

KIC 007960484

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})
007960484-01	OBS	No	227.292804	132.169958	666.4	12.693	8.1	8.1	0.91	5926	2.43	1.73

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007960484-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—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.

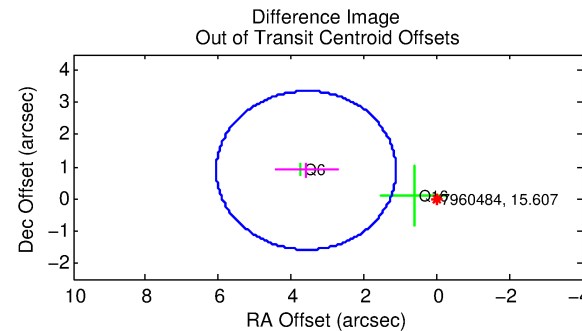
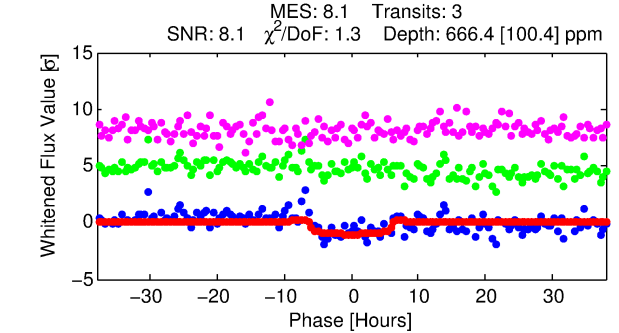
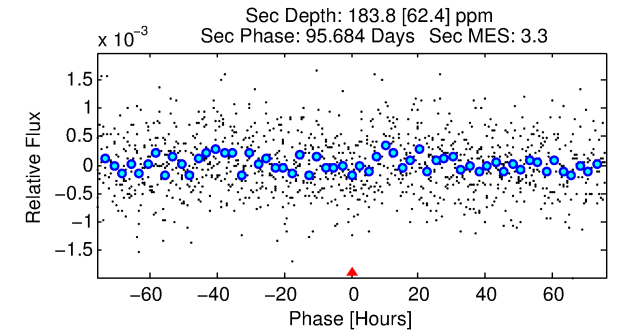
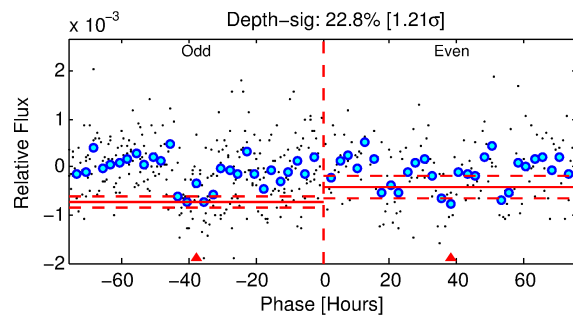
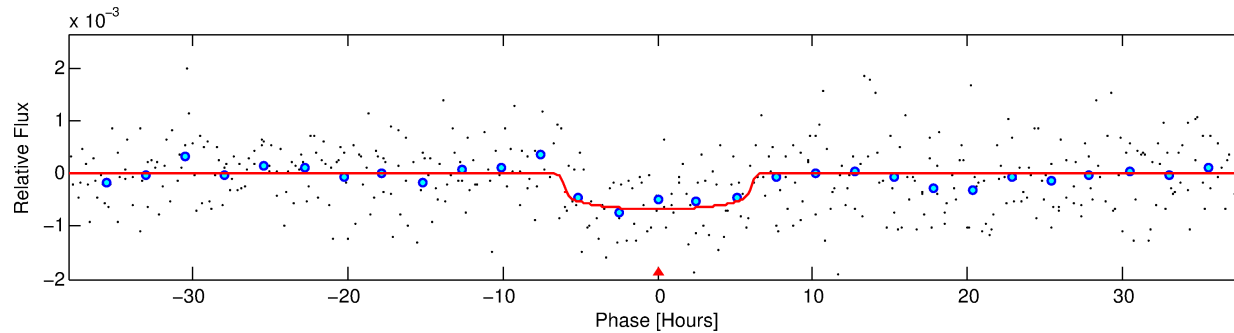
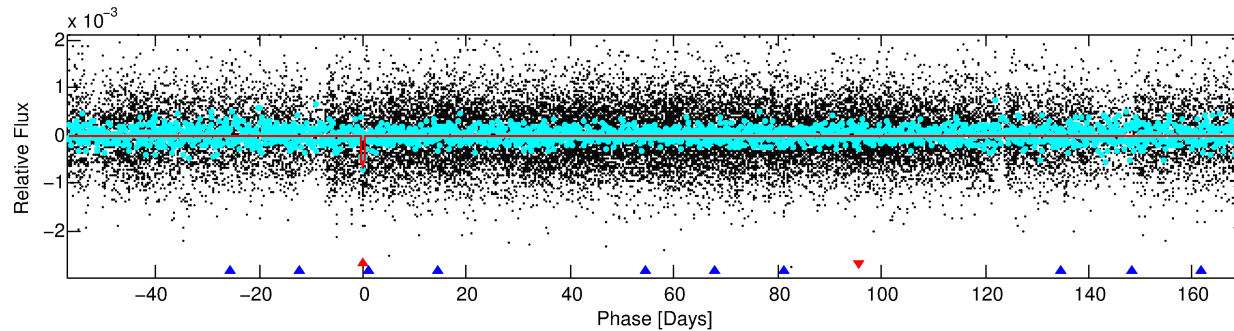
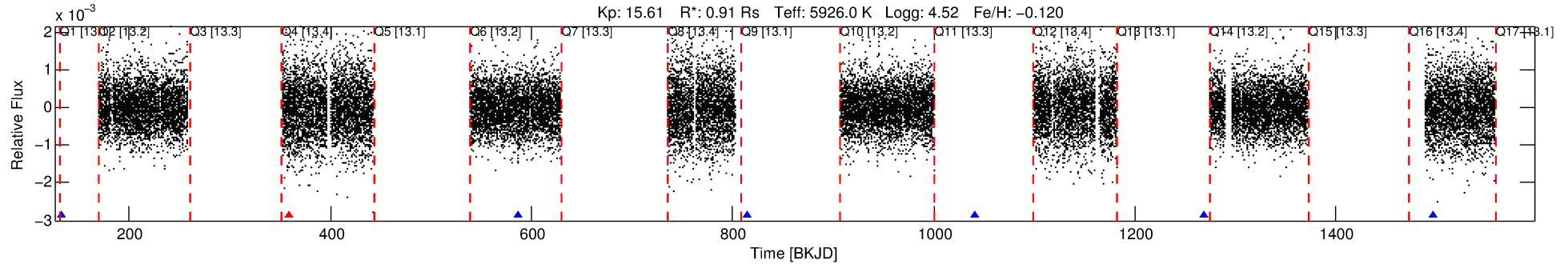
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007960484-01

No Significant Match Found

DV One-Page Summary

KIC: 7960484 Candidate: 1 of 2 Period: 227.293 d



DV Fit Results:

Period = 227.29280 [0.00787] d
Epoch = 132.1700 [0.0278] BKJD
Rp/R* = 0.0244 [0.0191]
a/R* = 118.35 [428.49]
b = 0.55 [4.64]
Seff = 1.73 [0.70]
Teq = 292 [30] K
Rp = 2.43 [2.05] Re
a = 0.7301 [0.1898] AU
Ag = 9099.40 [14982.36] [0.61 σ]
Teffp = 4415 [1775] K [2.32 σ]

