

KIC 011853301

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})
011853301-01	OBS	No	0.687131	132.113510	12.5	6.680	11.1	1.7	0.89	5713	0.32	3252.37

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011853301-01	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.

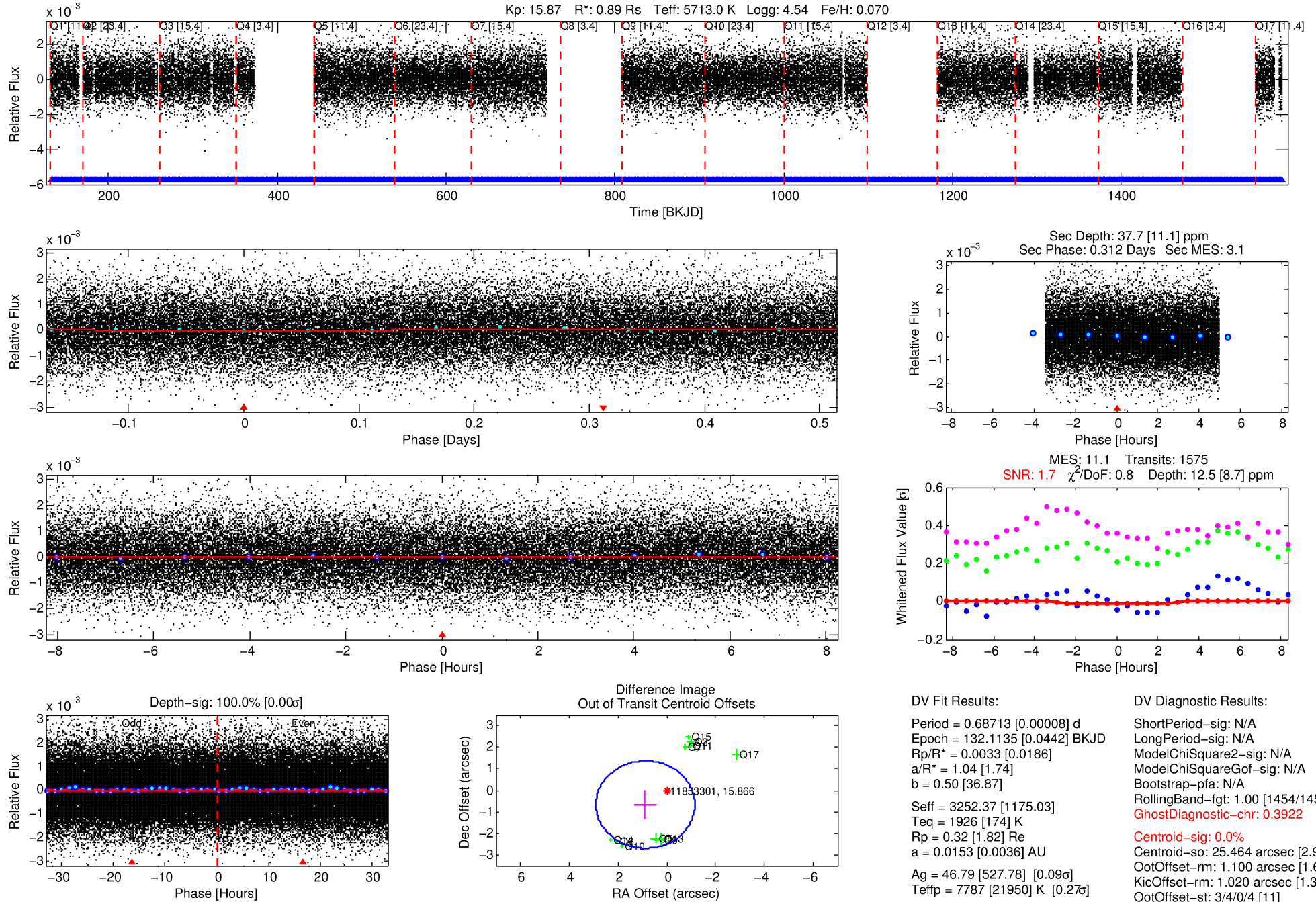
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011853301-01

No Significant Match Found

DV One-Page Summary

KIC: 11853301 Candidate: 1 of 1 Period: 0.687 d



DV Fit Results:

Period = 0.68713 [0.00008] d
Epoch = 132.1135 [0.0442] BKJD
Rp/R* = 0.0033 [0.0186]
a/R* = 1.04 [1.74]
b = 0.50 [36.87]
Seff = 3252.37 [1175.03]
Teq = 1926 [174] K
Rp = 0.32 [1.82] Re
a = 0.0153 [0.0036] AU
Ag = 46.79 [527.78] [0.09 σ]
Teffp = 7787 [21950] K [0.2 τ]

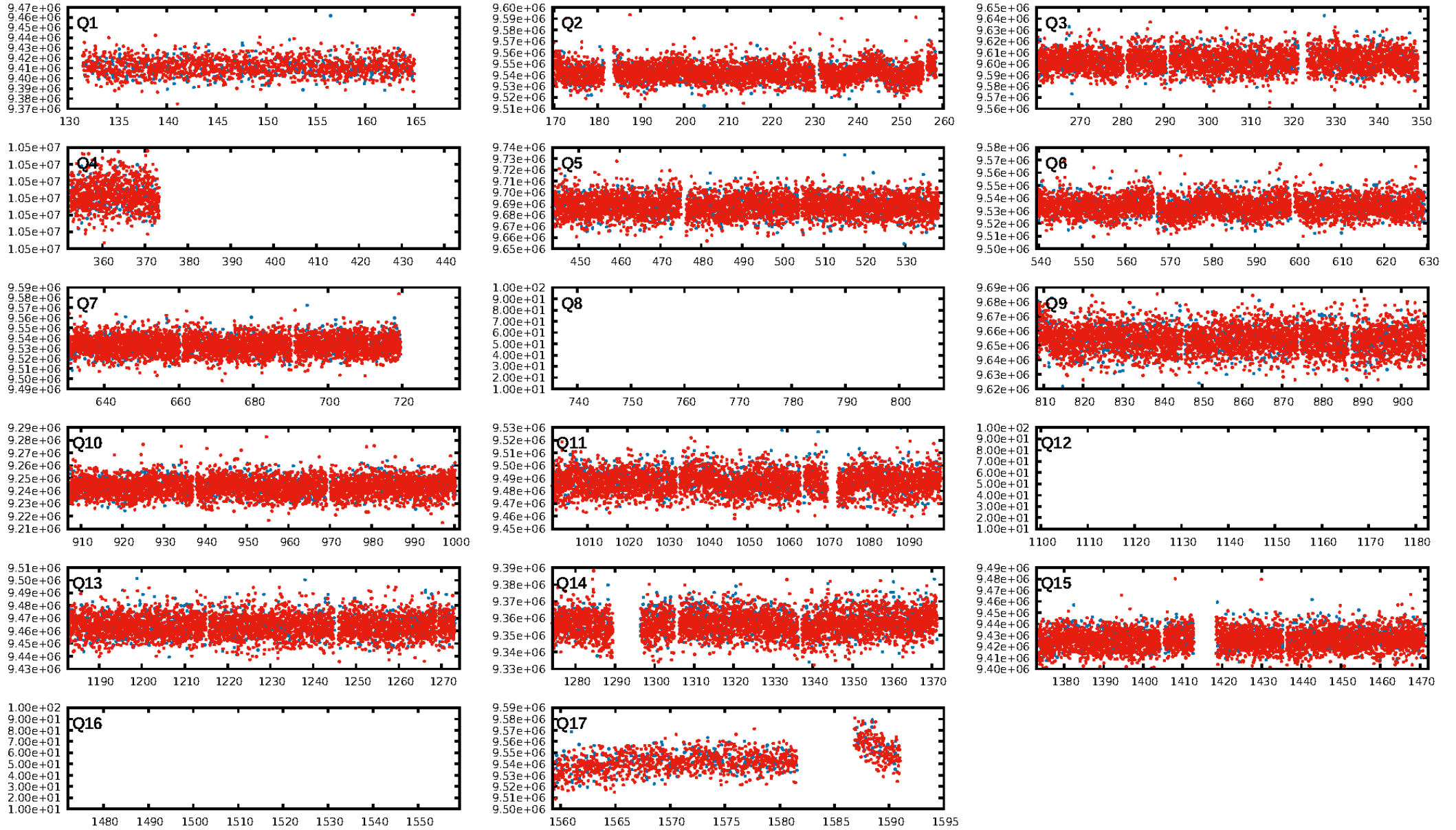
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [1454/1454]
GhostDiagnostic-chr: 0.3922
Centroid-sig: 0.0%
Centroid-so: 25.464 arcsec [2.97 σ]
OotOffset-rm: 1.100 arcsec [1.63 σ]
KicOffset-rm: 1.020 arcsec [1.33 σ]
OotOffset-st: 3/4/0/4 [11]
KicOffset-st: 3/4/0/4 [11]
DiffImageQuality-fgm: 0.73 [8/11]
DiffImageOverlap-fno: 1.00 [14/14]

