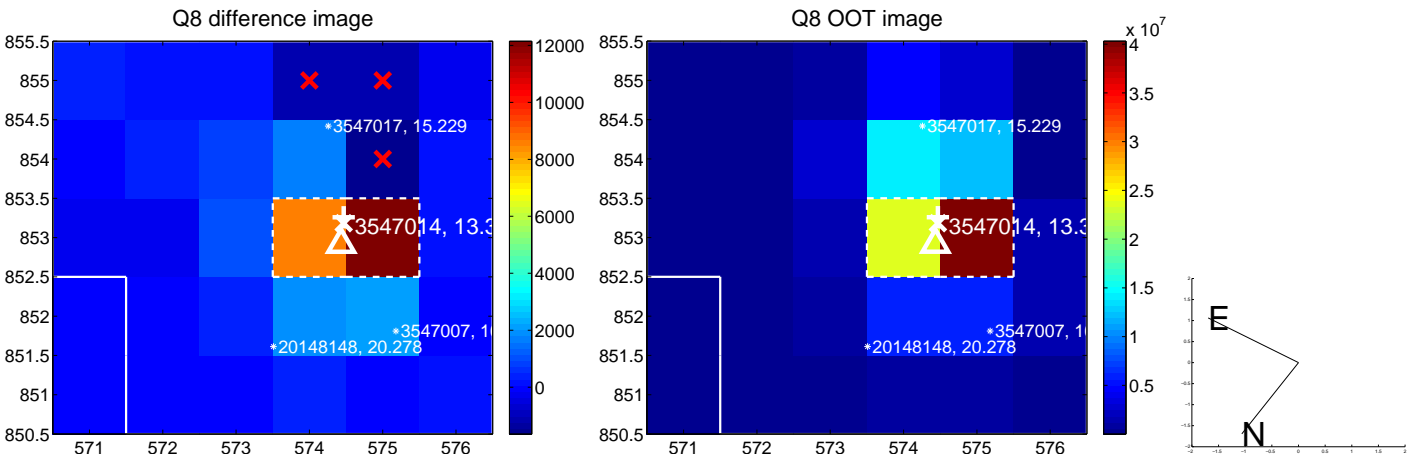
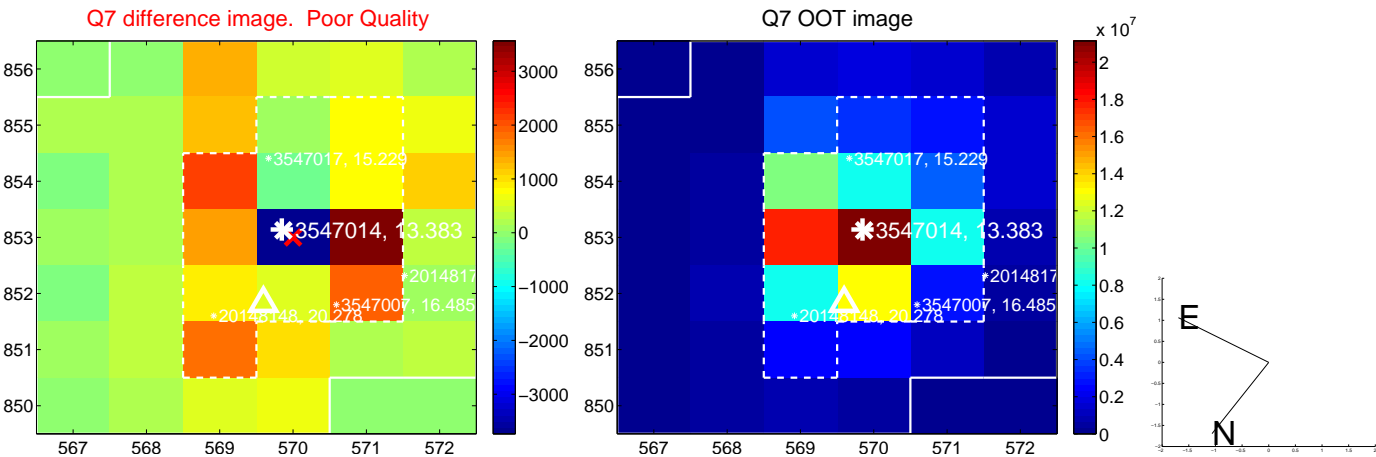
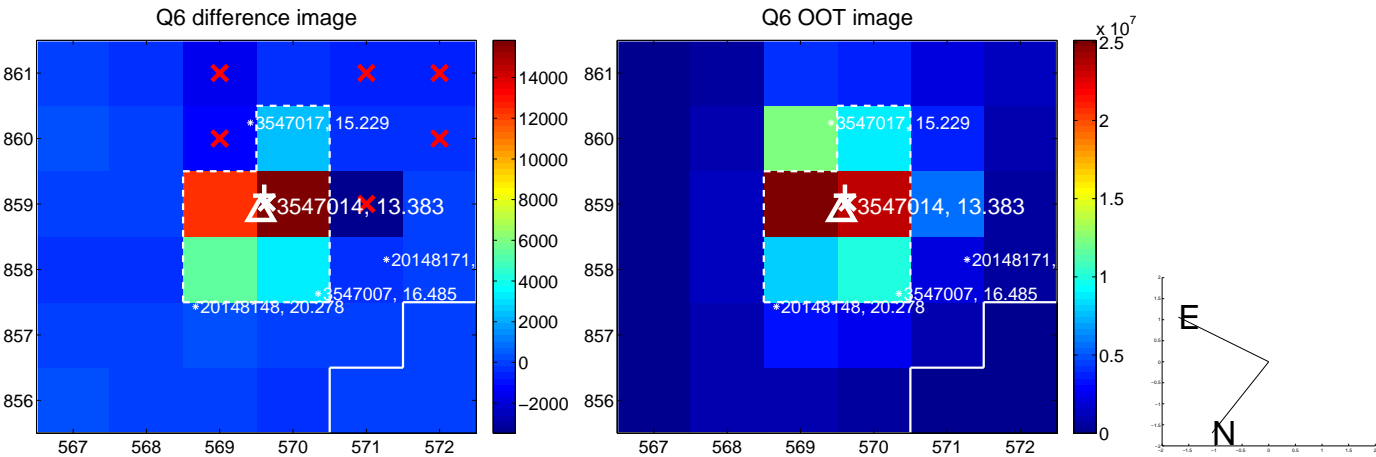
