

KIC 008683130

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})
008683130-01	OBS	No	372.275617	228.092579	918.0	16.341	10.1	10.3	1.03	6108	3.18	1.19

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008683130-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—INCONSISTENT_TRANS—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.

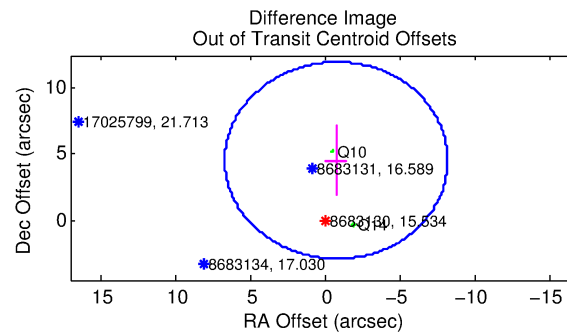
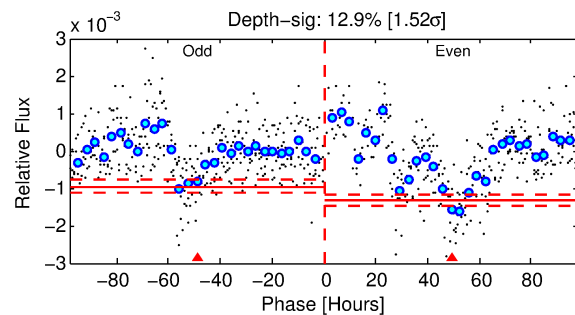
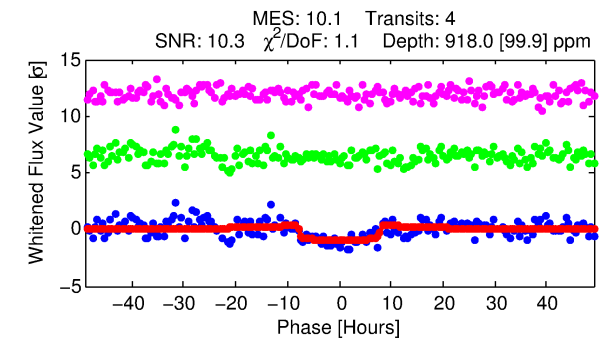
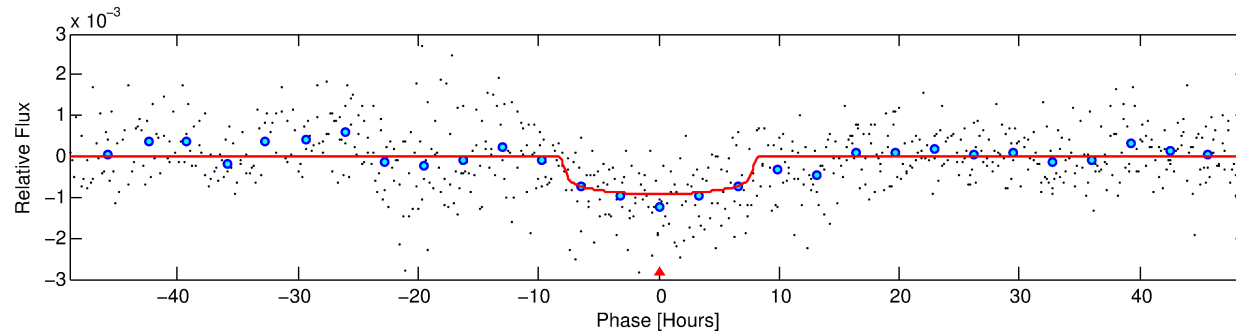
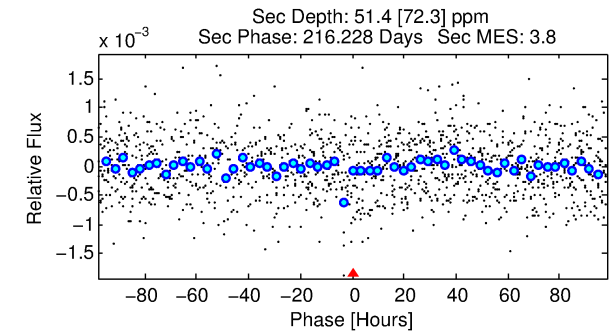
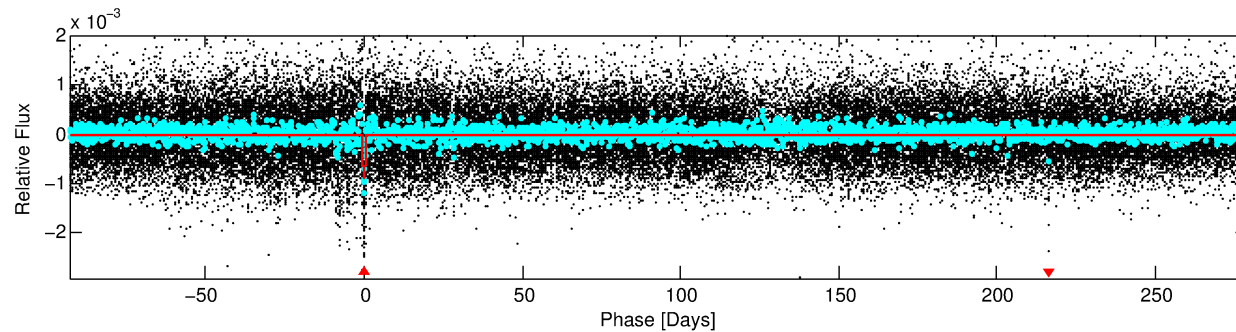
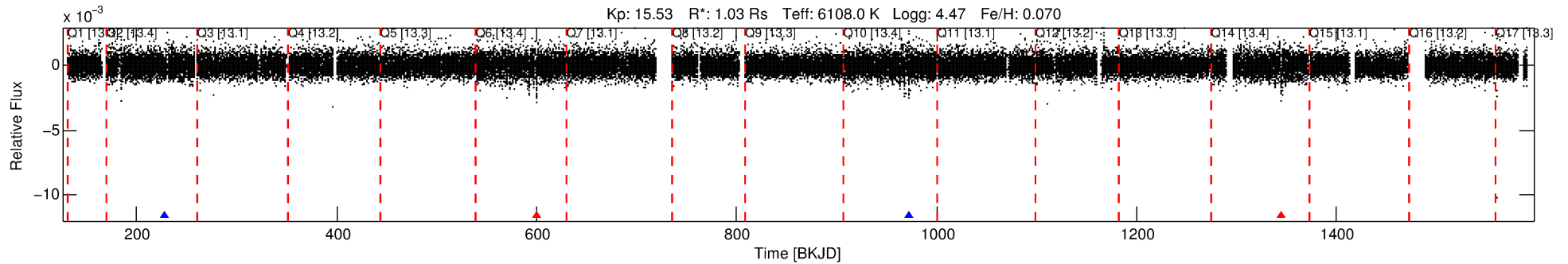
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008683130-01

No Significant Match Found

DV One-Page Summary

KIC: 8683130 Candidate: 1 of 1 Period: 372.276 d



DV Fit Results:

Period = 372.27562 [0.00932] d
Epoch = 228.0926 [0.0181] BKJD
Rp/R* = 0.0283 [0.0106]
a/R* = 160.68 [280.89]
b = 0.45 [3.09]
Seff = 1.19 [0.46]
Teq = 266 [26] K
Rp = 3.18 [1.51] Re
a = 1.0556 [0.2618] AU
Ag = 3112.75 [5089.43] [0.61σ]
Teffp = 3074 [1230] K [2.28σ]