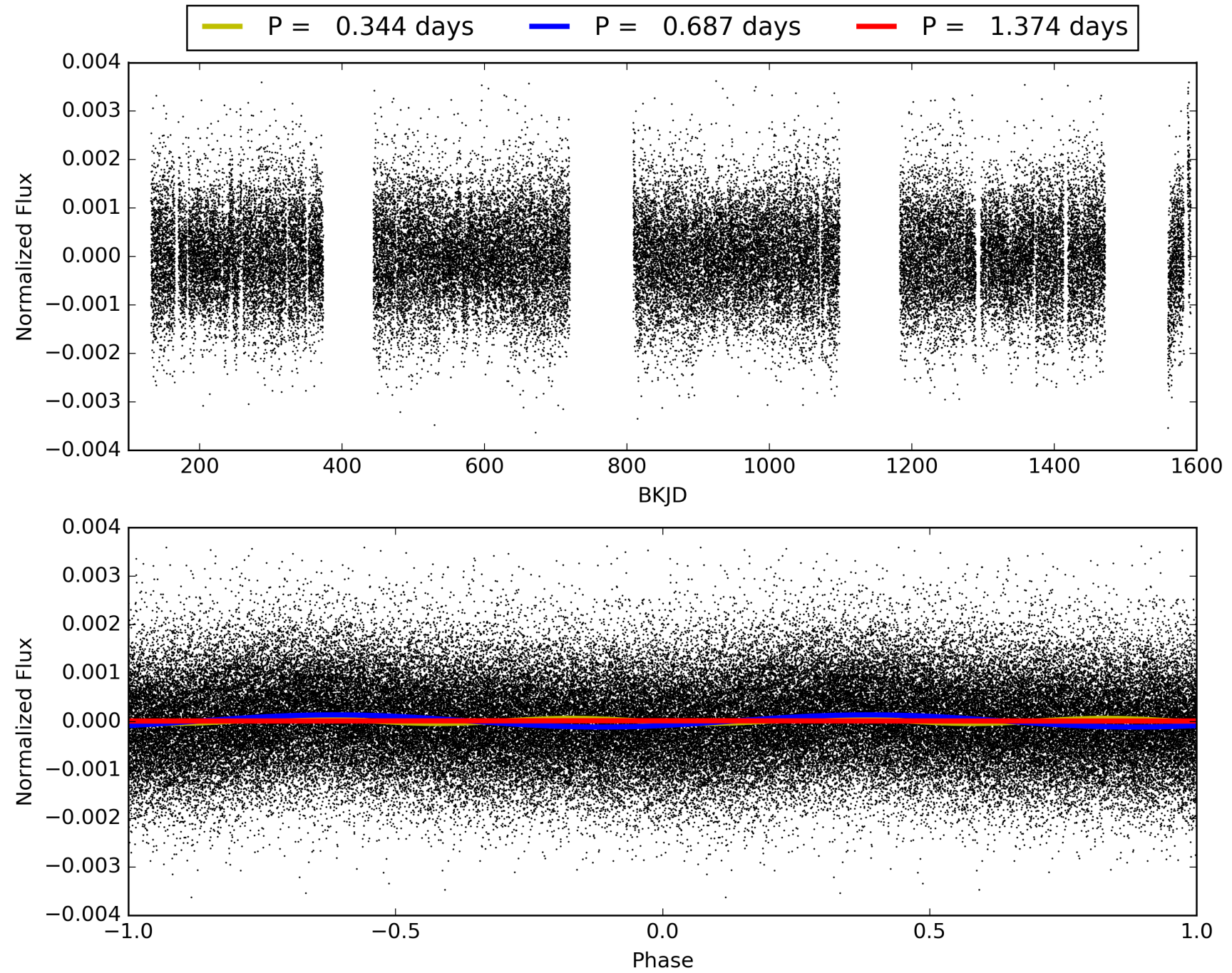
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 03:00:12 Z

