

KIC 005185032

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})
005185032-01	OBS	No	0.571123	131.576433	154.3	4.487	17.5	15.2	1.91	7234	2.42	36736.23

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005185032-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—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.

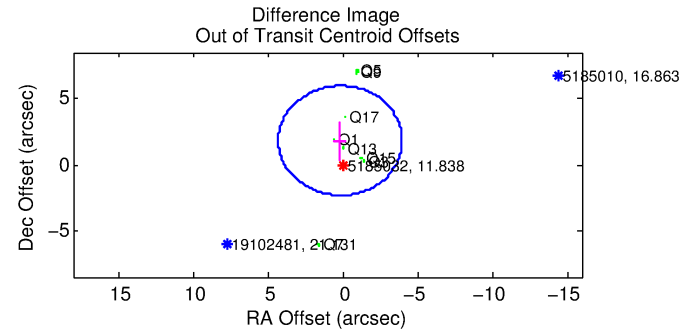
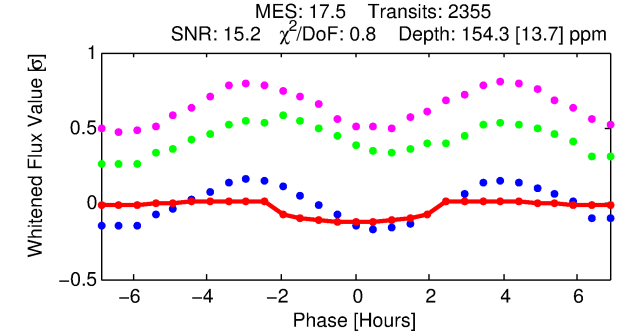
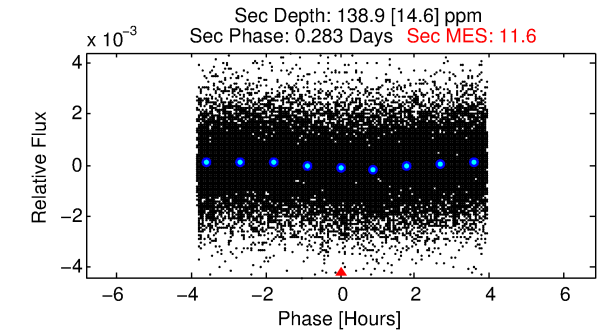
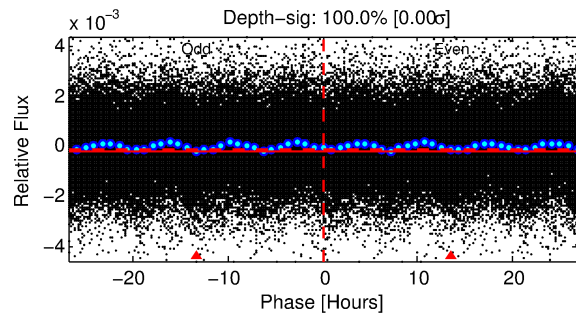
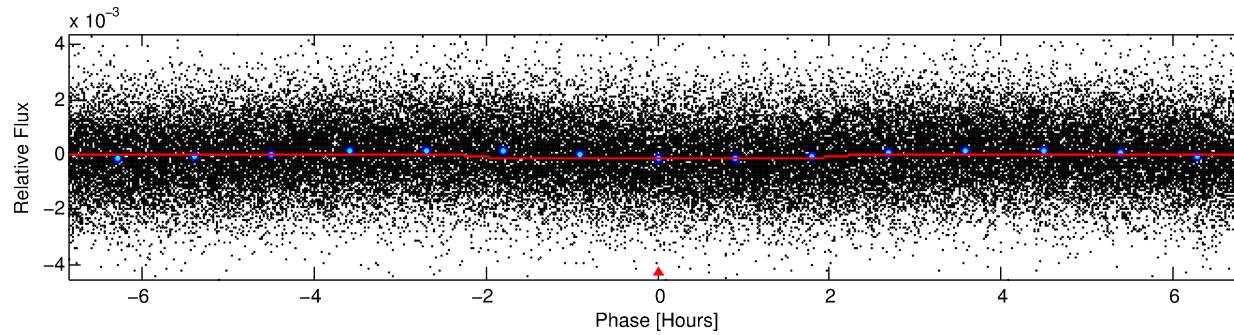
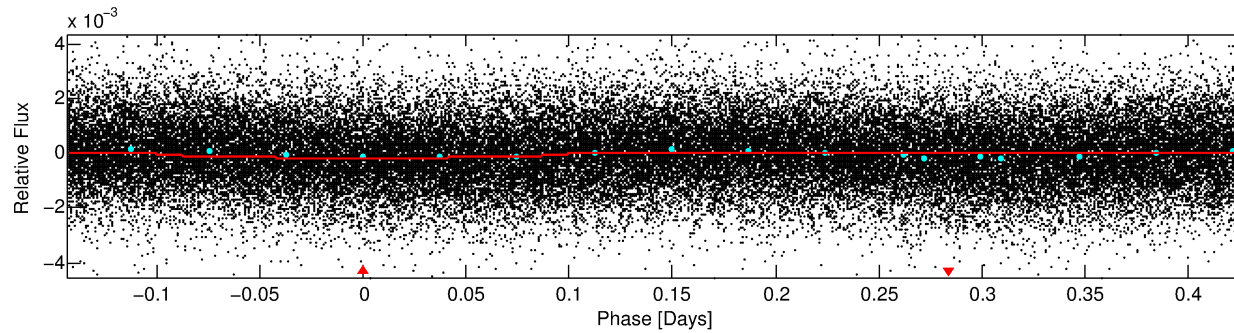
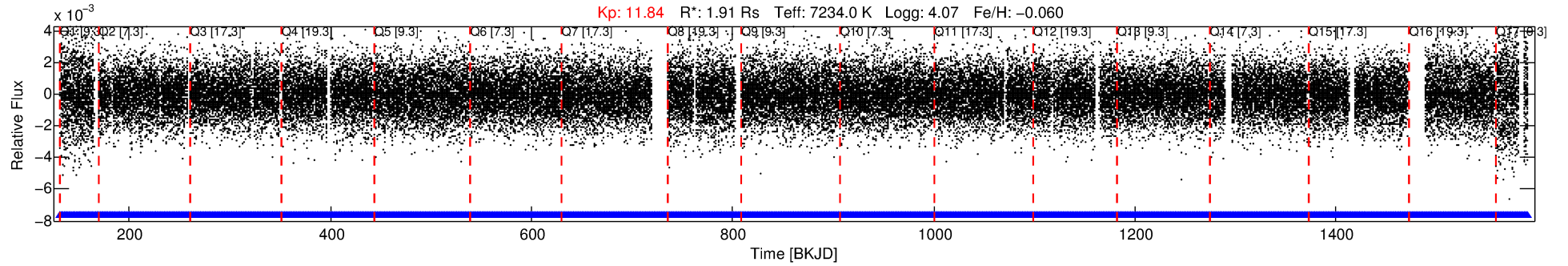
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005185032-01

No Significant Match Found

DV One-Page Summary

KIC: 5185032 Candidate: 1 of 1 Period: 0.571 d



DV Fit Results:

Period = 0.57112 [0.00001] d
Epoch = 131.5764 [0.0027] BKJD
Rp/R* = 0.0116 [0.0084]
a/R* = 1.17 [1.33]
b = 0.30 [13.13]
Seff = 36736.23 [13628.75]
Teq = 3530 [327] K
Rp = 2.43 [1.90] Re
a = 0.0156 [0.0037] AU
Ag = 3.17 [4.74] [0.46 σ]
Teffp = 7285 [2670] K [1.40 σ]

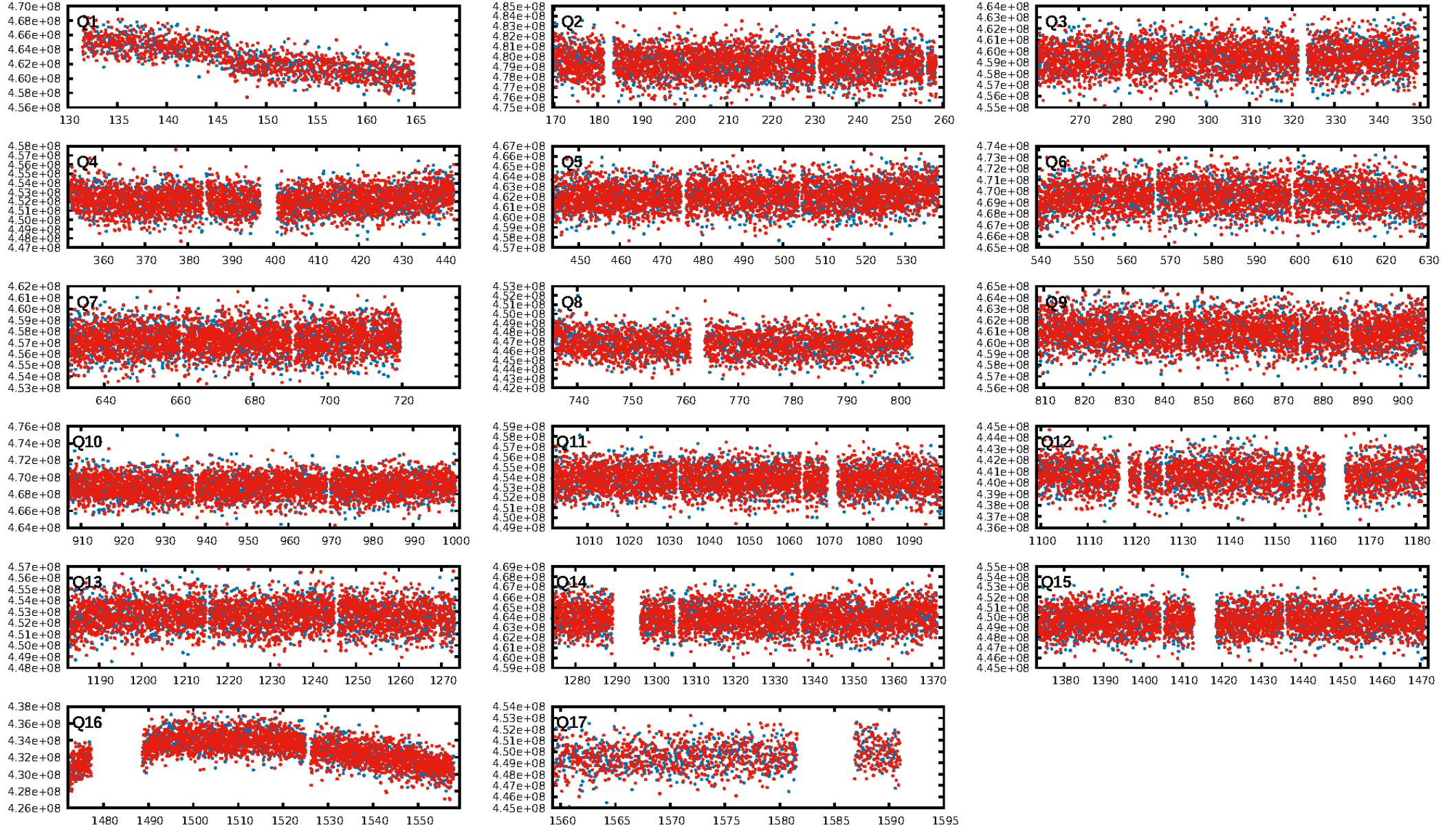
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [2248/2248]
GhostDiagnostic-chr: 1.342
Centroid-sig: 0.1%
Centroid-so: 0.107 arcsec [2.84 σ]
OotOffset-rm: 1.829 arcsec [1.32 σ]
KicOffset-rm: 1.821 arcsec [1.18 σ]
OotOffset-st: 0/3/0/5 [8]
KicOffset-st: 0/3/0/5 [8]
DiffImageQuality-fgm: 0.25 [2/8]
DiffImageOverlap-fno: 1.00 [17/17]

