

KIC 008885548

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})
008885548-01	OBS	No	587.946729	152.141703	249.3	20.266	7.4	8.2	0.85	6042	1.56	0.50

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008885548-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—ALL_TRANS_CHASES—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.

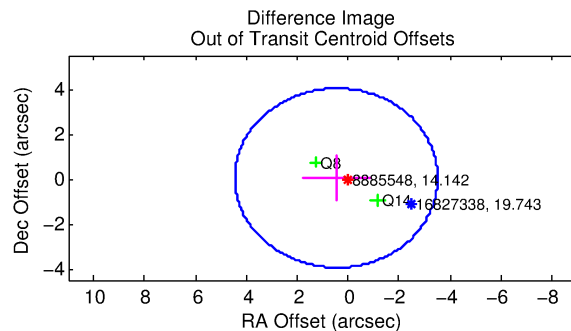
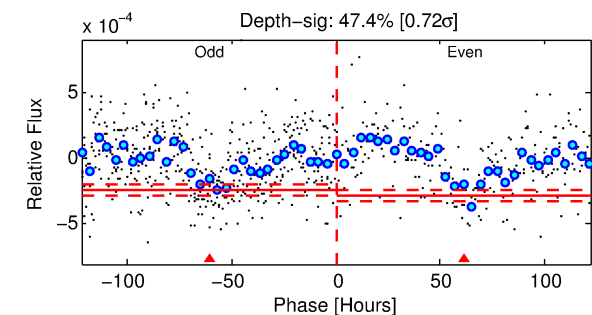
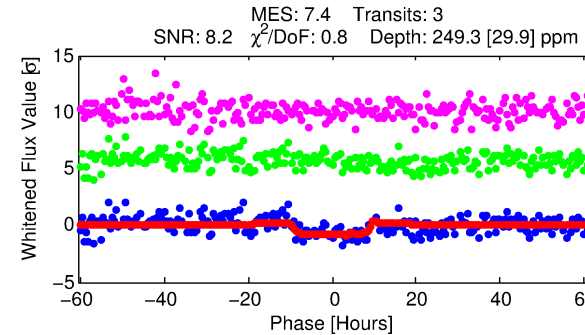
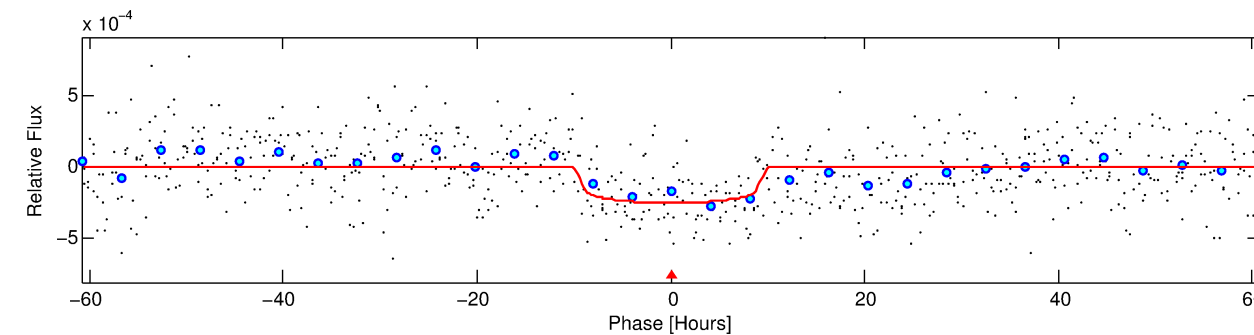
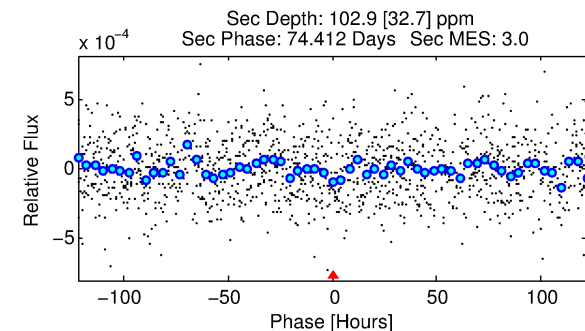
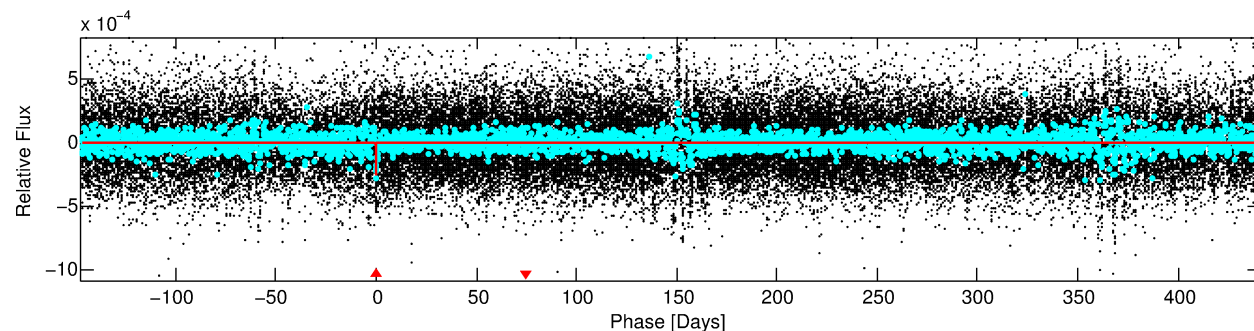
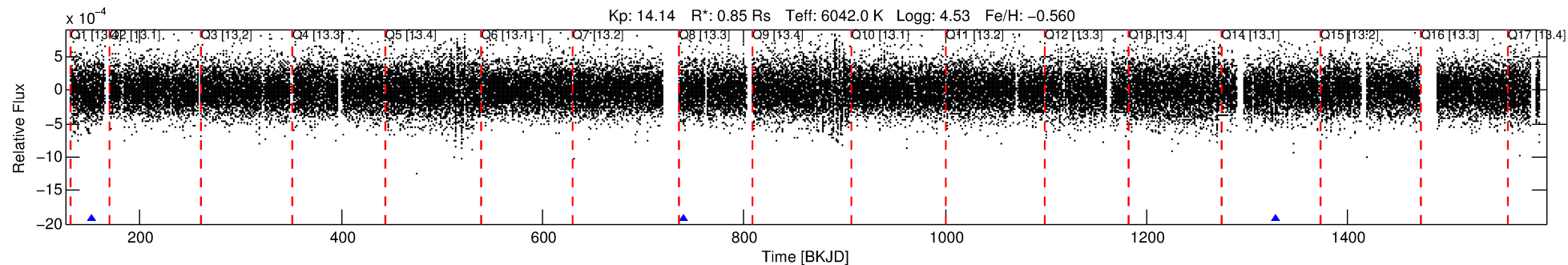
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008885548-01

No Significant Match Found

DV One-Page Summary

KIC: 8885548 Candidate: 1 of 1 Period: 587.947 d



DV Fit Results:

Period = 587.94673 [0.02037] d
Epoch = 152.1417 [0.0281] BKJD
Rp/R* = 0.0169 [0.0022]
a/R* = 108.01 [66.14]
b = 0.89 [0.14]
Seff = 0.50 [0.18]
Teq = 214 [19] K
Rp = 1.56 [0.46] Re
a = 1.3179 [0.2980] AU
Ag = 40195.37 [21426.02] [1.88σ]
Teffp = 4686 [504] K [8.87σ]