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

TCE 011853301-01, PDC Light Curves

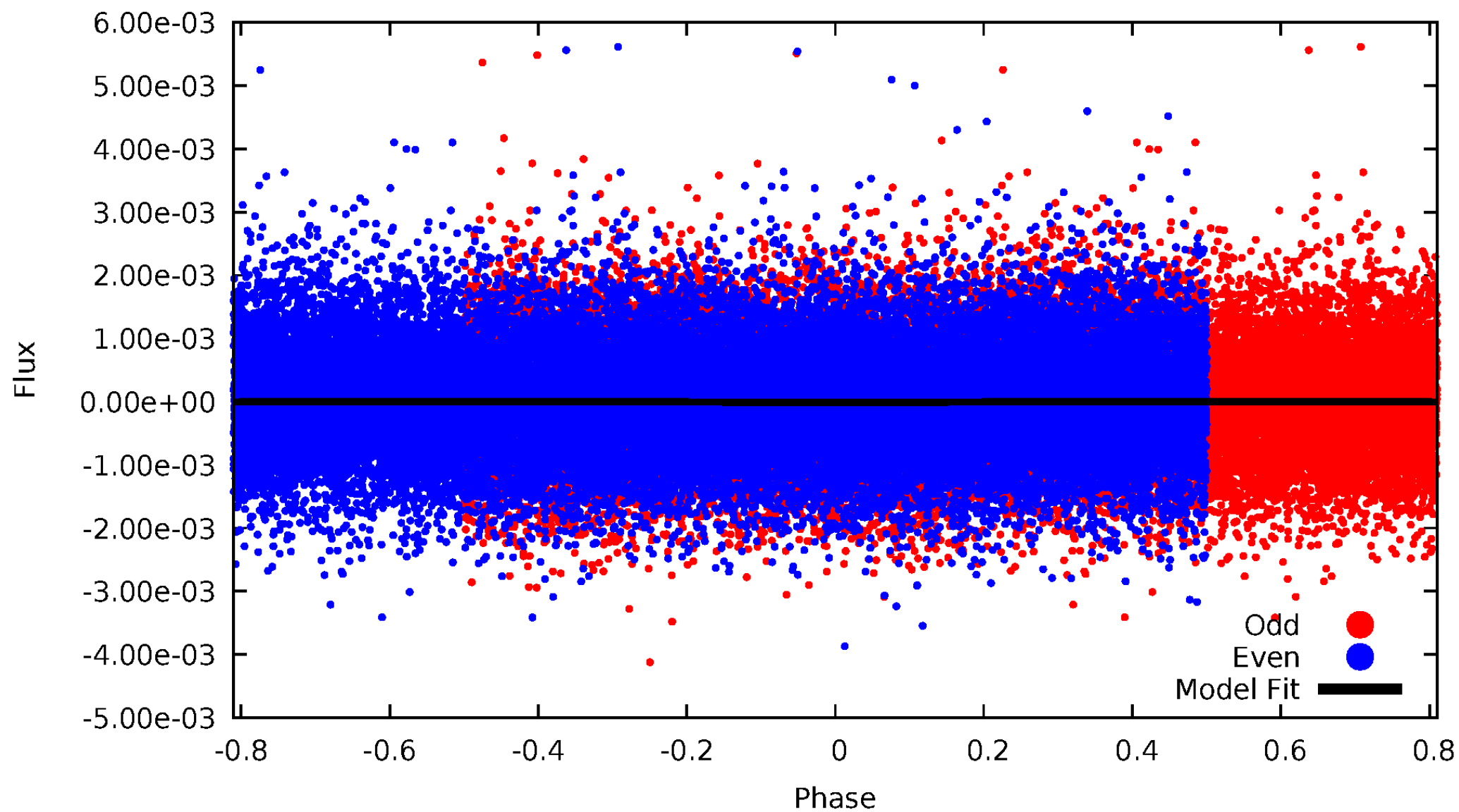


TCE 011853301-01



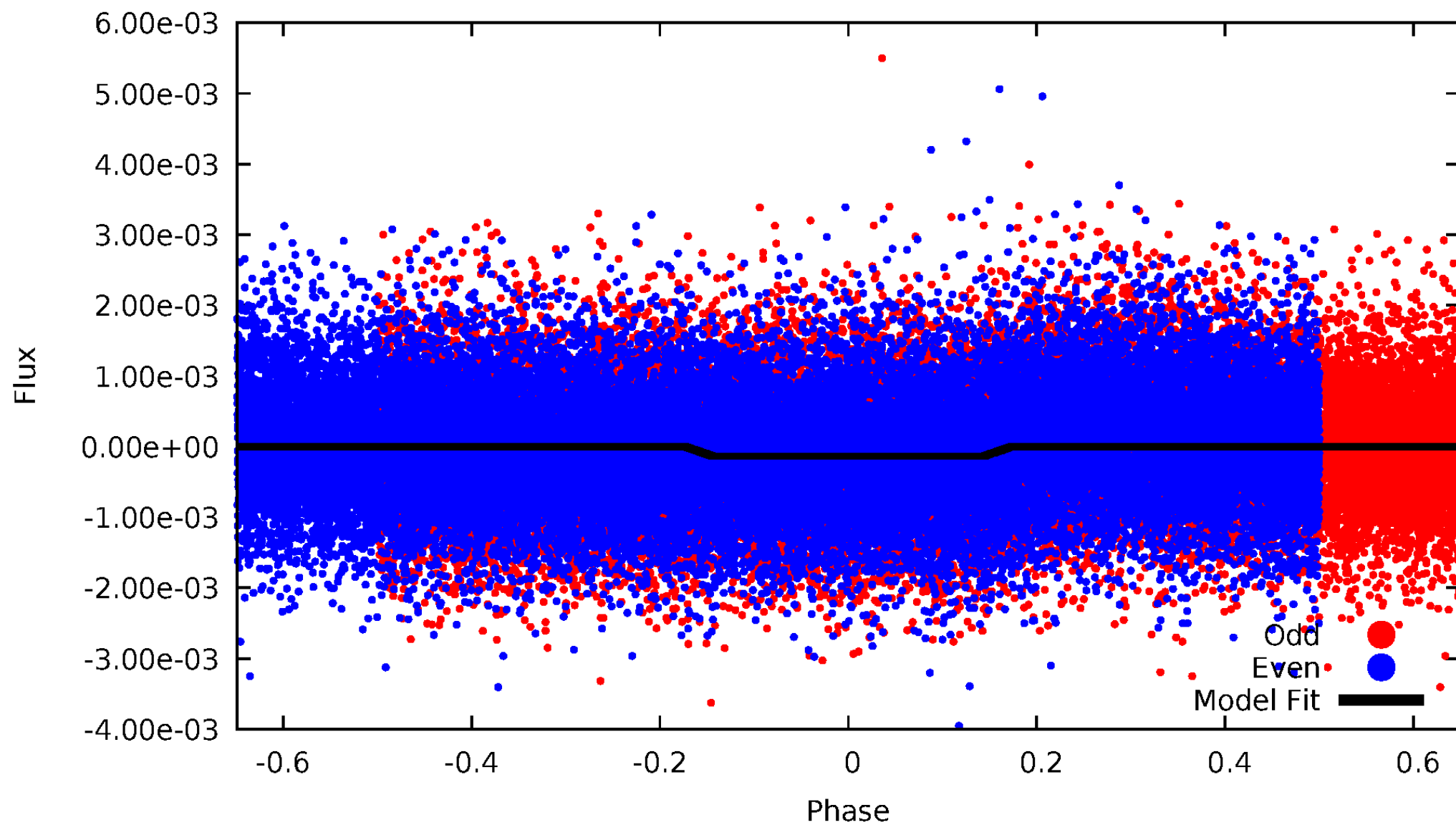
DV Odd/Even

TCE 011853301-01

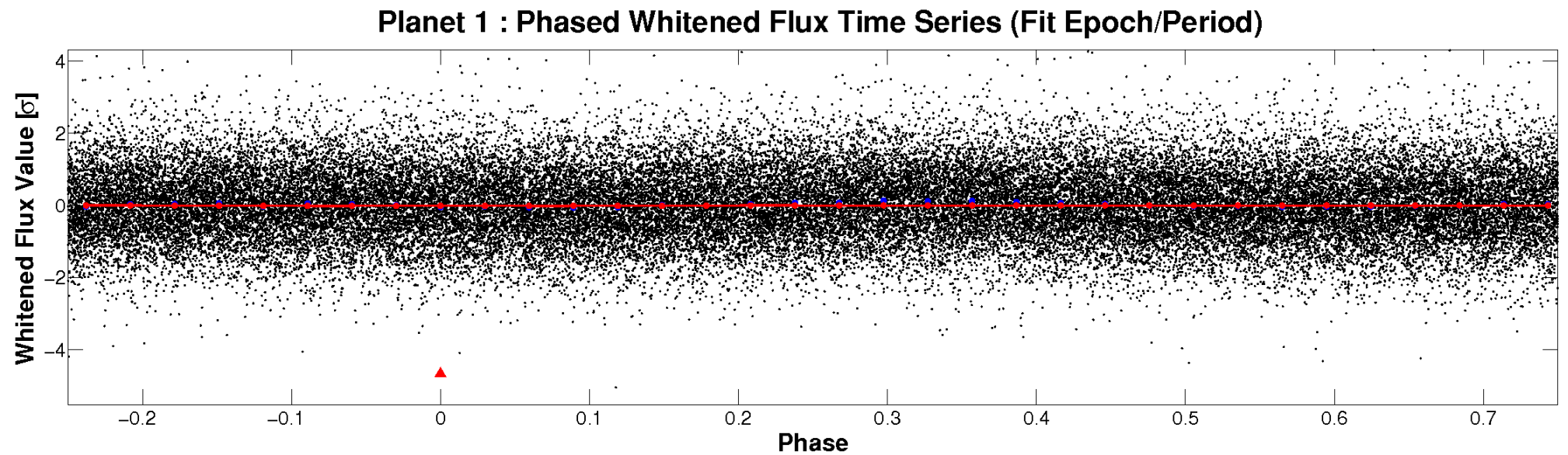
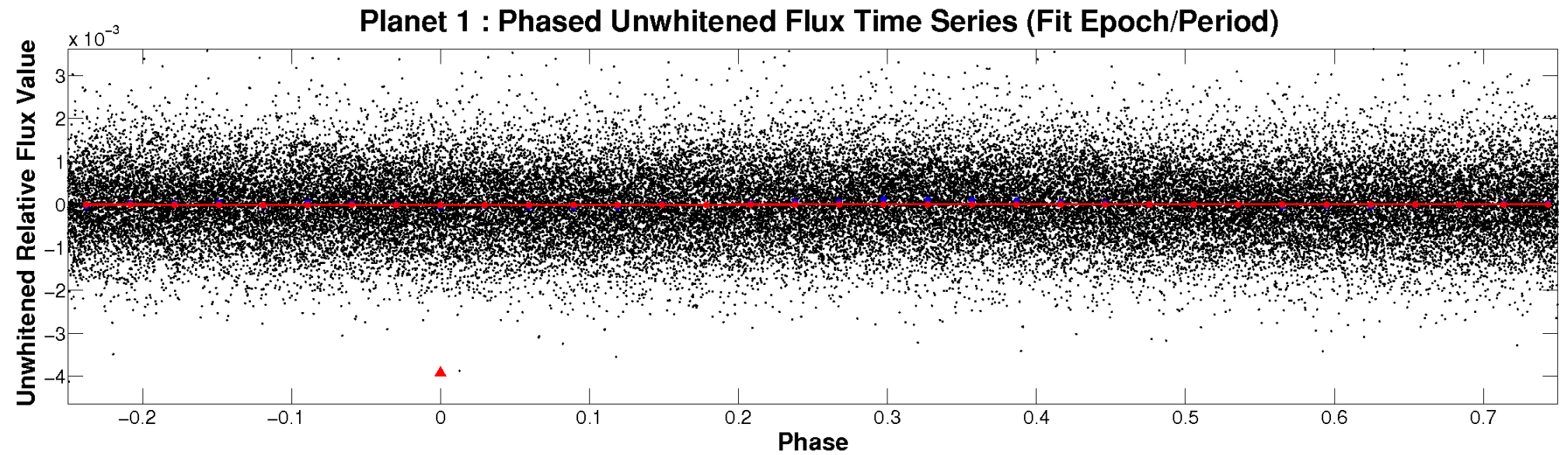


ALT Odd/Even

TCE 011853301-01

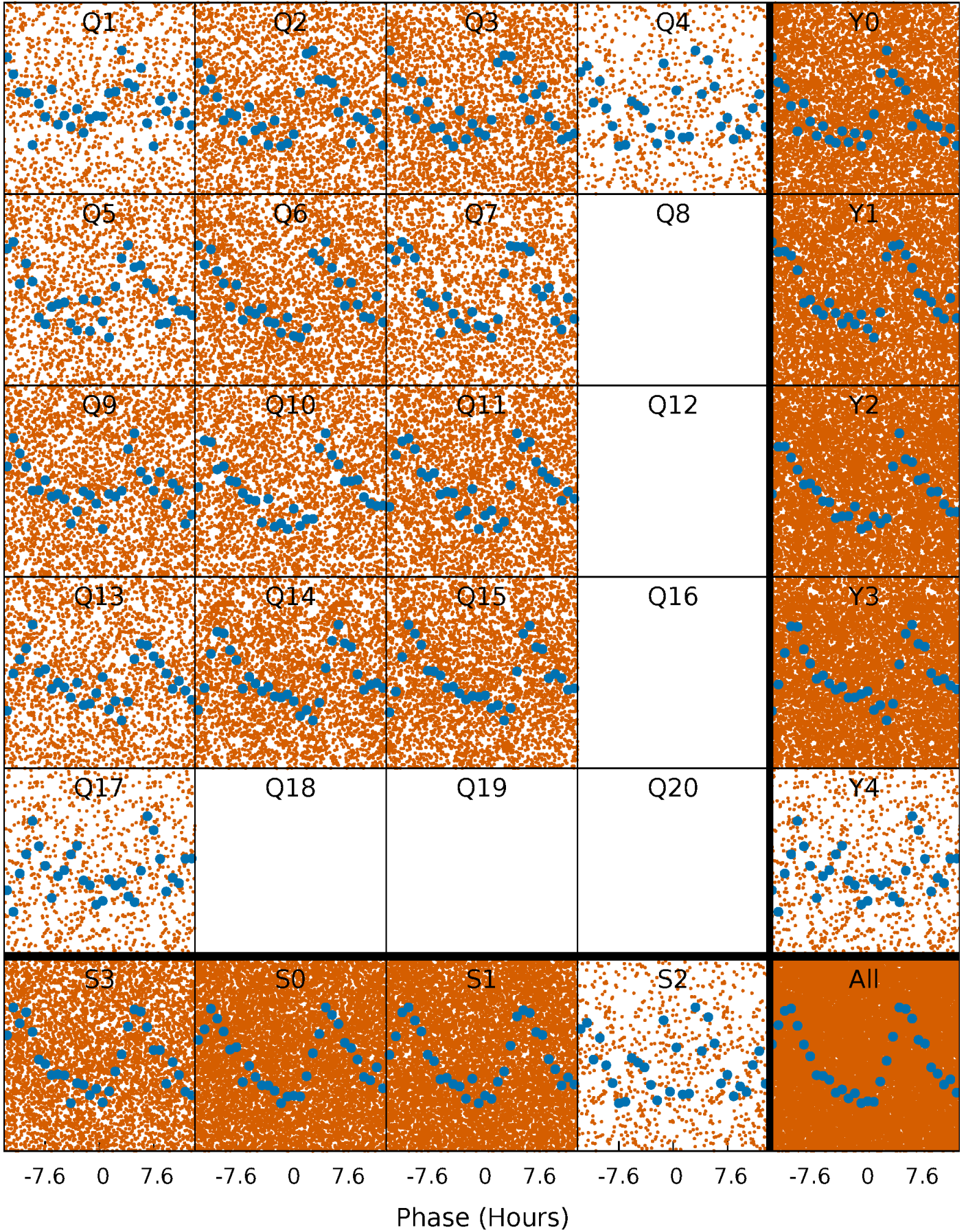


Non-Whitened Vs. Whitened Light Curve



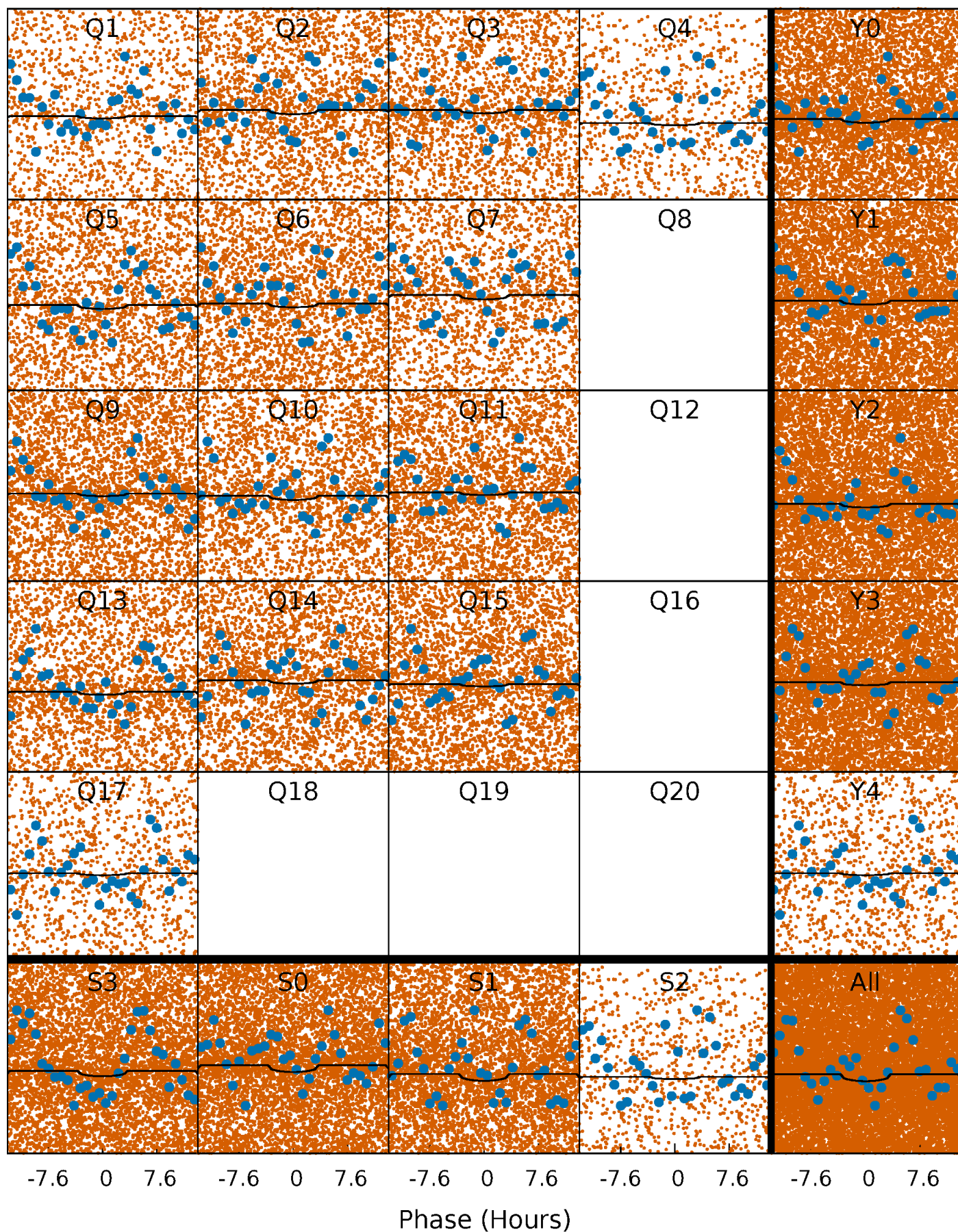
PDC Quarter-Phased Transit Curves

TCE 011853301-01 P= 0.687131 Days $T_0=132.113510$ (BKJD)



