

KIC 007941200

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})
007941200-01	OBS	0092.01	65.704599	137.441906	647.8	3.478	81.9	77.0	1.04	5918	3.05	11.74

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007941200-01	OBS	PC	0.97	0	0	0	0	CENT_KIC_POS

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 007941200-01

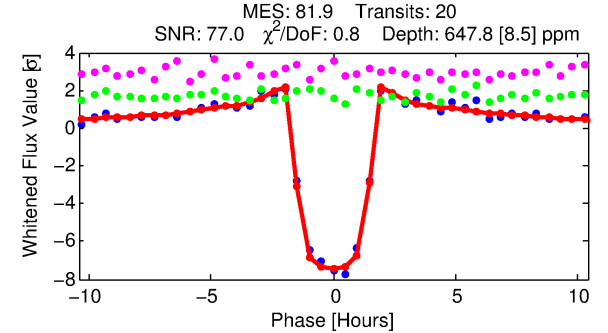
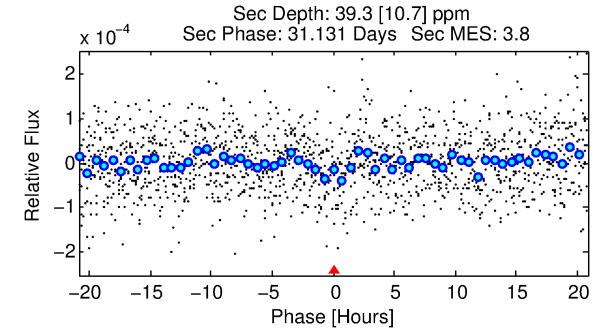
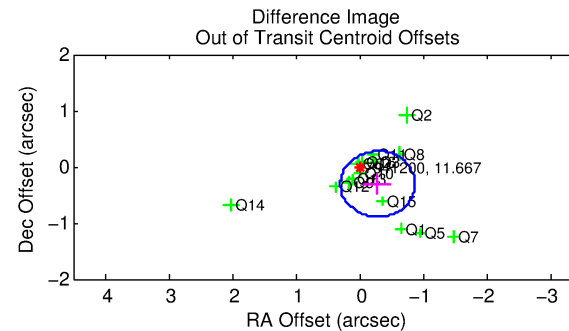
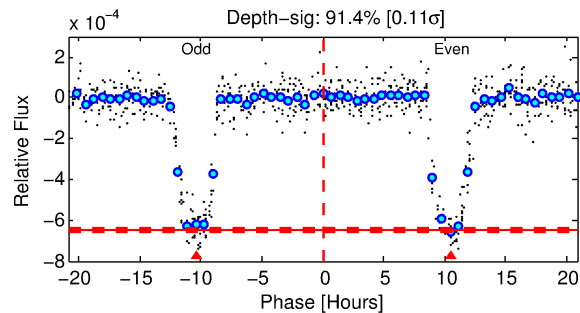
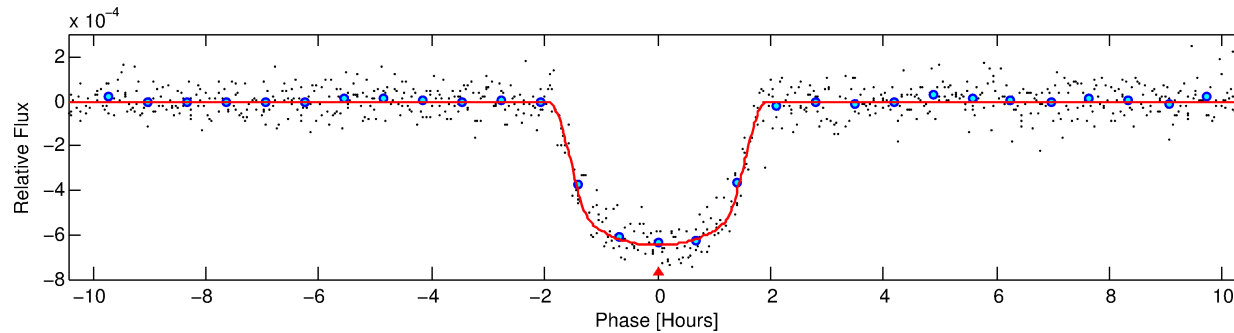
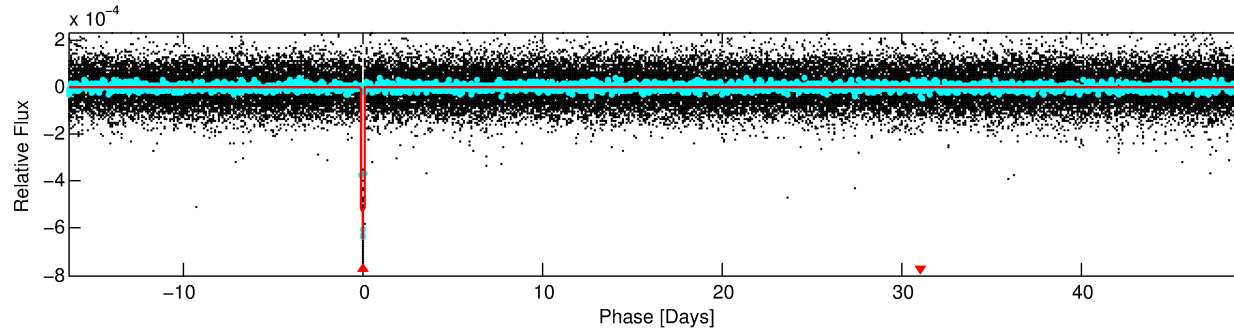
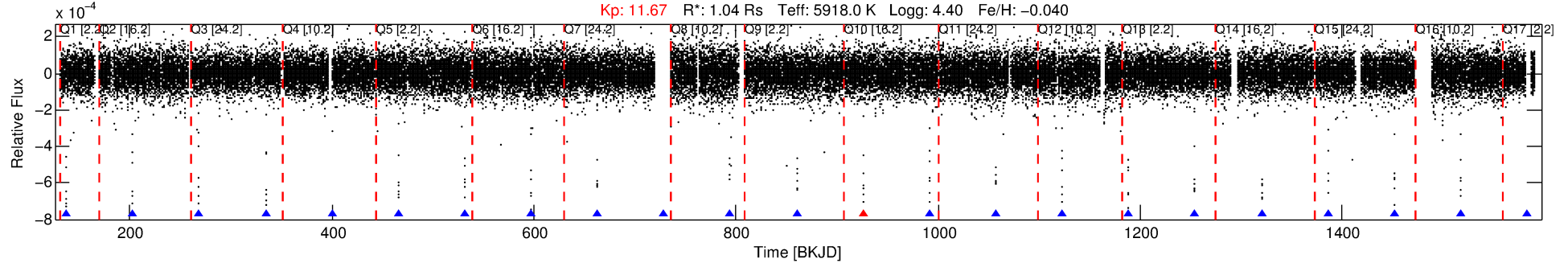
No Significant Match Found

DV One-Page Summary

KIC: 7941200 Candidate: 1 of 1 Period: 65.705 d

KOI: K00092.01 Corr: 0.969

Kp: 11.67 R*: 1.04 Rs Teff: 5918.0 K Logg: 4.40 Fe/H: -0.040



DV Fit Results:

Period = 65.70460 [0.00006] d
Epoch = 137.4419 [0.0008] BKJD
Rp/R* = 0.0268 [0.0010]
a/R* = 80.49 [14.41]
b = 0.86 [0.05]
Seff = 11.74 [2.67]
Teq = 472 [27] K
Rp = 3.05 [0.48] Re
a = 0.3191 [0.0436] AU
Ag = 236.96 [83.36] [2.83σ]
Teffp = 2863 [212] K [11.21σ]

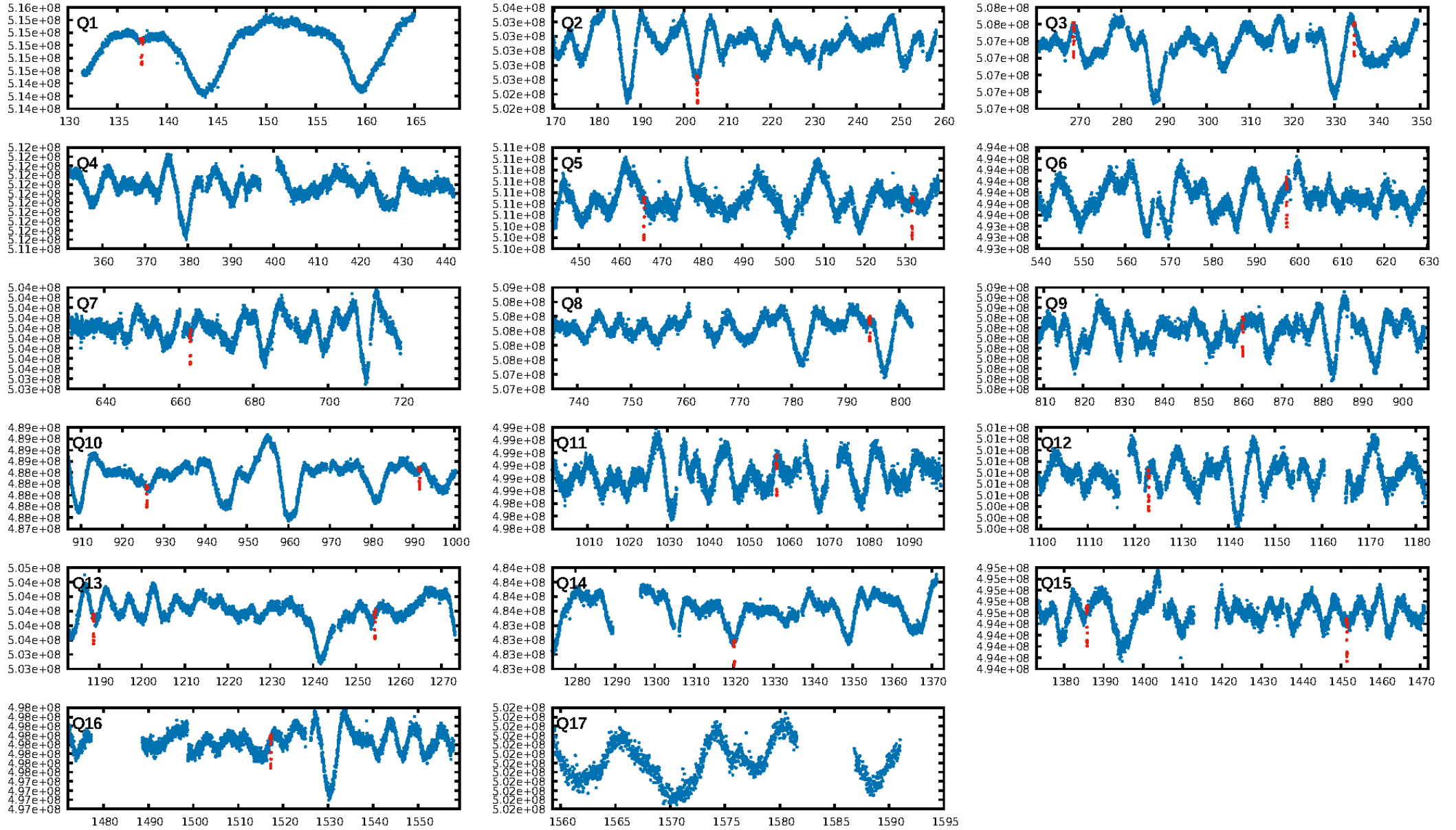
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 56.7%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 0.95 [18/19]
GhostDiagnostic-chr: 7.217
Centroid-sig: 41.8%
Centroid-so: 0.544 arcsec [4.19σ]
OotOffset-rm: 0.422 arcsec [2.16σ]
KicOffset-rm: 0.266 arcsec [1.52σ]
OotOffset-st: 4/4/3/4 [15]
KicOffset-st: 4/4/3/4 [15]
DiffImageQuality-fgm: 0.93 [14/15]
DiffImageOverlap-fno: 1.00 [15/15]

