

KIC 008604892

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})
008604892-01	OBS	No	559.421129	337.098645	1057.0	31.590	7.2	8.1	163.42	3189	584.71	1468.02

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008604892-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_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.

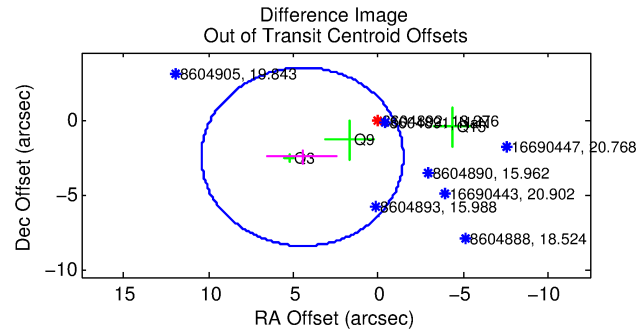
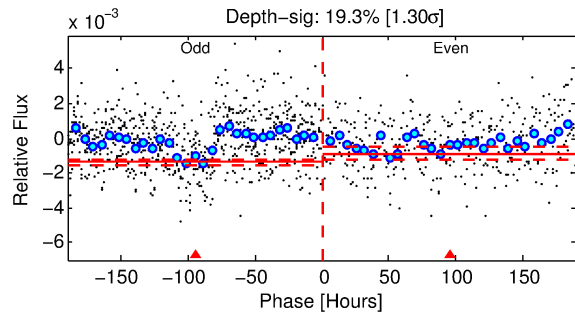
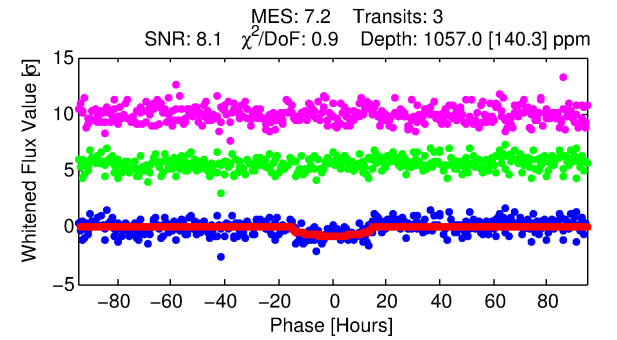
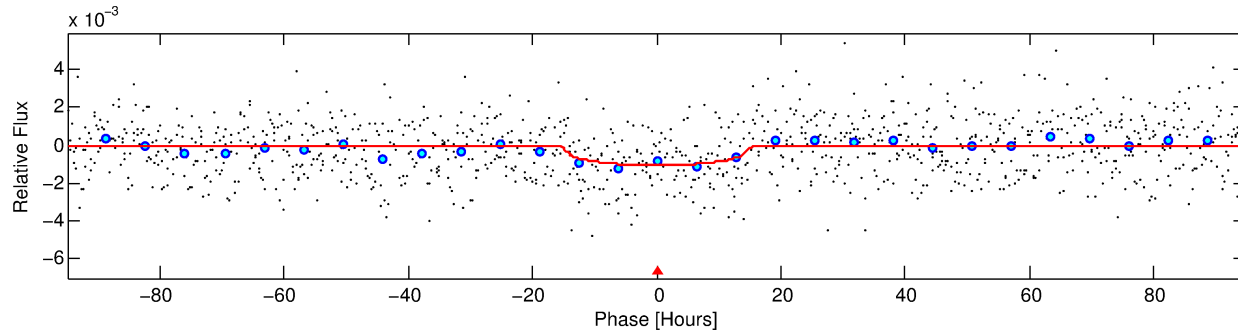
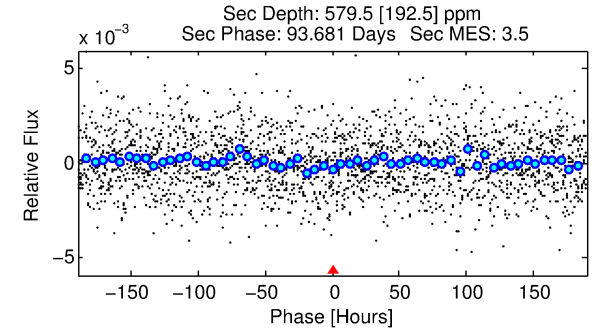
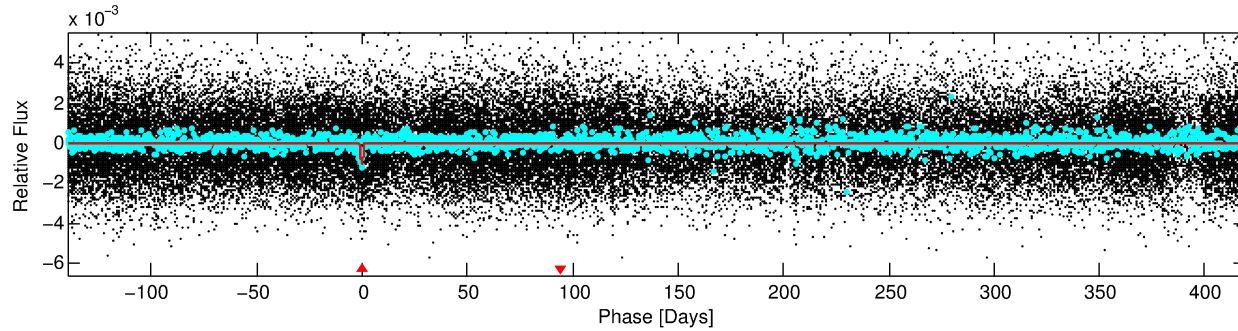
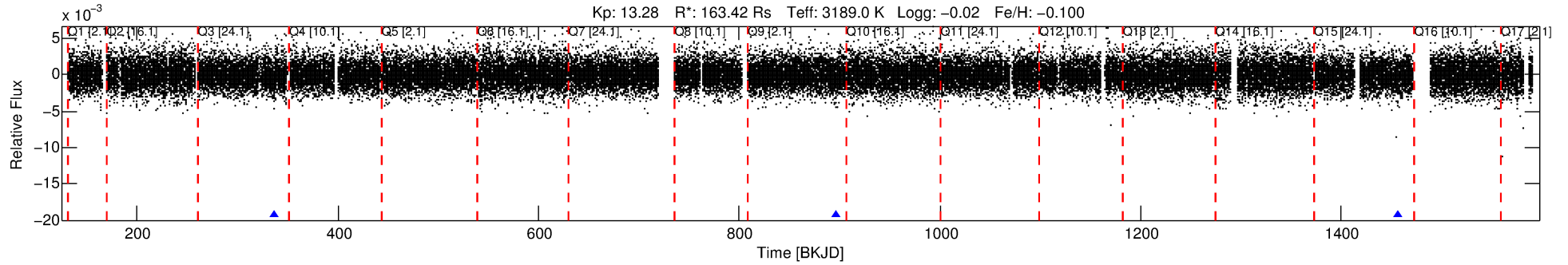
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008604892-01

No Significant Match Found

DV One-Page Summary

KIC: 8604892 Candidate: 1 of 1 Period: 559.421 d



DV Fit Results:

Period = 559.42113 [0.04652] d
Epoch = 337.0986 [0.0632] BKJD
Rp/R* = 0.0328 [0.0151]
a/R* = 96.76 [108.92]
b = 0.75 [0.70]
Seff = 1468.02 [568.56]
Teq = 1578 [153] K
Rp = 584.71 [282.16] Re
a = 1.2984 [0.2564] AU
Ag = 1.57 [1.64] [0.35σ]
Teffp = 2732 [677] K [1.66σ]

