

KIC 008805005

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})
008805005-01	OBS	No	370.228855	231.905226	907.6	10.572	8.6	9.3	0.89	5904	2.81	0.91

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008805005-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—ALL_TRANS_CHASES—INCONSISTENT_TRANS

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

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

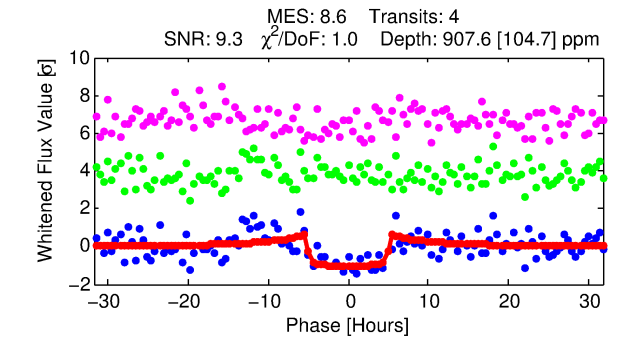
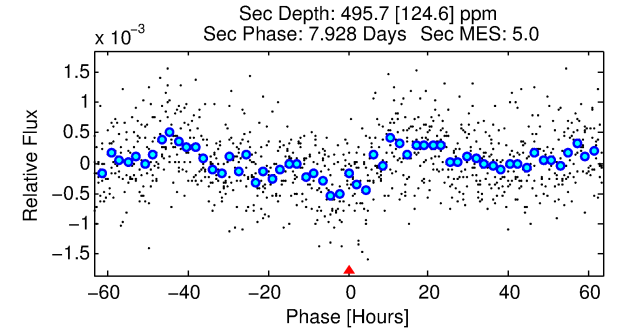
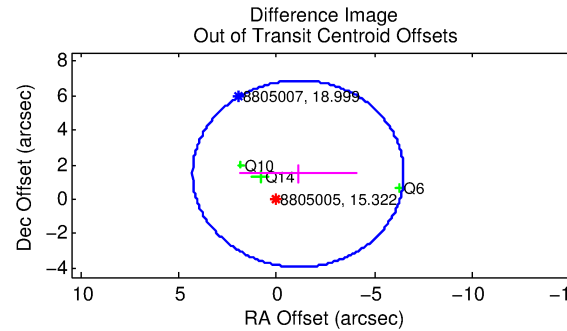
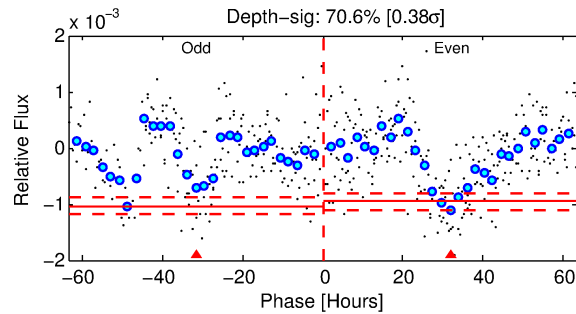
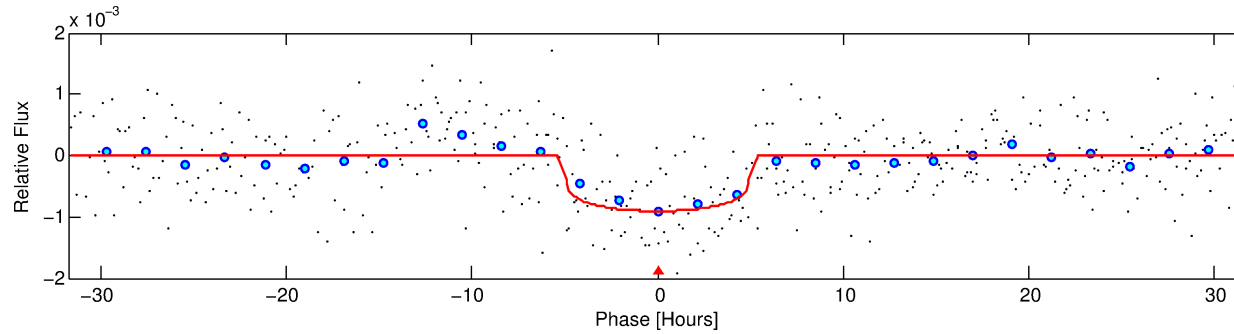
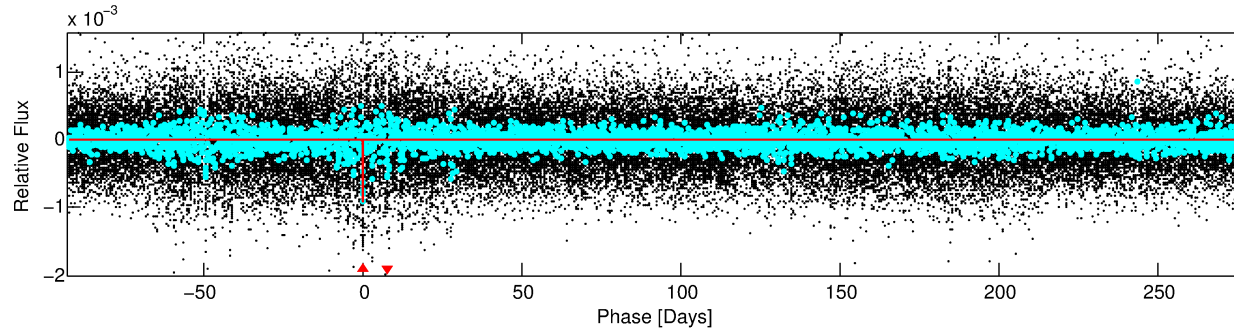
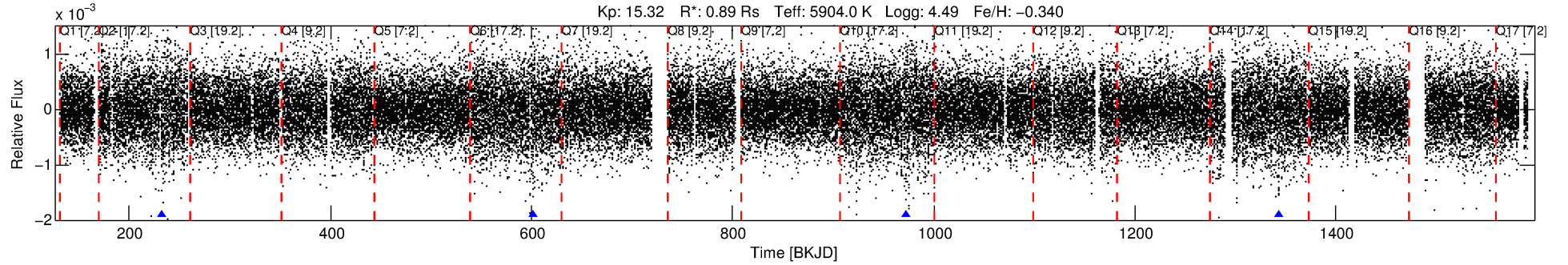
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008805005-01

No Significant Match Found

DV One-Page Summary

KIC: 8805005 Candidate: 1 of 1 Period: 370.229 d



DV Fit Results:

Period = 370.22886 [0.00589] d
Epoch = 231.9052 [0.0114] BKJD
Rp/R* = 0.0289 [0.0089]
a/R* = 222.01 [318.96]
b = 0.61 [1.49]
Seff = 0.91 [0.34]
Teq = 249 [23] K
Rp = 2.82 [1.16] Re
a = 0.9763 [0.2294] AU
Ag = 32791.98 [24710.58] [1.33 σ]
Teffp = 5186 [879] K [5.62 σ]