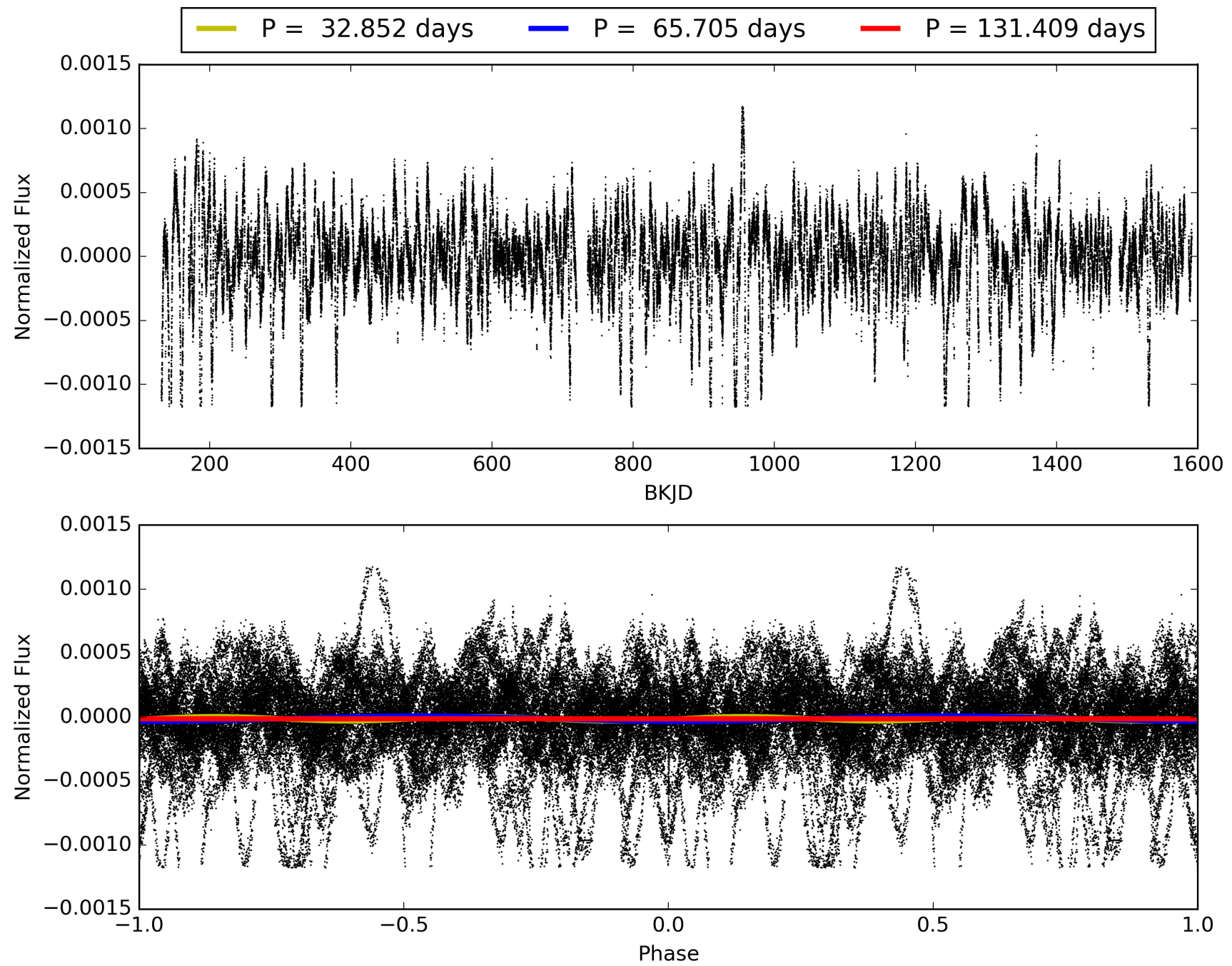
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 00:58:53 Z