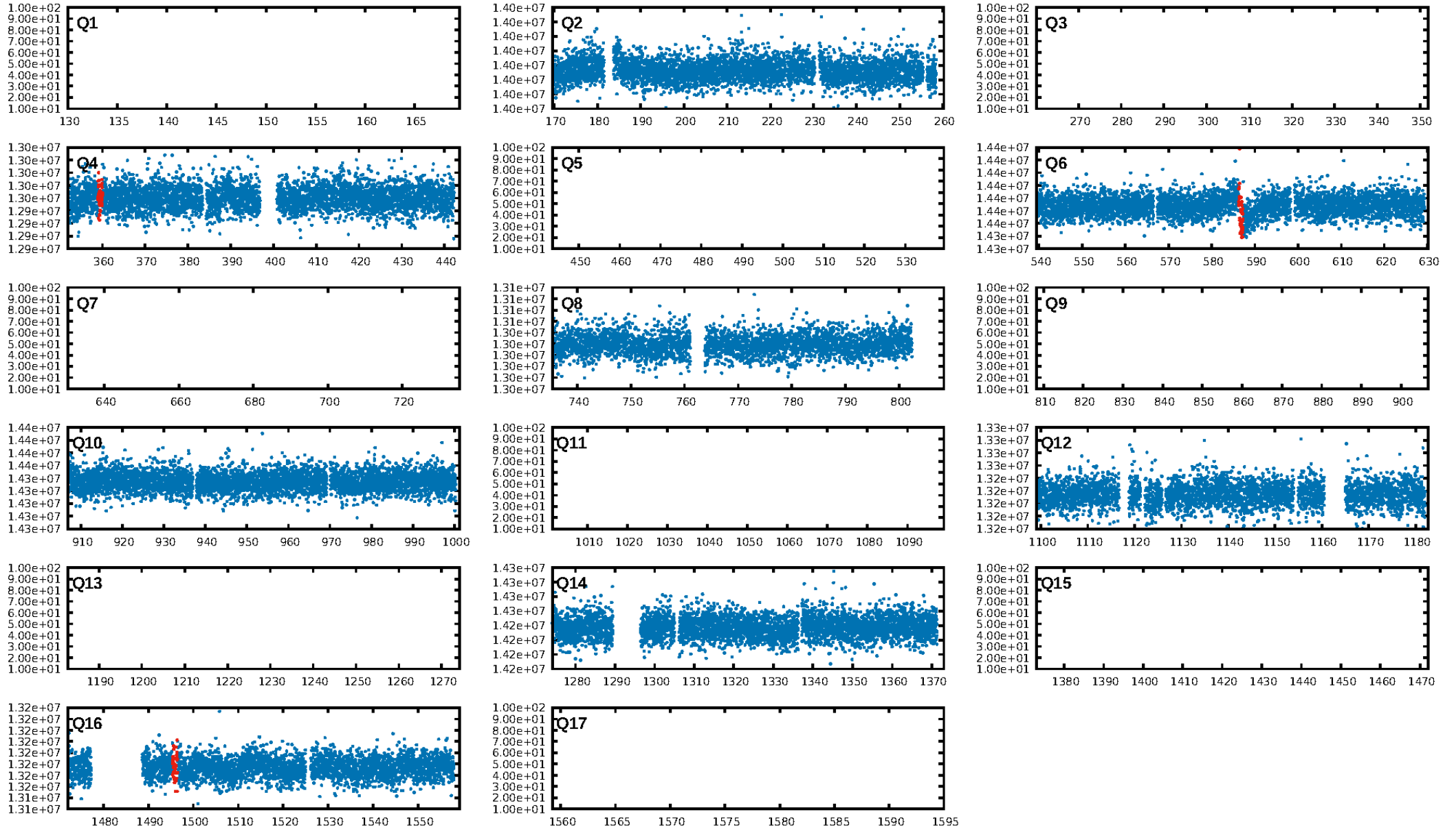
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [98.79 σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 6.7%
ModelChiSquareGof-sig: 94.1%
Bootstrap-pfa: 6.59e-17
RollingBand-fgt: 0.67 [2/3]
GhostDiagnostic-chr: -12.96
Centroid-sig: 0.3%
Centroid-so: 4.433 arcsec [2.30 σ]
OotOffset-rm: 3.694 arcsec [4.48 σ]
KicOffset-rm: 3.844 arcsec [2.47 σ]
OotOffset-st: 1/0/1/0 [2]
KicOffset-st: 1/0/1/0 [2]
DiffImageQuality-fgm: 1.00 [2/2]
DiffImageOverlap-fno: 0.67 [2/3]

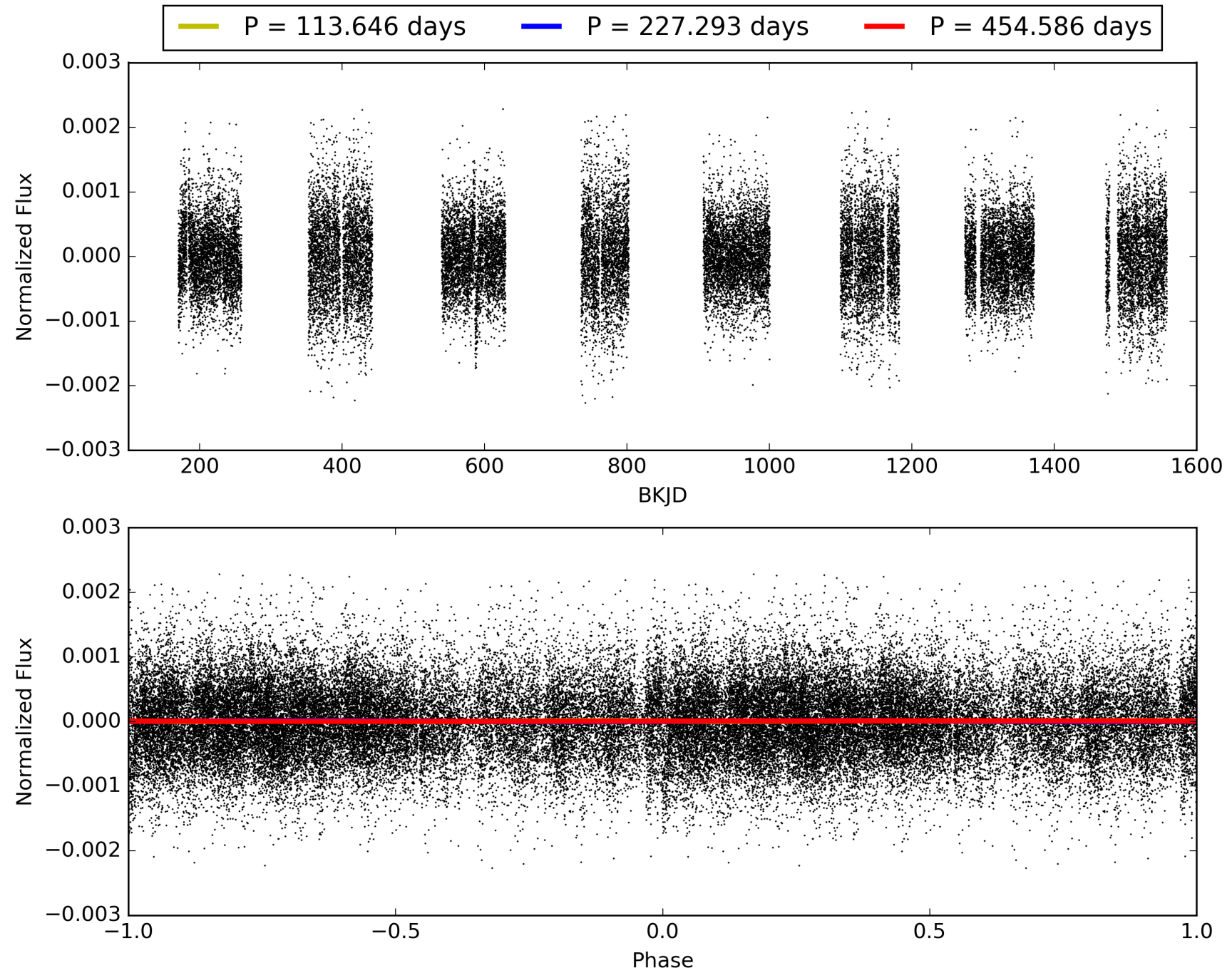
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 09:46:42 Z