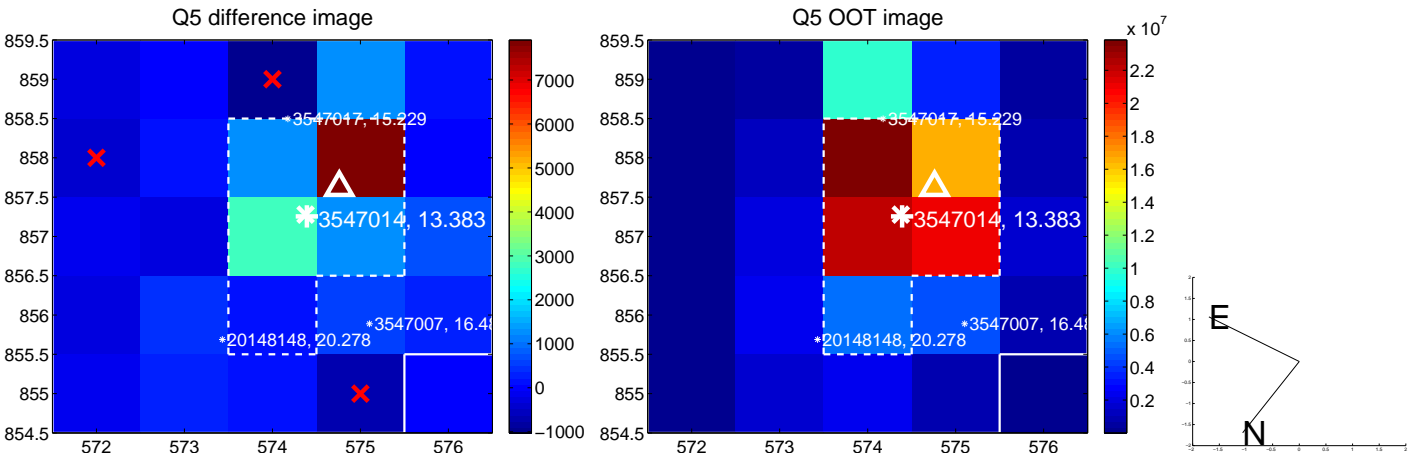


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