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

TCE 007941200-01, PDC Light Curves

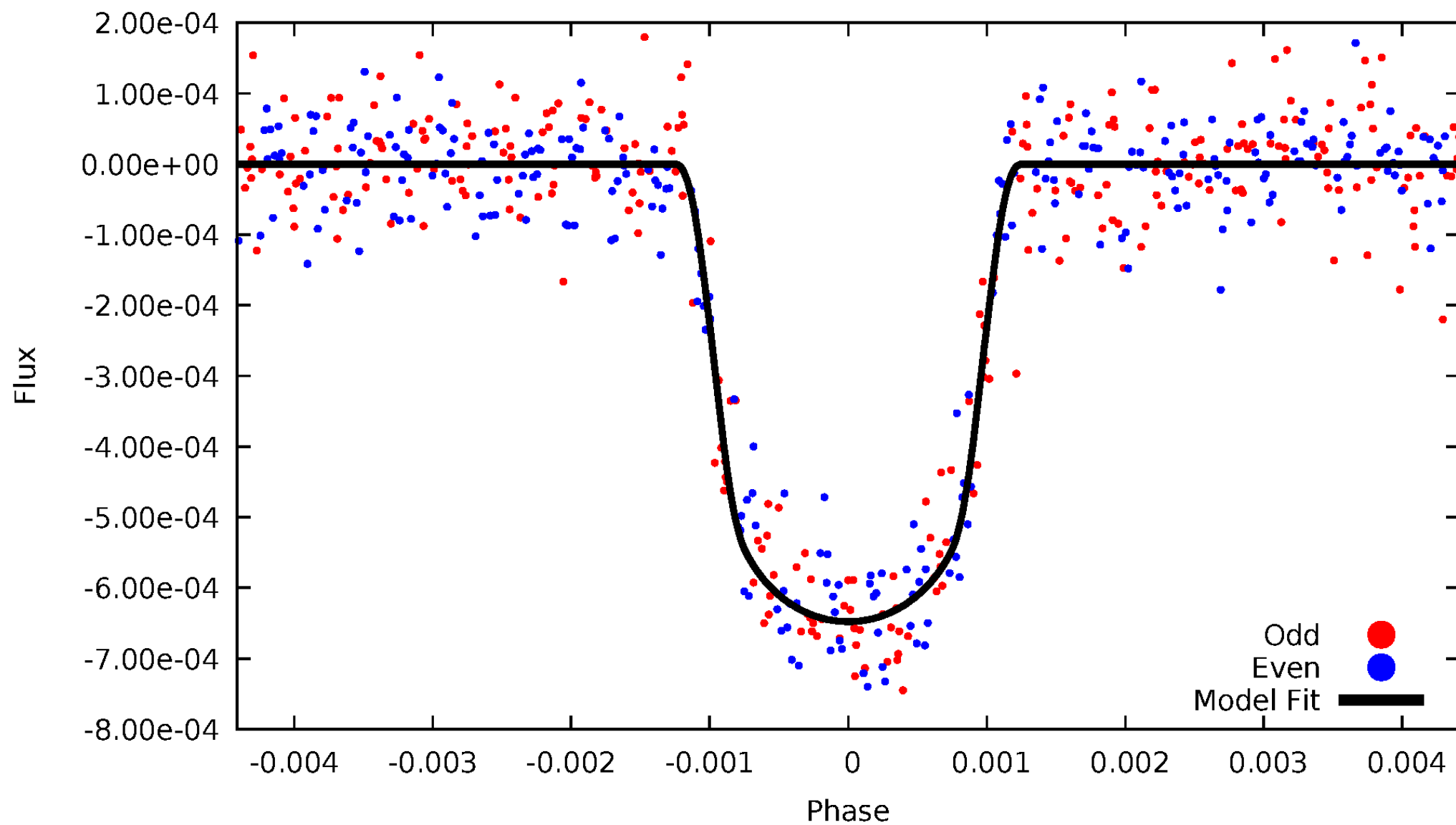


TCE 007941200-01



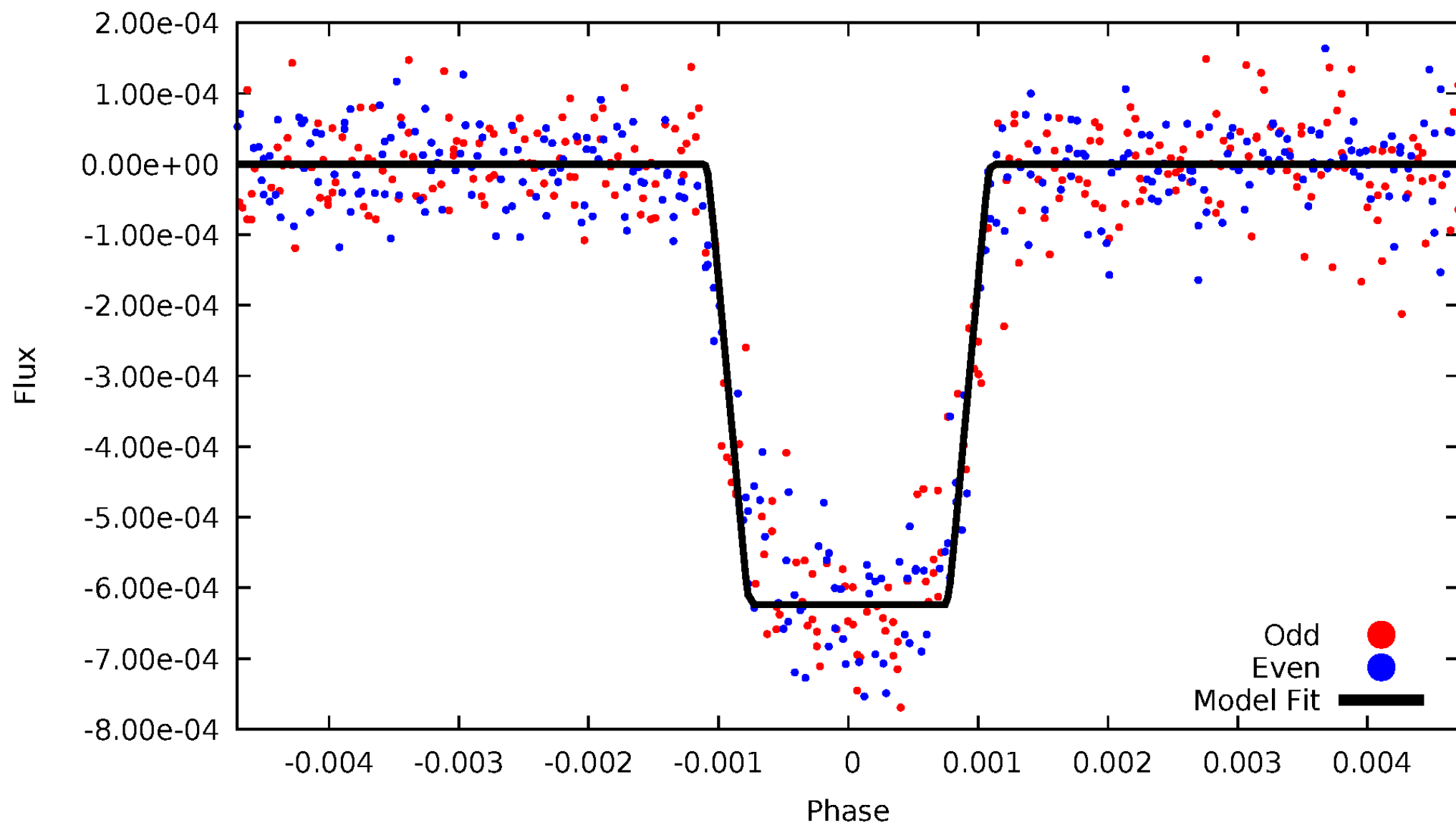
DV Odd/Even

TCE 007941200-01

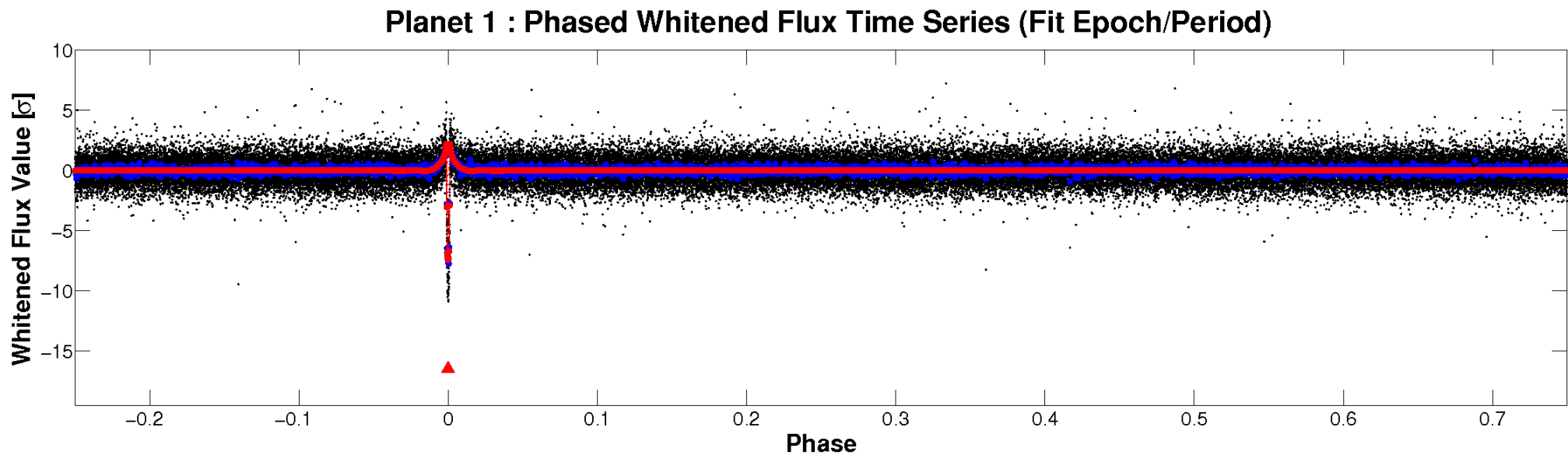
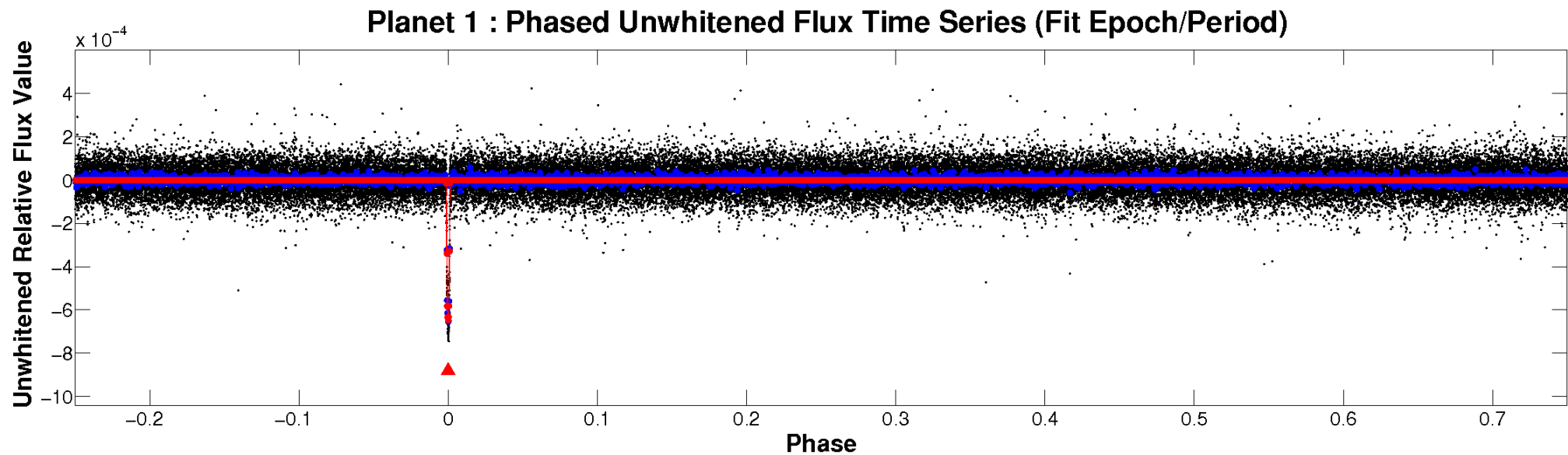