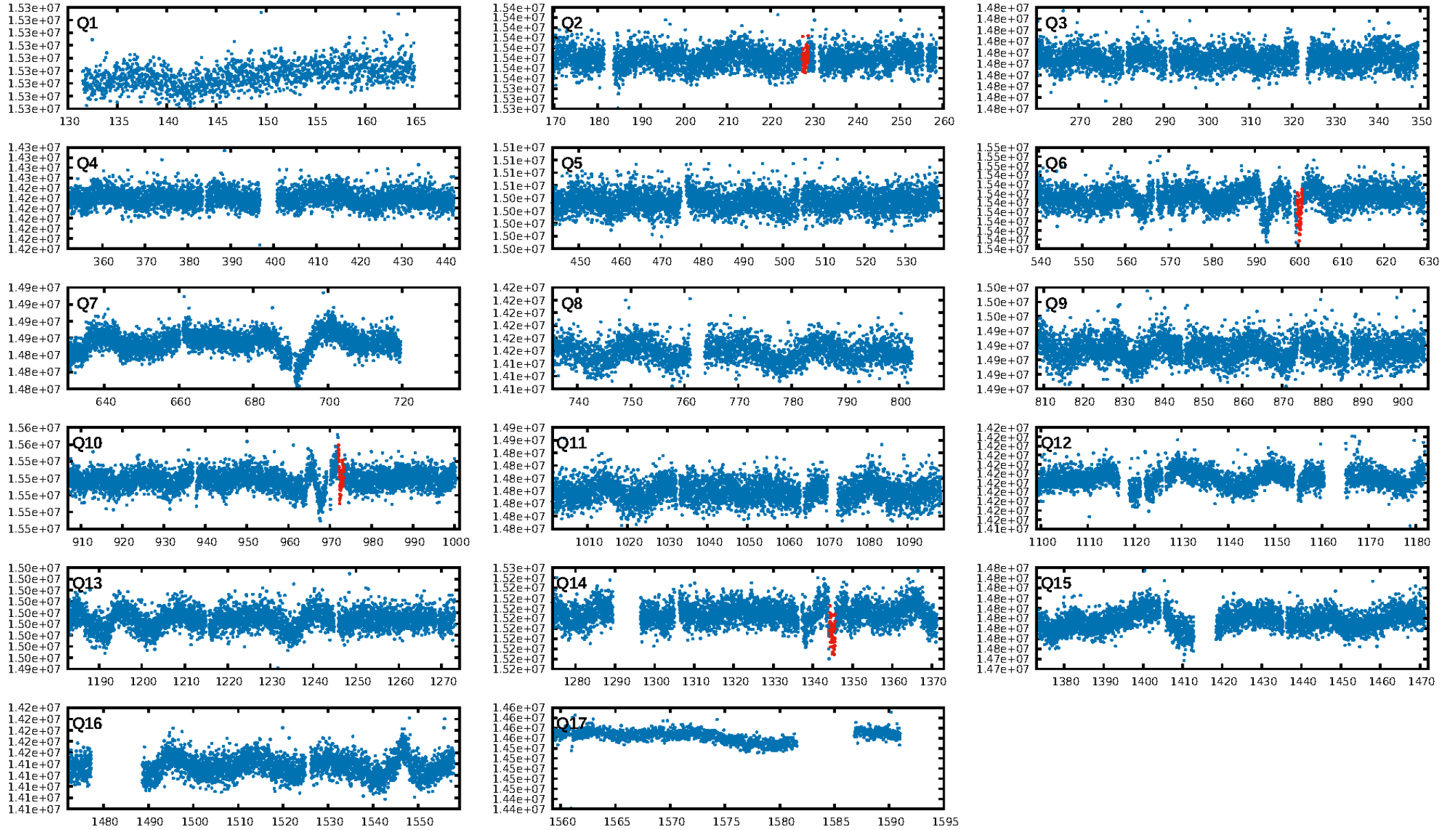
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.1%
ModelChiSquareGof-sig: 98.9%
Bootstrap-pfa: 1.24e-14
RollingBand-fgt: 0.50 [2/4]
GhostDiagnostic-chr: -2.516
Centroid-sig: 0.0%
Centroid-so: 3.836 arcsec [2.96σ]
OotOffset-rm: 4.611 arcsec [1.86σ]
KicOffset-rm: 4.623 arcsec [2.23σ]
OotOffset-st: 2/0/0/0 [2]
KicOffset-st: 2/0/0/0 [2]
DiffImageQuality-fgm: 0.00 [0/2]
DiffImageOverlap-fno: 1.00 [3/3]

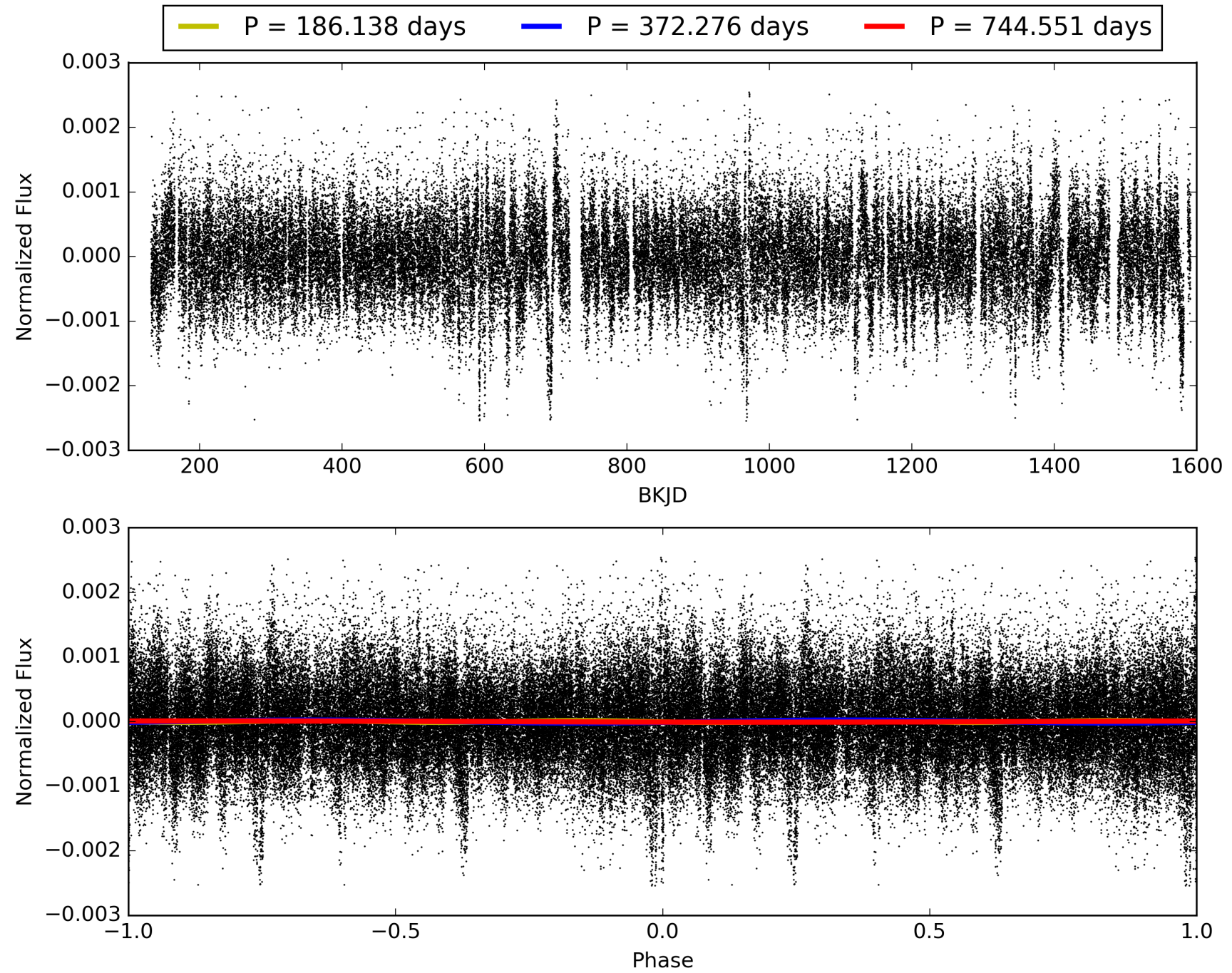
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 15:33:15 Z