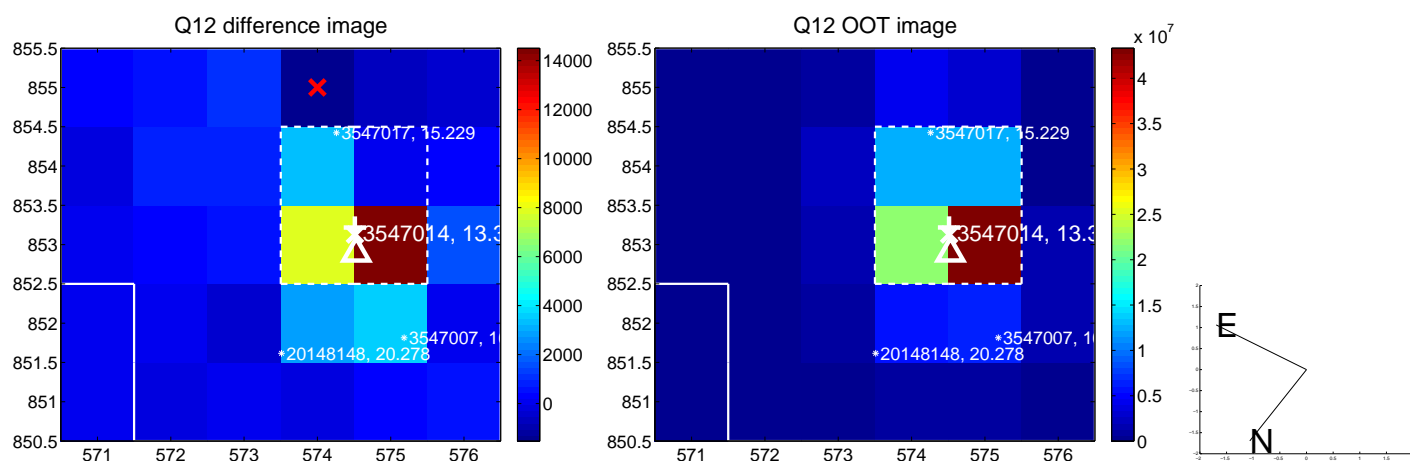
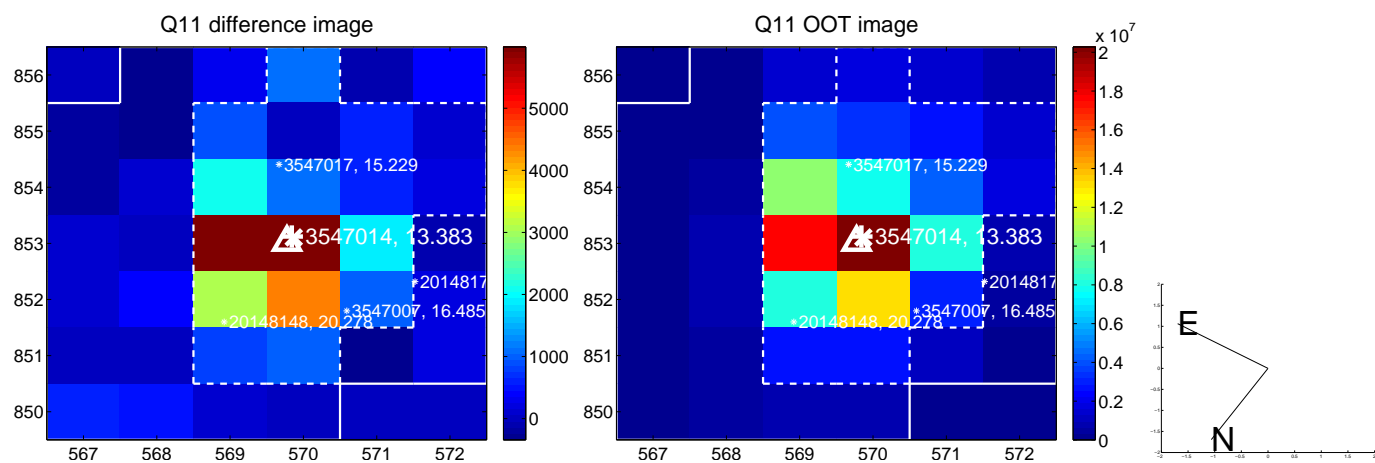