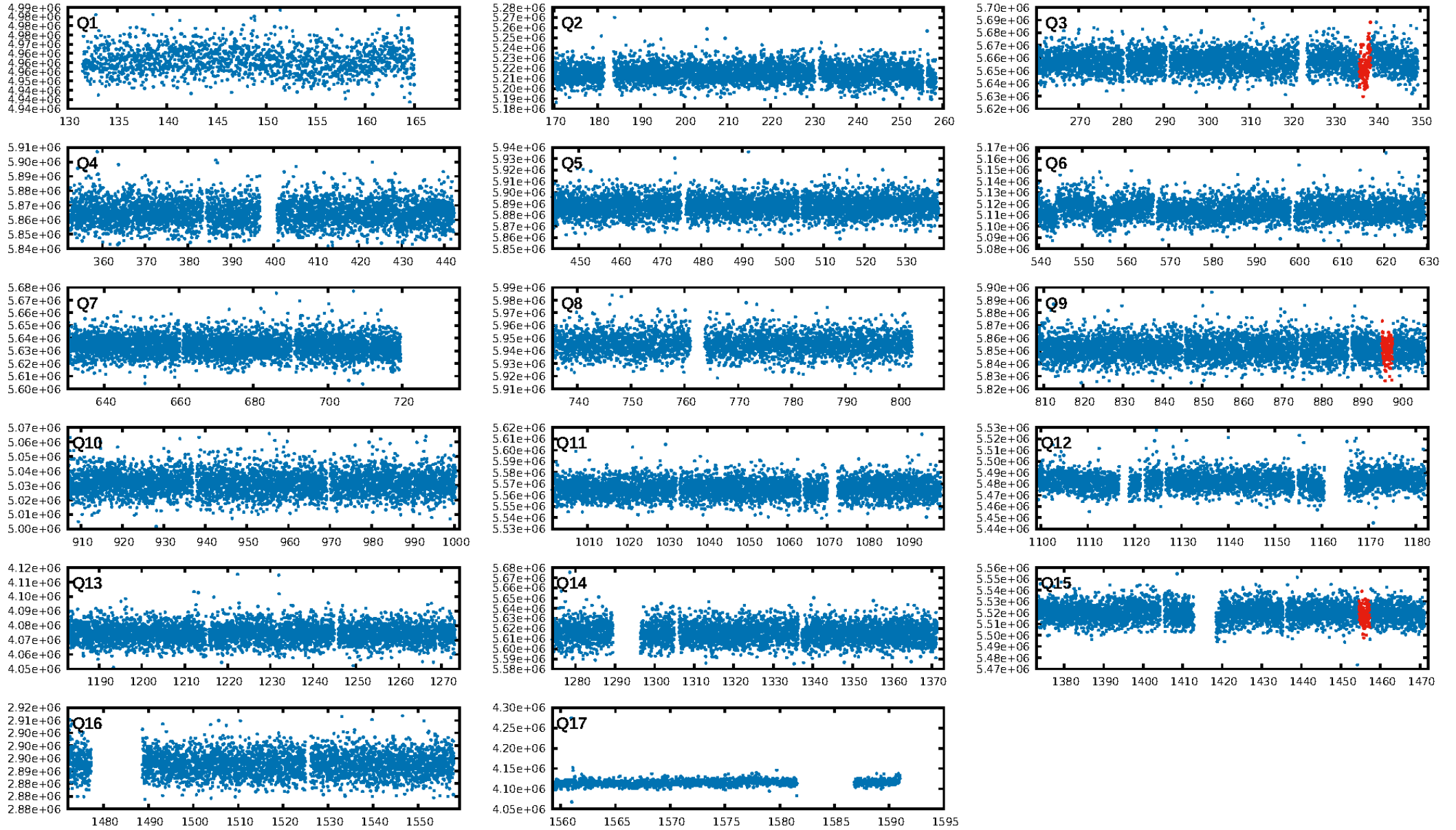
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.1%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 8.21e-14
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 5.025
Centroid-sig: 28.9%
Centroid-so: 1.888 arcsec [0.97σ]
OotOffset-rm: 5.097 arcsec [2.57σ]
KicOffset-rm: 5.284 arcsec [1.87σ]
OotOffset-st: 0/2/0/1 [3]
KicOffset-st: 0/2/0/1 [3]
DiffImageQuality-fgm: 0.33 [1/3]
DiffImageOverlap-fno: 1.00 [3/3]

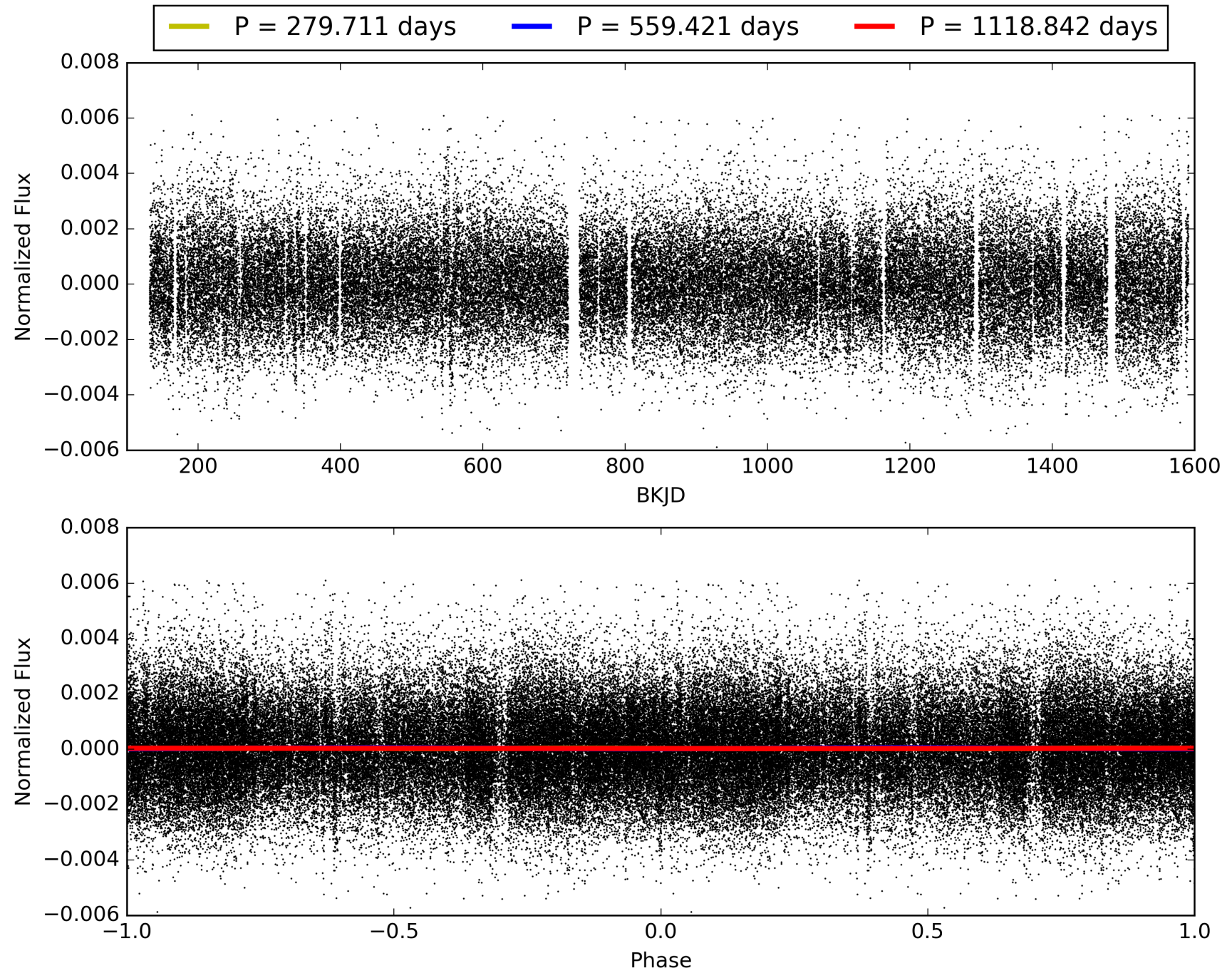
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 22:46:55 Z