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

TCE 007960484-01, PDC Light Curves

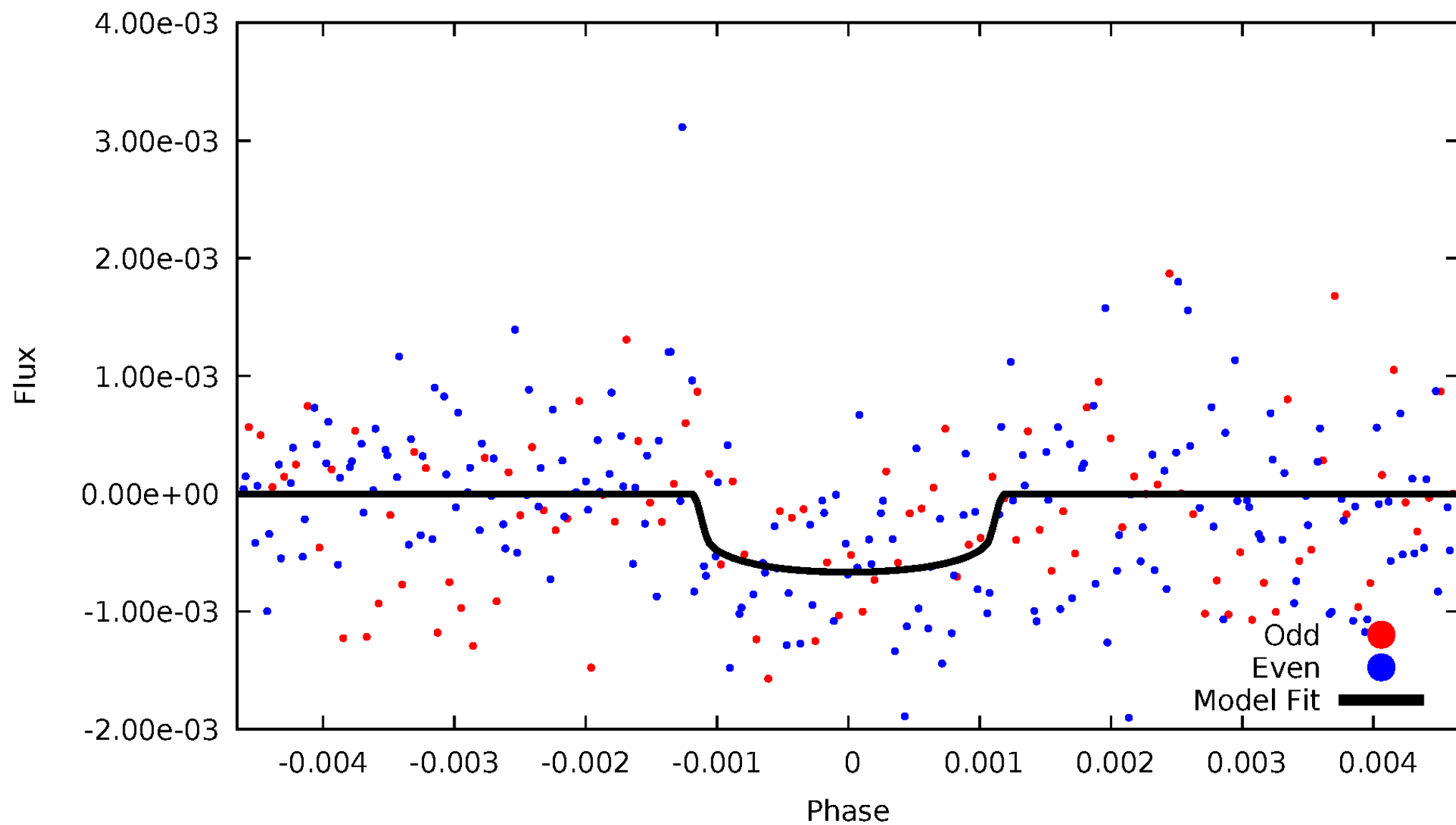


TCE 007960484-01