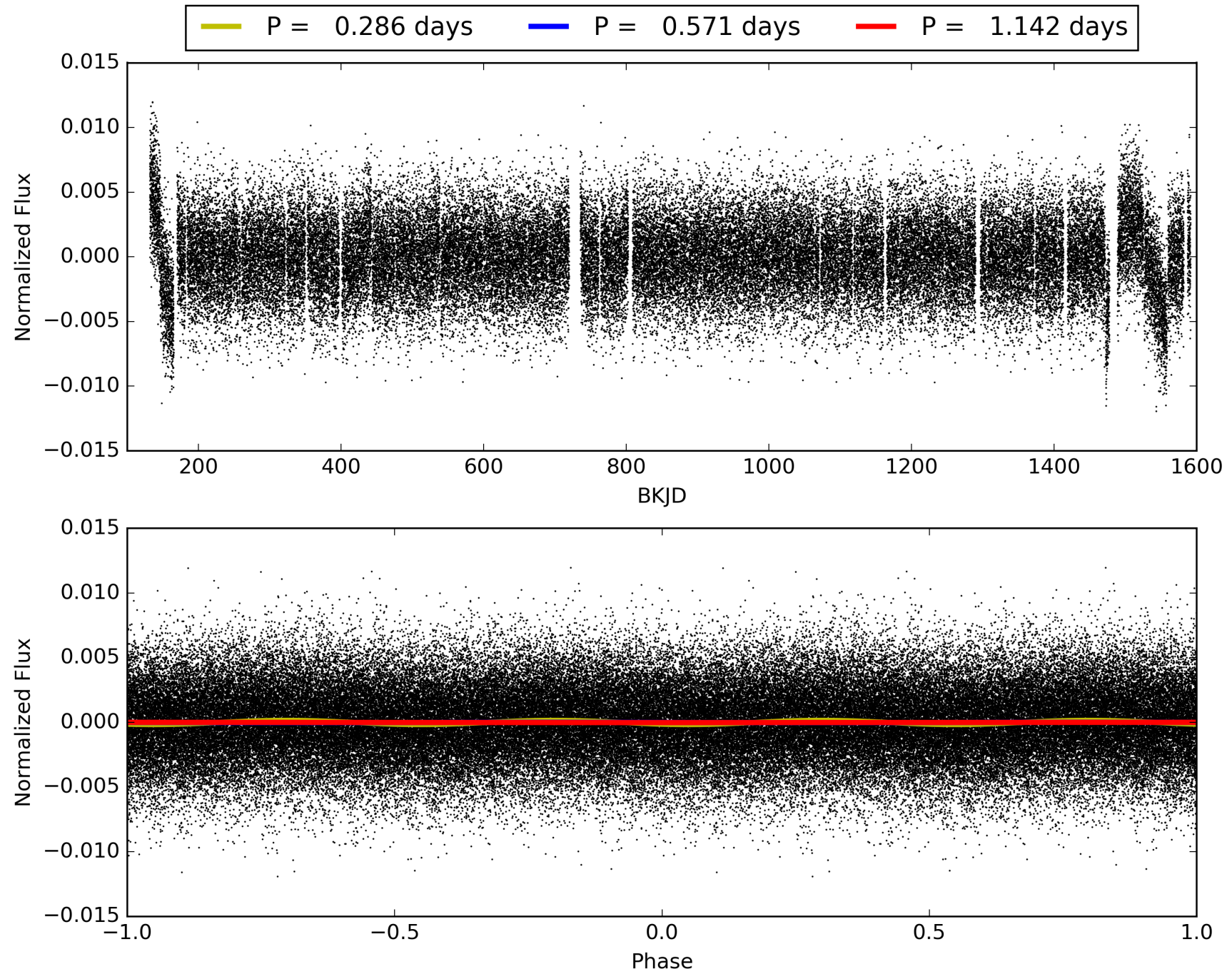
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 16:45:25 Z

