

KIC 011607176

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})
011607176-01	OBS	3930.01	3.282737	132.644516	151.8	8.050	24.3	27.8	0.82	5741	1.33	394.22

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011607176-01	OBS	FP	0.00	1	0	1	0	LPP_DV—CENT_RESOLVED_OFFSET

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 011607176-01

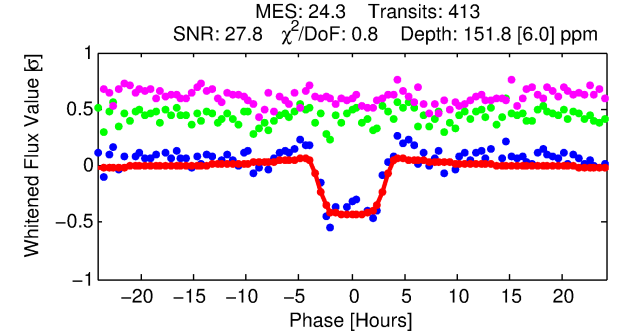
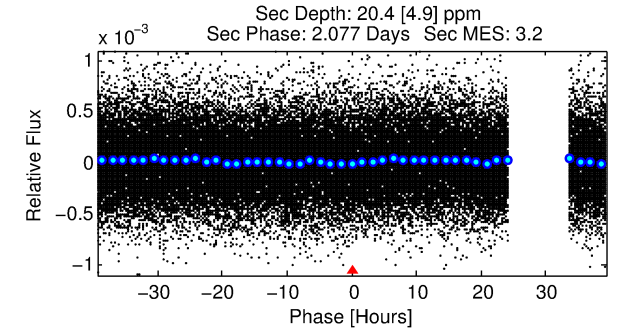
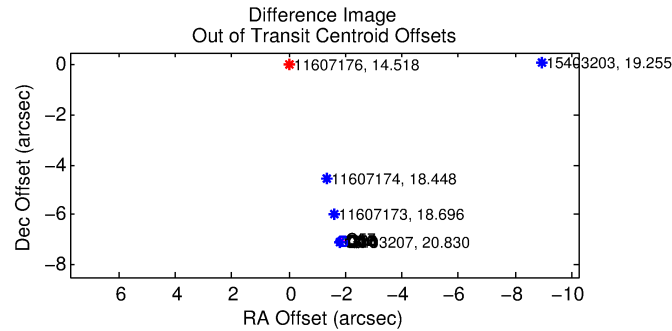
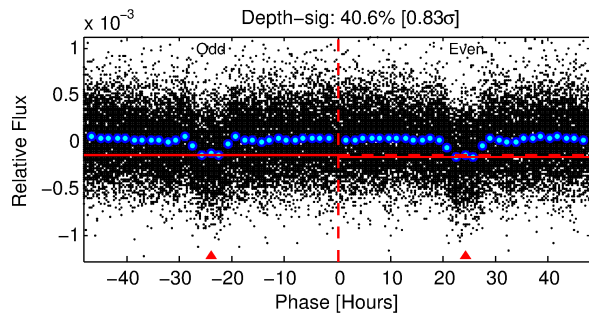
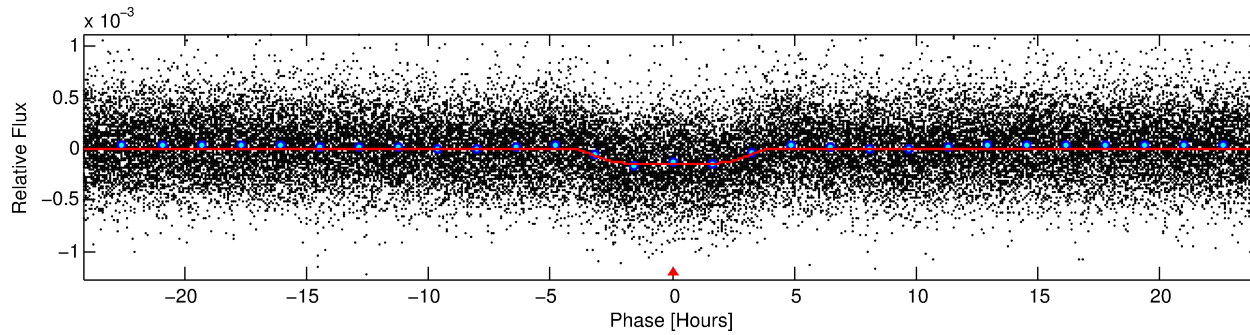
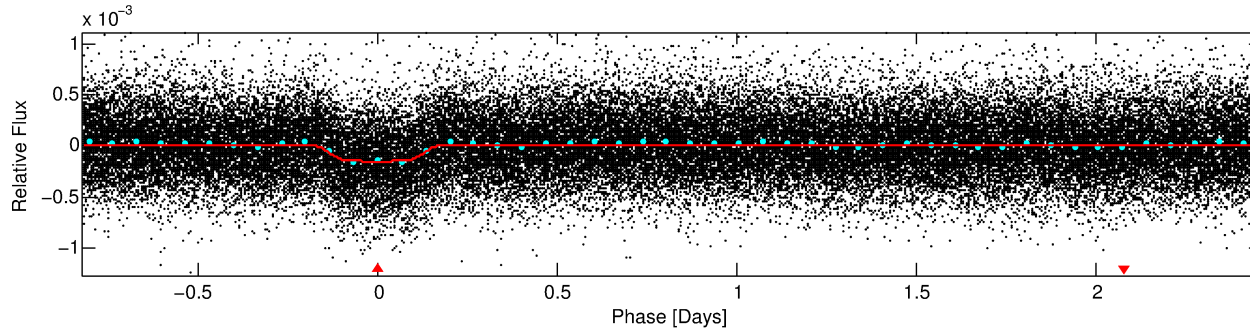
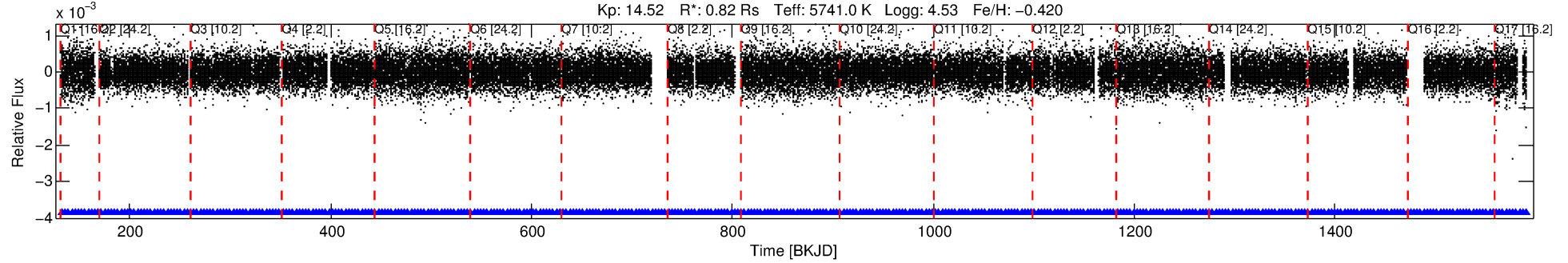
No Significant Match Found

DV One-Page Summary

KIC: 11607176 Candidate: 1 of 1 Period: 3.283 d

KOI: K03930 Corr: No Ephemeris Match

Kp: 14.52 R*: 0.82 Rs Teff: 5741.0 K Logg: 4.53 Fe/H: -0.420



DV Fit Results:

Period = 3.28274 [0.00002] d
Epoch = 132.6445 [0.0050] BKJD
Rp/R* = 0.0149 [0.0004]
a/R* = 1.35 [0.06]
b = 0.97 [0.01]
Seff = 394.22 [126.39]
Teq = 1136 [91] K
Rp = 1.33 [0.33] Re
a = 0.0407 [0.0084] AU
Ag = 10.48 [4.10] [2.31σ]
Teff = 3161 [214] K [8.69σ]