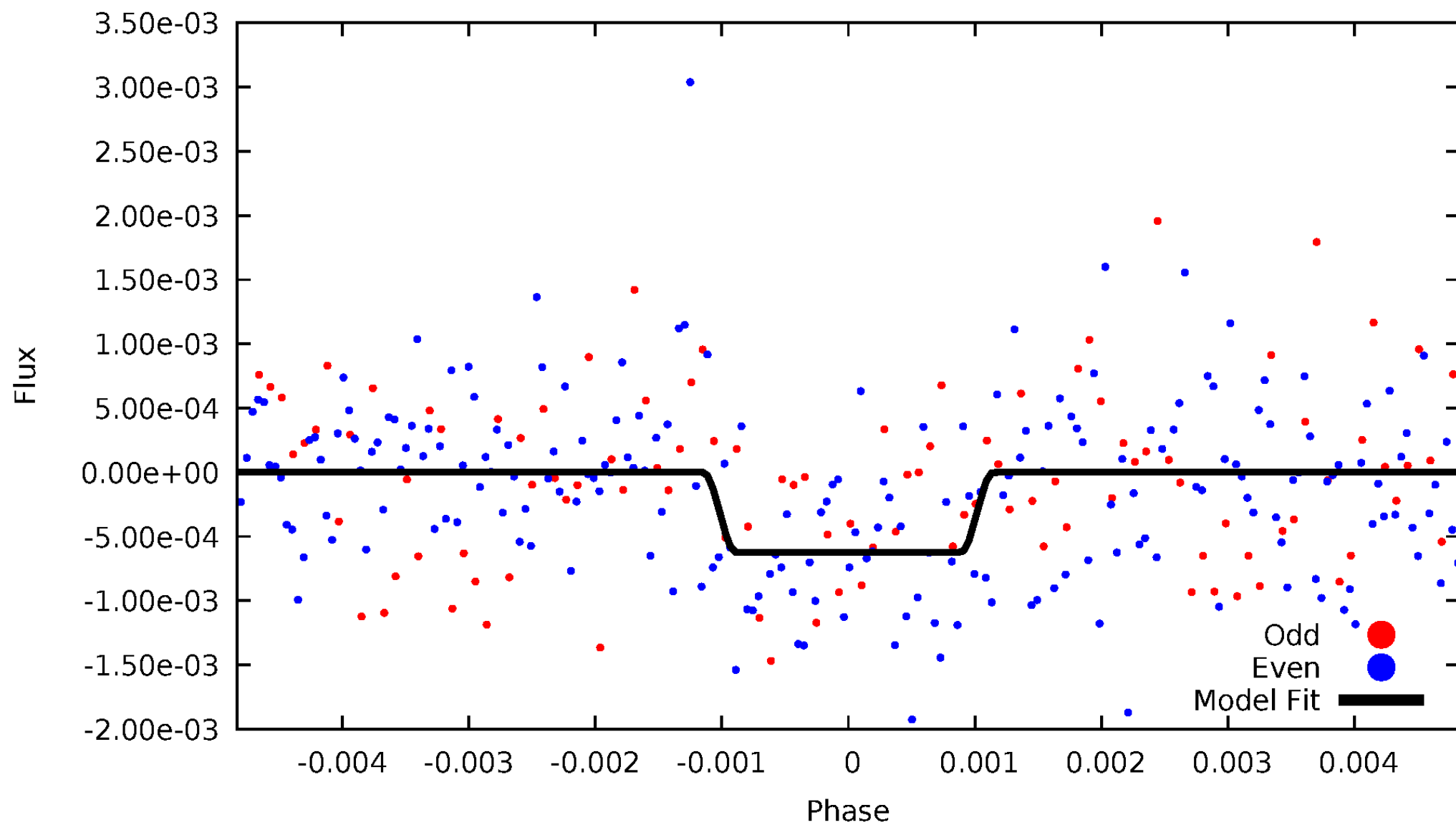
DV Odd/Even

TCE 007960484-01

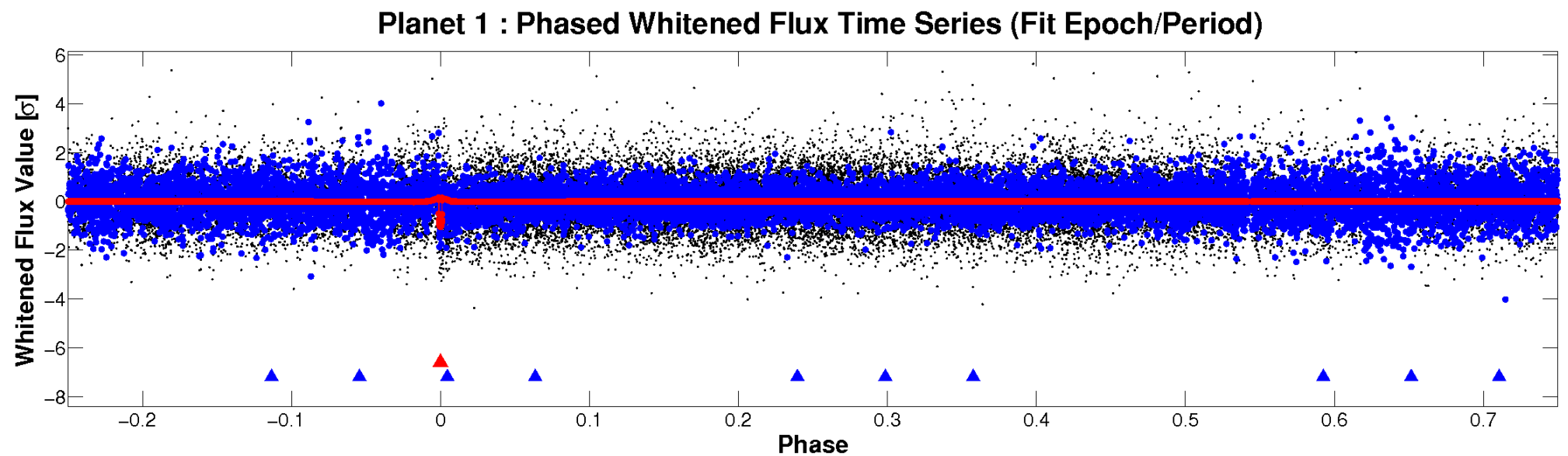
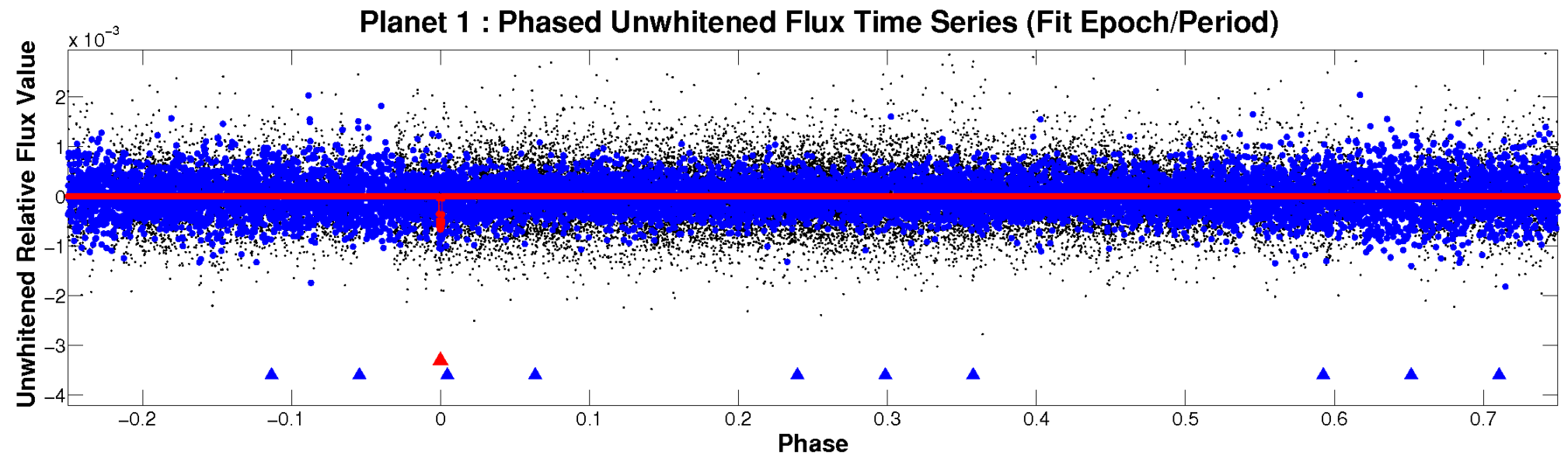