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

TCE 005185032-01, PDC Light Curves

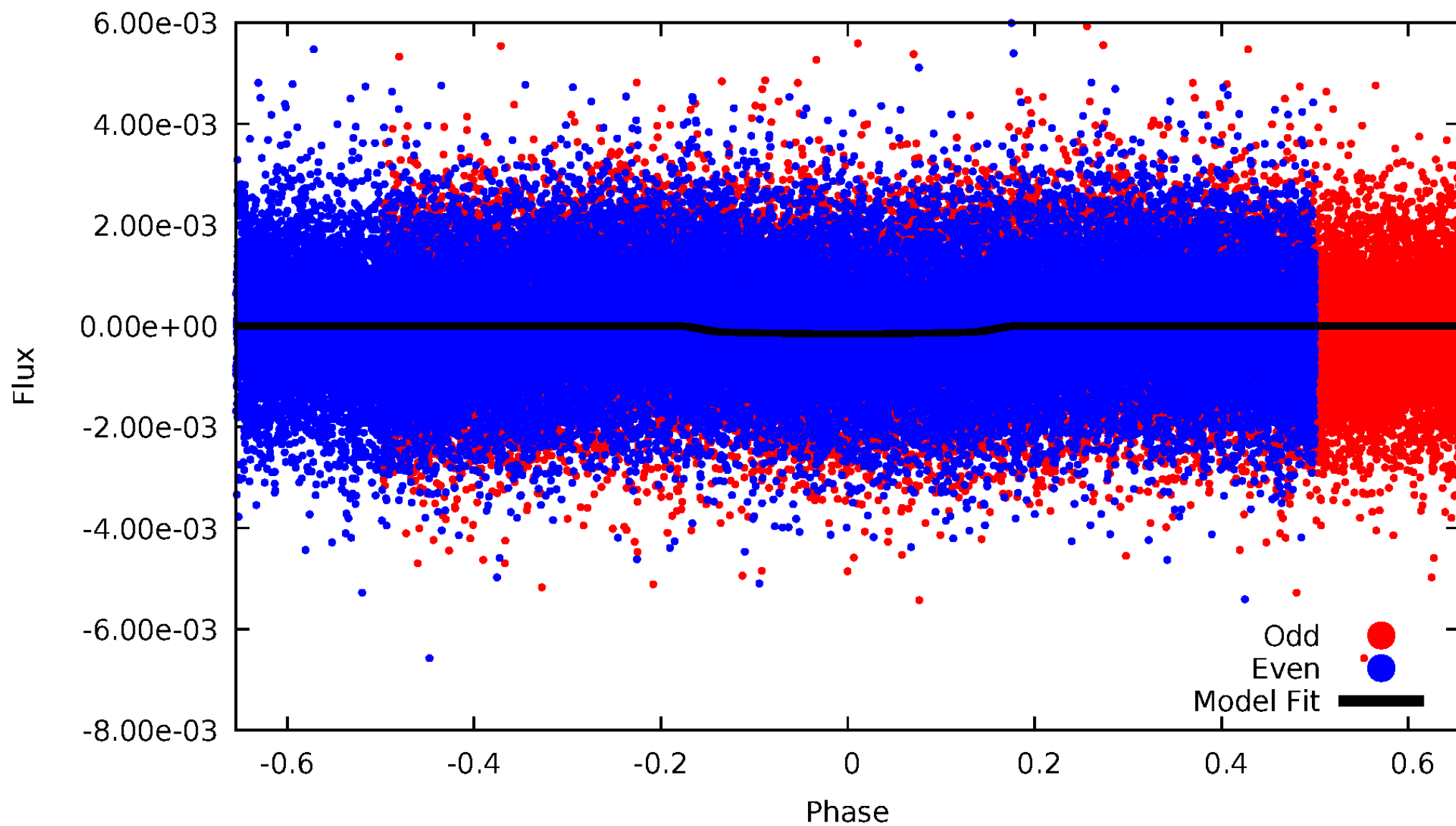


TCE 005185032-01



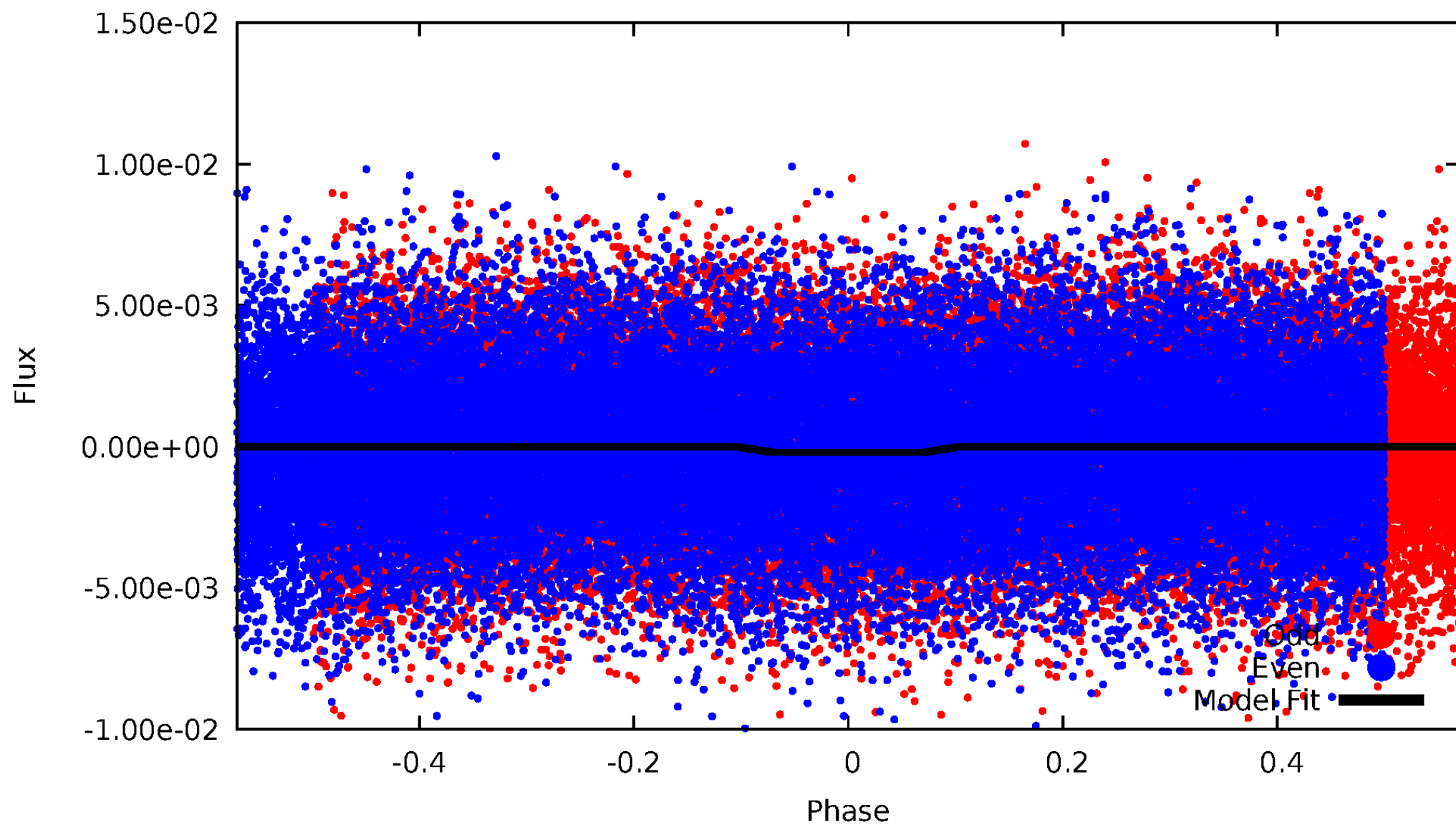
DV Odd/Even

TCE 005185032-01

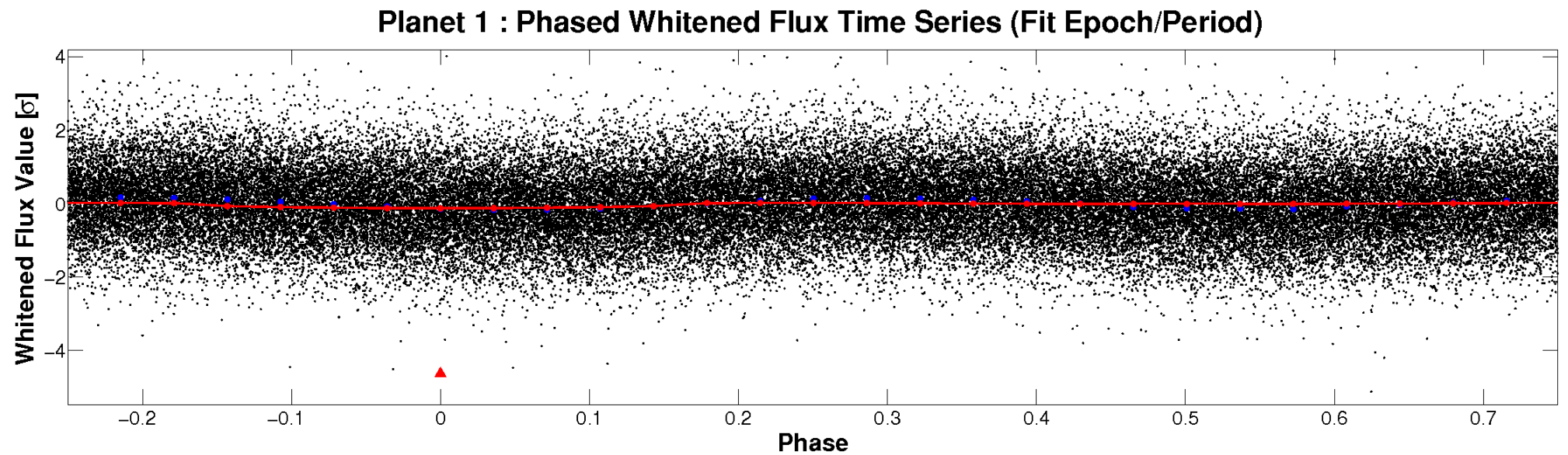
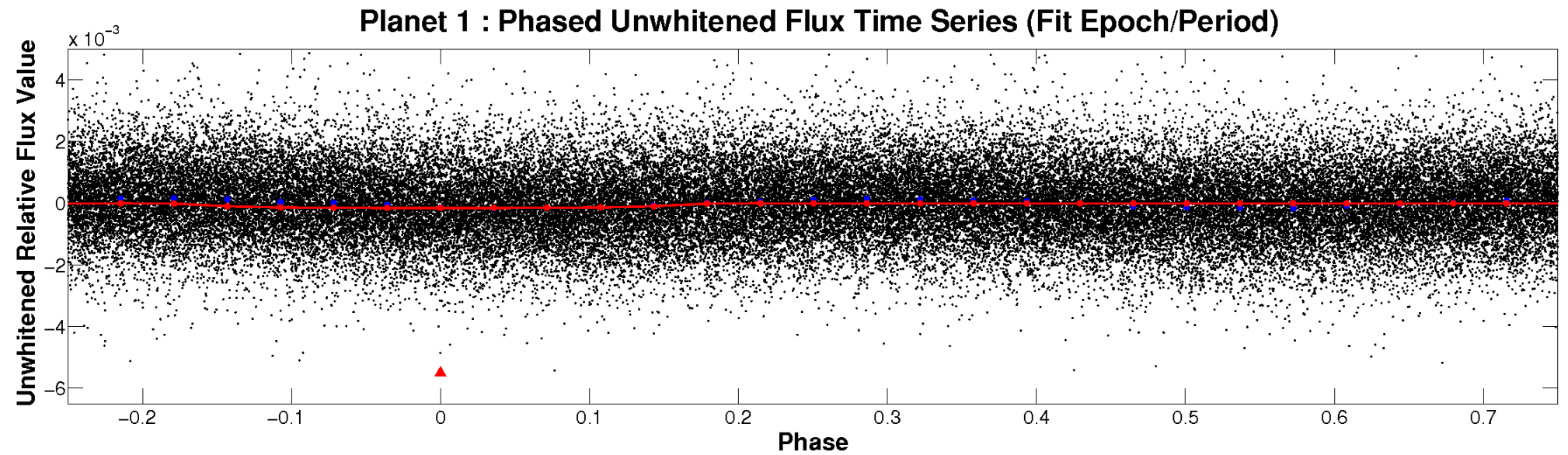


ALT Odd/Even

TCE 005185032-01

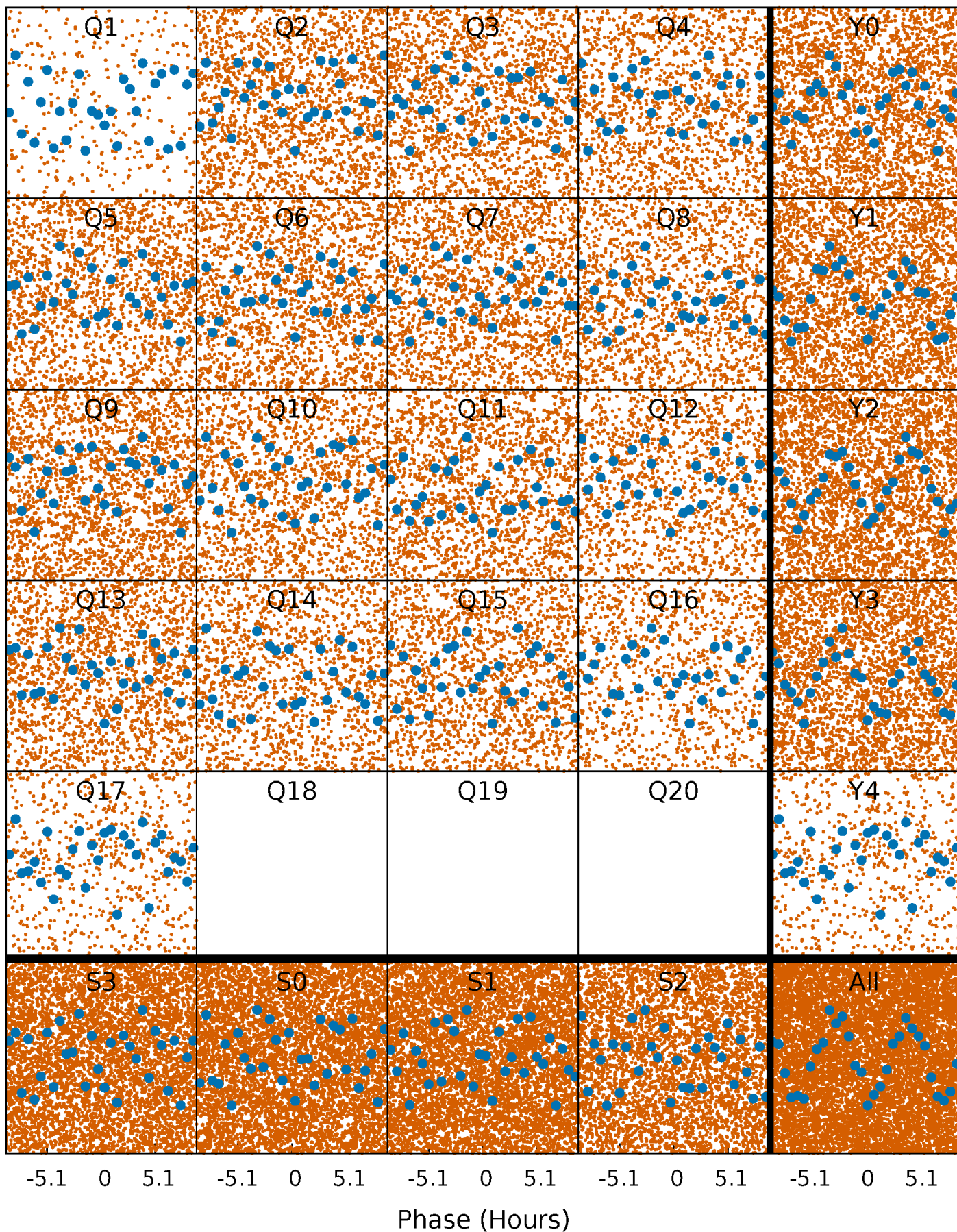


Non-Whitened Vs. Whitened Light Curve



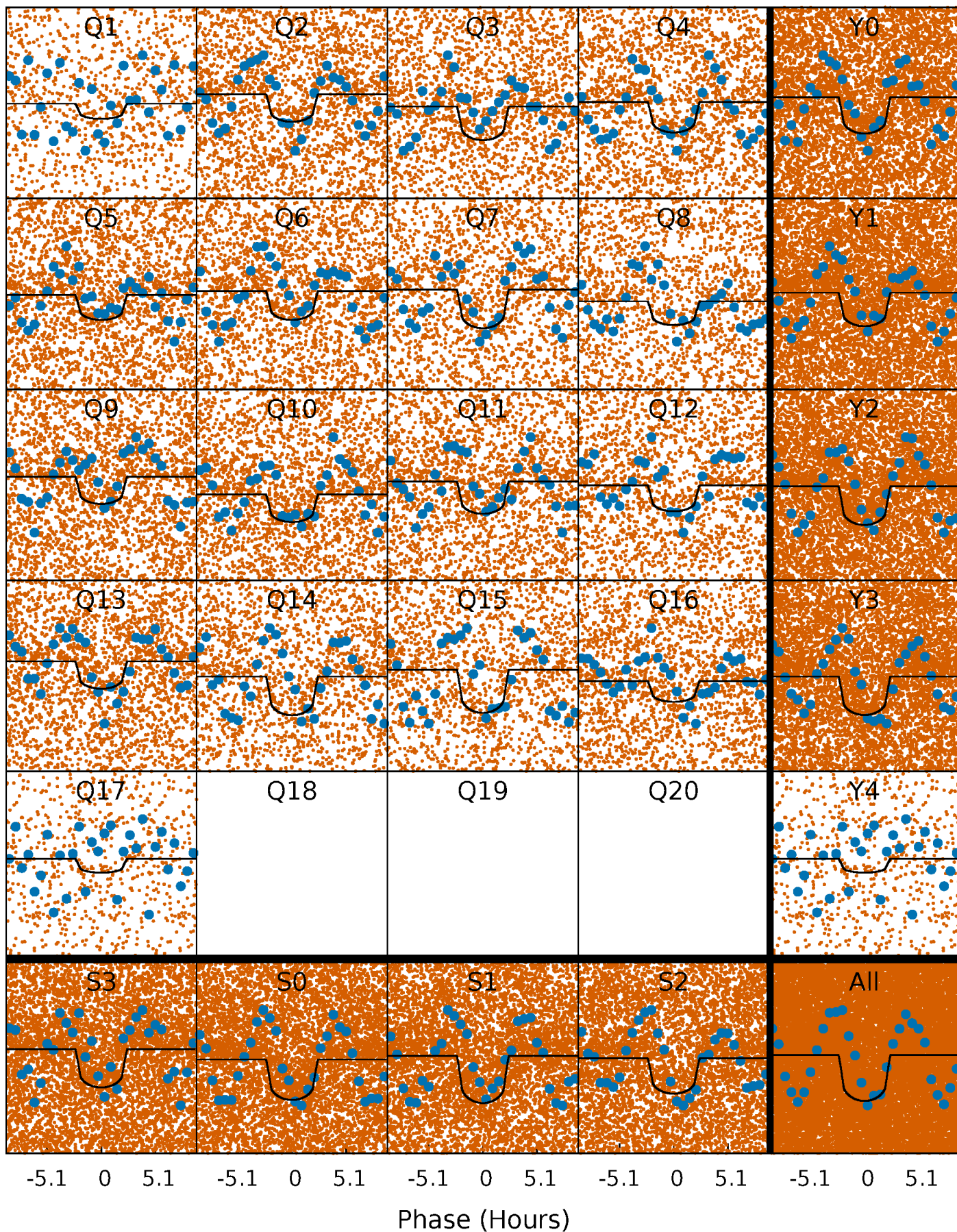
PDC Quarter-Phased Transit Curves

TCE 005185032-01 P= 0.571123 Days $T_0=131.576433$ (BKJD)