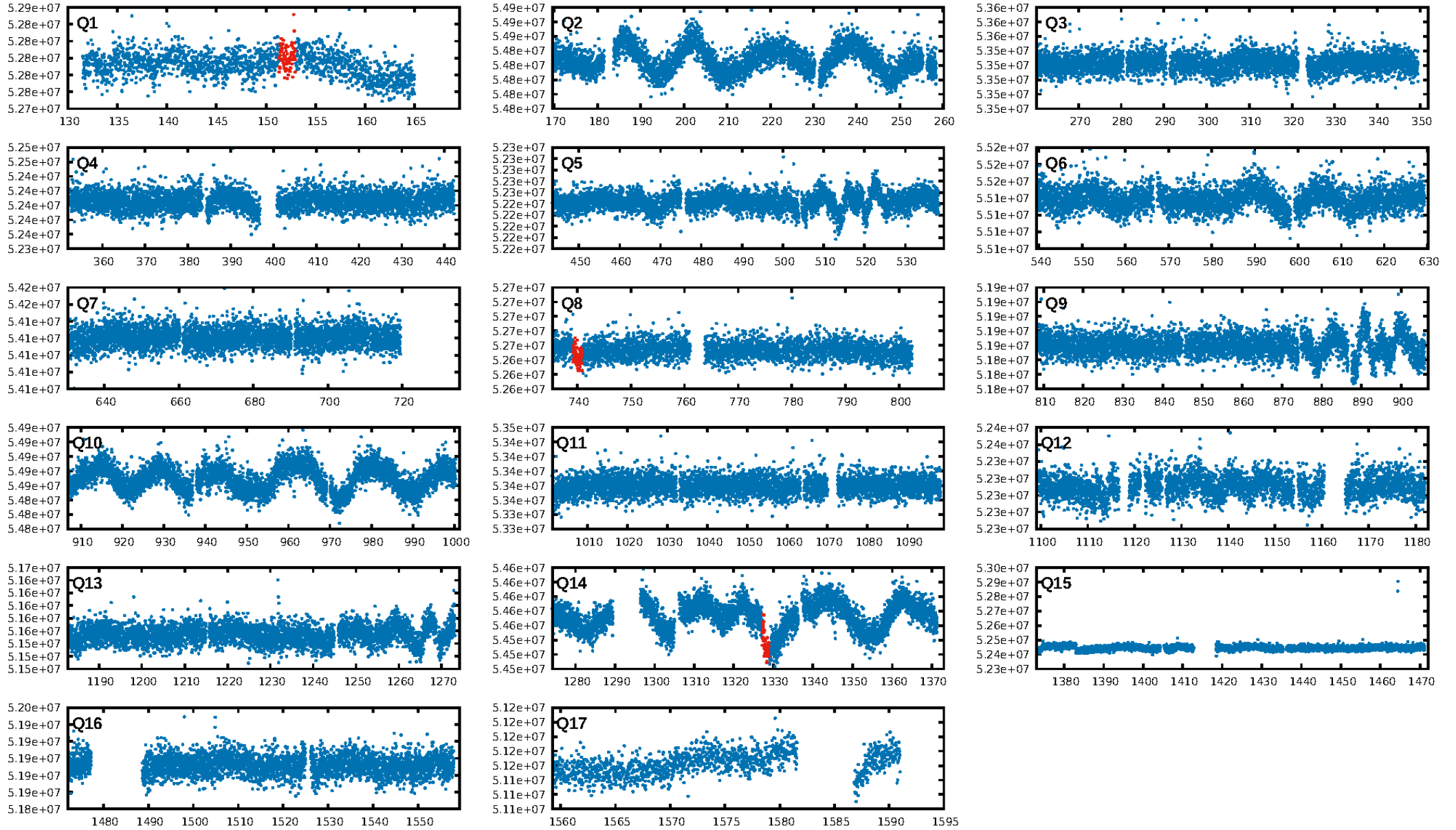
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 56.2%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 3.79e-11
RollingBand-fgt: 1.00 [2/2]
GhostDiagnostic-chr: -5.395
Centroid-sig: 13.9%
Centroid-so: 1.753 arcsec [1.16σ]
OotOffset-rm: 0.461 arcsec [0.35σ]
OotOffset-st: 1/0/1/0 [2]
KicOffset-rm: 0.422 arcsec [0.33σ]
KicOffset-st: 1/0/1/0 [2]
DiffImageQuality-fgm: 1.00 [2/2]
DiffImageOverlap-fno: 1.00 [3/3]

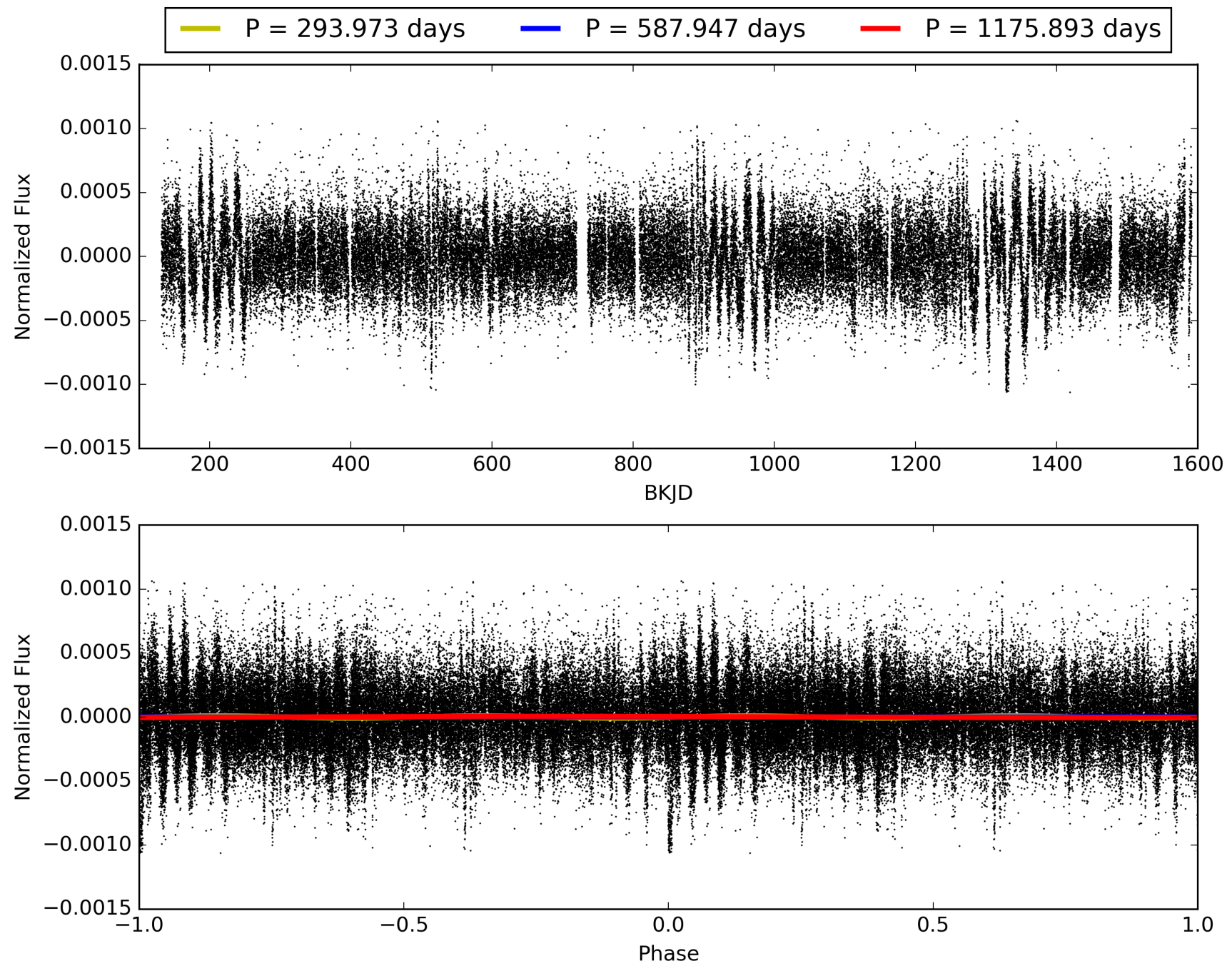
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 14:00:04 Z