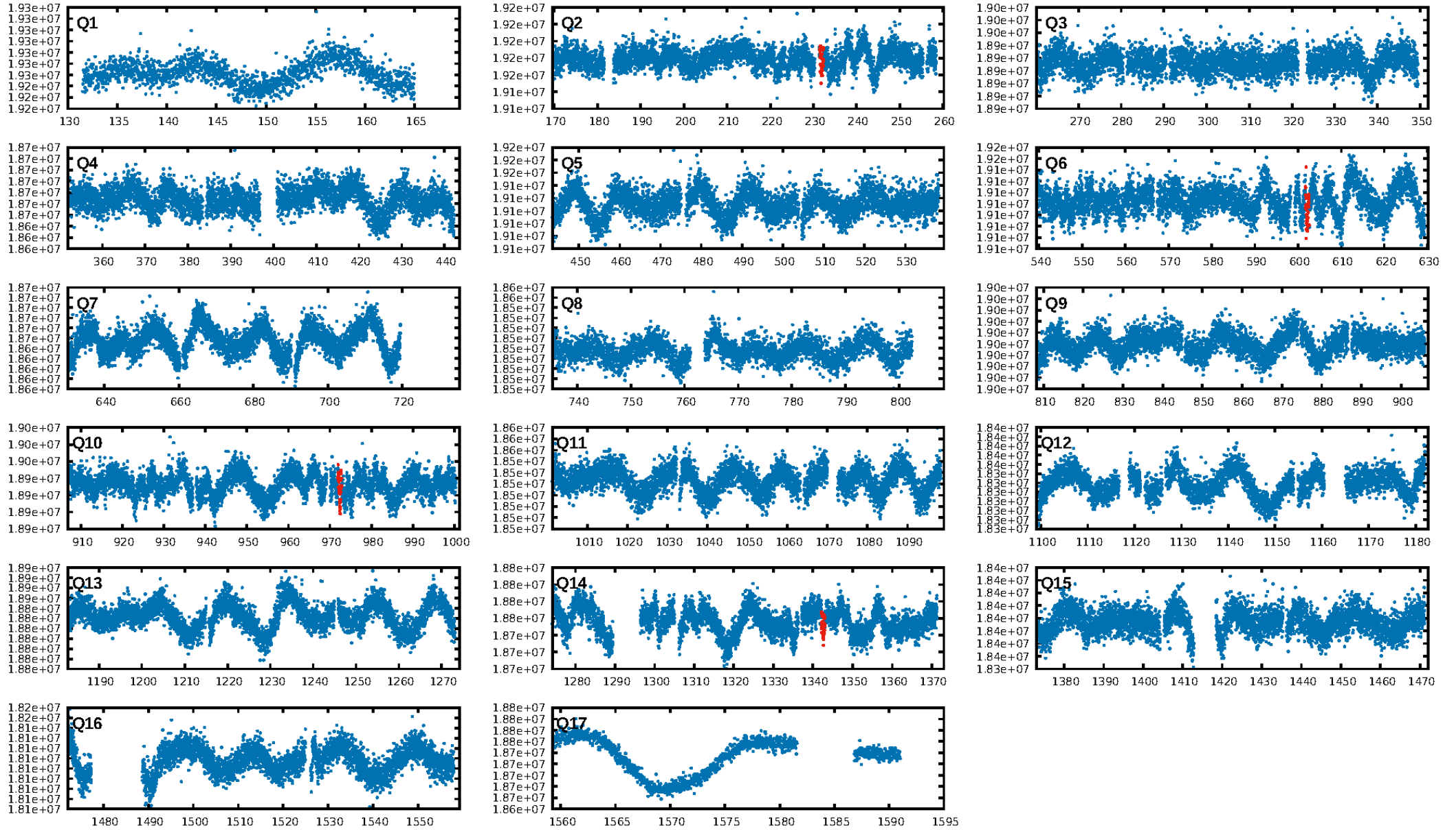
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 27.1%
ModelChiSquareGof-sig: 93.7%
Bootstrap-pfa: 6.39e-16
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: 1.962
Centroid-sig: 16.6%
Centroid-so: 2.642 arcsec [1.36 σ]
OotOffset-rm: 1.838 arcsec [1.02 σ]
OotOffset-st: 3/0/0/0 [3]
KicOffset-rm: 1.829 arcsec [1.13 σ]
KicOffset-st: 3/0/0/0 [3]
DiffImageQuality-fgm: 0.33 [1/3]
DiffImageOverlap-fno: 1.00 [3/3]

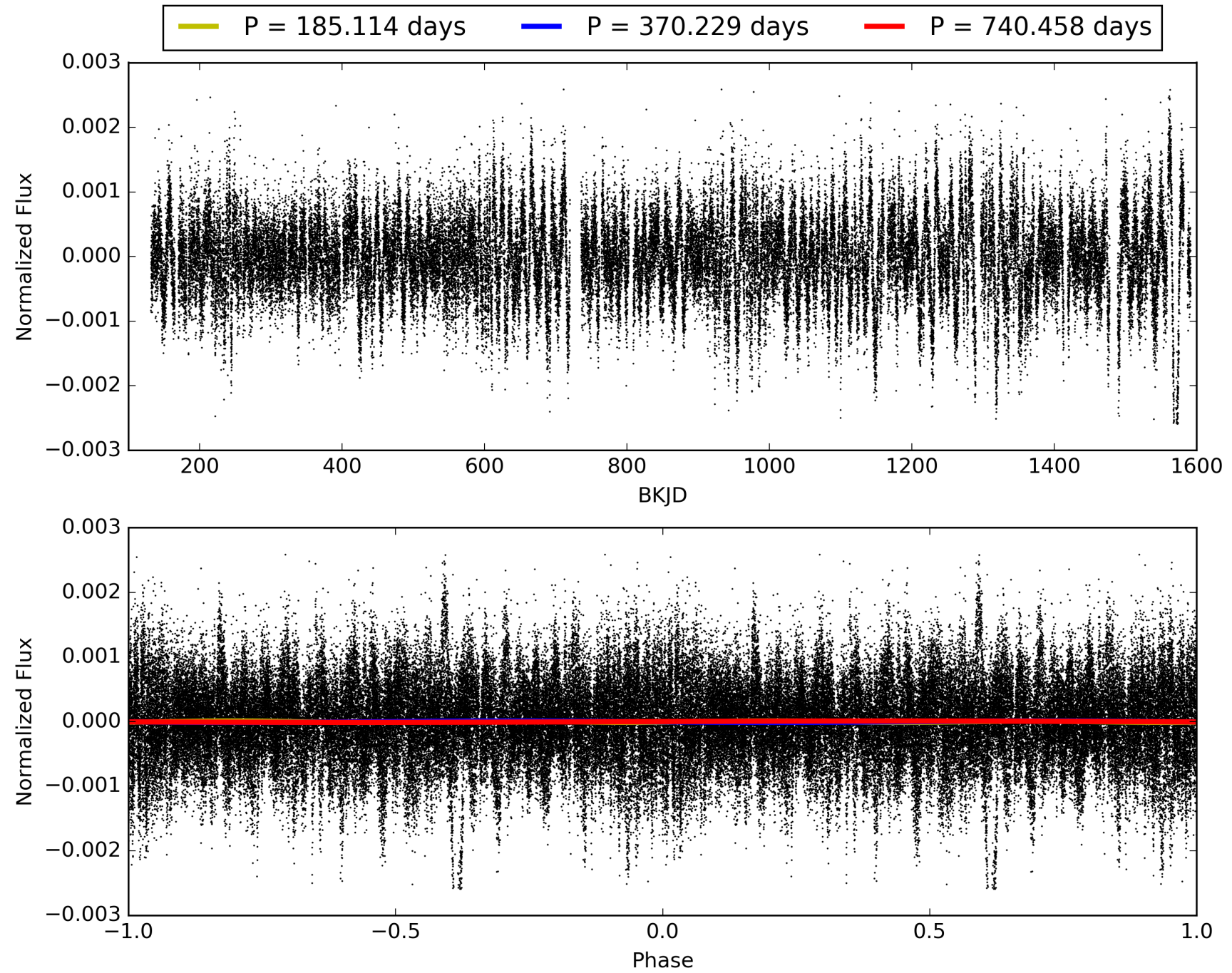
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 20:56:02 Z