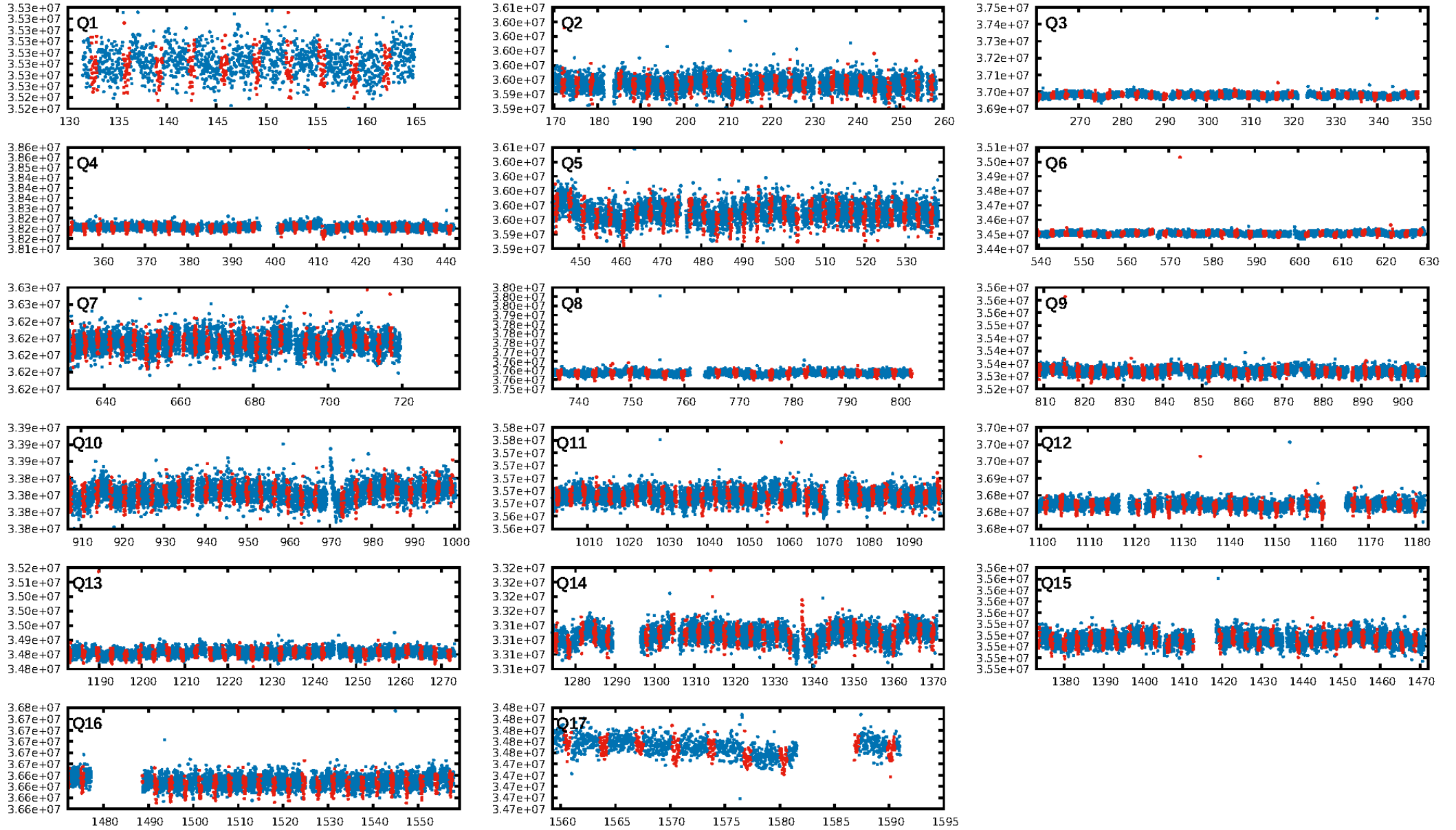
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 8.80e-116
RollingBand-fgt: 1.00 [394/394]
GhostDiagnostic-chr: -0.3309
Centroid-sig: 0.0%
Centroid-so: 49.124 arcsec [77.50σ]
OotOffset-rm: 7.311 arcsec [107.71σ]
KicOffset-rm: 7.413 arcsec [108.07σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 1.00 [17/17]
DiffImageOverlap-fno: 1.00 [17/17]

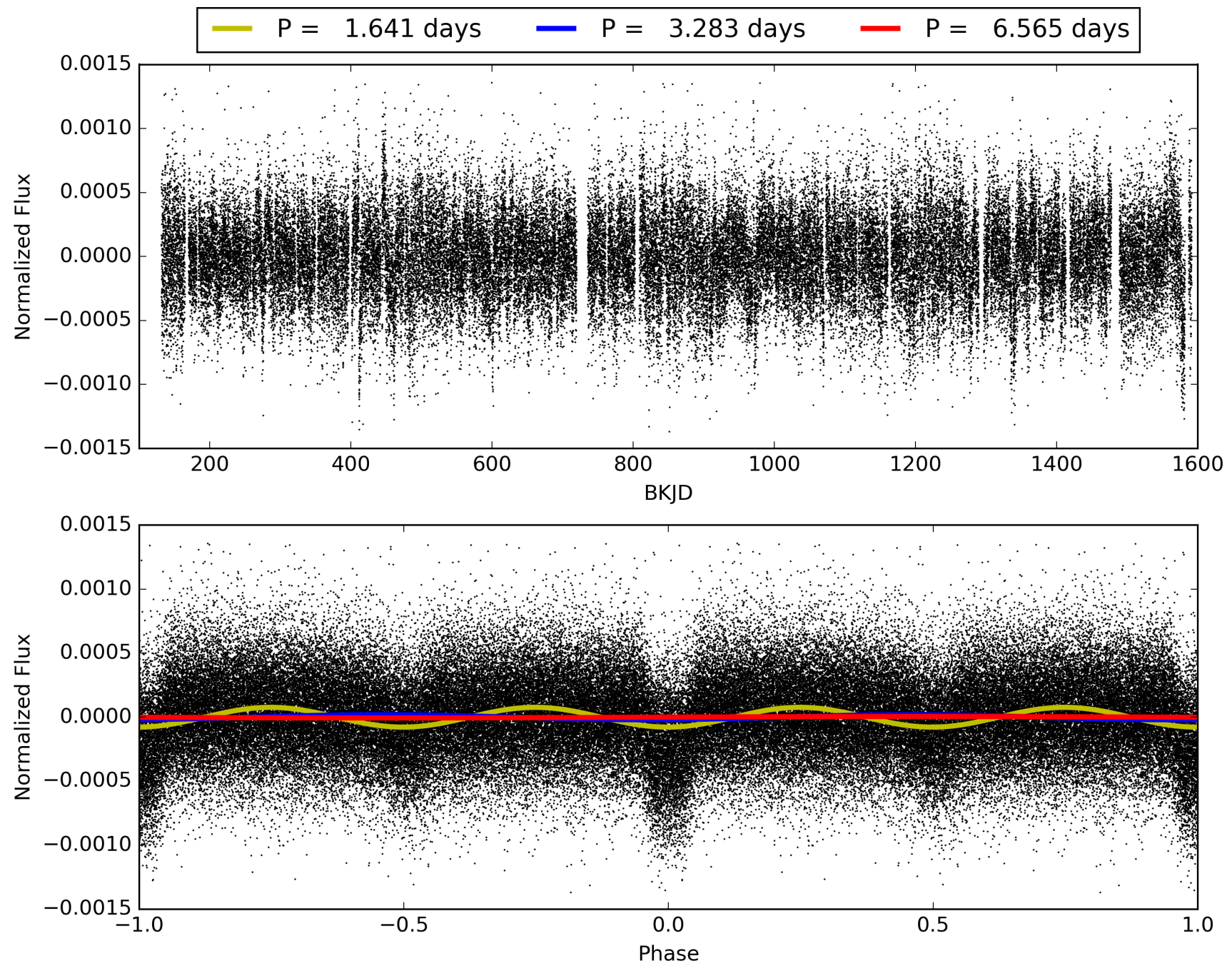
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 02:21:08 Z