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

TCE 008885548-01, PDC Light Curves

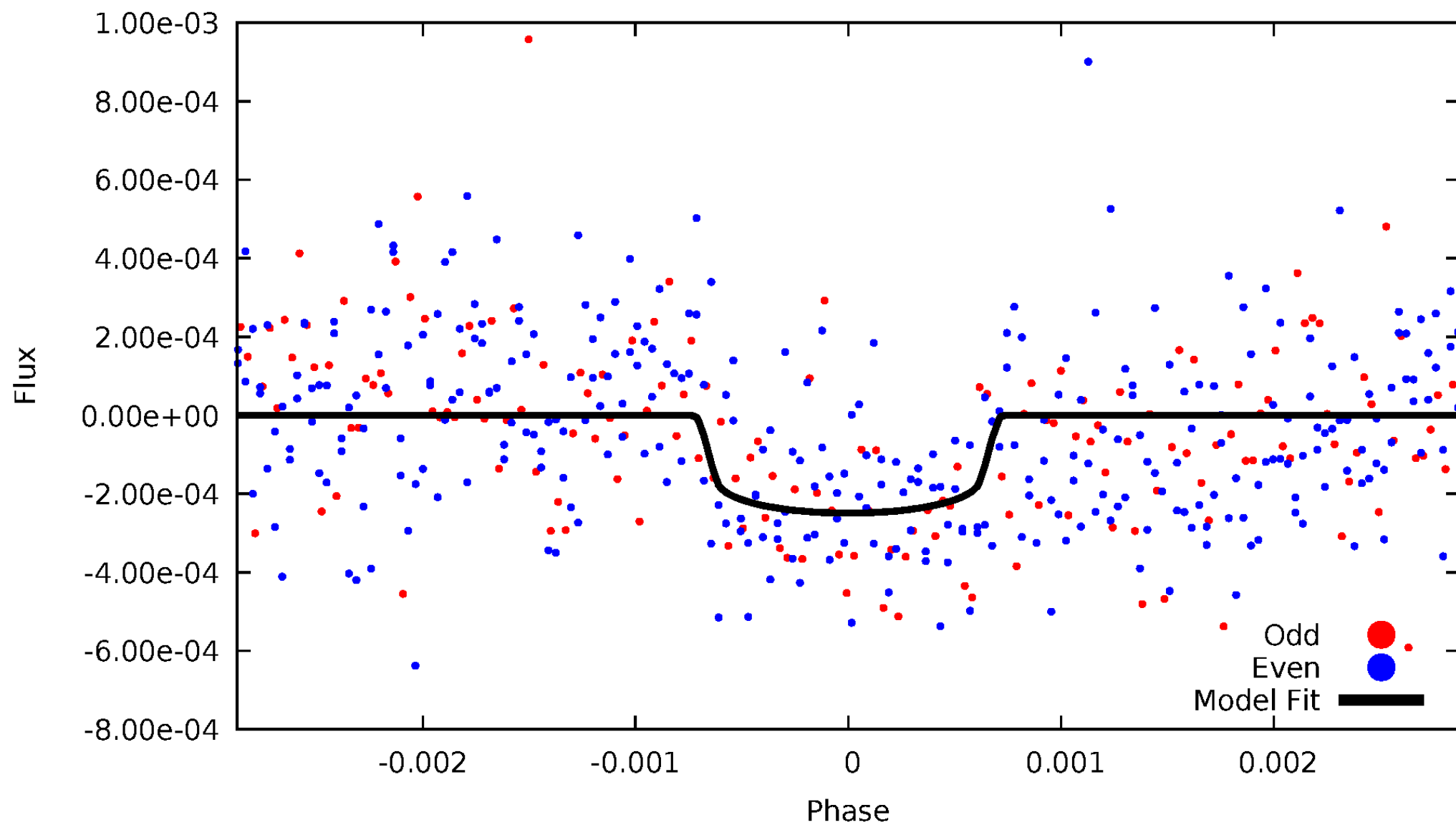


TCE 008885548-01