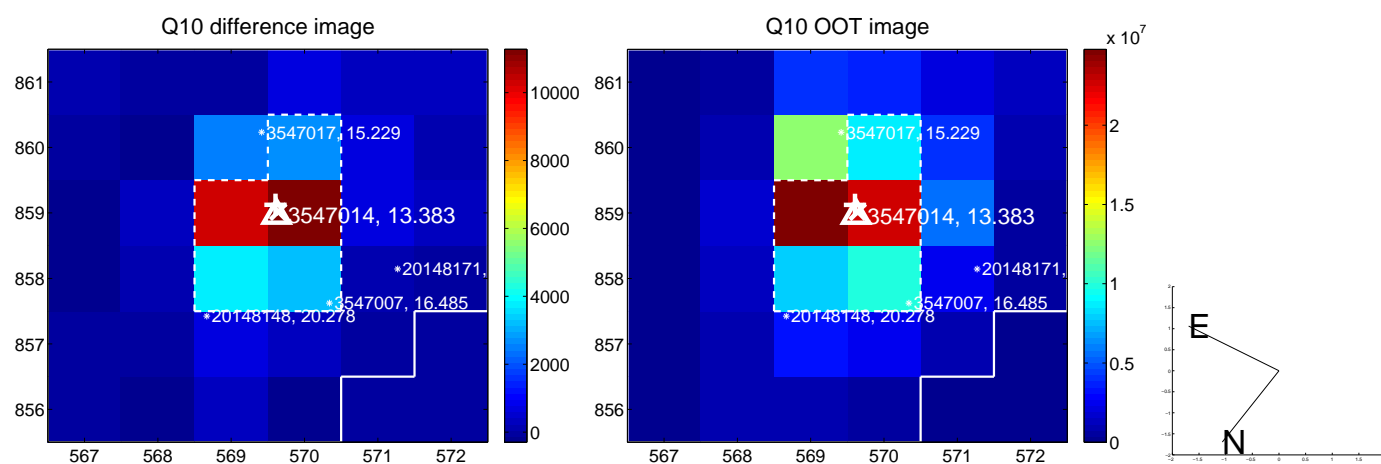
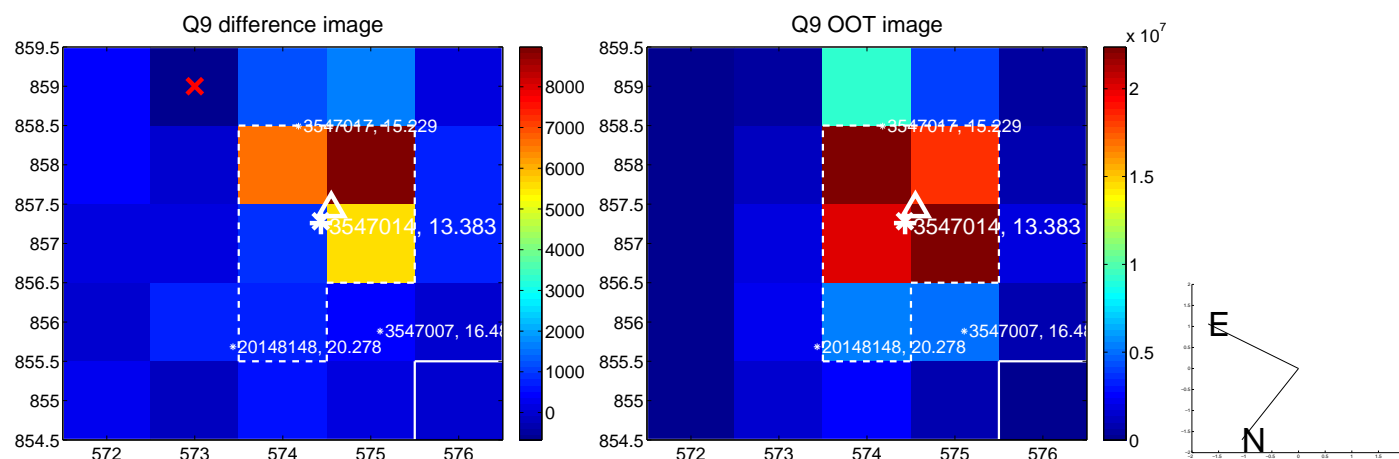
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