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

TCE 008805005-01, PDC Light Curves

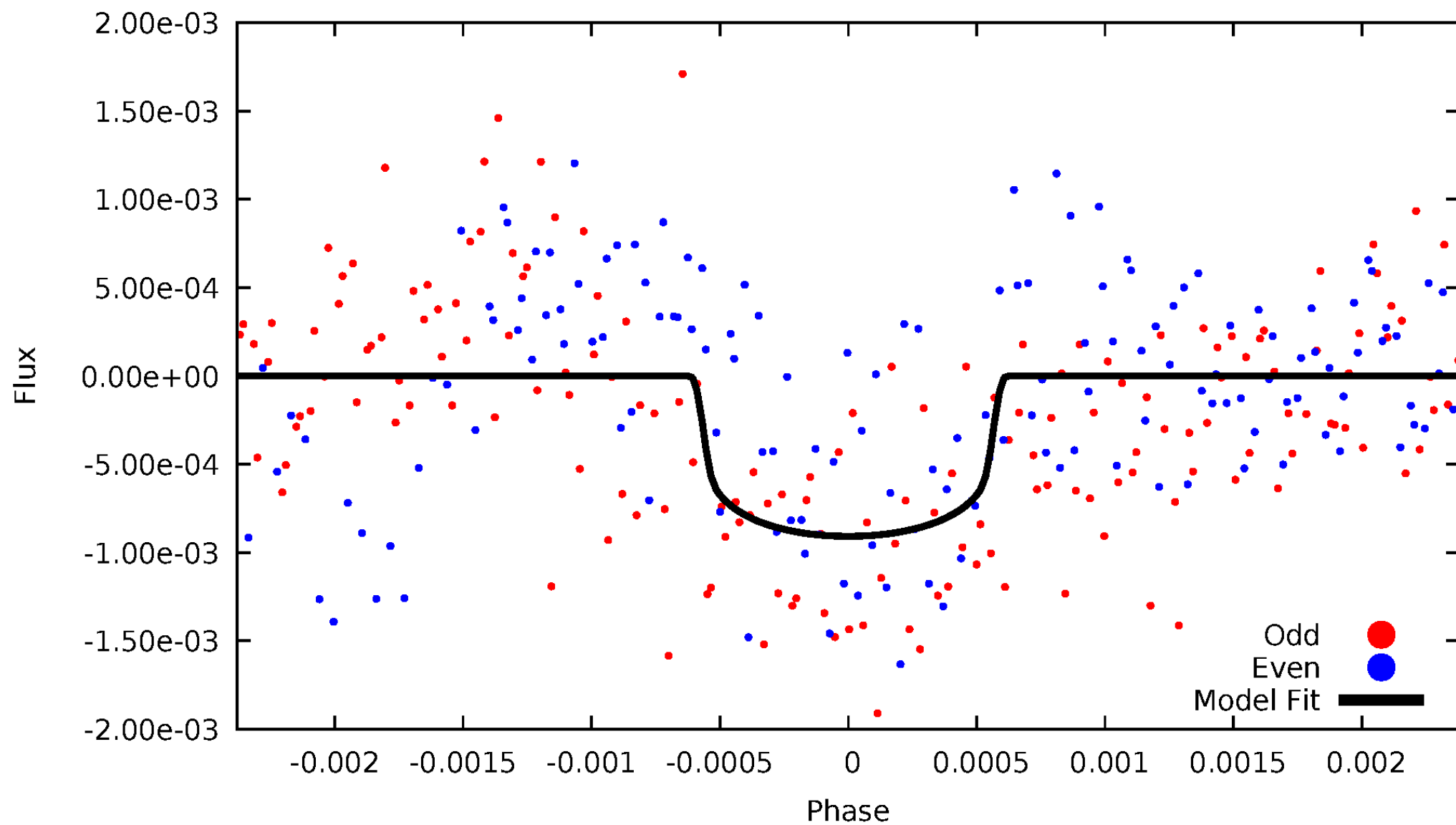


TCE 008805005-01



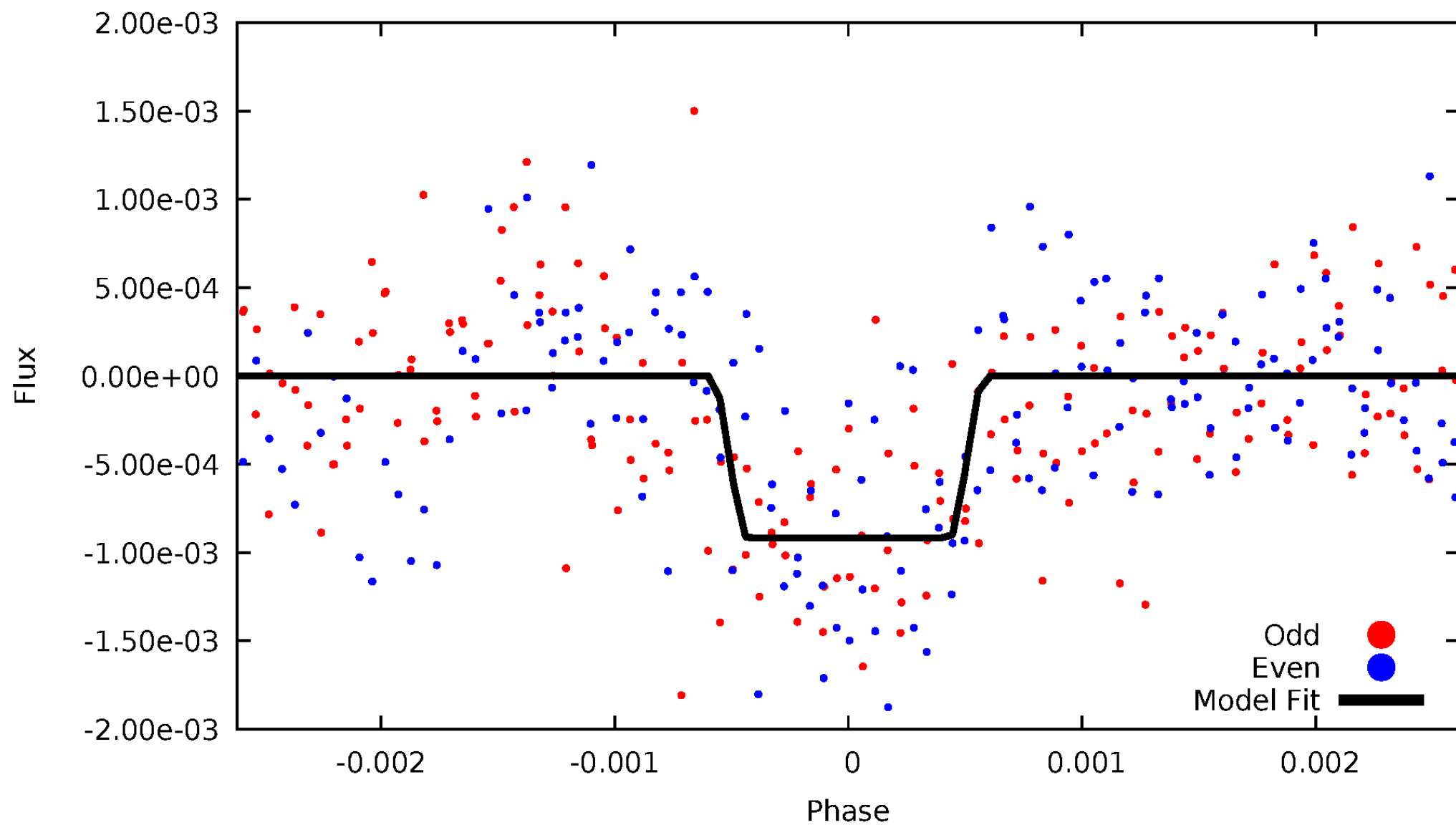
DV Odd/Even

TCE 008805005-01



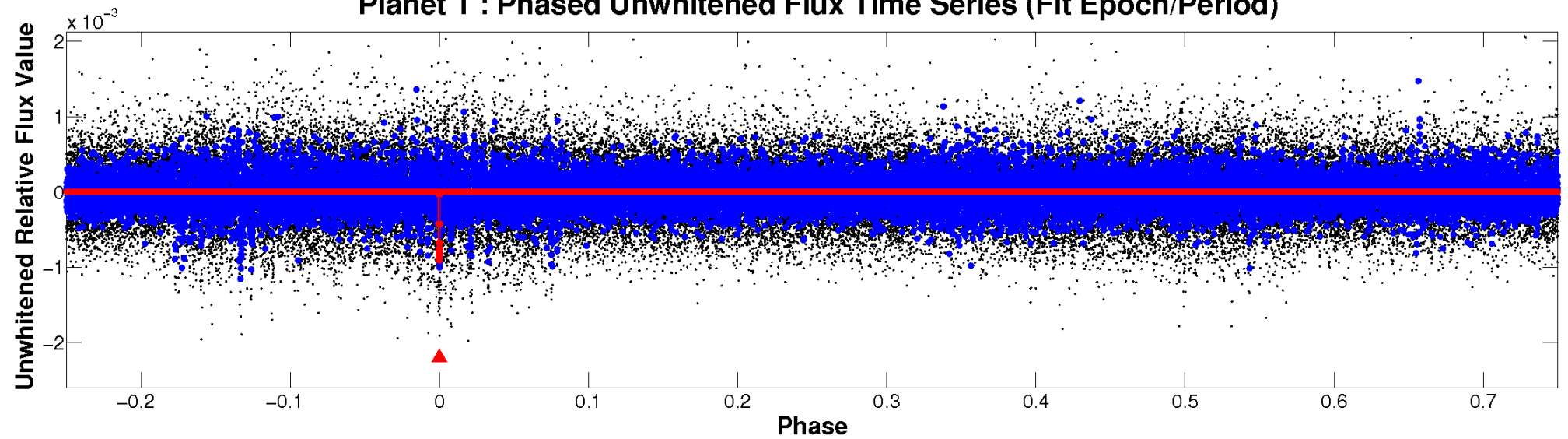
ALT Odd/Even

TCE 008805005-01

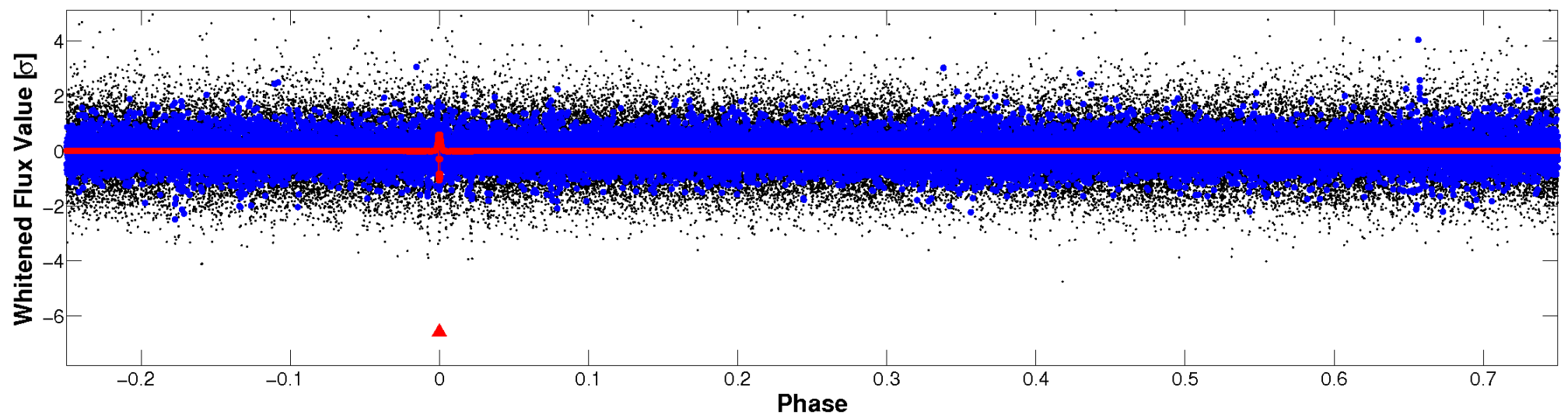


Non-Whitened Vs. Whitened Light Curve

Planet 1 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