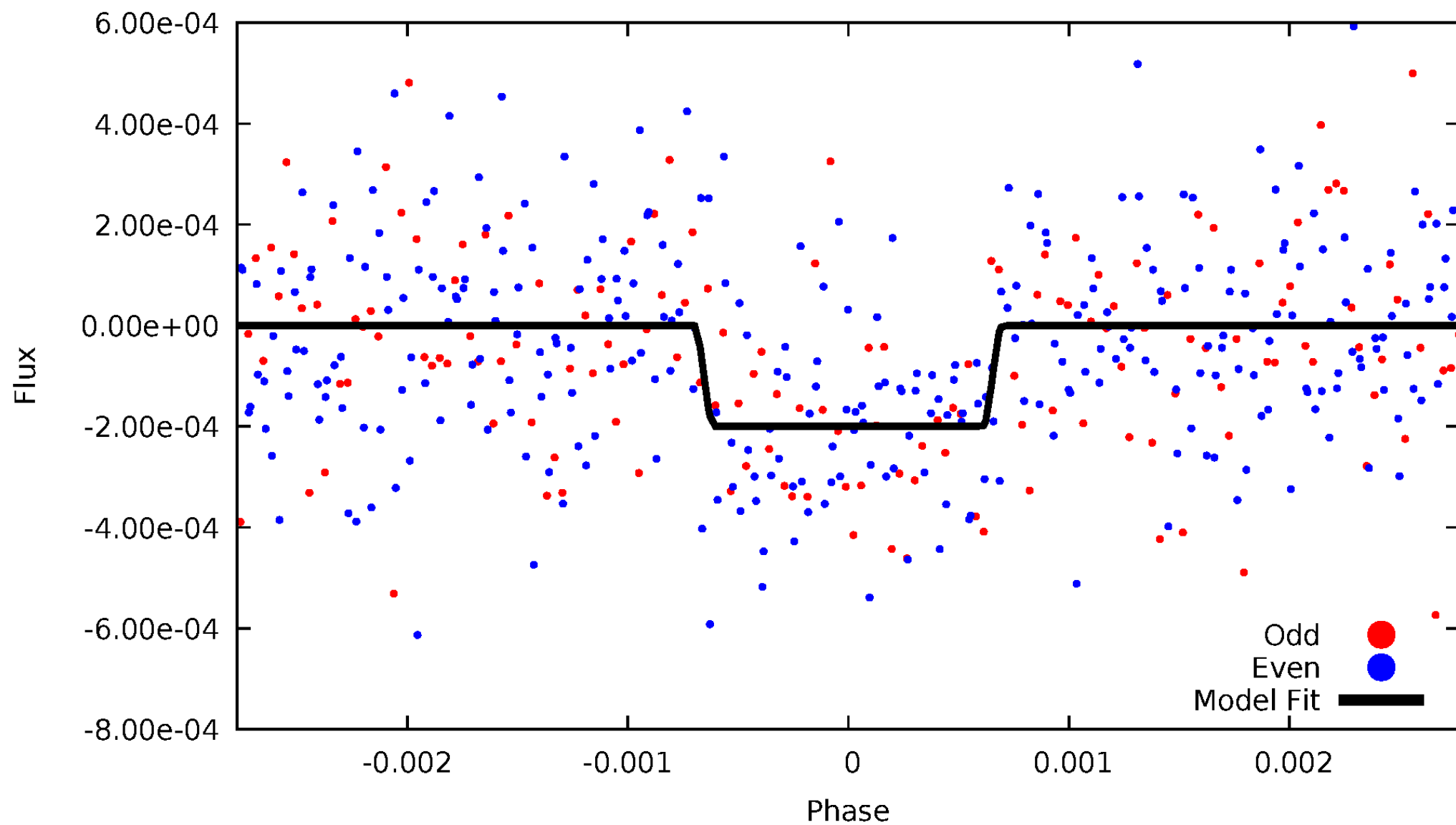
DV Odd/Even

TCE 00888548-01

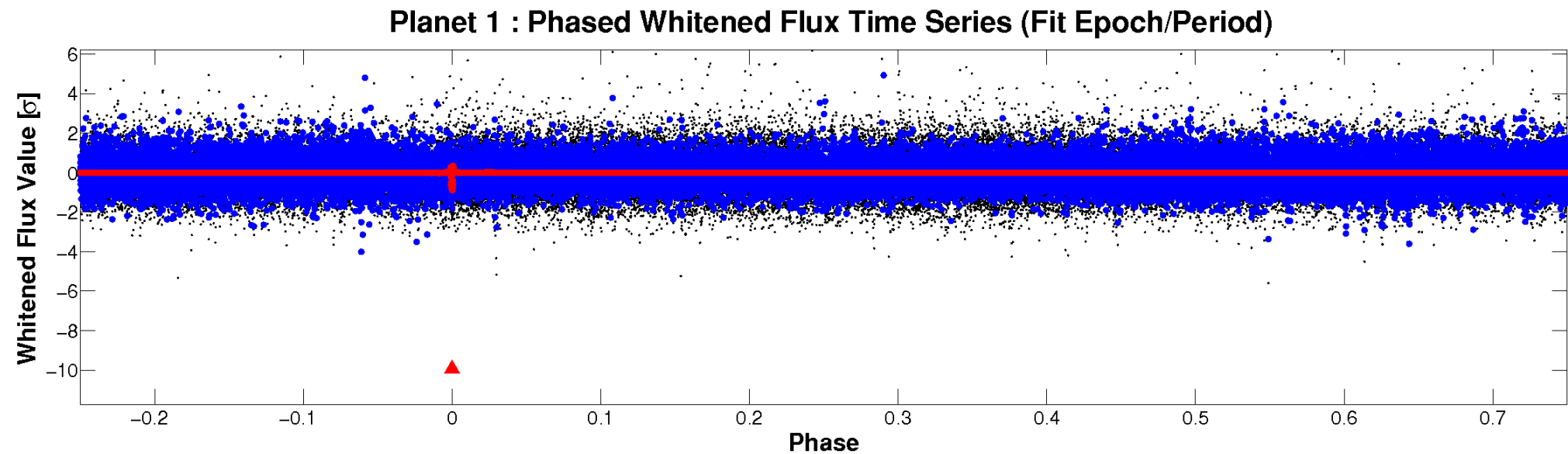
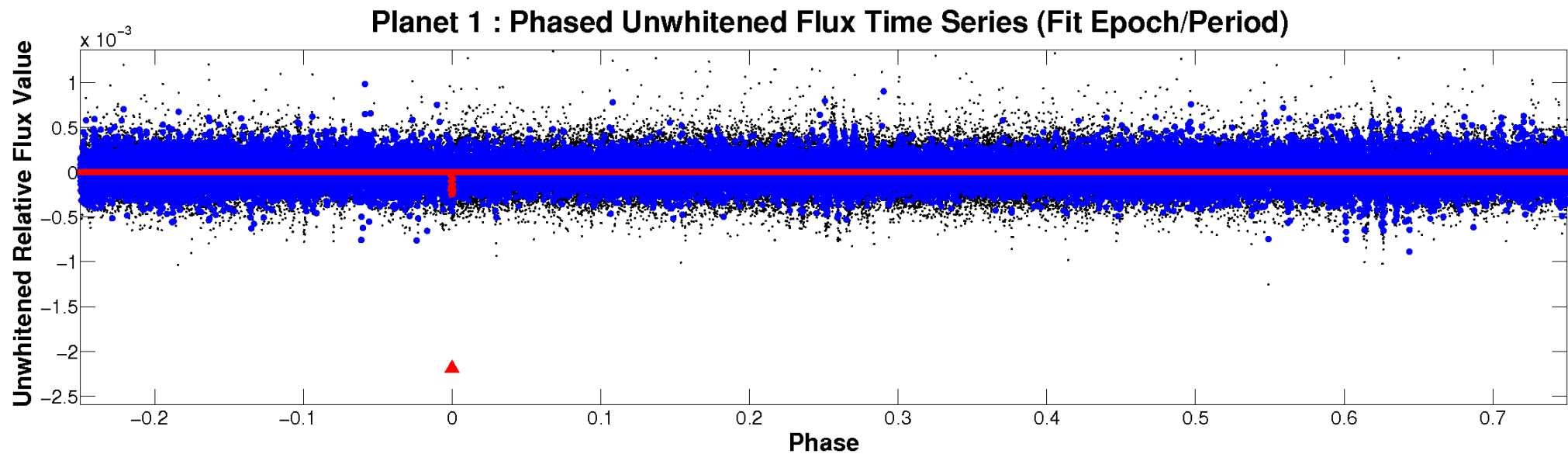