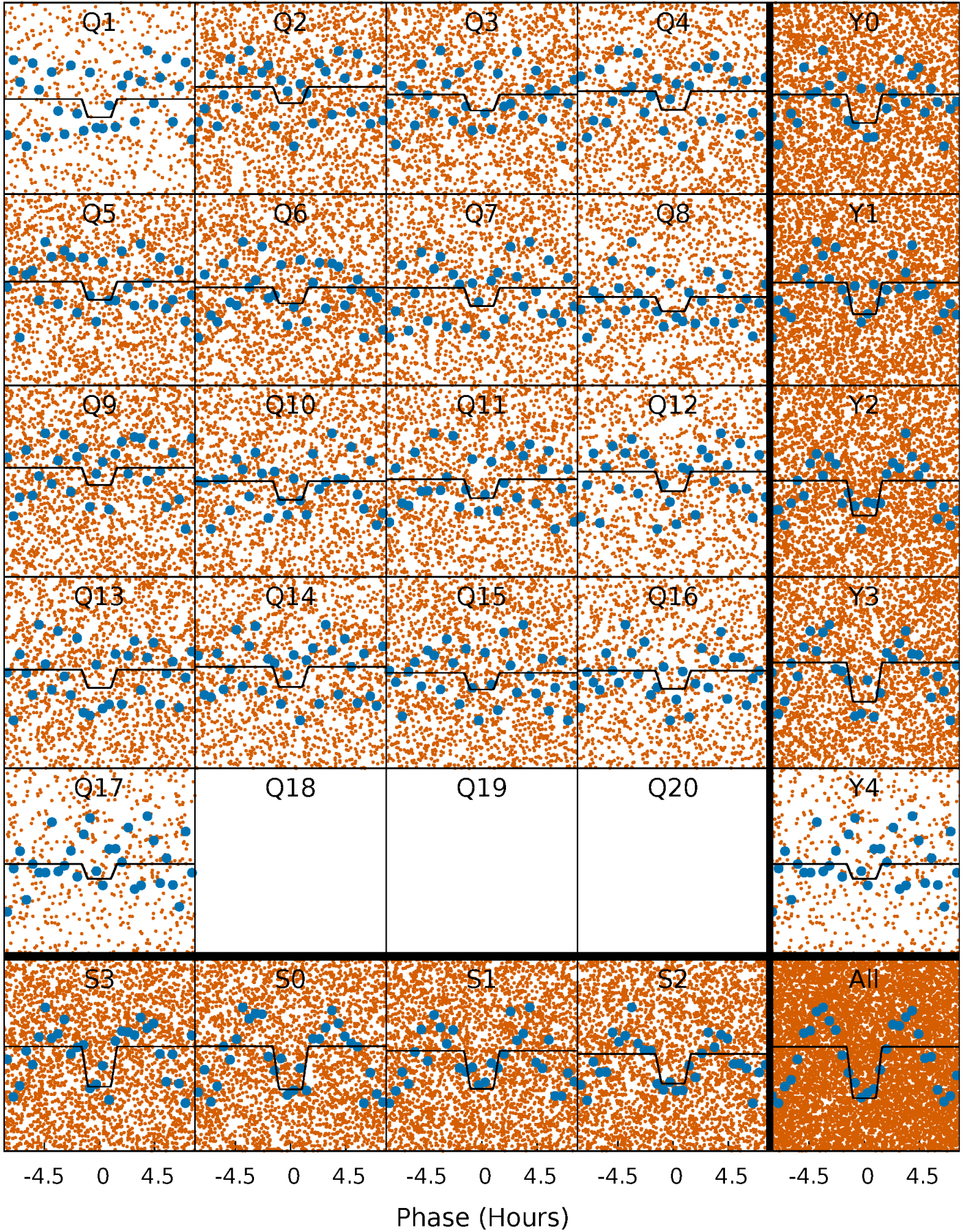
DV Quarter-Phased Transit Curves

TCE 005185032-01 P= 0.571123 Days $T_0=131.576433$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

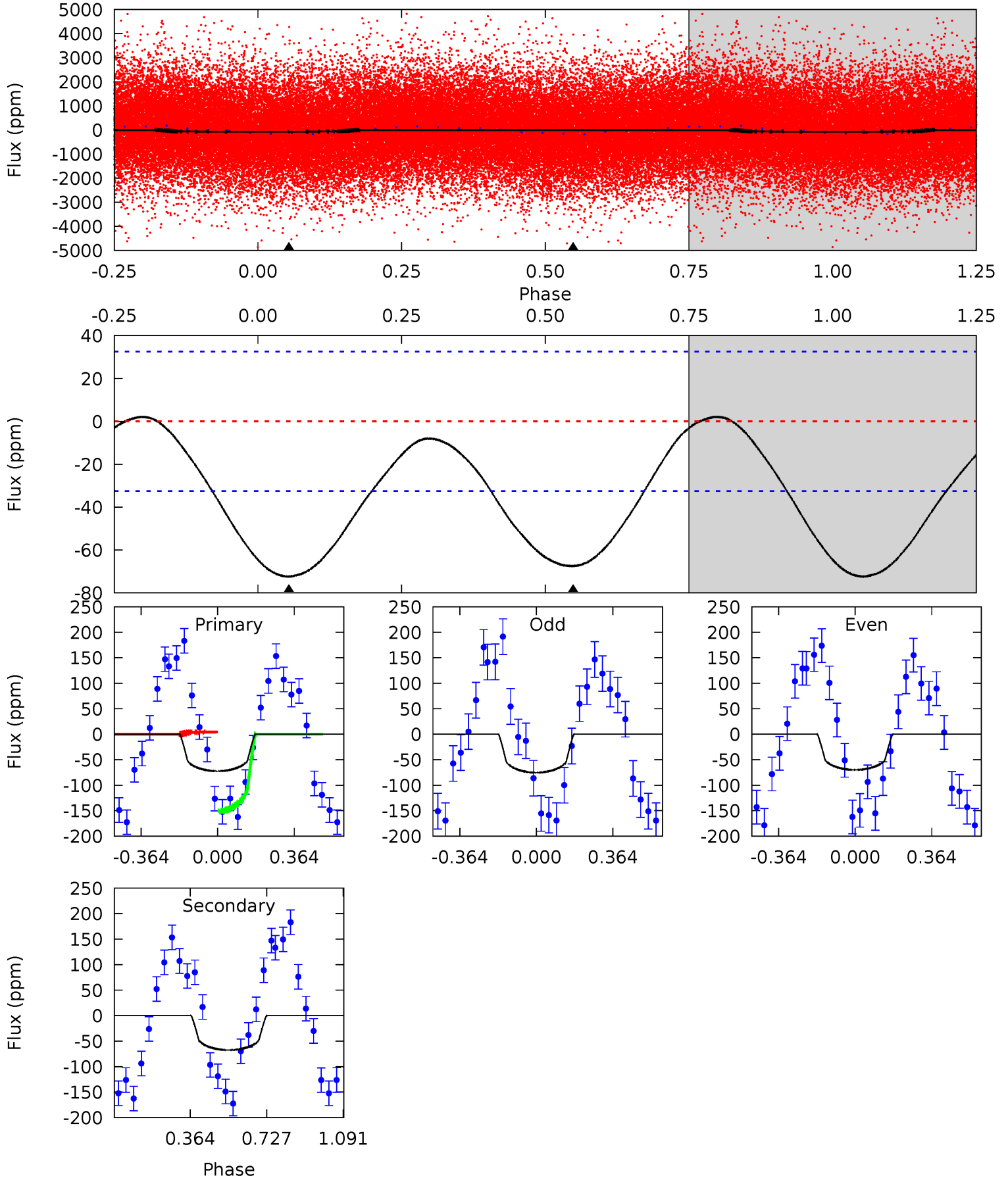
TCE 005185032-01 P= 0.571147 Days $T_0=131.576486$ (BKJD)