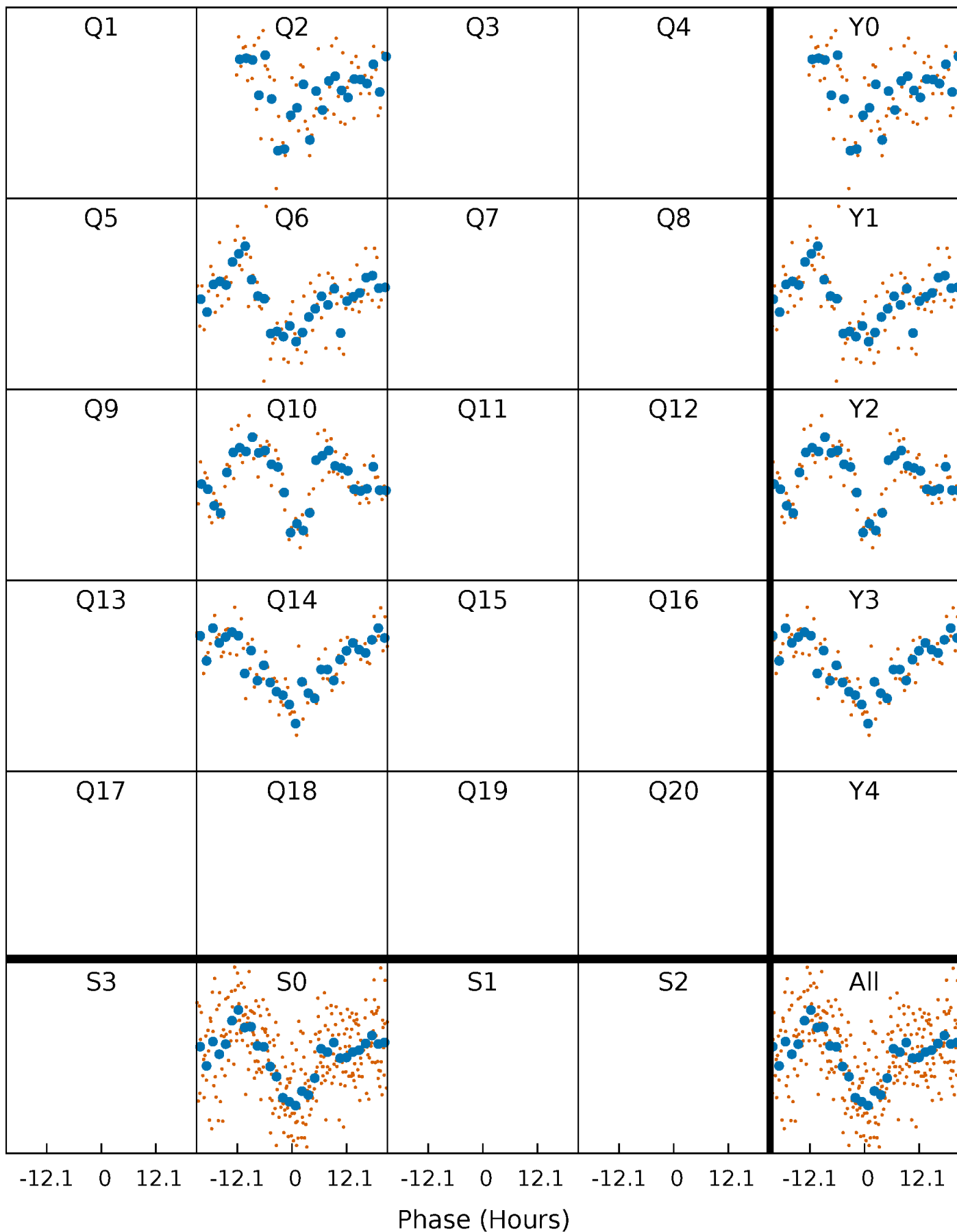


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



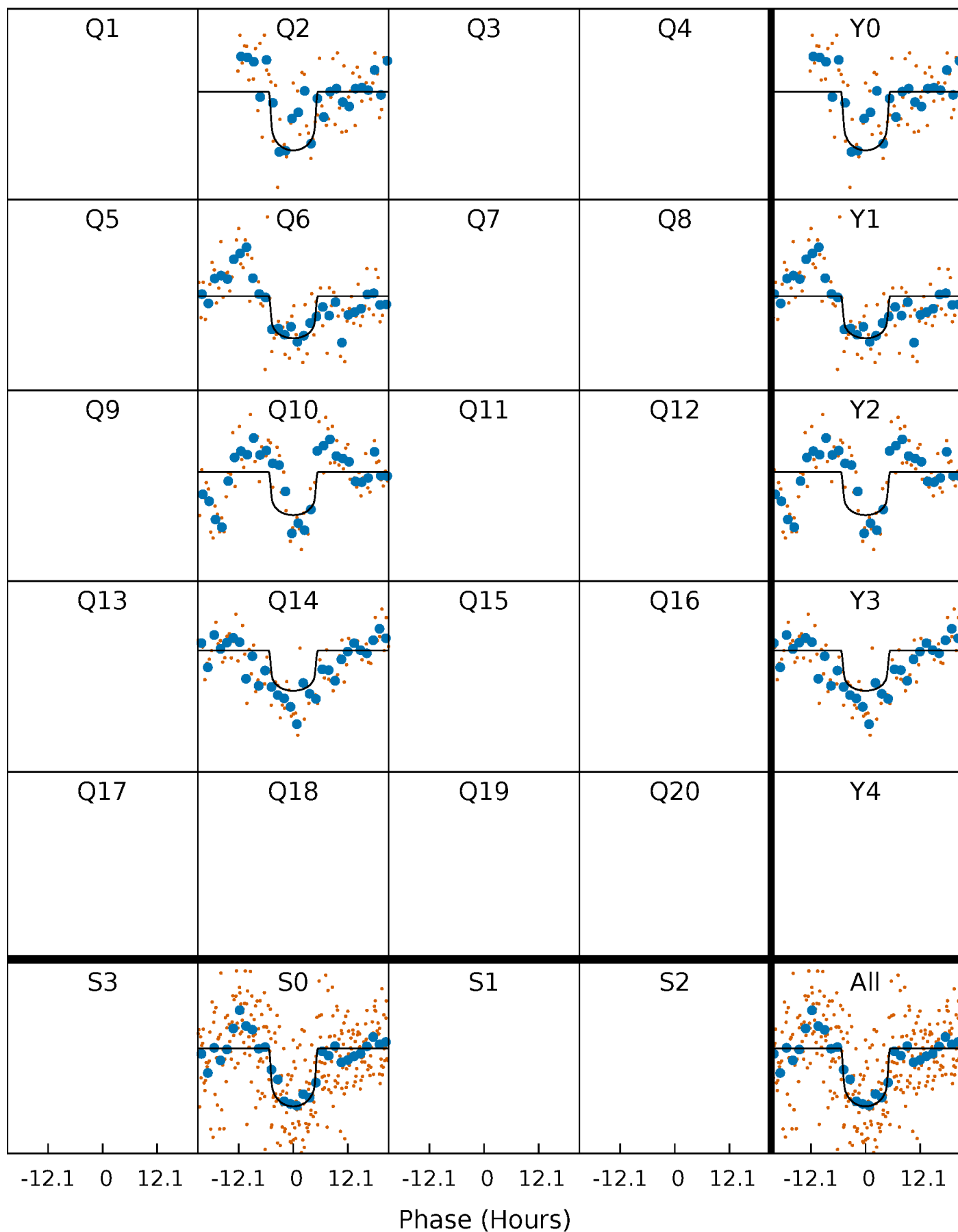
PDC Quarter-Phased Transit Curves

TCE 008805005-01 P=370.228855 Days $T_0=231.905226$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 008805005-01 P=370.228855 Days $T_0=231.905226$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

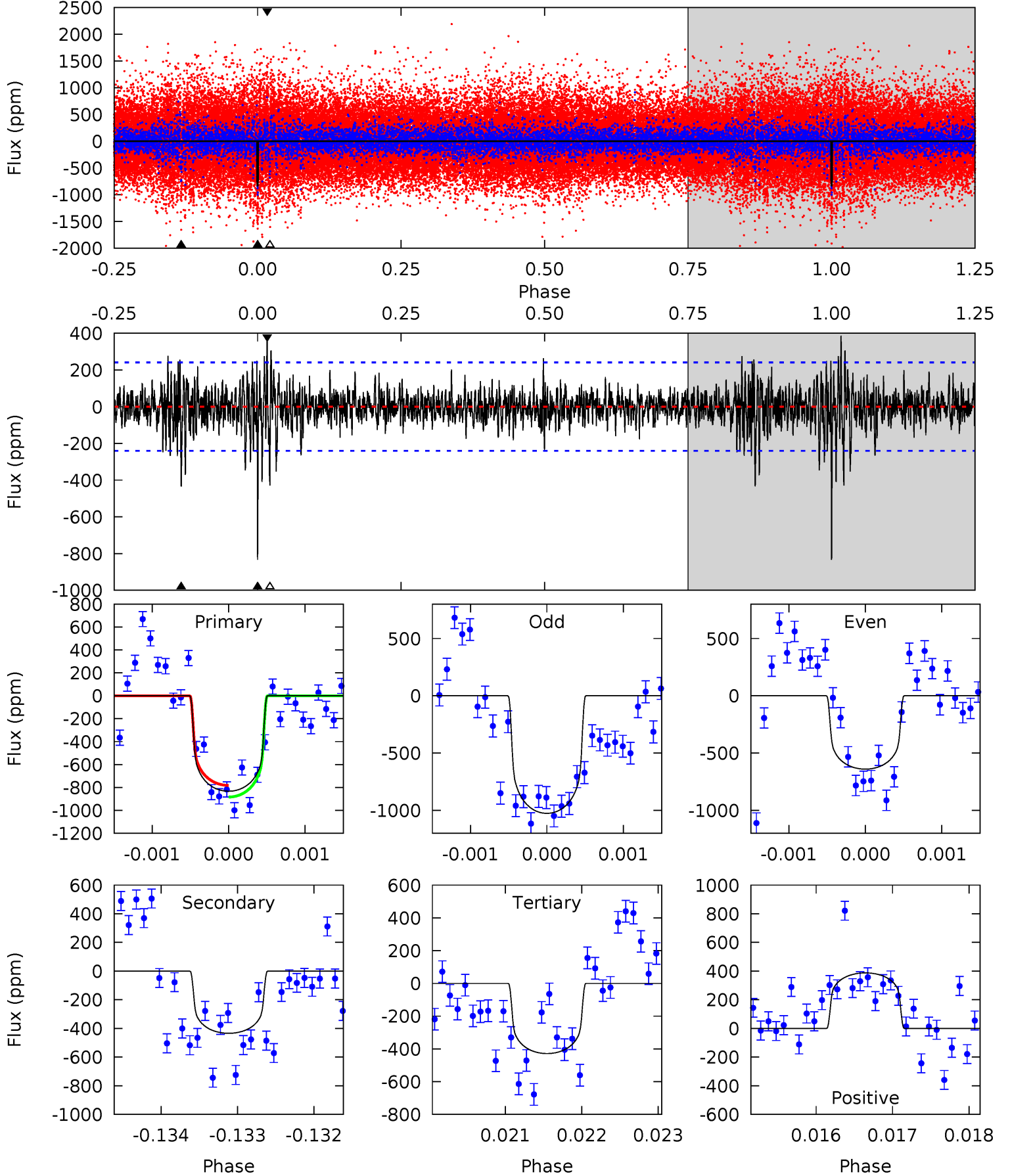
TCE 008805005-01 P=370.235674 Days $T_0=231.903829$ (BKJD)