ALT Odd/Even

TCE 00888548-01

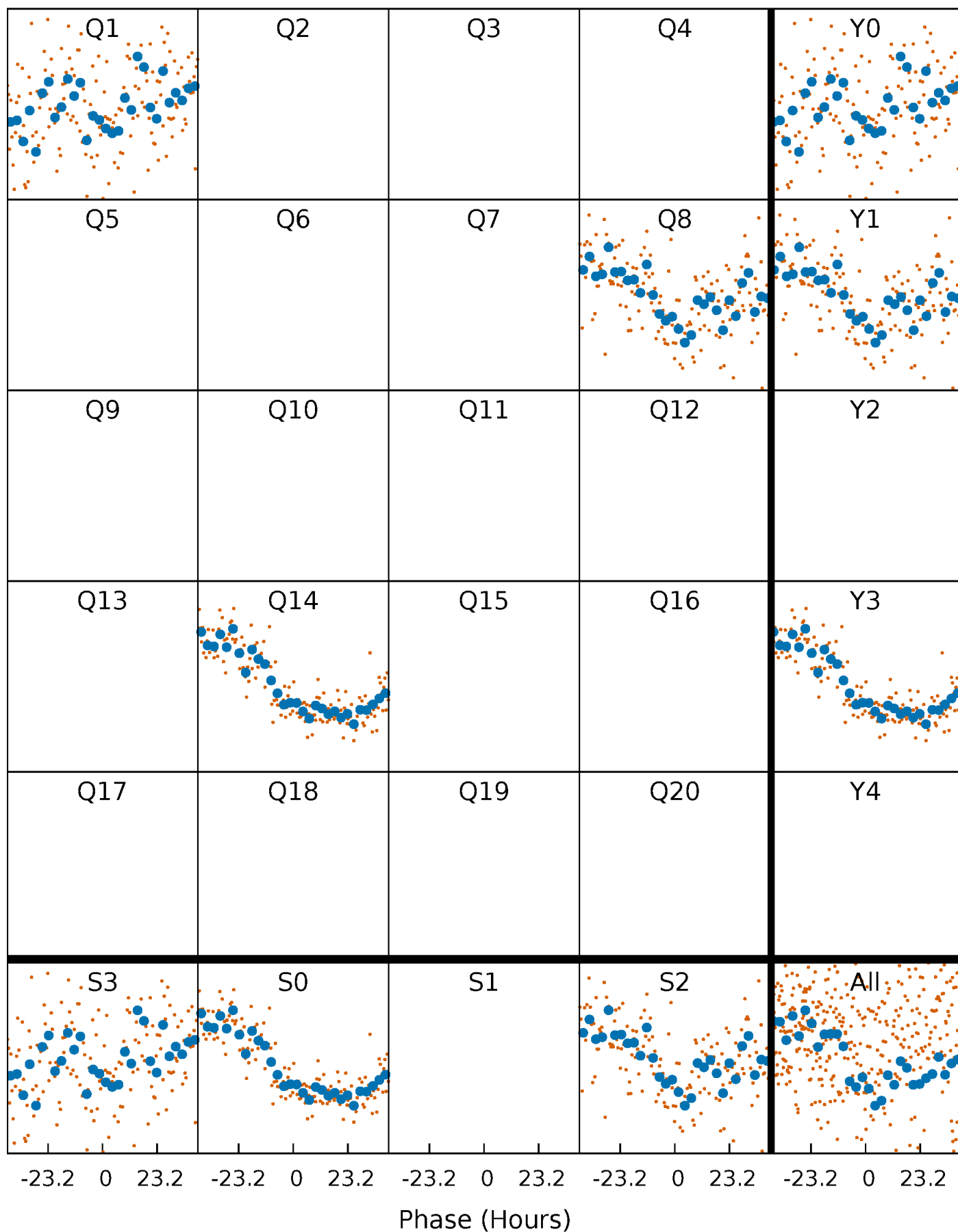


Non-Whitened Vs. Whitened Light Curve



PDC Quarter-Phased Transit Curves

TCE 008885548-01 P=587.946729 Days $T_0=152.141703$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 008885548-01 P=587.946729 Days $T_0=152.141703$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

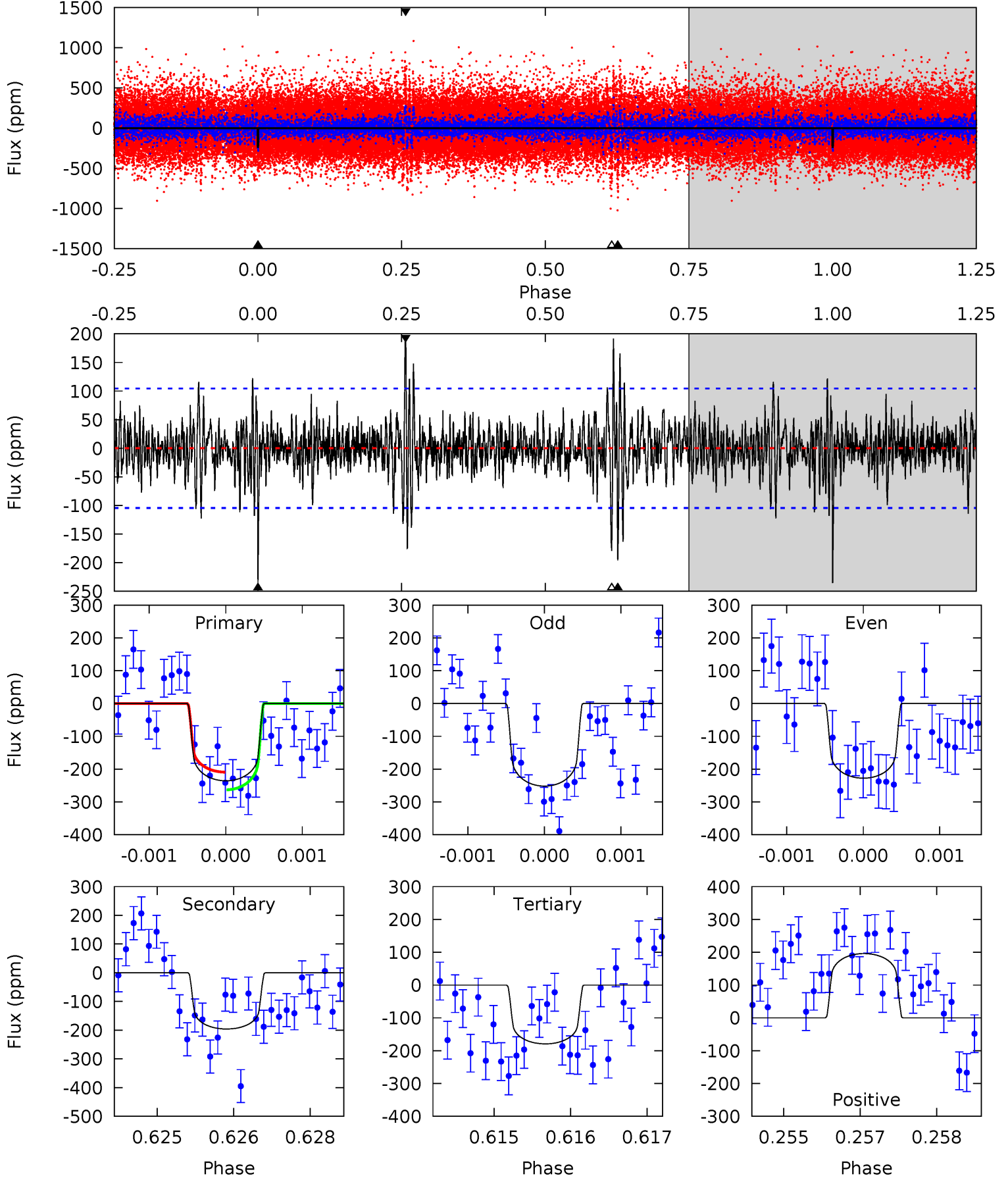
TCE 008885548-01 P=587.975689 Days $T_0=152.094306$ (BKJD)