ALT Odd/Even

TCE 007941200-01

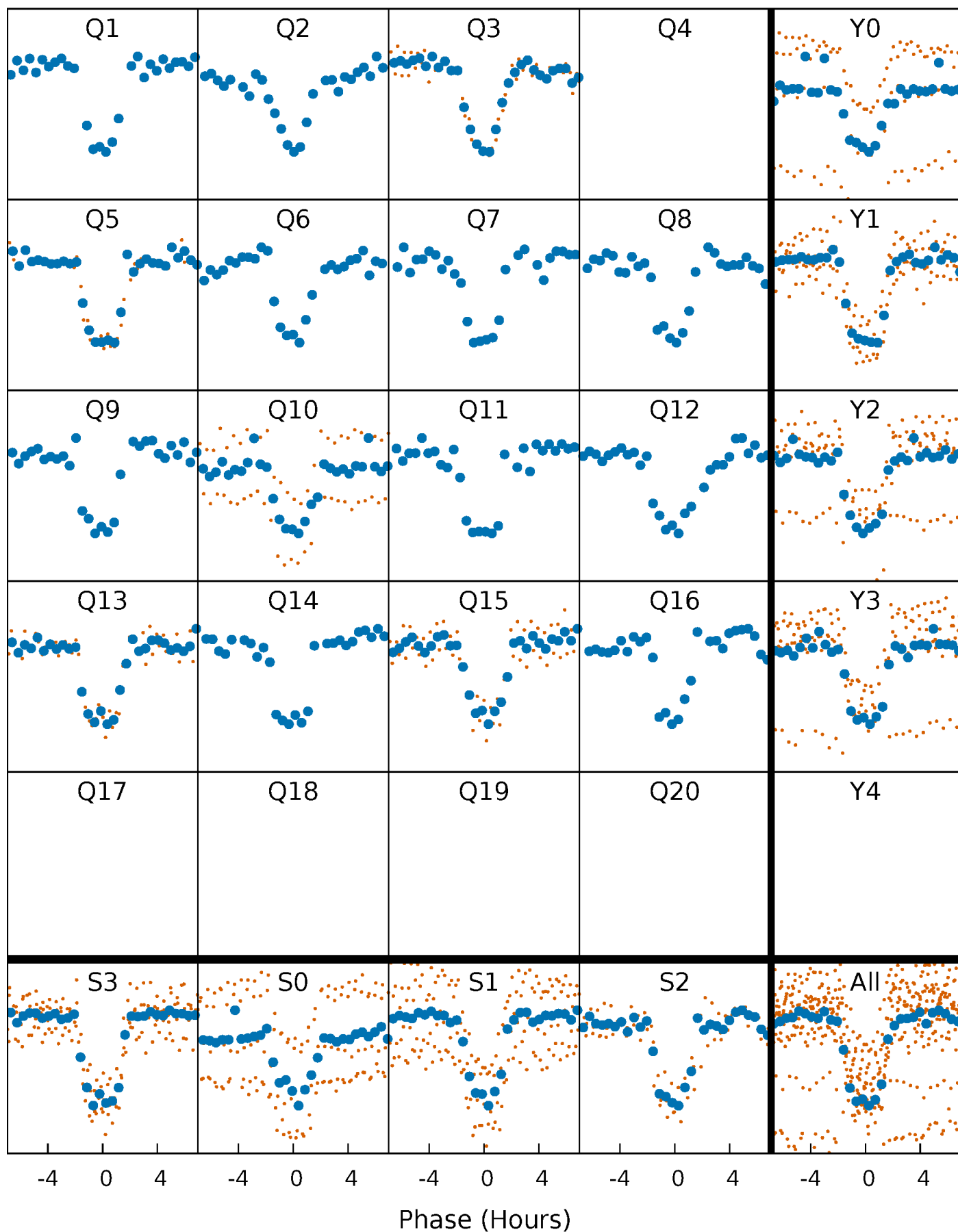


Non-Whitened Vs. Whitened Light Curve



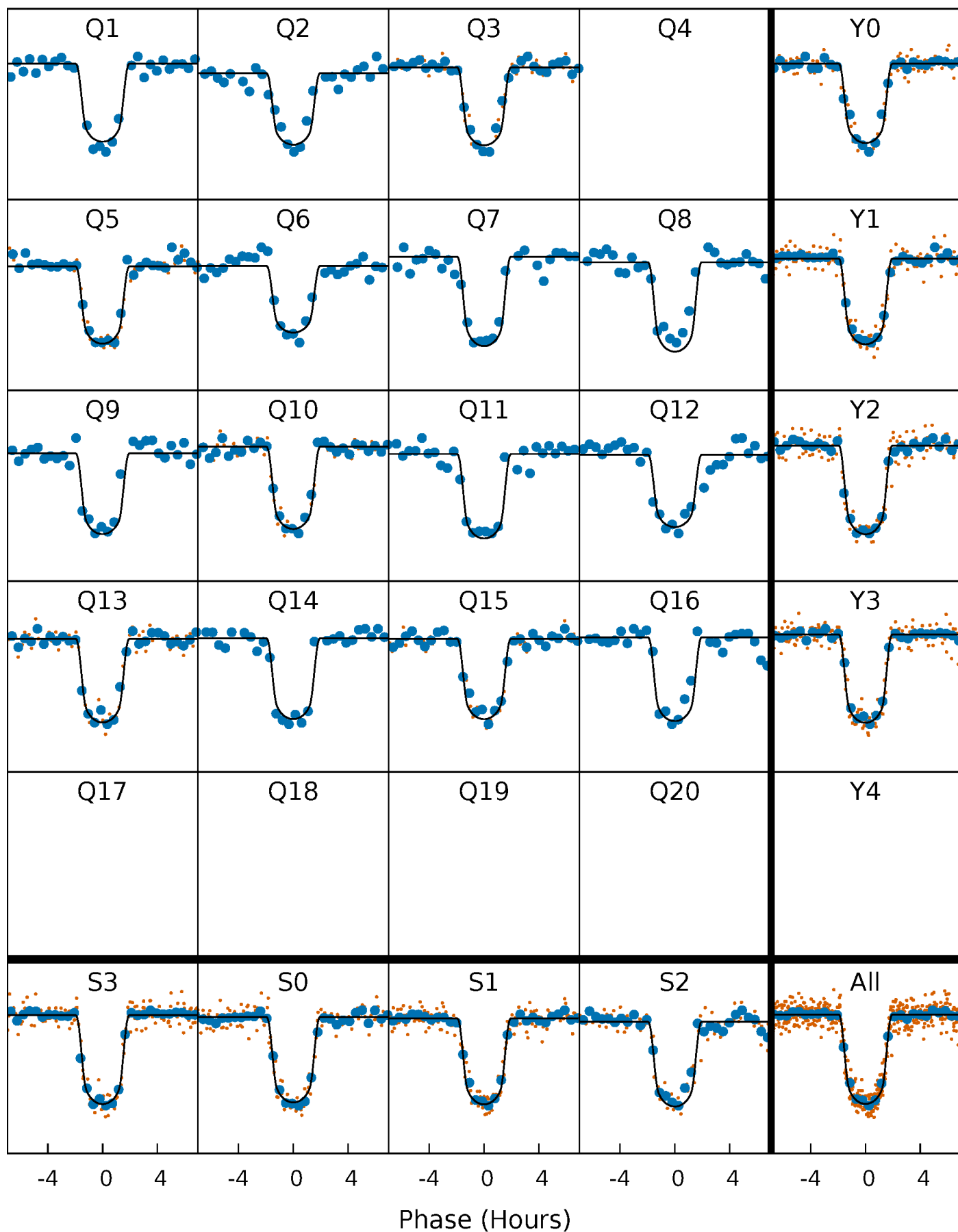
PDC Quarter-Phased Transit Curves

TCE 007941200-01 P= 65.704599 Days $T_0=137.441906$ (BKJD)



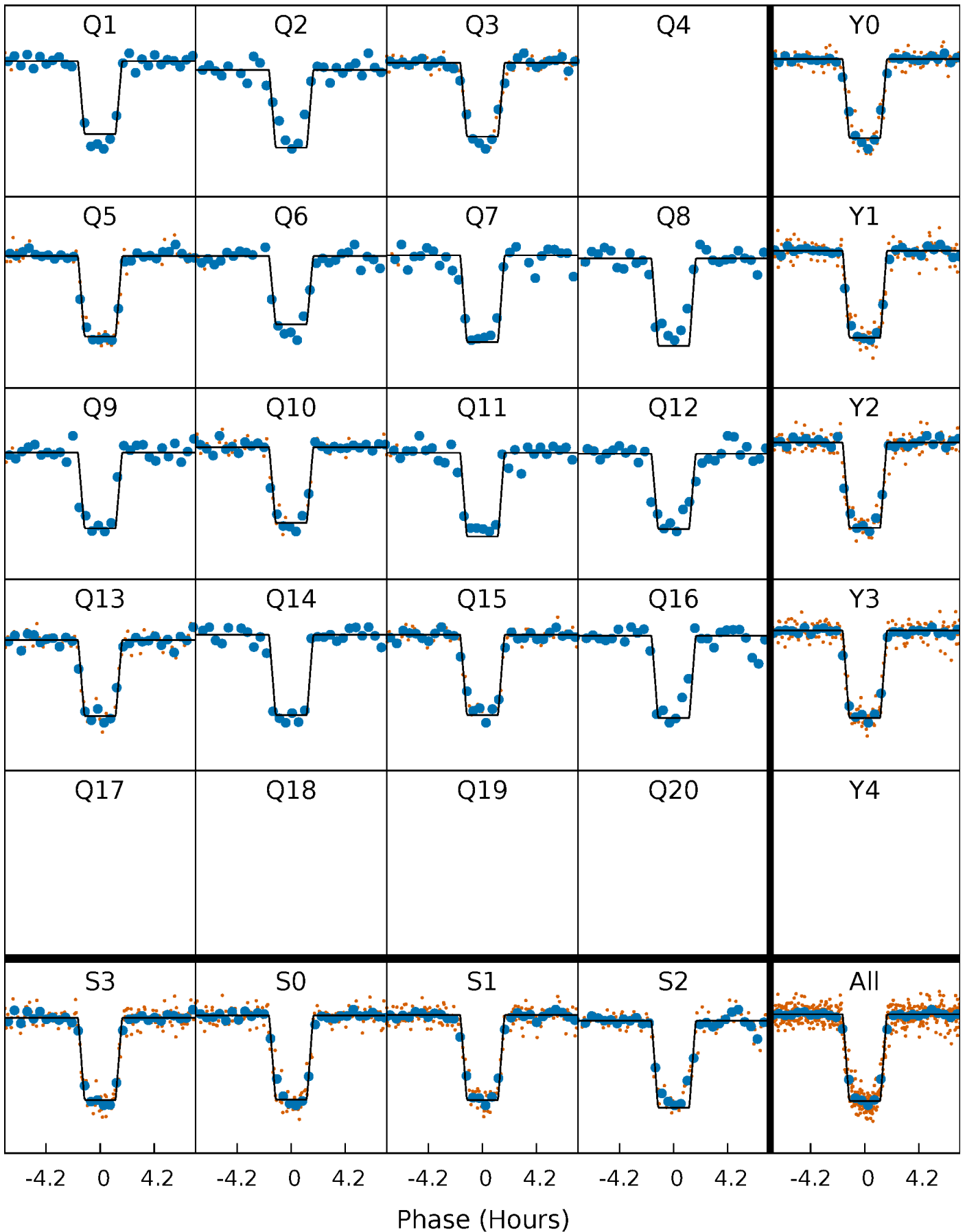
DV Quarter-Phased Transit Curves

TCE 007941200-01 P= 65.704599 Days $T_0=137.441906$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