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

TCE 008683130-01, PDC Light Curves

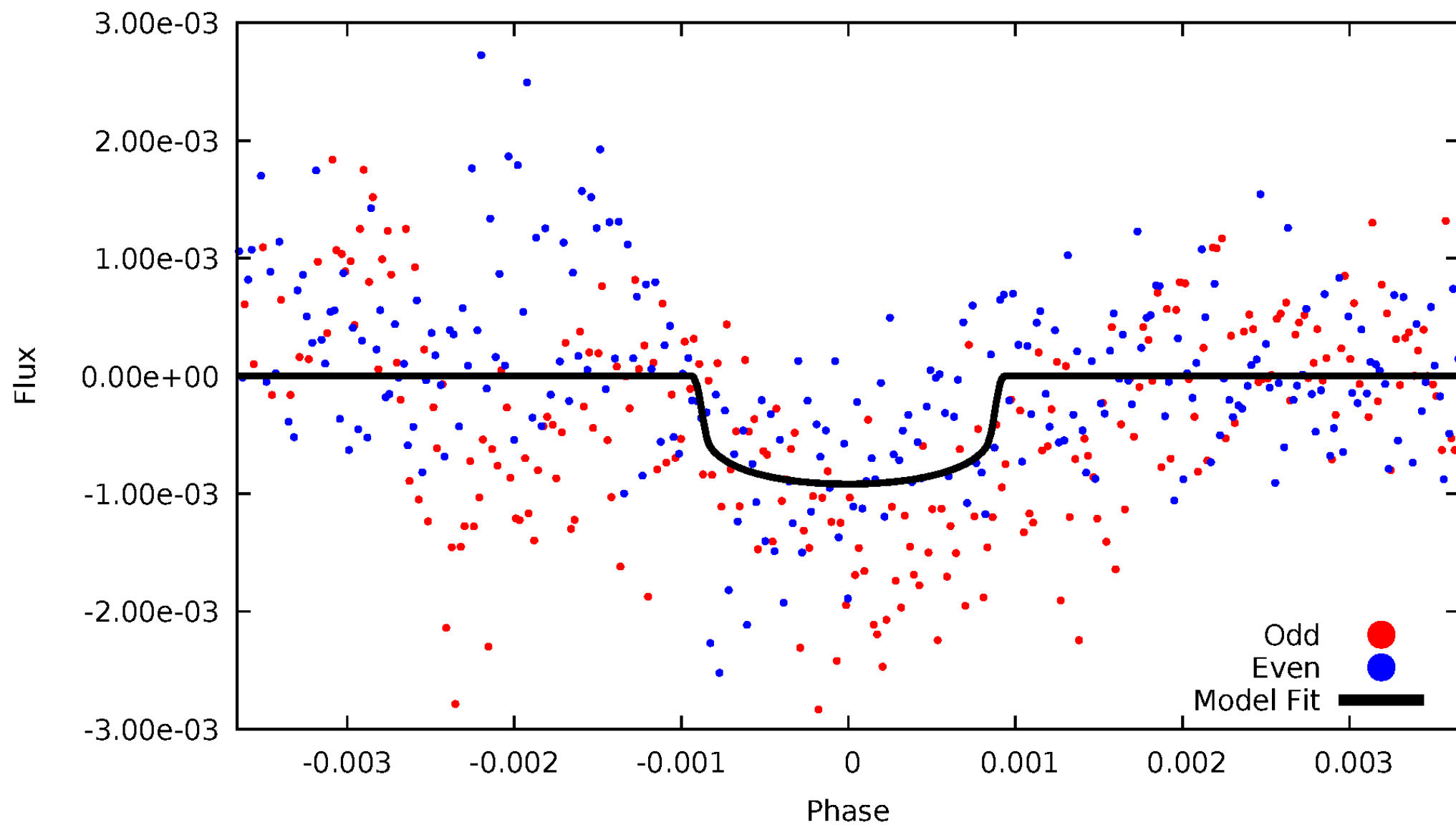


TCE 008683130-01



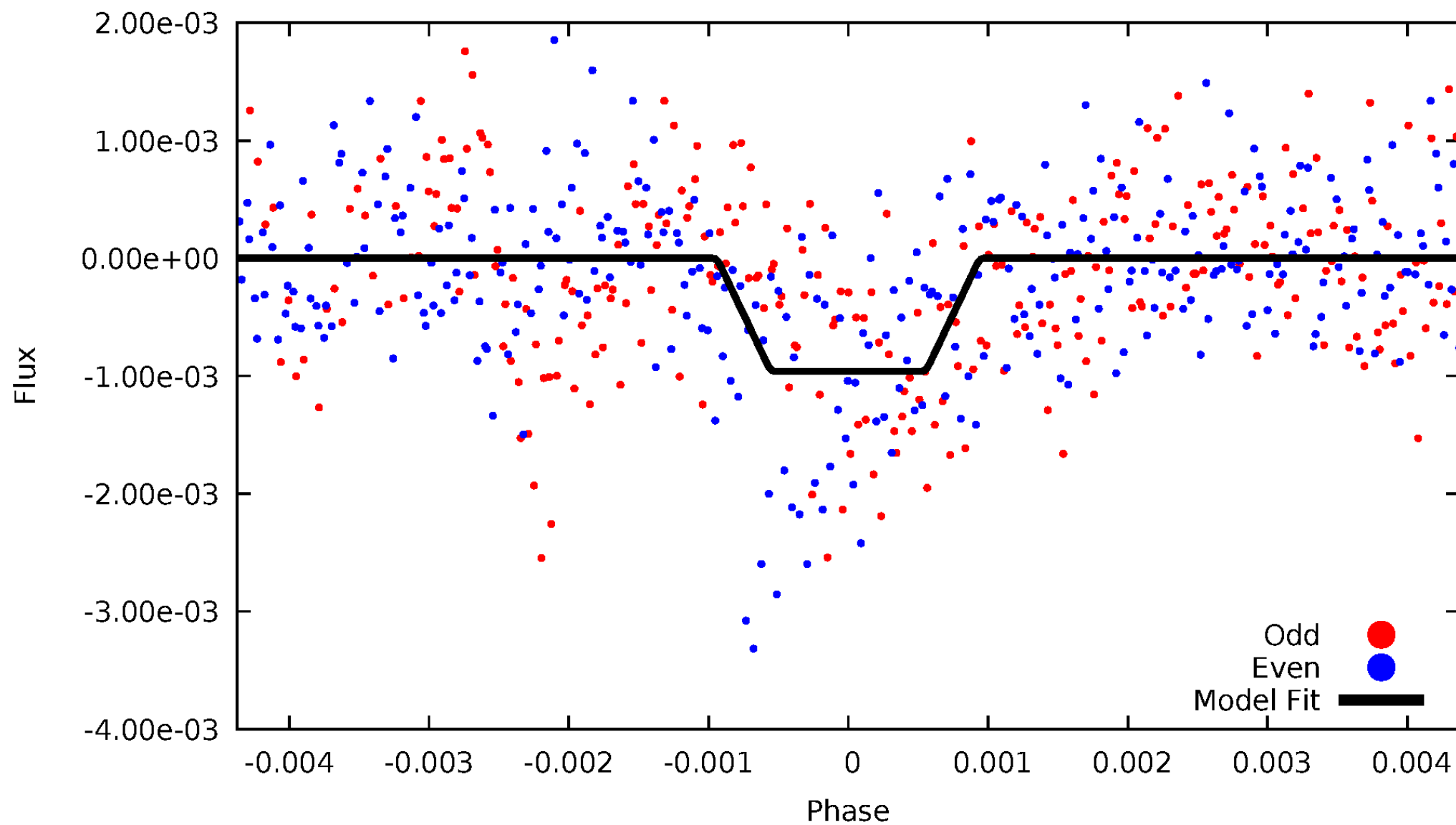
DV Odd/Even

TCE 008683130-01



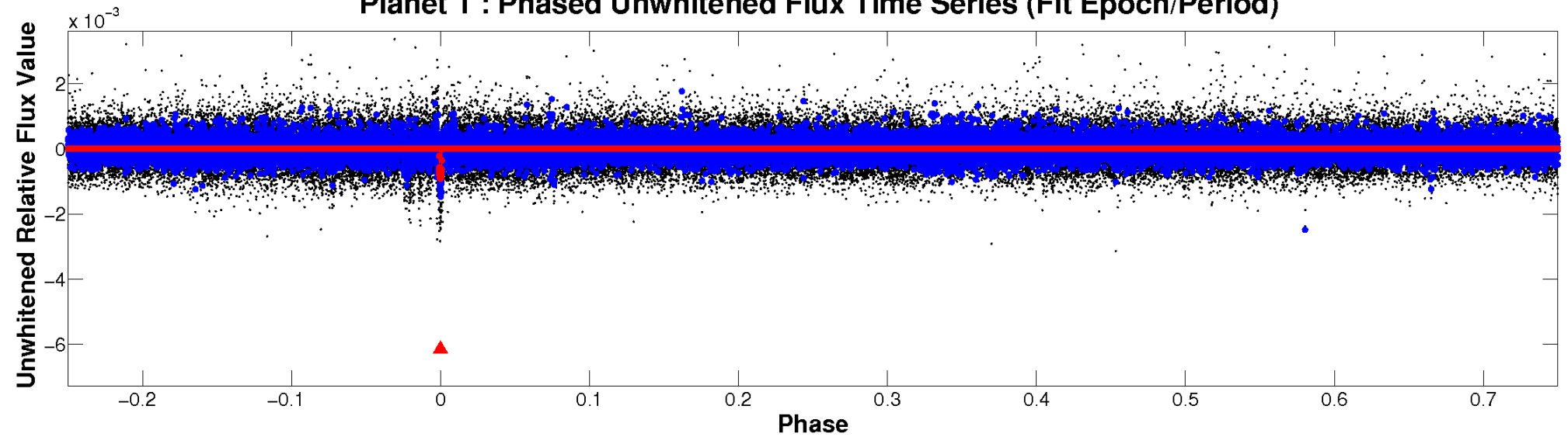
ALT Odd/Even

TCE 008683130-01

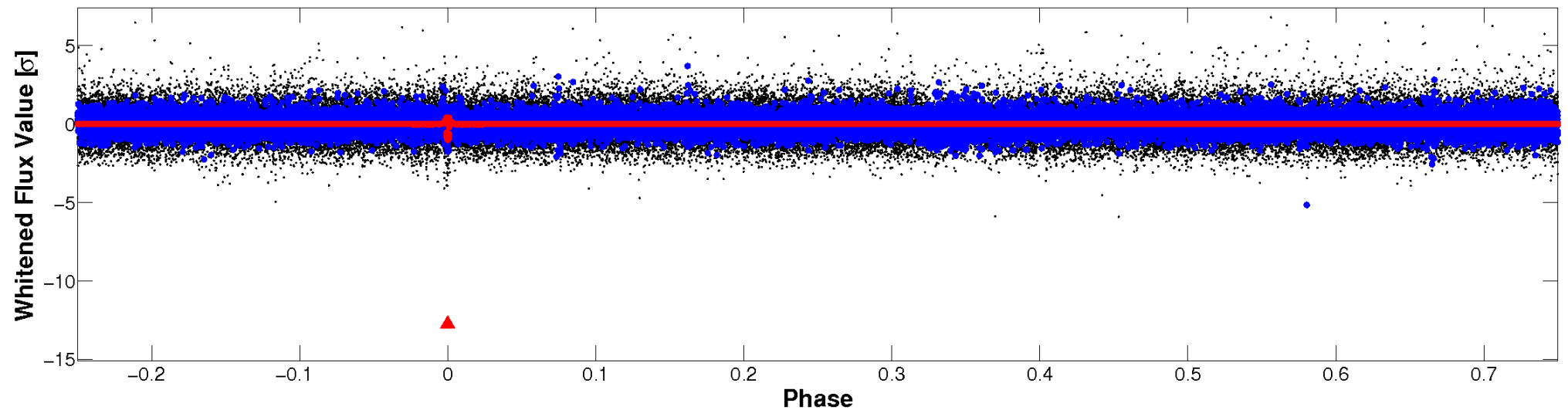


Non-Whitened Vs. Whitened Light Curve