DV Model-Shift Uniqueness Test

008805005-01, P = 370.228855 Days, E = 231.905226 Days

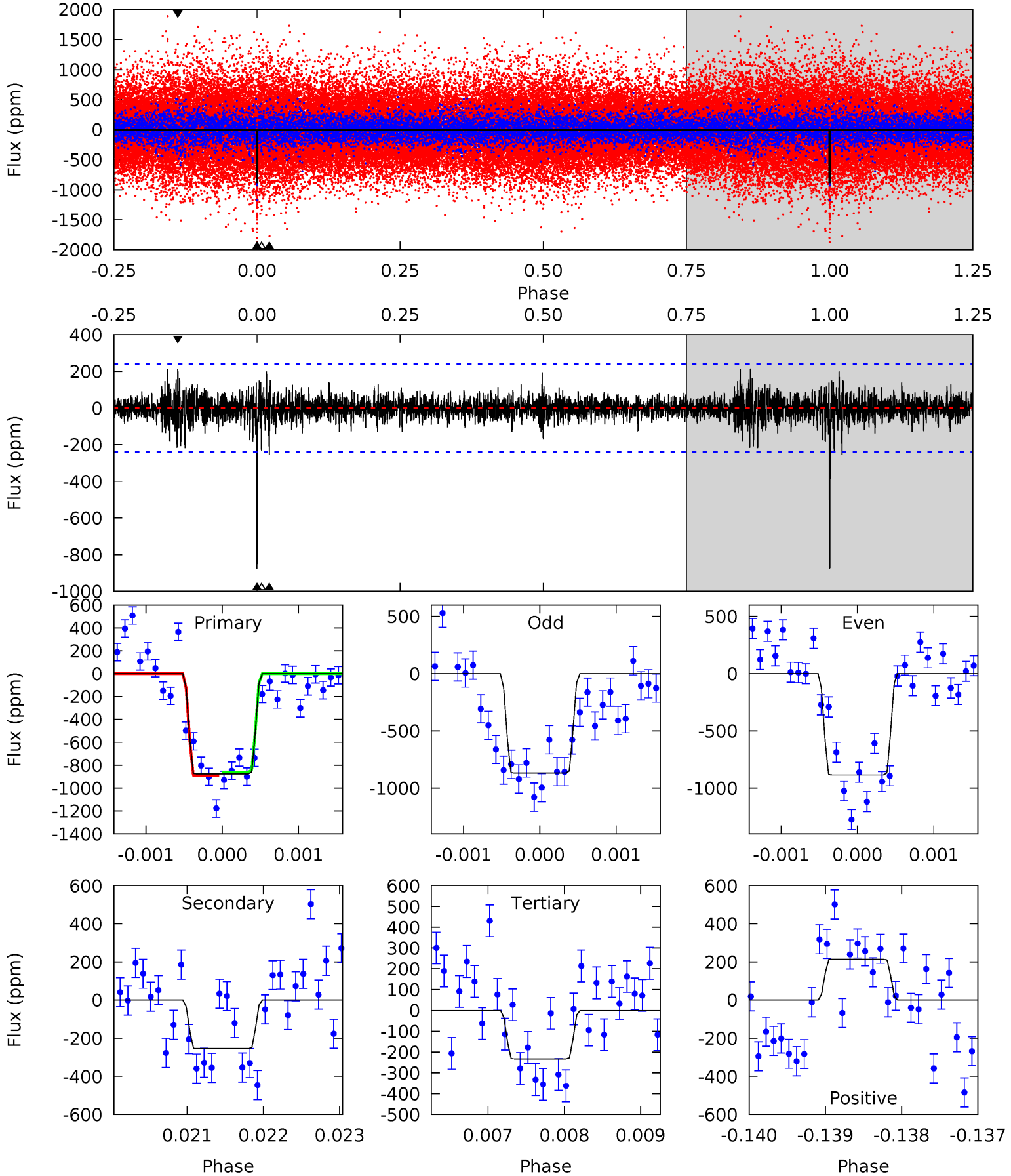
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
18.7	9.76	9.64	8.71	5.42	3.23	1.72	9.10	10.0	0.12	1.05	4.37	1.05	0.32	1.14



Alt Model-Shift Uniqueness Test

008805005-01, P = 370.235674 Days, E = 231.903829 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
19.9	5.77	5.28	4.85	5.43	3.25	1.00	14.6	15.0	0.50	0.92	0.19	1.01	0.20	0.37



Stellar Parameters For KIC 008805005

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5904^{+158}_{-175}	$4.492^{+0.065}_{-0.195}$	$-0.340^{+0.300}_{-0.300}$	$0.894^{+0.243}_{-0.104}$	$0.905^{+0.108}_{-0.097}$	$1.786^{+0.575}_{-0.849}$
	+3%/-3%	+1%/-4%	+88%/-88%	+27%/-12%	+12%/-11%	+32%/-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 008805005-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-434 ± 44	$2.95^{+0.98}_{-0.90}$	355^{+24}_{-17}	5079^{+902}_{-546}	25849^{+28357}_{-11122}
Alt.	-255 ± 44	$3.10^{+0.91}_{-0.94}$	353^{+24}_{-16}	4457^{+668}_{-439}	13784^{+14652}_{-5888}

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

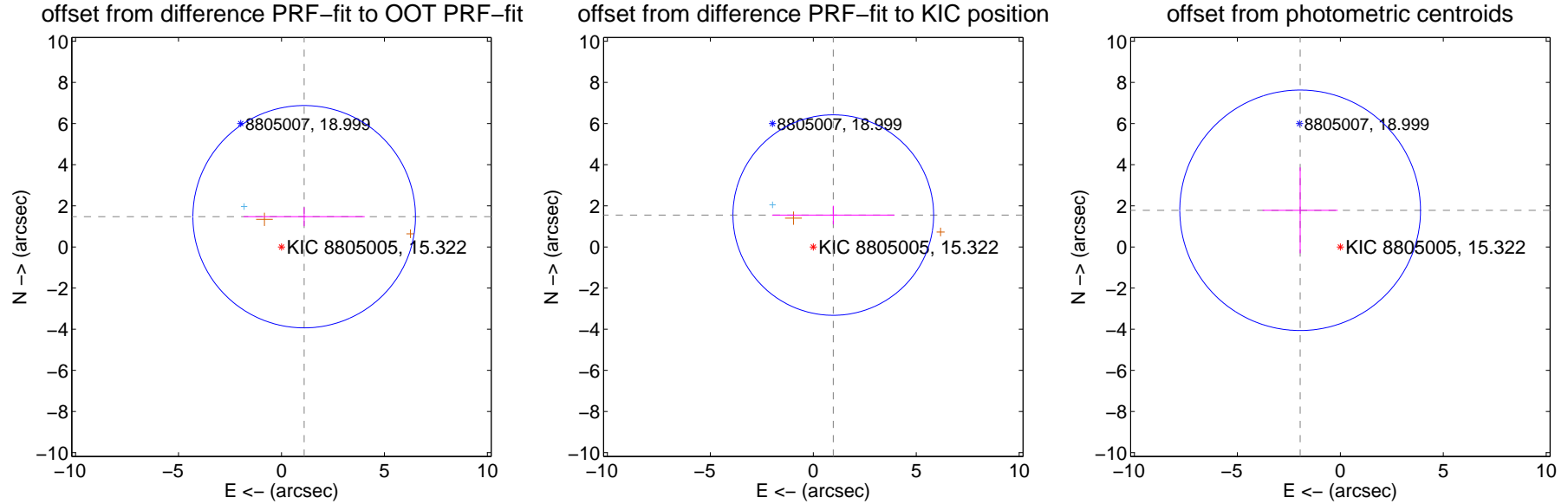
DV Centroid Data

Supplemental centroid analysis for 008805005-01. Kepler magnitude: 15.32. Transit SNR 9.32