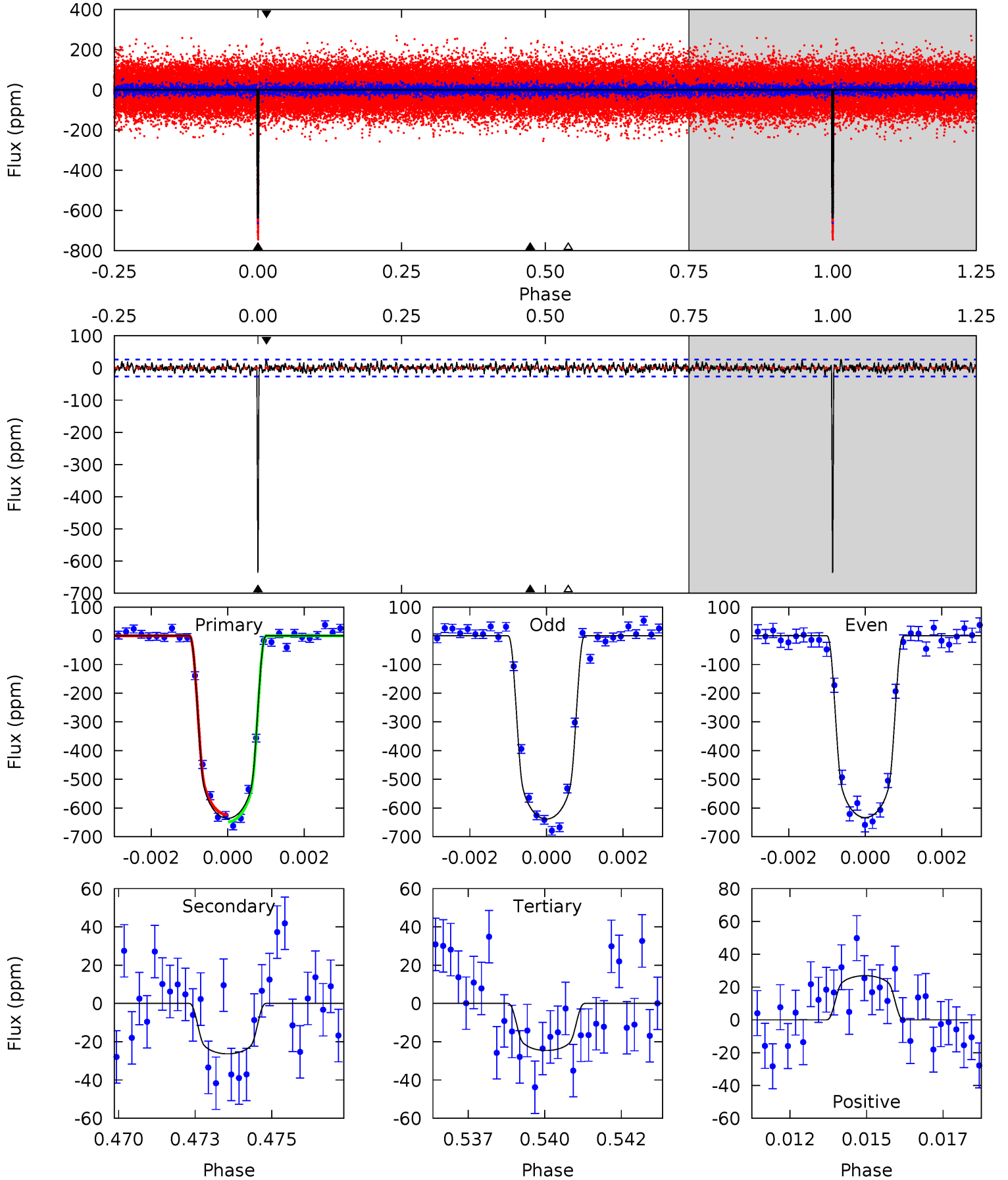
TCE 007941200-01 P= 65.704776 Days $T_0=137.440096$ (BKJD)



DV Model-Shift Uniqueness Test

007941200-01, P = 65.704599 Days, E = 71.737307 Days

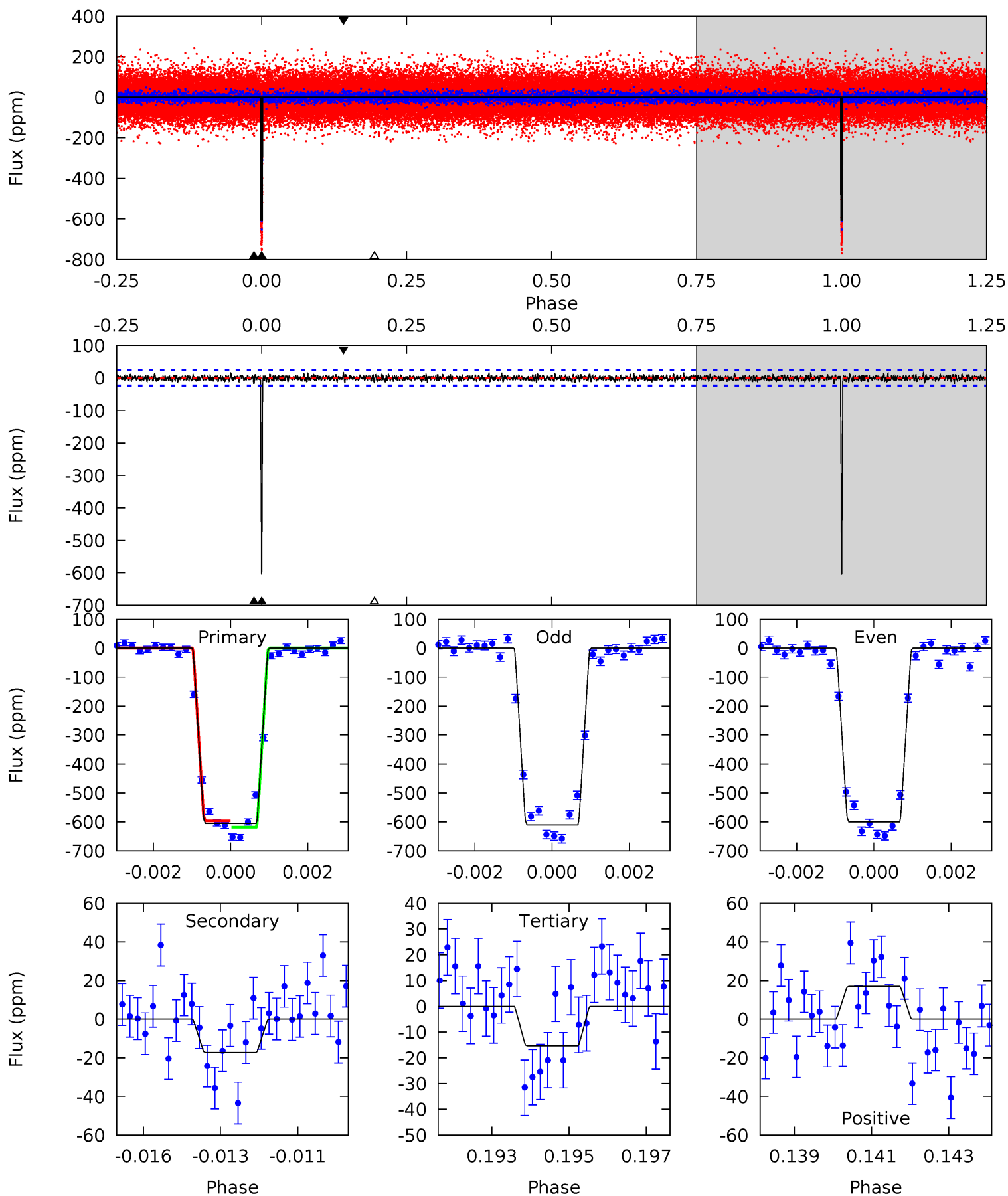
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
127.6	5.28	4.93	5.40	5.29	3.02	1.43	122.7	122.2	0.35	-0.12	0.51	1.01	0.04	2.48



Alt Model-Shift Uniqueness Test

007941200-01, P = 65.704776 Days, E = 71.735320 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
127.8	3.62	3.23	3.58	5.31	3.06	0.96	124.6	124.2	0.39	0.03	1.13	0.99	0.03	2.33



Stellar Parameters For KIC 007941200

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (g \cdot \text{cm}^{-3})$
	5918^{+106}_{-130}	$4.403^{+0.080}_{-0.120}$	$-0.040^{+0.150}_{-0.150}$	$1.043^{+0.158}_{-0.092}$	$1.003^{+0.072}_{-0.064}$	$1.246^{+0.346}_{-0.429}$
	+2%/-2%	+2%/-3%	+375%/-375%	+15%/-9%	+7%/-6%	+28%/-34%
Source	SPE59	SPE59	SPE59	DSEP		

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

Secondary Eclipse Parameters for KIC 007941200-01 / KOI 0092.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-26 ± 5	$3.07^{+0.28}_{-0.23}$	662^{+26}_{-25}	3183^{+104}_{-105}	155^{+43}_{-37}
Alt.	-17 ± 5	$2.86^{+0.28}_{-0.21}$	661^{+28}_{-23}	3055^{+118}_{-150}	113^{+39}_{-33}