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

TCE 008604892-01, PDC Light Curves

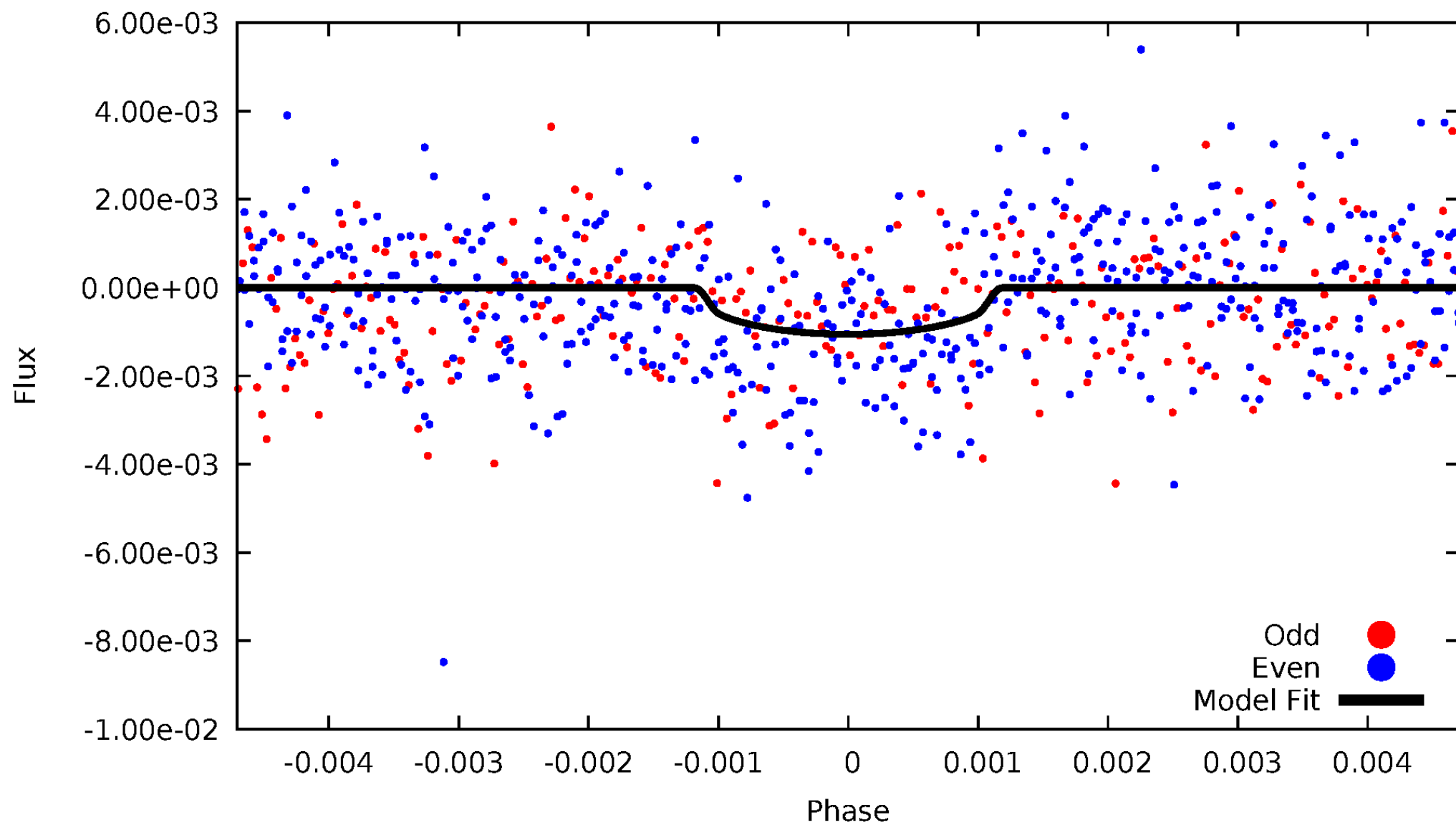


TCE 008604892-01



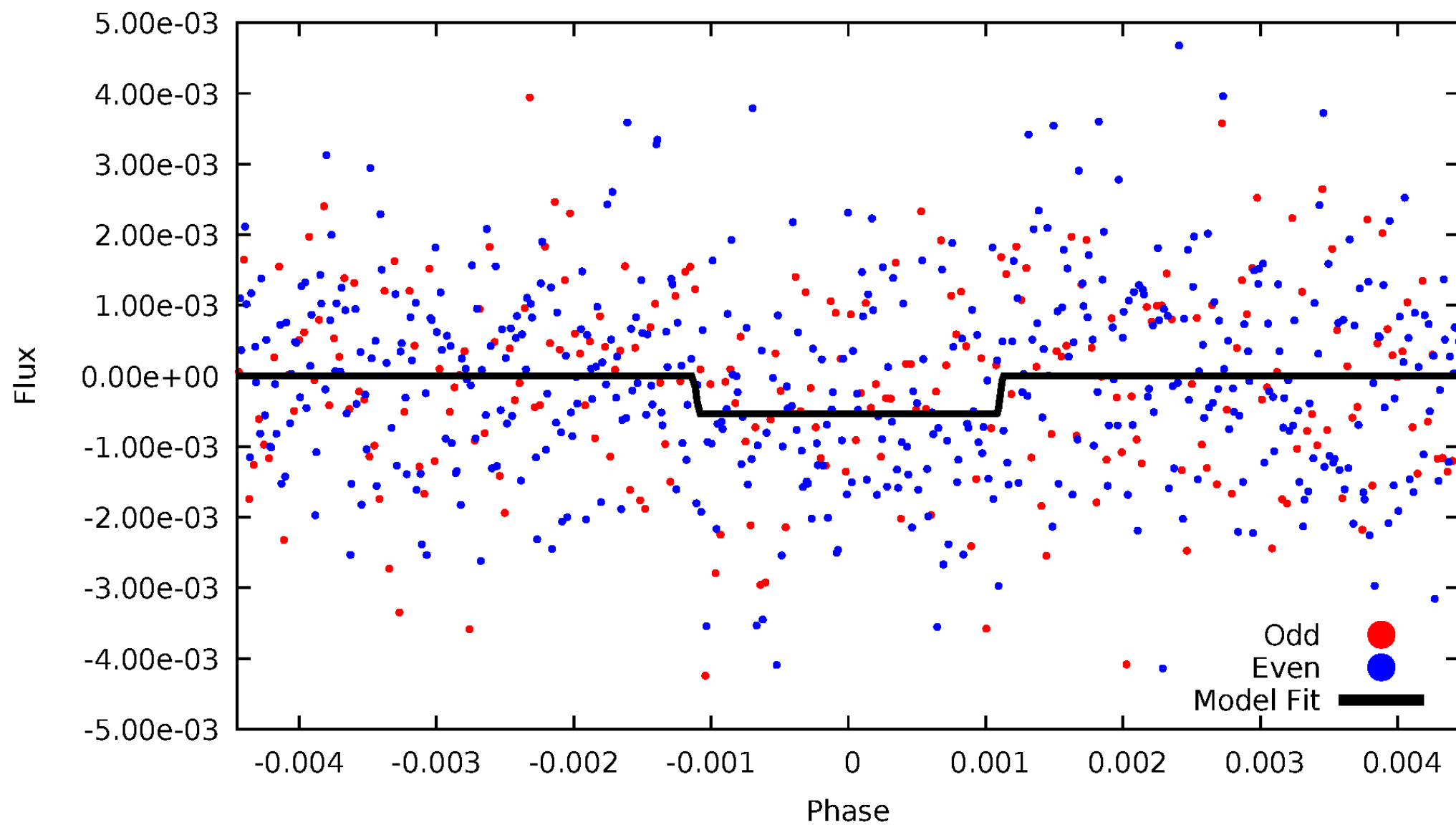
DV Odd/Even

TCE 008604892-01

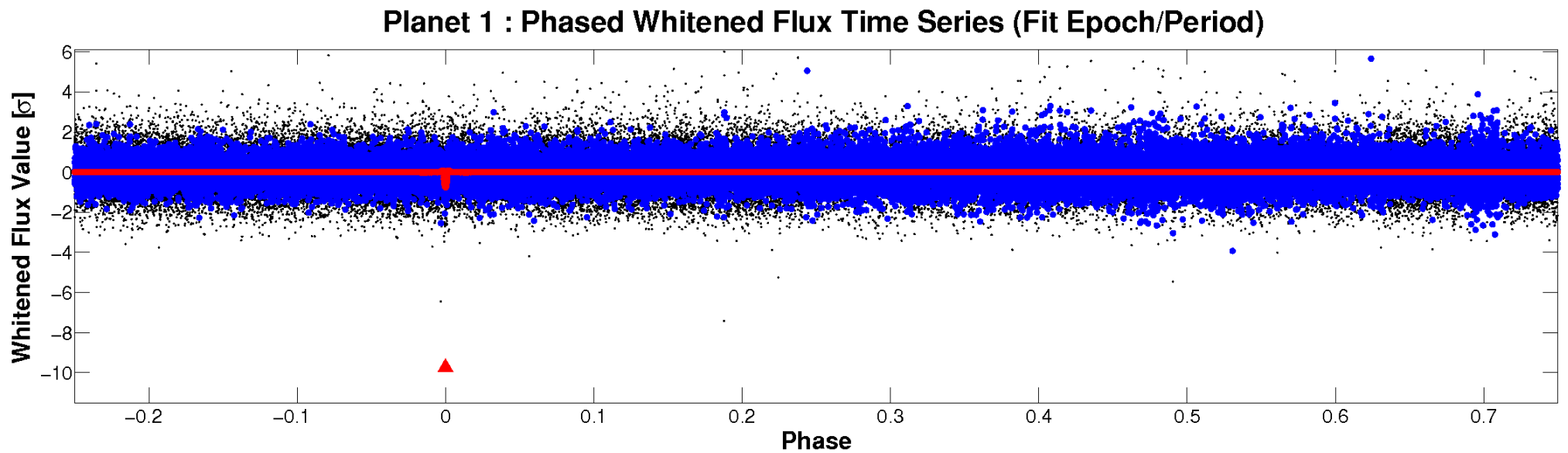
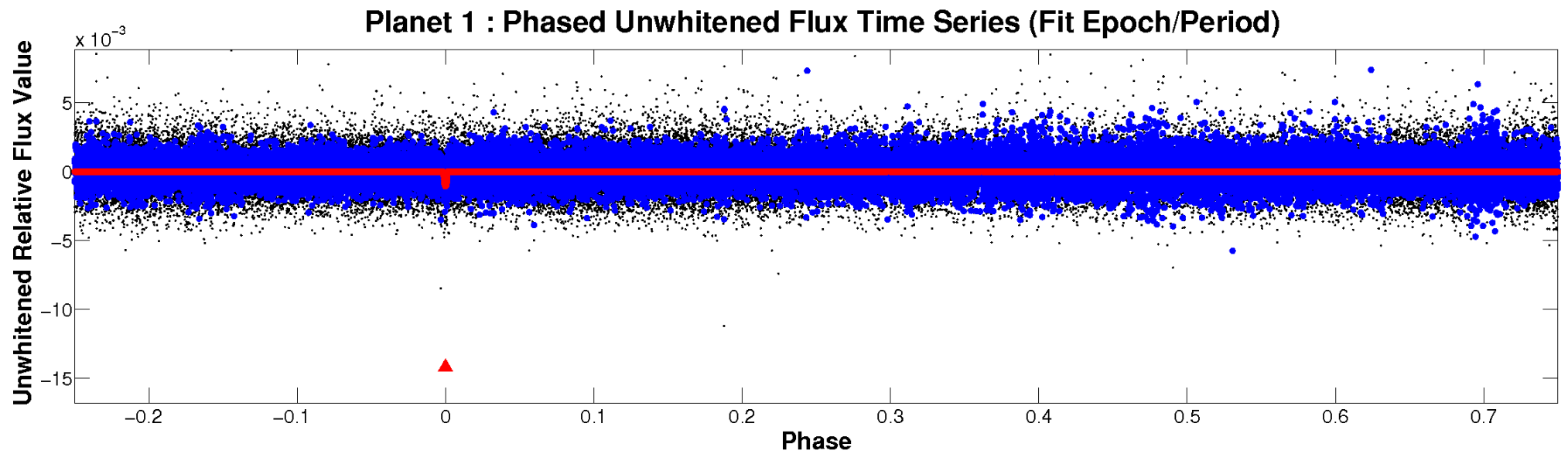


ALT Odd/Even