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 008683130-01 P=372.275617 Days $T_0=228.092579$ (BKJD)



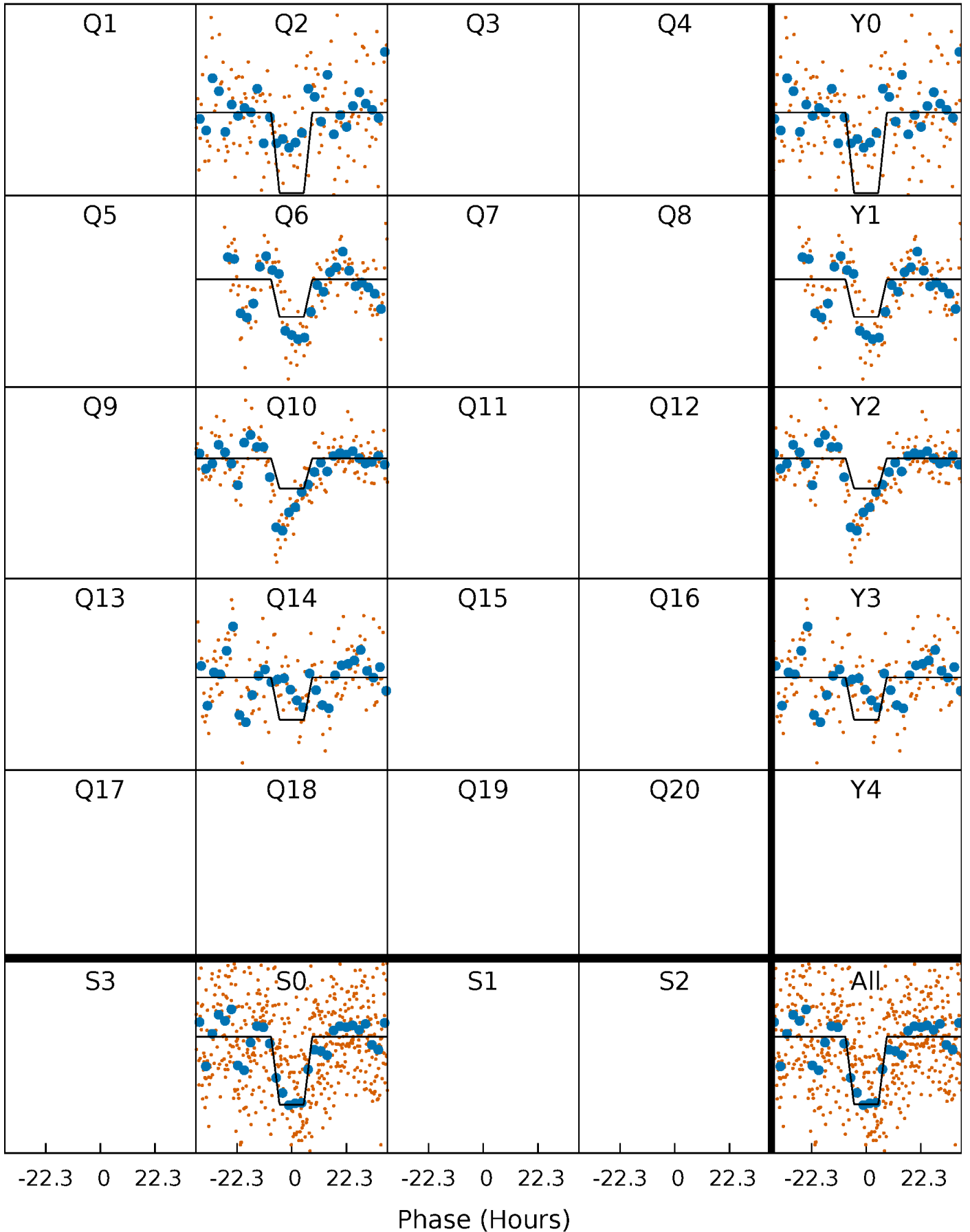
DV Quarter-Phased Transit Curves

TCE 008683130-01 P=372.275617 Days $T_0=228.092579$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

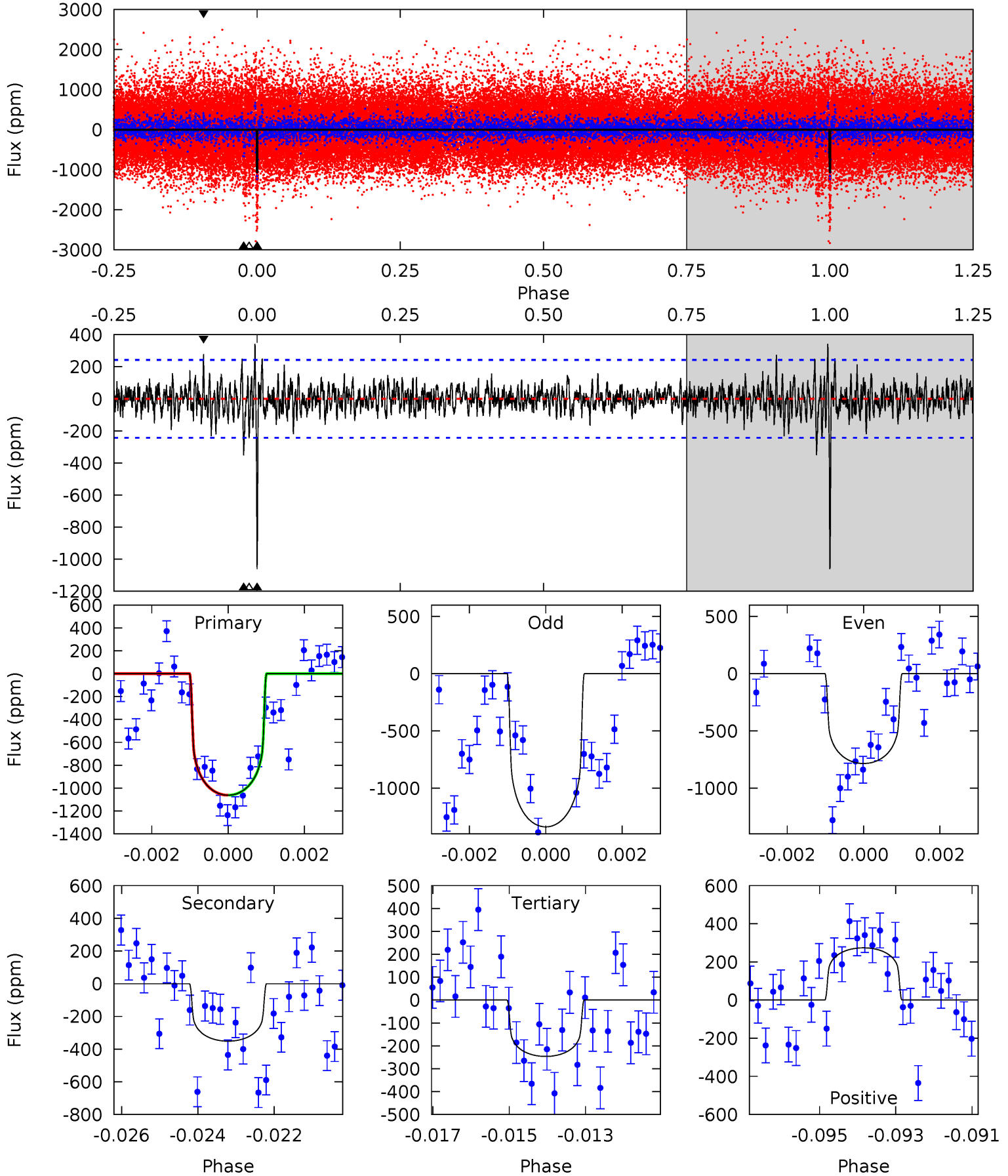
TCE 008683130-01 P=372.251785 Days $T_0=228.105500$ (BKJD)