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 $A_{obs} \gg 1.0$

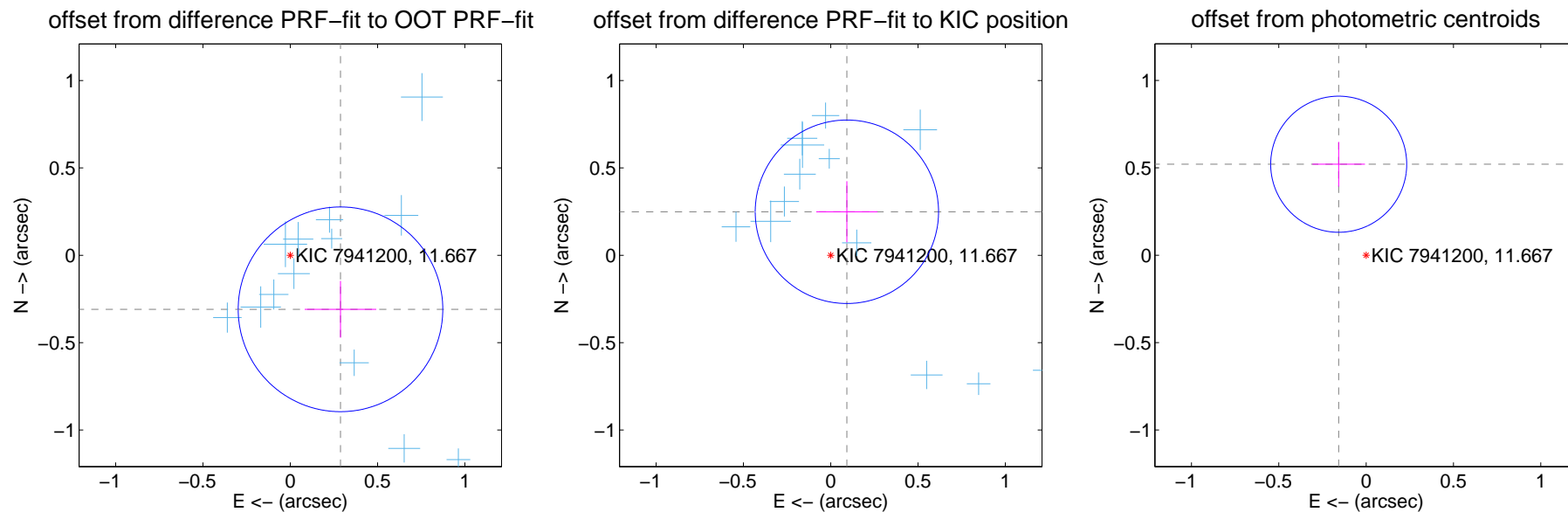
DV Centroid Data

Supplemental centroid analysis for 007941200-01. **Kepler magnitude: 11.67.** Transit SNR 76.99

There are 14 quarters with good PRF difference image offsets

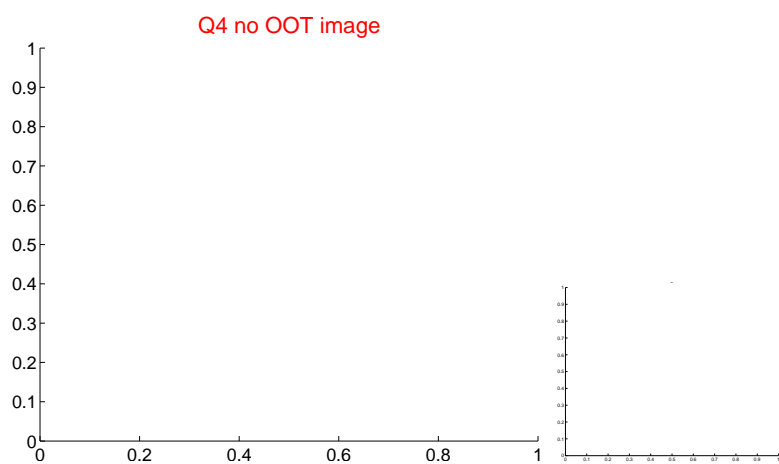
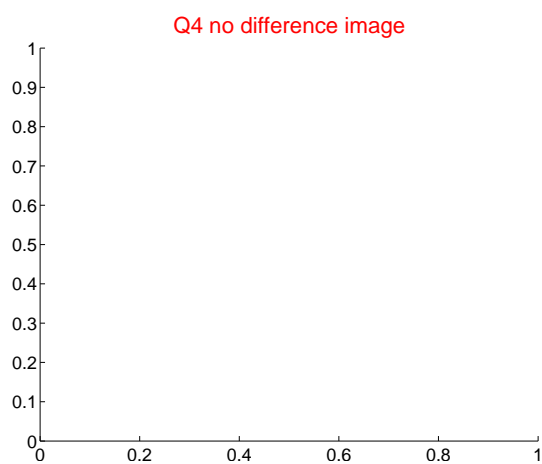
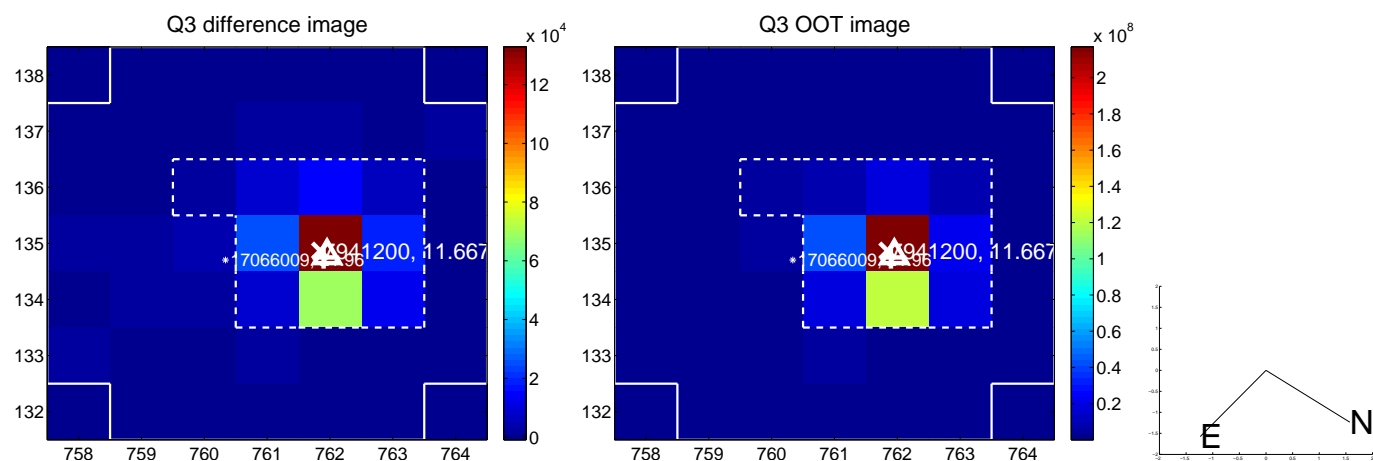
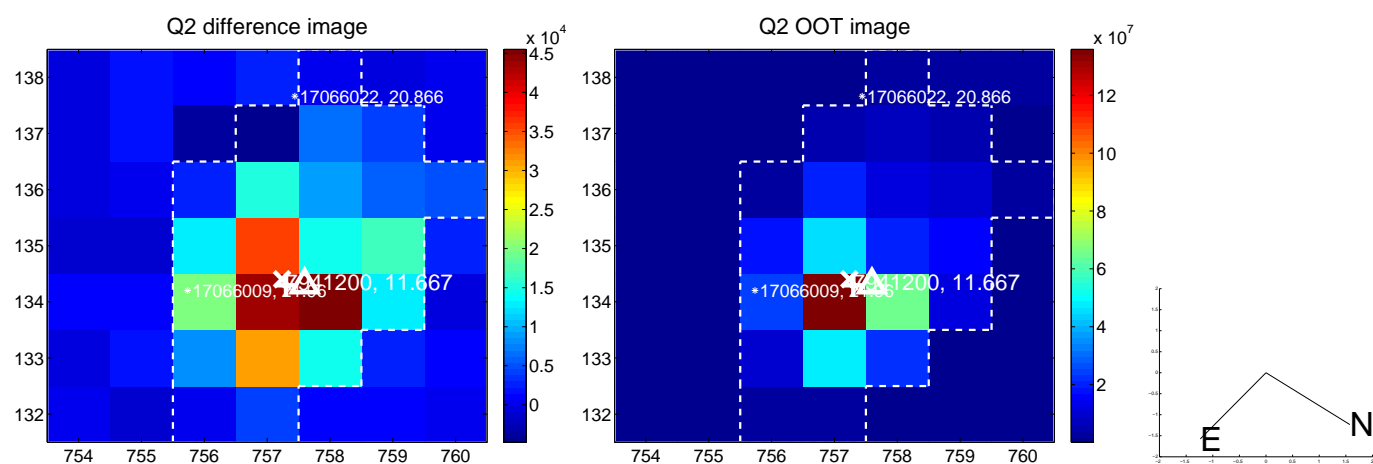
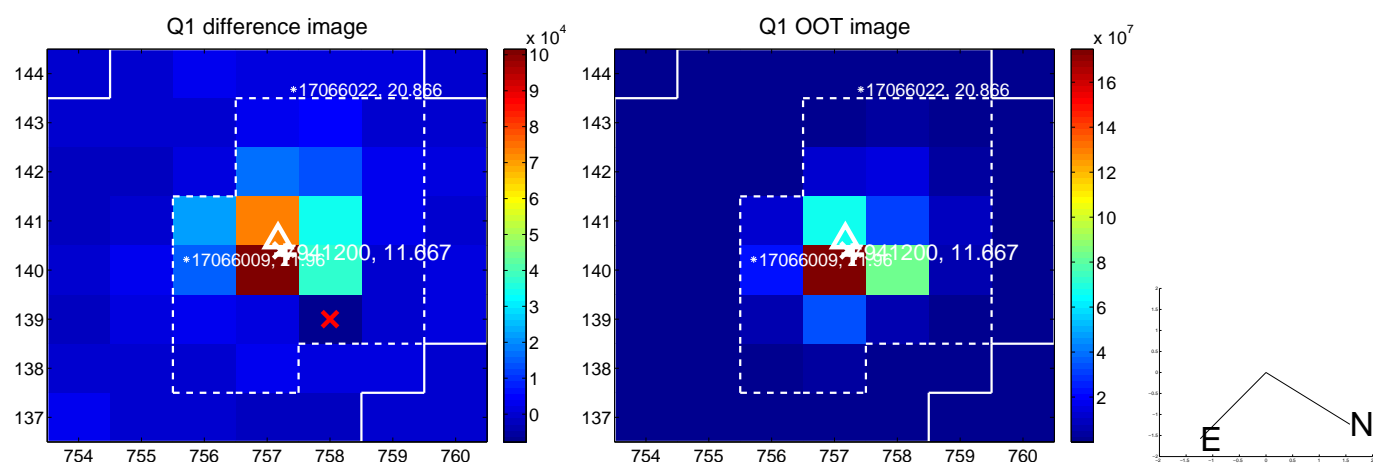
The direct PRF centroid is offset from the target star catalog position by about 0.61 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.422 ± 0.195	2.16	-0.288 ± 0.205	-0.309 ± 0.162
PRF-fit source offset from KIC position	0.266 ± 0.175	1.52	-0.093 ± 0.175	0.249 ± 0.175
photometric centroid source offset	0.54 ± 0.13	4.19	0.16 ± 0.15	0.52 ± 0.13