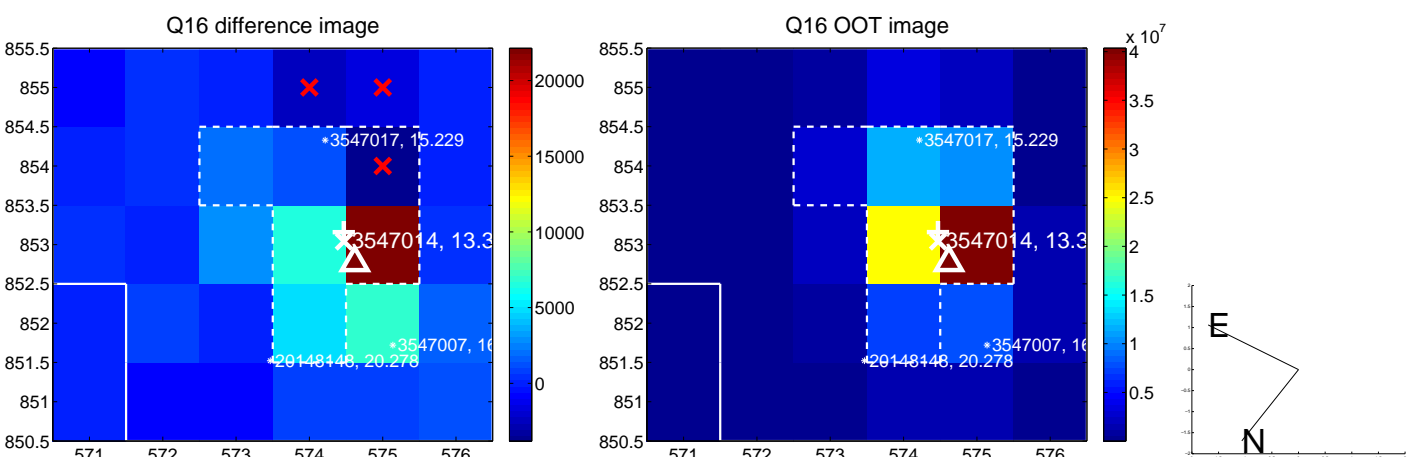
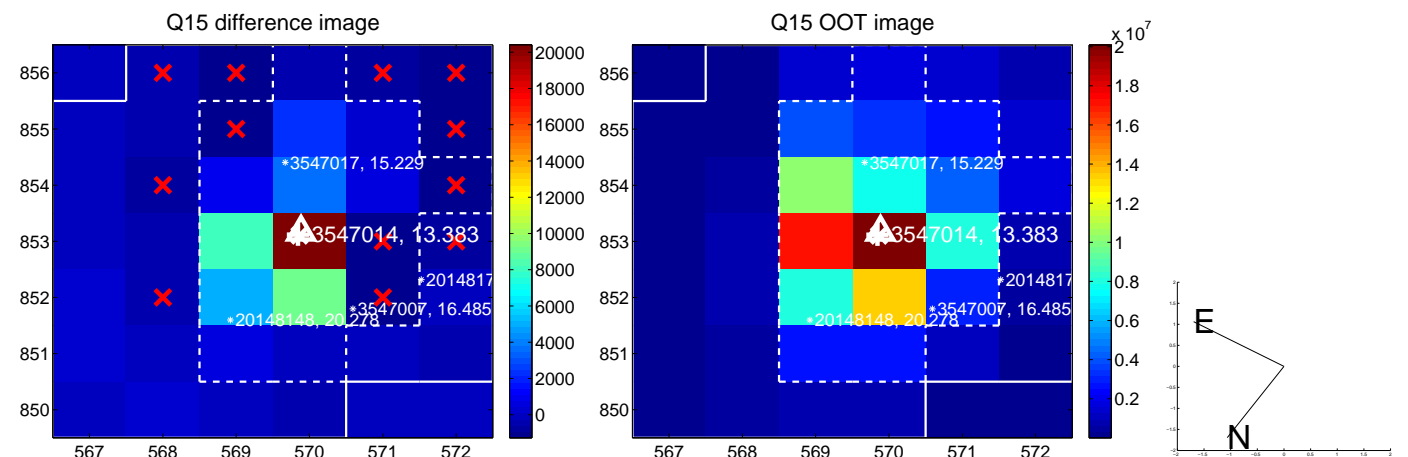