DV Model-Shift Uniqueness Test

008683130-01, P = 372.275617 Days, E = 228.092579 Days

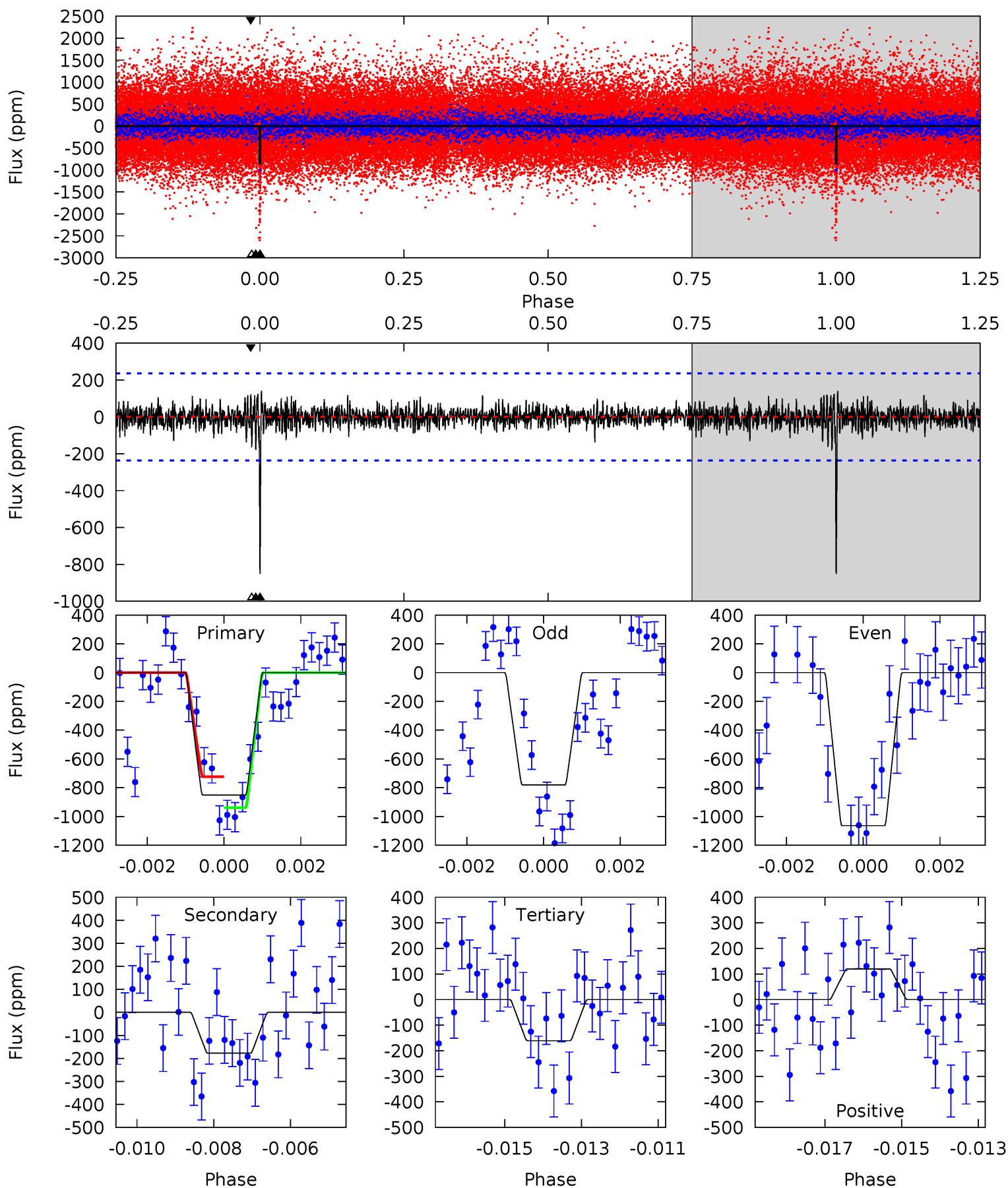
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
23.4	7.73	5.42	6.02	5.34	3.11	1.39	18.0	17.4	2.31	1.71	6.11	0.91	0.24	0.00



Alt Model-Shift Uniqueness Test

008683130-01, $P = 372.251785$ Days, $E = 228.105500$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
19.2	4.01	3.63	2.70	5.34	3.10	0.83	15.6	16.5	0.38	1.31	3.27	1.18	0.14	2.42



Stellar Parameters For KIC 008683130

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6108^{+184}_{-221}	$4.466^{+0.050}_{-0.200}$	$0.070^{+0.250}_{-0.300}$	$1.030^{+0.301}_{-0.108}$	$1.132^{+0.141}_{-0.141}$	$1.457^{+0.374}_{-0.753}$
	+3%/-4%	+1%/-4%	+357%/-429%	+29%/-10%	+12%/-12%	+26%/-52%
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 008683130-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-351 ± 45	$3.36^{+1.44}_{-1.33}$	381^{+25}_{-21}	5026^{+1326}_{-612}	18490^{+31548}_{-9554}
Alt.	-178 ± 44	$3.66^{+1.29}_{-1.34}$	380^{+26}_{-19}	4240^{+828}_{-451}	7792^{+12009}_{-3644}

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 $A_{obs} \gg 1.0$

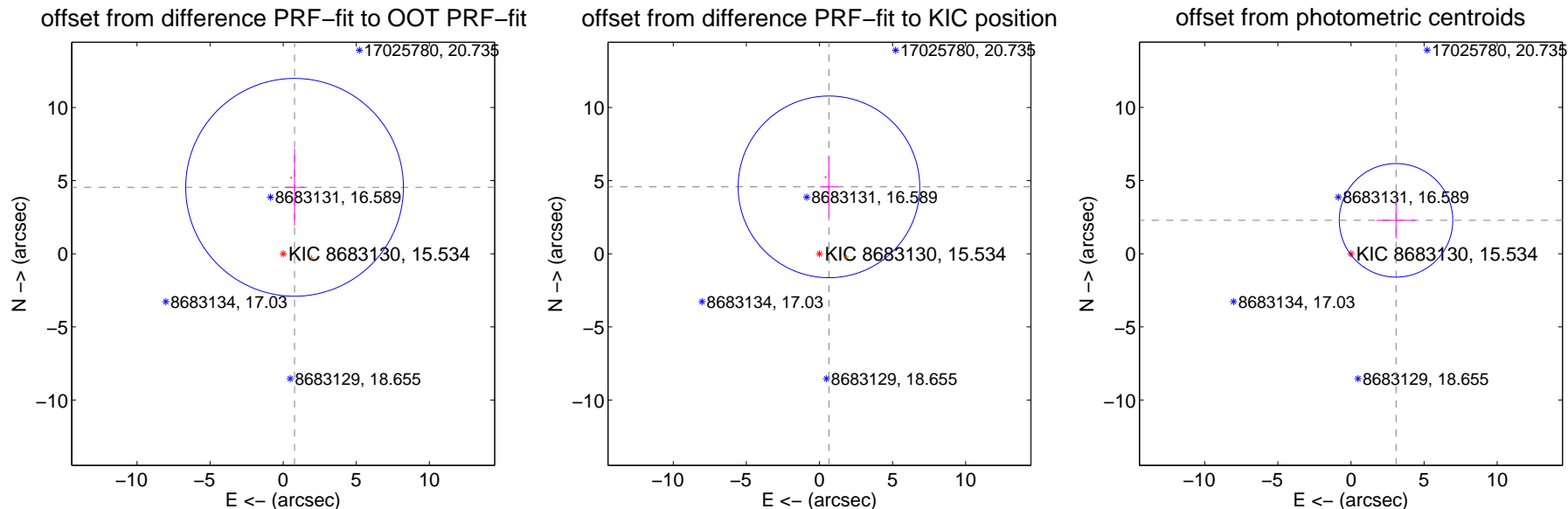
DV Centroid Data

Supplemental centroid analysis for 008683130-01. Kepler magnitude: 15.53. Transit SNR 10.33