DV Model-Shift Uniqueness Test

005185032-01, $P = 0.571123$ Days, $E = 131.005310$ Days

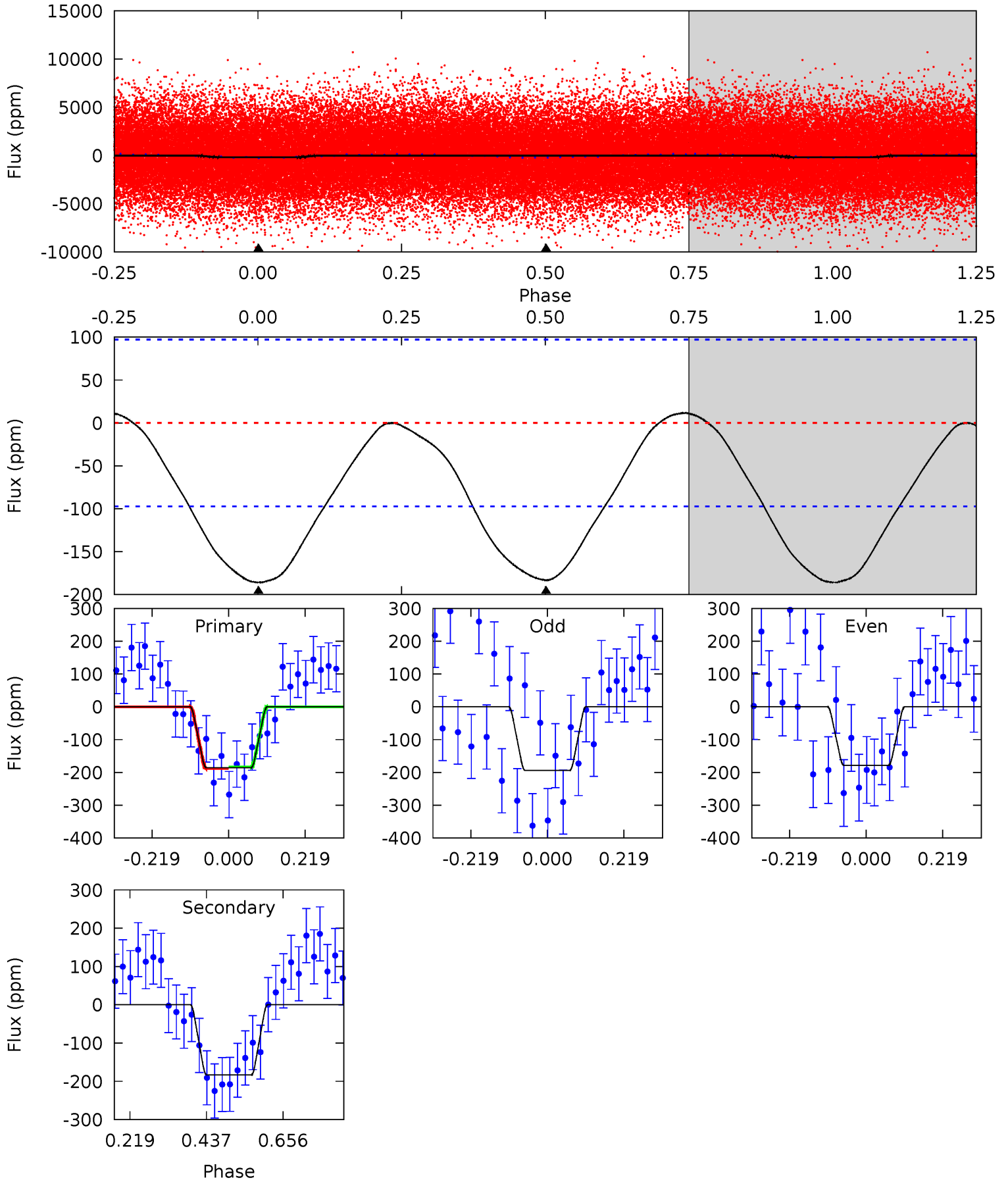
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.55	8.89	0	0	4.29	0.91	0.65	9.55	9.55	8.89	8.89	0.36	0.85	0.03	9.81



Alt Model-Shift Uniqueness Test

005185032-01, P = 0.571147 Days, E = 131.005339 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.41	8.29	0	0	4.40	1.23	0.37	8.41	8.41	8.29	8.29	0.35	1.10	0.06	0.09



Stellar Parameters For KIC 005185032

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7234^{+201}_{-302}	$4.068^{+0.175}_{-0.175}$	$-0.060^{+0.250}_{-0.350}$	$1.912^{+0.556}_{-0.455}$	$1.558^{+0.212}_{-0.259}$	$0.314^{+0.291}_{-0.149}$
	+3%/-4%	+4%/-4%	+417%/-583%	+29%/-24%	+14%/-17%	+93%/-48%
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 005185032-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-67 ± 8	$2.55^{+1.82}_{-1.44}$	4898^{+410}_{-323}	5475^{+3633}_{-1630}	$1.358^{+5.763}_{-0.880}$
Alt.	-183 ± 22	$3.13^{+1.95}_{-1.60}$	4926^{+398}_{-351}	6539^{+3978}_{-1594}	$2.548^{+7.559}_{-1.630}$

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

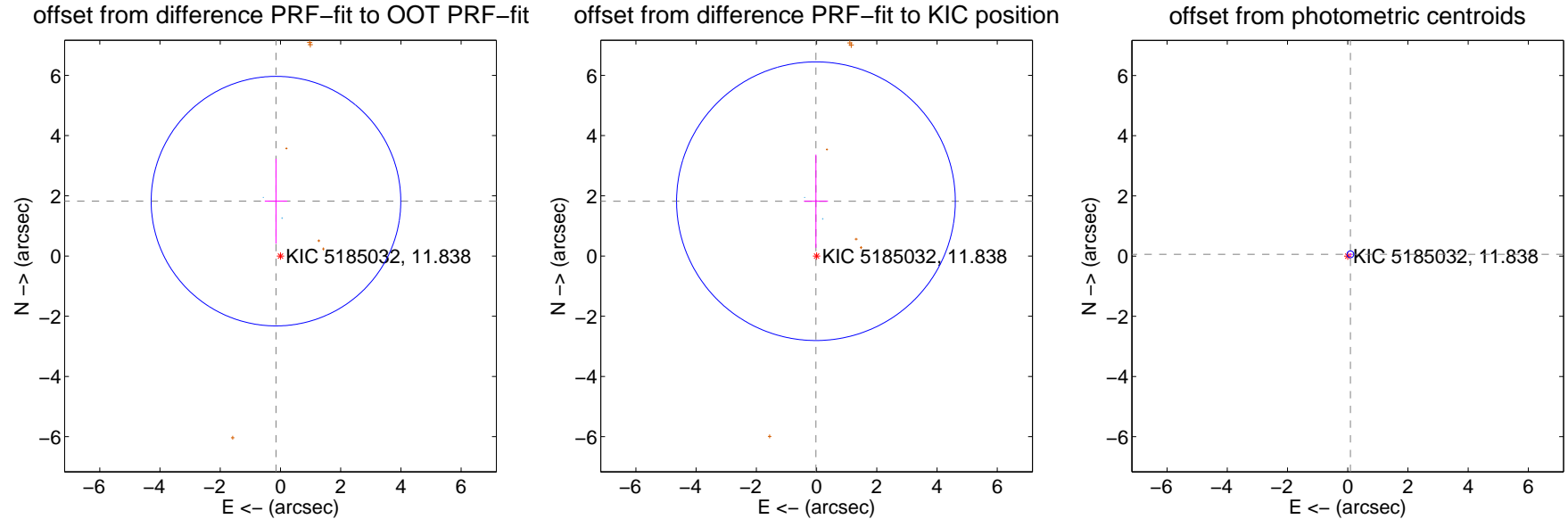
DV Centroid Data

Supplemental centroid analysis for 005185032-01. **Kepler magnitude: 11.84.** Transit SNR 15.22

There are 2 quarters with good PRF difference image offsets

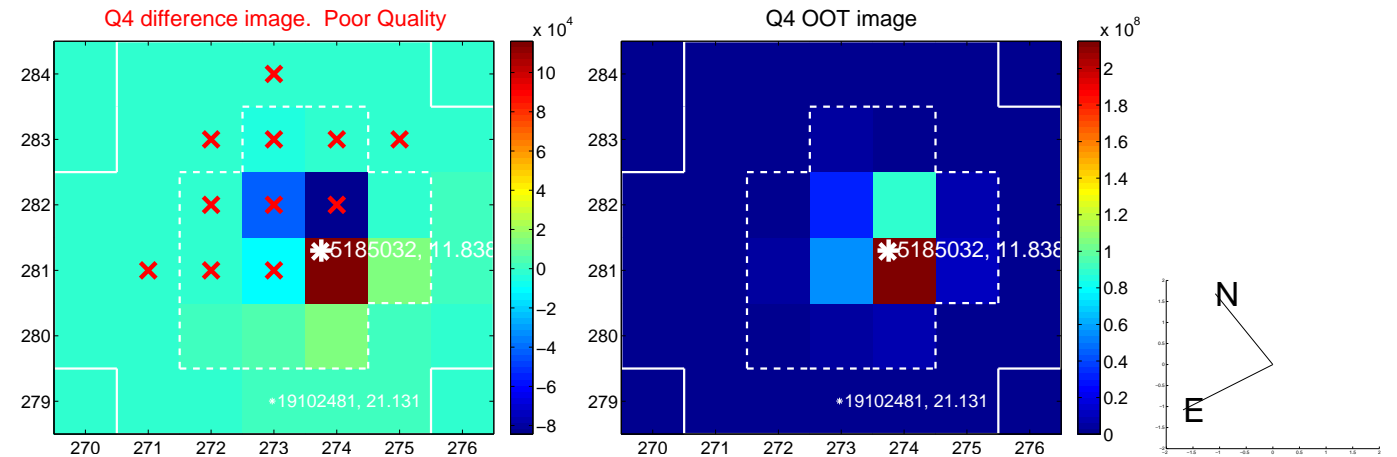
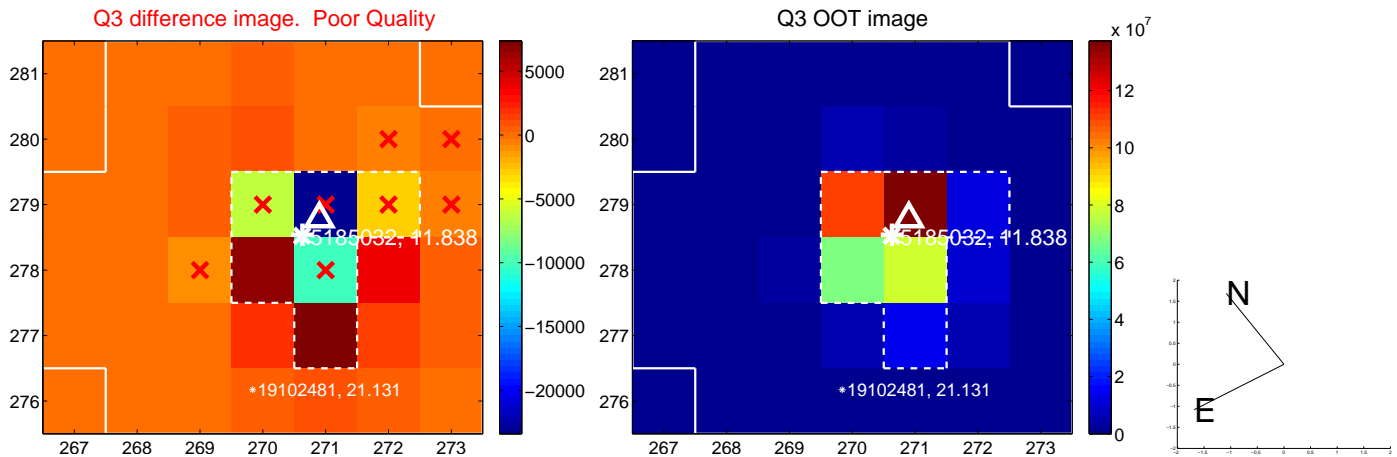
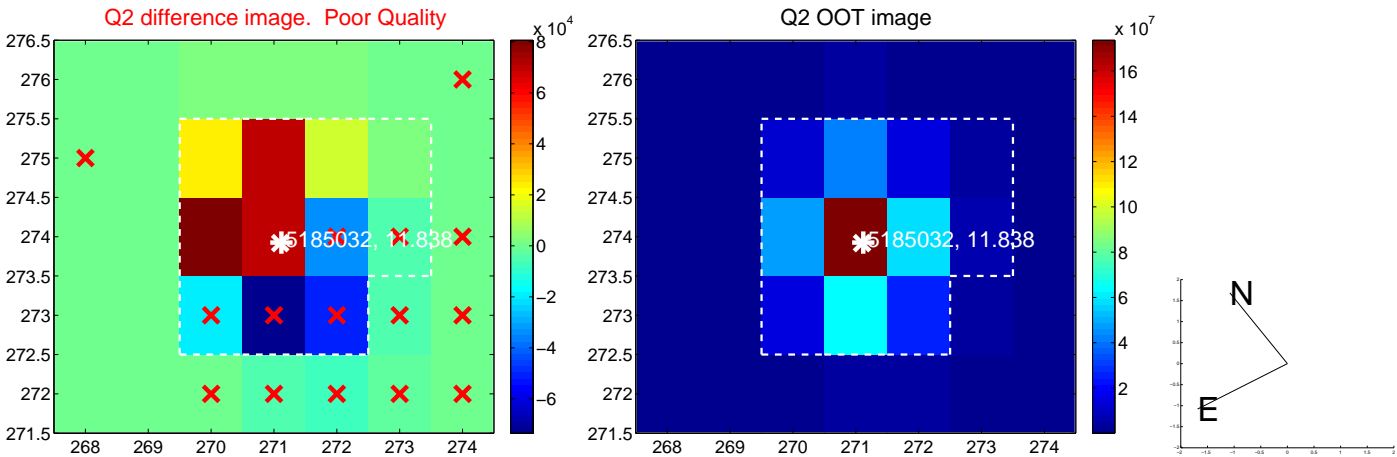
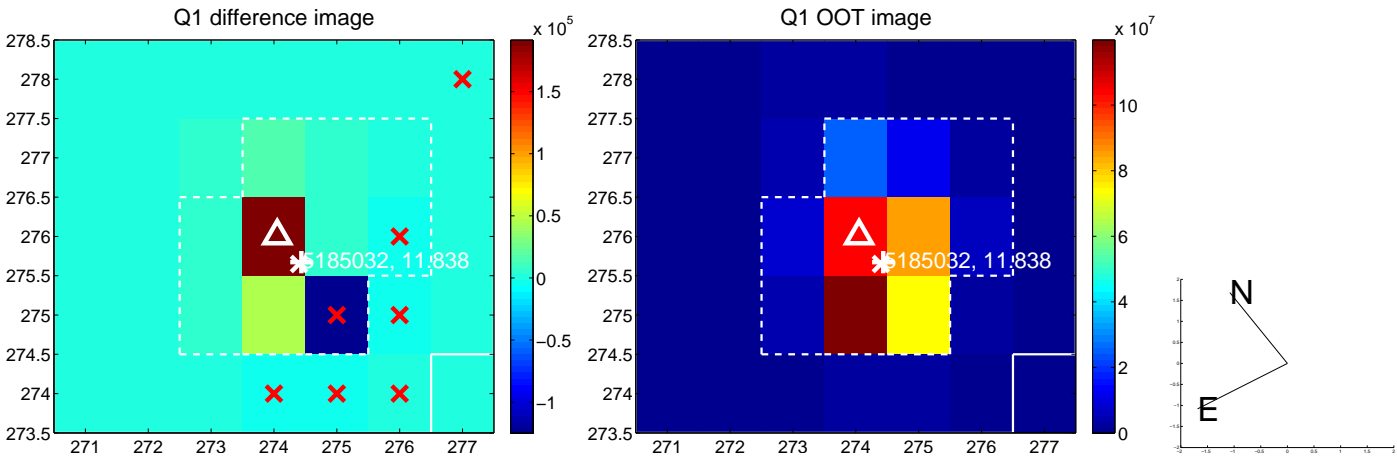
The direct PRF centroid is offset from the target star catalog position by about 0.15 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.829 ± 1.381	1.32	0.149 ± 0.372	1.823 ± 1.408
PRF-fit source offset from KIC position	1.821 ± 1.542	1.18	0.021 ± 0.398	1.820 ± 1.546
photometric centroid source offset	0.11 ± 0.04	2.84	-0.09 ± 0.04	0.06 ± 0.04