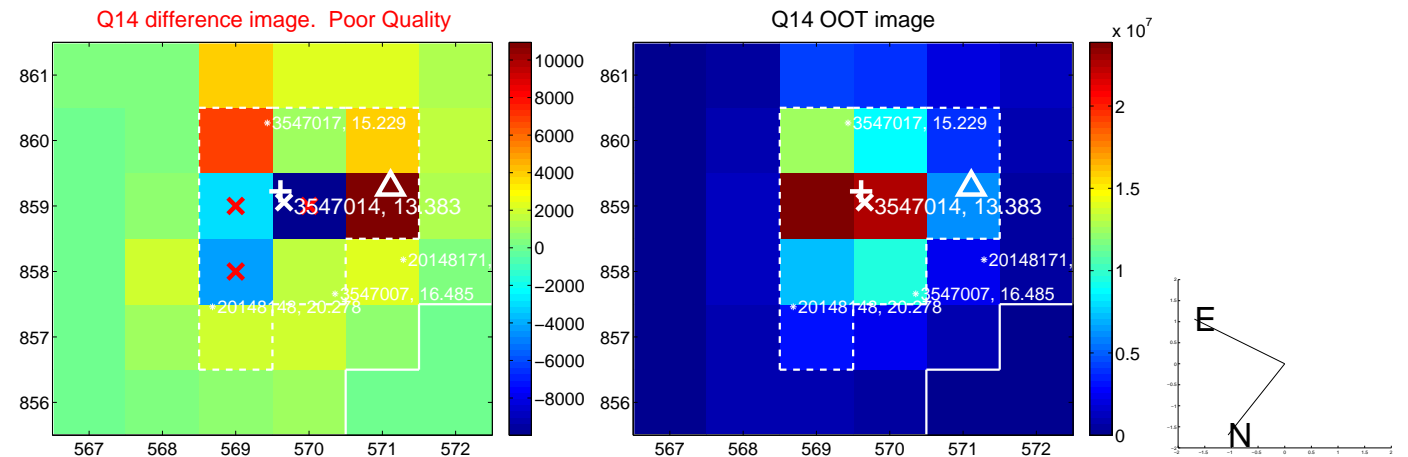
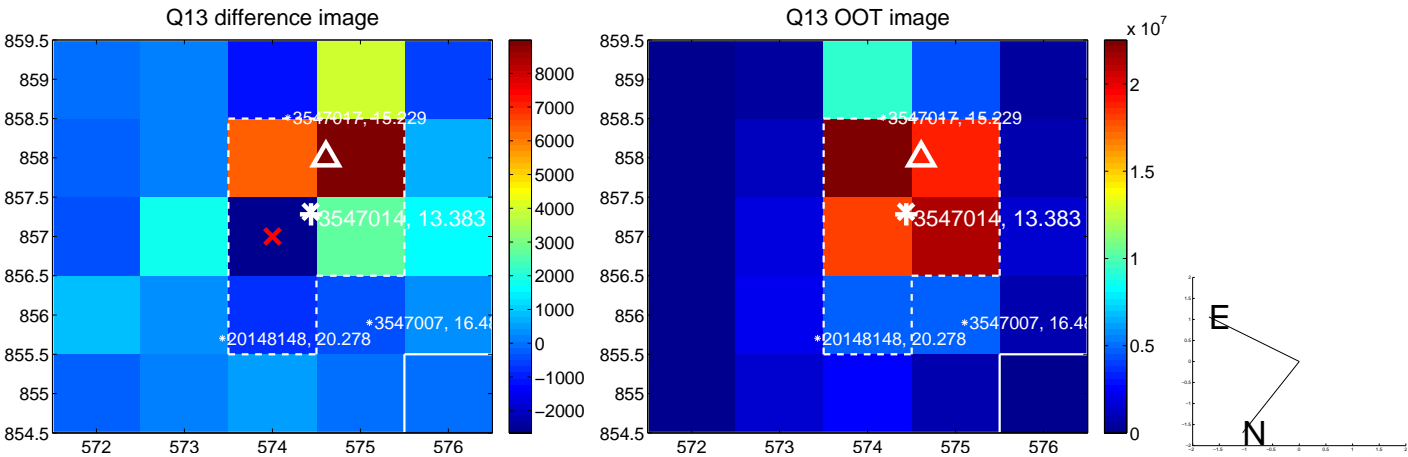
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