There are 0 quarters with good PRF difference image offsets

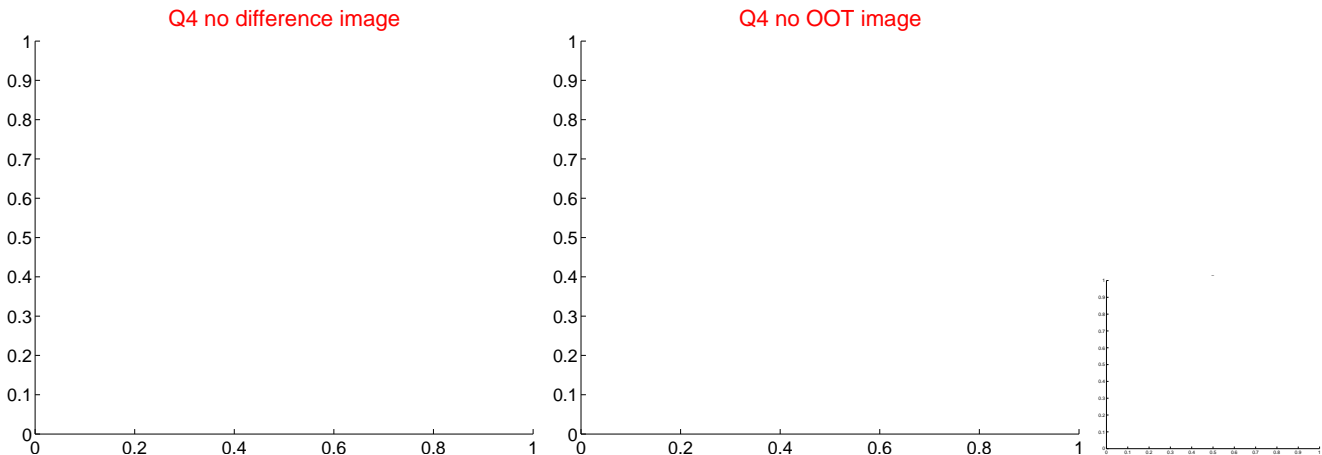
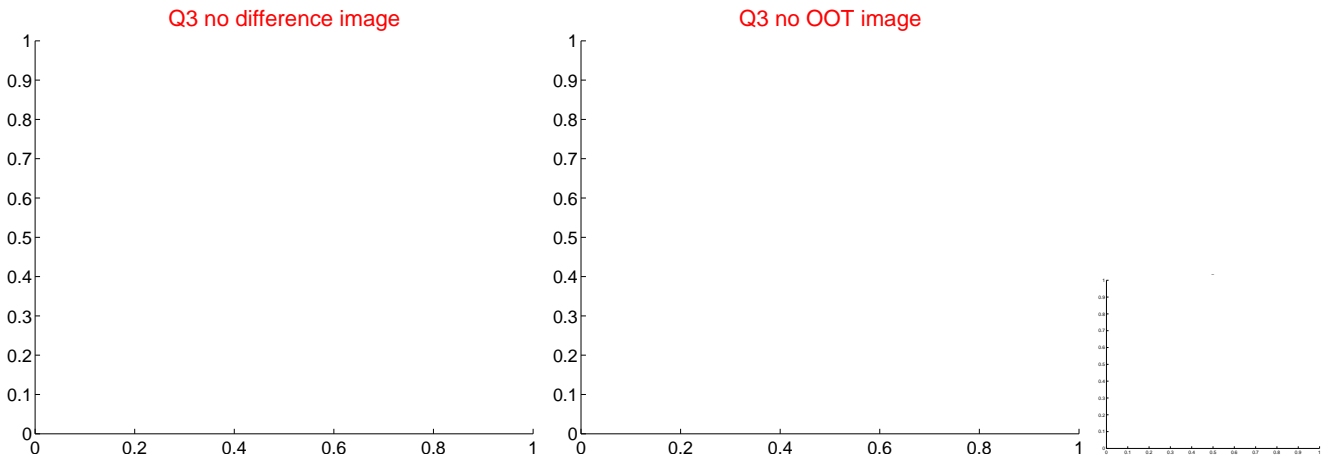
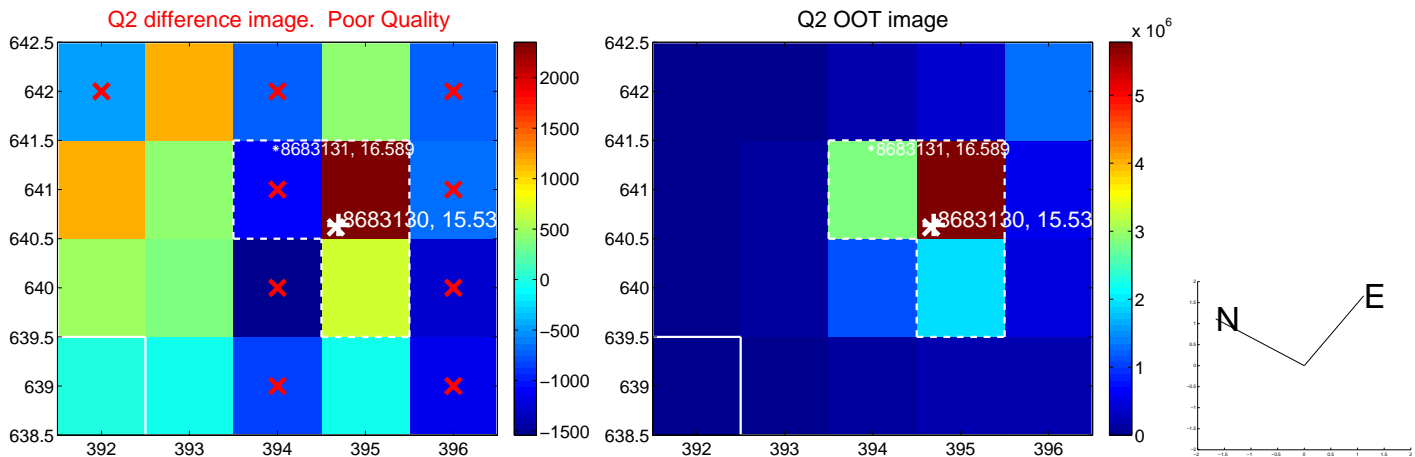
The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	4.611 ± 2.483	1.86	-0.779 ± 0.671	4.545 ± 2.633
PRF-fit source offset from KIC position	4.623 ± 2.071	2.23	-0.650 ± 0.614	4.577 ± 2.090
photometric centroid source offset	3.84 ± 1.29	2.96	-3.08 ± 1.33	2.28 ± 1.23



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.