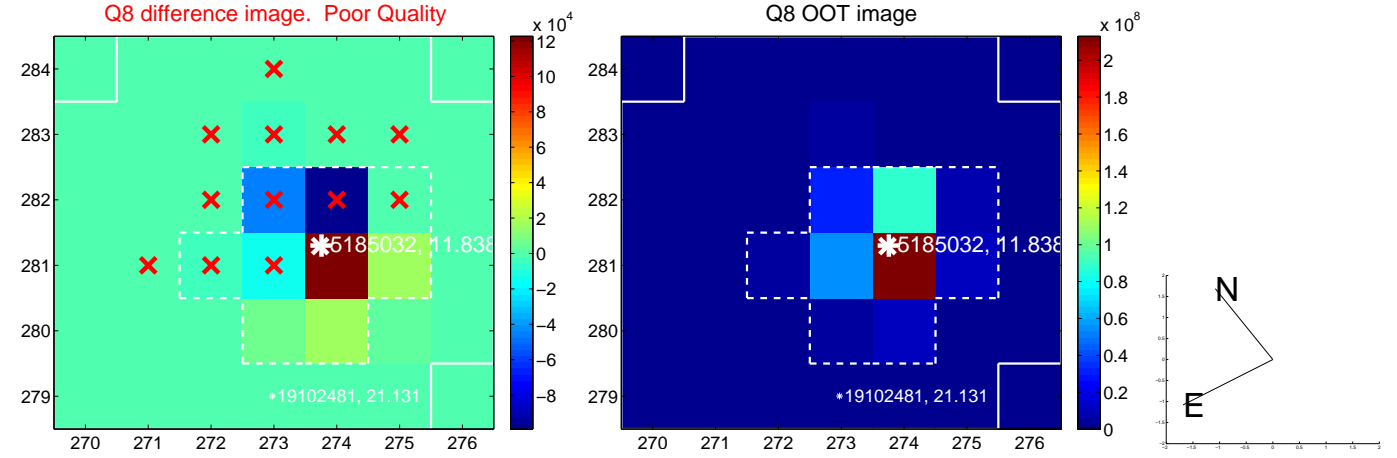
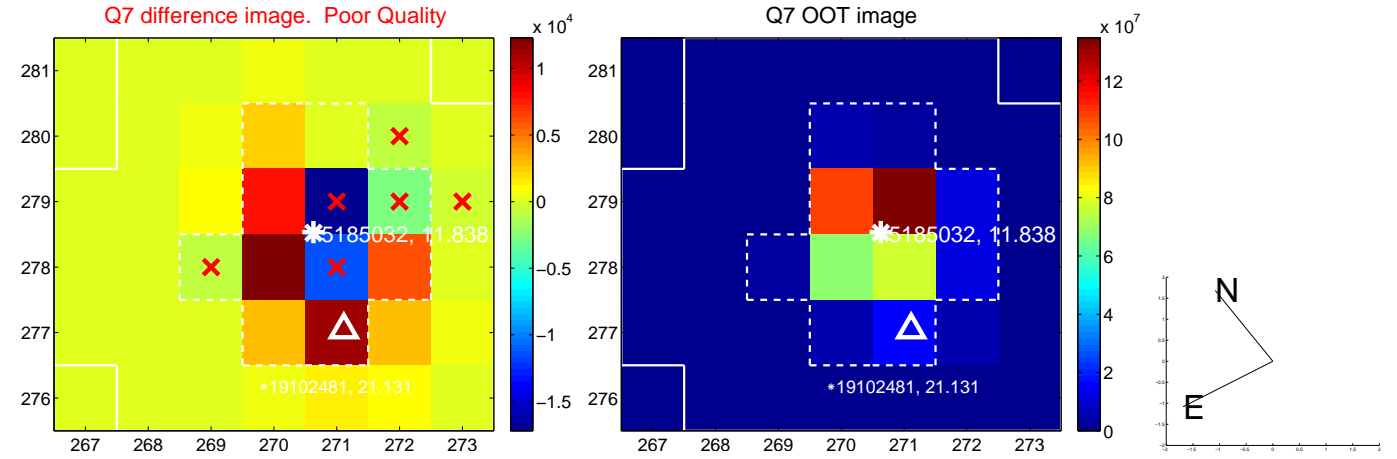
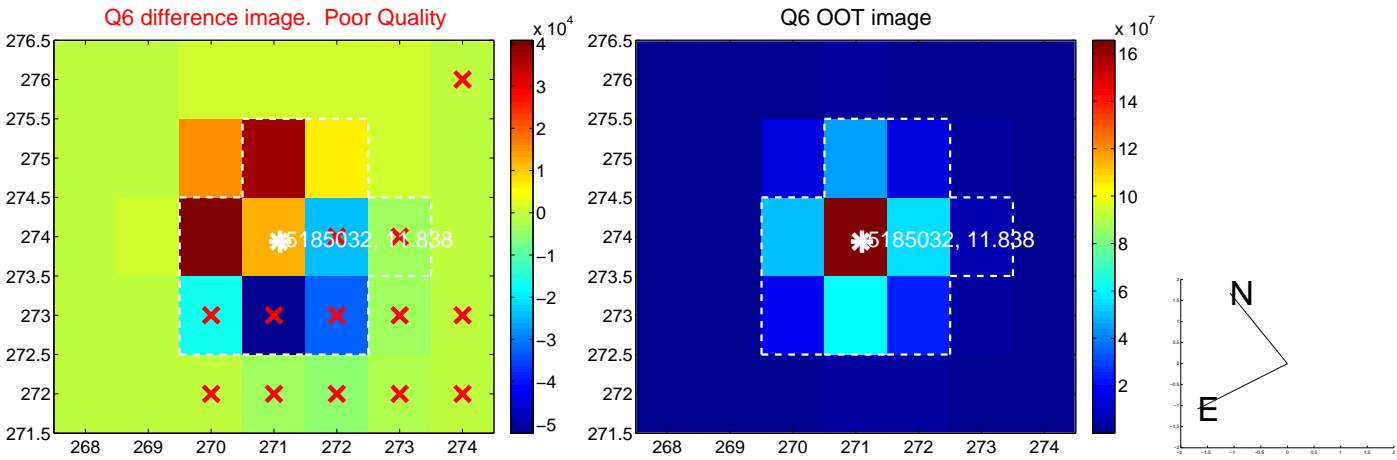
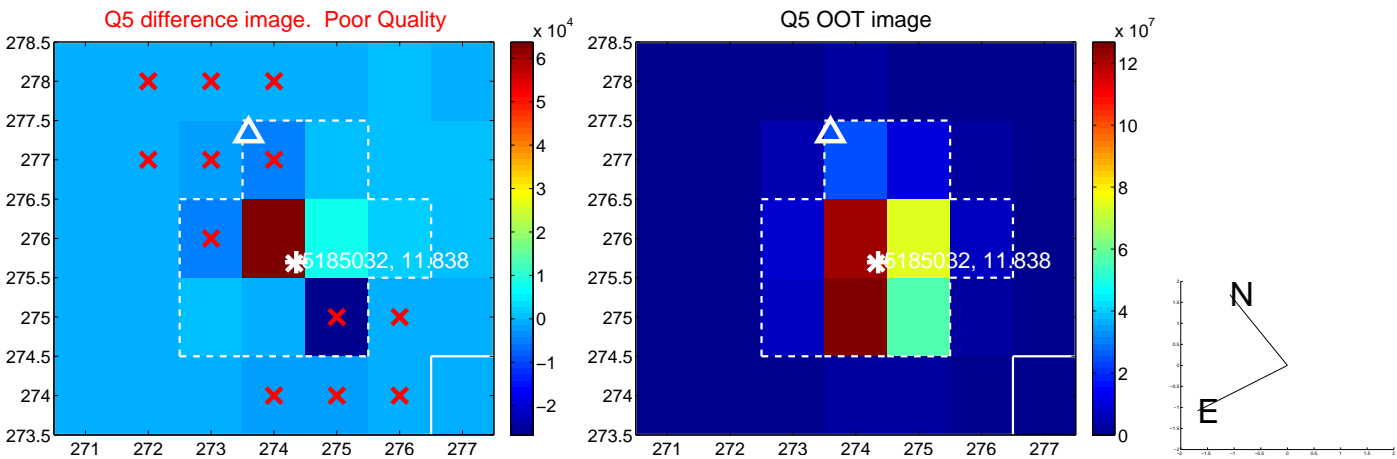