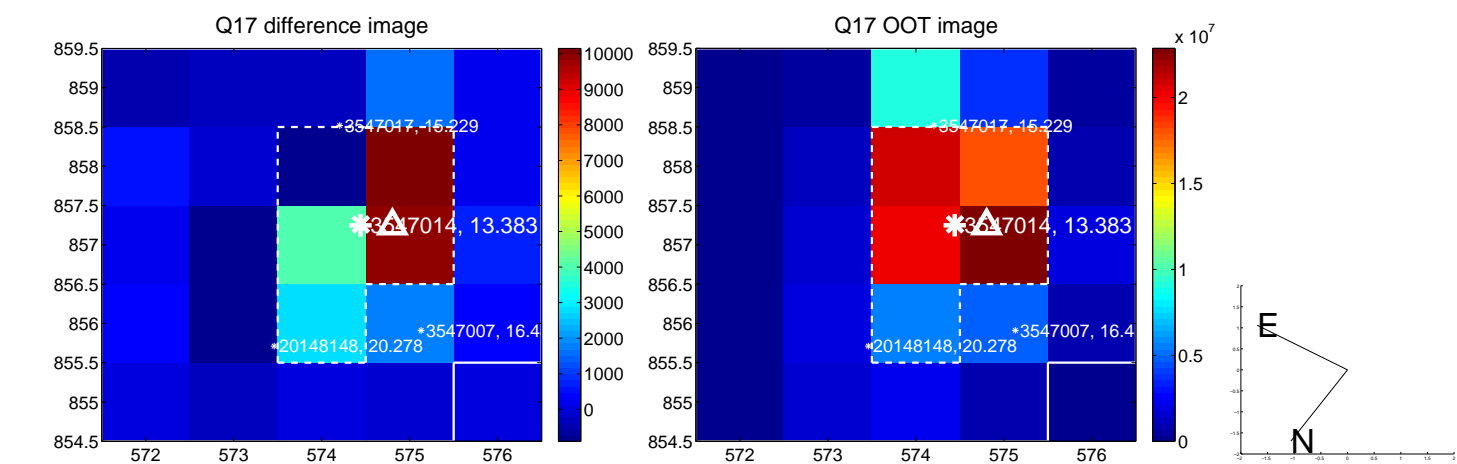
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