ALT Odd/Even

TCE 007960484-01

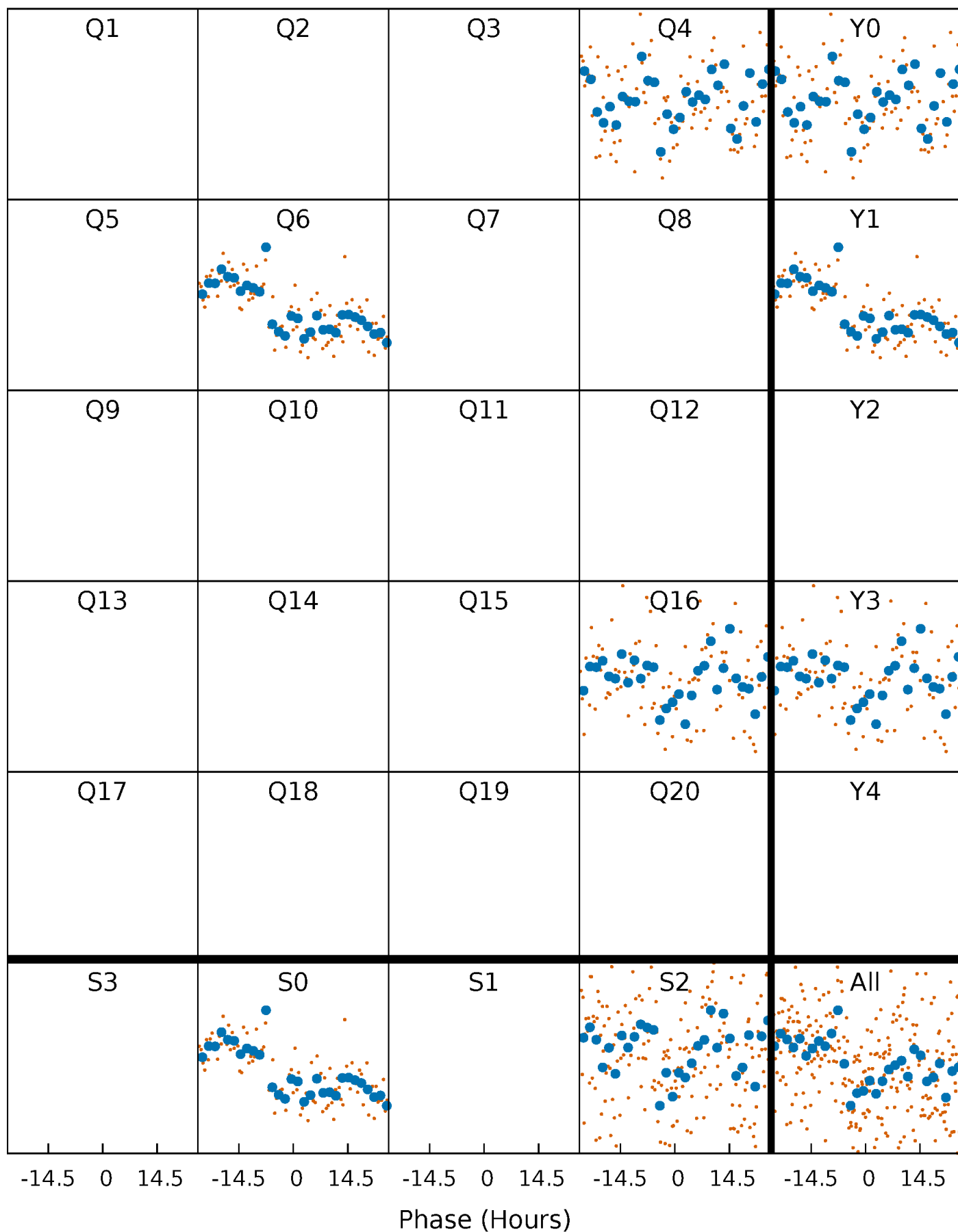


Non-Whitened Vs. Whitened Light Curve



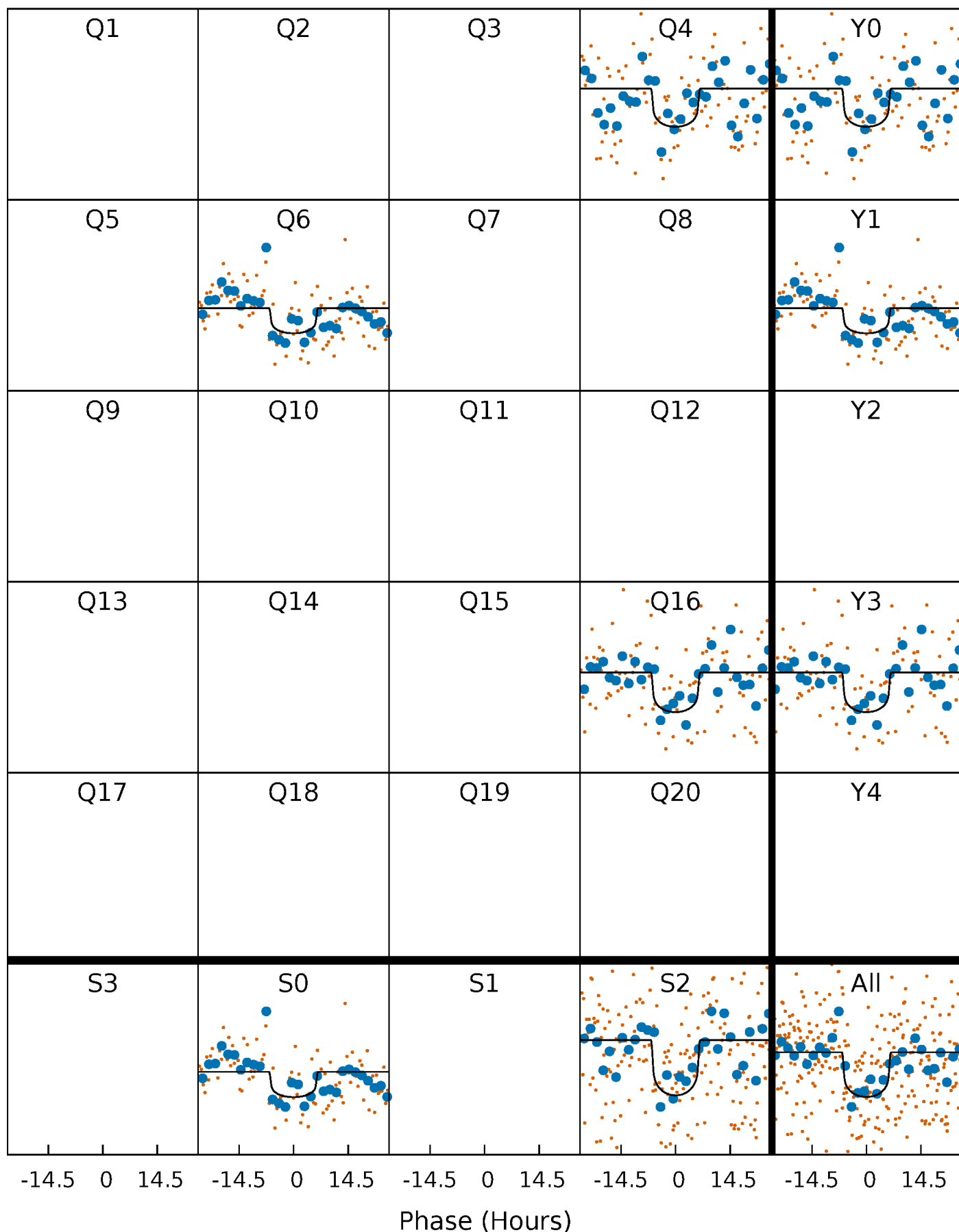
PDC Quarter-Phased Transit Curves

TCE 007960484-01 P=227.292804 Days $T_0=132.169958$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 007960484-01 P=227.292804 Days $T_0=132.169958$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

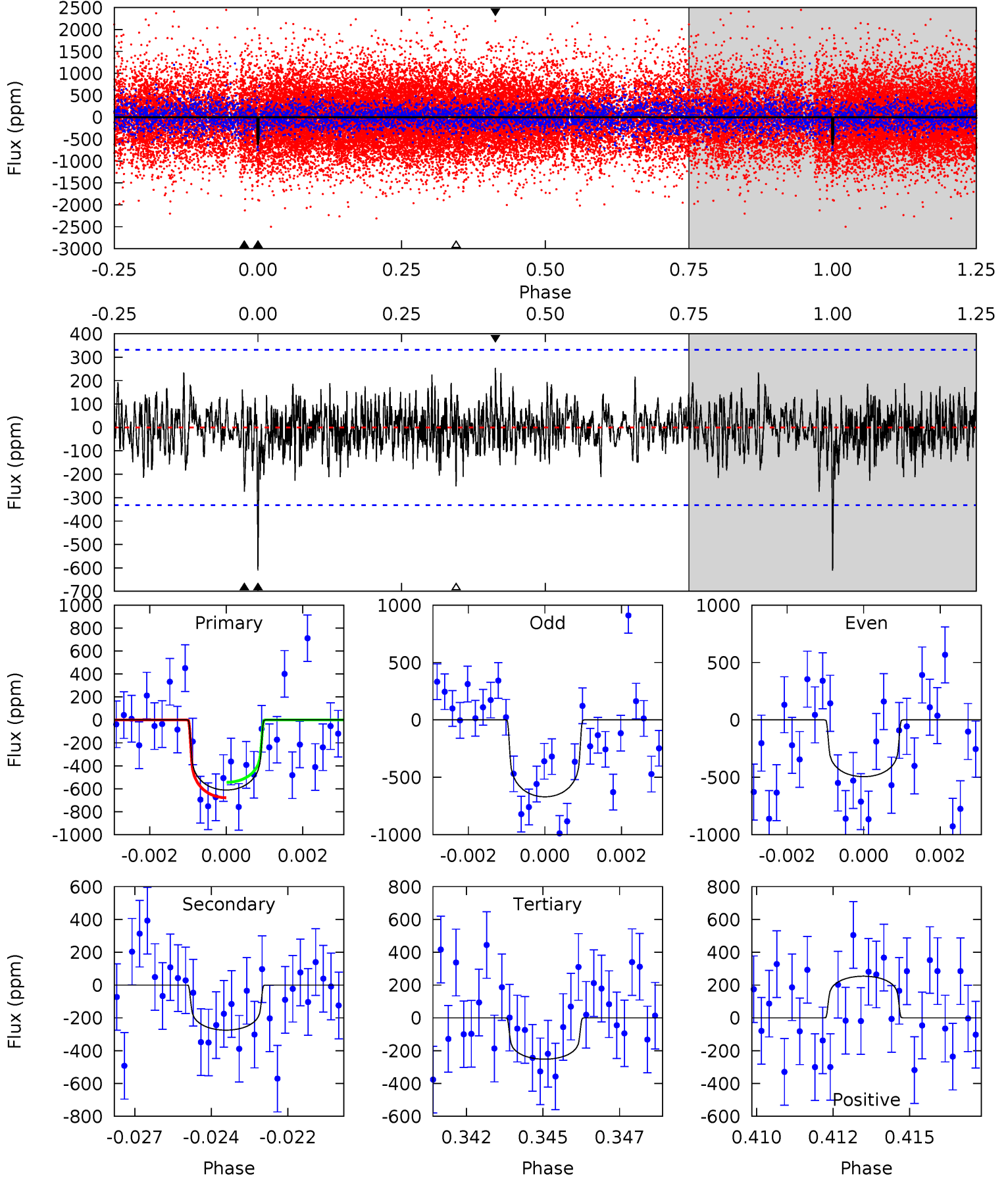
TCE 007960484-01 P=227.289299 Days $T_0=132.173855$ (BKJD)