TCE 008604892-01



Non-Whitened Vs. Whitened Light Curve



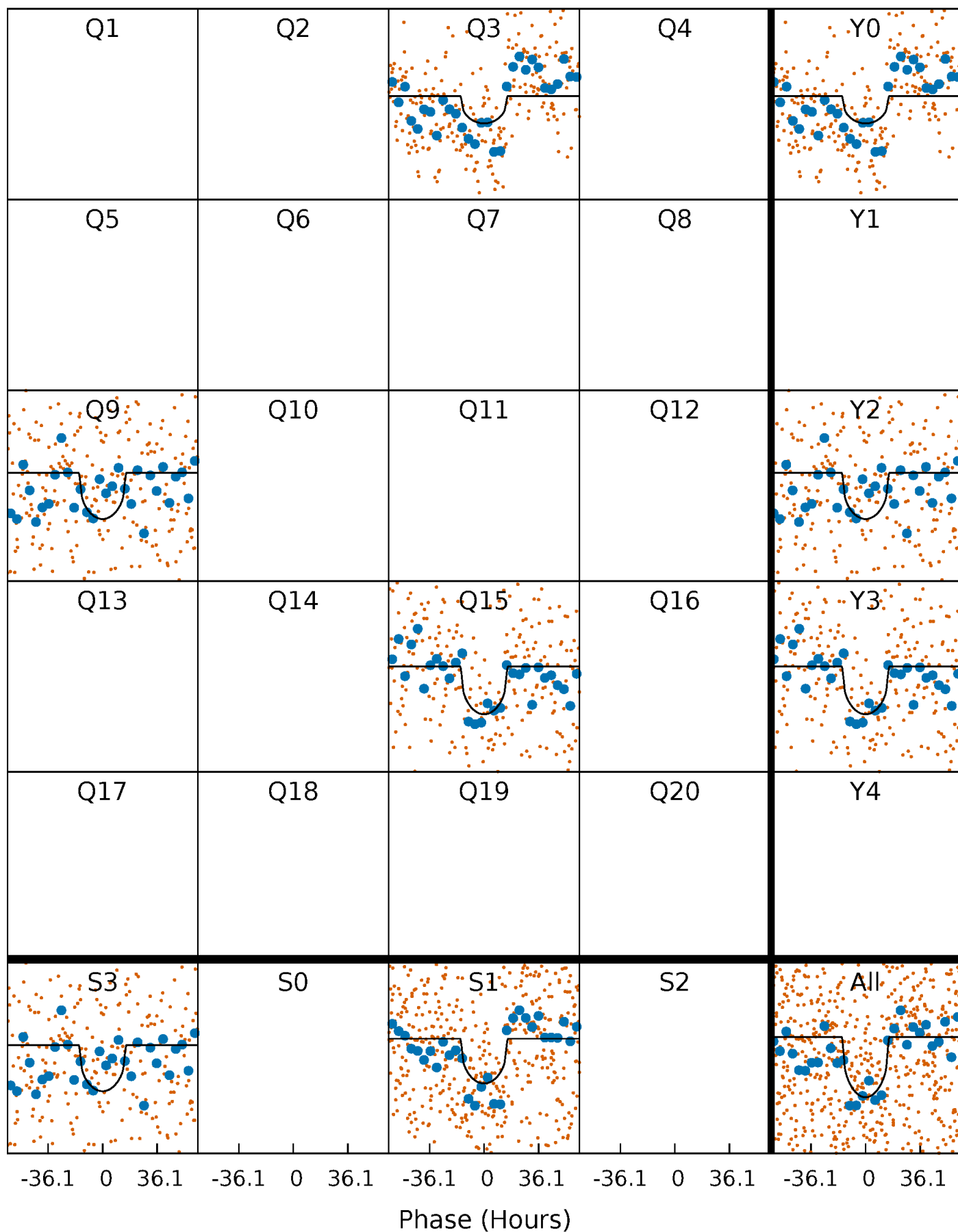
PDC Quarter-Phased Transit Curves

TCE 008604892-01 P=559.421129 Days $T_0=337.098645$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 008604892-01 P=559.421129 Days $T_0=337.098645$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