There are 1 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	1.838 ± 1.801	1.02	-1.103 ± 2.940	1.471 ± 0.456
PRF-fit source offset from KIC position	1.829 ± 1.624	1.13	-0.972 ± 2.969	1.549 ± 0.455
photometric centroid source offset	2.64 ± 1.95	1.36	1.95 ± 1.82	1.78 ± 2.09

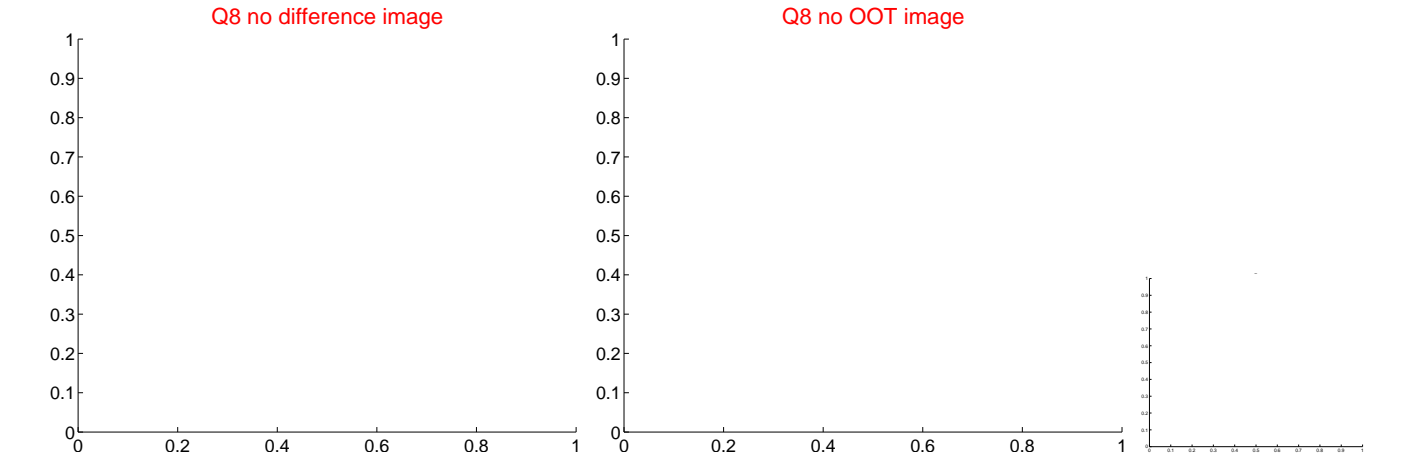
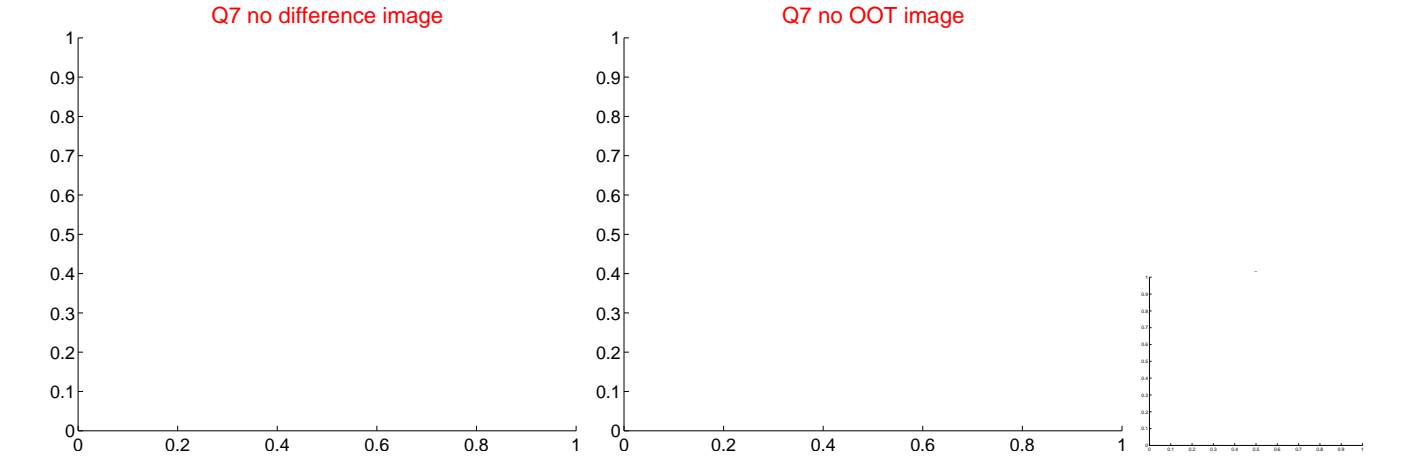
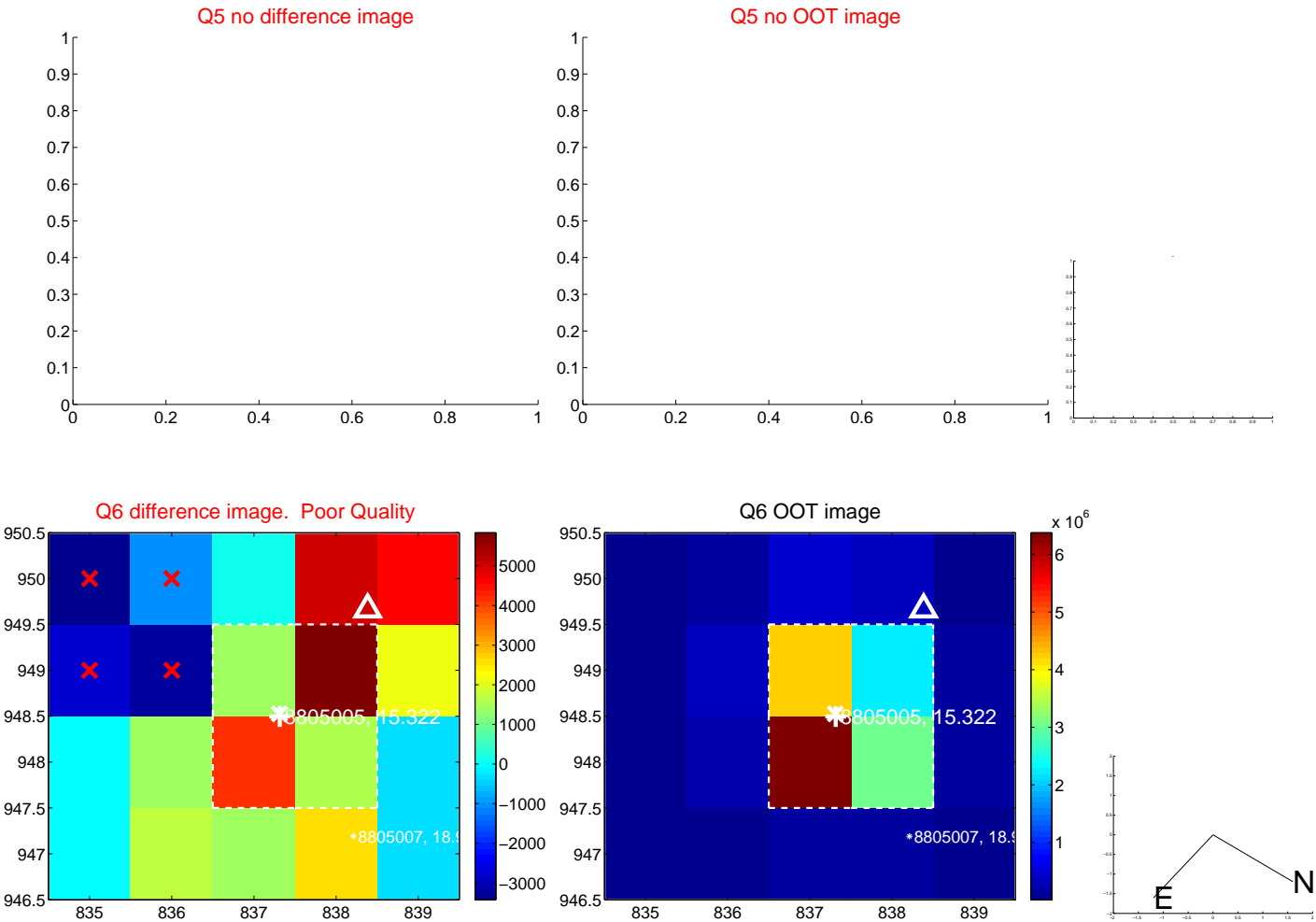