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

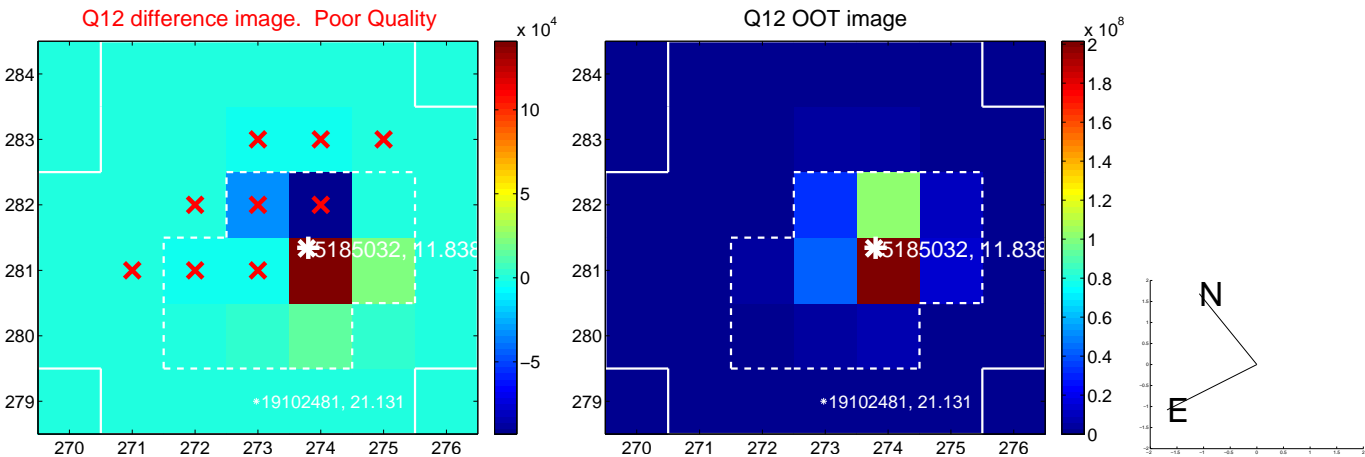
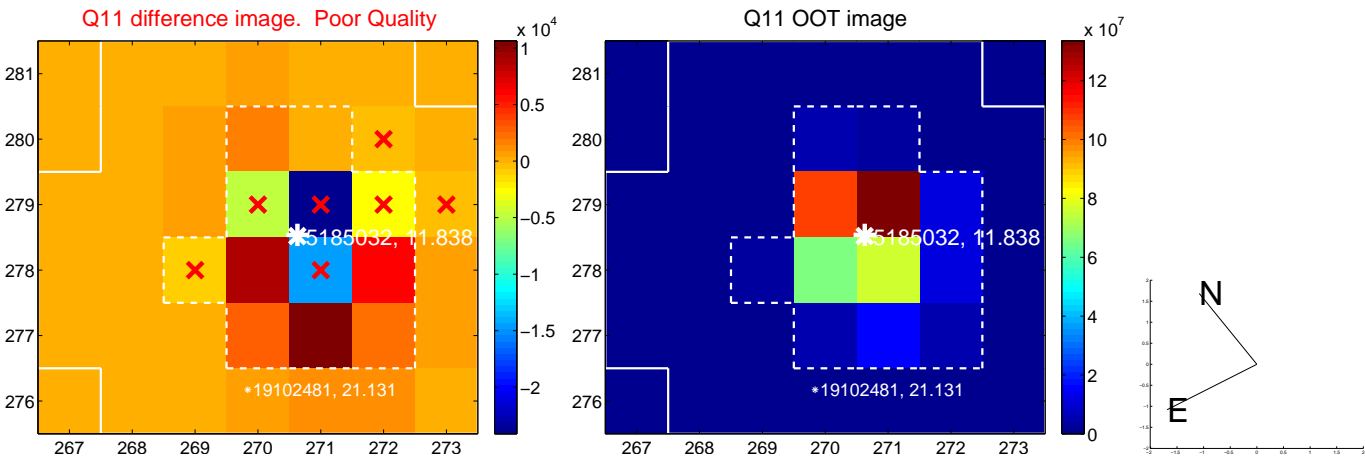
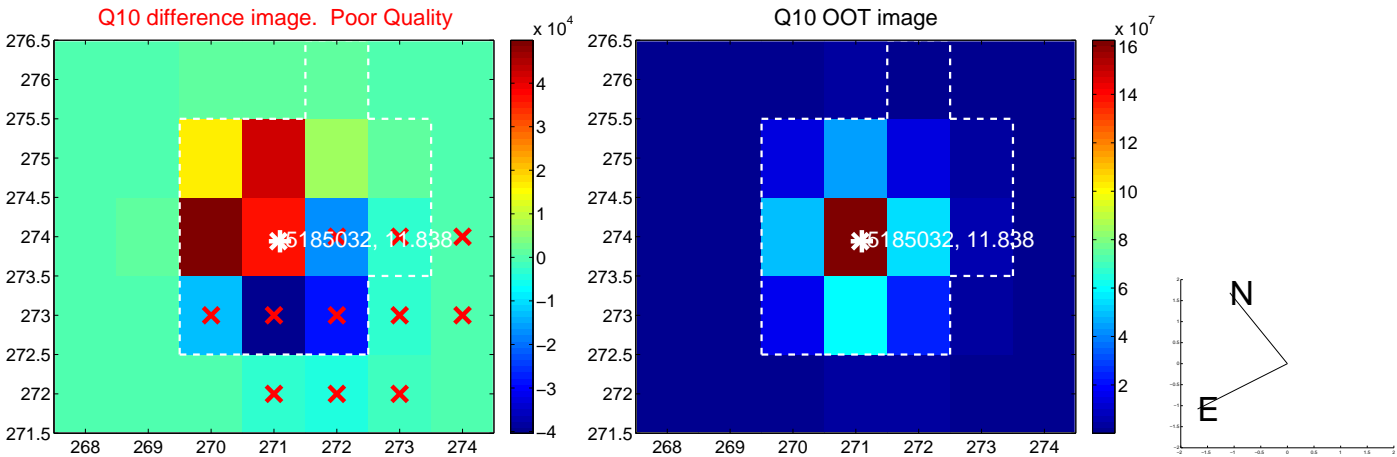
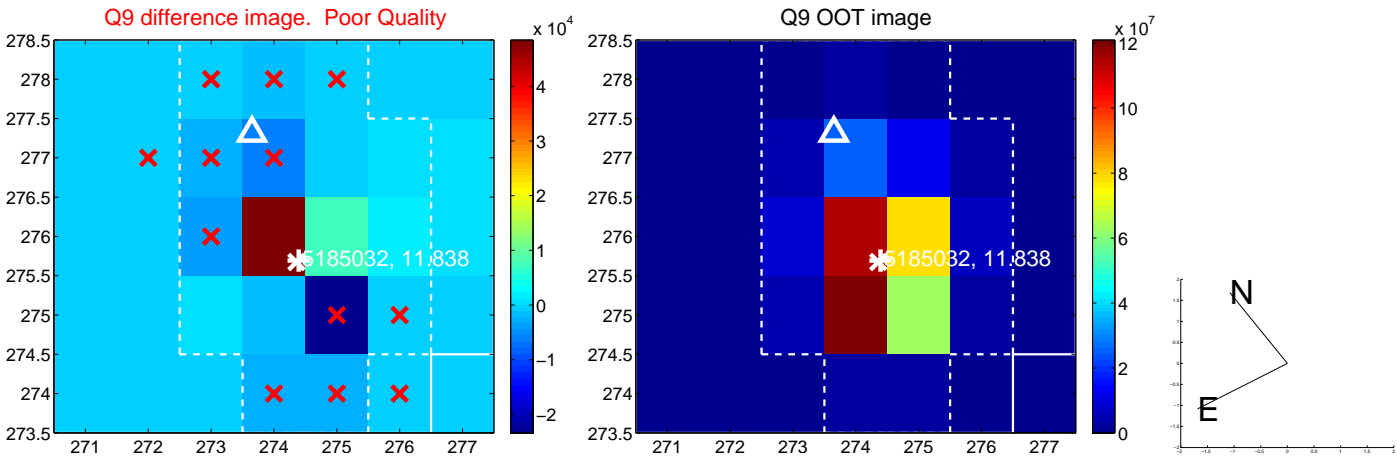
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