DV Model-Shift Uniqueness Test

007960484-01, P = 227.292804 Days, E = 132.169958 Days

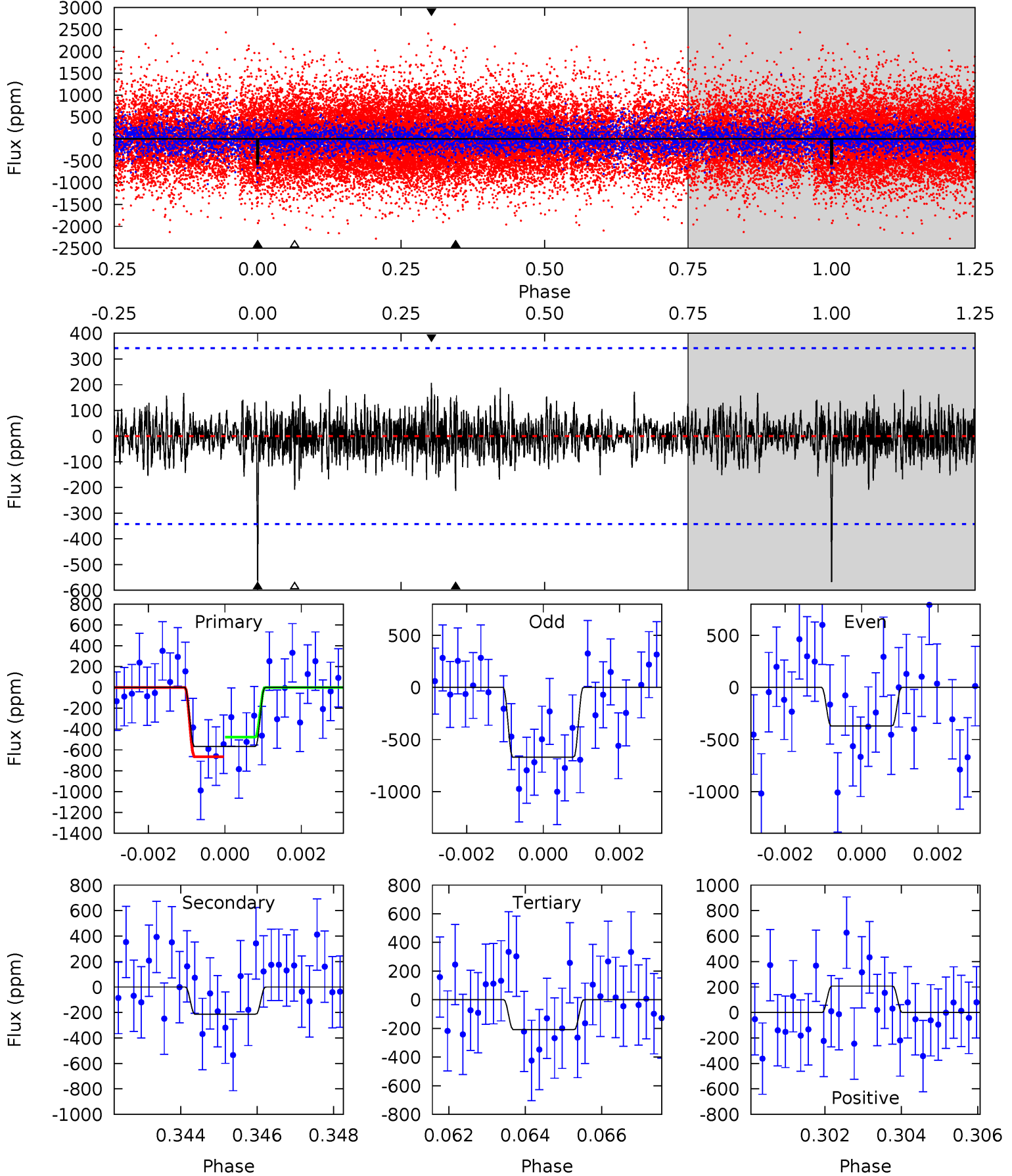
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.75	4.38	4.02	4.05	5.29	3.03	1.16	5.73	5.69	0.37	0.33	1.31	1.00	0.29	1.07



Alt Model-Shift Uniqueness Test

007960484-01, P = 227.289299 Days, E = 132.173855 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.80	3.30	3.23	3.21	5.31	3.06	0.87	5.58	5.60	0.08	0.10	2.17	0.94	0.27	1.46



Stellar Parameters For KIC 007960484

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5926^{+187}_{-207}	$4.519^{+0.052}_{-0.208}$	$-0.120^{+0.300}_{-0.300}$	$0.913^{+0.281}_{-0.094}$	$1.004^{+0.122}_{-0.135}$	$1.858^{+0.485}_{-0.925}$
	+3%/-3%	+1%/-5%	+250%/-250%	+31%/-10%	+12%/-13%	+26%/-50%
Source	KIC0	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 007960484-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-275 ± 63	$2.78^{+2.06}_{-1.65}$	418^{+31}_{-21}	4762^{+2586}_{-877}	9840^{+48393}_{-6732}
Alt.	-213 ± 64	$2.73^{+2.11}_{-1.55}$	417^{+32}_{-22}	4542^{+2187}_{-843}	7908^{+37429}_{-5587}

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

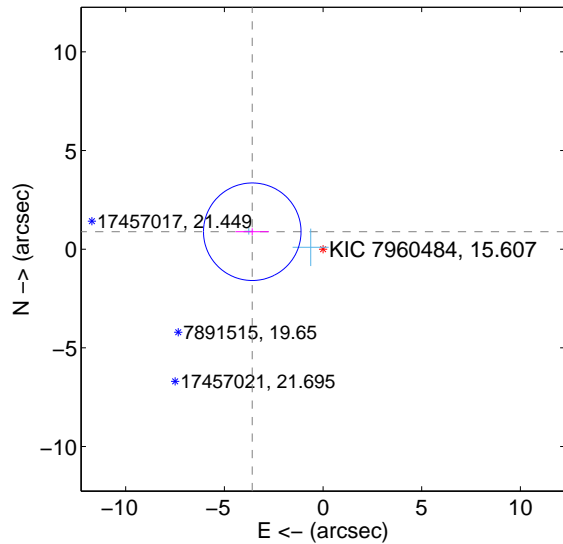
Supplemental centroid analysis for 007960484-01. Kepler magnitude: 15.61. Transit SNR 8.11

There are 2 quarters with good PRF difference image offsets

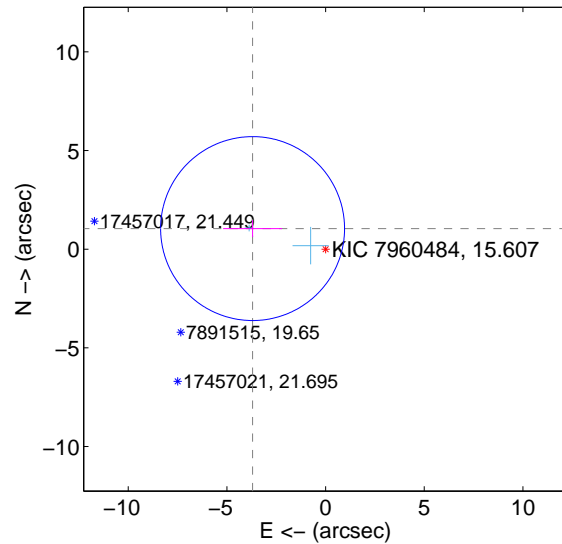
The direct PRF centroid is offset from the target star catalog position by about 0.16 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.694 ± 0.824	4.48	3.587 ± 0.848	0.884 ± 0.176
PRF-fit source offset from KIC position	3.844 ± 1.554	2.47	3.700 ± 1.494	1.044 ± 0.432
photometric centroid source offset	4.43 ± 1.93	2.30	3.69 ± 1.94	2.46 ± 1.91