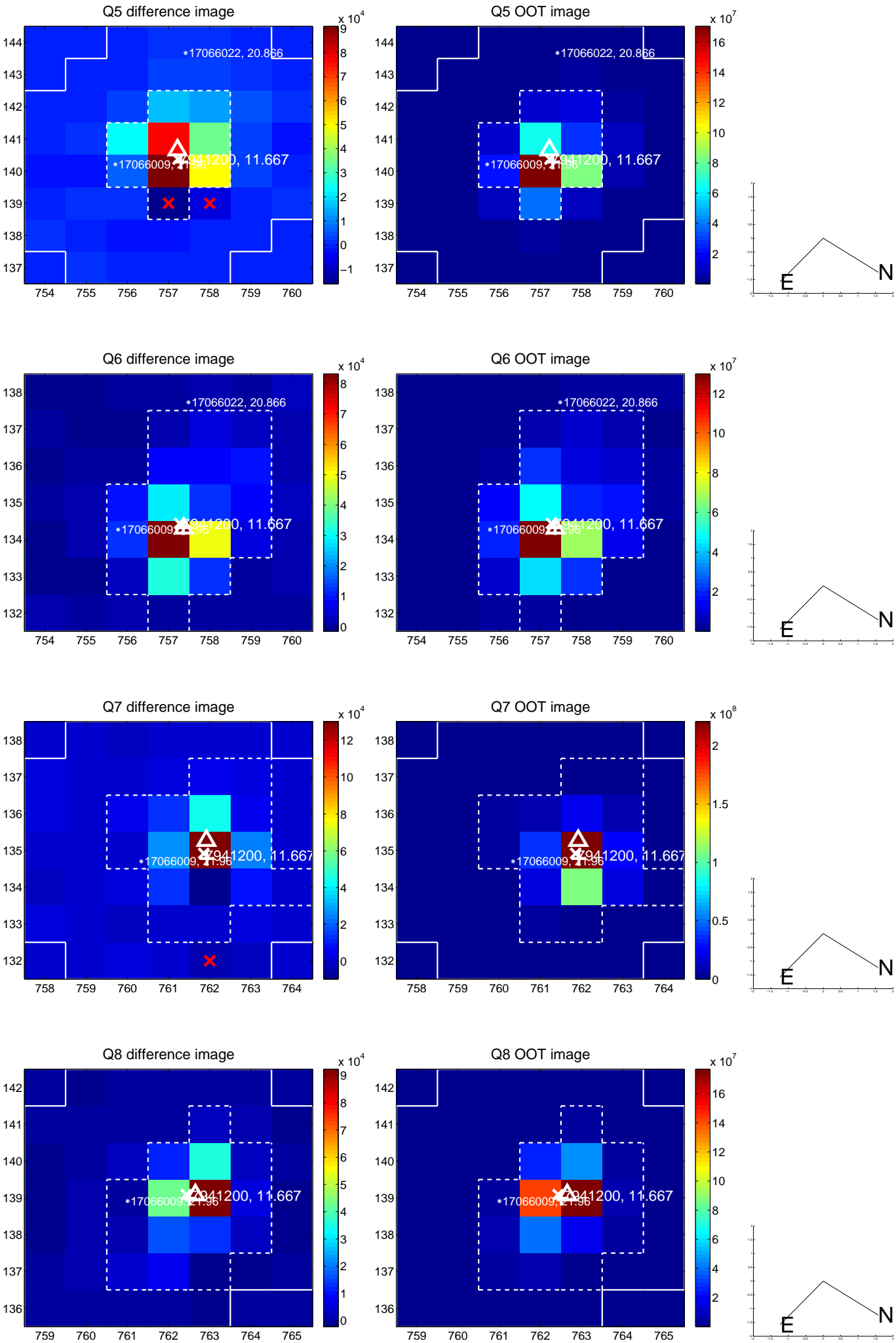


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

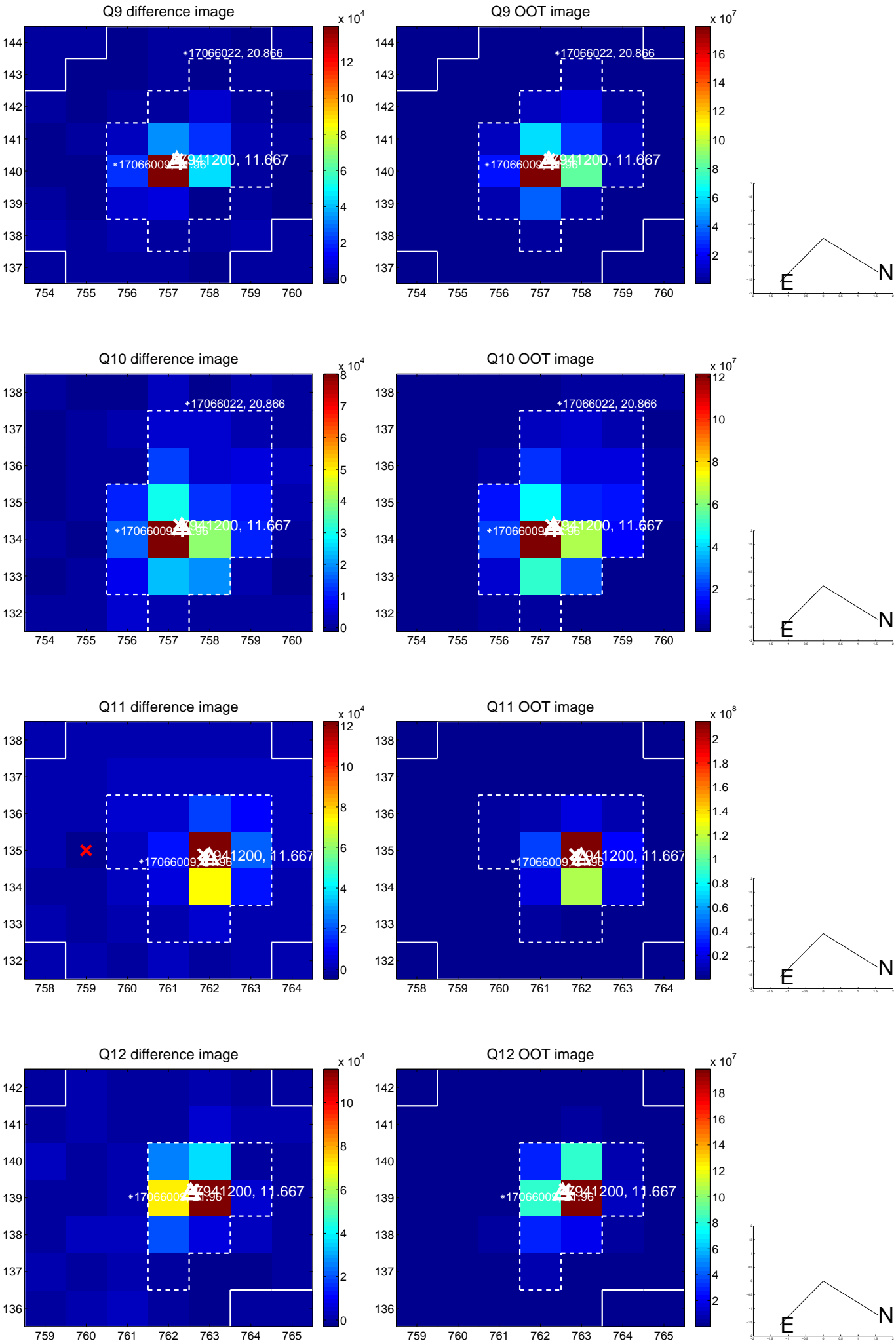
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