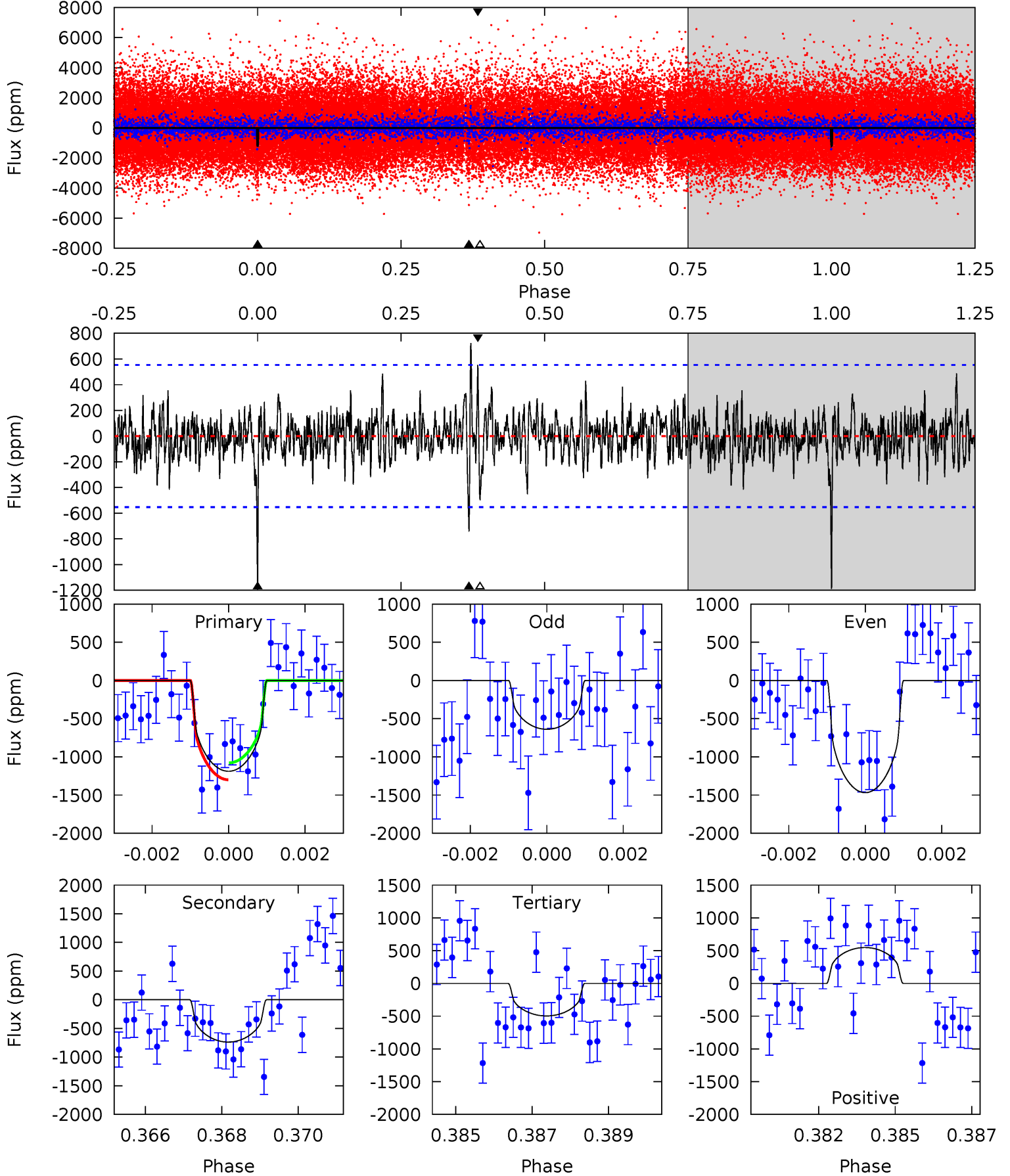
TCE 008604892-01 P=559.525362 Days $T_0=337.012119$ (BKJD)



DV Model-Shift Uniqueness Test

008604892-01, P = 559.421129 Days, E = 337.098645 Days

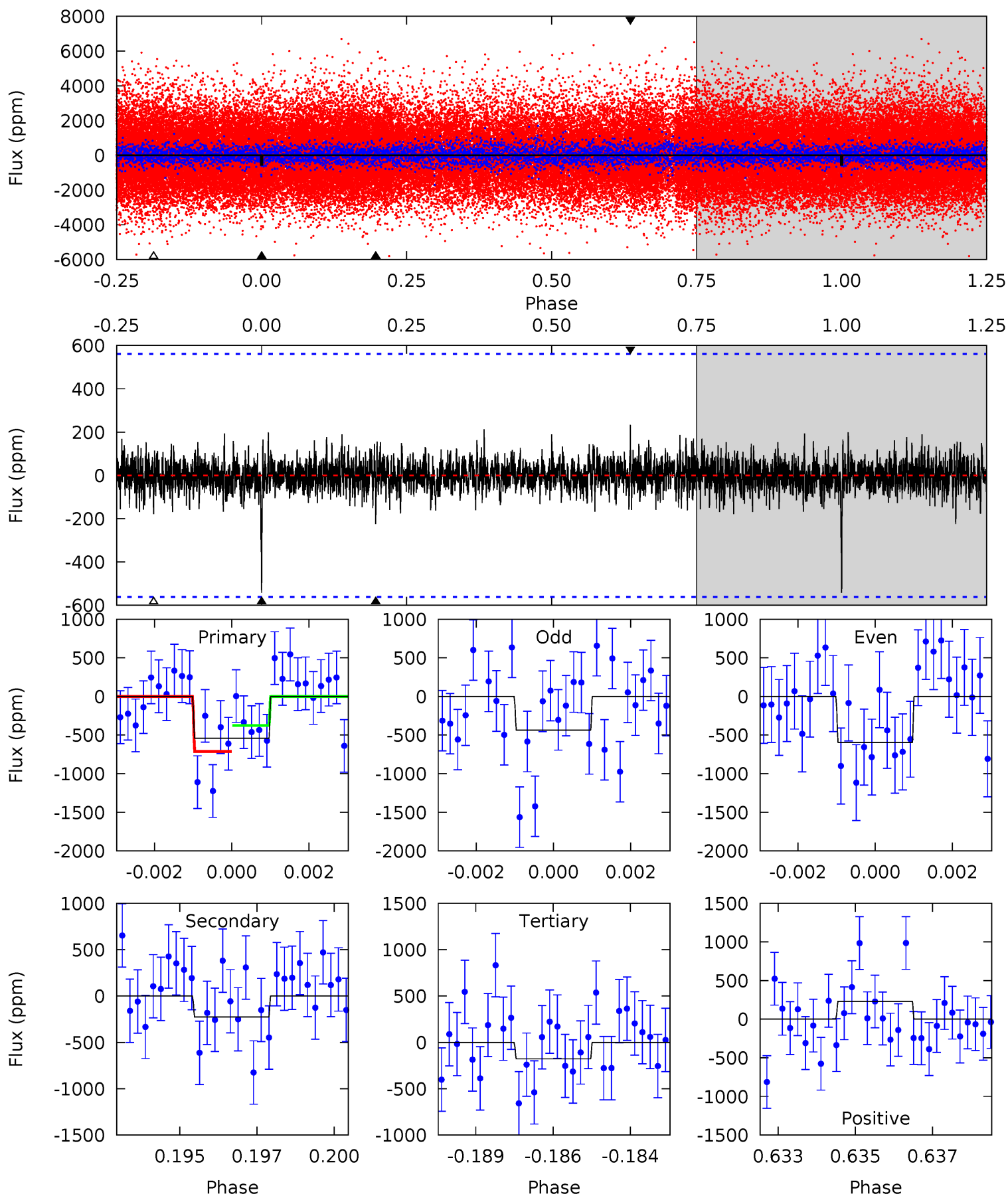
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.4	7.07	4.76	5.24	5.30	3.04	1.27	6.62	6.14	2.31	1.83	3.82	1.06	0.38	1.06



Alt Model-Shift Uniqueness Test

008604892-01, P = 559.525362 Days, E = 337.012119 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.13	2.12	1.69	2.20	5.31	3.06	0.48	3.44	2.93	0.43	-0.08	0.73	1.23	0.30	1.60



Stellar Parameters For KIC 008604892

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	3189^{+117}_{-78}	$-0.019^{+0.225}_{-0.038}$	$-0.100^{+0.300}_{-0.100}$	$163.420^{+7.826}_{-23.477}$	$0.933^{+0.327}_{-0.034}$	$0.000^{+0.000}_{-0.000}$
	+4%/-2%	+1184%/-200%	+300%/-100%	+5%/-14%	+35%/-4%	+90%/-11%
Source	PHO54	PHO54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 008604892-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-738 ± 105	$579.68^{+289.75}_{-262.18}$	2165^{+94}_{-111}	2963^{+620}_{-403}	$2.143^{+5.030}_{-1.201}$
Alt.	-224 ± 106	$421.34^{+255.98}_{-223.01}$	2158^{+99}_{-108}	2652^{+807}_{-582}	$1.136^{+4.860}_{-0.747}$