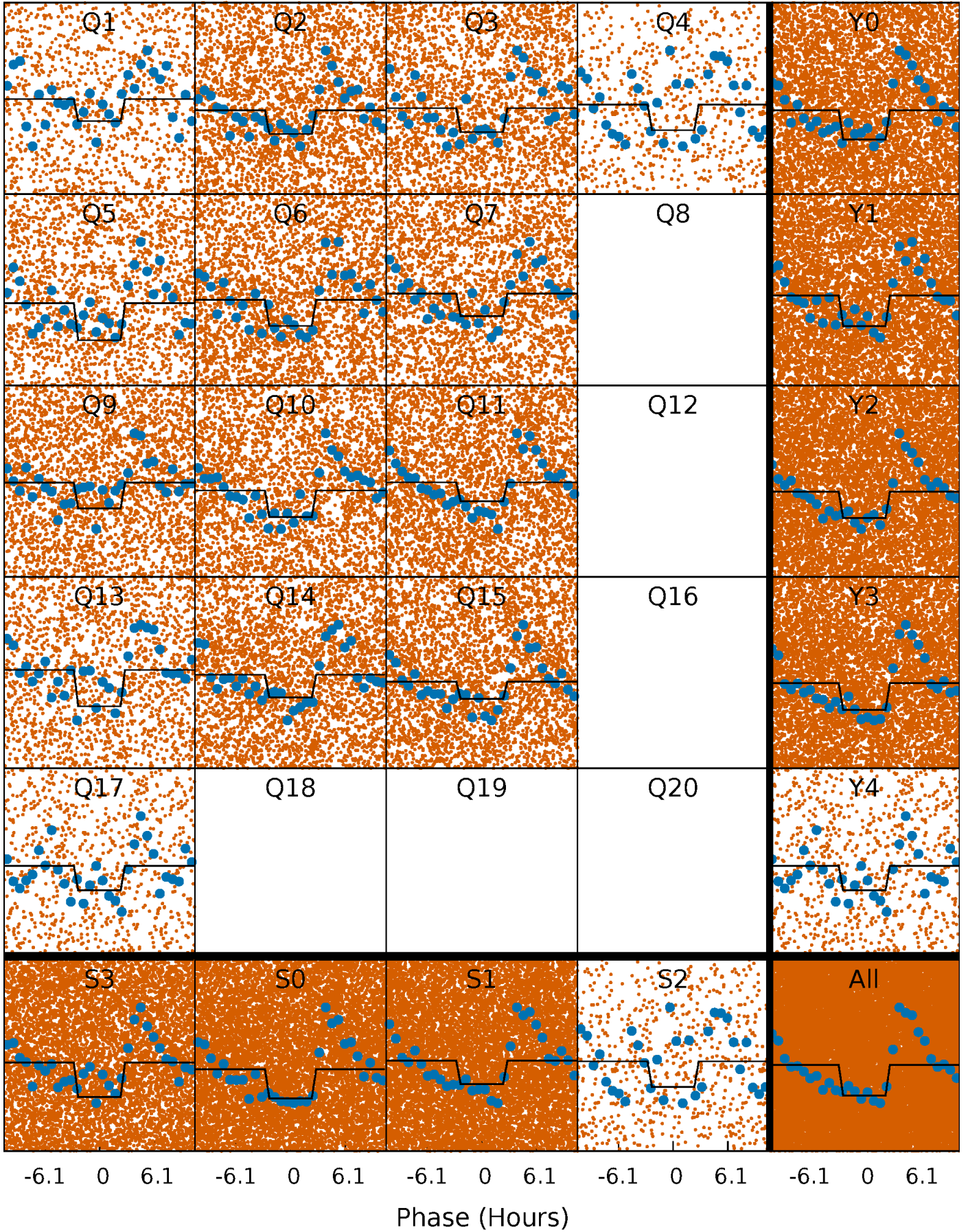
DV Quarter-Phased Transit Curves

TCE 011853301-01 P= 0.687131 Days $T_0=132.113510$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

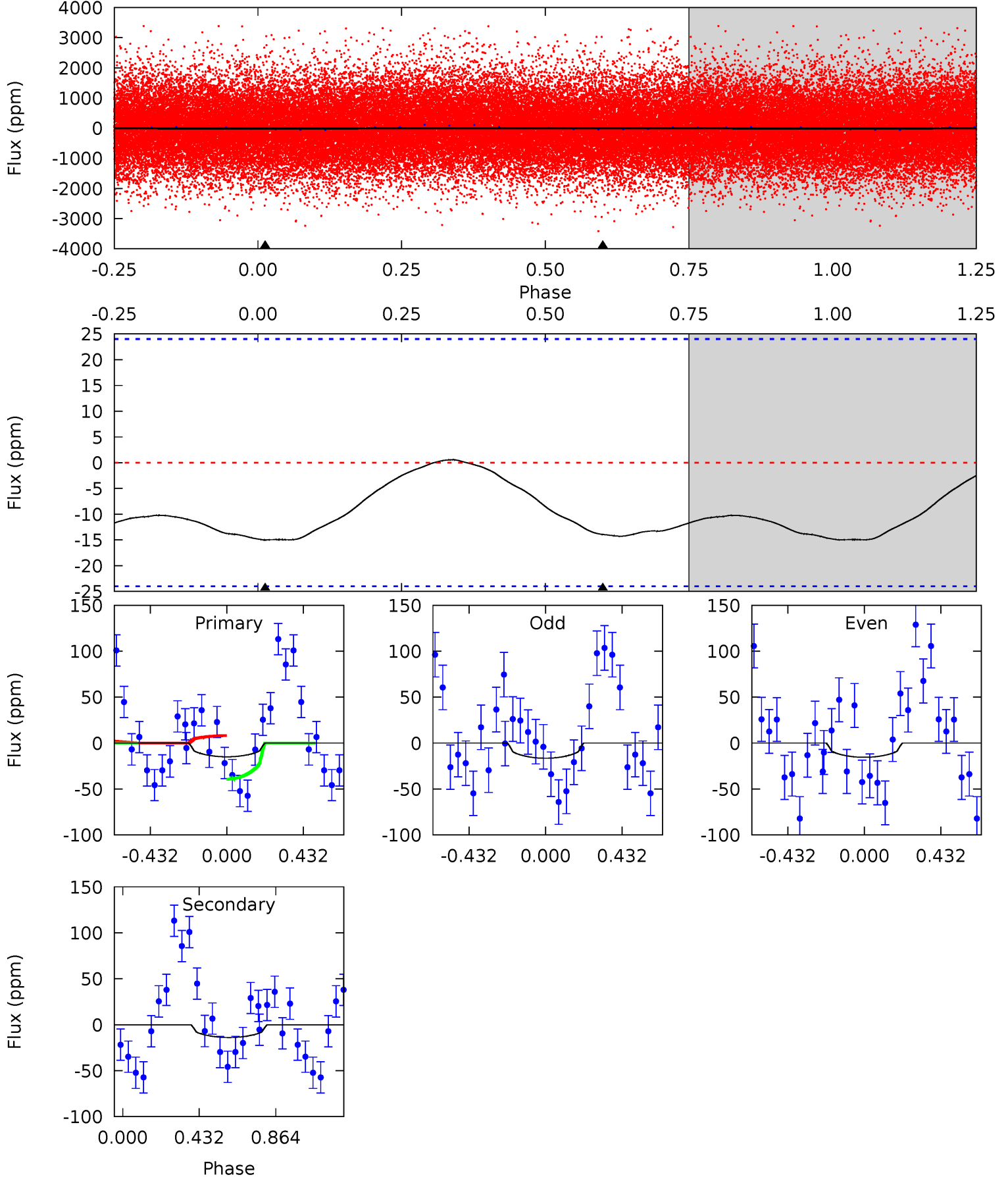
TCE 011853301-01 P= 0.687214 Days $T_0=132.040601$ (BKJD)



DV Model-Shift Uniqueness Test

011853301-01, P = 0.687131 Days, E = 131.426379 Days

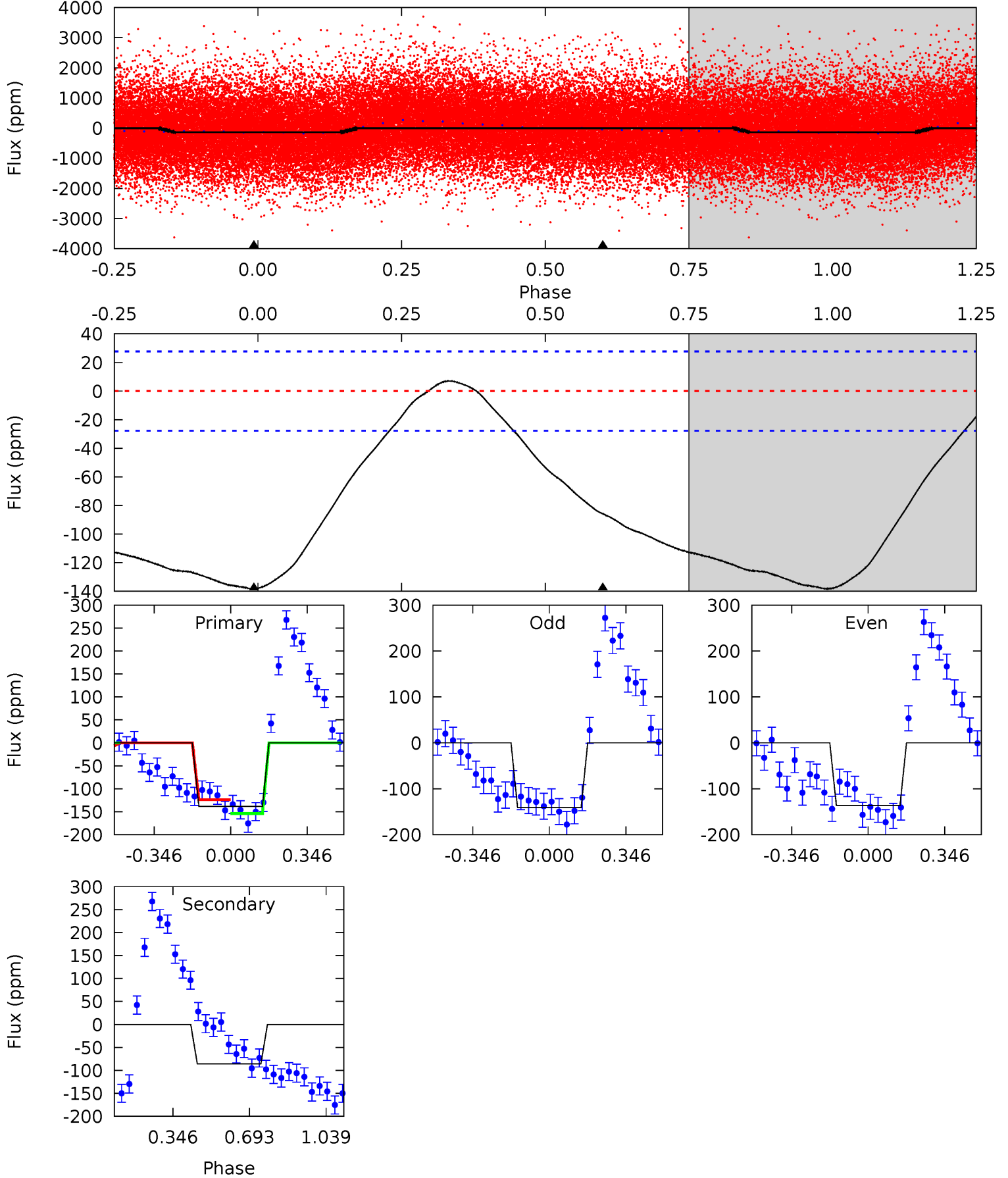
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.65	2.47	0	0	4.25	0.79	0.15	2.65	2.65	2.47	2.47	0.09	0.65	0.04	2.78