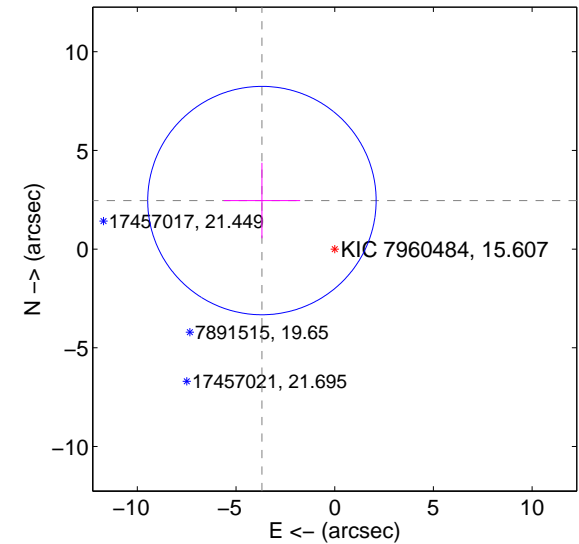
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

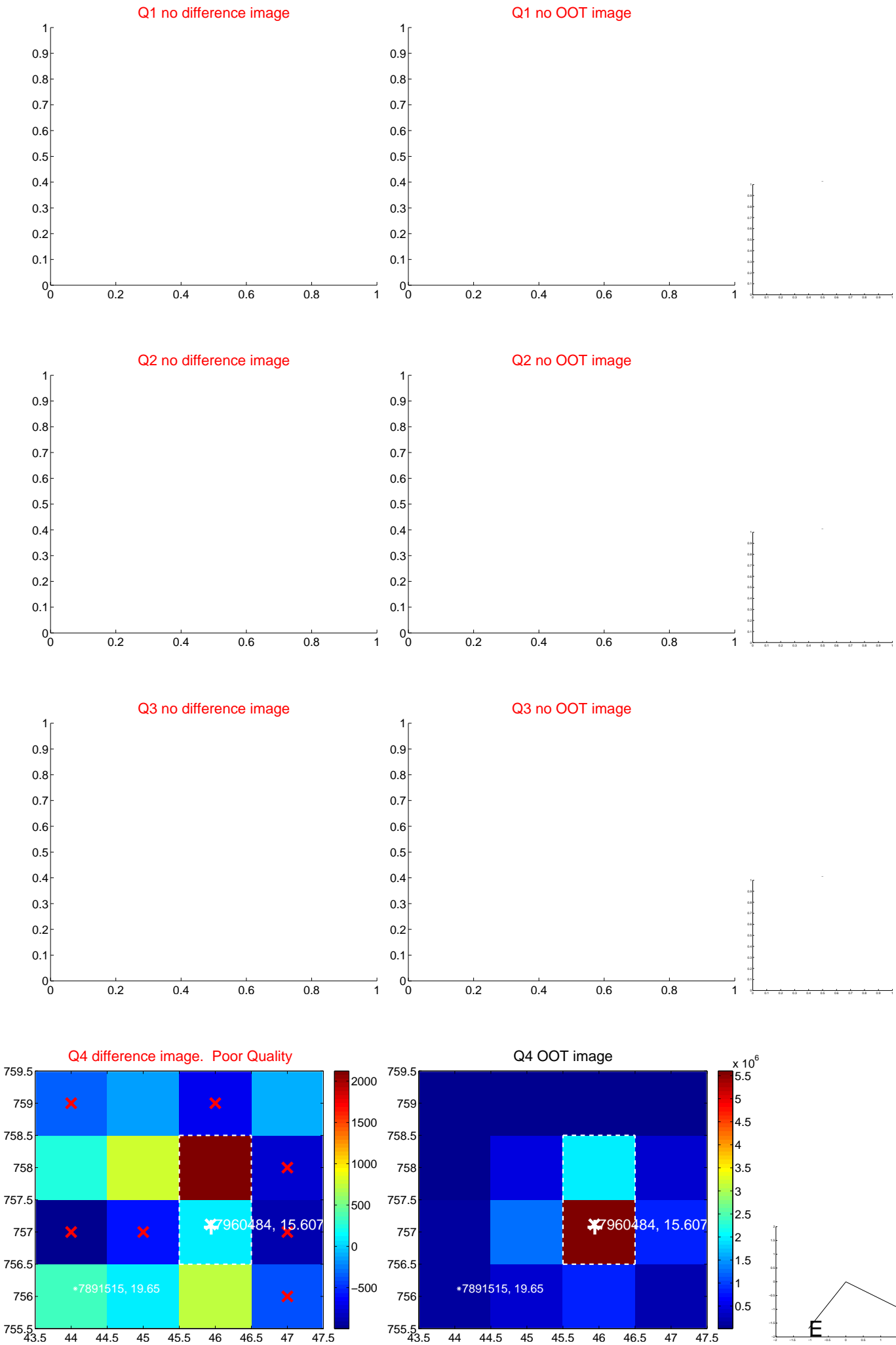


offset from photometric centroids

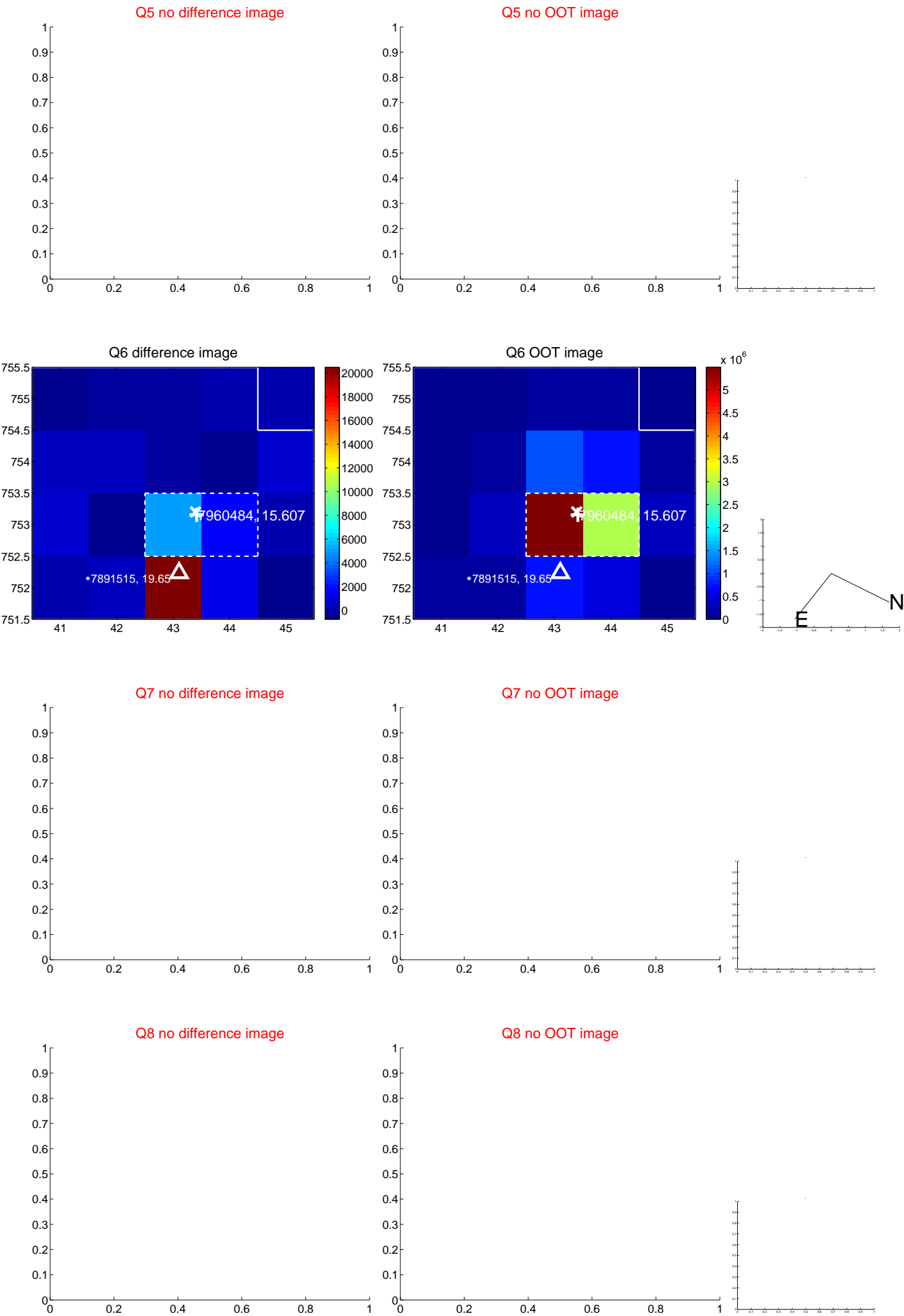