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

TCE 011607176-01, PDC Light Curves

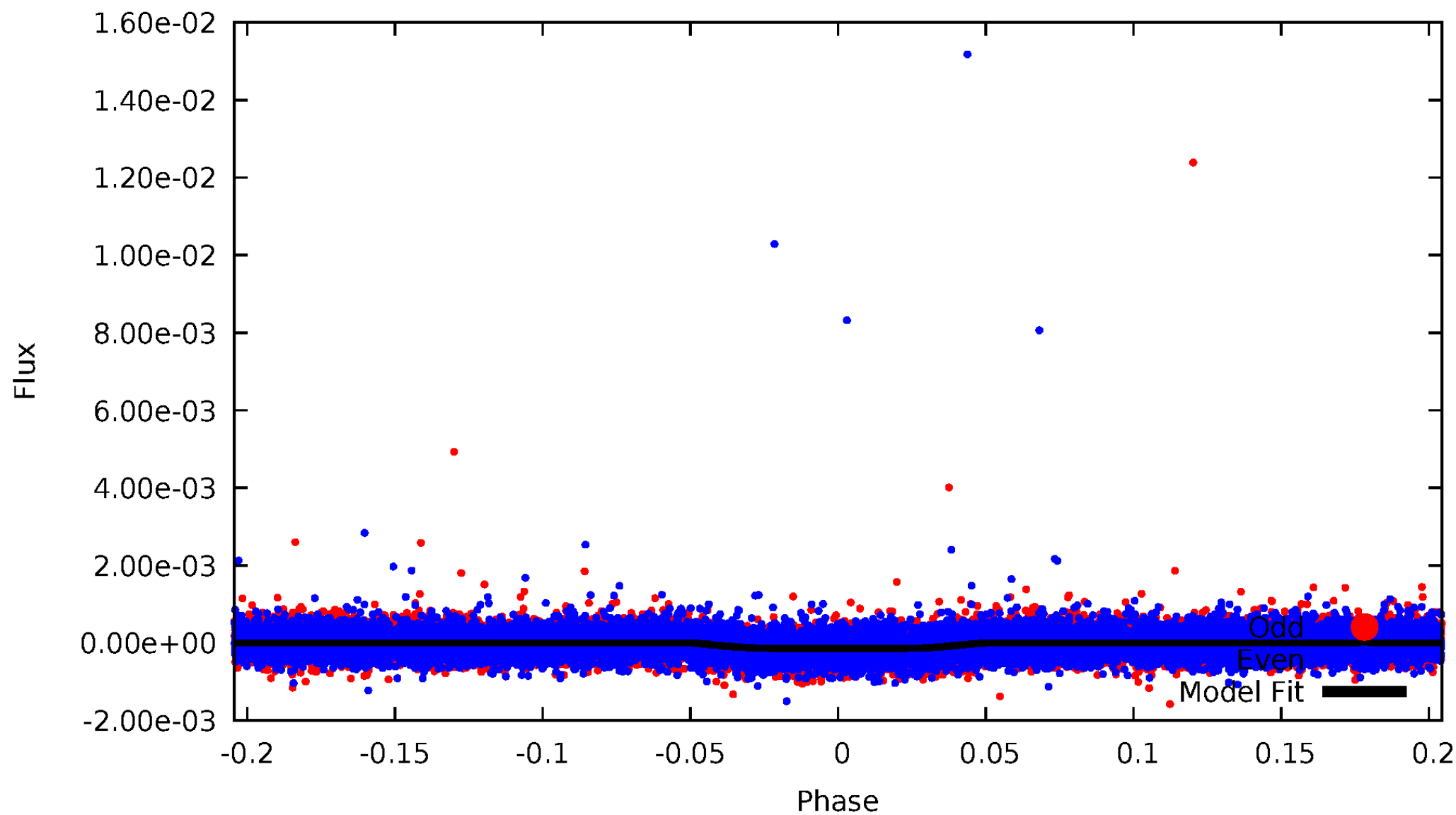


TCE 011607176-01



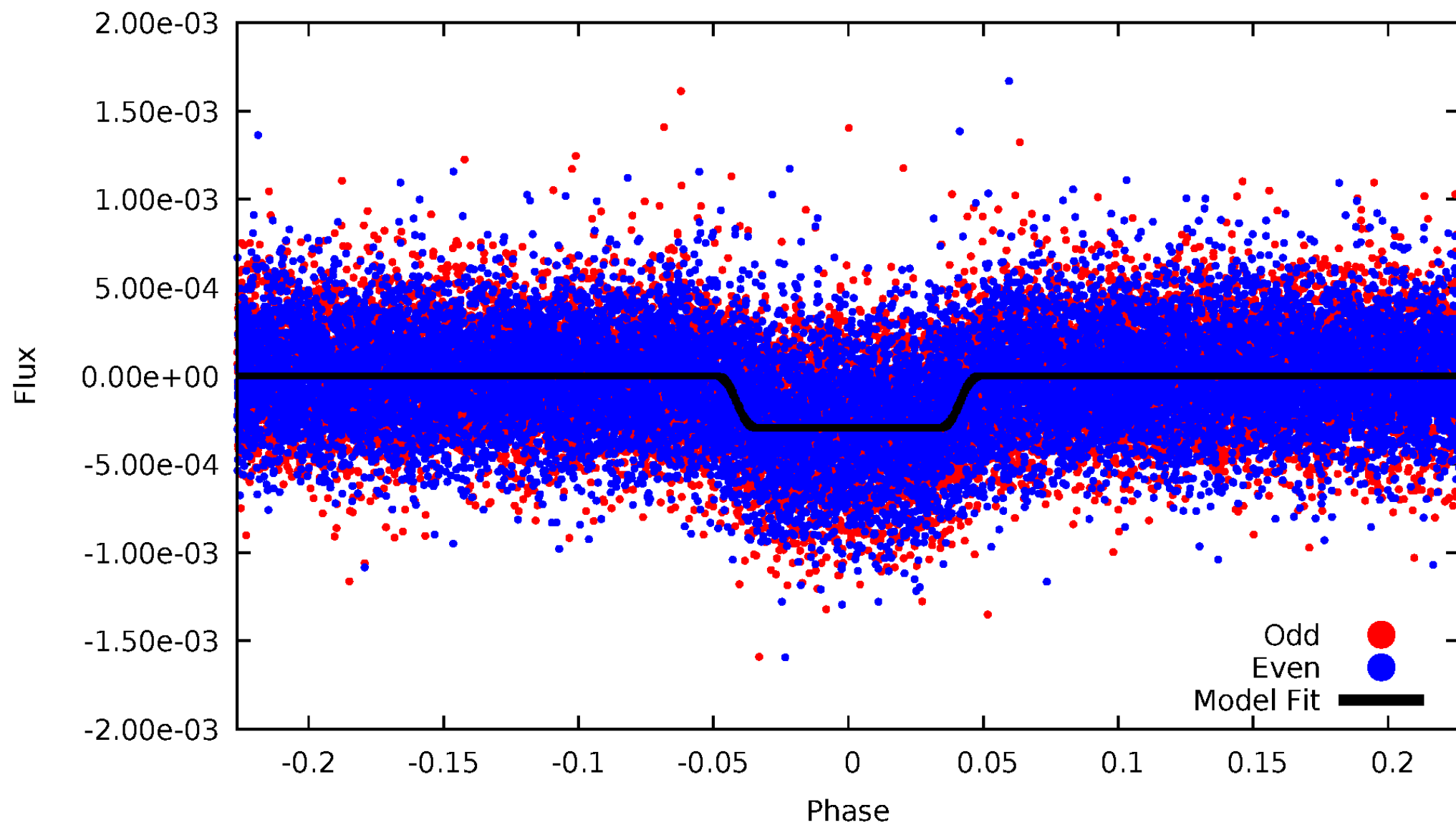
DV Odd/Even

TCE 011607176-01

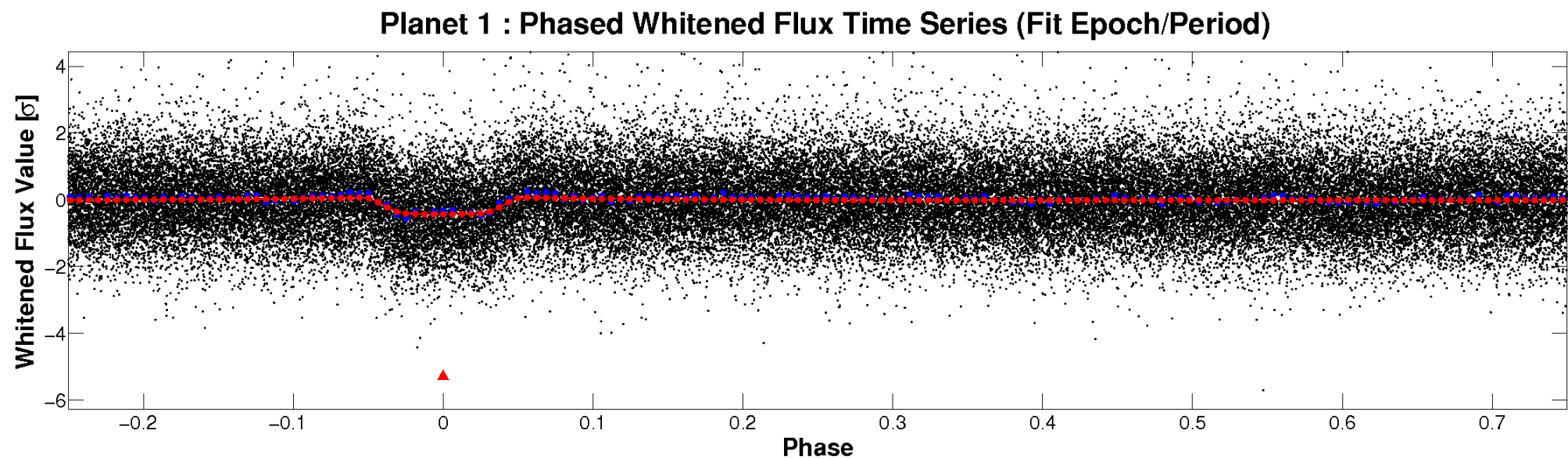
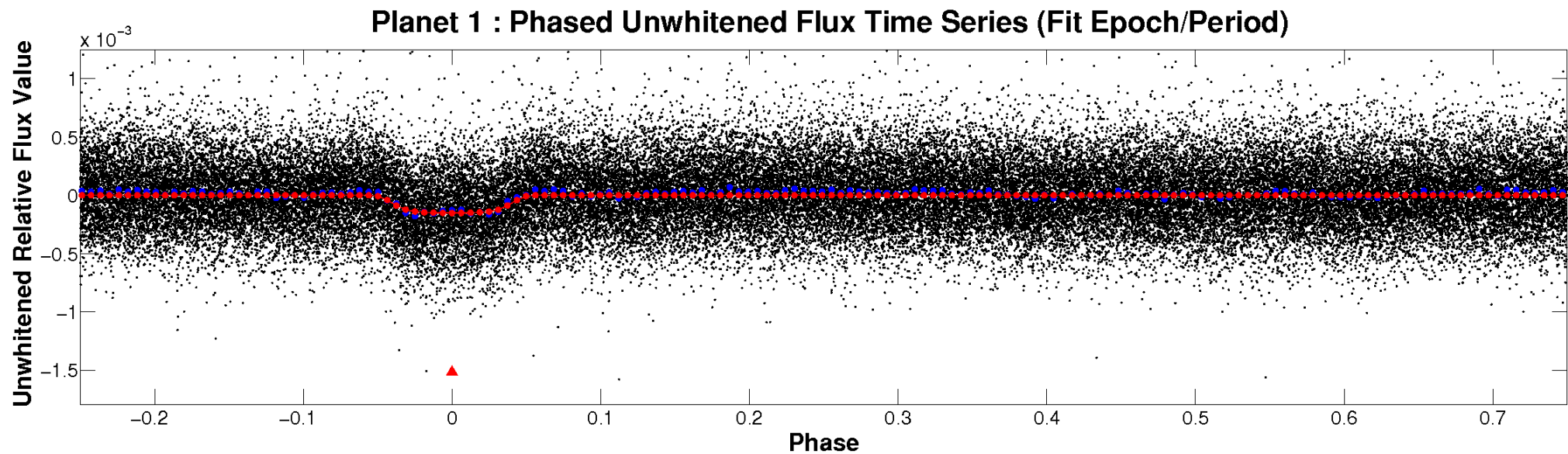