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

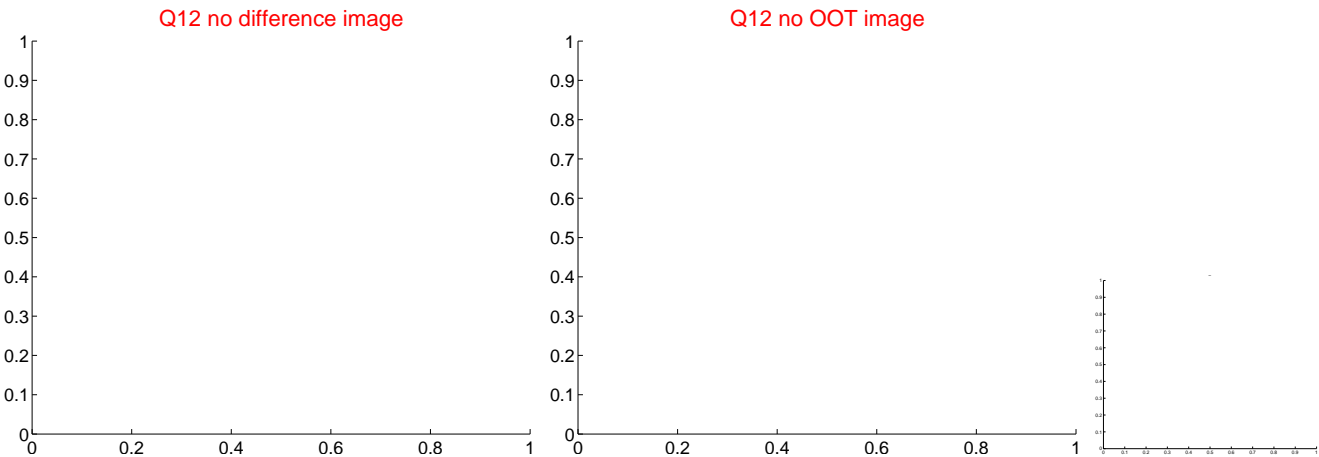
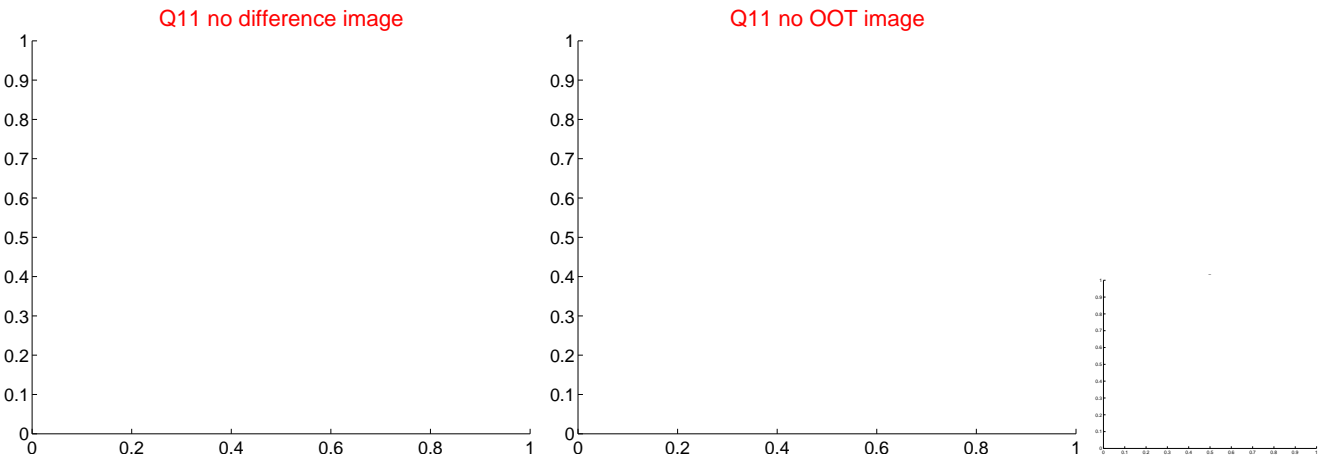
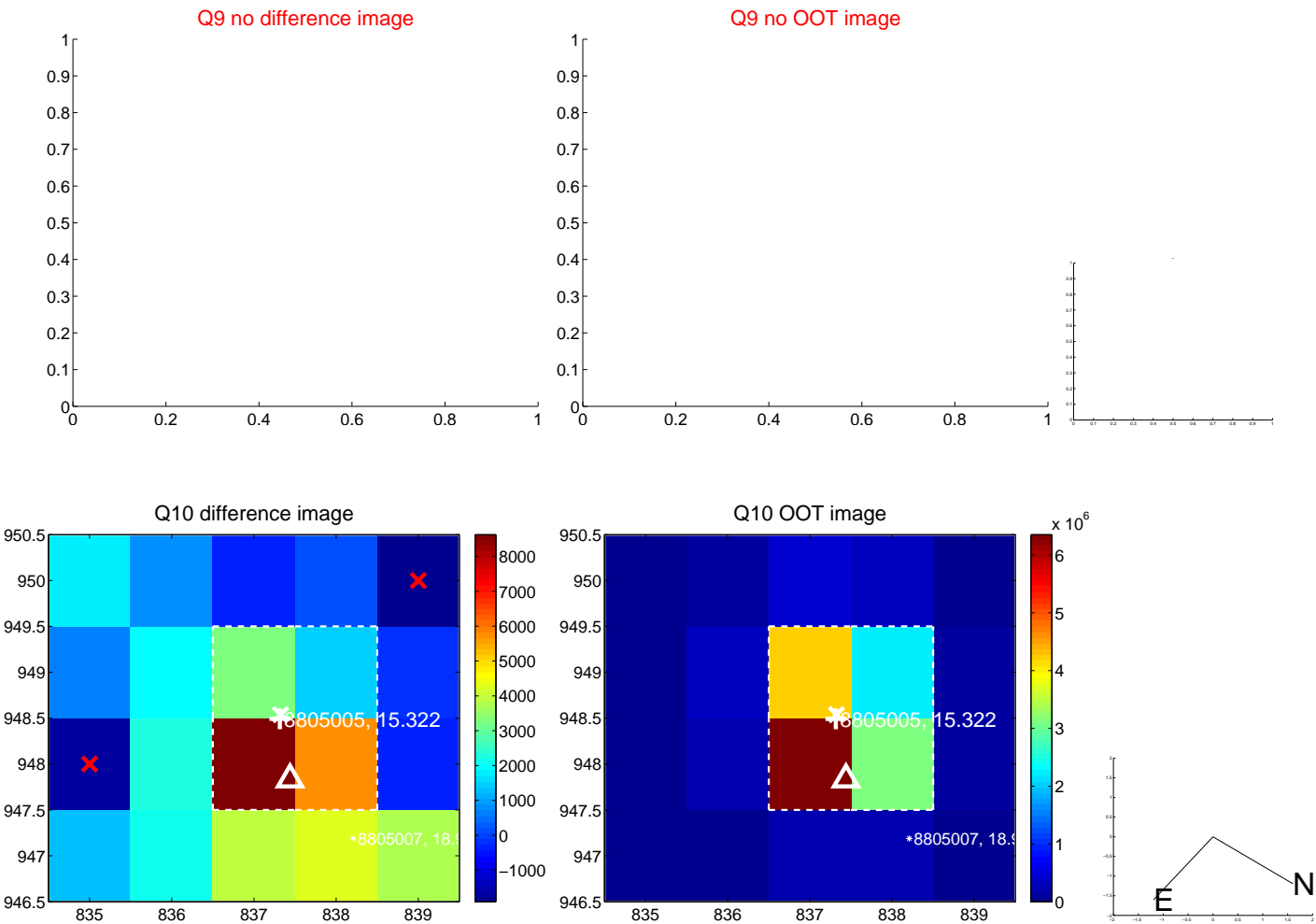
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