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



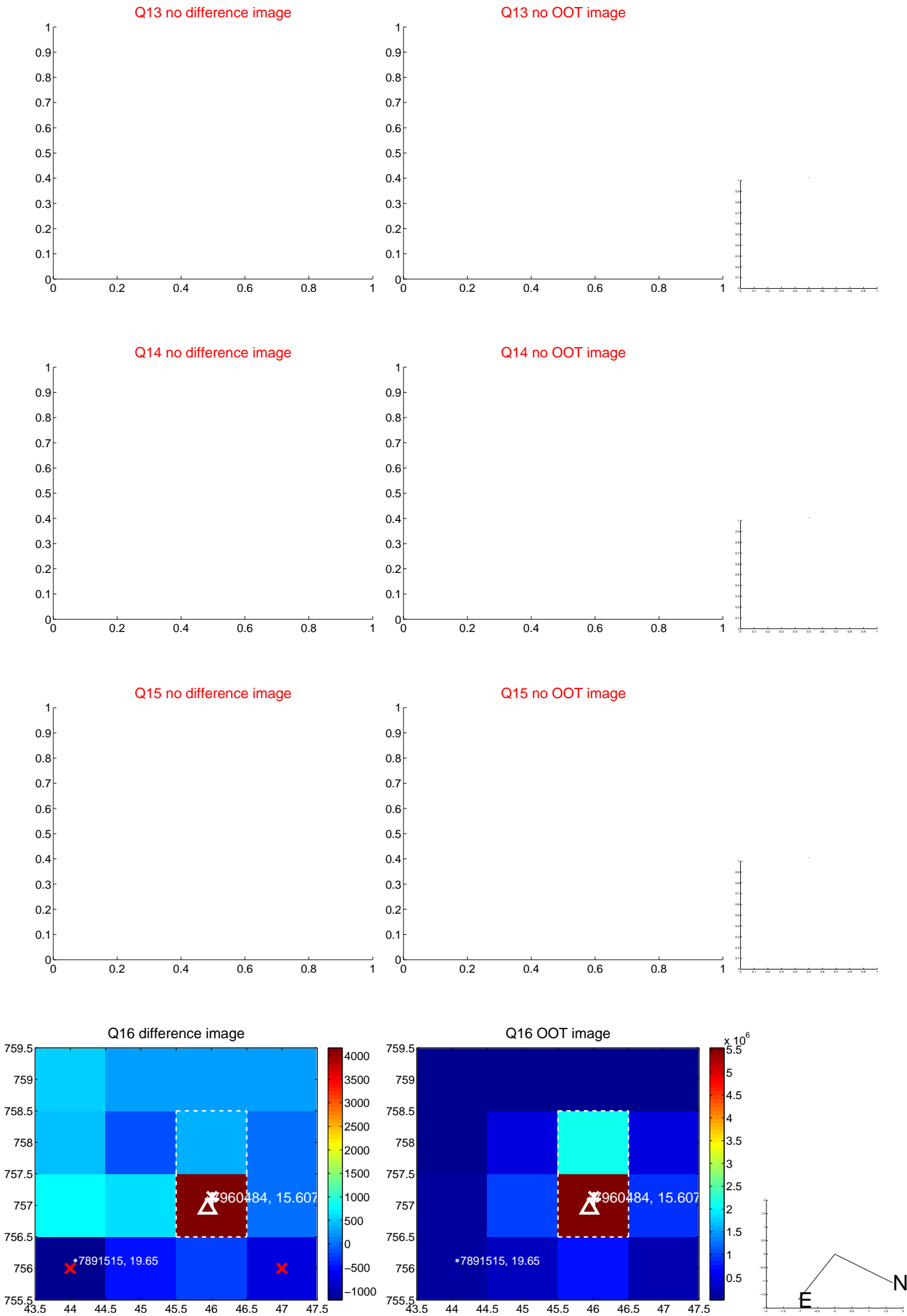
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



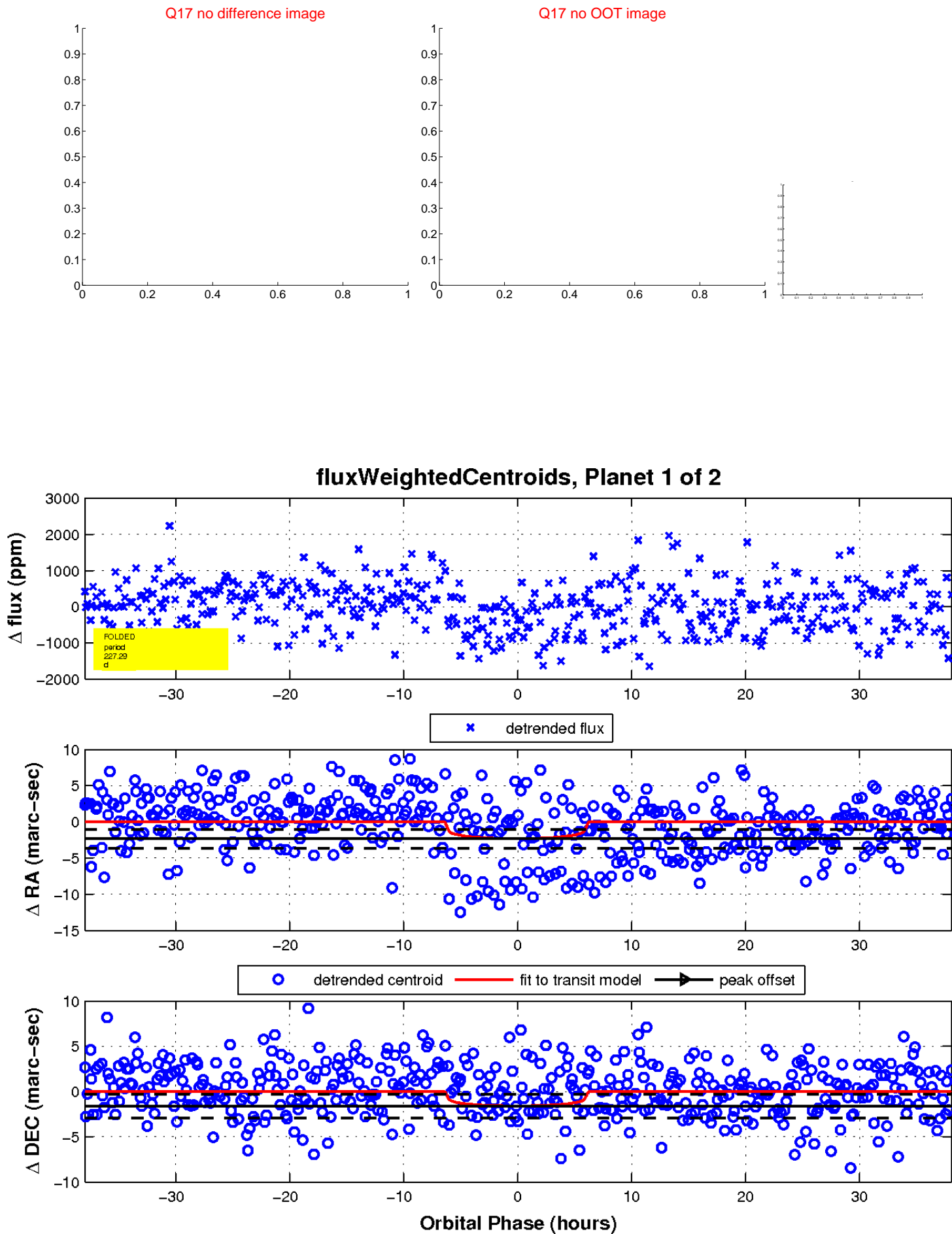
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