Alt Model-Shift Uniqueness Test

011853301-01, P = 0.687214 Days, E = 131.353387 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
21.4	13.3	0	0	4.30	0.94	1.24	21.4	21.4	13.3	13.3	0.35	0.94	0.05	2.38



Stellar Parameters For KIC 011853301

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5713^{+156}_{-173}	$4.541^{+0.033}_{-0.187}$	$0.070^{+0.250}_{-0.300}$	$0.893^{+0.245}_{-0.077}$	$1.010^{+0.091}_{-0.125}$	$2.000^{+0.364}_{-0.980}$
	+3%/-3%	+1%/-4%	+357%/-429%	+27%/-9%	+9%/-12%	+18%/-49%
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 011853301-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-14 ± 6	$1.34^{+1.46}_{-0.91}$	2753^{+174}_{-123}	3203^{+2105}_{-5769}	$0.847^{+8.107}_{-0.658}$
Alt.	-86 ± 6	$1.75^{+1.66}_{-1.18}$	2757^{+168}_{-122}	4301^{+3151}_{-1012}	$3.459^{+29.205}_{-2.518}$

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

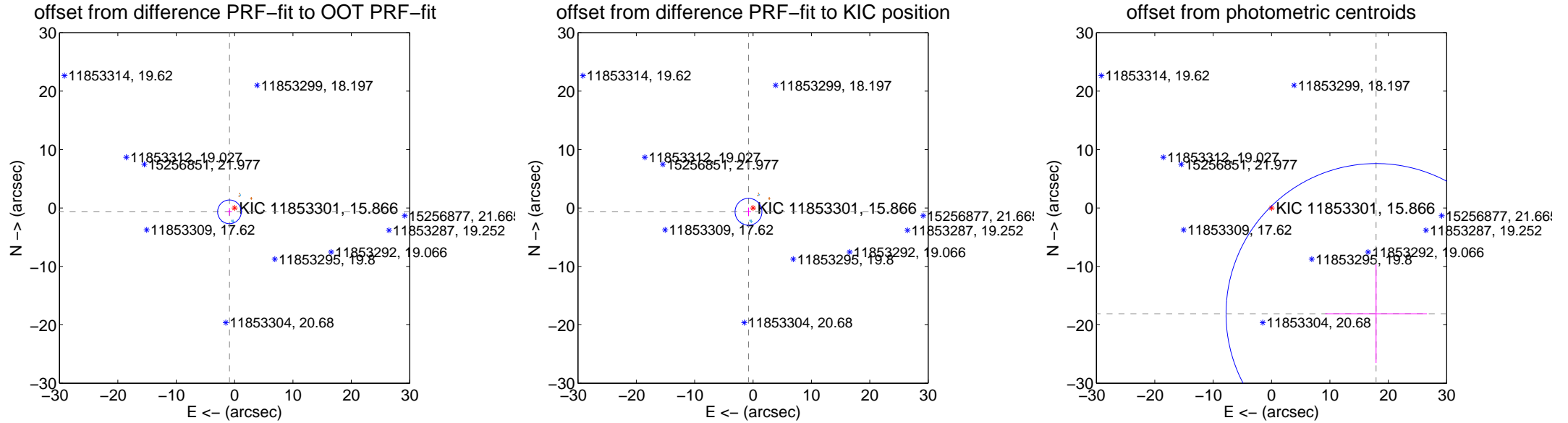
DV Centroid Data

Supplemental centroid analysis for 011853301-01. Kepler magnitude: 15.87. Transit SNR 1.72

There are 8 quarters with good PRF difference image offsets

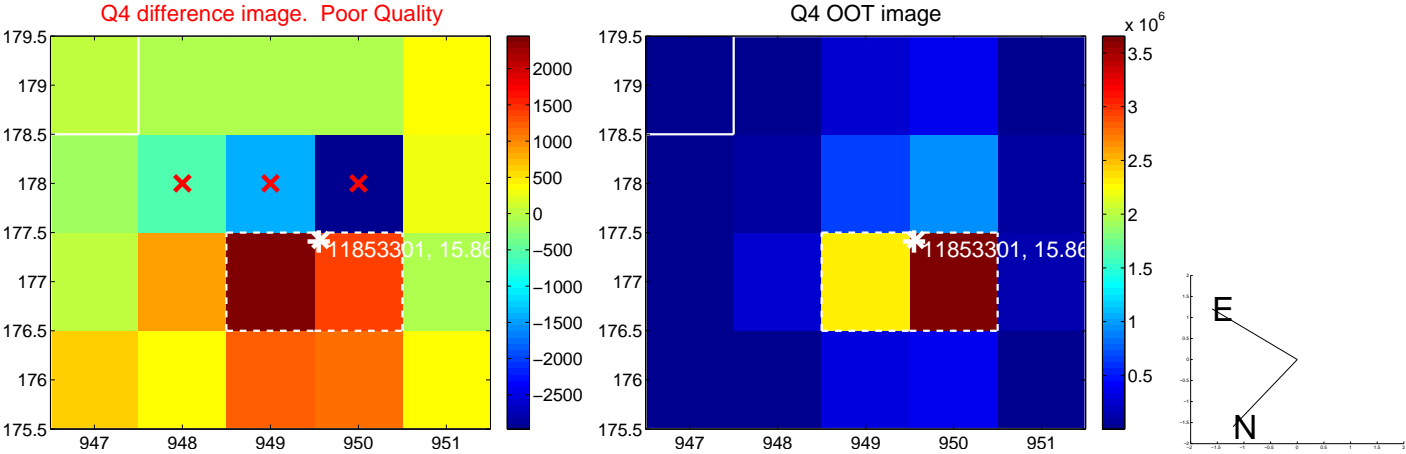
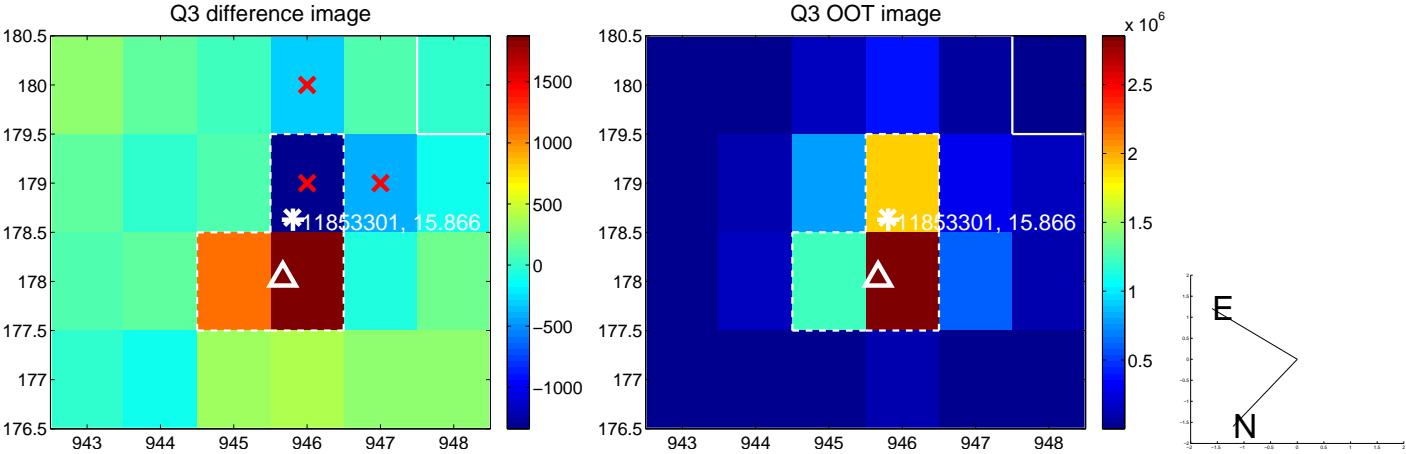
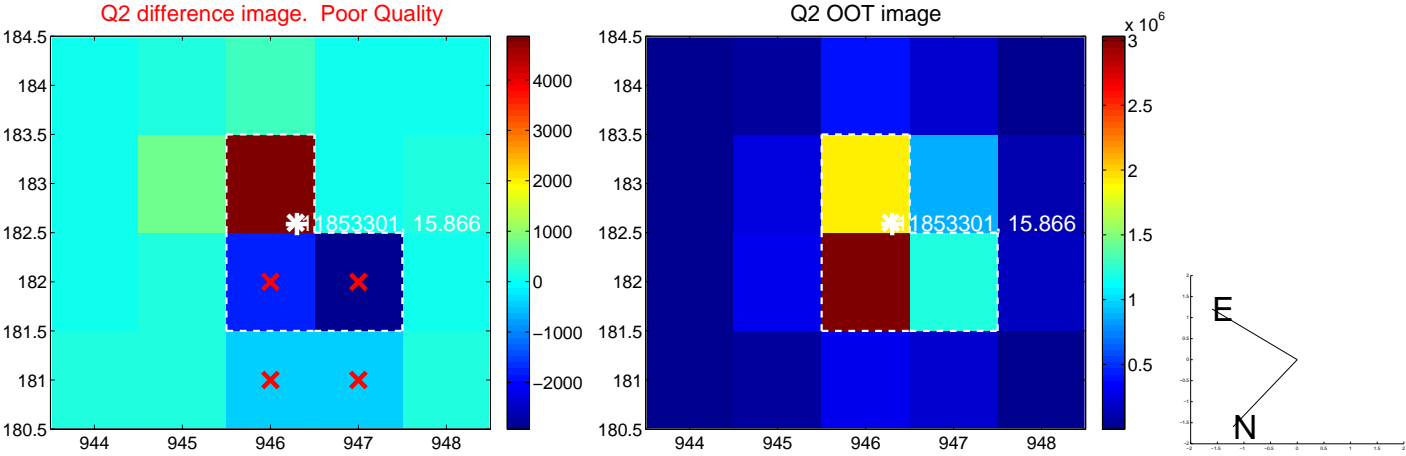
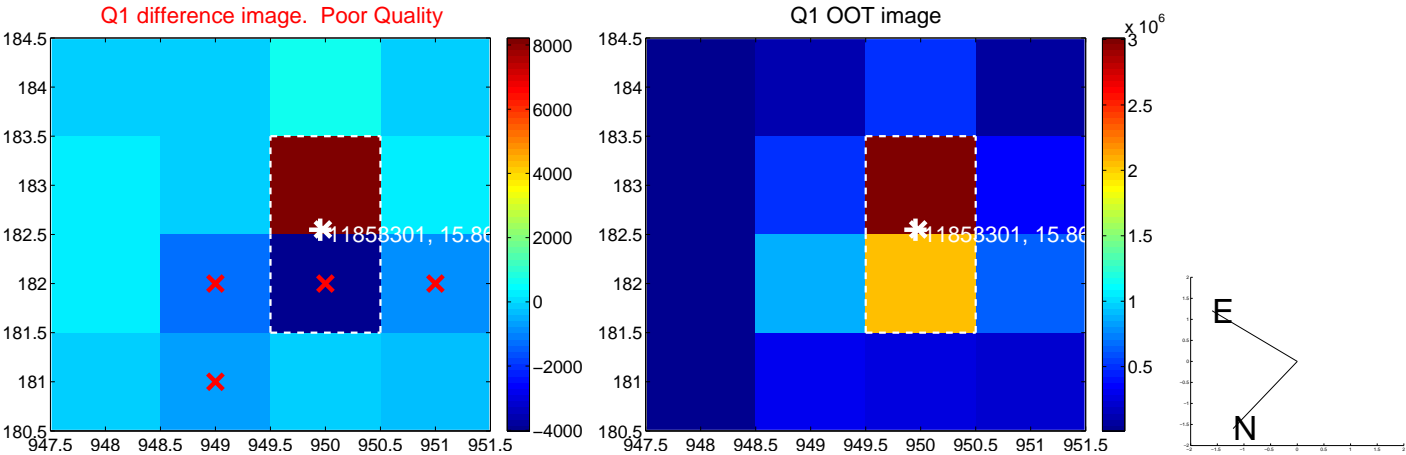
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.100 ± 0.675	1.63	0.878 ± 0.428	-0.663 ± 0.640
PRF-fit source offset from KIC position	1.020 ± 0.767	1.33	0.780 ± 0.448	-0.657 ± 0.714
photometric centroid source offset	25.47 ± 8.57	2.97	-17.91 ± 8.71	-18.10 ± 8.42