DV Model-Shift Uniqueness Test

008885548-01, P = 587.946729 Days, E = 152.141703 Days

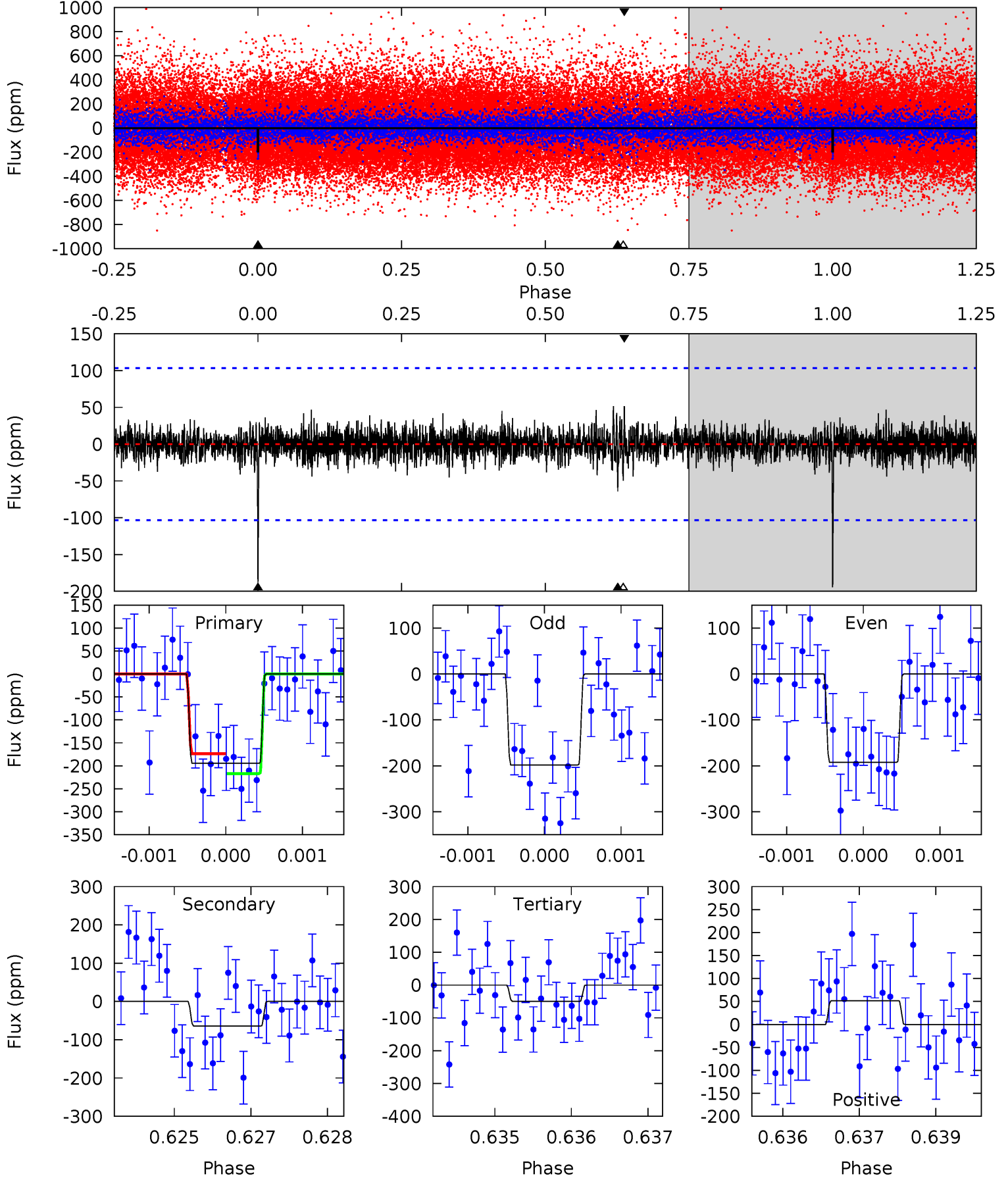
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.1	10.1	9.23	10.1	5.38	3.18	1.88	2.90	2.04	0.86	0.00	0.58	0.93	0.45	1.39



Alt Model-Shift Uniqueness Test

008885548-01, P = 587.975689 Days, E = 152.094306 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.2	3.34	2.59	2.70	5.40	3.20	0.65	7.57	7.46	0.75	0.65	0.14	0.98	0.21	1.14



Stellar Parameters For KIC 008885548

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6042^{+163}_{-181}	$4.525^{+0.050}_{-0.188}$	$-0.560^{+0.300}_{-0.300}$	$0.850^{+0.222}_{-0.079}$	$0.885^{+0.099}_{-0.090}$	$2.026^{+0.510}_{-0.994}$
	+3%/-3%	+1%/-4%	+54%/-54%	+26%/-9%	+11%/-10%	+25%/-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 008885548-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-196 ± 19	$1.63^{+0.29}_{-0.24}$	305^{+21}_{-13}	5519^{+421}_{-340}	69909^{+25854}_{-20152}
Alt.	-64 ± 19	$1.36^{+0.28}_{-0.21}$	305^{+20}_{-13}	4668^{+473}_{-407}	31419^{+16870}_{-12669}

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

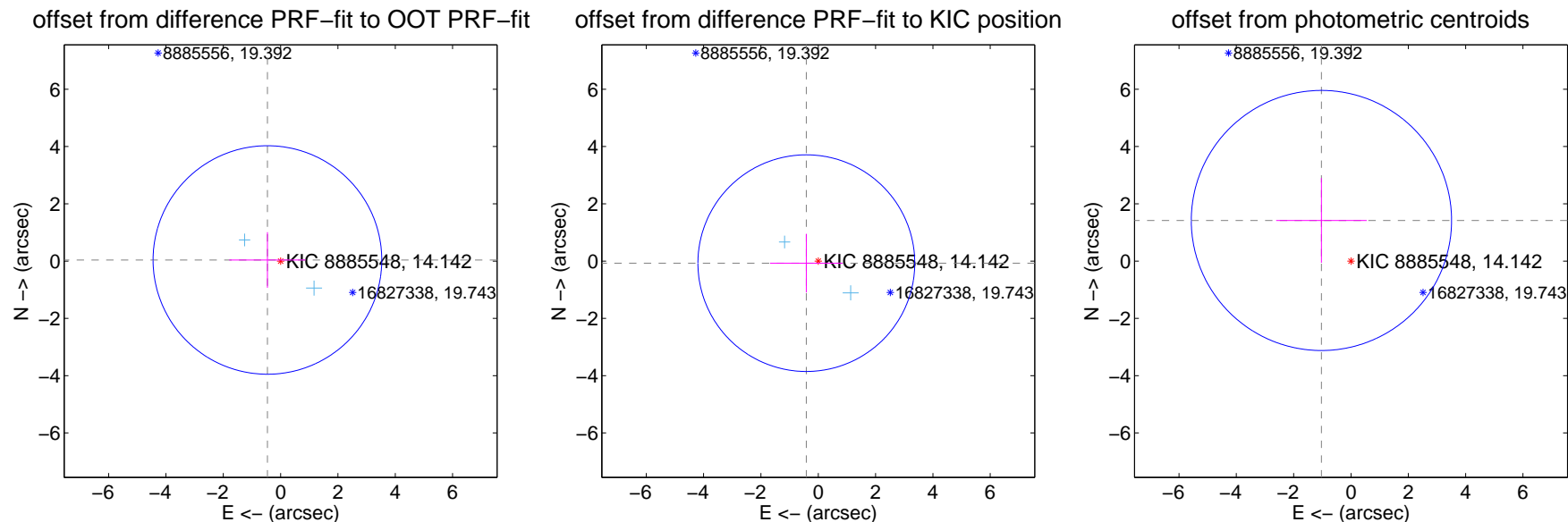
DV Centroid Data

Supplemental centroid analysis for 008885548-01. Kepler magnitude: 14.14. Transit SNR 8.22