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

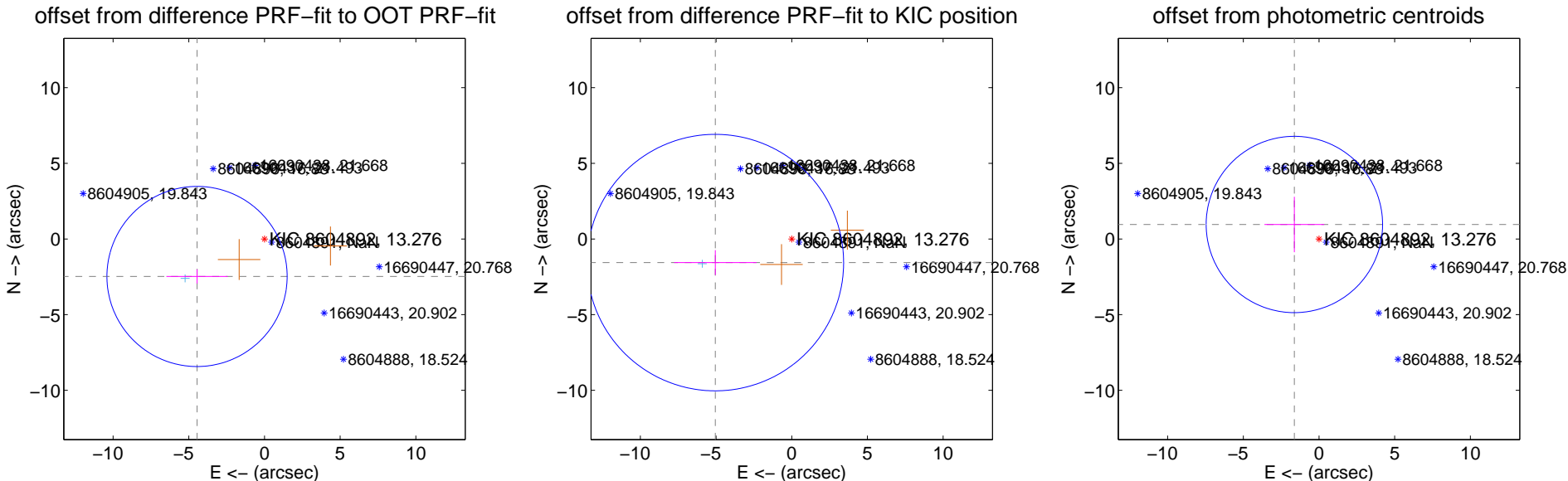
DV Centroid Data

Supplemental centroid analysis for 008604892-01. Kepler magnitude: 13.28. Transit SNR 8.15

There are 1 quarters with good PRF difference image offsets

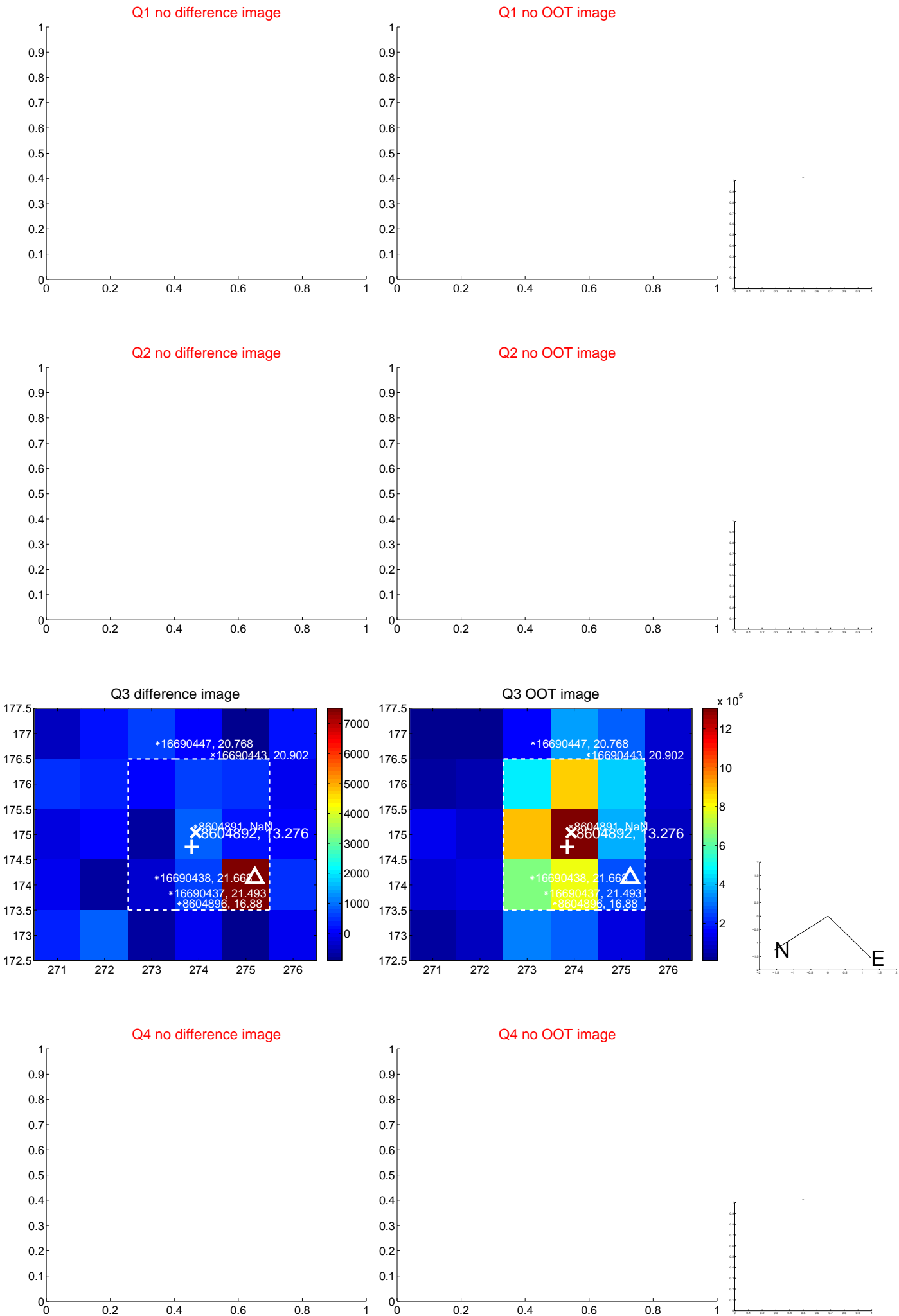
The direct PRF centroid is offset from the target star catalog position by about 1.25 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	5.097 ± 1.984	2.57	4.455 ± 2.021	-2.477 ± 0.465
PRF-fit source offset from KIC position	5.284 ± 2.825	1.87	5.048 ± 2.720	-1.560 ± 0.820
photometric centroid source offset	1.89 ± 1.94	0.97	1.63 ± 1.98	0.96 ± 1.83



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.