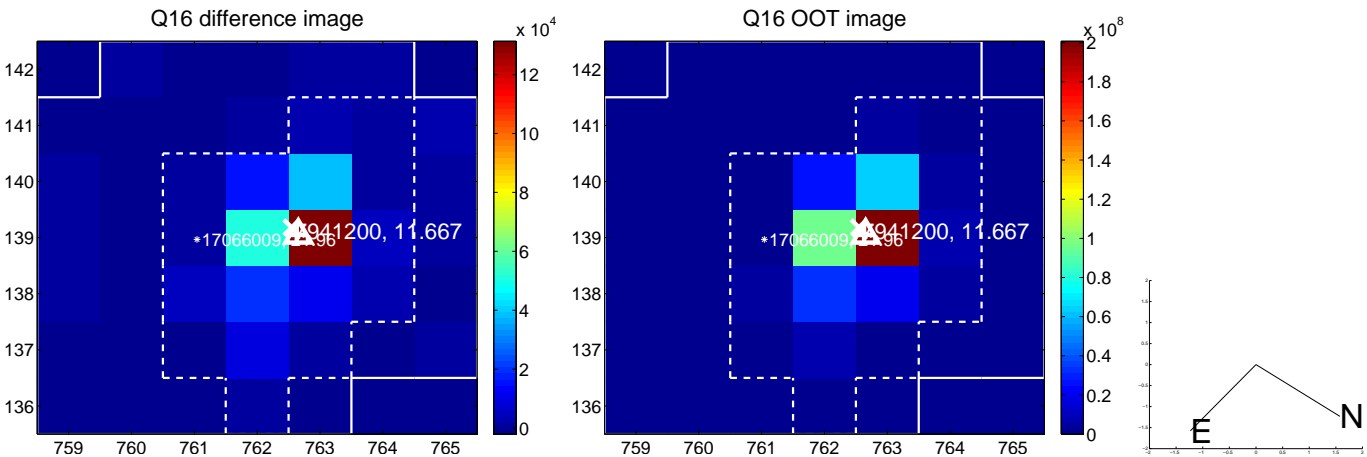
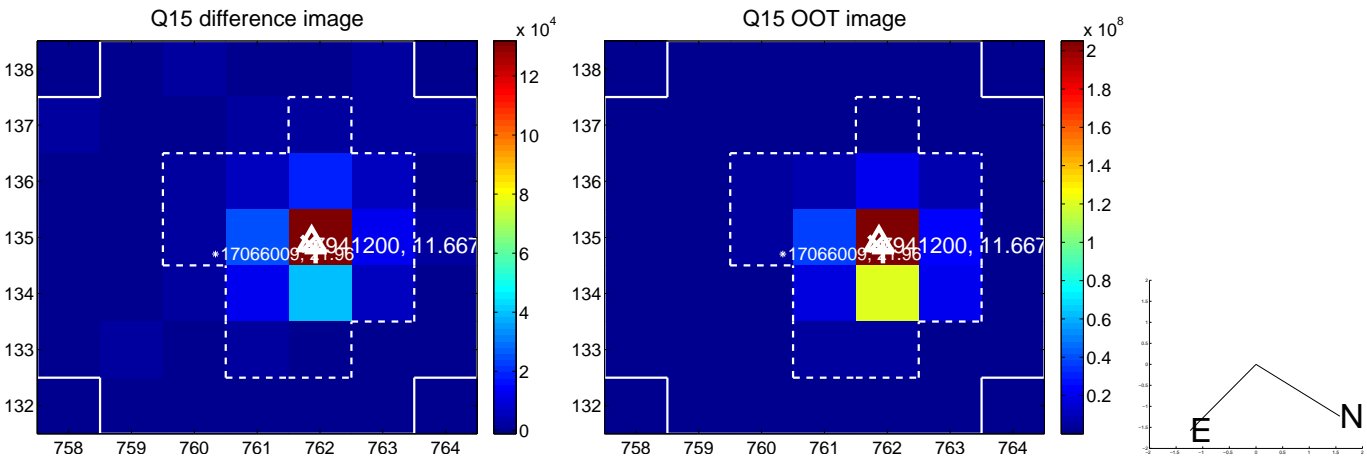
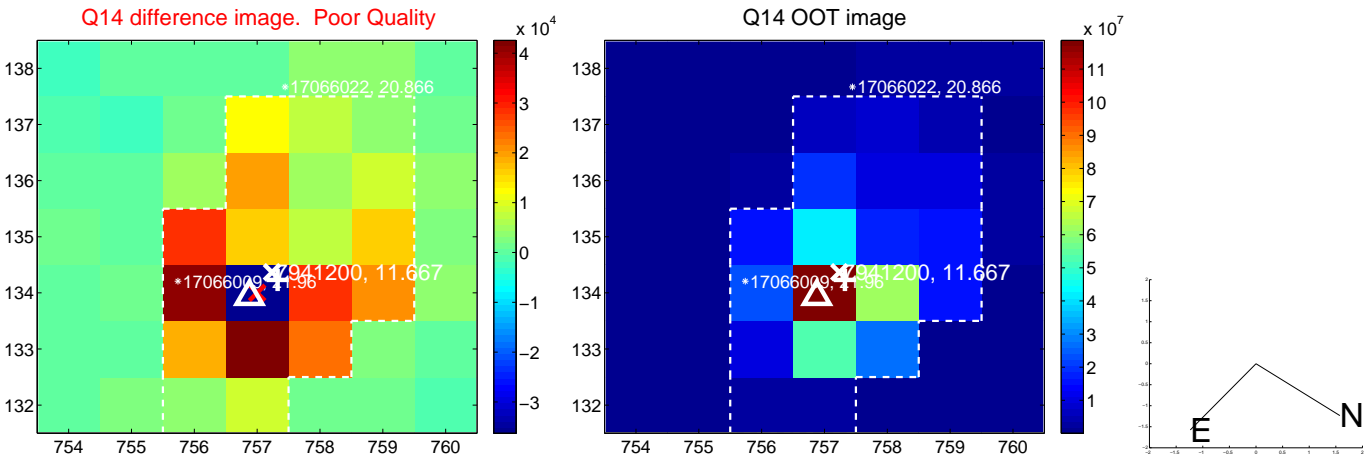
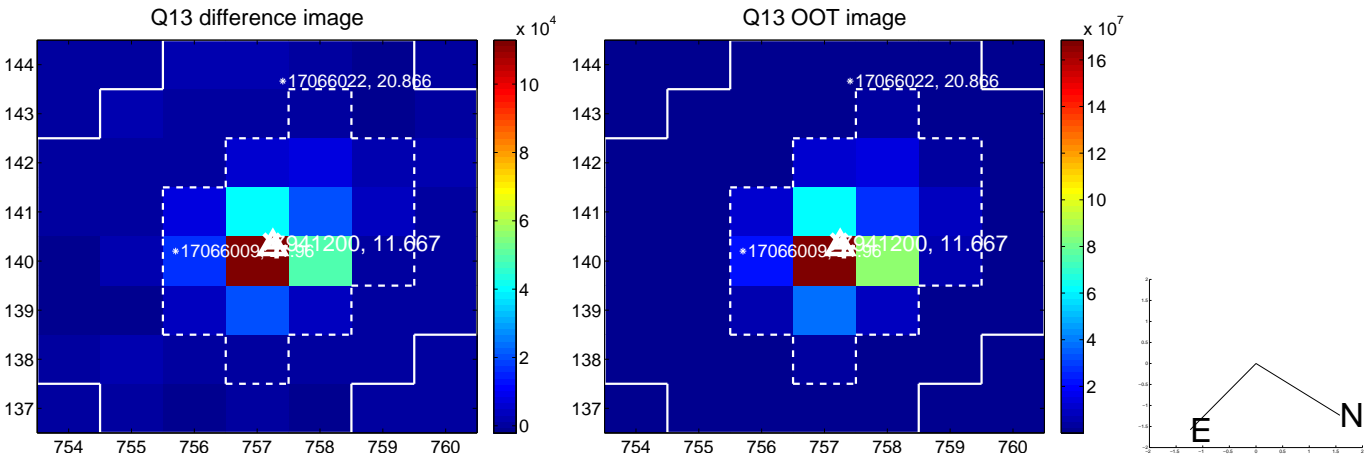
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



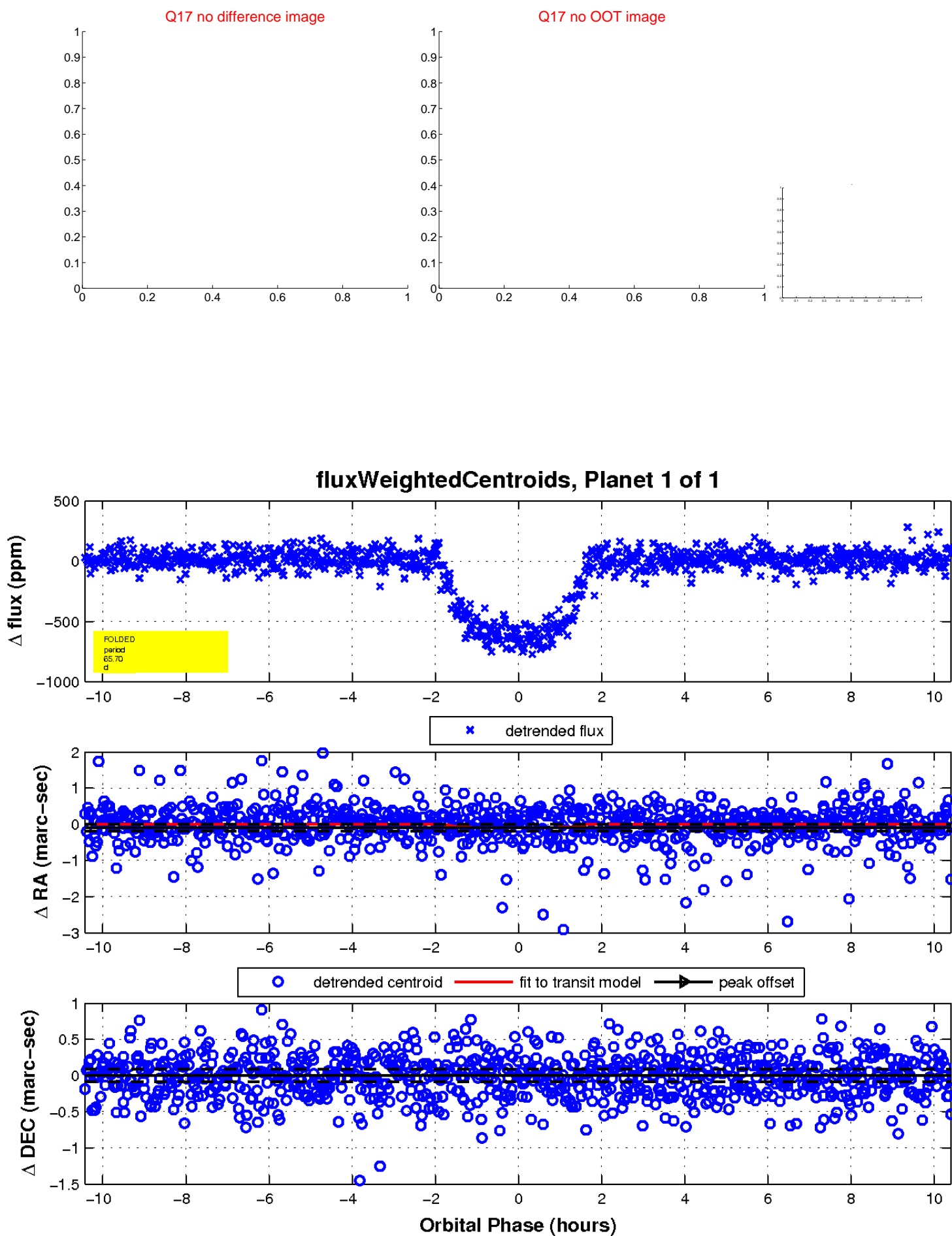
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UKIRT Image

Declination