There are 2 quarters with good PRF difference image offsets

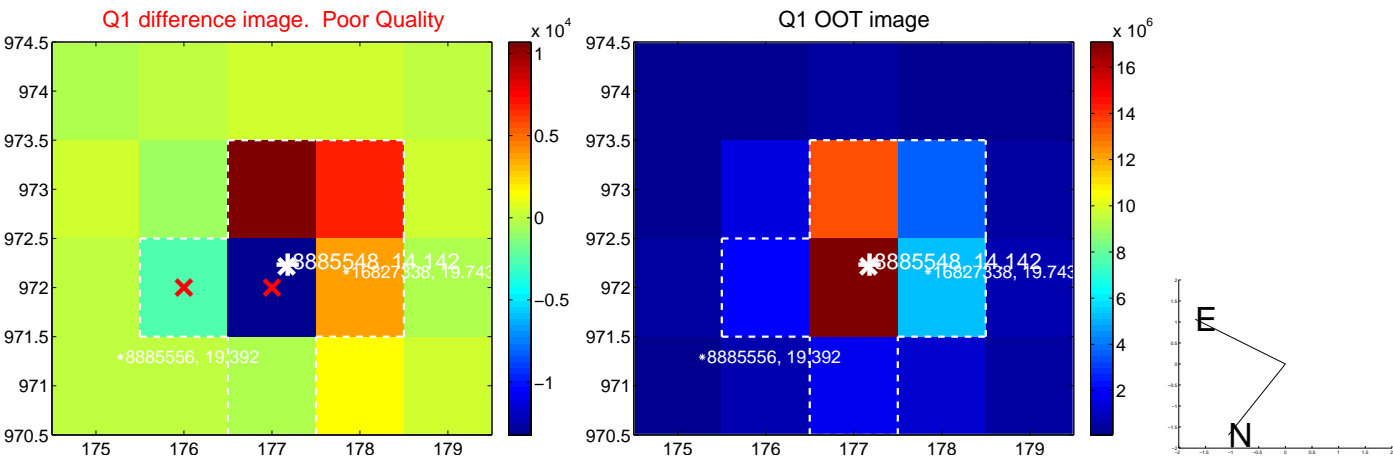
The direct PRF centroid is offset from the target star catalog position by about 0.17 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.461 ± 1.330	0.35	0.460 ± 1.332	0.039 ± 0.971
PRF-fit source offset from KIC position	0.422 ± 1.261	0.33	0.416 ± 1.267	-0.072 ± 1.024
photometric centroid source offset	1.75 ± 1.51	1.16	1.03 ± 1.58	1.42 ± 1.48