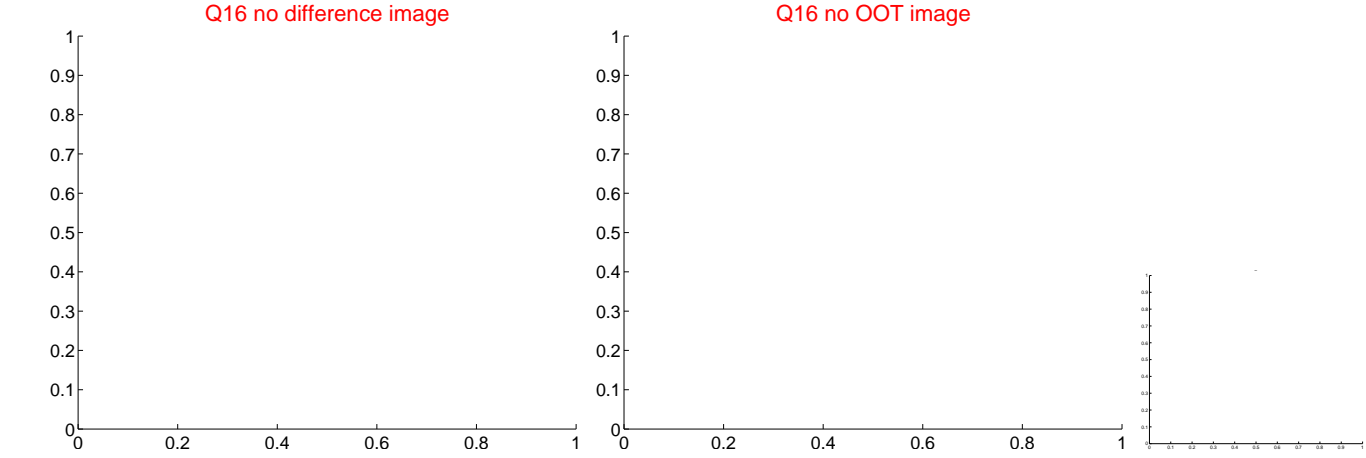
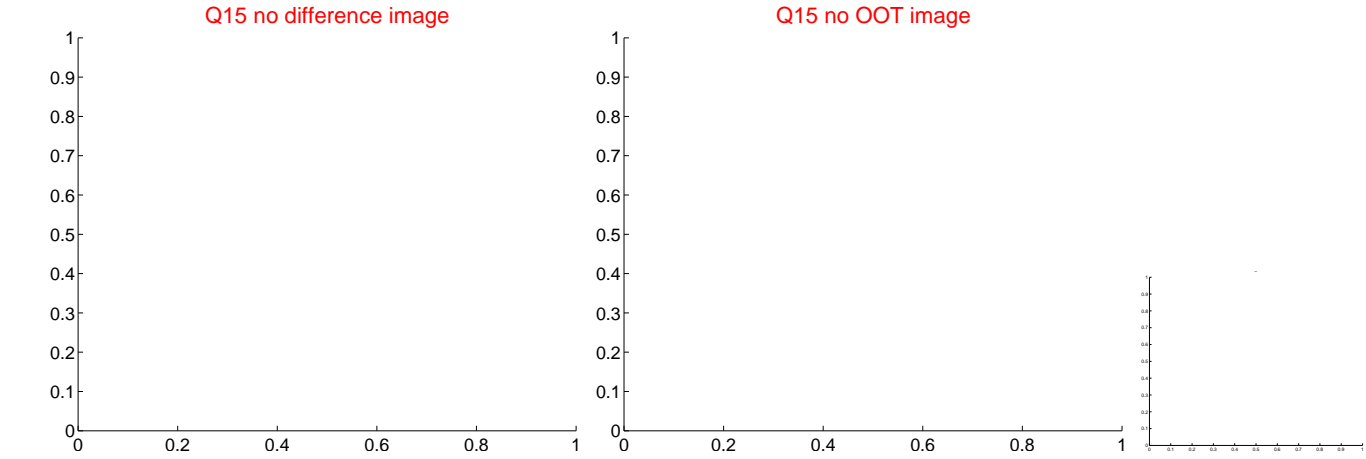
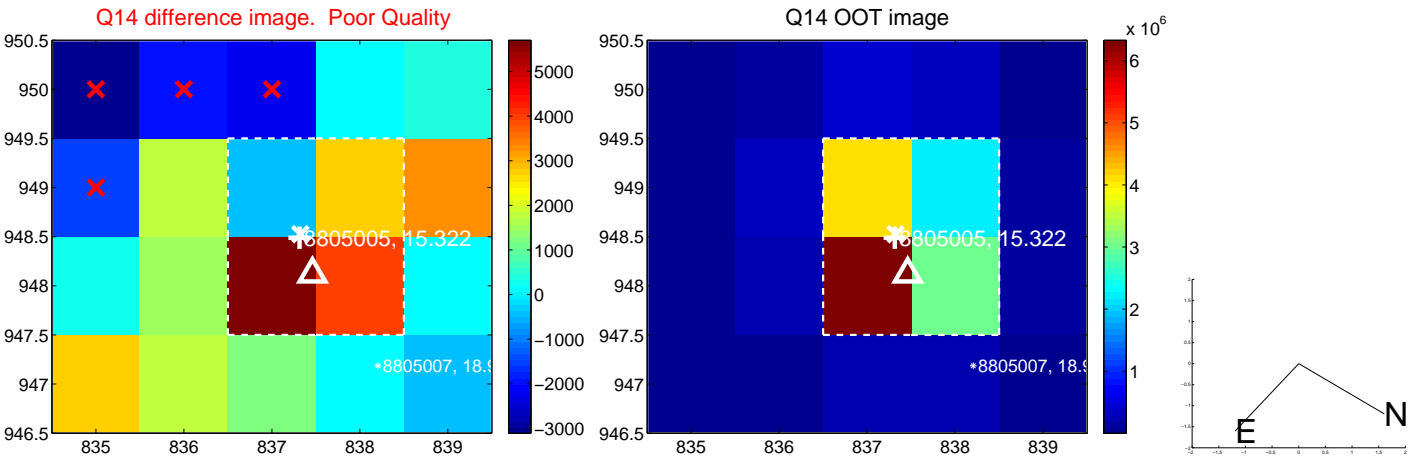
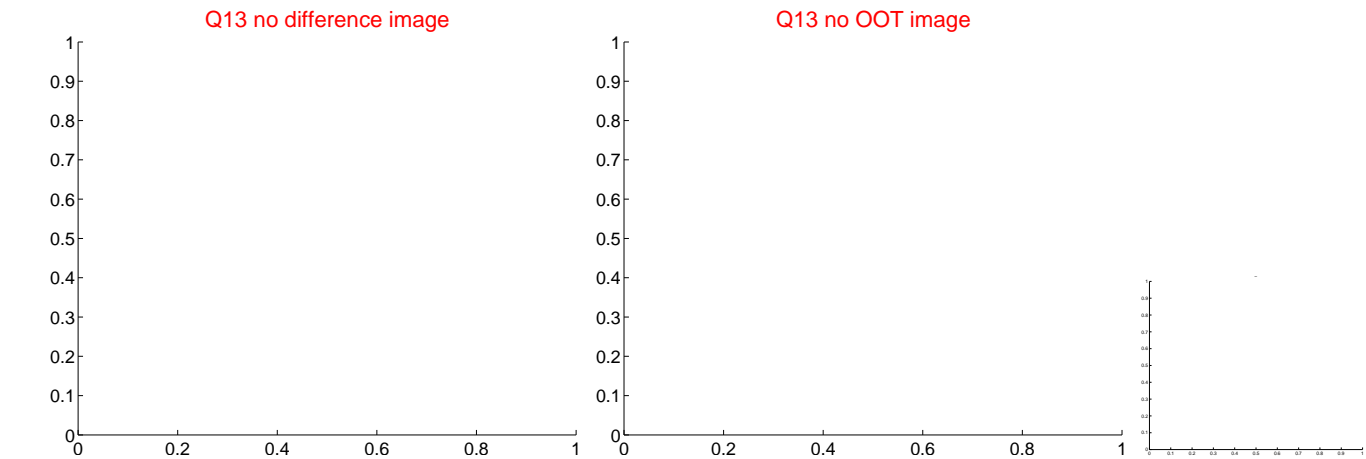
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



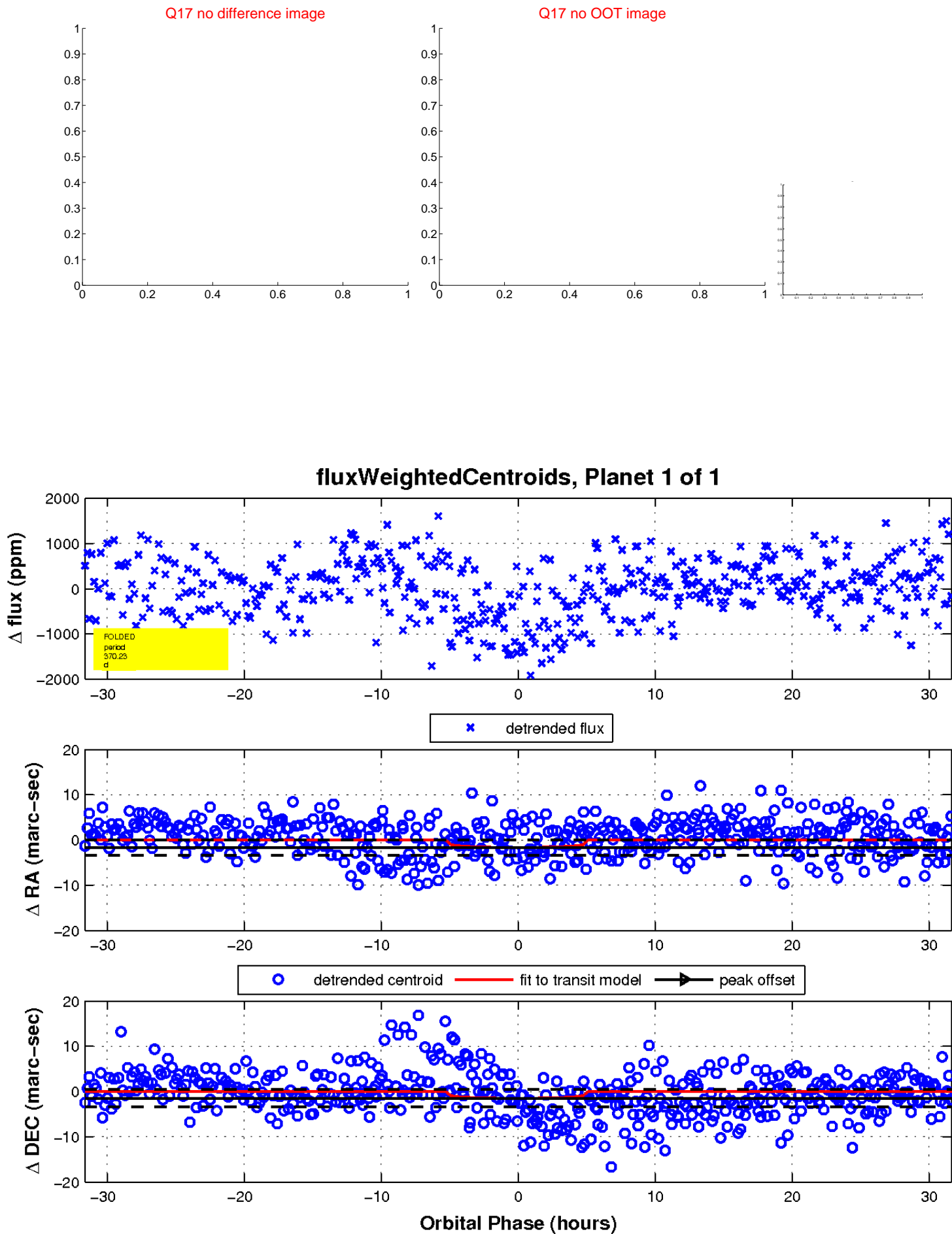
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