ALT Odd/Even

TCE 011607176-01

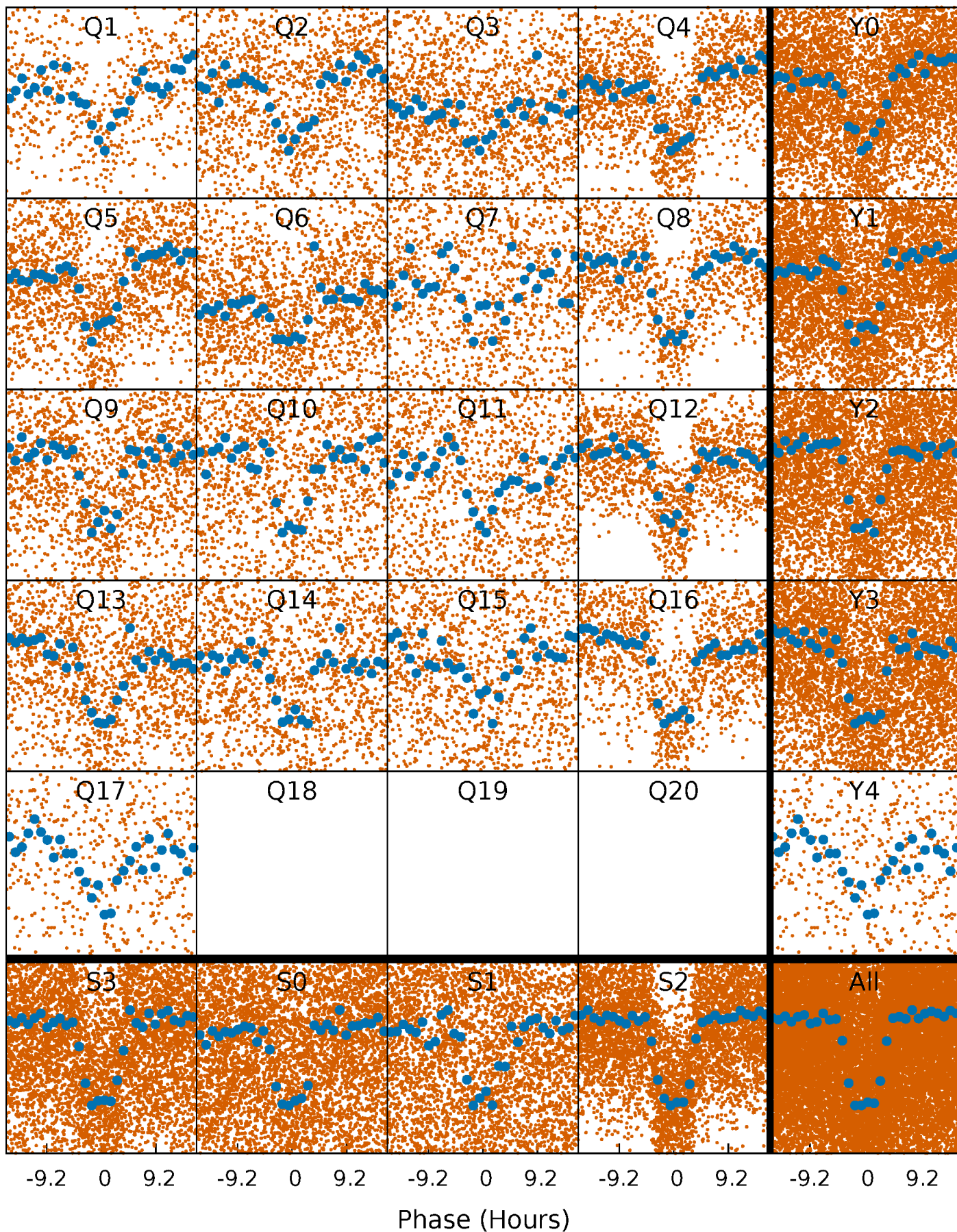


Non-Whitened Vs. Whitened Light Curve



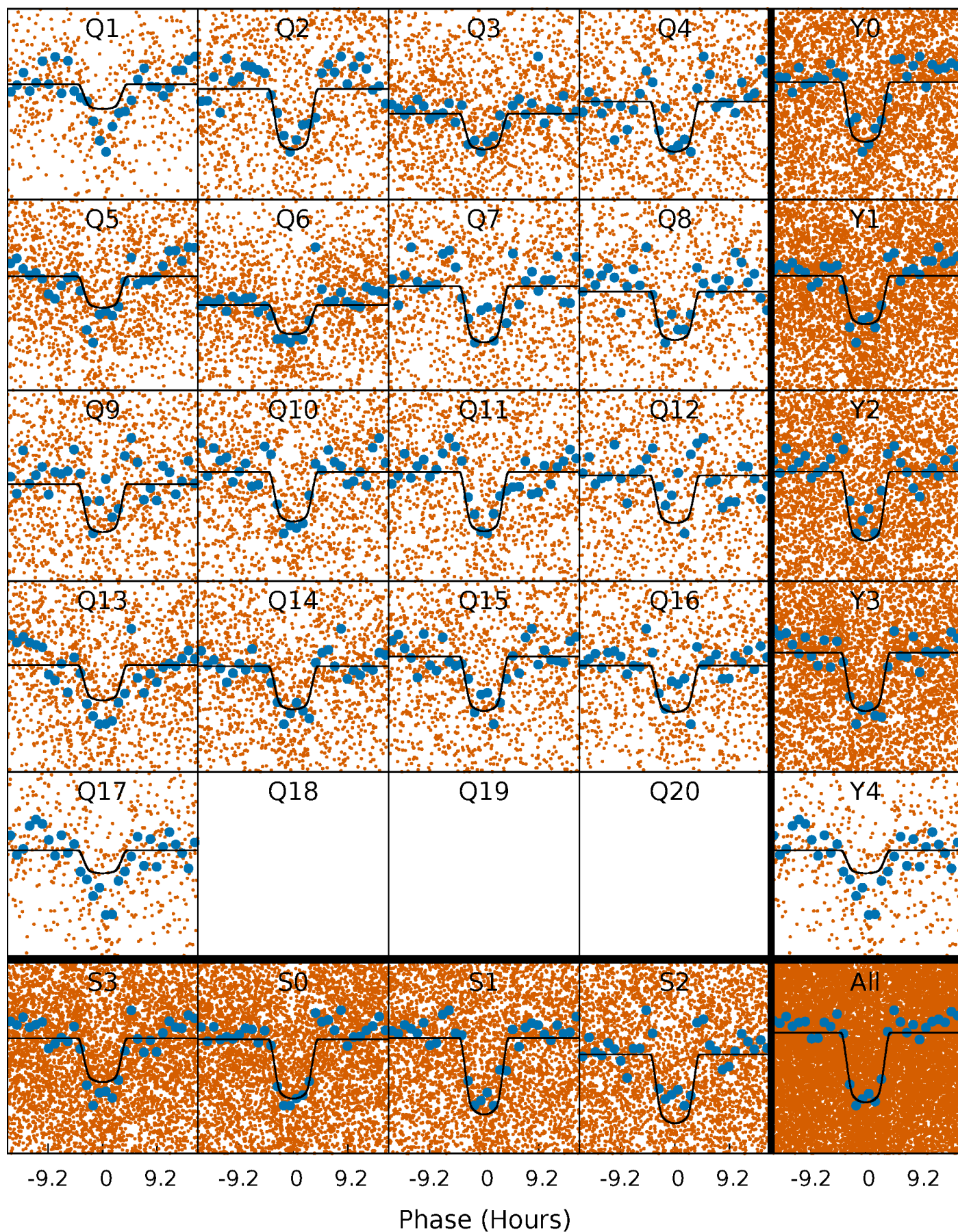
PDC Quarter-Phased Transit Curves

TCE 011607176-01 P= 3.282737 Days $T_0=132.644516$ (BKJD)