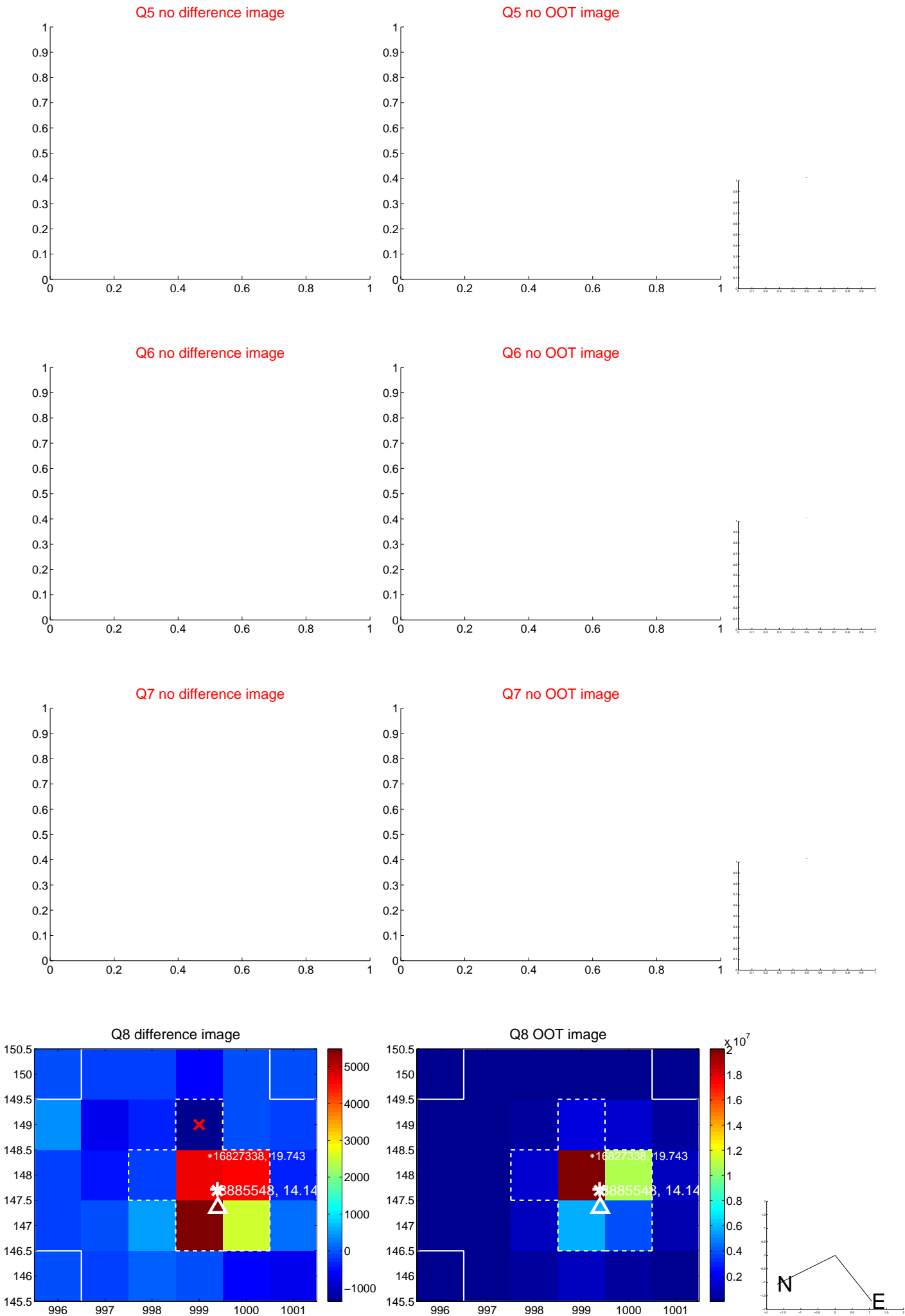


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



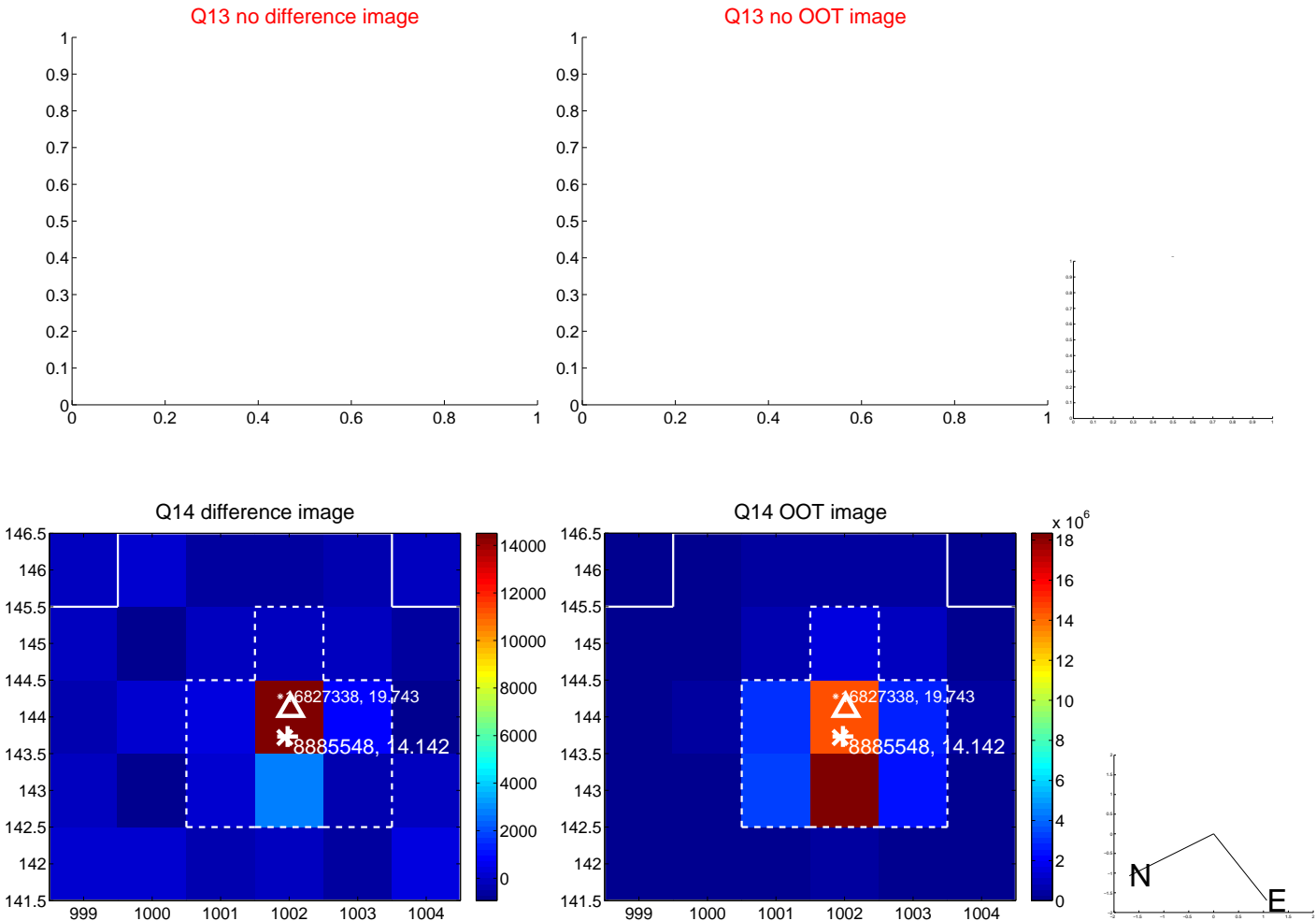
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



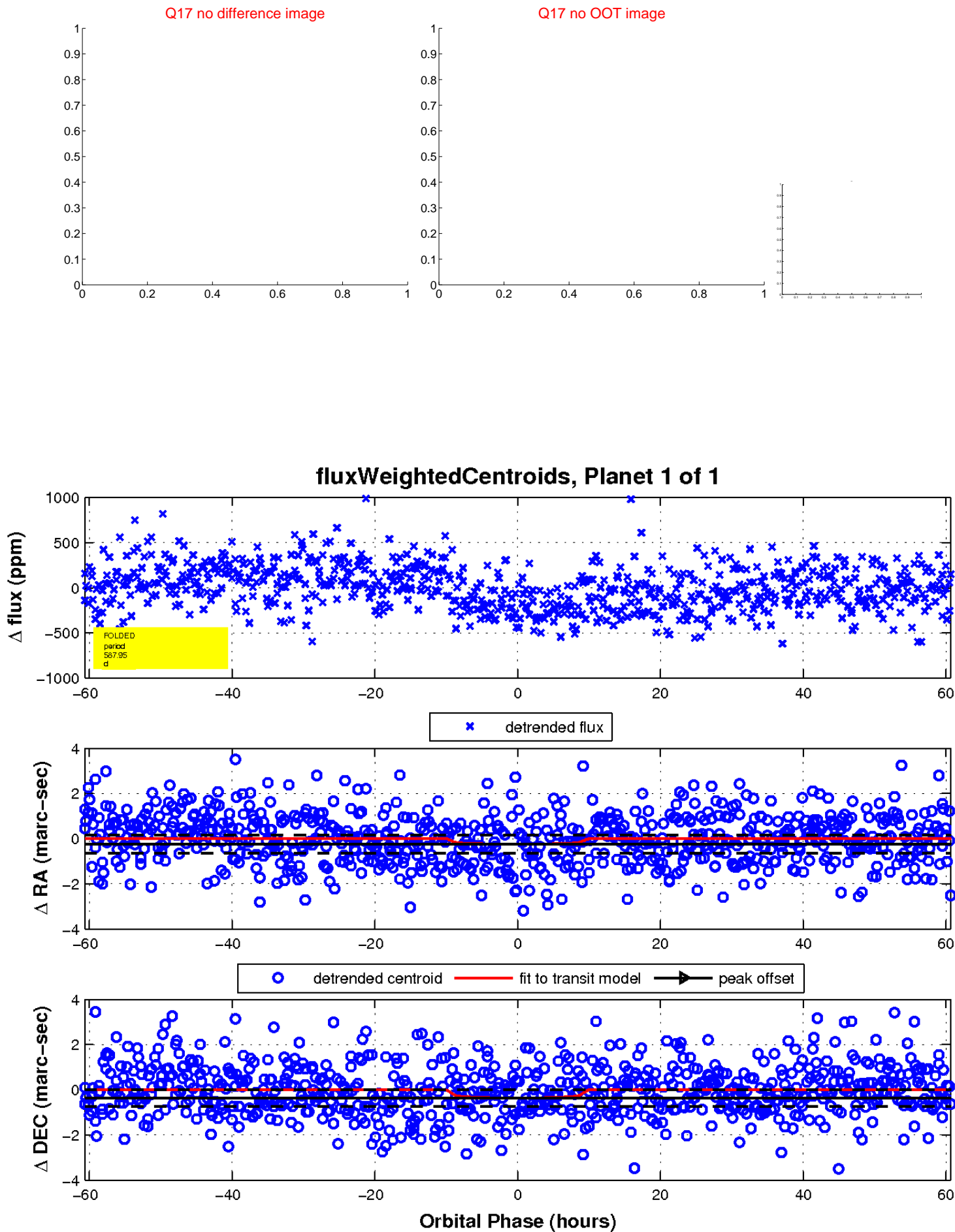
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