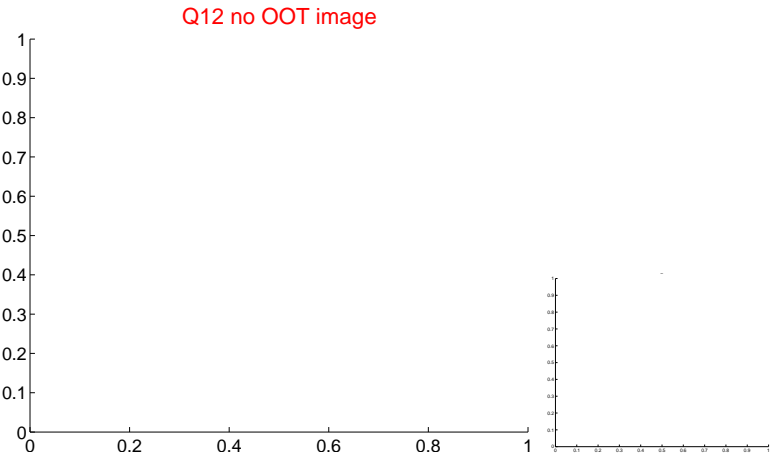
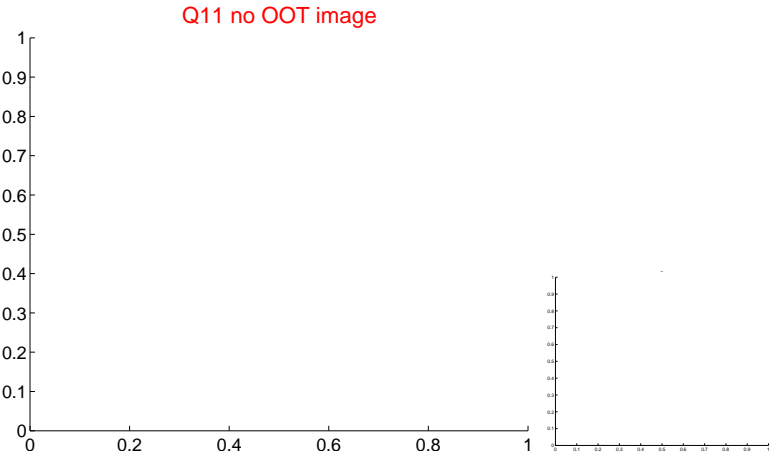
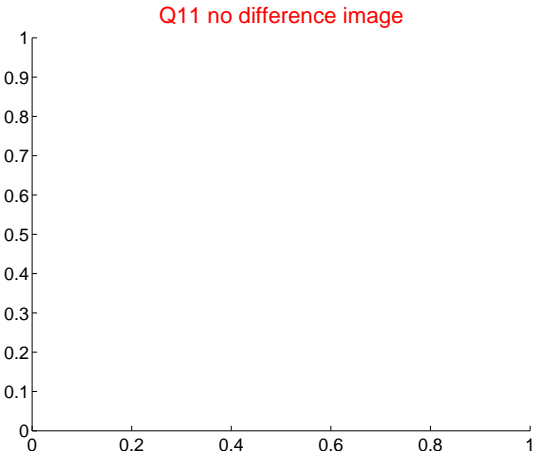
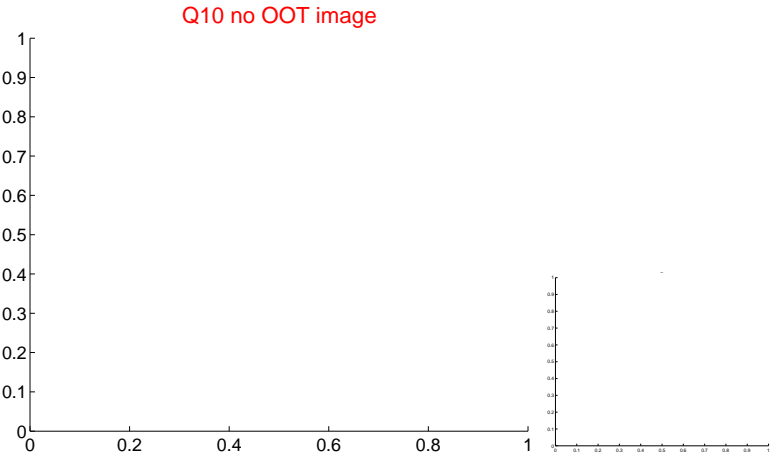
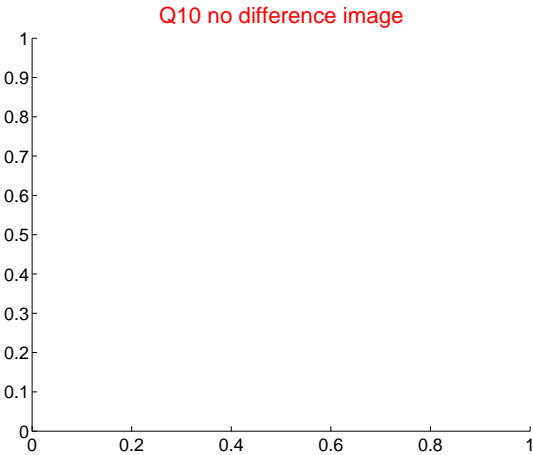
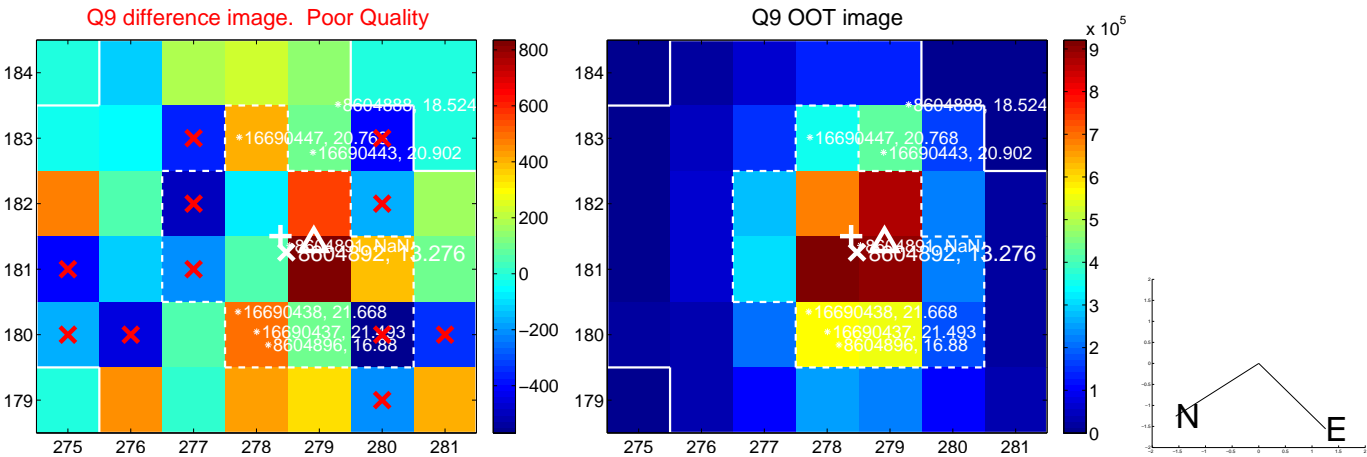
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