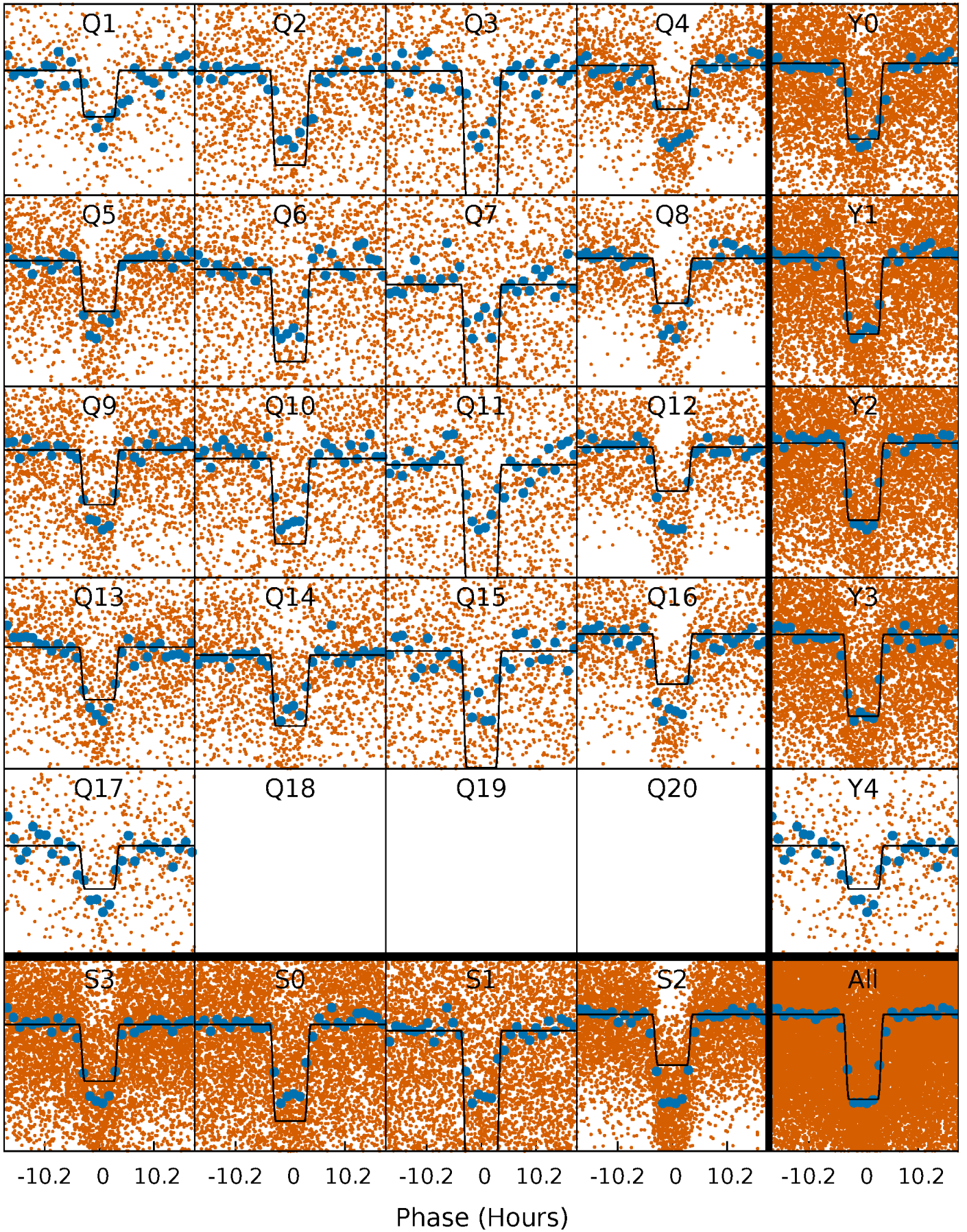
DV Quarter-Phased Transit Curves

TCE 011607176-01 P= 3.282737 Days $T_0=132.644516$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

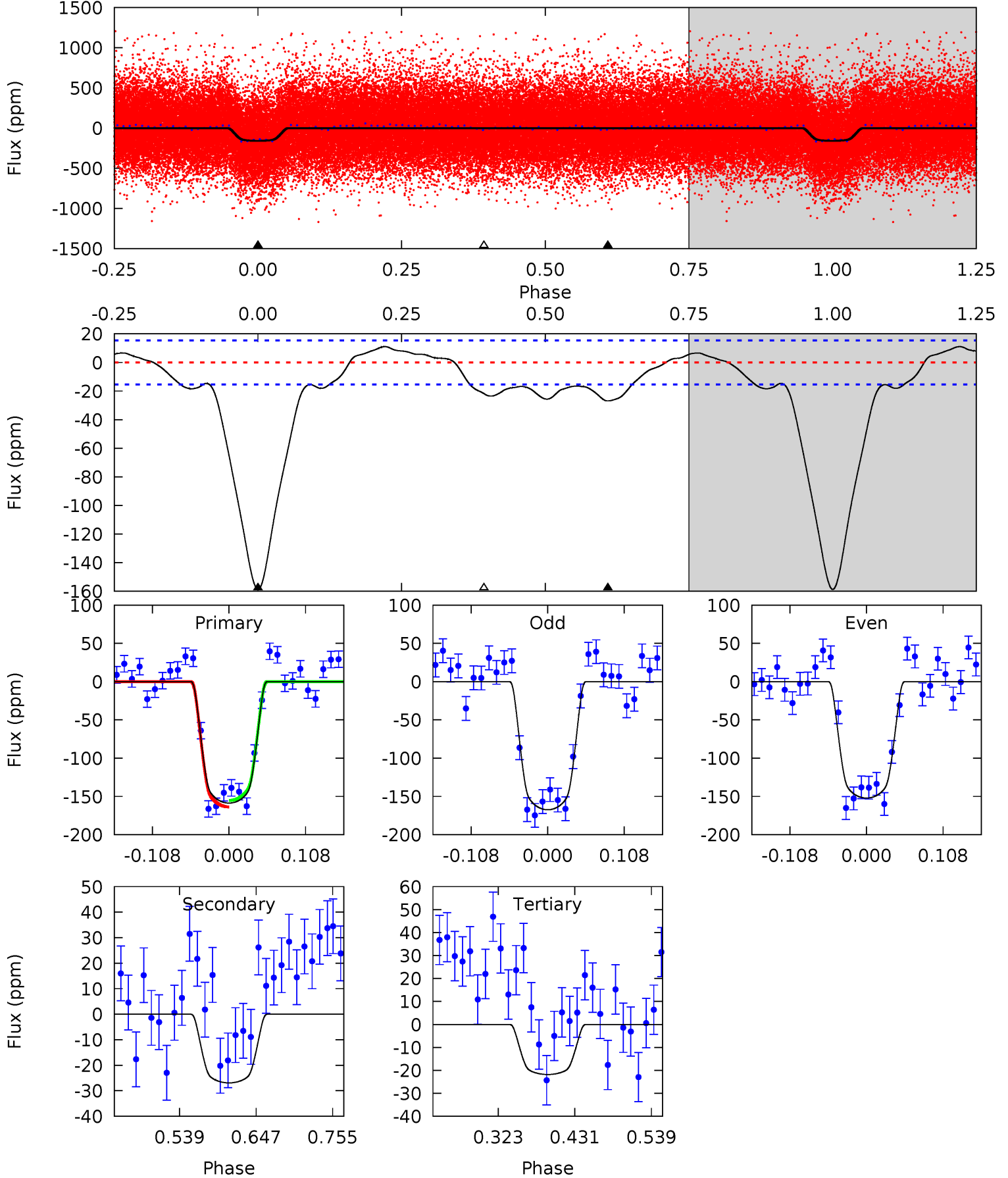
TCE 011607176-01 P= 3.282820 Days $T_0=132.627222$ (BKJD)



DV Model-Shift Uniqueness Test

011607176-01, P = 3.282737 Days, E = 129.361779 Days

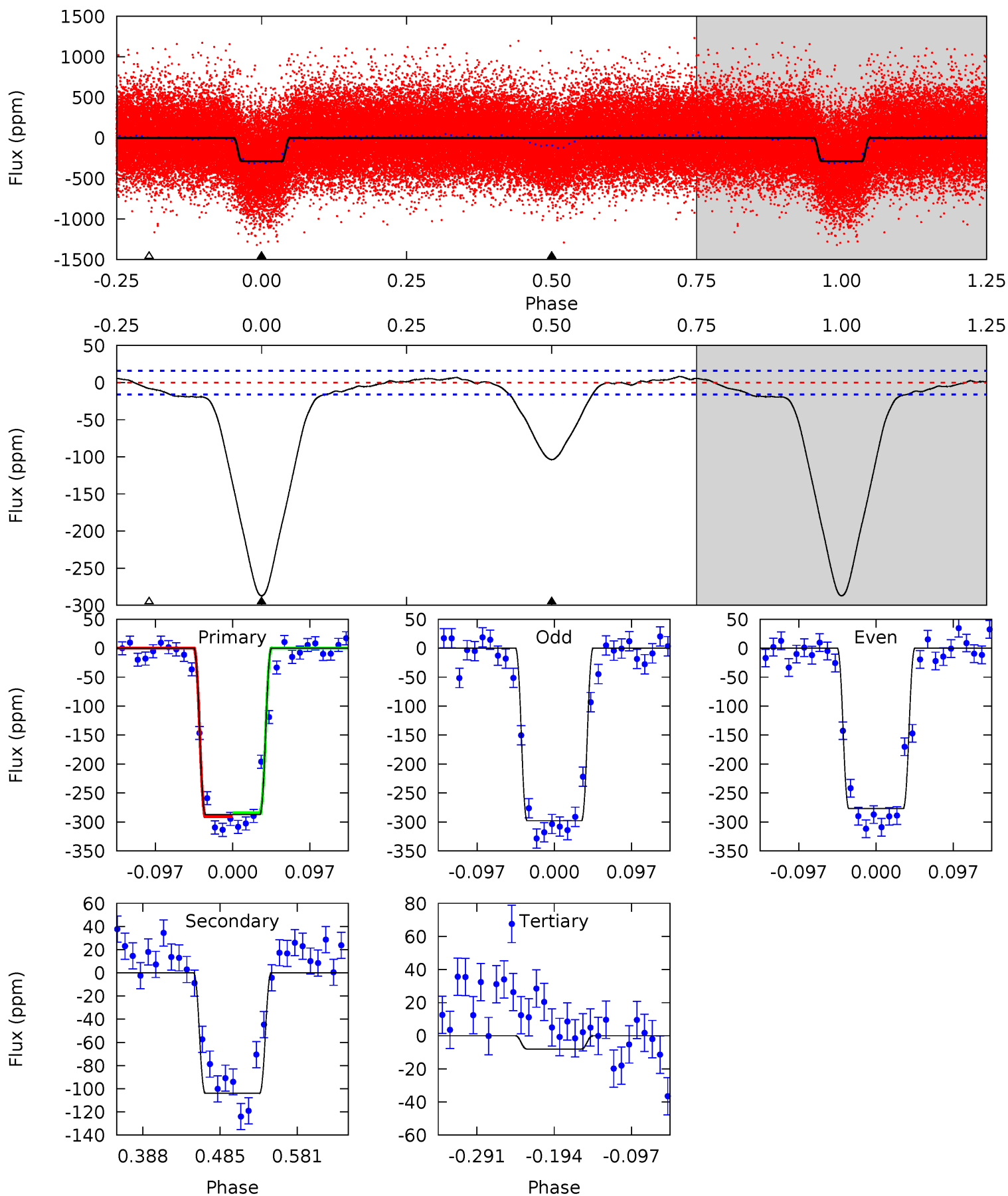
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
46.8	7.93	6.42	0	4.55	1.61	3.35	40.4	46.8	1.51	7.93	2.25	1.05	0.07	1.25