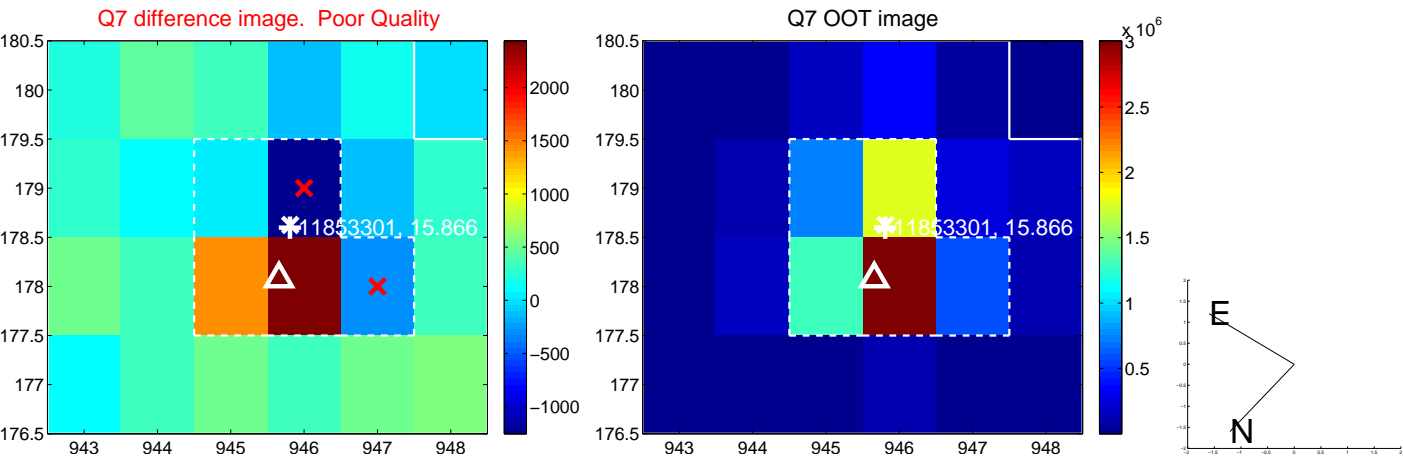
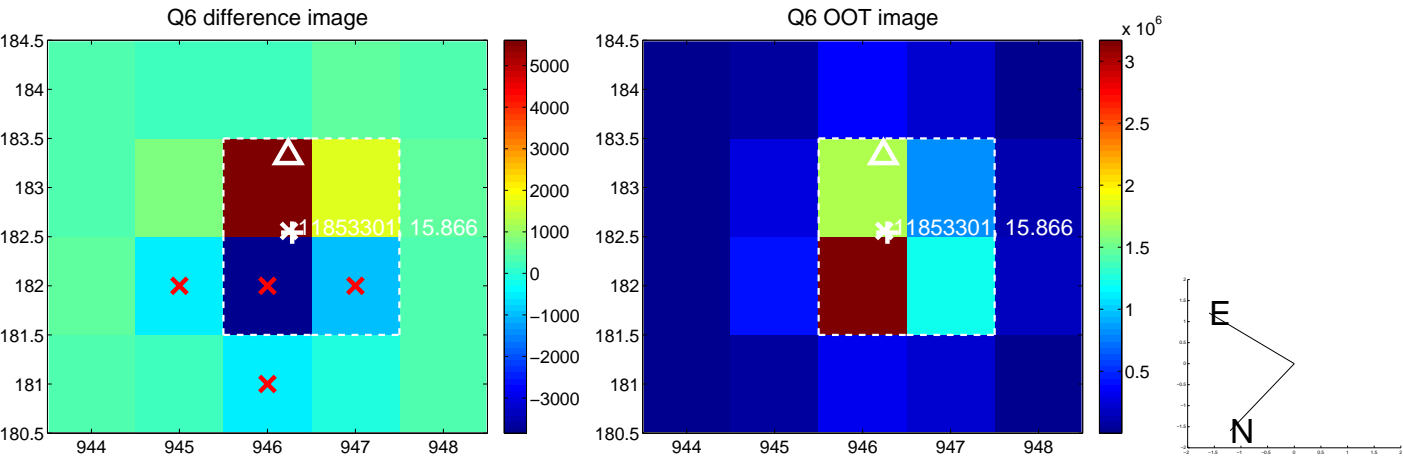
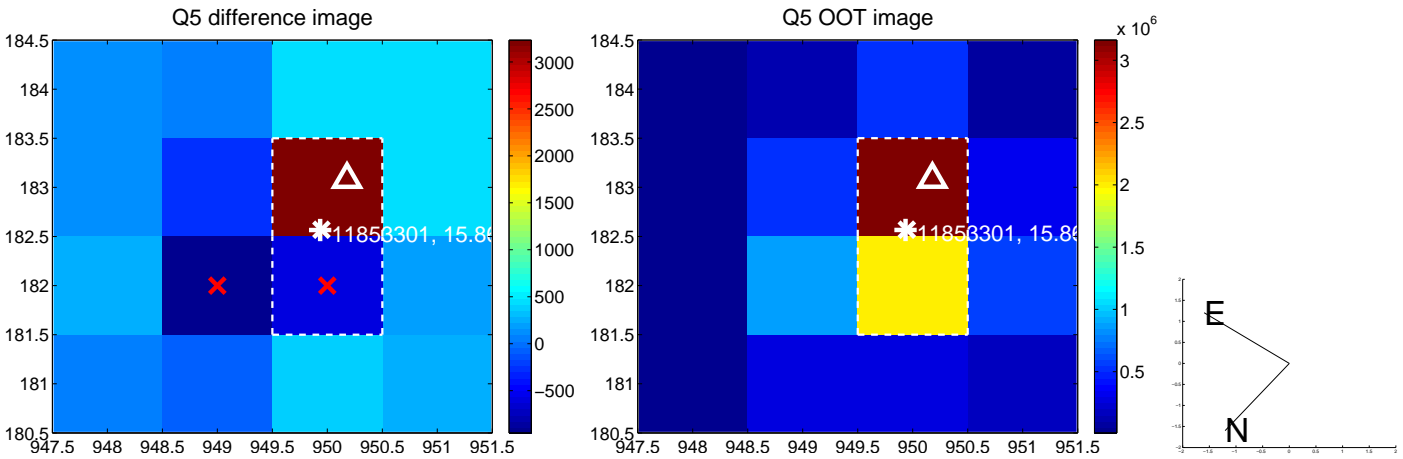