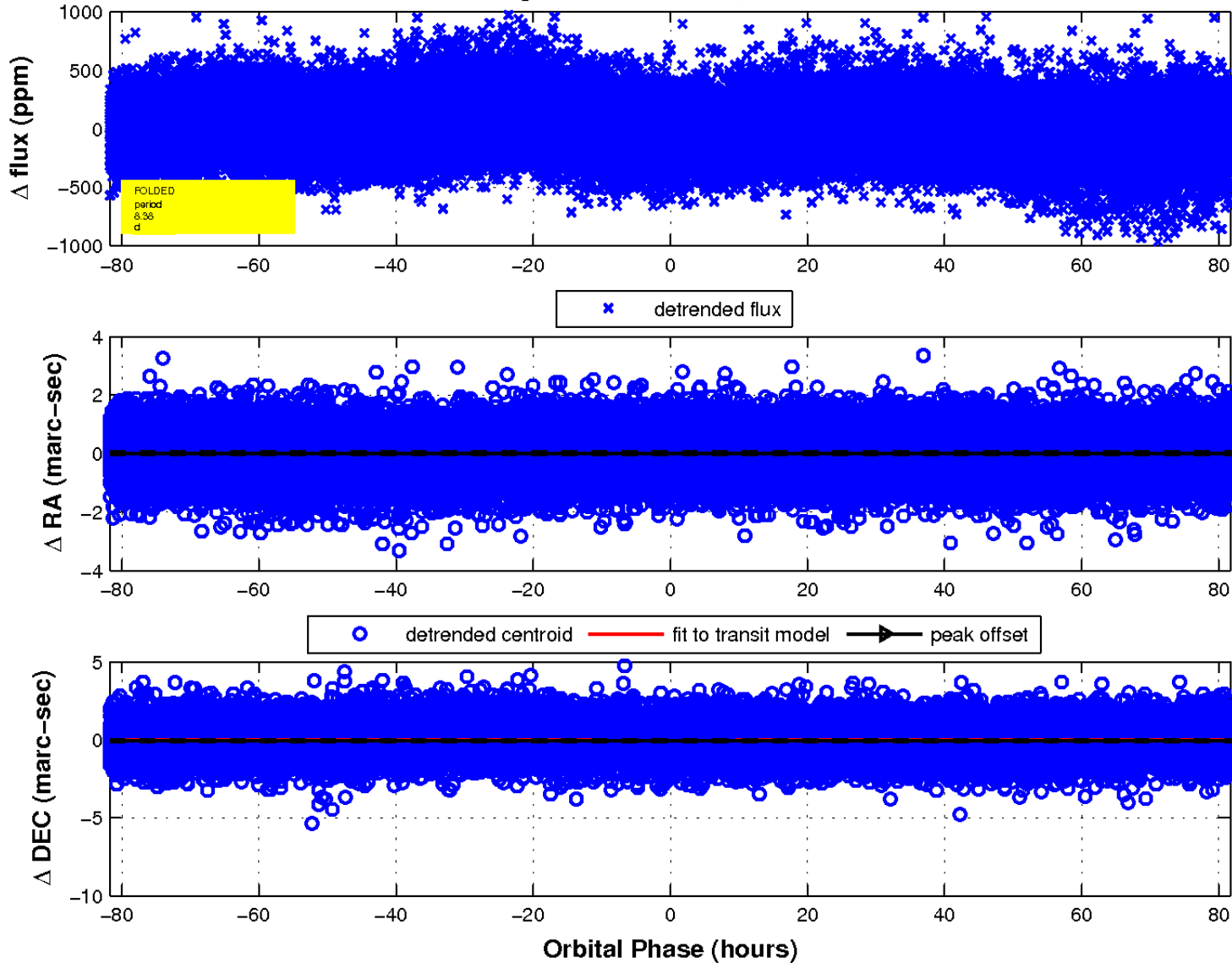
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