Alt Model-Shift Uniqueness Test

011607176-01, P = 3.282820 Days, E = 129.344402 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
81.6	29.5	2.28	0	4.57	1.66	2.28	79.3	81.6	27.2	29.5	3.00	1.02	0.03	0.97



Stellar Parameters For KIC 011607176

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5741^{+155}_{-155}	$4.533^{+0.066}_{-0.165}$	$-0.420^{+0.300}_{-0.300}$	$0.820^{+0.202}_{-0.087}$	$0.837^{+0.096}_{-0.079}$	$2.140^{+0.578}_{-0.910}$
	+3%/-3%	+1%/-4%	+71%/-71%	+25%/-11%	+11%/-9%	+27%/-43%
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 011607176-01 / KOI 3930.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-27 ± 3	$1.36^{+0.18}_{-0.11}$	1609^{+96}_{-68}	3760^{+118}_{-121}	13^{+3}_{-3}
Alt.	-104 ± 4	$1.56^{+0.20}_{-0.12}$	1607^{+100}_{-68}	4578^{+122}_{-114}	39^{+6}_{-8}

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

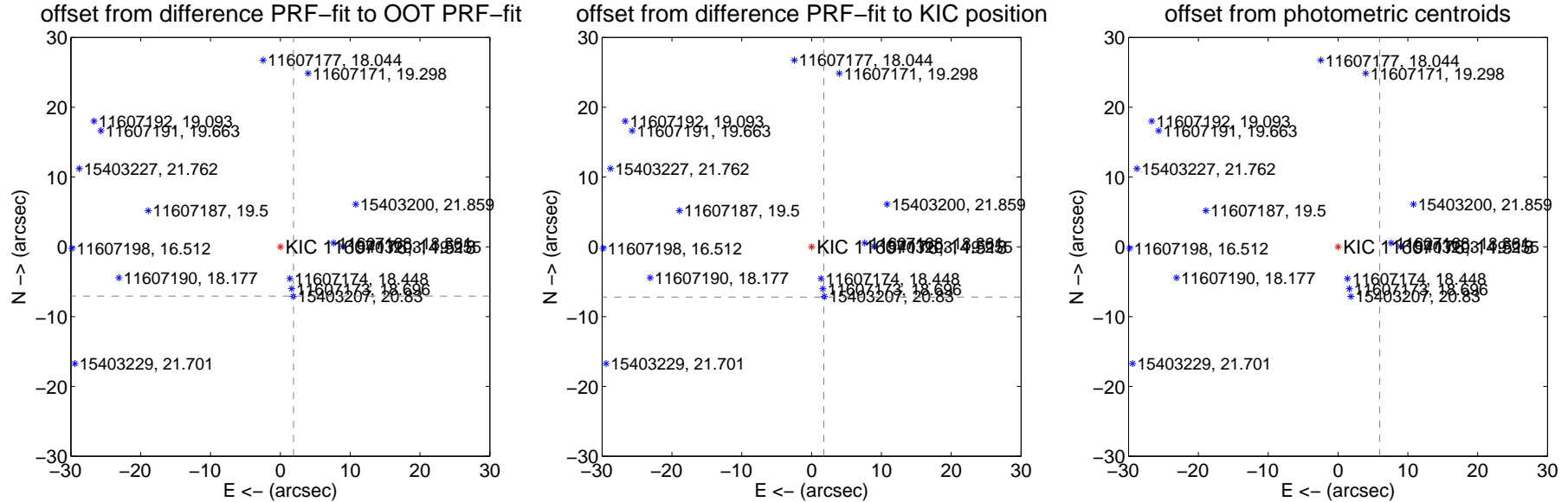
DV Centroid Data

Supplemental centroid analysis for 011607176-01. Kepler magnitude: 14.52. Transit SNR 27.81

There are 17 quarters with good PRF difference image offsets

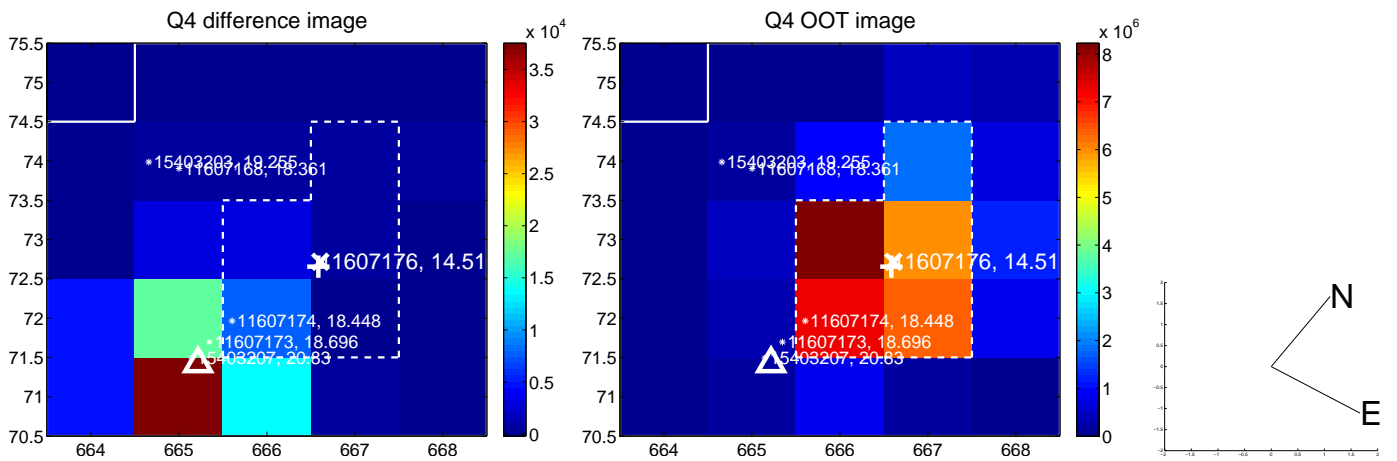
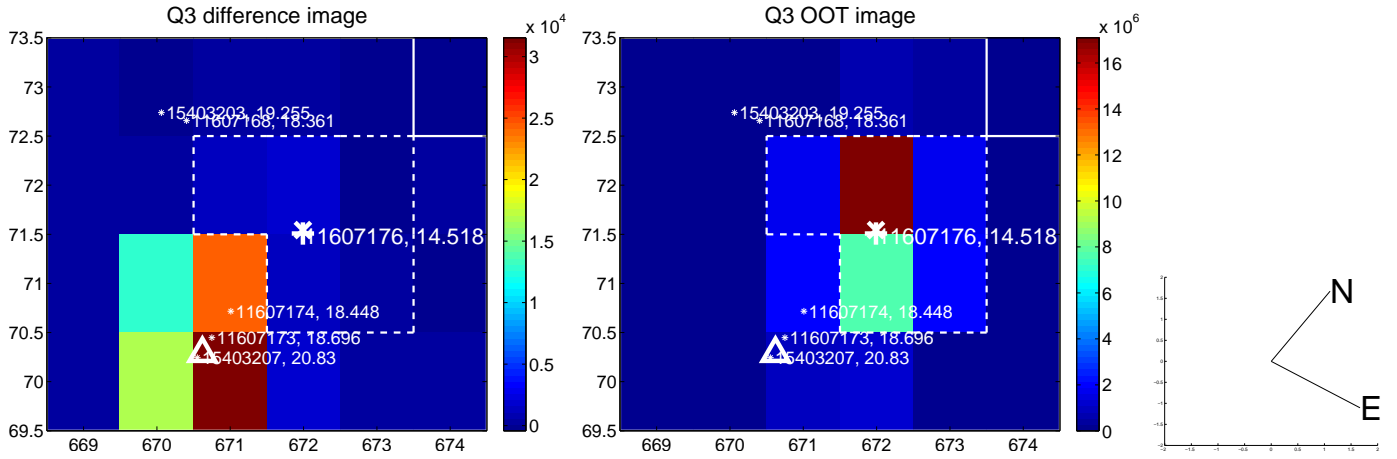
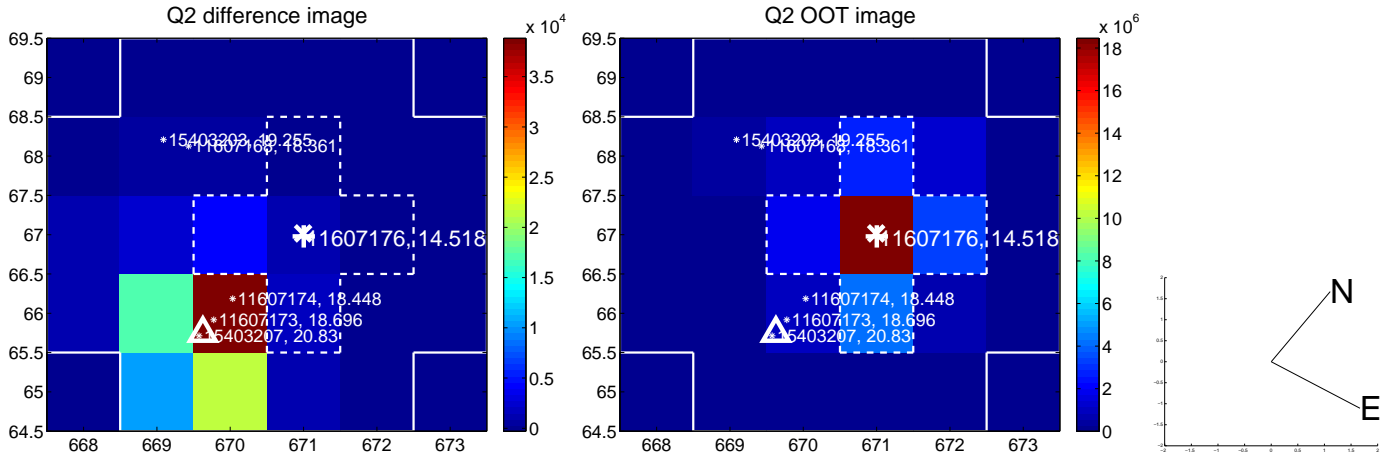
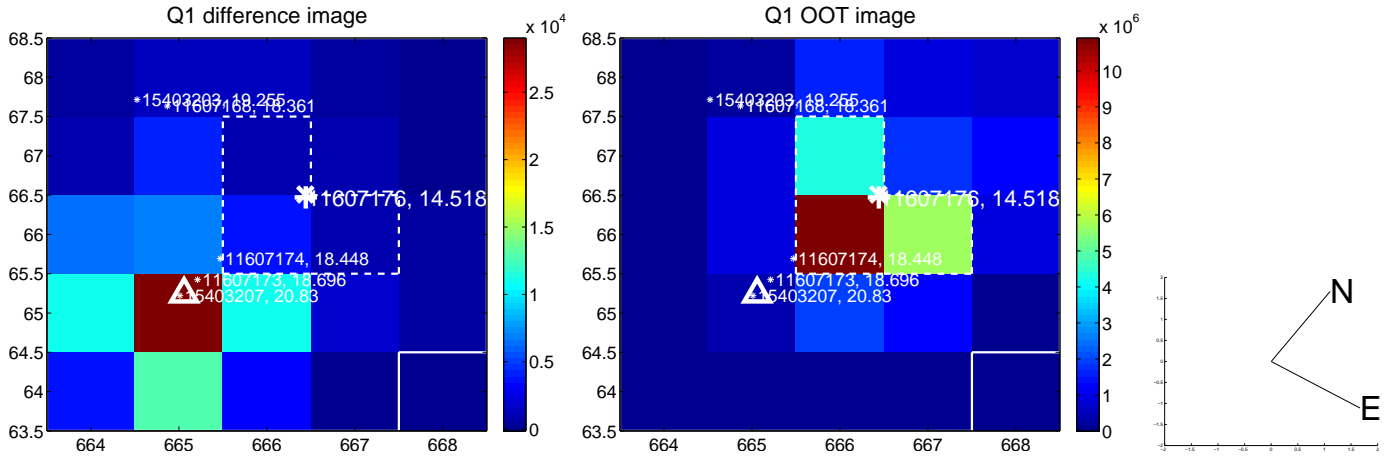
The direct PRF centroid is offset from the target star catalog position by about 0.17 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	7.311 ± 0.068	107.71	-1.884 ± 0.067	-7.064 ± 0.068
PRF-fit source offset from KIC position	7.413 ± 0.069	108.07	-1.759 ± 0.067	-7.202 ± 0.069
photometric centroid source offset	49.12 ± 0.63	77.50	-5.95 ± 0.50	-48.76 ± 0.64