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

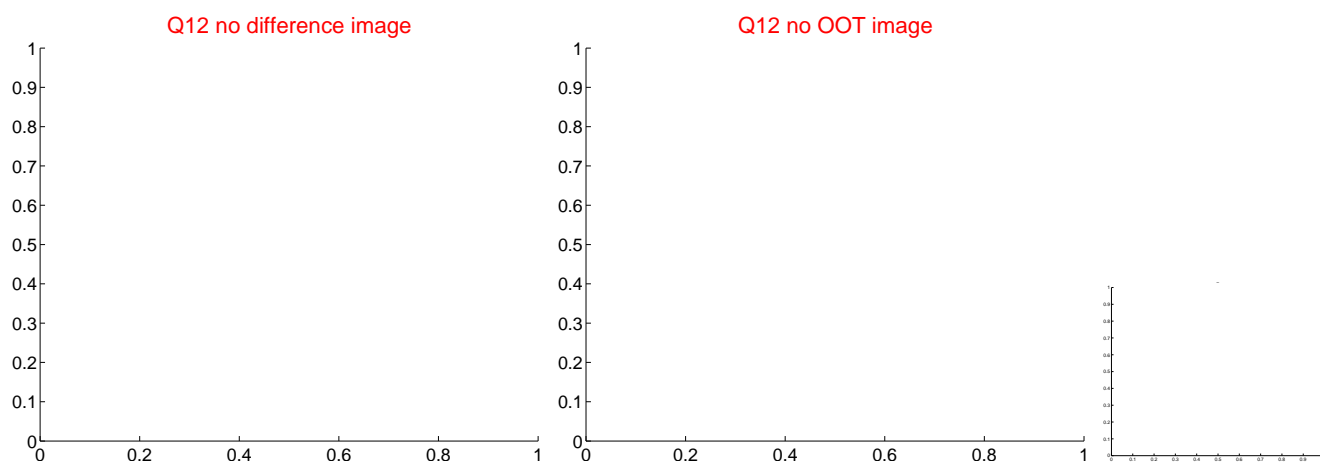
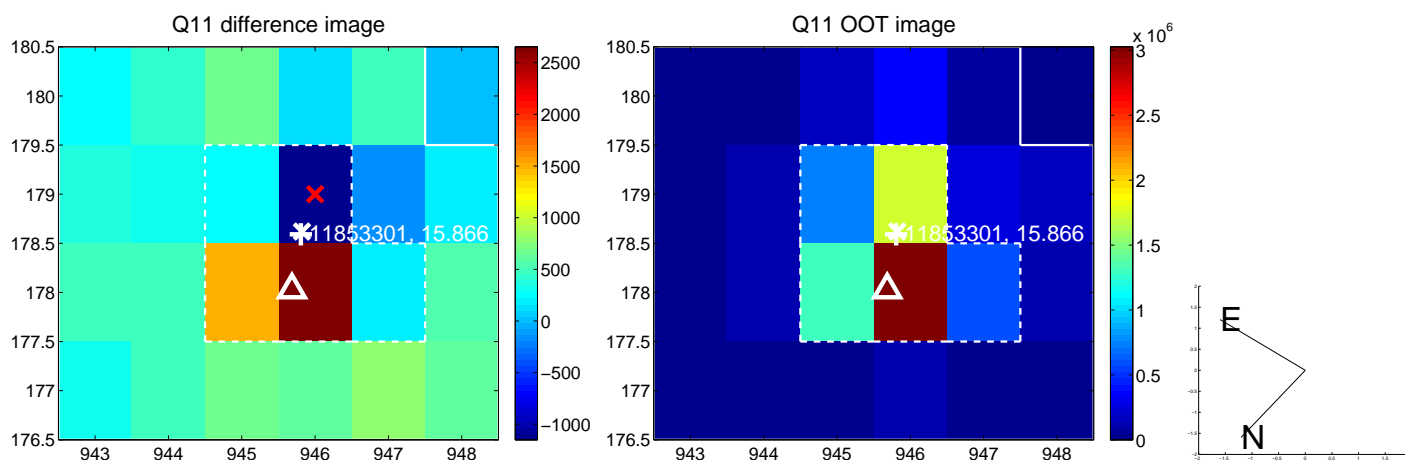
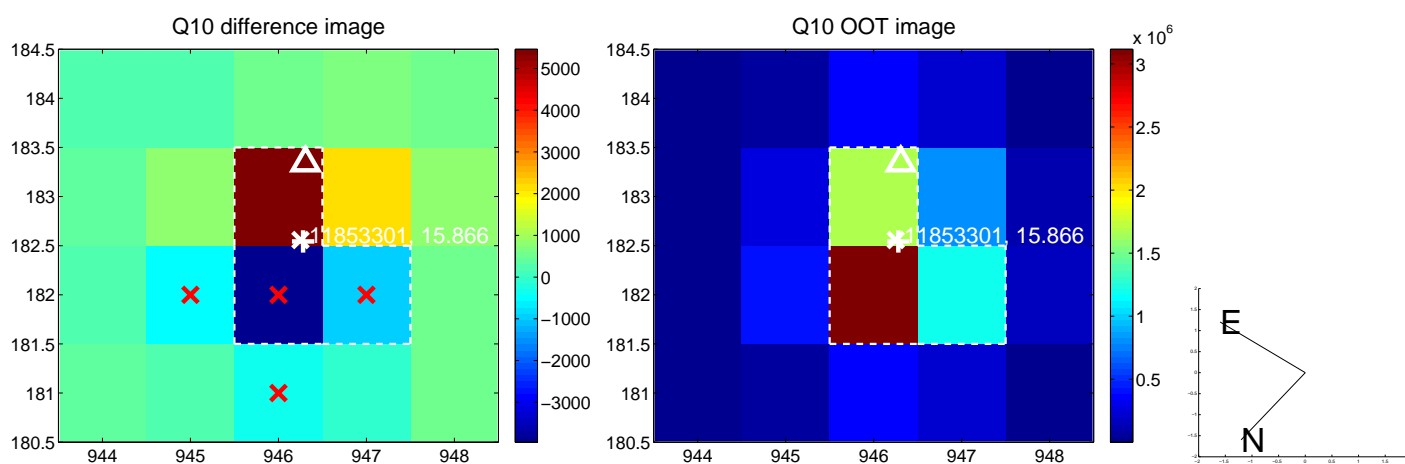
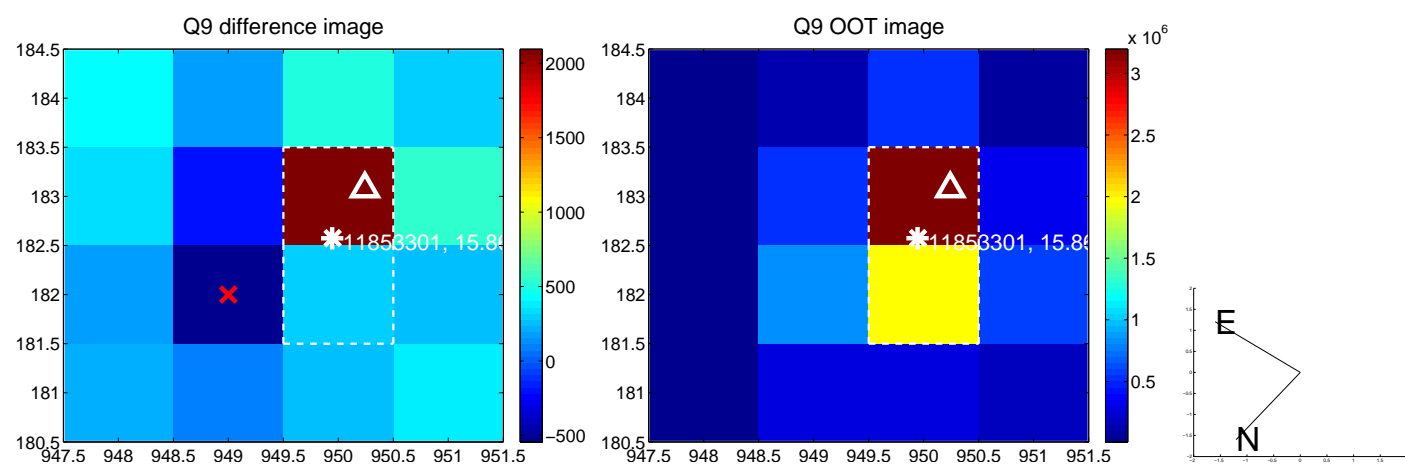
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