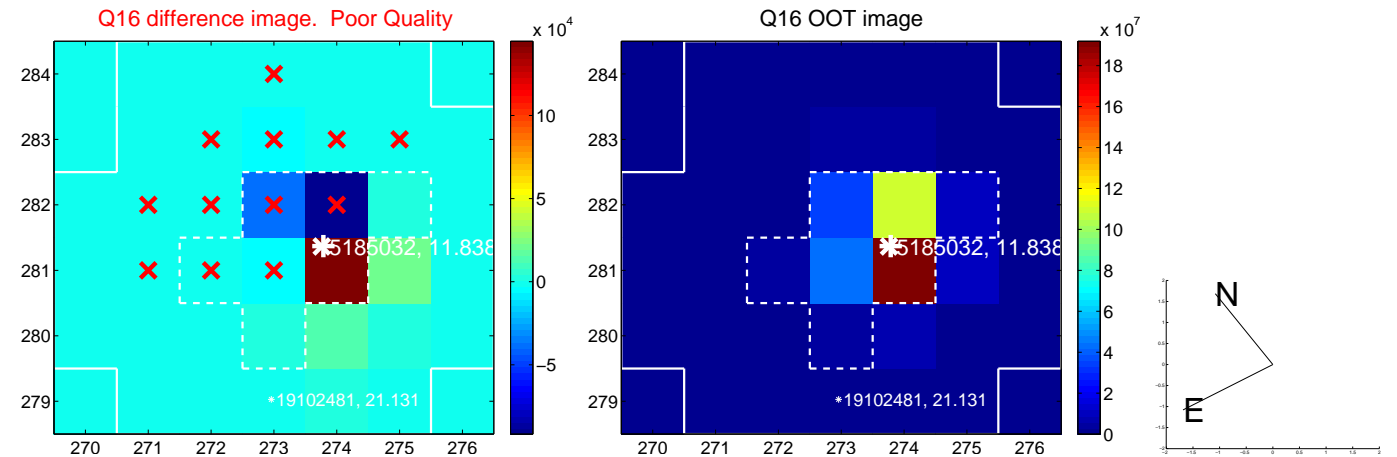
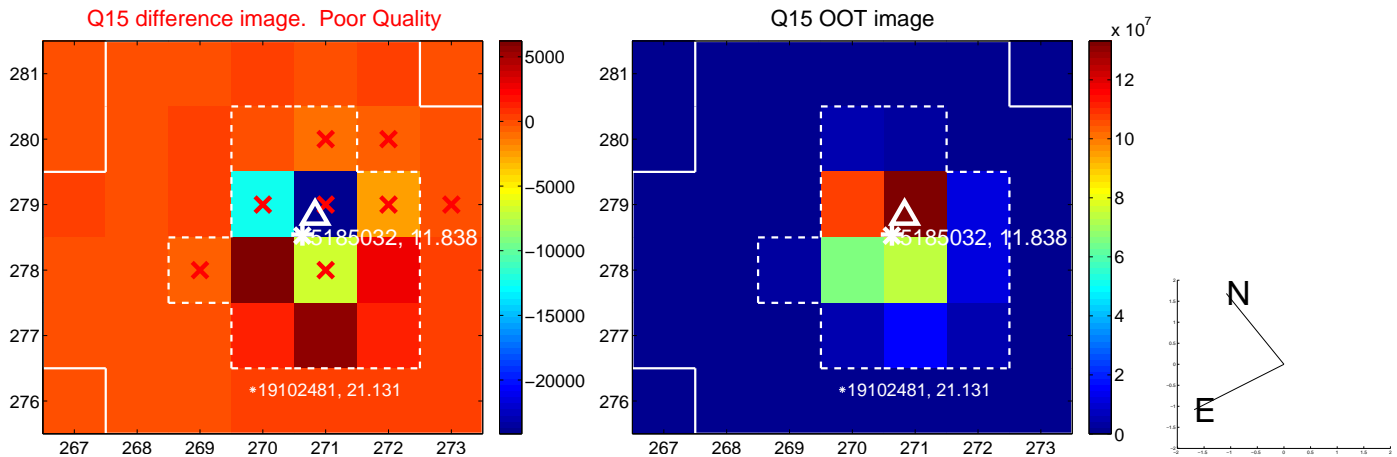
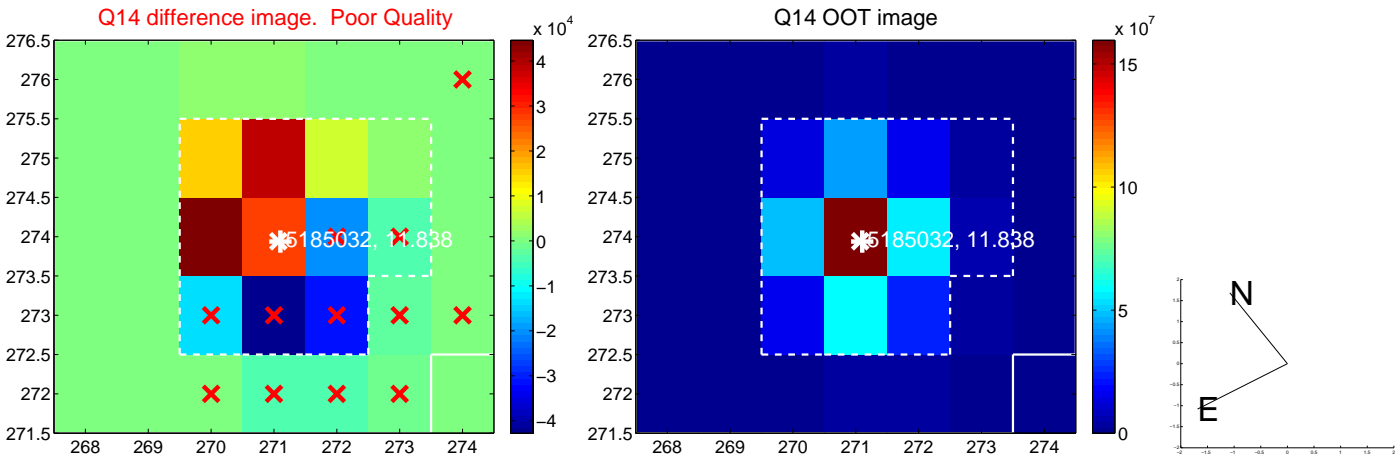
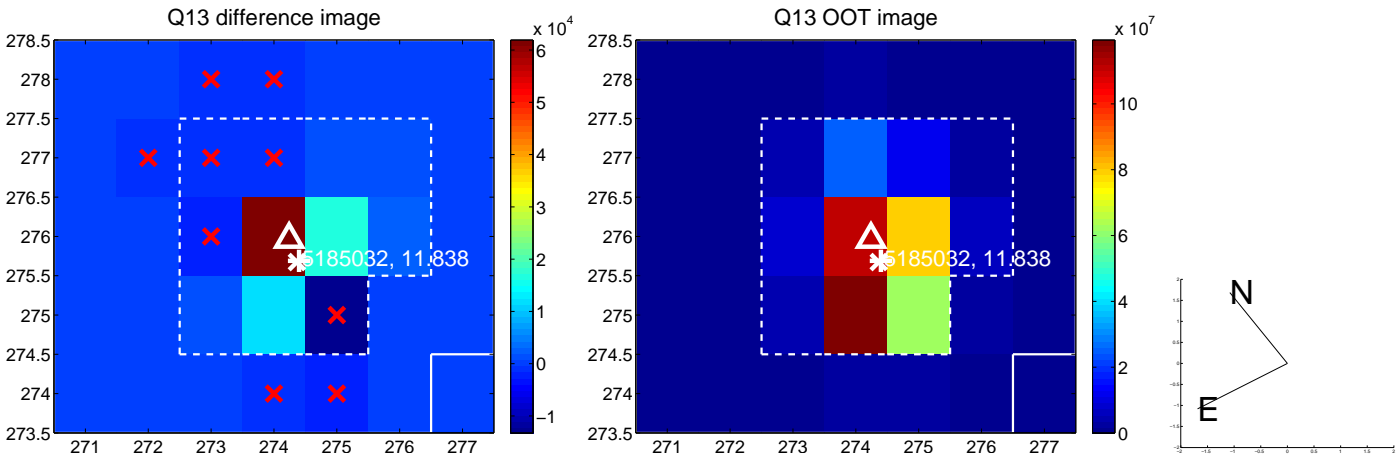
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



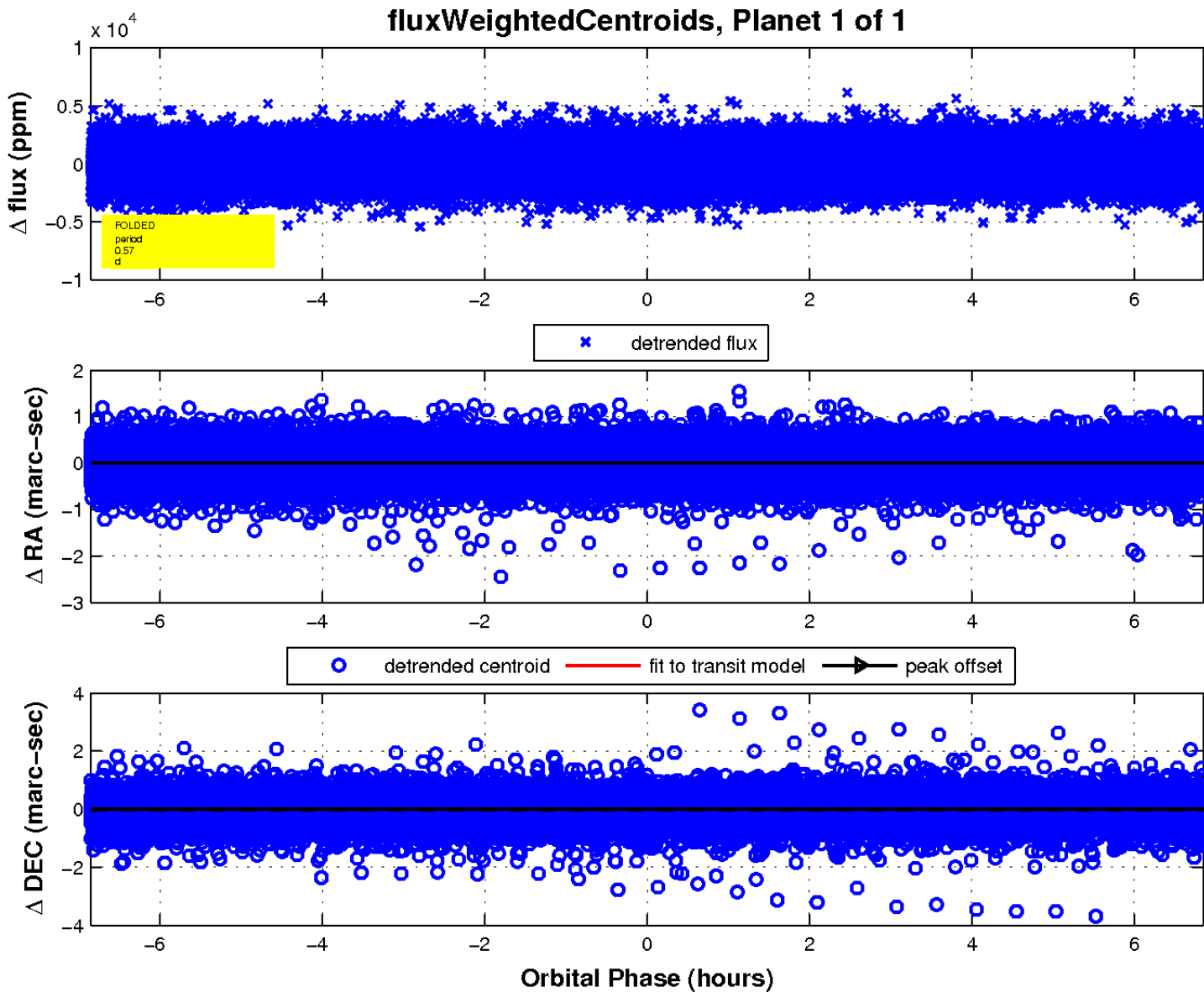
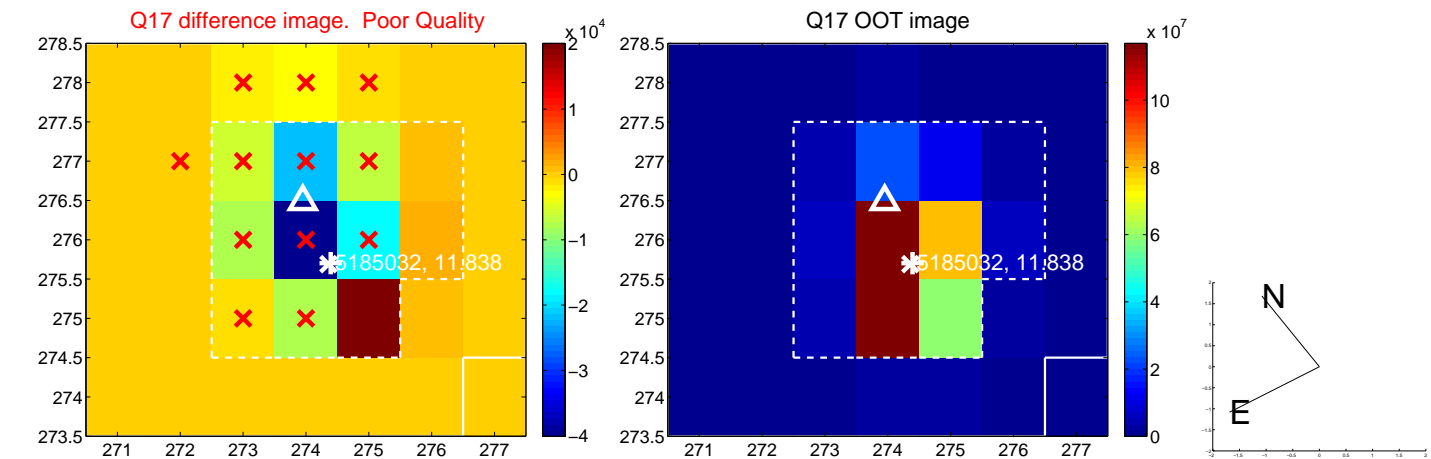
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