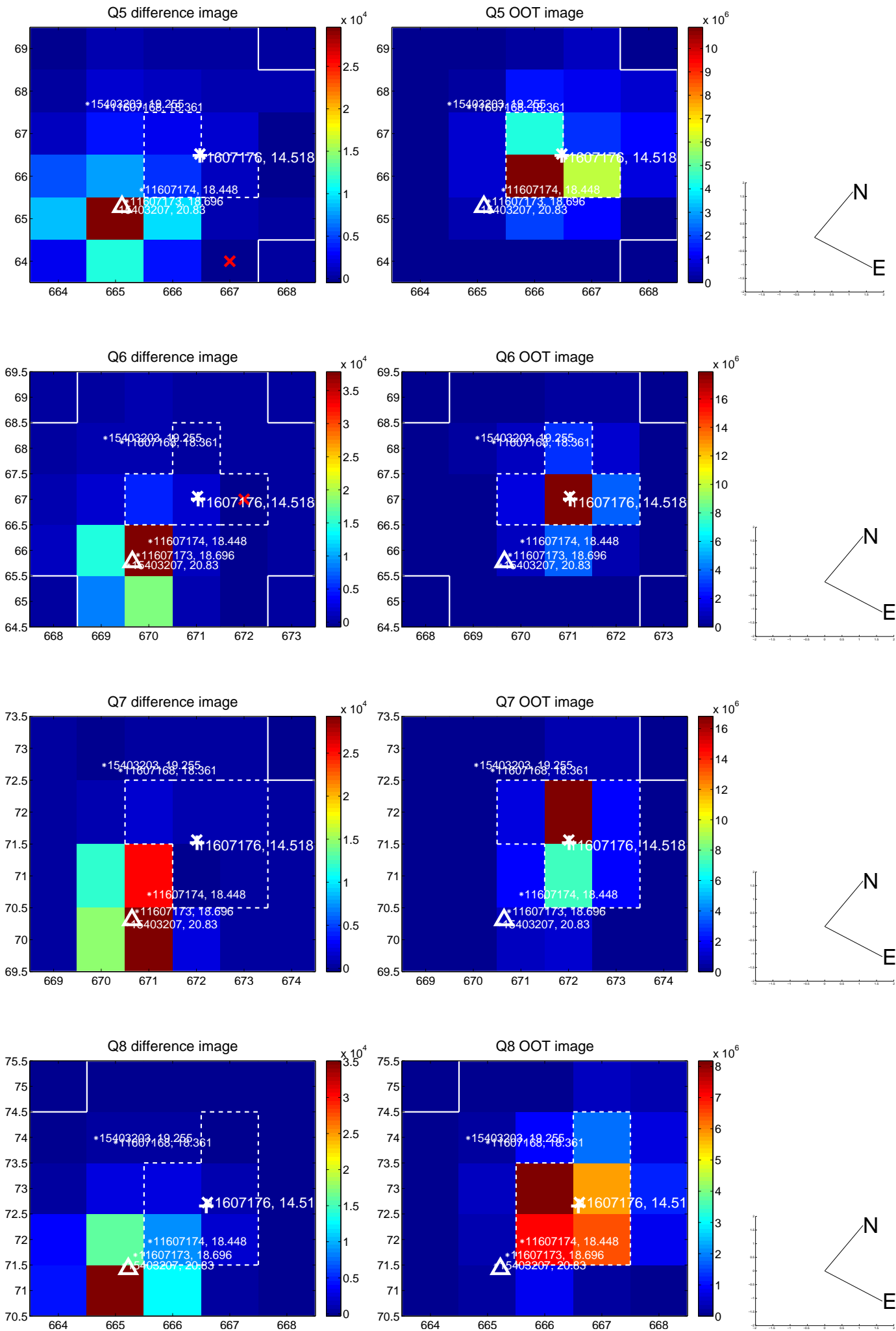


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

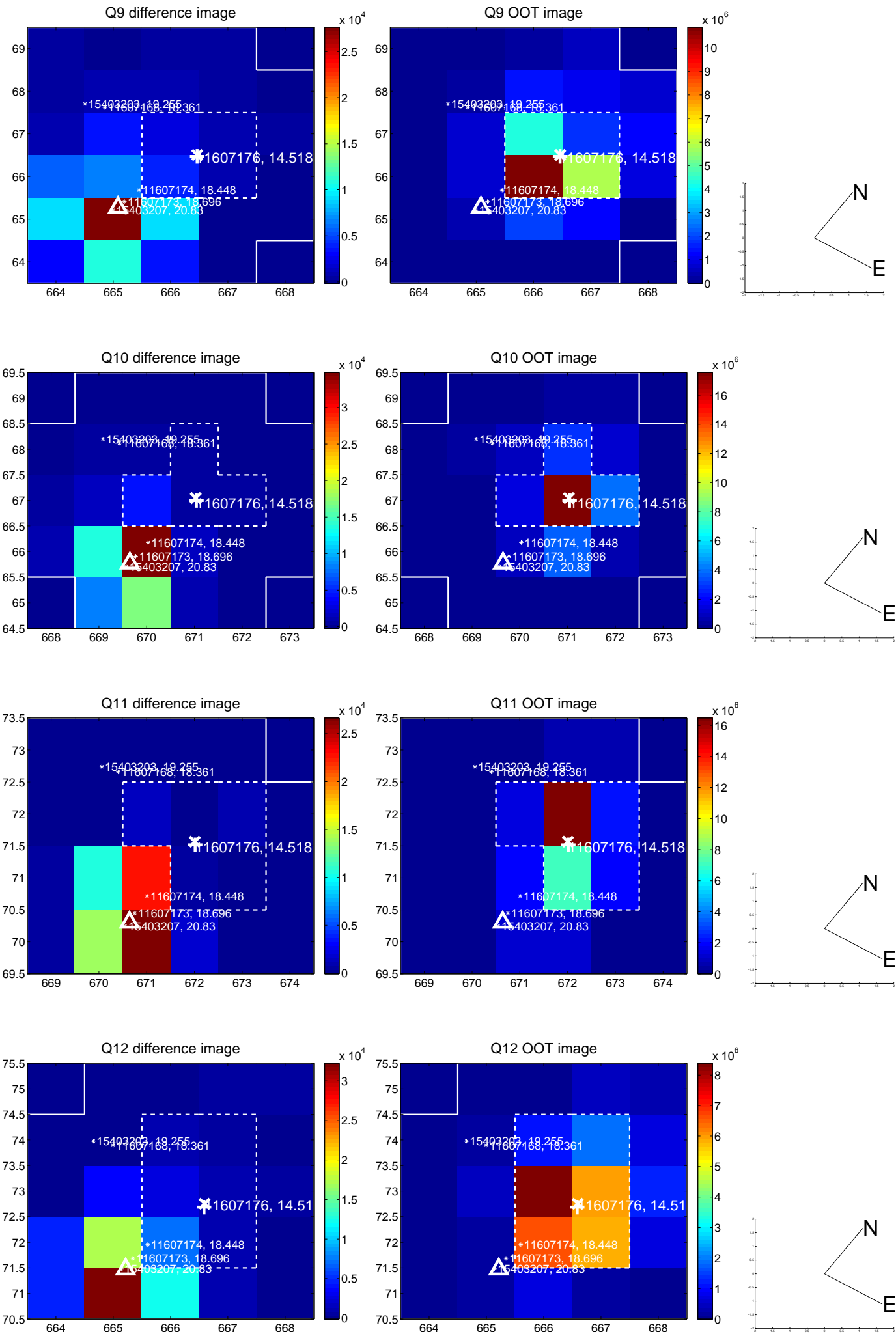
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