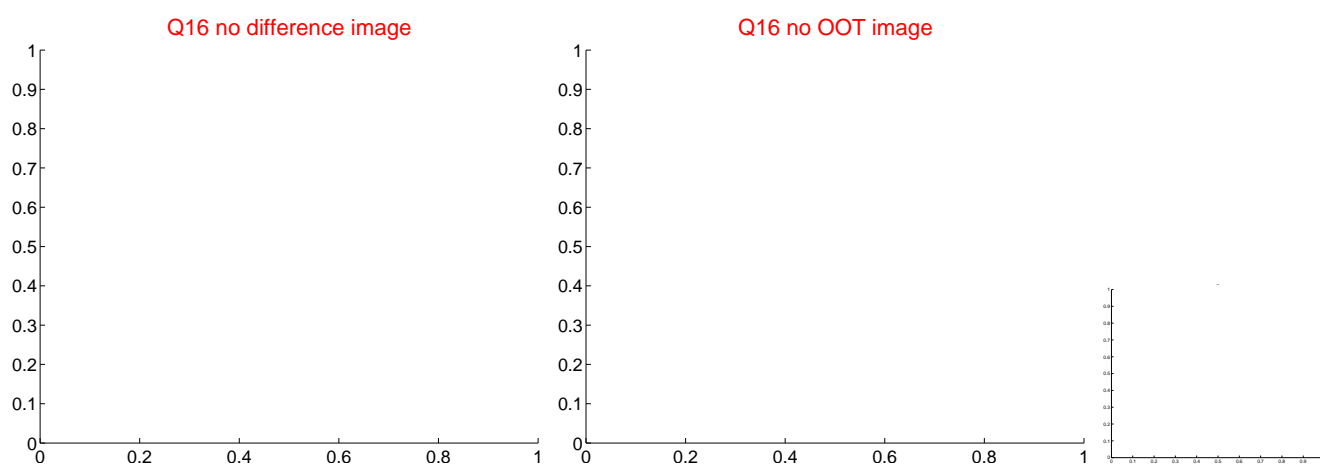
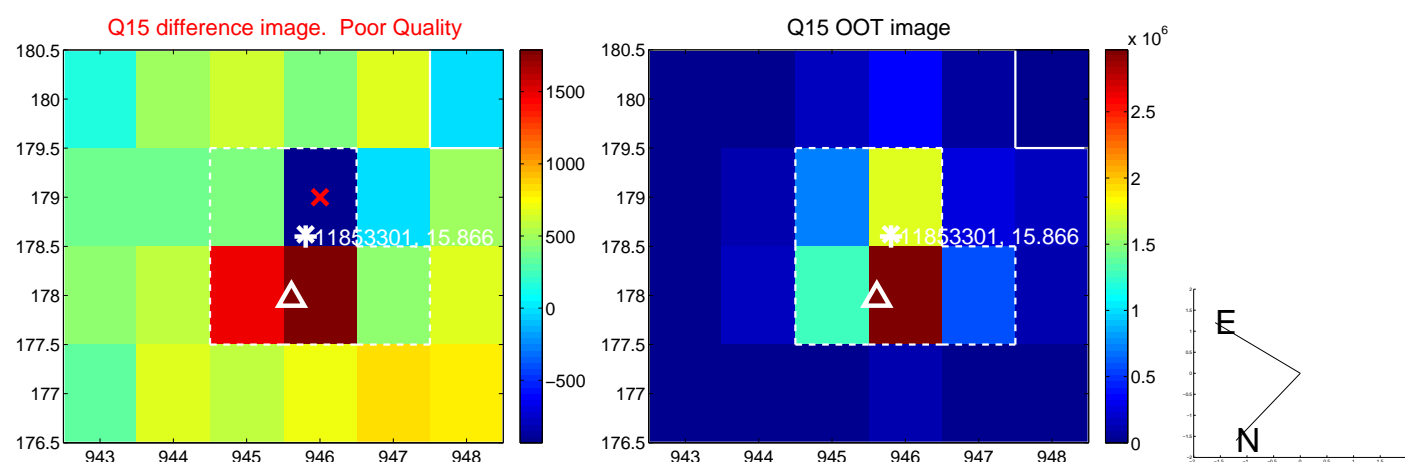
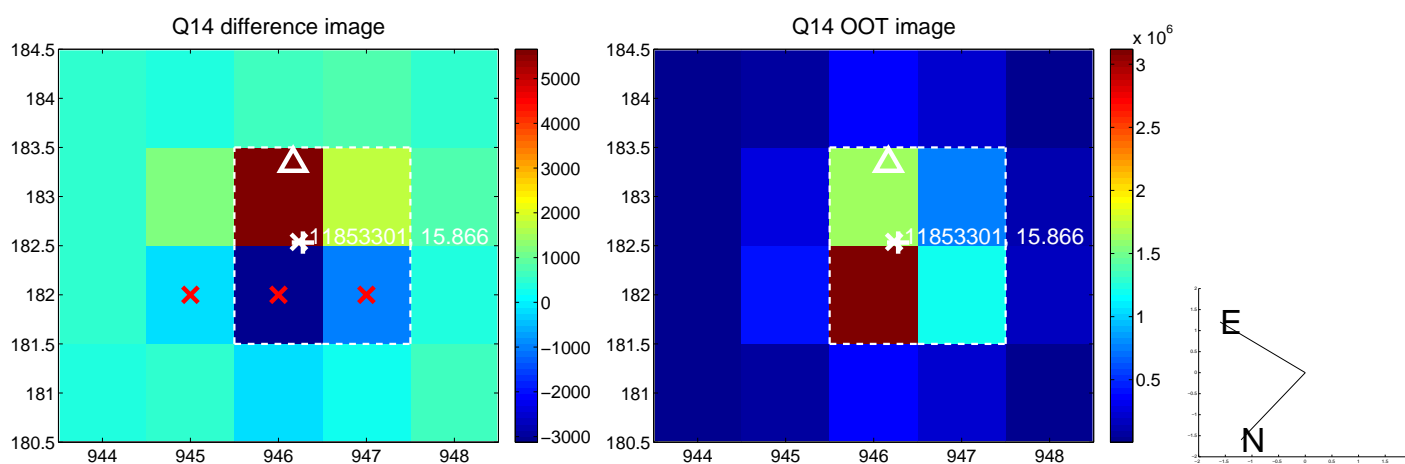
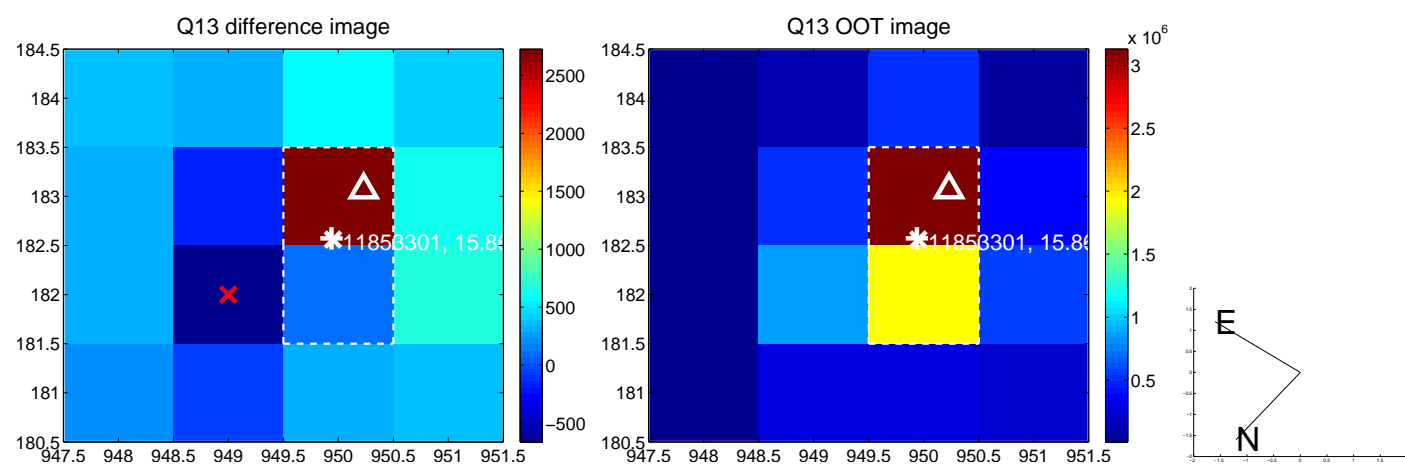
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



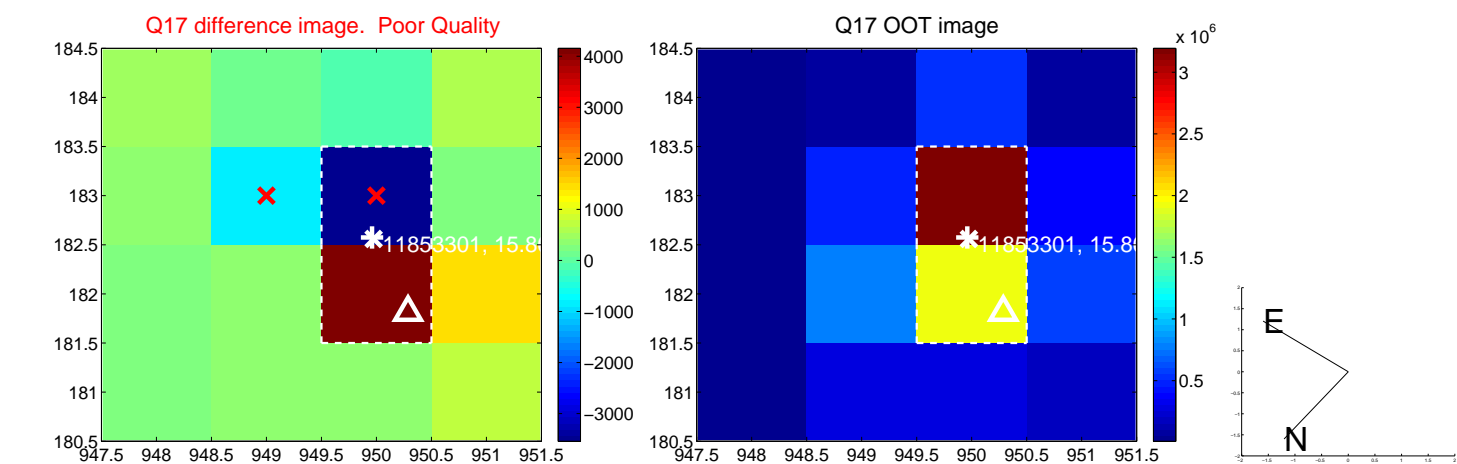
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



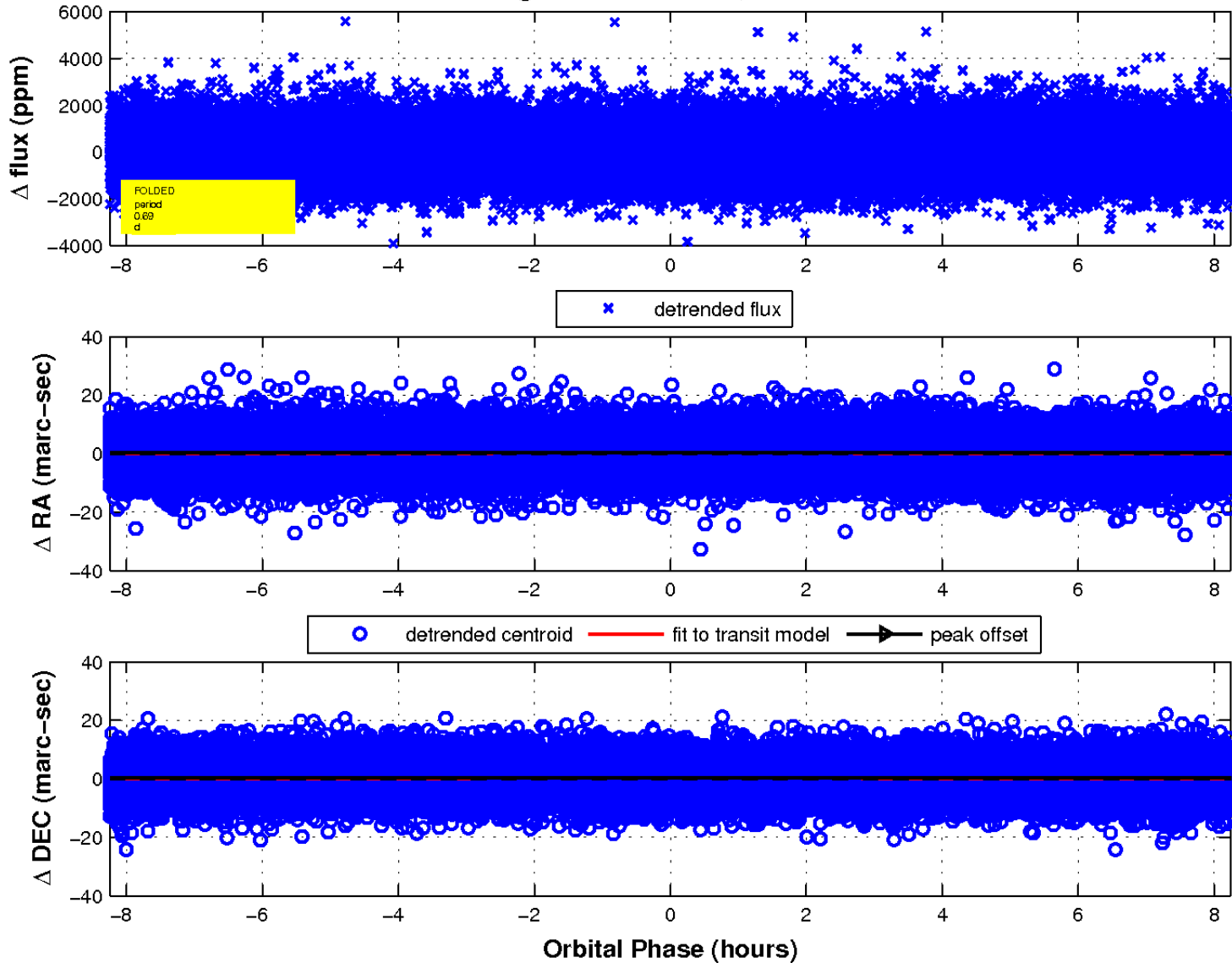
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