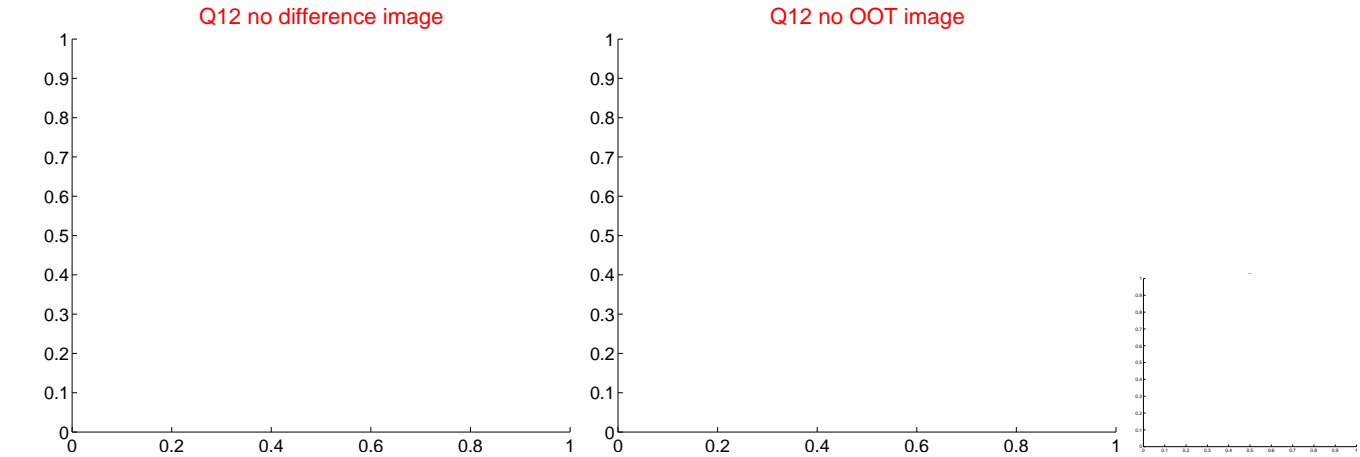
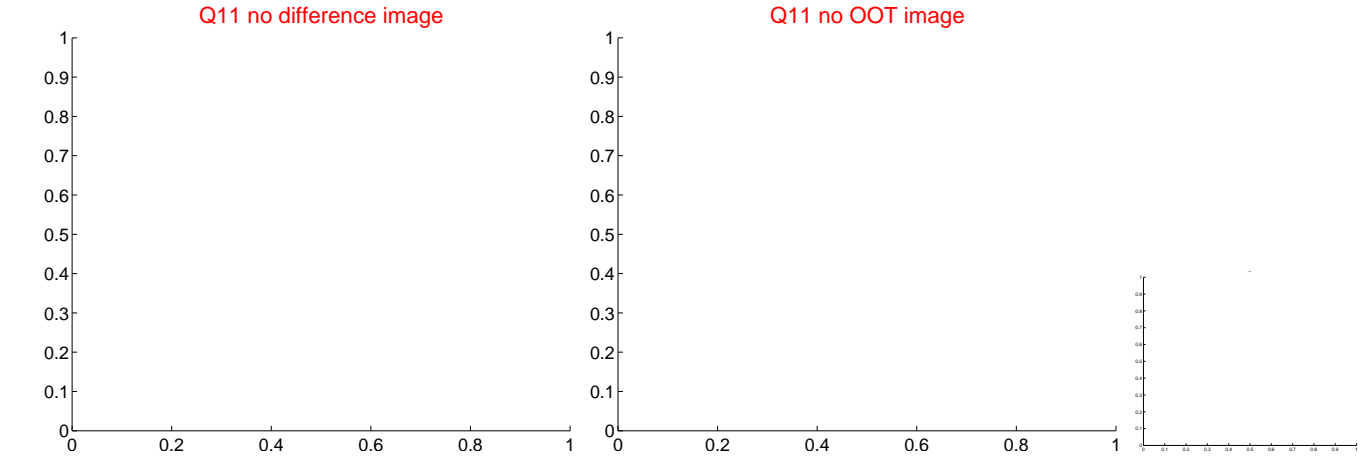
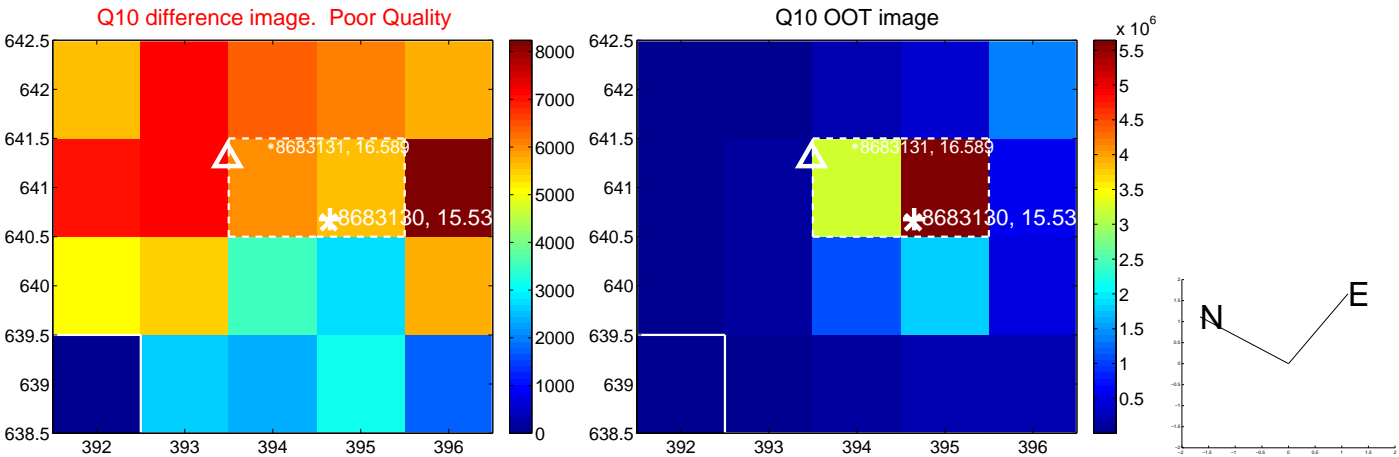
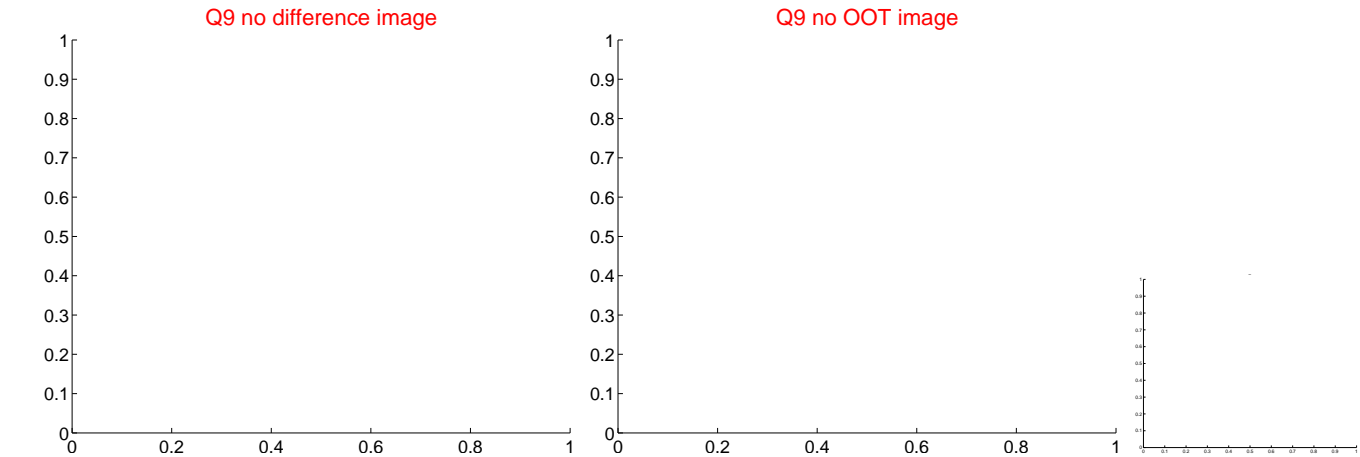
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