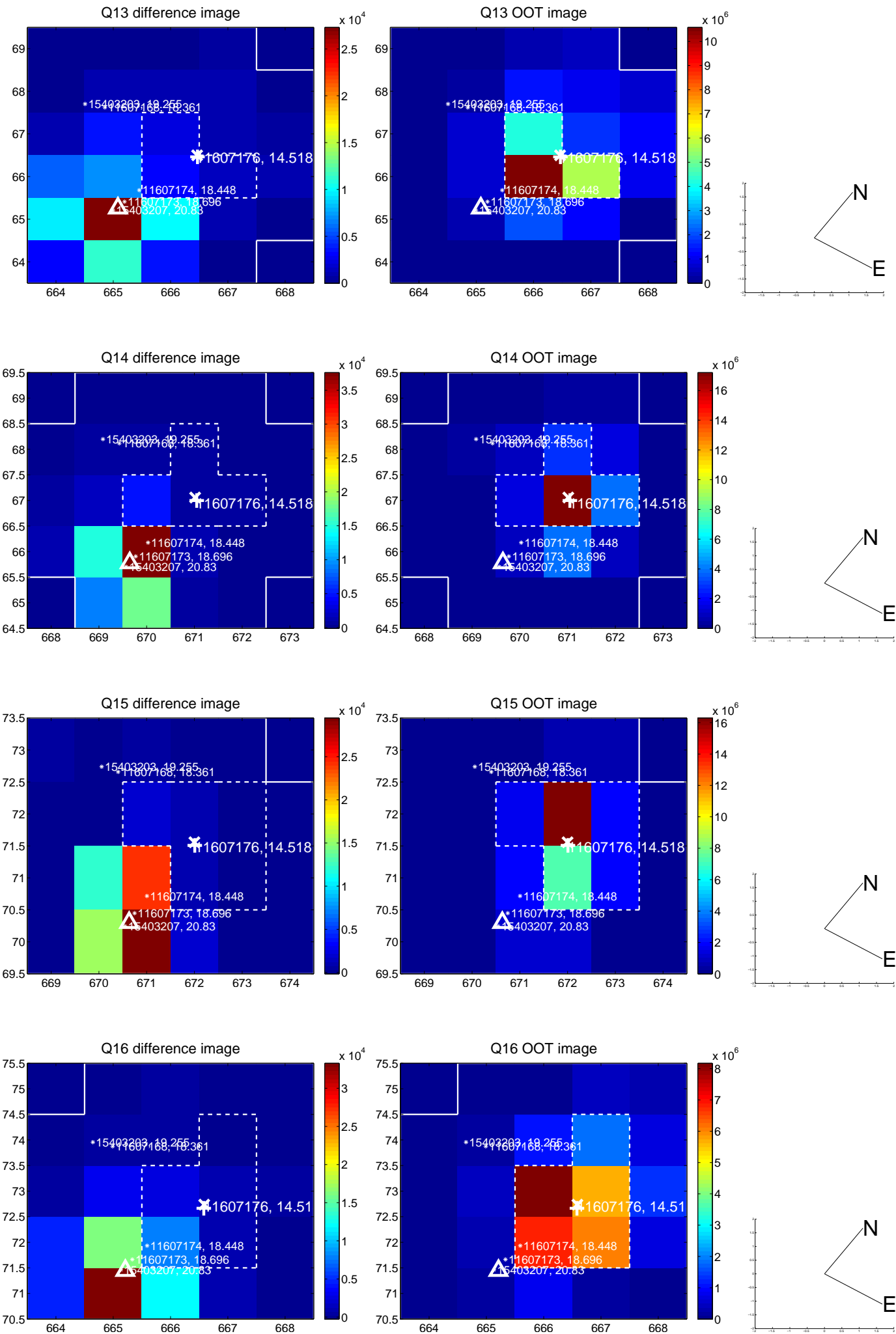
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



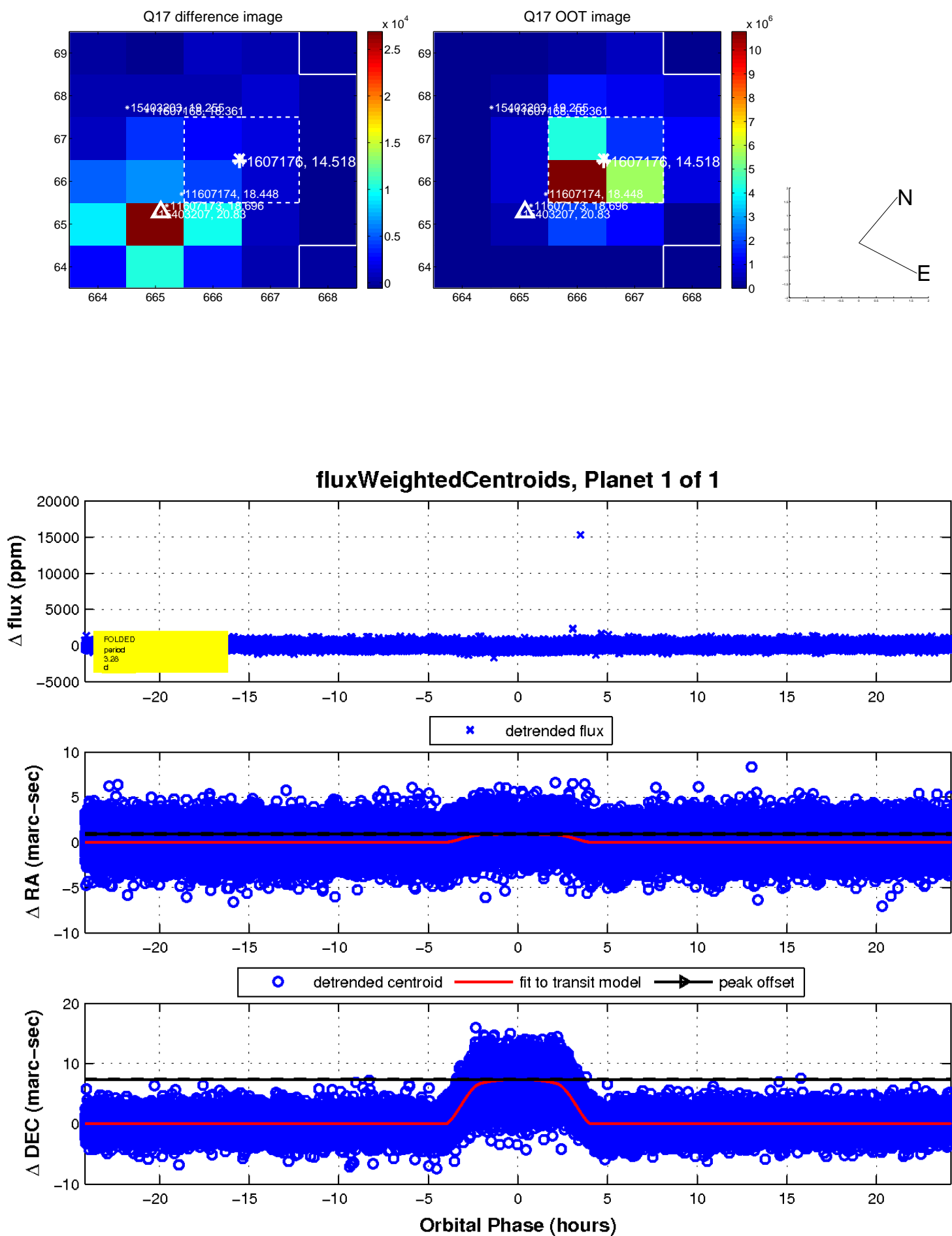
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