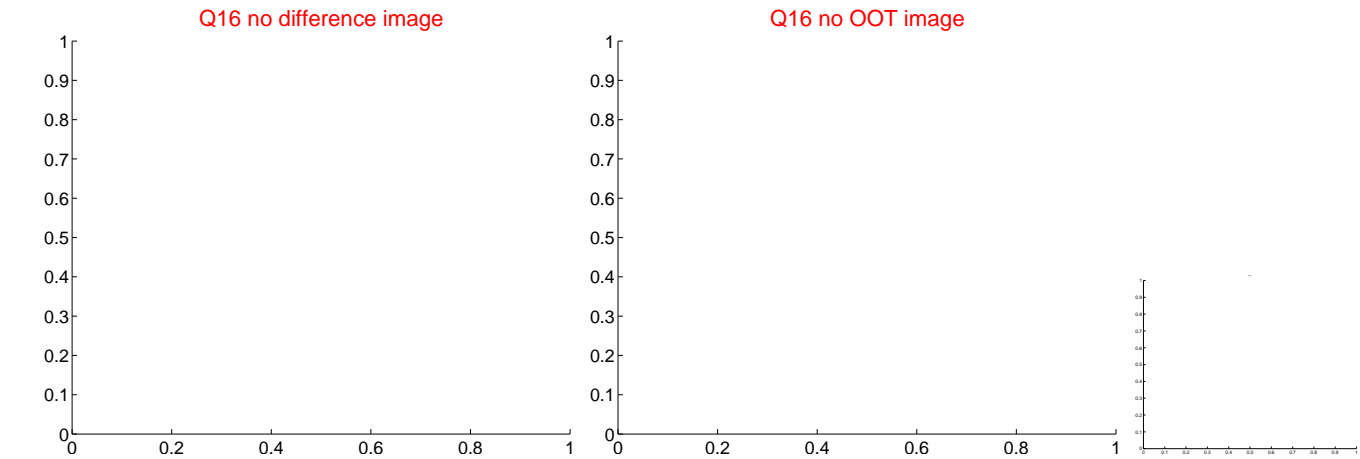
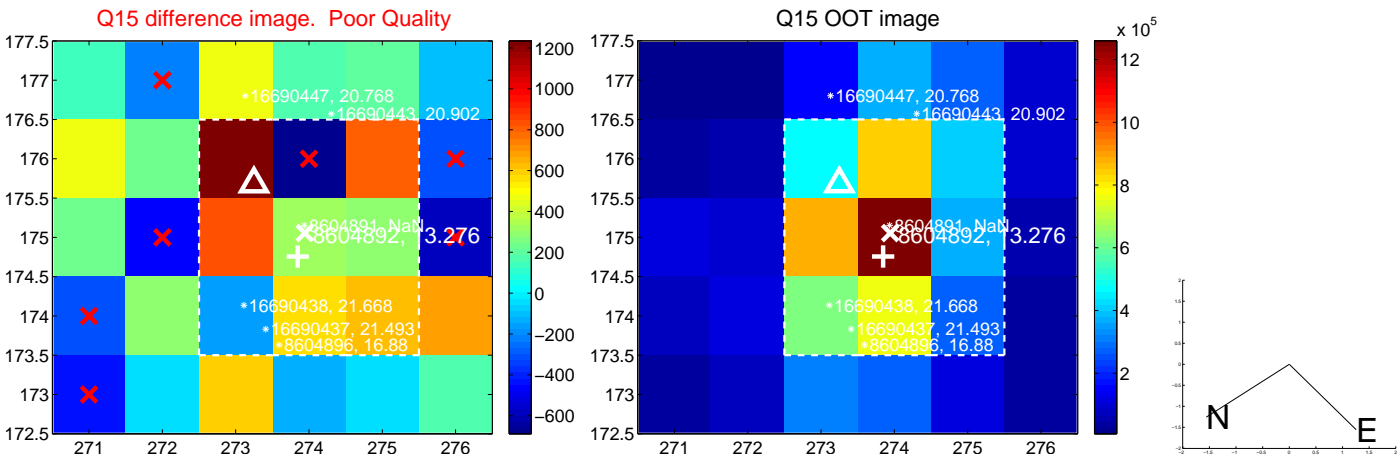
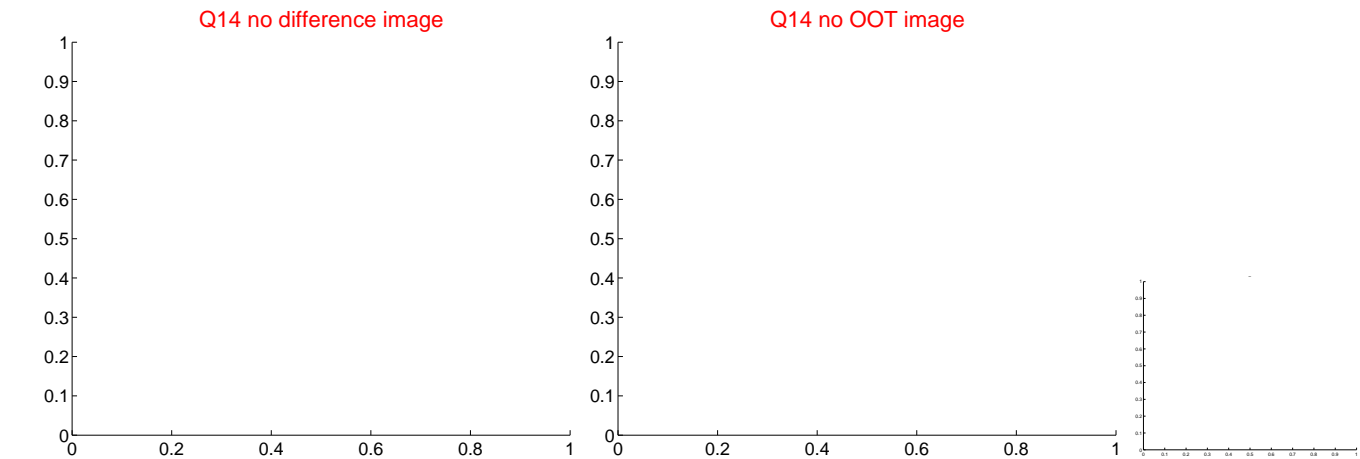
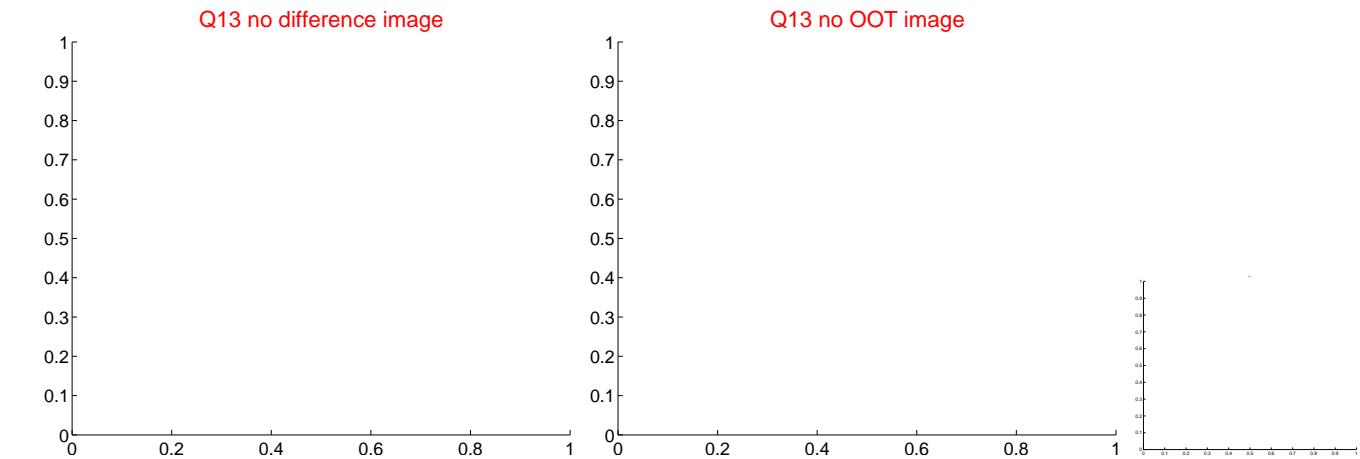
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



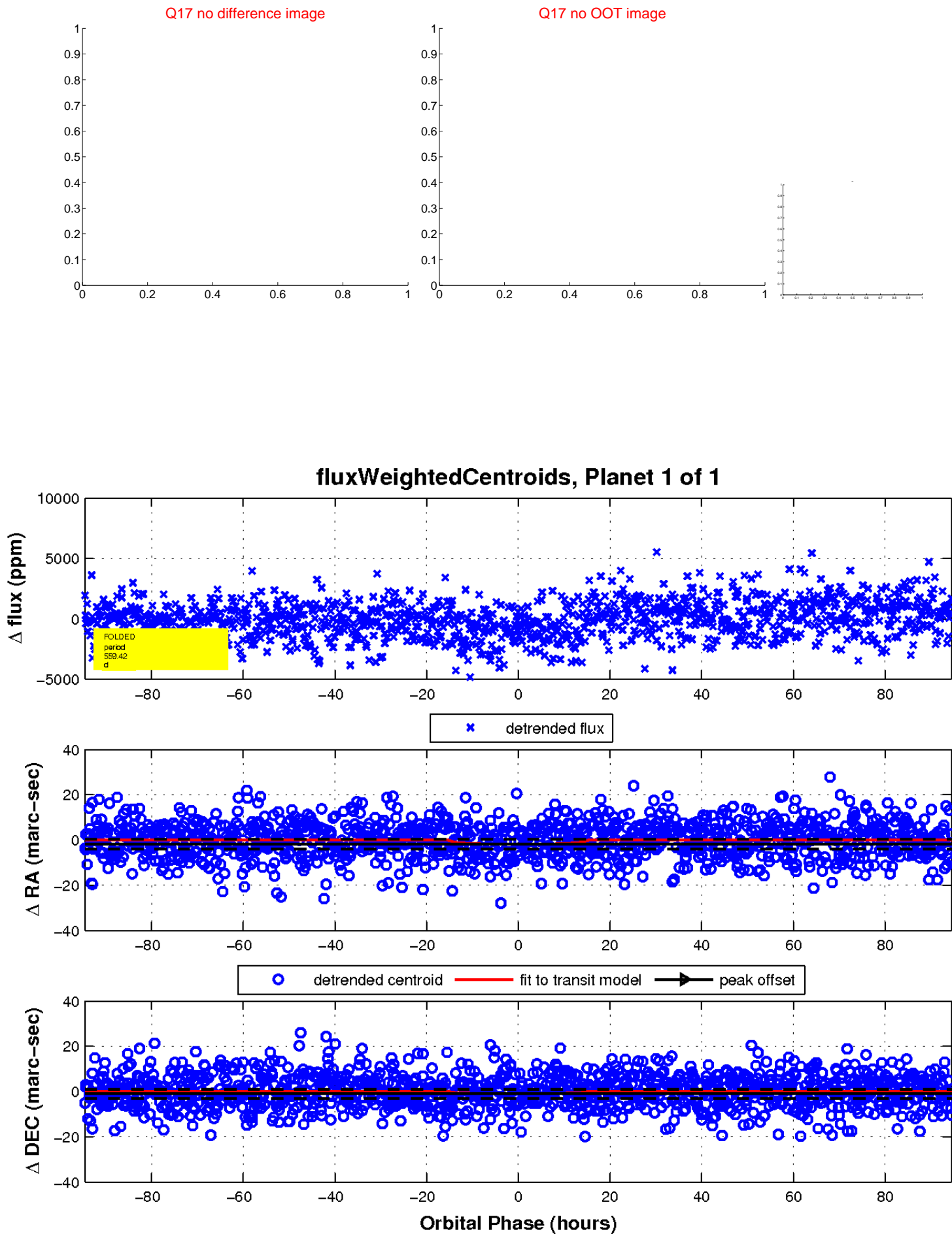
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



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



UKIRT Image

Declination