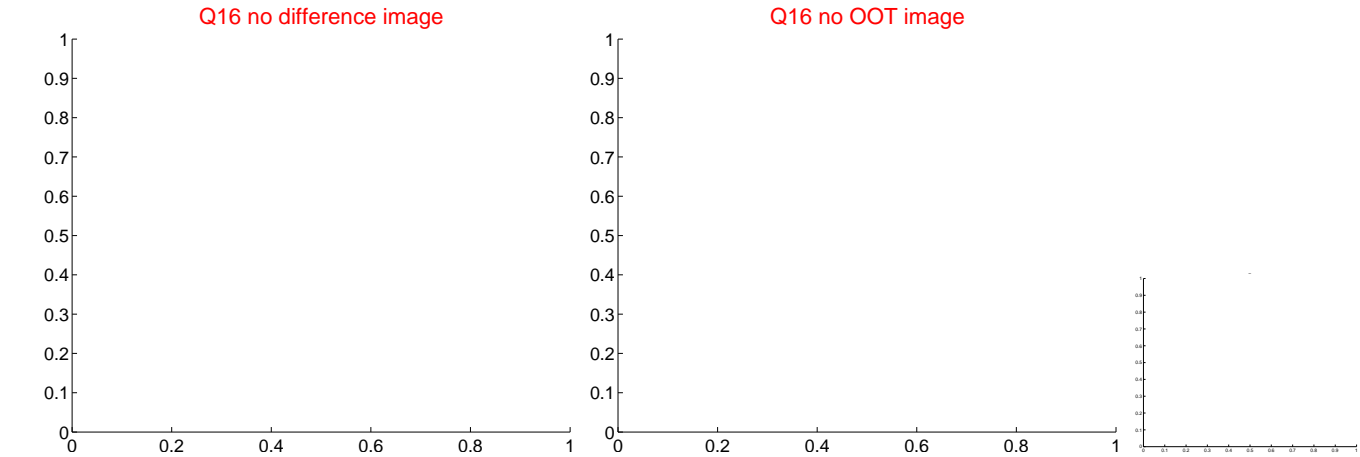
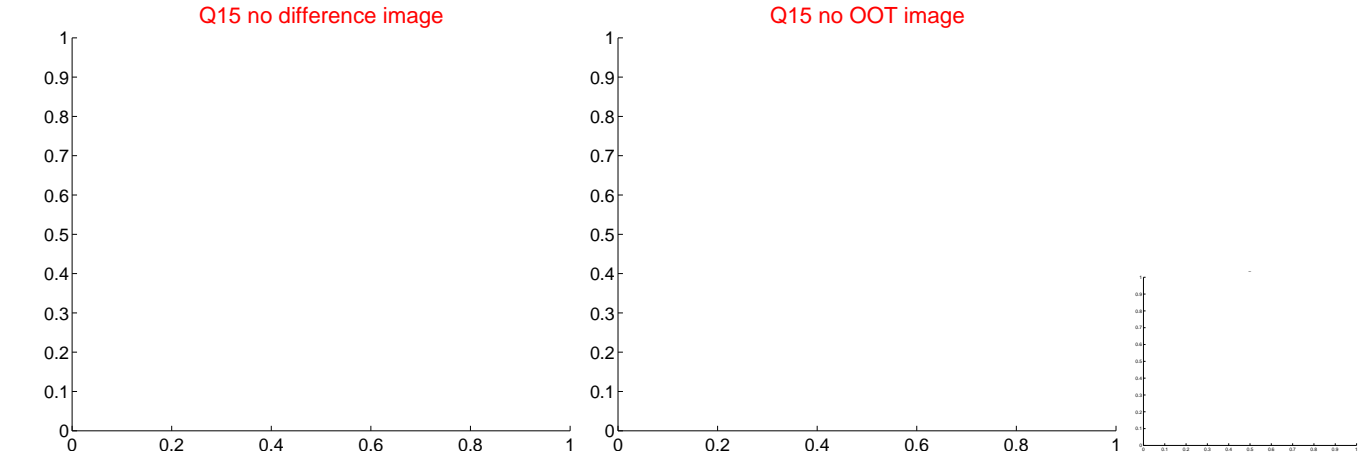
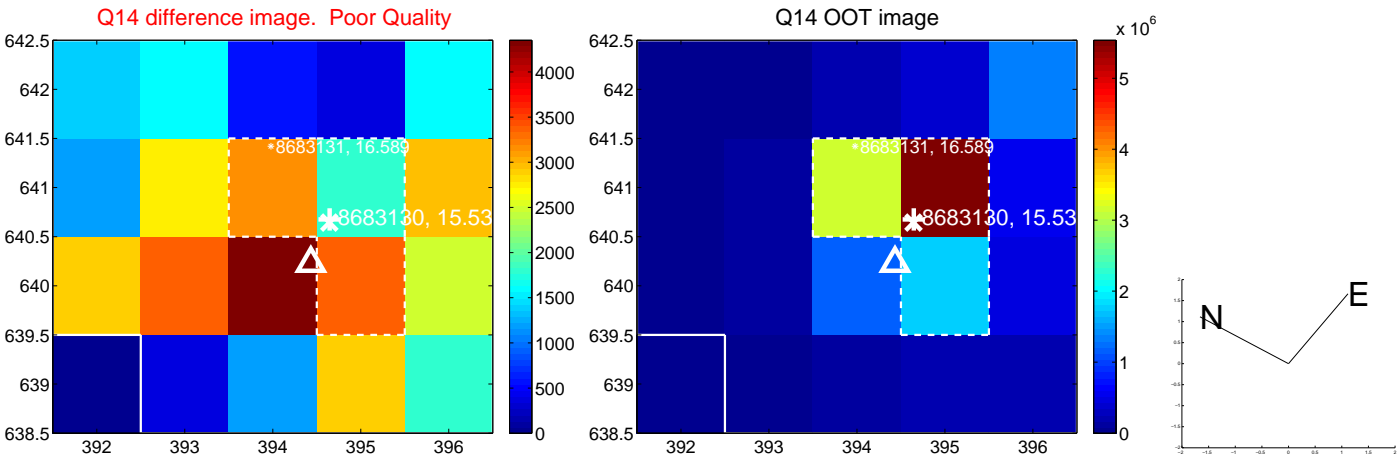
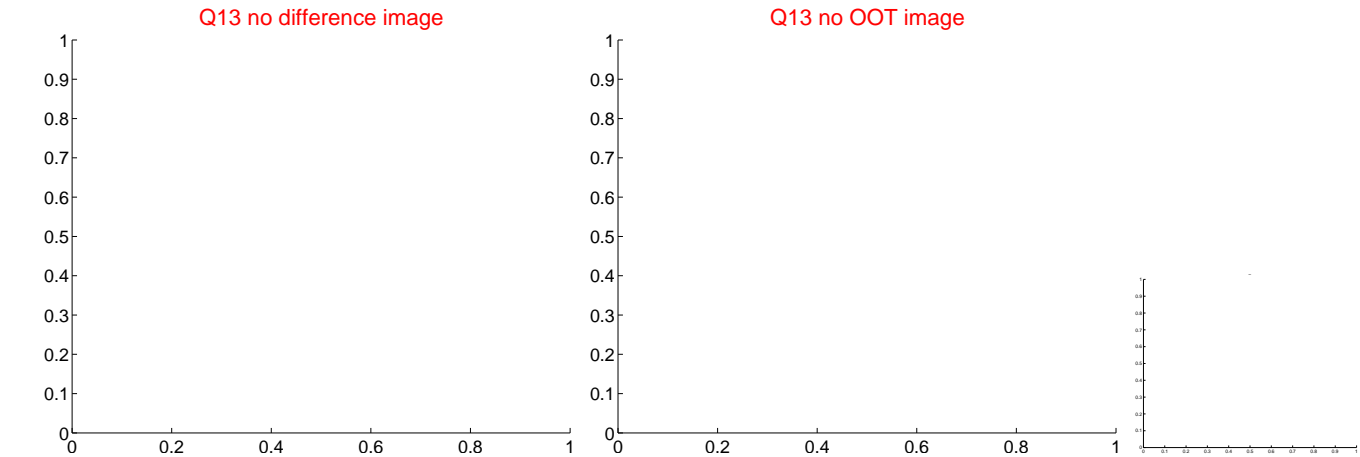
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



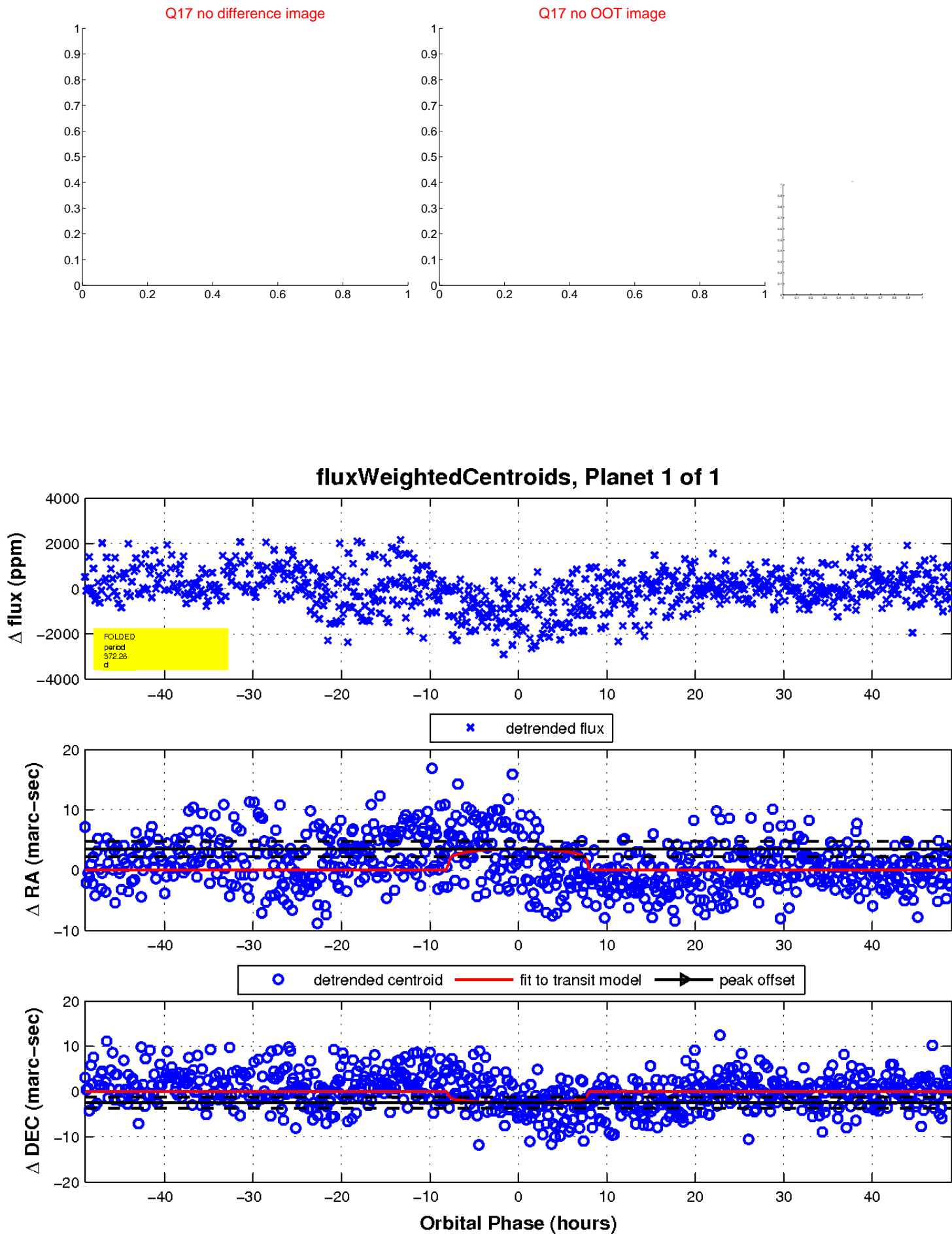
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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UKIRT Image

Declination

